

AS4C256M16D3LC-10BIN vs AS4C256M16D3LD-10BAN Comparison

Part Number & result Parameter	AS4C256M16D3LC-10BIN	AS4C256M16D3LD-10BAN	Comparison Result
Product Description	DDR3L SDRAM	DDR3L SDRAM	Same
Wafer Tech / Die	25nm / Die Rev.C	25nm / Die Rev.D	Different IPs
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)	Automotive (-40°C to 105°C)	Different
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 -40~85C 3.9uS at +85C~95C	7.8uS at -40~85C 3.9uS at +85C~95C 1.95uS at +95C ~ 105C	Different
I/O Capacitance	2.1pF		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 105C	Different
I_{DD0} (mA)	59	169	Different
I_{DD1} (mA)	84	208	Different
I_{DD2P0} (mA)	8	68	Different
I_{DD2P1} (mA)	16	111	Different
I_{DD2N} (mA)	26	117	Different
I_{DD2Q} (mA)	26	117	Different
I_{DD3P} (mA)	28	117	Different
I_{DD3N} (mA)	40	150	Different
I_{DD4R} (mA)	165	312	Different
I_{DD4W} (mA)	165	312	Different
I_{DD5B} (mA)	242	270	Different
I_{DD6} (mA)	12	90	Different
I_{DD7} (mA)	200	390	Different
I_{DD8} (mA)	10	39	Different
Package 96b FBGA	(7.5mm x 13.5mm x 1.2mm)	(7.5mm x 13mm x 1.2mm)	Comparable
Package Material	Pb and Halogen Free	Pb and Halogen Free	Same