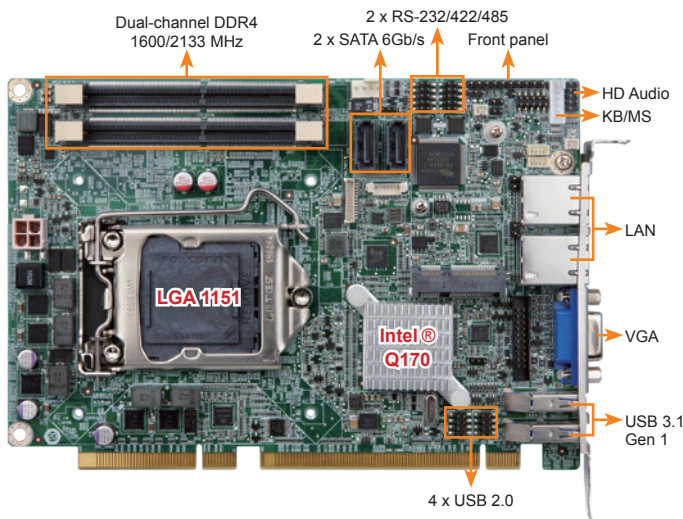


HPCIE-Q170

Half-size PICMG 1.3 CPU Card supports LGA 1151 Intel® Core™ i7/i5/i3, Pentium® or Celeron® CPU with Intel® Q170, DDR4 SO-DIMM, VGA/iDP, Dual Intel® PCIe GbE, USB 3.1 Gen 1 (5Gb/s), SATA 6Gb/s, mSATA, HD Audio, Intel® AMT and RoHS



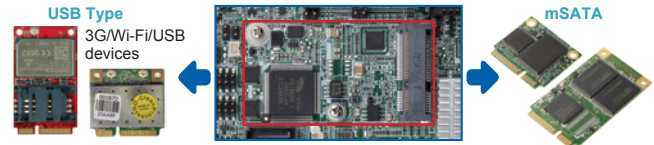
Intel® 6th generation Core™ CPU + Intel® Q170 support 3 controllers of PCI Express Gen 3

Number of PCIe Controller	Configuration
1	PCIe x16
2	PCIe x8, PCIe x8
3	PCIe x4, PCIe x4, PCIe x8

Sets PCIe x16 signal via BIOS

PEG port configuration	
USB Power SW1	[1 x8, 2 x4 PCIe]
USB Power SW2	[+5V DUAL]
USB Power SW2	[+5V DUAL]

PCIe Mini slot provides mSATA and USB signal for full-size or half-size mSATA SSD and wireless LAN card.



Specifications

- ◆ CPU
LGA 1151 socket supports Intel® 6th/7th generation Core™ i7/i5/i3, Pentium® or Celeron® processor
- ◆ Chipset
Intel® Q170
- ◆ Memory
Two 260-pin 1866/2133 MHz dual-channel DDR4 non-ECC unbuffered SO-DIMMs support up to 32 GB
- ◆ BIOS
UEFI BIOS
- ◆ Graphics Engine
Intel® HD Graphics Gen 9 supports DX11/12, OpenCL 2.x and OpenGL 4.3/4.4 Decode/Encode for HEVC, VP8, VP9, VDENC
- ◆ Display Output
1 x VGA (up to 1920x1200@60 Hz)
1 x iDP interface for HDMI, LVDS, VGA, DVI, DP (up to 3840x2160@60 Hz)
- ◆ Ethernet
LAN1: Intel® I219LM Clarkville-V with Intel® AMT 11.0 support
LAN2: Intel® I211 PCIe controller
- ◆ External I/O Interface
2 x USB 3.1 Gen 1 (5Gb/s)
- ◆ Internal I/O Interface
1 x KB/MS (1x6 pin)
1 x mSATA (SATA & USB signal)
2 x RS-232/422/485 (2x5 pin, P=2.0)
2 x SATA 6Gb/s (RAID 0, 1 supported)
4 x USB 2.0 (2x4 pin, P=2.0)
- ◆ Front Panel
1 x Front panel (1x10 pin, power LED, HDD LED, speaker, power button, reset button)
- ◆ LAN LED
2 x LAN LED (1x2 pin)
- ◆ Audio
Support 7.1-channel HD Audio by IEI AC-KIT-892HD kit
- ◆ SMBus
1 x SMBus (1x4 pin)
- ◆ I²C
1 x I²C (1x4 pin)
- ◆ Expansion
16-lane PCIe signal from CPU via golden finger (supports x16, or x8 + x8, or x4 + x4 + x8)
4-lane PCIe signal from Q170 via golden finger
1 x Full/Half-size PCIe Mini card slot (supports mSATA)
- ◆ Watchdog Timer
Software programmable supports 1~255 sec. system reset
- ◆ Digital I/O
8-bit digital I/O (2x5 pin)
- ◆ Fan Connector
1 x CPU smart fan (1x4 pin)
- ◆ Power Supply
5V/12V, AT/ATX support
- ◆ Power Consumption
5V@0.15A, 12V@8.39A, 3.3V@0.11A, 5VSB@0.21A (Intel® Core™ i7-6700K 4.0GHz with two 16 GB 2133 MHz DDR4 memory)
- ◆ Operating Temperature
-20°C ~ 60°C
- ◆ Operating Humidity
5% ~ 95%, non-condensing
- ◆ Dimensions
169 mm x 126 mm
- ◆ Weight
GW: 1000g / NW: 420g
- ◆ CE/FCC compliant



Features

- PICMG 1.3 half-size CPU card
- LGA 1151 Intel® 6th/7th generation Core™ i7/i5/i3, Pentium® or Celeron® processor supported
- Two 260-pin 1866/2133 MHz dual-channel DDR4 SO-DIMMs support up to 32 GB
- Supports dual independent display by VGA & internal DP pin header
- PCIe Mini card slot supports mSATA & USB 2.0
- Intel® PCIe GbE with Intel® AMT 11.0 supported
- Supports RAID 0, 1 function via SATA 6Gb/s
- IEI jumper-less function

Packing List

- 1 x HPCIE-Q170 single board computer
- 1 x SATA cable
- 1 x QIG

Ordering Information

Part No.	Description
HPCIE-Q170-R10	Half-size PICMG 1.3 CPU card supports LGA 1151 Intel® Core™ i7/i5/i3, Pentium® or Celeron® CPU with Intel® Q170, DDR4 SO-DIMM, VGA, iDP, dual Intel® PCIe GbE, SATA 6Gb/s, mSATA, USB 3.1 Gen 1 (5Gb/s), PCIe Mini, HD Audio, Intel® AMT and RoHS
19800-000075-RS	PS/2 KB/MS cable with bracket, 220mm, P=2.0
32102-000100-200-RS	SATA power cable, MOLEX 5264-4P to SATA15P
32205-002700-200-RS	RS-232/422/485 cable, 200mm, P=2.0
AC-KIT-892HD-R10	7.1-channel HD Audio kit with Realtek ALC892 supports dual audio streams
CF-115XA-R10	High-performance LGA 1155/LGA 1156 cooler kit, 1U chassis compatible, 73W
CF-115XC-R10	LGA 1155/LGA 1156 cooler kit, 1U chassis compatible, 45W
CF-115XD-R10	LGA 1155/LGA 1156 cooler kit, 1U chassis compatible, 65W
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)
SAIDE-KIT01-R10	SATA to IDE/CF converter board