ROBO-8114VG2AR is based on Intel® C246 chipset with workstation processor or Intel® Q370 chipset with desktop level processor. Built with flexible PCI express expansions, ROBO-8114VG2AR is suitable for Medical, Industrial Automation, and Digital Signage applications.

**FEATURES**
- Intel® Xeon® E series/8th/9th Gen Core™ i3/i5/i7/Pentium®/Celeron® processors in LGA 1151 package
- Delivers up to 128GB (with Non-ECC) DDR4 2133 ECC SO-DIMM on four sockets
- Supports multiple displays by DVI-I (DVI-D +VGA) and HDMI
- High speed dual Gigabit Ethernet based on PCI express x1, high bandwidth I/O interface
- Rich I/O connections such as serials ports, USB 3.2 Gen 1/Gen 2 ports and SATA 3.0 ports
- Supports on board TPM2.0

**ORDERING GUIDE**

**PACKING LIST**

**GENERAL**
- Processor: Intel® Xeon® E series / 8th/9th Gen Core™ i3/i5/i7/Pentium®/Celeron® processors up to 3.6 GHz (35~95W) in LGA 1151 package
- DMI x4 Link: 5.0GT/s
- Supports Intel® Turbo Boost, Hyper-Threading, Virtualization, Thermal Monitoring, Trusted Execution and Speed Step Technology (depends on CPU SKU)

**BIOS**
- Intel® C246 / Q370 PCH

**Memory**
- Supports up to 128GB (with Non-ECC) DDR4 2133 SDRAM on four 260-pin SO-DIMM sockets
- Supports ECC

**Storage Devices**
- 9x SATA 3.0 ports (Dual ports via Backplane)
- Supports RAID 0, 1, 5, 10
- 1x M.2 Type M 2280 (On bottom side)

**Watchdog Timer**
- Programmable via S/W from 0.5 sec. to 255 sec

**Hardware Monitoring**
- System monitor (Voltage, Fan Speed and Temperature)
- Provides improved 3D multimedia capabilities including Microsoft DirectX 12, OpenGL 4.3/4.4
- On board programmable 8-bit Digital I/Os

**I/O 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 PCIe: 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

**Audio**
- Intel® PCH built-in High Definition Audio up to 192kHz 32-bit
- Realtek ALC886 HDA codec, 7.1 channels
- 1x on board audio pin header

**Ethernet**
- Intel® WM219LM + WM210AT 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 through backplane, 480Mbps bus capable of high/full/low-speed data ranges
- 8x USB 3.2 Gen 1 on board, 5Gbps bus capable of high/full/low-speed data ranges
- 2x USB 3.2 Gen 2 on bracket, 10Gbps bus capable of high/full/low-speed data ranges

**Keyboard & Mouse**
- 2x USB 3.1 ports on bracket dedicated to keyboard and mouse
- 1x 10 pin box header for external PS/2 KB & MS

**GPIO**
- On board programmable 8-bit Digital I/Os

**DISPLAY**
- Intel® UHD Graphics 630
- Provides improved 3D multimedia capabilities including Microsoft DirectX 12, OpenCL 2.0 and OpenGL 4.3/4.4

**Mechanical & Environment**
- Triple independent displays:
  - VGA on bracket, resolution up to 1920x1200 @ 60Hz
  - DVI-D on bracket, resolution up to 1920x1200 @ 60Hz
  - HDMI on bracket, up to 4096x2160 @ 24Hz
- Temperature: 0~40°C
- Relative Humidity: 5~93%, non-condensing