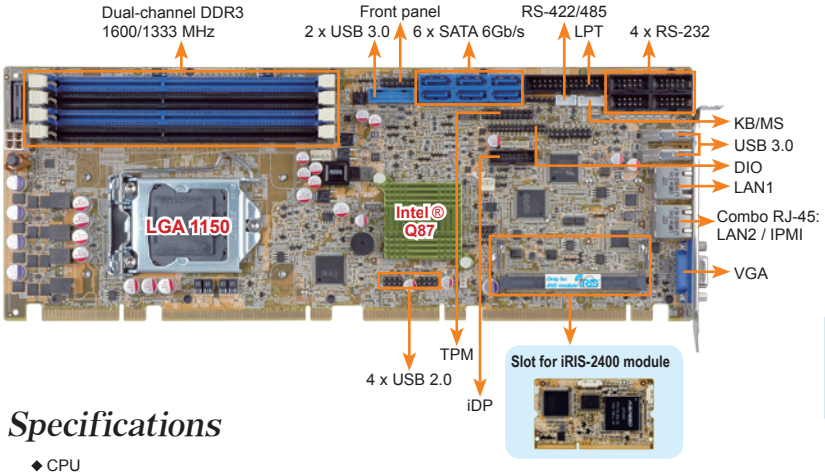
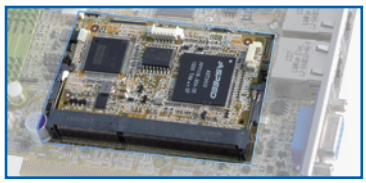
# PCIE-Q870-i2

*Full-size PICMG 1.3 CPU card supports LGA 1150 Intel® Core™ i7/i5/i3, Pentium® and Celeron® CPU per Intel® Q87, DDR3, VGA, iDP, Dual PCIe GbE, SATA 6Gb/s, mSATA, PCIe Mini, RS-422/485, Audio, iRIS-2400 and RoHS*



New

## iRIS-2400 Key Features

- IPMI 2.0 Based Management
- Cross OS Platform Support
- Hardware Health Monitor
- Event Log
- KVM over IP
- Notifications
- Virtual Media Support
- Remote Power Control
- User Management
- Serial over LAN

**Enhance component protection**
Prevent the damage of bottom side components

IPMI 2.0 Compliant

One Key Recovery

TPM 1.2 Support

DDR3L 1600 | USB 3.0 | SATA 6Gb/s | Dual GbE | mSATA | iDP

## Specifications

- CPU
  LGA 1150 Intel® 4th generation Core™ i7/i5/i3, Pentium® or Celeron® processor supported
- System Chipset
  Intel® Q87
- Memory
  Four 240-pin 1600/1333 MHz dual-channel unbuffered DDR3 & DDR3L SDRAM DIMMs support up to 32 GB
- BIOS
  UEFI BIOS
- Graphics Engine
  Intel® HD Graphics Gen 7.5 supports DX11.1, OpenCL 1.2 and OpenGL 3.2
  Full MPEG2, VC1, AVC Decode
- Display Output
  VGA (up to 1920x1200@60 Hz)
  iDP interface for HDMI, LVDS, VGA, DVI, DP (up to 3840x2160@60 Hz)
- Ethernet
  LAN1: Intel® I217LM with Intel® AMT 9.0 support
  LAN2: Intel® I210-AT PCIe controller with NCSI support
- Super I/O
  Fintek F81866
- I/O Interface
  1 x 6-pin wafer for KB/MS
  1 x LPT
  1 x RS-422/485
  4 x RS-232
  1 x mSATA (colay SATA port 6) (supports SATA 6Gb/s signal only)
  4 x USB 3.0 (2 by rear IO, 2 by pin header)
  6 x SATA 6Gb/s (RAID 0, 1, 5, 10 supported)
  8 x USB 2.0 (4 by pin header, 4 by backplane pin header)
- Front Panel
  1 x Front panel (power LED, HDD LED, speaker, power button, reset button)
- LAN LED
  2 x 2-pin headers for LAN1 link LED, LAN2 link LED
- Audio
  Supported by IEI AC-KIT-892HD Audio kit
- TPM
  1 x TPM connector (2x10 pin)
- SMBus
  1 x 4-pin wafer
- I²C
  1 x 4-pin wafer
- Infrared Interface
  1 x 5-pin header
- iRIS Remote Management Module
  1 x iRIS-2400 slot
- Expansion
  PCIe signal and PCI signal via golden finger
  PCI signal by ITE 8892 (PCIe to PCI bridge)
  1 x Full-size PCIe Mini card slot (colay mSATA)
- Watchdog Timer
  Software programmable, supports 1~255 sec. system reset
- Digital I/O
  8-bit digital I/O
- Fan Connector
  1 x 3-pin fan connector (system fan)
  1 x 4-pin smart fan connector (CPU fan)
- Power Supply
  5V/12V, AT/ATX support
- Power Consumption
  5V@3.55A, 12V@0.37A, Vcore_12V@7.61A, 3.3V@1.55A, 5VSB@0.13A
  (Intel® Core™ i7-4770K 3.90 GHz CPU with 16 GB (4x4 GB) 1333 MHz DDR3 memory)
- Operating Temperature
  -20°C ~ 60°C
- Storage Temperature
  -30°C ~ 70°C
- Operating Humidity
  5% ~ 95%, non-condensing
- Dimensions
  338 mm x 126 mm
- Weight
  GW: 1200g / NW: 420g

## Features

- PICMG 1.3 full-size graphic grade solution
- LGA 1150 Intel® 4th generation Core™ i7/i5/i3, Pentium® or Celeron® processor supported
- Four 240-pin 1600/1333 MHz dual-channel DDR3 DIMMs support up to 32 GB memory
- Supports dual independent display by VGA & iDP interfaces
- Supports PCIe Mini devices and mSATA via PCIe Mini socket
- Intel® PCIe GbE with Intel® AMT 9.0 support
- Supports RAID function via SATA 6Gb/s
- TPM v1.2 hardware security function supported by TPM module
- Stiffener bars
- IEI jumper-less function
- Supports IPMI 2.0 via iRIS-2400 module

## Packing List

| | |
|---|---|
| 1 x PCIE-Q870-i2 single board computer | |
| 1 x Dual RS-232 cable (P/N: 19800-000051-RS) | |
| 1 x USB 2.0 cable (P/N: 19800-003100-300-RS) | 1 x QIG (Quick Installation Guide) |
| 2 x SATA cable (P/N: 32000-062800-RS) | 1 x Utility CD |

## Ordering Information

| Part No. | Description |
|---|---|
| PCIE-Q870-i2-R10 | Full-size PICMG 1.3 CPU card supports LGA 1150 Intel® Core™ i7/i5/i3, Pentium® and Celeron® CPU with Intel® Q87, DDR3, VGA, iDP, dual Intel® PCIe GbE, SATA 6Gb/s, mSATA, RS-232, PCIe Mini, Audio, iRIS-2400 and RoHS |
| iRIS-2400-R10 | IPMI 2.0 adapter card with AST2400 BMC chip for DDR3 SO-DIMM socket interface |
| 19800-000049-RS | LPT cable |
| 19800-000075-RS | KB/MS cable with bracket |
| 19800-010500-200-RS | USB 3.0 cable with bracket, 457mm |
| 32102-000100-200-RS | SATA power cable, MOLEX 5264-4P to SATA15P |
| 32205-003800-300-RS | RS-422/485 cable, 200mm |
| AC-KIT-892HD-R10 | 7.1-channel HD Audio kit with Realtek ALC892 supports dual audio streams |
| CF-1150SB-R11 | Special cooler kit for LGA 1150, high-performance compatible, 65W |
| CF-1150SC-R20 | Special cooler kit for LGA 115X, 1U chassis compatible, 65W, copper |
| CF-1150SE-R11 | Special cooler kit for LGA 115X, high-performance compatible, 95W, copper |
| CF-1150SF-R10 | Special cooler kit for LGA 115X Intel® CPU, 107x70x35, 54W |
| DP-DP-R10 | DisplayPort to DisplayPort converter board (for IEI iDP connector) |
| DP-DVI-R10 | DisplayPort to DVI-D converter board (for IEI iDP connector) |
| DP-HDMI-R10 | DisplayPort to HDMI converter board (for IEI iDP connector) |
| DP-LVDS-R10 | DisplayPort to LVDS converter board (for IEI iDP connector) |
| DP-VGA-R10 | DisplayPort to VGA converter board (for IEI iDP connector) |
| TPM-IN01-R11 | 20-pin Infineon TPM module, software management tool, firmware v3.17 |