

MT40A2G8SA-062E:F vs MT40A2G8AG-062E:F Comparison

Part Number & result Parameter	MT40A2G8SA-062E:F	MT40A2G8AG-062E:F	Comparison Result
Product Description	DDR4 SDRAM	DDR4 SDRAM	Same
Die	Micron Die, Rev.F	Micron Die, Rev.F	Same
Density	16Gb	16Gb	Same
Memory Organization	2G x 8bits	2G x 8bits	Same
Row Addressing	128K (A0..A16)	128K (A0..A16)	Same
Column Addressing	1K (A0..9)	1K (A0..9)	Same
Page Size per bank	1KB	1KB	Same
Number of Bank groups	4	4	Same
Bank Count per Group	4	4	Same
Operating Power Supply	V _{DD} & V _{DDQ} = 1.2V (+/- 60mV)	V _{DD} & V _{DDQ} = 1.2V (+/- 60mV)	Same
	V _{pp} = 2.5V (-125mV,+250mV)	V _{pp} = 2.5V (-125mV,+250mV)	Same
Operating Temperature	Commercial (0°C ≤ T _c ≤ +95°C)	Commercial (0°C ≤ T _c ≤ +95°C)	Same
Max Clock Frequency	1600 MHz	1600 MHz	Same
Min. Cycle Time	0.625ns	0.625ns	Same
Max Data Rate	3200 Mbps	3200 Mbps	Same
CAS Latency	22	22	Same
tAA(ns)	13.75	13.75	Same
tRCD (ns)	13.75	13.75	Same
tRP (ns)	13.75	13.75	Same
Temperature controlled Refresh time	8192 Cycles at T _c range 64ms at 0C ~ 85C 32ms at 85C ~ 95C	8192 Cycles at T _c range 64ms at 0C ~ 85C 32ms at 85C ~ 95C	Same
Low Power Auto Self Refresh support	Yes	Yes	
I/O Capacitance	CIO = 0.78pF Max	CIO = 0.78pF Max	Same
Pin to Pin Compatible	Pin to Pin Compatible		
AC/DC Characteristics	Same		Meet JEDEC



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IDD Specification			
Parameter	MT40A2G8SA-062E:F	MT40A2G8AG-062E:F	Comparison Result
IDD Spec conditions	-40C to 85C	-40C to 85C	Same
I _{DD0} (mA) , I _{pp0} (mA)	60, 3	60, 3	Same
I _{DD1} (mA)	71	71	Same
I _{DD2N} (mA)	45	45	Same
I _{DD2NT} (mA)	51	51	Same
I _{DD2P} (mA)	38	38	Same
I _{DD2Q} (mA)	42	42	Same
I _{DD3N} (mA)	61	61	Same
I _{DD3P} (mA)	50	50	Same
I _{DD4R} (mA)	140	140	Same
I _{DD4W} (mA)	112	112	Same
I _{DD6N} (mA)	53	53	Same
I _{DD6R} (mA)	20	20	Same
I _{DD6E} (mA)	90	90	Same
I _{DD7} (mA)	167	167	Same
Package	78b FBGA 7.5 x 11 x 1.2mm	78b FBGA 7.5 x 11 x 1.2mm	Same
Solder Ball material Composition	SAC305 (96.5% Sn, 3% Ag, 0.5% Cu).	SACQ (92.45% Sn, 4% Ag, 0.5% Cu, 3% Bi, 0.05% Ni).	Different. AG better
Package Material	Pb and Halogen Free	Pb and Halogen Free	Same