

AS4C16M16SA-7BCN vs MT48LC16M16A2B4-6A:G Comparison

Part Number & result Parameter	AS4C16M16SA-7BCN	MT48LC16M16A2B4-6A: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	143MHz	167MHz	Different
Clock Cycle time (ns)	7	6	Different
CAS Latency	3	3	Same
tRCD & tRP (ns)	21	18	Different
Average Refresh Period	8192 cycles/64ms	8192 cycles/64ms	Same
I/O Capacitance	CIO: 4pf to 6pf	CIO: 3pf to 6pf	Comparable
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/Q = 3.3V ±0.3V	-40C ≤ Ta ≤ 105C VDD/Q = 3.3V ±0.3V	Different
I _{DD1} (mA)	55	100	Comparable
I _{DD2N} (mA)	20	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)	30	35	Comparable
I _{DD3NS} (mA)	30	35	Comparable
I _{DD4} (mA)	60	100	Comparable
I _{DD5} (mA)	70	150	Comparable
I _{DD6} (mA)	2	3	Comparable
Package 84b FBGA	8 x 8 x 1.2mm	8 x 12.5 x 1mm	Comparable
Package Material	Pb and Halogen Free	Pb and Halogen Free	Same