

## Qualified Vendors List (QVL)

### DDR3 1333 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)	
								1 DIMM	2 DIMM
KINGSTON	KVR13N9S8/4(low profile)	4GB	SS	KINGSTON	D5128GC28PG8U	9-9-9-24-33	1.5V	●	●
SMART	SH5126UD325893HE	4GB	DS	SEC 343 BYKO	K4B2GO8460	9-9-9-24-33	1.5V	●	●
SMART	SH5126UD325893SQ	4GB	DS	SEC 343 BYKO	K4B2GO8460	9-9-9-24-33	1.5V	●	●
A-DATA	AD3U1333C2G9	2GB	SS	A-DATA	3CCD-1509HNA1126L	-	1.5V	●	●
A-DATA	AX3U1333C2G9-BP	2GB	SS	-	-	-	1.5V	●	●
Apacer	78.A1GC6.9L1	2GB	DS	Apacer	AM5D5808FEQSBG	9	1.5V	●	●
Apacer	AU02GFA33C9NBGC	2GB	DS	Apacer	AM5D5808APQSBG	-	1.5V	●	●
Apacer	78.B1GDE.9L10C	4GB	DS	Apacer	AM5D5908CEHSBG	-	1.5V	●	●
CORSAIR	CMV4GX3M1A1333C9	4GB	SS	CORSAIR	512M8DCJGELBO3O1319	-	1.50V	●	●
CORSAIR	TR3X6G1333C9 G	6GB(3x 2GB)	SS	-	-	9-9-9-24	1.50V	●	●
CORSAIR	CMD24GX3M6A1333C9(XMP)	24GB(6x4GB)	DS	-	-	9-9-9-24	1.60V	●	●
CORSAIR	TW3X4G1333C9D G	4GB(2 x 2GB)	DS	-	-	9-9-9-24	1.50V	●	●
CORSAIR	CM3X4GA1333C9N2	4GB	DS	CORSAIR	256MBCDJGELC0401136	9-9-9-24	1.5V	●	●
CORSAIR	CMX4GX3M1A1333C9	4GB	DS	-	-	9-9-9-24	1.50V	●	●
CORSAIR	CMD8GX3M4A1333C7	8GB(4 x 2GB)	DS	-	-	7-7-7-20	1.60V	●	●
CORSAIR	CMV8GX3M1A1333C9	8GB	DS	CORSAIR	512M8DCJGELAO401213	-	-	●	●
CORSAIR	CMX16GX3M2A1333C9(Ver7.21)	8GB	DS	-	-	9-9-9-24	1.50V	●	●
G.SKILL	F3-10666CL8D-4GBECO(XMP)	4GB(2 x 2GB)	DS	-	-	8-8-8-8-24	1.25V	●	●
G.SKILL	F3-10666CL7D-8GBRHX(XMP)	8GB(2 x 4GB)	DS	-	-	7-7-7-21	1.5V	●	●
GEIL	GVP34GB1333C7DC	4GB(2 x 2GB)	DS	-	-	7-7-7-24	1.5V	●	●
Hynix	HMT325U6BFR8C-H9	2GB	SS	Hynix	H5TQ2G83BFRH9C	-	1.5V	●	●
Hynix	HMT351U6BFR8C-H9	4GB	DS	Hynix	H5TQ2G83BFRH9C	-	1.5V	●	●
KINGMAX	FLFE85F-C8KF9 CAES	2GB	SS	KINGMAX	KFC8FMXF-DXX-15A	-	1.5V	●	●
KINGMAX	FLFE85F-C8KL9 NAES	2GB	SS	KINGMAX	KFC8FNLXF-DXX-15A	-	1.5V	●	●
KINGMAX	FLFE85F-C8KM9 NAES	2GB	SS	KINGMAX	KFC8FMXF-BXX-15A	-	1.5V	●	●
KINGMAX	FLFF65F-C8KL9 NEES	4GB	DS	KINGMAX	KFC8FNLXF-DXX-15A	-	1.5V	●	●
KINGMAX	FLFF65F-C8KM9 NEES	4GB	DS	KINGMAX	KFC8FMXF-BXX-15A	-	1.5V	●	●
KINGSTON	KVR1333D3N9/2G(low profile)	2GB	SS	Hynix	H5TQ2G83AFRH9C	9	1.5V	●	●
KINGSTON	KVR1333D3S8N9/2G	2GB	SS	Micron	IID77 D9L GK	-	1.5V	●	●
KINGSTON	KVR1333D3S8N9/2G-SP(low profile)	2GB	SS	ELPIDA	J2108BCSE-DJ-F	-	1.5V	●	●
KINGSTON	KVR1333D3N9/2G(low profile)	2GB	DS	ELPIDA	J1108BFBG-DJ-F	9	1.5V	●	●
KINGSTON	KVR1333D3N9/2G-SP(low profile)	2GB	DS	KTC	D1288JEMFNGD9U	-	1.5V	●	●
KINGSTON	KVR1333D3N9/2G-SP(low profile)	2GB	DS	KINGSTON	D1288JPSFPD9U	-	1.5V	●	●
KINGSTON	KHX1333C7D3K2/4GX(XMP)	4GB(2 x 2GB)	DS	-	-	7	1.65V	●	●
KINGSTON	KVR13N9S8/4-SP ( low profile )	4GB	SS	NANYA	NT5CC512MDDN-CG	-	1.5V	●	●
KINGSTON	KVR1333D3N9/4G(low profile)	4GB	DS	ELPIDA	J2108BCSE-DJ-F	-	1.5V	●	●
KINGSTON	KVR1333D3N9/4G	4GB	DS	KTC	D2568JENCNGD9U	-	1.5V	●	●
KINGSTON	KVR1333D3N9/4G-SP(low profile)	4GB	DS	KINGSTON	D2568JENCPD9U	-	1.5V	●	●
Micron	MT8JTF25664AZ-1G4D1	2GB	SS	Micron	OJD12D9L GK	-	1.5V	●	●
Micron	MT8JTF25664AZ-1G4M1	2GB	SS	MICRON	IJM22 D9PFJ	-	1.5V	●	●
Micron	MT16JTF51264AZ-1G4D1	4GB	DS	Micron	OLD22D9L GK	-	1.5V	●	●
NANYA	NT4GC64B8HG0NF-CG	4GB	DS	NANYA	NT5CB256M8GN-CG	-	1.5V	●	●
PSC	AL8F8G73F-DJ2	2GB	DS	PSC	A3P1GF3GF	-	1.5V	●	●
SAMSUNG	M378B5773DH0-CH9	2GB	SS	SAMSUNG	K4B2G0846D	-	1.5V	●	●
Super Talent	W1333UB2GS	2GB	DS	SAMSUNG	K4B1G0846F	9	1.5V	●	●
Super Talent	W1333UB4GS	4GB	DS	SAMSUNG	K4B2G0846C	-	1.5V	●	●
Super Talent	W1333UX6GM	6GB(3x 2GB)	DS	Micron	0BF27D9KPT	9-9-9-24	1.5V	●	●
Transcend	JM1333KLN-2G	2GB	SS	HYNIX	H5TQ2G83BZRH9C	-	1.5V	●	●
AMD	AE32G1339U1-U	2GB	SS	AMD	23EY4587MB3H11503M	9-9-9-24	1.5V	●	●
AMD	AE34G1339U2-U	4GB	DS	AMD	23EY4587MB3H11503M	9-9-9-24	1.5V	●	●
ASint	SLZ302G08-EDJ1C	2GB	SS	Asint	SLZ302G08-DJ1C	-	1.5V	●	●
Asint	SLA304G08-EDJ1B	4GB	SS	Asint	304G08-DJ1B1301	-	-	●	●
ASint	SLA302G08-EDJ1C	4GB	DS	Asint	SLA302G08-DJ1C	-	1.5V	●	●
ASint	SLB304G08-EDJ1B	8GB	DS	Asint	SLB304G08-DJ1B	-	1.5V	●	●
Elixir	M2F2G64CB88B7N-CG	2GB	SS	Elixir	N2CB2G80BN-CG	-	1.5V	●	●
Elixir	M2F2G64CB88D7N-CG	2GB	SS	Elixir	N2CB2G80DN-CG	-	1.5V	●	●
Elixir	M2F2G64CB88G7N-CG	2GB	SS	Elixir	N2CB2G80GN-CG	-	-	●	●
Elixir	M2F4G64CB88B5N-CG	4GB	DS	Elixir	N2CB2G80BN-CG	-	1.5V	●	●
Elixir	M2F4G64CB88D5N-CG	4GB	DS	Elixir	N2CB2G80DN-CG	-	1.5V	●	●
HMD	HMDD302GU648S1B9C-MEX	2GB	SS	ERTH	256X8DDR3 WT	-	1.5V	●	●
HMD	HMDD304GU648S1B9C-MEX	4GB	SS	UUJK	512X8DDR3 WT	-	1.5V	●	●
HMD	HMDD308GU648D1B9C-MEX	8GB	DS	FFCT	512X8DDR3 WT	-	1.5V	●	●
KINGSHARE	KSRPCD313332G	2GB	DS	PATRIOT	PM128M8D385-15	-	1.5V	●	●
KINGSTEK	KSTD3PC-10600	2GB	SS	MICRON	PE911-125E	-	1.5V	●	●
MARKVISION	BMD32048M1333C9-1123	2GB	DS	MARKVISION	M3D1288P-13	-	1.50V	●	●
MARKVISION	BMD34096M1333C9-1124	4GB	DS	MARKVISION	M3D2568E-13	-	1.50V	●	●
PATRIOT	PG38G1333EL(XMP)	8GB	DS	-	-	9-9-9-24	1.5V	●	●
RAMAXEL	RMR1870ED48E8F-1333	2GB	DS	ELPIDA	J1108BDBG-DJ-F	-	-	●	●
RAMAXEL	RMR1870EC58E9F-1333	4GB	DS	ELPIDA	J2108BCSE-DJ-F	-	1.50V	●	●
RIDATA	C304627CB1AG22Fe	2GB	DS	RIDATA	N/A	9	1.5V	●	●
RIDATA	E304459CB1AG32Cf	4GB	DS	RIDATA	N/A	9	1.5V	●	●
Silicon Power	SP002GBLTU133V02	2GB	SS	S-POWER	20YT3NG-1202	-	1.5V	●	●

Silicon Power	SP004GBLTU133V02	4GB	DS	S-POWER	20YT3NG-1201	-	1.5V	●	●
TEAM	TED34GM1333C9BK	4GB	DS	HYNIX	DWLDL9J5HL	9-9-9-24	1.5V	●	●
TEAM	TED38GM1333C9BK	8GB	DS	HYNIX	DT38J3bbDHJ	9-9-9-24	1.5V	●	●
WINTEC	3WVS31333-2G-CNR	2GB	DS	AMPO	AM3420803-13H	-	1.5V	●	●
ASInt	SLA304G08-EDJ6B	4GB	SS	ASINT	304G08-DJ6B	9-9-9-24-33	1.5V	●	●
MUSHKIN	PC3-10666	4GB	SS	N/A	Heat-Sink Package	9-9-9-24	1.50V	●	●
MUSHKIN	PC3-10600	2GB	SS	SEC 410 HC15	K4W2G0846P	9-9-9-24	1.50V	●	●

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Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)	
								1 DIMM	2 DIMM
G.SKILL	F3-1600C11S-4GNT	4GB	SS	SEC 343 XYKO	K4B4GO846D	11-11-11-28	1.5V	●	●
SAMSUNG	M379B5273DHO-YKO 1325	4GB	DS	SEC 312 BJKO	K4B2GO846C	11-11-28-39	1.35	●	●
Transcend	TS512MLK64W6H	4GB	SS	SEC 343 XYKO	K4B4GO846D	11-11-11-28-39	1.35V	●	●
Transcend	TS1GLK64W6H	8GB	DS	SEC 343 XYKO	K4B4GO846D	11-11-28-39	1.35V	●	●
ADATA	N/A	4GB	SS	ADATA	3WCD-12IIA EL1348V	-	-	●	●
AVEXIR	AVD3U16001008G-4CI	8GB	DS	-	-	11-11-11-28-39	1.5V	●	●
TEAM	TED34GM1600C11BK	4GB	DS	HYNIX	H5TQ2G83CFY	11-11-11-28	1.5V	●	●
TEAM	TLD38G1600HC9BK	8GB	DS	-	-	9-9-9-24	1.5V	●	●
APACER	78.B1GET.9K00C	4GB	SS	APACER	AM5D6008BQQSCK	-	1.50V	●	●
Apacer	AU04GFA60CATBGC	4GB	SS	Apacer	AM5D6008QJMCK1336F	-	1.50V	●	●
Apacer	78.BAQEJ.9LK0C(XMP)	4GB	DS	-	-	-	1.50V	●	●
Apacer	78.B1GE3.9L10C	4GB	DS	Apacer KZZC	AM5D5908DEQSCK	-	1.50V	●	●
APACER	78.C1GET.9K10C	8GB	DS	APACER	AM5D6008BQQSCK	-	1.50V	●	●
CORSAIR	CMV4GX3M1A1600C11	4GB	SS	CORSAIR	512M8DDLGPB0381320	-	1.50V	●	●
CORSAIR	CMY8GX3M2A1600C9	4GB	SS	-	-	9-9-9-24	1.50V	●	●
CORSAIR	CMD12GX3M6A1600C8(XMP)	12GB(6x2GB)	DS	-	-	8-8-8-24	1.65V	●	●
CORSAIR	CMZ32GX3M4X1600C10(XMP)	32GB(8GBx4)	DS	-	-	10-10-10-27	1.50V	●	●
CORSAIR	CMP4GX3M2A1600C8(XMP)	4GB(2 x 2GB)	DS	-	-	8-8-8-24	1.65V	●	●
CORSAIR	CMP4GX3M2A1600C9(XMP)	4GB(2 x 2GB)	DS	-	-	9-9-9-24	1.65V	●	●
CORSAIR	CMP4GX3M2C1600C7(XMP)	4GB(2 x 2GB)	DS	-	-	7-8-7-20	1.65V	●	●
CORSAIR	CML8GX3M2A1600C9	4GB	DS	-	-	9-9-9-24	1.50V	●	●
CORSAIR	CMZ4GX3M1A1600C9	4GB	DS	-	-	9-9-9-24	1.50V	●	●
CORSAIR	CMZ8GX3M2A1600C9	4GB	DS	-	-	9-9-9-24	1.50V	●	●
CORSAIR	TR3X6G1600C8D G(XMP)	6GB(3 x 2GB)	DS	-	-	8-8-8-24	1.65V	●	●
CORSAIR	TR3X6G1600C9 G(XMP)	6GB(3 x 2GB)	DS	-	-	9-9-9-24	1.65V	●	●
CORSAIR	CMP8GX3M2A1600C9(XMP)	8GB(2 x 4GB)	DS	-	-	9-9-9-24	1.65V	●	●
CORSAIR	CMZ8GX3M2A1600C7R(XMP)	8GB(2 x 4GB)	DS	-	-	7-8-7-20	1.50V	●	●
CORSAIR	CML16GX3M2A1600C10	8GB	DS	-	-	10-10-10-27	1.50V	●	●
CORSAIR	CMV8GX3M1A1600C11	8GB	DS	CORSAIR	512M8DDLGPB0381311	-	-	●	●
CORSAIR	CMY16GX3M2A1600C9	8GB	DS	-	-	9-9-9-24	1.50V	●	●
CORSAIR	CMY32GX3M4A1600C9	8GB	DS	-	-	9-9-9-24	1.50V	●	●
CORSAIR	CMZ8GX3M1A1600C10(XMP)	8GB	DS	-	-	10-10-10-27	1.50V	●	●
G.SKILL	F3-12800CL7D-4GBRH(XMP)	4GB(2 x 2GB)	SS	-	-	7-7-7-24	1.6V	●	●
G.SKILL	F3-12800CL7D-4GBRM(XMP)	4GB(2 x 2GB)	DS	-	-	7-8-7-24	1.6V	●	●
G.SKILL	F3-12800CL9D-4GBRL(XMP)	4GB(2 x 2GB)	DS	-	-	9-9-9-24	1.5V	●	●
G.SKILL	F3-12800CL7D-8GBRH(XMP)	8GB(2 x 4GB)	DS	-	-	7-8-7-24	1.6V	●	●
G.SKILL	F3-12800CL9D-8GBRL(XMP)	8GB(2 x 4GB)	DS	-	-	9-9-9-24	1.5V	●	●
G.SKILL	F3-12800CL10S-8GBXL(XMP)	8GB	DS	-	-	10-10-10-30	1.50V	●	●
GEIL	GVP38GB1600C11SC (XMP)	4GB	DS	-	-	9-9-9-28	1.5V	●	●
GEIL	GB34GB1600C11DC(XMP)	4GB	DS	GEIL	GL1L256M88BA15GL	-	1.5V	●	●
GEIL	GET316GB1600C9QC(XMP)	16GB ( 4x 4GB )	DS	-	-	9-9-9-28	1.6V	●	●
HYNIX	HMT351U6CFR8C-PB	4GB	DS	HYNIX	H5TQ2G83CFR PBC	-	1.50V	●	●
KINGMAX	FLGE85F-B8KJ9A FEIS(XMP)	2GB	DS	-	-	-	1.5V	●	●
KINGSTON	KHX1600C9D3P1K2/4G	4GB(2 x 2GB)	SS	-	-	-	1.5V	●	●
KINGSTON	KVR16N11S8/4(low profile )	4GB	SS	KINGSTON	U317X8BRRA19	-	1.50V	●	●
KINGSTON	KHX1600C9D3K3/12GX(XMP)	12GB(3x4GB)	DS	-	-	9-9-9-27	1.65V	●	●
KINGSTON	KHX1600C9D3T1BK3/12GX(XMP)	12GB(3x4GB)	DS	-	-	9-9-9-27	1.65V	●	●
KINGSTON	KHX1600C9D3K4/16GX(XMP)	16GB ( 4GB x4 )	DS	-	-	-	1.65V	●	●
KINGSTON	KHX1600C10D3B1K2/16G	16GB(8GBx2)	DS	-	-	-	1.5V	●	●
KINGSTON	KHX16C9K2/16	16GB(8GBx2)	DS	-	-	-	1.5V	●	●
KINGSTON	KHX1600C9AD3/2G	2GB	DS	-	-	-	1.65V	●	●
KINGSTON	KVR1600D3N11/2G-ES	2GB	DS	KTC	D1288JPNPLD9U	11-11-11-28	1.35V-1.5V	●	●
KINGSTON	KHX1600C7D3K2/4GX(XMP)	4GB ( 2x 2GB )	DS	-	-	-	1.65V	●	●
KINGSTON	KHX1600C9D3X2K2/4GX(XMP)	4GB(2 x 2GB)	DS	-	-	9-9-9-27	1.65V	●	●
KINGSTON	KVR16N11/4(low profile )	4GB	DS	KINGSTON	D2568GEROPGGBU	-	1.5V	●	●
KINGSTON	KHX1600C9D3T1K3/6GX(XMP)	6GB ( 3x 2GB )	DS	-	-	-	1.65V	●	●
KINGSTON	KHX1600C9D3T1BK3/6GX(XMP)	6GB(3 x 2GB)	DS	-	-	9-9-9-27	1.65V	●	●
KINGSTON	KHX1600C9D3K2/8GX(XMP)	8GB(2 x 4GB)	DS	-	-	-	1.65V	●	●
KINGSTON	KHX1600C9D3P1K2/8G	8GB(2 x 4GB)	DS	-	-	-	1.5V	●	●
KINGSTON	KHX16C10B1K2/16X(XMP)	8GB	DS	-	-	-	1.5V	●	●
KINGSTON	KHX1600C9D3K2/8GX (XMP)	4GB	SS	-	-	-	1.65V	●	●
KINGSTON	KHX16C9P1K2/16(XMP)	8GB	DS	-	-	-	1.5V	●	●
MICRON	MT8JTF51264AZ-1G6E1	4GB	SS	MICRON	D9QBJ	-	1.50V	●	●
MICRON	MT16JTF1G64AZ-1G6E1	8GB	DS	MICRON	D9QBJ	-	-	●	●
PSC	AL9F8L93B-GN2E	4GB	SS	PSC	XHP284C3G-M	-	1.50V	●	●

PSC	ALAF8L93B-GN2E	8GB	DS	PSC	XHR425C3G-M	-	1.50V	●	●
Transcend	TS512MLK64W6H	4GB	SS	SEC 234 HYKO	K4B4GO8468	-	-	●	●
Transcend	TS1GLK64V6H	8GB	DS	SEC 222 HYKO	6MD9639W	-	1.50V	●	●
Transcend	TS1GLK64W6H	8GB	DS	SEC 234 HYKO	K4B4GO8468	-	1.35V	●	●
ADATA	AD3U1600W4G11-B	4GB	SS	ADATA	F209X8BR6413	-	-	●	●
ADATA	ADDU1600W4G11-B	4GB	SS	ADATA	DWND-1211A	-	-	●	●
ADATA	AX3U1600W4G9-DB	8GB ( 2x 4GB )	SS	-	-	9-9-9-24	1.5V	●	●
ADATA	AX3U1600W8G9-DB	16GB ( 2x 8GB )	DS	-	-	9-9-9-24	1.5V	●	●
ADATA	ADDU1600W8G11-B	8GB	DS	ELPIDA	J4208EBBG-GN-F	-	-	●	●
ADATA	AD3U1600W8G11-B	8GB	DS	ADATA	F211X8B0640A	-	-	●	●
AMD	AE32G1609U1-U	2GB	SS	-	23EY4587MB6H11503M	9-9-9-24	1.5V	●	●
AMD	AE38G1609U1K	4GB	SS	-	-	9-9-9-28	1.5V	●	●
ASint	SLZ302G08-EGN1C	2GB	SS	Asint	SLZ302G08-GN1C	-	1.5V	●	●
Asint	SLA304G08-ENG1B	4GB	SS	Asint	304G08-GN1B1301	-	1.5V	●	●
Asint	SLZ3128M8-EGJ1D(XMP)	2GB	DS	Asint	3128M8-GJ1D	9-9-9-24	1.6V	●	●
Asint	SLA302G08-EGG1C(XMP)	4GB	DS	Asint	302G08-GG1C	-	1.5V-1.6V	●	●
Asint	SLA302G08-EGJ1C(XMP)	4GB	DS	Asint	302G08-GJ1C	-	1.5V-1.6V	●	●
ASint	SLA302G08-EGN1C	4GB	DS	Asint	SLA302G08-GN1C	-	1.5V	●	●
Asint	SLB304G08-EGJ1B	8GB	DS	-	-	-	1.5V-1.6V	●	●
ASint	SLB304G08-EGN1B	8GB	DS	Asint	SLB304G08-GN1B	-	1.5V	●	●
Elixir	M2P2G64CB8HC9N-DG(XMP)	2GB	DS	-	-	-	1.65V/1.65V	●	●
Elixir	M2P2G64CB8HC9N-DG	2GB	DS	-	-	-	1.5V-1.6V	●	●
Elixir	M2X8G64CB8HB5N-DG(XMP)	8GB	DS	Elixir 1213	N2CB4G8BOBN-DG	-	1.35V-1.65V	●	●
MIRAGES	KMD3U1600V4G(PC3-12/00U)	4GB	SS	-	SEC246BCKOK4B4GO8468	-	-	●	●
PATRIOT	PV332G160C9QK	8GB	DS	-	-	-	1.5V	●	●
SANMAX	SMD-4G28N1P-16KM	4GB	SS	ELPIDA	J4208BBBG-GN-F	-	-	●	●
SanMax	SMD-4G68HP-16KZ	4GB	DS	HYNIX	H5TQ2G83BFR PBC	-	1.5V	●	●
SANMAX	SMD-8G28NP-16KM	8GB	DS	ELPIDA	J4208BBBG-GN-F	-	1.50V	●	●
Silicon Power	SP002GBLTU160V02(XMP)	2GB	SS	S-POWER	20YT5NG-1201	-	1.5V	●	●
Silicon Power	SP004GBLTU160V02(XMP)	4GB	DS	S-POWER	20YT5NG-1201	-	-	●	●
TEAM	TLD34G1600HCBK	4GB	SS	-	-	9-9-9-24	1.5V	●	●
TEAM	TED34GM1600C11BK	4GB	DS	HYNIX	DW3DJJ273	-	1.5V	●	●
TEAM	TLD38G1600HC9BK	8GB	DS	-	-	9-9-9-24	1.5V	●	●
CRUCIAL	CT102464BA160B.C16FED	8GB	DS	CRUCIAL	CT512X8-160B	-	1.50V	●	●
KINGSTON	KVR16N11S/4	4GB	SS	KINGSTON	D5128EC4BPGGBU	-	1.5V	●	●
KINGSTON	KVR16N11/4	4GB	SS	KINGSTON	D5128EC4BPGGBU	-	1.35V	●	●
KINGSTON	KVR16N11/4	4GB	SS	KINGSTON	D5128EC4BPGGBU	-	1.5V	●	●
MUSHKIN	PC3-12800	4GB	DS	N/A	Heat-Sink Package	9-9-9-24	1.50V	●	●
MUSHKIN	PC3-12800	4GB	DS	N/A	Heat-Sink Package	9-9-9-24	1.50V	●	●
MIRA	PLAF8L93B-GN2	8GB	DS	N/A	BJE159C3G-M	9-9-9-24	1.50V	●	●
ASint	SLA304G08-EGN6B	4GB	SS	ASINT	304G08-GN6B	11-11-11-20-20	1.5V	●	●
PANRAM	PUD31600C114GPSB	4GB	SS	N/A	N/A	11-11-28-39	1.5V	●	●
VENTURA	D3-55DK1145V-11	2GB	SS	SEC 404 BCKO	K4B2G0846Q	11-11-11-20-20	1.5V	●	●

#### DDR3 1866 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)	
								1 DIMM	2 DIMM
KINGSTON	KHX18C9T2K2/8X	8GB ( 2x 4GB )	DS	-	-	9-9-9-24-33	1.65	●	●
AVEXIR	AVD3U0904G-4CI	4GB	SS	-	-	11-11-11-20-20	1.65V	●	●
AVEXIR	AVD3U0908G-4CI	8GB	DS	-	-	11-11-11-20-20	1.5V	●	●
TEAM	TED38GM1866C13BK	8GB	DS	HYNIX	H5TQ4G83AFY	13-13-13-32	1.5V	●	●
CORSAIR	CMY8GX3M2A1866C9	4GB	SS	-	-	9-10-9-27	1.50V	●	●
CORSAIR	CMZ8GX3M2A1866C9(XMP)	8GB(2 x 4GB)	DS	-	-	9-10-9-27	1.50V	●	●
CORSAIR	CMD32GX3M4A1866C9(Ver3.24)	8GB	DS	-	-	9-10-9-27	1.50V	●	●
CORSAIR	CMY16GX3M2A1866C9(Ver3.24)	8GB	DS	-	-	9-10-9-27	1.50V	●	●
CORSAIR	CMY32GX3M4A1866C9	8GB	DS	-	-	9-10-9-27	1.50V	●	●
CORSAIR	CMZ16GX3M2A1866C10(Ver4.21)	8GB	DS	-	-	10-11-10-30	1.50V	●	●
CRUCIAL	BLE4G3D1869DE1TX0.16FMD(XMP)	4GB	DS	-	-	9-9-9-27	1.5V	●	●
CRUCIAL	BLT4G3D1869DT1TX0.13FKD(XMP)	4GB	DS	-	-	9-9-9-27	1.5V	●	●
CRUCIAL	BLT4G3D1869DT1TX0.16FMR(XMP)	4GB	DS	-	-	9-9-9-27	1.5V	●	●
G.SKILL	F3-14900CL9Q-16GBZL(XMP1.3)	16GB ( 4GB x4 )	DS	-	-	9-10-9-28	1.5V	●	●
G.SKILL	F3-14900CL9Q-8GBXL(XMP1.3)	8GB ( 8GBx 8 )	DS	-	-	10-11-10-30	1.5V	●	●
G.SKILL	F3-14900CL9Q-8GBXL(XMP)	8GB(2 x 4GB)	DS	-	-	9-10-9-28	1.5V	●	●
G.SKILL	F3-14900CL9Q-8GBXL(XMP)	8GB(2GBx4)	DS	-	-	9-9-9-24	1.6V	●	●
KINGSTON	KHX1866C9D3K4/16GX(XMP)	16GB ( 4GB x4 )	DS	-	-	-	1.65V	●	●
KINGSTON	KHX1866C11D3P1K2/8G	8GB ( 4GB x 2 )	DS	-	-	-	1.5V	●	●
KINGSTON	KHX1866C9D3K2/8GX(XMP)	8GB(4GBX2)	DS	-	-	-	1.65V	●	●
KINGSTON	KHX18C10T3K4/32X	8GB	DS	-	-	-	1.5V	●	●
AMD	AP38G1869U2K	8GB(4GBX2)	DS	-	-	9-10-9-27	1.5V	●	●
AMD	AP38G1869U2K	8GB(4GBX2)	DS	-	-	9-10-9-27	1.5V	●	●
PATRIOT	PV138G186C9KPD000326	4GB	DS	-	-	-	1.5V	●	●
CRUCIAL	BLS8G3D18ADS3.16FED	8GB	DS	N/A	N/A	10-10-10-30	1.5V	●	●
CRUCIAL	BLE4G3D1869DE1TX0.16FKR	4GB	DS	N/A	N/A	9-9-9-27	1.5V	●	●
CRUCIAL	BLE8G3D1869DE1TX0.16FED	8GB	DS	N/A	N/A	9-9-9-27	1.5V	●	●
CRUCIAL	BLT8G3D1869DT1TX0.16FED	8GB	DS	N/A	N/A	9-9-9-27	1.5V	●	●
MUSHKIN	PC3-14900	8GB	DS	N/A	Heat-Sink Package	9-9-9-27	1.5V	●	●

DDR3 2000 (Downgrade to 1866)									
Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)	
								1 DIMM	2 DIMM
AVEXIR	AVD3U20000904G-4CI	4GB	SS	-	-	11-11-11-20-20	1.65V	●	●
AVEXIR	AVD3U20000908G-4CI	8GB	DS	-	-	11-11-11-20-20	1.65V	●	●
CORSAIR	CMZ4GX3M2A2000C10(XMP)	4GB(2 x 2GB)	SS	-	-	10-10-10-27	1.50V	●	●
CORSAIR	CMT6GX3M3A2000C8(XMP)	6GB(3 x 2GB)	DS	-	-	8-9-8-24	1.65V	●	●
G.SKILL	F3-16000CL9D-4GBFLS(XMP)	4GB(2 x 2GB)	DS	-	-	9-9-9-24	1.65V	●	●
G.SKILL	F3-16000CL6T-6GBPIS(XMP)	6GB (3x 2GB )	DS	-	-	6-9-6-24	1.65V	●	●
GEIL	GUP34GB2000C9DC(XMP)	4GB(2 x 2GB)	DS	-	-	9-9-9-28	1.65V	●	●
KINGSTON	KHX2000C9AD3T1K2/4GX(XMP)	4GB ( 2x 2GB )	DS	-	-	-	1.65V	●	●
KINGSTON	KHX2000C9AD3W1K3/6GX(XMP)	6GB ( 3x 2GB )	DS	-	-	-	1.65V	●	●
KINGSTON	KHX2000C9AD3T1K3/6GX(XMP)	6GB (3x 2GB )	DS	-	-	-	1.65V	●	●
Asint	SLA302G08-ML2HB(XMP)	4GB	DS	HYNIX	H5TQ2G83BFR H9C	-	1.65V	●	●

DDR3 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
KINGSTON	KHX21C11T2K2/8X	8GB ( 2x 4GB )	SS	-	-	11-11-11-20-20	1.6V	●	●
AVEXIR	AVD3U21331104G-4CI	4GB	SS	-	-	11-11-11-20-20	1.5V	●	●
AVEXIR	AVD3U21330908G-4BZ1	8GB	DS	-	-	11-11-11-20-20	1.65V	●	●
CORSAIR	CMZ8GX3M2A2133C11(Ver4.21)	4GB	SS	-	-	11-11-11-27	1.50V	●	●
CORSAIR	CMY8GX3M2A2133C11R	8GB(4 x 2GB)	SS	-	-	11-11-11-27	1.50V	●	●
CORSAIR	CMT16GX3M4X2133C9(XMP 1.3)	16GB ( 4GB x4 )	DS	-	-	9-11-10-27	1.50V	●	●
CORSAIR	CMT4GX3M2A2133C9(XMP)	4GB(2x 2GB)	DS	-	-	9-10-9-24	1.65V	●	●
CORSAIR	CMT4GX3M2B2133C9(XMP)	4GB(2x 2GB)	DS	-	-	9-10-9-27	1.50V	●	●
CORSAIR	CMD8GX3M2B2133C9(Ver5.12)	4GB	DS	-	-	9-11-11-31	1.65V	●	●
CORSAIR	CMT8GX3M2B2133C9(XMP)	8GB ( 4GB x 2)	DS	-	-	9-11-9-27	1.50V	●	●
CORSAIR	CMD16GX3M2A2133C9(Ver4.21)	8GB	DS	-	-	9-11-11-31	1.65V	●	●
CORSAIR	CMD32GX3M4A2133C9(Ver4.21)	8GB	DS	-	-	9-11-11-31	1.65V	●	●
G.SKILL	F3-17000CL11Q2-64GBZLD(XMP)	8GB	DS	-	-	11-11-11-31	1.5V	●	●
GEIL	GE34GB2133C9DC(XMP)	2GB	DS	-	-	9-9-9-28	1.65V	●	●
KINGSTON	KHX2133C11D3K4/16GX(XMP)	16GB ( 4GB x4 )	DS	-	-	-	1.65V	●	●
KINGSTON	KHX2133C11D3T1K2/16GX(XMP)	16GB(8GB x 2)	DS	-	-	-	1.6V	●	●
KINGSTON	KHX21C11T1BK2/16X(XMP)	16GB(8GBx2)	DS	-	-	-	1.6V	●	●
KINGSTON	KHX2133C9AD3T1K2/4GX(XMP)	4GB ( 2x 2GB )	DS	-	-	-	1.65V	●	●
KINGSTON	KHX2133C9AD3X2K2/4GX(XMP)	4GB(2 x 2GB)	DS	-	-	9-11-9-27	1.65V	●	●
KINGSTON	KHX2133C9AD3T1K4/8GX(XMP)	8GB(4 x 2GB)	DS	-	-	9-11-9-27	1.65V	●	●
KINGSTON	KHX21C11T1BK2/8X(XMP)	8GB(4GBx2)	DS	-	-	-	1.6V	●	●
KINGSTON	KHX2133C9AD3T1FK4/8GX(XMP)	8GB(4x 2GB)	DS	-	-	-	1.65V	●	●
KINGSTON	KHX21C11T3K4/32X	8GB	DS	-	-	-	1.65V	●	●
ADATA	AX3U2133W4G10-DR	8GB ( 2x 4GB )	SS	-	-	10-11-11-30	1.65V	●	●
ADATA	AX3U2133W8G10-DR	16GB ( 2x 8GB )	DS	-	-	10-11-11-30	1.65V	●	●
AMD	AG34G2130UI	4GB	SS	-	-	10-11-11-30	1.65V	●	●
AMD	AP38G2133U2K	4GB	DS	-	-	11-12-11-30	1.65V	●	●
PATRIOT	PGD38G2133C11K(XMP)	16GB ( 4GB x4 )	DS	-	-	11-11-11-30	1.65V	●	●
G.SKILL	F3-2133C10D-16GAB	8GB	DS	N/A	N/A	10-12-12-31	1.6V	●	●

DDR3 2200 Qualified Vendors List (QVL)									
Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)	
								1 DIMM	2 DIMM
GEIL	GET34GB2200C9DC(XMP)	2GB	DS	-	-	9-10-9-28	1.65V	●	●

DDR3 2250 Qualified Vendors List (QVL)									
Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)	
								1 DIMM	2 DIMM
KINGSTON	KHX2250C9D3T1K2/4GX(XMP)	4GB ( 2x 2GB )	DS	-	-	-	1.65V	●	●

DDR3 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
AVEXIR	AVD3U24001004G-4BZ1	4GB	SS	-	-	11-11-11-20-20	1.65V	●	●
AVEXIR	AVD3U24001104G-4CI	4GB	SS	-	-	11-11-11-20-20	1.65V	●	●
AVEXIR	AVD3U24001008G-4BZ1	8GB	DS	-	-	11-11-11-28-20	1.65V	●	●
AVEXIR	AVD3U24001108G-4CI	8GB	DS	-	-	11-11-11-28-20	1.65V	●	●
CORSAIR	CMGT8(XMP)	8GB (2GBx 4)	SS	-	-	10-12-10-27	1.65V	●	●
CORSAIR	CMD16GX3M2A2400C9(Ver4.21)	8GB	DS	-	-	10-12-12-31	1.65V	●	●
CORSAIR	CMY16GX3M2A2400C10R(Ver4.21)	8GB	DS	-	-	10-12-12-31	1.65V	●	●
G.SKILL	F3-2400C10D-8GT(XMP)	8GB(2x 4GB)	SS	-	-	10-12-12-31	1.65V	●	●
G.SKILL	F3-19200CL11Q-16GBZHD(XMP1.3)	16GB ( 4GB x4 )	DS	-	-	11-11-11-31	1.65V	●	●
G.SKILL	F3-19200CL9D-4GBPIS(XMP)	4GB(2x 2GB)	DS	-	-	9-11-9-28	1.65V	●	●
G.SKILL	F3-19200CL 10Q-32GBZHD(XMP)	8GB	DS	-	-	10-12-12-31	1.65V	●	●
KINGSTON	KHX24C11T2K2/8X(XMP)	4GB	DS	-	-	-	1.65V	●	●
ADATA	AX3U2400W4G11-DMV	8GB ( 2x 4GB )	SS	-	-	11-13-13-35	1.65V	●	●
ADATA	AX3U2400W8G11-DMV	16GB ( 2x 8GB )	DS	-	-	11-13-13-35	1.65V	●	●
G.SKILL	F3-2400C11D-8GRS	4GB	DS	N/A	N/A	11-11-13-31	1.65V	●	●

DDR3 2600 (Downgrade to 2400)									
Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)	
								1 DIMM	2 DIMM
G.SKILL	F3-2600CL10Q-16GBZMD(XMP)	16GB(4x 4GB)	DS	-	-	10-12-12-31	1.65V	●	●
ADATA	AX3U2600GW8G11	16GB ( 2x 8GB )	DS	-	-	11-13-13-35	1.65V	●	●

DDR3 2666 (Downgrade to 2400)									
Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)	
								1 DIMM	2 DIMM
AVEXIR	AVD3U26661104G-4BZ1	4GB	SS	-	-	11-11-11-26-30	1.65V	●	●
AVEXIR	AVD3U26661204G-4CI	8GB	SS	-	-	11-11-11-26-30	1.65V	●	●
AVEXIR	AVD3U26661108G-4BZ1	8GB	DS	-	-	11-11-11-26-30	1.65V	●	●
CORSAIR	CMD16GX3M4A2666C11 (XMP)	4GB	DS	-	-	11-13-13-35	1.65V	●	●
G.SKILL	F3-2666C11Q-16GTXD(XMP)	16GB(4GBx4)	DS	-	-	11-13-13-35	1.65V	●	●

DDR3 2800 (Downgrade to 2400)									
Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)	
								1 DIMM	2 DIMM
AVEXIR	AVD3UH28001208G-4BZ1	8GB	DS	-	-	11-11-11-26-30	1.65V	●	●
CORSAIR	CMD16GX3M4A2800C12 (XMP)	4GB	DS	-	-	12-14-14-36	1.65V	●	●
G.SKILL	F3-2800C11Q-16GTXD(XMP)	16GB(4GBx4)	DS	-	-	11-13-13-35	1.65V	●	●
ADATA	AX3U2800W4G12-DGV	4GB	SS	-	-	12-12-14-36	1.65V	●	●
AVEXIR	AVD3UH28001204G-4BZ1	4GB	SS	-	-	-	1.65V	●	●
ADATA	AX3U2800W8G12-DGV	8GB	DS	-	-	12-12-14-36	1.65V	●	●

DDR3 2933 (Downgrade to 2400)									
Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)	
								1 DIMM	2 DIMM
AVEXIR	AVD3UH29331204G-4BZ1	4GB	SS	-	-	11-11-11-26-30	1.65V	●	●
AVEXIR	AVD3UH29331208G-4BZ1	8GB	DS	-	-	11-11-11-26-30	1.65V	●	●
G.SKILL	F3-2933C12Q-16GTDXG	4GB	SS	-	-	12-14-14-35	1.65V	●	●
G.SKILL	F3-2933C12D-16GTDXG	8GB	DS	-	-	12-14-14-35	1.65V	●	●

DDR3 3000 (Downgrade to 2400)									
Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)	
								1 DIMM	2 DIMM
AVEXIR	AVD3UH31001204G-4BZ1	4GB	SS	-	-	11-11-11-26-30	1.65V	●	●
G.SKILL	F3-3000C12Q-16GTXDG	4GB	SS	-	-	-	1.65V	●	●

DDR3 3100 (Downgrade to 2400)									
Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)	
								1 DIMM	2 DIMM
AVEXIR	AVD3UH31001204G-2CIR	4GB	SS	-	-	11-11-11-26-30	1.65V	●	●
ADATA	AX3U3100W4G12-DMV	4GB	SS	N/A	N/A	12-14-14-36	1.65V	●	●

- 2 DIMM Slots
- **1 DIMM:** Supports one module inserted in any slot as Single-channel memory configuration
  - **2 DIMM:** Supports 2 modules inserted into both the **blue** or **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.