

# Intel Platform Memory Operations

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## Intel Platform Memory Operations

### LRDIMM System-Level Validation Results on Intel® Xeon® E7-8800/4800/2800 v2 Processor Family

Listed below are the results from a small sample of DDR3 LRDIMMs tested on Intel® Xeon® E7-8800/4800/2800 v2 processor family.

We are providing this information as a guide to module compatibility with Intel server reference platforms. This testing is not intended to replace the normal OEM qualification process. For results on specific Intel® motherboards or OEM production motherboards, please refer to the OEM's list of qualified memory suppliers.

The configurations validated only for the same supplier and same part number across memory channels

[Updated / New Part](#)

#### LRDIMM OR DDR3-1600 1.5V 1 and 2 DIMM Per Channel / 2 and 3Slot Per Channel /4Channel

| DIMM                     |                                  |                      |                    |                   | DRAM                     |                                 |                     |                    |                      | Buffer                  |                       |                   |
|--------------------------|----------------------------------|----------------------|--------------------|-------------------|--------------------------|---------------------------------|---------------------|--------------------|----------------------|-------------------------|-----------------------|-------------------|
| Supplier                 | Part Number                      | Size                 | CL                 | Raw Card          | Supplier                 | Part Number                     | Density Die         | Width              | Date Code            | Vendor                  | Revision              | Note              |
| Micron                   | MT72KSZS4G72LZ-1G6E2A7           | 32GB                 | 11                 | C                 | Micron                   | MT41K2G4TRF-125:E               | 4Gb                 | x4                 | 1332                 | Inphi                   | GS02B                 | 1                 |
| Micron                   | MT72KSZS4G72LZ-1G6E2C3           | 32GB                 | 11                 | C                 | Micron                   | MT41K2G4TRF-125:E               | 4Gb                 | x4                 | 1332                 | Montage                 | C1                    | 1                 |
| Samsung                  | M386B4G70DM0-YK03                | 32GB                 | 11                 | C                 | Samsung                  | K4B8G0446D-MYKO                 | 4Gb                 | x4                 | 1343                 | Inphi                   | GS02B                 | 1                 |
| Samsung                  | M386B4G70DM0-YK04                | 32GB                 | 11                 | C                 | Samsung                  | K4B8G0446D-MYKO                 | 4Gb                 | x4                 | 1344                 | Montage                 | C1                    | 1                 |
| <a href="#">SK hynix</a> | <a href="#">HMT84GL7BMR4A-PB</a> | <a href="#">32GB</a> | <a href="#">11</a> | <a href="#">C</a> | <a href="#">SK hynix</a> | <a href="#">H5TC8G43BMR-PBA</a> | <a href="#">4Gb</a> | <a href="#">x4</a> | <a href="#">1512</a> | <a href="#">Inphi</a>   | <a href="#">GS02B</a> | <a href="#">1</a> |
| <a href="#">SK hynix</a> | <a href="#">HMT84GL7BMR4A-PB</a> | <a href="#">32GB</a> | <a href="#">11</a> | <a href="#">C</a> | <a href="#">SK hynix</a> | <a href="#">H5TC8G43BMR-PBA</a> | <a href="#">4Gb</a> | <a href="#">x4</a> | <a href="#">1512</a> | <a href="#">Montage</a> | <a href="#">C1</a>    | <a href="#">1</a> |
| SK hynix                 | HMT84GL7AMR4A-PB                 | 32GB                 | 11                 | C                 | SK hynix                 | H5TC8G43AMR-PBA                 | 4Gb                 | x4                 | 1326                 | Inphi                   | GS02B                 | 1                 |
| SK hynix                 | HMT84GL7AMR4A-PB                 | 32GB                 | 11                 | C                 | SK hynix                 | H5TC8G43AMR-PBA                 | 4Gb                 | x4                 | 1322                 | Montage                 | C1                    | 1                 |

1 - DDP (Dual-Die Package)

#### LRDIMM OR DDR3-1333 1.5V 3DIMM Per Channel /3Slot Per Channel /4Channel

| DIMM                     |                                  |                      |                    |                   | DRAM                     |                                 |                     |                    |                      | Buffer                  |                       |                   |
|--------------------------|----------------------------------|----------------------|--------------------|-------------------|--------------------------|---------------------------------|---------------------|--------------------|----------------------|-------------------------|-----------------------|-------------------|
| Supplier                 | Part Number                      | Size                 | CL                 | Raw Card          | Supplier                 | Part Number                     | Density Die         | Width              | Date Code            | Vendor                  | Revision              | Note              |
| SK hynix                 | HMT84GL7AMR4A-H9                 | 32GB                 | 9                  | C                 | SK hynix                 | H5TC8G43AMR-H9A                 | 4Gb                 | x4                 | 1318                 | Inphi                   | GS02B                 | 1                 |
| SK hynix                 | HMT84GL7AMR4A-H9                 | 32GB                 | 9                  | C                 | SK hynix                 | H5TC8G43AMR-H9A                 | 4Gb                 | x4                 | 1318                 | Montage                 | C1                    | 1                 |
| SK hynix                 | HMT84GL7AMR4A-PB                 | 32GB                 | 11                 | C                 | SK hynix                 | H5TC8G43AMR-PBA                 | 4Gb                 | x4                 | 1326                 | Inphi                   | GS02B                 | 1                 |
| SK hynix                 | HMT84GL7AMR4A-PB                 | 32GB                 | 11                 | C                 | SK hynix                 | H5TC8G43AMR-PBA                 | 4Gb                 | x4                 | 1322                 | Montage                 | C1                    | 1                 |
| <a href="#">SK hynix</a> | <a href="#">HMT84GL7BMR4A-PB</a> | <a href="#">32GB</a> | <a href="#">11</a> | <a href="#">C</a> | <a href="#">SK hynix</a> | <a href="#">H5TC8G43BMR-PBA</a> | <a href="#">4Gb</a> | <a href="#">x4</a> | <a href="#">1512</a> | <a href="#">Inphi</a>   | <a href="#">GS02B</a> | <a href="#">1</a> |
| <a href="#">SK hynix</a> | <a href="#">HMT84GL7BMR4A-PB</a> | <a href="#">32GB</a> | <a href="#">11</a> | <a href="#">C</a> | <a href="#">SK hynix</a> | <a href="#">H5TC8G43BMR-PBA</a> | <a href="#">4Gb</a> | <a href="#">x4</a> | <a href="#">1512</a> | <a href="#">Montage</a> | <a href="#">C1</a>    | <a href="#">1</a> |
| Samsung                  | M386B4G70DM0-YK03                | 32GB                 | 11                 | C                 | Samsung                  | K4B8G0446D-MYKO                 | 4Gb                 | x4                 | 1343                 | Inphi                   | GS02B                 | 1                 |
| Samsung                  | M386B4G70DM0-YK04                | 32GB                 | 11                 | C                 | Samsung                  | K4B8G0446D-MYKO                 | 4Gb                 | x4                 | 1344                 | Montage                 | C1                    | 1                 |
| Micron                   | MT72KSZS4G72LZ-1G6E2A7           | 32GB                 | 11                 | C                 | Micron                   | MT41K2G4TRF-125:E               | 4Gb                 | x4                 | 1332                 | Inphi                   | GS02B                 | 1                 |
| Micron                   | MT72KSZS4G72LZ-1G6E2C3           | 32GB                 | 11                 | C                 | Micron                   | MT41K2G4TRF-125:E               | 4Gb                 | x4                 | 1332                 | Montage                 | C1                    | 1                 |

1 - DDP (Dual-Die Package)

#### LRDIMM OR DDR3L-1333 1.35V 1 and 2DIMM Per Channel /2 and 3Slot Per Channel /4Channel

| DIMM                     |                                  |                      |                    |                   | DRAM                     |                                 |                     |                    |                      | Buffer                  |                       |                   |
|--------------------------|----------------------------------|----------------------|--------------------|-------------------|--------------------------|---------------------------------|---------------------|--------------------|----------------------|-------------------------|-----------------------|-------------------|
| Supplier                 | Part Number                      | Size                 | CL                 | Raw Card          | Supplier                 | Part Number                     | Density Die         | Width              | Date Code            | Vendor                  | Revision              | Note              |
| SK hynix                 | HMT84GL7AMR4A-H9                 | 32GB                 | 9                  | C                 | SK hynix                 | H5TC8G43AMR-H9A                 | 4Gb                 | x4                 | 1318                 | Inphi                   | GS02B                 | 1                 |
| SK hynix                 | HMT84GL7AMR4A-H9                 | 32GB                 | 9                  | C                 | SK hynix                 | H5TC8G43AMR-H9A                 | 4Gb                 | x4                 | 1318                 | Montage                 | C1                    | 1                 |
| SK hynix                 | HMT84GL7AMR4A-PB                 | 32GB                 | 11                 | C                 | SK hynix                 | H5TC8G43AMR-PBA                 | 4Gb                 | x4                 | 1326                 | Inphi                   | GS02B                 | 1                 |
| SK hynix                 | HMT84GL7AMR4A-PB                 | 32GB                 | 11                 | C                 | SK hynix                 | H5TC8G43AMR-PBA                 | 4Gb                 | x4                 | 1322                 | Montage                 | C1                    | 1                 |
| <a href="#">SK hynix</a> | <a href="#">HMT84GL7BMR4A-PB</a> | <a href="#">32GB</a> | <a href="#">11</a> | <a href="#">C</a> | <a href="#">SK hynix</a> | <a href="#">H5TC8G43BMR-PBA</a> | <a href="#">4Gb</a> | <a href="#">x4</a> | <a href="#">1512</a> | <a href="#">Inphi</a>   | <a href="#">GS02B</a> | <a href="#">1</a> |
| <a href="#">SK hynix</a> | <a href="#">HMT84GL7BMR4A-PB</a> | <a href="#">32GB</a> | <a href="#">11</a> | <a href="#">C</a> | <a href="#">SK hynix</a> | <a href="#">H5TC8G43BMR-PBA</a> | <a href="#">4Gb</a> | <a href="#">x4</a> | <a href="#">1512</a> | <a href="#">Montage</a> | <a href="#">C1</a>    | <a href="#">1</a> |

### 2 DDR3 LRDIMM Validation Results

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| LRDIMM QR DDR3L-1333 1.35V 1 and 2DIMM Per Channel / 2 and 3Slot Per Channel / 4Channel |                        |      |    |          |          |                   |             |       |           |         |          |      |
|---|------------------------|------|----|----------|----------|-------------------|-------------|-------|-----------|---------|----------|------|
| DIMM  |                        |      |    |          | DRAM     |                   |             |       |           | Buffer  |          |      |
| Supplier  | Part Number            | Size | CL | Raw Card | Supplier | Part Number       | Density Die | Width | Date Code | Vendor  | Revision | Note |
| Samsung   | M386B4G70DM0-YK03      | 32GB | 11 | C        | Samsung  | K4B8G0446D-MYK0   | 4Gb         | x4    | 1343      | Inphi   | GS02B    | 1    |
| Samsung   | M386B4G70DM0-YK04      | 32GB | 11 | C        | Samsung  | K4B8G0446D-MYK0   | 4Gb         | x4    | 1344      | Montage | C1       | 1    |
| Micron  | MT72KSZS4G72LZ-1G6E2A7 | 32GB | 11 | C        | Micron   | MT41K2G4TRF-125:E | 4Gb         | x4    | 1332      | Inphi   | GS02B    | 1    |
| Micron  | MT72KSZS4G72LZ-1G6E2C3 | 32GB | 11 | C        | Micron   | MT41K2G4TRF-125:E | 4Gb         | x4    | 1332      | Montage | C1       | 1    |

1 - DDP (Dual-Die Package)

| LRDIMM 8R DDR3-1066 1.5V 1, 2 and 3DIMM Per Channel / 2 and 3Slot Per Channel / 4Channel |                         |      |    |          |          |                 |             |       |           |         |          |      |
|--|-------------------------|------|----|----------|----------|-----------------|-------------|-------|-----------|---------|----------|------|
| DIMM   |                         |      |    |          | DRAM     |                 |             |       |           | Buffer  |          |      |
| Supplier   | Part Number             | Size | CL | Raw Card | Supplier | Part Number     | Density Die | Width | Date Code | Vendor  | Revision | Note |
| Micron   | MT144KSZQ8G72LZ-1G4E1A7 | 64GB | 9  | E        | Micron   | MT41K4G4SMA-15E | 4Gb         | x4    | 1342      | Inphi   | GS02B    |      |
| Micron   | MT144KSZQ8G72LZ-1G4E1C3 | 64GB | 9  | E        | Micron   | MT41K4G4SMA-15E | 4Gb         | x4    | 1342      | Montage | C1       |      |
| SK hynix   | HMTA8GL7AHR4C-PB        | 64GB | 11 | E        | SK hynix | H5TQAG43AHR-PBC | 4Gb         | x4    | 1330      | Inphi   | GS02B    |      |
| SK hynix   | HMTA8GL7AHR4C-PB        | 64GB | 11 | E        | SK hynix | H5TQAG43AHR-PBC | 4Gb         | x4    | 1330      | Montage | C1       |      |
| Samsung  | M386B8G70DE0-YH93       | 64GB | 9  | E        | Samsung  | K4BAG0446D-EYH9 | 4Gb         | x4    | 1338      | Inphi   | GS02B    |      |

[Updated on November, 2015](#)

Parts may be capable of higher speed or lower voltages. All parts have been tested at POR configuration.

### Approved Test Labs:

The following test labs have the capability of performing the DDR3 LRDIMM system-level testing. For further information please contact:

#### Platform Memory Operations Lab

Advanced Validation Labs

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