



SGI™ Gigabit Ethernet Adapters

Features

- Industry-leading high-performance network throughput for mission-critical servers and workstations
- Adapters fully compliant with IEEE 802.3z (fiber-based) and IEEE 802.3ab (copper-based)
- Support for interrupt coalescence, TCP checksum offload, and buffer alignment
- Scatter/gather support
- Separate DMA channels for Rx and Tx
- Compliance to PCI local bus specification version 2.1
- Support for 3.3 V and 5 V PCI signaling (universal connector)
- Optional jumbo frames support
- LED indicators: link, activity
- Interoperable with all major switches

Superior Connectivity

SGI Gigabit Ethernet adapters offer unparalleled high-performance connectivity for mission-critical SGI servers and workstations. Available for both PCI and XIO buses, the adapters incorporate innovative networking technologies to help SGI's customers tackle the toughest bandwidth problems. Fully compliant with IEEE 802.3z (fiber) and IEEE 802.3ab (copper) standards, the full duplex Gigabit Ethernet connectivity is an order of magnitude higher than Fast Ethernet. Now you can take your enterprise and workgroup systems to the next level of network performance and be ready for a rich Internet/intranet experience.

An Ideal Solution

SGI Gigabit Ethernet adapters are the ideal solution to replace multiple 100Mb-per-second interfaces in congested servers, thereby reducing administrative costs, complexity, and valuable server slots. With auto-negotiation, the upgrade path to Gigabit Ethernet is made easy. The adapters can interoperate with 10/100Mb-per-second connections today and can be upgraded to 1000Mb-per-second connections when the need arises. With an optical fiber interface, the maximum distance between Ethernet equipment extends up to 500 meters. The copper-based Gigabit Ethernet connection provides a cost-effective upgrade path using the installed Cat-5 UTP cabling. Optionally, the adapters support jumbo frames for improved bandwidth performance.

Advanced Features

The advanced network processing ASIC in the adapters enables superior performance by offloading host CPU functions like TCP/IP checksum computation to the adapter hardware. This saves valuable server processing cycles. In light traffic, the network latency is minimized by interrupting the host as soon as a packet arrives. In heavy traffic, the adapter optimizes host efficiency by coalescing interrupts and reducing the CPU interrupt rate. With the scatter/gather capability, the adapter can move packet headers and data from noncontiguous memory locations, offloading CPU-consuming copy operations from the host. This further enhances system performance. For optimum performance, the adapters also support IP fragmentation and reassembly.

Gigabit Ethernet Adapters



SGI Gigabit Ethernet Adapters Technical Specifications

	1000Base-SX [Fiber-Based]	1000Base-T [Copper-Based]
• Gigabit Ethernet	IEEE 802.3z standard, 1000Mb/sec IEEE 802.3x flow control	IEEE 802.3ab standard, 1000Mb/sec IEEE 802.3x flow control
• Bus interface	XIO Short PCI form factor, version 2.1, 32/64-bit, 33/66 MHz	XIO Short PCI form factor, version 2.1, 32/64-bit, 33/66 MHz
• Physical interface	Multimode fiber [SX Shortwave 850 nm], duplex SC connector	Category 5 Unshielded Twisted Pair [UTP] cabling
• Operating distance	62.5-micron MM fiber—2–275 m 50-micron MM fiber—2–550 m	100 m max.
• Supported systems	SGI™ 2000 series SGI™ Origin™ 3000 series SGI™ Onyx® 3000 series Silicon Graphics® Octane® Silicon Graphics® Onyx2®	SGI 2000 series SGI Origin 3000 series [PCI only] SGI Onyx 3000 series Silicon Graphics Octane Silicon Graphics Onyx2
• Ordering information	PCI-GIGENET or XT-GIGENET	PCI-GIGENET-C or XT-GIGENET-C
• Power consumption	7.5 W 1.5 A @ +5 V DC	20 W 4 A @ +5 V DC
• Environment	Operating temperature: 0° to +55°C Storage temperature: -40° to +70°C Wet bulb [max.]: 27°C Relative humidity: 8% to 80%	Operating temperature: 0° to +55°C Storage temperature: -40° to +70°C Wet bulb [max.]: 27°C Relative humidity: 8% to 80%



Corporate Office
1600 Amphitheatre Pkwy.
Mountain View, CA 94043
[650] 960-1980
www.sgi.com

North America [800] 800-7441
Latin America [650] 933-4637
Europe [44] 118.925.75.00
Japan [81] 3.5488.1811
Asia Pacific [65] 771.0290