PEAK 887VL2

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 PCIe x16, 4 x PCIe x1, 4 x USB 3.0/4 x USB 2.0, 4 x SATA 3.0/ 2 x SATA 2.0 and GbE
- Display support for VGA, DVI, HDMI
- Dimension 338.58 x 126.39mm² (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 x 1 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 LGA1150

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 PCIe x1 and one PCIe x4 (setting by DP switch)

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
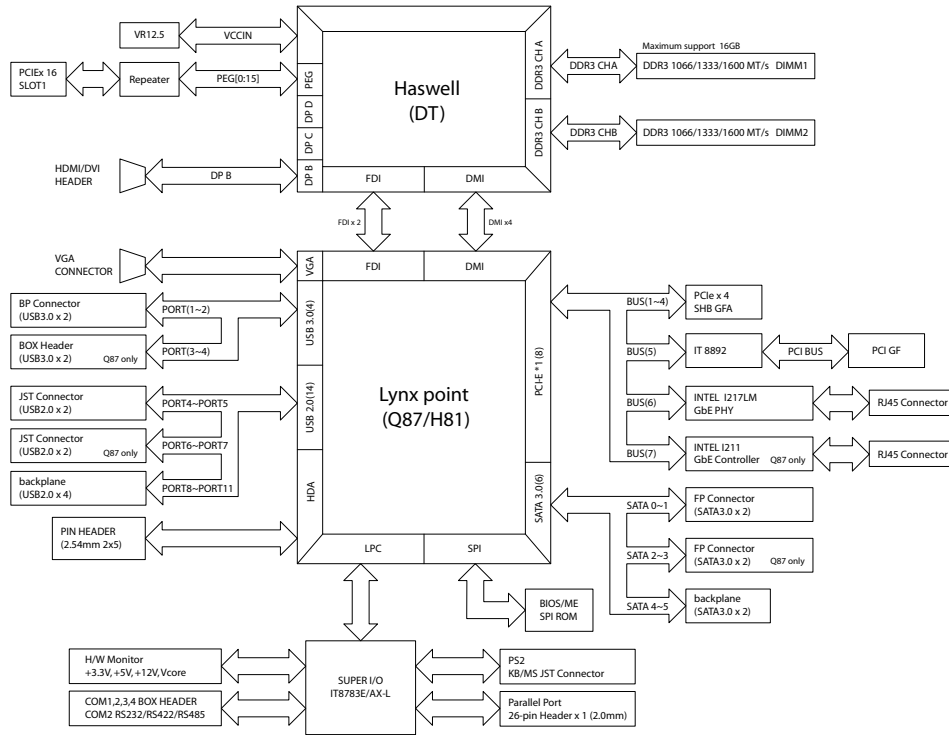- Reverse HDA interface, 2.0 mm 2 x 5-pin header

On-board LAN
- 1 x Intel® I217LM GbE PHY
- 1 x Intel® I211 Gigabit Ethernet controller
- RJ45 with LED connecter 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 1 x6 (2.0 m) JST connector
- 26-pin box header x 1 (2.0 mm)
- SIO Box Header x 4 (2.0 mm), COM1,3,4 support RS232, COM2 RS232/422/485, RI pin can be select RI/5V/12V with jumper (2 x 3-pin 2.0 mm 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, USB 3.0)
  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)
- Onboard pin header for IrDA Tx Rx 1 x5/2.54mm pin-header
- HDD LED/power LED/power ON SW/reset SW
- Onboard buzzer

Block Diagram

- USB x 1/USB x 1/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/FCC Class A compliant

Ordering Information

- **PEAK 887VL2 (P/N: 10P0887VL00X0)**
  PICMG 1.3 full-size SBC, 4th generation Intel® Core™ i7/i5/i3 processor, LGA1150, with max 16GB, DDR3L/DDR3 DIMM, VGA integration, Intel® Gigabit Ethernet x2, USB 3.0 x 4, SATA 3.0 x 4