

Qualified Vendors List (QVL), Model Name: **GA-X170-WS ECC**

DDR4 2666MHz (downgrade to 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		ECC Un-buffered
									2	4	
Kingston	4GB	1Rx8	HX426C15K4/16	SS			15-17-17-35	1.2v	v	v	
DDR4 2400MHz (downgrade to 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		ECC Un-buffered
									2	4	
ADATA	4GB	1Rx8	AX4U2400W4G16-QRZ	SS	SKHynix		16-16-16-39	1.2v	v	v	
ADATA	8GB	2Rx8	AX4U2400W8G16-QRZ	DS	SKHynix		16-16-16-39	1.2v	v	v	
Apacer	4GB	1Rx8	78.B1GMS.4050B	SS	Samsung		CL17	1.2v	v	v	
Apacer	8GB	2Rx8	78.C1GMS.4010B	DS	Samsung		CL17	1.2v	v	v	
Avexir	4GB	1Rx8	AVD4U24001604G-4M	SS	SKHynix		CL16	1.2v	v	v	
Avexir	8GB	2Rx8	AVD4U24001608G-4M	DS	SKHynix		CL16	1.2v	v	v	
CORSAIR	4GB	1Rx8	CMK16GX4M4A2400C14	SS	Samsung		14-16-16-31	1.2v	v	v	
CORSAIR	4GB	1Rx8	CMD16GX4M4A2400C14	SS	Samsung		14-16-16-31	1.2v	v	v	
CORSAIR	8GB	2Rx8	CMK32GX4M4A2400C14	DS	Samsung		14-16-16-31	1.2v	v	v	
CORSAIR	8GB	2Rx8	CMD32GX4M4A2400C14	DS	Samsung		14-16-16-31	1.2v	v	v	
CORSAIR	16GB	2Rx8	CMK128GX4M8A2400C14	DS			14-16-16-31	1.2v	v	v	
CRUCIAL	4GB	1Rx8	BLS4G4D240FSA.M8FADM	SS	Micron		16-16-16-40	1.2v	v	v	
CRUCIAL	8GB	2Rx8	BLS8G4D240FSA.16FAG	DS	Micron		16-16-16-40	1.2v	v	v	
CRUCIAL	16GB	2Rx8	BLS16G4D240FSB.16FAD	DS	Micron		16-16-16-39	1.2v	v	v	
G.SKILL	4GB	1Rx8	F4-2400C15Q-16GRR	SS	Micron		15-15-15-35	1.2v	v	v	
G.SKILL	8GB	2Rx8	F4-2400C15Q-32GRR	DS	Micron		15-15-15-35	1.2v	v	v	
G.SKILL	16GB	2Rx8	F4-2400C15Q2-128GRK	DS			15-15-15-35	1.2v	v	v	
GEIL	4GB	1Rx8	GPB416GB2400C15QC	SS			15-15-15-35	1.2v	v	v	
Kingston	4GB	1Rx8	HX424C12PB2K4/16	SS	SKHynix		CL12	1.35v	v	v	
PATRIOT	4GB	1Rx8	PX416G240C5QK	SS			15-15-15-35	1.2v	v	v	
PATRIOT	4GB	1Rx8	PX48G240C5K	SS			15-15-15-35	1.2v	v	v	
PATRIOT	8GB	2Rx8	PV432G240C5QK	DS			15-15-15-35	1.2v	v	v	
PATRIOT	8GB	2Rx8	PX432G240C5QK	DS			15-15-15-35	1.2v	v	v	
PATRIOT	8GB	2Rx8	PX416G240C5K	DS			15-15-15-35	1.2v	v	v	
Team	4GB	1Rx8	TED44GM2400C16BK	SS	Samsung		16-16-16-39	1.2v	v	v	
Team	8GB	2Rx8	TED48GM2400C16BK	DS	Samsung		16-16-16-39	1.2v	v	v	
V-Color	4GB	1Rx8	TD4G8C17-UH	SS			CL17	1.2v	v	v	
V-Color	8GB	2Rx8	TD8G16C17-UH	DS			CL17	1.2v	v	v	
innodisk	8GB	2Rx8	M4C0-8GSSMCSJ	DS	Samsung			1.2v	v	v	v
innodisk	8GB	2Rx8	M4C0-AGS1MCSJ	DS	Samsung			1.2v	v	v	v

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		ECC Un-buffered
									2	4	
ADATA	4GB	1Rx8	AD4U2133W4G15-B	SS	SKhynix		CL15	1.2v	v	v	
ADATA	8GB	2Rx8	AD4U2133W8G15-B	DS	SKhynix		CL15	1.2v	v	v	
Apacer	4GB	1Rx8	78.B1GM3.AF00B	SS			CL15	1.2v	v	v	
Apacer	8GB	2Rx8	78.C1GM3.AF10B	DS			CL15	1.2v	v	v	
CORSAIR	4GB	1Rx8	CMV4GX4M1A2133C15-ESM	SS	Micron		CL15	1.2v	v	v	
CORSAIR	4GB	1Rx8	CMV4GX4M1A2133C15	SS	SKhynix		CL15	1.2v	v	v	
CORSAIR	4GB	1Rx8	CMK16GX4M4A2133C13	SS			13-15-15-28	1.2v	v	v	
CORSAIR	4GB	1Rx8	CMD16GX4M4B2133C10	SS			10-12-12-31	1.35v	v	v	
CORSAIR	8GB	2Rx8	CMV8GX4M1A2133C15-ESM	DS	Micron		CL15	1.2v	v	v	
CORSAIR	8GB	2Rx8	CMV8GX4M1A2133C15	DS	SKhynix		CL15	1.2v	v	v	
CORSAIR	8GB	2Rx8	CMK32GX4M4A2133C13	DS			13-15-15-28	1.2v	v	v	
CORSAIR	8GB	2Rx8	CMK64GX4M8A2133C13	DS			13-15-15-28	1.2v	v	v	
CORSAIR	16GB	2Rx8	CMV16GX4M1A2133C15	DS			C15	1.2v	v	v	
CORSAIR	16GB	2Rx8	CMK32GX4M2A2133C13	DS			13-15-15-28	1.2v	v		
CRUCIAL	4GB	1Rx8	CT4G4DFS8213.C8FAR1	SS	Micron		CL15	1.2v	v	v	
CRUCIAL	4GB	1Rx8	CT4G4WFS8213.9FA1	SS	Micron		CL15	1.2v	v	v	v
CRUCIAL	8GB	2Rx8	CT8G4DFD8213.C16FAR1	DS	Micron		CL15	1.2v	v	v	
CRUCIAL	8GB	2Rx8	CT8G4WFD8213	DS	Micron		CL15	1.2v	v	v	v
CRUCIAL	16GB	2Rx8	CT16G4DFD8213.16FB1	DS	Micron		CL15	1.2v	v	v	
G.SKILL	4GB	1Rx8	F4-2133C15Q-16GRR	SS	Micron		15-15-15-35	1.2v	v	v	
G.SKILL	8GB	2Rx8	F4-2133C15Q-32GRR	DS	Micron		15-15-15-35	1.2v	v	v	
GEIL	4GB	1Rx8	GPR416GB2133C15QC	SS			15-15-15-36	1.2v	v	v	
innodisk	4GB	1Rx8	M4C0-4GSSLCRG	SS				1.2v	v	v	
innodisk	8GB	2Rx8	M4C0-8GSSMCRG	SS				1.2v	v	v	
Kingston	4GB	1Rx8	HX421C14FBK4/16	SS				1.2v	v	v	
Kingston	4GB	1Rx8	KVR21N15S8/4	SS	SKhynix			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	
Kingston	8GB	2Rx8	KVR21E15D8/8HA	DS	SKhynix		CL15	1.2v	v	v	v
Panram	4GB	1Rx8	PUD42133C154G2VS	SS	SKhynix		15-15-15-36	1.2v	v	v	
Panram	4GB	1Rx8	PED42133C154GVS	SS	SKhynix		15-15-15-36	1.2v	v	v	v
Panram	8GB	2Rx8	PUD42133C138G4NJW	DS	SKhynix		13-13-13-35	1.2v	v	v	
Panram	8GB	2Rx8	PED42133C158GVS	DS	SKhynix		15-15-15-36	1.2v	v	v	v
SAMSUNG	4GB	1Rx8	M378A5143DB0-CPB	SS				1.2v	v	v	
SAMSUNG	8GB	2Rx8	M378A1G43DB0-CPB	DS				1.2v	v	v	

Silicon POWER	4GB	1Rx8	SP004GBLFU213N01	SS	Samsung		CL15	1.2v	v	v	
Silicon POWER	8GB	2Rx8	SP008GBLFU213N01	DS	Samsung		CL15	1.2v	v	v	
KLEVV	4GB	1Rx8	KM4C4GX4N	SS			15-15-15-35	1.2v	v	v	
Team	4GB	1Rx8	TED44GM2133C15BK	SS			15-15-15-36	1.2v	v	v	

- 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 or four 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。