

Qualified Vendors List (QVL), Model Name: GA-X99-Gaming 5P

DDR4 3400-3466MHz

Module Supplier	Density	# of Ranks x DRAM devices	Module P/N.	SS/DS	Chip Brand	Chip P/N.	Timing	Voltage	Memory socket support			XMP	Native
									2	4	8		
PATRIOT	4GB	1Rx8	PV48G340C6K	SS			CL16	1.35v	v			v	2133

DDR4 3300-3333MHz

Module Supplier	Density	# of Ranks x DRAM devices	Module P/N.	SS/DS	Chip Brand	Chip P/N.	Timing	Voltage	Memory socket support			XMP	Native
									2	4	8		
Avexir	4GB	1Rx8	AVD4U213331604G	SS	Samsung		CL16	1.35v	v	v		v	2133
CORSAIR	4GB	1Rx8	CMK16GX4M4B3300C16	SS			16-18-18-36	1.35v	v	v		v	2133
CORSAIR	4GB	1Rx8	CMD16GX4M4B3300C16	SS			16-18-18-36	1.35v	v	v		v	2133
CORSAIR	4GB	1Rx8	CMK16GX4M4B3333C16	SS			16-18-18-36	1.35v	v	v		v	2133
CORSAIR	4GB	1Rx8	CMK8GX4M2B3333C16	SS			16-18-18-36	1.35v	v	v		v	2133
CORSAIR	16GB	2Rx8	CMK64GX4M4B3333C16	DS			16-18-18-36	1.35v	v	v		v	2133
G.SKILL	4GB	1Rx8	F4-3333C16Q-16GRKD	SS	SKhynix		16-16-16-36	1.35v	v	v		v	2133
G.SKILL	4GB	1Rx8	F4-3300C16Q-16GRKD	SS			16-16-16-36	1.35v	v	v		v	2133
GEIL	4GB	1Rx8	GLWR48GB333316DC	SS			16-16-16-36	1.35v	v			v	2133
HyperX	4GB	1Rx8	HX433C17PBK4/16	SS			17-17-17-43	1.35v	v	v		v	2133

DDR4 3200MHz

Module Supplier	Density	# of Ranks x DRAM devices	Module P/N.	SS/DS	Chip Brand	Chip P/N.	Timing	Voltage	Memory socket support			XMP	Native
									2	4	8		
Apacer	4GB	1Rx8	78.BAGMD.AF20B	SS			16-16-16-36	1.35v	v	v		v	2133
Avexir	4GB	1Rx8	AVD4U32001604G-4CIR	SS			CL16	1.35v	v	v		v	2133
CORSAIR	4GB	1Rx8	CMD16GX4M4B3200C16	SS			16-18-18-36	1.35v	v	v		v	2133
CORSAIR	4GB	1Rx8	CMK16GX4M4B3200C15	SS			16-17-17-35	1.35v	v	v		v	2133
CORSAIR	4GB	1Rx8	CMK8GX4M2B3200C16	SS			16-18-18-36	1.35v	v	v		v	2133
CORSAIR	4GB	1Rx8	CMK16GX4M4B3200C16	SS			16-18-18-36	1.35v	v	v		v	2133
CORSAIR	4GB	1Rx8	CMK16GX4M4C3200C16	SS			16-18-18-36	1.35v	v	v		v	2133
CORSAIR	4GB	1Rx8	CMD16GX4M4C3200C15	SS			15-17-17-35	1.35v	v	v		v	2133
CORSAIR	4GB	1Rx8	CMD16GX4M4B3200C16	SS			16-18-18-36	1.35v	v	v		v	2133
CORSAIR	8GB	2Rx8	CMK16GX4M2B3200C16	DS			16-18-18-36	1.35v	v	v		v	2133
CORSAIR	8GB	1Rx8	CMD64GX4M8B3200C16	SS			16-18-18-36	1.35v	v	v	v	v	2133
CORSAIR	8GB	1Rx8	CMK64GX4M8B3200C16	SS			16-18-18-36	1.35v	v	v	v	v	2133
CORSAIR	16GB	2Rx8	CMK32GX4M2B3200C16	DS			16-18-18-36	1.35v	v	v		v	2133
CORSAIR	16GB	2Rx8	CMK64GX4M4B3200C16	DS			16-18-18-36	1.35v	v	v	v	v	2133
G.SKILL	4GB	1Rx8	F4-3200C16Q-16GRKD	SS	SKhynix		16-16-16-36	1.35v	v	v	v	v	2133
G.SKILL	4GB	1Rx8	F4-3200C16Q-16GRK	SS			16-16-16-36	1.35v	v	v	v	v	2133
G.SKILL	8GB	2Rx8	F4-3200C16Q-32GVK	DS			16-16-16-36	1.35v	v	v	v	v	2133
G.SKILL	8GB	2Rx8	F4-3200C16D-16GVKB	DS			16-18-18-38	1.35v	v	v	v	v	2133
G.SKILL	8GB	1Rx8	F4-3200C14Q2-64GVK	SS	Samsung		14-14-14-34	1.35v	v	v	v	v	2133
G.SKILL	8GB	1Rx8	F4-3200C15Q2-64GVR	SS			15-15-15-35	1.35v	v	v	v	v	2133
G.SKILL	16GB	2Rx8	F4-3200C16Q-64GVK	DS	Samsung		16-18-18-38	1.35v	v	v		v	2133
G.SKILL	16GB	2Rx8	F4-3200C14Q-64GVK	DS	Samsung		14-14-14-34	1.35v	v	v		v	2133
GEIL	4GB	1Rx8	GPR416GB3200C16QC	SS			16-16-16-36	1.35v	v	v	v	v	2133
HyperX	4GB	1Rx8	HX432C16PBK4/16	SS	SKhynix		16-16-16-39	1.35v	v	v		v	2133
PATRIOT	4GB	1Rx8	PV48G320C6K	SS			CL16	1.35v	v			v	2133
Panram	4GB	1Rx8	PUD43200C164G4NJW	SS	SKhynix		16-18-18-36	1.35v	v	v	v	v	2133

DDR4 3000MHz

Module Supplier	Density	# of Ranks x DRAM devices	Module P/N.	SS/DS	Chip Brand	Chip P/N.	Timing	Voltage	Memory socket support			XMP	Native
									2	4	8		
ADATA	4GB	1Rx8	AX4U3000W4G16-BWZ	SS			16-16-16	1.35	v	v	v	v	2133
ADATA	8GB	2Rx8	AX4U3000W8G16-BWZ	DS			16-16-16	1.35	v	v		v	2133
ADATA	16GB	2Rx8	AX4U3000316G16	DS			16-18-18-36	1.35	v	v		v	2133
Avexir	4GB	1Rx8	AVD4U30001604G-4CIR	SS			CL16	1.35v	v	v		v	2133
CORSAIR	4GB	1Rx8	CMD16GX4M4B3000C15	SS	SKhynix		15-17-17-35	1.35v	v	v		v	2133
CORSAIR	4GB	1Rx8	CMD16GX4M4B3000C15	SS	Samsung		15-17-17-35	1.35v	v			v	2133
CORSAIR	4GB	1Rx8	CMK16GX4M4B3000C15	SS			15-17-17-35	1.35v	v	v		v	2133
CORSAIR	4GB	1Rx8	CMD16GX4M4B3000C14	SS			15-17-17-35	1.35v	v	v		v	2133
CORSAIR	4GB	1Rx8	CMK8GX4M2B3000C15	SS			15-17-17-35	1.35v	v	v		v	2133
CORSAIR	8GB	2Rx8	CMK32GX4M4B3000C15	DS			15-17-17-35	1.35v	v	v		v	2133
CORSAIR	8GB	2Rx8	CMK16GX4M2B3000C15	DS			15-17-17-35	1.35v	v	v		v	2133
CORSAIR	8GB	2Rx8	CMD16GX4M2B3000C15	DS			15-17-17-35	1.35v	v	v		v	2133
CORSAIR	16GB	2Rx8	CMK32GX4M2B3000C15	DS			15-17-17-35	1.35v	v	v		v	2133
CORSAIR	16GB	2Rx8	CMK64GX4M4B3000C15	DS			15-17-17-35	1.35v	v	v		v	2133
CORSAIR	16GB	2Rx8	CMK128GX4M8B3000C16	DS			16-18-18-36	1.35v	v	v		v	2133
G.SKILL	4GB	1Rx8	F4-3000C15Q-16GVR	SS			15-15-15-35	1.35v	v	v	v	v	2133
G.SKILL	4GB	1Rx8	F4-3000C15Q2-32GRBB	SS			15-16-16-35	1.35v	v	v	v	v	2133
G.SKILL	8GB	2Rx8	F4-3000C15Q-32GRK	DS			15-15-15-35	1.35v	v	v		v	2133
G.SKILL	8GB	1Rx8	F4-3000C14Q2-64GVK	SS			14-14-14-34	1.35v	v	v	v	v	2133
G.SKILL	8GB	1Rx8	F4-3000C15Q2-64GVR	SS			15-15-15-35	1.35v	v	v	v	v	2133
G.SKILL	16GB	2Rx8	F4-3000C14Q2-128GVKD	DS			14-14-14-34	1.35v	v	v	v	v	2133
GEIL	8GB	2Rx8	GPR416GB3000C15ADC	DS			15-17-17-35	1.35v	v	v		v	2133
HyperX	4GB	1Rx8	HX430C15PB2K4/16	SS			15-16-16	1.35v	v	v		v	2133
HyperX	4GB	1Rx8	HX430C15SB2K4/16	SS	SKhynix		C15	1.35v	v	v		v	2133
HyperX	4GB	1Rx8	HX430C15SB2K2/8	SS	SKhynix		C15	1.35v	v	v		v	2133
HyperX	8GB	2Rx8	HX430C15PBK4/32	DS			15-16-16	1.35v	v	v		v	2133

HyperX	8GB	2Rx8	HX430C15SB2K4/32	DS	SKhynix		C15	1.35v	v	v	v	v	2133
HyperX	8GB	2Rx8	HX430C15SB2K2/16	DS	SKhynix		C15	1.35v	v	v	v	v	2133
HyperX	16GB	2Rx8	HX430C16PB2K2/32	DS			C16	1.35v	v	v	v	v	2133
KLEVV	4GB	1Rx8	KM4C4GX4A	SS			16-18-18-36	1.35v	v	v	v	v	2133
Panram	4GB	1Rx8	PUD43000C154G4NJW	SS	SKhynix		15-17-17-35	1.35v	v	v	v	v	2133
Team	8GB	2Rx8	TCD48G3000C15ABK	DS	SKhynix	H5AN4G8NMFR 523V	15-15-15-35	1.35v	v	v	v	v	2133

DDR4 2800MHz

Module Supplier	Density	# of Ranks x DRAM devices	Module P/N.	SS/DS	Chip Brand	Chip P/N.	Timing	Voltage	Memory socket support			XMP	Native
									2	4	8		
ADATA	4GB	1Rx8	AX4U2800W4G17-B	SS	SKhynix		17-17-17-36	1.2v	v	v	v	v	2133
ADATA	4GB	1Rx8	AX4U2800W4G17-BRZ	SS			17-17-17-36	1.2v	v	v	v	v	2133
ADATA	8GB	2Rx8	AX4U2800W8G17-B	DS	SKhynix		17-17-17-36	1.2v	v	v	v	v	2133
ADATA	8GB	2Rx8	AX4U2800W8G17-BRZ	DS			17-17-17-36	1.2v	v	v	v	v	2133
Avexir	4GB	1Rx8	AVD4U28001504G-4CIR	SS			CL15	1.2v	v	v	v	v	2133
Avexir	8GB	2Rx8	AVD4U28001608G-4CIR	DS			CL16	1.2v	v	v	v	v	2133
Apacer	4GB	1Rx8	78.BAGM8.AF20B	SS			17-17-17-36	1.2v	v	v	v	v	2133
Apacer	8GB	2Rx8	78.CAGM8.AF30B	DS			17-17-17-36	1.2v	v	v	v	v	2133
CORSAIR	4GB	1Rx8	CMK16GX4M4A2800C16	SS	SKhynix		16-18-18-36	1.2v	v	v	v	v	2133
CORSAIR	4GB	1Rx8	CMD16GX4M4A2800C16	SS	SKhynix		16-18-18-36	1.2v	v	v	v	v	2133
CORSAIR	4GB	1Rx8	CMD16GX4M4A2800C16	SS	Samsung		16-18-18-36	1.2v	v	v	v	v	2133
CORSAIR	4GB	1Rx8	CMK16GX4M4A2800C16R	SS			16-18-18-36	1.2v	v	v	v	v	2133
CORSAIR	8GB	2Rx8	CMD32GX4M4A2800C16	DS	SKhynix		16-18-18-36	1.2v	v	v	v	v	2133
CORSAIR	8GB	2Rx8	CMK32GX4M4A2800C16	DS	SKhynix		16-18-18-36	1.2v	v	v	v	v	2133
CORSAIR	8GB	2Rx8	CMK64GX4M8B2800C14	DS			14-16-16-36	1.35v	v	v	v	v	2133
CORSAIR	8GB	2Rx8	CMD64GX4M8B2800C14	DS			14-16-16-36	1.35v	v	v	v	v	2133
CORSAIR	16GB	2Rx8	CMD128GX4M8B2800C14	DS			14-16-16-36	1.35v	v	v	v	v	2133
G.SKILL	4GB	1Rx8	F4-2800C16Q-16GRK	SS			16-16-16-36	1.2v	v	v	v	v	2133
G.SKILL	8GB	2Rx8	F4-2800C16Q-32GRK	DS			16-16-16-36	1.2v	v	v	v	v	2133
G.SKILL	8GB	2Rx8	F4-2800C15Q2-64GRK	DS			15-16-16-35	1.25v	v	v	v	v	2133
G.SKILL	16GB	2Rx8	F4-2800C15Q2-128GRKD	DS			15-15-15-35	1.35v	v	v	v	v	2133
HyperX	4GB	1Rx8	HX428C14PB2K4/16	SS	SKhynix		15-15-15-39	1.35v	v	v	v	v	2133
HyperX	4GB	1Rx8	HX428C14SB2K4/16	SS	SKhynix		C14	1.35v	v	v	v	v	2133
HyperX	4GB	1Rx8	HX428C14SB2K2/8	SS	SKhynix		C14	1.35v	v	v	v	v	2133
HyperX	8GB	2Rx8	HX428C14PBK4/32	DS			CL14	1.35v	v	v	v	v	2133
HyperX	8GB	2Rx8	HX428C14SB2K4/32	DS	SKhynix		C14	1.35v	v	v	v	v	2133
HyperX	8GB	2Rx8	HX428C14SB2K2/16	DS	SKhynix		C14	1.35v	v	v	v	v	2133
HyperX	8GB	2Rx8	HX428C14PBK8/64	DS			C14	1.35v	v	v	v	v	2133
HyperX	8GB	2Rx8	HX428C14SB2K8/64	DS			C14	1.35v	v	v	v	v	2133
KLEVV	4GB	1Rx8	KM4C4GX4N	SS			16-16-16-36	1.2v	v	v	v	v	2133
KLEVV	8GB	2Rx8	KM4C8GX4N	DS			16-16-16-36	1.2v	v	v	v	v	2133
PATRIOT	4GB	1Rx8	PV48G280C6K	SS			CL16	1.2v	v	v	v	v	2133
PATRIOT	4GB	1Rx8	PVE48G280C6KGY	SS			CL16	1.2v	v	v	v	v	2133
PATRIOT	8GB	2Rx8	PV416G280C6K	DS			CL16	1.2v	v	v	v	v	2133
Panram	4GB	1Rx8	PUD42800C164G4NJW	SS	SKhynix		16-18-18-36	1.25v	v	v	v	v	2133

DDR4 2666MHz

Module Supplier	Density	# of Ranks x DRAM devices	Module P/N.	SS/DS	Chip Brand	Chip P/N.	Timing	Voltage	Memory socket support			XMP	Native
									2	4	8		
ADATA	4GB	1Rx8	AX4U2666W4G16-DRZ	SS	SKhynix		16-16-16	1.2v	v	v	v	v	2133
ADATA	8GB	2Rx8	AX4U2666W8G16-QRZ	DS	SKhynix		16-16-16	1.2v	v	v	v	v	2133
Avexir	4GB	1Rx8	AVD4U26661504G-4CIR	SS			CL15	1.2v	v	v	v	v	2133
Avexir	8GB	2Rx8	AVD4U26661608G-4CIR	DS			CL16	1.2v	v	v	v	v	2133
Apacer	4GB	1Rx8	AHU04GGB26CDT6H	SS			16-16-16-36	1.2v	v	v	v	v	2133
Apacer	8GB	2Rx8	AHU08GGB26CDT6H	DS			16-16-16-36	1.2v	v	v	v	v	2133
CORSAIR	4GB	1Rx8	CMK16GX4M4A2666C15	SS	Samsung		15-17-17-35	1.2v	v	v	v	v	2133
CORSAIR	4GB	1Rx8	CMK16GX4M4A2666C16	SS	Samsung		16-18-18-35	1.2v	v	v	v	v	2133
CORSAIR	4GB	1Rx8	CMD16GX4M4A2666C15	SS	Samsung		15-17-17-35	1.2v	v	v	v	v	2133
CORSAIR	4GB	1Rx8	CMD16GX4M4A2666C16	SS	Samsung		16-18-18-35	1.2v	v	v	v	v	2133
CORSAIR	4GB	1Rx8	CMD8GX4M2A2666C15	SS			15-17-17-35	1.2v	v	v	v	v	2133
CORSAIR	8GB	2Rx8	CMK32GX4M4A2666C15	DS	Samsung		15-17-17-35	1.2v	v	v	v	v	2133
CORSAIR	8GB	2Rx8	CMD32GX4M4A2666C15	DS	Samsung		15-17-17-35	1.2v	v	v	v	v	2133
CORSAIR	8GB	2Rx8	CMD32GX4M4A2666C16	DS	Samsung		16-18-18-35	1.2v	v	v	v	v	2133
CORSAIR	8GB	2Rx8	CMK32GX4M4A2666C16R	DS	Samsung		16-18-18-35	1.2v	v	v	v	v	2133
CORSAIR	8GB	2Rx8	CMK16GX4M2A2666C16	DS			16-18-18-35	1.2v	v	v	v	v	2133
CORSAIR	8GB	2Rx8	CMD16GX4M2A2666C15	DS			15-17-17-35	1.2v	v	v	v	v	2133
CORSAIR	8GB	2Rx8	CMK64GX4M8A2666C16	DS	Samsung		16-18-18-35	1.2	v	v	v	v	2133
CORSAIR	16GB	2Rx8	CMK32GX4M2A2666C16	DS			16-18-18-35	1.2v	v	v	v	v	2133
CORSAIR	16GB	2Rx8	CMK64GX4M4A2666C16	DS	Samsung		16-18-18-35	1.2v	v	v	v	v	2133
CORSAIR	16GB	2Rx8	CMD128GX4M8A2666C15	DS	Samsung		15-17-17-35	1.2v	v	v	v	v	2133
CORSAIR	16GB	2Rx8	CMK128GX4M8A2666C16	DS	Samsung		16-18-18-35	1.2	v	v	v	v	2133
CRUCIAL	4GB	1Rx8	BLT4G4D26AF7A.8FADG	SS			16-17-17-36	1.2v	v	v	v	v	2400
CRUCIAL	4GB	1Rx8	BLE4G4D26AF7A.8FADG	SS			16-17-17-36	1.2v	v	v	v	v	2400
CRUCIAL	8GB	2Rx8	BLT8G4D26AF7A.16FAD	DS	Micron		16-17-17-36	1.2v	v	v	v	v	2400
G.SKILL	4GB	1Rx8	F4-2666C15Q-16GRR	SS			15-15-15-35	1.2v	v	v	v	v	2133
G.SKILL	8GB	2Rx8	F4-2666C15Q-32GRR	DS	SKhynix		15-15-15-35	1.2v	v	v	v	v	2133
G.SKILL	8GB	2Rx8	F4-2666C16Q2-64GRB	DS	SKhynix		16-16-16-36	1.2v	v	v	v	v	2133
HyperX	4GB	1Rx8	HX426C15K4/16	SS			15-17-17-35	1.2v	v	v	v	v	2666
HyperX	4GB	1Rx8	HX426C13PB2K4/16	SS			CL13	1.35v	v	v	v	v	2133

HyperX	4GB	1Rx8	HX426C13SB2K4/16	SS	SKhynix		CL13	1.35v	v	v	v	v	2133
HyperX	4GB	1Rx8	HX426C13SB2K2/8	SS	SKhynix		CL13	1.35v	v	v	v	v	2133
HyperX	4GB	1Rx8	HX426C15FBK4/16	SS	SKhynix		CL15	1.2v	v	v	v	v	2133
HyperX	4GB	1Rx8	HX426C15FBK2/8	SS	SKhynix		CL15	1.2v	v	v	v	v	2133
HyperX	8GB	2Rx8	HX426C13PBK4/32	DS	SKhynix		CL13	1.35v	v	v	v	v	2133
HyperX	8GB	2Rx8	HX426C15FBK2/16	DS	SKhynix		CL15	1.2	v	v	v	v	2666
HyperX	8GB	2Rx8	HX426C15FBK4/32	DS	SKhynix		CL15	1.2v	v	v	v	v	2133
HyperX	8GB	2Rx8	HX426C15FBK2/16	DS	SKhynix		CL15	1.2v	v	v	v	v	2133
HyperX	16GB	2Rx8	HX426C15SBK8/128	DS	SKhynix		CL15	1.2v	v	v	v	v	2133
PATRIOT	4GB	1Rx8	PVE48G266C5KBL	SS			CL15	1.2v	v	v	v	v	2133
KLEVV	4GB	1Rx8	KM4C4G4X4N	SS			15-15-15-35	1.2v	v	v	v	v	2133

DDR4 2400MHz

Module Supplier	Density	# of Ranks x DRAM devices	Module P/N.	SS/DS	Chip Brand	Chip P/N.	Timing	Voltage	Memory socket support			XMP	Native
									2	4	8		
ADATA	4GB	1Rx8	AX4U2400W4G16-QRZ	SS	SKHynix		16-16-16-39	1.2v	v	v	v	v	2133
ADATA	4GB	1Rx8	AD4U2400W4G17-B	SS	SKHynix			1.2v	v	v	v		2400
ADATA	8GB	2Rx8	AX4U2400W8G16-QRZ	DS	SKHynix		16-16-16-39	1.2v	v	v	v	v	2133
ADATA	8GB	2Rx8	AD4U2400W8G17-B	DS	SKHynix			1.2v	v	v	v		2400
Apacer	4GB	1Rx8	78.B1GMS.4050B	SS	Samsung		CL17	1.2v	v	v	v		2400
Apacer	8GB	2Rx8	78.C1GMS.4010B	DS	Samsung		CL17	1.2v	v	v	v		2400
Apacer	8GB	2Rx8	AU08GGB24CETBGC	DS			CL17	1.2v	v	v	v		2400
Avexir	4GB	1Rx8	AVD4U24001604G-4M	SS	SKHynix		CL16	1.2v	v	v	v	v	2133
Avexir	4GB	1Rx8	AVD4U24001604G-2COB	SS	Spectek		CL16	1.2v	v	v	v	v	2133
Avexir	8GB	2Rx8	AVD4U24001608G-4M	DS	SKHynix		CL16	1.2v	v	v	v	v	2133
Avexir	8GB	2Rx8	AVD4U24001608G-2COB	DS	Spectek		CL16	1.2v	v	v	v	v	2133
CORSAIR	4GB	1Rx8	CMK16GX4M4A2400C14	SS	Samsung		14-16-16-31	1.2v	v	v	v	v	2133
CORSAIR	4GB	1Rx8	CMD16GX4M4A2400C14	SS	Samsung		14-16-16-31	1.2v	v	v	v	v	2133
CORSAIR	8GB	2Rx8	CMK32GX4M4A2400C14	DS	Samsung		14-16-16-31	1.2v	v	v	v	v	2133
CORSAIR	8GB	2Rx8	CMD32GX4M4A2400C14	DS	Samsung		14-16-16-31	1.2v	v	v	v	v	2133
CORSAIR	8GB	1Rx8	CMD64GX4M8A2400C14	SS			14-16-16-31	1.2v	v	v	v	v	2133
CORSAIR	8GB	2Rx8	CMK64GX4M8A2400C14	DS			14-16-16-31	1.2v	v	v	v	v	2133
CORSAIR	16GB	2Rx8	CMK128GX4M8A2400C14	DS			14-16-16-31	1.2v	v	v	v	v	2133
CORSAIR	16GB	2Rx8	CMK64GX4M4A2400C14	DS			14-16-16-31	1.2v	v	v	v	v	2133
CRUCIAL	4GB	1Rx8	BLS4G4D240FSB.8FADG	SS	Micron		16-16-16-39	1.2v	v	v	v	v	2400
CRUCIAL	8GB	2Rx8	BLS8G4D240FSB.16FARG	DS	Micron		16-16-16-39	1.2v	v	v	v	v	2400
CRUCIAL	8GB	2Rx8	BLS8G4D240FSA.16FARG	DS	Micron		16-16-16-39	1.2v	v	v	v	v	2400
CRUCIAL	8GB	1Rx8	CT8G4DFS824A.8FB1	SS	Micron		CL17	1.2v	v	v	v		2400
CRUCIAL	8GB	2Rx8	CT8G4WFD824A.18FB1	DS	Micron		CL17	1.2v	v	v	v		2400
CRUCIAL	16GB	2Rx8	BLS16G4D240FSB.16FAD	DS	Micron		16-16-16-39	1.2v	v	v	v	v	2400
CRUCIAL	16GB	2Rx8	CT16G4DFD824A.16FB1	DS	Micron		CL17	1.2v	v	v	v		2400
CRUCIAL	16GB	2Rx8	CT16G4WFD824A.18FB1	DS	Micron		CL17	1.2v	v	v	v		2400
G.SKILL	4GB	1Rx8	F4-2400C15Q-16GRR	SS	Micron		15-15-15-35	1.2v	v	v	v	v	2133
G.SKILL	8GB	2Rx8	F4-2400C15Q-32GRR	DS	Micron		15-15-15-35	1.2v	v	v	v	v	2133
G.SKILL	8GB	2Rx8	F4-2400C15Q2-64GRK	DS			15-15-15-35	1.2v	v	v	v	v	2133
G.SKILL	16GB	2Rx8	F4-2400C15Q2-128GRK	DS			15-15-15-35	1.2v	v	v	v	v	2133
G.SKILL	16GB	2Rx8	F4-2400C14Q2-128GRK	DS			14-14-14-34	1.2v	v	v	v	v	2133
GEIL	4GB	1Rx8	GPB416GB2400C15QC	SS			15-15-15-35	1.2v	v	v	v	v	2133
GEIL	8GB	2Rx8	GPR432GB2400C15QC	DS			15-15-15-35	1.2v	v	v	v	v	2133
GALAX	4GB	1Rx8	GAM4BXLBS240016JE164C	SS			16-16-16-36	1.2v	v	v	v	v	2133
GALAX	4GB	1Rx8	HOF4BLBM240012FD041C	SS			12-12-12-28	1.35v	v	v	v	v	2133
GLOWAY	8GB	2Rx8	8G-2400	DS			15-15-15-35	1.2v	v	v	v	v	2133
HyperX	4GB	1Rx8	HX424C12SB2K4/16	SS	SKhynix		C12	1.35v	v	v	v	v	2133
HyperX	4GB	1Rx8	HX424C12SB2K2/8	SS	SKhynix		C12	1.35v	v	v	v	v	2133
HyperX	4GB	1Rx8	HX424C15FBK4/16	SS	SKhynix		C15	1.2v	v	v	v	v	2133
HyperX	4GB	1Rx8	HX424C15FBK2/8	SS	SKhynix		C15	1.2v	v	v	v	v	2133
HyperX	8GB	2Rx8	HX424C12PBK4/32	DS			CL12	1.35v	v	v	v	v	2133
HyperX	8GB	2Rx8	HX424C12SB2K4/32	DS	SKhynix		C12	1.35v	v	v	v	v	2133
HyperX	8GB	2Rx8	HX424C12SB2K2/16	DS	SKhynix		C12	1.35v	v	v	v	v	2133
HyperX	8GB	2Rx8	HX424C15FB/8	DS	SKhynix		C15	1.2v	v	v	v	v	2133
HyperX	8GB	2Rx8	HX424C15FBK4/32	DS	SKhynix		C15	1.2v	v	v	v	v	2133
HyperX	8GB	2Rx8	HX424C15FBK2/16	DS	SKhynix		C15	1.2v	v	v	v	v	2133
HyperX	8GB	1Rx8	HX424C15FB2K4/32	SS			C15	1.2v	v	v	v	v	2133
HyperX	8GB	1Rx8	HX424C15FB2K2/16	SS			C15	1.2v	v	v	v	v	2133
HyperX	16GB	2Rx8	HX424C15FBK4/64	DS			C15	1.2v	v	v	v	v	2133
HyperX	16GB	2Rx8	HX424C15FBK2/32	DS			C15	1.2v	v	v	v	v	2133
PATRIOT	4GB	1Rx8	PX416G240C5QK	SS			15-15-15-35	1.2v	v	v	v	v	2133
PATRIOT	4GB	1Rx8	PX48G240C5K	SS			15-15-15-35	1.2v	v	v	v	v	2133
PATRIOT	4GB	1Rx8	PV48G240C5K	SS			CL15	1.2v	v	v	v	v	2133
PATRIOT	4GB	1Rx8	PVE48G240C5KRD	SS			CL15	1.2v	v	v	v	v	2133
PATRIOT	8GB	2Rx8	PV432G240C5QK	DS			15-15-15-35	1.2v	v	v	v	v	2133
PATRIOT	8GB	2Rx8	PX432G240C5QK	DS			15-15-15-35	1.2v	v	v	v	v	2133
PATRIOT	8GB	2Rx8	PX416G240C5K	DS			15-15-15-35	1.2v	v	v	v	v	2133
PATRIOT	8GB	2Rx8	PV416G240C5K	DS			CL15	1.2v	v	v	v	v	2133
Panram	4GB	1Rx8	PUD42400C154G4NJW	SS	SKhynix		15-15-15-35	1.2v	v	v	v	v	2400
Panram	8GB	2Rx8	PUD42400C158G4NJW	DS	SKhynix		15-15-15-35	1.2v	v	v	v	v	2400
Team	8GB	2Rx8	TED48G2400C16BK	DS			16-16-16-39	1.2v	v	v	v	v	2400
V-Color	4GB	1Rx8	TD4G8C17-UH	SS			CL17	1.2v	v	v	v	v	2400
V-Color	8GB	2Rx8	TD8G16C17-UH	DS			CL17	1.2v	v	v	v	v	2400

DDR4 2133MHz

Module Supplier	Density	# of Ranks x DRAM devices	Module P/N.	SS/DS	Chip Brand	Chip P/N.	Timing	Voltage	Memory socket support			XMP	Native
									2	4	8		
ADATA	4GB	1Rx8	AD4U2133W4G15-B	SS	SKhynix		CL15	1.2v	v	v		v	
ADATA	8GB	2Rx8	AD4U2133W8G15-B	DS	SKhynix		CL15	1.2v	v	v		v	
Apacer	4GB	1Rx8	78.B1GM3.AF00B	SS			CL15	1.2v	v	v		v	
Apacer	8GB	2Rx8	78.C1GM3.AF10B	DS			CL15	1.2v	v	v		v	
CORSAIR	4GB	1Rx8	CMV4GX4M1A2133C15	SS	SKhynix		CL15	1.2v	v	v	v	v	
CORSAIR	4GB	1Rx8	CMK16GX4M4A2133C13	SS			13-15-15-28	1.2v	v	v		v	
CORSAIR	4GB	1Rx8	CMD16GX4M4B2133C10	SS			10-12-12-31	1.35v	v	v		v	
CORSAIR	8GB	2Rx8	CMV8GX4M1A2133C15	DS	SKhynix		CL15	1.2v	v	v		v	
CORSAIR	8GB	2Rx8	CMK32GX4M4A2133C13	DS			13-15-15-28	1.2v	v	v		v	
CORSAIR	8GB	2Rx8	CMK64GX4M8A2133C13	DS			13-15-15-28	1.2v	v	v		v	
CORSAIR	16GB	2Rx8	CMV16GX4M1A2133C15	DS			C15	1.2v	v	v		v	
CORSAIR	16GB	2Rx8	CMK32GX4M2A2133C13	DS			13-15-15-28	1.2v	v	v		v	
CORSAIR	16GB	2Rx8	CMK128GX4M8A2133C13	DS			13-15-15-28	1.2v	v	v	v	v	
CRUCIAL	4GB	1Rx8	CT4G4DFS8213.C8FAR1	SS	Micron		CL15	1.2v	v	v		v	
CRUCIAL	4GB	1Rx8	CT4G4WFS8213.9FA1	SS	Micron		CL15	1.2v	v	v	v	v	
CRUCIAL	4GB	1Rx8	CT4G4DFS8213.8FA2	SS	Micron			1.2v	v	v	v	v	
CRUCIAL	8GB	2Rx8	CT8G4WFD8213	DS	Micron		CL15	1.2v	v	v	v	v	
CRUCIAL	8GB	2Rx8	CT8G4DFD8213.16FA2	DS	Micron			1.2v	v	v	v	v	
CRUCIAL	8GB	2Rx8	CT8G4DFD8213.C16FAR11	DS	Micron			1.2v	v	v	v	v	
CRUCIAL	8GB	1Rx8	CT8G4DFS8213.8FB1	SS	Micron		CL15	1.2v	v	v	v	v	
CRUCIAL	16GB	2Rx8	CT16G4DFD8213.16FB1	DS	Micron		CL15	1.2v	v	v	v	v	
G.SKILL	4GB	1Rx8	F4-2133C15Q-16GRR	SS	Micron		15-15-15-35	1.2v	v	v		v	
G.SKILL	8GB	2Rx8	F4-2133C15Q-32GRR	DS	Micron		15-15-15-35	1.2v	v	v	v	v	
G.SKILL	8GB	2Rx8	F4-2133C15Q2-64GRR	DS			15-15-15-35	1.2v	v	v		v	
GEIL	4GB	1Rx8	GPR416GB2133C15QC	SS			15-15-15-36	1.2v	v	v	v	v	
GLOWAY	4GB	1Rx8	4G-2133	SS			15-15-15-35	1.2v	v	v		v	
HyperX	4GB	1Rx8	HX421C13SBK4/16	SS	SKhynix		CL13	1.2v	v			v	
HyperX	4GB	1Rx8	HX421C13SBK2/8	SS	SKhynix		CL13	1.2v	v			v	
HyperX	4GB	1Rx8	HX421C14FBK4/16	SS	SKhynix		CL14	1.2v	v	v		v	
HyperX	4GB	1Rx8	HX421C14FBK2/8	SS	SKhynix		CL14	1.2v	v			v	
HyperX	8GB	2Rx8	HX421C13SBK4/32	DS	SKhynix		CL13	1.2v	v	v	v	v	
HyperX	8GB	2Rx8	HX421C13SBK2/16	DS	SKhynix		CL13	1.2v	v			v	
HyperX	8GB	2Rx8	HX421C14FBK4/32	DS	SKhynix		CL14	1.2v	v	v	v	v	
HyperX	8GB	2Rx8	HX421C14FBK2/16	DS	SKhynix		CL14	1.2v	v			v	
HyperX	8GB	1Rx8	HX421C14FB2K4/32	SS			CL14	1.2v	v	v	v	2133	
HyperX	8GB	1Rx8	HX421C14FB2K2/16	SS			CL14	1.2v	v		v	2133	
HyperX	16GB	2Rx8	HX421C14FBK4/64	DS			CL14	1.2v	v	v	v	2133	
HyperX	16GB	2Rx8	HX421C14FBK2/32	DS			CL14	1.2v	v		v	2133	
Kingston	4GB	1Rx8	KVR21N15S8/4	SS	SKhynix			1.2v	v	v		v	
Kingston	4GB	1Rx8	KVR21N15S8/4	SS	SKhynix		CL15	1.2v	v	v		v	
Kingston	4GB	1Rx8	KVR21E15S8/4	SS	SKhynix		CL15	1.2v	v	v		v	
Kingston	8GB	2Rx8	KVR21N15D8/8	DS	SKhynix			1.2v	v	v		v	
Kingston	8GB	2Rx8	KVR21N15D8/8	DS	SKhynix		CL15	1.2v	v	v		v	
Kingston	8GB	2Rx8	KVR21E15D8/8HA	DS	SKhynix		CL15	1.2v	v	v	v	2133	
Kingston	16GB	2Rx8	KVR21N15D8/16	DS	Micron		CL15	1.2v	v	v	v	2133	
KLEVV	4GB	1Rx8	KM4C4GX4N	SS			15-15-15-35	1.2v	v	v	v	v	
Panram	4GB	1Rx8	PUD42133C154G2VS	SS	SKhynix		15-15-15-36	1.2v	v	v	v	v	
Panram	4GB	1Rx8	PED42133C154GVS	SS	SKhynix		15-15-15-36	1.2v	v	v	v	v	
Panram	8GB	2Rx8	PUD42133C138G4NJW	DS	SKhynix		13-13-13-35	1.2v	v	v	v	v	
Panram	8GB	2Rx8	PED42133C158GVS	DS	SKhynix		15-15-15-36	1.2v	v	v	v	v	
Silicon POWER	4GB	1Rx8	SP004GBLFU213N01	SS	Samsung		CL15	1.2v	v	v		v	
Silicon POWER	8GB	2Rx8	SP008GBLFU213N01	DS	Samsung		CL15	1.2v	v	v	v	v	
Team	8GB	2Rx8	TED48GM2133C15BK	DS	SKhynix	H5AN4G8NMFR 523V	15-15-15-36	1.2v	v	v	v	v	

RDIMM DDR4 2133MHz

Module Supplier	Density	# of Ranks x DRAM devices	Module P/N.	SS/DS	Chip Brand	Chip P/N.	Timing	Voltage	Memory socket support			XMP	Native
									2	4	8		
CRUCIAL	4GB	1Rx8	CT4G4RFS8213.9FA2	DS	Micron	41A77D9RGQ		1.2v	v	v	v		v
CRUCIAL	8GB	1Rx4	CT8G4RFS4213	DS	Micron		CL15	1.2	v	v	v		v
CRUCIAL	16GB	2Rx4	CT16G4RFD4213	DS	Micron		CL15	1.2	v	v	v		v
CRUCIAL	16GB	2Rx4	CT16G4RFD4213.36FB1	DS	Micron		CL15	1.2	v	v	v		v
Kingston	8GB	1Rx4	KVR21R15S4/8	DS	SKhynix		CL15	1.2	v	v	v		v
Kingston	16GB	2Rx4	KVR21R15D4/16	DS	SKhynix		CL15	1.2	v	v	v		v
SAMSUNG	8GB	1Rx4	M393A1G40DB0-CPB	DS	Samsung			1.2v	v	v	v		v
SAMSUNG	16GB	2Rx4	M393A2G40DB0-CPB	DS	Samsung			1.2v	v	v	v		v

RDIMM DDR4 2400MHz

Module Supplier	Density	# of Ranks x DRAM devices	Module P/N.	SS/DS	Chip Brand	Chip P/N.	Timing	Voltage	Memory socket support			XMP	Native
									2	4	8		
CRUCIAL	8GB	1Rx4	CT8G4RFS424A.18FB1	DS	Micron		CL17	1.2v	v	v	v		v
CRUCIAL	8GB	2Rx8	CT8G4RFD824A.18FB1	DS	Micron		CL17	1.2v	v	v	v		v

CRUCIAL	16GB	2Rx4	CT16G4RFD424A.36FB1	DS	Micron		CL17	1.2v	v	v	v	v	v
CRUCIAL	16GB	1Rx4	CT16G4RFS424A.18FB1	DS	Micron		CL17	1.2v	v	v	v	v	v
CRUCIAL	16GB	2Rx8	CT16G4RFD824A.18FB1	DS	Micron		CL17	1.2v	v	v	v	v	v
CRUCIAL	32GB	2Rx4	CT32G4RFD424A	DS	Micron		CL16	1.2v	v	v	v	v	v
CRUCIAL	32GB	2Rx4	è CT32G4RFD424A.36FB1	DS	Micron			1.2v	v	v	v	v	v

• When running XMP at **DDR4 3200 MHz or higher**, the system's stability depends on the CPU's capabilities.

當執行XMP至**DDR4 3200MHz或是更高**，系統的穩定性會依據CPU的效能而有所差異

• Memory modules listed as above is for reference only. Due to massive memory models in market, we can only verify some of them.

以下所列的記憶體模組僅供參考，因市面上的記憶體模組眾多，我們無法一一驗證

• When enabling Dual Channel mode with two, four or eight memory modules, it is recommended that using the same capacity, brand, speed, and chips of memory modules and also installed in the same color of DDR4 slots.

若要安裝兩支，四支或八支DDR4記憶體模組，建議您使用相同容量/廠牌/速度/顆粒等之記憶體模組。