

PEG2Fi Dual Port Fiber Gigabit Ethernet PCI Express Server Adapter Intel® based

Description

Silicom's Gigabit Ethernet PCI Express Server adapters are PCI-Express Server Adapters cards that contain Multiple / Single Gigabit ports/ on a PCI-Express adapter.

Silicom's Gigabit Ethernet PCI Express Server adapters are designed for Servers and high-end appliances. The performance is optimized so that system I/O is not the bottleneck in high-performance networking applications.

Silicom's Gigabit Ethernet PCI Express Server adapters enable fault-tolerant via teaming. Traffic from the failed port is routed through other members of the team.

Silicom's Gigabit Ethernet PCI-Express Server adapters have an integrated hardware acceleration that performs TCP/UDP/IP checksum offload and TCP segmentation. The host processing offloads accelerators frees CPU for application processing.

Silicom's Gigabit Ethernet PCI-Express Server adapters are the ideal solution for implementing multiple network segments, mission-critical high-powered networking applications and environments within high performance servers.



Key Features

Fiber Gigabit Ethernet 1000Base-SX:

- Independent Fiber Gigabit Ethernet channels support Gigabit Ethernet 1000Base-SX
- Small Form Factor (SFF) LC Connectors
- 2PortLink synchronization

Fiber Gigabit Ethernet 1000Base-LX:

- Independent Fiber Gigabit Ethernet channels support Gigabit Ethernet 1000Base-LX
- Small Form Factor (SFF) LC Connectors
- 2PortLink synchronization

Common Key Features:

- Host Interface:
- Host Interface standard support:
- PCI-Express Base Specification Revision 1.0a.
- High performance, reliability, and low power use in advanced Intel integrated MAC + PHY / SERDES chip Controllers
- Ultra deep, packet buffer per channel lowers CPU utilization, avoids PCI-Express congestion
- Hardware acceleration that can offload tasks from the host processor. The Controllers can offload TCP/UDP/IP checksum calculations and TCP segmentation
- **Server class reliability, availability and performance features:**
- Link Aggregation and Load Balancing

- Switch dependent: 802.3ad (LACP), Generic Trunking (GEC / FEC)
- Switch and NIC Independent
- Failover
- Priority queuing – 802.1p layer 2 priority encoding
- Virtual LANs –802.1q VLAN tagging
- Jumbo Frame (16KB)
- 802.x flow control
- Statistics for SNMP MIB II, Ethernet like MIB, and Ethernet MIB (802.3z, Clause 30)
- LEDs indicators for link/Activity/Speed status

Technical Specifications

Fiber Gigabit Ethernet Technical Specifications - (1000Base-SX) Adapters:

IEEE Standard / Network topology:	Fiber Gigabit Ethernet, 1000Base-SX (850nm)
Data Transfer Rate:	2000Mb/s in full duplex mode per port
Cables and Operating distance:	Multimode fiber: 220m at 62.5 um 550m at 50 um
Optical Output Power:	Typical: -6 dBm Minimum: -9.5 dBm
Optical Receive Sensitivity:	Typical: -21 dBm Maximum: -17 dBm

Fiber Gigabit Ethernet Technical Specifications - (1000Base-LX) Adapters:

IEEE Standard / Network topology:	Fiber Gigabit Ethernet, 1000Base-LX (1310nm)
Data Transfer Rate:	2000Mb/s in full duplex mode per port
Cables and Operating distance:	Single-Mode: 5000m at 9um Multimode fiber: 550m at 50 um 550m at 62.5 um
Optical Output Power:	Typical: -6 dBm Minimum: -10 dB dBm
Optical Receive Sensitivity:	Typical: -25 dBm Maximum: -20 dBm

Operating Systems Support

Operating system support:	Windows Netware Linux FreeBSD Unix Solaris X86 VMware
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General Technical Specifications	
Interface Standard:	PCI-Express Base Specification Revision 1.0a
Board Size:	Low profile short add-in card: 167.64mm X 68.91mm (6.60"X 2.713")
PCI Express Card Type:	X4 Lane
PCI Express Voltage:	+3.3V +-9%
PCI Connector:	X4 Lane
Controller: :	Intel 82571EB
Holder:	Metal Bracket
Weight:	90 gram (3.17 Oz)
Power Consumption:	PEG2Fi-SX 3.2W: 0.96A at 3.3V, Typical all ports operate at 1000Mb/s. 3.2W: 0.96A at 3.3V, Typical No link at all ports PEG2Fi-IX 3.4W: 1.03A at 3.3V: Typical all ports operate at 1000Mb/s. 3.5W: 1.06A at 3.3V: Typical No link at all ports
Operating Humidity:	0%–90%, non-condensing
Operating Temperature:	0°C – 50°C (32°F - 122°F)
Storage:	-20°C–65°C (-4°F–149°F)
EMC Certifications:	FCC Part 15, Subpart B Class B Conducted Emissions Radiated Emissions CE EN 55022: 1998 Class B Amendments A1: 2000; A2: 2003 Conducted Emissions Radiated Emissions CE EN 55024: 1998 Amendments A1: 2000; A2: 2003 Immunity for ITE Amendment A1: 2001 CE EN 61000-3-2 2000, Class A Harmonic Current Emissions CE EN 61000 3-3 1995, Amendment A1: 2001 Voltage Fluctuations and Flicker CE IEC 6100-4-2: 1995 ESD Air Discharge 8kV. Contact Discharge 4kV. CE IEC 6100-4-3:1995 Radiated Immunity (80-1000Mhz), 3V/m 80% A.M. by 1kHz CE IEC 6100-4-4:1995 EFT/B: Immunity to electrical fast transients 1kV Power Leads, 0.5Kv Signals Leads CE IEC 6100-4-5:1995 Immunity to conductive surges COM Mode; 2kV, Dif. Mode 1kV CE IEC 6100-4-6:1996 Conducted immunity (0.15-80 MHz) 3VRMS 80% A.M. By 1kHz CE IEC 6100-4-11:1994 Voltage Dips and Short Interruptions V reduc >95%, 30% >95% Duration 0.5per, 25per, 250per
MTBF*:	143 (Years) *According to Telcordia SR-332 Issue 1

	Environmental condition – G _B (Ground, Fixed, Controlled). Ambient temperature - 25°C. Temperature rise of 10°C above the system ambient temperature was assumed for the cards components
LEDs	
LEDs:	(2) LEDs per port Link: Turns on Fiber link (green) Act: Blinks on activity (green)
LEDs location:	LEDs are located on the PCB, visible via holes in the metal bracket holder
Connectors:	LC Connectors

Order Information

P/N	Description	Notes
PEG2Fi-RoHS	Dual Port Fiber (SX) Gigabit Ethernet PCI Express Server Adapter	X4, Based on 82571
PEG2FI-LX- RoHS	Dual port Fiber (LX) Gigabit Ethernet PCI Express Server Adapter	X4, Based on 82571

Model P/N -LP / -RoHS

-RoHS: RoHS Compliant / Lead free adapter.

-LP: Assemble Low Profile Metal Bracket, available in dual or single port only

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