ROBO-8113VG2AR
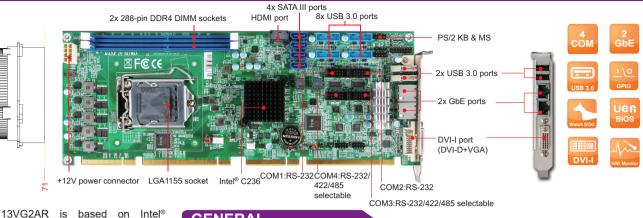
Intel® Xeon® E3/ Core™ i3/i5/i7 Pentium®/ Celeron® processor based on PICMG 1.3 SHB with DDR4 SDRAM, HDMI, DVI-I, Dual Gigabit Ethernet, Audio and USB

Board diagram labels:
- 2x 288-pin DDR4 DIMM sockets
- HDMI port
- 4x SATA III ports
- 8x USB 3.0 ports
- PS/2 KB & MS
- 2x USB 3.0 ports
- 2x GbE ports
- DVI-I port (DVI-D+VGA)
- +12V power connector
- LGA1155 socket
- Intel® C236
- COM1:RS-232
- COM4:RS-232/422/485 selectable
- COM2:RS-232
- COM3:RS-232/422/485 selectable

Side panel icons: 4 COM, 2 GbE, USB 3.0, GPIO, Watch DOG, UEFI BIOS, DVI-I, H/W Monitor

Dimensions: 3.43 / 0 / 1.60 / 71

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® 7th and 6th Gen Skylake-S Kaby Lake-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 mutiple 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, USB 3.0/2.0, SATA III ports

- Support on board TPM2.0

ORDERING GUIDE

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

PACKING LIST

Standard	B6902932 SATA III cable
	B8981980 PICMG SBC Handling and Installation Notice
	B6903351 DVI-D + VGA cable
	B6902352 dual head COM port cable with bracket
	B8983660 Installation CD
Optional	B6902980 PS/2 Keyboard / Mouse Cable with bracket
	B6902230 USB port cable with bracket
	B6903090 USB 3.0 cable with bracket

GENERAL

Processor	- Intel® Xeon® E3-1200v5/v6 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® WGI219LM + WGI210AT 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® 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