EMULEX®

LightPulse®
LPe1105-M4
Dell part No. M LPe1105

Generations Ahead

4Gb/s FIBRE CHANNEL
Mezzanine Card Host Bus Adapter for the Dell PowerEdge M1000e

Unparalleled manageability, reliability, performance and ease of deployment

Streamlined installation and management, unrivaled scalability, and industry-leading virtualization support makes the Emulex LightPulse® LPe1105-M4 dual-channel mezzanine card an ideal solution for the Dell PowerEdge M1000e blade server platform. With powerful installation and management tools, the LPe1105-M4 delivers maximum performance in the broadest range of applications and environments.

Proven design, architecture and interface

The highly integrated single-chip design of LightPulse HBAs minimizes onboard components, while advanced error-checking methods assure robust data integrity. The Emulex 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. Installation and management applications are designed to minimize reboots and further simplify deployment.

KEY BENEFITS

- Superior quality and reliability ensures data availability
- Highly efficient installation accelerates deployment and reduces administration costs
- Maximum SAN performance increases scalability and user satisfaction in large enterprise installations
- Robust interoperability simplifies deployment and upgrades of SAN hardware and software
- LightPulse Virtual HBA technology provides efficient host utilization and compliance with SAN management best practices

KEY FEATURES

- Exceptional performance and full-duplex data throughput
- Comprehensive virtualization capabilities with support for N_Port_ID Virtualization (NPIV) and Virtual Fabric
- Simplified installation and configuration using common HBA drivers and automated installation utilities
- Efficient centralized administration of Emulex HBAs anywhere in the SAN via powerful management tools
- Common driver model ensures that one driver supports all generations of Emulex HBAs on a given OS platform
- SLI architecture allows new firmware releases to be easily deployed independently from the driver, introducing new functionality and reducing reboot cycles
- Support for Industry Standard Fibre Channel Security Protocol (FC-SP) enabling server to fabric authentication across the SAN

LightPulse® LPe1105-M4

4Gb/s FIBRE CHANNEL
Mezzanine Card Host Bus Adapter

Specifications

Standards

- ANSI Fibre Channel: FC-PH-3, FC-PI-2, FC-FS, FC-AL-2, FC-GS-4, FC-FLA, FC-PLDA, FC-TAPE, FCP-2 and RFC 2625 (IP over FC)
- PCI Express base spec 1.0a
- Fibre Channel class 2 and 3
- PHP hot plug—hot swap

Architecture

- Dual-channel
- 4Gb/s, 2Gb/s or 1Gb/s FC Link speeds automatically detected
- Integrated data buffer and code space memory

Comprehensive OS Support

- Windows Server 2003, Linux, VMware

Hardware Environment

- Dell PowerEdge M1000e blade server platforms

Power & Environmental Requirements

- Volts: 3.3 & 12.0VDC
- Power consumption (typ/max): 4.6W / 6.5W
- Operating temperature: 0ºC to 65ºC (32º to 149ºF)
- Airflow required: 200 lf/m
- Storage temperature: -40º to 70ºC (-40º to 158ºF)
- Relative humidity: 5% to 95% non-condensing

Deployment & Management Features

- Emulex's feature-rich deployment and management facilities streamline and simplify HBA deployment and device management, helping to reduce administration costs and protect IT investments.
- Emulex LightPulse management capabilities enable secure, centralized discovery, monitoring, reporting, and administration of Emulex HBAs on local and remote hosts. Powerful automation capabilities facilitate remote driver parameter, firmware and boot code upgrades. Advanced diagnostic features and HBA statistics help to optimize management and network performance. 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.
- Automated installation and configuration of driver and management tools simplifies deployment of multiple HBAs for Windows environments. A single installation of drivers and management utilities eliminates multiple reboots and ensures that each component is installed correctly and the HBA is ready to use.
- 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.

Additional Features

- Emulex LightPulse HBA technology features Frame-level Multiplexing and out-of-order frame reassembly for maximum link utilization. End-to-end data protection with hardware parity, CRC, ECC and other advanced error checking and correcting algorithms ensure data is safe from corruption.
- Detailed real-time event logging and tracing enables quick diagnosis of SAN problems.
- Boot from SAN capability reduces system management costs and maximize network uptime.

Agency Approvals

- UL recognized to UL 60950-1
- CUR recognized to CSA22.2, No. 60950-1-03
- TUV certified to EN60950-1
- FCC rules, Part 15, Class A
- ICES-003, Class A
- EMC Directive 2004/108/EEC (CE Mark)
  - EN55022, Class A
  - EN55024
- Australian EMC Framework (C-Tick Mark)
  - AS/NZS CISPR22, Class A
- VCCI, Class A
- RoHS Compliant (Directive 2002/95/EC) for environmental requirements
- China RoHS compliant
- Japan UCCI, Class A
- Korea MIC, Class A

Ordering Information

- For ordering information on the Emulex-based Fibre Channel Mezzanine Card, contact your local Dell sales representative.
- Dell order part No. M LPe1105
- Available as factory or field-installed options.

08-368 · 1/08

EMULEX®

www.emulex.com

World Headquarters 3333 Susan Street, Costa Mesa, CA 92626 +1 714 662 5600

Wokingham, UK +44 (0) 118 977 2929 | **Munich, Germany** +49 (0) 89 97007 177
Paris, France +33 (0) 158 580 022 | **Beijing, China** +86 10 68499547