



ECO-1823

ATX SBC with Intel® Q470E&W480E Chipset

ECO-1823 motherboard adopts standard ATX specification and Intel Q470E&W480E chipset, can support LGA 1200 Intel® Xeon® W & 10th Core™ i9/i7/i5/i3 processor (TDP up to 125W), provides 4 x DDR4 DIMM memory Slot, Q470E chipset does not support ECC memory, W480E chipset supports ECC memory, it can be expanded up to 128GB. It supports high-speed USB 3.2 Gen2 interface, 10Gb/S broadband rate, supports PCI + PCIE expansion combination, multiple COM and USB ports, support AMT remote management function. This product will be widely used in industrial automation, machine vision, deep learning, security monitoring, intelligent transportation, environmental protection, communication and other fields.



Specifications

CPU	Q470E Chipset: Support LGA 1200 Intel® 10th Core™ i9/i7/i5/i3&Pentium®/Celeron® processor (TDP up to 125W) W480E Chipset: Support LGA 1200 Intel® Xeon® W & 10th Core™ i9/i7/i5/i3 processor (TDP up to 125W)
Chipset	Q470E/ W480E
Memory	4 x DDR4 (Non-ECC) 2400/2666/2933MHz DIMM memory slots W480E Chipset support ECC memory, Q470E Chipset doesn't support ECC memory, expandable up to 128GB
Storage	5 x SATA 3.0, support RAID 0/1/5/10 1 x M.2 M-key (PCIE3.0 x 4 and SATA signal)
Display	Onboard VGA+DP+DVI-D tri-display, synchronous & asynchronous output display VGA, max resolution 1920 x 1200 @ 60Hz; DP, max resolution 4096 x 2304 @ 60Hz; DVI-D, max resolution 1920 x 1200 @ 60Hz;
USB	Onboard rear I/O interface: 2 x USB3.2 Gen2, 2 x USB3.0 Gen1, 4 x USB2.0 Internal connector: 2 x USB3.2 Gen1, 2 x USB2.0, 2 x USB2.0 Type-A
LAN	2 x 10/100/1000Mbps RJ45 LAN, LAN1 Support wake-on-line
Audio	Support MIC-IN/LINE-OUT
SIO	6 x COM (COM1/COM2 support RS232/422/485 Optional); COM1 Onboard, COM2-6 motherboard built-in 1 x TPM/LPC interface, 4 x COM can be expanded by inserting LPC adapter card 1 x LPT motherboard built-in 1 x 8bit GPIO: 4 channel input, 4 channel output
Hardware monitoring	Monitor system status, voltage, temperature, fan speed, etc.
Expansion	2 x PCI 2 x PCIe x16 (Note: When 2 x PCIE*16 slots are used at the same time, the speed is reduced to PCIE*8) 3 x PCIe x4
Power supply	Adopt ATX power supply, support S0, S4, S5; support AC power-on automatic startup function
Environment	Motherboard operating temperature: -10~60℃ Industrial PC operating temperature: 0~50℃ Motherboard storage temperature: -40~85℃



	Industrial PC storage temperature: -20~60℃
	Constant heat and humidity: (40)℃ (95)%RH (Non-condensing)
Dimension(W x H)	305mm * 244 mm
MTBF	≥50000 hours
BIOS	AMI Flash ROM, call boot function, watchdog timer, hardware monitoring
OS	Win10, Server 2019, Cent OS, Linux, Ubuntu etc Linux system with high kernel Support AMT remote management function

Ordering Information

Part Number	Model Number	Description
1030-032091	ECO-1823-01	ATX MB/ Q470E chipset/support Intel 10th Gen Core™ i9/i7/i5/i3/ Pentium®/Celeron® LGA1200-pin processor (TDP up to 125W)/ 4 x DDR4 (Non-ECC) 2400/2666/2933MHz DIMM memory slots, expandable up to 128GB/ VGA+DP+DVI-D Tri- displays/5 x SATA3.0, support Raid 0,1,5,10/1 x M.2/2 x Gbe/2 x USB3.2 Gen2, 4 x USB3.2 Gen1, 6 x USB2.0, 2 x USB2.0 Type-A / 6 x COM, COM1/COM2 support RS232/422/485 optional/supports MIC-IN/LINE-OUT/ 1x 8bit GPIO/1 x TPM/1 x LPT/ 1 x LPC (expandable LPC serial port card) / expansion: 2 x PCI, 2 x PCI E x16, 3 x PCI E x4 Note: When 2 x PCIE*16 slots are used at the same time, the speed is reduced to PCIE*8
1030-032101	ECO-1823-02	ATX MB/ W480E chipset/support LGA 1200 Intel® Xeon® W & 10th Core™ i9/i7/i5/i3 processor (TDP up to 125W)/ 4 x DDR4 ECC/Non-ECC 2400/2666/2933MHz DIMM memory slots, expandable up to 128GB/ VGA+DP+DVI-D Tri- displays/5 x SATA3.0, support Raid 0,1,5,10/1 x M.2/2 x Gbe/2 x USB3.2 Gen2, 4 x USB3.2 Gen1, 6 x USB2.0, 2 x USB2.0 Type-A / 6 x COM, COM1/COM2 support RS232/422/485 optional/supports MIC-IN/LINE-OUT/1x 8bit GPIO/1 x TPM/1 x LPT/ 1 x LPC (expandable LPC serial port card) / Expansion ports: 2 x PCI, 2 x PCI E x16, 3 x PCI E x4 Note: When 2 x PCIE*16 slots are used at the same time, the speed is reduced to PCIE*8
0020-065871	IPC-810/ECO-1823-01/ 300W	4U, 19" standard IPC-810 barebones/ECO-1823-01/ATX 300W power supply/without optical drive/without keyboard and mouse/with radiator, I/O Ports: 2 x Gbe/1 x COM/ 10 x USB (front 2 x USB2.0, rear 2 x USB3.2 Gen2, 2 x USB3.2 Gen1, 4 x USB2.0)/ VGA+DP+DVI-D/1 x Audio, support MIC -IN/LINE-OUT/Expansion ports: 2 x PCI, 2 x PCIE x16, 3 x PCI E x4 Note: When 2 x PCIE*16 slots are used at the same time, the speed is reduced to PCIE*8
0020-065881	IPC-860/ECO-1823-01/ 600W	IPC-810 barebones/ECO-1823-01/ATX 600W power supply/without optical drive/without keyboard and mouse/with radiator, I/O ports: 2 x Gbe/1 x COM/ 10 x USB (front 2 x USB2.0, rear 2 x USB3.2 Gen2, 2 x USB3.2 Gen1, 4 x USB2.0)/VGA+DP+DVI-D/1 x Audio, support MIC -IN/LINE-OUT/Expansion ports: 2 x PCI, 2 x PCIE x16, 3 x PCI E x4 Note: When 2 x PCIE*16 slots are used at the same time, the speed is reduced to PCIE*8
0020-065891	IPC-860/ECO-1823-01/ 1000W	IPC-810 barebones/ECO-1823-01/ATX 1000W power supply/without optical drive/without keyboard and mouse/with radiator, I/O Ports: 2 x Gbe/1 x COM/ 10 x USB (front 2 x USB2.0, rear 2 x USB3.2 Gen2, 2 x USB3.2 Gen1, 4 x USB2.0)/VGA+DP+DVI-D/1 x Audio, support MIC -IN/LINE-OUT/Expansion ports: 2 x PCI, 2 x PCIE x16, 3 x PCI E x4 Note: When 2 x PCIE*16 slots are used at the same time, the speed is reduced to PCIE*8
0020-065901	IPC-860/ECO-1823-02/ 1000W	IPC-810 barebones/ECO-1823-02/ATX 1000W power supply/without optical drive/without keyboard and mouse/with radiator, I/O Ports: 2 x Gbe/1 x COM / 10 x USB (front 2 x USB2.0, rear 2 x USB3.2 Gen2, 2 x USB3.2 Gen1, 4 x USB2.0)/VGA+DP+DVI-D/1 x Audio,



		support MIC -IN/LINE-OUT/Expansion ports: 2 x PCI, 2 x PCIE x16, 3 x PCI E x4 Note: When 2 x PCIE*16 slots are used at the same time, the speed is reduced to PCIE*8
0010-156691	IPC-810E/EC0-1823-01/i5-10500/8G/1T/300W	4U, 19" standard rackmount industrial PC IPC-810 /EC0-1823-01/i5-10500/8G RAM/1T HDD/ATX 300W power supply/without optical drive/without keyboard and mouse, I/O Ports: 2 x Gbe/6 x COM / 10 x USB (front 2 x USB2.0, rear 2 x USB3.2 Gen2, 2 x USB3.2 Gen1, 4 x USB2.0)/VGA+DP+DVI-D/1 x Audio, support MIC -IN/LINE-OUT/Expansion ports: 2 x PCI, 2 x PCIE x16, 3 x PCI E x4 Note: When 2 x PCIE*16 slots are used at the same time, the speed is reduced to PCIE*8
0010-156701	IPC-820/EC0-1823-01/i7-10700/16G/1T/256G/300W	4U, 19" standard rackmount industrial PC IPC-820 /EC0-1823-01/i7-10700/16G RAM/1T HDD+256G SSD/ATX 300W power supply/without optical drive/without keyboard and mouse, I/O Ports: 2 x Gbe/6 x COM / 10 x USB (front 2 x USB2.0, rear 2 x USB3.2 Gen2, 2 x USB3.2 Gen1, 4 x USB2.0)/VGA+DP+DVI-D/1 x Audio, support MIC -IN/LINE-OUT/Expansion ports: 2 x PCI, 2 x PCIE x16, 3 x PCI E x4 Note: When 2 x PCIE*16 slots are used at the same time, the speed is reduced to PCIE*8