DDR3 Memory

DDR3

Viking Technology has over two decades of supporting Original Equipment Manufacturers (OEMs) with the industry’s most complete range of DDR3 memory modules ranging from LRDIMMs to SOUDIMMs and everything in between. Leveraging Viking Technology’s advanced packaging expertise, locked BOM control, and AS9100, TL 9000, and ISO 14001 certified facilities, Viking Technology is able to deliver the highest quality memory modules catered to the demands and requirements of both Enterprise and Embedded markets. With Viking Technology testing facilities and equipment, each module is tested to the demands required from blade servers, AdvancedTCA, MicroTCA, Single Board Computers (SBC), along with a whole host of enterprise appliances.

Viking Technology DDR3 Memory modules density up to 16GB and is supported in both commercial temperature (0°C – 70°C) and industrial temperature (-40°C – 85°C).

Viking Technology DRAM stacking capabilities is also deployed for the DDR3 memory family to enable higher density modules, allowing for lower cost compared to DDP’s or single die monolithic devices.

DDR3 MEMORY FEATURES

- JEDEC standard 1.5V power supply
- Differential CLK (#CLK) input
- Higher peak bandwidth (up to 1600Mt/s)
- Differential bidirectional data strobe
- Self refresh temperature (SRT)
- Automatic self refresh (ASR)
- Multipurpose register
- Available with or without ECC (Error Correction)
- Available in either Registered or Unbuffered
- System Level time calibration support
- Controlled Bill of Materials (BOM)
- Burst type: Sequential and Interleave
# DDR3 Memory

## Product Specifications

### Density

<table>
<thead>
<tr>
<th>Form Factor</th>
<th>DDR3</th>
<th>Stacked DRAM</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRDIMM</td>
<td>up to 32GB</td>
<td>up to 32GB</td>
</tr>
<tr>
<td>RDIMM</td>
<td>up to 32GB</td>
<td>up to 32GB</td>
</tr>
<tr>
<td>UDIMM</td>
<td>up to 8GB</td>
<td>up to 8GB</td>
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<tr>
<td>MiniRDIMM</td>
<td>up to 8GB</td>
<td>up to 8GB</td>
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<tr>
<td>MiniUDIMM</td>
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<tr>
<td>VLP MiniRDIMM</td>
<td>up to 8GB</td>
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<td>up to 8GB</td>
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<tr>
<td>VLP RDIMM</td>
<td>up to 16GB</td>
<td>up to 16GB</td>
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<tr>
<td>VLP UDIMM</td>
<td>up to 8GB</td>
<td>up to 8GB</td>
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<tr>
<td>VLP SORDIMM</td>
<td>up to 8GB</td>
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</tr>
<tr>
<td>SODIMM</td>
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<tr>
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<tr>
<td>SOUDIMM</td>
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</tr>
<tr>
<td>SOCDIMM</td>
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</tr>
<tr>
<td>ULP RDIMM</td>
<td>up to 16GB</td>
<td>up to 16GB</td>
</tr>
<tr>
<td>ULP MiniRDIMM</td>
<td>up to 8GB</td>
<td>up to 8GB</td>
</tr>
<tr>
<td>ULP MiniUDIMM</td>
<td>up to 8GB</td>
<td>up to 8GB</td>
</tr>
</tbody>
</table>

### Reliability

- **ECC**: 72-bit

### Data Rate / CAS Latency

- DDR3-800 @ CL = 5
- DDR3-800 @ CL = 6
- DDR3-1066 @ CL = 7
- DDR3-1066 @ CL = 8
- DDR3-1333 @ CL = 9
- DDR3-1333 @ CL = 10
- DDR3-1600 @ CL = 9
- DDR3-1600 @ CL = 10

### Power

- **Voltage**: 1.5V ± 0.075V and 1.35V

### Environmental

- **Commercial Temp**: 0°C to 70 °C
- **Industrial Temp**: -40°C to + 85°C
- **Safety / Agency / Compliance**: RoHS

### Technical Information

- 8 Internal banks
- System level timing calibration support
- Asynchronous reset
- On-die termination (ODT) and Dynamic ODT for improved signal integrity
- On-Dimm thermal sensor
- Serial presence detect with EEPROM

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For part numbers and capacity options, please email us at sales@vikingtechnology.com.

### Global Locations

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For more information, please visit www.vikingtechnology.com.

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