# ✕ EMULEX®

LightPulse®

# LPem12002E-S Sun Part No. SG-XPCIEFCGBE-E8-Z

## Multi-protocol ExpressModule
8Gb/s FC & GbE ExpressModule™ HBA for the Sun Blade 6000 Modular System

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

The Emulex LPem12002E-S, dual-channel 8Gb/s Fibre Channel and dual-port GbE ExpressModule Host Bus Adapter (HBA), is ideal for customers who require enterprise-level 8Gb/s Fibre Channel connectivity and high bandwidth Gigabit Ethernet performance in a compact, cost-effective design for Sun Blade™ 6000 server platform. The powerful HBA virtualization and performance capabilities of the LPem12002E-S makes it a flexible and scalable server connectivity platform needed in today's storage area networks (SANs) and traditional networking (LANs) implementations.

## Key Benefits

- Combined Fibre Channel and Ethernet ExpressModule HBA provides superior performance and enhances slot utilization for virtualized server environments

- Remote I/O provides installation and removal without tools and without disruption to ongoing blade server activity

- Superior quality and reliability ensures data availability

- Highly efficient installation streamlines deployment and reduces administration costs

- Broad interoperability simplifies deployment and upgrades of SAN hardware and software

## Key Features

- Dual-channel 8Gb/s Fibre Channel connectivity

- Dual-port Gigabit Ethernet connectivity, based on the Intel 82571 Gigabit Ethernet controller

- Exceptional Fibre Channel performance and full-duplex data throughput

- Provides flexible I/O connectivity to the Sun Blade 6000 Modular System

- Comprehensive HBA virtualization capabilities based on the N_Port ID Virtualization (NPIV) standard

- Centralized management of Emulex Fibre Channel HBA with a SAN via HBAnyware management application

- Common driver model eases management and enables upgrades independent of HBA firmware

8Gb/s
EXCELLENCE IN
THE ENTERPRISE ✕

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Proven design, architecture and interface LightPulse HBA's 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.

## SPECIFICATIONS

### Supported Operating Systems

· Solaris™ 10 SPARC® (x64/x86)
· Red Hat RHEL (64-bit)
· SUSE SLES 9/10 SP1 (64-bit)
· Windows Server 2003/2008 (32-bit and 64-bit)
· VMware ESX Server 3.5/4.0/3i (32-bit and 64-bit)

### Supported Server Platforms

· Sun Blade 6000 Modular System Utilizing PCI Express x8

### Key Applications

· Virtualization and consolidation
· High-performance computing
· Demanding data management

### Fibre Channel Specifications

· 8/4/2 Gb/s auto-negotiation
· Point-to-point (N_Port), arbitrated loop (NL_Port) and switched fabric (N_Port)
· Connector: SFF, LC-style small form factor fixed multimode optic
· ANSI Fibre Channel: SCSI-FCP, FCPH, FC-PH-2, FC-PH-3, FC-AL-2, FCFLA, FC-PLDA, FC-TAPE, FCP-2, FCGS-3, FC-FS

### Ethernet Specifications

· Intel® 82571EB Gigabit Ethernet Controller
· 10/100/1000 Mb/s autosensing Ethernet ports
· Connector: External RJ-45 connector for CAT 5 and higher
· IEEE 802.1Q VLAN/802.1D Priority Tagging and Quality of Service
· IEEE 802.3 compliant
· Jumbo Frames support for enhanced throughput
· Hardware assist for TCP/UDP checksums as well as packet parsing and interrupt coalescing

### Environment

· Volts: +12 VDC
· Power consumption: Typical 14.4 Watts
· Operating temperature: 0° to 40° C
· Airflow required: 5.0 CFM
· Storage temperature:
  - Operating: 0° to +40° C, non-condensing
  - Non-operating: -40° to +70° C, non-condensing
· Relative humidity: 10% to 93% non-condensing

### Agency Approvals

North America:
  - FCC Class A
  - UL/CSA Recognized
Europe:
  - CE Mark
  - EU RoHS compliant
  - TUV Bauart Certified
Japan:
  - VCCI Class A
China:
  - China RoHS Compliant

(Please refer to the product page on www.emulex.com for further details)

### Part Numbers

· Xoption—**SG-XPCIEFCGBE-E8-Z**
· Factory configured—**SG-PCIEFCGBE-E8-Z**

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