

M8E

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
ADATA	AD4U2133W4G15-B	4GB	SS	SK Hynix	H5AN4G8NMFRTFC	15-15-15-36	-	•	•
ADATA	AD4U2133W8G15	8GB	DS	SK Hynix	H5AN4G8NMFRTFC	15-15-15-36	1.2	•	•
Apacer	78.B1GM3.AF00B	4GB	SS	SK Hynix	H5AN4G8NMFRTFC	15-15-15-36	1.2	•	•
Apacer	78.C1GM3.AF10B	8GB	DS	SK Hynix	H5AN4G8NMFRTFC	15-15-15-36	1.2	•	•
AVEXIR	AVD4U21331504G-4M	4GB	SS	AVEXIR	512X8DDR4	15-15-15-35	1.2	•	•
Century Micro Inc	CD8G-D4U2133	8GB	DS	SK Hynix	H5AN4G8NMFRTFC	15-15-15-36	-	•	•
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	CMK32GX4M4A2133C13(Ver4.23)(XMP)	32GB (4x 8GB)	DS	-	-	13-15-15-28	1.2	•	•
CORSAIR	CMK64GX4M8A2133C13(Ver4.23)(XMP)	64GB (8x 8GB)	DS	-	-	13-15-15-28	1.2	•	•
CORSAIR	CMV4GX4M1A2133C15	4GB	SS	-	-	15-15-15-36	1.2	•	•
CORSAIR	CMV8GX4M1A2133C15	8GB	DS	-	-	15-15-15-36	1.2	•	•
CORSAIR	CMV16GX4M1A2133C15	16GB	DS	-	-	15-15-15-36	1.2	•	•
CORSAIR	CMK32GX4M2A2133C13	32GB (16GB*2)	DS	-	-	13-15-15-28	1.2	•	•
G.SKILL	F4-2133C15Q-16GRR	16GB (4x 4GB)	SS	-	-	15-15-15-35	1.2	•	•
G.SKILL	F4-2133C15Q-32GRR	32GB (4x 8GB)	DS	-	-	15-15-15-35	-	•	•
ISDT	IMA41GU6MFR8N-TF0	8GB	DS	ISDT	I5AN4G8NMFRR	15-15-15-35	1.2	•	•
ISDT	IMA451U6MFR8N-TF0	4GB	SS	ISDT	I5AN4G8NMFRR	15-15-15-35	1.2	•	•
Kingston	HX421C14FBK2/8	8GB (2x 4GB)	SS	-	-	14-14-14-35	1.2	•	
Kingston	HX421C14FBK2/16	16GB (4x 4GB)	SS	-	-	14-14-14-35	1.2		•
Kingston	HX421C14FBK2/16	16GB (2x 8GB)	DS	-	-	14-14-14-35	1.2	•	
Kingston	HX421C14FBK4/32	16GB (4x 4GB)	DS	-	-	14-14-14-35	1.2		•
Panram	PUD42133C134G4NJW	16GB (4x 4GB)	SS	-	-	13-13-13-35	1.2	•	•
Panram	PUD42133C138G4NJW	32GB (4x 8GB)	DS	-	-	13-13-13-35	1.2	•	•
Panram	PUD42133C154G2VS	8GB (2x 4GB)	SS	SK Hynix	H5AN4GBNMFRTFC	15-15-15-36	1.2	•	•
panram	PUD42133C154GNJK	4GB	SS	-	-	15-15-15-36	1.2	•	•
Panram	PUD42133C158G2VS	16GB (2x 8GB)	DS	SK Hynix	H5AN4GBNMFRTFC	15-15-15-36	1.2	•	•
panram	PUD42133C158GNJK	8GB	DS	-	-	15-15-15-36	1.2	•	•
Samsung	M378A1G43DB0-CPB	8GB	DS	Samsung	K4A4G085WD	15-15-15-36	-	•	•
Samsung	M378A5143DB0-CPB	4GB	SS	Samsung	K4A4G085WD	15-15-15-36	-	•	•
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	-	•	•
SK Hynix	HMA82GU6MFR8N-TF	16GB	DS	SK Hynix	H5AN8G8NMFRTFC	15-15-15-36	-	•	•
SUPER TALENT	FBU2B008GM	8GB	DS	Micron	D9RGQ	15-15-15-36	1.2	•	•
Team	TED44GM2133C15ABK	4GB	SS	SK Hynix	H5AN4G8NMFRTFC	15-15-15-36	1.2	•	•

UMAX	84G44G93MC-21OMCALGF15	4GB	SS	Micron	D9RGQ	15-15-15-36	-	•	•
UMAX	84G48G93MC-21OMCGNGF15	8GB	DS	Micron	D9RGQ	15-15-15-36	-	•	•

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
Apacer	78.B1GMS.4050B	4GB	SS	Samsung	K4A4G085WD	17-17-17-39	-		•
Apacer	78.C1GMS.4010B	8GB	DS	Samsung	K4A4G085WD	17-17-17-39	-		•
AVEXIR	AVD4U24001604G-4CIR(XMP)	4GB	SS	-	-	16-16-16-36	1.2	•	•
AVEXIR	AVD4U24001608G-4M	32GB (8x 4GB)	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	•	•
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	8GB	DS	-	-	16-16-16-40	1.2	•	•
crucial	BLS8G4D240FSA.16FAR(XMP)	8GB	DS	-	-	16-16-16-40	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	F4-2400C15Q-32GRR	32GB (4x 8GB)	DS	-	-	15-15-15-35	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	HX424C15FBK2/8	8GB (2x 4GB)	SS	-	-	15-15-15-35	1.2	•	
Kingston	HX424C15FBK4/16	16GB (4x 4GB)	SS	-	-	15-15-15-35	1.2		•
Kingston	HX424C15FBK2/16	16GB (2x 8GB)	DS	-	-	15-15-15-36	1.2	•	
Kingston	HX424C15FBK4/32	32GB (4x 8GB)	DS	-	-	15-15-15-37	1.2		•
Panram	PUD42400C154G4NJW	16GB (4x 4GB)	SS	-	-	15-15-15-35	1.2	•	•
Panram	PUD42400C158G4NJW	32GB (4x 8GB)	DS	-	-	15-15-15-35	1.2	•	•
Team	TED44GM2400C16BK	4GB	SS	Samsung	K4A4G085WD	16-16-16-39	1.2	•	•
Team	TED48GM2400C16BK	8GB	DS	Samsung	K4A4G085WD	16-16-16-39	1.2	•	•
V-color	TD4G8C17-UH	4GB	SS	V-color	DW3J0460HM	15-15-15-36	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
AVEXIR	AVD4U26661504G-4CIR(XMP)	4GB	SS	-	-	15-15-15-35	1.2	•	•
AVEXIR	AVD4U26661608G-4CIR(XMP)	32GB (8x 4GB)	DS	-	-	16-16-16-36	1.2	•	•
CORSAIR	CMD128GX4M8A2666C15(Ver4.31)(XMP)	128GB (8x 16GB)	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	CMK16GX4M4A2666C15(Ver4.23)(XMP)	16GB (4x 4GB)	SS	-	-	15-17-17-35	1.2	•	•
CORSAIR	CMK16GX4M4A2666C15(Ver5.29)	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	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	CMK16GX4M2A2666C16	16GB (8GB*2)	DS	-	-	16-18-18-35	1.2	•	•
CORSAIR	CMD8GX4M2A2666C15	8GB (4GB*2)	SS	-	-	15-17-17-35	1.2	•	•
CORSAIR	CMK32GX4M2A2666C16	32GB (16GB*2)	DS	-	-	16-18-18-35	1.2	•	•
CORSAIR	CMD16GX4M2A2666C15	16GB (8GB*2)	DS	-	-	15-17-17-35	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	•	•
G.SKILL	F4-2666C16Q2-64GRB(XMP)	64GB (8x 8GB)	DS	-	-	16-16-16-36	1.2	•	•
Kingston	HX426C15FBK2/8	8GB (2x 4GB)	SS	-	-	15-17-17-35	1.2	•	•
Kingston	HX426C15FBK4/16	16GB (4x 4GB)	SS	-	-	15-17-17-35	1.2	•	•
Kingston	HX426C15FBK2/16	16GB (2x 8GB)	DS	-	-	15-17-17-35	1.2	•	•
Kingston	HX426C15FBK4/32	32GB (4x 8GB)	DS	-	-	15-17-17-35	1.2	•	•
ISDT	IMA41GU6MFR8N-CF0(XMP)	8GB	DS	ISDT	I5AN4G8NMFR	15-15-15-35	1.2	•	•
ISDT	IMA451U6MFR8N-CF0(XMP)	4GB	SS	ISDT	I5AN4G8NMFR	15-15-15-35	1.2	•	•
Team	TCD44G2666C15ABK(XMP)	4GB	SS	Samsung	K4A4G085WD	15-15-15-35	1.2	•	•
Team	TCD48G2666C15ABK(XMP)	32GB(4x 8GB)	DS	Team	TCD48G2666C15ABK	15-15-15-35	1.2	•	•

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
ADATA	AX4U2800W4G17	32GB (8x 4GB)	DS	-	-	17-17-17-36	1.2	●	●
ADATA	AX4U2800W8G17	8GB	DS	-	-	15-15-15-36	1.2	●	●
Apacer	78.BAGM8.AF20B(XMP)	4GB	SS	-	-	17-17-17-36	-	●	●
Apacer	78.CAGM8.AF30B(XMP)	8GB	DS	-	-	17-17-17-36	-	●	●
AVEXIR	AVD4U28001504G-4CIR(XMP)	4GB	SS	-	-	15-15-15-35	1.35	●	●
AVEXIR	AVD4U28001608G-4CIR(XMP)	32GB (4x 8GB)	DS	-	-	16-16-16-36	1.2	●	●
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	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	●	●
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	HX428C14PBK4/16(XMP)	16GB (4x 4GB)	SS	-	-	14-15-15-40-2	1.35	●	●
Panram	PUD42800C164G4NJW(XMP)	16GB (4x 4GB)	SS	-	-	16-18-18-36	1.25	●	●

4 DIMM Slots

- **1 DIMM:** Supports one module inserted in any slot as Single-channel memory configuration
- **2 DIMM:** Supports one pair of modules inserted into either the **blue** slots or the **black** slots as one pair of Dual-channel memory configuration
- **4 DIMM:** Supports 4 modules inserted into both the **blue** and **black** slots as two pairs of Dual-channel memory configuration

-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 vendor-marked value.

-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 installed devices.

-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.

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
ADATA	AX4U3000W4G16-DRZ	8GB (2 x 4GB)	SS	-	-	16-16-16-36	1.35V	●	
ADATA	AX4U3000W4G16-QRZ	16GB (4 x 4GB)	SS	-	-	16-16-16-36	1.35V	●	●
AVEXIR	AVD4U30001504G-4CIR	16GB (4 x 4GB)	SS	-	-	15-15-15-35	1.35V	●	●
CORSAIR	CMD16GX4M4B3000C14	16GB (4 x 4GB)	SS	-	-	14-16-16-35	1.35V	●	●
CORSAIR	CMD16GX4M4B3000C15	16GB (4 x 4GB)	SS	-	-	15-17-17-35	1.35V	●	●
CORSAIR	CMK32GX4M4B3000C15	32GB (4 x 8GB)	DS	-	-	15-17-17-35	1.35V	●	●
CORSAIR	CMK8GX4M2B3000C15	8GB(4GB*2)	SS	-	-	15-17-17-35	1.35V	●	
CORSAIR	CMK64GX4M4B3000C15	64GB(16GB*4)	DS	-	-	15-17-17-35	1.35V		●
CORSAIR	CMK16GX4M2B3000C15	16GB(8GB*2)	DS	-	-	15-17-17-35	1.35V	●	
Kingston	HX430C15PB2k4/16	16GB (4 x 4GB)	SS	-	-	15-16-16-39	1.35V	●	●
Kingston	HX430C15PB2k2/16	8GB (2 x 4GB)	DS	-	-	15-16-16-39	1.35V	●	
G.SKILL	F4-3000C15Q-16GRR	16GB (4 x 4GB)	SS	-	-	15-15-15-35	1.35V	●	
G.SKILL	F4-3000C15Q-16GRK	16GB (4 x 4GB)	SS	-	-	15-15-15-35	1.35V	●	
G.SKILL	F4-3000C15D-16GRK	16GB (2 x 8GB)	DS	-	-	15-15-15-35	1.35V	●	
G.SKILL	F4-3000C15D-16GVK	16GB (2 x 8GB)	DS	-	-	15-15-15-35	1.35V	●	●
G.SKILL	F4-3000C15D-16GTZ	16GB (2 x 8GB)	DS	-	-	15-15-15-35	1.35V	●	●
G.SKILL	F4-3000C15Q-32GRK	32GB (4 x 8GB)	DS	-	-	15-15-15-35	1.35V	●	●
G.SKILL	F4-3000C15Q-32GVK	32GB (4 x 8GB)	DS	-	-	15-15-15-35	1.35V	●	●
G.SKILL	F4-3000C15Q-32GTZ	32GB (4 x 8GB)	DS	-	-	15-15-15-35	1.35V	●	●
G.SKILL	F4-3000C15D-32GRK	32GB (2 x 16GB)	DS	-	-	15-15-15-35	1.35V	●	
G.SKILL	F4-3000C15D-32GVK	32GB (2 x 16GB)	DS	-	-	15-15-15-35	1.35V	●	
G.SKILL	F4-3000C15D-32GTZ	32GB (2 x 16GB)	DS	-	-	15-15-15-35	1.35V	●	
G.SKILL	F4-3000C15Q-64GRK	64GB (4 x 16GB)	DS	-	-	15-15-15-35	1.35V	●	●
G.SKILL	F4-3000C15Q-64GVK	64GB (4 x 16GB)	DS	-	-	15-15-15-35	1.35V	●	●
G.SKILL	F4-3000C15Q-64GTZ	64GB (4 x 16GB)	DS	-	-	15-15-15-35	1.35V	●	●

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
AVEXIR	AVD4U32001604G-4CIR	16GB (4 x 4GB)	SS	-	-	16-18-18-36	1.35V	●	●
ADATA	AX4U3200W4G16-DRZ	8GB (2 x 4GB)	SS	-	-	16-16-16-36	1.35V	●	
ADATA	AX4U3200W4G16-QRZ	16GB (4 x 4GB)	SS	-	-	16-16-16-36	1.35V	●	●
CORSAIR	CMK16GX4M4B3200C15	16GB (4 x 4GB)	SS	-	-	15-17-17-35	1.35V	●	●
CORSAIR	CMD16GX4M4B3200C16	16GB (4 x 4GB)	SS	-	-	16-18-18-36	1.35V	●	●
CORSAIR	CMK32GX4M4B3200C16	32GB (4 x 8GB)	DS	-	-	16-18-18-36	1.35V	●	●
CORSAIR	CMD16GX4M4C3200C15	16GB(4GB*4)	SS	-	-	15-17-17-35	1.35V		●
CORSAIR	CMK8GX4M2B3200C16	8GB(4GB*2)	SS	-	-	16-18-18-36	1.35V	●	
CORSAIR	CMK16GX4M4C3200C16	16GB(4GB*4)	SS	-	-	16-18-18-36	1.35V		●

CORSAIR	CMK32GX4M4B3200C16	32GB (4 x 8GB)	DS	-	-	16-18-18-36	1.35V		•
Kingston	HX432C16PBK4/16	16GB (4 x 4GB)	SS	-	-	16-16-16-39	1.35V	•	•
G.SKILL	F4-3200C16Q-16GRKD	16GB (4 x 4GB)	SS	-	-	16-16-16-36	1.35V	•	•
G.SKILL	F4-3200C16D-16GRK	16GB (2 x 8GB)	DS	-	-	16-16-16-36	1.35V	•	
G.SKILL	F4-3200C16D-16GVK	16GB (2 x 8GB)	DS	-	-	16-16-16-36	1.35V	•	
G.SKILL	F4-3200C16D-16GTZ	16GB (2 x 8GB)	DS	-	-	16-16-16-36	1.35V	•	
G.SKILL	F4-3200C16Q-32GRK	32GB (4 x 8GB)	DS	-	-	16-16-16-36	1.35V	•	•
G.SKILL	F4-3200C16Q-32GVK	32GB (4 x 8GB)	DS	-	-	16-16-16-36	1.35V	•	•
G.SKILL	F4-3200C16Q-32GTZ	32GB (4 x 8GB)	DS	-	-	16-16-16-36	1.35V	•	•
G.SKILL	F4-3200C15D-32GRK	32GB (2 x 16GB)	DS	-	-	15-15-15-35	1.35V	•	
G.SKILL	F4-3200C15D-32GVK	32GB (2 x 16GB)	DS	-	-	15-15-15-35	1.35V	•	
G.SKILL	F4-3200C15D-32GTZ	32GB (2 x 16GB)	DS	-	-	15-15-15-35	1.35V	•	
G.SKILL	F4-3200C16D-32GRK	32GB (2 x 16GB)	DS	-	-	16-18-18-38	1.35V	•	
G.SKILL	F4-3200C16D-32GVK	32GB (2 x 16GB)	DS	-	-	16-18-18-38	1.35V	•	
G.SKILL	F4-3200C16D-32GTZ	32GB (2 x 16GB)	DS	-	-	16-18-18-38	1.35V	•	
G.SKILL	F4-3200C16Q-64GRK	64GB (4 x 64GB)	DS	-	-	16-18-18-38	1.35V	•	•
G.SKILL	F4-3200C16Q-64GVK	64GB (4 x 64GB)	DS	-	-	16-18-18-38	1.35V	•	•
G.SKILL	F4-3200C16Q-64GTZ	64GB (4 x 64GB)	DS	-	-	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)	
								2 DIMM	4 DIMM
ADATA	AX4U3300W4G16-DRZ	8GB (2 x 4GB)	SS	-	-	16-16-16-36	1.35V	•	
ADATA	AX4U3300W4G16-QRZ	16GB (4 x 4GB)	SS	-	-	16-16-16-36	1.35V	•	•
AVEXIR	AVD4U33001604G-4CIR	16GB (4 x 4GB)	SS	-	-	16-18-18-36	1.35V	•	•
CORSAIR	CMD16GX4M4B3300C16	16GB (4 x 4GB)	SS	-	-	16-18-18-36	1.35V	•	•
CORSAIR	CMK16GX4M4B3300C16	16GB (4 x 4GB)	SS	-	-	16-18-18-36	1.35V	•	•
G.SKILL	F4-3300C16Q-16GRKD	16GB (4 x 4GB)	SS	-	-	16-16-16-36	1.35V	•	•
G.SKILL	F4-3300C16Q-16GRK	16GB (4 x 4GB)	SS	-	-	16-16-16-36	1.35V	•	•

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
ADATA	AX4U3333W4G16-DRZ	8GB (2 x 4GB)	SS	-	-	16-16-16-36	1.35V	•	
ADATA	AX4U3333W4G16-QRZ	16GB (4 x 4GB)	SS	-	-	16-16-16-36	1.35V	•	•
AVEXIR	AVDUZ33331604G-2CIR/BZ1	8GB (2 x 4GB)	SS	-	-	16-18-18-38	1.35V	•	
AVEXIR	AVDUZ33331604G-4CIR/BZ1	16GB (4 x 4GB)	SS	-	-	16-18-18-38	1.35V	•	•
CORSAIR	CMD16GX4M4B3333C16	16GB (4 x 4GB)	SS	-	-	16-18-18-36	1.35V	•	•
CORSAIR	CMK64GX4M4B3333C16	16GB(4GB*4)	DS	-	-	16-18-18-36	1.35V		•

G.SKILL	F4-3333C16Q-16GRRD	16GB (4 x 4GB)	SS	-	-	16-18-18-38	1.35V	•	•
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DDR4 3400 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)	
								2 DIMM	4 DIMM
ADATA	AX4U3400W4G16-DWZ	8GB (2 x 4GB)	SS	-	-	16-17-17-36	1.35V	•	
ADATA	AX4U3400W4G16-QWZ	16GB (4 x 4GB)	SS	-	-	16-17-17-36	1.35V	•	•
CORSAIR	CMK16GX4M4B3400C16	16GB (4 x 4GB)	SS	-	-	16-18-18-40	1.35V	•	•
G.SKILL	F4-3400C16Q-16GRKD	16GB (4 x 4GB)	SS	-	-	16-16-16-36	1.35V	•	•
G.SKILL	F4-3400C16Q-16GRBD	16GB (4 x 4GB)	SS	-	-	16-18-18-38	1.35V	•	•
G.SKILL	F4-3400C16D-16GRK	16GB (2 x 8GB)	DS	-	-	16-18-18-38	1.35V	•	
G.SKILL	F4-3400C16D-16GVK	16GB (2 x 8GB)	DS	-	-	16-18-18-38	1.35V	•	
G.SKILL	F4-3400C16D-16GTZ	16GB (2 x 8GB)	DS	-	-	16-18-18-38	1.35V	•	
G.SKILL	F4-3400C16Q-32GRK	32GB (4 x 8GB)	DS	-	-	16-18-18-38	1.35V	•	•
G.SKILL	F4-3400C16Q-32GVK	32GB (4 x 8GB)	DS	-	-	16-18-18-38	1.35V	•	•
G.SKILL	F4-3400C16Q-32GTZ	32GB (4 x 8GB)	DS	-	-	16-18-18-38	1.35V	•	•
G.SKILL	F4-3400C16D-32GRK	32GB (2 x 16GB)	DS	-	-	16-18-18-38	1.35V	•	
G.SKILL	F4-3400C16D-32GVK	32GB (2 x 16GB)	DS	-	-	16-18-18-38	1.35V	•	
G.SKILL	F4-3400C16D-32GTZ	32GB (2 x 16GB)	DS	-	-	16-18-18-38	1.35V	•	
G.SKILL	F4-3400C16Q-64GRK	64GB (4 x 16GB)	DS	-	-	16-18-18-38	1.35V	•	•
G.SKILL	F4-3400C16Q-64GVK	64GB (4 x 16GB)	DS	-	-	16-18-18-38	1.35V	•	•
G.SKILL	F4-3400C16Q-64GTZ	64GB (4 x 16GB)	DS	-	-	16-18-18-38	1.35V	•	•

DDR4 3466 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)	
								2 DIMM	4 DIMM
ADATA	AX4U3466W4G16-DWZ	8GB (2 x 4GB)	SS	-	-	16-17-17-36	1.35V	•	
ADATA	AX4U3466W4G16-QWZ	16GB (4 x 4GB)	SS	-	-	16-17-17-36	1.35V	•	•
APACER	78.BAGN1.4020B	8GB (2 x 4GB)	SS	-	-	18-18-18-42	1.35V	•	
AVEXIR	AVD4UZ134661704G-2CIR/BZ1	8GB (2 x 4GB)	SS	-	-	17-18-18-38	1.35V	•	
AVEXIR	AVD4UZ134661704G-4CIR/BZ1	16GB (4 x 4GB)	SS	-	-	17-18-18-38	1.35V	•	•
CORSAIR	CMD16GX4M4B3466C18	16GB (4 x 4GB)	SS	-	-	18-19-19-38	1.35V	•	•
CORSAIR	CMK32GX4M4B3466C16	32GB (4 x 8GB)	SS	-	-	16-18-18-36	1.35V		•
CORSAIR	CMK16GX4M2B3466C16	16GB (8 x 2GB)	SS	-	-	16-18-18-36	1.35V	•	
G.SKILL	F4-3466C16Q-16GRRD	16GB (4 x 4GB)	SS	-	-	16-18-18-38	1.35V	•	•

DDR4 3500 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)	
								2 DIMM	4 DIMM
G.SKILL	F4-3500C17Q-16GRRD	16GB (4 x 4GB)	SS	-	-	17-18-18-36	1.35V	•	•

DDR4 3600 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)	
								2 DIMM	4 DIMM
ADATA	AX4U3600W4G17-DWZ	8GB (2 x 4GB)	SS	-	-	17-18-18-38	1.35V	•	
ADATA	AX4U3600W4G17-QWZ	16GB (4 x 4GB)	SS	-	-	17-18-18-38	1.35V	•	•
APACER	78.BAGN2.4020B	8GB (2 x 4GB)	SS	-	-	18-18-18-42	1.35V	•	
AVEXIR	AVD4UZ136001804G-2CIR/BZ1	8GB (2 x 4GB)	SS	-	-	18-20-20-40	1.35V	•	
AVEXIR	AVD4UZ136001804G-4CIR/BZ1	16GB (4 x 4GB)	SS	-	-	18-20-20-40	1.35V	•	•
CORSAIR	CMD16GX4M4B3600C18	16GB (4 x 4GB)	SS	-	-	18-19-19-38	1.35V	•	•
CORSAIR	CMK32GX4M4B3600C18	32GB (4 x 8GB)	SS	-	-	18-19-19-39	1.35V		•
CORSAIR	CMK8GX4M2B3600C18	8GB (2 x 4GB)	SS	-	-	18-19-19-39	1.35V	•	
G.SKILL	F4-3600C17-8GVK	8GB (2 x 4GB)	SS	-	-	17-18-18-38	1.35V	•	
G.SKILL	F4-3600C17-8GTZ	8GB (2 x 4GB)	SS	-	-	17-18-18-38	1.35V	•	
G.SKILL	F4-3600C17-16GVK	16GB (4 x 4GB)	SS	-	-	17-18-18-38	1.35V	•	•
G.SKILL	F4-3600C17-16CGTZ	16GB (4 x 4GB)	SS	-	-	17-18-18-38	1.35V	•	•
Team	TXD416G3600HC18ADC01	16GB (2 x 8GB)	SS	-	-	18-20-20-39	1.35V	•	
Team	TXWD416G3600HC18ADC01	16GB (2 x 8GB)	SS	-	-	18-20-20-39	1.35V	•	

DDR4 3700 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)	
								2 DIMM	4 DIMM
ADATA	AX4U3700W4G17-DWZ	8GB (2 x 4GB)	SS	-	-	17-18-18-38	1.35V	•	
ADATA	AX4U3700W4G17-QWZ	16GB (4 x 4GB)	SS	-	-	17-18-18-38	1.35V	•	•

DDR4 3733 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)	
								2 DIMM	4 DIMM
ADATA	AX4U3733W4G17-DWZ	8GB (2 x 4GB)	SS	-	-	17-18-18-38	1.35V	•	
AVEXIR	AVD4UZ137331804G-2CIR/BZ1	8GB (2 x 4GB)	SS	-	-	18-20-20-40	1.35V	•	
AVEXIR	AVD4UZ137331804G-4CIR/BZ1	16GB (4 x 4GB)	SS	-	-	18-20-20-40	1.35V	•	•
G.SKILL	F4-3733C17D-8GVK	8GB (2 x 4GB)	SS	-	-	17-19-19-39	1.35V	•	

G.SKILL	F4-3733C17D-8GTZ	8GB (2 x 4GB)	SS	-	-	17-19-19-39	1.35V	●	
G.SKILL	F4-3733C17Q-8GVK	16GB (4 x 4GB)	SS	-	-	17-19-19-39	1.35V	●	●
G.SKILL	F4-3733C17Q-8GTZ	16GB (4 x 4GB)	SS	-	-	17-19-19-39	1.35V	●	●

DDR4 3800 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)	
								2 DIMM	4 DIMM
AVEXIR	AVD4UZ138001804G-2CIR	8GB (2 x 4GB)	SS	-	-	18-20-20-40	1.35V	●	
AVEXIR	AVD4UZ138001804G-2BZ1	8GB (2 x 4GB)	SS	-	-	18-20-20-40	1.35V	●	
G.SKILL	F4-3800C18D-8GTZ	8GB (2 x 4GB)	SS	-	-	18-20-20-38	1.35V	●	

DDR4 3866 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)	
								2 DIMM	4 DIMM
G.SKILL	F4-3866C18D-8GTZ	8GB (2x 4GB)	SS	-	-	18-22-22-38	1.35V	●	
G.SKILL	F4-3866C18Q-16GTZ	16GB (4x 4GB)	SS	-	-	18-22-22-38	1.35V	●	●

4 DIMM Slots

- 1 DIMM: Supports one module inserted in any slot as Single-channel memory configuration. **Install the module into A2 slot for better compatibility.**
- 2 DIMM: Supports one pair of modules inserted into **the same color** slots as one pair of Dual-channel memory configuration. **Install the modules into A2/B2 slots for better compatibility.**
- 4 DIMM: Supports 4 modules inserted into both A1/A2 and B1/B2 slots as two pairs of Dual-channel memory configuration

- 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.
- 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 vendor-marked value
- 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.
- Highly recommended to use 4-DIMM/2-DIMM kit for full DIMM configuration. Full DIMM support is subject to the physical characteristics of individual CPUs or Memory.