

ROCKBOX-CORE-W480E

High-performance Embedded System

High-performance embedded platform, with the Intel W480E chipset used for the motherboard, supporting 10/11th generation Xeon Core processors; it has a simple structure with small overall dimensions and excellent performance in heat dissipation and anti-vibration; the complete PC has abundant IO ports and supports WIFI and 4G functions at the same time; IO ports can be expanded through high-speed connectors, and users can customize the port (PCI extension and PCIE extension are supported) to meet different application requirements; the products are mainly used in machine vision, highway lane controllers, AI and edge computing, vehicle-infrastructure cooperation and driving assistance, intelligent manufacturing of non-standard equipment and other application fields.



Product Features



Fully sealed and fanless



Excellent performance in heat dissipation and vibration resistance



Operating in a wide temperature range

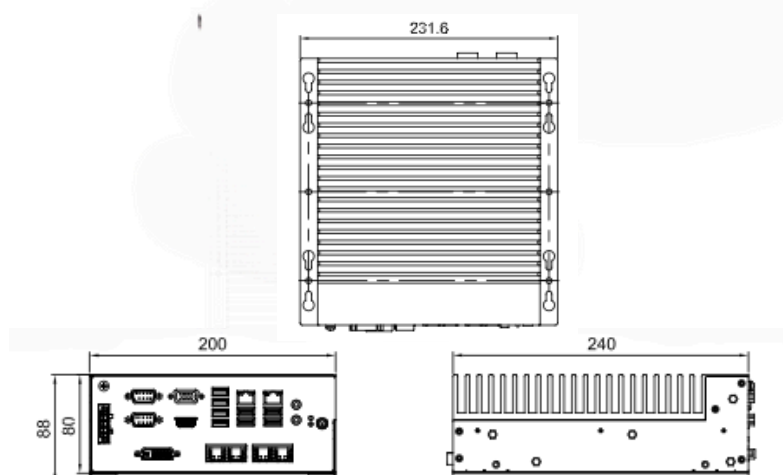


High Performance



4G and WIFI modules expandable

Product Dimensions Drawing



Product Specifications

Item		Description
System Configuration	Processor	Intel® Xeon W & 10th /11th Core™ i9/i7/i5/i3, LGA1200 series processors with power consumption not exceeding 65W
	Chipset	Intel® W480E
	Memory	2x 260-Pin DDR4 SO-DIMM slots, maximum 32G for a single slot, and maximum 64G for complete PC
I/O Port	External Ports on the PC	2x RJ45 10/100/1000Mbps LAN port, expandable to 6 LAN ports
		4 x USB3.2 (Gen 2) + 4 x USB3.2 (Gen 1) port 2 x serial port (RS232/485/422 optional) 1 group of Audio ports (supporting MIC-IN and LINE-OUT) 1 x VGA, 1 x HDMI display and 1x built-in DVI port
Expansion Bus	Internal Ports on the Motherboard	1x 8-channel GPIO 4x built-in 2x5Pin Wafer Pins (RS232 expandable) 1x built-in USB2.0 (1x5PIN wafer pin. The built-in softdog can be extended by USB cable) 4x SATA 3.0 (6Gbps), supporting Raid 0/1/5/10 1 x TPM port, supporting TPM2.0
		1x M-SATA slot (for 4G or storage function. The 4G function and storage expansion cannot be used simultaneously) 1 x internal SIM card slot 1 x M.2 Key E (WIFI expandable) 1x 2x30Pin high-speed connector, custom expansion port, and external expanded module
Storage	Hard Disk	The M80 host supports 1x 2.5-inch hard disk bay The expansion box supports the optional hard disk expansion bracket, and the bracket occupies the expansion slot 1-slot expansion box, with the optional expansion bracket to expand 1x 2.5-inch hard disk bay 2-slot expansion box, with the optional expansion brackets to expand 2x 2.5-inch hard disk bays 3-slot expansion box, with the optional expansion brackets to expand 2x 2.5-inch hard disk bays
		MSATA/M.2
Remote Maintenance		Supports AMT function
Power Supply		1x 4Pin Phoenix terminal type power connector External AC 220V power adapter or DC 9-36V wide voltage input (optional)
Switch Indicator		Power supply and hard disk indicator
Environmental Requirements	Working Temperature	0°C~+45°C (HDD/normal-temperature SSD) -20°C~+60°C (wide temperature SSD/electronic hard disk, CPU TDP≤35W) -20°C~+50°C (wide temperature SSD/electronic hard disk, 35W<CPU TDP≤65W) Note: 1. Ordinary HDD is not recommended for the fanless PC, and the air flow rate of the working environment must be greater than 0.7m/s Note: 2. The configuration with a fan can be used in conjunction with HDD
		Storage Temperature
Installation Method		Wall-mounted, desktop
Product Dimensions		80mm (W) × 240mm (D) × 200mm (H) 1P: 108mm (W) × 240mm (D) × 200mm (H) 2P: 129mm (W) × 240mm (D) × 200mm (H) 3P: 154mm (W) × 240mm (D) × 200mm (H)
Operating System		Supports LINUX systems with high kernel versions such as WIN10 (64 bit), Server 2019, Ubuntu X64 and CentOS

Ordering Information

Model No	Specification
01	Fanless computing unit/ Intel® W480E chipset/ i5-10500 3.1Ghz hexa-core processor/ 8G memory/ 128G SSD/ serial port*2/ USB3.2(Gen 2)*4+ USB3.2(Gen 1)*4/ Gigabit LAN port*2/ VGA *1/ HDMI *1 / Line-out*1/ MIC*1/ 9-36V DC power supply/ 19V adapter*1
01-BRB	Fanless barebone system/Intel® W480E chipset/no CPU/no memory/no hard disk/serial port*2/USB3.2(Gen 2)*4+USB3.2(Gen 1)*4/Gigabit LAN port*2/VGA *1/HDMI *1 /Line-out*1/MIC*1/9-36V DC power supply/no adapter
1P-01	Expandable computing unit/ Intel® W480E chipset/ i3-10100 3.6Ghz quad-core processor/ 8G memory/ 128G SSD/ serial port*4/USB3.2(Gen 2)*4+USB3.2(Gen 1)*4/ Gigabit LAN port*2/ VGA *1/ HDMI *1 / Line-out*1/ MIC*1/ PCIEx16*1/ 9-36V DC power supply/ 19V adapter*1
2P-01	Expandable computing unit/ Intel® W480E chipset/ i5-10500 3.1Ghz hexa-core processor/ 8G memory/ 128G SSD/ serial port*4/ USB3.2(Gen 2)*4+ USB3.2(Gen 1)*4/ Gigabit LAN port*4/ VGA *1/ HDMI *1 / Line-out*1/ MIC*1/ PCIEx16*1/ PCI*1/ 9-36V DC power supply/ 19V adapter*1
2P-02	Expandable computing unit/ Intel® W480E chipset/ i5-11500 2.7Ghz hexa-core processor/ 8G memory/ 128G SSD/ serial port*4/ USB3.2(Gen 2)*4+USB3.2(Gen 1)*4/ Gigabit LAN port*2/ VGA *1/ HDMI *1 / Line-out*1/ MIC*1/ PCIEx16*1/ PCIEx4*1/ 9-36V DC power supply/ 19V adapter*1
3P-01	Expandable computing unit/ Intel® W480E chipset/ i7-11700 2.5Ghz eight-core processor/ 8G memory/ 128G SSD/ serial port*4/ USB3.2(Gen 2)*4+ USB3.2(Gen 1)*4/ Gigabit LAN port*6/ VGA *1/ HDMI *1 / Line-out*1/ MIC*1/ PCIEx16*1/ PCI*2/ 9-36V DC power supply/ 19V adapter*1

Optional Accessories

Opsiyonlar	Specification	
4LAN	Customized high-speed connector expansion card, 4 x Gigabit LAN port, intel 1225LM chip	
2LAN	Customized high-speed connector expansion card, 2x Gigabit LAN port, Intel 1225LM chip	
1XEXP	Customized high-speed connector expansion card, 1 x M.2KEYM port, supporting PCIeSSD	
01	Hard Disk Bracket	2.5-inch single hard disk bracket, occupying 1 expansion slot
02		2.5-inch double hard disk bracket, occupying 2 expansion slots