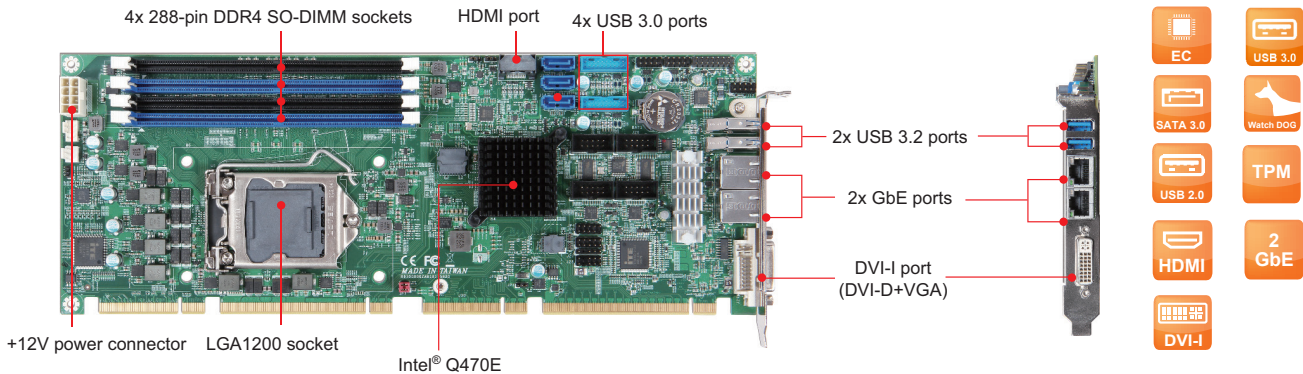


# ROBO-8115VG2AR-Q470E

Intel® Core™ i3/i5/i7/i9 Pentium®/Celeron® processor based on PICMG 1.3 SHB with DDR4 SDRAM, HDMI, DVI-I, Dual Gigabit Ethernet, Audio and USB



ROBO-8115VG2AR-Q470E is based on Intel® Q470E chipset and workstation processors. Built with flexible PCI express expansions, ROBO-8115VG2AR-Q470E is suitable for Medical, Industrial automation, and Digital Signage application.

## FEATURES

- Supports Intel® Core™ i3/i5/i7/i9 /Pentium®/ Celeron® processors in LGA 1200 package
- Delivers up to 128GB maximum DDR4 2666 non-ECC Long-DIMM on four sockets
- Supports multiple display by DVI-I(DVI-D+VGA) and HDMI
- High speed dual Gigabit Ethernet based on PCI express x 1, high bandwidth I/O interface
- Rich I/O connections such as four serials ports, USB3.2(Gen2), SATA III ports
- Support on board TPM2.0

## ORDERING GUIDE

<b>AB1-3K31Z</b>	(R).ROBO-8115VG2AR-Q470E PICMG 1.3(PCI-E+PCI).LGA1200. Q470E PCH. Intel Xeon/Core i3 processors.SHB.w/ VGA/Dual GbE/Audio/fourCOM ports
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## PACKING LIST

Standard	Optional
B6902932 SATA III cable	B6903090 USB 3.0 cable with bracket
B8981980 PICMG SBC Handling and Installation Notice	B6902980 PS/2 Keyboard / Mouse Cable with bracket
B6903351 (GP).Cable.Video DVI-I to DVI-D+VGA Y cable L=150mm.0130-069-00-0263. E-CALL	B6902230 USB port cable with bracket
B6902352 *(GP).Cable.DB9x2 to HSG(5x2)x2 L=300mm W/Bracket for Ruby-9717/Ruby-9718. CY-8A08006R.CHUAN YANG	
TBD Installation CD	

## GENERAL

Processor	- Intel® Core™ i3/i5/i7/i9/ Pentium®/ Celeron® processors up to 3.5 GHz(35~95W) in LGA-1200 package - DMI x4 Link: 5.0GT/s - Support Intel® Turbo Boost, Hyper-Threading, Virtualization, Thermal Monitoring, Trusted Execution and SpeedStep Technology (depends on CPU sku)
Chipset	Intel® Q470E
BIOS	AMI uEFI BIOS
Memory	- Supports up to 128GB DDR4 2666 SDRAM on four 288-pin DIMM sockets - Supports non-ECC
Storage Devices	- 5x SATAIII drives (Dual ports via Backplane) - Supports RAID 0, 1, 5, 10 - 1x M.2 Type M 2280 (on bottom side)
Watchdog Timer	Programmable watchdog timer, time out period from 0.5 sec to 254.5 secs
Hardware Monitoring	System monitor(Voltage,Fan Speed and Temperature)
Expansion Interface	From CPU: 1x PCIe x16 or 2x PCIe x8 or 1x PCIe x8 + 2x PCIe x4 by jumper setting (Gen3 up to 8.0 GT/s) From PCH: 1x PCIe x4 or 4x PCIe x1 by different bios support (Gen 3 up to 8.0 GT/s) 4x PCI devices at 32bit 33MHz

## I/O INTERFACE

Super I/O (Embedded Controller)	ITE IT5121E-I
Audio	- Intel® PCH built-in High Definition Audio up to 192-kHz 32-bit - Realtek ALC888S HDA codec, 7.1 channels one on board audio pin header
Ethernet	- Intel® WG1219LM + WG1210AT Gigabit Ethernet controller - Dual 10BASE-T / 100BASE-TX / 1000BASE-T Ethernet - PCI Express x1 interface based on Gigabit Ethernet - Dual RJ-45 connectors with two LED indicators
Serial Port	- 2x RS-232 ports - 2x RS-232/422/485 ports selectable - LPC to COM port IC: Fintek F81216DG
USB	- 4x USB 2.0 ports (through backplane) - 480Mb/s bus capable of high-speed/full-speed/low-speed data ranges - 4x USB 3.2(Gen2) ports on board - 10Gbps bus capable of high-speed/ full-speed/low-speed data ranges - 2x USB 3.2(Gen2) ports on bracket - 10Gbps bus capable of high-speed/ full-speed/low-speed data ranges
Keyboard & Mouse	- 1x 10 pin box header for external PS/2 KB & MS
GPIO	On board programmable 8-bit Digital I/Os

## DISPLAY

Graphic Controller	- Intel® Core™ i3/i5/i7/i9 processors integrated graphics engine - Provides improved 3D multimedia capabilities including Microsoft DirectX 12, OpenGL 4.5
Display Interface	Support independent triple display by - VGA on bracket: Resolution up to 1920x1200 @ 60Hz - DVI-D on bracket: up to 1920x1200 @ 60Hz (VGA + DVI-D on bracket by DVI-I port) - HDMI on board: up to 4096x2160 @ 30Hz

## Mechanical & Environment

Dimension	- 338.5mm(L) x 126.39mm(W), 13.33"(L) x 4.98"(W) - PCB: 10 layers
Power Supply	- Typical: +12V, +5V - Support ATX mode
Environment	- Operation Temperature: 0°C to 60°C - Storage Temperature: -20°C to 80°C - Relative Humidity: 5~95%, non-condensing
Certification	CE,FCC Class A
MTBF	Over 100,000 hours at 40°C

