2 DIMM Slots

● 1DIMM: Supports one module inserted in any slot as single-channel memory configuration

● 2DIMM: Supports one pair of modules inserted into all slots that operates in a dual-channel memory configuration

* The stability and compatibility of XMP memory kits that operate beyond the JEDEC standard is not guaranteed because it can be affected by the capabilities of the CPU's integrated memory controller, installed devices, and the operating frequency of associated bus domains.

* When installing a memory kit, please adhere to the DIMM slot priority cited in the "System Memory" section of the motherboard manual.

* Please ensure all memory modules are from a single validated kit. Do not combine DIMMs from multiple kits—even if they are the same make and model. Mixing and matching DIMMs can result in failure to boot and compatibility cannot be guaranteed.

* At default UEFI settings, the memory operating frequency depends on the Serial Presence Detect (SPD) profile the kit is programmed with, which is the standard way of accessing information from a module. To set the rated speed of the kit, please select XMP or apply manual settings.

DDR4 2133 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)	
								1 DIMM	2 DIMM
SAMSUNG	M378A5143DB0--CPB	4G	SS	SEC 428 BCP	K4A4G085WD	15-15-15-36	1.2V	●	●
SAMSUNG	M378A1G43DB0--CPB	8G	DS	SEC 428 BCP	K4A4G085WD	15-15-15-36	1.2V	●	●
G.SKILL	F4-2133C15Q-32GRK	32GB (8GB*4)	DS	N/A	Heat-Sink Package	15-15-15-35	1.2V	●	●
GLOWAY	PC4-17000	4G	SS	N/A	Heat-Sink Package	15-15-15-35	1.2V	●	
KINGSTON	HX421C13PBK4/16	16GB (4GB*4)	SS	N/A	Heat-Sink Package	15-15-15-36	1.2V	●	●
PANRAM	PUD42133C138G4NJW	32GB (8GB*4)	DS	N/A	Heat-Sink Package	13-13-13-35	1.2V	●	●
PANRAM	PUD42133C134G4NJW	16GB (4GB*4)	SS	N/A	Heat-Sink Package	13-13-13-35	1.2V	●	●
CORSAIR	CMK16GX4M4A2133C15(Ver4.23)	16GB (4GB*4)	SS	N/A	Heat-Sink Package	15-15-15-36	1.2V	●	●
CRUCIAL	MTA8ATF51264AZ-2G1A1	4G	SS	MICRON	4QA77D9RCQ	15-15-15-36	1.2V	●	●
CORSAIR	CMV4GX4M1A2133C15	4G	SS	N/A	4GA72Z9RGR	15-15-15-36	1.2V	●	●
KINGSTON	HX421C14FB/8	8G	DS	N/A	Heat-Sink Package	14-14-14-35	1.2V	●	●
APACER	78.C1GM3.AF10B		DS	SK HYNIX	H5AN4G8NMFR	16-16-16-36	1.2V	●	●
KINGSTON	HX421C13SBK4/16	16GB (4GB*4)	SS	N/A	Heat-Sink Package	15-15-15-36	1.2V	●	●
KINGSTON	KVR21N15D8/8	8G	DS	SK HYNIX	H5AN4G8NAFR	15-15-15-36	1.2V	●	●
GALAXY	GAM4DBLBM2133D15IE041C	4G	DS	N/A	Heat-Sink Package	15-15-15-36	1.2V	●	●
GALAXY	GAM4DBLBM213315IE081C	8G	DS	N/A	Heat-Sink Package	15-15-15-35	1.2V	●	●
AVEXIR	AVD4U21331508G-1C0B	8G	DS	N/A	Heat-Sink Package	15-15-15-35	1.2V	●	●
CORSAIR	CMK16GX4M4A2133C13 (Ver5.29)	16GB (4GB*4)	SS	N/A	Heat-Sink Package	13-15-15-28	1.2V	●	●
GEIL	GPR48GB2133C15DC	8GB (4GB*2)	SS	N/A	Heat-Sink Package	15-15-15-36	1.2V	●	●
KINGSTON	HX421C14FBK4/32	32GB (8GB*4)	DS	N/A	Heat-Sink Package	14-14-14-35	1.2V	●	●
TEKISM	T4U2133B8G15-SAD	8G	DS	SEC 446 BCP	K4A4G085WD	15-15-15-36	1.2V	●	●
G.SKILL	F4-2133C15Q-16GRB	16GB (4GB*4)	SS	N/A	Heat-Sink Package	15-15-15-35	1.2V	●	●
CENTURY	PC4-17000	8G	DS	SK HYNIX	H5AN4G8NMFR	15-15-15-36	1.2V	●	●
KINGSTON	KVR21N15S8/4	4G	SS	SK HYNIX	H5AN4G8NMFR	15-15-15-36	1.2V	●	●
ADATA	AX4U2133W4G15-QRZ	16GB (4GB*4)	SS	N/A	Heat-Sink Package	15-15-15	1.2V	●	●
TEAM	TED48GM2133C15BK	8G	DS	SK HYNIX	H5AN4G8NMFR	15-15-15-36	1.2V	●	●
Transcend	TS1GLH72V1H (ECC)	8G	DS	SEC552	K4A4G085WEBCPB			●	●
ADATA	AD4U2133W8G15-B	128GB(16x 8G)	DS	SK HYNIX	H5AN4G8NAFR			●	●
CRUCIAL	CT8G4DFD8213 16FA11	32GB (8GB*4)	DS	MICRO	5CA77D9RGO	1.2V		●	●

Brand	Part Number	Size	SS/DS	Chip Brand	Chip Part Number	Timing	Voltage		
CRUCIAL	CT8G4DFD8213.16FA11	32GB (8GB*4)	DS	MICRO	5CA77D9RGQ		1.2V	●	●
KINGSTON	KVR21E15S8/4	4GB	SS	SK HYNIX	H5AN4G8NAFR		1.2V	●	●
G.SKILL	F4-2133C15S-4GNT	4G	SS	G.SKILL	D4 512M8GE15	15-15-15-35	1.2V	●	●
G.SKILL	F4-2133C15S-8GNT	8G	DS	G.SKILL	D4 512M8GE15	15-15-15-35	1.2V	●	●
TEAM	TPAD44G2133HC15BK	4G	SS	N/A	Heat-Sink Package	15-15-15-36	1.2V	●	●
APACER	AHU08GGB13CGT7G	8G	DS	N/A	Heat-Sink Package			●	●
ASINT	SLB404G08-CCN2B 1615	8G	DS	SK HYNIX	H5AN4G8NMFR			●	●
PATRIOT	PSD48G21332	8G	DS	PAIROT	PM512M8D4BU-083			●	●
APACER	AU08GGB13CDTBGC	8G	DS	APACER	AM6F6008THSA11550F			●	●
SAMSUNG	M378A1K43BB1-CPB	8G	SS	SEC 610	K4A8G085WBBCPB			●	●
KINGSTON	HX421C14FB2/8	8G	SS	N/A	Heat-Sink Package		1.2V	●	●
KINGSTON	HX421C14FBK2/8	8GB (4GB*2)	SS	N/A	Heat-Sink Package		1.2V	●	●
KINGSTON	HX421C14FB/4	4G	SS	N/A	Heat-Sink Package		1.2V	●	●
V-COLOR	TC48G21S818-IMS	32GB(8GB*4)	SS	V-COLOR	N/A		1.2V	●	●
TEAM	TED416G2133C15BK	16G	DS	TEAM	T4D10248MT-21	15-15-15-36	1.2V	●	●
TIGO	TMKU8GF58-2133P	8G	DS	N/A	PPE08-093TP		1.2V	●	●
SAMSUNG	M378A5143EB1-CPB	4GB	SS	SEC 637	E8GZ250WP	15-15-15-36	1.2V	●	●
SAMSUNG	M378A5143EB1-CPB	4GB	SS	SEC 607	E8K4089YC	15-15-15-36	1.2V	●	●
TEAM	TED48G2133C15BK	8GB	SS	TEAM	T4D10248KT-21	15-15-15-36	1.2V	●	●
ANUCELL	GRPIF1621033818594	8GB	DS	ANUCELL	P4P4GF3BLF-GM	16-16-16-35	1.2V	●	●
GALAXY	GAL4AXLBM213315IE081C	8GB	SS	GALAXY	GA4L1GM88BA09	15-15-15-35	1.2V	●	●
Xiede	1.2V-PC4-17000-1620	4GB	SS	MICON	6GA77D9RGQ	15-15-15-36	1.2V	●	●
Xiede	1.2V-PC4-17000-1620	8GB	DS	SK HYNIX	H5AN4G8NMFR	15-15-15-36	1.2V	●	●
V-COLOR	TC48G21S815	8GB	SS	V-COLOR	TMCB134HA3	15-15-15-36	1.2V	●	●
V-COLOR	TC48G21S815-iMS	8GB	SS	V-COLOR	E0510	15-15-15-36	1.2V	●	●
SAMSUNG	M378A2K43BB1CPB	16G	DS	SEC510	K4A8G085WBBCPB		1.2V	●	●
G.SKILL	F4-2133C15Q-32GRR	8G*4	SS	N/A	Heat-Sink Package	15-15-15-35	1.20V	●	●
G.SKILL	F4-2133C15Q2-64GRR	8G*8	SS	N/A	Heat-Sink Package	15-15-15-35	1.20V	●	●
CRUCIAL	CT16G4DFD8213.C16FAD1	16G	DS	MICON	6NA47C9BGD		1.2V	●	●
CRUCIAL	CT8G4DFD8213.C16FDR2	8G	DS	MICON	6UD75C9BHB		1.2V	●	●
CRUCIAL	CT4G4DFS8213.C8FBD2	4G	SS	MICON	6SB45C9BHC		1.2V	●	●
GEIL	GFY48GB2133C15DC	4G	SS	N/A	Heat-Sink Packag	15-15-15-36	1.2V	●	●
Klevv	IM48GU88N21-FFFHMB	8GB	SS	N/A	Heat-Sink Packag	15-15-15	1.2V	●	●
Klevv	IM44GU48N21-FFFHAB	4GB	SS	N/A	Heat-Sink Packag	15-15-15	1.2V	●	●
Klevv	IM4AGU88N21-FFFHMB	16GB	DS	N/A	Heat-Sink Packag	15-15-15	1.2V	●	●
PATRIOT	PVE48G213C4GY	8G	SS	N/A	Heat-Sink Package		1.2V	●	●
GEIL	GPR432GB2133C15QC	8G	SS	N/A	Heat-Sink Packag	15-15-15-36	1.2V	●	●
SK HYNIX	HMA451U6AFR8N-TF	16GB(4*4GB)	SS	SK HYNIX	H5AN4G8NAFR	15-15-15-36	1.2V	●	●
GLOWAY	STK4U2133D15041C/ PC4-17000	4G	SS	N/A	Heat-Sink Packag	15-15-15-35	1.2V	●	●
G.SKILL	F4-2133C15Q-64GFX	64GB(4*16GB)	DS	N/A	Heat-Sink Packag	15-15-15-36	1.2V	●	●
G.SKILL	F4-2133C15Q-32GFX	32GB (4x 8GB)	SS	N/A	Heat-Sink Packag	15-15-15-36	1.2V	●	●
G.SKILL	F4-2133C15S-8GDB	8GB	SS	G.SKILL	D4 1GM8GDDP	15-15-15-35	1.35V	●	●
AVANT	AVW6451U67J5213N3-SAEP	4GB	SS	SEC 549	K4A4G08	15--15-15-36	1.20V	●	●
AVANT	AVW641GU67J5213N2-SAEP	8GB	DS	SEC 549	K4A4G08	15--15-15-36	1.20V	●	●
AVANT	AVW642GU42J5213N2-SAEP	16GB	DS	SEC 549	K4A8G08	15--15-15-36	1.20V	●	●

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	1 DIMM	2 DIMM
AVANT		16GB	DS						
CRUCIAL	CT16G4DFD8213.C16FH1	16GB	DS	N/A	Heat-Sink Packag	15-15-15-36	1.20V	●	●
ADATA	AD4U213338G15-B	64GB(8x 8GB)	SS	N/A	PP020-093E TP	15-15-15-36	1.20V	●	●
ADATA	AD4U2133W4G15-BP	32GB(8x 4GB)	SS	N/A	PP022-093E TP	15-15-15-36	1.20V	●	●
Ramsta	R2DD4N04G2133	4G	SS	Micron		8 15-15-15-35	1.20V	●	●
Ramsta	R2DD4N08G2133	8GB	SS	Micron		8 15-15-15-36	1.20V	●	●

DDR4 2400 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional) 1 DIMM	2 DIMM
ADATA	AX4U2400W8G16-DRZ	8G	DS	N/A	Heat-Sink	16-16-16	1.2V	●	●
G.SKILL	F4-2400C15Q-32GRB	32GB (8GB*4)	DS	N/A	Heat-Sink	15-15-15-35	1.2V	●	●
PATRIOT	PX416G240C5QK	4G	SS	N/A	Heat-Sink	15-15-15-35	1.2V	●	●
GLOWAY	PC4-19200	4G	DS	N/A	Heat-Sink	16-16-16-35	1.2V	●	●
PANRAM	PUD42400C154G4NJW	16GB (4GB*4)	SS	N/A	Heat-Sink	15-15-15-35	1.2V	●	●
PANRAM	PUD42400C158G4NJW	8G	DS	N/A	Heat-Sink	15-15-15-35	1.2V	●	●
CRUCIAL	BLS4K4G4D240FSA	4G	SS	N/A	Heat-Sink	16-16-16-39	1.2V	●	●
ADATA	AX4U2400W4G16-DRZ	4G	SS	N/A	Heat-Sink	16-16-16	1.2V	●	●
GEIL	GPR416GB2400C15QC	4G	SS	N/A	Heat-Sink	15-15-15-35	1.2V	●	●
MUSHKIN	997199F	8G	DS	N/A	Heat-Sink	15-15-15-35-50	1.2V	●	●
KINGSTON	HX424C15FBK4/32	32GB (8GB*4)	DS	N/A	Heat-Sink	15-15-15-35-56	1.2V	●	●
APACER	78.C1GMA.AF30B	8G	DS	SK HYNIX	H5AN4G8NMFR	16-16-16-36	1.2V	●	●
PNY	MD16GK2D4240015AB	16GB (8GB*2)	DS	N/A			1.2V	●	●
V-COLOR	TD8G16C16-UHK	16GB (8GB*2)	DS	N/A	Heat-Sink	16-16-16-35	1.2V	●	●
G.SKILL	F4-2400C15D-169GVR	16GB (8GB*2)	DS	N/A	Heat-Sink	15-15-15-35	1.2V	●	●
APACER	AHU08GGB24CDT7G	8G	DS	N/A	Heat-Sink	16-16-16-36		●	●
CORSAIR	CM4X8GE2400C14K4-CN (Ver4.24)	8G	DS	N/A	Heat-Sink Package	14-16-16-31	1.2V	●	●
CORSAIR	CMK8GX4M1A2400C14(Ver3.20)	8G	DS	N/A	Heat-Sink	14-16-16-31	1.2V	●	●
PATRIOT	PV416G240C5QK	16GB (4GB*4)	SS	N/A	Heat-Sink	15-15-15-35	1.2V	●	●
KINGSTON	HX424C15FBK4/16	4G	SS	N/A	Heat-Sink		1.2V	●	●
G.SKILL	F4-2400C14Q2-128GRK	16G	DS	N/A	Heat-Sink	14-14-14-34	1.2V	●	●
G.SKILL	F4-2400C14Q-16GRK	4G	SS	N/A	Heat-Sink	14-14-14-34	1.2V	●	●
G.SKILL	F4-2400C15Q-16GRR	4G	SS	N/A	Heat-Sink	15-15-15-35	1.2V	●	●
AVEXIR	AVD4UZ124001608G-4COR	8G	DS	N/A	Heat-Sink		1.2V	●	●
AVEXIR	AVD4UZ124001604G-4COB	4G	SS	N/A	Heat-Sink		1.2V	●	●
CRUCIAL	BLS8G4D240FSA.16FADG	8G	DS	N/A	Heat-Sink	16-16-16-39	1.2V	●	●
TEAM	TED48G2400C16BK	8GB	DS	TEAM	T4D5128HT-24	16-16-16-39	1.2V	●	●
KINGSTON	HX424C12PBK4/32	8G	DS	N/A	Heat-Sink		1.35V	●	●
G.SKILL	F4-2400C15Q-32GRR	8G	DS	N/A	Heat-Sink	15-15-15-35	1.2V	●	●
PATRIOT	PSD48G240002	8G	DS	PAIROT	1621JB5454512X8DDR4			●	●
GALAXY	GAL4AXLBM2400D16JE081C	8G	SS	GALAXY	GA4L1GM88BA093H		1.2V	●	●
	CM4X8GE2400C16K4-CN (				Heat-Sink				

CORSAIR	CM4X8GE2400C16K4-CN (Ver5.20)	8G	DS	N/A	Heat-Sink Package	16-16-16-39	1.2V	•	•
LEORICE	DDR4/2400MHZ/CL15/1.2V	32GB (8GB*4)	SS	N/A	Heat-Sink		1.2V	•	•
CORSAIR	CMD32GX4M4A2400C14 (	8G	DS	N/A	Heat-Sink Package	14-16-16-31	1.2V	•	•
AMD	R748G2400U2S	8G	DS	N/A	Heat-Sink	15-15-15-36	1.2V	•	•
MICRON	MTA16ATF2G64AZ-2G3B1	16G	DS	MICRON	5WB47D9TBH			•	•
MICRON	MTA8ATF1G64AZ-2G3B1	8G	SS	MICRON	5WB47D9TBH	17-17-17-39-55	1.2V	•	•
KINGSTON	HX424C12SB2K4/16	16GB (4GB*4)	SS	N/A	Heat-Sink		1.35V	•	•
KINGSTON	HX424C12SB2K4/32	32GB (8GB*4)	DS	N/A	Heat-Sink		1.35V	•	•
KINGSTON	HX424C15FBK2/16	16GB (8GB*2)	DS	N/A	Heat-Sink		1.2V	•	•
GALAXY	GAM4BXLBS240016JE164C	16GB (4GB*4)	SS	N/A	Heat-Sink	16-16-16-36	1.2V	•	•
APACER	AH08GGB24CDT5H	16GB (2x 8G)	DS	N/A	Heat-Sink	16-16-16-36		•	•
CORSAIR	CMK8GX4M2A2400C14(Ver3.28)	8GB (2x 4G)	SS	N/A	Heat-Sink	14-16-16-31	1.2V	•	•
CORSAIR	CMK16GX4M2A2400C14	16GB (2x 8G)	DS	N/A	Heat-Sink	14-16-16-31	1.2V	•	•
AVEXIR	AVD4UZ124001608G-1COB	8G	DS	N/A	Heat-Sink		1.2V	•	•
AVEXIR	AVD4U24001608G-1BW	8G	DS	N/A	512X8DDR4		1.2V	•	•
APACER	AU08GGB24CETBGC	8G	DS	APACER	AM6F60080THSB 21550F			•	•
AVEXIR	AVD4UZ124001608G-2COR	16GB (8GB*2)	DS	N/A	Heat-Sink		1.2V	•	•
V-COLOR	8GTC48G24S817-IMS	32GB (8GB*4)	SS	V-COLOR	N/A		1.2V	•	•
CORSAIR	CMD32GX4M4A2400C12 (	32GB(8GB*4)	DS	N/A	Heat-Sink Package		1.2V	•	•
G.SKILL	F4-2400C15Q-64GIS	64GB(16GB*4)	DS	N/A	Heat-Sink		1.2V	•	•
G.SKILL	F4-2400C15Q-32GNT	32GB(8GB*4)	SS	G.SKILL	D4 1GM8GE15		1.2V	•	•
CRUCIAL	BLS8G4D24OFSB.16FARG	32GB(8GB*4)	DS	N/A	Heat-Sink		1.2V	•	•
GEIL	GLW416GB2400C15DC	8G	SS	N/A	Heat-Sink	15-15-15-35	1.2V	•	•
TEAM	TDTRD48G2400HC15ABK	8GB	SS	N/A	Heat-Sink	15-15-15-35	1.2V	•	•
TEAM	TDRED48G2400HC14BK	8GB	DS	N/A	Heat-Sink	14-16-16-31	1.2V	•	•
GEIL	GRP416GB2400C16DC	8GB	SS	N/A	Heat-Sink	16-16-16-36	1.2V	•	•
ADATA	AX4U2400W8G16-BRZ	8G	DS	N/A	Heat-Sink	16-16-16	1.2V	•	•
KINGSTON	HX424C15FB/16	16GB	DS	N/A	Heat-Sink		1.2V	•	•
CRUCIAL	BLS8G4D240FSC.16FARG	8GB	DS	N/A	Heat-Sink	16-16-16-39	1.2V	•	•
CORSAIR	CMK32GX4M2A2400C14(Ver3.31)	32GB916GB*2)	DS	N/A	Heat-Sink	14-16-16-31	1.2V	•	•
GALAXY	GAM4HFL1BM2400D15IE08IC	8G	DS	N/A	Heat-Sink		1.2V	•	•
CORSAIR	CMK32GX4M4A2400C16R(Ver3.31)	32GB(4*8GB)	SS	N/A	Heat-Sink	16-16-16-39	1.2V	•	•
CORSAIR	CMD16GX4M4B2400C10	16GB(4*4GB)	SS	N/A	Heat-Sink	10-12-12-28	1.35V	•	•
MUSHKIN	997199T	16GB(2*8GB)	SS	N/A	Heat-Sink	15-15-15-35	1.2V	•	•
TEAM	TED416G2400C16BK	16G	DS	TEAM	T4D10248MT-24	16-6-16-39	1.2V	•	•
TEAM	TCD44G2400C14BK	4GB	SS	Skhymix	H5AN4G8NAFR	14-16-16-31	1.2V	•	•
TIGO	TMKU8GF28-2400U	8G	DS	N/A	Heat-Sink		1.2V	•	•
APACER	AU08GGB24CEYBGC	8G	SS	APACER	AM6F6308MHHS B2	17-17-17-39	1.2V	•	•
KINGSTON	HX424C12SB2K2/16	16G	DS	N/A	Heat-Sink		1.35V	•	•
KINGSTON	KVR24N17D8/8-SP	8G	DS	N/A	Heat-Sink		1.2V	•	•

Brand	Part Number	Size	SS/DS	Chip	Chip Detail	Timing	Voltage		
KINGSTON	KVR24N17S8/8 SP	8G	DS	N/A	Heat-Sink		1.2V		
GLOWAY	PC4-19200	8G	SS	N/A	M15B302062	15-15-15-35	1.2V	•	•
ADATA	AX4U240038G16-BWZ	8GB*8	SS	N/A	Heat-Sink	17-16-16-39	1.2V	•	•
ADATA	AX4U2400316G16-SBF	16G*16	DS	N/A	Heat-Sink	17-16-16-39	1.2V	•	•
AVEXIR	AVD4UZ124001608G-4COR	8GB*4	SS	N/A	Heat-Sink	16-16-16-36	1.2V	•	•
AVEXIR	AVD4UZ124001604G-4COR	16GB (4x 4GB)	SS	N/A	Heat-Sink	16-16-16-36	1.2V	•	•
KINGSTON	TF24D4U7S8MB-8	8GB	SS	MICON	6SB77D9TBH	17-17-17-39	1.2V	•	•
KINGSTON	TF24D4U7S1MBD-2	2GB	SS	MICON	6GB77D9TGQ	17-17-17-39	1.2V	•	•
KINGSTON	TF24D4U7S8MBD-4	4GB	SS	MICON	6QB77D9TGG	17-17-17-39	1.2V	•	•
RAMAXEL	RMUA5120MB86H9F-2400	4GB	SS	MICON	6RB77D9TBK	17-17-17-39	1.2V	•	•
RAMAXEL	RMUA5120MB76H8F-2400	2GB	SS	MICON	6GB77D9TGQ	17-17-17-39	1.2V	•	•
V-COLOR	TC48G24S817	8GB	SS	V-COLOR	TMC9486G2	17-17-17-39	1.2V	•	•
ADATA	AX4U240038G16-SBF	8GB	SS	N/A	Heat-Sink	17-17-17-39	1.2V	•	•
ADATA	AX4U2400W8G16-DRD	8GB	DS	N/A	Heat-Sink	17-17-17-39	1.2V	•	•
ADATA	AX4U2400316G16-DRD	16G	DS	N/A	Heat-Sink	17-17-17-39	1.2V	•	•
G.SKILL	F4-2400C15Q2-64GRK	8GB*8	SS	N/A	Heat-Sink	15-15-15-35	1.2V	•	•
TEAM	TCD48G2400C14BK	8G	SS	TEAM	T4D10248MT-24	14-16-16-31	1.2V	•	•
CRUCIAL	BLS16G4D240FSE.16FAD	16G	DS	N/A	Heat-Sink	16-16-16-39	1.2V	•	•
CRUCIAL	BLS4G4D240FSA.8FARG	4G	SS	N/A	Heat-Sink	16-16-16-39	1.2V	•	•
PATRIOT	PV48G240C5	8G	DS	N/A	Heat-Sink		1.2V	•	•
TEAM	TFWD416G2400C15BBK	16G	DS	TEAM	PP020-093E TP	15-17-17-35	1.2V	•	•
TEAM	TFRD48G2400C15ABK	8G	SS	TEAM	T4D10248HT-24	15-15-15-35	1.2V	•	•
TEAM	TFRD44G2400C15ABK	4G	SS	TEAM	T4D5128HT-24	15-15-15-35	1.2V	•	•
Klevv	IM44GU48N24-FFFHAZ	4GB	SS	N/A	Heat-Sink	15-15-15	1.2V	•	•
Klevv	IM4AGU88N24-FFFHMZ	16GB	DS	N/A	Heat-Sink	15-15-15	1.2V	•	•
Klevv	IM48GU88N24-FFFHMZ	8GB	SS	N/A	Heat-Sink Package	15-15-15	1.2V	•	•
Klevv	IM4AGU88N24-FFFHMB	16GB	DS	N/A	Heat-Sink Package	15-15-15	1.2V	•	•
Klevv	IM48GU88N24-FFFHMB	8GB	SS	N/A	Heat-Sink Package	15-15-15	1.2V	•	•
Klevv	IM44GU48N24-FFFHAB	4GB	SS	N/A	Heat-Sink Package	15-15-15	1.2V	•	•
GEIL	GPR432GB2400C16QC	8GB	SS	N/A	Heat-Sink Package	16-16-16-36	1.2V	•	•
G.SKILL	F4-2400C15D-16GTZR	8GB	SS	N/A	Heat-Sink Package	15-15-15-35	1.2V	•	•
CRUCIAL	MTA16ATF1G64AZ-2G3A2	8GB	DS	MICON	5VA77D9RGG	17-17-17-39	1.2V	•	•
Kingston	KVR24N17S8/8	8GB	SS	N/A	Heat-Sink Package	17-17-17-39	1.2V	•	•
G.SKILL	F4-2400C15Q-64GFX	64GB(4*16GB)	DS	N/A	Heat-Sink Package	15-15-15-39	1.20V	•	•
					Heat-Sink				

G.SKILL	F4-2400C15Q-32GFX	32GB (4x 8GB)	SS	N/A	Heat-Sink Package	15-15-15-39	1.20V	•	•
G.SKILL	F4-2400C16Q-64GFX	64GB(4*16GB)	DS	N/A	Heat-Sink Package	16-16-16-39	1.20V	•	•
G.SKILL	F4-2400C16Q-32GFX	32GB (4x 8GB)	SS	N/A	Heat-Sink Package	16-16-16-39	1.20V	•	•
CORSAIR	CMK16GX4M2Z2400C16(Ver3.31)	16GB (2x 8GB)	SS	N/A	Heat-Sink Package	16-16-16-18	1.20V	•	•
CORSAIR	CMK128GX4M8A2400C14(Ver5.30)	128GB(8*16GB)	DS	N/A	Heat-Sink Package	14-16-16-31	1.20V	•	•
SAMSUNG	M378A5244CB0--CRC	16GB(4*4GB)	SS	SEC 704	K4A8G16 5WC BCRC	17-17-17-39	1.20V	•	•
CORSAIR	CMK128GX4M8A2400C14(Ver5.30)	128GB (8x 16GB)	DS	N/A	Heat-Sink Package	14-16-16-31	1.20V	•	•
CORSAIR	CMK16GX4M2Z2400C16(Ver3.31)	16GB (2x 8GB)	SS	N/A	Heat-Sink Package	16-16-16-39	1.20V	•	•
GeIL	GFR416GB2400C16S	16GB	SS	N/A	Heat-Sink Package	16-16-16-36	1.20V	•	•
GeIL	GFR432GB2400C16D	16GB	SS	N/A	Heat-Sink Package	16-16-16-36	1.20V	•	•
HyperX	HX424C15FB2K4/32	32GB (4x 8GB)	SS	N/A	Heat-Sink Package	15-15-15-35	1.20V	•	•
GLOWAY	STK4U2400D17081C	8GB	DS	N/A	Heat-Sink Package	17-17-17-39	1.20V	•	•
GLOWAY	STK4U2400D17081C	8GB	SS	N/A	Heat-Sink Package	17-17-17-39	1.20V	•	•
GLOWAY	STK4U2400D17161C	16GB	SS	N/A	Heat-Sink Package	17-17-17-39	1.20V	•	·
PATRIOT	PSD48G240081	8GB	SS	SEC 710	K4A8G08	17-17-17-39	1.20V	•	·
PATRIOT	PSD44G240081	4GB	SS	SEC 707	K4A4G08	16-16-16-39	1.20V	•	·
PATRIOT	PSD416G24002	16GB	DS	SEC 707	K4A8G08	17-17-17-39	1.20V	•	·
PATRIOT	PV432G240C5QK	32GB (4x 8GB)	SS	N/A	Heat-Sink Package	15-15-15-35	1.20V	•	·
PATRIOT	PVE48G240C5KRD	8GB (2x 4GB)	SS	N/A	Heat-Sink Package	15-15-15-35	1.20V	•	·
PATRIOT	PVE416G240C5KBL	16GB (2x 8GB)	SS	N/A	Heat-Sink Package	15-15-15-35	1.20V	•	·
SAMSUNG	M378A2K43CB1-CRC	16GB	DS	SEC 719	K4A8G08	17-17-17-39	1.20V	•	·
Crucial	CT8G4DFS824A.C8FBD1	8GB	SS	Micro	6VB47 C9BGM	17-17-17-39	1.20V	•	·
ADATA	AD4X240038G17-BP	64GB (8GBx8)	SS	N/A	PP019-083E	17-17-17-39	1.20V	•	·
APACER	AHU08GGB24CDU7S	8GB	SS	N/A	Heat-Sink Package	16-16-16-36	1.20V	•	·

Crucial	BLS8G4D240FSC.16FBR2	8GB	DS	N/A	Heat-Sink Package	16-16-16-39	1.20V	●	·
Asgard	VML41UG-MIC1U22ZG	8GB	SS	N/A	Heat-Sink Package	17-17-17-39	1.20V	●	·
KINGMAX	GLLF62F-DAKZIG CLBU	4GB	SS	N/A	PS029-D93 TP	17-17-17-39	1.20V	●	·
KINGMAX	GLLH22F-18KIIA CFBU2	16GB	DS	N/A	PS023-D93 TP	17-17-17-39	1.20V	●	·
KINGMAX	GLLG42F-D8KBIA CFDU	8GB	DS	KINGMAX	KGD8CB-CU	17-17-17-39	1.20V	●	·
GEIL	GP44GB2400C16SC	4GB	SS	GEIL	CG4L512M88BA0 93FH	17-16-16-36	1.20V	·	·
Kingston	KVR24N17S8/4	4GB	SS	MIRCON	7CB75	17-17-17-39	1.20V	·	·
CRUCIAL	BLS16G4D240FSC.16FBR	16G	DS	N/A	Heat-Sink Package	16-16-16-39	1.20V	·	·
CRUCIAL	BLS8G4D240FSCK.8FBD	8GB	SS	N/A	Heat-Sink Package	16-16-16-39	1.20V	·	·
CRUCIAL	CT8G4DFD824A.C16FBD2	8GB	DS	N/A	Heat-Sink Package	17-17-17-39	1.20V	·	·
CRUCIAL	CT16G4DFD824A.C16FHD1	16GB	DS	N/A	Heat-Sink Package	17-17-17-39	1.20V	·	·
ADATA	AX4U240038G16-BRZ	64GB(8x 8GB)	SS	N/A	Heat-Sink Package	17-16-16-39	1.20V	·	·
G.SKILL	F4-2400C15S-8GNT	8GB	SS	G.SKILL	D4 1GM8GE15	15-15-15-35	1.20V	·	·
Ramsta	R2DD4N04G2400	4G	SS	Micron	8	16-16-16-39	1.20V	·	·
Ramsta	R2DD4N08G2400	8GB	DS	Micron	8	17-17-17-39	1.20V	·	·
Ramsta	R2DD4N16G2400	16G	SS	Micron	16	17-17-17-39	1.20V	●	●
Hyper X	HX424C15FBK2/32	2 * 16GB		1.2		15-15-15-35		●	●

DDR4 2666 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)	
								1 DIMM	2 DIMM
CORSAIR	CMK16GX4M4A2666C16 (	16GB (4GB*4)	SS	N/A	Heat-Sink Package	16-18-18-35	1.2V	●	●
CORSAIR	CMD32GX4M4A2666C15(Ver5.29)	32GB (8GB*4)	DS	N/A	Heat-Sink	15-17-17-35	1.2V	●	●
G.SKILL	F4-2666C15Q-16GRR	16GB (4GB*4)	SS	N/A	Heat-Sink	15-15-15-35	1.2V	●	●
PATRIOT	PX416G266C5QK	16GB (4GB*4)	SS	N/A	Heat-Sink	15-15-15-35	1.2V	●	●
MUSHKIN	997192F	8GB(4GB*2)	SS	N/A	Heat-Sink	15-15-15-35	1.2V	●	●
KINGSTON	HX426C13PBK4/32	32GB (8GB*4)	DS	N/A	Heat-Sink	15-15-15-36	1.35V	●	●
KINGSTON	HX426C15FBK4/32	32GB (8GB*4)	DS	N/A	Heat-Sink	15-17-17-35	1.2V	●	●
CORSAIR	CMD128GX4M8A2666C15	128GB(16GB*4)	DS	N/A	Heat-Sink	15-17-17-35	1.2V	●	●
KINGSTON	HX426C15FBK4/16	16GB (4GB*4)	SS	N/A	Heat-Sink	15-17-17-35	1.2V	●	●
CRUCIAL	BLE4G4D26AFEA.8FAD	8G	SS	N/A	Heat-Sink	16-16-17-36	1.2V	●	●
CRUCIAL	BLE8G4D26AFEA.16FAD	8G	DS	N/A	Heat-Sink	16-17-17-36	1.2V	●	●
AVEXIR	AVD4UZ126661504G-4COB	16GB (4GB*4)	SS	N/A	Heat-Sink	15-15-15-36	1.2V	●	●
AVEXIR	AVD4UZ126661508G-4COB	32GB (8GB*4)	DS	N/A	Heat-Sink	15-15-15-36	1.2V	●	●
CRUCIAL	BLT4G4D26AFTA.8FADG	4G	SS	N/A	Heat-Sink	16-17-17-36	1.2V	●	●

Brand	Part Number	Size	SS/DS	Vendor	Package	Timing	Voltage		
CRUCIAL	BLT8G4D26AFTA.16FAD	8G	DS	N/A	Heat-Sink	16-17-17-36	1.2V	•	•
KLEVV	IMA41GU6MFR8N-C F0	8G	DS	N/A	Heat-Sink	15-15-15	1.2V	•	•
KINGSTON	HX426C13SB2K4/32	32GB (8GB*4)	DS	N/A	Heat-Sink	15-15-15-36	1.35V	•	•
KINGSTON	HX426C13SB2K4/16	16GB (4GB*4)	SS	N/A	Heat-Sink	15-15-15-36	1.35V	•	•
AVEXIR	AVD4UZ126661504G-4IPROG	16G(4G*4)	DS	N/A	Heat-Sink		1.2V	•	•
AVEXIR	AVD4UZ126661504G	8G(4G*2)	DS	N/A	Heat-Sink		1.2V	•	•
CORSAIR	CMU32GX4M2A2666C16（	32GB(2*16GB)	DS	N/A	Heat-Sink Package	16-18-18-35	1.2V	•	•
CORSAIR	CMK32GX4M4A2666C16(Ver3.20)	32GB(8GB*4)	DS	N/A		16-18-18-35	1.2V	•	•
CORSAIR	CMK16GX4M2A2666C16（Ver3.31）	16GB(2*8GB)	SS	N/A	Heat-Sink Package	16-18-18-35	1.2V	•	•
CORSAIR	CMK32GX4M2A2666C16（Ver5.39）	32GB(2*16GB)	DS	N/A	Heat-Sink Package	16-18-18-35	1.2V	•	•
CORSAIR	CMK16GX4M4A2666C15（Ver5.20）	16GB (4GB*4)	SS	N/A	Heat-Sink Package	15-17-17-35	1.2V	•	•
CORSAIR	CMK64GX4M4A2666C16（Ver5.3）	64GB(16GB*4)	DS	N/A	Heat-Sink Package	16-18-18-35	1.2V	•	•
G.SKILL	F4-2666C15Q-32GRR	8G*4	SS	N/A	Heat-Sink	15-15-15-35	1.2V	•	•
AVEXIR	AVD4UZ126661704G-4COR	4G*4	SS	N/A	Heat-Sink		1.2V	•	•
AVEXIR	AVD4UZ126661708G-4COR	8G*4	SS	N/A	Heat-Sink		1.2V	•	•
CORSAIR	CMK32GX4M4A2666C15（	32GB(4*8GB)	DS	N/A	Heat-Sink Package	15-17-17-35	1.2V	•	•
TEAM	TFRD4162666C15BBK	16G	DS	N/A	SEC546	15-17-17-35	1.2V	•	•
TEAM	TFWD48G2666C15BBK	8G	DS	N/A	SEC634	15-17-17-35	1.2V	•	•
TEAM	TCD44G2666C15BBK	4G	SS	TEAM	T4D5128HT-266	15-17-17-35	1.2V	•	•
HyperX	HX426C15FBK2/16	8G	DS	N/A	Heat-Sink Package		1.2V	•	•
Klevv	IM48GU88N26-FFFHMZ	8GB	SS	N/A	Heat-Sink Package	15-15-15	1.2V	•	•
Klevv	IM4AGU88N26-FFFHMZ	16GB	DS	N/A	Heat-Sink Package	15-15-15	1.2V	•	•
Klevv	IM44GU48N26-FFFHAZ	4GB	SS	N/A	Heat-Sink Package	15-15-15	1.2V	•	•
CORSAIR	CMK16GX4M2A2666C16(Ver5.30)	8GB	SS	N/A	Heat-Sink Package	16-18-18-35	1.2V	•	•
ADATA	AX4U2666W4G16-BRZ	4GB	SS	N/A	Heat-Sink Package	16-16-16-39	1.2V	•	•
ADATA	AX4U266638G16-DRZ	16GB (2x 8GB)	SS	N/A	Heat-Sink Package	16-16-16-39	1.2V	•	•
ADATA	AX4U2666W8G16-QRZ	32GB (4x 8GB)	DS	N/A	Heat-Sink Package	16-16-16-39	1.2V	•	•
crucial	BLS8G4D26BFSC.16FBR2	8GB	DS	N/A	Heat-Sink Package	16-18-18-38	1.20V	•	•
crucial	BLS16G4D26BFSC.16FBR	16GB	DS	N/A	Heat-Sink	16-18-18-38	1.20V		

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	1 DIMM	2 DIMM
crucial	BLS16G4D26BFSC.16FBD	16GB	DS	N/A	Heat-Sink Package	16-18-18-38	1.20V	•	•
crucial	BLS4G4D26BFSC.8FBR2	4GB	SS	N/A	Heat-Sink Package	16-18-18-38	1.20V	•	•
CORSAIR	CMK128GX4M8A2666C16(Ver5.39)	128GB(8*16GB)	DS	N/A	Heat-Sink Package	16-18-18-36	1.20V	•	•
CORSAIR	CMR16GX4M2A2666C16(Ver5.30)	16GB (2x 8GB)	SS	N/A	Heat-Sink Package	16-18-18-35	1.20V	•	•
CORSAIR	CMK128GX4M8A2666C16(Ver5.39)	128GB (8x 16GB)	DS	N/A	Heat-Sink Package	16-18-18-35	1.20V	•	•
CORSAIR	CMR64GX4M8A2666C16(Ver5.30)	64GB (8x 8GB)	SS	N/A	Heat-Sink Package	16-18-18-35	1.20V	•	•
HyperX	HX426C16FB2K4/64	64GB(4*16GB)	DS	N/A	Heat-Sink Package	16-18-18-39	1.20V	•	•
G.SKILL	F4-2666C16Q2-64GRB	64GB (8GBx8)	SS	N/A	Heat-Sink Package	16-16-16-36	1.20V	•	•
HyperX	HX426C15SBK8/128	128GB (16GBx8)	DS	N/A	Heat-Sink Package	15-16-16-35	1.20V	•	•
HyperX	HX426C13PB3/8	32GB (4x 8GB)	SS	N/A	Heat-Sink Package	13-15-15-35	1.35V	•	•
HyperX	HX426C13PB3/16	64GB(4*16GB)	DS	N/A	Heat-Sink Package	13-15-15-35	1.35V	•	•
CRUCIAL	BLS8G4D26BFSCK.8FBR	8GB	SS	N/A	Heat-Sink Package	16-18-18-38	1.20V	•	•
CRUCIAL	BLS8G4D26BFSCK.8FBD	8GB	SS	N/A	Heat-Sink Package	16-18-18-38	1.20V	•	•
MICRON	MTA16ATF2G64AZ-2G6H1	16GB	DS	MICRON	7BH45 D9VHP	19-19-19-43	1.20V	•	•
MICRON	MTA8ATF1G64AZ-2G6H1	8GB	SS	MICRON	7BH45 D9VHP	19-19-19-43	1.20V	•	•

DDR4 2800 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	1 DIMM	2 DIMM
CORSAIR	CMK16GX4M4A2800C16(Ver5.29)	16GB (4GB*4)	SS	N/A	Heat-Sink	16-18-18-36	1.2V	●	●
KINGSTON	HX428C14PB2K4/16	16GB (4GB*4)	SS	N/A	Heat-Sink	15-15-15-36-50	1.35V	●	●
PATRIOT	PX416G280C6QK	16GB (4GB*4)	SS	N/A	Heat-Sink	16-18-18-36	1.2V	●	●
PANRAM	PUD42800C164G4NJW	16GB (4GB*4)	SS	N/A	Heat-Sink	16-18-18-36	1.25V	●	●
MUSHKIN	994207F	16GB (4GB*4)	SS	N/A	Heat-Sink	16-16-16-36	1.2V	●	●
KINGSTON	HX428C14PBK4/32	32GB (8GB*4)	DS	N/A	Heat-Sink	15-15-15-36-50	1.35V	●	●
AVEXIR	AVD4UZ128001604G-4COB	16GB (4GB*4)	SS	N/A	Heat-Sink	15-15-15-36-51	1.2V	●	●
AVEXIR	AVD4UZ128001608G-4COB	32GB (8GB*4)	DS	N/A	Heat-Sink	15-15-15-36-51	1.2V	●	●
CORSAIR	CMK32GX4M4A2800C16	32GB (8GB*4)	DS	N/A	Heat-Sink	16-18-18-36	1.2V	●	●
KINGSTON	HX428C14SB2K4/32	32GB (8GB*4)	DS	N/A	Heat-Sink	15-15-15-36-50	1.35V	●	●
KINGSTON	HX428C14SB2K4/16	16GB (4GB*4)	SS	N/A	Heat-Sink	15-15-15-36-50	1.35V	●	●
TEAM	TDGED48G2800HC16ABK	16GB (8GB*2)	SS	N/A	Heat-Sink	16-16-16-36	1.2V	●	●

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)	
								1 DIMM	2 DIMM
PATRIOT	PV416G280C6QK	16GB (4GB*4)	SS	N/A	Heat-Sink	16-18-18-36	1.2V	●	●
ADATA	Digital Storm	8G	DS	SK HYNIX	HMA54G8NAFR			●	●
G.SKILL	F4-2800C16D-16GRR	8G*2	SS	N/A	Heat-Sink		1.2V	●	●
ADATA	AX4U280038G17-SBF	8GB*8	SS	N/A	Heat-Sink	18-17-17-36	1.2V	●	●
ADATA	AX4U2800316G16-SBF	16GB	DS	N/A	Heat-Sink	17-16-16-36	1.2V	●	●
CORSAIR	CMD32GX4M4A2800C16 (	8G	DS	N/A	Heat-Sink Package	16-18-18-36	1.2V	●	●
G.SKILL	F4-2800C14Q-64GVK	16G*4	DS	N/A	Heat-Sink	14-14-14-35	1.35V	●	●
G.SKILL	F4-2800C16Q-32GVR	8G*4	SS	N/A	Heat-Sink	16-16-16-36	1.20V	●	●
AVEXIR	AVD4UZ128001504G-4BZ1RR	4G*4	SS	N/A	Heat-Sink		1.35V	●	●
AVEXIR	AVD4UZ128001508G-4BZ1RR	8G*4	DS	N/A	Heat-Sink		1.35V	●	●
CORSAIR	CMD16GX4M4A2800C16(Ver3.21)	16GB(4*4GB)	SS	N/A	Heat-Sink	16-18-18-36	1.2V	●	●
CORSAIR	CMK64GX4M8B2800C14 (	64GB(8*8GB)	DS	N/A	Heat-Sink Package	14-16-16-36	1.35V	●	●
TEAM	TFWD416G2800C16CBK	16G	DS	TEAM	T4D10248HT-30	16-18-18-38	1.2V	●	●
TEAM	TFRD48G2800C16CBK	8G	DS	N/A	SEC625	16-18-18-38	1.2V	●	●
TEAM	TCD44G2800C16CBK	4G	SS	TEAM	T4D5128HT-30	16-18-18-38	1.2V	●	●
ADATA	AX4U2800W8G17-BRD	8GB	DS	N/A	Heat-Sink	17-17-17-36	1.2V	●	●
G.SKILL	F4-2800C15Q-32GVR	32GB (4x 8GB)	SS	N/A	Heat-Sink	15-15-15-35	1.25V	●	●
ADATA	AX4U2800W4G17-BRZ	8GB(2*4GB)	SS	N/A	Heat-Sink	17-17-17-36	1.2V	●	●
ADATA	AX4U280038G17-BWZ	8G	SS	N/A	Heat-Sink Package	17-17-17-36	1.2V	●	●
KINGMAX	GLMG42F-18KIIA CJBR4	8GB	SS	N/A	Heat-Sink Package	17-17-17-39	1.20V	●	●

DDR4 3000 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)	
								1 DIMM	2 DIMM
CORSAIR	CMD32GX4M2B3000C15(Ver4.31)	32GB (16GB*2)	DS	N/A	Heat-Sink	15-17-17-35	1.35V	●	●
KINGSTON	HX430C15PB2K4/16	16GB (4GB*4)	SS	N/A	Heat-Sink	15-15-15-36-50	1.35V	●	●
G.SKILL	F4-3000C15Q-16GRR	16GB (4GB*4)	SS	N/A	Heat-Sink	15-15-15-35	1.35V	●	●
PANRAM	PUD43000C154G4NJW	16GB (4GB*4)	SS	N/A	Heat-Sink	15-17-17-35	1.35V	●	●
KINGSTON	HX430C15PBK4/32	32GB (8GB*4)	DS	N/A	Heat-Sink	15-15-15-36-50	1.35V	●	●
KINGSTON	HX430C15SB2K4/32	32GB (8GB*4)	DS	N/A	Heat-Sink	15-15-15-36-50	1.35V	●	●
AVEXIR	AVD4UZ130001604G-4COB	16GB (4GB*4)	SS	N/A	Heat-Sink	15-15-15-36-51	1.35V	●	●
AVEXIR	AVD4UZ130001608G-4COB	32GB (8GB*4)	DS	N/A	Heat-Sink	15-15-15-36-51	1.35V	●	●
KINGSTON	HX430C16PBK4/64	64GB (16GB*4)	DS	N/A	Heat-Sink	15-15-15-36-50	1.35V	●	●
KINGSTON	HX430C15SBK2/16	16GB (8GB*2)	DS	N/A	Heat-Sink	15-15-15-36-50	1.35V	●	●
KLEVV	IM44GU48A30-GIIHMC	16GB (4GB*4)	SS	N/A	Heat-Sink	16-18-18	1.35V	●	●
CORSAIR	CMK16GX4M2B3000C15 (	16GB (8GB*2)	DS	N/A	Heat-Sink Package	15-17-17-35	1.35V	●	●
KINGSTON	HX430C15SB2K4/16	16GB (4GB*4)	SS	N/A	Heat-Sink	15-15-15-36-50	1.35V	●	●
TEAM	TDGED48G3000HC16ABK	16GB (8GB*2)	DS	N/A	Heat-Sink	16-16-16-36	1.35V	●	●
PATRIOT	PV416G300C6QK	16GB (4GB*4)	SS	N/A	Heat-Sink	16-16-16-36	1.35V	●	●
G.SKILL	F4-3000C15D-32GVR	32GB (16GB*2)	DS	N/A	Heat-Sink	15-15-15-35	1.35V	●	●
CORSAIR	CMK64GX4M4B3000C15 (	64GB (16GB*4)	DS	N/A	Heat-Sink Package	15-17-17-35	1.35V	●	●

Manufacturer	Part Number	Size	SS/DS	Vendor	Chip	Timing	Voltage		
TEAM	TCD48G300C16ABK	8G	SS	Skhymix	H5AN8G8NMFR	16-16-16-36	1.35V	●	●
ADATA	AX4U300038G16-DBZ	8G	DS	N/A	Heat-Sink	16-18-18-36	1.35V	●	●
ADATA	AX4U3000316G16-BGZ	16G	DS	N/A	Heat-Sink	16-18-18	1.35V	●	●
CORSAIR	CMD16GX4M4B3000C15(Ver4.24)	4G	SS	N/A	Heat-Sink Package	15-17-17-35	1.35V	●	●
CORSAIR	CMK32GX4M2B3000C15(Ver5.39)	16G	DS	N/A	Heat-Sink	15-17-17-35	1.35V	●	●
CORSAIR	CMU16GX4M2C3000C15（Ver4.31）	8G	SS	N/A	Heat-Sink Package	15-17-17-35	1.35V	●	●
CORSAIR	CMK16GX4M4B3000C15(Ver3.21)	4G	SS	N/A	Heat-Sink	15-17-17-35	1.35V	●	●
G.SKILL	F4-3000C15Q-32GRK	8G*4	DS	N/A	Heat-Sink Package	15-15-15-35	1.35V	●	●
CORSAIR	CMK8GX4M2B3000C15(Ver3.21)	8GB(2*4GB)	SS	N/A	Heat-Sink	15-17-17-35	1.35V	●	●
CORSAIR	CMU32GX4M4C3000C15（Ver5.3）	32GB(8GB*4)	DS	N/A	Heat-Sink Package	15-17-17-35	1.35V	●	●
GEIL	GFR416GB3000C15ADC	8G	SS	N/A	Heat-Sink Package	15-17-17-35	1.35V	●	●
TEAM	TFWD416G3000C16CBK	16G	DS	TEAM	T4D10248HT-30	16-18-18-38	1.35V	●	●
TEAM	TFRD48G3000C16CBK	8G	DS	N/A	SEC625	16-18-18-38	1.35V	●	●
TEAM	TCD44G3000C16CBK	4G	SS	TEAM	T4D5128HT-30	16-18-18-38	1.35V	●	●
Klevv	IM4AGU88A30-FGGHMZ	16GB	DS	N/A	Heat-Sink Package	15-16-16	1.35V	●	●
Klevv	IM48GU88A30-FGGHMZ	8GB	SS	N/A	Heat-Sink Package	15-16-16	1.35V	●	●
Klevv	IM44GU48A30-FGGHAZ	4GB	SS	N/A	Heat-Sink Package	15-16-16	1.35V	●	●
Klevv	IM48GU88A30-FGGHMB	8GB	SS	N/A	Heat-Sink Package	15-16-16	1.35V	●	●
Klevv	IM44GU48A30-FGGHAB	4GB	SS	N/A	Heat-Sink Package	15-16-16	1.35V	●	●
Klevv	IM4AGU88A30-FGGHMB	16GB	DS	N/A	Heat-Sink Package	15-16-16	1.35V	●	●
G.SKILL	F4-3000C16D-16GISB	8GB*2	SS	N/A	Heat-Sink Package	16-18-18-38	1.35V	●	●
CORSAIR	CMD16GX4M2B3000C15(Ver5.30)	16GB (2x 8GB)	SS	N/A	Heat-Sink Package	15-17-17-35	1.35V	●	●
CORSAIR	CMD32GX4M4C3000C15(Ver5.30)	32GB (4x 8GB)	SS	N/A	Heat-Sink Package	15-17-17-35	1.35V	●	●
CORSAIR	CMR16GX4M2C3000C15(Ver4.31)	16GB (2x 8GB)	SS	N/A	Heat-Sink Package	15-17-17-35	1.35V	●	●
CORSAIR	CMR32GX4M4C3000C15	32GB (4x 8GB)	DS	N/A	Heat-Sink Package	15-17-17-35	1.35V	●	●
Team	TDRRD48G3000HC16CBK	8GB	DS	N/A	Heat-Sink Package	16-18-18-38	1.35V	●	●

Team	TDRGD48G3000HC16CBK	8GB	DS	N/A	Heat-Sink Package	16-18-18-38	1.35V	•	•
GALAXY	HOF DDR4-3000	16GB (2x 8GB)		N/A	Heat-Sink Package	16-18-18-38	1.35V	•	•
GeIL	GLR416GB3000C15ADC	8GB	SS	N/A	Heat-Sink Package	15-17-17-35	1.35V	•	•
G.SKILL	F4-3000C15S-16GVR	16GB	DS	N/A	Heat-Sink Package	15-15-15-35	1.35V	•	•
PATRIOT	PV432G300C6QK	32GB (4x 8GB)	SS	N/A	Heat-Sink Package	16-16-16-36	1.35V	•	•
HyperX	HX430C15PB3K4/32	32GB (4x 8GB)	SS	N/A	Heat-Sink Package	15-17-17-36	1.35V	•	•
CRUCIAL	BLT8G4D30AETA.K16FE	8GB	DS	N/A	Heat-Sink Package	15-16-16-35	1.35V	•	•
PATRIOT	PVE416G300C6KBL	16GB (2x 8GB)	SS	N/A	Heat-Sink Package	16-16-16-36	1.35V	•	•
PATRIOT	PVE48G300C6KRD	8GB (2x 4GB)	SS	N/A	Heat-Sink Package	16-16-16-36	1.35V	•	•
G.SKILL	F4-3000C14Q2-128GVKD	128GB (16GBx8)	DS	N/A	Heat-Sink Package	14-14-14-34	1.35V	•	•
Team	TF3D48G3000HC16CBK	8GB	SS	N/A	Heat-Sink Package	16-18-18-38	1.35V	•	•
Team	TF4D48G3000HC16CBK	8GB	SS	N/A	Heat-Sink Package	16-18-18-38	1.35V	•	•
GALAXY	N/A	16GB (2x 8GB)	SS	N/A	Heat-Sink Package	16-18-18-38	1.35V	•	•
TIGO	TMKU8GF58-3000X	8GB	DS	N/A	Heat-Sink Package	16-18-18-36	1.35V	•	•
ZADAK	ZD4-MO23000C16-08GAG	8GBx2	SS	N/A	N/A	16-18-18-38	1.35V	•	•

DDR4 3200 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)	
								1 DIMM	2 DIMM
PANRAM	PUD43200C164G4NJW	16GB (4GB*4)	SS	N/A	Heat-Sink Package	16-18-18-39	1.35V		•
MUSHKIN	997202F	8GB (4GB*2)	SS	N/A	Heat-Sink Package	15-15-15-36	1.2V		•
G.SKILL	F4-3200C16D-8GVKB	8GB (4GB*2)	SS	N/A	Heat-Sink	16-18-18-38	1.35V		•

Brand	Part Number	Capacity	SS/DS		Package	Timing	Voltage		
G.SKILL	F4-3200C16D-8GVRB	8GB (4GB 2)	SS	N/A	Package	16-18-18-36	1.35V		•
APACER	78.BAGMD.AF20B	8GB (4GB*2)	SS	N/A	Heat-Sink Package	16-16-16-36	1.35V		•
PATRIOT	PV48G320C6K	8GB (4GB*2)	SS	N/A	Heat-Sink Package		1.35V		•
HyperX	HX432C16PB3K4/32	32GB(8GB*4)	SS	N/A	Heat-Sink Package	16-18-18-36	1.35V		•
ADATA	AX4U3200W8G16-BGZ		DS	N/A	Heat-Sink Package	16-16-16	1.35V		•
TEAM	TFWD416G3200C16CBK	16G	DS	N/A	SEC546	16-18-18-38	1.35V		•
TEAM	TFWD48G3200C16CBK	8G	DS	N/A	SEC613	16-18-18-38	1.35V		•
CORSAIR	CMD16GX4M2B3200C16(Ver3.21)	16G	DS	N/A	Heat-Sink Package	16-18-18-36	1.35V		•
TIGO	CMK32GX4M2B3200C16(Ver5.39)	8GB*2	DS	N/A	Heat-Sink Package	16-18-18-38	1.35V		•
G.SKILL	CMD32GX4M2C3200C16(Ver5.39)	32GB (4x 8GB)	SS	N/A	Heat-Sink Package	14-14-14-34	1.35V		•
CORSAIR	CMK64GX4M8B3200C16(Ver4.31)	32GB(2*16GB)	DS	N/A	Heat-Sink Package	16-18-18-36	1.35V		•
Team	CMD16GX4M2B3200C16(Ver3.21)	8GB	SS	N/A	Heat-Sink Package	16-18-18-38	1.35V		•
Team	CMK32GX4M2B3200C16(Ver5.39)	8GB	SS	N/A	Heat-Sink Package	16-18-18-38	1.35V		•
CORSAIR	CMK64GX4M8B3200C16(Ver4.31)	16GB (2x 8GB)	DS	N/A	Heat-Sink Package	16-18-18-36	1.35V		•
kingston	HX432C16PB3K2/8	4GBx2	SS	N/A	N/A	16-18-18-36	1.35V	•	•
kingston	HX432C16PB3K2/16	8GBx2	SS	N/A	N/A	16-18-18-36	1.35V	•	•
GEIL	GEX416GB3200C16DC	8GBx2	SS	N/A	N/A	16-16-16-36	1.35V	•	•
CORSAIR	CMU32GX4M2C3200C16	16GBx2	DS	N/A	N/A	16-18-18-36	1.35V	•	•
CORSAIR	CMK32GX4M2B3200C16	16GBx2	DS	N/A	N/A	16-18-18-36	1.35V	•	•
CORSAIR	CMK32GX4M2D3200C16	16GBx2	DS	N/A	N/A	16-18-18-36	1.35V	•	•
CORSAIR	CMR32GX4M2C3200C16	16GBx2	DS	N/A	N/A	16-18-18-36	1.35V	•	•
CORSAIR	CMD32GX4M2B3200C16	16GBx2	DS	N/A	N/A	16-18-18-36	1.35V	•	•
CORSAIR	CMD32GX4M2C3200C16	16GBx2	DS	N/A	N/A	16-18-18-36	1.35V	•	•
CORSAIR	CMU32GX4M2C3200C16B	16GBx2	DS	N/A	N/A	16-18-18-36	1.35V	•	•
CORSAIR	CMK32GX4M2B3200C16R	16GBx2	DS	N/A	N/A	16-18-18-36	1.35V	•	•
CORSAIR	CMU32GX4M2C3200C16R	16GBx2	DS	N/A	N/A	16-18-18-36	1.35V	•	•
CORSAIR	CMK32GX4M2C3200C16S	16GBx2	DS	N/A	N/A	16-18-18-36	1.35V	•	•
CORSAIR	CMK32GX4M2B3200C16W	16GBx2	DS	N/A	N/A	16-18-18-36	1.35V	•	•
CORSAIR	CMK16GX4M2B3200C15	8GBx2	SS/DS	N/A	N/A	15-17-17-35	1.35V	•	•
CORSAIR	CMK16GX4M2B3200C16	8GBx2	SS/DS	N/A	N/A	16-18-18-36	1.35V	•	•
CORSAIR	CMK16GX4M2D3200C16	8GBx2	SS/DS	N/A	N/A	16-18-18-36	1.35V	•	•
CORSAIR	CMK16GX4M2B3200C16	8GBx2	SS/DS	N/A	N/A	16-18-18-36	1.35V		

CORSAIR	CMK16GX4M2Z3200C16	8GBx2	SS/DS	N/A	N/A	16-18-18-36	1.35V	●	●
CORSAIR	CMR16GX4M2C3200C16	8GBx2	SS/DS	N/A	N/A	16-18-18-36	1.35V	●	●
CORSAIR	CMR16GX4M2D3200C16	8GBx2	SS/DS	N/A	N/A	16-18-18-36	1.35V	●	●
CORSAIR	CMD16GX4M2B3200C16	8GBx2	SS/DS	N/A	N/A	16-18-18-36	1.35V	●	●
CORSAIR	CMU16GX4M2C3200C16	8GBx2	SS/DS	N/A	N/A	16-18-18-36	1.35V	●	●
CORSAIR	CMU16GX4M2C3200C16B	8GBx2	SS/DS	N/A	N/A	16-18-18-36	1.35V	●	●
CORSAIR	CMU16GX4M2C3200C16O	8GBx2	SS/DS	N/A	N/A	16-18-18-36	1.35V	●	●
CORSAIR	CMK16GX4M2B3200C16R	8GBx2	SS/DS	N/A	N/A	16-18-18-36	1.35V	●	●
CORSAIR	CMU16GX4M2C3200C16R	8GBx2	SS/DS	N/A	N/A	16-18-18-36	1.35V	●	●
CORSAIR	CMK16GX4M2C3200C16S	8GBx2	SS/DS	N/A	N/A	16-18-18-36	1.35V	●	●
CORSAIR	CMK16GX4M2B3200C16W	8GBx2	SS/DS	N/A	N/A	16-18-18-36	1.35V	●	●
CORSAIR	CMU16GX4M2C3200C16Y	8GBx2	SS/DS	N/A	N/A	16-18-18-36	1.35V	●	●
CORSAIR	CMK8GX4M2B3200C16	4GBx2	SS	N/A	N/A	16-18-18-36	1.35V	●	●
CORSAIR	CMD8GX4M2B3200C16	4GBx2	SS	N/A	N/A	16-18-18-36	1.35V	●	●
CORSAIR	CMK8GX4M2B3200C16R	4GBx2	SS	N/A	N/A	16-18-18-36	1.35V	●	●
Gskill	F4-3200C16D-16GTZLG	8GBx2	SS	N/A	N/A	16-18-18-38	1.35V	●	●
Gskill	F4-3200C16D-16GTZLO	8GBx2	SS	N/A	N/A	16-18-18-38	1.35V	●	●
Gskill	F4-3200C16D-16GTZB	8GBx2	SS	N/A	N/A	16-18-18-38	1.35V	●	●
Gskill	F4-3200C16D-16GTZKW	8GBx2	SS	N/A	N/A	16-18-18-38	1.35V	●	●
Gskill	F4-3200C16D-16GTZKY	8GBx2	SS	N/A	N/A	16-18-18-38	1.35V	●	●
Gskill	F4-3200C16D-16GTZKO	8GBx2	SS	N/A	N/A	16-18-18-38	1.35V	●	●
Gskill	F4-3200C16D-16GTZSW	8GBx2	SS	N/A	N/A	16-18-18-38	1.35V	●	●
Gskill	F4-3200C16D-16GTZSK	8GBx2	SS	N/A	N/A	16-18-18-38	1.35V	●	●
Gskill	F4-3200C16D-16GTZR	8GBx2	SS	N/A	N/A	16-18-18-38	1.35V	●	●
Gskill	F4-3200C15D-16GTZ	8GBx2	SS	N/A	N/A	15-15-15-35	1.35V	●	●
Gskill	F4-3200C15D-16GTZKW	8GBx2	SS	N/A	N/A	15-15-15-35	1.35V	●	●
Gskill	F4-3200C15D-16GTZKY	8GBx2	SS	N/A	N/A	15-15-15-35	1.35V	●	●
Gskill	F4-3200C15D-16GTZKO	8GBx2	SS	N/A	N/A	15-15-15-35	1.35V	●	●
Gskill	F4-3200C15D-16GTZSW	8GBx2	SS	N/A	N/A	15-15-15-35	1.35V	●	●
Gskill	F4-3200C15D-16GTZSK	8GBx2	SS	N/A	N/A	15-15-15-35	1.35V	●	●
Gskill	F4-3200C14D-16GTZ	8GBx2	SS	N/A	N/A	14-14-14-34	1.35V	●	●
Gskill	F4-3200C14D-16GTZKW	8GBx2	SS	N/A	N/A	14-14-14-34	1.35V	●	●
Gskill	F4-3200C14D-16GTZKY	8GBx2	SS	N/A	N/A	14-14-14-34	1.35V	●	●
Gskill	F4-3200C14D-16GTZKO	8GBx2	SS	N/A	N/A	14-14-14-34	1.35V	●	●
Gskill	F4-3200C14D-16GTZSW	8GBx2	SS	N/A	N/A	14-14-14-34	1.35V	●	●
Gskill	F4-3200C14D-16GTZSK	8GBx2	SS	N/A	N/A	14-14-14-34	1.35V	●	●
Gskill	F4-3200C14D-16GTZR	8GBx2	SS	N/A	N/A	14-14-14-34	1.35V	●	●
Gskill	F4-3200C16D-32GTZA	16GBx2	DS	N/A	N/A	16-16-16-36	1.35V	●	●
Gskill	F4-3200C16D-32GTZ	16GBx2	DS	N/A	N/A	16-18-18-38	1.35V	●	●
Gskill	F4-3200C16D-32GTZKW	16GBx2	DS	N/A	N/A	16-18-18-38	1.35V	●	●
Gskill	F4-3200C16D-32GTZKY	16GBx2	DS	N/A	N/A	16-18-18-38	1.35V	●	●
Gskill	F4-3200C16D-32GTZKO	16GBx2	DS	N/A	N/A	16-18-18-38	1.35V	●	●
Gskill	F4-3200C16D-32GTZSW	16GBx2	DS	N/A	N/A	16-18-18-38	1.35V	●	●

| Gskill | F4-3200C16D-32GTZSW | 16GBx2 | DS | N/A | N/A | 16-18-18-38 | 1.35V | • | • |
| Gskill | F4-3200C16D-32GTZSK | 16GBx2 | DS | N/A | N/A | 16-18-18-38 | 1.35V | • | • |

Gskill	F4-3200C16D-32GTZSK	16GBx2	DS	N/A	N/A	16-18-18-38	1.35V	●	●
Gskill	F4-3200C15D-32GTZ	16GBx2	DS	N/A	N/A	15-15-15-35	1.35V	●	●
Gskill	F4-3200C15D-32GTZKW	16GBx2	DS	N/A	N/A	15-15-15-35	1.35V	●	●
Gskill	F4-3200C15D-32GTZKY	16GBx2	DS	N/A	N/A	15-15-15-35	1.35V	●	●
Gskill	F4-3200C15D-32GTZKO	16GBx2	DS	N/A	N/A	15-15-15-35	1.35V	●	●
Gskill	F4-3200C15D-32GTZSW	16GBx2	DS	N/A	N/A	15-15-15-35	1.35V	●	●
Gskill	F4-3200C15D-32GTZSK	16GBx2	DS	N/A	N/A	15-15-15-35	1.35V	●	●
Gskill	F4-3200C14D-32GTZ	16GBx2	DS	N/A	N/A	14-14-14-34	1.35V	●	●
Gskill	F4-3200C14D-32GTZKW	16GBx2	DS	N/A	N/A	14-14-14-34	1.35V	●	●
Gskill	F4-3200C14D-32GTZKY	16GBx2	DS	N/A	N/A	14-14-14-34	1.35V	●	●
Gskill	F4-3200C14D-32GTZKO	16GBx2	DS	N/A	N/A	14-14-14-34	1.35V	●	●
Gskill	F4-3200C14D-32GTZSW	16GBx2	DS	N/A	N/A	14-14-14-34	1.35V	●	●
Gskill	F4-3200C14D-32GTZSK	16GBx2	DS	N/A	N/A	14-14-14-34	1.35V	●	●
Gskill	F4-3200C16D-16GVK	8GBx2	SS	N/A	N/A	16-16-16-36	1.35V	●	●
Gskill	F4-3200C16D-16GVR	8GBx2	SS	N/A	N/A	16-16-16-36	1.35V	●	●
Gskill	F4-3200C16D-16GVS	8GBx2	SS	N/A	N/A	16-16-16-36	1.35V	●	●
Gskill	F4-3200C16D-16GVKB	8GBx2	SS	N/A	N/A	16-18-18-38	1.35V	●	●
Gskill	F4-3200C16D-16GVGB	8GBx2	SS	N/A	N/A	16-18-18-38	1.35V	●	●
Gskill	F4-3200C15D-16GVR	8GBx2	SS	N/A	N/A	15-15-15-35	1.35V	●	●
Gskill	F4-3200C15D-16GVK	8GBx2	SS	N/A	N/A	15-15-15-35	1.35V	●	●
Gskill	F4-3200C14D-16GVR	8GBx2	SS	N/A	N/A	14-14-14-34	1.35V	●	●
Gskill	F4-3200C14D-16GVK	8GBx2	SS	N/A	N/A	14-14-14-34	1.35V	●	●
Gskill	F4-3200C16D-32GVK	16GBx2	DS	N/A	N/A	16-18-18-38	1.35V	●	●
Gskill	F4-3200C16D-32GVKA	16GBx2	DS	N/A	N/A	16-16-16-36	1.35V	●	●
Gskill	F4-3200C15D-32GVR	16GBx2	DS	N/A	N/A	15-15-15-35	1.35V	●	●
Gskill	F4-3200C15D-32GVK	16GBx2	DS	N/A	N/A	15-15-15-35	1.35V	●	●
Gskill	F4-3200C14D-32GVR	16GBx2	DS	N/A	N/A	14-14-14-34	1.35V	●	●
Gskill	F4-3200C14D-32GVK	16GBx2	DS	N/A	N/A	14-14-14-34	1.35V	●	●
APACER	AHU08GGB32CDU6H (EK.16GA1.GEAK2)	8GBx2	SS	N/A	N/A	16-18-18-38	1.35V	●	●
APACER	AHU08GGB32CDU5H(EK.16GA1.GEBK2)	8GBx2	SS	N/A	N/A	16-18-18-38	1.35V	●	●
APACER	AHU08GGB32CDU8R(EK.16GA1.GEDK2)	8GBx2	SS	N/A	N/A	16-18-18-38	1.35V	●	●
TeamGroup	TF1D48G3200HC16CBK	8GBx2	SS	N/A	N/A	16-18-18-38	1.35V	●	●
TeamGroup	TF2D48G3200HC16CBK	8GBx2	SS	N/A	N/A	16-18-18-38	1.35V	●	●
APACER	AHU08GGB32CKU7M	8GB	SS			16-18-18-38	1.35V	●	●
ZADAK	ZD4-SHA3200C16-08GAS	8GB	SS			16-18-18-38	1.35V	●	
Hyper X	HX432C18FBK2/16	16GB(8GB*2)	SS			18-21-21-39	1.2V	●	●
Hyper X	HX432C18FBK2/32	32GB(16GB*2)	DS			18-21-21-39	1.2V	●	●
KLEVV	IM48GU88A32-GIISEZ	32GB(8GB*4)	DS			16-18-18-38	1.35V	●	●
KINGMAX	GZOG43F-18SIGP	8GB	SS			16-18-18-38	1.35V	●	●

ZADAK	ZD4-SHA3200C16-08GAS	8GB	SS	16-18-18-38	1.35V	●	●
V-COLOR	TL48G32S8CRGB16	8GB	SS	16-18-18-38	1.35V	●	●
Thermaltake	CL-W251-CA00SW-A	16GB(8GB*2)	SS	16-18-18-38	1.35V	●	●

DDR4 3300 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)	
								1 DIMM	2 DIMM
HyperX	HX433C16PB3K2/16	16GB(8GB*2)	SS	N/A	Heat-Sink Package	16-18-18-36	1.35V		●
G.SKILL	F4-3300C16Q-16GRKD	16GB (4GB*4)	SS	N/A	Heat-Sink Package	16-16-16-36	1.35V		●
CORSAIR	CMR32GX4M4C3333C16(Ver4.31)	32GB (4x 8GB)	SS	N/A	Heat-Sink Package	16-18-18-35	1.35V		●
CORSAIR	CMK32GX4M2B3333C16	16GBx2	DS	N/A	N/A	16-18-18-36	1.35V	●	●
CORSAIR	CMR32GX4M2C3333C16	16GBx2	DS	N/A	N/A	16-18-18-36	1.35V	●	●
CORSAIR	CMD32GX4M2B3333C16	16GBx2	DS	N/A	N/A	16-18-18-36	1.35V	●	●
CORSAIR	CMK16GX4M2B3333C16	8GBx2	DS	N/A	N/A	16-18-18-36	1.35V	●	●
CORSAIR	CMK16GX4M2C3333C16	8GBx2	SS	N/A	N/A	16-18-18-36	1.35V	●	●
CORSAIR	CMD16GX4M2B3333C16	8GBx2	DS	N/A	N/A	16-18-18-36	1.35V	●	●
CORSAIR	CMK8GX4M2B3333C16	4GBx2	SS	N/A	N/A	16-18-18-36	1.35V	●	●
CORSAIR	CMD8GX4M2B3333C16	4GBx2	SS	N/A	N/A	16-18-18-36	1.35V	●	●
CORSAIR	CMK8GX4M2B3333C16R	4GBx2	SS	N/A	N/A	16-18-18-36	1.35V	●	●
Gskill	F4-3333C16D-16GTZ	8GBx2	SS	N/A	N/A	16-16-16-36	1.35V	●	●
Gskill	F4-3333C16D-16GTZB	8GBx2	SS	N/A	N/A	16-18-18-38	1.35V	●	●
Gskill	F4-3333C16D-16GTZKW	8GBx2	SS	N/A	N/A	16-18-18-38	1.35V	●	●
Gskill	F4-3333C16D-16GTZSW	8GBx2	SS	N/A	N/A	16-18-18-38	1.35V	●	●
Gskill	F4-3333C16D-16GTZSK	8GBx2	SS	N/A	N/A	16-18-18-38	1.35V	●	●
Gskill	F4-3333C16D-32GTZ	16GBx2	DS	N/A	N/A	16-16-16-36	1.35V	●	●
Gskill	F4-3333C16D-32GTZB	16GBx2	DS	N/A	N/A	16-18-18-38	1.35V	●	●
Gskill	F4-3333C16D-32GTZKW	16GBx2	DS	N/A	N/A	16-18-18-38	1.35V	●	●
Gskill	F4-3333C16D-32GTZSW	16GBx2	DS	N/A	N/A	16-18-18-38	1.35V	●	●
Gskill	F4-3333C16D-32GTZSK	16GBx2	DS	N/A	N/A	16-18-18-38	1.35V	●	●
Gskill	F4-3333C16D-16GVR	8GBx2	SS	N/A	N/A	16-16-16-36	1.35V	●	●
Gskill	F4-3333C16D-16GVK	8GBx2	SS	N/A	N/A	16-16-16-36	1.35V	●	●
Gskill	F4-3333C16D-32GVR	16GBx2	DS	N/A	N/A	16-16-16-36	1.35V	●	●
Gskill	F4-3333C16D-32GVK	16GBx2	DS	N/A	N/A	16-16-16-36	1.35V	●	●
kingston	HX433C16PB3K2/16	8GBx2	SS	N/A	N/A	16-18-18-36	1.35V	●	●

DDR4 3400 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)	
								1 DIMM	2 DIMM

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	1 DIMM	2 DIMM
G.SKILL	F4-3400C16Q-16GRBD	16GB (4GB*4)	SS	N/A	Heat-Sink Package	16-18-18-38	1.35V		●
G.SKILL	CMU32GX4M4C3400C16R (Ver5.20)	16GB (8GB*2)	DS	N/A	Heat-Sink Package	16-18-18-38	1.35V		●
CORSAIR	CMU32GX4M4C3400C16R (Ver5.20)	32GB(4*8GB)	SS	N/A	Heat-Sink Package	16-18-18-36	1.35V		●
Gskill	F4-3400C16D-16GTZ	8GBx2	SS	N/A	N/A	16-18-18-38	1.35V	●	●
Gskill	F4-3400C16D-32GTZ	16GBx2	DS	N/A	N/A	16-16-16-36	1.35V	●	●
Gskill	F4-3400C16D-16GVK	8GBx2	SS	N/A	N/A	16-18-18-38	1.35V	●	●
Gskill	F4-3400C16D-32GVR	16GBx2	DS	N/A	N/A	16-16-16-36	1.35V	●	●
Gskill	F4-3400C16D-32GVK	16GBx2	DS	N/A	N/A	16-16-16-36	1.35V	●	●
CORSAIR	CMR16GX4M2C3400C16	8GBx2	SS	N/A	N/A	16-18-18-36	1.35V	●	●
CORSAIR	CMK8GX4M2B3400C16	4GBx2	SS	N/A	N/A	16-18-18-36	1.35V	●	●
CORSAIR	CMK8GX4M2B3400C16R	4GBx2	SS	N/A	N/A	16-18-18-36	1.35V	●	●
Hyper X	HX434C19FBK2/16	16GB(8GB*2)	SS			19-23-23-42	1.2V	●	
Hyper X	HX434C19FBK2/32	32GB(16GB*2)	DS			19-23-23-42	1.2V		●
BTM	J4AGUH1G8UJBC	16GB	DS	17-18-18-36	1.35V			●	●

DDR4 3466 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	1 DIMM	2 DIMM
G.SKILL	F4-3466C16Q-16GVK	16GB (4GB*4)	SS	N/A	Heat-Sink Package	16-18-18-38	1.35V		●
CORSAIR	CMD16GX4M4B3466C18 (Ver4.23)	16GB (4GB*4)	SS	N/A	Heat-Sink Package	18-19-19-39	1.35V		●
PATRIOT	CMD32GX4M2B3466C16(Ver4.31)	8GB (4GB*2)	SS	N/A	Heat-Sink Package		1.35V		●
CORSAIR	CMD32GX4M2B3466C16(Ver4.31)	32GB(2*16GB)	DS	N/A	Heat-Sink Package	16-18-18-36	1.35V		●
CORSAIR	CMR16GX4M2C3466C16(Ver4.31)	16GB (2x 8GB)	SS	N/A	Heat-Sink Package	16-18-18-36	1.35V		●
Gskill	F4-3466C16D-16GTZ	8GBx2	SS	N/A	N/A	16-18-18-38	1.35V	●	●
Gskill	F4-3466C16D-16GTZKW	8GBx2	SS	N/A	N/A	16-18-18-38	1.35V	●	●
Gskill	F4-3466C16D-16GTZSW	8GBx2	SS	N/A	N/A	16-18-18-38	1.35V	●	●
Gskill	F4-3466C16D-16GTZSK	8GBx2	SS	N/A	N/A	16-18-18-38	1.35V	●	●
Gskill	F4-3466C16D-16GTZR	8GBx2	SS	N/A	N/A	16-18-18-38	1.35V	●	●
Gskill	F4-3466C16D-16GVR	8GBx2	SS	N/A	N/A	16-18-18-38	1.35V	●	●
Gskill	F4-3466C16D-16GVK	8GBx2	SS	N/A	N/A	16-18-18-38	1.35V	●	●
TeamGroup	TCD48G3466C17ABK	4GBx2	SS	N/A	N/A	17-19-19-39	1.35V	●	●
CORSAIR	CMD32GX4M2B3466C16	16GBx2	DS	N/A	N/A	16-18-18-36	1.35V	●	●
CORSAIR	CMK32GX4M2B3466C16R	16GBx2	DS	N/A	N/A	16-18-18-36	1.35V	●	●
CORSAIR	CMK16GX4M2B3466C16	8GBx2	SS	N/A	N/A	16-18-18-36	1.35V	●	●
CORSAIR	CMR16GX4M2C3466C16	8GBx2	SS	N/A	N/A	16-18-18-36	1.35V	●	●

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	1 DIMM	2 DIMM
CORSAIR	CMR16GX4M2C3466C16	8GBx2	SS	N/A	N/A	16-18-18-36	1.35V	●	●
CORSAIR	CMD16GX4M2B3466C16	8GBx2	SS	N/A	N/A	16-18-18-36	1.35V	●	●
CORSAIR	CMK16GX4M2B3466C16R	8GBx2	SS	N/A	N/A	16-18-18-36	1.35V	●	●
APACER	AHU08GGB34CJU6H (EK.16GA3.GGAK2)	8GBx2	SS	N/A	N/A	18-18-18-42	1.35V	●	●
APACER	AHU08GGB34CJU5H (EK.16GA3.GGBK2)	8GBx2	SS	N/A	N/A	18-18-18-42	1.35V	●	●
ZADAK	ZD4-SHD3600C17-08GAS	8GBx2	SS	N/A	N/A	17-19-19-39	1.35V	●	●
ZADAK	ZD4-MO23000C16-08GAG	8GBx2	SS	N/A	N/A	16-18-18-38	1.35V	●	●
Hyper X	HX434C19FBK2/16	16GB(8GB*2)	SS			19-23-23-42	1.2V	●	●
Hyper X	HX434C19FBK2/32	32GB(16GB*2)	DS			19-23-23-42	1.2V	●	●
KLEVV	KD48GU880-34A170X	16GB(8GB*2)	SS	17-19-19-39	1.35V	●	●		

DDR4 3600 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)	
								1 DIMM	2 DIMM
G.SKILL	F4-3600-C17Q-16GVK	16GB (4GB*4)	SS	N/A	Heat-Sink Package	17-18-18-38	1.35V		●
GALAXY	HOF4CALCS3600K17LD162C	16G(8G*2)	SS	N/A	Heat-Sink Package	17-18-18-38	1.35V		●
CORSAIR	CMK16GX4M2B3600C18(Ver4.31)	16GB(2*8GB)	SS	N/A	Heat-Sink Package	18-19-19-39	1.35V		●
CORSAIR	CMD8GX4M2B3600C18（Ver4.24）	8GB(2*4GB)	SS	N/A	Heat-Sink Package	18-19-19-39	1.35V		●
APACER	AHU08GGB36CJU5H(EK.16GA4.GGBK2)	8GBx2	SS	N/A	N/A	18-18-18-42	1.35V	●	●
CORSAIR	CMK16GX4M2B3600C18	8GBx2	SS	N/A	N/A	18-19-19-39	1.35V	●	●
CORSAIR	CMR16GX4M2C3600C18	8GBx2	SS	N/A	N/A	18-19-19-39	1.35V	●	●
CORSAIR	CMD16GX4M2B3600C18	8GBx2	SS	N/A	N/A	18-19-19-39	1.35V	●	●
CORSAIR	CMK16GX4M2B3600C18R	8GBx2	SS	N/A	N/A	18-19-19-39	1.35V	●	●
CORSAIR	CMK8GX4M2B3600C18	4GBx2	SS	N/A	N/A	18-19-19-39	1.35V	●	●
CORSAIR	CMD8GX4M2B3600C18	4GBx2	SS	N/A	N/A	18-19-19-39	1.35V	●	●
CORSAIR	CMK8GX4M2B3600C18R	4GBx2	SS	N/A	N/A	18-19-19-39	1.35V	●	●
Gskill	F4-3600C17D-16GTZ	8GBx2	SS	N/A	N/A	17-18-18-38	1.35V	●	●
Gskill	F4-3600C17D-16GTZR	8GBx2	SS	N/A	N/A	17-18-18-38	1.35V	●	●
Gskill	F4-3600C16D-16GTZ	8GBx2	SS	N/A	N/A	16-16-16-36	1.35V	●	●
Gskill	F4-3600C16D-16GTZR	8GBx2	SS	N/A	N/A	16-16-16-36	1.35V	●	●
Gskill	F4-3600C15D-16GTZ	8GBx2	SS	N/A	N/A	15-15-15-35	1.35V	●	●
Gskill	F4-3600C17D-32GTZ	16GBx2	DS	N/A	N/A	17-19-19-39	1.35V	●	●
Gskill	F4-3600C17D-32GTZSW	16GBx2	DS	N/A	N/A	17-19-19-39	1.35V	●	●
Gskill	F4-3600C17D-32GTZKW	16GBx2	DS	N/A	N/A	17-19-19-39	1.35V	●	●
Gskill	F4-3600C17D-32GTZR	16GBx2	DS	N/A	N/A	17-19-19-39	1.35V	●	●
Gskill	F4-3600C17D-16GVK	8GBx2	SS	N/A	N/A	17-18-18-38	1.35V	●	●

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	1 DIMM	2 DIMM
Gskill	F4-3600C16D-16GVK	8GBx2	SS	N/A	N/A	16-16-16-36	1.35V	●	●
Kingston	HX436C17PB3K2/16	8GBx2	SS	N/A	N/A	17-18-18-39	1.35V	●	●
GSKILL	F4-3600C19Q-32GSXW	32GB(8GB*4)	SS			19-20-20-39	1.35V	●	●
ZADAK	ZD4-SHD3600C17-08GAS	8GB	SS			17-19-19-39	1.35V	●	●
TEAMGROUP	TFOD48G3600C18EBK	16GB(8GB*2)	SS	18-20-20-44	1.35V			●	
TEAMGROUP	TF1D416G3600HC18EDC01	16GB(8GB*2)	SS	18-20-20-44	1.35V			●	
TEAMGROUP	TF2D416G3600HC18EDC01	16GB(8GB*2)	SS	18-20-20-44	1.35V			●	
TEAMGROUP	TF5D416G3600HC18EDC01	16GB(8GB*2)	SS	18-20-20-44	1.35V			●	
TEAMGROUP	TF6D416G3600HC18EDC01	16GB(8GB*2)	SS	18-20-20-44	1.35V			●	
V-COLOR	TL48G36S8BNRGB18	8GB	SS	18-19-19-39	1.35V	●	●	●	
CRUCIAL	BLS8G4D36BESBK.8FE	8GB	SS	16-18-18-38	1.35V	●	●	●	

DDR4 3866 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional) 1 DIMM	2 DIMM
G.SKILL	F4-3866C18Q-16GTZ	4G	SS	N/A	Heat-Sink Package	18-22-22-42	1.35V		●
CORSAIR	CMD8GX4M2B3866C18	4GBx2	SS	N/A	N/A	18-22-22-40	1.35V	●	●
CORSAIR	CMD16GX4M2B3866C18	8GBx2	SS	N/A	N/A	18-22-22-40	1.35V	●	●
CORSAIR	CMK8GX4M2B3866C18	4GBx2	SS	N/A	N/A	18-22-22-40	1.35V	●	●
CORSAIR	CMK8GX4M2B3866C18R	4GBx2	SS	N/A	N/A	18-22-22-40	1.35V	●	●
CORSAIR	CMK16GX4M2B3866C18	8GBx2	SS	N/A	N/A	18-22-22-40	1.35V	●	●
Gskill	F4-3866C18D-16GTZ	8GBx2	SS	N/A	N/A	18-19-19-39	1.35V	●	●
Gskill	F4-3866C18D-16GTZSW	8GBx2	SS	N/A	N/A	18-19-19-39	1.35V	●	●
Gskill	F4-3866C18D-16GTZKW	8GBx2	SS	N/A	N/A	18-19-19-39	1.35V	●	●
Gskill	F4-3866C18D-16GTZR	8GBx2	SS	N/A	N/A	18-19-19-39	1.35V	●	●
Gskill	F4-3866C18D-32GTZ	16GBx2	DS	N/A	N/A	18-18-18-38	1.35V	●	●
Gskill	F4-3866C18D-32GTZSW	16GBx2	DS	N/A	N/A	18-18-18-38	1.35V	●	●
Gskill	F4-3866C18D-32GTZKW	16GBx2	DS	N/A	N/A	18-18-18-38	1.35V	●	●
Gskill	F4-3866C18D-32GTZR	16GBx2	DS	N/A	N/A	18-18-18-38	1.35V	●	●

DDR4 4000 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional) 1 DIMM	2 DIMM
CORSAIR	CMD8GX4M2B4000C19	4GBx2	SS	N/A	N/A	19-23-23-45	1.35V	●	●
CORSAIR	CMK8GX4M2B4000C19R	4GBx2	SS	N/A	N/A	19-23-23-45	1.35V	●	●
CORSAIR	CMK8GX4M2B4000C19	4GBx2	SS	N/A	N/A	19-23-23-45	1.35V	●	●
CORSAIR	CMD16GX4M2B4000C19	8GBx2	SS	N/A	N/A	19-23-23-45	1.35V	●	●
CORSAIR	CMD16GX4M2E4000C19	8GBx2	SS	N/A	N/A	19-23-23-45	1.35V	●	●
CORSAIR	CMK16GX4M2B4000C19	8GBx2	SS	N/A	N/A	19-23-23-45	1.35V	●	●
CORSAIR	CMK16GX4M2B4000C19R	8GBx2	SS	N/A	N/A	19-23-23-45	1.35V	●	●
CORSAIR	CMK16GX4M2E4000C19R	8GBx2	SS	N/A	N/A	19-23-23-45	1.35V	●	●
CORSAIR	CMR16GX4M2F4000C19	8GBx2	SS	N/A	N/A	19-23-23-45	1.35V	●	●

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)	
								1 DIMM	2 DIMM
CORSAIR	CMK32GX4M2F4000C19	16GBx2	DS	N/A	N/A	19-23-23-45	1.35V	●	●
Gskill	F4-4000C18D-16GTZ	8GBx2	SS	N/A	N/A	18-19-19-39	1.35V	●	●
Gskill	F4-4000C18D-16GTZSW	8GBx2	SS	N/A	N/A	18-19-19-39	1.35V	●	●
Gskill	F4-4000C18D-16GTZKW	8GBx2	SS	N/A	N/A	18-19-19-39	1.35V	●	●
Gskill	F4-4000C18D-16GTZR	8GBx2	SS	N/A	N/A	18-19-19-39	1.35V	●	●
Gskill	F4-4000C19D-32GTZSW	16GBx2	DS	N/A	N/A	19-19-19-39	1.35V	●	●
Gskill	F4-4000C19D-32GTZKK	16GBx2	DS	N/A	N/A	19-19-19-39	1.35V	●	●

DDR4 4133+ Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)	
								1 DIMM	2 DIMM
CORSAIR	CMK8GX4M2B4133C19	4GBx2	SS	N/A	N/A	19-25-25-45	1.4V	●	●
CORSAIR	CMK8GX4M2B4133C19R	4GBx2	SS	N/A	N/A	19-25-25-45	1.4V	●	●
CORSAIR	CMK16GX4M2B4133C19	8GBx2	SS	N/A	N/A	19-25-25-45	1.4V	●	●
CORSAIR	CMK16GX4M2B4133C19R	8GBx2	SS	N/A	N/A	19-25-25-45	1.4V	●	●
CORSAIR	CMD8GX4M2B4133C19	4GBx2	SS	N/A	N/A	19-25-25-45	1.4V	●	●
CORSAIR	CMD16GX4M2B4133C19	8GBx2	SS	N/A	N/A	19-25-25-45	1.4V	●	●
Gskill	F4-4133C19D-16GTZC	8GBx2	SS	N/A	N/A	19-19-19-39	1.35V	●	●
Gskill	F4-4133C19D-16GTZSWC	8GBx2	SS	N/A	N/A	19-19-19-39	1.35V	●	●
Gskill	F4-4133C19D-16GTZKWC	8GBx2	SS	N/A	N/A	19-19-19-39	1.35V	●	●
Gskill	F4-4133C19D-16GTZR	8GBx2	SS	N/A	N/A	19-19-19-39	1.35V	●	●
CORSAIR	CMK8GX4M2B4200C19	4GBx2	SS	N/A	N/A	19-26-26-46	1.4V	●	●
CORSAIR	CMK8GX4M2B4200C19R	4GBx2	SS	N/A	N/A	19-26-26-46	1.4V	●	●
Gskill	F4-4266C19D-16GTZA	8GBx2	SS	N/A	N/A	19-19-19-39	1.4V	●	●
Gskill	F4-4266C19D-16GTZSW	8GBx2	SS	N/A	N/A	19-19-19-39	1.4V	●	●
Gskill	F4-4266C19D-16GTZKW	8GBx2	SS	N/A	N/A	19-19-19-39	1.4V	●	●
Gskill	F4-4333C19D-16GTZ	8GBx2	SS	N/A	N/A	19-19-19-39	1.4V	●	●
Gskill	F4-4333C19D-16GTZKKE	8GBx2	SS	N/A	N/A	19-19-19-39	1.4V	●	●