IMB-C46H

Industrial ATX Motherboard with 10th Gen Intel® Core™ i9/i7/i5/i3 Processors



Features

- 10th Gen Intel® Core™ i9/i7/i5/i3 processors and H420E chipset
- Dual-channel DDR4 2933/2666/2400 MHz memory up to 64GB
- Triple independent display: DVI-D, HDMI, VGA, eDP
- Dual GbE ports: 2x Intel 1 Gigabit
- Expansion slots: 1x PCIe x16 Gen3, 2x PCIe x2 Gen3, 4x PCI

Ordering Information

- IMB-C46H
  ATX 10th Intel® Core™ i9/i7/i5/i3 industrial motherboard
  Note: CPU, memory module, and cooler kit are not included

Optional Accessories

• CPU cooler for 65W CPU	32-20495-0000
• CPU cooler for 35W CPU	32-20530-0010

Packing Lists

- IMB-C46H I/O shield
- M.2 screws kits

Specifications

Processor System	CPU	Intel® Core™ i9-10900E, up to 4.70GHz, 10 Core, 20M Cache, DDR4 2933MHz support, 65W Intel® Core™ i9-10900TE, up to 4.50GHz, 10 Core, 20M Cache, DDR4 2933MHz support, 35W Intel® Core™ i7-10700E, up to 4.50GHz, 8 Core, 16M Cache, DDR4 2933MHz support, 65W Intel® Core™ i7-10700TE, up to 4.40GHz, 8 Core, 16M Cache, DDR4 2933MHz support, 35W Intel® Core™ i5-10500E, up to 4.20GHz, 6 Core, 12M Cache, DDR4 2666MHz support, 65W Intel® Core™ i5-10500TE, up to 3.70GHz, 6 Core, 12M Cache, DDR4 2666MHz support, 35W Intel® Core™ i3-10100E, up to 3.80 GHz, 4 Core, 6M Cache, DDR4 2666MHz support, 65W Intel® Core™ i3-10100TE, up to 3.60 GHz, 4 Core, 6M Cache, DDR4 2666MHz support, 35W Intel® Pentium® Gold G6400, 3.20GHz, 2 Core, 4M Cache, DDR4 2400MHz support, 35W Intel® Pentium® Gold G6400E, 3.80 GHz, 2 Core, 4M Cache, DDR4 2400MHz support, 58W Intel® Celeron® Processor G5900TE, 2 Core, 3.00GHz, 2M Cache, DDR4 2666MHz support, 35W Intel® Celeron® Processor G5900E, 2 Core, 3.20GHz, 2M Cache, DDR4 2666MHz support, 58W
	Chipset	Chipset Intel® H420E Express Chipset
	Memory	Two 288-pin non-ECC sockets Dual-channel DDR4 2400/2666/2933 MHz, up to 64GB
	BIOS	BIOS AMI® UEFI BIOS, 256Mb SPI Flash Memory
	Hardware Monitor	CPU voltage +3.3 V voltage +5 V voltage +12 V voltage CPU temperature System temperature CPU fan speed System fan speed
	Operating Systems	Microsoft® Windows® 10 64-bit
I/O Interfaces	Serial Ports	1x RS-232 (COM1, rear I/O) 3x RS-232 (COM2/5/6, by internal header) 2x RS-232/RS485 (COM3/4, by internal header)
	Ethernet	1x Intel® I219-V, 1Gbps/ 100Mbps / 10Mbps 1x Intel® I225-V, 1Gbps/ 100Mbps / 10Mbps
	SATA	3x SATA 6.0 Gb/s connectors Intel® Software RAID support 0/1/5/10
	USB	2x USB 2.0 (by Internal header) 1x USB 2.0 (TYPE-A, Internal) 6x USB 3.0 (TYPE-A, Rear IO)
	Expansion Slot	1x PCIe x16 Slot 1x PCIe x4 slot (PCIe x2, co-lay with M.2 M-key 2280) 1x PCIe x4 slot (PCIe x2, share PCIe x1 with M.2 E key 2230 by BOM change) 4x PCI Slot 1x M.2 Key-E Slot (PCIE+USB 2.0, Support WIFI+ BlueTooth, 2230) 1x M.2 Key-M Slot (PCIE 2x SATA, Default SATA, Support SATA SSD, 2242/2280)

Specifications

I/O Interfaces	DIO	8-bit GPIO
	Parallel Port	1x LPT pin header
	PS/2	1x PS/2 keyboard & mouse
	TPM	TPM 2.0 (option)
Audio	Audio	Realtek ALC897
	Interface	1x Line-out, 1x Line-in, and 1x Mic-in connector (rear I/O)
Graphics	1x DVI-D (DVI-I): Support DVI-D, max resolution up to 1920x1200@60Hz 1x HDMI 1.4b (TYPE-A): up to 4096x2160@30Hz 1x VGA (DB15/F): max resolution up to 1920x1200@60Hz 1x eDP (Header): max resolution up to 4096x2304@60Hz	
Mechanical and Environmental	Form Factor	ATX
	Dimension	305 mm x 244 mm (W x L)
	Operating Temperature	0 °C to 60 °C
	Storage Temperature	-20°C to 75°C
	Relative Humidity	60 °C @ 95% RH, Non-condensing
	Certification	TBD

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