

AS4C128M16D3.ibs IBIS 4.0 Model

[IBIS Ver] 4.0  
[File Name] AS4C128M16D3.ibs  
[Date] 10/07/2013  
[File Rev] 1.0  
[Source] Alliance Memory, Inc.  
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- This IBIS file uses the Submodel keyword to model the DDR-3 On-die Termination(ODT) characteristics.
- All Submodels: when running through ibischk4.2, this file contains warnings about GND and Power Clamp data being non-monotonic. When Submodel I-V curves are added to non-odt Power and GND Clamp curves, the resultant curve is monotonic. This is not checked correctly with the IBIS parser.
- When running through ibischk4.2.1 or older parsers, this file will contain errors related to the Differential Receiver Thresholds. These errors can be fixed by removing comment characters '|' in DQS\_\* and CLKRCV\_INPUT\* models in front of Single-ended Receiver Thresholds parameters and removing the Differential Receiver Thresholds parameters.

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Component AS4C128M16D3 1.5V/1.5V 128Meg x 16 96-Ball

[Component] AS4C128M16D3  
[Package Model] v89c\_x16  
[Manufacturer] Alliance Memory, Inc.  
[Package]

	typ	min	max
R_pkg	389.40m	267.93m	530.49m
L_pkg	0.90nH	0.64nH	1.46nH
C_pkg	0.37pF	0.27pF	0.50pF

[Pin]	signal_name	model_name	R_pin	L_pin	C_pin
A1	VDDQ	POWER			
A2	DQ13	I/O_DQ	558.9m	1.0109nH	0.4853pF
A3	DQ15	I/O_DQ	510.03m	1.1359nH	0.4186pF
A7	DQ12	I/O_DQ	490.6m	0.9808nH	0.4198pF
A8	VDDQ	POWER			
A9	VSS	GND			
B1	VSSQ	GND			
B2	VDD	POWER			
B3	VSS	GND			
B7	DQSUB	I/O_DQS	494.3m	1.0918nH	0.4255pF
B8	DQ14	I/O_DQ	535.5m	1.0056nH	0.4654pF

B9	VSSQ	GND			
C1	VDDQ	POWER			
C2	DQ11	I/O_DQ	493.6m	0.9258nH	0.4452pF
C3	DQ9	I/O_DQ	523.9m	1.0790nH	0.4127pF
C7	DQSU	I/O_DQS	527.1m	1.1405nH	0.4027pF
C8	DQ10	I/O_DQ	511.6m	0.9274nH	0.4500pF
C9	VDDQ	POWER			
D1	VSSQ	GND			
D2	VDDQ	POWER			
D3	DMU	DM	492.9m	1.0261nH	0.4096pF
D7	DQ8	I/O_DQ	468.9m	0.9591nH	0.3810pF
D8	VSSQ	GND			
D9	VDD	POWER			
E1	VSS	GND			
E2	VSSQ	GND			
E3	DQ0	I/O_DQ	494.6m	0.9762nH	0.3709pF
E7	DML	DM	479.3m	0.9979nH	0.3343pF
E8	VSSQ	GND			
E9	VDDQ	POWER			
F1	VDDQ	POWER			
F2	DQ2	I/O_DQ	555.4m	1.0267nH	0.4446pF
F3	DQSL	I/O_DQS	437.9m	1.0434nH	0.3521pF
F7	DQ1	I/O_DQ	442.9m	0.8965nH	0.3320pF
F8	DQ3	I/O_DQ	532.0m	0.8965nH	0.3320pF
F9	VSSQ	GND			
G1	VSSQ	GND			
G2	DQ6	I/O_DQ	508.3m	0.9317nH	0.4202pF
G3	DQSLB	I/O_DQS	431.8m	1.0460nH	0.2976pF
G7	VDD	POWER			
G8	VSS	GND			
G9	VSSQ	GND			
H1	VREFDQ	POWER			
H2	VDDQ	POWER			
H3	DQ4	I/O_DQ	432.9m	0.9107nH	0.3240pF
H7	DQ7	I/O_DQ	421.3m	0.9153nH	0.3092pF
H8	DQ5	I/O_DQ	479.7m	0.8850nH	0.8850pF
H9	VDDQ	POWER			
J1	NC	NC			
J2	VSS	GND			
J3	RASB	RECEIVER	478.9m	0.9217nH	0.2781pF
J7	CK	CLKRCV	292.8m	0.6859nH	0.2776pF
J8	VSS	GND			
J9	NC	NC			
K1	ODT	RECEIVER	464.3m	1.3474nH	0.4070pF
K2	VDD	POWER			
K3	CASB	RECEIVER	355.39m	0.69nH	0.2834pF
K7	CKB	CLKRCV	292.7m	0.6784nH	0.29pF
K8	VDD	POWER			
K9	CKE	RECEIVER	488.8m	1.2711nH	0.4005pF
L1	NC	NC			
L2	CSB	RECEIVER	422.4m	1.1036nH	0.3882pF
L3	WEB	RECEIVER	434.9m	1.1520nH	0.3236pF
L7	A10	RECEIVER	466.62m	1.1743nH	0.3192pF
L8	ZQ	RECEIVER	469.7m	1.1125nH	0.3809pF

L9	NC	NC			
M1	VSS	GND			
M2	BA0	RECEIVER	547.2m	1.4300nH	0.4294pF
M3	BA2	RECEIVER	489.3m	1.0504nH	0.3574pF
M7	A15	RECEIVER			
M8	VREFCA	POWER			
M9	VSS	GND			
N1	VDD	POWER			
N2	A3	RECEIVER	568.8m	1.5625nH	0.4478pF
N3	A0	RECEIVER	520.7m	1.1320nH	0.3770pF
N7	A12	RECEIVER	539.7m	1.3424nH	0.3627pF
N8	BA1	RECEIVER	576.5m	1.1743nH	0.4230pF
N9	VDD	POWER			
P1	VSS	GND			
P2	A5	RECEIVER	571.9m	1.6365nH	0.4617pF
P3	A2	RECEIVER	492.1m	1.4188nH	0.3780pF
P7	A1	RECEIVER	490.9m	1.4054nH	0.3898pF
P8	A4	RECEIVER	540.3m	1.6355nH	0.4634pF
P9	VSS	GND			
R1	VDD	POWER			
R2	A7	RECEIVER	573.8m	1.6926nH	0.4797pF
R3	A9	RECEIVER	509.9m	1.5813nH	0.4039pF
R7	A11	RECEIVER	517.1m	1.5610nH	0.4617pF
R8	A6	RECEIVER	597.0m	1.7865nH	0.5037pF
R9	VDD	POWER			
T1	VSS	GND			
T2	RESETB	RECEIVER	592.0m	1.6762nH	0.4981pF
T3	A13	RECEIVER	502.5m	1.3214nH	0.4533pF
T7	A14	RECEIVER	525.3m	1.4276nH	0.4687pF
T8	A8	RECEIVER	607.4m	1.7810nH	0.5145pF
T9	VSS	GND			

\*\*\*\*\*DIFF PIN\*\*\*\*\*

[Diff\_pin] inv\_pin vdiff tdelay\_typ tdelay\_min tdelay\_max

F3	G3	0.400V	0ns	NA	NA
C7	B7	0.400V	0ns	NA	NA
J7	K7	0.400V	0ns	NA	NA

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[Component] AS4C128M16D3 1.5V/1.5V 128Meg x 16 Bare Die

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[Component] AS4C128M16D3

[Manufacturer] Alliance Memory, Inc.

[Package]

	typ	min	max
R_pkg	0.001m	0.001m	0.001m
L_pkg	0.001nH	0.001nH	0.001nH
C_pkg	0.001pF	0.001pF	0.001pF

[Pin]	signal_name	model_name	R_pin	L_pin	C_pin
1	VDD	POWER			

2	DNU	NC
3	VSS	GND
4	VSSQ	GND
5	DQ12	I/O_DQ
6	VDDQ	POWER
7	DQ14	I/O_DQ
8	VSSQ	GND
9	DQ15	I/O_DQ
10	VDDQ	POWER
11	DQ13	I/O_DQ
12	VSSQ	GND
13	UDQS#	I/O_DQS
14	VSSQ	GND
15	UDQS	I/O_DQS
16	VDDQ	POWER
17	VSS	GND
18	VDD	POWER
19	VSSQ	GND
20	DQ9	I/O_DQ
21	VDDQ	POWER
22	DQ11	I/O_DQ
23	VSSQ	GND
24	DQ10	I/O_DQ
25	VSSQ	POWER
26	DQ8	I/O_DQ
27	VDDQ	POWER
28	UDM	DM
29	LDM	DM
30	VDDQ	POWER
31	DQ0	I/O_DQ
32	VSSQ	GND
33	DQ2	I/O_DQ
34	VSSQ	GND
35	DQ3	I/O_DQ
36	VDDQ	POWER
37	DQ1	I/O_DQ
38	VSSQ	GND
39	VSS	GND
40	VDD	POWER
41	VDDQ	POWER
42	LDQS	I/O_DQS
43	VSSQ	GND
44	LDQS#	I/O_DQS
45	VSSQ	GND
46	DQ5	I/O_DQ
47	VDDQ	POWER
48	DQ7	I/O_DQ
49	VSSQ	GND
50	DQ6	I/O_DQ
51	VDDQ	POWER
52	DQ4	I/O_DQ
53	VSSQ	GND
54	VREFDQ	POWER
55	DNU	NC

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56     VDD     POWER
57     VSS     GND
58     RAS#    RECEIVER
59     VSSL    GND
60     VDDL    POWER
61     CK      CLKRCV
62     CK#     CLKRCV
63     VSS     GND
64     CAS#    RECEIVER
65     CKE     RECEIVER
66     ODT     RECEIVER
67     A10     RECEIVER
68     WE#     RECEIVER
69     CS#     RECEIVER
70     BA0     RECEIVER
71     BA2     RECEIVER
72     VSS     GND
73     VDD     POWER
74     VREFCA  POWER
75     BA1     RECEIVER
76     A0      RECEIVER
77     A12     RECEIVER
78     A3      RECEIVER
79     A1      RECEIVER
80     A5      RECEIVER
81     A4      RECEIVER
82     A2      RECEIVER
83     A11     RECEIVER
84     A9      RECEIVER
85     A6      RECEIVER
86     A7      RECEIVER
87     A8      RECEIVER
88     RST#    RECEIVER
89     A14     RECEIVER
90     A13     RECEIVER
91     VDD     POWER
92     VSS     GND
93     DNU     NC
94     DNU     NC
95     VSSQ    GND
96     ZQ      NC
97     VDDQ    POWER

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\*\*\*\*\*DIFF PIN\*\*\*\*\*

[Diff\_pin] inv\_pin vdiff tdelay\_typ tdelay\_min tdelay\_max

13	15	0.350V	0ns	NA	NA
42	44	0.350V	0ns	NA	NA
61	62	0.350V	0ns	NA	NA

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Model Selector

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[Model Selector] RECEIVER  
RECEIVER\_INPUT\_1600 Address/Command/Control Input model, 1333/1600Mbps

[Model Selector] CLKRCV  
CLKRCV\_INPUT\_1600 Clock Input model, 1333/1600Mbps  
[Model Selector] I/O\_DQ

DQ\_34\_1600 34 Ohm Data I/O with no ODT, 1333/1600Mbps  
DQ\_34\_ODT20\_1600 34 Ohm Data I/O with 20ohm ODT, 1333/1600Mbps  
DQ\_34\_ODT30\_1600 34 Ohm Data I/O with 30ohm ODT, 1333/1600Mbps  
DQ\_34\_ODT40\_1600 34 Ohm Data I/O with 40ohm ODT, 1333/1600Mbps  
DQ\_34\_ODT60\_1600 34 Ohm Data I/O with 60ohm ODT, 1333/1600Mbps  
DQ\_34\_ODT120\_1600 34 Ohm Data I/O with 120ohm ODT, 1333/1600Mbps

DQ\_40\_1600 40 Ohm Data I/O with no ODT, 1333/1600Mbps  
DQ\_40\_ODT20\_1600 40 Ohm Data I/O with 20ohm ODT, 1333/1600Mbps  
DQ\_40\_ODT30\_1600 40 Ohm Data I/O with 30ohm ODT, 1333/1600Mbps  
DQ\_40\_ODT40\_1600 40 Ohm Data I/O with 40ohm ODT, 1333/1600Mbps  
DQ\_40\_ODT60\_1600 40 Ohm Data I/O with 60ohm ODT, 1333/1600Mbps  
DQ\_40\_ODT120\_1600 40 Ohm Data I/O with 120ohm ODT, 1333/1600Mbps

[Model Selector] I/O\_DQS

DQS\_34\_1600 34 Ohm Data Strobe I/O with no ODT, 1333/1600Mbps  
DQS\_34\_ODT20\_1600 34 Ohm Data Strobe I/O with 20ohm ODT, 1333/1600Mbps  
DQS\_34\_ODT30\_1600 34 Ohm Data Strobe I/O with 30ohm ODT, 1333/1600Mbps  
DQS\_34\_ODT40\_1600 34 Ohm Data Strobe I/O with 40ohm ODT, 1333/1600Mbps  
DQS\_34\_ODT60\_1600 34 Ohm Data Strobe I/O with 60ohm ODT, 1333/1600Mbps  
DQS\_34\_ODT120\_1600 34 Ohm Data Strobe I/O with 120ohm ODT, 1333/1600Mbps

DQS\_40\_1600 40 Ohm Data Strobe I/O with no ODT, 1333/1600Mbps  
DQS\_40\_ODT20\_1600 40 Ohm Data Strobe I/O with 20ohm ODT, 1333/1600Mbps  
DQS\_40\_ODT30\_1600 40 Ohm Data Strobe I/O with 30ohm ODT, 1333/1600Mbps  
DQS\_40\_ODT40\_1600 40 Ohm Data Strobe I/O with 40ohm ODT, 1333/1600Mbps  
DQS\_40\_ODT60\_1600 40 Ohm Data Strobe I/O with 60ohm ODT, 1333/1600Mbps  
DQS\_40\_ODT120\_1600 40 Ohm Data Strobe I/O with 120ohm ODT, 1333/1600Mbps

[Model Selector] DM

DM\_INPUT\_1600 DM input model with no ODT, 1333/1600Mbps  
DM\_ODT20\_1600 DM Input model with 20 Ohm ODT Submodel, 1333/1600Mbps  
DM\_ODT30\_1600 DM Input model with 30 Ohm ODT Submodel, 1333/1600Mbps  
DM\_ODT40\_1600 DM Input model with 40 Ohm ODT Submodel, 1333/1600Mbps  
DM\_ODT60\_1600 DM Input model with 60 Ohm ODT Submodel, 1333/1600Mbps  
DM\_ODT120\_1600 DM Input model with 120 Ohm ODT Submodel, 1333/1600Mbps

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| Model RECEIVER 1333/1600Mbps  
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[Model] RECEIVER\_INPUT\_1600  
Model\_type Input

Vinl = 600.000mV

Vinh = 900.000mV

	typ	min	max
C_comp	0.660pF	0.585pF	0.735pF

[Model Spec]

| Input threshold voltage corners

Vinl	0.6000V	0.5625V	0.6375V
Vinh	0.9000V	0.8625V	0.9375V

| Dynamic Overshoot Parameters from DDR3 Specification

D_overshoot_ampl_h	0.40	NA	NA
D_overshoot_ampl_l	0.40	NA	NA
D_overshoot_area_h	0.33n	NA	NA
D_overshoot_area_l	0.33n	NA	NA

[[Receiver Thresholds]

|Vth = 0.750V

|Vth\_min = 0.7350V

|Vth\_max = 0.7650V

|Vinh\_ac = 0.150V

|Vinh\_dc = 0.100V

|Vinl\_ac = -0.150V

|Vinl\_dc = -0.100V

|Tslew\_ac = 5.000ns |Not specified, so set to high value

|Threshold\_sensitivity = 0.50

|Reference\_supply Power\_clamp\_ref

[Temperature Range]	85.00	110.00	0.00
[Voltage Range]	1.500V	1.425V	1.575V
[POWER Clamp Reference]	1.5000V	1.4250V	1.5750V

[GND Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.50000000E+0	-131.93755000E-3	-106.31704000E-3	-152.40004000E-3
-1.49500000E+0	-130.41340000E-3	-104.87407000E-3	-150.81963000E-3
-1.49000000E+0	-128.92192000E-3	-103.47152000E-3	-149.26639000E-3
-1.48500000E+0	-127.43113000E-3	-102.07144000E-3	-147.71346000E-3
-1.47500000E+0	-124.45313000E-3	-99.27786800E-3	-144.60784000E-3
-1.47000000E+0	-122.96636000E-3	-97.88108400E-3	-143.05527000E-3
-1.45500000E+0	-118.51392000E-3	-93.71460100E-3	-138.39888000E-3
-1.45000000E+0	-117.03624000E-3	-92.33183700E-3	-136.84744000E-3
-1.43500000E+0	-112.60321000E-3	-88.19938600E-3	-132.19313000E-3
-1.43000000E+0	-111.13040000E-3	-86.82190300E-3	-130.64300000E-3
-1.42500000E+0	-109.66189000E-3	-85.45190300E-3	-129.09371000E-3
-1.41000000E+0	-105.25636000E-3	-81.36608500E-3	-124.44584000E-3
-1.40500000E+0	-103.78816000E-3	-80.00414600E-3	-122.89829000E-3
-1.40000000E+0	-102.33320000E-3	-78.64258600E-3	-121.35791000E-3
-1.37000000E+0	-93.60343500E-3	-70.61451000E-3	-112.11559000E-3
-1.36500000E+0	-92.16201200E-3	-69.27649700E-3	-110.58831000E-3

-1.36000000E+0	-90.72845900E-3	-67.93848400E-3	-109.06275000E-3
-1.35500000E+0	-89.29490700E-3	-66.63339800E-3	-107.53718000E-3
-1.32500000E+0	-80.69359400E-3	-58.83699600E-3	-98.38376900E-3
-1.32000000E+0	-79.26991900E-3	-57.53759500E-3	-96.87118700E-3
-1.31500000E+0	-77.87517400E-3	-56.23819500E-3	-95.37332200E-3
-1.31000000E+0	-76.48042900E-3	-54.97762400E-3	-93.87545600E-3
-1.26000000E+0	-62.53298100E-3	-42.70000200E-3	-78.89679900E-3
-1.25500000E+0	-61.14091500E-3	-41.47224000E-3	-77.39893400E-3
-1.25000000E+0	-59.83329800E-3	-40.24447800E-3	-75.91842200E-3
-1.24500000E+0	-58.52568200E-3	-39.02584000E-3	-74.48093100E-3
-1.16500000E+0	-37.60382000E-3	-22.05956100E-3	-51.48107100E-3
-1.16000000E+0	-36.60584900E-3	-20.99916800E-3	-50.04535300E-3
-1.15500000E+0	-35.60807800E-3	-20.13155900E-3	-48.76807400E-3
-1.05500000E+0	-15.65264700E-3	-7.75897550E-3	-23.22247800E-3
-1.05000000E+0	-14.65487600E-3	-7.14034630E-3	-22.36706700E-3
-1.04000000E+0	-12.65933200E-3	-5.90308800E-3	-20.94834200E-3
-1.03500000E+0	-11.66156100E-3	-5.34724080E-3	-20.23898000E-3
-1.03000000E+0	-10.66378900E-3	-5.08050740E-3	-19.52961800E-3
-1.02500000E+0	-10.11119600E-3	-4.81377400E-3	-18.82025600E-3
-1.01000000E+0	-8.46723010E-3	-4.01357390E-3	-16.69216900E-3
-1.00500000E+0	-7.91924140E-3	-3.79457840E-3	-15.98280600E-3
-1.00000000E+0	-7.37125270E-3	-3.62234020E-3	-15.27344400E-3
-995.00000000E-3	-6.95214050E-3	-3.45010200E-3	-14.56408200E-3
-970.00000000E-3	-5.19182880E-3	-2.58891100E-3	-11.01727000E-3
-965.00000000E-3	-4.83976650E-3	-2.42936030E-3	-10.30790800E-3
-960.00000000E-3	-4.52501800E-3	-2.31673570E-3	-9.59854580E-3
-945.00000000E-3	-3.85471420E-3	-1.97886180E-3	-7.47045900E-3
-940.00000000E-3	-3.63127960E-3	-1.88267070E-3	-6.76109670E-3
-935.00000000E-3	-3.40784500E-3	-1.80883930E-3	-6.05173440E-3
-930.00000000E-3	-3.22970570E-3	-1.73500800E-3	-5.34237210E-3
-925.00000000E-3	-3.08018840E-3	-1.66117660E-3	-4.83139240E-3
-905.00000000E-3	-2.48211910E-3	-1.36585120E-3	-3.85201040E-3
-900.00000000E-3	-2.33640670E-3	-1.30041890E-3	-3.65431350E-3
-885.00000000E-3	-2.01648580E-3	-1.15557100E-3	-3.12422550E-3
-880.00000000E-3	-1.92574080E-3	-1.11324490E-3	-2.94752960E-3
-875.00000000E-3	-1.84478750E-3	-1.07764470E-3	-2.80658090E-3
-870.00000000E-3	-1.76383420E-3	-1.04204460E-3	-2.66951770E-3
-865.00000000E-3	-1.68288090E-3	-1.00644440E-3	-2.53422120E-3
-860.00000000E-3	-1.60673930E-3	-970.84430000E-6	-2.42724780E-3
-855.00000000E-3	-1.54513150E-3	-937.65409000E-6	-2.32027440E-3
-850.00000000E-3	-1.48352370E-3	-909.97908000E-6	-2.21330100E-3
-845.00000000E-3	-1.42565750E-3	-882.30407000E-6	-2.10632760E-3
-840.00000000E-3	-1.37658230E-3	-857.17959000E-6	-2.02333800E-3
-835.00000000E-3	-1.32750710E-3	-833.84074000E-6	-1.95192630E-3
-830.00000000E-3	-1.28023860E-3	-810.50189000E-6	-1.88051460E-3
-825.00000000E-3	-1.24522410E-3	-787.82462000E-6	-1.80910290E-3
-815.00000000E-3	-1.17519500E-3	-753.22569000E-6	-1.66627950E-3
-810.00000000E-3	-1.14018050E-3	-735.92622000E-6	-1.60304620E-3
-795.00000000E-3	-1.03513680E-3	-684.02781000E-6	-1.49260210E-3
-770.00000000E-3	-907.20153000E-6	-597.53047000E-6	-1.30852860E-3
-765.00000000E-3	-881.64788000E-6	-581.59573000E-6	-1.27171390E-3
-760.00000000E-3	-858.16921000E-6	-565.69191000E-6	-1.23489920E-3
-740.00000000E-3	-771.06207000E-6	-502.07662000E-6	-1.08764030E-3
-735.00000000E-3	-749.28529000E-6	-486.17280000E-6	-1.05551200E-3



-725.00000000E-3	-705.73172000E-6	-454.36516000E-6	-1.00707090E-3
-715.00000000E-3	-667.81193000E-6	-422.67499000E-6	-958.62977000E-6
-690.00000000E-3	-574.68133000E-6	-352.19832000E-6	-837.52698000E-6
-685.00000000E-3	-556.05520000E-6	-338.94237000E-6	-813.30642000E-6
-665.00000000E-3	-481.55072000E-6	-293.94768000E-6	-716.42419000E-6
-660.00000000E-3	-462.92460000E-6	-282.69901000E-6	-692.87819000E-6
-655.00000000E-3	-446.49492000E-6	-271.45033000E-6	-673.35672000E-6
-595.00000000E-3	-265.68844000E-6	-136.46625000E-6	-439.09897000E-6
-590.00000000E-3	-253.01216000E-6	-128.69267000E-6	-419.57749000E-6
-575.00000000E-3	-223.34532000E-6	-107.49852000E-6	-361.01305000E-6
-570.00000000E-3	-213.45637000E-6	-100.43380000E-6	-346.61938000E-6
-545.00000000E-3	-164.01164000E-6	-65.11021500E-6	-279.48555000E-6
-540.00000000E-3	-154.12269000E-6	-59.83935800E-6	-266.05878000E-6
-500.00000000E-3	-75.01111400E-6	-35.19340300E-6	-158.64466000E-6
-495.00000000E-3	-66.96758800E-6	-32.11265900E-6	-145.21790000E-6
-480.00000000E-3	-57.09198400E-6	-22.87042600E-6	-104.93760000E-6
-475.00000000E-3	-53.80011600E-6	-19.78968100E-6	-97.80914300E-6
-460.00000000E-3	-43.92451200E-6	-10.54744800E-6	-83.97364800E-6
-455.00000000E-3	-40.63264400E-6	-8.97134820E-6	-79.36181600E-6
-400.00000000E-3	-5.56139150E-6	-3.08557360E-6	-28.63166700E-6
-380.00000000E-3	-4.03212970E-6	-945.29196000E-9	-10.18434000E-6
-375.00000000E-3	-3.64981430E-6	-410.22155000E-9	-6.25576350E-6
-370.00000000E-3	-3.26749890E-6	-283.39415000E-9	-5.82677270E-6
-325.00000000E-3	0.00000000E+0	0.00000000E+0	-1.96585580E-6
-300.00000000E-3	NA	NA	-36.78143400E-9
-290.00000000E-3	NA	NA	0.00000000E+0
1.57500000E+0	0.00000000E+0	0.00000000E+0	0.00000000E+0
3.00000000E+0	0.00000000E+0	0.00000000E+0	0.00000000E+0

[POWER Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.50000000E+0	94.89989300E-3	90.42406100E-3	97.73690400E-3
-1.49500000E+0	94.15744300E-3	89.69524700E-3	96.98225500E-3
-1.49000000E+0	93.44807800E-3	89.00516700E-3	96.25515500E-3
-1.47500000E+0	91.32161200E-3	86.93724300E-3	94.07557700E-3
-1.47000000E+0	90.61343000E-3	86.24811700E-3	93.34948100E-3
-1.46000000E+0	89.19812900E-3	84.87237100E-3	91.89834900E-3
-1.45500000E+0	88.49053200E-3	84.18456200E-3	91.17314600E-3
-1.45000000E+0	87.78421700E-3	83.49764400E-3	90.44873300E-3
-1.43500000E+0	85.66527300E-3	81.43932400E-3	88.27549600E-3
-1.43000000E+0	84.95991900E-3	80.75321800E-3	87.55206300E-3
-1.42500000E+0	84.25540900E-3	80.06820900E-3	86.82925200E-3
-1.41000000E+0	82.14187800E-3	78.01673100E-3	84.66082100E-3
-1.40500000E+0	81.43742700E-3	77.33290500E-3	83.93844300E-3
-1.40000000E+0	80.73547100E-3	76.64913100E-3	83.21784800E-3
-1.37000000E+0	76.52373500E-3	72.56581300E-3	78.89427600E-3
-1.36500000E+0	75.82415800E-3	71.88526000E-3	78.17661700E-3
-1.36000000E+0	75.12596400E-3	71.20470700E-3	77.45934200E-3
-1.32500000E+0	70.23860600E-3	66.47355900E-3	72.43841400E-3
-1.32000000E+0	69.54196300E-3	65.79778100E-3	71.72380100E-3
-1.31500000E+0	68.84986400E-3	65.12200300E-3	71.01220700E-3
-1.31000000E+0	68.15776500E-3	64.45030900E-3	70.30061300E-3

-1.25500000E+0	60.54501400E-3	57.09962800E-3	62.47307500E-3
-1.25000000E+0	59.86405200E-3	56.43138400E-3	61.76451100E-3
-1.24500000E+0	59.18309000E-3	55.76388000E-3	61.06346200E-3
-1.16500000E+0	48.28769800E-3	45.28891800E-3	49.84667100E-3
-1.16000000E+0	47.63276300E-3	44.63423300E-3	49.14584600E-3
-1.15500000E+0	46.97784500E-3	43.99201400E-3	48.46507100E-3
-1.05500000E+0	33.87948000E-3	31.46963900E-3	34.84957500E-3
-1.05000000E+0	33.22456200E-3	30.84352100E-3	34.20520600E-3
-1.04000000E+0	31.91472500E-3	29.59128300E-3	32.94167500E-3
-1.03500000E+0	31.25980700E-3	28.97074000E-3	32.30991000E-3
-1.03000000E+0	30.60488900E-3	28.37586900E-3	31.67814500E-3
-1.01000000E+0	28.10958000E-3	25.99638800E-3	29.15108300E-3
-1.00500000E+0	27.48583300E-3	25.41238600E-3	28.51931800E-3
-1.00000000E+0	26.86208600E-3	24.83902900E-3	27.88755300E-3
-995.00000000E-3	26.25141300E-3	24.26567200E-3	27.25578700E-3
-970.00000000E-3	23.23206400E-3	21.39888800E-3	24.09696100E-3
-965.00000000E-3	22.62819400E-3	20.83087500E-3	23.46519500E-3
-960.00000000E-3	22.03138600E-3	20.28262300E-3	22.83343000E-3
-945.00000000E-3	20.29280600E-3	18.63786600E-3	20.93813400E-3
-940.00000000E-3	19.71327900E-3	18.10323900E-3	20.30636900E-3
-935.00000000E-3	19.13375200E-3	17.58715100E-3	19.67460300E-3
-930.00000000E-3	18.57256200E-3	17.07106200E-3	19.04283800E-3
-925.00000000E-3	18.02295800E-3	16.55497400E-3	18.43725800E-3
-905.00000000E-3	15.82454500E-3	14.49062000E-3	16.15544900E-3
-900.00000000E-3	15.27767500E-3	13.98667900E-3	15.60765300E-3
-885.00000000E-3	13.72129100E-3	12.54925800E-3	13.99453800E-3
-880.00000000E-3	13.22101000E-3	12.08635500E-3	13.45683300E-3
-875.00000000E-3	12.73213400E-3	11.64178500E-3	12.94843500E-3
-870.00000000E-3	12.24325800E-3	11.19721500E-3	12.44322200E-3
-865.00000000E-3	11.75438200E-3	10.75264600E-3	11.94022500E-3
-860.00000000E-3	11.27364500E-3	10.30807600E-3	11.47275000E-3
-855.00000000E-3	10.81749000E-3	9.87405570E-3	11.00527500E-3
-850.00000000E-3	10.36133600E-3	9.46417810E-3	10.53780100E-3
-845.00000000E-3	9.91461170E-3	9.05430060E-3	10.07032600E-3
-840.00000000E-3	9.49004470E-3	8.66248560E-3	9.64965500E-3
-835.00000000E-3	9.06547760E-3	8.28331610E-3	9.25157830E-3
-830.00000000E-3	8.64885980E-3	7.90414660E-3	8.85350160E-3
-825.00000000E-3	8.28615650E-3	7.53388550E-3	8.45542490E-3
-815.00000000E-3	7.56074980E-3	6.93818900E-3	7.65927140E-3
-810.00000000E-3	7.19804650E-3	6.64034070E-3	7.29783110E-3
-795.00000000E-3	6.10993660E-3	5.74679600E-3	6.56854550E-3
-790.00000000E-3	5.83556530E-3	5.44894780E-3	6.32545030E-3
-770.00000000E-3	4.74443090E-3	4.25755490E-3	5.35306950E-3
-765.00000000E-3	4.47164730E-3	4.07645290E-3	5.10997430E-3
-760.00000000E-3	4.24660830E-3	3.89799610E-3	4.86687910E-3
-740.00000000E-3	3.50309090E-3	3.18416900E-3	3.89449830E-3
-735.00000000E-3	3.31721160E-3	3.00571220E-3	3.70057050E-3
-725.00000000E-3	2.94545290E-3	2.64879860E-3	3.47864410E-3
-720.00000000E-3	2.82274700E-3	2.47034180E-3	3.36768090E-3
-715.00000000E-3	2.71702420E-3	2.29621000E-3	3.25671770E-3
-690.00000000E-3	2.18841000E-3	1.73684650E-3	2.70190160E-3
-685.00000000E-3	2.08268710E-3	1.63951810E-3	2.59093840E-3
-665.00000000E-3	1.65979580E-3	1.38932880E-3	2.14708560E-3
-660.00000000E-3	1.55407290E-3	1.32678150E-3	2.04211030E-3

-655.00000000E-3	1.47583770E-3	1.26423410E-3	1.97285990E-3
-595.00000000E-3	741.62467000E-6	513.66616000E-6	1.14185440E-3
-590.00000000E-3	694.56820000E-6	479.19171000E-6	1.07260390E-3
-575.00000000E-3	602.80977000E-6	392.94756000E-6	864.85251000E-6
-570.00000000E-3	572.22362000E-6	364.19951000E-6	822.82475000E-6
-545.00000000E-3	419.29290000E-6	220.45926000E-6	638.35194000E-6
-540.00000000E-3	388.70675000E-6	200.01214000E-6	601.45737000E-6
-500.00000000E-3	144.01759000E-6	117.51164000E-6	306.30087000E-6
-495.00000000E-3	120.30851000E-6	107.19908000E-6	269.40631000E-6
-480.00000000E-3	102.30317000E-6	76.26139000E-6	158.72262000E-6
-475.00000000E-3	96.30139400E-6	65.94882700E-6	143.23702000E-6
-460.00000000E-3	78.29605600E-6	35.01114000E-6	122.44348000E-6
-455.00000000E-3	72.29427600E-6	29.81366400E-6	115.51230000E-6
-405.00000000E-3	12.27648300E-6	13.22902000E-6	46.20050600E-6
-400.00000000E-3	8.40850800E-6	11.57055600E-6	39.26932600E-6
-380.00000000E-3	6.19877610E-6	4.93669800E-6	11.54460900E-6
-375.00000000E-3	5.64634310E-6	3.27823370E-6	5.67999720E-6
-370.00000000E-3	5.09391010E-6	2.86733690E-6	5.27826910E-6
-325.00000000E-3	223.86654000E-9	1.02403640E-6	1.66271670E-6
-300.00000000E-3	5.08213690E-9	0.00000000E+0	0.00000000E+0
-290.00000000E-3	0.00000000E+0	NA	NA
1.57500000E+0	0.00000000E+0	0.00000000E+0	0.00000000E+0
3.00000000E+0	0.00000000E+0	0.00000000E+0	0.00000000E+0

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Model CLKRCV 1333/1600Mbps

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[Model] CLKRCV\_INPUT\_1600

Model\_type Input

Vinl = 600.000mV

Vinh = 900.000mV

	typ	min	max
C_comp	0.590pF	0.515pF	0.665pF

[Model Spec]

| Input threshold voltage corners

Vinl	0.6000V	0.5625V	0.6375V
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Vinh	0.9000V	0.8625V	0.9375V
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| Dynamic Overshoot Parameters from DDR3 Specification

D_overshoot_ampl_h	0.40	NA	NA
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D_overshoot_ampl_l	0.40	NA	NA
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D_overshoot_area_h	0.13n	NA	NA
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D_overshoot_area_l	0.13n	NA	NA
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[[Receiver Thresholds]

|Vth = 0.750V

|Vth\_min = 0.7350V

|Vth\_max = 0.7650V

|Vinh\_ac = 0.150V

|Vinh\_dc = 0.100V

|Vinl\_ac = -0.150V  
 |Vinl\_dc = -0.100V  
 |Tslew\_ac = 5.000ns |Not specified, so set to high value  
 |Threshold\_sensitivity = 0.50  
 |Reference\_supply Power\_clamp\_ref

|NOTE: If using the IBISCHK 4.2.1 or older parser, Differential receiver  
 |threshold parameters must be commented out because the parser generates  
 |errors for multiple differential models.

|Vcross\_low = 0.600V  
 |Vcross\_high = 0.900V  
 |Vdiff\_ac = 300mV  
 |Vdiff\_dc = 200mV  
 |Tdiffslew\_ac = 10.000ns |Not specified, so set to high value

[Temperature Range]    85.00            110.00            0.00  
 [Voltage Range]        1.500V            1.425V            1.575V  
 [GND Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000E+0	-132.16546000E-3	-106.52757000E-3	-152.64181000E-3
-1.4950000E+0	-130.63997000E-3	-105.08280000E-3	-151.06058000E-3
-1.4900000E+0	-129.14691000E-3	-103.67761000E-3	-149.50596000E-3
-1.4750000E+0	-124.67204000E-3	-99.47771100E-3	-144.84331000E-3
-1.4700000E+0	-123.18487000E-3	-98.08019000E-3	-143.28939000E-3
-1.4600000E+0	-120.21090000E-3	-95.29641500E-3	-140.18233000E-3
-1.4550000E+0	-118.73015000E-3	-93.90718600E-3	-138.62902000E-3
-1.4400000E+0	-114.28787000E-3	-89.76281600E-3	-133.97089000E-3
-1.4350000E+0	-112.81039000E-3	-88.38136000E-3	-132.41818000E-3
-1.4300000E+0	-111.33825000E-3	-87.00445500E-3	-130.86647000E-3
-1.4150000E+0	-106.92184000E-3	-82.90379100E-3	-126.21467000E-3
-1.4100000E+0	-105.45528000E-3	-81.53690300E-3	-124.66407000E-3
-1.4050000E+0	-103.99576000E-3	-80.17552200E-3	-123.11652000E-3
-1.3800000E+0	-96.69812200E-3	-73.45031100E-3	-115.40711000E-3
-1.3750000E+0	-95.24084300E-3	-72.10526900E-3	-113.86523000E-3
-1.3700000E+0	-93.80071800E-3	-70.76022600E-3	-112.32405000E-3
-1.3650000E+0	-92.36059300E-3	-69.43302900E-3	-110.79555000E-3
-1.3350000E+0	-83.71984100E-3	-61.57254100E-3	-101.62451000E-3
-1.3300000E+0	-82.29896900E-3	-60.26246000E-3	-100.09624000E-3
-1.3250000E+0	-80.89224400E-3	-58.95237900E-3	-98.58614700E-3
-1.3200000E+0	-79.48551900E-3	-57.68369400E-3	-97.07605700E-3
-1.2850000E+0	-69.63844600E-3	-48.95294300E-3	-86.50542800E-3
-1.2800000E+0	-68.23172100E-3	-47.70569300E-3	-85.02809300E-3
-1.2750000E+0	-66.82499600E-3	-46.45844300E-3	-83.55175000E-3
-1.2700000E+0	-65.43315600E-3	-45.21119300E-3	-82.07540600E-3
-1.2600000E+0	-62.75289900E-3	-42.71669200E-3	-79.12271900E-3
-1.2550000E+0	-61.41277100E-3	-41.59238900E-3	-77.64637600E-3
-1.2200000E+0	-52.03187500E-3	-33.80814200E-3	-67.31197200E-3
-1.2150000E+0	-50.69174600E-3	-32.69610600E-3	-65.84007800E-3
-1.1950000E+0	-45.33123400E-3	-28.24796500E-3	-60.16042000E-3
-1.1900000E+0	-44.13683800E-3	-27.13593000E-3	-58.74050500E-3
-1.1800000E+0	-41.80177000E-3	-24.91185900E-3	-55.90067600E-3

-1.17500000E+0	-40.63423600E-3	-24.14524100E-3	-54.48076200E-3
-1.16000000E+0	-37.13163500E-3	-21.90105500E-3	-50.22101800E-3
-1.15500000E+0	-35.96410100E-3	-21.15299300E-3	-48.83363500E-3
-1.10500000E+0	-24.28876100E-3	-13.67237200E-3	-35.44273400E-3
-1.10000000E+0	-23.12122700E-3	-12.92431000E-3	-34.22707800E-3
-1.09500000E+0	-21.95369300E-3	-12.17624800E-3	-33.02915300E-3
-1.09000000E+0	-20.82463500E-3	-11.42818600E-3	-31.83122700E-3
-1.07000000E+0	-18.22553600E-3	-8.43593790E-3	-27.03952500E-3
-1.06500000E+0	-17.57576100E-3	-7.71369480E-3	-25.84160000E-3
-1.05000000E+0	-15.62643600E-3	-6.55809550E-3	-22.24782300E-3
-1.04500000E+0	-14.97666100E-3	-6.17289570E-3	-21.17737000E-3
-1.04000000E+0	-14.32688600E-3	-5.78769600E-3	-20.20937100E-3
-1.03500000E+0	-13.67711200E-3	-5.44879720E-3	-19.24137100E-3
-1.00500000E+0	-9.77846250E-3	-3.92465420E-3	-13.43337300E-3
-1.00000000E+0	-9.12868770E-3	-3.67063040E-3	-12.72481800E-3
-995.00000000E-3	-8.47891280E-3	-3.46177110E-3	-12.03327400E-3
-970.00000000E-3	-5.23003850E-3	-2.63390360E-3	-8.57555740E-3
-965.00000000E-3	-4.91545070E-3	-2.52471490E-3	-8.13919330E-3
-945.00000000E-3	-3.90985220E-3	-2.08796050E-3	-6.50490240E-3
-940.00000000E-3	-3.69504580E-3	-1.97877190E-3	-6.09632960E-3
-935.00000000E-3	-3.53370360E-3	-1.86958320E-3	-5.68775690E-3
-930.00000000E-3	-3.37236130E-3	-1.76722140E-3	-5.27918420E-3
-925.00000000E-3	-3.21101910E-3	-1.69661430E-3	-4.93708580E-3
-905.00000000E-3	-2.56565010E-3	-1.41539020E-3	-4.06025170E-3
-900.00000000E-3	-2.41851260E-3	-1.36750620E-3	-3.84104310E-3
-890.00000000E-3	-2.19912030E-3	-1.27173820E-3	-3.40262610E-3
-885.00000000E-3	-2.08942420E-3	-1.22385420E-3	-3.19732710E-3
-880.00000000E-3	-2.00566250E-3	-1.17597020E-3	-3.07437930E-3
-875.00000000E-3	-1.92287920E-3	-1.12808620E-3	-2.95143150E-3
-870.00000000E-3	-1.84009590E-3	-1.08975990E-3	-2.82848370E-3
-865.00000000E-3	-1.75731250E-3	-1.05481600E-3	-2.70553590E-3
-860.00000000E-3	-1.67874810E-3	-1.01987220E-3	-2.58258810E-3
-840.00000000E-3	-1.48143550E-3	-905.16937000E-6	-2.09155610E-3
-835.00000000E-3	-1.43210740E-3	-881.42470000E-6	-2.03376160E-3
-815.00000000E-3	-1.23479470E-3	-803.47341000E-6	-1.80258360E-3
-810.00000000E-3	-1.18850430E-3	-783.98559000E-6	-1.74478900E-3
-785.00000000E-3	-1.04667290E-3	-686.54648000E-6	-1.45581650E-3
-780.00000000E-3	-1.01830660E-3	-667.05866000E-6	-1.40181970E-3
-765.00000000E-3	-933.20776000E-6	-613.77964000E-6	-1.30325460E-3
-760.00000000E-3	-907.34657000E-6	-596.19558000E-6	-1.27039950E-3
-745.00000000E-3	-838.26899000E-6	-543.44340000E-6	-1.17183430E-3
-740.00000000E-3	-815.24313000E-6	-526.59805000E-6	-1.13897930E-3
-735.00000000E-3	-792.21727000E-6	-510.71099000E-6	-1.11146110E-3
-730.00000000E-3	-769.19141000E-6	-494.82392000E-6	-1.08602200E-3
-715.00000000E-3	-708.01876000E-6	-447.16272000E-6	-1.00970470E-3
-680.00000000E-3	-565.33683000E-6	-343.90246000E-6	-831.63098000E-6
-675.00000000E-3	-547.39821000E-6	-330.02048000E-6	-806.19188000E-6
-665.00000000E-3	-512.51830000E-6	-304.01149000E-6	-755.31369000E-6
-660.00000000E-3	-495.07835000E-6	-291.00700000E-6	-730.78273000E-6
-640.00000000E-3	-425.31854000E-6	-239.03242000E-6	-642.57340000E-6
-625.00000000E-3	-372.99868000E-6	-207.11488000E-6	-576.73307000E-6
-620.00000000E-3	-357.36673000E-6	-196.47570000E-6	-556.72964000E-6
-595.00000000E-3	-292.57414000E-6	-143.27979000E-6	-456.71247000E-6
-590.00000000E-3	-279.61562000E-6	-135.45001000E-6	-436.70903000E-6

-585.00000000E-3	-266.65710000E-6	-129.29404000E-6	-419.23027000E-6
-535.00000000E-3	-137.07192000E-6	-67.73435800E-6	-261.22933000E-6
-530.00000000E-3	-128.69614000E-6	-61.57839000E-6	-245.42924000E-6
-505.00000000E-3	-100.15329000E-6	-30.79854700E-6	-166.42876000E-6
-500.00000000E-3	-94.44472000E-6	-27.86819100E-6	-154.83501000E-6
-430.00000000E-3	-14.52473500E-6	-5.16013800E-6	-52.61091700E-6
-425.00000000E-3	-13.00889200E-6	-3.57768610E-6	-45.30919700E-6
-405.00000000E-3	-9.64528420E-6	-2.94793350E-6	-16.67441500E-6
-350.00000000E-3	-645.96964000E-9	-1.21611390E-6	-4.74009130E-6
-330.00000000E-3	-467.65552000E-9	-586.36124000E-9	-1.17296110E-6
-290.00000000E-3	-111.02726000E-9	0.00000000E+0	-609.84461000E-9
-205.00000000E-3	0.00000000E+0	NA	0.00000000E+0
3.00000000E+0	0.00000000E+0	0.00000000E+0	0.00000000E+0

[POWER Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.50000000E+0	94.89816700E-3	90.42237500E-3	97.73503200E-3
-1.49500000E+0	94.15749000E-3	89.69530000E-3	96.98229200E-3
-1.47500000E+0	91.32146500E-3	86.93716500E-3	94.07561700E-3
-1.47000000E+0	90.61354000E-3	86.24823800E-3	93.34950000E-3
-1.46000000E+0	89.19776900E-3	84.87218200E-3	91.89838900E-3
-1.45500000E+0	88.49114300E-3	84.18456100E-3	91.17315200E-3
-1.44000000E+0	86.37126200E-3	82.12526900E-3	88.99999700E-3
-1.43500000E+0	85.66528000E-3	81.43883800E-3	88.27561200E-3
-1.43000000E+0	84.96034800E-3	80.75307600E-3	87.55197100E-3
-1.41500000E+0	82.84555200E-3	78.70020500E-3	85.38353000E-3
-1.41000000E+0	82.14167300E-3	78.01591400E-3	84.66071600E-3
-1.40500000E+0	81.43911900E-3	77.33238300E-3	83.93865700E-3
-1.37500000E+0	77.22419900E-3	73.24471100E-3	79.61473300E-3
-1.37000000E+0	76.52509900E-3	72.56343200E-3	78.89423700E-3
-1.36500000E+0	75.82600000E-3	71.88440200E-3	78.17659300E-3
-1.33500000E+0	71.63140100E-3	67.82315600E-3	73.87072800E-3
-1.33000000E+0	70.93540700E-3	67.14628200E-3	73.15313400E-3
-1.32500000E+0	70.24169600E-3	66.46940700E-3	72.43937300E-3
-1.32000000E+0	69.54798500E-3	65.79704200E-3	71.72561100E-3
-1.28500000E+0	64.69200800E-3	61.10683300E-3	66.72928300E-3
-1.27500000E+0	63.30458500E-3	59.76677300E-3	65.31443400E-3
-1.27000000E+0	62.61290700E-3	59.09674300E-3	64.60710400E-3
-1.26000000E+0	61.24368000E-3	57.75668300E-3	63.19244400E-3
-1.21500000E+0	55.08215400E-3	51.83050800E-3	56.82720500E-3
-1.19500000E+0	52.34369900E-3	49.19712300E-3	54.03500800E-3
-1.19000000E+0	51.67360700E-3	48.53877700E-3	53.33695900E-3
-1.18000000E+0	50.33877600E-3	47.22208500E-3	51.94086100E-3
-1.16000000E+0	47.66911500E-3	44.68182900E-3	49.14866400E-3
-1.15500000E+0	47.00170000E-3	44.04706600E-3	48.45499400E-3
-1.10500000E+0	40.32754800E-3	37.69943300E-3	41.58331100E-3
-1.10000000E+0	39.66013300E-3	37.06467000E-3	40.90906200E-3
-1.09500000E+0	38.99271800E-3	36.42990700E-3	40.23666800E-3
-1.09000000E+0	38.32812200E-3	35.79514400E-3	39.56427500E-3
-1.06500000E+0	35.18079000E-3	32.62313500E-3	36.20230800E-3
-1.05000000E+0	33.29239100E-3	30.79506000E-3	34.18512800E-3
-1.04500000E+0	32.66292500E-3	30.18570200E-3	33.52317000E-3

-1.04000000E+0	32.03345900E-3	29.57634400E-3	32.86959900E-3
-1.03500000E+0	31.40399200E-3	28.97302100E-3	32.21602900E-3
-1.00500000E+0	27.62719400E-3	25.41947700E-3	28.29460500E-3
-1.00000000E+0	26.99772700E-3	24.82722000E-3	27.66039500E-3
-995.00000000E-3	26.36826100E-3	24.24559700E-3	27.02745600E-3
-970.00000000E-3	23.22092900E-3	21.38884400E-3	23.86275700E-3
-965.00000000E-3	22.62765500E-3	20.84401800E-3	23.25597300E-3
-945.00000000E-3	20.28184900E-3	18.66471400E-3	20.84023500E-3
-940.00000000E-3	19.70827000E-3	18.11988800E-3	20.23630000E-3
-935.00000000E-3	19.15349900E-3	17.57506200E-3	19.63236600E-3
-930.00000000E-3	18.59872800E-3	17.03602000E-3	19.02843100E-3
-925.00000000E-3	18.04395700E-3	16.52388200E-3	18.44051700E-3
-905.00000000E-3	15.82487200E-3	14.47728400E-3	16.20733200E-3
-900.00000000E-3	15.27948700E-3	14.00198300E-3	15.64903500E-3
-890.00000000E-3	14.23819800E-3	13.05138300E-3	14.53244300E-3
-885.00000000E-3	13.71755400E-3	12.57608200E-3	13.98478100E-3
-880.00000000E-3	13.22670000E-3	12.10078200E-3	13.50007900E-3
-875.00000000E-3	12.73696900E-3	11.62548200E-3	13.01537700E-3
-870.00000000E-3	12.24723900E-3	11.17681700E-3	12.53067400E-3
-865.00000000E-3	11.75750900E-3	10.73757900E-3	12.04597200E-3
-860.00000000E-3	11.27698400E-3	10.29834000E-3	11.56127000E-3
-855.00000000E-3	10.86025600E-3	9.88231990E-3	11.07656800E-3
-845.00000000E-3	10.02679800E-3	9.06918820E-3	10.10716400E-3
-840.00000000E-3	9.61006970E-3	8.66262230E-3	9.62405820E-3
-835.00000000E-3	9.19334100E-3	8.29959470E-3	9.27632310E-3
-815.00000000E-3	7.52642620E-3	7.01436900E-3	7.88538280E-3
-810.00000000E-3	7.12755590E-3	6.69306260E-3	7.53764770E-3
-785.00000000E-3	5.66008120E-3	5.08653040E-3	5.79897220E-3
-780.00000000E-3	5.36658620E-3	4.76522400E-3	5.47333640E-3
-775.00000000E-3	5.07309130E-3	4.52189830E-3	5.27072360E-3
-765.00000000E-3	4.48610140E-3	4.09492120E-3	4.86549790E-3
-760.00000000E-3	4.24040290E-3	3.88143270E-3	4.66288510E-3
-745.00000000E-3	3.66559920E-3	3.24096700E-3	4.05504660E-3
-740.00000000E-3	3.47399790E-3	3.05458930E-3	3.85243370E-3
-735.00000000E-3	3.28239670E-3	2.90338040E-3	3.71491730E-3
-730.00000000E-3	3.09079540E-3	2.75217150E-3	3.60276080E-3
-725.00000000E-3	2.96989980E-3	2.60096270E-3	3.49060430E-3
-715.00000000E-3	2.72936340E-3	2.29854490E-3	3.26629130E-3
-710.00000000E-3	2.60909520E-3	2.18507080E-3	3.15413490E-3
-680.00000000E-3	1.88748600E-3	1.54786400E-3	2.48119590E-3
-675.00000000E-3	1.80601340E-3	1.45813230E-3	2.36903940E-3
-665.00000000E-3	1.65889640E-3	1.31296840E-3	2.14472650E-3
-660.00000000E-3	1.58533790E-3	1.24038650E-3	2.04171710E-3
-640.00000000E-3	1.29110410E-3	950.49963000E-6	1.72954320E-3
-630.00000000E-3	1.14398710E-3	853.36963000E-6	1.57345620E-3
-625.00000000E-3	1.07042870E-3	804.80463000E-6	1.49733160E-3
-620.00000000E-3	1.00937960E-3	756.23962000E-6	1.43170370E-3
-595.00000000E-3	796.61957000E-6	513.41461000E-6	1.10356430E-3
-590.00000000E-3	754.06757000E-6	481.13716000E-6	1.03793640E-3
-585.00000000E-3	711.51557000E-6	458.56368000E-6	985.25102000E-6
-535.00000000E-3	285.99558000E-6	232.82889000E-6	544.45201000E-6
-530.00000000E-3	262.72338000E-6	210.25541000E-6	500.37211000E-6
-505.00000000E-3	202.46756000E-6	97.38801500E-6	279.97260000E-6
-500.00000000E-3	190.41639000E-6	87.35365600E-6	251.56335000E-6

-430.00000000E-3	21.70008400E-6	18.07718200E-6	77.69282500E-6
-425.00000000E-3	18.99410400E-6	13.24879300E-6	65.27350200E-6
-410.00000000E-3	15.38929700E-6	11.72661200E-6	28.01553100E-6
-405.00000000E-3	14.18769500E-6	11.21921800E-6	16.63704300E-6
-350.00000000E-3	1.32720270E-6	5.63788490E-6	4.43801400E-6
-330.00000000E-3	1.06005650E-6	3.60830940E-6	805.48890000E-9
-290.00000000E-3	525.76400000E-9	0.00000000E+0	374.05943000E-9
-205.00000000E-3	0.00000000E+0	NA	0.00000000E+0
3.00000000E+0	0.00000000E+0	0.00000000E+0	0.00000000E+0

\*\*\*\*\*  
| MODEL DQ\_34\_1600 (34 Ohm Data I/O with no ODT, 1333/1600 Mbps)  
| \*\*\*\*\*

[Model] DQ\_34\_1600  
Model\_type I/O

Vinl = 600.000mV  
Vinh = 900.000mV  
Vmeas = 750.000mV  
Vref = 750.000mV  
Cref = 0.0pF  
Rref = 25.000Ohm

	typ	min	max
C_comp	1.078pF	0.966pF	1.223pF

| Note: C\_comp changes when the ODT circuit is enabled.

[Model Spec]

| Input threshold voltage corners

Vinl	0.6000V	0.5625V	0.6375V
Vinh	0.9000V	0.8625V	0.9375V

| Measurement voltage corners

Vmeas	0.7500V	0.7125V	0.7875V
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| Timing spec test load voltage corners

Vref	0.7500V	0.7125V	0.7875V
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| Dynamic Overshoot Parameters from DDR3 Specification

D_overshoot_ampl_h	0.40	NA	NA
D_overshoot_ampl_l	0.40	NA	NA
D_overshoot_area_h	0.13n	NA	NA
D_overshoot_area_l	0.13n	NA	NA

[[Receiver Thresholds]

| Vth = 0.750V  
| Vth\_min = 0.7350V  
| Vth\_max = 0.7650V  
| Vinh\_ac = 0.150V  
| Vinh\_dc = 0.100V  
| Vinl\_ac = -0.150V  
| Vinl\_dc = -0.100V



|Tslew\_ac = 5.000ns |Not specified, so set to high value

|Threshold\_sensitivity = 0.50

|Reference\_supply Pullup\_ref

[Voltage Range]	1.5000V	1.4250V	1.5750V
[Pullup Reference]	1.5000V	1.4250V	1.5750V
[Temperature Range]	85.0	110.0	0.0

\*\*\*\*\*

[Pulldown]

Voltage	I(typ)	I(min)	I(max)
-1.500000e+00	-6.717440E-03	-6.602220E-03	-5.1878E-03
-1.475000e+00	-6.950660E-03	-6.867910E-03	-5.4092E-03
-1.425000e+00	-7.420160E-03	-7.410640E-03	-5.8575E-03
-1.375000e+00	-7.891420E-03	-7.964120E-03	-6.3098E-03
-1.325000e+00	-8.362190E-03	-8.523980E-03	-6.7632E-03
-1.275000e+00	-8.830600E-03	-9.086830E-03	-7.2155E-03
-1.225000e+00	-9.295050E-03	-9.650090E-03	-7.6651E-03
-1.175000e+00	-9.754060E-03	-1.021176E-02	-8.1108E-03
-1.125000e+00	-1.020612E-02	-1.077025E-02	-8.5512E-03
-1.075000e+00	-1.064959E-02	-1.132418E-02	-8.9850E-03
-1.025000e+00	-1.108253E-02	-1.187221E-02	-9.4109E-03
-9.750000e-01	-1.150258E-02	-1.241292E-02	-9.8270E-03
-9.250000e-01	-1.190672E-02	-1.294440E-02	-1.0231E-02
-8.750000e-01	-1.229088E-02	-1.346358E-02	-1.0620E-02
-8.250000e-01	-1.264939E-02	-1.396484E-02	-1.0991E-02
-7.750000e-01	-1.297388E-02	-1.443730E-02	-1.1336E-02
-7.250000e-01	-1.325153E-02	-1.486077E-02	-1.1649E-02
-6.750000e-01	-1.346224E-02	-1.520128E-02	-1.1917E-02
-6.250000e-01	-1.357544E-02	-1.540771E-02	-1.2120E-02
-5.750000e-01	-1.354969E-02	-1.541129E-02	-1.2227E-02
-5.250000e-01	-1.333921E-02	-1.513126E-02	-1.2185E-02
-4.750000e-01	-1.290237E-02	-1.448995E-02	-1.1917E-02
-4.250000e-01	-1.219129E-02	-1.344440E-02	-1.1342E-02
-3.750000e-01	-1.115219E-02	-1.205672E-02	-1.0442E-02
-3.250000e-01	-9.820264E-03	-1.048922E-02	-9.2579E-03
-2.750000e-01	-8.341268E-03	-8.866406E-03	-7.8883E-03
-2.250000e-01	-6.822138E-03	-7.235947E-03	-6.4597E-03
-1.750000e-01	-5.298271E-03	-5.610770E-03	-5.0227E-03
-1.250000e-01	-3.777710E-03	-3.994334E-03	-3.5860E-03
-7.500000e-02	-2.262248E-03	-2.388040E-03	-2.1505E-03
-2.500000e-02	-7.525408E-04	-7.929693E-04	-7.1644E-04
0.000000e+00	-2.915900E-09	-3.333000E-10	-5.0570E-09
2.500000e-02	7.507199E-04	7.895269E-04	7.1589E-04
7.500000e-02	2.245917E-03	2.357110E-03	2.1456E-03
1.250000e-01	3.732365E-03	3.908392E-03	3.5725E-03
1.750000e-01	5.209520E-03	5.442055E-03	4.9965E-03
2.250000e-01	6.676783E-03	6.956634E-03	6.4174E-03
2.750000e-01	8.133496E-03	8.450479E-03	7.8352E-03
3.250000e-01	9.578923E-03	9.921721E-03	9.2496E-03
3.750000e-01	1.101226E-02	1.136822E-02	1.0661E-02

4.2500000e-01	1.243257E-02	1.278754E-02	1.2068E-02
4.7500000e-01	1.383888E-02	1.417683E-02	1.3472E-02
5.2500000e-01	1.523002E-02	1.553278E-02	1.4871E-02
5.7500000e-01	1.660471E-02	1.685160E-02	1.6267E-02
6.2500000e-01	1.796153E-02	1.812901E-02	1.7659E-02
6.7500000e-01	1.929892E-02	1.936079E-02	1.9046E-02
7.2500000e-01	2.061527E-02	2.054383E-02	2.0428E-02
7.7500000e-01	2.190915E-02	2.167702E-02	2.1805E-02
8.2500000e-01	2.317984E-02	2.276044E-02	2.3178E-02
8.7500000e-01	2.442765E-02	2.379315E-02	2.4544E-02
9.2500000e-01	2.565381E-02	2.477183E-02	2.5905E-02
9.7500000e-01	2.685955E-02	2.569073E-02	2.7261E-02
1.0250000e+00	2.804545E-02	2.654265E-02	2.8609E-02
1.0750000e+00	2.921123E-02	2.732059E-02	2.9951E-02
1.1250000e+00	3.035586E-02	2.802022E-02	3.1286E-02
1.1750000e+00	3.147763E-02	2.864222E-02	3.2613E-02
1.2250000e+00	3.257424E-02	2.919304E-02	3.3932E-02
1.2750000e+00	3.364280E-02	2.968331E-02	3.5242E-02
1.3250000e+00	3.467974E-02	3.012500E-02	3.6542E-02
1.3750000e+00	3.568083E-02	3.052912E-02	3.7832E-02
1.4250000e+00	3.664118E-02	3.090472E-02	3.9112E-02
1.4750000e+00	3.755541E-02	3.125876E-02	4.0379E-02
1.5250000e+00	3.841817E-02	3.159641E-02	4.1633E-02
1.5750000e+00	3.922484E-02	3.192149E-02	4.2873E-02
1.6250000e+00	3.997270E-02	3.223679E-02	4.4097E-02
1.6750000e+00	4.066185E-02	3.254442E-02	4.5303E-02
1.7250000e+00	4.129552E-02	3.284593E-02	4.6490E-02
1.7750000e+00	4.187958E-02	3.314250E-02	4.7654E-02
1.8250000e+00	4.242129E-02	3.343504E-02	4.8794E-02
1.8750000e+00	4.292808E-02	3.372428E-02	4.9905E-02
1.9250000e+00	4.340673E-02	3.401077E-02	5.0985E-02
1.9750000e+00	4.386296E-02	3.429496E-02	5.2029E-02
2.0250000e+00	4.430140E-02	3.457721E-02	5.3033E-02
2.0750000e+00	4.472568E-02	3.485782E-02	5.3993E-02
2.1250000e+00	4.513865E-02	3.513705E-02	5.4906E-02
2.1750000e+00	4.554252E-02	3.541511E-02	5.5769E-02
2.2250000e+00	4.593900E-02	3.569218E-02	5.6583E-02
2.2750000e+00	4.632944E-02	3.596843E-02	5.7349E-02
2.3250000e+00	4.671490E-02	3.624402E-02	5.8070E-02
2.3750000e+00	4.709624E-02	3.651910E-02	5.8752E-02
2.4250000e+00	4.747414E-02	3.679380E-02	5.9398E-02
2.4750000e+00	4.784918E-02	3.706830E-02	6.0016E-02
2.5250000e+00	4.822183E-02	3.734276E-02	6.0609E-02
2.5750000e+00	4.859248E-02	3.761735E-02	6.1181E-02
2.6250000e+00	4.896149E-02	3.789229E-02	6.1736E-02
2.6750000e+00	4.932914E-02	3.816783E-02	6.2277E-02
2.7250000e+00	4.969572E-02	3.844422E-02	6.2806E-02
2.7750000e+00	5.006148E-02	3.872180E-02	6.3326E-02
2.8250000e+00	5.042664E-02	3.900093E-02	6.3837E-02
2.8750000e+00	5.079141E-02	3.928204E-02	6.4342E-02
2.9250000e+00	5.115601E-02	3.956562E-02	6.4840E-02
2.9750000e+00	5.152066E-02	3.985223E-02	6.5334E-02
3.0000000e+00	5.170306E-02	3.999685E-02	6.5579E-02

[GND Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	-5.378351E-02	-5.490567E-02	-5.885698E-02
-1.4750000e+00	-5.231251E-02	-5.334431E-02	-5.735670E-02
-1.4500000e+00	-5.084369E-02	-5.178549E-02	-5.585777E-02
-1.4250000e+00	-4.937717E-02	-5.022938E-02	-5.436025E-02
-1.4000000e+00	-4.791309E-02	-4.867613E-02	-5.286424E-02
-1.3750000e+00	-4.645161E-02	-4.712594E-02	-5.136982E-02
-1.3500000e+00	-4.499289E-02	-4.557901E-02	-4.987708E-02
-1.3250000e+00	-4.353712E-02	-4.403556E-02	-4.838614E-02
-1.3000000e+00	-4.208452E-02	-4.249585E-02	-4.689710E-02
-1.2750000e+00	-4.063529E-02	-4.096014E-02	-4.541010E-02
-1.2500000e+00	-3.918970E-02	-3.942875E-02	-4.392527E-02
-1.2250000e+00	-3.774803E-02	-3.790201E-02	-4.244278E-02
-1.2000000e+00	-3.631059E-02	-3.638031E-02	-4.096280E-02
-1.1750000e+00	-3.487773E-02	-3.486408E-02	-3.948552E-02
-1.1500000e+00	-3.344986E-02	-3.335380E-02	-3.801116E-02
-1.1250000e+00	-3.202742E-02	-3.185003E-02	-3.653998E-02
-1.1000000e+00	-3.061092E-02	-3.035339E-02	-3.507226E-02
-1.0750000e+00	-2.920096E-02	-2.886462E-02	-3.360832E-02
-1.0500000e+00	-2.779821E-02	-2.738455E-02	-3.214854E-02
-1.0250000e+00	-2.640347E-02	-2.591415E-02	-3.069335E-02
-1.0000000e+00	-2.501766E-02	-2.445455E-02	-2.924328E-02
-9.7500000e-01	-2.364185E-02	-2.300708E-02	-2.779892E-02
-9.5000000e-01	-2.227732E-02	-2.157329E-02	-2.636102E-02
-9.2500000e-01	-2.092559E-02	-2.015501E-02	-2.493048E-02
-9.0000000e-01	-1.958843E-02	-1.875433E-02	-2.350840E-02
-8.7500000e-01	-1.826790E-02	-1.737363E-02	-2.209616E-02
-8.5000000e-01	-1.696631E-02	-1.601550E-02	-2.069550E-02
-8.2500000e-01	-1.568612E-02	-1.468262E-02	-1.930856E-02
-8.0000000e-01	-1.442972E-02	-1.337762E-02	-1.793782E-02
-7.7500000e-01	-1.319926E-02	-1.210311E-02	-1.658583E-02
-7.5000000e-01	-1.199673E-02	-1.086191E-02	-1.525450E-02
-7.2500000e-01	-1.082427E-02	-9.657411E-03	-1.394473E-02
-7.0000000e-01	-9.684638E-03	-8.493939E-03	-1.265685E-02
-6.7500000e-01	-8.581514E-03	-7.376930E-03	-1.139180E-02
-6.5000000e-01	-7.519607E-03	-6.312929E-03	-1.015194E-02
-6.2500000e-01	-6.504547E-03	-5.309438E-03	-8.941317E-03
-6.0000000e-01	-5.542688E-03	-4.374618E-03	-7.765734E-03
-5.7500000e-01	-4.640772E-03	-3.516890E-03	-6.632943E-03
-5.5000000e-01	-3.805524E-03	-2.744483E-03	-5.552944E-03
-5.2500000e-01	-3.043248E-03	-2.065103E-03	-4.538199E-03
-5.0000000e-01	-2.359647E-03	-1.485677E-03	-3.603410E-03
-4.7500000e-01	-1.760020E-03	-1.011779E-03	-2.764263E-03
-4.5000000e-01	-1.249702E-03	-6.458403E-04	-2.034714E-03
-4.2500000e-01	-8.339835E-04	-3.838582E-04	-1.423543E-03
-4.0000000e-01	-5.162389E-04	-2.125448E-04	-9.327585E-04
-3.7500000e-01	-2.937329E-04	-1.106466E-04	-5.596314E-04
-3.5000000e-01	-1.537279E-04	-5.497263E-05	-2.989521E-04
-3.2500000e-01	-7.493357E-05	-2.649171E-05	-1.392980E-04
-3.0000000e-01	-3.471511E-05	-1.256760E-05	-5.693623E-05
-2.7500000e-01	-1.563019E-05	-5.952723E-06	-2.113740E-05
-2.5000000e-01	-7.001335E-06	-2.863206E-06	-7.478892E-06
-2.2500000e-01	-3.215160E-06	-1.433628E-06	-2.669240E-06

-2.0000000e-01	-1.576700E-06	-7.729597E-07	-1.039346E-06
-1.7500000e-01	-8.691669E-07	-4.659048E-07	-4.927419E-07
-1.5000000e-01	-5.602970E-07	-3.210513E-07	-3.060998E-07
-1.2500000e-01	-4.211770E-07	-2.506183E-07	-2.379530E-07
-1.0000000e-01	-3.542844E-07	-2.144259E-07	-2.089398E-07
-7.5000000e-02	-3.182781E-07	-1.940781E-07	-1.931385E-07
-5.0000000e-02	-2.956734E-07	-1.811414E-07	-1.820761E-07
-2.5000000e-02	-2.790923E-07	-1.717494E-07	-1.729560E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[Pullup]

-1.5000000e+00	1.625201E-02	1.758608E-02	1.5776E-02
-1.4750000e+00	1.628295E-02	1.772293E-02	1.5794E-02
-1.4250000e+00	1.631167E-02	1.794814E-02	1.5819E-02
-1.3750000e+00	1.630625E-02	1.810214E-02	1.5832E-02
-1.3250000e+00	1.628177E-02	1.818331E-02	1.5836E-02
-1.2750000e+00	1.625213E-02	1.819962E-02	1.5830E-02
-1.2250000e+00	1.622498E-02	1.816850E-02	1.5814E-02
-1.1750000e+00	1.620031E-02	1.811351E-02	1.5786E-02
-1.1250000e+00	1.617356E-02	1.805794E-02	1.5746E-02
-1.0750000e+00	1.613984E-02	1.801572E-02	1.5692E-02
-1.0250000e+00	1.609584E-02	1.798687E-02	1.5624E-02
-9.7500000e-01	1.603981E-02	1.796321E-02	1.5542E-02
-9.2500000e-01	1.597095E-02	1.793695E-02	1.5444E-02
-8.7500000e-01	1.588883E-02	1.790371E-02	1.5331E-02
-8.2500000e-01	1.579281E-02	1.786161E-02	1.5200E-02
-7.7500000e-01	1.568160E-02	1.780891E-02	1.5050E-02
-7.2500000e-01	1.555266E-02	1.774030E-02	1.4877E-02
-6.7500000e-01	1.540100E-02	1.763919E-02	1.4677E-02
-6.2500000e-01	1.521657E-02	1.746424E-02	1.4440E-02
-5.7500000e-01	1.497687E-02	1.713549E-02	1.4152E-02
-5.2500000e-01	1.462952E-02	1.653605E-02	1.3790E-02
-4.7500000e-01	1.407045E-02	1.555591E-02	1.3303E-02
-4.2500000e-01	1.317055E-02	1.420030E-02	1.2595E-02
-3.7500000e-01	1.190475E-02	1.261585E-02	1.1528E-02
-3.2500000e-01	1.040962E-02	1.094206E-02	1.0132E-02
-2.7500000e-01	8.825733E-03	9.244475E-03	8.6004E-03
-2.2500000e-01	7.217759E-03	7.545941E-03	7.0379E-03
-1.7500000e-01	5.606827E-03	5.853537E-03	5.4714E-03
-1.2500000e-01	3.998885E-03	4.169432E-03	3.9059E-03
-7.5000000e-02	2.395513E-03	2.494429E-03	2.3421E-03
-2.5000000e-02	7.971932E-04	8.289974E-04	7.8023E-04
0.0000000e+00	1.314700E-09	4.692000E-10	3.0652E-09
2.5000000e-02	-7.950502E-04	-8.253549E-04	-7.7920E-04
7.5000000e-02	-2.376138E-03	-2.461490E-03	-2.3328E-03
1.2500000e-01	-3.944794E-03	-4.077442E-03	-3.8799E-03
1.7500000e-01	-5.500495E-03	-5.672260E-03	-5.4201E-03
2.2500000e-01	-7.042695E-03	-7.244932E-03	-6.9533E-03
2.7500000e-01	-8.570810E-03	-8.794375E-03	-8.4790E-03
3.2500000e-01	-1.008422E-02	-1.031943E-02	-9.9969E-03
3.7500000e-01	-1.158229E-02	-1.181885E-02	-1.1507E-02
4.2500000e-01	-1.306431E-02	-1.329132E-02	-1.3008E-02
4.7500000e-01	-1.452955E-02	-1.473539E-02	-1.4501E-02

5.2500000e-01	-1.597724E-02	-1.614954E-02	-1.5984E-02
5.7500000e-01	-1.740654E-02	-1.753210E-02	-1.7458E-02
6.2500000e-01	-1.881658E-02	-1.888132E-02	-1.8922E-02
6.7500000e-01	-2.020643E-02	-2.019527E-02	-2.0375E-02
7.2500000e-01	-2.157509E-02	-2.147192E-02	-2.1818E-02
7.7500000e-01	-2.292153E-02	-2.270910E-02	-2.3248E-02
8.2500000e-01	-2.424464E-02	-2.390455E-02	-2.4667E-02
8.7500000e-01	-2.554331E-02	-2.505603E-02	-2.6073E-02
9.2500000e-01	-2.681638E-02	-2.616144E-02	-2.7466E-02
9.7500000e-01	-2.806279E-02	-2.721907E-02	-2.8845E-02
1.0250000e+00	-2.928162E-02	-2.822778E-02	-3.0209E-02
1.0750000e+00	-3.047224E-02	-2.918687E-02	-3.1559E-02
1.1250000e+00	-3.163441E-02	-3.009551E-02	-3.2895E-02
1.1750000e+00	-3.276817E-02	-3.095232E-02	-3.4215E-02
1.2250000e+00	-3.387345E-02	-3.175524E-02	-3.5520E-02
1.2750000e+00	-3.494986E-02	-3.250183E-02	-3.6810E-02
1.3250000e+00	-3.599648E-02	-3.318993E-02	-3.8084E-02
1.3750000e+00	-3.701195E-02	-3.381867E-02	-3.9341E-02
1.4250000e+00	-3.799445E-02	-3.438959E-02	-4.0581E-02
1.4750000e+00	-3.894176E-02	-3.490743E-02	-4.1802E-02
1.5250000e+00	-3.985132E-02	-3.537965E-02	-4.3004E-02
1.5750000e+00	-4.072029E-02	-3.581474E-02	-4.4185E-02
1.6250000e+00	-4.154560E-02	-3.622056E-02	-4.5343E-02
1.6750000e+00	-4.232425E-02	-3.660353E-02	-4.6476E-02
1.7250000e+00	-4.305363E-02	-3.696849E-02	-4.7583E-02
1.7750000e+00	-4.373217E-02	-3.731908E-02	-4.8662E-02
1.8250000e+00	-4.436015E-02	-3.765800E-02	-4.9709E-02
1.8750000e+00	-4.494020E-02	-3.798729E-02	-5.0722E-02
1.9250000e+00	-4.547717E-02	-3.830853E-02	-5.1698E-02
1.9750000e+00	-4.597727E-02	-3.862293E-02	-5.2633E-02
2.0250000e+00	-4.644684E-02	-3.893148E-02	-5.3524E-02
2.0750000e+00	-4.689156E-02	-3.923498E-02	-5.4367E-02
2.1250000e+00	-4.731609E-02	-3.953408E-02	-5.5160E-02
2.1750000e+00	-4.772413E-02	-3.982931E-02	-5.5900E-02
2.2250000e+00	-4.811854E-02	-4.012115E-02	-5.6590E-02
2.2750000e+00	-4.850161E-02	-4.040997E-02	-5.7231E-02
2.3250000e+00	-4.887508E-02	-4.069609E-02	-5.7830E-02
2.3750000e+00	-4.924037E-02	-4.097982E-02	-5.8391E-02
2.4250000e+00	-4.959862E-02	-4.126137E-02	-5.8920E-02
2.4750000e+00	-4.995076E-02	-4.154098E-02	-5.9424E-02
2.5250000e+00	-5.029755E-02	-4.181883E-02	-5.9906E-02
2.5750000e+00	-5.063964E-02	-4.209509E-02	-6.0370E-02
2.6250000e+00	-5.097758E-02	-4.236990E-02	-6.0819E-02
2.6750000e+00	-5.131181E-02	-4.264339E-02	-6.1255E-02
2.7250000e+00	-5.164272E-02	-4.291571E-02	-6.1681E-02
2.7750000e+00	-5.197066E-02	-4.318692E-02	-6.2098E-02
2.8250000e+00	-5.229592E-02	-4.345715E-02	-6.2507E-02
2.8750000e+00	-5.261875E-02	-4.372646E-02	-6.2909E-02
2.9250000e+00	-5.293944E-02	-4.399496E-02	-6.3305E-02
2.9750000e+00	-5.325809E-02	-4.426273E-02	-6.3695E-02
3.0000000e+00	-5.341670E-02	-4.439634E-02	-6.3889E-02

[POWER Clamp]

Voltage	I(typ)	I(min)	I(max)
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-1.5000000e+00	4.450136E-02	4.385767E-02	4.780180E-02
-1.4750000e+00	4.325737E-02	4.248503E-02	4.651240E-02
-1.4500000e+00	4.202627E-02	4.113177E-02	4.522925E-02
-1.4250000e+00	4.080680E-02	3.979850E-02	4.395155E-02
-1.4000000e+00	3.959743E-02	3.848563E-02	4.267872E-02
-1.3750000e+00	3.839648E-02	3.719324E-02	4.141043E-02
-1.3500000e+00	3.720221E-02	3.592106E-02	4.014658E-02
-1.3250000e+00	3.601296E-02	3.466841E-02	3.888724E-02
-1.3000000e+00	3.482735E-02	3.343415E-02	3.763261E-02
-1.2750000e+00	3.364438E-02	3.221669E-02	3.638295E-02
-1.2500000e+00	3.246358E-02	3.101397E-02	3.513856E-02
-1.2250000e+00	3.128497E-02	2.982356E-02	3.389971E-02
-1.2000000e+00	3.010901E-02	2.864279E-02	3.266671E-02
-1.1750000e+00	2.893648E-02	2.746896E-02	3.143983E-02
-1.1500000e+00	2.776826E-02	2.629964E-02	3.021937E-02
-1.1250000e+00	2.660528E-02	2.513304E-02	2.900560E-02
-1.1000000e+00	2.544841E-02	2.396824E-02	2.779885E-02
-1.0750000e+00	2.429844E-02	2.280536E-02	2.659947E-02
-1.0500000e+00	2.315612E-02	2.164543E-02	2.540788E-02
-1.0250000e+00	2.202214E-02	2.049007E-02	2.422456E-02
-1.0000000e+00	2.089719E-02	1.934117E-02	2.305008E-02
-9.7500000e-01	1.978197E-02	1.820065E-02	2.188512E-02
-9.5000000e-01	1.867722E-02	1.707028E-02	2.073051E-02
-9.2500000e-01	1.758372E-02	1.595172E-02	1.958717E-02
-9.0000000e-01	1.650228E-02	1.484648E-02	1.845617E-02
-8.7500000e-01	1.543373E-02	1.375596E-02	1.733861E-02
-8.5000000e-01	1.437889E-02	1.268153E-02	1.623552E-02
-8.2500000e-01	1.333851E-02	1.162449E-02	1.514771E-02
-8.0000000e-01	1.231328E-02	1.058622E-02	1.407560E-02
-7.7500000e-01	1.130388E-02	9.568206E-03	1.301920E-02
-7.5000000e-01	1.031106E-02	8.572276E-03	1.197826E-02
-7.2500000e-01	9.335806E-03	7.600753E-03	1.095255E-02
-7.0000000e-01	8.379549E-03	6.656721E-03	9.942208E-03
-6.7500000e-01	7.444326E-03	5.744302E-03	8.947907E-03
-6.5000000e-01	6.532997E-03	4.868952E-03	7.971037E-03
-6.2500000e-01	5.649458E-03	4.037787E-03	7.013856E-03
-6.0000000e-01	4.798902E-03	3.259897E-03	6.079694E-03
-5.7500000e-01	3.988134E-03	2.546530E-03	5.173232E-03
-5.5000000e-01	3.225930E-03	1.910856E-03	4.300898E-03
-5.2500000e-01	2.523332E-03	1.366712E-03	3.471435E-03
-5.0000000e-01	1.893615E-03	9.256050E-04	2.696669E-03
-4.7500000e-01	1.351332E-03	5.919303E-04	1.992344E-03
-4.5000000e-01	9.095438E-04	3.586832E-04	1.378411E-03
-4.2500000e-01	5.747929E-04	2.078355E-04	8.770334E-04
-4.0000000e-01	3.418453E-04	1.164218E-04	5.053061E-04
-3.7500000e-01	1.930954E-04	6.360210E-05	2.627362E-04
-3.5000000e-01	1.048276E-04	3.408364E-05	1.249600E-04
-3.2500000e-01	5.523970E-05	1.799151E-05	5.555840E-05
-3.0000000e-01	2.845373E-05	9.394192E-06	2.354470E-05
-2.7500000e-01	1.440808E-05	4.878770E-06	9.667951E-06
-2.5000000e-01	7.217646E-06	2.540607E-06	3.917671E-06
-2.2500000e-01	3.608426E-06	1.343333E-06	1.610365E-06
-2.0000000e-01	1.824961E-06	7.351342E-07	7.040722E-07
-1.7500000e-01	9.538096E-07	4.274933E-07	3.518088E-07

-1.5000000e-01	5.312391E-07	2.717598E-07	2.143482E-07
-1.2500000e-01	3.264285E-07	1.922224E-07	1.590776E-07
-1.0000000e-01	2.262355E-07	1.506538E-07	1.350141E-07
-7.5000000e-02	1.758303E-07	1.278715E-07	1.227817E-07
-5.0000000e-02	1.489090E-07	1.143246E-07	1.150732E-07
-2.5000000e-02	1.332080E-07	1.054156E-07	1.091539E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[Ramp]

R\_load = 50.00Ohm

typ	min	max
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dV/dt\_r 532.022mV/119.423ps 491.319mV/165.185ps 567.619mV/91.565ps

dV/dt\_f 537.976mV/129.806ps 497.460mV/173.213ps 578.029mV/105.657ps

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[Rising Waveform]

V\_fixture = 1.500V

V\_fixture\_min = 1.425V

V\_fixture\_max = 1.575V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	6.1517E-01	5.8287E-01	6.5309E-01
1.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
2.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
3.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
4.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
5.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
6.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
7.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
8.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
9.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
1.00E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.10E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.20E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.30E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.40E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.50E-10	6.1517E-01	5.8287E-01	6.5433E-01
1.60E-10	6.1517E-01	5.8287E-01	6.7845E-01
1.70E-10	6.1616E-01	5.8287E-01	7.4018E-01
1.80E-10	6.1820E-01	5.8287E-01	8.2854E-01
1.90E-10	6.2509E-01	5.8287E-01	9.2350E-01
2.00E-10	6.3360E-01	5.8287E-01	1.0035E+00
2.10E-10	6.5972E-01	5.8287E-01	1.0622E+00
2.20E-10	6.9277E-01	5.8287E-01	1.1021E+00
2.30E-10	7.4389E-01	5.8287E-01	1.1297E+00
2.40E-10	8.0329E-01	5.8287E-01	1.1507E+00
2.50E-10	8.6698E-01	5.8287E-01	1.1725E+00
2.60E-10	9.3293E-01	5.8587E-01	1.2084E+00
2.70E-10	9.8606E-01	5.8977E-01	1.2660E+00

2.80E-10	1.0314E+00	6.0015E-01	1.3332E+00
2.90E-10	1.0621E+00	6.1507E-01	1.4005E+00
3.00E-10	1.0875E+00	6.3422E-01	1.4575E+00
3.10E-10	1.1038E+00	6.6308E-01	1.5003E+00
3.20E-10	1.1186E+00	6.9542E-01	1.5292E+00
3.30E-10	1.1318E+00	7.3829E-01	1.5452E+00
3.40E-10	1.1488E+00	7.8359E-01	1.5589E+00
3.50E-10	1.1685E+00	8.3263E-01	1.5644E+00
3.60E-10	1.1961E+00	8.7994E-01	1.5690E+00
3.70E-10	1.2308E+00	9.2648E-01	1.5711E+00
3.80E-10	1.2708E+00	9.6220E-01	1.5725E+00
3.90E-10	1.3157E+00	9.9443E-01	1.5733E+00
4.00E-10	1.3592E+00	1.0179E+00	1.5737E+00
4.10E-10	1.3979E+00	1.0367E+00	1.5740E+00
4.20E-10	1.4283E+00	1.0518E+00	1.5741E+00
4.30E-10	1.4538E+00	1.0635E+00	1.5743E+00
4.40E-10	1.4683E+00	1.0745E+00	1.5743E+00
4.50E-10	1.4800E+00	1.0848E+00	1.5743E+00
4.60E-10	1.4870E+00	1.0962E+00	1.5743E+00
4.70E-10	1.4913E+00	1.1088E+00	1.5744E+00
4.80E-10	1.4943E+00	1.1255E+00	1.5744E+00
4.90E-10	1.4948E+00	1.1437E+00	1.5745E+00
5.00E-10	1.4953E+00	1.1618E+00	1.5746E+00
5.10E-10	1.4959E+00	1.1826E+00	1.5747E+00
5.20E-10	1.4965E+00	1.2089E+00	1.5747E+00
5.30E-10	1.4972E+00	1.2353E+00	1.5747E+00
5.40E-10	1.4979E+00	1.2616E+00	1.5748E+00
5.50E-10	1.4985E+00	1.2874E+00	1.5748E+00
5.60E-10	1.4988E+00	1.3132E+00	1.5748E+00
5.70E-10	1.4992E+00	1.3390E+00	1.5749E+00
5.80E-10	1.4995E+00	1.3572E+00	1.5749E+00
5.90E-10	1.4996E+00	1.3739E+00	1.5749E+00
6.00E-10	1.4997E+00	1.3906E+00	1.5749E+00
6.10E-10	1.4998E+00	1.4002E+00	1.5749E+00
6.20E-10	1.4999E+00	1.4076E+00	1.5749E+00
6.30E-10	1.4999E+00	1.4150E+00	1.5750E+00
6.40E-10	1.4999E+00	1.4175E+00	1.5750E+00
6.50E-10	1.4999E+00	1.4200E+00	1.5750E+00
6.60E-10	1.4999E+00	1.4220E+00	1.5750E+00
6.70E-10	1.4999E+00	1.4227E+00	1.5750E+00
6.80E-10	1.4999E+00	1.4234E+00	1.5750E+00
6.90E-10	1.4999E+00	1.4238E+00	1.5750E+00
7.00E-10	1.4999E+00	1.4240E+00	1.5750E+00
7.10E-10	1.4999E+00	1.4242E+00	1.5750E+00
7.20E-10	1.4999E+00	1.4243E+00	1.5750E+00
7.30E-10	1.4999E+00	1.4244E+00	1.5750E+00
7.40E-10	1.4999E+00	1.4244E+00	1.5750E+00
7.50E-10	1.5000E+00	1.4244E+00	1.5750E+00

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[Falling Waveform]

V\_fixture = 1.500V

V\_fixture\_min = 1.425V

V\_fixture\_max = 1.575V

R\_fixture = 50.00Ohm



Time	V(typ)	V(min)	V(max)
0.00E+00	1.5000E+00	1.4244E+00	1.5750E+00
1.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
2.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
3.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
4.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
5.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
6.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
7.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
8.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
9.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
1.00E-10	1.5000E+00	1.4244E+00	1.5750E+00
1.10E-10	1.5001E+00	1.4244E+00	1.5750E+00
1.20E-10	1.5005E+00	1.4244E+00	1.5750E+00
1.30E-10	1.5010E+00	1.4244E+00	1.5696E+00
1.40E-10	1.5019E+00	1.4244E+00	1.5421E+00
1.50E-10	1.5028E+00	1.4244E+00	1.5004E+00
1.60E-10	1.5039E+00	1.4244E+00	1.4462E+00
1.70E-10	1.5050E+00	1.4244E+00	1.3851E+00
1.80E-10	1.5044E+00	1.4244E+00	1.3205E+00
1.90E-10	1.5035E+00	1.4244E+00	1.2579E+00
2.00E-10	1.4916E+00	1.4244E+00	1.2013E+00
2.10E-10	1.4788E+00	1.4244E+00	1.1613E+00
2.20E-10	1.4542E+00	1.4244E+00	1.1320E+00
2.30E-10	1.4285E+00	1.4244E+00	1.1084E+00
2.40E-10	1.3937E+00	1.4244E+00	1.0868E+00
2.50E-10	1.3578E+00	1.4244E+00	1.0540E+00
2.60E-10	1.3171E+00	1.4218E+00	1.0067E+00
2.70E-10	1.2768E+00	1.4145E+00	9.4839E-01
2.80E-10	1.2375E+00	1.3990E+00	8.8192E-01
2.90E-10	1.2003E+00	1.3841E+00	8.2227E-01
3.00E-10	1.1674E+00	1.3619E+00	7.7341E-01
3.10E-10	1.1375E+00	1.3392E+00	7.3495E-01
3.20E-10	1.1123E+00	1.3125E+00	7.0687E-01
3.30E-10	1.0884E+00	1.2806E+00	6.9026E-01
3.40E-10	1.0662E+00	1.2558E+00	6.7865E-01
3.50E-10	1.0397E+00	1.2224E+00	6.7137E-01
3.60E-10	1.0097E+00	1.1987E+00	6.6791E-01
3.70E-10	9.7255E-01	1.1742E+00	6.6445E-01
3.80E-10	9.3100E-01	1.1523E+00	6.6187E-01
3.90E-10	8.8580E-01	1.1315E+00	6.5971E-01
4.00E-10	8.3897E-01	1.1120E+00	6.5755E-01
4.10E-10	7.9641E-01	1.0924E+00	6.5651E-01
4.20E-10	7.5515E-01	1.0749E+00	6.5547E-01
4.30E-10	7.2360E-01	1.0540E+00	6.5463E-01
4.40E-10	6.9391E-01	1.0344E+00	6.5421E-01
4.50E-10	6.7567E-01	1.0110E+00	6.5378E-01
4.60E-10	6.5854E-01	9.8237E-01	6.5353E-01
4.70E-10	6.4671E-01	9.5346E-01	6.5337E-01
4.80E-10	6.3926E-01	9.1790E-01	6.5321E-01
4.90E-10	6.3074E-01	8.7949E-01	6.5309E-01
5.00E-10	6.1517E-01	8.4341E-01	6.5309E-01

5.10E-10	6.1517E-01	8.0437E-01	6.5309E-01
5.20E-10	6.1517E-01	7.6818E-01	6.5309E-01
5.30E-10	6.1517E-01	7.3775E-01	6.5309E-01
5.40E-10	6.1517E-01	7.0888E-01	6.5309E-01
5.50E-10	6.1517E-01	6.8336E-01	6.5309E-01
5.60E-10	6.1517E-01	6.6440E-01	6.5309E-01
5.70E-10	6.1517E-01	6.4314E-01	6.5309E-01
5.80E-10	6.1517E-01	6.3327E-01	6.5309E-01
5.90E-10	6.1517E-01	6.1885E-01	6.5309E-01
6.00E-10	6.1517E-01	6.1028E-01	6.5309E-01
6.10E-10	6.1517E-01	6.0327E-01	6.5309E-01
6.20E-10	6.1517E-01	5.9567E-01	6.5309E-01
6.30E-10	6.1517E-01	5.9405E-01	6.5309E-01
6.40E-10	6.1517E-01	5.9090E-01	6.5309E-01
6.50E-10	6.1517E-01	5.8836E-01	6.5309E-01
6.60E-10	6.1517E-01	5.8633E-01	6.5309E-01
6.70E-10	6.1517E-01	5.8473E-01	6.5309E-01
6.80E-10	6.1517E-01	5.8287E-01	6.5309E-01
6.90E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.00E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.10E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.20E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.30E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.40E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.50E-10	6.1517E-01	5.8287E-01	6.5309E-01

[Rising Waveform]

V\_fixture = 0.000V

V\_fixture\_min = 0.000V

V\_fixture\_max = 0.000V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	-3.6753E-04	7.2516E-04	2.8087E-05
1.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
2.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
3.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
4.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
5.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
6.00E-11	-3.6753E-04	7.2516E-04	1.0216E-04
7.00E-11	-3.6753E-04	7.2516E-04	1.9728E-04
8.00E-11	-3.6753E-04	7.2516E-04	2.7894E-04
9.00E-11	-3.6753E-04	7.2516E-04	2.8460E-04
1.00E-10	-3.6753E-04	7.2516E-04	2.9184E-04
1.10E-10	-3.6753E-04	7.2516E-04	1.1285E-03
1.20E-10	-3.6753E-04	7.2516E-04	2.7155E-03
1.30E-10	-3.6753E-04	7.2516E-04	5.0230E-03
1.40E-10	-3.6753E-04	7.2516E-04	7.3254E-03
1.50E-10	-3.6753E-04	7.2516E-04	8.7724E-03
1.60E-10	-3.6753E-04	7.2516E-04	1.1212E-02
1.70E-10	-3.6753E-04	7.2516E-04	4.6035E-02
1.80E-10	-3.6753E-04	7.2516E-04	9.9223E-02
1.90E-10	-3.6753E-04	7.2516E-04	1.6614E-01

2.00E-10	-3.6753E-04	7.2516E-04	2.3920E-01
2.10E-10	3.5736E-03	7.2516E-04	3.0948E-01
2.20E-10	2.0502E-02	7.2516E-04	3.6921E-01
2.30E-10	4.1697E-02	7.2516E-04	4.1553E-01
2.40E-10	7.5340E-02	7.2516E-04	4.4908E-01
2.50E-10	1.1331E-01	7.2516E-04	4.7338E-01
2.60E-10	1.5884E-01	7.2516E-04	4.9503E-01
2.70E-10	2.0668E-01	7.2516E-04	5.2442E-01
2.80E-10	2.5162E-01	7.2516E-04	5.7364E-01
2.90E-10	2.9581E-01	7.2516E-04	6.4440E-01
3.00E-10	3.3180E-01	5.8446E-03	7.2332E-01
3.10E-10	3.6594E-01	1.3532E-02	7.9061E-01
3.20E-10	3.9082E-01	2.2842E-02	8.4100E-01
3.30E-10	4.1397E-01	4.4064E-02	8.7560E-01
3.40E-10	4.3129E-01	6.5287E-02	8.9835E-01
3.50E-10	4.4771E-01	8.8005E-02	9.1275E-01
3.60E-10	4.6699E-01	1.1851E-01	9.2083E-01
3.70E-10	4.8661E-01	1.4901E-01	9.2762E-01
3.80E-10	5.2174E-01	1.7941E-01	9.3202E-01
3.90E-10	5.5826E-01	2.0939E-01	9.3546E-01
4.00E-10	6.0852E-01	2.3937E-01	9.3833E-01
4.10E-10	6.5962E-01	2.6803E-01	9.4087E-01
4.20E-10	7.0835E-01	2.9259E-01	9.4281E-01
4.30E-10	7.5701E-01	3.1716E-01	9.4428E-01
4.40E-10	7.8894E-01	3.3790E-01	9.4537E-01
4.50E-10	8.1785E-01	3.5587E-01	9.4606E-01
4.60E-10	8.3619E-01	3.7385E-01	9.4675E-01
4.70E-10	8.5094E-01	3.8729E-01	9.4744E-01
4.80E-10	8.6107E-01	4.0033E-01	9.4796E-01
4.90E-10	8.6825E-01	4.1330E-01	9.4812E-01
5.00E-10	8.7391E-01	4.2611E-01	9.4828E-01
5.10E-10	8.7730E-01	4.3892E-01	9.4845E-01
5.20E-10	8.8026E-01	4.5640E-01	9.4858E-01
5.30E-10	8.8222E-01	4.7710E-01	9.4859E-01
5.40E-10	8.8386E-01	4.9780E-01	9.4860E-01
5.50E-10	8.8486E-01	5.2989E-01	9.4860E-01
5.60E-10	8.8585E-01	5.6285E-01	9.4860E-01
5.70E-10	8.8684E-01	5.9689E-01	9.4860E-01
5.80E-10	8.8768E-01	6.3392E-01	9.4860E-01
5.90E-10	8.8847E-01	6.7095E-01	9.4860E-01
6.00E-10	8.8926E-01	7.0233E-01	9.4860E-01
6.10E-10	8.8998E-01	7.2999E-01	9.4860E-01
6.20E-10	8.9042E-01	7.5766E-01	9.4860E-01
6.30E-10	8.9086E-01	7.7515E-01	9.4860E-01
6.40E-10	8.9130E-01	7.9200E-01	9.4860E-01
6.50E-10	8.9157E-01	8.0477E-01	9.4860E-01
6.60E-10	8.9176E-01	8.1411E-01	9.4860E-01
6.70E-10	8.9194E-01	8.2282E-01	9.4860E-01
6.80E-10	8.9213E-01	8.2783E-01	9.4860E-01
6.90E-10	8.9232E-01	8.3284E-01	9.4860E-01
7.00E-10	8.9251E-01	8.3619E-01	9.4860E-01
7.10E-10	8.9269E-01	8.3899E-01	9.4860E-01
7.20E-10	8.9279E-01	8.4140E-01	9.4860E-01
7.30E-10	8.9282E-01	8.4312E-01	9.4860E-01

7.40E-10 8.9285E-01 8.4444E-01 9.4860E-01  
7.50E-10 8.9288E-01 8.4444E-01 9.4860E-01

[Falling Waveform]

V\_fixture = 0.000V

V\_fixture\_min = 0.000V

V\_fixture\_max = 0.000V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	8.9297E-01	8.4444E-01	9.4842E-01
1.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
2.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
3.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
4.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
5.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
6.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
7.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
8.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
9.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
1.00E-10	8.9298E-01	8.4444E-01	9.4842E-01
1.10E-10	8.9307E-01	8.4444E-01	9.4842E-01
1.20E-10	8.9310E-01	8.4444E-01	9.4710E-01
1.30E-10	8.9298E-01	8.4444E-01	9.3543E-01
1.40E-10	8.9269E-01	8.4444E-01	9.1264E-01
1.50E-10	8.9153E-01	8.4444E-01	8.6501E-01
1.60E-10	8.9009E-01	8.4444E-01	7.9523E-01
1.70E-10	8.8619E-01	8.4444E-01	7.1623E-01
1.80E-10	8.8188E-01	8.4444E-01	6.3702E-01
1.90E-10	8.6797E-01	8.4444E-01	5.6822E-01
2.00E-10	8.5407E-01	8.4444E-01	5.1467E-01
2.10E-10	8.1907E-01	8.4444E-01	4.7745E-01
2.20E-10	7.8369E-01	8.4444E-01	4.5020E-01
2.30E-10	7.2759E-01	8.4356E-01	4.2700E-01
2.40E-10	6.6977E-01	8.4256E-01	4.0012E-01
2.50E-10	6.0883E-01	8.3977E-01	3.6152E-01
2.60E-10	5.4739E-01	8.3484E-01	3.0810E-01
2.70E-10	5.0056E-01	8.2675E-01	2.4581E-01
2.80E-10	4.5727E-01	8.1616E-01	1.8720E-01
2.90E-10	4.2858E-01	8.0426E-01	1.3866E-01
3.00E-10	4.0488E-01	7.8900E-01	9.9411E-02
3.10E-10	3.8513E-01	7.7410E-01	6.9027E-02
3.20E-10	3.6720E-01	7.4966E-01	4.8410E-02
3.30E-10	3.4529E-01	7.1605E-01	3.2789E-02
3.40E-10	3.2101E-01	6.7567E-01	2.0043E-02
3.50E-10	2.8958E-01	6.3059E-01	1.4012E-02
3.60E-10	2.5272E-01	5.9072E-01	8.0573E-03
3.70E-10	2.1376E-01	5.5071E-01	5.9996E-03
3.80E-10	1.7278E-01	5.1266E-01	3.9419E-03
3.90E-10	1.3552E-01	4.8164E-01	2.8692E-03
4.00E-10	1.0280E-01	4.5088E-01	2.1454E-03
4.10E-10	7.5449E-02	4.2586E-01	1.6064E-03
4.20E-10	5.6489E-02	4.0332E-01	1.2864E-03

4.30E-10	4.2244E-02	3.8157E-01	9.8729E-04
4.40E-10	3.1060E-02	3.6318E-01	7.8594E-04
4.50E-10	2.3597E-02	3.4438E-01	5.8459E-04
4.60E-10	1.8174E-02	3.2416E-01	3.8324E-04
4.70E-10	1.3964E-02	3.0378E-01	1.8189E-04
4.80E-10	1.1106E-02	2.8095E-01	9.6654E-05
4.90E-10	8.2484E-03	2.5556E-01	8.3885E-05
5.00E-10	5.8181E-03	2.3033E-01	7.1116E-05
5.10E-10	-3.6753E-04	1.9998E-01	5.8347E-05
5.20E-10	-3.6753E-04	1.7048E-01	4.5994E-05
5.30E-10	-3.6753E-04	1.4118E-01	4.0878E-05
5.40E-10	-3.6753E-04	1.1208E-01	3.5762E-05
5.50E-10	-3.6753E-04	8.5433E-02	3.0646E-05
5.60E-10	-3.6753E-04	6.4850E-02	2.8087E-05
5.70E-10	-3.6753E-04	4.4040E-02	2.8087E-05
5.80E-10	-3.6753E-04	3.2587E-02	2.8087E-05
5.90E-10	-3.6753E-04	2.2313E-02	2.8087E-05
6.00E-10	-3.6753E-04	1.4942E-02	2.8087E-05
6.10E-10	-3.6753E-04	1.1102E-02	2.8087E-05
6.20E-10	-3.6753E-04	7.2760E-03	2.8087E-05
6.30E-10	-3.6753E-04	5.9771E-03	2.8087E-05
6.40E-10	-3.6753E-04	4.6411E-03	2.8087E-05
6.50E-10	-3.6753E-04	3.7753E-03	2.8087E-05
6.60E-10	-3.6753E-04	3.2215E-03	2.8087E-05
6.70E-10	-3.6753E-04	2.7093E-03	2.8087E-05
6.80E-10	-3.6753E-04	2.3817E-03	2.8087E-05
6.90E-10	-3.6753E-04	2.0535E-03	2.8087E-05
7.00E-10	-3.6753E-04	1.7965E-03	2.8087E-05
7.10E-10	-3.6753E-04	1.5615E-03	2.8087E-05
7.20E-10	-3.6753E-04	1.3266E-03	2.8087E-05
7.30E-10	-3.6753E-04	7.2516E-04	2.8087E-05
7.40E-10	-3.6753E-04	7.2516E-04	2.8087E-05
7.50E-10	-3.6753E-04	7.2516E-04	2.8087E-05

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MODEL DQ\_34\_1600 (34 Ohm Data I/O with 20ohm ODT, 1333/1600 Mbps)

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[Model] DQ\_34\_ODT20\_1600

Model\_type I/O

Vinl = 575.000mV

Vinh = 925.000mV

Vmeas = 750.000mV

Vref = 750.000mV

Cref = 0.0pF

Rref = 25.000Ohm

	typ	min	max
C_comp	1.200pF	1.125pF	1.275pF

[Model Spec]

| Input threshold voltage corners

Vinl	0.5750V	0.5375V	0.6125V
Vinh	0.9250V	0.8875V	0.9625V

| Measurement voltage corners

Vmeas	0.7500V	0.7125V	0.7875V
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| Timing spec test load voltage corners

Vref	0.7500V	0.7125V	0.7875V
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| Dynamic Overshoot Parameters from DDR3 Specification

D_overshoot_ampl_h	0.40	NA	NA
D_overshoot_ampl_l	0.40	NA	NA
D_overshoot_area_h	0.19n	NA	NA
D_overshoot_area_l	0.19n	NA	NA

| [Receiver Thresholds]

| Vth = 0.750V  
 | Vth\_min = 0.7350V  
 | Vth\_max = 0.7650V  
 | Vinh\_ac = 0.175V  
 | Vinh\_dc = 0.100V  
 | Vinl\_ac = -0.175V  
 | Vinl\_dc = -0.100V  
 | Tslew\_ac = 5.000ns |Not specified, so set to high value  
 | Threshold\_sensitivity = 0.50  
 | Reference\_supply Pullup\_ref

| [Add Submodel]

Submodel Name	Mode		
20Ohm_ODT	Non-Driving		
[Voltage Range]	1.5000V	1.4250V	1.5750V
[Pullup Reference]	1.5000V	1.4250V	1.5750V
[Temperature Range]	85.0	110.0	0.0

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| [Pulldown]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	-6.717440E-03	-6.602220E-03	-5.1878E-03
-1.4750000e+00	-6.950660E-03	-6.867910E-03	-5.4092E-03
-1.4250000e+00	-7.420160E-03	-7.410640E-03	-5.8575E-03
-1.3750000e+00	-7.891420E-03	-7.964120E-03	-6.3098E-03
-1.3250000e+00	-8.362190E-03	-8.523980E-03	-6.7632E-03
-1.2750000e+00	-8.830600E-03	-9.086830E-03	-7.2155E-03
-1.2250000e+00	-9.295050E-03	-9.650090E-03	-7.6651E-03
-1.1750000e+00	-9.754060E-03	-1.021176E-02	-8.1108E-03
-1.1250000e+00	-1.020612E-02	-1.077025E-02	-8.5512E-03
-1.0750000e+00	-1.064959E-02	-1.132418E-02	-8.9850E-03
-1.0250000e+00	-1.108253E-02	-1.187221E-02	-9.4109E-03
-9.7500000e-01	-1.150258E-02	-1.241292E-02	-9.8270E-03
-9.2500000e-01	-1.190672E-02	-1.294440E-02	-1.0231E-02
-8.7500000e-01	-1.229088E-02	-1.346358E-02	-1.0620E-02

-8.2500000e-01	-1.264939E-02	-1.396484E-02	-1.0991E-02
-7.7500000e-01	-1.297388E-02	-1.443730E-02	-1.1336E-02
-7.2500000e-01	-1.325153E-02	-1.486077E-02	-1.1649E-02
-6.7500000e-01	-1.346224E-02	-1.520128E-02	-1.1917E-02
-6.2500000e-01	-1.357544E-02	-1.540771E-02	-1.2120E-02
-5.7500000e-01	-1.354969E-02	-1.541129E-02	-1.2227E-02
-5.2500000e-01	-1.333921E-02	-1.513126E-02	-1.2185E-02
-4.7500000e-01	-1.290237E-02	-1.448995E-02	-1.1917E-02
-4.2500000e-01	-1.219129E-02	-1.344440E-02	-1.1342E-02
-3.7500000e-01	-1.115219E-02	-1.205672E-02	-1.0442E-02
-3.2500000e-01	-9.820264E-03	-1.048922E-02	-9.2579E-03
-2.7500000e-01	-8.341268E-03	-8.866406E-03	-7.8883E-03
-2.2500000e-01	-6.822138E-03	-7.235947E-03	-6.4597E-03
-1.7500000e-01	-5.298271E-03	-5.610770E-03	-5.0227E-03
-1.2500000e-01	-3.777710E-03	-3.994334E-03	-3.5860E-03
-7.5000000e-02	-2.262248E-03	-2.388040E-03	-2.1505E-03
-2.5000000e-02	-7.525408E-04	-7.929693E-04	-7.1644E-04
0.0000000e+00	-2.915900E-09	-3.333000E-10	-5.0570E-09
2.5000000e-02	7.507199E-04	7.895269E-04	7.1589E-04
7.5000000e-02	2.245917E-03	2.357110E-03	2.1456E-03
1.2500000e-01	3.732365E-03	3.908392E-03	3.5725E-03
1.7500000e-01	5.209520E-03	5.442055E-03	4.9965E-03
2.2500000e-01	6.676783E-03	6.956634E-03	6.4174E-03
2.7500000e-01	8.133496E-03	8.450479E-03	7.8352E-03
3.2500000e-01	9.578923E-03	9.921721E-03	9.2496E-03
3.7500000e-01	1.101226E-02	1.136822E-02	1.0661E-02
4.2500000e-01	1.243257E-02	1.278754E-02	1.2068E-02
4.7500000e-01	1.383888E-02	1.417683E-02	1.3472E-02
5.2500000e-01	1.523002E-02	1.553278E-02	1.4871E-02
5.7500000e-01	1.660471E-02	1.685160E-02	1.6267E-02
6.2500000e-01	1.796153E-02	1.812901E-02	1.7659E-02
6.7500000e-01	1.929892E-02	1.936079E-02	1.9046E-02
7.2500000e-01	2.061527E-02	2.054383E-02	2.0428E-02
7.7500000e-01	2.190915E-02	2.167702E-02	2.1805E-02
8.2500000e-01	2.317984E-02	2.276044E-02	2.3178E-02
8.7500000e-01	2.442765E-02	2.379315E-02	2.4544E-02
9.2500000e-01	2.565381E-02	2.477183E-02	2.5905E-02
9.7500000e-01	2.685955E-02	2.569073E-02	2.7261E-02
1.0250000e+00	2.804545E-02	2.654265E-02	2.8609E-02
1.0750000e+00	2.921123E-02	2.732059E-02	2.9951E-02
1.1250000e+00	3.035586E-02	2.802022E-02	3.1286E-02
1.1750000e+00	3.147763E-02	2.864222E-02	3.2613E-02
1.2250000e+00	3.257424E-02	2.919304E-02	3.3932E-02
1.2750000e+00	3.364280E-02	2.968331E-02	3.5242E-02
1.3250000e+00	3.467974E-02	3.012500E-02	3.6542E-02
1.3750000e+00	3.568083E-02	3.052912E-02	3.7832E-02
1.4250000e+00	3.664118E-02	3.090472E-02	3.9112E-02
1.4750000e+00	3.755541E-02	3.125876E-02	4.0379E-02
1.5250000e+00	3.841817E-02	3.159641E-02	4.1633E-02
1.5750000e+00	3.922484E-02	3.192149E-02	4.2873E-02
1.6250000e+00	3.997270E-02	3.223679E-02	4.4097E-02
1.6750000e+00	4.066185E-02	3.254442E-02	4.5303E-02
1.7250000e+00	4.129552E-02	3.284593E-02	4.6490E-02
1.7750000e+00	4.187958E-02	3.314250E-02	4.7654E-02

1.8250000e+00	4.242129E-02	3.343504E-02	4.8794E-02
1.8750000e+00	4.292808E-02	3.372428E-02	4.9905E-02
1.9250000e+00	4.340673E-02	3.401077E-02	5.0985E-02
1.9750000e+00	4.386296E-02	3.429496E-02	5.2029E-02
2.0250000e+00	4.430140E-02	3.457721E-02	5.3033E-02
2.0750000e+00	4.472568E-02	3.485782E-02	5.3993E-02
2.1250000e+00	4.513865E-02	3.513705E-02	5.4906E-02
2.1750000e+00	4.554252E-02	3.541511E-02	5.5769E-02
2.2250000e+00	4.593900E-02	3.569218E-02	5.6583E-02
2.2750000e+00	4.632944E-02	3.596843E-02	5.7349E-02
2.3250000e+00	4.671490E-02	3.624402E-02	5.8070E-02
2.3750000e+00	4.709624E-02	3.651910E-02	5.8752E-02
2.4250000e+00	4.747414E-02	3.679380E-02	5.9398E-02
2.4750000e+00	4.784918E-02	3.706830E-02	6.0016E-02
2.5250000e+00	4.822183E-02	3.734276E-02	6.0609E-02
2.5750000e+00	4.859248E-02	3.761735E-02	6.1181E-02
2.6250000e+00	4.896149E-02	3.789229E-02	6.1736E-02
2.6750000e+00	4.932914E-02	3.816783E-02	6.2277E-02
2.7250000e+00	4.969572E-02	3.844422E-02	6.2806E-02
2.7750000e+00	5.006148E-02	3.872180E-02	6.3326E-02
2.8250000e+00	5.042664E-02	3.900093E-02	6.3837E-02
2.8750000e+00	5.079141E-02	3.928204E-02	6.4342E-02
2.9250000e+00	5.115601E-02	3.956562E-02	6.4840E-02
2.9750000e+00	5.152066E-02	3.985223E-02	6.5334E-02
3.0000000e+00	5.170306E-02	3.999685E-02	6.5579E-02

[GND Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	-5.378351E-02	-5.490567E-02	-5.885698E-02
-1.4750000e+00	-5.231251E-02	-5.334431E-02	-5.735670E-02
-1.4500000e+00	-5.084369E-02	-5.178549E-02	-5.585777E-02
-1.4250000e+00	-4.937717E-02	-5.022938E-02	-5.436025E-02
-1.4000000e+00	-4.791309E-02	-4.867613E-02	-5.286424E-02
-1.3750000e+00	-4.645161E-02	-4.712594E-02	-5.136982E-02
-1.3500000e+00	-4.499289E-02	-4.557901E-02	-4.987708E-02
-1.3250000e+00	-4.353712E-02	-4.403556E-02	-4.838614E-02
-1.3000000e+00	-4.208452E-02	-4.249585E-02	-4.689710E-02
-1.2750000e+00	-4.063529E-02	-4.096014E-02	-4.541010E-02
-1.2500000e+00	-3.918970E-02	-3.942875E-02	-4.392527E-02
-1.2250000e+00	-3.774803E-02	-3.790201E-02	-4.244278E-02
-1.2000000e+00	-3.631059E-02	-3.638031E-02	-4.096280E-02
-1.1750000e+00	-3.487773E-02	-3.486408E-02	-3.948552E-02
-1.1500000e+00	-3.344986E-02	-3.335380E-02	-3.801116E-02
-1.1250000e+00	-3.202742E-02	-3.185003E-02	-3.653998E-02
-1.1000000e+00	-3.061092E-02	-3.035339E-02	-3.507226E-02
-1.0750000e+00	-2.920096E-02	-2.886462E-02	-3.360832E-02
-1.0500000e+00	-2.779821E-02	-2.738455E-02	-3.214854E-02
-1.0250000e+00	-2.640347E-02	-2.591415E-02	-3.069335E-02
-1.0000000e+00	-2.501766E-02	-2.445455E-02	-2.924328E-02
-9.7500000e-01	-2.364185E-02	-2.300708E-02	-2.779892E-02
-9.5000000e-01	-2.227732E-02	-2.157329E-02	-2.636102E-02
-9.2500000e-01	-2.092559E-02	-2.015501E-02	-2.493048E-02
-9.0000000e-01	-1.958843E-02	-1.875433E-02	-2.350840E-02
-8.7500000e-01	-1.826790E-02	-1.737363E-02	-2.209616E-02



-8.5000000e-01	-1.696631E-02	-1.601550E-02	-2.069550E-02
-8.2500000e-01	-1.568612E-02	-1.468262E-02	-1.930856E-02
-8.0000000e-01	-1.442972E-02	-1.337762E-02	-1.793782E-02
-7.7500000e-01	-1.319926E-02	-1.210311E-02	-1.658583E-02
-7.5000000e-01	-1.199673E-02	-1.086191E-02	-1.525450E-02
-7.2500000e-01	-1.082427E-02	-9.657411E-03	-1.394473E-02
-7.0000000e-01	-9.684638E-03	-8.493939E-03	-1.265685E-02
-6.7500000e-01	-8.581514E-03	-7.376930E-03	-1.139180E-02
-6.5000000e-01	-7.519607E-03	-6.312929E-03	-1.015194E-02
-6.2500000e-01	-6.504547E-03	-5.309438E-03	-8.941317E-03
-6.0000000e-01	-5.542688E-03	-4.374618E-03	-7.765734E-03
-5.7500000e-01	-4.640772E-03	-3.516890E-03	-6.632943E-03
-5.5000000e-01	-3.805524E-03	-2.744483E-03	-5.552944E-03
-5.2500000e-01	-3.043248E-03	-2.065103E-03	-4.538199E-03
-5.0000000e-01	-2.359647E-03	-1.485677E-03	-3.603410E-03
-4.7500000e-01	-1.760020E-03	-1.011779E-03	-2.764263E-03
-4.5000000e-01	-1.249702E-03	-6.458403E-04	-2.034714E-03
-4.2500000e-01	-8.339835E-04	-3.838582E-04	-1.423543E-03
-4.0000000e-01	-5.162389E-04	-2.125448E-04	-9.327585E-04
-3.7500000e-01	-2.937329E-04	-1.106466E-04	-5.596314E-04
-3.5000000e-01	-1.537279E-04	-5.497263E-05	-2.989521E-04
-3.2500000e-01	-7.493357E-05	-2.649171E-05	-1.392980E-04
-3.0000000e-01	-3.471511E-05	-1.256760E-05	-5.693623E-05
-2.7500000e-01	-1.563019E-05	-5.952723E-06	-2.113740E-05
-2.5000000e-01	-7.001335E-06	-2.863206E-06	-7.478892E-06
-2.2500000e-01	-3.215160E-06	-1.433628E-06	-2.669240E-06
-2.0000000e-01	-1.576700E-06	-7.729597E-07	-1.039346E-06
-1.7500000e-01	-8.691669E-07	-4.659048E-07	-4.927419E-07
-1.5000000e-01	-5.602970E-07	-3.210513E-07	-3.060998E-07
-1.2500000e-01	-4.211770E-07	-2.506183E-07	-2.379530E-07
-1.0000000e-01	-3.542844E-07	-2.144259E-07	-2.089398E-07
-7.5000000e-02	-3.182781E-07	-1.940781E-07	-1.931385E-07
-5.0000000e-02	-2.956734E-07	-1.811414E-07	-1.820761E-07
-2.5000000e-02	-2.790923E-07	-1.717494E-07	-1.729560E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[Pullup]

-1.5000000e+00	1.625201E-02	1.758608E-02	1.5776E-02
-1.4750000e+00	1.628295E-02	1.772293E-02	1.5794E-02
-1.4250000e+00	1.631167E-02	1.794814E-02	1.5819E-02
-1.3750000e+00	1.630625E-02	1.810214E-02	1.5832E-02
-1.3250000e+00	1.628177E-02	1.818331E-02	1.5836E-02
-1.2750000e+00	1.625213E-02	1.819962E-02	1.5830E-02
-1.2250000e+00	1.622498E-02	1.816850E-02	1.5814E-02
-1.1750000e+00	1.620031E-02	1.811351E-02	1.5786E-02
-1.1250000e+00	1.617356E-02	1.805794E-02	1.5746E-02
-1.0750000e+00	1.613984E-02	1.801572E-02	1.5692E-02
-1.0250000e+00	1.609584E-02	1.798687E-02	1.5624E-02
-9.7500000e-01	1.603981E-02	1.796321E-02	1.5542E-02
-9.2500000e-01	1.597095E-02	1.793695E-02	1.5444E-02
-8.7500000e-01	1.588883E-02	1.790371E-02	1.5331E-02
-8.2500000e-01	1.579281E-02	1.786161E-02	1.5200E-02
-7.7500000e-01	1.568160E-02	1.780891E-02	1.5050E-02

-7.2500000e-01	1.555266E-02	1.774030E-02	1.4877E-02
-6.7500000e-01	1.540100E-02	1.763919E-02	1.4677E-02
-6.2500000e-01	1.521657E-02	1.746424E-02	1.4440E-02
-5.7500000e-01	1.497687E-02	1.713549E-02	1.4152E-02
-5.2500000e-01	1.462952E-02	1.653605E-02	1.3790E-02
-4.7500000e-01	1.407045E-02	1.555591E-02	1.3303E-02
-4.2500000e-01	1.317055E-02	1.420030E-02	1.2595E-02
-3.7500000e-01	1.190475E-02	1.261585E-02	1.1528E-02
-3.2500000e-01	1.040962E-02	1.094206E-02	1.0132E-02
-2.7500000e-01	8.825733E-03	9.244475E-03	8.6004E-03
-2.2500000e-01	7.217759E-03	7.545941E-03	7.0379E-03
-1.7500000e-01	5.606827E-03	5.853537E-03	5.4714E-03
-1.2500000e-01	3.998885E-03	4.169432E-03	3.9059E-03
-7.5000000e-02	2.395513E-03	2.494429E-03	2.3421E-03
-2.5000000e-02	7.971932E-04	8.289974E-04	7.8023E-04
0.0000000e+00	1.314700E-09	4.692000E-10	3.0652E-09
2.5000000e-02	-7.950502E-04	-8.253549E-04	-7.7920E-04
7.5000000e-02	-2.376138E-03	-2.461490E-03	-2.3328E-03
1.2500000e-01	-3.944794E-03	-4.077442E-03	-3.8799E-03
1.7500000e-01	-5.500495E-03	-5.672260E-03	-5.4201E-03
2.2500000e-01	-7.042695E-03	-7.244932E-03	-6.9533E-03
2.7500000e-01	-8.570810E-03	-8.794375E-03	-8.4790E-03
3.2500000e-01	-1.008422E-02	-1.031943E-02	-9.9969E-03
3.7500000e-01	-1.158229E-02	-1.181885E-02	-1.1507E-02
4.2500000e-01	-1.306431E-02	-1.329132E-02	-1.3008E-02
4.7500000e-01	-1.452955E-02	-1.473539E-02	-1.4501E-02
5.2500000e-01	-1.597724E-02	-1.614954E-02	-1.5984E-02
5.7500000e-01	-1.740654E-02	-1.753210E-02	-1.7458E-02
6.2500000e-01	-1.881658E-02	-1.888132E-02	-1.8922E-02
6.7500000e-01	-2.020643E-02	-2.019527E-02	-2.0375E-02
7.2500000e-01	-2.157509E-02	-2.147192E-02	-2.1818E-02
7.7500000e-01	-2.292153E-02	-2.270910E-02	-2.3248E-02
8.2500000e-01	-2.424464E-02	-2.390455E-02	-2.4667E-02
8.7500000e-01	-2.554331E-02	-2.505603E-02	-2.6073E-02
9.2500000e-01	-2.681638E-02	-2.616144E-02	-2.7466E-02
9.7500000e-01	-2.806279E-02	-2.721907E-02	-2.8845E-02
1.0250000e+00	-2.928162E-02	-2.822778E-02	-3.0209E-02
1.0750000e+00	-3.047224E-02	-2.918687E-02	-3.1559E-02
1.1250000e+00	-3.163441E-02	-3.009551E-02	-3.2895E-02
1.1750000e+00	-3.276817E-02	-3.095232E-02	-3.4215E-02
1.2250000e+00	-3.387345E-02	-3.175524E-02	-3.5520E-02
1.2750000e+00	-3.494986E-02	-3.250183E-02	-3.6810E-02
1.3250000e+00	-3.599648E-02	-3.318993E-02	-3.8084E-02
1.3750000e+00	-3.701195E-02	-3.381867E-02	-3.9341E-02
1.4250000e+00	-3.799445E-02	-3.438959E-02	-4.0581E-02
1.4750000e+00	-3.894176E-02	-3.490743E-02	-4.1802E-02
1.5250000e+00	-3.985132E-02	-3.537965E-02	-4.3004E-02
1.5750000e+00	-4.072029E-02	-3.581474E-02	-4.4185E-02
1.6250000e+00	-4.154560E-02	-3.622056E-02	-4.5343E-02
1.6750000e+00	-4.232425E-02	-3.660353E-02	-4.6476E-02
1.7250000e+00	-4.305363E-02	-3.696849E-02	-4.7583E-02
1.7750000e+00	-4.373217E-02	-3.731908E-02	-4.8662E-02
1.8250000e+00	-4.436015E-02	-3.765800E-02	-4.9709E-02
1.8750000e+00	-4.494020E-02	-3.798729E-02	-5.0722E-02

1.9250000e+00	-4.547717E-02	-3.830853E-02	-5.1698E-02
1.9750000e+00	-4.597727E-02	-3.862293E-02	-5.2633E-02
2.0250000e+00	-4.644684E-02	-3.893148E-02	-5.3524E-02
2.0750000e+00	-4.689156E-02	-3.923498E-02	-5.4367E-02
2.1250000e+00	-4.731609E-02	-3.953408E-02	-5.5160E-02
2.1750000e+00	-4.772413E-02	-3.982931E-02	-5.5900E-02
2.2250000e+00	-4.811854E-02	-4.012115E-02	-5.6590E-02
2.2750000e+00	-4.850161E-02	-4.040997E-02	-5.7231E-02
2.3250000e+00	-4.887508E-02	-4.069609E-02	-5.7830E-02
2.3750000e+00	-4.924037E-02	-4.097982E-02	-5.8391E-02
2.4250000e+00	-4.959862E-02	-4.126137E-02	-5.8920E-02
2.4750000e+00	-4.995076E-02	-4.154098E-02	-5.9424E-02
2.5250000e+00	-5.029755E-02	-4.181883E-02	-5.9906E-02
2.5750000e+00	-5.063964E-02	-4.209509E-02	-6.0370E-02
2.6250000e+00	-5.097758E-02	-4.236990E-02	-6.0819E-02
2.6750000e+00	-5.131181E-02	-4.264339E-02	-6.1255E-02
2.7250000e+00	-5.164272E-02	-4.291571E-02	-6.1681E-02
2.7750000e+00	-5.197066E-02	-4.318692E-02	-6.2098E-02
2.8250000e+00	-5.229592E-02	-4.345715E-02	-6.2507E-02
2.8750000e+00	-5.261875E-02	-4.372646E-02	-6.2909E-02
2.9250000e+00	-5.293944E-02	-4.399496E-02	-6.3305E-02
2.9750000e+00	-5.325809E-02	-4.426273E-02	-6.3695E-02
3.0000000e+00	-5.341670E-02	-4.439634E-02	-6.3889E-02

[POWER Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	4.450136E-02	4.385767E-02	4.780180E-02
-1.4750000e+00	4.325737E-02	4.248503E-02	4.651240E-02
-1.4500000e+00	4.202627E-02	4.113177E-02	4.522925E-02
-1.4250000e+00	4.080680E-02	3.979850E-02	4.395155E-02
-1.4000000e+00	3.959743E-02	3.848563E-02	4.267872E-02
-1.3750000e+00	3.839648E-02	3.719324E-02	4.141043E-02
-1.3500000e+00	3.720221E-02	3.592106E-02	4.014658E-02
-1.3250000e+00	3.601296E-02	3.466841E-02	3.888724E-02
-1.3000000e+00	3.482735E-02	3.343415E-02	3.763261E-02
-1.2750000e+00	3.364438E-02	3.221669E-02	3.638295E-02
-1.2500000e+00	3.246358E-02	3.101397E-02	3.513856E-02
-1.2250000e+00	3.128497E-02	2.982356E-02	3.389971E-02
-1.2000000e+00	3.010901E-02	2.864279E-02	3.266671E-02
-1.1750000e+00	2.893648E-02	2.746896E-02	3.143983E-02
-1.1500000e+00	2.776826E-02	2.629964E-02	3.021937E-02
-1.1250000e+00	2.660528E-02	2.513304E-02	2.900560E-02
-1.1000000e+00	2.544841E-02	2.396824E-02	2.779885E-02
-1.0750000e+00	2.429844E-02	2.280536E-02	2.659947E-02
-1.0500000e+00	2.315612E-02	2.164543E-02	2.540788E-02
-1.0250000e+00	2.202214E-02	2.049007E-02	2.422456E-02
-1.0000000e+00	2.089719E-02	1.934117E-02	2.305008E-02
-9.7500000e-01	1.978197E-02	1.820065E-02	2.188512E-02
-9.5000000e-01	1.867722E-02	1.707028E-02	2.073051E-02
-9.2500000e-01	1.758372E-02	1.595172E-02	1.958717E-02
-9.0000000e-01	1.650228E-02	1.484648E-02	1.845617E-02
-8.7500000e-01	1.543373E-02	1.375596E-02	1.733861E-02
-8.5000000e-01	1.437889E-02	1.268153E-02	1.623552E-02
-8.2500000e-01	1.333851E-02	1.162449E-02	1.514771E-02

-8.0000000e-01	1.231328E-02	1.058622E-02	1.407560E-02
-7.7500000e-01	1.130388E-02	9.568206E-03	1.301920E-02
-7.5000000e-01	1.031106E-02	8.572276E-03	1.197826E-02
-7.2500000e-01	9.335806E-03	7.600753E-03	1.095255E-02
-7.0000000e-01	8.379549E-03	6.656721E-03	9.942208E-03
-6.7500000e-01	7.444326E-03	5.744302E-03	8.947907E-03
-6.5000000e-01	6.532997E-03	4.868952E-03	7.971037E-03
-6.2500000e-01	5.649458E-03	4.037787E-03	7.013856E-03
-6.0000000e-01	4.798902E-03	3.259897E-03	6.079694E-03
-5.7500000e-01	3.988134E-03	2.546530E-03	5.173232E-03
-5.5000000e-01	3.225930E-03	1.910856E-03	4.300898E-03
-5.2500000e-01	2.523332E-03	1.366712E-03	3.471435E-03
-5.0000000e-01	1.893615E-03	9.256050E-04	2.696669E-03
-4.7500000e-01	1.351332E-03	5.919303E-04	1.992344E-03
-4.5000000e-01	9.095438E-04	3.586832E-04	1.378411E-03
-4.2500000e-01	5.747929E-04	2.078355E-04	8.770334E-04
-4.0000000e-01	3.418453E-04	1.164218E-04	5.053061E-04
-3.7500000e-01	1.930954E-04	6.360210E-05	2.627362E-04
-3.5000000e-01	1.048276E-04	3.408364E-05	1.249600E-04
-3.2500000e-01	5.523970E-05	1.799151E-05	5.555840E-05
-3.0000000e-01	2.845373E-05	9.394192E-06	2.354470E-05
-2.7500000e-01	1.440808E-05	4.878770E-06	9.667951E-06
-2.5000000e-01	7.217646E-06	2.540607E-06	3.917671E-06
-2.2500000e-01	3.608426E-06	1.343333E-06	1.610365E-06
-2.0000000e-01	1.824961E-06	7.351342E-07	7.040722E-07
-1.7500000e-01	9.538096E-07	4.274933E-07	3.518088E-07
-1.5000000e-01	5.312391E-07	2.717598E-07	2.143482E-07
-1.2500000e-01	3.264285E-07	1.922224E-07	1.590776E-07
-1.0000000e-01	2.262355E-07	1.506538E-07	1.350141E-07
-7.5000000e-02	1.758303E-07	1.278715E-07	1.227817E-07
-5.0000000e-02	1.489090E-07	1.143246E-07	1.150732E-07
-2.5000000e-02	1.332080E-07	1.054156E-07	1.091539E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[Ramp]

R\_load = 50.00Ohm

	typ	min	max
dV/dt_r	532.022mV/119.423ps	491.319mV/165.185ps	567.619mV/91.565ps
dV/dt_f	537.976mV/129.806ps	497.460mV/173.213ps	578.029mV/105.657ps

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[Rising Waveform]

V\_fixture = 1.500V

V\_fixture\_min = 1.425V

V\_fixture\_max = 1.575V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	6.1517E-01	5.8287E-01	6.5309E-01
1.00E-11	6.1517E-01	5.8287E-01	6.5309E-01

2.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
3.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
4.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
5.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
6.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
7.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
8.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
9.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
1.00E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.10E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.20E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.30E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.40E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.50E-10	6.1517E-01	5.8287E-01	6.5433E-01
1.60E-10	6.1517E-01	5.8287E-01	6.7845E-01
1.70E-10	6.1616E-01	5.8287E-01	7.4018E-01
1.80E-10	6.1820E-01	5.8287E-01	8.2854E-01
1.90E-10	6.2509E-01	5.8287E-01	9.2350E-01
2.00E-10	6.3360E-01	5.8287E-01	1.0035E+00
2.10E-10	6.5972E-01	5.8287E-01	1.0622E+00
2.20E-10	6.9277E-01	5.8287E-01	1.1021E+00
2.30E-10	7.4389E-01	5.8287E-01	1.1297E+00
2.40E-10	8.0329E-01	5.8287E-01	1.1507E+00
2.50E-10	8.6698E-01	5.8287E-01	1.1725E+00
2.60E-10	9.3293E-01	5.8587E-01	1.2084E+00
2.70E-10	9.8606E-01	5.8977E-01	1.2660E+00
2.80E-10	1.0314E+00	6.0015E-01	1.3332E+00
2.90E-10	1.0621E+00	6.1507E-01	1.4005E+00
3.00E-10	1.0875E+00	6.3422E-01	1.4575E+00
3.10E-10	1.1038E+00	6.6308E-01	1.5003E+00
3.20E-10	1.1186E+00	6.9542E-01	1.5292E+00
3.30E-10	1.1318E+00	7.3829E-01	1.5452E+00
3.40E-10	1.1488E+00	7.8359E-01	1.5589E+00
3.50E-10	1.1685E+00	8.3263E-01	1.5644E+00
3.60E-10	1.1961E+00	8.7994E-01	1.5690E+00
3.70E-10	1.2308E+00	9.2648E-01	1.5711E+00
3.80E-10	1.2708E+00	9.6220E-01	1.5725E+00
3.90E-10	1.3157E+00	9.9443E-01	1.5733E+00
4.00E-10	1.3592E+00	1.0179E+00	1.5737E+00
4.10E-10	1.3979E+00	1.0367E+00	1.5740E+00
4.20E-10	1.4283E+00	1.0518E+00	1.5741E+00
4.30E-10	1.4538E+00	1.0635E+00	1.5743E+00
4.40E-10	1.4683E+00	1.0745E+00	1.5743E+00
4.50E-10	1.4800E+00	1.0848E+00	1.5743E+00
4.60E-10	1.4870E+00	1.0962E+00	1.5743E+00
4.70E-10	1.4913E+00	1.1088E+00	1.5744E+00
4.80E-10	1.4943E+00	1.1255E+00	1.5744E+00
4.90E-10	1.4948E+00	1.1437E+00	1.5745E+00
5.00E-10	1.4953E+00	1.1618E+00	1.5746E+00
5.10E-10	1.4959E+00	1.1826E+00	1.5747E+00
5.20E-10	1.4965E+00	1.2089E+00	1.5747E+00
5.30E-10	1.4972E+00	1.2353E+00	1.5747E+00
5.40E-10	1.4979E+00	1.2616E+00	1.5748E+00
5.50E-10	1.4985E+00	1.2874E+00	1.5748E+00

5.60E-10	1.4988E+00	1.3132E+00	1.5748E+00
5.70E-10	1.4992E+00	1.3390E+00	1.5749E+00
5.80E-10	1.4995E+00	1.3572E+00	1.5749E+00
5.90E-10	1.4996E+00	1.3739E+00	1.5749E+00
6.00E-10	1.4997E+00	1.3906E+00	1.5749E+00
6.10E-10	1.4998E+00	1.4002E+00	1.5749E+00
6.20E-10	1.4999E+00	1.4076E+00	1.5749E+00
6.30E-10	1.4999E+00	1.4150E+00	1.5750E+00
6.40E-10	1.4999E+00	1.4175E+00	1.5750E+00
6.50E-10	1.4999E+00	1.4200E+00	1.5750E+00
6.60E-10	1.4999E+00	1.4220E+00	1.5750E+00
6.70E-10	1.4999E+00	1.4227E+00	1.5750E+00
6.80E-10	1.4999E+00	1.4234E+00	1.5750E+00
6.90E-10	1.4999E+00	1.4238E+00	1.5750E+00
7.00E-10	1.4999E+00	1.4240E+00	1.5750E+00
7.10E-10	1.4999E+00	1.4242E+00	1.5750E+00
7.20E-10	1.4999E+00	1.4243E+00	1.5750E+00
7.30E-10	1.4999E+00	1.4244E+00	1.5750E+00
7.40E-10	1.4999E+00	1.4244E+00	1.5750E+00
7.50E-10	1.5000E+00	1.4244E+00	1.5750E+00

[Falling Waveform]

V\_fixture = 1.500V

V\_fixture\_min = 1.425V

V\_fixture\_max = 1.575V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	1.5000E+00	1.4244E+00	1.5750E+00
1.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
2.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
3.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
4.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
5.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
6.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
7.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
8.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
9.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
1.00E-10	1.5000E+00	1.4244E+00	1.5750E+00
1.10E-10	1.5001E+00	1.4244E+00	1.5750E+00
1.20E-10	1.5005E+00	1.4244E+00	1.5750E+00
1.30E-10	1.5010E+00	1.4244E+00	1.5696E+00
1.40E-10	1.5019E+00	1.4244E+00	1.5421E+00
1.50E-10	1.5028E+00	1.4244E+00	1.5004E+00
1.60E-10	1.5039E+00	1.4244E+00	1.4462E+00
1.70E-10	1.5050E+00	1.4244E+00	1.3851E+00
1.80E-10	1.5044E+00	1.4244E+00	1.3205E+00
1.90E-10	1.5035E+00	1.4244E+00	1.2579E+00
2.00E-10	1.4916E+00	1.4244E+00	1.2013E+00
2.10E-10	1.4788E+00	1.4244E+00	1.1613E+00
2.20E-10	1.4542E+00	1.4244E+00	1.1320E+00
2.30E-10	1.4285E+00	1.4244E+00	1.1084E+00
2.40E-10	1.3937E+00	1.4244E+00	1.0868E+00

2.50E-10	1.3578E+00	1.4244E+00	1.0540E+00
2.60E-10	1.3171E+00	1.4218E+00	1.0067E+00
2.70E-10	1.2768E+00	1.4145E+00	9.4839E-01
2.80E-10	1.2375E+00	1.3990E+00	8.8192E-01
2.90E-10	1.2003E+00	1.3841E+00	8.2227E-01
3.00E-10	1.1674E+00	1.3619E+00	7.7341E-01
3.10E-10	1.1375E+00	1.3392E+00	7.3495E-01
3.20E-10	1.1123E+00	1.3125E+00	7.0687E-01
3.30E-10	1.0884E+00	1.2806E+00	6.9026E-01
3.40E-10	1.0662E+00	1.2558E+00	6.7865E-01
3.50E-10	1.0397E+00	1.2224E+00	6.7137E-01
3.60E-10	1.0097E+00	1.1987E+00	6.6791E-01
3.70E-10	9.7255E-01	1.1742E+00	6.6445E-01
3.80E-10	9.3100E-01	1.1523E+00	6.6187E-01
3.90E-10	8.8580E-01	1.1315E+00	6.5971E-01
4.00E-10	8.3897E-01	1.1120E+00	6.5755E-01
4.10E-10	7.9641E-01	1.0924E+00	6.5651E-01
4.20E-10	7.5515E-01	1.0749E+00	6.5547E-01
4.30E-10	7.2360E-01	1.0540E+00	6.5463E-01
4.40E-10	6.9391E-01	1.0344E+00	6.5421E-01
4.50E-10	6.7567E-01	1.0110E+00	6.5378E-01
4.60E-10	6.5854E-01	9.8237E-01	6.5353E-01
4.70E-10	6.4671E-01	9.5346E-01	6.5337E-01
4.80E-10	6.3926E-01	9.1790E-01	6.5321E-01
4.90E-10	6.3074E-01	8.7949E-01	6.5309E-01
5.00E-10	6.1517E-01	8.4341E-01	6.5309E-01
5.10E-10	6.1517E-01	8.0437E-01	6.5309E-01
5.20E-10	6.1517E-01	7.6818E-01	6.5309E-01
5.30E-10	6.1517E-01	7.3775E-01	6.5309E-01
5.40E-10	6.1517E-01	7.0888E-01	6.5309E-01
5.50E-10	6.1517E-01	6.8336E-01	6.5309E-01
5.60E-10	6.1517E-01	6.6440E-01	6.5309E-01
5.70E-10	6.1517E-01	6.4314E-01	6.5309E-01
5.80E-10	6.1517E-01	6.3327E-01	6.5309E-01
5.90E-10	6.1517E-01	6.1885E-01	6.5309E-01
6.00E-10	6.1517E-01	6.1028E-01	6.5309E-01
6.10E-10	6.1517E-01	6.0327E-01	6.5309E-01
6.20E-10	6.1517E-01	5.9567E-01	6.5309E-01
6.30E-10	6.1517E-01	5.9405E-01	6.5309E-01
6.40E-10	6.1517E-01	5.9090E-01	6.5309E-01
6.50E-10	6.1517E-01	5.8836E-01	6.5309E-01
6.60E-10	6.1517E-01	5.8633E-01	6.5309E-01
6.70E-10	6.1517E-01	5.8473E-01	6.5309E-01
6.80E-10	6.1517E-01	5.8287E-01	6.5309E-01
6.90E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.00E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.10E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.20E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.30E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.40E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.50E-10	6.1517E-01	5.8287E-01	6.5309E-01

[Rising Waveform]  
V\_fixture = 0.000V

V\_fixture\_min = 0.000V  
V\_fixture\_max = 0.000V  
R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	-3.6753E-04	7.2516E-04	2.8087E-05
1.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
2.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
3.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
4.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
5.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
6.00E-11	-3.6753E-04	7.2516E-04	1.0216E-04
7.00E-11	-3.6753E-04	7.2516E-04	1.9728E-04
8.00E-11	-3.6753E-04	7.2516E-04	2.7894E-04
9.00E-11	-3.6753E-04	7.2516E-04	2.8460E-04
1.00E-10	-3.6753E-04	7.2516E-04	2.9184E-04
1.10E-10	-3.6753E-04	7.2516E-04	1.1285E-03
1.20E-10	-3.6753E-04	7.2516E-04	2.7155E-03
1.30E-10	-3.6753E-04	7.2516E-04	5.0230E-03
1.40E-10	-3.6753E-04	7.2516E-04	7.3254E-03
1.50E-10	-3.6753E-04	7.2516E-04	8.7724E-03
1.60E-10	-3.6753E-04	7.2516E-04	1.1212E-02
1.70E-10	-3.6753E-04	7.2516E-04	4.6035E-02
1.80E-10	-3.6753E-04	7.2516E-04	9.9223E-02
1.90E-10	-3.6753E-04	7.2516E-04	1.6614E-01
2.00E-10	-3.6753E-04	7.2516E-04	2.3920E-01
2.10E-10	3.5736E-03	7.2516E-04	3.0948E-01
2.20E-10	2.0502E-02	7.2516E-04	3.6921E-01
2.30E-10	4.1697E-02	7.2516E-04	4.1553E-01
2.40E-10	7.5340E-02	7.2516E-04	4.4908E-01
2.50E-10	1.1331E-01	7.2516E-04	4.7338E-01
2.60E-10	1.5884E-01	7.2516E-04	4.9503E-01
2.70E-10	2.0668E-01	7.2516E-04	5.2442E-01
2.80E-10	2.5162E-01	7.2516E-04	5.7364E-01
2.90E-10	2.9581E-01	7.2516E-04	6.4440E-01
3.00E-10	3.3180E-01	5.8446E-03	7.2332E-01
3.10E-10	3.6594E-01	1.3532E-02	7.9061E-01
3.20E-10	3.9082E-01	2.2842E-02	8.4100E-01
3.30E-10	4.1397E-01	4.4064E-02	8.7560E-01
3.40E-10	4.3129E-01	6.5287E-02	8.9835E-01
3.50E-10	4.4771E-01	8.8005E-02	9.1275E-01
3.60E-10	4.6699E-01	1.1851E-01	9.2083E-01
3.70E-10	4.8661E-01	1.4901E-01	9.2762E-01
3.80E-10	5.2174E-01	1.7941E-01	9.3202E-01
3.90E-10	5.5826E-01	2.0939E-01	9.3546E-01
4.00E-10	6.0852E-01	2.3937E-01	9.3833E-01
4.10E-10	6.5962E-01	2.6803E-01	9.4087E-01
4.20E-10	7.0835E-01	2.9259E-01	9.4281E-01
4.30E-10	7.5701E-01	3.1716E-01	9.4428E-01
4.40E-10	7.8894E-01	3.3790E-01	9.4537E-01
4.50E-10	8.1785E-01	3.5587E-01	9.4606E-01
4.60E-10	8.3619E-01	3.7385E-01	9.4675E-01
4.70E-10	8.5094E-01	3.8729E-01	9.4744E-01



4.80E-10	8.6107E-01	4.0033E-01	9.4796E-01
4.90E-10	8.6825E-01	4.1330E-01	9.4812E-01
5.00E-10	8.7391E-01	4.2611E-01	9.4828E-01
5.10E-10	8.7730E-01	4.3892E-01	9.4845E-01
5.20E-10	8.8026E-01	4.5640E-01	9.4858E-01
5.30E-10	8.8222E-01	4.7710E-01	9.4859E-01
5.40E-10	8.8386E-01	4.9780E-01	9.4860E-01
5.50E-10	8.8486E-01	5.2989E-01	9.4860E-01
5.60E-10	8.8585E-01	5.6285E-01	9.4860E-01
5.70E-10	8.8684E-01	5.9689E-01	9.4860E-01
5.80E-10	8.8768E-01	6.3392E-01	9.4860E-01
5.90E-10	8.8847E-01	6.7095E-01	9.4860E-01
6.00E-10	8.8926E-01	7.0233E-01	9.4860E-01
6.10E-10	8.8998E-01	7.2999E-01	9.4860E-01
6.20E-10	8.9042E-01	7.5766E-01	9.4860E-01
6.30E-10	8.9086E-01	7.7515E-01	9.4860E-01
6.40E-10	8.9130E-01	7.9200E-01	9.4860E-01
6.50E-10	8.9157E-01	8.0477E-01	9.4860E-01
6.60E-10	8.9176E-01	8.1411E-01	9.4860E-01
6.70E-10	8.9194E-01	8.2282E-01	9.4860E-01
6.80E-10	8.9213E-01	8.2783E-01	9.4860E-01
6.90E-10	8.9232E-01	8.3284E-01	9.4860E-01
7.00E-10	8.9251E-01	8.3619E-01	9.4860E-01
7.10E-10	8.9269E-01	8.3899E-01	9.4860E-01
7.20E-10	8.9279E-01	8.4140E-01	9.4860E-01
7.30E-10	8.9282E-01	8.4312E-01	9.4860E-01
7.40E-10	8.9285E-01	8.4444E-01	9.4860E-01
7.50E-10	8.9288E-01	8.4444E-01	9.4860E-01

[Falling Waveform]

V\_fixture = 0.000V

V\_fixture\_min = 0.000V

V\_fixture\_max = 0.000V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	8.9297E-01	8.4444E-01	9.4842E-01
1.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
2.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
3.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
4.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
5.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
6.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
7.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
8.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
9.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
1.00E-10	8.9298E-01	8.4444E-01	9.4842E-01
1.10E-10	8.9307E-01	8.4444E-01	9.4842E-01
1.20E-10	8.9310E-01	8.4444E-01	9.4710E-01
1.30E-10	8.9298E-01	8.4444E-01	9.3543E-01
1.40E-10	8.9269E-01	8.4444E-01	9.1264E-01
1.50E-10	8.9153E-01	8.4444E-01	8.6501E-01
1.60E-10	8.9009E-01	8.4444E-01	7.9523E-01

1.70E-10	8.8619E-01	8.4444E-01	7.1623E-01
1.80E-10	8.8188E-01	8.4444E-01	6.3702E-01
1.90E-10	8.6797E-01	8.4444E-01	5.6822E-01
2.00E-10	8.5407E-01	8.4444E-01	5.1467E-01
2.10E-10	8.1907E-01	8.4444E-01	4.7745E-01
2.20E-10	7.8369E-01	8.4444E-01	4.5020E-01
2.30E-10	7.2759E-01	8.4356E-01	4.2700E-01
2.40E-10	6.6977E-01	8.4256E-01	4.0012E-01
2.50E-10	6.0883E-01	8.3977E-01	3.6152E-01
2.60E-10	5.4739E-01	8.3484E-01	3.0810E-01
2.70E-10	5.0056E-01	8.2675E-01	2.4581E-01
2.80E-10	4.5727E-01	8.1616E-01	1.8720E-01
2.90E-10	4.2858E-01	8.0426E-01	1.3866E-01
3.00E-10	4.0488E-01	7.8900E-01	9.9411E-02
3.10E-10	3.8513E-01	7.7410E-01	6.9027E-02
3.20E-10	3.6720E-01	7.4966E-01	4.8410E-02
3.30E-10	3.4529E-01	7.1605E-01	3.2789E-02
3.40E-10	3.2101E-01	6.7567E-01	2.0043E-02
3.50E-10	2.8958E-01	6.3059E-01	1.4012E-02
3.60E-10	2.5272E-01	5.9072E-01	8.0573E-03
3.70E-10	2.1376E-01	5.5071E-01	5.9996E-03
3.80E-10	1.7278E-01	5.1266E-01	3.9419E-03
3.90E-10	1.3552E-01	4.8164E-01	2.8692E-03
4.00E-10	1.0280E-01	4.5088E-01	2.1454E-03
4.10E-10	7.5449E-02	4.2586E-01	1.6064E-03
4.20E-10	5.6489E-02	4.0332E-01	1.2864E-03
4.30E-10	4.2244E-02	3.8157E-01	9.8729E-04
4.40E-10	3.1060E-02	3.6318E-01	7.8594E-04
4.50E-10	2.3597E-02	3.4438E-01	5.8459E-04
4.60E-10	1.8174E-02	3.2416E-01	3.8324E-04
4.70E-10	1.3964E-02	3.0378E-01	1.8189E-04
4.80E-10	1.1106E-02	2.8095E-01	9.6654E-05
4.90E-10	8.2484E-03	2.5556E-01	8.3885E-05
5.00E-10	5.8181E-03	2.3033E-01	7.1116E-05
5.10E-10	-3.6753E-04	1.9998E-01	5.8347E-05
5.20E-10	-3.6753E-04	1.7048E-01	4.5994E-05
5.30E-10	-3.6753E-04	1.4118E-01	4.0878E-05
5.40E-10	-3.6753E-04	1.1208E-01	3.5762E-05
5.50E-10	-3.6753E-04	8.5433E-02	3.0646E-05
5.60E-10	-3.6753E-04	6.4850E-02	2.8087E-05
5.70E-10	-3.6753E-04	4.4040E-02	2.8087E-05
5.80E-10	-3.6753E-04	3.2587E-02	2.8087E-05
5.90E-10	-3.6753E-04	2.2313E-02	2.8087E-05
6.00E-10	-3.6753E-04	1.4942E-02	2.8087E-05
6.10E-10	-3.6753E-04	1.1102E-02	2.8087E-05
6.20E-10	-3.6753E-04	7.2760E-03	2.8087E-05
6.30E-10	-3.6753E-04	5.9771E-03	2.8087E-05
6.40E-10	-3.6753E-04	4.6411E-03	2.8087E-05
6.50E-10	-3.6753E-04	3.7753E-03	2.8087E-05
6.60E-10	-3.6753E-04	3.2215E-03	2.8087E-05
6.70E-10	-3.6753E-04	2.7093E-03	2.8087E-05
6.80E-10	-3.6753E-04	2.3817E-03	2.8087E-05
6.90E-10	-3.6753E-04	2.0535E-03	2.8087E-05
7.00E-10	-3.6753E-04	1.7965E-03	2.8087E-05

7.10E-10	-3.6753E-04	1.5615E-03	2.8087E-05
7.20E-10	-3.6753E-04	1.3266E-03	2.8087E-05
7.30E-10	-3.6753E-04	7.2516E-04	2.8087E-05
7.40E-10	-3.6753E-04	7.2516E-04	2.8087E-05
7.50E-10	-3.6753E-04	7.2516E-04	2.8087E-05

\*\*\*\*\*

MODEL DQ\_34\_1600 (34 Ohm Data I/O with 30ohm ODT, 1333/1600 Mbps)

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[Model] DQ\_34\_ODT30\_1600

Model\_type I/O

Vinl = 600.000mV

Vinh = 900.000mV

Vmeas = 750.000mV

Vref = 750.000mV

Cref = 0.0pF

Rref = 25.000Ohm

	typ	min	max
C_comp	1.078pF	0.966pF	1.223pF

| Note: C\_comp changes when the ODT circuit is enabled.

[Model Spec]

| Input threshold voltage corners

Vinl	0.6000V	0.5625V	0.6375V
------	---------	---------	---------

Vinh	0.9000V	0.8625V	0.9375V
------	---------	---------	---------

| Measurement voltage corners

Vmeas	0.7500V	0.7125V	0.7875V
-------	---------	---------	---------

| Timing spec test load voltage corners

Vref	0.7500V	0.7125V	0.7875V
------	---------	---------	---------

| Dynamic Overshoot Parameters from DDR3 Specification

D_overshoot_ampl_h	0.40	NA	NA
--------------------	------	----	----

D_overshoot_ampl_l	0.40	NA	NA
--------------------	------	----	----

D_overshoot_area_h	0.13n	NA	NA
--------------------	-------	----	----

D_overshoot_area_l	0.13n	NA	NA
--------------------	-------	----	----

[[Receiver Thresholds]

|Vth = 0.750V

|Vth\_min = 0.7350V

|Vth\_max = 0.7650V

|Vinh\_ac = 0.150V

|Vinh\_dc = 0.100V

|Vinl\_ac = -0.150V

|Vinl\_dc = -0.100V

|Tslew\_ac = 5.000ns |Not specified, so set to high value

|Threshold\_sensitivity = 0.50

|Reference\_supply Pullup\_ref

[Add Submodel]

| Submodel Name      Mode  
30Ohm\_ODT      Non-Driving

[Voltage Range]      1.5000V      1.4250V      1.5750V  
[Pullup Reference]      1.5000V      1.4250V      1.5750V  
[Temperature Range]      85.0      110.0      0.0

\*\*\*\*\*

[Pulldown]

Voltage	I(typ)	I(min)	I(max)
-1.500000e+00	-6.717440E-03	-6.602220E-03	-5.1878E-03
-1.475000e+00	-6.950660E-03	-6.867910E-03	-5.4092E-03
-1.425000e+00	-7.420160E-03	-7.410640E-03	-5.8575E-03
-1.375000e+00	-7.891420E-03	-7.964120E-03	-6.3098E-03
-1.325000e+00	-8.362190E-03	-8.523980E-03	-6.7632E-03
-1.275000e+00	-8.830600E-03	-9.086830E-03	-7.2155E-03
-1.225000e+00	-9.295050E-03	-9.650090E-03	-7.6651E-03
-1.175000e+00	-9.754060E-03	-1.021176E-02	-8.1108E-03
-1.125000e+00	-1.020612E-02	-1.077025E-02	-8.5512E-03
-1.075000e+00	-1.064959E-02	-1.132418E-02	-8.9850E-03
-1.025000e+00	-1.108253E-02	-1.187221E-02	-9.4109E-03
-9.750000e-01	-1.150258E-02	-1.241292E-02	-9.8270E-03
-9.250000e-01	-1.190672E-02	-1.294440E-02	-1.0231E-02
-8.750000e-01	-1.229088E-02	-1.346358E-02	-1.0620E-02
-8.250000e-01	-1.264939E-02	-1.396484E-02	-1.0991E-02
-7.750000e-01	-1.297388E-02	-1.443730E-02	-1.1336E-02
-7.250000e-01	-1.325153E-02	-1.486077E-02	-1.1649E-02
-6.750000e-01	-1.346224E-02	-1.520128E-02	-1.1917E-02
-6.250000e-01	-1.357544E-02	-1.540771E-02	-1.2120E-02
-5.750000e-01	-1.354969E-02	-1.541129E-02	-1.2227E-02
-5.250000e-01	-1.333921E-02	-1.513126E-02	-1.2185E-02
-4.750000e-01	-1.290237E-02	-1.448995E-02	-1.1917E-02
-4.250000e-01	-1.219129E-02	-1.344440E-02	-1.1342E-02
-3.750000e-01	-1.115219E-02	-1.205672E-02	-1.0442E-02
-3.250000e-01	-9.820264E-03	-1.048922E-02	-9.2579E-03
-2.750000e-01	-8.341268E-03	-8.866406E-03	-7.8883E-03
-2.250000e-01	-6.822138E-03	-7.235947E-03	-6.4597E-03
-1.750000e-01	-5.298271E-03	-5.610770E-03	-5.0227E-03
-1.250000e-01	-3.777710E-03	-3.994334E-03	-3.5860E-03
-7.500000e-02	-2.262248E-03	-2.388040E-03	-2.1505E-03
-2.500000e-02	-7.525408E-04	-7.929693E-04	-7.1644E-04
0.000000e+00	-2.915900E-09	-3.333000E-10	-5.0570E-09
2.500000e-02	7.507199E-04	7.895269E-04	7.1589E-04
7.500000e-02	2.245917E-03	2.357110E-03	2.1456E-03
1.250000e-01	3.732365E-03	3.908392E-03	3.5725E-03
1.750000e-01	5.209520E-03	5.442055E-03	4.9965E-03
2.250000e-01	6.676783E-03	6.956634E-03	6.4174E-03
2.750000e-01	8.133496E-03	8.450479E-03	7.8352E-03
3.250000e-01	9.578923E-03	9.921721E-03	9.2496E-03
3.750000e-01	1.101226E-02	1.136822E-02	1.0661E-02

4.2500000e-01	1.243257E-02	1.278754E-02	1.2068E-02
4.7500000e-01	1.383888E-02	1.417683E-02	1.3472E-02
5.2500000e-01	1.523002E-02	1.553278E-02	1.4871E-02
5.7500000e-01	1.660471E-02	1.685160E-02	1.6267E-02
6.2500000e-01	1.796153E-02	1.812901E-02	1.7659E-02
6.7500000e-01	1.929892E-02	1.936079E-02	1.9046E-02
7.2500000e-01	2.061527E-02	2.054383E-02	2.0428E-02
7.7500000e-01	2.190915E-02	2.167702E-02	2.1805E-02
8.2500000e-01	2.317984E-02	2.276044E-02	2.3178E-02
8.7500000e-01	2.442765E-02	2.379315E-02	2.4544E-02
9.2500000e-01	2.565381E-02	2.477183E-02	2.5905E-02
9.7500000e-01	2.685955E-02	2.569073E-02	2.7261E-02
1.0250000e+00	2.804545E-02	2.654265E-02	2.8609E-02
1.0750000e+00	2.921123E-02	2.732059E-02	2.9951E-02
1.1250000e+00	3.035586E-02	2.802022E-02	3.1286E-02
1.1750000e+00	3.147763E-02	2.864222E-02	3.2613E-02
1.2250000e+00	3.257424E-02	2.919304E-02	3.3932E-02
1.2750000e+00	3.364280E-02	2.968331E-02	3.5242E-02
1.3250000e+00	3.467974E-02	3.012500E-02	3.6542E-02
1.3750000e+00	3.568083E-02	3.052912E-02	3.7832E-02
1.4250000e+00	3.664118E-02	3.090472E-02	3.9112E-02
1.4750000e+00	3.755541E-02	3.125876E-02	4.0379E-02
1.5250000e+00	3.841817E-02	3.159641E-02	4.1633E-02
1.5750000e+00	3.922484E-02	3.192149E-02	4.2873E-02
1.6250000e+00	3.997270E-02	3.223679E-02	4.4097E-02
1.6750000e+00	4.066185E-02	3.254442E-02	4.5303E-02
1.7250000e+00	4.129552E-02	3.284593E-02	4.6490E-02
1.7750000e+00	4.187958E-02	3.314250E-02	4.7654E-02
1.8250000e+00	4.242129E-02	3.343504E-02	4.8794E-02
1.8750000e+00	4.292808E-02	3.372428E-02	4.9905E-02
1.9250000e+00	4.340673E-02	3.401077E-02	5.0985E-02
1.9750000e+00	4.386296E-02	3.429496E-02	5.2029E-02
2.0250000e+00	4.430140E-02	3.457721E-02	5.3033E-02
2.0750000e+00	4.472568E-02	3.485782E-02	5.3993E-02
2.1250000e+00	4.513865E-02	3.513705E-02	5.4906E-02
2.1750000e+00	4.554252E-02	3.541511E-02	5.5769E-02
2.2250000e+00	4.593900E-02	3.569218E-02	5.6583E-02
2.2750000e+00	4.632944E-02	3.596843E-02	5.7349E-02
2.3250000e+00	4.671490E-02	3.624402E-02	5.8070E-02
2.3750000e+00	4.709624E-02	3.651910E-02	5.8752E-02
2.4250000e+00	4.747414E-02	3.679380E-02	5.9398E-02
2.4750000e+00	4.784918E-02	3.706830E-02	6.0016E-02
2.5250000e+00	4.822183E-02	3.734276E-02	6.0609E-02
2.5750000e+00	4.859248E-02	3.761735E-02	6.1181E-02
2.6250000e+00	4.896149E-02	3.789229E-02	6.1736E-02
2.6750000e+00	4.932914E-02	3.816783E-02	6.2277E-02
2.7250000e+00	4.969572E-02	3.844422E-02	6.2806E-02
2.7750000e+00	5.006148E-02	3.872180E-02	6.3326E-02
2.8250000e+00	5.042664E-02	3.900093E-02	6.3837E-02
2.8750000e+00	5.079141E-02	3.928204E-02	6.4342E-02
2.9250000e+00	5.115601E-02	3.956562E-02	6.4840E-02
2.9750000e+00	5.152066E-02	3.985223E-02	6.5334E-02
3.0000000e+00	5.170306E-02	3.999685E-02	6.5579E-02

[GND Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	-5.378351E-02	-5.490567E-02	-5.885698E-02
-1.4750000e+00	-5.231251E-02	-5.334431E-02	-5.735670E-02
-1.4500000e+00	-5.084369E-02	-5.178549E-02	-5.585777E-02
-1.4250000e+00	-4.937717E-02	-5.022938E-02	-5.436025E-02
-1.4000000e+00	-4.791309E-02	-4.867613E-02	-5.286424E-02
-1.3750000e+00	-4.645161E-02	-4.712594E-02	-5.136982E-02
-1.3500000e+00	-4.499289E-02	-4.557901E-02	-4.987708E-02
-1.3250000e+00	-4.353712E-02	-4.403556E-02	-4.838614E-02
-1.3000000e+00	-4.208452E-02	-4.249585E-02	-4.689710E-02
-1.2750000e+00	-4.063529E-02	-4.096014E-02	-4.541010E-02
-1.2500000e+00	-3.918970E-02	-3.942875E-02	-4.392527E-02
-1.2250000e+00	-3.774803E-02	-3.790201E-02	-4.244278E-02
-1.2000000e+00	-3.631059E-02	-3.638031E-02	-4.096280E-02
-1.1750000e+00	-3.487773E-02	-3.486408E-02	-3.948552E-02
-1.1500000e+00	-3.344986E-02	-3.335380E-02	-3.801116E-02
-1.1250000e+00	-3.202742E-02	-3.185003E-02	-3.653998E-02
-1.1000000e+00	-3.061092E-02	-3.035339E-02	-3.507226E-02
-1.0750000e+00	-2.920096E-02	-2.886462E-02	-3.360832E-02
-1.0500000e+00	-2.779821E-02	-2.738455E-02	-3.214854E-02
-1.0250000e+00	-2.640347E-02	-2.591415E-02	-3.069335E-02
-1.0000000e+00	-2.501766E-02	-2.445455E-02	-2.924328E-02
-9.7500000e-01	-2.364185E-02	-2.300708E-02	-2.779892E-02
-9.5000000e-01	-2.227732E-02	-2.157329E-02	-2.636102E-02
-9.2500000e-01	-2.092559E-02	-2.015501E-02	-2.493048E-02
-9.0000000e-01	-1.958843E-02	-1.875433E-02	-2.350840E-02
-8.7500000e-01	-1.826790E-02	-1.737363E-02	-2.209616E-02
-8.5000000e-01	-1.696631E-02	-1.601550E-02	-2.069550E-02
-8.2500000e-01	-1.568612E-02	-1.468262E-02	-1.930856E-02
-8.0000000e-01	-1.442972E-02	-1.337762E-02	-1.793782E-02
-7.7500000e-01	-1.319926E-02	-1.210311E-02	-1.658583E-02
-7.5000000e-01	-1.199673E-02	-1.086191E-02	-1.525450E-02
-7.2500000e-01	-1.082427E-02	-9.657411E-03	-1.394473E-02
-7.0000000e-01	-9.684638E-03	-8.493939E-03	-1.265685E-02
-6.7500000e-01	-8.581514E-03	-7.376930E-03	-1.139180E-02
-6.5000000e-01	-7.519607E-03	-6.312929E-03	-1.015194E-02
-6.2500000e-01	-6.504547E-03	-5.309438E-03	-8.941317E-03
-6.0000000e-01	-5.542688E-03	-4.374618E-03	-7.765734E-03
-5.7500000e-01	-4.640772E-03	-3.516890E-03	-6.632943E-03
-5.5000000e-01	-3.805524E-03	-2.744483E-03	-5.552944E-03
-5.2500000e-01	-3.043248E-03	-2.065103E-03	-4.538199E-03
-5.0000000e-01	-2.359647E-03	-1.485677E-03	-3.603410E-03
-4.7500000e-01	-1.760020E-03	-1.011779E-03	-2.764263E-03
-4.5000000e-01	-1.249702E-03	-6.458403E-04	-2.034714E-03
-4.2500000e-01	-8.339835E-04	-3.838582E-04	-1.423543E-03
-4.0000000e-01	-5.162389E-04	-2.125448E-04	-9.327585E-04
-3.7500000e-01	-2.937329E-04	-1.106466E-04	-5.596314E-04
-3.5000000e-01	-1.537279E-04	-5.497263E-05	-2.989521E-04
-3.2500000e-01	-7.493357E-05	-2.649171E-05	-1.392980E-04
-3.0000000e-01	-3.471511E-05	-1.256760E-05	-5.693623E-05
-2.7500000e-01	-1.563019E-05	-5.952723E-06	-2.113740E-05
-2.5000000e-01	-7.001335E-06	-2.863206E-06	-7.478892E-06
-2.2500000e-01	-3.215160E-06	-1.433628E-06	-2.669240E-06

-2.0000000e-01	-1.576700E-06	-7.729597E-07	-1.039346E-06
-1.7500000e-01	-8.691669E-07	-4.659048E-07	-4.927419E-07
-1.5000000e-01	-5.602970E-07	-3.210513E-07	-3.060998E-07
-1.2500000e-01	-4.211770E-07	-2.506183E-07	-2.379530E-07
-1.0000000e-01	-3.542844E-07	-2.144259E-07	-2.089398E-07
-7.5000000e-02	-3.182781E-07	-1.940781E-07	-1.931385E-07
-5.0000000e-02	-2.956734E-07	-1.811414E-07	-1.820761E-07
-2.5000000e-02	-2.790923E-07	-1.717494E-07	-1.729560E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[Pullup]

-1.5000000e+00	1.625201E-02	1.758608E-02	1.5776E-02
-1.4750000e+00	1.628295E-02	1.772293E-02	1.5794E-02
-1.4250000e+00	1.631167E-02	1.794814E-02	1.5819E-02
-1.3750000e+00	1.630625E-02	1.810214E-02	1.5832E-02
-1.3250000e+00	1.628177E-02	1.818331E-02	1.5836E-02
-1.2750000e+00	1.625213E-02	1.819962E-02	1.5830E-02
-1.2250000e+00	1.622498E-02	1.816850E-02	1.5814E-02
-1.1750000e+00	1.620031E-02	1.811351E-02	1.5786E-02
-1.1250000e+00	1.617356E-02	1.805794E-02	1.5746E-02
-1.0750000e+00	1.613984E-02	1.801572E-02	1.5692E-02
-1.0250000e+00	1.609584E-02	1.798687E-02	1.5624E-02
-9.7500000e-01	1.603981E-02	1.796321E-02	1.5542E-02
-9.2500000e-01	1.597095E-02	1.793695E-02	1.5444E-02
-8.7500000e-01	1.588883E-02	1.790371E-02	1.5331E-02
-8.2500000e-01	1.579281E-02	1.786161E-02	1.5200E-02
-7.7500000e-01	1.568160E-02	1.780891E-02	1.5050E-02
-7.2500000e-01	1.555266E-02	1.774030E-02	1.4877E-02
-6.7500000e-01	1.540100E-02	1.763919E-02	1.4677E-02
-6.2500000e-01	1.521657E-02	1.746424E-02	1.4440E-02
-5.7500000e-01	1.497687E-02	1.713549E-02	1.4152E-02
-5.2500000e-01	1.462952E-02	1.653605E-02	1.3790E-02
-4.7500000e-01	1.407045E-02	1.555591E-02	1.3303E-02
-4.2500000e-01	1.317055E-02	1.420030E-02	1.2595E-02
-3.7500000e-01	1.190475E-02	1.261585E-02	1.1528E-02
-3.2500000e-01	1.040962E-02	1.094206E-02	1.0132E-02
-2.7500000e-01	8.825733E-03	9.244475E-03	8.6004E-03
-2.2500000e-01	7.217759E-03	7.545941E-03	7.0379E-03
-1.7500000e-01	5.606827E-03	5.853537E-03	5.4714E-03
-1.2500000e-01	3.998885E-03	4.169432E-03	3.9059E-03
-7.5000000e-02	2.395513E-03	2.494429E-03	2.3421E-03
-2.5000000e-02	7.971932E-04	8.289974E-04	7.8023E-04
0.0000000e+00	1.314700E-09	4.692000E-10	3.0652E-09
2.5000000e-02	-7.950502E-04	-8.253549E-04	-7.7920E-04
7.5000000e-02	-2.376138E-03	-2.461490E-03	-2.3328E-03
1.2500000e-01	-3.944794E-03	-4.077442E-03	-3.8799E-03
1.7500000e-01	-5.500495E-03	-5.672260E-03	-5.4201E-03
2.2500000e-01	-7.042695E-03	-7.244932E-03	-6.9533E-03
2.7500000e-01	-8.570810E-03	-8.794375E-03	-8.4790E-03
3.2500000e-01	-1.008422E-02	-1.031943E-02	-9.9969E-03
3.7500000e-01	-1.158229E-02	-1.181885E-02	-1.1507E-02
4.2500000e-01	-1.306431E-02	-1.329132E-02	-1.3008E-02
4.7500000e-01	-1.452955E-02	-1.473539E-02	-1.4501E-02

5.2500000e-01	-1.597724E-02	-1.614954E-02	-1.5984E-02
5.7500000e-01	-1.740654E-02	-1.753210E-02	-1.7458E-02
6.2500000e-01	-1.881658E-02	-1.888132E-02	-1.8922E-02
6.7500000e-01	-2.020643E-02	-2.019527E-02	-2.0375E-02
7.2500000e-01	-2.157509E-02	-2.147192E-02	-2.1818E-02
7.7500000e-01	-2.292153E-02	-2.270910E-02	-2.3248E-02
8.2500000e-01	-2.424464E-02	-2.390455E-02	-2.4667E-02
8.7500000e-01	-2.554331E-02	-2.505603E-02	-2.6073E-02
9.2500000e-01	-2.681638E-02	-2.616144E-02	-2.7466E-02
9.7500000e-01	-2.806279E-02	-2.721907E-02	-2.8845E-02
1.0250000e+00	-2.928162E-02	-2.822778E-02	-3.0209E-02
1.0750000e+00	-3.047224E-02	-2.918687E-02	-3.1559E-02
1.1250000e+00	-3.163441E-02	-3.009551E-02	-3.2895E-02
1.1750000e+00	-3.276817E-02	-3.095232E-02	-3.4215E-02
1.2250000e+00	-3.387345E-02	-3.175524E-02	-3.5520E-02
1.2750000e+00	-3.494986E-02	-3.250183E-02	-3.6810E-02
1.3250000e+00	-3.599648E-02	-3.318993E-02	-3.8084E-02
1.3750000e+00	-3.701195E-02	-3.381867E-02	-3.9341E-02
1.4250000e+00	-3.799445E-02	-3.438959E-02	-4.0581E-02
1.4750000e+00	-3.894176E-02	-3.490743E-02	-4.1802E-02
1.5250000e+00	-3.985132E-02	-3.537965E-02	-4.3004E-02
1.5750000e+00	-4.072029E-02	-3.581474E-02	-4.4185E-02
1.6250000e+00	-4.154560E-02	-3.622056E-02	-4.5343E-02
1.6750000e+00	-4.232425E-02	-3.660353E-02	-4.6476E-02
1.7250000e+00	-4.305363E-02	-3.696849E-02	-4.7583E-02
1.7750000e+00	-4.373217E-02	-3.731908E-02	-4.8662E-02
1.8250000e+00	-4.436015E-02	-3.765800E-02	-4.9709E-02
1.8750000e+00	-4.494020E-02	-3.798729E-02	-5.0722E-02
1.9250000e+00	-4.547717E-02	-3.830853E-02	-5.1698E-02
1.9750000e+00	-4.597727E-02	-3.862293E-02	-5.2633E-02
2.0250000e+00	-4.644684E-02	-3.893148E-02	-5.3524E-02
2.0750000e+00	-4.689156E-02	-3.923498E-02	-5.4367E-02
2.1250000e+00	-4.731609E-02	-3.953408E-02	-5.5160E-02
2.1750000e+00	-4.772413E-02	-3.982931E-02	-5.5900E-02
2.2250000e+00	-4.811854E-02	-4.012115E-02	-5.6590E-02
2.2750000e+00	-4.850161E-02	-4.040997E-02	-5.7231E-02
2.3250000e+00	-4.887508E-02	-4.069609E-02	-5.7830E-02
2.3750000e+00	-4.924037E-02	-4.097982E-02	-5.8391E-02
2.4250000e+00	-4.959862E-02	-4.126137E-02	-5.8920E-02
2.4750000e+00	-4.995076E-02	-4.154098E-02	-5.9424E-02
2.5250000e+00	-5.029755E-02	-4.181883E-02	-5.9906E-02
2.5750000e+00	-5.063964E-02	-4.209509E-02	-6.0370E-02
2.6250000e+00	-5.097758E-02	-4.236990E-02	-6.0819E-02
2.6750000e+00	-5.131181E-02	-4.264339E-02	-6.1255E-02
2.7250000e+00	-5.164272E-02	-4.291571E-02	-6.1681E-02
2.7750000e+00	-5.197066E-02	-4.318692E-02	-6.2098E-02
2.8250000e+00	-5.229592E-02	-4.345715E-02	-6.2507E-02
2.8750000e+00	-5.261875E-02	-4.372646E-02	-6.2909E-02
2.9250000e+00	-5.293944E-02	-4.399496E-02	-6.3305E-02
2.9750000e+00	-5.325809E-02	-4.426273E-02	-6.3695E-02
3.0000000e+00	-5.341670E-02	-4.439634E-02	-6.3889E-02

[POWER Clamp]

Voltage	I(typ)	I(min)	I(max)
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-1.5000000e+00	4.450136E-02	4.385767E-02	4.780180E-02
-1.4750000e+00	4.325737E-02	4.248503E-02	4.651240E-02
-1.4500000e+00	4.202627E-02	4.113177E-02	4.522925E-02
-1.4250000e+00	4.080680E-02	3.979850E-02	4.395155E-02
-1.4000000e+00	3.959743E-02	3.848563E-02	4.267872E-02
-1.3750000e+00	3.839648E-02	3.719324E-02	4.141043E-02
-1.3500000e+00	3.720221E-02	3.592106E-02	4.014658E-02
-1.3250000e+00	3.601296E-02	3.466841E-02	3.888724E-02
-1.3000000e+00	3.482735E-02	3.343415E-02	3.763261E-02
-1.2750000e+00	3.364438E-02	3.221669E-02	3.638295E-02
-1.2500000e+00	3.246358E-02	3.101397E-02	3.513856E-02
-1.2250000e+00	3.128497E-02	2.982356E-02	3.389971E-02
-1.2000000e+00	3.010901E-02	2.864279E-02	3.266671E-02
-1.1750000e+00	2.893648E-02	2.746896E-02	3.143983E-02
-1.1500000e+00	2.776826E-02	2.629964E-02	3.021937E-02
-1.1250000e+00	2.660528E-02	2.513304E-02	2.900560E-02
-1.1000000e+00	2.544841E-02	2.396824E-02	2.779885E-02
-1.0750000e+00	2.429844E-02	2.280536E-02	2.659947E-02
-1.0500000e+00	2.315612E-02	2.164543E-02	2.540788E-02
-1.0250000e+00	2.202214E-02	2.049007E-02	2.422456E-02
-1.0000000e+00	2.089719E-02	1.934117E-02	2.305008E-02
-9.7500000e-01	1.978197E-02	1.820065E-02	2.188512E-02
-9.5000000e-01	1.867722E-02	1.707028E-02	2.073051E-02
-9.2500000e-01	1.758372E-02	1.595172E-02	1.958717E-02
-9.0000000e-01	1.650228E-02	1.484648E-02	1.845617E-02
-8.7500000e-01	1.543373E-02	1.375596E-02	1.733861E-02
-8.5000000e-01	1.437889E-02	1.268153E-02	1.623552E-02
-8.2500000e-01	1.333851E-02	1.162449E-02	1.514771E-02
-8.0000000e-01	1.231328E-02	1.058622E-02	1.407560E-02
-7.7500000e-01	1.130388E-02	9.568206E-03	1.301920E-02
-7.5000000e-01	1.031106E-02	8.572276E-03	1.197826E-02
-7.2500000e-01	9.335806E-03	7.600753E-03	1.095255E-02
-7.0000000e-01	8.379549E-03	6.656721E-03	9.942208E-03
-6.7500000e-01	7.444326E-03	5.744302E-03	8.947907E-03
-6.5000000e-01	6.532997E-03	4.868952E-03	7.971037E-03
-6.2500000e-01	5.649458E-03	4.037787E-03	7.013856E-03
-6.0000000e-01	4.798902E-03	3.259897E-03	6.079694E-03
-5.7500000e-01	3.988134E-03	2.546530E-03	5.173232E-03
-5.5000000e-01	3.225930E-03	1.910856E-03	4.300898E-03
-5.2500000e-01	2.523332E-03	1.366712E-03	3.471435E-03
-5.0000000e-01	1.893615E-03	9.256050E-04	2.696669E-03
-4.7500000e-01	1.351332E-03	5.919303E-04	1.992344E-03
-4.5000000e-01	9.095438E-04	3.586832E-04	1.378411E-03
-4.2500000e-01	5.747929E-04	2.078355E-04	8.770334E-04
-4.0000000e-01	3.418453E-04	1.164218E-04	5.053061E-04
-3.7500000e-01	1.930954E-04	6.360210E-05	2.627362E-04
-3.5000000e-01	1.048276E-04	3.408364E-05	1.249600E-04
-3.2500000e-01	5.523970E-05	1.799151E-05	5.555840E-05
-3.0000000e-01	2.845373E-05	9.394192E-06	2.354470E-05
-2.7500000e-01	1.440808E-05	4.878770E-06	9.667951E-06
-2.5000000e-01	7.217646E-06	2.540607E-06	3.917671E-06
-2.2500000e-01	3.608426E-06	1.343333E-06	1.610365E-06
-2.0000000e-01	1.824961E-06	7.351342E-07	7.040722E-07
-1.7500000e-01	9.538096E-07	4.274933E-07	3.518088E-07

-1.5000000e-01	5.312391E-07	2.717598E-07	2.143482E-07
-1.2500000e-01	3.264285E-07	1.922224E-07	1.590776E-07
-1.0000000e-01	2.262355E-07	1.506538E-07	1.350141E-07
-7.5000000e-02	1.758303E-07	1.278715E-07	1.227817E-07
-5.0000000e-02	1.489090E-07	1.143246E-07	1.150732E-07
-2.5000000e-02	1.332080E-07	1.054156E-07	1.091539E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[Ramp]

R\_load = 50.00Ohm

	typ	min	max
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dV/dt_r	532.022mV/119.423ps	491.319mV/165.185ps	567.619mV/91.565ps
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dV/dt_f	537.976mV/129.806ps	497.460mV/173.213ps	578.029mV/105.657ps
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[Rising Waveform]

V\_fixture = 1.500V

V\_fixture\_min = 1.425V

V\_fixture\_max = 1.575V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	6.1517E-01	5.8287E-01	6.5309E-01
1.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
2.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
3.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
4.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
5.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
6.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
7.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
8.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
9.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
1.00E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.10E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.20E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.30E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.40E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.50E-10	6.1517E-01	5.8287E-01	6.5433E-01
1.60E-10	6.1517E-01	5.8287E-01	6.7845E-01
1.70E-10	6.1616E-01	5.8287E-01	7.4018E-01
1.80E-10	6.1820E-01	5.8287E-01	8.2854E-01
1.90E-10	6.2509E-01	5.8287E-01	9.2350E-01
2.00E-10	6.3360E-01	5.8287E-01	1.0035E+00
2.10E-10	6.5972E-01	5.8287E-01	1.0622E+00
2.20E-10	6.9277E-01	5.8287E-01	1.1021E+00
2.30E-10	7.4389E-01	5.8287E-01	1.1297E+00
2.40E-10	8.0329E-01	5.8287E-01	1.1507E+00
2.50E-10	8.6698E-01	5.8287E-01	1.1725E+00
2.60E-10	9.3293E-01	5.8587E-01	1.2084E+00
2.70E-10	9.8606E-01	5.8977E-01	1.2660E+00

2.80E-10	1.0314E+00	6.0015E-01	1.3332E+00
2.90E-10	1.0621E+00	6.1507E-01	1.4005E+00
3.00E-10	1.0875E+00	6.3422E-01	1.4575E+00
3.10E-10	1.1038E+00	6.6308E-01	1.5003E+00
3.20E-10	1.1186E+00	6.9542E-01	1.5292E+00
3.30E-10	1.1318E+00	7.3829E-01	1.5452E+00
3.40E-10	1.1488E+00	7.8359E-01	1.5589E+00
3.50E-10	1.1685E+00	8.3263E-01	1.5644E+00
3.60E-10	1.1961E+00	8.7994E-01	1.5690E+00
3.70E-10	1.2308E+00	9.2648E-01	1.5711E+00
3.80E-10	1.2708E+00	9.6220E-01	1.5725E+00
3.90E-10	1.3157E+00	9.9443E-01	1.5733E+00
4.00E-10	1.3592E+00	1.0179E+00	1.5737E+00
4.10E-10	1.3979E+00	1.0367E+00	1.5740E+00
4.20E-10	1.4283E+00	1.0518E+00	1.5741E+00
4.30E-10	1.4538E+00	1.0635E+00	1.5743E+00
4.40E-10	1.4683E+00	1.0745E+00	1.5743E+00
4.50E-10	1.4800E+00	1.0848E+00	1.5743E+00
4.60E-10	1.4870E+00	1.0962E+00	1.5743E+00
4.70E-10	1.4913E+00	1.1088E+00	1.5744E+00
4.80E-10	1.4943E+00	1.1255E+00	1.5744E+00
4.90E-10	1.4948E+00	1.1437E+00	1.5745E+00
5.00E-10	1.4953E+00	1.1618E+00	1.5746E+00
5.10E-10	1.4959E+00	1.1826E+00	1.5747E+00
5.20E-10	1.4965E+00	1.2089E+00	1.5747E+00
5.30E-10	1.4972E+00	1.2353E+00	1.5747E+00
5.40E-10	1.4979E+00	1.2616E+00	1.5748E+00
5.50E-10	1.4985E+00	1.2874E+00	1.5748E+00
5.60E-10	1.4988E+00	1.3132E+00	1.5748E+00
5.70E-10	1.4992E+00	1.3390E+00	1.5749E+00
5.80E-10	1.4995E+00	1.3572E+00	1.5749E+00
5.90E-10	1.4996E+00	1.3739E+00	1.5749E+00
6.00E-10	1.4997E+00	1.3906E+00	1.5749E+00
6.10E-10	1.4998E+00	1.4002E+00	1.5749E+00
6.20E-10	1.4999E+00	1.4076E+00	1.5749E+00
6.30E-10	1.4999E+00	1.4150E+00	1.5750E+00
6.40E-10	1.4999E+00	1.4175E+00	1.5750E+00
6.50E-10	1.4999E+00	1.4200E+00	1.5750E+00
6.60E-10	1.4999E+00	1.4220E+00	1.5750E+00
6.70E-10	1.4999E+00	1.4227E+00	1.5750E+00
6.80E-10	1.4999E+00	1.4234E+00	1.5750E+00
6.90E-10	1.4999E+00	1.4238E+00	1.5750E+00
7.00E-10	1.4999E+00	1.4240E+00	1.5750E+00
7.10E-10	1.4999E+00	1.4242E+00	1.5750E+00
7.20E-10	1.4999E+00	1.4243E+00	1.5750E+00
7.30E-10	1.4999E+00	1.4244E+00	1.5750E+00
7.40E-10	1.4999E+00	1.4244E+00	1.5750E+00
7.50E-10	1.5000E+00	1.4244E+00	1.5750E+00

[Falling Waveform]

V\_fixture = 1.500V

V\_fixture\_min = 1.425V

V\_fixture\_max = 1.575V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	1.5000E+00	1.4244E+00	1.5750E+00
1.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
2.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
3.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
4.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
5.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
6.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
7.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
8.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
9.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
1.00E-10	1.5000E+00	1.4244E+00	1.5750E+00
1.10E-10	1.5001E+00	1.4244E+00	1.5750E+00
1.20E-10	1.5005E+00	1.4244E+00	1.5750E+00
1.30E-10	1.5010E+00	1.4244E+00	1.5696E+00
1.40E-10	1.5019E+00	1.4244E+00	1.5421E+00
1.50E-10	1.5028E+00	1.4244E+00	1.5004E+00
1.60E-10	1.5039E+00	1.4244E+00	1.4462E+00
1.70E-10	1.5050E+00	1.4244E+00	1.3851E+00
1.80E-10	1.5044E+00	1.4244E+00	1.3205E+00
1.90E-10	1.5035E+00	1.4244E+00	1.2579E+00
2.00E-10	1.4916E+00	1.4244E+00	1.2013E+00
2.10E-10	1.4788E+00	1.4244E+00	1.1613E+00
2.20E-10	1.4542E+00	1.4244E+00	1.1320E+00
2.30E-10	1.4285E+00	1.4244E+00	1.1084E+00
2.40E-10	1.3937E+00	1.4244E+00	1.0868E+00
2.50E-10	1.3578E+00	1.4244E+00	1.0540E+00
2.60E-10	1.3171E+00	1.4218E+00	1.0067E+00
2.70E-10	1.2768E+00	1.4145E+00	9.4839E-01
2.80E-10	1.2375E+00	1.3990E+00	8.8192E-01
2.90E-10	1.2003E+00	1.3841E+00	8.2227E-01
3.00E-10	1.1674E+00	1.3619E+00	7.7341E-01
3.10E-10	1.1375E+00	1.3392E+00	7.3495E-01
3.20E-10	1.1123E+00	1.3125E+00	7.0687E-01
3.30E-10	1.0884E+00	1.2806E+00	6.9026E-01
3.40E-10	1.0662E+00	1.2558E+00	6.7865E-01
3.50E-10	1.0397E+00	1.2224E+00	6.7137E-01
3.60E-10	1.0097E+00	1.1987E+00	6.6791E-01
3.70E-10	9.7255E-01	1.1742E+00	6.6445E-01
3.80E-10	9.3100E-01	1.1523E+00	6.6187E-01
3.90E-10	8.8580E-01	1.1315E+00	6.5971E-01
4.00E-10	8.3897E-01	1.1120E+00	6.5755E-01
4.10E-10	7.9641E-01	1.0924E+00	6.5651E-01
4.20E-10	7.5515E-01	1.0749E+00	6.5547E-01
4.30E-10	7.2360E-01	1.0540E+00	6.5463E-01
4.40E-10	6.9391E-01	1.0344E+00	6.5421E-01
4.50E-10	6.7567E-01	1.0110E+00	6.5378E-01
4.60E-10	6.5854E-01	9.8237E-01	6.5353E-01
4.70E-10	6.4671E-01	9.5346E-01	6.5337E-01
4.80E-10	6.3926E-01	9.1790E-01	6.5321E-01
4.90E-10	6.3074E-01	8.7949E-01	6.5309E-01
5.00E-10	6.1517E-01	8.4341E-01	6.5309E-01

5.10E-10	6.1517E-01	8.0437E-01	6.5309E-01
5.20E-10	6.1517E-01	7.6818E-01	6.5309E-01
5.30E-10	6.1517E-01	7.3775E-01	6.5309E-01
5.40E-10	6.1517E-01	7.0888E-01	6.5309E-01
5.50E-10	6.1517E-01	6.8336E-01	6.5309E-01
5.60E-10	6.1517E-01	6.6440E-01	6.5309E-01
5.70E-10	6.1517E-01	6.4314E-01	6.5309E-01
5.80E-10	6.1517E-01	6.3327E-01	6.5309E-01
5.90E-10	6.1517E-01	6.1885E-01	6.5309E-01
6.00E-10	6.1517E-01	6.1028E-01	6.5309E-01
6.10E-10	6.1517E-01	6.0327E-01	6.5309E-01
6.20E-10	6.1517E-01	5.9567E-01	6.5309E-01
6.30E-10	6.1517E-01	5.9405E-01	6.5309E-01
6.40E-10	6.1517E-01	5.9090E-01	6.5309E-01
6.50E-10	6.1517E-01	5.8836E-01	6.5309E-01
6.60E-10	6.1517E-01	5.8633E-01	6.5309E-01
6.70E-10	6.1517E-01	5.8473E-01	6.5309E-01
6.80E-10	6.1517E-01	5.8287E-01	6.5309E-01
6.90E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.00E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.10E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.20E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.30E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.40E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.50E-10	6.1517E-01	5.8287E-01	6.5309E-01

[Rising Waveform]

V\_fixture = 0.000V

V\_fixture\_min = 0.000V

V\_fixture\_max = 0.000V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	-3.6753E-04	7.2516E-04	2.8087E-05
1.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
2.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
3.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
4.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
5.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
6.00E-11	-3.6753E-04	7.2516E-04	1.0216E-04
7.00E-11	-3.6753E-04	7.2516E-04	1.9728E-04
8.00E-11	-3.6753E-04	7.2516E-04	2.7894E-04
9.00E-11	-3.6753E-04	7.2516E-04	2.8460E-04
1.00E-10	-3.6753E-04	7.2516E-04	2.9184E-04
1.10E-10	-3.6753E-04	7.2516E-04	1.1285E-03
1.20E-10	-3.6753E-04	7.2516E-04	2.7155E-03
1.30E-10	-3.6753E-04	7.2516E-04	5.0230E-03
1.40E-10	-3.6753E-04	7.2516E-04	7.3254E-03
1.50E-10	-3.6753E-04	7.2516E-04	8.7724E-03
1.60E-10	-3.6753E-04	7.2516E-04	1.1212E-02
1.70E-10	-3.6753E-04	7.2516E-04	4.6035E-02
1.80E-10	-3.6753E-04	7.2516E-04	9.9223E-02
1.90E-10	-3.6753E-04	7.2516E-04	1.6614E-01

2.00E-10	-3.6753E-04	7.2516E-04	2.3920E-01
2.10E-10	3.5736E-03	7.2516E-04	3.0948E-01
2.20E-10	2.0502E-02	7.2516E-04	3.6921E-01
2.30E-10	4.1697E-02	7.2516E-04	4.1553E-01
2.40E-10	7.5340E-02	7.2516E-04	4.4908E-01
2.50E-10	1.1331E-01	7.2516E-04	4.7338E-01
2.60E-10	1.5884E-01	7.2516E-04	4.9503E-01
2.70E-10	2.0668E-01	7.2516E-04	5.2442E-01
2.80E-10	2.5162E-01	7.2516E-04	5.7364E-01
2.90E-10	2.9581E-01	7.2516E-04	6.4440E-01
3.00E-10	3.3180E-01	5.8446E-03	7.2332E-01
3.10E-10	3.6594E-01	1.3532E-02	7.9061E-01
3.20E-10	3.9082E-01	2.2842E-02	8.4100E-01
3.30E-10	4.1397E-01	4.4064E-02	8.7560E-01
3.40E-10	4.3129E-01	6.5287E-02	8.9835E-01
3.50E-10	4.4771E-01	8.8005E-02	9.1275E-01
3.60E-10	4.6699E-01	1.1851E-01	9.2083E-01
3.70E-10	4.8661E-01	1.4901E-01	9.2762E-01
3.80E-10	5.2174E-01	1.7941E-01	9.3202E-01
3.90E-10	5.5826E-01	2.0939E-01	9.3546E-01
4.00E-10	6.0852E-01	2.3937E-01	9.3833E-01
4.10E-10	6.5962E-01	2.6803E-01	9.4087E-01
4.20E-10	7.0835E-01	2.9259E-01	9.4281E-01
4.30E-10	7.5701E-01	3.1716E-01	9.4428E-01
4.40E-10	7.8894E-01	3.3790E-01	9.4537E-01
4.50E-10	8.1785E-01	3.5587E-01	9.4606E-01
4.60E-10	8.3619E-01	3.7385E-01	9.4675E-01
4.70E-10	8.5094E-01	3.8729E-01	9.4744E-01
4.80E-10	8.6107E-01	4.0033E-01	9.4796E-01
4.90E-10	8.6825E-01	4.1330E-01	9.4812E-01
5.00E-10	8.7391E-01	4.2611E-01	9.4828E-01
5.10E-10	8.7730E-01	4.3892E-01	9.4845E-01
5.20E-10	8.8026E-01	4.5640E-01	9.4858E-01
5.30E-10	8.8222E-01	4.7710E-01	9.4859E-01
5.40E-10	8.8386E-01	4.9780E-01	9.4860E-01
5.50E-10	8.8486E-01	5.2989E-01	9.4860E-01
5.60E-10	8.8585E-01	5.6285E-01	9.4860E-01
5.70E-10	8.8684E-01	5.9689E-01	9.4860E-01
5.80E-10	8.8768E-01	6.3392E-01	9.4860E-01
5.90E-10	8.8847E-01	6.7095E-01	9.4860E-01
6.00E-10	8.8926E-01	7.0233E-01	9.4860E-01
6.10E-10	8.8998E-01	7.2999E-01	9.4860E-01
6.20E-10	8.9042E-01	7.5766E-01	9.4860E-01
6.30E-10	8.9086E-01	7.7515E-01	9.4860E-01
6.40E-10	8.9130E-01	7.9200E-01	9.4860E-01
6.50E-10	8.9157E-01	8.0477E-01	9.4860E-01
6.60E-10	8.9176E-01	8.1411E-01	9.4860E-01
6.70E-10	8.9194E-01	8.2282E-01	9.4860E-01
6.80E-10	8.9213E-01	8.2783E-01	9.4860E-01
6.90E-10	8.9232E-01	8.3284E-01	9.4860E-01
7.00E-10	8.9251E-01	8.3619E-01	9.4860E-01
7.10E-10	8.9269E-01	8.3899E-01	9.4860E-01
7.20E-10	8.9279E-01	8.4140E-01	9.4860E-01
7.30E-10	8.9282E-01	8.4312E-01	9.4860E-01

7.40E-10 8.9285E-01 8.4444E-01 9.4860E-01  
7.50E-10 8.9288E-01 8.4444E-01 9.4860E-01

[Falling Waveform]

V\_fixture = 0.000V

V\_fixture\_min = 0.000V

V\_fixture\_max = 0.000V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	8.9297E-01	8.4444E-01	9.4842E-01
1.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
2.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
3.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
4.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
5.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
6.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
7.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
8.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
9.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
1.00E-10	8.9298E-01	8.4444E-01	9.4842E-01
1.10E-10	8.9307E-01	8.4444E-01	9.4842E-01
1.20E-10	8.9310E-01	8.4444E-01	9.4710E-01
1.30E-10	8.9298E-01	8.4444E-01	9.3543E-01
1.40E-10	8.9269E-01	8.4444E-01	9.1264E-01
1.50E-10	8.9153E-01	8.4444E-01	8.6501E-01
1.60E-10	8.9009E-01	8.4444E-01	7.9523E-01
1.70E-10	8.8619E-01	8.4444E-01	7.1623E-01
1.80E-10	8.8188E-01	8.4444E-01	6.3702E-01
1.90E-10	8.6797E-01	8.4444E-01	5.6822E-01
2.00E-10	8.5407E-01	8.4444E-01	5.1467E-01
2.10E-10	8.1907E-01	8.4444E-01	4.7745E-01
2.20E-10	7.8369E-01	8.4444E-01	4.5020E-01
2.30E-10	7.2759E-01	8.4356E-01	4.2700E-01
2.40E-10	6.6977E-01	8.4256E-01	4.0012E-01
2.50E-10	6.0883E-01	8.3977E-01	3.6152E-01
2.60E-10	5.4739E-01	8.3484E-01	3.0810E-01
2.70E-10	5.0056E-01	8.2675E-01	2.4581E-01
2.80E-10	4.5727E-01	8.1616E-01	1.8720E-01
2.90E-10	4.2858E-01	8.0426E-01	1.3866E-01
3.00E-10	4.0488E-01	7.8900E-01	9.9411E-02
3.10E-10	3.8513E-01	7.7410E-01	6.9027E-02
3.20E-10	3.6720E-01	7.4966E-01	4.8410E-02
3.30E-10	3.4529E-01	7.1605E-01	3.2789E-02
3.40E-10	3.2101E-01	6.7567E-01	2.0043E-02
3.50E-10	2.8958E-01	6.3059E-01	1.4012E-02
3.60E-10	2.5272E-01	5.9072E-01	8.0573E-03
3.70E-10	2.1376E-01	5.5071E-01	5.9996E-03
3.80E-10	1.7278E-01	5.1266E-01	3.9419E-03
3.90E-10	1.3552E-01	4.8164E-01	2.8692E-03
4.00E-10	1.0280E-01	4.5088E-01	2.1454E-03
4.10E-10	7.5449E-02	4.2586E-01	1.6064E-03
4.20E-10	5.6489E-02	4.0332E-01	1.2864E-03

4.30E-10	4.2244E-02	3.8157E-01	9.8729E-04
4.40E-10	3.1060E-02	3.6318E-01	7.8594E-04
4.50E-10	2.3597E-02	3.4438E-01	5.8459E-04
4.60E-10	1.8174E-02	3.2416E-01	3.8324E-04
4.70E-10	1.3964E-02	3.0378E-01	1.8189E-04
4.80E-10	1.1106E-02	2.8095E-01	9.6654E-05
4.90E-10	8.2484E-03	2.5556E-01	8.3885E-05
5.00E-10	5.8181E-03	2.3033E-01	7.1116E-05
5.10E-10	-3.6753E-04	1.9998E-01	5.8347E-05
5.20E-10	-3.6753E-04	1.7048E-01	4.5994E-05
5.30E-10	-3.6753E-04	1.4118E-01	4.0878E-05
5.40E-10	-3.6753E-04	1.1208E-01	3.5762E-05
5.50E-10	-3.6753E-04	8.5433E-02	3.0646E-05
5.60E-10	-3.6753E-04	6.4850E-02	2.8087E-05
5.70E-10	-3.6753E-04	4.4040E-02	2.8087E-05
5.80E-10	-3.6753E-04	3.2587E-02	2.8087E-05
5.90E-10	-3.6753E-04	2.2313E-02	2.8087E-05
6.00E-10	-3.6753E-04	1.4942E-02	2.8087E-05
6.10E-10	-3.6753E-04	1.1102E-02	2.8087E-05
6.20E-10	-3.6753E-04	7.2760E-03	2.8087E-05
6.30E-10	-3.6753E-04	5.9771E-03	2.8087E-05
6.40E-10	-3.6753E-04	4.6411E-03	2.8087E-05
6.50E-10	-3.6753E-04	3.7753E-03	2.8087E-05
6.60E-10	-3.6753E-04	3.2215E-03	2.8087E-05
6.70E-10	-3.6753E-04	2.7093E-03	2.8087E-05
6.80E-10	-3.6753E-04	2.3817E-03	2.8087E-05
6.90E-10	-3.6753E-04	2.0535E-03	2.8087E-05
7.00E-10	-3.6753E-04	1.7965E-03	2.8087E-05
7.10E-10	-3.6753E-04	1.5615E-03	2.8087E-05
7.20E-10	-3.6753E-04	1.3266E-03	2.8087E-05
7.30E-10	-3.6753E-04	7.2516E-04	2.8087E-05
7.40E-10	-3.6753E-04	7.2516E-04	2.8087E-05
7.50E-10	-3.6753E-04	7.2516E-04	2.8087E-05

\*\*\*\*\*

| MODEL DQ\_34\_1600 (34 Ohm Data I/O with 40ohm ODT, 1333/1600 Mbps)

\*\*\*\*\*

[Model] DQ\_34\_ODT40\_1600

Model\_type I/O

Vinl = 600.000mV

Vinh = 900.000mV

Vmeas = 750.000mV

Vref = 750.000mV

Cref = 0.0pF

Rref = 25.000Ohm

	typ	min	max
--	-----	-----	-----

C_comp	1.078pF	0.966pF	1.223pF
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| Note: C\_comp changes when the ODT circuit is enabled.

[Model Spec]



```

| Input threshold voltage corners
Vinl          0.6000V      0.5625V      0.6375V
Vinh          0.9000V      0.8625V      0.9375V
|
| Measurement voltage corners
Vmeas         0.7500V      0.7125V      0.7875V
|
| Timing spec test load voltage corners
Vref          0.7500V      0.7125V      0.7875V

```

```

| Dynamic Overshoot Parameters from DDR3 Specification
|D_overshoot_ampl_h    0.40      NA      NA
|D_overshoot_ampl_l    0.40      NA      NA
|D_overshoot_area_h    0.13n     NA      NA
|D_overshoot_area_l    0.13n     NA      NA

```

```

|[Receiver Thresholds]
|Vth   = 0.750V
|Vth_min = 0.7350V
|Vth_max = 0.7650V
|Vinh_ac = 0.150V
|Vinh_dc = 0.100V
|Vinl_ac = -0.150V
|Vinl_dc = -0.100V
|Tslew_ac = 5.000ns |Not specified, so set to high value
|Threshold_sensitivity = 0.50
|Reference_supply Pullup_ref

```

```

|[Add Submodel]
| Submodel Name      Mode
40Ohm_ODT          Non-Driving

```

```

|[Voltage Range]      1.5000V      1.4250V      1.5750V
|[Pullup Reference]   1.5000V      1.4250V      1.5750V
|[Temperature Range]  85.0         110.0        0.0

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|[Pulldown]

```

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	-6.717440E-03	-6.602220E-03	-5.1878E-03
-1.4750000e+00	-6.950660E-03	-6.867910E-03	-5.4092E-03
-1.4250000e+00	-7.420160E-03	-7.410640E-03	-5.8575E-03
-1.3750000e+00	-7.891420E-03	-7.964120E-03	-6.3098E-03
-1.3250000e+00	-8.362190E-03	-8.523980E-03	-6.7632E-03
-1.2750000e+00	-8.830600E-03	-9.086830E-03	-7.2155E-03
-1.2250000e+00	-9.295050E-03	-9.650090E-03	-7.6651E-03
-1.1750000e+00	-9.754060E-03	-1.021176E-02	-8.1108E-03
-1.1250000e+00	-1.020612E-02	-1.077025E-02	-8.5512E-03
-1.0750000e+00	-1.064959E-02	-1.132418E-02	-8.9850E-03
-1.0250000e+00	-1.108253E-02	-1.187221E-02	-9.4109E-03
-9.7500000e-01	-1.150258E-02	-1.241292E-02	-9.8270E-03

-9.2500000e-01	-1.190672E-02	-1.294440E-02	-1.0231E-02
-8.7500000e-01	-1.229088E-02	-1.346358E-02	-1.0620E-02
-8.2500000e-01	-1.264939E-02	-1.396484E-02	-1.0991E-02
-7.7500000e-01	-1.297388E-02	-1.443730E-02	-1.1336E-02
-7.2500000e-01	-1.325153E-02	-1.486077E-02	-1.1649E-02
-6.7500000e-01	-1.346224E-02	-1.520128E-02	-1.1917E-02
-6.2500000e-01	-1.357544E-02	-1.540771E-02	-1.2120E-02
-5.7500000e-01	-1.354969E-02	-1.541129E-02	-1.2227E-02
-5.2500000e-01	-1.333921E-02	-1.513126E-02	-1.2185E-02
-4.7500000e-01	-1.290237E-02	-1.448995E-02	-1.1917E-02
-4.2500000e-01	-1.219129E-02	-1.344440E-02	-1.1342E-02
-3.7500000e-01	-1.115219E-02	-1.205672E-02	-1.0442E-02
-3.2500000e-01	-9.820264E-03	-1.048922E-02	-9.2579E-03
-2.7500000e-01	-8.341268E-03	-8.866406E-03	-7.8883E-03
-2.2500000e-01	-6.822138E-03	-7.235947E-03	-6.4597E-03
-1.7500000e-01	-5.298271E-03	-5.610770E-03	-5.0227E-03
-1.2500000e-01	-3.777710E-03	-3.994334E-03	-3.5860E-03
-7.5000000e-02	-2.262248E-03	-2.388040E-03	-2.1505E-03
-2.5000000e-02	-7.525408E-04	-7.929693E-04	-7.1644E-04
0.0000000e+00	-2.915900E-09	-3.333000E-10	-5.0570E-09
2.5000000e-02	7.507199E-04	7.895269E-04	7.1589E-04
7.5000000e-02	2.245917E-03	2.357110E-03	2.1456E-03
1.2500000e-01	3.732365E-03	3.908392E-03	3.5725E-03
1.7500000e-01	5.209520E-03	5.442055E-03	4.9965E-03
2.2500000e-01	6.676783E-03	6.956634E-03	6.4174E-03
2.7500000e-01	8.133496E-03	8.450479E-03	7.8352E-03
3.2500000e-01	9.578923E-03	9.921721E-03	9.2496E-03
3.7500000e-01	1.101226E-02	1.136822E-02	1.0661E-02
4.2500000e-01	1.243257E-02	1.278754E-02	1.2068E-02
4.7500000e-01	1.383888E-02	1.417683E-02	1.3472E-02
5.2500000e-01	1.523002E-02	1.553278E-02	1.4871E-02
5.7500000e-01	1.660471E-02	1.685160E-02	1.6267E-02
6.2500000e-01	1.796153E-02	1.812901E-02	1.7659E-02
6.7500000e-01	1.929892E-02	1.936079E-02	1.9046E-02
7.2500000e-01	2.061527E-02	2.054383E-02	2.0428E-02
7.7500000e-01	2.190915E-02	2.167702E-02	2.1805E-02
8.2500000e-01	2.317984E-02	2.276044E-02	2.3178E-02
8.7500000e-01	2.442765E-02	2.379315E-02	2.4544E-02
9.2500000e-01	2.565381E-02	2.477183E-02	2.5905E-02
9.7500000e-01	2.685955E-02	2.569073E-02	2.7261E-02
1.0250000e+00	2.804545E-02	2.654265E-02	2.8609E-02
1.0750000e+00	2.921123E-02	2.732059E-02	2.9951E-02
1.1250000e+00	3.035586E-02	2.802022E-02	3.1286E-02
1.1750000e+00	3.147763E-02	2.864222E-02	3.2613E-02
1.2250000e+00	3.257424E-02	2.919304E-02	3.3932E-02
1.2750000e+00	3.364280E-02	2.968331E-02	3.5242E-02
1.3250000e+00	3.467974E-02	3.012500E-02	3.6542E-02
1.3750000e+00	3.568083E-02	3.052912E-02	3.7832E-02
1.4250000e+00	3.664118E-02	3.090472E-02	3.9112E-02
1.4750000e+00	3.755541E-02	3.125876E-02	4.0379E-02
1.5250000e+00	3.841817E-02	3.159641E-02	4.1633E-02
1.5750000e+00	3.922484E-02	3.192149E-02	4.2873E-02
1.6250000e+00	3.997270E-02	3.223679E-02	4.4097E-02
1.6750000e+00	4.066185E-02	3.254442E-02	4.5303E-02

1.7250000e+00	4.129552E-02	3.284593E-02	4.6490E-02
1.7750000e+00	4.187958E-02	3.314250E-02	4.7654E-02
1.8250000e+00	4.242129E-02	3.343504E-02	4.8794E-02
1.8750000e+00	4.292808E-02	3.372428E-02	4.9905E-02
1.9250000e+00	4.340673E-02	3.401077E-02	5.0985E-02
1.9750000e+00	4.386296E-02	3.429496E-02	5.2029E-02
2.0250000e+00	4.430140E-02	3.457721E-02	5.3033E-02
2.0750000e+00	4.472568E-02	3.485782E-02	5.3993E-02
2.1250000e+00	4.513865E-02	3.513705E-02	5.4906E-02
2.1750000e+00	4.554252E-02	3.541511E-02	5.5769E-02
2.2250000e+00	4.593900E-02	3.569218E-02	5.6583E-02
2.2750000e+00	4.632944E-02	3.596843E-02	5.7349E-02
2.3250000e+00	4.671490E-02	3.624402E-02	5.8070E-02
2.3750000e+00	4.709624E-02	3.651910E-02	5.8752E-02
2.4250000e+00	4.747414E-02	3.679380E-02	5.9398E-02
2.4750000e+00	4.784918E-02	3.706830E-02	6.0016E-02
2.5250000e+00	4.822183E-02	3.734276E-02	6.0609E-02
2.5750000e+00	4.859248E-02	3.761735E-02	6.1181E-02
2.6250000e+00	4.896149E-02	3.789229E-02	6.1736E-02
2.6750000e+00	4.932914E-02	3.816783E-02	6.2277E-02
2.7250000e+00	4.969572E-02	3.844422E-02	6.2806E-02
2.7750000e+00	5.006148E-02	3.872180E-02	6.3326E-02
2.8250000e+00	5.042664E-02	3.900093E-02	6.3837E-02
2.8750000e+00	5.079141E-02	3.928204E-02	6.4342E-02
2.9250000e+00	5.115601E-02	3.956562E-02	6.4840E-02
2.9750000e+00	5.152066E-02	3.985223E-02	6.5334E-02
3.0000000e+00	5.170306E-02	3.999685E-02	6.5579E-02

[GND Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	-5.378351E-02	-5.490567E-02	-5.885698E-02
-1.4750000e+00	-5.231251E-02	-5.334431E-02	-5.735670E-02
-1.4500000e+00	-5.084369E-02	-5.178549E-02	-5.585777E-02
-1.4250000e+00	-4.937717E-02	-5.022938E-02	-5.436025E-02
-1.4000000e+00	-4.791309E-02	-4.867613E-02	-5.286424E-02
-1.3750000e+00	-4.645161E-02	-4.712594E-02	-5.136982E-02
-1.3500000e+00	-4.499289E-02	-4.557901E-02	-4.987708E-02
-1.3250000e+00	-4.353712E-02	-4.403556E-02	-4.838614E-02
-1.3000000e+00	-4.208452E-02	-4.249585E-02	-4.689710E-02
-1.2750000e+00	-4.063529E-02	-4.096014E-02	-4.541010E-02
-1.2500000e+00	-3.918970E-02	-3.942875E-02	-4.392527E-02
-1.2250000e+00	-3.774803E-02	-3.790201E-02	-4.244278E-02
-1.2000000e+00	-3.631059E-02	-3.638031E-02	-4.096280E-02
-1.1750000e+00	-3.487773E-02	-3.486408E-02	-3.948552E-02
-1.1500000e+00	-3.344986E-02	-3.335380E-02	-3.801116E-02
-1.1250000e+00	-3.202742E-02	-3.185003E-02	-3.653998E-02
-1.1000000e+00	-3.061092E-02	-3.035339E-02	-3.507226E-02
-1.0750000e+00	-2.920096E-02	-2.886462E-02	-3.360832E-02
-1.0500000e+00	-2.779821E-02	-2.738455E-02	-3.214854E-02
-1.0250000e+00	-2.640347E-02	-2.591415E-02	-3.069335E-02
-1.0000000e+00	-2.501766E-02	-2.445455E-02	-2.924328E-02
-9.7500000e-01	-2.364185E-02	-2.300708E-02	-2.779892E-02
-9.5000000e-01	-2.227732E-02	-2.157329E-02	-2.636102E-02
-9.2500000e-01	-2.092559E-02	-2.015501E-02	-2.493048E-02

-9.0000000e-01	-1.958843E-02	-1.875433E-02	-2.350840E-02
-8.7500000e-01	-1.826790E-02	-1.737363E-02	-2.209616E-02
-8.5000000e-01	-1.696631E-02	-1.601550E-02	-2.069550E-02
-8.2500000e-01	-1.568612E-02	-1.468262E-02	-1.930856E-02
-8.0000000e-01	-1.442972E-02	-1.337762E-02	-1.793782E-02
-7.7500000e-01	-1.319926E-02	-1.210311E-02	-1.658583E-02
-7.5000000e-01	-1.199673E-02	-1.086191E-02	-1.525450E-02
-7.2500000e-01	-1.082427E-02	-9.657411E-03	-1.394473E-02
-7.0000000e-01	-9.684638E-03	-8.493939E-03	-1.265685E-02
-6.7500000e-01	-8.581514E-03	-7.376930E-03	-1.139180E-02
-6.5000000e-01	-7.519607E-03	-6.312929E-03	-1.015194E-02
-6.2500000e-01	-6.504547E-03	-5.309438E-03	-8.941317E-03
-6.0000000e-01	-5.542688E-03	-4.374618E-03	-7.765734E-03
-5.7500000e-01	-4.640772E-03	-3.516890E-03	-6.632943E-03
-5.5000000e-01	-3.805524E-03	-2.744483E-03	-5.552944E-03
-5.2500000e-01	-3.043248E-03	-2.065103E-03	-4.538199E-03
-5.0000000e-01	-2.359647E-03	-1.485677E-03	-3.603410E-03
-4.7500000e-01	-1.760020E-03	-1.011779E-03	-2.764263E-03
-4.5000000e-01	-1.249702E-03	-6.458403E-04	-2.034714E-03
-4.2500000e-01	-8.339835E-04	-3.838582E-04	-1.423543E-03
-4.0000000e-01	-5.162389E-04	-2.125448E-04	-9.327585E-04
-3.7500000e-01	-2.937329E-04	-1.106466E-04	-5.596314E-04
-3.5000000e-01	-1.537279E-04	-5.497263E-05	-2.989521E-04
-3.2500000e-01	-7.493357E-05	-2.649171E-05	-1.392980E-04
-3.0000000e-01	-3.471511E-05	-1.256760E-05	-5.693623E-05
-2.7500000e-01	-1.563019E-05	-5.952723E-06	-2.113740E-05
-2.5000000e-01	-7.001335E-06	-2.863206E-06	-7.478892E-06
-2.2500000e-01	-3.215160E-06	-1.433628E-06	-2.669240E-06
-2.0000000e-01	-1.576700E-06	-7.729597E-07	-1.039346E-06
-1.7500000e-01	-8.691669E-07	-4.659048E-07	-4.927419E-07
-1.5000000e-01	-5.602970E-07	-3.210513E-07	-3.060998E-07
-1.2500000e-01	-4.211770E-07	-2.506183E-07	-2.379530E-07
-1.0000000e-01	-3.542844E-07	-2.144259E-07	-2.089398E-07
-7.5000000e-02	-3.182781E-07	-1.940781E-07	-1.931385E-07
-5.0000000e-02	-2.956734E-07	-1.811414E-07	-1.820761E-07
-2.5000000e-02	-2.790923E-07	-1.717494E-07	-1.729560E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[Pullup]

-1.5000000e+00	1.625201E-02	1.758608E-02	1.5776E-02
-1.4750000e+00	1.628295E-02	1.772293E-02	1.5794E-02
-1.4250000e+00	1.631167E-02	1.794814E-02	1.5819E-02
-1.3750000e+00	1.630625E-02	1.810214E-02	1.5832E-02
-1.3250000e+00	1.628177E-02	1.818331E-02	1.5836E-02
-1.2750000e+00	1.625213E-02	1.819962E-02	1.5830E-02
-1.2250000e+00	1.622498E-02	1.816850E-02	1.5814E-02
-1.1750000e+00	1.620031E-02	1.811351E-02	1.5786E-02
-1.1250000e+00	1.617356E-02	1.805794E-02	1.5746E-02
-1.0750000e+00	1.613984E-02	1.801572E-02	1.5692E-02
-1.0250000e+00	1.609584E-02	1.798687E-02	1.5624E-02
-9.7500000e-01	1.603981E-02	1.796321E-02	1.5542E-02
-9.2500000e-01	1.597095E-02	1.793695E-02	1.5444E-02
-8.7500000e-01	1.588883E-02	1.790371E-02	1.5331E-02

-8.2500000e-01	1.579281E-02	1.786161E-02	1.5200E-02
-7.7500000e-01	1.568160E-02	1.780891E-02	1.5050E-02
-7.2500000e-01	1.555266E-02	1.774030E-02	1.4877E-02
-6.7500000e-01	1.540100E-02	1.763919E-02	1.4677E-02
-6.2500000e-01	1.521657E-02	1.746424E-02	1.4440E-02
-5.7500000e-01	1.497687E-02	1.713549E-02	1.4152E-02
-5.2500000e-01	1.462952E-02	1.653605E-02	1.3790E-02
-4.7500000e-01	1.407045E-02	1.555591E-02	1.3303E-02
-4.2500000e-01	1.317055E-02	1.420030E-02	1.2595E-02
-3.7500000e-01	1.190475E-02	1.261585E-02	1.1528E-02
-3.2500000e-01	1.040962E-02	1.094206E-02	1.0132E-02
-2.7500000e-01	8.825733E-03	9.244475E-03	8.6004E-03
-2.2500000e-01	7.217759E-03	7.545941E-03	7.0379E-03
-1.7500000e-01	5.606827E-03	5.853537E-03	5.4714E-03
-1.2500000e-01	3.998885E-03	4.169432E-03	3.9059E-03
-7.5000000e-02	2.395513E-03	2.494429E-03	2.3421E-03
-2.5000000e-02	7.971932E-04	8.289974E-04	7.8023E-04
0.0000000e+00	1.314700E-09	4.692000E-10	3.0652E-09
2.5000000e-02	-7.950502E-04	-8.253549E-04	-7.7920E-04
7.5000000e-02	-2.376138E-03	-2.461490E-03	-2.3328E-03
1.2500000e-01	-3.944794E-03	-4.077442E-03	-3.8799E-03
1.7500000e-01	-5.500495E-03	-5.672260E-03	-5.4201E-03
2.2500000e-01	-7.042695E-03	-7.244932E-03	-6.9533E-03
2.7500000e-01	-8.570810E-03	-8.794375E-03	-8.4790E-03
3.2500000e-01	-1.008422E-02	-1.031943E-02	-9.9969E-03
3.7500000e-01	-1.158229E-02	-1.181885E-02	-1.1507E-02
4.2500000e-01	-1.306431E-02	-1.329132E-02	-1.3008E-02
4.7500000e-01	-1.452955E-02	-1.473539E-02	-1.4501E-02
5.2500000e-01	-1.597724E-02	-1.614954E-02	-1.5984E-02
5.7500000e-01	-1.740654E-02	-1.753210E-02	-1.7458E-02
6.2500000e-01	-1.881658E-02	-1.888132E-02	-1.8922E-02
6.7500000e-01	-2.020643E-02	-2.019527E-02	-2.0375E-02
7.2500000e-01	-2.157509E-02	-2.147192E-02	-2.1818E-02
7.7500000e-01	-2.292153E-02	-2.270910E-02	-2.3248E-02
8.2500000e-01	-2.424464E-02	-2.390455E-02	-2.4667E-02
8.7500000e-01	-2.554331E-02	-2.505603E-02	-2.6073E-02
9.2500000e-01	-2.681638E-02	-2.616144E-02	-2.7466E-02
9.7500000e-01	-2.806279E-02	-2.721907E-02	-2.8845E-02
1.0250000e+00	-2.928162E-02	-2.822778E-02	-3.0209E-02
1.0750000e+00	-3.047224E-02	-2.918687E-02	-3.1559E-02
1.1250000e+00	-3.163441E-02	-3.009551E-02	-3.2895E-02
1.1750000e+00	-3.276817E-02	-3.095232E-02	-3.4215E-02
1.2250000e+00	-3.387345E-02	-3.175524E-02	-3.5520E-02
1.2750000e+00	-3.494986E-02	-3.250183E-02	-3.6810E-02
1.3250000e+00	-3.599648E-02	-3.318993E-02	-3.8084E-02
1.3750000e+00	-3.701195E-02	-3.381867E-02	-3.9341E-02
1.4250000e+00	-3.799445E-02	-3.438959E-02	-4.0581E-02
1.4750000e+00	-3.894176E-02	-3.490743E-02	-4.1802E-02
1.5250000e+00	-3.985132E-02	-3.537965E-02	-4.3004E-02
1.5750000e+00	-4.072029E-02	-3.581474E-02	-4.4185E-02
1.6250000e+00	-4.154560E-02	-3.622056E-02	-4.5343E-02
1.6750000e+00	-4.232425E-02	-3.660353E-02	-4.6476E-02
1.7250000e+00	-4.305363E-02	-3.696849E-02	-4.7583E-02
1.7750000e+00	-4.373217E-02	-3.731908E-02	-4.8662E-02

1.8250000e+00	-4.436015E-02	-3.765800E-02	-4.9709E-02
1.8750000e+00	-4.494020E-02	-3.798729E-02	-5.0722E-02
1.9250000e+00	-4.547717E-02	-3.830853E-02	-5.1698E-02
1.9750000e+00	-4.597727E-02	-3.862293E-02	-5.2633E-02
2.0250000e+00	-4.644684E-02	-3.893148E-02	-5.3524E-02
2.0750000e+00	-4.689156E-02	-3.923498E-02	-5.4367E-02
2.1250000e+00	-4.731609E-02	-3.953408E-02	-5.5160E-02
2.1750000e+00	-4.772413E-02	-3.982931E-02	-5.5900E-02
2.2250000e+00	-4.811854E-02	-4.012115E-02	-5.6590E-02
2.2750000e+00	-4.850161E-02	-4.040997E-02	-5.7231E-02
2.3250000e+00	-4.887508E-02	-4.069609E-02	-5.7830E-02
2.3750000e+00	-4.924037E-02	-4.097982E-02	-5.8391E-02
2.4250000e+00	-4.959862E-02	-4.126137E-02	-5.8920E-02
2.4750000e+00	-4.995076E-02	-4.154098E-02	-5.9424E-02
2.5250000e+00	-5.029755E-02	-4.181883E-02	-5.9906E-02
2.5750000e+00	-5.063964E-02	-4.209509E-02	-6.0370E-02
2.6250000e+00	-5.097758E-02	-4.236990E-02	-6.0819E-02
2.6750000e+00	-5.131181E-02	-4.264339E-02	-6.1255E-02
2.7250000e+00	-5.164272E-02	-4.291571E-02	-6.1681E-02
2.7750000e+00	-5.197066E-02	-4.318692E-02	-6.2098E-02
2.8250000e+00	-5.229592E-02	-4.345715E-02	-6.2507E-02
2.8750000e+00	-5.261875E-02	-4.372646E-02	-6.2909E-02
2.9250000e+00	-5.293944E-02	-4.399496E-02	-6.3305E-02
2.9750000e+00	-5.325809E-02	-4.426273E-02	-6.3695E-02
3.0000000e+00	-5.341670E-02	-4.439634E-02	-6.3889E-02

[POWER Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	4.450136E-02	4.385767E-02	4.780180E-02
-1.4750000e+00	4.325737E-02	4.248503E-02	4.651240E-02
-1.4500000e+00	4.202627E-02	4.113177E-02	4.522925E-02
-1.4250000e+00	4.080680E-02	3.979850E-02	4.395155E-02
-1.4000000e+00	3.959743E-02	3.848563E-02	4.267872E-02
-1.3750000e+00	3.839648E-02	3.719324E-02	4.141043E-02
-1.3500000e+00	3.720221E-02	3.592106E-02	4.014658E-02
-1.3250000e+00	3.601296E-02	3.466841E-02	3.888724E-02
-1.3000000e+00	3.482735E-02	3.343415E-02	3.763261E-02
-1.2750000e+00	3.364438E-02	3.221669E-02	3.638295E-02
-1.2500000e+00	3.246358E-02	3.101397E-02	3.513856E-02
-1.2250000e+00	3.128497E-02	2.982356E-02	3.389971E-02
-1.2000000e+00	3.010901E-02	2.864279E-02	3.266671E-02
-1.1750000e+00	2.893648E-02	2.746896E-02	3.143983E-02
-1.1500000e+00	2.776826E-02	2.629964E-02	3.021937E-02
-1.1250000e+00	2.660528E-02	2.513304E-02	2.900560E-02
-1.1000000e+00	2.544841E-02	2.396824E-02	2.779885E-02
-1.0750000e+00	2.429844E-02	2.280536E-02	2.659947E-02
-1.0500000e+00	2.315612E-02	2.164543E-02	2.540788E-02
-1.0250000e+00	2.202214E-02	2.049007E-02	2.422456E-02
-1.0000000e+00	2.089719E-02	1.934117E-02	2.305008E-02
-9.7500000e-01	1.978197E-02	1.820065E-02	2.188512E-02
-9.5000000e-01	1.867722E-02	1.707028E-02	2.073051E-02
-9.2500000e-01	1.758372E-02	1.595172E-02	1.958717E-02
-9.0000000e-01	1.650228E-02	1.484648E-02	1.845617E-02
-8.7500000e-01	1.543373E-02	1.375596E-02	1.733861E-02

-8.5000000e-01	1.437889E-02	1.268153E-02	1.623552E-02
-8.2500000e-01	1.333851E-02	1.162449E-02	1.514771E-02
-8.0000000e-01	1.231328E-02	1.058622E-02	1.407560E-02
-7.7500000e-01	1.130388E-02	9.568206E-03	1.301920E-02
-7.5000000e-01	1.031106E-02	8.572276E-03	1.197826E-02
-7.2500000e-01	9.335806E-03	7.600753E-03	1.095255E-02
-7.0000000e-01	8.379549E-03	6.656721E-03	9.942208E-03
-6.7500000e-01	7.444326E-03	5.744302E-03	8.947907E-03
-6.5000000e-01	6.532997E-03	4.868952E-03	7.971037E-03
-6.2500000e-01	5.649458E-03	4.037787E-03	7.013856E-03
-6.0000000e-01	4.798902E-03	3.259897E-03	6.079694E-03
-5.7500000e-01	3.988134E-03	2.546530E-03	5.173232E-03
-5.5000000e-01	3.225930E-03	1.910856E-03	4.300898E-03
-5.2500000e-01	2.523332E-03	1.366712E-03	3.471435E-03
-5.0000000e-01	1.893615E-03	9.256050E-04	2.696669E-03
-4.7500000e-01	1.351332E-03	5.919303E-04	1.992344E-03
-4.5000000e-01	9.095438E-04	3.586832E-04	1.378411E-03
-4.2500000e-01	5.747929E-04	2.078355E-04	8.770334E-04
-4.0000000e-01	3.418453E-04	1.164218E-04	5.053061E-04
-3.7500000e-01	1.930954E-04	6.360210E-05	2.627362E-04
-3.5000000e-01	1.048276E-04	3.408364E-05	1.249600E-04
-3.2500000e-01	5.523970E-05	1.799151E-05	5.555840E-05
-3.0000000e-01	2.845373E-05	9.394192E-06	2.354470E-05
-2.7500000e-01	1.440808E-05	4.878770E-06	9.667951E-06
-2.5000000e-01	7.217646E-06	2.540607E-06	3.917671E-06
-2.2500000e-01	3.608426E-06	1.343333E-06	1.610365E-06
-2.0000000e-01	1.824961E-06	7.351342E-07	7.040722E-07
-1.7500000e-01	9.538096E-07	4.274933E-07	3.518088E-07
-1.5000000e-01	5.312391E-07	2.717598E-07	2.143482E-07
-1.2500000e-01	3.264285E-07	1.922224E-07	1.590776E-07
-1.0000000e-01	2.262355E-07	1.506538E-07	1.350141E-07
-7.5000000e-02	1.758303E-07	1.278715E-07	1.227817E-07
-5.0000000e-02	1.489090E-07	1.143246E-07	1.150732E-07
-2.5000000e-02	1.332080E-07	1.054156E-07	1.091539E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[Ramp]

R\_load = 50.00Ohm

	typ	min	max
dV/dt_r	532.022mV/119.423ps	491.319mV/165.185ps	567.619mV/91.565ps
dV/dt_f	537.976mV/129.806ps	497.460mV/173.213ps	578.029mV/105.657ps

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[Rising Waveform]

V\_fixture = 1.500V

V\_fixture\_min = 1.425V

V\_fixture\_max = 1.575V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
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0.00E+00	6.1517E-01	5.8287E-01	6.5309E-01
1.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
2.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
3.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
4.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
5.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
6.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
7.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
8.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
9.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
1.00E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.10E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.20E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.30E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.40E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.50E-10	6.1517E-01	5.8287E-01	6.5433E-01
1.60E-10	6.1517E-01	5.8287E-01	6.7845E-01
1.70E-10	6.1616E-01	5.8287E-01	7.4018E-01
1.80E-10	6.1820E-01	5.8287E-01	8.2854E-01
1.90E-10	6.2509E-01	5.8287E-01	9.2350E-01
2.00E-10	6.3360E-01	5.8287E-01	1.0035E+00
2.10E-10	6.5972E-01	5.8287E-01	1.0622E+00
2.20E-10	6.9277E-01	5.8287E-01	1.1021E+00
2.30E-10	7.4389E-01	5.8287E-01	1.1297E+00
2.40E-10	8.0329E-01	5.8287E-01	1.1507E+00
2.50E-10	8.6698E-01	5.8287E-01	1.1725E+00
2.60E-10	9.3293E-01	5.8587E-01	1.2084E+00
2.70E-10	9.8606E-01	5.8977E-01	1.2660E+00
2.80E-10	1.0314E+00	6.0015E-01	1.3332E+00
2.90E-10	1.0621E+00	6.1507E-01	1.4005E+00
3.00E-10	1.0875E+00	6.3422E-01	1.4575E+00
3.10E-10	1.1038E+00	6.6308E-01	1.5003E+00
3.20E-10	1.1186E+00	6.9542E-01	1.5292E+00
3.30E-10	1.1318E+00	7.3829E-01	1.5452E+00
3.40E-10	1.1488E+00	7.8359E-01	1.5589E+00
3.50E-10	1.1685E+00	8.3263E-01	1.5644E+00
3.60E-10	1.1961E+00	8.7994E-01	1.5690E+00
3.70E-10	1.2308E+00	9.2648E-01	1.5711E+00
3.80E-10	1.2708E+00	9.6220E-01	1.5725E+00
3.90E-10	1.3157E+00	9.9443E-01	1.5733E+00
4.00E-10	1.3592E+00	1.0179E+00	1.5737E+00
4.10E-10	1.3979E+00	1.0367E+00	1.5740E+00
4.20E-10	1.4283E+00	1.0518E+00	1.5741E+00
4.30E-10	1.4538E+00	1.0635E+00	1.5743E+00
4.40E-10	1.4683E+00	1.0745E+00	1.5743E+00
4.50E-10	1.4800E+00	1.0848E+00	1.5743E+00
4.60E-10	1.4870E+00	1.0962E+00	1.5743E+00
4.70E-10	1.4913E+00	1.1088E+00	1.5744E+00
4.80E-10	1.4943E+00	1.1255E+00	1.5744E+00
4.90E-10	1.4948E+00	1.1437E+00	1.5745E+00
5.00E-10	1.4953E+00	1.1618E+00	1.5746E+00
5.10E-10	1.4959E+00	1.1826E+00	1.5747E+00
5.20E-10	1.4965E+00	1.2089E+00	1.5747E+00
5.30E-10	1.4972E+00	1.2353E+00	1.5747E+00



5.40E-10	1.4979E+00	1.2616E+00	1.5748E+00
5.50E-10	1.4985E+00	1.2874E+00	1.5748E+00
5.60E-10	1.4988E+00	1.3132E+00	1.5748E+00
5.70E-10	1.4992E+00	1.3390E+00	1.5749E+00
5.80E-10	1.4995E+00	1.3572E+00	1.5749E+00
5.90E-10	1.4996E+00	1.3739E+00	1.5749E+00
6.00E-10	1.4997E+00	1.3906E+00	1.5749E+00
6.10E-10	1.4998E+00	1.4002E+00	1.5749E+00
6.20E-10	1.4999E+00	1.4076E+00	1.5749E+00
6.30E-10	1.4999E+00	1.4150E+00	1.5750E+00
6.40E-10	1.4999E+00	1.4175E+00	1.5750E+00
6.50E-10	1.4999E+00	1.4200E+00	1.5750E+00
6.60E-10	1.4999E+00	1.4220E+00	1.5750E+00
6.70E-10	1.4999E+00	1.4227E+00	1.5750E+00
6.80E-10	1.4999E+00	1.4234E+00	1.5750E+00
6.90E-10	1.4999E+00	1.4238E+00	1.5750E+00
7.00E-10	1.4999E+00	1.4240E+00	1.5750E+00
7.10E-10	1.4999E+00	1.4242E+00	1.5750E+00
7.20E-10	1.4999E+00	1.4243E+00	1.5750E+00
7.30E-10	1.4999E+00	1.4244E+00	1.5750E+00
7.40E-10	1.4999E+00	1.4244E+00	1.5750E+00
7.50E-10	1.5000E+00	1.4244E+00	1.5750E+00

[Falling Waveform]

V\_fixture = 1.500V

V\_fixture\_min = 1.425V

V\_fixture\_max = 1.575V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	1.5000E+00	1.4244E+00	1.5750E+00
1.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
2.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
3.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
4.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
5.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
6.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
7.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
8.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
9.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
1.00E-10	1.5000E+00	1.4244E+00	1.5750E+00
1.10E-10	1.5001E+00	1.4244E+00	1.5750E+00
1.20E-10	1.5005E+00	1.4244E+00	1.5750E+00
1.30E-10	1.5010E+00	1.4244E+00	1.5696E+00
1.40E-10	1.5019E+00	1.4244E+00	1.5421E+00
1.50E-10	1.5028E+00	1.4244E+00	1.5004E+00
1.60E-10	1.5039E+00	1.4244E+00	1.4462E+00
1.70E-10	1.5050E+00	1.4244E+00	1.3851E+00
1.80E-10	1.5044E+00	1.4244E+00	1.3205E+00
1.90E-10	1.5035E+00	1.4244E+00	1.2579E+00
2.00E-10	1.4916E+00	1.4244E+00	1.2013E+00
2.10E-10	1.4788E+00	1.4244E+00	1.1613E+00
2.20E-10	1.4542E+00	1.4244E+00	1.1320E+00

2.30E-10	1.4285E+00	1.4244E+00	1.1084E+00
2.40E-10	1.3937E+00	1.4244E+00	1.0868E+00
2.50E-10	1.3578E+00	1.4244E+00	1.0540E+00
2.60E-10	1.3171E+00	1.4218E+00	1.0067E+00
2.70E-10	1.2768E+00	1.4145E+00	9.4839E-01
2.80E-10	1.2375E+00	1.3990E+00	8.8192E-01
2.90E-10	1.2003E+00	1.3841E+00	8.2227E-01
3.00E-10	1.1674E+00	1.3619E+00	7.7341E-01
3.10E-10	1.1375E+00	1.3392E+00	7.3495E-01
3.20E-10	1.1123E+00	1.3125E+00	7.0687E-01
3.30E-10	1.0884E+00	1.2806E+00	6.9026E-01
3.40E-10	1.0662E+00	1.2558E+00	6.7865E-01
3.50E-10	1.0397E+00	1.2224E+00	6.7137E-01
3.60E-10	1.0097E+00	1.1987E+00	6.6791E-01
3.70E-10	9.7255E-01	1.1742E+00	6.6445E-01
3.80E-10	9.3100E-01	1.1523E+00	6.6187E-01
3.90E-10	8.8580E-01	1.1315E+00	6.5971E-01
4.00E-10	8.3897E-01	1.1120E+00	6.5755E-01
4.10E-10	7.9641E-01	1.0924E+00	6.5651E-01
4.20E-10	7.5515E-01	1.0749E+00	6.5547E-01
4.30E-10	7.2360E-01	1.0540E+00	6.5463E-01
4.40E-10	6.9391E-01	1.0344E+00	6.5421E-01
4.50E-10	6.7567E-01	1.0110E+00	6.5378E-01
4.60E-10	6.5854E-01	9.8237E-01	6.5353E-01
4.70E-10	6.4671E-01	9.5346E-01	6.5337E-01
4.80E-10	6.3926E-01	9.1790E-01	6.5321E-01
4.90E-10	6.3074E-01	8.7949E-01	6.5309E-01
5.00E-10	6.1517E-01	8.4341E-01	6.5309E-01
5.10E-10	6.1517E-01	8.0437E-01	6.5309E-01
5.20E-10	6.1517E-01	7.6818E-01	6.5309E-01
5.30E-10	6.1517E-01	7.3775E-01	6.5309E-01
5.40E-10	6.1517E-01	7.0888E-01	6.5309E-01
5.50E-10	6.1517E-01	6.8336E-01	6.5309E-01
5.60E-10	6.1517E-01	6.6440E-01	6.5309E-01
5.70E-10	6.1517E-01	6.4314E-01	6.5309E-01
5.80E-10	6.1517E-01	6.3327E-01	6.5309E-01
5.90E-10	6.1517E-01	6.1885E-01	6.5309E-01
6.00E-10	6.1517E-01	6.1028E-01	6.5309E-01
6.10E-10	6.1517E-01	6.0327E-01	6.5309E-01
6.20E-10	6.1517E-01	5.9567E-01	6.5309E-01
6.30E-10	6.1517E-01	5.9405E-01	6.5309E-01
6.40E-10	6.1517E-01	5.9090E-01	6.5309E-01
6.50E-10	6.1517E-01	5.8836E-01	6.5309E-01
6.60E-10	6.1517E-01	5.8633E-01	6.5309E-01
6.70E-10	6.1517E-01	5.8473E-01	6.5309E-01
6.80E-10	6.1517E-01	5.8287E-01	6.5309E-01
6.90E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.00E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.10E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.20E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.30E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.40E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.50E-10	6.1517E-01	5.8287E-01	6.5309E-01

[Rising Waveform]

V\_fixture = 0.000V

V\_fixture\_min = 0.000V

V\_fixture\_max = 0.000V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	-3.6753E-04	7.2516E-04	2.8087E-05
1.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
2.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
3.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
4.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
5.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
6.00E-11	-3.6753E-04	7.2516E-04	1.0216E-04
7.00E-11	-3.6753E-04	7.2516E-04	1.9728E-04
8.00E-11	-3.6753E-04	7.2516E-04	2.7894E-04
9.00E-11	-3.6753E-04	7.2516E-04	2.8460E-04
1.00E-10	-3.6753E-04	7.2516E-04	2.9184E-04
1.10E-10	-3.6753E-04	7.2516E-04	1.1285E-03
1.20E-10	-3.6753E-04	7.2516E-04	2.7155E-03
1.30E-10	-3.6753E-04	7.2516E-04	5.0230E-03
1.40E-10	-3.6753E-04	7.2516E-04	7.3254E-03
1.50E-10	-3.6753E-04	7.2516E-04	8.7724E-03
1.60E-10	-3.6753E-04	7.2516E-04	1.1212E-02
1.70E-10	-3.6753E-04	7.2516E-04	4.6035E-02
1.80E-10	-3.6753E-04	7.2516E-04	9.9223E-02
1.90E-10	-3.6753E-04	7.2516E-04	1.6614E-01
2.00E-10	-3.6753E-04	7.2516E-04	2.3920E-01
2.10E-10	3.5736E-03	7.2516E-04	3.0948E-01
2.20E-10	2.0502E-02	7.2516E-04	3.6921E-01
2.30E-10	4.1697E-02	7.2516E-04	4.1553E-01
2.40E-10	7.5340E-02	7.2516E-04	4.4908E-01
2.50E-10	1.1331E-01	7.2516E-04	4.7338E-01
2.60E-10	1.5884E-01	7.2516E-04	4.9503E-01
2.70E-10	2.0668E-01	7.2516E-04	5.2442E-01
2.80E-10	2.5162E-01	7.2516E-04	5.7364E-01
2.90E-10	2.9581E-01	7.2516E-04	6.4440E-01
3.00E-10	3.3180E-01	5.8446E-03	7.2332E-01
3.10E-10	3.6594E-01	1.3532E-02	7.9061E-01
3.20E-10	3.9082E-01	2.2842E-02	8.4100E-01
3.30E-10	4.1397E-01	4.4064E-02	8.7560E-01
3.40E-10	4.3129E-01	6.5287E-02	8.9835E-01
3.50E-10	4.4771E-01	8.8005E-02	9.1275E-01
3.60E-10	4.6699E-01	1.1851E-01	9.2083E-01
3.70E-10	4.8661E-01	1.4901E-01	9.2762E-01
3.80E-10	5.2174E-01	1.7941E-01	9.3202E-01
3.90E-10	5.5826E-01	2.0939E-01	9.3546E-01
4.00E-10	6.0852E-01	2.3937E-01	9.3833E-01
4.10E-10	6.5962E-01	2.6803E-01	9.4087E-01
4.20E-10	7.0835E-01	2.9259E-01	9.4281E-01
4.30E-10	7.5701E-01	3.1716E-01	9.4428E-01
4.40E-10	7.8894E-01	3.3790E-01	9.4537E-01
4.50E-10	8.1785E-01	3.5587E-01	9.4606E-01

4.60E-10	8.3619E-01	3.7385E-01	9.4675E-01
4.70E-10	8.5094E-01	3.8729E-01	9.4744E-01
4.80E-10	8.6107E-01	4.0033E-01	9.4796E-01
4.90E-10	8.6825E-01	4.1330E-01	9.4812E-01
5.00E-10	8.7391E-01	4.2611E-01	9.4828E-01
5.10E-10	8.7730E-01	4.3892E-01	9.4845E-01
5.20E-10	8.8026E-01	4.5640E-01	9.4858E-01
5.30E-10	8.8222E-01	4.7710E-01	9.4859E-01
5.40E-10	8.8386E-01	4.9780E-01	9.4860E-01
5.50E-10	8.8486E-01	5.2989E-01	9.4860E-01
5.60E-10	8.8585E-01	5.6285E-01	9.4860E-01
5.70E-10	8.8684E-01	5.9689E-01	9.4860E-01
5.80E-10	8.8768E-01	6.3392E-01	9.4860E-01
5.90E-10	8.8847E-01	6.7095E-01	9.4860E-01
6.00E-10	8.8926E-01	7.0233E-01	9.4860E-01
6.10E-10	8.8998E-01	7.2999E-01	9.4860E-01
6.20E-10	8.9042E-01	7.5766E-01	9.4860E-01
6.30E-10	8.9086E-01	7.7515E-01	9.4860E-01
6.40E-10	8.9130E-01	7.9200E-01	9.4860E-01
6.50E-10	8.9157E-01	8.0477E-01	9.4860E-01
6.60E-10	8.9176E-01	8.1411E-01	9.4860E-01
6.70E-10	8.9194E-01	8.2282E-01	9.4860E-01
6.80E-10	8.9213E-01	8.2783E-01	9.4860E-01
6.90E-10	8.9232E-01	8.3284E-01	9.4860E-01
7.00E-10	8.9251E-01	8.3619E-01	9.4860E-01
7.10E-10	8.9269E-01	8.3899E-01	9.4860E-01
7.20E-10	8.9279E-01	8.4140E-01	9.4860E-01
7.30E-10	8.9282E-01	8.4312E-01	9.4860E-01
7.40E-10	8.9285E-01	8.4444E-01	9.4860E-01
7.50E-10	8.9288E-01	8.4444E-01	9.4860E-01

[Falling Waveform]

V\_fixture = 0.000V

V\_fixture\_min = 0.000V

V\_fixture\_max = 0.000V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	8.9297E-01	8.4444E-01	9.4842E-01
1.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
2.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
3.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
4.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
5.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
6.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
7.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
8.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
9.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
1.00E-10	8.9298E-01	8.4444E-01	9.4842E-01
1.10E-10	8.9307E-01	8.4444E-01	9.4842E-01
1.20E-10	8.9310E-01	8.4444E-01	9.4710E-01
1.30E-10	8.9298E-01	8.4444E-01	9.3543E-01
1.40E-10	8.9269E-01	8.4444E-01	9.1264E-01

1.50E-10	8.9153E-01	8.4444E-01	8.6501E-01
1.60E-10	8.9009E-01	8.4444E-01	7.9523E-01
1.70E-10	8.8619E-01	8.4444E-01	7.1623E-01
1.80E-10	8.8188E-01	8.4444E-01	6.3702E-01
1.90E-10	8.6797E-01	8.4444E-01	5.6822E-01
2.00E-10	8.5407E-01	8.4444E-01	5.1467E-01
2.10E-10	8.1907E-01	8.4444E-01	4.7745E-01
2.20E-10	7.8369E-01	8.4444E-01	4.5020E-01
2.30E-10	7.2759E-01	8.4356E-01	4.2700E-01
2.40E-10	6.6977E-01	8.4256E-01	4.0012E-01
2.50E-10	6.0883E-01	8.3977E-01	3.6152E-01
2.60E-10	5.4739E-01	8.3484E-01	3.0810E-01
2.70E-10	5.0056E-01	8.2675E-01	2.4581E-01
2.80E-10	4.5727E-01	8.1616E-01	1.8720E-01
2.90E-10	4.2858E-01	8.0426E-01	1.3866E-01
3.00E-10	4.0488E-01	7.8900E-01	9.9411E-02
3.10E-10	3.8513E-01	7.7410E-01	6.9027E-02
3.20E-10	3.6720E-01	7.4966E-01	4.8410E-02
3.30E-10	3.4529E-01	7.1605E-01	3.2789E-02
3.40E-10	3.2101E-01	6.7567E-01	2.0043E-02
3.50E-10	2.8958E-01	6.3059E-01	1.4012E-02
3.60E-10	2.5272E-01	5.9072E-01	8.0573E-03
3.70E-10	2.1376E-01	5.5071E-01	5.9996E-03
3.80E-10	1.7278E-01	5.1266E-01	3.9419E-03
3.90E-10	1.3552E-01	4.8164E-01	2.8692E-03
4.00E-10	1.0280E-01	4.5088E-01	2.1454E-03
4.10E-10	7.5449E-02	4.2586E-01	1.6064E-03
4.20E-10	5.6489E-02	4.0332E-01	1.2864E-03
4.30E-10	4.2244E-02	3.8157E-01	9.8729E-04
4.40E-10	3.1060E-02	3.6318E-01	7.8594E-04
4.50E-10	2.3597E-02	3.4438E-01	5.8459E-04
4.60E-10	1.8174E-02	3.2416E-01	3.8324E-04
4.70E-10	1.3964E-02	3.0378E-01	1.8189E-04
4.80E-10	1.1106E-02	2.8095E-01	9.6654E-05
4.90E-10	8.2484E-03	2.5556E-01	8.3885E-05
5.00E-10	5.8181E-03	2.3033E-01	7.1116E-05
5.10E-10	-3.6753E-04	1.9998E-01	5.8347E-05
5.20E-10	-3.6753E-04	1.7048E-01	4.5994E-05
5.30E-10	-3.6753E-04	1.4118E-01	4.0878E-05
5.40E-10	-3.6753E-04	1.1208E-01	3.5762E-05
5.50E-10	-3.6753E-04	8.5433E-02	3.0646E-05
5.60E-10	-3.6753E-04	6.4850E-02	2.8087E-05
5.70E-10	-3.6753E-04	4.4040E-02	2.8087E-05
5.80E-10	-3.6753E-04	3.2587E-02	2.8087E-05
5.90E-10	-3.6753E-04	2.2313E-02	2.8087E-05
6.00E-10	-3.6753E-04	1.4942E-02	2.8087E-05
6.10E-10	-3.6753E-04	1.1102E-02	2.8087E-05
6.20E-10	-3.6753E-04	7.2760E-03	2.8087E-05
6.30E-10	-3.6753E-04	5.9771E-03	2.8087E-05
6.40E-10	-3.6753E-04	4.6411E-03	2.8087E-05
6.50E-10	-3.6753E-04	3.7753E-03	2.8087E-05
6.60E-10	-3.6753E-04	3.2215E-03	2.8087E-05
6.70E-10	-3.6753E-04	2.7093E-03	2.8087E-05
6.80E-10	-3.6753E-04	2.3817E-03	2.8087E-05

6.90E-10	-3.6753E-04	2.0535E-03	2.8087E-05
7.00E-10	-3.6753E-04	1.7965E-03	2.8087E-05
7.10E-10	-3.6753E-04	1.5615E-03	2.8087E-05
7.20E-10	-3.6753E-04	1.3266E-03	2.8087E-05
7.30E-10	-3.6753E-04	7.2516E-04	2.8087E-05
7.40E-10	-3.6753E-04	7.2516E-04	2.8087E-05
7.50E-10	-3.6753E-04	7.2516E-04	2.8087E-05

\*\*\*\*\*  
| MODEL DQ\_34\_1600 (34 Ohm Data I/O with 60ohm ODT, 1333/1600 Mbps)  
\*\*\*\*\*

[Model] DQ\_34\_ODT60\_1600  
Model\_type I/O

Vinl = 600.000mV  
Vinh = 900.000mV  
Vmeas = 750.000mV  
Vref = 750.000mV  
Cref = 0.0pF  
Rref = 25.000Ohm

	typ	min	max
C_comp	1.078pF	0.966pF	1.223pF

| Note: C\_comp changes when the ODT circuit is enabled.

[Model Spec]

| Input threshold voltage corners

Vinl	0.6000V	0.5625V	0.6375V
Vinh	0.9000V	0.8625V	0.9375V

| Measurement voltage corners

Vmeas	0.7500V	0.7125V	0.7875V
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| Timing spec test load voltage corners

Vref	0.7500V	0.7125V	0.7875V
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| Dynamic Overshoot Parameters from DDR3 Specification

D_overshoot_ampl_h	0.40	NA	NA
D_overshoot_ampl_l	0.40	NA	NA
D_overshoot_area_h	0.13n	NA	NA
D_overshoot_area_l	0.13n	NA	NA

[[Receiver Thresholds]

|Vth = 0.750V  
|Vth\_min = 0.7350V  
|Vth\_max = 0.7650V  
|Vinh\_ac = 0.150V  
|Vinh\_dc = 0.100V  
|Vinl\_ac = -0.150V  
|Vinl\_dc = -0.100V  
|Tslew\_ac = 5.000ns |Not specified, so set to high value  
|Threshold\_sensitivity = 0.50

|Reference\_supply Pullup\_ref

[Add Submodel]

| Submodel Name      Mode  
60Ohm\_ODT      Non-Driving

[Voltage Range]      1.5000V      1.4250V      1.5750V  
[Pullup Reference]    1.5000V      1.4250V      1.5750V  
[Temperature Range]    85.0          110.0          0.0

\*\*\*\*\*

[Pulldown]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	-6.717440E-03	-6.602220E-03	-5.1878E-03
-1.4750000e+00	-6.950660E-03	-6.867910E-03	-5.4092E-03
-1.4250000e+00	-7.420160E-03	-7.410640E-03	-5.8575E-03
-1.3750000e+00	-7.891420E-03	-7.964120E-03	-6.3098E-03
-1.3250000e+00	-8.362190E-03	-8.523980E-03	-6.7632E-03
-1.2750000e+00	-8.830600E-03	-9.086830E-03	-7.2155E-03
-1.2250000e+00	-9.295050E-03	-9.650090E-03	-7.6651E-03
-1.1750000e+00	-9.754060E-03	-1.021176E-02	-8.1108E-03
-1.1250000e+00	-1.020612E-02	-1.077025E-02	-8.5512E-03
-1.0750000e+00	-1.064959E-02	-1.132418E-02	-8.9850E-03
-1.0250000e+00	-1.108253E-02	-1.187221E-02	-9.4109E-03
-9.7500000e-01	-1.150258E-02	-1.241292E-02	-9.8270E-03
-9.2500000e-01	-1.190672E-02	-1.294440E-02	-1.0231E-02
-8.7500000e-01	-1.229088E-02	-1.346358E-02	-1.0620E-02
-8.2500000e-01	-1.264939E-02	-1.396484E-02	-1.0991E-02
-7.7500000e-01	-1.297388E-02	-1.443730E-02	-1.1336E-02
-7.2500000e-01	-1.325153E-02	-1.486077E-02	-1.1649E-02
-6.7500000e-01	-1.346224E-02	-1.520128E-02	-1.1917E-02
-6.2500000e-01	-1.357544E-02	-1.540771E-02	-1.2120E-02
-5.7500000e-01	-1.354969E-02	-1.541129E-02	-1.2227E-02
-5.2500000e-01	-1.333921E-02	-1.513126E-02	-1.2185E-02
-4.7500000e-01	-1.290237E-02	-1.448995E-02	-1.1917E-02
-4.2500000e-01	-1.219129E-02	-1.344440E-02	-1.1342E-02
-3.7500000e-01	-1.115219E-02	-1.205672E-02	-1.0442E-02
-3.2500000e-01	-9.820264E-03	-1.048922E-02	-9.2579E-03
-2.7500000e-01	-8.341268E-03	-8.866406E-03	-7.8883E-03
-2.2500000e-01	-6.822138E-03	-7.235947E-03	-6.4597E-03
-1.7500000e-01	-5.298271E-03	-5.610770E-03	-5.0227E-03
-1.2500000e-01	-3.777710E-03	-3.994334E-03	-3.5860E-03
-7.5000000e-02	-2.262248E-03	-2.388040E-03	-2.1505E-03
-2.5000000e-02	-7.525408E-04	-7.929693E-04	-7.1644E-04
0.0000000e+00	-2.915900E-09	-3.333000E-10	-5.0570E-09
2.5000000e-02	7.507199E-04	7.895269E-04	7.1589E-04
7.5000000e-02	2.245917E-03	2.357110E-03	2.1456E-03
1.2500000e-01	3.732365E-03	3.908392E-03	3.5725E-03
1.7500000e-01	5.209520E-03	5.442055E-03	4.9965E-03
2.2500000e-01	6.676783E-03	6.956634E-03	6.4174E-03
2.7500000e-01	8.133496E-03	8.450479E-03	7.8352E-03

3.2500000e-01	9.578923E-03	9.921721E-03	9.2496E-03
3.7500000e-01	1.101226E-02	1.136822E-02	1.0661E-02
4.2500000e-01	1.243257E-02	1.278754E-02	1.2068E-02
4.7500000e-01	1.383888E-02	1.417683E-02	1.3472E-02
5.2500000e-01	1.523002E-02	1.553278E-02	1.4871E-02
5.7500000e-01	1.660471E-02	1.685160E-02	1.6267E-02
6.2500000e-01	1.796153E-02	1.812901E-02	1.7659E-02
6.7500000e-01	1.929892E-02	1.936079E-02	1.9046E-02
7.2500000e-01	2.061527E-02	2.054383E-02	2.0428E-02
7.7500000e-01	2.190915E-02	2.167702E-02	2.1805E-02
8.2500000e-01	2.317984E-02	2.276044E-02	2.3178E-02
8.7500000e-01	2.442765E-02	2.379315E-02	2.4544E-02
9.2500000e-01	2.565381E-02	2.477183E-02	2.5905E-02
9.7500000e-01	2.685955E-02	2.569073E-02	2.7261E-02
1.0250000e+00	2.804545E-02	2.654265E-02	2.8609E-02
1.0750000e+00	2.921123E-02	2.732059E-02	2.9951E-02
1.1250000e+00	3.035586E-02	2.802022E-02	3.1286E-02
1.1750000e+00	3.147763E-02	2.864222E-02	3.2613E-02
1.2250000e+00	3.257424E-02	2.919304E-02	3.3932E-02
1.2750000e+00	3.364280E-02	2.968331E-02	3.5242E-02
1.3250000e+00	3.467974E-02	3.012500E-02	3.6542E-02
1.3750000e+00	3.568083E-02	3.052912E-02	3.7832E-02
1.4250000e+00	3.664118E-02	3.090472E-02	3.9112E-02
1.4750000e+00	3.755541E-02	3.125876E-02	4.0379E-02
1.5250000e+00	3.841817E-02	3.159641E-02	4.1633E-02
1.5750000e+00	3.922484E-02	3.192149E-02	4.2873E-02
1.6250000e+00	3.997270E-02	3.223679E-02	4.4097E-02
1.6750000e+00	4.066185E-02	3.254442E-02	4.5303E-02
1.7250000e+00	4.129552E-02	3.284593E-02	4.6490E-02
1.7750000e+00	4.187958E-02	3.314250E-02	4.7654E-02
1.8250000e+00	4.242129E-02	3.343504E-02	4.8794E-02
1.8750000e+00	4.292808E-02	3.372428E-02	4.9905E-02
1.9250000e+00	4.340673E-02	3.401077E-02	5.0985E-02
1.9750000e+00	4.386296E-02	3.429496E-02	5.2029E-02
2.0250000e+00	4.430140E-02	3.457721E-02	5.3033E-02
2.0750000e+00	4.472568E-02	3.485782E-02	5.3993E-02
2.1250000e+00	4.513865E-02	3.513705E-02	5.4906E-02
2.1750000e+00	4.554252E-02	3.541511E-02	5.5769E-02
2.2250000e+00	4.593900E-02	3.569218E-02	5.6583E-02
2.2750000e+00	4.632944E-02	3.596843E-02	5.7349E-02
2.3250000e+00	4.671490E-02	3.624402E-02	5.8070E-02
2.3750000e+00	4.709624E-02	3.651910E-02	5.8752E-02
2.4250000e+00	4.747414E-02	3.679380E-02	5.9398E-02
2.4750000e+00	4.784918E-02	3.706830E-02	6.0016E-02
2.5250000e+00	4.822183E-02	3.734276E-02	6.0609E-02
2.5750000e+00	4.859248E-02	3.761735E-02	6.1181E-02
2.6250000e+00	4.896149E-02	3.789229E-02	6.1736E-02
2.6750000e+00	4.932914E-02	3.816783E-02	6.2277E-02
2.7250000e+00	4.969572E-02	3.844422E-02	6.2806E-02
2.7750000e+00	5.006148E-02	3.872180E-02	6.3326E-02
2.8250000e+00	5.042664E-02	3.900093E-02	6.3837E-02
2.8750000e+00	5.079141E-02	3.928204E-02	6.4342E-02
2.9250000e+00	5.115601E-02	3.956562E-02	6.4840E-02
2.9750000e+00	5.152066E-02	3.985223E-02	6.5334E-02



[GND Clamp]	3.0000000e+00	5.170306E-02	3.999685E-02	6.5579E-02
Voltage	I(typ)	I(min)	I(max)	
-1.5000000e+00	-5.378351E-02	-5.490567E-02	-5.885698E-02	
-1.4750000e+00	-5.231251E-02	-5.334431E-02	-5.735670E-02	
-1.4500000e+00	-5.084369E-02	-5.178549E-02	-5.585777E-02	
-1.4250000e+00	-4.937717E-02	-5.022938E-02	-5.436025E-02	
-1.4000000e+00	-4.791309E-02	-4.867613E-02	-5.286424E-02	
-1.3750000e+00	-4.645161E-02	-4.712594E-02	-5.136982E-02	
-1.3500000e+00	-4.499289E-02	-4.557901E-02	-4.987708E-02	
-1.3250000e+00	-4.353712E-02	-4.403556E-02	-4.838614E-02	
-1.3000000e+00	-4.208452E-02	-4.249585E-02	-4.689710E-02	
-1.2750000e+00	-4.063529E-02	-4.096014E-02	-4.541010E-02	
-1.2500000e+00	-3.918970E-02	-3.942875E-02	-4.392527E-02	
-1.2250000e+00	-3.774803E-02	-3.790201E-02	-4.244278E-02	
-1.2000000e+00	-3.631059E-02	-3.638031E-02	-4.096280E-02	
-1.1750000e+00	-3.487773E-02	-3.486408E-02	-3.948552E-02	
-1.1500000e+00	-3.344986E-02	-3.335380E-02	-3.801116E-02	
-1.1250000e+00	-3.202742E-02	-3.185003E-02	-3.653998E-02	
-1.1000000e+00	-3.061092E-02	-3.035339E-02	-3.507226E-02	
-1.0750000e+00	-2.920096E-02	-2.886462E-02	-3.360832E-02	
-1.0500000e+00	-2.779821E-02	-2.738455E-02	-3.214854E-02	
-1.0250000e+00	-2.640347E-02	-2.591415E-02	-3.069335E-02	
-1.0000000e+00	-2.501766E-02	-2.445455E-02	-2.924328E-02	
-9.7500000e-01	-2.364185E-02	-2.300708E-02	-2.779892E-02	
-9.5000000e-01	-2.227732E-02	-2.157329E-02	-2.636102E-02	
-9.2500000e-01	-2.092559E-02	-2.015501E-02	-2.493048E-02	
-9.0000000e-01	-1.958843E-02	-1.875433E-02	-2.350840E-02	
-8.7500000e-01	-1.826790E-02	-1.737363E-02	-2.209616E-02	
-8.5000000e-01	-1.696631E-02	-1.601550E-02	-2.069550E-02	
-8.2500000e-01	-1.568612E-02	-1.468262E-02	-1.930856E-02	
-8.0000000e-01	-1.442972E-02	-1.337762E-02	-1.793782E-02	
-7.7500000e-01	-1.319926E-02	-1.210311E-02	-1.658583E-02	
-7.5000000e-01	-1.199673E-02	-1.086191E-02	-1.525450E-02	
-7.2500000e-01	-1.082427E-02	-9.657411E-03	-1.394473E-02	
-7.0000000e-01	-9.684638E-03	-8.493939E-03	-1.265685E-02	
-6.7500000e-01	-8.581514E-03	-7.376930E-03	-1.139180E-02	
-6.5000000e-01	-7.519607E-03	-6.312929E-03	-1.015194E-02	
-6.2500000e-01	-6.504547E-03	-5.309438E-03	-8.941317E-03	
-6.0000000e-01	-5.542688E-03	-4.374618E-03	-7.765734E-03	
-5.7500000e-01	-4.640772E-03	-3.516890E-03	-6.632943E-03	
-5.5000000e-01	-3.805524E-03	-2.744483E-03	-5.552944E-03	
-5.2500000e-01	-3.043248E-03	-2.065103E-03	-4.538199E-03	
-5.0000000e-01	-2.359647E-03	-1.485677E-03	-3.603410E-03	
-4.7500000e-01	-1.760020E-03	-1.011779E-03	-2.764263E-03	
-4.5000000e-01	-1.249702E-03	-6.458403E-04	-2.034714E-03	
-4.2500000e-01	-8.339835E-04	-3.838582E-04	-1.423543E-03	
-4.0000000e-01	-5.162389E-04	-2.125448E-04	-9.327585E-04	
-3.7500000e-01	-2.937329E-04	-1.106466E-04	-5.596314E-04	
-3.5000000e-01	-1.537279E-04	-5.497263E-05	-2.989521E-04	
-3.2500000e-01	-7.493357E-05	-2.649171E-05	-1.392980E-04	
-3.0000000e-01	-3.471511E-05	-1.256760E-05	-5.693623E-05	
-2.7500000e-01	-1.563019E-05	-5.952723E-06	-2.113740E-05	

-2.5000000e-01	-7.001335E-06	-2.863206E-06	-7.478892E-06
-2.2500000e-01	-3.215160E-06	-1.433628E-06	-2.669240E-06
-2.0000000e-01	-1.576700E-06	-7.729597E-07	-1.039346E-06
-1.7500000e-01	-8.691669E-07	-4.659048E-07	-4.927419E-07
-1.5000000e-01	-5.602970E-07	-3.210513E-07	-3.060998E-07
-1.2500000e-01	-4.211770E-07	-2.506183E-07	-2.379530E-07
-1.0000000e-01	-3.542844E-07	-2.144259E-07	-2.089398E-07
-7.5000000e-02	-3.182781E-07	-1.940781E-07	-1.931385E-07
-5.0000000e-02	-2.956734E-07	-1.811414E-07	-1.820761E-07
-2.5000000e-02	-2.790923E-07	-1.717494E-07	-1.729560E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[Pullup]

-1.5000000e+00	1.625201E-02	1.758608E-02	1.5776E-02
-1.4750000e+00	1.628295E-02	1.772293E-02	1.5794E-02
-1.4250000e+00	1.631167E-02	1.794814E-02	1.5819E-02
-1.3750000e+00	1.630625E-02	1.810214E-02	1.5832E-02
-1.3250000e+00	1.628177E-02	1.818331E-02	1.5836E-02
-1.2750000e+00	1.625213E-02	1.819962E-02	1.5830E-02
-1.2250000e+00	1.622498E-02	1.816850E-02	1.5814E-02
-1.1750000e+00	1.620031E-02	1.811351E-02	1.5786E-02
-1.1250000e+00	1.617356E-02	1.805794E-02	1.5746E-02
-1.0750000e+00	1.613984E-02	1.801572E-02	1.5692E-02
-1.0250000e+00	1.609584E-02	1.798687E-02	1.5624E-02
-9.7500000e-01	1.603981E-02	1.796321E-02	1.5542E-02
-9.2500000e-01	1.597095E-02	1.793695E-02	1.5444E-02
-8.7500000e-01	1.588883E-02	1.790371E-02	1.5331E-02
-8.2500000e-01	1.579281E-02	1.786161E-02	1.5200E-02
-7.7500000e-01	1.568160E-02	1.780891E-02	1.5050E-02
-7.2500000e-01	1.555266E-02	1.774030E-02	1.4877E-02
-6.7500000e-01	1.540100E-02	1.763919E-02	1.4677E-02
-6.2500000e-01	1.521657E-02	1.746424E-02	1.4440E-02
-5.7500000e-01	1.497687E-02	1.713549E-02	1.4152E-02
-5.2500000e-01	1.462952E-02	1.653605E-02	1.3790E-02
-4.7500000e-01	1.407045E-02	1.555591E-02	1.3303E-02
-4.2500000e-01	1.317055E-02	1.420030E-02	1.2595E-02
-3.7500000e-01	1.190475E-02	1.261585E-02	1.1528E-02
-3.2500000e-01	1.040962E-02	1.094206E-02	1.0132E-02
-2.7500000e-01	8.825733E-03	9.244475E-03	8.6004E-03
-2.2500000e-01	7.217759E-03	7.545941E-03	7.0379E-03
-1.7500000e-01	5.606827E-03	5.853537E-03	5.4714E-03
-1.2500000e-01	3.998885E-03	4.169432E-03	3.9059E-03
-7.5000000e-02	2.395513E-03	2.494429E-03	2.3421E-03
-2.5000000e-02	7.971932E-04	8.289974E-04	7.8023E-04
0.0000000e+00	1.314700E-09	4.692000E-10	3.0652E-09
2.5000000e-02	-7.950502E-04	-8.253549E-04	-7.7920E-04
7.5000000e-02	-2.376138E-03	-2.461490E-03	-2.3328E-03
1.2500000e-01	-3.944794E-03	-4.077442E-03	-3.8799E-03
1.7500000e-01	-5.500495E-03	-5.672260E-03	-5.4201E-03
2.2500000e-01	-7.042695E-03	-7.244932E-03	-6.9533E-03
2.7500000e-01	-8.570810E-03	-8.794375E-03	-8.4790E-03
3.2500000e-01	-1.008422E-02	-1.031943E-02	-9.9969E-03
3.7500000e-01	-1.158229E-02	-1.181885E-02	-1.1507E-02

4.2500000e-01	-1.306431E-02	-1.329132E-02	-1.3008E-02
4.7500000e-01	-1.452955E-02	-1.473539E-02	-1.4501E-02
5.2500000e-01	-1.597724E-02	-1.614954E-02	-1.5984E-02
5.7500000e-01	-1.740654E-02	-1.753210E-02	-1.7458E-02
6.2500000e-01	-1.881658E-02	-1.888132E-02	-1.8922E-02
6.7500000e-01	-2.020643E-02	-2.019527E-02	-2.0375E-02
7.2500000e-01	-2.157509E-02	-2.147192E-02	-2.1818E-02
7.7500000e-01	-2.292153E-02	-2.270910E-02	-2.3248E-02
8.2500000e-01	-2.424464E-02	-2.390455E-02	-2.4667E-02
8.7500000e-01	-2.554331E-02	-2.505603E-02	-2.6073E-02
9.2500000e-01	-2.681638E-02	-2.616144E-02	-2.7466E-02
9.7500000e-01	-2.806279E-02	-2.721907E-02	-2.8845E-02
1.0250000e+00	-2.928162E-02	-2.822778E-02	-3.0209E-02
1.0750000e+00	-3.047224E-02	-2.918687E-02	-3.1559E-02
1.1250000e+00	-3.163441E-02	-3.009551E-02	-3.2895E-02
1.1750000e+00	-3.276817E-02	-3.095232E-02	-3.4215E-02
1.2250000e+00	-3.387345E-02	-3.175524E-02	-3.5520E-02
1.2750000e+00	-3.494986E-02	-3.250183E-02	-3.6810E-02
1.3250000e+00	-3.599648E-02	-3.318993E-02	-3.8084E-02
1.3750000e+00	-3.701195E-02	-3.381867E-02	-3.9341E-02
1.4250000e+00	-3.799445E-02	-3.438959E-02	-4.0581E-02
1.4750000e+00	-3.894176E-02	-3.490743E-02	-4.1802E-02
1.5250000e+00	-3.985132E-02	-3.537965E-02	-4.3004E-02
1.5750000e+00	-4.072029E-02	-3.581474E-02	-4.4185E-02
1.6250000e+00	-4.154560E-02	-3.622056E-02	-4.5343E-02
1.6750000e+00	-4.232425E-02	-3.660353E-02	-4.6476E-02
1.7250000e+00	-4.305363E-02	-3.696849E-02	-4.7583E-02
1.7750000e+00	-4.373217E-02	-3.731908E-02	-4.8662E-02
1.8250000e+00	-4.436015E-02	-3.765800E-02	-4.9709E-02
1.8750000e+00	-4.494020E-02	-3.798729E-02	-5.0722E-02
1.9250000e+00	-4.547717E-02	-3.830853E-02	-5.1698E-02
1.9750000e+00	-4.597727E-02	-3.862293E-02	-5.2633E-02
2.0250000e+00	-4.644684E-02	-3.893148E-02	-5.3524E-02
2.0750000e+00	-4.689156E-02	-3.923498E-02	-5.4367E-02
2.1250000e+00	-4.731609E-02	-3.953408E-02	-5.5160E-02
2.1750000e+00	-4.772413E-02	-3.982931E-02	-5.5900E-02
2.2250000e+00	-4.811854E-02	-4.012115E-02	-5.6590E-02
2.2750000e+00	-4.850161E-02	-4.040997E-02	-5.7231E-02
2.3250000e+00	-4.887508E-02	-4.069609E-02	-5.7830E-02
2.3750000e+00	-4.924037E-02	-4.097982E-02	-5.8391E-02
2.4250000e+00	-4.959862E-02	-4.126137E-02	-5.8920E-02
2.4750000e+00	-4.995076E-02	-4.154098E-02	-5.9424E-02
2.5250000e+00	-5.029755E-02	-4.181883E-02	-5.9906E-02
2.5750000e+00	-5.063964E-02	-4.209509E-02	-6.0370E-02
2.6250000e+00	-5.097758E-02	-4.236990E-02	-6.0819E-02
2.6750000e+00	-5.131181E-02	-4.264339E-02	-6.1255E-02
2.7250000e+00	-5.164272E-02	-4.291571E-02	-6.1681E-02
2.7750000e+00	-5.197066E-02	-4.318692E-02	-6.2098E-02
2.8250000e+00	-5.229592E-02	-4.345715E-02	-6.2507E-02
2.8750000e+00	-5.261875E-02	-4.372646E-02	-6.2909E-02
2.9250000e+00	-5.293944E-02	-4.399496E-02	-6.3305E-02
2.9750000e+00	-5.325809E-02	-4.426273E-02	-6.3695E-02
3.0000000e+00	-5.341670E-02	-4.439634E-02	-6.3889E-02

[POWER Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	4.450136E-02	4.385767E-02	4.780180E-02
-1.4750000e+00	4.325737E-02	4.248503E-02	4.651240E-02
-1.4500000e+00	4.202627E-02	4.113177E-02	4.522925E-02
-1.4250000e+00	4.080680E-02	3.979850E-02	4.395155E-02
-1.4000000e+00	3.959743E-02	3.848563E-02	4.267872E-02
-1.3750000e+00	3.839648E-02	3.719324E-02	4.141043E-02
-1.3500000e+00	3.720221E-02	3.592106E-02	4.014658E-02
-1.3250000e+00	3.601296E-02	3.466841E-02	3.888724E-02
-1.3000000e+00	3.482735E-02	3.343415E-02	3.763261E-02
-1.2750000e+00	3.364438E-02	3.221669E-02	3.638295E-02
-1.2500000e+00	3.246358E-02	3.101397E-02	3.513856E-02
-1.2250000e+00	3.128497E-02	2.982356E-02	3.389971E-02
-1.2000000e+00	3.010901E-02	2.864279E-02	3.266671E-02
-1.1750000e+00	2.893648E-02	2.746896E-02	3.143983E-02
-1.1500000e+00	2.776826E-02	2.629964E-02	3.021937E-02
-1.1250000e+00	2.660528E-02	2.513304E-02	2.900560E-02
-1.1000000e+00	2.544841E-02	2.396824E-02	2.779885E-02
-1.0750000e+00	2.429844E-02	2.280536E-02	2.659947E-02
-1.0500000e+00	2.315612E-02	2.164543E-02	2.540788E-02
-1.0250000e+00	2.202214E-02	2.049007E-02	2.422456E-02
-1.0000000e+00	2.089719E-02	1.934117E-02	2.305008E-02
-9.7500000e-01	1.978197E-02	1.820065E-02	2.188512E-02
-9.5000000e-01	1.867722E-02	1.707028E-02	2.073051E-02
-9.2500000e-01	1.758372E-02	1.595172E-02	1.958717E-02
-9.0000000e-01	1.650228E-02	1.484648E-02	1.845617E-02
-8.7500000e-01	1.543373E-02	1.375596E-02	1.733861E-02
-8.5000000e-01	1.437889E-02	1.268153E-02	1.623552E-02
-8.2500000e-01	1.333851E-02	1.162449E-02	1.514771E-02
-8.0000000e-01	1.231328E-02	1.058622E-02	1.407560E-02
-7.7500000e-01	1.130388E-02	9.568206E-03	1.301920E-02
-7.5000000e-01	1.031106E-02	8.572276E-03	1.197826E-02
-7.2500000e-01	9.335806E-03	7.600753E-03	1.095255E-02
-7.0000000e-01	8.379549E-03	6.656721E-03	9.942208E-03
-6.7500000e-01	7.444326E-03	5.744302E-03	8.947907E-03
-6.5000000e-01	6.532997E-03	4.868952E-03	7.971037E-03
-6.2500000e-01	5.649458E-03	4.037787E-03	7.013856E-03
-6.0000000e-01	4.798902E-03	3.259897E-03	6.079694E-03
-5.7500000e-01	3.988134E-03	2.546530E-03	5.173232E-03
-5.5000000e-01	3.225930E-03	1.910856E-03	4.300898E-03
-5.2500000e-01	2.523332E-03	1.366712E-03	3.471435E-03
-5.0000000e-01	1.893615E-03	9.256050E-04	2.696669E-03
-4.7500000e-01	1.351332E-03	5.919303E-04	1.992344E-03
-4.5000000e-01	9.095438E-04	3.586832E-04	1.378411E-03
-4.2500000e-01	5.747929E-04	2.078355E-04	8.770334E-04
-4.0000000e-01	3.418453E-04	1.164218E-04	5.053061E-04
-3.7500000e-01	1.930954E-04	6.360210E-05	2.627362E-04
-3.5000000e-01	1.048276E-04	3.408364E-05	1.249600E-04
-3.2500000e-01	5.523970E-05	1.799151E-05	5.555840E-05
-3.0000000e-01	2.845373E-05	9.394192E-06	2.354470E-05
-2.7500000e-01	1.440808E-05	4.878770E-06	9.667951E-06
-2.5000000e-01	7.217646E-06	2.540607E-06	3.917671E-06
-2.2500000e-01	3.608426E-06	1.343333E-06	1.610365E-06

-2.0000000e-01	1.824961E-06	7.351342E-07	7.040722E-07
-1.7500000e-01	9.538096E-07	4.274933E-07	3.518088E-07
-1.5000000e-01	5.312391E-07	2.717598E-07	2.143482E-07
-1.2500000e-01	3.264285E-07	1.922224E-07	1.590776E-07
-1.0000000e-01	2.262355E-07	1.506538E-07	1.350141E-07
-7.5000000e-02	1.758303E-07	1.278715E-07	1.227817E-07
-5.0000000e-02	1.489090E-07	1.143246E-07	1.150732E-07
-2.5000000e-02	1.332080E-07	1.054156E-07	1.091539E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[Ramp]

R\_load = 50.00Ohm

	typ	min	max
dV/dt_r	532.022mV/119.423ps	491.319mV/165.185ps	567.619mV/91.565ps
dV/dt_f	537.976mV/129.806ps	497.460mV/173.213ps	578.029mV/105.657ps

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[Rising Waveform]

V\_fixture = 1.500V

V\_fixture\_min = 1.425V

V\_fixture\_max = 1.575V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	6.1517E-01	5.8287E-01	6.5309E-01
1.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
2.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
3.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
4.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
5.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
6.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
7.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
8.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
9.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
1.00E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.10E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.20E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.30E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.40E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.50E-10	6.1517E-01	5.8287E-01	6.5433E-01
1.60E-10	6.1517E-01	5.8287E-01	6.7845E-01
1.70E-10	6.1616E-01	5.8287E-01	7.4018E-01
1.80E-10	6.1820E-01	5.8287E-01	8.2854E-01
1.90E-10	6.2509E-01	5.8287E-01	9.2350E-01
2.00E-10	6.3360E-01	5.8287E-01	1.0035E+00
2.10E-10	6.5972E-01	5.8287E-01	1.0622E+00
2.20E-10	6.9277E-01	5.8287E-01	1.1021E+00
2.30E-10	7.4389E-01	5.8287E-01	1.1297E+00
2.40E-10	8.0329E-01	5.8287E-01	1.1507E+00
2.50E-10	8.6698E-01	5.8287E-01	1.1725E+00

2.60E-10	9.3293E-01	5.8587E-01	1.2084E+00
2.70E-10	9.8606E-01	5.8977E-01	1.2660E+00
2.80E-10	1.0314E+00	6.0015E-01	1.3332E+00
2.90E-10	1.0621E+00	6.1507E-01	1.4005E+00
3.00E-10	1.0875E+00	6.3422E-01	1.4575E+00
3.10E-10	1.1038E+00	6.6308E-01	1.5003E+00
3.20E-10	1.1186E+00	6.9542E-01	1.5292E+00
3.30E-10	1.1318E+00	7.3829E-01	1.5452E+00
3.40E-10	1.1488E+00	7.8359E-01	1.5589E+00
3.50E-10	1.1685E+00	8.3263E-01	1.5644E+00
3.60E-10	1.1961E+00	8.7994E-01	1.5690E+00
3.70E-10	1.2308E+00	9.2648E-01	1.5711E+00
3.80E-10	1.2708E+00	9.6220E-01	1.5725E+00
3.90E-10	1.3157E+00	9.9443E-01	1.5733E+00
4.00E-10	1.3592E+00	1.0179E+00	1.5737E+00
4.10E-10	1.3979E+00	1.0367E+00	1.5740E+00
4.20E-10	1.4283E+00	1.0518E+00	1.5741E+00
4.30E-10	1.4538E+00	1.0635E+00	1.5743E+00
4.40E-10	1.4683E+00	1.0745E+00	1.5743E+00
4.50E-10	1.4800E+00	1.0848E+00	1.5743E+00
4.60E-10	1.4870E+00	1.0962E+00	1.5743E+00
4.70E-10	1.4913E+00	1.1088E+00	1.5744E+00
4.80E-10	1.4943E+00	1.1255E+00	1.5744E+00
4.90E-10	1.4948E+00	1.1437E+00	1.5745E+00
5.00E-10	1.4953E+00	1.1618E+00	1.5746E+00
5.10E-10	1.4959E+00	1.1826E+00	1.5747E+00
5.20E-10	1.4965E+00	1.2089E+00	1.5747E+00
5.30E-10	1.4972E+00	1.2353E+00	1.5747E+00
5.40E-10	1.4979E+00	1.2616E+00	1.5748E+00
5.50E-10	1.4985E+00	1.2874E+00	1.5748E+00
5.60E-10	1.4988E+00	1.3132E+00	1.5748E+00
5.70E-10	1.4992E+00	1.3390E+00	1.5749E+00
5.80E-10	1.4995E+00	1.3572E+00	1.5749E+00
5.90E-10	1.4996E+00	1.3739E+00	1.5749E+00
6.00E-10	1.4997E+00	1.3906E+00	1.5749E+00
6.10E-10	1.4998E+00	1.4002E+00	1.5749E+00
6.20E-10	1.4999E+00	1.4076E+00	1.5749E+00
6.30E-10	1.4999E+00	1.4150E+00	1.5750E+00
6.40E-10	1.4999E+00	1.4175E+00	1.5750E+00
6.50E-10	1.4999E+00	1.4200E+00	1.5750E+00
6.60E-10	1.4999E+00	1.4220E+00	1.5750E+00
6.70E-10	1.4999E+00	1.4227E+00	1.5750E+00
6.80E-10	1.4999E+00	1.4234E+00	1.5750E+00
6.90E-10	1.4999E+00	1.4238E+00	1.5750E+00
7.00E-10	1.4999E+00	1.4240E+00	1.5750E+00
7.10E-10	1.4999E+00	1.4242E+00	1.5750E+00
7.20E-10	1.4999E+00	1.4243E+00	1.5750E+00
7.30E-10	1.4999E+00	1.4244E+00	1.5750E+00
7.40E-10	1.4999E+00	1.4244E+00	1.5750E+00
7.50E-10	1.5000E+00	1.4244E+00	1.5750E+00

|  
[Falling Waveform]  
V\_fixture = 1.500V  
V\_fixture\_min = 1.425V

V\_fixture\_max = 1.575V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	1.5000E+00	1.4244E+00	1.5750E+00
1.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
2.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
3.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
4.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
5.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
6.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
7.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
8.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
9.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
1.00E-10	1.5000E+00	1.4244E+00	1.5750E+00
1.10E-10	1.5001E+00	1.4244E+00	1.5750E+00
1.20E-10	1.5005E+00	1.4244E+00	1.5750E+00
1.30E-10	1.5010E+00	1.4244E+00	1.5696E+00
1.40E-10	1.5019E+00	1.4244E+00	1.5421E+00
1.50E-10	1.5028E+00	1.4244E+00	1.5004E+00
1.60E-10	1.5039E+00	1.4244E+00	1.4462E+00
1.70E-10	1.5050E+00	1.4244E+00	1.3851E+00
1.80E-10	1.5044E+00	1.4244E+00	1.3205E+00
1.90E-10	1.5035E+00	1.4244E+00	1.2579E+00
2.00E-10	1.4916E+00	1.4244E+00	1.2013E+00
2.10E-10	1.4788E+00	1.4244E+00	1.1613E+00
2.20E-10	1.4542E+00	1.4244E+00	1.1320E+00
2.30E-10	1.4285E+00	1.4244E+00	1.1084E+00
2.40E-10	1.3937E+00	1.4244E+00	1.0868E+00
2.50E-10	1.3578E+00	1.4244E+00	1.0540E+00
2.60E-10	1.3171E+00	1.4218E+00	1.0067E+00
2.70E-10	1.2768E+00	1.4145E+00	9.4839E-01
2.80E-10	1.2375E+00	1.3990E+00	8.8192E-01
2.90E-10	1.2003E+00	1.3841E+00	8.2227E-01
3.00E-10	1.1674E+00	1.3619E+00	7.7341E-01
3.10E-10	1.1375E+00	1.3392E+00	7.3495E-01
3.20E-10	1.1123E+00	1.3125E+00	7.0687E-01
3.30E-10	1.0884E+00	1.2806E+00	6.9026E-01
3.40E-10	1.0662E+00	1.2558E+00	6.7865E-01
3.50E-10	1.0397E+00	1.2224E+00	6.7137E-01
3.60E-10	1.0097E+00	1.1987E+00	6.6791E-01
3.70E-10	9.7255E-01	1.1742E+00	6.6445E-01
3.80E-10	9.3100E-01	1.1523E+00	6.6187E-01
3.90E-10	8.8580E-01	1.1315E+00	6.5971E-01
4.00E-10	8.3897E-01	1.1120E+00	6.5755E-01
4.10E-10	7.9641E-01	1.0924E+00	6.5651E-01
4.20E-10	7.5515E-01	1.0749E+00	6.5547E-01
4.30E-10	7.2360E-01	1.0540E+00	6.5463E-01
4.40E-10	6.9391E-01	1.0344E+00	6.5421E-01
4.50E-10	6.7567E-01	1.0110E+00	6.5378E-01
4.60E-10	6.5854E-01	9.8237E-01	6.5353E-01
4.70E-10	6.4671E-01	9.5346E-01	6.5337E-01
4.80E-10	6.3926E-01	9.1790E-01	6.5321E-01

4.90E-10	6.3074E-01	8.7949E-01	6.5309E-01
5.00E-10	6.1517E-01	8.4341E-01	6.5309E-01
5.10E-10	6.1517E-01	8.0437E-01	6.5309E-01
5.20E-10	6.1517E-01	7.6818E-01	6.5309E-01
5.30E-10	6.1517E-01	7.3775E-01	6.5309E-01
5.40E-10	6.1517E-01	7.0888E-01	6.5309E-01
5.50E-10	6.1517E-01	6.8336E-01	6.5309E-01
5.60E-10	6.1517E-01	6.6440E-01	6.5309E-01
5.70E-10	6.1517E-01	6.4314E-01	6.5309E-01
5.80E-10	6.1517E-01	6.3327E-01	6.5309E-01
5.90E-10	6.1517E-01	6.1885E-01	6.5309E-01
6.00E-10	6.1517E-01	6.1028E-01	6.5309E-01
6.10E-10	6.1517E-01	6.0327E-01	6.5309E-01
6.20E-10	6.1517E-01	5.9567E-01	6.5309E-01
6.30E-10	6.1517E-01	5.9405E-01	6.5309E-01
6.40E-10	6.1517E-01	5.9090E-01	6.5309E-01
6.50E-10	6.1517E-01	5.8836E-01	6.5309E-01
6.60E-10	6.1517E-01	5.8633E-01	6.5309E-01
6.70E-10	6.1517E-01	5.8473E-01	6.5309E-01
6.80E-10	6.1517E-01	5.8287E-01	6.5309E-01
6.90E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.00E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.10E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.20E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.30E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.40E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.50E-10	6.1517E-01	5.8287E-01	6.5309E-01

[Rising Waveform]

V\_fixture = 0.000V

V\_fixture\_min = 0.000V

V\_fixture\_max = 0.000V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	-3.6753E-04	7.2516E-04	2.8087E-05
1.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
2.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
3.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
4.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
5.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
6.00E-11	-3.6753E-04	7.2516E-04	1.0216E-04
7.00E-11	-3.6753E-04	7.2516E-04	1.9728E-04
8.00E-11	-3.6753E-04	7.2516E-04	2.7894E-04
9.00E-11	-3.6753E-04	7.2516E-04	2.8460E-04
1.00E-10	-3.6753E-04	7.2516E-04	2.9184E-04
1.10E-10	-3.6753E-04	7.2516E-04	1.1285E-03
1.20E-10	-3.6753E-04	7.2516E-04	2.7155E-03
1.30E-10	-3.6753E-04	7.2516E-04	5.0230E-03
1.40E-10	-3.6753E-04	7.2516E-04	7.3254E-03
1.50E-10	-3.6753E-04	7.2516E-04	8.7724E-03
1.60E-10	-3.6753E-04	7.2516E-04	1.1212E-02
1.70E-10	-3.6753E-04	7.2516E-04	4.6035E-02



1.80E-10	-3.6753E-04	7.2516E-04	9.9223E-02
1.90E-10	-3.6753E-04	7.2516E-04	1.6614E-01
2.00E-10	-3.6753E-04	7.2516E-04	2.3920E-01
2.10E-10	3.5736E-03	7.2516E-04	3.0948E-01
2.20E-10	2.0502E-02	7.2516E-04	3.6921E-01
2.30E-10	4.1697E-02	7.2516E-04	4.1553E-01
2.40E-10	7.5340E-02	7.2516E-04	4.4908E-01
2.50E-10	1.1331E-01	7.2516E-04	4.7338E-01
2.60E-10	1.5884E-01	7.2516E-04	4.9503E-01
2.70E-10	2.0668E-01	7.2516E-04	5.2442E-01
2.80E-10	2.5162E-01	7.2516E-04	5.7364E-01
2.90E-10	2.9581E-01	7.2516E-04	6.4440E-01
3.00E-10	3.3180E-01	5.8446E-03	7.2332E-01
3.10E-10	3.6594E-01	1.3532E-02	7.9061E-01
3.20E-10	3.9082E-01	2.2842E-02	8.4100E-01
3.30E-10	4.1397E-01	4.4064E-02	8.7560E-01
3.40E-10	4.3129E-01	6.5287E-02	8.9835E-01
3.50E-10	4.4771E-01	8.8005E-02	9.1275E-01
3.60E-10	4.6699E-01	1.1851E-01	9.2083E-01
3.70E-10	4.8661E-01	1.4901E-01	9.2762E-01
3.80E-10	5.2174E-01	1.7941E-01	9.3202E-01
3.90E-10	5.5826E-01	2.0939E-01	9.3546E-01
4.00E-10	6.0852E-01	2.3937E-01	9.3833E-01
4.10E-10	6.5962E-01	2.6803E-01	9.4087E-01
4.20E-10	7.0835E-01	2.9259E-01	9.4281E-01
4.30E-10	7.5701E-01	3.1716E-01	9.4428E-01
4.40E-10	7.8894E-01	3.3790E-01	9.4537E-01
4.50E-10	8.1785E-01	3.5587E-01	9.4606E-01
4.60E-10	8.3619E-01	3.7385E-01	9.4675E-01
4.70E-10	8.5094E-01	3.8729E-01	9.4744E-01
4.80E-10	8.6107E-01	4.0033E-01	9.4796E-01
4.90E-10	8.6825E-01	4.1330E-01	9.4812E-01
5.00E-10	8.7391E-01	4.2611E-01	9.4828E-01
5.10E-10	8.7730E-01	4.3892E-01	9.4845E-01
5.20E-10	8.8026E-01	4.5640E-01	9.4858E-01
5.30E-10	8.8222E-01	4.7710E-01	9.4859E-01
5.40E-10	8.8386E-01	4.9780E-01	9.4860E-01
5.50E-10	8.8486E-01	5.2989E-01	9.4860E-01
5.60E-10	8.8585E-01	5.6285E-01	9.4860E-01
5.70E-10	8.8684E-01	5.9689E-01	9.4860E-01
5.80E-10	8.8768E-01	6.3392E-01	9.4860E-01
5.90E-10	8.8847E-01	6.7095E-01	9.4860E-01
6.00E-10	8.8926E-01	7.0233E-01	9.4860E-01
6.10E-10	8.8998E-01	7.2999E-01	9.4860E-01
6.20E-10	8.9042E-01	7.5766E-01	9.4860E-01
6.30E-10	8.9086E-01	7.7515E-01	9.4860E-01
6.40E-10	8.9130E-01	7.9200E-01	9.4860E-01
6.50E-10	8.9157E-01	8.0477E-01	9.4860E-01
6.60E-10	8.9176E-01	8.1411E-01	9.4860E-01
6.70E-10	8.9194E-01	8.2282E-01	9.4860E-01
6.80E-10	8.9213E-01	8.2783E-01	9.4860E-01
6.90E-10	8.9232E-01	8.3284E-01	9.4860E-01
7.00E-10	8.9251E-01	8.3619E-01	9.4860E-01
7.10E-10	8.9269E-01	8.3899E-01	9.4860E-01

7.20E-10	8.9279E-01	8.4140E-01	9.4860E-01
7.30E-10	8.9282E-01	8.4312E-01	9.4860E-01
7.40E-10	8.9285E-01	8.4444E-01	9.4860E-01
7.50E-10	8.9288E-01	8.4444E-01	9.4860E-01

[Falling Waveform]

V\_fixture = 0.000V

V\_fixture\_min = 0.000V

V\_fixture\_max = 0.000V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	8.9297E-01	8.4444E-01	9.4842E-01
1.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
2.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
3.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
4.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
5.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
6.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
7.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
8.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
9.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
1.00E-10	8.9298E-01	8.4444E-01	9.4842E-01
1.10E-10	8.9307E-01	8.4444E-01	9.4842E-01
1.20E-10	8.9310E-01	8.4444E-01	9.4710E-01
1.30E-10	8.9298E-01	8.4444E-01	9.3543E-01
1.40E-10	8.9269E-01	8.4444E-01	9.1264E-01
1.50E-10	8.9153E-01	8.4444E-01	8.6501E-01
1.60E-10	8.9009E-01	8.4444E-01	7.9523E-01
1.70E-10	8.8619E-01	8.4444E-01	7.1623E-01
1.80E-10	8.8188E-01	8.4444E-01	6.3702E-01
1.90E-10	8.6797E-01	8.4444E-01	5.6822E-01
2.00E-10	8.5407E-01	8.4444E-01	5.1467E-01
2.10E-10	8.1907E-01	8.4444E-01	4.7745E-01
2.20E-10	7.8369E-01	8.4444E-01	4.5020E-01
2.30E-10	7.2759E-01	8.4356E-01	4.2700E-01
2.40E-10	6.6977E-01	8.4256E-01	4.0012E-01
2.50E-10	6.0883E-01	8.3977E-01	3.6152E-01
2.60E-10	5.4739E-01	8.3484E-01	3.0810E-01
2.70E-10	5.0056E-01	8.2675E-01	2.4581E-01
2.80E-10	4.5727E-01	8.1616E-01	1.8720E-01
2.90E-10	4.2858E-01	8.0426E-01	1.3866E-01
3.00E-10	4.0488E-01	7.8900E-01	9.9411E-02
3.10E-10	3.8513E-01	7.7410E-01	6.9027E-02
3.20E-10	3.6720E-01	7.4966E-01	4.8410E-02
3.30E-10	3.4529E-01	7.1605E-01	3.2789E-02
3.40E-10	3.2101E-01	6.7567E-01	2.0043E-02
3.50E-10	2.8958E-01	6.3059E-01	1.4012E-02
3.60E-10	2.5272E-01	5.9072E-01	8.0573E-03
3.70E-10	2.1376E-01	5.5071E-01	5.9996E-03
3.80E-10	1.7278E-01	5.1266E-01	3.9419E-03
3.90E-10	1.3552E-01	4.8164E-01	2.8692E-03
4.00E-10	1.0280E-01	4.5088E-01	2.1454E-03

4.10E-10	7.5449E-02	4.2586E-01	1.6064E-03
4.20E-10	5.6489E-02	4.0332E-01	1.2864E-03
4.30E-10	4.2244E-02	3.8157E-01	9.8729E-04
4.40E-10	3.1060E-02	3.6318E-01	7.8594E-04
4.50E-10	2.3597E-02	3.4438E-01	5.8459E-04
4.60E-10	1.8174E-02	3.2416E-01	3.8324E-04
4.70E-10	1.3964E-02	3.0378E-01	1.8189E-04
4.80E-10	1.1106E-02	2.8095E-01	9.6654E-05
4.90E-10	8.2484E-03	2.5556E-01	8.3885E-05
5.00E-10	5.8181E-03	2.3033E-01	7.1116E-05
5.10E-10	-3.6753E-04	1.9998E-01	5.8347E-05
5.20E-10	-3.6753E-04	1.7048E-01	4.5994E-05
5.30E-10	-3.6753E-04	1.4118E-01	4.0878E-05
5.40E-10	-3.6753E-04	1.1208E-01	3.5762E-05
5.50E-10	-3.6753E-04	8.5433E-02	3.0646E-05
5.60E-10	-3.6753E-04	6.4850E-02	2.8087E-05
5.70E-10	-3.6753E-04	4.4040E-02	2.8087E-05
5.80E-10	-3.6753E-04	3.2587E-02	2.8087E-05
5.90E-10	-3.6753E-04	2.2313E-02	2.8087E-05
6.00E-10	-3.6753E-04	1.4942E-02	2.8087E-05
6.10E-10	-3.6753E-04	1.1102E-02	2.8087E-05
6.20E-10	-3.6753E-04	7.2760E-03	2.8087E-05
6.30E-10	-3.6753E-04	5.9771E-03	2.8087E-05
6.40E-10	-3.6753E-04	4.6411E-03	2.8087E-05
6.50E-10	-3.6753E-04	3.7753E-03	2.8087E-05
6.60E-10	-3.6753E-04	3.2215E-03	2.8087E-05
6.70E-10	-3.6753E-04	2.7093E-03	2.8087E-05
6.80E-10	-3.6753E-04	2.3817E-03	2.8087E-05
6.90E-10	-3.6753E-04	2.0535E-03	2.8087E-05
7.00E-10	-3.6753E-04	1.7965E-03	2.8087E-05
7.10E-10	-3.6753E-04	1.5615E-03	2.8087E-05
7.20E-10	-3.6753E-04	1.3266E-03	2.8087E-05
7.30E-10	-3.6753E-04	7.2516E-04	2.8087E-05
7.40E-10	-3.6753E-04	7.2516E-04	2.8087E-05
7.50E-10	-3.6753E-04	7.2516E-04	2.8087E-05

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MODEL DQ\_34\_1600 (34 Ohm Data I/O with 120ohm ODT, 1333/1600 Mbps)

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[Model] DQ\_34\_ODT120\_1600

Model\_type I/O

Vinl = 600.000mV

Vinh = 900.000mV

Vmeas = 750.000mV

Vref = 750.000mV

Cref = 0.0pF

Rref = 25.000Ohm

	typ	min	max
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C_comp	1.078pF	0.966pF	1.223pF
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| Note: C\_comp changes when the ODT circuit is enabled.

| [Model Spec]

| Input threshold voltage corners

Vinl	0.6000V	0.5625V	0.6375V
Vinh	0.9000V	0.8625V	0.9375V

| Measurement voltage corners

Vmeas	0.7500V	0.7125V	0.7875V
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| Timing spec test load voltage corners

Vref	0.7500V	0.7125V	0.7875V
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| Dynamic Overshoot Parameters from DDR3 Specification

D_overshoot_ampl_h	0.40	NA	NA
D_overshoot_ampl_l	0.40	NA	NA
D_overshoot_area_h	0.13n	NA	NA
D_overshoot_area_l	0.13n	NA	NA

| [Receiver Thresholds]

| Vth = 0.750V

| Vth\_min = 0.7350V

| Vth\_max = 0.7650V

| Vinh\_ac = 0.150V

| Vinh\_dc = 0.100V

| Vinl\_ac = -0.150V

| Vinl\_dc = -0.100V

| Tslew\_ac = 5.000ns |Not specified, so set to high value

| Threshold\_sensitivity = 0.50

| Reference\_supply Pullup\_ref

| [Add Submodel]

Submodel Name	Mode
120Ohm_ODT	Non-Driving

[Voltage Range]	1.5000V	1.4250V	1.5750V
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[Pullup Reference]	1.5000V	1.4250V	1.5750V
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[Temperature Range]	85.0	110.0	0.0
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| [Pulldown]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	-6.717440E-03	-6.602220E-03	-5.1878E-03
-1.4750000e+00	-6.950660E-03	-6.867910E-03	-5.4092E-03
-1.4250000e+00	-7.420160E-03	-7.410640E-03	-5.8575E-03
-1.3750000e+00	-7.891420E-03	-7.964120E-03	-6.3098E-03
-1.3250000e+00	-8.362190E-03	-8.523980E-03	-6.7632E-03
-1.2750000e+00	-8.830600E-03	-9.086830E-03	-7.2155E-03
-1.2250000e+00	-9.295050E-03	-9.650090E-03	-7.6651E-03
-1.1750000e+00	-9.754060E-03	-1.021176E-02	-8.1108E-03
-1.1250000e+00	-1.020612E-02	-1.077025E-02	-8.5512E-03

-1.0750000e+00	-1.064959E-02	-1.132418E-02	-8.9850E-03
-1.0250000e+00	-1.108253E-02	-1.187221E-02	-9.4109E-03
-9.7500000e-01	-1.150258E-02	-1.241292E-02	-9.8270E-03
-9.2500000e-01	-1.190672E-02	-1.294440E-02	-1.0231E-02
-8.7500000e-01	-1.229088E-02	-1.346358E-02	-1.0620E-02
-8.2500000e-01	-1.264939E-02	-1.396484E-02	-1.0991E-02
-7.7500000e-01	-1.297388E-02	-1.443730E-02	-1.1336E-02
-7.2500000e-01	-1.325153E-02	-1.486077E-02	-1.1649E-02
-6.7500000e-01	-1.346224E-02	-1.520128E-02	-1.1917E-02
-6.2500000e-01	-1.357544E-02	-1.540771E-02	-1.2120E-02
-5.7500000e-01	-1.354969E-02	-1.541129E-02	-1.2227E-02
-5.2500000e-01	-1.333921E-02	-1.513126E-02	-1.2185E-02
-4.7500000e-01	-1.290237E-02	-1.448995E-02	-1.1917E-02
-4.2500000e-01	-1.219129E-02	-1.344440E-02	-1.1342E-02
-3.7500000e-01	-1.115219E-02	-1.205672E-02	-1.0442E-02
-3.2500000e-01	-9.820264E-03	-1.048922E-02	-9.2579E-03
-2.7500000e-01	-8.341268E-03	-8.866406E-03	-7.8883E-03
-2.2500000e-01	-6.822138E-03	-7.235947E-03	-6.4597E-03
-1.7500000e-01	-5.298271E-03	-5.610770E-03	-5.0227E-03
-1.2500000e-01	-3.777710E-03	-3.994334E-03	-3.5860E-03
-7.5000000e-02	-2.262248E-03	-2.388040E-03	-2.1505E-03
-2.5000000e-02	-7.525408E-04	-7.929693E-04	-7.1644E-04
0.0000000e+00	-2.915900E-09	-3.333000E-10	-5.0570E-09
2.5000000e-02	7.507199E-04	7.895269E-04	7.1589E-04
7.5000000e-02	2.245917E-03	2.357110E-03	2.1456E-03
1.2500000e-01	3.732365E-03	3.908392E-03	3.5725E-03
1.7500000e-01	5.209520E-03	5.442055E-03	4.9965E-03
2.2500000e-01	6.676783E-03	6.956634E-03	6.4174E-03
2.7500000e-01	8.133496E-03	8.450479E-03	7.8352E-03
3.2500000e-01	9.578923E-03	9.921721E-03	9.2496E-03
3.7500000e-01	1.101226E-02	1.136822E-02	1.0661E-02
4.2500000e-01	1.243257E-02	1.278754E-02	1.2068E-02
4.7500000e-01	1.383888E-02	1.417683E-02	1.3472E-02
5.2500000e-01	1.523002E-02	1.553278E-02	1.4871E-02
5.7500000e-01	1.660471E-02	1.685160E-02	1.6267E-02
6.2500000e-01	1.796153E-02	1.812901E-02	1.7659E-02
6.7500000e-01	1.929892E-02	1.936079E-02	1.9046E-02
7.2500000e-01	2.061527E-02	2.054383E-02	2.0428E-02
7.7500000e-01	2.190915E-02	2.167702E-02	2.1805E-02
8.2500000e-01	2.317984E-02	2.276044E-02	2.3178E-02
8.7500000e-01	2.442765E-02	2.379315E-02	2.4544E-02
9.2500000e-01	2.565381E-02	2.477183E-02	2.5905E-02
9.7500000e-01	2.685955E-02	2.569073E-02	2.7261E-02
1.0250000e+00	2.804545E-02	2.654265E-02	2.8609E-02
1.0750000e+00	2.921123E-02	2.732059E-02	2.9951E-02
1.1250000e+00	3.035586E-02	2.802022E-02	3.1286E-02
1.1750000e+00	3.147763E-02	2.864222E-02	3.2613E-02
1.2250000e+00	3.257424E-02	2.919304E-02	3.3932E-02
1.2750000e+00	3.364280E-02	2.968331E-02	3.5242E-02
1.3250000e+00	3.467974E-02	3.012500E-02	3.6542E-02
1.3750000e+00	3.568083E-02	3.052912E-02	3.7832E-02
1.4250000e+00	3.664118E-02	3.090472E-02	3.9112E-02
1.4750000e+00	3.755541E-02	3.125876E-02	4.0379E-02
1.5250000e+00	3.841817E-02	3.159641E-02	4.1633E-02

1.5750000e+00	3.922484E-02	3.192149E-02	4.2873E-02
1.6250000e+00	3.997270E-02	3.223679E-02	4.4097E-02
1.6750000e+00	4.066185E-02	3.254442E-02	4.5303E-02
1.7250000e+00	4.129552E-02	3.284593E-02	4.6490E-02
1.7750000e+00	4.187958E-02	3.314250E-02	4.7654E-02
1.8250000e+00	4.242129E-02	3.343504E-02	4.8794E-02
1.8750000e+00	4.292808E-02	3.372428E-02	4.9905E-02
1.9250000e+00	4.340673E-02	3.401077E-02	5.0985E-02
1.9750000e+00	4.386296E-02	3.429496E-02	5.2029E-02
2.0250000e+00	4.430140E-02	3.457721E-02	5.3033E-02
2.0750000e+00	4.472568E-02	3.485782E-02	5.3993E-02
2.1250000e+00	4.513865E-02	3.513705E-02	5.4906E-02
2.1750000e+00	4.554252E-02	3.541511E-02	5.5769E-02
2.2250000e+00	4.593900E-02	3.569218E-02	5.6583E-02
2.2750000e+00	4.632944E-02	3.596843E-02	5.7349E-02
2.3250000e+00	4.671490E-02	3.624402E-02	5.8070E-02
2.3750000e+00	4.709624E-02	3.651910E-02	5.8752E-02
2.4250000e+00	4.747414E-02	3.679380E-02	5.9398E-02
2.4750000e+00	4.784918E-02	3.706830E-02	6.0016E-02
2.5250000e+00	4.822183E-02	3.734276E-02	6.0609E-02
2.5750000e+00	4.859248E-02	3.761735E-02	6.1181E-02
2.6250000e+00	4.896149E-02	3.789229E-02	6.1736E-02
2.6750000e+00	4.932914E-02	3.816783E-02	6.2277E-02
2.7250000e+00	4.969572E-02	3.844422E-02	6.2806E-02
2.7750000e+00	5.006148E-02	3.872180E-02	6.3326E-02
2.8250000e+00	5.042664E-02	3.900093E-02	6.3837E-02
2.8750000e+00	5.079141E-02	3.928204E-02	6.4342E-02
2.9250000e+00	5.115601E-02	3.956562E-02	6.4840E-02
2.9750000e+00	5.152066E-02	3.985223E-02	6.5334E-02
3.0000000e+00	5.170306E-02	3.999685E-02	6.5579E-02

[GND Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	-5.378351E-02	-5.490567E-02	-5.885698E-02
-1.4750000e+00	-5.231251E-02	-5.334431E-02	-5.735670E-02
-1.4500000e+00	-5.084369E-02	-5.178549E-02	-5.585777E-02
-1.4250000e+00	-4.937717E-02	-5.022938E-02	-5.436025E-02
-1.4000000e+00	-4.791309E-02	-4.867613E-02	-5.286424E-02
-1.3750000e+00	-4.645161E-02	-4.712594E-02	-5.136982E-02
-1.3500000e+00	-4.499289E-02	-4.557901E-02	-4.987708E-02
-1.3250000e+00	-4.353712E-02	-4.403556E-02	-4.838614E-02
-1.3000000e+00	-4.208452E-02	-4.249585E-02	-4.689710E-02
-1.2750000e+00	-4.063529E-02	-4.096014E-02	-4.541010E-02
-1.2500000e+00	-3.918970E-02	-3.942875E-02	-4.392527E-02
-1.2250000e+00	-3.774803E-02	-3.790201E-02	-4.244278E-02
-1.2000000e+00	-3.631059E-02	-3.638031E-02	-4.096280E-02
-1.1750000e+00	-3.487773E-02	-3.486408E-02	-3.948552E-02
-1.1500000e+00	-3.344986E-02	-3.335380E-02	-3.801116E-02
-1.1250000e+00	-3.202742E-02	-3.185003E-02	-3.653998E-02
-1.1000000e+00	-3.061092E-02	-3.035339E-02	-3.507226E-02
-1.0750000e+00	-2.920096E-02	-2.886462E-02	-3.360832E-02
-1.0500000e+00	-2.779821E-02	-2.738455E-02	-3.214854E-02
-1.0250000e+00	-2.640347E-02	-2.591415E-02	-3.069335E-02
-1.0000000e+00	-2.501766E-02	-2.445455E-02	-2.924328E-02

-9.7500000e-01	-2.364185E-02	-2.300708E-02	-2.779892E-02
-9.5000000e-01	-2.227732E-02	-2.157329E-02	-2.636102E-02
-9.2500000e-01	-2.092559E-02	-2.015501E-02	-2.493048E-02
-9.0000000e-01	-1.958843E-02	-1.875433E-02	-2.350840E-02
-8.7500000e-01	-1.826790E-02	-1.737363E-02	-2.209616E-02
-8.5000000e-01	-1.696631E-02	-1.601550E-02	-2.069550E-02
-8.2500000e-01	-1.568612E-02	-1.468262E-02	-1.930856E-02
-8.0000000e-01	-1.442972E-02	-1.337762E-02	-1.793782E-02
-7.7500000e-01	-1.319926E-02	-1.210311E-02	-1.658583E-02
-7.5000000e-01	-1.199673E-02	-1.086191E-02	-1.525450E-02
-7.2500000e-01	-1.082427E-02	-9.657411E-03	-1.394473E-02
-7.0000000e-01	-9.684638E-03	-8.493939E-03	-1.265685E-02
-6.7500000e-01	-8.581514E-03	-7.376930E-03	-1.139180E-02
-6.5000000e-01	-7.519607E-03	-6.312929E-03	-1.015194E-02
-6.2500000e-01	-6.504547E-03	-5.309438E-03	-8.941317E-03
-6.0000000e-01	-5.542688E-03	-4.374618E-03	-7.765734E-03
-5.7500000e-01	-4.640772E-03	-3.516890E-03	-6.632943E-03
-5.5000000e-01	-3.805524E-03	-2.744483E-03	-5.552944E-03
-5.2500000e-01	-3.043248E-03	-2.065103E-03	-4.538199E-03
-5.0000000e-01	-2.359647E-03	-1.485677E-03	-3.603410E-03
-4.7500000e-01	-1.760020E-03	-1.011779E-03	-2.764263E-03
-4.5000000e-01	-1.249702E-03	-6.458403E-04	-2.034714E-03
-4.2500000e-01	-8.339835E-04	-3.838582E-04	-1.423543E-03
-4.0000000e-01	-5.162389E-04	-2.125448E-04	-9.327585E-04
-3.7500000e-01	-2.937329E-04	-1.106466E-04	-5.596314E-04
-3.5000000e-01	-1.537279E-04	-5.497263E-05	-2.989521E-04
-3.2500000e-01	-7.493357E-05	-2.649171E-05	-1.392980E-04
-3.0000000e-01	-3.471511E-05	-1.256760E-05	-5.693623E-05
-2.7500000e-01	-1.563019E-05	-5.952723E-06	-2.113740E-05
-2.5000000e-01	-7.001335E-06	-2.863206E-06	-7.478892E-06
-2.2500000e-01	-3.215160E-06	-1.433628E-06	-2.669240E-06
-2.0000000e-01	-1.576700E-06	-7.729597E-07	-1.039346E-06
-1.7500000e-01	-8.691669E-07	-4.659048E-07	-4.927419E-07
-1.5000000e-01	-5.602970E-07	-3.210513E-07	-3.060998E-07
-1.2500000e-01	-4.211770E-07	-2.506183E-07	-2.379530E-07
-1.0000000e-01	-3.542844E-07	-2.144259E-07	-2.089398E-07
-7.5000000e-02	-3.182781E-07	-1.940781E-07	-1.931385E-07
-5.0000000e-02	-2.956734E-07	-1.811414E-07	-1.820761E-07
-2.5000000e-02	-2.790923E-07	-1.717494E-07	-1.729560E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[Pullup]

-1.5000000e+00	1.625201E-02	1.758608E-02	1.5776E-02
-1.4750000e+00	1.628295E-02	1.772293E-02	1.5794E-02
-1.4250000e+00	1.631167E-02	1.794814E-02	1.5819E-02
-1.3750000e+00	1.630625E-02	1.810214E-02	1.5832E-02
-1.3250000e+00	1.628177E-02	1.818331E-02	1.5836E-02
-1.2750000e+00	1.625213E-02	1.819962E-02	1.5830E-02
-1.2250000e+00	1.622498E-02	1.816850E-02	1.5814E-02
-1.1750000e+00	1.620031E-02	1.811351E-02	1.5786E-02
-1.1250000e+00	1.617356E-02	1.805794E-02	1.5746E-02
-1.0750000e+00	1.613984E-02	1.801572E-02	1.5692E-02
-1.0250000e+00	1.609584E-02	1.798687E-02	1.5624E-02

-9.7500000e-01	1.603981E-02	1.796321E-02	1.5542E-02
-9.2500000e-01	1.597095E-02	1.793695E-02	1.5444E-02
-8.7500000e-01	1.588883E-02	1.790371E-02	1.5331E-02
-8.2500000e-01	1.579281E-02	1.786161E-02	1.5200E-02
-7.7500000e-01	1.568160E-02	1.780891E-02	1.5050E-02
-7.2500000e-01	1.555266E-02	1.774030E-02	1.4877E-02
-6.7500000e-01	1.540100E-02	1.763919E-02	1.4677E-02
-6.2500000e-01	1.521657E-02	1.746424E-02	1.4440E-02
-5.7500000e-01	1.497687E-02	1.713549E-02	1.4152E-02
-5.2500000e-01	1.462952E-02	1.653605E-02	1.3790E-02
-4.7500000e-01	1.407045E-02	1.555591E-02	1.3303E-02
-4.2500000e-01	1.317055E-02	1.420030E-02	1.2595E-02
-3.7500000e-01	1.190475E-02	1.261585E-02	1.1528E-02
-3.2500000e-01	1.040962E-02	1.094206E-02	1.0132E-02
-2.7500000e-01	8.825733E-03	9.244475E-03	8.6004E-03
-2.2500000e-01	7.217759E-03	7.545941E-03	7.0379E-03
-1.7500000e-01	5.606827E-03	5.853537E-03	5.4714E-03
-1.2500000e-01	3.998885E-03	4.169432E-03	3.9059E-03
-7.5000000e-02	2.395513E-03	2.494429E-03	2.3421E-03
-2.5000000e-02	7.971932E-04	8.289974E-04	7.8023E-04
0.0000000e+00	1.314700E-09	4.692000E-10	3.0652E-09
2.5000000e-02	-7.950502E-04	-8.253549E-04	-7.7920E-04
7.5000000e-02	-2.376138E-03	-2.461490E-03	-2.3328E-03
1.2500000e-01	-3.944794E-03	-4.077442E-03	-3.8799E-03
1.7500000e-01	-5.500495E-03	-5.672260E-03	-5.4201E-03
2.2500000e-01	-7.042695E-03	-7.244932E-03	-6.9533E-03
2.7500000e-01	-8.570810E-03	-8.794375E-03	-8.4790E-03
3.2500000e-01	-1.008422E-02	-1.031943E-02	-9.9969E-03
3.7500000e-01	-1.158229E-02	-1.181885E-02	-1.1507E-02
4.2500000e-01	-1.306431E-02	-1.329132E-02	-1.3008E-02
4.7500000e-01	-1.452955E-02	-1.473539E-02	-1.4501E-02
5.2500000e-01	-1.597724E-02	-1.614954E-02	-1.5984E-02
5.7500000e-01	-1.740654E-02	-1.753210E-02	-1.7458E-02
6.2500000e-01	-1.881658E-02	-1.888132E-02	-1.8922E-02
6.7500000e-01	-2.020643E-02	-2.019527E-02	-2.0375E-02
7.2500000e-01	-2.157509E-02	-2.147192E-02	-2.1818E-02
7.7500000e-01	-2.292153E-02	-2.270910E-02	-2.3248E-02
8.2500000e-01	-2.424464E-02	-2.390455E-02	-2.4667E-02
8.7500000e-01	-2.554331E-02	-2.505603E-02	-2.6073E-02
9.2500000e-01	-2.681638E-02	-2.616144E-02	-2.7466E-02
9.7500000e-01	-2.806279E-02	-2.721907E-02	-2.8845E-02
1.0250000e+00	-2.928162E-02	-2.822778E-02	-3.0209E-02
1.0750000e+00	-3.047224E-02	-2.918687E-02	-3.1559E-02
1.1250000e+00	-3.163441E-02	-3.009551E-02	-3.2895E-02
1.1750000e+00	-3.276817E-02	-3.095232E-02	-3.4215E-02
1.2250000e+00	-3.387345E-02	-3.175524E-02	-3.5520E-02
1.2750000e+00	-3.494986E-02	-3.250183E-02	-3.6810E-02
1.3250000e+00	-3.599648E-02	-3.318993E-02	-3.8084E-02
1.3750000e+00	-3.701195E-02	-3.381867E-02	-3.9341E-02
1.4250000e+00	-3.799445E-02	-3.438959E-02	-4.0581E-02
1.4750000e+00	-3.894176E-02	-3.490743E-02	-4.1802E-02
1.5250000e+00	-3.985132E-02	-3.537965E-02	-4.3004E-02
1.5750000e+00	-4.072029E-02	-3.581474E-02	-4.4185E-02
1.6250000e+00	-4.154560E-02	-3.622056E-02	-4.5343E-02



1.6750000e+00	-4.232425E-02	-3.660353E-02	-4.6476E-02
1.7250000e+00	-4.305363E-02	-3.696849E-02	-4.7583E-02
1.7750000e+00	-4.373217E-02	-3.731908E-02	-4.8662E-02
1.8250000e+00	-4.436015E-02	-3.765800E-02	-4.9709E-02
1.8750000e+00	-4.494020E-02	-3.798729E-02	-5.0722E-02
1.9250000e+00	-4.547717E-02	-3.830853E-02	-5.1698E-02
1.9750000e+00	-4.597727E-02	-3.862293E-02	-5.2633E-02
2.0250000e+00	-4.644684E-02	-3.893148E-02	-5.3524E-02
2.0750000e+00	-4.689156E-02	-3.923498E-02	-5.4367E-02
2.1250000e+00	-4.731609E-02	-3.953408E-02	-5.5160E-02
2.1750000e+00	-4.772413E-02	-3.982931E-02	-5.5900E-02
2.2250000e+00	-4.811854E-02	-4.012115E-02	-5.6590E-02
2.2750000e+00	-4.850161E-02	-4.040997E-02	-5.7231E-02
2.3250000e+00	-4.887508E-02	-4.069609E-02	-5.7830E-02
2.3750000e+00	-4.924037E-02	-4.097982E-02	-5.8391E-02
2.4250000e+00	-4.959862E-02	-4.126137E-02	-5.8920E-02
2.4750000e+00	-4.995076E-02	-4.154098E-02	-5.9424E-02
2.5250000e+00	-5.029755E-02	-4.181883E-02	-5.9906E-02
2.5750000e+00	-5.063964E-02	-4.209509E-02	-6.0370E-02
2.6250000e+00	-5.097758E-02	-4.236990E-02	-6.0819E-02
2.6750000e+00	-5.131181E-02	-4.264339E-02	-6.1255E-02
2.7250000e+00	-5.164272E-02	-4.291571E-02	-6.1681E-02
2.7750000e+00	-5.197066E-02	-4.318692E-02	-6.2098E-02
2.8250000e+00	-5.229592E-02	-4.345715E-02	-6.2507E-02
2.8750000e+00	-5.261875E-02	-4.372646E-02	-6.2909E-02
2.9250000e+00	-5.293944E-02	-4.399496E-02	-6.3305E-02
2.9750000e+00	-5.325809E-02	-4.426273E-02	-6.3695E-02
3.0000000e+00	-5.341670E-02	-4.439634E-02	-6.3889E-02

[POWER Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	4.450136E-02	4.385767E-02	4.780180E-02
-1.4750000e+00	4.325737E-02	4.248503E-02	4.651240E-02
-1.4500000e+00	4.202627E-02	4.113177E-02	4.522925E-02
-1.4250000e+00	4.080680E-02	3.979850E-02	4.395155E-02
-1.4000000e+00	3.959743E-02	3.848563E-02	4.267872E-02
-1.3750000e+00	3.839648E-02	3.719324E-02	4.141043E-02
-1.3500000e+00	3.720221E-02	3.592106E-02	4.014658E-02
-1.3250000e+00	3.601296E-02	3.466841E-02	3.888724E-02
-1.3000000e+00	3.482735E-02	3.343415E-02	3.763261E-02
-1.2750000e+00	3.364438E-02	3.221669E-02	3.638295E-02
-1.2500000e+00	3.246358E-02	3.101397E-02	3.513856E-02
-1.2250000e+00	3.128497E-02	2.982356E-02	3.389971E-02
-1.2000000e+00	3.010901E-02	2.864279E-02	3.266671E-02
-1.1750000e+00	2.893648E-02	2.746896E-02	3.143983E-02
-1.1500000e+00	2.776826E-02	2.629964E-02	3.021937E-02
-1.1250000e+00	2.660528E-02	2.513304E-02	2.900560E-02
-1.1000000e+00	2.544841E-02	2.396824E-02	2.779885E-02
-1.0750000e+00	2.429844E-02	2.280536E-02	2.659947E-02
-1.0500000e+00	2.315612E-02	2.164543E-02	2.540788E-02
-1.0250000e+00	2.202214E-02	2.049007E-02	2.422456E-02
-1.0000000e+00	2.089719E-02	1.934117E-02	2.305008E-02
-9.7500000e-01	1.978197E-02	1.820065E-02	2.188512E-02
-9.5000000e-01	1.867722E-02	1.707028E-02	2.073051E-02

-9.2500000e-01	1.758372E-02	1.595172E-02	1.958717E-02
-9.0000000e-01	1.650228E-02	1.484648E-02	1.845617E-02
-8.7500000e-01	1.543373E-02	1.375596E-02	1.733861E-02
-8.5000000e-01	1.437889E-02	1.268153E-02	1.623552E-02
-8.2500000e-01	1.333851E-02	1.162449E-02	1.514771E-02
-8.0000000e-01	1.231328E-02	1.058622E-02	1.407560E-02
-7.7500000e-01	1.130388E-02	9.568206E-03	1.301920E-02
-7.5000000e-01	1.031106E-02	8.572276E-03	1.197826E-02
-7.2500000e-01	9.335806E-03	7.600753E-03	1.095255E-02
-7.0000000e-01	8.379549E-03	6.656721E-03	9.942208E-03
-6.7500000e-01	7.444326E-03	5.744302E-03	8.947907E-03
-6.5000000e-01	6.532997E-03	4.868952E-03	7.971037E-03
-6.2500000e-01	5.649458E-03	4.037787E-03	7.013856E-03
-6.0000000e-01	4.798902E-03	3.259897E-03	6.079694E-03
-5.7500000e-01	3.988134E-03	2.546530E-03	5.173232E-03
-5.5000000e-01	3.225930E-03	1.910856E-03	4.300898E-03
-5.2500000e-01	2.523332E-03	1.366712E-03	3.471435E-03
-5.0000000e-01	1.893615E-03	9.256050E-04	2.696669E-03
-4.7500000e-01	1.351332E-03	5.919303E-04	1.992344E-03
-4.5000000e-01	9.095438E-04	3.586832E-04	1.378411E-03
-4.2500000e-01	5.747929E-04	2.078355E-04	8.770334E-04
-4.0000000e-01	3.418453E-04	1.164218E-04	5.053061E-04
-3.7500000e-01	1.930954E-04	6.360210E-05	2.627362E-04
-3.5000000e-01	1.048276E-04	3.408364E-05	1.249600E-04
-3.2500000e-01	5.523970E-05	1.799151E-05	5.555840E-05
-3.0000000e-01	2.845373E-05	9.394192E-06	2.354470E-05
-2.7500000e-01	1.440808E-05	4.878770E-06	9.667951E-06
-2.5000000e-01	7.217646E-06	2.540607E-06	3.917671E-06
-2.2500000e-01	3.608426E-06	1.343333E-06	1.610365E-06
-2.0000000e-01	1.824961E-06	7.351342E-07	7.040722E-07
-1.7500000e-01	9.538096E-07	4.274933E-07	3.518088E-07
-1.5000000e-01	5.312391E-07	2.717598E-07	2.143482E-07
-1.2500000e-01	3.264285E-07	1.922224E-07	1.590776E-07
-1.0000000e-01	2.262355E-07	1.506538E-07	1.350141E-07
-7.5000000e-02	1.758303E-07	1.278715E-07	1.227817E-07
-5.0000000e-02	1.489090E-07	1.143246E-07	1.150732E-07
-2.5000000e-02	1.332080E-07	1.054156E-07	1.091539E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[Ramp]

R\_load = 50.00Ohm

	typ	min	max
dV/dt_r	532.022mV/119.423ps	491.319mV/165.185ps	567.619mV/91.565ps
dV/dt_f	537.976mV/129.806ps	497.460mV/173.213ps	578.029mV/105.657ps

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[Rising Waveform]

V\_fixture = 1.500V

V\_fixture\_min = 1.425V

V\_fixture\_max = 1.575V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	6.1517E-01	5.8287E-01	6.5309E-01
1.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
2.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
3.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
4.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
5.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
6.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
7.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
8.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
9.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
1.00E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.10E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.20E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.30E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.40E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.50E-10	6.1517E-01	5.8287E-01	6.5433E-01
1.60E-10	6.1517E-01	5.8287E-01	6.7845E-01
1.70E-10	6.1616E-01	5.8287E-01	7.4018E-01
1.80E-10	6.1820E-01	5.8287E-01	8.2854E-01
1.90E-10	6.2509E-01	5.8287E-01	9.2350E-01
2.00E-10	6.3360E-01	5.8287E-01	1.0035E+00
2.10E-10	6.5972E-01	5.8287E-01	1.0622E+00
2.20E-10	6.9277E-01	5.8287E-01	1.1021E+00
2.30E-10	7.4389E-01	5.8287E-01	1.1297E+00
2.40E-10	8.0329E-01	5.8287E-01	1.1507E+00
2.50E-10	8.6698E-01	5.8287E-01	1.1725E+00
2.60E-10	9.3293E-01	5.8587E-01	1.2084E+00
2.70E-10	9.8606E-01	5.8977E-01	1.2660E+00
2.80E-10	1.0314E+00	6.0015E-01	1.3332E+00
2.90E-10	1.0621E+00	6.1507E-01	1.4005E+00
3.00E-10	1.0875E+00	6.3422E-01	1.4575E+00
3.10E-10	1.1038E+00	6.6308E-01	1.5003E+00
3.20E-10	1.1186E+00	6.9542E-01	1.5292E+00
3.30E-10	1.1318E+00	7.3829E-01	1.5452E+00
3.40E-10	1.1488E+00	7.8359E-01	1.5589E+00
3.50E-10	1.1685E+00	8.3263E-01	1.5644E+00
3.60E-10	1.1961E+00	8.7994E-01	1.5690E+00
3.70E-10	1.2308E+00	9.2648E-01	1.5711E+00
3.80E-10	1.2708E+00	9.6220E-01	1.5725E+00
3.90E-10	1.3157E+00	9.9443E-01	1.5733E+00
4.00E-10	1.3592E+00	1.0179E+00	1.5737E+00
4.10E-10	1.3979E+00	1.0367E+00	1.5740E+00
4.20E-10	1.4283E+00	1.0518E+00	1.5741E+00
4.30E-10	1.4538E+00	1.0635E+00	1.5743E+00
4.40E-10	1.4683E+00	1.0745E+00	1.5743E+00
4.50E-10	1.4800E+00	1.0848E+00	1.5743E+00
4.60E-10	1.4870E+00	1.0962E+00	1.5743E+00
4.70E-10	1.4913E+00	1.1088E+00	1.5744E+00
4.80E-10	1.4943E+00	1.1255E+00	1.5744E+00
4.90E-10	1.4948E+00	1.1437E+00	1.5745E+00
5.00E-10	1.4953E+00	1.1618E+00	1.5746E+00

5.10E-10	1.4959E+00	1.1826E+00	1.5747E+00
5.20E-10	1.4965E+00	1.2089E+00	1.5747E+00
5.30E-10	1.4972E+00	1.2353E+00	1.5747E+00
5.40E-10	1.4979E+00	1.2616E+00	1.5748E+00
5.50E-10	1.4985E+00	1.2874E+00	1.5748E+00
5.60E-10	1.4988E+00	1.3132E+00	1.5748E+00
5.70E-10	1.4992E+00	1.3390E+00	1.5749E+00
5.80E-10	1.4995E+00	1.3572E+00	1.5749E+00
5.90E-10	1.4996E+00	1.3739E+00	1.5749E+00
6.00E-10	1.4997E+00	1.3906E+00	1.5749E+00
6.10E-10	1.4998E+00	1.4002E+00	1.5749E+00
6.20E-10	1.4999E+00	1.4076E+00	1.5749E+00
6.30E-10	1.4999E+00	1.4150E+00	1.5750E+00
6.40E-10	1.4999E+00	1.4175E+00	1.5750E+00
6.50E-10	1.4999E+00	1.4200E+00	1.5750E+00
6.60E-10	1.4999E+00	1.4220E+00	1.5750E+00
6.70E-10	1.4999E+00	1.4227E+00	1.5750E+00
6.80E-10	1.4999E+00	1.4234E+00	1.5750E+00
6.90E-10	1.4999E+00	1.4238E+00	1.5750E+00
7.00E-10	1.4999E+00	1.4240E+00	1.5750E+00
7.10E-10	1.4999E+00	1.4242E+00	1.5750E+00
7.20E-10	1.4999E+00	1.4243E+00	1.5750E+00
7.30E-10	1.4999E+00	1.4244E+00	1.5750E+00
7.40E-10	1.4999E+00	1.4244E+00	1.5750E+00
7.50E-10	1.5000E+00	1.4244E+00	1.5750E+00

[Falling Waveform]

V\_fixture = 1.500V

V\_fixture\_min = 1.425V

V\_fixture\_max = 1.575V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	1.5000E+00	1.4244E+00	1.5750E+00
1.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
2.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
3.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
4.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
5.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
6.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
7.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
8.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
9.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
1.00E-10	1.5000E+00	1.4244E+00	1.5750E+00
1.10E-10	1.5001E+00	1.4244E+00	1.5750E+00
1.20E-10	1.5005E+00	1.4244E+00	1.5750E+00
1.30E-10	1.5010E+00	1.4244E+00	1.5696E+00
1.40E-10	1.5019E+00	1.4244E+00	1.5421E+00
1.50E-10	1.5028E+00	1.4244E+00	1.5004E+00
1.60E-10	1.5039E+00	1.4244E+00	1.4462E+00
1.70E-10	1.5050E+00	1.4244E+00	1.3851E+00
1.80E-10	1.5044E+00	1.4244E+00	1.3205E+00
1.90E-10	1.5035E+00	1.4244E+00	1.2579E+00

2.00E-10	1.4916E+00	1.4244E+00	1.2013E+00
2.10E-10	1.4788E+00	1.4244E+00	1.1613E+00
2.20E-10	1.4542E+00	1.4244E+00	1.1320E+00
2.30E-10	1.4285E+00	1.4244E+00	1.1084E+00
2.40E-10	1.3937E+00	1.4244E+00	1.0868E+00
2.50E-10	1.3578E+00	1.4244E+00	1.0540E+00
2.60E-10	1.3171E+00	1.4218E+00	1.0067E+00
2.70E-10	1.2768E+00	1.4145E+00	9.4839E-01
2.80E-10	1.2375E+00	1.3990E+00	8.8192E-01
2.90E-10	1.2003E+00	1.3841E+00	8.2227E-01
3.00E-10	1.1674E+00	1.3619E+00	7.7341E-01
3.10E-10	1.1375E+00	1.3392E+00	7.3495E-01
3.20E-10	1.1123E+00	1.3125E+00	7.0687E-01
3.30E-10	1.0884E+00	1.2806E+00	6.9026E-01
3.40E-10	1.0662E+00	1.2558E+00	6.7865E-01
3.50E-10	1.0397E+00	1.2224E+00	6.7137E-01
3.60E-10	1.0097E+00	1.1987E+00	6.6791E-01
3.70E-10	9.7255E-01	1.1742E+00	6.6445E-01
3.80E-10	9.3100E-01	1.1523E+00	6.6187E-01
3.90E-10	8.8580E-01	1.1315E+00	6.5971E-01
4.00E-10	8.3897E-01	1.1120E+00	6.5755E-01
4.10E-10	7.9641E-01	1.0924E+00	6.5651E-01
4.20E-10	7.5515E-01	1.0749E+00	6.5547E-01
4.30E-10	7.2360E-01	1.0540E+00	6.5463E-01
4.40E-10	6.9391E-01	1.0344E+00	6.5421E-01
4.50E-10	6.7567E-01	1.0110E+00	6.5378E-01
4.60E-10	6.5854E-01	9.8237E-01	6.5353E-01
4.70E-10	6.4671E-01	9.5346E-01	6.5337E-01
4.80E-10	6.3926E-01	9.1790E-01	6.5321E-01
4.90E-10	6.3074E-01	8.7949E-01	6.5309E-01
5.00E-10	6.1517E-01	8.4341E-01	6.5309E-01
5.10E-10	6.1517E-01	8.0437E-01	6.5309E-01
5.20E-10	6.1517E-01	7.6818E-01	6.5309E-01
5.30E-10	6.1517E-01	7.3775E-01	6.5309E-01
5.40E-10	6.1517E-01	7.0888E-01	6.5309E-01
5.50E-10	6.1517E-01	6.8336E-01	6.5309E-01
5.60E-10	6.1517E-01	6.6440E-01	6.5309E-01
5.70E-10	6.1517E-01	6.4314E-01	6.5309E-01
5.80E-10	6.1517E-01	6.3327E-01	6.5309E-01
5.90E-10	6.1517E-01	6.1885E-01	6.5309E-01
6.00E-10	6.1517E-01	6.1028E-01	6.5309E-01
6.10E-10	6.1517E-01	6.0327E-01	6.5309E-01
6.20E-10	6.1517E-01	5.9567E-01	6.5309E-01
6.30E-10	6.1517E-01	5.9405E-01	6.5309E-01
6.40E-10	6.1517E-01	5.9090E-01	6.5309E-01
6.50E-10	6.1517E-01	5.8836E-01	6.5309E-01
6.60E-10	6.1517E-01	5.8633E-01	6.5309E-01
6.70E-10	6.1517E-01	5.8473E-01	6.5309E-01
6.80E-10	6.1517E-01	5.8287E-01	6.5309E-01
6.90E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.00E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.10E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.20E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.30E-10	6.1517E-01	5.8287E-01	6.5309E-01

7.40E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.50E-10	6.1517E-01	5.8287E-01	6.5309E-01

[Rising Waveform]

V\_fixture = 0.000V

V\_fixture\_min = 0.000V

V\_fixture\_max = 0.000V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	-3.6753E-04	7.2516E-04	2.8087E-05
1.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
2.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
3.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
4.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
5.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
6.00E-11	-3.6753E-04	7.2516E-04	1.0216E-04
7.00E-11	-3.6753E-04	7.2516E-04	1.9728E-04
8.00E-11	-3.6753E-04	7.2516E-04	2.7894E-04
9.00E-11	-3.6753E-04	7.2516E-04	2.8460E-04
1.00E-10	-3.6753E-04	7.2516E-04	2.9184E-04
1.10E-10	-3.6753E-04	7.2516E-04	1.1285E-03
1.20E-10	-3.6753E-04	7.2516E-04	2.7155E-03
1.30E-10	-3.6753E-04	7.2516E-04	5.0230E-03
1.40E-10	-3.6753E-04	7.2516E-04	7.3254E-03
1.50E-10	-3.6753E-04	7.2516E-04	8.7724E-03
1.60E-10	-3.6753E-04	7.2516E-04	1.1212E-02
1.70E-10	-3.6753E-04	7.2516E-04	4.6035E-02
1.80E-10	-3.6753E-04	7.2516E-04	9.9223E-02
1.90E-10	-3.6753E-04	7.2516E-04	1.6614E-01
2.00E-10	-3.6753E-04	7.2516E-04	2.3920E-01
2.10E-10	3.5736E-03	7.2516E-04	3.0948E-01
2.20E-10	2.0502E-02	7.2516E-04	3.6921E-01
2.30E-10	4.1697E-02	7.2516E-04	4.1553E-01
2.40E-10	7.5340E-02	7.2516E-04	4.4908E-01
2.50E-10	1.1331E-01	7.2516E-04	4.7338E-01
2.60E-10	1.5884E-01	7.2516E-04	4.9503E-01
2.70E-10	2.0668E-01	7.2516E-04	5.2442E-01
2.80E-10	2.5162E-01	7.2516E-04	5.7364E-01
2.90E-10	2.9581E-01	7.2516E-04	6.4440E-01
3.00E-10	3.3180E-01	5.8446E-03	7.2332E-01
3.10E-10	3.6594E-01	1.3532E-02	7.9061E-01
3.20E-10	3.9082E-01	2.2842E-02	8.4100E-01
3.30E-10	4.1397E-01	4.4064E-02	8.7560E-01
3.40E-10	4.3129E-01	6.5287E-02	8.9835E-01
3.50E-10	4.4771E-01	8.8005E-02	9.1275E-01
3.60E-10	4.6699E-01	1.1851E-01	9.2083E-01
3.70E-10	4.8661E-01	1.4901E-01	9.2762E-01
3.80E-10	5.2174E-01	1.7941E-01	9.3202E-01
3.90E-10	5.5826E-01	2.0939E-01	9.3546E-01
4.00E-10	6.0852E-01	2.3937E-01	9.3833E-01
4.10E-10	6.5962E-01	2.6803E-01	9.4087E-01
4.20E-10	7.0835E-01	2.9259E-01	9.4281E-01

4.30E-10	7.5701E-01	3.1716E-01	9.4428E-01
4.40E-10	7.8894E-01	3.3790E-01	9.4537E-01
4.50E-10	8.1785E-01	3.5587E-01	9.4606E-01
4.60E-10	8.3619E-01	3.7385E-01	9.4675E-01
4.70E-10	8.5094E-01	3.8729E-01	9.4744E-01
4.80E-10	8.6107E-01	4.0033E-01	9.4796E-01
4.90E-10	8.6825E-01	4.1330E-01	9.4812E-01
5.00E-10	8.7391E-01	4.2611E-01	9.4828E-01
5.10E-10	8.7730E-01	4.3892E-01	9.4845E-01
5.20E-10	8.8026E-01	4.5640E-01	9.4858E-01
5.30E-10	8.8222E-01	4.7710E-01	9.4859E-01
5.40E-10	8.8386E-01	4.9780E-01	9.4860E-01
5.50E-10	8.8486E-01	5.2989E-01	9.4860E-01
5.60E-10	8.8585E-01	5.6285E-01	9.4860E-01
5.70E-10	8.8684E-01	5.9689E-01	9.4860E-01
5.80E-10	8.8768E-01	6.3392E-01	9.4860E-01
5.90E-10	8.8847E-01	6.7095E-01	9.4860E-01
6.00E-10	8.8926E-01	7.0233E-01	9.4860E-01
6.10E-10	8.8998E-01	7.2999E-01	9.4860E-01
6.20E-10	8.9042E-01	7.5766E-01	9.4860E-01
6.30E-10	8.9086E-01	7.7515E-01	9.4860E-01
6.40E-10	8.9130E-01	7.9200E-01	9.4860E-01
6.50E-10	8.9157E-01	8.0477E-01	9.4860E-01
6.60E-10	8.9176E-01	8.1411E-01	9.4860E-01
6.70E-10	8.9194E-01	8.2282E-01	9.4860E-01
6.80E-10	8.9213E-01	8.2783E-01	9.4860E-01
6.90E-10	8.9232E-01	8.3284E-01	9.4860E-01
7.00E-10	8.9251E-01	8.3619E-01	9.4860E-01
7.10E-10	8.9269E-01	8.3899E-01	9.4860E-01
7.20E-10	8.9279E-01	8.4140E-01	9.4860E-01
7.30E-10	8.9282E-01	8.4312E-01	9.4860E-01
7.40E-10	8.9285E-01	8.4444E-01	9.4860E-01
7.50E-10	8.9288E-01	8.4444E-01	9.4860E-01

[Falling Waveform]

V\_fixture = 0.000V

V\_fixture\_min = 0.000V

V\_fixture\_max = 0.000V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	8.9297E-01	8.4444E-01	9.4842E-01
1.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
2.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
3.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
4.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
5.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
6.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
7.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
8.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
9.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
1.00E-10	8.9298E-01	8.4444E-01	9.4842E-01
1.10E-10	8.9307E-01	8.4444E-01	9.4842E-01

1.20E-10	8.9310E-01	8.4444E-01	9.4710E-01
1.30E-10	8.9298E-01	8.4444E-01	9.3543E-01
1.40E-10	8.9269E-01	8.4444E-01	9.1264E-01
1.50E-10	8.9153E-01	8.4444E-01	8.6501E-01
1.60E-10	8.9009E-01	8.4444E-01	7.9523E-01
1.70E-10	8.8619E-01	8.4444E-01	7.1623E-01
1.80E-10	8.8188E-01	8.4444E-01	6.3702E-01
1.90E-10	8.6797E-01	8.4444E-01	5.6822E-01
2.00E-10	8.5407E-01	8.4444E-01	5.1467E-01
2.10E-10	8.1907E-01	8.4444E-01	4.7745E-01
2.20E-10	7.8369E-01	8.4444E-01	4.5020E-01
2.30E-10	7.2759E-01	8.4356E-01	4.2700E-01
2.40E-10	6.6977E-01	8.4256E-01	4.0012E-01
2.50E-10	6.0883E-01	8.3977E-01	3.6152E-01
2.60E-10	5.4739E-01	8.3484E-01	3.0810E-01
2.70E-10	5.0056E-01	8.2675E-01	2.4581E-01
2.80E-10	4.5727E-01	8.1616E-01	1.8720E-01
2.90E-10	4.2858E-01	8.0426E-01	1.3866E-01
3.00E-10	4.0488E-01	7.8900E-01	9.9411E-02
3.10E-10	3.8513E-01	7.7410E-01	6.9027E-02
3.20E-10	3.6720E-01	7.4966E-01	4.8410E-02
3.30E-10	3.4529E-01	7.1605E-01	3.2789E-02
3.40E-10	3.2101E-01	6.7567E-01	2.0043E-02
3.50E-10	2.8958E-01	6.3059E-01	1.4012E-02
3.60E-10	2.5272E-01	5.9072E-01	8.0573E-03
3.70E-10	2.1376E-01	5.5071E-01	5.9996E-03
3.80E-10	1.7278E-01	5.1266E-01	3.9419E-03
3.90E-10	1.3552E-01	4.8164E-01	2.8692E-03
4.00E-10	1.0280E-01	4.5088E-01	2.1454E-03
4.10E-10	7.5449E-02	4.2586E-01	1.6064E-03
4.20E-10	5.6489E-02	4.0332E-01	1.2864E-03
4.30E-10	4.2244E-02	3.8157E-01	9.8729E-04
4.40E-10	3.1060E-02	3.6318E-01	7.8594E-04
4.50E-10	2.3597E-02	3.4438E-01	5.8459E-04
4.60E-10	1.8174E-02	3.2416E-01	3.8324E-04
4.70E-10	1.3964E-02	3.0378E-01	1.8189E-04
4.80E-10	1.1106E-02	2.8095E-01	9.6654E-05
4.90E-10	8.2484E-03	2.5556E-01	8.3885E-05
5.00E-10	5.8181E-03	2.3033E-01	7.1116E-05
5.10E-10	-3.6753E-04	1.9998E-01	5.8347E-05
5.20E-10	-3.6753E-04	1.7048E-01	4.5994E-05
5.30E-10	-3.6753E-04	1.4118E-01	4.0878E-05
5.40E-10	-3.6753E-04	1.1208E-01	3.5762E-05
5.50E-10	-3.6753E-04	8.5433E-02	3.0646E-05
5.60E-10	-3.6753E-04	6.4850E-02	2.8087E-05
5.70E-10	-3.6753E-04	4.4040E-02	2.8087E-05
5.80E-10	-3.6753E-04	3.2587E-02	2.8087E-05
5.90E-10	-3.6753E-04	2.2313E-02	2.8087E-05
6.00E-10	-3.6753E-04	1.4942E-02	2.8087E-05
6.10E-10	-3.6753E-04	1.1102E-02	2.8087E-05
6.20E-10	-3.6753E-04	7.2760E-03	2.8087E-05
6.30E-10	-3.6753E-04	5.9771E-03	2.8087E-05
6.40E-10	-3.6753E-04	4.6411E-03	2.8087E-05
6.50E-10	-3.6753E-04	3.7753E-03	2.8087E-05



6.60E-10	-3.6753E-04	3.2215E-03	2.8087E-05
6.70E-10	-3.6753E-04	2.7093E-03	2.8087E-05
6.80E-10	-3.6753E-04	2.3817E-03	2.8087E-05
6.90E-10	-3.6753E-04	2.0535E-03	2.8087E-05
7.00E-10	-3.6753E-04	1.7965E-03	2.8087E-05
7.10E-10	-3.6753E-04	1.5615E-03	2.8087E-05
7.20E-10	-3.6753E-04	1.3266E-03	2.8087E-05
7.30E-10	-3.6753E-04	7.2516E-04	2.8087E-05
7.40E-10	-3.6753E-04	7.2516E-04	2.8087E-05
7.50E-10	-3.6753E-04	7.2516E-04	2.8087E-05

\*\*\*\*\*  
MODEL DQ\_40\_1600 (40 Ohm Data I/O with no ODT, 1333/1600 Mbps)  
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[Model] DQ\_40\_1600  
Model\_type I/O

Vinl = 600.000mV  
Vinh = 900.000mV  
Vmeas = 750.000mV  
Vref = 750.000mV  
Cref = 0.0pF  
Rref = 25.000Ohm

	typ	min	max
C_comp	1.200pF	1.125pF	1.275pF

[Model Spec]

| Input threshold voltage corners

Vinl	0.6000V	0.5625V	0.6375V
Vinh	0.9000V	0.8625V	0.9375V

| Measurement voltage corners

Vmeas	0.7500V	0.7125V	0.7875V
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| Timing spec test load voltage corners

Vref	0.7500V	0.7125V	0.7875V
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| Dynamic Overshoot Parameters from DDR3 Specification

D_overshoot_ampl_h	0.40	NA	NA
D_overshoot_ampl_l	0.40	NA	NA
D_overshoot_area_h	0.13n	NA	NA
D_overshoot_area_l	0.13n	NA	NA

[[Receiver Thresholds]

|Vth = 0.750V  
|Vth\_min = 0.7350V  
|Vth\_max = 0.7650V  
|Vinh\_ac = 0.150V  
|Vinh\_dc = 0.100V  
|Vinl\_ac = -0.150V  
|Vinl\_dc = -0.100V

|Tslew\_ac = 5.000ns |Not specified, so set to high value

|Threshold\_sensitivity = 0.50

|Reference\_supply Pullup\_ref

[Voltage Range]	1.5000V	1.4250V	1.5750V
[Pullup Reference]	1.5000V	1.4250V	1.5750V
[Temperature Range]	85.0	110.0	0.0

\*\*\*\*\*

[Pulldown]

Voltage	I(typ)	I(min)	I(max)
-1.500000e+00	-5.766580E-03	-5.671960E-03	-4.4564E-03
-1.475000e+00	-5.965480E-03	-5.898760E-03	-4.6456E-03
-1.425000e+00	-6.365740E-03	-6.361750E-03	-5.0283E-03
-1.375000e+00	-6.767370E-03	-6.833580E-03	-5.4143E-03
-1.325000e+00	-7.168490E-03	-7.310620E-03	-5.8012E-03
-1.275000e+00	-7.567540E-03	-7.790060E-03	-6.1870E-03
-1.225000e+00	-7.963180E-03	-8.269780E-03	-6.5705E-03
-1.175000e+00	-8.354170E-03	-8.748110E-03	-6.9506E-03
-1.125000e+00	-8.739220E-03	-9.223740E-03	-7.3262E-03
-1.075000e+00	-9.116960E-03	-9.695520E-03	-7.6961E-03
-1.025000e+00	-9.485740E-03	-1.016235E-02	-8.0593E-03
-9.750000e-01	-9.843550E-03	-1.062303E-02	-8.4141E-03
-9.250000e-01	-1.018784E-02	-1.107598E-02	-8.7587E-03
-8.750000e-01	-1.051515E-02	-1.151861E-02	-9.0906E-03
-8.250000e-01	-1.082065E-02	-1.194611E-02	-9.4063E-03
-7.750000e-01	-1.109723E-02	-1.234917E-02	-9.7010E-03
-7.250000e-01	-1.133396E-02	-1.271052E-02	-9.9678E-03
-6.750000e-01	-1.151368E-02	-1.300112E-02	-1.0196E-02
-6.250000e-01	-1.161030E-02	-1.317732E-02	-1.0369E-02
-5.750000e-01	-1.158847E-02	-1.318034E-02	-1.0460E-02
-5.250000e-01	-1.140914E-02	-1.294110E-02	-1.0425E-02
-4.750000e-01	-1.103661E-02	-1.239310E-02	-1.0195E-02
-4.250000e-01	-1.042948E-02	-1.149942E-02	-9.7052E-03
-3.750000e-01	-9.541331E-03	-1.031290E-02	-8.9368E-03
-3.250000e-01	-8.402181E-03	-8.972323E-03	-7.9244E-03
-2.750000e-01	-7.136897E-03	-7.584300E-03	-6.7526E-03
-2.250000e-01	-5.837164E-03	-6.189682E-03	-5.5298E-03
-1.750000e-01	-4.533342E-03	-4.799550E-03	-4.2997E-03
-1.250000e-01	-3.232329E-03	-3.416866E-03	-3.0698E-03
-7.500000e-02	-1.935664E-03	-2.042825E-03	-1.8409E-03
-2.500000e-02	-6.439068E-04	-6.783475E-04	-6.1331E-04
0.000000e+00	-2.495000E-09	-2.851000E-10	-4.3290E-09
2.500000e-02	6.423542E-04	6.754144E-04	6.1284E-04
7.500000e-02	1.921741E-03	2.016470E-03	1.8368E-03
1.250000e-01	3.193668E-03	3.343638E-03	3.0583E-03
1.750000e-01	4.457673E-03	4.655798E-03	4.2773E-03
2.250000e-01	5.713247E-03	5.951703E-03	5.4937E-03
2.750000e-01	6.959828E-03	7.229949E-03	6.7074E-03
3.250000e-01	8.196792E-03	8.488947E-03	7.9183E-03
3.750000e-01	9.423449E-03	9.726883E-03	9.1262E-03

4.2500000e-01	1.063902E-02	1.094167E-02	1.0331E-02
4.7500000e-01	1.184265E-02	1.213090E-02	1.1533E-02
5.2500000e-01	1.303336E-02	1.329176E-02	1.2731E-02
5.7500000e-01	1.421007E-02	1.442101E-02	1.3926E-02
6.2500000e-01	1.537155E-02	1.551502E-02	1.5117E-02
6.7500000e-01	1.651649E-02	1.657019E-02	1.6305E-02
7.2500000e-01	1.764350E-02	1.758380E-02	1.7488E-02
7.7500000e-01	1.875138E-02	1.855487E-02	1.8667E-02
8.2500000e-01	1.983945E-02	1.948346E-02	1.9842E-02
8.7500000e-01	2.090800E-02	2.036881E-02	2.1012E-02
9.2500000e-01	2.195802E-02	2.120815E-02	2.2178E-02
9.7500000e-01	2.299059E-02	2.199660E-02	2.3338E-02
1.0250000e+00	2.400623E-02	2.272804E-02	2.4493E-02
1.0750000e+00	2.500472E-02	2.339642E-02	2.5642E-02
1.1250000e+00	2.598518E-02	2.399791E-02	2.6785E-02
1.1750000e+00	2.694619E-02	2.453290E-02	2.7921E-02
1.2250000e+00	2.788582E-02	2.500673E-02	2.9050E-02
1.2750000e+00	2.880158E-02	2.542839E-02	3.0172E-02
1.3250000e+00	2.969048E-02	2.580810E-02	3.1286E-02
1.3750000e+00	3.054893E-02	2.615534E-02	3.2391E-02
1.4250000e+00	3.137276E-02	2.647793E-02	3.3486E-02
1.4750000e+00	3.215739E-02	2.678186E-02	3.4572E-02
1.5250000e+00	3.289823E-02	2.707162E-02	3.5646E-02
1.5750000e+00	3.359126E-02	2.735051E-02	3.6708E-02
1.6250000e+00	3.423408E-02	2.762095E-02	3.7757E-02
1.6750000e+00	3.482661E-02	2.788477E-02	3.8790E-02
1.7250000e+00	3.537149E-02	2.814329E-02	3.9807E-02
1.7750000e+00	3.587366E-02	2.839756E-02	4.0805E-02
1.8250000e+00	3.633928E-02	2.864834E-02	4.1781E-02
1.8750000e+00	3.677472E-02	2.889628E-02	4.2734E-02
1.9250000e+00	3.718582E-02	2.914184E-02	4.3660E-02
1.9750000e+00	3.757750E-02	2.938542E-02	4.4556E-02
2.0250000e+00	3.795380E-02	2.962733E-02	4.5417E-02
2.0750000e+00	3.831783E-02	2.986783E-02	4.6241E-02
2.1250000e+00	3.867208E-02	3.010713E-02	4.7025E-02
2.1750000e+00	3.901845E-02	3.034542E-02	4.7767E-02
2.2250000e+00	3.935843E-02	3.058286E-02	4.8466E-02
2.2750000e+00	3.969319E-02	3.081960E-02	4.9124E-02
2.3250000e+00	4.002364E-02	3.105576E-02	4.9743E-02
2.3750000e+00	4.035053E-02	3.129147E-02	5.0329E-02
2.4250000e+00	4.067444E-02	3.152686E-02	5.0885E-02
2.4750000e+00	4.099589E-02	3.176208E-02	5.1415E-02
2.5250000e+00	4.131527E-02	3.199724E-02	5.1923E-02
2.5750000e+00	4.163292E-02	3.223252E-02	5.2415E-02
2.6250000e+00	4.194914E-02	3.246808E-02	5.2891E-02
2.6750000e+00	4.226420E-02	3.270415E-02	5.3355E-02
2.7250000e+00	4.257832E-02	3.294093E-02	5.3809E-02
2.7750000e+00	4.289173E-02	3.317872E-02	5.4255E-02
2.8250000e+00	4.320461E-02	3.341781E-02	5.4693E-02
2.8750000e+00	4.351716E-02	3.365859E-02	5.5126E-02
2.9250000e+00	4.382954E-02	3.390146E-02	5.5553E-02
2.9750000e+00	4.414196E-02	3.414689E-02	5.5976E-02
3.0000000e+00	4.429822E-02	3.427073E-02	5.6186E-02

[GND Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	-5.378351E-02	-5.490567E-02	-5.885698E-02
-1.4750000e+00	-5.231251E-02	-5.334431E-02	-5.735670E-02
-1.4500000e+00	-5.084369E-02	-5.178549E-02	-5.585777E-02
-1.4250000e+00	-4.937717E-02	-5.022938E-02	-5.436026E-02
-1.4000000e+00	-4.791309E-02	-4.867613E-02	-5.286424E-02
-1.3750000e+00	-4.645161E-02	-4.712594E-02	-5.136982E-02
-1.3500000e+00	-4.499289E-02	-4.557901E-02	-4.987709E-02
-1.3250000e+00	-4.353712E-02	-4.403556E-02	-4.838614E-02
-1.3000000e+00	-4.208452E-02	-4.249585E-02	-4.689710E-02
-1.2750000e+00	-4.063529E-02	-4.096014E-02	-4.541010E-02
-1.2500000e+00	-3.918970E-02	-3.942875E-02	-4.392527E-02
-1.2250000e+00	-3.774803E-02	-3.790201E-02	-4.244278E-02
-1.2000000e+00	-3.631059E-02	-3.638031E-02	-4.096280E-02
-1.1750000e+00	-3.487773E-02	-3.486408E-02	-3.948552E-02
-1.1500000e+00	-3.344986E-02	-3.335380E-02	-3.801116E-02
-1.1250000e+00	-3.202742E-02	-3.185003E-02	-3.653998E-02
-1.1000000e+00	-3.061092E-02	-3.035339E-02	-3.507226E-02
-1.0750000e+00	-2.920096E-02	-2.886462E-02	-3.360832E-02
-1.0500000e+00	-2.779821E-02	-2.738455E-02	-3.214854E-02
-1.0250000e+00	-2.640347E-02	-2.591415E-02	-3.069335E-02
-1.0000000e+00	-2.501766E-02	-2.445455E-02	-2.924328E-02
-9.7500000e-01	-2.364185E-02	-2.300708E-02	-2.779892E-02
-9.5000000e-01	-2.227732E-02	-2.157329E-02	-2.636102E-02
-9.2500000e-01	-2.092559E-02	-2.015501E-02	-2.493048E-02
-9.0000000e-01	-1.958843E-02	-1.875433E-02	-2.350840E-02
-8.7500000e-01	-1.826790E-02	-1.737363E-02	-2.209616E-02
-8.5000000e-01	-1.696631E-02	-1.601550E-02	-2.069550E-02
-8.2500000e-01	-1.568612E-02	-1.468262E-02	-1.930856E-02
-8.0000000e-01	-1.442972E-02	-1.337762E-02	-1.793782E-02
-7.7500000e-01	-1.319926E-02	-1.210311E-02	-1.658583E-02
-7.5000000e-01	-1.199673E-02	-1.086191E-02	-1.525450E-02
-7.2500000e-01	-1.082427E-02	-9.657411E-03	-1.394473E-02
-7.0000000e-01	-9.684638E-03	-8.493939E-03	-1.265685E-02
-6.7500000e-01	-8.581514E-03	-7.376930E-03	-1.139180E-02
-6.5000000e-01	-7.519607E-03	-6.312929E-03	-1.015194E-02
-6.2500000e-01	-6.504547E-03	-5.309438E-03	-8.941318E-03
-6.0000000e-01	-5.542688E-03	-4.374618E-03	-7.765735E-03
-5.7500000e-01	-4.640772E-03	-3.516890E-03	-6.632945E-03
-5.5000000e-01	-3.805524E-03	-2.744483E-03	-5.552946E-03
-5.2500000e-01	-3.043248E-03	-2.065103E-03	-4.538201E-03
-5.0000000e-01	-2.359647E-03	-1.485677E-03	-3.603412E-03
-4.7500000e-01	-1.760020E-03	-1.011779E-03	-2.764265E-03
-4.5000000e-01	-1.249702E-03	-6.458403E-04	-2.034716E-03
-4.2500000e-01	-8.339835E-04	-3.838582E-04	-1.423545E-03
-4.0000000e-01	-5.162389E-04	-2.125448E-04	-9.327605E-04
-3.7500000e-01	-2.937329E-04	-1.106466E-04	-5.596330E-04
-3.5000000e-01	-1.537279E-04	-5.497263E-05	-2.989533E-04
-3.2500000e-01	-7.493357E-05	-2.649171E-05	-1.392987E-04
-3.0000000e-01	-3.471511E-05	-1.256760E-05	-5.693658E-05
-2.7500000e-01	-1.563019E-05	-5.952723E-06	-2.113755E-05
-2.5000000e-01	-7.001335E-06	-2.863206E-06	-7.478945E-06
-2.2500000e-01	-3.215160E-06	-1.433628E-06	-2.669259E-06

-2.0000000e-01	-1.576700E-06	-7.729597E-07	-1.039352E-06
-1.7500000e-01	-8.691669E-07	-4.659048E-07	-4.927445E-07
-1.5000000e-01	-5.602970E-07	-3.210513E-07	-3.061011E-07
-1.2500000e-01	-4.211770E-07	-2.506183E-07	-2.379539E-07
-1.0000000e-01	-3.542844E-07	-2.144259E-07	-2.089405E-07
-7.5000000e-02	-3.182781E-07	-1.940781E-07	-1.931392E-07
-5.0000000e-02	-2.956734E-07	-1.811414E-07	-1.820767E-07
-2.5000000e-02	-2.790923E-07	-1.717494E-07	-1.729565E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[Pullup]

-1.5000000e+00	1.389728E-02	1.504401E-02	1.3495E-02
-1.4750000e+00	1.392266E-02	1.515940E-02	1.3511E-02
-1.4250000e+00	1.394549E-02	1.534861E-02	1.3532E-02
-1.3750000e+00	1.393984E-02	1.547700E-02	1.3542E-02
-1.3250000e+00	1.391859E-02	1.554357E-02	1.3545E-02
-1.2750000e+00	1.389341E-02	1.555550E-02	1.3540E-02
-1.2250000e+00	1.387050E-02	1.552788E-02	1.3526E-02
-1.1750000e+00	1.384963E-02	1.548081E-02	1.3502E-02
-1.1250000e+00	1.382685E-02	1.543388E-02	1.3467E-02
-1.0750000e+00	1.379804E-02	1.539856E-02	1.3421E-02
-1.0250000e+00	1.376042E-02	1.537452E-02	1.3363E-02
-9.7500000e-01	1.371257E-02	1.535474E-02	1.3293E-02
-9.2500000e-01	1.365380E-02	1.533271E-02	1.3210E-02
-8.7500000e-01	1.358379E-02	1.530481E-02	1.3113E-02
-8.2500000e-01	1.350199E-02	1.526951E-02	1.3001E-02
-7.7500000e-01	1.340734E-02	1.522537E-02	1.2873E-02
-7.2500000e-01	1.329767E-02	1.516783E-02	1.2725E-02
-6.7500000e-01	1.316879E-02	1.508258E-02	1.2554E-02
-6.2500000e-01	1.301213E-02	1.493400E-02	1.2352E-02
-5.7500000e-01	1.280843E-02	1.465359E-02	1.2107E-02
-5.2500000e-01	1.251269E-02	1.414154E-02	1.1797E-02
-4.7500000e-01	1.203560E-02	1.330397E-02	1.1382E-02
-4.2500000e-01	1.126665E-02	1.214514E-02	1.0778E-02
-3.7500000e-01	1.018437E-02	1.079032E-02	9.8667E-03
-3.2500000e-01	8.905568E-03	9.358893E-03	8.6724E-03
-2.7500000e-01	7.550642E-03	7.907034E-03	7.3614E-03
-2.2500000e-01	6.175032E-03	6.454310E-03	6.0240E-03
-1.7500000e-01	4.796858E-03	5.006794E-03	4.6832E-03
-1.2500000e-01	3.421222E-03	3.566345E-03	3.3432E-03
-7.5000000e-02	2.049479E-03	2.133648E-03	2.0047E-03
-2.5000000e-02	6.820421E-04	7.091043E-04	6.6784E-04
0.0000000e+00	1.125100E-09	4.014300E-10	2.6237E-09
2.5000000e-02	-6.802155E-04	-7.060015E-04	-6.6696E-04
7.5000000e-02	-2.032965E-03	-2.105590E-03	-1.9968E-03
1.2500000e-01	-3.375119E-03	-3.487987E-03	-3.3211E-03
1.7500000e-01	-4.706231E-03	-4.852382E-03	-4.6395E-03
2.2500000e-01	-6.025837E-03	-6.197914E-03	-5.9518E-03
2.7500000e-01	-7.333440E-03	-7.523661E-03	-7.2578E-03
3.2500000e-01	-8.628517E-03	-8.828634E-03	-8.5572E-03
3.7500000e-01	-9.910511E-03	-1.011178E-02	-9.8498E-03
4.2500000e-01	-1.117883E-02	-1.137197E-02	-1.1135E-02
4.7500000e-01	-1.243286E-02	-1.260797E-02	-1.2413E-02

5.2500000e-01	-1.367192E-02	-1.381848E-02	-1.3683E-02
5.7500000e-01	-1.489533E-02	-1.500209E-02	-1.4945E-02
6.2500000e-01	-1.610232E-02	-1.615730E-02	-1.6198E-02
6.7500000e-01	-1.729210E-02	-1.728247E-02	-1.7442E-02
7.2500000e-01	-1.846383E-02	-1.837588E-02	-1.8677E-02
7.7500000e-01	-1.961663E-02	-1.943566E-02	-1.9902E-02
8.2500000e-01	-2.074956E-02	-2.045990E-02	-2.1116E-02
8.7500000e-01	-2.186165E-02	-2.144666E-02	-2.2320E-02
9.2500000e-01	-2.295193E-02	-2.239415E-02	-2.3513E-02
9.7500000e-01	-2.401949E-02	-2.330089E-02	-2.4694E-02
1.0250000e+00	-2.506353E-02	-2.416589E-02	-2.5862E-02
1.0750000e+00	-2.608351E-02	-2.498853E-02	-2.7019E-02
1.1250000e+00	-2.707921E-02	-2.576811E-02	-2.8162E-02
1.1750000e+00	-2.805064E-02	-2.650347E-02	-2.9293E-02
1.2250000e+00	-2.899777E-02	-2.719285E-02	-3.0411E-02
1.2750000e+00	-2.992027E-02	-2.783418E-02	-3.1515E-02
1.3250000e+00	-3.081737E-02	-2.842555E-02	-3.2607E-02
1.3750000e+00	-3.168792E-02	-2.896616E-02	-3.3684E-02
1.4250000e+00	-3.253039E-02	-2.945719E-02	-3.4746E-02
1.4750000e+00	-3.334289E-02	-2.990258E-02	-3.5792E-02
1.5250000e+00	-3.412325E-02	-3.030862E-02	-3.6822E-02
1.5750000e+00	-3.486904E-02	-3.068257E-02	-3.7833E-02
1.6250000e+00	-3.557765E-02	-3.103121E-02	-3.8826E-02
1.6750000e+00	-3.624648E-02	-3.136007E-02	-3.9797E-02
1.7250000e+00	-3.687328E-02	-3.167336E-02	-4.0746E-02
1.7750000e+00	-3.745664E-02	-3.197424E-02	-4.1671E-02
1.8250000e+00	-3.799669E-02	-3.226504E-02	-4.2569E-02
1.8750000e+00	-3.849556E-02	-3.254752E-02	-4.3438E-02
1.9250000e+00	-3.895731E-02	-3.282305E-02	-4.4275E-02
1.9750000e+00	-3.938722E-02	-3.309268E-02	-4.5078E-02
2.0250000e+00	-3.979072E-02	-3.335727E-02	-4.5843E-02
2.0750000e+00	-4.017273E-02	-3.361751E-02	-4.6567E-02
2.1250000e+00	-4.053726E-02	-3.387396E-02	-4.7248E-02
2.1750000e+00	-4.088753E-02	-3.412707E-02	-4.7884E-02
2.2250000e+00	-4.122603E-02	-3.437727E-02	-4.8477E-02
2.2750000e+00	-4.155471E-02	-3.462485E-02	-4.9029E-02
2.3250000e+00	-4.187511E-02	-3.487012E-02	-4.9543E-02
2.3750000e+00	-4.218845E-02	-3.511332E-02	-5.0025E-02
2.4250000e+00	-4.249571E-02	-3.535466E-02	-5.0480E-02
2.4750000e+00	-4.279769E-02	-3.559433E-02	-5.0912E-02
2.5250000e+00	-4.309507E-02	-3.583247E-02	-5.1326E-02
2.5750000e+00	-4.338839E-02	-3.606925E-02	-5.1724E-02
2.6250000e+00	-4.367813E-02	-3.630478E-02	-5.2110E-02
2.6750000e+00	-4.396467E-02	-3.653918E-02	-5.2484E-02
2.7250000e+00	-4.424835E-02	-3.677256E-02	-5.2850E-02
2.7750000e+00	-4.452948E-02	-3.700500E-02	-5.3207E-02
2.8250000e+00	-4.480830E-02	-3.723659E-02	-5.3558E-02
2.8750000e+00	-4.508503E-02	-3.746739E-02	-5.3903E-02
2.9250000e+00	-4.535988E-02	-3.769749E-02	-5.4242E-02
2.9750000e+00	-4.563300E-02	-3.792696E-02	-5.4577E-02
3.0000000e+00	-4.576897E-02	-3.804147E-02	-5.4743E-02

[POWER Clamp]

Voltage	I(typ)	I(min)	I(max)
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-1.5000000e+00	4.450136E-02	4.385767E-02	4.780182E-02
-1.4750000e+00	4.325737E-02	4.248503E-02	4.651241E-02
-1.4500000e+00	4.202627E-02	4.113177E-02	4.522926E-02
-1.4250000e+00	4.080680E-02	3.979850E-02	4.395156E-02
-1.4000000e+00	3.959743E-02	3.848563E-02	4.267873E-02
-1.3750000e+00	3.839648E-02	3.719324E-02	4.141044E-02
-1.3500000e+00	3.720221E-02	3.592106E-02	4.014659E-02
-1.3250000e+00	3.601296E-02	3.466841E-02	3.888726E-02
-1.3000000e+00	3.482735E-02	3.343415E-02	3.763263E-02
-1.2750000e+00	3.364438E-02	3.221669E-02	3.638297E-02
-1.2500000e+00	3.246358E-02	3.101397E-02	3.513857E-02
-1.2250000e+00	3.128497E-02	2.982356E-02	3.389973E-02
-1.2000000e+00	3.010901E-02	2.864279E-02	3.266673E-02
-1.1750000e+00	2.893648E-02	2.746896E-02	3.143985E-02
-1.1500000e+00	2.776826E-02	2.629964E-02	3.021938E-02
-1.1250000e+00	2.660528E-02	2.513304E-02	2.900561E-02
-1.1000000e+00	2.544841E-02	2.396824E-02	2.779886E-02
-1.0750000e+00	2.429844E-02	2.280536E-02	2.659948E-02
-1.0500000e+00	2.315612E-02	2.164543E-02	2.540789E-02
-1.0250000e+00	2.202214E-02	2.049007E-02	2.422457E-02
-1.0000000e+00	2.089719E-02	1.934117E-02	2.305009E-02
-9.7500000e-01	1.978197E-02	1.820065E-02	2.188514E-02
-9.5000000e-01	1.867722E-02	1.707028E-02	2.073052E-02
-9.2500000e-01	1.758372E-02	1.595172E-02	1.958719E-02
-9.0000000e-01	1.650228E-02	1.484648E-02	1.845618E-02
-8.7500000e-01	1.543373E-02	1.375596E-02	1.733862E-02
-8.5000000e-01	1.437889E-02	1.268153E-02	1.623553E-02
-8.2500000e-01	1.333851E-02	1.162449E-02	1.514772E-02
-8.0000000e-01	1.231328E-02	1.058622E-02	1.407562E-02
-7.7500000e-01	1.130388E-02	9.568206E-03	1.301922E-02
-7.5000000e-01	1.031106E-02	8.572276E-03	1.197827E-02
-7.2500000e-01	9.335806E-03	7.600753E-03	1.095257E-02
-7.0000000e-01	8.379549E-03	6.656721E-03	9.942222E-03
-6.7500000e-01	7.444326E-03	5.744302E-03	8.947921E-03
-6.5000000e-01	6.532997E-03	4.868952E-03	7.971051E-03
-6.2500000e-01	5.649458E-03	4.037787E-03	7.013870E-03
-6.0000000e-01	4.798902E-03	3.259897E-03	6.079707E-03
-5.7500000e-01	3.988134E-03	2.546530E-03	5.173245E-03
-5.5000000e-01	3.225930E-03	1.910856E-03	4.300910E-03
-5.2500000e-01	2.523332E-03	1.366712E-03	3.471447E-03
-5.0000000e-01	1.893615E-03	9.256050E-04	2.696680E-03
-4.7500000e-01	1.351332E-03	5.919303E-04	1.992354E-03
-4.5000000e-01	9.095438E-04	3.586832E-04	1.378419E-03
-4.2500000e-01	5.747929E-04	2.078355E-04	8.770400E-04
-4.0000000e-01	3.418453E-04	1.164218E-04	5.053108E-04
-3.7500000e-01	1.930954E-04	6.360210E-05	2.627390E-04
-3.5000000e-01	1.048276E-04	3.408364E-05	1.249615E-04
-3.2500000e-01	5.523970E-05	1.799151E-05	5.555911E-05
-3.0000000e-01	2.845373E-05	9.394192E-06	2.354502E-05
-2.7500000e-01	1.440808E-05	4.878770E-06	9.668085E-06
-2.5000000e-01	7.217646E-06	2.540607E-06	3.917725E-06
-2.2500000e-01	3.608426E-06	1.343333E-06	1.610387E-06
-2.0000000e-01	1.824961E-06	7.351342E-07	7.040805E-07
-1.7500000e-01	9.538097E-07	4.274933E-07	3.518120E-07

-1.5000000e-01	5.312391E-07	2.717598E-07	2.143493E-07
-1.2500000e-01	3.264285E-07	1.922225E-07	1.590780E-07
-1.0000000e-01	2.262355E-07	1.506538E-07	1.350141E-07
-7.5000000e-02	1.758303E-07	1.278715E-07	1.227817E-07
-5.0000000e-02	1.489090E-07	1.143246E-07	1.150734E-07
-2.5000000e-02	1.332080E-07	1.054156E-07	1.091537E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[Ramp]

R\_load = 50.00Ohm

typ	min	max
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dV/dt\_r 532.022mV/119.423ps 491.319mV/165.185ps 567.619mV/91.565ps

dV/dt\_f 537.976mV/129.806ps 497.460mV/173.213ps 578.029mV/105.657ps

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[Rising Waveform]

V\_fixture = 1.500V

V\_fixture\_min = 1.425V

V\_fixture\_max = 1.575V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	6.8316E-01	6.4198E-01	7.1381E-01
1.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
2.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
3.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
4.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
5.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
6.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
7.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
8.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
9.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
1.00E-10	6.8316E-01	6.4198E-01	7.1381E-01
1.10E-10	6.8316E-01	6.4198E-01	7.1381E-01
1.20E-10	6.8316E-01	6.4198E-01	7.1381E-01
1.30E-10	6.8316E-01	6.4198E-01	7.1381E-01
1.40E-10	6.8316E-01	6.4198E-01	7.2174E-01
1.50E-10	6.8316E-01	6.4198E-01	7.5887E-01
1.60E-10	6.8316E-01	6.4198E-01	8.2016E-01
1.70E-10	6.8316E-01	6.4198E-01	9.1349E-01
1.80E-10	6.8316E-01	6.4198E-01	1.0158E+00
1.90E-10	6.8316E-01	6.4198E-01	1.1058E+00
2.00E-10	6.8631E-01	6.4198E-01	1.1722E+00
2.10E-10	6.9781E-01	6.4198E-01	1.2169E+00
2.20E-10	7.2546E-01	6.4298E-01	1.2448E+00
2.30E-10	7.5875E-01	6.4398E-01	1.2647E+00
2.40E-10	8.1582E-01	6.4498E-01	1.2837E+00
2.50E-10	8.7535E-01	6.4698E-01	1.3078E+00
2.60E-10	9.4749E-01	6.5598E-01	1.3414E+00
2.70E-10	1.0174E+00	6.6598E-01	1.3863E+00



2.80E-10	1.0731E+00	6.7898E-01	1.4363E+00
2.90E-10	1.1226E+00	6.9347E-01	1.4802E+00
3.00E-10	1.1579E+00	7.1337E-01	1.5132E+00
3.10E-10	1.1837E+00	7.4966E-01	1.5358E+00
3.20E-10	1.2048E+00	7.9147E-01	1.5503E+00
3.30E-10	1.2195E+00	8.3328E-01	1.5592E+00
3.40E-10	1.2343E+00	8.7936E-01	1.5645E+00
3.50E-10	1.2494E+00	9.3100E-01	1.5675E+00
3.60E-10	1.2675E+00	9.8264E-01	1.5691E+00
3.70E-10	1.2874E+00	1.0268E+00	1.5702E+00
3.80E-10	1.3136E+00	1.0618E+00	1.5750E+00
3.90E-10	1.3416E+00	1.0967E+00	1.5750E+00
4.00E-10	1.3720E+00	1.1198E+00	1.5750E+00
4.10E-10	1.4006E+00	1.1392E+00	1.5750E+00
4.20E-10	1.4277E+00	1.1550E+00	1.5750E+00
4.30E-10	1.4490E+00	1.1666E+00	1.5750E+00
4.40E-10	1.4656E+00	1.1779E+00	1.5750E+00
4.50E-10	1.4779E+00	1.1874E+00	1.5750E+00
4.60E-10	1.4845E+00	1.1970E+00	1.5750E+00
4.70E-10	1.4896E+00	1.2077E+00	1.5750E+00
4.80E-10	1.4922E+00	1.2186E+00	1.5750E+00
4.90E-10	1.4951E+00	1.2308E+00	1.5750E+00
5.00E-10	1.4974E+00	1.2441E+00	1.5750E+00
5.10E-10	1.4984E+00	1.2582E+00	1.5750E+00
5.20E-10	1.4991E+00	1.2741E+00	1.5750E+00
5.30E-10	1.5000E+00	1.2901E+00	1.5750E+00
5.40E-10	1.5000E+00	1.3071E+00	1.5750E+00
5.50E-10	1.5000E+00	1.3240E+00	1.5750E+00
5.60E-10	1.5000E+00	1.3409E+00	1.5750E+00
5.70E-10	1.5000E+00	1.3579E+00	1.5750E+00
5.80E-10	1.5000E+00	1.3720E+00	1.5750E+00
5.90E-10	1.5000E+00	1.3824E+00	1.5750E+00
6.00E-10	1.5000E+00	1.3929E+00	1.5750E+00
6.10E-10	1.5000E+00	1.4033E+00	1.5750E+00
6.20E-10	1.5000E+00	1.4094E+00	1.5750E+00
6.30E-10	1.5000E+00	1.4154E+00	1.5750E+00
6.40E-10	1.5000E+00	1.4204E+00	1.5750E+00
6.50E-10	1.5000E+00	1.4244E+00	1.5750E+00
6.60E-10	1.5000E+00	1.4244E+00	1.5750E+00
6.70E-10	1.5000E+00	1.4244E+00	1.5750E+00
6.80E-10	1.5000E+00	1.4244E+00	1.5750E+00
6.90E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.00E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.10E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.20E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.30E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.40E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.50E-10	1.5000E+00	1.4244E+00	1.5750E+00

[Falling Waveform]

V\_fixture = 1.500V

V\_fixture\_min = 1.425V

V\_fixture\_max = 1.575V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	1.5000E+00	1.4244E+00	1.5750E+00
1.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
2.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
3.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
4.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
5.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
6.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
7.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
8.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
9.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
1.00E-10	1.5000E+00	1.4244E+00	1.5750E+00
1.10E-10	1.5000E+00	1.4244E+00	1.5750E+00
1.20E-10	1.5000E+00	1.4244E+00	1.5750E+00
1.30E-10	1.5000E+00	1.4244E+00	1.5678E+00
1.40E-10	1.5000E+00	1.4244E+00	1.5356E+00
1.50E-10	1.5000E+00	1.4244E+00	1.4918E+00
1.60E-10	1.5000E+00	1.4244E+00	1.4391E+00
1.70E-10	1.5000E+00	1.4244E+00	1.3811E+00
1.80E-10	1.5000E+00	1.4244E+00	1.3164E+00
1.90E-10	1.5000E+00	1.4244E+00	1.2491E+00
2.00E-10	1.4916E+00	1.4244E+00	1.1872E+00
2.10E-10	1.4779E+00	1.4244E+00	1.1373E+00
2.20E-10	1.4526E+00	1.4244E+00	1.1004E+00
2.30E-10	1.4258E+00	1.4244E+00	1.0723E+00
2.40E-10	1.3882E+00	1.4244E+00	1.0470E+00
2.50E-10	1.3499E+00	1.4244E+00	1.0149E+00
2.60E-10	1.3051E+00	1.4244E+00	9.8066E-01
2.70E-10	1.2605E+00	1.4244E+00	9.3547E-01
2.80E-10	1.2170E+00	1.4244E+00	8.8759E-01
2.90E-10	1.1745E+00	1.4194E+00	8.4268E-01
3.00E-10	1.1378E+00	1.4094E+00	8.0700E-01
3.10E-10	1.1029E+00	1.3963E+00	7.7745E-01
3.20E-10	1.0753E+00	1.3791E+00	7.5868E-01
3.30E-10	1.0489E+00	1.3558E+00	7.4505E-01
3.40E-10	1.0261E+00	1.3325E+00	7.3501E-01
3.50E-10	1.0023E+00	1.3056E+00	7.2933E-01
3.60E-10	9.7620E-01	1.2772E+00	7.2516E-01
3.70E-10	9.4367E-01	1.2488E+00	7.2226E-01
3.80E-10	9.0696E-01	1.2213E+00	7.2113E-01
3.90E-10	8.7376E-01	1.1938E+00	7.1999E-01
4.00E-10	8.3990E-01	1.1670E+00	7.1886E-01
4.10E-10	8.0957E-01	1.1432E+00	7.1825E-01
4.20E-10	7.8300E-01	1.1193E+00	7.1767E-01
4.30E-10	7.6093E-01	1.0968E+00	7.1709E-01
4.40E-10	7.4264E-01	1.0762E+00	7.1654E-01
4.50E-10	7.2827E-01	1.0555E+00	7.1600E-01
4.60E-10	7.1647E-01	1.0350E+00	7.1545E-01
4.70E-10	7.0685E-01	1.0145E+00	7.1510E-01
4.80E-10	6.9834E-01	9.9409E-01	7.1479E-01
4.90E-10	6.9107E-01	9.6900E-01	7.1449E-01
5.00E-10	6.8566E-01	9.4342E-01	7.1433E-01

5.10E-10	6.8316E-01	9.1269E-01	7.1421E-01
5.20E-10	6.8316E-01	8.8416E-01	7.1410E-01
5.30E-10	6.8316E-01	8.5763E-01	7.1399E-01
5.40E-10	6.8316E-01	8.3261E-01	7.1388E-01
5.50E-10	6.8316E-01	8.0994E-01	7.1380E-01
5.60E-10	6.8316E-01	7.8727E-01	7.1380E-01
5.70E-10	6.8316E-01	7.6866E-01	7.1380E-01
5.80E-10	6.8316E-01	7.5240E-01	7.1380E-01
5.90E-10	6.8316E-01	7.3613E-01	7.1380E-01
6.00E-10	6.8316E-01	7.2289E-01	7.1380E-01
6.10E-10	6.8316E-01	7.1008E-01	7.1380E-01
6.20E-10	6.8316E-01	6.9855E-01	7.1380E-01
6.30E-10	6.8316E-01	6.9098E-01	7.1380E-01
6.40E-10	6.8316E-01	6.8198E-01	7.1380E-01
6.50E-10	6.8316E-01	6.7398E-01	7.1380E-01
6.60E-10	6.8316E-01	6.6298E-01	7.1380E-01
6.70E-10	6.8316E-01	6.5598E-01	7.1380E-01
6.80E-10	6.8316E-01	6.5098E-01	7.1380E-01
6.90E-10	6.8316E-01	6.4798E-01	7.1380E-01
7.00E-10	6.8316E-01	6.4598E-01	7.1380E-01
7.10E-10	6.8316E-01	6.4398E-01	7.1380E-01
7.20E-10	6.8316E-01	6.4298E-01	7.1380E-01
7.30E-10	6.8316E-01	6.4198E-01	7.1380E-01
7.40E-10	6.8316E-01	6.4198E-01	7.1380E-01
7.50E-10	6.8316E-01	6.4198E-01	7.1380E-01

[Rising Waveform]

V\_fixture = 0.000V

V\_fixture\_min = 0.000V

V\_fixture\_max = 0.000V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	2.1656E-05	4.5001E-04	1.9840E-06
1.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
2.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
3.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
4.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
5.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
6.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
7.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
8.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
9.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
1.00E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.10E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.20E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.30E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.40E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.50E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.60E-10	2.1656E-05	4.5001E-04	4.8671E-02
1.70E-10	2.1656E-05	4.5001E-04	1.0238E-01
1.80E-10	2.1656E-05	4.5001E-04	1.6978E-01
1.90E-10	2.1656E-05	4.5001E-04	2.4540E-01

2.00E-10	2.1656E-05	4.5001E-04	3.2196E-01
2.10E-10	2.1656E-05	4.5001E-04	3.9122E-01
2.20E-10	6.9115E-03	4.5001E-04	4.4667E-01
2.30E-10	2.1916E-02	4.5001E-04	4.8493E-01
2.40E-10	4.9605E-02	4.5001E-04	5.1216E-01
2.50E-10	8.2158E-02	4.5001E-04	5.3458E-01
2.60E-10	1.2545E-01	4.5001E-04	5.6186E-01
2.70E-10	1.7346E-01	4.5001E-04	6.0105E-01
2.80E-10	2.2437E-01	4.5001E-04	6.5263E-01
2.90E-10	2.7673E-01	4.5001E-04	7.0953E-01
3.00E-10	3.2396E-01	7.4200E-04	7.5988E-01
3.10E-10	3.6830E-01	6.9399E-03	7.9680E-01
3.20E-10	4.0406E-01	2.2538E-02	8.2326E-01
3.30E-10	4.3438E-01	3.8136E-02	8.4173E-01
3.40E-10	4.5821E-01	6.0559E-02	8.5396E-01
3.50E-10	4.7742E-01	9.0788E-02	8.6342E-01
3.60E-10	4.9488E-01	1.2102E-01	8.7131E-01
3.70E-10	5.1097E-01	1.5625E-01	8.7541E-01
3.80E-10	5.3186E-01	1.9335E-01	8.7950E-01
3.90E-10	5.5704E-01	2.3045E-01	8.8129E-01
4.00E-10	5.8693E-01	2.6299E-01	8.8750E-01
4.10E-10	6.3150E-01	2.9548E-01	8.8750E-01
4.20E-10	6.6900E-01	3.2621E-01	8.8750E-01
4.30E-10	7.0343E-01	3.5161E-01	8.8750E-01
4.40E-10	7.3251E-01	3.7701E-01	8.8750E-01
4.50E-10	7.5834E-01	3.9887E-01	8.8750E-01
4.60E-10	7.7553E-01	4.1920E-01	8.8750E-01
4.70E-10	7.9054E-01	4.3893E-01	8.8750E-01
4.80E-10	7.9989E-01	4.5025E-01	8.8750E-01
4.90E-10	8.0628E-01	4.6257E-01	8.8750E-01
5.00E-10	8.1206E-01	4.7874E-01	8.8750E-01
5.10E-10	8.1613E-01	4.8572E-01	8.8750E-01
5.20E-10	8.2020E-01	4.9920E-01	8.8750E-01
5.30E-10	8.2427E-01	5.1505E-01	8.8750E-01
5.40E-10	8.2778E-01	5.3090E-01	8.8750E-01
5.50E-10	8.3015E-01	5.5341E-01	8.8750E-01
5.60E-10	8.3015E-01	5.7647E-01	8.8750E-01
5.70E-10	8.3015E-01	5.9813E-01	8.8750E-01
5.80E-10	8.3015E-01	6.2467E-01	8.8750E-01
5.90E-10	8.3015E-01	6.5120E-01	8.8750E-01
6.00E-10	8.3015E-01	6.7309E-01	8.8750E-01
6.10E-10	8.3015E-01	6.9494E-01	8.8750E-01
6.20E-10	8.3015E-01	7.1298E-01	8.8750E-01
6.30E-10	8.3015E-01	7.2761E-01	8.8750E-01
6.40E-10	8.3015E-01	7.4187E-01	8.8750E-01
6.50E-10	8.3015E-01	7.5387E-01	8.8750E-01
6.60E-10	8.3015E-01	7.6287E-01	8.8750E-01
6.70E-10	8.3015E-01	7.7087E-01	8.8750E-01
6.80E-10	8.3015E-01	7.7787E-01	8.8750E-01
6.90E-10	8.3015E-01	7.8587E-01	8.8750E-01
7.00E-10	8.3015E-01	7.8987E-01	8.8750E-01
7.10E-10	8.3015E-01	7.9287E-01	8.8750E-01
7.20E-10	8.3015E-01	7.9387E-01	8.8750E-01
7.30E-10	8.3015E-01	7.9487E-01	8.8750E-01

7.40E-10	8.3015E-01	7.9587E-01	8.8750E-01
7.50E-10	8.3015E-01	7.9587E-01	8.8750E-01

[Falling Waveform]

V\_fixture = 0.000V

V\_fixture\_min = 0.000V

V\_fixture\_max = 0.000V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	8.3015E-01	7.9587E-01	8.8750E-01
1.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
2.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
3.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
4.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
5.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
6.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
7.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
8.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
9.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
1.00E-10	8.3015E-01	7.9587E-01	8.8750E-01
1.10E-10	8.3015E-01	7.9587E-01	8.8750E-01
1.20E-10	8.3015E-01	7.9587E-01	8.8443E-01
1.30E-10	8.3015E-01	7.9587E-01	8.7452E-01
1.40E-10	8.3015E-01	7.9587E-01	8.4189E-01
1.50E-10	8.3015E-01	7.9587E-01	7.8920E-01
1.60E-10	8.3015E-01	7.9587E-01	7.1329E-01
1.70E-10	8.2717E-01	7.9587E-01	6.2580E-01
1.80E-10	8.2022E-01	7.9487E-01	5.4691E-01
1.90E-10	8.0849E-01	7.9287E-01	4.8081E-01
2.00E-10	7.8766E-01	7.8987E-01	4.2673E-01
2.10E-10	7.5342E-01	7.8587E-01	3.8302E-01
2.20E-10	7.0770E-01	7.8087E-01	3.4957E-01
2.30E-10	6.4643E-01	7.7487E-01	3.1949E-01
2.40E-10	5.7951E-01	7.6687E-01	2.8668E-01
2.50E-10	5.1395E-01	7.5687E-01	2.5182E-01
2.60E-10	4.5050E-01	7.4187E-01	2.1162E-01
2.70E-10	4.0155E-01	7.2460E-01	1.7228E-01
2.80E-10	3.6096E-01	7.0145E-01	1.3355E-01
2.90E-10	3.2886E-01	6.6392E-01	1.0138E-01
3.00E-10	3.0074E-01	6.2500E-01	7.3166E-02
3.10E-10	2.7872E-01	5.8181E-01	5.0761E-02
3.20E-10	2.6007E-01	5.3521E-01	3.5793E-02
3.30E-10	2.4432E-01	4.8940E-01	2.3892E-02
3.40E-10	2.2391E-01	4.4680E-01	1.6931E-02
3.50E-10	1.9806E-01	4.0419E-01	1.2192E-02
3.60E-10	1.7058E-01	3.7123E-01	8.9365E-03
3.70E-10	1.4036E-01	3.4007E-01	7.2358E-03
3.80E-10	1.1118E-01	3.1448E-01	5.9670E-03
3.90E-10	8.3244E-02	2.9477E-01	5.3516E-03
4.00E-10	6.1742E-02	2.7568E-01	4.7363E-03
4.10E-10	4.4018E-02	2.6075E-01	4.1060E-03
4.20E-10	3.0136E-02	2.4582E-01	3.4124E-03

4.30E-10	2.2486E-02	2.3054E-01	2.7189E-03
4.40E-10	1.5763E-02	2.1515E-01	2.0253E-03
4.50E-10	9.0387E-03	1.9777E-01	1.6262E-03
4.60E-10	5.3194E-03	1.7999E-01	1.2305E-03
4.70E-10	3.4381E-03	1.6207E-01	8.3483E-04
4.80E-10	1.5568E-03	1.4205E-01	6.3758E-04
4.90E-10	6.2322E-04	1.2203E-01	4.9475E-04
5.00E-10	1.0502E-04	1.0187E-01	3.5192E-04
5.10E-10	2.1656E-05	8.1652E-02	2.0909E-04
5.20E-10	2.1656E-05	6.3154E-02	6.6265E-05
5.30E-10	2.1656E-05	4.7873E-02	1.9840E-06
5.40E-10	2.1656E-05	3.2593E-02	1.9840E-06
5.50E-10	2.1656E-05	2.4507E-02	1.9840E-06
5.60E-10	2.1656E-05	1.6483E-02	1.9840E-06
5.70E-10	2.1656E-05	1.1660E-02	1.9840E-06
5.80E-10	2.1656E-05	8.6750E-03	1.9840E-06
5.90E-10	2.1656E-05	6.2443E-03	1.9840E-06
6.00E-10	2.1656E-05	5.2473E-03	1.9840E-06
6.10E-10	2.1656E-05	4.2503E-03	1.9840E-06
6.20E-10	2.1656E-05	3.6374E-03	1.9840E-06
6.30E-10	2.1656E-05	3.0570E-03	1.9840E-06
6.40E-10	2.1656E-05	2.5197E-03	1.9840E-06
6.50E-10	2.1656E-05	2.0157E-03	1.9840E-06
6.60E-10	2.1656E-05	1.5499E-03	1.9840E-06
6.70E-10	2.1656E-05	1.0325E-03	1.9840E-06
6.80E-10	2.1656E-05	8.8691E-04	1.9840E-06
6.90E-10	2.1656E-05	7.4127E-04	1.9840E-06
7.00E-10	2.1656E-05	5.9564E-04	1.9840E-06
7.10E-10	2.1656E-05	4.5001E-04	1.9840E-06
7.20E-10	2.1656E-05	4.5001E-04	1.9840E-06
7.30E-10	2.1656E-05	4.5001E-04	1.9840E-06
7.40E-10	2.1656E-05	4.5001E-04	1.9840E-06
7.50E-10	2.1656E-05	4.5001E-04	1.9840E-06

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MODEL DQ\_40\_1600 (40 Ohm Data I/O with 20ohm ODT, 1333/1600 Mbps)

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[Model] DQ\_40\_ODT20\_1600

Model\_type I/O

Vinl = 600.000mV

Vinh = 900.000mV

Vmeas = 750.000mV

Vref = 750.000mV

Cref = 0.0pF

Rref = 25.000Ohm

	typ	min	max
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C_comp	1.078pF	0.966pF	1.223pF
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| Note: C\_comp changes when the ODT circuit is enabled.

[Model Spec]

| Input threshold voltage corners

Vinl	0.6000V	0.5625V	0.6375V
Vinh	0.9000V	0.8625V	0.9375V

| Measurement voltage corners

Vmeas	0.7500V	0.7125V	0.7875V
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| Timing spec test load voltage corners

Vref	0.7500V	0.7125V	0.7875V
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| Dynamic Overshoot Parameters from DDR3 Specification

D_overshoot_ampl_h	0.40	NA	NA
D_overshoot_ampl_l	0.40	NA	NA
D_overshoot_area_h	0.13n	NA	NA
D_overshoot_area_l	0.13n	NA	NA

[[Receiver Thresholds]

Vth = 0.750V  
Vth\_min = 0.7350V  
Vth\_max = 0.7650V  
Vinh\_ac = 0.150V  
Vinh\_dc = 0.100V  
Vinl\_ac = -0.150V  
Vinl\_dc = -0.100V  
Tslew\_ac = 5.000ns |Not specified, so set to high value  
Threshold\_sensitivity = 0.50  
Reference\_supply Pullup\_ref

[Add Submodel]

Submodel Name	Mode
20Ohm_ODT	Non-Driving

[Voltage Range]	1.5000V	1.4250V	1.5750V
[Pullup Reference]	1.5000V	1.4250V	1.5750V
[Temperature Range]	85.0	110.0	0.0

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[Pulldown]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	-5.766580E-03	-5.671960E-03	-4.4564E-03
-1.4750000e+00	-5.965480E-03	-5.898760E-03	-4.6456E-03
-1.4250000e+00	-6.365740E-03	-6.361750E-03	-5.0283E-03
-1.3750000e+00	-6.767370E-03	-6.833580E-03	-5.4143E-03
-1.3250000e+00	-7.168490E-03	-7.310620E-03	-5.8012E-03
-1.2750000e+00	-7.567540E-03	-7.790060E-03	-6.1870E-03
-1.2250000e+00	-7.963180E-03	-8.269780E-03	-6.5705E-03
-1.1750000e+00	-8.354170E-03	-8.748110E-03	-6.9506E-03
-1.1250000e+00	-8.739220E-03	-9.223740E-03	-7.3262E-03
-1.0750000e+00	-9.116960E-03	-9.695520E-03	-7.6961E-03
-1.0250000e+00	-9.485740E-03	-1.016235E-02	-8.0593E-03

-9.7500000e-01	-9.843550E-03	-1.062303E-02	-8.4141E-03
-9.2500000e-01	-1.018784E-02	-1.107598E-02	-8.7587E-03
-8.7500000e-01	-1.051515E-02	-1.151861E-02	-9.0906E-03
-8.2500000e-01	-1.082065E-02	-1.194611E-02	-9.4063E-03
-7.7500000e-01	-1.109723E-02	-1.234917E-02	-9.7010E-03
-7.2500000e-01	-1.133396E-02	-1.271052E-02	-9.9678E-03
-6.7500000e-01	-1.151368E-02	-1.300112E-02	-1.0196E-02
-6.2500000e-01	-1.161030E-02	-1.317732E-02	-1.0369E-02
-5.7500000e-01	-1.158847E-02	-1.318034E-02	-1.0460E-02
-5.2500000e-01	-1.140914E-02	-1.294110E-02	-1.0425E-02
-4.7500000e-01	-1.103661E-02	-1.239310E-02	-1.0195E-02
-4.2500000e-01	-1.042948E-02	-1.149942E-02	-9.7052E-03
-3.7500000e-01	-9.541331E-03	-1.031290E-02	-8.9368E-03
-3.2500000e-01	-8.402181E-03	-8.972323E-03	-7.9244E-03
-2.7500000e-01	-7.136897E-03	-7.584300E-03	-6.7526E-03
-2.2500000e-01	-5.837164E-03	-6.189682E-03	-5.5298E-03
-1.7500000e-01	-4.533342E-03	-4.799550E-03	-4.2997E-03
-1.2500000e-01	-3.232329E-03	-3.416866E-03	-3.0698E-03
-7.5000000e-02	-1.935664E-03	-2.042825E-03	-1.8409E-03
-2.5000000e-02	-6.439068E-04	-6.783475E-04	-6.1331E-04
0.0000000e+00	-2.495000E-09	-2.851000E-10	-4.3290E-09
2.5000000e-02	6.423542E-04	6.754144E-04	6.1284E-04
7.5000000e-02	1.921741E-03	2.016470E-03	1.8368E-03
1.2500000e-01	3.193668E-03	3.343638E-03	3.0583E-03
1.7500000e-01	4.457673E-03	4.655798E-03	4.2773E-03
2.2500000e-01	5.713247E-03	5.951703E-03	5.4937E-03
2.7500000e-01	6.959828E-03	7.229949E-03	6.7074E-03
3.2500000e-01	8.196792E-03	8.488947E-03	7.9183E-03
3.7500000e-01	9.423449E-03	9.726883E-03	9.1262E-03
4.2500000e-01	1.063902E-02	1.094167E-02	1.0331E-02
4.7500000e-01	1.184265E-02	1.213090E-02	1.1533E-02
5.2500000e-01	1.303336E-02	1.329176E-02	1.2731E-02
5.7500000e-01	1.421007E-02	1.442101E-02	1.3926E-02
6.2500000e-01	1.537155E-02	1.551502E-02	1.5117E-02
6.7500000e-01	1.651649E-02	1.657019E-02	1.6305E-02
7.2500000e-01	1.764350E-02	1.758380E-02	1.7488E-02
7.7500000e-01	1.875138E-02	1.855487E-02	1.8667E-02
8.2500000e-01	1.983945E-02	1.948346E-02	1.9842E-02
8.7500000e-01	2.090800E-02	2.036881E-02	2.1012E-02
9.2500000e-01	2.195802E-02	2.120815E-02	2.2178E-02
9.7500000e-01	2.299059E-02	2.199660E-02	2.3338E-02
1.0250000e+00	2.400623E-02	2.272804E-02	2.4493E-02
1.0750000e+00	2.500472E-02	2.339642E-02	2.5642E-02
1.1250000e+00	2.598518E-02	2.399791E-02	2.6785E-02
1.1750000e+00	2.694619E-02	2.453290E-02	2.7921E-02
1.2250000e+00	2.788582E-02	2.500673E-02	2.9050E-02
1.2750000e+00	2.880158E-02	2.542839E-02	3.0172E-02
1.3250000e+00	2.969048E-02	2.580810E-02	3.1286E-02
1.3750000e+00	3.054893E-02	2.615534E-02	3.2391E-02
1.4250000e+00	3.137276E-02	2.647793E-02	3.3486E-02
1.4750000e+00	3.215739E-02	2.678186E-02	3.4572E-02
1.5250000e+00	3.289823E-02	2.707162E-02	3.5646E-02
1.5750000e+00	3.359126E-02	2.735051E-02	3.6708E-02
1.6250000e+00	3.423408E-02	2.762095E-02	3.7757E-02



1.6750000e+00	3.482661E-02	2.788477E-02	3.8790E-02
1.7250000e+00	3.537149E-02	2.814329E-02	3.9807E-02
1.7750000e+00	3.587366E-02	2.839756E-02	4.0805E-02
1.8250000e+00	3.633928E-02	2.864834E-02	4.1781E-02
1.8750000e+00	3.677472E-02	2.889628E-02	4.2734E-02
1.9250000e+00	3.718582E-02	2.914184E-02	4.3660E-02
1.9750000e+00	3.757750E-02	2.938542E-02	4.4556E-02
2.0250000e+00	3.795380E-02	2.962733E-02	4.5417E-02
2.0750000e+00	3.831783E-02	2.986783E-02	4.6241E-02
2.1250000e+00	3.867208E-02	3.010713E-02	4.7025E-02
2.1750000e+00	3.901845E-02	3.034542E-02	4.7767E-02
2.2250000e+00	3.935843E-02	3.058286E-02	4.8466E-02
2.2750000e+00	3.969319E-02	3.081960E-02	4.9124E-02
2.3250000e+00	4.002364E-02	3.105576E-02	4.9743E-02
2.3750000e+00	4.035053E-02	3.129147E-02	5.0329E-02
2.4250000e+00	4.067444E-02	3.152686E-02	5.0885E-02
2.4750000e+00	4.099589E-02	3.176208E-02	5.1415E-02
2.5250000e+00	4.131527E-02	3.199724E-02	5.1923E-02
2.5750000e+00	4.163292E-02	3.223252E-02	5.2415E-02
2.6250000e+00	4.194914E-02	3.246808E-02	5.2891E-02
2.6750000e+00	4.226420E-02	3.270415E-02	5.3355E-02
2.7250000e+00	4.257832E-02	3.294093E-02	5.3809E-02
2.7750000e+00	4.289173E-02	3.317872E-02	5.4255E-02
2.8250000e+00	4.320461E-02	3.341781E-02	5.4693E-02
2.8750000e+00	4.351716E-02	3.365859E-02	5.5126E-02
2.9250000e+00	4.382954E-02	3.390146E-02	5.5553E-02
2.9750000e+00	4.414196E-02	3.414689E-02	5.5976E-02
3.0000000e+00	4.429822E-02	3.427073E-02	5.6186E-02

[GND Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	-5.378351E-02	-5.490567E-02	-5.885698E-02
-1.4750000e+00	-5.231251E-02	-5.334431E-02	-5.735670E-02
-1.4500000e+00	-5.084369E-02	-5.178549E-02	-5.585777E-02
-1.4250000e+00	-4.937717E-02	-5.022938E-02	-5.436026E-02
-1.4000000e+00	-4.791309E-02	-4.867613E-02	-5.286424E-02
-1.3750000e+00	-4.645161E-02	-4.712594E-02	-5.136982E-02
-1.3500000e+00	-4.499289E-02	-4.557901E-02	-4.987709E-02
-1.3250000e+00	-4.353712E-02	-4.403556E-02	-4.838614E-02
-1.3000000e+00	-4.208452E-02	-4.249585E-02	-4.689710E-02
-1.2750000e+00	-4.063529E-02	-4.096014E-02	-4.541010E-02
-1.2500000e+00	-3.918970E-02	-3.942875E-02	-4.392527E-02
-1.2250000e+00	-3.774803E-02	-3.790201E-02	-4.244278E-02
-1.2000000e+00	-3.631059E-02	-3.638031E-02	-4.096280E-02
-1.1750000e+00	-3.487773E-02	-3.486408E-02	-3.948552E-02
-1.1500000e+00	-3.344986E-02	-3.335380E-02	-3.801116E-02
-1.1250000e+00	-3.202742E-02	-3.185003E-02	-3.653998E-02
-1.1000000e+00	-3.061092E-02	-3.035339E-02	-3.507226E-02
-1.0750000e+00	-2.920096E-02	-2.886462E-02	-3.360832E-02
-1.0500000e+00	-2.779821E-02	-2.738455E-02	-3.214854E-02
-1.0250000e+00	-2.640347E-02	-2.591415E-02	-3.069335E-02
-1.0000000e+00	-2.501766E-02	-2.445455E-02	-2.924328E-02
-9.7500000e-01	-2.364185E-02	-2.300708E-02	-2.779892E-02
-9.5000000e-01	-2.227732E-02	-2.157329E-02	-2.636102E-02

-9.2500000e-01	-2.092559E-02	-2.015501E-02	-2.493048E-02
-9.0000000e-01	-1.958843E-02	-1.875433E-02	-2.350840E-02
-8.7500000e-01	-1.826790E-02	-1.737363E-02	-2.209616E-02
-8.5000000e-01	-1.696631E-02	-1.601550E-02	-2.069550E-02
-8.2500000e-01	-1.568612E-02	-1.468262E-02	-1.930856E-02
-8.0000000e-01	-1.442972E-02	-1.337762E-02	-1.793782E-02
-7.7500000e-01	-1.319926E-02	-1.210311E-02	-1.658583E-02
-7.5000000e-01	-1.199673E-02	-1.086191E-02	-1.525450E-02
-7.2500000e-01	-1.082427E-02	-9.657411E-03	-1.394473E-02
-7.0000000e-01	-9.684638E-03	-8.493939E-03	-1.265685E-02
-6.7500000e-01	-8.581514E-03	-7.376930E-03	-1.139180E-02
-6.5000000e-01	-7.519607E-03	-6.312929E-03	-1.015194E-02
-6.2500000e-01	-6.504547E-03	-5.309438E-03	-8.941318E-03
-6.0000000e-01	-5.542688E-03	-4.374618E-03	-7.765735E-03
-5.7500000e-01	-4.640772E-03	-3.516890E-03	-6.632945E-03
-5.5000000e-01	-3.805524E-03	-2.744483E-03	-5.552946E-03
-5.2500000e-01	-3.043248E-03	-2.065103E-03	-4.538201E-03
-5.0000000e-01	-2.359647E-03	-1.485677E-03	-3.603412E-03
-4.7500000e-01	-1.760020E-03	-1.011779E-03	-2.764265E-03
-4.5000000e-01	-1.249702E-03	-6.458403E-04	-2.034716E-03
-4.2500000e-01	-8.339835E-04	-3.838582E-04	-1.423545E-03
-4.0000000e-01	-5.162389E-04	-2.125448E-04	-9.327605E-04
-3.7500000e-01	-2.937329E-04	-1.106466E-04	-5.596330E-04
-3.5000000e-01	-1.537279E-04	-5.497263E-05	-2.989533E-04
-3.2500000e-01	-7.493357E-05	-2.649171E-05	-1.392987E-04
-3.0000000e-01	-3.471511E-05	-1.256760E-05	-5.693658E-05
-2.7500000e-01	-1.563019E-05	-5.952723E-06	-2.113755E-05
-2.5000000e-01	-7.001335E-06	-2.863206E-06	-7.478945E-06
-2.2500000e-01	-3.215160E-06	-1.433628E-06	-2.669259E-06
-2.0000000e-01	-1.576700E-06	-7.729597E-07	-1.039352E-06
-1.7500000e-01	-8.691669E-07	-4.659048E-07	-4.927445E-07
-1.5000000e-01	-5.602970E-07	-3.210513E-07	-3.061011E-07
-1.2500000e-01	-4.211770E-07	-2.506183E-07	-2.379539E-07
-1.0000000e-01	-3.542844E-07	-2.144259E-07	-2.089405E-07
-7.5000000e-02	-3.182781E-07	-1.940781E-07	-1.931392E-07
-5.0000000e-02	-2.956734E-07	-1.811414E-07	-1.820767E-07
-2.5000000e-02	-2.790923E-07	-1.717494E-07	-1.729565E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[Pullup]

-1.5000000e+00	1.389728E-02	1.504401E-02	1.3495E-02
-1.4750000e+00	1.392266E-02	1.515940E-02	1.3511E-02
-1.4250000e+00	1.394549E-02	1.534861E-02	1.3532E-02
-1.3750000e+00	1.393984E-02	1.547700E-02	1.3542E-02
-1.3250000e+00	1.391859E-02	1.554357E-02	1.3545E-02
-1.2750000e+00	1.389341E-02	1.555550E-02	1.3540E-02
-1.2250000e+00	1.387050E-02	1.552788E-02	1.3526E-02
-1.1750000e+00	1.384963E-02	1.548081E-02	1.3502E-02
-1.1250000e+00	1.382685E-02	1.543388E-02	1.3467E-02
-1.0750000e+00	1.379804E-02	1.539856E-02	1.3421E-02
-1.0250000e+00	1.376042E-02	1.537452E-02	1.3363E-02
-9.7500000e-01	1.371257E-02	1.535474E-02	1.3293E-02
-9.2500000e-01	1.365380E-02	1.533271E-02	1.3210E-02

-8.7500000e-01	1.358379E-02	1.530481E-02	1.3113E-02
-8.2500000e-01	1.350199E-02	1.526951E-02	1.3001E-02
-7.7500000e-01	1.340734E-02	1.522537E-02	1.2873E-02
-7.2500000e-01	1.329767E-02	1.516783E-02	1.2725E-02
-6.7500000e-01	1.316879E-02	1.508258E-02	1.2554E-02
-6.2500000e-01	1.301213E-02	1.493400E-02	1.2352E-02
-5.7500000e-01	1.280843E-02	1.465359E-02	1.2107E-02
-5.2500000e-01	1.251269E-02	1.414154E-02	1.1797E-02
-4.7500000e-01	1.203560E-02	1.330397E-02	1.1382E-02
-4.2500000e-01	1.126665E-02	1.214514E-02	1.0778E-02
-3.7500000e-01	1.018437E-02	1.079032E-02	9.8667E-03
-3.2500000e-01	8.905568E-03	9.358893E-03	8.6724E-03
-2.7500000e-01	7.550642E-03	7.907034E-03	7.3614E-03
-2.2500000e-01	6.175032E-03	6.454310E-03	6.0240E-03
-1.7500000e-01	4.796858E-03	5.006794E-03	4.6832E-03
-1.2500000e-01	3.421222E-03	3.566345E-03	3.3432E-03
-7.5000000e-02	2.049479E-03	2.133648E-03	2.0047E-03
-2.5000000e-02	6.820421E-04	7.091043E-04	6.6784E-04
0.0000000e+00	1.125100E-09	4.014300E-10	2.6237E-09
2.5000000e-02	-6.802155E-04	-7.060015E-04	-6.6696E-04
7.5000000e-02	-2.032965E-03	-2.105590E-03	-1.9968E-03
1.2500000e-01	-3.375119E-03	-3.487987E-03	-3.3211E-03
1.7500000e-01	-4.706231E-03	-4.852382E-03	-4.6395E-03
2.2500000e-01	-6.025837E-03	-6.197914E-03	-5.9518E-03
2.7500000e-01	-7.333440E-03	-7.523661E-03	-7.2578E-03
3.2500000e-01	-8.628517E-03	-8.828634E-03	-8.5572E-03
3.7500000e-01	-9.910511E-03	-1.011178E-02	-9.8498E-03
4.2500000e-01	-1.117883E-02	-1.137197E-02	-1.1135E-02
4.7500000e-01	-1.243286E-02	-1.260797E-02	-1.2413E-02
5.2500000e-01	-1.367192E-02	-1.381848E-02	-1.3683E-02
5.7500000e-01	-1.489533E-02	-1.500209E-02	-1.4945E-02
6.2500000e-01	-1.610232E-02	-1.615730E-02	-1.6198E-02
6.7500000e-01	-1.729210E-02	-1.728247E-02	-1.7442E-02
7.2500000e-01	-1.846383E-02	-1.837588E-02	-1.8677E-02
7.7500000e-01	-1.961663E-02	-1.943566E-02	-1.9902E-02
8.2500000e-01	-2.074956E-02	-2.045990E-02	-2.1116E-02
8.7500000e-01	-2.186165E-02	-2.144666E-02	-2.2320E-02
9.2500000e-01	-2.295193E-02	-2.239415E-02	-2.3513E-02
9.7500000e-01	-2.401949E-02	-2.330089E-02	-2.4694E-02
1.0250000e+00	-2.506353E-02	-2.416589E-02	-2.5862E-02
1.0750000e+00	-2.608351E-02	-2.498853E-02	-2.7019E-02
1.1250000e+00	-2.707921E-02	-2.576811E-02	-2.8162E-02
1.1750000e+00	-2.805064E-02	-2.650347E-02	-2.9293E-02
1.2250000e+00	-2.899777E-02	-2.719285E-02	-3.0411E-02
1.2750000e+00	-2.992027E-02	-2.783418E-02	-3.1515E-02
1.3250000e+00	-3.081737E-02	-2.842555E-02	-3.2607E-02
1.3750000e+00	-3.168792E-02	-2.896616E-02	-3.3684E-02
1.4250000e+00	-3.253039E-02	-2.945719E-02	-3.4746E-02
1.4750000e+00	-3.334289E-02	-2.990258E-02	-3.5792E-02
1.5250000e+00	-3.412325E-02	-3.030862E-02	-3.6822E-02
1.5750000e+00	-3.486904E-02	-3.068257E-02	-3.7833E-02
1.6250000e+00	-3.557765E-02	-3.103121E-02	-3.8826E-02
1.6750000e+00	-3.624648E-02	-3.136007E-02	-3.9797E-02
1.7250000e+00	-3.687328E-02	-3.167336E-02	-4.0746E-02

1.7750000e+00	-3.745664E-02	-3.197424E-02	-4.1671E-02
1.8250000e+00	-3.799669E-02	-3.226504E-02	-4.2569E-02
1.8750000e+00	-3.849556E-02	-3.254752E-02	-4.3438E-02
1.9250000e+00	-3.895731E-02	-3.282305E-02	-4.4275E-02
1.9750000e+00	-3.938722E-02	-3.309268E-02	-4.5078E-02
2.0250000e+00	-3.979072E-02	-3.335727E-02	-4.5843E-02
2.0750000e+00	-4.017273E-02	-3.361751E-02	-4.6567E-02
2.1250000e+00	-4.053726E-02	-3.387396E-02	-4.7248E-02
2.1750000e+00	-4.088753E-02	-3.412707E-02	-4.7884E-02
2.2250000e+00	-4.122603E-02	-3.437727E-02	-4.8477E-02
2.2750000e+00	-4.155471E-02	-3.462485E-02	-4.9029E-02
2.3250000e+00	-4.187511E-02	-3.487012E-02	-4.9543E-02
2.3750000e+00	-4.218845E-02	-3.511332E-02	-5.0025E-02
2.4250000e+00	-4.249571E-02	-3.535466E-02	-5.0480E-02
2.4750000e+00	-4.279769E-02	-3.559433E-02	-5.0912E-02
2.5250000e+00	-4.309507E-02	-3.583247E-02	-5.1326E-02
2.5750000e+00	-4.338839E-02	-3.606925E-02	-5.1724E-02
2.6250000e+00	-4.367813E-02	-3.630478E-02	-5.2110E-02
2.6750000e+00	-4.396467E-02	-3.653918E-02	-5.2484E-02
2.7250000e+00	-4.424835E-02	-3.677256E-02	-5.2850E-02
2.7750000e+00	-4.452948E-02	-3.700500E-02	-5.3207E-02
2.8250000e+00	-4.480830E-02	-3.723659E-02	-5.3558E-02
2.8750000e+00	-4.508503E-02	-3.746739E-02	-5.3903E-02
2.9250000e+00	-4.535988E-02	-3.769749E-02	-5.4242E-02
2.9750000e+00	-4.563300E-02	-3.792696E-02	-5.4577E-02
3.0000000e+00	-4.576897E-02	-3.804147E-02	-5.4743E-02

[POWER Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	4.450136E-02	4.385767E-02	4.780182E-02
-1.4750000e+00	4.325737E-02	4.248503E-02	4.651241E-02
-1.4500000e+00	4.202627E-02	4.113177E-02	4.522926E-02
-1.4250000e+00	4.080680E-02	3.979850E-02	4.395156E-02
-1.4000000e+00	3.959743E-02	3.848563E-02	4.267873E-02
-1.3750000e+00	3.839648E-02	3.719324E-02	4.141044E-02
-1.3500000e+00	3.720221E-02	3.592106E-02	4.014659E-02
-1.3250000e+00	3.601296E-02	3.466841E-02	3.888726E-02
-1.3000000e+00	3.482735E-02	3.343415E-02	3.763263E-02
-1.2750000e+00	3.364438E-02	3.221669E-02	3.638297E-02
-1.2500000e+00	3.246358E-02	3.101397E-02	3.513857E-02
-1.2250000e+00	3.128497E-02	2.982356E-02	3.389973E-02
-1.2000000e+00	3.010901E-02	2.864279E-02	3.266673E-02
-1.1750000e+00	2.893648E-02	2.746896E-02	3.143985E-02
-1.1500000e+00	2.776826E-02	2.629964E-02	3.021938E-02
-1.1250000e+00	2.660528E-02	2.513304E-02	2.900561E-02
-1.1000000e+00	2.544841E-02	2.396824E-02	2.779886E-02
-1.0750000e+00	2.429844E-02	2.280536E-02	2.659948E-02
-1.0500000e+00	2.315612E-02	2.164543E-02	2.540789E-02
-1.0250000e+00	2.202214E-02	2.049007E-02	2.422457E-02
-1.0000000e+00	2.089719E-02	1.934117E-02	2.305009E-02
-9.7500000e-01	1.978197E-02	1.820065E-02	2.188514E-02
-9.5000000e-01	1.867722E-02	1.707028E-02	2.073052E-02
-9.2500000e-01	1.758372E-02	1.595172E-02	1.958719E-02
-9.0000000e-01	1.650228E-02	1.484648E-02	1.845618E-02

-8.7500000e-01	1.543373E-02	1.375596E-02	1.733862E-02
-8.5000000e-01	1.437889E-02	1.268153E-02	1.623553E-02
-8.2500000e-01	1.333851E-02	1.162449E-02	1.514772E-02
-8.0000000e-01	1.231328E-02	1.058622E-02	1.407562E-02
-7.7500000e-01	1.130388E-02	9.568206E-03	1.301922E-02
-7.5000000e-01	1.031106E-02	8.572276E-03	1.197827E-02
-7.2500000e-01	9.335806E-03	7.600753E-03	1.095257E-02
-7.0000000e-01	8.379549E-03	6.656721E-03	9.942222E-03
-6.7500000e-01	7.444326E-03	5.744302E-03	8.947921E-03
-6.5000000e-01	6.532997E-03	4.868952E-03	7.971051E-03
-6.2500000e-01	5.649458E-03	4.037787E-03	7.013870E-03
-6.0000000e-01	4.798902E-03	3.259897E-03	6.079707E-03
-5.7500000e-01	3.988134E-03	2.546530E-03	5.173245E-03
-5.5000000e-01	3.225930E-03	1.910856E-03	4.300910E-03
-5.2500000e-01	2.523332E-03	1.366712E-03	3.471447E-03
-5.0000000e-01	1.893615E-03	9.256050E-04	2.696680E-03
-4.7500000e-01	1.351332E-03	5.919303E-04	1.992354E-03
-4.5000000e-01	9.095438E-04	3.586832E-04	1.378419E-03
-4.2500000e-01	5.747929E-04	2.078355E-04	8.770400E-04
-4.0000000e-01	3.418453E-04	1.164218E-04	5.053108E-04
-3.7500000e-01	1.930954E-04	6.360210E-05	2.627390E-04
-3.5000000e-01	1.048276E-04	3.408364E-05	1.249615E-04
-3.2500000e-01	5.523970E-05	1.799151E-05	5.555911E-05
-3.0000000e-01	2.845373E-05	9.394192E-06	2.354502E-05
-2.7500000e-01	1.440808E-05	4.878770E-06	9.668085E-06
-2.5000000e-01	7.217646E-06	2.540607E-06	3.917725E-06
-2.2500000e-01	3.608426E-06	1.343333E-06	1.610387E-06
-2.0000000e-01	1.824961E-06	7.351342E-07	7.040805E-07
-1.7500000e-01	9.538097E-07	4.274933E-07	3.518120E-07
-1.5000000e-01	5.312391E-07	2.717598E-07	2.143493E-07
-1.2500000e-01	3.264285E-07	1.922225E-07	1.590780E-07
-1.0000000e-01	2.262355E-07	1.506538E-07	1.350141E-07
-7.5000000e-02	1.758303E-07	1.278715E-07	1.227817E-07
-5.0000000e-02	1.489090E-07	1.143246E-07	1.150734E-07
-2.5000000e-02	1.332080E-07	1.054156E-07	1.091537E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[Ramp]

R\_load = 50.00Ohm

	typ	min	max
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dV/dt_r	532.022mV/119.423ps	491.319mV/165.185ps	567.619mV/91.565ps
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dV/dt_f	537.976mV/129.806ps	497.460mV/173.213ps	578.029mV/105.657ps
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[Rising Waveform]

V\_fixture = 1.500V

V\_fixture\_min = 1.425V

V\_fixture\_max = 1.575V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
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0.00E+00	6.8316E-01	6.4198E-01	7.1381E-01
1.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
2.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
3.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
4.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
5.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
6.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
7.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
8.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
9.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
1.00E-10	6.8316E-01	6.4198E-01	7.1381E-01
1.10E-10	6.8316E-01	6.4198E-01	7.1381E-01
1.20E-10	6.8316E-01	6.4198E-01	7.1381E-01
1.30E-10	6.8316E-01	6.4198E-01	7.1381E-01
1.40E-10	6.8316E-01	6.4198E-01	7.2174E-01
1.50E-10	6.8316E-01	6.4198E-01	7.5887E-01
1.60E-10	6.8316E-01	6.4198E-01	8.2016E-01
1.70E-10	6.8316E-01	6.4198E-01	9.1349E-01
1.80E-10	6.8316E-01	6.4198E-01	1.0158E+00
1.90E-10	6.8316E-01	6.4198E-01	1.1058E+00
2.00E-10	6.8631E-01	6.4198E-01	1.1722E+00
2.10E-10	6.9781E-01	6.4198E-01	1.2169E+00
2.20E-10	7.2546E-01	6.4298E-01	1.2448E+00
2.30E-10	7.5875E-01	6.4398E-01	1.2647E+00
2.40E-10	8.1582E-01	6.4498E-01	1.2837E+00
2.50E-10	8.7535E-01	6.4698E-01	1.3078E+00
2.60E-10	9.4749E-01	6.5598E-01	1.3414E+00
2.70E-10	1.0174E+00	6.6598E-01	1.3863E+00
2.80E-10	1.0731E+00	6.7898E-01	1.4363E+00
2.90E-10	1.1226E+00	6.9347E-01	1.4802E+00
3.00E-10	1.1579E+00	7.1337E-01	1.5132E+00
3.10E-10	1.1837E+00	7.4966E-01	1.5358E+00
3.20E-10	1.2048E+00	7.9147E-01	1.5503E+00
3.30E-10	1.2195E+00	8.3328E-01	1.5592E+00
3.40E-10	1.2343E+00	8.7936E-01	1.5645E+00
3.50E-10	1.2494E+00	9.3100E-01	1.5675E+00
3.60E-10	1.2675E+00	9.8264E-01	1.5691E+00
3.70E-10	1.2874E+00	1.0268E+00	1.5702E+00
3.80E-10	1.3136E+00	1.0618E+00	1.5750E+00
3.90E-10	1.3416E+00	1.0967E+00	1.5750E+00
4.00E-10	1.3720E+00	1.1198E+00	1.5750E+00
4.10E-10	1.4006E+00	1.1392E+00	1.5750E+00
4.20E-10	1.4277E+00	1.1550E+00	1.5750E+00
4.30E-10	1.4490E+00	1.1666E+00	1.5750E+00
4.40E-10	1.4656E+00	1.1779E+00	1.5750E+00
4.50E-10	1.4779E+00	1.1874E+00	1.5750E+00
4.60E-10	1.4845E+00	1.1970E+00	1.5750E+00
4.70E-10	1.4896E+00	1.2077E+00	1.5750E+00
4.80E-10	1.4922E+00	1.2186E+00	1.5750E+00
4.90E-10	1.4951E+00	1.2308E+00	1.5750E+00
5.00E-10	1.4974E+00	1.2441E+00	1.5750E+00
5.10E-10	1.4984E+00	1.2582E+00	1.5750E+00
5.20E-10	1.4991E+00	1.2741E+00	1.5750E+00

5.30E-10	1.5000E+00	1.2901E+00	1.5750E+00
5.40E-10	1.5000E+00	1.3071E+00	1.5750E+00
5.50E-10	1.5000E+00	1.3240E+00	1.5750E+00
5.60E-10	1.5000E+00	1.3409E+00	1.5750E+00
5.70E-10	1.5000E+00	1.3579E+00	1.5750E+00
5.80E-10	1.5000E+00	1.3720E+00	1.5750E+00
5.90E-10	1.5000E+00	1.3824E+00	1.5750E+00
6.00E-10	1.5000E+00	1.3929E+00	1.5750E+00
6.10E-10	1.5000E+00	1.4033E+00	1.5750E+00
6.20E-10	1.5000E+00	1.4094E+00	1.5750E+00
6.30E-10	1.5000E+00	1.4154E+00	1.5750E+00
6.40E-10	1.5000E+00	1.4204E+00	1.5750E+00
6.50E-10	1.5000E+00	1.4244E+00	1.5750E+00
6.60E-10	1.5000E+00	1.4244E+00	1.5750E+00
6.70E-10	1.5000E+00	1.4244E+00	1.5750E+00
6.80E-10	1.5000E+00	1.4244E+00	1.5750E+00
6.90E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.00E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.10E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.20E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.30E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.40E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.50E-10	1.5000E+00	1.4244E+00	1.5750E+00

[Falling Waveform]

V\_fixture = 1.500V

V\_fixture\_min = 1.425V

V\_fixture\_max = 1.575V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	1.5000E+00	1.4244E+00	1.5750E+00
1.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
2.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
3.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
4.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
5.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
6.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
7.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
8.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
9.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
1.00E-10	1.5000E+00	1.4244E+00	1.5750E+00
1.10E-10	1.5000E+00	1.4244E+00	1.5750E+00
1.20E-10	1.5000E+00	1.4244E+00	1.5750E+00
1.30E-10	1.5000E+00	1.4244E+00	1.5678E+00
1.40E-10	1.5000E+00	1.4244E+00	1.5356E+00
1.50E-10	1.5000E+00	1.4244E+00	1.4918E+00
1.60E-10	1.5000E+00	1.4244E+00	1.4391E+00
1.70E-10	1.5000E+00	1.4244E+00	1.3811E+00
1.80E-10	1.5000E+00	1.4244E+00	1.3164E+00
1.90E-10	1.5000E+00	1.4244E+00	1.2491E+00
2.00E-10	1.4916E+00	1.4244E+00	1.1872E+00
2.10E-10	1.4779E+00	1.4244E+00	1.1373E+00

2.20E-10	1.4526E+00	1.4244E+00	1.1004E+00
2.30E-10	1.4258E+00	1.4244E+00	1.0723E+00
2.40E-10	1.3882E+00	1.4244E+00	1.0470E+00
2.50E-10	1.3499E+00	1.4244E+00	1.0149E+00
2.60E-10	1.3051E+00	1.4244E+00	9.8066E-01
2.70E-10	1.2605E+00	1.4244E+00	9.3547E-01
2.80E-10	1.2170E+00	1.4244E+00	8.8759E-01
2.90E-10	1.1745E+00	1.4194E+00	8.4268E-01
3.00E-10	1.1378E+00	1.4094E+00	8.0700E-01
3.10E-10	1.1029E+00	1.3963E+00	7.7745E-01
3.20E-10	1.0753E+00	1.3791E+00	7.5868E-01
3.30E-10	1.0489E+00	1.3558E+00	7.4505E-01
3.40E-10	1.0261E+00	1.3325E+00	7.3501E-01
3.50E-10	1.0023E+00	1.3056E+00	7.2933E-01
3.60E-10	9.7620E-01	1.2772E+00	7.2516E-01
3.70E-10	9.4367E-01	1.2488E+00	7.2226E-01
3.80E-10	9.0696E-01	1.2213E+00	7.2113E-01
3.90E-10	8.7376E-01	1.1938E+00	7.1999E-01
4.00E-10	8.3990E-01	1.1670E+00	7.1886E-01
4.10E-10	8.0957E-01	1.1432E+00	7.1825E-01
4.20E-10	7.8300E-01	1.1193E+00	7.1767E-01
4.30E-10	7.6093E-01	1.0968E+00	7.1709E-01
4.40E-10	7.4264E-01	1.0762E+00	7.1654E-01
4.50E-10	7.2827E-01	1.0555E+00	7.1600E-01
4.60E-10	7.1647E-01	1.0350E+00	7.1545E-01
4.70E-10	7.0685E-01	1.0145E+00	7.1510E-01
4.80E-10	6.9834E-01	9.9409E-01	7.1479E-01
4.90E-10	6.9107E-01	9.6900E-01	7.1449E-01
5.00E-10	6.8566E-01	9.4342E-01	7.1433E-01
5.10E-10	6.8316E-01	9.1269E-01	7.1421E-01
5.20E-10	6.8316E-01	8.8416E-01	7.1410E-01
5.30E-10	6.8316E-01	8.5763E-01	7.1399E-01
5.40E-10	6.8316E-01	8.3261E-01	7.1388E-01
5.50E-10	6.8316E-01	8.0994E-01	7.1380E-01
5.60E-10	6.8316E-01	7.8727E-01	7.1380E-01
5.70E-10	6.8316E-01	7.6866E-01	7.1380E-01
5.80E-10	6.8316E-01	7.5240E-01	7.1380E-01
5.90E-10	6.8316E-01	7.3613E-01	7.1380E-01
6.00E-10	6.8316E-01	7.2289E-01	7.1380E-01
6.10E-10	6.8316E-01	7.1008E-01	7.1380E-01
6.20E-10	6.8316E-01	6.9855E-01	7.1380E-01
6.30E-10	6.8316E-01	6.9098E-01	7.1380E-01
6.40E-10	6.8316E-01	6.8198E-01	7.1380E-01
6.50E-10	6.8316E-01	6.7398E-01	7.1380E-01
6.60E-10	6.8316E-01	6.6298E-01	7.1380E-01
6.70E-10	6.8316E-01	6.5598E-01	7.1380E-01
6.80E-10	6.8316E-01	6.5098E-01	7.1380E-01
6.90E-10	6.8316E-01	6.4798E-01	7.1380E-01
7.00E-10	6.8316E-01	6.4598E-01	7.1380E-01
7.10E-10	6.8316E-01	6.4398E-01	7.1380E-01
7.20E-10	6.8316E-01	6.4298E-01	7.1380E-01
7.30E-10	6.8316E-01	6.4198E-01	7.1380E-01
7.40E-10	6.8316E-01	6.4198E-01	7.1380E-01
7.50E-10	6.8316E-01	6.4198E-01	7.1380E-01



[Rising Waveform]

V\_fixture = 0.000V

V\_fixture\_min = 0.000V

V\_fixture\_max = 0.000V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	2.1656E-05	4.5001E-04	1.9840E-06
1.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
2.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
3.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
4.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
5.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
6.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
7.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
8.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
9.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
1.00E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.10E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.20E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.30E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.40E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.50E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.60E-10	2.1656E-05	4.5001E-04	4.8671E-02
1.70E-10	2.1656E-05	4.5001E-04	1.0238E-01
1.80E-10	2.1656E-05	4.5001E-04	1.6978E-01
1.90E-10	2.1656E-05	4.5001E-04	2.4540E-01
2.00E-10	2.1656E-05	4.5001E-04	3.2196E-01
2.10E-10	2.1656E-05	4.5001E-04	3.9122E-01
2.20E-10	6.9115E-03	4.5001E-04	4.4667E-01
2.30E-10	2.1916E-02	4.5001E-04	4.8493E-01
2.40E-10	4.9605E-02	4.5001E-04	5.1216E-01
2.50E-10	8.2158E-02	4.5001E-04	5.3458E-01
2.60E-10	1.2545E-01	4.5001E-04	5.6186E-01
2.70E-10	1.7346E-01	4.5001E-04	6.0105E-01
2.80E-10	2.2437E-01	4.5001E-04	6.5263E-01
2.90E-10	2.7673E-01	4.5001E-04	7.0953E-01
3.00E-10	3.2396E-01	7.4200E-04	7.5988E-01
3.10E-10	3.6830E-01	6.9399E-03	7.9680E-01
3.20E-10	4.0406E-01	2.2538E-02	8.2326E-01
3.30E-10	4.3438E-01	3.8136E-02	8.4173E-01
3.40E-10	4.5821E-01	6.0559E-02	8.5396E-01
3.50E-10	4.7742E-01	9.0788E-02	8.6342E-01
3.60E-10	4.9488E-01	1.2102E-01	8.7131E-01
3.70E-10	5.1097E-01	1.5625E-01	8.7541E-01
3.80E-10	5.3186E-01	1.9335E-01	8.7950E-01
3.90E-10	5.5704E-01	2.3045E-01	8.8129E-01
4.00E-10	5.8693E-01	2.6299E-01	8.8750E-01
4.10E-10	6.3150E-01	2.9548E-01	8.8750E-01
4.20E-10	6.6900E-01	3.2621E-01	8.8750E-01
4.30E-10	7.0343E-01	3.5161E-01	8.8750E-01
4.40E-10	7.3251E-01	3.7701E-01	8.8750E-01

4.50E-10	7.5834E-01	3.9887E-01	8.8750E-01
4.60E-10	7.7553E-01	4.1920E-01	8.8750E-01
4.70E-10	7.9054E-01	4.3893E-01	8.8750E-01
4.80E-10	7.9989E-01	4.5025E-01	8.8750E-01
4.90E-10	8.0628E-01	4.6257E-01	8.8750E-01
5.00E-10	8.1206E-01	4.7874E-01	8.8750E-01
5.10E-10	8.1613E-01	4.8572E-01	8.8750E-01
5.20E-10	8.2020E-01	4.9920E-01	8.8750E-01
5.30E-10	8.2427E-01	5.1505E-01	8.8750E-01
5.40E-10	8.2778E-01	5.3090E-01	8.8750E-01
5.50E-10	8.3015E-01	5.5341E-01	8.8750E-01
5.60E-10	8.3015E-01	5.7647E-01	8.8750E-01
5.70E-10	8.3015E-01	5.9813E-01	8.8750E-01
5.80E-10	8.3015E-01	6.2467E-01	8.8750E-01
5.90E-10	8.3015E-01	6.5120E-01	8.8750E-01
6.00E-10	8.3015E-01	6.7309E-01	8.8750E-01
6.10E-10	8.3015E-01	6.9494E-01	8.8750E-01
6.20E-10	8.3015E-01	7.1298E-01	8.8750E-01
6.30E-10	8.3015E-01	7.2761E-01	8.8750E-01
6.40E-10	8.3015E-01	7.4187E-01	8.8750E-01
6.50E-10	8.3015E-01	7.5387E-01	8.8750E-01
6.60E-10	8.3015E-01	7.6287E-01	8.8750E-01
6.70E-10	8.3015E-01	7.7087E-01	8.8750E-01
6.80E-10	8.3015E-01	7.7787E-01	8.8750E-01
6.90E-10	8.3015E-01	7.8587E-01	8.8750E-01
7.00E-10	8.3015E-01	7.8987E-01	8.8750E-01
7.10E-10	8.3015E-01	7.9287E-01	8.8750E-01
7.20E-10	8.3015E-01	7.9387E-01	8.8750E-01
7.30E-10	8.3015E-01	7.9487E-01	8.8750E-01
7.40E-10	8.3015E-01	7.9587E-01	8.8750E-01
7.50E-10	8.3015E-01	7.9587E-01	8.8750E-01

[Falling Waveform]

V\_fixture = 0.000V

V\_fixture\_min = 0.000V

V\_fixture\_max = 0.000V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	8.3015E-01	7.9587E-01	8.8750E-01
1.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
2.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
3.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
4.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
5.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
6.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
7.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
8.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
9.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
1.00E-10	8.3015E-01	7.9587E-01	8.8750E-01
1.10E-10	8.3015E-01	7.9587E-01	8.8750E-01
1.20E-10	8.3015E-01	7.9587E-01	8.8443E-01
1.30E-10	8.3015E-01	7.9587E-01	8.7452E-01

1.40E-10	8.3015E-01	7.9587E-01	8.4189E-01
1.50E-10	8.3015E-01	7.9587E-01	7.8920E-01
1.60E-10	8.3015E-01	7.9587E-01	7.1329E-01
1.70E-10	8.2717E-01	7.9587E-01	6.2580E-01
1.80E-10	8.2022E-01	7.9487E-01	5.4691E-01
1.90E-10	8.0849E-01	7.9287E-01	4.8081E-01
2.00E-10	7.8766E-01	7.8987E-01	4.2673E-01
2.10E-10	7.5342E-01	7.8587E-01	3.8302E-01
2.20E-10	7.0770E-01	7.8087E-01	3.4957E-01
2.30E-10	6.4643E-01	7.7487E-01	3.1949E-01
2.40E-10	5.7951E-01	7.6687E-01	2.8668E-01
2.50E-10	5.1395E-01	7.5687E-01	2.5182E-01
2.60E-10	4.5050E-01	7.4187E-01	2.1162E-01
2.70E-10	4.0155E-01	7.2460E-01	1.7228E-01
2.80E-10	3.6096E-01	7.0145E-01	1.3355E-01
2.90E-10	3.2886E-01	6.6392E-01	1.0138E-01
3.00E-10	3.0074E-01	6.2500E-01	7.3166E-02
3.10E-10	2.7872E-01	5.8181E-01	5.0761E-02
3.20E-10	2.6007E-01	5.3521E-01	3.5793E-02
3.30E-10	2.4432E-01	4.8940E-01	2.3892E-02
3.40E-10	2.2391E-01	4.4680E-01	1.6931E-02
3.50E-10	1.9806E-01	4.0419E-01	1.2192E-02
3.60E-10	1.7058E-01	3.7123E-01	8.9365E-03
3.70E-10	1.4036E-01	3.4007E-01	7.2358E-03
3.80E-10	1.1118E-01	3.1448E-01	5.9670E-03
3.90E-10	8.3244E-02	2.9477E-01	5.3516E-03
4.00E-10	6.1742E-02	2.7568E-01	4.7363E-03
4.10E-10	4.4018E-02	2.6075E-01	4.1060E-03
4.20E-10	3.0136E-02	2.4582E-01	3.4124E-03
4.30E-10	2.2486E-02	2.3054E-01	2.7189E-03
4.40E-10	1.5763E-02	2.1515E-01	2.0253E-03
4.50E-10	9.0387E-03	1.9777E-01	1.6262E-03
4.60E-10	5.3194E-03	1.7999E-01	1.2305E-03
4.70E-10	3.4381E-03	1.6207E-01	8.3483E-04
4.80E-10	1.5568E-03	1.4205E-01	6.3758E-04
4.90E-10	6.2322E-04	1.2203E-01	4.9475E-04
5.00E-10	1.0502E-04	1.0187E-01	3.5192E-04
5.10E-10	2.1656E-05	8.1652E-02	2.0909E-04
5.20E-10	2.1656E-05	6.3154E-02	6.6265E-05
5.30E-10	2.1656E-05	4.7873E-02	1.9840E-06
5.40E-10	2.1656E-05	3.2593E-02	1.9840E-06
5.50E-10	2.1656E-05	2.4507E-02	1.9840E-06
5.60E-10	2.1656E-05	1.6483E-02	1.9840E-06
5.70E-10	2.1656E-05	1.1660E-02	1.9840E-06
5.80E-10	2.1656E-05	8.6750E-03	1.9840E-06
5.90E-10	2.1656E-05	6.2443E-03	1.9840E-06
6.00E-10	2.1656E-05	5.2473E-03	1.9840E-06
6.10E-10	2.1656E-05	4.2503E-03	1.9840E-06
6.20E-10	2.1656E-05	3.6374E-03	1.9840E-06
6.30E-10	2.1656E-05	3.0570E-03	1.9840E-06
6.40E-10	2.1656E-05	2.5197E-03	1.9840E-06
6.50E-10	2.1656E-05	2.0157E-03	1.9840E-06
6.60E-10	2.1656E-05	1.5499E-03	1.9840E-06
6.70E-10	2.1656E-05	1.0325E-03	1.9840E-06

6.80E-10	2.1656E-05	8.8691E-04	1.9840E-06
6.90E-10	2.1656E-05	7.4127E-04	1.9840E-06
7.00E-10	2.1656E-05	5.9564E-04	1.9840E-06
7.10E-10	2.1656E-05	4.5001E-04	1.9840E-06
7.20E-10	2.1656E-05	4.5001E-04	1.9840E-06
7.30E-10	2.1656E-05	4.5001E-04	1.9840E-06
7.40E-10	2.1656E-05	4.5001E-04	1.9840E-06
7.50E-10	2.1656E-05	4.5001E-04	1.9840E-06

\*\*\*\*\*  
 | MODEL DQ\_40\_1600 (40 Ohm Data I/O with 30ohm ODT, 1333/1600 Mbps)  
 | \*\*\*\*\*

[Model] DQ\_40\_ODT30\_1600  
 Model\_type I/O

Vinl = 600.000mV  
 Vinh = 900.000mV  
 Vmeas = 750.000mV  
 Vref = 750.000mV  
 Cref = 0.0pF  
 Rref = 25.000Ohm

	typ	min	max
C_comp	1.078pF	0.966pF	1.223pF

| Note: C\_comp changes when the ODT circuit is enabled.

[Model Spec]

| Input threshold voltage corners

Vinl	0.6000V	0.5625V	0.6375V
Vinh	0.9000V	0.8625V	0.9375V

| Measurement voltage corners

Vmeas	0.7500V	0.7125V	0.7875V
-------	---------	---------	---------

| Timing spec test load voltage corners

Vref	0.7500V	0.7125V	0.7875V
------	---------	---------	---------

| Dynamic Overshoot Parameters from DDR3 Specification

D_overshoot_ampl_h	0.40	NA	NA
D_overshoot_ampl_l	0.40	NA	NA
D_overshoot_area_h	0.13n	NA	NA
D_overshoot_area_l	0.13n	NA	NA

[Receiver Thresholds]

|Vth = 0.750V  
 |Vth\_min = 0.7350V  
 |Vth\_max = 0.7650V  
 |Vinh\_ac = 0.150V  
 |Vinh\_dc = 0.100V  
 |Vinl\_ac = -0.150V  
 |Vinl\_dc = -0.100V  
 |Tsllew\_ac = 5.000ns |Not specified, so set to high value

|Threshold\_sensitivity = 0.50  
|Reference\_supply Pullup\_ref

[Add Submodel]

| Submodel Name      Mode  
30Ohm\_ODT      Non-Driving

[Voltage Range]      1.5000V      1.4250V      1.5750V  
[Pullup Reference]    1.5000V      1.4250V      1.5750V  
[Temperature Range]    85.0          110.0          0.0

\*\*\*\*\*

[Pulldown]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	-5.766580E-03	-5.671960E-03	-4.4564E-03
-1.4750000e+00	-5.965480E-03	-5.898760E-03	-4.6456E-03
-1.4250000e+00	-6.365740E-03	-6.361750E-03	-5.0283E-03
-1.3750000e+00	-6.767370E-03	-6.833580E-03	-5.4143E-03
-1.3250000e+00	-7.168490E-03	-7.310620E-03	-5.8012E-03
-1.2750000e+00	-7.567540E-03	-7.790060E-03	-6.1870E-03
-1.2250000e+00	-7.963180E-03	-8.269780E-03	-6.5705E-03
-1.1750000e+00	-8.354170E-03	-8.748110E-03	-6.9506E-03
-1.1250000e+00	-8.739220E-03	-9.223740E-03	-7.3262E-03
-1.0750000e+00	-9.116960E-03	-9.695520E-03	-7.6961E-03
-1.0250000e+00	-9.485740E-03	-1.016235E-02	-8.0593E-03
-9.7500000e-01	-9.843550E-03	-1.062303E-02	-8.4141E-03
-9.2500000e-01	-1.018784E-02	-1.107598E-02	-8.7587E-03
-8.7500000e-01	-1.051515E-02	-1.151861E-02	-9.0906E-03
-8.2500000e-01	-1.082065E-02	-1.194611E-02	-9.4063E-03
-7.7500000e-01	-1.109723E-02	-1.234917E-02	-9.7010E-03
-7.2500000e-01	-1.133396E-02	-1.271052E-02	-9.9678E-03
-6.7500000e-01	-1.151368E-02	-1.300112E-02	-1.0196E-02
-6.2500000e-01	-1.161030E-02	-1.317732E-02	-1.0369E-02
-5.7500000e-01	-1.158847E-02	-1.318034E-02	-1.0460E-02
-5.2500000e-01	-1.140914E-02	-1.294110E-02	-1.0425E-02
-4.7500000e-01	-1.103661E-02	-1.239310E-02	-1.0195E-02
-4.2500000e-01	-1.042948E-02	-1.149942E-02	-9.7052E-03
-3.7500000e-01	-9.541331E-03	-1.031290E-02	-8.9368E-03
-3.2500000e-01	-8.402181E-03	-8.972323E-03	-7.9244E-03
-2.7500000e-01	-7.136897E-03	-7.584300E-03	-6.7526E-03
-2.2500000e-01	-5.837164E-03	-6.189682E-03	-5.5298E-03
-1.7500000e-01	-4.533342E-03	-4.799550E-03	-4.2997E-03
-1.2500000e-01	-3.232329E-03	-3.416866E-03	-3.0698E-03
-7.5000000e-02	-1.935664E-03	-2.042825E-03	-1.8409E-03
-2.5000000e-02	-6.439068E-04	-6.783475E-04	-6.1331E-04
0.0000000e+00	-2.495000E-09	-2.851000E-10	-4.3290E-09
2.5000000e-02	6.423542E-04	6.754144E-04	6.1284E-04
7.5000000e-02	1.921741E-03	2.016470E-03	1.8368E-03
1.2500000e-01	3.193668E-03	3.343638E-03	3.0583E-03
1.7500000e-01	4.457673E-03	4.655798E-03	4.2773E-03
2.2500000e-01	5.713247E-03	5.951703E-03	5.4937E-03

2.7500000e-01	6.959828E-03	7.229949E-03	6.7074E-03
3.2500000e-01	8.196792E-03	8.488947E-03	7.9183E-03
3.7500000e-01	9.423449E-03	9.726883E-03	9.1262E-03
4.2500000e-01	1.063902E-02	1.094167E-02	1.0331E-02
4.7500000e-01	1.184265E-02	1.213090E-02	1.1533E-02
5.2500000e-01	1.303336E-02	1.329176E-02	1.2731E-02
5.7500000e-01	1.421007E-02	1.442101E-02	1.3926E-02
6.2500000e-01	1.537155E-02	1.551502E-02	1.5117E-02
6.7500000e-01	1.651649E-02	1.657019E-02	1.6305E-02
7.2500000e-01	1.764350E-02	1.758380E-02	1.7488E-02
7.7500000e-01	1.875138E-02	1.855487E-02	1.8667E-02
8.2500000e-01	1.983945E-02	1.948346E-02	1.9842E-02
8.7500000e-01	2.090800E-02	2.036881E-02	2.1012E-02
9.2500000e-01	2.195802E-02	2.120815E-02	2.2178E-02
9.7500000e-01	2.299059E-02	2.199660E-02	2.3338E-02
1.0250000e+00	2.400623E-02	2.272804E-02	2.4493E-02
1.0750000e+00	2.500472E-02	2.339642E-02	2.5642E-02
1.1250000e+00	2.598518E-02	2.399791E-02	2.6785E-02
1.1750000e+00	2.694619E-02	2.453290E-02	2.7921E-02
1.2250000e+00	2.788582E-02	2.500673E-02	2.9050E-02
1.2750000e+00	2.880158E-02	2.542839E-02	3.0172E-02
1.3250000e+00	2.969048E-02	2.580810E-02	3.1286E-02
1.3750000e+00	3.054893E-02	2.615534E-02	3.2391E-02
1.4250000e+00	3.137276E-02	2.647793E-02	3.3486E-02
1.4750000e+00	3.215739E-02	2.678186E-02	3.4572E-02
1.5250000e+00	3.289823E-02	2.707162E-02	3.5646E-02
1.5750000e+00	3.359126E-02	2.735051E-02	3.6708E-02
1.6250000e+00	3.423408E-02	2.762095E-02	3.7757E-02
1.6750000e+00	3.482661E-02	2.788477E-02	3.8790E-02
1.7250000e+00	3.537149E-02	2.814329E-02	3.9807E-02
1.7750000e+00	3.587366E-02	2.839756E-02	4.0805E-02
1.8250000e+00	3.633928E-02	2.864834E-02	4.1781E-02
1.8750000e+00	3.677472E-02	2.889628E-02	4.2734E-02
1.9250000e+00	3.718582E-02	2.914184E-02	4.3660E-02
1.9750000e+00	3.757750E-02	2.938542E-02	4.4556E-02
2.0250000e+00	3.795380E-02	2.962733E-02	4.5417E-02
2.0750000e+00	3.831783E-02	2.986783E-02	4.6241E-02
2.1250000e+00	3.867208E-02	3.010713E-02	4.7025E-02
2.1750000e+00	3.901845E-02	3.034542E-02	4.7767E-02
2.2250000e+00	3.935843E-02	3.058286E-02	4.8466E-02
2.2750000e+00	3.969319E-02	3.081960E-02	4.9124E-02
2.3250000e+00	4.002364E-02	3.105576E-02	4.9743E-02
2.3750000e+00	4.035053E-02	3.129147E-02	5.0329E-02
2.4250000e+00	4.067444E-02	3.152686E-02	5.0885E-02
2.4750000e+00	4.099589E-02	3.176208E-02	5.1415E-02
2.5250000e+00	4.131527E-02	3.199724E-02	5.1923E-02
2.5750000e+00	4.163292E-02	3.223252E-02	5.2415E-02
2.6250000e+00	4.194914E-02	3.246808E-02	5.2891E-02
2.6750000e+00	4.226420E-02	3.270415E-02	5.3355E-02
2.7250000e+00	4.257832E-02	3.294093E-02	5.3809E-02
2.7750000e+00	4.289173E-02	3.317872E-02	5.4255E-02
2.8250000e+00	4.320461E-02	3.341781E-02	5.4693E-02
2.8750000e+00	4.351716E-02	3.365859E-02	5.5126E-02
2.9250000e+00	4.382954E-02	3.390146E-02	5.5553E-02

[GND Clamp]	Voltage	I(typ)	I(min)	I(max)
	2.9750000e+00	4.414196E-02	3.414689E-02	5.5976E-02
	3.0000000e+00	4.429822E-02	3.427073E-02	5.6186E-02
	-1.5000000e+00	-5.378351E-02	-5.490567E-02	-5.885698E-02
	-1.4750000e+00	-5.231251E-02	-5.334431E-02	-5.735670E-02
	-1.4500000e+00	-5.084369E-02	-5.178549E-02	-5.585777E-02
	-1.4250000e+00	-4.937717E-02	-5.022938E-02	-5.436026E-02
	-1.4000000e+00	-4.791309E-02	-4.867613E-02	-5.286424E-02
	-1.3750000e+00	-4.645161E-02	-4.712594E-02	-5.136982E-02
	-1.3500000e+00	-4.499289E-02	-4.557901E-02	-4.987709E-02
	-1.3250000e+00	-4.353712E-02	-4.403556E-02	-4.838614E-02
	-1.3000000e+00	-4.208452E-02	-4.249585E-02	-4.689710E-02
	-1.2750000e+00	-4.063529E-02	-4.096014E-02	-4.541010E-02
	-1.2500000e+00	-3.918970E-02	-3.942875E-02	-4.392527E-02
	-1.2250000e+00	-3.774803E-02	-3.790201E-02	-4.244278E-02
	-1.2000000e+00	-3.631059E-02	-3.638031E-02	-4.096280E-02
	-1.1750000e+00	-3.487773E-02	-3.486408E-02	-3.948552E-02
	-1.1500000e+00	-3.344986E-02	-3.335380E-02	-3.801116E-02
	-1.1250000e+00	-3.202742E-02	-3.185003E-02	-3.653998E-02
	-1.1000000e+00	-3.061092E-02	-3.035339E-02	-3.507226E-02
	-1.0750000e+00	-2.920096E-02	-2.886462E-02	-3.360832E-02
	-1.0500000e+00	-2.779821E-02	-2.738455E-02	-3.214854E-02
	-1.0250000e+00	-2.640347E-02	-2.591415E-02	-3.069335E-02
	-1.0000000e+00	-2.501766E-02	-2.445455E-02	-2.924328E-02
	-9.7500000e-01	-2.364185E-02	-2.300708E-02	-2.779892E-02
	-9.5000000e-01	-2.227732E-02	-2.157329E-02	-2.636102E-02
	-9.2500000e-01	-2.092559E-02	-2.015501E-02	-2.493048E-02
	-9.0000000e-01	-1.958843E-02	-1.875433E-02	-2.350840E-02
	-8.7500000e-01	-1.826790E-02	-1.737363E-02	-2.209616E-02
	-8.5000000e-01	-1.696631E-02	-1.601550E-02	-2.069550E-02
	-8.2500000e-01	-1.568612E-02	-1.468262E-02	-1.930856E-02
	-8.0000000e-01	-1.442972E-02	-1.337762E-02	-1.793782E-02
	-7.7500000e-01	-1.319926E-02	-1.210311E-02	-1.658583E-02
	-7.5000000e-01	-1.199673E-02	-1.086191E-02	-1.525450E-02
	-7.2500000e-01	-1.082427E-02	-9.657411E-03	-1.394473E-02
	-7.0000000e-01	-9.684638E-03	-8.493939E-03	-1.265685E-02
	-6.7500000e-01	-8.581514E-03	-7.376930E-03	-1.139180E-02
	-6.5000000e-01	-7.519607E-03	-6.312929E-03	-1.015194E-02
	-6.2500000e-01	-6.504547E-03	-5.309438E-03	-8.941318E-03
	-6.0000000e-01	-5.542688E-03	-4.374618E-03	-7.765735E-03
	-5.7500000e-01	-4.640772E-03	-3.516890E-03	-6.632945E-03
	-5.5000000e-01	-3.805524E-03	-2.744483E-03	-5.552946E-03
	-5.2500000e-01	-3.043248E-03	-2.065103E-03	-4.538201E-03
	-5.0000000e-01	-2.359647E-03	-1.485677E-03	-3.603412E-03
	-4.7500000e-01	-1.760020E-03	-1.011779E-03	-2.764265E-03
	-4.5000000e-01	-1.249702E-03	-6.458403E-04	-2.034716E-03
	-4.2500000e-01	-8.339835E-04	-3.838582E-04	-1.423545E-03
	-4.0000000e-01	-5.162389E-04	-2.125448E-04	-9.327605E-04
	-3.7500000e-01	-2.937329E-04	-1.106466E-04	-5.596330E-04
	-3.5000000e-01	-1.537279E-04	-5.497263E-05	-2.989533E-04
	-3.2500000e-01	-7.493357E-05	-2.649171E-05	-1.392987E-04
	-3.0000000e-01	-3.471511E-05	-1.256760E-05	-5.693658E-05

-2.7500000e-01	-1.563019E-05	-5.952723E-06	-2.113755E-05
-2.5000000e-01	-7.001335E-06	-2.863206E-06	-7.478945E-06
-2.2500000e-01	-3.215160E-06	-1.433628E-06	-2.669259E-06
-2.0000000e-01	-1.576700E-06	-7.729597E-07	-1.039352E-06
-1.7500000e-01	-8.691669E-07	-4.659048E-07	-4.927445E-07
-1.5000000e-01	-5.602970E-07	-3.210513E-07	-3.061011E-07
-1.2500000e-01	-4.211770E-07	-2.506183E-07	-2.379539E-07
-1.0000000e-01	-3.542844E-07	-2.144259E-07	-2.089405E-07
-7.5000000e-02	-3.182781E-07	-1.940781E-07	-1.931392E-07
-5.0000000e-02	-2.956734E-07	-1.811414E-07	-1.820767E-07
-2.5000000e-02	-2.790923E-07	-1.717494E-07	-1.729565E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[Pullup]

-1.5000000e+00	1.389728E-02	1.504401E-02	1.3495E-02
-1.4750000e+00	1.392266E-02	1.515940E-02	1.3511E-02
-1.4250000e+00	1.394549E-02	1.534861E-02	1.3532E-02
-1.3750000e+00	1.393984E-02	1.547700E-02	1.3542E-02
-1.3250000e+00	1.391859E-02	1.554357E-02	1.3545E-02
-1.2750000e+00	1.389341E-02	1.555550E-02	1.3540E-02
-1.2250000e+00	1.387050E-02	1.552788E-02	1.3526E-02
-1.1750000e+00	1.384963E-02	1.548081E-02	1.3502E-02
-1.1250000e+00	1.382685E-02	1.543388E-02	1.3467E-02
-1.0750000e+00	1.379804E-02	1.539856E-02	1.3421E-02
-1.0250000e+00	1.376042E-02	1.537452E-02	1.3363E-02
-9.7500000e-01	1.371257E-02	1.535474E-02	1.3293E-02
-9.2500000e-01	1.365380E-02	1.533271E-02	1.3210E-02
-8.7500000e-01	1.358379E-02	1.530481E-02	1.3113E-02
-8.2500000e-01	1.350199E-02	1.526951E-02	1.3001E-02
-7.7500000e-01	1.340734E-02	1.522537E-02	1.2873E-02
-7.2500000e-01	1.329767E-02	1.516783E-02	1.2725E-02
-6.7500000e-01	1.316879E-02	1.508258E-02	1.2554E-02
-6.2500000e-01	1.301213E-02	1.493400E-02	1.2352E-02
-5.7500000e-01	1.280843E-02	1.465359E-02	1.2107E-02
-5.2500000e-01	1.251269E-02	1.414154E-02	1.1797E-02
-4.7500000e-01	1.203560E-02	1.330397E-02	1.1382E-02
-4.2500000e-01	1.126665E-02	1.214514E-02	1.0778E-02
-3.7500000e-01	1.018437E-02	1.079032E-02	9.8667E-03
-3.2500000e-01	8.905568E-03	9.358893E-03	8.6724E-03
-2.7500000e-01	7.550642E-03	7.907034E-03	7.3614E-03
-2.2500000e-01	6.175032E-03	6.454310E-03	6.0240E-03
-1.7500000e-01	4.796858E-03	5.006794E-03	4.6832E-03
-1.2500000e-01	3.421222E-03	3.566345E-03	3.3432E-03
-7.5000000e-02	2.049479E-03	2.133648E-03	2.0047E-03
-2.5000000e-02	6.820421E-04	7.091043E-04	6.6784E-04
0.0000000e+00	1.125100E-09	4.014300E-10	2.6237E-09
2.5000000e-02	-6.802155E-04	-7.060015E-04	-6.6696E-04
7.5000000e-02	-2.032965E-03	-2.105590E-03	-1.9968E-03
1.2500000e-01	-3.375119E-03	-3.487987E-03	-3.3211E-03
1.7500000e-01	-4.706231E-03	-4.852382E-03	-4.6395E-03
2.2500000e-01	-6.025837E-03	-6.197914E-03	-5.9518E-03
2.7500000e-01	-7.333440E-03	-7.523661E-03	-7.2578E-03
3.2500000e-01	-8.628517E-03	-8.828634E-03	-8.5572E-03



3.7500000e-01	-9.910511E-03	-1.011178E-02	-9.8498E-03
4.2500000e-01	-1.117883E-02	-1.137197E-02	-1.1135E-02
4.7500000e-01	-1.243286E-02	-1.260797E-02	-1.2413E-02
5.2500000e-01	-1.367192E-02	-1.381848E-02	-1.3683E-02
5.7500000e-01	-1.489533E-02	-1.500209E-02	-1.4945E-02
6.2500000e-01	-1.610232E-02	-1.615730E-02	-1.6198E-02
6.7500000e-01	-1.729210E-02	-1.728247E-02	-1.7442E-02
7.2500000e-01	-1.846383E-02	-1.837588E-02	-1.8677E-02
7.7500000e-01	-1.961663E-02	-1.943566E-02	-1.9902E-02
8.2500000e-01	-2.074956E-02	-2.045990E-02	-2.1116E-02
8.7500000e-01	-2.186165E-02	-2.144666E-02	-2.2320E-02
9.2500000e-01	-2.295193E-02	-2.239415E-02	-2.3513E-02
9.7500000e-01	-2.401949E-02	-2.330089E-02	-2.4694E-02
1.0250000e+00	-2.506353E-02	-2.416589E-02	-2.5862E-02
1.0750000e+00	-2.608351E-02	-2.498853E-02	-2.7019E-02
1.1250000e+00	-2.707921E-02	-2.576811E-02	-2.8162E-02
1.1750000e+00	-2.805064E-02	-2.650347E-02	-2.9293E-02
1.2250000e+00	-2.899777E-02	-2.719285E-02	-3.0411E-02
1.2750000e+00	-2.992027E-02	-2.783418E-02	-3.1515E-02
1.3250000e+00	-3.081737E-02	-2.842555E-02	-3.2607E-02
1.3750000e+00	-3.168792E-02	-2.896616E-02	-3.3684E-02
1.4250000e+00	-3.253039E-02	-2.945719E-02	-3.4746E-02
1.4750000e+00	-3.334289E-02	-2.990258E-02	-3.5792E-02
1.5250000e+00	-3.412325E-02	-3.030862E-02	-3.6822E-02
1.5750000e+00	-3.486904E-02	-3.068257E-02	-3.7833E-02
1.6250000e+00	-3.557765E-02	-3.103121E-02	-3.8826E-02
1.6750000e+00	-3.624648E-02	-3.136007E-02	-3.9797E-02
1.7250000e+00	-3.687328E-02	-3.167336E-02	-4.0746E-02
1.7750000e+00	-3.745664E-02	-3.197424E-02	-4.1671E-02
1.8250000e+00	-3.799669E-02	-3.226504E-02	-4.2569E-02
1.8750000e+00	-3.849556E-02	-3.254752E-02	-4.3438E-02
1.9250000e+00	-3.895731E-02	-3.282305E-02	-4.4275E-02
1.9750000e+00	-3.938722E-02	-3.309268E-02	-4.5078E-02
2.0250000e+00	-3.979072E-02	-3.335727E-02	-4.5843E-02
2.0750000e+00	-4.017273E-02	-3.361751E-02	-4.6567E-02
2.1250000e+00	-4.053726E-02	-3.387396E-02	-4.7248E-02
2.1750000e+00	-4.088753E-02	-3.412707E-02	-4.7884E-02
2.2250000e+00	-4.122603E-02	-3.437727E-02	-4.8477E-02
2.2750000e+00	-4.155471E-02	-3.462485E-02	-4.9029E-02
2.3250000e+00	-4.187511E-02	-3.487012E-02	-4.9543E-02
2.3750000e+00	-4.218845E-02	-3.511332E-02	-5.0025E-02
2.4250000e+00	-4.249571E-02	-3.535466E-02	-5.0480E-02
2.4750000e+00	-4.279769E-02	-3.559433E-02	-5.0912E-02
2.5250000e+00	-4.309507E-02	-3.583247E-02	-5.1326E-02
2.5750000e+00	-4.338839E-02	-3.606925E-02	-5.1724E-02
2.6250000e+00	-4.367813E-02	-3.630478E-02	-5.2110E-02
2.6750000e+00	-4.396467E-02	-3.653918E-02	-5.2484E-02
2.7250000e+00	-4.424835E-02	-3.677256E-02	-5.2850E-02
2.7750000e+00	-4.452948E-02	-3.700500E-02	-5.3207E-02
2.8250000e+00	-4.480830E-02	-3.723659E-02	-5.3558E-02
2.8750000e+00	-4.508503E-02	-3.746739E-02	-5.3903E-02
2.9250000e+00	-4.535988E-02	-3.769749E-02	-5.4242E-02
2.9750000e+00	-4.563300E-02	-3.792696E-02	-5.4577E-02
3.0000000e+00	-4.576897E-02	-3.804147E-02	-5.4743E-02

## [POWER Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	4.450136E-02	4.385767E-02	4.780182E-02
-1.4750000e+00	4.325737E-02	4.248503E-02	4.651241E-02
-1.4500000e+00	4.202627E-02	4.113177E-02	4.522926E-02
-1.4250000e+00	4.080680E-02	3.979850E-02	4.395156E-02
-1.4000000e+00	3.959743E-02	3.848563E-02	4.267873E-02
-1.3750000e+00	3.839648E-02	3.719324E-02	4.141044E-02
-1.3500000e+00	3.720221E-02	3.592106E-02	4.014659E-02
-1.3250000e+00	3.601296E-02	3.466841E-02	3.888726E-02
-1.3000000e+00	3.482735E-02	3.343415E-02	3.763263E-02
-1.2750000e+00	3.364438E-02	3.221669E-02	3.638297E-02
-1.2500000e+00	3.246358E-02	3.101397E-02	3.513857E-02
-1.2250000e+00	3.128497E-02	2.982356E-02	3.389973E-02
-1.2000000e+00	3.010901E-02	2.864279E-02	3.266673E-02
-1.1750000e+00	2.893648E-02	2.746896E-02	3.143985E-02
-1.1500000e+00	2.776826E-02	2.629964E-02	3.021938E-02
-1.1250000e+00	2.660528E-02	2.513304E-02	2.900561E-02
-1.1000000e+00	2.544841E-02	2.396824E-02	2.779886E-02
-1.0750000e+00	2.429844E-02	2.280536E-02	2.659948E-02
-1.0500000e+00	2.315612E-02	2.164543E-02	2.540789E-02
-1.0250000e+00	2.202214E-02	2.049007E-02	2.422457E-02
-1.0000000e+00	2.089719E-02	1.934117E-02	2.305009E-02
-9.7500000e-01	1.978197E-02	1.820065E-02	2.188514E-02
-9.5000000e-01	1.867722E-02	1.707028E-02	2.073052E-02
-9.2500000e-01	1.758372E-02	1.595172E-02	1.958719E-02
-9.0000000e-01	1.650228E-02	1.484648E-02	1.845618E-02
-8.7500000e-01	1.543373E-02	1.375596E-02	1.733862E-02
-8.5000000e-01	1.437889E-02	1.268153E-02	1.623553E-02
-8.2500000e-01	1.333851E-02	1.162449E-02	1.514772E-02
-8.0000000e-01	1.231328E-02	1.058622E-02	1.407562E-02
-7.7500000e-01	1.130388E-02	9.568206E-03	1.301922E-02
-7.5000000e-01	1.031106E-02	8.572276E-03	1.197827E-02
-7.2500000e-01	9.335806E-03	7.600753E-03	1.095257E-02
-7.0000000e-01	8.379549E-03	6.656721E-03	9.942222E-03
-6.7500000e-01	7.444326E-03	5.744302E-03	8.947921E-03
-6.5000000e-01	6.532997E-03	4.868952E-03	7.971051E-03
-6.2500000e-01	5.649458E-03	4.037787E-03	7.013870E-03
-6.0000000e-01	4.798902E-03	3.259897E-03	6.079707E-03
-5.7500000e-01	3.988134E-03	2.546530E-03	5.173245E-03
-5.5000000e-01	3.225930E-03	1.910856E-03	4.300910E-03
-5.2500000e-01	2.523332E-03	1.366712E-03	3.471447E-03
-5.0000000e-01	1.893615E-03	9.256050E-04	2.696680E-03
-4.7500000e-01	1.351332E-03	5.919303E-04	1.992354E-03
-4.5000000e-01	9.095438E-04	3.586832E-04	1.378419E-03
-4.2500000e-01	5.747929E-04	2.078355E-04	8.770400E-04
-4.0000000e-01	3.418453E-04	1.164218E-04	5.053108E-04
-3.7500000e-01	1.930954E-04	6.360210E-05	2.627390E-04
-3.5000000e-01	1.048276E-04	3.408364E-05	1.249615E-04
-3.2500000e-01	5.523970E-05	1.799151E-05	5.555911E-05
-3.0000000e-01	2.845373E-05	9.394192E-06	2.354502E-05
-2.7500000e-01	1.440808E-05	4.878770E-06	9.668085E-06
-2.5000000e-01	7.217646E-06	2.540607E-06	3.917725E-06

-2.2500000e-01	3.608426E-06	1.343333E-06	1.610387E-06
-2.0000000e-01	1.824961E-06	7.351342E-07	7.040805E-07
-1.7500000e-01	9.538097E-07	4.274933E-07	3.518120E-07
-1.5000000e-01	5.312391E-07	2.717598E-07	2.143493E-07
-1.2500000e-01	3.264285E-07	1.922225E-07	1.590780E-07
-1.0000000e-01	2.262355E-07	1.506538E-07	1.350141E-07
-7.5000000e-02	1.758303E-07	1.278715E-07	1.227817E-07
-5.0000000e-02	1.489090E-07	1.143246E-07	1.150734E-07
-2.5000000e-02	1.332080E-07	1.054156E-07	1.091537E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[Ramp]

R\_load = 50.00Ohm

	typ	min	max
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dV/dt\_r 532.022mV/119.423ps 491.319mV/165.185ps 567.619mV/91.565ps

dV/dt\_f 537.976mV/129.806ps 497.460mV/173.213ps 578.029mV/105.657ps

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[Rising Waveform]

V\_fixture = 1.500V

V\_fixture\_min = 1.425V

V\_fixture\_max = 1.575V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	6.8316E-01	6.4198E-01	7.1381E-01
1.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
2.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
3.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
4.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
5.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
6.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
7.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
8.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
9.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
1.00E-10	6.8316E-01	6.4198E-01	7.1381E-01
1.10E-10	6.8316E-01	6.4198E-01	7.1381E-01
1.20E-10	6.8316E-01	6.4198E-01	7.1381E-01
1.30E-10	6.8316E-01	6.4198E-01	7.1381E-01
1.40E-10	6.8316E-01	6.4198E-01	7.2174E-01
1.50E-10	6.8316E-01	6.4198E-01	7.5887E-01
1.60E-10	6.8316E-01	6.4198E-01	8.2016E-01
1.70E-10	6.8316E-01	6.4198E-01	9.1349E-01
1.80E-10	6.8316E-01	6.4198E-01	1.0158E+00
1.90E-10	6.8316E-01	6.4198E-01	1.1058E+00
2.00E-10	6.8631E-01	6.4198E-01	1.1722E+00
2.10E-10	6.9781E-01	6.4198E-01	1.2169E+00
2.20E-10	7.2546E-01	6.4298E-01	1.2448E+00
2.30E-10	7.5875E-01	6.4398E-01	1.2647E+00
2.40E-10	8.1582E-01	6.4498E-01	1.2837E+00

2.50E-10	8.7535E-01	6.4698E-01	1.3078E+00
2.60E-10	9.4749E-01	6.5598E-01	1.3414E+00
2.70E-10	1.0174E+00	6.6598E-01	1.3863E+00
2.80E-10	1.0731E+00	6.7898E-01	1.4363E+00
2.90E-10	1.1226E+00	6.9347E-01	1.4802E+00
3.00E-10	1.1579E+00	7.1337E-01	1.5132E+00
3.10E-10	1.1837E+00	7.4966E-01	1.5358E+00
3.20E-10	1.2048E+00	7.9147E-01	1.5503E+00
3.30E-10	1.2195E+00	8.3328E-01	1.5592E+00
3.40E-10	1.2343E+00	8.7936E-01	1.5645E+00
3.50E-10	1.2494E+00	9.3100E-01	1.5675E+00
3.60E-10	1.2675E+00	9.8264E-01	1.5691E+00
3.70E-10	1.2874E+00	1.0268E+00	1.5702E+00
3.80E-10	1.3136E+00	1.0618E+00	1.5750E+00
3.90E-10	1.3416E+00	1.0967E+00	1.5750E+00
4.00E-10	1.3720E+00	1.1198E+00	1.5750E+00
4.10E-10	1.4006E+00	1.1392E+00	1.5750E+00
4.20E-10	1.4277E+00	1.1550E+00	1.5750E+00
4.30E-10	1.4490E+00	1.1666E+00	1.5750E+00
4.40E-10	1.4656E+00	1.1779E+00	1.5750E+00
4.50E-10	1.4779E+00	1.1874E+00	1.5750E+00
4.60E-10	1.4845E+00	1.1970E+00	1.5750E+00
4.70E-10	1.4896E+00	1.2077E+00	1.5750E+00
4.80E-10	1.4922E+00	1.2186E+00	1.5750E+00
4.90E-10	1.4951E+00	1.2308E+00	1.5750E+00
5.00E-10	1.4974E+00	1.2441E+00	1.5750E+00
5.10E-10	1.4984E+00	1.2582E+00	1.5750E+00
5.20E-10	1.4991E+00	1.2741E+00	1.5750E+00
5.30E-10	1.5000E+00	1.2901E+00	1.5750E+00
5.40E-10	1.5000E+00	1.3071E+00	1.5750E+00
5.50E-10	1.5000E+00	1.3240E+00	1.5750E+00
5.60E-10	1.5000E+00	1.3409E+00	1.5750E+00
5.70E-10	1.5000E+00	1.3579E+00	1.5750E+00
5.80E-10	1.5000E+00	1.3720E+00	1.5750E+00
5.90E-10	1.5000E+00	1.3824E+00	1.5750E+00
6.00E-10	1.5000E+00	1.3929E+00	1.5750E+00
6.10E-10	1.5000E+00	1.4033E+00	1.5750E+00
6.20E-10	1.5000E+00	1.4094E+00	1.5750E+00
6.30E-10	1.5000E+00	1.4154E+00	1.5750E+00
6.40E-10	1.5000E+00	1.4204E+00	1.5750E+00
6.50E-10	1.5000E+00	1.4244E+00	1.5750E+00
6.60E-10	1.5000E+00	1.4244E+00	1.5750E+00
6.70E-10	1.5000E+00	1.4244E+00	1.5750E+00
6.80E-10	1.5000E+00	1.4244E+00	1.5750E+00
6.90E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.00E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.10E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.20E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.30E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.40E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.50E-10	1.5000E+00	1.4244E+00	1.5750E+00

|  
[Falling Waveform]  
V\_fixture = 1.500V

V\_fixture\_min = 1.425V  
V\_fixture\_max = 1.575V  
R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	1.5000E+00	1.4244E+00	1.5750E+00
1.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
2.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
3.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
4.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
5.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
6.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
7.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
8.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
9.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
1.00E-10	1.5000E+00	1.4244E+00	1.5750E+00
1.10E-10	1.5000E+00	1.4244E+00	1.5750E+00
1.20E-10	1.5000E+00	1.4244E+00	1.5750E+00
1.30E-10	1.5000E+00	1.4244E+00	1.5678E+00
1.40E-10	1.5000E+00	1.4244E+00	1.5356E+00
1.50E-10	1.5000E+00	1.4244E+00	1.4918E+00
1.60E-10	1.5000E+00	1.4244E+00	1.4391E+00
1.70E-10	1.5000E+00	1.4244E+00	1.3811E+00
1.80E-10	1.5000E+00	1.4244E+00	1.3164E+00
1.90E-10	1.5000E+00	1.4244E+00	1.2491E+00
2.00E-10	1.4916E+00	1.4244E+00	1.1872E+00
2.10E-10	1.4779E+00	1.4244E+00	1.1373E+00
2.20E-10	1.4526E+00	1.4244E+00	1.1004E+00
2.30E-10	1.4258E+00	1.4244E+00	1.0723E+00
2.40E-10	1.3882E+00	1.4244E+00	1.0470E+00
2.50E-10	1.3499E+00	1.4244E+00	1.0149E+00
2.60E-10	1.3051E+00	1.4244E+00	9.8066E-01
2.70E-10	1.2605E+00	1.4244E+00	9.3547E-01
2.80E-10	1.2170E+00	1.4244E+00	8.8759E-01
2.90E-10	1.1745E+00	1.4194E+00	8.4268E-01
3.00E-10	1.1378E+00	1.4094E+00	8.0700E-01
3.10E-10	1.1029E+00	1.3963E+00	7.7745E-01
3.20E-10	1.0753E+00	1.3791E+00	7.5868E-01
3.30E-10	1.0489E+00	1.3558E+00	7.4505E-01
3.40E-10	1.0261E+00	1.3325E+00	7.3501E-01
3.50E-10	1.0023E+00	1.3056E+00	7.2933E-01
3.60E-10	9.7620E-01	1.2772E+00	7.2516E-01
3.70E-10	9.4367E-01	1.2488E+00	7.2226E-01
3.80E-10	9.0696E-01	1.2213E+00	7.2113E-01
3.90E-10	8.7376E-01	1.1938E+00	7.1999E-01
4.00E-10	8.3990E-01	1.1670E+00	7.1886E-01
4.10E-10	8.0957E-01	1.1432E+00	7.1825E-01
4.20E-10	7.8300E-01	1.1193E+00	7.1767E-01
4.30E-10	7.6093E-01	1.0968E+00	7.1709E-01
4.40E-10	7.4264E-01	1.0762E+00	7.1654E-01
4.50E-10	7.2827E-01	1.0555E+00	7.1600E-01
4.60E-10	7.1647E-01	1.0350E+00	7.1545E-01
4.70E-10	7.0685E-01	1.0145E+00	7.1510E-01

4.80E-10	6.9834E-01	9.9409E-01	7.1479E-01
4.90E-10	6.9107E-01	9.6900E-01	7.1449E-01
5.00E-10	6.8566E-01	9.4342E-01	7.1433E-01
5.10E-10	6.8316E-01	9.1269E-01	7.1421E-01
5.20E-10	6.8316E-01	8.8416E-01	7.1410E-01
5.30E-10	6.8316E-01	8.5763E-01	7.1399E-01
5.40E-10	6.8316E-01	8.3261E-01	7.1388E-01
5.50E-10	6.8316E-01	8.0994E-01	7.1380E-01
5.60E-10	6.8316E-01	7.8727E-01	7.1380E-01
5.70E-10	6.8316E-01	7.6866E-01	7.1380E-01
5.80E-10	6.8316E-01	7.5240E-01	7.1380E-01
5.90E-10	6.8316E-01	7.3613E-01	7.1380E-01
6.00E-10	6.8316E-01	7.2289E-01	7.1380E-01
6.10E-10	6.8316E-01	7.1008E-01	7.1380E-01
6.20E-10	6.8316E-01	6.9855E-01	7.1380E-01
6.30E-10	6.8316E-01	6.9098E-01	7.1380E-01
6.40E-10	6.8316E-01	6.8198E-01	7.1380E-01
6.50E-10	6.8316E-01	6.7398E-01	7.1380E-01
6.60E-10	6.8316E-01	6.6298E-01	7.1380E-01
6.70E-10	6.8316E-01	6.5598E-01	7.1380E-01
6.80E-10	6.8316E-01	6.5098E-01	7.1380E-01
6.90E-10	6.8316E-01	6.4798E-01	7.1380E-01
7.00E-10	6.8316E-01	6.4598E-01	7.1380E-01
7.10E-10	6.8316E-01	6.4398E-01	7.1380E-01
7.20E-10	6.8316E-01	6.4298E-01	7.1380E-01
7.30E-10	6.8316E-01	6.4198E-01	7.1380E-01
7.40E-10	6.8316E-01	6.4198E-01	7.1380E-01
7.50E-10	6.8316E-01	6.4198E-01	7.1380E-01

[Rising Waveform]

V\_fixture = 0.000V

V\_fixture\_min = 0.000V

V\_fixture\_max = 0.000V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	2.1656E-05	4.5001E-04	1.9840E-06
1.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
2.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
3.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
4.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
5.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
6.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
7.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
8.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
9.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
1.00E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.10E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.20E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.30E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.40E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.50E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.60E-10	2.1656E-05	4.5001E-04	4.8671E-02

1.70E-10	2.1656E-05	4.5001E-04	1.0238E-01
1.80E-10	2.1656E-05	4.5001E-04	1.6978E-01
1.90E-10	2.1656E-05	4.5001E-04	2.4540E-01
2.00E-10	2.1656E-05	4.5001E-04	3.2196E-01
2.10E-10	2.1656E-05	4.5001E-04	3.9122E-01
2.20E-10	6.9115E-03	4.5001E-04	4.4667E-01
2.30E-10	2.1916E-02	4.5001E-04	4.8493E-01
2.40E-10	4.9605E-02	4.5001E-04	5.1216E-01
2.50E-10	8.2158E-02	4.5001E-04	5.3458E-01
2.60E-10	1.2545E-01	4.5001E-04	5.6186E-01
2.70E-10	1.7346E-01	4.5001E-04	6.0105E-01
2.80E-10	2.2437E-01	4.5001E-04	6.5263E-01
2.90E-10	2.7673E-01	4.5001E-04	7.0953E-01
3.00E-10	3.2396E-01	7.4200E-04	7.5988E-01
3.10E-10	3.6830E-01	6.9399E-03	7.9680E-01
3.20E-10	4.0406E-01	2.2538E-02	8.2326E-01
3.30E-10	4.3438E-01	3.8136E-02	8.4173E-01
3.40E-10	4.5821E-01	6.0559E-02	8.5396E-01
3.50E-10	4.7742E-01	9.0788E-02	8.6342E-01
3.60E-10	4.9488E-01	1.2102E-01	8.7131E-01
3.70E-10	5.1097E-01	1.5625E-01	8.7541E-01
3.80E-10	5.3186E-01	1.9335E-01	8.7950E-01
3.90E-10	5.5704E-01	2.3045E-01	8.8129E-01
4.00E-10	5.8693E-01	2.6299E-01	8.8750E-01
4.10E-10	6.3150E-01	2.9548E-01	8.8750E-01
4.20E-10	6.6900E-01	3.2621E-01	8.8750E-01
4.30E-10	7.0343E-01	3.5161E-01	8.8750E-01
4.40E-10	7.3251E-01	3.7701E-01	8.8750E-01
4.50E-10	7.5834E-01	3.9887E-01	8.8750E-01
4.60E-10	7.7553E-01	4.1920E-01	8.8750E-01
4.70E-10	7.9054E-01	4.3893E-01	8.8750E-01
4.80E-10	7.9989E-01	4.5025E-01	8.8750E-01
4.90E-10	8.0628E-01	4.6257E-01	8.8750E-01
5.00E-10	8.1206E-01	4.7874E-01	8.8750E-01
5.10E-10	8.1613E-01	4.8572E-01	8.8750E-01
5.20E-10	8.2020E-01	4.9920E-01	8.8750E-01
5.30E-10	8.2427E-01	5.1505E-01	8.8750E-01
5.40E-10	8.2778E-01	5.3090E-01	8.8750E-01
5.50E-10	8.3015E-01	5.5341E-01	8.8750E-01
5.60E-10	8.3015E-01	5.7647E-01	8.8750E-01
5.70E-10	8.3015E-01	5.9813E-01	8.8750E-01
5.80E-10	8.3015E-01	6.2467E-01	8.8750E-01
5.90E-10	8.3015E-01	6.5120E-01	8.8750E-01
6.00E-10	8.3015E-01	6.7309E-01	8.8750E-01
6.10E-10	8.3015E-01	6.9494E-01	8.8750E-01
6.20E-10	8.3015E-01	7.1298E-01	8.8750E-01
6.30E-10	8.3015E-01	7.2761E-01	8.8750E-01
6.40E-10	8.3015E-01	7.4187E-01	8.8750E-01
6.50E-10	8.3015E-01	7.5387E-01	8.8750E-01
6.60E-10	8.3015E-01	7.6287E-01	8.8750E-01
6.70E-10	8.3015E-01	7.7087E-01	8.8750E-01
6.80E-10	8.3015E-01	7.7787E-01	8.8750E-01
6.90E-10	8.3015E-01	7.8587E-01	8.8750E-01
7.00E-10	8.3015E-01	7.8987E-01	8.8750E-01

7.10E-10	8.3015E-01	7.9287E-01	8.8750E-01
7.20E-10	8.3015E-01	7.9387E-01	8.8750E-01
7.30E-10	8.3015E-01	7.9487E-01	8.8750E-01
7.40E-10	8.3015E-01	7.9587E-01	8.8750E-01
7.50E-10	8.3015E-01	7.9587E-01	8.8750E-01

[Falling Waveform]

V\_fixture = 0.000V

V\_fixture\_min = 0.000V

V\_fixture\_max = 0.000V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	8.3015E-01	7.9587E-01	8.8750E-01
1.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
2.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
3.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
4.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
5.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
6.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
7.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
8.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
9.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
1.00E-10	8.3015E-01	7.9587E-01	8.8750E-01
1.10E-10	8.3015E-01	7.9587E-01	8.8750E-01
1.20E-10	8.3015E-01	7.9587E-01	8.8443E-01
1.30E-10	8.3015E-01	7.9587E-01	8.7452E-01
1.40E-10	8.3015E-01	7.9587E-01	8.4189E-01
1.50E-10	8.3015E-01	7.9587E-01	7.8920E-01
1.60E-10	8.3015E-01	7.9587E-01	7.1329E-01
1.70E-10	8.2717E-01	7.9587E-01	6.2580E-01
1.80E-10	8.2022E-01	7.9487E-01	5.4691E-01
1.90E-10	8.0849E-01	7.9287E-01	4.8081E-01
2.00E-10	7.8766E-01	7.8987E-01	4.2673E-01
2.10E-10	7.5342E-01	7.8587E-01	3.8302E-01
2.20E-10	7.0770E-01	7.8087E-01	3.4957E-01
2.30E-10	6.4643E-01	7.7487E-01	3.1949E-01
2.40E-10	5.7951E-01	7.6687E-01	2.8668E-01
2.50E-10	5.1395E-01	7.5687E-01	2.5182E-01
2.60E-10	4.5050E-01	7.4187E-01	2.1162E-01
2.70E-10	4.0155E-01	7.2460E-01	1.7228E-01
2.80E-10	3.6096E-01	7.0145E-01	1.3355E-01
2.90E-10	3.2886E-01	6.6392E-01	1.0138E-01
3.00E-10	3.0074E-01	6.2500E-01	7.3166E-02
3.10E-10	2.7872E-01	5.8181E-01	5.0761E-02
3.20E-10	2.6007E-01	5.3521E-01	3.5793E-02
3.30E-10	2.4432E-01	4.8940E-01	2.3892E-02
3.40E-10	2.2391E-01	4.4680E-01	1.6931E-02
3.50E-10	1.9806E-01	4.0419E-01	1.2192E-02
3.60E-10	1.7058E-01	3.7123E-01	8.9365E-03
3.70E-10	1.4036E-01	3.4007E-01	7.2358E-03
3.80E-10	1.1118E-01	3.1448E-01	5.9670E-03
3.90E-10	8.3244E-02	2.9477E-01	5.3516E-03



4.00E-10	6.1742E-02	2.7568E-01	4.7363E-03
4.10E-10	4.4018E-02	2.6075E-01	4.1060E-03
4.20E-10	3.0136E-02	2.4582E-01	3.4124E-03
4.30E-10	2.2486E-02	2.3054E-01	2.7189E-03
4.40E-10	1.5763E-02	2.1515E-01	2.0253E-03
4.50E-10	9.0387E-03	1.9777E-01	1.6262E-03
4.60E-10	5.3194E-03	1.7999E-01	1.2305E-03
4.70E-10	3.4381E-03	1.6207E-01	8.3483E-04
4.80E-10	1.5568E-03	1.4205E-01	6.3758E-04
4.90E-10	6.2322E-04	1.2203E-01	4.9475E-04
5.00E-10	1.0502E-04	1.0187E-01	3.5192E-04
5.10E-10	2.1656E-05	8.1652E-02	2.0909E-04
5.20E-10	2.1656E-05	6.3154E-02	6.6265E-05
5.30E-10	2.1656E-05	4.7873E-02	1.9840E-06
5.40E-10	2.1656E-05	3.2593E-02	1.9840E-06
5.50E-10	2.1656E-05	2.4507E-02	1.9840E-06
5.60E-10	2.1656E-05	1.6483E-02	1.9840E-06
5.70E-10	2.1656E-05	1.1660E-02	1.9840E-06
5.80E-10	2.1656E-05	8.6750E-03	1.9840E-06
5.90E-10	2.1656E-05	6.2443E-03	1.9840E-06
6.00E-10	2.1656E-05	5.2473E-03	1.9840E-06
6.10E-10	2.1656E-05	4.2503E-03	1.9840E-06
6.20E-10	2.1656E-05	3.6374E-03	1.9840E-06
6.30E-10	2.1656E-05	3.0570E-03	1.9840E-06
6.40E-10	2.1656E-05	2.5197E-03	1.9840E-06
6.50E-10	2.1656E-05	2.0157E-03	1.9840E-06
6.60E-10	2.1656E-05	1.5499E-03	1.9840E-06
6.70E-10	2.1656E-05	1.0325E-03	1.9840E-06
6.80E-10	2.1656E-05	8.8691E-04	1.9840E-06
6.90E-10	2.1656E-05	7.4127E-04	1.9840E-06
7.00E-10	2.1656E-05	5.9564E-04	1.9840E-06
7.10E-10	2.1656E-05	4.5001E-04	1.9840E-06
7.20E-10	2.1656E-05	4.5001E-04	1.9840E-06
7.30E-10	2.1656E-05	4.5001E-04	1.9840E-06
7.40E-10	2.1656E-05	4.5001E-04	1.9840E-06
7.50E-10	2.1656E-05	4.5001E-04	1.9840E-06

\*\*\*\*\*  
| MODEL DQ\_40\_1600 (40 Ohm Data I/O with 40ohm ODT, 1333/1600 Mbps)  
| \*\*\*\*\*

[Model] DQ\_40\_ODT40\_1600  
Model\_type I/O

Vinl = 600.000mV  
Vinh = 900.000mV  
Vmeas = 750.000mV  
Vref = 750.000mV  
Cref = 0.0pF  
Rref = 25.000Ohm

	typ	min	max
C_comp	1.078pF	0.966pF	1.223pF

| Note: C\_comp changes when the ODT circuit is enabled.

| [Model Spec]

| Input threshold voltage corners

Vinl	0.6000V	0.5625V	0.6375V
Vinh	0.9000V	0.8625V	0.9375V

| Measurement voltage corners

Vmeas	0.7500V	0.7125V	0.7875V
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| Timing spec test load voltage corners

Vref	0.7500V	0.7125V	0.7875V
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| Dynamic Overshoot Parameters from DDR3 Specification

D_overshoot_ampl_h	0.40	NA	NA
D_overshoot_ampl_l	0.40	NA	NA
D_overshoot_area_h	0.13n	NA	NA
D_overshoot_area_l	0.13n	NA	NA

| [Receiver Thresholds]

| Vth = 0.750V

| Vth\_min = 0.7350V

| Vth\_max = 0.7650V

| Vinh\_ac = 0.150V

| Vinh\_dc = 0.100V

| Vinl\_ac = -0.150V

| Vinl\_dc = -0.100V

| Tslew\_ac = 5.000ns |Not specified, so set to high value

| Threshold\_sensitivity = 0.50

| Reference\_supply Pullup\_ref

| [Add Submodel]

Submodel Name	Mode
40Ohm_ODT	Non-Driving

[Voltage Range]	1.5000V	1.4250V	1.5750V
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[Pullup Reference]	1.5000V	1.4250V	1.5750V
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[Temperature Range]	85.0	110.0	0.0
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| [Pulldown]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	-5.766580E-03	-5.671960E-03	-4.4564E-03
-1.4750000e+00	-5.965480E-03	-5.898760E-03	-4.6456E-03
-1.4250000e+00	-6.365740E-03	-6.361750E-03	-5.0283E-03
-1.3750000e+00	-6.767370E-03	-6.833580E-03	-5.4143E-03
-1.3250000e+00	-7.168490E-03	-7.310620E-03	-5.8012E-03
-1.2750000e+00	-7.567540E-03	-7.790060E-03	-6.1870E-03
-1.2250000e+00	-7.963180E-03	-8.269780E-03	-6.5705E-03
-1.1750000e+00	-8.354170E-03	-8.748110E-03	-6.9506E-03
-1.1250000e+00	-8.739220E-03	-9.223740E-03	-7.3262E-03

-1.0750000e+00	-9.116960E-03	-9.695520E-03	-7.6961E-03
-1.0250000e+00	-9.485740E-03	-1.016235E-02	-8.0593E-03
-9.7500000e-01	-9.843550E-03	-1.062303E-02	-8.4141E-03
-9.2500000e-01	-1.018784E-02	-1.107598E-02	-8.7587E-03
-8.7500000e-01	-1.051515E-02	-1.151861E-02	-9.0906E-03
-8.2500000e-01	-1.082065E-02	-1.194611E-02	-9.4063E-03
-7.7500000e-01	-1.109723E-02	-1.234917E-02	-9.7010E-03
-7.2500000e-01	-1.133396E-02	-1.271052E-02	-9.9678E-03
-6.7500000e-01	-1.151368E-02	-1.300112E-02	-1.0196E-02
-6.2500000e-01	-1.161030E-02	-1.317732E-02	-1.0369E-02
-5.7500000e-01	-1.158847E-02	-1.318034E-02	-1.0460E-02
-5.2500000e-01	-1.140914E-02	-1.294110E-02	-1.0425E-02
-4.7500000e-01	-1.103661E-02	-1.239310E-02	-1.0195E-02
-4.2500000e-01	-1.042948E-02	-1.149942E-02	-9.7052E-03
-3.7500000e-01	-9.541331E-03	-1.031290E-02	-8.9368E-03
-3.2500000e-01	-8.402181E-03	-8.972323E-03	-7.9244E-03
-2.7500000e-01	-7.136897E-03	-7.584300E-03	-6.7526E-03
-2.2500000e-01	-5.837164E-03	-6.189682E-03	-5.5298E-03
-1.7500000e-01	-4.533342E-03	-4.799550E-03	-4.2997E-03
-1.2500000e-01	-3.232329E-03	-3.416866E-03	-3.0698E-03
-7.5000000e-02	-1.935664E-03	-2.042825E-03	-1.8409E-03
-2.5000000e-02	-6.439068E-04	-6.783475E-04	-6.1331E-04
0.0000000e+00	-2.495000E-09	-2.851000E-10	-4.3290E-09
2.5000000e-02	6.423542E-04	6.754144E-04	6.1284E-04
7.5000000e-02	1.921741E-03	2.016470E-03	1.8368E-03
1.2500000e-01	3.193668E-03	3.343638E-03	3.0583E-03
1.7500000e-01	4.457673E-03	4.655798E-03	4.2773E-03
2.2500000e-01	5.713247E-03	5.951703E-03	5.4937E-03
2.7500000e-01	6.959828E-03	7.229949E-03	6.7074E-03
3.2500000e-01	8.196792E-03	8.488947E-03	7.9183E-03
3.7500000e-01	9.423449E-03	9.726883E-03	9.1262E-03
4.2500000e-01	1.063902E-02	1.094167E-02	1.0331E-02
4.7500000e-01	1.184265E-02	1.213090E-02	1.1533E-02
5.2500000e-01	1.303336E-02	1.329176E-02	1.2731E-02
5.7500000e-01	1.421007E-02	1.442101E-02	1.3926E-02
6.2500000e-01	1.537155E-02	1.551502E-02	1.5117E-02
6.7500000e-01	1.651649E-02	1.657019E-02	1.6305E-02
7.2500000e-01	1.764350E-02	1.758380E-02	1.7488E-02
7.7500000e-01	1.875138E-02	1.855487E-02	1.8667E-02
8.2500000e-01	1.983945E-02	1.948346E-02	1.9842E-02
8.7500000e-01	2.090800E-02	2.036881E-02	2.1012E-02
9.2500000e-01	2.195802E-02	2.120815E-02	2.2178E-02
9.7500000e-01	2.299059E-02	2.199660E-02	2.3338E-02
1.0250000e+00	2.400623E-02	2.272804E-02	2.4493E-02
1.0750000e+00	2.500472E-02	2.339642E-02	2.5642E-02
1.1250000e+00	2.598518E-02	2.399791E-02	2.6785E-02
1.1750000e+00	2.694619E-02	2.453290E-02	2.7921E-02
1.2250000e+00	2.788582E-02	2.500673E-02	2.9050E-02
1.2750000e+00	2.880158E-02	2.542839E-02	3.0172E-02
1.3250000e+00	2.969048E-02	2.580810E-02	3.1286E-02
1.3750000e+00	3.054893E-02	2.615534E-02	3.2391E-02
1.4250000e+00	3.137276E-02	2.647793E-02	3.3486E-02
1.4750000e+00	3.215739E-02	2.678186E-02	3.4572E-02
1.5250000e+00	3.289823E-02	2.707162E-02	3.5646E-02

1.5750000e+00	3.359126E-02	2.735051E-02	3.6708E-02
1.6250000e+00	3.423408E-02	2.762095E-02	3.7757E-02
1.6750000e+00	3.482661E-02	2.788477E-02	3.8790E-02
1.7250000e+00	3.537149E-02	2.814329E-02	3.9807E-02
1.7750000e+00	3.587366E-02	2.839756E-02	4.0805E-02
1.8250000e+00	3.633928E-02	2.864834E-02	4.1781E-02
1.8750000e+00	3.677472E-02	2.889628E-02	4.2734E-02
1.9250000e+00	3.718582E-02	2.914184E-02	4.3660E-02
1.9750000e+00	3.757750E-02	2.938542E-02	4.4556E-02
2.0250000e+00	3.795380E-02	2.962733E-02	4.5417E-02
2.0750000e+00	3.831783E-02	2.986783E-02	4.6241E-02
2.1250000e+00	3.867208E-02	3.010713E-02	4.7025E-02
2.1750000e+00	3.901845E-02	3.034542E-02	4.7767E-02
2.2250000e+00	3.935843E-02	3.058286E-02	4.8466E-02
2.2750000e+00	3.969319E-02	3.081960E-02	4.9124E-02
2.3250000e+00	4.002364E-02	3.105576E-02	4.9743E-02
2.3750000e+00	4.035053E-02	3.129147E-02	5.0329E-02
2.4250000e+00	4.067444E-02	3.152686E-02	5.0885E-02
2.4750000e+00	4.099589E-02	3.176208E-02	5.1415E-02
2.5250000e+00	4.131527E-02	3.199724E-02	5.1923E-02
2.5750000e+00	4.163292E-02	3.223252E-02	5.2415E-02
2.6250000e+00	4.194914E-02	3.246808E-02	5.2891E-02
2.6750000e+00	4.226420E-02	3.270415E-02	5.3355E-02
2.7250000e+00	4.257832E-02	3.294093E-02	5.3809E-02
2.7750000e+00	4.289173E-02	3.317872E-02	5.4255E-02
2.8250000e+00	4.320461E-02	3.341781E-02	5.4693E-02
2.8750000e+00	4.351716E-02	3.365859E-02	5.5126E-02
2.9250000e+00	4.382954E-02	3.390146E-02	5.5553E-02
2.9750000e+00	4.414196E-02	3.414689E-02	5.5976E-02
3.0000000e+00	4.429822E-02	3.427073E-02	5.6186E-02

[GND Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	-5.378351E-02	-5.490567E-02	-5.885698E-02
-1.4750000e+00	-5.231251E-02	-5.334431E-02	-5.735670E-02
-1.4500000e+00	-5.084369E-02	-5.178549E-02	-5.585777E-02
-1.4250000e+00	-4.937717E-02	-5.022938E-02	-5.436026E-02
-1.4000000e+00	-4.791309E-02	-4.867613E-02	-5.286424E-02
-1.3750000e+00	-4.645161E-02	-4.712594E-02	-5.136982E-02
-1.3500000e+00	-4.499289E-02	-4.557901E-02	-4.987709E-02
-1.3250000e+00	-4.353712E-02	-4.403556E-02	-4.838614E-02
-1.3000000e+00	-4.208452E-02	-4.249585E-02	-4.689710E-02
-1.2750000e+00	-4.063529E-02	-4.096014E-02	-4.541010E-02
-1.2500000e+00	-3.918970E-02	-3.942875E-02	-4.392527E-02
-1.2250000e+00	-3.774803E-02	-3.790201E-02	-4.244278E-02
-1.2000000e+00	-3.631059E-02	-3.638031E-02	-4.096280E-02
-1.1750000e+00	-3.487773E-02	-3.486408E-02	-3.948552E-02
-1.1500000e+00	-3.344986E-02	-3.335380E-02	-3.801116E-02
-1.1250000e+00	-3.202742E-02	-3.185003E-02	-3.653998E-02
-1.1000000e+00	-3.061092E-02	-3.035339E-02	-3.507226E-02
-1.0750000e+00	-2.920096E-02	-2.886462E-02	-3.360832E-02
-1.0500000e+00	-2.779821E-02	-2.738455E-02	-3.214854E-02
-1.0250000e+00	-2.640347E-02	-2.591415E-02	-3.069335E-02
-1.0000000e+00	-2.501766E-02	-2.445455E-02	-2.924328E-02

-9.7500000e-01	-2.364185E-02	-2.300708E-02	-2.779892E-02
-9.5000000e-01	-2.227732E-02	-2.157329E-02	-2.636102E-02
-9.2500000e-01	-2.092559E-02	-2.015501E-02	-2.493048E-02
-9.0000000e-01	-1.958843E-02	-1.875433E-02	-2.350840E-02
-8.7500000e-01	-1.826790E-02	-1.737363E-02	-2.209616E-02
-8.5000000e-01	-1.696631E-02	-1.601550E-02	-2.069550E-02
-8.2500000e-01	-1.568612E-02	-1.468262E-02	-1.930856E-02
-8.0000000e-01	-1.442972E-02	-1.337762E-02	-1.793782E-02
-7.7500000e-01	-1.319926E-02	-1.210311E-02	-1.658583E-02
-7.5000000e-01	-1.199673E-02	-1.086191E-02	-1.525450E-02
-7.2500000e-01	-1.082427E-02	-9.657411E-03	-1.394473E-02
-7.0000000e-01	-9.684638E-03	-8.493939E-03	-1.265685E-02
-6.7500000e-01	-8.581514E-03	-7.376930E-03	-1.139180E-02
-6.5000000e-01	-7.519607E-03	-6.312929E-03	-1.015194E-02
-6.2500000e-01	-6.504547E-03	-5.309438E-03	-8.941318E-03
-6.0000000e-01	-5.542688E-03	-4.374618E-03	-7.765735E-03
-5.7500000e-01	-4.640772E-03	-3.516890E-03	-6.632945E-03
-5.5000000e-01	-3.805524E-03	-2.744483E-03	-5.552946E-03
-5.2500000e-01	-3.043248E-03	-2.065103E-03	-4.538201E-03
-5.0000000e-01	-2.359647E-03	-1.485677E-03	-3.603412E-03
-4.7500000e-01	-1.760020E-03	-1.011779E-03	-2.764265E-03
-4.5000000e-01	-1.249702E-03	-6.458403E-04	-2.034716E-03
-4.2500000e-01	-8.339835E-04	-3.838582E-04	-1.423545E-03
-4.0000000e-01	-5.162389E-04	-2.125448E-04	-9.327605E-04
-3.7500000e-01	-2.937329E-04	-1.106466E-04	-5.596330E-04
-3.5000000e-01	-1.537279E-04	-5.497263E-05	-2.989533E-04
-3.2500000e-01	-7.493357E-05	-2.649171E-05	-1.392987E-04
-3.0000000e-01	-3.471511E-05	-1.256760E-05	-5.693658E-05
-2.7500000e-01	-1.563019E-05	-5.952723E-06	-2.113755E-05
-2.5000000e-01	-7.001335E-06	-2.863206E-06	-7.478945E-06
-2.2500000e-01	-3.215160E-06	-1.433628E-06	-2.669259E-06
-2.0000000e-01	-1.576700E-06	-7.729597E-07	-1.039352E-06
-1.7500000e-01	-8.691669E-07	-4.659048E-07	-4.927445E-07
-1.5000000e-01	-5.602970E-07	-3.210513E-07	-3.061011E-07
-1.2500000e-01	-4.211770E-07	-2.506183E-07	-2.379539E-07
-1.0000000e-01	-3.542844E-07	-2.144259E-07	-2.089405E-07
-7.5000000e-02	-3.182781E-07	-1.940781E-07	-1.931392E-07
-5.0000000e-02	-2.956734E-07	-1.811414E-07	-1.820767E-07
-2.5000000e-02	-2.790923E-07	-1.717494E-07	-1.729565E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[Pullup]

-1.5000000e+00	1.389728E-02	1.504401E-02	1.3495E-02
-1.4750000e+00	1.392266E-02	1.515940E-02	1.3511E-02
-1.4250000e+00	1.394549E-02	1.534861E-02	1.3532E-02
-1.3750000e+00	1.393984E-02	1.547700E-02	1.3542E-02
-1.3250000e+00	1.391859E-02	1.554357E-02	1.3545E-02
-1.2750000e+00	1.389341E-02	1.555550E-02	1.3540E-02
-1.2250000e+00	1.387050E-02	1.552788E-02	1.3526E-02
-1.1750000e+00	1.384963E-02	1.548081E-02	1.3502E-02
-1.1250000e+00	1.382685E-02	1.543388E-02	1.3467E-02
-1.0750000e+00	1.379804E-02	1.539856E-02	1.3421E-02
-1.0250000e+00	1.376042E-02	1.537452E-02	1.3363E-02

-9.7500000e-01	1.371257E-02	1.535474E-02	1.3293E-02
-9.2500000e-01	1.365380E-02	1.533271E-02	1.3210E-02
-8.7500000e-01	1.358379E-02	1.530481E-02	1.3113E-02
-8.2500000e-01	1.350199E-02	1.526951E-02	1.3001E-02
-7.7500000e-01	1.340734E-02	1.522537E-02	1.2873E-02
-7.2500000e-01	1.329767E-02	1.516783E-02	1.2725E-02
-6.7500000e-01	1.316879E-02	1.508258E-02	1.2554E-02
-6.2500000e-01	1.301213E-02	1.493400E-02	1.2352E-02
-5.7500000e-01	1.280843E-02	1.465359E-02	1.2107E-02
-5.2500000e-01	1.251269E-02	1.414154E-02	1.1797E-02
-4.7500000e-01	1.203560E-02	1.330397E-02	1.1382E-02
-4.2500000e-01	1.126665E-02	1.214514E-02	1.0778E-02
-3.7500000e-01	1.018437E-02	1.079032E-02	9.8667E-03
-3.2500000e-01	8.905568E-03	9.358893E-03	8.6724E-03
-2.7500000e-01	7.550642E-03	7.907034E-03	7.3614E-03
-2.2500000e-01	6.175032E-03	6.454310E-03	6.0240E-03
-1.7500000e-01	4.796858E-03	5.006794E-03	4.6832E-03
-1.2500000e-01	3.421222E-03	3.566345E-03	3.3432E-03
-7.5000000e-02	2.049479E-03	2.133648E-03	2.0047E-03
-2.5000000e-02	6.820421E-04	7.091043E-04	6.6784E-04
0.0000000e+00	1.125100E-09	4.014300E-10	2.6237E-09
2.5000000e-02	-6.802155E-04	-7.060015E-04	-6.6696E-04
7.5000000e-02	-2.032965E-03	-2.105590E-03	-1.9968E-03
1.2500000e-01	-3.375119E-03	-3.487987E-03	-3.3211E-03
1.7500000e-01	-4.706231E-03	-4.852382E-03	-4.6395E-03
2.2500000e-01	-6.025837E-03	-6.197914E-03	-5.9518E-03
2.7500000e-01	-7.333440E-03	-7.523661E-03	-7.2578E-03
3.2500000e-01	-8.628517E-03	-8.828634E-03	-8.5572E-03
3.7500000e-01	-9.910511E-03	-1.011178E-02	-9.8498E-03
4.2500000e-01	-1.117883E-02	-1.137197E-02	-1.1135E-02
4.7500000e-01	-1.243286E-02	-1.260797E-02	-1.2413E-02
5.2500000e-01	-1.367192E-02	-1.381848E-02	-1.3683E-02
5.7500000e-01	-1.489533E-02	-1.500209E-02	-1.4945E-02
6.2500000e-01	-1.610232E-02	-1.615730E-02	-1.6198E-02
6.7500000e-01	-1.729210E-02	-1.728247E-02	-1.7442E-02
7.2500000e-01	-1.846383E-02	-1.837588E-02	-1.8677E-02
7.7500000e-01	-1.961663E-02	-1.943566E-02	-1.9902E-02
8.2500000e-01	-2.074956E-02	-2.045990E-02	-2.1116E-02
8.7500000e-01	-2.186165E-02	-2.144666E-02	-2.2320E-02
9.2500000e-01	-2.295193E-02	-2.239415E-02	-2.3513E-02
9.7500000e-01	-2.401949E-02	-2.330089E-02	-2.4694E-02
1.0250000e+00	-2.506353E-02	-2.416589E-02	-2.5862E-02
1.0750000e+00	-2.608351E-02	-2.498853E-02	-2.7019E-02
1.1250000e+00	-2.707921E-02	-2.576811E-02	-2.8162E-02
1.1750000e+00	-2.805064E-02	-2.650347E-02	-2.9293E-02
1.2250000e+00	-2.899777E-02	-2.719285E-02	-3.0411E-02
1.2750000e+00	-2.992027E-02	-2.783418E-02	-3.1515E-02
1.3250000e+00	-3.081737E-02	-2.842555E-02	-3.2607E-02
1.3750000e+00	-3.168792E-02	-2.896616E-02	-3.3684E-02
1.4250000e+00	-3.253039E-02	-2.945719E-02	-3.4746E-02
1.4750000e+00	-3.334289E-02	-2.990258E-02	-3.5792E-02
1.5250000e+00	-3.412325E-02	-3.030862E-02	-3.6822E-02
1.5750000e+00	-3.486904E-02	-3.068257E-02	-3.7833E-02
1.6250000e+00	-3.557765E-02	-3.103121E-02	-3.8826E-02

1.6750000e+00	-3.624648E-02	-3.136007E-02	-3.9797E-02
1.7250000e+00	-3.687328E-02	-3.167336E-02	-4.0746E-02
1.7750000e+00	-3.745664E-02	-3.197424E-02	-4.1671E-02
1.8250000e+00	-3.799669E-02	-3.226504E-02	-4.2569E-02
1.8750000e+00	-3.849556E-02	-3.254752E-02	-4.3438E-02
1.9250000e+00	-3.895731E-02	-3.282305E-02	-4.4275E-02
1.9750000e+00	-3.938722E-02	-3.309268E-02	-4.5078E-02
2.0250000e+00	-3.979072E-02	-3.335727E-02	-4.5843E-02
2.0750000e+00	-4.017273E-02	-3.361751E-02	-4.6567E-02
2.1250000e+00	-4.053726E-02	-3.387396E-02	-4.7248E-02
2.1750000e+00	-4.088753E-02	-3.412707E-02	-4.7884E-02
2.2250000e+00	-4.122603E-02	-3.437727E-02	-4.8477E-02
2.2750000e+00	-4.155471E-02	-3.462485E-02	-4.9029E-02
2.3250000e+00	-4.187511E-02	-3.487012E-02	-4.9543E-02
2.3750000e+00	-4.218845E-02	-3.511332E-02	-5.0025E-02
2.4250000e+00	-4.249571E-02	-3.535466E-02	-5.0480E-02
2.4750000e+00	-4.279769E-02	-3.559433E-02	-5.0912E-02
2.5250000e+00	-4.309507E-02	-3.583247E-02	-5.1326E-02
2.5750000e+00	-4.338839E-02	-3.606925E-02	-5.1724E-02
2.6250000e+00	-4.367813E-02	-3.630478E-02	-5.2110E-02
2.6750000e+00	-4.396467E-02	-3.653918E-02	-5.2484E-02
2.7250000e+00	-4.424835E-02	-3.677256E-02	-5.2850E-02
2.7750000e+00	-4.452948E-02	-3.700500E-02	-5.3207E-02
2.8250000e+00	-4.480830E-02	-3.723659E-02	-5.3558E-02
2.8750000e+00	-4.508503E-02	-3.746739E-02	-5.3903E-02
2.9250000e+00	-4.535988E-02	-3.769749E-02	-5.4242E-02
2.9750000e+00	-4.563300E-02	-3.792696E-02	-5.4577E-02
3.0000000e+00	-4.576897E-02	-3.804147E-02	-5.4743E-02

[POWER Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	4.450136E-02	4.385767E-02	4.780182E-02
-1.4750000e+00	4.325737E-02	4.248503E-02	4.651241E-02
-1.4500000e+00	4.202627E-02	4.113177E-02	4.522926E-02
-1.4250000e+00	4.080680E-02	3.979850E-02	4.395156E-02
-1.4000000e+00	3.959743E-02	3.848563E-02	4.267873E-02
-1.3750000e+00	3.839648E-02	3.719324E-02	4.141044E-02
-1.3500000e+00	3.720221E-02	3.592106E-02	4.014659E-02
-1.3250000e+00	3.601296E-02	3.466841E-02	3.888726E-02
-1.3000000e+00	3.482735E-02	3.343415E-02	3.763263E-02
-1.2750000e+00	3.364438E-02	3.221669E-02	3.638297E-02
-1.2500000e+00	3.246358E-02	3.101397E-02	3.513857E-02
-1.2250000e+00	3.128497E-02	2.982356E-02	3.389973E-02
-1.2000000e+00	3.010901E-02	2.864279E-02	3.266673E-02
-1.1750000e+00	2.893648E-02	2.746896E-02	3.143985E-02
-1.1500000e+00	2.776826E-02	2.629964E-02	3.021938E-02
-1.1250000e+00	2.660528E-02	2.513304E-02	2.900561E-02
-1.1000000e+00	2.544841E-02	2.396824E-02	2.779886E-02
-1.0750000e+00	2.429844E-02	2.280536E-02	2.659948E-02
-1.0500000e+00	2.315612E-02	2.164543E-02	2.540789E-02
-1.0250000e+00	2.202214E-02	2.049007E-02	2.422457E-02
-1.0000000e+00	2.089719E-02	1.934117E-02	2.305009E-02
-9.7500000e-01	1.978197E-02	1.820065E-02	2.188514E-02
-9.5000000e-01	1.867722E-02	1.707028E-02	2.073052E-02

-9.2500000e-01	1.758372E-02	1.595172E-02	1.958719E-02
-9.0000000e-01	1.650228E-02	1.484648E-02	1.845618E-02
-8.7500000e-01	1.543373E-02	1.375596E-02	1.733862E-02
-8.5000000e-01	1.437889E-02	1.268153E-02	1.623553E-02
-8.2500000e-01	1.333851E-02	1.162449E-02	1.514772E-02
-8.0000000e-01	1.231328E-02	1.058622E-02	1.407562E-02
-7.7500000e-01	1.130388E-02	9.568206E-03	1.301922E-02
-7.5000000e-01	1.031106E-02	8.572276E-03	1.197827E-02
-7.2500000e-01	9.335806E-03	7.600753E-03	1.095257E-02
-7.0000000e-01	8.379549E-03	6.656721E-03	9.942222E-03
-6.7500000e-01	7.444326E-03	5.744302E-03	8.947921E-03
-6.5000000e-01	6.532997E-03	4.868952E-03	7.971051E-03
-6.2500000e-01	5.649458E-03	4.037787E-03	7.013870E-03
-6.0000000e-01	4.798902E-03	3.259897E-03	6.079707E-03
-5.7500000e-01	3.988134E-03	2.546530E-03	5.173245E-03
-5.5000000e-01	3.225930E-03	1.910856E-03	4.300910E-03
-5.2500000e-01	2.523332E-03	1.366712E-03	3.471447E-03
-5.0000000e-01	1.893615E-03	9.256050E-04	2.696680E-03
-4.7500000e-01	1.351332E-03	5.919303E-04	1.992354E-03
-4.5000000e-01	9.095438E-04	3.586832E-04	1.378419E-03
-4.2500000e-01	5.747929E-04	2.078355E-04	8.770400E-04
-4.0000000e-01	3.418453E-04	1.164218E-04	5.053108E-04
-3.7500000e-01	1.930954E-04	6.360210E-05	2.627390E-04
-3.5000000e-01	1.048276E-04	3.408364E-05	1.249615E-04
-3.2500000e-01	5.523970E-05	1.799151E-05	5.555911E-05
-3.0000000e-01	2.845373E-05	9.394192E-06	2.354502E-05
-2.7500000e-01	1.440808E-05	4.878770E-06	9.668085E-06
-2.5000000e-01	7.217646E-06	2.540607E-06	3.917725E-06
-2.2500000e-01	3.608426E-06	1.343333E-06	1.610387E-06
-2.0000000e-01	1.824961E-06	7.351342E-07	7.040805E-07
-1.7500000e-01	9.538097E-07	4.274933E-07	3.518120E-07
-1.5000000e-01	5.312391E-07	2.717598E-07	2.143493E-07
-1.2500000e-01	3.264285E-07	1.922225E-07	1.590780E-07
-1.0000000e-01	2.262355E-07	1.506538E-07	1.350141E-07
-7.5000000e-02	1.758303E-07	1.278715E-07	1.227817E-07
-5.0000000e-02	1.489090E-07	1.143246E-07	1.150734E-07
-2.5000000e-02	1.332080E-07	1.054156E-07	1.091537E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[Ramp]

R\_load = 50.00Ohm

	typ	min	max
dV/dt_r	532.022mV/119.423ps	491.319mV/165.185ps	567.619mV/91.565ps
dV/dt_f	537.976mV/129.806ps	497.460mV/173.213ps	578.029mV/105.657ps

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[Rising Waveform]

V\_fixture = 1.500V

V\_fixture\_min = 1.425V

V\_fixture\_max = 1.575V

R\_fixture = 50.00Ohm



Time	V(typ)	V(min)	V(max)
0.00E+00	6.8316E-01	6.4198E-01	7.1381E-01
1.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
2.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
3.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
4.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
5.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
6.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
7.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
8.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
9.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
1.00E-10	6.8316E-01	6.4198E-01	7.1381E-01
1.10E-10	6.8316E-01	6.4198E-01	7.1381E-01
1.20E-10	6.8316E-01	6.4198E-01	7.1381E-01
1.30E-10	6.8316E-01	6.4198E-01	7.1381E-01
1.40E-10	6.8316E-01	6.4198E-01	7.2174E-01
1.50E-10	6.8316E-01	6.4198E-01	7.5887E-01
1.60E-10	6.8316E-01	6.4198E-01	8.2016E-01
1.70E-10	6.8316E-01	6.4198E-01	9.1349E-01
1.80E-10	6.8316E-01	6.4198E-01	1.0158E+00
1.90E-10	6.8316E-01	6.4198E-01	1.1058E+00
2.00E-10	6.8631E-01	6.4198E-01	1.1722E+00
2.10E-10	6.9781E-01	6.4198E-01	1.2169E+00
2.20E-10	7.2546E-01	6.4298E-01	1.2448E+00
2.30E-10	7.5875E-01	6.4398E-01	1.2647E+00
2.40E-10	8.1582E-01	6.4498E-01	1.2837E+00
2.50E-10	8.7535E-01	6.4698E-01	1.3078E+00
2.60E-10	9.4749E-01	6.5598E-01	1.3414E+00
2.70E-10	1.0174E+00	6.6598E-01	1.3863E+00
2.80E-10	1.0731E+00	6.7898E-01	1.4363E+00
2.90E-10	1.1226E+00	6.9347E-01	1.4802E+00
3.00E-10	1.1579E+00	7.1337E-01	1.5132E+00
3.10E-10	1.1837E+00	7.4966E-01	1.5358E+00
3.20E-10	1.2048E+00	7.9147E-01	1.5503E+00
3.30E-10	1.2195E+00	8.3328E-01	1.5592E+00
3.40E-10	1.2343E+00	8.7936E-01	1.5645E+00
3.50E-10	1.2494E+00	9.3100E-01	1.5675E+00
3.60E-10	1.2675E+00	9.8264E-01	1.5691E+00
3.70E-10	1.2874E+00	1.0268E+00	1.5702E+00
3.80E-10	1.3136E+00	1.0618E+00	1.5750E+00
3.90E-10	1.3416E+00	1.0967E+00	1.5750E+00
4.00E-10	1.3720E+00	1.1198E+00	1.5750E+00
4.10E-10	1.4006E+00	1.1392E+00	1.5750E+00
4.20E-10	1.4277E+00	1.1550E+00	1.5750E+00
4.30E-10	1.4490E+00	1.1666E+00	1.5750E+00
4.40E-10	1.4656E+00	1.1779E+00	1.5750E+00
4.50E-10	1.4779E+00	1.1874E+00	1.5750E+00
4.60E-10	1.4845E+00	1.1970E+00	1.5750E+00
4.70E-10	1.4896E+00	1.2077E+00	1.5750E+00
4.80E-10	1.4922E+00	1.2186E+00	1.5750E+00
4.90E-10	1.4951E+00	1.2308E+00	1.5750E+00
5.00E-10	1.4974E+00	1.2441E+00	1.5750E+00

5.10E-10	1.4984E+00	1.2582E+00	1.5750E+00
5.20E-10	1.4991E+00	1.2741E+00	1.5750E+00
5.30E-10	1.5000E+00	1.2901E+00	1.5750E+00
5.40E-10	1.5000E+00	1.3071E+00	1.5750E+00
5.50E-10	1.5000E+00	1.3240E+00	1.5750E+00
5.60E-10	1.5000E+00	1.3409E+00	1.5750E+00
5.70E-10	1.5000E+00	1.3579E+00	1.5750E+00
5.80E-10	1.5000E+00	1.3720E+00	1.5750E+00
5.90E-10	1.5000E+00	1.3824E+00	1.5750E+00
6.00E-10	1.5000E+00	1.3929E+00	1.5750E+00
6.10E-10	1.5000E+00	1.4033E+00	1.5750E+00
6.20E-10	1.5000E+00	1.4094E+00	1.5750E+00
6.30E-10	1.5000E+00	1.4154E+00	1.5750E+00
6.40E-10	1.5000E+00	1.4204E+00	1.5750E+00
6.50E-10	1.5000E+00	1.4244E+00	1.5750E+00
6.60E-10	1.5000E+00	1.4244E+00	1.5750E+00
6.70E-10	1.5000E+00	1.4244E+00	1.5750E+00
6.80E-10	1.5000E+00	1.4244E+00	1.5750E+00
6.90E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.00E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.10E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.20E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.30E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.40E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.50E-10	1.5000E+00	1.4244E+00	1.5750E+00

[Falling Waveform]

V\_fixture = 1.500V

V\_fixture\_min = 1.425V

V\_fixture\_max = 1.575V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	1.5000E+00	1.4244E+00	1.5750E+00
1.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
2.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
3.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
4.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
5.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
6.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
7.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
8.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
9.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
1.00E-10	1.5000E+00	1.4244E+00	1.5750E+00
1.10E-10	1.5000E+00	1.4244E+00	1.5750E+00
1.20E-10	1.5000E+00	1.4244E+00	1.5750E+00
1.30E-10	1.5000E+00	1.4244E+00	1.5678E+00
1.40E-10	1.5000E+00	1.4244E+00	1.5356E+00
1.50E-10	1.5000E+00	1.4244E+00	1.4918E+00
1.60E-10	1.5000E+00	1.4244E+00	1.4391E+00
1.70E-10	1.5000E+00	1.4244E+00	1.3811E+00
1.80E-10	1.5000E+00	1.4244E+00	1.3164E+00
1.90E-10	1.5000E+00	1.4244E+00	1.2491E+00

2.00E-10	1.4916E+00	1.4244E+00	1.1872E+00
2.10E-10	1.4779E+00	1.4244E+00	1.1373E+00
2.20E-10	1.4526E+00	1.4244E+00	1.1004E+00
2.30E-10	1.4258E+00	1.4244E+00	1.0723E+00
2.40E-10	1.3882E+00	1.4244E+00	1.0470E+00
2.50E-10	1.3499E+00	1.4244E+00	1.0149E+00
2.60E-10	1.3051E+00	1.4244E+00	9.8066E-01
2.70E-10	1.2605E+00	1.4244E+00	9.3547E-01
2.80E-10	1.2170E+00	1.4244E+00	8.8759E-01
2.90E-10	1.1745E+00	1.4194E+00	8.4268E-01
3.00E-10	1.1378E+00	1.4094E+00	8.0700E-01
3.10E-10	1.1029E+00	1.3963E+00	7.7745E-01
3.20E-10	1.0753E+00	1.3791E+00	7.5868E-01
3.30E-10	1.0489E+00	1.3558E+00	7.4505E-01
3.40E-10	1.0261E+00	1.3325E+00	7.3501E-01
3.50E-10	1.0023E+00	1.3056E+00	7.2933E-01
3.60E-10	9.7620E-01	1.2772E+00	7.2516E-01
3.70E-10	9.4367E-01	1.2488E+00	7.2226E-01
3.80E-10	9.0696E-01	1.2213E+00	7.2113E-01
3.90E-10	8.7376E-01	1.1938E+00	7.1999E-01
4.00E-10	8.3990E-01	1.1670E+00	7.1886E-01
4.10E-10	8.0957E-01	1.1432E+00	7.1825E-01
4.20E-10	7.8300E-01	1.1193E+00	7.1767E-01
4.30E-10	7.6093E-01	1.0968E+00	7.1709E-01
4.40E-10	7.4264E-01	1.0762E+00	7.1654E-01
4.50E-10	7.2827E-01	1.0555E+00	7.1600E-01
4.60E-10	7.1647E-01	1.0350E+00	7.1545E-01
4.70E-10	7.0685E-01	1.0145E+00	7.1510E-01
4.80E-10	6.9834E-01	9.9409E-01	7.1479E-01
4.90E-10	6.9107E-01	9.6900E-01	7.1449E-01
5.00E-10	6.8566E-01	9.4342E-01	7.1433E-01
5.10E-10	6.8316E-01	9.1269E-01	7.1421E-01
5.20E-10	6.8316E-01	8.8416E-01	7.1410E-01
5.30E-10	6.8316E-01	8.5763E-01	7.1399E-01
5.40E-10	6.8316E-01	8.3261E-01	7.1388E-01
5.50E-10	6.8316E-01	8.0994E-01	7.1380E-01
5.60E-10	6.8316E-01	7.8727E-01	7.1380E-01
5.70E-10	6.8316E-01	7.6866E-01	7.1380E-01
5.80E-10	6.8316E-01	7.5240E-01	7.1380E-01
5.90E-10	6.8316E-01	7.3613E-01	7.1380E-01
6.00E-10	6.8316E-01	7.2289E-01	7.1380E-01
6.10E-10	6.8316E-01	7.1008E-01	7.1380E-01
6.20E-10	6.8316E-01	6.9855E-01	7.1380E-01
6.30E-10	6.8316E-01	6.9098E-01	7.1380E-01
6.40E-10	6.8316E-01	6.8198E-01	7.1380E-01
6.50E-10	6.8316E-01	6.7398E-01	7.1380E-01
6.60E-10	6.8316E-01	6.6298E-01	7.1380E-01
6.70E-10	6.8316E-01	6.5598E-01	7.1380E-01
6.80E-10	6.8316E-01	6.5098E-01	7.1380E-01
6.90E-10	6.8316E-01	6.4798E-01	7.1380E-01
7.00E-10	6.8316E-01	6.4598E-01	7.1380E-01
7.10E-10	6.8316E-01	6.4398E-01	7.1380E-01
7.20E-10	6.8316E-01	6.4298E-01	7.1380E-01
7.30E-10	6.8316E-01	6.4198E-01	7.1380E-01

7.40E-10 6.8316E-01 6.4198E-01 7.1380E-01  
7.50E-10 6.8316E-01 6.4198E-01 7.1380E-01

[Rising Waveform]

V\_fixture = 0.000V

V\_fixture\_min = 0.000V

V\_fixture\_max = 0.000V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	2.1656E-05	4.5001E-04	1.9840E-06
1.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
2.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
3.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
4.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
5.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
6.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
7.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
8.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
9.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
1.00E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.10E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.20E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.30E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.40E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.50E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.60E-10	2.1656E-05	4.5001E-04	4.8671E-02
1.70E-10	2.1656E-05	4.5001E-04	1.0238E-01
1.80E-10	2.1656E-05	4.5001E-04	1.6978E-01
1.90E-10	2.1656E-05	4.5001E-04	2.4540E-01
2.00E-10	2.1656E-05	4.5001E-04	3.2196E-01
2.10E-10	2.1656E-05	4.5001E-04	3.9122E-01
2.20E-10	6.9115E-03	4.5001E-04	4.4667E-01
2.30E-10	2.1916E-02	4.5001E-04	4.8493E-01
2.40E-10	4.9605E-02	4.5001E-04	5.1216E-01
2.50E-10	8.2158E-02	4.5001E-04	5.3458E-01
2.60E-10	1.2545E-01	4.5001E-04	5.6186E-01
2.70E-10	1.7346E-01	4.5001E-04	6.0105E-01
2.80E-10	2.2437E-01	4.5001E-04	6.5263E-01
2.90E-10	2.7673E-01	4.5001E-04	7.0953E-01
3.00E-10	3.2396E-01	7.4200E-04	7.5988E-01
3.10E-10	3.6830E-01	6.9399E-03	7.9680E-01
3.20E-10	4.0406E-01	2.2538E-02	8.2326E-01
3.30E-10	4.3438E-01	3.8136E-02	8.4173E-01
3.40E-10	4.5821E-01	6.0559E-02	8.5396E-01
3.50E-10	4.7742E-01	9.0788E-02	8.6342E-01
3.60E-10	4.9488E-01	1.2102E-01	8.7131E-01
3.70E-10	5.1097E-01	1.5625E-01	8.7541E-01
3.80E-10	5.3186E-01	1.9335E-01	8.7950E-01
3.90E-10	5.5704E-01	2.3045E-01	8.8129E-01
4.00E-10	5.8693E-01	2.6299E-01	8.8750E-01
4.10E-10	6.3150E-01	2.9548E-01	8.8750E-01
4.20E-10	6.6900E-01	3.2621E-01	8.8750E-01

4.30E-10	7.0343E-01	3.5161E-01	8.8750E-01
4.40E-10	7.3251E-01	3.7701E-01	8.8750E-01
4.50E-10	7.5834E-01	3.9887E-01	8.8750E-01
4.60E-10	7.7553E-01	4.1920E-01	8.8750E-01
4.70E-10	7.9054E-01	4.3893E-01	8.8750E-01
4.80E-10	7.9989E-01	4.5025E-01	8.8750E-01
4.90E-10	8.0628E-01	4.6257E-01	8.8750E-01
5.00E-10	8.1206E-01	4.7874E-01	8.8750E-01
5.10E-10	8.1613E-01	4.8572E-01	8.8750E-01
5.20E-10	8.2020E-01	4.9920E-01	8.8750E-01
5.30E-10	8.2427E-01	5.1505E-01	8.8750E-01
5.40E-10	8.2778E-01	5.3090E-01	8.8750E-01
5.50E-10	8.3015E-01	5.5341E-01	8.8750E-01
5.60E-10	8.3015E-01	5.7647E-01	8.8750E-01
5.70E-10	8.3015E-01	5.9813E-01	8.8750E-01
5.80E-10	8.3015E-01	6.2467E-01	8.8750E-01
5.90E-10	8.3015E-01	6.5120E-01	8.8750E-01
6.00E-10	8.3015E-01	6.7309E-01	8.8750E-01
6.10E-10	8.3015E-01	6.9494E-01	8.8750E-01
6.20E-10	8.3015E-01	7.1298E-01	8.8750E-01
6.30E-10	8.3015E-01	7.2761E-01	8.8750E-01
6.40E-10	8.3015E-01	7.4187E-01	8.8750E-01
6.50E-10	8.3015E-01	7.5387E-01	8.8750E-01
6.60E-10	8.3015E-01	7.6287E-01	8.8750E-01
6.70E-10	8.3015E-01	7.7087E-01	8.8750E-01
6.80E-10	8.3015E-01	7.7787E-01	8.8750E-01
6.90E-10	8.3015E-01	7.8587E-01	8.8750E-01
7.00E-10	8.3015E-01	7.8987E-01	8.8750E-01
7.10E-10	8.3015E-01	7.9287E-01	8.8750E-01
7.20E-10	8.3015E-01	7.9387E-01	8.8750E-01
7.30E-10	8.3015E-01	7.9487E-01	8.8750E-01
7.40E-10	8.3015E-01	7.9587E-01	8.8750E-01
7.50E-10	8.3015E-01	7.9587E-01	8.8750E-01

[Falling Waveform]

V\_fixture = 0.000V

V\_fixture\_min = 0.000V

V\_fixture\_max = 0.000V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	8.3015E-01	7.9587E-01	8.8750E-01
1.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
2.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
3.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
4.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
5.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
6.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
7.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
8.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
9.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
1.00E-10	8.3015E-01	7.9587E-01	8.8750E-01
1.10E-10	8.3015E-01	7.9587E-01	8.8750E-01

1.20E-10	8.3015E-01	7.9587E-01	8.8443E-01
1.30E-10	8.3015E-01	7.9587E-01	8.7452E-01
1.40E-10	8.3015E-01	7.9587E-01	8.4189E-01
1.50E-10	8.3015E-01	7.9587E-01	7.8920E-01
1.60E-10	8.3015E-01	7.9587E-01	7.1329E-01
1.70E-10	8.2717E-01	7.9587E-01	6.2580E-01
1.80E-10	8.2022E-01	7.9487E-01	5.4691E-01
1.90E-10	8.0849E-01	7.9287E-01	4.8081E-01
2.00E-10	7.8766E-01	7.8987E-01	4.2673E-01
2.10E-10	7.5342E-01	7.8587E-01	3.8302E-01
2.20E-10	7.0770E-01	7.8087E-01	3.4957E-01
2.30E-10	6.4643E-01	7.7487E-01	3.1949E-01
2.40E-10	5.7951E-01	7.6687E-01	2.8668E-01
2.50E-10	5.1395E-01	7.5687E-01	2.5182E-01
2.60E-10	4.5050E-01	7.4187E-01	2.1162E-01
2.70E-10	4.0155E-01	7.2460E-01	1.7228E-01
2.80E-10	3.6096E-01	7.0145E-01	1.3355E-01
2.90E-10	3.2886E-01	6.6392E-01	1.0138E-01
3.00E-10	3.0074E-01	6.2500E-01	7.3166E-02
3.10E-10	2.7872E-01	5.8181E-01	5.0761E-02
3.20E-10	2.6007E-01	5.3521E-01	3.5793E-02
3.30E-10	2.4432E-01	4.8940E-01	2.3892E-02
3.40E-10	2.2391E-01	4.4680E-01	1.6931E-02
3.50E-10	1.9806E-01	4.0419E-01	1.2192E-02
3.60E-10	1.7058E-01	3.7123E-01	8.9365E-03
3.70E-10	1.4036E-01	3.4007E-01	7.2358E-03
3.80E-10	1.1118E-01	3.1448E-01	5.9670E-03
3.90E-10	8.3244E-02	2.9477E-01	5.3516E-03
4.00E-10	6.1742E-02	2.7568E-01	4.7363E-03
4.10E-10	4.4018E-02	2.6075E-01	4.1060E-03
4.20E-10	3.0136E-02	2.4582E-01	3.4124E-03
4.30E-10	2.2486E-02	2.3054E-01	2.7189E-03
4.40E-10	1.5763E-02	2.1515E-01	2.0253E-03
4.50E-10	9.0387E-03	1.9777E-01	1.6262E-03
4.60E-10	5.3194E-03	1.7999E-01	1.2305E-03
4.70E-10	3.4381E-03	1.6207E-01	8.3483E-04
4.80E-10	1.5568E-03	1.4205E-01	6.3758E-04
4.90E-10	6.2322E-04	1.2203E-01	4.9475E-04
5.00E-10	1.0502E-04	1.0187E-01	3.5192E-04
5.10E-10	2.1656E-05	8.1652E-02	2.0909E-04
5.20E-10	2.1656E-05	6.3154E-02	6.6265E-05
5.30E-10	2.1656E-05	4.7873E-02	1.9840E-06
5.40E-10	2.1656E-05	3.2593E-02	1.9840E-06
5.50E-10	2.1656E-05	2.4507E-02	1.9840E-06
5.60E-10	2.1656E-05	1.6483E-02	1.9840E-06
5.70E-10	2.1656E-05	1.1660E-02	1.9840E-06
5.80E-10	2.1656E-05	8.6750E-03	1.9840E-06
5.90E-10	2.1656E-05	6.2443E-03	1.9840E-06
6.00E-10	2.1656E-05	5.2473E-03	1.9840E-06
6.10E-10	2.1656E-05	4.2503E-03	1.9840E-06
6.20E-10	2.1656E-05	3.6374E-03	1.9840E-06
6.30E-10	2.1656E-05	3.0570E-03	1.9840E-06
6.40E-10	2.1656E-05	2.5197E-03	1.9840E-06
6.50E-10	2.1656E-05	2.0157E-03	1.9840E-06

6.60E-10	2.1656E-05	1.5499E-03	1.9840E-06
6.70E-10	2.1656E-05	1.0325E-03	1.9840E-06
6.80E-10	2.1656E-05	8.8691E-04	1.9840E-06
6.90E-10	2.1656E-05	7.4127E-04	1.9840E-06
7.00E-10	2.1656E-05	5.9564E-04	1.9840E-06
7.10E-10	2.1656E-05	4.5001E-04	1.9840E-06
7.20E-10	2.1656E-05	4.5001E-04	1.9840E-06
7.30E-10	2.1656E-05	4.5001E-04	1.9840E-06
7.40E-10	2.1656E-05	4.5001E-04	1.9840E-06
7.50E-10	2.1656E-05	4.5001E-04	1.9840E-06

\*\*\*\*\*  
| MODEL DQ\_40\_1600 (40 Ohm Data I/O with 60ohm ODT, 1333/1600 Mbps)  
| \*\*\*\*\*

[Model] DQ\_40\_ODT60\_1600  
Model\_type I/O

Vinl = 600.000mV  
Vinh = 900.000mV  
Vmeas = 750.000mV  
Vref = 750.000mV  
Cref = 0.0pF  
Rref = 25.000Ohm

	typ	min	max
C_comp	1.078pF	0.966pF	1.223pF

| Note: C\_comp changes when the ODT circuit is enabled.

[Model Spec]

| Input threshold voltage corners

Vinl	0.6000V	0.5625V	0.6375V
Vinh	0.9000V	0.8625V	0.9375V

| Measurement voltage corners

Vmeas	0.7500V	0.7125V	0.7875V
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| Timing spec test load voltage corners

Vref	0.7500V	0.7125V	0.7875V
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| Dynamic Overshoot Parameters from DDR3 Specification

D_overshoot_ampl_h	0.40	NA	NA
D_overshoot_ampl_l	0.40	NA	NA
D_overshoot_area_h	0.13n	NA	NA
D_overshoot_area_l	0.13n	NA	NA

[[Receiver Thresholds]

|Vth = 0.750V  
|Vth\_min = 0.7350V  
|Vth\_max = 0.7650V  
|Vinh\_ac = 0.150V  
|Vinh\_dc = 0.100V  
|Vinl\_ac = -0.150V

|Vinl\_dc = -0.100V  
 |Tslew\_ac = 5.000ns |Not specified, so set to high value  
 |Threshold\_sensitivity = 0.50  
 |Reference\_supply Pullup\_ref

[Add Submodel]

| Submodel Name      Mode  
 60Ohm\_ODT      Non-Driving

[Voltage Range]      1.5000V      1.4250V      1.5750V  
 [Pullup Reference]    1.5000V      1.4250V      1.5750V  
 [Temperature Range]    85.0      110.0      0.0

\*\*\*\*\*

[Pulldown]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	-5.766580E-03	-5.671960E-03	-4.4564E-03
-1.4750000e+00	-5.965480E-03	-5.898760E-03	-4.6456E-03
-1.4250000e+00	-6.365740E-03	-6.361750E-03	-5.0283E-03
-1.3750000e+00	-6.767370E-03	-6.833580E-03	-5.4143E-03
-1.3250000e+00	-7.168490E-03	-7.310620E-03	-5.8012E-03
-1.2750000e+00	-7.567540E-03	-7.790060E-03	-6.1870E-03
-1.2250000e+00	-7.963180E-03	-8.269780E-03	-6.5705E-03
-1.1750000e+00	-8.354170E-03	-8.748110E-03	-6.9506E-03
-1.1250000e+00	-8.739220E-03	-9.223740E-03	-7.3262E-03
-1.0750000e+00	-9.116960E-03	-9.695520E-03	-7.6961E-03
-1.0250000e+00	-9.485740E-03	-1.016235E-02	-8.0593E-03
-9.7500000e-01	-9.843550E-03	-1.062303E-02	-8.4141E-03
-9.2500000e-01	-1.018784E-02	-1.107598E-02	-8.7587E-03
-8.7500000e-01	-1.051515E-02	-1.151861E-02	-9.0906E-03
-8.2500000e-01	-1.082065E-02	-1.194611E-02	-9.4063E-03
-7.7500000e-01	-1.109723E-02	-1.234917E-02	-9.7010E-03
-7.2500000e-01	-1.133396E-02	-1.271052E-02	-9.9678E-03
-6.7500000e-01	-1.151368E-02	-1.300112E-02	-1.0196E-02
-6.2500000e-01	-1.161030E-02	-1.317732E-02	-1.0369E-02
-5.7500000e-01	-1.158847E-02	-1.318034E-02	-1.0460E-02
-5.2500000e-01	-1.140914E-02	-1.294110E-02	-1.0425E-02
-4.7500000e-01	-1.103661E-02	-1.239310E-02	-1.0195E-02
-4.2500000e-01	-1.042948E-02	-1.149942E-02	-9.7052E-03
-3.7500000e-01	-9.541331E-03	-1.031290E-02	-8.9368E-03
-3.2500000e-01	-8.402181E-03	-8.972323E-03	-7.9244E-03
-2.7500000e-01	-7.136897E-03	-7.584300E-03	-6.7526E-03
-2.2500000e-01	-5.837164E-03	-6.189682E-03	-5.5298E-03
-1.7500000e-01	-4.533342E-03	-4.799550E-03	-4.2997E-03
-1.2500000e-01	-3.232329E-03	-3.416866E-03	-3.0698E-03
-7.5000000e-02	-1.935664E-03	-2.042825E-03	-1.8409E-03
-2.5000000e-02	-6.439068E-04	-6.783475E-04	-6.1331E-04
0.0000000e+00	-2.495000E-09	-2.851000E-10	-4.3290E-09
2.5000000e-02	6.423542E-04	6.754144E-04	6.1284E-04
7.5000000e-02	1.921741E-03	2.016470E-03	1.8368E-03
1.2500000e-01	3.193668E-03	3.343638E-03	3.0583E-03



1.7500000e-01	4.457673E-03	4.655798E-03	4.2773E-03
2.2500000e-01	5.713247E-03	5.951703E-03	5.4937E-03
2.7500000e-01	6.959828E-03	7.229949E-03	6.7074E-03
3.2500000e-01	8.196792E-03	8.488947E-03	7.9183E-03
3.7500000e-01	9.423449E-03	9.726883E-03	9.1262E-03
4.2500000e-01	1.063902E-02	1.094167E-02	1.0331E-02
4.7500000e-01	1.184265E-02	1.213090E-02	1.1533E-02
5.2500000e-01	1.303336E-02	1.329176E-02	1.2731E-02
5.7500000e-01	1.421007E-02	1.442101E-02	1.3926E-02
6.2500000e-01	1.537155E-02	1.551502E-02	1.5117E-02
6.7500000e-01	1.651649E-02	1.657019E-02	1.6305E-02
7.2500000e-01	1.764350E-02	1.758380E-02	1.7488E-02
7.7500000e-01	1.875138E-02	1.855487E-02	1.8667E-02
8.2500000e-01	1.983945E-02	1.948346E-02	1.9842E-02
8.7500000e-01	2.090800E-02	2.036881E-02	2.1012E-02
9.2500000e-01	2.195802E-02	2.120815E-02	2.2178E-02
9.7500000e-01	2.299059E-02	2.199660E-02	2.3338E-02
1.0250000e+00	2.400623E-02	2.272804E-02	2.4493E-02
1.0750000e+00	2.500472E-02	2.339642E-02	2.5642E-02
1.1250000e+00	2.598518E-02	2.399791E-02	2.6785E-02
1.1750000e+00	2.694619E-02	2.453290E-02	2.7921E-02
1.2250000e+00	2.788582E-02	2.500673E-02	2.9050E-02
1.2750000e+00	2.880158E-02	2.542839E-02	3.0172E-02
1.3250000e+00	2.969048E-02	2.580810E-02	3.1286E-02
1.3750000e+00	3.054893E-02	2.615534E-02	3.2391E-02
1.4250000e+00	3.137276E-02	2.647793E-02	3.3486E-02
1.4750000e+00	3.215739E-02	2.678186E-02	3.4572E-02
1.5250000e+00	3.289823E-02	2.707162E-02	3.5646E-02
1.5750000e+00	3.359126E-02	2.735051E-02	3.6708E-02
1.6250000e+00	3.423408E-02	2.762095E-02	3.7757E-02
1.6750000e+00	3.482661E-02	2.788477E-02	3.8790E-02
1.7250000e+00	3.537149E-02	2.814329E-02	3.9807E-02
1.7750000e+00	3.587366E-02	2.839756E-02	4.0805E-02
1.8250000e+00	3.633928E-02	2.864834E-02	4.1781E-02
1.8750000e+00	3.677472E-02	2.889628E-02	4.2734E-02
1.9250000e+00	3.718582E-02	2.914184E-02	4.3660E-02
1.9750000e+00	3.757750E-02	2.938542E-02	4.4556E-02
2.0250000e+00	3.795380E-02	2.962733E-02	4.5417E-02
2.0750000e+00	3.831783E-02	2.986783E-02	4.6241E-02
2.1250000e+00	3.867208E-02	3.010713E-02	4.7025E-02
2.1750000e+00	3.901845E-02	3.034542E-02	4.7767E-02
2.2250000e+00	3.935843E-02	3.058286E-02	4.8466E-02
2.2750000e+00	3.969319E-02	3.081960E-02	4.9124E-02
2.3250000e+00	4.002364E-02	3.105576E-02	4.9743E-02
2.3750000e+00	4.035053E-02	3.129147E-02	5.0329E-02
2.4250000e+00	4.067444E-02	3.152686E-02	5.0885E-02
2.4750000e+00	4.099589E-02	3.176208E-02	5.1415E-02
2.5250000e+00	4.131527E-02	3.199724E-02	5.1923E-02
2.5750000e+00	4.163292E-02	3.223252E-02	5.2415E-02
2.6250000e+00	4.194914E-02	3.246808E-02	5.2891E-02
2.6750000e+00	4.226420E-02	3.270415E-02	5.3355E-02
2.7250000e+00	4.257832E-02	3.294093E-02	5.3809E-02
2.7750000e+00	4.289173E-02	3.317872E-02	5.4255E-02
2.8250000e+00	4.320461E-02	3.341781E-02	5.4693E-02

2.8750000e+00	4.351716E-02	3.365859E-02	5.5126E-02
2.9250000e+00	4.382954E-02	3.390146E-02	5.5553E-02
2.9750000e+00	4.414196E-02	3.414689E-02	5.5976E-02
3.0000000e+00	4.429822E-02	3.427073E-02	5.6186E-02

[GND Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	-5.378351E-02	-5.490567E-02	-5.885698E-02
-1.4750000e+00	-5.231251E-02	-5.334431E-02	-5.735670E-02
-1.4500000e+00	-5.084369E-02	-5.178549E-02	-5.585777E-02
-1.4250000e+00	-4.937717E-02	-5.022938E-02	-5.436026E-02
-1.4000000e+00	-4.791309E-02	-4.867613E-02	-5.286424E-02
-1.3750000e+00	-4.645161E-02	-4.712594E-02	-5.136982E-02
-1.3500000e+00	-4.499289E-02	-4.557901E-02	-4.987709E-02
-1.3250000e+00	-4.353712E-02	-4.403556E-02	-4.838614E-02
-1.3000000e+00	-4.208452E-02	-4.249585E-02	-4.689710E-02
-1.2750000e+00	-4.063529E-02	-4.096014E-02	-4.541010E-02
-1.2500000e+00	-3.918970E-02	-3.942875E-02	-4.392527E-02
-1.2250000e+00	-3.774803E-02	-3.790201E-02	-4.244278E-02
-1.2000000e+00	-3.631059E-02	-3.638031E-02	-4.096280E-02
-1.1750000e+00	-3.487773E-02	-3.486408E-02	-3.948552E-02
-1.1500000e+00	-3.344986E-02	-3.335380E-02	-3.801116E-02
-1.1250000e+00	-3.202742E-02	-3.185003E-02	-3.653998E-02
-1.1000000e+00	-3.061092E-02	-3.035339E-02	-3.507226E-02
-1.0750000e+00	-2.920096E-02	-2.886462E-02	-3.360832E-02
-1.0500000e+00	-2.779821E-02	-2.738455E-02	-3.214854E-02
-1.0250000e+00	-2.640347E-02	-2.591415E-02	-3.069335E-02
-1.0000000e+00	-2.501766E-02	-2.445455E-02	-2.924328E-02
-9.7500000e-01	-2.364185E-02	-2.300708E-02	-2.779892E-02
-9.5000000e-01	-2.227732E-02	-2.157329E-02	-2.636102E-02
-9.2500000e-01	-2.092559E-02	-2.015501E-02	-2.493048E-02
-9.0000000e-01	-1.958843E-02	-1.875433E-02	-2.350840E-02
-8.7500000e-01	-1.826790E-02	-1.737363E-02	-2.209616E-02
-8.5000000e-01	-1.696631E-02	-1.601550E-02	-2.069550E-02
-8.2500000e-01	-1.568612E-02	-1.468262E-02	-1.930856E-02
-8.0000000e-01	-1.442972E-02	-1.337762E-02	-1.793782E-02
-7.7500000e-01	-1.319926E-02	-1.210311E-02	-1.658583E-02
-7.5000000e-01	-1.199673E-02	-1.086191E-02	-1.525450E-02
-7.2500000e-01	-1.082427E-02	-9.657411E-03	-1.394473E-02
-7.0000000e-01	-9.684638E-03	-8.493939E-03	-1.265685E-02
-6.7500000e-01	-8.581514E-03	-7.376930E-03	-1.139180E-02
-6.5000000e-01	-7.519607E-03	-6.312929E-03	-1.015194E-02
-6.2500000e-01	-6.504547E-03	-5.309438E-03	-8.941318E-03
-6.0000000e-01	-5.542688E-03	-4.374618E-03	-7.765735E-03
-5.7500000e-01	-4.640772E-03	-3.516890E-03	-6.632945E-03
-5.5000000e-01	-3.805524E-03	-2.744483E-03	-5.552946E-03
-5.2500000e-01	-3.043248E-03	-2.065103E-03	-4.538201E-03
-5.0000000e-01	-2.359647E-03	-1.485677E-03	-3.603412E-03
-4.7500000e-01	-1.760020E-03	-1.011779E-03	-2.764265E-03
-4.5000000e-01	-1.249702E-03	-6.458403E-04	-2.034716E-03
-4.2500000e-01	-8.339835E-04	-3.838582E-04	-1.423545E-03
-4.0000000e-01	-5.162389E-04	-2.125448E-04	-9.327605E-04
-3.7500000e-01	-2.937329E-04	-1.106466E-04	-5.596330E-04
-3.5000000e-01	-1.537279E-04	-5.497263E-05	-2.989533E-04

-3.2500000e-01	-7.493357E-05	-2.649171E-05	-1.392987E-04
-3.0000000e-01	-3.471511E-05	-1.256760E-05	-5.693658E-05
-2.7500000e-01	-1.563019E-05	-5.952723E-06	-2.113755E-05
-2.5000000e-01	-7.001335E-06	-2.863206E-06	-7.478945E-06
-2.2500000e-01	-3.215160E-06	-1.433628E-06	-2.669259E-06
-2.0000000e-01	-1.576700E-06	-7.729597E-07	-1.039352E-06
-1.7500000e-01	-8.691669E-07	-4.659048E-07	-4.927445E-07
-1.5000000e-01	-5.602970E-07	-3.210513E-07	-3.061011E-07
-1.2500000e-01	-4.211770E-07	-2.506183E-07	-2.379539E-07
-1.0000000e-01	-3.542844E-07	-2.144259E-07	-2.089405E-07
-7.5000000e-02	-3.182781E-07	-1.940781E-07	-1.931392E-07
-5.0000000e-02	-2.956734E-07	-1.811414E-07	-1.820767E-07
-2.5000000e-02	-2.790923E-07	-1.717494E-07	-1.729565E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[Pullup]

-1.5000000e+00	1.389728E-02	1.504401E-02	1.3495E-02
-1.4750000e+00	1.392266E-02	1.515940E-02	1.3511E-02
-1.4250000e+00	1.394549E-02	1.534861E-02	1.3532E-02
-1.3750000e+00	1.393984E-02	1.547700E-02	1.3542E-02
-1.3250000e+00	1.391859E-02	1.554357E-02	1.3545E-02
-1.2750000e+00	1.389341E-02	1.555550E-02	1.3540E-02
-1.2250000e+00	1.387050E-02	1.552788E-02	1.3526E-02
-1.1750000e+00	1.384963E-02	1.548081E-02	1.3502E-02
-1.1250000e+00	1.382685E-02	1.543388E-02	1.3467E-02
-1.0750000e+00	1.379804E-02	1.539856E-02	1.3421E-02
-1.0250000e+00	1.376042E-02	1.537452E-02	1.3363E-02
-9.7500000e-01	1.371257E-02	1.535474E-02	1.3293E-02
-9.2500000e-01	1.365380E-02	1.533271E-02	1.3210E-02
-8.7500000e-01	1.358379E-02	1.530481E-02	1.3113E-02
-8.2500000e-01	1.350199E-02	1.526951E-02	1.3001E-02
-7.7500000e-01	1.340734E-02	1.522537E-02	1.2873E-02
-7.2500000e-01	1.329767E-02	1.516783E-02	1.2725E-02
-6.7500000e-01	1.316879E-02	1.508258E-02	1.2554E-02
-6.2500000e-01	1.301213E-02	1.493400E-02	1.2352E-02
-5.7500000e-01	1.280843E-02	1.465359E-02	1.2107E-02
-5.2500000e-01	1.251269E-02	1.414154E-02	1.1797E-02
-4.7500000e-01	1.203560E-02	1.330397E-02	1.1382E-02
-4.2500000e-01	1.126665E-02	1.214514E-02	1.0778E-02
-3.7500000e-01	1.018437E-02	1.079032E-02	9.8667E-03
-3.2500000e-01	8.905568E-03	9.358893E-03	8.6724E-03
-2.7500000e-01	7.550642E-03	7.907034E-03	7.3614E-03
-2.2500000e-01	6.175032E-03	6.454310E-03	6.0240E-03
-1.7500000e-01	4.796858E-03	5.006794E-03	4.6832E-03
-1.2500000e-01	3.421222E-03	3.566345E-03	3.3432E-03
-7.5000000e-02	2.049479E-03	2.133648E-03	2.0047E-03
-2.5000000e-02	6.820421E-04	7.091043E-04	6.6784E-04
0.0000000e+00	1.125100E-09	4.014300E-10	2.6237E-09
2.5000000e-02	-6.802155E-04	-7.060015E-04	-6.6696E-04
7.5000000e-02	-2.032965E-03	-2.105590E-03	-1.9968E-03
1.2500000e-01	-3.375119E-03	-3.487987E-03	-3.3211E-03
1.7500000e-01	-4.706231E-03	-4.852382E-03	-4.6395E-03
2.2500000e-01	-6.025837E-03	-6.197914E-03	-5.9518E-03

2.7500000e-01	-7.333440E-03	-7.523661E-03	-7.2578E-03
3.2500000e-01	-8.628517E-03	-8.828634E-03	-8.5572E-03
3.7500000e-01	-9.910511E-03	-1.011178E-02	-9.8498E-03
4.2500000e-01	-1.117883E-02	-1.137197E-02	-1.1135E-02
4.7500000e-01	-1.243286E-02	-1.260797E-02	-1.2413E-02
5.2500000e-01	-1.367192E-02	-1.381848E-02	-1.3683E-02
5.7500000e-01	-1.489533E-02	-1.500209E-02	-1.4945E-02
6.2500000e-01	-1.610232E-02	-1.615730E-02	-1.6198E-02
6.7500000e-01	-1.729210E-02	-1.728247E-02	-1.7442E-02
7.2500000e-01	-1.846383E-02	-1.837588E-02	-1.8677E-02
7.7500000e-01	-1.961663E-02	-1.943566E-02	-1.9902E-02
8.2500000e-01	-2.074956E-02	-2.045990E-02	-2.1116E-02
8.7500000e-01	-2.186165E-02	-2.144666E-02	-2.2320E-02
9.2500000e-01	-2.295193E-02	-2.239415E-02	-2.3513E-02
9.7500000e-01	-2.401949E-02	-2.330089E-02	-2.4694E-02
1.0250000e+00	-2.506353E-02	-2.416589E-02	-2.5862E-02
1.0750000e+00	-2.608351E-02	-2.498853E-02	-2.7019E-02
1.1250000e+00	-2.707921E-02	-2.576811E-02	-2.8162E-02
1.1750000e+00	-2.805064E-02	-2.650347E-02	-2.9293E-02
1.2250000e+00	-2.899777E-02	-2.719285E-02	-3.0411E-02
1.2750000e+00	-2.992027E-02	-2.783418E-02	-3.1515E-02
1.3250000e+00	-3.081737E-02	-2.842555E-02	-3.2607E-02
1.3750000e+00	-3.168792E-02	-2.896616E-02	-3.3684E-02
1.4250000e+00	-3.253039E-02	-2.945719E-02	-3.4746E-02
1.4750000e+00	-3.334289E-02	-2.990258E-02	-3.5792E-02
1.5250000e+00	-3.412325E-02	-3.030862E-02	-3.6822E-02
1.5750000e+00	-3.486904E-02	-3.068257E-02	-3.7833E-02
1.6250000e+00	-3.557765E-02	-3.103121E-02	-3.8826E-02
1.6750000e+00	-3.624648E-02	-3.136007E-02	-3.9797E-02
1.7250000e+00	-3.687328E-02	-3.167336E-02	-4.0746E-02
1.7750000e+00	-3.745664E-02	-3.197424E-02	-4.1671E-02
1.8250000e+00	-3.799669E-02	-3.226504E-02	-4.2569E-02
1.8750000e+00	-3.849556E-02	-3.254752E-02	-4.3438E-02
1.9250000e+00	-3.895731E-02	-3.282305E-02	-4.4275E-02
1.9750000e+00	-3.938722E-02	-3.309268E-02	-4.5078E-02
2.0250000e+00	-3.979072E-02	-3.335727E-02	-4.5843E-02
2.0750000e+00	-4.017273E-02	-3.361751E-02	-4.6567E-02
2.1250000e+00	-4.053726E-02	-3.387396E-02	-4.7248E-02
2.1750000e+00	-4.088753E-02	-3.412707E-02	-4.7884E-02
2.2250000e+00	-4.122603E-02	-3.437727E-02	-4.8477E-02
2.2750000e+00	-4.155471E-02	-3.462485E-02	-4.9029E-02
2.3250000e+00	-4.187511E-02	-3.487012E-02	-4.9543E-02
2.3750000e+00	-4.218845E-02	-3.511332E-02	-5.0025E-02
2.4250000e+00	-4.249571E-02	-3.535466E-02	-5.0480E-02
2.4750000e+00	-4.279769E-02	-3.559433E-02	-5.0912E-02
2.5250000e+00	-4.309507E-02	-3.583247E-02	-5.1326E-02
2.5750000e+00	-4.338839E-02	-3.606925E-02	-5.1724E-02
2.6250000e+00	-4.367813E-02	-3.630478E-02	-5.2110E-02
2.6750000e+00	-4.396467E-02	-3.653918E-02	-5.2484E-02
2.7250000e+00	-4.424835E-02	-3.677256E-02	-5.2850E-02
2.7750000e+00	-4.452948E-02	-3.700500E-02	-5.3207E-02
2.8250000e+00	-4.480830E-02	-3.723659E-02	-5.3558E-02
2.8750000e+00	-4.508503E-02	-3.746739E-02	-5.3903E-02
2.9250000e+00	-4.535988E-02	-3.769749E-02	-5.4242E-02

2.9750000e+00	-4.563300E-02	-3.792696E-02	-5.4577E-02
3.0000000e+00	-4.576897E-02	-3.804147E-02	-5.4743E-02
[POWER Clamp]			
Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	4.450136E-02	4.385767E-02	4.780182E-02
-1.4750000e+00	4.325737E-02	4.248503E-02	4.651241E-02
-1.4500000e+00	4.202627E-02	4.113177E-02	4.522926E-02
-1.4250000e+00	4.080680E-02	3.979850E-02	4.395156E-02
-1.4000000e+00	3.959743E-02	3.848563E-02	4.267873E-02
-1.3750000e+00	3.839648E-02	3.719324E-02	4.141044E-02
-1.3500000e+00	3.720221E-02	3.592106E-02	4.014659E-02
-1.3250000e+00	3.601296E-02	3.466841E-02	3.888726E-02
-1.3000000e+00	3.482735E-02	3.343415E-02	3.763263E-02
-1.2750000e+00	3.364438E-02	3.221669E-02	3.638297E-02
-1.2500000e+00	3.246358E-02	3.101397E-02	3.513857E-02
-1.2250000e+00	3.128497E-02	2.982356E-02	3.389973E-02
-1.2000000e+00	3.010901E-02	2.864279E-02	3.266673E-02
-1.1750000e+00	2.893648E-02	2.746896E-02	3.143985E-02
-1.1500000e+00	2.776826E-02	2.629964E-02	3.021938E-02
-1.1250000e+00	2.660528E-02	2.513304E-02	2.900561E-02
-1.1000000e+00	2.544841E-02	2.396824E-02	2.779886E-02
-1.0750000e+00	2.429844E-02	2.280536E-02	2.659948E-02
-1.0500000e+00	2.315612E-02	2.164543E-02	2.540789E-02
-1.0250000e+00	2.202214E-02	2.049007E-02	2.422457E-02
-1.0000000e+00	2.089719E-02	1.934117E-02	2.305009E-02
-9.7500000e-01	1.978197E-02	1.820065E-02	2.188514E-02
-9.5000000e-01	1.867722E-02	1.707028E-02	2.073052E-02
-9.2500000e-01	1.758372E-02	1.595172E-02	1.958719E-02
-9.0000000e-01	1.650228E-02	1.484648E-02	1.845618E-02
-8.7500000e-01	1.543373E-02	1.375596E-02	1.733862E-02
-8.5000000e-01	1.437889E-02	1.268153E-02	1.623553E-02
-8.2500000e-01	1.333851E-02	1.162449E-02	1.514772E-02
-8.0000000e-01	1.231328E-02	1.058622E-02	1.407562E-02
-7.7500000e-01	1.130388E-02	9.568206E-03	1.301922E-02
-7.5000000e-01	1.031106E-02	8.572276E-03	1.197827E-02
-7.2500000e-01	9.335806E-03	7.600753E-03	1.095257E-02
-7.0000000e-01	8.379549E-03	6.656721E-03	9.942222E-03
-6.7500000e-01	7.444326E-03	5.744302E-03	8.947921E-03
-6.5000000e-01	6.532997E-03	4.868952E-03	7.971051E-03
-6.2500000e-01	5.649458E-03	4.037787E-03	7.013870E-03
-6.0000000e-01	4.798902E-03	3.259897E-03	6.079707E-03
-5.7500000e-01	3.988134E-03	2.546530E-03	5.173245E-03
-5.5000000e-01	3.225930E-03	1.910856E-03	4.300910E-03
-5.2500000e-01	2.523332E-03	1.366712E-03	3.471447E-03
-5.0000000e-01	1.893615E-03	9.256050E-04	2.696680E-03
-4.7500000e-01	1.351332E-03	5.919303E-04	1.992354E-03
-4.5000000e-01	9.095438E-04	3.586832E-04	1.378419E-03
-4.2500000e-01	5.747929E-04	2.078355E-04	8.770400E-04
-4.0000000e-01	3.418453E-04	1.164218E-04	5.053108E-04
-3.7500000e-01	1.930954E-04	6.360210E-05	2.627390E-04
-3.5000000e-01	1.048276E-04	3.408364E-05	1.249615E-04
-3.2500000e-01	5.523970E-05	1.799151E-05	5.555911E-05
-3.0000000e-01	2.845373E-05	9.394192E-06	2.354502E-05

-2.7500000e-01	1.440808E-05	4.878770E-06	9.668085E-06
-2.5000000e-01	7.217646E-06	2.540607E-06	3.917725E-06
-2.2500000e-01	3.608426E-06	1.343333E-06	1.610387E-06
-2.0000000e-01	1.824961E-06	7.351342E-07	7.040805E-07
-1.7500000e-01	9.538097E-07	4.274933E-07	3.518120E-07
-1.5000000e-01	5.312391E-07	2.717598E-07	2.143493E-07
-1.2500000e-01	3.264285E-07	1.922225E-07	1.590780E-07
-1.0000000e-01	2.262355E-07	1.506538E-07	1.350141E-07
-7.5000000e-02	1.758303E-07	1.278715E-07	1.227817E-07
-5.0000000e-02	1.489090E-07	1.143246E-07	1.150734E-07
-2.5000000e-02	1.332080E-07	1.054156E-07	1.091537E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[Ramp]

R\_load = 50.00Ohm

typ	min	max
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dV/dt\_r 532.022mV/119.423ps 491.319mV/165.185ps 567.619mV/91.565ps

dV/dt\_f 537.976mV/129.806ps 497.460mV/173.213ps 578.029mV/105.657ps

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[Rising Waveform]

V\_fixture = 1.500V

V\_fixture\_min = 1.425V

V\_fixture\_max = 1.575V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	6.8316E-01	6.4198E-01	7.1381E-01
1.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
2.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
3.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
4.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
5.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
6.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
7.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
8.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
9.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
1.00E-10	6.8316E-01	6.4198E-01	7.1381E-01
1.10E-10	6.8316E-01	6.4198E-01	7.1381E-01
1.20E-10	6.8316E-01	6.4198E-01	7.1381E-01
1.30E-10	6.8316E-01	6.4198E-01	7.1381E-01
1.40E-10	6.8316E-01	6.4198E-01	7.2174E-01
1.50E-10	6.8316E-01	6.4198E-01	7.5887E-01
1.60E-10	6.8316E-01	6.4198E-01	8.2016E-01
1.70E-10	6.8316E-01	6.4198E-01	9.1349E-01
1.80E-10	6.8316E-01	6.4198E-01	1.0158E+00
1.90E-10	6.8316E-01	6.4198E-01	1.1058E+00
2.00E-10	6.8631E-01	6.4198E-01	1.1722E+00
2.10E-10	6.9781E-01	6.4198E-01	1.2169E+00
2.20E-10	7.2546E-01	6.4298E-01	1.2448E+00

2.30E-10	7.5875E-01	6.4398E-01	1.2647E+00
2.40E-10	8.1582E-01	6.4498E-01	1.2837E+00
2.50E-10	8.7535E-01	6.4698E-01	1.3078E+00
2.60E-10	9.4749E-01	6.5598E-01	1.3414E+00
2.70E-10	1.0174E+00	6.6598E-01	1.3863E+00
2.80E-10	1.0731E+00	6.7898E-01	1.4363E+00
2.90E-10	1.1226E+00	6.9347E-01	1.4802E+00
3.00E-10	1.1579E+00	7.1337E-01	1.5132E+00
3.10E-10	1.1837E+00	7.4966E-01	1.5358E+00
3.20E-10	1.2048E+00	7.9147E-01	1.5503E+00
3.30E-10	1.2195E+00	8.3328E-01	1.5592E+00
3.40E-10	1.2343E+00	8.7936E-01	1.5645E+00
3.50E-10	1.2494E+00	9.3100E-01	1.5675E+00
3.60E-10	1.2675E+00	9.8264E-01	1.5691E+00
3.70E-10	1.2874E+00	1.0268E+00	1.5702E+00
3.80E-10	1.3136E+00	1.0618E+00	1.5750E+00
3.90E-10	1.3416E+00	1.0967E+00	1.5750E+00
4.00E-10	1.3720E+00	1.1198E+00	1.5750E+00
4.10E-10	1.4006E+00	1.1392E+00	1.5750E+00
4.20E-10	1.4277E+00	1.1550E+00	1.5750E+00
4.30E-10	1.4490E+00	1.1666E+00	1.5750E+00
4.40E-10	1.4656E+00	1.1779E+00	1.5750E+00
4.50E-10	1.4779E+00	1.1874E+00	1.5750E+00
4.60E-10	1.4845E+00	1.1970E+00	1.5750E+00
4.70E-10	1.4896E+00	1.2077E+00	1.5750E+00
4.80E-10	1.4922E+00	1.2186E+00	1.5750E+00
4.90E-10	1.4951E+00	1.2308E+00	1.5750E+00
5.00E-10	1.4974E+00	1.2441E+00	1.5750E+00
5.10E-10	1.4984E+00	1.2582E+00	1.5750E+00
5.20E-10	1.4991E+00	1.2741E+00	1.5750E+00
5.30E-10	1.5000E+00	1.2901E+00	1.5750E+00
5.40E-10	1.5000E+00	1.3071E+00	1.5750E+00
5.50E-10	1.5000E+00	1.3240E+00	1.5750E+00
5.60E-10	1.5000E+00	1.3409E+00	1.5750E+00
5.70E-10	1.5000E+00	1.3579E+00	1.5750E+00
5.80E-10	1.5000E+00	1.3720E+00	1.5750E+00
5.90E-10	1.5000E+00	1.3824E+00	1.5750E+00
6.00E-10	1.5000E+00	1.3929E+00	1.5750E+00
6.10E-10	1.5000E+00	1.4033E+00	1.5750E+00
6.20E-10	1.5000E+00	1.4094E+00	1.5750E+00
6.30E-10	1.5000E+00	1.4154E+00	1.5750E+00
6.40E-10	1.5000E+00	1.4204E+00	1.5750E+00
6.50E-10	1.5000E+00	1.4244E+00	1.5750E+00
6.60E-10	1.5000E+00	1.4244E+00	1.5750E+00
6.70E-10	1.5000E+00	1.4244E+00	1.5750E+00
6.80E-10	1.5000E+00	1.4244E+00	1.5750E+00
6.90E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.00E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.10E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.20E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.30E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.40E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.50E-10	1.5000E+00	1.4244E+00	1.5750E+00

[Falling Waveform]

V\_fixture = 1.500V

V\_fixture\_min = 1.425V

V\_fixture\_max = 1.575V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	1.5000E+00	1.4244E+00	1.5750E+00
1.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
2.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
3.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
4.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
5.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
6.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
7.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
8.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
9.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
1.00E-10	1.5000E+00	1.4244E+00	1.5750E+00
1.10E-10	1.5000E+00	1.4244E+00	1.5750E+00
1.20E-10	1.5000E+00	1.4244E+00	1.5750E+00
1.30E-10	1.5000E+00	1.4244E+00	1.5678E+00
1.40E-10	1.5000E+00	1.4244E+00	1.5356E+00
1.50E-10	1.5000E+00	1.4244E+00	1.4918E+00
1.60E-10	1.5000E+00	1.4244E+00	1.4391E+00
1.70E-10	1.5000E+00	1.4244E+00	1.3811E+00
1.80E-10	1.5000E+00	1.4244E+00	1.3164E+00
1.90E-10	1.5000E+00	1.4244E+00	1.2491E+00
2.00E-10	1.4916E+00	1.4244E+00	1.1872E+00
2.10E-10	1.4779E+00	1.4244E+00	1.1373E+00
2.20E-10	1.4526E+00	1.4244E+00	1.1004E+00
2.30E-10	1.4258E+00	1.4244E+00	1.0723E+00
2.40E-10	1.3882E+00	1.4244E+00	1.0470E+00
2.50E-10	1.3499E+00	1.4244E+00	1.0149E+00
2.60E-10	1.3051E+00	1.4244E+00	9.8066E-01
2.70E-10	1.2605E+00	1.4244E+00	9.3547E-01
2.80E-10	1.2170E+00	1.4244E+00	8.8759E-01
2.90E-10	1.1745E+00	1.4194E+00	8.4268E-01
3.00E-10	1.1378E+00	1.4094E+00	8.0700E-01
3.10E-10	1.1029E+00	1.3963E+00	7.7745E-01
3.20E-10	1.0753E+00	1.3791E+00	7.5868E-01
3.30E-10	1.0489E+00	1.3558E+00	7.4505E-01
3.40E-10	1.0261E+00	1.3325E+00	7.3501E-01
3.50E-10	1.0023E+00	1.3056E+00	7.2933E-01
3.60E-10	9.7620E-01	1.2772E+00	7.2516E-01
3.70E-10	9.4367E-01	1.2488E+00	7.2226E-01
3.80E-10	9.0696E-01	1.2213E+00	7.2113E-01
3.90E-10	8.7376E-01	1.1938E+00	7.1999E-01
4.00E-10	8.3990E-01	1.1670E+00	7.1886E-01
4.10E-10	8.0957E-01	1.1432E+00	7.1825E-01
4.20E-10	7.8300E-01	1.1193E+00	7.1767E-01
4.30E-10	7.6093E-01	1.0968E+00	7.1709E-01
4.40E-10	7.4264E-01	1.0762E+00	7.1654E-01
4.50E-10	7.2827E-01	1.0555E+00	7.1600E-01



4.60E-10	7.1647E-01	1.0350E+00	7.1545E-01
4.70E-10	7.0685E-01	1.0145E+00	7.1510E-01
4.80E-10	6.9834E-01	9.9409E-01	7.1479E-01
4.90E-10	6.9107E-01	9.6900E-01	7.1449E-01
5.00E-10	6.8566E-01	9.4342E-01	7.1433E-01
5.10E-10	6.8316E-01	9.1269E-01	7.1421E-01
5.20E-10	6.8316E-01	8.8416E-01	7.1410E-01
5.30E-10	6.8316E-01	8.5763E-01	7.1399E-01
5.40E-10	6.8316E-01	8.3261E-01	7.1388E-01
5.50E-10	6.8316E-01	8.0994E-01	7.1380E-01
5.60E-10	6.8316E-01	7.8727E-01	7.1380E-01
5.70E-10	6.8316E-01	7.6866E-01	7.1380E-01
5.80E-10	6.8316E-01	7.5240E-01	7.1380E-01
5.90E-10	6.8316E-01	7.3613E-01	7.1380E-01
6.00E-10	6.8316E-01	7.2289E-01	7.1380E-01
6.10E-10	6.8316E-01	7.1008E-01	7.1380E-01
6.20E-10	6.8316E-01	6.9855E-01	7.1380E-01
6.30E-10	6.8316E-01	6.9098E-01	7.1380E-01
6.40E-10	6.8316E-01	6.8198E-01	7.1380E-01
6.50E-10	6.8316E-01	6.7398E-01	7.1380E-01
6.60E-10	6.8316E-01	6.6298E-01	7.1380E-01
6.70E-10	6.8316E-01	6.5598E-01	7.1380E-01
6.80E-10	6.8316E-01	6.5098E-01	7.1380E-01
6.90E-10	6.8316E-01	6.4798E-01	7.1380E-01
7.00E-10	6.8316E-01	6.4598E-01	7.1380E-01
7.10E-10	6.8316E-01	6.4398E-01	7.1380E-01
7.20E-10	6.8316E-01	6.4298E-01	7.1380E-01
7.30E-10	6.8316E-01	6.4198E-01	7.1380E-01
7.40E-10	6.8316E-01	6.4198E-01	7.1380E-01
7.50E-10	6.8316E-01	6.4198E-01	7.1380E-01

[Rising Waveform]

V\_fixture = 0.000V

V\_fixture\_min = 0.000V

V\_fixture\_max = 0.000V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	2.1656E-05	4.5001E-04	1.9840E-06
1.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
2.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
3.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
4.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
5.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
6.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
7.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
8.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
9.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
1.00E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.10E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.20E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.30E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.40E-10	2.1656E-05	4.5001E-04	1.9840E-06

1.50E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.60E-10	2.1656E-05	4.5001E-04	4.8671E-02
1.70E-10	2.1656E-05	4.5001E-04	1.0238E-01
1.80E-10	2.1656E-05	4.5001E-04	1.6978E-01
1.90E-10	2.1656E-05	4.5001E-04	2.4540E-01
2.00E-10	2.1656E-05	4.5001E-04	3.2196E-01
2.10E-10	2.1656E-05	4.5001E-04	3.9122E-01
2.20E-10	6.9115E-03	4.5001E-04	4.4667E-01
2.30E-10	2.1916E-02	4.5001E-04	4.8493E-01
2.40E-10	4.9605E-02	4.5001E-04	5.1216E-01
2.50E-10	8.2158E-02	4.5001E-04	5.3458E-01
2.60E-10	1.2545E-01	4.5001E-04	5.6186E-01
2.70E-10	1.7346E-01	4.5001E-04	6.0105E-01
2.80E-10	2.2437E-01	4.5001E-04	6.5263E-01
2.90E-10	2.7673E-01	4.5001E-04	7.0953E-01
3.00E-10	3.2396E-01	7.4200E-04	7.5988E-01
3.10E-10	3.6830E-01	6.9399E-03	7.9680E-01
3.20E-10	4.0406E-01	2.2538E-02	8.2326E-01
3.30E-10	4.3438E-01	3.8136E-02	8.4173E-01
3.40E-10	4.5821E-01	6.0559E-02	8.5396E-01
3.50E-10	4.7742E-01	9.0788E-02	8.6342E-01
3.60E-10	4.9488E-01	1.2102E-01	8.7131E-01
3.70E-10	5.1097E-01	1.5625E-01	8.7541E-01
3.80E-10	5.3186E-01	1.9335E-01	8.7950E-01
3.90E-10	5.5704E-01	2.3045E-01	8.8129E-01
4.00E-10	5.8693E-01	2.6299E-01	8.8750E-01
4.10E-10	6.3150E-01	2.9548E-01	8.8750E-01
4.20E-10	6.6900E-01	3.2621E-01	8.8750E-01
4.30E-10	7.0343E-01	3.5161E-01	8.8750E-01
4.40E-10	7.3251E-01	3.7701E-01	8.8750E-01
4.50E-10	7.5834E-01	3.9887E-01	8.8750E-01
4.60E-10	7.7553E-01	4.1920E-01	8.8750E-01
4.70E-10	7.9054E-01	4.3893E-01	8.8750E-01
4.80E-10	7.9989E-01	4.5025E-01	8.8750E-01
4.90E-10	8.0628E-01	4.6257E-01	8.8750E-01
5.00E-10	8.1206E-01	4.7874E-01	8.8750E-01
5.10E-10	8.1613E-01	4.8572E-01	8.8750E-01
5.20E-10	8.2020E-01	4.9920E-01	8.8750E-01
5.30E-10	8.2427E-01	5.1505E-01	8.8750E-01
5.40E-10	8.2778E-01	5.3090E-01	8.8750E-01
5.50E-10	8.3015E-01	5.5341E-01	8.8750E-01
5.60E-10	8.3015E-01	5.7647E-01	8.8750E-01
5.70E-10	8.3015E-01	5.9813E-01	8.8750E-01
5.80E-10	8.3015E-01	6.2467E-01	8.8750E-01
5.90E-10	8.3015E-01	6.5120E-01	8.8750E-01
6.00E-10	8.3015E-01	6.7309E-01	8.8750E-01
6.10E-10	8.3015E-01	6.9494E-01	8.8750E-01
6.20E-10	8.3015E-01	7.1298E-01	8.8750E-01
6.30E-10	8.3015E-01	7.2761E-01	8.8750E-01
6.40E-10	8.3015E-01	7.4187E-01	8.8750E-01
6.50E-10	8.3015E-01	7.5387E-01	8.8750E-01
6.60E-10	8.3015E-01	7.6287E-01	8.8750E-01
6.70E-10	8.3015E-01	7.7087E-01	8.8750E-01
6.80E-10	8.3015E-01	7.7787E-01	8.8750E-01

6.90E-10	8.3015E-01	7.8587E-01	8.8750E-01
7.00E-10	8.3015E-01	7.8987E-01	8.8750E-01
7.10E-10	8.3015E-01	7.9287E-01	8.8750E-01
7.20E-10	8.3015E-01	7.9387E-01	8.8750E-01
7.30E-10	8.3015E-01	7.9487E-01	8.8750E-01
7.40E-10	8.3015E-01	7.9587E-01	8.8750E-01
7.50E-10	8.3015E-01	7.9587E-01	8.8750E-01

[Falling Waveform]

V\_fixture = 0.000V

V\_fixture\_min = 0.000V

V\_fixture\_max = 0.000V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	8.3015E-01	7.9587E-01	8.8750E-01
1.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
2.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
3.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
4.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
5.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
6.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
7.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
8.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
9.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
1.00E-10	8.3015E-01	7.9587E-01	8.8750E-01
1.10E-10	8.3015E-01	7.9587E-01	8.8750E-01
1.20E-10	8.3015E-01	7.9587E-01	8.8443E-01
1.30E-10	8.3015E-01	7.9587E-01	8.7452E-01
1.40E-10	8.3015E-01	7.9587E-01	8.4189E-01
1.50E-10	8.3015E-01	7.9587E-01	7.8920E-01
1.60E-10	8.3015E-01	7.9587E-01	7.1329E-01
1.70E-10	8.2717E-01	7.9587E-01	6.2580E-01
1.80E-10	8.2022E-01	7.9487E-01	5.4691E-01
1.90E-10	8.0849E-01	7.9287E-01	4.8081E-01
2.00E-10	7.8766E-01	7.8987E-01	4.2673E-01
2.10E-10	7.5342E-01	7.8587E-01	3.8302E-01
2.20E-10	7.0770E-01	7.8087E-01	3.4957E-01
2.30E-10	6.4643E-01	7.7487E-01	3.1949E-01
2.40E-10	5.7951E-01	7.6687E-01	2.8668E-01
2.50E-10	5.1395E-01	7.5687E-01	2.5182E-01
2.60E-10	4.5050E-01	7.4187E-01	2.1162E-01
2.70E-10	4.0155E-01	7.2460E-01	1.7228E-01
2.80E-10	3.6096E-01	7.0145E-01	1.3355E-01
2.90E-10	3.2886E-01	6.6392E-01	1.0138E-01
3.00E-10	3.0074E-01	6.2500E-01	7.3166E-02
3.10E-10	2.7872E-01	5.8181E-01	5.0761E-02
3.20E-10	2.6007E-01	5.3521E-01	3.5793E-02
3.30E-10	2.4432E-01	4.8940E-01	2.3892E-02
3.40E-10	2.2391E-01	4.4680E-01	1.6931E-02
3.50E-10	1.9806E-01	4.0419E-01	1.2192E-02
3.60E-10	1.7058E-01	3.7123E-01	8.9365E-03
3.70E-10	1.4036E-01	3.4007E-01	7.2358E-03

3.80E-10	1.1118E-01	3.1448E-01	5.9670E-03
3.90E-10	8.3244E-02	2.9477E-01	5.3516E-03
4.00E-10	6.1742E-02	2.7568E-01	4.7363E-03
4.10E-10	4.4018E-02	2.6075E-01	4.1060E-03
4.20E-10	3.0136E-02	2.4582E-01	3.4124E-03
4.30E-10	2.2486E-02	2.3054E-01	2.7189E-03
4.40E-10	1.5763E-02	2.1515E-01	2.0253E-03
4.50E-10	9.0387E-03	1.9777E-01	1.6262E-03
4.60E-10	5.3194E-03	1.7999E-01	1.2305E-03
4.70E-10	3.4381E-03	1.6207E-01	8.3483E-04
4.80E-10	1.5568E-03	1.4205E-01	6.3758E-04
4.90E-10	6.2322E-04	1.2203E-01	4.9475E-04
5.00E-10	1.0502E-04	1.0187E-01	3.5192E-04
5.10E-10	2.1656E-05	8.1652E-02	2.0909E-04
5.20E-10	2.1656E-05	6.3154E-02	6.6265E-05
5.30E-10	2.1656E-05	4.7873E-02	1.9840E-06
5.40E-10	2.1656E-05	3.2593E-02	1.9840E-06
5.50E-10	2.1656E-05	2.4507E-02	1.9840E-06
5.60E-10	2.1656E-05	1.6483E-02	1.9840E-06
5.70E-10	2.1656E-05	1.1660E-02	1.9840E-06
5.80E-10	2.1656E-05	8.6750E-03	1.9840E-06
5.90E-10	2.1656E-05	6.2443E-03	1.9840E-06
6.00E-10	2.1656E-05	5.2473E-03	1.9840E-06
6.10E-10	2.1656E-05	4.2503E-03	1.9840E-06
6.20E-10	2.1656E-05	3.6374E-03	1.9840E-06
6.30E-10	2.1656E-05	3.0570E-03	1.9840E-06
6.40E-10	2.1656E-05	2.5197E-03	1.9840E-06
6.50E-10	2.1656E-05	2.0157E-03	1.9840E-06
6.60E-10	2.1656E-05	1.5499E-03	1.9840E-06
6.70E-10	2.1656E-05	1.0325E-03	1.9840E-06
6.80E-10	2.1656E-05	8.8691E-04	1.9840E-06
6.90E-10	2.1656E-05	7.4127E-04	1.9840E-06
7.00E-10	2.1656E-05	5.9564E-04	1.9840E-06
7.10E-10	2.1656E-05	4.5001E-04	1.9840E-06
7.20E-10	2.1656E-05	4.5001E-04	1.9840E-06
7.30E-10	2.1656E-05	4.5001E-04	1.9840E-06
7.40E-10	2.1656E-05	4.5001E-04	1.9840E-06
7.50E-10	2.1656E-05	4.5001E-04	1.9840E-06

\*\*\*\*\*  
MODEL DQ\_40\_1600 (40 Ohm Data I/O with 120ohm ODT, 1333/1600 Mbps)  
\*\*\*\*\*

[Model] DQ\_40\_ODT120\_1600

Model\_type I/O

Vinl = 600.000mV

Vinh = 900.000mV

Vmeas = 750.000mV

Vref = 750.000mV

Cref = 0.0pF

Rref = 25.000Ohm

	typ	min	max
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C\_comp 1.078pF 0.966pF 1.223pF

| Note: C\_comp changes when the ODT circuit is enabled.

[Model Spec]

| Input threshold voltage corners

Vinl 0.6000V 0.5625V 0.6375V
Vinh 0.9000V 0.8625V 0.9375V

| Measurement voltage corners

Vmeas 0.7500V 0.7125V 0.7875V

| Timing spec test load voltage corners

Vref 0.7500V 0.7125V 0.7875V

| Dynamic Overshoot Parameters from DDR3 Specification

|D\_overshoot\_ampl\_h 0.40 NA NA
|D\_overshoot\_ampl\_l 0.40 NA NA
|D\_overshoot\_area\_h 0.13n NA NA
|D\_overshoot\_area\_l 0.13n NA NA

[[Receiver Thresholds]

|Vth = 0.750V
|Vth\_min = 0.7350V
|Vth\_max = 0.7650V
|Vinh\_ac = 0.150V
|Vinh\_dc = 0.100V
|Vinl\_ac = -0.150V
|Vinl\_dc = -0.100V
|Tslew\_ac = 5.000ns |Not specified, so set to high value
|Threshold\_sensitivity = 0.50
|Reference\_supply Pullup\_ref

[Add Submodel]

| Submodel Name Mode
120Ohm\_ODT Non-Driving

[Voltage Range] 1.5000V 1.4250V 1.5750V
[Pullup Reference] 1.5000V 1.4250V 1.5750V
[Temperature Range] 85.0 110.0 0.0

[Pulldown]

Table with 4 columns: Voltage, I(typ), I(min), I(max). Rows show current values for various voltage levels from -1.5000000e+00 to -1.2250000e+00.

-1.1750000e+00	-8.354170E-03	-8.748110E-03	-6.9506E-03
-1.1250000e+00	-8.739220E-03	-9.223740E-03	-7.3262E-03
-1.0750000e+00	-9.116960E-03	-9.695520E-03	-7.6961E-03
-1.0250000e+00	-9.485740E-03	-1.016235E-02	-8.0593E-03
-9.7500000e-01	-9.843550E-03	-1.062303E-02	-8.4141E-03
-9.2500000e-01	-1.018784E-02	-1.107598E-02	-8.7587E-03
-8.7500000e-01	-1.051515E-02	-1.151861E-02	-9.0906E-03
-8.2500000e-01	-1.082065E-02	-1.194611E-02	-9.4063E-03
-7.7500000e-01	-1.109723E-02	-1.234917E-02	-9.7010E-03
-7.2500000e-01	-1.133396E-02	-1.271052E-02	-9.9678E-03
-6.7500000e-01	-1.151368E-02	-1.300112E-02	-1.0196E-02
-6.2500000e-01	-1.161030E-02	-1.317732E-02	-1.0369E-02
-5.7500000e-01	-1.158847E-02	-1.318034E-02	-1.0460E-02
-5.2500000e-01	-1.140914E-02	-1.294110E-02	-1.0425E-02
-4.7500000e-01	-1.103661E-02	-1.239310E-02	-1.0195E-02
-4.2500000e-01	-1.042948E-02	-1.149942E-02	-9.7052E-03
-3.7500000e-01	-9.541331E-03	-1.031290E-02	-8.9368E-03
-3.2500000e-01	-8.402181E-03	-8.972323E-03	-7.9244E-03
-2.7500000e-01	-7.136897E-03	-7.584300E-03	-6.7526E-03
-2.2500000e-01	-5.837164E-03	-6.189682E-03	-5.5298E-03
-1.7500000e-01	-4.533342E-03	-4.799550E-03	-4.2997E-03
-1.2500000e-01	-3.232329E-03	-3.416866E-03	-3.0698E-03
-7.5000000e-02	-1.935664E-03	-2.042825E-03	-1.8409E-03
-2.5000000e-02	-6.439068E-04	-6.783475E-04	-6.1331E-04
0.0000000e+00	-2.495000E-09	-2.851000E-10	-4.3290E-09
2.5000000e-02	6.423542E-04	6.754144E-04	6.1284E-04
7.5000000e-02	1.921741E-03	2.016470E-03	1.8368E-03
1.2500000e-01	3.193668E-03	3.343638E-03	3.0583E-03
1.7500000e-01	4.457673E-03	4.655798E-03	4.2773E-03
2.2500000e-01	5.713247E-03	5.951703E-03	5.4937E-03
2.7500000e-01	6.959828E-03	7.229949E-03	6.7074E-03
3.2500000e-01	8.196792E-03	8.488947E-03	7.9183E-03
3.7500000e-01	9.423449E-03	9.726883E-03	9.1262E-03
4.2500000e-01	1.063902E-02	1.094167E-02	1.0331E-02
4.7500000e-01	1.184265E-02	1.213090E-02	1.1533E-02
5.2500000e-01	1.303336E-02	1.329176E-02	1.2731E-02
5.7500000e-01	1.421007E-02	1.442101E-02	1.3926E-02
6.2500000e-01	1.537155E-02	1.551502E-02	1.5117E-02
6.7500000e-01	1.651649E-02	1.657019E-02	1.6305E-02
7.2500000e-01	1.764350E-02	1.758380E-02	1.7488E-02
7.7500000e-01	1.875138E-02	1.855487E-02	1.8667E-02
8.2500000e-01	1.983945E-02	1.948346E-02	1.9842E-02
8.7500000e-01	2.090800E-02	2.036881E-02	2.1012E-02
9.2500000e-01	2.195802E-02	2.120815E-02	2.2178E-02
9.7500000e-01	2.299059E-02	2.199660E-02	2.3338E-02
1.0250000e+00	2.400623E-02	2.272804E-02	2.4493E-02
1.0750000e+00	2.500472E-02	2.339642E-02	2.5642E-02
1.1250000e+00	2.598518E-02	2.399791E-02	2.6785E-02
1.1750000e+00	2.694619E-02	2.453290E-02	2.7921E-02
1.2250000e+00	2.788582E-02	2.500673E-02	2.9050E-02
1.2750000e+00	2.880158E-02	2.542839E-02	3.0172E-02
1.3250000e+00	2.969048E-02	2.580810E-02	3.1286E-02
1.3750000e+00	3.054893E-02	2.615534E-02	3.2391E-02
1.4250000e+00	3.137276E-02	2.647793E-02	3.3486E-02

1.4750000e+00	3.215739E-02	2.678186E-02	3.4572E-02
1.5250000e+00	3.289823E-02	2.707162E-02	3.5646E-02
1.5750000e+00	3.359126E-02	2.735051E-02	3.6708E-02
1.6250000e+00	3.423408E-02	2.762095E-02	3.7757E-02
1.6750000e+00	3.482661E-02	2.788477E-02	3.8790E-02
1.7250000e+00	3.537149E-02	2.814329E-02	3.9807E-02
1.7750000e+00	3.587366E-02	2.839756E-02	4.0805E-02
1.8250000e+00	3.633928E-02	2.864834E-02	4.1781E-02
1.8750000e+00	3.677472E-02	2.889628E-02	4.2734E-02
1.9250000e+00	3.718582E-02	2.914184E-02	4.3660E-02
1.9750000e+00	3.757750E-02	2.938542E-02	4.4556E-02
2.0250000e+00	3.795380E-02	2.962733E-02	4.5417E-02
2.0750000e+00	3.831783E-02	2.986783E-02	4.6241E-02
2.1250000e+00	3.867208E-02	3.010713E-02	4.7025E-02
2.1750000e+00	3.901845E-02	3.034542E-02	4.7767E-02
2.2250000e+00	3.935843E-02	3.058286E-02	4.8466E-02
2.2750000e+00	3.969319E-02	3.081960E-02	4.9124E-02
2.3250000e+00	4.002364E-02	3.105576E-02	4.9743E-02
2.3750000e+00	4.035053E-02	3.129147E-02	5.0329E-02
2.4250000e+00	4.067444E-02	3.152686E-02	5.0885E-02
2.4750000e+00	4.099589E-02	3.176208E-02	5.1415E-02
2.5250000e+00	4.131527E-02	3.199724E-02	5.1923E-02
2.5750000e+00	4.163292E-02	3.223252E-02	5.2415E-02
2.6250000e+00	4.194914E-02	3.246808E-02	5.2891E-02
2.6750000e+00	4.226420E-02	3.270415E-02	5.3355E-02
2.7250000e+00	4.257832E-02	3.294093E-02	5.3809E-02
2.7750000e+00	4.289173E-02	3.317872E-02	5.4255E-02
2.8250000e+00	4.320461E-02	3.341781E-02	5.4693E-02
2.8750000e+00	4.351716E-02	3.365859E-02	5.5126E-02
2.9250000e+00	4.382954E-02	3.390146E-02	5.5553E-02
2.9750000e+00	4.414196E-02	3.414689E-02	5.5976E-02
3.0000000e+00	4.429822E-02	3.427073E-02	5.6186E-02

[GND Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	-5.378351E-02	-5.490567E-02	-5.885698E-02
-1.4750000e+00	-5.231251E-02	-5.334431E-02	-5.735670E-02
-1.4500000e+00	-5.084369E-02	-5.178549E-02	-5.585777E-02
-1.4250000e+00	-4.937717E-02	-5.022938E-02	-5.436026E-02
-1.4000000e+00	-4.791309E-02	-4.867613E-02	-5.286424E-02
-1.3750000e+00	-4.645161E-02	-4.712594E-02	-5.136982E-02
-1.3500000e+00	-4.499289E-02	-4.557901E-02	-4.987709E-02
-1.3250000e+00	-4.353712E-02	-4.403556E-02	-4.838614E-02
-1.3000000e+00	-4.208452E-02	-4.249585E-02	-4.689710E-02
-1.2750000e+00	-4.063529E-02	-4.096014E-02	-4.541010E-02
-1.2500000e+00	-3.918970E-02	-3.942875E-02	-4.392527E-02
-1.2250000e+00	-3.774803E-02	-3.790201E-02	-4.244278E-02
-1.2000000e+00	-3.631059E-02	-3.638031E-02	-4.096280E-02
-1.1750000e+00	-3.487773E-02	-3.486408E-02	-3.948552E-02
-1.1500000e+00	-3.344986E-02	-3.335380E-02	-3.801116E-02
-1.1250000e+00	-3.202742E-02	-3.185003E-02	-3.653998E-02
-1.1000000e+00	-3.061092E-02	-3.035339E-02	-3.507226E-02
-1.0750000e+00	-2.920096E-02	-2.886462E-02	-3.360832E-02
-1.0500000e+00	-2.779821E-02	-2.738455E-02	-3.214854E-02

-1.0250000e+00	-2.640347E-02	-2.591415E-02	-3.069335E-02
-1.0000000e+00	-2.501766E-02	-2.445455E-02	-2.924328E-02
-9.7500000e-01	-2.364185E-02	-2.300708E-02	-2.779892E-02
-9.5000000e-01	-2.227732E-02	-2.157329E-02	-2.636102E-02
-9.2500000e-01	-2.092559E-02	-2.015501E-02	-2.493048E-02
-9.0000000e-01	-1.958843E-02	-1.875433E-02	-2.350840E-02
-8.7500000e-01	-1.826790E-02	-1.737363E-02	-2.209616E-02
-8.5000000e-01	-1.696631E-02	-1.601550E-02	-2.069550E-02
-8.2500000e-01	-1.568612E-02	-1.468262E-02	-1.930856E-02
-8.0000000e-01	-1.442972E-02	-1.337762E-02	-1.793782E-02
-7.7500000e-01	-1.319926E-02	-1.210311E-02	-1.658583E-02
-7.5000000e-01	-1.199673E-02	-1.086191E-02	-1.525450E-02
-7.2500000e-01	-1.082427E-02	-9.657411E-03	-1.394473E-02
-7.0000000e-01	-9.684638E-03	-8.493939E-03	-1.265685E-02
-6.7500000e-01	-8.581514E-03	-7.376930E-03	-1.139180E-02
-6.5000000e-01	-7.519607E-03	-6.312929E-03	-1.015194E-02
-6.2500000e-01	-6.504547E-03	-5.309438E-03	-8.941318E-03
-6.0000000e-01	-5.542688E-03	-4.374618E-03	-7.765735E-03
-5.7500000e-01	-4.640772E-03	-3.516890E-03	-6.632945E-03
-5.5000000e-01	-3.805524E-03	-2.744483E-03	-5.552946E-03
-5.2500000e-01	-3.043248E-03	-2.065103E-03	-4.538201E-03
-5.0000000e-01	-2.359647E-03	-1.485677E-03	-3.603412E-03
-4.7500000e-01	-1.760020E-03	-1.011779E-03	-2.764265E-03
-4.5000000e-01	-1.249702E-03	-6.458403E-04	-2.034716E-03
-4.2500000e-01	-8.339835E-04	-3.838582E-04	-1.423545E-03
-4.0000000e-01	-5.162389E-04	-2.125448E-04	-9.327605E-04
-3.7500000e-01	-2.937329E-04	-1.106466E-04	-5.596330E-04
-3.5000000e-01	-1.537279E-04	-5.497263E-05	-2.989533E-04
-3.2500000e-01	-7.493357E-05	-2.649171E-05	-1.392987E-04
-3.0000000e-01	-3.471511E-05	-1.256760E-05	-5.693658E-05
-2.7500000e-01	-1.563019E-05	-5.952723E-06	-2.113755E-05
-2.5000000e-01	-7.001335E-06	-2.863206E-06	-7.478945E-06
-2.2500000e-01	-3.215160E-06	-1.433628E-06	-2.669259E-06
-2.0000000e-01	-1.576700E-06	-7.729597E-07	-1.039352E-06
-1.7500000e-01	-8.691669E-07	-4.659048E-07	-4.927445E-07
-1.5000000e-01	-5.602970E-07	-3.210513E-07	-3.061011E-07
-1.2500000e-01	-4.211770E-07	-2.506183E-07	-2.379539E-07
-1.0000000e-01	-3.542844E-07	-2.144259E-07	-2.089405E-07
-7.5000000e-02	-3.182781E-07	-1.940781E-07	-1.931392E-07
-5.0000000e-02	-2.956734E-07	-1.811414E-07	-1.820767E-07
-2.5000000e-02	-2.790923E-07	-1.717494E-07	-1.729565E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[Pullup]

-1.5000000e+00	1.389728E-02	1.504401E-02	1.3495E-02
-1.4750000e+00	1.392266E-02	1.515940E-02	1.3511E-02
-1.4250000e+00	1.394549E-02	1.534861E-02	1.3532E-02
-1.3750000e+00	1.393984E-02	1.547700E-02	1.3542E-02
-1.3250000e+00	1.391859E-02	1.554357E-02	1.3545E-02
-1.2750000e+00	1.389341E-02	1.555550E-02	1.3540E-02
-1.2250000e+00	1.387050E-02	1.552788E-02	1.3526E-02
-1.1750000e+00	1.384963E-02	1.548081E-02	1.3502E-02
-1.1250000e+00	1.382685E-02	1.543388E-02	1.3467E-02



-1.0750000e+00	1.379804E-02	1.539856E-02	1.3421E-02
-1.0250000e+00	1.376042E-02	1.537452E-02	1.3363E-02
-9.7500000e-01	1.371257E-02	1.535474E-02	1.3293E-02
-9.2500000e-01	1.365380E-02	1.533271E-02	1.3210E-02
-8.7500000e-01	1.358379E-02	1.530481E-02	1.3113E-02
-8.2500000e-01	1.350199E-02	1.526951E-02	1.3001E-02
-7.7500000e-01	1.340734E-02	1.522537E-02	1.2873E-02
-7.2500000e-01	1.329767E-02	1.516783E-02	1.2725E-02
-6.7500000e-01	1.316879E-02	1.508258E-02	1.2554E-02
-6.2500000e-01	1.301213E-02	1.493400E-02	1.2352E-02
-5.7500000e-01	1.280843E-02	1.465359E-02	1.2107E-02
-5.2500000e-01	1.251269E-02	1.414154E-02	1.1797E-02
-4.7500000e-01	1.203560E-02	1.330397E-02	1.1382E-02
-4.2500000e-01	1.126665E-02	1.214514E-02	1.0778E-02
-3.7500000e-01	1.018437E-02	1.079032E-02	9.8667E-03
-3.2500000e-01	8.905568E-03	9.358893E-03	8.6724E-03
-2.7500000e-01	7.550642E-03	7.907034E-03	7.3614E-03
-2.2500000e-01	6.175032E-03	6.454310E-03	6.0240E-03
-1.7500000e-01	4.796858E-03	5.006794E-03	4.6832E-03
-1.2500000e-01	3.421222E-03	3.566345E-03	3.3432E-03
-7.5000000e-02	2.049479E-03	2.133648E-03	2.0047E-03
-2.5000000e-02	6.820421E-04	7.091043E-04	6.6784E-04
0.0000000e+00	1.125100E-09	4.014300E-10	2.6237E-09
2.5000000e-02	-6.802155E-04	-7.060015E-04	-6.6696E-04
7.5000000e-02	-2.032965E-03	-2.105590E-03	-1.9968E-03
1.2500000e-01	-3.375119E-03	-3.487987E-03	-3.3211E-03
1.7500000e-01	-4.706231E-03	-4.852382E-03	-4.6395E-03
2.2500000e-01	-6.025837E-03	-6.197914E-03	-5.9518E-03
2.7500000e-01	-7.333440E-03	-7.523661E-03	-7.2578E-03
3.2500000e-01	-8.628517E-03	-8.828634E-03	-8.5572E-03
3.7500000e-01	-9.910511E-03	-1.011178E-02	-9.8498E-03
4.2500000e-01	-1.117883E-02	-1.137197E-02	-1.1135E-02
4.7500000e-01	-1.243286E-02	-1.260797E-02	-1.2413E-02
5.2500000e-01	-1.367192E-02	-1.381848E-02	-1.3683E-02
5.7500000e-01	-1.489533E-02	-1.500209E-02	-1.4945E-02
6.2500000e-01	-1.610232E-02	-1.615730E-02	-1.6198E-02
6.7500000e-01	-1.729210E-02	-1.728247E-02	-1.7442E-02
7.2500000e-01	-1.846383E-02	-1.837588E-02	-1.8677E-02
7.7500000e-01	-1.961663E-02	-1.943566E-02	-1.9902E-02
8.2500000e-01	-2.074956E-02	-2.045990E-02	-2.1116E-02
8.7500000e-01	-2.186165E-02	-2.144666E-02	-2.2320E-02
9.2500000e-01	-2.295193E-02	-2.239415E-02	-2.3513E-02
9.7500000e-01	-2.401949E-02	-2.330089E-02	-2.4694E-02
1.0250000e+00	-2.506353E-02	-2.416589E-02	-2.5862E-02
1.0750000e+00	-2.608351E-02	-2.498853E-02	-2.7019E-02
1.1250000e+00	-2.707921E-02	-2.576811E-02	-2.8162E-02
1.1750000e+00	-2.805064E-02	-2.650347E-02	-2.9293E-02
1.2250000e+00	-2.899777E-02	-2.719285E-02	-3.0411E-02
1.2750000e+00	-2.992027E-02	-2.783418E-02	-3.1515E-02
1.3250000e+00	-3.081737E-02	-2.842555E-02	-3.2607E-02
1.3750000e+00	-3.168792E-02	-2.896616E-02	-3.3684E-02
1.4250000e+00	-3.253039E-02	-2.945719E-02	-3.4746E-02
1.4750000e+00	-3.334289E-02	-2.990258E-02	-3.5792E-02
1.5250000e+00	-3.412325E-02	-3.030862E-02	-3.6822E-02

1.5750000e+00	-3.486904E-02	-3.068257E-02	-3.7833E-02
1.6250000e+00	-3.557765E-02	-3.103121E-02	-3.8826E-02
1.6750000e+00	-3.624648E-02	-3.136007E-02	-3.9797E-02
1.7250000e+00	-3.687328E-02	-3.167336E-02	-4.0746E-02
1.7750000e+00	-3.745664E-02	-3.197424E-02	-4.1671E-02
1.8250000e+00	-3.799669E-02	-3.226504E-02	-4.2569E-02
1.8750000e+00	-3.849556E-02	-3.254752E-02	-4.3438E-02
1.9250000e+00	-3.895731E-02	-3.282305E-02	-4.4275E-02
1.9750000e+00	-3.938722E-02	-3.309268E-02	-4.5078E-02
2.0250000e+00	-3.979072E-02	-3.335727E-02	-4.5843E-02
2.0750000e+00	-4.017273E-02	-3.361751E-02	-4.6567E-02
2.1250000e+00	-4.053726E-02	-3.387396E-02	-4.7248E-02
2.1750000e+00	-4.088753E-02	-3.412707E-02	-4.7884E-02
2.2250000e+00	-4.122603E-02	-3.437727E-02	-4.8477E-02
2.2750000e+00	-4.155471E-02	-3.462485E-02	-4.9029E-02
2.3250000e+00	-4.187511E-02	-3.487012E-02	-4.9543E-02
2.3750000e+00	-4.218845E-02	-3.511332E-02	-5.0025E-02
2.4250000e+00	-4.249571E-02	-3.535466E-02	-5.0480E-02
2.4750000e+00	-4.279769E-02	-3.559433E-02	-5.0912E-02
2.5250000e+00	-4.309507E-02	-3.583247E-02	-5.1326E-02
2.5750000e+00	-4.338839E-02	-3.606925E-02	-5.1724E-02
2.6250000e+00	-4.367813E-02	-3.630478E-02	-5.2110E-02
2.6750000e+00	-4.396467E-02	-3.653918E-02	-5.2484E-02
2.7250000e+00	-4.424835E-02	-3.677256E-02	-5.2850E-02
2.7750000e+00	-4.452948E-02	-3.700500E-02	-5.3207E-02
2.8250000e+00	-4.480830E-02	-3.723659E-02	-5.3558E-02
2.8750000e+00	-4.508503E-02	-3.746739E-02	-5.3903E-02
2.9250000e+00	-4.535988E-02	-3.769749E-02	-5.4242E-02
2.9750000e+00	-4.563300E-02	-3.792696E-02	-5.4577E-02
3.0000000e+00	-4.576897E-02	-3.804147E-02	-5.4743E-02

[POWER Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	4.450136E-02	4.385767E-02	4.780182E-02
-1.4750000e+00	4.325737E-02	4.248503E-02	4.651241E-02
-1.4500000e+00	4.202627E-02	4.113177E-02	4.522926E-02
-1.4250000e+00	4.080680E-02	3.979850E-02	4.395156E-02
-1.4000000e+00	3.959743E-02	3.848563E-02	4.267873E-02
-1.3750000e+00	3.839648E-02	3.719324E-02	4.141044E-02
-1.3500000e+00	3.720221E-02	3.592106E-02	4.014659E-02
-1.3250000e+00	3.601296E-02	3.466841E-02	3.888726E-02
-1.3000000e+00	3.482735E-02	3.343415E-02	3.763263E-02
-1.2750000e+00	3.364438E-02	3.221669E-02	3.638297E-02
-1.2500000e+00	3.246358E-02	3.101397E-02	3.513857E-02
-1.2250000e+00	3.128497E-02	2.982356E-02	3.389973E-02
-1.2000000e+00	3.010901E-02	2.864279E-02	3.266673E-02
-1.1750000e+00	2.893648E-02	2.746896E-02	3.143985E-02
-1.1500000e+00	2.776826E-02	2.629964E-02	3.021938E-02
-1.1250000e+00	2.660528E-02	2.513304E-02	2.900561E-02
-1.1000000e+00	2.544841E-02	2.396824E-02	2.779886E-02
-1.0750000e+00	2.429844E-02	2.280536E-02	2.659948E-02
-1.0500000e+00	2.315612E-02	2.164543E-02	2.540789E-02
-1.0250000e+00	2.202214E-02	2.049007E-02	2.422457E-02
-1.0000000e+00	2.089719E-02	1.934117E-02	2.305009E-02

-9.7500000e-01	1.978197E-02	1.820065E-02	2.188514E-02
-9.5000000e-01	1.867722E-02	1.707028E-02	2.073052E-02
-9.2500000e-01	1.758372E-02	1.595172E-02	1.958719E-02
-9.0000000e-01	1.650228E-02	1.484648E-02	1.845618E-02
-8.7500000e-01	1.543373E-02	1.375596E-02	1.733862E-02
-8.5000000e-01	1.437889E-02	1.268153E-02	1.623553E-02
-8.2500000e-01	1.333851E-02	1.162449E-02	1.514772E-02
-8.0000000e-01	1.231328E-02	1.058622E-02	1.407562E-02
-7.7500000e-01	1.130388E-02	9.568206E-03	1.301922E-02
-7.5000000e-01	1.031106E-02	8.572276E-03	1.197827E-02
-7.2500000e-01	9.335806E-03	7.600753E-03	1.095257E-02
-7.0000000e-01	8.379549E-03	6.656721E-03	9.942222E-03
-6.7500000e-01	7.444326E-03	5.744302E-03	8.947921E-03
-6.5000000e-01	6.532997E-03	4.868952E-03	7.971051E-03
-6.2500000e-01	5.649458E-03	4.037787E-03	7.013870E-03
-6.0000000e-01	4.798902E-03	3.259897E-03	6.079707E-03
-5.7500000e-01	3.988134E-03	2.546530E-03	5.173245E-03
-5.5000000e-01	3.225930E-03	1.910856E-03	4.300910E-03
-5.2500000e-01	2.523332E-03	1.366712E-03	3.471447E-03
-5.0000000e-01	1.893615E-03	9.256050E-04	2.696680E-03
-4.7500000e-01	1.351332E-03	5.919303E-04	1.992354E-03
-4.5000000e-01	9.095438E-04	3.586832E-04	1.378419E-03
-4.2500000e-01	5.747929E-04	2.078355E-04	8.770400E-04
-4.0000000e-01	3.418453E-04	1.164218E-04	5.053108E-04
-3.7500000e-01	1.930954E-04	6.360210E-05	2.627390E-04
-3.5000000e-01	1.048276E-04	3.408364E-05	1.249615E-04
-3.2500000e-01	5.523970E-05	1.799151E-05	5.555911E-05
-3.0000000e-01	2.845373E-05	9.394192E-06	2.354502E-05
-2.7500000e-01	1.440808E-05	4.878770E-06	9.668085E-06
-2.5000000e-01	7.217646E-06	2.540607E-06	3.917725E-06
-2.2500000e-01	3.608426E-06	1.343333E-06	1.610387E-06
-2.0000000e-01	1.824961E-06	7.351342E-07	7.040805E-07
-1.7500000e-01	9.538097E-07	4.274933E-07	3.518120E-07
-1.5000000e-01	5.312391E-07	2.717598E-07	2.143493E-07
-1.2500000e-01	3.264285E-07	1.922225E-07	1.590780E-07
-1.0000000e-01	2.262355E-07	1.506538E-07	1.350141E-07
-7.5000000e-02	1.758303E-07	1.278715E-07	1.227817E-07
-5.0000000e-02	1.489090E-07	1.143246E-07	1.150734E-07
-2.5000000e-02	1.332080E-07	1.054156E-07	1.091537E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[Ramp]

R\_load = 50.00Ohm

	typ	min	max
dV/dt_r	532.022mV/119.423ps	491.319mV/165.185ps	567.619mV/91.565ps
dV/dt_f	537.976mV/129.806ps	497.460mV/173.213ps	578.029mV/105.657ps

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[Rising Waveform]

V\_fixture = 1.500V

V\_fixture\_min = 1.425V

V\_fixture\_max = 1.575V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	6.8316E-01	6.4198E-01	7.1381E-01
1.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
2.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
3.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
4.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
5.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
6.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
7.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
8.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
9.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
1.00E-10	6.8316E-01	6.4198E-01	7.1381E-01
1.10E-10	6.8316E-01	6.4198E-01	7.1381E-01
1.20E-10	6.8316E-01	6.4198E-01	7.1381E-01
1.30E-10	6.8316E-01	6.4198E-01	7.1381E-01
1.40E-10	6.8316E-01	6.4198E-01	7.2174E-01
1.50E-10	6.8316E-01	6.4198E-01	7.5887E-01
1.60E-10	6.8316E-01	6.4198E-01	8.2016E-01
1.70E-10	6.8316E-01	6.4198E-01	9.1349E-01
1.80E-10	6.8316E-01	6.4198E-01	1.0158E+00
1.90E-10	6.8316E-01	6.4198E-01	1.1058E+00
2.00E-10	6.8631E-01	6.4198E-01	1.1722E+00
2.10E-10	6.9781E-01	6.4198E-01	1.2169E+00
2.20E-10	7.2546E-01	6.4298E-01	1.2448E+00
2.30E-10	7.5875E-01	6.4398E-01	1.2647E+00
2.40E-10	8.1582E-01	6.4498E-01	1.2837E+00
2.50E-10	8.7535E-01	6.4698E-01	1.3078E+00
2.60E-10	9.4749E-01	6.5598E-01	1.3414E+00
2.70E-10	1.0174E+00	6.6598E-01	1.3863E+00
2.80E-10	1.0731E+00	6.7898E-01	1.4363E+00
2.90E-10	1.1226E+00	6.9347E-01	1.4802E+00
3.00E-10	1.1579E+00	7.1337E-01	1.5132E+00
3.10E-10	1.1837E+00	7.4966E-01	1.5358E+00
3.20E-10	1.2048E+00	7.9147E-01	1.5503E+00
3.30E-10	1.2195E+00	8.3328E-01	1.5592E+00
3.40E-10	1.2343E+00	8.7936E-01	1.5645E+00
3.50E-10	1.2494E+00	9.3100E-01	1.5675E+00
3.60E-10	1.2675E+00	9.8264E-01	1.5691E+00
3.70E-10	1.2874E+00	1.0268E+00	1.5702E+00
3.80E-10	1.3136E+00	1.0618E+00	1.5750E+00
3.90E-10	1.3416E+00	1.0967E+00	1.5750E+00
4.00E-10	1.3720E+00	1.1198E+00	1.5750E+00
4.10E-10	1.4006E+00	1.1392E+00	1.5750E+00
4.20E-10	1.4277E+00	1.1550E+00	1.5750E+00
4.30E-10	1.4490E+00	1.1666E+00	1.5750E+00
4.40E-10	1.4656E+00	1.1779E+00	1.5750E+00
4.50E-10	1.4779E+00	1.1874E+00	1.5750E+00
4.60E-10	1.4845E+00	1.1970E+00	1.5750E+00
4.70E-10	1.4896E+00	1.2077E+00	1.5750E+00
4.80E-10	1.4922E+00	1.2186E+00	1.5750E+00

4.90E-10	1.4951E+00	1.2308E+00	1.5750E+00
5.00E-10	1.4974E+00	1.2441E+00	1.5750E+00
5.10E-10	1.4984E+00	1.2582E+00	1.5750E+00
5.20E-10	1.4991E+00	1.2741E+00	1.5750E+00
5.30E-10	1.5000E+00	1.2901E+00	1.5750E+00
5.40E-10	1.5000E+00	1.3071E+00	1.5750E+00
5.50E-10	1.5000E+00	1.3240E+00	1.5750E+00
5.60E-10	1.5000E+00	1.3409E+00	1.5750E+00
5.70E-10	1.5000E+00	1.3579E+00	1.5750E+00
5.80E-10	1.5000E+00	1.3720E+00	1.5750E+00
5.90E-10	1.5000E+00	1.3824E+00	1.5750E+00
6.00E-10	1.5000E+00	1.3929E+00	1.5750E+00
6.10E-10	1.5000E+00	1.4033E+00	1.5750E+00
6.20E-10	1.5000E+00	1.4094E+00	1.5750E+00
6.30E-10	1.5000E+00	1.4154E+00	1.5750E+00
6.40E-10	1.5000E+00	1.4204E+00	1.5750E+00
6.50E-10	1.5000E+00	1.4244E+00	1.5750E+00
6.60E-10	1.5000E+00	1.4244E+00	1.5750E+00
6.70E-10	1.5000E+00	1.4244E+00	1.5750E+00
6.80E-10	1.5000E+00	1.4244E+00	1.5750E+00
6.90E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.00E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.10E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.20E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.30E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.40E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.50E-10	1.5000E+00	1.4244E+00	1.5750E+00

[Falling Waveform]

V\_fixture = 1.500V

V\_fixture\_min = 1.425V

V\_fixture\_max = 1.575V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	1.5000E+00	1.4244E+00	1.5750E+00
1.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
2.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
3.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
4.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
5.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
6.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
7.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
8.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
9.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
1.00E-10	1.5000E+00	1.4244E+00	1.5750E+00
1.10E-10	1.5000E+00	1.4244E+00	1.5750E+00
1.20E-10	1.5000E+00	1.4244E+00	1.5750E+00
1.30E-10	1.5000E+00	1.4244E+00	1.5678E+00
1.40E-10	1.5000E+00	1.4244E+00	1.5356E+00
1.50E-10	1.5000E+00	1.4244E+00	1.4918E+00
1.60E-10	1.5000E+00	1.4244E+00	1.4391E+00
1.70E-10	1.5000E+00	1.4244E+00	1.3811E+00

1.80E-10	1.5000E+00	1.4244E+00	1.3164E+00
1.90E-10	1.5000E+00	1.4244E+00	1.2491E+00
2.00E-10	1.4916E+00	1.4244E+00	1.1872E+00
2.10E-10	1.4779E+00	1.4244E+00	1.1373E+00
2.20E-10	1.4526E+00	1.4244E+00	1.1004E+00
2.30E-10	1.4258E+00	1.4244E+00	1.0723E+00
2.40E-10	1.3882E+00	1.4244E+00	1.0470E+00
2.50E-10	1.3499E+00	1.4244E+00	1.0149E+00
2.60E-10	1.3051E+00	1.4244E+00	9.8066E-01
2.70E-10	1.2605E+00	1.4244E+00	9.3547E-01
2.80E-10	1.2170E+00	1.4244E+00	8.8759E-01
2.90E-10	1.1745E+00	1.4194E+00	8.4268E-01
3.00E-10	1.1378E+00	1.4094E+00	8.0700E-01
3.10E-10	1.1029E+00	1.3963E+00	7.7745E-01
3.20E-10	1.0753E+00	1.3791E+00	7.5868E-01
3.30E-10	1.0489E+00	1.3558E+00	7.4505E-01
3.40E-10	1.0261E+00	1.3325E+00	7.3501E-01
3.50E-10	1.0023E+00	1.3056E+00	7.2933E-01
3.60E-10	9.7620E-01	1.2772E+00	7.2516E-01
3.70E-10	9.4367E-01	1.2488E+00	7.2226E-01
3.80E-10	9.0696E-01	1.2213E+00	7.2113E-01
3.90E-10	8.7376E-01	1.1938E+00	7.1999E-01
4.00E-10	8.3990E-01	1.1670E+00	7.1886E-01
4.10E-10	8.0957E-01	1.1432E+00	7.1825E-01
4.20E-10	7.8300E-01	1.1193E+00	7.1767E-01
4.30E-10	7.6093E-01	1.0968E+00	7.1709E-01
4.40E-10	7.4264E-01	1.0762E+00	7.1654E-01
4.50E-10	7.2827E-01	1.0555E+00	7.1600E-01
4.60E-10	7.1647E-01	1.0350E+00	7.1545E-01
4.70E-10	7.0685E-01	1.0145E+00	7.1510E-01
4.80E-10	6.9834E-01	9.9409E-01	7.1479E-01
4.90E-10	6.9107E-01	9.6900E-01	7.1449E-01
5.00E-10	6.8566E-01	9.4342E-01	7.1433E-01
5.10E-10	6.8316E-01	9.1269E-01	7.1421E-01
5.20E-10	6.8316E-01	8.8416E-01	7.1410E-01
5.30E-10	6.8316E-01	8.5763E-01	7.1399E-01
5.40E-10	6.8316E-01	8.3261E-01	7.1388E-01
5.50E-10	6.8316E-01	8.0994E-01	7.1380E-01
5.60E-10	6.8316E-01	7.8727E-01	7.1380E-01
5.70E-10	6.8316E-01	7.6866E-01	7.1380E-01
5.80E-10	6.8316E-01	7.5240E-01	7.1380E-01
5.90E-10	6.8316E-01	7.3613E-01	7.1380E-01
6.00E-10	6.8316E-01	7.2289E-01	7.1380E-01
6.10E-10	6.8316E-01	7.1008E-01	7.1380E-01
6.20E-10	6.8316E-01	6.9855E-01	7.1380E-01
6.30E-10	6.8316E-01	6.9098E-01	7.1380E-01
6.40E-10	6.8316E-01	6.8198E-01	7.1380E-01
6.50E-10	6.8316E-01	6.7398E-01	7.1380E-01
6.60E-10	6.8316E-01	6.6298E-01	7.1380E-01
6.70E-10	6.8316E-01	6.5598E-01	7.1380E-01
6.80E-10	6.8316E-01	6.5098E-01	7.1380E-01
6.90E-10	6.8316E-01	6.4798E-01	7.1380E-01
7.00E-10	6.8316E-01	6.4598E-01	7.1380E-01
7.10E-10	6.8316E-01	6.4398E-01	7.1380E-01

7.20E-10	6.8316E-01	6.4298E-01	7.1380E-01
7.30E-10	6.8316E-01	6.4198E-01	7.1380E-01
7.40E-10	6.8316E-01	6.4198E-01	7.1380E-01
7.50E-10	6.8316E-01	6.4198E-01	7.1380E-01

[Rising Waveform]

V\_fixture = 0.000V

V\_fixture\_min = 0.000V

V\_fixture\_max = 0.000V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	2.1656E-05	4.5001E-04	1.9840E-06
1.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
2.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
3.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
4.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
5.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
6.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
7.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
8.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
9.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
1.00E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.10E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.20E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.30E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.40E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.50E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.60E-10	2.1656E-05	4.5001E-04	4.8671E-02
1.70E-10	2.1656E-05	4.5001E-04	1.0238E-01
1.80E-10	2.1656E-05	4.5001E-04	1.6978E-01
1.90E-10	2.1656E-05	4.5001E-04	2.4540E-01
2.00E-10	2.1656E-05	4.5001E-04	3.2196E-01
2.10E-10	2.1656E-05	4.5001E-04	3.9122E-01
2.20E-10	6.9115E-03	4.5001E-04	4.4667E-01
2.30E-10	2.1916E-02	4.5001E-04	4.8493E-01
2.40E-10	4.9605E-02	4.5001E-04	5.1216E-01
2.50E-10	8.2158E-02	4.5001E-04	5.3458E-01
2.60E-10	1.2545E-01	4.5001E-04	5.6186E-01
2.70E-10	1.7346E-01	4.5001E-04	6.0105E-01
2.80E-10	2.2437E-01	4.5001E-04	6.5263E-01
2.90E-10	2.7673E-01	4.5001E-04	7.0953E-01
3.00E-10	3.2396E-01	7.4200E-04	7.5988E-01
3.10E-10	3.6830E-01	6.9399E-03	7.9680E-01
3.20E-10	4.0406E-01	2.2538E-02	8.2326E-01
3.30E-10	4.3438E-01	3.8136E-02	8.4173E-01
3.40E-10	4.5821E-01	6.0559E-02	8.5396E-01
3.50E-10	4.7742E-01	9.0788E-02	8.6342E-01
3.60E-10	4.9488E-01	1.2102E-01	8.7131E-01
3.70E-10	5.1097E-01	1.5625E-01	8.7541E-01
3.80E-10	5.3186E-01	1.9335E-01	8.7950E-01
3.90E-10	5.5704E-01	2.3045E-01	8.8129E-01
4.00E-10	5.8693E-01	2.6299E-01	8.8750E-01

4.10E-10	6.3150E-01	2.9548E-01	8.8750E-01
4.20E-10	6.6900E-01	3.2621E-01	8.8750E-01
4.30E-10	7.0343E-01	3.5161E-01	8.8750E-01
4.40E-10	7.3251E-01	3.7701E-01	8.8750E-01
4.50E-10	7.5834E-01	3.9887E-01	8.8750E-01
4.60E-10	7.7553E-01	4.1920E-01	8.8750E-01
4.70E-10	7.9054E-01	4.3893E-01	8.8750E-01
4.80E-10	7.9989E-01	4.5025E-01	8.8750E-01
4.90E-10	8.0628E-01	4.6257E-01	8.8750E-01
5.00E-10	8.1206E-01	4.7874E-01	8.8750E-01
5.10E-10	8.1613E-01	4.8572E-01	8.8750E-01
5.20E-10	8.2020E-01	4.9920E-01	8.8750E-01
5.30E-10	8.2427E-01	5.1505E-01	8.8750E-01
5.40E-10	8.2778E-01	5.3090E-01	8.8750E-01
5.50E-10	8.3015E-01	5.5341E-01	8.8750E-01
5.60E-10	8.3015E-01	5.7647E-01	8.8750E-01
5.70E-10	8.3015E-01	5.9813E-01	8.8750E-01
5.80E-10	8.3015E-01	6.2467E-01	8.8750E-01
5.90E-10	8.3015E-01	6.5120E-01	8.8750E-01
6.00E-10	8.3015E-01	6.7309E-01	8.8750E-01
6.10E-10	8.3015E-01	6.9494E-01	8.8750E-01
6.20E-10	8.3015E-01	7.1298E-01	8.8750E-01
6.30E-10	8.3015E-01	7.2761E-01	8.8750E-01
6.40E-10	8.3015E-01	7.4187E-01	8.8750E-01
6.50E-10	8.3015E-01	7.5387E-01	8.8750E-01
6.60E-10	8.3015E-01	7.6287E-01	8.8750E-01
6.70E-10	8.3015E-01	7.7087E-01	8.8750E-01
6.80E-10	8.3015E-01	7.7787E-01	8.8750E-01
6.90E-10	8.3015E-01	7.8587E-01	8.8750E-01
7.00E-10	8.3015E-01	7.8987E-01	8.8750E-01
7.10E-10	8.3015E-01	7.9287E-01	8.8750E-01
7.20E-10	8.3015E-01	7.9387E-01	8.8750E-01
7.30E-10	8.3015E-01	7.9487E-01	8.8750E-01
7.40E-10	8.3015E-01	7.9587E-01	8.8750E-01
7.50E-10	8.3015E-01	7.9587E-01	8.8750E-01

[Falling Waveform]

V\_fixture = 0.000V

V\_fixture\_min = 0.000V

V\_fixture\_max = 0.000V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	8.3015E-01	7.9587E-01	8.8750E-01
1.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
2.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
3.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
4.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
5.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
6.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
7.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
8.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
9.00E-11	8.3015E-01	7.9587E-01	8.8750E-01



1.00E-10	8.3015E-01	7.9587E-01	8.8750E-01
1.10E-10	8.3015E-01	7.9587E-01	8.8750E-01
1.20E-10	8.3015E-01	7.9587E-01	8.8443E-01
1.30E-10	8.3015E-01	7.9587E-01	8.7452E-01
1.40E-10	8.3015E-01	7.9587E-01	8.4189E-01
1.50E-10	8.3015E-01	7.9587E-01	7.8920E-01
1.60E-10	8.3015E-01	7.9587E-01	7.1329E-01
1.70E-10	8.2717E-01	7.9587E-01	6.2580E-01
1.80E-10	8.2022E-01	7.9487E-01	5.4691E-01
1.90E-10	8.0849E-01	7.9287E-01	4.8081E-01
2.00E-10	7.8766E-01	7.8987E-01	4.2673E-01
2.10E-10	7.5342E-01	7.8587E-01	3.8302E-01
2.20E-10	7.0770E-01	7.8087E-01	3.4957E-01
2.30E-10	6.4643E-01	7.7487E-01	3.1949E-01
2.40E-10	5.7951E-01	7.6687E-01	2.8668E-01
2.50E-10	5.1395E-01	7.5687E-01	2.5182E-01
2.60E-10	4.5050E-01	7.4187E-01	2.1162E-01
2.70E-10	4.0155E-01	7.2460E-01	1.7228E-01
2.80E-10	3.6096E-01	7.0145E-01	1.3355E-01
2.90E-10	3.2886E-01	6.6392E-01	1.0138E-01
3.00E-10	3.0074E-01	6.2500E-01	7.3166E-02
3.10E-10	2.7872E-01	5.8181E-01	5.0761E-02
3.20E-10	2.6007E-01	5.3521E-01	3.5793E-02
3.30E-10	2.4432E-01	4.8940E-01	2.3892E-02
3.40E-10	2.2391E-01	4.4680E-01	1.6931E-02
3.50E-10	1.9806E-01	4.0419E-01	1.2192E-02
3.60E-10	1.7058E-01	3.7123E-01	8.9365E-03
3.70E-10	1.4036E-01	3.4007E-01	7.2358E-03
3.80E-10	1.1118E-01	3.1448E-01	5.9670E-03
3.90E-10	8.3244E-02	2.9477E-01	5.3516E-03
4.00E-10	6.1742E-02	2.7568E-01	4.7363E-03
4.10E-10	4.4018E-02	2.6075E-01	4.1060E-03
4.20E-10	3.0136E-02	2.4582E-01	3.4124E-03
4.30E-10	2.2486E-02	2.3054E-01	2.7189E-03
4.40E-10	1.5763E-02	2.1515E-01	2.0253E-03
4.50E-10	9.0387E-03	1.9777E-01	1.6262E-03
4.60E-10	5.3194E-03	1.7999E-01	1.2305E-03
4.70E-10	3.4381E-03	1.6207E-01	8.3483E-04
4.80E-10	1.5568E-03	1.4205E-01	6.3758E-04
4.90E-10	6.2322E-04	1.2203E-01	4.9475E-04
5.00E-10	1.0502E-04	1.0187E-01	3.5192E-04
5.10E-10	2.1656E-05	8.1652E-02	2.0909E-04
5.20E-10	2.1656E-05	6.3154E-02	6.6265E-05
5.30E-10	2.1656E-05	4.7873E-02	1.9840E-06
5.40E-10	2.1656E-05	3.2593E-02	1.9840E-06
5.50E-10	2.1656E-05	2.4507E-02	1.9840E-06
5.60E-10	2.1656E-05	1.6483E-02	1.9840E-06
5.70E-10	2.1656E-05	1.1660E-02	1.9840E-06
5.80E-10	2.1656E-05	8.6750E-03	1.9840E-06
5.90E-10	2.1656E-05	6.2443E-03	1.9840E-06
6.00E-10	2.1656E-05	5.2473E-03	1.9840E-06
6.10E-10	2.1656E-05	4.2503E-03	1.9840E-06
6.20E-10	2.1656E-05	3.6374E-03	1.9840E-06
6.30E-10	2.1656E-05	3.0570E-03	1.9840E-06

6.40E-10	2.1656E-05	2.5197E-03	1.9840E-06
6.50E-10	2.1656E-05	2.0157E-03	1.9840E-06
6.60E-10	2.1656E-05	1.5499E-03	1.9840E-06
6.70E-10	2.1656E-05	1.0325E-03	1.9840E-06
6.80E-10	2.1656E-05	8.8691E-04	1.9840E-06
6.90E-10	2.1656E-05	7.4127E-04	1.9840E-06
7.00E-10	2.1656E-05	5.9564E-04	1.9840E-06
7.10E-10	2.1656E-05	4.5001E-04	1.9840E-06
7.20E-10	2.1656E-05	4.5001E-04	1.9840E-06
7.30E-10	2.1656E-05	4.5001E-04	1.9840E-06
7.40E-10	2.1656E-05	4.5001E-04	1.9840E-06
7.50E-10	2.1656E-05	4.5001E-04	1.9840E-06

\*\*\*\*\*  
MODEL DQS\_34\_1600 (34 Ohm Data Strobe I/O with no ODT, 1333/1600 Mbps)  
\*\*\*\*\*

[Model] DQS\_34\_1600  
Model\_type I/O

Vinl = 600.000mV  
Vinh = 900.000mV  
Vmeas = 750.000mV  
Vref = 750.000mV  
Cref = 0.0pF  
Rref = 25.000Ohm

	typ	min	max
C_comp	1.200pF	1.125pF	1.275pF

[Model Spec]

| Input threshold voltage corners

Vinl	0.6000V	0.5625V	0.6375V
Vinh	0.9000V	0.8625V	0.9375V

| Measurement voltage corners

Vmeas	0.7500V	0.7125V	0.7875V
-------	---------	---------	---------

| Timing spec test load voltage corners

Vref	0.7500V	0.7125V	0.7875V
------	---------	---------	---------

| Dynamic Overshoot Parameters from DDR3 Specification

D_overshoot_ampl_h	0.40	NA	NA
D_overshoot_ampl_l	0.40	NA	NA
D_overshoot_area_h	0.13n	NA	NA
D_overshoot_area_l	0.13n	NA	NA

[[Receiver Thresholds]

|Vth = 0.750V  
|Vth\_min = 0.7350V  
|Vth\_max = 0.7650V  
|Vinh\_ac = 0.150V  
|Vinh\_dc = 0.100V

```
|Vinl_ac = -0.150V
|Vinl_dc = -0.100V
|Tslew_ac = 5.000ns |Not specified, so set to high value
|Threshold_sensitivity = 0.50
|Reference_supply Pullup_ref
```

```
|NOTE: If using the IBISCHK 4.2.1 or older parser, Differential receiver
|threshold parameters must be commented out because the parser generates
|errors for multiple differential models.
```

```
|Vcross_low = 0.600V
|Vcross_high = 0.900V
|Vdiff_ac = 300mV
|Vdiff_dc = 200mV
|Tdiffslew_ac = 10.000ns |Not specified, so set to high value
```

```
[Voltage Range]      1.500V      1.425V      1.575V
[Pullup Reference]   1.500V      1.425V      1.575V
[Temperature Range]  85.0        110.0       0.0
```

```
*****
```

```
[Pulldown]
```

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	-6.717440E-03	-6.602220E-03	-5.1878E-03
-1.4750000e+00	-6.950660E-03	-6.867910E-03	-5.4092E-03
-1.4250000e+00	-7.420160E-03	-7.410640E-03	-5.8575E-03
-1.3750000e+00	-7.891420E-03	-7.964120E-03	-6.3098E-03
-1.3250000e+00	-8.362190E-03	-8.523980E-03	-6.7632E-03
-1.2750000e+00	-8.830600E-03	-9.086830E-03	-7.2155E-03
-1.2250000e+00	-9.295050E-03	-9.650090E-03	-7.6651E-03
-1.1750000e+00	-9.754060E-03	-1.021176E-02	-8.1108E-03
-1.1250000e+00	-1.020612E-02	-1.077025E-02	-8.5512E-03
-1.0750000e+00	-1.064959E-02	-1.132418E-02	-8.9850E-03
-1.0250000e+00	-1.108253E-02	-1.187221E-02	-9.4109E-03
-9.7500000e-01	-1.150258E-02	-1.241292E-02	-9.8270E-03
-9.2500000e-01	-1.190672E-02	-1.294440E-02	-1.0231E-02
-8.7500000e-01	-1.229088E-02	-1.346358E-02	-1.0620E-02
-8.2500000e-01	-1.264939E-02	-1.396484E-02	-1.0991E-02
-7.7500000e-01	-1.297388E-02	-1.443730E-02	-1.1336E-02
-7.2500000e-01	-1.325153E-02	-1.486077E-02	-1.1649E-02
-6.7500000e-01	-1.346224E-02	-1.520128E-02	-1.1917E-02
-6.2500000e-01	-1.357544E-02	-1.540771E-02	-1.2120E-02
-5.7500000e-01	-1.354969E-02	-1.541129E-02	-1.2227E-02
-5.2500000e-01	-1.333921E-02	-1.513126E-02	-1.2185E-02
-4.7500000e-01	-1.290237E-02	-1.448995E-02	-1.1917E-02
-4.2500000e-01	-1.219129E-02	-1.344440E-02	-1.1342E-02
-3.7500000e-01	-1.115219E-02	-1.205672E-02	-1.0442E-02
-3.2500000e-01	-9.820264E-03	-1.048922E-02	-9.2579E-03
-2.7500000e-01	-8.341268E-03	-8.866406E-03	-7.8883E-03
-2.2500000e-01	-6.822138E-03	-7.235947E-03	-6.4597E-03
-1.7500000e-01	-5.298271E-03	-5.610770E-03	-5.0227E-03

-1.2500000e-01	-3.777710E-03	-3.994334E-03	-3.5860E-03
-7.5000000e-02	-2.262248E-03	-2.388040E-03	-2.1505E-03
-2.5000000e-02	-7.525408E-04	-7.929693E-04	-7.1644E-04
0.0000000e+00	-2.915900E-09	-3.333000E-10	-5.0570E-09
2.5000000e-02	7.507199E-04	7.895269E-04	7.1589E-04
7.5000000e-02	2.245917E-03	2.357110E-03	2.1456E-03
1.2500000e-01	3.732365E-03	3.908392E-03	3.5725E-03
1.7500000e-01	5.209520E-03	5.442055E-03	4.9965E-03
2.2500000e-01	6.676783E-03	6.956634E-03	6.4174E-03
2.7500000e-01	8.133496E-03	8.450479E-03	7.8352E-03
3.2500000e-01	9.578923E-03	9.921721E-03	9.2496E-03
3.7500000e-01	1.101226E-02	1.136822E-02	1.0661E-02
4.2500000e-01	1.243257E-02	1.278754E-02	1.2068E-02
4.7500000e-01	1.383888E-02	1.417683E-02	1.3472E-02
5.2500000e-01	1.523002E-02	1.553278E-02	1.4871E-02
5.7500000e-01	1.660471E-02	1.685160E-02	1.6267E-02
6.2500000e-01	1.796153E-02	1.812901E-02	1.7659E-02
6.7500000e-01	1.929892E-02	1.936079E-02	1.9046E-02
7.2500000e-01	2.061527E-02	2.054383E-02	2.0428E-02
7.7500000e-01	2.190915E-02	2.167702E-02	2.1805E-02
8.2500000e-01	2.317984E-02	2.276044E-02	2.3178E-02
8.7500000e-01	2.442765E-02	2.379315E-02	2.4544E-02
9.2500000e-01	2.565381E-02	2.477183E-02	2.5905E-02
9.7500000e-01	2.685955E-02	2.569073E-02	2.7261E-02
1.0250000e+00	2.804545E-02	2.654265E-02	2.8609E-02
1.0750000e+00	2.921123E-02	2.732059E-02	2.9951E-02
1.1250000e+00	3.035586E-02	2.802022E-02	3.1286E-02
1.1750000e+00	3.147763E-02	2.864222E-02	3.2613E-02
1.2250000e+00	3.257424E-02	2.919304E-02	3.3932E-02
1.2750000e+00	3.364280E-02	2.968331E-02	3.5242E-02
1.3250000e+00	3.467974E-02	3.012500E-02	3.6542E-02
1.3750000e+00	3.568083E-02	3.052912E-02	3.7832E-02
1.4250000e+00	3.664118E-02	3.090472E-02	3.9112E-02
1.4750000e+00	3.755541E-02	3.125876E-02	4.0379E-02
1.5250000e+00	3.841817E-02	3.159641E-02	4.1633E-02
1.5750000e+00	3.922484E-02	3.192149E-02	4.2873E-02
1.6250000e+00	3.997270E-02	3.223679E-02	4.4097E-02
1.6750000e+00	4.066185E-02	3.254442E-02	4.5303E-02
1.7250000e+00	4.129552E-02	3.284593E-02	4.6490E-02
1.7750000e+00	4.187958E-02	3.314250E-02	4.7654E-02
1.8250000e+00	4.242129E-02	3.343504E-02	4.8794E-02
1.8750000e+00	4.292808E-02	3.372428E-02	4.9905E-02
1.9250000e+00	4.340673E-02	3.401077E-02	5.0985E-02
1.9750000e+00	4.386296E-02	3.429496E-02	5.2029E-02
2.0250000e+00	4.430140E-02	3.457721E-02	5.3033E-02
2.0750000e+00	4.472568E-02	3.485782E-02	5.3993E-02
2.1250000e+00	4.513865E-02	3.513705E-02	5.4906E-02
2.1750000e+00	4.554252E-02	3.541511E-02	5.5769E-02
2.2250000e+00	4.593900E-02	3.569218E-02	5.6583E-02
2.2750000e+00	4.632944E-02	3.596843E-02	5.7349E-02
2.3250000e+00	4.671490E-02	3.624402E-02	5.8070E-02
2.3750000e+00	4.709624E-02	3.651910E-02	5.8752E-02
2.4250000e+00	4.747414E-02	3.679380E-02	5.9398E-02
2.4750000e+00	4.784918E-02	3.706830E-02	6.0016E-02

2.5250000e+00	4.822183E-02	3.734276E-02	6.0609E-02
2.5750000e+00	4.859248E-02	3.761735E-02	6.1181E-02
2.6250000e+00	4.896149E-02	3.789229E-02	6.1736E-02
2.6750000e+00	4.932914E-02	3.816783E-02	6.2277E-02
2.7250000e+00	4.969572E-02	3.844422E-02	6.2806E-02
2.7750000e+00	5.006148E-02	3.872180E-02	6.3326E-02
2.8250000e+00	5.042664E-02	3.900093E-02	6.3837E-02
2.8750000e+00	5.079141E-02	3.928204E-02	6.4342E-02
2.9250000e+00	5.115601E-02	3.956562E-02	6.4840E-02
2.9750000e+00	5.152066E-02	3.985223E-02	6.5334E-02
3.0000000e+00	5.170306E-02	3.999685E-02	6.5579E-02

[GND Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	-5.378351E-02	-5.490567E-02	-5.885698E-02
-1.4750000e+00	-5.231251E-02	-5.334431E-02	-5.735670E-02
-1.4500000e+00	-5.084369E-02	-5.178549E-02	-5.585777E-02
-1.4250000e+00	-4.937717E-02	-5.022938E-02	-5.436025E-02
-1.4000000e+00	-4.791309E-02	-4.867613E-02	-5.286424E-02
-1.3750000e+00	-4.645161E-02	-4.712594E-02	-5.136982E-02
-1.3500000e+00	-4.499289E-02	-4.557901E-02	-4.987708E-02
-1.3250000e+00	-4.353712E-02	-4.403556E-02	-4.838614E-02
-1.3000000e+00	-4.208452E-02	-4.249585E-02	-4.689710E-02
-1.2750000e+00	-4.063529E-02	-4.096014E-02	-4.541010E-02
-1.2500000e+00	-3.918970E-02	-3.942875E-02	-4.392527E-02
-1.2250000e+00	-3.774803E-02	-3.790201E-02	-4.244278E-02
-1.2000000e+00	-3.631059E-02	-3.638031E-02	-4.096280E-02
-1.1750000e+00	-3.487773E-02	-3.486408E-02	-3.948552E-02
-1.1500000e+00	-3.344986E-02	-3.335380E-02	-3.801116E-02
-1.1250000e+00	-3.202742E-02	-3.185003E-02	-3.653998E-02
-1.1000000e+00	-3.061092E-02	-3.035339E-02	-3.507226E-02
-1.0750000e+00	-2.920096E-02	-2.886462E-02	-3.360832E-02
-1.0500000e+00	-2.779821E-02	-2.738455E-02	-3.214854E-02
-1.0250000e+00	-2.640347E-02	-2.591415E-02	-3.069335E-02
-1.0000000e+00	-2.501766E-02	-2.445455E-02	-2.924328E-02
-9.7500000e-01	-2.364185E-02	-2.300708E-02	-2.779892E-02
-9.5000000e-01	-2.227732E-02	-2.157329E-02	-2.636102E-02
-9.2500000e-01	-2.092559E-02	-2.015501E-02	-2.493048E-02
-9.0000000e-01	-1.958843E-02	-1.875433E-02	-2.350840E-02
-8.7500000e-01	-1.826790E-02	-1.737363E-02	-2.209616E-02
-8.5000000e-01	-1.696631E-02	-1.601550E-02	-2.069550E-02
-8.2500000e-01	-1.568612E-02	-1.468262E-02	-1.930856E-02
-8.0000000e-01	-1.442972E-02	-1.337762E-02	-1.793782E-02
-7.7500000e-01	-1.319926E-02	-1.210311E-02	-1.658583E-02
-7.5000000e-01	-1.199673E-02	-1.086191E-02	-1.525450E-02
-7.2500000e-01	-1.082427E-02	-9.657411E-03	-1.394473E-02
-7.0000000e-01	-9.684638E-03	-8.493939E-03	-1.265685E-02
-6.7500000e-01	-8.581514E-03	-7.376930E-03	-1.139180E-02
-6.5000000e-01	-7.519607E-03	-6.312929E-03	-1.015194E-02
-6.2500000e-01	-6.504547E-03	-5.309438E-03	-8.941317E-03
-6.0000000e-01	-5.542688E-03	-4.374618E-03	-7.765734E-03
-5.7500000e-01	-4.640772E-03	-3.516890E-03	-6.632943E-03
-5.5000000e-01	-3.805524E-03	-2.744483E-03	-5.552944E-03
-5.2500000e-01	-3.043248E-03	-2.065103E-03	-4.538199E-03

-5.0000000e-01	-2.359647E-03	-1.485677E-03	-3.603410E-03
-4.7500000e-01	-1.760020E-03	-1.011779E-03	-2.764263E-03
-4.5000000e-01	-1.249702E-03	-6.458403E-04	-2.034714E-03
-4.2500000e-01	-8.339835E-04	-3.838582E-04	-1.423543E-03
-4.0000000e-01	-5.162389E-04	-2.125448E-04	-9.327585E-04
-3.7500000e-01	-2.937329E-04	-1.106466E-04	-5.596314E-04
-3.5000000e-01	-1.537279E-04	-5.497263E-05	-2.989521E-04
-3.2500000e-01	-7.493357E-05	-2.649171E-05	-1.392980E-04
-3.0000000e-01	-3.471511E-05	-1.256760E-05	-5.693623E-05
-2.7500000e-01	-1.563019E-05	-5.952723E-06	-2.113740E-05
-2.5000000e-01	-7.001335E-06	-2.863206E-06	-7.478892E-06
-2.2500000e-01	-3.215160E-06	-1.433628E-06	-2.669240E-06
-2.0000000e-01	-1.576700E-06	-7.729597E-07	-1.039346E-06
-1.7500000e-01	-8.691669E-07	-4.659048E-07	-4.927419E-07
-1.5000000e-01	-5.602970E-07	-3.210513E-07	-3.060998E-07
-1.2500000e-01	-4.211770E-07	-2.506183E-07	-2.379530E-07
-1.0000000e-01	-3.542844E-07	-2.144259E-07	-2.089398E-07
-7.5000000e-02	-3.182781E-07	-1.940781E-07	-1.931385E-07
-5.0000000e-02	-2.956734E-07	-1.811414E-07	-1.820761E-07
-2.5000000e-02	-2.790923E-07	-1.717494E-07	-1.729560E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[Pullup]

-1.5000000e+00	1.625201E-02	1.758608E-02	1.5776E-02
-1.4750000e+00	1.628295E-02	1.772293E-02	1.5794E-02
-1.4250000e+00	1.631167E-02	1.794814E-02	1.5819E-02
-1.3750000e+00	1.630625E-02	1.810214E-02	1.5832E-02
-1.3250000e+00	1.628177E-02	1.818331E-02	1.5836E-02
-1.2750000e+00	1.625213E-02	1.819962E-02	1.5830E-02
-1.2250000e+00	1.622498E-02	1.816850E-02	1.5814E-02
-1.1750000e+00	1.620031E-02	1.811351E-02	1.5786E-02
-1.1250000e+00	1.617356E-02	1.805794E-02	1.5746E-02
-1.0750000e+00	1.613984E-02	1.801572E-02	1.5692E-02
-1.0250000e+00	1.609584E-02	1.798687E-02	1.5624E-02
-9.7500000e-01	1.603981E-02	1.796321E-02	1.5542E-02
-9.2500000e-01	1.597095E-02	1.793695E-02	1.5444E-02
-8.7500000e-01	1.588883E-02	1.790371E-02	1.5331E-02
-8.2500000e-01	1.579281E-02	1.786161E-02	1.5200E-02
-7.7500000e-01	1.568160E-02	1.780891E-02	1.5050E-02
-7.2500000e-01	1.555266E-02	1.774030E-02	1.4877E-02
-6.7500000e-01	1.540100E-02	1.763919E-02	1.4677E-02
-6.2500000e-01	1.521657E-02	1.746424E-02	1.4440E-02
-5.7500000e-01	1.497687E-02	1.713549E-02	1.4152E-02
-5.2500000e-01	1.462952E-02	1.653605E-02	1.3790E-02
-4.7500000e-01	1.407045E-02	1.555591E-02	1.3303E-02
-4.2500000e-01	1.317055E-02	1.420030E-02	1.2595E-02
-3.7500000e-01	1.190475E-02	1.261585E-02	1.1528E-02
-3.2500000e-01	1.040962E-02	1.094206E-02	1.0132E-02
-2.7500000e-01	8.825733E-03	9.244475E-03	8.6004E-03
-2.2500000e-01	7.217759E-03	7.545941E-03	7.0379E-03
-1.7500000e-01	5.606827E-03	5.853537E-03	5.4714E-03
-1.2500000e-01	3.998885E-03	4.169432E-03	3.9059E-03
-7.5000000e-02	2.395513E-03	2.494429E-03	2.3421E-03

-2.5000000e-02	7.971932E-04	8.289974E-04	7.8023E-04
0.0000000e+00	1.314700E-09	4.692000E-10	3.0652E-09
2.5000000e-02	-7.950502E-04	-8.253549E-04	-7.7920E-04
7.5000000e-02	-2.376138E-03	-2.461490E-03	-2.3328E-03
1.2500000e-01	-3.944794E-03	-4.077442E-03	-3.8799E-03
1.7500000e-01	-5.500495E-03	-5.672260E-03	-5.4201E-03
2.2500000e-01	-7.042695E-03	-7.244932E-03	-6.9533E-03
2.7500000e-01	-8.570810E-03	-8.794375E-03	-8.4790E-03
3.2500000e-01	-1.008422E-02	-1.031943E-02	-9.9969E-03
3.7500000e-01	-1.158229E-02	-1.181885E-02	-1.1507E-02
4.2500000e-01	-1.306431E-02	-1.329132E-02	-1.3008E-02
4.7500000e-01	-1.452955E-02	-1.473539E-02	-1.4501E-02
5.2500000e-01	-1.597724E-02	-1.614954E-02	-1.5984E-02
5.7500000e-01	-1.740654E-02	-1.753210E-02	-1.7458E-02
6.2500000e-01	-1.881658E-02	-1.888132E-02	-1.8922E-02
6.7500000e-01	-2.020643E-02	-2.019527E-02	-2.0375E-02
7.2500000e-01	-2.157509E-02	-2.147192E-02	-2.1818E-02
7.7500000e-01	-2.292153E-02	-2.270910E-02	-2.3248E-02
8.2500000e-01	-2.424464E-02	-2.390455E-02	-2.4667E-02
8.7500000e-01	-2.554331E-02	-2.505603E-02	-2.6073E-02
9.2500000e-01	-2.681638E-02	-2.616144E-02	-2.7466E-02
9.7500000e-01	-2.806279E-02	-2.721907E-02	-2.8845E-02
1.0250000e+00	-2.928162E-02	-2.822778E-02	-3.0209E-02
1.0750000e+00	-3.047224E-02	-2.918687E-02	-3.1559E-02
1.1250000e+00	-3.163441E-02	-3.009551E-02	-3.2895E-02
1.1750000e+00	-3.276817E-02	-3.095232E-02	-3.4215E-02
1.2250000e+00	-3.387345E-02	-3.175524E-02	-3.5520E-02
1.2750000e+00	-3.494986E-02	-3.250183E-02	-3.6810E-02
1.3250000e+00	-3.599648E-02	-3.318993E-02	-3.8084E-02
1.3750000e+00	-3.701195E-02	-3.381867E-02	-3.9341E-02
1.4250000e+00	-3.799445E-02	-3.438959E-02	-4.0581E-02
1.4750000e+00	-3.894176E-02	-3.490743E-02	-4.1802E-02
1.5250000e+00	-3.985132E-02	-3.537965E-02	-4.3004E-02
1.5750000e+00	-4.072029E-02	-3.581474E-02	-4.4185E-02
1.6250000e+00	-4.154560E-02	-3.622056E-02	-4.5343E-02
1.6750000e+00	-4.232425E-02	-3.660353E-02	-4.6476E-02
1.7250000e+00	-4.305363E-02	-3.696849E-02	-4.7583E-02
1.7750000e+00	-4.373217E-02	-3.731908E-02	-4.8662E-02
1.8250000e+00	-4.436015E-02	-3.765800E-02	-4.9709E-02
1.8750000e+00	-4.494020E-02	-3.798729E-02	-5.0722E-02
1.9250000e+00	-4.547717E-02	-3.830853E-02	-5.1698E-02
1.9750000e+00	-4.597727E-02	-3.862293E-02	-5.2633E-02
2.0250000e+00	-4.644684E-02	-3.893148E-02	-5.3524E-02
2.0750000e+00	-4.689156E-02	-3.923498E-02	-5.4367E-02
2.1250000e+00	-4.731609E-02	-3.953408E-02	-5.5160E-02
2.1750000e+00	-4.772413E-02	-3.982931E-02	-5.5900E-02
2.2250000e+00	-4.811854E-02	-4.012115E-02	-5.6590E-02
2.2750000e+00	-4.850161E-02	-4.040997E-02	-5.7231E-02
2.3250000e+00	-4.887508E-02	-4.069609E-02	-5.7830E-02
2.3750000e+00	-4.924037E-02	-4.097982E-02	-5.8391E-02
2.4250000e+00	-4.959862E-02	-4.126137E-02	-5.8920E-02
2.4750000e+00	-4.995076E-02	-4.154098E-02	-5.9424E-02
2.5250000e+00	-5.029755E-02	-4.181883E-02	-5.9906E-02
2.5750000e+00	-5.063964E-02	-4.209509E-02	-6.0370E-02

2.6250000e+00	-5.097758E-02	-4.236990E-02	-6.0819E-02
2.6750000e+00	-5.131181E-02	-4.264339E-02	-6.1255E-02
2.7250000e+00	-5.164272E-02	-4.291571E-02	-6.1681E-02
2.7750000e+00	-5.197066E-02	-4.318692E-02	-6.2098E-02
2.8250000e+00	-5.229592E-02	-4.345715E-02	-6.2507E-02
2.8750000e+00	-5.261875E-02	-4.372646E-02	-6.2909E-02
2.9250000e+00	-5.293944E-02	-4.399496E-02	-6.3305E-02
2.9750000e+00	-5.325809E-02	-4.426273E-02	-6.3695E-02
3.0000000e+00	-5.341670E-02	-4.439634E-02	-6.3889E-02

[POWER Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	4.450136E-02	4.385767E-02	4.780180E-02
-1.4750000e+00	4.325737E-02	4.248503E-02	4.651240E-02
-1.4500000e+00	4.202627E-02	4.113177E-02	4.522925E-02
-1.4250000e+00	4.080680E-02	3.979850E-02	4.395155E-02
-1.4000000e+00	3.959743E-02	3.848563E-02	4.267872E-02
-1.3750000e+00	3.839648E-02	3.719324E-02	4.141043E-02
-1.3500000e+00	3.720221E-02	3.592106E-02	4.014658E-02
-1.3250000e+00	3.601296E-02	3.466841E-02	3.888724E-02
-1.3000000e+00	3.482735E-02	3.343415E-02	3.763261E-02
-1.2750000e+00	3.364438E-02	3.221669E-02	3.638295E-02
-1.2500000e+00	3.246358E-02	3.101397E-02	3.513856E-02
-1.2250000e+00	3.128497E-02	2.982356E-02	3.389971E-02
-1.2000000e+00	3.010901E-02	2.864279E-02	3.266671E-02
-1.1750000e+00	2.893648E-02	2.746896E-02	3.143983E-02
-1.1500000e+00	2.776826E-02	2.629964E-02	3.021937E-02
-1.1250000e+00	2.660528E-02	2.513304E-02	2.900560E-02
-1.1000000e+00	2.544841E-02	2.396824E-02	2.779885E-02
-1.0750000e+00	2.429844E-02	2.280536E-02	2.659947E-02
-1.0500000e+00	2.315612E-02	2.164543E-02	2.540788E-02
-1.0250000e+00	2.202214E-02	2.049007E-02	2.422456E-02
-1.0000000e+00	2.089719E-02	1.934117E-02	2.305008E-02
-9.7500000e-01	1.978197E-02	1.820065E-02	2.188512E-02
-9.5000000e-01	1.867722E-02	1.707028E-02	2.073051E-02
-9.2500000e-01	1.758372E-02	1.595172E-02	1.958717E-02
-9.0000000e-01	1.650228E-02	1.484648E-02	1.845617E-02
-8.7500000e-01	1.543373E-02	1.375596E-02	1.733861E-02
-8.5000000e-01	1.437889E-02	1.268153E-02	1.623552E-02
-8.2500000e-01	1.333851E-02	1.162449E-02	1.514771E-02
-8.0000000e-01	1.231328E-02	1.058622E-02	1.407560E-02
-7.7500000e-01	1.130388E-02	9.568206E-03	1.301920E-02
-7.5000000e-01	1.031106E-02	8.572276E-03	1.197826E-02
-7.2500000e-01	9.335806E-03	7.600753E-03	1.095255E-02
-7.0000000e-01	8.379549E-03	6.656721E-03	9.942208E-03
-6.7500000e-01	7.444326E-03	5.744302E-03	8.947907E-03
-6.5000000e-01	6.532997E-03	4.868952E-03	7.971037E-03
-6.2500000e-01	5.649458E-03	4.037787E-03	7.013856E-03
-6.0000000e-01	4.798902E-03	3.259897E-03	6.079694E-03
-5.7500000e-01	3.988134E-03	2.546530E-03	5.173232E-03
-5.5000000e-01	3.225930E-03	1.910856E-03	4.300898E-03
-5.2500000e-01	2.523332E-03	1.366712E-03	3.471435E-03
-5.0000000e-01	1.893615E-03	9.256050E-04	2.696669E-03
-4.7500000e-01	1.351332E-03	5.919303E-04	1.992344E-03



-4.5000000e-01	9.095438E-04	3.586832E-04	1.378411E-03
-4.2500000e-01	5.747929E-04	2.078355E-04	8.770334E-04
-4.0000000e-01	3.418453E-04	1.164218E-04	5.053061E-04
-3.7500000e-01	1.930954E-04	6.360210E-05	2.627362E-04
-3.5000000e-01	1.048276E-04	3.408364E-05	1.249600E-04
-3.2500000e-01	5.523970E-05	1.799151E-05	5.555840E-05
-3.0000000e-01	2.845373E-05	9.394192E-06	2.354470E-05
-2.7500000e-01	1.440808E-05	4.878770E-06	9.667951E-06
-2.5000000e-01	7.217646E-06	2.540607E-06	3.917671E-06
-2.2500000e-01	3.608426E-06	1.343333E-06	1.610365E-06
-2.0000000e-01	1.824961E-06	7.351342E-07	7.040722E-07
-1.7500000e-01	9.538096E-07	4.274933E-07	3.518088E-07
-1.5000000e-01	5.312391E-07	2.717598E-07	2.143482E-07
-1.2500000e-01	3.264285E-07	1.922224E-07	1.590776E-07
-1.0000000e-01	2.262355E-07	1.506538E-07	1.350141E-07
-7.5000000e-02	1.758303E-07	1.278715E-07	1.227817E-07
-5.0000000e-02	1.489090E-07	1.143246E-07	1.150732E-07
-2.5000000e-02	1.332080E-07	1.054156E-07	1.091539E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[Ramp]

R\_load = 50.00Ohm

	typ	min	max
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dV/dt\_r 532.022mV/119.423ps 491.319mV/165.185ps 567.619mV/91.565ps

dV/dt\_f 537.976mV/129.806ps 497.460mV/173.213ps 578.029mV/105.657ps

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[Rising Waveform]

V\_fixture = 1.500V

V\_fixture\_min = 1.425V

V\_fixture\_max = 1.575V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	6.1517E-01	5.8287E-01	6.5309E-01
1.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
2.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
3.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
4.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
5.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
6.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
7.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
8.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
9.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
1.00E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.10E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.20E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.30E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.40E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.50E-10	6.1517E-01	5.8287E-01	6.5433E-01

1.60E-10	6.1517E-01	5.8287E-01	6.7845E-01
1.70E-10	6.1616E-01	5.8287E-01	7.4018E-01
1.80E-10	6.1820E-01	5.8287E-01	8.2854E-01
1.90E-10	6.2509E-01	5.8287E-01	9.2350E-01
2.00E-10	6.3360E-01	5.8287E-01	1.0035E+00
2.10E-10	6.5972E-01	5.8287E-01	1.0622E+00
2.20E-10	6.9277E-01	5.8287E-01	1.1021E+00
2.30E-10	7.4389E-01	5.8287E-01	1.1297E+00
2.40E-10	8.0329E-01	5.8287E-01	1.1507E+00
2.50E-10	8.6698E-01	5.8287E-01	1.1725E+00
2.60E-10	9.3293E-01	5.8587E-01	1.2084E+00
2.70E-10	9.8606E-01	5.8977E-01	1.2660E+00
2.80E-10	1.0314E+00	6.0015E-01	1.3332E+00
2.90E-10	1.0621E+00	6.1507E-01	1.4005E+00
3.00E-10	1.0875E+00	6.3422E-01	1.4575E+00
3.10E-10	1.1038E+00	6.6308E-01	1.5003E+00
3.20E-10	1.1186E+00	6.9542E-01	1.5292E+00
3.30E-10	1.1318E+00	7.3829E-01	1.5452E+00
3.40E-10	1.1488E+00	7.8359E-01	1.5589E+00
3.50E-10	1.1685E+00	8.3263E-01	1.5644E+00
3.60E-10	1.1961E+00	8.7994E-01	1.5690E+00
3.70E-10	1.2308E+00	9.2648E-01	1.5711E+00
3.80E-10	1.2708E+00	9.6220E-01	1.5725E+00
3.90E-10	1.3157E+00	9.9443E-01	1.5733E+00
4.00E-10	1.3592E+00	1.0179E+00	1.5737E+00
4.10E-10	1.3979E+00	1.0367E+00	1.5740E+00
4.20E-10	1.4283E+00	1.0518E+00	1.5741E+00
4.30E-10	1.4538E+00	1.0635E+00	1.5743E+00
4.40E-10	1.4683E+00	1.0745E+00	1.5743E+00
4.50E-10	1.4800E+00	1.0848E+00	1.5743E+00
4.60E-10	1.4870E+00	1.0962E+00	1.5743E+00
4.70E-10	1.4913E+00	1.1088E+00	1.5744E+00
4.80E-10	1.4943E+00	1.1255E+00	1.5744E+00
4.90E-10	1.4948E+00	1.1437E+00	1.5745E+00
5.00E-10	1.4953E+00	1.1618E+00	1.5746E+00
5.10E-10	1.4959E+00	1.1826E+00	1.5747E+00
5.20E-10	1.4965E+00	1.2089E+00	1.5747E+00
5.30E-10	1.4972E+00	1.2353E+00	1.5747E+00
5.40E-10	1.4979E+00	1.2616E+00	1.5748E+00
5.50E-10	1.4985E+00	1.2874E+00	1.5748E+00
5.60E-10	1.4988E+00	1.3132E+00	1.5748E+00
5.70E-10	1.4992E+00	1.3390E+00	1.5749E+00
5.80E-10	1.4995E+00	1.3572E+00	1.5749E+00
5.90E-10	1.4996E+00	1.3739E+00	1.5749E+00
6.00E-10	1.4997E+00	1.3906E+00	1.5749E+00
6.10E-10	1.4998E+00	1.4002E+00	1.5749E+00
6.20E-10	1.4999E+00	1.4076E+00	1.5749E+00
6.30E-10	1.4999E+00	1.4150E+00	1.5750E+00
6.40E-10	1.4999E+00	1.4175E+00	1.5750E+00
6.50E-10	1.4999E+00	1.4200E+00	1.5750E+00
6.60E-10	1.4999E+00	1.4220E+00	1.5750E+00
6.70E-10	1.4999E+00	1.4227E+00	1.5750E+00
6.80E-10	1.4999E+00	1.4234E+00	1.5750E+00
6.90E-10	1.4999E+00	1.4238E+00	1.5750E+00

7.00E-10	1.4999E+00	1.4240E+00	1.5750E+00
7.10E-10	1.4999E+00	1.4242E+00	1.5750E+00
7.20E-10	1.4999E+00	1.4243E+00	1.5750E+00
7.30E-10	1.4999E+00	1.4244E+00	1.5750E+00
7.40E-10	1.4999E+00	1.4244E+00	1.5750E+00
7.50E-10	1.5000E+00	1.4244E+00	1.5750E+00

[Falling Waveform]

V\_fixture = 1.500V

V\_fixture\_min = 1.425V

V\_fixture\_max = 1.575V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	1.5000E+00	1.4244E+00	1.5750E+00
1.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
2.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
3.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
4.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
5.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
6.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
7.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
8.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
9.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
1.00E-10	1.5000E+00	1.4244E+00	1.5750E+00
1.10E-10	1.5001E+00	1.4244E+00	1.5750E+00
1.20E-10	1.5005E+00	1.4244E+00	1.5750E+00
1.30E-10	1.5010E+00	1.4244E+00	1.5696E+00
1.40E-10	1.5019E+00	1.4244E+00	1.5421E+00
1.50E-10	1.5028E+00	1.4244E+00	1.5004E+00
1.60E-10	1.5039E+00	1.4244E+00	1.4462E+00
1.70E-10	1.5050E+00	1.4244E+00	1.3851E+00
1.80E-10	1.5044E+00	1.4244E+00	1.3205E+00
1.90E-10	1.5035E+00	1.4244E+00	1.2579E+00
2.00E-10	1.4916E+00	1.4244E+00	1.2013E+00
2.10E-10	1.4788E+00	1.4244E+00	1.1613E+00
2.20E-10	1.4542E+00	1.4244E+00	1.1320E+00
2.30E-10	1.4285E+00	1.4244E+00	1.1084E+00
2.40E-10	1.3937E+00	1.4244E+00	1.0868E+00
2.50E-10	1.3578E+00	1.4244E+00	1.0540E+00
2.60E-10	1.3171E+00	1.4218E+00	1.0067E+00
2.70E-10	1.2768E+00	1.4145E+00	9.4839E-01
2.80E-10	1.2375E+00	1.3990E+00	8.8192E-01
2.90E-10	1.2003E+00	1.3841E+00	8.2227E-01
3.00E-10	1.1674E+00	1.3619E+00	7.7341E-01
3.10E-10	1.1375E+00	1.3392E+00	7.3495E-01
3.20E-10	1.1123E+00	1.3125E+00	7.0687E-01
3.30E-10	1.0884E+00	1.2806E+00	6.9026E-01
3.40E-10	1.0662E+00	1.2558E+00	6.7865E-01
3.50E-10	1.0397E+00	1.2224E+00	6.7137E-01
3.60E-10	1.0097E+00	1.1987E+00	6.6791E-01
3.70E-10	9.7255E-01	1.1742E+00	6.6445E-01
3.80E-10	9.3100E-01	1.1523E+00	6.6187E-01

3.90E-10	8.8580E-01	1.1315E+00	6.5971E-01
4.00E-10	8.3897E-01	1.1120E+00	6.5755E-01
4.10E-10	7.9641E-01	1.0924E+00	6.5651E-01
4.20E-10	7.5515E-01	1.0749E+00	6.5547E-01
4.30E-10	7.2360E-01	1.0540E+00	6.5463E-01
4.40E-10	6.9391E-01	1.0344E+00	6.5421E-01
4.50E-10	6.7567E-01	1.0110E+00	6.5378E-01
4.60E-10	6.5854E-01	9.8237E-01	6.5353E-01
4.70E-10	6.4671E-01	9.5346E-01	6.5337E-01
4.80E-10	6.3926E-01	9.1790E-01	6.5321E-01
4.90E-10	6.3074E-01	8.7949E-01	6.5309E-01
5.00E-10	6.1517E-01	8.4341E-01	6.5309E-01
5.10E-10	6.1517E-01	8.0437E-01	6.5309E-01
5.20E-10	6.1517E-01	7.6818E-01	6.5309E-01
5.30E-10	6.1517E-01	7.3775E-01	6.5309E-01
5.40E-10	6.1517E-01	7.0888E-01	6.5309E-01
5.50E-10	6.1517E-01	6.8336E-01	6.5309E-01
5.60E-10	6.1517E-01	6.6440E-01	6.5309E-01
5.70E-10	6.1517E-01	6.4314E-01	6.5309E-01
5.80E-10	6.1517E-01	6.3327E-01	6.5309E-01
5.90E-10	6.1517E-01	6.1885E-01	6.5309E-01
6.00E-10	6.1517E-01	6.1028E-01	6.5309E-01
6.10E-10	6.1517E-01	6.0327E-01	6.5309E-01
6.20E-10	6.1517E-01	5.9567E-01	6.5309E-01
6.30E-10	6.1517E-01	5.9405E-01	6.5309E-01
6.40E-10	6.1517E-01	5.9090E-01	6.5309E-01
6.50E-10	6.1517E-01	5.8836E-01	6.5309E-01
6.60E-10	6.1517E-01	5.8633E-01	6.5309E-01
6.70E-10	6.1517E-01	5.8473E-01	6.5309E-01
6.80E-10	6.1517E-01	5.8287E-01	6.5309E-01
6.90E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.00E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.10E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.20E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.30E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.40E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.50E-10	6.1517E-01	5.8287E-01	6.5309E-01

[Rising Waveform]

V\_fixture = 0.000V

V\_fixture\_min = 0.000V

V\_fixture\_max = 0.000V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	-3.6753E-04	7.2516E-04	2.8087E-05
1.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
2.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
3.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
4.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
5.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
6.00E-11	-3.6753E-04	7.2516E-04	1.0216E-04
7.00E-11	-3.6753E-04	7.2516E-04	1.9728E-04

8.00E-11	-3.6753E-04	7.2516E-04	2.7894E-04
9.00E-11	-3.6753E-04	7.2516E-04	2.8460E-04
1.00E-10	-3.6753E-04	7.2516E-04	2.9184E-04
1.10E-10	-3.6753E-04	7.2516E-04	1.1285E-03
1.20E-10	-3.6753E-04	7.2516E-04	2.7155E-03
1.30E-10	-3.6753E-04	7.2516E-04	5.0230E-03
1.40E-10	-3.6753E-04	7.2516E-04	7.3254E-03
1.50E-10	-3.6753E-04	7.2516E-04	8.7724E-03
1.60E-10	-3.6753E-04	7.2516E-04	1.1212E-02
1.70E-10	-3.6753E-04	7.2516E-04	4.6035E-02
1.80E-10	-3.6753E-04	7.2516E-04	9.9223E-02
1.90E-10	-3.6753E-04	7.2516E-04	1.6614E-01
2.00E-10	-3.6753E-04	7.2516E-04	2.3920E-01
2.10E-10	3.5736E-03	7.2516E-04	3.0948E-01
2.20E-10	2.0502E-02	7.2516E-04	3.6921E-01
2.30E-10	4.1697E-02	7.2516E-04	4.1553E-01
2.40E-10	7.5340E-02	7.2516E-04	4.4908E-01
2.50E-10	1.1331E-01	7.2516E-04	4.7338E-01
2.60E-10	1.5884E-01	7.2516E-04	4.9503E-01
2.70E-10	2.0668E-01	7.2516E-04	5.2442E-01
2.80E-10	2.5162E-01	7.2516E-04	5.7364E-01
2.90E-10	2.9581E-01	7.2516E-04	6.4440E-01
3.00E-10	3.3180E-01	5.8446E-03	7.2332E-01
3.10E-10	3.6594E-01	1.3532E-02	7.9061E-01
3.20E-10	3.9082E-01	2.2842E-02	8.4100E-01
3.30E-10	4.1397E-01	4.4064E-02	8.7560E-01
3.40E-10	4.3129E-01	6.5287E-02	8.9835E-01
3.50E-10	4.4771E-01	8.8005E-02	9.1275E-01
3.60E-10	4.6699E-01	1.1851E-01	9.2083E-01
3.70E-10	4.8661E-01	1.4901E-01	9.2762E-01
3.80E-10	5.2174E-01	1.7941E-01	9.3202E-01
3.90E-10	5.5826E-01	2.0939E-01	9.3546E-01
4.00E-10	6.0852E-01	2.3937E-01	9.3833E-01
4.10E-10	6.5962E-01	2.6803E-01	9.4087E-01
4.20E-10	7.0835E-01	2.9259E-01	9.4281E-01
4.30E-10	7.5701E-01	3.1716E-01	9.4428E-01
4.40E-10	7.8894E-01	3.3790E-01	9.4537E-01
4.50E-10	8.1785E-01	3.5587E-01	9.4606E-01
4.60E-10	8.3619E-01	3.7385E-01	9.4675E-01
4.70E-10	8.5094E-01	3.8729E-01	9.4744E-01
4.80E-10	8.6107E-01	4.0033E-01	9.4796E-01
4.90E-10	8.6825E-01	4.1330E-01	9.4812E-01
5.00E-10	8.7391E-01	4.2611E-01	9.4828E-01
5.10E-10	8.7730E-01	4.3892E-01	9.4845E-01
5.20E-10	8.8026E-01	4.5640E-01	9.4858E-01
5.30E-10	8.8222E-01	4.7710E-01	9.4859E-01
5.40E-10	8.8386E-01	4.9780E-01	9.4860E-01
5.50E-10	8.8486E-01	5.2989E-01	9.4860E-01
5.60E-10	8.8585E-01	5.6285E-01	9.4860E-01
5.70E-10	8.8684E-01	5.9689E-01	9.4860E-01
5.80E-10	8.8768E-01	6.3392E-01	9.4860E-01
5.90E-10	8.8847E-01	6.7095E-01	9.4860E-01
6.00E-10	8.8926E-01	7.0233E-01	9.4860E-01
6.10E-10	8.8998E-01	7.2999E-01	9.4860E-01

6.20E-10	8.9042E-01	7.5766E-01	9.4860E-01
6.30E-10	8.9086E-01	7.7515E-01	9.4860E-01
6.40E-10	8.9130E-01	7.9200E-01	9.4860E-01
6.50E-10	8.9157E-01	8.0477E-01	9.4860E-01
6.60E-10	8.9176E-01	8.1411E-01	9.4860E-01
6.70E-10	8.9194E-01	8.2282E-01	9.4860E-01
6.80E-10	8.9213E-01	8.2783E-01	9.4860E-01
6.90E-10	8.9232E-01	8.3284E-01	9.4860E-01
7.00E-10	8.9251E-01	8.3619E-01	9.4860E-01
7.10E-10	8.9269E-01	8.3899E-01	9.4860E-01
7.20E-10	8.9279E-01	8.4140E-01	9.4860E-01
7.30E-10	8.9282E-01	8.4312E-01	9.4860E-01
7.40E-10	8.9285E-01	8.4444E-01	9.4860E-01
7.50E-10	8.9288E-01	8.4444E-01	9.4860E-01

[Falling Waveform]

V\_fixture = 0.000V

V\_fixture\_min = 0.000V

V\_fixture\_max = 0.000V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	8.9297E-01	8.4444E-01	9.4842E-01
1.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
2.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
3.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
4.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
5.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
6.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
7.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
8.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
9.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
1.00E-10	8.9298E-01	8.4444E-01	9.4842E-01
1.10E-10	8.9307E-01	8.4444E-01	9.4842E-01
1.20E-10	8.9310E-01	8.4444E-01	9.4710E-01
1.30E-10	8.9298E-01	8.4444E-01	9.3543E-01
1.40E-10	8.9269E-01	8.4444E-01	9.1264E-01
1.50E-10	8.9153E-01	8.4444E-01	8.6501E-01
1.60E-10	8.9009E-01	8.4444E-01	7.9523E-01
1.70E-10	8.8619E-01	8.4444E-01	7.1623E-01
1.80E-10	8.8188E-01	8.4444E-01	6.3702E-01
1.90E-10	8.6797E-01	8.4444E-01	5.6822E-01
2.00E-10	8.5407E-01	8.4444E-01	5.1467E-01
2.10E-10	8.1907E-01	8.4444E-01	4.7745E-01
2.20E-10	7.8369E-01	8.4444E-01	4.5020E-01
2.30E-10	7.2759E-01	8.4356E-01	4.2700E-01
2.40E-10	6.6977E-01	8.4256E-01	4.0012E-01
2.50E-10	6.0883E-01	8.3977E-01	3.6152E-01
2.60E-10	5.4739E-01	8.3484E-01	3.0810E-01
2.70E-10	5.0056E-01	8.2675E-01	2.4581E-01
2.80E-10	4.5727E-01	8.1616E-01	1.8720E-01
2.90E-10	4.2858E-01	8.0426E-01	1.3866E-01
3.00E-10	4.0488E-01	7.8900E-01	9.9411E-02

3.10E-10	3.8513E-01	7.7410E-01	6.9027E-02
3.20E-10	3.6720E-01	7.4966E-01	4.8410E-02
3.30E-10	3.4529E-01	7.1605E-01	3.2789E-02
3.40E-10	3.2101E-01	6.7567E-01	2.0043E-02
3.50E-10	2.8958E-01	6.3059E-01	1.4012E-02
3.60E-10	2.5272E-01	5.9072E-01	8.0573E-03
3.70E-10	2.1376E-01	5.5071E-01	5.9996E-03
3.80E-10	1.7278E-01	5.1266E-01	3.9419E-03
3.90E-10	1.3552E-01	4.8164E-01	2.8692E-03
4.00E-10	1.0280E-01	4.5088E-01	2.1454E-03
4.10E-10	7.5449E-02	4.2586E-01	1.6064E-03
4.20E-10	5.6489E-02	4.0332E-01	1.2864E-03
4.30E-10	4.2244E-02	3.8157E-01	9.8729E-04
4.40E-10	3.1060E-02	3.6318E-01	7.8594E-04
4.50E-10	2.3597E-02	3.4438E-01	5.8459E-04
4.60E-10	1.8174E-02	3.2416E-01	3.8324E-04
4.70E-10	1.3964E-02	3.0378E-01	1.8189E-04
4.80E-10	1.1106E-02	2.8095E-01	9.6654E-05
4.90E-10	8.2484E-03	2.5556E-01	8.3885E-05
5.00E-10	5.8181E-03	2.3033E-01	7.1116E-05
5.10E-10	-3.6753E-04	1.9998E-01	5.8347E-05
5.20E-10	-3.6753E-04	1.7048E-01	4.5994E-05
5.30E-10	-3.6753E-04	1.4118E-01	4.0878E-05
5.40E-10	-3.6753E-04	1.1208E-01	3.5762E-05
5.50E-10	-3.6753E-04	8.5433E-02	3.0646E-05
5.60E-10	-3.6753E-04	6.4850E-02	2.8087E-05
5.70E-10	-3.6753E-04	4.4040E-02	2.8087E-05
5.80E-10	-3.6753E-04	3.2587E-02	2.8087E-05
5.90E-10	-3.6753E-04	2.2313E-02	2.8087E-05
6.00E-10	-3.6753E-04	1.4942E-02	2.8087E-05
6.10E-10	-3.6753E-04	1.1102E-02	2.8087E-05
6.20E-10	-3.6753E-04	7.2760E-03	2.8087E-05
6.30E-10	-3.6753E-04	5.9771E-03	2.8087E-05
6.40E-10	-3.6753E-04	4.6411E-03	2.8087E-05
6.50E-10	-3.6753E-04	3.7753E-03	2.8087E-05
6.60E-10	-3.6753E-04	3.2215E-03	2.8087E-05
6.70E-10	-3.6753E-04	2.7093E-03	2.8087E-05
6.80E-10	-3.6753E-04	2.3817E-03	2.8087E-05
6.90E-10	-3.6753E-04	2.0535E-03	2.8087E-05
7.00E-10	-3.6753E-04	1.7965E-03	2.8087E-05
7.10E-10	-3.6753E-04	1.5615E-03	2.8087E-05
7.20E-10	-3.6753E-04	1.3266E-03	2.8087E-05
7.30E-10	-3.6753E-04	7.2516E-04	2.8087E-05
7.40E-10	-3.6753E-04	7.2516E-04	2.8087E-05
7.50E-10	-3.6753E-04	7.2516E-04	2.8087E-05

\*\*\*\*\*  
MODEL DQS\_34\_1600 (34 Ohm Data Strobe I/O with 20ohm ODT, 1333/1600 Mbps)  
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[Model] DQS\_34\_ODT20\_1600  
Model\_type I/O

Vinl = 600.000mV

Vinh = 900.000mV  
Vmeas = 750.000mV  
Vref = 750.000mV  
Cref = 0.0pF  
Rref = 25.000Ohm

	typ	min	max
C_comp	1.078pF	0.966pF	1.223pF

| Note: C\_comp changes when the ODT circuit is enabled.

[Model Spec]

| Input threshold voltage corners

Vinl	0.6000V	0.5625V	0.6375V
Vinh	0.9000V	0.8625V	0.9375V

| Measurement voltage corners

Vmeas	0.7500V	0.7125V	0.7875V
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| Timing spec test load voltage corners

Vref	0.7500V	0.7125V	0.7875V
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| Dynamic Overshoot Parameters from DDR3 Specification

D_overshoot_ampl_h	0.40	NA	NA
D_overshoot_ampl_l	0.40	NA	NA
D_overshoot_area_h	0.13n	NA	NA
D_overshoot_area_l	0.13n	NA	NA

[[Receiver Thresholds]

|Vth = 0.750V

|Vth\_min = 0.7350V

|Vth\_max = 0.7650V

|Vinh\_ac = 0.150V

|Vinh\_dc = 0.100V

|Vinl\_ac = -0.150V

|Vinl\_dc = -0.100V

|Tslw\_ac = 5.000ns |Not specified, so set to high value

|Threshold\_sensitivity = 0.50

|Reference\_supply Pullup\_ref

|NOTE: If using the IBISCHK 4.2.1 or older parser, Differential receiver threshold parameters must be commented out because the parser generates errors for multiple differential models.

|Vcross\_low = 0.600V

|Vcross\_high = 0.900V

|Vdiff\_ac = 300mV

|Vdiff\_dc = 200mV

|Tdiffslw\_ac = 10.000ns |Not specified, so set to high value

[Add Submodel]

| Submodel Name Mode

20Ohm\_ODT Non-Driving

[Voltage Range] 1.500V 1.425V 1.575V



[Pullup Reference]	1.500V	1.425V	1.575V
[Temperature Range]	85.0	110.0	0.0

\*\*\*\*\*

[Pulldown]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	-6.717440E-03	-6.602220E-03	-5.1878E-03
-1.4750000e+00	-6.950660E-03	-6.867910E-03	-5.4092E-03
-1.4250000e+00	-7.420160E-03	-7.410640E-03	-5.8575E-03
-1.3750000e+00	-7.891420E-03	-7.964120E-03	-6.3098E-03
-1.3250000e+00	-8.362190E-03	-8.523980E-03	-6.7632E-03
-1.2750000e+00	-8.830600E-03	-9.086830E-03	-7.2155E-03
-1.2250000e+00	-9.295050E-03	-9.650090E-03	-7.6651E-03
-1.1750000e+00	-9.754060E-03	-1.021176E-02	-8.1108E-03
-1.1250000e+00	-1.020612E-02	-1.077025E-02	-8.5512E-03
-1.0750000e+00	-1.064959E-02	-1.132418E-02	-8.9850E-03
-1.0250000e+00	-1.108253E-02	-1.187221E-02	-9.4109E-03
-9.7500000e-01	-1.150258E-02	-1.241292E-02	-9.8270E-03
-9.2500000e-01	-1.190672E-02	-1.294440E-02	-1.0231E-02
-8.7500000e-01	-1.229088E-02	-1.346358E-02	-1.0620E-02
-8.2500000e-01	-1.264939E-02	-1.396484E-02	-1.0991E-02
-7.7500000e-01	-1.297388E-02	-1.443730E-02	-1.1336E-02
-7.2500000e-01	-1.325153E-02	-1.486077E-02	-1.1649E-02
-6.7500000e-01	-1.346224E-02	-1.520128E-02	-1.1917E-02
-6.2500000e-01	-1.357544E-02	-1.540771E-02	-1.2120E-02
-5.7500000e-01	-1.354969E-02	-1.541129E-02	-1.2227E-02
-5.2500000e-01	-1.333921E-02	-1.513126E-02	-1.2185E-02
-4.7500000e-01	-1.290237E-02	-1.448995E-02	-1.1917E-02
-4.2500000e-01	-1.219129E-02	-1.344440E-02	-1.1342E-02
-3.7500000e-01	-1.115219E-02	-1.205672E-02	-1.0442E-02
-3.2500000e-01	-9.820264E-03	-1.048922E-02	-9.2579E-03
-2.7500000e-01	-8.341268E-03	-8.866406E-03	-7.8883E-03
-2.2500000e-01	-6.822138E-03	-7.235947E-03	-6.4597E-03
-1.7500000e-01	-5.298271E-03	-5.610770E-03	-5.0227E-03
-1.2500000e-01	-3.777710E-03	-3.994334E-03	-3.5860E-03
-7.5000000e-02	-2.262248E-03	-2.388040E-03	-2.1505E-03
-2.5000000e-02	-7.525408E-04	-7.929693E-04	-7.1644E-04
0.0000000e+00	-2.915900E-09	-3.333000E-10	-5.0570E-09
2.5000000e-02	7.507199E-04	7.895269E-04	7.1589E-04
7.5000000e-02	2.245917E-03	2.357110E-03	2.1456E-03
1.2500000e-01	3.732365E-03	3.908392E-03	3.5725E-03
1.7500000e-01	5.209520E-03	5.442055E-03	4.9965E-03
2.2500000e-01	6.676783E-03	6.956634E-03	6.4174E-03
2.7500000e-01	8.133496E-03	8.450479E-03	7.8352E-03
3.2500000e-01	9.578923E-03	9.921721E-03	9.2496E-03
3.7500000e-01	1.101226E-02	1.136822E-02	1.0661E-02
4.2500000e-01	1.243257E-02	1.278754E-02	1.2068E-02
4.7500000e-01	1.383888E-02	1.417683E-02	1.3472E-02
5.2500000e-01	1.523002E-02	1.553278E-02	1.4871E-02
5.7500000e-01	1.660471E-02	1.685160E-02	1.6267E-02
6.2500000e-01	1.796153E-02	1.812901E-02	1.7659E-02

6.7500000e-01	1.929892E-02	1.936079E-02	1.9046E-02
7.2500000e-01	2.061527E-02	2.054383E-02	2.0428E-02
7.7500000e-01	2.190915E-02	2.167702E-02	2.1805E-02
8.2500000e-01	2.317984E-02	2.276044E-02	2.3178E-02
8.7500000e-01	2.442765E-02	2.379315E-02	2.4544E-02
9.2500000e-01	2.565381E-02	2.477183E-02	2.5905E-02
9.7500000e-01	2.685955E-02	2.569073E-02	2.7261E-02
1.0250000e+00	2.804545E-02	2.654265E-02	2.8609E-02
1.0750000e+00	2.921123E-02	2.732059E-02	2.9951E-02
1.1250000e+00	3.035586E-02	2.802022E-02	3.1286E-02
1.1750000e+00	3.147763E-02	2.864222E-02	3.2613E-02
1.2250000e+00	3.257424E-02	2.919304E-02	3.3932E-02
1.2750000e+00	3.364280E-02	2.968331E-02	3.5242E-02
1.3250000e+00	3.467974E-02	3.012500E-02	3.6542E-02
1.3750000e+00	3.568083E-02	3.052912E-02	3.7832E-02
1.4250000e+00	3.664118E-02	3.090472E-02	3.9112E-02
1.4750000e+00	3.755541E-02	3.125876E-02	4.0379E-02
1.5250000e+00	3.841817E-02	3.159641E-02	4.1633E-02
1.5750000e+00	3.922484E-02	3.192149E-02	4.2873E-02
1.6250000e+00	3.997270E-02	3.223679E-02	4.4097E-02
1.6750000e+00	4.066185E-02	3.254442E-02	4.5303E-02
1.7250000e+00	4.129552E-02	3.284593E-02	4.6490E-02
1.7750000e+00	4.187958E-02	3.314250E-02	4.7654E-02
1.8250000e+00	4.242129E-02	3.343504E-02	4.8794E-02
1.8750000e+00	4.292808E-02	3.372428E-02	4.9905E-02
1.9250000e+00	4.340673E-02	3.401077E-02	5.0985E-02
1.9750000e+00	4.386296E-02	3.429496E-02	5.2029E-02
2.0250000e+00	4.430140E-02	3.457721E-02	5.3033E-02
2.0750000e+00	4.472568E-02	3.485782E-02	5.3993E-02
2.1250000e+00	4.513865E-02	3.513705E-02	5.4906E-02
2.1750000e+00	4.554252E-02	3.541511E-02	5.5769E-02
2.2250000e+00	4.593900E-02	3.569218E-02	5.6583E-02
2.2750000e+00	4.632944E-02	3.596843E-02	5.7349E-02
2.3250000e+00	4.671490E-02	3.624402E-02	5.8070E-02
2.3750000e+00	4.709624E-02	3.651910E-02	5.8752E-02
2.4250000e+00	4.747414E-02	3.679380E-02	5.9398E-02
2.4750000e+00	4.784918E-02	3.706830E-02	6.0016E-02
2.5250000e+00	4.822183E-02	3.734276E-02	6.0609E-02
2.5750000e+00	4.859248E-02	3.761735E-02	6.1181E-02
2.6250000e+00	4.896149E-02	3.789229E-02	6.1736E-02
2.6750000e+00	4.932914E-02	3.816783E-02	6.2277E-02
2.7250000e+00	4.969572E-02	3.844422E-02	6.2806E-02
2.7750000e+00	5.006148E-02	3.872180E-02	6.3326E-02
2.8250000e+00	5.042664E-02	3.900093E-02	6.3837E-02
2.8750000e+00	5.079141E-02	3.928204E-02	6.4342E-02
2.9250000e+00	5.115601E-02	3.956562E-02	6.4840E-02
2.9750000e+00	5.152066E-02	3.985223E-02	6.5334E-02
3.0000000e+00	5.170306E-02	3.999685E-02	6.5579E-02

[GND Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	-5.378351E-02	-5.490567E-02	-5.885698E-02
-1.4750000e+00	-5.231251E-02	-5.334431E-02	-5.735670E-02
-1.4500000e+00	-5.084369E-02	-5.178549E-02	-5.585777E-02

-1.4250000e+00	-4.937717E-02	-5.022938E-02	-5.436025E-02
-1.4000000e+00	-4.791309E-02	-4.867613E-02	-5.286424E-02
-1.3750000e+00	-4.645161E-02	-4.712594E-02	-5.136982E-02
-1.3500000e+00	-4.499289E-02	-4.557901E-02	-4.987708E-02
-1.3250000e+00	-4.353712E-02	-4.403556E-02	-4.838614E-02
-1.3000000e+00	-4.208452E-02	-4.249585E-02	-4.689710E-02
-1.2750000e+00	-4.063529E-02	-4.096014E-02	-4.541010E-02
-1.2500000e+00	-3.918970E-02	-3.942875E-02	-4.392527E-02
-1.2250000e+00	-3.774803E-02	-3.790201E-02	-4.244278E-02
-1.2000000e+00	-3.631059E-02	-3.638031E-02	-4.096280E-02
-1.1750000e+00	-3.487773E-02	-3.486408E-02	-3.948552E-02
-1.1500000e+00	-3.344986E-02	-3.335380E-02	-3.801116E-02
-1.1250000e+00	-3.202742E-02	-3.185003E-02	-3.653998E-02
-1.1000000e+00	-3.061092E-02	-3.035339E-02	-3.507226E-02
-1.0750000e+00	-2.920096E-02	-2.886462E-02	-3.360832E-02
-1.0500000e+00	-2.779821E-02	-2.738455E-02	-3.214854E-02
-1.0250000e+00	-2.640347E-02	-2.591415E-02	-3.069335E-02
-1.0000000e+00	-2.501766E-02	-2.445455E-02	-2.924328E-02
-9.7500000e-01	-2.364185E-02	-2.300708E-02	-2.779892E-02
-9.5000000e-01	-2.227732E-02	-2.157329E-02	-2.636102E-02
-9.2500000e-01	-2.092559E-02	-2.015501E-02	-2.493048E-02
-9.0000000e-01	-1.958843E-02	-1.875433E-02	-2.350840E-02
-8.7500000e-01	-1.826790E-02	-1.737363E-02	-2.209616E-02
-8.5000000e-01	-1.696631E-02	-1.601550E-02	-2.069550E-02
-8.2500000e-01	-1.568612E-02	-1.468262E-02	-1.930856E-02
-8.0000000e-01	-1.442972E-02	-1.337762E-02	-1.793782E-02
-7.7500000e-01	-1.319926E-02	-1.210311E-02	-1.658583E-02
-7.5000000e-01	-1.199673E-02	-1.086191E-02	-1.525450E-02
-7.2500000e-01	-1.082427E-02	-9.657411E-03	-1.394473E-02
-7.0000000e-01	-9.684638E-03	-8.493939E-03	-1.265685E-02
-6.7500000e-01	-8.581514E-03	-7.376930E-03	-1.139180E-02
-6.5000000e-01	-7.519607E-03	-6.312929E-03	-1.015194E-02
-6.2500000e-01	-6.504547E-03	-5.309438E-03	-8.941317E-03
-6.0000000e-01	-5.542688E-03	-4.374618E-03	-7.765734E-03
-5.7500000e-01	-4.640772E-03	-3.516890E-03	-6.632943E-03
-5.5000000e-01	-3.805524E-03	-2.744483E-03	-5.552944E-03
-5.2500000e-01	-3.043248E-03	-2.065103E-03	-4.538199E-03
-5.0000000e-01	-2.359647E-03	-1.485677E-03	-3.603410E-03
-4.7500000e-01	-1.760020E-03	-1.011779E-03	-2.764263E-03
-4.5000000e-01	-1.249702E-03	-6.458403E-04	-2.034714E-03
-4.2500000e-01	-8.339835E-04	-3.838582E-04	-1.423543E-03
-4.0000000e-01	-5.162389E-04	-2.125448E-04	-9.327585E-04
-3.7500000e-01	-2.937329E-04	-1.106466E-04	-5.596314E-04
-3.5000000e-01	-1.537279E-04	-5.497263E-05	-2.989521E-04
-3.2500000e-01	-7.493357E-05	-2.649171E-05	-1.392980E-04
-3.0000000e-01	-3.471511E-05	-1.256760E-05	-5.693623E-05
-2.7500000e-01	-1.563019E-05	-5.952723E-06	-2.113740E-05
-2.5000000e-01	-7.001335E-06	-2.863206E-06	-7.478892E-06
-2.2500000e-01	-3.215160E-06	-1.433628E-06	-2.669240E-06
-2.0000000e-01	-1.576700E-06	-7.729597E-07	-1.039346E-06
-1.7500000e-01	-8.691669E-07	-4.659048E-07	-4.927419E-07
-1.5000000e-01	-5.602970E-07	-3.210513E-07	-3.060998E-07
-1.2500000e-01	-4.211770E-07	-2.506183E-07	-2.379530E-07
-1.0000000e-01	-3.542844E-07	-2.144259E-07	-2.089398E-07

-7.5000000e-02	-3.182781E-07	-1.940781E-07	-1.931385E-07
-5.0000000e-02	-2.956734E-07	-1.811414E-07	-1.820761E-07
-2.5000000e-02	-2.790923E-07	-1.717494E-07	-1.729560E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[Pullup]

-1.5000000e+00	1.625201E-02	1.758608E-02	1.5776E-02
-1.4750000e+00	1.628295E-02	1.772293E-02	1.5794E-02
-1.4250000e+00	1.631167E-02	1.794814E-02	1.5819E-02
-1.3750000e+00	1.630625E-02	1.810214E-02	1.5832E-02
-1.3250000e+00	1.628177E-02	1.818331E-02	1.5836E-02
-1.2750000e+00	1.625213E-02	1.819962E-02	1.5830E-02
-1.2250000e+00	1.622498E-02	1.816850E-02	1.5814E-02
-1.1750000e+00	1.620031E-02	1.811351E-02	1.5786E-02
-1.1250000e+00	1.617356E-02	1.805794E-02	1.5746E-02
-1.0750000e+00	1.613984E-02	1.801572E-02	1.5692E-02
-1.0250000e+00	1.609584E-02	1.798687E-02	1.5624E-02
-9.7500000e-01	1.603981E-02	1.796321E-02	1.5542E-02
-9.2500000e-01	1.597095E-02	1.793695E-02	1.5444E-02
-8.7500000e-01	1.588883E-02	1.790371E-02	1.5331E-02
-8.2500000e-01	1.579281E-02	1.786161E-02	1.5200E-02
-7.7500000e-01	1.568160E-02	1.780891E-02	1.5050E-02
-7.2500000e-01	1.555266E-02	1.774030E-02	1.4877E-02
-6.7500000e-01	1.540100E-02	1.763919E-02	1.4677E-02
-6.2500000e-01	1.521657E-02	1.746424E-02	1.4440E-02
-5.7500000e-01	1.497687E-02	1.713549E-02	1.4152E-02
-5.2500000e-01	1.462952E-02	1.653605E-02	1.3790E-02
-4.7500000e-01	1.407045E-02	1.555591E-02	1.3303E-02
-4.2500000e-01	1.317055E-02	1.420030E-02	1.2595E-02
-3.7500000e-01	1.190475E-02	1.261585E-02	1.1528E-02
-3.2500000e-01	1.040962E-02	1.094206E-02	1.0132E-02
-2.7500000e-01	8.825733E-03	9.244475E-03	8.6004E-03
-2.2500000e-01	7.217759E-03	7.545941E-03	7.0379E-03
-1.7500000e-01	5.606827E-03	5.853537E-03	5.4714E-03
-1.2500000e-01	3.998885E-03	4.169432E-03	3.9059E-03
-7.5000000e-02	2.395513E-03	2.494429E-03	2.3421E-03
-2.5000000e-02	7.971932E-04	8.289974E-04	7.8023E-04
0.0000000e+00	1.314700E-09	4.692000E-10	3.0652E-09
2.5000000e-02	-7.950502E-04	-8.253549E-04	-7.7920E-04
7.5000000e-02	-2.376138E-03	-2.461490E-03	-2.3328E-03
1.2500000e-01	-3.944794E-03	-4.077442E-03	-3.8799E-03
1.7500000e-01	-5.500495E-03	-5.672260E-03	-5.4201E-03
2.2500000e-01	-7.042695E-03	-7.244932E-03	-6.9533E-03
2.7500000e-01	-8.570810E-03	-8.794375E-03	-8.4790E-03
3.2500000e-01	-1.008422E-02	-1.031943E-02	-9.9969E-03
3.7500000e-01	-1.158229E-02	-1.181885E-02	-1.1507E-02
4.2500000e-01	-1.306431E-02	-1.329132E-02	-1.3008E-02
4.7500000e-01	-1.452955E-02	-1.473539E-02	-1.4501E-02
5.2500000e-01	-1.597724E-02	-1.614954E-02	-1.5984E-02
5.7500000e-01	-1.740654E-02	-1.753210E-02	-1.7458E-02
6.2500000e-01	-1.881658E-02	-1.888132E-02	-1.8922E-02
6.7500000e-01	-2.020643E-02	-2.019527E-02	-2.0375E-02
7.2500000e-01	-2.157509E-02	-2.147192E-02	-2.1818E-02

7.7500000e-01	-2.292153E-02	-2.270910E-02	-2.3248E-02
8.2500000e-01	-2.424464E-02	-2.390455E-02	-2.4667E-02
8.7500000e-01	-2.554331E-02	-2.505603E-02	-2.6073E-02
9.2500000e-01	-2.681638E-02	-2.616144E-02	-2.7466E-02
9.7500000e-01	-2.806279E-02	-2.721907E-02	-2.8845E-02
1.0250000e+00	-2.928162E-02	-2.822778E-02	-3.0209E-02
1.0750000e+00	-3.047224E-02	-2.918687E-02	-3.1559E-02
1.1250000e+00	-3.163441E-02	-3.009551E-02	-3.2895E-02
1.1750000e+00	-3.276817E-02	-3.095232E-02	-3.4215E-02
1.2250000e+00	-3.387345E-02	-3.175524E-02	-3.5520E-02
1.2750000e+00	-3.494986E-02	-3.250183E-02	-3.6810E-02
1.3250000e+00	-3.599648E-02	-3.318993E-02	-3.8084E-02
1.3750000e+00	-3.701195E-02	-3.381867E-02	-3.9341E-02
1.4250000e+00	-3.799445E-02	-3.438959E-02	-4.0581E-02
1.4750000e+00	-3.894176E-02	-3.490743E-02	-4.1802E-02
1.5250000e+00	-3.985132E-02	-3.537965E-02	-4.3004E-02
1.5750000e+00	-4.072029E-02	-3.581474E-02	-4.4185E-02
1.6250000e+00	-4.154560E-02	-3.622056E-02	-4.5343E-02
1.6750000e+00	-4.232425E-02	-3.660353E-02	-4.6476E-02
1.7250000e+00	-4.305363E-02	-3.696849E-02	-4.7583E-02
1.7750000e+00	-4.373217E-02	-3.731908E-02	-4.8662E-02
1.8250000e+00	-4.436015E-02	-3.765800E-02	-4.9709E-02
1.8750000e+00	-4.494020E-02	-3.798729E-02	-5.0722E-02
1.9250000e+00	-4.547717E-02	-3.830853E-02	-5.1698E-02
1.9750000e+00	-4.597727E-02	-3.862293E-02	-5.2633E-02
2.0250000e+00	-4.644684E-02	-3.893148E-02	-5.3524E-02
2.0750000e+00	-4.689156E-02	-3.923498E-02	-5.4367E-02
2.1250000e+00	-4.731609E-02	-3.953408E-02	-5.5160E-02
2.1750000e+00	-4.772413E-02	-3.982931E-02	-5.5900E-02
2.2250000e+00	-4.811854E-02	-4.012115E-02	-5.6590E-02
2.2750000e+00	-4.850161E-02	-4.040997E-02	-5.7231E-02
2.3250000e+00	-4.887508E-02	-4.069609E-02	-5.7830E-02
2.3750000e+00	-4.924037E-02	-4.097982E-02	-5.8391E-02
2.4250000e+00	-4.959862E-02	-4.126137E-02	-5.8920E-02
2.4750000e+00	-4.995076E-02	-4.154098E-02	-5.9424E-02
2.5250000e+00	-5.029755E-02	-4.181883E-02	-5.9906E-02
2.5750000e+00	-5.063964E-02	-4.209509E-02	-6.0370E-02
2.6250000e+00	-5.097758E-02	-4.236990E-02	-6.0819E-02
2.6750000e+00	-5.131181E-02	-4.264339E-02	-6.1255E-02
2.7250000e+00	-5.164272E-02	-4.291571E-02	-6.1681E-02
2.7750000e+00	-5.197066E-02	-4.318692E-02	-6.2098E-02
2.8250000e+00	-5.229592E-02	-4.345715E-02	-6.2507E-02
2.8750000e+00	-5.261875E-02	-4.372646E-02	-6.2909E-02
2.9250000e+00	-5.293944E-02	-4.399496E-02	-6.3305E-02
2.9750000e+00	-5.325809E-02	-4.426273E-02	-6.3695E-02
3.0000000e+00	-5.341670E-02	-4.439634E-02	-6.3889E-02

[POWER Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	4.450136E-02	4.385767E-02	4.780180E-02
-1.4750000e+00	4.325737E-02	4.248503E-02	4.651240E-02
-1.4500000e+00	4.202627E-02	4.113177E-02	4.522925E-02
-1.4250000e+00	4.080680E-02	3.979850E-02	4.395155E-02
-1.4000000e+00	3.959743E-02	3.848563E-02	4.267872E-02

-1.3750000e+00	3.839648E-02	3.719324E-02	4.141043E-02
-1.3500000e+00	3.720221E-02	3.592106E-02	4.014658E-02
-1.3250000e+00	3.601296E-02	3.466841E-02	3.888724E-02
-1.3000000e+00	3.482735E-02	3.343415E-02	3.763261E-02
-1.2750000e+00	3.364438E-02	3.221669E-02	3.638295E-02
-1.2500000e+00	3.246358E-02	3.101397E-02	3.513856E-02
-1.2250000e+00	3.128497E-02	2.982356E-02	3.389971E-02
-1.2000000e+00	3.010901E-02	2.864279E-02	3.266671E-02
-1.1750000e+00	2.893648E-02	2.746896E-02	3.143983E-02
-1.1500000e+00	2.776826E-02	2.629964E-02	3.021937E-02
-1.1250000e+00	2.660528E-02	2.513304E-02	2.900560E-02
-1.1000000e+00	2.544841E-02	2.396824E-02	2.779885E-02
-1.0750000e+00	2.429844E-02	2.280536E-02	2.659947E-02
-1.0500000e+00	2.315612E-02	2.164543E-02	2.540788E-02
-1.0250000e+00	2.202214E-02	2.049007E-02	2.422456E-02
-1.0000000e+00	2.089719E-02	1.934117E-02	2.305008E-02
-9.7500000e-01	1.978197E-02	1.820065E-02	2.188512E-02
-9.5000000e-01	1.867722E-02	1.707028E-02	2.073051E-02
-9.2500000e-01	1.758372E-02	1.595172E-02	1.958717E-02
-9.0000000e-01	1.650228E-02	1.484648E-02	1.845617E-02
-8.7500000e-01	1.543373E-02	1.375596E-02	1.733861E-02
-8.5000000e-01	1.437889E-02	1.268153E-02	1.623552E-02
-8.2500000e-01	1.333851E-02	1.162449E-02	1.514771E-02
-8.0000000e-01	1.231328E-02	1.058622E-02	1.407560E-02
-7.7500000e-01	1.130388E-02	9.568206E-03	1.301920E-02
-7.5000000e-01	1.031106E-02	8.572276E-03	1.197826E-02
-7.2500000e-01	9.335806E-03	7.600753E-03	1.095255E-02
-7.0000000e-01	8.379549E-03	6.656721E-03	9.942208E-03
-6.7500000e-01	7.444326E-03	5.744302E-03	8.947907E-03
-6.5000000e-01	6.532997E-03	4.868952E-03	7.971037E-03
-6.2500000e-01	5.649458E-03	4.037787E-03	7.013856E-03
-6.0000000e-01	4.798902E-03	3.259897E-03	6.079694E-03
-5.7500000e-01	3.988134E-03	2.546530E-03	5.173232E-03
-5.5000000e-01	3.225930E-03	1.910856E-03	4.300898E-03
-5.2500000e-01	2.523332E-03	1.366712E-03	3.471435E-03
-5.0000000e-01	1.893615E-03	9.256050E-04	2.696669E-03
-4.7500000e-01	1.351332E-03	5.919303E-04	1.992344E-03
-4.5000000e-01	9.095438E-04	3.586832E-04	1.378411E-03
-4.2500000e-01	5.747929E-04	2.078355E-04	8.770334E-04
-4.0000000e-01	3.418453E-04	1.164218E-04	5.053061E-04
-3.7500000e-01	1.930954E-04	6.360210E-05	2.627362E-04
-3.5000000e-01	1.048276E-04	3.408364E-05	1.249600E-04
-3.2500000e-01	5.523970E-05	1.799151E-05	5.555840E-05
-3.0000000e-01	2.845373E-05	9.394192E-06	2.354470E-05
-2.7500000e-01	1.440808E-05	4.878770E-06	9.667951E-06
-2.5000000e-01	7.217646E-06	2.540607E-06	3.917671E-06
-2.2500000e-01	3.608426E-06	1.343333E-06	1.610365E-06
-2.0000000e-01	1.824961E-06	7.351342E-07	7.040722E-07
-1.7500000e-01	9.538096E-07	4.274933E-07	3.518088E-07
-1.5000000e-01	5.312391E-07	2.717598E-07	2.143482E-07
-1.2500000e-01	3.264285E-07	1.922224E-07	1.590776E-07
-1.0000000e-01	2.262355E-07	1.506538E-07	1.350141E-07
-7.5000000e-02	1.758303E-07	1.278715E-07	1.227817E-07
-5.0000000e-02	1.489090E-07	1.143246E-07	1.150732E-07

-2.5000000e-02	1.332080E-07	1.054156E-07	1.091539E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[Ramp]

R\_load = 50.00Ohm

typ	min	max
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dV/dt\_r 532.022mV/119.423ps 491.319mV/165.185ps 567.619mV/91.565ps

dV/dt\_f 537.976mV/129.806ps 497.460mV/173.213ps 578.029mV/105.657ps

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[Rising Waveform]

V\_fixture = 1.500V

V\_fixture\_min = 1.425V

V\_fixture\_max = 1.575V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	6.1517E-01	5.8287E-01	6.5309E-01
1.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
2.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
3.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
4.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
5.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
6.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
7.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
8.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
9.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
1.00E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.10E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.20E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.30E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.40E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.50E-10	6.1517E-01	5.8287E-01	6.5433E-01
1.60E-10	6.1517E-01	5.8287E-01	6.7845E-01
1.70E-10	6.1616E-01	5.8287E-01	7.4018E-01
1.80E-10	6.1820E-01	5.8287E-01	8.2854E-01
1.90E-10	6.2509E-01	5.8287E-01	9.2350E-01
2.00E-10	6.3360E-01	5.8287E-01	1.0035E+00
2.10E-10	6.5972E-01	5.8287E-01	1.0622E+00
2.20E-10	6.9277E-01	5.8287E-01	1.1021E+00
2.30E-10	7.4389E-01	5.8287E-01	1.1297E+00
2.40E-10	8.0329E-01	5.8287E-01	1.1507E+00
2.50E-10	8.6698E-01	5.8287E-01	1.1725E+00
2.60E-10	9.3293E-01	5.8587E-01	1.2084E+00
2.70E-10	9.8606E-01	5.8977E-01	1.2660E+00
2.80E-10	1.0314E+00	6.0015E-01	1.3332E+00
2.90E-10	1.0621E+00	6.1507E-01	1.4005E+00
3.00E-10	1.0875E+00	6.3422E-01	1.4575E+00
3.10E-10	1.1038E+00	6.6308E-01	1.5003E+00
3.20E-10	1.1186E+00	6.9542E-01	1.5292E+00

3.30E-10	1.1318E+00	7.3829E-01	1.5452E+00
3.40E-10	1.1488E+00	7.8359E-01	1.5589E+00
3.50E-10	1.1685E+00	8.3263E-01	1.5644E+00
3.60E-10	1.1961E+00	8.7994E-01	1.5690E+00
3.70E-10	1.2308E+00	9.2648E-01	1.5711E+00
3.80E-10	1.2708E+00	9.6220E-01	1.5725E+00
3.90E-10	1.3157E+00	9.9443E-01	1.5733E+00
4.00E-10	1.3592E+00	1.0179E+00	1.5737E+00
4.10E-10	1.3979E+00	1.0367E+00	1.5740E+00
4.20E-10	1.4283E+00	1.0518E+00	1.5741E+00
4.30E-10	1.4538E+00	1.0635E+00	1.5743E+00
4.40E-10	1.4683E+00	1.0745E+00	1.5743E+00
4.50E-10	1.4800E+00	1.0848E+00	1.5743E+00
4.60E-10	1.4870E+00	1.0962E+00	1.5743E+00
4.70E-10	1.4913E+00	1.1088E+00	1.5744E+00
4.80E-10	1.4943E+00	1.1255E+00	1.5744E+00
4.90E-10	1.4948E+00	1.1437E+00	1.5745E+00
5.00E-10	1.4953E+00	1.1618E+00	1.5746E+00
5.10E-10	1.4959E+00	1.1826E+00	1.5747E+00
5.20E-10	1.4965E+00	1.2089E+00	1.5747E+00
5.30E-10	1.4972E+00	1.2353E+00	1.5747E+00
5.40E-10	1.4979E+00	1.2616E+00	1.5748E+00
5.50E-10	1.4985E+00	1.2874E+00	1.5748E+00
5.60E-10	1.4988E+00	1.3132E+00	1.5748E+00
5.70E-10	1.4992E+00	1.3390E+00	1.5749E+00
5.80E-10	1.4995E+00	1.3572E+00	1.5749E+00
5.90E-10	1.4996E+00	1.3739E+00	1.5749E+00
6.00E-10	1.4997E+00	1.3906E+00	1.5749E+00
6.10E-10	1.4998E+00	1.4002E+00	1.5749E+00
6.20E-10	1.4999E+00	1.4076E+00	1.5749E+00
6.30E-10	1.4999E+00	1.4150E+00	1.5750E+00
6.40E-10	1.4999E+00	1.4175E+00	1.5750E+00
6.50E-10	1.4999E+00	1.4200E+00	1.5750E+00
6.60E-10	1.4999E+00	1.4220E+00	1.5750E+00
6.70E-10	1.4999E+00	1.4227E+00	1.5750E+00
6.80E-10	1.4999E+00	1.4234E+00	1.5750E+00
6.90E-10	1.4999E+00	1.4238E+00	1.5750E+00
7.00E-10	1.4999E+00	1.4240E+00	1.5750E+00
7.10E-10	1.4999E+00	1.4242E+00	1.5750E+00
7.20E-10	1.4999E+00	1.4243E+00	1.5750E+00
7.30E-10	1.4999E+00	1.4244E+00	1.5750E+00
7.40E-10	1.4999E+00	1.4244E+00	1.5750E+00
7.50E-10	1.5000E+00	1.4244E+00	1.5750E+00

[Falling Waveform]

V\_fixture = 1.500V

V\_fixture\_min = 1.425V

V\_fixture\_max = 1.575V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	1.5000E+00	1.4244E+00	1.5750E+00
1.00E-11	1.5000E+00	1.4244E+00	1.5750E+00



2.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
3.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
4.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
5.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
6.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
7.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
8.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
9.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
1.00E-10	1.5000E+00	1.4244E+00	1.5750E+00
1.10E-10	1.5001E+00	1.4244E+00	1.5750E+00
1.20E-10	1.5005E+00	1.4244E+00	1.5750E+00
1.30E-10	1.5010E+00	1.4244E+00	1.5696E+00
1.40E-10	1.5019E+00	1.4244E+00	1.5421E+00
1.50E-10	1.5028E+00	1.4244E+00	1.5004E+00
1.60E-10	1.5039E+00	1.4244E+00	1.4462E+00
1.70E-10	1.5050E+00	1.4244E+00	1.3851E+00
1.80E-10	1.5044E+00	1.4244E+00	1.3205E+00
1.90E-10	1.5035E+00	1.4244E+00	1.2579E+00
2.00E-10	1.4916E+00	1.4244E+00	1.2013E+00
2.10E-10	1.4788E+00	1.4244E+00	1.1613E+00
2.20E-10	1.4542E+00	1.4244E+00	1.1320E+00
2.30E-10	1.4285E+00	1.4244E+00	1.1084E+00
2.40E-10	1.3937E+00	1.4244E+00	1.0868E+00
2.50E-10	1.3578E+00	1.4244E+00	1.0540E+00
2.60E-10	1.3171E+00	1.4218E+00	1.0067E+00
2.70E-10	1.2768E+00	1.4145E+00	9.4839E-01
2.80E-10	1.2375E+00	1.3990E+00	8.8192E-01
2.90E-10	1.2003E+00	1.3841E+00	8.2227E-01
3.00E-10	1.1674E+00	1.3619E+00	7.7341E-01
3.10E-10	1.1375E+00	1.3392E+00	7.3495E-01
3.20E-10	1.1123E+00	1.3125E+00	7.0687E-01
3.30E-10	1.0884E+00	1.2806E+00	6.9026E-01
3.40E-10	1.0662E+00	1.2558E+00	6.7865E-01
3.50E-10	1.0397E+00	1.2224E+00	6.7137E-01
3.60E-10	1.0097E+00	1.1987E+00	6.6791E-01
3.70E-10	9.7255E-01	1.1742E+00	6.6445E-01
3.80E-10	9.3100E-01	1.1523E+00	6.6187E-01
3.90E-10	8.8580E-01	1.1315E+00	6.5971E-01
4.00E-10	8.3897E-01	1.1120E+00	6.5755E-01
4.10E-10	7.9641E-01	1.0924E+00	6.5651E-01
4.20E-10	7.5515E-01	1.0749E+00	6.5547E-01
4.30E-10	7.2360E-01	1.0540E+00	6.5463E-01
4.40E-10	6.9391E-01	1.0344E+00	6.5421E-01
4.50E-10	6.7567E-01	1.0110E+00	6.5378E-01
4.60E-10	6.5854E-01	9.8237E-01	6.5353E-01
4.70E-10	6.4671E-01	9.5346E-01	6.5337E-01
4.80E-10	6.3926E-01	9.1790E-01	6.5321E-01
4.90E-10	6.3074E-01	8.7949E-01	6.5309E-01
5.00E-10	6.1517E-01	8.4341E-01	6.5309E-01
5.10E-10	6.1517E-01	8.0437E-01	6.5309E-01
5.20E-10	6.1517E-01	7.6818E-01	6.5309E-01
5.30E-10	6.1517E-01	7.3775E-01	6.5309E-01
5.40E-10	6.1517E-01	7.0888E-01	6.5309E-01
5.50E-10	6.1517E-01	6.8336E-01	6.5309E-01

5.60E-10	6.1517E-01	6.6440E-01	6.5309E-01
5.70E-10	6.1517E-01	6.4314E-01	6.5309E-01
5.80E-10	6.1517E-01	6.3327E-01	6.5309E-01
5.90E-10	6.1517E-01	6.1885E-01	6.5309E-01
6.00E-10	6.1517E-01	6.1028E-01	6.5309E-01
6.10E-10	6.1517E-01	6.0327E-01	6.5309E-01
6.20E-10	6.1517E-01	5.9567E-01	6.5309E-01
6.30E-10	6.1517E-01	5.9405E-01	6.5309E-01
6.40E-10	6.1517E-01	5.9090E-01	6.5309E-01
6.50E-10	6.1517E-01	5.8836E-01	6.5309E-01
6.60E-10	6.1517E-01	5.8633E-01	6.5309E-01
6.70E-10	6.1517E-01	5.8473E-01	6.5309E-01
6.80E-10	6.1517E-01	5.8287E-01	6.5309E-01
6.90E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.00E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.10E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.20E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.30E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.40E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.50E-10	6.1517E-01	5.8287E-01	6.5309E-01

[Rising Waveform]

V\_fixture = 0.000V

V\_fixture\_min = 0.000V

V\_fixture\_max = 0.000V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	-3.6753E-04	7.2516E-04	2.8087E-05
1.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
2.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
3.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
4.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
5.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
6.00E-11	-3.6753E-04	7.2516E-04	1.0216E-04
7.00E-11	-3.6753E-04	7.2516E-04	1.9728E-04
8.00E-11	-3.6753E-04	7.2516E-04	2.7894E-04
9.00E-11	-3.6753E-04	7.2516E-04	2.8460E-04
1.00E-10	-3.6753E-04	7.2516E-04	2.9184E-04
1.10E-10	-3.6753E-04	7.2516E-04	1.1285E-03
1.20E-10	-3.6753E-04	7.2516E-04	2.7155E-03
1.30E-10	-3.6753E-04	7.2516E-04	5.0230E-03
1.40E-10	-3.6753E-04	7.2516E-04	7.3254E-03
1.50E-10	-3.6753E-04	7.2516E-04	8.7724E-03
1.60E-10	-3.6753E-04	7.2516E-04	1.1212E-02
1.70E-10	-3.6753E-04	7.2516E-04	4.6035E-02
1.80E-10	-3.6753E-04	7.2516E-04	9.9223E-02
1.90E-10	-3.6753E-04	7.2516E-04	1.6614E-01
2.00E-10	-3.6753E-04	7.2516E-04	2.3920E-01
2.10E-10	3.5736E-03	7.2516E-04	3.0948E-01
2.20E-10	2.0502E-02	7.2516E-04	3.6921E-01
2.30E-10	4.1697E-02	7.2516E-04	4.1553E-01
2.40E-10	7.5340E-02	7.2516E-04	4.4908E-01

2.50E-10	1.1331E-01	7.2516E-04	4.7338E-01
2.60E-10	1.5884E-01	7.2516E-04	4.9503E-01
2.70E-10	2.0668E-01	7.2516E-04	5.2442E-01
2.80E-10	2.5162E-01	7.2516E-04	5.7364E-01
2.90E-10	2.9581E-01	7.2516E-04	6.4440E-01
3.00E-10	3.3180E-01	5.8446E-03	7.2332E-01
3.10E-10	3.6594E-01	1.3532E-02	7.9061E-01
3.20E-10	3.9082E-01	2.2842E-02	8.4100E-01
3.30E-10	4.1397E-01	4.4064E-02	8.7560E-01
3.40E-10	4.3129E-01	6.5287E-02	8.9835E-01
3.50E-10	4.4771E-01	8.8005E-02	9.1275E-01
3.60E-10	4.6699E-01	1.1851E-01	9.2083E-01
3.70E-10	4.8661E-01	1.4901E-01	9.2762E-01
3.80E-10	5.2174E-01	1.7941E-01	9.3202E-01
3.90E-10	5.5826E-01	2.0939E-01	9.3546E-01
4.00E-10	6.0852E-01	2.3937E-01	9.3833E-01
4.10E-10	6.5962E-01	2.6803E-01	9.4087E-01
4.20E-10	7.0835E-01	2.9259E-01	9.4281E-01
4.30E-10	7.5701E-01	3.1716E-01	9.4428E-01
4.40E-10	7.8894E-01	3.3790E-01	9.4537E-01
4.50E-10	8.1785E-01	3.5587E-01	9.4606E-01
4.60E-10	8.3619E-01	3.7385E-01	9.4675E-01
4.70E-10	8.5094E-01	3.8729E-01	9.4744E-01
4.80E-10	8.6107E-01	4.0033E-01	9.4796E-01
4.90E-10	8.6825E-01	4.1330E-01	9.4812E-01
5.00E-10	8.7391E-01	4.2611E-01	9.4828E-01
5.10E-10	8.7730E-01	4.3892E-01	9.4845E-01
5.20E-10	8.8026E-01	4.5640E-01	9.4858E-01
5.30E-10	8.8222E-01	4.7710E-01	9.4859E-01
5.40E-10	8.8386E-01	4.9780E-01	9.4860E-01
5.50E-10	8.8486E-01	5.2989E-01	9.4860E-01
5.60E-10	8.8585E-01	5.6285E-01	9.4860E-01
5.70E-10	8.8684E-01	5.9689E-01	9.4860E-01
5.80E-10	8.8768E-01	6.3392E-01	9.4860E-01
5.90E-10	8.8847E-01	6.7095E-01	9.4860E-01
6.00E-10	8.8926E-01	7.0233E-01	9.4860E-01
6.10E-10	8.8998E-01	7.2999E-01	9.4860E-01
6.20E-10	8.9042E-01	7.5766E-01	9.4860E-01
6.30E-10	8.9086E-01	7.7515E-01	9.4860E-01
6.40E-10	8.9130E-01	7.9200E-01	9.4860E-01
6.50E-10	8.9157E-01	8.0477E-01	9.4860E-01
6.60E-10	8.9176E-01	8.1411E-01	9.4860E-01
6.70E-10	8.9194E-01	8.2282E-01	9.4860E-01
6.80E-10	8.9213E-01	8.2783E-01	9.4860E-01
6.90E-10	8.9232E-01	8.3284E-01	9.4860E-01
7.00E-10	8.9251E-01	8.3619E-01	9.4860E-01
7.10E-10	8.9269E-01	8.3899E-01	9.4860E-01
7.20E-10	8.9279E-01	8.4140E-01	9.4860E-01
7.30E-10	8.9282E-01	8.4312E-01	9.4860E-01
7.40E-10	8.9285E-01	8.4444E-01	9.4860E-01
7.50E-10	8.9288E-01	8.4444E-01	9.4860E-01

[Falling Waveform]  
V\_fixture = 0.000V

V\_fixture\_min = 0.000V  
V\_fixture\_max = 0.000V  
R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	8.9297E-01	8.4444E-01	9.4842E-01
1.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
2.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
3.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
4.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
5.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
6.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
7.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
8.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
9.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
1.00E-10	8.9298E-01	8.4444E-01	9.4842E-01
1.10E-10	8.9307E-01	8.4444E-01	9.4842E-01
1.20E-10	8.9310E-01	8.4444E-01	9.4710E-01
1.30E-10	8.9298E-01	8.4444E-01	9.3543E-01
1.40E-10	8.9269E-01	8.4444E-01	9.1264E-01
1.50E-10	8.9153E-01	8.4444E-01	8.6501E-01
1.60E-10	8.9009E-01	8.4444E-01	7.9523E-01
1.70E-10	8.8619E-01	8.4444E-01	7.1623E-01
1.80E-10	8.8188E-01	8.4444E-01	6.3702E-01
1.90E-10	8.6797E-01	8.4444E-01	5.6822E-01
2.00E-10	8.5407E-01	8.4444E-01	5.1467E-01
2.10E-10	8.1907E-01	8.4444E-01	4.7745E-01
2.20E-10	7.8369E-01	8.4444E-01	4.5020E-01
2.30E-10	7.2759E-01	8.4356E-01	4.2700E-01
2.40E-10	6.6977E-01	8.4256E-01	4.0012E-01
2.50E-10	6.0883E-01	8.3977E-01	3.6152E-01
2.60E-10	5.4739E-01	8.3484E-01	3.0810E-01
2.70E-10	5.0056E-01	8.2675E-01	2.4581E-01
2.80E-10	4.5727E-01	8.1616E-01	1.8720E-01
2.90E-10	4.2858E-01	8.0426E-01	1.3866E-01
3.00E-10	4.0488E-01	7.8900E-01	9.9411E-02
3.10E-10	3.8513E-01	7.7410E-01	6.9027E-02
3.20E-10	3.6720E-01	7.4966E-01	4.8410E-02
3.30E-10	3.4529E-01	7.1605E-01	3.2789E-02
3.40E-10	3.2101E-01	6.7567E-01	2.0043E-02
3.50E-10	2.8958E-01	6.3059E-01	1.4012E-02
3.60E-10	2.5272E-01	5.9072E-01	8.0573E-03
3.70E-10	2.1376E-01	5.5071E-01	5.9996E-03
3.80E-10	1.7278E-01	5.1266E-01	3.9419E-03
3.90E-10	1.3552E-01	4.8164E-01	2.8692E-03
4.00E-10	1.0280E-01	4.5088E-01	2.1454E-03
4.10E-10	7.5449E-02	4.2586E-01	1.6064E-03
4.20E-10	5.6489E-02	4.0332E-01	1.2864E-03
4.30E-10	4.2244E-02	3.8157E-01	9.8729E-04
4.40E-10	3.1060E-02	3.6318E-01	7.8594E-04
4.50E-10	2.3597E-02	3.4438E-01	5.8459E-04
4.60E-10	1.8174E-02	3.2416E-01	3.8324E-04
4.70E-10	1.3964E-02	3.0378E-01	1.8189E-04

4.80E-10	1.1106E-02	2.8095E-01	9.6654E-05
4.90E-10	8.2484E-03	2.5556E-01	8.3885E-05
5.00E-10	5.8181E-03	2.3033E-01	7.1116E-05
5.10E-10	-3.6753E-04	1.9998E-01	5.8347E-05
5.20E-10	-3.6753E-04	1.7048E-01	4.5994E-05
5.30E-10	-3.6753E-04	1.4118E-01	4.0878E-05
5.40E-10	-3.6753E-04	1.1208E-01	3.5762E-05
5.50E-10	-3.6753E-04	8.5433E-02	3.0646E-05
5.60E-10	-3.6753E-04	6.4850E-02	2.8087E-05
5.70E-10	-3.6753E-04	4.4040E-02	2.8087E-05
5.80E-10	-3.6753E-04	3.2587E-02	2.8087E-05
5.90E-10	-3.6753E-04	2.2313E-02	2.8087E-05
6.00E-10	-3.6753E-04	1.4942E-02	2.8087E-05
6.10E-10	-3.6753E-04	1.1102E-02	2.8087E-05
6.20E-10	-3.6753E-04	7.2760E-03	2.8087E-05
6.30E-10	-3.6753E-04	5.9771E-03	2.8087E-05
6.40E-10	-3.6753E-04	4.6411E-03	2.8087E-05
6.50E-10	-3.6753E-04	3.7753E-03	2.8087E-05
6.60E-10	-3.6753E-04	3.2215E-03	2.8087E-05
6.70E-10	-3.6753E-04	2.7093E-03	2.8087E-05
6.80E-10	-3.6753E-04	2.3817E-03	2.8087E-05
6.90E-10	-3.6753E-04	2.0535E-03	2.8087E-05
7.00E-10	-3.6753E-04	1.7965E-03	2.8087E-05
7.10E-10	-3.6753E-04	1.5615E-03	2.8087E-05
7.20E-10	-3.6753E-04	1.3266E-03	2.8087E-05
7.30E-10	-3.6753E-04	7.2516E-04	2.8087E-05
7.40E-10	-3.6753E-04	7.2516E-04	2.8087E-05
7.50E-10	-3.6753E-04	7.2516E-04	2.8087E-05

\*\*\*\*\*  
| MODEL DQS\_34\_1600 (34 Ohm Data Strobe I/O with 30ohm ODT, 1333/1600 Mbps)  
| \*\*\*\*\*

[Model] DQS\_34\_ODT30\_1600  
Model\_type I/O

Vinl = 600.000mV  
Vinh = 900.000mV  
Vmeas = 750.000mV  
Vref = 750.000mV  
Cref = 0.0pF  
Rref = 25.000Ohm

	typ	min	max
C_comp	1.078pF	0.966pF	1.223pF

| Note: C\_comp changes when the ODT circuit is enabled.

[Model Spec]

| Input threshold voltage corners

Vinl	0.6000V	0.5625V	0.6375V
Vinh	0.9000V	0.8625V	0.9375V

| Measurement voltage corners

Vmeas 0.7500V 0.7125V 0.7875V

| Timing spec test load voltage corners

Vref 0.7500V 0.7125V 0.7875V

| Dynamic Overshoot Parameters from DDR3 Specification

|D\_overshoot\_ampl\_h 0.40 NA NA

|D\_overshoot\_ampl\_l 0.40 NA NA

|D\_overshoot\_area\_h 0.13n NA NA

|D\_overshoot\_area\_l 0.13n NA NA

|[Receiver Thresholds]

|Vth = 0.750V

|Vth\_min = 0.7350V

|Vth\_max = 0.7650V

|Vinh\_ac = 0.150V

|Vinh\_dc = 0.100V

|Vinl\_ac = -0.150V

|Vinl\_dc = -0.100V

|Tslw\_ac = 5.000ns |Not specified, so set to high value

|Threshold\_sensitivity = 0.50

|Reference\_supply Pullup\_ref

|NOTE: If using the IBISCHK 4.2.1 or older parser, Differential receiver threshold parameters must be commented out because the parser generates errors for multiple differential models.

|Vcross\_low = 0.600V

|Vcross\_high = 0.900V

|Vdiff\_ac = 300mV

|Vdiff\_dc = 200mV

|Tdiffslew\_ac = 10.000ns |Not specified, so set to high value

|[Add Submodel]

| Submodel Name Mode  
30Ohm\_ODT Non-Driving

[Voltage Range] 1.500V 1.425V 1.575V

[Pullup Reference] 1.500V 1.425V 1.575V

[Temperature Range] 85.0 110.0 0.0

\*\*\*\*\*

|[Pulldown]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	-6.717440E-03	-6.602220E-03	-5.1878E-03
-1.4750000e+00	-6.950660E-03	-6.867910E-03	-5.4092E-03
-1.4250000e+00	-7.420160E-03	-7.410640E-03	-5.8575E-03
-1.3750000e+00	-7.891420E-03	-7.964120E-03	-6.3098E-03
-1.3250000e+00	-8.362190E-03	-8.523980E-03	-6.7632E-03
-1.2750000e+00	-8.830600E-03	-9.086830E-03	-7.2155E-03
-1.2250000e+00	-9.295050E-03	-9.650090E-03	-7.6651E-03
-1.1750000e+00	-9.754060E-03	-1.021176E-02	-8.1108E-03

-1.1250000e+00	-1.020612E-02	-1.077025E-02	-8.5512E-03
-1.0750000e+00	-1.064959E-02	-1.132418E-02	-8.9850E-03
-1.0250000e+00	-1.108253E-02	-1.187221E-02	-9.4109E-03
-9.7500000e-01	-1.150258E-02	-1.241292E-02	-9.8270E-03
-9.2500000e-01	-1.190672E-02	-1.294440E-02	-1.0231E-02
-8.7500000e-01	-1.229088E-02	-1.346358E-02	-1.0620E-02
-8.2500000e-01	-1.264939E-02	-1.396484E-02	-1.0991E-02
-7.7500000e-01	-1.297388E-02	-1.443730E-02	-1.1336E-02
-7.2500000e-01	-1.325153E-02	-1.486077E-02	-1.1649E-02
-6.7500000e-01	-1.346224E-02	-1.520128E-02	-1.1917E-02
-6.2500000e-01	-1.357544E-02	-1.540771E-02	-1.2120E-02
-5.7500000e-01	-1.354969E-02	-1.541129E-02	-1.2227E-02
-5.2500000e-01	-1.333921E-02	-1.513126E-02	-1.2185E-02
-4.7500000e-01	-1.290237E-02	-1.448995E-02	-1.1917E-02
-4.2500000e-01	-1.219129E-02	-1.344440E-02	-1.1342E-02
-3.7500000e-01	-1.115219E-02	-1.205672E-02	-1.0442E-02
-3.2500000e-01	-9.820264E-03	-1.048922E-02	-9.2579E-03
-2.7500000e-01	-8.341268E-03	-8.866406E-03	-7.8883E-03
-2.2500000e-01	-6.822138E-03	-7.235947E-03	-6.4597E-03
-1.7500000e-01	-5.298271E-03	-5.610770E-03	-5.0227E-03
-1.2500000e-01	-3.777710E-03	-3.994334E-03	-3.5860E-03
-7.5000000e-02	-2.262248E-03	-2.388040E-03	-2.1505E-03
-2.5000000e-02	-7.525408E-04	-7.929693E-04	-7.1644E-04
0.0000000e+00	-2.915900E-09	-3.333000E-10	-5.0570E-09
2.5000000e-02	7.507199E-04	7.895269E-04	7.1589E-04
7.5000000e-02	2.245917E-03	2.357110E-03	2.1456E-03
1.2500000e-01	3.732365E-03	3.908392E-03	3.5725E-03
1.7500000e-01	5.209520E-03	5.442055E-03	4.9965E-03
2.2500000e-01	6.676783E-03	6.956634E-03	6.4174E-03
2.7500000e-01	8.133496E-03	8.450479E-03	7.8352E-03
3.2500000e-01	9.578923E-03	9.921721E-03	9.2496E-03
3.7500000e-01	1.101226E-02	1.136822E-02	1.0661E-02
4.2500000e-01	1.243257E-02	1.278754E-02	1.2068E-02
4.7500000e-01	1.383888E-02	1.417683E-02	1.3472E-02
5.2500000e-01	1.523002E-02	1.553278E-02	1.4871E-02
5.7500000e-01	1.660471E-02	1.685160E-02	1.6267E-02
6.2500000e-01	1.796153E-02	1.812901E-02	1.7659E-02
6.7500000e-01	1.929892E-02	1.936079E-02	1.9046E-02
7.2500000e-01	2.061527E-02	2.054383E-02	2.0428E-02
7.7500000e-01	2.190915E-02	2.167702E-02	2.1805E-02
8.2500000e-01	2.317984E-02	2.276044E-02	2.3178E-02
8.7500000e-01	2.442765E-02	2.379315E-02	2.4544E-02
9.2500000e-01	2.565381E-02	2.477183E-02	2.5905E-02
9.7500000e-01	2.685955E-02	2.569073E-02	2.7261E-02
1.0250000e+00	2.804545E-02	2.654265E-02	2.8609E-02
1.0750000e+00	2.921123E-02	2.732059E-02	2.9951E-02
1.1250000e+00	3.035586E-02	2.802022E-02	3.1286E-02
1.1750000e+00	3.147763E-02	2.864222E-02	3.2613E-02
1.2250000e+00	3.257424E-02	2.919304E-02	3.3932E-02
1.2750000e+00	3.364280E-02	2.968331E-02	3.5242E-02
1.3250000e+00	3.467974E-02	3.012500E-02	3.6542E-02
1.3750000e+00	3.568083E-02	3.052912E-02	3.7832E-02
1.4250000e+00	3.664118E-02	3.090472E-02	3.9112E-02
1.4750000e+00	3.755541E-02	3.125876E-02	4.0379E-02

1.5250000e+00	3.841817E-02	3.159641E-02	4.1633E-02
1.5750000e+00	3.922484E-02	3.192149E-02	4.2873E-02
1.6250000e+00	3.997270E-02	3.223679E-02	4.4097E-02
1.6750000e+00	4.066185E-02	3.254442E-02	4.5303E-02
1.7250000e+00	4.129552E-02	3.284593E-02	4.6490E-02
1.7750000e+00	4.187958E-02	3.314250E-02	4.7654E-02
1.8250000e+00	4.242129E-02	3.343504E-02	4.8794E-02
1.8750000e+00	4.292808E-02	3.372428E-02	4.9905E-02
1.9250000e+00	4.340673E-02	3.401077E-02	5.0985E-02
1.9750000e+00	4.386296E-02	3.429496E-02	5.2029E-02
2.0250000e+00	4.430140E-02	3.457721E-02	5.3033E-02
2.0750000e+00	4.472568E-02	3.485782E-02	5.3993E-02
2.1250000e+00	4.513865E-02	3.513705E-02	5.4906E-02
2.1750000e+00	4.554252E-02	3.541511E-02	5.5769E-02
2.2250000e+00	4.593900E-02	3.569218E-02	5.6583E-02
2.2750000e+00	4.632944E-02	3.596843E-02	5.7349E-02
2.3250000e+00	4.671490E-02	3.624402E-02	5.8070E-02
2.3750000e+00	4.709624E-02	3.651910E-02	5.8752E-02
2.4250000e+00	4.747414E-02	3.679380E-02	5.9398E-02
2.4750000e+00	4.784918E-02	3.706830E-02	6.0016E-02
2.5250000e+00	4.822183E-02	3.734276E-02	6.0609E-02
2.5750000e+00	4.859248E-02	3.761735E-02	6.1181E-02
2.6250000e+00	4.896149E-02	3.789229E-02	6.1736E-02
2.6750000e+00	4.932914E-02	3.816783E-02	6.2277E-02
2.7250000e+00	4.969572E-02	3.844422E-02	6.2806E-02
2.7750000e+00	5.006148E-02	3.872180E-02	6.3326E-02
2.8250000e+00	5.042664E-02	3.900093E-02	6.3837E-02
2.8750000e+00	5.079141E-02	3.928204E-02	6.4342E-02
2.9250000e+00	5.115601E-02	3.956562E-02	6.4840E-02
2.9750000e+00	5.152066E-02	3.985223E-02	6.5334E-02
3.0000000e+00	5.170306E-02	3.999685E-02	6.5579E-02

[GND Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	-5.378351E-02	-5.490567E-02	-5.885698E-02
-1.4750000e+00	-5.231251E-02	-5.334431E-02	-5.735670E-02
-1.4500000e+00	-5.084369E-02	-5.178549E-02	-5.585777E-02
-1.4250000e+00	-4.937717E-02	-5.022938E-02	-5.436025E-02
-1.4000000e+00	-4.791309E-02	-4.867613E-02	-5.286424E-02
-1.3750000e+00	-4.645161E-02	-4.712594E-02	-5.136982E-02
-1.3500000e+00	-4.499289E-02	-4.557901E-02	-4.987708E-02
-1.3250000e+00	-4.353712E-02	-4.403556E-02	-4.838614E-02
-1.3000000e+00	-4.208452E-02	-4.249585E-02	-4.689710E-02
-1.2750000e+00	-4.063529E-02	-4.096014E-02	-4.541010E-02
-1.2500000e+00	-3.918970E-02	-3.942875E-02	-4.392527E-02
-1.2250000e+00	-3.774803E-02	-3.790201E-02	-4.244278E-02
-1.2000000e+00	-3.631059E-02	-3.638031E-02	-4.096280E-02
-1.1750000e+00	-3.487773E-02	-3.486408E-02	-3.948552E-02
-1.1500000e+00	-3.344986E-02	-3.335380E-02	-3.801116E-02
-1.1250000e+00	-3.202742E-02	-3.185003E-02	-3.653998E-02
-1.1000000e+00	-3.061092E-02	-3.035339E-02	-3.507226E-02
-1.0750000e+00	-2.920096E-02	-2.886462E-02	-3.360832E-02
-1.0500000e+00	-2.779821E-02	-2.738455E-02	-3.214854E-02
-1.0250000e+00	-2.640347E-02	-2.591415E-02	-3.069335E-02



-1.0000000e+00	-2.501766E-02	-2.445455E-02	-2.924328E-02
-9.7500000e-01	-2.364185E-02	-2.300708E-02	-2.779892E-02
-9.5000000e-01	-2.227732E-02	-2.157329E-02	-2.636102E-02
-9.2500000e-01	-2.092559E-02	-2.015501E-02	-2.493048E-02
-9.0000000e-01	-1.958843E-02	-1.875433E-02	-2.350840E-02
-8.7500000e-01	-1.826790E-02	-1.737363E-02	-2.209616E-02
-8.5000000e-01	-1.696631E-02	-1.601550E-02	-2.069550E-02
-8.2500000e-01	-1.568612E-02	-1.468262E-02	-1.930856E-02
-8.0000000e-01	-1.442972E-02	-1.337762E-02	-1.793782E-02
-7.7500000e-01	-1.319926E-02	-1.210311E-02	-1.658583E-02
-7.5000000e-01	-1.199673E-02	-1.086191E-02	-1.525450E-02
-7.2500000e-01	-1.082427E-02	-9.657411E-03	-1.394473E-02
-7.0000000e-01	-9.684638E-03	-8.493939E-03	-1.265685E-02
-6.7500000e-01	-8.581514E-03	-7.376930E-03	-1.139180E-02
-6.5000000e-01	-7.519607E-03	-6.312929E-03	-1.015194E-02
-6.2500000e-01	-6.504547E-03	-5.309438E-03	-8.941317E-03
-6.0000000e-01	-5.542688E-03	-4.374618E-03	-7.765734E-03
-5.7500000e-01	-4.640772E-03	-3.516890E-03	-6.632943E-03
-5.5000000e-01	-3.805524E-03	-2.744483E-03	-5.552944E-03
-5.2500000e-01	-3.043248E-03	-2.065103E-03	-4.538199E-03
-5.0000000e-01	-2.359647E-03	-1.485677E-03	-3.603410E-03
-4.7500000e-01	-1.760020E-03	-1.011779E-03	-2.764263E-03
-4.5000000e-01	-1.249702E-03	-6.458403E-04	-2.034714E-03
-4.2500000e-01	-8.339835E-04	-3.838582E-04	-1.423543E-03
-4.0000000e-01	-5.162389E-04	-2.125448E-04	-9.327585E-04
-3.7500000e-01	-2.937329E-04	-1.106466E-04	-5.596314E-04
-3.5000000e-01	-1.537279E-04	-5.497263E-05	-2.989521E-04
-3.2500000e-01	-7.493357E-05	-2.649171E-05	-1.392980E-04
-3.0000000e-01	-3.471511E-05	-1.256760E-05	-5.693623E-05
-2.7500000e-01	-1.563019E-05	-5.952723E-06	-2.113740E-05
-2.5000000e-01	-7.001335E-06	-2.863206E-06	-7.478892E-06
-2.2500000e-01	-3.215160E-06	-1.433628E-06	-2.669240E-06
-2.0000000e-01	-1.576700E-06	-7.729597E-07	-1.039346E-06
-1.7500000e-01	-8.691669E-07	-4.659048E-07	-4.927419E-07
-1.5000000e-01	-5.602970E-07	-3.210513E-07	-3.060998E-07
-1.2500000e-01	-4.211770E-07	-2.506183E-07	-2.379530E-07
-1.0000000e-01	-3.542844E-07	-2.144259E-07	-2.089398E-07
-7.5000000e-02	-3.182781E-07	-1.940781E-07	-1.931385E-07
-5.0000000e-02	-2.956734E-07	-1.811414E-07	-1.820761E-07
-2.5000000e-02	-2.790923E-07	-1.717494E-07	-1.729560E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[Pullup]

-1.5000000e+00	1.625201E-02	1.758608E-02	1.5776E-02
-1.4750000e+00	1.628295E-02	1.772293E-02	1.5794E-02
-1.4250000e+00	1.631167E-02	1.794814E-02	1.5819E-02
-1.3750000e+00	1.630625E-02	1.810214E-02	1.5832E-02
-1.3250000e+00	1.628177E-02	1.818331E-02	1.5836E-02
-1.2750000e+00	1.625213E-02	1.819962E-02	1.5830E-02
-1.2250000e+00	1.622498E-02	1.816850E-02	1.5814E-02
-1.1750000e+00	1.620031E-02	1.811351E-02	1.5786E-02
-1.1250000e+00	1.617356E-02	1.805794E-02	1.5746E-02
-1.0750000e+00	1.613984E-02	1.801572E-02	1.5692E-02

-1.0250000e+00	1.609584E-02	1.798687E-02	1.5624E-02
-9.7500000e-01	1.603981E-02	1.796321E-02	1.5542E-02
-9.2500000e-01	1.597095E-02	1.793695E-02	1.5444E-02
-8.7500000e-01	1.588883E-02	1.790371E-02	1.5331E-02
-8.2500000e-01	1.579281E-02	1.786161E-02	1.5200E-02
-7.7500000e-01	1.568160E-02	1.780891E-02	1.5050E-02
-7.2500000e-01	1.555266E-02	1.774030E-02	1.4877E-02
-6.7500000e-01	1.540100E-02	1.763919E-02	1.4677E-02
-6.2500000e-01	1.521657E-02	1.746424E-02	1.4440E-02
-5.7500000e-01	1.497687E-02	1.713549E-02	1.4152E-02
-5.2500000e-01	1.462952E-02	1.653605E-02	1.3790E-02
-4.7500000e-01	1.407045E-02	1.555591E-02	1.3303E-02
-4.2500000e-01	1.317055E-02	1.420030E-02	1.2595E-02
-3.7500000e-01	1.190475E-02	1.261585E-02	1.1528E-02
-3.2500000e-01	1.040962E-02	1.094206E-02	1.0132E-02
-2.7500000e-01	8.825733E-03	9.244475E-03	8.6004E-03
-2.2500000e-01	7.217759E-03	7.545941E-03	7.0379E-03
-1.7500000e-01	5.606827E-03	5.853537E-03	5.4714E-03
-1.2500000e-01	3.998885E-03	4.169432E-03	3.9059E-03
-7.5000000e-02	2.395513E-03	2.494429E-03	2.3421E-03
-2.5000000e-02	7.971932E-04	8.289974E-04	7.8023E-04
0.0000000e+00	1.314700E-09	4.692000E-10	3.0652E-09
2.5000000e-02	-7.950502E-04	-8.253549E-04	-7.7920E-04
7.5000000e-02	-2.376138E-03	-2.461490E-03	-2.3328E-03
1.2500000e-01	-3.944794E-03	-4.077442E-03	-3.8799E-03
1.7500000e-01	-5.500495E-03	-5.672260E-03	-5.4201E-03
2.2500000e-01	-7.042695E-03	-7.244932E-03	-6.9533E-03
2.7500000e-01	-8.570810E-03	-8.794375E-03	-8.4790E-03
3.2500000e-01	-1.008422E-02	-1.031943E-02	-9.9969E-03
3.7500000e-01	-1.158229E-02	-1.181885E-02	-1.1507E-02
4.2500000e-01	-1.306431E-02	-1.329132E-02	-1.3008E-02
4.7500000e-01	-1.452955E-02	-1.473539E-02	-1.4501E-02
5.2500000e-01	-1.597724E-02	-1.614954E-02	-1.5984E-02
5.7500000e-01	-1.740654E-02	-1.753210E-02	-1.7458E-02
6.2500000e-01	-1.881658E-02	-1.888132E-02	-1.8922E-02
6.7500000e-01	-2.020643E-02	-2.019527E-02	-2.0375E-02
7.2500000e-01	-2.157509E-02	-2.147192E-02	-2.1818E-02
7.7500000e-01	-2.292153E-02	-2.270910E-02	-2.3248E-02
8.2500000e-01	-2.424464E-02	-2.390455E-02	-2.4667E-02
8.7500000e-01	-2.554331E-02	-2.505603E-02	-2.6073E-02
9.2500000e-01	-2.681638E-02	-2.616144E-02	-2.7466E-02
9.7500000e-01	-2.806279E-02	-2.721907E-02	-2.8845E-02
1.0250000e+00	-2.928162E-02	-2.822778E-02	-3.0209E-02
1.0750000e+00	-3.047224E-02	-2.918687E-02	-3.1559E-02
1.1250000e+00	-3.163441E-02	-3.009551E-02	-3.2895E-02
1.1750000e+00	-3.276817E-02	-3.095232E-02	-3.4215E-02
1.2250000e+00	-3.387345E-02	-3.175524E-02	-3.5520E-02
1.2750000e+00	-3.494986E-02	-3.250183E-02	-3.6810E-02
1.3250000e+00	-3.599648E-02	-3.318993E-02	-3.8084E-02
1.3750000e+00	-3.701195E-02	-3.381867E-02	-3.9341E-02
1.4250000e+00	-3.799445E-02	-3.438959E-02	-4.0581E-02
1.4750000e+00	-3.894176E-02	-3.490743E-02	-4.1802E-02
1.5250000e+00	-3.985132E-02	-3.537965E-02	-4.3004E-02
1.5750000e+00	-4.072029E-02	-3.581474E-02	-4.4185E-02

1.6250000e+00	-4.154560E-02	-3.622056E-02	-4.5343E-02
1.6750000e+00	-4.232425E-02	-3.660353E-02	-4.6476E-02
1.7250000e+00	-4.305363E-02	-3.696849E-02	-4.7583E-02
1.7750000e+00	-4.373217E-02	-3.731908E-02	-4.8662E-02
1.8250000e+00	-4.436015E-02	-3.765800E-02	-4.9709E-02
1.8750000e+00	-4.494020E-02	-3.798729E-02	-5.0722E-02
1.9250000e+00	-4.547717E-02	-3.830853E-02	-5.1698E-02
1.9750000e+00	-4.597727E-02	-3.862293E-02	-5.2633E-02
2.0250000e+00	-4.644684E-02	-3.893148E-02	-5.3524E-02
2.0750000e+00	-4.689156E-02	-3.923498E-02	-5.4367E-02
2.1250000e+00	-4.731609E-02	-3.953408E-02	-5.5160E-02
2.1750000e+00	-4.772413E-02	-3.982931E-02	-5.5900E-02
2.2250000e+00	-4.811854E-02	-4.012115E-02	-5.6590E-02
2.2750000e+00	-4.850161E-02	-4.040997E-02	-5.7231E-02
2.3250000e+00	-4.887508E-02	-4.069609E-02	-5.7830E-02
2.3750000e+00	-4.924037E-02	-4.097982E-02	-5.8391E-02
2.4250000e+00	-4.959862E-02	-4.126137E-02	-5.8920E-02
2.4750000e+00	-4.995076E-02	-4.154098E-02	-5.9424E-02
2.5250000e+00	-5.029755E-02	-4.181883E-02	-5.9906E-02
2.5750000e+00	-5.063964E-02	-4.209509E-02	-6.0370E-02
2.6250000e+00	-5.097758E-02	-4.236990E-02	-6.0819E-02
2.6750000e+00	-5.131181E-02	-4.264339E-02	-6.1255E-02
2.7250000e+00	-5.164272E-02	-4.291571E-02	-6.1681E-02
2.7750000e+00	-5.197066E-02	-4.318692E-02	-6.2098E-02
2.8250000e+00	-5.229592E-02	-4.345715E-02	-6.2507E-02
2.8750000e+00	-5.261875E-02	-4.372646E-02	-6.2909E-02
2.9250000e+00	-5.293944E-02	-4.399496E-02	-6.3305E-02
2.9750000e+00	-5.325809E-02	-4.426273E-02	-6.3695E-02
3.0000000e+00	-5.341670E-02	-4.439634E-02	-6.3889E-02

[POWER Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	4.450136E-02	4.385767E-02	4.780180E-02
-1.4750000e+00	4.325737E-02	4.248503E-02	4.651240E-02
-1.4500000e+00	4.202627E-02	4.113177E-02	4.522925E-02
-1.4250000e+00	4.080680E-02	3.979850E-02	4.395155E-02
-1.4000000e+00	3.959743E-02	3.848563E-02	4.267872E-02
-1.3750000e+00	3.839648E-02	3.719324E-02	4.141043E-02
-1.3500000e+00	3.720221E-02	3.592106E-02	4.014658E-02
-1.3250000e+00	3.601296E-02	3.466841E-02	3.888724E-02
-1.3000000e+00	3.482735E-02	3.343415E-02	3.763261E-02
-1.2750000e+00	3.364438E-02	3.221669E-02	3.638295E-02
-1.2500000e+00	3.246358E-02	3.101397E-02	3.513856E-02
-1.2250000e+00	3.128497E-02	2.982356E-02	3.389971E-02
-1.2000000e+00	3.010901E-02	2.864279E-02	3.266671E-02
-1.1750000e+00	2.893648E-02	2.746896E-02	3.143983E-02
-1.1500000e+00	2.776826E-02	2.629964E-02	3.021937E-02
-1.1250000e+00	2.660528E-02	2.513304E-02	2.900560E-02
-1.1000000e+00	2.544841E-02	2.396824E-02	2.779885E-02
-1.0750000e+00	2.429844E-02	2.280536E-02	2.659947E-02
-1.0500000e+00	2.315612E-02	2.164543E-02	2.540788E-02
-1.0250000e+00	2.202214E-02	2.049007E-02	2.422456E-02
-1.0000000e+00	2.089719E-02	1.934117E-02	2.305008E-02
-9.7500000e-01	1.978197E-02	1.820065E-02	2.188512E-02

-9.5000000e-01	1.867722E-02	1.707028E-02	2.073051E-02
-9.2500000e-01	1.758372E-02	1.595172E-02	1.958717E-02
-9.0000000e-01	1.650228E-02	1.484648E-02	1.845617E-02
-8.7500000e-01	1.543373E-02	1.375596E-02	1.733861E-02
-8.5000000e-01	1.437889E-02	1.268153E-02	1.623552E-02
-8.2500000e-01	1.333851E-02	1.162449E-02	1.514771E-02
-8.0000000e-01	1.231328E-02	1.058622E-02	1.407560E-02
-7.7500000e-01	1.130388E-02	9.568206E-03	1.301920E-02
-7.5000000e-01	1.031106E-02	8.572276E-03	1.197826E-02
-7.2500000e-01	9.335806E-03	7.600753E-03	1.095255E-02
-7.0000000e-01	8.379549E-03	6.656721E-03	9.942208E-03
-6.7500000e-01	7.444326E-03	5.744302E-03	8.947907E-03
-6.5000000e-01	6.532997E-03	4.868952E-03	7.971037E-03
-6.2500000e-01	5.649458E-03	4.037787E-03	7.013856E-03
-6.0000000e-01	4.798902E-03	3.259897E-03	6.079694E-03
-5.7500000e-01	3.988134E-03	2.546530E-03	5.173232E-03
-5.5000000e-01	3.225930E-03	1.910856E-03	4.300898E-03
-5.2500000e-01	2.523332E-03	1.366712E-03	3.471435E-03
-5.0000000e-01	1.893615E-03	9.256050E-04	2.696669E-03
-4.7500000e-01	1.351332E-03	5.919303E-04	1.992344E-03
-4.5000000e-01	9.095438E-04	3.586832E-04	1.378411E-03
-4.2500000e-01	5.747929E-04	2.078355E-04	8.770334E-04
-4.0000000e-01	3.418453E-04	1.164218E-04	5.053061E-04
-3.7500000e-01	1.930954E-04	6.360210E-05	2.627362E-04
-3.5000000e-01	1.048276E-04	3.408364E-05	1.249600E-04
-3.2500000e-01	5.523970E-05	1.799151E-05	5.555840E-05
-3.0000000e-01	2.845373E-05	9.394192E-06	2.354470E-05
-2.7500000e-01	1.440808E-05	4.878770E-06	9.667951E-06
-2.5000000e-01	7.217646E-06	2.540607E-06	3.917671E-06
-2.2500000e-01	3.608426E-06	1.343333E-06	1.610365E-06
-2.0000000e-01	1.824961E-06	7.351342E-07	7.040722E-07
-1.7500000e-01	9.538096E-07	4.274933E-07	3.518088E-07
-1.5000000e-01	5.312391E-07	2.717598E-07	2.143482E-07
-1.2500000e-01	3.264285E-07	1.922224E-07	1.590776E-07
-1.0000000e-01	2.262355E-07	1.506538E-07	1.350141E-07
-7.5000000e-02	1.758303E-07	1.278715E-07	1.227817E-07
-5.0000000e-02	1.489090E-07	1.143246E-07	1.150732E-07
-2.5000000e-02	1.332080E-07	1.054156E-07	1.091539E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[Ramp]

R\_load = 50.00Ohm

	typ	min	max
dV/dt_r	532.022mV/119.423ps	491.319mV/165.185ps	567.619mV/91.565ps
dV/dt_f	537.976mV/129.806ps	497.460mV/173.213ps	578.029mV/105.657ps

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[Rising Waveform]

V\_fixture = 1.500V

V\_fixture\_min = 1.425V

V\_fixture\_max = 1.575V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	6.1517E-01	5.8287E-01	6.5309E-01
1.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
2.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
3.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
4.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
5.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
6.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
7.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
8.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
9.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
1.00E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.10E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.20E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.30E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.40E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.50E-10	6.1517E-01	5.8287E-01	6.5433E-01
1.60E-10	6.1517E-01	5.8287E-01	6.7845E-01
1.70E-10	6.1616E-01	5.8287E-01	7.4018E-01
1.80E-10	6.1820E-01	5.8287E-01	8.2854E-01
1.90E-10	6.2509E-01	5.8287E-01	9.2350E-01
2.00E-10	6.3360E-01	5.8287E-01	1.0035E+00
2.10E-10	6.5972E-01	5.8287E-01	1.0622E+00
2.20E-10	6.9277E-01	5.8287E-01	1.1021E+00
2.30E-10	7.4389E-01	5.8287E-01	1.1297E+00
2.40E-10	8.0329E-01	5.8287E-01	1.1507E+00
2.50E-10	8.6698E-01	5.8287E-01	1.1725E+00
2.60E-10	9.3293E-01	5.8587E-01	1.2084E+00
2.70E-10	9.8606E-01	5.8977E-01	1.2660E+00
2.80E-10	1.0314E+00	6.0015E-01	1.3332E+00
2.90E-10	1.0621E+00	6.1507E-01	1.4005E+00
3.00E-10	1.0875E+00	6.3422E-01	1.4575E+00
3.10E-10	1.1038E+00	6.6308E-01	1.5003E+00
3.20E-10	1.1186E+00	6.9542E-01	1.5292E+00
3.30E-10	1.1318E+00	7.3829E-01	1.5452E+00
3.40E-10	1.1488E+00	7.8359E-01	1.5589E+00
3.50E-10	1.1685E+00	8.3263E-01	1.5644E+00
3.60E-10	1.1961E+00	8.7994E-01	1.5690E+00
3.70E-10	1.2308E+00	9.2648E-01	1.5711E+00
3.80E-10	1.2708E+00	9.6220E-01	1.5725E+00
3.90E-10	1.3157E+00	9.9443E-01	1.5733E+00
4.00E-10	1.3592E+00	1.0179E+00	1.5737E+00
4.10E-10	1.3979E+00	1.0367E+00	1.5740E+00
4.20E-10	1.4283E+00	1.0518E+00	1.5741E+00
4.30E-10	1.4538E+00	1.0635E+00	1.5743E+00
4.40E-10	1.4683E+00	1.0745E+00	1.5743E+00
4.50E-10	1.4800E+00	1.0848E+00	1.5743E+00
4.60E-10	1.4870E+00	1.0962E+00	1.5743E+00
4.70E-10	1.4913E+00	1.1088E+00	1.5744E+00
4.80E-10	1.4943E+00	1.1255E+00	1.5744E+00
4.90E-10	1.4948E+00	1.1437E+00	1.5745E+00

5.00E-10	1.4953E+00	1.1618E+00	1.5746E+00
5.10E-10	1.4959E+00	1.1826E+00	1.5747E+00
5.20E-10	1.4965E+00	1.2089E+00	1.5747E+00
5.30E-10	1.4972E+00	1.2353E+00	1.5747E+00
5.40E-10	1.4979E+00	1.2616E+00	1.5748E+00
5.50E-10	1.4985E+00	1.2874E+00	1.5748E+00
5.60E-10	1.4988E+00	1.3132E+00	1.5748E+00
5.70E-10	1.4992E+00	1.3390E+00	1.5749E+00
5.80E-10	1.4995E+00	1.3572E+00	1.5749E+00
5.90E-10	1.4996E+00	1.3739E+00	1.5749E+00
6.00E-10	1.4997E+00	1.3906E+00	1.5749E+00
6.10E-10	1.4998E+00	1.4002E+00	1.5749E+00
6.20E-10	1.4999E+00	1.4076E+00	1.5749E+00
6.30E-10	1.4999E+00	1.4150E+00	1.5750E+00
6.40E-10	1.4999E+00	1.4175E+00	1.5750E+00
6.50E-10	1.4999E+00	1.4200E+00	1.5750E+00
6.60E-10	1.4999E+00	1.4220E+00	1.5750E+00
6.70E-10	1.4999E+00	1.4227E+00	1.5750E+00
6.80E-10	1.4999E+00	1.4234E+00	1.5750E+00
6.90E-10	1.4999E+00	1.4238E+00	1.5750E+00
7.00E-10	1.4999E+00	1.4240E+00	1.5750E+00
7.10E-10	1.4999E+00	1.4242E+00	1.5750E+00
7.20E-10	1.4999E+00	1.4243E+00	1.5750E+00
7.30E-10	1.4999E+00	1.4244E+00	1.5750E+00
7.40E-10	1.4999E+00	1.4244E+00	1.5750E+00
7.50E-10	1.5000E+00	1.4244E+00	1.5750E+00

[Falling Waveform]

V\_fixture = 1.500V

V\_fixture\_min = 1.425V

V\_fixture\_max = 1.575V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	1.5000E+00	1.4244E+00	1.5750E+00
1.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
2.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
3.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
4.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
5.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
6.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
7.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
8.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
9.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
1.00E-10	1.5000E+00	1.4244E+00	1.5750E+00
1.10E-10	1.5001E+00	1.4244E+00	1.5750E+00
1.20E-10	1.5005E+00	1.4244E+00	1.5750E+00
1.30E-10	1.5010E+00	1.4244E+00	1.5696E+00
1.40E-10	1.5019E+00	1.4244E+00	1.5421E+00
1.50E-10	1.5028E+00	1.4244E+00	1.5004E+00
1.60E-10	1.5039E+00	1.4244E+00	1.4462E+00
1.70E-10	1.5050E+00	1.4244E+00	1.3851E+00
1.80E-10	1.5044E+00	1.4244E+00	1.3205E+00

1.90E-10	1.5035E+00	1.4244E+00	1.2579E+00
2.00E-10	1.4916E+00	1.4244E+00	1.2013E+00
2.10E-10	1.4788E+00	1.4244E+00	1.1613E+00
2.20E-10	1.4542E+00	1.4244E+00	1.1320E+00
2.30E-10	1.4285E+00	1.4244E+00	1.1084E+00
2.40E-10	1.3937E+00	1.4244E+00	1.0868E+00
2.50E-10	1.3578E+00	1.4244E+00	1.0540E+00
2.60E-10	1.3171E+00	1.4218E+00	1.0067E+00
2.70E-10	1.2768E+00	1.4145E+00	9.4839E-01
2.80E-10	1.2375E+00	1.3990E+00	8.8192E-01
2.90E-10	1.2003E+00	1.3841E+00	8.2227E-01
3.00E-10	1.1674E+00	1.3619E+00	7.7341E-01
3.10E-10	1.1375E+00	1.3392E+00	7.3495E-01
3.20E-10	1.1123E+00	1.3125E+00	7.0687E-01
3.30E-10	1.0884E+00	1.2806E+00	6.9026E-01
3.40E-10	1.0662E+00	1.2558E+00	6.7865E-01
3.50E-10	1.0397E+00	1.2224E+00	6.7137E-01
3.60E-10	1.0097E+00	1.1987E+00	6.6791E-01
3.70E-10	9.7255E-01	1.1742E+00	6.6445E-01
3.80E-10	9.3100E-01	1.1523E+00	6.6187E-01
3.90E-10	8.8580E-01	1.1315E+00	6.5971E-01
4.00E-10	8.3897E-01	1.1120E+00	6.5755E-01
4.10E-10	7.9641E-01	1.0924E+00	6.5651E-01
4.20E-10	7.5515E-01	1.0749E+00	6.5547E-01
4.30E-10	7.2360E-01	1.0540E+00	6.5463E-01
4.40E-10	6.9391E-01	1.0344E+00	6.5421E-01
4.50E-10	6.7567E-01	1.0110E+00	6.5378E-01
4.60E-10	6.5854E-01	9.8237E-01	6.5353E-01
4.70E-10	6.4671E-01	9.5346E-01	6.5337E-01
4.80E-10	6.3926E-01	9.1790E-01	6.5321E-01
4.90E-10	6.3074E-01	8.7949E-01	6.5309E-01
5.00E-10	6.1517E-01	8.4341E-01	6.5309E-01
5.10E-10	6.1517E-01	8.0437E-01	6.5309E-01
5.20E-10	6.1517E-01	7.6818E-01	6.5309E-01
5.30E-10	6.1517E-01	7.3775E-01	6.5309E-01
5.40E-10	6.1517E-01	7.0888E-01	6.5309E-01
5.50E-10	6.1517E-01	6.8336E-01	6.5309E-01
5.60E-10	6.1517E-01	6.6440E-01	6.5309E-01
5.70E-10	6.1517E-01	6.4314E-01	6.5309E-01
5.80E-10	6.1517E-01	6.3327E-01	6.5309E-01
5.90E-10	6.1517E-01	6.1885E-01	6.5309E-01
6.00E-10	6.1517E-01	6.1028E-01	6.5309E-01
6.10E-10	6.1517E-01	6.0327E-01	6.5309E-01
6.20E-10	6.1517E-01	5.9567E-01	6.5309E-01
6.30E-10	6.1517E-01	5.9405E-01	6.5309E-01
6.40E-10	6.1517E-01	5.9090E-01	6.5309E-01
6.50E-10	6.1517E-01	5.8836E-01	6.5309E-01
6.60E-10	6.1517E-01	5.8633E-01	6.5309E-01
6.70E-10	6.1517E-01	5.8473E-01	6.5309E-01
6.80E-10	6.1517E-01	5.8287E-01	6.5309E-01
6.90E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.00E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.10E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.20E-10	6.1517E-01	5.8287E-01	6.5309E-01

7.30E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.40E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.50E-10	6.1517E-01	5.8287E-01	6.5309E-01

[Rising Waveform]

V\_fixture = 0.000V

V\_fixture\_min = 0.000V

V\_fixture\_max = 0.000V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	-3.6753E-04	7.2516E-04	2.8087E-05
1.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
2.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
3.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
4.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
5.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
6.00E-11	-3.6753E-04	7.2516E-04	1.0216E-04
7.00E-11	-3.6753E-04	7.2516E-04	1.9728E-04
8.00E-11	-3.6753E-04	7.2516E-04	2.7894E-04
9.00E-11	-3.6753E-04	7.2516E-04	2.8460E-04
1.00E-10	-3.6753E-04	7.2516E-04	2.9184E-04
1.10E-10	-3.6753E-04	7.2516E-04	1.1285E-03
1.20E-10	-3.6753E-04	7.2516E-04	2.7155E-03
1.30E-10	-3.6753E-04	7.2516E-04	5.0230E-03
1.40E-10	-3.6753E-04	7.2516E-04	7.3254E-03
1.50E-10	-3.6753E-04	7.2516E-04	8.7724E-03
1.60E-10	-3.6753E-04	7.2516E-04	1.1212E-02
1.70E-10	-3.6753E-04	7.2516E-04	4.6035E-02
1.80E-10	-3.6753E-04	7.2516E-04	9.9223E-02
1.90E-10	-3.6753E-04	7.2516E-04	1.6614E-01
2.00E-10	-3.6753E-04	7.2516E-04	2.3920E-01
2.10E-10	3.5736E-03	7.2516E-04	3.0948E-01
2.20E-10	2.0502E-02	7.2516E-04	3.6921E-01
2.30E-10	4.1697E-02	7.2516E-04	4.1553E-01
2.40E-10	7.5340E-02	7.2516E-04	4.4908E-01
2.50E-10	1.1331E-01	7.2516E-04	4.7338E-01
2.60E-10	1.5884E-01	7.2516E-04	4.9503E-01
2.70E-10	2.0668E-01	7.2516E-04	5.2442E-01
2.80E-10	2.5162E-01	7.2516E-04	5.7364E-01
2.90E-10	2.9581E-01	7.2516E-04	6.4440E-01
3.00E-10	3.3180E-01	5.8446E-03	7.2332E-01
3.10E-10	3.6594E-01	1.3532E-02	7.9061E-01
3.20E-10	3.9082E-01	2.2842E-02	8.4100E-01
3.30E-10	4.1397E-01	4.4064E-02	8.7560E-01
3.40E-10	4.3129E-01	6.5287E-02	8.9835E-01
3.50E-10	4.4771E-01	8.8005E-02	9.1275E-01
3.60E-10	4.6699E-01	1.1851E-01	9.2083E-01
3.70E-10	4.8661E-01	1.4901E-01	9.2762E-01
3.80E-10	5.2174E-01	1.7941E-01	9.3202E-01
3.90E-10	5.5826E-01	2.0939E-01	9.3546E-01
4.00E-10	6.0852E-01	2.3937E-01	9.3833E-01
4.10E-10	6.5962E-01	2.6803E-01	9.4087E-01



4.20E-10	7.0835E-01	2.9259E-01	9.4281E-01
4.30E-10	7.5701E-01	3.1716E-01	9.4428E-01
4.40E-10	7.8894E-01	3.3790E-01	9.4537E-01
4.50E-10	8.1785E-01	3.5587E-01	9.4606E-01
4.60E-10	8.3619E-01	3.7385E-01	9.4675E-01
4.70E-10	8.5094E-01	3.8729E-01	9.4744E-01
4.80E-10	8.6107E-01	4.0033E-01	9.4796E-01
4.90E-10	8.6825E-01	4.1330E-01	9.4812E-01
5.00E-10	8.7391E-01	4.2611E-01	9.4828E-01
5.10E-10	8.7730E-01	4.3892E-01	9.4845E-01
5.20E-10	8.8026E-01	4.5640E-01	9.4858E-01
5.30E-10	8.8222E-01	4.7710E-01	9.4859E-01
5.40E-10	8.8386E-01	4.9780E-01	9.4860E-01
5.50E-10	8.8486E-01	5.2989E-01	9.4860E-01
5.60E-10	8.8585E-01	5.6285E-01	9.4860E-01
5.70E-10	8.8684E-01	5.9689E-01	9.4860E-01
5.80E-10	8.8768E-01	6.3392E-01	9.4860E-01
5.90E-10	8.8847E-01	6.7095E-01	9.4860E-01
6.00E-10	8.8926E-01	7.0233E-01	9.4860E-01
6.10E-10	8.8998E-01	7.2999E-01	9.4860E-01
6.20E-10	8.9042E-01	7.5766E-01	9.4860E-01
6.30E-10	8.9086E-01	7.7515E-01	9.4860E-01
6.40E-10	8.9130E-01	7.9200E-01	9.4860E-01
6.50E-10	8.9157E-01	8.0477E-01	9.4860E-01
6.60E-10	8.9176E-01	8.1411E-01	9.4860E-01
6.70E-10	8.9194E-01	8.2282E-01	9.4860E-01
6.80E-10	8.9213E-01	8.2783E-01	9.4860E-01
6.90E-10	8.9232E-01	8.3284E-01	9.4860E-01
7.00E-10	8.9251E-01	8.3619E-01	9.4860E-01
7.10E-10	8.9269E-01	8.3899E-01	9.4860E-01
7.20E-10	8.9279E-01	8.4140E-01	9.4860E-01
7.30E-10	8.9282E-01	8.4312E-01	9.4860E-01
7.40E-10	8.9285E-01	8.4444E-01	9.4860E-01
7.50E-10	8.9288E-01	8.4444E-01	9.4860E-01

[Falling Waveform]

V\_fixture = 0.000V

V\_fixture\_min = 0.000V

V\_fixture\_max = 0.000V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	8.9297E-01	8.4444E-01	9.4842E-01
1.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
2.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
3.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
4.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
5.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
6.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
7.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
8.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
9.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
1.00E-10	8.9298E-01	8.4444E-01	9.4842E-01

1.10E-10	8.9307E-01	8.4444E-01	9.4842E-01
1.20E-10	8.9310E-01	8.4444E-01	9.4710E-01
1.30E-10	8.9298E-01	8.4444E-01	9.3543E-01
1.40E-10	8.9269E-01	8.4444E-01	9.1264E-01
1.50E-10	8.9153E-01	8.4444E-01	8.6501E-01
1.60E-10	8.9009E-01	8.4444E-01	7.9523E-01
1.70E-10	8.8619E-01	8.4444E-01	7.1623E-01
1.80E-10	8.8188E-01	8.4444E-01	6.3702E-01
1.90E-10	8.6797E-01	8.4444E-01	5.6822E-01
2.00E-10	8.5407E-01	8.4444E-01	5.1467E-01
2.10E-10	8.1907E-01	8.4444E-01	4.7745E-01
2.20E-10	7.8369E-01	8.4444E-01	4.5020E-01
2.30E-10	7.2759E-01	8.4356E-01	4.2700E-01
2.40E-10	6.6977E-01	8.4256E-01	4.0012E-01
2.50E-10	6.0883E-01	8.3977E-01	3.6152E-01
2.60E-10	5.4739E-01	8.3484E-01	3.0810E-01
2.70E-10	5.0056E-01	8.2675E-01	2.4581E-01
2.80E-10	4.5727E-01	8.1616E-01	1.8720E-01
2.90E-10	4.2858E-01	8.0426E-01	1.3866E-01
3.00E-10	4.0488E-01	7.8900E-01	9.9411E-02
3.10E-10	3.8513E-01	7.7410E-01	6.9027E-02
3.20E-10	3.6720E-01	7.4966E-01	4.8410E-02
3.30E-10	3.4529E-01	7.1605E-01	3.2789E-02
3.40E-10	3.2101E-01	6.7567E-01	2.0043E-02
3.50E-10	2.8958E-01	6.3059E-01	1.4012E-02
3.60E-10	2.5272E-01	5.9072E-01	8.0573E-03
3.70E-10	2.1376E-01	5.5071E-01	5.9996E-03
3.80E-10	1.7278E-01	5.1266E-01	3.9419E-03
3.90E-10	1.3552E-01	4.8164E-01	2.8692E-03
4.00E-10	1.0280E-01	4.5088E-01	2.1454E-03
4.10E-10	7.5449E-02	4.2586E-01	1.6064E-03
4.20E-10	5.6489E-02	4.0332E-01	1.2864E-03
4.30E-10	4.2244E-02	3.8157E-01	9.8729E-04
4.40E-10	3.1060E-02	3.6318E-01	7.8594E-04
4.50E-10	2.3597E-02	3.4438E-01	5.8459E-04
4.60E-10	1.8174E-02	3.2416E-01	3.8324E-04
4.70E-10	1.3964E-02	3.0378E-01	1.8189E-04
4.80E-10	1.1106E-02	2.8095E-01	9.6654E-05
4.90E-10	8.2484E-03	2.5556E-01	8.3885E-05
5.00E-10	5.8181E-03	2.3033E-01	7.1116E-05
5.10E-10	-3.6753E-04	1.9998E-01	5.8347E-05
5.20E-10	-3.6753E-04	1.7048E-01	4.5994E-05
5.30E-10	-3.6753E-04	1.4118E-01	4.0878E-05
5.40E-10	-3.6753E-04	1.1208E-01	3.5762E-05
5.50E-10	-3.6753E-04	8.5433E-02	3.0646E-05
5.60E-10	-3.6753E-04	6.4850E-02	2.8087E-05
5.70E-10	-3.6753E-04	4.4040E-02	2.8087E-05
5.80E-10	-3.6753E-04	3.2587E-02	2.8087E-05
5.90E-10	-3.6753E-04	2.2313E-02	2.8087E-05
6.00E-10	-3.6753E-04	1.4942E-02	2.8087E-05
6.10E-10	-3.6753E-04	1.1102E-02	2.8087E-05
6.20E-10	-3.6753E-04	7.2760E-03	2.8087E-05
6.30E-10	-3.6753E-04	5.9771E-03	2.8087E-05
6.40E-10	-3.6753E-04	4.6411E-03	2.8087E-05

6.50E-10	-3.6753E-04	3.7753E-03	2.8087E-05
6.60E-10	-3.6753E-04	3.2215E-03	2.8087E-05
6.70E-10	-3.6753E-04	2.7093E-03	2.8087E-05
6.80E-10	-3.6753E-04	2.3817E-03	2.8087E-05
6.90E-10	-3.6753E-04	2.0535E-03	2.8087E-05
7.00E-10	-3.6753E-04	1.7965E-03	2.8087E-05
7.10E-10	-3.6753E-04	1.5615E-03	2.8087E-05
7.20E-10	-3.6753E-04	1.3266E-03	2.8087E-05
7.30E-10	-3.6753E-04	7.2516E-04	2.8087E-05
7.40E-10	-3.6753E-04	7.2516E-04	2.8087E-05
7.50E-10	-3.6753E-04	7.2516E-04	2.8087E-05

\*\*\*\*\*  
MODEL DQS\_34\_1600 (34 Ohm Data Strobe I/O with 40ohm ODT, 1333/1600 Mbps)  
\*\*\*\*\*

[Model] DQS\_34\_ODT40\_1600  
Model\_type I/O

Vinl = 600.000mV  
Vinh = 900.000mV  
Vmeas = 750.000mV  
Vref = 750.000mV  
Cref = 0.0pF  
Rref = 25.000Ohm

	typ	min	max
C_comp	1.078pF	0.966pF	1.223pF

| Note: C\_comp changes when the ODT circuit is enabled.

[Model Spec]

| Input threshold voltage corners

Vinl	0.6000V	0.5625V	0.6375V
Vinh	0.9000V	0.8625V	0.9375V

| Measurement voltage corners

Vmeas	0.7500V	0.7125V	0.7875V
-------	---------	---------	---------

| Timing spec test load voltage corners

Vref	0.7500V	0.7125V	0.7875V
------	---------	---------	---------

| Dynamic Overshoot Parameters from DDR3 Specification

D_overshoot_ampl_h	0.40	NA	NA
D_overshoot_ampl_l	0.40	NA	NA
D_overshoot_area_h	0.13n	NA	NA
D_overshoot_area_l	0.13n	NA	NA

[[Receiver Thresholds]

|Vth = 0.750V  
|Vth\_min = 0.7350V  
|Vth\_max = 0.7650V  
|Vinh\_ac = 0.150V  
|Vinh\_dc = 0.100V

```
|Vinl_ac = -0.150V
|Vinl_dc = -0.100V
|Tslew_ac = 5.000ns |Not specified, so set to high value
|Threshold_sensitivity = 0.50
|Reference_supply Pullup_ref
```

```
|NOTE: If using the IBISCHK 4.2.1 or older parser, Differential receiver
|threshold parameters must be commented out because the parser generates
|errors for multiple differential models.
```

```
|Vcross_low = 0.600V
|Vcross_high = 0.900V
|Vdiff_ac = 300mV
|Vdiff_dc = 200mV
|Tdiffslew_ac = 10.000ns |Not specified, so set to high value
```

```
[Add Submodel]
```

Submodel Name	Mode			
40Ohm_ODT	Non-Driving			
[Voltage Range]	1.500V	1.425V	1.575V	
[Pullup Reference]	1.500V	1.425V	1.575V	
[Temperature Range]	85.0	110.0	0.0	

```
*****
```

```
[Pulldown]
```

Voltage	I(typ)	I(min)	I(max)
-1.500000e+00	-6.717440E-03	-6.602220E-03	-5.1878E-03
-1.475000e+00	-6.950660E-03	-6.867910E-03	-5.4092E-03
-1.425000e+00	-7.420160E-03	-7.410640E-03	-5.8575E-03
-1.375000e+00	-7.891420E-03	-7.964120E-03	-6.3098E-03
-1.325000e+00	-8.362190E-03	-8.523980E-03	-6.7632E-03
-1.275000e+00	-8.830600E-03	-9.086830E-03	-7.2155E-03
-1.225000e+00	-9.295050E-03	-9.650090E-03	-7.6651E-03
-1.175000e+00	-9.754060E-03	-1.021176E-02	-8.1108E-03
-1.125000e+00	-1.020612E-02	-1.077025E-02	-8.5512E-03
-1.075000e+00	-1.064959E-02	-1.132418E-02	-8.9850E-03
-1.025000e+00	-1.108253E-02	-1.187221E-02	-9.4109E-03
-9.750000e-01	-1.150258E-02	-1.241292E-02	-9.8270E-03
-9.250000e-01	-1.190672E-02	-1.294440E-02	-1.0231E-02
-8.750000e-01	-1.229088E-02	-1.346358E-02	-1.0620E-02
-8.250000e-01	-1.264939E-02	-1.396484E-02	-1.0991E-02
-7.750000e-01	-1.297388E-02	-1.443730E-02	-1.1336E-02
-7.250000e-01	-1.325153E-02	-1.486077E-02	-1.1649E-02
-6.750000e-01	-1.346224E-02	-1.520128E-02	-1.1917E-02
-6.250000e-01	-1.357544E-02	-1.540771E-02	-1.2120E-02
-5.750000e-01	-1.354969E-02	-1.541129E-02	-1.2227E-02
-5.250000e-01	-1.333921E-02	-1.513126E-02	-1.2185E-02
-4.750000e-01	-1.290237E-02	-1.448995E-02	-1.1917E-02
-4.250000e-01	-1.219129E-02	-1.344440E-02	-1.1342E-02
-3.750000e-01	-1.115219E-02	-1.205672E-02	-1.0442E-02
-3.250000e-01	-9.820264E-03	-1.048922E-02	-9.2579E-03

-2.7500000e-01	-8.341268E-03	-8.866406E-03	-7.8883E-03
-2.2500000e-01	-6.822138E-03	-7.235947E-03	-6.4597E-03
-1.7500000e-01	-5.298271E-03	-5.610770E-03	-5.0227E-03
-1.2500000e-01	-3.777710E-03	-3.994334E-03	-3.5860E-03
-7.5000000e-02	-2.262248E-03	-2.388040E-03	-2.1505E-03
-2.5000000e-02	-7.525408E-04	-7.929693E-04	-7.1644E-04
0.0000000e+00	-2.915900E-09	-3.333000E-10	-5.0570E-09
2.5000000e-02	7.507199E-04	7.895269E-04	7.1589E-04
7.5000000e-02	2.245917E-03	2.357110E-03	2.1456E-03
1.2500000e-01	3.732365E-03	3.908392E-03	3.5725E-03
1.7500000e-01	5.209520E-03	5.442055E-03	4.9965E-03
2.2500000e-01	6.676783E-03	6.956634E-03	6.4174E-03
2.7500000e-01	8.133496E-03	8.450479E-03	7.8352E-03
3.2500000e-01	9.578923E-03	9.921721E-03	9.2496E-03
3.7500000e-01	1.101226E-02	1.136822E-02	1.0661E-02
4.2500000e-01	1.243257E-02	1.278754E-02	1.2068E-02
4.7500000e-01	1.383888E-02	1.417683E-02	1.3472E-02
5.2500000e-01	1.523002E-02	1.553278E-02	1.4871E-02
5.7500000e-01	1.660471E-02	1.685160E-02	1.6267E-02
6.2500000e-01	1.796153E-02	1.812901E-02	1.7659E-02
6.7500000e-01	1.929892E-02	1.936079E-02	1.9046E-02
7.2500000e-01	2.061527E-02	2.054383E-02	2.0428E-02
7.7500000e-01	2.190915E-02	2.167702E-02	2.1805E-02
8.2500000e-01	2.317984E-02	2.276044E-02	2.3178E-02
8.7500000e-01	2.442765E-02	2.379315E-02	2.4544E-02
9.2500000e-01	2.565381E-02	2.477183E-02	2.5905E-02
9.7500000e-01	2.685955E-02	2.569073E-02	2.7261E-02
1.0250000e+00	2.804545E-02	2.654265E-02	2.8609E-02
1.0750000e+00	2.921123E-02	2.732059E-02	2.9951E-02
1.1250000e+00	3.035586E-02	2.802022E-02	3.1286E-02
1.1750000e+00	3.147763E-02	2.864222E-02	3.2613E-02
1.2250000e+00	3.257424E-02	2.919304E-02	3.3932E-02
1.2750000e+00	3.364280E-02	2.968331E-02	3.5242E-02
1.3250000e+00	3.467974E-02	3.012500E-02	3.6542E-02
1.3750000e+00	3.568083E-02	3.052912E-02	3.7832E-02
1.4250000e+00	3.664118E-02	3.090472E-02	3.9112E-02
1.4750000e+00	3.755541E-02	3.125876E-02	4.0379E-02
1.5250000e+00	3.841817E-02	3.159641E-02	4.1633E-02
1.5750000e+00	3.922484E-02	3.192149E-02	4.2873E-02
1.6250000e+00	3.997270E-02	3.223679E-02	4.4097E-02
1.6750000e+00	4.066185E-02	3.254442E-02	4.5303E-02
1.7250000e+00	4.129552E-02	3.284593E-02	4.6490E-02
1.7750000e+00	4.187958E-02	3.314250E-02	4.7654E-02
1.8250000e+00	4.242129E-02	3.343504E-02	4.8794E-02
1.8750000e+00	4.292808E-02	3.372428E-02	4.9905E-02
1.9250000e+00	4.340673E-02	3.401077E-02	5.0985E-02
1.9750000e+00	4.386296E-02	3.429496E-02	5.2029E-02
2.0250000e+00	4.430140E-02	3.457721E-02	5.3033E-02
2.0750000e+00	4.472568E-02	3.485782E-02	5.3993E-02
2.1250000e+00	4.513865E-02	3.513705E-02	5.4906E-02
2.1750000e+00	4.554252E-02	3.541511E-02	5.5769E-02
2.2250000e+00	4.593900E-02	3.569218E-02	5.6583E-02
2.2750000e+00	4.632944E-02	3.596843E-02	5.7349E-02
2.3250000e+00	4.671490E-02	3.624402E-02	5.8070E-02

2.3750000e+00	4.709624E-02	3.651910E-02	5.8752E-02
2.4250000e+00	4.747414E-02	3.679380E-02	5.9398E-02
2.4750000e+00	4.784918E-02	3.706830E-02	6.0016E-02
2.5250000e+00	4.822183E-02	3.734276E-02	6.0609E-02
2.5750000e+00	4.859248E-02	3.761735E-02	6.1181E-02
2.6250000e+00	4.896149E-02	3.789229E-02	6.1736E-02
2.6750000e+00	4.932914E-02	3.816783E-02	6.2277E-02
2.7250000e+00	4.969572E-02	3.844422E-02	6.2806E-02
2.7750000e+00	5.006148E-02	3.872180E-02	6.3326E-02
2.8250000e+00	5.042664E-02	3.900093E-02	6.3837E-02
2.8750000e+00	5.079141E-02	3.928204E-02	6.4342E-02
2.9250000e+00	5.115601E-02	3.956562E-02	6.4840E-02
2.9750000e+00	5.152066E-02	3.985223E-02	6.5334E-02
3.0000000e+00	5.170306E-02	3.999685E-02	6.5579E-02

[GND Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	-5.378351E-02	-5.490567E-02	-5.885698E-02
-1.4750000e+00	-5.231251E-02	-5.334431E-02	-5.735670E-02
-1.4500000e+00	-5.084369E-02	-5.178549E-02	-5.585777E-02
-1.4250000e+00	-4.937717E-02	-5.022938E-02	-5.436025E-02
-1.4000000e+00	-4.791309E-02	-4.867613E-02	-5.286424E-02
-1.3750000e+00	-4.645161E-02	-4.712594E-02	-5.136982E-02
-1.3500000e+00	-4.499289E-02	-4.557901E-02	-4.987708E-02
-1.3250000e+00	-4.353712E-02	-4.403556E-02	-4.838614E-02
-1.3000000e+00	-4.208452E-02	-4.249585E-02	-4.689710E-02
-1.2750000e+00	-4.063529E-02	-4.096014E-02	-4.541010E-02
-1.2500000e+00	-3.918970E-02	-3.942875E-02	-4.392527E-02
-1.2250000e+00	-3.774803E-02	-3.790201E-02	-4.244278E-02
-1.2000000e+00	-3.631059E-02	-3.638031E-02	-4.096280E-02
-1.1750000e+00	-3.487773E-02	-3.486408E-02	-3.948552E-02
-1.1500000e+00	-3.344986E-02	-3.335380E-02	-3.801116E-02
-1.1250000e+00	-3.202742E-02	-3.185003E-02	-3.653998E-02
-1.1000000e+00	-3.061092E-02	-3.035339E-02	-3.507226E-02
-1.0750000e+00	-2.920096E-02	-2.886462E-02	-3.360832E-02
-1.0500000e+00	-2.779821E-02	-2.738455E-02	-3.214854E-02
-1.0250000e+00	-2.640347E-02	-2.591415E-02	-3.069335E-02
-1.0000000e+00	-2.501766E-02	-2.445455E-02	-2.924328E-02
-9.7500000e-01	-2.364185E-02	-2.300708E-02	-2.779892E-02
-9.5000000e-01	-2.227732E-02	-2.157329E-02	-2.636102E-02
-9.2500000e-01	-2.092559E-02	-2.015501E-02	-2.493048E-02
-9.0000000e-01	-1.958843E-02	-1.875433E-02	-2.350840E-02
-8.7500000e-01	-1.826790E-02	-1.737363E-02	-2.209616E-02
-8.5000000e-01	-1.696631E-02	-1.601550E-02	-2.069550E-02
-8.2500000e-01	-1.568612E-02	-1.468262E-02	-1.930856E-02
-8.0000000e-01	-1.442972E-02	-1.337762E-02	-1.793782E-02
-7.7500000e-01	-1.319926E-02	-1.210311E-02	-1.658583E-02
-7.5000000e-01	-1.199673E-02	-1.086191E-02	-1.525450E-02
-7.2500000e-01	-1.082427E-02	-9.657411E-03	-1.394473E-02
-7.0000000e-01	-9.684638E-03	-8.493939E-03	-1.265685E-02
-6.7500000e-01	-8.581514E-03	-7.376930E-03	-1.139180E-02
-6.5000000e-01	-7.519607E-03	-6.312929E-03	-1.015194E-02
-6.2500000e-01	-6.504547E-03	-5.309438E-03	-8.941317E-03
-6.0000000e-01	-5.542688E-03	-4.374618E-03	-7.765734E-03

-5.7500000e-01	-4.640772E-03	-3.516890E-03	-6.632943E-03
-5.5000000e-01	-3.805524E-03	-2.744483E-03	-5.552944E-03
-5.2500000e-01	-3.043248E-03	-2.065103E-03	-4.538199E-03
-5.0000000e-01	-2.359647E-03	-1.485677E-03	-3.603410E-03
-4.7500000e-01	-1.760020E-03	-1.011779E-03	-2.764263E-03
-4.5000000e-01	-1.249702E-03	-6.458403E-04	-2.034714E-03
-4.2500000e-01	-8.339835E-04	-3.838582E-04	-1.423543E-03
-4.0000000e-01	-5.162389E-04	-2.125448E-04	-9.327585E-04
-3.7500000e-01	-2.937329E-04	-1.106466E-04	-5.596314E-04
-3.5000000e-01	-1.537279E-04	-5.497263E-05	-2.989521E-04
-3.2500000e-01	-7.493357E-05	-2.649171E-05	-1.392980E-04
-3.0000000e-01	-3.471511E-05	-1.256760E-05	-5.693623E-05
-2.7500000e-01	-1.563019E-05	-5.952723E-06	-2.113740E-05
-2.5000000e-01	-7.001335E-06	-2.863206E-06	-7.478892E-06
-2.2500000e-01	-3.215160E-06	-1.433628E-06	-2.669240E-06
-2.0000000e-01	-1.576700E-06	-7.729597E-07	-1.039346E-06
-1.7500000e-01	-8.691669E-07	-4.659048E-07	-4.927419E-07
-1.5000000e-01	-5.602970E-07	-3.210513E-07	-3.060998E-07
-1.2500000e-01	-4.211770E-07	-2.506183E-07	-2.379530E-07
-1.0000000e-01	-3.542844E-07	-2.144259E-07	-2.089398E-07
-7.5000000e-02	-3.182781E-07	-1.940781E-07	-1.931385E-07
-5.0000000e-02	-2.956734E-07	-1.811414E-07	-1.820761E-07
-2.5000000e-02	-2.790923E-07	-1.717494E-07	-1.729560E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[Pullup]

-1.5000000e+00	1.625201E-02	1.758608E-02	1.5776E-02
-1.4750000e+00	1.628295E-02	1.772293E-02	1.5794E-02
-1.4250000e+00	1.631167E-02	1.794814E-02	1.5819E-02
-1.3750000e+00	1.630625E-02	1.810214E-02	1.5832E-02
-1.3250000e+00	1.628177E-02	1.818331E-02	1.5836E-02
-1.2750000e+00	1.625213E-02	1.819962E-02	1.5830E-02
-1.2250000e+00	1.622498E-02	1.816850E-02	1.5814E-02
-1.1750000e+00	1.620031E-02	1.811351E-02	1.5786E-02
-1.1250000e+00	1.617356E-02	1.805794E-02	1.5746E-02
-1.0750000e+00	1.613984E-02	1.801572E-02	1.5692E-02
-1.0250000e+00	1.609584E-02	1.798687E-02	1.5624E-02
-9.7500000e-01	1.603981E-02	1.796321E-02	1.5542E-02
-9.2500000e-01	1.597095E-02	1.793695E-02	1.5444E-02
-8.7500000e-01	1.588883E-02	1.790371E-02	1.5331E-02
-8.2500000e-01	1.579281E-02	1.786161E-02	1.5200E-02
-7.7500000e-01	1.568160E-02	1.780891E-02	1.5050E-02
-7.2500000e-01	1.555266E-02	1.774030E-02	1.4877E-02
-6.7500000e-01	1.540100E-02	1.763919E-02	1.4677E-02
-6.2500000e-01	1.521657E-02	1.746424E-02	1.4440E-02
-5.7500000e-01	1.497687E-02	1.713549E-02	1.4152E-02
-5.2500000e-01	1.462952E-02	1.653605E-02	1.3790E-02
-4.7500000e-01	1.407045E-02	1.555591E-02	1.3303E-02
-4.2500000e-01	1.317055E-02	1.420030E-02	1.2595E-02
-3.7500000e-01	1.190475E-02	1.261585E-02	1.1528E-02
-3.2500000e-01	1.040962E-02	1.094206E-02	1.0132E-02
-2.7500000e-01	8.825733E-03	9.244475E-03	8.6004E-03
-2.2500000e-01	7.217759E-03	7.545941E-03	7.0379E-03

-1.7500000e-01	5.606827E-03	5.853537E-03	5.4714E-03
-1.2500000e-01	3.998885E-03	4.169432E-03	3.9059E-03
-7.5000000e-02	2.395513E-03	2.494429E-03	2.3421E-03
-2.5000000e-02	7.971932E-04	8.289974E-04	7.8023E-04
0.0000000e+00	1.314700E-09	4.692000E-10	3.0652E-09
2.5000000e-02	-7.950502E-04	-8.253549E-04	-7.7920E-04
7.5000000e-02	-2.376138E-03	-2.461490E-03	-2.3328E-03
1.2500000e-01	-3.944794E-03	-4.077442E-03	-3.8799E-03
1.7500000e-01	-5.500495E-03	-5.672260E-03	-5.4201E-03
2.2500000e-01	-7.042695E-03	-7.244932E-03	-6.9533E-03
2.7500000e-01	-8.570810E-03	-8.794375E-03	-8.4790E-03
3.2500000e-01	-1.008422E-02	-1.031943E-02	-9.9969E-03
3.7500000e-01	-1.158229E-02	-1.181885E-02	-1.1507E-02
4.2500000e-01	-1.306431E-02	-1.329132E-02	-1.3008E-02
4.7500000e-01	-1.452955E-02	-1.473539E-02	-1.4501E-02
5.2500000e-01	-1.597724E-02	-1.614954E-02	-1.5984E-02
5.7500000e-01	-1.740654E-02	-1.753210E-02	-1.7458E-02
6.2500000e-01	-1.881658E-02	-1.888132E-02	-1.8922E-02
6.7500000e-01	-2.020643E-02	-2.019527E-02	-2.0375E-02
7.2500000e-01	-2.157509E-02	-2.147192E-02	-2.1818E-02
7.7500000e-01	-2.292153E-02	-2.270910E-02	-2.3248E-02
8.2500000e-01	-2.424464E-02	-2.390455E-02	-2.4667E-02
8.7500000e-01	-2.554331E-02	-2.505603E-02	-2.6073E-02
9.2500000e-01	-2.681638E-02	-2.616144E-02	-2.7466E-02
9.7500000e-01	-2.806279E-02	-2.721907E-02	-2.8845E-02
1.0250000e+00	-2.928162E-02	-2.822778E-02	-3.0209E-02
1.0750000e+00	-3.047224E-02	-2.918687E-02	-3.1559E-02
1.1250000e+00	-3.163441E-02	-3.009551E-02	-3.2895E-02
1.1750000e+00	-3.276817E-02	-3.095232E-02	-3.4215E-02
1.2250000e+00	-3.387345E-02	-3.175524E-02	-3.5520E-02
1.2750000e+00	-3.494986E-02	-3.250183E-02	-3.6810E-02
1.3250000e+00	-3.599648E-02	-3.318993E-02	-3.8084E-02
1.3750000e+00	-3.701195E-02	-3.381867E-02	-3.9341E-02
1.4250000e+00	-3.799445E-02	-3.438959E-02	-4.0581E-02
1.4750000e+00	-3.894176E-02	-3.490743E-02	-4.1802E-02
1.5250000e+00	-3.985132E-02	-3.537965E-02	-4.3004E-02
1.5750000e+00	-4.072029E-02	-3.581474E-02	-4.4185E-02
1.6250000e+00	-4.154560E-02	-3.622056E-02	-4.5343E-02
1.6750000e+00	-4.232425E-02	-3.660353E-02	-4.6476E-02
1.7250000e+00	-4.305363E-02	-3.696849E-02	-4.7583E-02
1.7750000e+00	-4.373217E-02	-3.731908E-02	-4.8662E-02
1.8250000e+00	-4.436015E-02	-3.765800E-02	-4.9709E-02
1.8750000e+00	-4.494020E-02	-3.798729E-02	-5.0722E-02
1.9250000e+00	-4.547717E-02	-3.830853E-02	-5.1698E-02
1.9750000e+00	-4.597727E-02	-3.862293E-02	-5.2633E-02
2.0250000e+00	-4.644684E-02	-3.893148E-02	-5.3524E-02
2.0750000e+00	-4.689156E-02	-3.923498E-02	-5.4367E-02
2.1250000e+00	-4.731609E-02	-3.953408E-02	-5.5160E-02
2.1750000e+00	-4.772413E-02	-3.982931E-02	-5.5900E-02
2.2250000e+00	-4.811854E-02	-4.012115E-02	-5.6590E-02
2.2750000e+00	-4.850161E-02	-4.040997E-02	-5.7231E-02
2.3250000e+00	-4.887508E-02	-4.069609E-02	-5.7830E-02
2.3750000e+00	-4.924037E-02	-4.097982E-02	-5.8391E-02
2.4250000e+00	-4.959862E-02	-4.126137E-02	-5.8920E-02



2.4750000e+00	-4.995076E-02	-4.154098E-02	-5.9424E-02
2.5250000e+00	-5.029755E-02	-4.181883E-02	-5.9906E-02
2.5750000e+00	-5.063964E-02	-4.209509E-02	-6.0370E-02
2.6250000e+00	-5.097758E-02	-4.236990E-02	-6.0819E-02
2.6750000e+00	-5.131181E-02	-4.264339E-02	-6.1255E-02
2.7250000e+00	-5.164272E-02	-4.291571E-02	-6.1681E-02
2.7750000e+00	-5.197066E-02	-4.318692E-02	-6.2098E-02
2.8250000e+00	-5.229592E-02	-4.345715E-02	-6.2507E-02
2.8750000e+00	-5.261875E-02	-4.372646E-02	-6.2909E-02
2.9250000e+00	-5.293944E-02	-4.399496E-02	-6.3305E-02
2.9750000e+00	-5.325809E-02	-4.426273E-02	-6.3695E-02
3.0000000e+00	-5.341670E-02	-4.439634E-02	-6.3889E-02

[POWER Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	4.450136E-02	4.385767E-02	4.780180E-02
-1.4750000e+00	4.325737E-02	4.248503E-02	4.651240E-02
-1.4500000e+00	4.202627E-02	4.113177E-02	4.522925E-02
-1.4250000e+00	4.080680E-02	3.979850E-02	4.395155E-02
-1.4000000e+00	3.959743E-02	3.848563E-02	4.267872E-02
-1.3750000e+00	3.839648E-02	3.719324E-02	4.141043E-02
-1.3500000e+00	3.720221E-02	3.592106E-02	4.014658E-02
-1.3250000e+00	3.601296E-02	3.466841E-02	3.888724E-02
-1.3000000e+00	3.482735E-02	3.343415E-02	3.763261E-02
-1.2750000e+00	3.364438E-02	3.221669E-02	3.638295E-02
-1.2500000e+00	3.246358E-02	3.101397E-02	3.513856E-02
-1.2250000e+00	3.128497E-02	2.982356E-02	3.389971E-02
-1.2000000e+00	3.010901E-02	2.864279E-02	3.266671E-02
-1.1750000e+00	2.893648E-02	2.746896E-02	3.143983E-02
-1.1500000e+00	2.776826E-02	2.629964E-02	3.021937E-02
-1.1250000e+00	2.660528E-02	2.513304E-02	2.900560E-02
-1.1000000e+00	2.544841E-02	2.396824E-02	2.779885E-02
-1.0750000e+00	2.429844E-02	2.280536E-02	2.659947E-02
-1.0500000e+00	2.315612E-02	2.164543E-02	2.540788E-02
-1.0250000e+00	2.202214E-02	2.049007E-02	2.422456E-02
-1.0000000e+00	2.089719E-02	1.934117E-02	2.305008E-02
-9.7500000e-01	1.978197E-02	1.820065E-02	2.188512E-02
-9.5000000e-01	1.867722E-02	1.707028E-02	2.073051E-02
-9.2500000e-01	1.758372E-02	1.595172E-02	1.958717E-02
-9.0000000e-01	1.650228E-02	1.484648E-02	1.845617E-02
-8.7500000e-01	1.543373E-02	1.375596E-02	1.733861E-02
-8.5000000e-01	1.437889E-02	1.268153E-02	1.623552E-02
-8.2500000e-01	1.333851E-02	1.162449E-02	1.514771E-02
-8.0000000e-01	1.231328E-02	1.058622E-02	1.407560E-02
-7.7500000e-01	1.130388E-02	9.568206E-03	1.301920E-02
-7.5000000e-01	1.031106E-02	8.572276E-03	1.197826E-02
-7.2500000e-01	9.335806E-03	7.600753E-03	1.095255E-02
-7.0000000e-01	8.379549E-03	6.656721E-03	9.942208E-03
-6.7500000e-01	7.444326E-03	5.744302E-03	8.947907E-03
-6.5000000e-01	6.532997E-03	4.868952E-03	7.971037E-03
-6.2500000e-01	5.649458E-03	4.037787E-03	7.013856E-03
-6.0000000e-01	4.798902E-03	3.259897E-03	6.079694E-03
-5.7500000e-01	3.988134E-03	2.546530E-03	5.173232E-03
-5.5000000e-01	3.225930E-03	1.910856E-03	4.300898E-03

-5.2500000e-01	2.523332E-03	1.366712E-03	3.471435E-03
-5.0000000e-01	1.893615E-03	9.256050E-04	2.696669E-03
-4.7500000e-01	1.351332E-03	5.919303E-04	1.992344E-03
-4.5000000e-01	9.095438E-04	3.586832E-04	1.378411E-03
-4.2500000e-01	5.747929E-04	2.078355E-04	8.770334E-04
-4.0000000e-01	3.418453E-04	1.164218E-04	5.053061E-04
-3.7500000e-01	1.930954E-04	6.360210E-05	2.627362E-04
-3.5000000e-01	1.048276E-04	3.408364E-05	1.249600E-04
-3.2500000e-01	5.523970E-05	1.799151E-05	5.555840E-05
-3.0000000e-01	2.845373E-05	9.394192E-06	2.354470E-05
-2.7500000e-01	1.440808E-05	4.878770E-06	9.667951E-06
-2.5000000e-01	7.217646E-06	2.540607E-06	3.917671E-06
-2.2500000e-01	3.608426E-06	1.343333E-06	1.610365E-06
-2.0000000e-01	1.824961E-06	7.351342E-07	7.040722E-07
-1.7500000e-01	9.538096E-07	4.274933E-07	3.518088E-07
-1.5000000e-01	5.312391E-07	2.717598E-07	2.143482E-07
-1.2500000e-01	3.264285E-07	1.922224E-07	1.590776E-07
-1.0000000e-01	2.262355E-07	1.506538E-07	1.350141E-07
-7.5000000e-02	1.758303E-07	1.278715E-07	1.227817E-07
-5.0000000e-02	1.489090E-07	1.143246E-07	1.150732E-07
-2.5000000e-02	1.332080E-07	1.054156E-07	1.091539E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[Ramp]

R\_load = 50.00Ohm

	typ	min	max
dV/dt_r	532.022mV/119.423ps	491.319mV/165.185ps	567.619mV/91.565ps
dV/dt_f	537.976mV/129.806ps	497.460mV/173.213ps	578.029mV/105.657ps

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[Rising Waveform]

V\_fixture = 1.500V

V\_fixture\_min = 1.425V

V\_fixture\_max = 1.575V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	6.1517E-01	5.8287E-01	6.5309E-01
1.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
2.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
3.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
4.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
5.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
6.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
7.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
8.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
9.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
1.00E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.10E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.20E-10	6.1517E-01	5.8287E-01	6.5309E-01

1.30E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.40E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.50E-10	6.1517E-01	5.8287E-01	6.5433E-01
1.60E-10	6.1517E-01	5.8287E-01	6.7845E-01
1.70E-10	6.1616E-01	5.8287E-01	7.4018E-01
1.80E-10	6.1820E-01	5.8287E-01	8.2854E-01
1.90E-10	6.2509E-01	5.8287E-01	9.2350E-01
2.00E-10	6.3360E-01	5.8287E-01	1.0035E+00
2.10E-10	6.5972E-01	5.8287E-01	1.0622E+00
2.20E-10	6.9277E-01	5.8287E-01	1.1021E+00
2.30E-10	7.4389E-01	5.8287E-01	1.1297E+00
2.40E-10	8.0329E-01	5.8287E-01	1.1507E+00
2.50E-10	8.6698E-01	5.8287E-01	1.1725E+00
2.60E-10	9.3293E-01	5.8587E-01	1.2084E+00
2.70E-10	9.8606E-01	5.8977E-01	1.2660E+00
2.80E-10	1.0314E+00	6.0015E-01	1.3332E+00
2.90E-10	1.0621E+00	6.1507E-01	1.4005E+00
3.00E-10	1.0875E+00	6.3422E-01	1.4575E+00
3.10E-10	1.1038E+00	6.6308E-01	1.5003E+00
3.20E-10	1.1186E+00	6.9542E-01	1.5292E+00
3.30E-10	1.1318E+00	7.3829E-01	1.5452E+00
3.40E-10	1.1488E+00	7.8359E-01	1.5589E+00
3.50E-10	1.1685E+00	8.3263E-01	1.5644E+00
3.60E-10	1.1961E+00	8.7994E-01	1.5690E+00
3.70E-10	1.2308E+00	9.2648E-01	1.5711E+00
3.80E-10	1.2708E+00	9.6220E-01	1.5725E+00
3.90E-10	1.3157E+00	9.9443E-01	1.5733E+00
4.00E-10	1.3592E+00	1.0179E+00	1.5737E+00
4.10E-10	1.3979E+00	1.0367E+00	1.5740E+00
4.20E-10	1.4283E+00	1.0518E+00	1.5741E+00
4.30E-10	1.4538E+00	1.0635E+00	1.5743E+00
4.40E-10	1.4683E+00	1.0745E+00	1.5743E+00
4.50E-10	1.4800E+00	1.0848E+00	1.5743E+00
4.60E-10	1.4870E+00	1.0962E+00	1.5743E+00
4.70E-10	1.4913E+00	1.1088E+00	1.5744E+00
4.80E-10	1.4943E+00	1.1255E+00	1.5744E+00
4.90E-10	1.4948E+00	1.1437E+00	1.5745E+00
5.00E-10	1.4953E+00	1.1618E+00	1.5746E+00
5.10E-10	1.4959E+00	1.1826E+00	1.5747E+00
5.20E-10	1.4965E+00	1.2089E+00	1.5747E+00
5.30E-10	1.4972E+00	1.2353E+00	1.5747E+00
5.40E-10	1.4979E+00	1.2616E+00	1.5748E+00
5.50E-10	1.4985E+00	1.2874E+00	1.5748E+00
5.60E-10	1.4988E+00	1.3132E+00	1.5748E+00
5.70E-10	1.4992E+00	1.3390E+00	1.5749E+00
5.80E-10	1.4995E+00	1.3572E+00	1.5749E+00
5.90E-10	1.4996E+00	1.3739E+00	1.5749E+00
6.00E-10	1.4997E+00	1.3906E+00	1.5749E+00
6.10E-10	1.4998E+00	1.4002E+00	1.5749E+00
6.20E-10	1.4999E+00	1.4076E+00	1.5749E+00
6.30E-10	1.4999E+00	1.4150E+00	1.5750E+00
6.40E-10	1.4999E+00	1.4175E+00	1.5750E+00
6.50E-10	1.4999E+00	1.4200E+00	1.5750E+00
6.60E-10	1.4999E+00	1.4220E+00	1.5750E+00

6.70E-10	1.4999E+00	1.4227E+00	1.5750E+00
6.80E-10	1.4999E+00	1.4234E+00	1.5750E+00
6.90E-10	1.4999E+00	1.4238E+00	1.5750E+00
7.00E-10	1.4999E+00	1.4240E+00	1.5750E+00
7.10E-10	1.4999E+00	1.4242E+00	1.5750E+00
7.20E-10	1.4999E+00	1.4243E+00	1.5750E+00
7.30E-10	1.4999E+00	1.4244E+00	1.5750E+00
7.40E-10	1.4999E+00	1.4244E+00	1.5750E+00
7.50E-10	1.5000E+00	1.4244E+00	1.5750E+00

[Falling Waveform]

V\_fixture = 1.500V

V\_fixture\_min = 1.425V

V\_fixture\_max = 1.575V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	1.5000E+00	1.4244E+00	1.5750E+00
1.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
2.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
3.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
4.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
5.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
6.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
7.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
8.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
9.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
1.00E-10	1.5000E+00	1.4244E+00	1.5750E+00
1.10E-10	1.5001E+00	1.4244E+00	1.5750E+00
1.20E-10	1.5005E+00	1.4244E+00	1.5750E+00
1.30E-10	1.5010E+00	1.4244E+00	1.5696E+00
1.40E-10	1.5019E+00	1.4244E+00	1.5421E+00
1.50E-10	1.5028E+00	1.4244E+00	1.5004E+00
1.60E-10	1.5039E+00	1.4244E+00	1.4462E+00
1.70E-10	1.5050E+00	1.4244E+00	1.3851E+00
1.80E-10	1.5044E+00	1.4244E+00	1.3205E+00
1.90E-10	1.5035E+00	1.4244E+00	1.2579E+00
2.00E-10	1.4916E+00	1.4244E+00	1.2013E+00
2.10E-10	1.4788E+00	1.4244E+00	1.1613E+00
2.20E-10	1.4542E+00	1.4244E+00	1.1320E+00
2.30E-10	1.4285E+00	1.4244E+00	1.1084E+00
2.40E-10	1.3937E+00	1.4244E+00	1.0868E+00
2.50E-10	1.3578E+00	1.4244E+00	1.0540E+00
2.60E-10	1.3171E+00	1.4218E+00	1.0067E+00
2.70E-10	1.2768E+00	1.4145E+00	9.4839E-01
2.80E-10	1.2375E+00	1.3990E+00	8.8192E-01
2.90E-10	1.2003E+00	1.3841E+00	8.2227E-01
3.00E-10	1.1674E+00	1.3619E+00	7.7341E-01
3.10E-10	1.1375E+00	1.3392E+00	7.3495E-01
3.20E-10	1.1123E+00	1.3125E+00	7.0687E-01
3.30E-10	1.0884E+00	1.2806E+00	6.9026E-01
3.40E-10	1.0662E+00	1.2558E+00	6.7865E-01
3.50E-10	1.0397E+00	1.2224E+00	6.7137E-01

3.60E-10	1.0097E+00	1.1987E+00	6.6791E-01
3.70E-10	9.7255E-01	1.1742E+00	6.6445E-01
3.80E-10	9.3100E-01	1.1523E+00	6.6187E-01
3.90E-10	8.8580E-01	1.1315E+00	6.5971E-01
4.00E-10	8.3897E-01	1.1120E+00	6.5755E-01
4.10E-10	7.9641E-01	1.0924E+00	6.5651E-01
4.20E-10	7.5515E-01	1.0749E+00	6.5547E-01
4.30E-10	7.2360E-01	1.0540E+00	6.5463E-01
4.40E-10	6.9391E-01	1.0344E+00	6.5421E-01
4.50E-10	6.7567E-01	1.0110E+00	6.5378E-01
4.60E-10	6.5854E-01	9.8237E-01	6.5353E-01
4.70E-10	6.4671E-01	9.5346E-01	6.5337E-01
4.80E-10	6.3926E-01	9.1790E-01	6.5321E-01
4.90E-10	6.3074E-01	8.7949E-01	6.5309E-01
5.00E-10	6.1517E-01	8.4341E-01	6.5309E-01
5.10E-10	6.1517E-01	8.0437E-01	6.5309E-01
5.20E-10	6.1517E-01	7.6818E-01	6.5309E-01
5.30E-10	6.1517E-01	7.3775E-01	6.5309E-01
5.40E-10	6.1517E-01	7.0888E-01	6.5309E-01
5.50E-10	6.1517E-01	6.8336E-01	6.5309E-01
5.60E-10	6.1517E-01	6.6440E-01	6.5309E-01
5.70E-10	6.1517E-01	6.4314E-01	6.5309E-01
5.80E-10	6.1517E-01	6.3327E-01	6.5309E-01
5.90E-10	6.1517E-01	6.1885E-01	6.5309E-01
6.00E-10	6.1517E-01	6.1028E-01	6.5309E-01
6.10E-10	6.1517E-01	6.0327E-01	6.5309E-01
6.20E-10	6.1517E-01	5.9567E-01	6.5309E-01
6.30E-10	6.1517E-01	5.9405E-01	6.5309E-01
6.40E-10	6.1517E-01	5.9090E-01	6.5309E-01
6.50E-10	6.1517E-01	5.8836E-01	6.5309E-01
6.60E-10	6.1517E-01	5.8633E-01	6.5309E-01
6.70E-10	6.1517E-01	5.8473E-01	6.5309E-01
6.80E-10	6.1517E-01	5.8287E-01	6.5309E-01
6.90E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.00E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.10E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.20E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.30E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.40E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.50E-10	6.1517E-01	5.8287E-01	6.5309E-01

[Rising Waveform]

V\_fixture = 0.000V

V\_fixture\_min = 0.000V

V\_fixture\_max = 0.000V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	-3.6753E-04	7.2516E-04	2.8087E-05
1.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
2.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
3.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
4.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05

5.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
6.00E-11	-3.6753E-04	7.2516E-04	1.0216E-04
7.00E-11	-3.6753E-04	7.2516E-04	1.9728E-04
8.00E-11	-3.6753E-04	7.2516E-04	2.7894E-04
9.00E-11	-3.6753E-04	7.2516E-04	2.8460E-04
1.00E-10	-3.6753E-04	7.2516E-04	2.9184E-04
1.10E-10	-3.6753E-04	7.2516E-04	1.1285E-03
1.20E-10	-3.6753E-04	7.2516E-04	2.7155E-03
1.30E-10	-3.6753E-04	7.2516E-04	5.0230E-03
1.40E-10	-3.6753E-04	7.2516E-04	7.3254E-03
1.50E-10	-3.6753E-04	7.2516E-04	8.7724E-03
1.60E-10	-3.6753E-04	7.2516E-04	1.1212E-02
1.70E-10	-3.6753E-04	7.2516E-04	4.6035E-02
1.80E-10	-3.6753E-04	7.2516E-04	9.9223E-02
1.90E-10	-3.6753E-04	7.2516E-04	1.6614E-01
2.00E-10	-3.6753E-04	7.2516E-04	2.3920E-01
2.10E-10	3.5736E-03	7.2516E-04	3.0948E-01
2.20E-10	2.0502E-02	7.2516E-04	3.6921E-01
2.30E-10	4.1697E-02	7.2516E-04	4.1553E-01
2.40E-10	7.5340E-02	7.2516E-04	4.4908E-01
2.50E-10	1.1331E-01	7.2516E-04	4.7338E-01
2.60E-10	1.5884E-01	7.2516E-04	4.9503E-01
2.70E-10	2.0668E-01	7.2516E-04	5.2442E-01
2.80E-10	2.5162E-01	7.2516E-04	5.7364E-01
2.90E-10	2.9581E-01	7.2516E-04	6.4440E-01
3.00E-10	3.3180E-01	5.8446E-03	7.2332E-01
3.10E-10	3.6594E-01	1.3532E-02	7.9061E-01
3.20E-10	3.9082E-01	2.2842E-02	8.4100E-01
3.30E-10	4.1397E-01	4.4064E-02	8.7560E-01
3.40E-10	4.3129E-01	6.5287E-02	8.9835E-01
3.50E-10	4.4771E-01	8.8005E-02	9.1275E-01
3.60E-10	4.6699E-01	1.1851E-01	9.2083E-01
3.70E-10	4.8661E-01	1.4901E-01	9.2762E-01
3.80E-10	5.2174E-01	1.7941E-01	9.3202E-01
3.90E-10	5.5826E-01	2.0939E-01	9.3546E-01
4.00E-10	6.0852E-01	2.3937E-01	9.3833E-01
4.10E-10	6.5962E-01	2.6803E-01	9.4087E-01
4.20E-10	7.0835E-01	2.9259E-01	9.4281E-01
4.30E-10	7.5701E-01	3.1716E-01	9.4428E-01
4.40E-10	7.8894E-01	3.3790E-01	9.4537E-01
4.50E-10	8.1785E-01	3.5587E-01	9.4606E-01
4.60E-10	8.3619E-01	3.7385E-01	9.4675E-01
4.70E-10	8.5094E-01	3.8729E-01	9.4744E-01
4.80E-10	8.6107E-01	4.0033E-01	9.4796E-01
4.90E-10	8.6825E-01	4.1330E-01	9.4812E-01
5.00E-10	8.7391E-01	4.2611E-01	9.4828E-01
5.10E-10	8.7730E-01	4.3892E-01	9.4845E-01
5.20E-10	8.8026E-01	4.5640E-01	9.4858E-01
5.30E-10	8.8222E-01	4.7710E-01	9.4859E-01
5.40E-10	8.8386E-01	4.9780E-01	9.4860E-01
5.50E-10	8.8486E-01	5.2989E-01	9.4860E-01
5.60E-10	8.8585E-01	5.6285E-01	9.4860E-01
5.70E-10	8.8684E-01	5.9689E-01	9.4860E-01
5.80E-10	8.8768E-01	6.3392E-01	9.4860E-01

5.90E-10	8.8847E-01	6.7095E-01	9.4860E-01
6.00E-10	8.8926E-01	7.0233E-01	9.4860E-01
6.10E-10	8.8998E-01	7.2999E-01	9.4860E-01
6.20E-10	8.9042E-01	7.5766E-01	9.4860E-01
6.30E-10	8.9086E-01	7.7515E-01	9.4860E-01
6.40E-10	8.9130E-01	7.9200E-01	9.4860E-01
6.50E-10	8.9157E-01	8.0477E-01	9.4860E-01
6.60E-10	8.9176E-01	8.1411E-01	9.4860E-01
6.70E-10	8.9194E-01	8.2282E-01	9.4860E-01
6.80E-10	8.9213E-01	8.2783E-01	9.4860E-01
6.90E-10	8.9232E-01	8.3284E-01	9.4860E-01
7.00E-10	8.9251E-01	8.3619E-01	9.4860E-01
7.10E-10	8.9269E-01	8.3899E-01	9.4860E-01
7.20E-10	8.9279E-01	8.4140E-01	9.4860E-01
7.30E-10	8.9282E-01	8.4312E-01	9.4860E-01
7.40E-10	8.9285E-01	8.4444E-01	9.4860E-01
7.50E-10	8.9288E-01	8.4444E-01	9.4860E-01

[Falling Waveform]

V\_fixture = 0.000V

V\_fixture\_min = 0.000V

V\_fixture\_max = 0.000V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	8.9297E-01	8.4444E-01	9.4842E-01
1.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
2.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
3.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
4.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
5.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
6.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
7.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
8.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
9.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
1.00E-10	8.9298E-01	8.4444E-01	9.4842E-01
1.10E-10	8.9307E-01	8.4444E-01	9.4842E-01
1.20E-10	8.9310E-01	8.4444E-01	9.4710E-01
1.30E-10	8.9298E-01	8.4444E-01	9.3543E-01
1.40E-10	8.9269E-01	8.4444E-01	9.1264E-01
1.50E-10	8.9153E-01	8.4444E-01	8.6501E-01
1.60E-10	8.9009E-01	8.4444E-01	7.9523E-01
1.70E-10	8.8619E-01	8.4444E-01	7.1623E-01
1.80E-10	8.8188E-01	8.4444E-01	6.3702E-01
1.90E-10	8.6797E-01	8.4444E-01	5.6822E-01
2.00E-10	8.5407E-01	8.4444E-01	5.1467E-01
2.10E-10	8.1907E-01	8.4444E-01	4.7745E-01
2.20E-10	7.8369E-01	8.4444E-01	4.5020E-01
2.30E-10	7.2759E-01	8.4356E-01	4.2700E-01
2.40E-10	6.6977E-01	8.4256E-01	4.0012E-01
2.50E-10	6.0883E-01	8.3977E-01	3.6152E-01
2.60E-10	5.4739E-01	8.3484E-01	3.0810E-01
2.70E-10	5.0056E-01	8.2675E-01	2.4581E-01

2.80E-10	4.5727E-01	8.1616E-01	1.8720E-01
2.90E-10	4.2858E-01	8.0426E-01	1.3866E-01
3.00E-10	4.0488E-01	7.8900E-01	9.9411E-02
3.10E-10	3.8513E-01	7.7410E-01	6.9027E-02
3.20E-10	3.6720E-01	7.4966E-01	4.8410E-02
3.30E-10	3.4529E-01	7.1605E-01	3.2789E-02
3.40E-10	3.2101E-01	6.7567E-01	2.0043E-02
3.50E-10	2.8958E-01	6.3059E-01	1.4012E-02
3.60E-10	2.5272E-01	5.9072E-01	8.0573E-03
3.70E-10	2.1376E-01	5.5071E-01	5.9996E-03
3.80E-10	1.7278E-01	5.1266E-01	3.9419E-03
3.90E-10	1.3552E-01	4.8164E-01	2.8692E-03
4.00E-10	1.0280E-01	4.5088E-01	2.1454E-03
4.10E-10	7.5449E-02	4.2586E-01	1.6064E-03
4.20E-10	5.6489E-02	4.0332E-01	1.2864E-03
4.30E-10	4.2244E-02	3.8157E-01	9.8729E-04
4.40E-10	3.1060E-02	3.6318E-01	7.8594E-04
4.50E-10	2.3597E-02	3.4438E-01	5.8459E-04
4.60E-10	1.8174E-02	3.2416E-01	3.8324E-04
4.70E-10	1.3964E-02	3.0378E-01	1.8189E-04
4.80E-10	1.1106E-02	2.8095E-01	9.6654E-05
4.90E-10	8.2484E-03	2.5556E-01	8.3885E-05
5.00E-10	5.8181E-03	2.3033E-01	7.1116E-05
5.10E-10	-3.6753E-04	1.9998E-01	5.8347E-05
5.20E-10	-3.6753E-04	1.7048E-01	4.5994E-05
5.30E-10	-3.6753E-04	1.4118E-01	4.0878E-05
5.40E-10	-3.6753E-04	1.1208E-01	3.5762E-05
5.50E-10	-3.6753E-04	8.5433E-02	3.0646E-05
5.60E-10	-3.6753E-04	6.4850E-02	2.8087E-05
5.70E-10	-3.6753E-04	4.4040E-02	2.8087E-05
5.80E-10	-3.6753E-04	3.2587E-02	2.8087E-05
5.90E-10	-3.6753E-04	2.2313E-02	2.8087E-05
6.00E-10	-3.6753E-04	1.4942E-02	2.8087E-05
6.10E-10	-3.6753E-04	1.1102E-02	2.8087E-05
6.20E-10	-3.6753E-04	7.2760E-03	2.8087E-05
6.30E-10	-3.6753E-04	5.9771E-03	2.8087E-05
6.40E-10	-3.6753E-04	4.6411E-03	2.8087E-05
6.50E-10	-3.6753E-04	3.7753E-03	2.8087E-05
6.60E-10	-3.6753E-04	3.2215E-03	2.8087E-05
6.70E-10	-3.6753E-04	2.7093E-03	2.8087E-05
6.80E-10	-3.6753E-04	2.3817E-03	2.8087E-05
6.90E-10	-3.6753E-04	2.0535E-03	2.8087E-05
7.00E-10	-3.6753E-04	1.7965E-03	2.8087E-05
7.10E-10	-3.6753E-04	1.5615E-03	2.8087E-05
7.20E-10	-3.6753E-04	1.3266E-03	2.8087E-05
7.30E-10	-3.6753E-04	7.2516E-04	2.8087E-05
7.40E-10	-3.6753E-04	7.2516E-04	2.8087E-05
7.50E-10	-3.6753E-04	7.2516E-04	2.8087E-05

\*\*\*\*\*  
MODEL DQS\_34\_1600 (34 Ohm Data Strobe I/O with 60ohm ODT, 1333/1600 Mbps)  
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[Model] DQS\_34\_ODT60\_1600



Model\_type I/O

Vinl = 600.000mV  
Vinh = 900.000mV  
Vmeas = 750.000mV  
Vref = 750.000mV  
Cref = 0.0pF  
Rref = 25.000Ohm

	typ	min	max
C_comp	1.078pF	0.966pF	1.223pF

| Note: C\_comp changes when the ODT circuit is enabled.

[Model Spec]

| Input threshold voltage corners

Vinl	0.6000V	0.5625V	0.6375V
Vinh	0.9000V	0.8625V	0.9375V

| Measurement voltage corners

Vmeas	0.7500V	0.7125V	0.7875V
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| Timing spec test load voltage corners

Vref	0.7500V	0.7125V	0.7875V
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| Dynamic Overshoot Parameters from DDR3 Specification

D_overshoot_ampl_h	0.40	NA	NA
D_overshoot_ampl_l	0.40	NA	NA
D_overshoot_area_h	0.13n	NA	NA
D_overshoot_area_l	0.13n	NA	NA

[[Receiver Thresholds]

|Vth = 0.750V  
|Vth\_min = 0.7350V  
|Vth\_max = 0.7650V  
|Vinh\_ac = 0.150V  
|Vinh\_dc = 0.100V  
|Vinl\_ac = -0.150V  
|Vinl\_dc = -0.100V  
|Tslew\_ac = 5.000ns |Not specified, so set to high value  
|Threshold\_sensitivity = 0.50  
|Reference\_supply Pullup\_ref

|NOTE: If using the IBISCHK 4.2.1 or older parser, Differential receiver threshold parameters must be commented out because the parser generates errors for multiple differential models.

|Vcross\_low = 0.600V  
|Vcross\_high = 0.900V  
|Vdiff\_ac = 300mV  
|Vdiff\_dc = 200mV  
|Tdiffslew\_ac = 10.000ns |Not specified, so set to high value

[Add Submodel]

Submodel Name	Mode		
60Ohm_ODT	Non-Driving		
[Voltage Range]	1.500V	1.425V	1.575V
[Pullup Reference]	1.500V	1.425V	1.575V
[Temperature Range]	85.0	110.0	0.0

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[Pulldown]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	-6.717440E-03	-6.602220E-03	-5.1878E-03
-1.4750000e+00	-6.950660E-03	-6.867910E-03	-5.4092E-03
-1.4250000e+00	-7.420160E-03	-7.410640E-03	-5.8575E-03
-1.3750000e+00	-7.891420E-03	-7.964120E-03	-6.3098E-03
-1.3250000e+00	-8.362190E-03	-8.523980E-03	-6.7632E-03
-1.2750000e+00	-8.830600E-03	-9.086830E-03	-7.2155E-03
-1.2250000e+00	-9.295050E-03	-9.650090E-03	-7.6651E-03
-1.1750000e+00	-9.754060E-03	-1.021176E-02	-8.1108E-03
-1.1250000e+00	-1.020612E-02	-1.077025E-02	-8.5512E-03
-1.0750000e+00	-1.064959E-02	-1.132418E-02	-8.9850E-03
-1.0250000e+00	-1.108253E-02	-1.187221E-02	-9.4109E-03
-9.7500000e-01	-1.150258E-02	-1.241292E-02	-9.8270E-03
-9.2500000e-01	-1.190672E-02	-1.294440E-02	-1.0231E-02
-8.7500000e-01	-1.229088E-02	-1.346358E-02	-1.0620E-02
-8.2500000e-01	-1.264939E-02	-1.396484E-02	-1.0991E-02
-7.7500000e-01	-1.297388E-02	-1.443730E-02	-1.1336E-02
-7.2500000e-01	-1.325153E-02	-1.486077E-02	-1.1649E-02
-6.7500000e-01	-1.346224E-02	-1.520128E-02	-1.1917E-02
-6.2500000e-01	-1.357544E-02	-1.540771E-02	-1.2120E-02
-5.7500000e-01	-1.354969E-02	-1.541129E-02	-1.2227E-02
-5.2500000e-01	-1.333921E-02	-1.513126E-02	-1.2185E-02
-4.7500000e-01	-1.290237E-02	-1.448995E-02	-1.1917E-02
-4.2500000e-01	-1.219129E-02	-1.344440E-02	-1.1342E-02
-3.7500000e-01	-1.115219E-02	-1.205672E-02	-1.0442E-02
-3.2500000e-01	-9.820264E-03	-1.048922E-02	-9.2579E-03
-2.7500000e-01	-8.341268E-03	-8.866406E-03	-7.8883E-03
-2.2500000e-01	-6.822138E-03	-7.235947E-03	-6.4597E-03
-1.7500000e-01	-5.298271E-03	-5.610770E-03	-5.0227E-03
-1.2500000e-01	-3.777710E-03	-3.994334E-03	-3.5860E-03
-7.5000000e-02	-2.262248E-03	-2.388040E-03	-2.1505E-03
-2.5000000e-02	-7.525408E-04	-7.929693E-04	-7.1644E-04
0.0000000e+00	-2.915900E-09	-3.333000E-10	-5.0570E-09
2.5000000e-02	7.507199E-04	7.895269E-04	7.1589E-04
7.5000000e-02	2.245917E-03	2.357110E-03	2.1456E-03
1.2500000e-01	3.732365E-03	3.908392E-03	3.5725E-03
1.7500000e-01	5.209520E-03	5.442055E-03	4.9965E-03
2.2500000e-01	6.676783E-03	6.956634E-03	6.4174E-03
2.7500000e-01	8.133496E-03	8.450479E-03	7.8352E-03
3.2500000e-01	9.578923E-03	9.921721E-03	9.2496E-03
3.7500000e-01	1.101226E-02	1.136822E-02	1.0661E-02
4.2500000e-01	1.243257E-02	1.278754E-02	1.2068E-02
4.7500000e-01	1.383888E-02	1.417683E-02	1.3472E-02

5.2500000e-01	1.523002E-02	1.553278E-02	1.4871E-02
5.7500000e-01	1.660471E-02	1.685160E-02	1.6267E-02
6.2500000e-01	1.796153E-02	1.812901E-02	1.7659E-02
6.7500000e-01	1.929892E-02	1.936079E-02	1.9046E-02
7.2500000e-01	2.061527E-02	2.054383E-02	2.0428E-02
7.7500000e-01	2.190915E-02	2.167702E-02	2.1805E-02
8.2500000e-01	2.317984E-02	2.276044E-02	2.3178E-02
8.7500000e-01	2.442765E-02	2.379315E-02	2.4544E-02
9.2500000e-01	2.565381E-02	2.477183E-02	2.5905E-02
9.7500000e-01	2.685955E-02	2.569073E-02	2.7261E-02
1.0250000e+00	2.804545E-02	2.654265E-02	2.8609E-02
1.0750000e+00	2.921123E-02	2.732059E-02	2.9951E-02
1.1250000e+00	3.035586E-02	2.802022E-02	3.1286E-02
1.1750000e+00	3.147763E-02	2.864222E-02	3.2613E-02
1.2250000e+00	3.257424E-02	2.919304E-02	3.3932E-02
1.2750000e+00	3.364280E-02	2.968331E-02	3.5242E-02
1.3250000e+00	3.467974E-02	3.012500E-02	3.6542E-02
1.3750000e+00	3.568083E-02	3.052912E-02	3.7832E-02
1.4250000e+00	3.664118E-02	3.090472E-02	3.9112E-02
1.4750000e+00	3.755541E-02	3.125876E-02	4.0379E-02
1.5250000e+00	3.841817E-02	3.159641E-02	4.1633E-02
1.5750000e+00	3.922484E-02	3.192149E-02	4.2873E-02
1.6250000e+00	3.997270E-02	3.223679E-02	4.4097E-02
1.6750000e+00	4.066185E-02	3.254442E-02	4.5303E-02
1.7250000e+00	4.129552E-02	3.284593E-02	4.6490E-02
1.7750000e+00	4.187958E-02	3.314250E-02	4.7654E-02
1.8250000e+00	4.242129E-02	3.343504E-02	4.8794E-02
1.8750000e+00	4.292808E-02	3.372428E-02	4.9905E-02
1.9250000e+00	4.340673E-02	3.401077E-02	5.0985E-02
1.9750000e+00	4.386296E-02	3.429496E-02	5.2029E-02
2.0250000e+00	4.430140E-02	3.457721E-02	5.3033E-02
2.0750000e+00	4.472568E-02	3.485782E-02	5.3993E-02
2.1250000e+00	4.513865E-02	3.513705E-02	5.4906E-02
2.1750000e+00	4.554252E-02	3.541511E-02	5.5769E-02
2.2250000e+00	4.593900E-02	3.569218E-02	5.6583E-02
2.2750000e+00	4.632944E-02	3.596843E-02	5.7349E-02
2.3250000e+00	4.671490E-02	3.624402E-02	5.8070E-02
2.3750000e+00	4.709624E-02	3.651910E-02	5.8752E-02
2.4250000e+00	4.747414E-02	3.679380E-02	5.9398E-02
2.4750000e+00	4.784918E-02	3.706830E-02	6.0016E-02
2.5250000e+00	4.822183E-02	3.734276E-02	6.0609E-02
2.5750000e+00	4.859248E-02	3.761735E-02	6.1181E-02
2.6250000e+00	4.896149E-02	3.789229E-02	6.1736E-02
2.6750000e+00	4.932914E-02	3.816783E-02	6.2277E-02
2.7250000e+00	4.969572E-02	3.844422E-02	6.2806E-02
2.7750000e+00	5.006148E-02	3.872180E-02	6.3326E-02
2.8250000e+00	5.042664E-02	3.900093E-02	6.3837E-02
2.8750000e+00	5.079141E-02	3.928204E-02	6.4342E-02
2.9250000e+00	5.115601E-02	3.956562E-02	6.4840E-02
2.9750000e+00	5.152066E-02	3.985223E-02	6.5334E-02
3.0000000e+00	5.170306E-02	3.999685E-02	6.5579E-02

[GND Clamp]

Voltage	I(typ)	I(min)	I(max)
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-1.5000000e+00	-5.378351E-02	-5.490567E-02	-5.885698E-02
-1.4750000e+00	-5.231251E-02	-5.334431E-02	-5.735670E-02
-1.4500000e+00	-5.084369E-02	-5.178549E-02	-5.585777E-02
-1.4250000e+00	-4.937717E-02	-5.022938E-02	-5.436025E-02
-1.4000000e+00	-4.791309E-02	-4.867613E-02	-5.286424E-02
-1.3750000e+00	-4.645161E-02	-4.712594E-02	-5.136982E-02
-1.3500000e+00	-4.499289E-02	-4.557901E-02	-4.987708E-02
-1.3250000e+00	-4.353712E-02	-4.403556E-02	-4.838614E-02
-1.3000000e+00	-4.208452E-02	-4.249585E-02	-4.689710E-02
-1.2750000e+00	-4.063529E-02	-4.096014E-02	-4.541010E-02
-1.2500000e+00	-3.918970E-02	-3.942875E-02	-4.392527E-02
-1.2250000e+00	-3.774803E-02	-3.790201E-02	-4.244278E-02
-1.2000000e+00	-3.631059E-02	-3.638031E-02	-4.096280E-02
-1.1750000e+00	-3.487773E-02	-3.486408E-02	-3.948552E-02
-1.1500000e+00	-3.344986E-02	-3.335380E-02	-3.801116E-02
-1.1250000e+00	-3.202742E-02	-3.185003E-02	-3.653998E-02
-1.1000000e+00	-3.061092E-02	-3.035339E-02	-3.507226E-02
-1.0750000e+00	-2.920096E-02	-2.886462E-02	-3.360832E-02
-1.0500000e+00	-2.779821E-02	-2.738455E-02	-3.214854E-02
-1.0250000e+00	-2.640347E-02	-2.591415E-02	-3.069335E-02
-1.0000000e+00	-2.501766E-02	-2.445455E-02	-2.924328E-02
-9.7500000e-01	-2.364185E-02	-2.300708E-02	-2.779892E-02
-9.5000000e-01	-2.227732E-02	-2.157329E-02	-2.636102E-02
-9.2500000e-01	-2.092559E-02	-2.015501E-02	-2.493048E-02
-9.0000000e-01	-1.958843E-02	-1.875433E-02	-2.350840E-02
-8.7500000e-01	-1.826790E-02	-1.737363E-02	-2.209616E-02
-8.5000000e-01	-1.696631E-02	-1.601550E-02	-2.069550E-02
-8.2500000e-01	-1.568612E-02	-1.468262E-02	-1.930856E-02
-8.0000000e-01	-1.442972E-02	-1.337762E-02	-1.793782E-02
-7.7500000e-01	-1.319926E-02	-1.210311E-02	-1.658583E-02
-7.5000000e-01	-1.199673E-02	-1.086191E-02	-1.525450E-02
-7.2500000e-01	-1.082427E-02	-9.657411E-03	-1.394473E-02
-7.0000000e-01	-9.684638E-03	-8.493939E-03	-1.265685E-02
-6.7500000e-01	-8.581514E-03	-7.376930E-03	-1.139180E-02
-6.5000000e-01	-7.519607E-03	-6.312929E-03	-1.015194E-02
-6.2500000e-01	-6.504547E-03	-5.309438E-03	-8.941317E-03
-6.0000000e-01	-5.542688E-03	-4.374618E-03	-7.765734E-03
-5.7500000e-01	-4.640772E-03	-3.516890E-03	-6.632943E-03
-5.5000000e-01	-3.805524E-03	-2.744483E-03	-5.552944E-03
-5.2500000e-01	-3.043248E-03	-2.065103E-03	-4.538199E-03
-5.0000000e-01	-2.359647E-03	-1.485677E-03	-3.603410E-03
-4.7500000e-01	-1.760020E-03	-1.011779E-03	-2.764263E-03
-4.5000000e-01	-1.249702E-03	-6.458403E-04	-2.034714E-03
-4.2500000e-01	-8.339835E-04	-3.838582E-04	-1.423543E-03
-4.0000000e-01	-5.162389E-04	-2.125448E-04	-9.327585E-04
-3.7500000e-01	-2.937329E-04	-1.106466E-04	-5.596314E-04
-3.5000000e-01	-1.537279E-04	-5.497263E-05	-2.989521E-04
-3.2500000e-01	-7.493357E-05	-2.649171E-05	-1.392980E-04
-3.0000000e-01	-3.471511E-05	-1.256760E-05	-5.693623E-05
-2.7500000e-01	-1.563019E-05	-5.952723E-06	-2.113740E-05
-2.5000000e-01	-7.001335E-06	-2.863206E-06	-7.478892E-06
-2.2500000e-01	-3.215160E-06	-1.433628E-06	-2.669240E-06
-2.0000000e-01	-1.576700E-06	-7.729597E-07	-1.039346E-06
-1.7500000e-01	-8.691669E-07	-4.659048E-07	-4.927419E-07

-1.5000000e-01	-5.602970E-07	-3.210513E-07	-3.060998E-07
-1.2500000e-01	-4.211770E-07	-2.506183E-07	-2.379530E-07
-1.0000000e-01	-3.542844E-07	-2.144259E-07	-2.089398E-07
-7.5000000e-02	-3.182781E-07	-1.940781E-07	-1.931385E-07
-5.0000000e-02	-2.956734E-07	-1.811414E-07	-1.820761E-07
-2.5000000e-02	-2.790923E-07	-1.717494E-07	-1.729560E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[Pullup]

-1.5000000e+00	1.625201E-02	1.758608E-02	1.5776E-02
-1.4750000e+00	1.628295E-02	1.772293E-02	1.5794E-02
-1.4250000e+00	1.631167E-02	1.794814E-02	1.5819E-02
-1.3750000e+00	1.630625E-02	1.810214E-02	1.5832E-02
-1.3250000e+00	1.628177E-02	1.818331E-02	1.5836E-02
-1.2750000e+00	1.625213E-02	1.819962E-02	1.5830E-02
-1.2250000e+00	1.622498E-02	1.816850E-02	1.5814E-02
-1.1750000e+00	1.620031E-02	1.811351E-02	1.5786E-02
-1.1250000e+00	1.617356E-02	1.805794E-02	1.5746E-02
-1.0750000e+00	1.613984E-02	1.801572E-02	1.5692E-02
-1.0250000e+00	1.609584E-02	1.798687E-02	1.5624E-02
-9.7500000e-01	1.603981E-02	1.796321E-02	1.5542E-02
-9.2500000e-01	1.597095E-02	1.793695E-02	1.5444E-02
-8.7500000e-01	1.588883E-02	1.790371E-02	1.5331E-02
-8.2500000e-01	1.579281E-02	1.786161E-02	1.5200E-02
-7.7500000e-01	1.568160E-02	1.780891E-02	1.5050E-02
-7.2500000e-01	1.555266E-02	1.774030E-02	1.4877E-02
-6.7500000e-01	1.540100E-02	1.763919E-02	1.4677E-02
-6.2500000e-01	1.521657E-02	1.746424E-02	1.4440E-02
-5.7500000e-01	1.497687E-02	1.713549E-02	1.4152E-02
-5.2500000e-01	1.462952E-02	1.653605E-02	1.3790E-02
-4.7500000e-01	1.407045E-02	1.555591E-02	1.3303E-02
-4.2500000e-01	1.317055E-02	1.420030E-02	1.2595E-02
-3.7500000e-01	1.190475E-02	1.261585E-02	1.1528E-02
-3.2500000e-01	1.040962E-02	1.094206E-02	1.0132E-02
-2.7500000e-01	8.825733E-03	9.244475E-03	8.6004E-03
-2.2500000e-01	7.217759E-03	7.545941E-03	7.0379E-03
-1.7500000e-01	5.606827E-03	5.853537E-03	5.4714E-03
-1.2500000e-01	3.998885E-03	4.169432E-03	3.9059E-03
-7.5000000e-02	2.395513E-03	2.494429E-03	2.3421E-03
-2.5000000e-02	7.971932E-04	8.289974E-04	7.8023E-04
0.0000000e+00	1.314700E-09	4.692000E-10	3.0652E-09
2.5000000e-02	-7.950502E-04	-8.253549E-04	-7.7920E-04
7.5000000e-02	-2.376138E-03	-2.461490E-03	-2.3328E-03
1.2500000e-01	-3.944794E-03	-4.077442E-03	-3.8799E-03
1.7500000e-01	-5.500495E-03	-5.672260E-03	-5.4201E-03
2.2500000e-01	-7.042695E-03	-7.244932E-03	-6.9533E-03
2.7500000e-01	-8.570810E-03	-8.794375E-03	-8.4790E-03
3.2500000e-01	-1.008422E-02	-1.031943E-02	-9.9969E-03
3.7500000e-01	-1.158229E-02	-1.181885E-02	-1.1507E-02
4.2500000e-01	-1.306431E-02	-1.329132E-02	-1.3008E-02
4.7500000e-01	-1.452955E-02	-1.473539E-02	-1.4501E-02
5.2500000e-01	-1.597724E-02	-1.614954E-02	-1.5984E-02
5.7500000e-01	-1.740654E-02	-1.753210E-02	-1.7458E-02

6.2500000e-01	-1.881658E-02	-1.888132E-02	-1.8922E-02
6.7500000e-01	-2.020643E-02	-2.019527E-02	-2.0375E-02
7.2500000e-01	-2.157509E-02	-2.147192E-02	-2.1818E-02
7.7500000e-01	-2.292153E-02	-2.270910E-02	-2.3248E-02
8.2500000e-01	-2.424464E-02	-2.390455E-02	-2.4667E-02
8.7500000e-01	-2.554331E-02	-2.505603E-02	-2.6073E-02
9.2500000e-01	-2.681638E-02	-2.616144E-02	-2.7466E-02
9.7500000e-01	-2.806279E-02	-2.721907E-02	-2.8845E-02
1.0250000e+00	-2.928162E-02	-2.822778E-02	-3.0209E-02
1.0750000e+00	-3.047224E-02	-2.918687E-02	-3.1559E-02
1.1250000e+00	-3.163441E-02	-3.009551E-02	-3.2895E-02
1.1750000e+00	-3.276817E-02	-3.095232E-02	-3.4215E-02
1.2250000e+00	-3.387345E-02	-3.175524E-02	-3.5520E-02
1.2750000e+00	-3.494986E-02	-3.250183E-02	-3.6810E-02
1.3250000e+00	-3.599648E-02	-3.318993E-02	-3.8084E-02
1.3750000e+00	-3.701195E-02	-3.381867E-02	-3.9341E-02
1.4250000e+00	-3.799445E-02	-3.438959E-02	-4.0581E-02
1.4750000e+00	-3.894176E-02	-3.490743E-02	-4.1802E-02
1.5250000e+00	-3.985132E-02	-3.537965E-02	-4.3004E-02
1.5750000e+00	-4.072029E-02	-3.581474E-02	-4.4185E-02
1.6250000e+00	-4.154560E-02	-3.622056E-02	-4.5343E-02
1.6750000e+00	-4.232425E-02	-3.660353E-02	-4.6476E-02
1.7250000e+00	-4.305363E-02	-3.696849E-02	-4.7583E-02
1.7750000e+00	-4.373217E-02	-3.731908E-02	-4.8662E-02
1.8250000e+00	-4.436015E-02	-3.765800E-02	-4.9709E-02
1.8750000e+00	-4.494020E-02	-3.798729E-02	-5.0722E-02
1.9250000e+00	-4.547717E-02	-3.830853E-02	-5.1698E-02
1.9750000e+00	-4.597727E-02	-3.862293E-02	-5.2633E-02
2.0250000e+00	-4.644684E-02	-3.893148E-02	-5.3524E-02
2.0750000e+00	-4.689156E-02	-3.923498E-02	-5.4367E-02
2.1250000e+00	-4.731609E-02	-3.953408E-02	-5.5160E-02
2.1750000e+00	-4.772413E-02	-3.982931E-02	-5.5900E-02
2.2250000e+00	-4.811854E-02	-4.012115E-02	-5.6590E-02
2.2750000e+00	-4.850161E-02	-4.040997E-02	-5.7231E-02
2.3250000e+00	-4.887508E-02	-4.069609E-02	-5.7830E-02
2.3750000e+00	-4.924037E-02	-4.097982E-02	-5.8391E-02
2.4250000e+00	-4.959862E-02	-4.126137E-02	-5.8920E-02
2.4750000e+00	-4.995076E-02	-4.154098E-02	-5.9424E-02
2.5250000e+00	-5.029755E-02	-4.181883E-02	-5.9906E-02
2.5750000e+00	-5.063964E-02	-4.209509E-02	-6.0370E-02
2.6250000e+00	-5.097758E-02	-4.236990E-02	-6.0819E-02
2.6750000e+00	-5.131181E-02	-4.264339E-02	-6.1255E-02
2.7250000e+00	-5.164272E-02	-4.291571E-02	-6.1681E-02
2.7750000e+00	-5.197066E-02	-4.318692E-02	-6.2098E-02
2.8250000e+00	-5.229592E-02	-4.345715E-02	-6.2507E-02
2.8750000e+00	-5.261875E-02	-4.372646E-02	-6.2909E-02
2.9250000e+00	-5.293944E-02	-4.399496E-02	-6.3305E-02
2.9750000e+00	-5.325809E-02	-4.426273E-02	-6.3695E-02
3.0000000e+00	-5.341670E-02	-4.439634E-02	-6.3889E-02

[POWER Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	4.450136E-02	4.385767E-02	4.780180E-02
-1.4750000e+00	4.325737E-02	4.248503E-02	4.651240E-02

-1.4500000e+00	4.202627E-02	4.113177E-02	4.522925E-02
-1.4250000e+00	4.080680E-02	3.979850E-02	4.395155E-02
-1.4000000e+00	3.959743E-02	3.848563E-02	4.267872E-02
-1.3750000e+00	3.839648E-02	3.719324E-02	4.141043E-02
-1.3500000e+00	3.720221E-02	3.592106E-02	4.014658E-02
-1.3250000e+00	3.601296E-02	3.466841E-02	3.888724E-02
-1.3000000e+00	3.482735E-02	3.343415E-02	3.763261E-02
-1.2750000e+00	3.364438E-02	3.221669E-02	3.638295E-02
-1.2500000e+00	3.246358E-02	3.101397E-02	3.513856E-02
-1.2250000e+00	3.128497E-02	2.982356E-02	3.389971E-02
-1.2000000e+00	3.010901E-02	2.864279E-02	3.266671E-02
-1.1750000e+00	2.893648E-02	2.746896E-02	3.143983E-02
-1.1500000e+00	2.776826E-02	2.629964E-02	3.021937E-02
-1.1250000e+00	2.660528E-02	2.513304E-02	2.900560E-02
-1.1000000e+00	2.544841E-02	2.396824E-02	2.779885E-02
-1.0750000e+00	2.429844E-02	2.280536E-02	2.659947E-02
-1.0500000e+00	2.315612E-02	2.164543E-02	2.540788E-02
-1.0250000e+00	2.202214E-02	2.049007E-02	2.422456E-02
-1.0000000e+00	2.089719E-02	1.934117E-02	2.305008E-02
-9.7500000e-01	1.978197E-02	1.820065E-02	2.188512E-02
-9.5000000e-01	1.867722E-02	1.707028E-02	2.073051E-02
-9.2500000e-01	1.758372E-02	1.595172E-02	1.958717E-02
-9.0000000e-01	1.650228E-02	1.484648E-02	1.845617E-02
-8.7500000e-01	1.543373E-02	1.375596E-02	1.733861E-02
-8.5000000e-01	1.437889E-02	1.268153E-02	1.623552E-02
-8.2500000e-01	1.333851E-02	1.162449E-02	1.514771E-02
-8.0000000e-01	1.231328E-02	1.058622E-02	1.407560E-02
-7.7500000e-01	1.130388E-02	9.568206E-03	1.301920E-02
-7.5000000e-01	1.031106E-02	8.572276E-03	1.197826E-02
-7.2500000e-01	9.335806E-03	7.600753E-03	1.095255E-02
-7.0000000e-01	8.379549E-03	6.656721E-03	9.942208E-03
-6.7500000e-01	7.444326E-03	5.744302E-03	8.947907E-03
-6.5000000e-01	6.532997E-03	4.868952E-03	7.971037E-03
-6.2500000e-01	5.649458E-03	4.037787E-03	7.013856E-03
-6.0000000e-01	4.798902E-03	3.259897E-03	6.079694E-03
-5.7500000e-01	3.988134E-03	2.546530E-03	5.173232E-03
-5.5000000e-01	3.225930E-03	1.910856E-03	4.300898E-03
-5.2500000e-01	2.523332E-03	1.366712E-03	3.471435E-03
-5.0000000e-01	1.893615E-03	9.256050E-04	2.696669E-03
-4.7500000e-01	1.351332E-03	5.919303E-04	1.992344E-03
-4.5000000e-01	9.095438E-04	3.586832E-04	1.378411E-03
-4.2500000e-01	5.747929E-04	2.078355E-04	8.770334E-04
-4.0000000e-01	3.418453E-04	1.164218E-04	5.053061E-04
-3.7500000e-01	1.930954E-04	6.360210E-05	2.627362E-04
-3.5000000e-01	1.048276E-04	3.408364E-05	1.249600E-04
-3.2500000e-01	5.523970E-05	1.799151E-05	5.555840E-05
-3.0000000e-01	2.845373E-05	9.394192E-06	2.354470E-05
-2.7500000e-01	1.440808E-05	4.878770E-06	9.667951E-06
-2.5000000e-01	7.217646E-06	2.540607E-06	3.917671E-06
-2.2500000e-01	3.608426E-06	1.343333E-06	1.610365E-06
-2.0000000e-01	1.824961E-06	7.351342E-07	7.040722E-07
-1.7500000e-01	9.538096E-07	4.274933E-07	3.518088E-07
-1.5000000e-01	5.312391E-07	2.717598E-07	2.143482E-07
-1.2500000e-01	3.264285E-07	1.922224E-07	1.590776E-07

-1.0000000e-01	2.262355E-07	1.506538E-07	1.350141E-07
-7.5000000e-02	1.758303E-07	1.278715E-07	1.227817E-07
-5.0000000e-02	1.489090E-07	1.143246E-07	1.150732E-07
-2.5000000e-02	1.332080E-07	1.054156E-07	1.091539E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[Ramp]

R\_load = 50.00Ohm

typ	min	max
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dV/dt\_r 532.022mV/119.423ps 491.319mV/165.185ps 567.619mV/91.565ps

dV/dt\_f 537.976mV/129.806ps 497.460mV/173.213ps 578.029mV/105.657ps

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[Rising Waveform]

V\_fixture = 1.500V

V\_fixture\_min = 1.425V

V\_fixture\_max = 1.575V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	6.1517E-01	5.8287E-01	6.5309E-01
1.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
2.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
3.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
4.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
5.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
6.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
7.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
8.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
9.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
1.00E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.10E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.20E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.30E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.40E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.50E-10	6.1517E-01	5.8287E-01	6.5433E-01
1.60E-10	6.1517E-01	5.8287E-01	6.7845E-01
1.70E-10	6.1616E-01	5.8287E-01	7.4018E-01
1.80E-10	6.1820E-01	5.8287E-01	8.2854E-01
1.90E-10	6.2509E-01	5.8287E-01	9.2350E-01
2.00E-10	6.3360E-01	5.8287E-01	1.0035E+00
2.10E-10	6.5972E-01	5.8287E-01	1.0622E+00
2.20E-10	6.9277E-01	5.8287E-01	1.1021E+00
2.30E-10	7.4389E-01	5.8287E-01	1.1297E+00
2.40E-10	8.0329E-01	5.8287E-01	1.1507E+00
2.50E-10	8.6698E-01	5.8287E-01	1.1725E+00
2.60E-10	9.3293E-01	5.8587E-01	1.2084E+00
2.70E-10	9.8606E-01	5.8977E-01	1.2660E+00
2.80E-10	1.0314E+00	6.0015E-01	1.3332E+00
2.90E-10	1.0621E+00	6.1507E-01	1.4005E+00



3.00E-10	1.0875E+00	6.3422E-01	1.4575E+00
3.10E-10	1.1038E+00	6.6308E-01	1.5003E+00
3.20E-10	1.1186E+00	6.9542E-01	1.5292E+00
3.30E-10	1.1318E+00	7.3829E-01	1.5452E+00
3.40E-10	1.1488E+00	7.8359E-01	1.5589E+00
3.50E-10	1.1685E+00	8.3263E-01	1.5644E+00
3.60E-10	1.1961E+00	8.7994E-01	1.5690E+00
3.70E-10	1.2308E+00	9.2648E-01	1.5711E+00
3.80E-10	1.2708E+00	9.6220E-01	1.5725E+00
3.90E-10	1.3157E+00	9.9443E-01	1.5733E+00
4.00E-10	1.3592E+00	1.0179E+00	1.5737E+00
4.10E-10	1.3979E+00	1.0367E+00	1.5740E+00
4.20E-10	1.4283E+00	1.0518E+00	1.5741E+00
4.30E-10	1.4538E+00	1.0635E+00	1.5743E+00
4.40E-10	1.4683E+00	1.0745E+00	1.5743E+00
4.50E-10	1.4800E+00	1.0848E+00	1.5743E+00
4.60E-10	1.4870E+00	1.0962E+00	1.5743E+00
4.70E-10	1.4913E+00	1.1088E+00	1.5744E+00
4.80E-10	1.4943E+00	1.1255E+00	1.5744E+00
4.90E-10	1.4948E+00	1.1437E+00	1.5745E+00
5.00E-10	1.4953E+00	1.1618E+00	1.5746E+00
5.10E-10	1.4959E+00	1.1826E+00	1.5747E+00
5.20E-10	1.4965E+00	1.2089E+00	1.5747E+00
5.30E-10	1.4972E+00	1.2353E+00	1.5747E+00
5.40E-10	1.4979E+00	1.2616E+00	1.5748E+00
5.50E-10	1.4985E+00	1.2874E+00	1.5748E+00
5.60E-10	1.4988E+00	1.3132E+00	1.5748E+00
5.70E-10	1.4992E+00	1.3390E+00	1.5749E+00
5.80E-10	1.4995E+00	1.3572E+00	1.5749E+00
5.90E-10	1.4996E+00	1.3739E+00	1.5749E+00
6.00E-10	1.4997E+00	1.3906E+00	1.5749E+00
6.10E-10	1.4998E+00	1.4002E+00	1.5749E+00
6.20E-10	1.4999E+00	1.4076E+00	1.5749E+00
6.30E-10	1.4999E+00	1.4150E+00	1.5750E+00
6.40E-10	1.4999E+00	1.4175E+00	1.5750E+00
6.50E-10	1.4999E+00	1.4200E+00	1.5750E+00
6.60E-10	1.4999E+00	1.4220E+00	1.5750E+00
6.70E-10	1.4999E+00	1.4227E+00	1.5750E+00
6.80E-10	1.4999E+00	1.4234E+00	1.5750E+00
6.90E-10	1.4999E+00	1.4238E+00	1.5750E+00
7.00E-10	1.4999E+00	1.4240E+00	1.5750E+00
7.10E-10	1.4999E+00	1.4242E+00	1.5750E+00
7.20E-10	1.4999E+00	1.4243E+00	1.5750E+00
7.30E-10	1.4999E+00	1.4244E+00	1.5750E+00
7.40E-10	1.4999E+00	1.4244E+00	1.5750E+00
7.50E-10	1.5000E+00	1.4244E+00	1.5750E+00

[Falling Waveform]

V\_fixture = 1.500V

V\_fixture\_min = 1.425V

V\_fixture\_max = 1.575V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
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0.00E+00	1.5000E+00	1.4244E+00	1.5750E+00
1.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
2.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
3.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
4.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
5.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
6.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
7.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
8.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
9.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
1.00E-10	1.5000E+00	1.4244E+00	1.5750E+00
1.10E-10	1.5001E+00	1.4244E+00	1.5750E+00
1.20E-10	1.5005E+00	1.4244E+00	1.5750E+00
1.30E-10	1.5010E+00	1.4244E+00	1.5696E+00
1.40E-10	1.5019E+00	1.4244E+00	1.5421E+00
1.50E-10	1.5028E+00	1.4244E+00	1.5004E+00
1.60E-10	1.5039E+00	1.4244E+00	1.4462E+00
1.70E-10	1.5050E+00	1.4244E+00	1.3851E+00
1.80E-10	1.5044E+00	1.4244E+00	1.3205E+00
1.90E-10	1.5035E+00	1.4244E+00	1.2579E+00
2.00E-10	1.4916E+00	1.4244E+00	1.2013E+00
2.10E-10	1.4788E+00	1.4244E+00	1.1613E+00
2.20E-10	1.4542E+00	1.4244E+00	1.1320E+00
2.30E-10	1.4285E+00	1.4244E+00	1.1084E+00
2.40E-10	1.3937E+00	1.4244E+00	1.0868E+00
2.50E-10	1.3578E+00	1.4244E+00	1.0540E+00
2.60E-10	1.3171E+00	1.4218E+00	1.0067E+00
2.70E-10	1.2768E+00	1.4145E+00	9.4839E-01
2.80E-10	1.2375E+00	1.3990E+00	8.8192E-01
2.90E-10	1.2003E+00	1.3841E+00	8.2227E-01
3.00E-10	1.1674E+00	1.3619E+00	7.7341E-01
3.10E-10	1.1375E+00	1.3392E+00	7.3495E-01
3.20E-10	1.1123E+00	1.3125E+00	7.0687E-01
3.30E-10	1.0884E+00	1.2806E+00	6.9026E-01
3.40E-10	1.0662E+00	1.2558E+00	6.7865E-01
3.50E-10	1.0397E+00	1.2224E+00	6.7137E-01
3.60E-10	1.0097E+00	1.1987E+00	6.6791E-01
3.70E-10	9.7255E-01	1.1742E+00	6.6445E-01
3.80E-10	9.3100E-01	1.1523E+00	6.6187E-01
3.90E-10	8.8580E-01	1.1315E+00	6.5971E-01
4.00E-10	8.3897E-01	1.1120E+00	6.5755E-01
4.10E-10	7.9641E-01	1.0924E+00	6.5651E-01
4.20E-10	7.5515E-01	1.0749E+00	6.5547E-01
4.30E-10	7.2360E-01	1.0540E+00	6.5463E-01
4.40E-10	6.9391E-01	1.0344E+00	6.5421E-01
4.50E-10	6.7567E-01	1.0110E+00	6.5378E-01
4.60E-10	6.5854E-01	9.8237E-01	6.5353E-01
4.70E-10	6.4671E-01	9.5346E-01	6.5337E-01
4.80E-10	6.3926E-01	9.1790E-01	6.5321E-01
4.90E-10	6.3074E-01	8.7949E-01	6.5309E-01
5.00E-10	6.1517E-01	8.4341E-01	6.5309E-01
5.10E-10	6.1517E-01	8.0437E-01	6.5309E-01
5.20E-10	6.1517E-01	7.6818E-01	6.5309E-01

5.30E-10	6.1517E-01	7.3775E-01	6.5309E-01
5.40E-10	6.1517E-01	7.0888E-01	6.5309E-01
5.50E-10	6.1517E-01	6.8336E-01	6.5309E-01
5.60E-10	6.1517E-01	6.6440E-01	6.5309E-01
5.70E-10	6.1517E-01	6.4314E-01	6.5309E-01
5.80E-10	6.1517E-01	6.3327E-01	6.5309E-01
5.90E-10	6.1517E-01	6.1885E-01	6.5309E-01
6.00E-10	6.1517E-01	6.1028E-01	6.5309E-01
6.10E-10	6.1517E-01	6.0327E-01	6.5309E-01
6.20E-10	6.1517E-01	5.9567E-01	6.5309E-01
6.30E-10	6.1517E-01	5.9405E-01	6.5309E-01
6.40E-10	6.1517E-01	5.9090E-01	6.5309E-01
6.50E-10	6.1517E-01	5.8836E-01	6.5309E-01
6.60E-10	6.1517E-01	5.8633E-01	6.5309E-01
6.70E-10	6.1517E-01	5.8473E-01	6.5309E-01
6.80E-10	6.1517E-01	5.8287E-01	6.5309E-01
6.90E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.00E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.10E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.20E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.30E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.40E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.50E-10	6.1517E-01	5.8287E-01	6.5309E-01

[Rising Waveform]

V\_fixture = 0.000V

V\_fixture\_min = 0.000V

V\_fixture\_max = 0.000V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	-3.6753E-04	7.2516E-04	2.8087E-05
1.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
2.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
3.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
4.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
5.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
6.00E-11	-3.6753E-04	7.2516E-04	1.0216E-04
7.00E-11	-3.6753E-04	7.2516E-04	1.9728E-04
8.00E-11	-3.6753E-04	7.2516E-04	2.7894E-04
9.00E-11	-3.6753E-04	7.2516E-04	2.8460E-04
1.00E-10	-3.6753E-04	7.2516E-04	2.9184E-04
1.10E-10	-3.6753E-04	7.2516E-04	1.1285E-03
1.20E-10	-3.6753E-04	7.2516E-04	2.7155E-03
1.30E-10	-3.6753E-04	7.2516E-04	5.0230E-03
1.40E-10	-3.6753E-04	7.2516E-04	7.3254E-03
1.50E-10	-3.6753E-04	7.2516E-04	8.7724E-03
1.60E-10	-3.6753E-04	7.2516E-04	1.1212E-02
1.70E-10	-3.6753E-04	7.2516E-04	4.6035E-02
1.80E-10	-3.6753E-04	7.2516E-04	9.9223E-02
1.90E-10	-3.6753E-04	7.2516E-04	1.6614E-01
2.00E-10	-3.6753E-04	7.2516E-04	2.3920E-01
2.10E-10	3.5736E-03	7.2516E-04	3.0948E-01

2.20E-10	2.0502E-02	7.2516E-04	3.6921E-01
2.30E-10	4.1697E-02	7.2516E-04	4.1553E-01
2.40E-10	7.5340E-02	7.2516E-04	4.4908E-01
2.50E-10	1.1331E-01	7.2516E-04	4.7338E-01
2.60E-10	1.5884E-01	7.2516E-04	4.9503E-01
2.70E-10	2.0668E-01	7.2516E-04	5.2442E-01
2.80E-10	2.5162E-01	7.2516E-04	5.7364E-01
2.90E-10	2.9581E-01	7.2516E-04	6.4440E-01
3.00E-10	3.3180E-01	5.8446E-03	7.2332E-01
3.10E-10	3.6594E-01	1.3532E-02	7.9061E-01
3.20E-10	3.9082E-01	2.2842E-02	8.4100E-01
3.30E-10	4.1397E-01	4.4064E-02	8.7560E-01
3.40E-10	4.3129E-01	6.5287E-02	8.9835E-01
3.50E-10	4.4771E-01	8.8005E-02	9.1275E-01
3.60E-10	4.6699E-01	1.1851E-01	9.2083E-01
3.70E-10	4.8661E-01	1.4901E-01	9.2762E-01
3.80E-10	5.2174E-01	1.7941E-01	9.3202E-01
3.90E-10	5.5826E-01	2.0939E-01	9.3546E-01
4.00E-10	6.0852E-01	2.3937E-01	9.3833E-01
4.10E-10	6.5962E-01	2.6803E-01	9.4087E-01
4.20E-10	7.0835E-01	2.9259E-01	9.4281E-01
4.30E-10	7.5701E-01	3.1716E-01	9.4428E-01
4.40E-10	7.8894E-01	3.3790E-01	9.4537E-01
4.50E-10	8.1785E-01	3.5587E-01	9.4606E-01
4.60E-10	8.3619E-01	3.7385E-01	9.4675E-01
4.70E-10	8.5094E-01	3.8729E-01	9.4744E-01
4.80E-10	8.6107E-01	4.0033E-01	9.4796E-01
4.90E-10	8.6825E-01	4.1330E-01	9.4812E-01
5.00E-10	8.7391E-01	4.2611E-01	9.4828E-01
5.10E-10	8.7730E-01	4.3892E-01	9.4845E-01
5.20E-10	8.8026E-01	4.5640E-01	9.4858E-01
5.30E-10	8.8222E-01	4.7710E-01	9.4859E-01
5.40E-10	8.8386E-01	4.9780E-01	9.4860E-01
5.50E-10	8.8486E-01	5.2989E-01	9.4860E-01
5.60E-10	8.8585E-01	5.6285E-01	9.4860E-01
5.70E-10	8.8684E-01	5.9689E-01	9.4860E-01
5.80E-10	8.8768E-01	6.3392E-01	9.4860E-01
5.90E-10	8.8847E-01	6.7095E-01	9.4860E-01
6.00E-10	8.8926E-01	7.0233E-01	9.4860E-01
6.10E-10	8.8998E-01	7.2999E-01	9.4860E-01
6.20E-10	8.9042E-01	7.5766E-01	9.4860E-01
6.30E-10	8.9086E-01	7.7515E-01	9.4860E-01
6.40E-10	8.9130E-01	7.9200E-01	9.4860E-01
6.50E-10	8.9157E-01	8.0477E-01	9.4860E-01
6.60E-10	8.9176E-01	8.1411E-01	9.4860E-01
6.70E-10	8.9194E-01	8.2282E-01	9.4860E-01
6.80E-10	8.9213E-01	8.2783E-01	9.4860E-01
6.90E-10	8.9232E-01	8.3284E-01	9.4860E-01
7.00E-10	8.9251E-01	8.3619E-01	9.4860E-01
7.10E-10	8.9269E-01	8.3899E-01	9.4860E-01
7.20E-10	8.9279E-01	8.4140E-01	9.4860E-01
7.30E-10	8.9282E-01	8.4312E-01	9.4860E-01
7.40E-10	8.9285E-01	8.4444E-01	9.4860E-01
7.50E-10	8.9288E-01	8.4444E-01	9.4860E-01

[Falling Waveform]

V\_fixture = 0.000V

V\_fixture\_min = 0.000V

V\_fixture\_max = 0.000V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	8.9297E-01	8.4444E-01	9.4842E-01
1.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
2.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
3.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
4.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
5.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
6.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
7.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
8.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
9.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
1.00E-10	8.9298E-01	8.4444E-01	9.4842E-01
1.10E-10	8.9307E-01	8.4444E-01	9.4842E-01
1.20E-10	8.9310E-01	8.4444E-01	9.4710E-01
1.30E-10	8.9298E-01	8.4444E-01	9.3543E-01
1.40E-10	8.9269E-01	8.4444E-01	9.1264E-01
1.50E-10	8.9153E-01	8.4444E-01	8.6501E-01
1.60E-10	8.9009E-01	8.4444E-01	7.9523E-01
1.70E-10	8.8619E-01	8.4444E-01	7.1623E-01
1.80E-10	8.8188E-01	8.4444E-01	6.3702E-01
1.90E-10	8.6797E-01	8.4444E-01	5.6822E-01
2.00E-10	8.5407E-01	8.4444E-01	5.1467E-01
2.10E-10	8.1907E-01	8.4444E-01	4.7745E-01
2.20E-10	7.8369E-01	8.4444E-01	4.5020E-01
2.30E-10	7.2759E-01	8.4356E-01	4.2700E-01
2.40E-10	6.6977E-01	8.4256E-01	4.0012E-01
2.50E-10	6.0883E-01	8.3977E-01	3.6152E-01
2.60E-10	5.4739E-01	8.3484E-01	3.0810E-01
2.70E-10	5.0056E-01	8.2675E-01	2.4581E-01
2.80E-10	4.5727E-01	8.1616E-01	1.8720E-01
2.90E-10	4.2858E-01	8.0426E-01	1.3866E-01
3.00E-10	4.0488E-01	7.8900E-01	9.9411E-02
3.10E-10	3.8513E-01	7.7410E-01	6.9027E-02
3.20E-10	3.6720E-01	7.4966E-01	4.8410E-02
3.30E-10	3.4529E-01	7.1605E-01	3.2789E-02
3.40E-10	3.2101E-01	6.7567E-01	2.0043E-02
3.50E-10	2.8958E-01	6.3059E-01	1.4012E-02
3.60E-10	2.5272E-01	5.9072E-01	8.0573E-03
3.70E-10	2.1376E-01	5.5071E-01	5.9996E-03
3.80E-10	1.7278E-01	5.1266E-01	3.9419E-03
3.90E-10	1.3552E-01	4.8164E-01	2.8692E-03
4.00E-10	1.0280E-01	4.5088E-01	2.1454E-03
4.10E-10	7.5449E-02	4.2586E-01	1.6064E-03
4.20E-10	5.6489E-02	4.0332E-01	1.2864E-03
4.30E-10	4.2244E-02	3.8157E-01	9.8729E-04
4.40E-10	3.1060E-02	3.6318E-01	7.8594E-04

4.50E-10	2.3597E-02	3.4438E-01	5.8459E-04
4.60E-10	1.8174E-02	3.2416E-01	3.8324E-04
4.70E-10	1.3964E-02	3.0378E-01	1.8189E-04
4.80E-10	1.1106E-02	2.8095E-01	9.6654E-05
4.90E-10	8.2484E-03	2.5556E-01	8.3885E-05
5.00E-10	5.8181E-03	2.3033E-01	7.1116E-05
5.10E-10	-3.6753E-04	1.9998E-01	5.8347E-05
5.20E-10	-3.6753E-04	1.7048E-01	4.5994E-05
5.30E-10	-3.6753E-04	1.4118E-01	4.0878E-05
5.40E-10	-3.6753E-04	1.1208E-01	3.5762E-05
5.50E-10	-3.6753E-04	8.5433E-02	3.0646E-05
5.60E-10	-3.6753E-04	6.4850E-02	2.8087E-05
5.70E-10	-3.6753E-04	4.4040E-02	2.8087E-05
5.80E-10	-3.6753E-04	3.2587E-02	2.8087E-05
5.90E-10	-3.6753E-04	2.2313E-02	2.8087E-05
6.00E-10	-3.6753E-04	1.4942E-02	2.8087E-05
6.10E-10	-3.6753E-04	1.1102E-02	2.8087E-05
6.20E-10	-3.6753E-04	7.2760E-03	2.8087E-05
6.30E-10	-3.6753E-04	5.9771E-03	2.8087E-05
6.40E-10	-3.6753E-04	4.6411E-03	2.8087E-05
6.50E-10	-3.6753E-04	3.7753E-03	2.8087E-05
6.60E-10	-3.6753E-04	3.2215E-03	2.8087E-05
6.70E-10	-3.6753E-04	2.7093E-03	2.8087E-05
6.80E-10	-3.6753E-04	2.3817E-03	2.8087E-05
6.90E-10	-3.6753E-04	2.0535E-03	2.8087E-05
7.00E-10	-3.6753E-04	1.7965E-03	2.8087E-05
7.10E-10	-3.6753E-04	1.5615E-03	2.8087E-05
7.20E-10	-3.6753E-04	1.3266E-03	2.8087E-05
7.30E-10	-3.6753E-04	7.2516E-04	2.8087E-05
7.40E-10	-3.6753E-04	7.2516E-04	2.8087E-05
7.50E-10	-3.6753E-04	7.2516E-04	2.8087E-05

\*\*\*\*\*  
 | MODEL DQS\_34\_1600 (34 Ohm Data Strobe I/O with 120ohm ODT, 1333/1600 Mbps)  
 | \*\*\*\*\*

[Model]      DQS\_34\_ODT120\_1600  
 Model\_type   I/O

Vinl = 600.000mV  
 Vinh = 900.000mV  
 Vmeas = 750.000mV  
 Vref = 750.000mV  
 Cref = 0.0pF  
 Rref = 25.000Ohm

	typ	min	max
C_comp	1.078pF	0.966pF	1.223pF

| Note: C\_comp changes when the ODT circuit is enabled.

[Model Spec]

| Input threshold voltage corners

Vinl	0.6000V	0.5625V	0.6375V
------	---------	---------	---------

```

Vinh          0.9000V      0.8625V      0.9375V
|
| Measurement voltage corners
Vmeas         0.7500V      0.7125V      0.7875V
|
| Timing spec test load voltage corners
Vref          0.7500V      0.7125V      0.7875V

```

```

| Dynamic Overshoot Parameters from DDR3 Specification
|D_overshoot_ampl_h  0.40      NA      NA
|D_overshoot_ampl_l  0.40      NA      NA
|D_overshoot_area_h  0.13n     NA      NA
|D_overshoot_area_l  0.13n     NA      NA

```

```

|[Receiver Thresholds]
|Vth   = 0.750V
|Vth_min = 0.7350V
|Vth_max = 0.7650V
|Vinh_ac = 0.150V
|Vinh_dc = 0.100V
|Vinl_ac = -0.150V
|Vinl_dc = -0.100V
|Tslew_ac = 5.000ns |Not specified, so set to high value
|Threshold_sensitivity = 0.50
|Reference_supply Pullup_ref

```

|NOTE: If using the IBISCHK 4.2.1 or older parser, Differential receiver threshold parameters must be commented out because the parser generates errors for multiple differential models.

```

|Vcross_low  = 0.600V
|Vcross_high = 0.900V
|Vdiff_ac    = 300mV
|Vdiff_dc    = 200mV
|Tdiffslew_ac = 10.000ns |Not specified, so set to high value

```

```

|[Add Submodel]
| Submodel Name      Mode
120Ohm_ODT          Non-Driving
|[Voltage Range]      1.500V      1.425V      1.575V
|[Pullup Reference]   1.500V      1.425V      1.575V
|[Temperature Range]  85.0        110.0       0.0

```

\*\*\*\*\*

[Pulldown]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	-6.717440E-03	-6.602220E-03	-5.1878E-03
-1.4750000e+00	-6.950660E-03	-6.867910E-03	-5.4092E-03
-1.4250000e+00	-7.420160E-03	-7.410640E-03	-5.8575E-03
-1.3750000e+00	-7.891420E-03	-7.964120E-03	-6.3098E-03
-1.3250000e+00	-8.362190E-03	-8.523980E-03	-6.7632E-03

-1.2750000e+00	-8.830600E-03	-9.086830E-03	-7.2155E-03
-1.2250000e+00	-9.295050E-03	-9.650090E-03	-7.6651E-03
-1.1750000e+00	-9.754060E-03	-1.021176E-02	-8.1108E-03
-1.1250000e+00	-1.020612E-02	-1.077025E-02	-8.5512E-03
-1.0750000e+00	-1.064959E-02	-1.132418E-02	-8.9850E-03
-1.0250000e+00	-1.108253E-02	-1.187221E-02	-9.4109E-03
-9.7500000e-01	-1.150258E-02	-1.241292E-02	-9.8270E-03
-9.2500000e-01	-1.190672E-02	-1.294440E-02	-1.0231E-02
-8.7500000e-01	-1.229088E-02	-1.346358E-02	-1.0620E-02
-8.2500000e-01	-1.264939E-02	-1.396484E-02	-1.0991E-02
-7.7500000e-01	-1.297388E-02	-1.443730E-02	-1.1336E-02
-7.2500000e-01	-1.325153E-02	-1.486077E-02	-1.1649E-02
-6.7500000e-01	-1.346224E-02	-1.520128E-02	-1.1917E-02
-6.2500000e-01	-1.357544E-02	-1.540771E-02	-1.2120E-02
-5.7500000e-01	-1.354969E-02	-1.541129E-02	-1.2227E-02
-5.2500000e-01	-1.333921E-02	-1.513126E-02	-1.2185E-02
-4.7500000e-01	-1.290237E-02	-1.448995E-02	-1.1917E-02
-4.2500000e-01	-1.219129E-02	-1.344440E-02	-1.1342E-02
-3.7500000e-01	-1.115219E-02	-1.205672E-02	-1.0442E-02
-3.2500000e-01	-9.820264E-03	-1.048922E-02	-9.2579E-03
-2.7500000e-01	-8.341268E-03	-8.866406E-03	-7.8883E-03
-2.2500000e-01	-6.822138E-03	-7.235947E-03	-6.4597E-03
-1.7500000e-01	-5.298271E-03	-5.610770E-03	-5.0227E-03
-1.2500000e-01	-3.777710E-03	-3.994334E-03	-3.5860E-03
-7.5000000e-02	-2.262248E-03	-2.388040E-03	-2.1505E-03
-2.5000000e-02	-7.525408E-04	-7.929693E-04	-7.1644E-04
0.0000000e+00	-2.915900E-09	-3.333000E-10	-5.0570E-09
2.5000000e-02	7.507199E-04	7.895269E-04	7.1589E-04
7.5000000e-02	2.245917E-03	2.357110E-03	2.1456E-03
1.2500000e-01	3.732365E-03	3.908392E-03	3.5725E-03
1.7500000e-01	5.209520E-03	5.442055E-03	4.9965E-03
2.2500000e-01	6.676783E-03	6.956634E-03	6.4174E-03
2.7500000e-01	8.133496E-03	8.450479E-03	7.8352E-03
3.2500000e-01	9.578923E-03	9.921721E-03	9.2496E-03
3.7500000e-01	1.101226E-02	1.136822E-02	1.0661E-02
4.2500000e-01	1.243257E-02	1.278754E-02	1.2068E-02
4.7500000e-01	1.383888E-02	1.417683E-02	1.3472E-02
5.2500000e-01	1.523002E-02	1.553278E-02	1.4871E-02
5.7500000e-01	1.660471E-02	1.685160E-02	1.6267E-02
6.2500000e-01	1.796153E-02	1.812901E-02	1.7659E-02
6.7500000e-01	1.929892E-02	1.936079E-02	1.9046E-02
7.2500000e-01	2.061527E-02	2.054383E-02	2.0428E-02
7.7500000e-01	2.190915E-02	2.167702E-02	2.1805E-02
8.2500000e-01	2.317984E-02	2.276044E-02	2.3178E-02
8.7500000e-01	2.442765E-02	2.379315E-02	2.4544E-02
9.2500000e-01	2.565381E-02	2.477183E-02	2.5905E-02
9.7500000e-01	2.685955E-02	2.569073E-02	2.7261E-02
1.0250000e+00	2.804545E-02	2.654265E-02	2.8609E-02
1.0750000e+00	2.921123E-02	2.732059E-02	2.9951E-02
1.1250000e+00	3.035586E-02	2.802022E-02	3.1286E-02
1.1750000e+00	3.147763E-02	2.864222E-02	3.2613E-02
1.2250000e+00	3.257424E-02	2.919304E-02	3.3932E-02
1.2750000e+00	3.364280E-02	2.968331E-02	3.5242E-02
1.3250000e+00	3.467974E-02	3.012500E-02	3.6542E-02



1.3750000e+00	3.568083E-02	3.052912E-02	3.7832E-02
1.4250000e+00	3.664118E-02	3.090472E-02	3.9112E-02
1.4750000e+00	3.755541E-02	3.125876E-02	4.0379E-02
1.5250000e+00	3.841817E-02	3.159641E-02	4.1633E-02
1.5750000e+00	3.922484E-02	3.192149E-02	4.2873E-02
1.6250000e+00	3.997270E-02	3.223679E-02	4.4097E-02
1.6750000e+00	4.066185E-02	3.254442E-02	4.5303E-02
1.7250000e+00	4.129552E-02	3.284593E-02	4.6490E-02
1.7750000e+00	4.187958E-02	3.314250E-02	4.7654E-02
1.8250000e+00	4.242129E-02	3.343504E-02	4.8794E-02
1.8750000e+00	4.292808E-02	3.372428E-02	4.9905E-02
1.9250000e+00	4.340673E-02	3.401077E-02	5.0985E-02
1.9750000e+00	4.386296E-02	3.429496E-02	5.2029E-02
2.0250000e+00	4.430140E-02	3.457721E-02	5.3033E-02
2.0750000e+00	4.472568E-02	3.485782E-02	5.3993E-02
2.1250000e+00	4.513865E-02	3.513705E-02	5.4906E-02
2.1750000e+00	4.554252E-02	3.541511E-02	5.5769E-02
2.2250000e+00	4.593900E-02	3.569218E-02	5.6583E-02
2.2750000e+00	4.632944E-02	3.596843E-02	5.7349E-02
2.3250000e+00	4.671490E-02	3.624402E-02	5.8070E-02
2.3750000e+00	4.709624E-02	3.651910E-02	5.8752E-02
2.4250000e+00	4.747414E-02	3.679380E-02	5.9398E-02
2.4750000e+00	4.784918E-02	3.706830E-02	6.0016E-02
2.5250000e+00	4.822183E-02	3.734276E-02	6.0609E-02
2.5750000e+00	4.859248E-02	3.761735E-02	6.1181E-02
2.6250000e+00	4.896149E-02	3.789229E-02	6.1736E-02
2.6750000e+00	4.932914E-02	3.816783E-02	6.2277E-02
2.7250000e+00	4.969572E-02	3.844422E-02	6.2806E-02
2.7750000e+00	5.006148E-02	3.872180E-02	6.3326E-02
2.8250000e+00	5.042664E-02	3.900093E-02	6.3837E-02
2.8750000e+00	5.079141E-02	3.928204E-02	6.4342E-02
2.9250000e+00	5.115601E-02	3.956562E-02	6.4840E-02
2.9750000e+00	5.152066E-02	3.985223E-02	6.5334E-02
3.0000000e+00	5.170306E-02	3.999685E-02	6.5579E-02

[GND Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	-5.378351E-02	-5.490567E-02	-5.885698E-02
-1.4750000e+00	-5.231251E-02	-5.334431E-02	-5.735670E-02
-1.4500000e+00	-5.084369E-02	-5.178549E-02	-5.585777E-02
-1.4250000e+00	-4.937717E-02	-5.022938E-02	-5.436025E-02
-1.4000000e+00	-4.791309E-02	-4.867613E-02	-5.286424E-02
-1.3750000e+00	-4.645161E-02	-4.712594E-02	-5.136982E-02
-1.3500000e+00	-4.499289E-02	-4.557901E-02	-4.987708E-02
-1.3250000e+00	-4.353712E-02	-4.403556E-02	-4.838614E-02
-1.3000000e+00	-4.208452E-02	-4.249585E-02	-4.689710E-02
-1.2750000e+00	-4.063529E-02	-4.096014E-02	-4.541010E-02
-1.2500000e+00	-3.918970E-02	-3.942875E-02	-4.392527E-02
-1.2250000e+00	-3.774803E-02	-3.790201E-02	-4.244278E-02
-1.2000000e+00	-3.631059E-02	-3.638031E-02	-4.096280E-02
-1.1750000e+00	-3.487773E-02	-3.486408E-02	-3.948552E-02
-1.1500000e+00	-3.344986E-02	-3.335380E-02	-3.801116E-02
-1.1250000e+00	-3.202742E-02	-3.185003E-02	-3.653998E-02
-1.1000000e+00	-3.061092E-02	-3.035339E-02	-3.507226E-02

-1.0750000e+00	-2.920096E-02	-2.886462E-02	-3.360832E-02
-1.0500000e+00	-2.779821E-02	-2.738455E-02	-3.214854E-02
-1.0250000e+00	-2.640347E-02	-2.591415E-02	-3.069335E-02
-1.0000000e+00	-2.501766E-02	-2.445455E-02	-2.924328E-02
-9.7500000e-01	-2.364185E-02	-2.300708E-02	-2.779892E-02
-9.5000000e-01	-2.227732E-02	-2.157329E-02	-2.636102E-02
-9.2500000e-01	-2.092559E-02	-2.015501E-02	-2.493048E-02
-9.0000000e-01	-1.958843E-02	-1.875433E-02	-2.350840E-02
-8.7500000e-01	-1.826790E-02	-1.737363E-02	-2.209616E-02
-8.5000000e-01	-1.696631E-02	-1.601550E-02	-2.069550E-02
-8.2500000e-01	-1.568612E-02	-1.468262E-02	-1.930856E-02
-8.0000000e-01	-1.442972E-02	-1.337762E-02	-1.793782E-02
-7.7500000e-01	-1.319926E-02	-1.210311E-02	-1.658583E-02
-7.5000000e-01	-1.199673E-02	-1.086191E-02	-1.525450E-02
-7.2500000e-01	-1.082427E-02	-9.657411E-03	-1.394473E-02
-7.0000000e-01	-9.684638E-03	-8.493939E-03	-1.265685E-02
-6.7500000e-01	-8.581514E-03	-7.376930E-03	-1.139180E-02
-6.5000000e-01	-7.519607E-03	-6.312929E-03	-1.015194E-02
-6.2500000e-01	-6.504547E-03	-5.309438E-03	-8.941317E-03
-6.0000000e-01	-5.542688E-03	-4.374618E-03	-7.765734E-03
-5.7500000e-01	-4.640772E-03	-3.516890E-03	-6.632943E-03
-5.5000000e-01	-3.805524E-03	-2.744483E-03	-5.552944E-03
-5.2500000e-01	-3.043248E-03	-2.065103E-03	-4.538199E-03
-5.0000000e-01	-2.359647E-03	-1.485677E-03	-3.603410E-03
-4.7500000e-01	-1.760020E-03	-1.011779E-03	-2.764263E-03
-4.5000000e-01	-1.249702E-03	-6.458403E-04	-2.034714E-03
-4.2500000e-01	-8.339835E-04	-3.838582E-04	-1.423543E-03
-4.0000000e-01	-5.162389E-04	-2.125448E-04	-9.327585E-04
-3.7500000e-01	-2.937329E-04	-1.106466E-04	-5.596314E-04
-3.5000000e-01	-1.537279E-04	-5.497263E-05	-2.989521E-04
-3.2500000e-01	-7.493357E-05	-2.649171E-05	-1.392980E-04
-3.0000000e-01	-3.471511E-05	-1.256760E-05	-5.693623E-05
-2.7500000e-01	-1.563019E-05	-5.952723E-06	-2.113740E-05
-2.5000000e-01	-7.001335E-06	-2.863206E-06	-7.478892E-06
-2.2500000e-01	-3.215160E-06	-1.433628E-06	-2.669240E-06
-2.0000000e-01	-1.576700E-06	-7.729597E-07	-1.039346E-06
-1.7500000e-01	-8.691669E-07	-4.659048E-07	-4.927419E-07
-1.5000000e-01	-5.602970E-07	-3.210513E-07	-3.060998E-07
-1.2500000e-01	-4.211770E-07	-2.506183E-07	-2.379530E-07
-1.0000000e-01	-3.542844E-07	-2.144259E-07	-2.089398E-07
-7.5000000e-02	-3.182781E-07	-1.940781E-07	-1.931385E-07
-5.0000000e-02	-2.956734E-07	-1.811414E-07	-1.820761E-07
-2.5000000e-02	-2.790923E-07	-1.717494E-07	-1.729560E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[Pullup]

-1.5000000e+00	1.625201E-02	1.758608E-02	1.5776E-02
-1.4750000e+00	1.628295E-02	1.772293E-02	1.5794E-02
-1.4250000e+00	1.631167E-02	1.794814E-02	1.5819E-02
-1.3750000e+00	1.630625E-02	1.810214E-02	1.5832E-02
-1.3250000e+00	1.628177E-02	1.818331E-02	1.5836E-02
-1.2750000e+00	1.625213E-02	1.819962E-02	1.5830E-02
-1.2250000e+00	1.622498E-02	1.816850E-02	1.5814E-02

-1.1750000e+00	1.620031E-02	1.811351E-02	1.5786E-02
-1.1250000e+00	1.617356E-02	1.805794E-02	1.5746E-02
-1.0750000e+00	1.613984E-02	1.801572E-02	1.5692E-02
-1.0250000e+00	1.609584E-02	1.798687E-02	1.5624E-02
-9.7500000e-01	1.603981E-02	1.796321E-02	1.5542E-02
-9.2500000e-01	1.597095E-02	1.793695E-02	1.5444E-02
-8.7500000e-01	1.588883E-02	1.790371E-02	1.5331E-02
-8.2500000e-01	1.579281E-02	1.786161E-02	1.5200E-02
-7.7500000e-01	1.568160E-02	1.780891E-02	1.5050E-02
-7.2500000e-01	1.555266E-02	1.774030E-02	1.4877E-02
-6.7500000e-01	1.540100E-02	1.763919E-02	1.4677E-02
-6.2500000e-01	1.521657E-02	1.746424E-02	1.4440E-02
-5.7500000e-01	1.497687E-02	1.713549E-02	1.4152E-02
-5.2500000e-01	1.462952E-02	1.653605E-02	1.3790E-02
-4.7500000e-01	1.407045E-02	1.555591E-02	1.3303E-02
-4.2500000e-01	1.317055E-02	1.420030E-02	1.2595E-02
-3.7500000e-01	1.190475E-02	1.261585E-02	1.1528E-02
-3.2500000e-01	1.040962E-02	1.094206E-02	1.0132E-02
-2.7500000e-01	8.825733E-03	9.244475E-03	8.6004E-03
-2.2500000e-01	7.217759E-03	7.545941E-03	7.0379E-03
-1.7500000e-01	5.606827E-03	5.853537E-03	5.4714E-03
-1.2500000e-01	3.998885E-03	4.169432E-03	3.9059E-03
-7.5000000e-02	2.395513E-03	2.494429E-03	2.3421E-03
-2.5000000e-02	7.971932E-04	8.289974E-04	7.8023E-04
0.0000000e+00	1.314700E-09	4.692000E-10	3.0652E-09
2.5000000e-02	-7.950502E-04	-8.253549E-04	-7.7920E-04
7.5000000e-02	-2.376138E-03	-2.461490E-03	-2.3328E-03
1.2500000e-01	-3.944794E-03	-4.077442E-03	-3.8799E-03
1.7500000e-01	-5.500495E-03	-5.672260E-03	-5.4201E-03
2.2500000e-01	-7.042695E-03	-7.244932E-03	-6.9533E-03
2.7500000e-01	-8.570810E-03	-8.794375E-03	-8.4790E-03
3.2500000e-01	-1.008422E-02	-1.031943E-02	-9.9969E-03
3.7500000e-01	-1.158229E-02	-1.181885E-02	-1.1507E-02
4.2500000e-01	-1.306431E-02	-1.329132E-02	-1.3008E-02
4.7500000e-01	-1.452955E-02	-1.473539E-02	-1.4501E-02
5.2500000e-01	-1.597724E-02	-1.614954E-02	-1.5984E-02
5.7500000e-01	-1.740654E-02	-1.753210E-02	-1.7458E-02
6.2500000e-01	-1.881658E-02	-1.888132E-02	-1.8922E-02
6.7500000e-01	-2.020643E-02	-2.019527E-02	-2.0375E-02
7.2500000e-01	-2.157509E-02	-2.147192E-02	-2.1818E-02
7.7500000e-01	-2.292153E-02	-2.270910E-02	-2.3248E-02
8.2500000e-01	-2.424464E-02	-2.390455E-02	-2.4667E-02
8.7500000e-01	-2.554331E-02	-2.505603E-02	-2.6073E-02
9.2500000e-01	-2.681638E-02	-2.616144E-02	-2.7466E-02
9.7500000e-01	-2.806279E-02	-2.721907E-02	-2.8845E-02
1.0250000e+00	-2.928162E-02	-2.822778E-02	-3.0209E-02
1.0750000e+00	-3.047224E-02	-2.918687E-02	-3.1559E-02
1.1250000e+00	-3.163441E-02	-3.009551E-02	-3.2895E-02
1.1750000e+00	-3.276817E-02	-3.095232E-02	-3.4215E-02
1.2250000e+00	-3.387345E-02	-3.175524E-02	-3.5520E-02
1.2750000e+00	-3.494986E-02	-3.250183E-02	-3.6810E-02
1.3250000e+00	-3.599648E-02	-3.318993E-02	-3.8084E-02
1.3750000e+00	-3.701195E-02	-3.381867E-02	-3.9341E-02
1.4250000e+00	-3.799445E-02	-3.438959E-02	-4.0581E-02

1.4750000e+00	-3.894176E-02	-3.490743E-02	-4.1802E-02
1.5250000e+00	-3.985132E-02	-3.537965E-02	-4.3004E-02
1.5750000e+00	-4.072029E-02	-3.581474E-02	-4.4185E-02
1.6250000e+00	-4.154560E-02	-3.622056E-02	-4.5343E-02
1.6750000e+00	-4.232425E-02	-3.660353E-02	-4.6476E-02
1.7250000e+00	-4.305363E-02	-3.696849E-02	-4.7583E-02
1.7750000e+00	-4.373217E-02	-3.731908E-02	-4.8662E-02
1.8250000e+00	-4.436015E-02	-3.765800E-02	-4.9709E-02
1.8750000e+00	-4.494020E-02	-3.798729E-02	-5.0722E-02
1.9250000e+00	-4.547717E-02	-3.830853E-02	-5.1698E-02
1.9750000e+00	-4.597727E-02	-3.862293E-02	-5.2633E-02
2.0250000e+00	-4.644684E-02	-3.893148E-02	-5.3524E-02
2.0750000e+00	-4.689156E-02	-3.923498E-02	-5.4367E-02
2.1250000e+00	-4.731609E-02	-3.953408E-02	-5.5160E-02
2.1750000e+00	-4.772413E-02	-3.982931E-02	-5.5900E-02
2.2250000e+00	-4.811854E-02	-4.012115E-02	-5.6590E-02
2.2750000e+00	-4.850161E-02	-4.040997E-02	-5.7231E-02
2.3250000e+00	-4.887508E-02	-4.069609E-02	-5.7830E-02
2.3750000e+00	-4.924037E-02	-4.097982E-02	-5.8391E-02
2.4250000e+00	-4.959862E-02	-4.126137E-02	-5.8920E-02
2.4750000e+00	-4.995076E-02	-4.154098E-02	-5.9424E-02
2.5250000e+00	-5.029755E-02	-4.181883E-02	-5.9906E-02
2.5750000e+00	-5.063964E-02	-4.209509E-02	-6.0370E-02
2.6250000e+00	-5.097758E-02	-4.236990E-02	-6.0819E-02
2.6750000e+00	-5.131181E-02	-4.264339E-02	-6.1255E-02
2.7250000e+00	-5.164272E-02	-4.291571E-02	-6.1681E-02
2.7750000e+00	-5.197066E-02	-4.318692E-02	-6.2098E-02
2.8250000e+00	-5.229592E-02	-4.345715E-02	-6.2507E-02
2.8750000e+00	-5.261875E-02	-4.372646E-02	-6.2909E-02
2.9250000e+00	-5.293944E-02	-4.399496E-02	-6.3305E-02
2.9750000e+00	-5.325809E-02	-4.426273E-02	-6.3695E-02
3.0000000e+00	-5.341670E-02	-4.439634E-02	-6.3889E-02

[POWER Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	4.450136E-02	4.385767E-02	4.780180E-02
-1.4750000e+00	4.325737E-02	4.248503E-02	4.651240E-02
-1.4500000e+00	4.202627E-02	4.113177E-02	4.522925E-02
-1.4250000e+00	4.080680E-02	3.979850E-02	4.395155E-02
-1.4000000e+00	3.959743E-02	3.848563E-02	4.267872E-02
-1.3750000e+00	3.839648E-02	3.719324E-02	4.141043E-02
-1.3500000e+00	3.720221E-02	3.592106E-02	4.014658E-02
-1.3250000e+00	3.601296E-02	3.466841E-02	3.888724E-02
-1.3000000e+00	3.482735E-02	3.343415E-02	3.763261E-02
-1.2750000e+00	3.364438E-02	3.221669E-02	3.638295E-02
-1.2500000e+00	3.246358E-02	3.101397E-02	3.513856E-02
-1.2250000e+00	3.128497E-02	2.982356E-02	3.389971E-02
-1.2000000e+00	3.010901E-02	2.864279E-02	3.266671E-02
-1.1750000e+00	2.893648E-02	2.746896E-02	3.143983E-02
-1.1500000e+00	2.776826E-02	2.629964E-02	3.021937E-02
-1.1250000e+00	2.660528E-02	2.513304E-02	2.900560E-02
-1.1000000e+00	2.544841E-02	2.396824E-02	2.779885E-02
-1.0750000e+00	2.429844E-02	2.280536E-02	2.659947E-02
-1.0500000e+00	2.315612E-02	2.164543E-02	2.540788E-02

-1.0250000e+00	2.202214E-02	2.049007E-02	2.422456E-02
-1.0000000e+00	2.089719E-02	1.934117E-02	2.305008E-02
-9.7500000e-01	1.978197E-02	1.820065E-02	2.188512E-02
-9.5000000e-01	1.867722E-02	1.707028E-02	2.073051E-02
-9.2500000e-01	1.758372E-02	1.595172E-02	1.958717E-02
-9.0000000e-01	1.650228E-02	1.484648E-02	1.845617E-02
-8.7500000e-01	1.543373E-02	1.375596E-02	1.733861E-02
-8.5000000e-01	1.437889E-02	1.268153E-02	1.623552E-02
-8.2500000e-01	1.333851E-02	1.162449E-02	1.514771E-02
-8.0000000e-01	1.231328E-02	1.058622E-02	1.407560E-02
-7.7500000e-01	1.130388E-02	9.568206E-03	1.301920E-02
-7.5000000e-01	1.031106E-02	8.572276E-03	1.197826E-02
-7.2500000e-01	9.335806E-03	7.600753E-03	1.095255E-02
-7.0000000e-01	8.379549E-03	6.656721E-03	9.942208E-03
-6.7500000e-01	7.444326E-03	5.744302E-03	8.947907E-03
-6.5000000e-01	6.532997E-03	4.868952E-03	7.971037E-03
-6.2500000e-01	5.649458E-03	4.037787E-03	7.013856E-03
-6.0000000e-01	4.798902E-03	3.259897E-03	6.079694E-03
-5.7500000e-01	3.988134E-03	2.546530E-03	5.173232E-03
-5.5000000e-01	3.225930E-03	1.910856E-03	4.300898E-03
-5.2500000e-01	2.523332E-03	1.366712E-03	3.471435E-03
-5.0000000e-01	1.893615E-03	9.256050E-04	2.696669E-03
-4.7500000e-01	1.351332E-03	5.919303E-04	1.992344E-03
-4.5000000e-01	9.095438E-04	3.586832E-04	1.378411E-03
-4.2500000e-01	5.747929E-04	2.078355E-04	8.770334E-04
-4.0000000e-01	3.418453E-04	1.164218E-04	5.053061E-04
-3.7500000e-01	1.930954E-04	6.360210E-05	2.627362E-04
-3.5000000e-01	1.048276E-04	3.408364E-05	1.249600E-04
-3.2500000e-01	5.523970E-05	1.799151E-05	5.555840E-05
-3.0000000e-01	2.845373E-05	9.394192E-06	2.354470E-05
-2.7500000e-01	1.440808E-05	4.878770E-06	9.667951E-06
-2.5000000e-01	7.217646E-06	2.540607E-06	3.917671E-06
-2.2500000e-01	3.608426E-06	1.343333E-06	1.610365E-06
-2.0000000e-01	1.824961E-06	7.351342E-07	7.040722E-07
-1.7500000e-01	9.538096E-07	4.274933E-07	3.518088E-07
-1.5000000e-01	5.312391E-07	2.717598E-07	2.143482E-07
-1.2500000e-01	3.264285E-07	1.922224E-07	1.590776E-07
-1.0000000e-01	2.262355E-07	1.506538E-07	1.350141E-07
-7.5000000e-02	1.758303E-07	1.278715E-07	1.227817E-07
-5.0000000e-02	1.489090E-07	1.143246E-07	1.150732E-07
-2.5000000e-02	1.332080E-07	1.054156E-07	1.091539E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[Ramp]

R\_load = 50.00Ohm

	typ	min	max
dV/dt_r	532.022mV/119.423ps	491.319mV/165.185ps	567.619mV/91.565ps
dV/dt_f	537.976mV/129.806ps	497.460mV/173.213ps	578.029mV/105.657ps

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[Rising Waveform]

V\_fixture = 1.500V  
V\_fixture\_min = 1.425V  
V\_fixture\_max = 1.575V  
R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	6.1517E-01	5.8287E-01	6.5309E-01
1.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
2.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
3.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
4.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
5.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
6.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
7.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
8.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
9.00E-11	6.1517E-01	5.8287E-01	6.5309E-01
1.00E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.10E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.20E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.30E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.40E-10	6.1517E-01	5.8287E-01	6.5309E-01
1.50E-10	6.1517E-01	5.8287E-01	6.5433E-01
1.60E-10	6.1517E-01	5.8287E-01	6.7845E-01
1.70E-10	6.1616E-01	5.8287E-01	7.4018E-01
1.80E-10	6.1820E-01	5.8287E-01	8.2854E-01
1.90E-10	6.2509E-01	5.8287E-01	9.2350E-01
2.00E-10	6.3360E-01	5.8287E-01	1.0035E+00
2.10E-10	6.5972E-01	5.8287E-01	1.0622E+00
2.20E-10	6.9277E-01	5.8287E-01	1.1021E+00
2.30E-10	7.4389E-01	5.8287E-01	1.1297E+00
2.40E-10	8.0329E-01	5.8287E-01	1.1507E+00
2.50E-10	8.6698E-01	5.8287E-01	1.1725E+00
2.60E-10	9.3293E-01	5.8587E-01	1.2084E+00
2.70E-10	9.8606E-01	5.8977E-01	1.2660E+00
2.80E-10	1.0314E+00	6.0015E-01	1.3332E+00
2.90E-10	1.0621E+00	6.1507E-01	1.4005E+00
3.00E-10	1.0875E+00	6.3422E-01	1.4575E+00
3.10E-10	1.1038E+00	6.6308E-01	1.5003E+00
3.20E-10	1.1186E+00	6.9542E-01	1.5292E+00
3.30E-10	1.1318E+00	7.3829E-01	1.5452E+00
3.40E-10	1.1488E+00	7.8359E-01	1.5589E+00
3.50E-10	1.1685E+00	8.3263E-01	1.5644E+00
3.60E-10	1.1961E+00	8.7994E-01	1.5690E+00
3.70E-10	1.2308E+00	9.2648E-01	1.5711E+00
3.80E-10	1.2708E+00	9.6220E-01	1.5725E+00
3.90E-10	1.3157E+00	9.9443E-01	1.5733E+00
4.00E-10	1.3592E+00	1.0179E+00	1.5737E+00
4.10E-10	1.3979E+00	1.0367E+00	1.5740E+00
4.20E-10	1.4283E+00	1.0518E+00	1.5741E+00
4.30E-10	1.4538E+00	1.0635E+00	1.5743E+00
4.40E-10	1.4683E+00	1.0745E+00	1.5743E+00
4.50E-10	1.4800E+00	1.0848E+00	1.5743E+00
4.60E-10	1.4870E+00	1.0962E+00	1.5743E+00

4.70E-10	1.4913E+00	1.1088E+00	1.5744E+00
4.80E-10	1.4943E+00	1.1255E+00	1.5744E+00
4.90E-10	1.4948E+00	1.1437E+00	1.5745E+00
5.00E-10	1.4953E+00	1.1618E+00	1.5746E+00
5.10E-10	1.4959E+00	1.1826E+00	1.5747E+00
5.20E-10	1.4965E+00	1.2089E+00	1.5747E+00
5.30E-10	1.4972E+00	1.2353E+00	1.5747E+00
5.40E-10	1.4979E+00	1.2616E+00	1.5748E+00
5.50E-10	1.4985E+00	1.2874E+00	1.5748E+00
5.60E-10	1.4988E+00	1.3132E+00	1.5748E+00
5.70E-10	1.4992E+00	1.3390E+00	1.5749E+00
5.80E-10	1.4995E+00	1.3572E+00	1.5749E+00
5.90E-10	1.4996E+00	1.3739E+00	1.5749E+00
6.00E-10	1.4997E+00	1.3906E+00	1.5749E+00
6.10E-10	1.4998E+00	1.4002E+00	1.5749E+00
6.20E-10	1.4999E+00	1.4076E+00	1.5749E+00
6.30E-10	1.4999E+00	1.4150E+00	1.5750E+00
6.40E-10	1.4999E+00	1.4175E+00	1.5750E+00
6.50E-10	1.4999E+00	1.4200E+00	1.5750E+00
6.60E-10	1.4999E+00	1.4220E+00	1.5750E+00
6.70E-10	1.4999E+00	1.4227E+00	1.5750E+00
6.80E-10	1.4999E+00	1.4234E+00	1.5750E+00
6.90E-10	1.4999E+00	1.4238E+00	1.5750E+00
7.00E-10	1.4999E+00	1.4240E+00	1.5750E+00
7.10E-10	1.4999E+00	1.4242E+00	1.5750E+00
7.20E-10	1.4999E+00	1.4243E+00	1.5750E+00
7.30E-10	1.4999E+00	1.4244E+00	1.5750E+00
7.40E-10	1.4999E+00	1.4244E+00	1.5750E+00
7.50E-10	1.5000E+00	1.4244E+00	1.5750E+00

[Falling Waveform]

V\_fixture = 1.500V

V\_fixture\_min = 1.425V

V\_fixture\_max = 1.575V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	1.5000E+00	1.4244E+00	1.5750E+00
1.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
2.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
3.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
4.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
5.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
6.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
7.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
8.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
9.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
1.00E-10	1.5000E+00	1.4244E+00	1.5750E+00
1.10E-10	1.5001E+00	1.4244E+00	1.5750E+00
1.20E-10	1.5005E+00	1.4244E+00	1.5750E+00
1.30E-10	1.5010E+00	1.4244E+00	1.5696E+00
1.40E-10	1.5019E+00	1.4244E+00	1.5421E+00
1.50E-10	1.5028E+00	1.4244E+00	1.5004E+00

1.60E-10	1.5039E+00	1.4244E+00	1.4462E+00
1.70E-10	1.5050E+00	1.4244E+00	1.3851E+00
1.80E-10	1.5044E+00	1.4244E+00	1.3205E+00
1.90E-10	1.5035E+00	1.4244E+00	1.2579E+00
2.00E-10	1.4916E+00	1.4244E+00	1.2013E+00
2.10E-10	1.4788E+00	1.4244E+00	1.1613E+00
2.20E-10	1.4542E+00	1.4244E+00	1.1320E+00
2.30E-10	1.4285E+00	1.4244E+00	1.1084E+00
2.40E-10	1.3937E+00	1.4244E+00	1.0868E+00
2.50E-10	1.3578E+00	1.4244E+00	1.0540E+00
2.60E-10	1.3171E+00	1.4218E+00	1.0067E+00
2.70E-10	1.2768E+00	1.4145E+00	9.4839E-01
2.80E-10	1.2375E+00	1.3990E+00	8.8192E-01
2.90E-10	1.2003E+00	1.3841E+00	8.2227E-01
3.00E-10	1.1674E+00	1.3619E+00	7.7341E-01
3.10E-10	1.1375E+00	1.3392E+00	7.3495E-01
3.20E-10	1.1123E+00	1.3125E+00	7.0687E-01
3.30E-10	1.0884E+00	1.2806E+00	6.9026E-01
3.40E-10	1.0662E+00	1.2558E+00	6.7865E-01
3.50E-10	1.0397E+00	1.2224E+00	6.7137E-01
3.60E-10	1.0097E+00	1.1987E+00	6.6791E-01
3.70E-10	9.7255E-01	1.1742E+00	6.6445E-01
3.80E-10	9.3100E-01	1.1523E+00	6.6187E-01
3.90E-10	8.8580E-01	1.1315E+00	6.5971E-01
4.00E-10	8.3897E-01	1.1120E+00	6.5755E-01
4.10E-10	7.9641E-01	1.0924E+00	6.5651E-01
4.20E-10	7.5515E-01	1.0749E+00	6.5547E-01
4.30E-10	7.2360E-01	1.0540E+00	6.5463E-01
4.40E-10	6.9391E-01	1.0344E+00	6.5421E-01
4.50E-10	6.7567E-01	1.0110E+00	6.5378E-01
4.60E-10	6.5854E-01	9.8237E-01	6.5353E-01
4.70E-10	6.4671E-01	9.5346E-01	6.5337E-01
4.80E-10	6.3926E-01	9.1790E-01	6.5321E-01
4.90E-10	6.3074E-01	8.7949E-01	6.5309E-01
5.00E-10	6.1517E-01	8.4341E-01	6.5309E-01
5.10E-10	6.1517E-01	8.0437E-01	6.5309E-01
5.20E-10	6.1517E-01	7.6818E-01	6.5309E-01
5.30E-10	6.1517E-01	7.3775E-01	6.5309E-01
5.40E-10	6.1517E-01	7.0888E-01	6.5309E-01
5.50E-10	6.1517E-01	6.8336E-01	6.5309E-01
5.60E-10	6.1517E-01	6.6440E-01	6.5309E-01
5.70E-10	6.1517E-01	6.4314E-01	6.5309E-01
5.80E-10	6.1517E-01	6.3327E-01	6.5309E-01
5.90E-10	6.1517E-01	6.1885E-01	6.5309E-01
6.00E-10	6.1517E-01	6.1028E-01	6.5309E-01
6.10E-10	6.1517E-01	6.0327E-01	6.5309E-01
6.20E-10	6.1517E-01	5.9567E-01	6.5309E-01
6.30E-10	6.1517E-01	5.9405E-01	6.5309E-01
6.40E-10	6.1517E-01	5.9090E-01	6.5309E-01
6.50E-10	6.1517E-01	5.8836E-01	6.5309E-01
6.60E-10	6.1517E-01	5.8633E-01	6.5309E-01
6.70E-10	6.1517E-01	5.8473E-01	6.5309E-01
6.80E-10	6.1517E-01	5.8287E-01	6.5309E-01
6.90E-10	6.1517E-01	5.8287E-01	6.5309E-01



7.00E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.10E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.20E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.30E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.40E-10	6.1517E-01	5.8287E-01	6.5309E-01
7.50E-10	6.1517E-01	5.8287E-01	6.5309E-01

[Rising Waveform]

V\_fixture = 0.000V

V\_fixture\_min = 0.000V

V\_fixture\_max = 0.000V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	-3.6753E-04	7.2516E-04	2.8087E-05
1.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
2.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
3.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
4.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
5.00E-11	-3.6753E-04	7.2516E-04	2.8087E-05
6.00E-11	-3.6753E-04	7.2516E-04	1.0216E-04
7.00E-11	-3.6753E-04	7.2516E-04	1.9728E-04
8.00E-11	-3.6753E-04	7.2516E-04	2.7894E-04
9.00E-11	-3.6753E-04	7.2516E-04	2.8460E-04
1.00E-10	-3.6753E-04	7.2516E-04	2.9184E-04
1.10E-10	-3.6753E-04	7.2516E-04	1.1285E-03
1.20E-10	-3.6753E-04	7.2516E-04	2.7155E-03
1.30E-10	-3.6753E-04	7.2516E-04	5.0230E-03
1.40E-10	-3.6753E-04	7.2516E-04	7.3254E-03
1.50E-10	-3.6753E-04	7.2516E-04	8.7724E-03
1.60E-10	-3.6753E-04	7.2516E-04	1.1212E-02
1.70E-10	-3.6753E-04	7.2516E-04	4.6035E-02
1.80E-10	-3.6753E-04	7.2516E-04	9.9223E-02
1.90E-10	-3.6753E-04	7.2516E-04	1.6614E-01
2.00E-10	-3.6753E-04	7.2516E-04	2.3920E-01
2.10E-10	3.5736E-03	7.2516E-04	3.0948E-01
2.20E-10	2.0502E-02	7.2516E-04	3.6921E-01
2.30E-10	4.1697E-02	7.2516E-04	4.1553E-01
2.40E-10	7.5340E-02	7.2516E-04	4.4908E-01
2.50E-10	1.1331E-01	7.2516E-04	4.7338E-01
2.60E-10	1.5884E-01	7.2516E-04	4.9503E-01
2.70E-10	2.0668E-01	7.2516E-04	5.2442E-01
2.80E-10	2.5162E-01	7.2516E-04	5.7364E-01
2.90E-10	2.9581E-01	7.2516E-04	6.4440E-01
3.00E-10	3.3180E-01	5.8446E-03	7.2332E-01
3.10E-10	3.6594E-01	1.3532E-02	7.9061E-01
3.20E-10	3.9082E-01	2.2842E-02	8.4100E-01
3.30E-10	4.1397E-01	4.4064E-02	8.7560E-01
3.40E-10	4.3129E-01	6.5287E-02	8.9835E-01
3.50E-10	4.4771E-01	8.8005E-02	9.1275E-01
3.60E-10	4.6699E-01	1.1851E-01	9.2083E-01
3.70E-10	4.8661E-01	1.4901E-01	9.2762E-01
3.80E-10	5.2174E-01	1.7941E-01	9.3202E-01

3.90E-10	5.5826E-01	2.0939E-01	9.3546E-01
4.00E-10	6.0852E-01	2.3937E-01	9.3833E-01
4.10E-10	6.5962E-01	2.6803E-01	9.4087E-01
4.20E-10	7.0835E-01	2.9259E-01	9.4281E-01
4.30E-10	7.5701E-01	3.1716E-01	9.4428E-01
4.40E-10	7.8894E-01	3.3790E-01	9.4537E-01
4.50E-10	8.1785E-01	3.5587E-01	9.4606E-01
4.60E-10	8.3619E-01	3.7385E-01	9.4675E-01
4.70E-10	8.5094E-01	3.8729E-01	9.4744E-01
4.80E-10	8.6107E-01	4.0033E-01	9.4796E-01
4.90E-10	8.6825E-01	4.1330E-01	9.4812E-01
5.00E-10	8.7391E-01	4.2611E-01	9.4828E-01
5.10E-10	8.7730E-01	4.3892E-01	9.4845E-01
5.20E-10	8.8026E-01	4.5640E-01	9.4858E-01
5.30E-10	8.8222E-01	4.7710E-01	9.4859E-01
5.40E-10	8.8386E-01	4.9780E-01	9.4860E-01
5.50E-10	8.8486E-01	5.2989E-01	9.4860E-01
5.60E-10	8.8585E-01	5.6285E-01	9.4860E-01
5.70E-10	8.8684E-01	5.9689E-01	9.4860E-01
5.80E-10	8.8768E-01	6.3392E-01	9.4860E-01
5.90E-10	8.8847E-01	6.7095E-01	9.4860E-01
6.00E-10	8.8926E-01	7.0233E-01	9.4860E-01
6.10E-10	8.8998E-01	7.2999E-01	9.4860E-01
6.20E-10	8.9042E-01	7.5766E-01	9.4860E-01
6.30E-10	8.9086E-01	7.7515E-01	9.4860E-01
6.40E-10	8.9130E-01	7.9200E-01	9.4860E-01
6.50E-10	8.9157E-01	8.0477E-01	9.4860E-01
6.60E-10	8.9176E-01	8.1411E-01	9.4860E-01
6.70E-10	8.9194E-01	8.2282E-01	9.4860E-01
6.80E-10	8.9213E-01	8.2783E-01	9.4860E-01
6.90E-10	8.9232E-01	8.3284E-01	9.4860E-01
7.00E-10	8.9251E-01	8.3619E-01	9.4860E-01
7.10E-10	8.9269E-01	8.3899E-01	9.4860E-01
7.20E-10	8.9279E-01	8.4140E-01	9.4860E-01
7.30E-10	8.9282E-01	8.4312E-01	9.4860E-01
7.40E-10	8.9285E-01	8.4444E-01	9.4860E-01
7.50E-10	8.9288E-01	8.4444E-01	9.4860E-01

[Falling Waveform]

V\_fixture = 0.000V

V\_fixture\_min = 0.000V

V\_fixture\_max = 0.000V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	8.9297E-01	8.4444E-01	9.4842E-01
1.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
2.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
3.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
4.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
5.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
6.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
7.00E-11	8.9297E-01	8.4444E-01	9.4842E-01

8.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
9.00E-11	8.9297E-01	8.4444E-01	9.4842E-01
1.00E-10	8.9298E-01	8.4444E-01	9.4842E-01
1.10E-10	8.9307E-01	8.4444E-01	9.4842E-01
1.20E-10	8.9310E-01	8.4444E-01	9.4710E-01
1.30E-10	8.9298E-01	8.4444E-01	9.3543E-01
1.40E-10	8.9269E-01	8.4444E-01	9.1264E-01
1.50E-10	8.9153E-01	8.4444E-01	8.6501E-01
1.60E-10	8.9009E-01	8.4444E-01	7.9523E-01
1.70E-10	8.8619E-01	8.4444E-01	7.1623E-01
1.80E-10	8.8188E-01	8.4444E-01	6.3702E-01
1.90E-10	8.6797E-01	8.4444E-01	5.6822E-01
2.00E-10	8.5407E-01	8.4444E-01	5.1467E-01
2.10E-10	8.1907E-01	8.4444E-01	4.7745E-01
2.20E-10	7.8369E-01	8.4444E-01	4.5020E-01
2.30E-10	7.2759E-01	8.4356E-01	4.2700E-01
2.40E-10	6.6977E-01	8.4256E-01	4.0012E-01
2.50E-10	6.0883E-01	8.3977E-01	3.6152E-01
2.60E-10	5.4739E-01	8.3484E-01	3.0810E-01
2.70E-10	5.0056E-01	8.2675E-01	2.4581E-01
2.80E-10	4.5727E-01	8.1616E-01	1.8720E-01
2.90E-10	4.2858E-01	8.0426E-01	1.3866E-01
3.00E-10	4.0488E-01	7.8900E-01	9.9411E-02
3.10E-10	3.8513E-01	7.7410E-01	6.9027E-02
3.20E-10	3.6720E-01	7.4966E-01	4.8410E-02
3.30E-10	3.4529E-01	7.1605E-01	3.2789E-02
3.40E-10	3.2101E-01	6.7567E-01	2.0043E-02
3.50E-10	2.8958E-01	6.3059E-01	1.4012E-02
3.60E-10	2.5272E-01	5.9072E-01	8.0573E-03
3.70E-10	2.1376E-01	5.5071E-01	5.9996E-03
3.80E-10	1.7278E-01	5.1266E-01	3.9419E-03
3.90E-10	1.3552E-01	4.8164E-01	2.8692E-03
4.00E-10	1.0280E-01	4.5088E-01	2.1454E-03
4.10E-10	7.5449E-02	4.2586E-01	1.6064E-03
4.20E-10	5.6489E-02	4.0332E-01	1.2864E-03
4.30E-10	4.2244E-02	3.8157E-01	9.8729E-04
4.40E-10	3.1060E-02	3.6318E-01	7.8594E-04
4.50E-10	2.3597E-02	3.4438E-01	5.8459E-04
4.60E-10	1.8174E-02	3.2416E-01	3.8324E-04
4.70E-10	1.3964E-02	3.0378E-01	1.8189E-04
4.80E-10	1.1106E-02	2.8095E-01	9.6654E-05
4.90E-10	8.2484E-03	2.5556E-01	8.3885E-05
5.00E-10	5.8181E-03	2.3033E-01	7.1116E-05
5.10E-10	-3.6753E-04	1.9998E-01	5.8347E-05
5.20E-10	-3.6753E-04	1.7048E-01	4.5994E-05
5.30E-10	-3.6753E-04	1.4118E-01	4.0878E-05
5.40E-10	-3.6753E-04	1.1208E-01	3.5762E-05
5.50E-10	-3.6753E-04	8.5433E-02	3.0646E-05
5.60E-10	-3.6753E-04	6.4850E-02	2.8087E-05
5.70E-10	-3.6753E-04	4.4040E-02	2.8087E-05
5.80E-10	-3.6753E-04	3.2587E-02	2.8087E-05
5.90E-10	-3.6753E-04	2.2313E-02	2.8087E-05
6.00E-10	-3.6753E-04	1.4942E-02	2.8087E-05
6.10E-10	-3.6753E-04	1.1102E-02	2.8087E-05

6.20E-10	-3.6753E-04	7.2760E-03	2.8087E-05
6.30E-10	-3.6753E-04	5.9771E-03	2.8087E-05
6.40E-10	-3.6753E-04	4.6411E-03	2.8087E-05
6.50E-10	-3.6753E-04	3.7753E-03	2.8087E-05
6.60E-10	-3.6753E-04	3.2215E-03	2.8087E-05
6.70E-10	-3.6753E-04	2.7093E-03	2.8087E-05
6.80E-10	-3.6753E-04	2.3817E-03	2.8087E-05
6.90E-10	-3.6753E-04	2.0535E-03	2.8087E-05
7.00E-10	-3.6753E-04	1.7965E-03	2.8087E-05
7.10E-10	-3.6753E-04	1.5615E-03	2.8087E-05
7.20E-10	-3.6753E-04	1.3266E-03	2.8087E-05
7.30E-10	-3.6753E-04	7.2516E-04	2.8087E-05
7.40E-10	-3.6753E-04	7.2516E-04	2.8087E-05
7.50E-10	-3.6753E-04	7.2516E-04	2.8087E-05

\*\*\*\*\*  
MODEL DQS\_40\_1600 (34 Ohm Data Strobe I/O with no ODT, 1333/1600 Mbps)  
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[Model] DQS\_40\_1600

Model\_type I/O

Vinl = 600.000mV

Vinh = 900.000mV

Vmeas = 750.000mV

Vref = 750.000mV

Cref = 0.0pF

Rref = 25.000Ohm

	typ	min	max
C_comp	1.200pF	1.125pF	1.275pF

[Model Spec]

| Input threshold voltage corners

Vinl	0.6000V	0.5625V	0.6375V
------	---------	---------	---------

Vinh	0.9000V	0.8625V	0.9375V
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| Measurement voltage corners

Vmeas	0.7500V	0.7125V	0.7875V
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| Timing spec test load voltage corners

Vref	0.7500V	0.7125V	0.7875V
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| Dynamic Overshoot Parameters from DDR3 Specification

D_overshoot_ampl_h	0.40	NA	NA
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D_overshoot_ampl_l	0.40	NA	NA
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D_overshoot_area_h	0.13n	NA	NA
--------------------	-------	----	----

D_overshoot_area_l	0.13n	NA	NA
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[[Receiver Thresholds]

|Vth = 0.750V

|Vth\_min = 0.7350V

|Vth\_max = 0.7650V

|Vinh\_ac = 0.150V  
 |Vinh\_dc = 0.100V  
 |Vinl\_ac = -0.150V  
 |Vinl\_dc = -0.100V  
 |Tslew\_ac = 5.000ns |Not specified, so set to high value  
 |Threshold\_sensitivity = 0.50  
 |Reference\_supply Pullup\_ref

|NOTE: If using the IBISCHK 4.2.1 or older parser, Differential receiver  
 |threshold parameters must be commented out because the parser generates  
 |errors for multiple differential models.

|Vcross\_low = 0.600V  
 |Vcross\_high = 0.900V  
 |Vdiff\_ac = 300mV  
 |Vdiff\_dc = 200mV  
 |Tdiffslew\_ac = 10.000ns |Not specified, so set to high value

[Voltage Range]	1.500V	1.425V	1.575V
[Pullup Reference]	1.500V	1.425V	1.575V
[Temperature Range]	85.0	110.0	0.0

\*\*\*\*\*

[Pulldown]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	-5.766580E-03	-5.671960E-03	-4.4564E-03
-1.4750000e+00	-5.965480E-03	-5.898760E-03	-4.6456E-03
-1.4250000e+00	-6.365740E-03	-6.361750E-03	-5.0283E-03
-1.3750000e+00	-6.767370E-03	-6.833580E-03	-5.4143E-03
-1.3250000e+00	-7.168490E-03	-7.310620E-03	-5.8012E-03
-1.2750000e+00	-7.567540E-03	-7.790060E-03	-6.1870E-03
-1.2250000e+00	-7.963180E-03	-8.269780E-03	-6.5705E-03
-1.1750000e+00	-8.354170E-03	-8.748110E-03	-6.9506E-03
-1.1250000e+00	-8.739220E-03	-9.223740E-03	-7.3262E-03
-1.0750000e+00	-9.116960E-03	-9.695520E-03	-7.6961E-03
-1.0250000e+00	-9.485740E-03	-1.016235E-02	-8.0593E-03
-9.7500000e-01	-9.843550E-03	-1.062303E-02	-8.4141E-03
-9.2500000e-01	-1.018784E-02	-1.107598E-02	-8.7587E-03
-8.7500000e-01	-1.051515E-02	-1.151861E-02	-9.0906E-03
-8.2500000e-01	-1.082065E-02	-1.194611E-02	-9.4063E-03
-7.7500000e-01	-1.109723E-02	-1.234917E-02	-9.7010E-03
-7.2500000e-01	-1.133396E-02	-1.271052E-02	-9.9678E-03
-6.7500000e-01	-1.151368E-02	-1.300112E-02	-1.0196E-02
-6.2500000e-01	-1.161030E-02	-1.317732E-02	-1.0369E-02
-5.7500000e-01	-1.158847E-02	-1.318034E-02	-1.0460E-02
-5.2500000e-01	-1.140914E-02	-1.294110E-02	-1.0425E-02
-4.7500000e-01	-1.103661E-02	-1.239310E-02	-1.0195E-02
-4.2500000e-01	-1.042948E-02	-1.149942E-02	-9.7052E-03
-3.7500000e-01	-9.541331E-03	-1.031290E-02	-8.9368E-03
-3.2500000e-01	-8.402181E-03	-8.972323E-03	-7.9244E-03
-2.7500000e-01	-7.136897E-03	-7.584300E-03	-6.7526E-03

-2.2500000e-01	-5.837164E-03	-6.189682E-03	-5.5298E-03
-1.7500000e-01	-4.533342E-03	-4.799550E-03	-4.2997E-03
-1.2500000e-01	-3.232329E-03	-3.416866E-03	-3.0698E-03
-7.5000000e-02	-1.935664E-03	-2.042825E-03	-1.8409E-03
-2.5000000e-02	-6.439068E-04	-6.783475E-04	-6.1331E-04
0.0000000e+00	-2.495000E-09	-2.851000E-10	-4.3290E-09
2.5000000e-02	6.423542E-04	6.754144E-04	6.1284E-04
7.5000000e-02	1.921741E-03	2.016470E-03	1.8368E-03
1.2500000e-01	3.193668E-03	3.343638E-03	3.0583E-03
1.7500000e-01	4.457673E-03	4.655798E-03	4.2773E-03
2.2500000e-01	5.713247E-03	5.951703E-03	5.4937E-03
2.7500000e-01	6.959828E-03	7.229949E-03	6.7074E-03
3.2500000e-01	8.196792E-03	8.488947E-03	7.9183E-03
3.7500000e-01	9.423449E-03	9.726883E-03	9.1262E-03
4.2500000e-01	1.063902E-02	1.094167E-02	1.0331E-02
4.7500000e-01	1.184265E-02	1.213090E-02	1.1533E-02
5.2500000e-01	1.303336E-02	1.329176E-02	1.2731E-02
5.7500000e-01	1.421007E-02	1.442101E-02	1.3926E-02
6.2500000e-01	1.537155E-02	1.551502E-02	1.5117E-02
6.7500000e-01	1.651649E-02	1.657019E-02	1.6305E-02
7.2500000e-01	1.764350E-02	1.758380E-02	1.7488E-02
7.7500000e-01	1.875138E-02	1.855487E-02	1.8667E-02
8.2500000e-01	1.983945E-02	1.948346E-02	1.9842E-02
8.7500000e-01	2.090800E-02	2.036881E-02	2.1012E-02
9.2500000e-01	2.195802E-02	2.120815E-02	2.2178E-02
9.7500000e-01	2.299059E-02	2.199660E-02	2.3338E-02
1.0250000e+00	2.400623E-02	2.272804E-02	2.4493E-02
1.0750000e+00	2.500472E-02	2.339642E-02	2.5642E-02
1.1250000e+00	2.598518E-02	2.399791E-02	2.6785E-02
1.1750000e+00	2.694619E-02	2.453290E-02	2.7921E-02
1.2250000e+00	2.788582E-02	2.500673E-02	2.9050E-02
1.2750000e+00	2.880158E-02	2.542839E-02	3.0172E-02
1.3250000e+00	2.969048E-02	2.580810E-02	3.1286E-02
1.3750000e+00	3.054893E-02	2.615534E-02	3.2391E-02
1.4250000e+00	3.137276E-02	2.647793E-02	3.3486E-02
1.4750000e+00	3.215739E-02	2.678186E-02	3.4572E-02
1.5250000e+00	3.289823E-02	2.707162E-02	3.5646E-02
1.5750000e+00	3.359126E-02	2.735051E-02	3.6708E-02
1.6250000e+00	3.423408E-02	2.762095E-02	3.7757E-02
1.6750000e+00	3.482661E-02	2.788477E-02	3.8790E-02
1.7250000e+00	3.537149E-02	2.814329E-02	3.9807E-02
1.7750000e+00	3.587366E-02	2.839756E-02	4.0805E-02
1.8250000e+00	3.633928E-02	2.864834E-02	4.1781E-02
1.8750000e+00	3.677472E-02	2.889628E-02	4.2734E-02
1.9250000e+00	3.718582E-02	2.914184E-02	4.3660E-02
1.9750000e+00	3.757750E-02	2.938542E-02	4.4556E-02
2.0250000e+00	3.795380E-02	2.962733E-02	4.5417E-02
2.0750000e+00	3.831783E-02	2.986783E-02	4.6241E-02
2.1250000e+00	3.867208E-02	3.010713E-02	4.7025E-02
2.1750000e+00	3.901845E-02	3.034542E-02	4.7767E-02
2.2250000e+00	3.935843E-02	3.058286E-02	4.8466E-02
2.2750000e+00	3.969319E-02	3.081960E-02	4.9124E-02
2.3250000e+00	4.002364E-02	3.105576E-02	4.9743E-02
2.3750000e+00	4.035053E-02	3.129147E-02	5.0329E-02

2.4250000e+00	4.067444E-02	3.152686E-02	5.0885E-02
2.4750000e+00	4.099589E-02	3.176208E-02	5.1415E-02
2.5250000e+00	4.131527E-02	3.199724E-02	5.1923E-02
2.5750000e+00	4.163292E-02	3.223252E-02	5.2415E-02
2.6250000e+00	4.194914E-02	3.246808E-02	5.2891E-02
2.6750000e+00	4.226420E-02	3.270415E-02	5.3355E-02
2.7250000e+00	4.257832E-02	3.294093E-02	5.3809E-02
2.7750000e+00	4.289173E-02	3.317872E-02	5.4255E-02
2.8250000e+00	4.320461E-02	3.341781E-02	5.4693E-02
2.8750000e+00	4.351716E-02	3.365859E-02	5.5126E-02
2.9250000e+00	4.382954E-02	3.390146E-02	5.5553E-02
2.9750000e+00	4.414196E-02	3.414689E-02	5.5976E-02
3.0000000e+00	4.429822E-02	3.427073E-02	5.6186E-02

[GND Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	-5.378351E-02	-5.490567E-02	-5.885698E-02
-1.4750000e+00	-5.231251E-02	-5.334431E-02	-5.735670E-02
-1.4500000e+00	-5.084369E-02	-5.178549E-02	-5.585777E-02
-1.4250000e+00	-4.937717E-02	-5.022938E-02	-5.436026E-02
-1.4000000e+00	-4.791309E-02	-4.867613E-02	-5.286424E-02
-1.3750000e+00	-4.645161E-02	-4.712594E-02	-5.136982E-02
-1.3500000e+00	-4.499289E-02	-4.557901E-02	-4.987709E-02
-1.3250000e+00	-4.353712E-02	-4.403556E-02	-4.838614E-02
-1.3000000e+00	-4.208452E-02	-4.249585E-02	-4.689710E-02
-1.2750000e+00	-4.063529E-02	-4.096014E-02	-4.541010E-02
-1.2500000e+00	-3.918970E-02	-3.942875E-02	-4.392527E-02
-1.2250000e+00	-3.774803E-02	-3.790201E-02	-4.244278E-02
-1.2000000e+00	-3.631059E-02	-3.638031E-02	-4.096280E-02
-1.1750000e+00	-3.487773E-02	-3.486408E-02	-3.948552E-02
-1.1500000e+00	-3.344986E-02	-3.335380E-02	-3.801116E-02
-1.1250000e+00	-3.202742E-02	-3.185003E-02	-3.653998E-02
-1.1000000e+00	-3.061092E-02	-3.035339E-02	-3.507226E-02
-1.0750000e+00	-2.920096E-02	-2.886462E-02	-3.360832E-02
-1.0500000e+00	-2.779821E-02	-2.738455E-02	-3.214854E-02
-1.0250000e+00	-2.640347E-02	-2.591415E-02	-3.069335E-02
-1.0000000e+00	-2.501766E-02	-2.445455E-02	-2.924328E-02
-9.7500000e-01	-2.364185E-02	-2.300708E-02	-2.779892E-02
-9.5000000e-01	-2.227732E-02	-2.157329E-02	-2.636102E-02
-9.2500000e-01	-2.092559E-02	-2.015501E-02	-2.493048E-02
-9.0000000e-01	-1.958843E-02	-1.875433E-02	-2.350840E-02
-8.7500000e-01	-1.826790E-02	-1.737363E-02	-2.209616E-02
-8.5000000e-01	-1.696631E-02	-1.601550E-02	-2.069550E-02
-8.2500000e-01	-1.568612E-02	-1.468262E-02	-1.930856E-02
-8.0000000e-01	-1.442972E-02	-1.337762E-02	-1.793782E-02
-7.7500000e-01	-1.319926E-02	-1.210311E-02	-1.658583E-02
-7.5000000e-01	-1.199673E-02	-1.086191E-02	-1.525450E-02
-7.2500000e-01	-1.082427E-02	-9.657411E-03	-1.394473E-02
-7.0000000e-01	-9.684638E-03	-8.493939E-03	-1.265685E-02
-6.7500000e-01	-8.581514E-03	-7.376930E-03	-1.139180E-02
-6.5000000e-01	-7.519607E-03	-6.312929E-03	-1.015194E-02
-6.2500000e-01	-6.504547E-03	-5.309438E-03	-8.941318E-03
-6.0000000e-01	-5.542688E-03	-4.374618E-03	-7.765735E-03
-5.7500000e-01	-4.640772E-03	-3.516890E-03	-6.632945E-03

-5.5000000e-01	-3.805524E-03	-2.744483E-03	-5.552946E-03
-5.2500000e-01	-3.043248E-03	-2.065103E-03	-4.538201E-03
-5.0000000e-01	-2.359647E-03	-1.485677E-03	-3.603412E-03
-4.7500000e-01	-1.760020E-03	-1.011779E-03	-2.764265E-03
-4.5000000e-01	-1.249702E-03	-6.458403E-04	-2.034716E-03
-4.2500000e-01	-8.339835E-04	-3.838582E-04	-1.423545E-03
-4.0000000e-01	-5.162389E-04	-2.125448E-04	-9.327605E-04
-3.7500000e-01	-2.937329E-04	-1.106466E-04	-5.596330E-04
-3.5000000e-01	-1.537279E-04	-5.497263E-05	-2.989533E-04
-3.2500000e-01	-7.493357E-05	-2.649171E-05	-1.392987E-04
-3.0000000e-01	-3.471511E-05	-1.256760E-05	-5.693658E-05
-2.7500000e-01	-1.563019E-05	-5.952723E-06	-2.113755E-05
-2.5000000e-01	-7.001335E-06	-2.863206E-06	-7.478945E-06
-2.2500000e-01	-3.215160E-06	-1.433628E-06	-2.669259E-06
-2.0000000e-01	-1.576700E-06	-7.729597E-07	-1.039352E-06
-1.7500000e-01	-8.691669E-07	-4.659048E-07	-4.927445E-07
-1.5000000e-01	-5.602970E-07	-3.210513E-07	-3.061011E-07
-1.2500000e-01	-4.211770E-07	-2.506183E-07	-2.379539E-07
-1.0000000e-01	-3.542844E-07	-2.144259E-07	-2.089405E-07
-7.5000000e-02	-3.182781E-07	-1.940781E-07	-1.931392E-07
-5.0000000e-02	-2.956734E-07	-1.811414E-07	-1.820767E-07
-2.5000000e-02	-2.790923E-07	-1.717494E-07	-1.729565E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[Pullup]

-1.5000000e+00	1.389728E-02	1.504401E-02	1.3495E-02
-1.4750000e+00	1.392266E-02	1.515940E-02	1.3511E-02
-1.4250000e+00	1.394549E-02	1.534861E-02	1.3532E-02
-1.3750000e+00	1.393984E-02	1.547700E-02	1.3542E-02
-1.3250000e+00	1.391859E-02	1.554357E-02	1.3545E-02
-1.2750000e+00	1.389341E-02	1.555550E-02	1.3540E-02
-1.2250000e+00	1.387050E-02	1.552788E-02	1.3526E-02
-1.1750000e+00	1.384963E-02	1.548081E-02	1.3502E-02
-1.1250000e+00	1.382685E-02	1.543388E-02	1.3467E-02
-1.0750000e+00	1.379804E-02	1.539856E-02	1.3421E-02
-1.0250000e+00	1.376042E-02	1.537452E-02	1.3363E-02
-9.7500000e-01	1.371257E-02	1.535474E-02	1.3293E-02
-9.2500000e-01	1.365380E-02	1.533271E-02	1.3210E-02
-8.7500000e-01	1.358379E-02	1.530481E-02	1.3113E-02
-8.2500000e-01	1.350199E-02	1.526951E-02	1.3001E-02
-7.7500000e-01	1.340734E-02	1.522537E-02	1.2873E-02
-7.2500000e-01	1.329767E-02	1.516783E-02	1.2725E-02
-6.7500000e-01	1.316879E-02	1.508258E-02	1.2554E-02
-6.2500000e-01	1.301213E-02	1.493400E-02	1.2352E-02
-5.7500000e-01	1.280843E-02	1.465359E-02	1.2107E-02
-5.2500000e-01	1.251269E-02	1.414154E-02	1.1797E-02
-4.7500000e-01	1.203560E-02	1.330397E-02	1.1382E-02
-4.2500000e-01	1.126665E-02	1.214514E-02	1.0778E-02
-3.7500000e-01	1.018437E-02	1.079032E-02	9.8667E-03
-3.2500000e-01	8.905568E-03	9.358893E-03	8.6724E-03
-2.7500000e-01	7.550642E-03	7.907034E-03	7.3614E-03
-2.2500000e-01	6.175032E-03	6.454310E-03	6.0240E-03
-1.7500000e-01	4.796858E-03	5.006794E-03	4.6832E-03



-1.2500000e-01	3.421222E-03	3.566345E-03	3.3432E-03
-7.5000000e-02	2.049479E-03	2.133648E-03	2.0047E-03
-2.5000000e-02	6.820421E-04	7.091043E-04	6.6784E-04
0.0000000e+00	1.125100E-09	4.014300E-10	2.6237E-09
2.5000000e-02	-6.802155E-04	-7.060015E-04	-6.6696E-04
7.5000000e-02	-2.032965E-03	-2.105590E-03	-1.9968E-03
1.2500000e-01	-3.375119E-03	-3.487987E-03	-3.3211E-03
1.7500000e-01	-4.706231E-03	-4.852382E-03	-4.6395E-03
2.2500000e-01	-6.025837E-03	-6.197914E-03	-5.9518E-03
2.7500000e-01	-7.333440E-03	-7.523661E-03	-7.2578E-03
3.2500000e-01	-8.628517E-03	-8.828634E-03	-8.5572E-03
3.7500000e-01	-9.910511E-03	-1.011178E-02	-9.8498E-03
4.2500000e-01	-1.117883E-02	-1.137197E-02	-1.1135E-02
4.7500000e-01	-1.243286E-02	-1.260797E-02	-1.2413E-02
5.2500000e-01	-1.367192E-02	-1.381848E-02	-1.3683E-02
5.7500000e-01	-1.489533E-02	-1.500209E-02	-1.4945E-02
6.2500000e-01	-1.610232E-02	-1.615730E-02	-1.6198E-02
6.7500000e-01	-1.729210E-02	-1.728247E-02	-1.7442E-02
7.2500000e-01	-1.846383E-02	-1.837588E-02	-1.8677E-02
7.7500000e-01	-1.961663E-02	-1.943566E-02	-1.9902E-02
8.2500000e-01	-2.074956E-02	-2.045990E-02	-2.1116E-02
8.7500000e-01	-2.186165E-02	-2.144666E-02	-2.2320E-02
9.2500000e-01	-2.295193E-02	-2.239415E-02	-2.3513E-02
9.7500000e-01	-2.401949E-02	-2.330089E-02	-2.4694E-02
1.0250000e+00	-2.506353E-02	-2.416589E-02	-2.5862E-02
1.0750000e+00	-2.608351E-02	-2.498853E-02	-2.7019E-02
1.1250000e+00	-2.707921E-02	-2.576811E-02	-2.8162E-02
1.1750000e+00	-2.805064E-02	-2.650347E-02	-2.9293E-02
1.2250000e+00	-2.899777E-02	-2.719285E-02	-3.0411E-02
1.2750000e+00	-2.992027E-02	-2.783418E-02	-3.1515E-02
1.3250000e+00	-3.081737E-02	-2.842555E-02	-3.2607E-02
1.3750000e+00	-3.168792E-02	-2.896616E-02	-3.3684E-02
1.4250000e+00	-3.253039E-02	-2.945719E-02	-3.4746E-02
1.4750000e+00	-3.334289E-02	-2.990258E-02	-3.5792E-02
1.5250000e+00	-3.412325E-02	-3.030862E-02	-3.6822E-02
1.5750000e+00	-3.486904E-02	-3.068257E-02	-3.7833E-02
1.6250000e+00	-3.557765E-02	-3.103121E-02	-3.8826E-02
1.6750000e+00	-3.624648E-02	-3.136007E-02	-3.9797E-02
1.7250000e+00	-3.687328E-02	-3.167336E-02	-4.0746E-02
1.7750000e+00	-3.745664E-02	-3.197424E-02	-4.1671E-02
1.8250000e+00	-3.799669E-02	-3.226504E-02	-4.2569E-02
1.8750000e+00	-3.849556E-02	-3.254752E-02	-4.3438E-02
1.9250000e+00	-3.895731E-02	-3.282305E-02	-4.4275E-02
1.9750000e+00	-3.938722E-02	-3.309268E-02	-4.5078E-02
2.0250000e+00	-3.979072E-02	-3.335727E-02	-4.5843E-02
2.0750000e+00	-4.017273E-02	-3.361751E-02	-4.6567E-02
2.1250000e+00	-4.053726E-02	-3.387396E-02	-4.7248E-02
2.1750000e+00	-4.088753E-02	-3.412707E-02	-4.7884E-02
2.2250000e+00	-4.122603E-02	-3.437727E-02	-4.8477E-02
2.2750000e+00	-4.155471E-02	-3.462485E-02	-4.9029E-02
2.3250000e+00	-4.187511E-02	-3.487012E-02	-4.9543E-02
2.3750000e+00	-4.218845E-02	-3.511332E-02	-5.0025E-02
2.4250000e+00	-4.249571E-02	-3.535466E-02	-5.0480E-02
2.4750000e+00	-4.279769E-02	-3.559433E-02	-5.0912E-02

2.5250000e+00	-4.309507E-02	-3.583247E-02	-5.1326E-02
2.5750000e+00	-4.338839E-02	-3.606925E-02	-5.1724E-02
2.6250000e+00	-4.367813E-02	-3.630478E-02	-5.2110E-02
2.6750000e+00	-4.396467E-02	-3.653918E-02	-5.2484E-02
2.7250000e+00	-4.424835E-02	-3.677256E-02	-5.2850E-02
2.7750000e+00	-4.452948E-02	-3.700500E-02	-5.3207E-02
2.8250000e+00	-4.480830E-02	-3.723659E-02	-5.3558E-02
2.8750000e+00	-4.508503E-02	-3.746739E-02	-5.3903E-02
2.9250000e+00	-4.535988E-02	-3.769749E-02	-5.4242E-02
2.9750000e+00	-4.563300E-02	-3.792696E-02	-5.4577E-02
3.0000000e+00	-4.576897E-02	-3.804147E-02	-5.4743E-02

[POWER Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	4.450136E-02	4.385767E-02	4.780182E-02
-1.4750000e+00	4.325737E-02	4.248503E-02	4.651241E-02
-1.4500000e+00	4.202627E-02	4.113177E-02	4.522926E-02
-1.4250000e+00	4.080680E-02	3.979850E-02	4.395156E-02
-1.4000000e+00	3.959743E-02	3.848563E-02	4.267873E-02
-1.3750000e+00	3.839648E-02	3.719324E-02	4.141044E-02
-1.3500000e+00	3.720221E-02	3.592106E-02	4.014659E-02
-1.3250000e+00	3.601296E-02	3.466841E-02	3.888726E-02
-1.3000000e+00	3.482735E-02	3.343415E-02	3.763263E-02
-1.2750000e+00	3.364438E-02	3.221669E-02	3.638297E-02
-1.2500000e+00	3.246358E-02	3.101397E-02	3.513857E-02
-1.2250000e+00	3.128497E-02	2.982356E-02	3.389973E-02
-1.2000000e+00	3.010901E-02	2.864279E-02	3.266673E-02
-1.1750000e+00	2.893648E-02	2.746896E-02	3.143985E-02
-1.1500000e+00	2.776826E-02	2.629964E-02	3.021938E-02
-1.1250000e+00	2.660528E-02	2.513304E-02	2.900561E-02
-1.1000000e+00	2.544841E-02	2.396824E-02	2.779886E-02
-1.0750000e+00	2.429844E-02	2.280536E-02	2.659948E-02
-1.0500000e+00	2.315612E-02	2.164543E-02	2.540789E-02
-1.0250000e+00	2.202214E-02	2.049007E-02	2.422457E-02
-1.0000000e+00	2.089719E-02	1.934117E-02	2.305009E-02
-9.7500000e-01	1.978197E-02	1.820065E-02	2.188514E-02
-9.5000000e-01	1.867722E-02	1.707028E-02	2.073052E-02
-9.2500000e-01	1.758372E-02	1.595172E-02	1.958719E-02
-9.0000000e-01	1.650228E-02	1.484648E-02	1.845618E-02
-8.7500000e-01	1.543373E-02	1.375596E-02	1.733862E-02
-8.5000000e-01	1.437889E-02	1.268153E-02	1.623553E-02
-8.2500000e-01	1.333851E-02	1.162449E-02	1.514772E-02
-8.0000000e-01	1.231328E-02	1.058622E-02	1.407562E-02
-7.7500000e-01	1.130388E-02	9.568206E-03	1.301922E-02
-7.5000000e-01	1.031106E-02	8.572276E-03	1.197827E-02
-7.2500000e-01	9.335806E-03	7.600753E-03	1.095257E-02
-7.0000000e-01	8.379549E-03	6.656721E-03	9.942222E-03
-6.7500000e-01	7.444326E-03	5.744302E-03	8.947921E-03
-6.5000000e-01	6.532997E-03	4.868952E-03	7.971051E-03
-6.2500000e-01	5.649458E-03	4.037787E-03	7.013870E-03
-6.0000000e-01	4.798902E-03	3.259897E-03	6.079707E-03
-5.7500000e-01	3.988134E-03	2.546530E-03	5.173245E-03
-5.5000000e-01	3.225930E-03	1.910856E-03	4.300910E-03
-5.2500000e-01	2.523332E-03	1.366712E-03	3.471447E-03

-5.0000000e-01	1.893615E-03	9.256050E-04	2.696680E-03
-4.7500000e-01	1.351332E-03	5.919303E-04	1.992354E-03
-4.5000000e-01	9.095438E-04	3.586832E-04	1.378419E-03
-4.2500000e-01	5.747929E-04	2.078355E-04	8.770400E-04
-4.0000000e-01	3.418453E-04	1.164218E-04	5.053108E-04
-3.7500000e-01	1.930954E-04	6.360210E-05	2.627390E-04
-3.5000000e-01	1.048276E-04	3.408364E-05	1.249615E-04
-3.2500000e-01	5.523970E-05	1.799151E-05	5.555911E-05
-3.0000000e-01	2.845373E-05	9.394192E-06	2.354502E-05
-2.7500000e-01	1.440808E-05	4.878770E-06	9.668085E-06
-2.5000000e-01	7.217646E-06	2.540607E-06	3.917725E-06
-2.2500000e-01	3.608426E-06	1.343333E-06	1.610387E-06
-2.0000000e-01	1.824961E-06	7.351342E-07	7.040805E-07
-1.7500000e-01	9.538097E-07	4.274933E-07	3.518120E-07
-1.5000000e-01	5.312391E-07	2.717598E-07	2.143493E-07
-1.2500000e-01	3.264285E-07	1.922225E-07	1.590780E-07
-1.0000000e-01	2.262355E-07	1.506538E-07	1.350141E-07
-7.5000000e-02	1.758303E-07	1.278715E-07	1.227817E-07
-5.0000000e-02	1.489090E-07	1.143246E-07	1.150734E-07
-2.5000000e-02	1.332080E-07	1.054156E-07	1.091537E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[Ramp]

R\_load = 50.00Ohm

	typ	min	max
dV/dt_r	532.022mV/119.423ps	491.319mV/165.185ps	567.619mV/91.565ps
dV/dt_f	537.976mV/129.806ps	497.460mV/173.213ps	578.029mV/105.657ps

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[Rising Waveform]

V\_fixture = 1.500V

V\_fixture\_min = 1.425V

V\_fixture\_max = 1.575V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	6.8316E-01	6.4198E-01	7.1381E-01
1.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
2.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
3.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
4.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
5.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
6.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
7.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
8.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
9.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
1.00E-10	6.8316E-01	6.4198E-01	7.1381E-01
1.10E-10	6.8316E-01	6.4198E-01	7.1381E-01
1.20E-10	6.8316E-01	6.4198E-01	7.1381E-01
1.30E-10	6.8316E-01	6.4198E-01	7.1381E-01

1.40E-10	6.8316E-01	6.4198E-01	7.2174E-01
1.50E-10	6.8316E-01	6.4198E-01	7.5887E-01
1.60E-10	6.8316E-01	6.4198E-01	8.2016E-01
1.70E-10	6.8316E-01	6.4198E-01	9.1349E-01
1.80E-10	6.8316E-01	6.4198E-01	1.0158E+00
1.90E-10	6.8316E-01	6.4198E-01	1.1058E+00
2.00E-10	6.8631E-01	6.4198E-01	1.1722E+00
2.10E-10	6.9781E-01	6.4198E-01	1.2169E+00
2.20E-10	7.2546E-01	6.4298E-01	1.2448E+00
2.30E-10	7.5875E-01	6.4398E-01	1.2647E+00
2.40E-10	8.1582E-01	6.4498E-01	1.2837E+00
2.50E-10	8.7535E-01	6.4698E-01	1.3078E+00
2.60E-10	9.4749E-01	6.5598E-01	1.3414E+00
2.70E-10	1.0174E+00	6.6598E-01	1.3863E+00
2.80E-10	1.0731E+00	6.7898E-01	1.4363E+00
2.90E-10	1.1226E+00	6.9347E-01	1.4802E+00
3.00E-10	1.1579E+00	7.1337E-01	1.5132E+00
3.10E-10	1.1837E+00	7.4966E-01	1.5358E+00
3.20E-10	1.2048E+00	7.9147E-01	1.5503E+00
3.30E-10	1.2195E+00	8.3328E-01	1.5592E+00
3.40E-10	1.2343E+00	8.7936E-01	1.5645E+00
3.50E-10	1.2494E+00	9.3100E-01	1.5675E+00
3.60E-10	1.2675E+00	9.8264E-01	1.5691E+00
3.70E-10	1.2874E+00	1.0268E+00	1.5702E+00
3.80E-10	1.3136E+00	1.0618E+00	1.5750E+00
3.90E-10	1.3416E+00	1.0967E+00	1.5750E+00
4.00E-10	1.3720E+00	1.1198E+00	1.5750E+00
4.10E-10	1.4006E+00	1.1392E+00	1.5750E+00
4.20E-10	1.4277E+00	1.1550E+00	1.5750E+00
4.30E-10	1.4490E+00	1.1666E+00	1.5750E+00
4.40E-10	1.4656E+00	1.1779E+00	1.5750E+00
4.50E-10	1.4779E+00	1.1874E+00	1.5750E+00
4.60E-10	1.4845E+00	1.1970E+00	1.5750E+00
4.70E-10	1.4896E+00	1.2077E+00	1.5750E+00
4.80E-10	1.4922E+00	1.2186E+00	1.5750E+00
4.90E-10	1.4951E+00	1.2308E+00	1.5750E+00
5.00E-10	1.4974E+00	1.2441E+00	1.5750E+00
5.10E-10	1.4984E+00	1.2582E+00	1.5750E+00
5.20E-10	1.4991E+00	1.2741E+00	1.5750E+00
5.30E-10	1.5000E+00	1.2901E+00	1.5750E+00
5.40E-10	1.5000E+00	1.3071E+00	1.5750E+00
5.50E-10	1.5000E+00	1.3240E+00	1.5750E+00
5.60E-10	1.5000E+00	1.3409E+00	1.5750E+00
5.70E-10	1.5000E+00	1.3579E+00	1.5750E+00
5.80E-10	1.5000E+00	1.3720E+00	1.5750E+00
5.90E-10	1.5000E+00	1.3824E+00	1.5750E+00
6.00E-10	1.5000E+00	1.3929E+00	1.5750E+00
6.10E-10	1.5000E+00	1.4033E+00	1.5750E+00
6.20E-10	1.5000E+00	1.4094E+00	1.5750E+00
6.30E-10	1.5000E+00	1.4154E+00	1.5750E+00
6.40E-10	1.5000E+00	1.4204E+00	1.5750E+00
6.50E-10	1.5000E+00	1.4244E+00	1.5750E+00
6.60E-10	1.5000E+00	1.4244E+00	1.5750E+00
6.70E-10	1.5000E+00	1.4244E+00	1.5750E+00

6.80E-10	1.5000E+00	1.4244E+00	1.5750E+00
6.90E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.00E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.10E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.20E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.30E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.40E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.50E-10	1.5000E+00	1.4244E+00	1.5750E+00

[Falling Waveform]

V\_fixture = 1.500V

V\_fixture\_min = 1.425V

V\_fixture\_max = 1.575V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	1.5000E+00	1.4244E+00	1.5750E+00
1.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
2.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
3.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
4.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
5.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
6.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
7.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
8.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
9.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
1.00E-10	1.5000E+00	1.4244E+00	1.5750E+00
1.10E-10	1.5000E+00	1.4244E+00	1.5750E+00
1.20E-10	1.5000E+00	1.4244E+00	1.5750E+00
1.30E-10	1.5000E+00	1.4244E+00	1.5678E+00
1.40E-10	1.5000E+00	1.4244E+00	1.5356E+00
1.50E-10	1.5000E+00	1.4244E+00	1.4918E+00
1.60E-10	1.5000E+00	1.4244E+00	1.4391E+00
1.70E-10	1.5000E+00	1.4244E+00	1.3811E+00
1.80E-10	1.5000E+00	1.4244E+00	1.3164E+00
1.90E-10	1.5000E+00	1.4244E+00	1.2491E+00
2.00E-10	1.4916E+00	1.4244E+00	1.1872E+00
2.10E-10	1.4779E+00	1.4244E+00	1.1373E+00
2.20E-10	1.4526E+00	1.4244E+00	1.1004E+00
2.30E-10	1.4258E+00	1.4244E+00	1.0723E+00
2.40E-10	1.3882E+00	1.4244E+00	1.0470E+00
2.50E-10	1.3499E+00	1.4244E+00	1.0149E+00
2.60E-10	1.3051E+00	1.4244E+00	9.8066E-01
2.70E-10	1.2605E+00	1.4244E+00	9.3547E-01
2.80E-10	1.2170E+00	1.4244E+00	8.8759E-01
2.90E-10	1.1745E+00	1.4194E+00	8.4268E-01
3.00E-10	1.1378E+00	1.4094E+00	8.0700E-01
3.10E-10	1.1029E+00	1.3963E+00	7.7745E-01
3.20E-10	1.0753E+00	1.3791E+00	7.5868E-01
3.30E-10	1.0489E+00	1.3558E+00	7.4505E-01
3.40E-10	1.0261E+00	1.3325E+00	7.3501E-01
3.50E-10	1.0023E+00	1.3056E+00	7.2933E-01
3.60E-10	9.7620E-01	1.2772E+00	7.2516E-01

3.70E-10	9.4367E-01	1.2488E+00	7.2226E-01
3.80E-10	9.0696E-01	1.2213E+00	7.2113E-01
3.90E-10	8.7376E-01	1.1938E+00	7.1999E-01
4.00E-10	8.3990E-01	1.1670E+00	7.1886E-01
4.10E-10	8.0957E-01	1.1432E+00	7.1825E-01
4.20E-10	7.8300E-01	1.1193E+00	7.1767E-01
4.30E-10	7.6093E-01	1.0968E+00	7.1709E-01
4.40E-10	7.4264E-01	1.0762E+00	7.1654E-01
4.50E-10	7.2827E-01	1.0555E+00	7.1600E-01
4.60E-10	7.1647E-01	1.0350E+00	7.1545E-01
4.70E-10	7.0685E-01	1.0145E+00	7.1510E-01
4.80E-10	6.9834E-01	9.9409E-01	7.1479E-01
4.90E-10	6.9107E-01	9.6900E-01	7.1449E-01
5.00E-10	6.8566E-01	9.4342E-01	7.1433E-01
5.10E-10	6.8316E-01	9.1269E-01	7.1421E-01
5.20E-10	6.8316E-01	8.8416E-01	7.1410E-01
5.30E-10	6.8316E-01	8.5763E-01	7.1399E-01
5.40E-10	6.8316E-01	8.3261E-01	7.1388E-01
5.50E-10	6.8316E-01	8.0994E-01	7.1380E-01
5.60E-10	6.8316E-01	7.8727E-01	7.1380E-01
5.70E-10	6.8316E-01	7.6866E-01	7.1380E-01
5.80E-10	6.8316E-01	7.5240E-01	7.1380E-01
5.90E-10	6.8316E-01	7.3613E-01	7.1380E-01
6.00E-10	6.8316E-01	7.2289E-01	7.1380E-01
6.10E-10	6.8316E-01	7.1008E-01	7.1380E-01
6.20E-10	6.8316E-01	6.9855E-01	7.1380E-01
6.30E-10	6.8316E-01	6.9098E-01	7.1380E-01
6.40E-10	6.8316E-01	6.8198E-01	7.1380E-01
6.50E-10	6.8316E-01	6.7398E-01	7.1380E-01
6.60E-10	6.8316E-01	6.6298E-01	7.1380E-01
6.70E-10	6.8316E-01	6.5598E-01	7.1380E-01
6.80E-10	6.8316E-01	6.5098E-01	7.1380E-01
6.90E-10	6.8316E-01	6.4798E-01	7.1380E-01
7.00E-10	6.8316E-01	6.4598E-01	7.1380E-01
7.10E-10	6.8316E-01	6.4398E-01	7.1380E-01
7.20E-10	6.8316E-01	6.4298E-01	7.1380E-01
7.30E-10	6.8316E-01	6.4198E-01	7.1380E-01
7.40E-10	6.8316E-01	6.4198E-01	7.1380E-01
7.50E-10	6.8316E-01	6.4198E-01	7.1380E-01

[Rising Waveform]

V\_fixture = 0.000V

V\_fixture\_min = 0.000V

V\_fixture\_max = 0.000V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	2.1656E-05	4.5001E-04	1.9840E-06
1.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
2.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
3.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
4.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
5.00E-11	2.1656E-05	4.5001E-04	1.9840E-06

6.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
7.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
8.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
9.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
1.00E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.10E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.20E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.30E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.40E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.50E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.60E-10	2.1656E-05	4.5001E-04	4.8671E-02
1.70E-10	2.1656E-05	4.5001E-04	1.0238E-01
1.80E-10	2.1656E-05	4.5001E-04	1.6978E-01
1.90E-10	2.1656E-05	4.5001E-04	2.4540E-01
2.00E-10	2.1656E-05	4.5001E-04	3.2196E-01
2.10E-10	2.1656E-05	4.5001E-04	3.9122E-01
2.20E-10	6.9115E-03	4.5001E-04	4.4667E-01
2.30E-10	2.1916E-02	4.5001E-04	4.8493E-01
2.40E-10	4.9605E-02	4.5001E-04	5.1216E-01
2.50E-10	8.2158E-02	4.5001E-04	5.3458E-01
2.60E-10	1.2545E-01	4.5001E-04	5.6186E-01
2.70E-10	1.7346E-01	4.5001E-04	6.0105E-01
2.80E-10	2.2437E-01	4.5001E-04	6.5263E-01
2.90E-10	2.7673E-01	4.5001E-04	7.0953E-01
3.00E-10	3.2396E-01	7.4200E-04	7.5988E-01
3.10E-10	3.6830E-01	6.9399E-03	7.9680E-01
3.20E-10	4.0406E-01	2.2538E-02	8.2326E-01
3.30E-10	4.3438E-01	3.8136E-02	8.4173E-01
3.40E-10	4.5821E-01	6.0559E-02	8.5396E-01
3.50E-10	4.7742E-01	9.0788E-02	8.6342E-01
3.60E-10	4.9488E-01	1.2102E-01	8.7131E-01
3.70E-10	5.1097E-01	1.5625E-01	8.7541E-01
3.80E-10	5.3186E-01	1.9335E-01	8.7950E-01
3.90E-10	5.5704E-01	2.3045E-01	8.8129E-01
4.00E-10	5.8693E-01	2.6299E-01	8.8750E-01
4.10E-10	6.3150E-01	2.9548E-01	8.8750E-01
4.20E-10	6.6900E-01	3.2621E-01	8.8750E-01
4.30E-10	7.0343E-01	3.5161E-01	8.8750E-01
4.40E-10	7.3251E-01	3.7701E-01	8.8750E-01
4.50E-10	7.5834E-01	3.9887E-01	8.8750E-01
4.60E-10	7.7553E-01	4.1920E-01	8.8750E-01
4.70E-10	7.9054E-01	4.3893E-01	8.8750E-01
4.80E-10	7.9989E-01	4.5025E-01	8.8750E-01
4.90E-10	8.0628E-01	4.6257E-01	8.8750E-01
5.00E-10	8.1206E-01	4.7874E-01	8.8750E-01
5.10E-10	8.1613E-01	4.8572E-01	8.8750E-01
5.20E-10	8.2020E-01	4.9920E-01	8.8750E-01
5.30E-10	8.2427E-01	5.1505E-01	8.8750E-01
5.40E-10	8.2778E-01	5.3090E-01	8.8750E-01
5.50E-10	8.3015E-01	5.5341E-01	8.8750E-01
5.60E-10	8.3015E-01	5.7647E-01	8.8750E-01
5.70E-10	8.3015E-01	5.9813E-01	8.8750E-01
5.80E-10	8.3015E-01	6.2467E-01	8.8750E-01
5.90E-10	8.3015E-01	6.5120E-01	8.8750E-01

6.00E-10	8.3015E-01	6.7309E-01	8.8750E-01
6.10E-10	8.3015E-01	6.9494E-01	8.8750E-01
6.20E-10	8.3015E-01	7.1298E-01	8.8750E-01
6.30E-10	8.3015E-01	7.2761E-01	8.8750E-01
6.40E-10	8.3015E-01	7.4187E-01	8.8750E-01
6.50E-10	8.3015E-01	7.5387E-01	8.8750E-01
6.60E-10	8.3015E-01	7.6287E-01	8.8750E-01
6.70E-10	8.3015E-01	7.7087E-01	8.8750E-01
6.80E-10	8.3015E-01	7.7787E-01	8.8750E-01
6.90E-10	8.3015E-01	7.8587E-01	8.8750E-01
7.00E-10	8.3015E-01	7.8987E-01	8.8750E-01
7.10E-10	8.3015E-01	7.9287E-01	8.8750E-01
7.20E-10	8.3015E-01	7.9387E-01	8.8750E-01
7.30E-10	8.3015E-01	7.9487E-01	8.8750E-01
7.40E-10	8.3015E-01	7.9587E-01	8.8750E-01
7.50E-10	8.3015E-01	7.9587E-01	8.8750E-01

[Falling Waveform]

V\_fixture = 0.000V

V\_fixture\_min = 0.000V

V\_fixture\_max = 0.000V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	8.3015E-01	7.9587E-01	8.8750E-01
1.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
2.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
3.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
4.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
5.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
6.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
7.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
8.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
9.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
1.00E-10	8.3015E-01	7.9587E-01	8.8750E-01
1.10E-10	8.3015E-01	7.9587E-01	8.8750E-01
1.20E-10	8.3015E-01	7.9587E-01	8.8443E-01
1.30E-10	8.3015E-01	7.9587E-01	8.7452E-01
1.40E-10	8.3015E-01	7.9587E-01	8.4189E-01
1.50E-10	8.3015E-01	7.9587E-01	7.8920E-01
1.60E-10	8.3015E-01	7.9587E-01	7.1329E-01
1.70E-10	8.2717E-01	7.9587E-01	6.2580E-01
1.80E-10	8.2022E-01	7.9487E-01	5.4691E-01
1.90E-10	8.0849E-01	7.9287E-01	4.8081E-01
2.00E-10	7.8766E-01	7.8987E-01	4.2673E-01
2.10E-10	7.5342E-01	7.8587E-01	3.8302E-01
2.20E-10	7.0770E-01	7.8087E-01	3.4957E-01
2.30E-10	6.4643E-01	7.7487E-01	3.1949E-01
2.40E-10	5.7951E-01	7.6687E-01	2.8668E-01
2.50E-10	5.1395E-01	7.5687E-01	2.5182E-01
2.60E-10	4.5050E-01	7.4187E-01	2.1162E-01
2.70E-10	4.0155E-01	7.2460E-01	1.7228E-01
2.80E-10	3.6096E-01	7.0145E-01	1.3355E-01



2.90E-10	3.2886E-01	6.6392E-01	1.0138E-01
3.00E-10	3.0074E-01	6.2500E-01	7.3166E-02
3.10E-10	2.7872E-01	5.8181E-01	5.0761E-02
3.20E-10	2.6007E-01	5.3521E-01	3.5793E-02
3.30E-10	2.4432E-01	4.8940E-01	2.3892E-02
3.40E-10	2.2391E-01	4.4680E-01	1.6931E-02
3.50E-10	1.9806E-01	4.0419E-01	1.2192E-02
3.60E-10	1.7058E-01	3.7123E-01	8.9365E-03
3.70E-10	1.4036E-01	3.4007E-01	7.2358E-03
3.80E-10	1.1118E-01	3.1448E-01	5.9670E-03
3.90E-10	8.3244E-02	2.9477E-01	5.3516E-03
4.00E-10	6.1742E-02	2.7568E-01	4.7363E-03
4.10E-10	4.4018E-02	2.6075E-01	4.1060E-03
4.20E-10	3.0136E-02	2.4582E-01	3.4124E-03
4.30E-10	2.2486E-02	2.3054E-01	2.7189E-03
4.40E-10	1.5763E-02	2.1515E-01	2.0253E-03
4.50E-10	9.0387E-03	1.9777E-01	1.6262E-03
4.60E-10	5.3194E-03	1.7999E-01	1.2305E-03
4.70E-10	3.4381E-03	1.6207E-01	8.3483E-04
4.80E-10	1.5568E-03	1.4205E-01	6.3758E-04
4.90E-10	6.2322E-04	1.2203E-01	4.9475E-04
5.00E-10	1.0502E-04	1.0187E-01	3.5192E-04
5.10E-10	2.1656E-05	8.1652E-02	2.0909E-04
5.20E-10	2.1656E-05	6.3154E-02	6.6265E-05
5.30E-10	2.1656E-05	4.7873E-02	1.9840E-06
5.40E-10	2.1656E-05	3.2593E-02	1.9840E-06
5.50E-10	2.1656E-05	2.4507E-02	1.9840E-06
5.60E-10	2.1656E-05	1.6483E-02	1.9840E-06
5.70E-10	2.1656E-05	1.1660E-02	1.9840E-06
5.80E-10	2.1656E-05	8.6750E-03	1.9840E-06
5.90E-10	2.1656E-05	6.2443E-03	1.9840E-06
6.00E-10	2.1656E-05	5.2473E-03	1.9840E-06
6.10E-10	2.1656E-05	4.2503E-03	1.9840E-06
6.20E-10	2.1656E-05	3.6374E-03	1.9840E-06
6.30E-10	2.1656E-05	3.0570E-03	1.9840E-06
6.40E-10	2.1656E-05	2.5197E-03	1.9840E-06
6.50E-10	2.1656E-05	2.0157E-03	1.9840E-06
6.60E-10	2.1656E-05	1.5499E-03	1.9840E-06
6.70E-10	2.1656E-05	1.0325E-03	1.9840E-06
6.80E-10	2.1656E-05	8.8691E-04	1.9840E-06
6.90E-10	2.1656E-05	7.4127E-04	1.9840E-06
7.00E-10	2.1656E-05	5.9564E-04	1.9840E-06
7.10E-10	2.1656E-05	4.5001E-04	1.9840E-06
7.20E-10	2.1656E-05	4.5001E-04	1.9840E-06
7.30E-10	2.1656E-05	4.5001E-04	1.9840E-06
7.40E-10	2.1656E-05	4.5001E-04	1.9840E-06
7.50E-10	2.1656E-05	4.5001E-04	1.9840E-06

\*\*\*\*\*  
MODEL DQS\_40\_1600 (34 Ohm Data Strobe I/O with 20ohm ODT, 1333/1600 Mbps)  
\*\*\*\*\*

[Model] DQS\_40\_ODT20\_1600

Model\_type I/O

Vinl = 600.000mV

Vinh = 900.000mV

Vmeas = 750.000mV

Vref = 750.000mV

Cref = 0.0pF

Rref = 25.000Ohm

	typ	min	max
--	-----	-----	-----

C_comp	1.078pF	0.966pF	1.223pF
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| Note: C\_comp changes when the ODT circuit is enabled.

[Model Spec]

| Input threshold voltage corners

Vinl	0.6000V	0.5625V	0.6375V
------	---------	---------	---------

Vinh	0.9000V	0.8625V	0.9375V
------	---------	---------	---------

| Measurement voltage corners

Vmeas	0.7500V	0.7125V	0.7875V
-------	---------	---------	---------

| Timing spec test load voltage corners

Vref	0.7500V	0.7125V	0.7875V
------	---------	---------	---------

| Dynamic Overshoot Parameters from DDR3 Specification

D_overshoot_ampl_h	0.40	NA	NA
--------------------	------	----	----

D_overshoot_ampl_l	0.40	NA	NA
--------------------	------	----	----

D_overshoot_area_h	0.13n	NA	NA
--------------------	-------	----	----

D_overshoot_area_l	0.13n	NA	NA
--------------------	-------	----	----

[Receiver Thresholds]

|Vth = 0.750V

|Vth\_min = 0.7350V

|Vth\_max = 0.7650V

|Vinh\_ac = 0.150V

|Vinh\_dc = 0.100V

|Vinl\_ac = -0.150V

|Vinl\_dc = -0.100V

|Tslew\_ac = 5.000ns |Not specified, so set to high value

|Threshold\_sensitivity = 0.50

|Reference\_supply Pullup\_ref

|NOTE: If using the IBISCHK 4.2.1 or older parser, Differential receiver threshold parameters must be commented out because the parser generates errors for multiple differential models.

|Vcross\_low = 0.600V

|Vcross\_high = 0.900V

|Vdiff\_ac = 300mV

|Vdiff\_dc = 200mV

|Tdiffslew\_ac = 10.000ns |Not specified, so set to high value

[Add Submodel]

Submodel Name	Mode		
20Ohm_ODT	Non-Driving		
[Voltage Range]	1.500V	1.425V	1.575V
[Pullup Reference]	1.500V	1.425V	1.575V
[Temperature Range]	85.0	110.0	0.0

\*\*\*\*\*

[ Pulldown ]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	-5.766580E-03	-5.671960E-03	-4.4564E-03
-1.4750000e+00	-5.965480E-03	-5.898760E-03	-4.6456E-03
-1.4250000e+00	-6.365740E-03	-6.361750E-03	-5.0283E-03
-1.3750000e+00	-6.767370E-03	-6.833580E-03	-5.4143E-03
-1.3250000e+00	-7.168490E-03	-7.310620E-03	-5.8012E-03
-1.2750000e+00	-7.567540E-03	-7.790060E-03	-6.1870E-03
-1.2250000e+00	-7.963180E-03	-8.269780E-03	-6.5705E-03
-1.1750000e+00	-8.354170E-03	-8.748110E-03	-6.9506E-03
-1.1250000e+00	-8.739220E-03	-9.223740E-03	-7.3262E-03
-1.0750000e+00	-9.116960E-03	-9.695520E-03	-7.6961E-03
-1.0250000e+00	-9.485740E-03	-1.016235E-02	-8.0593E-03
-9.7500000e-01	-9.843550E-03	-1.062303E-02	-8.4141E-03
-9.2500000e-01	-1.018784E-02	-1.107598E-02	-8.7587E-03
-8.7500000e-01	-1.051515E-02	-1.151861E-02	-9.0906E-03
-8.2500000e-01	-1.082065E-02	-1.194611E-02	-9.4063E-03
-7.7500000e-01	-1.109723E-02	-1.234917E-02	-9.7010E-03
-7.2500000e-01	-1.133396E-02	-1.271052E-02	-9.9678E-03
-6.7500000e-01	-1.151368E-02	-1.300112E-02	-1.0196E-02
-6.2500000e-01	-1.161030E-02	-1.317732E-02	-1.0369E-02
-5.7500000e-01	-1.158847E-02	-1.318034E-02	-1.0460E-02
-5.2500000e-01	-1.140914E-02	-1.294110E-02	-1.0425E-02
-4.7500000e-01	-1.103661E-02	-1.239310E-02	-1.0195E-02
-4.2500000e-01	-1.042948E-02	-1.149942E-02	-9.7052E-03
-3.7500000e-01	-9.541331E-03	-1.031290E-02	-8.9368E-03
-3.2500000e-01	-8.402181E-03	-8.972323E-03	-7.9244E-03
-2.7500000e-01	-7.136897E-03	-7.584300E-03	-6.7526E-03
-2.2500000e-01	-5.837164E-03	-6.189682E-03	-5.5298E-03
-1.7500000e-01	-4.533342E-03	-4.799550E-03	-4.2997E-03
-1.2500000e-01	-3.232329E-03	-3.416866E-03	-3.0698E-03
-7.5000000e-02	-1.935664E-03	-2.042825E-03	-1.8409E-03
-2.5000000e-02	-6.439068E-04	-6.783475E-04	-6.1331E-04
0.0000000e+00	-2.495000E-09	-2.851000E-10	-4.3290E-09
2.5000000e-02	6.423542E-04	6.754144E-04	6.1284E-04
7.5000000e-02	1.921741E-03	2.016470E-03	1.8368E-03
1.2500000e-01	3.193668E-03	3.343638E-03	3.0583E-03
1.7500000e-01	4.457673E-03	4.655798E-03	4.2773E-03
2.2500000e-01	5.713247E-03	5.951703E-03	5.4937E-03
2.7500000e-01	6.959828E-03	7.229949E-03	6.7074E-03
3.2500000e-01	8.196792E-03	8.488947E-03	7.9183E-03
3.7500000e-01	9.423449E-03	9.726883E-03	9.1262E-03
4.2500000e-01	1.063902E-02	1.094167E-02	1.0331E-02
4.7500000e-01	1.184265E-02	1.213090E-02	1.1533E-02

5.2500000e-01	1.303336E-02	1.329176E-02	1.2731E-02
5.7500000e-01	1.421007E-02	1.442101E-02	1.3926E-02
6.2500000e-01	1.537155E-02	1.551502E-02	1.5117E-02
6.7500000e-01	1.651649E-02	1.657019E-02	1.6305E-02
7.2500000e-01	1.764350E-02	1.758380E-02	1.7488E-02
7.7500000e-01	1.875138E-02	1.855487E-02	1.8667E-02
8.2500000e-01	1.983945E-02	1.948346E-02	1.9842E-02
8.7500000e-01	2.090800E-02	2.036881E-02	2.1012E-02
9.2500000e-01	2.195802E-02	2.120815E-02	2.2178E-02
9.7500000e-01	2.299059E-02	2.199660E-02	2.3338E-02
1.0250000e+00	2.400623E-02	2.272804E-02	2.4493E-02
1.0750000e+00	2.500472E-02	2.339642E-02	2.5642E-02
1.1250000e+00	2.598518E-02	2.399791E-02	2.6785E-02
1.1750000e+00	2.694619E-02	2.453290E-02	2.7921E-02
1.2250000e+00	2.788582E-02	2.500673E-02	2.9050E-02
1.2750000e+00	2.880158E-02	2.542839E-02	3.0172E-02
1.3250000e+00	2.969048E-02	2.580810E-02	3.1286E-02
1.3750000e+00	3.054893E-02	2.615534E-02	3.2391E-02
1.4250000e+00	3.137276E-02	2.647793E-02	3.3486E-02
1.4750000e+00	3.215739E-02	2.678186E-02	3.4572E-02
1.5250000e+00	3.289823E-02	2.707162E-02	3.5646E-02
1.5750000e+00	3.359126E-02	2.735051E-02	3.6708E-02
1.6250000e+00	3.423408E-02	2.762095E-02	3.7757E-02
1.6750000e+00	3.482661E-02	2.788477E-02	3.8790E-02
1.7250000e+00	3.537149E-02	2.814329E-02	3.9807E-02
1.7750000e+00	3.587366E-02	2.839756E-02	4.0805E-02
1.8250000e+00	3.633928E-02	2.864834E-02	4.1781E-02
1.8750000e+00	3.677472E-02	2.889628E-02	4.2734E-02
1.9250000e+00	3.718582E-02	2.914184E-02	4.3660E-02
1.9750000e+00	3.757750E-02	2.938542E-02	4.4556E-02
2.0250000e+00	3.795380E-02	2.962733E-02	4.5417E-02
2.0750000e+00	3.831783E-02	2.986783E-02	4.6241E-02
2.1250000e+00	3.867208E-02	3.010713E-02	4.7025E-02
2.1750000e+00	3.901845E-02	3.034542E-02	4.7767E-02
2.2250000e+00	3.935843E-02	3.058286E-02	4.8466E-02
2.2750000e+00	3.969319E-02	3.081960E-02	4.9124E-02
2.3250000e+00	4.002364E-02	3.105576E-02	4.9743E-02
2.3750000e+00	4.035053E-02	3.129147E-02	5.0329E-02
2.4250000e+00	4.067444E-02	3.152686E-02	5.0885E-02
2.4750000e+00	4.099589E-02	3.176208E-02	5.1415E-02
2.5250000e+00	4.131527E-02	3.199724E-02	5.1923E-02
2.5750000e+00	4.163292E-02	3.223252E-02	5.2415E-02
2.6250000e+00	4.194914E-02	3.246808E-02	5.2891E-02
2.6750000e+00	4.226420E-02	3.270415E-02	5.3355E-02
2.7250000e+00	4.257832E-02	3.294093E-02	5.3809E-02
2.7750000e+00	4.289173E-02	3.317872E-02	5.4255E-02
2.8250000e+00	4.320461E-02	3.341781E-02	5.4693E-02
2.8750000e+00	4.351716E-02	3.365859E-02	5.5126E-02
2.9250000e+00	4.382954E-02	3.390146E-02	5.5553E-02
2.9750000e+00	4.414196E-02	3.414689E-02	5.5976E-02
3.0000000e+00	4.429822E-02	3.427073E-02	5.6186E-02

[GND Clamp]

Voltage	I(typ)	I(min)	I(max)
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-1.5000000e+00	-5.378351E-02	-5.490567E-02	-5.885698E-02
-1.4750000e+00	-5.231251E-02	-5.334431E-02	-5.735670E-02
-1.4500000e+00	-5.084369E-02	-5.178549E-02	-5.585777E-02
-1.4250000e+00	-4.937717E-02	-5.022938E-02	-5.436026E-02
-1.4000000e+00	-4.791309E-02	-4.867613E-02	-5.286424E-02
-1.3750000e+00	-4.645161E-02	-4.712594E-02	-5.136982E-02
-1.3500000e+00	-4.499289E-02	-4.557901E-02	-4.987709E-02
-1.3250000e+00	-4.353712E-02	-4.403556E-02	-4.838614E-02
-1.3000000e+00	-4.208452E-02	-4.249585E-02	-4.689710E-02
-1.2750000e+00	-4.063529E-02	-4.096014E-02	-4.541010E-02
-1.2500000e+00	-3.918970E-02	-3.942875E-02	-4.392527E-02
-1.2250000e+00	-3.774803E-02	-3.790201E-02	-4.244278E-02
-1.2000000e+00	-3.631059E-02	-3.638031E-02	-4.096280E-02
-1.1750000e+00	-3.487773E-02	-3.486408E-02	-3.948552E-02
-1.1500000e+00	-3.344986E-02	-3.335380E-02	-3.801116E-02
-1.1250000e+00	-3.202742E-02	-3.185003E-02	-3.653998E-02
-1.1000000e+00	-3.061092E-02	-3.035339E-02	-3.507226E-02
-1.0750000e+00	-2.920096E-02	-2.886462E-02	-3.360832E-02
-1.0500000e+00	-2.779821E-02	-2.738455E-02	-3.214854E-02
-1.0250000e+00	-2.640347E-02	-2.591415E-02	-3.069335E-02
-1.0000000e+00	-2.501766E-02	-2.445455E-02	-2.924328E-02
-9.7500000e-01	-2.364185E-02	-2.300708E-02	-2.779892E-02
-9.5000000e-01	-2.227732E-02	-2.157329E-02	-2.636102E-02
-9.2500000e-01	-2.092559E-02	-2.015501E-02	-2.493048E-02
-9.0000000e-01	-1.958843E-02	-1.875433E-02	-2.350840E-02
-8.7500000e-01	-1.826790E-02	-1.737363E-02	-2.209616E-02
-8.5000000e-01	-1.696631E-02	-1.601550E-02	-2.069550E-02
-8.2500000e-01	-1.568612E-02	-1.468262E-02	-1.930856E-02
-8.0000000e-01	-1.442972E-02	-1.337762E-02	-1.793782E-02
-7.7500000e-01	-1.319926E-02	-1.210311E-02	-1.658583E-02
-7.5000000e-01	-1.199673E-02	-1.086191E-02	-1.525450E-02
-7.2500000e-01	-1.082427E-02	-9.657411E-03	-1.394473E-02
-7.0000000e-01	-9.684638E-03	-8.493939E-03	-1.265685E-02
-6.7500000e-01	-8.581514E-03	-7.376930E-03	-1.139180E-02
-6.5000000e-01	-7.519607E-03	-6.312929E-03	-1.015194E-02
-6.2500000e-01	-6.504547E-03	-5.309438E-03	-8.941318E-03
-6.0000000e-01	-5.542688E-03	-4.374618E-03	-7.765735E-03
-5.7500000e-01	-4.640772E-03	-3.516890E-03	-6.632945E-03
-5.5000000e-01	-3.805524E-03	-2.744483E-03	-5.552946E-03
-5.2500000e-01	-3.043248E-03	-2.065103E-03	-4.538201E-03
-5.0000000e-01	-2.359647E-03	-1.485677E-03	-3.603412E-03
-4.7500000e-01	-1.760020E-03	-1.011779E-03	-2.764265E-03
-4.5000000e-01	-1.249702E-03	-6.458403E-04	-2.034716E-03
-4.2500000e-01	-8.339835E-04	-3.838582E-04	-1.423545E-03
-4.0000000e-01	-5.162389E-04	-2.125448E-04	-9.327605E-04
-3.7500000e-01	-2.937329E-04	-1.106466E-04	-5.596330E-04
-3.5000000e-01	-1.537279E-04	-5.497263E-05	-2.989533E-04
-3.2500000e-01	-7.493357E-05	-2.649171E-05	-1.392987E-04
-3.0000000e-01	-3.471511E-05	-1.256760E-05	-5.693658E-05
-2.7500000e-01	-1.563019E-05	-5.952723E-06	-2.113755E-05
-2.5000000e-01	-7.001335E-06	-2.863206E-06	-7.478945E-06
-2.2500000e-01	-3.215160E-06	-1.433628E-06	-2.669259E-06
-2.0000000e-01	-1.576700E-06	-7.729597E-07	-1.039352E-06
-1.7500000e-01	-8.691669E-07	-4.659048E-07	-4.927445E-07

-1.5000000e-01	-5.602970E-07	-3.210513E-07	-3.061011E-07
-1.2500000e-01	-4.211770E-07	-2.506183E-07	-2.379539E-07
-1.0000000e-01	-3.542844E-07	-2.144259E-07	-2.089405E-07
-7.5000000e-02	-3.182781E-07	-1.940781E-07	-1.931392E-07
-5.0000000e-02	-2.956734E-07	-1.811414E-07	-1.820767E-07
-2.5000000e-02	-2.790923E-07	-1.717494E-07	-1.729565E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[Pullup]

-1.5000000e+00	1.389728E-02	1.504401E-02	1.3495E-02
-1.4750000e+00	1.392266E-02	1.515940E-02	1.3511E-02
-1.4250000e+00	1.394549E-02	1.534861E-02	1.3532E-02
-1.3750000e+00	1.393984E-02	1.547700E-02	1.3542E-02
-1.3250000e+00	1.391859E-02	1.554357E-02	1.3545E-02
-1.2750000e+00	1.389341E-02	1.555550E-02	1.3540E-02
-1.2250000e+00	1.387050E-02	1.552788E-02	1.3526E-02
-1.1750000e+00	1.384963E-02	1.548081E-02	1.3502E-02
-1.1250000e+00	1.382685E-02	1.543388E-02	1.3467E-02
-1.0750000e+00	1.379804E-02	1.539856E-02	1.3421E-02
-1.0250000e+00	1.376042E-02	1.537452E-02	1.3363E-02
-9.7500000e-01	1.371257E-02	1.535474E-02	1.3293E-02
-9.2500000e-01	1.365380E-02	1.533271E-02	1.3210E-02
-8.7500000e-01	1.358379E-02	1.530481E-02	1.3113E-02
-8.2500000e-01	1.350199E-02	1.526951E-02	1.3001E-02
-7.7500000e-01	1.340734E-02	1.522537E-02	1.2873E-02
-7.2500000e-01	1.329767E-02	1.516783E-02	1.2725E-02
-6.7500000e-01	1.316879E-02	1.508258E-02	1.2554E-02
-6.2500000e-01	1.301213E-02	1.493400E-02	1.2352E-02
-5.7500000e-01	1.280843E-02	1.465359E-02	1.2107E-02
-5.2500000e-01	1.251269E-02	1.414154E-02	1.1797E-02
-4.7500000e-01	1.203560E-02	1.330397E-02	1.1382E-02
-4.2500000e-01	1.126665E-02	1.214514E-02	1.0778E-02
-3.7500000e-01	1.018437E-02	1.079032E-02	9.8667E-03
-3.2500000e-01	8.905568E-03	9.358893E-03	8.6724E-03
-2.7500000e-01	7.550642E-03	7.907034E-03	7.3614E-03
-2.2500000e-01	6.175032E-03	6.454310E-03	6.0240E-03
-1.7500000e-01	4.796858E-03	5.006794E-03	4.6832E-03
-1.2500000e-01	3.421222E-03	3.566345E-03	3.3432E-03
-7.5000000e-02	2.049479E-03	2.133648E-03	2.0047E-03
-2.5000000e-02	6.820421E-04	7.091043E-04	6.6784E-04
0.0000000e+00	1.125100E-09	4.014300E-10	2.6237E-09
2.5000000e-02	-6.802155E-04	-7.060015E-04	-6.6696E-04
7.5000000e-02	-2.032965E-03	-2.105590E-03	-1.9968E-03
1.2500000e-01	-3.375119E-03	-3.487987E-03	-3.3211E-03
1.7500000e-01	-4.706231E-03	-4.852382E-03	-4.6395E-03
2.2500000e-01	-6.025837E-03	-6.197914E-03	-5.9518E-03
2.7500000e-01	-7.333440E-03	-7.523661E-03	-7.2578E-03
3.2500000e-01	-8.628517E-03	-8.828634E-03	-8.5572E-03
3.7500000e-01	-9.910511E-03	-1.011178E-02	-9.8498E-03
4.2500000e-01	-1.117883E-02	-1.137197E-02	-1.1135E-02
4.7500000e-01	-1.243286E-02	-1.260797E-02	-1.2413E-02
5.2500000e-01	-1.367192E-02	-1.381848E-02	-1.3683E-02
5.7500000e-01	-1.489533E-02	-1.500209E-02	-1.4945E-02

6.2500000e-01	-1.610232E-02	-1.615730E-02	-1.6198E-02
6.7500000e-01	-1.729210E-02	-1.728247E-02	-1.7442E-02
7.2500000e-01	-1.846383E-02	-1.837588E-02	-1.8677E-02
7.7500000e-01	-1.961663E-02	-1.943566E-02	-1.9902E-02
8.2500000e-01	-2.074956E-02	-2.045990E-02	-2.1116E-02
8.7500000e-01	-2.186165E-02	-2.144666E-02	-2.2320E-02
9.2500000e-01	-2.295193E-02	-2.239415E-02	-2.3513E-02
9.7500000e-01	-2.401949E-02	-2.330089E-02	-2.4694E-02
1.0250000e+00	-2.506353E-02	-2.416589E-02	-2.5862E-02
1.0750000e+00	-2.608351E-02	-2.498853E-02	-2.7019E-02
1.1250000e+00	-2.707921E-02	-2.576811E-02	-2.8162E-02
1.1750000e+00	-2.805064E-02	-2.650347E-02	-2.9293E-02
1.2250000e+00	-2.899777E-02	-2.719285E-02	-3.0411E-02
1.2750000e+00	-2.992027E-02	-2.783418E-02	-3.1515E-02
1.3250000e+00	-3.081737E-02	-2.842555E-02	-3.2607E-02
1.3750000e+00	-3.168792E-02	-2.896616E-02	-3.3684E-02
1.4250000e+00	-3.253039E-02	-2.945719E-02	-3.4746E-02
1.4750000e+00	-3.334289E-02	-2.990258E-02	-3.5792E-02
1.5250000e+00	-3.412325E-02	-3.030862E-02	-3.6822E-02
1.5750000e+00	-3.486904E-02	-3.068257E-02	-3.7833E-02
1.6250000e+00	-3.557765E-02	-3.103121E-02	-3.8826E-02
1.6750000e+00	-3.624648E-02	-3.136007E-02	-3.9797E-02
1.7250000e+00	-3.687328E-02	-3.167336E-02	-4.0746E-02
1.7750000e+00	-3.745664E-02	-3.197424E-02	-4.1671E-02
1.8250000e+00	-3.799669E-02	-3.226504E-02	-4.2569E-02
1.8750000e+00	-3.849556E-02	-3.254752E-02	-4.3438E-02
1.9250000e+00	-3.895731E-02	-3.282305E-02	-4.4275E-02
1.9750000e+00	-3.938722E-02	-3.309268E-02	-4.5078E-02
2.0250000e+00	-3.979072E-02	-3.335727E-02	-4.5843E-02
2.0750000e+00	-4.017273E-02	-3.361751E-02	-4.6567E-02
2.1250000e+00	-4.053726E-02	-3.387396E-02	-4.7248E-02
2.1750000e+00	-4.088753E-02	-3.412707E-02	-4.7884E-02
2.2250000e+00	-4.122603E-02	-3.437727E-02	-4.8477E-02
2.2750000e+00	-4.155471E-02	-3.462485E-02	-4.9029E-02
2.3250000e+00	-4.187511E-02	-3.487012E-02	-4.9543E-02
2.3750000e+00	-4.218845E-02	-3.511332E-02	-5.0025E-02
2.4250000e+00	-4.249571E-02	-3.535466E-02	-5.0480E-02
2.4750000e+00	-4.279769E-02	-3.559433E-02	-5.0912E-02
2.5250000e+00	-4.309507E-02	-3.583247E-02	-5.1326E-02
2.5750000e+00	-4.338839E-02	-3.606925E-02	-5.1724E-02
2.6250000e+00	-4.367813E-02	-3.630478E-02	-5.2110E-02
2.6750000e+00	-4.396467E-02	-3.653918E-02	-5.2484E-02
2.7250000e+00	-4.424835E-02	-3.677256E-02	-5.2850E-02
2.7750000e+00	-4.452948E-02	-3.700500E-02	-5.3207E-02
2.8250000e+00	-4.480830E-02	-3.723659E-02	-5.3558E-02
2.8750000e+00	-4.508503E-02	-3.746739E-02	-5.3903E-02
2.9250000e+00	-4.535988E-02	-3.769749E-02	-5.4242E-02
2.9750000e+00	-4.563300E-02	-3.792696E-02	-5.4577E-02
3.0000000e+00	-4.576897E-02	-3.804147E-02	-5.4743E-02

[POWER Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	4.450136E-02	4.385767E-02	4.780182E-02
-1.4750000e+00	4.325737E-02	4.248503E-02	4.651241E-02

-1.4500000e+00	4.202627E-02	4.113177E-02	4.522926E-02
-1.4250000e+00	4.080680E-02	3.979850E-02	4.395156E-02
-1.4000000e+00	3.959743E-02	3.848563E-02	4.267873E-02
-1.3750000e+00	3.839648E-02	3.719324E-02	4.141044E-02
-1.3500000e+00	3.720221E-02	3.592106E-02	4.014659E-02
-1.3250000e+00	3.601296E-02	3.466841E-02	3.888726E-02
-1.3000000e+00	3.482735E-02	3.343415E-02	3.763263E-02
-1.2750000e+00	3.364438E-02	3.221669E-02	3.638297E-02
-1.2500000e+00	3.246358E-02	3.101397E-02	3.513857E-02
-1.2250000e+00	3.128497E-02	2.982356E-02	3.389973E-02
-1.2000000e+00	3.010901E-02	2.864279E-02	3.266673E-02
-1.1750000e+00	2.893648E-02	2.746896E-02	3.143985E-02
-1.1500000e+00	2.776826E-02	2.629964E-02	3.021938E-02
-1.1250000e+00	2.660528E-02	2.513304E-02	2.900561E-02
-1.1000000e+00	2.544841E-02	2.396824E-02	2.779886E-02
-1.0750000e+00	2.429844E-02	2.280536E-02	2.659948E-02
-1.0500000e+00	2.315612E-02	2.164543E-02	2.540789E-02
-1.0250000e+00	2.202214E-02	2.049007E-02	2.422457E-02
-1.0000000e+00	2.089719E-02	1.934117E-02	2.305009E-02
-9.7500000e-01	1.978197E-02	1.820065E-02	2.188514E-02
-9.5000000e-01	1.867722E-02	1.707028E-02	2.073052E-02
-9.2500000e-01	1.758372E-02	1.595172E-02	1.958719E-02
-9.0000000e-01	1.650228E-02	1.484648E-02	1.845618E-02
-8.7500000e-01	1.543373E-02	1.375596E-02	1.733862E-02
-8.5000000e-01	1.437889E-02	1.268153E-02	1.623553E-02
-8.2500000e-01	1.333851E-02	1.162449E-02	1.514772E-02
-8.0000000e-01	1.231328E-02	1.058622E-02	1.407562E-02
-7.7500000e-01	1.130388E-02	9.568206E-03	1.301922E-02
-7.5000000e-01	1.031106E-02	8.572276E-03	1.197827E-02
-7.2500000e-01	9.335806E-03	7.600753E-03	1.095257E-02
-7.0000000e-01	8.379549E-03	6.656721E-03	9.942222E-03
-6.7500000e-01	7.444326E-03	5.744302E-03	8.947921E-03
-6.5000000e-01	6.532997E-03	4.868952E-03	7.971051E-03
-6.2500000e-01	5.649458E-03	4.037787E-03	7.013870E-03
-6.0000000e-01	4.798902E-03	3.259897E-03	6.079707E-03
-5.7500000e-01	3.988134E-03	2.546530E-03	5.173245E-03
-5.5000000e-01	3.225930E-03	1.910856E-03	4.300910E-03
-5.2500000e-01	2.523332E-03	1.366712E-03	3.471447E-03
-5.0000000e-01	1.893615E-03	9.256050E-04	2.696680E-03
-4.7500000e-01	1.351332E-03	5.919303E-04	1.992354E-03
-4.5000000e-01	9.095438E-04	3.586832E-04	1.378419E-03
-4.2500000e-01	5.747929E-04	2.078355E-04	8.770400E-04
-4.0000000e-01	3.418453E-04	1.164218E-04	5.053108E-04
-3.7500000e-01	1.930954E-04	6.360210E-05	2.627390E-04
-3.5000000e-01	1.048276E-04	3.408364E-05	1.249615E-04
-3.2500000e-01	5.523970E-05	1.799151E-05	5.555911E-05
-3.0000000e-01	2.845373E-05	9.394192E-06	2.354502E-05
-2.7500000e-01	1.440808E-05	4.878770E-06	9.668085E-06
-2.5000000e-01	7.217646E-06	2.540607E-06	3.917725E-06
-2.2500000e-01	3.608426E-06	1.343333E-06	1.610387E-06
-2.0000000e-01	1.824961E-06	7.351342E-07	7.040805E-07
-1.7500000e-01	9.538097E-07	4.274933E-07	3.518120E-07
-1.5000000e-01	5.312391E-07	2.717598E-07	2.143493E-07
-1.2500000e-01	3.264285E-07	1.922225E-07	1.590780E-07



-1.0000000e-01	2.262355E-07	1.506538E-07	1.350141E-07
-7.5000000e-02	1.758303E-07	1.278715E-07	1.227817E-07
-5.0000000e-02	1.489090E-07	1.143246E-07	1.150734E-07
-2.5000000e-02	1.332080E-07	1.054156E-07	1.091537E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[Ramp]

R\_load = 50.00Ohm

	typ	min	max
dV/dt_r	532.022mV/119.423ps	491.319mV/165.185ps	567.619mV/91.565ps
dV/dt_f	537.976mV/129.806ps	497.460mV/173.213ps	578.029mV/105.657ps

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[Rising Waveform]

V\_fixture = 1.500V

V\_fixture\_min = 1.425V

V\_fixture\_max = 1.575V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	6.8316E-01	6.4198E-01	7.1381E-01
1.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
2.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
3.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
4.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
5.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
6.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
7.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
8.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
9.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
1.00E-10	6.8316E-01	6.4198E-01	7.1381E-01
1.10E-10	6.8316E-01	6.4198E-01	7.1381E-01
1.20E-10	6.8316E-01	6.4198E-01	7.1381E-01
1.30E-10	6.8316E-01	6.4198E-01	7.1381E-01
1.40E-10	6.8316E-01	6.4198E-01	7.2174E-01
1.50E-10	6.8316E-01	6.4198E-01	7.5887E-01
1.60E-10	6.8316E-01	6.4198E-01	8.2016E-01
1.70E-10	6.8316E-01	6.4198E-01	9.1349E-01
1.80E-10	6.8316E-01	6.4198E-01	1.0158E+00
1.90E-10	6.8316E-01	6.4198E-01	1.1058E+00
2.00E-10	6.8631E-01	6.4198E-01	1.1722E+00
2.10E-10	6.9781E-01	6.4198E-01	1.2169E+00
2.20E-10	7.2546E-01	6.4298E-01	1.2448E+00
2.30E-10	7.5875E-01	6.4398E-01	1.2647E+00
2.40E-10	8.1582E-01	6.4498E-01	1.2837E+00
2.50E-10	8.7535E-01	6.4698E-01	1.3078E+00
2.60E-10	9.4749E-01	6.5598E-01	1.3414E+00
2.70E-10	1.0174E+00	6.6598E-01	1.3863E+00
2.80E-10	1.0731E+00	6.7898E-01	1.4363E+00
2.90E-10	1.1226E+00	6.9347E-01	1.4802E+00

3.00E-10	1.1579E+00	7.1337E-01	1.5132E+00
3.10E-10	1.1837E+00	7.4966E-01	1.5358E+00
3.20E-10	1.2048E+00	7.9147E-01	1.5503E+00
3.30E-10	1.2195E+00	8.3328E-01	1.5592E+00
3.40E-10	1.2343E+00	8.7936E-01	1.5645E+00
3.50E-10	1.2494E+00	9.3100E-01	1.5675E+00
3.60E-10	1.2675E+00	9.8264E-01	1.5691E+00
3.70E-10	1.2874E+00	1.0268E+00	1.5702E+00
3.80E-10	1.3136E+00	1.0618E+00	1.5750E+00
3.90E-10	1.3416E+00	1.0967E+00	1.5750E+00
4.00E-10	1.3720E+00	1.1198E+00	1.5750E+00
4.10E-10	1.4006E+00	1.1392E+00	1.5750E+00
4.20E-10	1.4277E+00	1.1550E+00	1.5750E+00
4.30E-10	1.4490E+00	1.1666E+00	1.5750E+00
4.40E-10	1.4656E+00	1.1779E+00	1.5750E+00
4.50E-10	1.4779E+00	1.1874E+00	1.5750E+00
4.60E-10	1.4845E+00	1.1970E+00	1.5750E+00
4.70E-10	1.4896E+00	1.2077E+00	1.5750E+00
4.80E-10	1.4922E+00	1.2186E+00	1.5750E+00
4.90E-10	1.4951E+00	1.2308E+00	1.5750E+00
5.00E-10	1.4974E+00	1.2441E+00	1.5750E+00
5.10E-10	1.4984E+00	1.2582E+00	1.5750E+00
5.20E-10	1.4991E+00	1.2741E+00	1.5750E+00
5.30E-10	1.5000E+00	1.2901E+00	1.5750E+00
5.40E-10	1.5000E+00	1.3071E+00	1.5750E+00
5.50E-10	1.5000E+00	1.3240E+00	1.5750E+00
5.60E-10	1.5000E+00	1.3409E+00	1.5750E+00
5.70E-10	1.5000E+00	1.3579E+00	1.5750E+00
5.80E-10	1.5000E+00	1.3720E+00	1.5750E+00
5.90E-10	1.5000E+00	1.3824E+00	1.5750E+00
6.00E-10	1.5000E+00	1.3929E+00	1.5750E+00
6.10E-10	1.5000E+00	1.4033E+00	1.5750E+00
6.20E-10	1.5000E+00	1.4094E+00	1.5750E+00
6.30E-10	1.5000E+00	1.4154E+00	1.5750E+00
6.40E-10	1.5000E+00	1.4204E+00	1.5750E+00
6.50E-10	1.5000E+00	1.4244E+00	1.5750E+00
6.60E-10	1.5000E+00	1.4244E+00	1.5750E+00
6.70E-10	1.5000E+00	1.4244E+00	1.5750E+00
6.80E-10	1.5000E+00	1.4244E+00	1.5750E+00
6.90E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.00E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.10E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.20E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.30E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.40E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.50E-10	1.5000E+00	1.4244E+00	1.5750E+00

[Falling Waveform]

V\_fixture = 1.500V

V\_fixture\_min = 1.425V

V\_fixture\_max = 1.575V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
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0.00E+00	1.5000E+00	1.4244E+00	1.5750E+00
1.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
2.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
3.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
4.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
5.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
6.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
7.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
8.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
9.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
1.00E-10	1.5000E+00	1.4244E+00	1.5750E+00
1.10E-10	1.5000E+00	1.4244E+00	1.5750E+00
1.20E-10	1.5000E+00	1.4244E+00	1.5750E+00
1.30E-10	1.5000E+00	1.4244E+00	1.5678E+00
1.40E-10	1.5000E+00	1.4244E+00	1.5356E+00
1.50E-10	1.5000E+00	1.4244E+00	1.4918E+00
1.60E-10	1.5000E+00	1.4244E+00	1.4391E+00
1.70E-10	1.5000E+00	1.4244E+00	1.3811E+00
1.80E-10	1.5000E+00	1.4244E+00	1.3164E+00
1.90E-10	1.5000E+00	1.4244E+00	1.2491E+00
2.00E-10	1.4916E+00	1.4244E+00	1.1872E+00
2.10E-10	1.4779E+00	1.4244E+00	1.1373E+00
2.20E-10	1.4526E+00	1.4244E+00	1.1004E+00
2.30E-10	1.4258E+00	1.4244E+00	1.0723E+00
2.40E-10	1.3882E+00	1.4244E+00	1.0470E+00
2.50E-10	1.3499E+00	1.4244E+00	1.0149E+00
2.60E-10	1.3051E+00	1.4244E+00	9.8066E-01
2.70E-10	1.2605E+00	1.4244E+00	9.3547E-01
2.80E-10	1.2170E+00	1.4244E+00	8.8759E-01
2.90E-10	1.1745E+00	1.4194E+00	8.4268E-01
3.00E-10	1.1378E+00	1.4094E+00	8.0700E-01
3.10E-10	1.1029E+00	1.3963E+00	7.7745E-01
3.20E-10	1.0753E+00	1.3791E+00	7.5868E-01
3.30E-10	1.0489E+00	1.3558E+00	7.4505E-01
3.40E-10	1.0261E+00	1.3325E+00	7.3501E-01
3.50E-10	1.0023E+00	1.3056E+00	7.2933E-01
3.60E-10	9.7620E-01	1.2772E+00	7.2516E-01
3.70E-10	9.4367E-01	1.2488E+00	7.2226E-01
3.80E-10	9.0696E-01	1.2213E+00	7.2113E-01
3.90E-10	8.7376E-01	1.1938E+00	7.1999E-01
4.00E-10	8.3990E-01	1.1670E+00	7.1886E-01
4.10E-10	8.0957E-01	1.1432E+00	7.1825E-01
4.20E-10	7.8300E-01	1.1193E+00	7.1767E-01
4.30E-10	7.6093E-01	1.0968E+00	7.1709E-01
4.40E-10	7.4264E-01	1.0762E+00	7.1654E-01
4.50E-10	7.2827E-01	1.0555E+00	7.1600E-01
4.60E-10	7.1647E-01	1.0350E+00	7.1545E-01
4.70E-10	7.0685E-01	1.0145E+00	7.1510E-01
4.80E-10	6.9834E-01	9.9409E-01	7.1479E-01
4.90E-10	6.9107E-01	9.6900E-01	7.1449E-01
5.00E-10	6.8566E-01	9.4342E-01	7.1433E-01
5.10E-10	6.8316E-01	9.1269E-01	7.1421E-01
5.20E-10	6.8316E-01	8.8416E-01	7.1410E-01

5.30E-10	6.8316E-01	8.5763E-01	7.1399E-01
5.40E-10	6.8316E-01	8.3261E-01	7.1388E-01
5.50E-10	6.8316E-01	8.0994E-01	7.1380E-01
5.60E-10	6.8316E-01	7.8727E-01	7.1380E-01
5.70E-10	6.8316E-01	7.6866E-01	7.1380E-01
5.80E-10	6.8316E-01	7.5240E-01	7.1380E-01
5.90E-10	6.8316E-01	7.3613E-01	7.1380E-01
6.00E-10	6.8316E-01	7.2289E-01	7.1380E-01
6.10E-10	6.8316E-01	7.1008E-01	7.1380E-01
6.20E-10	6.8316E-01	6.9855E-01	7.1380E-01
6.30E-10	6.8316E-01	6.9098E-01	7.1380E-01
6.40E-10	6.8316E-01	6.8198E-01	7.1380E-01
6.50E-10	6.8316E-01	6.7398E-01	7.1380E-01
6.60E-10	6.8316E-01	6.6298E-01	7.1380E-01
6.70E-10	6.8316E-01	6.5598E-01	7.1380E-01
6.80E-10	6.8316E-01	6.5098E-01	7.1380E-01
6.90E-10	6.8316E-01	6.4798E-01	7.1380E-01
7.00E-10	6.8316E-01	6.4598E-01	7.1380E-01
7.10E-10	6.8316E-01	6.4398E-01	7.1380E-01
7.20E-10	6.8316E-01	6.4298E-01	7.1380E-01
7.30E-10	6.8316E-01	6.4198E-01	7.1380E-01
7.40E-10	6.8316E-01	6.4198E-01	7.1380E-01
7.50E-10	6.8316E-01	6.4198E-01	7.1380E-01

[Rising Waveform]

V\_fixture = 0.000V

V\_fixture\_min = 0.000V

V\_fixture\_max = 0.000V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	2.1656E-05	4.5001E-04	1.9840E-06
1.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
2.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
3.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
4.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
5.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
6.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
7.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
8.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
9.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
1.00E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.10E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.20E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.30E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.40E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.50E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.60E-10	2.1656E-05	4.5001E-04	4.8671E-02
1.70E-10	2.1656E-05	4.5001E-04	1.0238E-01
1.80E-10	2.1656E-05	4.5001E-04	1.6978E-01
1.90E-10	2.1656E-05	4.5001E-04	2.4540E-01
2.00E-10	2.1656E-05	4.5001E-04	3.2196E-01
2.10E-10	2.1656E-05	4.5001E-04	3.9122E-01

2.20E-10	6.9115E-03	4.5001E-04	4.4667E-01
2.30E-10	2.1916E-02	4.5001E-04	4.8493E-01
2.40E-10	4.9605E-02	4.5001E-04	5.1216E-01
2.50E-10	8.2158E-02	4.5001E-04	5.3458E-01
2.60E-10	1.2545E-01	4.5001E-04	5.6186E-01
2.70E-10	1.7346E-01	4.5001E-04	6.0105E-01
2.80E-10	2.2437E-01	4.5001E-04	6.5263E-01
2.90E-10	2.7673E-01	4.5001E-04	7.0953E-01
3.00E-10	3.2396E-01	7.4200E-04	7.5988E-01
3.10E-10	3.6830E-01	6.9399E-03	7.9680E-01
3.20E-10	4.0406E-01	2.2538E-02	8.2326E-01
3.30E-10	4.3438E-01	3.8136E-02	8.4173E-01
3.40E-10	4.5821E-01	6.0559E-02	8.5396E-01
3.50E-10	4.7742E-01	9.0788E-02	8.6342E-01
3.60E-10	4.9488E-01	1.2102E-01	8.7131E-01
3.70E-10	5.1097E-01	1.5625E-01	8.7541E-01
3.80E-10	5.3186E-01	1.9335E-01	8.7950E-01
3.90E-10	5.5704E-01	2.3045E-01	8.8129E-01
4.00E-10	5.8693E-01	2.6299E-01	8.8750E-01
4.10E-10	6.3150E-01	2.9548E-01	8.8750E-01
4.20E-10	6.6900E-01	3.2621E-01	8.8750E-01
4.30E-10	7.0343E-01	3.5161E-01	8.8750E-01
4.40E-10	7.3251E-01	3.7701E-01	8.8750E-01
4.50E-10	7.5834E-01	3.9887E-01	8.8750E-01
4.60E-10	7.7553E-01	4.1920E-01	8.8750E-01
4.70E-10	7.9054E-01	4.3893E-01	8.8750E-01
4.80E-10	7.9989E-01	4.5025E-01	8.8750E-01
4.90E-10	8.0628E-01	4.6257E-01	8.8750E-01
5.00E-10	8.1206E-01	4.7874E-01	8.8750E-01
5.10E-10	8.1613E-01	4.8572E-01	8.8750E-01
5.20E-10	8.2020E-01	4.9920E-01	8.8750E-01
5.30E-10	8.2427E-01	5.1505E-01	8.8750E-01
5.40E-10	8.2778E-01	5.3090E-01	8.8750E-01
5.50E-10	8.3015E-01	5.5341E-01	8.8750E-01
5.60E-10	8.3015E-01	5.7647E-01	8.8750E-01
5.70E-10	8.3015E-01	5.9813E-01	8.8750E-01
5.80E-10	8.3015E-01	6.2467E-01	8.8750E-01
5.90E-10	8.3015E-01	6.5120E-01	8.8750E-01
6.00E-10	8.3015E-01	6.7309E-01	8.8750E-01
6.10E-10	8.3015E-01	6.9494E-01	8.8750E-01
6.20E-10	8.3015E-01	7.1298E-01	8.8750E-01
6.30E-10	8.3015E-01	7.2761E-01	8.8750E-01
6.40E-10	8.3015E-01	7.4187E-01	8.8750E-01
6.50E-10	8.3015E-01	7.5387E-01	8.8750E-01
6.60E-10	8.3015E-01	7.6287E-01	8.8750E-01
6.70E-10	8.3015E-01	7.7087E-01	8.8750E-01
6.80E-10	8.3015E-01	7.7787E-01	8.8750E-01
6.90E-10	8.3015E-01	7.8587E-01	8.8750E-01
7.00E-10	8.3015E-01	7.8987E-01	8.8750E-01
7.10E-10	8.3015E-01	7.9287E-01	8.8750E-01
7.20E-10	8.3015E-01	7.9387E-01	8.8750E-01
7.30E-10	8.3015E-01	7.9487E-01	8.8750E-01
7.40E-10	8.3015E-01	7.9587E-01	8.8750E-01
7.50E-10	8.3015E-01	7.9587E-01	8.8750E-01

[Falling Waveform]

V\_fixture = 0.000V

V\_fixture\_min = 0.000V

V\_fixture\_max = 0.000V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	8.3015E-01	7.9587E-01	8.8750E-01
1.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
2.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
3.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
4.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
5.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
6.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
7.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
8.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
9.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
1.00E-10	8.3015E-01	7.9587E-01	8.8750E-01
1.10E-10	8.3015E-01	7.9587E-01	8.8750E-01
1.20E-10	8.3015E-01	7.9587E-01	8.8443E-01
1.30E-10	8.3015E-01	7.9587E-01	8.7452E-01
1.40E-10	8.3015E-01	7.9587E-01	8.4189E-01
1.50E-10	8.3015E-01	7.9587E-01	7.8920E-01
1.60E-10	8.3015E-01	7.9587E-01	7.1329E-01
1.70E-10	8.2717E-01	7.9587E-01	6.2580E-01
1.80E-10	8.2022E-01	7.9487E-01	5.4691E-01
1.90E-10	8.0849E-01	7.9287E-01	4.8081E-01
2.00E-10	7.8766E-01	7.8987E-01	4.2673E-01
2.10E-10	7.5342E-01	7.8587E-01	3.8302E-01
2.20E-10	7.0770E-01	7.8087E-01	3.4957E-01
2.30E-10	6.4643E-01	7.7487E-01	3.1949E-01
2.40E-10	5.7951E-01	7.6687E-01	2.8668E-01
2.50E-10	5.1395E-01	7.5687E-01	2.5182E-01
2.60E-10	4.5050E-01	7.4187E-01	2.1162E-01
2.70E-10	4.0155E-01	7.2460E-01	1.7228E-01
2.80E-10	3.6096E-01	7.0145E-01	1.3355E-01
2.90E-10	3.2886E-01	6.6392E-01	1.0138E-01
3.00E-10	3.0074E-01	6.2500E-01	7.3166E-02
3.10E-10	2.7872E-01	5.8181E-01	5.0761E-02
3.20E-10	2.6007E-01	5.3521E-01	3.5793E-02
3.30E-10	2.4432E-01	4.8940E-01	2.3892E-02
3.40E-10	2.2391E-01	4.4680E-01	1.6931E-02
3.50E-10	1.9806E-01	4.0419E-01	1.2192E-02
3.60E-10	1.7058E-01	3.7123E-01	8.9365E-03
3.70E-10	1.4036E-01	3.4007E-01	7.2358E-03
3.80E-10	1.1118E-01	3.1448E-01	5.9670E-03
3.90E-10	8.3244E-02	2.9477E-01	5.3516E-03
4.00E-10	6.1742E-02	2.7568E-01	4.7363E-03
4.10E-10	4.4018E-02	2.6075E-01	4.1060E-03
4.20E-10	3.0136E-02	2.4582E-01	3.4124E-03
4.30E-10	2.2486E-02	2.3054E-01	2.7189E-03
4.40E-10	1.5763E-02	2.1515E-01	2.0253E-03

4.50E-10	9.0387E-03	1.9777E-01	1.6262E-03
4.60E-10	5.3194E-03	1.7999E-01	1.2305E-03
4.70E-10	3.4381E-03	1.6207E-01	8.3483E-04
4.80E-10	1.5568E-03	1.4205E-01	6.3758E-04
4.90E-10	6.2322E-04	1.2203E-01	4.9475E-04
5.00E-10	1.0502E-04	1.0187E-01	3.5192E-04
5.10E-10	2.1656E-05	8.1652E-02	2.0909E-04
5.20E-10	2.1656E-05	6.3154E-02	6.6265E-05
5.30E-10	2.1656E-05	4.7873E-02	1.9840E-06
5.40E-10	2.1656E-05	3.2593E-02	1.9840E-06
5.50E-10	2.1656E-05	2.4507E-02	1.9840E-06
5.60E-10	2.1656E-05	1.6483E-02	1.9840E-06
5.70E-10	2.1656E-05	1.1660E-02	1.9840E-06
5.80E-10	2.1656E-05	8.6750E-03	1.9840E-06
5.90E-10	2.1656E-05	6.2443E-03	1.9840E-06
6.00E-10	2.1656E-05	5.2473E-03	1.9840E-06
6.10E-10	2.1656E-05	4.2503E-03	1.9840E-06
6.20E-10	2.1656E-05	3.6374E-03	1.9840E-06
6.30E-10	2.1656E-05	3.0570E-03	1.9840E-06
6.40E-10	2.1656E-05	2.5197E-03	1.9840E-06
6.50E-10	2.1656E-05	2.0157E-03	1.9840E-06
6.60E-10	2.1656E-05	1.5499E-03	1.9840E-06
6.70E-10	2.1656E-05	1.0325E-03	1.9840E-06
6.80E-10	2.1656E-05	8.8691E-04	1.9840E-06
6.90E-10	2.1656E-05	7.4127E-04	1.9840E-06
7.00E-10	2.1656E-05	5.9564E-04	1.9840E-06
7.10E-10	2.1656E-05	4.5001E-04	1.9840E-06
7.20E-10	2.1656E-05	4.5001E-04	1.9840E-06
7.30E-10	2.1656E-05	4.5001E-04	1.9840E-06
7.40E-10	2.1656E-05	4.5001E-04	1.9840E-06
7.50E-10	2.1656E-05	4.5001E-04	1.9840E-06

\*\*\*\*\*  
MODEL DQS\_40\_1600 (34 Ohm Data Strobe I/O with 30ohm ODT, 1333/1600 Mbps)  
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[Model] DQS\_40\_ODT30\_1600

Model\_type I/O

Vinl = 600.000mV

Vinh = 900.000mV

Vmeas = 750.000mV

Vref = 750.000mV

Cref = 0.0pF

Rref = 25.000Ohm

	typ	min	max
C_comp	1.078pF	0.966pF	1.223pF

| Note: C\_comp changes when the ODT circuit is enabled.

[Model Spec]

| Input threshold voltage corners

Vinl	0.6000V	0.5625V	0.6375V
------	---------	---------	---------

Vinh	0.9000V	0.8625V	0.9375V
Measurement voltage corners			
Vmeas	0.7500V	0.7125V	0.7875V
Timing spec test load voltage corners			
Vref	0.7500V	0.7125V	0.7875V

| Dynamic Overshoot Parameters from DDR3 Specification

D_overshoot_ampl_h	0.40	NA	NA
D_overshoot_ampl_l	0.40	NA	NA
D_overshoot_area_h	0.13n	NA	NA
D_overshoot_area_l	0.13n	NA	NA

| [Receiver Thresholds]

| Vth = 0.750V  
 | Vth\_min = 0.7350V  
 | Vth\_max = 0.7650V  
 | Vinh\_ac = 0.150V  
 | Vinh\_dc = 0.100V  
 | Vinl\_ac = -0.150V  
 | Vinl\_dc = -0.100V  
 | Tslew\_ac = 5.000ns |Not specified, so set to high value  
 | Threshold\_sensitivity = 0.50  
 | Reference\_supply Pullup\_ref

| NOTE: If using the IBISCHK 4.2.1 or older parser, Differential receiver  
 | threshold parameters must be commented out because the parser generates  
 | errors for multiple differential models.

| Vcross\_low = 0.600V  
 | Vcross\_high = 0.900V  
 | Vdiff\_ac = 300mV  
 | Vdiff\_dc = 200mV  
 | Tdiffslew\_ac = 10.000ns |Not specified, so set to high value

| [Add Submodel]

Submodel Name	Mode		
30Ohm_ODT	Non-Driving		
[Voltage Range]	1.500V	1.425V	1.575V
[Pullup Reference]	1.500V	1.425V	1.575V
[Temperature Range]	85.0	110.0	0.0

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| [Pulldown]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	-5.766580E-03	-5.671960E-03	-4.4564E-03
-1.4750000e+00	-5.965480E-03	-5.898760E-03	-4.6456E-03
-1.4250000e+00	-6.365740E-03	-6.361750E-03	-5.0283E-03
-1.3750000e+00	-6.767370E-03	-6.833580E-03	-5.4143E-03
-1.3250000e+00	-7.168490E-03	-7.310620E-03	-5.8012E-03



-1.2750000e+00	-7.567540E-03	-7.790060E-03	-6.1870E-03
-1.2250000e+00	-7.963180E-03	-8.269780E-03	-6.5705E-03
-1.1750000e+00	-8.354170E-03	-8.748110E-03	-6.9506E-03
-1.1250000e+00	-8.739220E-03	-9.223740E-03	-7.3262E-03
-1.0750000e+00	-9.116960E-03	-9.695520E-03	-7.6961E-03
-1.0250000e+00	-9.485740E-03	-1.016235E-02	-8.0593E-03
-9.7500000e-01	-9.843550E-03	-1.062303E-02	-8.4141E-03
-9.2500000e-01	-1.018784E-02	-1.107598E-02	-8.7587E-03
-8.7500000e-01	-1.051515E-02	-1.151861E-02	-9.0906E-03
-8.2500000e-01	-1.082065E-02	-1.194611E-02	-9.4063E-03
-7.7500000e-01	-1.109723E-02	-1.234917E-02	-9.7010E-03
-7.2500000e-01	-1.133396E-02	-1.271052E-02	-9.9678E-03
-6.7500000e-01	-1.151368E-02	-1.300112E-02	-1.0196E-02
-6.2500000e-01	-1.161030E-02	-1.317732E-02	-1.0369E-02
-5.7500000e-01	-1.158847E-02	-1.318034E-02	-1.0460E-02
-5.2500000e-01	-1.140914E-02	-1.294110E-02	-1.0425E-02
-4.7500000e-01	-1.103661E-02	-1.239310E-02	-1.0195E-02
-4.2500000e-01	-1.042948E-02	-1.149942E-02	-9.7052E-03
-3.7500000e-01	-9.541331E-03	-1.031290E-02	-8.9368E-03
-3.2500000e-01	-8.402181E-03	-8.972323E-03	-7.9244E-03
-2.7500000e-01	-7.136897E-03	-7.584300E-03	-6.7526E-03
-2.2500000e-01	-5.837164E-03	-6.189682E-03	-5.5298E-03
-1.7500000e-01	-4.533342E-03	-4.799550E-03	-4.2997E-03
-1.2500000e-01	-3.232329E-03	-3.416866E-03	-3.0698E-03
-7.5000000e-02	-1.935664E-03	-2.042825E-03	-1.8409E-03
-2.5000000e-02	-6.439068E-04	-6.783475E-04	-6.1331E-04
0.0000000e+00	-2.495000E-09	-2.851000E-10	-4.3290E-09
2.5000000e-02	6.423542E-04	6.754144E-04	6.1284E-04
7.5000000e-02	1.921741E-03	2.016470E-03	1.8368E-03
1.2500000e-01	3.193668E-03	3.343638E-03	3.0583E-03
1.7500000e-01	4.457673E-03	4.655798E-03	4.2773E-03
2.2500000e-01	5.713247E-03	5.951703E-03	5.4937E-03
2.7500000e-01	6.959828E-03	7.229949E-03	6.7074E-03
3.2500000e-01	8.196792E-03	8.488947E-03	7.9183E-03
3.7500000e-01	9.423449E-03	9.726883E-03	9.1262E-03
4.2500000e-01	1.063902E-02	1.094167E-02	1.0331E-02
4.7500000e-01	1.184265E-02	1.213090E-02	1.1533E-02
5.2500000e-01	1.303336E-02	1.329176E-02	1.2731E-02
5.7500000e-01	1.421007E-02	1.442101E-02	1.3926E-02
6.2500000e-01	1.537155E-02	1.551502E-02	1.5117E-02
6.7500000e-01	1.651649E-02	1.657019E-02	1.6305E-02
7.2500000e-01	1.764350E-02	1.758380E-02	1.7488E-02
7.7500000e-01	1.875138E-02	1.855487E-02	1.8667E-02
8.2500000e-01	1.983945E-02	1.948346E-02	1.9842E-02
8.7500000e-01	2.090800E-02	2.036881E-02	2.1012E-02
9.2500000e-01	2.195802E-02	2.120815E-02	2.2178E-02
9.7500000e-01	2.299059E-02	2.199660E-02	2.3338E-02
1.0250000e+00	2.400623E-02	2.272804E-02	2.4493E-02
1.0750000e+00	2.500472E-02	2.339642E-02	2.5642E-02
1.1250000e+00	2.598518E-02	2.399791E-02	2.6785E-02
1.1750000e+00	2.694619E-02	2.453290E-02	2.7921E-02
1.2250000e+00	2.788582E-02	2.500673E-02	2.9050E-02
1.2750000e+00	2.880158E-02	2.542839E-02	3.0172E-02
1.3250000e+00	2.969048E-02	2.580810E-02	3.1286E-02

1.3750000e+00	3.054893E-02	2.615534E-02	3.2391E-02
1.4250000e+00	3.137276E-02	2.647793E-02	3.3486E-02
1.4750000e+00	3.215739E-02	2.678186E-02	3.4572E-02
1.5250000e+00	3.289823E-02	2.707162E-02	3.5646E-02
1.5750000e+00	3.359126E-02	2.735051E-02	3.6708E-02
1.6250000e+00	3.423408E-02	2.762095E-02	3.7757E-02
1.6750000e+00	3.482661E-02	2.788477E-02	3.8790E-02
1.7250000e+00	3.537149E-02	2.814329E-02	3.9807E-02
1.7750000e+00	3.587366E-02	2.839756E-02	4.0805E-02
1.8250000e+00	3.633928E-02	2.864834E-02	4.1781E-02
1.8750000e+00	3.677472E-02	2.889628E-02	4.2734E-02
1.9250000e+00	3.718582E-02	2.914184E-02	4.3660E-02
1.9750000e+00	3.757750E-02	2.938542E-02	4.4556E-02
2.0250000e+00	3.795380E-02	2.962733E-02	4.5417E-02
2.0750000e+00	3.831783E-02	2.986783E-02	4.6241E-02
2.1250000e+00	3.867208E-02	3.010713E-02	4.7025E-02
2.1750000e+00	3.901845E-02	3.034542E-02	4.7767E-02
2.2250000e+00	3.935843E-02	3.058286E-02	4.8466E-02
2.2750000e+00	3.969319E-02	3.081960E-02	4.9124E-02
2.3250000e+00	4.002364E-02	3.105576E-02	4.9743E-02
2.3750000e+00	4.035053E-02	3.129147E-02	5.0329E-02
2.4250000e+00	4.067444E-02	3.152686E-02	5.0885E-02
2.4750000e+00	4.099589E-02	3.176208E-02	5.1415E-02
2.5250000e+00	4.131527E-02	3.199724E-02	5.1923E-02
2.5750000e+00	4.163292E-02	3.223252E-02	5.2415E-02
2.6250000e+00	4.194914E-02	3.246808E-02	5.2891E-02
2.6750000e+00	4.226420E-02	3.270415E-02	5.3355E-02
2.7250000e+00	4.257832E-02	3.294093E-02	5.3809E-02
2.7750000e+00	4.289173E-02	3.317872E-02	5.4255E-02
2.8250000e+00	4.320461E-02	3.341781E-02	5.4693E-02
2.8750000e+00	4.351716E-02	3.365859E-02	5.5126E-02
2.9250000e+00	4.382954E-02	3.390146E-02	5.5553E-02
2.9750000e+00	4.414196E-02	3.414689E-02	5.5976E-02
3.0000000e+00	4.429822E-02	3.427073E-02	5.6186E-02

[GND Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	-5.378351E-02	-5.490567E-02	-5.885698E-02
-1.4750000e+00	-5.231251E-02	-5.334431E-02	-5.735670E-02
-1.4500000e+00	-5.084369E-02	-5.178549E-02	-5.585777E-02
-1.4250000e+00	-4.937717E-02	-5.022938E-02	-5.436026E-02
-1.4000000e+00	-4.791309E-02	-4.867613E-02	-5.286424E-02
-1.3750000e+00	-4.645161E-02	-4.712594E-02	-5.136982E-02
-1.3500000e+00	-4.499289E-02	-4.557901E-02	-4.987709E-02
-1.3250000e+00	-4.353712E-02	-4.403556E-02	-4.838614E-02
-1.3000000e+00	-4.208452E-02	-4.249585E-02	-4.689710E-02
-1.2750000e+00	-4.063529E-02	-4.096014E-02	-4.541010E-02
-1.2500000e+00	-3.918970E-02	-3.942875E-02	-4.392527E-02
-1.2250000e+00	-3.774803E-02	-3.790201E-02	-4.244278E-02
-1.2000000e+00	-3.631059E-02	-3.638031E-02	-4.096280E-02
-1.1750000e+00	-3.487773E-02	-3.486408E-02	-3.948552E-02
-1.1500000e+00	-3.344986E-02	-3.335380E-02	-3.801116E-02
-1.1250000e+00	-3.202742E-02	-3.185003E-02	-3.653998E-02
-1.1000000e+00	-3.061092E-02	-3.035339E-02	-3.507226E-02

-1.0750000e+00	-2.920096E-02	-2.886462E-02	-3.360832E-02
-1.0500000e+00	-2.779821E-02	-2.738455E-02	-3.214854E-02
-1.0250000e+00	-2.640347E-02	-2.591415E-02	-3.069335E-02
-1.0000000e+00	-2.501766E-02	-2.445455E-02	-2.924328E-02
-9.7500000e-01	-2.364185E-02	-2.300708E-02	-2.779892E-02
-9.5000000e-01	-2.227732E-02	-2.157329E-02	-2.636102E-02
-9.2500000e-01	-2.092559E-02	-2.015501E-02	-2.493048E-02
-9.0000000e-01	-1.958843E-02	-1.875433E-02	-2.350840E-02
-8.7500000e-01	-1.826790E-02	-1.737363E-02	-2.209616E-02
-8.5000000e-01	-1.696631E-02	-1.601550E-02	-2.069550E-02
-8.2500000e-01	-1.568612E-02	-1.468262E-02	-1.930856E-02
-8.0000000e-01	-1.442972E-02	-1.337762E-02	-1.793782E-02
-7.7500000e-01	-1.319926E-02	-1.210311E-02	-1.658583E-02
-7.5000000e-01	-1.199673E-02	-1.086191E-02	-1.525450E-02
-7.2500000e-01	-1.082427E-02	-9.657411E-03	-1.394473E-02
-7.0000000e-01	-9.684638E-03	-8.493939E-03	-1.265685E-02
-6.7500000e-01	-8.581514E-03	-7.376930E-03	-1.139180E-02
-6.5000000e-01	-7.519607E-03	-6.312929E-03	-1.015194E-02
-6.2500000e-01	-6.504547E-03	-5.309438E-03	-8.941318E-03
-6.0000000e-01	-5.542688E-03	-4.374618E-03	-7.765735E-03
-5.7500000e-01	-4.640772E-03	-3.516890E-03	-6.632945E-03
-5.5000000e-01	-3.805524E-03	-2.744483E-03	-5.552946E-03
-5.2500000e-01	-3.043248E-03	-2.065103E-03	-4.538201E-03
-5.0000000e-01	-2.359647E-03	-1.485677E-03	-3.603412E-03
-4.7500000e-01	-1.760020E-03	-1.011779E-03	-2.764265E-03
-4.5000000e-01	-1.249702E-03	-6.458403E-04	-2.034716E-03
-4.2500000e-01	-8.339835E-04	-3.838582E-04	-1.423545E-03
-4.0000000e-01	-5.162389E-04	-2.125448E-04	-9.327605E-04
-3.7500000e-01	-2.937329E-04	-1.106466E-04	-5.596330E-04
-3.5000000e-01	-1.537279E-04	-5.497263E-05	-2.989533E-04
-3.2500000e-01	-7.493357E-05	-2.649171E-05	-1.392987E-04
-3.0000000e-01	-3.471511E-05	-1.256760E-05	-5.693658E-05
-2.7500000e-01	-1.563019E-05	-5.952723E-06	-2.113755E-05
-2.5000000e-01	-7.001335E-06	-2.863206E-06	-7.478945E-06
-2.2500000e-01	-3.215160E-06	-1.433628E-06	-2.669259E-06
-2.0000000e-01	-1.576700E-06	-7.729597E-07	-1.039352E-06
-1.7500000e-01	-8.691669E-07	-4.659048E-07	-4.927445E-07
-1.5000000e-01	-5.602970E-07	-3.210513E-07	-3.061011E-07
-1.2500000e-01	-4.211770E-07	-2.506183E-07	-2.379539E-07
-1.0000000e-01	-3.542844E-07	-2.144259E-07	-2.089405E-07
-7.5000000e-02	-3.182781E-07	-1.940781E-07	-1.931392E-07
-5.0000000e-02	-2.956734E-07	-1.811414E-07	-1.820767E-07
-2.5000000e-02	-2.790923E-07	-1.717494E-07	-1.729565E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[Pullup]

-1.5000000e+00	1.389728E-02	1.504401E-02	1.3495E-02
-1.4750000e+00	1.392266E-02	1.515940E-02	1.3511E-02
-1.4250000e+00	1.394549E-02	1.534861E-02	1.3532E-02
-1.3750000e+00	1.393984E-02	1.547700E-02	1.3542E-02
-1.3250000e+00	1.391859E-02	1.554357E-02	1.3545E-02
-1.2750000e+00	1.389341E-02	1.555550E-02	1.3540E-02
-1.2250000e+00	1.387050E-02	1.552788E-02	1.3526E-02

-1.1750000e+00	1.384963E-02	1.548081E-02	1.3502E-02
-1.1250000e+00	1.382685E-02	1.543388E-02	1.3467E-02
-1.0750000e+00	1.379804E-02	1.539856E-02	1.3421E-02
-1.0250000e+00	1.376042E-02	1.537452E-02	1.3363E-02
-9.7500000e-01	1.371257E-02	1.535474E-02	1.3293E-02
-9.2500000e-01	1.365380E-02	1.533271E-02	1.3210E-02
-8.7500000e-01	1.358379E-02	1.530481E-02	1.3113E-02
-8.2500000e-01	1.350199E-02	1.526951E-02	1.3001E-02
-7.7500000e-01	1.340734E-02	1.522537E-02	1.2873E-02
-7.2500000e-01	1.329767E-02	1.516783E-02	1.2725E-02
-6.7500000e-01	1.316879E-02	1.508258E-02	1.2554E-02
-6.2500000e-01	1.301213E-02	1.493400E-02	1.2352E-02
-5.7500000e-01	1.280843E-02	1.465359E-02	1.2107E-02
-5.2500000e-01	1.251269E-02	1.414154E-02	1.1797E-02
-4.7500000e-01	1.203560E-02	1.330397E-02	1.1382E-02
-4.2500000e-01	1.126665E-02	1.214514E-02	1.0778E-02
-3.7500000e-01	1.018437E-02	1.079032E-02	9.8667E-03
-3.2500000e-01	8.905568E-03	9.358893E-03	8.6724E-03
-2.7500000e-01	7.550642E-03	7.907034E-03	7.3614E-03
-2.2500000e-01	6.175032E-03	6.454310E-03	6.0240E-03
-1.7500000e-01	4.796858E-03	5.006794E-03	4.6832E-03
-1.2500000e-01	3.421222E-03	3.566345E-03	3.3432E-03
-7.5000000e-02	2.049479E-03	2.133648E-03	2.0047E-03
-2.5000000e-02	6.820421E-04	7.091043E-04	6.6784E-04
0.0000000e+00	1.125100E-09	4.014300E-10	2.6237E-09
2.5000000e-02	-6.802155E-04	-7.060015E-04	-6.6696E-04
7.5000000e-02	-2.032965E-03	-2.105590E-03	-1.9968E-03
1.2500000e-01	-3.375119E-03	-3.487987E-03	-3.3211E-03
1.7500000e-01	-4.706231E-03	-4.852382E-03	-4.6395E-03
2.2500000e-01	-6.025837E-03	-6.197914E-03	-5.9518E-03
2.7500000e-01	-7.333440E-03	-7.523661E-03	-7.2578E-03
3.2500000e-01	-8.628517E-03	-8.828634E-03	-8.5572E-03
3.7500000e-01	-9.910511E-03	-1.011178E-02	-9.8498E-03
4.2500000e-01	-1.117883E-02	-1.137197E-02	-1.1135E-02
4.7500000e-01	-1.243286E-02	-1.260797E-02	-1.2413E-02
5.2500000e-01	-1.367192E-02	-1.381848E-02	-1.3683E-02
5.7500000e-01	-1.489533E-02	-1.500209E-02	-1.4945E-02
6.2500000e-01	-1.610232E-02	-1.615730E-02	-1.6198E-02
6.7500000e-01	-1.729210E-02	-1.728247E-02	-1.7442E-02
7.2500000e-01	-1.846383E-02	-1.837588E-02	-1.8677E-02
7.7500000e-01	-1.961663E-02	-1.943566E-02	-1.9902E-02
8.2500000e-01	-2.074956E-02	-2.045990E-02	-2.1116E-02
8.7500000e-01	-2.186165E-02	-2.144666E-02	-2.2320E-02
9.2500000e-01	-2.295193E-02	-2.239415E-02	-2.3513E-02
9.7500000e-01	-2.401949E-02	-2.330089E-02	-2.4694E-02
1.0250000e+00	-2.506353E-02	-2.416589E-02	-2.5862E-02
1.0750000e+00	-2.608351E-02	-2.498853E-02	-2.7019E-02
1.1250000e+00	-2.707921E-02	-2.576811E-02	-2.8162E-02
1.1750000e+00	-2.805064E-02	-2.650347E-02	-2.9293E-02
1.2250000e+00	-2.899777E-02	-2.719285E-02	-3.0411E-02
1.2750000e+00	-2.992027E-02	-2.783418E-02	-3.1515E-02
1.3250000e+00	-3.081737E-02	-2.842555E-02	-3.2607E-02
1.3750000e+00	-3.168792E-02	-2.896616E-02	-3.3684E-02
1.4250000e+00	-3.253039E-02	-2.945719E-02	-3.4746E-02

1.4750000e+00	-3.334289E-02	-2.990258E-02	-3.5792E-02
1.5250000e+00	-3.412325E-02	-3.030862E-02	-3.6822E-02
1.5750000e+00	-3.486904E-02	-3.068257E-02	-3.7833E-02
1.6250000e+00	-3.557765E-02	-3.103121E-02	-3.8826E-02
1.6750000e+00	-3.624648E-02	-3.136007E-02	-3.9797E-02
1.7250000e+00	-3.687328E-02	-3.167336E-02	-4.0746E-02
1.7750000e+00	-3.745664E-02	-3.197424E-02	-4.1671E-02
1.8250000e+00	-3.799669E-02	-3.226504E-02	-4.2569E-02
1.8750000e+00	-3.849556E-02	-3.254752E-02	-4.3438E-02
1.9250000e+00	-3.895731E-02	-3.282305E-02	-4.4275E-02
1.9750000e+00	-3.938722E-02	-3.309268E-02	-4.5078E-02
2.0250000e+00	-3.979072E-02	-3.335727E-02	-4.5843E-02
2.0750000e+00	-4.017273E-02	-3.361751E-02	-4.6567E-02
2.1250000e+00	-4.053726E-02	-3.387396E-02	-4.7248E-02
2.1750000e+00	-4.088753E-02	-3.412707E-02	-4.7884E-02
2.2250000e+00	-4.122603E-02	-3.437727E-02	-4.8477E-02
2.2750000e+00	-4.155471E-02	-3.462485E-02	-4.9029E-02
2.3250000e+00	-4.187511E-02	-3.487012E-02	-4.9543E-02
2.3750000e+00	-4.218845E-02	-3.511332E-02	-5.0025E-02
2.4250000e+00	-4.249571E-02	-3.535466E-02	-5.0480E-02
2.4750000e+00	-4.279769E-02	-3.559433E-02	-5.0912E-02
2.5250000e+00	-4.309507E-02	-3.583247E-02	-5.1326E-02
2.5750000e+00	-4.338839E-02	-3.606925E-02	-5.1724E-02
2.6250000e+00	-4.367813E-02	-3.630478E-02	-5.2110E-02
2.6750000e+00	-4.396467E-02	-3.653918E-02	-5.2484E-02
2.7250000e+00	-4.424835E-02	-3.677256E-02	-5.2850E-02
2.7750000e+00	-4.452948E-02	-3.700500E-02	-5.3207E-02
2.8250000e+00	-4.480830E-02	-3.723659E-02	-5.3558E-02
2.8750000e+00	-4.508503E-02	-3.746739E-02	-5.3903E-02
2.9250000e+00	-4.535988E-02	-3.769749E-02	-5.4242E-02
2.9750000e+00	-4.563300E-02	-3.792696E-02	-5.4577E-02
3.0000000e+00	-4.576897E-02	-3.804147E-02	-5.4743E-02

[POWER Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	4.450136E-02	4.385767E-02	4.780182E-02
-1.4750000e+00	4.325737E-02	4.248503E-02	4.651241E-02
-1.4500000e+00	4.202627E-02	4.113177E-02	4.522926E-02
-1.4250000e+00	4.080680E-02	3.979850E-02	4.395156E-02
-1.4000000e+00	3.959743E-02	3.848563E-02	4.267873E-02
-1.3750000e+00	3.839648E-02	3.719324E-02	4.141044E-02
-1.3500000e+00	3.720221E-02	3.592106E-02	4.014659E-02
-1.3250000e+00	3.601296E-02	3.466841E-02	3.888726E-02
-1.3000000e+00	3.482735E-02	3.343415E-02	3.763263E-02
-1.2750000e+00	3.364438E-02	3.221669E-02	3.638297E-02
-1.2500000e+00	3.246358E-02	3.101397E-02	3.513857E-02
-1.2250000e+00	3.128497E-02	2.982356E-02	3.389973E-02
-1.2000000e+00	3.010901E-02	2.864279E-02	3.266673E-02
-1.1750000e+00	2.893648E-02	2.746896E-02	3.143985E-02
-1.1500000e+00	2.776826E-02	2.629964E-02	3.021938E-02
-1.1250000e+00	2.660528E-02	2.513304E-02	2.900561E-02
-1.1000000e+00	2.544841E-02	2.396824E-02	2.779886E-02
-1.0750000e+00	2.429844E-02	2.280536E-02	2.659948E-02
-1.0500000e+00	2.315612E-02	2.164543E-02	2.540789E-02

-1.0250000e+00	2.202214E-02	2.049007E-02	2.422457E-02
-1.0000000e+00	2.089719E-02	1.934117E-02	2.305009E-02
-9.7500000e-01	1.978197E-02	1.820065E-02	2.188514E-02
-9.5000000e-01	1.867722E-02	1.707028E-02	2.073052E-02
-9.2500000e-01	1.758372E-02	1.595172E-02	1.958719E-02
-9.0000000e-01	1.650228E-02	1.484648E-02	1.845618E-02
-8.7500000e-01	1.543373E-02	1.375596E-02	1.733862E-02
-8.5000000e-01	1.437889E-02	1.268153E-02	1.623553E-02
-8.2500000e-01	1.333851E-02	1.162449E-02	1.514772E-02
-8.0000000e-01	1.231328E-02	1.058622E-02	1.407562E-02
-7.7500000e-01	1.130388E-02	9.568206E-03	1.301922E-02
-7.5000000e-01	1.031106E-02	8.572276E-03	1.197827E-02
-7.2500000e-01	9.335806E-03	7.600753E-03	1.095257E-02
-7.0000000e-01	8.379549E-03	6.656721E-03	9.942222E-03
-6.7500000e-01	7.444326E-03	5.744302E-03	8.947921E-03
-6.5000000e-01	6.532997E-03	4.868952E-03	7.971051E-03
-6.2500000e-01	5.649458E-03	4.037787E-03	7.013870E-03
-6.0000000e-01	4.798902E-03	3.259897E-03	6.079707E-03
-5.7500000e-01	3.988134E-03	2.546530E-03	5.173245E-03
-5.5000000e-01	3.225930E-03	1.910856E-03	4.300910E-03
-5.2500000e-01	2.523332E-03	1.366712E-03	3.471447E-03
-5.0000000e-01	1.893615E-03	9.256050E-04	2.696680E-03
-4.7500000e-01	1.351332E-03	5.919303E-04	1.992354E-03
-4.5000000e-01	9.095438E-04	3.586832E-04	1.378419E-03
-4.2500000e-01	5.747929E-04	2.078355E-04	8.770400E-04
-4.0000000e-01	3.418453E-04	1.164218E-04	5.053108E-04
-3.7500000e-01	1.930954E-04	6.360210E-05	2.627390E-04
-3.5000000e-01	1.048276E-04	3.408364E-05	1.249615E-04
-3.2500000e-01	5.523970E-05	1.799151E-05	5.555911E-05
-3.0000000e-01	2.845373E-05	9.394192E-06	2.354502E-05
-2.7500000e-01	1.440808E-05	4.878770E-06	9.668085E-06
-2.5000000e-01	7.217646E-06	2.540607E-06	3.917725E-06
-2.2500000e-01	3.608426E-06	1.343333E-06	1.610387E-06
-2.0000000e-01	1.824961E-06	7.351342E-07	7.040805E-07
-1.7500000e-01	9.538097E-07	4.274933E-07	3.518120E-07
-1.5000000e-01	5.312391E-07	2.717598E-07	2.143493E-07
-1.2500000e-01	3.264285E-07	1.922225E-07	1.590780E-07
-1.0000000e-01	2.262355E-07	1.506538E-07	1.350141E-07
-7.5000000e-02	1.758303E-07	1.278715E-07	1.227817E-07
-5.0000000e-02	1.489090E-07	1.143246E-07	1.150734E-07
-2.5000000e-02	1.332080E-07	1.054156E-07	1.091537E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[Ramp]

R\_load = 50.00Ohm

	typ	min	max
dV/dt_r	532.022mV/119.423ps	491.319mV/165.185ps	567.619mV/91.565ps
dV/dt_f	537.976mV/129.806ps	497.460mV/173.213ps	578.029mV/105.657ps

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[Rising Waveform]

V\_fixture = 1.500V  
V\_fixture\_min = 1.425V  
V\_fixture\_max = 1.575V  
R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	6.8316E-01	6.4198E-01	7.1381E-01
1.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
2.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
3.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
4.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
5.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
6.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
7.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
8.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
9.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
1.00E-10	6.8316E-01	6.4198E-01	7.1381E-01
1.10E-10	6.8316E-01	6.4198E-01	7.1381E-01
1.20E-10	6.8316E-01	6.4198E-01	7.1381E-01
1.30E-10	6.8316E-01	6.4198E-01	7.1381E-01
1.40E-10	6.8316E-01	6.4198E-01	7.2174E-01
1.50E-10	6.8316E-01	6.4198E-01	7.5887E-01
1.60E-10	6.8316E-01	6.4198E-01	8.2016E-01
1.70E-10	6.8316E-01	6.4198E-01	9.1349E-01
1.80E-10	6.8316E-01	6.4198E-01	1.0158E+00
1.90E-10	6.8316E-01	6.4198E-01	1.1058E+00
2.00E-10	6.8631E-01	6.4198E-01	1.1722E+00
2.10E-10	6.9781E-01	6.4198E-01	1.2169E+00
2.20E-10	7.2546E-01	6.4298E-01	1.2448E+00
2.30E-10	7.5875E-01	6.4398E-01	1.2647E+00
2.40E-10	8.1582E-01	6.4498E-01	1.2837E+00
2.50E-10	8.7535E-01	6.4698E-01	1.3078E+00
2.60E-10	9.4749E-01	6.5598E-01	1.3414E+00
2.70E-10	1.0174E+00	6.6598E-01	1.3863E+00
2.80E-10	1.0731E+00	6.7898E-01	1.4363E+00
2.90E-10	1.1226E+00	6.9347E-01	1.4802E+00
3.00E-10	1.1579E+00	7.1337E-01	1.5132E+00
3.10E-10	1.1837E+00	7.4966E-01	1.5358E+00
3.20E-10	1.2048E+00	7.9147E-01	1.5503E+00
3.30E-10	1.2195E+00	8.3328E-01	1.5592E+00
3.40E-10	1.2343E+00	8.7936E-01	1.5645E+00
3.50E-10	1.2494E+00	9.3100E-01	1.5675E+00
3.60E-10	1.2675E+00	9.8264E-01	1.5691E+00
3.70E-10	1.2874E+00	1.0268E+00	1.5702E+00
3.80E-10	1.3136E+00	1.0618E+00	1.5750E+00
3.90E-10	1.3416E+00	1.0967E+00	1.5750E+00
4.00E-10	1.3720E+00	1.1198E+00	1.5750E+00
4.10E-10	1.4006E+00	1.1392E+00	1.5750E+00
4.20E-10	1.4277E+00	1.1550E+00	1.5750E+00
4.30E-10	1.4490E+00	1.1666E+00	1.5750E+00
4.40E-10	1.4656E+00	1.1779E+00	1.5750E+00
4.50E-10	1.4779E+00	1.1874E+00	1.5750E+00
4.60E-10	1.4845E+00	1.1970E+00	1.5750E+00

4.70E-10	1.4896E+00	1.2077E+00	1.5750E+00
4.80E-10	1.4922E+00	1.2186E+00	1.5750E+00
4.90E-10	1.4951E+00	1.2308E+00	1.5750E+00
5.00E-10	1.4974E+00	1.2441E+00	1.5750E+00
5.10E-10	1.4984E+00	1.2582E+00	1.5750E+00
5.20E-10	1.4991E+00	1.2741E+00	1.5750E+00
5.30E-10	1.5000E+00	1.2901E+00	1.5750E+00
5.40E-10	1.5000E+00	1.3071E+00	1.5750E+00
5.50E-10	1.5000E+00	1.3240E+00	1.5750E+00
5.60E-10	1.5000E+00	1.3409E+00	1.5750E+00
5.70E-10	1.5000E+00	1.3579E+00	1.5750E+00
5.80E-10	1.5000E+00	1.3720E+00	1.5750E+00
5.90E-10	1.5000E+00	1.3824E+00	1.5750E+00
6.00E-10	1.5000E+00	1.3929E+00	1.5750E+00
6.10E-10	1.5000E+00	1.4033E+00	1.5750E+00
6.20E-10	1.5000E+00	1.4094E+00	1.5750E+00
6.30E-10	1.5000E+00	1.4154E+00	1.5750E+00
6.40E-10	1.5000E+00	1.4204E+00	1.5750E+00
6.50E-10	1.5000E+00	1.4244E+00	1.5750E+00
6.60E-10	1.5000E+00	1.4244E+00	1.5750E+00
6.70E-10	1.5000E+00	1.4244E+00	1.5750E+00
6.80E-10	1.5000E+00	1.4244E+00	1.5750E+00
6.90E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.00E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.10E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.20E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.30E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.40E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.50E-10	1.5000E+00	1.4244E+00	1.5750E+00

[Falling Waveform]

V\_fixture = 1.500V

V\_fixture\_min = 1.425V

V\_fixture\_max = 1.575V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	1.5000E+00	1.4244E+00	1.5750E+00
1.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
2.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
3.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
4.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
5.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
6.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
7.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
8.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
9.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
1.00E-10	1.5000E+00	1.4244E+00	1.5750E+00
1.10E-10	1.5000E+00	1.4244E+00	1.5750E+00
1.20E-10	1.5000E+00	1.4244E+00	1.5750E+00
1.30E-10	1.5000E+00	1.4244E+00	1.5678E+00
1.40E-10	1.5000E+00	1.4244E+00	1.5356E+00
1.50E-10	1.5000E+00	1.4244E+00	1.4918E+00



1.60E-10	1.5000E+00	1.4244E+00	1.4391E+00
1.70E-10	1.5000E+00	1.4244E+00	1.3811E+00
1.80E-10	1.5000E+00	1.4244E+00	1.3164E+00
1.90E-10	1.5000E+00	1.4244E+00	1.2491E+00
2.00E-10	1.4916E+00	1.4244E+00	1.1872E+00
2.10E-10	1.4779E+00	1.4244E+00	1.1373E+00
2.20E-10	1.4526E+00	1.4244E+00	1.1004E+00
2.30E-10	1.4258E+00	1.4244E+00	1.0723E+00
2.40E-10	1.3882E+00	1.4244E+00	1.0470E+00
2.50E-10	1.3499E+00	1.4244E+00	1.0149E+00
2.60E-10	1.3051E+00	1.4244E+00	9.8066E-01
2.70E-10	1.2605E+00	1.4244E+00	9.3547E-01
2.80E-10	1.2170E+00	1.4244E+00	8.8759E-01
2.90E-10	1.1745E+00	1.4194E+00	8.4268E-01
3.00E-10	1.1378E+00	1.4094E+00	8.0700E-01
3.10E-10	1.1029E+00	1.3963E+00	7.7745E-01
3.20E-10	1.0753E+00	1.3791E+00	7.5868E-01
3.30E-10	1.0489E+00	1.3558E+00	7.4505E-01
3.40E-10	1.0261E+00	1.3325E+00	7.3501E-01
3.50E-10	1.0023E+00	1.3056E+00	7.2933E-01
3.60E-10	9.7620E-01	1.2772E+00	7.2516E-01
3.70E-10	9.4367E-01	1.2488E+00	7.2226E-01
3.80E-10	9.0696E-01	1.2213E+00	7.2113E-01
3.90E-10	8.7376E-01	1.1938E+00	7.1999E-01
4.00E-10	8.3990E-01	1.1670E+00	7.1886E-01
4.10E-10	8.0957E-01	1.1432E+00	7.1825E-01
4.20E-10	7.8300E-01	1.1193E+00	7.1767E-01
4.30E-10	7.6093E-01	1.0968E+00	7.1709E-01
4.40E-10	7.4264E-01	1.0762E+00	7.1654E-01
4.50E-10	7.2827E-01	1.0555E+00	7.1600E-01
4.60E-10	7.1647E-01	1.0350E+00	7.1545E-01
4.70E-10	7.0685E-01	1.0145E+00	7.1510E-01
4.80E-10	6.9834E-01	9.9409E-01	7.1479E-01
4.90E-10	6.9107E-01	9.6900E-01	7.1449E-01
5.00E-10	6.8566E-01	9.4342E-01	7.1433E-01
5.10E-10	6.8316E-01	9.1269E-01	7.1421E-01
5.20E-10	6.8316E-01	8.8416E-01	7.1410E-01
5.30E-10	6.8316E-01	8.5763E-01	7.1399E-01
5.40E-10	6.8316E-01	8.3261E-01	7.1388E-01
5.50E-10	6.8316E-01	8.0994E-01	7.1380E-01
5.60E-10	6.8316E-01	7.8727E-01	7.1380E-01
5.70E-10	6.8316E-01	7.6866E-01	7.1380E-01
5.80E-10	6.8316E-01	7.5240E-01	7.1380E-01
5.90E-10	6.8316E-01	7.3613E-01	7.1380E-01
6.00E-10	6.8316E-01	7.2289E-01	7.1380E-01
6.10E-10	6.8316E-01	7.1008E-01	7.1380E-01
6.20E-10	6.8316E-01	6.9855E-01	7.1380E-01
6.30E-10	6.8316E-01	6.9098E-01	7.1380E-01
6.40E-10	6.8316E-01	6.8198E-01	7.1380E-01
6.50E-10	6.8316E-01	6.7398E-01	7.1380E-01
6.60E-10	6.8316E-01	6.6298E-01	7.1380E-01
6.70E-10	6.8316E-01	6.5598E-01	7.1380E-01
6.80E-10	6.8316E-01	6.5098E-01	7.1380E-01
6.90E-10	6.8316E-01	6.4798E-01	7.1380E-01

7.00E-10	6.8316E-01	6.4598E-01	7.1380E-01
7.10E-10	6.8316E-01	6.4398E-01	7.1380E-01
7.20E-10	6.8316E-01	6.4298E-01	7.1380E-01
7.30E-10	6.8316E-01	6.4198E-01	7.1380E-01
7.40E-10	6.8316E-01	6.4198E-01	7.1380E-01
7.50E-10	6.8316E-01	6.4198E-01	7.1380E-01

[Rising Waveform]

V\_fixture = 0.000V

V\_fixture\_min = 0.000V

V\_fixture\_max = 0.000V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	2.1656E-05	4.5001E-04	1.9840E-06
1.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
2.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
3.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
4.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
5.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
6.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
7.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
8.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
9.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
1.00E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.10E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.20E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.30E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.40E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.50E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.60E-10	2.1656E-05	4.5001E-04	4.8671E-02
1.70E-10	2.1656E-05	4.5001E-04	1.0238E-01
1.80E-10	2.1656E-05	4.5001E-04	1.6978E-01
1.90E-10	2.1656E-05	4.5001E-04	2.4540E-01
2.00E-10	2.1656E-05	4.5001E-04	3.2196E-01
2.10E-10	2.1656E-05	4.5001E-04	3.9122E-01
2.20E-10	6.9115E-03	4.5001E-04	4.4667E-01
2.30E-10	2.1916E-02	4.5001E-04	4.8493E-01
2.40E-10	4.9605E-02	4.5001E-04	5.1216E-01
2.50E-10	8.2158E-02	4.5001E-04	5.3458E-01
2.60E-10	1.2545E-01	4.5001E-04	5.6186E-01
2.70E-10	1.7346E-01	4.5001E-04	6.0105E-01
2.80E-10	2.2437E-01	4.5001E-04	6.5263E-01
2.90E-10	2.7673E-01	4.5001E-04	7.0953E-01
3.00E-10	3.2396E-01	7.4200E-04	7.5988E-01
3.10E-10	3.6830E-01	6.9399E-03	7.9680E-01
3.20E-10	4.0406E-01	2.2538E-02	8.2326E-01
3.30E-10	4.3438E-01	3.8136E-02	8.4173E-01
3.40E-10	4.5821E-01	6.0559E-02	8.5396E-01
3.50E-10	4.7742E-01	9.0788E-02	8.6342E-01
3.60E-10	4.9488E-01	1.2102E-01	8.7131E-01
3.70E-10	5.1097E-01	1.5625E-01	8.7541E-01
3.80E-10	5.3186E-01	1.9335E-01	8.7950E-01

3.90E-10	5.5704E-01	2.3045E-01	8.8129E-01
4.00E-10	5.8693E-01	2.6299E-01	8.8750E-01
4.10E-10	6.3150E-01	2.9548E-01	8.8750E-01
4.20E-10	6.6900E-01	3.2621E-01	8.8750E-01
4.30E-10	7.0343E-01	3.5161E-01	8.8750E-01
4.40E-10	7.3251E-01	3.7701E-01	8.8750E-01
4.50E-10	7.5834E-01	3.9887E-01	8.8750E-01
4.60E-10	7.7553E-01	4.1920E-01	8.8750E-01
4.70E-10	7.9054E-01	4.3893E-01	8.8750E-01
4.80E-10	7.9989E-01	4.5025E-01	8.8750E-01
4.90E-10	8.0628E-01	4.6257E-01	8.8750E-01
5.00E-10	8.1206E-01	4.7874E-01	8.8750E-01
5.10E-10	8.1613E-01	4.8572E-01	8.8750E-01
5.20E-10	8.2020E-01	4.9920E-01	8.8750E-01
5.30E-10	8.2427E-01	5.1505E-01	8.8750E-01
5.40E-10	8.2778E-01	5.3090E-01	8.8750E-01
5.50E-10	8.3015E-01	5.5341E-01	8.8750E-01
5.60E-10	8.3015E-01	5.7647E-01	8.8750E-01
5.70E-10	8.3015E-01	5.9813E-01	8.8750E-01
5.80E-10	8.3015E-01	6.2467E-01	8.8750E-01
5.90E-10	8.3015E-01	6.5120E-01	8.8750E-01
6.00E-10	8.3015E-01	6.7309E-01	8.8750E-01
6.10E-10	8.3015E-01	6.9494E-01	8.8750E-01
6.20E-10	8.3015E-01	7.1298E-01	8.8750E-01
6.30E-10	8.3015E-01	7.2761E-01	8.8750E-01
6.40E-10	8.3015E-01	7.4187E-01	8.8750E-01
6.50E-10	8.3015E-01	7.5387E-01	8.8750E-01
6.60E-10	8.3015E-01	7.6287E-01	8.8750E-01
6.70E-10	8.3015E-01	7.7087E-01	8.8750E-01
6.80E-10	8.3015E-01	7.7787E-01	8.8750E-01
6.90E-10	8.3015E-01	7.8587E-01	8.8750E-01
7.00E-10	8.3015E-01	7.8987E-01	8.8750E-01
7.10E-10	8.3015E-01	7.9287E-01	8.8750E-01
7.20E-10	8.3015E-01	7.9387E-01	8.8750E-01
7.30E-10	8.3015E-01	7.9487E-01	8.8750E-01
7.40E-10	8.3015E-01	7.9587E-01	8.8750E-01
7.50E-10	8.3015E-01	7.9587E-01	8.8750E-01

[Falling Waveform]

V\_fixture = 0.000V

V\_fixture\_min = 0.000V

V\_fixture\_max = 0.000V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	8.3015E-01	7.9587E-01	8.8750E-01
1.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
2.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
3.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
4.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
5.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
6.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
7.00E-11	8.3015E-01	7.9587E-01	8.8750E-01

8.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
9.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
1.00E-10	8.3015E-01	7.9587E-01	8.8750E-01
1.10E-10	8.3015E-01	7.9587E-01	8.8750E-01
1.20E-10	8.3015E-01	7.9587E-01	8.8443E-01
1.30E-10	8.3015E-01	7.9587E-01	8.7452E-01
1.40E-10	8.3015E-01	7.9587E-01	8.4189E-01
1.50E-10	8.3015E-01	7.9587E-01	7.8920E-01
1.60E-10	8.3015E-01	7.9587E-01	7.1329E-01
1.70E-10	8.2717E-01	7.9587E-01	6.2580E-01
1.80E-10	8.2022E-01	7.9487E-01	5.4691E-01
1.90E-10	8.0849E-01	7.9287E-01	4.8081E-01
2.00E-10	7.8766E-01	7.8987E-01	4.2673E-01
2.10E-10	7.5342E-01	7.8587E-01	3.8302E-01
2.20E-10	7.0770E-01	7.8087E-01	3.4957E-01
2.30E-10	6.4643E-01	7.7487E-01	3.1949E-01
2.40E-10	5.7951E-01	7.6687E-01	2.8668E-01
2.50E-10	5.1395E-01	7.5687E-01	2.5182E-01
2.60E-10	4.5050E-01	7.4187E-01	2.1162E-01
2.70E-10	4.0155E-01	7.2460E-01	1.7228E-01
2.80E-10	3.6096E-01	7.0145E-01	1.3355E-01
2.90E-10	3.2886E-01	6.6392E-01	1.0138E-01
3.00E-10	3.0074E-01	6.2500E-01	7.3166E-02
3.10E-10	2.7872E-01	5.8181E-01	5.0761E-02
3.20E-10	2.6007E-01	5.3521E-01	3.5793E-02
3.30E-10	2.4432E-01	4.8940E-01	2.3892E-02
3.40E-10	2.2391E-01	4.4680E-01	1.6931E-02
3.50E-10	1.9806E-01	4.0419E-01	1.2192E-02
3.60E-10	1.7058E-01	3.7123E-01	8.9365E-03
3.70E-10	1.4036E-01	3.4007E-01	7.2358E-03
3.80E-10	1.1118E-01	3.1448E-01	5.9670E-03
3.90E-10	8.3244E-02	2.9477E-01	5.3516E-03
4.00E-10	6.1742E-02	2.7568E-01	4.7363E-03
4.10E-10	4.4018E-02	2.6075E-01	4.1060E-03
4.20E-10	3.0136E-02	2.4582E-01	3.4124E-03
4.30E-10	2.2486E-02	2.3054E-01	2.7189E-03
4.40E-10	1.5763E-02	2.1515E-01	2.0253E-03
4.50E-10	9.0387E-03	1.9777E-01	1.6262E-03
4.60E-10	5.3194E-03	1.7999E-01	1.2305E-03
4.70E-10	3.4381E-03	1.6207E-01	8.3483E-04
4.80E-10	1.5568E-03	1.4205E-01	6.3758E-04
4.90E-10	6.2322E-04	1.2203E-01	4.9475E-04
5.00E-10	1.0502E-04	1.0187E-01	3.5192E-04
5.10E-10	2.1656E-05	8.1652E-02	2.0909E-04
5.20E-10	2.1656E-05	6.3154E-02	6.6265E-05
5.30E-10	2.1656E-05	4.7873E-02	1.9840E-06
5.40E-10	2.1656E-05	3.2593E-02	1.9840E-06
5.50E-10	2.1656E-05	2.4507E-02	1.9840E-06
5.60E-10	2.1656E-05	1.6483E-02	1.9840E-06
5.70E-10	2.1656E-05	1.1660E-02	1.9840E-06
5.80E-10	2.1656E-05	8.6750E-03	1.9840E-06
5.90E-10	2.1656E-05	6.2443E-03	1.9840E-06
6.00E-10	2.1656E-05	5.2473E-03	1.9840E-06
6.10E-10	2.1656E-05	4.2503E-03	1.9840E-06

6.20E-10	2.1656E-05	3.6374E-03	1.9840E-06
6.30E-10	2.1656E-05	3.0570E-03	1.9840E-06
6.40E-10	2.1656E-05	2.5197E-03	1.9840E-06
6.50E-10	2.1656E-05	2.0157E-03	1.9840E-06
6.60E-10	2.1656E-05	1.5499E-03	1.9840E-06
6.70E-10	2.1656E-05	1.0325E-03	1.9840E-06
6.80E-10	2.1656E-05	8.8691E-04	1.9840E-06
6.90E-10	2.1656E-05	7.4127E-04	1.9840E-06
7.00E-10	2.1656E-05	5.9564E-04	1.9840E-06
7.10E-10	2.1656E-05	4.5001E-04	1.9840E-06
7.20E-10	2.1656E-05	4.5001E-04	1.9840E-06
7.30E-10	2.1656E-05	4.5001E-04	1.9840E-06
7.40E-10	2.1656E-05	4.5001E-04	1.9840E-06
7.50E-10	2.1656E-05	4.5001E-04	1.9840E-06

\*\*\*\*\*  
| MODEL DQS\_40\_1600 (34 Ohm Data Strobe I/O with 40ohm ODT, 1333/1600 Mbps)  
| \*\*\*\*\*

[Model] DQS\_40\_ODT40\_1600  
Model\_type I/O

Vinl = 600.000mV  
Vinh = 900.000mV  
Vmeas = 750.000mV  
Vref = 750.000mV  
Cref = 0.0pF  
Rref = 25.000Ohm

	typ	min	max
C_comp	1.078pF	0.966pF	1.223pF

| Note: C\_comp changes when the ODT circuit is enabled.

[Model Spec]

| Input threshold voltage corners

Vinl	0.6000V	0.5625V	0.6375V
Vinh	0.9000V	0.8625V	0.9375V

| Measurement voltage corners

Vmeas	0.7500V	0.7125V	0.7875V
-------	---------	---------	---------

| Timing spec test load voltage corners

Vref	0.7500V	0.7125V	0.7875V
------	---------	---------	---------

| Dynamic Overshoot Parameters from DDR3 Specification

D_overshoot_ampl_h	0.40	NA	NA
D_overshoot_ampl_l	0.40	NA	NA
D_overshoot_area_h	0.13n	NA	NA
D_overshoot_area_l	0.13n	NA	NA

||[Receiver Thresholds]

|Vth = 0.750V  
|Vth\_min = 0.7350V

```

|Vth_max = 0.7650V
|Vinh_ac = 0.150V
|Vinh_dc = 0.100V
|Vinl_ac = -0.150V
|Vinl_dc = -0.100V
|Tslew_ac = 5.000ns |Not specified, so set to high value
|Threshold_sensitivity = 0.50
|Reference_supply Pullup_ref

```

```

|NOTE: If using the IBISCHK 4.2.1 or older parser, Differential receiver
|threshold parameters must be commented out because the parser generates
|errors for multiple differential models.

```

```

|Vcross_low = 0.600V
|Vcross_high = 0.900V
|Vdiff_ac = 300mV
|Vdiff_dc = 200mV
|Tdiffslew_ac = 10.000ns |Not specified, so set to high value

```

```

[Add Submodel]

```

Submodel Name	Mode			
40Ohm_ODT	Non-Driving			
[Voltage Range]	1.500V	1.425V	1.575V	
[Pullup Reference]	1.500V	1.425V	1.575V	
[Temperature Range]	85.0	110.0	0.0	

```

*****

```

```

[Pulldown]

```

Voltage	I(typ)	I(min)	I(max)	
-1.5000000e+00	-5.766580E-03	-5.671960E-03	-4.4564E-03	
-1.4750000e+00	-5.965480E-03	-5.898760E-03	-4.6456E-03	
-1.4250000e+00	-6.365740E-03	-6.361750E-03	-5.0283E-03	
-1.3750000e+00	-6.767370E-03	-6.833580E-03	-5.4143E-03	
-1.3250000e+00	-7.168490E-03	-7.310620E-03	-5.8012E-03	
-1.2750000e+00	-7.567540E-03	-7.790060E-03	-6.1870E-03	
-1.2250000e+00	-7.963180E-03	-8.269780E-03	-6.5705E-03	
-1.1750000e+00	-8.354170E-03	-8.748110E-03	-6.9506E-03	
-1.1250000e+00	-8.739220E-03	-9.223740E-03	-7.3262E-03	
-1.0750000e+00	-9.116960E-03	-9.695520E-03	-7.6961E-03	
-1.0250000e+00	-9.485740E-03	-1.016235E-02	-8.0593E-03	
-9.7500000e-01	-9.843550E-03	-1.062303E-02	-8.4141E-03	
-9.2500000e-01	-1.018784E-02	-1.107598E-02	-8.7587E-03	
-8.7500000e-01	-1.051515E-02	-1.151861E-02	-9.0906E-03	
-8.2500000e-01	-1.082065E-02	-1.194611E-02	-9.4063E-03	
-7.7500000e-01	-1.109723E-02	-1.234917E-02	-9.7010E-03	
-7.2500000e-01	-1.133396E-02	-1.271052E-02	-9.9678E-03	
-6.7500000e-01	-1.151368E-02	-1.300112E-02	-1.0196E-02	
-6.2500000e-01	-1.161030E-02	-1.317732E-02	-1.0369E-02	
-5.7500000e-01	-1.158847E-02	-1.318034E-02	-1.0460E-02	
-5.2500000e-01	-1.140914E-02	-1.294110E-02	-1.0425E-02	
-4.7500000e-01	-1.103661E-02	-1.239310E-02	-1.0195E-02	

-4.2500000e-01	-1.042948E-02	-1.149942E-02	-9.7052E-03
-3.7500000e-01	-9.541331E-03	-1.031290E-02	-8.9368E-03
-3.2500000e-01	-8.402181E-03	-8.972323E-03	-7.9244E-03
-2.7500000e-01	-7.136897E-03	-7.584300E-03	-6.7526E-03
-2.2500000e-01	-5.837164E-03	-6.189682E-03	-5.5298E-03
-1.7500000e-01	-4.533342E-03	-4.799550E-03	-4.2997E-03
-1.2500000e-01	-3.232329E-03	-3.416866E-03	-3.0698E-03
-7.5000000e-02	-1.935664E-03	-2.042825E-03	-1.8409E-03
-2.5000000e-02	-6.439068E-04	-6.783475E-04	-6.1331E-04
0.0000000e+00	-2.495000E-09	-2.851000E-10	-4.3290E-09
2.5000000e-02	6.423542E-04	6.754144E-04	6.1284E-04
7.5000000e-02	1.921741E-03	2.016470E-03	1.8368E-03
1.2500000e-01	3.193668E-03	3.343638E-03	3.0583E-03
1.7500000e-01	4.457673E-03	4.655798E-03	4.2773E-03
2.2500000e-01	5.713247E-03	5.951703E-03	5.4937E-03
2.7500000e-01	6.959828E-03	7.229949E-03	6.7074E-03
3.2500000e-01	8.196792E-03	8.488947E-03	7.9183E-03
3.7500000e-01	9.423449E-03	9.726883E-03	9.1262E-03
4.2500000e-01	1.063902E-02	1.094167E-02	1.0331E-02
4.7500000e-01	1.184265E-02	1.213090E-02	1.1533E-02
5.2500000e-01	1.303336E-02	1.329176E-02	1.2731E-02
5.7500000e-01	1.421007E-02	1.442101E-02	1.3926E-02
6.2500000e-01	1.537155E-02	1.551502E-02	1.5117E-02
6.7500000e-01	1.651649E-02	1.657019E-02	1.6305E-02
7.2500000e-01	1.764350E-02	1.758380E-02	1.7488E-02
7.7500000e-01	1.875138E-02	1.855487E-02	1.8667E-02
8.2500000e-01	1.983945E-02	1.948346E-02	1.9842E-02
8.7500000e-01	2.090800E-02	2.036881E-02	2.1012E-02
9.2500000e-01	2.195802E-02	2.120815E-02	2.2178E-02
9.7500000e-01	2.299059E-02	2.199660E-02	2.3338E-02
1.0250000e+00	2.400623E-02	2.272804E-02	2.4493E-02
1.0750000e+00	2.500472E-02	2.339642E-02	2.5642E-02
1.1250000e+00	2.598518E-02	2.399791E-02	2.6785E-02
1.1750000e+00	2.694619E-02	2.453290E-02	2.7921E-02
1.2250000e+00	2.788582E-02	2.500673E-02	2.9050E-02
1.2750000e+00	2.880158E-02	2.542839E-02	3.0172E-02
1.3250000e+00	2.969048E-02	2.580810E-02	3.1286E-02
1.3750000e+00	3.054893E-02	2.615534E-02	3.2391E-02
1.4250000e+00	3.137276E-02	2.647793E-02	3.3486E-02
1.4750000e+00	3.215739E-02	2.678186E-02	3.4572E-02
1.5250000e+00	3.289823E-02	2.707162E-02	3.5646E-02
1.5750000e+00	3.359126E-02	2.735051E-02	3.6708E-02
1.6250000e+00	3.423408E-02	2.762095E-02	3.7757E-02
1.6750000e+00	3.482661E-02	2.788477E-02	3.8790E-02
1.7250000e+00	3.537149E-02	2.814329E-02	3.9807E-02
1.7750000e+00	3.587366E-02	2.839756E-02	4.0805E-02
1.8250000e+00	3.633928E-02	2.864834E-02	4.1781E-02
1.8750000e+00	3.677472E-02	2.889628E-02	4.2734E-02
1.9250000e+00	3.718582E-02	2.914184E-02	4.3660E-02
1.9750000e+00	3.757750E-02	2.938542E-02	4.4556E-02
2.0250000e+00	3.795380E-02	2.962733E-02	4.5417E-02
2.0750000e+00	3.831783E-02	2.986783E-02	4.6241E-02
2.1250000e+00	3.867208E-02	3.010713E-02	4.7025E-02
2.1750000e+00	3.901845E-02	3.034542E-02	4.7767E-02

2.2250000e+00	3.935843E-02	3.058286E-02	4.8466E-02
2.2750000e+00	3.969319E-02	3.081960E-02	4.9124E-02
2.3250000e+00	4.002364E-02	3.105576E-02	4.9743E-02
2.3750000e+00	4.035053E-02	3.129147E-02	5.0329E-02
2.4250000e+00	4.067444E-02	3.152686E-02	5.0885E-02
2.4750000e+00	4.099589E-02	3.176208E-02	5.1415E-02
2.5250000e+00	4.131527E-02	3.199724E-02	5.1923E-02
2.5750000e+00	4.163292E-02	3.223252E-02	5.2415E-02
2.6250000e+00	4.194914E-02	3.246808E-02	5.2891E-02
2.6750000e+00	4.226420E-02	3.270415E-02	5.3355E-02
2.7250000e+00	4.257832E-02	3.294093E-02	5.3809E-02
2.7750000e+00	4.289173E-02	3.317872E-02	5.4255E-02
2.8250000e+00	4.320461E-02	3.341781E-02	5.4693E-02
2.8750000e+00	4.351716E-02	3.365859E-02	5.5126E-02
2.9250000e+00	4.382954E-02	3.390146E-02	5.5553E-02
2.9750000e+00	4.414196E-02	3.414689E-02	5.5976E-02
3.0000000e+00	4.429822E-02	3.427073E-02	5.6186E-02

[GND Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	-5.378351E-02	-5.490567E-02	-5.885698E-02
-1.4750000e+00	-5.231251E-02	-5.334431E-02	-5.735670E-02
-1.4500000e+00	-5.084369E-02	-5.178549E-02	-5.585777E-02
-1.4250000e+00	-4.937717E-02	-5.022938E-02	-5.436026E-02
-1.4000000e+00	-4.791309E-02	-4.867613E-02	-5.286424E-02
-1.3750000e+00	-4.645161E-02	-4.712594E-02	-5.136982E-02
-1.3500000e+00	-4.499289E-02	-4.557901E-02	-4.987709E-02
-1.3250000e+00	-4.353712E-02	-4.403556E-02	-4.838614E-02
-1.3000000e+00	-4.208452E-02	-4.249585E-02	-4.689710E-02
-1.2750000e+00	-4.063529E-02	-4.096014E-02	-4.541010E-02
-1.2500000e+00	-3.918970E-02	-3.942875E-02	-4.392527E-02
-1.2250000e+00	-3.774803E-02	-3.790201E-02	-4.244278E-02
-1.2000000e+00	-3.631059E-02	-3.638031E-02	-4.096280E-02
-1.1750000e+00	-3.487773E-02	-3.486408E-02	-3.948552E-02
-1.1500000e+00	-3.344986E-02	-3.335380E-02	-3.801116E-02
-1.1250000e+00	-3.202742E-02	-3.185003E-02	-3.653998E-02
-1.1000000e+00	-3.061092E-02	-3.035339E-02	-3.507226E-02
-1.0750000e+00	-2.920096E-02	-2.886462E-02	-3.360832E-02
-1.0500000e+00	-2.779821E-02	-2.738455E-02	-3.214854E-02
-1.0250000e+00	-2.640347E-02	-2.591415E-02	-3.069335E-02
-1.0000000e+00	-2.501766E-02	-2.445455E-02	-2.924328E-02
-9.7500000e-01	-2.364185E-02	-2.300708E-02	-2.779892E-02
-9.5000000e-01	-2.227732E-02	-2.157329E-02	-2.636102E-02
-9.2500000e-01	-2.092559E-02	-2.015501E-02	-2.493048E-02
-9.0000000e-01	-1.958843E-02	-1.875433E-02	-2.350840E-02
-8.7500000e-01	-1.826790E-02	-1.737363E-02	-2.209616E-02
-8.5000000e-01	-1.696631E-02	-1.601550E-02	-2.069550E-02
-8.2500000e-01	-1.568612E-02	-1.468262E-02	-1.930856E-02
-8.0000000e-01	-1.442972E-02	-1.337762E-02	-1.793782E-02
-7.7500000e-01	-1.319926E-02	-1.210311E-02	-1.658583E-02
-7.5000000e-01	-1.199673E-02	-1.086191E-02	-1.525450E-02
-7.2500000e-01	-1.082427E-02	-9.657411E-03	-1.394473E-02
-7.0000000e-01	-9.684638E-03	-8.493939E-03	-1.265685E-02
-6.7500000e-01	-8.581514E-03	-7.376930E-03	-1.139180E-02



-6.5000000e-01	-7.519607E-03	-6.312929E-03	-1.015194E-02
-6.2500000e-01	-6.504547E-03	-5.309438E-03	-8.941318E-03
-6.0000000e-01	-5.542688E-03	-4.374618E-03	-7.765735E-03
-5.7500000e-01	-4.640772E-03	-3.516890E-03	-6.632945E-03
-5.5000000e-01	-3.805524E-03	-2.744483E-03	-5.552946E-03
-5.2500000e-01	-3.043248E-03	-2.065103E-03	-4.538201E-03
-5.0000000e-01	-2.359647E-03	-1.485677E-03	-3.603412E-03
-4.7500000e-01	-1.760020E-03	-1.011779E-03	-2.764265E-03
-4.5000000e-01	-1.249702E-03	-6.458403E-04	-2.034716E-03
-4.2500000e-01	-8.339835E-04	-3.838582E-04	-1.423545E-03
-4.0000000e-01	-5.162389E-04	-2.125448E-04	-9.327605E-04
-3.7500000e-01	-2.937329E-04	-1.106466E-04	-5.596330E-04
-3.5000000e-01	-1.537279E-04	-5.497263E-05	-2.989533E-04
-3.2500000e-01	-7.493357E-05	-2.649171E-05	-1.392987E-04
-3.0000000e-01	-3.471511E-05	-1.256760E-05	-5.693658E-05
-2.7500000e-01	-1.563019E-05	-5.952723E-06	-2.113755E-05
-2.5000000e-01	-7.001335E-06	-2.863206E-06	-7.478945E-06
-2.2500000e-01	-3.215160E-06	-1.433628E-06	-2.669259E-06
-2.0000000e-01	-1.576700E-06	-7.729597E-07	-1.039352E-06
-1.7500000e-01	-8.691669E-07	-4.659048E-07	-4.927445E-07
-1.5000000e-01	-5.602970E-07	-3.210513E-07	-3.061011E-07
-1.2500000e-01	-4.211770E-07	-2.506183E-07	-2.379539E-07
-1.0000000e-01	-3.542844E-07	-2.144259E-07	-2.089405E-07
-7.5000000e-02	-3.182781E-07	-1.940781E-07	-1.931392E-07
-5.0000000e-02	-2.956734E-07	-1.811414E-07	-1.820767E-07
-2.5000000e-02	-2.790923E-07	-1.717494E-07	-1.729565E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[Pullup]

-1.5000000e+00	1.389728E-02	1.504401E-02	1.3495E-02
-1.4750000e+00	1.392266E-02	1.515940E-02	1.3511E-02
-1.4250000e+00	1.394549E-02	1.534861E-02	1.3532E-02
-1.3750000e+00	1.393984E-02	1.547700E-02	1.3542E-02
-1.3250000e+00	1.391859E-02	1.554357E-02	1.3545E-02
-1.2750000e+00	1.389341E-02	1.555550E-02	1.3540E-02
-1.2250000e+00	1.387050E-02	1.552788E-02	1.3526E-02
-1.1750000e+00	1.384963E-02	1.548081E-02	1.3502E-02
-1.1250000e+00	1.382685E-02	1.543388E-02	1.3467E-02
-1.0750000e+00	1.379804E-02	1.539856E-02	1.3421E-02
-1.0250000e+00	1.376042E-02	1.537452E-02	1.3363E-02
-9.7500000e-01	1.371257E-02	1.535474E-02	1.3293E-02
-9.2500000e-01	1.365380E-02	1.533271E-02	1.3210E-02
-8.7500000e-01	1.358379E-02	1.530481E-02	1.3113E-02
-8.2500000e-01	1.350199E-02	1.526951E-02	1.3001E-02
-7.7500000e-01	1.340734E-02	1.522537E-02	1.2873E-02
-7.2500000e-01	1.329767E-02	1.516783E-02	1.2725E-02
-6.7500000e-01	1.316879E-02	1.508258E-02	1.2554E-02
-6.2500000e-01	1.301213E-02	1.493400E-02	1.2352E-02
-5.7500000e-01	1.280843E-02	1.465359E-02	1.2107E-02
-5.2500000e-01	1.251269E-02	1.414154E-02	1.1797E-02
-4.7500000e-01	1.203560E-02	1.330397E-02	1.1382E-02
-4.2500000e-01	1.126665E-02	1.214514E-02	1.0778E-02
-3.7500000e-01	1.018437E-02	1.079032E-02	9.8667E-03

-3.2500000e-01	8.905568E-03	9.358893E-03	8.6724E-03
-2.7500000e-01	7.550642E-03	7.907034E-03	7.3614E-03
-2.2500000e-01	6.175032E-03	6.454310E-03	6.0240E-03
-1.7500000e-01	4.796858E-03	5.006794E-03	4.6832E-03
-1.2500000e-01	3.421222E-03	3.566345E-03	3.3432E-03
-7.5000000e-02	2.049479E-03	2.133648E-03	2.0047E-03
-2.5000000e-02	6.820421E-04	7.091043E-04	6.6784E-04
0.0000000e+00	1.125100E-09	4.014300E-10	2.6237E-09
2.5000000e-02	-6.802155E-04	-7.060015E-04	-6.6696E-04
7.5000000e-02	-2.032965E-03	-2.105590E-03	-1.9968E-03
1.2500000e-01	-3.375119E-03	-3.487987E-03	-3.3211E-03
1.7500000e-01	-4.706231E-03	-4.852382E-03	-4.6395E-03
2.2500000e-01	-6.025837E-03	-6.197914E-03	-5.9518E-03
2.7500000e-01	-7.333440E-03	-7.523661E-03	-7.2578E-03
3.2500000e-01	-8.628517E-03	-8.828634E-03	-8.5572E-03
3.7500000e-01	-9.910511E-03	-1.011178E-02	-9.8498E-03
4.2500000e-01	-1.117883E-02	-1.137197E-02	-1.1135E-02
4.7500000e-01	-1.243286E-02	-1.260797E-02	-1.2413E-02
5.2500000e-01	-1.367192E-02	-1.381848E-02	-1.3683E-02
5.7500000e-01	-1.489533E-02	-1.500209E-02	-1.4945E-02
6.2500000e-01	-1.610232E-02	-1.615730E-02	-1.6198E-02
6.7500000e-01	-1.729210E-02	-1.728247E-02	-1.7442E-02
7.2500000e-01	-1.846383E-02	-1.837588E-02	-1.8677E-02
7.7500000e-01	-1.961663E-02	-1.943566E-02	-1.9902E-02
8.2500000e-01	-2.074956E-02	-2.045990E-02	-2.1116E-02
8.7500000e-01	-2.186165E-02	-2.144666E-02	-2.2320E-02
9.2500000e-01	-2.295193E-02	-2.239415E-02	-2.3513E-02
9.7500000e-01	-2.401949E-02	-2.330089E-02	-2.4694E-02
1.0250000e+00	-2.506353E-02	-2.416589E-02	-2.5862E-02
1.0750000e+00	-2.608351E-02	-2.498853E-02	-2.7019E-02
1.1250000e+00	-2.707921E-02	-2.576811E-02	-2.8162E-02
1.1750000e+00	-2.805064E-02	-2.650347E-02	-2.9293E-02
1.2250000e+00	-2.899777E-02	-2.719285E-02	-3.0411E-02
1.2750000e+00	-2.992027E-02	-2.783418E-02	-3.1515E-02
1.3250000e+00	-3.081737E-02	-2.842555E-02	-3.2607E-02
1.3750000e+00	-3.168792E-02	-2.896616E-02	-3.3684E-02
1.4250000e+00	-3.253039E-02	-2.945719E-02	-3.4746E-02
1.4750000e+00	-3.334289E-02	-2.990258E-02	-3.5792E-02
1.5250000e+00	-3.412325E-02	-3.030862E-02	-3.6822E-02
1.5750000e+00	-3.486904E-02	-3.068257E-02	-3.7833E-02
1.6250000e+00	-3.557765E-02	-3.103121E-02	-3.8826E-02
1.6750000e+00	-3.624648E-02	-3.136007E-02	-3.9797E-02
1.7250000e+00	-3.687328E-02	-3.167336E-02	-4.0746E-02
1.7750000e+00	-3.745664E-02	-3.197424E-02	-4.1671E-02
1.8250000e+00	-3.799669E-02	-3.226504E-02	-4.2569E-02
1.8750000e+00	-3.849556E-02	-3.254752E-02	-4.3438E-02
1.9250000e+00	-3.895731E-02	-3.282305E-02	-4.4275E-02
1.9750000e+00	-3.938722E-02	-3.309268E-02	-4.5078E-02
2.0250000e+00	-3.979072E-02	-3.335727E-02	-4.5843E-02
2.0750000e+00	-4.017273E-02	-3.361751E-02	-4.6567E-02
2.1250000e+00	-4.053726E-02	-3.387396E-02	-4.7248E-02
2.1750000e+00	-4.088753E-02	-3.412707E-02	-4.7884E-02
2.2250000e+00	-4.122603E-02	-3.437727E-02	-4.8477E-02
2.2750000e+00	-4.155471E-02	-3.462485E-02	-4.9029E-02

2.3250000e+00	-4.187511E-02	-3.487012E-02	-4.9543E-02
2.3750000e+00	-4.218845E-02	-3.511332E-02	-5.0025E-02
2.4250000e+00	-4.249571E-02	-3.535466E-02	-5.0480E-02
2.4750000e+00	-4.279769E-02	-3.559433E-02	-5.0912E-02
2.5250000e+00	-4.309507E-02	-3.583247E-02	-5.1326E-02
2.5750000e+00	-4.338839E-02	-3.606925E-02	-5.1724E-02
2.6250000e+00	-4.367813E-02	-3.630478E-02	-5.2110E-02
2.6750000e+00	-4.396467E-02	-3.653918E-02	-5.2484E-02
2.7250000e+00	-4.424835E-02	-3.677256E-02	-5.2850E-02
2.7750000e+00	-4.452948E-02	-3.700500E-02	-5.3207E-02
2.8250000e+00	-4.480830E-02	-3.723659E-02	-5.3558E-02
2.8750000e+00	-4.508503E-02	-3.746739E-02	-5.3903E-02
2.9250000e+00	-4.535988E-02	-3.769749E-02	-5.4242E-02
2.9750000e+00	-4.563300E-02	-3.792696E-02	-5.4577E-02
3.0000000e+00	-4.576897E-02	-3.804147E-02	-5.4743E-02

[POWER Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	4.450136E-02	4.385767E-02	4.780182E-02
-1.4750000e+00	4.325737E-02	4.248503E-02	4.651241E-02
-1.4500000e+00	4.202627E-02	4.113177E-02	4.522926E-02
-1.4250000e+00	4.080680E-02	3.979850E-02	4.395156E-02
-1.4000000e+00	3.959743E-02	3.848563E-02	4.267873E-02
-1.3750000e+00	3.839648E-02	3.719324E-02	4.141044E-02
-1.3500000e+00	3.720221E-02	3.592106E-02	4.014659E-02
-1.3250000e+00	3.601296E-02	3.466841E-02	3.888726E-02
-1.3000000e+00	3.482735E-02	3.343415E-02	3.763263E-02
-1.2750000e+00	3.364438E-02	3.221669E-02	3.638297E-02
-1.2500000e+00	3.246358E-02	3.101397E-02	3.513857E-02
-1.2250000e+00	3.128497E-02	2.982356E-02	3.389973E-02
-1.2000000e+00	3.010901E-02	2.864279E-02	3.266673E-02
-1.1750000e+00	2.893648E-02	2.746896E-02	3.143985E-02
-1.1500000e+00	2.776826E-02	2.629964E-02	3.021938E-02
-1.1250000e+00	2.660528E-02	2.513304E-02	2.900561E-02
-1.1000000e+00	2.544841E-02	2.396824E-02	2.779886E-02
-1.0750000e+00	2.429844E-02	2.280536E-02	2.659948E-02
-1.0500000e+00	2.315612E-02	2.164543E-02	2.540789E-02
-1.0250000e+00	2.202214E-02	2.049007E-02	2.422457E-02
-1.0000000e+00	2.089719E-02	1.934117E-02	2.305009E-02
-9.7500000e-01	1.978197E-02	1.820065E-02	2.188514E-02
-9.5000000e-01	1.867722E-02	1.707028E-02	2.073052E-02
-9.2500000e-01	1.758372E-02	1.595172E-02	1.958719E-02
-9.0000000e-01	1.650228E-02	1.484648E-02	1.845618E-02
-8.7500000e-01	1.543373E-02	1.375596E-02	1.733862E-02
-8.5000000e-01	1.437889E-02	1.268153E-02	1.623553E-02
-8.2500000e-01	1.333851E-02	1.162449E-02	1.514772E-02
-8.0000000e-01	1.231328E-02	1.058622E-02	1.407562E-02
-7.7500000e-01	1.130388E-02	9.568206E-03	1.301922E-02
-7.5000000e-01	1.031106E-02	8.572276E-03	1.197827E-02
-7.2500000e-01	9.335806E-03	7.600753E-03	1.095257E-02
-7.0000000e-01	8.379549E-03	6.656721E-03	9.942222E-03
-6.7500000e-01	7.444326E-03	5.744302E-03	8.947921E-03
-6.5000000e-01	6.532997E-03	4.868952E-03	7.971051E-03
-6.2500000e-01	5.649458E-03	4.037787E-03	7.013870E-03

-6.0000000e-01	4.798902E-03	3.259897E-03	6.079707E-03
-5.7500000e-01	3.988134E-03	2.546530E-03	5.173245E-03
-5.5000000e-01	3.225930E-03	1.910856E-03	4.300910E-03
-5.2500000e-01	2.523332E-03	1.366712E-03	3.471447E-03
-5.0000000e-01	1.893615E-03	9.256050E-04	2.696680E-03
-4.7500000e-01	1.351332E-03	5.919303E-04	1.992354E-03
-4.5000000e-01	9.095438E-04	3.586832E-04	1.378419E-03
-4.2500000e-01	5.747929E-04	2.078355E-04	8.770400E-04
-4.0000000e-01	3.418453E-04	1.164218E-04	5.053108E-04
-3.7500000e-01	1.930954E-04	6.360210E-05	2.627390E-04
-3.5000000e-01	1.048276E-04	3.408364E-05	1.249615E-04
-3.2500000e-01	5.523970E-05	1.799151E-05	5.555911E-05
-3.0000000e-01	2.845373E-05	9.394192E-06	2.354502E-05
-2.7500000e-01	1.440808E-05	4.878770E-06	9.668085E-06
-2.5000000e-01	7.217646E-06	2.540607E-06	3.917725E-06
-2.2500000e-01	3.608426E-06	1.343333E-06	1.610387E-06
-2.0000000e-01	1.824961E-06	7.351342E-07	7.040805E-07
-1.7500000e-01	9.538097E-07	4.274933E-07	3.518120E-07
-1.5000000e-01	5.312391E-07	2.717598E-07	2.143493E-07
-1.2500000e-01	3.264285E-07	1.922225E-07	1.590780E-07
-1.0000000e-01	2.262355E-07	1.506538E-07	1.350141E-07
-7.5000000e-02	1.758303E-07	1.278715E-07	1.227817E-07
-5.0000000e-02	1.489090E-07	1.143246E-07	1.150734E-07
-2.5000000e-02	1.332080E-07	1.054156E-07	1.091537E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[Ramp]

R\_load = 50.00Ohm

	typ	min	max
dV/dt_r	532.022mV/119.423ps	491.319mV/165.185ps	567.619mV/91.565ps
dV/dt_f	537.976mV/129.806ps	497.460mV/173.213ps	578.029mV/105.657ps

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[Rising Waveform]

V\_fixture = 1.500V

V\_fixture\_min = 1.425V

V\_fixture\_max = 1.575V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	6.8316E-01	6.4198E-01	7.1381E-01
1.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
2.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
3.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
4.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
5.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
6.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
7.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
8.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
9.00E-11	6.8316E-01	6.4198E-01	7.1381E-01

1.00E-10	6.8316E-01	6.4198E-01	7.1381E-01
1.10E-10	6.8316E-01	6.4198E-01	7.1381E-01
1.20E-10	6.8316E-01	6.4198E-01	7.1381E-01
1.30E-10	6.8316E-01	6.4198E-01	7.1381E-01
1.40E-10	6.8316E-01	6.4198E-01	7.2174E-01
1.50E-10	6.8316E-01	6.4198E-01	7.5887E-01
1.60E-10	6.8316E-01	6.4198E-01	8.2016E-01
1.70E-10	6.8316E-01	6.4198E-01	9.1349E-01
1.80E-10	6.8316E-01	6.4198E-01	1.0158E+00
1.90E-10	6.8316E-01	6.4198E-01	1.1058E+00
2.00E-10	6.8631E-01	6.4198E-01	1.1722E+00
2.10E-10	6.9781E-01	6.4198E-01	1.2169E+00
2.20E-10	7.2546E-01	6.4298E-01	1.2448E+00
2.30E-10	7.5875E-01	6.4398E-01	1.2647E+00
2.40E-10	8.1582E-01	6.4498E-01	1.2837E+00
2.50E-10	8.7535E-01	6.4698E-01	1.3078E+00
2.60E-10	9.4749E-01	6.5598E-01	1.3414E+00
2.70E-10	1.0174E+00	6.6598E-01	1.3863E+00
2.80E-10	1.0731E+00	6.7898E-01	1.4363E+00
2.90E-10	1.1226E+00	6.9347E-01	1.4802E+00
3.00E-10	1.1579E+00	7.1337E-01	1.5132E+00
3.10E-10	1.1837E+00	7.4966E-01	1.5358E+00
3.20E-10	1.2048E+00	7.9147E-01	1.5503E+00
3.30E-10	1.2195E+00	8.3328E-01	1.5592E+00
3.40E-10	1.2343E+00	8.7936E-01	1.5645E+00
3.50E-10	1.2494E+00	9.3100E-01	1.5675E+00
3.60E-10	1.2675E+00	9.8264E-01	1.5691E+00
3.70E-10	1.2874E+00	1.0268E+00	1.5702E+00
3.80E-10	1.3136E+00	1.0618E+00	1.5750E+00
3.90E-10	1.3416E+00	1.0967E+00	1.5750E+00
4.00E-10	1.3720E+00	1.1198E+00	1.5750E+00
4.10E-10	1.4006E+00	1.1392E+00	1.5750E+00
4.20E-10	1.4277E+00	1.1550E+00	1.5750E+00
4.30E-10	1.4490E+00	1.1666E+00	1.5750E+00
4.40E-10	1.4656E+00	1.1779E+00	1.5750E+00
4.50E-10	1.4779E+00	1.1874E+00	1.5750E+00
4.60E-10	1.4845E+00	1.1970E+00	1.5750E+00
4.70E-10	1.4896E+00	1.2077E+00	1.5750E+00
4.80E-10	1.4922E+00	1.2186E+00	1.5750E+00
4.90E-10	1.4951E+00	1.2308E+00	1.5750E+00
5.00E-10	1.4974E+00	1.2441E+00	1.5750E+00
5.10E-10	1.4984E+00	1.2582E+00	1.5750E+00
5.20E-10	1.4991E+00	1.2741E+00	1.5750E+00
5.30E-10	1.5000E+00	1.2901E+00	1.5750E+00
5.40E-10	1.5000E+00	1.3071E+00	1.5750E+00
5.50E-10	1.5000E+00	1.3240E+00	1.5750E+00
5.60E-10	1.5000E+00	1.3409E+00	1.5750E+00
5.70E-10	1.5000E+00	1.3579E+00	1.5750E+00
5.80E-10	1.5000E+00	1.3720E+00	1.5750E+00
5.90E-10	1.5000E+00	1.3824E+00	1.5750E+00
6.00E-10	1.5000E+00	1.3929E+00	1.5750E+00
6.10E-10	1.5000E+00	1.4033E+00	1.5750E+00
6.20E-10	1.5000E+00	1.4094E+00	1.5750E+00
6.30E-10	1.5000E+00	1.4154E+00	1.5750E+00

6.40E-10	1.5000E+00	1.4204E+00	1.5750E+00
6.50E-10	1.5000E+00	1.4244E+00	1.5750E+00
6.60E-10	1.5000E+00	1.4244E+00	1.5750E+00
6.70E-10	1.5000E+00	1.4244E+00	1.5750E+00
6.80E-10	1.5000E+00	1.4244E+00	1.5750E+00
6.90E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.00E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.10E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.20E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.30E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.40E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.50E-10	1.5000E+00	1.4244E+00	1.5750E+00

[Falling Waveform]

V\_fixture = 1.500V

V\_fixture\_min = 1.425V

V\_fixture\_max = 1.575V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	1.5000E+00	1.4244E+00	1.5750E+00
1.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
2.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
3.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
4.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
5.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
6.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
7.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
8.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
9.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
1.00E-10	1.5000E+00	1.4244E+00	1.5750E+00
1.10E-10	1.5000E+00	1.4244E+00	1.5750E+00
1.20E-10	1.5000E+00	1.4244E+00	1.5750E+00
1.30E-10	1.5000E+00	1.4244E+00	1.5678E+00
1.40E-10	1.5000E+00	1.4244E+00	1.5356E+00
1.50E-10	1.5000E+00	1.4244E+00	1.4918E+00
1.60E-10	1.5000E+00	1.4244E+00	1.4391E+00
1.70E-10	1.5000E+00	1.4244E+00	1.3811E+00
1.80E-10	1.5000E+00	1.4244E+00	1.3164E+00
1.90E-10	1.5000E+00	1.4244E+00	1.2491E+00
2.00E-10	1.4916E+00	1.4244E+00	1.1872E+00
2.10E-10	1.4779E+00	1.4244E+00	1.1373E+00
2.20E-10	1.4526E+00	1.4244E+00	1.1004E+00
2.30E-10	1.4258E+00	1.4244E+00	1.0723E+00
2.40E-10	1.3882E+00	1.4244E+00	1.0470E+00
2.50E-10	1.3499E+00	1.4244E+00	1.0149E+00
2.60E-10	1.3051E+00	1.4244E+00	9.8066E-01
2.70E-10	1.2605E+00	1.4244E+00	9.3547E-01
2.80E-10	1.2170E+00	1.4244E+00	8.8759E-01
2.90E-10	1.1745E+00	1.4194E+00	8.4268E-01
3.00E-10	1.1378E+00	1.4094E+00	8.0700E-01
3.10E-10	1.1029E+00	1.3963E+00	7.7745E-01
3.20E-10	1.0753E+00	1.3791E+00	7.5868E-01

3.30E-10	1.0489E+00	1.3558E+00	7.4505E-01
3.40E-10	1.0261E+00	1.3325E+00	7.3501E-01
3.50E-10	1.0023E+00	1.3056E+00	7.2933E-01
3.60E-10	9.7620E-01	1.2772E+00	7.2516E-01
3.70E-10	9.4367E-01	1.2488E+00	7.2226E-01
3.80E-10	9.0696E-01	1.2213E+00	7.2113E-01
3.90E-10	8.7376E-01	1.1938E+00	7.1999E-01
4.00E-10	8.3990E-01	1.1670E+00	7.1886E-01
4.10E-10	8.0957E-01	1.1432E+00	7.1825E-01
4.20E-10	7.8300E-01	1.1193E+00	7.1767E-01
4.30E-10	7.6093E-01	1.0968E+00	7.1709E-01
4.40E-10	7.4264E-01	1.0762E+00	7.1654E-01
4.50E-10	7.2827E-01	1.0555E+00	7.1600E-01
4.60E-10	7.1647E-01	1.0350E+00	7.1545E-01
4.70E-10	7.0685E-01	1.0145E+00	7.1510E-01
4.80E-10	6.9834E-01	9.9409E-01	7.1479E-01
4.90E-10	6.9107E-01	9.6900E-01	7.1449E-01
5.00E-10	6.8566E-01	9.4342E-01	7.1433E-01
5.10E-10	6.8316E-01	9.1269E-01	7.1421E-01
5.20E-10	6.8316E-01	8.8416E-01	7.1410E-01
5.30E-10	6.8316E-01	8.5763E-01	7.1399E-01
5.40E-10	6.8316E-01	8.3261E-01	7.1388E-01
5.50E-10	6.8316E-01	8.0994E-01	7.1380E-01
5.60E-10	6.8316E-01	7.8727E-01	7.1380E-01
5.70E-10	6.8316E-01	7.6866E-01	7.1380E-01
5.80E-10	6.8316E-01	7.5240E-01	7.1380E-01
5.90E-10	6.8316E-01	7.3613E-01	7.1380E-01
6.00E-10	6.8316E-01	7.2289E-01	7.1380E-01
6.10E-10	6.8316E-01	7.1008E-01	7.1380E-01
6.20E-10	6.8316E-01	6.9855E-01	7.1380E-01
6.30E-10	6.8316E-01	6.9098E-01	7.1380E-01
6.40E-10	6.8316E-01	6.8198E-01	7.1380E-01
6.50E-10	6.8316E-01	6.7398E-01	7.1380E-01
6.60E-10	6.8316E-01	6.6298E-01	7.1380E-01
6.70E-10	6.8316E-01	6.5598E-01	7.1380E-01
6.80E-10	6.8316E-01	6.5098E-01	7.1380E-01
6.90E-10	6.8316E-01	6.4798E-01	7.1380E-01
7.00E-10	6.8316E-01	6.4598E-01	7.1380E-01
7.10E-10	6.8316E-01	6.4398E-01	7.1380E-01
7.20E-10	6.8316E-01	6.4298E-01	7.1380E-01
7.30E-10	6.8316E-01	6.4198E-01	7.1380E-01
7.40E-10	6.8316E-01	6.4198E-01	7.1380E-01
7.50E-10	6.8316E-01	6.4198E-01	7.1380E-01

[Rising Waveform]

V\_fixture = 0.000V

V\_fixture\_min = 0.000V

V\_fixture\_max = 0.000V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	2.1656E-05	4.5001E-04	1.9840E-06
1.00E-11	2.1656E-05	4.5001E-04	1.9840E-06

2.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
3.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
4.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
5.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
6.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
7.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
8.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
9.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
1.00E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.10E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.20E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.30E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.40E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.50E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.60E-10	2.1656E-05	4.5001E-04	4.8671E-02
1.70E-10	2.1656E-05	4.5001E-04	1.0238E-01
1.80E-10	2.1656E-05	4.5001E-04	1.6978E-01
1.90E-10	2.1656E-05	4.5001E-04	2.4540E-01
2.00E-10	2.1656E-05	4.5001E-04	3.2196E-01
2.10E-10	2.1656E-05	4.5001E-04	3.9122E-01
2.20E-10	6.9115E-03	4.5001E-04	4.4667E-01
2.30E-10	2.1916E-02	4.5001E-04	4.8493E-01
2.40E-10	4.9605E-02	4.5001E-04	5.1216E-01
2.50E-10	8.2158E-02	4.5001E-04	5.3458E-01
2.60E-10	1.2545E-01	4.5001E-04	5.6186E-01
2.70E-10	1.7346E-01	4.5001E-04	6.0105E-01
2.80E-10	2.2437E-01	4.5001E-04	6.5263E-01
2.90E-10	2.7673E-01	4.5001E-04	7.0953E-01
3.00E-10	3.2396E-01	7.4200E-04	7.5988E-01
3.10E-10	3.6830E-01	6.9399E-03	7.9680E-01
3.20E-10	4.0406E-01	2.2538E-02	8.2326E-01
3.30E-10	4.3438E-01	3.8136E-02	8.4173E-01
3.40E-10	4.5821E-01	6.0559E-02	8.5396E-01
3.50E-10	4.7742E-01	9.0788E-02	8.6342E-01
3.60E-10	4.9488E-01	1.2102E-01	8.7131E-01
3.70E-10	5.1097E-01	1.5625E-01	8.7541E-01
3.80E-10	5.3186E-01	1.9335E-01	8.7950E-01
3.90E-10	5.5704E-01	2.3045E-01	8.8129E-01
4.00E-10	5.8693E-01	2.6299E-01	8.8750E-01
4.10E-10	6.3150E-01	2.9548E-01	8.8750E-01
4.20E-10	6.6900E-01	3.2621E-01	8.8750E-01
4.30E-10	7.0343E-01	3.5161E-01	8.8750E-01
4.40E-10	7.3251E-01	3.7701E-01	8.8750E-01
4.50E-10	7.5834E-01	3.9887E-01	8.8750E-01
4.60E-10	7.7553E-01	4.1920E-01	8.8750E-01
4.70E-10	7.9054E-01	4.3893E-01	8.8750E-01
4.80E-10	7.9989E-01	4.5025E-01	8.8750E-01
4.90E-10	8.0628E-01	4.6257E-01	8.8750E-01
5.00E-10	8.1206E-01	4.7874E-01	8.8750E-01
5.10E-10	8.1613E-01	4.8572E-01	8.8750E-01
5.20E-10	8.2020E-01	4.9920E-01	8.8750E-01
5.30E-10	8.2427E-01	5.1505E-01	8.8750E-01
5.40E-10	8.2778E-01	5.3090E-01	8.8750E-01
5.50E-10	8.3015E-01	5.5341E-01	8.8750E-01



5.60E-10	8.3015E-01	5.7647E-01	8.8750E-01
5.70E-10	8.3015E-01	5.9813E-01	8.8750E-01
5.80E-10	8.3015E-01	6.2467E-01	8.8750E-01
5.90E-10	8.3015E-01	6.5120E-01	8.8750E-01
6.00E-10	8.3015E-01	6.7309E-01	8.8750E-01
6.10E-10	8.3015E-01	6.9494E-01	8.8750E-01
6.20E-10	8.3015E-01	7.1298E-01	8.8750E-01
6.30E-10	8.3015E-01	7.2761E-01	8.8750E-01
6.40E-10	8.3015E-01	7.4187E-01	8.8750E-01
6.50E-10	8.3015E-01	7.5387E-01	8.8750E-01
6.60E-10	8.3015E-01	7.6287E-01	8.8750E-01
6.70E-10	8.3015E-01	7.7087E-01	8.8750E-01
6.80E-10	8.3015E-01	7.7787E-01	8.8750E-01
6.90E-10	8.3015E-01	7.8587E-01	8.8750E-01
7.00E-10	8.3015E-01	7.8987E-01	8.8750E-01
7.10E-10	8.3015E-01	7.9287E-01	8.8750E-01
7.20E-10	8.3015E-01	7.9387E-01	8.8750E-01
7.30E-10	8.3015E-01	7.9487E-01	8.8750E-01
7.40E-10	8.3015E-01	7.9587E-01	8.8750E-01
7.50E-10	8.3015E-01	7.9587E-01	8.8750E-01

[Falling Waveform]

V\_fixture = 0.000V

V\_fixture\_min = 0.000V

V\_fixture\_max = 0.000V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	8.3015E-01	7.9587E-01	8.8750E-01
1.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
2.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
3.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
4.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
5.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
6.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
7.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
8.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
9.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
1.00E-10	8.3015E-01	7.9587E-01	8.8750E-01
1.10E-10	8.3015E-01	7.9587E-01	8.8750E-01
1.20E-10	8.3015E-01	7.9587E-01	8.8443E-01
1.30E-10	8.3015E-01	7.9587E-01	8.7452E-01
1.40E-10	8.3015E-01	7.9587E-01	8.4189E-01
1.50E-10	8.3015E-01	7.9587E-01	7.8920E-01
1.60E-10	8.3015E-01	7.9587E-01	7.1329E-01
1.70E-10	8.2717E-01	7.9587E-01	6.2580E-01
1.80E-10	8.2022E-01	7.9487E-01	5.4691E-01
1.90E-10	8.0849E-01	7.9287E-01	4.8081E-01
2.00E-10	7.8766E-01	7.8987E-01	4.2673E-01
2.10E-10	7.5342E-01	7.8587E-01	3.8302E-01
2.20E-10	7.0770E-01	7.8087E-01	3.4957E-01
2.30E-10	6.4643E-01	7.7487E-01	3.1949E-01
2.40E-10	5.7951E-01	7.6687E-01	2.8668E-01

2.50E-10	5.1395E-01	7.5687E-01	2.5182E-01
2.60E-10	4.5050E-01	7.4187E-01	2.1162E-01
2.70E-10	4.0155E-01	7.2460E-01	1.7228E-01
2.80E-10	3.6096E-01	7.0145E-01	1.3355E-01
2.90E-10	3.2886E-01	6.6392E-01	1.0138E-01
3.00E-10	3.0074E-01	6.2500E-01	7.3166E-02
3.10E-10	2.7872E-01	5.8181E-01	5.0761E-02
3.20E-10	2.6007E-01	5.3521E-01	3.5793E-02
3.30E-10	2.4432E-01	4.8940E-01	2.3892E-02
3.40E-10	2.2391E-01	4.4680E-01	1.6931E-02
3.50E-10	1.9806E-01	4.0419E-01	1.2192E-02
3.60E-10	1.7058E-01	3.7123E-01	8.9365E-03
3.70E-10	1.4036E-01	3.4007E-01	7.2358E-03
3.80E-10	1.1118E-01	3.1448E-01	5.9670E-03
3.90E-10	8.3244E-02	2.9477E-01	5.3516E-03
4.00E-10	6.1742E-02	2.7568E-01	4.7363E-03
4.10E-10	4.4018E-02	2.6075E-01	4.1060E-03
4.20E-10	3.0136E-02	2.4582E-01	3.4124E-03
4.30E-10	2.2486E-02	2.3054E-01	2.7189E-03
4.40E-10	1.5763E-02	2.1515E-01	2.0253E-03
4.50E-10	9.0387E-03	1.9777E-01	1.6262E-03
4.60E-10	5.3194E-03	1.7999E-01	1.2305E-03
4.70E-10	3.4381E-03	1.6207E-01	8.3483E-04
4.80E-10	1.5568E-03	1.4205E-01	6.3758E-04
4.90E-10	6.2322E-04	1.2203E-01	4.9475E-04
5.00E-10	1.0502E-04	1.0187E-01	3.5192E-04
5.10E-10	2.1656E-05	8.1652E-02	2.0909E-04
5.20E-10	2.1656E-05	6.3154E-02	6.6265E-05
5.30E-10	2.1656E-05	4.7873E-02	1.9840E-06
5.40E-10	2.1656E-05	3.2593E-02	1.9840E-06
5.50E-10	2.1656E-05	2.4507E-02	1.9840E-06
5.60E-10	2.1656E-05	1.6483E-02	1.9840E-06
5.70E-10	2.1656E-05	1.1660E-02	1.9840E-06
5.80E-10	2.1656E-05	8.6750E-03	1.9840E-06
5.90E-10	2.1656E-05	6.2443E-03	1.9840E-06
6.00E-10	2.1656E-05	5.2473E-03	1.9840E-06
6.10E-10	2.1656E-05	4.2503E-03	1.9840E-06
6.20E-10	2.1656E-05	3.6374E-03	1.9840E-06
6.30E-10	2.1656E-05	3.0570E-03	1.9840E-06
6.40E-10	2.1656E-05	2.5197E-03	1.9840E-06
6.50E-10	2.1656E-05	2.0157E-03	1.9840E-06
6.60E-10	2.1656E-05	1.5499E-03	1.9840E-06
6.70E-10	2.1656E-05	1.0325E-03	1.9840E-06
6.80E-10	2.1656E-05	8.8691E-04	1.9840E-06
6.90E-10	2.1656E-05	7.4127E-04	1.9840E-06
7.00E-10	2.1656E-05	5.9564E-04	1.9840E-06
7.10E-10	2.1656E-05	4.5001E-04	1.9840E-06
7.20E-10	2.1656E-05	4.5001E-04	1.9840E-06
7.30E-10	2.1656E-05	4.5001E-04	1.9840E-06
7.40E-10	2.1656E-05	4.5001E-04	1.9840E-06
7.50E-10	2.1656E-05	4.5001E-04	1.9840E-06

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MODEL DQS\_40\_1600 (34 Ohm Data Strobe I/O with 60ohm ODT, 1333/1600 Mbps)

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[Model] DQS\_40\_ODT60\_1600

Model\_type I/O

Vinl = 600.000mV

Vinh = 900.000mV

Vmeas = 750.000mV

Vref = 750.000mV

Cref = 0.0pF

Rref = 25.000Ohm

	typ	min	max
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C_comp	1.078pF	0.966pF	1.223pF
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| Note: C\_comp changes when the ODT circuit is enabled.

[Model Spec]

| Input threshold voltage corners

Vinl	0.6000V	0.5625V	0.6375V
------	---------	---------	---------

Vinh	0.9000V	0.8625V	0.9375V
------	---------	---------	---------

| Measurement voltage corners

Vmeas	0.7500V	0.7125V	0.7875V
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| Timing spec test load voltage corners

Vref	0.7500V	0.7125V	0.7875V
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| Dynamic Overshoot Parameters from DDR3 Specification

D_overshoot_ampl_h	0.40	NA	NA
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D_overshoot_ampl_l	0.40	NA	NA
--------------------	------	----	----

D_overshoot_area_h	0.13n	NA	NA
--------------------	-------	----	----

D_overshoot_area_l	0.13n	NA	NA
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[[Receiver Thresholds]

|Vth = 0.750V

|Vth\_min = 0.7350V

|Vth\_max = 0.7650V

|Vinh\_ac = 0.150V

|Vinh\_dc = 0.100V

|Vinl\_ac = -0.150V

|Vinl\_dc = -0.100V

|T slew\_ac = 5.000ns |Not specified, so set to high value

|Threshold\_sensitivity = 0.50

|Reference\_supply Pullup\_ref

|NOTE: If using the IBISCHK 4.2.1 or older parser, Differential receiver threshold parameters must be commented out because the parser generates errors for multiple differential models.

|Vcross\_low = 0.600V

|Vcross\_high = 0.900V

|Vdiff\_ac = 300mV

|Vdiff\_dc = 200mV

|Tdiffslew\_ac = 10.000ns |Not specified, so set to high value

[Add Submodel]

Submodel Name	Mode		
60Ohm_ODT	Non-Driving		
[Voltage Range]	1.500V	1.425V	1.575V
[Pullup Reference]	1.500V	1.425V	1.575V
[Temperature Range]	85.0	110.0	0.0

\*\*\*\*\*

[Pulldown]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	-5.766580E-03	-5.671960E-03	-4.4564E-03
-1.4750000e+00	-5.965480E-03	-5.898760E-03	-4.6456E-03
-1.4250000e+00	-6.365740E-03	-6.361750E-03	-5.0283E-03
-1.3750000e+00	-6.767370E-03	-6.833580E-03	-5.4143E-03
-1.3250000e+00	-7.168490E-03	-7.310620E-03	-5.8012E-03
-1.2750000e+00	-7.567540E-03	-7.790060E-03	-6.1870E-03
-1.2250000e+00	-7.963180E-03	-8.269780E-03	-6.5705E-03
-1.1750000e+00	-8.354170E-03	-8.748110E-03	-6.9506E-03
-1.1250000e+00	-8.739220E-03	-9.223740E-03	-7.3262E-03
-1.0750000e+00	-9.116960E-03	-9.695520E-03	-7.6961E-03
-1.0250000e+00	-9.485740E-03	-1.016235E-02	-8.0593E-03
-9.7500000e-01	-9.843550E-03	-1.062303E-02	-8.4141E-03
-9.2500000e-01	-1.018784E-02	-1.107598E-02	-8.7587E-03
-8.7500000e-01	-1.051515E-02	-1.151861E-02	-9.0906E-03
-8.2500000e-01	-1.082065E-02	-1.194611E-02	-9.4063E-03
-7.7500000e-01	-1.109723E-02	-1.234917E-02	-9.7010E-03
-7.2500000e-01	-1.133396E-02	-1.271052E-02	-9.9678E-03
-6.7500000e-01	-1.151368E-02	-1.300112E-02	-1.0196E-02
-6.2500000e-01	-1.161030E-02	-1.317732E-02	-1.0369E-02
-5.7500000e-01	-1.158847E-02	-1.318034E-02	-1.0460E-02
-5.2500000e-01	-1.140914E-02	-1.294110E-02	-1.0425E-02
-4.7500000e-01	-1.103661E-02	-1.239310E-02	-1.0195E-02
-4.2500000e-01	-1.042948E-02	-1.149942E-02	-9.7052E-03
-3.7500000e-01	-9.541331E-03	-1.031290E-02	-8.9368E-03
-3.2500000e-01	-8.402181E-03	-8.972323E-03	-7.9244E-03
-2.7500000e-01	-7.136897E-03	-7.584300E-03	-6.7526E-03
-2.2500000e-01	-5.837164E-03	-6.189682E-03	-5.5298E-03
-1.7500000e-01	-4.533342E-03	-4.799550E-03	-4.2997E-03
-1.2500000e-01	-3.232329E-03	-3.416866E-03	-3.0698E-03
-7.5000000e-02	-1.935664E-03	-2.042825E-03	-1.8409E-03
-2.5000000e-02	-6.439068E-04	-6.783475E-04	-6.1331E-04
0.0000000e+00	-2.495000E-09	-2.851000E-10	-4.3290E-09
2.5000000e-02	6.423542E-04	6.754144E-04	6.1284E-04
7.5000000e-02	1.921741E-03	2.016470E-03	1.8368E-03
1.2500000e-01	3.193668E-03	3.343638E-03	3.0583E-03
1.7500000e-01	4.457673E-03	4.655798E-03	4.2773E-03
2.2500000e-01	5.713247E-03	5.951703E-03	5.4937E-03
2.7500000e-01	6.959828E-03	7.229949E-03	6.7074E-03
3.2500000e-01	8.196792E-03	8.488947E-03	7.9183E-03

3.7500000e-01	9.423449E-03	9.726883E-03	9.1262E-03
4.2500000e-01	1.063902E-02	1.094167E-02	1.0331E-02
4.7500000e-01	1.184265E-02	1.213090E-02	1.1533E-02
5.2500000e-01	1.303336E-02	1.329176E-02	1.2731E-02
5.7500000e-01	1.421007E-02	1.442101E-02	1.3926E-02
6.2500000e-01	1.537155E-02	1.551502E-02	1.5117E-02
6.7500000e-01	1.651649E-02	1.657019E-02	1.6305E-02
7.2500000e-01	1.764350E-02	1.758380E-02	1.7488E-02
7.7500000e-01	1.875138E-02	1.855487E-02	1.8667E-02
8.2500000e-01	1.983945E-02	1.948346E-02	1.9842E-02
8.7500000e-01	2.090800E-02	2.036881E-02	2.1012E-02
9.2500000e-01	2.195802E-02	2.120815E-02	2.2178E-02
9.7500000e-01	2.299059E-02	2.199660E-02	2.3338E-02
1.0250000e+00	2.400623E-02	2.272804E-02	2.4493E-02
1.0750000e+00	2.500472E-02	2.339642E-02	2.5642E-02
1.1250000e+00	2.598518E-02	2.399791E-02	2.6785E-02
1.1750000e+00	2.694619E-02	2.453290E-02	2.7921E-02
1.2250000e+00	2.788582E-02	2.500673E-02	2.9050E-02
1.2750000e+00	2.880158E-02	2.542839E-02	3.0172E-02
1.3250000e+00	2.969048E-02	2.580810E-02	3.1286E-02
1.3750000e+00	3.054893E-02	2.615534E-02	3.2391E-02
1.4250000e+00	3.137276E-02	2.647793E-02	3.3486E-02
1.4750000e+00	3.215739E-02	2.678186E-02	3.4572E-02
1.5250000e+00	3.289823E-02	2.707162E-02	3.5646E-02
1.5750000e+00	3.359126E-02	2.735051E-02	3.6708E-02
1.6250000e+00	3.423408E-02	2.762095E-02	3.7757E-02
1.6750000e+00	3.482661E-02	2.788477E-02	3.8790E-02
1.7250000e+00	3.537149E-02	2.814329E-02	3.9807E-02
1.7750000e+00	3.587366E-02	2.839756E-02	4.0805E-02
1.8250000e+00	3.633928E-02	2.864834E-02	4.1781E-02
1.8750000e+00	3.677472E-02	2.889628E-02	4.2734E-02
1.9250000e+00	3.718582E-02	2.914184E-02	4.3660E-02
1.9750000e+00	3.757750E-02	2.938542E-02	4.4556E-02
2.0250000e+00	3.795380E-02	2.962733E-02	4.5417E-02
2.0750000e+00	3.831783E-02	2.986783E-02	4.6241E-02
2.1250000e+00	3.867208E-02	3.010713E-02	4.7025E-02
2.1750000e+00	3.901845E-02	3.034542E-02	4.7767E-02
2.2250000e+00	3.935843E-02	3.058286E-02	4.8466E-02
2.2750000e+00	3.969319E-02	3.081960E-02	4.9124E-02
2.3250000e+00	4.002364E-02	3.105576E-02	4.9743E-02
2.3750000e+00	4.035053E-02	3.129147E-02	5.0329E-02
2.4250000e+00	4.067444E-02	3.152686E-02	5.0885E-02
2.4750000e+00	4.099589E-02	3.176208E-02	5.1415E-02
2.5250000e+00	4.131527E-02	3.199724E-02	5.1923E-02
2.5750000e+00	4.163292E-02	3.223252E-02	5.2415E-02
2.6250000e+00	4.194914E-02	3.246808E-02	5.2891E-02
2.6750000e+00	4.226420E-02	3.270415E-02	5.3355E-02
2.7250000e+00	4.257832E-02	3.294093E-02	5.3809E-02
2.7750000e+00	4.289173E-02	3.317872E-02	5.4255E-02
2.8250000e+00	4.320461E-02	3.341781E-02	5.4693E-02
2.8750000e+00	4.351716E-02	3.365859E-02	5.5126E-02
2.9250000e+00	4.382954E-02	3.390146E-02	5.5553E-02
2.9750000e+00	4.414196E-02	3.414689E-02	5.5976E-02
3.0000000e+00	4.429822E-02	3.427073E-02	5.6186E-02

## [GND Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	-5.378351E-02	-5.490567E-02	-5.885698E-02
-1.4750000e+00	-5.231251E-02	-5.334431E-02	-5.735670E-02
-1.4500000e+00	-5.084369E-02	-5.178549E-02	-5.585777E-02
-1.4250000e+00	-4.937717E-02	-5.022938E-02	-5.436026E-02
-1.4000000e+00	-4.791309E-02	-4.867613E-02	-5.286424E-02
-1.3750000e+00	-4.645161E-02	-4.712594E-02	-5.136982E-02
-1.3500000e+00	-4.499289E-02	-4.557901E-02	-4.987709E-02
-1.3250000e+00	-4.353712E-02	-4.403556E-02	-4.838614E-02
-1.3000000e+00	-4.208452E-02	-4.249585E-02	-4.689710E-02
-1.2750000e+00	-4.063529E-02	-4.096014E-02	-4.541010E-02
-1.2500000e+00	-3.918970E-02	-3.942875E-02	-4.392527E-02
-1.2250000e+00	-3.774803E-02	-3.790201E-02	-4.244278E-02
-1.2000000e+00	-3.631059E-02	-3.638031E-02	-4.096280E-02
-1.1750000e+00	-3.487773E-02	-3.486408E-02	-3.948552E-02
-1.1500000e+00	-3.344986E-02	-3.335380E-02	-3.801116E-02
-1.1250000e+00	-3.202742E-02	-3.185003E-02	-3.653998E-02
-1.1000000e+00	-3.061092E-02	-3.035339E-02	-3.507226E-02
-1.0750000e+00	-2.920096E-02	-2.886462E-02	-3.360832E-02
-1.0500000e+00	-2.779821E-02	-2.738455E-02	-3.214854E-02
-1.0250000e+00	-2.640347E-02	-2.591415E-02	-3.069335E-02
-1.0000000e+00	-2.501766E-02	-2.445455E-02	-2.924328E-02
-9.7500000e-01	-2.364185E-02	-2.300708E-02	-2.779892E-02
-9.5000000e-01	-2.227732E-02	-2.157329E-02	-2.636102E-02
-9.2500000e-01	-2.092559E-02	-2.015501E-02	-2.493048E-02
-9.0000000e-01	-1.958843E-02	-1.875433E-02	-2.350840E-02
-8.7500000e-01	-1.826790E-02	-1.737363E-02	-2.209616E-02
-8.5000000e-01	-1.696631E-02	-1.601550E-02	-2.069550E-02
-8.2500000e-01	-1.568612E-02	-1.468262E-02	-1.930856E-02
-8.0000000e-01	-1.442972E-02	-1.337762E-02	-1.793782E-02
-7.7500000e-01	-1.319926E-02	-1.210311E-02	-1.658583E-02
-7.5000000e-01	-1.199673E-02	-1.086191E-02	-1.525450E-02
-7.2500000e-01	-1.082427E-02	-9.657411E-03	-1.394473E-02
-7.0000000e-01	-9.684638E-03	-8.493939E-03	-1.265685E-02
-6.7500000e-01	-8.581514E-03	-7.376930E-03	-1.139180E-02
-6.5000000e-01	-7.519607E-03	-6.312929E-03	-1.015194E-02
-6.2500000e-01	-6.504547E-03	-5.309438E-03	-8.941318E-03
-6.0000000e-01	-5.542688E-03	-4.374618E-03	-7.765735E-03
-5.7500000e-01	-4.640772E-03	-3.516890E-03	-6.632945E-03
-5.5000000e-01	-3.805524E-03	-2.744483E-03	-5.552946E-03
-5.2500000e-01	-3.043248E-03	-2.065103E-03	-4.538201E-03
-5.0000000e-01	-2.359647E-03	-1.485677E-03	-3.603412E-03
-4.7500000e-01	-1.760020E-03	-1.011779E-03	-2.764265E-03
-4.5000000e-01	-1.249702E-03	-6.458403E-04	-2.034716E-03
-4.2500000e-01	-8.339835E-04	-3.838582E-04	-1.423545E-03
-4.0000000e-01	-5.162389E-04	-2.125448E-04	-9.327605E-04
-3.7500000e-01	-2.937329E-04	-1.106466E-04	-5.596330E-04
-3.5000000e-01	-1.537279E-04	-5.497263E-05	-2.989533E-04
-3.2500000e-01	-7.493357E-05	-2.649171E-05	-1.392987E-04
-3.0000000e-01	-3.471511E-05	-1.256760E-05	-5.693658E-05
-2.7500000e-01	-1.563019E-05	-5.952723E-06	-2.113755E-05
-2.5000000e-01	-7.001335E-06	-2.863206E-06	-7.478945E-06

-2.2500000e-01	-3.215160E-06	-1.433628E-06	-2.669259E-06
-2.0000000e-01	-1.576700E-06	-7.729597E-07	-1.039352E-06
-1.7500000e-01	-8.691669E-07	-4.659048E-07	-4.927445E-07
-1.5000000e-01	-5.602970E-07	-3.210513E-07	-3.061011E-07
-1.2500000e-01	-4.211770E-07	-2.506183E-07	-2.379539E-07
-1.0000000e-01	-3.542844E-07	-2.144259E-07	-2.089405E-07
-7.5000000e-02	-3.182781E-07	-1.940781E-07	-1.931392E-07
-5.0000000e-02	-2.956734E-07	-1.811414E-07	-1.820767E-07
-2.5000000e-02	-2.790923E-07	-1.717494E-07	-1.729565E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[Pullup]

-1.5000000e+00	1.389728E-02	1.504401E-02	1.3495E-02
-1.4750000e+00	1.392266E-02	1.515940E-02	1.3511E-02
-1.4250000e+00	1.394549E-02	1.534861E-02	1.3532E-02
-1.3750000e+00	1.393984E-02	1.547700E-02	1.3542E-02
-1.3250000e+00	1.391859E-02	1.554357E-02	1.3545E-02
-1.2750000e+00	1.389341E-02	1.555550E-02	1.3540E-02
-1.2250000e+00	1.387050E-02	1.552788E-02	1.3526E-02
-1.1750000e+00	1.384963E-02	1.548081E-02	1.3502E-02
-1.1250000e+00	1.382685E-02	1.543388E-02	1.3467E-02
-1.0750000e+00	1.379804E-02	1.539856E-02	1.3421E-02
-1.0250000e+00	1.376042E-02	1.537452E-02	1.3363E-02
-9.7500000e-01	1.371257E-02	1.535474E-02	1.3293E-02
-9.2500000e-01	1.365380E-02	1.533271E-02	1.3210E-02
-8.7500000e-01	1.358379E-02	1.530481E-02	1.3113E-02
-8.2500000e-01	1.350199E-02	1.526951E-02	1.3001E-02
-7.7500000e-01	1.340734E-02	1.522537E-02	1.2873E-02
-7.2500000e-01	1.329767E-02	1.516783E-02	1.2725E-02
-6.7500000e-01	1.316879E-02	1.508258E-02	1.2554E-02
-6.2500000e-01	1.301213E-02	1.493400E-02	1.2352E-02
-5.7500000e-01	1.280843E-02	1.465359E-02	1.2107E-02
-5.2500000e-01	1.251269E-02	1.414154E-02	1.1797E-02
-4.7500000e-01	1.203560E-02	1.330397E-02	1.1382E-02
-4.2500000e-01	1.126665E-02	1.214514E-02	1.0778E-02
-3.7500000e-01	1.018437E-02	1.079032E-02	9.8667E-03
-3.2500000e-01	8.905568E-03	9.358893E-03	8.6724E-03
-2.7500000e-01	7.550642E-03	7.907034E-03	7.3614E-03
-2.2500000e-01	6.175032E-03	6.454310E-03	6.0240E-03
-1.7500000e-01	4.796858E-03	5.006794E-03	4.6832E-03
-1.2500000e-01	3.421222E-03	3.566345E-03	3.3432E-03
-7.5000000e-02	2.049479E-03	2.133648E-03	2.0047E-03
-2.5000000e-02	6.820421E-04	7.091043E-04	6.6784E-04
0.0000000e+00	1.125100E-09	4.014300E-10	2.6237E-09
2.5000000e-02	-6.802155E-04	-7.060015E-04	-6.6696E-04
7.5000000e-02	-2.032965E-03	-2.105590E-03	-1.9968E-03
1.2500000e-01	-3.375119E-03	-3.487987E-03	-3.3211E-03
1.7500000e-01	-4.706231E-03	-4.852382E-03	-4.6395E-03
2.2500000e-01	-6.025837E-03	-6.197914E-03	-5.9518E-03
2.7500000e-01	-7.333440E-03	-7.523661E-03	-7.2578E-03
3.2500000e-01	-8.628517E-03	-8.828634E-03	-8.5572E-03
3.7500000e-01	-9.910511E-03	-1.011178E-02	-9.8498E-03
4.2500000e-01	-1.117883E-02	-1.137197E-02	-1.1135E-02

4.7500000e-01	-1.243286E-02	-1.260797E-02	-1.2413E-02
5.2500000e-01	-1.367192E-02	-1.381848E-02	-1.3683E-02
5.7500000e-01	-1.489533E-02	-1.500209E-02	-1.4945E-02
6.2500000e-01	-1.610232E-02	-1.615730E-02	-1.6198E-02
6.7500000e-01	-1.729210E-02	-1.728247E-02	-1.7442E-02
7.2500000e-01	-1.846383E-02	-1.837588E-02	-1.8677E-02
7.7500000e-01	-1.961663E-02	-1.943566E-02	-1.9902E-02
8.2500000e-01	-2.074956E-02	-2.045990E-02	-2.1116E-02
8.7500000e-01	-2.186165E-02	-2.144666E-02	-2.2320E-02
9.2500000e-01	-2.295193E-02	-2.239415E-02	-2.3513E-02
9.7500000e-01	-2.401949E-02	-2.330089E-02	-2.4694E-02
1.0250000e+00	-2.506353E-02	-2.416589E-02	-2.5862E-02
1.0750000e+00	-2.608351E-02	-2.498853E-02	-2.7019E-02
1.1250000e+00	-2.707921E-02	-2.576811E-02	-2.8162E-02
1.1750000e+00	-2.805064E-02	-2.650347E-02	-2.9293E-02
1.2250000e+00	-2.899777E-02	-2.719285E-02	-3.0411E-02
1.2750000e+00	-2.992027E-02	-2.783418E-02	-3.1515E-02
1.3250000e+00	-3.081737E-02	-2.842555E-02	-3.2607E-02
1.3750000e+00	-3.168792E-02	-2.896616E-02	-3.3684E-02
1.4250000e+00	-3.253039E-02	-2.945719E-02	-3.4746E-02
1.4750000e+00	-3.334289E-02	-2.990258E-02	-3.5792E-02
1.5250000e+00	-3.412325E-02	-3.030862E-02	-3.6822E-02
1.5750000e+00	-3.486904E-02	-3.068257E-02	-3.7833E-02
1.6250000e+00	-3.557765E-02	-3.103121E-02	-3.8826E-02
1.6750000e+00	-3.624648E-02	-3.136007E-02	-3.9797E-02
1.7250000e+00	-3.687328E-02	-3.167336E-02	-4.0746E-02
1.7750000e+00	-3.745664E-02	-3.197424E-02	-4.1671E-02
1.8250000e+00	-3.799669E-02	-3.226504E-02	-4.2569E-02
1.8750000e+00	-3.849556E-02	-3.254752E-02	-4.3438E-02
1.9250000e+00	-3.895731E-02	-3.282305E-02	-4.4275E-02
1.9750000e+00	-3.938722E-02	-3.309268E-02	-4.5078E-02
2.0250000e+00	-3.979072E-02	-3.335727E-02	-4.5843E-02
2.0750000e+00	-4.017273E-02	-3.361751E-02	-4.6567E-02
2.1250000e+00	-4.053726E-02	-3.387396E-02	-4.7248E-02
2.1750000e+00	-4.088753E-02	-3.412707E-02	-4.7884E-02
2.2250000e+00	-4.122603E-02	-3.437727E-02	-4.8477E-02
2.2750000e+00	-4.155471E-02	-3.462485E-02	-4.9029E-02
2.3250000e+00	-4.187511E-02	-3.487012E-02	-4.9543E-02
2.3750000e+00	-4.218845E-02	-3.511332E-02	-5.0025E-02
2.4250000e+00	-4.249571E-02	-3.535466E-02	-5.0480E-02
2.4750000e+00	-4.279769E-02	-3.559433E-02	-5.0912E-02
2.5250000e+00	-4.309507E-02	-3.583247E-02	-5.1326E-02
2.5750000e+00	-4.338839E-02	-3.606925E-02	-5.1724E-02
2.6250000e+00	-4.367813E-02	-3.630478E-02	-5.2110E-02
2.6750000e+00	-4.396467E-02	-3.653918E-02	-5.2484E-02
2.7250000e+00	-4.424835E-02	-3.677256E-02	-5.2850E-02
2.7750000e+00	-4.452948E-02	-3.700500E-02	-5.3207E-02
2.8250000e+00	-4.480830E-02	-3.723659E-02	-5.3558E-02
2.8750000e+00	-4.508503E-02	-3.746739E-02	-5.3903E-02
2.9250000e+00	-4.535988E-02	-3.769749E-02	-5.4242E-02
2.9750000e+00	-4.563300E-02	-3.792696E-02	-5.4577E-02
3.0000000e+00	-4.576897E-02	-3.804147E-02	-5.4743E-02

[POWER Clamp]

	Voltage	I(typ)	I(min)	I(max)
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-1.5000000e+00	4.450136E-02	4.385767E-02	4.780182E-02
-1.4750000e+00	4.325737E-02	4.248503E-02	4.651241E-02
-1.4500000e+00	4.202627E-02	4.113177E-02	4.522926E-02
-1.4250000e+00	4.080680E-02	3.979850E-02	4.395156E-02
-1.4000000e+00	3.959743E-02	3.848563E-02	4.267873E-02
-1.3750000e+00	3.839648E-02	3.719324E-02	4.141044E-02
-1.3500000e+00	3.720221E-02	3.592106E-02	4.014659E-02
-1.3250000e+00	3.601296E-02	3.466841E-02	3.888726E-02
-1.3000000e+00	3.482735E-02	3.343415E-02	3.763263E-02
-1.2750000e+00	3.364438E-02	3.221669E-02	3.638297E-02
-1.2500000e+00	3.246358E-02	3.101397E-02	3.513857E-02
-1.2250000e+00	3.128497E-02	2.982356E-02	3.389973E-02
-1.2000000e+00	3.010901E-02	2.864279E-02	3.266673E-02
-1.1750000e+00	2.893648E-02	2.746896E-02	3.143985E-02
-1.1500000e+00	2.776826E-02	2.629964E-02	3.021938E-02
-1.1250000e+00	2.660528E-02	2.513304E-02	2.900561E-02
-1.1000000e+00	2.544841E-02	2.396824E-02	2.779886E-02
-1.0750000e+00	2.429844E-02	2.280536E-02	2.659948E-02
-1.0500000e+00	2.315612E-02	2.164543E-02	2.540789E-02
-1.0250000e+00	2.202214E-02	2.049007E-02	2.422457E-02
-1.0000000e+00	2.089719E-02	1.934117E-02	2.305009E-02
-9.7500000e-01	1.978197E-02	1.820065E-02	2.188514E-02
-9.5000000e-01	1.867722E-02	1.707028E-02	2.073052E-02
-9.2500000e-01	1.758372E-02	1.595172E-02	1.958719E-02
-9.0000000e-01	1.650228E-02	1.484648E-02	1.845618E-02
-8.7500000e-01	1.543373E-02	1.375596E-02	1.733862E-02
-8.5000000e-01	1.437889E-02	1.268153E-02	1.623553E-02
-8.2500000e-01	1.333851E-02	1.162449E-02	1.514772E-02
-8.0000000e-01	1.231328E-02	1.058622E-02	1.407562E-02
-7.7500000e-01	1.130388E-02	9.568206E-03	1.301922E-02
-7.5000000e-01	1.031106E-02	8.572276E-03	1.197827E-02
-7.2500000e-01	9.335806E-03	7.600753E-03	1.095257E-02
-7.0000000e-01	8.379549E-03	6.656721E-03	9.942222E-03
-6.7500000e-01	7.444326E-03	5.744302E-03	8.947921E-03
-6.5000000e-01	6.532997E-03	4.868952E-03	7.971051E-03
-6.2500000e-01	5.649458E-03	4.037787E-03	7.013870E-03
-6.0000000e-01	4.798902E-03	3.259897E-03	6.079707E-03
-5.7500000e-01	3.988134E-03	2.546530E-03	5.173245E-03
-5.5000000e-01	3.225930E-03	1.910856E-03	4.300910E-03
-5.2500000e-01	2.523332E-03	1.366712E-03	3.471447E-03
-5.0000000e-01	1.893615E-03	9.256050E-04	2.696680E-03
-4.7500000e-01	1.351332E-03	5.919303E-04	1.992354E-03
-4.5000000e-01	9.095438E-04	3.586832E-04	1.378419E-03
-4.2500000e-01	5.747929E-04	2.078355E-04	8.770400E-04
-4.0000000e-01	3.418453E-04	1.164218E-04	5.053108E-04
-3.7500000e-01	1.930954E-04	6.360210E-05	2.627390E-04
-3.5000000e-01	1.048276E-04	3.408364E-05	1.249615E-04
-3.2500000e-01	5.523970E-05	1.799151E-05	5.555911E-05
-3.0000000e-01	2.845373E-05	9.394192E-06	2.354502E-05
-2.7500000e-01	1.440808E-05	4.878770E-06	9.668085E-06
-2.5000000e-01	7.217646E-06	2.540607E-06	3.917725E-06
-2.2500000e-01	3.608426E-06	1.343333E-06	1.610387E-06
-2.0000000e-01	1.824961E-06	7.351342E-07	7.040805E-07

-1.7500000e-01	9.538097E-07	4.274933E-07	3.518120E-07
-1.5000000e-01	5.312391E-07	2.717598E-07	2.143493E-07
-1.2500000e-01	3.264285E-07	1.922225E-07	1.590780E-07
-1.0000000e-01	2.262355E-07	1.506538E-07	1.350141E-07
-7.5000000e-02	1.758303E-07	1.278715E-07	1.227817E-07
-5.0000000e-02	1.489090E-07	1.143246E-07	1.150734E-07
-2.5000000e-02	1.332080E-07	1.054156E-07	1.091537E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[Ramp]

R\_load = 50.00Ohm

	typ	min	max
dV/dt_r	532.022mV/119.423ps	491.319mV/165.185ps	567.619mV/91.565ps
dV/dt_f	537.976mV/129.806ps	497.460mV/173.213ps	578.029mV/105.657ps

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[Rising Waveform]

V\_fixture = 1.500V

V\_fixture\_min = 1.425V

V\_fixture\_max = 1.575V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	6.8316E-01	6.4198E-01	7.1381E-01
1.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
2.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
3.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
4.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
5.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
6.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
7.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
8.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
9.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
1.00E-10	6.8316E-01	6.4198E-01	7.1381E-01
1.10E-10	6.8316E-01	6.4198E-01	7.1381E-01
1.20E-10	6.8316E-01	6.4198E-01	7.1381E-01
1.30E-10	6.8316E-01	6.4198E-01	7.1381E-01
1.40E-10	6.8316E-01	6.4198E-01	7.2174E-01
1.50E-10	6.8316E-01	6.4198E-01	7.5887E-01
1.60E-10	6.8316E-01	6.4198E-01	8.2016E-01
1.70E-10	6.8316E-01	6.4198E-01	9.1349E-01
1.80E-10	6.8316E-01	6.4198E-01	1.0158E+00
1.90E-10	6.8316E-01	6.4198E-01	1.1058E+00
2.00E-10	6.8631E-01	6.4198E-01	1.1722E+00
2.10E-10	6.9781E-01	6.4198E-01	1.2169E+00
2.20E-10	7.2546E-01	6.4298E-01	1.2448E+00
2.30E-10	7.5875E-01	6.4398E-01	1.2647E+00
2.40E-10	8.1582E-01	6.4498E-01	1.2837E+00
2.50E-10	8.7535E-01	6.4698E-01	1.3078E+00
2.60E-10	9.4749E-01	6.5598E-01	1.3414E+00

2.70E-10	1.0174E+00	6.6598E-01	1.3863E+00
2.80E-10	1.0731E+00	6.7898E-01	1.4363E+00
2.90E-10	1.1226E+00	6.9347E-01	1.4802E+00
3.00E-10	1.1579E+00	7.1337E-01	1.5132E+00
3.10E-10	1.1837E+00	7.4966E-01	1.5358E+00
3.20E-10	1.2048E+00	7.9147E-01	1.5503E+00
3.30E-10	1.2195E+00	8.3328E-01	1.5592E+00
3.40E-10	1.2343E+00	8.7936E-01	1.5645E+00
3.50E-10	1.2494E+00	9.3100E-01	1.5675E+00
3.60E-10	1.2675E+00	9.8264E-01	1.5691E+00
3.70E-10	1.2874E+00	1.0268E+00	1.5702E+00
3.80E-10	1.3136E+00	1.0618E+00	1.5750E+00
3.90E-10	1.3416E+00	1.0967E+00	1.5750E+00
4.00E-10	1.3720E+00	1.1198E+00	1.5750E+00
4.10E-10	1.4006E+00	1.1392E+00	1.5750E+00
4.20E-10	1.4277E+00	1.1550E+00	1.5750E+00
4.30E-10	1.4490E+00	1.1666E+00	1.5750E+00
4.40E-10	1.4656E+00	1.1779E+00	1.5750E+00
4.50E-10	1.4779E+00	1.1874E+00	1.5750E+00
4.60E-10	1.4845E+00	1.1970E+00	1.5750E+00
4.70E-10	1.4896E+00	1.2077E+00	1.5750E+00
4.80E-10	1.4922E+00	1.2186E+00	1.5750E+00
4.90E-10	1.4951E+00	1.2308E+00	1.5750E+00
5.00E-10	1.4974E+00	1.2441E+00	1.5750E+00
5.10E-10	1.4984E+00	1.2582E+00	1.5750E+00
5.20E-10	1.4991E+00	1.2741E+00	1.5750E+00
5.30E-10	1.5000E+00	1.2901E+00	1.5750E+00
5.40E-10	1.5000E+00	1.3071E+00	1.5750E+00
5.50E-10	1.5000E+00	1.3240E+00	1.5750E+00
5.60E-10	1.5000E+00	1.3409E+00	1.5750E+00
5.70E-10	1.5000E+00	1.3579E+00	1.5750E+00
5.80E-10	1.5000E+00	1.3720E+00	1.5750E+00
5.90E-10	1.5000E+00	1.3824E+00	1.5750E+00
6.00E-10	1.5000E+00	1.3929E+00	1.5750E+00
6.10E-10	1.5000E+00	1.4033E+00	1.5750E+00
6.20E-10	1.5000E+00	1.4094E+00	1.5750E+00
6.30E-10	1.5000E+00	1.4154E+00	1.5750E+00
6.40E-10	1.5000E+00	1.4204E+00	1.5750E+00
6.50E-10	1.5000E+00	1.4244E+00	1.5750E+00
6.60E-10	1.5000E+00	1.4244E+00	1.5750E+00
6.70E-10	1.5000E+00	1.4244E+00	1.5750E+00
6.80E-10	1.5000E+00	1.4244E+00	1.5750E+00
6.90E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.00E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.10E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.20E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.30E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.40E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.50E-10	1.5000E+00	1.4244E+00	1.5750E+00

[Falling Waveform]

V\_fixture = 1.500V

V\_fixture\_min = 1.425V

V\_fixture\_max = 1.575V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	1.5000E+00	1.4244E+00	1.5750E+00
1.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
2.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
3.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
4.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
5.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
6.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
7.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
8.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
9.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
1.00E-10	1.5000E+00	1.4244E+00	1.5750E+00
1.10E-10	1.5000E+00	1.4244E+00	1.5750E+00
1.20E-10	1.5000E+00	1.4244E+00	1.5750E+00
1.30E-10	1.5000E+00	1.4244E+00	1.5678E+00
1.40E-10	1.5000E+00	1.4244E+00	1.5356E+00
1.50E-10	1.5000E+00	1.4244E+00	1.4918E+00
1.60E-10	1.5000E+00	1.4244E+00	1.4391E+00
1.70E-10	1.5000E+00	1.4244E+00	1.3811E+00
1.80E-10	1.5000E+00	1.4244E+00	1.3164E+00
1.90E-10	1.5000E+00	1.4244E+00	1.2491E+00
2.00E-10	1.4916E+00	1.4244E+00	1.1872E+00
2.10E-10	1.4779E+00	1.4244E+00	1.1373E+00
2.20E-10	1.4526E+00	1.4244E+00	1.1004E+00
2.30E-10	1.4258E+00	1.4244E+00	1.0723E+00
2.40E-10	1.3882E+00	1.4244E+00	1.0470E+00
2.50E-10	1.3499E+00	1.4244E+00	1.0149E+00
2.60E-10	1.3051E+00	1.4244E+00	9.8066E-01
2.70E-10	1.2605E+00	1.4244E+00	9.3547E-01
2.80E-10	1.2170E+00	1.4244E+00	8.8759E-01
2.90E-10	1.1745E+00	1.4194E+00	8.4268E-01
3.00E-10	1.1378E+00	1.4094E+00	8.0700E-01
3.10E-10	1.1029E+00	1.3963E+00	7.7745E-01
3.20E-10	1.0753E+00	1.3791E+00	7.5868E-01
3.30E-10	1.0489E+00	1.3558E+00	7.4505E-01
3.40E-10	1.0261E+00	1.3325E+00	7.3501E-01
3.50E-10	1.0023E+00	1.3056E+00	7.2933E-01
3.60E-10	9.7620E-01	1.2772E+00	7.2516E-01
3.70E-10	9.4367E-01	1.2488E+00	7.2226E-01
3.80E-10	9.0696E-01	1.2213E+00	7.2113E-01
3.90E-10	8.7376E-01	1.1938E+00	7.1999E-01
4.00E-10	8.3990E-01	1.1670E+00	7.1886E-01
4.10E-10	8.0957E-01	1.1432E+00	7.1825E-01
4.20E-10	7.8300E-01	1.1193E+00	7.1767E-01
4.30E-10	7.6093E-01	1.0968E+00	7.1709E-01
4.40E-10	7.4264E-01	1.0762E+00	7.1654E-01
4.50E-10	7.2827E-01	1.0555E+00	7.1600E-01
4.60E-10	7.1647E-01	1.0350E+00	7.1545E-01
4.70E-10	7.0685E-01	1.0145E+00	7.1510E-01
4.80E-10	6.9834E-01	9.9409E-01	7.1479E-01
4.90E-10	6.9107E-01	9.6900E-01	7.1449E-01

5.00E-10	6.8566E-01	9.4342E-01	7.1433E-01
5.10E-10	6.8316E-01	9.1269E-01	7.1421E-01
5.20E-10	6.8316E-01	8.8416E-01	7.1410E-01
5.30E-10	6.8316E-01	8.5763E-01	7.1399E-01
5.40E-10	6.8316E-01	8.3261E-01	7.1388E-01
5.50E-10	6.8316E-01	8.0994E-01	7.1380E-01
5.60E-10	6.8316E-01	7.8727E-01	7.1380E-01
5.70E-10	6.8316E-01	7.6866E-01	7.1380E-01
5.80E-10	6.8316E-01	7.5240E-01	7.1380E-01
5.90E-10	6.8316E-01	7.3613E-01	7.1380E-01
6.00E-10	6.8316E-01	7.2289E-01	7.1380E-01
6.10E-10	6.8316E-01	7.1008E-01	7.1380E-01
6.20E-10	6.8316E-01	6.9855E-01	7.1380E-01
6.30E-10	6.8316E-01	6.9098E-01	7.1380E-01
6.40E-10	6.8316E-01	6.8198E-01	7.1380E-01
6.50E-10	6.8316E-01	6.7398E-01	7.1380E-01
6.60E-10	6.8316E-01	6.6298E-01	7.1380E-01
6.70E-10	6.8316E-01	6.5598E-01	7.1380E-01
6.80E-10	6.8316E-01	6.5098E-01	7.1380E-01
6.90E-10	6.8316E-01	6.4798E-01	7.1380E-01
7.00E-10	6.8316E-01	6.4598E-01	7.1380E-01
7.10E-10	6.8316E-01	6.4398E-01	7.1380E-01
7.20E-10	6.8316E-01	6.4298E-01	7.1380E-01
7.30E-10	6.8316E-01	6.4198E-01	7.1380E-01
7.40E-10	6.8316E-01	6.4198E-01	7.1380E-01
7.50E-10	6.8316E-01	6.4198E-01	7.1380E-01

[Rising Waveform]

V\_fixture = 0.000V

V\_fixture\_min = 0.000V

V\_fixture\_max = 0.000V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	2.1656E-05	4.5001E-04	1.9840E-06
1.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
2.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
3.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
4.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
5.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
6.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
7.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
8.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
9.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
1.00E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.10E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.20E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.30E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.40E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.50E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.60E-10	2.1656E-05	4.5001E-04	4.8671E-02
1.70E-10	2.1656E-05	4.5001E-04	1.0238E-01
1.80E-10	2.1656E-05	4.5001E-04	1.6978E-01

1.90E-10	2.1656E-05	4.5001E-04	2.4540E-01
2.00E-10	2.1656E-05	4.5001E-04	3.2196E-01
2.10E-10	2.1656E-05	4.5001E-04	3.9122E-01
2.20E-10	6.9115E-03	4.5001E-04	4.4667E-01
2.30E-10	2.1916E-02	4.5001E-04	4.8493E-01
2.40E-10	4.9605E-02	4.5001E-04	5.1216E-01
2.50E-10	8.2158E-02	4.5001E-04	5.3458E-01
2.60E-10	1.2545E-01	4.5001E-04	5.6186E-01
2.70E-10	1.7346E-01	4.5001E-04	6.0105E-01
2.80E-10	2.2437E-01	4.5001E-04	6.5263E-01
2.90E-10	2.7673E-01	4.5001E-04	7.0953E-01
3.00E-10	3.2396E-01	7.4200E-04	7.5988E-01
3.10E-10	3.6830E-01	6.9399E-03	7.9680E-01
3.20E-10	4.0406E-01	2.2538E-02	8.2326E-01
3.30E-10	4.3438E-01	3.8136E-02	8.4173E-01
3.40E-10	4.5821E-01	6.0559E-02	8.5396E-01
3.50E-10	4.7742E-01	9.0788E-02	8.6342E-01
3.60E-10	4.9488E-01	1.2102E-01	8.7131E-01
3.70E-10	5.1097E-01	1.5625E-01	8.7541E-01
3.80E-10	5.3186E-01	1.9335E-01	8.7950E-01
3.90E-10	5.5704E-01	2.3045E-01	8.8129E-01
4.00E-10	5.8693E-01	2.6299E-01	8.8750E-01
4.10E-10	6.3150E-01	2.9548E-01	8.8750E-01
4.20E-10	6.6900E-01	3.2621E-01	8.8750E-01
4.30E-10	7.0343E-01	3.5161E-01	8.8750E-01
4.40E-10	7.3251E-01	3.7701E-01	8.8750E-01
4.50E-10	7.5834E-01	3.9887E-01	8.8750E-01
4.60E-10	7.7553E-01	4.1920E-01	8.8750E-01
4.70E-10	7.9054E-01	4.3893E-01	8.8750E-01
4.80E-10	7.9989E-01	4.5025E-01	8.8750E-01
4.90E-10	8.0628E-01	4.6257E-01	8.8750E-01
5.00E-10	8.1206E-01	4.7874E-01	8.8750E-01
5.10E-10	8.1613E-01	4.8572E-01	8.8750E-01
5.20E-10	8.2020E-01	4.9920E-01	8.8750E-01
5.30E-10	8.2427E-01	5.1505E-01	8.8750E-01
5.40E-10	8.2778E-01	5.3090E-01	8.8750E-01
5.50E-10	8.3015E-01	5.5341E-01	8.8750E-01
5.60E-10	8.3015E-01	5.7647E-01	8.8750E-01
5.70E-10	8.3015E-01	5.9813E-01	8.8750E-01
5.80E-10	8.3015E-01	6.2467E-01	8.8750E-01
5.90E-10	8.3015E-01	6.5120E-01	8.8750E-01
6.00E-10	8.3015E-01	6.7309E-01	8.8750E-01
6.10E-10	8.3015E-01	6.9494E-01	8.8750E-01
6.20E-10	8.3015E-01	7.1298E-01	8.8750E-01
6.30E-10	8.3015E-01	7.2761E-01	8.8750E-01
6.40E-10	8.3015E-01	7.4187E-01	8.8750E-01
6.50E-10	8.3015E-01	7.5387E-01	8.8750E-01
6.60E-10	8.3015E-01	7.6287E-01	8.8750E-01
6.70E-10	8.3015E-01	7.7087E-01	8.8750E-01
6.80E-10	8.3015E-01	7.7787E-01	8.8750E-01
6.90E-10	8.3015E-01	7.8587E-01	8.8750E-01
7.00E-10	8.3015E-01	7.8987E-01	8.8750E-01
7.10E-10	8.3015E-01	7.9287E-01	8.8750E-01
7.20E-10	8.3015E-01	7.9387E-01	8.8750E-01

7.30E-10	8.3015E-01	7.9487E-01	8.8750E-01
7.40E-10	8.3015E-01	7.9587E-01	8.8750E-01
7.50E-10	8.3015E-01	7.9587E-01	8.8750E-01

[Falling Waveform]

V\_fixture = 0.000V

V\_fixture\_min = 0.000V

V\_fixture\_max = 0.000V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	8.3015E-01	7.9587E-01	8.8750E-01
1.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
2.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
3.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
4.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
5.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
6.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
7.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
8.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
9.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
1.00E-10	8.3015E-01	7.9587E-01	8.8750E-01
1.10E-10	8.3015E-01	7.9587E-01	8.8750E-01
1.20E-10	8.3015E-01	7.9587E-01	8.8443E-01
1.30E-10	8.3015E-01	7.9587E-01	8.7452E-01
1.40E-10	8.3015E-01	7.9587E-01	8.4189E-01
1.50E-10	8.3015E-01	7.9587E-01	7.8920E-01
1.60E-10	8.3015E-01	7.9587E-01	7.1329E-01
1.70E-10	8.2717E-01	7.9587E-01	6.2580E-01
1.80E-10	8.2022E-01	7.9487E-01	5.4691E-01
1.90E-10	8.0849E-01	7.9287E-01	4.8081E-01
2.00E-10	7.8766E-01	7.8987E-01	4.2673E-01
2.10E-10	7.5342E-01	7.8587E-01	3.8302E-01
2.20E-10	7.0770E-01	7.8087E-01	3.4957E-01
2.30E-10	6.4643E-01	7.7487E-01	3.1949E-01
2.40E-10	5.7951E-01	7.6687E-01	2.8668E-01
2.50E-10	5.1395E-01	7.5687E-01	2.5182E-01
2.60E-10	4.5050E-01	7.4187E-01	2.1162E-01
2.70E-10	4.0155E-01	7.2460E-01	1.7228E-01
2.80E-10	3.6096E-01	7.0145E-01	1.3355E-01
2.90E-10	3.2886E-01	6.6392E-01	1.0138E-01
3.00E-10	3.0074E-01	6.2500E-01	7.3166E-02
3.10E-10	2.7872E-01	5.8181E-01	5.0761E-02
3.20E-10	2.6007E-01	5.3521E-01	3.5793E-02
3.30E-10	2.4432E-01	4.8940E-01	2.3892E-02
3.40E-10	2.2391E-01	4.4680E-01	1.6931E-02
3.50E-10	1.9806E-01	4.0419E-01	1.2192E-02
3.60E-10	1.7058E-01	3.7123E-01	8.9365E-03
3.70E-10	1.4036E-01	3.4007E-01	7.2358E-03
3.80E-10	1.1118E-01	3.1448E-01	5.9670E-03
3.90E-10	8.3244E-02	2.9477E-01	5.3516E-03
4.00E-10	6.1742E-02	2.7568E-01	4.7363E-03
4.10E-10	4.4018E-02	2.6075E-01	4.1060E-03

4.20E-10	3.0136E-02	2.4582E-01	3.4124E-03
4.30E-10	2.2486E-02	2.3054E-01	2.7189E-03
4.40E-10	1.5763E-02	2.1515E-01	2.0253E-03
4.50E-10	9.0387E-03	1.9777E-01	1.6262E-03
4.60E-10	5.3194E-03	1.7999E-01	1.2305E-03
4.70E-10	3.4381E-03	1.6207E-01	8.3483E-04
4.80E-10	1.5568E-03	1.4205E-01	6.3758E-04
4.90E-10	6.2322E-04	1.2203E-01	4.9475E-04
5.00E-10	1.0502E-04	1.0187E-01	3.5192E-04
5.10E-10	2.1656E-05	8.1652E-02	2.0909E-04
5.20E-10	2.1656E-05	6.3154E-02	6.6265E-05
5.30E-10	2.1656E-05	4.7873E-02	1.9840E-06
5.40E-10	2.1656E-05	3.2593E-02	1.9840E-06
5.50E-10	2.1656E-05	2.4507E-02	1.9840E-06
5.60E-10	2.1656E-05	1.6483E-02	1.9840E-06
5.70E-10	2.1656E-05	1.1660E-02	1.9840E-06
5.80E-10	2.1656E-05	8.6750E-03	1.9840E-06
5.90E-10	2.1656E-05	6.2443E-03	1.9840E-06
6.00E-10	2.1656E-05	5.2473E-03	1.9840E-06
6.10E-10	2.1656E-05	4.2503E-03	1.9840E-06
6.20E-10	2.1656E-05	3.6374E-03	1.9840E-06
6.30E-10	2.1656E-05	3.0570E-03	1.9840E-06
6.40E-10	2.1656E-05	2.5197E-03	1.9840E-06
6.50E-10	2.1656E-05	2.0157E-03	1.9840E-06
6.60E-10	2.1656E-05	1.5499E-03	1.9840E-06
6.70E-10	2.1656E-05	1.0325E-03	1.9840E-06
6.80E-10	2.1656E-05	8.8691E-04	1.9840E-06
6.90E-10	2.1656E-05	7.4127E-04	1.9840E-06
7.00E-10	2.1656E-05	5.9564E-04	1.9840E-06
7.10E-10	2.1656E-05	4.5001E-04	1.9840E-06
7.20E-10	2.1656E-05	4.5001E-04	1.9840E-06
7.30E-10	2.1656E-05	4.5001E-04	1.9840E-06
7.40E-10	2.1656E-05	4.5001E-04	1.9840E-06
7.50E-10	2.1656E-05	4.5001E-04	1.9840E-06

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MODEL DQS\_40\_1600 (34 Ohm Data Strobe I/O with 120ohm ODT, 1333/1600 Mbps)

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[Model] DQS\_40\_ODT120\_1600

Model\_type I/O

Vinl = 600.000mV

Vinh = 900.000mV

Vmeas = 750.000mV

Vref = 750.000mV

Cref = 0.0pF

Rref = 25.000Ohm

	typ	min	max
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C_comp	1.078pF	0.966pF	1.223pF
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Note: C\_comp changes when the ODT circuit is enabled.



[Model Spec]

| Input threshold voltage corners

Vinl	0.6000V	0.5625V	0.6375V
Vinh	0.9000V	0.8625V	0.9375V

| Measurement voltage corners

Vmeas	0.7500V	0.7125V	0.7875V
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| Timing spec test load voltage corners

Vref	0.7500V	0.7125V	0.7875V
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| Dynamic Overshoot Parameters from DDR3 Specification

D_overshoot_ampl_h	0.40	NA	NA
D_overshoot_ampl_l	0.40	NA	NA
D_overshoot_area_h	0.13n	NA	NA
D_overshoot_area_l	0.13n	NA	NA

[Receiver Thresholds]

Vth = 0.750V  
Vth\_min = 0.7350V  
Vth\_max = 0.7650V  
Vinh\_ac = 0.150V  
Vinh\_dc = 0.100V  
Vinl\_ac = -0.150V  
Vinl\_dc = -0.100V  
Tslew\_ac = 5.000ns |Not specified, so set to high value  
Threshold\_sensitivity = 0.50  
Reference\_supply Pullup\_ref

[NOTE: If using the IBISCHK 4.2.1 or older parser, Differential receiver threshold parameters must be commented out because the parser generates errors for multiple differential models.

Vcross\_low = 0.600V  
Vcross\_high = 0.900V  
Vdiff\_ac = 300mV  
Vdiff\_dc = 200mV  
Tdiffslew\_ac = 10.000ns |Not specified, so set to high value

[Add Submodel]

Submodel Name	Mode			
120Ohm_ODT	Non-Driving			
[Voltage Range]	1.500V	1.425V	1.575V	
[Pullup Reference]	1.500V	1.425V	1.575V	
[Temperature Range]	85.0	110.0	0.0	

\*\*\*\*\*

[Pulldown]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	-5.766580E-03	-5.671960E-03	-4.4564E-03
-1.4750000e+00	-5.965480E-03	-5.898760E-03	-4.6456E-03

-1.4250000e+00	-6.365740E-03	-6.361750E-03	-5.0283E-03
-1.3750000e+00	-6.767370E-03	-6.833580E-03	-5.4143E-03
-1.3250000e+00	-7.168490E-03	-7.310620E-03	-5.8012E-03
-1.2750000e+00	-7.567540E-03	-7.790060E-03	-6.1870E-03
-1.2250000e+00	-7.963180E-03	-8.269780E-03	-6.5705E-03
-1.1750000e+00	-8.354170E-03	-8.748110E-03	-6.9506E-03
-1.1250000e+00	-8.739220E-03	-9.223740E-03	-7.3262E-03
-1.0750000e+00	-9.116960E-03	-9.695520E-03	-7.6961E-03
-1.0250000e+00	-9.485740E-03	-1.016235E-02	-8.0593E-03
-9.7500000e-01	-9.843550E-03	-1.062303E-02	-8.4141E-03
-9.2500000e-01	-1.018784E-02	-1.107598E-02	-8.7587E-03
-8.7500000e-01	-1.051515E-02	-1.151861E-02	-9.0906E-03
-8.2500000e-01	-1.082065E-02	-1.194611E-02	-9.4063E-03
-7.7500000e-01	-1.109723E-02	-1.234917E-02	-9.7010E-03
-7.2500000e-01	-1.133396E-02	-1.271052E-02	-9.9678E-03
-6.7500000e-01	-1.151368E-02	-1.300112E-02	-1.0196E-02
-6.2500000e-01	-1.161030E-02	-1.317732E-02	-1.0369E-02
-5.7500000e-01	-1.158847E-02	-1.318034E-02	-1.0460E-02
-5.2500000e-01	-1.140914E-02	-1.294110E-02	-1.0425E-02
-4.7500000e-01	-1.103661E-02	-1.239310E-02	-1.0195E-02
-4.2500000e-01	-1.042948E-02	-1.149942E-02	-9.7052E-03
-3.7500000e-01	-9.541331E-03	-1.031290E-02	-8.9368E-03
-3.2500000e-01	-8.402181E-03	-8.972323E-03	-7.9244E-03
-2.7500000e-01	-7.136897E-03	-7.584300E-03	-6.7526E-03
-2.2500000e-01	-5.837164E-03	-6.189682E-03	-5.5298E-03
-1.7500000e-01	-4.533342E-03	-4.799550E-03	-4.2997E-03
-1.2500000e-01	-3.232329E-03	-3.416866E-03	-3.0698E-03
-7.5000000e-02	-1.935664E-03	-2.042825E-03	-1.8409E-03
-2.5000000e-02	-6.439068E-04	-6.783475E-04	-6.1331E-04
0.0000000e+00	-2.495000E-09	-2.851000E-10	-4.3290E-09
2.5000000e-02	6.423542E-04	6.754144E-04	6.1284E-04
7.5000000e-02	1.921741E-03	2.016470E-03	1.8368E-03
1.2500000e-01	3.193668E-03	3.343638E-03	3.0583E-03
1.7500000e-01	4.457673E-03	4.655798E-03	4.2773E-03
2.2500000e-01	5.713247E-03	5.951703E-03	5.4937E-03
2.7500000e-01	6.959828E-03	7.229949E-03	6.7074E-03
3.2500000e-01	8.196792E-03	8.488947E-03	7.9183E-03
3.7500000e-01	9.423449E-03	9.726883E-03	9.1262E-03
4.2500000e-01	1.063902E-02	1.094167E-02	1.0331E-02
4.7500000e-01	1.184265E-02	1.213090E-02	1.1533E-02
5.2500000e-01	1.303336E-02	1.329176E-02	1.2731E-02
5.7500000e-01	1.421007E-02	1.442101E-02	1.3926E-02
6.2500000e-01	1.537155E-02	1.551502E-02	1.5117E-02
6.7500000e-01	1.651649E-02	1.657019E-02	1.6305E-02
7.2500000e-01	1.764350E-02	1.758380E-02	1.7488E-02
7.7500000e-01	1.875138E-02	1.855487E-02	1.8667E-02
8.2500000e-01	1.983945E-02	1.948346E-02	1.9842E-02
8.7500000e-01	2.090800E-02	2.036881E-02	2.1012E-02
9.2500000e-01	2.195802E-02	2.120815E-02	2.2178E-02
9.7500000e-01	2.299059E-02	2.199660E-02	2.3338E-02
1.0250000e+00	2.400623E-02	2.272804E-02	2.4493E-02
1.0750000e+00	2.500472E-02	2.339642E-02	2.5642E-02
1.1250000e+00	2.598518E-02	2.399791E-02	2.6785E-02
1.1750000e+00	2.694619E-02	2.453290E-02	2.7921E-02

1.2250000e+00	2.788582E-02	2.500673E-02	2.9050E-02
1.2750000e+00	2.880158E-02	2.542839E-02	3.0172E-02
1.3250000e+00	2.969048E-02	2.580810E-02	3.1286E-02
1.3750000e+00	3.054893E-02	2.615534E-02	3.2391E-02
1.4250000e+00	3.137276E-02	2.647793E-02	3.3486E-02
1.4750000e+00	3.215739E-02	2.678186E-02	3.4572E-02
1.5250000e+00	3.289823E-02	2.707162E-02	3.5646E-02
1.5750000e+00	3.359126E-02	2.735051E-02	3.6708E-02
1.6250000e+00	3.423408E-02	2.762095E-02	3.7757E-02
1.6750000e+00	3.482661E-02	2.788477E-02	3.8790E-02
1.7250000e+00	3.537149E-02	2.814329E-02	3.9807E-02
1.7750000e+00	3.587366E-02	2.839756E-02	4.0805E-02
1.8250000e+00	3.633928E-02	2.864834E-02	4.1781E-02
1.8750000e+00	3.677472E-02	2.889628E-02	4.2734E-02
1.9250000e+00	3.718582E-02	2.914184E-02	4.3660E-02
1.9750000e+00	3.757750E-02	2.938542E-02	4.4556E-02
2.0250000e+00	3.795380E-02	2.962733E-02	4.5417E-02
2.0750000e+00	3.831783E-02	2.986783E-02	4.6241E-02
2.1250000e+00	3.867208E-02	3.010713E-02	4.7025E-02
2.1750000e+00	3.901845E-02	3.034542E-02	4.7767E-02
2.2250000e+00	3.935843E-02	3.058286E-02	4.8466E-02
2.2750000e+00	3.969319E-02	3.081960E-02	4.9124E-02
2.3250000e+00	4.002364E-02	3.105576E-02	4.9743E-02
2.3750000e+00	4.035053E-02	3.129147E-02	5.0329E-02
2.4250000e+00	4.067444E-02	3.152686E-02	5.0885E-02
2.4750000e+00	4.099589E-02	3.176208E-02	5.1415E-02
2.5250000e+00	4.131527E-02	3.199724E-02	5.1923E-02
2.5750000e+00	4.163292E-02	3.223252E-02	5.2415E-02
2.6250000e+00	4.194914E-02	3.246808E-02	5.2891E-02
2.6750000e+00	4.226420E-02	3.270415E-02	5.3355E-02
2.7250000e+00	4.257832E-02	3.294093E-02	5.3809E-02
2.7750000e+00	4.289173E-02	3.317872E-02	5.4255E-02
2.8250000e+00	4.320461E-02	3.341781E-02	5.4693E-02
2.8750000e+00	4.351716E-02	3.365859E-02	5.5126E-02
2.9250000e+00	4.382954E-02	3.390146E-02	5.5553E-02
2.9750000e+00	4.414196E-02	3.414689E-02	5.5976E-02
3.0000000e+00	4.429822E-02	3.427073E-02	5.6186E-02

[GND Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	-5.378351E-02	-5.490567E-02	-5.885698E-02
-1.4750000e+00	-5.231251E-02	-5.334431E-02	-5.735670E-02
-1.4500000e+00	-5.084369E-02	-5.178549E-02	-5.585777E-02
-1.4250000e+00	-4.937717E-02	-5.022938E-02	-5.436026E-02
-1.4000000e+00	-4.791309E-02	-4.867613E-02	-5.286424E-02
-1.3750000e+00	-4.645161E-02	-4.712594E-02	-5.136982E-02
-1.3500000e+00	-4.499289E-02	-4.557901E-02	-4.987709E-02
-1.3250000e+00	-4.353712E-02	-4.403556E-02	-4.838614E-02
-1.3000000e+00	-4.208452E-02	-4.249585E-02	-4.689710E-02
-1.2750000e+00	-4.063529E-02	-4.096014E-02	-4.541010E-02
-1.2500000e+00	-3.918970E-02	-3.942875E-02	-4.392527E-02
-1.2250000e+00	-3.774803E-02	-3.790201E-02	-4.244278E-02
-1.2000000e+00	-3.631059E-02	-3.638031E-02	-4.096280E-02
-1.1750000e+00	-3.487773E-02	-3.486408E-02	-3.948552E-02

-1.1500000e+00	-3.344986E-02	-3.335380E-02	-3.801116E-02
-1.1250000e+00	-3.202742E-02	-3.185003E-02	-3.653998E-02
-1.1000000e+00	-3.061092E-02	-3.035339E-02	-3.507226E-02
-1.0750000e+00	-2.920096E-02	-2.886462E-02	-3.360832E-02
-1.0500000e+00	-2.779821E-02	-2.738455E-02	-3.214854E-02
-1.0250000e+00	-2.640347E-02	-2.591415E-02	-3.069335E-02
-1.0000000e+00	-2.501766E-02	-2.445455E-02	-2.924328E-02
-9.7500000e-01	-2.364185E-02	-2.300708E-02	-2.779892E-02
-9.5000000e-01	-2.227732E-02	-2.157329E-02	-2.636102E-02
-9.2500000e-01	-2.092559E-02	-2.015501E-02	-2.493048E-02
-9.0000000e-01	-1.958843E-02	-1.875433E-02	-2.350840E-02
-8.7500000e-01	-1.826790E-02	-1.737363E-02	-2.209616E-02
-8.5000000e-01	-1.696631E-02	-1.601550E-02	-2.069550E-02
-8.2500000e-01	-1.568612E-02	-1.468262E-02	-1.930856E-02
-8.0000000e-01	-1.442972E-02	-1.337762E-02	-1.793782E-02
-7.7500000e-01	-1.319926E-02	-1.210311E-02	-1.658583E-02
-7.5000000e-01	-1.199673E-02	-1.086191E-02	-1.525450E-02
-7.2500000e-01	-1.082427E-02	-9.657411E-03	-1.394473E-02
-7.0000000e-01	-9.684638E-03	-8.493939E-03	-1.265685E-02
-6.7500000e-01	-8.581514E-03	-7.376930E-03	-1.139180E-02
-6.5000000e-01	-7.519607E-03	-6.312929E-03	-1.015194E-02
-6.2500000e-01	-6.504547E-03	-5.309438E-03	-8.941318E-03
-6.0000000e-01	-5.542688E-03	-4.374618E-03	-7.765735E-03
-5.7500000e-01	-4.640772E-03	-3.516890E-03	-6.632945E-03
-5.5000000e-01	-3.805524E-03	-2.744483E-03	-5.552946E-03
-5.2500000e-01	-3.043248E-03	-2.065103E-03	-4.538201E-03
-5.0000000e-01	-2.359647E-03	-1.485677E-03	-3.603412E-03
-4.7500000e-01	-1.760020E-03	-1.011779E-03	-2.764265E-03
-4.5000000e-01	-1.249702E-03	-6.458403E-04	-2.034716E-03
-4.2500000e-01	-8.339835E-04	-3.838582E-04	-1.423545E-03
-4.0000000e-01	-5.162389E-04	-2.125448E-04	-9.327605E-04
-3.7500000e-01	-2.937329E-04	-1.106466E-04	-5.596330E-04
-3.5000000e-01	-1.537279E-04	-5.497263E-05	-2.989533E-04
-3.2500000e-01	-7.493357E-05	-2.649171E-05	-1.392987E-04
-3.0000000e-01	-3.471511E-05	-1.256760E-05	-5.693658E-05
-2.7500000e-01	-1.563019E-05	-5.952723E-06	-2.113755E-05
-2.5000000e-01	-7.001335E-06	-2.863206E-06	-7.478945E-06
-2.2500000e-01	-3.215160E-06	-1.433628E-06	-2.669259E-06
-2.0000000e-01	-1.576700E-06	-7.729597E-07	-1.039352E-06
-1.7500000e-01	-8.691669E-07	-4.659048E-07	-4.927445E-07
-1.5000000e-01	-5.602970E-07	-3.210513E-07	-3.061011E-07
-1.2500000e-01	-4.211770E-07	-2.506183E-07	-2.379539E-07
-1.0000000e-01	-3.542844E-07	-2.144259E-07	-2.089405E-07
-7.5000000e-02	-3.182781E-07	-1.940781E-07	-1.931392E-07
-5.0000000e-02	-2.956734E-07	-1.811414E-07	-1.820767E-07
-2.5000000e-02	-2.790923E-07	-1.717494E-07	-1.729565E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[Pullup]

-1.5000000e+00	1.389728E-02	1.504401E-02	1.3495E-02
-1.4750000e+00	1.392266E-02	1.515940E-02	1.3511E-02
-1.4250000e+00	1.394549E-02	1.534861E-02	1.3532E-02
-1.3750000e+00	1.393984E-02	1.547700E-02	1.3542E-02

-1.3250000e+00	1.391859E-02	1.554357E-02	1.3545E-02
-1.2750000e+00	1.389341E-02	1.555550E-02	1.3540E-02
-1.2250000e+00	1.387050E-02	1.552788E-02	1.3526E-02
-1.1750000e+00	1.384963E-02	1.548081E-02	1.3502E-02
-1.1250000e+00	1.382685E-02	1.543388E-02	1.3467E-02
-1.0750000e+00	1.379804E-02	1.539856E-02	1.3421E-02
-1.0250000e+00	1.376042E-02	1.537452E-02	1.3363E-02
-9.7500000e-01	1.371257E-02	1.535474E-02	1.3293E-02
-9.2500000e-01	1.365380E-02	1.533271E-02	1.3210E-02
-8.7500000e-01	1.358379E-02	1.530481E-02	1.3113E-02
-8.2500000e-01	1.350199E-02	1.526951E-02	1.3001E-02
-7.7500000e-01	1.340734E-02	1.522537E-02	1.2873E-02
-7.2500000e-01	1.329767E-02	1.516783E-02	1.2725E-02
-6.7500000e-01	1.316879E-02	1.508258E-02	1.2554E-02
-6.2500000e-01	1.301213E-02	1.493400E-02	1.2352E-02
-5.7500000e-01	1.280843E-02	1.465359E-02	1.2107E-02
-5.2500000e-01	1.251269E-02	1.414154E-02	1.1797E-02
-4.7500000e-01	1.203560E-02	1.330397E-02	1.1382E-02
-4.2500000e-01	1.126665E-02	1.214514E-02	1.0778E-02
-3.7500000e-01	1.018437E-02	1.079032E-02	9.8667E-03
-3.2500000e-01	8.905568E-03	9.358893E-03	8.6724E-03
-2.7500000e-01	7.550642E-03	7.907034E-03	7.3614E-03
-2.2500000e-01	6.175032E-03	6.454310E-03	6.0240E-03
-1.7500000e-01	4.796858E-03	5.006794E-03	4.6832E-03
-1.2500000e-01	3.421222E-03	3.566345E-03	3.3432E-03
-7.5000000e-02	2.049479E-03	2.133648E-03	2.0047E-03
-2.5000000e-02	6.820421E-04	7.091043E-04	6.6784E-04
0.0000000e+00	1.125100E-09	4.014300E-10	2.6237E-09
2.5000000e-02	-6.802155E-04	-7.060015E-04	-6.6696E-04
7.5000000e-02	-2.032965E-03	-2.105590E-03	-1.9968E-03
1.2500000e-01	-3.375119E-03	-3.487987E-03	-3.3211E-03
1.7500000e-01	-4.706231E-03	-4.852382E-03	-4.6395E-03
2.2500000e-01	-6.025837E-03	-6.197914E-03	-5.9518E-03
2.7500000e-01	-7.333440E-03	-7.523661E-03	-7.2578E-03
3.2500000e-01	-8.628517E-03	-8.828634E-03	-8.5572E-03
3.7500000e-01	-9.910511E-03	-1.011178E-02	-9.8498E-03
4.2500000e-01	-1.117883E-02	-1.137197E-02	-1.1135E-02
4.7500000e-01	-1.243286E-02	-1.260797E-02	-1.2413E-02
5.2500000e-01	-1.367192E-02	-1.381848E-02	-1.3683E-02
5.7500000e-01	-1.489533E-02	-1.500209E-02	-1.4945E-02
6.2500000e-01	-1.610232E-02	-1.615730E-02	-1.6198E-02
6.7500000e-01	-1.729210E-02	-1.728247E-02	-1.7442E-02
7.2500000e-01	-1.846383E-02	-1.837588E-02	-1.8677E-02
7.7500000e-01	-1.961663E-02	-1.943566E-02	-1.9902E-02
8.2500000e-01	-2.074956E-02	-2.045990E-02	-2.1116E-02
8.7500000e-01	-2.186165E-02	-2.144666E-02	-2.2320E-02
9.2500000e-01	-2.295193E-02	-2.239415E-02	-2.3513E-02
9.7500000e-01	-2.401949E-02	-2.330089E-02	-2.4694E-02
1.0250000e+00	-2.506353E-02	-2.416589E-02	-2.5862E-02
1.0750000e+00	-2.608351E-02	-2.498853E-02	-2.7019E-02
1.1250000e+00	-2.707921E-02	-2.576811E-02	-2.8162E-02
1.1750000e+00	-2.805064E-02	-2.650347E-02	-2.9293E-02
1.2250000e+00	-2.899777E-02	-2.719285E-02	-3.0411E-02
1.2750000e+00	-2.992027E-02	-2.783418E-02	-3.1515E-02

1.3250000e+00	-3.081737E-02	-2.842555E-02	-3.2607E-02
1.3750000e+00	-3.168792E-02	-2.896616E-02	-3.3684E-02
1.4250000e+00	-3.253039E-02	-2.945719E-02	-3.4746E-02
1.4750000e+00	-3.334289E-02	-2.990258E-02	-3.5792E-02
1.5250000e+00	-3.412325E-02	-3.030862E-02	-3.6822E-02
1.5750000e+00	-3.486904E-02	-3.068257E-02	-3.7833E-02
1.6250000e+00	-3.557765E-02	-3.103121E-02	-3.8826E-02
1.6750000e+00	-3.624648E-02	-3.136007E-02	-3.9797E-02
1.7250000e+00	-3.687328E-02	-3.167336E-02	-4.0746E-02
1.7750000e+00	-3.745664E-02	-3.197424E-02	-4.1671E-02
1.8250000e+00	-3.799669E-02	-3.226504E-02	-4.2569E-02
1.8750000e+00	-3.849556E-02	-3.254752E-02	-4.3438E-02
1.9250000e+00	-3.895731E-02	-3.282305E-02	-4.4275E-02
1.9750000e+00	-3.938722E-02	-3.309268E-02	-4.5078E-02
2.0250000e+00	-3.979072E-02	-3.335727E-02	-4.5843E-02
2.0750000e+00	-4.017273E-02	-3.361751E-02	-4.6567E-02
2.1250000e+00	-4.053726E-02	-3.387396E-02	-4.7248E-02
2.1750000e+00	-4.088753E-02	-3.412707E-02	-4.7884E-02
2.2250000e+00	-4.122603E-02	-3.437727E-02	-4.8477E-02
2.2750000e+00	-4.155471E-02	-3.462485E-02	-4.9029E-02
2.3250000e+00	-4.187511E-02	-3.487012E-02	-4.9543E-02
2.3750000e+00	-4.218845E-02	-3.511332E-02	-5.0025E-02
2.4250000e+00	-4.249571E-02	-3.535466E-02	-5.0480E-02
2.4750000e+00	-4.279769E-02	-3.559433E-02	-5.0912E-02
2.5250000e+00	-4.309507E-02	-3.583247E-02	-5.1326E-02
2.5750000e+00	-4.338839E-02	-3.606925E-02	-5.1724E-02
2.6250000e+00	-4.367813E-02	-3.630478E-02	-5.2110E-02
2.6750000e+00	-4.396467E-02	-3.653918E-02	-5.2484E-02
2.7250000e+00	-4.424835E-02	-3.677256E-02	-5.2850E-02
2.7750000e+00	-4.452948E-02	-3.700500E-02	-5.3207E-02
2.8250000e+00	-4.480830E-02	-3.723659E-02	-5.3558E-02
2.8750000e+00	-4.508503E-02	-3.746739E-02	-5.3903E-02
2.9250000e+00	-4.535988E-02	-3.769749E-02	-5.4242E-02
2.9750000e+00	-4.563300E-02	-3.792696E-02	-5.4577E-02
3.0000000e+00	-4.576897E-02	-3.804147E-02	-5.4743E-02

[POWER Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	4.450136E-02	4.385767E-02	4.780182E-02
-1.4750000e+00	4.325737E-02	4.248503E-02	4.651241E-02
-1.4500000e+00	4.202627E-02	4.113177E-02	4.522926E-02
-1.4250000e+00	4.080680E-02	3.979850E-02	4.395156E-02
-1.4000000e+00	3.959743E-02	3.848563E-02	4.267873E-02
-1.3750000e+00	3.839648E-02	3.719324E-02	4.141044E-02
-1.3500000e+00	3.720221E-02	3.592106E-02	4.014659E-02
-1.3250000e+00	3.601296E-02	3.466841E-02	3.888726E-02
-1.3000000e+00	3.482735E-02	3.343415E-02	3.763263E-02
-1.2750000e+00	3.364438E-02	3.221669E-02	3.638297E-02
-1.2500000e+00	3.246358E-02	3.101397E-02	3.513857E-02
-1.2250000e+00	3.128497E-02	2.982356E-02	3.389973E-02
-1.2000000e+00	3.010901E-02	2.864279E-02	3.266673E-02
-1.1750000e+00	2.893648E-02	2.746896E-02	3.143985E-02
-1.1500000e+00	2.776826E-02	2.629964E-02	3.021938E-02
-1.1250000e+00	2.660528E-02	2.513304E-02	2.900561E-02

-1.1000000e+00	2.544841E-02	2.396824E-02	2.779886E-02
-1.0750000e+00	2.429844E-02	2.280536E-02	2.659948E-02
-1.0500000e+00	2.315612E-02	2.164543E-02	2.540789E-02
-1.0250000e+00	2.202214E-02	2.049007E-02	2.422457E-02
-1.0000000e+00	2.089719E-02	1.934117E-02	2.305009E-02
-9.7500000e-01	1.978197E-02	1.820065E-02	2.188514E-02
-9.5000000e-01	1.867722E-02	1.707028E-02	2.073052E-02
-9.2500000e-01	1.758372E-02	1.595172E-02	1.958719E-02
-9.0000000e-01	1.650228E-02	1.484648E-02	1.845618E-02
-8.7500000e-01	1.543373E-02	1.375596E-02	1.733862E-02
-8.5000000e-01	1.437889E-02	1.268153E-02	1.623553E-02
-8.2500000e-01	1.333851E-02	1.162449E-02	1.514772E-02
-8.0000000e-01	1.231328E-02	1.058622E-02	1.407562E-02
-7.7500000e-01	1.130388E-02	9.568206E-03	1.301922E-02
-7.5000000e-01	1.031106E-02	8.572276E-03	1.197827E-02
-7.2500000e-01	9.335806E-03	7.600753E-03	1.095257E-02
-7.0000000e-01	8.379549E-03	6.656721E-03	9.942222E-03
-6.7500000e-01	7.444326E-03	5.744302E-03	8.947921E-03
-6.5000000e-01	6.532997E-03	4.868952E-03	7.971051E-03
-6.2500000e-01	5.649458E-03	4.037787E-03	7.013870E-03
-6.0000000e-01	4.798902E-03	3.259897E-03	6.079707E-03
-5.7500000e-01	3.988134E-03	2.546530E-03	5.173245E-03
-5.5000000e-01	3.225930E-03	1.910856E-03	4.300910E-03
-5.2500000e-01	2.523332E-03	1.366712E-03	3.471447E-03
-5.0000000e-01	1.893615E-03	9.256050E-04	2.696680E-03
-4.7500000e-01	1.351332E-03	5.919303E-04	1.992354E-03
-4.5000000e-01	9.095438E-04	3.586832E-04	1.378419E-03
-4.2500000e-01	5.747929E-04	2.078355E-04	8.770400E-04
-4.0000000e-01	3.418453E-04	1.164218E-04	5.053108E-04
-3.7500000e-01	1.930954E-04	6.360210E-05	2.627390E-04
-3.5000000e-01	1.048276E-04	3.408364E-05	1.249615E-04
-3.2500000e-01	5.523970E-05	1.799151E-05	5.555911E-05
-3.0000000e-01	2.845373E-05	9.394192E-06	2.354502E-05
-2.7500000e-01	1.440808E-05	4.878770E-06	9.668085E-06
-2.5000000e-01	7.217646E-06	2.540607E-06	3.917725E-06
-2.2500000e-01	3.608426E-06	1.343333E-06	1.610387E-06
-2.0000000e-01	1.824961E-06	7.351342E-07	7.040805E-07
-1.7500000e-01	9.538097E-07	4.274933E-07	3.518120E-07
-1.5000000e-01	5.312391E-07	2.717598E-07	2.143493E-07
-1.2500000e-01	3.264285E-07	1.922225E-07	1.590780E-07
-1.0000000e-01	2.262355E-07	1.506538E-07	1.350141E-07
-7.5000000e-02	1.758303E-07	1.278715E-07	1.227817E-07
-5.0000000e-02	1.489090E-07	1.143246E-07	1.150734E-07
-2.5000000e-02	1.332080E-07	1.054156E-07	1.091537E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[Ramp]

R\_load = 50.00Ohm

	typ	min	max
dV/dt_r	532.022mV/119.423ps	491.319mV/165.185ps	567.619mV/91.565ps
dV/dt_f	537.976mV/129.806ps	497.460mV/173.213ps	578.029mV/105.657ps

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[Rising Waveform]

V\_fixture = 1.500V

V\_fixture\_min = 1.425V

V\_fixture\_max = 1.575V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	6.8316E-01	6.4198E-01	7.1381E-01
1.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
2.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
3.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
4.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
5.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
6.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
7.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
8.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
9.00E-11	6.8316E-01	6.4198E-01	7.1381E-01
1.00E-10	6.8316E-01	6.4198E-01	7.1381E-01
1.10E-10	6.8316E-01	6.4198E-01	7.1381E-01
1.20E-10	6.8316E-01	6.4198E-01	7.1381E-01
1.30E-10	6.8316E-01	6.4198E-01	7.1381E-01
1.40E-10	6.8316E-01	6.4198E-01	7.2174E-01
1.50E-10	6.8316E-01	6.4198E-01	7.5887E-01
1.60E-10	6.8316E-01	6.4198E-01	8.2016E-01
1.70E-10	6.8316E-01	6.4198E-01	9.1349E-01
1.80E-10	6.8316E-01	6.4198E-01	1.0158E+00
1.90E-10	6.8316E-01	6.4198E-01	1.1058E+00
2.00E-10	6.8631E-01	6.4198E-01	1.1722E+00
2.10E-10	6.9781E-01	6.4198E-01	1.2169E+00
2.20E-10	7.2546E-01	6.4298E-01	1.2448E+00
2.30E-10	7.5875E-01	6.4398E-01	1.2647E+00
2.40E-10	8.1582E-01	6.4498E-01	1.2837E+00
2.50E-10	8.7535E-01	6.4698E-01	1.3078E+00
2.60E-10	9.4749E-01	6.5598E-01	1.3414E+00
2.70E-10	1.0174E+00	6.6598E-01	1.3863E+00
2.80E-10	1.0731E+00	6.7898E-01	1.4363E+00
2.90E-10	1.1226E+00	6.9347E-01	1.4802E+00
3.00E-10	1.1579E+00	7.1337E-01	1.5132E+00
3.10E-10	1.1837E+00	7.4966E-01	1.5358E+00
3.20E-10	1.2048E+00	7.9147E-01	1.5503E+00
3.30E-10	1.2195E+00	8.3328E-01	1.5592E+00
3.40E-10	1.2343E+00	8.7936E-01	1.5645E+00
3.50E-10	1.2494E+00	9.3100E-01	1.5675E+00
3.60E-10	1.2675E+00	9.8264E-01	1.5691E+00
3.70E-10	1.2874E+00	1.0268E+00	1.5702E+00
3.80E-10	1.3136E+00	1.0618E+00	1.5750E+00
3.90E-10	1.3416E+00	1.0967E+00	1.5750E+00
4.00E-10	1.3720E+00	1.1198E+00	1.5750E+00
4.10E-10	1.4006E+00	1.1392E+00	1.5750E+00
4.20E-10	1.4277E+00	1.1550E+00	1.5750E+00
4.30E-10	1.4490E+00	1.1666E+00	1.5750E+00



4.40E-10	1.4656E+00	1.1779E+00	1.5750E+00
4.50E-10	1.4779E+00	1.1874E+00	1.5750E+00
4.60E-10	1.4845E+00	1.1970E+00	1.5750E+00
4.70E-10	1.4896E+00	1.2077E+00	1.5750E+00
4.80E-10	1.4922E+00	1.2186E+00	1.5750E+00
4.90E-10	1.4951E+00	1.2308E+00	1.5750E+00
5.00E-10	1.4974E+00	1.2441E+00	1.5750E+00
5.10E-10	1.4984E+00	1.2582E+00	1.5750E+00
5.20E-10	1.4991E+00	1.2741E+00	1.5750E+00
5.30E-10	1.5000E+00	1.2901E+00	1.5750E+00
5.40E-10	1.5000E+00	1.3071E+00	1.5750E+00
5.50E-10	1.5000E+00	1.3240E+00	1.5750E+00
5.60E-10	1.5000E+00	1.3409E+00	1.5750E+00
5.70E-10	1.5000E+00	1.3579E+00	1.5750E+00
5.80E-10	1.5000E+00	1.3720E+00	1.5750E+00
5.90E-10	1.5000E+00	1.3824E+00	1.5750E+00
6.00E-10	1.5000E+00	1.3929E+00	1.5750E+00
6.10E-10	1.5000E+00	1.4033E+00	1.5750E+00
6.20E-10	1.5000E+00	1.4094E+00	1.5750E+00
6.30E-10	1.5000E+00	1.4154E+00	1.5750E+00
6.40E-10	1.5000E+00	1.4204E+00	1.5750E+00
6.50E-10	1.5000E+00	1.4244E+00	1.5750E+00
6.60E-10	1.5000E+00	1.4244E+00	1.5750E+00
6.70E-10	1.5000E+00	1.4244E+00	1.5750E+00
6.80E-10	1.5000E+00	1.4244E+00	1.5750E+00
6.90E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.00E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.10E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.20E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.30E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.40E-10	1.5000E+00	1.4244E+00	1.5750E+00
7.50E-10	1.5000E+00	1.4244E+00	1.5750E+00

[Falling Waveform]

V\_fixture = 1.500V

V\_fixture\_min = 1.425V

V\_fixture\_max = 1.575V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	1.5000E+00	1.4244E+00	1.5750E+00
1.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
2.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
3.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
4.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
5.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
6.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
7.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
8.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
9.00E-11	1.5000E+00	1.4244E+00	1.5750E+00
1.00E-10	1.5000E+00	1.4244E+00	1.5750E+00
1.10E-10	1.5000E+00	1.4244E+00	1.5750E+00
1.20E-10	1.5000E+00	1.4244E+00	1.5750E+00

1.30E-10	1.5000E+00	1.4244E+00	1.5678E+00
1.40E-10	1.5000E+00	1.4244E+00	1.5356E+00
1.50E-10	1.5000E+00	1.4244E+00	1.4918E+00
1.60E-10	1.5000E+00	1.4244E+00	1.4391E+00
1.70E-10	1.5000E+00	1.4244E+00	1.3811E+00
1.80E-10	1.5000E+00	1.4244E+00	1.3164E+00
1.90E-10	1.5000E+00	1.4244E+00	1.2491E+00
2.00E-10	1.4916E+00	1.4244E+00	1.1872E+00
2.10E-10	1.4779E+00	1.4244E+00	1.1373E+00
2.20E-10	1.4526E+00	1.4244E+00	1.1004E+00
2.30E-10	1.4258E+00	1.4244E+00	1.0723E+00
2.40E-10	1.3882E+00	1.4244E+00	1.0470E+00
2.50E-10	1.3499E+00	1.4244E+00	1.0149E+00
2.60E-10	1.3051E+00	1.4244E+00	9.8066E-01
2.70E-10	1.2605E+00	1.4244E+00	9.3547E-01
2.80E-10	1.2170E+00	1.4244E+00	8.8759E-01
2.90E-10	1.1745E+00	1.4194E+00	8.4268E-01
3.00E-10	1.1378E+00	1.4094E+00	8.0700E-01
3.10E-10	1.1029E+00	1.3963E+00	7.7745E-01
3.20E-10	1.0753E+00	1.3791E+00	7.5868E-01
3.30E-10	1.0489E+00	1.3558E+00	7.4505E-01
3.40E-10	1.0261E+00	1.3325E+00	7.3501E-01
3.50E-10	1.0023E+00	1.3056E+00	7.2933E-01
3.60E-10	9.7620E-01	1.2772E+00	7.2516E-01
3.70E-10	9.4367E-01	1.2488E+00	7.2226E-01
3.80E-10	9.0696E-01	1.2213E+00	7.2113E-01
3.90E-10	8.7376E-01	1.1938E+00	7.1999E-01
4.00E-10	8.3990E-01	1.1670E+00	7.1886E-01
4.10E-10	8.0957E-01	1.1432E+00	7.1825E-01
4.20E-10	7.8300E-01	1.1193E+00	7.1767E-01
4.30E-10	7.6093E-01	1.0968E+00	7.1709E-01
4.40E-10	7.4264E-01	1.0762E+00	7.1654E-01
4.50E-10	7.2827E-01	1.0555E+00	7.1600E-01
4.60E-10	7.1647E-01	1.0350E+00	7.1545E-01
4.70E-10	7.0685E-01	1.0145E+00	7.1510E-01
4.80E-10	6.9834E-01	9.9409E-01	7.1479E-01
4.90E-10	6.9107E-01	9.6900E-01	7.1449E-01
5.00E-10	6.8566E-01	9.4342E-01	7.1433E-01
5.10E-10	6.8316E-01	9.1269E-01	7.1421E-01
5.20E-10	6.8316E-01	8.8416E-01	7.1410E-01
5.30E-10	6.8316E-01	8.5763E-01	7.1399E-01
5.40E-10	6.8316E-01	8.3261E-01	7.1388E-01
5.50E-10	6.8316E-01	8.0994E-01	7.1380E-01
5.60E-10	6.8316E-01	7.8727E-01	7.1380E-01
5.70E-10	6.8316E-01	7.6866E-01	7.1380E-01
5.80E-10	6.8316E-01	7.5240E-01	7.1380E-01
5.90E-10	6.8316E-01	7.3613E-01	7.1380E-01
6.00E-10	6.8316E-01	7.2289E-01	7.1380E-01
6.10E-10	6.8316E-01	7.1008E-01	7.1380E-01
6.20E-10	6.8316E-01	6.9855E-01	7.1380E-01
6.30E-10	6.8316E-01	6.9098E-01	7.1380E-01
6.40E-10	6.8316E-01	6.8198E-01	7.1380E-01
6.50E-10	6.8316E-01	6.7398E-01	7.1380E-01
6.60E-10	6.8316E-01	6.6298E-01	7.1380E-01

6.70E-10	6.8316E-01	6.5598E-01	7.1380E-01
6.80E-10	6.8316E-01	6.5098E-01	7.1380E-01
6.90E-10	6.8316E-01	6.4798E-01	7.1380E-01
7.00E-10	6.8316E-01	6.4598E-01	7.1380E-01
7.10E-10	6.8316E-01	6.4398E-01	7.1380E-01
7.20E-10	6.8316E-01	6.4298E-01	7.1380E-01
7.30E-10	6.8316E-01	6.4198E-01	7.1380E-01
7.40E-10	6.8316E-01	6.4198E-01	7.1380E-01
7.50E-10	6.8316E-01	6.4198E-01	7.1380E-01

[Rising Waveform]

V\_fixture = 0.000V

V\_fixture\_min = 0.000V

V\_fixture\_max = 0.000V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	2.1656E-05	4.5001E-04	1.9840E-06
1.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
2.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
3.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
4.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
5.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
6.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
7.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
8.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
9.00E-11	2.1656E-05	4.5001E-04	1.9840E-06
1.00E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.10E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.20E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.30E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.40E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.50E-10	2.1656E-05	4.5001E-04	1.9840E-06
1.60E-10	2.1656E-05	4.5001E-04	4.8671E-02
1.70E-10	2.1656E-05	4.5001E-04	1.0238E-01
1.80E-10	2.1656E-05	4.5001E-04	1.6978E-01
1.90E-10	2.1656E-05	4.5001E-04	2.4540E-01
2.00E-10	2.1656E-05	4.5001E-04	3.2196E-01
2.10E-10	2.1656E-05	4.5001E-04	3.9122E-01
2.20E-10	6.9115E-03	4.5001E-04	4.4667E-01
2.30E-10	2.1916E-02	4.5001E-04	4.8493E-01
2.40E-10	4.9605E-02	4.5001E-04	5.1216E-01
2.50E-10	8.2158E-02	4.5001E-04	5.3458E-01
2.60E-10	1.2545E-01	4.5001E-04	5.6186E-01
2.70E-10	1.7346E-01	4.5001E-04	6.0105E-01
2.80E-10	2.2437E-01	4.5001E-04	6.5263E-01
2.90E-10	2.7673E-01	4.5001E-04	7.0953E-01
3.00E-10	3.2396E-01	7.4200E-04	7.5988E-01
3.10E-10	3.6830E-01	6.9399E-03	7.9680E-01
3.20E-10	4.0406E-01	2.2538E-02	8.2326E-01
3.30E-10	4.3438E-01	3.8136E-02	8.4173E-01
3.40E-10	4.5821E-01	6.0559E-02	8.5396E-01
3.50E-10	4.7742E-01	9.0788E-02	8.6342E-01

3.60E-10	4.9488E-01	1.2102E-01	8.7131E-01
3.70E-10	5.1097E-01	1.5625E-01	8.7541E-01
3.80E-10	5.3186E-01	1.9335E-01	8.7950E-01
3.90E-10	5.5704E-01	2.3045E-01	8.8129E-01
4.00E-10	5.8693E-01	2.6299E-01	8.8750E-01
4.10E-10	6.3150E-01	2.9548E-01	8.8750E-01
4.20E-10	6.6900E-01	3.2621E-01	8.8750E-01
4.30E-10	7.0343E-01	3.5161E-01	8.8750E-01
4.40E-10	7.3251E-01	3.7701E-01	8.8750E-01
4.50E-10	7.5834E-01	3.9887E-01	8.8750E-01
4.60E-10	7.7553E-01	4.1920E-01	8.8750E-01
4.70E-10	7.9054E-01	4.3893E-01	8.8750E-01
4.80E-10	7.9989E-01	4.5025E-01	8.8750E-01
4.90E-10	8.0628E-01	4.6257E-01	8.8750E-01
5.00E-10	8.1206E-01	4.7874E-01	8.8750E-01
5.10E-10	8.1613E-01	4.8572E-01	8.8750E-01
5.20E-10	8.2020E-01	4.9920E-01	8.8750E-01
5.30E-10	8.2427E-01	5.1505E-01	8.8750E-01
5.40E-10	8.2778E-01	5.3090E-01	8.8750E-01
5.50E-10	8.3015E-01	5.5341E-01	8.8750E-01
5.60E-10	8.3015E-01	5.7647E-01	8.8750E-01
5.70E-10	8.3015E-01	5.9813E-01	8.8750E-01
5.80E-10	8.3015E-01	6.2467E-01	8.8750E-01
5.90E-10	8.3015E-01	6.5120E-01	8.8750E-01
6.00E-10	8.3015E-01	6.7309E-01	8.8750E-01
6.10E-10	8.3015E-01	6.9494E-01	8.8750E-01
6.20E-10	8.3015E-01	7.1298E-01	8.8750E-01
6.30E-10	8.3015E-01	7.2761E-01	8.8750E-01
6.40E-10	8.3015E-01	7.4187E-01	8.8750E-01
6.50E-10	8.3015E-01	7.5387E-01	8.8750E-01
6.60E-10	8.3015E-01	7.6287E-01	8.8750E-01
6.70E-10	8.3015E-01	7.7087E-01	8.8750E-01
6.80E-10	8.3015E-01	7.7787E-01	8.8750E-01
6.90E-10	8.3015E-01	7.8587E-01	8.8750E-01
7.00E-10	8.3015E-01	7.8987E-01	8.8750E-01
7.10E-10	8.3015E-01	7.9287E-01	8.8750E-01
7.20E-10	8.3015E-01	7.9387E-01	8.8750E-01
7.30E-10	8.3015E-01	7.9487E-01	8.8750E-01
7.40E-10	8.3015E-01	7.9587E-01	8.8750E-01
7.50E-10	8.3015E-01	7.9587E-01	8.8750E-01

[Falling Waveform]

V\_fixture = 0.000V

V\_fixture\_min = 0.000V

V\_fixture\_max = 0.000V

R\_fixture = 50.00Ohm

Time	V(typ)	V(min)	V(max)
0.00E+00	8.3015E-01	7.9587E-01	8.8750E-01
1.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
2.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
3.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
4.00E-11	8.3015E-01	7.9587E-01	8.8750E-01

5.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
6.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
7.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
8.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
9.00E-11	8.3015E-01	7.9587E-01	8.8750E-01
1.00E-10	8.3015E-01	7.9587E-01	8.8750E-01
1.10E-10	8.3015E-01	7.9587E-01	8.8750E-01
1.20E-10	8.3015E-01	7.9587E-01	8.8443E-01
1.30E-10	8.3015E-01	7.9587E-01	8.7452E-01
1.40E-10	8.3015E-01	7.9587E-01	8.4189E-01
1.50E-10	8.3015E-01	7.9587E-01	7.8920E-01
1.60E-10	8.3015E-01	7.9587E-01	7.1329E-01
1.70E-10	8.2717E-01	7.9587E-01	6.2580E-01
1.80E-10	8.2022E-01	7.9487E-01	5.4691E-01
1.90E-10	8.0849E-01	7.9287E-01	4.8081E-01
2.00E-10	7.8766E-01	7.8987E-01	4.2673E-01
2.10E-10	7.5342E-01	7.8587E-01	3.8302E-01
2.20E-10	7.0770E-01	7.8087E-01	3.4957E-01
2.30E-10	6.4643E-01	7.7487E-01	3.1949E-01
2.40E-10	5.7951E-01	7.6687E-01	2.8668E-01
2.50E-10	5.1395E-01	7.5687E-01	2.5182E-01
2.60E-10	4.5050E-01	7.4187E-01	2.1162E-01
2.70E-10	4.0155E-01	7.2460E-01	1.7228E-01
2.80E-10	3.6096E-01	7.0145E-01	1.3355E-01
2.90E-10	3.2886E-01	6.6392E-01	1.0138E-01
3.00E-10	3.0074E-01	6.2500E-01	7.3166E-02
3.10E-10	2.7872E-01	5.8181E-01	5.0761E-02
3.20E-10	2.6007E-01	5.3521E-01	3.5793E-02
3.30E-10	2.4432E-01	4.8940E-01	2.3892E-02
3.40E-10	2.2391E-01	4.4680E-01	1.6931E-02
3.50E-10	1.9806E-01	4.0419E-01	1.2192E-02
3.60E-10	1.7058E-01	3.7123E-01	8.9365E-03
3.70E-10	1.4036E-01	3.4007E-01	7.2358E-03
3.80E-10	1.1118E-01	3.1448E-01	5.9670E-03
3.90E-10	8.3244E-02	2.9477E-01	5.3516E-03
4.00E-10	6.1742E-02	2.7568E-01	4.7363E-03
4.10E-10	4.4018E-02	2.6075E-01	4.1060E-03
4.20E-10	3.0136E-02	2.4582E-01	3.4124E-03
4.30E-10	2.2486E-02	2.3054E-01	2.7189E-03
4.40E-10	1.5763E-02	2.1515E-01	2.0253E-03
4.50E-10	9.0387E-03	1.9777E-01	1.6262E-03
4.60E-10	5.3194E-03	1.7999E-01	1.2305E-03
4.70E-10	3.4381E-03	1.6207E-01	8.3483E-04
4.80E-10	1.5568E-03	1.4205E-01	6.3758E-04
4.90E-10	6.2322E-04	1.2203E-01	4.9475E-04
5.00E-10	1.0502E-04	1.0187E-01	3.5192E-04
5.10E-10	2.1656E-05	8.1652E-02	2.0909E-04
5.20E-10	2.1656E-05	6.3154E-02	6.6265E-05
5.30E-10	2.1656E-05	4.7873E-02	1.9840E-06
5.40E-10	2.1656E-05	3.2593E-02	1.9840E-06
5.50E-10	2.1656E-05	2.4507E-02	1.9840E-06
5.60E-10	2.1656E-05	1.6483E-02	1.9840E-06
5.70E-10	2.1656E-05	1.1660E-02	1.9840E-06
5.80E-10	2.1656E-05	8.6750E-03	1.9840E-06

5.90E-10	2.1656E-05	6.2443E-03	1.9840E-06
6.00E-10	2.1656E-05	5.2473E-03	1.9840E-06
6.10E-10	2.1656E-05	4.2503E-03	1.9840E-06
6.20E-10	2.1656E-05	3.6374E-03	1.9840E-06
6.30E-10	2.1656E-05	3.0570E-03	1.9840E-06
6.40E-10	2.1656E-05	2.5197E-03	1.9840E-06
6.50E-10	2.1656E-05	2.0157E-03	1.9840E-06
6.60E-10	2.1656E-05	1.5499E-03	1.9840E-06
6.70E-10	2.1656E-05	1.0325E-03	1.9840E-06
6.80E-10	2.1656E-05	8.8691E-04	1.9840E-06
6.90E-10	2.1656E-05	7.4127E-04	1.9840E-06
7.00E-10	2.1656E-05	5.9564E-04	1.9840E-06
7.10E-10	2.1656E-05	4.5001E-04	1.9840E-06
7.20E-10	2.1656E-05	4.5001E-04	1.9840E-06
7.30E-10	2.1656E-05	4.5001E-04	1.9840E-06
7.40E-10	2.1656E-05	4.5001E-04	1.9840E-06
7.50E-10	2.1656E-05	4.5001E-04	1.9840E-06

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MODEL DM\_ODT0 (DM Input model with no ODT)

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[Model] DM\_INPUT\_1600  
Model\_type Input

Vinl = 600.000mV  
Vinh = 900.000mV

	typ	min	max
C_comp	1.200pF	1.125pF	1.275pF

[Model Spec]

| Input threshold voltage corners

Vinl	0.6000V	0.5625V	0.6375V
Vinh	0.9000V	0.8625V	0.9375V

| Dynamic Overshoot Parameters from DDR3 Specification

D_overshoot_ampl_h	0.40	NA	NA
D_overshoot_ampl_l	0.40	NA	NA
D_overshoot_area_h	0.13n	NA	NA
D_overshoot_area_l	0.13n	NA	NA

[[Receiver Thresholds]

|Vth = 0.750V  
|Vth\_min = 0.7350V  
|Vth\_max = 0.7650V  
|Vinh\_ac = 0.150V  
|Vinh\_dc = 0.100V  
|Vinl\_ac = -0.150V  
|Vinl\_dc = -0.100V  
|Tslew\_ac = 5.000ns |Not specified, so set to high value  
|Threshold\_sensitivity = 0.50  
|Reference\_supply Power\_clamp\_ref

[Voltage Range]	1.500V	1.425V	1.575V
[Pullup Reference]	1.500V	1.425V	1.575V
[POWER Clamp Reference]	1.500V	1.425V	1.575V
[Temperature Range]	85.00	110.00	0.00

[GND Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	-5.378351E-02	-5.490567E-02	-5.885698E-02
-1.4750000e+00	-5.231251E-02	-5.334431E-02	-5.735670E-02
-1.4500000e+00	-5.084369E-02	-5.178549E-02	-5.585777E-02
-1.4250000e+00	-4.937717E-02	-5.022938E-02	-5.436025E-02
-1.4000000e+00	-4.791309E-02	-4.867613E-02	-5.286424E-02
-1.3750000e+00	-4.645161E-02	-4.712594E-02	-5.136982E-02
-1.3500000e+00	-4.499289E-02	-4.557901E-02	-4.987708E-02
-1.3250000e+00	-4.353712E-02	-4.403556E-02	-4.838614E-02
-1.3000000e+00	-4.208452E-02	-4.249585E-02	-4.689710E-02
-1.2750000e+00	-4.063529E-02	-4.096014E-02	-4.541010E-02
-1.2500000e+00	-3.918970E-02	-3.942875E-02	-4.392527E-02
-1.2250000e+00	-3.774803E-02	-3.790201E-02	-4.244278E-02
-1.2000000e+00	-3.631059E-02	-3.638031E-02	-4.096280E-02
-1.1750000e+00	-3.487773E-02	-3.486408E-02	-3.948552E-02
-1.1500000e+00	-3.344986E-02	-3.335380E-02	-3.801116E-02
-1.1250000e+00	-3.202742E-02	-3.185003E-02	-3.653998E-02
-1.1000000e+00	-3.061092E-02	-3.035339E-02	-3.507226E-02
-1.0750000e+00	-2.920096E-02	-2.886462E-02	-3.360832E-02
-1.0500000e+00	-2.779821E-02	-2.738455E-02	-3.214854E-02
-1.0250000e+00	-2.640347E-02	-2.591415E-02	-3.069335E-02
-1.0000000e+00	-2.501766E-02	-2.445455E-02	-2.924328E-02
-9.7500000e-01	-2.364185E-02	-2.300708E-02	-2.779892E-02
-9.5000000e-01	-2.227732E-02	-2.157329E-02	-2.636102E-02
-9.2500000e-01	-2.092559E-02	-2.015501E-02	-2.493048E-02
-9.0000000e-01	-1.958843E-02	-1.875433E-02	-2.350840E-02
-8.7500000e-01	-1.826790E-02	-1.737363E-02	-2.209616E-02
-8.5000000e-01	-1.696631E-02	-1.601550E-02	-2.069550E-02
-8.2500000e-01	-1.568612E-02	-1.468262E-02	-1.930856E-02
-8.0000000e-01	-1.442972E-02	-1.337762E-02	-1.793782E-02
-7.7500000e-01	-1.319926E-02	-1.210311E-02	-1.658583E-02
-7.5000000e-01	-1.199673E-02	-1.086191E-02	-1.525450E-02
-7.2500000e-01	-1.082427E-02	-9.657411E-03	-1.394473E-02
-7.0000000e-01	-9.684638E-03	-8.493939E-03	-1.265685E-02
-6.7500000e-01	-8.581514E-03	-7.376930E-03	-1.139180E-02
-6.5000000e-01	-7.519607E-03	-6.312929E-03	-1.015194E-02
-6.2500000e-01	-6.504547E-03	-5.309438E-03	-8.941317E-03
-6.0000000e-01	-5.542688E-03	-4.374618E-03	-7.765734E-03
-5.7500000e-01	-4.640772E-03	-3.516890E-03	-6.632943E-03
-5.5000000e-01	-3.805524E-03	-2.744483E-03	-5.552944E-03
-5.2500000e-01	-3.043248E-03	-2.065103E-03	-4.538199E-03
-5.0000000e-01	-2.359647E-03	-1.485677E-03	-3.603410E-03
-4.7500000e-01	-1.760020E-03	-1.011779E-03	-2.764263E-03
-4.5000000e-01	-1.249702E-03	-6.458403E-04	-2.034714E-03
-4.2500000e-01	-8.339835E-04	-3.838582E-04	-1.423543E-03

-4.0000000e-01	-5.162389E-04	-2.125448E-04	-9.327585E-04
-3.7500000e-01	-2.937329E-04	-1.106466E-04	-5.596314E-04
-3.5000000e-01	-1.537279E-04	-5.497263E-05	-2.989521E-04
-3.2500000e-01	-7.493357E-05	-2.649171E-05	-1.392980E-04
-3.0000000e-01	-3.471511E-05	-1.256760E-05	-5.693623E-05
-2.7500000e-01	-1.563019E-05	-5.952723E-06	-2.113740E-05
-2.5000000e-01	-7.001335E-06	-2.863206E-06	-7.478892E-06
-2.2500000e-01	-3.215160E-06	-1.433628E-06	-2.669240E-06
-2.0000000e-01	-1.576700E-06	-7.729597E-07	-1.039346E-06
-1.7500000e-01	-8.691669E-07	-4.659048E-07	-4.927419E-07
-1.5000000e-01	-5.602970E-07	-3.210513E-07	-3.060998E-07
-1.2500000e-01	-4.211770E-07	-2.506183E-07	-2.379530E-07
-1.0000000e-01	-3.542844E-07	-2.144259E-07	-2.089398E-07
-7.5000000e-02	-3.182781E-07	-1.940781E-07	-1.931385E-07
-5.0000000e-02	-2.956734E-07	-1.811414E-07	-1.820761E-07
-2.5000000e-02	-2.790923E-07	-1.717494E-07	-1.729560E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[POWER Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	4.450136E-02	4.385767E-02	4.780180E-02
-1.4750000e+00	4.325737E-02	4.248503E-02	4.651240E-02
-1.4500000e+00	4.202627E-02	4.113177E-02	4.522925E-02
-1.4250000e+00	4.080680E-02	3.979850E-02	4.395155E-02
-1.4000000e+00	3.959743E-02	3.848563E-02	4.267872E-02
-1.3750000e+00	3.839648E-02	3.719324E-02	4.141043E-02
-1.3500000e+00	3.720221E-02	3.592106E-02	4.014658E-02
-1.3250000e+00	3.601296E-02	3.466841E-02	3.888724E-02
-1.3000000e+00	3.482735E-02	3.343415E-02	3.763261E-02
-1.2750000e+00	3.364438E-02	3.221669E-02	3.638295E-02
-1.2500000e+00	3.246358E-02	3.101397E-02	3.513856E-02
-1.2250000e+00	3.128497E-02	2.982356E-02	3.389971E-02
-1.2000000e+00	3.010901E-02	2.864279E-02	3.266671E-02
-1.1750000e+00	2.893648E-02	2.746896E-02	3.143983E-02
-1.1500000e+00	2.776826E-02	2.629964E-02	3.021937E-02
-1.1250000e+00	2.660528E-02	2.513304E-02	2.900560E-02
-1.1000000e+00	2.544841E-02	2.396824E-02	2.779885E-02
-1.0750000e+00	2.429844E-02	2.280536E-02	2.659947E-02
-1.0500000e+00	2.315612E-02	2.164543E-02	2.540788E-02
-1.0250000e+00	2.202214E-02	2.049007E-02	2.422456E-02
-1.0000000e+00	2.089719E-02	1.934117E-02	2.305008E-02
-9.7500000e-01	1.978197E-02	1.820065E-02	2.188512E-02
-9.5000000e-01	1.867722E-02	1.707028E-02	2.073051E-02
-9.2500000e-01	1.758372E-02	1.595172E-02	1.958717E-02
-9.0000000e-01	1.650228E-02	1.484648E-02	1.845617E-02
-8.7500000e-01	1.543373E-02	1.375596E-02	1.733861E-02
-8.5000000e-01	1.437889E-02	1.268153E-02	1.623552E-02
-8.2500000e-01	1.333851E-02	1.162449E-02	1.514771E-02
-8.0000000e-01	1.231328E-02	1.058622E-02	1.407560E-02
-7.7500000e-01	1.130388E-02	9.568206E-03	1.301920E-02
-7.5000000e-01	1.031106E-02	8.572276E-03	1.197826E-02
-7.2500000e-01	9.335806E-03	7.600753E-03	1.095255E-02
-7.0000000e-01	8.379549E-03	6.656721E-03	9.942208E-03



-6.7500000e-01	7.444326E-03	5.744302E-03	8.947907E-03
-6.5000000e-01	6.532997E-03	4.868952E-03	7.971037E-03
-6.2500000e-01	5.649458E-03	4.037787E-03	7.013856E-03
-6.0000000e-01	4.798902E-03	3.259897E-03	6.079694E-03
-5.7500000e-01	3.988134E-03	2.546530E-03	5.173232E-03
-5.5000000e-01	3.225930E-03	1.910856E-03	4.300898E-03
-5.2500000e-01	2.523332E-03	1.366712E-03	3.471435E-03
-5.0000000e-01	1.893615E-03	9.256050E-04	2.696669E-03
-4.7500000e-01	1.351332E-03	5.919303E-04	1.992344E-03
-4.5000000e-01	9.095438E-04	3.586832E-04	1.378411E-03
-4.2500000e-01	5.747929E-04	2.078355E-04	8.770334E-04
-4.0000000e-01	3.418453E-04	1.164218E-04	5.053061E-04
-3.7500000e-01	1.930954E-04	6.360210E-05	2.627362E-04
-3.5000000e-01	1.048276E-04	3.408364E-05	1.249600E-04
-3.2500000e-01	5.523970E-05	1.799151E-05	5.555840E-05
-3.0000000e-01	2.845373E-05	9.394192E-06	2.354470E-05
-2.7500000e-01	1.440808E-05	4.878770E-06	9.667951E-06
-2.5000000e-01	7.217646E-06	2.540607E-06	3.917671E-06
-2.2500000e-01	3.608426E-06	1.343333E-06	1.610365E-06
-2.0000000e-01	1.824961E-06	7.351342E-07	7.040722E-07
-1.7500000e-01	9.538096E-07	4.274933E-07	3.518088E-07
-1.5000000e-01	5.312391E-07	2.717598E-07	2.143482E-07
-1.2500000e-01	3.264285E-07	1.922224E-07	1.590776E-07
-1.0000000e-01	2.262355E-07	1.506538E-07	1.350141E-07
-7.5000000e-02	1.758303E-07	1.278715E-07	1.227817E-07
-5.0000000e-02	1.489090E-07	1.143246E-07	1.150732E-07
-2.5000000e-02	1.332080E-07	1.054156E-07	1.091539E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

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MODEL DM\_ODT20 (DM Input model with 20Ohm ODT)

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[Model] DM\_ODT20\_1600  
 Model\_type Input

Vinl = 600.000mV  
 Vinh = 900.000mV

	typ	min	max
C_comp	1.200pF	1.125pF	1.275pF

[Model Spec]

| Input threshold voltage corners

Vinl	0.6000V	0.5625V	0.6375V
Vinh	0.9000V	0.8625V	0.9375V

| Dynamic Overshoot Parameters from DDR3 Specification

D_overshoot_ampl_h	0.40	NA	NA
D_overshoot_ampl_l	0.40	NA	NA
D_overshoot_area_h	0.13n	NA	NA
D_overshoot_area_l	0.13n	NA	NA

[[Receiver Thresholds]

|Vth = 0.750V  
 |Vth\_min = 0.7350V  
 |Vth\_max = 0.7650V  
 |Vinh\_ac = 0.150V  
 |Vinh\_dc = 0.100V  
 |Vinl\_ac = -0.150V  
 |Vinl\_dc = -0.100V  
 |Tslew\_ac = 5.000ns |Not specified, so set to high value  
 |Threshold\_sensitivity = 0.50  
 |Reference\_supply Power\_clamp\_ref

[Add Submodel]

Submodel Name	Mode			
20Ohm_ODT	Non-Driving			
[Voltage Range]	1.500V	1.425V	1.575V	
[Pullup Reference]	1.500V	1.425V	1.575V	
[POWER Clamp Reference]	1.500V	1.425V	1.575V	
[Temperature Range]	85.00	110.00	0.00	

[GND Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	-5.378351E-02	-5.490567E-02	-5.885698E-02
-1.4750000e+00	-5.231251E-02	-5.334431E-02	-5.735670E-02
-1.4500000e+00	-5.084369E-02	-5.178549E-02	-5.585777E-02
-1.4250000e+00	-4.937717E-02	-5.022938E-02	-5.436025E-02
-1.4000000e+00	-4.791309E-02	-4.867613E-02	-5.286424E-02
-1.3750000e+00	-4.645161E-02	-4.712594E-02	-5.136982E-02
-1.3500000e+00	-4.499289E-02	-4.557901E-02	-4.987708E-02
-1.3250000e+00	-4.353712E-02	-4.403556E-02	-4.838614E-02
-1.3000000e+00	-4.208452E-02	-4.249585E-02	-4.689710E-02
-1.2750000e+00	-4.063529E-02	-4.096014E-02	-4.541010E-02
-1.2500000e+00	-3.918970E-02	-3.942875E-02	-4.392527E-02
-1.2250000e+00	-3.774803E-02	-3.790201E-02	-4.244278E-02
-1.2000000e+00	-3.631059E-02	-3.638031E-02	-4.096280E-02
-1.1750000e+00	-3.487773E-02	-3.486408E-02	-3.948552E-02
-1.1500000e+00	-3.344986E-02	-3.335380E-02	-3.801116E-02
-1.1250000e+00	-3.202742E-02	-3.185003E-02	-3.653998E-02
-1.1000000e+00	-3.061092E-02	-3.035339E-02	-3.507226E-02
-1.0750000e+00	-2.920096E-02	-2.886462E-02	-3.360832E-02
-1.0500000e+00	-2.779821E-02	-2.738455E-02	-3.214854E-02
-1.0250000e+00	-2.640347E-02	-2.591415E-02	-3.069335E-02
-1.0000000e+00	-2.501766E-02	-2.445455E-02	-2.924328E-02
-9.7500000e-01	-2.364185E-02	-2.300708E-02	-2.779892E-02
-9.5000000e-01	-2.227732E-02	-2.157329E-02	-2.636102E-02
-9.2500000e-01	-2.092559E-02	-2.015501E-02	-2.493048E-02
-9.0000000e-01	-1.958843E-02	-1.875433E-02	-2.350840E-02
-8.7500000e-01	-1.826790E-02	-1.737363E-02	-2.209616E-02
-8.5000000e-01	-1.696631E-02	-1.601550E-02	-2.069550E-02
-8.2500000e-01	-1.568612E-02	-1.468262E-02	-1.930856E-02
-8.0000000e-01	-1.442972E-02	-1.337762E-02	-1.793782E-02
-7.7500000e-01	-1.319926E-02	-1.210311E-02	-1.658583E-02

-7.5000000e-01	-1.199673E-02	-1.086191E-02	-1.525450E-02
-7.2500000e-01	-1.082427E-02	-9.657411E-03	-1.394473E-02
-7.0000000e-01	-9.684638E-03	-8.493939E-03	-1.265685E-02
-6.7500000e-01	-8.581514E-03	-7.376930E-03	-1.139180E-02
-6.5000000e-01	-7.519607E-03	-6.312929E-03	-1.015194E-02
-6.2500000e-01	-6.504547E-03	-5.309438E-03	-8.941317E-03
-6.0000000e-01	-5.542688E-03	-4.374618E-03	-7.765734E-03
-5.7500000e-01	-4.640772E-03	-3.516890E-03	-6.632943E-03
-5.5000000e-01	-3.805524E-03	-2.744483E-03	-5.552944E-03
-5.2500000e-01	-3.043248E-03	-2.065103E-03	-4.538199E-03
-5.0000000e-01	-2.359647E-03	-1.485677E-03	-3.603410E-03
-4.7500000e-01	-1.760020E-03	-1.011779E-03	-2.764263E-03
-4.5000000e-01	-1.249702E-03	-6.458403E-04	-2.034714E-03
-4.2500000e-01	-8.339835E-04	-3.838582E-04	-1.423543E-03
-4.0000000e-01	-5.162389E-04	-2.125448E-04	-9.327585E-04
-3.7500000e-01	-2.937329E-04	-1.106466E-04	-5.596314E-04
-3.5000000e-01	-1.537279E-04	-5.497263E-05	-2.989521E-04
-3.2500000e-01	-7.493357E-05	-2.649171E-05	-1.392980E-04
-3.0000000e-01	-3.471511E-05	-1.256760E-05	-5.693623E-05
-2.7500000e-01	-1.563019E-05	-5.952723E-06	-2.113740E-05
-2.5000000e-01	-7.001335E-06	-2.863206E-06	-7.478892E-06
-2.2500000e-01	-3.215160E-06	-1.433628E-06	-2.669240E-06
-2.0000000e-01	-1.576700E-06	-7.729597E-07	-1.039346E-06
-1.7500000e-01	-8.691669E-07	-4.659048E-07	-4.927419E-07
-1.5000000e-01	-5.602970E-07	-3.210513E-07	-3.060998E-07
-1.2500000e-01	-4.211770E-07	-2.506183E-07	-2.379530E-07
-1.0000000e-01	-3.542844E-07	-2.144259E-07	-2.089398E-07
-7.5000000e-02	-3.182781E-07	-1.940781E-07	-1.931385E-07
-5.0000000e-02	-2.956734E-07	-1.811414E-07	-1.820761E-07
-2.5000000e-02	-2.790923E-07	-1.717494E-07	-1.729560E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[POWER Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	4.450136E-02	4.385767E-02	4.780180E-02
-1.4750000e+00	4.325737E-02	4.248503E-02	4.651240E-02
-1.4500000e+00	4.202627E-02	4.113177E-02	4.522925E-02
-1.4250000e+00	4.080680E-02	3.979850E-02	4.395155E-02
-1.4000000e+00	3.959743E-02	3.848563E-02	4.267872E-02
-1.3750000e+00	3.839648E-02	3.719324E-02	4.141043E-02
-1.3500000e+00	3.720221E-02	3.592106E-02	4.014658E-02
-1.3250000e+00	3.601296E-02	3.466841E-02	3.888724E-02
-1.3000000e+00	3.482735E-02	3.343415E-02	3.763261E-02
-1.2750000e+00	3.364438E-02	3.221669E-02	3.638295E-02
-1.2500000e+00	3.246358E-02	3.101397E-02	3.513856E-02
-1.2250000e+00	3.128497E-02	2.982356E-02	3.389971E-02
-1.2000000e+00	3.010901E-02	2.864279E-02	3.266671E-02
-1.1750000e+00	2.893648E-02	2.746896E-02	3.143983E-02
-1.1500000e+00	2.776826E-02	2.629964E-02	3.021937E-02
-1.1250000e+00	2.660528E-02	2.513304E-02	2.900560E-02
-1.1000000e+00	2.544841E-02	2.396824E-02	2.779885E-02
-1.0750000e+00	2.429844E-02	2.280536E-02	2.659947E-02
-1.0500000e+00	2.315612E-02	2.164543E-02	2.540788E-02

-1.0250000e+00	2.202214E-02	2.049007E-02	2.422456E-02
-1.0000000e+00	2.089719E-02	1.934117E-02	2.305008E-02
-9.7500000e-01	1.978197E-02	1.820065E-02	2.188512E-02
-9.5000000e-01	1.867722E-02	1.707028E-02	2.073051E-02
-9.2500000e-01	1.758372E-02	1.595172E-02	1.958717E-02
-9.0000000e-01	1.650228E-02	1.484648E-02	1.845617E-02
-8.7500000e-01	1.543373E-02	1.375596E-02	1.733861E-02
-8.5000000e-01	1.437889E-02	1.268153E-02	1.623552E-02
-8.2500000e-01	1.333851E-02	1.162449E-02	1.514771E-02
-8.0000000e-01	1.231328E-02	1.058622E-02	1.407560E-02
-7.7500000e-01	1.130388E-02	9.568206E-03	1.301920E-02
-7.5000000e-01	1.031106E-02	8.572276E-03	1.197826E-02
-7.2500000e-01	9.335806E-03	7.600753E-03	1.095255E-02
-7.0000000e-01	8.379549E-03	6.656721E-03	9.942208E-03
-6.7500000e-01	7.444326E-03	5.744302E-03	8.947907E-03
-6.5000000e-01	6.532997E-03	4.868952E-03	7.971037E-03
-6.2500000e-01	5.649458E-03	4.037787E-03	7.013856E-03
-6.0000000e-01	4.798902E-03	3.259897E-03	6.079694E-03
-5.7500000e-01	3.988134E-03	2.546530E-03	5.173232E-03
-5.5000000e-01	3.225930E-03	1.910856E-03	4.300898E-03
-5.2500000e-01	2.523332E-03	1.366712E-03	3.471435E-03
-5.0000000e-01	1.893615E-03	9.256050E-04	2.696669E-03
-4.7500000e-01	1.351332E-03	5.919303E-04	1.992344E-03
-4.5000000e-01	9.095438E-04	3.586832E-04	1.378411E-03
-4.2500000e-01	5.747929E-04	2.078355E-04	8.770334E-04
-4.0000000e-01	3.418453E-04	1.164218E-04	5.053061E-04
-3.7500000e-01	1.930954E-04	6.360210E-05	2.627362E-04
-3.5000000e-01	1.048276E-04	3.408364E-05	1.249600E-04
-3.2500000e-01	5.523970E-05	1.799151E-05	5.555840E-05
-3.0000000e-01	2.845373E-05	9.394192E-06	2.354470E-05
-2.7500000e-01	1.440808E-05	4.878770E-06	9.667951E-06
-2.5000000e-01	7.217646E-06	2.540607E-06	3.917671E-06
-2.2500000e-01	3.608426E-06	1.343333E-06	1.610365E-06
-2.0000000e-01	1.824961E-06	7.351342E-07	7.040722E-07
-1.7500000e-01	9.538096E-07	4.274933E-07	3.518088E-07
-1.5000000e-01	5.312391E-07	2.717598E-07	2.143482E-07
-1.2500000e-01	3.264285E-07	1.922224E-07	1.590776E-07
-1.0000000e-01	2.262355E-07	1.506538E-07	1.350141E-07
-7.5000000e-02	1.758303E-07	1.278715E-07	1.227817E-07
-5.0000000e-02	1.489090E-07	1.143246E-07	1.150732E-07
-2.5000000e-02	1.332080E-07	1.054156E-07	1.091539E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

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MODEL DM\_ODT30 (DM Input model with 30Ohm ODT)

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[Model] DM\_ODT30\_1600

Model\_type Input

Vinl = 600.000mV

Vinh = 900.000mV

typ	min	max
-----	-----	-----

C\_comp            1.200pF            1.125pF            1.275pF

[Model Spec]

| Input threshold voltage corners

Vinl            0.6000V            0.5625V            0.6375V  
Vinh            0.9000V            0.8625V            0.9375V

| Dynamic Overshoot Parameters from DDR3 Specification

|D\_overshoot\_ampl\_h    0.40            NA            NA  
|D\_overshoot\_ampl\_l    0.40            NA            NA  
|D\_overshoot\_area\_h    0.13n            NA            NA  
|D\_overshoot\_area\_l    0.13n            NA            NA

[[Receiver Thresholds]

|Vth    = 0.750V  
|Vth\_min = 0.7350V  
|Vth\_max = 0.7650V  
|Vinh\_ac = 0.150V  
|Vinh\_dc = 0.100V  
|Vinl\_ac = -0.150V  
|Vinl\_dc = -0.100V  
|Tslew\_ac = 5.000ns |Not specified, so set to high value  
|Threshold\_sensitivity = 0.50  
|Reference\_supply Power\_clamp\_ref

[Add Submodel]

| Submodel Name    Mode  
30Ohm\_ODT    Non-Driving  
[Voltage Range]    1.500V            1.425V            1.575V  
[Pullup Reference]    1.500V            1.425V            1.575V  
[POWER Clamp Reference]    1.500V            1.425V            1.575V  
[Temperature Range]    85.00            110.00            0.00

[GND Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	-5.378351E-02	-5.490567E-02	-5.885698E-02
-1.4750000e+00	-5.231251E-02	-5.334431E-02	-5.735670E-02
-1.4500000e+00	-5.084369E-02	-5.178549E-02	-5.585777E-02
-1.4250000e+00	-4.937717E-02	-5.022938E-02	-5.436025E-02
-1.4000000e+00	-4.791309E-02	-4.867613E-02	-5.286424E-02
-1.3750000e+00	-4.645161E-02	-4.712594E-02	-5.136982E-02
-1.3500000e+00	-4.499289E-02	-4.557901E-02	-4.987708E-02
-1.3250000e+00	-4.353712E-02	-4.403556E-02	-4.838614E-02
-1.3000000e+00	-4.208452E-02	-4.249585E-02	-4.689710E-02
-1.2750000e+00	-4.063529E-02	-4.096014E-02	-4.541010E-02
-1.2500000e+00	-3.918970E-02	-3.942875E-02	-4.392527E-02
-1.2250000e+00	-3.774803E-02	-3.790201E-02	-4.244278E-02
-1.2000000e+00	-3.631059E-02	-3.638031E-02	-4.096280E-02
-1.1750000e+00	-3.487773E-02	-3.486408E-02	-3.948552E-02
-1.1500000e+00	-3.344986E-02	-3.335380E-02	-3.801116E-02
-1.1250000e+00	-3.202742E-02	-3.185003E-02	-3.653998E-02

-1.1000000e+00	-3.061092E-02	-3.035339E-02	-3.507226E-02
-1.0750000e+00	-2.920096E-02	-2.886462E-02	-3.360832E-02
-1.0500000e+00	-2.779821E-02	-2.738455E-02	-3.214854E-02
-1.0250000e+00	-2.640347E-02	-2.591415E-02	-3.069335E-02
-1.0000000e+00	-2.501766E-02	-2.445455E-02	-2.924328E-02
-9.7500000e-01	-2.364185E-02	-2.300708E-02	-2.779892E-02
-9.5000000e-01	-2.227732E-02	-2.157329E-02	-2.636102E-02
-9.2500000e-01	-2.092559E-02	-2.015501E-02	-2.493048E-02
-9.0000000e-01	-1.958843E-02	-1.875433E-02	-2.350840E-02
-8.7500000e-01	-1.826790E-02	-1.737363E-02	-2.209616E-02
-8.5000000e-01	-1.696631E-02	-1.601550E-02	-2.069550E-02
-8.2500000e-01	-1.568612E-02	-1.468262E-02	-1.930856E-02
-8.0000000e-01	-1.442972E-02	-1.337762E-02	-1.793782E-02
-7.7500000e-01	-1.319926E-02	-1.210311E-02	-1.658583E-02
-7.5000000e-01	-1.199673E-02	-1.086191E-02	-1.525450E-02
-7.2500000e-01	-1.082427E-02	-9.657411E-03	-1.394473E-02
-7.0000000e-01	-9.684638E-03	-8.493939E-03	-1.265685E-02
-6.7500000e-01	-8.581514E-03	-7.376930E-03	-1.139180E-02
-6.5000000e-01	-7.519607E-03	-6.312929E-03	-1.015194E-02
-6.2500000e-01	-6.504547E-03	-5.309438E-03	-8.941317E-03
-6.0000000e-01	-5.542688E-03	-4.374618E-03	-7.765734E-03
-5.7500000e-01	-4.640772E-03	-3.516890E-03	-6.632943E-03
-5.5000000e-01	-3.805524E-03	-2.744483E-03	-5.552944E-03
-5.2500000e-01	-3.043248E-03	-2.065103E-03	-4.538199E-03
-5.0000000e-01	-2.359647E-03	-1.485677E-03	-3.603410E-03
-4.7500000e-01	-1.760020E-03	-1.011779E-03	-2.764263E-03
-4.5000000e-01	-1.249702E-03	-6.458403E-04	-2.034714E-03
-4.2500000e-01	-8.339835E-04	-3.838582E-04	-1.423543E-03
-4.0000000e-01	-5.162389E-04	-2.125448E-04	-9.327585E-04
-3.7500000e-01	-2.937329E-04	-1.106466E-04	-5.596314E-04
-3.5000000e-01	-1.537279E-04	-5.497263E-05	-2.989521E-04
-3.2500000e-01	-7.493357E-05	-2.649171E-05	-1.392980E-04
-3.0000000e-01	-3.471511E-05	-1.256760E-05	-5.693623E-05
-2.7500000e-01	-1.563019E-05	-5.952723E-06	-2.113740E-05
-2.5000000e-01	-7.001335E-06	-2.863206E-06	-7.478892E-06
-2.2500000e-01	-3.215160E-06	-1.433628E-06	-2.669240E-06
-2.0000000e-01	-1.576700E-06	-7.729597E-07	-1.039346E-06
-1.7500000e-01	-8.691669E-07	-4.659048E-07	-4.927419E-07
-1.5000000e-01	-5.602970E-07	-3.210513E-07	-3.060998E-07
-1.2500000e-01	-4.211770E-07	-2.506183E-07	-2.379530E-07
-1.0000000e-01	-3.542844E-07	-2.144259E-07	-2.089398E-07
-7.5000000e-02	-3.182781E-07	-1.940781E-07	-1.931385E-07
-5.0000000e-02	-2.956734E-07	-1.811414E-07	-1.820761E-07
-2.5000000e-02	-2.790923E-07	-1.717494E-07	-1.729560E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[POWER Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	4.450136E-02	4.385767E-02	4.780180E-02
-1.4750000e+00	4.325737E-02	4.248503E-02	4.651240E-02
-1.4500000e+00	4.202627E-02	4.113177E-02	4.522925E-02
-1.4250000e+00	4.080680E-02	3.979850E-02	4.395155E-02
-1.4000000e+00	3.959743E-02	3.848563E-02	4.267872E-02

-1.3750000e+00	3.839648E-02	3.719324E-02	4.141043E-02
-1.3500000e+00	3.720221E-02	3.592106E-02	4.014658E-02
-1.3250000e+00	3.601296E-02	3.466841E-02	3.888724E-02
-1.3000000e+00	3.482735E-02	3.343415E-02	3.763261E-02
-1.2750000e+00	3.364438E-02	3.221669E-02	3.638295E-02
-1.2500000e+00	3.246358E-02	3.101397E-02	3.513856E-02
-1.2250000e+00	3.128497E-02	2.982356E-02	3.389971E-02
-1.2000000e+00	3.010901E-02	2.864279E-02	3.266671E-02
-1.1750000e+00	2.893648E-02	2.746896E-02	3.143983E-02
-1.1500000e+00	2.776826E-02	2.629964E-02	3.021937E-02
-1.1250000e+00	2.660528E-02	2.513304E-02	2.900560E-02
-1.1000000e+00	2.544841E-02	2.396824E-02	2.779885E-02
-1.0750000e+00	2.429844E-02	2.280536E-02	2.659947E-02
-1.0500000e+00	2.315612E-02	2.164543E-02	2.540788E-02
-1.0250000e+00	2.202214E-02	2.049007E-02	2.422456E-02
-1.0000000e+00	2.089719E-02	1.934117E-02	2.305008E-02
-9.7500000e-01	1.978197E-02	1.820065E-02	2.188512E-02
-9.5000000e-01	1.867722E-02	1.707028E-02	2.073051E-02
-9.2500000e-01	1.758372E-02	1.595172E-02	1.958717E-02
-9.0000000e-01	1.650228E-02	1.484648E-02	1.845617E-02
-8.7500000e-01	1.543373E-02	1.375596E-02	1.733861E-02
-8.5000000e-01	1.437889E-02	1.268153E-02	1.623552E-02
-8.2500000e-01	1.333851E-02	1.162449E-02	1.514771E-02
-8.0000000e-01	1.231328E-02	1.058622E-02	1.407560E-02
-7.7500000e-01	1.130388E-02	9.568206E-03	1.301920E-02
-7.5000000e-01	1.031106E-02	8.572276E-03	1.197826E-02
-7.2500000e-01	9.335806E-03	7.600753E-03	1.095255E-02
-7.0000000e-01	8.379549E-03	6.656721E-03	9.942208E-03
-6.7500000e-01	7.444326E-03	5.744302E-03	8.947907E-03
-6.5000000e-01	6.532997E-03	4.868952E-03	7.971037E-03
-6.2500000e-01	5.649458E-03	4.037787E-03	7.013856E-03
-6.0000000e-01	4.798902E-03	3.259897E-03	6.079694E-03
-5.7500000e-01	3.988134E-03	2.546530E-03	5.173232E-03
-5.5000000e-01	3.225930E-03	1.910856E-03	4.300898E-03
-5.2500000e-01	2.523332E-03	1.366712E-03	3.471435E-03
-5.0000000e-01	1.893615E-03	9.256050E-04	2.696669E-03
-4.7500000e-01	1.351332E-03	5.919303E-04	1.992344E-03
-4.5000000e-01	9.095438E-04	3.586832E-04	1.378411E-03
-4.2500000e-01	5.747929E-04	2.078355E-04	8.770334E-04
-4.0000000e-01	3.418453E-04	1.164218E-04	5.053061E-04
-3.7500000e-01	1.930954E-04	6.360210E-05	2.627362E-04
-3.5000000e-01	1.048276E-04	3.408364E-05	1.249600E-04
-3.2500000e-01	5.523970E-05	1.799151E-05	5.555840E-05
-3.0000000e-01	2.845373E-05	9.394192E-06	2.354470E-05
-2.7500000e-01	1.440808E-05	4.878770E-06	9.667951E-06
-2.5000000e-01	7.217646E-06	2.540607E-06	3.917671E-06
-2.2500000e-01	3.608426E-06	1.343333E-06	1.610365E-06
-2.0000000e-01	1.824961E-06	7.351342E-07	7.040722E-07
-1.7500000e-01	9.538096E-07	4.274933E-07	3.518088E-07
-1.5000000e-01	5.312391E-07	2.717598E-07	2.143482E-07
-1.2500000e-01	3.264285E-07	1.922224E-07	1.590776E-07
-1.0000000e-01	2.262355E-07	1.506538E-07	1.350141E-07
-7.5000000e-02	1.758303E-07	1.278715E-07	1.227817E-07
-5.0000000e-02	1.489090E-07	1.143246E-07	1.150732E-07

```

-2.5000000e-02  1.332080E-07  1.054156E-07  1.091539E-07
0.0000000e+00      0          0          0
3.0000000e+00      0          0          0

```

```

*****

```

MODEL DM\_ODT40 (DM Input model with 40Ohm ODT)

```

*****

```

```

[Model]      DM_ODT40_1600
Model_type   Input

```

```

Vinl = 600.000mV
Vinh = 900.000mV

```

	typ	min	max
C_comp	1.200pF	1.125pF	1.275pF

[Model Spec]

| Input threshold voltage corners

	typ	min	max
Vinl	0.6000V	0.5625V	0.6375V
Vinh	0.9000V	0.8625V	0.9375V

| Dynamic Overshoot Parameters from DDR3 Specification

D_overshoot_ampl_h	0.40	NA	NA
D_overshoot_ampl_l	0.40	NA	NA
D_overshoot_area_h	0.13n	NA	NA
D_overshoot_area_l	0.13n	NA	NA

[[Receiver Thresholds]

```

|Vth      = 0.750V
|Vth_min  = 0.7350V
|Vth_max  = 0.7650V
|Vinh_ac  = 0.150V
|Vinh_dc  = 0.100V
|Vinl_ac  = -0.150V
|Vinl_dc  = -0.100V
|Tslw_ac  = 5.000ns |Not specified, so set to high value
|Threshold_sensitivity = 0.50
|Reference_supply Power_clamp_ref

```

[Add Submodel]

Submodel Name	Mode			
40Ohm_ODT	Non-Driving			
[Voltage Range]	1.500V	1.425V	1.575V	
[Pullup Reference]	1.500V	1.425V	1.575V	
[POWER Clamp Reference]	1.500V	1.425V	1.575V	
[Temperature Range]	85.00	110.00	0.00	

[GND Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	-5.378351E-02	-5.490567E-02	-5.885698E-02
-1.4750000e+00	-5.231251E-02	-5.334431E-02	-5.735670E-02



-1.4500000e+00	-5.084369E-02	-5.178549E-02	-5.585777E-02
-1.4250000e+00	-4.937717E-02	-5.022938E-02	-5.436025E-02
-1.4000000e+00	-4.791309E-02	-4.867613E-02	-5.286424E-02
-1.3750000e+00	-4.645161E-02	-4.712594E-02	-5.136982E-02
-1.3500000e+00	-4.499289E-02	-4.557901E-02	-4.987708E-02
-1.3250000e+00	-4.353712E-02	-4.403556E-02	-4.838614E-02
-1.3000000e+00	-4.208452E-02	-4.249585E-02	-4.689710E-02
-1.2750000e+00	-4.063529E-02	-4.096014E-02	-4.541010E-02
-1.2500000e+00	-3.918970E-02	-3.942875E-02	-4.392527E-02
-1.2250000e+00	-3.774803E-02	-3.790201E-02	-4.244278E-02
-1.2000000e+00	-3.631059E-02	-3.638031E-02	-4.096280E-02
-1.1750000e+00	-3.487773E-02	-3.486408E-02	-3.948552E-02
-1.1500000e+00	-3.344986E-02	-3.335380E-02	-3.801116E-02
-1.1250000e+00	-3.202742E-02	-3.185003E-02	-3.653998E-02
-1.1000000e+00	-3.061092E-02	-3.035339E-02	-3.507226E-02
-1.0750000e+00	-2.920096E-02	-2.886462E-02	-3.360832E-02
-1.0500000e+00	-2.779821E-02	-2.738455E-02	-3.214854E-02
-1.0250000e+00	-2.640347E-02	-2.591415E-02	-3.069335E-02
-1.0000000e+00	-2.501766E-02	-2.445455E-02	-2.924328E-02
-9.7500000e-01	-2.364185E-02	-2.300708E-02	-2.779892E-02
-9.5000000e-01	-2.227732E-02	-2.157329E-02	-2.636102E-02
-9.2500000e-01	-2.092559E-02	-2.015501E-02	-2.493048E-02
-9.0000000e-01	-1.958843E-02	-1.875433E-02	-2.350840E-02
-8.7500000e-01	-1.826790E-02	-1.737363E-02	-2.209616E-02
-8.5000000e-01	-1.696631E-02	-1.601550E-02	-2.069550E-02
-8.2500000e-01	-1.568612E-02	-1.468262E-02	-1.930856E-02
-8.0000000e-01	-1.442972E-02	-1.337762E-02	-1.793782E-02
-7.7500000e-01	-1.319926E-02	-1.210311E-02	-1.658583E-02
-7.5000000e-01	-1.199673E-02	-1.086191E-02	-1.525450E-02
-7.2500000e-01	-1.082427E-02	-9.657411E-03	-1.394473E-02
-7.0000000e-01	-9.684638E-03	-8.493939E-03	-1.265685E-02
-6.7500000e-01	-8.581514E-03	-7.376930E-03	-1.139180E-02
-6.5000000e-01	-7.519607E-03	-6.312929E-03	-1.015194E-02
-6.2500000e-01	-6.504547E-03	-5.309438E-03	-8.941317E-03
-6.0000000e-01	-5.542688E-03	-4.374618E-03	-7.765734E-03
-5.7500000e-01	-4.640772E-03	-3.516890E-03	-6.632943E-03
-5.5000000e-01	-3.805524E-03	-2.744483E-03	-5.552944E-03
-5.2500000e-01	-3.043248E-03	-2.065103E-03	-4.538199E-03
-5.0000000e-01	-2.359647E-03	-1.485677E-03	-3.603410E-03
-4.7500000e-01	-1.760020E-03	-1.011779E-03	-2.764263E-03
-4.5000000e-01	-1.249702E-03	-6.458403E-04	-2.034714E-03
-4.2500000e-01	-8.339835E-04	-3.838582E-04	-1.423543E-03
-4.0000000e-01	-5.162389E-04	-2.125448E-04	-9.327585E-04
-3.7500000e-01	-2.937329E-04	-1.106466E-04	-5.596314E-04
-3.5000000e-01	-1.537279E-04	-5.497263E-05	-2.989521E-04
-3.2500000e-01	-7.493357E-05	-2.649171E-05	-1.392980E-04
-3.0000000e-01	-3.471511E-05	-1.256760E-05	-5.693623E-05
-2.7500000e-01	-1.563019E-05	-5.952723E-06	-2.113740E-05
-2.5000000e-01	-7.001335E-06	-2.863206E-06	-7.478892E-06
-2.2500000e-01	-3.215160E-06	-1.433628E-06	-2.669240E-06
-2.0000000e-01	-1.576700E-06	-7.729597E-07	-1.039346E-06
-1.7500000e-01	-8.691669E-07	-4.659048E-07	-4.927419E-07
-1.5000000e-01	-5.602970E-07	-3.210513E-07	-3.060998E-07
-1.2500000e-01	-4.211770E-07	-2.506183E-07	-2.379530E-07

-1.0000000e-01	-3.542844E-07	-2.144259E-07	-2.089398E-07
-7.5000000e-02	-3.182781E-07	-1.940781E-07	-1.931385E-07
-5.0000000e-02	-2.956734E-07	-1.811414E-07	-1.820761E-07
-2.5000000e-02	-2.790923E-07	-1.717494E-07	-1.729560E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[POWER Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	4.450136E-02	4.385767E-02	4.780180E-02
-1.4750000e+00	4.325737E-02	4.248503E-02	4.651240E-02
-1.4500000e+00	4.202627E-02	4.113177E-02	4.522925E-02
-1.4250000e+00	4.080680E-02	3.979850E-02	4.395155E-02
-1.4000000e+00	3.959743E-02	3.848563E-02	4.267872E-02
-1.3750000e+00	3.839648E-02	3.719324E-02	4.141043E-02
-1.3500000e+00	3.720221E-02	3.592106E-02	4.014658E-02
-1.3250000e+00	3.601296E-02	3.466841E-02	3.888724E-02
-1.3000000e+00	3.482735E-02	3.343415E-02	3.763261E-02
-1.2750000e+00	3.364438E-02	3.221669E-02	3.638295E-02
-1.2500000e+00	3.246358E-02	3.101397E-02	3.513856E-02
-1.2250000e+00	3.128497E-02	2.982356E-02	3.389971E-02
-1.2000000e+00	3.010901E-02	2.864279E-02	3.266671E-02
-1.1750000e+00	2.893648E-02	2.746896E-02	3.143983E-02
-1.1500000e+00	2.776826E-02	2.629964E-02	3.021937E-02
-1.1250000e+00	2.660528E-02	2.513304E-02	2.900560E-02
-1.1000000e+00	2.544841E-02	2.396824E-02	2.779885E-02
-1.0750000e+00	2.429844E-02	2.280536E-02	2.659947E-02
-1.0500000e+00	2.315612E-02	2.164543E-02	2.540788E-02
-1.0250000e+00	2.202214E-02	2.049007E-02	2.422456E-02
-1.0000000e+00	2.089719E-02	1.934117E-02	2.305008E-02
-9.7500000e-01	1.978197E-02	1.820065E-02	2.188512E-02
-9.5000000e-01	1.867722E-02	1.707028E-02	2.073051E-02
-9.2500000e-01	1.758372E-02	1.595172E-02	1.958717E-02
-9.0000000e-01	1.650228E-02	1.484648E-02	1.845617E-02
-8.7500000e-01	1.543373E-02	1.375596E-02	1.733861E-02
-8.5000000e-01	1.437889E-02	1.268153E-02	1.623552E-02
-8.2500000e-01	1.333851E-02	1.162449E-02	1.514771E-02
-8.0000000e-01	1.231328E-02	1.058622E-02	1.407560E-02
-7.7500000e-01	1.130388E-02	9.568206E-03	1.301920E-02
-7.5000000e-01	1.031106E-02	8.572276E-03	1.197826E-02
-7.2500000e-01	9.335806E-03	7.600753E-03	1.095255E-02
-7.0000000e-01	8.379549E-03	6.656721E-03	9.942208E-03
-6.7500000e-01	7.444326E-03	5.744302E-03	8.947907E-03
-6.5000000e-01	6.532997E-03	4.868952E-03	7.971037E-03
-6.2500000e-01	5.649458E-03	4.037787E-03	7.013856E-03
-6.0000000e-01	4.798902E-03	3.259897E-03	6.079694E-03
-5.7500000e-01	3.988134E-03	2.546530E-03	5.173232E-03
-5.5000000e-01	3.225930E-03	1.910856E-03	4.300898E-03
-5.2500000e-01	2.523332E-03	1.366712E-03	3.471435E-03
-5.0000000e-01	1.893615E-03	9.256050E-04	2.696669E-03
-4.7500000e-01	1.351332E-03	5.919303E-04	1.992344E-03
-4.5000000e-01	9.095438E-04	3.586832E-04	1.378411E-03
-4.2500000e-01	5.747929E-04	2.078355E-04	8.770334E-04
-4.0000000e-01	3.418453E-04	1.164218E-04	5.053061E-04

-3.7500000e-01	1.930954E-04	6.360210E-05	2.627362E-04
-3.5000000e-01	1.048276E-04	3.408364E-05	1.249600E-04
-3.2500000e-01	5.523970E-05	1.799151E-05	5.555840E-05
-3.0000000e-01	2.845373E-05	9.394192E-06	2.354470E-05
-2.7500000e-01	1.440808E-05	4.878770E-06	9.667951E-06
-2.5000000e-01	7.217646E-06	2.540607E-06	3.917671E-06
-2.2500000e-01	3.608426E-06	1.343333E-06	1.610365E-06
-2.0000000e-01	1.824961E-06	7.351342E-07	7.040722E-07
-1.7500000e-01	9.538096E-07	4.274933E-07	3.518088E-07
-1.5000000e-01	5.312391E-07	2.717598E-07	2.143482E-07
-1.2500000e-01	3.264285E-07	1.922224E-07	1.590776E-07
-1.0000000e-01	2.262355E-07	1.506538E-07	1.350141E-07
-7.5000000e-02	1.758303E-07	1.278715E-07	1.227817E-07
-5.0000000e-02	1.489090E-07	1.143246E-07	1.150732E-07
-2.5000000e-02	1.332080E-07	1.054156E-07	1.091539E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

\*\*\*\*\*

MODEL DM\_ODT60 (DM Input model with 60Ohm ODT)

\*\*\*\*\*

[Model] DM\_ODT60\_1600

Model\_type Input

Vinl = 600.000mV

Vinh = 900.000mV

	typ	min	max
C_comp	1.200pF	1.125pF	1.275pF

[Model Spec]

| Input threshold voltage corners

Vinl	0.6000V	0.5625V	0.6375V
Vinh	0.9000V	0.8625V	0.9375V

| Dynamic Overshoot Parameters from DDR3 Specification

D_overshoot_ampl_h	0.40	NA	NA
D_overshoot_ampl_l	0.40	NA	NA
D_overshoot_area_h	0.13n	NA	NA
D_overshoot_area_l	0.13n	NA	NA

[[Receiver Thresholds]

|Vth = 0.750V

|Vth\_min = 0.7350V

|Vth\_max = 0.7650V

|Vinh\_ac = 0.150V

|Vinh\_dc = 0.100V

|Vinl\_ac = -0.150V

|Vinl\_dc = -0.100V

|Tslew\_ac = 5.000ns |Not specified, so set to high value

|Threshold\_sensitivity = 0.50

|Reference\_supply Power\_clamp\_ref

|

[Add Submodel]

Submodel Name	Mode		
60Ohm_ODT	Non-Driving		
[Voltage Range]	1.500V	1.425V	1.575V
[Pullup Reference]	1.500V	1.425V	1.575V
[POWER Clamp Reference]	1.500V	1.425V	1.575V
[Temperature Range]	85.00	110.00	0.00

[GND Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	-5.378351E-02	-5.490567E-02	-5.885698E-02
-1.4750000e+00	-5.231251E-02	-5.334431E-02	-5.735670E-02
-1.4500000e+00	-5.084369E-02	-5.178549E-02	-5.585777E-02
-1.4250000e+00	-4.937717E-02	-5.022938E-02	-5.436025E-02
-1.4000000e+00	-4.791309E-02	-4.867613E-02	-5.286424E-02
-1.3750000e+00	-4.645161E-02	-4.712594E-02	-5.136982E-02
-1.3500000e+00	-4.499289E-02	-4.557901E-02	-4.987708E-02
-1.3250000e+00	-4.353712E-02	-4.403556E-02	-4.838614E-02
-1.3000000e+00	-4.208452E-02	-4.249585E-02	-4.689710E-02
-1.2750000e+00	-4.063529E-02	-4.096014E-02	-4.541010E-02
-1.2500000e+00	-3.918970E-02	-3.942875E-02	-4.392527E-02
-1.2250000e+00	-3.774803E-02	-3.790201E-02	-4.244278E-02
-1.2000000e+00	-3.631059E-02	-3.638031E-02	-4.096280E-02
-1.1750000e+00	-3.487773E-02	-3.486408E-02	-3.948552E-02
-1.1500000e+00	-3.344986E-02	-3.335380E-02	-3.801116E-02
-1.1250000e+00	-3.202742E-02	-3.185003E-02	-3.653998E-02
-1.1000000e+00	-3.061092E-02	-3.035339E-02	-3.507226E-02
-1.0750000e+00	-2.920096E-02	-2.886462E-02	-3.360832E-02
-1.0500000e+00	-2.779821E-02	-2.738455E-02	-3.214854E-02
-1.0250000e+00	-2.640347E-02	-2.591415E-02	-3.069335E-02
-1.0000000e+00	-2.501766E-02	-2.445455E-02	-2.924328E-02
-9.7500000e-01	-2.364185E-02	-2.300708E-02	-2.779892E-02
-9.5000000e-01	-2.227732E-02	-2.157329E-02	-2.636102E-02
-9.2500000e-01	-2.092559E-02	-2.015501E-02	-2.493048E-02
-9.0000000e-01	-1.958843E-02	-1.875433E-02	-2.350840E-02
-8.7500000e-01	-1.826790E-02	-1.737363E-02	-2.209616E-02
-8.5000000e-01	-1.696631E-02	-1.601550E-02	-2.069550E-02
-8.2500000e-01	-1.568612E-02	-1.468262E-02	-1.930856E-02
-8.0000000e-01	-1.442972E-02	-1.337762E-02	-1.793782E-02
-7.7500000e-01	-1.319926E-02	-1.210311E-02	-1.658583E-02
-7.5000000e-01	-1.199673E-02	-1.086191E-02	-1.525450E-02
-7.2500000e-01	-1.082427E-02	-9.657411E-03	-1.394473E-02
-7.0000000e-01	-9.684638E-03	-8.493939E-03	-1.265685E-02
-6.7500000e-01	-8.581514E-03	-7.376930E-03	-1.139180E-02
-6.5000000e-01	-7.519607E-03	-6.312929E-03	-1.015194E-02
-6.2500000e-01	-6.504547E-03	-5.309438E-03	-8.941317E-03
-6.0000000e-01	-5.542688E-03	-4.374618E-03	-7.765734E-03
-5.7500000e-01	-4.640772E-03	-3.516890E-03	-6.632943E-03
-5.5000000e-01	-3.805524E-03	-2.744483E-03	-5.552944E-03
-5.2500000e-01	-3.043248E-03	-2.065103E-03	-4.538199E-03
-5.0000000e-01	-2.359647E-03	-1.485677E-03	-3.603410E-03
-4.7500000e-01	-1.760020E-03	-1.011779E-03	-2.764263E-03

-4.5000000e-01	-1.249702E-03	-6.458403E-04	-2.034714E-03
-4.2500000e-01	-8.339835E-04	-3.838582E-04	-1.423543E-03
-4.0000000e-01	-5.162389E-04	-2.125448E-04	-9.327585E-04
-3.7500000e-01	-2.937329E-04	-1.106466E-04	-5.596314E-04
-3.5000000e-01	-1.537279E-04	-5.497263E-05	-2.989521E-04
-3.2500000e-01	-7.493357E-05	-2.649171E-05	-1.392980E-04
-3.0000000e-01	-3.471511E-05	-1.256760E-05	-5.693623E-05
-2.7500000e-01	-1.563019E-05	-5.952723E-06	-2.113740E-05
-2.5000000e-01	-7.001335E-06	-2.863206E-06	-7.478892E-06
-2.2500000e-01	-3.215160E-06	-1.433628E-06	-2.669240E-06
-2.0000000e-01	-1.576700E-06	-7.729597E-07	-1.039346E-06
-1.7500000e-01	-8.691669E-07	-4.659048E-07	-4.927419E-07
-1.5000000e-01	-5.602970E-07	-3.210513E-07	-3.060998E-07
-1.2500000e-01	-4.211770E-07	-2.506183E-07	-2.379530E-07
-1.0000000e-01	-3.542844E-07	-2.144259E-07	-2.089398E-07
-7.5000000e-02	-3.182781E-07	-1.940781E-07	-1.931385E-07
-5.0000000e-02	-2.956734E-07	-1.811414E-07	-1.820761E-07
-2.5000000e-02	-2.790923E-07	-1.717494E-07	-1.729560E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[POWER Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	4.450136E-02	4.385767E-02	4.780180E-02
-1.4750000e+00	4.325737E-02	4.248503E-02	4.651240E-02
-1.4500000e+00	4.202627E-02	4.113177E-02	4.522925E-02
-1.4250000e+00	4.080680E-02	3.979850E-02	4.395155E-02
-1.4000000e+00	3.959743E-02	3.848563E-02	4.267872E-02
-1.3750000e+00	3.839648E-02	3.719324E-02	4.141043E-02
-1.3500000e+00	3.720221E-02	3.592106E-02	4.014658E-02
-1.3250000e+00	3.601296E-02	3.466841E-02	3.888724E-02
-1.3000000e+00	3.482735E-02	3.343415E-02	3.763261E-02
-1.2750000e+00	3.364438E-02	3.221669E-02	3.638295E-02
-1.2500000e+00	3.246358E-02	3.101397E-02	3.513856E-02
-1.2250000e+00	3.128497E-02	2.982356E-02	3.389971E-02
-1.2000000e+00	3.010901E-02	2.864279E-02	3.266671E-02
-1.1750000e+00	2.893648E-02	2.746896E-02	3.143983E-02
-1.1500000e+00	2.776826E-02	2.629964E-02	3.021937E-02
-1.1250000e+00	2.660528E-02	2.513304E-02	2.900560E-02
-1.1000000e+00	2.544841E-02	2.396824E-02	2.779885E-02
-1.0750000e+00	2.429844E-02	2.280536E-02	2.659947E-02
-1.0500000e+00	2.315612E-02	2.164543E-02	2.540788E-02
-1.0250000e+00	2.202214E-02	2.049007E-02	2.422456E-02
-1.0000000e+00	2.089719E-02	1.934117E-02	2.305008E-02
-9.7500000e-01	1.978197E-02	1.820065E-02	2.188512E-02
-9.5000000e-01	1.867722E-02	1.707028E-02	2.073051E-02
-9.2500000e-01	1.758372E-02	1.595172E-02	1.958717E-02
-9.0000000e-01	1.650228E-02	1.484648E-02	1.845617E-02
-8.7500000e-01	1.543373E-02	1.375596E-02	1.733861E-02
-8.5000000e-01	1.437889E-02	1.268153E-02	1.623552E-02
-8.2500000e-01	1.333851E-02	1.162449E-02	1.514771E-02
-8.0000000e-01	1.231328E-02	1.058622E-02	1.407560E-02
-7.7500000e-01	1.130388E-02	9.568206E-03	1.301920E-02
-7.5000000e-01	1.031106E-02	8.572276E-03	1.197826E-02

-7.2500000e-01	9.335806E-03	7.600753E-03	1.095255E-02
-7.0000000e-01	8.379549E-03	6.656721E-03	9.942208E-03
-6.7500000e-01	7.444326E-03	5.744302E-03	8.947907E-03
-6.5000000e-01	6.532997E-03	4.868952E-03	7.971037E-03
-6.2500000e-01	5.649458E-03	4.037787E-03	7.013856E-03
-6.0000000e-01	4.798902E-03	3.259897E-03	6.079694E-03
-5.7500000e-01	3.988134E-03	2.546530E-03	5.173232E-03
-5.5000000e-01	3.225930E-03	1.910856E-03	4.300898E-03
-5.2500000e-01	2.523332E-03	1.366712E-03	3.471435E-03
-5.0000000e-01	1.893615E-03	9.256050E-04	2.696669E-03
-4.7500000e-01	1.351332E-03	5.919303E-04	1.992344E-03
-4.5000000e-01	9.095438E-04	3.586832E-04	1.378411E-03
-4.2500000e-01	5.747929E-04	2.078355E-04	8.770334E-04
-4.0000000e-01	3.418453E-04	1.164218E-04	5.053061E-04
-3.7500000e-01	1.930954E-04	6.360210E-05	2.627362E-04
-3.5000000e-01	1.048276E-04	3.408364E-05	1.249600E-04
-3.2500000e-01	5.523970E-05	1.799151E-05	5.555840E-05
-3.0000000e-01	2.845373E-05	9.394192E-06	2.354470E-05
-2.7500000e-01	1.440808E-05	4.878770E-06	9.667951E-06
-2.5000000e-01	7.217646E-06	2.540607E-06	3.917671E-06
-2.2500000e-01	3.608426E-06	1.343333E-06	1.610365E-06
-2.0000000e-01	1.824961E-06	7.351342E-07	7.040722E-07
-1.7500000e-01	9.538096E-07	4.274933E-07	3.518088E-07
-1.5000000e-01	5.312391E-07	2.717598E-07	2.143482E-07
-1.2500000e-01	3.264285E-07	1.922224E-07	1.590776E-07
-1.0000000e-01	2.262355E-07	1.506538E-07	1.350141E-07
-7.5000000e-02	1.758303E-07	1.278715E-07	1.227817E-07
-5.0000000e-02	1.489090E-07	1.143246E-07	1.150732E-07
-2.5000000e-02	1.332080E-07	1.054156E-07	1.091539E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

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MODEL DM\_ODT120 (DM Input model with 120Ohm ODT)

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[Model] DM\_ODT120\_1600

Model\_type Input

Vinl = 600.000mV

Vinh = 900.000mV

	typ	min	max
C_comp	1.200pF	1.125pF	1.275pF

[Model Spec]

| Input threshold voltage corners

Vinl	0.6000V	0.5625V	0.6375V
Vinh	0.9000V	0.8625V	0.9375V

| Dynamic Overshoot Parameters from DDR3 Specification

D_overshoot_ampl_h	0.40	NA	NA
D_overshoot_ampl_l	0.40	NA	NA
D_overshoot_area_h	0.13n	NA	NA

|D\_overshoot\_area\_1 0.13n NA NA

|[Receiver Thresholds]

|Vth = 0.750V

|Vth\_min = 0.7350V

|Vth\_max = 0.7650V

|Vinh\_ac = 0.150V

|Vinh\_dc = 0.100V

|Vinl\_ac = -0.150V

|Vinl\_dc = -0.100V

|Tslew\_ac = 5.000ns [Not specified, so set to high value

|Threshold\_sensitivity = 0.50

|Reference\_supply Power\_clamp\_ref

|[Add Submodel]

| Submodel Name Mode

120Ohm\_ODT Non-Driving

[Voltage Range] 1.500V 1.425V 1.575V

[Pullup Reference] 1.500V 1.425V 1.575V

[POWER Clamp Reference] 1.500V 1.425V 1.575V

[Temperature Range] 85.00 110.00 0.00

|[GND Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	-5.378351E-02	-5.490567E-02	-5.885698E-02
-1.4750000e+00	-5.231251E-02	-5.334431E-02	-5.735670E-02
-1.4500000e+00	-5.084369E-02	-5.178549E-02	-5.585777E-02
-1.4250000e+00	-4.937717E-02	-5.022938E-02	-5.436025E-02
-1.4000000e+00	-4.791309E-02	-4.867613E-02	-5.286424E-02
-1.3750000e+00	-4.645161E-02	-4.712594E-02	-5.136982E-02
-1.3500000e+00	-4.499289E-02	-4.557901E-02	-4.987708E-02
-1.3250000e+00	-4.353712E-02	-4.403556E-02	-4.838614E-02
-1.3000000e+00	-4.208452E-02	-4.249585E-02	-4.689710E-02
-1.2750000e+00	-4.063529E-02	-4.096014E-02	-4.541010E-02
-1.2500000e+00	-3.918970E-02	-3.942875E-02	-4.392527E-02
-1.2250000e+00	-3.774803E-02	-3.790201E-02	-4.244278E-02
-1.2000000e+00	-3.631059E-02	-3.638031E-02	-4.096280E-02
-1.1750000e+00	-3.487773E-02	-3.486408E-02	-3.948552E-02
-1.1500000e+00	-3.344986E-02	-3.335380E-02	-3.801116E-02
-1.1250000e+00	-3.202742E-02	-3.185003E-02	-3.653998E-02
-1.1000000e+00	-3.061092E-02	-3.035339E-02	-3.507226E-02
-1.0750000e+00	-2.920096E-02	-2.886462E-02	-3.360832E-02
-1.0500000e+00	-2.779821E-02	-2.738455E-02	-3.214854E-02
-1.0250000e+00	-2.640347E-02	-2.591415E-02	-3.069335E-02
-1.0000000e+00	-2.501766E-02	-2.445455E-02	-2.924328E-02
-9.7500000e-01	-2.364185E-02	-2.300708E-02	-2.779892E-02
-9.5000000e-01	-2.227732E-02	-2.157329E-02	-2.636102E-02
-9.2500000e-01	-2.092559E-02	-2.015501E-02	-2.493048E-02
-9.0000000e-01	-1.958843E-02	-1.875433E-02	-2.350840E-02
-8.7500000e-01	-1.826790E-02	-1.737363E-02	-2.209616E-02
-8.5000000e-01	-1.696631E-02	-1.601550E-02	-2.069550E-02
-8.2500000e-01	-1.568612E-02	-1.468262E-02	-1.930856E-02

-8.0000000e-01	-1.442972E-02	-1.337762E-02	-1.793782E-02
-7.7500000e-01	-1.319926E-02	-1.210311E-02	-1.658583E-02
-7.5000000e-01	-1.199673E-02	-1.086191E-02	-1.525450E-02
-7.2500000e-01	-1.082427E-02	-9.657411E-03	-1.394473E-02
-7.0000000e-01	-9.684638E-03	-8.493939E-03	-1.265685E-02
-6.7500000e-01	-8.581514E-03	-7.376930E-03	-1.139180E-02
-6.5000000e-01	-7.519607E-03	-6.312929E-03	-1.015194E-02
-6.2500000e-01	-6.504547E-03	-5.309438E-03	-8.941317E-03
-6.0000000e-01	-5.542688E-03	-4.374618E-03	-7.765734E-03
-5.7500000e-01	-4.640772E-03	-3.516890E-03	-6.632943E-03
-5.5000000e-01	-3.805524E-03	-2.744483E-03	-5.552944E-03
-5.2500000e-01	-3.043248E-03	-2.065103E-03	-4.538199E-03
-5.0000000e-01	-2.359647E-03	-1.485677E-03	-3.603410E-03
-4.7500000e-01	-1.760020E-03	-1.011779E-03	-2.764263E-03
-4.5000000e-01	-1.249702E-03	-6.458403E-04	-2.034714E-03
-4.2500000e-01	-8.339835E-04	-3.838582E-04	-1.423543E-03
-4.0000000e-01	-5.162389E-04	-2.125448E-04	-9.327585E-04
-3.7500000e-01	-2.937329E-04	-1.106466E-04	-5.596314E-04
-3.5000000e-01	-1.537279E-04	-5.497263E-05	-2.989521E-04
-3.2500000e-01	-7.493357E-05	-2.649171E-05	-1.392980E-04
-3.0000000e-01	-3.471511E-05	-1.256760E-05	-5.693623E-05
-2.7500000e-01	-1.563019E-05	-5.952723E-06	-2.113740E-05
-2.5000000e-01	-7.001335E-06	-2.863206E-06	-7.478892E-06
-2.2500000e-01	-3.215160E-06	-1.433628E-06	-2.669240E-06
-2.0000000e-01	-1.576700E-06	-7.729597E-07	-1.039346E-06
-1.7500000e-01	-8.691669E-07	-4.659048E-07	-4.927419E-07
-1.5000000e-01	-5.602970E-07	-3.210513E-07	-3.060998E-07
-1.2500000e-01	-4.211770E-07	-2.506183E-07	-2.379530E-07
-1.0000000e-01	-3.542844E-07	-2.144259E-07	-2.089398E-07
-7.5000000e-02	-3.182781E-07	-1.940781E-07	-1.931385E-07
-5.0000000e-02	-2.956734E-07	-1.811414E-07	-1.820761E-07
-2.5000000e-02	-2.790923E-07	-1.717494E-07	-1.729560E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

[POWER Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.5000000e+00	4.450136E-02	4.385767E-02	4.780180E-02
-1.4750000e+00	4.325737E-02	4.248503E-02	4.651240E-02
-1.4500000e+00	4.202627E-02	4.113177E-02	4.522925E-02
-1.4250000e+00	4.080680E-02	3.979850E-02	4.395155E-02
-1.4000000e+00	3.959743E-02	3.848563E-02	4.267872E-02
-1.3750000e+00	3.839648E-02	3.719324E-02	4.141043E-02
-1.3500000e+00	3.720221E-02	3.592106E-02	4.014658E-02
-1.3250000e+00	3.601296E-02	3.466841E-02	3.888724E-02
-1.3000000e+00	3.482735E-02	3.343415E-02	3.763261E-02
-1.2750000e+00	3.364438E-02	3.221669E-02	3.638295E-02
-1.2500000e+00	3.246358E-02	3.101397E-02	3.513856E-02
-1.2250000e+00	3.128497E-02	2.982356E-02	3.389971E-02
-1.2000000e+00	3.010901E-02	2.864279E-02	3.266671E-02
-1.1750000e+00	2.893648E-02	2.746896E-02	3.143983E-02
-1.1500000e+00	2.776826E-02	2.629964E-02	3.021937E-02
-1.1250000e+00	2.660528E-02	2.513304E-02	2.900560E-02
-1.1000000e+00	2.544841E-02	2.396824E-02	2.779885E-02



-1.0750000e+00	2.429844E-02	2.280536E-02	2.659947E-02
-1.0500000e+00	2.315612E-02	2.164543E-02	2.540788E-02
-1.0250000e+00	2.202214E-02	2.049007E-02	2.422456E-02
-1.0000000e+00	2.089719E-02	1.934117E-02	2.305008E-02
-9.7500000e-01	1.978197E-02	1.820065E-02	2.188512E-02
-9.5000000e-01	1.867722E-02	1.707028E-02	2.073051E-02
-9.2500000e-01	1.758372E-02	1.595172E-02	1.958717E-02
-9.0000000e-01	1.650228E-02	1.484648E-02	1.845617E-02
-8.7500000e-01	1.543373E-02	1.375596E-02	1.733861E-02
-8.5000000e-01	1.437889E-02	1.268153E-02	1.623552E-02
-8.2500000e-01	1.333851E-02	1.162449E-02	1.514771E-02
-8.0000000e-01	1.231328E-02	1.058622E-02	1.407560E-02
-7.7500000e-01	1.130388E-02	9.568206E-03	1.301920E-02
-7.5000000e-01	1.031106E-02	8.572276E-03	1.197826E-02
-7.2500000e-01	9.335806E-03	7.600753E-03	1.095255E-02
-7.0000000e-01	8.379549E-03	6.656721E-03	9.942208E-03
-6.7500000e-01	7.444326E-03	5.744302E-03	8.947907E-03
-6.5000000e-01	6.532997E-03	4.868952E-03	7.971037E-03
-6.2500000e-01	5.649458E-03	4.037787E-03	7.013856E-03
-6.0000000e-01	4.798902E-03	3.259897E-03	6.079694E-03
-5.7500000e-01	3.988134E-03	2.546530E-03	5.173232E-03
-5.5000000e-01	3.225930E-03	1.910856E-03	4.300898E-03
-5.2500000e-01	2.523332E-03	1.366712E-03	3.471435E-03
-5.0000000e-01	1.893615E-03	9.256050E-04	2.696669E-03
-4.7500000e-01	1.351332E-03	5.919303E-04	1.992344E-03
-4.5000000e-01	9.095438E-04	3.586832E-04	1.378411E-03
-4.2500000e-01	5.747929E-04	2.078355E-04	8.770334E-04
-4.0000000e-01	3.418453E-04	1.164218E-04	5.053061E-04
-3.7500000e-01	1.930954E-04	6.360210E-05	2.627362E-04
-3.5000000e-01	1.048276E-04	3.408364E-05	1.249600E-04
-3.2500000e-01	5.523970E-05	1.799151E-05	5.555840E-05
-3.0000000e-01	2.845373E-05	9.394192E-06	2.354470E-05
-2.7500000e-01	1.440808E-05	4.878770E-06	9.667951E-06
-2.5000000e-01	7.217646E-06	2.540607E-06	3.917671E-06
-2.2500000e-01	3.608426E-06	1.343333E-06	1.610365E-06
-2.0000000e-01	1.824961E-06	7.351342E-07	7.040722E-07
-1.7500000e-01	9.538096E-07	4.274933E-07	3.518088E-07
-1.5000000e-01	5.312391E-07	2.717598E-07	2.143482E-07
-1.2500000e-01	3.264285E-07	1.922224E-07	1.590776E-07
-1.0000000e-01	2.262355E-07	1.506538E-07	1.350141E-07
-7.5000000e-02	1.758303E-07	1.278715E-07	1.227817E-07
-5.0000000e-02	1.489090E-07	1.143246E-07	1.150732E-07
-2.5000000e-02	1.332080E-07	1.054156E-07	1.091539E-07
0.0000000e+00	0	0	0
3.0000000e+00	0	0	0

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[Submodel] 20Ohm\_ODT  
Submodel\_type Dynamic\_clamp

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[GND Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.500E+00	-5.766580E-03	-5.671960E-03	-4.456420E-03
-1.475E+00	-5.965480E-03	-5.898760E-03	-4.645560E-03
-1.425E+00	-6.365740E-03	-6.361750E-03	-5.028320E-03
-1.375E+00	-6.767370E-03	-6.833580E-03	-5.414330E-03
-1.325E+00	-7.168490E-03	-7.310620E-03	-5.801150E-03
-1.275E+00	-7.567540E-03	-7.790060E-03	-6.186990E-03
-1.225E+00	-7.963180E-03	-8.269780E-03	-6.570500E-03
-1.175E+00	-8.354170E-03	-8.748110E-03	-6.950570E-03
-1.125E+00	-8.739220E-03	-9.223740E-03	-7.326150E-03
-1.075E+00	-9.116960E-03	-9.695520E-03	-7.696140E-03
-1.025E+00	-9.485740E-03	-1.016235E-02	-8.059310E-03
-9.750E-01	-9.843550E-03	-1.062303E-02	-8.414140E-03
-9.250E-01	-1.018784E-02	-1.107598E-02	-8.758740E-03
-8.750E-01	-1.051515E-02	-1.151861E-02	-9.090580E-03
-8.250E-01	-1.082065E-02	-1.194611E-02	-9.406250E-03
-7.750E-01	-1.109723E-02	-1.234917E-02	-9.700970E-03
-7.250E-01	-1.133396E-02	-1.271052E-02	-9.967760E-03
-6.750E-01	-1.151368E-02	-1.300112E-02	-1.019607E-02
-6.250E-01	-1.161030E-02	-1.317732E-02	-1.036931E-02
-5.750E-01	-1.158847E-02	-1.318034E-02	-1.046035E-02
-5.250E-01	-1.140914E-02	-1.294110E-02	-1.042456E-02
-4.750E-01	-1.103661E-02	-1.239310E-02	-1.019544E-02
-4.250E-01	-1.042948E-02	-1.149942E-02	-9.705217E-03
-3.750E-01	-9.541331E-03	-1.031290E-02	-8.936776E-03
-3.250E-01	-8.402181E-03	-8.972323E-03	-7.924354E-03
-2.750E-01	-7.136897E-03	-7.584300E-03	-6.752583E-03
-2.250E-01	-5.837164E-03	-6.189682E-03	-5.529808E-03
-1.750E-01	-4.533342E-03	-4.799550E-03	-4.299700E-03
-1.250E-01	-3.232329E-03	-3.416866E-03	-3.069755E-03
-7.500E-02	-1.935664E-03	-2.042825E-03	-1.840905E-03
-2.500E-02	-6.439068E-04	-6.783475E-04	-6.133072E-04
0.000E+00	-2.495000E-09	-2.851000E-10	-4.329000E-09
2.500E-02	6.423542E-04	6.754144E-04	6.128414E-04
7.500E-02	1.921741E-03	2.016470E-03	1.836778E-03
1.250E-01	3.193668E-03	3.343638E-03	3.058299E-03
1.750E-01	4.457673E-03	4.655798E-03	4.277310E-03
2.250E-01	5.713247E-03	5.951703E-03	5.493715E-03
2.750E-01	6.959828E-03	7.229949E-03	6.707408E-03
3.250E-01	8.196792E-03	8.488947E-03	7.918279E-03
3.750E-01	9.423449E-03	9.726883E-03	9.126213E-03
4.250E-01	1.063902E-02	1.094167E-02	1.033108E-02
4.750E-01	1.184265E-02	1.213090E-02	1.153277E-02
5.250E-01	1.303336E-02	1.329176E-02	1.273113E-02
5.750E-01	1.421007E-02	1.442101E-02	1.392600E-02
6.250E-01	1.537155E-02	1.551502E-02	1.511724E-02
6.750E-01	1.651649E-02	1.657019E-02	1.630468E-02
7.250E-01	1.764350E-02	1.758380E-02	1.748813E-02
7.750E-01	1.875138E-02	1.855487E-02	1.866739E-02
8.250E-01	1.983945E-02	1.948346E-02	1.984225E-02
8.750E-01	2.090800E-02	2.036881E-02	2.101249E-02
9.250E-01	2.195802E-02	2.120815E-02	2.217784E-02

9.750E-01	2.299059E-02	2.199660E-02	2.333804E-02
1.025E+00	2.400623E-02	2.272804E-02	2.449279E-02
1.075E+00	2.500472E-02	2.339642E-02	2.564177E-02
1.125E+00	2.598518E-02	2.399791E-02	2.678460E-02
1.175E+00	2.694619E-02	2.453290E-02	2.792088E-02
1.225E+00	2.788582E-02	2.500673E-02	2.905017E-02
1.275E+00	2.880158E-02	2.542839E-02	3.017198E-02
1.325E+00	2.969048E-02	2.580810E-02	3.128573E-02
1.375E+00	3.054893E-02	2.615534E-02	3.239079E-02
1.425E+00	3.137276E-02	2.647793E-02	3.348645E-02
1.475E+00	3.215739E-02	2.678186E-02	3.457189E-02
1.525E+00	3.289823E-02	2.707162E-02	3.564616E-02
1.575E+00	3.359126E-02	2.735051E-02	3.670815E-02
1.625E+00	3.423408E-02	2.762095E-02	3.775661E-02
1.675E+00	3.482661E-02	2.788477E-02	3.879005E-02
1.725E+00	3.537149E-02	2.814329E-02	3.980676E-02
1.775E+00	3.587366E-02	2.839756E-02	4.080468E-02
1.825E+00	3.633928E-02	2.864834E-02	4.178144E-02
1.875E+00	3.677472E-02	2.889628E-02	4.273432E-02
1.925E+00	3.718582E-02	2.914184E-02	4.366022E-02
1.975E+00	3.757750E-02	2.938542E-02	4.455570E-02
2.025E+00	3.795380E-02	2.962733E-02	4.541717E-02
2.075E+00	3.831783E-02	2.986783E-02	4.624122E-02
2.125E+00	3.867208E-02	3.010713E-02	4.702495E-02
2.175E+00	3.901845E-02	3.034542E-02	4.776654E-02
2.225E+00	3.935843E-02	3.058286E-02	4.846567E-02
2.275E+00	3.969319E-02	3.081960E-02	4.912370E-02
2.325E+00	4.002364E-02	3.105576E-02	4.974349E-02
2.375E+00	4.035053E-02	3.129147E-02	5.032896E-02
2.425E+00	4.067444E-02	3.152686E-02	5.088455E-02
2.475E+00	4.099589E-02	3.176208E-02	5.141468E-02
2.525E+00	4.131527E-02	3.199724E-02	5.192347E-02
2.575E+00	4.163292E-02	3.223252E-02	5.241451E-02
2.625E+00	4.194914E-02	3.246808E-02	5.289083E-02
2.675E+00	4.226420E-02	3.270415E-02	5.335498E-02
2.725E+00	4.257832E-02	3.294093E-02	5.380901E-02
2.775E+00	4.289173E-02	3.317872E-02	5.425459E-02
2.825E+00	4.320461E-02	3.341781E-02	5.469311E-02
2.875E+00	4.351716E-02	3.365859E-02	5.512565E-02
2.925E+00	4.382954E-02	3.390146E-02	5.555313E-02
2.975E+00	4.414196E-02	3.414689E-02	5.597631E-02
3.000E+00	4.429822E-02	3.427073E-02	5.618643E-02

[POWER Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.500E+00	1.389726E-02	1.504398E-02	1.349533E-02
-1.475E+00	1.392264E-02	1.515937E-02	1.351086E-02
-1.425E+00	1.394546E-02	1.534857E-02	1.353151E-02
-1.375E+00	1.393981E-02	1.547697E-02	1.354224E-02
-1.325E+00	1.391856E-02	1.554353E-02	1.354519E-02
-1.275E+00	1.389338E-02	1.555546E-02	1.354021E-02
-1.225E+00	1.387047E-02	1.552783E-02	1.352625E-02
-1.175E+00	1.384960E-02	1.548077E-02	1.350224E-02

-1.125E+00	1.382682E-02	1.543384E-02	1.346739E-02
-1.075E+00	1.379801E-02	1.539852E-02	1.342114E-02
-1.025E+00	1.376039E-02	1.537448E-02	1.336308E-02
-9.750E-01	1.371253E-02	1.535470E-02	1.329273E-02
-9.250E-01	1.365377E-02	1.533267E-02	1.320954E-02
-8.750E-01	1.358376E-02	1.530476E-02	1.311272E-02
-8.250E-01	1.350196E-02	1.526946E-02	1.300107E-02
-7.750E-01	1.340731E-02	1.522533E-02	1.287282E-02
-7.250E-01	1.329764E-02	1.516779E-02	1.272520E-02
-6.750E-01	1.316876E-02	1.508254E-02	1.255385E-02
-6.250E-01	1.301210E-02	1.493397E-02	1.235163E-02
-5.750E-01	1.280840E-02	1.465356E-02	1.210651E-02
-5.250E-01	1.251267E-02	1.414152E-02	1.179715E-02
-4.750E-01	1.203558E-02	1.330396E-02	1.138239E-02
-4.250E-01	1.126664E-02	1.214514E-02	1.077828E-02
-3.750E-01	1.018437E-02	1.079032E-02	9.866709E-03
-3.250E-01	8.905567E-03	9.358893E-03	8.672418E-03
-2.750E-01	7.550642E-03	7.907034E-03	7.361410E-03
-2.250E-01	6.175031E-03	6.454310E-03	6.024032E-03
-1.750E-01	4.796858E-03	5.006793E-03	4.683237E-03
-1.250E-01	3.421222E-03	3.566345E-03	3.343247E-03
-7.500E-02	2.049479E-03	2.133648E-03	2.004738E-03
-2.500E-02	6.820421E-04	7.091043E-04	6.678361E-04
0.000E+00	1.123000E-09	4.008400E-10	2.623400E-09
2.500E-02	-6.802155E-04	-7.060015E-04	-6.669581E-04
7.500E-02	-2.032965E-03	-2.105590E-03	-1.996813E-03
1.250E-01	-3.375119E-03	-3.487987E-03	-3.321064E-03
1.750E-01	-4.706231E-03	-4.852382E-03	-4.639481E-03
2.250E-01	-6.025837E-03	-6.197914E-03	-5.951822E-03
2.750E-01	-7.333440E-03	-7.523661E-03	-7.257830E-03
3.250E-01	-8.628517E-03	-8.828634E-03	-8.557236E-03
3.750E-01	-9.910511E-03	-1.011178E-02	-9.849754E-03
4.250E-01	-1.117883E-02	-1.137197E-02	-1.113508E-02
4.750E-01	-1.243286E-02	-1.260797E-02	-1.241290E-02
5.250E-01	-1.367192E-02	-1.381848E-02	-1.368286E-02
5.750E-01	-1.489533E-02	-1.500209E-02	-1.494462E-02
6.250E-01	-1.610232E-02	-1.615730E-02	-1.619781E-02
6.750E-01	-1.729210E-02	-1.728247E-02	-1.744201E-02
7.250E-01	-1.846383E-02	-1.837588E-02	-1.867681E-02
7.750E-01	-1.961663E-02	-1.943566E-02	-1.990176E-02
8.250E-01	-2.074956E-02	-2.045990E-02	-2.111642E-02
8.750E-01	-2.186165E-02	-2.144666E-02	-2.232029E-02
9.250E-01	-2.295193E-02	-2.239415E-02	-2.351288E-02
9.750E-01	-2.401949E-02	-2.330089E-02	-2.469372E-02
1.025E+00	-2.506353E-02	-2.416589E-02	-2.586241E-02
1.075E+00	-2.608351E-02	-2.498853E-02	-2.701861E-02
1.125E+00	-2.707921E-02	-2.576811E-02	-2.816212E-02
1.175E+00	-2.805064E-02	-2.650347E-02	-2.929287E-02
1.225E+00	-2.899777E-02	-2.719285E-02	-3.041072E-02
1.275E+00	-2.992027E-02	-2.783418E-02	-3.151543E-02
1.325E+00	-3.081737E-02	-2.842555E-02	-3.260658E-02
1.375E+00	-3.168792E-02	-2.896616E-02	-3.368357E-02
1.425E+00	-3.253039E-02	-2.945719E-02	-3.474569E-02
1.475E+00	-3.334289E-02	-2.990258E-02	-3.579204E-02

1.525E+00	-3.412325E-02	-3.030862E-02	-3.682160E-02
1.575E+00	-3.486904E-02	-3.068257E-02	-3.783322E-02
1.625E+00	-3.557765E-02	-3.103121E-02	-3.882554E-02
1.675E+00	-3.624648E-02	-3.136007E-02	-3.979707E-02
1.725E+00	-3.687327E-02	-3.167336E-02	-4.074611E-02
1.775E+00	-3.745664E-02	-3.197424E-02	-4.167074E-02
1.825E+00	-3.799669E-02	-3.226504E-02	-4.256877E-02
1.875E+00	-3.849555E-02	-3.254751E-02	-4.343778E-02
1.925E+00	-3.895729E-02	-3.282303E-02	-4.427507E-02
1.975E+00	-3.938718E-02	-3.309266E-02	-4.507767E-02
2.025E+00	-3.979068E-02	-3.335725E-02	-4.584252E-02
2.075E+00	-4.017269E-02	-3.361749E-02	-4.656667E-02
2.125E+00	-4.053722E-02	-3.387394E-02	-4.724771E-02
2.175E+00	-4.088750E-02	-3.412706E-02	-4.788439E-02
2.225E+00	-4.122601E-02	-3.437725E-02	-4.847720E-02
2.275E+00	-4.155469E-02	-3.462484E-02	-4.902866E-02
2.325E+00	-4.187509E-02	-3.487011E-02	-4.954292E-02
2.375E+00	-4.218843E-02	-3.511331E-02	-5.002501E-02
2.425E+00	-4.249569E-02	-3.535465E-02	-5.047996E-02
2.475E+00	-4.279767E-02	-3.559432E-02	-5.091238E-02
2.525E+00	-4.309506E-02	-3.583247E-02	-5.132616E-02
2.575E+00	-4.338838E-02	-3.606924E-02	-5.172444E-02
2.625E+00	-4.367812E-02	-3.630478E-02	-5.210982E-02
2.675E+00	-4.396466E-02	-3.653918E-02	-5.248433E-02
2.725E+00	-4.424834E-02	-3.677255E-02	-5.284965E-02
2.775E+00	-4.452947E-02	-3.700499E-02	-5.320710E-02
2.825E+00	-4.480829E-02	-3.723658E-02	-5.355776E-02
2.875E+00	-4.508502E-02	-3.746739E-02	-5.390260E-02
2.925E+00	-4.535987E-02	-3.769749E-02	-5.424222E-02
2.975E+00	-4.563300E-02	-3.792695E-02	-5.457736E-02
3.000E+00	-4.576896E-02	-3.804146E-02	-5.474335E-02

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[Submodel] 30Ohm\_ODT  
Submodel\_type Dynamic\_clamp

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[GND Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.500E+00	-3.850170E-03	-3.790770E-03	-2.979160E-03
-1.475E+00	-3.981620E-03	-3.940800E-03	-3.104490E-03
-1.425E+00	-4.246010E-03	-4.246760E-03	-3.357940E-03
-1.375E+00	-4.511190E-03	-4.558280E-03	-3.613400E-03
-1.325E+00	-4.775980E-03	-4.873060E-03	-3.869300E-03
-1.275E+00	-5.039350E-03	-5.189310E-03	-4.124500E-03
-1.225E+00	-5.300450E-03	-5.505680E-03	-4.378130E-03
-1.175E+00	-5.558490E-03	-5.821130E-03	-4.629460E-03
-1.125E+00	-5.812610E-03	-6.134830E-03	-4.877810E-03
-1.075E+00	-6.061930E-03	-6.446050E-03	-5.122470E-03
-1.025E+00	-6.305380E-03	-6.754100E-03	-5.362620E-03
-9.750E-01	-6.541650E-03	-7.058220E-03	-5.597260E-03

-9.250E-01	-6.769070E-03	-7.357420E-03	-5.825140E-03
-8.750E-01	-6.985400E-03	-7.650020E-03	-6.044610E-03
-8.250E-01	-7.187480E-03	-7.932910E-03	-6.253420E-03
-7.750E-01	-7.370670E-03	-8.200010E-03	-6.448430E-03
-7.250E-01	-7.527830E-03	-8.440029E-03	-6.625050E-03
-6.750E-01	-7.647716E-03	-8.633960E-03	-6.776360E-03
-6.250E-01	-7.713193E-03	-8.753182E-03	-6.891473E-03
-5.750E-01	-7.700938E-03	-8.758860E-03	-6.952597E-03
-5.250E-01	-7.585022E-03	-8.604987E-03	-6.930431E-03
-4.750E-01	-7.341418E-03	-8.246684E-03	-6.781040E-03
-4.250E-01	-6.942107E-03	-7.657745E-03	-6.458910E-03
-3.750E-01	-6.355126E-03	-6.871096E-03	-5.951386E-03
-3.250E-01	-5.598756E-03	-5.979134E-03	-5.280130E-03
-2.750E-01	-4.756359E-03	-5.054449E-03	-4.500536E-03
-2.250E-01	-3.890298E-03	-4.125087E-03	-3.685760E-03
-1.750E-01	-3.021363E-03	-3.198655E-03	-2.865882E-03
-1.250E-01	-2.154274E-03	-2.277173E-03	-2.046087E-03
-7.500E-02	-1.290078E-03	-1.361445E-03	-1.227021E-03
-2.500E-02	-4.291505E-04	-4.520875E-04	-4.087885E-04
0.000E+00	-1.662900E-09	-1.900000E-10	-2.885400E-09
2.500E-02	4.281164E-04	4.501341E-04	4.084782E-04
7.500E-02	1.280804E-03	1.343893E-03	1.224272E-03
1.250E-01	2.128524E-03	2.228404E-03	2.038455E-03
1.750E-01	2.970967E-03	3.102920E-03	2.850967E-03
2.250E-01	3.807794E-03	3.966610E-03	3.661742E-03
2.750E-01	4.638632E-03	4.818541E-03	4.470710E-03
3.250E-01	5.463065E-03	5.657654E-03	5.277799E-03
3.750E-01	6.280633E-03	6.482741E-03	6.082930E-03
4.250E-01	7.090820E-03	7.292415E-03	6.886024E-03
4.750E-01	7.893049E-03	8.085069E-03	7.686991E-03
5.250E-01	8.686678E-03	8.858834E-03	8.485741E-03
5.750E-01	9.470980E-03	9.611549E-03	9.282175E-03
6.250E-01	1.024514E-02	1.034080E-02	1.007618E-02
6.750E-01	1.100829E-02	1.104419E-02	1.086767E-02
7.250E-01	1.175951E-02	1.171989E-02	1.165648E-02
7.750E-01	1.249797E-02	1.236725E-02	1.244251E-02
8.250E-01	1.322324E-02	1.298632E-02	1.322561E-02
8.750E-01	1.393550E-02	1.357658E-02	1.400563E-02
9.250E-01	1.463541E-02	1.413620E-02	1.478240E-02
9.750E-01	1.532370E-02	1.466194E-02	1.555573E-02
1.025E+00	1.600071E-02	1.514971E-02	1.632543E-02
1.075E+00	1.666629E-02	1.559548E-02	1.709129E-02
1.125E+00	1.731987E-02	1.599667E-02	1.785305E-02
1.175E+00	1.796050E-02	1.635353E-02	1.861045E-02
1.225E+00	1.858689E-02	1.666959E-02	1.936320E-02
1.275E+00	1.919740E-02	1.695083E-02	2.011096E-02
1.325E+00	1.979002E-02	1.720407E-02	2.085336E-02
1.375E+00	2.036237E-02	1.743564E-02	2.158997E-02
1.425E+00	2.091168E-02	1.765076E-02	2.232031E-02
1.475E+00	2.143489E-02	1.785343E-02	2.304385E-02
1.525E+00	2.192895E-02	1.804663E-02	2.375996E-02
1.575E+00	2.239116E-02	1.823258E-02	2.446789E-02
1.625E+00	2.281990E-02	1.841288E-02	2.516680E-02
1.675E+00	2.321512E-02	1.858877E-02	2.585572E-02

1.725E+00	2.357855E-02	1.876113E-02	2.653350E-02
1.775E+00	2.391347E-02	1.893065E-02	2.719877E-02
1.825E+00	2.422401E-02	1.909783E-02	2.784996E-02
1.875E+00	2.451439E-02	1.926313E-02	2.848525E-02
1.925E+00	2.478853E-02	1.942684E-02	2.910258E-02
1.975E+00	2.504971E-02	1.958923E-02	2.969965E-02
2.025E+00	2.530062E-02	1.975049E-02	3.027408E-02
2.075E+00	2.554334E-02	1.991082E-02	3.082358E-02
2.125E+00	2.577952E-02	2.007036E-02	3.134623E-02
2.175E+00	2.601045E-02	2.022921E-02	3.184079E-02
2.225E+00	2.623712E-02	2.038750E-02	3.230706E-02
2.275E+00	2.646030E-02	2.054532E-02	3.274590E-02
2.325E+00	2.668060E-02	2.070275E-02	3.315924E-02
2.375E+00	2.689853E-02	2.085989E-02	3.354967E-02
2.425E+00	2.711447E-02	2.101680E-02	3.392017E-02
2.475E+00	2.732876E-02	2.117361E-02	3.427367E-02
2.525E+00	2.754168E-02	2.133037E-02	3.461293E-02
2.575E+00	2.775344E-02	2.148721E-02	3.494035E-02
2.625E+00	2.796425E-02	2.164424E-02	3.525793E-02
2.675E+00	2.817427E-02	2.180161E-02	3.556740E-02
2.725E+00	2.838368E-02	2.195945E-02	3.587011E-02
2.775E+00	2.859261E-02	2.211796E-02	3.616718E-02
2.825E+00	2.880118E-02	2.227734E-02	3.645953E-02
2.875E+00	2.900953E-02	2.243784E-02	3.674790E-02
2.925E+00	2.921777E-02	2.259973E-02	3.703289E-02
2.975E+00	2.942603E-02	2.276333E-02	3.731502E-02
3.000E+00	2.953020E-02	2.284587E-02	3.745512E-02

[POWER Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.500E+00	9.229620E-03	9.993300E-03	8.968820E-03
-1.475E+00	9.245770E-03	1.006878E-02	8.978910E-03
-1.425E+00	9.259870E-03	1.019218E-02	8.992340E-03
-1.375E+00	9.255580E-03	1.027545E-02	8.999310E-03
-1.325E+00	9.241390E-03	1.031812E-02	9.001180E-03
-1.275E+00	9.224850E-03	1.032513E-02	8.997810E-03
-1.225E+00	9.209890E-03	1.030650E-02	8.988480E-03
-1.175E+00	9.196240E-03	1.027548E-02	8.972500E-03
-1.125E+00	9.181270E-03	1.024479E-02	8.949360E-03
-1.075E+00	9.162270E-03	1.022184E-02	8.918680E-03
-1.025E+00	9.137470E-03	1.020632E-02	8.880200E-03
-9.750E-01	9.105920E-03	1.019363E-02	8.833590E-03
-9.250E-01	9.067210E-03	1.017952E-02	8.778510E-03
-8.750E-01	9.021120E-03	1.016167E-02	8.714410E-03
-8.250E-01	8.967320E-03	1.013911E-02	8.640530E-03
-7.750E-01	8.905120E-03	1.011097E-02	8.555690E-03
-7.250E-01	8.833163E-03	1.007430E-02	8.458080E-03
-6.750E-01	8.748744E-03	1.001975E-02	8.344837E-03
-6.250E-01	8.646313E-03	9.923936E-03	8.211309E-03
-5.750E-01	8.513309E-03	9.741858E-03	8.049624E-03
-5.250E-01	8.320125E-03	9.407495E-03	7.845843E-03
-4.750E-01	8.007645E-03	8.857111E-03	7.572989E-03
-4.250E-01	7.501480E-03	8.090453E-03	7.175477E-03

-3.750E-01	6.784800E-03	7.190000E-03	6.573099E-03
-3.250E-01	5.934480E-03	6.236832E-03	5.779601E-03
-2.750E-01	5.032054E-03	5.269478E-03	4.906397E-03
-2.250E-01	4.115403E-03	4.301388E-03	4.015112E-03
-1.750E-01	3.196933E-03	3.336724E-03	3.121462E-03
-1.250E-01	2.280127E-03	2.376759E-03	2.228336E-03
-7.500E-02	1.365910E-03	1.421954E-03	1.336196E-03
-2.500E-02	4.545589E-04	4.725783E-04	4.451254E-04
0.000E+00	7.485000E-10	2.671400E-10	1.748500E-09
2.500E-02	-4.533424E-04	-4.705120E-04	-4.445405E-04
7.500E-02	-1.354911E-03	-1.403268E-03	-1.330916E-03
1.250E-01	-2.249422E-03	-2.324576E-03	-2.213558E-03
1.750E-01	-3.136580E-03	-3.233895E-03	-3.092314E-03
2.250E-01	-4.016074E-03	-4.130652E-03	-3.967021E-03
2.750E-01	-4.887574E-03	-5.014234E-03	-4.837510E-03
3.250E-01	-5.750731E-03	-5.883980E-03	-5.703600E-03
3.750E-01	-6.605174E-03	-6.739191E-03	-6.565103E-03
4.250E-01	-7.450513E-03	-7.579109E-03	-7.421813E-03
4.750E-01	-8.286330E-03	-8.402925E-03	-8.273522E-03
5.250E-01	-9.112184E-03	-9.209766E-03	-9.120002E-03
5.750E-01	-9.927605E-03	-9.998697E-03	-9.961016E-03
6.250E-01	-1.073209E-02	-1.076871E-02	-1.079632E-02
6.750E-01	-1.152512E-02	-1.151871E-02	-1.162563E-02
7.250E-01	-1.230614E-02	-1.224757E-02	-1.244868E-02
7.750E-01	-1.307453E-02	-1.295403E-02	-1.326517E-02
8.250E-01	-1.382970E-02	-1.363681E-02	-1.407481E-02
8.750E-01	-1.457099E-02	-1.429464E-02	-1.487726E-02
9.250E-01	-1.529775E-02	-1.492631E-02	-1.567219E-02
9.750E-01	-1.600938E-02	-1.553084E-02	-1.645930E-02
1.025E+00	-1.670534E-02	-1.610756E-02	-1.723832E-02
1.075E+00	-1.738528E-02	-1.665605E-02	-1.800901E-02
1.125E+00	-1.804903E-02	-1.717586E-02	-1.877125E-02
1.175E+00	-1.869662E-02	-1.766621E-02	-1.952498E-02
1.225E+00	-1.932802E-02	-1.812594E-02	-2.027013E-02
1.275E+00	-1.994301E-02	-1.855365E-02	-2.100651E-02
1.325E+00	-2.054109E-02	-1.894808E-02	-2.173386E-02
1.375E+00	-2.112148E-02	-1.930866E-02	-2.245179E-02
1.425E+00	-2.168317E-02	-1.963619E-02	-2.315981E-02
1.475E+00	-2.222491E-02	-1.993326E-02	-2.385733E-02
1.525E+00	-2.274524E-02	-2.020408E-02	-2.454366E-02
1.575E+00	-2.324255E-02	-2.045347E-02	-2.521805E-02
1.625E+00	-2.371510E-02	-2.068597E-02	-2.587958E-02
1.675E+00	-2.416115E-02	-2.090526E-02	-2.652726E-02
1.725E+00	-2.457920E-02	-2.111417E-02	-2.715997E-02
1.775E+00	-2.496830E-02	-2.131479E-02	-2.777643E-02
1.825E+00	-2.532852E-02	-2.150868E-02	-2.837517E-02
1.875E+00	-2.566126E-02	-2.169701E-02	-2.895458E-02
1.925E+00	-2.596923E-02	-2.188070E-02	-2.951288E-02
1.975E+00	-2.625594E-02	-2.206048E-02	-3.004807E-02
2.025E+00	-2.652503E-02	-2.223688E-02	-3.055812E-02
2.075E+00	-2.677977E-02	-2.241038E-02	-3.104106E-02
2.125E+00	-2.702285E-02	-2.258135E-02	-3.149527E-02
2.175E+00	-2.725642E-02	-2.275010E-02	-3.191991E-02
2.225E+00	-2.748213E-02	-2.291690E-02	-3.231530E-02



2.275E+00	-2.770128E-02	-2.308196E-02	-3.268311E-02
2.325E+00	-2.791490E-02	-2.324548E-02	-3.302609E-02
2.375E+00	-2.812381E-02	-2.340761E-02	-3.334760E-02
2.425E+00	-2.832867E-02	-2.356850E-02	-3.365100E-02
2.475E+00	-2.853000E-02	-2.372828E-02	-3.393935E-02
2.525E+00	-2.872827E-02	-2.388705E-02	-3.421526E-02
2.575E+00	-2.892382E-02	-2.404489E-02	-3.448083E-02
2.625E+00	-2.911699E-02	-2.420191E-02	-3.473780E-02
2.675E+00	-2.930802E-02	-2.435818E-02	-3.498750E-02
2.725E+00	-2.949715E-02	-2.451376E-02	-3.523107E-02
2.775E+00	-2.968457E-02	-2.466871E-02	-3.546939E-02
2.825E+00	-2.987045E-02	-2.482309E-02	-3.570319E-02
2.875E+00	-3.005493E-02	-2.497696E-02	-3.593306E-02
2.925E+00	-3.023816E-02	-2.513036E-02	-3.615951E-02
2.975E+00	-3.042024E-02	-2.528332E-02	-3.638294E-02
3.000E+00	-3.051088E-02	-2.535966E-02	-3.649364E-02

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[Submodel] 40Ohm\_ODT  
Submodel\_type Dynamic\_clamp

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[GND Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.500E+00	-2.861500E-03	-2.804580E-03	-2.205370E-03
-1.475E+00	-2.963050E-03	-2.919850E-03	-2.301300E-03
-1.425E+00	-3.167710E-03	-3.155850E-03	-2.495830E-03
-1.375E+00	-3.373370E-03	-3.397080E-03	-2.692370E-03
-1.325E+00	-3.578980E-03	-3.641480E-03	-2.889560E-03
-1.275E+00	-3.783660E-03	-3.887440E-03	-3.086400E-03
-1.225E+00	-3.986690E-03	-4.133720E-03	-3.282160E-03
-1.175E+00	-4.187400E-03	-4.379360E-03	-3.476230E-03
-1.125E+00	-4.385100E-03	-4.623630E-03	-3.668060E-03
-1.075E+00	-4.579070E-03	-4.865850E-03	-3.857080E-03
-1.025E+00	-4.768450E-03	-5.105400E-03	-4.042660E-03
-9.750E-01	-4.952210E-03	-5.341620E-03	-4.224030E-03
-9.250E-01	-5.129020E-03	-5.573620E-03	-4.400230E-03
-8.750E-01	-5.297090E-03	-5.800070E-03	-4.569980E-03
-8.250E-01	-5.453970E-03	-6.018570E-03	-4.731540E-03
-7.750E-01	-5.596020E-03	-6.224550E-03	-4.882500E-03
-7.250E-01	-5.717720E-03	-6.409509E-03	-5.019330E-03
-6.750E-01	-5.810456E-03	-6.559030E-03	-5.136670E-03
-6.250E-01	-5.861093E-03	-6.651192E-03	-5.226133E-03
-5.750E-01	-5.851648E-03	-6.656440E-03	-5.273927E-03
-5.250E-01	-5.762104E-03	-6.539854E-03	-5.257438E-03
-4.750E-01	-5.574465E-03	-6.267413E-03	-5.142796E-03
-4.250E-01	-5.268730E-03	-5.819408E-03	-4.895370E-03
-3.750E-01	-4.821742E-03	-5.221175E-03	-4.506593E-03
-3.250E-01	-4.247238E-03	-4.543058E-03	-3.994722E-03
-2.750E-01	-3.607934E-03	-3.840199E-03	-3.403411E-03
-2.250E-01	-2.950848E-03	-3.133883E-03	-2.786989E-03

-1.750E-01	-2.291658E-03	-2.429883E-03	-2.166996E-03
-1.250E-01	-1.633920E-03	-1.729735E-03	-1.547106E-03
-7.500E-02	-9.784250E-04	-1.034063E-03	-9.277782E-04
-2.500E-02	-3.254630E-04	-3.433432E-04	-3.090916E-04
0.000E+00	-1.261100E-09	-1.443000E-10	-2.181700E-09
2.500E-02	3.246612E-04	3.418222E-04	3.088532E-04
7.500E-02	9.712341E-04	1.020397E-03	9.256653E-04
1.250E-01	1.613952E-03	1.691764E-03	1.541241E-03
1.750E-01	2.252573E-03	2.355337E-03	2.155529E-03
2.250E-01	2.886833E-03	3.010463E-03	2.768482E-03
2.750E-01	3.516438E-03	3.656408E-03	3.380046E-03
3.250E-01	4.141061E-03	4.292337E-03	3.990162E-03
3.750E-01	4.760342E-03	4.917298E-03	4.598772E-03
4.250E-01	5.373875E-03	5.530198E-03	5.205813E-03
4.750E-01	5.981207E-03	6.129763E-03	5.811215E-03
5.250E-01	6.581831E-03	6.714519E-03	6.414908E-03
5.750E-01	7.175175E-03	7.282761E-03	7.016817E-03
6.250E-01	7.760604E-03	7.832602E-03	7.616856E-03
6.750E-01	8.337424E-03	8.362218E-03	8.214940E-03
7.250E-01	8.904927E-03	8.870342E-03	8.810973E-03
7.750E-01	9.462512E-03	9.356614E-03	9.404853E-03
8.250E-01	1.000991E-02	9.821091E-03	9.996470E-03
8.750E-01	1.054734E-02	1.026325E-02	1.058571E-02
9.250E-01	1.107537E-02	1.068149E-02	1.117243E-02
9.750E-01	1.159452E-02	1.107316E-02	1.175649E-02
1.025E+00	1.210498E-02	1.143510E-02	1.233774E-02
1.075E+00	1.260659E-02	1.176440E-02	1.291601E-02
1.125E+00	1.309883E-02	1.205951E-02	1.349111E-02
1.175E+00	1.358091E-02	1.232126E-02	1.406282E-02
1.225E+00	1.405177E-02	1.255289E-02	1.463091E-02
1.275E+00	1.451009E-02	1.275927E-02	1.519514E-02
1.325E+00	1.495426E-02	1.294560E-02	1.575518E-02
1.375E+00	1.538236E-02	1.311655E-02	1.631072E-02
1.425E+00	1.579220E-02	1.327584E-02	1.686137E-02
1.475E+00	1.618141E-02	1.342634E-02	1.740670E-02
1.525E+00	1.654771E-02	1.357014E-02	1.794622E-02
1.575E+00	1.688924E-02	1.370879E-02	1.847932E-02
1.625E+00	1.720508E-02	1.384344E-02	1.900535E-02
1.675E+00	1.749564E-02	1.397494E-02	1.952352E-02
1.725E+00	1.776266E-02	1.410392E-02	2.003292E-02
1.775E+00	1.800893E-02	1.423087E-02	2.053244E-02
1.825E+00	1.823769E-02	1.435614E-02	2.102083E-02
1.875E+00	1.845214E-02	1.448006E-02	2.149665E-02
1.925E+00	1.865510E-02	1.460284E-02	2.195827E-02
1.975E+00	1.884895E-02	1.472466E-02	2.240390E-02
2.025E+00	1.903558E-02	1.484568E-02	2.283172E-02
2.075E+00	1.921645E-02	1.496601E-02	2.324006E-02
2.125E+00	1.939271E-02	1.508578E-02	2.362757E-02
2.175E+00	1.956528E-02	1.520505E-02	2.399357E-02
2.225E+00	1.973483E-02	1.532392E-02	2.433816E-02
2.275E+00	1.990191E-02	1.544246E-02	2.466231E-02
2.325E+00	2.006696E-02	1.556072E-02	2.496768E-02
2.375E+00	2.023032E-02	1.567877E-02	2.525640E-02
2.425E+00	2.039226E-02	1.579668E-02	2.553075E-02

2.475E+00	2.055304E-02	1.591452E-02	2.579295E-02
2.525E+00	2.071285E-02	1.603236E-02	2.604500E-02
2.575E+00	2.087183E-02	1.615028E-02	2.628865E-02
2.625E+00	2.103014E-02	1.626837E-02	2.652532E-02
2.675E+00	2.118791E-02	1.638675E-02	2.675623E-02
2.725E+00	2.134524E-02	1.650552E-02	2.698235E-02
2.775E+00	2.150226E-02	1.662485E-02	2.720447E-02
2.825E+00	2.165904E-02	1.674488E-02	2.742324E-02
2.875E+00	2.181568E-02	1.686582E-02	2.763916E-02
2.925E+00	2.197227E-02	1.698789E-02	2.785268E-02
2.975E+00	2.212892E-02	1.711132E-02	2.806414E-02
3.000E+00	2.220729E-02	1.717362E-02	2.816919E-02

[POWER Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.500E+00	7.020230E-03	7.582880E-03	6.806140E-03
-1.475E+00	7.035720E-03	7.645240E-03	6.814850E-03
-1.425E+00	7.051540E-03	7.749320E-03	6.826430E-03
-1.375E+00	7.051200E-03	7.822620E-03	6.832520E-03
-1.325E+00	7.041240E-03	7.863600E-03	6.834530E-03
-1.275E+00	7.028120E-03	7.874930E-03	6.832510E-03
-1.225E+00	7.015810E-03	7.863680E-03	6.825970E-03
-1.175E+00	7.004790E-03	7.840110E-03	6.814340E-03
-1.125E+00	6.993160E-03	7.814880E-03	6.797180E-03
-1.075E+00	6.978700E-03	7.795070E-03	6.774200E-03
-1.025E+00	6.959840E-03	7.781400E-03	6.745170E-03
-9.750E-01	6.935720E-03	7.770420E-03	6.709860E-03
-9.250E-01	6.905950E-03	7.758460E-03	6.667980E-03
-8.750E-01	6.870310E-03	7.743370E-03	6.619130E-03
-8.250E-01	6.828490E-03	7.724170E-03	6.562720E-03
-7.750E-01	6.779940E-03	7.700061E-03	6.497830E-03
-7.250E-01	6.723493E-03	7.668886E-03	6.423070E-03
-6.750E-01	6.656994E-03	7.624008E-03	6.336207E-03
-6.250E-01	6.576103E-03	7.548526E-03	6.233599E-03
-5.750E-01	6.471389E-03	7.408743E-03	6.109104E-03
-5.250E-01	6.321116E-03	7.154004E-03	5.951822E-03
-4.750E-01	6.081331E-03	6.735082E-03	5.740973E-03
-4.250E-01	5.695627E-03	6.151592E-03	5.435020E-03
-3.750E-01	5.150730E-03	5.466453E-03	4.975614E-03
-3.250E-01	4.504782E-03	4.741400E-03	4.373850E-03
-2.750E-01	3.819532E-03	4.005703E-03	3.712757E-03
-2.250E-01	3.123618E-03	3.269558E-03	3.038233E-03
-1.750E-01	2.426398E-03	2.536120E-03	2.361978E-03
-1.250E-01	1.730498E-03	1.806355E-03	1.686140E-03
-7.500E-02	1.036615E-03	1.080615E-03	1.011063E-03
-2.500E-02	3.449600E-04	3.591082E-04	3.368107E-04
0.000E+00	5.680000E-10	2.030200E-10	1.323000E-09
2.500E-02	-3.440148E-04	-3.574966E-04	-3.363603E-04
7.500E-02	-1.028069E-03	-1.066040E-03	-1.006996E-03
1.250E-01	-1.706639E-03	-1.765653E-03	-1.674757E-03
1.750E-01	-2.379491E-03	-2.455913E-03	-2.339522E-03
2.250E-01	-3.046386E-03	-3.136371E-03	-3.001167E-03
2.750E-01	-3.707064E-03	-3.806546E-03	-3.659559E-03

3.250E-01	-4.361253E-03	-4.465924E-03	-4.314559E-03
3.750E-01	-5.008664E-03	-5.113958E-03	-4.966019E-03
4.250E-01	-5.648989E-03	-5.750055E-03	-5.613782E-03
4.750E-01	-6.281905E-03	-6.373584E-03	-6.257685E-03
5.250E-01	-6.907065E-03	-6.983862E-03	-6.897551E-03
5.750E-01	-7.524104E-03	-7.580160E-03	-7.533196E-03
6.250E-01	-8.132631E-03	-8.161691E-03	-8.164426E-03
6.750E-01	-8.732235E-03	-8.727611E-03	-8.791033E-03
7.250E-01	-9.322477E-03	-9.277021E-03	-9.412801E-03
7.750E-01	-9.902897E-03	-9.808967E-03	-1.002950E-02
8.250E-01	-1.047301E-02	-1.032247E-02	-1.064090E-02
8.750E-01	-1.103233E-02	-1.081654E-02	-1.124674E-02
9.250E-01	-1.158033E-02	-1.129030E-02	-1.184677E-02
9.750E-01	-1.211659E-02	-1.174305E-02	-1.244076E-02
1.025E+00	-1.264070E-02	-1.217436E-02	-1.302851E-02
1.075E+00	-1.315243E-02	-1.258393E-02	-1.360984E-02
1.125E+00	-1.365169E-02	-1.297141E-02	-1.418468E-02
1.175E+00	-1.413853E-02	-1.333615E-02	-1.475298E-02
1.225E+00	-1.461289E-02	-1.367722E-02	-1.531468E-02
1.275E+00	-1.507459E-02	-1.399357E-02	-1.586963E-02
1.325E+00	-1.552315E-02	-1.428437E-02	-1.641760E-02
1.375E+00	-1.595796E-02	-1.454942E-02	-1.695827E-02
1.425E+00	-1.637819E-02	-1.478973E-02	-1.749125E-02
1.475E+00	-1.678283E-02	-1.500767E-02	-1.801609E-02
1.525E+00	-1.717075E-02	-1.520669E-02	-1.853222E-02
1.575E+00	-1.754067E-02	-1.539048E-02	-1.903906E-02
1.625E+00	-1.789127E-02	-1.556233E-02	-1.953587E-02
1.675E+00	-1.822127E-02	-1.572486E-02	-2.002189E-02
1.725E+00	-1.852963E-02	-1.588003E-02	-2.049621E-02
1.775E+00	-1.881586E-02	-1.602932E-02	-2.095783E-02
1.825E+00	-1.908035E-02	-1.617381E-02	-2.140560E-02
1.875E+00	-1.932454E-02	-1.631432E-02	-2.183824E-02
1.925E+00	-1.955076E-02	-1.645150E-02	-2.225435E-02
1.975E+00	-1.976180E-02	-1.658586E-02	-2.265240E-02
2.025E+00	-1.996037E-02	-1.671778E-02	-2.303085E-02
2.075E+00	-2.014882E-02	-1.684760E-02	-2.338825E-02
2.125E+00	-2.032904E-02	-1.697559E-02	-2.372353E-02
2.175E+00	-2.050254E-02	-1.710197E-02	-2.403632E-02
2.225E+00	-2.067047E-02	-1.722693E-02	-2.432719E-02
2.275E+00	-2.083373E-02	-1.735062E-02	-2.459774E-02
2.325E+00	-2.099306E-02	-1.747319E-02	-2.485028E-02
2.375E+00	-2.114901E-02	-1.759476E-02	-2.508741E-02
2.425E+00	-2.130205E-02	-1.771541E-02	-2.531164E-02
2.475E+00	-2.145256E-02	-1.783525E-02	-2.552517E-02
2.525E+00	-2.160086E-02	-1.795436E-02	-2.572989E-02
2.575E+00	-2.174720E-02	-1.807279E-02	-2.592724E-02
2.625E+00	-2.189182E-02	-1.819062E-02	-2.611848E-02
2.675E+00	-2.203490E-02	-1.830789E-02	-2.630454E-02
2.725E+00	-2.217659E-02	-1.842467E-02	-2.648622E-02
2.775E+00	-2.231704E-02	-1.854098E-02	-2.666414E-02
2.825E+00	-2.245638E-02	-1.865689E-02	-2.683881E-02
2.875E+00	-2.259469E-02	-1.877241E-02	-2.701066E-02
2.925E+00	-2.273210E-02	-1.888759E-02	-2.718004E-02
2.975E+00	-2.286868E-02	-1.900246E-02	-2.734724E-02

3.000E+00 -2.293667E-02 -1.905978E-02 -2.743011E-02

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[Submodel] 60Ohm\_ODT  
Submodel\_type Dynamic\_clamp

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[GND Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.500E+00	-1.910640E-03	-1.874310E-03	-1.474020E-03
-1.475E+00	-1.977870E-03	-1.950700E-03	-1.537670E-03
-1.425E+00	-2.113290E-03	-2.106960E-03	-1.666650E-03
-1.375E+00	-2.249310E-03	-2.266540E-03	-1.796890E-03
-1.325E+00	-2.385280E-03	-2.428120E-03	-1.927520E-03
-1.275E+00	-2.520600E-03	-2.590670E-03	-2.057890E-03
-1.225E+00	-2.654830E-03	-2.753410E-03	-2.187530E-03
-1.175E+00	-2.787510E-03	-2.915720E-03	-2.316030E-03
-1.125E+00	-2.918200E-03	-3.077120E-03	-2.443060E-03
-1.075E+00	-3.046440E-03	-3.237200E-03	-2.568220E-03
-1.025E+00	-3.171660E-03	-3.395540E-03	-2.691100E-03
-9.750E-01	-3.293180E-03	-3.551730E-03	-2.811200E-03
-9.250E-01	-3.410140E-03	-3.705200E-03	-2.927860E-03
-8.750E-01	-3.521360E-03	-3.855100E-03	-3.040270E-03
-8.250E-01	-3.625230E-03	-3.999830E-03	-3.147270E-03
-7.750E-01	-3.719370E-03	-4.136420E-03	-3.247260E-03
-7.250E-01	-3.800150E-03	-4.259269E-03	-3.337920E-03
-6.750E-01	-3.861896E-03	-4.358870E-03	-3.415710E-03
-6.250E-01	-3.895953E-03	-4.420799E-03	-3.475113E-03
-5.750E-01	-3.890430E-03	-4.425489E-03	-3.507067E-03
-5.250E-01	-3.832037E-03	-4.349688E-03	-3.496628E-03
-4.750E-01	-3.708701E-03	-4.170558E-03	-3.421410E-03
-4.250E-01	-3.506921E-03	-3.874426E-03	-3.258226E-03
-3.750E-01	-3.210885E-03	-3.477359E-03	-3.000911E-03
-3.250E-01	-2.829155E-03	-3.026162E-03	-2.661181E-03
-2.750E-01	-2.403563E-03	-2.558093E-03	-2.267716E-03
-2.250E-01	-1.965874E-03	-2.087618E-03	-1.857065E-03
-1.750E-01	-1.526728E-03	-1.618663E-03	-1.443951E-03
-1.250E-01	-1.088539E-03	-1.152267E-03	-1.030896E-03
-7.500E-02	-6.518416E-04	-6.888466E-04	-6.182144E-04
-2.500E-02	-2.168290E-04	-2.287213E-04	-2.059597E-04
0.000E+00	-8.401000E-10	-9.610000E-11	-1.453700E-09
2.500E-02	2.162956E-04	2.277097E-04	2.058010E-04
7.500E-02	6.470573E-04	6.797567E-04	6.168078E-04
1.250E-01	1.075255E-03	1.127010E-03	1.026992E-03
1.750E-01	1.500726E-03	1.569080E-03	1.436318E-03
2.250E-01	1.923296E-03	2.005532E-03	1.844756E-03
2.750E-01	2.342770E-03	2.435878E-03	2.252270E-03
3.250E-01	2.758930E-03	2.859563E-03	2.658820E-03
3.750E-01	3.171537E-03	3.275955E-03	3.064366E-03
4.250E-01	3.580320E-03	3.684327E-03	3.468869E-03
4.750E-01	3.984978E-03	4.083833E-03	3.872281E-03

5.250E-01	4.385176E-03	4.473492E-03	4.274556E-03
5.750E-01	4.780531E-03	4.852172E-03	4.675643E-03
6.250E-01	5.170623E-03	5.218618E-03	5.075486E-03
6.750E-01	5.554991E-03	5.571614E-03	5.474027E-03
7.250E-01	5.933161E-03	5.910312E-03	5.871204E-03
7.750E-01	6.304734E-03	6.234466E-03	6.266947E-03
8.250E-01	6.669527E-03	6.544113E-03	6.661185E-03
8.750E-01	7.027684E-03	6.838913E-03	7.053836E-03
9.250E-01	7.379577E-03	7.117798E-03	7.444816E-03
9.750E-01	7.725557E-03	7.379029E-03	7.834027E-03
1.025E+00	8.065760E-03	7.620488E-03	8.221368E-03
1.075E+00	8.400068E-03	7.840230E-03	8.606724E-03
1.125E+00	8.728146E-03	8.037209E-03	8.989969E-03
1.175E+00	9.049470E-03	8.211939E-03	9.370964E-03
1.225E+00	9.363339E-03	8.366575E-03	9.749552E-03
1.275E+00	9.668873E-03	8.504341E-03	1.012557E-02
1.325E+00	9.965002E-03	8.628707E-03	1.049880E-02
1.375E+00	1.025046E-02	8.742776E-03	1.086903E-02
1.425E+00	1.052378E-02	8.849052E-03	1.123601E-02
1.475E+00	1.078338E-02	8.949439E-03	1.159946E-02
1.525E+00	1.102777E-02	9.045347E-03	1.195904E-02
1.575E+00	1.125566E-02	9.137815E-03	1.231436E-02
1.625E+00	1.146646E-02	9.227607E-03	1.266497E-02
1.675E+00	1.166040E-02	9.315287E-03	1.301036E-02
1.725E+00	1.183864E-02	9.401284E-03	1.334992E-02
1.775E+00	1.200301E-02	9.485920E-03	1.368292E-02
1.825E+00	1.215568E-02	9.569447E-03	1.400851E-02
1.875E+00	1.229877E-02	9.652058E-03	1.432576E-02
1.925E+00	1.243419E-02	9.733907E-03	1.463357E-02
1.975E+00	1.256350E-02	9.815116E-03	1.493075E-02
2.025E+00	1.268797E-02	9.895799E-03	1.521608E-02
2.075E+00	1.280860E-02	9.976019E-03	1.548847E-02
2.125E+00	1.292614E-02	1.005586E-02	1.574700E-02
2.175E+00	1.304121E-02	1.013537E-02	1.599119E-02
2.225E+00	1.315426E-02	1.021461E-02	1.622113E-02
2.275E+00	1.326566E-02	1.029363E-02	1.643743E-02
2.325E+00	1.337570E-02	1.037245E-02	1.664119E-02
2.375E+00	1.348461E-02	1.045115E-02	1.683383E-02
2.425E+00	1.359257E-02	1.052975E-02	1.701687E-02
2.475E+00	1.369975E-02	1.060830E-02	1.719178E-02
2.525E+00	1.380629E-02	1.068685E-02	1.735991E-02
2.575E+00	1.391227E-02	1.076545E-02	1.752242E-02
2.625E+00	1.401780E-02	1.084416E-02	1.768025E-02
2.675E+00	1.412296E-02	1.092307E-02	1.783424E-02
2.725E+00	1.422784E-02	1.100224E-02	1.798502E-02
2.775E+00	1.433251E-02	1.108177E-02	1.813313E-02
2.825E+00	1.443701E-02	1.116176E-02	1.827899E-02
2.875E+00	1.454142E-02	1.124237E-02	1.842295E-02
2.925E+00	1.464580E-02	1.132372E-02	1.856530E-02
2.975E+00	1.475022E-02	1.140598E-02	1.870629E-02
3.000E+00	1.480245E-02	1.144750E-02	1.877632E-02

[POWER Clamp]

Voltage	I(typ)	I(min)	I(max)
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-1.500E+00	4.665510E-03	5.040820E-03	4.525590E-03
-1.475E+00	4.675440E-03	5.081710E-03	4.531250E-03
-1.425E+00	4.685360E-03	5.149800E-03	4.538790E-03
-1.375E+00	4.684790E-03	5.197480E-03	4.542750E-03
-1.325E+00	4.678060E-03	5.223860E-03	4.544030E-03
-1.275E+00	4.669400E-03	5.230810E-03	4.542650E-03
-1.225E+00	4.661330E-03	5.223060E-03	4.538270E-03
-1.175E+00	4.654110E-03	5.207400E-03	4.530510E-03
-1.125E+00	4.646450E-03	5.190830E-03	4.519090E-03
-1.075E+00	4.636900E-03	5.177910E-03	4.503820E-03
-1.025E+00	4.624420E-03	5.169050E-03	4.484550E-03
-9.750E-01	4.608470E-03	5.161950E-03	4.461120E-03
-9.250E-01	4.588800E-03	5.154230E-03	4.433340E-03
-8.750E-01	4.565270E-03	5.144470E-03	4.400950E-03
-8.250E-01	4.537680E-03	5.132060E-03	4.363550E-03
-7.750E-01	4.505670E-03	5.116521E-03	4.320560E-03
-7.250E-01	4.468513E-03	5.096416E-03	4.271030E-03
-6.750E-01	4.424784E-03	5.067398E-03	4.213527E-03
-6.250E-01	4.371653E-03	5.018286E-03	4.145629E-03
-5.750E-01	4.302950E-03	4.926836E-03	4.063312E-03
-5.250E-01	4.204279E-03	4.759499E-03	3.959423E-03
-4.750E-01	4.046477E-03	4.483135E-03	3.820284E-03
-4.250E-01	3.791731E-03	4.096431E-03	3.618328E-03
-3.750E-01	3.430353E-03	3.640923E-03	3.314115E-03
-3.250E-01	3.000732E-03	3.158239E-03	2.914066E-03
-2.750E-01	2.544442E-03	2.668262E-03	2.473795E-03
-2.250E-01	2.080891E-03	2.177927E-03	2.024392E-03
-1.750E-01	1.616429E-03	1.689378E-03	1.573804E-03
-1.250E-01	1.152835E-03	1.203268E-03	1.123490E-03
-7.500E-02	6.905811E-04	7.198335E-04	6.736807E-04
-2.500E-02	2.298090E-04	2.392151E-04	2.244202E-04
0.000E+00	3.784000E-10	1.352300E-10	8.816000E-10
2.500E-02	-2.291802E-04	-2.381432E-04	-2.241204E-04
7.500E-02	-6.848962E-04	-7.101405E-04	-6.709740E-04
1.250E-01	-1.136963E-03	-1.176198E-03	-1.115913E-03
1.750E-01	-1.585228E-03	-1.636034E-03	-1.558859E-03
2.250E-01	-2.029529E-03	-2.089352E-03	-1.999728E-03
2.750E-01	-2.469695E-03	-2.535832E-03	-2.438432E-03
3.250E-01	-2.905544E-03	-2.975131E-03	-2.874878E-03
3.750E-01	-3.336884E-03	-3.406885E-03	-3.308969E-03
4.250E-01	-3.763511E-03	-3.830701E-03	-3.740600E-03
4.750E-01	-4.185210E-03	-4.246158E-03	-4.169661E-03
5.250E-01	-4.601750E-03	-4.652802E-03	-4.596036E-03
5.750E-01	-5.012888E-03	-5.050149E-03	-5.019601E-03
6.250E-01	-5.418364E-03	-5.437676E-03	-5.440229E-03
6.750E-01	-5.817905E-03	-5.814820E-03	-5.857781E-03
7.250E-01	-6.211219E-03	-6.180984E-03	-6.272111E-03
7.750E-01	-6.598000E-03	-6.535532E-03	-6.683070E-03
8.250E-01	-6.977927E-03	-6.877812E-03	-7.090497E-03
8.750E-01	-7.350669E-03	-7.207170E-03	-7.494229E-03
9.250E-01	-7.715895E-03	-7.523014E-03	-7.894099E-03
9.750E-01	-8.073295E-03	-7.824879E-03	-8.289946E-03
1.025E+00	-8.422616E-03	-8.112469E-03	-8.681632E-03

1.075E+00	-8.763695E-03	-8.385597E-03	-9.069053E-03
1.125E+00	-9.096485E-03	-8.644017E-03	-9.452154E-03
1.175E+00	-9.420999E-03	-8.887303E-03	-9.830904E-03
1.225E+00	-9.737213E-03	-9.114837E-03	-1.020525E-02
1.275E+00	-1.004499E-02	-9.325920E-03	-1.057511E-02
1.325E+00	-1.034404E-02	-9.519988E-03	-1.094033E-02
1.375E+00	-1.063394E-02	-9.696910E-03	-1.130069E-02
1.425E+00	-1.091413E-02	-9.857329E-03	-1.165593E-02
1.475E+00	-1.118397E-02	-1.000282E-02	-1.200575E-02
1.525E+00	-1.144267E-02	-1.013566E-02	-1.234979E-02
1.575E+00	-1.168942E-02	-1.025831E-02	-1.268764E-02
1.625E+00	-1.192331E-02	-1.037298E-02	-1.301883E-02
1.675E+00	-1.214350E-02	-1.048140E-02	-1.334283E-02
1.725E+00	-1.234928E-02	-1.058491E-02	-1.365905E-02
1.775E+00	-1.254034E-02	-1.068448E-02	-1.396684E-02
1.825E+00	-1.271690E-02	-1.078085E-02	-1.426540E-02
1.875E+00	-1.287990E-02	-1.087455E-02	-1.455391E-02
1.925E+00	-1.303090E-02	-1.096602E-02	-1.483143E-02
1.975E+00	-1.317175E-02	-1.105561E-02	-1.509694E-02
2.025E+00	-1.330425E-02	-1.114357E-02	-1.534941E-02
2.075E+00	-1.342999E-02	-1.123013E-02	-1.558787E-02
2.125E+00	-1.355021E-02	-1.131547E-02	-1.581162E-02
2.175E+00	-1.366595E-02	-1.139973E-02	-1.602037E-02
2.225E+00	-1.377795E-02	-1.148304E-02	-1.621451E-02
2.275E+00	-1.388684E-02	-1.156551E-02	-1.639509E-02
2.325E+00	-1.399309E-02	-1.164722E-02	-1.656364E-02
2.375E+00	-1.409708E-02	-1.172827E-02	-1.672188E-02
2.425E+00	-1.419913E-02	-1.180870E-02	-1.687149E-02
2.475E+00	-1.429949E-02	-1.188860E-02	-1.701395E-02
2.525E+00	-1.439837E-02	-1.196800E-02	-1.715052E-02
2.575E+00	-1.449595E-02	-1.204695E-02	-1.728215E-02
2.625E+00	-1.459237E-02	-1.212550E-02	-1.740971E-02
2.675E+00	-1.468776E-02	-1.220368E-02	-1.753379E-02
2.725E+00	-1.478222E-02	-1.228153E-02	-1.765495E-02
2.775E+00	-1.487586E-02	-1.235906E-02	-1.777360E-02
2.825E+00	-1.496876E-02	-1.243633E-02	-1.789007E-02
2.875E+00	-1.506097E-02	-1.251334E-02	-1.800465E-02
2.925E+00	-1.515257E-02	-1.259012E-02	-1.811759E-02
2.975E+00	-1.524363E-02	-1.266669E-02	-1.822907E-02
3.000E+00	-1.528895E-02	-1.270490E-02	-1.828432E-02

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[Submodel] 120Ohm\_ODT  
Submodel\_type Dynamic\_clamp

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[GND Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.500E+00	-9.508600E-04	-9.302700E-04	-7.313500E-04
-1.475E+00	-9.851900E-04	-9.691500E-04	-7.636400E-04
-1.425E+00	-1.054420E-03	-1.048890E-03	-8.291900E-04



-1.375E+00	-1.124050E-03	-1.130540E-03	-8.954800E-04
-1.325E+00	-1.193710E-03	-1.213360E-03	-9.620400E-04
-1.275E+00	-1.263060E-03	-1.296770E-03	-1.028510E-03
-1.225E+00	-1.331870E-03	-1.380310E-03	-1.094630E-03
-1.175E+00	-1.399900E-03	-1.463650E-03	-1.160190E-03
-1.125E+00	-1.466890E-03	-1.546510E-03	-1.225000E-03
-1.075E+00	-1.532630E-03	-1.628660E-03	-1.288860E-03
-1.025E+00	-1.596790E-03	-1.709860E-03	-1.351560E-03
-9.750E-01	-1.659020E-03	-1.789890E-03	-1.412840E-03
-9.250E-01	-1.718880E-03	-1.868410E-03	-1.472360E-03
-8.750E-01	-1.775730E-03	-1.944970E-03	-1.529710E-03
-8.250E-01	-1.828740E-03	-2.018730E-03	-1.584270E-03
-7.750E-01	-1.876650E-03	-2.088130E-03	-1.635240E-03
-7.250E-01	-1.917570E-03	-2.150249E-03	-1.681420E-03
-6.750E-01	-1.948556E-03	-2.200159E-03	-1.720960E-03
-6.250E-01	-1.965139E-03	-2.230397E-03	-1.751013E-03
-5.750E-01	-1.961214E-03	-2.230954E-03	-1.766866E-03
-5.250E-01	-1.930067E-03	-2.190165E-03	-1.760809E-03
-4.750E-01	-1.865764E-03	-2.096855E-03	-1.721386E-03
-4.250E-01	-1.761810E-03	-1.944982E-03	-1.637144E-03
-3.750E-01	-1.610857E-03	-1.743816E-03	-1.505682E-03
-3.250E-01	-1.418082E-03	-1.516895E-03	-1.333541E-03
-2.750E-01	-1.204371E-03	-1.282106E-03	-1.135695E-03
-2.250E-01	-9.849745E-04	-1.046264E-03	-9.299241E-04
-1.750E-01	-7.649299E-04	-8.112198E-04	-7.230455E-04
-1.250E-01	-5.453806E-04	-5.774687E-04	-5.162102E-04
-7.500E-02	-3.265834E-04	-3.452159E-04	-3.095638E-04
-2.500E-02	-1.086340E-04	-1.146219E-04	-1.031318E-04
0.000E+00	-4.209000E-10	-4.820000E-11	-7.279000E-10
2.500E-02	1.083657E-04	1.141126E-04	1.030521E-04
7.500E-02	3.241767E-04	3.406399E-04	3.088574E-04
1.250E-01	5.386975E-04	5.647535E-04	5.142491E-04
1.750E-01	7.518471E-04	7.862570E-04	7.192110E-04
2.250E-01	9.635366E-04	1.004931E-03	9.237260E-04
2.750E-01	1.173668E-03	1.220530E-03	1.127777E-03
3.250E-01	1.382131E-03	1.432774E-03	1.331343E-03
3.750E-01	1.588806E-03	1.641343E-03	1.534406E-03
4.250E-01	1.793556E-03	1.845871E-03	1.736944E-03
4.750E-01	1.996228E-03	2.045931E-03	1.938934E-03
5.250E-01	2.196655E-03	2.241027E-03	2.140352E-03
5.750E-01	2.394643E-03	2.430589E-03	2.341175E-03
6.250E-01	2.589980E-03	2.613984E-03	2.541371E-03
6.750E-01	2.782433E-03	2.790604E-03	2.740913E-03
7.250E-01	2.971766E-03	2.960030E-03	2.939770E-03
7.750E-01	3.157778E-03	3.122148E-03	3.137906E-03
8.250E-01	3.340382E-03	3.276978E-03	3.335286E-03
8.750E-01	3.519656E-03	3.424340E-03	3.531867E-03
9.250E-01	3.695789E-03	3.563684E-03	3.727608E-03
9.750E-01	3.868956E-03	3.694131E-03	3.922460E-03
1.025E+00	4.039220E-03	3.814615E-03	4.116371E-03
1.075E+00	4.206518E-03	3.924173E-03	4.309285E-03
1.125E+00	4.370679E-03	4.022308E-03	4.501135E-03
1.175E+00	4.531434E-03	4.109317E-03	4.691855E-03
1.225E+00	4.688428E-03	4.186312E-03	4.881362E-03

1.275E+00	4.841216E-03	4.254926E-03	5.069573E-03
1.325E+00	4.989255E-03	4.316898E-03	5.256385E-03
1.375E+00	5.131900E-03	4.373773E-03	5.441688E-03
1.425E+00	5.268421E-03	4.426792E-03	5.625354E-03
1.475E+00	5.398024E-03	4.476898E-03	5.807239E-03
1.525E+00	5.519946E-03	4.524788E-03	5.987172E-03
1.575E+00	5.633575E-03	4.570975E-03	6.164962E-03
1.625E+00	5.738624E-03	4.615837E-03	6.340379E-03
1.675E+00	5.835239E-03	4.659653E-03	6.513161E-03
1.725E+00	5.924026E-03	4.702636E-03	6.682997E-03
1.775E+00	6.005923E-03	4.744943E-03	6.849524E-03
1.825E+00	6.082013E-03	4.786700E-03	7.012319E-03
1.875E+00	6.153364E-03	4.828003E-03	7.170896E-03
1.925E+00	6.220917E-03	4.868928E-03	7.324706E-03
1.975E+00	6.285455E-03	4.909536E-03	7.473156E-03
2.025E+00	6.347602E-03	4.949878E-03	7.615638E-03
2.075E+00	6.407849E-03	4.989994E-03	7.751590E-03
2.125E+00	6.466573E-03	5.029918E-03	7.880579E-03
2.175E+00	6.524074E-03	5.069681E-03	8.002372E-03
2.225E+00	6.580573E-03	5.109310E-03	8.117027E-03
2.275E+00	6.636250E-03	5.148840E-03	8.224876E-03
2.325E+00	6.691260E-03	5.188260E-03	8.326490E-03
2.375E+00	6.745710E-03	5.227620E-03	8.422570E-03
2.425E+00	6.799690E-03	5.266930E-03	8.513880E-03
2.475E+00	6.853280E-03	5.306220E-03	8.601160E-03
2.525E+00	6.906570E-03	5.345510E-03	8.685090E-03
2.575E+00	6.959570E-03	5.384830E-03	8.766230E-03
2.625E+00	7.012340E-03	5.424200E-03	8.845060E-03
2.675E+00	7.064940E-03	5.463680E-03	8.921990E-03
2.725E+00	7.117400E-03	5.503290E-03	8.997330E-03
2.775E+00	7.169750E-03	5.543090E-03	9.071340E-03
2.825E+00	7.222030E-03	5.583110E-03	9.144250E-03
2.875E+00	7.274260E-03	5.623450E-03	9.216210E-03
2.925E+00	7.326470E-03	5.664170E-03	9.287370E-03
2.975E+00	7.378710E-03	5.705350E-03	9.357860E-03
3.000E+00	7.404840E-03	5.726130E-03	9.392870E-03

[POWER Clamp]

Voltage	I(typ)	I(min)	I(max)
-1.500E+00	2.354730E-03	2.542070E-03	2.280550E-03
-1.475E+00	2.360290E-03	2.563530E-03	2.283600E-03
-1.425E+00	2.366170E-03	2.599530E-03	2.287650E-03
-1.375E+00	2.366410E-03	2.625140E-03	2.289770E-03
-1.325E+00	2.363180E-03	2.639730E-03	2.290490E-03
-1.275E+00	2.358720E-03	2.644120E-03	2.289860E-03
-1.225E+00	2.354480E-03	2.640620E-03	2.287700E-03
-1.175E+00	2.350680E-03	2.632710E-03	2.283830E-03
-1.125E+00	2.346710E-03	2.624060E-03	2.278090E-03
-1.075E+00	2.341810E-03	2.617160E-03	2.270380E-03
-1.025E+00	2.335430E-03	2.612350E-03	2.260630E-03
-9.750E-01	2.327240E-03	2.608470E-03	2.248750E-03
-9.250E-01	2.317150E-03	2.604240E-03	2.234640E-03
-8.750E-01	2.305040E-03	2.598900E-03	2.218190E-03

-8.250E-01	2.290820E-03	2.592100E-03	2.199160E-03
-7.750E-01	2.274270E-03	2.583541E-03	2.177270E-03
-7.250E-01	2.254983E-03	2.572466E-03	2.152030E-03
-6.750E-01	2.232214E-03	2.556613E-03	2.122687E-03
-6.250E-01	2.204443E-03	2.530242E-03	2.087974E-03
-5.750E-01	2.168443E-03	2.481907E-03	2.045793E-03
-5.250E-01	2.116837E-03	2.394506E-03	1.992399E-03
-4.750E-01	2.034855E-03	2.251947E-03	1.920689E-03
-4.250E-01	1.903895E-03	2.055161E-03	1.816693E-03
-3.750E-01	1.720377E-03	1.825530E-03	1.661500E-03
-3.250E-01	1.504050E-03	1.583161E-03	1.459784E-03
-2.750E-01	1.275091E-03	1.337441E-03	1.238962E-03
-2.250E-01	1.042727E-03	1.091631E-03	1.013840E-03
-1.750E-01	8.099694E-04	8.467428E-04	7.881733E-04
-1.250E-01	5.776631E-04	6.030876E-04	5.626504E-04
-7.500E-02	3.460340E-04	3.607814E-04	3.373826E-04
-2.500E-02	1.151511E-04	1.198932E-04	1.123905E-04
0.000E+00	1.896000E-10	6.779000E-11	4.414000E-10
2.500E-02	-1.148346E-04	-1.193533E-04	-1.122399E-04
7.500E-02	-3.431731E-04	-3.559002E-04	-3.360228E-04
1.250E-01	-5.696752E-04	-5.894556E-04	-5.588437E-04
1.750E-01	-7.942638E-04	-8.198784E-04	-7.806630E-04
2.250E-01	-1.016857E-03	-1.047018E-03	-1.001439E-03
2.750E-01	-1.237370E-03	-1.270714E-03	-1.221127E-03
3.250E-01	-1.455710E-03	-1.490793E-03	-1.439680E-03
3.750E-01	-1.671780E-03	-1.707073E-03	-1.657050E-03
4.250E-01	-1.885478E-03	-1.919355E-03	-1.873182E-03
4.750E-01	-2.096695E-03	-2.127426E-03	-2.088024E-03
5.250E-01	-2.305315E-03	-2.331059E-03	-2.301515E-03
5.750E-01	-2.511216E-03	-2.530010E-03	-2.513594E-03
6.250E-01	-2.714266E-03	-2.724015E-03	-2.724197E-03
6.750E-01	-2.914329E-03	-2.912791E-03	-2.933253E-03
7.250E-01	-3.111257E-03	-3.096037E-03	-3.140690E-03
7.750E-01	-3.304896E-03	-3.273435E-03	-3.346432E-03
8.250E-01	-3.495085E-03	-3.444655E-03	-3.550397E-03
8.750E-01	-3.681656E-03	-3.609371E-03	-3.752506E-03
9.250E-01	-3.864445E-03	-3.767288E-03	-3.952672E-03
9.750E-01	-4.043295E-03	-3.918176E-03	-4.150817E-03
1.025E+00	-4.218083E-03	-4.061891E-03	-4.346871E-03
1.075E+00	-4.388727E-03	-4.198341E-03	-4.540781E-03
1.125E+00	-4.555207E-03	-4.327401E-03	-4.732523E-03
1.175E+00	-4.717531E-03	-4.448854E-03	-4.922078E-03
1.225E+00	-4.875684E-03	-4.562388E-03	-5.109426E-03
1.275E+00	-5.029594E-03	-4.667654E-03	-5.294516E-03
1.325E+00	-5.179114E-03	-4.764378E-03	-5.477270E-03
1.375E+00	-5.324028E-03	-4.852511E-03	-5.657583E-03
1.425E+00	-5.464057E-03	-4.932399E-03	-5.835323E-03
1.475E+00	-5.598867E-03	-5.004855E-03	-6.010333E-03
1.525E+00	-5.728072E-03	-5.071033E-03	-6.182433E-03
1.575E+00	-5.851251E-03	-5.132169E-03	-6.351415E-03
1.625E+00	-5.967958E-03	-5.189354E-03	-6.517046E-03
1.675E+00	-6.077769E-03	-5.243456E-03	-6.679060E-03
1.725E+00	-6.180342E-03	-5.295123E-03	-6.837156E-03
1.775E+00	-6.275525E-03	-5.344839E-03	-6.990996E-03

1.825E+00	-6.363459E-03	-5.392965E-03	-7.140196E-03
1.875E+00	-6.444640E-03	-5.439775E-03	-7.284329E-03
1.925E+00	-6.519862E-03	-5.485479E-03	-7.422921E-03
1.975E+00	-6.590053E-03	-5.530245E-03	-7.555466E-03
2.025E+00	-6.656117E-03	-5.574205E-03	-7.681442E-03
2.075E+00	-6.718828E-03	-5.617471E-03	-7.800380E-03
2.125E+00	-6.778823E-03	-5.660121E-03	-7.911916E-03
2.175E+00	-6.836596E-03	-5.702240E-03	-8.015946E-03
2.225E+00	-6.892520E-03	-5.743890E-03	-8.112680E-03
2.275E+00	-6.946900E-03	-5.785120E-03	-8.202650E-03
2.325E+00	-6.999970E-03	-5.825970E-03	-8.286650E-03
2.375E+00	-7.051920E-03	-5.866490E-03	-8.365540E-03
2.425E+00	-7.102920E-03	-5.906710E-03	-8.440150E-03
2.475E+00	-7.153060E-03	-5.946660E-03	-8.511220E-03
2.525E+00	-7.202490E-03	-5.986360E-03	-8.579370E-03
2.575E+00	-7.251260E-03	-6.025840E-03	-8.645080E-03
2.625E+00	-7.299460E-03	-6.065120E-03	-8.708780E-03
2.675E+00	-7.347140E-03	-6.104220E-03	-8.770750E-03
2.725E+00	-7.394360E-03	-6.143140E-03	-8.831270E-03
2.775E+00	-7.441180E-03	-6.181920E-03	-8.890550E-03
2.825E+00	-7.487620E-03	-6.220560E-03	-8.948750E-03
2.875E+00	-7.533720E-03	-6.259070E-03	-9.006010E-03
2.925E+00	-7.579530E-03	-6.297470E-03	-9.062450E-03
2.975E+00	-7.625060E-03	-6.335760E-03	-9.118170E-03
3.000E+00	-7.647720E-03	-6.354880E-03	-9.145790E-03

\*\*\*\*\*

| Sparse Matrix Package Model for v89c\_78ball\_pkg (x16)

\*\*\*\*\*

[Define Package Model] v89c\_x16

[Manufacturer] Alliance Memory, Inc.

[OEM] Alliance Memory, Inc.

[Description] Ver 1.0 96B 8x13mm BGA (1111)

[Number Of Pins] 50

[Pin Numbers]

[[Pin Name] Net Name

N3 | A0

P7 | A1

P3 | A2

N2 | A3

P8 | A4

P2 | A5

R8 | A6

R2 | A7

T8 | A8

R3 | A9

L7 | A10

R7 | A11

N7 | A12

T3 | A13

T7 | A14

M2 | BA0

N8 | BA1

M3 | BA2  
K3 | CASB  
J7 | CK  
K7 | CKB  
K9 | CKE  
L2 | CSB  
E7 | DML  
D3 | DMU  
E3 | DQ0  
F7 | DQ1  
F2 | DQ2  
F8 | DQ3  
H3 | DQ4  
H8 | DQ5  
G2 | DQ6  
H7 | DQ7  
D7 | DQ8  
C3 | DQ9  
C8 | DQ10  
C2 | DQ11  
A7 | DQ12  
A2 | DQ13  
B8 | DQ14  
A3 | DQ15  
F3 | DQSL  
G3 | DQSLB  
C7 | DQSU  
B7 | DQSUB  
K1 | ODT  
J3 | RASB  
T2 | RESETB  
L3 | WEB  
L8 | ZQ

[Model Data]

[Inductance Matrix] Sparse\_matrix

|

[Row] N3

N3 1.132023e-009  
P7 6.751414e-012  
P3 1.819195e-010  
N2 3.090017e-010  
P8 1.995246e-012  
P2 2.138776e-010  
R8 5.790538e-012  
R2 1.155614e-010  
T8 8.607899e-012  
R3 1.519702e-010  
L7 -1.361649e-012  
R7 6.487557e-012  
N7 1.873847e-011  
T3 7.173121e-011  
T7 1.096923e-011  
M2 1.038388e-010  
N8 1.585387e-011

M3 1.286361e-010  
K3 2.318705e-011  
J7 -6.379808e-012  
K7 -1.740376e-012  
K9 -7.447376e-012  
L2 6.391885e-011  
E7 1.983230e-013  
D3 -6.939199e-013  
E3 2.596634e-013  
F7 -6.527825e-013  
F2 9.642554e-013  
F8 -3.392253e-014  
H3 1.247625e-013  
H8 1.768580e-012  
G2 -4.857949e-012  
H7 1.338338e-012  
D7 -7.596427e-013  
C3 -8.102694e-013  
C8 -6.843697e-013  
C2 -8.952895e-013  
A7 6.653586e-013  
A2 -1.019397e-012  
B8 -1.323411e-013  
A3 -1.297935e-012  
F3 -2.213609e-012  
G3 -2.901390e-013  
C7 -3.159961e-013  
B7 -1.475781e-012  
K1 3.115456e-011  
J3 3.595103e-012  
T2 9.254641e-011  
L3 4.199230e-011  
L8 -6.175052e-012  
|  
[Row] P7  
P7 1.405405e-009  
P3 1.550831e-011  
N2 2.194478e-011  
P8 6.067313e-010  
P2 2.635298e-011  
R8 3.488881e-010  
R2 1.695209e-011  
T8 2.761239e-010  
R3 2.133444e-011  
L7 4.378232e-011  
R7 4.608973e-010  
N7 3.639459e-010  
T3 2.235525e-011  
T7 2.084426e-010  
M2 -5.935953e-012  
N8 2.238061e-010  
M3 4.114352e-012  
K3 -4.167823e-012  
J7 5.621082e-012

K7 1.787699e-011  
K9 3.464449e-011  
L2 -4.393289e-012  
E7 -9.221736e-014  
D3 -1.637211e-012  
E3 -2.049803e-013  
F7 -1.085621e-012  
F2 4.500122e-013  
F8 3.763957e-013  
H3 1.828555e-012  
H8 1.128159e-013  
G2 -1.430102e-012  
H7 1.399457e-012  
D7 -1.445108e-012  
C3 -9.918960e-013  
C8 -4.668883e-012  
C2 -1.682991e-012  
A7 -6.560557e-012  
A2 -2.000408e-012  
B8 2.576576e-013  
A3 -3.100351e-012  
F3 -2.639070e-012  
G3 -3.507195e-013  
C7 -1.189566e-012  
B7 -4.400778e-013  
K1 -1.267287e-011  
J3 -2.130816e-012  
T2 2.062245e-011  
L3 -1.520598e-012  
L8 5.409279e-011

|  
[Row] P3

P3 1.418820e-009  
N2 4.356298e-010  
P8 2.706623e-011  
P2 6.463611e-010  
R8 1.244842e-011  
R2 3.678369e-010  
T8 1.355962e-011  
R3 5.329353e-010  
L7 9.288696e-013  
R7 3.436447e-011  
N7 3.167784e-012  
T3 2.030029e-010  
T7 1.815318e-011  
M2 7.936008e-011  
N8 -1.767342e-012  
M3 7.612029e-011  
K3 2.176365e-011  
J7 -7.547017e-012  
K7 -1.169339e-012  
K9 -9.600528e-012  
L2 5.742729e-011  
E7 1.628464e-013

D3 -1.398326e-012  
E3 -7.289263e-014  
F7 -9.938976e-013  
F2 1.453360e-012  
F8 -3.049352e-013  
H3 3.289913e-013  
H8 2.360412e-012  
G2 -4.289954e-012  
H7 1.528802e-012  
D7 -1.017337e-012  
C3 -1.536598e-012  
C8 -1.164141e-012  
C2 -1.390244e-012  
A7 5.026429e-013  
A2 -1.548844e-012  
B8 -3.331303e-013  
A3 -2.021801e-012  
F3 -2.285328e-012  
G3 2.652529e-013  
C7 -3.392215e-013  
B7 -1.836802e-012  
K1 3.395910e-011  
J3 3.151447e-012  
T2 2.781544e-010  
L3 3.748437e-011  
L8 -6.551239e-012

|

[Row] N2

N2 1.562521e-009  
P8 -2.989411e-012  
P2 7.359909e-010  
R8 -2.022139e-012  
R2 2.446424e-010  
T8 1.905214e-012  
R3 3.084244e-010  
L7 -3.135605e-012  
R7 3.302373e-012  
N7 1.815450e-011  
T3 1.354084e-010  
T7 8.843647e-012  
M2 1.101065e-010  
N8 -3.003700e-012  
M3 1.118749e-010  
K3 2.842641e-011  
J7 -9.287310e-012  
K7 -3.555511e-012  
K9 -1.365143e-011  
L2 7.690337e-011  
E7 2.105864e-013  
D3 -1.163611e-012  
E3 -6.514010e-014  
F7 -8.650795e-013  
F2 1.677903e-012  
F8 -5.765300e-013



H3 -7.186705e-013  
H8 2.132245e-012  
G2 -5.438618e-012  
H7 1.035385e-012  
D7 -7.016205e-013  
C3 -1.678971e-012  
C8 -7.734444e-013  
C2 -1.078953e-012  
A7 1.274886e-012  
A2 -1.133004e-012  
B8 -4.840414e-013  
A3 -1.424040e-012  
F3 -2.157528e-012  
G3 7.170015e-014  
C7 -5.276331e-014  
B7 -1.466855e-012  
K1 4.778046e-011  
J3 4.197925e-012  
T2 1.899442e-010  
L3 4.604140e-011  
L8 -1.026464e-011

|

[Row] P8

P8 1.635479e-009  
P2 1.679196e-011  
R8 5.479736e-010  
R2 1.039972e-011  
T8 4.075369e-010  
R3 1.979228e-011  
L7 3.995411e-011  
R7 7.842092e-010  
N7 2.647253e-010  
T3 1.929656e-011  
T7 2.883926e-010  
M2 -9.649031e-012  
N8 1.785082e-010  
M3 3.305927e-012  
K3 -5.796294e-012  
J7 6.809900e-012  
K7 1.750027e-011  
K9 3.876789e-011  
L2 -7.955361e-012  
E7 -2.452849e-013  
D3 -1.447006e-012  
E3 -9.329266e-014  
F7 -1.137461e-012  
F2 6.293815e-014  
F8 7.985929e-013  
H3 1.860937e-012  
H8 -2.286599e-013  
G2 -1.415559e-012  
H7 1.548146e-012  
D7 -1.690184e-012  
C3 -5.639191e-013

C8 -4.608847e-012  
C2 -1.646175e-012  
A7 -6.934087e-012  
A2 -2.009619e-012  
B8 4.704687e-013  
A3 -3.157261e-012  
F3 -2.836953e-012  
G3 -7.467009e-013  
C7 -1.537234e-012  
B7 -7.629769e-013  
K1 -1.691126e-011  
J3 -2.444283e-012  
T2 1.446637e-011  
L3 -3.074270e-012  
L8 5.248803e-011

|

[Row] P2

P2 1.636519e-009  
R8 2.662983e-013  
R2 3.104476e-010  
T8 4.106764e-012  
R3 4.114480e-010  
L7 -1.754982e-012  
R7 8.992548e-012  
N7 2.396040e-012  
T3 1.720948e-010  
T7 1.154483e-011  
M2 9.350777e-011  
N8 -4.942799e-012  
M3 8.508156e-011  
K3 2.573193e-011  
J7 -9.039395e-012  
K7 -2.893766e-012  
K9 -1.321059e-011  
L2 6.952829e-011  
E7 1.519506e-013  
D3 -1.496417e-012  
E3 -2.497503e-013  
F7 -1.017502e-012  
F2 1.706548e-012  
F8 -6.130461e-013  
H3 -6.159349e-013  
H8 2.257660e-012  
G2 -4.950497e-012  
H7 1.083211e-012  
D7 -8.700119e-013  
C3 -1.917316e-012  
C8 -1.011433e-012  
C2 -1.327957e-012  
A7 1.061201e-012  
A2 -1.391058e-012  
B8 -5.372031e-013  
A3 -1.794646e-012  
F3 -2.220977e-012

G3 2.181976e-013  
C7 -1.603543e-013  
B7 -1.693109e-012  
K1 4.558286e-011  
J3 3.616175e-012  
T2 2.397272e-010  
L3 4.163451e-011  
L8 -9.490220e-012  
|  
[Row] R8  
R8 1.786490e-009  
R2 3.789583e-011  
T8 8.638366e-010  
R3 4.235083e-011  
L7 3.172779e-011  
R7 7.194644e-010  
N7 1.629223e-010  
T3 2.771741e-011  
T7 5.298687e-010  
M2 -5.572285e-012  
N8 1.163555e-010  
M3 6.011176e-012  
K3 -4.194670e-012  
J7 4.554305e-012  
K7 1.451495e-011  
K9 3.072934e-011  
L2 -5.284023e-012  
E7 -2.839107e-013  
D3 -1.610471e-012  
E3 -1.331381e-013  
F7 -1.380372e-012  
F2 1.190620e-013  
F8 8.403700e-013  
H3 1.933511e-012  
H8 8.188686e-013  
G2 -1.570993e-012  
H7 1.626040e-012  
D7 -1.936364e-012  
C3 -7.366568e-013  
C8 -4.011909e-012  
C2 -1.852854e-012  
A7 -5.575546e-012  
A2 -2.214135e-012  
B8 3.401912e-013  
A3 -3.391393e-012  
F3 -3.011883e-012  
G3 -7.394957e-013  
C7 -1.630001e-012  
B7 -1.568974e-012  
K1 -1.453205e-011  
J3 -1.989322e-012  
T2 2.689397e-011  
L3 -3.271229e-013  
L8 3.849243e-011

|

[Row] R2

R2 1.692648e-009  
T8 4.124818e-011  
R3 6.283410e-010  
L7 1.848757e-012  
R7 2.727173e-011  
N7 5.410047e-012  
T3 4.815563e-010  
T7 3.087968e-011  
M2 6.012246e-011  
N8 -9.133425e-013  
M3 5.125138e-011  
K3 1.737114e-011  
J7 -7.453872e-012  
K7 -1.032454e-012  
K9 -1.020613e-011  
L2 4.521783e-011  
E7 5.352964e-014  
D3 -1.802971e-012  
E3 -4.103732e-013  
F7 -1.154099e-012  
F2 1.552988e-012  
F8 -5.387770e-013  
H3 1.080856e-013  
H8 2.434639e-012  
G2 -3.432314e-012  
H7 1.337676e-012  
D7 -1.090758e-012  
C3 -2.028153e-012  
C8 -1.383632e-012  
C2 -1.627716e-012  
A7 4.155271e-013  
A2 -1.750935e-012  
B8 -5.175474e-013  
A3 -2.329885e-012  
F3 -2.217581e-012  
G3 3.844449e-013  
C7 -3.395866e-013  
B7 -1.883386e-012  
K1 2.949135e-011  
J3 2.394912e-012  
T2 7.970521e-010  
L3 2.978477e-011  
L8 -6.320294e-012

|

[Row] T8

T8 1.780977e-009  
R3 2.998021e-011  
L7 2.789789e-011  
R7 5.218803e-010  
N7 1.292905e-010  
T3 3.530519e-011  
T7 7.476664e-010

M2 -2.943549e-012  
N8 9.353885e-011  
M3 7.449508e-012  
K3 -3.091661e-012  
J7 3.046217e-012  
K7 1.279743e-011  
K9 2.582826e-011  
L2 -3.274011e-012  
E7 -3.570200e-013  
D3 -1.852853e-012  
E3 -2.207955e-013  
F7 -1.592275e-012  
F2 1.958822e-013  
F8 8.197732e-013  
H3 1.909368e-012  
H8 1.380527e-012  
G2 -1.739408e-012  
H7 1.606015e-012  
D7 -2.192848e-012  
C3 -9.866718e-013  
C8 -3.880637e-012  
C2 -2.105082e-012  
A7 -5.023113e-012  
A2 -2.480353e-012  
B8 2.338034e-013  
A3 -3.742241e-012  
F3 -3.236135e-012  
G3 -7.557611e-013  
C7 -1.725906e-012  
B7 -2.107238e-012  
K1 -1.255994e-011  
J3 -1.796636e-012  
T2 4.964554e-011  
L3 1.340080e-012  
L8 3.152495e-011  
|

[Row] R3

R3 1.581289e-009  
L7 3.262062e-012  
R7 4.865461e-011  
N7 7.556811e-012  
T3 3.335456e-010  
T7 3.192633e-011  
M2 6.948660e-011  
N8 1.670704e-012  
M3 6.533636e-011  
K3 1.881834e-011  
J7 -7.441207e-012  
K7 -2.319526e-013  
K9 -8.142229e-012  
L2 5.033241e-011  
E7 -9.369318e-015  
D3 -1.892530e-012  
E3 -2.790660e-013

F7 -1.364441e-012  
F2 1.438582e-012  
F8 -3.023943e-013  
H3 6.019177e-013  
H8 2.589562e-012  
G2 -4.113298e-012  
H7 1.645328e-012  
D7 -1.456895e-012  
C3 -1.872033e-012  
C8 -1.672101e-012  
C2 -1.872377e-012  
A7 -4.453960e-014  
A2 -2.075397e-012  
B8 -3.854736e-013  
A3 -2.792261e-012  
F3 -2.855592e-012  
G3 1.306003e-013  
C7 -6.528988e-013  
B7 -2.358784e-012  
K1 2.844672e-011  
J3 2.469241e-012  
T2 4.623047e-010  
L3 3.437182e-011  
L8 -4.806394e-012

|

[Row] L7

L7 1.174327e-009  
R7 3.617311e-011  
N7 4.130466e-011  
T3 4.449574e-012  
T7 2.218112e-011  
M2 -1.670881e-011  
N8 3.282839e-011  
M3 -7.810300e-012  
K3 -1.480256e-011  
J7 5.545227e-011  
K7 9.163931e-011  
K9 3.482259e-010  
L2 -1.165184e-011  
E7 2.075487e-013  
D3 -7.229183e-013  
E3 1.593961e-013  
F7 -1.649315e-013  
F2 1.975866e-013  
F8 4.323156e-013  
H3 9.498868e-013  
H8 -2.769349e-012  
G2 -4.789473e-013  
H7 -3.851725e-012  
D7 -5.120878e-013  
C3 -3.282938e-013  
C8 -5.469779e-012  
C2 -7.988778e-013  
A7 -5.846024e-012

A2 -1.098849e-012  
B8 4.445430e-013  
A3 -1.757028e-012  
F3 -1.528880e-012  
G3 -1.854603e-013  
C7 -1.710776e-012  
B7 4.716509e-013  
K1 -3.383222e-012  
J3 -5.909431e-012  
T2 3.106331e-012  
L3 3.498448e-013  
L8 1.664656e-010  
|  
[Row] R7  
R7 1.560960e-009  
N7 2.130306e-010  
T3 3.081426e-011  
T7 3.773377e-010  
M2 -3.053553e-012  
N8 1.419646e-010  
M3 6.881691e-012  
K3 -3.173613e-012  
J7 3.880119e-012  
K7 1.559556e-011  
K9 2.896573e-011  
L2 -2.681753e-012  
E7 -1.777050e-013  
D3 -1.891969e-012  
E3 -2.578129e-013  
F7 -1.405845e-012  
F2 4.505432e-013  
F8 5.504754e-013  
H3 1.955434e-012  
H8 1.160929e-012  
G2 -1.702929e-012  
H7 1.721650e-012  
D7 -1.851298e-012  
C3 -1.173665e-012  
C8 -4.324039e-012  
C2 -2.007004e-012  
A7 -5.563937e-012  
A2 -2.334442e-012  
B8 1.795784e-013  
A3 -3.541450e-012  
F3 -3.070633e-012  
G3 -4.938290e-013  
C7 -1.426340e-012  
B7 -1.372692e-012  
K1 -1.198260e-011  
J3 -1.903539e-012  
T2 2.961874e-011  
L3 9.184224e-013  
L8 4.209313e-011  
|

[Row] N7

N7 1.342388e-009  
T3 9.766566e-012  
T7 9.745348e-011  
M2 -8.574657e-012  
N8 3.744276e-010  
M3 -5.727011e-014  
K3 -4.686048e-012  
J7 7.293383e-012  
K7 1.691714e-011  
K9 3.464217e-011  
L2 -6.332579e-012  
E7 7.675146e-014  
D3 -1.016380e-012  
E3 -3.500102e-014  
F7 -4.015299e-013  
F2 3.846372e-013  
F8 1.990323e-013  
H3 1.543900e-012  
H8 -1.176972e-012  
G2 -7.127531e-013  
H7 8.043592e-013  
D7 -7.077071e-013  
C3 -5.791733e-013  
C8 -4.277574e-012  
C2 -1.041034e-012  
A7 -6.706806e-012  
A2 -1.312562e-012  
B8 3.393236e-013  
A3 -2.106139e-012  
F3 -1.518225e-012  
G3 5.394074e-014  
C7 -6.504549e-013  
B7 7.351266e-013  
K1 -1.175861e-011  
J3 -1.804227e-012  
T2 8.021479e-012  
L3 -3.799140e-012  
L8 5.696850e-011

|

[Row] T3

T3 1.321433e-009  
T7 5.460262e-011  
M2 3.649027e-011  
N8 3.926682e-012  
M3 3.306561e-011  
K3 1.025692e-011  
J7 -4.675513e-012  
K7 9.786007e-013  
K9 -4.301902e-012  
L2 2.661881e-011  
E7 -5.094266e-014  
D3 -1.565553e-012  
E3 -2.114942e-013



F7 -1.137191e-012  
F2 9.989805e-013  
F8 -1.050786e-013  
H3 8.848274e-013  
H8 2.094528e-012  
G2 -2.469799e-012  
H7 1.347801e-012  
D7 -1.292905e-012  
C3 -1.425672e-012  
C8 -1.482260e-012  
C2 -1.640949e-012  
A7 -4.787852e-013  
A2 -1.856050e-012  
B8 -2.441062e-013  
A3 -2.527528e-012  
F3 -2.174919e-012  
G3 1.765648e-013  
C7 -6.407719e-013  
B7 -2.030435e-012  
K1 1.402738e-011  
J3 1.290826e-012  
T2 6.862455e-010  
L3 1.962932e-011  
L8 -2.110390e-012

|

[Row] T7

T7 1.427603e-009  
M2 1.415344e-012  
N8 6.921529e-011  
M3 8.609343e-012  
K3 -7.924608e-013  
J7 1.130312e-012  
K7 9.853187e-012  
K9 1.629652e-011  
L2 6.528803e-013  
E7 -1.478904e-013  
D3 -1.787490e-012  
E3 -2.574186e-013  
F7 -1.325444e-012  
F2 5.023195e-013  
F8 4.541879e-013  
H3 1.656127e-012  
H8 1.814237e-012  
G2 -1.568635e-012  
H7 1.586448e-012  
D7 -1.753804e-012  
C3 -1.242749e-012  
C8 -3.181052e-012  
C2 -1.932393e-012  
A7 -3.494472e-012  
A2 -2.227137e-012  
B8 1.073352e-014  
A3 -3.284485e-012  
F3 -2.720185e-012

G3 -3.209497e-013  
C7 -1.237293e-012  
B7 -1.886177e-012  
K1 -7.140166e-012  
J3 -1.076203e-012  
T2 5.408548e-011  
L3 3.680958e-012  
L8 2.230583e-011

[Row] M2

M2 1.429980e-009  
N8 -9.331176e-012  
M3 3.167878e-010  
K3 8.280187e-011  
J7 -1.593793e-011  
K7 -1.156860e-011  
K9 -2.248990e-011  
L2 3.481322e-010  
E7 2.483881e-013  
D3 1.040698e-012  
E3 1.805094e-012  
F7 -5.828041e-013  
F2 8.358784e-013  
F8 -4.715974e-013  
H3 -2.214726e-011  
H8 1.550489e-012  
G2 -3.807699e-011  
H7 4.329585e-013  
D7 -7.330067e-013  
C3 -1.495795e-012  
C8 -1.171402e-012  
C2 -8.736201e-013  
A7 1.272272e-012  
A2 -1.105543e-012  
B8 -4.068037e-013  
A3 -1.394707e-012  
F3 -1.444902e-011  
G3 -1.390935e-011  
C7 -4.836553e-013  
B7 -1.683861e-012  
K1 1.483865e-010  
J3 8.679523e-012  
T2 4.980562e-011  
L3 1.288903e-010  
L8 -1.490902e-011

[Row] N8

N8 1.174290e-009  
M3 -2.017660e-012  
K3 -5.351126e-012  
J7 7.287983e-012  
K7 1.416964e-011  
K9 3.885349e-011  
L2 -7.443317e-012

E7 -1.242519e-013  
D3 -7.744506e-013  
E3 -7.759613e-014  
F7 -3.970824e-013  
F2 -8.944803e-015  
F8 1.158487e-013  
H3 9.847621e-013  
H8 -2.879921e-012  
G2 -5.787060e-013  
H7 2.896444e-014  
D7 -5.818867e-013  
C3 -3.591281e-013  
C8 -4.651209e-012  
C2 -8.155486e-013  
A7 -8.427219e-012  
A2 -1.041115e-012  
B8 3.853570e-013  
A3 -1.868299e-012  
F3 -1.382438e-012  
G3 -3.418045e-013  
C7 -5.823414e-013  
B7 1.515893e-012  
K1 -1.186357e-011  
J3 -1.958104e-012  
T2 1.212682e-012  
L3 -4.987649e-012  
L8 5.678240e-011

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[Row] M3

M3 1.050418e-009  
K3 4.688092e-011  
J7 -9.401076e-012  
K7 -5.725359e-012  
K9 -1.193025e-011  
L2 1.447984e-010  
E7 2.955868e-013  
D3 1.129317e-013  
E3 9.852377e-013  
F7 -4.330474e-013  
F2 9.602749e-013  
F8 -9.179476e-014  
H3 -4.153466e-012  
H8 1.408075e-012  
G2 -1.283568e-011  
H7 1.280400e-012  
D7 -5.845239e-013  
C3 -6.850835e-013  
C8 -7.614214e-013  
C2 -7.232447e-013  
A7 -1.651517e-013  
A2 -8.898012e-013  
B8 -6.557024e-014  
A3 -1.153555e-012  
F3 -4.998968e-012

G3 -3.266415e-012  
C7 -3.396064e-014  
B7 -9.252587e-013  
K1 6.330760e-011  
J3 6.930701e-012  
T2 4.156842e-011  
L3 9.248086e-011  
L8 -9.153840e-012

[Row] K3

K3 1.118368e-009  
J7 -2.113037e-011  
K7 -1.369593e-011  
K9 -3.163589e-012  
L2 1.389952e-010  
E7 4.919162e-013  
D3 5.902445e-013  
E3 1.252281e-012  
F7 -1.502077e-013  
F2 2.335696e-012  
F8 -4.336562e-013  
H3 6.964416e-012  
H8 -5.381362e-014  
G2 -5.272689e-012  
H7 -1.875737e-012  
D7 1.805205e-013  
C3 -3.442166e-013  
C8 4.407074e-013  
C2 1.053941e-013  
A7 1.263197e-012  
A2 -1.705068e-013  
B8 -1.288194e-013  
A3 5.551695e-014  
F3 1.230715e-012  
G3 3.256471e-012  
C7 7.244782e-013  
B7 -2.500328e-013  
K1 3.961521e-010  
J3 3.933732e-011  
T2 1.435053e-011  
L3 2.163868e-010  
L8 -1.736160e-011

[Row] J7

J7 6.859400e-010  
K7 2.826488e-010  
K9 7.511597e-011  
L2 -2.023184e-011  
E7 1.938809e-012  
D3 1.771636e-012  
E3 1.100220e-012  
F7 4.326449e-012  
F2 -6.939755e-013  
F8 2.150449e-012

H3 -2.918859e-012  
H8 4.588163e-012  
G2 9.123856e-013  
H7 1.516630e-011  
D7 2.068714e-012  
C3 1.506516e-012  
C8 -3.327215e-013  
C2 9.577466e-013  
A7 -8.767840e-013  
A2 8.198194e-013  
B8 8.985746e-013  
A3 1.311351e-012  
F3 8.722836e-013  
G3 -7.472514e-013  
C7 4.160227e-013  
B7 1.935376e-012  
K1 -2.477540e-011  
J3 -9.396050e-012  
T2 -6.734351e-012  
L3 -2.073586e-011  
L8 3.610704e-011

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[Row] K7

K7 6.783806e-010  
K9 1.175220e-010  
L2 -1.571414e-011  
E7 9.879391e-013  
D3 3.452758e-014  
E3 3.421295e-013  
F7 1.328275e-012  
F2 -1.354702e-013  
F8 1.513458e-012  
H3 -1.032709e-012  
H8 4.302555e-012  
G2 -3.436994e-013  
H7 5.562559e-012  
D7 2.294524e-013  
C3 2.475689e-013  
C8 -1.845641e-012  
C2 -2.340602e-013  
A7 -1.936220e-012  
A2 -3.814671e-013  
B8 5.176191e-013  
A3 -5.503909e-013  
F3 -1.133273e-012  
G3 -9.048563e-013  
C7 -4.505243e-013  
B7 3.242134e-013  
K1 -2.113934e-011  
J3 -8.042846e-012  
T2 -2.741475e-013  
L3 -1.693607e-011  
L8 5.307928e-011

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[Row] K9

K9 1.271103e-009  
L2 -2.361559e-011  
E7 -6.842047e-013  
D3 -4.024169e-013  
E3 1.422309e-013  
F7 -9.801030e-013  
F2 -6.166869e-013  
F8 9.065317e-013  
H3 7.293116e-013  
H8 -1.410395e-011  
G2 2.708851e-013  
H7 -1.198879e-011  
D7 -1.211065e-012  
C3 2.738066e-013  
C8 -8.437770e-012  
C2 -5.901772e-013  
A7 -1.064231e-011  
A2 -1.060415e-012  
B8 1.046419e-012  
A3 -2.073540e-012  
F3 -1.072852e-012  
G3 -7.196486e-013  
C7 -3.102387e-012  
B7 5.706033e-013  
K1 -9.633772e-012  
J3 -6.477385e-012  
T2 -8.349606e-012  
L3 -2.084458e-011  
L8 1.622298e-010

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[Row] L2

L2 1.103616e-009  
E7 3.487097e-013  
D3 1.338240e-012  
E3 2.150172e-012  
F7 -6.227406e-013  
F2 1.656835e-012  
F8 -4.681700e-013  
H3 -1.962649e-011  
H8 2.219320e-012  
G2 -3.795454e-011  
H7 8.633806e-013  
D7 -6.780269e-013  
C3 -1.609423e-012  
C8 -5.930425e-013  
C2 -9.356586e-013  
A7 1.413255e-012  
A2 -1.137158e-012  
B8 -4.417381e-013  
A3 -1.367854e-012  
F3 -1.394466e-011  
G3 -1.273061e-011  
C7 -1.044111e-013

B7 -1.602222e-012  
K1 2.406125e-010  
J3 1.486468e-011  
T2 3.735038e-011  
L3 2.632596e-010  
L8 -1.580619e-011

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[Row] E7

E7 9.978700e-010  
D3 -5.064233e-013  
E3 -3.225429e-012  
F7 2.038411e-011  
F2 -4.927491e-012  
F8 6.117502e-012  
H3 1.257048e-013  
H8 1.959083e-012  
G2 -5.392423e-013  
H7 2.939998e-012  
D7 1.278959e-010  
C3 -1.898579e-014  
C8 3.063212e-011  
C2 -2.126854e-012  
A7 3.848704e-012  
A2 1.278800e-012  
B8 2.559363e-012  
A3 3.236747e-012  
F3 -1.393264e-012  
G3 -1.587000e-012  
C7 2.017007e-011  
B7 1.270672e-011  
K1 1.183751e-013  
J3 4.323546e-013  
T2 -5.069517e-014  
L3 3.804425e-013  
L8 -4.728213e-013

|

[Row] D3

D3 1.026088e-009  
E3 1.352002e-010  
F7 1.269598e-012  
F2 -1.354752e-011  
F8 -9.357667e-013  
H3 2.774772e-012  
H8 6.197677e-013  
G2 2.265492e-012  
H7 7.380529e-013  
D7 1.289565e-012  
C3 3.607803e-011  
C8 3.529130e-012  
C2 7.549175e-011  
A7 4.113337e-012  
A2 7.172693e-012  
B8 1.074477e-012  
A3 1.061053e-011

F3 -2.343273e-011  
G3 -1.719065e-011  
C7 2.124703e-012  
B7 5.346946e-012  
K1 1.205510e-013  
J3 1.229546e-012  
T2 -1.998500e-012  
L3 -2.714443e-013  
L8 -1.081270e-013

|

[Row] E3

E3 9.761770e-010  
F7 -1.684830e-012  
F2 7.531264e-012  
F8 -2.419913e-012  
H3 4.738341e-012  
H8 2.839482e-013  
G2 3.944260e-012  
H7 3.243261e-013  
D7 2.069552e-013  
C3 1.230802e-011  
C8 1.485503e-012  
C2 2.730401e-011  
A7 1.414307e-012  
A2 1.177862e-012  
B8 5.820763e-013  
A3 2.951091e-012  
F3 -2.974556e-012  
G3 -4.905705e-012  
C7 1.368608e-012  
B7 2.503481e-012  
K1 5.380747e-013  
J3 1.639391e-012  
T2 -4.659720e-013  
L3 7.462014e-013  
L8 4.060595e-013

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[Row] F7

F7 8.964819e-010  
F2 -6.702460e-012  
F8 6.967814e-011  
H3 -1.465277e-012  
H8 7.063184e-012  
G2 -1.196490e-012  
H7 8.558783e-012  
D7 2.151758e-012  
C3 1.506596e-012  
C8 3.691272e-012  
C2 9.101481e-013  
A7 2.704709e-012  
A2 1.799562e-012  
B8 7.263663e-013  
A3 3.375155e-012  
F3 -4.071004e-012



G3 -4.713553e-012  
C7 4.052617e-012  
B7 4.951068e-012  
K1 -5.135743e-013  
J3 3.809105e-013  
T2 -1.295501e-012  
L3 -6.250344e-013  
L8 7.583588e-013

|

[Row] F2

F2 1.026746e-009  
F8 -7.058722e-012  
H3 4.706769e-012  
H8 -1.351498e-012  
G2 1.183358e-011  
H7 -1.530808e-012  
D7 -2.504843e-012  
C3 1.292876e-012  
C8 -2.306390e-012  
C2 9.138677e-013  
A7 -3.989952e-013  
A2 -2.592822e-013  
B8 -5.961569e-013  
A3 -2.664204e-013  
F3 5.238621e-011  
G3 3.809351e-011  
C7 -1.188484e-012  
B7 -1.364848e-012  
K1 3.296457e-012  
J3 2.196474e-012  
T2 1.414532e-012  
L3 2.082429e-012  
L8 2.459909e-013

|

[Row] F8

F8 9.927817e-010  
H3 -8.914373e-013  
H8 5.490862e-012  
G2 -1.244876e-012  
H7 2.622833e-012  
D7 -2.098396e-011  
C3 1.834698e-013  
C8 1.046146e-012  
C2 -7.257006e-013  
A7 -1.437212e-014  
A2 -4.233934e-013  
B8 8.668032e-013  
A3 -6.268293e-013  
F3 -3.246931e-012  
G3 -3.635638e-012  
C7 1.584659e-012  
B7 7.345290e-014  
K1 -1.196104e-012  
J3 -1.553969e-013

T2 -4.449712e-013  
L3 -4.519688e-013  
L8 -1.877015e-012

|

[Row] H3

H3 9.107296e-010  
H8 -4.881017e-012  
G2 -2.653786e-012  
H7 -9.032385e-012  
D7 5.007906e-014  
C3 9.873570e-013  
C8 4.826142e-013  
C2 4.571000e-013  
A7 6.383327e-014  
A2 -1.418975e-013  
B8 3.738934e-013  
A3 -3.073548e-015  
F3 1.205416e-011  
G3 2.572173e-011  
C7 8.151117e-013  
B7 3.187053e-013  
K1 -4.049798e-012  
J3 2.542073e-011  
T2 3.280600e-013  
L3 1.017713e-012  
L8 6.399228e-013

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[Row] H8

H8 8.850297e-010  
G2 -4.380034e-012  
H7 7.548828e-011  
D7 1.448665e-013  
C3 8.942280e-014  
C8 -1.539633e-011  
C2 1.745090e-014  
A7 4.892207e-012  
A2 1.403630e-013  
B8 -1.500924e-013  
A3 3.029588e-013  
F3 -1.023404e-011  
G3 -7.621375e-012  
C7 -1.185718e-011  
B7 -5.303005e-012  
K1 4.725715e-013  
J3 -1.676373e-012  
T2 2.414338e-012  
L3 1.184768e-012  
L8 -3.258467e-011

|

[Row] G2

G2 9.317333e-010  
H7 -5.376237e-012  
D7 8.293750e-013  
C3 2.023474e-012

C8 1.348936e-012  
C2 2.504327e-012  
A7 8.556806e-013  
A2 1.400448e-012  
B8 1.308200e-013  
A3 2.063559e-012  
F3 5.196881e-011  
G3 7.022278e-011  
C7 1.043144e-012  
B7 1.433976e-012  
K1 -1.257773e-011  
J3 3.903313e-012  
T2 -3.095956e-012  
L3 -1.006492e-011  
L8 -6.759516e-014

|  
[Row] H7

H7 9.152550e-010  
D7 1.066265e-012  
C3 1.360210e-013  
C8 -1.304566e-011  
C2 7.017415e-014  
A7 1.955352e-012  
A2 1.568963e-013  
B8 3.073059e-013  
A3 3.226167e-013  
F3 -1.135197e-011  
G3 -1.060504e-011  
C7 -8.717303e-012  
B7 -3.501802e-012  
K1 -1.452033e-012  
J3 -3.622504e-012  
T2 1.319049e-012  
L3 4.925130e-013  
L8 -1.742649e-011

|  
[Row] D7

D7 9.591238e-010  
C3 1.276456e-012  
C8 7.036459e-011  
C2 -5.602570e-013  
A7 9.602512e-012  
A2 3.942963e-012  
B8 4.168800e-012  
A3 8.843978e-012  
F3 2.598111e-012  
G3 4.718992e-013  
C7 4.721168e-011  
B7 2.984588e-011  
K1 8.885660e-015  
J3 7.798497e-013  
T2 -1.335770e-012  
L3 -4.657526e-013  
L8 4.835718e-013

|  
[Row] C3  
C3 1.078984e-009  
C8 1.663613e-012  
C2 5.693416e-011  
A7 4.295614e-012  
A2 2.022257e-011  
B8 1.597199e-012  
A3 8.074490e-012  
F3 6.378159e-012  
G3 2.435588e-012  
C7 4.494583e-014  
B7 4.131432e-012  
K1 -1.953080e-012  
J3 6.514608e-013  
T2 -2.102121e-012  
L3 -1.027012e-012  
L8 4.705860e-014

|  
[Row] C8  
C8 9.273696e-010  
C2 2.457081e-012  
A7 1.433883e-011  
A2 4.972862e-012  
B8 1.273515e-011  
A3 1.036447e-011  
F3 3.918738e-012  
G3 1.043720e-012  
C7 7.372537e-011  
B7 6.005536e-011  
K1 1.191068e-013  
J3 8.592968e-013  
T2 -1.651157e-012  
L3 -3.345510e-013  
L8 -2.109817e-011

|  
[Row] C2  
C2 9.257913e-010  
A7 3.736042e-012  
A2 1.492159e-011  
B8 1.020509e-013  
A3 1.676418e-011  
F3 1.213791e-012  
G3 -6.090778e-013  
C7 -1.754081e-013  
B7 3.185500e-012  
K1 -1.893263e-013  
J3 7.691207e-013  
T2 -1.893218e-012  
L3 -6.298034e-013  
L8 -1.483286e-013

|  
[Row] A7  
A7 9.807866e-010

A2 8.181982e-012  
B8 6.009690e-011  
A3 1.747886e-011  
F3 2.447632e-012  
G3 6.496550e-013  
C7 -4.615057e-012  
B7 2.400147e-011  
K1 1.911299e-012  
J3 7.378099e-013  
T2 -5.342492e-014  
L3 1.061456e-012  
L8 -2.060488e-011

[Row] A2

A2 1.010859e-009  
B8 -4.021003e-013  
A3 1.336244e-010  
F3 3.021518e-012  
G3 7.293181e-013  
C7 3.105988e-012  
B7 7.820053e-012  
K1 -2.141303e-013  
J3 3.613566e-013  
T2 -2.061650e-012  
L3 -8.059437e-013  
L8 -8.333122e-013

[Row] B8

B8 1.005648e-009  
A3 5.178866e-012  
F3 7.053717e-013  
G3 2.581157e-014  
C7 1.383987e-011  
B7 6.864128e-011  
K1 -7.600757e-013  
J3 1.689507e-013  
T2 -4.958685e-013  
L3 -2.954400e-013  
L8 9.608084e-013

[Row] A3

A3 1.135861e-009  
F3 4.822120e-012  
G3 1.490862e-012  
C7 8.523477e-012  
B7 1.612459e-011  
K1 -4.496027e-014  
J3 8.403558e-013  
T2 -2.784465e-012  
L3 -9.115656e-013  
L8 -2.104975e-012

[Row] F3

F3 1.043368e-009

G3 2.931711e-010  
C7 3.088983e-012  
B7 3.926469e-012  
K1 -2.213802e-012  
J3 7.270798e-012  
T2 -2.435977e-012  
L3 -2.452086e-012  
L8 3.965391e-013

[Row] G3

G3 1.045952e-009  
C7 1.230083e-012  
B7 1.130595e-012  
K1 -9.545491e-013  
J3 9.408293e-012  
T2 2.812742e-013  
L3 1.900766e-014  
L8 9.681704e-013

[Row] C7

C7 1.140545e-009  
B7 2.097946e-010  
K1 5.670857e-013  
J3 9.492768e-013  
T2 -5.428137e-013  
L3 1.888132e-013  
L8 -7.166459e-012

[Row] B7

B7 1.091815e-009  
K1 -5.030045e-013  
J3 6.825132e-013  
T2 -2.162792e-012  
L3 -1.182935e-012  
L8 3.977938e-012

[Row] K1

K1 1.347394e-009  
J3 2.582435e-011  
T2 2.362752e-011  
L3 3.903592e-010  
L8 -2.407016e-011

[Row] J3

J3 9.216836e-010  
T2 1.829466e-012  
L3 2.188284e-011  
L8 -4.739457e-012

[Row] T2

T2 1.676194e-009  
L3 2.560942e-011  
L8 -4.843468e-012

[Row] L3

L3 1.152049e-009

L8 -1.702386e-011

|

[Row] L8

L8 1.112549e-009

|

|

[Capacitance Matrix] Sparse\_matrix

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[Row] N3

N3 3.769768e-013

P7 -1.917169e-015

P3 -1.391140e-014

N2 -1.285489e-013

P8 -7.745349e-016

P2 -2.292293e-014

R8 -2.889367e-016

R2 -2.041698e-015

T8 -1.846047e-016

R3 -4.027213e-015

L7 -1.319227e-016

R7 -4.536068e-016

N7 -1.318320e-014

T3 -1.032681e-015

T7 -1.577317e-016

M2 -3.830465e-015

N8 -1.248310e-014

M3 -2.040881e-014

K3 -2.773912e-016

J7 -4.711480e-017

K7 -5.718274e-017

K9 -8.053106e-017

L2 -6.864076e-016

E7 -5.110889e-018

D3 -5.508510e-017

E3 -5.097299e-018

F7 -2.486202e-017

F2 -1.720114e-017

F8 -1.552058e-017

H3 -3.642914e-017

H8 -4.312445e-017

G2 -7.565307e-017

H7 -5.777553e-017

D7 -2.488972e-017

C3 -5.913264e-018

C8 -6.753679e-018

C2 -9.756229e-018

A7 -1.408060e-017

A2 -7.650468e-018

B8 -1.544533e-017

A3 -1.693045e-017

F3 -2.861922e-017

G3 -4.545288e-017  
C7 0.000000e+000  
B7 -5.173188e-018  
K1 -1.179961e-016  
J3 -7.439322e-017  
T2 -1.297930e-015  
L3 -9.981159e-016  
L8 -2.091515e-016

[Row] P7

P7 3.897789e-013  
P3 -1.533724e-015  
N2 -1.305237e-014  
P8 -1.564450e-013  
P2 -1.219374e-014  
R8 -1.057432e-014  
R2 -3.337002e-016  
T8 -4.610396e-015  
R3 -6.111764e-016  
L7 -5.970904e-016  
R7 -3.040459e-014  
N7 -1.149584e-013  
T3 -2.086498e-016  
T7 -2.806589e-015  
M2 -1.861430e-016  
N8 -1.449329e-014  
M3 -2.916131e-016  
K3 -6.935758e-017  
J7 -4.304334e-017  
K7 -1.463580e-016  
K9 -1.510194e-016  
L2 -7.187523e-017  
E7 -9.550324e-018  
D3 -7.381613e-018  
E3 -1.028668e-017  
F7 -1.423584e-017  
F2 -8.286403e-018  
F8 -1.318340e-017  
H3 -2.585017e-017  
H8 -2.772622e-017  
G2 -1.396509e-017  
H7 -4.152426e-017  
D7 -1.032811e-017  
C3 -5.694908e-018  
C8 -7.327644e-018  
C2 -6.417275e-018  
A7 -7.827594e-018  
A2 -7.049762e-018  
B8 -7.373830e-018  
A3 -8.030977e-018  
F3 -1.158201e-017  
G3 -1.559879e-017  
C7 -6.902855e-018  
B7 -6.635878e-018



K1 -6.076377e-017  
J3 -4.545322e-017  
T2 -2.314546e-016  
L3 -1.037200e-016  
L8 -4.167210e-016

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[Row] P3

P3 3.779588e-013  
N2 -2.292695e-014  
P8 -1.220820e-014  
P2 -1.442019e-013  
R8 -1.901844e-015  
R2 -1.997415e-014  
T8 -8.082668e-016  
R3 -1.144391e-013  
L7 -6.802346e-017  
R7 -1.313447e-014  
N7 -6.131892e-016  
T3 -3.969589e-015  
T7 -4.926033e-016  
M2 -3.951407e-016  
N8 -2.713904e-016  
M3 -1.609491e-015  
K3 -1.355739e-016  
J7 -2.616110e-018  
K7 -6.029434e-017  
K9 -4.486036e-017  
L2 -2.277453e-016  
E7 -8.529384e-018  
D3 -8.219682e-018  
E3 -9.664929e-018  
F7 -9.026820e-018  
F2 -1.290870e-017  
F8 -8.467965e-018  
H3 -3.350099e-017  
H8 -1.555702e-017  
G2 -2.118715e-017  
H7 -2.585672e-017  
D7 -5.568654e-018  
C3 -6.549258e-018  
C8 -5.694684e-018  
C2 -8.091157e-018  
A7 -7.654650e-018  
A2 -8.560334e-018  
B8 -6.458580e-018  
A3 -8.573052e-018  
F3 -1.446398e-017  
G3 -2.030888e-017  
C7 -5.137577e-018  
B7 -5.677156e-018  
K1 -1.060765e-016  
J3 -6.248068e-017  
T2 -7.227195e-015  
L3 -3.378511e-016

L8 -5.904485e-017  
|  
[Row] N2  
N2 4.477666e-013  
P8 -1.830304e-015  
P2 -1.651226e-013  
R8 -3.774540e-016  
R2 -3.046499e-015  
T8 -2.556618e-016  
R3 -6.174769e-015  
L7 -9.992674e-017  
R7 -7.459167e-016  
N7 -1.235015e-014  
T3 -8.851547e-016  
T7 -1.450894e-016  
M2 -6.306369e-015  
N8 -1.505141e-015  
M3 -5.478680e-015  
K3 -2.330012e-016  
J7 -2.448536e-017  
K7 -4.568840e-017  
K9 -5.352078e-017  
L2 -5.106654e-016  
E7 -8.028654e-018  
D3 -3.456271e-017  
E3 -1.027699e-017  
F7 -1.336495e-017  
F2 -2.164992e-017  
F8 -9.598101e-018  
H3 -5.500365e-017  
H8 -2.065011e-017  
G2 -5.299332e-017  
H7 -4.137566e-017  
D7 -1.158178e-017  
C3 -8.188100e-018  
C8 -4.913189e-018  
C2 -1.184712e-017  
A7 -1.183637e-017  
A2 -9.906643e-018  
B8 -1.110036e-017  
A3 -1.400982e-017  
F3 -2.720750e-017  
G3 -3.605347e-017  
C7 -1.005095e-018  
B7 -6.112145e-018  
K1 -2.293701e-016  
J3 -6.706726e-017  
T2 -1.434208e-015  
L3 -5.693581e-016  
L8 -1.120620e-016  
|  
[Row] P8  
P8 4.634413e-013  
P2 -1.307692e-014

R8 -3.145838e-014  
R2 -5.660629e-016  
T8 -7.452043e-015  
R3 -1.481715e-015  
L7 -4.430763e-016  
R7 -1.538734e-013  
N7 -2.001777e-014  
T3 -2.514223e-016  
T7 -3.904691e-015  
M2 -1.206878e-016  
N8 -1.402133e-014  
M3 -1.997964e-016  
K3 -6.156480e-017  
J7 -5.275724e-017  
K7 -9.617051e-017  
K9 -5.682037e-017  
L2 -5.480674e-017  
E7 -1.045581e-017  
D3 -7.107174e-018  
E3 -9.774065e-018  
F7 -1.206910e-017  
F2 -8.944980e-018  
F8 -1.257716e-017  
H3 -2.227626e-017  
H8 -2.639307e-017  
G2 -1.216384e-017  
H7 -4.311755e-017  
D7 -8.410374e-018  
C3 -6.111681e-018  
C8 -8.245045e-018  
C2 -6.372142e-018  
A7 -8.865254e-018  
A2 -8.171530e-018  
B8 -7.997235e-018  
A3 -8.783187e-018  
F3 -1.161050e-017  
G3 -1.448989e-017  
C7 -7.714635e-018  
B7 -6.995142e-018  
K1 -5.373584e-017  
J3 -3.956400e-017  
T2 -2.743058e-016  
L3 -8.038975e-017  
L8 -3.227062e-016  
|  
[Row] P2  
P2 4.617439e-013  
R8 -7.719254e-016  
R2 -1.507414e-014  
T8 -4.119174e-016  
R3 -1.739265e-014  
L7 -9.622006e-017  
R7 -1.884777e-015  
N7 -1.532788e-015

T3 -1.602464e-015  
T7 -2.460543e-016  
M2 -7.983905e-016  
N8 -5.703851e-016  
M3 -2.203795e-015  
K3 -1.254842e-016  
J7 -3.152999e-017  
K7 -5.026768e-017  
K9 -4.733178e-017  
L2 -2.793441e-016  
E7 -8.574524e-018  
D3 -1.152988e-017  
E3 -9.612817e-018  
F7 -9.758451e-018  
F2 -1.495294e-017  
F8 -8.325494e-018  
H3 -5.805690e-017  
H8 -1.110897e-017  
G2 -2.431318e-017  
H7 -1.661027e-017  
D7 -5.399333e-018  
C3 -7.525004e-018  
C8 -5.915485e-018  
C2 -9.148395e-018  
A7 -8.613076e-018  
A2 -9.971161e-018  
B8 -7.495045e-018  
A3 -1.029521e-017  
F3 -1.647523e-017  
G3 -2.266145e-017  
C7 -4.926172e-018  
B7 -5.913893e-018  
K1 -9.168316e-017  
J3 -5.611156e-017  
T2 -2.941330e-015  
L3 -4.135269e-016  
L8 -8.172947e-017

|  
[Row] R8  
R8 5.037225e-013  
R2 -1.214754e-014  
T8 -1.720678e-013  
R3 -1.316768e-014  
L7 -2.260042e-016  
R7 -1.700600e-013  
N7 -3.866777e-015  
T3 -6.681725e-016  
T7 -2.739197e-014  
M2 -7.624001e-017  
N8 -1.532055e-015  
M3 -1.289023e-016  
K3 -4.112479e-017  
J7 -4.546145e-017  
K7 -7.873882e-017

K9 -1.257108e-016  
L2 -4.674542e-017  
E7 -1.079313e-017  
D3 -3.455369e-018  
E3 -9.549385e-018  
F7 -1.163524e-017  
F2 -9.531106e-018  
F8 -1.279294e-017  
H3 -1.157629e-017  
H8 -2.585300e-017  
G2 -1.177861e-017  
H7 -3.221490e-017  
D7 -4.965513e-018  
C3 -5.908113e-018  
C8 -7.685509e-018  
C2 -6.042025e-018  
A7 -8.544023e-018  
A2 -8.348958e-018  
B8 -7.291147e-018  
A3 -8.199999e-018  
F3 -1.025280e-017  
G3 -1.392351e-017  
C7 -7.747312e-018  
B7 -6.964077e-018  
K1 -3.965837e-017  
J3 -3.962696e-017  
T2 -1.518965e-015  
L3 -5.370932e-017  
L8 -1.305517e-016

|  
[Row] R2  
R2 4.797454e-013  
T8 -1.323089e-014  
R3 -1.625179e-013  
L7 -5.947125e-017  
R7 -1.514287e-015  
N7 -1.911376e-016  
T3 -2.701830e-014  
T7 -2.014359e-015  
M2 -3.386562e-016  
N8 -1.185516e-016  
M3 -6.768260e-016  
K3 -9.084338e-017  
J7 -3.139673e-017  
K7 -3.041233e-017  
K9 -3.391882e-017  
L2 -9.638121e-017  
E7 -1.073052e-017  
D3 -6.227772e-018  
E3 -1.056601e-017  
F7 -9.975397e-018  
F2 -1.306711e-017  
F8 -9.754163e-018  
H3 -2.595603e-017

H8 -1.049816e-017  
G2 -1.901796e-017  
H7 -2.142186e-017  
D7 -2.487133e-018  
C3 -7.247110e-018  
C8 -5.773697e-018  
C2 -8.254889e-018  
A7 -8.060086e-018  
A2 -1.024769e-017  
B8 -6.315026e-018  
A3 -9.309643e-018  
F3 -1.359427e-017  
G3 -1.807005e-017  
C7 -5.356184e-018  
B7 -5.752271e-018  
K1 -9.674874e-017  
J3 -5.342389e-017  
T2 -1.659741e-013  
L3 -1.699941e-016  
L8 -5.989105e-017

|  
[Row] T8  
T8 5.145114e-013  
R3 -1.973137e-015  
L7 -1.814566e-016  
R7 -2.775671e-014  
N7 -2.064307e-015  
T3 -1.688219e-015  
T7 -1.698495e-013  
M2 -4.187924e-017  
N8 -7.396975e-016  
M3 -1.383773e-016  
K3 -3.924165e-017  
J7 -3.676065e-017  
K7 -6.894141e-017  
K9 -1.085996e-016  
L2 -5.216917e-017  
E7 -1.013180e-017  
D3 -2.027773e-018  
E3 -1.296601e-017  
F7 -1.400021e-017  
F2 -1.078517e-017  
F8 -1.427569e-017  
H3 -1.245631e-017  
H8 -2.958388e-017  
G2 -1.020325e-017  
H7 -3.940807e-017  
D7 -1.284058e-017  
C3 -6.867207e-018  
C8 -9.815553e-018  
C2 -6.803885e-018  
A7 -1.055531e-017  
A2 -1.014075e-017  
B8 -8.968370e-018

A3 -9.902136e-018  
F3 -1.171807e-017  
G3 -1.485363e-017  
C7 -1.093706e-017  
B7 -8.956102e-018  
K1 -3.249893e-017  
J3 -5.367275e-017  
T2 -1.226969e-014  
L3 -5.793303e-017  
L8 -1.273889e-016  
|  
[Row] R3  
R3 4.038557e-013  
L7 -6.674928e-017  
R7 -1.229310e-014  
N7 -2.971186e-016  
T3 -1.495359e-014  
T7 -8.731170e-016  
M2 -2.730354e-016  
N8 -2.040651e-016  
M3 -9.289933e-016  
K3 -1.055354e-016  
J7 -3.230704e-017  
K7 -2.912717e-017  
K9 -3.291799e-017  
L2 -1.214788e-016  
E7 -8.468910e-018  
D3 -5.573498e-018  
E3 -9.065640e-018  
F7 -8.374019e-018  
F2 -1.365415e-017  
F8 -8.327417e-018  
H3 -3.177383e-017  
H8 -1.210558e-017  
G2 -1.869621e-017  
H7 -1.489957e-017  
D7 -4.387007e-018  
C3 -6.523331e-018  
C8 -5.520753e-018  
C2 -7.276994e-018  
A7 -7.576061e-018  
A2 -9.069218e-018  
B8 -6.501547e-018  
A3 -8.698506e-018  
F3 -1.327490e-017  
G3 -1.798999e-017  
C7 -5.425083e-018  
B7 -5.719807e-018  
K1 -1.155928e-016  
J3 -5.091884e-017  
T2 -2.779575e-014  
L3 -2.045523e-016  
L8 -6.087671e-017  
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[Row] L7

L7 3.191943e-013  
R7 -3.156964e-016  
N7 -1.125659e-015  
T3 -7.497764e-017  
T7 -1.701988e-016  
M2 -5.215528e-016  
N8 -1.282324e-015  
M3 -4.023711e-016  
K3 -1.614402e-015  
J7 -1.723459e-015  
K7 -1.008155e-014  
K9 -8.684688e-014  
L2 -3.757111e-015  
E7 -2.679794e-017  
D3 -2.284182e-017  
E3 -2.244070e-017  
F7 -3.651215e-017  
F2 -1.303736e-017  
F8 -4.844755e-017  
H3 -7.488632e-017  
H8 -1.588707e-016  
G2 -3.530689e-017  
H7 -1.918664e-016  
D7 -2.741552e-017  
C3 -9.655011e-018  
C8 -1.297182e-017  
C2 -1.027469e-017  
A7 -1.145348e-017  
A2 -1.013226e-017  
B8 -1.273164e-017  
A3 -1.358470e-017  
F3 -3.258647e-017  
G3 -4.072560e-017  
C7 -9.336215e-018  
B7 -1.045031e-017  
K1 -1.229466e-014  
J3 -3.393945e-016  
T2 -6.998017e-017  
L3 -1.332414e-014  
L8 -1.065582e-013

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[Row] R7

R7 4.617003e-013  
N7 -7.405492e-015  
T3 -3.763411e-016  
T7 -1.438479e-014  
M2 -3.416055e-017  
N8 -2.440525e-015  
M3 -1.732973e-016  
K3 -3.236312e-017  
J7 -5.720849e-017  
K7 -6.929833e-017  
K9 -8.069555e-017



L2 -5.239721e-017  
E7 -9.942598e-018  
D3 -5.085027e-018  
E3 -8.993791e-018  
F7 -9.869855e-018  
F2 -8.947606e-018  
F8 -1.134641e-017  
H3 -2.033744e-017  
H8 -2.218569e-017  
G2 -1.142402e-017  
H7 -3.480403e-017  
D7 -4.991683e-018  
C3 -5.408243e-018  
C8 -6.526101e-018  
C2 -5.752787e-018  
A7 -7.465196e-018  
A2 -7.288722e-018  
B8 -6.619397e-018  
A3 -7.629729e-018  
F3 -1.044021e-017  
G3 -1.380106e-017  
C7 -6.403406e-018  
B7 -6.031172e-018  
K1 -3.452328e-017  
J3 -3.537124e-017  
T2 -6.295182e-016  
L3 -5.805863e-017  
L8 -1.880477e-016  
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[Row] N7  
N7 3.627410e-013  
T3 -1.240481e-016  
T7 -1.416617e-015  
M2 -3.475596e-016  
N8 -1.313019e-013  
M3 -5.075792e-016  
K3 -8.505062e-017  
J7 -9.554125e-017  
K7 -2.383842e-016  
K9 -1.332398e-016  
L2 -9.758722e-017  
E7 -3.529807e-018  
D3 -2.259796e-017  
E3 -3.511638e-018  
F7 -2.614415e-017  
F2 -1.078995e-017  
F8 -1.677307e-017  
H3 -1.020287e-016  
H8 -3.183654e-017  
G2 -1.049864e-017  
H7 -1.939979e-017  
D7 -4.404196e-017  
C3 -5.701457e-018  
C8 -7.885418e-018

C2 -6.055200e-018  
A7 -9.141166e-018  
A2 -5.637989e-018  
B8 -1.114755e-017  
A3 -1.234151e-017  
F3 -1.362297e-017  
G3 -2.257740e-017  
C7 -7.972184e-018  
B7 -6.480860e-018  
K1 -7.393631e-017  
J3 -6.270868e-017  
T2 -1.556198e-016  
L3 -1.340594e-016  
L8 -8.745402e-016

[Row] T3  
T3 4.533198e-013  
T7 -1.267336e-014  
M2 -1.596264e-016  
N8 -1.240618e-016  
M3 -3.811096e-016  
K3 -5.004034e-017  
J7 -2.545167e-017  
K7 -3.040070e-017  
K9 -2.997366e-017  
L2 -9.159690e-017  
E7 -1.184910e-017  
D3 -6.771622e-018  
E3 -1.123011e-017  
F7 -1.104333e-017  
F2 -1.172034e-017  
F8 -1.063938e-017  
H3 -1.070709e-017  
H8 -1.316359e-017  
G2 -1.620839e-017  
H7 -1.458757e-017  
D7 -4.310434e-018  
C3 -7.705464e-018  
C8 -7.366686e-018  
C2 -8.196565e-018  
A7 -9.159743e-018  
A2 -1.122439e-017  
B8 -7.334350e-018  
A3 -1.042099e-017  
F3 -1.197882e-017  
G3 -1.620936e-017  
C7 -7.212778e-018  
B7 -7.047527e-018  
K1 -2.549022e-017  
J3 -5.038776e-017  
T2 -1.661276e-013  
L3 -1.460336e-016  
L8 -5.053445e-017

[Row] T7

T7 4.687352e-013  
M2 -6.478497e-017  
N8 -5.249090e-016  
M3 -1.041714e-016  
K3 -4.236018e-017  
J7 -3.282038e-017  
K7 -5.309570e-017  
K9 -5.257668e-017  
L2 -5.619706e-017  
E7 -1.045479e-017  
D3 -5.514046e-018  
E3 -1.284903e-017  
F7 -1.155094e-017  
F2 -1.080080e-017  
F8 -1.155622e-017  
H3 -2.650406e-017  
H8 -2.038706e-017  
G2 -1.326209e-017  
H7 -2.809839e-017  
D7 -1.013285e-017  
C3 -6.591993e-018  
C8 -8.894083e-018  
C2 -6.796943e-018  
A7 -9.563682e-018  
A2 -9.065254e-018  
B8 -7.912302e-018  
A3 -9.039933e-018  
F3 -1.242908e-017  
G3 -1.550268e-017  
C7 -9.132825e-018  
B7 -7.969452e-018  
K1 -3.966949e-017  
J3 -4.795686e-017  
T2 -1.338996e-014  
L3 -5.722548e-017  
L8 -1.135322e-016

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[Row] M2

M2 4.294488e-013  
N8 -5.685925e-016  
M3 -1.143379e-013  
K3 -1.014969e-015  
J7 -9.923429e-017  
K7 -1.247323e-016  
K9 -2.197476e-016  
L2 -2.165834e-014  
E7 -1.430890e-017  
D3 -4.239562e-018  
E3 -1.752877e-017  
F7 -9.218195e-018  
F2 -2.767601e-017  
F8 -7.869909e-018  
H3 -7.218219e-017

H8 -7.836126e-018  
G2 -2.948196e-017  
H7 -2.829334e-017  
D7 -4.338186e-018  
C3 -8.877991e-018  
C8 -8.487134e-018  
C2 -7.984029e-018  
A7 -7.161814e-018  
A2 -9.548501e-018  
B8 -5.345261e-018  
A3 -8.225272e-018  
F3 -2.404092e-017  
G3 -5.372467e-017  
C7 -1.096737e-017  
B7 -7.701758e-018  
K1 -9.598683e-016  
J3 -2.926840e-016  
T2 -2.027312e-016  
L3 -9.854217e-015  
L8 -3.243696e-015

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[Row] N8

N8 4.229601e-013  
M3 -1.063974e-015  
K3 -8.016002e-017  
J7 -1.125582e-016  
K7 -2.210809e-016  
K9 -3.276611e-016  
L2 -1.432851e-016  
E7 -2.367782e-017  
D3 -5.904154e-018  
E3 -1.781121e-017  
F7 -1.444044e-017  
F2 -1.090823e-017  
F8 -1.682713e-017  
H3 -3.446030e-017  
H8 -2.666474e-017  
G2 -1.622131e-017  
H7 -5.502537e-017  
D7 0.000000e+000  
C3 -7.418960e-018  
C8 -9.660168e-018  
C2 -7.022811e-018  
A7 -8.333478e-018  
A2 -9.013585e-018  
B8 -5.968956e-018  
A3 -7.295856e-018  
F3 -1.376015e-017  
G3 -1.539328e-017  
C7 -9.859669e-018  
B7 -8.575032e-018  
K1 -8.205784e-017  
J3 -5.613659e-017  
T2 -1.195294e-016

L3 -1.340042e-016  
L8 -1.557266e-015

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[Row] M3

M3 3.574427e-013  
K3 -8.185618e-016  
J7 -6.967007e-017  
K7 -9.455748e-017  
K9 -1.959781e-016  
L2 -7.176431e-015  
E7 -2.242385e-017  
D3 -7.979867e-018  
E3 -4.442546e-017  
F7 -2.346993e-017  
F2 -1.420030e-017  
F8 -2.020466e-017  
H3 -5.510967e-017  
H8 -1.782221e-017  
G2 -2.921975e-017  
H7 -6.661959e-017  
D7 -3.728967e-018  
C3 -7.284333e-018  
C8 -8.292582e-018  
C2 -7.318809e-018  
A7 -5.735960e-018  
A2 -9.267186e-018  
B8 -4.067743e-018  
A3 -6.031948e-018  
F3 -3.536128e-017  
G3 -3.483813e-017  
C7 -1.041842e-017  
B7 -8.516293e-018  
K1 -7.655508e-016  
J3 -3.042497e-016  
T2 -4.427657e-016  
L3 -7.274456e-015  
L8 -1.413933e-015

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[Row] K3

K3 3.317728e-013  
J7 -1.886597e-015  
K7 -3.775325e-015  
K9 -1.222403e-014  
L2 -5.240926e-015  
E7 -2.125464e-017  
D3 -3.664452e-017  
E3 -3.041361e-017  
F7 -3.053174e-017  
F2 -5.002064e-017  
F8 -1.839681e-017  
H3 -5.751827e-016  
H8 -3.494022e-017  
G2 -1.418740e-016  
H7 -8.885173e-017

D7 -1.702655e-017  
C3 -1.659243e-017  
C8 -1.208396e-017  
C2 -1.928907e-017  
A7 -1.198619e-017  
A2 -1.428253e-017  
B8 -1.180639e-017  
A3 -1.637985e-017  
F3 -8.826431e-017  
G3 -1.658239e-016  
C7 -1.004793e-017  
B7 -1.052900e-017  
K1 -9.782981e-014  
J3 -1.114579e-014  
T2 -5.470413e-017  
L3 -2.580010e-014  
L8 -3.780735e-016

|

[Row] J7

J7 2.776249e-013  
K7 -8.698198e-014  
K9 -2.806242e-015  
L2 -2.370857e-016  
E7 -6.473006e-017  
D3 -3.395362e-017  
E3 -3.841584e-017  
F7 -1.149609e-016  
F2 -1.650562e-017  
F8 -8.625712e-017  
H3 -1.671789e-016  
H8 -8.601503e-016  
G2 -8.409923e-017  
H7 -5.899361e-015  
D7 -1.444307e-017  
C3 -1.407026e-017  
C8 -2.461574e-017  
C2 -1.138281e-017  
A7 -1.163108e-017  
A2 -7.182734e-018  
B8 -1.358348e-017  
A3 -1.011649e-017  
F3 -5.303961e-017  
G3 -5.665457e-017  
C7 -2.214493e-017  
B7 -1.573051e-017  
K1 -6.856290e-016  
J3 -3.369409e-015  
T2 -2.879182e-017  
L3 -3.927403e-016  
L8 -6.245124e-016

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[Row] K7

K7 2.833704e-013  
K9 -1.129872e-014

L2 -2.953558e-016  
E7 -3.406792e-017  
D3 -2.416582e-017  
E3 -1.892621e-017  
F7 -6.707271e-017  
F2 -2.450472e-017  
F8 -4.916553e-017  
H3 -1.011598e-016  
H8 -1.459925e-016  
G2 -4.882252e-017  
H7 -5.401648e-016  
D7 -2.921998e-017  
C3 -1.076998e-017  
C8 -1.627979e-017  
C2 -1.088285e-017  
A7 -1.127029e-017  
A2 -1.100237e-017  
B8 -1.291106e-017  
A3 -1.277764e-017  
F3 -3.243842e-017  
G3 -4.050378e-017  
C7 -1.304169e-017  
B7 -1.206448e-017  
K1 -1.087481e-015  
J3 -1.570773e-015  
T2 -3.202727e-017  
L3 -5.337602e-016  
L8 -1.964839e-015

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[Row] K9

K9 4.004890e-013  
L2 -1.024684e-015  
E7 -2.532142e-017  
D3 -1.697705e-017  
E3 -1.218277e-017  
F7 -1.968081e-017  
F2 -3.373491e-017  
F8 -2.747536e-017  
H3 -5.318746e-017  
H8 -1.412506e-016  
G2 -3.143548e-017  
H7 -1.788143e-016  
D7 -3.473105e-017  
C3 -1.099480e-017  
C8 -2.050631e-017  
C2 -1.091872e-017  
A7 -1.577753e-017  
A2 -1.516573e-017  
B8 -1.556960e-017  
A3 -1.538905e-017  
F3 -2.994068e-017  
G3 -3.913301e-017  
C7 -1.620942e-017  
B7 -1.462341e-017

K1 -1.315797e-014  
J3 -4.432721e-016  
T2 -3.506573e-017  
L3 -1.886807e-015  
L8 -1.982075e-014

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[Row] L2

L2 3.881700e-013  
E7 -1.467921e-017  
D3 -1.317724e-017  
E3 -2.922150e-017  
F7 -1.091306e-017  
F2 -6.572870e-017  
F8 -8.377820e-018  
H3 -1.973014e-016  
H8 -1.865596e-017  
G2 -5.703302e-017  
H7 -4.509876e-017  
D7 -6.014227e-018  
C3 -1.130769e-017  
C8 -6.992120e-018  
C2 -1.286042e-017  
A7 -7.478983e-018  
A2 -1.089795e-017  
B8 -5.499649e-018  
A3 -9.139921e-018  
F3 -4.771353e-017  
G3 -3.312861e-017  
C7 -7.863122e-018  
B7 -6.989497e-018  
K1 -1.891719e-014  
J3 -6.176833e-016  
T2 -1.128534e-016  
L3 -1.276615e-013  
L8 -3.655610e-015

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[Row] E7

E7 3.342736e-013  
D3 -8.003645e-015  
E3 -1.782661e-015  
F7 -7.254822e-015  
F2 -5.577191e-016  
F8 -1.404869e-014  
H3 -5.106095e-017  
H8 -1.639874e-016  
G2 -4.685047e-017  
H7 -1.822207e-016  
D7 -2.550116e-014  
C3 -2.848015e-016  
C8 -3.714295e-015  
C2 -6.028436e-016  
A7 -1.560960e-016  
A2 -8.558606e-017  
B8 -2.479867e-016



A3 -9.429130e-017  
F3 -1.581450e-016  
G3 -1.292043e-016  
C7 -9.284924e-016  
B7 -3.715607e-016  
K1 -1.742041e-017  
J3 -6.210019e-017  
T2 -1.287103e-017  
L3 -2.060058e-017  
L8 -1.935682e-017

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[Row] D3

D3 4.095868e-013  
E3 -2.675902e-014  
F7 -3.125175e-016  
F2 -1.854504e-015  
F8 -6.311942e-016  
H3 -7.886262e-017  
H8 -4.418500e-017  
G2 -1.738896e-016  
H7 -3.367350e-017  
D7 -1.614583e-015  
C3 -6.869405e-015  
C8 -6.075526e-016  
C2 -1.816698e-014  
A7 -7.926017e-017  
A2 -5.609106e-016  
B8 -6.931588e-017  
A3 -3.922197e-016  
F3 -8.556873e-016  
G3 -2.934686e-016  
C7 -1.330365e-016  
B7 -1.050701e-016  
K1 -3.323977e-017  
J3 -5.988322e-017  
T2 -6.161802e-018  
L3 -2.300663e-017  
L8 -1.348983e-017

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[Row] E3

E3 3.708915e-013  
F7 -5.119001e-016  
F2 -1.566407e-014  
F8 -1.212679e-015  
H3 -1.944858e-016  
H8 -7.468270e-017  
G2 -2.766600e-016  
H7 -6.650685e-017  
D7 -4.866325e-016  
C3 -1.221434e-015  
C8 -2.725135e-016  
C2 -2.421513e-015  
A7 -7.260473e-017  
A2 -2.440495e-016

B8 -5.554189e-017  
A3 -1.630676e-016  
F3 -6.071410e-015  
G3 -9.948253e-016  
C7 -1.179488e-016  
B7 -8.642185e-017  
K1 -1.930370e-017  
J3 -1.097665e-016  
T2 -1.280318e-017  
L3 -2.801201e-017  
L8 -5.333276e-018

|

[Row] F7

F7 3.319617e-013  
F2 -1.498376e-015  
F8 -2.449020e-014  
H3 -1.127899e-016  
H8 -3.822023e-016  
G2 -7.966885e-017  
H7 -5.764392e-016  
D7 -8.348384e-016  
C3 -6.917459e-017  
C8 -3.530774e-016  
C2 -8.475373e-017  
A7 -6.873863e-017  
A2 -4.648170e-017  
B8 -5.821072e-017  
A3 -4.352350e-017  
F3 -7.347652e-016  
G3 -4.171448e-016  
C7 -1.778369e-016  
B7 -9.160579e-017  
K1 -2.124474e-017  
J3 -8.455333e-017  
T2 -1.229230e-017  
L3 -2.155382e-017  
L8 -5.605397e-017

|

[Row] F2

F2 4.445938e-013  
F8 -4.194954e-015  
H3 -2.666283e-016  
H8 -7.219707e-017  
G2 -3.756794e-015  
H7 -1.021491e-016  
D7 -2.538996e-016  
C3 -2.199701e-016  
C8 -1.271985e-016  
C2 -2.389072e-016  
A7 -4.763151e-017  
A2 -3.909376e-017  
B8 -5.106604e-017  
A3 -5.845218e-017  
F3 -2.056866e-014

G3 -3.256004e-015  
C7 -2.624532e-017  
B7 -6.062971e-017  
K1 -3.583063e-017  
J3 -1.438951e-016  
T2 -1.400021e-017  
L3 -4.715129e-017  
L8 -1.951924e-017

[Row] F8

F8 4.475857e-013  
H3 -4.213596e-017  
H8 -3.425013e-016  
G2 -5.297562e-017  
H7 -2.563122e-016  
D7 -8.309552e-016  
C3 -6.979619e-017  
C8 -3.809354e-016  
C2 -7.185377e-017  
A7 -4.421196e-017  
A2 -3.458494e-017  
B8 -6.187124e-017  
A3 -3.651896e-017  
F3 -3.328979e-016  
G3 -1.961661e-016  
C7 -1.773814e-016  
B7 -3.482072e-017  
K1 -1.176499e-017  
J3 -6.034011e-017  
T2 -1.188162e-017  
L3 -1.731295e-017  
L8 -5.039478e-017

[Row] H3

H3 3.240227e-013  
H8 -4.571415e-016  
G2 -1.591046e-014  
H7 -1.679781e-015  
D7 -7.122108e-017  
C3 -3.511717e-017  
C8 -2.710064e-017  
C2 -2.279892e-017  
A7 -1.391891e-017  
A2 -3.229285e-017  
B8 -3.463908e-018  
A3 -2.012770e-017  
F3 -1.043081e-015  
G3 -5.454697e-015  
C7 -3.433544e-017  
B7 -1.201980e-017  
K1 -2.114288e-016  
J3 -1.094738e-014  
T2 -2.273680e-017  
L3 -1.874847e-016

L8 -3.539788e-017  
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[Row] H8  
H8 4.175367e-013  
G2 -1.076608e-015  
H7 -1.974128e-014  
D7 -5.566458e-017  
C3 -2.064761e-017  
C8 -4.096156e-017  
C2 -2.767677e-017  
A7 -2.234933e-017  
A2 -2.113780e-017  
B8 -2.075046e-017  
A3 -1.965112e-017  
F3 -9.389481e-016  
G3 -3.469895e-015  
C7 -2.998621e-017  
B7 -2.042958e-017  
K1 -2.531710e-017  
J3 -1.331911e-016  
T2 -1.473047e-017  
L3 -3.175981e-017  
L8 -1.469009e-016

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[Row] G2  
G2 4.202074e-013  
H7 -4.246092e-015  
D7 -2.964878e-017  
C3 -5.398270e-017  
C8 -2.505038e-017  
C2 -6.129279e-017  
A7 -2.000962e-017  
A2 -3.445649e-017  
B8 -1.249942e-017  
A3 -3.233724e-017  
F3 -2.882880e-015  
G3 -1.734780e-014  
C7 -2.681295e-017  
B7 -1.943452e-017  
K1 -1.426425e-016  
J3 -7.122532e-016  
T2 -1.577755e-017  
L3 -6.401855e-017  
L8 -2.103102e-017

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[Row] H7  
H7 3.091684e-013  
D7 -7.220539e-017  
C3 -2.956814e-017  
C8 -4.103666e-017  
C2 -2.986458e-017  
A7 -2.436814e-017  
A2 -3.304102e-017  
B8 -2.197749e-017

A3 -2.390025e-017  
F3 -4.328530e-016  
G3 -1.059816e-015  
C7 -2.801909e-017  
B7 -2.427624e-017  
K1 -4.467037e-017  
J3 -3.672682e-016  
T2 -2.712579e-017  
L3 -7.230149e-017  
L8 -1.527445e-016

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[Row] D7

D7 3.809798e-013  
C3 -4.581748e-016  
C8 -2.179010e-014  
C2 -1.088419e-015  
A7 -3.881786e-016  
A2 -1.019124e-016  
B8 -5.876085e-016  
A3 -1.312338e-016  
F3 -1.061811e-016  
G3 -9.156464e-017  
C7 -6.256401e-015  
B7 -1.149250e-015  
K1 -1.404190e-017  
J3 -7.880565e-017  
T2 -4.085100e-018  
L3 -1.059559e-017  
L8 -1.595576e-017

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[Row] C3

C3 4.127367e-013  
C8 -1.501758e-015  
C2 -2.633403e-014  
A7 -1.630962e-016  
A2 -2.350106e-015  
B8 -1.298347e-016  
A3 -1.288358e-015  
F3 -2.244889e-016  
G3 -1.044372e-016  
C7 -6.810287e-016  
B7 -3.559320e-016  
K1 -1.790679e-017  
J3 -3.185934e-017  
T2 -8.380845e-018  
L3 -1.137935e-017  
L8 -8.217733e-018

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[Row] C8

C8 4.500286e-013  
C2 -4.120358e-015  
A7 -4.202086e-016  
A2 -1.064348e-016  
B8 -4.001759e-015

A3 -1.037748e-016  
F3 -8.205004e-017  
G3 -6.562189e-017  
C7 -1.853460e-014  
B7 -2.396529e-015  
K1 -1.188112e-017  
J3 -2.224475e-017  
T2 -7.977093e-018  
L3 -9.827670e-018  
L8 -1.197796e-017

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[Row] C2

C2 4.452445e-013  
A7 -5.751545e-017  
A2 -7.321601e-016  
B8 -6.069637e-017  
A3 -3.773042e-016  
F3 -2.710253e-016  
G3 -7.356171e-017  
C7 -2.692018e-016  
B7 -1.553453e-016  
K1 -2.172477e-017  
J3 -5.390804e-017  
T2 -9.161313e-018  
L3 -1.305285e-017  
L8 -7.589609e-018

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[Row] A7

A7 4.198403e-013  
A2 -6.891890e-016  
B8 -2.342694e-014  
A3 -2.678991e-015  
F3 -3.595116e-017  
G3 -2.833309e-017  
C7 -1.526480e-015  
B7 -7.651637e-015  
K1 -1.252365e-017  
J3 -3.169635e-017  
T2 -1.018235e-017  
L3 -9.633493e-018  
L8 -9.733323e-018

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[Row] A2

A2 4.853125e-013  
B8 -1.162080e-015  
A3 -3.015868e-014  
F3 -7.863326e-017  
G3 -4.326533e-017  
C7 -8.889482e-016  
B7 -3.843276e-015  
K1 -1.878983e-017  
J3 -1.904473e-017  
T2 -1.305673e-017  
L3 -1.322124e-017

L8 -9.271545e-018  
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[Row] B8  
B8 4.654297e-013  
A3 -5.099736e-015  
F3 -2.831213e-017  
G3 -2.962622e-017  
C7 -4.186039e-015  
B7 -3.016807e-014  
K1 -1.093693e-017  
J3 -3.309927e-017  
T2 -8.016503e-018  
L3 -8.854628e-018  
L8 -1.048080e-017

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[Row] A3  
A3 4.185538e-013  
F3 -6.758171e-017  
G3 -5.462900e-017  
C7 -4.408802e-016  
B7 -1.293249e-015  
K1 -1.876200e-017  
J3 -2.520919e-017  
T2 -1.180492e-017  
L3 -1.248796e-017  
L8 -1.110444e-017

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[Row] F3  
F3 3.521443e-013  
G3 -1.032747e-013  
C7 -5.461321e-017  
B7 -4.058184e-017  
K1 -6.376341e-017  
J3 -3.221998e-016  
T2 -1.368195e-017  
L3 -3.274889e-017  
L8 -1.939919e-017

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[Row] G3  
G3 2.976105e-013  
C7 -3.267580e-017  
B7 -4.048624e-017  
K1 -1.443107e-016  
J3 -6.480530e-016  
T2 -1.739157e-017  
L3 -6.046118e-017  
L8 -2.592405e-017

|  
[Row] C7  
C7 4.026641e-013  
B7 -2.809281e-014  
K1 -9.368561e-018  
J3 -1.377915e-017  
T2 -7.451446e-018

L3 -8.643400e-018  
L8 -1.040759e-017

[Row] B7

B7 4.254620e-013  
K1 -9.014561e-018  
J3 -2.771145e-017  
T2 -7.324760e-018  
L3 -1.018034e-017  
L8 -8.602050e-018

[Row] K1

K1 4.069531e-013  
J3 -1.861702e-015  
T2 -6.240208e-017  
L3 -8.596333e-014  
L8 -6.649567e-016

[Row] J3

J3 2.780680e-013  
T2 -6.173807e-017  
L3 -1.332580e-015  
L8 -1.627653e-016

[Row] T2

T2 4.981177e-013  
L3 -1.720265e-016  
L8 -5.936711e-017

[Row] L3

L3 3.235824e-013  
L8 -1.779829e-015

[Row] L8

L8 3.809304e-013

[Resistance Matrix] Sparse\_matrix

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N3 5.206756e-001  
P7 -1.890915e-003  
P3 2.831431e-002  
N2 5.384570e-002  
P8 -2.312231e-003  
P2 4.032033e-002  
R8 -6.042713e-004  
R2 2.374822e-002  
T8 4.113534e-004  
R3 2.558794e-002  
L7 -2.264036e-003  
R7 -1.855057e-004  
N7 -1.365444e-003



T3 1.626745e-002  
T7 1.721540e-003  
M2 2.666239e-002  
N8 -1.334898e-003  
M3 3.522601e-002  
K3 8.327853e-003  
J7 -3.000478e-003  
K7 -2.004731e-003  
K9 -4.799386e-003  
L2 2.008712e-002  
E7 -2.256601e-004  
D3 -7.728818e-004  
E3 -3.441721e-004  
F7 -4.365924e-004  
F2 4.740224e-004  
F8 -4.537564e-004  
H3 6.176912e-004  
H8 2.309702e-004  
G2 -4.167309e-004  
H7 -5.096904e-005  
D7 -4.535027e-004  
C3 -5.933978e-004  
C8 -5.292382e-004  
C2 -4.695594e-004  
A7 -1.440742e-004  
A2 -5.552589e-004  
B8 -7.961652e-006  
A3 -6.462724e-004  
F3 -3.098601e-004  
G3 4.472847e-004  
C7 1.349331e-005  
B7 -2.111174e-004  
K1 1.457230e-002  
J3 2.323460e-003  
T2 2.124726e-002  
L3 1.079562e-002  
L8 -4.186820e-003  
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[Row] P7  
P7 4.909434e-001  
P3 -1.306499e-003  
N2 -2.061994e-003  
P8 5.234041e-002  
P2 -9.843015e-004  
R8 2.783632e-002  
R2 7.566815e-004  
T8 2.741996e-002  
R3 7.668490e-004  
L7 1.140561e-002  
R7 3.053404e-002  
N7 4.705714e-002  
T3 3.634531e-003  
T7 2.351687e-002  
M2 -3.756207e-003

N8 5.330151e-002  
M3 -2.096755e-003  
K3 -2.634605e-003  
J7 3.913660e-003  
K7 6.028762e-003  
K9 1.297847e-002  
L2 -3.771485e-003  
E7 -1.988249e-004  
D3 -1.057928e-003  
E3 -5.959125e-004  
F7 -1.401905e-004  
F2 -3.588310e-004  
F8 2.535548e-004  
H3 -4.304099e-004  
H8 7.662170e-004  
G2 -1.206327e-003  
H7 1.786379e-003  
D7 -8.231514e-004  
C3 -6.678877e-004  
C8 -1.366692e-003  
C2 -9.255583e-004  
A7 -1.982298e-003  
A2 -1.122580e-003  
B8 -1.461257e-003  
A3 -1.373524e-003  
F3 -1.412888e-003  
G3 -8.755521e-004  
C7 -1.157602e-003  
B7 -1.780014e-003  
K1 -5.001607e-003  
J3 -1.867234e-003  
T2 2.387180e-003  
L3 -2.401338e-003  
L8 1.963672e-002

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[Row] P3

P3 4.920600e-001  
N2 3.860943e-002  
P8 -4.356927e-004  
P2 6.399735e-002  
R8 -5.685705e-004  
R2 3.262208e-002  
T8 1.010850e-003  
R3 4.470923e-002  
L7 -1.894734e-003  
R7 1.322181e-003  
N7 -2.385606e-003  
T3 2.420434e-002  
T7 2.526781e-003  
M2 1.850472e-002  
N8 -3.055401e-003  
M3 2.222411e-002  
K3 6.546164e-003  
J7 -2.849532e-003

K7 -1.894959e-003  
K9 -4.639076e-003  
L2 1.405708e-002  
E7 -4.561798e-004  
D3 -7.650031e-004  
E3 -2.415147e-004  
F7 -6.698945e-004  
F2 7.517760e-004  
F8 -6.829739e-004  
H3 1.279204e-003  
H8 -5.905586e-006  
G2 3.017614e-004  
H7 -2.679511e-004  
D7 -7.219076e-004  
C3 -5.706722e-004  
C8 -8.306358e-004  
C2 -4.239300e-004  
A7 -4.106476e-004  
A2 -5.570024e-004  
B8 -2.169208e-004  
A3 -7.059831e-004  
F3 -4.752053e-005  
G3 7.860993e-004  
C7 -2.289100e-004  
B7 -4.825884e-004  
K1 1.072623e-002  
J3 2.309304e-003  
T2 2.945244e-002  
L3 8.664885e-003  
L8 -3.846365e-003

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[Row] N2  
N2 5.688206e-001  
P8 -4.366369e-003  
P2 7.965602e-002  
R8 -2.186215e-003  
R2 2.928725e-002  
T8 -1.082813e-003  
R3 3.054966e-002  
L7 -3.244354e-003  
R7 -1.622948e-003  
N7 -2.914817e-003  
T3 2.245067e-002  
T7 6.781078e-004  
M2 2.513523e-002  
N8 -5.544073e-003  
M3 3.262889e-002  
K3 8.984846e-003  
J7 -3.776777e-003  
K7 -2.855844e-003  
K9 -6.468907e-003  
L2 1.956155e-002  
E7 -5.238187e-004  
D3 -5.986448e-004

E3 -9.895914e-005  
F7 -7.687364e-004  
F2 1.041073e-003  
F8 -8.746285e-004  
H3 1.703231e-003  
H8 -2.352254e-004  
G2 7.414965e-004  
H7 -5.723556e-004  
D7 -7.173983e-004  
C3 -4.166537e-004  
C8 -8.021761e-004  
C2 -1.484309e-004  
A7 -2.853180e-004  
A2 -2.258145e-004  
B8 -2.016949e-004  
A3 -3.816268e-004  
F3 4.182543e-004  
G3 1.234627e-003  
C7 -1.826338e-004  
B7 -3.844738e-004  
K1 1.513561e-002  
J3 3.331249e-003  
T2 2.764366e-002  
L3 1.126783e-002  
L8 -5.699650e-003  
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[Row] P8  
P8 5.402951e-001  
P2 -2.229280e-003  
R8 4.378202e-002  
R2 -3.292461e-004  
T8 3.903259e-002  
R3 -1.172679e-004  
L7 1.126763e-002  
R7 7.390676e-002  
N7 3.403725e-002  
T3 3.029133e-003  
T7 3.302004e-002  
M2 -4.390374e-003  
N8 4.447833e-002  
M3 -2.611726e-003  
K3 -3.052147e-003  
J7 4.248185e-003  
K7 6.314430e-003  
K9 1.294528e-002  
L2 -4.351960e-003  
E7 3.651475e-005  
D3 -1.169343e-003  
E3 -7.402625e-004  
F7 1.233837e-004  
F2 -6.512275e-004  
F8 5.813485e-004  
H3 -7.690100e-004  
H8 1.350563e-003

G2 -1.562310e-003  
H7 2.229530e-003  
D7 -6.117795e-004  
C3 -7.582644e-004  
C8 -1.032705e-003  
C2 -1.108443e-003  
A7 -1.638653e-003  
A2 -1.323559e-003  
B8 -1.275504e-003  
A3 -1.522318e-003  
F3 -1.694890e-003  
G3 -1.174028e-003  
C7 -9.713837e-004  
B7 -1.660008e-003  
K1 -5.786770e-003  
J3 -2.222607e-003  
T2 1.329125e-003  
L3 -2.718128e-003  
L8 1.858880e-002

|

[Row] P2

P2 5.718767e-001  
R8 -1.571759e-003  
R2 3.277751e-002  
T8 -2.106713e-004  
R3 3.629780e-002  
L7 -2.869371e-003  
R7 -1.188424e-003  
N7 -4.046385e-003  
T3 2.568709e-002  
T7 1.590172e-003  
M2 2.481199e-002  
N8 -4.991973e-003  
M3 3.012796e-002  
K3 8.524703e-003  
J7 -3.724295e-003  
K7 -2.667373e-003  
K9 -6.191154e-003  
L2 1.857500e-002  
E7 -5.945287e-004  
D3 -6.768070e-004  
E3 -1.051458e-004  
F7 -8.655182e-004  
F2 1.091584e-003  
F8 -9.216824e-004  
H3 1.777222e-003  
H8 -2.205861e-004  
G2 6.726645e-004  
H7 -5.494262e-004  
D7 -8.478827e-004  
C3 -4.934976e-004  
C8 -9.551724e-004  
C2 -2.423090e-004  
A7 -4.315917e-004

A2 -3.543232e-004  
B8 -2.841425e-004  
A3 -5.510615e-004  
F3 2.770255e-004  
G3 1.203693e-003  
C7 -2.903782e-004  
B7 -5.470689e-004  
K1 1.402790e-002  
J3 3.149207e-003  
T2 3.133651e-002  
L3 1.131602e-002  
L8 -5.370003e-003

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[Row] R8

R8 5.969726e-001  
R2 2.782483e-003  
T8 9.876529e-002  
R3 2.854981e-003  
L7 9.176450e-003  
R7 6.824712e-002  
N7 2.404797e-002  
T3 5.136811e-003  
T7 5.728699e-002  
M2 -2.890803e-003  
N8 3.195996e-002  
M3 -1.129058e-003  
K3 -2.323176e-003  
J7 3.192217e-003  
K7 5.164727e-003  
K9 1.014029e-002  
L2 -3.120035e-003  
E7 -2.277045e-006  
D3 -1.262479e-003  
E3 -7.798143e-004  
F7 8.296683e-006  
F2 -6.128560e-004  
F8 5.079665e-004  
H3 -6.312454e-004  
H8 1.354614e-003  
G2 -1.541095e-003  
H7 1.913506e-003  
D7 -6.554042e-004  
C3 -8.297458e-004  
C8 -9.815787e-004  
C2 -1.193237e-003  
A7 -1.406510e-003  
A2 -1.434119e-003  
B8 -9.370425e-004  
A3 -1.626399e-003  
F3 -1.716497e-003  
G3 -1.114010e-003  
C7 -8.012087e-004  
B7 -1.443237e-003  
K1 -4.762326e-003

J3 -1.905006e-003  
T2 3.075714e-003  
L3 -1.667956e-003  
L8 1.404431e-002

|

[Row] R2

R2 5.738207e-001  
T8 3.781046e-003  
R3 5.698917e-002  
L7 -1.522046e-003  
R7 2.128544e-003  
N7 -1.094370e-003  
T3 5.298118e-002  
T7 4.144546e-003  
M2 1.652761e-002  
N8 -2.312986e-003  
M3 1.834101e-002  
K3 5.935087e-003  
J7 -2.946373e-003  
K7 -1.816851e-003  
K9 -4.729859e-003  
L2 1.251345e-002  
E7 -5.957275e-004  
D3 -7.519552e-004  
E3 -1.617044e-004  
F7 -8.396409e-004  
F2 9.477899e-004  
F8 -8.556421e-004  
H3 1.336194e-003  
H8 -9.296438e-005  
G2 3.340924e-004  
H7 -3.713117e-004  
D7 -9.054680e-004  
C3 -5.983010e-004  
C8 -1.070941e-003  
C2 -3.877584e-004  
A7 -5.860155e-004  
A2 -5.299562e-004  
B8 -4.097739e-004  
A3 -7.397445e-004  
F3 -3.806632e-005  
G3 8.510644e-004  
C7 -4.046261e-004  
B7 -7.112231e-004  
K1 9.647316e-003  
J3 2.113692e-003  
T2 9.335858e-002  
L3 8.176752e-003  
L8 -3.640786e-003

|

[Row] T8

T8 6.074428e-001  
R3 2.929091e-003  
L7 8.345144e-003

R7 4.625941e-002  
N7 2.200738e-002  
T3 6.473759e-003  
T7 9.668630e-002  
M2 -2.076099e-003  
N8 2.789544e-002  
M3 -2.609148e-004  
K3 -1.932265e-003  
J7 2.613625e-003  
K7 4.623518e-003  
K9 8.961223e-003  
L2 -2.467681e-003  
E7 -7.966974e-005  
D3 -1.354515e-003  
E3 -8.121156e-004  
F7 -1.163534e-004  
F2 -5.663531e-004  
F8 4.211203e-004  
H3 -5.116246e-004  
H8 1.294718e-003  
G2 -1.522875e-003  
H7 1.704097e-003  
D7 -7.632120e-004  
C3 -8.949868e-004  
C8 -1.083007e-003  
C2 -1.264646e-003  
A7 -1.432017e-003  
A2 -1.535379e-003  
B8 -8.300801e-004  
A3 -1.745475e-003  
F3 -1.747737e-003  
G3 -1.068276e-003  
C7 -7.904745e-004  
B7 -1.414746e-003  
K1 -4.257577e-003  
J3 -1.716880e-003  
T2 6.139452e-003  
L3 -1.097464e-003  
L8 1.222598e-002

[Row] R3

R3 5.099062e-001  
L7 -1.259261e-003  
R7 3.780032e-003  
N7 -8.506496e-004  
T3 3.422356e-002  
T7 4.656635e-003  
M2 1.709115e-002  
N8 -1.594843e-003  
M3 1.972993e-002  
K3 5.921110e-003  
J7 -2.708081e-003  
K7 -1.571739e-003  
K9 -4.155181e-003



L2 1.279413e-002  
E7 -5.219299e-004  
D3 -9.753641e-004  
E3 -3.603339e-004  
F7 -7.492198e-004  
F2 7.055644e-004  
F8 -7.282595e-004  
H3 1.142207e-003  
H8 9.181379e-005  
G2 3.730805e-005  
H7 -1.671069e-004  
D7 -8.711786e-004  
C3 -7.490187e-004  
C8 -1.031658e-003  
C2 -6.272099e-004  
A7 -5.965207e-004  
A2 -8.052624e-004  
B8 -3.416144e-004  
A3 -9.838134e-004  
F3 -3.247027e-004  
G3 6.185978e-004  
C7 -3.475384e-004  
B7 -6.785313e-004  
K1 9.584683e-003  
J3 1.914074e-003  
T2 4.224871e-002  
L3 8.209791e-003  
L8 -3.127177e-003  
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[Row] L7  
L7 4.661713e-001  
R7 9.275311e-003  
N7 1.319309e-002  
T3 -7.506205e-005  
T7 6.347797e-003  
M2 -5.297177e-003  
N8 1.797969e-002  
M3 -3.372506e-003  
K3 -5.133650e-003  
J7 1.352677e-002  
K7 1.497044e-002  
K9 5.297961e-002  
L2 -6.625773e-003  
E7 3.725480e-005  
D3 -5.219388e-004  
E3 -3.127639e-004  
F7 3.769905e-004  
F2 -4.387856e-004  
F8 6.917886e-004  
H3 -1.214118e-003  
H8 2.063606e-003  
G2 -1.245393e-003  
H7 5.486717e-003  
D7 -5.724439e-004

C3 -2.542000e-004  
C8 -7.739792e-004  
C2 -5.028389e-004  
A7 -1.042039e-003  
A2 -5.937562e-004  
B8 -1.391859e-003  
A3 -7.436298e-004  
F3 -1.316742e-003  
G3 -1.205077e-003  
C7 -1.023018e-003  
B7 -1.788900e-003  
K1 -6.237987e-003  
J3 -3.640336e-003  
T2 -9.182341e-004  
L3 -4.564991e-003  
L8 2.248332e-002

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[Row] R7

R7 5.170808e-001  
N7 2.617930e-002  
T3 5.722179e-003  
T7 3.745814e-002  
M2 -2.362864e-003  
N8 3.550178e-002  
M3 -7.662404e-004  
K3 -2.027740e-003  
J7 2.991054e-003  
K7 4.998851e-003  
K9 9.990787e-003  
L2 -2.658769e-003  
E7 -1.952969e-004  
D3 -1.227017e-003  
E3 -7.053990e-004  
F7 -1.871627e-004  
F2 -3.985450e-004  
F8 2.554928e-004  
H3 -4.328029e-004  
H8 1.033174e-003  
G2 -1.341420e-003  
H7 1.706503e-003  
D7 -8.536275e-004  
C3 -7.958792e-004  
C8 -1.240517e-003  
C2 -1.083024e-003  
A7 -1.630105e-003  
A2 -1.307081e-003  
B8 -1.163252e-003  
A3 -1.537987e-003  
F3 -1.558365e-003  
G3 -9.313876e-004  
C7 -9.844709e-004  
B7 -1.636279e-003  
K1 -4.142409e-003  
J3 -1.711695e-003

T2 4.265128e-003  
L3 -1.433719e-003  
L8 1.474734e-002

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[Row] N7

N7 5.397081e-001  
T3 1.363853e-003  
T7 1.761942e-002  
M2 -5.074889e-003  
N8 9.178812e-002  
M3 -3.281209e-003  
K3 -3.090277e-003  
J7 4.672706e-003  
K7 6.774396e-003  
K9 1.552647e-002  
L2 -4.720891e-003  
E7 -1.515803e-004  
D3 -7.093670e-004  
E3 -3.608085e-004  
F7 -4.456091e-005  
F2 -2.480392e-004  
F8 2.580079e-004  
H3 -3.070875e-004  
H8 2.185937e-004  
G2 -8.632427e-004  
H7 1.539110e-003  
D7 -6.600347e-004  
C3 -4.222885e-004  
C8 -1.442385e-003  
C2 -6.313020e-004  
A7 -2.418199e-003  
A2 -7.888997e-004  
B8 -1.551296e-003  
A3 -1.057321e-003  
F3 -1.066618e-003  
G3 -6.710211e-004  
C7 -1.178914e-003  
B7 -1.599880e-003  
K1 -5.685767e-003  
J3 -1.791160e-003  
T2 1.254934e-004  
L3 -3.193824e-003  
L8 2.432335e-002

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[Row] T3

T3 5.025201e-001  
T7 9.468060e-003  
M2 1.152435e-002  
N8 2.849168e-004  
M3 1.183950e-002  
K3 3.889789e-003  
J7 -1.924826e-003  
K7 -7.209269e-004  
K9 -2.732459e-003

L2 8.610385e-003  
E7 -3.667902e-004  
D3 -9.326046e-004  
E3 -3.815191e-004  
F7 -5.851605e-004  
F2 4.823973e-004  
F8 -5.082046e-004  
H3 6.142854e-004  
H8 2.789962e-004  
G2 -2.989131e-004  
H7 3.985035e-005  
D7 -7.181385e-004  
C3 -7.743570e-004  
C8 -8.942195e-004  
C2 -6.920704e-004  
A7 -5.226461e-004  
A2 -8.702418e-004  
B8 -3.264139e-004  
A3 -1.034282e-003  
F3 -5.449970e-004  
G3 2.775011e-004  
C7 -3.082463e-004  
B7 -6.596794e-004  
K1 6.384052e-003  
J3 1.005460e-003  
T2 9.174508e-002  
L3 5.845256e-003  
L8 -1.657587e-003  
|  
[Row] T7  
T7 5.252632e-001  
M2 -6.432666e-004  
N8 2.155209e-002  
M3 9.419385e-004  
K3 -1.056861e-003  
J7 1.594804e-003  
K7 3.337673e-003  
K9 6.468580e-003  
L2 -1.163525e-003  
E7 -2.455580e-004  
D3 -1.121488e-003  
E3 -5.993393e-004  
F7 -3.158175e-004  
F2 -2.506030e-004  
F8 1.305264e-004  
H3 -1.549120e-004  
H8 8.288136e-004  
G2 -1.088720e-003  
H7 1.135193e-003  
D7 -8.375574e-004  
C3 -7.247209e-004  
C8 -1.131270e-003  
C2 -9.915480e-004  
A7 -1.354266e-003

A2 -1.220315e-003  
B8 -7.257364e-004  
A3 -1.440101e-003  
F3 -1.347676e-003  
G3 -6.992333e-004  
C7 -7.651120e-004  
B7 -1.265469e-003  
K1 -2.760641e-003  
J3 -1.111960e-003  
T2 7.594856e-003  
L3 -1.945395e-004  
L8 9.007919e-003

|

[Row] M2

M2 5.472313e-001  
N8 -6.577991e-003  
M3 5.402996e-002  
K3 1.397013e-002  
J7 -4.712168e-003  
K7 -4.278181e-003  
K9 -8.212573e-003  
L2 3.546711e-002  
E7 -4.692295e-004  
D3 -2.003725e-003  
E3 -1.526946e-003  
F7 -6.444986e-004  
F2 6.255736e-005  
F8 -7.996308e-004  
H3 3.629573e-003  
H8 -5.129397e-005  
G2 3.642365e-003  
H7 -3.575349e-004  
D7 -6.343475e-004  
C3 -4.549976e-004  
C8 -6.065466e-004  
C2 -3.961933e-004  
A7 -1.002823e-004  
A2 -2.735957e-004  
B8 -1.541884e-004  
A3 -3.711921e-004  
F3 2.064408e-003  
G3 3.404353e-003  
C7 -6.265985e-005  
B7 -2.905085e-004  
K1 2.206389e-002  
J3 6.343502e-003  
T2 1.515058e-002  
L3 1.491273e-002  
L8 -7.332564e-003

|

[Row] N8

N8 5.765039e-001  
M3 -4.047812e-003  
K3 -3.948975e-003

J7 5.959755e-003  
K7 8.673981e-003  
K9 2.016363e-002  
L2 -6.021643e-003  
E7 -5.246948e-005  
D3 -6.830753e-004  
E3 -3.569509e-004  
F7 5.974961e-005  
F2 -3.694358e-004  
F8 3.829699e-004  
H3 -3.398260e-004  
H8 -1.191431e-004  
G2 -8.912663e-004  
H7 1.534852e-003  
D7 -5.726953e-004  
C3 -3.977863e-004  
C8 -1.767342e-003  
C2 -6.399306e-004  
A7 -3.339015e-003  
A2 -8.145861e-004  
B8 -1.864027e-003  
A3 -1.148728e-003  
F3 -1.128026e-003  
G3 -7.296199e-004  
C7 -1.354719e-003  
B7 -1.674546e-003  
K1 -7.219042e-003  
J3 -2.040977e-003  
T2 -1.237038e-003  
L3 -4.236020e-003  
L8 3.317065e-002

|  
[Row] M3

M3 4.892807e-001  
K3 1.057739e-002  
J7 -3.379504e-003  
K7 -2.721801e-003  
K9 -5.564326e-003  
L2 2.513888e-002  
E7 -2.007263e-004  
D3 -1.071917e-003  
E3 -6.853777e-004  
F7 -3.590685e-004  
F2 2.169505e-004  
F8 -4.333445e-004  
H3 1.101613e-003  
H8 2.132968e-004  
G2 5.020033e-004  
H7 -1.452797e-004  
D7 -3.864542e-004  
C3 -5.316055e-004  
C8 -3.724671e-004  
C2 -4.394149e-004  
A7 2.857853e-005

A2 -4.502542e-004  
B8 -2.100464e-004  
A3 -5.013548e-004  
F3 2.477520e-004  
G3 1.005383e-003  
C7 -8.346799e-005  
B7 -3.809545e-004  
K1 1.789074e-002  
J3 3.593784e-003  
T2 1.594205e-002  
L3 1.298900e-002  
L8 -4.976323e-003

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[Row] K3

K3 4.651439e-001  
J7 -4.509585e-003  
K7 -4.988026e-003  
K9 -5.668127e-003  
L2 1.872958e-002  
E7 -2.587992e-004  
D3 -1.725888e-004  
E3 1.003415e-004  
F7 -5.390789e-004  
F2 1.167460e-003  
F8 -6.432973e-004  
H3 4.814795e-003  
H8 -9.838055e-004  
G2 3.840811e-003  
H7 -1.554180e-003  
D7 -2.008440e-004  
C3 -2.943990e-005  
C8 -1.936367e-004  
C2 2.620964e-004  
A7 1.323363e-004  
A2 1.466993e-004  
B8 2.671722e-005  
A3 1.386793e-004  
F3 2.144768e-003  
G3 2.702161e-003  
C7 9.258570e-005  
B7 4.808666e-005  
K1 4.693484e-002  
J3 1.437318e-002  
T2 5.320923e-003  
L3 2.236556e-002  
L8 -5.518534e-003

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[Row] J7

J7 2.928481e-001  
K7 3.531007e-002  
K9 2.288230e-002  
L2 -5.074178e-003  
E7 9.884838e-004  
D3 3.806308e-004

E3 1.558967e-004  
F7 1.724505e-003  
F2 -5.375435e-004  
F8 1.867656e-003  
H3 -2.261323e-003  
H8 3.233155e-003  
G2 -1.437950e-003  
H7 7.178678e-003  
D7 7.254532e-004  
C3 3.717737e-004  
C8 2.652604e-004  
C2 1.198578e-004  
A7 -1.491932e-004  
A2 1.584906e-004  
B8 9.599589e-005  
A3 1.708392e-004  
F3 -9.357530e-004  
G3 -1.266384e-003  
C7 -2.603608e-005  
B7 8.132712e-005  
K1 -6.350302e-003  
J3 -4.483030e-003  
T2 -2.736589e-003  
L3 -4.660399e-003  
L8 1.074505e-002

|

[Row] K7

K7 2.926867e-001  
K9 2.551049e-002  
L2 -5.078944e-003  
E7 5.184561e-004  
D3 -2.453852e-004  
E3 -2.125741e-004  
F7 1.107408e-003  
F2 -5.712292e-004  
F8 1.252151e-003  
H3 -1.854158e-003  
H8 2.760112e-003  
G2 -1.508859e-003  
H7 7.363989e-003  
D7 8.283108e-005  
C3 -3.019810e-005  
C8 -5.722376e-004  
C2 -3.114595e-004  
A7 -5.994376e-004  
A2 -3.192637e-004  
B8 -1.916541e-004  
A3 -3.832711e-004  
F3 -1.299683e-003  
G3 -1.409737e-003  
C7 -4.620979e-004  
B7 -4.979885e-004  
K1 -6.815628e-003  
J3 -4.200060e-003



T2 -1.448963e-003  
L3 -4.832333e-003  
L8 1.283408e-002

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[Row] K9

K9 4.887691e-001  
L2 -9.313676e-003  
E7 4.806063e-004  
D3 -4.214893e-004  
E3 -3.608295e-004  
F7 1.166279e-003  
F2 -9.041366e-004  
F8 1.367841e-003  
H3 -1.892917e-003  
H8 3.488327e-003  
G2 -1.565866e-003  
H7 8.671908e-003  
D7 -2.188641e-004  
C3 -2.303154e-004  
C8 -9.695945e-004  
C2 -5.847976e-004  
A7 -1.709855e-003  
A2 -7.513610e-004  
B8 -2.161742e-003  
A3 -8.973457e-004  
F3 -1.733027e-003  
G3 -1.757928e-003  
C7 -1.479442e-003  
B7 -2.299421e-003  
K1 -9.958486e-003  
J3 -4.949301e-003  
T2 -4.201822e-003  
L3 -8.584657e-003  
L8 3.417437e-002

|

[Row] L2

L2 4.223645e-001  
E7 -4.190771e-004  
D3 -2.025809e-003  
E3 -1.557899e-003  
F7 -5.758999e-004  
F2 1.012360e-004  
F8 -8.068769e-004  
H3 4.224166e-003  
H8 -3.222527e-004  
G2 4.458000e-003  
H7 -7.418388e-004  
D7 -4.893000e-004  
C3 -3.772629e-004  
C8 -5.164984e-004  
C2 -2.800569e-004  
A7 -9.164277e-005  
A2 -1.561557e-004  
B8 -6.941403e-005

A3 -2.108088e-004  
F3 2.529727e-003  
G3 3.648591e-003  
C7 1.864504e-005  
B7 -8.353718e-005  
K1 3.023240e-002  
J3 8.834983e-003  
T2 1.139655e-002  
L3 2.334846e-002  
L8 -8.041343e-003

|

[Row] E7

E7 4.792645e-001  
D3 -1.280921e-003  
E3 -1.817881e-003  
F7 7.576360e-003  
F2 -2.377482e-003  
F8 2.700489e-002  
H3 -2.852686e-004  
H8 5.554671e-004  
G2 -5.138211e-004  
H7 6.752712e-004  
D7 3.081500e-002  
C3 -8.568277e-005  
C8 1.950182e-002  
C2 -1.282446e-003  
A7 1.356709e-003  
A2 6.212995e-004  
B8 2.369514e-003  
A3 9.989485e-004  
F3 -8.400395e-004  
G3 -1.239098e-003  
C7 6.620107e-003  
B7 4.822906e-003  
K1 -6.678688e-004  
J3 -3.782549e-005  
T2 -5.844019e-004  
L3 -3.920766e-004  
L8 -9.183800e-004

|

[Row] D3

D3 4.929238e-001  
E3 3.464787e-002  
F7 -5.735753e-004  
F2 1.254380e-002  
F8 -1.011684e-003  
H3 -8.746804e-004  
H8 -9.163514e-004  
G2 1.386660e-003  
H7 -1.094139e-003  
D7 5.321666e-005  
C3 1.295780e-002  
C8 1.421314e-003  
C2 2.347416e-002

A7 2.105163e-003  
A2 3.135566e-003  
B8 9.236890e-004  
A3 3.461804e-003  
F3 1.632103e-002  
G3 1.009570e-002  
C7 7.973710e-004  
B7 1.658760e-003  
K1 -1.759280e-004  
J3 5.886288e-004  
T2 -9.045888e-004  
L3 -6.545620e-004  
L8 -1.433841e-004

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[Row] E3

E3 4.945875e-001  
F7 -1.509770e-003  
F2 2.786135e-002  
F8 -1.952899e-003  
H3 -5.086828e-004  
H8 -8.790287e-004  
G2 1.864867e-003  
H7 -1.034957e-003  
D7 -3.789773e-004  
C3 7.380610e-003  
C8 5.368133e-004  
C2 1.429857e-002  
A7 9.723753e-004  
A2 1.502654e-003  
B8 2.344007e-004  
A3 1.841874e-003  
F3 1.530175e-002  
G3 1.031841e-002  
C7 3.529647e-004  
B7 8.787176e-004  
K1 2.994593e-004  
J3 6.725490e-004  
T2 -2.660055e-004  
L3 -2.238959e-004  
L8 1.268532e-005

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[Row] F7

F7 4.428737e-001  
F2 -3.370291e-003  
F8 2.035693e-002  
H3 -1.008179e-003  
H8 4.413417e-003  
G2 -1.392856e-003  
H7 2.894553e-003  
D7 3.813092e-003  
C3 5.071844e-004  
C8 2.945679e-003  
C2 -8.002239e-005  
A7 5.415140e-004

A2 7.124232e-004  
B8 6.747476e-004  
A3 8.287534e-004  
F3 -2.371274e-003  
G3 -2.688500e-003  
C7 1.230269e-003  
B7 1.039682e-003  
K1 -1.016073e-003  
J3 -2.883272e-004  
T2 -8.394302e-004  
L3 -6.532629e-004  
L8 -6.778709e-004

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[Row] F2

F2 5.539895e-001  
F8 -2.950827e-003  
H3 1.676968e-003  
H8 -1.559114e-003  
G2 5.535013e-003  
H7 -1.590294e-003  
D7 -1.759651e-003  
C3 1.347577e-003  
C8 -1.515686e-003  
C2 4.471742e-003  
A7 -2.939091e-004  
A2 6.969953e-004  
B8 -7.723272e-004  
A3 7.509186e-004  
F3 1.803528e-002  
G3 1.448332e-002  
C7 -8.370689e-004  
B7 -6.055494e-004  
K1 2.156341e-003  
J3 1.463507e-003  
T2 8.500955e-004  
L3 1.063258e-003  
L8 -1.612374e-004

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[Row] F8

F8 5.320384e-001  
H3 -9.279070e-004  
H8 4.347017e-003  
G2 -1.248166e-003  
H7 2.787437e-003  
D7 1.238122e-002  
C3 -3.527024e-005  
C8 5.236020e-003  
C2 -9.505202e-004  
A7 7.561691e-004  
A2 -2.298887e-004  
B8 1.426924e-003  
A3 7.514465e-005  
F3 -1.885590e-003  
G3 -2.244099e-003

C7 3.331648e-003  
B7 2.598516e-003  
K1 -1.268781e-003  
J3 -3.615883e-004  
T2 -8.154953e-004  
L3 -7.533546e-004  
L8 3.036346e-004

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H3 4.329182e-001  
H8 -2.610958e-003  
G2 2.481755e-002  
H7 -3.619272e-003  
D7 -6.999852e-005  
C3 -1.505674e-004  
C8 1.264461e-005  
C2 5.448588e-005  
A7 2.564678e-004  
A2 -8.167175e-005  
B8 3.659431e-006  
A3 4.165697e-005  
F3 7.122623e-003  
G3 8.706121e-003  
C7 1.509392e-004  
B7 9.501566e-005  
K1 8.158323e-003  
J3 8.394731e-003  
T2 1.104238e-003  
L3 4.806409e-003  
L8 -8.436928e-004

[Row] H8

H8 4.796688e-001  
G2 -3.535755e-003  
H7 1.540160e-002  
D7 -1.429448e-003  
C3 -2.006542e-004  
C8 -2.109471e-003  
C2 -5.288879e-004  
A7 -1.268088e-003  
A2 -3.800207e-004  
B8 1.913841e-004  
A3 -6.372395e-004  
F3 -3.088567e-003  
G3 -2.988062e-003  
C7 -5.582120e-005  
B7 -4.869875e-004  
K1 -1.371424e-003  
J3 -1.223869e-003  
T2 4.202683e-005  
L3 -6.444858e-004  
L8 1.732112e-003

[Row] G2

G2 5.083017e-001  
H7 -4.621831e-003  
D7 8.114435e-005  
C3 8.678881e-004  
C8 3.730680e-004  
C2 1.688335e-003  
A7 5.421137e-004  
A2 9.323554e-004  
B8 3.373299e-006  
A3 1.067348e-003  
F3 1.791626e-002  
G3 2.088833e-002  
C7 2.977171e-004  
B7 3.876607e-004  
K1 5.757327e-003  
J3 5.234538e-003  
T2 4.651119e-005  
L3 3.610153e-003  
L8 -5.886845e-004

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[Row] H7

H7 4.212607e-001  
D7 -5.169412e-004  
C3 -1.284636e-004  
C8 5.157958e-004  
C2 -4.755807e-004  
A7 -1.223947e-003  
A2 -2.268399e-004  
B8 -3.484203e-004  
A3 -3.712443e-004  
F3 -3.126089e-003  
G3 -3.499130e-003  
C7 1.124626e-003  
B7 1.308041e-004  
K1 -2.128197e-003  
J3 -2.127490e-003  
T2 -2.459674e-004  
L3 -1.238516e-003  
L8 5.785609e-003

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[Row] D7

D7 4.689093e-001  
C3 5.384073e-004  
C8 3.672077e-002  
C2 -6.943644e-004  
A7 3.009080e-003  
A2 1.819517e-003  
B8 4.085643e-003  
A3 2.489471e-003  
F3 2.927786e-004  
G3 -4.668361e-004  
C7 1.067757e-002  
B7 7.898178e-003  
K1 -5.853479e-004

J3 1.640953e-004  
T2 -9.530694e-004  
L3 -4.534066e-004  
L8 -2.070902e-003

[Row] C3

C3 5.238637e-001  
C8 8.625201e-004  
C2 3.673591e-002  
A7 2.868156e-003  
A2 1.063030e-002  
B8 1.122562e-003  
A3 9.431727e-003  
F3 1.311083e-003  
G3 5.883492e-004  
C7 5.306482e-004  
B7 1.573922e-003  
K1 2.023382e-004  
J3 1.647832e-004  
T2 -7.446904e-004  
L3 -2.709179e-004  
L8 -4.952032e-005

[Row] C8

C8 5.116382e-001  
C2 -3.873264e-004  
A7 6.869045e-003  
A2 1.704335e-003  
B8 1.141875e-002  
A3 2.935244e-003  
F3 7.439776e-004  
G3 -2.168187e-004  
C7 2.951031e-002  
B7 2.173749e-002  
K1 -5.723118e-004  
J3 2.792404e-004  
T2 -1.154377e-003  
L3 -4.624288e-004  
L8 -1.431801e-003

[Row] C2

C2 4.936279e-001  
A7 1.517162e-003  
A2 4.693169e-003  
B8 2.109450e-004  
A3 3.694018e-003  
F3 4.687548e-003  
G3 2.886979e-003  
C7 -3.952690e-004  
B7 5.669191e-004  
K1 7.829945e-004  
J3 5.144089e-004  
T2 -5.593118e-004  
L3 -5.867429e-005

L8 -1.034932e-004  
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[Row] A7  
A7 4.905866e-001  
A2 3.868026e-003  
B8 5.496117e-002  
A3 6.297959e-003  
F3 1.187639e-003  
G3 3.255080e-004  
C7 9.154677e-003  
B7 2.104548e-002  
K1 -3.236921e-005  
J3 3.786856e-004  
T2 -6.726891e-004  
L3 -1.154475e-004  
L8 -2.269796e-003

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[Row] A2  
A2 5.589352e-001  
B8 5.144579e-004  
A3 5.345640e-002  
F3 1.835915e-003  
G3 8.743540e-004  
C7 1.389704e-003  
B7 3.250510e-003  
K1 6.459399e-004  
J3 3.005803e-004  
T2 -7.347818e-004  
L3 -1.585831e-004  
L8 -3.076014e-004

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[Row] B8  
B8 5.354998e-001  
A3 2.623820e-003  
F3 4.084814e-004  
G3 -2.041744e-004  
C7 2.038129e-002  
B7 3.654776e-002  
K1 -2.888286e-004  
J3 5.266495e-005  
T2 -4.778283e-004  
L3 -5.947773e-005  
L8 -6.304295e-003

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[Row] A3  
A3 5.103347e-001  
F3 2.248762e-003  
G3 1.065032e-003  
C7 2.781134e-003  
B7 4.587478e-003  
K1 5.044842e-004  
J3 4.024558e-004  
T2 -9.577248e-004  
L3 -2.253230e-004



L8 -6.745740e-004  
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[Row] F3  
F3 4.379461e-001  
G3 3.336797e-002  
C7 5.164905e-004  
B7 9.241748e-004  
K1 3.698693e-003  
J3 2.822537e-003  
T2 -2.921119e-004  
L3 1.803748e-003  
L8 -1.039736e-003  
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[Row] G3  
G3 4.318470e-001  
C7 -1.230739e-004  
B7 6.574623e-005  
K1 4.640135e-003  
J3 3.112733e-003  
T2 6.560195e-004  
L3 2.781752e-003  
L8 -9.429736e-004  
|  
[Row] C7  
C7 5.270526e-001  
B7 3.875443e-002  
K1 -1.446902e-004  
J3 2.823607e-004  
T2 -4.562882e-004  
L3 -1.184588e-005  
L8 -3.631947e-003  
|  
[Row] B7  
B7 4.943480e-001  
K1 -2.080123e-004  
J3 2.267233e-004  
T2 -8.253697e-004  
L3 -1.310618e-004  
L8 -6.530540e-003  
|  
[Row] K1  
K1 4.642773e-001  
J3 1.859877e-002  
T2 8.694155e-003  
L3 4.352803e-002  
L8 -8.808263e-003  
|  
[Row] J3  
J3 4.789270e-001  
T2 1.711997e-003  
L3 1.087910e-002  
L8 -3.282618e-003  
|  
[Row] T2

T2 5.920006e-001  
L3 7.643588e-003  
L8 -2.986854e-003

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[Row] L3  
L3 4.349446e-001  
L8 -6.519243e-003

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[Row] L8  
L8 4.696585e-001

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