

### AS4C16M16SA-6BIN vs MT48LC16M16A2B4-6A:G Comparison

Part Number & result Parameter	AS4C16M16SA-6BIN	MT48LC16M16A2B4-6A:G	Comparison Result
<b>Product Description</b>	<b>SDRAM</b>	<b>SDRAM</b>	Same
<b>Capacity</b>	256Mb (16M x 16)	256Mb (16M x 16)	Same
<b>Memory Organization</b>	4M, x16 bits, x4 banks	4M, x16 bits, x4 banks	Same
<b>Operating Power Supply</b>	V <sub>DD</sub> & V <sub>DDQ</sub> = 3.3V (+/-0.3V)	V <sub>DD</sub> & V <sub>DDQ</sub> = 3.3V (+/-0.3V)	Same
<b>Operating Temperature</b>	<b>Industrial (0°C to 85°C)</b>	Commercial (0°C to 70°C)	<b>Different</b>
<b>Clock Frequency</b>	166.66MHz	167MHz	Comparable
<b>Clock Cycle time (ns)</b>	6	6	Same
<b>CAS Latency</b>	3	3	Same
<b>tRCD &amp; tRP (ns)</b>	18	18	Same
<b>Average Refresh Period</b>	8192 cycles/64ms	8192 cycles/64ms	Same
<b>I/O Capacitance</b>	CIO: 4pf to 6pf	<b>CIO: 3pf to 6pf</b>	Comparable
<b>Pin to Pin Compatible</b>	Pin to Pin Compatible		Same
<b>AC/DC Characteristics</b>	Same	Same	Meet JEDEC
<b>IDD Specification</b>			
<b>IDD Spec conditions</b>	-40C ≤ Ta ≤ 85C VDD/Q = 3.3V ±0.3V	<b>-40C ≤ Ta ≤ 105C</b> VDD/Q = 3.3V ±0.3V	<b>Different</b>
<b>I<sub>DD1</sub> (mA)</b>	<b>60</b>	100	Comparable
<b>I<sub>DD2N</sub> (mA)</b>	<b>25</b>	NA	NA
<b>I<sub>DD2NS</sub> (mA)</b>	18	NA	NA
<b>I<sub>DD2P</sub> (mA)</b>	2	<b>2.5</b>	Comparable
<b>I<sub>DD2PS</sub> (mA)</b>	2	2.5	Comparable
<b>I<sub>DD3N</sub> (mA)</b>	35	35	Comparable
<b>I<sub>DD3NS</sub> (mA)</b>	35	35	Comparable
<b>I<sub>DD4</sub> (mA)</b>	62	100	Comparable
<b>I<sub>DD5</sub> (mA)</b>	<b>75</b>	150	Comparable
<b>I<sub>DD6</sub> (mA)</b>	<b>2</b>	3	Comparable
<b>Package 84b FBGA</b>	8 x 8 x 1.2mm	<b>8 x 12.5 x 1mm</b>	Comparable
<b>Package Material</b>	Pb and Halogen Free	Pb and Halogen Free	Same