

AS4C16M16SA-7TCN vs MT48LC16M16A2P-7E:G Comparison

Part Number & result Parameter	AS4C16M16SA-7TCN	MT48LC16M16A2P-7E:G	Comparison Result
Product Description	SDRAM	SDRAM	Same
Capacity	256Mb (16M x 16)	256Mb (16M x 16)	Same
Memory Organization	4M, x16 bits, x4 banks	4M, x16 bits, x4 banks	Same
Operating Power Supply	$V_{DD} \& V_{DDQ} = 3.3V$ (+/-0.3V)	$V_{DD} \& V_{DDQ} = 3.3V$ (+/-0.3V)	Same
Operating Temperature	Commercial (0°C to 70°C)	Commercial (0°C to 70°C)	Same
Clock Frequency(Max)	133MHz	133MHz	Comparable
Clock Cycle time (ns)	7	7	Same
CAS Latency	3	3	Same
tRCD & tRP (ns)	18	18	Same
Average Refresh Period	8192 cycles/64ms	8192 cycles/64ms	Same
I/O Capacitance	CIO: 4pf to 6pf	CIO: 4pf to 6pf	Same
Pin to Pin Compatible	Pin to Pin Compatible		Same
AC/DC Characteristics	Same	Same	Meet JEDEC
IDD Specification			
IDD Spec conditions	$-40C \leq Ta \leq 85C$ $VDD/Q = 3.3V \pm 0.3V$	$-40C \leq Ta \leq 105C$ $VDD/Q = 3.3V \pm 0.3V$	Different
I_{DD1} (mA)	60	100	Comparable
I_{DD2N} (mA)	25	NA	NA
I_{DD2NS} (mA)	18	NA	NA
I_{DD2P} (mA)	2	2.5	Comparable
I_{DD2PS} (mA)	2	2.5	Comparable
I_{DD3N} (mA)	35	35	Comparable
I_{DD3NS} (mA)	35	35	Comparable
I_{DD4} (mA)	62	100	Comparable
I_{DD5} (mA)	75	150	Comparable
I_{DD6} (mA)	2	3	Comparable
Package	54p TSOP II (400mils)	54p TSOP II (400mils)	Same
Package Material	Pb & Halogen Free	Pb Free	Same