

Intel Platform Memory Operations

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DDR4 2133 Non-ECC SoDIMM Validation Results

Listed below are the results from a small sample of DDR4 2133 Non-ECC SoDIMM modules tested on Intel reference mobile and desktop platforms based on 6th Gen Intel® Core™, Intel® Pentium®, Intel® Celeron® processors (codename Skylake). 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.

DDR4-2133 (15-15-15) Non-ECC SoDIMM, 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 Date Code	Die Revision	Note
ADATA	AD4S2133W4G15-B	4GB	A	Samsung	K4A4G085WD-BCPB	4Gb	x8	1618	D	
ADATA	AD4S2133W8G15-B	8GB	E	Samsung	K4A4G085WD-BCPB	4Gb	x8	1618	D	
Crucial	CT2G4SFS624A.4FB1	2GB	B	Micron	MT40A256M16GE-075E:B	4Gb	x16	1618	B	
Crucial	CT4G4SFS8213.8FB1	4GB	A	Micron	MT40A512M8RH-083E:B	4Gb	x8	1618	B	
Crucial	CT4G4SFS8213.8FA2	4GB	A	Micron	MT40A512M8HX-093E:A	4Gb	x8	1524	A	2
Crucial	CT4G4SFS824A.8FA1	4GB	C	Micron	MT40A512M16HA-083E:A	8Gb	x8	1618	A	

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Crucial	CT8G4SFD8213.16FA2	8GB	E	Micron	MT40A512M8HX-093E:A	4Gb	x8	1524	A	2
Crucial	CT8G4SFD8213.16FB1	8GB	B	Micron	MT40A512M8RH-083E:B	8Gb	x8	1618	B	
Crucial	CT8G4SFS8213.8FA1	8GB	A	Micron	MT40A1G8PM-083E:A	8Gb	x8	1618	A	
Crucial	CT16G4SFD8213.16FA1	16GB	B	Micron	MT40A1G8PM-083E:A	8Gb	x8	1618	A	
Crucial	CT16G4SFD824A.16FA1	16GB	B	Micron	MT40A1G8PM-083E:A	8Gb	x8	1618	A	
Kingston	KVR21S15S6/2	2GB	C	SK hynix	H5AN4G6NAFR-UHC	4Gb	x16	1618	A	
Kingston	KVR21S15S6/2	2GB	C	Micron	MT40A256M16GE-083E:B	4Gb	x16	1548	B	
Kingston	KVR21S15S8/4	4GB	A	SK hynix	H5AN4G8NAFR-TFC	4Gb	x8	1618	A	1
Kingston	KVR24S17S8/4	4GB	A	Micron	MT40A512M8RH-083E:B	4Gb	x8	1618	B	
Kingston	KVR21S15S6/4	4GB	C	Micron	MT40A512M16JY-083E:B	8Gb	x16	1548	B	3
Kingston	KVR21S15S6/4	4GB	C	Micron	MT40A512M16HA-083E:A	8Gb	x16	1618	A	
Kingston	KVR24S17S6/4	4GB	C	SK hynix	H5AN8G6NAFR-UHC	8Gb	x16	1622	A	
Kingston	KVR21S15D8/8	8GB	E	SK hynix	H5AN4G8NAFR-TFC	4Gb	x8	1618	A	1
Kingston	KVR24S17D8/8	8GB	E	Micron	MT40A512M8RH-083E:B	4Gb	x8	1618	B	
Kingston	KVR24S17S8/8	8GB	A	SK hynix	H5AN8G8NMFR-UHC	8Gb	x8	1618	M	

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Kingston	KVR24S17S8/8	8GB	A	SK hynix	H5AN8G8NAFR-UHC	8Gb	x8	1622	A	
Kingston	KVR24S17D8/16	8GB	E	SK hynix	H5AN8G8NAFR-UHC	8Gb	x8	1622	A	
Kingston	KVR21S15S8/8	8GB	A	SK hynix	H5AN8G8NMFR-TFC	8Gb	x8	1618	M	1
Kingston	KVR21S15S8/8	8GB	A	Micron	MT40A1G8PM-083E:A	8Gb	x8	1618	A	
Kingston	KVR21S15S8/8	8GB	A	Micron	MT40A1G8WE-083E:B	8Gb	x8	1548	B	3
Kingston	KVR24S17D8/16	16GB	B	Micron	MT40A1G8WE-083E:B	8Gb	x8	1548	B	3
Micron	MTA4ATF25664HZ-2G3B1	2GB	B	Micron	MT40A256M16GE-075E:B	4Gb	x16	1618	B	
Micron	MTA8ATF51264HZ-2G1A2	4GB	A	Micron	MT40A512M8HX-093E:A	4Gb	x8	1524	A	2
Micron	MTA8ATF51264HZ-2G1B1	4GB	A	Micron	MT40A512M8RH-083E:B	4Gb	x8	1618	B	
Micron	MTA4ATF51264HZ-2G3A1	4GB	C	Micron	MT40A512M16HA-083E:A	8Gb	x16	1618	A	
Micron	MTA4ATF51264HZ-2G1B1	4GB	C	Micron	MT40A512M16JY-083E B	8Gb	x16	1548	B	3
Micron	MTA4ATF51264HZ-2G3B1	4GB	C	Micron	MT40A512M16JY-083E:B	8Gb	x16	1548	B	3
Micron	MTA16ATF1G64HZ-2G1A2	8GB	E	Micron	MT40A512M8HX-093E:A	4Gb	x8	1524	A	2
Micron	MTA16ATF1G64HZ-2G1B1	8GB	B	Micron	MT40A512M8RH-083E:B	4Gb	x8	1618	B	
Micron	MTA8ATF1G64HZ-2G1A1	8GB	A	Micron	MT40A1G8PM-083E:A	8Gb	x8	1618	A	

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Micron	MTA8ATF1G64HZ-2G1B1	8GB	A	Micron	MT40A1G8WE-083E:B	8Gb	x8	1544	B	3
Micron	MTA8ATF1G64HZ-2G3B1	8GB	A	Micron	MT40A1G8WE-083E:B	8Gb	x8	1546	B	3
Micron	MTA16ATF2G64HZ-2G1A1	16GB	B	Micron	MT40A1G8PM-083E:A	8Gb	x8	1618	A	
Micron	MTA16ATF2G64HZ-2G1B1	16GB	B	Micron	MT40A1G8WE-083E:B	8Gb	x8	1544	B	3
Micron	MTA16ATF2G64HZ-2G3B1	16GB	B	Micron	MT40A1G8WE-083E:B	8Gb	x8	1546	B	3
Ramaxel	RMSA3270MB76H8F-2400	2GB	C	Micron	MT40A256M16GE-083E:B	4Gb	x16	1602	B	
Ramaxel	RMSA3230MA68H9F-2133	4GB	A	Micron	MT40A512M8HX-093E:A	4Gb	x8	1524	A	2
Ramaxel	RMSA3270MB86H9F-2400	4GB	C	Micron	MT40A512M16JY-083E:B	8Gb	x16	1602	B	3
Ramaxel	RMSA3260MB78HAF-2400	8GB	A	Micron	MT40A1G8WE-083E:B	8Gb	x8	1602	B	3
Samsung	M471A5644EB0-CRC	2GB	C	Samsung	K4A4G165WE-BCRC	4Gb	x16	1622	E	
Samsung	M471A5644EB0-CPB	2GB	C	Samsung	K4A4G165WE-BCPB	4Gb	x16	1618	E	
Samsung	M471A5143EB1-CRC	4GB	A	Samsung	K4A4G085WE-BCRC	4Gb	x8	1622	E	
Samsung	M471A5143EB0-CPB	4GB	A	Samsung	K4A4G085WE-BCPB	4Gb	x8	1618	B	
Samsung	M471A5143DB0-CPB	4GB	A	Samsung	K4A4G085WD-BCPB	4Gb	x8	1618	D	
Samsung	M471A5244BB0-CRC	4GB	C	Samsung	K4A8G165WB-BCRC	8Gb	x16	1628	B	

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Samsung	M471A5244CB0-CRC	4GB	C	Samsung	K4A8G165WC-BCRC	8Gb	x16	1616	C	
Samsung	M471A5244CB0-CPB	4GB	C	Samsung	K4A8G165WC-BCPB	8Gb	x16	1616	C	
Samsung	M471A1K43BB1-CRC	8GB	A	Samsung	K4A8G085WB-BCRC	8Gb	x8	1622	B	
Samsung	M471A1K43CB1-CRC	8GB	A	Samsung	K4A8G085WC-BCRC	8Gb	x8	1619	C	
Samsung	M471A1K43CB1-CPB	8GB	A	Samsung	K4A8G085WC-BCPB	8Gb	x8	1601	C	
Samsung	M471A2K43BB1-CRC	16GB	E	Samsung	K4A8G085WB-BCRC	8Gb	x8	1622	B	
Samsung	M471A2K43CB1-CRC	16GB	E	Samsung	K4A8G085WC-BCRC	8Gb	x8	1616	C	
Samsung	M471A2K43CB1-CPB	16GB	E	Samsung	K4A8G085WC-BCPB	8Gb	x8	1619	C	
Samsung	M471A1G43EB1-CRC	8GB	E	Samsung	K4A4G085WE-BCRC	4Gb	x8	1622	E	
Samsung	M471A1G43DB0-CPB	8GB	E	Samsung	K4A4G085WD-BCPB	4Gb	x8	1618	D	
Samsung	M471A1G43EB1-CPB	8GB	E	Samsung	K4A4G085WE-BCPB	4Gb	x8	1618	B	
Samsung	M471A2K43BB1-CPB	16GB	E	Samsung	K4A8G085WB-BCPB	8Gb	x8	1618	B	
SK hynix	HMA451S6AFR8N-TFN0	4GB	A	SK hynix	H5AN4G8NAFR-TFC	4Gb	x8	1618	A	1
SK hynix	HMA851S6AFR6N-TFN0	4GB	C	SK hynix	H5AN8G6NAFR-TFC	8Gb	x16	1622	A	
SK hynix	HMA851S6AFR6N-UHN0	4GB	C	SK hynix	H5AN8G6NAFR-UHC	8Gb	x16	1622	A	

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SK hynix	HMA41GS6AFR8N-TF N0	8GB	E	SK hynix	H5AN4G8NAFR-TFC	4Gb	x8	1618	A	1
SK hynix	HMA81GS6AFR8N-TFN0	8GB	A	SK hynix	H5AN8G8NAFR-TFC	8Gb	x8	1605	A	
SK hynix	HMA81GS6AFR8N-UHN0	8GB	A	SK hynix	H5AN8G8NAFR-UHC	8Gb	x8	1622	A	
SK hynix	HMA81GS6MFR8N-TF N0	8GB	A	SK hynix	H5AN8G8NMFR-TFC	8Gb	x8	1618	M	1
SK hynix	HMA82GS6MFR8N-TF N0	16GB	E	SK hynix	H5AN8G8NMFR-TFC	8Gb	x8	1618	M	1
SK hynix	HMA82GS6AFR8N-TFN0	16GB	E	SK hynix	H5AN8G8NAFR-TFC	8Gb	x8	1605	A	
SK hynix	HMA82GS6AFR8N-UHN0	16GB	E	SK hynix	H5AN8G8NAFR-UHC	8Gb	x8	1622	A	

Note: 1. MRC revision 1.3.0 or later is required.

Note: 2. MRC revision 1.8.0.2 or later is required.

Note: 3. MRC revision 2.1.0 or later is required.

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Approved test labs

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

Advanced Validation Labs

Intel Platform Memory Operations

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