

iSCSI

Preliminary product information



EMULEX® GN9000/SI

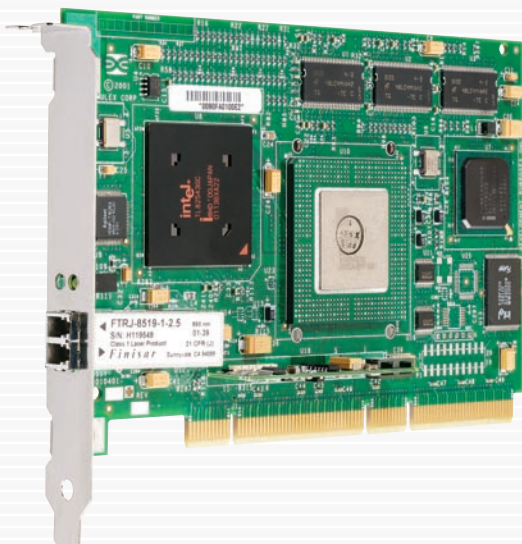
1Gb/s iSCSI Host Bus Adapter

The Emulex GN9000/SI host bus adapter (HBA) is a high-performance iSCSI HBA featuring 64-bit PCI v2.2 and 1Gb/s data rate using industry standard Gigabit Ethernet networks. The GN9000/SI implements the iSCSI and TCP/IP protocols in firmware to achieve the maximum storage access performance over standard Gigabit Ethernet/IP networks. The result is high throughput, with less than 5% CPU overhead.

By encapsulating SCSI protocols in standard TCP/IP packets, the GN9000/SI HBA reliably transports block-level data over existing Gigabit Ethernet/IP-based network infrastructures. Supporting both initiator (host) and target (storage device) modes, the GN9000/SI enables host systems to deliver and access block-level data anywhere within a Gigabit Ethernet/IP network, delivering data where it is needed.

Major Features

- multiple OS/platform support: Windows.NET, Windows 2000 and Linux
- 32/64 bit 33/66MHz PCI v2.2 host bus adapter
- 1Gb/s Ethernet link speed, full duplex
- SCSI architectural model (SAM-2) and SCSI-3 command sets
- SCSI block level data encapsulated in IP (iSCSI)
- supports initiator and target mode
- support for standard TCP/IP-reliable data delivery (TCP), IP routing
- remote data access from Fibre Channel SANs over Ethernet/IP networks through storage routers



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Specifications

The Emulex GN9000/SI supports standard Gigabit Ethernet 1000BaseSX, SCSI SAM-2 architecture and SCSI-3 command sets. SCSI protocols are encapsulated within the networking protocols, TCP for reliable data delivery and IP for routing, to ensure compatibility with standard IP-based networks. The GN9000/SI also supports the widely deployed simple network management protocol (SNMP) for interoperability with commonly deployed management systems. Operating system support includes Windows.NET, Windows 2000 and Linux. The GN9000/SI supports Emulex's service level interface (SLI) API, extending its support to industry leading server and storage solutions.

standards compliance

IP v.4

IEEE 802.3z Gigabit Ethernet 1000BaseSX

IEEE 802.3x flow control

iSCSI specification (standards pending)

iSCSI architectural model (SAM-2) & SCSI-3 command sets

multi-mode optical fiber LC connector

PCI v2.2

SNMP MIB-II

architecture

32/64 bit 33/66MHz PCI 2.2 compliant

32MB SDRAM

4MB FLASH Memory

1Gb/s full duplex link

iSCSI architectural model (SAM-2) & SCSI-3 command sets

block level SCSI data over IP networks (iSCSI)

software environments

Windows.NET

Windows 2000

Linux

Emulex service level interface (SLI) support

hardware environments

PCI hardware 2.2 platforms
fully interoperable with L2/L3/L4

Gigabit Ethernet switches

LAN and WAN support

Gigabit Ethernet, optical fiber

data rates: 1Gb/s full duplex link

cable type: 1000BaseSX multi-mode optical fiber

connector type: single LC connector

distance:

550 meters (1804') 50/125 µm multi-mode fiber

500 MHz Km cables

500 meters (1640') 50/125 µm multi-mode fiber

400 MHz Km cables

275 meters (902') 62.5/125 µm multi-mode fiber

200 MHz Km cables

220 meters (721.6') 62.5/125 µm multi-mode fiber

160 MHz Km cables

physical dimensions

short PCI card

height 106.68 mm (4.2")

width 167.64 mm (6.6")

power requirements

5v± 5%, 15 watts (max)

environmental conditions

operating temperature 0 to 55° C

storage temperature -20 to 70° C

operating humidity 0 to 95% (non-condensing)

storage humidity 0 to 95% (non-condensing)

agency approvals (pending)

Class 1 Laser Product per

DHHS 21CFR (J) & EN60825

UL recognized to UL 1950

CUR recognized to CSA22.2, No. 950

TUV certified to EN60950

FCC rules, Part 15, Class A

ICES-003, Class A

EMC Directive 89/336/EEC (CE Mark)

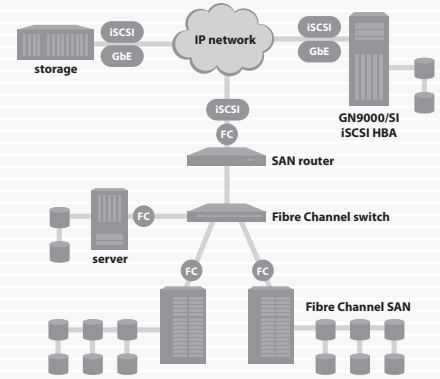
EN55022, Class A

EN55024

Australian EMC Framework (C-Tick Mark)

AS/NZS 3548, Class A

VCCI, Class A



Universal storage access over IP network

Driver Support

The Emulex GN9000/SI iSCSI HBA supports TCP-reliable data delivery, IP routing support, and the pending iSCSI encapsulation standard. Operating support includes Windows.NET, Windows 2000 and Linux. The Emulex service level interface (SLI) API is also supported.

Ordering information

GN9000/SI-F1

32/64 bit 33/66 MHz PCI v2.2 host bus adapter



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