

## MAJOR FEATURES

- 3U CompactPCI form factor (100mm x160mm)
- Simultaneous full duplex 2Gb/s Fibre Channel
- Full fabric support using F\_Port and FL\_Port connections
- Onboard hardware context cache for superior fabric performance
- Support for concurrent multiple protocols (SCSI and IP)
- Full support for FC service class 2 and 3
- Support for FC-Tape (FCP-2) devices
- 32/64 bit and 33/66 MHz Compact PCI support
- End-to-end parity protection for high data integrity
- Buffered data architecture to support up to 50km cabling at full 2Gb/s bandwidth
- Automatic speed negotiation
- Automatic topology detection
- Optical small form factor (LC) interface support
- Supports common HBA API Management Interface (FC-MI Annex A)
- Supports Fibre Channel fabric boot

LightPulse™

# LP9002C

2Gb/s Fibre Channel cPCI Host Bus Adapter

The LightPulse™ LP9002C Fibre Channel CompactPCI™ (cPCI) host bus adapter combines the new generation features and functionality of the 2Gb/s low profile LP9002L with the rugged Eurocard mechanics of the cPCI architecture. Like the LP9002L and LP9002S, the LP9002C provides support for 2Gb/s Fibre Channel data rates, delivering the industry's highest performance. The LP9002C features automatic speed negotiation capability which allows complete compatibility with existing 1Gb/s Fibre Channel storage area networks (SANs), and allows seamless upgrades to higher speed 2Gb/s SANs.

The LP9002C provides the flexibility and broad interoperability needed for complex and highly scalable SANs. The LP9002C provides a unique combination of features, including 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 class 2 and 3.

LP9002C also features sophisticated hardware that provides superior performance in SANs, delivering low latency and high throughput in fabric and clustered environments.



## SPECIFICATIONS

### STANDARDS

FC-PH-1, 2, 3: Fibre Channel physical and signaling interface standards  
FC-PI: Fibre Channel physical interfaces  
FC-MJS: Fibre Channel methodologies for Jitter specification  
FC-FLA - 2: Fibre Channel arbitrated loop standard  
FCP: Fibre Channel protocol for SCSI standard  
CompactPCI™: Core specification PICMG 2.0/3.0  
PCI: Local bus specification version 2.2

### ARCHITECTURE

Emulex Centaur ASIC technology  
2MB FLASH memory  
1MB code RAM  
256KB buffer RAM

### SOFTWARE ENVIRONMENTS

Solaris SPARC

### HARDWARE ENVIRONMENTS

Sun Fire servers 3800, 4800, 4810

### OPTICAL

Data rate: 1.0625Gb/s/2.125Gb/s  
Optics: short-wave multi-mode lasers  
long-wave single-mode lasers  
Cable: 9/125µm single-mode fiber  
50/125µm multi-mode fiber  
62.5/125µm multi-mode fiber  
Connector: LC  
Distance: (1Gb/s)  
10k meters (32,800') 9/125 µm fiber  
500 meters (1640') 50/125 µm fiber  
300 meters (984') 62.5/125 µm fiber  
(2Gb/s)  
10k meters (32,800') 9/125 µm fiber  
300 meters (984') 50/125 µm fiber  
150 meters (492') 62.5/125 µm fiber

### PHYSICAL DIMENSIONS

3U cPCI form factor  
100mm x 160mm (4.0" x 6.4")

### POWER REQUIREMENTS

Volts: +3.3VDC and +5VDC  
Power: 7.2 watts typical (9.3w max)

### ENVIRONMENTAL CONDITIONS

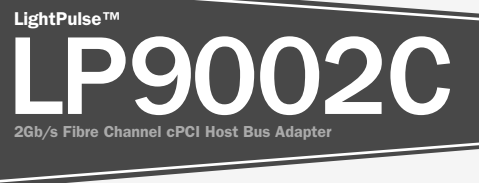
Operating temperature:  
0° to 45°C (32° to 113°F)  
Airflow required: 100 lfm  
Storage temperature: -  
40° to 70°C (-40° to 158°F)  
Relative humidity: 5% to 95% non-condensing

### 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  
Industry Canada, 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

### DRIVER SUPPORT

The LightPulse™ LP9002C is complemented by a rich suite of software that includes support for storage protocol (SCSI), network protocol (IP) as well as concurrent multi-protocol (SCSI & IP) operation. This industry leading support enables advanced Storage Area Network (SAN) implementations in the Solaris environment across multiple versions of HBAs. The LP9002C driver is also fully compatible with the Emulex LP9002L, LP9000, LP8000 and LP7000E PCI host bus adapters. This architecture allows a common look and feel across the various hardware platforms.



### MANAGEMENT INTERFACE

Emulex HBAs also support the common HBA API Management Interface (FC-MI Annex A). This provides the ability to monitor, discover, and control the fabric from a management application. The management API allows the HBA to provide a common and consistent view of a Fibre Channel SAN which will significantly reduce the total cost of ownership for customers.

### ORDERING INFORMATION

LP9002C-F2  
embedded multi-mode optic interface  
LP9002C-X2  
embedded single-mode optic interface



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