ROBO-8113VG2AR-Q170
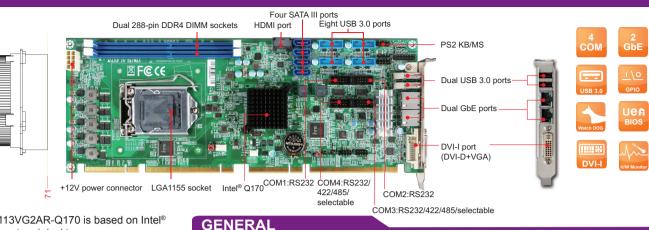
Intel® Core™ i3/i5/i7 Pentium®/ Celeron® processor based on PICMG 1.3 SHB with DDR4 SDRAM, HDMI, DVI-I, Dual Giga- bit Ethernet, Audio and USB

Dual 288-pin DDR4 DIMM sockets
HDMI port
Four SATA III ports
Eight USB 3.0 ports
PS2 KB/MS
Dual USB 3.0 ports
Dual GbE ports
DVI-I port (DVI-D+VGA)
+12V power connector
LGA1155 socket
Intel® Q170
COM1:RS232
COM4:RS232/ 422/485/ selectable
COM2:RS232
COM3:RS232/422/485/selectable

4 COM
2 GbE
USB 3.0
GPIO
Watch DOG
UEFI BIOS
DVI-I
H/W Monitor

ROBO-8113VG2AR-Q170 is based on Intel® Q170 chipset and desktop 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 Core™ i3/i5/i7/Pentium®/ Celeron® processors in LGA 1151 package

- Delivers up tp 32GB maximum DDR4 2133 MT/s non-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

- On-board 6x SATA III ports

- Rich I/O connections such as four serials ports, USB 3.0/2.0, SATA III ports

- Support on board TPM 2.0

ORDERING GUIDE

AB1-3D41	(R).ROBO-8113VG2AR-Q170 PICMG 1.3(PCI-E+PCI).LGA1151. Intel® Xeon®/Core™ i3 processors.SHB.w/VGA/ Dual GbE/Audio/four COM ports
AB1-3G67	(R).ROBO-8113VG2AR-Q170-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
	B6903350 DVI-D + VGA cable
	B6902350 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® Core™ i3/i5/i7 Pentium®/Celeron® processors up to 3.4 GHz (35~65W) 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® Q170 PCH
BIOS	AMI UFEI BIOS (SPI ROM)
Memory	- Supports up to 32GB DDR4 2133/1866 SDRAM on two 288-pin DIMM sockets - Supports non-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 (Core™ i5/i7): 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® Core™ i5/i7 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: 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°C~60°C - Storage Temperature:-20°C~80°C - Relative Humidity:5~90%,non-condensing
Certification	CE,FCC Class A
MTBF	Over 100,000 hours at 40°C