AOC-SHFI-i1C

The Right Fabric for HPC

High Performance Computing (HPC) solutions require the highest levels of performance, scalability, and availability to power complex application workloads. Designed specifically for HPC, the AOC-SHFI-i1C, uses an advanced “on-load” design that automatically scales fabric performance with rising server core counts, making these adapters ideal for today’s increasingly demanding workloads.

Key Features

• 100 Gbps link speed
• Single QSFP28 Connector
• Standard Low-Profile Form Factor
• End-to-end fabric optimization
• Scalable, low latency MPI (less than 1μs end-to-end)
• High MPI message rates (160mmps)
• Efficient storage communication with new 8K and 10K MTUs
• Congestion control and QoS (with deterministic latency)
• Low Power Consumption
• Scalable to tens-of-thousands of nodes
• Open Fabrics Alliance (OFA) software
• MSI-X interrupt handling for high performance on multi-core hosts

Specifications

• Bus interface
  – PCI-E 3.0 x16

• Device type
  – End point

• Advanced interrupts
  – MSI-X
  – INTx

• ASIC
  – Single Intel® OP HFI ASIC

• Max Data Rate
  – 100 Gbps – PCI-E x16

• Virtual Lanes
  – Configurable from one to eight VLs plus one management VL

• MTU
  – Configurable MTU size of 2 KB, 4 KB, 8 KB, or 10KB

• Interfaces
  – Supports QSFP28 quad small form factor pluggable passive copper, optical transceivers, and active optical cables

• Port
  – One Intel® OP 4X Host Fabric Interface QSFP28

• LED
  – Link status indicator (Green)

• Software Operating Systems
  – Red Hat Enterprise Linux
  – SUSE Enterprise Linux Server
  – CentOS
  – Scientific Linux

• Power Consumption
  – Copper: Typical 7.4W, Maximum 11.7W
  – Optical: Typical 10.6W, Maximum 14.9W (Class 4 Optics)

• Physical Dimensions
  – Card PCB: 2.713 in x 6.6 in (H x L)
  – Standard Bracket: 0.725 in x 4.725 in
  – Low Profile Bracket: 0.725 in x 3.0 in

• Operating Conditions
  – Operating temperature: 0°C to 40°C (32°F to 104°F)
  – Storage temperature: -40°C to 70°C (-40°F to 158°F)
  – Operating humidity: 5% to 85% non-condensing
  – Storage humidity: 5% to 95% non-condensing
  – Airflow requirements: 200 LFM at 55°C local ambient

• Compliance/Environmental
  – Complies with RoHS II Directive 2011/65/EU of the European Parliament
  – Complies with REACH Regulation (EC) No 1907/2006

• Supported Platforms
  – Supermicro® motherboards with PCI-E 3.0 x16 slot
  – Supermicro® server systems with PCI-E 3.0 x16 slot
  – Supermicro® Omni-Path Switch SSH-C48Q

Please note that this product is only available as integrated solution with Supermicro server systems

For the most current product information, visit:

www.supermicro.com