

# Generations Ahead

**Unparalleled manageability, reliability, performance and ease of deployment**

**8Gb/s Fibre Channel**  
Mezzanine Card Host Bus Adapter  
for the Dell PowerEdge M1000e



Streamlined installation and management, unrivaled scalability, and industry-leading virtualization support makes the Emulex LightPulse® LPe1205-M dual-channel mezzanine card an ideal solution for the Dell PowerEdge M1000e blade server platform. With powerful installation and management tools, the LPe1205-M 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
- ⦿ Provides efficient host utilization & compliance with SAN management best practices
- ⦿ Supports IT server consolidation and energy conservation initiatives

## **KEY FEATURES**

- ⦿ Support for Message Signaled Interrupts eXtended (MSI-X), improves host utilization & enhances application performance
- ⦿ Comprehensive virtualization capabilities with support for N\_Port ID Virtualization (NPIV)
- ⦿ 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 applications
- ⦿ Common driver model ensures that one driver supports all generations of Emulex HBAs on a given OS platform
- ⦿ Easy deployment of new firmware with minimal server reboots
- ⦿ Support for Industry Standard Fibre Channel Security Protocol (FC-SP) enabling server to fabric authentication across the SAN
- ⦿ FlexAddress simplifies management of mezzanine cards within the PowerEdge M1000e blade server platform

## 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
- Fibre Channel class 2 and 3

### Architecture

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

### Comprehensive OS Support

- Windows Server 2003/2008, Linux, VMware

### Hardware Environment

- Dell PowerEdge M1000e blade server platforms

### Power & Environmental Requirements

- Volts: 3.3 & 12.0VDC
- Power consumption (typ/max): 6.8W / 10W
- Operating temperature: 0°C to 65°C (32° to 149°F)
- Airflow required: 200 l/m
- Storage temperature: -40° to 70°C (-40° to 158°F)
- 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 HBAnyware management application enables secure, centralized discovery, monitoring, reporting, and administration of Emulex host bus adapters (HBAs) and converged network adapters (CNAs) 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.
- BlockGuard ready: ensures end-to-end data integrity

### Agency Approvals

North America:

- FCC Class A
- UL/CSA Recognized

Europe:

- CE Mark
- EU RoHS compliant
- TUV Bauart Certified

Japan:

- VCCI Class A

Korea:

- MSIP (formally KCC/MIC) Class A

China:

- China RoHS Compliant

(Please refer to the product page on [www.emulex.com](http://www.emulex.com) for further details)

### Ordering Information

- For ordering information on the Emulex-based Fibre Channel Mezzanine Card, contact your local Dell sales representative.
- Dell order part No. **M378D**
- Available as factory or field-installed options.



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