

AS4C8M16SA-6TIN vs MT48LC8M16A2P-6AIT:L Comparison

Part Number & result Parameter	AS4C8M16SA-6TIN	MT48LC8M16A2P-6AIT:L	Comparison Result
Product Description	SDRAM	SDRAM	Same
Capacity	128Mb (8M x 16)	128Mb (8M x 16)	Same
Memory Organization	2M, x16 bits, x4 banks	2M, 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	Industrial (-40°C to 85°C)	Industrial (-40°C to 85°C)	Same
Clock Frequency	166.66MHz	166.66MHz	Same
Clock Cycle time (ns)	6	6	Same
CAS Latency	3	3	Same
tRCD & tRP (ns)	18	18	Same
Average Refresh Period	4096 cycles/64ms	4096 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 ≤ Ta ≤ 85C VDD/Q = 3.3V ±0.3V	-40C ≤ Ta ≤ 85C VDD/Q = 3.3V ±0.3V	Same
IDD1 (mA)	50	100	Alliance Better
IDD2N (mA)	20	NA	
IDD2NS (mA)	18	NA	
IDD2P (mA)	2	2.5	Comparable
IDD2PS (mA)	2	2.5	Comparable
IDD3N (mA)	35	35	Same
IDD3NS (mA)	35	35	Same
IDD4 (mA)	62	100	Alliance Better
IDD5 (mA)	70	150	Alliance Better
IDD6 (mA)	2	3	Comparable
Package	54p TSOP II (400mils)	54p TSOP II (400mils)	Same
Package Material	Pb & Halogen Free	Pb Free	Same

AS4C8M16SB-6TIN vs MT48LC8M16A2P-6AIT:L Comparison

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Operating Power Supply	V _{DD} & V _{DDQ} = 3.3V (+/-0.3V)	V _{DD} & V _{DDQ} = 3.3V (+/-0.3V)	Same
Operating Temperature	Industrial (-40°C to 85°C)	Industrial (-40°C to 85°C)	Same
Clock Frequency	166.66MHz	166.66MHz	Same
Clock Cycle time (ns)	6	6	Same
CAS Latency	3	3	Same
tRCD & tRP (ns)	18	18	Same
Average Refresh Period	4096 cycles/64ms	4096 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 ≤ Ta ≤ 85C VDD/Q = 3.3V ±0.3V	-40C ≤ Ta ≤ 85C VDD/Q = 3.3V ±0.3V	Same
I _{DD1} (mA)	60	100	Alliance Better
I _{DD2N} (mA)	30	NA	
I _{DD2NS} (mA)	18	NA	
I _{DD2P} (mA)	10	2.5	Micron Better
I _{DD2PS} (mA)	10	2.5	Micron Better
I _{DD3N} (mA)	40	35	Comparable
I _{DD3NS} (mA)	40	35	Comparable
I _{DD4} (mA)	62	100	Alliance Better
I _{DD5} (mA)	80	150	Alliance Better
I _{DD6} (mA)	10	3	Micron Better
Package	54p TSOP II (400mils)	54p TSOP II (400mils)	Same
Package Material	Pb & Halogen Free	Pb Free	Same