

### AS4C64M16D2-25BxN vs AS4C64M16D2A-25BxN Comparison

| Part Number & result<br>Parameter | AS4C64M16D2-25BxN                                        | AS4C64M16D2A-25BxN                                       | Comparison Result |
|-----------------------------------|----------------------------------------------------------|----------------------------------------------------------|-------------------|
| Product Description               | DDR2 SDRAM                                               | DDR2 SDRAM                                               | Same              |
| Capacity                          | 1Gb (64M x 16)                                           | 1Gb (64M x 16)                                           | Same              |
| Memory Organization               | 8M, x16bits, x8 banks                                    | 8M, x16bits, x8 banks                                    | Same              |
| Operating Power Supply            | V <sub>DD</sub> & V <sub>DDQ</sub> = 1.8V<br>(+/-0.1V)   | V <sub>DD</sub> & V <sub>DDQ</sub> = 1.8V<br>(+/-0.1V)   | Same              |
| Operating Temperature             | Commercial (0°C to 85°C)<br>Industrial (-40°C to 95°C)   | Commercial (0°C to 85°C)<br>Industrial (-40°C to 95°C)   | Same              |
| Max. Clock Frequency              | 400MHz                                                   | 400MHz                                                   | Same              |
| Max Data Rate (MT/s)              | 800                                                      | 800                                                      | Same              |
| CAS Latency                       | 5                                                        | 5                                                        | Same              |
| tRCD & tRP (ns)                   | 12.5                                                     | 12.5                                                     | Same              |
| Average Refresh Period            | 7.8us @ -40°C ≤ TC ≤ +85°C<br>3.9us @ +85°C < TC ≤ +95°C | 7.8us @ -40°C ≤ TC ≤ +85°C<br>3.9us @ +85°C < TC ≤ +95°C | Same              |
| I/O Capacitance                   | CIO : 3.5pF Max                                          | CIO : 3.5pF Max                                          | Comparable        |
| Pin to Pin Compatible             | Pin to Pin Compatible                                    |                                                          | Same              |
| AC/DC Characteristics             | Same                                                     | Same                                                     | Meet JEDEC        |
| IDD Specification                 |                                                          |                                                          |                   |
| IDD Spec conditions               | VDD = 1.8V ±0.1V Commercial & Industrial                 |                                                          | Same              |
| I <sub>DD0</sub> (mA)             | 115                                                      | 65                                                       | Rev A Better      |
| I <sub>DD1</sub> (mA)             | 130                                                      | 75                                                       | Rev A Better      |
| I <sub>DD2P</sub> (mA)            | 10                                                       | 10                                                       | Rev A Better      |
| I <sub>DD2Q</sub> (mA)            | 60                                                       | 35                                                       | Rev A Better      |
| I <sub>DD2N</sub> (mA)            | 65                                                       | 35                                                       | Rev A Better      |
| I <sub>DD3Pf</sub> (mA)           | 30                                                       | 25                                                       | Rev A Better      |
| I <sub>DD3N</sub> (mA)            | 75                                                       | 45                                                       | Rev A Better      |
| I <sub>DD4R</sub> (mA)            | 235                                                      | 95                                                       | Rev A Better      |
| I <sub>DD4W</sub> (mA)            | 235                                                      | 105                                                      | Rev A Better      |
| I <sub>DD5</sub> (mA)             | 210                                                      | 100                                                      | Rev A Better      |
| I <sub>DD6</sub> (mA)             | 9                                                        | 10                                                       | Rev A Better      |
| I <sub>DD7</sub> (mA)             | 330                                                      | 170                                                      | Rev A Better      |
| Package 84b FBGA                  | 8 x 12.5 x 1.2mm                                         | 8 x 12.5 x 1.2mm                                         | Same              |
| Package Material                  | Pb and Halogen Free                                      | Pb and Halogen Free                                      | Same              |