

# Intel MIO

## **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.

© 2020 Intel Corporation.

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

# Intel MIO

## DDR4 2933 Non-ECC UDIMM Validation Results

Listed below are validation results from a small sample of DDR4 2933 Non-ECC UDIMM tested on Intel reference platforms. We are providing this information as a guide to memory compatibility with Intel reference platforms and in-accordance to Intel platform memory POR (Plan of Record). This testing is not intended to replace the normal OEM component qualification process. For test results on specific Intel motherboards refer to Intel Client Customer Enabling support. For test results on OEM production motherboards, please refer to the OEM's list of qualified memory suppliers.

### DDR4 2933 Non-ECC UDIMM, 1/2DIMM/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
Crucial	CT32G4DFD832A.16FB1	32GB	B2	Micron	MT40A2G8VA-062E:B	16Gb	x8	1916	B
Crucial	CT32G4DFD832A.16FE1	32GB	B2	Micron	MT40A2G8JC-062E:E	16Gb	x8	1936	E
Crucial	CT16G4DFS832A.8FE1	16GB	A2	Micron	MT40A2G8JC-062E:E	16Gb	x8	1930	E
Crucial	CT16G4DFD832A.16FE1	16GB	B1	Micron	MT40A1G8SA-062E:E	8Gb	x8	1928	E
Crucial	CT8G4DFS832A.8FE1	8GB	A2	Micron	MT40A1G8SA-062E:E	8Gb	x8	1928	E
Crucial	CT16G4DFD832A.16FJ1	16GB	B1	Micron	MT40A1G8SA-062E:J	8Gb	x8	1828	J

## Intel MIO

Crucial	CT8G4DFS832A.8FJ1	8GB	A2	Micron	MT40A1G8SA-062E:J	8Gb	x8	1828	J
Kingston	KVR29N21D8/32	32GB	B2	Micron	MT40A2G8VA-062E:B	16Gb	x8	1934	E
Kingston	KVR29N21D8/32	32GB	B2	SK hynix	H5ANAG8NAJR-XNC	16Gb	x8	1942	A
Kingston	KVR32N22D8/32	32GB	B2	Micron	MT40A2G8JC-062E:E	16Gb	x8	2016	E
Kingston	KVR32N22D8/32	32GB	B2	Micron	MT40A2G8JC-062E:E	16Gb	x8	2004	E
Kingston	KVR32N22D8/32	32GB	B2	SK hynix	H5ANAG8NAJR-XNC	16Gb	x8	2006	A
Kingston	KVR32N22D8/32	32GB	B2	SK hynix	H5ANAG8NAJR-XNC	16Gb	x8	2006	A
Kingston	KVR29N21D8/16	16GB	B1	Micron	MT40A1G8SA-062E:J	8Gb	x8	1914	J
Kingston	KVR29N21D8/16	16GB	B1	SK hynix	H5AN8G8NCJR-WMC	8Gb	x8	1911	C
Kingston	KVR29N21S8/16	16GB	A3	Micron	MT40A2G8VA-062E:B	16Gb	x8	1934	B
Kingston	KVR29N21S8/16	16GB	A3	SK hynix	H5ANAG8NAJR-XNC	16Gb	x8	1942	A
Kingston	KVR29N21D8/16	16GB	B2	Micron	MT40A1G8SA-062E:E	8Gb	x8	1944	E
Kingston	KVR32N22S8/16	16GB	A3	Micron	MT40A2G8JC-062E:E	16Gb	x8	2018	E
Kingston	KVR32N22D8/16	16GB	B2	SK hynix	H5AN8G8NCJR-XNC	8Gb	x8	2001	C
Kingston	KVR32N22D8/16	16GB	B2	SK hynix	H5AN8G8NDJR-XNC	8Gb	x8	1943	D
Kingston	KVR32N22S8/16	16GB	A3	Micron	MT40A2G8JC-062E:E	16Gb	x8	2004	E

## Intel MIO

Kingston	KVR32N22S8/16	16GB	A3	SK hynix	H5ANAG8NAJR-XNC	16Gb	x8	2006	A
Kingston	KVR32N22S8/16	16GB	A3	SK hynix	H5ANAG8NAJR-XNC	16Gb	x8	2006	A
Kingston	KVR29N21S8/8	8GB	A2	Micron	MT40A1G8SA-062E:J	8Gb	x8	1914	J
Kingston	KVR29N21S8/8	8GB	A2	SK hynix	H5AN8G8NCJR-WMC	8Gb	x8	1911	C
Kingston	KVR29N21S8/8	8GB	A3	Micron	MT40A1G8SA-062E:E	8Gb	x8	1944	E
Kingston	KVR32N22S6/8	8GB	C0	Micron	MT40A1G16KD-062E:E	16Gb	X16	2004	E
Kingston	KVR32N22S6/8	8GB	C0	Micron	MT40A1G16KD-062E:E	16Gb	x16	2004	E
Kingston	KVR32N22S8/8	8GB	A3	SK hynix	H5AN8G8NCJR-XNC	8Gb	x8	2001	C
Kingston	KVR32N22S8/8	8GB	A3	SK hynix	H5AN8G8NDJR-XNC	8Gb	x8	1943	D
Kingston	KVR32N22S6/4	4GB	C0	SK hynix	H5AN8G6NCJR-WMC	8Gb	x16	2003	C
Kingston	KVR32N22S6/4	4GB	C0	SK hynix	H5AN8G8NDJR-XNC	8Gb	x16	1930	D
Micron	MTA16ATF4G64AZ-3G2B1	32GB	B2	Micron	MT40A2G8VA-062E:B	16Gb	x8	1916	B
Micron	MTA16ATF4G64AZ-3G2E1	32GB	B2	Micron	MT40A2G8JC-062E:E	16Gb	x8	1936	E
Micron	MTA8ATF2G64AZ-3G2E1	16GB	A2	Micron	MT40A2G8JC-062E:E	16Gb	x8	1930	E
Micron	MTA16ATF2G64AZ-3G2E1	16GB	B1	Micron	MT40A1G8SA-062E:E	8Gb	x8	1928	E
Micron	MTA8ATF1G64AZ-3G2E1	8GB	A2	Micron	MT40A1G8SA-062E:E	8Gb	x8	1928	E

## Intel MIO

Micron	MTA16ATF2G64AZ-3G2J1	16GB	B1	Micron	MT40A1G8SA-062E:J	8Gb	x8	1828	J
Micron	MTA8ATF1G64AZ-3G2J1	8GB	A2	Micron	MT40A1G8SA-062E:J	8Gb	x8	1828	J
Micron	MTA4ATF1G64AZ-3G2E1 (ZES)	8GB	C0	Micron	MT40A1G16KD-062E:E	16Gb	X16	1940	E
Micron	MTA4ATF51264AZ-3G2J1 (ZES)	4GB	C0	Micron	MT40A512M16TB-062E:J	8Gb	X16	1938	J
Micron	MTA4ATF51264AZ-3G2E1 (ZES)	4GB	C0	Micron	MT40A512M16LY-062E:E	8Gb	X16	1928	E
Ramaxel	RMUA5210ME88HCF-3200	32GB	B2	Micron	MT40A2G8JC-062E:E	16Gb	x8	2012	E
Ramaxel	RMUA5200ME88HBF-3200	16GB	A2	Micron	MT40A2G8JC-062E:E	16Gb	x8	2004	E
Ramaxel	RMUA5190ME96HAF-3200	8GB	C0	Micron	MT40A1G16KD-062E:E	16Gb	X16	2006	E
Ramaxel	RMUA5200MJ78HAF-3200	8GB	A2	Micron	MT40A1G8SA-062E:J	8Gb	x8	1948	J
Ramaxel	RMUA5190ME96HAF-3200	8GB	C0	Micron	MT40A1G16KD-062E:E	16Gb	x16	1940	E
Ramaxel	RMUA5190MJ86H9F-3200	4GB	C0	Micron	MT40A512M16TB-062E:J	8Gb	X16	1930	J
Samsung	M378A4G43AB2-CVF	32GB	B2	Samsung	K4AAG085WA-BCVF	16Gb	x8	1934	A
Samsung	M378A2K43DB1-CVF	16GB	B1	Samsung	K4A8G085WD-BCVF	8Gb	x8	1922	D
Samsung	M378A1K43DB2-CVF	8GB	A2	Samsung	K4A8G085WD-BCVF	8Gb	x8	1922	D
Samsung	M378A1G44AB0-CWE	8GB	C0	Samsung	K4AAG165WA-BCWE	16Gb	X16	1943	A

## Intel MIO

Samsung	M378A5244CB0-CVF	4GB	C0	Samsung	K4A8G165WC-BCVF	8Gb	X16	1946	C
Samsung	M378A5244CB0-CWE	4GB	C0	Samsung	K4A8G165WC-BCWE	8Gb	X16	1946	C
SK hynix	HMAA4GU6AJR8N-WMN0	32GB	B2	SK hynix	H5ANAG8NAJR-WMC	16Gb	x8	1910	A
SK hynix	HMAA4GU6CJR8N-XNN0	32GB	B2	SK hynix	H5ANAG8NCJR-XNC	16Gb	X8	2025	C
SK hynix	HMAA2GU6AJR8N-WMN0	16GB	A3	SK hynix	H5ANAG8NAJR-WMC	16Gb	x8	1910	A
SK hynix	HMA82GU6DJR8N-WMN0	16GB	B2	SK hynix	H5AN8G8NDJR-WMC	8Gb	x8	1924	D
SK hynix	HMA82GU6CJR8N-WMN0	16GB	B2	SK hynix	H5AN8G8NCJR-WMC	8Gb	x8	1931	C
SK hynix	HMAA2GU6CJR8N-XNN0	16GB	A3	SK Hynix	H5ANAG8NCJR-XNC	16Gb	X8	2025	C
SK hynix	HMA81GU6DJR8N-WMN0	8GB	A2	SK hynix	H5AN8G8NDJR-WMC	8Gb	x8	1927	D
SK hynix	HMA81GU6CJR8N-WMN0	8GB	A2	SK hynix	H5AN8G8NCJR-WMC	8Gb	x8	1924	C
SK hynix	HMAA1GU6CJR6N-XNN0	8GB	C0	SK Hynix	H5ANAG6NCJR-XNC	16Gb	X16	1944	C

**Created on December 15<sup>th</sup>, 2020**

### **Approved test labs**

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

## Intel MIO

### **Advanced Validation Labs**

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

