ALLIANCE MEMORY
12815 NE 124th St STE#D, Kirkland, WA-98034

AS4C16M16SA vs AS4C16M16SB Comparison

Part Number & result / Parameter	AS4C16M16SA-6TIN AS4C16M16SA-6BIN (rev.A)	AS4C16M16SB-6TIN AS4C16M16SB-6BIN (rev.B)	Comparison Result
Product Description	SDRAM	SDRAM	Same
Process Technology	63nm	38nm	
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	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	2 or 3	2 or 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 ≤ Ta ≤ 85C VDD/Q = 3.3V ±0.3V	-40C ≤ Ta ≤ 85C VDD/Q = 3.3V ±0.3V	
I_{DD1} (mA)	60	60	Same
I_{DD2N} (mA)	25	30	Comparable
I_{DD2NS} (mA)	18	18	Same
I_{DD2P} (mA)	2	2	Same
I_{DD2PS} (mA)	2	2	Same
I_{DD3N} (mA)	35	40	Comparable
I_{DD3NS} (mA)	35	40	Comparable
I_{DD4} (mA)	62	62	Same
I_{DD5} (mA)	75	80	Comparable
I_{DD6} (mA)	2	2	Comparable
Package	**AS4C16M16SA-6TIN** 54p TSOP II (400mils)	**AS4C16M16SB-6TIN** 54p TSOP II (400mils)	Same
	AS4C16M16SA-6BIN 54b FBGA 8 x 8 x 1.2mm	**AS4C16M16SB-6BIN** 54b FBGA 8 x 8 x 1.2mm	Same
Package Material	Pb & Halogen Free	Pb & Halogen Free	Same