

AS4C256M16D3LC-12BIN vs IS43TR16256AL-15HBLI Comparison

Part Number & result Parameter	AS4C256M16D3LC-12BIN	IS43TR16256AL-15HBLI	Comparison Result
Product Description	DDR3L SDRAM	DDR3L SDRAM	Same
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)	Industrial (-40°C to 95°C)	Same
Clock Frequency (Max)	800MHz	666MHz	Alliance Better
Data Rate (MT/s)	1600	1333	Alliance Better
CAS Latency	11	9	Comparable
tRCD & tRP (ns)	13.75	13.5	Comparable
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	-40C to 95C	
I_{DD0} (mA)	57	68	Alliance better
I_{DD1} (mA)	81	90	Alliance better
I_{DD2P0} (mA)	8	16	Alliance better
I_{DD2P1} (mA)	14	29	Alliance better
I_{DD2N} (mA)	24	41	Alliance better
I_{DD2Q} (mA)	24	41	Alliance better
I_{DD3P} (mA)	26	39	Alliance better
I_{DD3N} (mA)	38	57	Alliance better
I_{DD4R} (mA)	155	175	Alliance better
I_{DD4W} (mA)	155	177	Alliance better
I_{DD5B} (mA)	235	180	ISSI better
I_{DD6} (mA)	12	20	Alliance better
I_{DD6ET} (mA)	16	25	Alliance better
I_{DD7} (mA)	190	240	Alliance better
Package 96b FBGA	(7.5mm x 13.5mm x 1.2mm) Ball Array (mm): 12x 6.4 x 0.8	(9mm x 13mm x 1.2mm) BallArray (mm): 12x 6.4 x 0.8	Comparable
Package Material	Pb and Halogen Free	Pb and Halogen Free	Same



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