



12815 NE 124th St STE#D, Kirkland, WA-98034

AS4C512M16D3L-12BCN vs AS4C512M16D3LB-12BCN Comparison

Part Number & result Parameter	AS4C512M16D3L-12BCN	AS4C512M16D3LB-12BCN	Comparison Result
Product Description	DDR3L SDRAM	DDR3L SDRAM	Same
Die per Package	Single Die Package	Dual Die Package	Different
Density/Memory Size	8Gb	8Gb	Same
Memory Organization	64Meg x 16 x 8 banks	64Meg x 16 x 8 banks	Same
Data Bus Width	16 bits	16 bits	Same
Row / Column Address	A[15:0] / A[9:0]	A[15:0] / A[9:0]	Same
Page Size	2KB	2KB	Same
Operating PowerSupply	VDD/Q=1.35V (1.283~1.45V)	VDD/Q=1.35V (1.283~1.45V)	Same
DDR3 Compatibility	Yes (VDD/Q= 1.425V ~1.575V)	Yes (VDD/Q= 1.425V ~1.575V)	Same
Operating Temperature	Commercial (0°C ≤ TC ≤ +95°C)	Commercial (0°C ≤ TC ≤ +95°C)	Same
Max. Clock Frequency	800 MHz	800 MHz	Same
Max Data Rate (MT/s)	1600 Mbps	1600 Mbps	Same
tRCD/tRP/CL (ns)	13.75/13.75/11	13.75/13.75/11	Same
I/O Capacitance	CIO :2.2pF Max	CIO : 2.2pF Max	Same
Pin to Pin Compatible	Yes	Yes	Same
AC/DC Characteristics	Same	Same	Meet JEDEC
IDD Specification			
IDD Spec conditions	-40C to 95C	-40C to 95C	same
I _{DD0} (mA)	67	94	Different
I _{DD1} (mA)	88	122	Different
I _{DD2P0} (mA)	11	16	Different
I _{DD2P1} (mA)	14	28	Different
I _{DD2N} (mA)	36	48	Different
I _{DD2Q} (mA)	34	48	Different
I _{DD3P} (mA)	36	52	Different
I _{DD3N} (mA)	51	60	Different
I _{DD4R} (mA)	185	190	Different
I _{DD4W} (mA)	185	350	Different
I _{DD5B} (mA)	245	470	Different
I _{DD6} (mA)	24	24	Different
I _{DD6ET} (mA)	34	32	Different
I _{DD7} (mA)	220	260	Different
I _{DD8} (mA)	16	20	Different
Package Dimension	96b FBGA (9 x 14 x 1.2mm)	96b FBGA (9 x 13.5 x 1.2mm)	Different
Package Ball Matrix	12 x 6.4 x 0.8mm	12 x 6.4 x 0.8mm	Same
Pb & Halogen Free	Yes	Yes	Same