

M60B

Low-power and High-Performance Fanless Embedded System

M60B series fanless embedded PC is fully sealed by a chassis made of aluminum alloy and sheet metal. It is characterized by small overall dimensions, compact structure, high modularity, fully sealed and fanless design, and its chassis also serves for heat dissipation. It has excellent sealing, dust prevention, heat dissipation and vibration resistance properties. It can be used in harsh environments with heavy pollution, dust and serious electromagnetic interference.

Based on the Intel Q670E and H610E chipsets, the M60B series offers high performance, reliability, and stability. It features multiple 2.5G LAN ports, PCI and PCIe slots, and a compact design with various functions and ports to cater to mid-to-high-end customers. The M60B series can be widely used in fields that require embedded systems such as highway lane control, mechanical inspection, intelligent transportation, and industrial automation.



Product Features



Fully sealed and fanless



Low power consumption and high performance

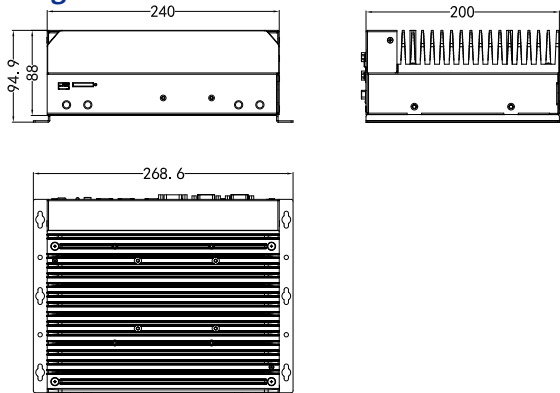


Operating in a wide temperature range



Rich and expandable port

Product Dimensions Drawing



(Please refer to the user manual to check detailed specifications and dimensions) (unit: MM)

Product Specifications

Item		Description
System Configuration	Processor	Supports 12/13th Gen Core™ i9/i7/i5/i3/ Pentium® Gold/Celeron® G series processor LGA1700 pin, and processors with a power consumption lower than 65W
	Chipset	Intel® H610E/Q670E
	Memory	Supports 2 x 262Pin DDR5 4800MHz SO-DIMM memory slot, with 1 slot supporting up to 32G and the PC supporting up to 64GB
I/O Port	LAN Port	Basic version:1x Gigabit LAN port, 1x 2.5G LAN port. LAN1 supports network wake-up; the LAN port supports PXE function
		Upgraded version:
		The Intel® H610E Chipset can be optionally configured to add 2x 2.5G LAN port. Q670E platform can be optionally configured to add 4 x 2.5G LAN port (optional)
	Display	H610E platform: 2 x HDMI 2.0, 1 x DP1.4 and 1 x eDP port (built-in), supporting simultaneous three displays
		Q670E platform: 2 x HDMI 2.0, 1 x DP1.4 and 1 x eDP port (built-in), supporting simultaneous four displays
	USB	H610E platform: 2 x USB3.2 Gen2, 1 x USB3.2 Gen1 port and 5 x USB2.0 port Q670E platform: 4 x USB3.2 Gen2, and 4 x USB3.2 Gen1 port
	COM	basic version: 4 serial ports, supporting RS232/422/485 (adjustable) Upgraded version: 2 x additional serial port (optional), supporting RS232/422/485 adjustable
Expansion Bus	Motherboard Integration	H610E:
		1 x 2242/2280 M.2 Key M (NVME PCIe3.0 X2 signals, expanded storage)
		1 x 3042/3052 M.2 Key B (SATA and USB3.0 signals, expanded 5G and storage)
		1 x Mini PCIe port, built-in SIM card slot (supporting PCIe and USB signals, expanded 4G)
		1 x2230 M.2 KEY E port (expanded WIFI and Bluetooth)
		Q670E:
		1 x 2242/2280 M.2 Key M (NVME PCIe3.0 X4 signals, expanded storage)
		1 x 3042/3052 M.2 Key B (SATA and USB3.0 signals, expanded 5G and storage)
		1 x Mini PCIe port, built-in SIM card slot (supporting PCIe and USB signals, expanded 4G)
		1 x2230 M.2 KEY E port (expanded WIFI and Bluetooth)
Storage	Expansion Box	Dual expansion card I: 4x RS232 serial ports, 1x PCI/1x PCIe x16 slot Remarks: PCI slot supports PCI2.3 standard; the size supported by PCI card is 106.68mm high and 174.63mm long, and that of PCIe card is 106.68mm high and 167.65mm long
	Hard Disk	Supports 2 x 2.5-inch HDD/SSD
	M.2	M.2 supports 1x 2242/2280 M.2 Key M (H610E supports NVME PCIe3.0 X2, Q670E supports NVME PCIe3.0 X4)
Working Environment		0°C~+45°C (HDD, CPU≤65W)
		-20°C~+60°C (SSD, 35W CPU)
		-20°C~+50°C (SSD, 65W CPU)
		-20°C~+60°C (65W CPU with optional fan)
		Note: The air flow rate in the working environment of the PC depends on the specific configuration.
Storage Environment		-40°C~+85°C; humidity: 5%~95% (non-condensing state)
Installation Method		Wall-mounted, desktop, VESA standard arm
Product Dimensions		M60B-H:240*200*88mm (without expansion box and mounting bracket)
		M60B-H-2P:240*200*143mm (with 2P expansion box, without mounting bracket)
Power Supply		1x 4-pin Phoenix terminal power port, DC 9-36V wide voltage input
Operating System		Supports operating systems such as WIN10, WIN11 and LINUX (5.15 kernel)

Note: EVOC Intelligent reserves the right to final interpretation of product specifications and ordering information etc.

Ordering Information

Part No.	Product Model	Product Description
0010-196341	M60B-H-01	Intel®H610E chipset/ I3-12100E 4.2Ghz quad-core processor/ 16GB memory/ 256G SSD/ serial port *4/ 2*USB3.2 Gen2+1*USB3.2Gen1+5*USB 2.0/ LAN port *2/ HDMI*2/ DP*1/ Line-out*1/ MIC*1/ 9~36V DC power supply/ 19V power adapter*1
0010-196351	M60B-H-02	Intel® H610E chipset/ I5-12500E 4.5Ghz hexa-core processor/ 16GB memory/ 256G SSD/ serial port * 6/ 2*USB3.2 Gen2+1*USB3.2Gen1+5*USB 2.0/ LAN port * 4/ HDMI*2/ DP*1/ GPIO*1/ Line-out*1/ MIC*1/ 9~36V DC power supply/19V power adapter * 1
0010-196361	M60B-H-03	Intel® H610E chipset/ I7-12700E 4.8Ghz dodeca-core processor/ 16GB memory/ 256G SSD/ serial port * 6/ 2*USB3.2 Gen2+1*USB3.2 Gen1+5*USB 2.0/ LAN port * 4/ HDMI*2/ DP*1/ GPIO*1/Line-out*1/ MIC*1/ 9~36V DC power supply/19V power adapter * 1
0010-196371	M60B-H-2P-02	Intel® H610E chipset/ I5-12500E 4.5Ghz hexa-core processor/ 16GB memory/ 256G SSD/ serial port*10/ 2*USB3.2 Gen2+1*USB3.2 Gen1+5*USB 2.0/ LAN port*4/ HDMI*2/ DP*1/ GPIO*1/ Line-out*1/ MIC*1/ 9~36V DC power supply/19V power adapter*1/ PCI*1+PCIe*1
0010-196381	M60B-H-11	Intel® Q670E chipset/ I5-13500T 4.6Ghz tetradeca-core processor/ 16GB memory/ 256G SSD/ serial port*6/ 4*USB3.2 Gen2+4*USB3.2 Gen1/ LAN port*6/ HDMI*2/ DP*1/ GPIO*1/ Line-out*1/ MIC*1/ 9~36V DC power supply/ 19V power adapter*1
0010-196391	M60B-H-12	Intel® Q670E chipset/ I9-13900 5.6Ghz tetracosa-core processor/ 16GB memory/ 256G SSD/ serial port*6/ 4*USB3.2 Gen2+4*USB3.2 Gen1/ LAN port*6/ HDMI*2/ DP*1/ GPIO*1/ Line-out*1/ MIC*1/ 9~36V DC power supply/ 19V power adapter*1
0020-068101	M60B-H-01	Intel® H610E chipset/ no CPU/ no memory/ no hard disk/ serial port*4/ 2*USB3.2 Gen2+1*USB3.2 Gen1+5*USB 2.0/ LAN port*2/ HDMI*2/ DP*1/ Line-out*1/ MIC*1/ 9~36V DC power supply / no power adapter
0020-067901	M60B-H-02	Intel®H610E chipset/ no CPU/ no memory/ no hard disk/ serial port*6/ 2*USB3.2 Gen2+1*USB3.2 Gen1+5*USB 2.0/ LAN port*4/ HDMI*2/ DP*1/ GPIO*1/ Line-out*1/ MIC*1/ 9~36V DC power supply / no power adapter
0020-067911	M60B-H-11	Intel® Q670E chipset/ no CPU/ no memory/ no hard disk/ serial port*6/ 4*USB3.2 Gen2+4*USB3.2 Gen1/ LAN port*6/ HDMI*2/ DP*1/ GPIO*1/ Line-out*1/ MIC*1/ 9~36V DC power supply / no power adapter
0020-067921	M60B-H-2P-02	Intel® H610E chipset/ no CPU/ no memory/ no hard disk/ serial port *10/ 2*USB3.2 Gen2+1*USB3.2 Gen1+5*USB 2.0/ LAN port *4/ HDMI*2/ DP*1/ GPIO*1/ Line-out*1/ MIC*1/ 9~36V DC power supply / no power adapter / PCI*1+PCIe*1

Optional Accessories

Part No.	Model	Specification
1067-000721	EF-EIO-311ECS	Expansion box kit/ PCI + PCIE expansion module/ RS232 * 4
1500-016101	M60B-H	Fan assembly
1067-000661	EF-EIO-306ECS-4LAN	Front IO board kit/ 2 serial ports (RS232/422/485 optional)/ 4LAN (2.5G), with the motherboard: ECS-1865-Q670E
1067-000731	EF-EIO-306ECS	Front IO board kit/ 2 serial ports (RS232/422/485 optional)/ 2LAN (2.5G), with the motherboard: ECS-1865-H610E

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INTELLIGENT AND POWERFUL
COMPUTING CAPABILITY
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MGP-800 GPU Computing Platform



High-performance
processor



Abundant
IO ports



Personalized
customization



Aptability to
different scenarios