GIG I Data Sheet

FA4004 - FabreXTM PCIe Gen4 Adapter For Rack-Scale Composable Fabric Computing



HIGHLIGHTS

HIGH PERFORMANCE

Up to 256Gb/sec at PCIe Gen 4 speeds

EFFICIENT DATA TRANSFER

RDMA and Programmed IO for large or small packets

AUTO DISCOVERY

Automatically discover devices as they are added or removed from network

LOW PROFILE, HALF-HEIGHT CARD

Full-height and half-height brackets included

GigaIO[™] FabreX[™] Network Adapter Card enables non-blocking low-latency PCIe Gen4 rack-scale composable fabric computing.

It gives AI/ML, HPC, and Data Analytics users the flexibility to create exactly the system they need for optimized performance and reduced total cost of ownership.

The FabreX Network Adapter card supports the highperformance, cabled interface to rack-scale cluster subsystems across the FabreX hyper-performance network. This Gen 4.0 network adapter card delivers twice the capacity of the FabreX Gen 3.0 Adapter Card and is backward compatible with previous generations of hosts and devices. The card includes both host and target (for PCIe I/O) modes and is FPGA-powered for configuration flexibility.

This Gen4 adapter enables the creation of shared pools of vendor agnostic PCIe devices from GPUs to FPGA to Storage or memory, any PCIe compliant device. It also enables unique features such as auto-discovery and management of disaggregated resource pools.

Cables

PCIe 4.0 cabling with SFF-8644 connectors and the Cable Management Interface (CMI) on all ports ensures low cost and simplicity.

The FabreX Network Adapter Card is designed for maximum cable length at full PCI Express Gen 4 speed. Copper cables can connect up to 3 meters or use active optic cables to extend the distance up to 100 meters.

FabreX Host Card Specifications

Form factor	PCIe Gen4 x16 half-height, half-length add-in card
Dimensions	68.9mm x 167.65mm
Ports	4 x4 PCIe Gen 4 ports supporting x4, x8 or x16 configurations.
Performance	x4 (64 Gbits/sec) Half Duplex, (128 Gbits/sec) Full Duplex
	x8 (128 Gbits/sec) Half Duplex, (256 Gbits/sec) Full Duplex
	x16 (256 Gbits/sec) Half Duplex, (512 Gbits/sec) Full Duplex
LED Indicators	Status indicators for each of the x4 ports
Host and Target	Single board supports both host and target mode
Connectors/Cables	SFF-8644
	Copper Cables up to 3 meters
	Cable Management Interface (CMI) on all Ports
	Active Optical Cable (AOC) up to 100 meters
Power	10 Watts typical, 17 Max. (Max. = all 4 ports with Active Optical Cable)
Operating Systems	RHEL
Operating Systems Supported	CentOS
	Ubuntu
PCIe Bracket	Half height plate mounted
	Full height plate included
Environmental	Operating temperature: 0°C to 50°C (32°F to 122°F), Air Flow: 10 LFM
	Relative humidity: 5% to 95% (non-condensing)

FabreX Host Cable Specifications



Cables	Copper Cables up to 3 meters Cable Management Interface (CMI) on all Ports Active Optical Cable (AOC) up to 100 meters			
Configurations	x4, x8, or x16 (Cable Management Interface on all ports)			
Cable Connectors	SFF-8644			