SGI® 10 Gigabit Ethernet Network Adapter

Features and Benefits

- 64MB of on-board memory dramatically reduces performance degrading link-layer flow control
- Standard 64-bit Linux® and SGI® IRIX® Operating System Support
- ECC (SEC/DED) data and control structure protection throughout the entire adapter as well as state machine protection
- 16 DMA engines, Interrupt Coalescing and Adaptive Interrupt Coalescing
- True Quality of Service (QoS) support for up to 8 levels, allowing traffic to be classified, prioritized and queued at line rate (Linux OS)

For customers looking to increase their network performance while maintaining interoperability with their existing Ethernet infrastructure, SGI 10 Gigabit Ethernet is the perfect solution.

Superior Performance

SGI 10 Gigabit Ethernet is the ideal solution to increase bandwidth and allow greater data throughput. Up to 10 times faster than Gigabit Ethernet, 10 Gigabit Ethernet leverages existing protocols and jumbo frames to provide performance unattainable with a single Gigabit Ethernet adapter.

Standards Based

SGI 10 Gigabit Ethernet is fully compliant with the IEEE 802.3ae 10 Gigabit Ethernet standard. SGI 10 Gigabit Ethernet is also compliant with PCI-X 1.0a specification, compatible with 64-bit, 133MHz and 100MHz busses. Using standard Multi-Mode fiber operating distances can reach up to 300m.

Broad Product Support

With support for both Linux® and SGI® IRIX® operating systems, SGI 10 Gigabit Ethernet is available for the platform and application that you choose, High Performance Computing, Visualization or Storage.

Advanced Features

- TCP Checksum Offload (Tx and Rx; IPv4 and IPv6)
- TCP Large Send Offload support for segments up to 64KB (plus headers)
- UDP Checksum offload (Tx and Rx; IPv4 and IPv6)
- UDP "Checksum Over Fragment" Offload (IPv4 and IPv6) for transactions up to 64KB
- IPv4 Header Checksum Offload (Tx and Rx)
- IP Differentiated Services support (Linux OS)
- 64MB Rx Frame Buffer (host-configurable into prioritized queues)
- Support for up to 32 concurrent PCI-X split transactions
- Adaptive Interrupt Coalescence
- PCI Message Signaled Interrupt (MSI) support for up to 32 unique interrupts (Linux OS)
- Full SEC/DED ECC protection for all on-board control and data structures
- Redundant-State-Variable State-Machine Error Protection for all on-board state machines

Cabling

- 50 micron, MM fiber 1m – 300m 2000MHz*Km modal bandwidth

SGI Marketing Codes		
X-F22-OPT-1M	1	meter
X-F22-OPT-3M	3	meters
X-F22-OPT-10M	10	meters

Physical Dimensions

Bus Type:	PCI-X
Bus Width:	64-bit
Bus Speed:	133MHz 100MHz
Typical Power Consumption:	15 Watts
Operating Temperature:	0-65°C
Operating Humidity:	5-95%
Length	6.6" long (half-length)
Height	4.2" tall (full height)

Ordering Information

- PCIX-10GIGENET-OR

Standards Support

- PCI-X 1.0a and PCI 2.3 compliant 64 bit, 133MHz and 100MHz host interface
- DIX/802.3 FCS Offload for Tx and Rx frames
- 802.3ad "Slow Protocol" frame support

- 802.3ad Link Aggregation support (Linux OS)
- 802.1Q VLAN tag support (Tx append and Rx strip) (Linux OS)
- 802.1D (ex. 802.1p) QoS support (Rx frame steering across up to 8 queues) (Linux OS)
- Jumbo Frame support (up to 9600 Bytes)
- 802.3X Pause Frame support (in hardware)
- Unicast/Multicast Rx frame filtering for up to 64 address/mask pairs

Supported Software

- SGI® IRIX® 6.5.23 with patch 5516
- SGI® IRIX® 6.5.24 with patch 5587
- SGI ProPack™ for Linux® version 3.0

Supported Systems

- SGI® Altix® 350
- SGI® Altix® 3300, 3700

- SGI® Origin® 350
- SGI® Origin® 3200, 3400, 3800, 3800-B, 3900

- SGI® Onyx® 350
- Silicon Graphics® Onyx4™
- SGI® Onyx® 3200, 3400, 3800, 3800-B, 3900
- Silicon Graphics® Tezro®

- SGI® InfiniteStorage NAS 2000

Support and Services

SGI provides full support for the SGI 10 Gigabit Ethernet network adapter and software drivers. SGI Professional Services also offers services to implement and integrate 10 Gigabit Ethernet in your environment.

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