



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

AS4C256M16D3L-12BCN & AS4C256M16D3LC-12BCN Comparison

(4Gb – 256M x 16, DDR3L rev.0 vs rev.C Comparison)

Part Number & result Parameter	AS4C256M16D3L-12BCN	AS4C256M16D3LC-12BCN	Comparison Result
Fab Process Technology	NTC 30nm	PSMC 25nm	Different
Capacity	4Gb (256M x 16)	4Gb (256M x 16)	Same
Memory Organization	32Mwords, x16bits, x8 banks	32Mwords, 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 ± 0.075V	Compatible to 1.5 ± 0.075V	Same
Operating Temperature	Commercial (0°C to 95°C)	Commercial (0°C to 95°C)	Same
Clock Frequency	800MHz	800MHz	Same
CAS Latency	11	11	Same
tRCD & tRP (ns)	13.75	13.75	Same
AC/DC Characteristics	Same	Same	Same
IDD Specification			
I_{DD0} (mA)	77	69	rev.C Better
I_{DD1} (mA)	99	98	Comparable
I_{DD2P0} (mA)	16	9.6	rev.C Better
I_{DD2P1} (mA)	33	17	rev.C Better
I_{DD2N} (mA)	45	29	rev.C Better
I_{DD2NT} (mA)	45	29	rev.C Better
I_{DD2Q} (mA)	45	29	rev.C Better
I_{DD3P} (mA)	40	32	rev.C Better
I_{DD3N} (mA)	62	46	rev.C Better
I_{DD4R} (mA)	252	186	rev.C Better
I_{DD4W} (mA)	202	186	rev.C Better
I_{DD5B} (mA)	198	282	Rev0 better
I_{DD6} (mA)	20	32	Rev0 better
I_{DD6ET} (mA)	25	16	rev.C Better
I_{DD7} (mA)	270	228	rev.C Better
I_{DD8} (mA)	18	12	rev.C Better
Package	96-ball FBGA package (9 x 13 x 1.2mm)	96-ball FBGA package (7.5 x 13.5 x 1.2mm)	Ball matrix dimension same
Package Material	Pb and Halogen Free	Pb and Halogen Free	Same
Reliability & QA	FIT : 23	FIT : 15	rev.C Better