

Disclaimer

INTEL DISCLAIMS ALL LIABILITY FOR THESE DEVICES, INCLUDING LIABILITY FOR INFRINGEMENT OF ANY PROPRIETARY RIGHTS RELATING TO THESE DEVICES OR THE IMPLEMENTATION OF INFORMATION IN THIS DOCUMENT. INTEL DOES NOT WARRANT OR REPRESENT THAT SUCH DEVICES OR IMPLEMENTATION WILL NOT INFRINGE SUCH RIGHTS. INTEL IS NOT OBLIGATED TO PROVIDE ANY SUPPORT, INSTALLATION, OR OTHER ASSISTANCE WITH REGARD TO THESE DEVICES.

THE INTEL PRODUCT REFERRED TO IN THIS DOCUMENT IS INTENDED FOR STANDARD COMMERCIAL USE ONLY. CUSTOMERS ARE SOLELY RESPONSIBLE FOR ASSESSING THE SUITABILITY OF THE PRODUCT AND/OR DEVICES FOR USE IN PARTICULAR APPLICATIONS. THE REFERENCED INTEL PRODUCT IS NOT INTENDED FOR USE IN CRITICAL CONTROL OR SAFETY SYSTEMS OR IN NUCLEAR FACILITY APPLICATIONS.

Information in this document is provided in connection with Intel products. No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by the sale of Intel products. Except as provided in Intel's Terms and Conditions of Sale for such products, Intel assumes no liability whatsoever, and Intel disclaims any express or implied warranty, relating to sale and/or use of Intel products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright or other intellectual property right. Intel products are not intended for use in medical, lifesaving, or life sustaining applications. Intel retains the right to make changes to its test specifications and memory list at any time, without notice.

The hardware vendor remains solely responsible for the design, sale and functionality of its product, including any liability arising from product infringement or product warranty. Only approved software drivers and accessories that are recommended for the revision number of the boards and system being operated should be used with Intel products. Please note that, as a result of warranty repairs or replacements, alternate software and firmware versions may require for proper operation of the equipment.

Copyright © Intel Corporation 2018.

* Other brands and names are the property of their respective owners.

LPDDR3 ATE and System Validation Results:

Listed below are the results from a small sample of LPDDR3 DRAM tested on ATE and Intel(R) reference platforms. Providing this information as a guide to component 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.

| LPDDR3 178ball - 2133/1866 (System Memory Down) | | | | | | | | |
|---|--------------------------|-------|-----------------|-------------|---------|-------|---------|-----------|
| Supplier | Part Number | Speed | Package Density | Density Die | Package | Width | Die Rev | Date Code |
| Micron | MT52L256M32D1PF-107 WT:B | 1866 | 8Gb | 8Gb | SDP | x32 | B | 1536 |
| Micron | MT52L512M32D2PF-107 WT:B | 1866 | 16Gb | 8Gb | DDP | x32 | B | 1532 |
| Micron | MT52L1G32D4PG-107 WT:B | 1866 | 32Gb | 8Gb | QDP | x32 | B | 1533 |
| Micron | MT52L256M32D1PF-093 WT:B | 2133 | 8Gb | 8Gb | SDP | x32 | B | 1532 |
| Micron | MT52L512M32D2PF-093 WT:B | 2133 | 16Gb | 8Gb | DDP | x32 | B | 1532 |
| Micron | MT52L1G32D4PG-093 WT:B | 2133 | 32Gb | 8Gb | QDP | x32 | B | 1533 |
| Samsung | K4E8E324EB-EGCG | 2133 | 8Gb | 8Gb | SDP | x32 | B | 1607 |
| Samsung | K4E6E304EB-EGCG | 2133 | 16Gb | 8Gb | DDP | x32 | B | 1607 |
| Samsung | K4EBE304EB-EGCG | 2133 | 32Gb | 8Gb | QDP | x32 | B | 1607 |
| Samsung | K4E6E304EC-EGCF | 1866 | 16Gb | 8Gb | DDP | x32 | C | 1716 |
| Samsung | K4EBE304EC-EGCF | 1866 | 32Gb | 8Gb | QDP | x32 | C | 1716 |
| Samsung | K4E6E304EC-EGCG | 2133 | 16Gb | 8Gb | DDP | x32 | C | 1716 |
| Samsung | K4EBE304EC-EGCG | 2133 | 32Gb | 8Gb | QDP | x32 | C | 1716 |
| Samsung | K4E8E324ED-EGCG | 2133 | 8Gb | 8Gb | SDP | x32 | D | 1849 |
| Samsung | K4E6E304ED-EGCG | 2133 | 16Gb | 8Gb | DDP | x32 | D | 1849 |
| Samsung | K4EBE304ED-EGCG | 2133 | 32Gb | 8Gb | QDP | x32 | D | 1849 |
| SK Hynix | H9CCNNN8GTALAR-NUD | 1866 | 8Gb | 8Gb | SDP | x32 | A | 1623 |
| SK Hynix | H9CCNNNBJTALAR-NUD | 1866 | 16Gb | 8Gb | DDP | x32 | A | 1623 |
| SK Hynix | H9CCNNNCLTALAR-NUD | 1866 | 32Gb | 8Gb | QDP | x32 | A | 1622 |
| SK Hynix | H9CCNNN8GTALAR-NVD | 2133 | 8Gb | 8Gb | SDP | x32 | A | 1630 |
| SK Hynix | H9CCNNNBJTALAR-NVD | 2133 | 16Gb | 8Gb | DDP | x32 | A | 1630 |
| SK Hynix | H9CCNNNCLGALAR-NVD | 2133 | 32Gb | 8Gb | QDP | x32 | A | 1630 |
| Nanya | NT6CL256M32AM-H0 | 2133 | 8Gb | 8Gb | SDP | x32 | A | 1942 |
| Nanya | NT6CL512T32AM-H0 | 2133 | 16Gb | 8Gb | DDP | x32 | A | 1942 |

| LPDDR3 253ball - 1866/2133 (ATE only) | | | | | | | | |
|---------------------------------------|--------------------------|-------|-----------------|-------------|---------|-------|---------|-----------|
| Supplier | Part Number | Speed | Package Density | Density Die | Package | Width | Die Rev | Date Code |
| Micron | MT52L256M64D2PP-107 WT:B | 1866 | 16Gb | 8Gb | DDP | x64 | B | 1604 |
| Micron | MT52L512M64D4PQ-107 WT:B | 1866 | 32Gb | 8Gb | QDP | x64 | B | 1602 |
| Micron | MT52L256M64D2PP-093 WT:B | 2133 | 16Gb | 8Gb | DDP | x64 | B | 1642 |
| Micron | MT52L512M64D4PQ-093 WT:B | 2133 | 32Gb | 8Gb | QDP | x64 | B | 1642 |
| Samsung | K3QF3F30BM-AGCG | 2133 | 16Gb | 8Gb | DDP | x64 | B | 1638 |
| Samsung | K3QF4F40BM-AGCG | 2133 | 32Gb | 8Gb | QDP | x64 | B | 1638 |
| SK Hynix | H9CCNNNBKTALBR-NUD | 1866 | 16Gb | 8Gb | DDP | x64 | A | 1639 |
| SK Hynix | H9CCNNNCPTALBR-NUD | 1866 | 32Gb | 8Gb | QDP | x64 | A | 1647 |

updated: 03/05/2020

