

PEAK 887VL2

PICMG 1.3 Full-size SBC with Intel® Q87
Support 4th Generation Intel® Core™ i7/i5/i3 Processors



Main Features

- Scalable platform 4th generation Intel® Core™ i7/i5/i3 processor + Non-ECC
- Intel® Q87 PCH chipset support PICMG 1.3 specification
- Support Dual channel DDR3L with NON-ECC DIMMs 1333/1600MHz up to 16GB
- Support PCIe16, 4x PCIe1, 4x USB 3.0/ 4x USB 2.0, 4x SATA 3.0/ 2x SATA 2.0 and GbE
- Display support for VGA, DVI, HDMI
- Dimension 338.58 x 126.39 mm² (W x L) (8 Layers Single side)

Product Overview

The PEAK 887VL2 is a PICMG1.3 Full-size single computing board featuring Intel® Q87 PCH chipset supports 4th generation Intel® Core™ processor with Dual DDR3L DIMM socket up to 16GB DDR3 1333/ 1600MHz SDRAM with Non-ECC support and integrated HD Graphic controller.

The Intel® Q87 PCH manages SATA 2.0/3.0 Ports. Furthermore, it supports others versatile I/O ports such as legacy four series ports, KB/Mouse interface, optional TPM function, eight USB ports, four PCI express x1 interface and two Intel® PCI express Gigabit LAN port. It offers a great solution for advance industrial application that requires superb display and processing performance.

Specifications

CPU Support

- 4th generation Intel® Core™ i7/i5/i3 processor (95W/ 65W/ 45W/ 35W) TDPs, Socket LGA 1150

Main Memory

- 2 x DIMM, support Dual channel DDR3L (default)/ DDR3 NON-ECC DIMM (dual voltage models by auto detection for DDR3 and DDR3L)
- Maximum 16 GB – 1066/1333/1600 MT/S

Platform Control Hub

- Intel® Q87 Express Chipset PCH

BIOS

- AMI system BIOS
- 16MBit SPI depended on AMT function
- Dual BIOS for Four PCIe1 and One PCIe4 auto-detection

Display

- The Processor Graphics contains a refresh of the seventh generation graphics
- Intel® HD Graphics GT1/GT2
- Share system memory
- Analog Display Support
- Drive a standard progressive scan analog monitor

Audio

- Reverse HDA interface, 2.0mm 2x5 pin header

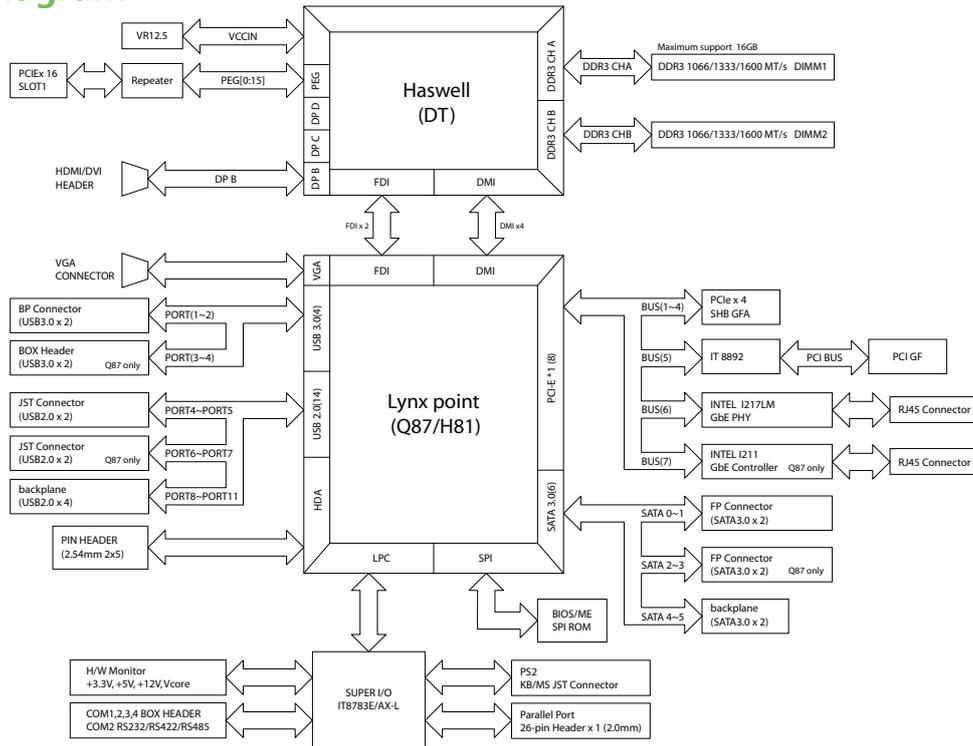
On-board LAN

- 1x Intel® I217LM GbE PHY
- 1x Intel® I211 Gigabit Ethernet Controller
- RJ45 with LED connector x 2
- Support Boot From LAN (PXE)
- RJ45 LED
- Support Wake on LAN
- Extra (External) LED: 2 x 4 pin header

I/O Interface

- ITE8783
- PS2 KB/MS reserve 1x6 (2.0m) JST connector
- 26-pin Box Header x 1 (2.0mm)
- SIO Box Header x 4 (2.0mm), COM1,3,4 support RS232, COM2 RS232/422/485, RI pin can be select RI/5V/12V with jumper (2x3 pin 2.0mm pin-header)
- 4 Ports USB 2.0 and 4 ports USB 3.0:
2 ports through 2.5mm JST Connectors, located near Rear Side of PCB (near CPU, USB3.0)

Block Diagram



- 4 ports through backplane (USB 2.0)
- 2 ports through I/O bracket (USB 3.0)
- 4-pin FAN connector x 2 (for CPU, System)
- On board pin header for IrDA Tx Rx 1x5/2.54mm pin-header
- HDD LED/ Power LED/ Power ON SW/ Reset SW
- On Board buzzer
- USBx1/ USBx1/ LAN1 RJ45 x1/ LAN2 RJ45 x1/ VGA DB15 from top to down

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

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

Environment

- Board Level Operating temperatures: -15°C to 60°C
- Storage temperatures: -20°C to 85°C
- Relative humidity:
 - 10% to 90% (operating, non-condensing)
 - 5% to 95% (non-operating, non-condensing)

Certifications

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

Ordering Information

◆ PEAK 887VL2 (P/N: TBD)

PICMG 1.3 Full-size SBC, 4th Generation Intel® Core™ i7/i5/i3 Processors With Max 16GB, DDR3L DIMM, VGA integration, Intel® Gigabit Ethernet x2, USB 3.0 x4, SATA 3.0 x3