

### AS4C256M16D4-75BCN vs MT40A256M16LY-075 Comparison

| Part Number & result<br>Parameter | AS4C256M16D4-75BCN                                                                              | MT40A256M16LY-075                                                                               | Comparison<br>Result |
|-----------------------------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------|
| <b>Product Description</b>        | <b>DDR4 SDRAM</b>                                                                               | <b>DDR4 SDRAM</b>                                                                               | Same                 |
| <b>Capacity</b>                   | 4Gb (256M x 16)                                                                                 | 4Gb (256M x 16)                                                                                 | Same                 |
| <b>Memory Organization</b>        | 32Meg, x16bits, x4 banks x2 groups                                                              | 32Meg, x16bits, x4 banks x2 groups                                                              | Same                 |
| <b>Operating Power Supply</b>     | V <sub>DD</sub> & V <sub>DDQ</sub> = 1.2V (+/-0.06V)<br>V <sub>pp</sub> = +2.5V(-0.125V/+0.25V) | V <sub>DD</sub> & V <sub>DDQ</sub> = 1.2V (+/-0.06V)<br>V <sub>pp</sub> = +2.5V(-0.125V/+0.25V) | Same                 |
| <b>Operating Temperature</b>      | Commercial (0°C to 95°C)                                                                        | Commercial (0°C to 95°C)                                                                        | Same                 |
| <b>Clock Frequency(MHz)</b>       | 1333                                                                                            | 1333                                                                                            | Same                 |
| <b>Data Rate (MT/s)</b>           | 2666                                                                                            | 2666                                                                                            | Same                 |
| <b>CAS Latency</b>                | 19                                                                                              | 19                                                                                              | Same                 |
| <b>tRCD &amp; tRP (ns)</b>        | 14.25                                                                                           | 14.25                                                                                           | Same                 |
| <b>Average Refresh Period</b>     | 8192 cycles/64ms upto 85C                                                                       | 8192 cycles/64ms upto 85C                                                                       | Same                 |
| <b>I/O Capacitance (Cio)</b>      | 1.15pf                                                                                          | 1.15pf                                                                                          | 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>        | -40C to 95C                                                                                     | 0C to 95C                                                                                       | Different            |
| <b>I<sub>DD0</sub> (mA)</b>       | 92                                                                                              | 85                                                                                              | Comparable           |
| <b>I<sub>DD1</sub> (mA)</b>       | 142                                                                                             | 105                                                                                             | Comparable           |
| <b>I<sub>DD2P</sub> (mA)</b>      | 44                                                                                              | 25                                                                                              | Comparable           |
| <b>I<sub>DD2Q</sub> (mA)</b>      | 75                                                                                              | 30                                                                                              | Comparable           |
| <b>I<sub>DD2N</sub> (mA)</b>      | 74                                                                                              | 35                                                                                              | Comparable           |
| <b>I<sub>DD3P</sub> (mA)</b>      | 67                                                                                              | 43                                                                                              | Comparable           |
| <b>I<sub>DD3N</sub> (mA)</b>      | 86                                                                                              | 55                                                                                              | Comparable           |
| <b>I<sub>DD4R</sub> (mA)</b>      | 205                                                                                             | 263                                                                                             | Comparable           |
| <b>I<sub>DD4W</sub> (mA)</b>      | 230                                                                                             | 255                                                                                             | Comparable           |
| <b>I<sub>DD6N</sub> (mA)</b>      | 30                                                                                              | 24                                                                                              | Comparable           |
| <b>I<sub>DD6R</sub> (mA)</b>      | 25                                                                                              | 18                                                                                              | Comparable           |
| <b>I<sub>DD6A</sub> (mA)</b>      | 30                                                                                              | 8.6                                                                                             | Comparable           |
| <b>I<sub>DD7</sub> (mA)</b>       | 235                                                                                             | 259                                                                                             | Comparable           |
| <b>Package 96b FBGA</b>           | 7.5mm x 13.5mm                                                                                  | 7.5mm x 13.5mm                                                                                  | Comparable           |
| <b>Package Material</b>           | Pb and Halogen Free                                                                             | Pb and Halogen Free                                                                             | Same                 |