

# Generations Ahead

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

Streamlined installation and management, unrivaled scalability, and industry-leading virtualization support make the Emulex LP1105-BC dual-channel mezzanine card an ideal solution for IBM BladeCenter SAN environments. With powerful management tools and seamless integration into IBM Director, it 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.

## 4Gb/s FIBRE CHANNEL

Expansion Card Host Bus Adapter  
for the IBM BladeCenter

### 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 AutoPilot Installer®
- ⦿ Efficient administration via HBAnyware® for HBAs anywhere in the SAN
- ⦿ Common driver model eases management and enables upgrades independent of HBA firmware

# 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-X 1.0a and PCI 3.0

Fibre Channel class 2 and 3

## 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

## HARDWARE ENVIRONMENTS

IBM BladeCenter

## POWER AND ENVIRONMENTAL REQUIREMENTS

**Volts:** +3.3 and 5 VDC

**Operating temperature:** 0° to 52°C  
(32° to 126°F)

**Airflow required:** 400 lf/m

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

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

## ORDERING INFORMATION

The **Emulex LP1105-BC** Fibre Channel HBA is available from IBM with IBM Part Number: 39Y9186

Visit [www.ibm.com/bladecenter](http://www.ibm.com/bladecenter)

## 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, CRC, ECC and other advanced error checking ensure that data is safe from corruption.

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 CLI is available for scripting.

AutoPilot Installer simplifies the installation and configuration of drivers and management applications for multiple HBAs on Windows servers. A single installation of drivers and applications eliminates multiple reboots and ensures that each component is installed correctly and the HBA is ready to use.

Emulex's 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 IBM Director.



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