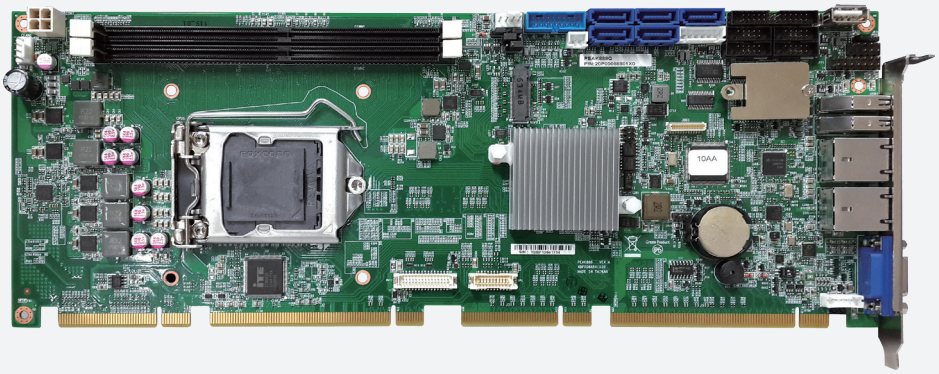
PEAK 888VL2

PICMG 1.3 Full-size SBC with Intel® Q170/H110
Support 6th Generation Intel® Core™ i7/i5/i3 Processors



Main Features

- Support 6th generation Intel® Core™ i7/i5/i3 processor
- Support Intel® Q170/ H110 PCH chipset PICMG 1.3 specification
- Support Dual channel DDR4 with non-ECC DIMMs 1866/2133MHz up to 32GB
- Support PCIe 3.0 SATA 3.0 W/RAID 0,1,5,10, M.2 NVMe
- Support display for VGA, DVI/HDMI, DP
- Support Intel® AMT 11 & TPM 1.2/ 2.0 (optional)

Product Overview

The PEAK 888 is a PICMG1.3 Full-size Single-Board Computing .It equipped with Intel® 6th generation Core™ i7/i5/i3 processors and Intel® Q170/ H110 chipset. It comes with Dual DDR4 DIMM socket up to 32GB DDR4 1866/2133MHz with Non-ECC support and integrated HD Graphic controller. The PEAK 888Q SKU with Intel® Q170 PCH providing high performance and rich expansion. The SATA3.0 ports with RAID 0, 1, 5 and 10 helps provide quick access to data files and data protection. Furthermore, the advanced storage capabilities with Intel® RST features PCIe Gen3 x4 on NGFF M.2 form factor (2280, 22110) to maximizes storage performance and it also features an integrated Intel® AMT 11 for easier maintenance.

The PEAK 888H SKU with Intel® H110 PCH provides high performance and cost effective solution.

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Specifications

CPU Support

- 6th generation Intel® Core™ i7/i5/i3 processor (65W/ 35W) TDPs, socket LGA1151

Main Memory

- 2 x DIMM, support Dual channel DDR4 NON-ECC DIMM 1866/2133 MT/S (Maximum32GB)

Platform Control Hub

- Intel® H110 express chipset PCH
- Intel® Q170 express chipset PCH

BIOS

- AMI system BIOS
- 16MBit SPI depended on AMT function
- Dual BIOS for four PCIex1 and one PCIex4

Display

- The processor graphics contains a refresh of the ninth generation graphics
- Intel® HD graphics 530
- Support independent triple display.
- VGA: resolution up to 1920*1200 pixels @60MHz
- DVI: resolution up to 1920*1200 pixels @60MHz
- HDMI: resolution up to 4096*2304 pixels @60MHz
- DP: resolution up to 4096*2304 pixels @60MHz

* Supporting 4K display required two DDR channels of same size

Audio

- High definition audio interface (compatible with NEXCOM audio daughter board PN: 10E000HDA00X0 EBK-HAD)

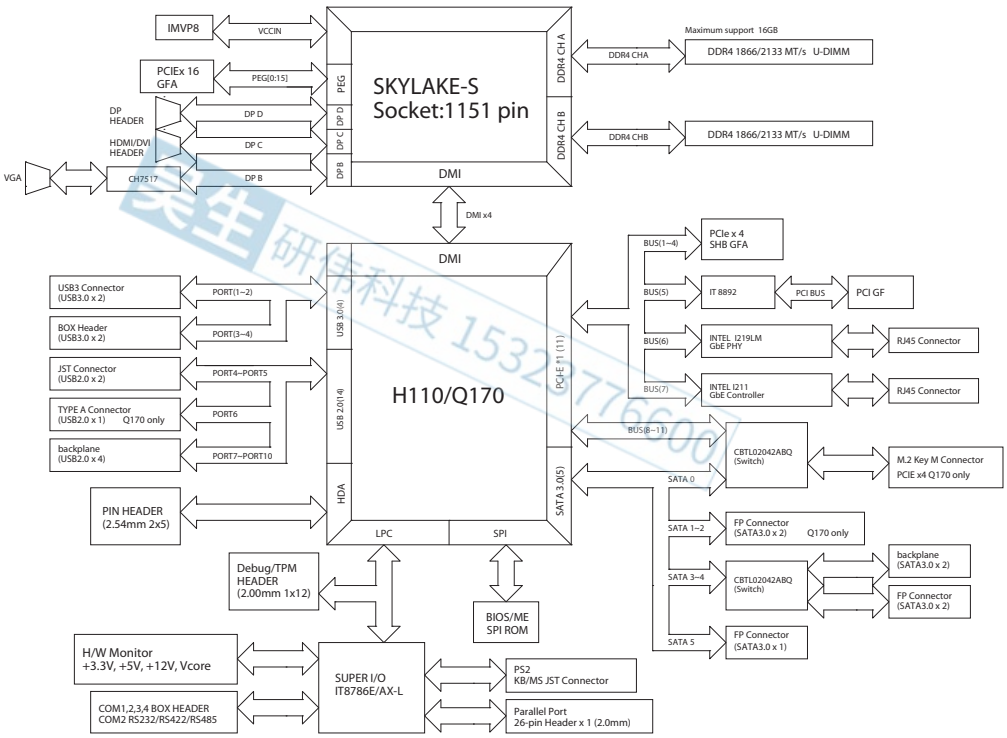
On-board LAN

- 1 x Intel® WG1219LM GbE PHY (PEAK 888Q support Intel® AMT 11)
- 1 x Intel® I211 gigabit Ethernet Controller
- RJ45 with LED connecter x 2
- Support boot from LAN (PXE)
- Support wake on LAN

I/O Interface

- 1 x PCI express x16 and 1 PCI express x4 to backplane
  4 x PCI to backplane
- PEAk 888VL2-Q
  - 5 x SATA 3.0 port (2 x SATA 3.0 to BP through BIOS setting)
  - 1 x M.2 2280/ 22110 M Key (NVMe Gen 3 PCIex4)
  - Support RAID 0/1/5/10
  - SIO: ITE8786 , COM 1,3,4 support RS232 , COM2 support RS232/422/485 can be selected RI/5V/12V through jumper
  - PS2 KB/MS *1 JST connector
  - Parallel port: 26-pin box header x 1
  - 6 ports USB 2.0 and 4 ports USB 3.0
    2 ports USB 2.0, 2 ports USB 3.0
    1 port USB 2.0 type A (PEAK 888Q only)

Block Diagram



4 ports USB 2.0 through backplane
2 ports USB 3.0 through I/O bracket

- 2*10 pin header to support TPM module
- 2 x Smart FAN connector (for CPU, system)
- On-board buzzer
- Watchdog time out can be programmable by software from 1 second to 255 seconds

Power Requirements

- Power source from backplane through golden finger and AUX +12V
- Support ATX/AT function by jumper setting
- BIOS default is (ATX MODE)

Dimensions

- 338.58 mm x 126.39 mm, 8 layers (single side)

Environment

- Board level operating temperatures: -20°C to 60°C
- Storage temperatures: -20°C to 85°C
- Relative humidity:
  0% to 90% (operating, non-condensing)
  0% to 95% (non-operating, non-condensing)

Certifications

- CE approval
- FCC Class A
- CB/CCC certification

Ordering Information

- **PEAK 888VL2-Q (P/N: 10P00088801X0)**
  PICMG 1.3 Full-size SBC,Q170, Intel® LGA1151, DDR4 DIMM, support triple display, LAN x 2, USB 3.0 x 4, SATA 3.0 x 5, M.2 (support PCIe storage)

- **PEAK 888VL2-H (P/N: 10P00088800X0)**
  PICMG 1.3 Full-size SBC,H110, Intel® LGA1151,DDR4 DIMM, support dual display, LAN x 2, USB 3.0 x 4, SATA 3.0 x 4 , M.2 (support SATA storage)

We reserve the right to change specifications and product descriptions at any time without prior notice.