RAMPAGE V EXTREME

DDR4 2133 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)		
								2 DIMM	4 DIMM	8 DIMM
A_DATA	AX4U2133W4G13-DRZ	4GB	SS	SK hynix	H5AN4G8NMFR	13-13-13-36	1.2V	●	●	
A_DATA	AX4U2133W8G13-DRZ	8GB	DS	SK hynix	H5AN4G8NMFR	13-13-13-36	1.2V	●	●	
A_DATA	AX4U2133W4G15-DRZ	4GB	SS	SK hynix	H5AN4G8NMFR	15-15-15-37	1.2V	●	●	
A_DATA	AX4U2133W8G15-DRZ	8GB	DS	SK hynix	H5AN4G8NMFR	15-15-15-37	1.2V	●	●	
A_DATA	AD4U2133W4G15-B	4GB	SS	SK hynix	H5AN4G8NMFRTFC	15-15-15-36	1.2V	●	●	●
Apacer	78.B1GM3.AF00B	4GB	SS	SK hynix	H5AN4G8NMFRTFC	15-15-15-36	1.2V	●	●	●
Apacer	78.C1GM3.AF10B	8GB	DS	SK hynix	H5AN4G8NMFRTFC	15-15-15-36	1.2V	●	●	
AVEXIR	AVD4U21331504G-4M	16GB(4GB*4)	SS	SK hynix	H5AN4G8NMFR	15-15-15-35	1.2V	●	●	
AVEXIR	AVD4U21331508G-4M	32GB(8GB*4)	DS	SK hynix	H5AN4G8NMFR	15-15-15-35	1.2V	●	●	●
Crucial	CT4G4DFS8213.8FA1	4GB	SS	Micron	D9RGQ	15-15-15-37	1.2V	●	●	●
Crucial	CT8G4DFD8213.16FA1	8GB	DS	Micron	D9RGQ	15-15-15-37	1.2V	●	●	●
CORSAIR	CMK8GX4M2A2133C15	8GB(4GB*2)	SS	-	-	15-15-15-36	1.2V	●	●	
CORSAIR	CMK16GX4M2A2133C15	16GB(8GB*2)	DS	-	-	15-15-15-36	1.2V	●	●	
CORSAIR	CMK8GX4M2A2133C15R	8GB(4GB*2)	SS	-	-	15-15-15-36	1.2V	●	●	
CORSAIR	CMK16GX4M4A2133C13B	16GB(4GB*4)	SS	-	-	13-15-15-28	1.2V	●	●	
CORSAIR	CMK16GX4M4A2133C13R	16GB(4GB*4)	SS	-	-	13-15-15-28	1.2V	●	●	
CORSAIR	CMK16GX4M4A2133C13	16GB(4GB*4)	SS	-	-	13-15-15-28	1.2V	●	●	
CORSAIR	CMK32GX4M4A2133C13	32GB(8GB*4)	DS	-	-	13-15-15-28	1.2V	●	●	
CORSAIR	CMK64GX4M8A2133C13	64GB(8GB*8)	DS	-	-	13-15-15-28	1.2V	●	●	●
CORSAIR	CMK16GX4M4A2133C12R	16GB(4GB*4)	SS	-	-	12-14-14-27	1.2V	●	●	
CORSAIR	CMK32GX4M4A2133C12R	32GB(8GB*4)	DS	-	-	12-14-14-27	1.2V	●	●	
CORSAIR	CMD16GX4M4A2133C12	16GB(4GB*4)	SS	-	-	12-14-14-27	1.2V	●	●	
CORSAIR	CMD32GX4M4A2133C12	32GB(8GB*4)	DS	-	-	12-14-14-27	1.2V	●	●	
G.SKILL	F4-2133C12Q-16GRR	16GB(4GB*4)	SS	Hynix	H5AN4GBNMFR-TFC	12-12-12-32	1.2V	●	●	
G.SKILL	F4-2133C12Q-32GRR	32GB(8GB*4)	DS	Hynix	H5AN4GBNMFR-TFC	12-12-12-32	1.2V	●	●	
G.SKILL	F4-2133C12Q2-64GRR	64GB(8GB*8)	DS	Hynix	H5AN4GBNMFR-TFC	12-12-12-32	1.2V	●	●	●
G.SKILL	F4-2133C15Q-16GRR	16GB(4GB*4)	SS	-	-	15-15-15-35	1.2V	●	●	
G.SKILL	F4-2133C15Q-16GRB	16GB(4GB*4)	SS	-	-	15-15-15-35	1.2V	●	●	
G.SKILL	F4-2133C15Q-16GRK	16GB(4GB*4)	SS	-	-	15-15-15-35	1.2V	●	●	
G.SKILL	F4-2133C15Q-32GRR	32GB(8GB*4)	DS	-	-	15-15-15-35	1.2V	●	●	
G.SKILL	F4-2133C15Q-32GRB	32GB(8GB*4)	DS	-	-	15-15-15-35	1.2V	●	●	
G.SKILL	F4-2133C15Q-32GRK	32GB(8GB*4)	DS	-	-	15-15-15-35	1.2V	●	●	
G.SKILL	F4-2133C15Q2-64GRR	64GB(8GB*8)	DS	-	-	15-15-15-35	1.2V	●	●	●
G.SKILL	F4-2133C15Q-16GNT	16GB(4GB*4)	SS	-	-	15-15-15-35	1.2V	●	●	
G.SKILL	F4-2133C15Q-32GNT	32GB(8GB*4)	DS	-	-	15-15-15-35	1.2V	●	●	
ISDT	IMA451U6MFR8N-TF0	4GB	SS	ISDT	I5AN4G8NMFR	15-15-15-35	1.2V	●	●	●
ISDT	IMA41GU6MFR8N-TF0	8GB	DS	ISDT	I5AN4G8NMFR	15-15-15-35	1.2V	●	●	●

Kingston	KVR21N15/8	8GB	DS	SK hynix	H5AN4G8NMFRTFC	15-15-15-37	1.2V	●	●	
Kingston	HX421C13PBK4/16	16GB(4GB*4)	DS			13-13-13-36	1.2V	●	●	
Micron	MTA8ATF51264AZ-2G1A1	4GB	SS	Micron	D9RGQ	15-15-15-37	1.2V	●	●	●
Micron	MTA16ATF1G64AZ-2G1A1	8GB	DS	Micron	D9RGQ	15-15-15-37	1.2V	●	●	●
panram	PUD42133C154GNJK	4GB	SS	-	-	15-15-15-36	1.2V	●	●	
panram	PUD42133C158GNJK	8GB	DS	-	-	15-15-15-36	1.2V	●	●	
panram	PUD42133C154G2NJK	8GB(4GB*2)	SS	-	-	15-15-15-36	1.2V	●	●	
panram	PUD42133C158G2NJK	16GB(8GB*2)	DS	-	-	15-15-15-36	1.2V	●	●	
Samsung	M378A5143DB0-CPB	4GB	SS	Samsung	K4A4G085WD	15-15-15-36	1.2V	●	●	●
Samsung	M378A1G43DB0-CPB	8GB	DS	Samsung	K4A4G085WD	15-15-15-36	1.2V	●	●	●
SanMax	SMD-4G28HP-21P	4GB	SS	SK hynix	H5AN4G8NMFRTFC	15-15-15-36	1.2V	●	●	●
SanMax	SMD-4G28HP-21P	8GB	DS	SK hynix	H5AN4G8NMFRTFC	15-15-15-36	1.2V	●	●	●
SK hynix	HMA451U6MFR8N-TF	4GB	SS	SK hynix	H5AN4G8NMFRTFC	15-15-15-37	1.2V	●	●	●
SK hynix	HMA41GU6MFR8N-TF	8GB	DS	SK hynix	H5AN4G8NMFRTFC	15-15-15-37	1.2V	●	●	●
SUPER TALENT	FBU2B008GM	8GB	DS	-	-	15-15-15-36	1.2V	●	●	●
Team	TED48GM2133C15BK	8GB	DS	Micron	D9RGQ	15-15-15-36	1.2V	●	●	●
Team	TED44GM2133C15ABK	4GB	SS	SK hynix	H5AN4G8NMFRTFC	15-15-15-36	1.2V	●	●	●
Transcend	TS512MLH64V1H	4GB	SS	Micron	Z9RGR	15-15-15-36	1.2V	●	●	●
Transcend	TS1GLH64V1H	8GB	DS	Micron	Z9RGR	15-15-15-36	1.2V	●	●	
UMAX	84G48G93MC-21OMCGNGF15	4GB	SS	Micron	D9RGQ	15-15-15-36	1.2V	●	●	●
UMAX	84G44G93MC-21OMCALGF15	8GB	DS	Micron	D9RGQ	15-15-15-36	1.2V	●	●	●

Registered DIMM

Micron	MTA36ASF2G72PZ-2G1A2IG	16GB	DS	Micron	D9RGV	15-15-15-36	1.2V	●	●	●
Micron	MTA18ASF1G72PDZ-2G1A1HG	8GB	DS	Micron	D9RGQ	15-15-15-36	1.2V	●	●	●
Micron	MTA18ASF1G72PZ-2G1A2IG	8GB	DS	Micron	D9RGV	15-15-15-36	1.2V	●	●	●
Micron	MTA9ASF51272PZ-2G1A2IG	4GB	DS	Micron	D9RGQ	15-15-15-36	1.2V	●	●	●
Crucial	CT16G4RFD4213.36FA2	16GB	DS	Micron	D9RGV	15-15-15-36	1.2V	●	●	●
Crucial	CT8G4RFD8213.18FA1	8GB	DS	Micron	D9RGQ	15-15-15-36	1.2V	●	●	●
Crucial	CT8G4RFS4213.18FA2	8GB	DS	Micron	D9RGV	15-15-15-36	1.2V	●	●	●
Crucial	CT4G4RFS8213.9FA2	4GB	DS	Micron	D9RGQ	15-15-15-36	1.2V	●	●	●
Kingston	KVR21R15S4/8	8GB	DS	samsung	K4A4G045WD	15-15-15-36	1.2V	●	●	●
Samsung	M393A1G40DB0-CPB	8GB	DS	samsung	K4A4G045WD	15-15-15-36	1.2V	●	●	●
Samsung	M393A2G40DB0-CPB	16GB	DS	samsung	K4A4G045WD	15-15-15-36	1.2V	●	●	●
Team	T4E1R10S62000	16GB	DS	samsung	K4A4G045WD	15-15-15-36	1.2V	●	●	●

8 DIMM Slots

For each DRAM channel (A,B,C,D), make sure to install the DRAM module to red slot first.

• **1 DIMM**: Supports one (1) module inserted into any light color slot as Single-channel memory configuration. Install the module into the A1 slot for better compatibility.

• **2 DIMMs:** Supports two (2) modules inserted into one pair of light color slots as one pair of Dual-channel memory configuration. Install the modules into slots A1 and C1 for better compatibility.

• **4 DIMMs:** Supports four (4) modules inserted into four light color slots as two pairs of Quad-channel memory configuration. Install the modules into slots A1/B1/C1/D1 for better compatibility.

• **6 DIMMs**: Supports six (6) modules inserted into four light color slots and one pair of dark color slots as three pairs of Quad-channel memory configurations. Install the modules into slots A1/B1/A2/C1/D1/D2 for better compatibility.

• **8 DIMMs**: Supports eight (8) modules inserted into all the slots as fully-loaded Quad-channel memory configurations.

- Make sure to install the memory modules from the **light** color slots first.

- When installing total memory of 4GB capacity or more, Windows 32-bit operation system may only recognize less than 3GB. Hence, a total installed memory of less than 3GB is recommended.

- The default DIMM frequency depends on its Serial Presence Detect (SPD), which is the standard way of accessing information from a memory module. Under the default state, some memory modules for overclocking may operate at a lower frequency than the vendor-marked value

- Always install DIMMs with the same CAS latency. For optimal compatibility, we recommend that you install memory modules of the same version or date code (D/C) from the same vendor. Check with the retailer to get the correct memory modules.

- DIMM fan design may vary, make sure the fan can fit into the motherboard.

RAMPAGE V EXTREME

DDR4 2400 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)		
								2 DIMM	4 DIMM	8 DIMM
A_DATA	AX4U2400W8G16-DRZ	8GB	SS	SK hynix	H5AN4G8NMFR	16-16-16-39	1.2V	●	●	
Apacer	78.B1GM6.AF20B	4GB	SS	-	-	16-16-16-36	1.2V	●	●	●
Apacer	78.C1GM6.AF30B	8GB	DS	-	-	16-16-16-36	1.2V	●	●	
AVEXIR	AVD4U24001604G-4M	16GB(4GB*4)	SS	SK hynix	H5AN4G8NMFR	16-16-16-39	1.2V	●	●	
AVEXIR	AVD4U24001504G-4CI	16GB(4GB*4)	SS	SK hynix	H5AN4G8NMFR	15-15-15-35	1.2V	●	●	
AVEXIR	AVD4U24001608G-4M	32GB(8GB*4)	DS	SK hynix	H5AN4G8NMFR	16-16-16-39	1.2V	●	●	
AVEXIR	AVD4U24001508G-4CI	32GB(8GB*4)	DS	SK hynix	H5AN4G8NMFR	15-15-15-35	1.2V	●	●	
CORSAIR	CMD16GX4M4A2400C14	16GB(4GB*4)	SS	-	-	14-16-16-31	1.2V	●	●	
CORSAIR	CMD32GX4M4A2400C14	32GB(8GB*4)	DS	-	-	14-16-16-31	1.2V	●	●	
CORSAIR	CMD64GX4M8A2400C14	64GB(8GB*8)	DS	-	-	14-16-16-31	1.2V	●	●	●
CORSAIR	CMD16GX4M4A2400C13	16GB(4GB*4)	SS	-	-	13-15-15-31	1.2V	●	●	
CORSAIR	CMD32GX4M4A2400C13	32GB(8GB*4)	DS	-	-	13-15-15-31	1.2V	●	●	
CORSAIR	CMK16GX4M4A2400C14B	16GB(4GB*4)	SS	-	-	14-16-16-31	1.2V	●	●	
CORSAIR	CMK16GX4M4A2400C14R	16GB(4GB*4)	SS	-	-	14-16-16-31	1.2V	●	●	
CORSAIR	CMK16GX4M4A2400C14	16GB(4GB*4)	SS	-	-	14-16-16-31	1.2V	●	●	
CORSAIR	CMK32GX4M4A2400C14	32GB(8GB*4)	DS	-	-	14-16-16-31	1.2V	●	●	
CORSAIR	CMK64GX4M8A2400C14	64GB(8GB*8)	DS	-	-	14-16-16-31	1.2V	●	●	●
CORSAIR	CMK16GX4M4A2400C13R	16GB(4GB*4)	SS	-	-	13-15-15-31	1.2V	●	●	
CORSAIR	CMK32GX4M4A2400C13R	32GB(8GB*4)	DS	-	-	13-15-15-31	1.2V	●	●	
Crucial	BLS4G4D240FSA.8FAD	4GB	SS	-	-	16-16-16-40	1.2V	●	●	●
Crucial	BLS8G4D240FSA.16FAD	8GB	DS	-	-	16-16-16-40	1.2V	●	●	
Crucial	BLS4G4D240FSA.8FAR	4GB	SS			16-16-16-40	1.2V	●	●	●
Crucial	BLS8G4D240FSA.16FAR	8GB	DS			16-16-16-40	1.2V	●	●	●
G.SKILL	F4-2400C15Q-32GRR	32GB(8GB*4)	DS	-	-	15-15-15-35	1.2V	●	●	
G.SKILL	F4-2400C15Q-32GRB	32GB(8GB*4)	DS	-	-	15-15-15-35	1.2V	●	●	
G.SKILL	F4-2400C15Q-32GRK	32GB(8GB*4)	DS	-	-	15-15-15-35	1.2V	●	●	
G.SKILL	F4-2400C15Q-16GRR	16GB(4GB*4)	SS	-	-	15-15-15-35	1.2V	●	●	
G.SKILL	F4-2400C15Q-16GRB	16GB(4GB*4)	SS	-	-	15-15-15-35	1.2V	●	●	
G.SKILL	F4-2400C15Q-16GRK	16GB(4GB*4)	SS	-	-	15-15-15-35	1.2V	●	●	
G.SKILL	F4-2400C15Q-32GNT	32GB(8GB*4)	DS	-	-	15-15-15-35	1.2V	●	●	
G.SKILL	F4-2400C15Q-16GNT	16GB(4GB*4)	SS	-	-	15-15-15-35	1.2V	●	●	
G.SKILL	F4-2400C15Q2-64GRR	64GB(8GB*8)	DS	Hynix	H5AN4GBNMFR-TFC	15-15-15-35	1.2V	●	●	●
G.SKILL	F4-2400C17Q-16GRR	16GB(4GB*4)	SS	-	-	17-17-17-40	1.2V	●	●	
G.SKILL	F4-2400C17Q-32GRR	32GB(8GB*4)	DS	-	-	17-17-17-40	1.2V	●	●	
G.SKILL	F4-2400C17Q2-64GRR	64GB(8GB*8)	DS	-	-	17-17-17-40	1.2V	●	●	●
Kingston	HX424C12PB2K4/16	16GB(4GB*4)	SS	-	-	12-13-13-35	1.35V	●	●	

panram	PUD42400C154GNJK	4GB	SS	-	-	15-15-15-36	1.2V	●	●	
panram	PUD42400C158GNJK	8GB	DS	-	-	15-15-15-36	1.2V	●	●	
panram	PUD42400C154G2NJK	8GB(4GB*2)	SS	-	-	15-15-15-36	1.2V	●	●	
panram	PUD42400C158G2NJK	16GB(8GB*2)	DS	-	-	15-15-15-36	1.2V	●	●	
Team	TED44GM2400C16BK	4GB	SS	SAMSUNG	K4A4G085WD	16-16-16-39	1.2V	●	●	●
Team	TED48GM2400C16BK	8GB	DS	SAMSUNG	K4A4G085WD	16-16-16-39	1.2V	●	●	●

8 DIMM Slots

For each DRAM channel (A,B,C,D), make sure to install the DRAM module to red slot first.

• **1 DIMM**: Supports one (1) module inserted into any light color slot as Single-channel memory configuration. Install the module into the A1 slot for better compatibility.

• **2 DIMMs:** Supports two (2) modules inserted into one pair of light color slots as one pair of Dual-channel memory configuration. Install the modules into slots A1 and C1 for better compatibility.

• **4 DIMMs:** Supports four (4) modules inserted into four light color slots as two pairs of Quad-channel memory configuration. Install the modules into slots A1/B1/C1/D1 for better compatibility.

• **6 DIMMs**: Supports six (6) modules inserted into four light color slots and one pair of dark color slots as three pairs of Quad-channel memory configurations. Install the modules into slots A1/B1/A2/C1/D1/D2 for better compatibility.

• **8 DIMMs**: Supports eight (8) modules inserted into all the slots as fully-loaded Quad-channel memory configurations.

- Make sure to install the memory modules from the **light** color slots first.

- When installing total memory of 4GB capacity or more, Windows 32-bit operation system may only recognize less than 3GB. Hence, a total installed memory of less than 3GB is recommended.

- The default DIMM frequency depends on its Serial Presence Detect (SPD), which is the standard way of accessing information from a memory module. Under the default state, some memory modules for overclocking may operate at a lower frequency than the vendor-marked value

- Always install DIMMs with the same CAS latency. For optimal compatibility, we recommend that you install memory modules of the same version or date code (D/C) from the same vendor. Check with the retailer to get the correct memory modules.

- DIMM fan design may vary, make sure the fan can fit into the motherboard.

RAMPAGE V EXTREME

DDR4 2666 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)		
								2 DIMM	4 DIMM	8 DIMM
Apacer	78.B1GM7.AF20B	4GB	SS	-	-	16-16-16-36	1.2V	●	●	
Apacer	78.C1GM7.AF30B	8GB	DS	-	-	16-16-16-36	1.2V	●	●	
AVEXIR	AVD4U26661704G-4M	16GB(4GB*4)	SS	SK hynix	H5AN4G8NMFR	17-17-17-43	1.2V	●	●	
AVEXIR	AVD4U26661504G-4CI	16GB(4GB*4)	SS	SK hynix	H5AN4G8NMFR	15-15-15-35	1.2V	●	●	
AVEXIR	AVD4U26661708G-4M	32GB(8GB*4)	DS	SK hynix	H5AN4G8NMFR	17-17-17-43	1.2V	●	●	
AVEXIR	AVD4U26661508G-4CI	32GB(8GB*4)	DS	SK hynix	H5AN4G8NMFR	15-15-15-35	1.2V	●	●	
CORSAIR	CMD16GX4M4A2666C14	16GB(4GB*4)	SS	-	-	14-16-16-35	1.2V	●	●	
CORSAIR	CMD32GX4M4A2666C14	32GB(8GB*4)	DS	-	-	14-16-16-35	1.2V	●	●	
CORSAIR	CMK16GX4M4A2666C15	16GB(4GB*4)	SS	-	-	15-17-17-35	1.2V	●	●	
CORSAIR	CMK32GX4M4A2666C15	32GB(8GB*4)	DS	-	-	15-17-17-35	1.2V	●	●	
CORSAIR	CMK16GX4M4A2666C14R	16GB(4GB*4)	SS	-	-	14-16-16-35	1.2V	●	●	
CORSAIR	CMK32GX4M4A2666C14R	32GB(8GB*4)	DS	-	-	14-16-16-35	1.2V	●	●	
CORSAIR	CMK16GX4M4A2666C16(Ver5.29)	16GB (4GB*4)	SS	-	-	16-18-18-35	1.2V	●	●	
CORSAIR	CMD16GX4M4A2666C16(Ver5.29)	16GB (4GB*4)	SS	-	-	16-18-18-35	1.2V	●	●	
CORSAIR	CMK32GX4M4A2666C16(Ver5.29)	32GB(8GB*4)	DS	-	-	16-18-18-35	1.2V	●	●	
CORSAIR	CMD32GX4M4A2666C16(Ver4.23)	32GB(8GB*4)	DS	-	-	16-18-18-35	1.2V	●	●	
CORSAIR	CMK32GX4M4A2666C15(Ver5.29)	32GB(8GB*4)	DS	-	-	15-17-17-35	1.2V	●	●	
CORSAIR	CMK32GX4M4A2666C16R	32GB (8GB*4)	DS	-	-	16-18-18-35	1.2V	●	●	
CORSAIR	CMK16GX4M4A2666C15(Ver5.29)	16GB(4GB*4)	SS	-	-	15-17-17-35	1.2	●	●	
G.SKILL	F4-2666C14Q-16GRR	16GB(4GB*4)	SS	Hynix	H5AN4GBNMFR-TFC	14-14-14-34	1.2V	●	●	
G.SKILL	F4-2666C14Q-32GRR	32GB(8GB*4)	DS	Hynix	H5AN4GBNMFR-TFC	14-14-14-34	1.2V	●	●	
G.SKILL	F4-2666C15Q-16GRR	16GB(4GB*4)	SS	-	-	15-15-15-35	1.2V	●	●	
G.SKILL	F4-2666C15Q-16GRB	16GB(4GB*4)	SS	-	-	15-15-15-35	1.2V	●	●	
G.SKILL	F4-2666C15Q-16GRK	16GB(4GB*4)	SS	-	-	15-15-15-35	1.2V	●	●	
G.SKILL	F4-2666C15Q-32GRR	32GB(8GB*4)	DS	-	-	15-15-15-35	1.2V	●	●	
G.SKILL	F4-2666C15Q-32GRB	32GB(8GB*4)	DS	-	-	15-15-15-35	1.2V	●	●	●
G.SKILL	F4-2666C15Q-32GRK	32GB(8GB*4)	DS	-	-	15-15-15-35	1.2V	●	●	●
ISDT	IMA41GU6MFR8N-CF0	8GB	DS	-	-	15-15-15-35	1.2V	●	●	
ISDT	IMA451U6MFR8N-CF0	4GB	SS	-	-	15-15-15-35	1.2V	●	●	
Kingston	HX426C13PB2K4/16	16GB(4GB*4)	SS	-	-	13-14-14-39	1.35V	●	●	

8 DIMM Slots

For each DRAM channel (A,B,C,D), make sure to install the DRAM module to red slot first.

• **1 DIMM**: Supports one (1) module inserted into any light color slot as Single-channel memory configuration. Install the module into the A1 slot for better compatibility.

• **2 DIMMs:** Supports two (2) modules inserted into one pair of light color slots as one pair of Dual-channel memory configuration. Install the modules into slots A1 and C1 for better compatibility.

• **4 DIMMs:** Supports four (4) modules inserted into four light color slots as two pairs of Quad-channel memory configuration. Install the modules into slots A1/B1/C1/D1 for better compatibility.

• **6 DIMMs**: Supports six (6) modules inserted into four light color slots and one pair of dark color slots as three pairs of Quad-channel memory configurations. Install the modules into slots A1/B1/A2/C1/D1/D2 for better compatibility.

• **8 DIMMs**: Supports eight (8) modules inserted into all the slots as fully-loaded Quad-channel memory configurations.

- Make sure to install the memory modules from the **light** color slots first.

- When installing total memory of 4GB capacity or more, Windows 32-bit operation system may only recognize less than 3GB. Hence, a total installed memory of less than 3GB is recommended.

- The default DIMM frequency depends on its Serial Presence Detect (SPD), which is the standard way of accessing information from a memory module. Under the default state, some memory modules for overclocking may operate at a lower frequency than the vendor-marked value

- Always install DIMMs with the same CAS latency. For optimal compatibility, we recommend that you install memory modules of the same version or date code (D/C) from the same vendor. Check with the retailer to get the correct memory modules.

- DIMM fan design may vary, make sure the fan can fit into the motherboard.

RAMPAGE V EXTREME

DDR4 2800 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)		
								2 DIMM	4 DIMM	8 DIMM
A_DATA	AX4U2800W8G17-DRZ	8GB	DS	SK hynix	H5AN4G8NMFR	17-18-18-36	1.2V	●	●	
A_DATA	AX4U2800W4G17	16GB(4GB*4)	SS	SK hynix	H5AN4G8NMFR	17-17-17-36	1.2V	●	●	
A_DATA	AX4U2800W4G17	32GB(4GB*8)	SS	SK hynix	H5AN4G8NMFR	17-17-17-36	1.2V	●	●	●
A_DATA	AX4U2800W8G17	32GB(8GB*4)	DS	SK hynix	H5AN4G8NMFR	17-17-17-36	1.2V	●	●	
Apacer	78.B1GM8.AF20B	4GB	SS	-	-	17-17-17-36	1.2V	●	●	
Apacer	78.C1GM8.AF30B	8GB	DS	-	-	17-17-17-36	1.2V	●	●	
AVEXIR	AVD4U28001604G-4CI	16GB(4GB*4)	SS	SK hynix	H5AN4G8NMFR	16-16-16-36	1.2V	●	●	
AVEXIR	AVD4U28001504G-4BZ1	16GB(4GB*4)	SS	SK hynix	H5AN4G8NMFR	15-15-15-35	1.35V	●	●	
AVEXIR	AVD4U28001608G-4CI	32GB(8GB*4)	DS	SK hynix	H5AN4G8NMFR	16-16-16-36	1.2V	●	●	
AVEXIR	AVD4U28001508G-4BZ1	32GB(8GB*4)	DS	SK hynix	H5AN4G8NMFR	15-15-15-35	1.35V	●	●	
CORSAIR	CMD16GX4M4A2800C16	16GB(4GB*4)	SS	-	-	16-18-18-36	1.2V	●	●	
CORSAIR	CMD32GX4M4A2800C16	32GB(8GB*4)	DS	-	-	16-18-18-36	1.2V	●	●	
CORSAIR	CMD64GX4M8A2800C16	64GB(8GB*8)	DS	-	-	16-18-18-36	1.2V	●	●	●
CORSAIR	CMD16GX4M4A2800C15	16GB(4GB*4)	SS	-	-	15-17-17-36	1.2V	●	●	
CORSAIR	CMD32GX4M4A2800C15	32GB(8GB*4)	DS	-	-	15-17-17-36	1.2V	●	●	
CORSAIR	CMK16GX4M4A2800C16	16GB(4GB*4)	SS	-	-	16-18-18-36	1.2V	●	●	
CORSAIR	CMK32GX4M4A2800C16	32GB(8GB*4)	DS	-	-	16-18-18-36	1.2V	●	●	
CORSAIR	CMK64GX4M8A2800C16	64GB(8GB*8)	DS	-	-	16-18-18-36	1.2V	●	●	●
CORSAIR	CMD16GX4M4A2800C16(Ver5.29)	16GB (4GB*4)	SS	-	-	16-18-18-36	1.2V	●	●	
CORSAIR	CMK16GX4M4A2800C16(Ver5.29)	16GB (4GB*4)	SS	-	-	16-18-18-36	1.2V	●	●	
CORSAIR	CMK16GX4M4A2800C15R	16GB(4GB*4)	SS	-	-	15-17-17-36	1.2V	●	●	
CORSAIR	CMK32GX4M4A2800C15R	32GB(8GB*4)	DS	-	-	15-17-17-36	1.2V	●	●	
CORSAIR	CMK16GX4M4A2800C16	16GB(4GB*4)	SS	Samsung	K4A4G085WD	16-18-18-36	1.2V	●	●	
G.SKILL	F4-2800C16Q-16GRR	16GB(4GB*4)	SS	-	-	16-16-16-36	1.2V	●	●	
G.SKILL	F4-2800C16Q-16GRB	16GB(4GB*4)	SS	-	-	16-16-16-36	1.2V	●	●	
G.SKILL	F4-2800C16Q-16GRK	16GB(4GB*4)	SS	-	-	16-16-16-36	1.2V	●	●	
G.SKILL	F4-2800C16Q-32GRR	32GB(8GB*4)	DS	-	-	16-16-16-36	1.2V	●	●	
G.SKILL	F4-2800C16Q-32GRB	32GB(8GB*4)	DS	-	-	16-16-16-36	1.2V	●	●	
G.SKILL	F4-2800C16Q-32GRK	32GB(8GB*4)	DS	-	-	16-16-16-36	1.2V	●	●	
G.SKILL	F4-2800C17Q-16GRR	16GB(4GB*4)	SS	-	-	17-18-18-35	1.2V	●	●	
G.SKILL	F4-2800C17Q-32GRR	32GB(8GB*4)	DS	-	-	17-18-18-35	1.2V	●	●	
Kingston	HX428C14PB2K4/16	16GB(4GB*4)	SS	-	-	14-15-15-40	1.35V	●	●	

8 DIMM Slots

For each DRAM channel (A,B,C,D), make sure to install the DRAM module to red slot first.

• **1 DIMM**: Supports one (1) module inserted into any light color slot as Single-channel memory configuration. Install the module into the A1 slot for better compatibility.

• **2 DIMMs:** Supports two (2) modules inserted into one pair of light color slots as one pair of Dual-channel memory configuration. Install the modules into slots A1 and C1 for better compatibility.

• **4 DIMMs:** Supports four (4) modules inserted into four light color slots as two pairs of Quad-channel memory configuration. Install the modules into slots A1/B1/C1/D1 for better compatibility.

• **6 DIMMs**: Supports six (6) modules inserted into four light color slots and one pair of dark color slots as three pairs of Quad-channel memory configurations. Install the modules into slots A1/B1/A2/C1/D1/D2 for better compatibility.

• **8 DIMMs**: Supports eight (8) modules inserted into all the slots as fully-loaded Quad-channel memory configurations.

- Make sure to install the memory modules from the **light** color slots first.

- When installing total memory of 4GB capacity or more, Windows 32-bit operation system may only recognize less than 3GB. Hence, a total installed memory of less than 3GB is recommended.

- The default DIMM frequency depends on its Serial Presence Detect (SPD), which is the standard way of accessing information from a memory module. Under the default state, some memory modules for overclocking may operate at a lower frequency than the vendor-marked value

- Always install DIMMs with the same CAS latency. For optimal compatibility, we recommend that you install memory modules of the same version or date code (D/C) from the same vendor. Check with the retailer to get the correct memory modules.

- DIMM fan design may vary, make sure the fan can fit into the motherboard.

RAMPAGE V EXTREME

DDR4 3000 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)		
								2 DIMM	4 DIMM	8 DIMM
CORSAIR	CMD16GX4M4B3000C15	16GB(4GB*4)	SS			15-17-17-35	1.35V	●	●	
G.SKILL	F4-3000C16Q-16GRR	16GB (4GB*4)	SS	Hynix	H5AN4GBNMFR-TFC	16-16-16-36	1.35V	●	●	
G.SKILL	F4-3000C16Q-32GRR	32GB (8GB*4)	DS	Hynix	H5AN4GBNMFR-TFC	16-16-16-36	1.35V	●	●	
G.SKILL	F4-3000C15Q-16GRR	16GB(4GB*4)	SS	-	-	15-15-15-35	1.35V	●	●	
G.SKILL	F4-3000C15Q-16GRB	16GB(4GB*4)	SS	-	-	15-15-15-35	1.35V	●	●	
G.SKILL	F4-3000C15Q-16GRK	16GB(4GB*4)	SS	-	-	15-15-15-35	1.35V	●	●	
G.SKILL	F4-3000C15Q-32GRR	32GB(8GB*4)	DS	-	-	15-15-15-35	1.35V	●	●	
G.SKILL	F4-3000C15Q-32GRB	32GB(8GB*4)	DS	-	-	15-15-15-35	1.35V	●	●	
G.SKILL	F4-3000C15Q-32GRK	32GB(8GB*4)	DS	-	-	15-15-15-35	1.35V	●	●	
G.SKILL	F4-3000C16Q-32GRB	32GB(8GB*4)	DS	-	-	16-16-16-36	1.35V	●	●	
G.SKILL	F4-3000C16Q-32GRK	32GB(8GB*4)	DS	-	-	16-16-16-36	1.35V	●	●	
G.SKILL	F4-3000C15Q2-32GRK	32GB(4GB*8)	SS	-	-	15-15-15-35	1.35V	●	●	●
Kingston	HX430C15PBK4/16	16GB(4GB*4)	SS			15-16-16-39	1.35V	●	●	

8 DIMM Slots

For each DRAM channel (A,B,C,D), make sure to install the DRAM module to red slot first.

• **1 DIMM**: Supports one (1) module inserted into any light color slot as Single-channel memory configuration. Install the module into the A1 slot for better compatibility.

• **2 DIMMs:** Supports two (2) modules inserted into one pair of light color slots as one pair of Dual-channel memory configuration. Install the modules into slots A1 and C1 for better compatibility.

• **4 DIMMs:** Supports four (4) modules inserted into four light color slots as two pairs of Quad-channel memory configuration. Install the modules into slots A1/B1/C1/D1 for better compatibility.

• **6 DIMMs**: Supports six (6) modules inserted into four light color slots and one pair of dark color slots as three pairs of Quad-channel memory configurations. Install the modules into slots A1/B1/A2/C1/D1/D2 for better compatibility.

• **8 DIMMs**: Supports eight (8) modules inserted into all the slots as fully-loaded Quad-channel memory configurations.

- Make sure to install the memory modules from the **light** color slots first.

- When installing total memory of 4GB capacity or more, Windows 32-bit operation system may only recognize less than 3GB. Hence, a total installed memory of less than 3GB is recommended.

- The default DIMM frequency depends on its Serial Presence Detect (SPD), which is the standard way of accessing information from a memory module. Under the default state, some memory modules for overclocking may operate at a lower frequency than the vendor-marked value

- Always install DIMMs with the same CAS latency. For optimal compatibility, we recommend that you install memory modules of the same version or date code (D/C) from the same vendor. Check with the retailer to get the correct memory modules.

- DIMM fan design may vary, make sure the fan can fit into the motherboard.

RAMPAGE V EXTREME

DDR4 3200 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)		
								2 DIMM	4 DIMM	8 DIMM
AVEXIR	AVD4U32001604G-4CIR	16GB(4GB*4)	SS			16-18-18-36	1.35V	●	●	
Corsair	CMD16GX4M4A3200C16	16GB(4GB*4)	SS	Hynix	NA	16-18-18-36	1.35V	●	●	
GEIL	GPR416GB3200C15QC	16GB(4GB*4)	SS			15-15-15-35	1.35V	●	●	
G.SKILL	F4-3200C16Q-16GRR	16GB(4GB*4)	SS	-	-	16-16-16-36	1.35V	●	●	
G.SKILL	F4-3200C16Q-16GRB	16GB(4GB*4)	SS	-	-	16-16-16-36	1.35V	●	●	
G.SKILL	F4-3200C16Q-16GRK	16GB(4GB*4)	SS	-	-	16-16-16-36	1.35V	●	●	

8 DIMM Slots

For each DRAM channel (A,B,C,D), make sure to install the DRAM module to red slot first.

- **1 DIMM**: Supports one (1) module inserted into any light color slot as Single-channel memory configuration. Install the module into the A1 slot for better compatibility.
- **2 DIMMs:** Supports two (2) modules inserted into one pair of light color slots as one pair of Dual-channel memory configuration. Install the modules into slots A1 and C1 for better compatibility.
- **4 DIMMs:** Supports four (4) modules inserted into four light color slots as two pairs of Quad-channel memory configuration. Install the modules into slots A1/B1/C1/D1 for better compatibility.
- **6 DIMMs**: Supports six (6) modules inserted into four light color slots and one pair of dark color slots as three pairs of Quad-channel memory configurations. Install the modules into slots A1/B1/A2/ C1/D1/D2 for better compatibility.
- **8 DIMMs**: Supports eight (8) modules inserted into all the slots as fully-loaded Quad-channel memory configurations.

- Make sure to install the memory modules from the **light** color slots first.
- When installing total memory of 4GB capacity or more, Windows 32-bit operation system may only recognize less than 3GB. Hence, a total installed memory of less than 3GB is recommended.
- The default DIMM frequency depends on its Serial Presence Detect (SPD), which is the standard way of accessing information from a memory module. Under the default state, some memory modules for overclocking may operate at a lower frequency than the vendor-marked value
- Always install DIMMs with the same CAS latency. For optimal compatibility, we recommend that you install memory modules of the same version or date code (D/C) from the same vendor. Check with the retailer to get the correct memory modules.
- DIMM fan design may vary, make sure the fan can fit into the motherboard.

RAMPAGE V EXTREME

DDR4 3300 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)		
								2 DIMM	4 DIMM	8 DIMM
G.SKILL	F4-3300C17Q-16GRR	16GB(4GB*4)	SS	Gskill	-	17-20-20-44	1.5V	●	●	
G.SKILL	F4-3300C16Q-16GRK	16GB(4GB*4)	SS	-	-	16-16-16-36	1.35V	●	●	

8 DIMM Slots

For each DRAM channel (A,B,C,D), make sure to install the DRAM module to red slot first.

• **1 DIMM**: Supports one (1) module inserted into any light color slot as Single-channel memory configuration. Install the module into the A1 slot for better compatibility.

• **2 DIMMs:** Supports two (2) modules inserted into one pair of light color slots as one pair of Dual-channel memory configuration. Install the modules into slots A1 and C1 for better compatibility.

• **4 DIMMs:** Supports four (4) modules inserted into four light color slots as two pairs of Quad-channel memory configuration. Install the modules into slots A1/B1/C1/D1 for better compatibility.

• **6 DIMMs**: Supports six (6) modules inserted into four light color slots and one pair of dark color slots as three pairs of Quad-channel memory configurations. Install the modules into slots A1/B1/A2/ C1/D1/D2 for better compatibility.

• **8 DIMMs**: Supports eight (8) modules inserted into all the slots as fully-loaded Quad-channel memory configurations.

- Make sure to install the memory modules from the **light** color slots first.

- When installing total memory of 4GB capacity or more, Windows 32-bit operation system may only recognize less than 3GB. Hence, a total installed memory of less than 3GB is recommended.

- The default DIMM frequency depends on its Serial Presence Detect (SPD), which is the standard way of accessing information from a memory module. Under the default state, some memory modules for overclocking may operate at a lower frequency than the vendor-marked value

- Always install DIMMs with the same CAS latency. For optimal compatibility, we recommend that you install memory modules of the same version or date code (D/C) from the same vendor. Check with the retailer to get the correct memory modules.

- DIMM fan design may vary, make sure the fan can fit into the motherboard.

RAMPAGE V EXTREME

DDR4 3333 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)		
								2 DIMM	4 DIMM	8 DIMM
G.SKILL	F4-3333C16Q-16GRK	16GB(4GB*4)	SS	-	-	16-16-16-36	1.35V	●	●	

8 DIMM Slots

For each DRAM channel (A,B,C,D), make sure to install the DRAM module to red slot first.

• **1 DIMM**: Supports one (1) module inserted into any light color slot as Single-channel memory configuration. Install the module into the A1 slot for better compatibility.

• **2 DIMMs:** Supports two (2) modules inserted into one pair of light color slots as one pair of Dual-channel memory configuration. Install the modules into slots A1 and C1 for better compatibility.

• **4 DIMMs:** Supports four (4) modules inserted into four light color slots as two pairs of Quad-channel memory configuration. Install the modules into slots A1/B1/C1/D1 for better compatibility.

• **6 DIMMs**: Supports six (6) modules inserted into four light color slots and one pair of dark color slots as three pairs of Quad-channel memory configurations. Install the modules into slots A1/B1/A2/ C1/D1/D2 for better compatibility.

• **8 DIMMs**: Supports eight (8) modules inserted into all the slots as fully-loaded Quad-channel memory configurations.

- Make sure to install the memory modules from the **light** color slots first.
- When installing total memory of 4GB capacity or more, Windows 32-bit operation system may only recognize less than 3GB. Hence, a total installed memory of less than 3GB is recommended.
- The default DIMM frequency depends on its Serial Presence Detect (SPD), which is the standard way of accessing information from a memory module. Under the default state, some memory modules for overclocking may operate at a lower frequency than the vendor-marked value
- Always install DIMMs with the same CAS latency. For optimal compatibility, we recommend that you install memory modules of the same version or date code (D/C) from the same vendor. Check with the retailer to get the correct memory modules.
- DIMM fan design may vary, make sure the fan can fit into the motherboard.