Intel Platform Memory Operations

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.

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

DDR4 2400 Non-ECC UDIMM Validation Results

Listed below are the results from a small sample of DDR4 2400 Non-ECC UDIMM modules tested on Intel reference desktop platforms with 7th Gen Intel® Core™, Intel® Pentium®, Intel® Celeron® processor (codename Kaby Lake), in accordance to Intel platform memory POR (Plan of Record). 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.

DDR4-2400 (17-17-17) Non-ECC UDIMM, 2DIMM/ch, 2 channels, tested at 1.2V Vdd

DIMM Supplier	DIMM Part Number	DIMM Size	Raw Card	DRAM Supplier	DRAM Part Number	DRAM Density	DRAM Width	DRAM DateCode	Die Revision	Note
ADATA	AD4U2400W4G17-B	4GB	A	SK hynix	H5AN4G8NAFR-UHC	4Gb	x8	1614	A	
ADATA	AD4U2400W8G17-B	8GB	B	SK hynix	H5AN4G8NAFR-UHC	4Gb	x8	1614	A	
Crucial	CT2G4DFS624A.4FP	2GB	C	Micron	MT40A256M16GE-075E:B	4Gb	x16	1623	B	
Crucial	CT4G4DFS624A.4FB1	4GB	C	Micron	MT40A512M16JY-083E:B	8Gb	x16	1609	B	1
Crucial	CT4G4DFS624A.4FE1	4GB	C	Micron	MT40A512M16LY-075:E	8Gb	x16	1744	E	
Crucial	CT4G4DFS6266.4FE1	4GB	C	Micron	MT40A512M16LY-075:E	8Gb	x16	1744	E	
Crucial	CT8G4DFS824A.8FB1	8GB	A	Micron	MT40A1G8WE-083E:B	8Gb	x8	1608	B	1
Crucial	CT8G4DFS824A.8FD1	8GB	A	Micron	MT40A1G8WE-075E:D	8Gb	x8	1608	D	1

Crucial	CT8G4DFS824A.8FA1	8GB	A	Micron	MT40A1G8PM-083E:A	8Gb	x8	1648	A	
Crucial	CT8G4DFS824A.8FE1	8GB	A	Micron	MT40A1G8SA-062E:E	8Gb	x8	1744	E	
Crucial	CT8G4DFS8266.8FE1	8GB	A	Micron	MT40A1G8SA-062E:E	8Gb	x8	1744	E	
Crucial	CT16G4DFD824A.16FE1	16GB	B	Micron	MT40A1G8SA-062E:E	8Gb	x8	1744	E	
Crucial	CT16G4DFD8266.16FE1	16GB	B	Micron	MT40A1G8SA-062E:E	8Gb	x8	1744	E	
Crucial	CT16G4DFD824A.16FB1	16GB	B	Micron	MT40A1G8WE-083E:B	8Gb	x8	1608	B	1
Crucial	CT16G4DFD824A.16FA1	16GB	B	Micron	MT40A1G8PM-083E:A	8Gb	x8	1640	A	
Kingston	KVR24N17S6/2	2GB	C	Micron	MT40A256M16GE-083E:B	4Gb	x16	1618	B	
Kingston	KVR24N17S6/2	2GB	C	SK hynix	H5AN4G6NBJR-UHC	4Gb	x16	1712	B	
Kingston	KVR24N17S6/4	4GB	C	SK hynix	H5AN8G6NAFR-UHC	8Gb	x16	1622	A	
Kingston	KVR26N19S6/4	4GB	C	Micron	MT40A512M16LY-075:E	8Gb	x16	1744	E	
Kingston	KVR24N17D8/8	8GB	B	Micron	MT40A512M8RH-083E:B	4Gb	x8	1603	B	
Kingston	KVR24N17D8/8	8GB	B	SK hynix	H5AN4G8NBJR-UHC	4Gb	x8	1719	B	
Kingston	KVR24N17S8/8	8GB	A	Micron	MT40A1G8SA-075:H	8Gb	x8	1710	H	
Kingston	KVR24N17S8/8	8GB	A	Micron	MT40A1G8WE-083E:B	8Gb	x8	1608	B	1
Kingston	KVR24N17S8/8	8GB	A	Micron	MT40A1G8WE-075E:D	8Gb	x8	1710	D	
Kingston	KVR24N7S8/8	8GB	A	SK hynix	H5AN8G8NAFR-UHC	8Gb	x8	1622	A	

Kingston	KVR24N17D8/16	16GB	B	Micron	MT40A1G8WE-083E:B	8Gb	x8	1626	B	
Kingston	KVR24N17D8/16	16GB	E	Micron	MT40A1G8SA-075:H	8Gb	x8	1710	H	
Kingston	KVR24N17D8/16	16GB	B	SK hynix	H5AN8G8NAFR-UHC	8Gb	x8	1622	A	
Kingston	KVR24N17D8/16	16GB	B	Micron	MT40A1G8WE-075E:D	8Gb	x8	1710	D	
Micron	MTA4ATF25664AZ-2G3B1	2GB	C	Micron	MT40A256M16GE-075E:B	4Gb	x16	1623	B	
Micron	MTA4ATF51264AZ-2G3B1	4GB	C	Micron	MT40A512M16JY-083E:B	8Gb	x16	1609	B	1
Micron	MTA4ATF51264AZ-2G3E1	4GB	C	Micron	MT40A512M16LY-075:E	8Gb	x16	1744	E	
Micron	MTA4ATF51264AZ-2G6E1	4GB	C	Micron	MT40A512M16LY-075:E	8Gb	x16	1744	E	
Micron	MTA8ATF1G64AZ-2G3E1	8GB	A	Micron	MT40A1G8SA-062E:E	8Gb	x8	1744	E	
Micron	MTA8ATF1G64AZ-2G6E1	8GB	A	Micron	MT40A1G8SA-062E:E	8Gb	x8	1744	E	
Micron	MTA8ATF1G64AZ-2G3H1	8GB	A	Micron	MT40A1G8SA-083:H	8Gb	x8	1710	H	
Micron	MTA8ATF1G64AZ-2G6H1	8GB	A	Micron	MT40A1G8SA-075:H	8Gb	x8	1710	H	
Micron	MTA8ATF1G64AZ-2G3B1	8GB	A	Micron	MT40A1G8WE-083E:B	8Gb	x8	1608	B	1
Micron	MTA8ATF1G64AZ-2G3D1	8GB	A	Micron	MT40A1G8WE-075E:D	8Gb	x8	1620	D	1
Micron	MTA8ATF1G64AZ-2G3A1	8GB	A	Micron	MT40A1G8PM-083E:A	8Gb	x8	1628	A	
Micron	MTA16ATF2G64AZ-2G3E1	16GB	B	Micron	MT40A1G8SA-062E:E	8Gb	x8	1744	E	
Micron	MTA16ATF2G64AZ-2G6E1	16GB	B	Micron	MT40A1G8SA-062E:E	8Gb	x8	1744	E	

Micron	MTA16ATF2G64AZ-2G3H1	16GB	B	Micron	MT40A1G8SA-083:H	8Gb	x8	1710	H	
Micron	MTA16ATF2G64AZ-2G6H1	16GB	B	Micron	MT40A1G8SA-075:H	8Gb	x8	1710	H	
Micron	MTA16ATF2G64AZ-2G3B1	16GB	B	Micron	MT40A1G8WE-083E:B	8Gb	x8	1608	B	1
Micron	MTA16ATF2G64AZ-2G3A1	16GB	B	Micron	MT40A1G8PM-083E:A	8Gb	x8	1650	A	
Ramaxel	RMUA5120MB86H9F-2400	4GB	C	Micron	MT40A512M16JY-083E:B	8Gb	x16	1602	B	1
Ramaxel	RMUA5110MB78HAF-2400	8GB	A	Micron	MT40A1G8WE-083E:B	8Gb	x8	1608	B	1
Samsung	M378A5644EB0-CRC	2GB	C	Samsung	K4A4G165WE-BCRC	4Gb	x16	1622	E	
Samsung	M378A5143EB2-CRC	4GB	A	Samsung	K4A4G085WE-BCRC	4Gb	x8	1622	E	
Samsung	M378A5244CB0-CRC	4GB	C	Samsung	K4A8G165WC-BCRC	8Gb	x16	1616	C	
Samsung	M378A5244BB0-CRC	4GB	C	Samsung	K4A8G165WB-BCRC	8Gb	x16	1628	B	
Samsung	M378A1G43EB1-CRC	8GB	B	Samsung	K4A4G085WE-BCRC	4GB	x8	1622	E	
Samsung	M378A1K43BB2-CRC	8GB	A	Samsung	K4A8G085WB-BCRC	8Gb	x8	1622	B	
Samsung	M378A1K43CB2-CRC	8GB	A	Samsung	K4A8G085WC-BCRC	8Gb	x8	1617	C	
Samsung	M378A2K43BB1-CRC	16GB	B	Samsung	K4A8G085WB-BCRC	8Gb	x8	1622	B	
Samsung	M378A2K43CB1-CRC	16GB	B	Samsung	K4A8G085WC-BCRC	8Gb	x8	1619	C	
SK hynix	HMA425U6AFR6N-UHN0	2GB	C	SK hynix	H5AN4G6NAFR-UHC	4Gb	x16	1545	A	
SK hynix	HMA851U6AFR6N-UHN0	4GB	C	SK hynix	H5AN8G6NAFR-UHC	8Gb	x16	1622	A	

SK hynix	HMA81GU6AFR8N-UHN0	8GB	A	SK hynix	H5AN8G8NAFR-UHC	8Gb	x8	1622	A	
SK hynix	HMA82GU6AFR8N-UHN0	16GB	B	SK hynix	H5AN8G8NAFR-UHC	8Gb	x8	1622	A	

Note 1: MRC revision 1.0.4.1 or later is required.

Created on November 1st, 2017

Approved test labs

The following test labs have the capability of performing DDR4 Non-ECC UDIMM system-level testing. For further information, please contact:

Advanced Validation Labs

Attn: Rhonda Duda, Program Manager
17665B Newhope Street
Fountain Valley, CA 92708
USA Phone: 714-438-2787
rduda@validationlabs.com