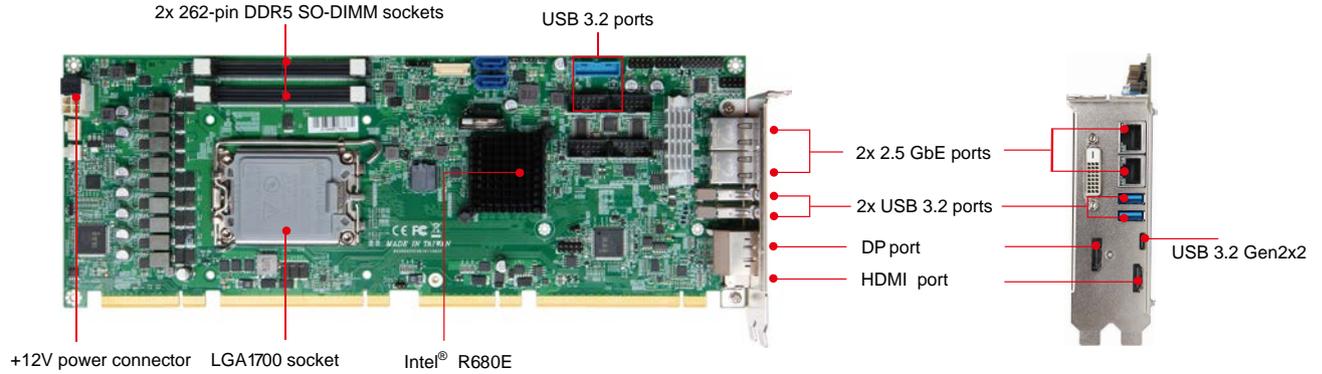


ROBO-8116VG2AR

12th Gen Intel® Core™ processor based PICMG 1.3 SHB with DDR5 SDRAM, PCIe Gen 5, Dual 2.5GbE, Triple Display, Audio and USB



ROBO-8116VG2AR is based on Intel® 600 series chipset and workstation processors. Built with flexible PCI express expansions, ROBO-8116VG2AR is suitable for Medical, Industrial automation, and Digital Signage application.

FEATURES

- 12th Gen Intel® Core™ Desktop processors (Formerly Alder Lake-S)
- Dual Channel DDR5 4800 ECC SO-DIMM up to 64GB
- 16x PCIe Gen 5 and 4x PCIe Gen 4 lanes ready for high speed expansion cards
- Triple displays by DVI-D, DP and HDMI
- 2x 2.5GbE LAN, 2x USB 3.2 Gen 2 and USB 3.2 Gen 2x2 on REAR I/O
- On-board TPM2.0

ORDERING GUIDE

AB1-3K67Z	(R).ROBO-8116VG2AR. PICMG 1.3(PCI-E+PCI).LGA1700. R680E PCH. Intel 12th gen processors.SHB.w/ HDMI/Dual GbE/Audio/four COM ports
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PACKING LIST

Standard	B6902932 SATA III cable
	B8981980 PICMG SBC Handling and Installa
	B6902352 *(GP).Cable.DB9x2 to HSG(5x2)x2 L=300mm W/Bracket for Ruby-9717/Ruby-9718. CY-8A08006R.CHUAN YANG
Optional	TBD Installation CD
	B6903090 USB 3.0 cable with bracket
	B6902980 PS/2 Keyboard / Mouse Cable with bracket
	B6902230 USB port cable with bracket

GENERAL

Processor	- 12th Generation Intel® Core™ processors family in LGA1700 package - DMI x4 Link: 5.0GT/s - Support Intel® Turbo Boost, Hyper-Threading, Virtualization, Thermal Monitoring, Trusted Execution and Speed Step Technology (depends on CPU sku)
Chipset	Intel® R680E
BIOS	AMI uEFI BIOS
Memory	- Supports up to 64GB DDR5 4800 MHz SDRAM on two 262-pin SO-DIMM sockets - Supports ECC
Storage Devices	- 4x SATAIII drives (Dual ports via Backplane) - Supports RAID 0, 1, 5, 10 - 1x M.2 Type M 2280 (on bottom side)
Watchdog Timer	Programmable watchdog timer, time out period from 0.5 sec to 254.5 secs.
Hardware Monitoring	System monitor(Voltage,Fan Speed and Temperature)
Expansion Interface	- From CPU: 1x PCIe 5.0 x16 or 2x PCIe 5.0 x8 and 1x PCIe 4.0 x4 by jumper setting (Gen 5 up to 32 GT/s) - From PCH: 1x PCIe 3.0 x4 or 4x PCIe 3.0 x1 by different BIOS support (Gen 3 up to 8.0 GT/s), 4x PCI devices at 32bit 33MHz

I/O INTERFACE

Super I/O (EmbeddedController)	ITE IT5121E-I
Audio	- Intel® PCH built-in High Definition Audio up to 192-kHz 32-bit - Realtek ALC888S HDA codec, 7.1 channels one on board audio pin header
Ethernet	- Intel® WGI225LM + WGI225VT Gigabit Ethernet controller - Dual 10BASE-T / 100BASE-TX / 1000BASE-T / 2500BASE-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	- 2x USB 3.2 Gen 1 ports on board (5Gb/s) - 2x USB 3.2 Gen 2 ports on bracket (10Gb/s) - 1x USB 3.2 Gen 2x2 type-C port on bracket (20Gb/s) - 4x USB 2.0 ports (through backplane)
Keyboard & Mouse GPIO	1x 10-pin box header for external PS/2 KB & MS On board programmable 8-bit Digital I/Os

DISPLAY

Graphic Controller	- Intel® processors integrated graphics engine - Provides improved 3D multimedia capabilities including Microsoft DirectX 12, OpenGL 4.5
Display Interface	Triple independent displays by - DP on bracket: Resolution up to 4096x2160 @ 60Hz - DVI-D on bracket: up to 1920x1200 @ 60Hz - HDMI on board: up to 4096x2160 @ 30Hz

Mechanical & Environment

Dimension	- 338.5mm(L) x 126.39mm(W),13.33"(L) x 4.98"(W) - PCB: 12 layers
Power Supply	- Typical: +12V, +5V - Support ATX mode
Environment	- Operation Temperature: 0°C to 60°C - Storage Temperature: -20°C to 80°C - Relative Humidity: 5~95%, non-condensing
Certification	CE,FCC Class A
MTBF	Over 100,000 hours at 40°C

