

# Data Sheet FUJITSU PFC QLE2690 / QLE2692 Fibre Channel Adapters

QLE2690 single port / QLE2692 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.

#### PFC QLE2690 / QLE2692 Fibre Channel Adapters

The enhanced Gen5 16 Gb/s Fibre Channel Host Bus Adapters (HBA) QLE2690 and QLE2692 for the PRIMERGY & PRIMEQUEST servers are ideal for virtualized environments and transaction intensive applications. The adapters support the latest PCle 3.0 standard for lower cooling and power costs. In addition, QLogic StorFusion technology delivers streamlined provisioning, guaranteed quality of service (QoS), and improved resiliency while addressing the needs of IT organizations that require reliability, integrated management, and quaranteed network performance.

The adapters are backward compatible with existing 4Gb and 8Gb Fibre Channel infrastructure, leveraging existing SAN investments. QLogic's

Enhanced Gen 5 solution offers higher perport performance (~650K IOPS) with low power consumption. The isolated port architecture ensures reliable and consistent performance. QLogics "QConverge Console™" provides a simplified and flexible management oppurtunity, including the support of third-party management tools, like a vCenter™ pluqin for VMware®.

Another point of cost reduction is the QLogic's "StarPower™" technology to gain the maximum power efficiency. This feature will ensure that the PCle host bus link uses the minimal number of PCle lanes, while continuing to maintain the highest level of Fibre channel performance.

Upto 1.3 million IOPS are optimally prepared for Fibre Channel connectivity to solid state disks (SSDs) and new multi-core processors for best storage application performance in virtualized and non-virtualized deployments.



#### Main Features

- Support for 1 or 2 port 16 Gb/s Fibre Channel devices
- High performance throughput
- QLoigc STORFUSION TECHNOLOGY
- Over 1.3 million IOPS
- Using the fewest PCI Express® lanes in PCIe Gen3 environments

#### Benefits

- Provide up to high performance 32 Gb/s aggregate bandwidth
- 16Gbps full-duplex line rate per port (maximum)
- Highest level of reliabilty
- Low latency in high transaction intensive applications and virtualized environments
- Decreased power and cooling costs

Page 1 / 4 www.fujitsu.com/primergy

## Technical details

Technical details				
Controller type	Fibre Channel Host Bus Adapter			
Connector type	LC-style			
Operating system	Information to released operating systems can be found in the server datasheets. Details can be found in the released drivers list on the support portal.			
Released drivers list link	http://support.ts.fujitsu.com/Download/Index.asp			
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	3 LEDs per port (amber, green and amber) indecating port speed			
Standards	Throughput  > 16Gb/sec full-duplex line rate p Logins  > Support for 2048 concurrent log Port Virtualization  > NPIV (N_Port ID Virtualization) Compliance  > SCSI-3 Fibre Channel Protocol (S  > Fibre Channel Tape (FC-TAPE) P  > SCSI Fibre Channel Protocol-2 (FC-TAPE) P  > SCSI Fibre Channel FC Generic S	gins and 2048 active exchanges  SCSI-FCP)  rofile	on FC Generic Services	(FC-GS-3)
Technology	Optics: 16 Gb/s short wave lasers			
Data transfer rate up to	16 Gbit/s			
Supported cable length	Operating at 16Gb - OM4 (Multi-Mode 50/125µm, 4' - OM3 (Multi-Mode 50/125µm, 20' - OM2 (Multi-Mode 50/125µm, 50' Operating at 8Gb - OM4 (Multi-Mode 50/125µm, 4' - OM3 (Multi-Mode 50/125µm, 20' - OM2 (Multi-Mode 50/125µm, 50'	000 MHz*km) 100m 00 MHz*km) 35m 700 MHz*km) 190m 000 MHz*km) 150m		
FC Controller notes	The controllers are equivalent to			
Order code	Product name (vendor)	Height of bracket	Number of ports	Related product
MC-0JFCD1	QLE2690	Low Profile (LP)	1	PRIMEQUEST Server
MC-0JFCD2	QLE2690	Full Height (FH)	1	PRIMEQUEST Server
MC-0JFCE1	QLE2692	Low Profile (LP)	2	PRIMEQUEST Server
MC-0JFCE2	QLE2692	Full Height (FH)	2	PRIMEQUEST Server
MCX0JFCD1	QLE2690	Full Height / Low Profile	1	PRIMEQUEST Server
MCX0JFCE1	QLE2692	Full Height / Low Profile	2	PRIMEQUEST Server
S26361-F5580-E1	QLE2690	Full Height (FH)	1	PRIMERGY Server
S26361-F5580-E201	QLE2690	Low Profile (LP)	1	PRIMERGY Server
S26361-F5580-E202	QLE2692	Low Profile (LP)	2	PRIMERGY Server
S26361-F5580-E2	QLE2692	Full Height (FH)	2	PRIMERGY Server
S26361-F5580-L501	QLE2690	Full Height / Low Profile	1	PRIMERGY Server
S26361-F5580-L502	QLE2692	Full Height / Low Profile	2	PRIMERGY Server
Environment				
Power consumption	QLE2690 10,7W (max) 8,6W (t QLE2692 11,5W (max) 9,3W (t			
Temperature (operating)	0 - 55 °C			

Page 2 / 4 www.fujitsu.com/primergy

Environment		
Storage temperature	-20 - 70 °C	
Compliance		
Compliance notes	According to the corresponding system	
Compliance link	http://globalsp.ts.fujitsu.com/sites/certificates	

Page 3 / 4 www.fujitsu.com/primergy

### More information

#### Fujitsu OPTIMIZATION Services

In addition to Fujitsu with PFC QLE2690 / QLE2692 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 QLE2690 / QLE2692 Fibre Channel Adapters, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website. http://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/qlobal/about/environment



#### Copyrights

All rights reserved, including intellectual property rights. Changes to technical data reserved. Delivery subject to availability. Any liability that the data and illustrations are complete, actual or correct is excluded. Designations may be trademarks and/or copyrights of the respective manufacturer, the use of which by third parties for their own purposes may infringe the rights of such owner.

For further information see http://www.fujitsu.com/fts/resources/navigation/terms-of-use.html

©2016 Fujitsu Technology Solutions GmbH

#### Disclaimer

Technical data is subject to modification and delivery subject to availability. Any liability that the data and illustrations are complete, actual or correct is excluded. Designations may be trademarks and/or copyrights of the respective manufacturer, the use of which by third parties for their own purposes may infringe the rights of such owner.

Contact FUJITSU LIMITED

Website: www.fujitsu.com 2017-01-01 CE-EN All rights reserved, including intellectual property rights. Changes to technical data reserved. Delivery subject to availability. Any liability that the data and illustrations are complete, actual or correct is excluded.

Designations may be trademarks and/or copyrights of the respective manufacturer, the use of which by third parties for their own purposes may infringe the rights of such owner.

For further information see http://www.fujitsu.com/fts/resources/navigation/terms-of-use.html ©2016 Fujitsu Technology Solutions GmbH