EMULEX®

LightPulse®
LPe1105-HP

Generations Ahead

Unparalleled manageability, reliability, performance and ease of deployment

4Gb/s Fibre Channel
Mezzanine Card Host Bus Adapter for the HP BladeSystem c-Class

Streamlined installation and management, unrivaled scalability, and industry-leading virtualization support make the Emulex LPe1105-HP dual-channel mezzanine card an ideal solution for HP BladeSystem c-Class Storage Area Network (SAN) environments. With powerful management tools and seamless integration into HP Storage Essentials (SE) and System Insight Manager (SIM), the LPe1105-HP delivers maximum performance in the broadest range of applications and environments.

Proven design, architecture and interface
LightPulse HBAs' highly integrated single-chip design 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 ensure 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 HP SmartStart
- Efficient administration via HBAnyware® for HBAs anywhere in the SAN
- Common driver model eases management and enables upgrades independent of HBA firmware

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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

· Windows 2000

· Linux

· VMware

· HP-UX 11i v3

Hardware Environment

· HP c-Class BladeSystem

Power & Environmental Requirements

· Volts: +3.3 VDC

· Power consumption (typ/max): 4.6W / 6.5W

· Operating temperature: 0° to 60°C (32° to 140°F)

· Airflow required: 300 lf/m

· Storage temperature: -40° to 70°C (-40° to 158°F)

· Relative humidity: 5% to 95% non-condensing

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

Ordering Information

· For ordering information on the Emulex-based Fibre Channel Mezzanine Card (HP Part No. 403621-B21) visit **www.hp.com/go/bladesystem**

Additional Features

· Emulex LightPulse technology features Frame-level Multiplexing and out-of-order frame reassembly for maximum link utilization.

· End-to-end data protection with hardware parity, cyclic redundancy check (CRC), error correcting code (ECC) and other advanced error checking ensure that data is safe from corruption.

· Systems Management Architecture for Server Hardware (SMASH) and Command Line Protocol (CLP) are implemented to provide a common management interface.

· Full integrated support with HP Virtual Connect and HBAnyware enables blade server customers to benefit from SAN-wide server and storage management capabilities.

· Detailed real-time event logging and tracing enable quick diagnosis of SAN problems.

· Universal Boot capability allows the appropriate boot environment to be automatically selected for any given OS.

Software Features

· Emulex's feature-rich software simplifies and speeds deployment and device management while reducing administration costs and protecting your IT investment.

· HBAnyware enables centralized discovery monitoring, reporting and management of both local and remote HBAs from a secure remote client. HBAnyware provides in-depth management capabilities including remote firmware and boot code upgrades, statistics and advanced diagnostics. An extensive command line interface (CLI) is available for scripting.

· HP SmartStart simplifies the installation and configuration of drivers and management applications for HBAs on Windows servers and makes sure that each component is installed correctly, thereby ensuring the HBA is ready to use.

· Emulex management instrumentation is based on Open Management Standards. SMI-S and common HBA API support enable seamless upward integration into enterprise storage and server management solutions such as HP Storage Essentials (SE) and System Insight Manager (SIM).

HP BladeSystem Solution Builder

RoHS 2002/95/EC COMPLIANT

EMULEX®

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