

### AS4C128M16D3LC-12BCN vs AS4C128M16D3LF-12BCN Comparison

Part Number & result Parameter	AS4C128M16D3LC-12BCN	AS4C128M16D3LF-12BCN	Comparison Result
<b>Product Description</b>	<b>DDR3L SDRAM, Rev.C</b>	<b>DDR3L SDRAM, Rev.F</b>	
<b>Die Process Technology</b>	<b>25nm</b>	<b>38nm</b>	Difference
<b>Capacity</b>	2Gb (128M x 16)	2Gb (128M x 16)	Same
<b>Memory Organization</b>	16Mwords, x16bits, x8 banks	16Mwords, x16bits, x8 banks	Same
<b>Operating Power Supply</b>	V <sub>DD</sub> & V <sub>DDQ</sub> = 1.35V (1.283V to 1.45V)	V <sub>DD</sub> & V <sub>DDQ</sub> = 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)	Commercial (0°C to 95°C)	Same
<b>Clock Frequency</b>	800MHz	800MHz	Same
<b>Data Rate (MT/s)</b>	1600	1600	Same
<b>CAS Latency</b>	11	11	Same
<b>tRCD &amp; tRP (ns)</b>	13.75	13.75	Same
<b>Average Refresh Period</b>	8192 cycles/64ms upto 85C	8192 cycles/64ms upto 85C	Same
<b>I/O Capacitance</b>	Comparable		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>	70	120	Rev C better
<b>I<sub>DD1</sub> (mA)</b>	80	145	Rev C better
<b>I<sub>DD2P0</sub> (mA)</b>	15	16	Rev C better
<b>I<sub>DD2P1</sub> (mA)</b>	22	50	Rev C better
<b>I<sub>DD2N</sub> (mA)</b>	35	85	Rev C better
<b>I<sub>DD2Q</sub> (mA)</b>	35	85	Rev C better
<b>I<sub>DD3P</sub> (mA)</b>	35	60	Rev C better
<b>I<sub>DD3N</sub> (mA)</b>	55	95	Rev C better
<b>I<sub>DD4R</sub> (mA)</b>	155	190	Rev C better
<b>I<sub>DD4W</sub> (mA)</b>	160	210	Rev C better
<b>I<sub>DD5B</sub> (mA)</b>	145	180	Rev C better
<b>I<sub>DD6</sub> (mA)</b>	15	11	Rev F better
<b>I<sub>DD6ET</sub> (mA)</b>	20	13	Rev F better
<b>I<sub>DD7</sub> (mA)</b>	240	235	Rev F better
<b>I<sub>DD8</sub> (mA)</b>	14	10	Rev F better
<b>Package 96b FBGA</b>	(7.5mm x 13mm x 1.0mm) BallArray (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