

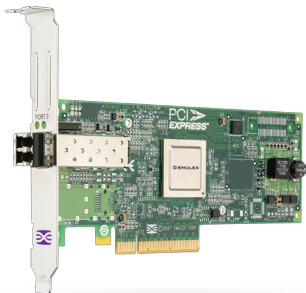


LightPulse®

LPe1250

8Gb/s Fibre Channel PCIe 2.0 Encryption-ready Host Bus Adapter

**UNPARALLELED
MANAGEABILITY,
RELIABILITY,
SECURITY,
PERFORMANCE
AND EASE OF
DEPLOYMENT**



Streamlined installation and management, unrivaled scalability, and industry-leading virtualization support make the single-channel, encryption-ready Emulex LightPulse LPe1250 Fibre Channel host bus adapter (HBA) an ideal solution for mixed-OS SAN environments.

Proven design, architecture and interface

Emulex LightPulse HBAs' highly integrated processor design minimizes onboard components to improve host performance and efficiency. Advanced error-checking features ensure the integrity of block data as it traverses the SAN. Emulex's firmware-based architecture enables feature and performance upgrades without costly hardware changes. The unique Service Level Interface (SLI™) allows use of a common driver across all models of Emulex HBAs on a given OS platform simplifying deployment and administration tasks. Installation and management facilities are designed to minimize server reboots and further simplify deployment.

Powerful management software for maximum data center efficiency

The Emulex HBAnyware enterprise-class management application has gained broad market acceptance with over 6 million Fibre Channel and FCoE ports managed to date. Building on the success of the HBAnyware application, Emulex has released OneCommand Manager. OneCommand Manager's multi-protocol, cross platform architecture, provides centralized management of encrypting and non-encrypting Emulex adapters within the enterprise data center. OneCommand Manager streamlines IT administrative tasks by delivering uniform management across heterogeneous data center environments. To ensure a transparent transition for customers who are using Emulex's HBAnyware management solution, OneCommand Manager is backward compatible with HBAnyware 4.1.

Encryption-ready feature for easy compliance with government, industry and regulatory compliance mandates

All 8Gb/s LightPulse Fibre Channel adapters are encryption-ready, so you can turn your existing SAN into an encrypted SAN easily and non-disruptively. When you are ready to start encrypting data, simply add OneCommand Guardian* encryption software and the optional enterprise-class OneCommand Key Manager* application--no appliances, switches or other expensive and complicated changes need to be made to your existing architecture. Emulex host-based encryption solutions encrypt data as it's created, at the server, protecting it in-flight and at-rest on the SAN for maximum protection against data theft and loss.

Key Benefits

- Provides superior performance for the enterprise
- Flexible and cost-effective security solution—use as a regular Fibre Channel adapter or use to encryption-protect your SAN
- Integrates seamlessly into existing SANs
- Supports IT server consolidation and energy conservation initiatives
- Allows application of SAN best practices, tools and processes with virtual server deployments
- Protects sensitive data from unauthorized access
- Assures data availability and data protection
- Improves IT staff productivity through simplified deployment and management

Key Features

- Support for Message Signaled Interrupts eXtended (MSI-X), improves host utilization and enhances application performance
- Supports host-based encryption utilizing AES 256-bit encryption algorithms
- Support for 8Gb/s, 4Gb/s & 2Gb/s Fibre Channel devices
- Comprehensive virtualization capabilities with support for N_Port ID Virtualization (NPIV) and Virtual Fabric
- Host to Fabric FC-SP authentication
- Common driver model allows a single driver to support all Emulex HBAs on a given OS
- Easy deployment of new firmware with no server reboot
- Efficient centralized administration of Emulex HBAs via powerful management tools

* OneCommand Guardian and OneCommand Key Manager software sold separately.

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SPECIFICATIONS

Standards

- ANSI Fibre Channel: FC-PI-4, FC-FS-2, FC-FS-2/AM1, FC-LS, FC-AL-2, FC-GS-6, FC-FLA, FC-PLDA, FC-TAPE, FC-DA, FCP through FCP-4, SBC-3, FC-SP, FC-HBA and SMI-S v1.1
- PCI Express base spec 2.0
- PCI Express card electromechanical spec 2.0
- Fibre Channel class 2 and 3
- PHP hot plug-hot swap

Architecture

- Single-channel
- 8Gb/s, 4Gb/s or 2Gb/s FC link speeds automatically detected
- Integrated data buffer and code space memory

Comprehensive OS Support

- Windows, Linux, NetWare, VMware

Hardware Environments

- x86, x64 and Intel® Itanium® 64-bit processor family

Optical

- Data rates: 2.125, 4.25 and 8.5Gb/s (auto-detected)
- Optics: Short wave lasers with LC type connector
- Cable: Operating at 8Gb/s
 - 50/125µm (500MHz*km BW) up to 50m
 - 50/125µm (2000MHz*km BW) up to 150m

Physical Dimensions

- Short, low profile MD2 form factor card
- 167.64mm x 68.91mm (6.60" x 2.71")
- Standard bracket (low profile available)

Power & Environmental Requirements

- Volts: +3.3, +12
- Operating temperature: 0° to 55° C (32° to 131° F)
- Airflow required: 150 lf/m'
- Storage temperature: -40° to 70° C (-40° to 158° F)
- Relative humidity: 5% to 95% non-condensing
- 23 degree C wet bulb

Agency Approvals

- Class 1 Laser Product per DHHS 21CFR (J) and EN60825-1
- UL recognized to UL 60950-1
- CUR recognized to CSA22.2, No. 60950-1-03
- Bauart-certified to EN60950-1
- FCC Rules, Part 15, Class A
- ICES-003, Class A
- EMC Directive 2004/108/EC (CE Mark)
 - EN55022, Class A
 - EN55024
- Australian EMC Framework (C-Tick Mark)
 - AS/NZS CISPR22, Class A
- VCCI (Japan), Class A
- MIC (Korea), Class A
- BSMI (Taiwan), Class A
- EU RoHS Compliant (Directive 2002/95/EC)
- China RoHS Compliant

Ordering Information

- **LPe1250-F8**
 - Single-channel, multi-mode optic interface

Additional Features

- **Performance features**
 - Doubling the maximum Fibre Channel link rate from 4Gb/s to 8Gb/s and enhanced virtualization capabilities help support IT "Green" initiatives
 - Frame-level Multiplexing and out-of-order frame reassembly increases link efficiency and maximizes HBA performance.
- **Data protection features**
 - End-to-end data protection with hardware parity, CRC, ECC and other advanced error checking and correcting algorithms ensure data is safe from corruption
- **Deployment and management features**
 - Universal Boot capability allows the appropriate boot environment to be automatically selected for any given hardware
 - Boot from SAN capability reduces system management costs and increases uptime
 - Detailed real-time event logging and tracing enables quick diagnosis of SAN problems
 - Beaconing feature flashes the HBA LEDs, simplifying their identification within server racks
 - Environmental monitoring feature helps to optimize SAN availability

Management Features

- The Emulex AutoPilot Installer automates the HBA installation process and significantly reduces time to deployment and administrative costs. Automated installation and configuration of driver and management tools simplifies deployment of multiple adapters within Windows environments. A single installation of driver and management application eliminates multiple reboots and ensures that each component is installed correctly and the HBA is ready to use.
- The Emulex OneCommand™ Manager application enables centralized discovery, monitoring, reporting, and administration of Emulex HBAs and UCNAs on local and remote hosts. Powerful automation capabilities facilitate remote driver parameter, firmware and boot code upgrades. Advanced diagnostic features such as adapter port beaconing and adapter statistics help to optimize management and network performance while the environmental monitoring feature helps to maintain optimum host to fabric connections. In addition to the GUI interface, management functions can also be performed via a scriptable Command Line Interface (CLI) as well as a web browser. With in-band and out-of-band management capabilities, Emulex provides data center administrators with the greatest level of management flexibility.
- Emulex's management instrumentation complies to Open Management Standards, such as SMI-S and common HBA API support, which enables seamless upward integration into enterprise storage and server management solutions.

Encryption-ready Features

- Cost-effective, comprehensive enterprise-class encryption solution that can reduce operational costs and risks by protecting data in-flight and at-rest as well as providing an alternative to physical disk destruction, encrypting switches, encrypting arrays and hardware security modules
- Enables easy compliance with government, regulatory and industry security regulations and mandates
- Non-disruptive to existing SAN architecture, servers and storage
- Provides deployment simplicity and flexibility
- Manage all encrypting and non-encrypting adapters with Emulex's OneCommand Manager application



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