PCIE20 PRODUCT DATASHEET

Accelerated Server Platform

A rack mount server with support for up to 20 PCIe cards for service acceleration and high bandwidth I/O

For high performance computing, deep learning, artificial intelligence, storage services, block chain calculation, etc.

- Combine your selection of accelerating hardware with an Intel Xeon Server CPU. Add the I/O that meets your application needs. Leverage the huge market for off the shelf and custom products being designed for PCI Express card slots.
- This platform provides you with a rack mountable environment for twenty full sized PCIe cards. It's doing that with significant electrical power and outstanding cooling performance. Ideal for compute cards with high power consumption and significant data traffic.
- A dual-socket server with Intel Xeon CPUs is an embedded part of this platform. This includes standard server I/O with VGA, USB and Ethernet and two 10Gbps Ethernet interfaces on top.
- The platform infrastructure can be powered, monitored and maintained from remote like a high-end data center server.

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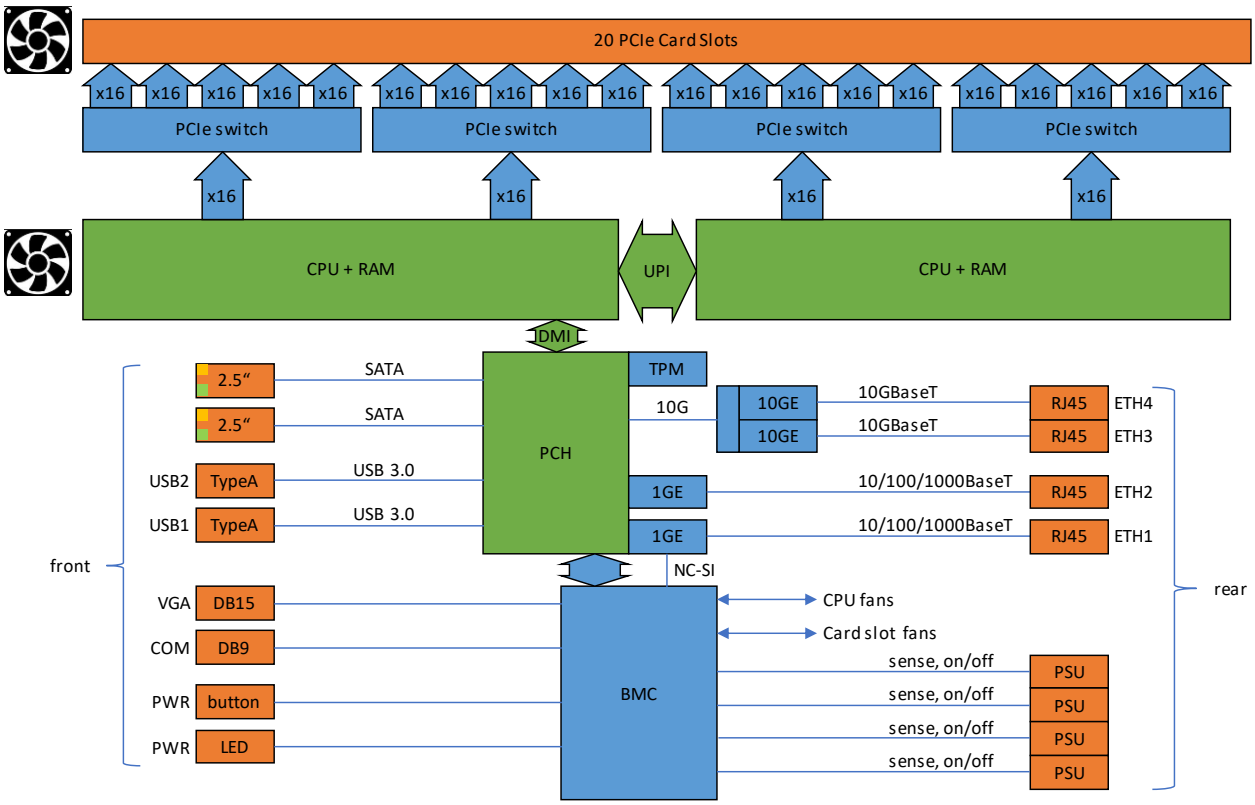

About the Product

- Two Intel Xeon server CPUs with UPI interconnect run a single OS instance. Both share their memory and a common PCI Express (PCIe) device tree. 64 (4x16) PCIe Gen3 lanes support an aggregated net data traffic of 400Gbps between CPUs and PCIe cards. The 20 PCIe cards are grouped in four clusters for additional peer to peer bandwidth between cards in the same cluster.
- Two 2.5” SATA drives in front accessible bays can run standalone or in RAID configurations.
- Two USB and a VGA connector are provided at the front for connecting keyboard, mouse, screen and storage devices.
- Four copper Ethernet interfaces with different speed characteristics can be used for remote management and application data traffic.
- Similar to enterprise servers this platform can be managed remotely over the LAN. A remote PC emulates keyboard, VGA and mouse (KVM) for CPU access. The baseboard management controller (BMC) – an always powered µController – with a web server GUI allows remote control of power, reset and graceful shutdown. It also provides status information and alarms about the platform infrastructure.
- The air flow through the PCIe cards can be controlled automatically if temperature reporting is supported by those cards.

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Features

PCIe card cage
- 20x full-size card slots
- 4x PCIe x16 Gen 3 from CPU
- PCIe x16 Gen 3 to each slot
- Active air flow from edge to bracket
- Power budget:
  - 500-3600W with 80-140VAC
  - 1300-7500W with 180-260VAC

CPU
- 2x Intel Xeon Silver 4109T
  - 16 cores, 32 threads, 2.0/3.0GHz, 22MB L3 cache
- 8x DDR4-2666 DIMM with ECC
- Up to 1 Tbyte (8x 128GB DIMM)
- Aptio® 5.x BIOS (AMI)

Storage
- 2x 2.5" SATA drive bay (9mm)
- RAID 0, 1, 10 (Windows and Linux)

I/O
- VGA (up to 1920x1200)
- 1x RS232
- 2x USB 3.0
- 2x 10/100/1000BaseT
- 2x 10GBaseT

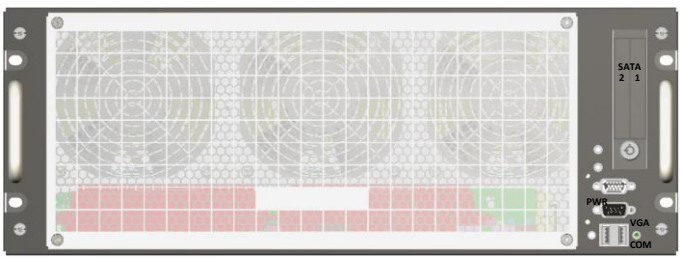
Remote over Ethernet
- KVM
- IPMI 2.0 (power and cooling)

Trusted Platform Module (TPM 2.0)

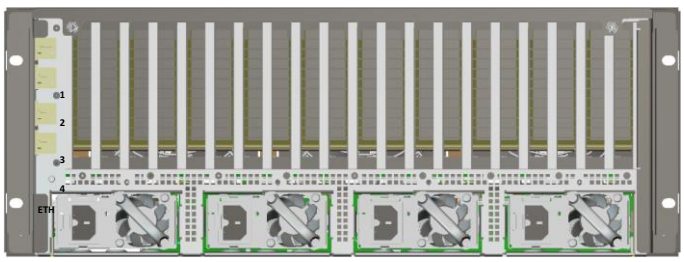
Dimensions
4 RU in 19" rack, 500mm deep

Environment
- 90-260VAC, up to four power cords
- 0-35°C ambient temperature, non-condensing

Front View



Rear View



Order Information

Description	Part Number
4U chassis, two PSUs á 2kW) dual Xeon Silver 4109T, 2x 8GB DIMM	400-10000-2
PSU (2kW) for replacement or upgrade	500-09890

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