

AS4C256M16D3LC-10BIN vs D2516ECMDXGJDI-U Comparison

Part Number & result Parameter	AS4C256M16D3LC-10BIN	D2516ECMDXGJDI-U	Comparison Result
Product Description	DDR3L SDRAM	DDR3L SDRAM	Same
Capacity	4Gb (256M x 16)	4Gb (256M x 16)	Same
Memory Organization	32Meg, x16bits, x8 banks	32Meg, x16bits, x8 banks	Same
Operating Power Supply	V_{DD} & $V_{DDQ} = 1.35V$ (1.283V to 1.45V)	V_{DD} & $V_{DDQ} = 1.35V$ (1.283V to 1.45V)	Same
DDR3 Compatibility	Compatible to 1.5±0.075	Compatible to 1.5±0.075	Same
Operating Temperature	Industrial (-40°C to 95°C)	Industrial (-40°C to 95°C)	Same
Clock Frequency	933MHz	933MHz	Same
Data Rate (MT/s)	1866	1866	Same
CAS Latency	13	13	Same
tRCD & tRP (ns)	13.91	13.91	Same
Average Refresh Period	7.8uS at -40C ~85C 3.8uS for >85C	7.8uS at -40C ~85C 3.8uS for >85C	Same
I/O Capacitance CIO	2.2pF	2.2pF	Same
Pin to Pin Compatible	Pin to Pin Compatible		Same
AC/DC Characteristics	Same	Same	Meet JEDEC
IDD Specification			
IDD Spec conditions	-40C to 95C	-40C to 95C	Same
I_{DD0} (mA)	59	59	Same
I_{DD1} (mA)	84	84	Same
I_{DD2P0} (mA)	8	8	Same
I_{DD2P1} (mA)	16	16	Same
I_{DD2N} (mA)	26	26	Same
I_{DD2Q} (mA)	26	26	Same
I_{DD3P} (mA)	28	28	Same
I_{DD3N} (mA)	40	40	Same
I_{DD4R} (mA)	165	165	Same
I_{DD4W} (mA)	165	165	Same
I_{DD5B} (mA)	242	242	Same
I_{DD6} (mA)	12	12	Same
I_{DD6ET} (mA)	16	16	Same
I_{DD7} (mA)	200	200	Same
I_{DD8} (mA)	10	10	Same
Package 96b FBGA	(7.5mm x 13mm x 1.2mm) Ball Array (mm): 12x 6.4 x 0.8	(7.5mm x 13.5mm x 1.2mm) BallArray (mm): 12x 6.4 x 0.8	Comparable
Package Material	Pb and Halogen Free	Pb and Halogen Free	Same