



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

AS4C128M16D3LB-12BCN vs AS4C128M16D3LC-12BCN Comparison

Part Number & result Parameter	AS4C128M16D3LB-12BCN	AS4C128M16D3LC-12BCN	Comparison Result
Product Description	DDR3L SDRAM	DDR3L SDRAM	Same
Process Technology	30nm	25nm	Different
Capacity	2Gb (128M x 16)	2Gb (128M x 16)	Same
Memory Organization	16Mwords, x16bits, x8 banks	16Mwords, 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	Backward Compatible to 1.5±0.075	Backward Compatible to 1.5±0.075	Same
Operating Temperature	Commercial (Tc=0°C to 95°C)	Commercial (Tc=0°C to 95°C)	Same
Clock Frequency	800MHz	800MHz	Same
Data Rate (MT1688/s)	1600	1600	Same
CAS Latency	11	11	Same
tRCD & tRP (ns)	13.75	13.75	Same
Average Refresh Period	7.8µs at 0°C ≤ Tc ≤ +85°C	7.8µs at 0°C ≤ Tc ≤ +85°C	Same
I/O Capacitance	Comparable		Same
Pin to Pin Compatible	Pin to Pin Compatible		Same
AC/DC Characteristics	Same	Same	Meet JEDEC
IDD Specification			
IDD Spec conditions	0C to 95C	-40C to 95C	
I _{DD0} (mA)	67	70	Comparable
I _{DD1} (mA)	76	80	Comparable
I _{DD2P0} (mA)	12	15	Comparable
I _{DD2P1} (mA)	20	22	Comparable
I _{DD2N} (mA)	32	35	Comparable
I _{DD2Q} (mA)	32	35	Comparable
I _{DD3P} (mA)	32	35	Comparable
I _{DD3N} (mA)	45	55	Comparable
I _{DD4R} (mA)	150	155	Comparable
I _{DD4W} (mA)	155	160	Comparable
I _{DD5B} (mA)	135	145	Comparable
I _{DD6} (mA)	12	15	Comparable
I _{DD6ET} (mA)	14	20	Comparable
I _{DD7} (mA)	220	240	Comparable
I _{DD8} (mA)	13	14	Comparable
Package 96b FBGA	(8mm x 13mm x 1.0mm) Ball Array (mm): 12 x 6.4 x 0.8	(7.5mm x 13mm x 1.0mm) Ball Array (mm): 12 x 6.4 x 0.8	Comparable
Package Material	Pb and Halogen Free	Pb and Halogen Free	Same