

X99-E-10G WS Memory DDR4 non-ECC UDIMM Qualified Vendor List (QVL)

Release Date: 2016/08/23

DDR4 3333 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)		
								2 DIMM	4 DIMM	8 DIMM
CORSAIR	CMD16GX4M4B3333C16(Ver4.23)(XMP)	16GB (4x 4GB)	DS	-	-	16-18-18-36	1.35	•	•	

DDR4 3200 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)		
								2 DIMM	4 DIMM	8 DIMM
G.SKILL	F4-3200C16Q-16GRKD(XMP)	16GB (4x 4GB)	DS	-	-	16-16-16-36	1.35	•	•	
Kingston	HX432C16PB3K4/16(XMP)	16GB (4x 4GB)	SS	-	-	16-18-18	1.35	•	•	
Kingston	HX432C16PB3K2/16(XMP)	32GB (4x 8GB)	SS	-	-	16-18-18-39	1.35	•	•	

DDR4 3000 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)		
								2 DIMM	4 DIMM	8 DIMM
ADATA	AX4U3000W4G16-BWZ(XMP)	4GB	SS	-	-	16-16-16-36	1.35	•	•	
ADATA	AX4U3000W8G16-BWZ(XMP)	8GB	DS	-	-	16-16-16-36	1.35	•	•	
Asint	SLA404G08-EWWHMX(XMP)	4GB	SS	SK Hynix	H5AN4G8NMFRFC	3000-15-15-15-44	1.35	•	•	
Asint	SLB404G08-EW1HMX(XMP)	8GB	DS	-	-	16-18-18-44	1.35	•	•	
AVEXIR	AVD4U30001504G-4CIR(XMP)	16GB (4x 4GB)	DS	-	-	15-15-15-35	1.35	•	•	
AVEXIR	AVD4U30001608G-4CIR(XMP)	32GB (4x 8GB)	DS	-	-	16-18-18-36	1.35	•	•	
AVEXIR	AVD4UZ130001604G-4RD(XMP)	16GB (4x 4GB)	SS	-	-	16-18-18-36	1.35	•	•	
AVEXIR	AVD4UZ130001608G-4RD(XMP)	32GB (4x 8GB)	SS	-	-	16-18-18-36	1.35	•	•	
CORSAIR	CMD16GX4M4B3000C15(Ver5.29)(XMP)	16GB (4x 4GB)	DS	-	-	15-17-17-35	1.35	•	•	
CORSAIR	CMD32GX4M4B3000C15(Ver4.23)(XMP)	32GB (4x 8GB)	DS	-	-	3000-15-17-17-35	1.35	•	•	
CORSAIR	CMK16GX4M2B3000C15(Ver4.23)(XMP)	16GB (2x 8GB)	DS	-	-	15-17-17-35	1.35	•	•	
CORSAIR	CMK16GX4M4B3000C15(Ver5.29)(XMP)	16GB (4x 4GB)	SS	-	-	15-17-17-35	1.35	•	•	
CORSAIR	CMK32GX4M2B3000C15(Ver4.31)(XMP)	32GB (2x 16GB)	DS	-	-	15-17-17-35	1.35	•	•	
CORSAIR	CMK8GX4M2B3000C15(Ver4.23)(XMP)	8GB (2x 4GB)	DS	-	-	15-17-17-35	1.35	•	•	
G.SKILL	F4-3000C15D-8GTZB(XMP)	8GB (2x 4GB)	SS	-	-	15-16-16-35	1.35	•	•	
G.SKILL	F4-3000C15Q-16GRK(XMP)	16GB (4x 4GB)	SS	-	-	15-15-15-35	1.35	•	•	
G.SKILL	F4-3000C15Q-16GRR(XMP)	16GB (4x 4GB)	SS	-	-	15-15-15-35	1.35	•	•	
G.SKILL	F4-3000C15Q-32GRK(XMP)	32GB (4x 8GB)	DS	-	-	15-15-15-35	1.35	•	•	
GelL	GLR416GB3000C16QC(XMP)	16GB (4x 4GB)	SS	-	-	16-16-16-36	1.35	•	•	
GelL	GWW416GB3000C15DC(XMP)	16GB (2x 8GB)	DS	GelL	CG4L512G88BA093L	3000-15-17-17-35	1.35	•	•	
Kingston	HX430C15PB2K4/16(XMP)	16GB (4x 4GB)	SS	-	-	15-16-16-39	1.35	•	•	
Kingston	HX430C15PB3K2/16(XMP)	16GB (2x 8GB)	SS	-	-	15-17-17-36-69	1.35	•	•	
Kingston	HX430C15PB3K2/32(XMP)	32GB (2x 16GB)	DS	-	-	15-17-17-36-69	1.35	•	•	
Kingston	HX430C15PB3K2/8(XMP)	8GB (2x 4GB)	SS	-	-	15-17-17-36-69	1.35	•	•	
Kingston	HX430C15PB3K4/16(XMP)	16GB (4x 4GB)	SS	-	-	15-17-17-36-69	1.35	•	•	
Kingston	HX430C15PB3K4/32(XMP)	32GB (4x 8GB)	SS	-	-	15-17-17-36-69	1.35	•	•	
Kingston	HX430C15PB3K4/64(XMP)	64GB (4x 16GB)	DS	-	-	15-17-17-36-69	1.35	•	•	
Kingston	HX430C15SB2/4(XMP)	4GB	SS	-	-	15-17-17-39	1.35	•	•	
Kingston	HX430C15SB2/8(XMP)	8GB	DS	-	-	15-17-17-39	1.35	•	•	
Kingston	HX430C15SB2K2/16(XMP)	16GB (2x 8GB)	DS	-	-	15-17-17-39	1.35	•	•	
Kingston	HX430C15SB2K2/8(XMP)	8GB (2x 4GB)	SS	-	-	15-17-17-39	1.35	•	•	
Kingston	HX430C15SB2K4/16(XMP)	16GB (4x 4GB)	SS	-	-	15-17-17-39	1.35	•	•	

Kingston	HX430C15SB2K4/32(XMP)	32GB (4x 8GB)	DS	-	-	15-17-17-39	1.35	•	
Kingston	HX430C15SBK2/16(XMP)	16GB (2x 8GB)	DS	-	-	15-16-16-39	1.35	•	
Kingston	HX430C16PBK4/64(XMP)	64GB (4x 16GB)	DS	-	-	16-16-16-39	1.35	•	•
Klevv	IM44GU48A30-GIIHMC(XMP)	4GB	SS	-	-	16-18-18-36	1.35	•	•
Klevv	IM48GU48A30-GIIHMC(XMP)	8GB	DS	-	-	16-18-18-36	1.35	•	•
panram	PUD43000C154G4NJW(XMP)	16GB (4x 4GB)	SS	-	-	15-17-17-35	1.35	•	•
PATRIOT	PV432G300C6QK-PE000378(XMP)	32GB (4x 8GB)	DS	-	-	16-16-16-36	1.35	•	•
Team	TCD48G3000C15ABK(XMP)	8GB	DS	SK hynix	H5AN4G8NMFR7FC	15-15-15-35	1.35	•	•

DDR4 2800 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)		
								2 DIMM	4 DIMM	8 DIMM
ADATA	AX4U2800316G16(XMP)	16GB	DS	-	-	16-16-16-36	1.2	•	•	
ADATA	AX4U2800W4G17(XMP)	32GB (8x 4GB)	DS	-	-	17-17-17-36	1.2	•	•	
ADATA	AX4U2800W4G17-BRZ(XMP)	4GB	SS	-	-	17-17-17-36	1.2	•	•	
ADATA	AX4U2800W8G17(XMP)	8GB	DS	-	-	15-15-15-36	1.2	•	•	
ADATA	AX4U2800W8G17-BRZ(XMP)	8GB	DS	-	-	17-17-17-36	1.2	•	•	
Apacer	78.BAGM8.AF20B(XMP)	16GB (4x 4GB)	SS	-	-	17-17-17-36	-	•	•	
Apacer	78.CAGM8.AF30B(XMP)	32GB (4x 8GB)	DS	-	-	17-17-17-36	-	•	•	
AVEXIR	AVD4U28001504G-4CIR(XMP)	16GB (4x 4GB)	SS	-	-	15-15-15-35	1.35	•	•	
CORSAIR	CMD16GX4M4A2800C16(Ver4.23)(XMP)	16GB (4x 4GB)	SS	-	-	16-18-18-36	1.2	•		
CORSAIR	CMD16GX4M4A2800C16(Ver5.29)	16GB (4x 4GB)	SS	-	-	16-18-18-36	1.2	•	•	
CORSAIR	CMD32GX4M4A2800C15(Ver5.29)(XMP)	32GB (4x 8GB)	DS	-	-	2800-15-17-17-36	1.2	•	•	
CORSAIR	CMD32GX4M4A2800C16(Ver5.29)(XMP)	32GB (4x 8GB)	DS	-	-	18-18-18-36	1.2	•	•	
CORSAIR	CMK16GX4M4A2800C16(Ver4.23)(XMP)	16GB (4x 4GB)	SS	-	-	16-16-18-36	1.2	•	•	
CORSAIR	CMK16GX4M4A2800C16(Ver5.29)	16GB (4x 4GB)	SS	-	-	16-18-18-36	1.2	•	•	
CORSAIR	CMK32GX4M4A2800C16(Ver5.29)(XMP)	32GB (4x 8GB)	DS	-	-	16-18-18-36	1.2	•	•	
CORSAIR	CMK64GX4M8B2800C14(Ver4.24)(XMP)	64GB (8x 8GB)	DS	-	-	14-16-16-36	1.35	•	•	•
G.SKILL	F4-2800C14Q-64GVK(XMP)	64GB (4x 16GB)	DS	-	-	14-14-14-35	1.35	•	•	
G.SKILL	F4-2800C15Q2-128GRKD(XMP)	128GB (8x 16GB)	DS	-	-	15-15-15-35	1.35	•	•	•
G.SKILL	F4-2800C15Q2-64GRK(XMP)	64GB (8x 8GB)	DS	-	-	15-16-16-35	1.25	•	•	•
G.SKILL	F4-2800C15Q2-64GRK(XMP)	64GB (8x 8GB)	DS	-	-	15-16-16-35	1.25	•	•	•
G.SKILL	F4-2800C16Q-16GRK(XMP)	16GB (4x 4GB)	SS	-	-	16-16-16-36	1.2	•	•	
G.SKILL	F4-2800C16Q-16GRR(XMP)	16GB (4x 4GB)	SS	-	-	16-16-16-36	1.2	•	•	
G.SKILL	F4-2800C16Q-32GRK(XMP)	32GB (4x 8GB)	DS	-	-	16-16-16-36	1.2	•	•	
G.SKILL	F4-2800C16Q-32GRR(XMP)	32GB (4x 8GB)	DS	-	-	16-16-16-36	1.2	•	•	
GelL	GPR416GB2800C16QC(XMP)	16GB (4x 4GB)	SS	-	-	16-16-16-36	1.2	•	•	
GelL	GPR432GB2800C16QC(XMP)	32GB (4x 8GB)	DS	-	-	16-16-16-36	1.2	•	•	
Kingston	HX428C14PBK8/64(XMP)	64GB (8x 8GB)	DS	-	-	14-15-15-39	1.35	•	•	
Kingston	HX428C14SB2/4(XMP)	4GB	SS	-	-	14-16-16-39	1.35	•	•	
Kingston	HX428C14SB2/8(XMP)	8GB	DS	-	-	14-16-16-39	1.35	•	•	
Kingston	HX428C14SB2K2/16(XMP)	16GB (2x 8GB)	DS	-	-	14-16-16-39	1.35	•		
Kingston	HX428C14SB2K2/8(XMP)	8GB (2x 4GB)	SS	-	-	14-16-16-39	1.35	•		
Kingston	HX428C14SB2K4/16(XMP)	16GB (4x 4GB)	SS	-	-	14-16-16-39	1.35	•	•	
Kingston	HX428C14SB2K4/32(XMP)	32GB (4x 8GB)	DS	-	-	14-16-16-39	1.35	•	•	
Klevv	IMA451U6MFR8N-DG0(Ver1.05)(XMP)	4GB	SS	-	-	16-16-16-36	1.2	•	•	

DDR4 2666 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)		
								2 DIMM	4 DIMM	8 DIMM
AVEXIR	AVD4U26661504G-4CIR(XMP)	4GB	SS	-	-	15-15-15-35	1.2	•	•	

AVEXIR	AVD4U26661608G-4CIR(XMP)	32GB (4x 8GB)	DS	-	-	16-16-16-36	1.2	•		
CORSAIR	CMD128GX4M8A2666C15(Ver4.31)(XMP)	128GB (8x 16GB)	DS	-	-	15-17-17-35	1.2	•	•	•
CORSAIR	CMD16GX4M2A2666C15(Ver4.23)(XMP)	16GB (2x 8GB)	DS	-	-	15-17-17-35	1.2	•		
CORSAIR	CMD16GX4M4A2666C15(Ver4.23)(XMP)	16GB (4x 4GB)	SS	-	-	15-17-17-35	1.2	•	•	
CORSAIR	CMD16GX4M4A2666C16(Ver4.23)(XMP)	16GB (4x 4GB)	SS	-	-	16-18-18-35	1.2	•	•	
CORSAIR	CMD16GX4M4A2666C16(Ver5.29)(XMP)	16GB (4x 4GB)	SS	-	-	16-18-18-35	1.2	•	•	
CORSAIR	CMD32GX4M4A2666C15(Ver4.23)(XMP)	32GB (4x 8GB)	DS	-	-	15-17-17-35	1.2	•	•	
CORSAIR	CMD32GX4M4A2666C15(Ver5.29)	32GB (4x 8GB)	DS	-	-	15-17-17-35	1.2	•	•	
CORSAIR	CMD32GX4M4A2666C16(Ver4.23)(XMP)	32GB (4x 8GB)	DS	-	-	16-18-18-35	1.2	•	•	
CORSAIR	CMD64GX4M8A2666C15(Ver4.23)(XMP)	64GB (8x 8GB)	DS	-	-	15-17-17-35	1.2	•	•	•
CORSAIR	CMD64GX4M8A2666C15(Ver4.24)(XMP)	64GB (8x 8GB)	DS	-	-	15-17-17-35	1.2	•	•	•
CORSAIR	CMD8GX4M2A2666C15(Ver4.23)(XMP)	8GB (2x 4GB)	DS	-	-	15-17-17-35	1.2	•		
CORSAIR	CMD8GX4M2A2666C15(Ver4.23)(XMP)	8GB (2x 4GB)	DS	-	-	15-17-17-35	1.2	•		
CORSAIR	CMK16GX4M2A2666C16(Ver5.29)(XMP)	16GB (2x 8GB)	DS	-	-	16-18-18-35	1.2	•		
CORSAIR	CMK16GX4M4A2666C15(Ver4.23)(XMP)	16GB (4x 4GB)	SS	-	-	15-17-17-35	1.2	•	•	
CORSAIR	CMK16GX4M4A2666C15(Ver5.29)(XMP)	16GB (4x 4GB)	SS	-	-	15-17-17-35	1.2	•	•	
CORSAIR	CMK16GX4M4A2666C16(Ver4.23)(XMP)	16GB (4x 4GB)	SS	-	-	16-18-18-35	1.2	•	•	
CORSAIR	CMK16GX4M4A2666C16(Ver5.29)(XMP)	16GB (4x 4GB)	SS	-	-	16-18-18-35	1.2	•	•	
CORSAIR	CMK32GX4M2A2666C16(Ver4.31)(XMP)	32GB (2x 16GB)	DS	-	-	16-18-18-35	1.2	•		
CORSAIR	CMK32GX4M4A2666C15(Ver4.23)(XMP)	32GB (4x 8GB)	DS	-	-	15-17-17-35	1.2	•	•	
CORSAIR	CMK32GX4M4A2666C15(Ver5.29)(XMP)	32GB (4x 8GB)	DS	-	-	15-17-17-35	1.2	•	•	
CORSAIR	CMK32GX4M4A2666C16(Ver5.29)(XMP)	32GB (4x 8GB)	DS	-	-	16-16-18-35	1.2	•	•	
CORSAIR	CMK32GX4M4A2666C16R(Ver4.23)(XMP)	32GB (4x 8GB)	DS	-	-	16-18-18-35	1.2	•	•	
CORSAIR	CMK64GX4M4A2666C16(Ver4.31)(XMP)	64GB (4x 16GB)	DS	-	-	16-18-18-35	1.2	•	•	
Crucial	BLE4G4D26AFEA.8FAD (XMP)	4GB	SS	-	-	16-17-17-36	1.2	•	•	
Crucial	BLE8G4D26AFEA.16FAD(XMP)	8GB	DS	-	-	16-17-17-36	1.2	•	•	
Crucial	BLT4G4D26AFTA.8FADG(XMP)	16GB (4x4GB)	SS	-	-	16-17-17-36	1.2	•	•	
Crucial	BLT4G4D26AFTA.8FADG(XMP)	4GB	SS	-	-	16-17-17-36	1.2	•	•	
Crucial	BLT8G4D26AFTA.16FAD(XMP)	32GB (4x 8GB)	DS	-	-	16-17-17-36	1.2	•	•	
Crucial	BLT8G4D26AFTA.16FAD(XMP)	8GB	DS	-	-	16-17-17-36	1.2	•	•	
G.SKILL	F4-2666C15Q-16GRR(XMP)	16GB (4x 4GB)	SS	-	-	15-15-15-35	1.2	•	•	
G.SKILL	F4-2666C15Q-32GRR(XMP)	32GB (4x 8GB)	DS	-	-	15-15-15-35	1.2	•	•	
Kingston	HX426C13SB2/4(XMP)	4GB	SS	-	-	13-15-15-39	1.35	•	•	
Kingston	HX426C13SB2/8(XMP)	8GB	DS	-	-	13-15-15-39	1.35	•		
Kingston	HX426C13SB2K2/16(XMP)	16GB (2x 8GB)	DS	-	-	13-15-15-39	1.35	•		
Kingston	HX426C13SB2K2/16(XMP)	16GB (2x 8GB)	DS	Nanya	NT5AD512M8B1-GN	13-15-15-39	1.35	•		
Kingston	HX426C13SB2K2/8(XMP)	8GB (2x 4GB)	SS	-	-	13-15-15-39	1.35	•		
Kingston	HX426C13SB2K4/16(XMP)	16GB (4x 4GB)	SS	-	-	13-15-15-39	1.35	•	•	
Kingston	HX426C13SB2K4/32(XMP)	32GB (4x 8GB)	DS	-	-	13-15-15-39	1.35	•		
Kingston	HX426C13SB2K4/32(XMP)	32GB (4x 8GB)	DS	Nanya	NT5AD512M8B1-GN	13-15-15-39	1.35	•		
Kingston	HX426C15FB/4(XMP)	4GB	SS	-	-	15-17-17-35	1.2	•	•	
Kingston	HX426C15FB/8(XMP)	8GB	DS	-	-	15-17-17-35	1.2	•	•	
Kingston	HX426C15FBK2/16(XMP)	16GB (2x 8GB)	DS	-	-	15-15-17-35	1.2	•		
Kingston	HX426C15FBK2/16(XMP)	16GB (2x 8GB)	DS	-	-	15-17-17-35	1.2	•		
Kingston	HX426C15FBK2/8(XMP)	8GB (2x 4GB)	SS	-	-	15-17-17-35	1.2	•		
Kingston	HX426C15FBK4/16(XMP)	16GB (4x 4GB)	SS	-	-	15-17-17-35	1.2	•	•	
Kingston	HX426C15FBK4/16(XMP)	16GB (4x 4GB)	SS	-	-	15-17-17-35	1.2	•	•	
Kingston	HX426C15FBK4/32	32GB (4x 8GB)	DS	-	-	2666-15-15-17-35	1.2	•	•	
Kingston	HX426C15FBK4/32(XMP)	32GB (4x 8GB)	DS	-	-	15-17-17-35	1.2	•	•	
Kingston	HX426C15SBK4/64(XMP)	64GB (4x 16GB)	DS	-	-	15-15-15-35	1.2	•	•	
Klevv	KM4C4GX4N-2666-15-15-15-35-0 (XMP)	4GB	SS	-	-	15-15-15-35	1.2	•	•	
Klevv	KM4C4GX4N-2666-15-15-15-35-1 (XMP)	4GB	SS	-	-	15-15-15-35	1.2	•	•	
Klevv	KM4C8GX4N-2666-15-15-15-35-0 (XMP)	8GB	DS	-	-	15-15-15-35	1.2	•	•	

Klevv	KM4C8GX4N-2666-15-15-15-35-1(XMP)	8GB	DS	-	-	15-15-15-35	1.2	•	•
Team	TCD48G2666C15ABK(XMP)	8GB	SS	Team	T4D10248HT-266	15-15-15-36	1.2	•	

DDR4 2400 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)		
								2 DIMM	4 DIMM	8 DIMM
ADATA	AD4U2400W4G17-B	4GB	SS	SK Hynix	H5AN4G8NAFRTFC	15-15-15-35	1.2	•	•	
ADATA	AD4U2400W8G17-B	8GB	DS	SK Hynix	H5AN4G8NAFRTFC	15-15-15-35	1.2	•	•	
ADATA	AX4U2400W4G16-QRZ(XMP)	16GB (4x 4GB)	SS	-	-	16-16-16-39	1.2	•	•	
ADATA	AX4U2400W8G16-QRZ(XMP)	16GB (2x 8GB)	DS	-	-	16-16-16-39	1.2	•	•	
Apacer	78.B1GMS.4050B	16GB (4x 4GB)	SS	Samsung	K4A4G085WD	17-17-17-39	-	•		
Apacer	78.C1GMS.4010B	32GB (4x 8GB)	DS	Samsung	K4A4G085WD	17-17-17-39	-	•	•	
AVEXIR	AVD4U24001604G-4CIR(XMP)	32GB (4x 8GB)	SS	-	-	16-16-16-36	1.2	•		
AVEXIR	AVD4U24001608G-4M	32GB (4x 8GB)	DS	SK Hynix	H5AN4G8NMFRTFC	16-16-16-39	1.2	•	•	
AVEXIR	AVD4U24001608G-4M(XMP)	32GB (8x 4GB)	DS	SK Hynix	H5AN4G8NMFRTFC	16-16-16-36	1.2	•	•	
CORSAIR	CMD16GX4M4A2400C14(Ver4.23)(XMP)	16GB (4x 4GB)	SS	-	-	14-16-16-31	1.2	•	•	
CORSAIR	CMD32GX4M4A2400C14(Ver4.23)(XMP)	32GB (4x 8GB)	DS	-	-	14-16-16-31	1.2	•	•	
CORSAIR	CMK16GX4M4A2400C14(Ver4.23)(XMP)	16GB (4x 4GB)	SS	-	-	14-16-16-31	1.2	•	•	
CORSAIR	CMK32GX4M4A2400C14(Ver4.23)(XMP)	32GB (4x 8GB)	DS	-	-	14-16-16-31	1.2	•	•	
CORSAIR	CMK64GX4M4A2400C14(Ver3.31)(XMP)	64GB (4x 16GB)	DS	-	-	14-16-16-31	1.2	•	•	
CORSAIR	CMK64GX4M4A2400C14(Ver4.31)(XMP)	64GB (4x 16GB)	DS	-	-	14-16-16-31	1.2	•	•	
Crucial	BLS4G4D240FSA.8FAD	4GB	SS	-	-	16-16-16-40	1.2	•	•	
crucial	BLS4G4D240FSA.8FAR(XMP)	4GB	SS	-	-	16-16-16-40	1.2	•	•	
Crucial	BLS8G4D240FSA.16FAD	32GB (4x 8GB)	DS	-	-	16-16-16-40	1.2	•	•	
Crucial	BLS8G4D240FSA.16FADG(XMP)	16GB (2x 8GB)	DS	-	-	16-16-16-39	1.2	•		
crucial	BLS8G4D240FSA.16FAR(XMP)	8GB	DS	-	-	16-16-16-40	1.2	•	•	
Crucial	CT16G4DFD824A.16FB1	16GB	DS	Micron	D9TBH	17-17-17-39	1.2	•	•	
Crucial	CT16G4RFS424A.18FA1	16GB	DS	Micron	D9SRK	15-15-15-35	1.2	•	•	
Crucial	CT8G4DFS824A.8FB1	8GB	SS	-	-	17-17-17-39	1.2	•	•	
Foxteonn	FEU8GN51208KC2400H	8GB	DS	Nanya	NT5AD512M8B1-FM	17-17-17-39	-	•	•	
G.SKILL	F4-2400C14Q2-128GRK(XMP)	128GB (8x 16GB)	DS	-	-	14-14-14-34	1.2	•	•	•
G.SKILL	F4-2400C14Q2-128GRK(XMP)	128GB (8x 16GB)	DS	-	-	14-14-14-34	1.2	•	•	•
G.SKILL	F4-2400C15Q-16GRR	16GB (4x 4GB)	SS	-	-	15-15-15-35	1.2	•	•	
G.SKILL	F4-2400C15Q2-128GRK(XMP)	128GB (8x 16GB)	DS	-	-	15-15-15-35	1.2	•	•	•
G.SKILL	F4-2400C15Q2-64GRK(XMP)	64GB (8x 8GB)	DS	-	-	15-15-15-35	1.2	•	•	•
G.SKILL	F4-2400C15Q-32GRR	32GB (4x 8GB)	DS	-	-	15-15-15-35	1.2	•	•	
GelL	GLR464GB2400C14QC(XMP)	64GB (4x 16GB)	DS	-	-	14-14-14-35	1.2	•	•	
GelL	GPR416GB2400C15QC(XMP)	16GB (4x 4GB)	SS	-	-	15-15-15-35	1.2	•	•	
GelL	GPR432GB2400C15QC(XMP)	32GB (4x 8GB)	DS	-	-	15-15-15-35	1.2	•	•	
Kingston	HX424C12PB2K4/16	16GB (4x 4GB)	SS	-	-	12-13-13-35	1.2	•	•	
Kingston	HX424C12SB2/4(XMP)	4GB	SS	-	-	12-14-14-35	1.35	•	•	
Kingston	HX424C12SB2/8(XMP)	8GB	DS	-	-	12-14-14-35	1.35	•	•	
Kingston	HX424C12SB2K2/16(XMP)	16GB (2x 8GB)	DS	-	-	12-14-14-35	1.35	•		
Kingston	HX424C12SB2K2/16(XMP)	16GB (2x 8GB)	DS	Nanya	NT5AD512M8B1-GN	12-14-14-35	1.35	•		
Kingston	HX424C12SB2K4/16(XMP)	16GB (4x 4GB)	SS	-	-	12-14-14-35	1.35	•	•	
Kingston	HX424C12SB2K4/32(XMP)	32GB (4x 8GB)	DS	-	-	12-14-14-35	1.35	•	•	
Kingston	HX424C12SB2K4/32(XMP)	32GB (4x 8GB)	DS	Nanya	NT5AD512M8B1-GN	12-14-14-35	1.35	•		
Kingston	HX424C15B2K4/32(XMP)	32GB (4x 8GB)	SS	-	-	15-15-15-35	1.2	•	•	
Kingston	HX424C15FB/4(XMP)	4GB	SS	-	-	15-15-5-35	1.2	•	•	
Kingston	HX424C15FB/8(XMP)	8GB	SS	-	-	15-15-15-35	1.2	•	•	
Kingston	HX424C15FB/8(XMP)	8GB	DS	-	-	15-15-15-35	1.2	•	•	
Kingston	HX424C15FBK2/16	16GB (2x 8GB)	DS	Nanya	NT5AD512M8B1-GN	15-15-15-35	1.2	•		

Kingston	HX424C15FBK2/16(XMP)	32GB (2x 16GB)	DS	-	-	15-15-15-35	1.2	•	
Kingston	HX424C15FBK2/8(XMP)	8GB (2x 4GB)	SS	-	-	15-15-5-35	1.2	•	
Kingston	HX424C15FBK4/16	16GB (4x4GB)	SS	-	-	15-15-15-35	1.2	•	•
Kingston	HX424C15FBK4/16(XMP)	16GB (4x 4GB)	SS	-	-	15-15-5-35	1.2	•	•
Kingston	HX424C15FBK4/32	32GB (4x 8GB)	DS	-	-	15-15-15-35	1.2	•	
Kingston	HX424C15FBK4/32	32GB (4x 8GB)	DS	Nanya	NT5AD512M8B1-GN	15-15-15-35	1.2	•	
Kingston	HX424C15FBK4/32(XMP)	32GB (4x 8GB)	DS	-	-	15-15-15-35	1.2	•	•
Kingston	HX424C15FBK4/64(XMP)	64GB (4x 16GB)	DS	-	-	15-15-15-35	1.2	•	•
Micron	MTA16ATF2G64AZ-2G3B1	16GB	DS	Micron	D9TBH	17-17-17-39	1.2	•	•
Micron	MTA8ATF1G64AZ-2G3B1	8GB	SS	-	-	17-17-17-39	1.2	•	•
Team	TED48G2400C16BK	8GB	DS	Team	T4D5128HT-24	16-16-16-39	1.2	•	•
V-color	TD4G8C17-UH	4GB	SS	V-color	DW3J0460HM	15-15-15-36	1.2	•	•
V-color	TD8G16C17-UH	8GB	DS	V-color	A4G8H-24CS	17-17-17-39	1.2	•	•

DDR4 2133 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)		
								2 DIMM	4 DIMM	8 DIMM
ADATA	AD4U2133W4G15-B	32GB (8x 4GB)	SS	SK Hynix	H5AN4G8NMFRFTFC	15-15-15-36	-	•	•	•
ADATA	AD4U2133W8G15	8GB	DS	SK Hynix	H5AN4G8NMFRFTFC	15-15-15-36	1.2	•	•	
Apacer	78.B1GM3.AF00B	16GB (4x 4GB)	SS	SK Hynix	H5AN4G8NMFRFTFC	15-15-15-36	1.2	•	•	
Apacer	78.C1GM3.AF10B	32GB (4x 8GB)	DS	SK Hynix	H5AN4G8NMFRFTFC	15-15-15-36	1.2	•	•	
Apacer	AHU08GGB13CGT7G	32GB (4x 8GB)	DS	Apacer	AM6F60080THMA1	15-15-15-36	1.5	•	•	
AVEXIR	AVD4U21331504G-4M	16GB (4x 4GB)	SS	AVEXIR	512X8DDR4	15-15-15-35	1.2	•	•	
CENTURY MICRO	CD8G-D4U2133	8GB	DS	SK Hynix	H5AN4G8NMFRFTFC	15-15-15-36	-	•	•	
CENTURY MICRO	CK8GX4-D4U2133	32GB (4x 8GB)	DS	SK hynix	H5AN4G8NMFRFTFC	15-15-15-35	1.2	•	•	
CORSAIR	CMD16GX4M4B2133C10(Ver3.20)	16GB (4x 4GB)	SS	-	-	10-12-12-31	1.35	•	•	
CORSAIR	CMK16GX4M4A2133C13(Ver4.23)(XMP)	16GB (4x 4GB)	SS	-	-	13-15-15-28	1.2	•	•	
CORSAIR	CMK32GX4M2A2133C13(Ver4.31)(XMP)	32GB (2x 16GB)	DS	-	-	13-15-15-28	1.2	•	•	
CORSAIR	CMK32GX4M2A2133C13(Ver4.31)(XMP)	32GB (2x 16GB)	DS	-	-	13-15-15-28	1.2	•	•	
CORSAIR	CMK32GX4M4A2133C13(Ver4.23)(XMP)	32GB (4x 8GB)	DS	-	-	13-15-15-28	1.2	•	•	
CORSAIR	CMK32GX4M4A2133C15(Ver3.20)	32GB (4x 8GB)	DS	-	-	15-15-15-36	1.2	•	•	
CORSAIR	CMK32GX4M4A2133C15(Ver5.29)	32GB (4x 8GB)	DS	-	-	15-15-15-36	1.2	•	•	
CORSAIR	CMK64GX4M8A2133C13(Ver3.20)(XMP)	64GB (8x 8GB)	DS	-	-	13-15-15-28	1.2	•	•	•
CORSAIR	CMK64GX4M8A2133C13(Ver4.23)(XMP)	64GB (8x 8GB)	DS	-	-	13-15-15-28	1.2	•	•	•
CORSAIR	CMV16GX4M1A2133C15	16GB	DS	-	-	15-15-15-36	1.2	•	•	
CORSAIR	CMV16GX4M1A2133C15	16GB	DS	-	-	15-15-15-36	-	•	•	
CORSAIR	CMV4GX4M1A2133C15	4GB	SS	-	-	15-15-15-36	1.2	•	•	
CORSAIR	CMV8GX4M1A2133C15	8GB	DS	-	-	15-15-15-36	1.2	•	•	
Crucial	CT16G4DFD8213.16FB1	16GB	DS	Micron	D9TBH	15-15-15-36	1.2	•	•	
Crucial	CT4G4DFS8213.8FA1	4GB	SS	Micron	D9RGQ	15-15-15-37	1.2	•	•	
Crucial	CT4G4DFS8213.8FA2	4GB	SS	Micron	D9RGQ	2133-15-15-15-36	1.2	•	•	
Crucial	CT8G4DFD8213.16FA1	8GB	DS	Micron	D9RGQ	15-15-15-37	1.2	•	•	
Crucial	CT8G4DFD8213.16FA2	8GB	DS	Micron	D9RGQ	2133-15-15-15-36	1.2	•	•	
Crucial	CT8G4DFD8213.C16FAR11	8GB	DS	Micron	C9BDH	15-15-15-36	1.2	•	•	
Crucial	CT8G4DFS8213.8FB1	8GB	SS	-	-	15-15-15-36	1.2	•	•	
Foxtconn	FEU4GN51208JC2133F	4GB	SS	Nanya	NT5AD512M8B1-FM	15-15-15-36	-	•	•	
G.SKILL	F4-2133C15Q-16GRR	16GB (4x 4GB)	SS	-	-	15-15-15-35	1.2	•	•	
G.SKILL	F4-2133C15Q2-64GRR	64GB (8x 8GB)	DS	-	-	15-15-15-35	1.2	•	•	•
G.SKILL	F4-2133C15Q-32GRR	32GB (4x 8GB)	DS	-	-	15-15-15-35	-	•	•	
GelL	GPR416GB2133C15QC	16GB (4x 4GB)	SS	-	-	2133-15-15-15-36	1.2	•	•	
Kingston	HX421C13SB/4(XMP)	4GB	SS	-	-	13-13-13-36	1.2	•	•	
Kingston	HX421C13SB/8(XMP)	8GB	DS	-	-	13-13-13-36	1.2	•	•	

Kingston	HX421C13SBK2/16(XMP)	16GB (2x 8GB)	DS	-	-	13-13-13-36	1.2	•	
Kingston	HX421C13SBK2/8(XMP)	8GB (2x 4GB)	SS	-	-	13-13-13-36	1.2	•	
Kingston	HX421C13SBK4/16(XMP)	16GB (4x 4GB)	SS	-	-	13-13-13-36	1.2	•	•
Kingston	HX421C13SBK4/32(XMP)	32GB (4x 8GB)	DS	-	-	13-13-13-36	1.2	•	•
Kingston	HX421C14FB/4(XMP)	4GB	SS	-	-	14-14-14-35	1.2	•	•
Kingston	HX421C14FB/8(XMP)	8GB	DS	-	-	14-14-14-35	1.2	•	•
Kingston	HX421C14FB2K4/32(XMP)	32GB (4x 8GB)	SS	-	-	14-14-14-35	1.2	•	•
Kingston	HX421C14FBK2/16(XMP)	16GB (2x 8GB)	DS	-	-	14-14-14-35	1.2	•	
Kingston	HX421C14FBK2/8(XMP)	8GB (2x 4GB)	SS	-	-	14-14-14-35	1.2	•	
Kingston	HX421C14FBK4/16(XMP)	16GB (4x 4GB)	SS	-	-	14-14-14-35	1.2	•	•
Kingston	HX421C14FBK4/32(XMP)	32GB (4x 8GB)	DS	-	-	14-14-14-35	1.2	•	•
Kingston	HX421C14FBK4/64	64GB (4x 16GB)	DS	-	-	15-15-15-35	1.2	•	•
Kingston	HX421C14FBK8/64(XMP)	64GB (8x 8GB)	DS	-	-	14-14-14-35	1.2	•	•
Kingston	KVR21N15D8/16	16GB	DS	Micron	D9TBH	15-15-15-36	1.2	•	•
Kingston	KVR21N15D8/8	8GB	DS	SK Hynix	H5AN4G8NAFR	15-15-15-36	1.2	•	•
Kingston	KVR21N15D8/8	8GB	DS	SK hynix	H5AN4G8NMFRTFC	15-15-15-37	1.2	•	•
Kingston	KVR21N15S8/4	4GB	SS	SK Hynix	H5AN4G8NAFR	15-15-15-36	1.2	•	•
Kingston	KVR21N15S8/4	4GB	SS	SK Hynix	H5AN4G8NAFRTFC	15-15-15-36	1.2	•	•
Kingston	KVR21N15S8/4	4GB	SS	SK Hynix	H5AN4G8NMFRTFC	15-15-15-37	1.2	•	•
Klevv	KM4C4GX4N-2133-15-15-15-35-0	4GB	SS	-	-	15-15-15-35	1.2	•	•
Klevv	KM4C4GX4N-2133-15-15-15-35-1	16GB (4x 4GB)	SS	-	-	15-15-15-35	1.2	•	•
Klevv	KM4C8GX4N-2133-15-15-15-35-0	8GB	DS	-	-	15-15-15-35	1.2	•	•
Klevv	KM4C8GX4N-2133-15-15-15-35-1	32GB (4x 8GB)	DS	-	-	15-15-15-35	1.2	•	•
Micron	MTA16ATF1G64AZ-2G1A2	8GB	DS	Micron	D9RG0	2133-15-15-15-36	-	•	•
Micron	MTA16ATF2G64AZ-2G1B1	16GB	DS	Micron	D9TBH	15-15-15-36	1.2	•	•
Micron	MTA8ATF1G64AZ-2G1B1	8GB	SS	-	-	15-15-15-36	1.2	•	•
Micron	MTA8ATF51264AZ-2G1A2	4GB	SS	Micron	D9RG0	2133-15-15-15-36	-	•	•
Samsung	M378A5143DB0-CPB	4GB	SS	Samsung	K4A4G085WD	15-15-15-36	1.2	•	•
SanMax	SMD-4G28HP-21P	4GB	SS	SK Hynix	H5AN4G8NMFRTFC	15-15-15-37	-	•	•
SanMax	SMD-8G28HP-21P	8GB	DS	SK Hynix	H5AN4G8NMFRTFC	15-15-15-37	-	•	•
Silicon Power	SP004GBLFU213N01	4GB	SS	Samsung	K4A4G085WD	15-15-15-37	-	•	•
Silicon Power	SP008GBLFU213N01	8GB	DS	Samsung	K4A4G085WD	15-15-15-37	-	•	•
SK Hynix	HMA41GU7AFR8N-TF	8GB	DS	SK Hynix	H5AN4G8NAFRTFC	15-15-15-36	-	•	•
SK Hynix	HMA451U7AFR8N-TF	4GB	SS	SK Hynix	H5AN4G8NAFR	15-15-15-36	-	•	•
SK Hynix	HMA82GU6MFR8N-TF	16GB	DS	SK Hynix	H5AN8G8NMFRTFC	15-15-15-36	-	•	•
SK Hynix	HMA82GU7MFR8N-TF	16GB	DS	SK Hynix	H5AN8G8NMFR	15-15-15-36	-	•	•
SUPER TALENT	FBU2B008GM	8GB	DS	Micron	D9RGQ	15-15-15-36	1.2	•	•
Team	T4D4C10S61163	8GB	DS	Samsung	K4A4G085WD	15-15-15-36	1.2	•	•
Team	TED44GM2133C15ABK	4GB	SS	SK Hynix	H5AN4G8NMFRTFC	15-15-15-36	1.2	•	•
Team	TED48GM2133C15BK	8GB	DS	SK hynix	H5AN4G8NMFRTFC	15-15-15-36	1.2	•	•
Transcend	TS1GLH64V1H	8GB	DS	Samsung	K4A4G085WE	15-15-15-36	-	•	•
Transcend	TS2GLH64V1B	16GB	DS	Samsung	K4A8G085WB	15-15-15-36	-	•	•
Transcend	TS512MLH64V1H	4GB	SS	Samsung	K4A4G085WE	15-15-15-36	-	•	•
UMAX	84G44G93MC-21OMCALGF15	4GB	SS	Micron	D9RGQ	15-15-15-36	-	•	•
UMAX	84G48G93MC-21OMCGNGF15	8GB	DS	Micron	D9RGQ	15-15-15-36	-	•	•

8 DIMM Slots

-When installing total memory of 4GB capacity or more, Windows 32-bit operation system may only recognize less than 3GB. Hence, a total installed memory of less than 3GB is recommended.

-It is recommended to install the memory modules from the slots for better overclocking capability.

-The default DIMM frequency depends on its Serial Presence Detect (SPD), which is the standard way of accessing information from a memory module. Under the default state, some memory modules for overclocking may operate at a lower frequency than the ve

-Memory module with memory frequency higher than 2133 MHz and its corresponding timing or the loaded XMP Profile is not the JEDEC memory standard. The stability and compatibility of these memory modules depend on the CPU's capabilities and other instal

-Always install DIMMs with the same CAS latency. For optimal compatibility, we recommend that you install memory modules of the same version or date code (D/C) from the same vendor. Check with the retailer to get the correct memory modules.