

AS4C256M16D4-75BCN, AS4C256M16D4-83BCN vs MT40A256M16LY-075 Comparison

Part Number & result Parameter	AS4C256M16D4-75BCN	AS4C256M16D4-83BCN	MT40A256M16LY-075
Product Description	DDR4 SDRAM	DDR4 SDRAM	DDR4 SDRAM
Capacity	4Gb (256M x 16)	4Gb (256M x 16)	4Gb (256M x 16)
Memory Organization	32Meg, x16bits, x4 banks x2 groups	32Meg, x16bits, x4 banks x2 groups	32Meg, x16bits, x4 banks x2 groups
Operating Power Supply	V _{DD} & V _{DDQ} = 1.2V (+/-0.06V) V _{pp} = +2.5V(-0.125V/+0.25V)	V _{DD} & V _{DDQ} = 1.2V (+/-0.06V) V _{pp} = +2.5V(-0.125V/+0.25V)	V _{DD} & V _{DDQ} = 1.2V (+/-0.06V) V _{pp} = +2.5V(-0.125V/+0.25V)
Operating Temperature	Commercial (0°C to 95°C)	Commercial (0°C to 95°C)	Commercial (0°C to 95°C)
Clock Frequency(MHz)	1333	1200	1333
Data Rate (MT/s)	2666	2400	2666
CAS Latency	19	17	19
tRCD & tRP (ns)	14.25	14.16	14.25
Average Refresh Period	8192 cycles/64ms upto 85C	8192 cycles/64ms upto 85C	8192 cycles/64ms upto 85C
I/O Capacitance (Cio)	1.15pf	1.15pf	1.15pf
Pin to Pin Compatible	Pin to Pin Compatible		
AC/DC Characteristics	Same		Same
IDD Spec conditions	-40C to 95C	-40C to 95C	0C to 95C
I_{DD0} (mA)	92	86	85
I_{DD1} (mA)	142	128	105
I_{DD2P} (mA)	44	40	25
I_{DD2Q} (mA)	75	67	30
I_{DD2N} (mA)	74	67	35
I_{DD3P} (mA)	67	64	43
I_{DD3N} (mA)	86	78	55
I_{DD4R} (mA)	205	188	263
I_{DD4W} (mA)	230	211	255
I_{DD6N} (mA)	30	30	24
I_{DD6R} (mA)	25	25	18
I_{DD6A} (mA)	30	30	8.6
I_{DD7} (mA)	235	234	259
Package 96b FBGA	7.5mm x 13.5mm	7.5mm x 13.5mm	7.5mm x 13.5mm
Package Material	Pb and Halogen Free	Pb and Halogen Free	Pb and Halogen Free