# ROBO-8112VG2AR

Intel<sup>®</sup> Xeon<sup>®</sup> E3-1200v3/Core<sup>™</sup> i3 series processor based on PICMG 1.3 SHB with DDR3 SDRAM, VGA, Dual Gigabit Ethernet, Audio and USB



ROBO-8112VG2AR is based on Intel<sup>®</sup> C226 chipset and workstation processor sku like Xeon<sup>®</sup> and Core<sup>™</sup> i3. Build with flexible PCI express expension, it's suitable for Medical, Industrial automation, and Digital Signage applications.

#### FEATURES

- Supports Intel<sup>®</sup> Xeon<sup>®</sup> E3-1200v3 series/ Core<sup>™</sup> i3 processors in LGA1150 package
- Delivers up to 16GB maximum DDR3 1333/1600 ECC SDRAM on two DIMM sockets
- Supports triple display by DVI-I (DVI-D+VGA) and HDMI
- Supports iAMT 9.0 on Intel<sup>®</sup> Xeon<sup>®</sup> E3-1200v3 series processors
- High speed dual Gigabit Ethernet based on PCI Express x1, high bandwidth I/O interface
- Rich I/O connections such as FDD, two Gigabit Ethernet, serial ports, parallel port, USB 2.0/3.0
- On-board five SATA III ports support RAID 0,1,5,10 (dual ports on backplane)

## **ORDERING GUIDE**

AB1-3954	ROBO-8112VG2AR
	PICMG 1.3(PCI-E+PCI).LGA1150. Intel Xeon/
	Core i3 processors.SHB.w/VGA/Dual GbE/
	Audio

## **PACKING LIST**

B6902930 SATA III cable (Black)
B690021S Cable kit for FDD+PRN with bracket
B8981980 PICMG SBC Handling and
Installation Notice
B6903350 DVI-D + VGA cable
B6903240 dual head COM port cable with
bracket
B3751640 Installation CD
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	<ul> <li>Intel<sup>®</sup> Core<sup>™</sup> i3 and Xeon<sup>®</sup> E3-1200v3 series processor up to 3.5 GHz (45~95W) with (8MB) Cache in LGA-1150 package</li> <li>DMI x4 Link: 5.0GT/s</li> <li>Support Intel<sup>®</sup> Turbo Boost , Hyper-Threading, Virtualization, Thermal Monitoring, Trusted Execution and SpeedStep Technology (depends on CPU sku)</li> </ul>
Chipset	Intel® C226 PCH
BIOS	Phoenix uEFI BIOS
Memory	<ul> <li>Supports up to 16GB DDR3 1333/1600 SDRAM on two 240-pin ECC DIMM sockets</li> <li>Supports ECC</li> </ul>
Storage Devices	- Suppors 5x SATA III drive (Dual ports via Backplane) - RAID 0,1,5,10 - 1x FDD channel
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	<ul> <li>From CPU (Xeon/Core i3): 1x PCI Express x16 or 2x PCI Express x8 or 1x PCI Express x8 + 2x PCI Express x4 by jumper setting (Gen3 up to 8.0 GT/s)</li> <li>From PCH: 1x PCI Express x4 or 4x PCI Express x1 by different bios support (Gen2 up to 5.0 GT/s)</li> <li>4x PCI devices at 32 bit 33 MHz</li> </ul>

#### I/O INTERFACE

Super I/O	ITE IT8728F
Audio	<ul> <li>Intel<sup>®</sup> BD82C226 PCH built-in High Definition Audio up to 192-kHz 32-bit</li> <li>Realtek ALC886-GR HDA codec, 5.1 channels</li> </ul>
Ethernet	<ul> <li>Intel<sup>®</sup> WGI217LM + WGI210AT gigabit ethemet controller</li> <li>Dual 10BASE-T / 100BASE-TX / 1000BASE-T Ethernet</li> <li>PCI Express x1 interface based on gigabit ethernet</li> <li>Dual RJ-45 connector with two LED indicators</li> </ul>
Serial Port	- 1x RS232 and 1x selectable RS232/422/485 on board
USB	<ul> <li>- 8x USB 2.0 ports (four ports through backplane)</li> <li>- 480Mb/s bus capable of high-speed/full-speed/low-speed data ranges</li> <li>- 6x USB 3.0 ports on board (four ports on board, dual ports on bracket)</li> <li>- 5Gbps bus capable of high-speed/ full-speed/low-speed data ranges</li> </ul>
Keyboard & Mouse	<ul> <li>- 2x USB 3.0 ports on bracket dedicated to keyboard &amp; mouse (on bracket)</li> <li>- 1x 10 pin box header for external PS/2 keyboard/mouse</li> </ul>
GPIO	On board programmable 8-bit Digital I/Os
Others	1x Parallel port

<ul> <li>Intel<sup>®</sup> Xeon<sup>®</sup> and Core<sup>™</sup> i3 processors integrated graphics engine</li> <li>Provides improved 3D multimedia capabilities including Microsoft DirectX 11.1, Shader Model 4.0, MPEG-2 and OpenGL 3.2</li> </ul>
Support independent triple display by - CRT on bracket: Resolution up to 1920x1200 @ 60Hz - DVI-D on bracket: up to 1920x1200 @ 60Hz - HDMI: up to 4096x2160 @ 24Hz (CRT + DVI-D on bracket by DVI-I port)
Environment
- 338.5mm(L) x 126.39mm(W), 13.33""(L) x 4.98""(W) - PCB: 8 layers
- Typical: +12V@5.29A;+5V@4.94A - Support ATX mode
- Operation Temperature: 0~60 °C - Storage Temperature: -20~80 °C - Relative Humidity: 5~90%, non-condensing
CE,FCC Class A
Over 100,000 hours at 40°C