

Sun™ PCI-Express Dual Gigabit Ethernet Adapters



Key highlights

- Dual Gigabit Ethernet connectivity using a single PCI-Express slot
- 10/100/1000 Mbps autosensing Ethernet ports
- Hardware assist for: TCP/UDP checksum, packet parsing, and interrupt coalescing
- RAS features: Dynamic Reconfiguration (DR), redundancy, and failover support
- Support for Jumbo Frames
- Support for Sun Trunking™ 1.3 software
- Increased bandwidth provides efficient, high-speed backups of large data files
- Fully compliant with IEEE 802.3 standards



Now your Sun system can take full advantage of the industry standard-compliant PCI-Express Gigabit Ethernet technology with network interface cards designed for high speed and high performance network connectivity. Sun PCI-E Dual Gigabit Ethernet Adapters host two high-performance Gigabit interfaces in a single PCI-E slot, to provide high-bandwidth server-to-server and server-to-switch connections while conserving valuable PCI-E slots and providing a lower per-port cost.

By reducing CPU processing loads with packet parsing, hardware checksum generation, and interrupt coalescing, server efficiency is increased, network congestion is mitigated, and computing performance is leveraged. Compliant with IEEE 802.3 standards, Sun PCI-E Dual Gigabit Ethernet Adapters retain your customers' existing infrastructure, application, and expertise when upgrading portions of the network to Gigabit Ethernet technology. This interoperability can preserve your customers' existing core wiring infrastructure, enabling a cost-effective, seamless migration to higher network throughput.

Jumbo Frame support can reduce the overhead associated with handling Ethernet packets. The number of packets is reduced by sending and receiving large packets versus standard Ethernet packets, which results in a virtual increase in throughput and a reduction in CPU utilization.

PCI-E Dual Gigabit Ethernet Adapters, combined with a trunking-capable switch and Sun Trunking Software, deliver fat pipe performance that is transparent to the application. By aggregating the traffic across multiple-gigabit links, you can dedicate bandwidth as you need it for particular connections and applications requiring high throughput. The aggregated links also provide robust link protection for each other.

PCI-Express Dual Gigabit Ethernet Adapters

Key Features

1000BASE-T/1000BASE-SX Gigabit performance

Fully compliant with IEEE 802.3 standards

Support for IEEE 802.1Q VLAN

Support for IEEE 802.1P and 802.1D Priority Tagging and QoS

Support for Sun Trunking 1.3 software:

- Delivers aggregated bandwidth allowing higher data rates than any single Gigabit Ethernet link
- Enhanced availability with load balancing and failover capabilities

RAS functionality provides high availability and increases network uptime:

- Support for redundancy and failover configurations

Support for Jumbo Frames:

- Reduce overhead of large file transfers by enabling larger packet size instead of standard Ethernet packet size

Supported on Solaris™ 10 OS and later versions

Server efficiency increased with hardware assist for:

- TCP checksum generation and checking
- Packet parsing and interrupt coalescing

Full and half duplex modes

Benefits

- Increased productivity and cost savings through high network throughput
- Low cost of ownership and investment protection through open standards and interoperability
- Increased network security and cost savings through departmental network segmentation to relieve network congestion
- Increased network reliability and cost savings through support for Quality of Service for mission-critical traffic service
- Sun quality and performance

Specifications

PCI-Express Bus

Compliant with PCI-E 1.0a specs:

- 3.3V DC
- Low-profile PCI-E card
- Master/slave modes

Dimensions

Low-profile PCI-E card: 16.8 cm x 6.89 cm (6.7 in.x 2.73 in.)

Low-profile bracket on board
Standard bracket included

Software Supported

Operating systems:

- Solaris 10 OS and later
- Linux: RedHat 3 and 4 and SUSE 9
- Solaris™ x86 OS and Windows 2003 (in future*)

Other:

- Firmware supports remote boot for all supported operating systems
- Diagnostic SunVTS™ 4.4 and higher

Environmental

Operating temperature 0° C to 55° C

Storage temperature -40° C to 70° C

Relative humidity 0 percent to 95 percent, noncondensing

Shock and vibration:

- Operating shock: 2.5 G, 11 msec., 1/2 sine
- Nonoperating shock: 18 G, 11 msec., 1/2 sine, 4/face
- Operating vibration: 0.25 G, 5 to 500 Hz
- Nonoperating vibration: 0.6 G, 5 to 500 Hz

Power Consumption

Maximum 15 W

Learn More

For more information on the Sun PCI-Express Dual Gigabit Ethernet Adapter, visit sun.com/products/networking/ethernet/dualgigabithethernet/

Certifications

FCC Class A, VCCI Class A, UL 60950, Third Edition, CSA 60950, Third Edition, CB Scheme, IEC 60950-1, 2001, First Edition

Ethernet

Dual 10/100/1000 copper or MMF Ethernet ports

Standards compliance:

- IEEE 802.1Q VLAN (Solaris™ 8 OS or later)
- IEEE 802.1P and 802.1D Priority Tagging and Quality of Service
- IEEE 802.3-compliant

Connections

Ethernet connection:

- ExternalRJ-45 connect or for cat 5 and higher
- Operating distance up to 100 meters

Fiber connections:

- External 62.5-micron diameter
- Operating distance up to 275m
- External 50-micron diameter
- Operating distance up to 550m

Order Part Number/Product Name

- X7280A-4 Sun PCI-E Dual Gigabit Ethernet UTP Adapter
- X7281A-4 Sun PCI-E Dual Gigabit Ethernet MMF Adapter

* Updated OS support details can be found at sun.com/products/networking/ethernet/sundualgigabithethernet/details.xml