

# Intel Platform Memory Operations

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## Intel Platform Memory Operations

### DDR3 1600 Non-ECC SODIMM Validation Results 1DIMM/ch

Listed below are the results from a small sample of DDR3 1600 Non-ECC SoDIMM modules tested on reference platforms based on Intel® 6 series express chipsets using Intel® Core™ i7 processors (codename Sandy Bridge), in a 1DIMM/channel configuration. We are providing this information as a guide to module performance with Intel® reference platforms. This testing is not intended to replace the normal OEM component qualification process. For results on specific Intel® motherboards or OEM production motherboards, please refer to the OEM's list of qualified memory suppliers.

| <b>DIMM Vendor</b> | <b>DIMM Size</b> | <b>DIMM Part #</b> | <b>R / C</b> | <b>DRAM Vendor</b> | <b>DRAM Part #</b> | <b>DRAM Config</b> | <b>DRAM Date Code</b> |
|--------------------|------------------|--------------------|--------------|--------------------|--------------------|--------------------|-----------------------|
| <b>A-Data</b>      | 1GB              | SU3S1600B1G11-B    | B            | Hynix              | H5TQ1G83DFR-PBC    | 1Gbx8              | 1030                  |
| <b>A-Data</b>      | 2GB              | SU3S1600B2G11-B    | F            | Hynix              | H5TQ1G83DFR-PBC    | 1Gbx8              | 1030                  |
| <b>A-Data</b>      | 4GB              | SU3S1600C4G11-B    | F            | Hynix              | H5TQ2G83BFR-PBC    | 2Gbx8              | 1046                  |
| <b>Elpida</b>      | 1GB              | EBJ21UE8BFU0-GN-F  | B            | Elpida             | EDJ1108BFBG-GN-F   | 1Gbx8              | 1039                  |
| <b>Elpida</b>      | 2GB              | EBJ10UE8BFU0-GN-F  | F            | Elpida             | EDJ1108BFBG-GN-F   | 1Gbx8              | 1039                  |
| <b>Hynix</b>       | 1GB              | HMT112S6TFR8C-PB   | B            | Hynix              | H5TQ1G83TFR-PBC    | 1Gbx8              | 1028                  |
| <b>Hynix</b>       | 2GB              | HMT125S6TFR8C-PB   | F            | Hynix              | H5TQ1G83TFR-PBC    | 1Gbx8              | 1028                  |
| <b>Hynix</b>       | 1GB              | HMT312S6BFR6C-PB   | C            | Hynix              | H5TQ2G63BFR-PBC    | 2Gbx16             | 1048                  |
| <b>Hynix</b>       | 2GB              | HMT325S6BFR6C-PB   | A            | Hynix              | H5TQ2G63BFR-PBC    | 2Gbx16             | 1048                  |
| <b>Hynix</b>       | 2GB              | HMT325S6BFR8C-PB   | B            | Hynix              | H5TQ2G83BFR-PBC    | 2Gbx8              | 1048                  |
| <b>Hynix</b>       | 4GB              | HMT351S6BFR8C-PB   | F            | Hynix              | H5TQ2G83BFR-PBC    | 2Gbx8              | 1048                  |

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|                 |     |                   |   |         |                 |       |      |
|-----------------|-----|-------------------|---|---------|-----------------|-------|------|
| <b>Kingston</b> | 1GB | KVR1600D3S11/1G   | B | Hynix   | H5TQ1G83TFR-PBC | 1Gbx8 | 1022 |
| <b>Kingston</b> | 2GB | KVR1600D3S11/2G   | F | Hynix   | H5TQ1G83TFR-PBC | 1Gbx8 | 1022 |
| <b>Samsung</b>  | 1GB | M471B2873FHS-CK0  | B | Samsung | K4B1G0846F-HCK0 | 1Gbx8 | 1046 |
| <b>Samsung</b>  | 2GB | M471B5673FH0-CK0  | F | Samsung | K4B1G0846F-HCK0 | 1Gbx8 | 1046 |
| <b>Samsung</b>  | 2GB | M471B5773CHS-CK0  | B | Samsung | K4B2G0846C-HCK0 | 2Gbx8 | 1010 |
| <b>Samsung</b>  | 2GB | M471B5773DH0-CK0  | B | Samsung | K4B2G0846D-HCK0 | 2Gbx8 | 1028 |
| <b>Samsung</b>  | 4GB | M471B5273CH0-CK0  | F | Samsung | K4B2G0846C-HCK0 | 2Gbx8 | 1010 |
| <b>Samsung</b>  | 4GB | M471B5273DH0-CK0  | F | Samsung | K4B2G0846D-HCK0 | 2Gbx8 | 1043 |
| <b>Samsung</b>  | 8GB | M471B1G73AH0-CK0  | F | Samsung | K4B4G0846A-HCK0 | 4Gbx8 | 1039 |
| <b>Samsung</b>  | 8GB | M471B1G73BH0-CK0  | F | Samsung | K4B4G0846B-HCK0 | 4Gbx8 | 1113 |
| <b>Nanya</b>    | 2GB | NT2GC64B88G0NS-DI | B | Nanya   | NT5CB256M8GN-DI | 2Gbx8 | 1134 |
| <b>Nanya</b>    | 4GB | NT4GC64B8HG0NS-DI | F | Nanya   | NT5CB256M8GN-DI | 2Gbx8 | 1134 |

## DDR3 1333 Non-ECC SODIMM Validation Results 1DIMM/ch

Listed below are the results from a small sample of DDR3 1333 Non-ECC SoDIMM modules tested on reference platforms based on Intel® 6 series express chipsets using Intel® Core™ i7 processors (codename Sandy Bridge), in a 1DIMM/channel configuration. We are providing this information as a guide to module performance with Intel® reference platforms. This testing is not intended to replace the normal OEM component qualification process. For results on specific Intel® motherboards or OEM production motherboards, please refer to the OEM's list of qualified memory suppliers.

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| <b>DIMM Vendor</b> | <b>DIMM Size</b> | <b>DIMM Part#</b>     | <b>R/C</b> | <b>DRAM Vendor</b> | <b>DRAM Part#</b> | <b>DRAM Config</b> | <b>DRAM Date Code</b> |
|--------------------|------------------|-----------------------|------------|--------------------|-------------------|--------------------|-----------------------|
| Elpida             | 1GB              | EBJ10UE8BFU0-DJ-F     | B          | Elpida             | EDJ1108BFBG-DJ-F  | 1Gbx8              | 1047                  |
| Elpida             | 2GB              | EBJ21UE8BFU0-DJ-F     | F          | Elpida             | EDJ1108BFBG-DJ-F  | 1Gbx8              | 1047                  |
| Elpida             | 2GB              | EBJ20UF8BCS0-DJ-F     | B          | Elpida             | EDJ2108BCSE-DJ-F  | 2Gbx8              | 1050                  |
| Elpida             | 4GB              | EBJ41UF8BCS0-DJ-F     | F          | Elpida             | EDJ2108BCSE-DJ-F  | 2Gbx8              | 1048                  |
| Elpida             | 8GB              | EBJ81UG8BAS0-DJ-F     | F          | Elpida             | EDJ4208BASE-DJ-F  | 4Gbx8              | 1105                  |
| Hynix              | 1GB              | HMT312S6BFR6C-H9      | C          | Hynix              | H5TQ2G63BFR-H9C   | 2Gbx16             | 1046                  |
| Hynix              | 2GB              | HMT325S6BFR6C-H9      | A          | Hynix              | H5TQ2G63BFR-H9C   | 2Gbx16             | 1046                  |
| Hynix              | 2GB              | HMT325S6BFR8C-H9      | B          | Hynix              | H5TQ2G83BFR-H9C   | 2Gbx8              | 1046                  |
| Hynix              | 4GB              | HMT351S6BFR8C-H9      | F          | Hynix              | H5TQ2G83BFR-H9C   | 2Gbx8              | 1046                  |
| Hynix              | 2GB              | HMT325S6CFR8C-H9      | B          | Hynix              | H5TQ2G83CFR-H9C   | 2Gbx8              | 1102                  |
| Hynix              | 4GB              | HMT351S6CFR8C-H9      | F          | Hynix              | H5TQ2G83CFR-H9C   | 2Gbx8              | 1102                  |
| Hynix              | 8GB              | HMT41GS6MFR8C-H9      | F          | Hynix              | H5TQ4G83MFR-H9C   | 4Gbx8              | 1049                  |
| Micron             | 1GB              | MT8JTF12864HDZ-1G4G1A |            | Micron             | MT41J64M16JT-15E  | 1Gbx16             | 1040                  |
| Micron             | 1GB              | MT8JTF12864HZ-1G4G1   | B          | Micron             | MT41J128M8JP-15E  | 1Gbx8              | 1042                  |
| Micron             | 2GB              | MT8JSF25664HZ-1G4D1   | B          | Micron             | MT41J256M8HX-15E  | 2Gbx8              | 1046                  |
| Micron             | 4GB              | MT16JSF51264HZ-1G4D1  | F          | Micron             | MT41J256M8HX-15E  | 2Gbx8              | 1046                  |
| Micron             | 2GB              | MT16JTF25664HZ-1G4G1  | F          | Micron             | MT41J128M8JP-15E  | 1Gbx8              | 1042                  |
| Micron             | 2GB              | MT8JTF25664HZ-1G4H1   | B          | Micron             | MT41J256M8DA-15E  | 2Gbx8              | 1044                  |

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|                |     |                        |         |                         |       |       |
|----------------|-----|------------------------|---------|-------------------------|-------|-------|
| <b>Micron</b>  | 4GB | MT16JTF51264HZ-1G4H1 F | Micron  | MT41J256M8DA-15E        | 2Gbx8 | 1044  |
| <b>Micron</b>  | 2GB | MT8JTF25664HZ-1G4M1 B  | Micron  | MT41K256M8DA-125:M2Gbx8 |       | 1129  |
| <b>Micron</b>  | 4GB | MT16JTF51264HZ-1G4M1 F | Micron  | MT41K256M8DA-125:M2Gbx8 |       | 1129  |
| <b>Nanya</b>   | 2GB | NT2GC64B88B0NS-CG B    | Nanya   | NT5CB256M8BN-CG         | 2Gbx8 | 1045  |
| <b>Nanya</b>   | 4GB | NT4GC64B8HB0NS-CG F    | Nanya   | NT5CB256M8BN-CG         | 2Gbx8 | 1045  |
| <b>Nanya</b>   | 2GB | NT2GC64B88G0NS-CG B    | Nanya   | NT5CB256M8GN-CG         | 2Gbx8 | 1134  |
| <b>Nanya</b>   | 4GB | NT4GC64B8HG0NS-CG F    | Nanya   | NT5CB256M8GN-CG         | 2Gbx8 | 1134  |
| <b>Samsung</b> | 1GB | M471B2873GB0-CH9 B     | Samsung | K4B1G0846G-BCH9         | 1Gbx8 | 1049  |
| <b>Samsung</b> | 1GB | M471B2873FHS-CH9 B     | Samsung | K4B1G0846F-HCH9         | 1Gbx8 | 1046  |
| <b>Samsung</b> | 2GB | M471B5673FH0-CH9 F     | Samsung | K4B1G0846F-HCH9         | 1Gbx8 | 1046  |
| <b>Samsung</b> | 2GB | M471B5773CHS-CH9 B     | Samsung | K4B2G0846C-HCH9         | 2Gbx8 | 1016  |
| <b>Samsung</b> | 4GB | M471B5273CH0-CH9 F     | Samsung | K4B2G0846C-HCH9         | 2Gbx8 | 1016  |
| <b>Samsung</b> | 2GB | M471B5773DH0-CH9 B     | Samsung | K4B2G0846D-HCH9         | 2Gbx8 | 1031  |
| <b>Samsung</b> | 4GB | M471B5273DH0-CH9 F     | Samsung | K4B2G0846D-HCH9         | 2Gbx8 | 1031  |
| <b>Samsung</b> | 8GB | M471B1G73AH0-CH9 F     | Samsung | K4B4G0846A-HCH9         | 4Gbx8 | 1016  |
| <b>Samsung</b> | 2GB | M471B5773EB0-CH9 B     | Samsung | K4B2G0846E-BCH9         | 2Gbx8 | 1134* |
| <b>Samsung</b> | 4GB | M471B5273EB0-CH9 F     | Samsung | K4B2G0846E-BCH9         | 2Gbx8 | 1136* |
| <b>Samsung</b> | 8GB | M471B1G73BH0-CH9 F     | Samsung | K4B4G0846B-HCH9         | 4Gbx8 | 1113  |

\*Test coverage based on limited 1R/2R x8 SoDIMM samples. UDIMM and RDIMM test pending due to lack of samples

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## Intel Platform Memory Operations

### **Approved test labs**

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

### **Advanced Validation Labs**

Attn: Rhonda Duda, Program Manager

[rduda@validationlabs.com](mailto:rduda@validationlabs.com)

Phone: 714-438-2787, 17665B Newhope Street Fountain Valley, CA 92708

