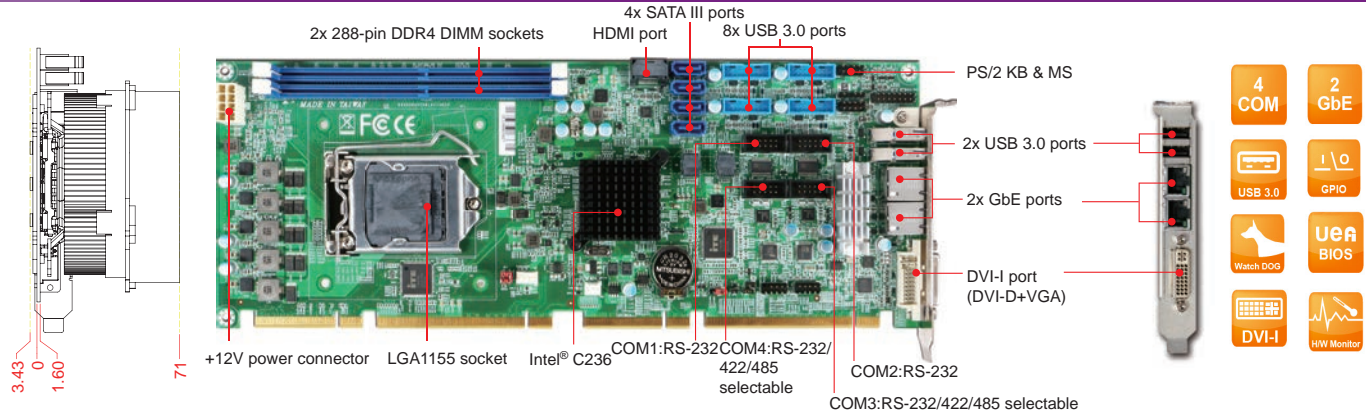


# ROBO-8113VG2AR

Intel® 7<sup>th</sup> and 6<sup>th</sup> (Kaby Lake-S/Skylake-S) Xeon® E3/ 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



ROBO-8113VG2AR is based on Intel® C236 chipset and workstation processors. Built with flexible PCI express expansions, ROBO-8113VG2AR is suitable for Medical, Industrial automation, and Digital Signage application.

## FEATURES

- Supports Intel® 7<sup>th</sup> and 6<sup>th</sup> (Kaby Lake-S / Skylake-S) Xeon®/Core™ i3/i5/i7/ Pentium®/Celeron® processors in LGA 1151 package
- Delivers up to 32GB maximum DDR4 2133 ECC DIMM on two 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 serial ports, USB 3.0/2.0, SATA III ports
- Support on board TPM2.0

## ORDERING GUIDE

<b>AB1-3D40</b>	<b>(R).ROBO-8113VG2AR</b> PICMG 1.3(PCI-E+PCI).LGA1151. Intel Xeon/Core i3 processors.SHB.w/VGA/Dual GbE/Audio/four COM ports
<b>AB1-3G68</b>	<b>(R).ROBO-8113VG2AR-KBL</b> PICMG 1.3(PCI-E+PCI).LGA1151. Intel Xeon/Core i3 processors.SHB.w/VGA/Dual GbE/Audio/four COM ports

## PACKING LIST

<b>Standard</b>	B6902932 SATA III cable B8981980 PICMG SBC Handling and Installation Notice B6903350 DVI-D + VGA cable B6902350 dual head COM port cable with bracket B8983660 Installation CD
<b>Optional</b>	B6902980 PS/2 Keyboard / Mouse Cable with bracket B6902230 USB port cable with bracket AB9-2066 PA-M1AU Multiple Media kit B6903090 USB 3.0 cable with bracket

## GENERAL

Processor	- Intel® 7 <sup>th</sup> and 6 <sup>th</sup> Xeon® E3-1200v5 series / Core™ i3/i5/i7/Pentium®/Celeron® processors up to 3.6 GHz (35~80W) with (8MB) Cache 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® C236 PCH
BIOS	AMI UEFI BIOS (SPI ROM)
Memory	- Supports up to 32GB DDR4 2133/1866 SDRAM on two 288-pin DIMM sockets - Supports ECC
Storage Devices	- 6x SATAIII drives (Dual ports via Backplane) - RAID 0, 1, 5, 10
Watchdog Timer	Programmable via S/W from 0.5 sec. to 254.5 sec
Hardware Monitoring	System monitor(Voltage, Fan Speed and Temperature)
Expansion Interface	- From CPU (Xeon®/Core™ i3): 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

Embedded Controller	ITE IT8528E
Audio	- Intel® PCH built-in High Definition Audio up to 192-kHz 32-bit - Realtek ALC886-GR HDA codec, 5.1 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 connector with two LED indicators
Serial Port	- 2x RS-232 ports - 2x RS-232/422/485 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 - 10x USB 3.0 ports on board (eight ports on board, dual ports on bracket) - 5Gbps bus capable of high-speed/ full-speed/low-speed data ranges
Keyboard & Mouse	- 2x USB 3.0 ports on bracket dedicated to keyboard & mouse (on bracket) - 1x 10 pin box header for external PS/2 KB & MS
GPIO	On board programmable 8-bit Digital I/Os

## DISPLAY

Graphic Controller	- Intel® 7 <sup>th</sup> and 6 <sup>th</sup> Xeon® and Core™ i3 processors integrated graphics engine - Provides improved 3D multimedia capabilities including Microsoft DirectX 12, OCL 2.x and OpenGL 4.3/4.4
Display Interface	- Support independent triple display by - CRT on bracket: Resolution up to 1920x1200 @ 60Hz - DVI-D on bracket: up to 1920x1200 @ 60Hz (CRT + DVI-D on bracket by DVI-I port) - HDMI: up to 4096x2160 @ 24Hz

## 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	- Operatin Temperature: 0~60°C - Storage Temperature: -20~80°C - Relative Humidity: 5~90%, non-condensing
Certification	CE, FCC Class A
MTBF	Over 100,000 hours at 40°C

