PXG2F

Dual Port Fiber Gigabit Ethernet PCI-X Server Adapter Broadcom® Based

Product Description

The Silicom PX-Series Server Gigabit adapters are 64-bit/133MHz PCI-X network interface cards that contain multiple / single independent Gigabit port/s on one PCI-X adapter.

Silicom's PX-Series Server adapters are based on forth generation of Broadcom BCM57XX PCI-X Gigabit Ethernet controllers that features an industry leading performance for PCI-X server Adapters.

Industry-leading performance

Silcom's PX-Series Server adapters solution is 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.

Reliability, Availability, Serviceability

PX-Series Server adapters enables fault-tolerant via teaming. Traffic from the failed port is routed through up to seven other members of the team. PX-Series Server adapters come with software that offers the industry's best performance and features. VLAN (802.1q) allow traffic segregation and data privacy. Support of 802.1p traffic prioritization gives administrations ability to offer Quality of Service (QOS) on the network.

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

Key Features

- Independently Fiber Gigabit Ethernet channel/s support Gigabit Ethernet 1000Base-SX

- Small Form Factor (SFF) LC Connectors

- Host Interface standard support:

  o PCI v2.2 32/64 bit, 33/66Mhz

  o PCI-X v1.0 32/64-bit, 66/100/133MHz

- High performance, reliability, and low power use in Broadcom 5704 dual integrated MAC + PHY / SERDES chip controller

- Ultra deep, 64 KB packet buffer per channel lowers CPU utilization, avoids PCI-X congestion

- Dual high speed RISC processor per channel for advanced packet classification

- 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 (9KB)
- 802.x flow control
- Boot ROM embedded or optional can be used for Boot ROM applications
- PCI Power Management Interface. (v1.1)
- PCI Hot Plug. (IBM, Compaq, Dell, and Microsoft)
- 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 – (1000Baes-SX) Adapters:	
IEEE Standard / Network topology:	Fiber Gigabit Ethernet, 1000Base-SX (850nM)
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
Operating Systems Support	
Operating system support:	Windows Netware Linux

	FreeBSD Unix Solaris

General Technical Specifications

Interface Standard:	PCI v2.2 32/64 bit, 33/66Mhz PCI-X v1.0 32/64-bit, 66/100/133MHz
Board Size:	PCI Short add in card 168mm x 107mm (6.6"x4.2")
PCI Card Type:	Universal 64 bit Card
PCI Express Voltage:	+5V (Min 4.75V, Max, 5.25V)
PCI Connector:	Universal 64 bit
Holder:	Metal Bracket
Weight:	90 gram (3.17 oz)
Power Consumption:	1.0A at 5V: Typical all ports operate at 1000Mbit/s 1.0A at 5V: Typical No link at all ports
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 Conducted Emissions Radiated Emissions CE EN 55024: 1998 Immunity for ITE Amendment A1: 2001 CE EN 61000-3-2 2000 Harmonic Current Emissions CE EN 61000 3-3 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

LEDs

LEDs:	(2) LEDs per port Link: Turns on link (green) Activity: Blinks on activity (green)
LEDs location:	LEDs are located on the PCB, visible via holes in the metal bracket holder
Connectors:	(2) Small Form Factor (SFF) LC

Order Information

P/N	Description	Notes
PXG2FRB-RoHS	Dual Port Fiber (SX) Gigabit Ethernet PCI-X Server Adapter	RoHS compliant
PXG2FRB-LX-RoHS	Dual Port Fiber (LX) Gigabit Ethernet PCI-X Server Adapter	RoHS compliant

Note: Specifications are based on PXG2FRB-RoHS

S: Solaris

-RoHS: RoHS Compliant / Lead free adapter.

-LP: Assemble Low Profile Metal Bracket.

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