

AS4C512M16D3LC-12BIN vs AS4C512M16D3LB-12BIN Comparison

Part Number & result Parameter	AS4C512M16D3LC-12BIN (Rev.C)	AS4C512M16D3LB-12BIN (Rev.B)	Comparison Result
Product Description	DDR3L SDRAM	DDR3L SDRAM	Same
Process Technology	25nm	25nm	Same
Die per Package	Dual Die Package	Dual Die Package	Same
Density/Memory Size	8Gb	8Gb	Same
Memory Organization	64Mb x 16 IOs x 8 banks	64Mb x 16 IOs 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	Industrial (0°C ≤ Tc ≤ +95°C)	Industrial (0°C ≤ Tc ≤ +95°C)	Same
Clock Frequency	800 MHz	800 MHz	Different
Max Data Rate (MT/s)	1600 Mbps	1600 Mbps	Different
tRCD/tRP (ns)	13.75	13.75	Same
CL	11	11	Different
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
IDD0 (mA)	94	94	Same
IDD1 (mA)	122	122	Same
IDD2P0 (mA)	16	16	Same
IDD2P1 (mA)	28	28	Same
IDD2N (mA)	48	48	Same
IDD2Q (mA)	48	48	Same
IDD3P (mA)	52	52	Same
IDD3N (mA)	60	60	Same
IDD4R (mA)	190	190	Same
IDD4W (mA)	350	350	Same
IDD5B (mA)	470	470	Same
IDD6 (mA)	24	24	Same
IDD6ET (mA)	32	32	Same
IDD7 (mA)	260	260	Same
IDD8 (mA)	20	20	Same
Package Dimension	96b FBGA (9 x 13 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