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

AS4C64M16D3LB-12BCN vs AS4C64M16D3LC-12BCN Comparison

Part Number & result / Parameter	AS4C64M16D3LB-12BCN	AS4C64M16D3LC-12BCN	Comparison Result
Product Description	DDR3L SDRAM, Rev.B	DDR3L SDRAM, Rev.C	
Die Process Technology	38nm	25nm	Different
Capacity	1Gb (64M x 16)	1Gb (64M x 16)	Same
Memory Organization	8Mwords, x16bits, x8 banks	8Mwords, x16bits, x8 banks	Same
Operating Power Supply	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	Commercial (0°C to 95°C)		Same
Clock Frequency	800MHz	800MHz	Same
Data Rate (MT/s)	1600	1600	Same
CAS Latency	11	11	Same
tRCD & tRP (ns)	13.75	13.75	Same
Average Refresh Period 8192 cycles	7.8us at 0°C ≦ TC ≦ +85°C 3.9us at +85°C ≦ TC ≦ +95°C	7.8us at 0°C ≦ TC ≦ +85°C 3.9us at +85°C ≦ TC ≦ +95°C	Same
I/O Capacitance	2.2uF		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	0C to 95C	Same
I_{DD0} (mA)	56	56	Same
I_{DD1} (mA)	72	72	Same
I_{DD2P0} (mA)	15	15	Same
I_{DD2P1} (mA)	25	25	Same
I_{DD2N} (mA)	40	40	Same
I_{DD2Q} (mA)	35	35	Same
I_{DD3P} (mA)	28	28	Same
I_{DD3N} (mA)	48	48	Same
I_{DD4R} (mA)	140	140	Same
I_{DD4W} (mA)	150	150	Same
I_{DD5B} (mA)	95	95	Same
I_{DD6} (mA)	15	15	Same
I_{DD6ET} (mA)	20	20	Same
I_{DD7} (mA)	195	195	Same
I_{DD8} (mA)	10	10	Same
Package 96b FBGA	(9mm x 13mm x 1.2mm) BallArray (mm): 12x 6.4 x 0.8	(7.5mm x 13mm x 1.0mm) Ball Array (mm): 12x 6.4 x 0.8	RevC smaller
Package Material	Pb and Halogen Free	Pb and Halogen Free	Same

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AS4C64M16D3LB-12BIN vs AS4C64M16D3LC-12BIN Comparison

Part Number & result / Parameter	AS4C64M16D3LB-12BIN	AS4C64M16D3LC-12BIN	Comparison Result
Product Description	DDR3L SDRAM, Rev.B	DDR3L SDRAM, Rev.C	
Die Process Technology	38nm	25nm	Different
Capacity	1Gb (64M x 16)	1Gb (64M x 16)	Same
Memory Organization	8Mwords, x16bits, x8 banks	8Mwords, x16bits, x8 banks	Same
Operating Power Supply	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)		Same
Clock Frequency	800MHz	800MHz	Same
Data Rate (MT/s)	1600	1600	Same
CAS Latency	11	11	Same
tRCD & tRP (ns)	13.75	13.75	Same
Average Refresh Period 8192 cycles	7.8us at -40°C ≦ TC ≦ +85°C 3.9us at +85°C ≦ TC ≦ +95°C	7.8us at -40°C ≦ TC ≦ +85°C 3.9us at +85°C ≦ TC ≦ +95°C	Same
I/O Capacitance	2.2uF		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)	56	56	Same
I_{DD1} (mA)	72	72	Same
I_{DD2P0} (mA)	15	15	Same
I_{DD2P1} (mA)	25	25	Same
I_{DD2N} (mA)	40	40	Same
I_{DD2Q} (mA)	35	35	Same
I_{DD3P} (mA)	28	28	Same
I_{DD3N} (mA)	48	48	Same
I_{DD4R} (mA)	140	140	Same
I_{DD4W} (mA)	150	150	Same
I_{DD5B} (mA)	95	95	Same
I_{DD6} (mA)	15	15	Same
I_{DD6ET} (mA)	20	20	Same
I_{DD7} (mA)	195	195	Same
I_{DD8} (mA)	10	10	Same
Package 96b FBGA	(9mm x 13mm x 1.2mm) BallArray (mm): 12x 6.4 x 0.8	(7.5mm x 13mm x 1.0mm) Ball Array (mm): 12x 6.4 x 0.8	RevC smaller
Package Material	Pb and Halogen Free	Pb and Halogen Free	Same

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AS4C64M16D3LB-12BAN vs AS4C64M16D3LC-12BAN Comparison

Part Number & result / Parameter	AS4C64M16D3LB-12BAN	AS4C64M16D3LC-12BAN	Comparison Result
Product Description	DDR3L SDRAM, Rev.B	DDR3L SDRAM, Rev.C	
Die Process Technology	38nm	25nm	Different
Capacity	1Gb (64M x 16)	1Gb (64M x 16)	Same
Memory Organization	8Mwords, x16bits, x8 banks	8Mwords, x16bits, x8 banks	Same
Operating Power Supply	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	Automotive (-40°C to 105°C)		Same
Clock Frequency	800MHz	800MHz	Same
Data Rate (MT/s)	1600	1600	Same
CAS Latency	11	11	Same
tRCD & tRP (ns)	13.75	13.75	Same
Average Refresh Period 8192 cycles	7.8us at -40°C ≦ TC ≦ +85°C 3.9us at +85°C ≦ TC ≦ +95°C 1.95us at +95°C ≦ TC ≦ +105°C		Same
I/O Capacitance	2.2uF		Same
Pin to Pin Compatible	Pin to Pin Compatible		Same
AC/DC Characteristics	Same	Same	Meet JEDEC
IDD Specification			
IDD Spec conditions	-40C to 105C	-40C to 105C	Same
I_{DD0} (mA)	68	68	Same
I_{DD1} (mA)	87	87	Same
I_{DD2P0} (mA)	18	18	Same
I_{DD2P1} (mA)	30	30	Same
I_{DD2N} (mA)	48	48	Same
I_{DD2Q} (mA)	42	42	Same
I_{DD3P} (mA)	34	34	Same
I_{DD3N} (mA)	58	58	Same
I_{DD4R} (mA)	168	168	Same
I_{DD4W} (mA)	180	180	Same
I_{DD5B} (mA)	114	114	Same
I_{DD6} (mA)	40	40	Same
I_{DD6ET} (mA)	20	20	Same
I_{DD7} (mA)	234	234	Same
I_{DD8} (mA)	12	12	Same
Package 96b FBGA	(9mm x 13mm x 1.2mm) BallArray (mm): 12x 6.4 x 0.8	(7.5mm x 13mm x 1.0mm) Ball Array (mm): 12x 6.4 x 0.8	RevC smaller
Package Material	Pb and Halogen Free	Pb and Halogen Free	Same