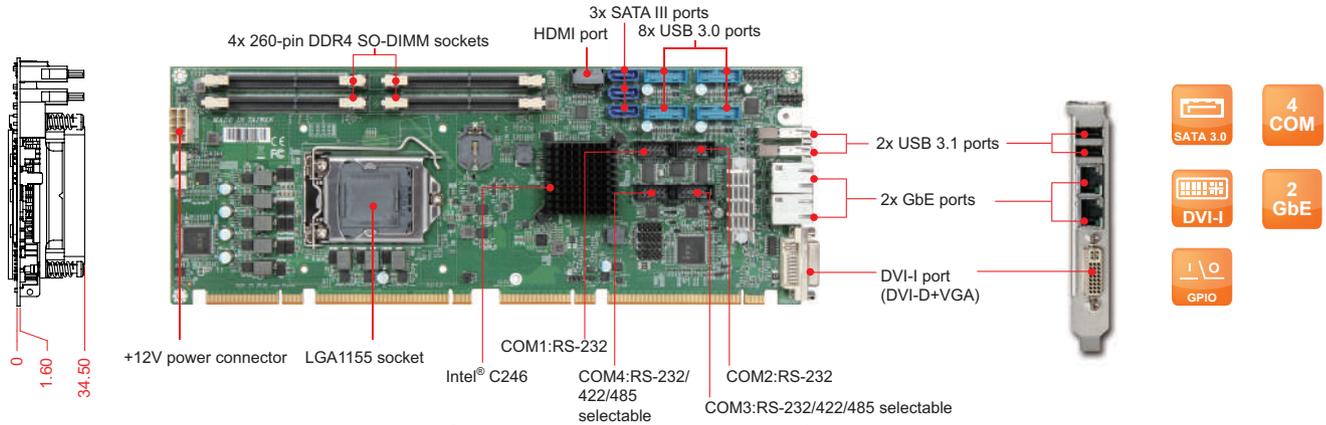# ROBO-8114VG2AR

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

4x 260-pin DDR4 SO-DIMM sockets
HDMI port
3x SATA III ports
8x USB 3.0 ports
2x USB 3.1 ports
2x GbE ports
DVI-I port (DVI-D+VGA)
+12V power connector
LGA1155 socket
COM1:RS-232
Intel® C246
COM4:RS-232/ 422/485 selectable
COM2:RS-232
COM3:RS-232/422/485 selectable

SATA 3.0
DVI-I
GPIO
4 COM
2 GbE

ROBO-8114VG2AR is based on Intel® C246 chipsetand workstation processors. Built with flexible PCI express expansions, ROBO-8114VG2AR is suitablefor Medical, Industrial Automation.

FEATURES

- Supports Intel® Xeon®/Core™ i3/i5/i7/ Pentium®/ Celeron® processors in LGA 1151 package

- Delivers up to 64GB maximum DDR4 2133 ECC SO-DIMM on four sockets

- Supports mutiple display by DVI-I(DVI-D+VGA)and HDMI

- High speed dual Gigabit Ethernet based on PCIe x press x 1, high bandwidth I/O interface

- Rich I/O connections such as four serials ports,USB 3.0/3.1, SATA III ports

- Support on board TPM2.0

ORDERING GUIDE

AB1-3J28	**ROBO-8114VG2AR** PICMG 1.3(PCI-E+PCI).LGA1151. C246 PCH. IntelXeon/Core i3 processors.SHB.w/ VGA/Dua lGbE/Audio/four COM ports

PACKING LIST

Standard	TBD Installation CD
	B6902352 dual head COM port cable with bracket
	B6903351 DVI-D + VGA cable
	B8981980 PICMG SBC Handling and Installation Notice
	B6902932 SATA III cable
Optional	B6903090 USB 3.0 cable with bracket
	B6902980 PS/2 Keyboard / Mouse Cable with bracket
	B6902230 USB port cable with bracket

GENERAL

Processor	- Intel® Xeon® E Family/ Core™ i3/i5/i7/ Pentium®/ Celeron® processors up to 3.6 GHz(35~95W) in LGA-1151 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® C246 PCH
BIOS	AMI UEFI BIOS (SPI ROM)
Memory	- Supports up to 64GB DDR4 2133 SDRAM on four 260-pin SO-DIMM sockets - Supports 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 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 seng (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 192-kHz 32-bit - Realtek ALC886 HDA codec, 7.1 channels - one on board audio pin header
Ethernet	- Intel® WGI219LM + WGI225LM 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 - 5Gbps bus capable of high-speed/ full-speed/low-speed data ranges - 10Gbps bus capable of high-speed/ full-speed/low-speed data ranges
Keyboard & Mouse	- 2x USB 3.1 ports on bracket dedicated to 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® Xeon® and Core™ i3 processors integrated graphics engine - Provides improved 3D multimedia capabilities including Microso DirectX 12, OCL 2.x and OpenGL 4.3/4.4
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 3200x2000 @ 60Hz

Mechanical & Environment

Dimension	- 338.5mm(L) x 126.39mm(W), 13.33"(L) x 4.98"(W) - PCB: 8 layers
Power Supply	- Typical: +12V, +5V - Support ATX mode
Environment	- Operation Temperature: 0~60°C - Storage Temperature: -20~80°C - Relative Humidity: 5~95%, non-condensing