

WS X299 SAGE

Release Date: 2018/07/02

DDR4 4200 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	CMK64GX4M8X4200C19	64GB (8x 8GB)	SS	SAMSUNG B	-	19-25-25-45	1.45V			●
G.SKILL	F4-4200C19Q2-64GTZSW	64GB(8GB*8)	SS			19-19-19-39	1.4V			●
G.SKILL	F4-4200C19Q2-64GTZKK	64GB(8GB*8)	SS			19-19-19-39	1.4V			●

DDR4 4133 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	CMK64GX4M8X4133C19	64GB (8x 8GB)	SS	SAMSUNG B	-	19-25-25-45	1.4V			●
G.SKILL	F4-4133C19Q2-64GTZSWE	64GB(8GB*8)	SS			19-19-19-39	1.4V			●
G.SKILL	F4-4133C19Q2-64GTZKKE	64GB(8GB*8)	SS			19-19-19-39	1.4V			●

DDR4 4000 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	CMK64GX4M8X4000C19	64GB (8x 8GB)	SS	SAMSUNG B	-	19-23-23-45	1.35V			●
G.SKILL	F4-4000C18Q2-64GTZSW	64GB(8GB*8)	SS			18-19-19-39	1.35V			●
G.SKILL	F4-4000C18Q2-64GTZKK	64GB(8GB*8)	SS			18-19-19-39	1.35V			●
G.SKILL	F4-4000C18Q2-64GTZR	64GB(8GB*8)	SS			18-19-19-39	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	8 DIMM
CORSAIR	CMK64GX4M8X3800C19	64GB (8x 8GB)	SS	SAMSUNG B	-	19-19-19-39	1.35V			●
CORSAIR	CMK128GX4M8X3800C19	128GB (8x 16GB)	DS	SAMSUNG B	-	19-19-19-39	1.35V			●
CORSAIR	CMR64GX4M8X3800C19	64GB (8x 8GB)	SS	SAMSUNG B	-	19-19-19-39	1.35V			●
CORSAIR	CMR128GX4M8X3800C19	128GB (8x 16GB)	DS	SAMSUNG B	-	19-19-19-39	1.35V			●
G.SKILL	F4-3800C18Q2-64GTZSW	64GB(8GB*8)	SS			18-18-18-38	1.35V			●
G.SKILL	F4-3800C18Q2-64GTZKK	64GB(8GB*8)	SS			18-18-18-38	1.35V			●
G.SKILL	F4-3800C18Q2-64GTZR	64GB(8GB*8)	SS			18-18-18-38	1.35V			●
G.SKILL	F4-3800C19Q2-128GTZSW	128GB(16GB*8)	DS			19-19-19-39	1.35V			●
G.SKILL	F4-3800C19Q2-128GTZKK	128GB(16GB*8)	DS			19-19-19-39	1.35V			●
G.SKILL	F4-3800C19Q2-128GTZR	128GB(16GB*8)	DS			19-19-19-39	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	8 DIMM
G.SKILL	F4-3733C17Q2-64GTZSW	64GB(8GB*8)	SS			17-17-17-37	1.35V			●

G.SKILL	F4-3733C17Q2-64GTZKK	64GB(8GB*8)	SS			17-17-17-37	1.35V	•
G.SKILL	F4-3733C17Q2-64GTZR	64GB(8GB*8)	SS			17-17-17-37	1.35V	•
G.SKILL	F4-3733C18Q2-128GTZSW	128GB(16GB*8)	DS			18-19-19-39	1.35V	•
G.SKILL	F4-3733C18Q2-128GTZKK	128GB(16GB*8)	DS			18-19-19-39	1.35V	•
G.SKILL	F4-3733C18Q2-128GTZR	128GB(16GB*8)	DS			18-19-19-39	1.35V	•

DDR4 3600 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)		
								2 DIMM	4 DIMM	8 DIMM
CORSAIR	CMK64GX4M8X3600C18	64GB (8x 8GB)	SS	SAMSUNG B	-	18-19-19-39	1.35V			•
CORSAIR	CMK128GX4M8X3600C18	128GB (8x 16GB)	DS	SAMSUNG B	-	18-19-19-39	1.35V			•
CORSAIR	CMR64GX4M8X3600C18	64GB (8x 8GB)	SS	SAMSUNG B	-	18-19-19-39	1.35V			•
CORSAIR	CMR128GX4M8X3600C18	128GB (8x 16GB)	DS	SAMSUNG B	-	18-19-19-39	1.35V			•
CORSAIR	CMK32GX4M4B3600C18	32GB (4x 8GB)	SS	SAMSUNG B	-	18-19-19-39	1.35v		•	
CORSAIR	CMK64GX4M4B3600C18	64GB (4x 16GB)	DS	SAMSUNG B	-	18-19-19-39	1.35v		•	
CORSAIR	CMR32GX4M4C3600C18	32GB (4x 8GB)	SS	SAMSUNG B	-	18-19-19-39	1.35v		•	
CORSAIR	CMR64GX4M4K3600C18	64GB (4x 16GB)	DS	SAMSUNG B	-	18-19-19-39	1.35v		•	
G.SKILL	F4-3600C16Q-32GTZSW	32GB(8GB*4)	SS			16-16-16-36	1.35V	•	•	
G.SKILL	F4-3600C16Q-32GTZKK	32GB(8GB*4)	SS			16-16-16-36	1.35V	•	•	
G.SKILL	F4-3600C16Q-32GTZR	32GB(8GB*4)	SS			16-16-16-36	1.35V	•	•	
G.SKILL	F4-3600C16Q2-64GTZSW	64GB(8GB*8)	SS			16-16-16-36	1.35V	•	•	•
G.SKILL	F4-3600C16Q2-64GTZKK	64GB(8GB*8)	SS			16-16-16-36	1.35V	•	•	•
G.SKILL	F4-3600C16Q2-64GTZR	64GB(8GB*8)	SS			16-16-16-36	1.35V	•	•	•
G.SKILL	F4-3600C17Q2-128GTZSW	128GB(16GB*8)	DS			17-19-19-39	1.35V	•	•	•
G.SKILL	F4-3600C17Q2-128GTZKK	128GB(16GB*8)	DS			17-19-19-39	1.35V	•	•	•
G.SKILL	F4-3600C17Q2-128GTZR	128GB(16GB*8)	DS			17-19-19-39	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	8 DIMM
CORSAIR	CMK32GX4M4B3466C16	32GB (4x 8GB)	SS	SAMSUNG B	-	16-18-18-36	1.35V			•
CORSAIR	CMK64GX4M4B3466C16	64GB (4x 16GB)	DS	SAMSUNG B	-	16-18-18-36	1.35V			•
CORSAIR	CMR32GX4M4C3466C16	32GB (4x 8GB)	SS	SAMSUNG B	-	16-18-18-36	1.35V			•
CORSAIR	CMR64GX4M4C3466C16	64GB (4x 16GB)	DS	SAMSUNG B	-	16-18-18-36	1.35V			•
G.SKILL	F4-3466C16Q-32GTZSW	32GB(8GB*4)	SS			16-18-18-38	1.35V	•	•	
G.SKILL	F4-3466C16Q-32GTZKK	32GB(8GB*4)	SS			16-18-18-38	1.35V	•	•	
G.SKILL	F4-3466C16Q-32GTZR	32GB(8GB*4)	SS			16-18-18-38	1.35V	•	•	
G.SKILL	F4-3466C16Q2-64GTZSW	64GB(8GB*8)	SS			16-18-18-38	1.35V	•	•	•
G.SKILL	F4-3466C16Q2-64GTZKK	64GB(8GB*8)	SS			16-18-18-38	1.35V	•	•	•
G.SKILL	F4-3466C16Q2-64GTZR	64GB(8GB*8)	SS			16-18-18-38	1.35V	•	•	•
G.SKILL	F4-3466C16Q-64GTZSW	64GB(16GB*4)	DS			16-18-18-38	1.35V	•	•	
G.SKILL	F4-3466C16Q-64GTZKK	64GB(16GB*4)	DS			16-18-18-38	1.35V	•	•	

G.SKILL	F4-3466C16Q-64GTZR	64GB(16GB*4)	DS		16-18-18-38	1.35V	•	•	
G.SKILL	F4-3466C16Q2-128GTZSW	128GB(16GB*8)	DS		16-18-18-38	1.35V	•	•	•
G.SKILL	F4-3466C16Q2-128GTZKK	128GB(16GB*8)	DS		16-18-18-38	1.35V	•	•	•
G.SKILL	F4-3466C16Q2-128GTZR	128GB(16GB*8)	DS		16-18-18-38	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	8 DIMM
G.SKILL	F4-3466C16Q-32GTZSW	32GB(8GB*4)	SS			16-18-18-38	1.35V	•	•	
G.SKILL	F4-3466C16Q-32GTZKK	32GB(8GB*4)	SS			16-18-18-38	1.35V	•	•	
G.SKILL	F4-3466C16Q-32GTZR	32GB(8GB*4)	SS			16-18-18-38	1.35V	•	•	
G.SKILL	F4-3466C16Q2-64GTZSW	64GB(8GB*8)	SS			16-18-18-38	1.35V	•	•	•
G.SKILL	F4-3466C16Q2-64GTZKK	64GB(8GB*8)	SS			16-18-18-38	1.35V	•	•	•
G.SKILL	F4-3466C16Q2-64GTZR	64GB(8GB*8)	SS			16-18-18-38	1.35V	•	•	•
G.SKILL	F4-3466C16Q-64GTZSW	64GB(16GB*4)	DS			16-18-18-38	1.35V	•	•	
G.SKILL	F4-3466C16Q-64GTZKK	64GB(16GB*4)	DS			16-18-18-38	1.35V	•	•	
G.SKILL	F4-3466C16Q-64GTZR	64GB(16GB*4)	DS			16-18-18-38	1.35V	•	•	
G.SKILL	F4-3466C16Q2-128GTZSW	128GB(16GB*8)	DS			16-18-18-38	1.35V	•	•	•
G.SKILL	F4-3466C16Q2-128GTZKK	128GB(16GB*8)	DS			16-18-18-38	1.35V	•	•	•
G.SKILL	F4-3466C16Q2-128GTZR	128GB(16GB*8)	DS			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)		
								2 DIMM	4 DIMM	8 DIMM
CORSAIR	CMK32GX4M4D3200C16	32GB (4x 8GB)	SS	SPECTEK Z11C	-	16-19-19-36	1.35V		•	
CORSAIR	CMK64GX4M4D3200C16	64GB (4x 16GB)	DS	SPECTEK Z11C	-	16-19-19-36	1.35V		•	
CORSAIR	CMR32GX4M4D3200C16	32GB (4x 8GB)	SS	SPECTEK Z11C	-	16-19-19-36	1.35V		•	
CORSAIR	CMR64GX4M4B3200C16	64GB (4x 16GB)	DS	SPECTEK Z11C	-	16-19-19-36	1.35V		•	
G.SKILL	F4-3200C14Q-32GTZSW	32GB(8GB*4)	SS			14-14-14-34	1.35V	•	•	
G.SKILL	F4-3200C14Q-32GTZKK	32GB(8GB*4)	SS			14-14-14-34	1.35V	•	•	
G.SKILL	F4-3200C14Q-32GTZR	32GB(8GB*4)	SS			14-14-14-34	1.35V	•	•	
G.SKILL	F4-3200C14Q2-64GTZSW	64GB(8GB*8)	SS			14-14-14-34	1.35V	•	•	•
G.SKILL	F4-3200C14Q2-64GTZKK	64GB(8GB*8)	SS			14-14-14-34	1.35V	•	•	•
G.SKILL	F4-3200C14Q2-64GTZR	64GB(8GB*8)	SS			14-14-14-34	1.35V	•	•	•
G.SKILL	F4-3200C14Q-64GTZSW	64GB(16GB*4)	DS			14-14-14-34	1.35V	•	•	
G.SKILL	F4-3200C14Q-64GTZKK	64GB(16GB*4)	DS			14-14-14-34	1.35V	•	•	
G.SKILL	F4-3200C14Q-64GTZR	64GB(16GB*4)	DS			14-14-14-34	1.35V	•	•	
G.SKILL	F4-3200C14Q2-128GTZSW	128GB(16GB*8)	DS			14-14-14-34	1.35V	•	•	•
G.SKILL	F4-3200C14Q2-128GTZKK	128GB(16GB*8)	DS			14-14-14-34	1.35V	•	•	•
G.SKILL	F4-3200C14Q2-128GTZR	128GB(16GB*8)	DS			14-14-14-34	1.35V	•	•	•
G.SKILL	F4-3200C15Q-32GTZSW	32GB(8GB*4)	SS			15-15-15-35	1.35V	•	•	
G.SKILL	F4-3200C15Q-32GTZKK	32GB(8GB*4)	SS			15-15-15-35	1.35V	•	•	

G.SKILL	F4-3200C15Q-32GTZR	32GB(8GB*4)	SS	15-15-15-35	1.35V	●	●	
G.SKILL	F4-3200C15Q2-64GTZSW	64GB(8GB*8)	SS	15-15-15-35	1.35V	●	●	●
G.SKILL	F4-3200C15Q2-64GTZKK	64GB(8GB*8)	SS	15-15-15-35	1.35V	●	●	●
G.SKILL	F4-3200C15Q2-64GTZR	64GB(8GB*8)	SS	15-15-15-35	1.35V	●	●	●
G.SKILL	F4-3200C15Q-64GTZSW	64GB(16GB*4)	DS	15-15-15-35	1.35V	●	●	
G.SKILL	F4-3200C15Q-64GTZKK	64GB(16GB*4)	DS	15-15-15-35	1.35V	●	●	
G.SKILL	F4-3200C15Q-64GTZR	64GB(16GB*4)	DS	15-15-15-35	1.35V	●	●	
G.SKILL	F4-3200C15Q2-128GTZSW	128GB(16GB*8)	DS	15-15-15-35	1.35V	●	●	●
G.SKILL	F4-3200C15Q2-128GTZKK	128GB(16GB*8)	DS	15-15-15-35	1.35V	●	●	●
G.SKILL	F4-3200C15Q2-128GTZR	128GB(16GB*8)	DS	15-15-15-35	1.35V	●	●	●

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
CORSAIR	CMK32GX4M4B3000C15	32GB (4x 8GB)	SS	SPECTEK Z11C	-	15-17-17-35	1.35V		●	
CORSAIR	CMK64GX4M4B3000C15	64GB (4x 16GB)	DS	SPECTEK Z11C	-	15-17-17-36	1.35V		●	
CORSAIR	CMR32GX4M4B3000C15	32GB (4x 8GB)	SS	SPECTEK Z11C	-	15-17-17-37	1.35V		●	
CORSAIR	CMR64GX4M4B3000C15	64GB (4x 16GB)	DS	SPECTEK Z11C	-	15-17-17-38	1.35V		●	
ADATA	AX4U3000316G16-BGZ(XMP)	16GB	DS	-	-	16-18-18-36	1.35	●	●	
ADATA	AX4U300038G16-BBG(XMP)	8GB	SS	-	-	16-18-18-36	1.35	●	●	
ADATA	AX4U300038G16-BRS(XMP)	8GB	SS	-	-	16-18-18-36	1.35	●	●	
ADATA	AX4U300038G16-DBZ(XMP)	8GB	SS	-	-	16-18-18-36	1.35	●	●	
ADATA	AX4U3000W4G16-BWZ(XMP)	4GB	SS	-	-	15-15-15-36	1.35	●	●	
ADATA	AX4U3000W8G16-BWZ(XMP)	8GB	DS	-	-	15-15-15-36	1.35	●	●	
Apacer	EK.16GAW.KFBK2(XMP)	8GB	DS	-	-	15-15-15-36	-	●	●	
CORSAIR	CMD16GX4M2B3000C15(Ver4.23)(XMP)	2x 8GB	DS	-	-	15-17-17-35	1.35	●		
CORSAIR	CMD16GX4M2B3000C15(Ver5.30)(XMP)	2x 8GB	SS	-	-	15-17-17-35	1.35	●		
CORSAIR	CMD16GX4M4B3000C15(Ver4.23)(XMP)	4x 4GB	SS	-	-	15-17-17-35	1.35	●	●	
CORSAIR	CMD16GX4M4B3000C15(Ver5.29)(XMP)	4x 4GB	DS	-	-	15-17-17-35	1.35	●		
CORSAIR	CMD32GX4M2B3000C15(Ver5.39)(XMP)	2x 16GB	DS	-	-	15-17-17-35	1.35	●		
CORSAIR	CMD32GX4M4B3000C15(Ver4.23)(XMP)	4x 8GB	DS	-	-	15-17-17-35	1.35	●	●	
CORSAIR	CMD32GX4M4C3000C15(Ver3.32)(XMP)	4x 8GB	DS	-	-	15-17-17-35	1.35	●	●	
CORSAIR	CMD32GX4M4C3000C15(Ver5.30)(XMP)	4x 8GB	SS	-	-	15-17-17-35	1.35	●		
CORSAIR	CMK16GX4M1B3000C15(Ver3.32)(XMP)	16GB	DS	-	-	15-17-17-35	1.35	●	●	
CORSAIR	CMK16GX4M2B3000C15(Ver3.32)(XMP)	2x 8GB	SS	-	-	15-17-17-35	1.35	●		
CORSAIR	CMK16GX4M2B3000C15(Ver4.23)(XMP)	2x 8GB	DS	-	-	15-17-17-35	1.35	●		
CORSAIR	CMK16GX4M2B3000C15(Ver5.30)(XMP)	2x 8GB	SS	-	-	15-17-17-35	1.35	●		
CORSAIR	CMK16GX4M2B3000C15(Ver5.30)(XMP)	2x 8GB	SS	-	-	15-17-17-35	1.35	●		
CORSAIR	CMK16GX4M2C3000C16(Ver3.31)(XMP)	2x 8GB	SS	-	-	16-18-18-36	1.35	●		
CORSAIR	CMK16GX4M2C3000C16(Ver3.31)(XMP)	2x 8GB	SS	-	-	16-18-18-36	1.35	●		
CORSAIR	CMK16GX4M4B3000C15(Ver5.29)(XMP)	4x 4GB	SS	-	-	15-17-17-35	1.35	●		
CORSAIR	CMK32GX4M2B3000C15(Ver4.31)(XMP)	2x 16GB	DS	-	-	15-15-15-36	1.35	●		

CORSAIR	CMK32GX4M4B3000C15(Ver4.24)(XMP)	4x 8GB	DS	-	-	15-17-17-35	1.35	•	•
CORSAIR	CMK64GX4M4B3000C15(Ver4.31)(XMP)	4x 16GB	DS	-	-	15-17-17-35	1.35	•	•
CORSAIR	CMK8GX4M2B3000C15(Ver4.23)(XMP)	2x 4GB	DS	-	-	15-17-17-35	1.35	•	
CORSAIR	CMR16GX4M2C3000C15(Ver4.31)(XMP)	2x 8GB	SS	-	-	15-17-17-35	1.35	•	
CORSAIR	CMR16GX4M2C3000C15(Ver5.30)(XMP)	2x 8GB	SS	-	-	15-17-17-35	1.35	•	
CORSAIR	CMR32GX4M2C3000C15(Ver4.31)(XMP)	2x 16GB	DS	-	-	15-17-17-35	1.35	•	
CORSAIR	CMR32GX4M4C3000C15(Ver3.32)(XMP)	4x 8GB	SS	-	-	15-17-17-35	1.35	•	
CORSAIR	CMR32GX4M4C3000C15(Ver4.31)(XMP)	4x 8GB	SS	-	-	15-17-17-35	1.35	•	
CORSAIR	CMR64GX4M4C3000C15(Ver3.32)(XMP)	4x 16GB	DS	-	-	15-17-17-35	1.35	•	•
CORSAIR	CMU16GX4M2C3000C15(Ver3.21)(XMP)	2x 8GB	DS	-	-	15-15-15-36	1.35	•	
crucial	BLE4G4D30AEEA.K8FE(XMP)	4GB	SS	-	-	15-16-16-35	1.35	•	•
crucial	BLE8G4D30AEEA.K16FE(XMP)	8GB	DS	-	-	15-16-16-35	1.35	•	•
crucial	BLT4G4D30AETA.K8FE(XMP)	4GB	SS	-	-	15-16-16-35	1.35	•	•
crucial	BLT8G4D30AETA.K16FE(XMP)	8GB	DS	-	-	15-16-16-35	1.35	•	•
Crucial	BLT8G4D30BET4K.C8FD(XMP)	8GB	SS	-	-	16-18-18-38	1.35	•	• •
G.SKILL	F4-3000C14Q2-128GVK(XMP)	8x 16GB	DS	-	-	15-15-15-36	1.35	•	
G.SKILL	F4-3000C15D-8GTZB(XMP)	2x 4GB	SS	-	-	15-16-16-35	1.35	•	
G.SKILL	F4-3000C15Q-16GRK(XMP)	4x 4GB	SS	-	-	15-15-15-35	1.35	•	
G.SKILL	F4-3000C15Q-16GRR(XMP)	4x 4GB	SS	-	-	15-15-15-35	1.35	•	•
G.SKILL	F4-3000C15Q-32GRK(XMP)	4x 8GB	DS	-	-	15-15-15-35	1.35	•	
G.SKILL	F4-3000C16D-16GTZR(XMP)	2x 8GB	SS	-	-	16-18-18-38	1.35	•	
G.SKILL	F4-3000C16Q2-128GVKB(XMP)	8x 16GB	DS	-	-	15-15-15-36	1.35	•	•
GelL	GLR416GB3000C15ADC(XMP)	8GB	SS	-	-	15-17-17-35	1.35	•	•
GelL	GLR416GB3000C16QC(XMP)	4x 4GB	SS	-	-	16-16-16-36	1.35	•	•
GelL	GWW416GB3000C15DC(XMP)	2x 8GB	DS	GelL	CG4E31ZG66BA09J	15-17-17-35	1.35	•	
Hyper X	HX430C15PB2K4/16(XMP)	4x 4GB	SS	-	-	15-16-16-39	1.35	•	•
Hyper X	HX430C15PB3/8	8GB	SS	-	-	15-17-17-36	1.2	•	•
Hyper X	HX430C15PB3K2/16	2x 8GB	SS	-	-	15-17-17-36	1.2	•	•
Hyper X	HX430C15PB3K2/16(XMP)	2x 8GB	SS	-	-	15-17-17-36	1.35	•	•
Hyper X	HX430C15PB3K2/32(XMP)	2x 16GB	DS	-	-	15-17-17-36	1.35	•	•
Hyper X	HX430C15PB3K2/32(XMP)	2x 16GB	DS	-	-	15-17-17-36	1.35	•	•
Hyper X	HX430C15PB3K2/8(XMP)	2x 4GB	SS	-	-	15-17-17-36	1.35	•	•
Hyper X	HX430C15PB3K4/16(XMP)	4x 4GB	SS	-	-	15-17-17-36	1.35	•	•
Hyper X	HX430C15PB3K4/32(XMP)	4x 8GB	SS	-	-	15-17-17-36	1.35	•	•
Hyper X	HX430C15PB3K4/64(XMP)	4x 16GB	DS	-	-	15-17-17-36	1.35	•	•
Hyper X	HX430C15PB3K4/64(XMP)	4x 16GB	DS	-	-	15-17-17-36	1.35	•	•
Hyper X	HX430C15PB3K8/128(XMP)	8x 16GB	DS	-	-	15-17-17-36	1.35	•	•
Hyper X	HX430C15PBK4/32(XMP)	4x 8GB	DS	-	-	15-16-16-39	1.35	•	
Hyper X	HX430C15SB2/4(XMP)	4GB	SS	-	-	15-15-15-36	1.35	•	•
Hyper X	HX430C15SB2K2/8(XMP)	2x 4GB	SS	-	-	15-15-15-36	1.35	•	•
Hyper X	HX430C15SB2K4/16(XMP)	4x 4GB	SS	-	-	15-15-15-36	1.35	•	•
Hyper X	HX430C15SB2K4/32(XMP)	4x 8GB	DS	-	-	15-17-17-39	1.35	•	•

Hyper X	HX430C15SBK2/16(XMP)	2x 8GB	DS	-	-	15-16-16-39	1.35	●	
Hyper X	HX430C16PBK4/64(XMP)	4x 16GB	DS	-	-	16-16-16-39	1.35	●	●
Klevv	IM44GU48A30-FGGHAZ(XMP)	4GB	SS	-	-	15-15-16-36	1.35	●	●
Klevv	IM44GU48A30-GIIHMC(XMP)	4GB	SS	-	-	16-18-18-36	1.35	●	●
Klevv	IM44GU48N30-FFFHAB(XMP)	4GB	SS	-	-	15-15-16-36	1.2	●	●
Klevv	IM48GU48A30-GIIHMC(XMP)	8GB	DS	-	-	15-15-15-35	1.35	●	●
Klevv	IM48GU88A30-FGGHMZ(XMP)	8GB	DS	-	-	15-15-16-36	1.35	●	●
Klevv	IM48GU88N30-FFFHMB(XMP)	8GB	SS	-	-	15-15-16-36	1.2	●	●
Klevv	IM4AGU88A30-FGGHMZ(XMP)	16GB	DS	-	-	15-15-16-36	1.35	●	●
Klevv	IM4AGU88N30-FFFHMB(XMP)	16GB	DS	-	-	15-15-16-36	1.2	●	●
NEO FORZA	NFMUD416E8-3000DB2A(XMP)	16GB	DS	-	-	15-17-17-35	-	●	
NEO FORZA	NFMUD416E8-3000DB3A(XMP)	16GB	DS	-	-	15-17-17-35	-	●	
NEO FORZA	NFMUD416E8-3000DC2A(XMP)	16GB	DS	-	-	15-17-17-35	-	●	
NEO FORZA	NFMUD416E8-3000DC3A(XMP)	16GB	DS	-	-	15-17-17-35	-	●	
NEO FORZA	NFMUD416E8-3000DD2A(XMP)	16GB	DS	-	-	15-17-17-35	-	●	
NEO FORZA	NFMUD416E8-3000DD3A(XMP)	16GB	DS	-	-	15-17-17-35	-	●	
NEO FORZA	NFMUD416E8-3000DH2A(XMP)	16GB	DS	-	-	15-17-17-35	-	●	
NEO FORZA	NFMUD416E8-3000DH2A(XMP)	16GB	DS	-	-	15-17-17-35	-	●	
NEO FORZA	NFMUD480E8-3000DB2A(XMP)	8GB	SS	-	-	15-17-17-35	-	●	●
NEO FORZA	NFMUD480E8-3000DB3A(XMP)	8GB	SS	-	-	15-17-17-35	-	●	●
NEO FORZA	NFMUD480E8-3000DC2A(XMP)	8GB	SS	-	-	15-17-17-35	-	●	●
NEO FORZA	NFMUD480E8-3000DC3A(XMP)	8GB	SS	-	-	15-17-17-35	-	●	●
NEO FORZA	NFMUD480E8-3000DD2A(XMP)	8GB	SS	-	-	15-17-17-35	-	●	●
NEO FORZA	NFMUD480E8-3000DD3A(XMP)	8GB	SS	-	-	15-17-17-35	-	●	●
NEO FORZA	NFMUD480E8-3000DH2A(XMP)	8GB	SS	-	-	15-17-17-35	-	●	●
NEO FORZA	NFMUD480E8-3000DH2A(XMP)	8GB	SS	-	-	15-17-17-35	-	●	●
NEO FORZA	NMUD416E82-3000DB30(XMP)	16GB	DS	-	-	15-17-17-35	-	●	●
NEO FORZA	NMUD480E82-3000DB30(XMP)	8GB	SS	-	-	15-17-17-35	-	●	●
PATRIOT	PV416G300C6K(XMP)	2x 8GB	SS	-	-	16-16-16-36	-	●	
PATRIOT	PV416G300C6K(XMP)	4x 8GB	SS	-	-	16-16-16-36	1.35	●	●
PATRIOT	PV432G300C6QK-PE000378(XMP)	4x 8GB	DS	-	-	16-16-16-36	1.35	●	●
PATRIOT	PV48G300C6K(XMP)	4x 4GB	SS	-	-	16-16-16-36	1.35	●	
PATRIOT	PVE48G300C6KRD(XMP)	2x 4GB	SS	-	-	16-16-16-36	-	●	
Team	TCD44G3000C16CBK(XMP)	4GB	SS	Team	T4D5128HT-30	16-18-18-38	1.35	●	●
Team	TF3D48G3000HC16CBK(XMP)	8GB	SS	-	-	16-18-18-38	1.35	●	
Team	TFRD48G3000C16CBK(XMP)	8GB	DS	-	K4A4G085WSBCPB	16-18-18-38	1.35	●	
Team	TFWD416G3000C16CBK(XMP)	16GB	DS	Team	T4D10248HT-30	16-18-18-38	1.35	●	●
V-color	TL48G30S816RGB(XMP)	8GB	SS	-	-	16-18-18-38	1.35	●	●

DDR4 2933 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	CMK128GX4M8Z2933C16(Ver4.31)	8x 16GB	DS	-	-	16-18-18-36	1.35	•	•	•
CORSAIR	CMK128GX4M8Z2933C16(Ver4.31)(XMP)	8x 16GB	DS	-	-	16-18-18-36	1.35	•	•	•
G.SKILL	F4-2933C16D-16GFX(XMP)	2x 8GB	SS	-	-	16-16-16-36	1.35	•		
G.SKILL	F4-2933C16Q-32GFX(XMP)	4x 8GB	SS	-	-	16-16-16-36	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	-	-	15-15-15-36	1.2	•	•	
ADATA	AX4U2800316G16-SBF(XMP)	16GB	DS	-	-	15-15-15-36	1.2	•	•	
ADATA	AX4U280038G17-SBF(XMP)	8GB	SS	-	-	15-15-15-36	1.2	•	•	
ADATA	AX4U2800W4G17-BRZ(XMP)	4GB	SS	-	-	15-15-15-36	1.2	•	•	
ADATA	AX4U2800W8G15(XMP)	8GB	DS	-	-	15-15-15-36	1.25	•	•	
ADATA	AX4U2800W8G17-BRD(XMP)	8GB	DS	-	-	17-17-17-36	1.2	•	•	
ADATA	AX4U2800W8G17-BRZ(XMP)	8GB	DS	-	-	15-15-15-36	1.2	•	•	
Apacer	78.BAGM8.AF20B(XMP)	4x 4GB	SS	-	-	17-17-17-36	-	•	•	
Apacer	78.CAGM8.AF30B(XMP)	4x 8GB	DS	-	-	17-17-17-36	-	•	•	
CORSAIR	CMD16GX4M4A2800C16(Ver4.23)(XMP)	4x 4GB	SS	-	-	16-18-18-36	1.2	•	•	
CORSAIR	CMD16GX4M4A2800C16(Ver5.29)(XMP)	4x 4GB	SS	-	-	16-18-18-36	1.2	•	•	
CORSAIR	CMD32GX4M4A2800C15(Ver5.29)(XMP)	4x 8GB	DS	-	-	15-17-17-36	1.2	•	•	
CORSAIR	CMD32GX4M4A2800C16(Ver5.29)(XMP)	4x 8GB	DS	-	-	18-18-18-36	1.2	•	•	
CORSAIR	CMK16GX4M4A2800C16(Ver4.23)(XMP)	4x 4GB	SS	-	-	16-16-18-36	1.2	•	•	
CORSAIR	CMK16GX4M4A2800C16(Ver5.29)(XMP)	4x 4GB	SS	-	-	16-18-18-36	1.2	•	•	
CORSAIR	CMK32GX4M4A2800C16(Ver5.29)(XMP)	4x 8GB	DS	-	-	16-18-18-36	1.2	•	•	
CORSAIR	CMK64GX4M8B2800C14(Ver4.24)(XMP)	8x 8GB	DS	-	-	15-15-15-36	1.35	•	•	
G.SKILL	F4-2800C14Q-64GVK(XMP)	4x 16GB	DS	-	-	15-15-15-36	1.35	•		
G.SKILL	F4-2800C15Q2-128GRKD(XMP)	8x 16GB	DS	-	-	15-15-15-36	1.35	•	•	
G.SKILL	F4-2800C15Q2-64GRK(XMP)	8x 8GB	DS	-	-	15-16-16-35	1.25	•	•	•
G.SKILL	F4-2800C15Q2-64GRK(XMP)	8x 8GB	DS	-	-	15-15-15-35	1.25	•	•	•
G.SKILL	F4-2800C16Q-16GRK(XMP)	4x 4GB	SS	-	-	16-16-16-36	1.2	•	•	
G.SKILL	F4-2800C16Q-16GRR(XMP)	4x 4GB	SS	-	-	16-16-16-36	1.2	•		
G.SKILL	F4-2800C16Q-32GRK(XMP)	4x 8GB	DS	-	-	16-16-16-36	1.2	•	•	
G.SKILL	F4-2800C16Q-32GRR(XMP)	4x 8GB	DS	-	-	16-16-16-36	1.2	•	•	
GeIL	GPR416GB2800C16QC(XMP)	4x 4GB	SS	-	-	16-16-16-36	1.2	•	•	
GeIL	GPR432GB2800C16QC(XMP)	4x 8GB	DS	-	-	16-16-16-36	1.2	•	•	
Hyper X	HX428C14PBK8/64(XMP)	8x 8GB	DS	-	-	14-15-15-39	1.35	•	•	
Hyper X	HX428C14SB2/4(XMP)	4GB	SS	-	-	15-15-15-36	1.35	•	•	
Hyper X	HX428C14SB2/8(XMP)	8GB	DS	-	-	15-15-15-36	1.35	•	•	
Hyper X	HX428C14SB2K2/16(XMP)	2x 8GB	DS	-	-	15-15-15-36	1.35	•		
Hyper X	HX428C14SB2K2/8(XMP)	2x 4GB	SS	-	-	15-15-15-36	1.35	•		
Hyper X	HX428C14SB2K4/16(XMP)	4x 4GB	SS	-	-	15-15-15-36	1.35	•	•	
Hyper X	HX428C14SB2K4/32(XMP)	4x 8GB	DS	-	-	15-15-15-36	1.35	•	•	

KINGMAX	GLMG42F-18KIIA-CJBR4(XMP)	8GB	SS	-	-	17-17-17-39	1.2	•	•
Klevv	IMA451U6MFR8N-DG0(Ver1.05)(XMP)	4GB	SS	-	-	16-16-16-36	1.2	•	•
NEO FORZA	NFMUD416E8-2800EB2A(XMP)	16GB	DS	-	-	17-17-17-36	-	•	•
NEO FORZA	NFMUD416E8-2800EB3A(XMP)	16GB	DS	-	-	17-17-17-36	-	•	•
NEO FORZA	NFMUD416E8-2800EC2A(XMP)	16GB	DS	-	-	17-17-17-36	-	•	•
NEO FORZA	NFMUD416E8-2800EC3A(XMP)	16GB	DS	-	-	17-17-17-36	-	•	•
NEO FORZA	NFMUD416E8-2800ED2A(XMP)	16GB	DS	-	-	17-17-17-36	-	•	•
NEO FORZA	NFMUD416E8-2800EH2A(XMP)	16GB	DS	-	-	17-17-17-36	-	•	•
NEO FORZA	NFMUD416E8-2800EH2A(XMP)	16GB	DS	-	-	17-17-17-36	-	•	•
NEO FORZA	NFMUD480E8-2800DB2A(XMP)	8GB	SS	-	-	17-17-17-36	-	•	•
NEO FORZA	NFMUD480E8-2800DB3A(XMP)	8GB	SS	-	-	17-17-17-36	-	•	•
NEO FORZA	NFMUD480E8-2800DC2A(XMP)	8GB	SS	-	-	17-17-17-36	-	•	•
NEO FORZA	NFMUD480E8-2800DC3A(XMP)	8GB	SS	-	-	17-17-17-36	-	•	•
NEO FORZA	NFMUD480E8-2800DD2A(XMP)	8GB	SS	-	-	17-17-17-36	-	•	•
NEO FORZA	NFMUD480E8-2800DD3A(XMP)	8GB	SS	-	-	17-17-17-36	-	•	•
NEO FORZA	NFMUD480E8-2800DH2A(XMP)	8GB	SS	-	-	17-17-17-36	-	•	•
NEO FORZA	NFMUD480E8-2800DH2A(XMP)	8GB	SS	-	-	17-17-17-36	-	•	•
Team	TCD44G2800C16CBK(XMP)	4GB	SS	Team	T4D5128HT-30	16-18-18-38	1.2	•	•
Team	TFRD48G2800C16CBK(XMP)	8GB	DS	-	K4A4G085WSBCPB	16-18-18-38	1.2	•	•
Team	TFWD416G2800C16CBK(XMP)	16GB	DS	Team	T4D10248HT-30	16-18-18-38	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
CORSAIR	CMK32GX4M4A2666C16	32GB (4x 8GB)	SS	SPECTEK Z11C	-	16-18-18-36	1.2V		•	
CORSAIR	CMK64GX4M4A2666C16	64GB (4x 16GB)	DS	SPECTEK Z11C	-	16-18-18-36	1.2V		•	
CORSAIR	CMR32GX4M4A2666C16	32GB (4x 8GB)	SS	SPECTEK Z11C	-	16-18-18-36	1.2V		•	
CORSAIR	CMR64GX4M4A2666C16	64GB (4x 16GB)	DS	SPECTEK Z11C	-	16-18-18-36	1.2V		•	
ADATA	AD4U2666316G19-B	16GB	DS	-	-	19-19-19-43	1.2	•	•	
ADATA	AD4U266638G19-B	8GB	SS	-	-	19-19-19-43	1.2	•	•	
ADATA	AX4U266638G16-BRS(XMP)	8GB	SS	-	-	16-16-16-39	1.2	•	•	
ADATA	AX4U266638G16-DRZ(XMP)	2x 8GB	SS	-	-	16-16-16-39	1.2	•		
ADATA	AX4U2666W4G16-BRZ(XMP)	4GB	SS	-	-	16-16-16-39	1.2	•	•	
ADATA	AX4U2666W8G16-QRZ(XMP)	4x 8GB	DS	-	-	16-16-16-39	1.2	•	•	
CORSAIR	CMD128GX4M8A2666C15(Ver4.31)(XMP)	8x 16GB	DS	-	-	15-15-15-36	1.2	•	•	•
CORSAIR	CMD16GX4M2A2666C15(Ver4.23)(XMP)	2x 8GB	DS	-	-	15-17-17-35	1.2	•		
CORSAIR	CMD16GX4M4A2666C15(Ver4.23)(XMP)	4x 4GB	SS	-	-	15-17-17-35	1.2	•	•	
CORSAIR	CMD16GX4M4A2666C16(Ver4.23)(XMP)	4x 4GB	SS	-	-	16-18-18-35	1.2	•	•	
CORSAIR	CMD16GX4M4A2666C16(Ver5.29)(XMP)	4x 4GB	SS	-	-	16-18-18-35	1.2	•	•	
CORSAIR	CMD32GX4M4A2666C15(Ver4.23)(XMP)	4x 8GB	DS	-	-	15-17-17-35	1.2	•	•	
CORSAIR	CMD32GX4M4A2666C15(Ver5.29)(XMP)	4x 8GB	DS	-	-	15-17-17-35	1.2	•	•	
CORSAIR	CMD32GX4M4A2666C16(Ver4.23)(XMP)	4x 8GB	DS	-	-	16-18-18-35	1.2	•	•	

CORSAIR	CMD64GX4M8A2666C15(Ver4.23)(XMP)	8x 8GB	DS	-	-	15-17-17-35	1.2	•	•	
CORSAIR	CMD64GX4M8A2666C15(Ver4.24)(XMP)	8x 8GB	DS	-	-	15-15-15-36	1.2	•	•	•
CORSAIR	CMD8GX4M2A2666C15(Ver4.23)(XMP)	2x 4GB	DS	-	-	15-17-17-35	1.2	•		
CORSAIR	CMD8GX4M2A2666C15(Ver4.23)(XMP)	2x 4GB	DS	-	-	15-17-17-35	1.2	•		
CORSAIR	CMK128GX4M8A2666C16(Ver3.32)(XMP)	8x 16GB	DS	-	-	16-18-18-35	1.2	•	•	•
CORSAIR	CMK128GX4M8A2666C16(Ver3.32)(XMP)	8x 16GB	DS	-	-	16-18-18-35	1.2	•	•	•
CORSAIR	CMK128GX4M8A2666C16(Ver5.39)(XMP)	8x 16GB	DS	-	-	16-18-18-35	1.2	•	•	•
CORSAIR	CMK16GX4M2A2666C16(Ver5.29)(XMP)	2x 8GB	DS	-	-	16-18-18-35	1.2	•		
CORSAIR	CMK16GX4M2A2666C16(Ver5.30)(XMP)	2x 8GB	SS	-	-	16-18-18-35	1.2	•		
CORSAIR	CMK16GX4M4A2666C15(Ver4.23)(XMP)	4x 4GB	SS	-	-	15-17-17-35	1.2	•	•	
CORSAIR	CMK16GX4M4A2666C16(Ver3.21)(XMP)	4x 4GB	SS	-	-	16-18-18-35	1.2	•	•	
CORSAIR	CMK16GX4M4A2666C16(Ver4.23)(XMP)	4x 4GB	SS	-	-	16-18-18-35	1.2	•	•	
CORSAIR	CMK16GX4M4A2666C16(Ver5.29)(XMP)	4x 4GB	SS	-	-	16-18-18-35	1.2	•	•	
CORSAIR	CMK32GX4M2A2666C16(Ver4.31)(XMP)	2x 16GB	DS	-	-	16-18-18-35	1.2	•		
CORSAIR	CMK32GX4M2A2666C16(Ver5.31)(XMP)	2x 16GB	DS	-	-	15-15-15-36	1.2	•		
CORSAIR	CMK32GX4M4A2666C15(Ver4.23)(XMP)	4x 8GB	DS	-	-	15-17-17-35	1.2	•	•	
CORSAIR	CMK32GX4M4A2666C15(Ver5.29)(XMP)	4x 8GB	DS	-	-	15-17-17-35	1.2	•		
CORSAIR	CMK32GX4M4A2666C16(Ver3.20)(XMP)	4x 8GB	DS	-	-	15-15-15-36	1.2	•	•	
CORSAIR	CMK32GX4M4A2666C16(Ver3.21)(XMP)	4x 8GB	DS	-	-	16-18-18-35	1.2	•	•	
CORSAIR	CMK32GX4M4A2666C16(Ver5.29)(XMP)	4x 8GB	DS	-	-	16-16-18-35	1.2	•		
CORSAIR	CMK32GX4M4A2666C16(Ver5.30)(XMP)	4x 8GB	SS	-	-	16-18-18-35	1.2	•	•	
CORSAIR	CMK32GX4M4A2666C16(Ver5.30)(XMP)	4x 8GB	SS	-	-	16-18-18-35	1.2	•	•	
CORSAIR	CMK32GX4M4A2666C16(Ver5.30)(XMP)	4x 8GB	SS	-	-	16-18-18-35	1.2	•	•	
CORSAIR	CMK32GX4M4A2666C16(Ver4.23)(XMP)	4x 8GB	DS	-	-	16-18-18-35	1.2	•	•	
CORSAIR	CMK64GX4M4A2666C16(Ver3.31)(XMP)	4x 16GB	DS	-	-	16-18-18-35	1.2	•		
CORSAIR	CMK64GX4M4A2666C16(Ver4.31)(XMP)	4x 16GB	DS	-	-	15-15-15-36	1.2	•	•	
CORSAIR	CMK8GX2M2D2666C16(Ver3.21)(XMP)	2x 4GB	SS	-	-	16-18-18-35	1.2	•		
CORSAIR	CMK8GX4M2A2666C16(Ver3.22)(XMP)	2x 4GB	SS	-	-	16-18-18-35	1.2	•		
CORSAIR	CMR16GX4M2A2666C16(Ver5.30)(XMP)	2x 8GB	SS	-	-	16-18-18-35	1.2	•		
CORSAIR	CMR64GX4M8A2666C16(Ver5.30)(XMP)	8x 8GB	SS	-	-	16-18-18-35	1.2	•	•	•
CORSAIR	CMU32GX4M4A2666C16(Ver5.30)(XMP)	4x 8GB	SS	-	-	16-18-18-35	1.2	•	•	
CORSAIR	CMV16GX4M1A2666C18	16GB	DS	-	-	18-18-18-43	1.2	•	•	
CORSAIR	CMV4GX4M1A2666C18	4GB	SS	-	-	18-18-18-43	1.2	•	•	
CORSAIR	CMV8GX4M1A2666C18	8GB	SS	-	-	18-18-18-43	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	BLS16G4D26BFSC.16FBD(XMP)	16GB	DS	-	-	16-18-18-38	1.2	•	•	
crucial	BLS4G4D26BFSC.8FBR2(XMP)	4GB	SS	-	-	16-18-18-38	1.2	•	•	
crucial	BLS8G4D26BFSC.16FBR2(XMP)	8GB	DS	-	-	16-18-18-38	1.2	•	•	
crucial	BLS8G4D26BFSC.8FBR(XMP)	8GB	SS	-	-	16-18-18-38	1.2	•	•	
crucial	BLT4G4D26AFTA.8FADG(XMP)	4GB	SS	-	-	16-16-16-39	1.2	•	•	
crucial	BLT8G4D26AFTA.16FAD(XMP)	4x 8GB	DS	-	-	16-17-17-36	1.2	•	•	

crucial	BLT8G4D26AFTA.16FAD(XMP)	8GB	DS	-	-	16-16-16-39	1.2	●	●
G.SKILL	F4-2666C15Q-16GRR(XMP)	4x 4GB	SS	-	-	15-15-15-35	1.2	●	●
G.SKILL	F4-2666C15Q-32GRR(XMP)	4x 8GB	DS	-	-	15-15-15-35	1.2	●	●
G.SKILL	F4-2666C16Q2-128GVK(XMP)	8x 16GB	DS	-	-	15-15-15-36	1.2	●	● ●
Hyper X	HX426C13PB3/16(XMP)	16GB	DS	-	-	13-15-15-35	1.35	●	●
Hyper X	HX426C13PB3K2/32(XMP)	2x 16GB	DS	-	-	13-15-15-35	1.35	●	
Hyper X	HX426C13PB3K4/64(XMP)	4x 16GB	DS	-	-	13-15-15-35	1.35	●	●
Hyper X	HX426C13SB2/4(XMP)	4GB	SS	-	-	15-15-15-36	1.35	●	
Hyper X	HX426C13SB2/8(XMP)	8GB	DS	-	-	15-15-15-36	1.35	●	
Hyper X	HX426C13SB2K2/16(XMP)	2x 8GB	DS	-	-	15-15-15-36	1.35	●	
Hyper X	HX426C13SB2K2/16(XMP)	2x 8GB	DS	Nanya	NT5AD512M8B1-GN	15-15-15-36	1.35	●	
Hyper X	HX426C13SB2K2/8(XMP)	2x 4GB	SS	-	-	15-15-15-36	1.35	●	
Hyper X	HX426C13SB2K4/16(XMP)	4x 4GB	SS	-	-	15-15-15-36	1.35	●	
Hyper X	HX426C13SB2K4/32(XMP)	4x 8GB	DS	-	-	15-15-15-36	1.35	●	
Hyper X	HX426C13SB2K4/32(XMP)	4x 8GB	DS	Nanya	NT5AD512M8B1-GN	15-15-15-36	1.35	●	
Hyper X	HX426C15FB/4	4GB	SS	-	-	15-17-17-35	1.2	●	●
Hyper X	HX426C15FB/4	4GB	SS	-	-	15-17-17-35	1.2	●	●
Hyper X	HX426C15FB/8	8GB	DS	-	-	15-17-17-35	1.2	●	●
Hyper X	HX426C15FB/8	8GB	DS	-	-	15-17-17-35	1.2	●	●
Hyper X	HX426C15FBK2/16	2x 8GB	DS	-	-	15-15-17-35	1.2	●	
Hyper X	HX426C15FBK2/16	2x 8GB	DS	-	-	15-17-17-35	1.2	●	
Hyper X	HX426C15FBK2/16	2x 8GB	DS	-	-	15-17-17-35	1.2	●	
Hyper X	HX426C15FBK2/8	2x 4GB	SS	-	-	15-17-17-35	1.2	●	
Hyper X	HX426C15FBK2/8	2x 4GB	SS	-	-	15-17-17-35	1.2	●	
Hyper X	HX426C15FBK4/16	4x 4GB	SS	-	-	15-17-17-35	1.2	●	●
Hyper X	HX426C15FBK4/16	4x 4GB	SS	-	-	15-17-17-35	1.2	●	●
Hyper X	HX426C15FBK4/16	4x 4GB	SS	-	-	15-17-17-35	1.2	●	●
Hyper X	HX426C15FBK4/32	4x 8GB	DS	-	-	15-15-17-35	1.2	●	●
Hyper X	HX426C15FBK4/32	4x 8GB	DS	-	-	15-17-17-35	1.2	●	●
Hyper X	HX426C15FBK4/32	4x 8GB	DS	-	-	15-17-17-35	1.2	●	●
Hyper X	HX426C15SBK4/64(XMP)	4x 16GB	DS	-	-	15-15-15-35	1.2	●	●
Hyper X	HX426C16FB/16	16GB	DS	-	-	16-18-18-39	1.2	●	●
Hyper X	HX426C16FB2/8(XMP)	8GB	SS	-	-	16-18-18-39	1.2	●	●
Hyper X	HX426C16FB2K2/16(XMP)	2x 8GB	SS	-	-	16-18-18-39	1.2	●	
Hyper X	HX426C16FB2K4/32(XMP)	4x 8GB	SS	-	-	16-18-18-39	1.2	●	●
Hyper X	HX426C16FBK2/32	2x 16GB	DS	-	-	16-18-18-39	1.2	●	
Hyper X	HX426C16FBK4/64	4x 16GB	DS	-	-	16-18-18-39	1.2	●	●
Hyper X	HX426C16FBK4/64	4x 16GB	DS	-	-	16-18-18-39	-	●	
Hyper X	HX426C16FW/16	16GB	DS	-	-	16-18-18-39	1.2	●	●
Hyper X	HX426C16FWK2/32	2x 16GB	DS	-	-	16-18-18-39	1.2	●	
Hyper X	HX426C16FWK4/64	4x 16GB	DS	-	-	16-18-18-39	1.2	●	●
Kingston	KVR26N19D8/16	16GB	DS	Micron	D9TZV	19-19-19-43	1.2		● ●

Kingston	KVR26N19D8/16	16GB	DS	Micron	D9VHP	19-19-19-43	1.2	•	•
Kingston	KVR26N19S8/8	8GB	SS	Micron	D9TZV	19-19-19-43	1.2		• •
Kingston	KVR26N19S8/8	8GB	SS	-	-	19-19-19-43	1.2	•	•
Klevv	IM44GU48N26-FFFHAZ(XMP)	4GB	SS	-	-	15-15-15-35	1.2	•	•
Klevv	IM48GU88N26-FFFHMZ(XMP)	8GB	SS	-	-	15-15-15-35	1.2	•	•
Klevv	IM4AGU88N26-FFFHMZ(XMP)	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	•	•
Micron	MTA16ATF2G64AZ-2G6H1	16GB	DS	Micron	D9VHP	19-19-19-43	-		• •
Micron	MTA8ATF1G64AZ-2G6H1	8GB	SS	Micron	D9VHP	19-19-19-43	-		•
panram	W4U2666PS-16G	2x 16GB	DS	panram	DDR4-1GM8-26	16-18-18-35	1.2	•	
panram	W4U2666PS-8G	2x 8GB	SS	panram	DDR4-1GM8-26	16-18-18-35	1.2	•	
Team	TCD44G2666C15BBK(XMP)	4GB	SS	Team	T4D5128HT-266	15-17-17-35	1.2	•	•
Team	TED416G2666C1901	16GB	DS	-	-	19-19-19-43	1.2	•	
Team	TED416G2666C19DC01	2x 8GB	SS	-	-	19-19-19-43	1.2	•	
Team	TED416G2666C19QC01	4x 4GB	SS	-	-	19-19-19-43	1.2	•	•
Team	TED432G2666C19DC01	2x 16GB	DS	-	-	19-19-19-43	1.2	•	
Team	TED432G2666C19QC01	4x 8GB	SS	-	-	19-19-19-43	1.2	•	
Team	TED44G2666C1901	4GB	SS	-	-	19-19-19-43	1.2	•	•
Team	TED464G2666C19QC01	4x 16GB	DS	-	-	19-19-19-43	1.2	•	
Team	TED464G2666C19QC01	4x 16GB	DS	-	-	19-19-19-43	1.2	•	
Team	TED48G2666C1901	8GB	SS	-	-	19-19-19-43	1.2	•	
Team	TED48G2666C19DC01	2x 4GB	SS	-	-	19-19-19-43	1.2	•	
Team	TFRD416G2666C15BBK(XMP)	16GB	DS	-	K4ABG085WBBCPB	15-17-17-35	1.2	•	•
Team	TFWD48G2666C15BBK(XMP)	8GB	DS	-	K4A4G085WSBCPB	15-17-17-35	1.2	•	•
Team	TPD416G2666HC1901	16GB	DS	-	-	19-19-19-43	1.2	•	
Team	TPD416G2666HC19BK	16GB	DS	-	-	19-19-19-43	1.2	•	
Team	TPD416G2666HC19DC01	2x 8GB	SS	-	-	19-19-19-43	1.2	•	
Team	TPD416G2666HC19QC01	4x 4GB	SS	-	-	19-19-19-43	1.2	•	•
Team	TPD432G2666HC19DC01	2x 16GB	DS	-	-	19-19-19-43	1.2	•	
Team	TPD432G2666HC19QC01	4x 8GB	SS	-	-	19-19-19-43	1.2	•	
Team	TPD44G2666HC1901	4GB	SS	-	-	19-19-19-43	1.2	•	•
Team	TPD44G2666HC19BK	4GB	SS	-	-	19-19-19-43	1.2	•	•
Team	TPD464G2666HC19QC01	4x 16GB	DS	-	-	19-19-19-43	1.2	•	
Team	TPD48G2666HC1901	8GB	SS	-	-	19-19-19-43	1.2	•	
Team	TPD48G2666HC19BK	8GB	SS	-	-	19-19-19-43	1.2	•	
Team	TPD48G2666HC19DC01	2x 4GB	SS	-	-	19-19-19-43	1.2	•	
Team	TPRD416G2666HC1901	16GB	DS	-	-	19-19-19-43	1.2	•	
Team	TPRD416G2666HC19DC01	2x 8GB	SS	-	-	19-19-19-43	1.2	•	
Team	TPRD416G2666HC19QC01	4x 4GB	SS	-	-	19-19-19-43	1.2	•	•

Team	TPRD432G2666HC19DC01	2x 16GB	DS	-	-	19-19-19-43	1.2	•
Team	TPRD432G2666HC19QC01	4x 8GB	SS	-	-	19-19-19-43	1.2	•
Team	TPRD44G2666HC1901	4GB	SS	-	-	19-19-19-43	1.2	• •
Team	TPRD48G2666HC1901	8GB	SS	-	-	19-19-19-43	1.2	•
Team	TPRD48G2666HC19DC01	2x 4GB	SS	-	-	19-19-19-43	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	AX4U2400316G16-DRD(XMP)	16GB	DS	-	-	16-16-16-39	1.2	•	•	
ADATA	AX4U2400316G16-SBF(XMP)	16GB	DS	-	-	15-15-15-36	1.2	•		
ADATA	AX4U240038G16-BRS-R(XMP)	8GB	SS	-	-	16-16-16-39	1.2	•	•	
ADATA	AX4U240038G16-SBF(XMP)	8GB	SS	-	-	16-16-16-39	1.2	•	•	
ADATA	AX4U2400W8G16-BRZ(XMP)	8GB	DS	-	-	15-15-15-36	1.2	•	•	
ADATA	AX4U2400W8G16-DRD(XMP)	8GB	DS	-	-	16-16-16-39	1.2	•	•	
Apacer	78.B1GMS.4050B	4x 4GB	SS	Samsung	K4A4G085WD	17-17-17-39	-	•		
Apacer	78.C1GMS.4010B	4x 8GB	DS	Samsung	K4A4G085WD	17-17-17-39	-	•	•	
Apacer	EK.08G2T.GEC(XMP)	8GB	SS	-	-	17-17-17-39	-	•	•	
Apacer	EL.08G2T.GFM	8GB	SS	Apacer	AM6F6308MHHSB2	17-17-17-39	-	•		
CORSAIR	CMD16GX4M4A2400C14(Ver4.23)(XMP)	4x 4GB	SS	-	-	14-16-16-31	1.2	•	•	
CORSAIR	CMD32GX4M4A2400C14(Ver4.23)(XMP)	4x 8GB	DS	-	-	14-16-16-31	1.2	•		
CORSAIR	CMK128GX4M8A2400C14(Ver5.30)(XMP)	8x 16GB	DS	-	-	14-16-16-31	1.2	•	•	•
CORSAIR	CMK16GX4M2A2400C16(Ver3.31)(XMP)	2x 8GB	DS	-	-	15-15-15-36	1.2	•		
CORSAIR	CMK16GX4M2Z2400C16(Ver3.31)	2x 8GB	SS	-	-	16-16-16-39	1.2	•		
CORSAIR	CMK16GX4M4A2400C14(Ver4.23)(XMP)	4x 4GB	SS	-	-	14-16-16-31	1.2	•	•	
CORSAIR	CMK16GX4M4A2400C14(Ver5.20)(XMP)	4x 4GB	SS	-	-	14-16-16-31	1.2	•	•	
CORSAIR	CMK32GX4M4A2400C14(Ver4.23)(XMP)	4x 8GB	DS	-	-	14-16-16-31	1.2	•	•	
CORSAIR	CMK32GX4M4A2400C16(Ver3.31)(XMP)	4x 8GB	SS	-	-	15-15-15-36	1.2	•	•	
CORSAIR	CMK64GX4M4A2400C14(Ver3.31)(XMP)	4x 16GB	DS	-	-	15-15-15-36	1.2	•	•	
crucial	BLS16G4D240FSB.16FBD(XMP)	16GB	DS	-	-	16-16-16-39	1.2	•		
crucial	BLS4G4D240FSB.8FBD(XMP)	4GB	SS	-	-	16-16-16-39	1.2	•	•	
crucial	BLS8G4D240FSBK.8FBD(XMP)	8GB	SS	-	-	16-16-16-39	1.2	•	•	
crucial	CT16G4DFD824A.16FB1	16GB	DS	Micron	D9TBH	17-17-17-39	1.2	•	•	
crucial	CT16G4DFD824A.C16FDR1	16GB	DS	Micron	C9BGV	17-17-17-39	1.2	•	•	
crucial	CT8G4DFS824A.8FB1	8GB	SS	-	-	17-17-17-39	1.2	•	•	
G.SKILL	F4-2400C14Q2-128GRK(XMP)	8x 16GB	DS	-	-	14-14-14-34	1.2	•	•	•
G.SKILL	F4-2400C14Q2-128GRK(XMP)	8x 16GB	DS	-	-	15-15-15-36	1.2	•	•	•
G.SKILL	F4-2400C15Q-16GRR(XMP)	4x 4GB	SS	-	-	15-15-15-35	1.2	•	•	
G.SKILL	F4-2400C15Q2-128GRK(XMP)	8x 16GB	DS	-	-	15-15-15-35	1.2	•	•	•
G.SKILL	F4-2400C15Q2-128GVK(XMP)	8x 16GB	DS	-	-	15-15-15-36	1.2	•	•	•

G.SKILL	F4-2400C15Q2-64GRK(XMP)	8x 8GB	DS	-	-	15-15-15-35	1.2	•	•	•
G.SKILL	F4-2400C15Q-32GRR(XMP)	4x 8GB	DS	-	-	15-15-15-35	1.2	•	•	
GeIL	GASB416GB2400C16QC(XMP)	4GB	SS	-	-	16-16-16-36	1.2	•	•	
GeIL	GASB432GB2400C16QC(XMP)	8GB	SS	-	-	16-16-16-36	1.2	•		
GeIL	GFR416GB2400C16S(XMP)	16GB	SS	-	-	16-16-16-36	1.2	•		
GeIL	GFR432GB2400C16D(XMP)	16GB	SS	-	-	16-16-16-36	1.2	•	•	
GeIL	GLR464GB2400C14QC(XMP)	4x 16GB	DS	-	-	14-14-14-35	1.2	•		
GeIL	GLS48GB2400C16DC	4GB	SS	-	-	16-16-16-36	1.2	•		
GeIL	GPR416GB2400C15QC(XMP)	4x 4GB	SS	-	-	15-15-15-35	1.2	•		
GeIL	GPR432GB2400C15QC(XMP)	4x 8GB	DS	-	-	15-15-15-35	1.2	•	•	
GeIL	GPR432GB2400C16QC(XMP)	4x 8GB	SS	-	-	16-16-16-36	1.2	•	•	
Hyper X	HX424C12PB2K4/16(XMP)	4x 4GB	SS	-	-	12-13-13-35	1.2	•	•	
Hyper X	HX424C12SB2/4(XMP)	4GB	SS	-	-	15-15-15-36	1.35	•	•	
Hyper X	HX424C12SB2/8(XMP)	8GB	DS	-	-	15-15-15-36	1.35	•	•	
Hyper X	HX424C12SB2K2/16(XMP)	2x 8GB	DS	-	-	15-15-15-36	1.35	•		
Hyper X	HX424C12SB2K2/16(XMP)	2x 8GB	DS	Nanya	NT5AD512M8B1-GN	15-15-15-36	1.35	•		
Hyper X	HX424C12SB2K4/16(XMP)	4x 4GB	SS	-	-	15-15-15-36	1.35	•	•	
Hyper X	HX424C12SB2K4/32(XMP)	4x 8GB	DS	-	-	15-15-15-36	1.35	•	•	
Hyper X	HX424C12SB2K4/32(XMP)	4x 8GB	DS	Nanya	NT5AD512M8B1-GN	15-15-15-36	1.35	•		
Hyper X	HX424C15B2K4/32(XMP)	4x 8GB	SS	-	-	15-15-15-35	1.2	•	•	
Hyper X	HX424C15FB/4	4GB	SS	-	-	15-15-15-35	1.2	•	•	
Hyper X	HX424C15FB/8(XMP)	8GB	SS	-	-	14-14-14-32	1.2	•	•	
Hyper X	HX424C15FB/8(XMP)	8GB	DS	-	-	15-15-15-35	1.2	•		
Hyper X	HX424C15FBK2/16	2x 16GB	DS	-	-	15-15-15-35	1.2	•		
Hyper X	HX424C15FBK2/8	2x 4GB	SS	-	-	15-15-15-35	1.2	•		
Hyper X	HX424C15FBK4/16	4x 4GB	SS	-	-	15-15-15-35	1.2	•	•	
Hyper X	HX424C15FBK4/16	4x4GB	SS	-	-	14-14-14-32	1.2	•	•	
Hyper X	HX424C15FBK4/32	4x 8GB	DS	-	-	15-15-15-35	1.2	•		
Hyper X	HX424C15FBK4/32	4x 8GB	DS	-	-	15-15-15-35	1.2	•		
Hyper X	HX424C15FBK4/64	4x 16GB	DS	-	-	15-15-15-35	1.2	•	•	
J&A	AD4U24001716-16M	16GB	DS	-	-	17-17-17-39	-	•	•	
J&A	JAD4U24001708-04M	4GB	SS	-	-	17-17-17-39	-	•	•	
J&A	JAD4U24001708-08M	8GB	SS	-	-	17-17-17-39	-	•	•	
KINGMAX	GLLH22F-18KIIA-CFBU2	16GB	DS	Spectek	PS0223-093-TP	17-17-17-39	-	•	•	
Kingston	KVR24N17D8/16	16GB	DS	Micron	D9SRJ	17-17-17-39	1.2	•	•	
Kingston	KVR24N17D8/8	8GB	DS	Micron	D9TGG	17-17-17-39	1.2	•	•	
Kingston	KVR24N17S8/4	4GB	SS	Micron	D9TGG	17-17-17-39	1.2	•	•	
Kingston	KVR24N17S8/8	8GB	SS	Micron	D9TBH	17-17-17-39	1.2	•	•	
Kingston	KVR24N17S8/8	8GB	SS	-	-	17-17-17-39	1.2	•	•	
Klevv	IM44GU48N24-FFFHAB(XMP)	4GB	SS	-	-	15-15-15-35	1.2	•	•	
Klevv	IM44GU48N24-FFFHAZ(XMP)	4GB	SS	-	-	15-15-15-35	1.2	•	•	
Klevv	IM48GU88N24-FFFHMB(XMP)	8GB	SS	-	-	15-15-15-35	1.2	•	•	

Klevv	IM48GU88N24-FFFHMZ(XMP)	8GB	SS	-	-	15-15-15-35	1.2	•	•
Klevv	IM4AGU88N24-FFFHMB(XMP)	16GB	DS	-	-	15-15-15-35	1.2	•	•
Klevv	IM4AGU88N24-FFFHMZ(XMP)	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	•	•
panram	W4U2400PS-8G	8GB	SS	panram	DTCCH912G2	14-14-14-31	-	•	•
PATRIOT	PSD416G24002	16GB	DS	Samsung	K4A8G085WB	17-17-17-39	1.2	•	•
PATRIOT	PSD44G240081	4GB	SS	Samsung	K4A4G085WE	16-16-16-39	1.2	•	•
PATRIOT	PSD44G240081	4GB	SS	PATRIOT	PM5128D4BU-083	16-16-16-39	1.2	•	•
PATRIOT	PSD48G240081	8GB	SS	Samsung	K4A8G085WB	17-17-17-39	1.2	•	•
PATRIOT	PV432G240C5QK(XMP)	4x 8GB	SS	-	-	15-15-15-35	1.2	•	•
PATRIOT	PVE416G240C5KRD(XMP)	2x 8GB	SS	-	-	15-15-15-35	-	•	•
PATRIOT	PVE48G240C5KRD(XMP)	2x 4GB	SS	-	-	15-15-15-35	-	•	•
SK Hynix	HMA81GU6AFR8N-UH	8GB	SS	SK Hynix	H5AN4GBNAFRTFC	17-17-17-39	-	•	•
SK Hynix	HMA82GU6AFR8N-UH	16GB	DS	SK Hynix	H5AN4GBNAFRTFC	17-17-17-39	-	•	•
Team	TCD44G2400C14BK(XMP)	4GB	SS	SK Hynix	H5AN4GBNAFRTFC	15-15-15-36	1.2	•	•
Team	TCD48G2400C14BK(XMP)	8GB	SS	Team	T4D1024BMT-24	14-16-16-31	1.2	•	•
Team	TED416G2400C16BK	16GB	DS	Team	T4D10248MT-24	16-16-16-39	1.2	•	•
Team	TED48G2400C16BK	8GB	DS	Team	T4D5128HT-24	15-15-15-35	1.2	•	•
Team	TF3D48G2400HC15BBK(XMP)	8GB	SS	-	-	15-17-17-35	1.2	•	•
Team	TF4D48G2400HC15BBK(XMP)	8GB	SS	-	-	15-17-17-35	1.2	•	•
Team	TFRD44G2400C15ABK(XMP)	4GB	SS	Team	T4D5128HT-24	15-15-15-35	1.2	•	•
Team	TFRD48G2400C15ABK(XMP)	8GB	SS	Team	T4D10248HT-24	15-15-15-35	1.2	•	•
Team	TFWD416G2400C15BBK(XMP)	16GB	DS	Team	PP020-093E	15-17-17-35	1.2	•	•
V-color	TC48G24S817-IMS	8GB	SS	-	-	17-17-17-39	1.2	•	•
V-color	TD4G8C17-UH	4GB	SS	V-color	DW3J0460HM	15-15-15-36	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
Apacer	78.B1GM3.AF00B	4x 4GB	SS	SK Hynix	H5AN4G8NMFRTFC	15-15-15-36	1.2	•	•	•
Apacer	78.C1GM3.AF10B	4x 8GB	DS	SK Hynix	H5AN4G8NMFRTFC	15-15-15-36	1.2	•	•	•
Apacer	AHU08GGB13CGT7G	4x 8GB	DS	Apacer	AM6F60080THMA1	15-15-15-36	1.2	•	•	•
CENTURY MICRO INC	CD8G-D4U2133	8GB	DS	SK Hynix	H5AN4G8NMFRTFC	15-15-15-36	-	•	•	•
CENTURY MICRO INC	CK8GX4-D4U2133	4x 8GB	DS	SK hynix	H5AN4G8NMFRTFC	15-15-15-35	1.2	•	•	•
CORSAIR	CMD16GX4M4B2133C10(Ver3.20)(XMP)	4x 4GB	SS	-	-	10-12-12-31	1.35	•	•	•
CORSAIR	CMD16GX4M4B2133C10(Ver3.20)(XMP)	4x 4GB	SS	-	-	10-12-12-31	1.35	•	•	•
CORSAIR	CMK16GX4M4A2133C13(Ver4.23)(XMP)	4x 4GB	SS	-	-	13-15-15-28	1.2	•	•	•
CORSAIR	CMK32GX4M2A2133C13(Ver4.31)(XMP)	2x 16GB	DS	-	-	15-15-15-36	1.2	•	•	•
CORSAIR	CMK32GX4M4A2133C13(Ver4.23)(XMP)	4x 8GB	DS	-	-	13-15-15-28	1.2	•	•	•

CORSAIR	CMK32GX4M4A2133C15(Ver3.20)	4x 8GB	DS	-	-	15-15-15-36	1.2	•	•
CORSAIR	CMK32GX4M4A2133C15(Ver5.29)	4x 8GB	DS	-	-	15-15-15-36	1.2	•	•
CORSAIR	CMK64GX4M8A2133C13(Ver3.20)(XMP)	8x 8GB	DS	-	-	15-15-15-36	1.2	•	•
CORSAIR	CMK64GX4M8A2133C13(Ver4.23)(XMP)	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	CT4G4DFS8213.8FA2	4GB	SS	Micron	D9RGQ	15-15-15-36	1.2	•	•
crucial	CT4G4DFS8213.8FB1	4GB	SS	-	-	15-15-15-36	1.2	•	•
crucial	CT8G4DFD8213.16FA1	8GB	DS	Micron	D9RGQ	15-15-15-37	1.2	•	•
crucial	CT8G4DFS8213.8FB1	8GB	SS	-	-	15-15-15-36	1.2	•	•
G.SKILL	F4-2133C15Q-16GRR	4x 4GB	SS	-	-	15-15-15-35	1.2	•	•
G.SKILL	F4-2133C15Q2-128GVK	8x 16GB	DS	-	-	15-15-15-36	1.2	•	•
G.SKILL	F4-2133C15Q2-64GRR	8x 8GB	DS	-	-	15-15-15-35	1.2	•	•
G.SKILL	F4-2133C15Q-32GRR	4x 8GB	DS	-	-	15-15-15-35	-	•	•
GelL	GPR416GB2133C15QC	4x 4GB	SS	-	-	15-15-15-36	1.2	•	•
GelL	GPR432GB2133C15QC	4x 8GB	SS	-	-	15-15-15-36	1.2	•	•
Hyper X	HX421C13SB/4(XMP)	4GB	SS	-	-	15-15-15-36	1.2	•	•
Hyper X	HX421C13SB/8(XMP)	8GB	DS	-	-	15-15-15-36	1.2	•	•
Hyper X	HX421C13SBK2/16(XMP)	2x 8GB	DS	-	-	15-15-15-36	1.2	•	
Hyper X	HX421C13SBK2/8(XMP)	2x 4GB	SS	-	-	15-15-15-36	1.2	•	
Hyper X	HX421C13SBK4/16(XMP)	4x 4GB	SS	-	-	15-15-15-36	1.2	•	•
Hyper X	HX421C13SBK4/32(XMP)	4x 8GB	DS	-	-	15-15-15-36	1.2	•	•
Hyper X	HX421C14FB/4	4GB	SS	-	-	14-14-14-35	1.2	•	•
Hyper X	HX421C14FB/8	8GB	DS	-	-	14-14-14-35	1.2	•	•
Hyper X	HX421C14FB2K4/32(XMP)	4x 8GB	SS	-	-	14-14-14-35	1.2	•	•
Hyper X	HX421C14FBK2/16	2x 8GB	DS	-	-	14-14-14-35	1.2	•	
Hyper X	HX421C14FBK2/8	2x 4GB	SS	-	-	14-14-14-35	1.2	•	
Hyper X	HX421C14FBK4/16	4x 4GB	SS	-	-	14-14-14-35	1.2	•	•
Hyper X	HX421C14FBK4/32	4x 8GB	DS	-	-	14-14-14-35	1.2	•	•
Hyper X	HX421C14FBK4/64	4x 16GB	DS	-	-	15-15-15-35	1.2	•	•
Hyper X	HX421C14FBK8/64	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	IM44GU48N21-FFFHAB(XMP)	4GB	SS	-	-	15-15-15-35	1.2	•	•
Klevv	IM48GU88N21-FFFHMB(XMP)	8GB	SS	-	-	15-15-15-35	1.2	•	•

Klevv	IM4AGU88N21-FFFHMB(XMP)	16GB	DS	-	-	15-15-15-35	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	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	4x 8GB	DS	-	-	15-15-15-35	1.2	•	•
Micron	MTA16ATF1G64AZ-2G1A1	8GB	DS	Micron	D9RGQ	15-15-15-37	1.2	•	•
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	15-15-15-36	-	•	•
panram	W4U2133PS-8G	8GB	SS	panram	DTCCH872HA2	16-16-16-36	-	•	•
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	-	•	•
Silicon Power	SP004GBLFU213N01	4GB	SS	Samsung	K4A4G085WD	15-15-15-37	-	•	•
Silicon Power	SP008GBLFU213N01	8GB	DS	Samsung	K4A4G085WD	15-15-15-37	-	•	•
SK Hynix	HMA41GU6MFR8N-TF	8GB	DS	SK Hynix	H5AN4G8NMFRTFC	15-15-15-37	1.2	•	•
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	TED416G2133C15BK	16GB	DS	Team	T4D10248MT-24	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	•	•
UMAX	84G44G93MC-21OMCALGF15	4GB	SS	Micron	D9RGQ	15-15-15-36	-	•	•
UMAX	84G48G93MC-21OMCGNGF15	8GB	DS	Micron	D9RGQ	15-15-15-36	-	•	•
V-color	TC48G21S815-IMS	8GB	SS	-	-	15-15-15-36	1.2	•	•

Remains on QVL—Maintained by platform.

X299

- 4 DIMM: Supports 4 modules inserted into both the A1, B1, C1, and D1 slots as one set of DIMMs operating in a quad-channel memory configuration
- 8 DIMM: Supports 8 modules inserted into all slots as two sets DIMMs operating in a quad-channel memory configuration

-Do not combine DIMMs from multiple kits—even ones of the same make and model. Mixing and matching DIMMs can result in failure to boot.

-The default memory operation frequency is dependent 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.

-For system stability, use a more efficient memory cooling system to support a fullmemory load (8 DIMMs) or overclocking condition.

-Always install the DIMMS with the same CAS Latency. For an optimum compatibility, we recommend that you install memory modules of the same version or data code (D/C) from the same vendor. Check with the vendor to get the correct memory modules.