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

AS4C128M16D3LC-12BIN vs MT41K128M16JT-125IT:K Comparison

Part Number & result / Parameter	AS4C128M16D3LC-12BIN	MT41K128M16JT-125IT:K	Comparison Result
Product Description	DDR3L SDRAM	DDR3L SDRAM	Same
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	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	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/64ms upto 85C	8192 cycles/64ms upto 85C	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	-40C to 95C	0C to 85C	Different
I_{DD0} (mA)	70	46	
I_{DD1} (mA)	80	65	
I_{DD2P0} (mA)	15	12	
I_{DD2P1} (mA)	22	14	
I_{DD2N} (mA)	35	34	
I_{DD2Q} (mA)	35	20	
I_{DD3P} (mA)	35	21	
I_{DD3N} (mA)	55	34	
I_{DD4R} (mA)	155	128	
I_{DD4W} (mA)	160	138	
I_{DD5B} (mA)	145	180	
I_{DD6} (mA)	15	12	
I_{DD6ET} (mA)	20	15	
I_{DD7} (mA)	240	195	
I_{DD8} (mA)	14	14	
Package 96b FBGA	(7.5mm x 13mm x 1.0mm) BallArray (mm): 12x 6.4 x 0.8	(8mm x 14mm x 1.2mm) Ball Array (mm): 12x 6.4 x 0.8	Comparable
Package Material	Pb and Halogen Free	Pb and Halogen Free	Same