PRIME B250M-K

DDR4 2133 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)	
								1DIMM	2DIMM
SAMSUNG	M378A5143DB0--CPB	4G	SS	SEC 428 BCPB	K4A4G085WD	15-15-15-36	1.2V	●	●
SAMSUNG	M378A1G43DB0--CPB	8G	DS	SEC 428 BCPB	K4A4G085WD	15-15-15-36	1.2V	●	●
G.SKILL	F4-2133C15Q-32GRK	32GB (8GB*4)	DS	N/A	Heat-Sink Package	15-15-15-35	1.2V	●	●
GLOWAY	PC4-17000	4G	SS	N/A	Heat-Sink Package	15-15-15-35	1.2V	●	
KINGSTON	HX421C13PBK4/16	16GB (4GB*4)	SS	N/A	Heat-Sink Package	15-15-15-36	1.2V	●	●
PANRAM	PUD42133C138G4NJW	32GB (8GB*4)	DS	N/A	Heat-Sink Package	13-13-13-35	1.2V	●	●
PANRAM	PUD42133C134G4NJW	16GB (4GB*4)	SS	N/A	Heat-Sink Package	13-13-13-35	1.2V	●	●
CORSAIR	CMK16GX4M4A2133C15	16GB (4GB*4)	SS	N/A	Heat-Sink Package	15-15-15-36	1.2V	●	●
CRUCIAL	MTA8ATF51264AZ-2G1A1	4G	SS	MICRON	4QA77D9RCQ	15-15-15-36	1.2V	●	●
CORSAIR	CMV4GX4M1A2133C15	4G	SS	N/A	4GA72Z9RGR	15-15-15-36	1.2V	●	●
CORSAIR	CMV8GX4M1A2133C15	8G	DS	SEC 446 BCPB	K4A4G085WD	15-15-15-36	1.2V	●	●
KINGSTON	HX421C14FB/8	8G	DS	N/A	Heat-Sink Package	14-14-14-35	1.2V	●	●
TEAM	TED48GM2133C15BK	8G	DS	SEC 437BCBP	K4A4G085WD	15-15-15-36	1.2V	●	●
KINGSTON	HX421C13SBK4/32	32GB (8GB*4)	DS	N/A	Heat-Sink Package	15-15-15-36	1.2V	●	●
KINGSTON	HX421C13SBK4/16	16GB (4GB*4)	SS	N/A	Heat-Sink Package	15-15-15-36	1.2V	●	●
KINGSTON	KVR21N15D8/8	8G	DS	SK HYNIX	H5AN4G8NAFR	15-15-15-36	1.2V	●	●
Silicon Power	SP004GBLFU213N02	4G	SS	SP	4N4083HMBE S1543X	15-15-15-36	1.2V	●	●
GALAXY	GAM4DBLBM213315IE081C	8G	DS	N/A	Heat-Sink Package	15-15-15-35	1.2V	●	●
AVEXIR	AVD4U21331508G-1C0B	8G	DS	N/A	Heat-Sink Package	15-15-15-35	1.2V	●	●
CORSAIR	CMK16GX4M4A2133C13	16GB (4GB*4)	SS	N/A	Heat-Sink Package	13-15-15-28	1.2V	●	●
GEIL	GPR48GB2133C15DC	8GB (4GB*2)	SS	N/A	Heat-Sink Package	15-15-15-36	1.2V	●	●
KINGSTON	HX421C14FBK4/32	32GB (8GB*4)	DS	N/A	Heat-Sink Package	14-14-14-35	1.2V	●	●
TEKISM	T4U2133B8G15-SAD	8G	DS	SEC 446 BCPB	K4A4G085WD	15-15-15-36	1.2V	●	●
G.SKILL	F4-2133C15Q-16GRB	16GB (4GB*4)	SS	N/A	Heat-Sink Package	15-15-15-35	1.2V	●	●
CENTURY	PC4-17000	8G	DS	SK HYNIX	H5AN4G8NMFR	15-15-15-36	1.2V	●	●
KINGSTON	KVR21N15S8/4	4G	SS	SK HYNIX	H5AN4G8NMFR	15-15-15-36	1.2V	●	●
KINGSTON	KVR21N15D8/8	8G	DS	SK HYNIX	H5AN4G8NMFR	15-15-15-36	1.2V		
ADATA	AX4U2133W4G15-QRZ	16GB (4GB*4)	SS	N/A	Heat-Sink Package	15-15-15	1.2V	●	●
TEAM	T4D4C10S61163	8G	DS	SEC 446 BCPB	K4A4G085WD	15-15-15-36	1.2V	●	●
TEAM	TED48GM2133C15BK	8G	DS	SK HYNIX	H5AN4G8NMFR	15-15-15-36	1.2V	●	●
CUSO	PC4-17000	4G	SS	CUSO	512X8DDR4	15-15-15-35	1.2V	●	●
ADATA	AD4U2133W8G15-B	128GB(16x 8G)	DS	SK HYNIX	H5AN4G8NAFR			●	●
CRUCIAL	CT8G4DFD8213.16FA11	32GB (8GB*4)	DS	MICRO	5CA77D9RGQ		1.2V	●	●
KINGSTON	KVR21E15S8/4	4GB	SS	SK HYNIX	H5AN4G8NAFR		1.2V	●	●
G.SKILL	F4-2133C15S-4GNT	4G	SS	G.SKILL	D4 512M8GE15	15-15-15-35	1.2V	●	●
G.SKILL	F4-2133C15S-8GNT	8G	DS	G.SKILL	D4 512M8GE15	15-15-15-35	1.2V	●	●
TEAM	TPAD44G2133HC15BK	4G	SS	N/A	Heat-Sink Package	15-15-15-36	1.2V	●	●
APACER	AHU08GGB13CGT7G	8G	DS	N/A	Heat-Sink Package			●	●
ASINT	SLB404G08-CCN2B 1615	8G	DS	SK HYNIX	H5AN4G8NMFR			●	●
PATRIOT	PSD44G213381	4G	SS	PAIROT	1621JB5454512X8DDR4			●	●
PATRIOT	PSD48G21332	8G	DS	PAIROT	PM512M8D4BU-083			●	●
APACER	AU08GGB13CDTBGC	8G	DS	APACER	AM6F6008THSA11550F			●	
SAMSUNG	M378A1K43BB1-CPB	8G	SS	SEC 610	K4A8G085WBBCPB			●	●
KINGSTON	HX421C14FB2/8	8G	SS	N/A	Heat-Sink Package		1.2V	●	●
KINGSTON	HX421C14FBK2/8	8GB (4GB*2)	SS	N/A	Heat-Sink Package		1.2V	●	●
KINGSTON	HX421C14FB/4	4G	SS	N/A	Heat-Sink Package		1.2V	●	●
KINGSTON	KVR21N15S8/8	8G	SS	MIRCON	6HB77D9TBH		1.2V	●	●
V-COLOR	TC48G21S818-IMS	32GB(8GB*4)	SS	V-COLOR	N/A		1.2V	●	●
GOMOS	GRR-D4-2400-8GB	8G	SS	GOMOS	GD4N8G8F-UH		1.2V	●	●
AVEXIR	AVD4U21331504G-1BW	4GB (1x4GB)	SS	AVEXIR	512X8DDR4	15-15-15-35	1.2	●	●
AVEXIR	AVD4UZ121331504G-1COR	4GB (1x4GB)	SS	AVEXIR	512X8DDR4	15-15-15-35	1.2	●	●
AVEXIR	AVD4UZ121331504G-1COB	4GB (1x4GB)	SS	AVEXIR	512X8DDR4	15-15-15-35	1.2	●	●
AVEXIR	AVD4UZ121331504G-1COW	4GB (1x4GB)	SS	AVEXIR	512X8DDR4	15-15-15-35	1.2	●	●
AVEXIR	AVD4UZ121331504G-1COY	4GB (1x4GB)	SS	AVEXIR	512X8DDR4	15-15-15-35	1.2	●	●
AVEXIR	AVD4UZ121331504G-1COG	4GB (1x4GB)	SS	AVEXIR	512X8DDR4	15-15-15-35	1.2	●	●
AVEXIR	AVD4UZ121331504G-1COO	4GB (1x4GB)	SS	AVEXIR	512X8DDR4	15-15-15-35	1.2	●	●
AVEXIR	AVD4UZ121331504G-1CWW	4GB (1x4GB)	SS	AVEXIR	512X8DDR4	15-15-15-35	1.2	●	●
AVEXIR	AVD4UZ121331504G-2COR	8GB (2x4GB)	SS	AVEXIR	512X8DDR4	15-15-15-35	1.2	●	●
AVEXIR	AVD4UZ121331504G-2COB	8GB (2x4GB)	SS	AVEXIR	512X8DDR4	15-15-15-35	1.2	●	●
AVEXIR	AVD4UZ121331504G-2COW	8GB (2x4GB)	SS	AVEXIR	512X8DDR4	15-15-15-35	1.2	●	●
AVEXIR	AVD4UZ121331504G-2COY	8GB (2x4GB)	SS	AVEXIR	512X8DDR4	15-15-15-35	1.2	●	●
AVEXIR	AVD4UZ121331504G-2COG	8GB (2x4GB)	SS	AVEXIR	512X8DDR4	15-15-15-35	1.2	●	●
AVEXIR	AVD4UZ121331504G-2COO	8GB (2x4GB)	SS	AVEXIR	512X8DDR4	15-15-15-35	1.2	●	●
AVEXIR	AVD4UZ121331504G-2CWW	8GB (2x4GB)	SS	AVEXIR	512X8DDR4	15-15-15-35	1.2	●	●
AVEXIR	AVD4UZ121331504G-4COR	16GB (4x 4GB)	SS	AVEXIR	512X8DDR4	15-15-15-35	1.2	●	●
AVEXIR	AVD4UZ121331504G-4COB	16GB (4x 4GB)	SS	AVEXIR	512X8DDR4	15-15-15-35	1.2	●	●
AVEXIR	AVD4UZ121331504G-4COW	16GB (4x 4GB)	SS	AVEXIR	512X8DDR4	15-15-15-35	1.2	●	●
AVEXIR	AVD4UZ121331504G-4COY	16GB (4x 4GB)	SS	AVEXIR	512X8DDR4	15-15-15-35	1.2	●	●
AVEXIR	AVD4UZ121331504G-4COG	16GB (4x 4GB)	SS	AVEXIR	512X8DDR4	15-15-15-35	1.2	●	●
AVEXIR	AVD4UZ121331504G-4COO	16GB (4x 4GB)	SS	AVEXIR	512X8DDR4	15-15-15-35	1.2	●	●
AVEXIR	AVD4UZ121331504G-4CWW	16GB (4x 4GB)	SS	AVEXIR	512X8DDR4	15-15-15-35	1.2	●	●
CENTURY MICRO INC	CD8G-D4U2133	8GB	DS	SK Hynix	H5AN4G8NMFRTFC	15-15-15-36	-	●	●
CENTURY MICRO INC	CK8GX4-D4U2133	32GB (4x 8GB)	DS	SK hynix	H5AN4G8NMFRTFC	15-15-15-35	1.2	●	●
CORSAIR	CMD16GX4M4B2133C10	16GB (4x 4GB)	SS	-	-	10-12-12-31	1.35	●	●
CORSAIR	CMK32GX4M2A2133C13	32GB (2x 16GB)	DS	-	-	13-15-15-28	1.2	●	●
CORSAIR	CMK32GX4M4A2133C13	32GB (4x 8GB)	DS	-	-	13-15-15-28	1.2	●	●
CORSAIR	CMK32GX4M4A2133C15	32GB (4x 8GB)	DS	-	-	15-15-15-36	1.2	●	●
CORSAIR	CMK64GX4M8A2133C13	64GB (8x 8GB)	DS	-	-	13-15-15-28	1.2	●	●
CORSAIR	CMV16GX4M1A2133C15	16GB	DS	-	-	15-15-15-36	1.2	●	●
Crucial	CT16G4DFD8213.16FB1	16GB	DS	Micron	D9TBH	15-15-15-36	1.2	●	●
Crucial	CT4G4DFS8213.8FA1	4GB	SS	Micron	D9RGQ	15-15-15-37	1.2	●	●
Crucial	CT4G4DFS8213.8FA2	4GB	SS	Micron	D9RGQ	15-15-15-36	1.2	●	●
Crucial	CT8G4DFD8213.16FA1	8GB	DS	Micron	D9RGQ	15-15-15-37	1.2	●	●
Crucial	CT8G4DFD8213.16FA2	8GB	DS	Micron	D9RGQ	15-15-15-36	1.2	●	●
Crucial	CT8G4DFD8213.C16FAR11	8GB	DS	Micron	C9BDH	15-15-15-36	1.2	●	●
Crucial	CT8G4DFS8213.8FB1	8GB	SS	-	-	15-15-15-36	1.2	●	●
Foxteonn	FEU4GN51208JC2133F	4GB	SS	Nanya	NT5AD512M8B1-FM	15-15-15-36	-	●	●
G.SKILL	F4-2133C15Q-16GRR	16GB (4x 4GB)	SS	-	-	15-15-15-35	1.2	●	●
G.SKILL	F4-2133C15Q2-128GVK	128GB (8x 16GB)	DS	-	-	15-15-15-35	1.2	●	●
G.SKILL	F4-2133C15Q-16GVR	16GB (4x 4GB)	SS			15-15-15-35	1.2	●	●
G.SKILL	F4-2133C15Q-16GVB	16GB (4x 4GB)	SS			15-15-15-35	1.2	●	●
G.SKILL	F4-2133C15Q-16GVG	16GB (4x 4GB)	SS			15-15-15-35	1.2	●	●
G.SKILL	F4-2133C15Q-16GVK	16GB (4x 4GB)	SS			15-15-15-35	1.2	●	●
G.SKILL	F4-2133C15Q-16GVS	16GB (4x 4GB)	SS			15-15-15-35	1.2	●	●
G.SKILL	F4-2133C15Q-16GRK	16GB (4x 4GB)	SS			15-15-15-35	1.2	●	●
G.SKILL	F4-2133C15Q2-128GVR	128GB (8x 16GB)	DS			15-15-15-35	1.2	●	●
G.SKILL	F4-2133C15Q2-64GRB	64GB (8x 8GB)	DS			15-15-15-35	1.2	●	●
G.SKILL	F4-2133C15Q-32GVR	32GB (4x 8GB)	DS			15-15-15-35	1.2	●	●
G.SKILL	F4-2133C15Q-32GVB	32GB (4x 8GB)	DS			15-15-15-35	1.2	●	●
G.SKILL	F4-2133C15Q-32GVG	32GB (4x 8GB)	DS			15-15-15-35	1.2	●	●
G.SKILL	F4-2133C15Q-32GVK	32GB (4x 8GB)	DS			15-15-15-35	1.2	●	●
G.SKILL	F4-2133C15Q-32GVS	32GB (4x 8GB)	DS			15-15-15-35	1.2	●	●
G.SKILL	F4-2133C15Q-32GRB	32GB (4x 8GB)	DS			15-15-15-35	1.2	●	●
GeIL	GPR416GB2133C15QC	16GB (4x 4GB)	SS	-	-	15-15-15-36	1.2	●	●
HyperX	HX421C13SB/4	4GB	SS	-	-	13-13-13-36	1.2	●	●
HyperX	HX421C13SB/8	8GB	DS	-	-	13-13-13-36	1.2	●	●
HyperX	HX421C13SBK2/16	16GB (2x 8GB)	DS	-	-	13-13-13-36	1.2	●	●
HyperX	HX421C13SBK2/8	8GB (2x 4GB)	SS	-	-	13-13-13-36	1.2	●	●
HyperX	HX421C13SBK4/16	16GB (4x 4GB)	SS	-	-	13-13-13-36	1.2	●	●

2 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 eithor the gray slots or the black slots as one pair of Dual-channel memory configurat

- 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.
- Due to Intel® chipset limitation, DDR4 2400MHz memory frequency is only supported by 7th Generation Intel® processors. Higher memory modules will run at the maximum transfer rate of DDR4 2400MHz.
- Due to Intel® chipset limitation, DDR4 2133MHz and higher memory modules on 6th Generation Intel® processors will run at the maximum transfer rate of DDR4 2133MHz.

DDR4 2133 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)	
								1DIMM	2DIMM
HyperX	HX421C13SBK4/32	32GB (4x 8GB)	DS	-	-	13-13-13-36	1.2	●	●
HyperX	HX421C14FB/4	4GB	SS	-	-	14-14-14-35	1.2	●	●
HyperX	HX421C14FB/8	8GB	DS	-	-	14-14-14-35	1.2	●	●
HyperX	HX421C14FB2K4/32	32GB (4x 8GB)	SS	-	-	14-14-14-35	1.2	●	●
HyperX	HX421C14FBK2/16	16GB (2x 8GB)	DS	-	-	14-14-14-35	1.2	●	●
HyperX	HX421C14FBK2/8	8GB (2x 4GB)	SS	-	-	14-14-14-35	1.2	●	●
HyperX	HX421C14FBK4/16	16GB (4x 4GB)	SS	-	-	14-14-14-35	1.2	●	●
HyperX	HX421C14FBK4/32	32GB (4x 8GB)	DS	-	-	14-14-14-35	1.2	●	●
HyperX	HX421C14FBK4/64	64GB (4x 16GB)	DS	-	-	15-15-15-35	1.2	●	●
HyperX	HX421C14FBK8/64	64GB (8x 8GB)	DS	-	-	14-14-14-35	1.2	●	●
Kingston	KVR21N15D8/16	16GB	DS	Micron	D9TBH	15-15-15-36	1.2	●	●
Klevv	KM4C4GX4N-2133-15-15-15-35-0	4GB	SS	-	-	15-15-15-35	1.2	●	●
Klevv	KM4C4GX4N-2133-15-15-15-35-1	16GB (4x 4GB)	SS	-	-	15-15-15-35	1.2	●	●
Klevv	KM4C8GX4N-2133-15-15-15-35-0	8GB	DS	-	-	15-15-15-35	1.2	●	●
Klevv	KM4C8GX4N-2133-15-15-15-35-1	32GB (4x 8GB)	DS	-	-	15-15-15-35	1.2	●	●
Micron	MTA16ATF1G64AZ-2G1A2	8GB	DS	Micron	D9RG0	15-15-15-36	-	●	●
Micron	MTA16ATF2G64AZ-2G1B1	16GB	DS	Micron	D9TBH	15-15-15-36	1.2	●	●
Micron	MTA8ATF1G64AZ-2G1B1	8GB	SS	-	-	15-15-15-36	1.2	●	●
Micron	MTA8ATF51264AZ-2G1A2	4GB	SS	Micron	D9RG0	15-15-15-36	-	●	●
Samsung	M378A5143DB0-CPB	4GB	SS	Samsung	K4A4G085WD	15-15-15-36	1.2	●	●
SanMax	SMD-4G28HP-21P	4GB	SS	SK Hynix	H5AN4G8NMFRTFC	15-15-15-37	-	●	●
SanMax	SMD-8G28HP-21P	8GB	DS	SK Hynix	H5AN4G8NMFRTFC	15-15-15-37	-	●	●
Silicon Power	SP004GBLFU213N01	4GB	SS	Samsung	K4A4G085WD	15-15-15-37	-	●	●
Silicon Power	SP008GBLFU213N01	8GB	DS	Samsung	K4A4G085WD	15-15-15-37	-	●	●
SK Hynix	HMA41GU7AFR8N-TF	8GB	DS	SK Hynix	H5AN4G8NAFRTFC	15-15-15-36	-	●	●
SK Hynix	HMA451U7AFR8N-TF	4GB	SS	SK Hynix	H5AN4G8NAFR	15-15-15-36	-	●	●
SK Hynix	HMA82GU6MFR8N-TF	16GB	DS	SK Hynix	H5AN8G8NMFRTFC	15-15-15-36	-	●	●
SK Hynix	HMA82GU7MFR8N-TF	16GB	DS	SK Hynix	H5AN8G8NMFR	15-15-15-36	-	●	●
SUPER TALENT	FBU2B008GM	8GB	DS	Micron	D9RGQ	15-15-15-36	1.2	●	●
Team	TED44GM2133C15ABK	4GB	SS	SK Hynix	H5AN4G8NMFRTFC	15-15-15-36	1.2	●	●
Transcend	TS1GLH64V1H	8GB	DS	Samsung	K4A4G085WE	15-15-15-36	-	●	●
Transcend	TS2GLH64V1B	16GB	DS	Samsung	K4A8G085WB	15-15-15-36	-	●	●
Transcend	TS512MLH64V1H	4GB	SS	Samsung	K4A4G085WE	15-15-15-36	-	●	●
UMAX	84G44G93MC-21OMCALGF15	4GB	SS	Micron	D9RGQ	15-15-15-36	-	●	●
UMAX	84G48G93MC-21OMCGNGF15	8GB	DS	Micron	D9RGQ	15-15-15-36	-	●	●
AVEXIR	AVD4U21331508G-1BW	8GB (1x8GB)	DS	AVEXIR	512X8DDR4	15-15-15-35	1.2V	●	●
AVEXIR	AVD4UZ121331508G-1COR	8GB (1x8GB)	DS	AVEXIR	512X8DDR4	15-15-15-35	1.2V	●	●
AVEXIR	AVD4UZ121331508G-1COB	8GB (1x8GB)	DS	AVEXIR	512X8DDR4	15-15-15-35	1.2V	●	●
AVEXIR	AVD4UZ121331508G-1COW	8GB (1x8GB)	DS	AVEXIR	512X8DDR4	15-15-15-35	1.2V	●	●
AVEXIR	AVD4UZ121331508G-1COY	8GB (1x8GB)	DS	AVEXIR	512X8DDR4	15-15-15-35	1.2V	●	●
AVEXIR	AVD4UZ121331508G-1COG	8GB (1x8GB)	DS	AVEXIR	512X8DDR4	15-15-15-35	1.2V	●	●
AVEXIR	AVD4UZ121331508G-1COO	8GB (1x8GB)	DS	AVEXIR	512X8DDR4	15-15-15-35	1.2V	●	●
AVEXIR	AVD4UZ121331508G-1CWW	8GB (1x8GB)	DS	AVEXIR	512X8DDR4	15-15-15-35	1.2V	●	●
AVEXIR	AVD4UZ121331508G-2COR	16GB (2x8GB)	DS	AVEXIR	512X8DDR4	15-15-15-35	1.2V	●	●
AVEXIR	AVD4UZ121331508G-2COB	16GB (2x8GB)	DS	AVEXIR	512X8DDR4	15-15-15-35	1.2V	●	●
AVEXIR	AVD4UZ121331508G-2COW	16GB (2x8GB)	DS	AVEXIR	512X8DDR4	15-15-15-35	1.2V	●	●
AVEXIR	AVD4UZ121331508G-2COY	16GB (2x8GB)	DS	AVEXIR	512X8DDR4	15-15-15-35	1.2V	●	●
AVEXIR	AVD4UZ121331508G-2COG	16GB (2x8GB)	DS	AVEXIR	512X8DDR4	15-15-15-35	1.2V	●	●
AVEXIR	AVD4UZ121331508G-2COO	16GB (2x8GB)	DS	AVEXIR	512X8DDR4	15-15-15-35	1.2V	●	●
AVEXIR	AVD4UZ121331508G-2CWW	16GB (2x8GB)	DS	AVEXIR	512X8DDR4	15-15-15-35	1.2V	●	●
AVEXIR	AVD4UZ121331508G-4COR	32GB (4x 8GB)	DS	AVEXIR	512X8DDR4	15-15-15-35	1.2V	●	●
AVEXIR	AVD4UZ121331508G-4COB	32GB (4x 8GB)	DS	AVEXIR	512X8DDR4	15-15-15-35	1.2V	●	●
AVEXIR	AVD4UZ121331508G-4COW	32GB (4x 8GB)	DS	AVEXIR	512X8DDR4	15-15-15-35	1.2V	●	●
AVEXIR	AVD4UZ121331508G-4COY	32GB (4x 8GB)	DS	AVEXIR	512X8DDR4	15-15-15-35	1.2V	●	●
AVEXIR	AVD4UZ121331508G-4COG	32GB (4x 8GB)	DS	AVEXIR	512X8DDR4	15-15-15-35	1.2V	●	●
AVEXIR	AVD4UZ121331508G-4COO	32GB (4x 8GB)	DS	AVEXIR	512X8DDR4	15-15-15-35	1.2V	●	●
AVEXIR	AVD4UZ121331508G-4CWW	32GB (4x 8GB)	DS	AVEXIR	512X8DDR4	15-15-15-35	1.2V	●	●

2 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 eithor the gray slots or the black slots as one pair of Dual-channel memory configurat

- 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.
- Due to Intel® chipset limitation, DDR4 2400MHz memory frequency is only supported by 7th Generation Intel® processors. Higher memory modules will run at the maximum transfer rate of DDR4 2400MHz.
- Due to Intel® chipset limitation, DDR4 2133MHz and higher memory modules on 6th Generation Intel® processors will run at the maximum transfer rate of DDR4 2133MHz.

DDR4 2400 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)	
								1DIMM	2DIMM
ADATA	AX4U2400W8G16-DRZ	8G	DS	N/A	Heat-Sink Package	16-16-16	1.2V	●	●
G.SKILL	F4-2400C15Q-32GRB	32GB (8GB*4)	DS	N/A	Heat-Sink Package	15-15-15-35	1.2V	●	●
PATRIOT	PX416G240C5QK	4G	SS	N/A	Heat-Sink Package	15-15-15-35	1.2V	●	
TEAM	TED44GM2400C16BK	4G	SS	SEC 437 BCPB	K4A4G085WD	16-16-16-39	1.2V	●	●
TEAM	TED48GM2400C16BK	8G	DS	SEC 443 BCPB	K4A4G085WD	16-16-16-39	1.2V	●	●
PANRAM	PUD42400C154G4NJW	16GB (4GB*4)	SS	N/A	Heat-Sink Package	15-15-15-35	1.2V	●	●
PANRAM	PUD42400C158G4NJW	8G	DS	N/A	Heat-Sink Package	15-15-15-35	1.2V	●	●
CORSAIR	CMK32GX4M4A2400C14	8G	DS	N/A	Heat-Sink Package	14-16-16-31	1.2V	●	●
CRUCIAL	BLS4K4G4D240FSA	4G	SS	N/A	Heat-Sink Package	16-16-16-39	1.2V	●	●
ADATA	AX4U2400W4G16-DRZ	4G	SS	N/A	Heat-Sink Package	16-16-16	1.2V	●	●
GEIL	GPR416GB2400C15QC	4G	SS	N/A	Heat-Sink Package	15-15-15-35	1.2V	●	●
MUSHKIN	997199F	8G	DS	N/A	Heat-Sink Package	15-15-15-35-50	1.2V	●	●
HyperX	HX424C15FBK4/32	32GB (8GB*4)	DS	N/A	Heat-Sink Package	15-15-15-35-56	1.2V	●	●
APACER	78.C1GMA.AF30B	8G	DS	SK HYNIX	H5AN4G8NMFR	16-16-16-36	1.2V	●	●
PNY	MD16GK2D4240015AB	16GB (8GB*2)	DS	N/A	Heat-Sink Package		1.2V	●	●
V-COLOR	TD8G16C16-UHK	16GB (8GB*2)	DS	N/A	Heat-Sink Package	16-16-16-35	1.2V	●	●
TEAM	TPAD48G2400HC16BK	8G	DS	N/A	Heat-Sink Package	16-16-16-39	1.2V	●	●
G.SKILL	F4-2400C15D-169GVR	16GB (8GB*2)	DS	N/A	Heat-Sink Package	15-15-15-35	1.2V	●	●
APACER	AHU08GGB24CDT7G	8G	DS	N/A	Heat-Sink Package	16-16-16-36		●	●
CORSAIR	CM4X8GE2400C14K4-CN	8G	DS	N/A	Heat-Sink Package	14-16-16-31	1.2V	●	●
CORSAIR	CMK8GX4M1A2400C14	8G	DS	N/A	Heat-Sink Package	14-16-16-31	1.2V	●	●
PATRIOT	PV416G240C5QK	16GB (4GB*4)	SS	N/A	Heat-Sink Package	15-15-15-35	1.2V	●	●
PATRIOT	PSD44G240081	4G	SS	PAIROT	PM512M8D4BU-083			●	●
APACER	78.B1GMA.AF20B	4G	SS	SK HYNIX	H5AN4G8NMFR	16-16-16-36	1.2V	●	
HyperX	HX424C15FBK4/16	4G	SS	N/A	Heat-Sink Package		1.2V	●	●
G.SKILL	F4-2400C14Q2-128GRK	16G	DS	N/A	Heat-Sink Package	14-14-14-34	1.2V	●	●
G.SKILL	F4-2400C14Q-16GRK	4G	SS	N/A	Heat-Sink Package	14-14-14-34	1.2V	●	●
G.SKILL	F4-2400C15Q-16GRR	4G	SS	N/A	Heat-Sink Package	15-15-15-35	1.2V	●	●
AVEXIR	AVD4UZ124001608G-4COR	8G	DS	N/A	Heat-Sink Package		1.2V	●	●
G.SKILL	F4-2400C15S-8GRK	8G	DS	N/A	Heat-Sink Package	15-15-15-35	1.2V	●	●
AVEXIR	AVD4UZ124001604G-4COB	4G	SS	N/A	Heat-Sink Package		1.2V	●	●
G.SKILL	F4-2400C15S-8GRK	8G	DS	N/A	Heat-Sink Package	15-15-15-35	1.2V	●	●
AVEXIR	AVD4UZ124001604G-4COB	4G	SS	N/A	Heat-Sink Package		1.2V	●	●
HyperX	HX424C15FB/8	8G	DS	N/A	Heat-Sink Package	15-15-15-35-56	1.2V	●	●
CRUCIAL	BLS8G4D240FSA.16FADG	8G	DS	N/A	Heat-Sink Package	16-16-16-39	1.2V	●	●
TEAM	TED48G2400C16BK	8GB	DS	TEAM	T4D5128HT-24	16-16-16-39	1.2V	●	●
HyperX	HX424C12PBK4/32	8G	DS	N/A	Heat-Sink Package		1.35V	●	●
CUSO	PC4-19200	4G	SS	CUSO	512X8DDR4	16-16-16-35	1.2V	●	●
G.SKILL	F4-2400C15Q-32GRR	8G	DS	N/A	Heat-Sink Package	15-15-15-35	1.2V	●	●
PATRIOT	PSD48G240002	8G	DS	PAIROT	1621JB5454512X8DDR4			●	●
GOMOS	GRR-D4-2400-8GB	8G	SS	GOMOS	GD4N8G8F-UH			●	●
GALAXY	GAL4AXLBM2400D16JE081C	8G	SS	GALAXY	GA4L1GM88BA093H		1.2V	●	●
GEIL	DDR48GB2400C16QC	8G	SS	GEIL	1GX8DDR4 HL 1612	16-16-16-36	1.2V	●	●
CORSAIR	CM4X8GE2400C16K4-CN	8G	DS	N/A	Heat-Sink Package	16-16-16-39	1.2V	●	●
LEORICE	DDR4/2400MHZ/CL15/1.2V	32GB (8GB*4)	SS	N/A	Heat-Sink Package		1.2V	●	●
HyperX	HX424C12SB2K2/16	16G	DS	N/A	Heat-Sink Package		1.35V	●	●
CORSAIR	CMD32GX4M4A2400C14	8G	DS	N/A	Heat-Sink Package	14-16-16-31	1.2V	●	●
AMD	R748G2400U2S	8G	DS	N/A	Heat-Sink Package	15-15-15-36	1.2V	●	●
MICRON	MTA16ATF2G64AZ-2G3B1	16G	DS	MICRON	5WB47D9TBH			●	●
MICRON	MTA8ATF1G64AZ-2G3B1	8G	SS	MICRON	5WB47D9TBH	17-17-17-39-55	1.2V	●	●
HyperX	HX424C12SB2K4/16	16GB (4GB*4)	SS	N/A	Heat-Sink Package		1.35V	●	●
HyperX	HX424C12SB2K4/32	32GB (8GB*4)	DS	N/A	Heat-Sink Package		1.35V	●	●
HyperX	HX424C15FBK2/16	16GB (8GB*2)	DS	N/A	Heat-Sink Package		1.2V	●	●
GALAXY	GAM4BXLBS240016JE164C	16GB (4GB*4)	SS	N/A	Heat-Sink Package	16-16-16-36	1.2V	●	●
APACER	AH08GGB24CDT5H	16GB (2x 8G)	DS	N/A	Heat-Sink Package	16-16-16-36		●	●
CORSAIR	CMK8GX4M2A2400C14	8GB (2x 4G)	SS	N/A	Heat-Sink Package	14-16-16-31	1.2V	●	●
CORSAIR	CMK16GX4M2A2400C14	16GB (2x 8G)	DS	N/A	Heat-Sink Package	14-16-16-31	1.2V	●	●
AVEXIR	AVD4UZ124001608G-1COB	8G	DS	N/A	Heat-Sink Package		1.2V	●	●
AVEXIR	AVD4U24001608G-1BW	8G	DS	N/A	512X8DDR4		1.2V	●	●
APACER	AU08GGB24CETBGC	8G	DS	APACER	AM6F60080THSB21550F			●	●
AVEXIR	AVD4UZ124001608G-2COR	16GB (8GB*2)	DS	N/A	Heat-Sink Package		1.2V	●	●
V-COLOR	8GTC48G24S817-IMS	32GB (8GB*4)	SS	V-COLOR	N/A		1.2V	●	●
CORSAIR	CMD32GX4M4A2400C12	32GB(8GB*4)	DS	N/A	Heat-Sink Package		1.2V	●	●
G.SKILL	F4-2400C15Q-64GIS	64GB(16GB*4)	DS	N/A	Heat-Sink Package		1.2V	●	●
G.SKILL	F4-2400C15Q-32GNT	32GB(8GB*4)	SS	G.SKILL	D4 1GM8GE15		1.2V	●	●
CRUCIAL	BLS8G4D24OFSB.16FARG	32GB(8GB*4)	DS	N/A	Heat-Sink Package		1.2V	●	●
GEIL	GLW416GB2400C15DC	8G	SS	N/A	Heat-Sink Package	15-15-15-35	1.2V	●	●
TEAM	TDTRD48G2400HC15ABK	8GB	SS	N/A	Heat-Sink Package	15-15-15-35	1.2V	●	●
TEAM	TDRED48G2400HC14BK	8GB	DS	N/A	Heat-Sink Package	14-16-16-31	1.2V	●	●
GEIL	GRP416GB2400C16DC	8GB	SS	N/A	Heat-Sink Package	16-16-16-36	1.2V	●	●
ADATA	AX4U2400W8G16-BRZ	8G	DS	N/A	Heat-Sink Package	16-16-16	1.2V	●	●
HyperX	HX424C15FB/16	16GB	DS	N/A	Heat-Sink Package		1.2V	●	●
CRUCIAL	BLS8G4D240FSC.16FARG	8GB	DS	N/A	Heat-Sink Package	16-16-16-39	1.2V	●	●
CORSAIR	CMK32GX4M2A2400C14	32GB916GB*2)	DS	N/A	Heat-Sink Package	14-16-16-31	1.2V	●	●
GALAXY	GAM4HFL1BM2400D15IE08IC	8G	DS	N/A	Heat-Sink Package		1.2V	●	●
CORSAIR	CMK32GX4M4A2400C16R	32GB(4*8GB)	SS	N/A	Heat-Sink Package	16-16-16-39	1.2V	●	●
CORSAIR	CMD16GX4M4B2400C10	16GB(4*4GB)	SS	N/A	Heat-Sink Package	10-12-12-28	1.35V	●	●
MUSHKIN	997199T	16GB(2*8GB)	SS	N/A	Heat-Sink Package	15-15-15-35	1.2V	●	●
GEIL	8G2133C151.2V	8G	DS	GEIL	512X8DDR4Y		1.2V	●	●
ADATA	AD4U2400W8G17-B	8GB	DS	SK Hynix	H5AN4G8NAFRTFC	15-15-15-35	1.2	●	●
Apacer	78.B1GMS.4050B	16GB (4x 4GB)	SS	Samsung	K4A4G085WD	17-17-17-39	-	●	●
Apacer	78.C1GMS.4010B	32GB (4x 8GB)	DS	Samsung	K4A4G085WD	17-17-17-39	-	●	●
Apacer	AU08GGB24CEYBGC (EL.08G2T.GFM)	8GB	SS	Apacer	AM6F6308MHHSB2	17-17-17-39	1.2	●	●
Apacer	AHU08GGB24CDT7G (EK.08G2T.KEC)	8GB	DS	Apacer	-	16-16-16-36	1.2	●	●
Apacer	AHU08GGB24CDU7G (EK.08G2T.GEC)	8GB	SS	Apacer	-	16-16-16-36	1.2	●	●
Apacer	AHU08GGB24CDU6H (EK.16GAT.GEAK2)	16GB (2x 8GB)	SS	Apacer	-	16-16-16-36	1.2	●	●
Apacer	AHU08GGB24CDU5H (EK.16GAT.GEBK2)	16GB (2x 8GB)	SS	Apacer	-	16-16-16-36	1.2	●	●
AVEXIR	AVD4U24001604G-1BW	4GB (1x4GB)	SS	AVEXIR	512X8DDR4	16-16-16-36	1.2	●	●
AVEXIR	AVD4UZ124001604G-1COR	4GB (1x4GB)	SS	AVEXIR	512X8DDR4	16-16-16-36	1.2	●	●
AVEXIR	AVD4UZ124001604G-1COB	4GB (1x4GB)	SS	AVEXIR	512X8DDR4	16-16-16-36	1.2	●	●
AVEXIR	AVD4UZ124001604G-1COW	4GB (1x4GB)	SS	AVEXIR	512X8DDR4	16-16-16-36	1.2	●	●
AVEXIR	AVD4UZ124001604G-1COY	4GB (1x4GB)	SS	AVEXIR	512X8DDR4	16-16-16-36	1.2	●	●
AVEXIR	AVD4UZ124001604G-1COG	4GB (1x4GB)	SS	AVEXIR	512X8DDR4	16-16-16-36	1.2	●	●
AVEXIR	AVD4UZ124001604G-1COO	4GB (1x4GB)	SS	AVEXIR	512X8DDR4	16-16-16-36	1.2	●	●
AVEXIR	AVD4UZ124001604G-1CWW	4GB (1x4GB)	SS	AVEXIR	512X8DDR4	16-16-16-36	1.2	●	●
AVEXIR	AVD4UZ124001604G-2COR	8GB (2x4GB)	SS	AVEXIR	512X8DDR4	16-16-16-36	1.2	●	●
AVEXIR	AVD4UZ124001604G-2COB	8GB (2x4GB)	SS	AVEXIR	512X8DDR4	16-16-16-36	1.2	●	●
AVEXIR	AVD4UZ124001604G-2COW	8GB (2x4GB)	SS	AVEXIR	512X8DDR4	16-16-16-36	1.2	●	●
AVEXIR	AVD4UZ124001604G-2COY	8GB (2x4GB)	SS	AVEXIR	512X8DDR4	16-16-16-36	1.2	●	●
AVEXIR	AVD4UZ124001604G-2COG	8GB (2x4GB)	SS	AVEXIR	512X8DDR4	16-16-16-36	1.2	●	●
AVEXIR	AVD4UZ124001604G-2COO	8GB (2x4GB)	SS	AVEXIR	512X8DDR4	16-16-16-36	1.2	●	●
AVEXIR	AVD4UZ124001604G-2CWW	8GB (2x4GB)	SS	AVEXIR	512X8DDR4	16-16-16-36	1.2	●	●
AVEXIR	AVD4UZ124001604G-4COW	16GB (4x 4GB)	SS	AVEXIR	512X8DDR4	16-16-16-36	1.2	●	●
AVEXIR	AVD4UZ124001604G-4COY	16GB (4x 4GB)	SS	AVEXIR	512X8DDR4	16-16-16-36	1.2	●	●
AVEXIR	AVD4UZ124001604G-4COG	16GB (4x 4GB)	SS	AVEXIR	512X8DDR4	16-16-16-36	1.2	●	●
AVEXIR	AVD4UZ124001604G-4COO	16GB (4x 4GB)	SS	AVEXIR	512X8DDR4	16-16-16-36	1.2	●	●
AVEXIR	AVD4UZ124001604G-4CWW	16GB (4x 4GB)	SS	AVEXIR	512X8DDR4	16-16-16-36	1.2	●	●
AVEXIR	AVD4UZ124001608G-1COR	8GB (1x8GB)	DS	AVEXIR	512X8DDR4	16-16-16-36	1.2	●	●
AVEXIR	AVD4UZ124001608G-1COW	8GB (1x8GB)	DS	AVEXIR	512X8DDR4	16-16-16-36	1.2	●	●
AVEXIR	AVD4UZ124001608G-1COY	8GB (1x8GB)	DS	AVEXIR	512X8DDR4	16-16-16-36	1.2	●	●
AVEXIR	AVD4UZ124001608G-1COG	8GB (1x8GB)	DS	AVEXIR	512X8DDR4	16-16-16-36	1.2	●	●

2 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 eithor the gray slots or the black slots as one pair of Dual-channel memory configurat

- 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.
- Due to Intel® chipset limitation, DDR4 2400MHz memory frequency is only supported by 7th Generation Intel® processors. Higher memory modules will run at the maximum transfer rate of DDR4 2400MHz.
- Due to Intel® chipset limitation, DDR4 2133MHz and higher memory modules on 6th Generation Intel® processors will run at the maximum transfer rate of DDR4 2133MHz.

DDR4 2400 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)	
								1DIMM	2DIMM
AVEXIR	AVD4UZ124001608G-1COO	8GB (1x8GB)	DS	AVEXIR	512X8DDR4	16-16-16-36	1.2	●	●
AVEXIR	AVD4UZ124001608G-1CWW	8GB (1x8GB)	DS	AVEXIR	512X8DDR4	16-16-16-36	1.2	●	●
AVEXIR	AVD4UZ124001608G-2COB	16GB (2x8GB)	DS	AVEXIR	512X8DDR4	16-16-16-36	1.2	●	●
AVEXIR	AVD4UZ124001608G-2COW	16GB (2x8GB)	DS	AVEXIR	512X8DDR4	16-16-16-36	1.2	●	●
AVEXIR	AVD4UZ124001608G-2COY	16GB (2x8GB)	DS	AVEXIR	512X8DDR4	16-16-16-36	1.2	●	●
AVEXIR	AVD4UZ124001608G-2COG	16GB (2x8GB)	DS	AVEXIR	512X8DDR4	16-16-16-36	1.2	●	●
AVEXIR	AVD4UZ124001608G-2COO	16GB (2x8GB)	DS	AVEXIR	512X8DDR4	16-16-16-36	1.2	●	●
AVEXIR	AVD4UZ124001608G-2CWW	16GB (2x8GB)	DS	AVEXIR	512X8DDR4	16-16-16-36	1.2	●	●
AVEXIR	AVD4UZ124001608G-4COB	32GB (4x 8GB)	DS	AVEXIR	512X8DDR4	16-16-16-36	1.2	●	●
AVEXIR	AVD4UZ124001608G-4COW	32GB (4x 8GB)	DS	AVEXIR	512X8DDR4	16-16-16-36	1.2	●	●
AVEXIR	AVD4UZ124001608G-4COY	32GB (4x 8GB)	DS	AVEXIR	512X8DDR4	16-16-16-36	1.2	●	●
AVEXIR	AVD4UZ124001608G-4COG	32GB (4x 8GB)	DS	AVEXIR	512X8DDR4	16-16-16-36	1.2	●	●
AVEXIR	AVD4UZ124001608G-4COO	32GB (4x 8GB)	DS	AVEXIR	512X8DDR4	16-16-16-36	1.2	●	●
AVEXIR	AVD4UZ124001608G-4CWW	32GB (4x 8GB)	DS	AVEXIR	512X8DDR4	16-16-16-36	1.2	●	●
CORSAIR	CMD16GX4M4A2400C14	16GB (4x 4GB)	SS	-	-	14-16-16-31	1.2	●	●
CORSAIR	CMK16GX4M2A2400C16	16GB (2x 8GB)	DS	-	-	16-16-16-39	1.2	●	●
CORSAIR	CMK16GX4M4A2400C14	16GB (4x 4GB)	SS	-	-	14-16-16-31	1.2	●	●
CORSAIR	CMK32GX4M4A2400C16	32GB (4x 8GB)	SS	-	-	16-16-16-39	1.2	●	●
CORSAIR	CMK64GX4M4A2400C14	64GB (4x 16GB)	DS	-	-	14-16-16-31	1.2	●	●
Crucial	BLS4G4D240FSA.8FAD	4GB	SS	-	-	16-16-16-40	1.2	●	●
crucial	BLS4G4D240FSA.8FAR	4GB	SS	-	-	16-16-16-40	1.2	●	●
Crucial	BLS8G4D240FSA.16FAD	32GB (4x 8GB)	DS	-	-	16-16-16-40	1.2	●	●
crucial	BLS8G4D240FSA.16FAR	8GB	DS	-	-	16-16-16-40	1.2	●	●
Crucial	CT16G4DFD824A.16FB1	16GB	DS	Micron	D9TBH	17-17-17-39	1.2	●	●
Crucial	CT8G4DFS824A.8FB1	8GB	SS	-	-	17-17-17-39	1.2	●	●
Foxteonn	FEU8GN51208KC2400H	8GB	DS	Nanya	NT5AD512M8B1-FM	17-17-17-39	-	●	●
G.SKILL	F4-2400C15Q-16GVR	16GB (4x 4GB)	SS			15-15-15-35	1.2	●	●
G.SKILL	F4-2400C15Q-16GVB	16GB (4x 4GB)	SS			15-15-15-35	1.2	●	●
G.SKILL	F4-2400C15Q-16GVG	16GB (4x 4GB)	SS			15-15-15-35	1.2	●	●
G.SKILL	F4-2400C15Q-16GVK	16GB (4x 4GB)	SS			15-15-15-35	1.2	●	●
G.SKILL	F4-2400C15Q-16GVS	16GB (4x 4GB)	SS			15-15-15-35	1.2	●	●
G.SKILL	F4-2400C15Q-16GRK	16GB (4x 4GB)	SS			15-15-15-35	1.2	●	●
G.SKILL	F4-2400C15Q-16GRB	16GB (4x 4GB)	SS			15-15-15-35	1.2	●	●
G.SKILL	F4-2400C15Q2-128GVR	128GB (8x 16GB)	DS			15-15-15-35	1.2	●	●
G.SKILL	F4-2400C15Q2-128GVK	128GB (8x 16GB)	DS			15-15-15-35	1.2	●	●
G.SKILL	F4-2400C15Q2-128GRK	128GB (8x 16GB)	DS	-	-	15-15-15-35	1.2	●	●
G.SKILL	F4-2400C15Q-32GVR	32GB (4x 8GB)	DS			15-15-15-35	1.2	●	●
G.SKILL	F4-2400C15Q-32GVB	32GB (4x 8GB)	DS			15-15-15-35	1.2	●	●
G.SKILL	F4-2400C15Q-32GVG	32GB (4x 8GB)	DS			15-15-15-35	1.2	●	●
G.SKILL	F4-2400C15Q-32GVK	32GB (4x 8GB)	DS			15-15-15-35	1.2	●	●
G.SKILL	F4-2400C15Q-32GVS	32GB (4x 8GB)	DS			15-15-15-35	1.2	●	●
G.SKILL	F4-2400C15Q-32GRK	32GB (4x 8GB)	DS			15-15-15-35	1.2	●	●
GeIL	GLR464GB2400C14QC	64GB (4x 16GB)	DS	-	-	14-14-14-35	1.2	●	●
GeIL	GPR432GB2400C15QC	32GB (4x 8GB)	DS	-	-	15-15-15-35	1.2	●	●
HyperX	HX424C12SB2/4	4GB	SS	-	-	12-14-14-35	1.35	●	●
HyperX	HX424C12SB2/8	8GB	DS	-	-	12-14-14-35	1.35	●	●
HyperX	HX424C15B2K4/32	32GB (4x 8GB)	SS	-	-	15-15-15-35	1.2	●	●
HyperX	HX424C15FB/4	4GB	SS	-	-	15-15-5-35	1.2	●	●
HyperX	HX424C15FBK2/8	8GB (2x 4GB)	SS	-	-	15-15-5-35	1.2	●	●
HyperX	HX424C15FBK4/64	64GB (4x 16GB)	DS	-	-	15-15-15-35	1.2	●	●
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	●	●
SK Hynix	HMA81GU6AFR8N-UH	8GB	SS	SK Hynix	H5AN8GBNAFRUHC	17-17-17-39	-	●	●
SK Hynix	HMA82GU6AFR8N-UH	16GB	DS	SK Hynix	H5AN8GBNAFRUHC	17-17-17-39	-	●	●
SK Hynix	HMA851U6AFR6N-UH	4GB	SS	SK Hynix	H5AN8G6NAFRUHC	17-17-17-39	-	●	●
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	●	●
V-color	TD8G16C17-UH	8GB	DS	V-color	A4G8H-24CS	17-17-17-39	1.2	●	●
HyperX	HX424C12PB2K4/16	16GB (4x 4GB)	SS	-	-	12-13-13-35	1.2V	●	●
HyperX	HX424C15FB2K4/32	32GB (4x 8GB)	SS	-	-	15-15-15-35	1.2V	●	●
AVEXIR	AVD4U24001604G-4CIR	32GB (4x 8GB)	SS	-	-	16-16-16-36	1.2V	●	●
AVEXIR	AVD4U24001608G-4M	32GB (4x 8GB)	DS	SK Hynix	H5AN4G8NMFRTFC	16-16-16-39	1.2V	●	●
Apacer	EK.08G2T.GEC	8GB	SS	-	-	16-16-16-36	-	●	●
Apacer	EL.08G2T.GFM	8GB	SS	Apacer	AM6F6308MHHSB2	17-17-17-39	-	●	●

2 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 eithor the gray slots or the black slots as one pair of Dual-channel memory configurat

- 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.
- Due to Intel® chipset limitation, DDR4 2400MHz memory frequency is only supported by 7th Generation Intel® processors. Higher memory modules will run at the maximum transfer rate of DDR4 2400MHz.
- Due to Intel® chipset limitation, DDR4 2133MHz and higher memory modules on 6th Generation Intel® processors will run at the maximum transfer rate of DDR4 2133MHz.

DDR4 2666 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)	
								1DIMM	2DIMM
CORSAIR	CMK16GX4M4A2666C16	16GB (4GB*4)	SS	N/A	Heat-Sink Package	16-18-18-35	1.2V	●	●
CORSAIR	CMD32GX4M4A2666C15	32GB (8GB*4)	DS	N/A	Heat-Sink Package	15-17-17-35	1.2V	●	●
G.SKILL	F4-2666C15Q-16GRR	16GB (4GB*4)	SS	N/A	Heat-Sink Package	15-15-15-35	1.2V	●	●
PATRIOT	PX416G266C5QK	16GB (4GB*4)	SS	N/A	Heat-Sink Package	15-15-15-35	1.2V	●	●
G.SKILL	F4-2666C16Q2-64GRB	64GB (8GB*8)	DS	N/A	Heat-Sink Package	16-16-16-36	1.2V	●	●
TEAM	TCD48G2666C15ABK	8G	DS	SK HYNIX	H5AN4G8NMFR	15-15-15-35	1.2V	●	●
TEAM	TCD44G2666C15ABK	4G	SS	SEC 443 BCPB	K4A4G085WD	15-15-15-35	1.2V	●	●
MUSHKIN	997192F	8GB(4GB*2)	SS	N/A	Heat-Sink Package	15-15-15-35	1.2V	●	●
HyperX	HX426C13PBK4/32	32GB (8GB*4)	DS	N/A	Heat-Sink Package	15-15-15-36	1.35V	●	●
HyperX	HX426C15FBK4/32	32GB (8GB*4)	DS	N/A	Heat-Sink Package	15-17-17-35	1.2V	●	●
CORSAIR	CMD128GX4M8A2666C15	128GB(16GB*4)	DS	N/A	Heat-Sink Package	15-17-17-35	1.2V	●	●
HyperX	HX426C15FBK4/16	16GB (4GB*4)	SS	N/A	Heat-Sink Package	15-17-17-35	1.2V	●	●
CRUCIAL	BLE4G4D26AFEA.8FAD	8G	SS	N/A	Heat-Sink Package	16-16-17-36	1.2V	●	●
CRUCIAL	BLE8G4D26AFEA.16FAD	8G	DS	N/A	Heat-Sink Package	16-17-17-36	1.2V	●	●
AVEXIR	AVD4UZ126661504G-4COB	16GB (4GB*4)	SS	N/A	Heat-Sink Package	15-15-15-36	1.2V	●	●
PATRIOT	PV416G266C5QK	16GB (4GB*4)	SS	N/A	Heat-Sink Package	15-15-15-35	1.2V	●	●
AVEXIR	AVD4UZ126661504G-4IPROG	16G(4G*4)	DS	N/A	Heat-Sink Package		1.2V	●	●
AVEXIR	AVD4UZ126661504G	8G(4G*2)	DS	N/A	Heat-Sink Package		1.2V	●	●
CORSAIR	CMU32GX4M2A2666C16	32GB(2*16GB)	DS	N/A	Heat-Sink Package	16-18-18-35	1.2V	●	●
CORSAIR	CMK32GX4M4A2666C16	32GB(8GB*4)	DS	N/A		16-18-18-35	1.2V	●	●
AVEXIR	AVD4UZ126661508G-4COB	32GB (8GB*4)	DS	N/A	Heat-Sink Package	15-15-15-36	1.2V	●	●
CRUCIAL	BLT4G4D26AFTA.8FADG	4G	SS	N/A	Heat-Sink Package	16-17-17-36	1.2V	●	●
CRUCIAL	BLT8G4D26AFTA.16FAD	8G	DS	N/A	Heat-Sink Package	16-17-17-36	1.2V	●	●
KLEVV	IMA41GU6MFR8N-C F0	8G	DS	N/A	Heat-Sink Package	15-15-15	1.2V	●	●
HyperX	HX426C13SB2K4/32	32GB (8GB*4)	DS	N/A	Heat-Sink Package	15-15-15-36	1.35V	●	●
HyperX	HX426C13SB2K4/16	16GB (4GB*4)	SS	N/A	Heat-Sink Package	15-15-15-36	1.35V	●	●
PNY	MD16GK4D4266615AXR	16GB (4GB*4)	SS	N/A	Heat-Sink Package		1.2V	●	●
AVEXIR	AVD4UZ126661704G-4COR	4G*4	SS	N/A	Heat-Sink Package	17-17-17-37	1.2V	●	●
AVEXIR	AVD4UZ126661708G-4COR	8G*4	SS	N/A	Heat-Sink Package	17-17-17-37	1.2V	●	●
CORSAIR	CMK32GX4M4A2666C15	32GB(4*8GB)	DS	N/A	Heat-Sink Package	15-17-17-35	1.2V	●	●
AVEXIR	AVD4UZ126661516G-2IPROG	32GB (2x16GB)	DS	Samsung	1024X8DDR4	15-15-15-35	1.2V	●	●
AVEXIR	AVD4UZ126661516G-2RDROG	32GB (2x16GB)	DS	Samsung	1024X8DDR4	15-15-15-35	1.2V	●	●
AVEXIR	AVD4UZ126661516G-4IPROG	64GB (4x16GB)	DS	Samsung	1024X8DDR4	15-15-15-35	1.2V	●	●
AVEXIR	AVD4UZ126661516G-4RDROG	64GB (4x16GB)	DS	Samsung	1024X8DDR4	15-15-15-35	1.2V	●	●
AVEXIR	AVD4UZ126661504G-2IPROG	8GB (2x4GB)	DS	Samsung	512X8DDR4	15-15-15-35	1.2V	●	●
AVEXIR	AVD4UZ126661504G-2RDROG	8GB (2x4GB)	DS	Samsung	512X8DDR4	15-15-15-35	1.2V	●	●
AVEXIR	AVD4UZ126661504G-4RDROG	16GB (4x 4GB)	DS	Samsung	512X8DDR4	15-15-15-35	1.2V	●	●
AVEXIR	AVD4UZ126661508G-2IPROG	16GB (2x8GB)	SS	Samsung	1024X8DDR4	15-15-15-35	1.2V	●	●
AVEXIR	AVD4UZ126661508G-2RDROG	16GB (2x8GB)	SS	Samsung	1024X8DDR4	15-15-15-35	1.2V	●	●
AVEXIR	AVD4UZ126661508G-4IPROG	32B (4x8GB)	SS	Samsung	1024X8DDR4	15-15-15-35	1.2V	●	●
AVEXIR	AVD4UZ126661508G-4RDROG	32B (4x8GB)	SS	Samsung	1024X8DDR4	15-15-15-35	1.2V	●	●
AVEXIR	AVD4UZ126661504G-2RD	8GB (2x4GB)	DS	Samsung	512X8DDR4	15-15-15-35	1.2V	●	●
AVEXIR	AVD4UZ126661504G-2RDGT	8GB (2x4GB)	DS	Samsung	512X8DDR4	15-15-15-35	1.2V	●	●
AVEXIR	AVD4UZ126661504G-4RD	16GB (4x 4GB)	DS	Samsung	512X8DDR4	15-15-15-35	1.2V	●	●
AVEXIR	AVD4UZ126661504G-4RDGT	16GB (4x 4GB)	DS	Samsung	512X8DDR4	15-15-15-35	1.2V	●	●
AVEXIR	AVD4UZ126661508G-2RD	16GB (2x8GB)	SS	Samsung	1024X8DDR4	15-15-15-35	1.2V	●	●
AVEXIR	AVD4UZ126661508G-2RDGT	16GB (2x8GB)	SS	Samsung	1024X8DDR4	15-15-15-35	1.2V	●	●
AVEXIR	AVD4UZ126661508G-4RD	32B (4x8GB)	SS	Samsung	1024X8DDR4	15-15-15-35	1.2V	●	●
AVEXIR	AVD4UZ126661508G-4RDGT	32B (4x8GB)	SS	Samsung	1024X8DDR4	15-15-15-35	1.2V	●	●
HyperX	HX426C13SB2/4	4GB	SS	-	-	13-15-15-39	1.35V	●	●
HyperX	HX426C13SB2/8	8GB	DS	-	-	13-15-15-39	1.35V	●	●
HyperX	HX426C13SB2K2/16	16GB (2x 8GB)	DS	-	-	13-15-15-39	1.35V	●	●
HyperX	HX426C13SB2K2/8	8GB (2x 4GB)	SS	-	-	13-15-15-39	1.35V	●	●
HyperX	HX426C15FB/4	4GB	SS	-	-	15-17-17-35	1.2V	●	●
HyperX	HX426C15FB/8	8GB	DS	-	-	15-17-17-35	1.2V	●	●
HyperX	HX426C15FBK2/16	16GB (2x 8GB)	DS	-	-	15-17-17-35	1.2V	●	●
HyperX	HX426C15FBK2/8	8GB (2x 4GB)	SS	-	-	15-17-17-35	1.2V	●	●
HyperX	HX426C15SBK4/64	64GB (4x 16GB)	DS	-	-	15-15-15-35	1.2V	●	●
G.SKILL	F4-2666C15Q-16GVR	16GB (4x 4GB)	SS			15-15-15-35	1.2V	●	●
G.SKILL	F4-2666C15Q-16GVB	16GB (4x 4GB)	SS			15-15-15-35	1.2V	●	●
G.SKILL	F4-2666C15Q-16GVG	16GB (4x 4GB)	SS			15-15-15-35	1.2V	●	●
G.SKILL	F4-2666C15Q-16GVK	16GB (4x 4GB)	SS			15-15-15-35	1.2V	●	●
G.SKILL	F4-2666C15Q-16GVS	16GB (4x 4GB)	SS			15-15-15-35	1.2V	●	●
G.SKILL	F4-2666C15Q-16GRK	16GB (4x 4GB)	SS			15-15-15-35	1.2V	●	●
G.SKILL	F4-2666C15Q-16GRB	16GB (4x 4GB)	SS			15-15-15-35	1.2V	●	●
G.SKILL	F4-2666C15Q-32GVR	32GB (4x 8GB)	DS			15-15-15-35	1.2V	●	●
G.SKILL	F4-2666C15Q-32GVB	32GB (4x 8GB)	DS			15-15-15-35	1.2V	●	●
G.SKILL	F4-2666C15Q-32GVG	32GB (4x 8GB)	DS			15-15-15-35	1.2V	●	●
G.SKILL	F4-2666C15Q-32GVK	32GB (4x 8GB)	DS			15-15-15-35	1.2V	●	●
G.SKILL	F4-2666C15Q-32GVS	32GB (4x 8GB)	DS			15-15-15-35	1.2V	●	●
G.SKILL	F4-2666C15Q-32GRK	32GB (4x 8GB)	DS			15-15-15-35	1.2V	●	●
G.SKILL	F4-2666C15Q-32GRB	32GB (4x 8GB)	DS			15-15-15-35	1.2V	●	●
G.SKILL	F4-2666C16Q2-128GVR	128GB (8x 16GB)	DS			16-16-16-36	1.2V	●	●
AVEXIR	AVD4U26661504G-4CIR	4GB	SS	-	-	15-15-15-35	1.2V	●	●
CORSAIR	CMD16GX4M2A2666C15	16GB (2x 8GB)	DS	-	-	15-17-17-35	1.2V	●	●
CORSAIR	CMD16GX4M4A2666C15	16GB (4x 4GB)	SS	-	-	15-17-17-35	1.2V	●	●
CORSAIR	CMD16GX4M4A2666C16	16GB (4x 4GB)	SS	-	-	16-18-18-35	1.2V	●	●
CORSAIR	CMD32GX4M4A2666C16	32GB (4x 8GB)	DS	-	-	16-18-18-35	1.2V	●	●
CORSAIR	CMD64GX4M8A2666C15	64GB (8x 8GB)	DS	-	-	15-17-17-35	1.2V	●	●
CORSAIR	CMD8GX4M2A2666C15	8GB (2x 4GB)	DS	-	-	15-17-17-35	1.2V	●	●
CORSAIR	CMK32GX4M2A2666C16R	32GB (2x 16GB)	DS	-	-	16-18-18-35	1.2V	●	●
CORSAIR	CMK32GX4M4A2666C16R	32GB (4x 8GB)	DS	-	-	16-18-18-35	1.2V	●	●
G.SKILL	F4-2666C16Q2-128GVK	128GB (8x 16GB)	DS	-	-	16-16-16-36	1.2V	●	●
Klevv	KM4C4GX4N-2666-15-15-15-35-0	4GB	SS	-	-	15-15-15-35	1.2V	●	●
Klevv	KM4C4GX4N-2666-15-15-15-35-1	4GB	SS	-	-	15-15-15-35	1.2V	●	●
Klevv	KM4C8GX4N-2666-15-15-15-35-0	8GB	DS	-	-	15-15-15-35	1.2V	●	●
Klevv	KM4C8GX4N-2666-15-15-15-35-1	8GB	DS	-	-	15-15-15-35	1.2V	●	●

2 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 eithor the gray slots or the black slots as one pair of Dual-channel memory configurat

- 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.
- Due to Intel® chipset limitation, DDR4 2400MHz memory frequency is only supported by 7th Generation Intel® processors. Higher memory modules will run at the maximum transfer rate of DDR4 2400MHz.
- Due to Intel® chipset limitation, DDR4 2133MHz and higher memory modules on 6th Generation Intel® processors will run at the maximum transfer rate of DDR4 2133MHz.

DDR4 2800 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)	
								1DIMM	2DIMM
CORSAIR	CMK16GX4M4A2800C16	16GB (4GB*4)	SS	N/A	Heat-Sink Package	16-18-18-36	1.2V	●	●
HyperX	HX428C14PB2K4/16	16GB (4GB*4)	SS	N/A	Heat-Sink Package	15-15-15-36-50	1.35V	●	●
PATRIOT	PX416G280C6QK	16GB (4GB*4)	SS	N/A	Heat-Sink Package	16-18-18-36	1.2V	●	●
GLOWAY	PC4-22400	4G	SS	SK HYNIX	H5AN4G8NMFR	16-16-16-36	1.2V	●	●
PANRAM	PUD42800C164G4NJW	16GB (4GB*4)	SS	N/A	Heat-Sink Package	16-18-18-36	1.25V	●	●
MUSHKIN	994207F	16GB (4GB*4)	SS	N/A	Heat-Sink Package	16-16-16-36	1.2V	●	●
HyperX	HX428C14PBK4/32	32GB (8GB*4)	DS	N/A	Heat-Sink Package	15-15-15-36-50	1.35V	●	●
AVEXIR	AVD4UZ128001604G-4COB	16GB (4GB*4)	SS	N/A	Heat-Sink Package	15-15-15-36-51	1.2V	●	●
AVEXIR	AVD4UZ128001608G-4COB	32GB (8GB*4)	DS	N/A	Heat-Sink Package	15-15-15-36-51	1.2V	●	●
CORSAIR	CMK32GX4M4A2800C16	32GB (8GB*4)	DS	N/A	Heat-Sink Package	16-18-18-36	1.2V	●	●
HyperX	HX428C14SB2K4/32	32GB (8GB*4)	DS	N/A	Heat-Sink Package	15-15-15-36-50	1.35V	●	●
HyperX	HX428C14SB2K4/16	16GB (4GB*4)	SS	N/A	Heat-Sink Package	15-15-15-36-50	1.35V	●	●
TEAM	TDGED48G2800HC16ABK	16GB (8GB*2)	SS	N/A	Heat-Sink Package	16-16-16-36	1.2V	●	●
PATRIOT	PV416G280C6QK	16GB (4GB*4)	SS	N/A	Heat-Sink Package	16-18-18-36	1.2V	●	●
ADATA	Digital Storm	8G	DS	SK HYNIX	HMA54G8NAFR			●	●
TEAM	TCD44G2800C16ABK	4G	SS	Skhymix	H5AN4G8NAFR	16-16-16-36	1.2V	●	●
TEAM	TCD48G2800C16ABK	8G	SS	TEAM	T4D10248HT-30	16-16-16-36	1.2V	●	●
HyperX	HX428C14SB2/4	4GB	SS	-	-	14-16-16-39	1.35	●	●
HyperX	HX428C14SB2/8	8GB	DS	-	-	14-16-16-39	1.35	●	●
HyperX	HX428C14SB2K2/8	8GB (2x 4GB)	SS	-	-	14-16-16-39	1.35	●	●
G.SKILL	F4-2800C14Q-64GVG	64GB (4x 16GB)	DS			14-14-14-35	1.35	●	●
G.SKILL	F4-2800C14Q-64GVS	64GB (4x 16GB)	DS			14-14-14-35	1.35	●	●
G.SKILL	F4-2800C14Q-64GVB	64GB (4x 16GB)	DS			14-14-14-35	1.35	●	●
G.SKILL	F4-2800C14Q-64GVR	64GB (4x 16GB)	DS			14-14-14-35	1.35	●	●
G.SKILL	F4-2800C16Q-16GVR	16GB (4x 4GB)	SS			16-16-16-36	1.2	●	●
G.SKILL	F4-2800C16Q-16GVB	16GB (4x 4GB)	SS			16-16-16-36	1.2	●	●
G.SKILL	F4-2800C16Q-16GVK	16GB (4x 4GB)	SS			16-16-16-36	1.2	●	●
G.SKILL	F4-2800C16Q-16GVG	16GB (4x 4GB)	SS			16-16-16-36	1.2	●	●
G.SKILL	F4-2800C16Q-16GVS	16GB (4x 4GB)	SS			16-16-16-36	1.2	●	●
G.SKILL	F4-2800C16Q-32GVB	32GB (4x 8GB)	DS			16-16-16-36	1.2	●	●
G.SKILL	F4-2800C16Q-32GVK	32GB (4x 8GB)	DS			16-16-16-36	1.2	●	●
G.SKILL	F4-2800C16Q-32GVG	32GB (4x 8GB)	DS			16-16-16-36	1.2	●	●
G.SKILL	F4-2800C16Q-32GVS	32GB (4x 8GB)	DS			16-16-16-36	1.2	●	●
ADATA	AX4U2800316G16	16GB	DS	-	-	16-16-16-36	1.2	●	●
ADATA	AX4U2800W4G17-BRZ	4GB	SS	-	-	17-17-17-36	1.2	●	●
ADATA	AX4U2800W8G15	8GB	DS	-	-	15-16-16-35	1.25	●	●
ADATA	AX4U2800W8G17-BRZ	8GB	DS	-	-	17-17-17-36	1.2	●	●
Apacer	78.BAGM8.AF20B	16GB (4x 4GB)	SS	-	-	17-17-17-36	-	●	●
Apacer	78.CAGM8.AF30B	32GB (4x 8GB)	DS	-	-	17-17-17-36	-	●	●
Apacer	EK.16GAW.KFAK2	8GB	DS	-	-	17-17-17-36	-	●	●
CORSAIR	CMD32GX4M4A2800C15	32GB (4x 8GB)	DS	-	-	15-17-17-36	1.2	●	●
CORSAIR	CMK16GX4M4A2800C16	16GB (4x 4GB)	SS	-	-	16-16-18-36	1.2	●	●
G.SKILL	F4-2800C15Q2-128GRKD	128GB (8x 16GB)	DS	-	-	15-15-15-35	1.35	●	●
G.SKILL	F4-2800C15Q2-64GRK	64GB (8x 8GB)	DS	-	-	15-16-16-35	1.25	●	●
G.SKILL	F4-2800C16Q-16GRR	16GB (4x 4GB)	SS	-	-	16-16-16-36	1.2	●	●
G.SKILL	F4-2800C16Q-32GRK	32GB (4x 8GB)	DS	-	-	16-16-16-36	1.2	●	●
G.SKILL	F4-2800C16Q-32GRR	32GB (4x 8GB)	DS	-	-	16-16-16-36	1.2	●	●
GeIL	GPR416GB2800C16QC	16GB (4x 4GB)	SS	-	-	16-16-16-36	1.2	●	●
GeIL	GPR432GB2800C16QC	32GB (4x 8GB)	DS	-	-	16-16-16-36	1.2	●	●
HyperX	HX428C14PBK8/64	64GB (8x 8GB)	DS	-	-	14-15-15-39	1.35	●	●
HyperX	HX428C14SB2K2/16	16GB (2x 8GB)	DS	-	-	14-16-16-39	1.35	●	●
Klevv	IMA451U6MFR8N-DG0	4GB	SS	-	-	16-16-16-36	1.2	●	●

2 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 eithor the gray slots or the black slots as one pair of Dual-channel memory configurat

- 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.
- Due to Intel® chipset limitation, DDR4 2400MHz memory frequency is only supported by 7th Generation Intel® processors. Higher memory modules will run at the maximum transfer rate of DDR4 2400MHz.
- Due to Intel® chipset limitation, DDR4 2133MHz and higher memory modules on 6th Generation Intel® processors will run at the maximum transfer rate of DDR4 2133MHz.

DDR4 3000 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)	
								1DIMM	2DIMM
CORSAIR	CMD32GX4M2B3000C15	32GB (16GB*2)	DS	N/A	Heat-Sink Package	15-17-17-35	1.35V	●	●
HyperX	HX430C15PB2K4/16	16GB (4GB*4)	SS	N/A	Heat-Sink Package	15-15-15-36-50	1.35V	●	●
G.SKILL	F4-3000C15Q-16GRR	16GB (4GB*4)	SS	N/A	Heat-Sink Package	15-15-15-35	1.35V	●	●
TEAM	TCD48G3000C16ABK	8G	DS	TEAM	T4D5128HT-30	16-16-16-36	1.35V	●	●
TEAM	TCD44G3000C16ABK	4G	SS	TEAM	T4D5128HT-30	16-16-16-36	1.35V	●	●
PANRAM	PUD43000C154G4NJW	16GB (4GB*4)	SS	N/A	Heat-Sink Package	15-17-17-35	1.35V	●	●
HyperX	HX430C15PBK4/32	32GB (8GB*4)	DS	N/A	Heat-Sink Package	15-15-15-36-50	1.35V	●	●
HyperX	HX430C15SB2K4/32	32GB (8GB*4)	DS	N/A	Heat-Sink Package	15-15-15-36-50	1.35V	●	●
AVEXIR	AVD4UZ130001604G-4COB	16GB (4GB*4)	SS	N/A	Heat-Sink Package	15-15-15-36-51	1.35V	●	●
AVEXIR	AVD4UZ130001608G-4COB	32GB (8GB*4)	DS	N/A	Heat-Sink Package	15-15-15-36-51	1.35V	●	●
HyperX	HX430C16PBK4/64	64GB (16GB*4)	DS	N/A	Heat-Sink Package	15-15-15-36-50	1.35V	●	●
HyperX	HX430C15SBK2/16	16GB (8GB*2)	DS	N/A	Heat-Sink Package	15-15-15-36-50	1.35V	●	●
TEAM	TCD48G3000C15ABK	8GB	DS	SK HYNIX	H5AN4G8NMFR	15-15-15-35	1.35V	●	●
KLEVV	IM44GU48A30-GIIHMC	16GB (4GB*4)	SS	N/A	Heat-Sink Package	16-18-18	1.35V	●	●
CORSAIR	CMK16GX4M2B3000C15	16GB (8GB*2)	DS	N/A	Heat-Sink Package	15-17-17-35	1.35V	●	●
HyperX	HX430C15SB2K4/16	16GB (4GB*4)	SS	N/A	Heat-Sink Package	15-15-15-36-50	1.35V	●	●
TEAM	TDGED48G3000HC16ABK	16GB (8GB*2)	DS	N/A	Heat-Sink Package	16-16-16-36	1.35V	●	●
PATRIOT	PV416G300C6QK	16GB (4GB*4)	SS	N/A	Heat-Sink Package	16-16-16-36	1.35V	●	●
G.SKILL	F4-3000C15D-32GVR	32GB (16GB*2)	DS	N/A	Heat-Sink Package	15-15-15-35	1.35V	●	●
CORSAIR	CMK64GX4M4B3000C15	64GB (16GB*4)	DS	N/A	Heat-Sink Package	15-17-17-35	1.35V	●	●
HyperX	HX430C15PB3K2/16	16GB (2x 8GB)	SS	-	-	15-17-17-36	1.35	●	●
HyperX	HX430C15PB3K2/32	32GB (2x 16GB)	DS	-	-	15-17-17-36	1.35	●	●
HyperX	HX430C15PB3K2/8	8GB (2x 4GB)	SS	-	-	15-17-17-36	1.35	●	●
HyperX	HX430C15PB3K4/16	16GB (4x 4GB)	SS	-	-	15-17-17-36	1.35	●	●
HyperX	HX430C15PB3K4/32	32GB (4x 8GB)	SS	-	-	15-17-17-36	1.35	●	●
HyperX	HX430C15PB3K4/64	64GB (4x 16GB)	DS	-	-	15-17-17-36	1.35	●	●
HyperX	HX430C15SB2/4	4GB	SS	-	-	15-17-17-39	1.35	●	●
HyperX	HX430C15SB2/8	8GB	DS	-	-	15-17-17-39	1.35	●	●
HyperX	HX430C15SB2K2/16	16GB (2x 8GB)	DS	-	-	15-17-17-39	1.35	●	●
HyperX	HX430C15SB2K2/8	8GB (2x 4GB)	SS	-	-	15-17-17-39	1.35	●	●
AVEXIR	AVD4U30001608G-4CIR	32GB (4x 8GB)	DS	AVEXIR	512X8DDR4	16-18-18-36	1.35	●	●
AVEXIR	AVD4UZ130001604G-4RD	16GB (4x 4GB)	SS	AVEXIR	512X8DDR4	16-18-18-36	1.35	●	●
AVEXIR	AVD4UZ130001608G-4RD	32GB (4x 8GB)	SS	AVEXIR	512X8DDR4	16-18-18-36	1.35	●	●
AVEXIR	AVD4UZ130001604G-2BZ1RR	8GB (2x4GB)	SS	AVEXIR	512X8DDR4	16-18-18-36	1.35	●	●
AVEXIR	AVD4UZ130001604G-2BZ1GY	8GB (2x4GB)	SS	AVEXIR	512X8DDR4	16-18-18-36	1.35	●	●
AVEXIR	AVD4UZ130001604G-2BZ1SW	8GB (2x4GB)	SS	AVEXIR	512X8DDR4	16-18-18-36	1.35	●	●
AVEXIR	AVD4UZ130001604G-2RD	8GB (2x4GB)	SS	AVEXIR	512X8DDR4	16-18-18-36	1.35	●	●
AVEXIR	AVD4UZ130001604G-2RDGT	8GB (2x4GB)	SS	AVEXIR	512X8DDR4	16-18-18-36	1.35	●	●
AVEXIR	AVD4UZ130001604G-4BZ1RR	16GB (4x4GB)	SS	AVEXIR	512X8DDR4	16-18-18-36	1.35	●	●
AVEXIR	AVD4UZ130001604G-4BZ1GY	16GB (4x4GB)	SS	AVEXIR	512X8DDR4	16-18-18-36	1.35	●	●
AVEXIR	AVD4UZ130001604G-4BZ1SW	16GB (4x4GB)	SS	AVEXIR	512X8DDR4	16-18-18-36	1.35	●	●
AVEXIR	AVD4UZ130001604G-4RDGT	16GB (4x4GB)	SS	AVEXIR	512X8DDR4	16-18-18-36	1.35	●	●
AVEXIR	AVD4UZ130001608G-2BZ1RR	8GB (2x4GB)	SS	AVEXIR	1024X8DDR4	16-18-18-36	1.35	●	●
AVEXIR	AVD4UZ130001608G-2BZ1GY	8GB (2x4GB)	SS	AVEXIR	1024X8DDR4	16-18-18-36	1.35	●	●
AVEXIR	AVD4UZ130001608G-2BZ1SW	8GB (2x4GB)	SS	AVEXIR	1024X8DDR4	16-18-18-36	1.35	●	●
AVEXIR	AVD4UZ130001608G-2RD	8GB (2x4GB)	SS	AVEXIR	1024X8DDR4	16-18-18-36	1.35	●	●
AVEXIR	AVD4UZ130001608G-2RDGT	8GB (2x4GB)	SS	AVEXIR	1024X8DDR4	16-18-18-36	1.35	●	●
AVEXIR	AVD4UZ130001608G-4BZ1RR	16GB (4x4GB)	SS	AVEXIR	1024X8DDR4	16-18-18-36	1.35	●	●
AVEXIR	AVD4UZ130001608G-4BZ1GY	16GB (4x4GB)	SS	AVEXIR	1024X8DDR4	16-18-18-36	1.35	●	●
AVEXIR	AVD4UZ130001608G-4BZ1SW	16GB (4x4GB)	SS	AVEXIR	1024X8DDR4	16-18-18-36	1.35	●	●
AVEXIR	AVD4UZ130001608G-4RDGT	16GB (4x4GB)	SS	AVEXIR	1024X8DDR4	16-18-18-36	1.35	●	●
G.SKILL	F4-3000C14Q2-128GVRD	128GB (8x 16GB)	DS			14-14-14-34	1.35	●	●
G.SKILL	F4-3000C14Q2-128GVKD	128GB (8x 16GB)	DS			14-14-14-34	1.35	●	●
G.SKILL	F4-3000C15D-8GTZB	8GB (2x 4GB)	SS			15-16-16-35	1.35	●	●
G.SKILL	F4-3000C15D-8GVRB	8GB (2x 4GB)	SS			15-16-16-35	1.35	●	●
G.SKILL	F4-3000C15Q-16GTZ	16GB (4x 4GB)	SS			15-15-15-35	1.35	●	●
G.SKILL	F4-3000C15Q-16GVR	16GB (4x 4GB)	SS			15-15-15-35	1.35	●	●
G.SKILL	F4-3000C15Q-16GVB	16GB (4x 4GB)	SS			15-15-15-35	1.35	●	●
G.SKILL	F4-3000C15Q-16GVK	16GB (4x 4GB)	SS			15-15-15-35	1.35	●	●
G.SKILL	F4-3000C15Q-16GVG	16GB (4x 4GB)	SS			15-15-15-35	1.35	●	●
G.SKILL	F4-3000C15Q-16GVS	16GB (4x 4GB)	SS			15-15-15-35	1.35	●	●
G.SKILL	F4-3000C15Q-32GTZ	32GB (4x 8GB)	DS			15-15-15-35	1.35	●	●
G.SKILL	F4-3000C15Q-32GVR	32GB (4x 8GB)	DS			15-15-15-35	1.35	●	●
G.SKILL	F4-3000C15Q-32GVB	32GB (4x 8GB)	DS			15-15-15-35	1.35	●	●
G.SKILL	F4-3000C15Q-32GVK	32GB (4x 8GB)	DS			15-15-15-35	1.35	●	●
G.SKILL	F4-3000C15Q-32GVG	32GB (4x 8GB)	DS			15-15-15-35	1.35	●	●
G.SKILL	F4-3000C15Q-32GVS	32GB (4x 8GB)	DS			15-15-15-35	1.35	●	●
ADATA	AX4U3000W4G16-BWZ	4GB	SS	-	-	16-16-16-36	1.35	●	●
ADATA	AX4U3000W8G16-BWZ	8GB	DS	-	-	16-16-16-36	1.35	●	●
Apacer	EK.16GAW.KFBK2	8GB	DS	-	-	16-16-16-36	-	●	●
AVEXIR	AVD4U30001504G-4CIR	16GB (4x 4GB)	DS	-	-	15-15-15-35	1.35	●	●
CORSAIR	CMD32GX4M4B3000C15	32GB (4x 8GB)	DS	-	-	15-17-17-35	1.35	●	●
G.SKILL	F4-3000C14Q2-128GVK	128GB (8x 16GB)	DS	-	-	14-14-14-34	1.35	●	●
G.SKILL	F4-3000C15Q-16GRK	16GB (4x 4GB)	SS	-	-	15-15-15-35	1.35	●	●
G.SKILL	F4-3000C16Q2-128GVKB	128GB (8x 16GB)	DS	-	-	16-18-18-38	1.35	●	●
GeIL	GLR416GB3000C16QC	16GB (4x 4GB)	SS	-	-	16-16-16-36	1.35	●	●
GeIL	GWW416GB3000C15DC	16GB (2x 8GB)	DS	GeIL	CG4L512G88BA093L	15-17-17-35	1.35	●	●
Klevv	IM48GU48A30-GIIHMC	8GB	DS	-	-	16-18-18-36	1.35	●	●
PATRIOT	PV432G300C6QK-PE000378	32GB (4x 8GB)	DS	-	-	16-16-16-36	1.35	●	●
CORSAIR	CMU32GX4M4AC3000C15	32GB(8GB*4)	DS	N/A	Heat-Sink Package	15-17-17-35	1.35	●	●

DDR4 3200 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)	
								1DIMM	2DIMM
PANRAM	PUD43200C164G4NJW	16GB (4GB*4)	SS	N/A	Heat-Sink Package	16-18-18-39	1.35V	●	●
MUSHKIN	997202F	8GB (4GB*2)	SS	N/A	Heat-Sink Package	16-16-16-36	1.35V	●	●
G.SKILL	F4-3200C16D-8GVKB	8GB (4GB*2)	SS	N/A	Heat-Sink Package	16-18-18-38	1.35V	●	●
APACER	78.BAGMD.AF20B	8GB (4GB*2)	SS	N/A	Heat-Sink Package	16-16-16-36		●	●
PATRIOT	PV48G320C6K	8GB (4GB*2)	SS	N/A	Heat-Sink Package		1.35V	●	●
HyperX	HX432C16PB3K4/32	32GB (8GB*4)	SS	N/A	Heat-Sink Package		1.35V	●	●

DDR4 3300-3333 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)	
								1DIMM	2DIMM
ADATA	AX4U3333W4G16-QGZ	32GB (8GB*4)	SS	N/A	Heat-Sink Package	16-16-16	1.35V	●	●
HyperX	HX433C16PB3K2/16	16GB (8GB*2)	SS	N/A	Heat-Sink Package		1.35V	●	●
G.SKILL	F4-3300C16Q-16GRKD	16GB (4GB*4)	SS	N/A	Heat-Sink Package	16-16-16-36	1.35V	●	●

DDR4 3400 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)	
								1DIMM	2DIMM
GEIL	GLWR416GB3400C16AQC	16GB (4GB*4)	SS	N/A	Heat-Sink Package	16-18-18-36	1.35V	●	●
G.SKILL	F4-3400C16Q-16GRBD	16GB (4GB*4)	SS	N/A	Heat-Sink Package	16-18-18-38	1.35V	●	●
G.SKILL	F4-3400C16D-16GVK	16GB (8GB*2)	DS	N/A	Heat-Sink Package	16-18-18-38	1.35V	●	●
PATRIOT	PV48G340C6K	8GB (4GB*2)	SS	N/A	Heat-Sink Package		1.35V	●	●

DDR4 3466 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)	
								1DIMM	2DIMM
G.SKILL	F4-3466C16Q-16GVK	16GB (4GB*4)	SS	N/A	Heat-Sink Package	16-18-18-38	1.35V	●	●
CORSAIR	CMD16GX4M4B3466C18	16GB (4GB*4)	SS	N/A	Heat-Sink Package	18-19-19-39	1.35V	●	●

2 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 eithor the gray slots or the black slots as one pair of Dual-channel memory configurat

- 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.
- Due to Intel® chipset limitation, DDR4 2400MHz memory frequency is only supported by 7th Generation Intel® processors. Higher memory modules will run at the maximum transfer rate of DDR4 2400MHz.
- Due to Intel® chipset limitation, DDR4 2133MHz and higher memory modules on 6th Generation Intel® processors will run at the maximum transfer rate of DDR4 2133MHz.

DDR4 3600 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)	
								1DIMM	2DIMM
G.SKILL	F4-3600-C17Q-16GVK	16GB (4GB*4)	SS	N/A	Heat-Sink Package	17-18-18-38	1.35V	●	●
GALAXY	HOF4CALCS3600K17LD162C	16GB (8G*2)	SS	N/A	Heat-Sink Package		1.35V	●	●

DDR4 4000 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)	
								1DIMM	2DIMM
G.SKILL	F4-4000C19D-8GTZ	8GB (4GB*2)	SS	N/A	Heat-Sink Package	19-21-21-41	1.35V	●	●

DDR4 4133 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)	
								1DIMM	2DIMM
GEIL	GWW48GB4133C19DC	8GB (4GB*2)	SS	GEIL	CG4L512G88BA093AU	19-25-25-45	1.4V	●	●

2 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 eithor the gray slots or the black slots as one pair of Dual-channel memory configurat

- 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.
- Due to Intel® chipset limitation, DDR4 2400MHz memory frequency is only supported by 7th Generation Intel® processors. Higher memory modules will run at the maximum transfer rate of DDR4 2400MHz.
- Due to Intel® chipset limitation, DDR4 2133MHz and higher memory modules on 6th Generation Intel® processors will run at the maximum transfer rate of DDR4 2133MHz.