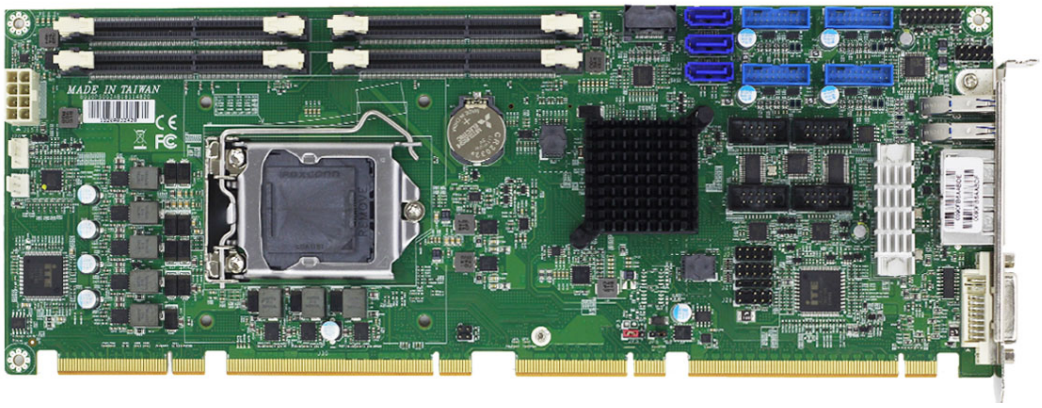
ROBO-8114VG2AR

Intel® Xeon® E series/ 8th/ 9th Gen Core™ i3/i5/i7/ Pentium®/Celeron® processors based on PICMG 1.3 SHB with DDR4 SDRAM, HDMI, DVI-I, Dual Gigabit Ethernet, Audio and USB.



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) maximum 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 x 1, high bandwidth I/O interface
- Rich I/O connections such as serials ports, USB 3.2 Gen 1/ USB 3.2 Gen 2 ports and SATA 3.0 ports
- Supports on board TPM2.0

ORDERING GUIDE

ROBO-8114VG2AR	PICMG^E 1.3 full-size SHB based on Intel^E Xeon^E E series processor and Intel® C246 chipset
ROBO-8114VG2AR -Q370	PICMG^E 1.3 full-size SHB based on Intel^E Core™ i3/i5/i7/Pentium®/Celeron® processor and Intel® Q370 chipset

PACKING LIST

ROBO-8114VG2AR

Standard	B8983660 Installation CD
	B6902351 dual head COM port cable with bracket
	B6903351 DVI-D + VGA cable
	B8981980 PICMG SBC Handling and Installation Notice
	B6902932 SATA III cable
Optional	B6902980 PS/2 Keyboard / Mouse Cable with bracket
	B6903090 USB 3.0 cable with bracket
	B6902230 USB 2.0 port cable with bracket

ROBO-8114VG2AR-Q370

Standard	TBD Installation CD
	B6902932 SATA III cable
	B8981980 PICMG SBC Handling and Installation Notice
	B6902351 dual head COM port cable with bracket
	B6903351 DVI-D + VGA cable
Optional	B6902980 PS/2 Keyboard / Mouse Cable with bracket

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)
Chipset	Intel® C246 / Q370 PCH
BIOS	AMI UEFI BIOS (SPI ROM)
Memory	- Supports up to 128GB (with Non-ECC) DDR4 2133 SDRAM on four 260-pin SO-DIMM sockets - Supports ECC
Storage Devices	- 5x 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)

I/O INTERFACE

Expansion Interface	- From CPU: 1x PCIe x16 or 2x PCIe x8 or 1x PCIe x8 + 2x PCIe x4 by jumper settting (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
Super I/O (Embedded Controller)	ITE IT5121E-I-128
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® WGI219LM + WGI210AT 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

Graphic Controller	- Intel® UHD Graphics 630 - Provides improved 3D multimedia capabilities including Microsoft DirectX 12, OpenCL 2.x and OpenGL 4.3/4.4

Mechanical & Environment

Display Interface	Triple independent displays: - VGA on bracket, resolution up to 1920x1200 @ 60Hz - DVI-D on bracket, resolution up to 1920x1200 @ 60Hz (VGA + DVI-D on bracket by DVI-I port) - HDMI on board, up to 4096x2160 @ 24Hz
Dimension	- 338.5mm(L) x 126.39mm(W), 13.33"(L) x 4.98"(W) - PCB: 8 layers
Power Supply	- Typical: +12V, +5V - Supports ATX mode
Environment	- Operation Temperature: 0~60°C - Storage Temperature: -20~80°C - Relative Humidity: 5~95%, non-condensing

SATA 3.0 | Core™ i7/i5/i3 | USB 2.0 | PS2 KB/MS | DVI-I | 4 COM | 2 GbE | GPIO | RoHS | FC CE | intel partner Titanium

*bject to change without notice. Last updated: January 3, 2023