

Main Features

- Intel® Coffee (8th generation Core™ i7/i5/i3) processor, 65W TDPs, LGA1151 socket
- Support Intel® Q370/H310 PCH chipset PICMG 1.3 specification
- Support 2 x DDR4 Long DIMM 288-pin socket
- Support multiple display from VGA & mini DP & DP
- Optional: TPM, CPU cooler, M.2 storage

Product Overview

The PEAK 889VL2 serial is a PICMG1.3 full-size single-board computing .It equipped with Intel® 8th generation Core™ i7/i5/i3 processors and Intel® Q370/ H310 chipset. It comes with dual DDR4 DIMM socket up to 32GB DDR4 2666MHz with non-ECC support and integrated HD graphic controller. The PEAK 889VL2-Q SKU with Intel® Q370 PCH providing high performance and rich expansion. The SATA 3.0 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 x 4 on NGFF

M.2 form factor(2280) to maximizes storage performance and it also features an integrated Intel® AMT 12 for easier maintenance. The PEAK 889VL2-H SKU with Intel® H310 PCH provides high performance and cost effective solution.

Specifications

CPU Support

- Intel® 8th generation Core™ i7/i5/i3, TDP 65W

Platform Control Hub

- Intel® Q370 express chipset PCH
- Intel® H310 express chipset PCH

BIOS

- AMI system BIOS
- 16 Mbit SPI depended on AMT function

Display

- VGA connector
- Mini DP connector
- DP connector (optional)

System

- 2 x Dual channel DDR4 2666 support up to 32GB, non-ECC
- 2 x LAN Intel® I219-LM & I211 PCIe GbE LAN controller

Q370 PCH

- 2 x USB 3.1 Gen1/2, 4 x USB 3.1 Gen1 and 5-port USB 2.0 2-Port through I/O bracket (USB 3.1 GEN1/2+redriver)
- 4-Port through 2.0mm box header 2 x 10 (USB 3.1 Gen1)

- 1-Port Type A (USB 2.0)
- 4-Port through backplane (USB 2.0)
- Storage device 4 x SATA III 6.0Gb/s
- SATA 1, 2 use switch to PICMG 1.3 connector C to B/P (BIOS setting)
- 1 x M.2 2280 M key with 4 x SATA III & PCIe (NVMe Gen3), support Intel® RST

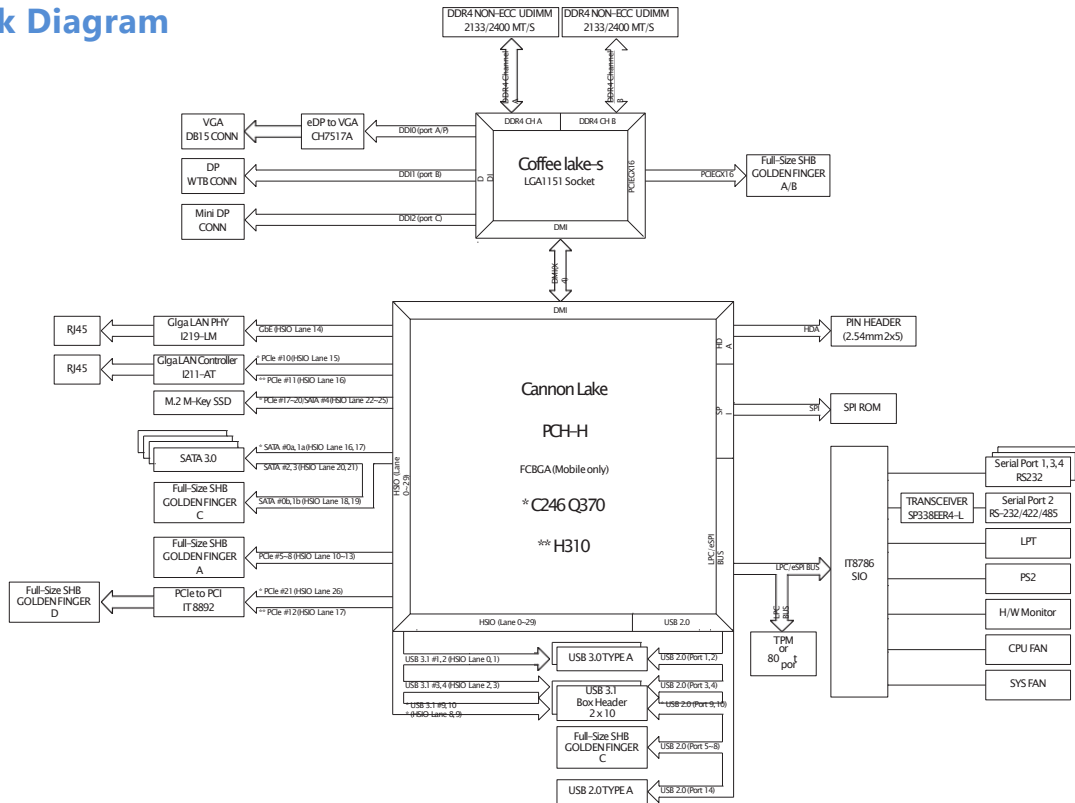
H310 PCH

- 4 x USB 3.1 Gen1 2-Port through I/O bracket (USB 3.1 Gen1)
- 2-Port through 2.0mm BOX header 2 x 10 (USB 3.1 Gen1)
- Storage device 4 x SATA III 6.0Gb/s
- SATA 0,1 by backplane

4 x Serial Ports

- 1 x RS232/485/422 and +5V/RI/+12V select by COM 2
- 3 x RS232 by COM1, 3, 4
- 1 x LPT
- 1 x PS/2 JST connector
- WDT 1 ~ 255 steps by software program
- 1 x HD Audio header (compatible with NEXCOM audio daughter board PN: 10E000HDA00X0 EBK-HAD)
- 1 x Front panel connector
- 1 x ATX 4-pin power connector

Block Diagram



I/O Interface

- 1 x PCI express x16 (PEG Gen3)
- 1 x PCI express x4 Gen 3 (Q370); (Gen 2 only for H310)
- 4 x PCI to backplane

Rear I/O

- 2 x USB 3.1 ports
- 2 x GbE LAN ports
- 1 x VGA connector
- 1 x Mini DP connector

Power Requirements

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

Mechanical & Environment

- Operating temperature: 0°C ~ 60°C
- Storage temperature: -20 ~ 85°C
- Relative humidity: operating 10% ~ 90%, non-condensing

Dimension

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

Operating System

- Windows® 10 64-bit

Certificate

- EMC & Safety
- CE/FCC Class A

Ordering Information

PEAK 889VL2-Q (P/N: 10P00088901X0)

PICMG 1.3 full-size SBC, Q370, Intel® LGA1151, DDR4 DIMM, support triple display, 2 x LAN, 6 x USB 3.0, 4 x SATA 3.0, M.2 (support PCIe storage)

PEAK 889VL2-H (P/N: 10P00088900X0)

PICMG 1.3 full-size SBC, H310, Intel® LGA1151, DDR4 DIMM, support dual display, 2 x LAN, 4 x USB 3.0, 4 x SATA 3.0

Backplane Selection Guide

PICMG1.3 Backplane

Model	BP0926	BP1358	BP1412X1	BP142A0	BP14282	BP14534	BP14570	BP14670	BP19216	BP8648S
Total Slot	10	10	14	14	14	14	14	14	14	14
Expansion slot	PCIex16	1	1		1		1	1	1	
	PCIex8					1				
	PCIex4	1			1	1		4	1	8
	PCIex1		3	12			4	4		4
	PCI-X					8				
	PCI	6	8		10	2	3	7	7	16
ISA						4				
PSU Type	24+4 pin ATX	24+4 pin ATX	24+4 pin ATX	24+4 pin ATX	24+4 pin ATX	24+4 pin ATX	24+4 pin ATX	24+4 pin ATX	24+4 pin ATX	24+4 pin ATX