

AS4C64M32MD1A-5BIN vs MT46H32M32LFB5-5 IT:B Comparison

Part Number & result Parameter	AS4C64M32MD1A-5BIN	MT46H32M32LFB5-5 IT:B	Comparison Result
Product Description	LPDDR1 SDRAM	LPDDR1 SDRAM	Same
Density	2Gb	1Gb	Alliance higher
Memory Organization	16Meg x 32DQs x 4 banks	8Meg x 32DQs x 4 banks	Alliance higher
Bank Address	BA0-BA1	BA0-BA1	Same
Row / Column Address	16K (A0-A13) / 1K (A0-A9)	8K (A0-A12) / 1K (A0-A9)	Alliance higher
Operating Power Supply	VDD/Q = 1.70~1.95V	VDD/Q = 1.70~1.95V	Same
Operating Temperature	-40°C~85°C (Industrial Grade)	-40°C~85°C (Industrial Grade)	Micron better
Clock Frequency	200 MHz	200 MHz	Same
Data Rate	400 Mbps	400 Mbps	Same
CL	3	3	Same
tRCD / tRP (ns)	15 (Min)	15 (Min)	Same
I/O Capacitance	CIO : 4.5pF Max	CIO : 4.5pF (Max)	Same
Pin to Pin Compatible	Additional pin A13 (ball F7)	Yes	Different
AC/DC Characteristics	Same	Same	Meet JEDEC
IDD Specification (VDD1 / VDD2 / VDDQ)			
I _{DD0} (mA)	70	95	Alliance better
I _{DD2P/S} (uA)	1000	600	Micron better
I _{DD2N} (mA)	8	18	Alliance better
I _{DD2NS} (mA)	4	14	Alliance better
I _{DD3P/S} (mA)	6/5	3.6	Same
I _{DD3N} (mA)	15	20	Alliance better
I _{DD3NS} (mA)	10	16	Alliance better
I _{DD4R} (mA)	100	150	Alliance better
I _{DD4W} (mA)	90	150	Alliance better
I _{DD5} (mA)	250	100	Micron better
I _{DD5a} (mA)		15	
I _{DD6a} (mA)	2	1.3	Micron Better
I _{DD7} (uA)		10	
Package 90b FBGA	8 x 13 x 0.8mm	8 x 13 x 1mm	Same
Package Material	Pb and Halogen Free	Pb and Halogen Free	Same