PEAK 980/980-H

8th/9th Generation Intel® Core™ i9/i7/i5/i3 (Coffee Lake S)
Intel® Pentium® (Coffee Lake S Refresh)

Main Features

- 8th/9th Generation Intel® Core™ i9/i7/i5/i3 (Coffee Lake S)/ Intel® Pentium® (Coffee Lake S Refresh) 14nm LGA 1151 socket processor, max Qcta core: 65W, PCH Q370/H310
- 2 x SO DIMM DDR4 with non-ECC SO DIMM 2666MHz up to 32GB
- Support triple display DVI-I (VGA + DVID) & DP
- 2 x Intel® GbE LAN, 2 x USB 3.1 (Gen1), 6 x USB 2.0, 3 x RS232,
- 1 x RS232/485/422, 4 x SATA 3.0
- 1 x PCIe x16, 1 x PCIe x4, 1 x PCIe x1, 1 x PCIe 60-pin connector,
- 1 x M.2 2280 Key M
- TPM (optional), WDT, DIO(4 in/4 out)

Product Overview

The PEAK 980 serial is a PICMG1.3 half-size single board computing .It equipped with 8/9th Generation Intel® Core™ i9/i7/i5/i3 processors and Intel® Q370/H310 chipset. It comes with dual DDR4 SO DIMM socket up to 32GB DDR4 2666MHz with non-ECC support and integrated HD graphic controller. The PEAK 980-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 x4 Generation3 on NGFF M.2 form factor (2280) to maximizes storageperformance and it also features an integrated Intel® AMT 12 for easier maintenance. The PEAK 980 HSKU with Intel® H310 PCH provides high performance and cost effective solution.

Specifications

CPU/Chipset

- 8/9th Intel® Generation Core ™ i9/i7/i5/i3/Intel® Pentium® LGA 1151 socket processor, max Qcta core: 65W
- Intel® Q370/H310 (co-design) express chipset

Main Memory

- 2 x DDR4 SO DIMM memory socket with non-ECC support, up to 32 GB 2666MHz

BIOS

- AMI (UEFI)

Display

- 1 x DVI I connector
  VGA: (resolution up to 1920 x 1080@60Hz)
  DVI-D: (resolution up to 1920 x 1080@60Hz)
- 1 x DP connector (resolution Up to 4096 x 2160@24 Hz/ 3840 x 2160@60 Hz)

System

- 2 x USB 3.1 (Gen1), 6 x USB 2.0, 3 x RS232, 1 x RS232/485/422
- 1 x Front panel header, digital I/O (4 in/4 out), WDT
- Supports TPM 2.0 (optional)
- 2 x Fan connector

Storage

- 4 x SATA 3.0 (6.0Gb/s) ports , (support RAID 0/1/5/10 by Q370 only)
- 1 x M.2 2280 Key M (PCIe x4/SATA 3.0) (by Q370 only)

Expansion Slot

- 1 x PCIe x16 (Gen3)signal form processor
- 1 x PCIe x4, 1 x PCIe x1 (signal form PCH)
- 1 x PCIe 60-pin connector, (2 x PCIe x4 + 1 x PCIe x1 by Q370 only)
- 1 x M.2 2280 Key M (PCIe x4/SATA by Q370 only)

Rear I/O

- 2 x USB 3.1(Gen1)
- 2 x RJ45
  - 1 x Intel® PHY I219LM Giga LAN (supports Intel® AMT 12.0)
  - 1 x Intel® I211-AT Giga LAN
- 1 x DVI-I connector

Internal I/O

- 6 x USB 2.0
- 3 x Serial ports, 3 x RS232, 1 x RS232/485/422 (by COM2)
- 1 x Digital I/O interface (4 in/4 out)

Power Requirement

- Power source from backplane through golden finger and AUX +12V 2 x 2 connector

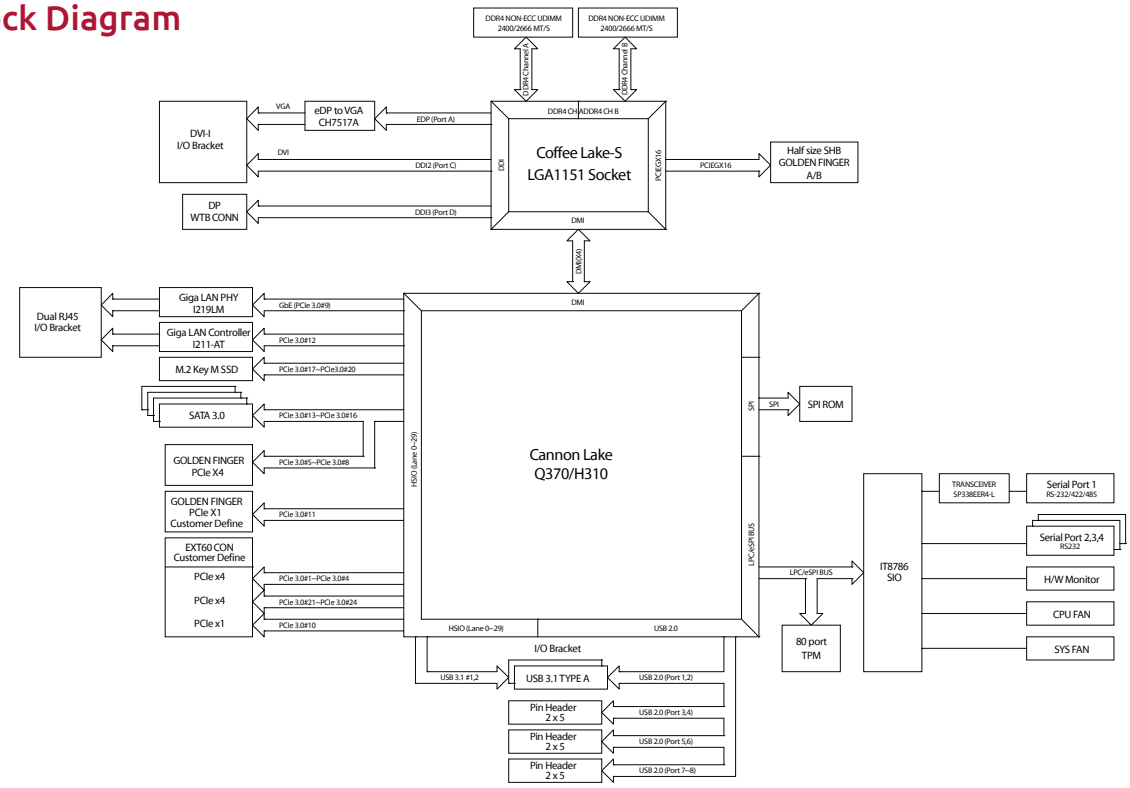
Dimensions

- PICMG 1.3 form factor, 8.9"x 4.9" (228mm x 126mm)

Environment

- Board level operation temperature: 0˚C to 60˚C

Block Diagram



- Storage temperature: 40˚C to 85˚C
- Relative humidity:
  - 10% to 95% (operating, non condensing)
  - 5% to 95% (non operating, non condensing)

Certifications

- CE/FCC Class A compliant

Backplane Support List

- NBP 0522 (P/N: TBD)
- 1 x PCIe x16, 3 x PCIe x4, 2 x PCI slots
- NBP 1037 (P/N: TBD)
- 1 x PCIe x16 (x8 signal), 1x PCIe x8, 3 x PCIe x4, 2 x PCIe x1
- NBP 1468 (P/N: 79N0146801X00)
- 1 x PCIe x16(x8 signal), 5 x PCIe x4, 1 x PCIe x1, 4 x PCI slots

Ordering Information

Bare bone

- **PEAK 980 (P/N: 10P00098000X0)**
  ATX, 8th/9th Coffee Lake Intel® Core™ i (TDP65W), Q370, LGA 1151, 2 x DDR4 up to 32GB , DVI-I, DP, 2 x USB 3.1 (Gen1), 6 x USB 2.0, 2 x GbE LAN, 4 x SATA 3.0, 3 x RS232, 1 x RS232/422/485, 1 x PCIe 60-pin connector (EBK-980 PCIe), 1 x M.2
- **PEAK 980-H (P/N: 10P00098001X0)**
  ATX, 8th/9th Coffee Lake Intel® Core™ i (TDP65W), H310, LGA 1151, 2 x DDR4 up to 32GB, DVI-I, DP, 2 x USB 3.1 (Gen1), 6 x USB 2.0, 2 x GbE LAN, 4 x SATA 3.0, 3 x RS232, 1 x RS232/422/485