

## 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	4 DIMM	8 DIMM
<b>ADATA</b>	AX4U360038G17-BR80(XMP)	8x 8GB	SS	Samsung	K4A8G085W-BCTD	17-18-18-38	1.35	●	●	●	
<b>ADATA</b>	AX4U360038G17-BRZ(XMP)	8x 8GB	SS	Samsung	K4A8G085WBBCPB	17-18-18-38	1.35	●	●	●	
<b>Antec</b>	AM4U36188G11-7DKR(XMP)	2x 8GB	SS	-	-	18-20-20-44	1.35	●	●		
<b>CORSAIR</b>	CMR64GX4M8X3600C18(Ver4.31)(XMP)	8x 8GB	SS	Samsung	K4A8G085WB-BCPB	18-19-19-39	1.35	●	●	●	●
<b>G.SKILL</b>	F4-3600C16Q-32GTZNC(XMP)	4x 8GB	SS	-	-	16-19-19-39	1.35	●	●	●	
<b>Hyper X</b>	HX436C17PB3/8(XMP)	8GB	SS	Samsung	K4A8G085W-BCRC	17-18-18-39	1.35	●	●	●	
<b>Hyper X</b>	HX436C17PB3AK2/16(XMP)	2x 8GB	SS	Samsung	K4A8G085W-BCRC	17-18-18-39	1.35	●	●		
<b>Hyper X</b>	HX436C17PB3AK4/32(XMP)	4x 8GB	SS	Samsung	K4A8G085W-BCRC	17-18-18-39	1.35	●	●	●	
<b>Hyper X</b>	HX436C17PB3K2/16(XMP)	2x 8GB	SS	Samsung	K4A8G085W-BCRC	17-18-18-39	1.35	●	●		
<b>Hyper X</b>	HX436C17PB3K4/32(XMP)	4x 8GB	SS	Samsung	K4A8G085W-BCRC	17-18-18-39	1.35	●	●	●	
<b>NEO FORZA</b>	NMUD480E82-3600DB21(XMP)	2x 8GB	SS	-	-	18-19-19-39	1.35	●	●		
<b>PATRIOT</b>	PV48G360C7K(XMP)	2x 4GB	SS	-	-	17-18-18-36	1.35	●	●		
<b>Team</b>	TF1D416G3600HC18EDC01(XMP)	2x 8GB	SS	Samsung	K4A8G085WB-BCPB	18-20-20-44	1.35	●	●		
<b>Team</b>	TF2D416G3600HC18EDC01(XMP)	2x 8GB	SS	Samsung	K4A8G085WB-BCPB	18-20-20-44	1.35	●	●		
<b>Team</b>	TF5D416G3600H18EDC01(XMP)	2x 8GB	SS	Samsung	K4A8G085WB-BCPB	18-20-20-44	1.35	●	●		
<b>Team</b>	TF6D416G3600HC18EDC01(XMP)	2x 8GB	SS	Samsung	K4A8G085WB-BCPB	18-20-20-44	1.35	●	●		
<b>Team</b>	TFOD48G3600C18EBK(XMP)	8GB	SS	Samsung	K4A8G085WB-BCPB	18-20-20-44	1.35	●	●		
<b>Thermaltake</b>	CL-W262-CA00SW-A(XMP)	4x 8GB	SS	SK Hynix	H5AN8G8NCJR-VKC	18-19-19-39	1.35	●	●	●	
<b>Thermaltake</b>	R009D408GX2-3600C18A(XMP)	2x 8GB	SS	SK Hynix	H5AN8G8NCJR-VKC	18-22-22-42	1.35	●	●		
<b>V-color</b>	TL48G36S8BNRGB18(XMP)	8GB	SS	Hynix	H5AN8G8NFR-VJC	18-19-19-39	1.35	●	●	●	
<b>ZADAK</b>	ZD4-SHD3600C17-08GAS(XMP)	8GB	SS	-	N/A	17-19-19-39	-	●	●	●	

## DDR4 3466 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)			
								1 DIMM	2 DIMM	4 DIMM	8 DIMM
<b>CORSAIR</b>	CMK16GX4M2Z3466C16(Ver4.31)(XMP)	2x 8GB	SS	Samsung	K4A8G085WB-BC	16-18-18-36	1.35	●	●		
<b>CORSAIR</b>	CMK32GX4M4B3466C16(Ver4.31)(XMP)	4x 8GB	SS	Samsung	K4A8G085WB-BCPB	16-18-18-36	1.35	●	●	●	
<b>G.SKILL</b>	F4-3466C16Q-64GTZ(XMP)	4x 16GB	DS	Samsung	K4A8G085WB-BCPB	16-18-18-38	1.35	●	●		
<b>Hyper X</b>	HX434C16FB3AK4/32(XMP)	4x 8GB	SS	Samsung	K4A8G085W-BCRC	16-18-18-36	1.35	●	●	●	
<b>Hyper X</b>	HX434C16FB3AK4/64(XMP)	4x 16GB	DS	Samsung	K4A8G085W-BCRC	16-18-18-36	1.35	●	●		

## 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	4 DIMM	8 DIMM
<b>G.SKILL</b>	F4-3400C16D-16GSXW(XMP)	2x 8GB	SS	Samsung	K4A8G085WB-BCPB	16-16-16-36	1.35	●	●		

<b>G.SKILL</b>	F4-3400C16Q-64GTZ(XMP)	4x 16GB	DS	Samsung	K4A8G085WB-BCPB	16-16-16-36	1.35	●	●
<b>PATRIOT</b>	PV416G340C6K(XMP)	2x 8GB	SS	-	-	16-18-18-36	1.35	●	●
<b>PATRIOT</b>	PV48G340C6K(XMP)	2x 4GB	SS	-	-	16-18-18-36	1.35	●	●

#### DDR4 3333 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)			
								1 DIMM	2 DIMM	4 DIMM	8 DIMM
<b>Hyper X</b>	HX433C16PB3/16(XMP)	16GB	DS	Hynix	H5AN8G8NMFR-TFC	16-18-18-36	1.35	●	●		
<b>Hyper X</b>	HX433C16PB3K2/32(XMP)	2x 16GB	DS	Hynix	H5AN8G8NMFR-TFC	16-18-18-36	1.35	●	●		
<b>Hyper X</b>	HX433C16PB3K4/64(XMP)	4x 16GB	DS	Hynix	H5AN8G8NMFR-TFC	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)			
								1 DIMM	2 DIMM	4 DIMM	8 DIMM
<b>ADATA</b>	AX4U3200316G16-QGZ(XMP)	4x 16GB	DS	-	-	16-18-18-36	1.35	●	●		
<b>Apacer</b>	AH4U08G32C08YNBAA(XMP)	8GB	SS	Apacer	AM6E6308CHHSE3	16-18-18-38	1.2	●	●		
<b>Apacer</b>	AHU08GGB26CDU7M(XMP)	8GB	SS	-	-	16-16-16-36	1.35	●	●	●	
<b>Apacer</b>	AHU08GGB32CKU7M(XMP)	8GB	SS	-	-	16-16-16-36	1.35	●	●	●	
<b>CORSAIR</b>	CMD64GX4M8B3200C16(Ver5.32)(XMP)	8x 8GB	SS	SK Hynix	-	16-18-18-36	1.35	●	●	●	●
<b>CORSAIR</b>	CMK64GX4M4B3200C16(Ver4.31)(XMP)	4x 16GB	DS	-	-	16-18-18-36	1.35	●	●	●	
<b>G.SKILL</b>	F4-3200C16Q-32GTRS(XMP)	4x 8GB	SS	Hynix	-	16-18-18-38	1.35	●	●		
<b>Hyper X</b>	HX432C16PB3/16(XMP)	16GB	DS	-	-	16-18-18-36	1.35	●	●		
<b>Hyper X</b>	HX432C16PB3K2/32(XMP)	2x 16GB	DS	-	-	16-18-18-36	1.35	●	●		
<b>Hyper X</b>	HX432C16PB3K4/64(XMP)	4x 16GB	DS	-	-	16-18-18-36	1.35	●	●		
<b>Hyper X</b>	HX432C18FB/4	4GB	SS	Micron	-	18-21-21-39	1.2	●	●	●	
<b>Hyper X</b>	HX432C18FBK2/8	2x 4GB	SS	Micron	-	18-21-21-39	1.2	●	●		
<b>KINGMAX</b>	GZOG43F-18SIGP(XMP)	8GB	SS	-	-	16-18-18-38	1.35	●	●	●	
<b>Klevv</b>	IM48GU88A32-GIISEZ(XMP)	2x 8GB	DS	-	-	16-18-18-38	1.35	●	●		
<b>Klevv</b>	KD48GU880-32A160T(XMP)	8GB	SS	SK Hynix	-	16-18-18-38	1.35	●	●	●	
<b>NEO FORZA</b>	NFMUD416E8-3200DH2A(XMP)	16GB	SS	-	-	16-18-18-36	1.35	●	●		
<b>NEO FORZA</b>	NFMUD480E8-3200DH2A(XMP)	8GB	SS	-	-	16-18-18-36	1.35	●	●	●	
<b>PATRIOT</b>	PV432G320C6K(XMP)	2x 16GB	DS	-	-	16-16-16-36	1.35	●	●		
<b>PATRIOT</b>	PV48G320C6K(XMP)	2x 4GB	SS	-	-	16-18-18-36	1.35	●	●		
<b>Silicon Power</b>	SP008GXLZU320BSB(XMP)	8GB	SS	-	-	16-18-18-38	1.35	●	●	●	
<b>Super Talent</b>	F3200UB16G(XMP)	16GB	DS	-	-	16-18-18-36	1.35	●	●	●	
<b>Thermaltake</b>	CL-W252-CA00SW-A(XMP)	4x 8GB	SS	-	1G832C18W48	16-18-18-38	1.35	●	●	●	
<b>Thermaltake</b>	R009D408GX2-3200C16A(XMP)	2x 8GB	SS	SK Hynix	H5AN8G8NCJR-VKC	16-18-18-38	1.35	●	●		
<b>V-color</b>	TL48G32S8CRGB16(XMP)	8GB	SS	SAMSUNG	-	16-16-18-38	1.35	●	●		
<b>VERITECH</b>	D4MPAL410103M1(XMP)	8GB	SS	-	-	16-18-18-38	1.35	●	●		

<b>ZADAK</b>	ZD4-SHA3200C16-08GAS(XMP)	8GB	SS	Samsung	-	16-18-18-38	1.35	•	•	•
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### 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	4 DIMM	8 DIMM
<b>ADATA</b>	AX4U300038G16-BBG(XMP)	8GB	SS	SK Hynix	-	16-18-18-36	1.35	•	•	•	•
<b>Antec</b>	AMD4UZ130001608G-5S(XMP)	8GB	SS	Micron	-	16-18-18-36	1.35	•	•	•	
<b>Apacer</b>	EK.16GAW.KFBK2(XMP)	8GB	DS	SK Hynix	-	16-18-18-38	-	•	•	•	•
<b>CORSAIR</b>	CMK64GX4M2D3000C16(Ver3.40)(XMP)	2x 32GB	DS	Micron	-	16-20-20-38	1.35	•	•		
<b>CORSAIR</b>	CMW64GX4M8C3000C15(Ver5.32)(XMP)	8x 8GB	SS	SK Hynix	-	15-17-17-35	1.35	•	•	•	•
<b>crucial</b>	BLS16G4D30AESB.M16FE1(XMP)	16GB	DS	Micron	-	15-16-16-35	1.35	•	•		
<b>G.SKILL</b>	F4-3000C14Q2-128GVK(XMP)	8x 16GB	DS	Samsung	-	15-15-15-36	1.35	•	•		
<b>G.SKILL</b>	F4-3000C15Q-16GRR(XMP)	4x 4GB	SS	SK Hynix	-	15-15-15-35	1.35	•	•	•	
<b>GelL</b>	GEXB432GB3000C15AQC(XMP)	4x 8GB	SS	Samsung	-	15-17-17-35	1.35	•	•	•	
<b>GelL</b>	GLR416GB3000C16QC(XMP)	4x 4GB	SS	Samsung	-	16-16-16-36	1.35	•	•	•	
<b>Hyper X</b>	HX430C15SB2/4(XMP)	4GB	SS	SK Hynix	-	15-15-15-36	1.35	•	•		
<b>Hyper X</b>	HX430C15SB2K2/8(XMP)	2x 4GB	SS	SK Hynix	-	15-15-15-36	1.35	•	•		
<b>Hyper X</b>	HX430C15SB2K4/16(XMP)	4x 4GB	SS	SK Hynix	-	15-15-15-36	1.35	•	•		
<b>Thermaltake</b>	R009D408GX2-3000C16A(XMP)	2x 8GB	SS	SK Hynix	H5AN8G8NMFR-VKC	16-18-18-38	1.35	•	•		
<b>Thermaltake</b>	R009D408GX2-3000C16A(XMP)	2x 8GB	SS	SK Hynix	H5AN8G8NMFR-VKC	16-18-18-36	1.35	•	•		
<b>V-color</b>	TL48G30S816RGB(XMP)	8GB	SS	SK Hynix	-	16-18-18-38	1.35	•	•	•	
<b>V-color</b>	TL48G30S8SRGB15(XMP)	8GB	SS	SK Hynix	-	15-15-16-35	1.35	•	•		
<b>ZADAK</b>	ZD4-MO23000C16-08GAG(XMP)	8GB	SS	Samsung	-	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)			
								1 DIMM	2 DIMM	4 DIMM	8 DIMM
<b>CORSAIR</b>	CMK128GX4M8Z2933C16(Ver4.31)	8x 16GB	DS	Samsung	-	16-18-18-36	1.35	•	•	•	
<b>CORSAIR</b>	CMK128GX4M8Z2933C16(Ver4.31)(XMP)	8x 16GB	DS	Samsung	-	16-18-18-36	1.35	•	•	•	
<b>G.SKILL</b>	F4-2933C16D-16GFX(XMP)	2x 8GB	SS	Samsung	-	16-16-16-36	1.35	•	•		
<b>G.SKILL</b>	F4-2933C16Q-32GFX(XMP)	4x 8GB	SS	Samsung	-	16-16-16-36	1.35	•	•	•	
<b>Hyper X</b>	HX429C17FB/16(XMP)	16GB	DS	Micron	-	17-19-19-39	1.2	•	•	•	
<b>Hyper X</b>	HX429C17FB/4	4GB	SS	Micron	-	17-19-19-39	1.2	•	•	•	
<b>Hyper X</b>	HX429C17FBK2/32(XMP)	2x 16GB	DS	Micron	-	17-19-19-39	1.2	•	•		
<b>Hyper X</b>	HX429C17FBK2/8	2x 4GB	SS	Micron	-	17-19-19-39	1.2	•	•		
<b>Hyper X</b>	HX429C17FBK4/16	4x 4GB	SS	Micron	-	17-19-19-39	1.2	•	•	•	
<b>Hyper X</b>	HX429C17FBK4/64(XMP)	4x 16GB	DS	Micron	-	17-19-19-39	1.2	•	•	•	
<b>Hyper X</b>	HX429C17FR/16(XMP)	16GB	DS	Micron	-	17-19-19-39	1.2	•	•	•	

<b>Hyper X</b>	HX429C17FRK2/32(XMP)	2x 16GB	DS	Micron	-	17-19-19-39	1.2	•	•	
<b>Hyper X</b>	HX429C17FRK4/64(XMP)	4x 16GB	DS	Micron	-	17-19-19-39	1.2	•	•	•
<b>Hyper X</b>	HX429C17FW/16(XMP)	16GB	DS	Micron	-	17-19-19-39	1.2	•	•	•
<b>Hyper X</b>	HX429C17FWK2/32(XMP)	2x 16GB	DS	Micron	-	17-19-19-39	1.2	•	•	
<b>Hyper X</b>	HX429C17FWK4/64(XMP)	2x 16GB	DS	Micron	-	17-19-19-39	1.2	•	•	
<b>Kingston</b>	KVR29N21S8/8	8GB	SS	Micron	D9WSM	21-21-21-47	1.2	•	•	•
<b>V-color</b>	TE48G29S821	8GB	SS	V-color	DTDRH682WX2(ECC)	21-21-21-47	1.2	•	•	•

#### DDR4 2800 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)			
								1 DIMM	2 DIMM	4 DIMM	8 DIMM
<b>ADATA</b>	AX4U2800W8G17-BRD(XMP)	8GB	DS	Samsung	-	17-17-17-36	1.2	•	•	•	
<b>Apacer</b>	78.BAGM8.AF20B(XMP)	4x 4GB	SS	SK Hynix	-	17-17-17-36	-	•	•	•	
<b>Apacer</b>	78.CAGM8.AF30B(XMP)	4x 8GB	DS	SK Hynix	-	17-17-17-36	-	•	•		
<b>G.SKILL</b>	F4-2800C15Q2-64GRK(XMP)	8x 8GB	DS	SK Hynix	-	15-15-15-35	1.25	•	•	•	•
<b>G.SKILL</b>	F4-2800C16Q-16GRK(XMP)	4x 4GB	SS	Samsung	-	16-16-16-36	1.2	•	•	•	
<b>GeIL</b>	GPR416GB2800C16QC(XMP)	4x 4GB	SS	SK Hynix	-	16-16-16-36	1.2	•	•	•	
<b>GeIL</b>	GPR432GB2800C16QC(XMP)	4x 8GB	DS	SK Hynix	-	16-16-16-36	1.2	•	•	•	
<b>Hyper X</b>	HX428C14PBK8/64(XMP)	8x 8GB	DS	SK Hynix	-	14-15-15-39	1.35	•	•		
<b>Hyper X</b>	HX428C14SB2/4(XMP)	4GB	SS	SK Hynix	-	15-15-15-36	1.35	•	•		
<b>Hyper X</b>	HX428C14SB2K2/8(XMP)	2x 4GB	SS	SK Hynix	-	15-15-15-36	1.35	•	•		
<b>Hyper X</b>	HX428C14SB2K4/16(XMP)	4x 4GB	SS	SK Hynix	-	15-15-15-36	1.35	•	•		
<b>KINGMAX</b>	GLMG42F-18KIIA-CJBR4(XMP)	8GB	SS	KINGMAX	-	17-17-17-39	1.2	•	•	•	•
<b>Klevv</b>	IMA451U6MFR8N-DG0(Ver1.05)(XMP)	4GB	SS	SK Hynix	-	16-16-16-36	1.2	•	•	•	
<b>NEO FORZA</b>	NFMUD416E8-2800EB2A(XMP)	16GB	DS	SK Hynix	-	17-17-17-36	-	•	•	•	
<b>NEO FORZA</b>	NFMUD416E8-2800EB3A(XMP)	16GB	DS	SK Hynix	-	17-17-17-36	-	•	•	•	
<b>NEO FORZA</b>	NFMUD416E8-2800EC2A(XMP)	16GB	DS	SK Hynix	-	17-17-17-36	-	•	•	•	
<b>NEO FORZA</b>	NFMUD416E8-2800EC3A(XMP)	16GB	DS	SK Hynix	-	17-17-17-36	-	•	•	•	
<b>NEO FORZA</b>	NFMUD416E8-2800ED2A(XMP)	16GB	DS	SK Hynix	-	17-17-17-36	-	•	•	•	
<b>NEO FORZA</b>	NFMUD416E8-2800EH2A(XMP)	16GB	DS	SK Hynix	-	17-17-17-36	-	•	•	•	
<b>NEO FORZA</b>	NFMUD416E8-2800EH2A(XMP)	16GB	DS	SK Hynix	-	17-17-17-36	-	•	•	•	
<b>NEO FORZA</b>	NFMUD480E8-2800DB2A(XMP)	8GB	SS	SK Hynix	-	17-17-17-36	-	•	•		
<b>NEO FORZA</b>	NFMUD480E8-2800DB3A(XMP)	8GB	SS	SK Hynix	-	17-17-17-36	-	•	•		
<b>NEO FORZA</b>	NFMUD480E8-2800DC2A(XMP)	8GB	SS	SK Hynix	-	17-17-17-36	-	•	•		
<b>NEO FORZA</b>	NFMUD480E8-2800DC3A(XMP)	8GB	SS	SK Hynix	-	17-17-17-36	-	•	•		
<b>NEO FORZA</b>	NFMUD480E8-2800DD2A(XMP)	8GB	SS	SK Hynix	-	17-17-17-36	-	•	•		
<b>NEO FORZA</b>	NFMUD480E8-2800DD3A(XMP)	8GB	SS	SK Hynix	-	17-17-17-36	-	•	•		
<b>NEO FORZA</b>	NFMUD480E8-2800DH2A(XMP)	8GB	SS	SK Hynix	-	17-17-17-36	-	•	•		
<b>NEO FORZA</b>	NFMUD480E8-2800DH2A(XMP)	8GB	SS	SK Hynix	-	17-17-17-36	-	•	•		

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	4 DIMM	8 DIMM
<b>ADATA</b>	AD4U2666316G19-B	16GB	DS	SpecTek	-	19-19-19-43	1.2	●	●	●	
<b>ADATA</b>	AD4U266638G19	8GB	SS	Nanya	NT5AD1024MBA3-GZ	19-19-19-43	1.2	●	●		
<b>AITC</b>	AID48G26RDZ	8GB	SS	Micron	-	19-19-19-43	-	●	●		
<b>Antec</b>	AMD4UZ126661608G-5S(XMP)	8GB	SS	Micron	-	16-18-18-35	1.2	●	●		
<b>Apacer</b>	AU08GGB26CQYBGH	8GB	SS	Apacer	AM6F63080HJMF5	19-19-19-43	-	●	●	●	
<b>Apacer</b>	EL.08G2V.GNH	8GB	SS	Apacer	AM6F63080HJMF5	19-19-19-43	-	●	●	●	
<b>Asgard</b>	VMA42UH-MEC1U2AJ2(XMP)	16GB	SS	-	-	19-19-19-43	1.2	●	●	●	
<b>CORSAIR</b>	CMD64GX4M8A2666C15(Ver4.24)(XMP)	8x 8GB	DS	Samsung	-	15-15-15-36	1.2	●	●		
<b>CORSAIR</b>	CMK32GX4M4A2666C16(Ver5.30)(XMP)	4x 8GB	SS	SK Hynix	-	16-18-18-35	1.2	●	●	●	
<b>crucial</b>	BLS8G4D26BFSBK.8FD(XMP)	8GB	SS	Micron	-	16-18-18-38	1.2	●	●	● ●	
<b>Crucial</b>	CT16G4DFD8266.M16FE	16GB	DS	Micron	D9VPP	19-19-19-43	1.2	●	●		
<b>G.SKILL</b>	F4-2666C15Q-16GRR(XMP)	4x 4GB	SS	Hynix	-	15-15-15-35	1.2	●	●	●	
<b>G.SKILL</b>	F4-2666C16Q2-128GVK(XMP)	8x 16GB	DS	SK Hynix	-	16-16-16-36	1.2	●	●	●	
<b>INNODISK</b>	M4U0-AGS1KCIK-E93	16GB	DS	Samsung	K4A8G085WCBCTD	19-19-19-43	1.2	●	●	●	
<b>NEO FORZA</b>	NMUD416E82-2666EA10	16GB	DS	goldkey	GL8082666HD	19-19-19-43	1.2	●	●	● ●	
<b>NEO FORZA</b>	NMUD480E82-2666EA10	8GB	SS	goldkey	GE8082666HD	19-19-19-43	1.2	●	●	● ●	
<b>ORCA</b>	RUD404GS2666CJ12	4GB	SS	-	-	19-19-19-43	1.2	●	●	●	
<b>ORCA</b>	RUD408GS2666CJ12	8GB	SS	-	-	19-19-19-43	1.2	●	●	●	
<b>panram</b>	W4U2666PS-16G	2x 16GB	DS	SK Hynix	DDR4-1GM8-26	16-18-18-35	1.2	●	●		
<b>panram</b>	W4U2666PS-8G	2x 8GB	SS	SK Hynix	DDR4-1GM8-26	16-18-18-35	1.2	●	●		
<b>Patriot</b>	PVR416G266C5K(XMP)	2x 8GB	SS	Micron	-	15-17-17-35	1.2	●	●		
<b>SK Hynix</b>	HMA81GU6CJR8N-VK	8GB	SS	SK Hynix	H5AN8G8NCJR	19-19-19-43	1.2	●	●	●	
<b>Team</b>	TED416G2666C19QC01	4x 4GB	SS	Team	T4D5128MT-266	19-19-19-43	1.2	●	●	●	
<b>Team</b>	TED44G2666C1901	4GB	SS	Team	T4D5128MT-266	19-19-19-43	1.2	●	●	●	
<b>Team</b>	TED44G2666C19BK	4GB	SS	Team	T4D5128MT-266	19-19-19-43	1.2	●	●	● ●	
<b>Team</b>	TED48G2666C19DC01	2x 4GB	SS	Team	T4D5128MT-266	19-19-19-43	1.2	●	●		
<b>Team</b>	TPD416G2666HC19QC01	4x 4GB	SS	Team	T4D5128MT-266	19-19-19-43	1.2	●	●	●	
<b>Team</b>	TPD44G2666HC1901	4GB	SS	Team	T4D5128MT-266	19-19-19-43	1.2	●	●	● ●	
<b>Team</b>	TPD48G2666HC19DC01	2x 4GB	SS	Team	T4D5128MT-266	19-19-19-43	1.2	●	●		
<b>Team</b>	TPRD416G2666HC19QC01	4x 4GB	SS	Team	T4D5128MT-266	19-19-19-43	1.2	●	●	●	
<b>Team</b>	TPRD44G2666HC1901	4GB	SS	Team	T4D5128MT-266	19-19-19-43	1.2	●	●	● ●	
<b>Team</b>	TPRD48G2666HC19DC01	2x 4GB	SS	Team	T4D5128MT-266	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)			
								1 DIMM	2 DIMM	4 DIMM	8 DIMM
<b>ADATA</b>	AD4U2400316G17	16GB	DS	Nanya	NT5AD1024M8A3-GZ	17-17-17-39	1.2	●	●		
<b>ADATA</b>	AD4X2400W4G17	4GB	SS	SK Hynix	H5AN4G8NBJRUHC	17-17-17-39	1.2	●	●	●	
<b>Antec</b>	AMD4UZ124001508G-3S	8GB	SS	Samsung	K4A8G085WBBCPB	15-15-15-39	1.2	●	●	●	
<b>Antec</b>	AMD4UZ124001608G-5S	8GB	SS	Micron	-	16-16-16-36	1.2	●	●	●	
<b>Apacer</b>	AU08GGB24CEYBGH	8GB	SS	Apacer	AM6F63080HJMB2	17-17-17-39	-	●	●	●	
<b>Apacer</b>	EL.08G2T.GFH	8GB	SS	Apacer	AM6F63080HJMB2	17-17-17-39	-	●	●	●	
<b>CORSAIR</b>	CMK128GX4M8A2400C14(Ver3.31)(XMP)	8x 16GB	DS	Micron	-	15-16-16-31	1.2	●	●	● ●	
<b>CORSAIR</b>	CMK32GX4M4A2400C16(Ver3.31)(XMP)	4x 8GB	SS	Micron	-	15-15-15-36	1.2	●	●	●	
<b>crucial</b>	BLS16G4D240FSB.16FBD(XMP)	16GB	DS	Micron	-	16-16-16-39	1.2	●	●	●	
<b>crucial</b>	BLS8G4D240FSBK.8FBD(XMP)	8GB	SS	Micron	-	16-16-16-39	1.2	●	●	● ●	
<b>G.SKILL</b>	F4-2400C15Q2-64GRK(XMP)	8x 8GB	DS	Samsung	-	15-15-15-35	1.2	●	●	● ●	
<b>G.SKILL</b>	F4-2400C15Q-32GRR(XMP)	4x 8GB	DS	Micron	-	15-15-15-35	1.2	●	●	●	
<b>GALAX</b>	Gamer Aurira Vision (XMP)	8GB	SS	Micron	-	17-16-16-36	1.2	●	●	●	
<b>GeIL</b>	GASB432GB2400C16QC(XMP)	8GB	SS	Micron	-	16-16-16-36	1.2	●	●	● ●	
<b>GeIL</b>	GLR464GB2400C14QC(XMP)	4x 16GB	DS	Micron	-	14-14-14-35	1.2	●	●		
<b>Hyper X</b>	HX424C15B2K4/32(XMP)	4x 8GB	SS	Micron	-	15-15-15-35	1.2	●	●	●	
<b>Hyper X</b>	HX424C15FB3K4/64(XMP)	4x 16GB	DS	-	-	15-15-15-35	1.2	●	●	●	
<b>Hyper X</b>	HX424C15FBAK4/64(XMP)	4x 16GB	DS	-	-	15-15-15-35	1.2	●	●	●	
<b>J&amp;A</b>	JRLL4U2400172408-8M	8GB	SS	-	PPE34-093DG	17-17-17-39	1.2	●	●		
<b>KINGMAX</b>	GLLH22F-18KIIA-CFBU2	16GB	DS	KINGMAX	PS0223-093-TP	17-17-17-39	-	●	●		
<b>Kingston</b>	KVR24N17D8L/8-SP	8GB	DS	Kingston	D5128ACPCPGPH	17-17-17-39	1.2	●	●	● ●	
<b>Klevv</b>	IM48GU88N24-FFFHMZ(XMP)	8GB	SS	SK Hynix	-	15-15-15-35	1.2	●	●	●	
<b>Micron</b>	MTA16ATF2G64AZ-2G3B1	16GB	DS	Micron	D9TBH	17-17-17-39	1.2	●	●		
<b>ORCA</b>	RUD404GS2400CH12	4GB	SS	-	-	17-17-17-39	1.2	●	●	●	
<b>ORCA</b>	RUD408GS2400CH12	8GB	SS	-	-	17-17-17-39	1.2	●	●	●	
<b>PATRIOT</b>	PSD48G240081	8GB	SS	Samsung	K4A8G085WB	17-17-17-39	1.2	●	●	●	
<b>SK Hynix</b>	HMA81GU6AFR8N-UH	8GB	SS	SK Hynix	H5AN8GBNAFRUHC	17-17-17-39	-	●	●	●	
<b>Team</b>	TED416G2400C16QC01	4x 4GB	SS	Team	H5AN4G8NAFR	16-16-16-39	1.2	●	●	●	
<b>Team</b>	TED44G2400C1601	4GB	SS	Team	H5AN4G8NAFR	16-16-16-39	1.2	●	●	● ●	
<b>Team</b>	TED44G2400C16BK	4GB	SS	Team	H5AN4G8NAFR	16-16-16-39	1.2	●	●	● ●	
<b>Team</b>	TED48G2400C16DC01	2x 4GB	SS	Team	H5AN4G8NAFR	16-16-16-39	1.2	●	●		
<b>Team</b>	TPD416G2400HC16QC01	4x 4GB	SS	Team	H5AN4G8NAFR	16-16-16-39	1.2	●	●	●	
<b>Team</b>	TPD44G2400HC1601	4GB	SS	Team	H5AN4G8NAFR	16-16-16-39	1.2	●	●	● ●	
<b>Team</b>	TPD48G2400HC16DC01	2x 4GB	SS	Team	H5AN4G8NAFR	16-16-16-39	1.2	●	●		
<b>Team</b>	TPRD416G2400HC16QC01	4x 4GB	SS	Team	H5AN4G8NAFR	16-16-16-39	1.2	●	●	●	

Team	TPRD44G2400HC1601	4GB	SS	Team	H5AN4G8NAFR	16-16-16-39	1.2	•	•	•	•
Team	TPRD48G2400HC16DC01	2x 4GB	SS	Team	H5AN4G8NAFR	16-16-16-39	1.2	•	•		

### DDR4 2133 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)			
								1 DIMM	2 DIMM	4 DIMM	8 DIMM
Apacer	AU08GGB13CDYBGH	8GB	SS	Micron	AM6F6308BTHSB2	15-15-15-36	1.2	•	•	•	
Apacer	EL.08G2R.GDH	8GB	SS	Micron	AM6F6308BTHSB2	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	CMK32GX4M4A2133C15(Ver3.20)	4x 8GB	DS	-	-	15-15-15-36	1.2	•	•	•	
CORSAIR	CMK64GX4M8A2133C13(Ver5.39)(XMP)	8x 8GB	SS	SK Hynix	-	14-15-15-28	1.2	•	•	•	•
crucial	CT4G4DFS8213.8FA2	4GB	SS	Micron	D9RGQ	15-15-15-36	1.2	•	•	•	
crucial	CT4G4DFS8213.8FB1	4GB	SS	Micron	-	15-15-15-36	1.2	•	•	•	
G.SKILL	F4-2133C15Q-16GRR	4x 4GB	SS	Micron	-	15-15-15-35	1.2	•	•	•	
G.SKILL	F4-2133C15Q2-128GVK	8x 16GB	DS	SK Hynix	-	15-15-15-36	1.2	•	•	•	•
GelL	GPR416GB2133C15QC	4x 4GB	SS	Micron	-	15-15-15-36	1.2	•	•	•	
GelL	GPR432GB2133C15QC	4x 8GB	SS	Micron	-	15-15-15-36	1.2	•	•	•	
Hyper X	HX421C13SB/4(XMP)	4GB	SS	SK Hynix	-	15-15-15-36	1.2	•	•	•	
Hyper X	HX421C13SBK2/8(XMP)	2x 4GB	SS	SK Hynix	-	15-15-15-36	1.2	•	•	•	
Hyper X	HX421C13SBK4/16(XMP)	4x 4GB	SS	SK Hynix	-	15-15-15-36	1.2	•	•	•	
Hyper X	HX421C14FB/8	8GB	DS	SK Hynix	-	14-14-14-35	1.2	•	•		
Hyper X	HX421C14FBK2/16	2x 8GB	DS	SK Hynix	-	14-14-14-35	1.2	•	•		
Hyper X	HX421C14FBK4/32	4x 8GB	DS	SK Hynix	-	14-14-14-35	1.2	•	•		
Hyper X	HX421C14FBK8/64	8x 8GB	DS	SK Hynix	-	14-14-14-35	1.2	•	•		
Kingston	KVR21N15D8/16	16GB	DS	Micron	D9VHP	15-15-15-36	1.2	•	•	•	
Klevv	IM48GU88N21-FFFHMB(XMP)	8GB	SS	SK Hynix	-	15-15-15-35	1.2	•	•	•	
Klevv	KM4C8GX4N-2133-15-15-15-35-0	8GB	DS	SK Hynix	-	15-15-15-35	1.2	•	•	•	
Klevv	KM4C8GX4N-2133-15-15-15-35-1	4x 8GB	DS	SK Hynix	-	15-15-15-35	1.2	•	•	•	
Micron	MTA8ATF1G64AZ-2G1B1	8GB	SS	Micron	-	15-15-15-36	1.2	•	•	•	
Micron	MTA8ATF51264AZ-2G1A2	4GB	SS	Micron	D9RG0	15-15-15-36	-	•	•	•	
panram	W4U2133PS-8G	8GB	SS	SK Hynix	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	HMA451U7AFR8N-TF	4GB	SS	SK Hynix	H5AN4G8NAFR	15-15-15-36	-	•	•		

<b>SK Hynix</b>	HMA82GU6MFR8N-TF	16GB	DS	SK Hynix	H5AN8G8NMFRTFC	15-15-15-36	-	●	●	●
<b>SUPER TALENT</b>	FBU2B008GM	8GB	DS	Micron	D9RGQ	15-15-15-36	1.2	●	●	●
<b>Team</b>	TED416G2133C15BK	16GB	DS	Micron	T4D10248MT-24	15-15-15-36	1.2	●	●	
<b>Team</b>	TED44GM2133C15ABK	4GB	SS	SK Hynix	H5AN4G8NMFRTFC	15-15-15-36	1.2	●	●	●
<b>UMAX</b>	84G44G93MC-21OMCALGF15	4GB	SS	Micron	D9RGQ	15-15-15-36	-	●	●	●
<b>UMAX</b>	84G48G93MC-21OMCGNGF15	8GB	DS	Micron	D9RGQ	15-15-15-36	-	●	●	●
<b>V-color</b>	TC48G21S815-IMS	8GB	SS	Micron	-	15-15-15-36	1.2	●	●	
<b>V-color</b>	TE48G21S815	8GB	SS	V-color	A8G8H-21CS(ECC)	15-15-15-36	1.2	●	●	●

## 8-DIMM

- **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

- 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 SPD. To set the rated speed of the kit, please select XMP or apply manual settings.
- 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.

















module.

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