FUJITSU

Data Sheet
FUJITSU PFC EP Emulex LPe31000 / LPe31002 Fibre Channel Adapters

Dual- and single-port 16 Gbit PCIe 3.0 Host Bus Adapters by Broadcom

Fibre Channel Host Bus Adapters (HBA) enable data exchange over large distances and extend your existing FUJITSU server systems by including communication interfaces using high-speed communication technology. All connections are redundant and hot-pluggable.
The combination of hardware and software exemplifies the high-performance quality of communication.
The number of system restarts is reduced thanks to optimized software and extended error check functions help improve the integrity of your company's information.

PFC EP Emulex LPe31000 / LPe31002 Fibre Channel Adapters
The Emulex Gen 6 16 Gb Fibre Channel (FC) Host Bus Adapters (HBA) by Broadcom for PRIMERGY and PRIMEQUEST server systems are optimal Fibre Channel HBAs for virtualized, cloud and mission critical deployments. The PFC EP Emulex Gen 6 Fibre Channel HBAs LPe31000/31002 by Broadcom take performance to a new level with PCIe 3.0 support, data integrity capabilities and cloud scale reliability, and ease of use. Organizations looking to improve performance, protect against data corruption, and simplify operations of FC SANs in cloud or high performance environments can benefit from deploying the PFC EP LPe31000/31002.

The single and dual port FC HABs feature the

Emulex bullet-proof driver stack built on a heritage reaching back to the first generation Fibre Channel adapters resulting in rock-solid reliability in 16Gb/s, 8Gb/s and 4Gb/s environments. With over 1.6 million IOPS on a single port, they are ideally suited for Fibre Channel connectivity to flash storage arrays.

Compared to the previous generation, Emulex Gen 6 HBAs deliver 2x greater bandwidth— 6,400MBps (2 ports 16G, full duplex), less than half the latency, and support an industry-leading 1.6 million IOPS on a single port, ensuring SLAs are met.

Main Features	Benefits
Scalable bandwidth ■ Faster Flash. Better Virtualization.	■ Designed to address the demanding performance of modern networked storage systems
High performance throughput ■ Accelerate	■ Delivers unparalleled performance and more efficient port utilizationby applying all ASIC resources to any port that needs it
Reliability and guaranteed network performance ■ Protect	■ Enhanced security via the new secure firmware update feature which protects and ensures the authenticity of device firmware
Low latency ■ Reduce latency	■ Utilize high performance and low latency solid state storage drives for caching and persistent storage as well as hard disk drive arrays
Manage network connectivity with one tool ■ Control	■ The flagship OneCommand® Manager enterprise-class management application features a multiprotocol, cross-platform architecture that provides centralized management of all current and previous generations of Emulex FC HBAs

Technical details

Controller Silicon	Emulex XE501
Controller type	Fibre Channel Host Bus Adapter
Connector type	LC-style
Number of ports	1
	2
Auto Negotiation support	Yes
Bus interface	PCIe 3.0 x8
Bus transfer rate	8GT/s
LEDs	2 LEDs per port (yellow and green)
Standards	- Current ANSI/IETF Standards: FC-PI-4; FC-PI-5; FC-PI-6; FC-FS-3; FC-LS-2; FC-GS-6; FC-DA; FC-DA2; FCP-4; SPC-4; SBC-3; SSC-3; SSC-4 - Legacy ANSI/IETF standards: FC-PH; FC-PH-2; FC-PH-3; FC-PI; FC-PI-2; FC-FS; FC-GS-2/3/4/5; FCP-2/3; FC-HBA; FC-TAPE; FC-MI; SPC-3; SBC-2; SSC-2; SSC-3 - PCIe base spec 3.0 - PCIe card electromechanical spec 3.0 - Fibre Channel Class 3 - PHP hot plug-hot swap
Technology	Optics: 16 Gb/s short wave lasers with LC type connectors. Data rates: 14.025 Gb/s (16GFC); 8.5 Gb/s (8GFC); 4.25 Gb/s (4GFC) automatically negotiated
Supported cable length	Operating at 16Gb - OM4 (Multi-Mode 50/125µm, 4700 MHz*km)　　125m - OM3 (Multi-Mode 50/125µm, 2000 MHz*km)　　100m - OM2 (Multi-Mode 50/125µm, 500 MHz*km)　　35m Operating at 8Gb - OM4 (Multi-Mode 50/125µm, 4700 MHz*km)　　190m - OM3 (Multi-Mode 50/125µm, 2000 MHz*km)　　150m - OM2 (Multi-Mode 50/125µm, 500 MHz*km)　　50m
FC Controller notes	the controller is equivalent to the original Emulex HBA LPe31000-Series
Fibre Channel interface	MMF

Order code	Product name (vendor)	Height of bracket	Number of ports	Related product
S26361-F5596-E1	LPe31000-M6-F	Full Height (FH)	1	PRIMERGY Server
S26361-F5596-E201	LPe31000-M6-F	Low Profile (LP)	1	PRIMERGY Server
S26361-F5596-E202	LPe31002-M6-F	Low Profile (LP)	2	PRIMERGY Server
S26361-F5596-E2	LPe31002-M6-F	Full Height (FH)	2	PRIMERGY Server
S26361-F5596-L501	LPe31000-M6-F	Full Height / Low Profile	1	PRIMERGY Server
S26361-F5596-L502	LPe31002-M6-F	Full Height / Low Profile	2	PRIMERGY Server

Environment

Power consumption	single: typical 9.3W; max 11.6 W dual: typical 11.1W; max 13.3 W
Temperature (operating)	0 - 55 °C
Storage temperature	-40 - 70 °C

Compliance

Compliance notes	According to the corresponding system
Compliance link	https://sp.ts.fujitsu.com/sites/certificates

More information

Fujitsu products, solutions & services

In addition to Fujitsu with PFC EP Emulex LPe31000 / LPe31002 Fibre Channel Adapters, Fujitsu provides a range of platform solutions. They combine reliable Fujitsu products with the best in services, know-how and worldwide partnerships.

Fujitsu Portfolio
Build on industry standards, Fujitsu offers a full portfolio of IT hardware and software products, services, solutions and cloud offering, ranging from clients to datacenter solutions and includes the broad stack of Business Solutions, as well as the full stack of Cloud offering. This allows customers to leverage from alternative sourcing and delivery models to increase their business agility and to improve their IT operation's reliability.

Computing Products
www.fujitsu.com/global/products/computing/

Software
www.fujitsu.com/software/

More information

Learn more about Fujitsu PFC EP Emulex LPe31000 / LPe31002 Fibre Channel Adapters, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.
www.fujitsu.com/primergy

Fujitsu green policy innovation

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Using our global know-how, we aim to contribute to the creation of a sustainable environment for future generations through IT.
Please find further information at http://www.fujitsu.com/global/about/environment

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