10 GigE PCI-E Card

Key Features
- PCI-Express x8 low profile add-in card
- Firmware-controlled offload engine Myri-10G from Myricom
- Wire-speed performance

Advanced Features
- PCI Express host port: x8 (8 lane) PCI-Express capable of exchanging data with a host computer at up to 10Gbit/sec in each direction, full duplex
- Network port: 10GBase-R, 10+10 Gbit/s data rate, full-duplex using included pluggable XFP transceiver. Serial data is carried on a single fiber in each direction at 10.3125 Gbaud, 64b/66b-encoded.

- Processor: card includes RISC processor and firmware to offload network protocol processing, minimizing host-CPU utilization and enabling low-latency operation.
- Operation: card includes onboard local memory used for firmware execution and for buffering packet headers, and EEPROM firmware used for PCI device initialization and an Etherboot (PXE-compatible) driver. Driver and firmware implement zero-copy on the send side and use a variety of stateless offloads (eg, interrupt coalescing, TSO, RSS, LRO, and multicast filtering).

Standards Based
When operating in Ethernet mode, the port supports Ethernet flow control as defined by IEEE 802.3x. The port is fully compliant with the PCI-Express Card Electromechanical Specification Rev. 1.1, and with the PCI-Express Base Specification Rev. 1.0a. The circuit-board edge connector of the NIC will fit mechanically in x8 or x16 physical slots in host computers. The NIC auto-negotiates operation in the widest available mode supported by the slot it is plugged into (x8, x4, x2, or x1). These NICs are RoHS-compliant under the server exemption.

Supported Systems
SGI Altix 450
SGI Altix 4700
SGI Altix 210
SGI Altix 240
SGI Altix 310
SGI Altix 1200
SGI Altix 1300

Supported Software
ProPack4 SP3
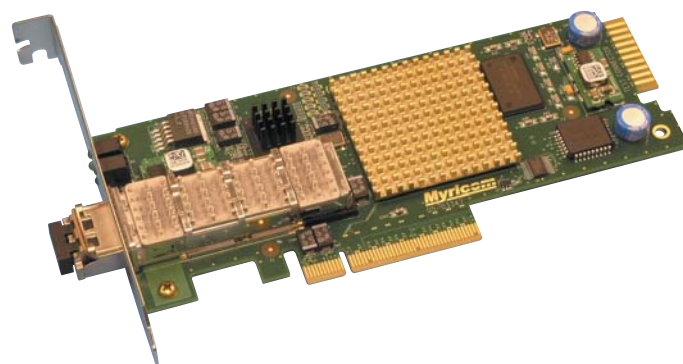ProPack5 SP0
ProPack5 SP1
RHEL 5
SLES 10
SLES9 SP3

Ordering Information
Card:
PCIE-10GENET-OR-Z

Cabling:

X-F44-OPT-2M-Z	2 meters
X-F44-OPT-3M-Z	3 meters
X-F44-OPT-5M-Z	5 meters
X-F44-OPT-10M-Z	10 meters
X-F44-OPT-20M-Z	20 meters
X-F44-OPT-30M-Z	30 meters
X-F44-OPT-50M-Z	50 meters
X-F44-OPT-100M-Z	100 meters
X-F44-OPT-300M-Z	300 meters

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Physical Dimensions

The circuit board is a low-profile add-in card as defined in the PCI-Express Card Electro-mechanical Specification Rev. 1.1: height 68.9mm (exclusive of the PCI faceplate), length 165.1mm (exclusive of the PCI faceplate), total thickness 22mm, weight 91g (including the standard PCI faceplate, and without a XFP transceiver). The NIC can be supplied with either a standard PCI faceplate or a low-profile PCI faceplate.

Power

Card (with XFP transceiver installed) is powered from 3.3V and 12V from the PCI Express port, 2.5A and 0.14A maximum, respectively, a total of 10W maximum.

Environmental (Operating)

Temperature
• 0˚C to 55˚C up to 10,000 foot altitude
Relative Humidity
• 15% to 80% @ 50˚C, non-condensing

Environmental (Storage)

Temperature
• -40˚C to 70˚C.
Relative humidity
• 90% @ 65˚C.

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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