

**AS4C64M16D3LW-10BCN vs AS4C64M16D3LD-10BCN Comparison**

Part Number & result Parameter	AS4C64M16D3LW-10BCN	AS4C64M16D3LD-10BCN	Comparison Result
<b>Product Description</b>	<b>DDR3L SDRAM, Rev.W</b>	<b>DDR3L SDRAM, Rev.D</b>	
<b>Die Process Technology</b>	<b>38nm</b>	<b>25nm</b>	Different
<b>Capacity</b>	1Gb (64M x 16)	1Gb (64M x 16)	Same
<b>Memory Organization</b>	8Mwords, x16bits, x8 banks	8Mwords, x16bits, x8 banks	Same
<b>Operating Power Supply</b>	$V_{DD}$ & $V_{DDQ} = 1.35V$ (1.283V to 1.45V)		Same
<b>DDR3 Compatibility</b>	Compatible to 1.5±0.075	Compatible to 1.5±0.075	Same
<b>Operating Temperature</b>	Commercial (0°C to 95°C)		Same
<b>Clock Frequency</b>	933MHz	933MHz	Same
<b>Data Rate (MT/s)</b>	1866	1866	Same
<b>CAS Latency</b>	13	13	Same
<b>tRCD &amp; tRP (ns)</b>	13.91	13.91	Same
<b>Average Refresh Period</b>	7.8us at 0°C ≤ TC ≤ +85°C	7.8us at 0°C ≤ TC ≤ +85°C	Same
8192 cycles	3.9us at +85°C ≤ TC ≤ +95°C	3.9us at +85°C ≤ TC ≤ +95°C	
<b>I/O Capacitance</b>	2.2uF	2.2uF	Same
<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>	0C to 95C	0C to 95C	Same
<b>I<sub>DD0</sub> (mA)</b>	115	54	Rev.D better
<b>I<sub>DD1</sub> (mA)</b>	140	80	Rev.D better
<b>I<sub>DD4R</sub> (mA)</b>	190	195	Rev.W better
<b>I<sub>DD4W</sub> (mA)</b>	210	150	Rev.D better
<b>I<sub>DD5B</sub> (mA)</b>	160	78	Rev.D better
<b>I<sub>DD6</sub> (mA)</b>	10	15	Rev.W better
<b>I<sub>DD7</sub> (mA)</b>	240	220	Rev.D better
<b>Package 96b FBGA</b>	(7.5mm x 13mm x 1.0mm) Ball Array (mm): 12x 6.4 x 0.8	(7.5mm x 13mm x 1.0mm) Ball Array (mm): 12x 6.4 x 0.8	Same
<b>Package Material</b>	Pb and Halogen Free	Pb and Halogen Free	Same