

Data Sheet

Emulex LPe16000 / LPe16002 Fibre Channel cards

LPe16000 single port / LPe16002 dual port 16 Gbit PCIe 3.0 Host Bus Adapters

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.

LPe16000 / LPe16002 Fibre Channel cards

The new 16 Gb/s Fibre Channel Host Bus Adapter (HBA) for the PRIMERGY server is an optimal Fibre Channel HBA for virtualized, cloud and mission critical deployments. The Fibre Channel HBA LPe16000/16002 takes 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 LPe16000/16002.

The LightPulse single and dual port LPe16000/16002 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 almost 1.2 million IOPS, they are ideally suited for Fibre Channel connectivity to solid state disks (SSDs) and new multi-core processors.

The new PCI Express (PCIe) 3.0 LPe16000/16002 16 Gb/s Fibre Channel Host Bus Adapters (HBA) provide outstanding input/output operations per second (IOPS) performance plus lightning fast response times and 4x better IOPS performance per watt making it the clear choice for the toughest virtualized, cloud and mission critical deployments.



Main Features	Benefits
<ul style="list-style-type: none"> ■ Support for 16 Gb/s, 8 Gb/s & 4 Gb/s Fibre Channel devices ■ Comprehensive virtualization capabilities with support for N_Port ID Virtualization (NPIV) and Virtual Fabric ■ BlockGuard® ready - ensure end-to-end data integrity ■ Easy deployment of new firmware with minimal server reboots ■ Efficient centralized administration of Emulex HBAs via powerful management tools 	<ul style="list-style-type: none"> ■ Provide superior performance for the enterprise ■ Integrate seamlessly into existing SANs ■ Support IT server consolidation and energy conservation initiatives ■ Assure data availability and data integrity ■ Improve IT staff productivity through simplified deployment and management

Technical details

Technical details

Controller Silicon	Emulex XE201
Controller type	Fibre Channel Host Bus Adapter
Connector type	LC-style
Number of ports	1 2
Data transfer rate(s)	4 Gbit/s; 8 Gbit/s; 16 Gbit/s
Auto Negotiation support	Yes
Bus interface	PCIe 3.0 x8
Bus transfer rate	8GT/s
LEDs	2 LEDs per port (yellow and green)
Standards	<ul style="list-style-type: none"> > Current ANSI/ITF Standards: FC-PI-4; FC-PI-5; FC-FS-2 with amendment 1; FC-AL-2 with amendments 1 and 2; FC-LS-2; FC-GS-6; FC-DA; FC-SP-2; FCP-4; FC-MJS; FC-SB-4; FC-SP; SPC-4; SBC-3; SSC-3; RFC4338 > Legacy ANSI/ITF standards: FC-PH; FC-PH-2; FC-PH-3; FC-PI; FC-PI-2; FC-FS; FC-AL; FC-GS-2/3/4/5; FCP; FCP-2; FC-SB-2; FC-FLA; FC-HBA; FC-PLDA; FC-TAPE; FC-MI; SPC-3; SBC-2; SSC-2; RFC2625 > PCIe base spec 3.0 > PCIe card electromechanical spec 3.0 > Fibre Channel class 2 and 3 > PHP hot plug-hot swap
Technology	Optics: 16 Gb/s short wave lasers with LC type connectors
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 LightPulse LPe16000B the controller is equivalent to the original Emulex HBA LightPulse LPe16002B

Order code	Product name (vendor)	Height of bracket	Number of ports	Related product
MC-0JFC71	LPe16000B	Low Profile (LP)	1	PRIMEQUEST Server
MC-0JFC72	LPe16000B	Full Height (FH)	1	PRIMEQUEST Server
MC-0JFC81	LPe16002B	Low Profile (LP)	2	PRIMEQUEST Server
MC-0JFC82	LPe16002B	Full Height (FH)	2	PRIMEQUEST Server
MCX0JFC71	LPe16000B	Low Profile (LP)	1	PRIMEQUEST Server
MCX0JFC72	LPe16000B	Full Height (FH)	1	PRIMEQUEST Server
MCX0JFC81	LPe16002B	Low Profile (LP)	2	PRIMEQUEST Server
MCX0JFC82	LPe16002B	Full Height (FH)	2	PRIMEQUEST Server
S26361-F4994-E1	LPe16000B	Full Height (FH)	1	PRIMERGY Server
S26361-F4994-E201	LPe16000B	Low Profile (LP)	1	PRIMERGY Server
S26361-F4994-E202	LPe16002B	Low Profile (LP)	2	PRIMERGY Server
S26361-F4994-E2	LPe16002B	Full Height (FH)	2	PRIMERGY Server
S26361-F4994-L501	LPe16000B	Full Height / Low Profile	1	PRIMERGY Server
S26361-F4994-L502	LPe16002B	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 LPe16000 / LPe16002 Fibre Channel cards, 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 Server LPe16000 / LPe16002 Fibre Channel cards, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website. www.fujitsu.com/primergy

Fujitsu green policy innovation

Fujitsu Green Policy Innovation is our worldwide project for reducing burdens on the environment.

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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