

## MAJOR FEATURES

**Full duplex 2Gb/s Fibre Channel delivering up to 400MB/s**

**Automatic speed negotiation**

**Automatic topology detection**

**Full fabric support using F\_Port and FL\_port connections**

**Onboard hardware context cache for superior fabric performance**

**Support for multiple concurrent protocols (SCSI and IP)**

**Full support for both FC service class 2 and 3**

**Full fabric boot support in x86 environments to multiple LUNs**

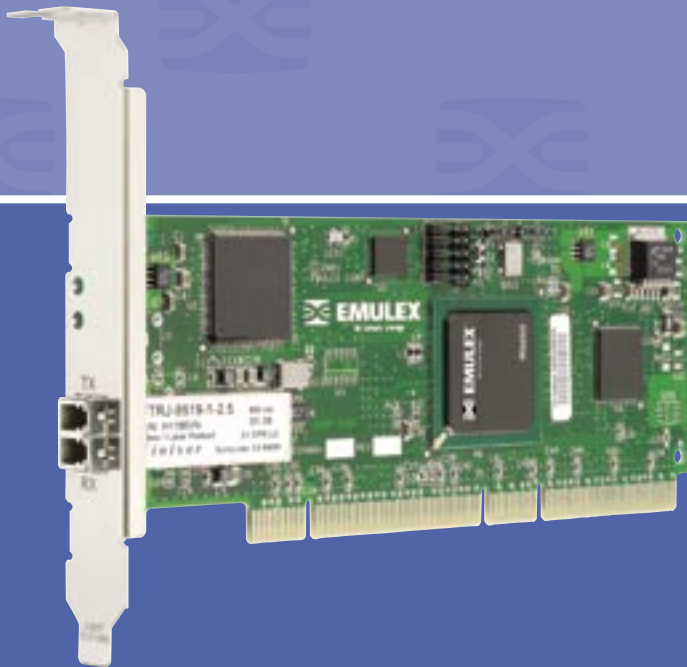
**Support for FC-Tape (FCP-2) devices**

**66/100/133MHz PCI-X 1.0a and PCI 2.2 compatibility**

**End-to-end parity protection for high data integrity**

**Robust suite of software supporting Windows Server 2003, Windows 2000, Windows NT, Linux and NetWare**

**Optical small form factor (LC) interface**



LightPulse™

# LP982

2Gb/s Fibre Channel PCI-X Host Bus Adapter

The LP982 PCI-X host bus adapter offers a highly integrated 2Gb/s Fibre Channel HBA for use in servers based on either PCI or the latest PCI-X expansion bus. The LP982 delivers exceptional performance through the use of an Emulex Pegasus ASIC, a 266MIPs onboard processor, an embedded 1Gig/2Gig SERDES, and a high performance unified QDR SRAM. The LP982 features automatic topology detection and automatic speed negotiation capability. These capabilities allow complete compatibility with existing 1Gb/s Fibre Channel SANs, while allowing seamless upgrades to higher speed 2Gb/s SANs.

The features of this PCI-X based HBA provide the flexibility and broad interoperability needed for complex, highly scalable SANs. The LP982 provides a combination of features, fabric support using F\_Port and FL\_Port connections, full-duplex data transfers, high data integrity features, support for all Fibre Channel topologies, and support for service classes 2 and 3.

The LP982 also features sophisticated hardware that provides superior performance in SANs and provides best in class server CPU offload. This exclusive hardware delivers low latency and high throughput in fabric, arbitrated loop and clustered environments. Support for fiber optic cabling is provided through an embedded small form factor (LC) optical interface.

# SPECIFICATIONS

## STANDARDS

ANSI Fibre Channel FC-FS  
ANSI Fibre Channel FC-PH  
ANSI Fibre Channel FC-PI  
ANSI Fibre Channel FC-AL  
ANSI Fibre Channel FC-PLDA  
ANSI Fibre Channel FC-MI  
ANSI Fibre Channel FC-FLA  
PCI-X 1.0a  
PCI local bus revision 2.2 (see power requirements)  
Fibre Channel Class 2, 3  
PHP hot plug - hot swap

## ARCHITECTURE

Emulex Pegasus ASIC technology up to 133MHz PCI-X DMA  
2Gb/s or 1Gb/s FC Link  
2MB FLASH memory  
1MB QDR SRAM

## SOFTWARE ENVIRONMENTS

Windows Server 2003  
Windows 2000  
Windows NT  
Linux  
NetWare

## HARDWARE ENVIRONMENTS

x86, PCI hardware platforms  
3.3V signaling, 5V tolerant  
32/64b 33/66MHz PCI  
66/100/133MHz PCI-X

## OPTICAL

data rates: 1.0625/2.125Gb/s  
optics: short wave laser  
cable: 50/125µm multi-mode fiber  
62.5/125µm multi-mode fiber  
connector LC  
distance: (1Gb/s)  
500 meters (1,640') 50/125 µm fiber  
300 meters (984') 62.5/125 µm fiber  
(2Gb/s)  
300 meters (984') 50/125 µm fiber  
150 meters (492') 62.5/125 µm fiber

## PHYSICAL DIMENSIONS

short low profile MD2 form factor  
low profile or standard bracket  
167.64mm x 64.42mm (6.60" x 2.54")

## POWER REQUIREMENTS

Volts: +3.3 VDC (± 5%)  
Power: 7.7 watts @ 66MHz,  
8.5 watts @ 133MHz (typ)

## ENVIRONMENTAL CONDITIONS

Operating temperature: 0° to 45°C (32° to 113°F)  
Airflow required: 100 lf/m  
Storage temperature: -40° to 70°C (-40° to 158°F)  
relative humidity: 5% to 95% non-condensing

## AGENCY APPROVALS

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

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## DRIVER SUPPORT

A rich suite of software complements the LP982. Some examples of the features included are, LUN Masking, LUN Mapping, Persistent Binding, I/O Coalescing, full fabric boot as well as support for multi or simultaneous protocol (SCSI & IP) operation. In addition, most drivers include a full-featured implementation of the FC-MI HBA Management Interface. These features enable advanced storage area network (SAN) implementations in Windows Server 2003, Windows 2000, Windows NT, Linux, and NetWare environments. All drivers are also fully compatible with the Emulex LP10000, LP9002L, LP850, LP8000, LP7000E, LP952L, LP9402DC, LP9002C, LP1050 and LP9802 host bus adapters.

## ORDERING INFORMATION

LP982-F2  
embedded multi-mode optic interface (LC)

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