

AS4C16M16D1A-5TIN vs MT46V16M16TG-5B Comparison

Part Number & result Parameter	AS4C16M16D1A-5TIN	MT46V16M16TG-5B IT:M	Comparison Result
Product	DDR1 SDRAM	DDR1 SDRAM	Same
Density	256Mb (16M x 16)	256Mb (16M x 16)	Same
Memory Organization	4M, x16bits, x4 banks	4M, x16bits, x4 banks	Same
Operating Power Supply	$V_{DD} \& V_{DDQ} = 2.5V$ (+/- 0.2V)	$V_{DD} \& V_{DDQ} = 2.6V$ (+/- 0.1V)	Alliance better
Operating Temperature	Commercial (-40°C to 85°C)	Commercial (-40°C to 85°C)	Same
Clock Frequency	200MHz	200MHz	Same
Data Rate (MT/s)	400	400	Same
CAS Latency	3	3	Same
tRCD & tRP (ns)	15	15	Same
Average Refresh Period	8192 cycles/64ms	8192 cycles/64ms	Same
I/O Capacitance	4-5pf	4-5pf	Same
Pin to Pin Compatible	Pin to Pin Compatible		Same
AC/DC Characteristics	Same	Same	Meet JEDEC
IDD Specification			
IDD Spec conditions	-40C ≤ TA ≤ 85C VDD = 2.5V ±0.2V	$0C \leq TA \leq 70C$ $VDD = 2.6V \pm 0.1V$	Alliance Better
IDD0 (mA)	65	75	Alliance Better
IDD1 (mA)	70	85	Alliance Better
IDD2P (mA)	5	4	Comparable
IDD2F (mA)	30	23	Comparable
IDD2Q (mA)	20	NA	NA
IDD3P (mA)	20	14	Comparable
IDD3N (mA)	55	30	Comparable
IDD4R (mA)	100	105	Alliance Better
IDD4W (mA)	100	105	Alliance Better
IDD5 (mA)	100	115	Alliance Better
IDD6 (mA)	2	4	Alliance Better
IDD7 (mA)	140	175	Alliance Better
Package	66pin TSOP (400mils)	66pin TSOP (400mils)	Same
Package Material	Pb and Halogen Free	Leaded Part	Alliance Better