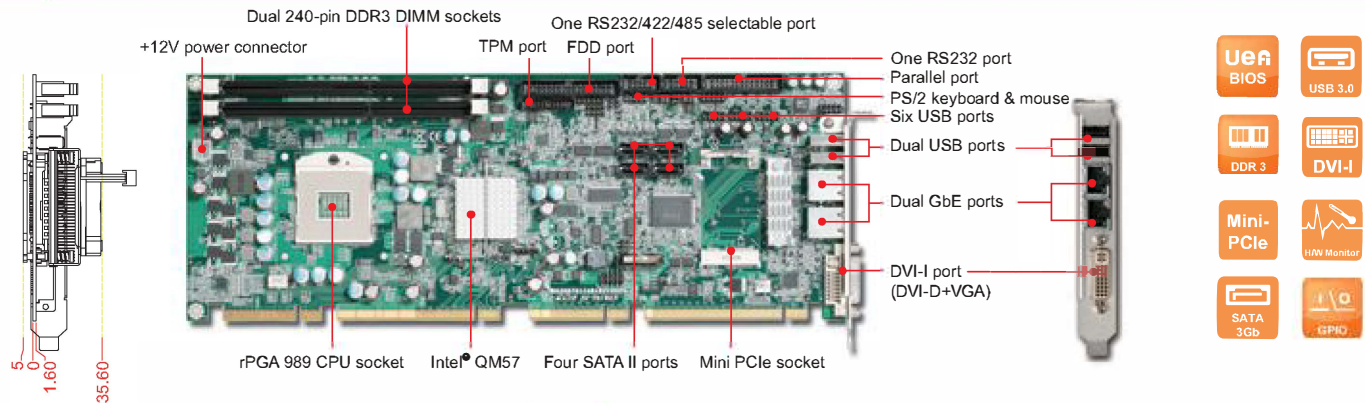


# ROBO-8210VG2AR

Intel® Core™ i7/i5 processor based on PICMG 1.3 SHB with DDR3 SDRAM, DVI-I, Dual Gigabit Ethernet, Audio and USB



ROBO-8210VG2AR adopts the QM57 chipset and Intel® Core™ i7/i5 and Celeron® processors. Built with high performance and lower power consumption than desktop platform, it's suitable for Medical, Industrial Automation and Kiosk applications.

## FEATURES

- Supports Intel® i7-620M/i5-520M/P4500 processors in rPGA988 package
- Delivers up to 8GB maximum DDR3 1066/800 on two DIMM sockets
- Supports dual display by DVI-I port on bracket
- Supports iAMT 6.0 and external TPM via TPM module
- 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
- Four on-board SATA ports support RAID 0,1,5,10

## ORDERING GUIDE

AB1-3521	ROBO-8210VG2AR PICMG 1.3(PCI-E+PCI),rPGA988A package, Intel QM57 w/ PGA type Core i7/i5 processors,SHB.w/VGA/Dual GbE/Audio
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## PACKING LIST

Standard	B690021S cable kit for FDD+PRN with bracket
	B6903240 Dual head COM port cable with bracket
	B6901990 SATA II cable
	B8981980 PICMG SBC Handling and Installation Notice
	B6902890 DVI-D + VGA cable
	B8303170 CPU cooler (up to 35W)
	B3751340 Installation CD
Optional	B6901442 PS/2 Keyboard/Mouse Cable with bracket
	AB9-2066 PA-M1AU Multiple Media kit
	B6902230 USB port cable with bracket

## GENERAL

Processor	- Intel® Core™ i7-620M/i5-520M/P4500 Processors up to 3.33G (35W) with 2MB~4MB Cache in rPGA989 package - DMI x4 Link: 2.5 GT/s - Supports Intel® Hyper-Threading, Virtualization Technology (VT-x)
Chipset	Intel® BD82QM57 PCH (3.5W)
BIOS	AMI UEFI BIOS
Memory	Supports up to 8GB DDR3 1066/800 SDRAM on dual 240-pin DIMM sockets
Storage Devices	- 6x SATA II drivers (Dual SATA ports via Backplane) - RAID 0,1,5,10 - 1x FDD channel on board box header
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	- 1x PCI Express x16 Gen 1 up to 2.5 GT/s - 2x PCI Express x8 Gen 1 up to 2.5 GT/s - 4x PCI devices at 32-bit 33MHz (Option for PCI Express Gen 2 support) - 1x Mini-PCIe socket

## I/O INTERFACE

Super I/O	ITE IT8721F
Audio	- Intel® BD82QM57 built-in High Definition Audio up to 192-kHz 32-bit - Realtek ALC662-GR HDA codec, 5.1 channels
Ethernet	- Intel® 82577LM + 82583V gigabit ethernet controller - Dual RJ-45 connector with two LED indicators on bracket
Serial Port	- 1x RS232 on board box header - 1x Selectable RS232/422/485 on board box header
USB	- 12x USB 2.0 ports (Four ports through backplane) - 480 Mb/s bus comprehends the high-speed/full-speed/low-speed data ranges
Keyboard & Mouse	2x USB 2.0 ports on bracket dedicated to keyboard & mouse
GPIO	On board programmable 8-bit Digital I/Os
Others	1x parallel port on board box header

## DISPLAY

Graphic Controller	- GMCH integrated Intel Graphic Media Accelerator (GMA) HD - Provides improved 3D multimedia capabilities including Microsoft DirectX 10, Shader Model 4.0, OpenGL 2.1, MPEG-2 hardware acceleration - Intel Dynamic Video Memory Technology (DVMT) 5.0 shares system memory up to 1Gb
Display Interface	- VGA on bracket: Resolution up to 2048x1536 @75Hz - DVI-D: Resolution up to 1920x1200 @60Hz

## Mechanical & Environment

Dimension	- 338.5(L) x 126.39(W)mm; 13.33"(L) x 4.98"(W) - PCB: 8 layers
Power Supply	- Typical: +12V@3.86A; +5V@6.44A - Supports ATX mode
Environment	- Operation Temperature: 0~55 °C - Storage Temperature: -20~80 °C - Relative Humidity: 5~90%, non-condensing
MTBF	Over 120,000 hours at 40°C

