

AS4C512M16D3L-12BIN vs AS4C512M16D3LB-12BIN Comparison

Part Number & result Parameter	AS4C512M16D3L-12BIN	AS4C512M16D3LB-12BIN
Product Description	DDR3L SDRAM	DDR3L SDRAM
Die per Package	Single Die Package	Dual Die Package
Density/Memory Size	8Gb	8Gb
Memory Organization	64Meg x 16 x 8 banks	64Meg x 16 x 8 banks
Data Bus Width	16 bits	16 bits
Row / Column Address	A[15:0] / A[9:0]	A[15:0] / A[9:0]
Page Size	2KB	2KB
Operating PowerSupply	VDD/Q=1.35V (1.283~1.45V)	VDD/Q=1.35V (1.283~1.45V)
DDR3 Compatibility	Yes (VDD/Q= 1.425V ~1.575V)	Yes (VDD/Q= 1.425V ~1.575V)
Operating Temperature	Industrial (-40°C ≤ TC ≤ +95°C)	Industrial (-40°C ≤ TC ≤ +95°C)
Max. Clock Frequency	800 MHz	800 MHz
Max Data Rate (MT/s)	1600 Mbps	1600 Mbps
tRCD/tRP/CL (ns)	13.75/13.75/11	13.75/13.75/11
I/O Capacitance	CIO :2.2pF Max	CIO : 2.2pF Max
Pin to Pin Compatible	Yes	Yes
AC/DC Characteristics	Same	Same
IDD Specifications		
IDD Spec conditions	-40C to 95C	-40C to 95C
IDD0 (mA)	67	94
IDD1 (mA)	88	122
IDD2P0 (mA)	11	16
IDD2P1 (mA)	14	28
IDD2N (mA)	36	48
IDD2Q (mA)	34	48
IDD3P (mA)	36	52
IDD3N (mA)	51	60
IDD4R (mA)	185	190
IDD4W (mA)	185	350
IDD5B (mA)	245	470
IDD6 (mA)	24	24
IDD6ET (mA)	34	32
IDD7 (mA)	220	260
IDD8 (mA)	16	20
Package Dimension	96b FBGA (9 x 14 x 1.2mm)	96b FBGA (9 x 13.5 x 1.2mm)
Package Ball Matrix	12 x 6.4 x 0.8mm	12 x 6.4 x 0.8mm
Pb & Halogen Free	Yes	Yes