

M/B offering for PPC-600

PPC-MB-620



Features

- Supports Intel® 12/13/14th Gen Core™ i processor (LGA1700) with Intel Q670E/H610E chipset
- Two 262-pin SO-DIMM up to 64GB DDR5 4800 MHz SDRAM
- Supports triple display of DP/HDMI/LVDS
- Supports PCIe x16 (Gen 5), 1 x M.2 M key & 1 x M.2 E key, 6 x USB 3.2
- Supports 2 x SATA 3.0 (Raid 0, 1) (only for PCH Q670E)
- Supports TPM 2.0
- Supports 4 x RS-232, 1 x RS-232/422/485
- Supports 1 x GPIO(8 channels)

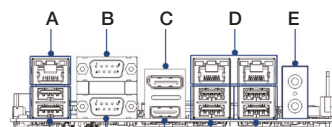
Specifications

14th Generation Processors	CPU	i7-14700	i7-14700T	i5-14500	i5-14500T	i3-14100	i3-14100T				
	Core Number	20	20	14	14	8	8				
	Base frequency (GHz)	2.1	1.3	2.6	1.7	3.5	2.7				
	Max Speed(GHz)	5.4	5.2	5.0	4.8	4.7	4.4				
	SmartCache(MB)	33MB	33MB	24MB	24MB	12MB	12MB				
13th Generation Processors	CPU	i9-13900E/i9-13900	i9-13900TE	i7-13700E/i7-13700	i7-13700TE	i5-13500E/i5-13500		i5-13500TE	i3-13100E/i3-13100		i3-13100TE
	Core Number	24	24	16	16	14	14	4	4		4
	Base frequency (GHz)	1.8/2.0	1.0	1.9/2.1	1.1	2.4/2.5	1.3	3.3/3.4		2.4	
	Max Speed (GHz)	5.2/5.6	5	5.1/5.2	4.8	4.6/4.8	4.5	4.4/4.5		4.1	
	SmartCache (MB)	36	36	30	30	24	24	12		12	
12th Generation Processors	CPU	i9-12900E/i9-12900	i9-12900TE	i7-12700E/i7-12700	i7-12700TE	i5-12500E/i5-12500		i5-12500TE	i3-12100E / i3-12100		i3-12100TE
	Core Number	16	16	12	12	6	6	4	4		4
	Base frequency (GHz)	2.3/2.4	1.1	2.1/2.1	1.4	2.9/3.0	1.9	3.2/3.3		2.1	
	Max Speed (GHz)	5.0/5.1	4.8	4.8/4.9	4.6	4.5/4.6	4.3	4.2/4.3		4	
	SmartCache (MB)	30	30	25	25	18	18	12		12	
Memory	2 x 262-pin SODIMM DDR5 , 4800 MHz , up to 64 GB (non-ECC)										
Chipset	Q670E										
Ethernet	Controller	LAN1: 1Gb Intel i219LM (support AMT 16.0 only for i7 & i5) LAN2: 2.5Gb Intel i226-LM								H610E	
	Connector	RJ45 x2								LAN1: 1Gb Intel i219LM LAN2: 2.5Gb Intel i226-LM LAN3: 2.5Gb Intel i226-LM	
Rear I/O	USB	6 (USB 3.2 Gen 2)								6 (2 x USB 3.2 Gen 2, 2 x USB 3.2 Gen 1, 2 x USB 2.0)	
	Ethernet	2								3	
	Display Port	1									
	HDMI	1									
	Audio	2 (Mic-in, Line-out)									
Internal Connector	Serial	2 (1 x RS-232/422/485, 1 x RS-232)									
	USB	3 x USB 2.0								1 x USB 2.0	
	SATA	2 x SATA 3.0 (support RAID 0,1)								2 x SATA 3.0	
	Serial	3 x RS-232									
	TPM	1									
Expansion Slot	GPIO	8-bit									
	M.2	1 x M.2 M key 2280 (PCIe x 4 & SATA) 1 x M.2 E key 2230 (PCIe & USB2.0)									
	PCIe x16 (Gen5)	1 x M.2 B key 3042/3052 (PCIe & USB2.0 & SIM slot)								1 x M.2 B key 3042/3052 (PCIe & USB3.1 & USB2.0 & SIM slot)	
Watchdog Timer	255 timer intervals , configurable using software										
Dimensions	170 mm x 170 mm (6.69 x 6.69)										
OS Support	Microsoft® Win 10 IOT LTSC(64-bit)/Win 11, Linux										

Ordering Information

Part Number	Description
PPC-MB-620A	12/13/14th Core i M/B, H610E, 3 x LAN
PPC-MB-620B	12/13/14th Core i M/B, Q670E, 2 x LAN

I/O view



Note: * Gigabit Ethernet only for PPC-MB-620A (H610E)

** 2 x USB2.0 for PPC-MB-620A (H610E)
2 x USB3.2 for PPC-MB-620B (Q670E)

- A. Gigabit Ethernet*
- B. RS232
- C. Display Port
- D. 2 x Gigabit Ethernet
- E. Line-out/Mic-in
- F. 2 x USB**
- G. RS232/422/485
- H. HDMI
- I. 2 x USB 3.2
- J. 2 x USB 3.2