Data Sheet
FUJITSU PLAN EP QL45611 100Gb QSFP28

Single-port 100Gbit/s PCIe 3.0 Network Interface Card

Ethernet cards enable data exchange between all the devices connected in a local network (LAN). A networked IT infrastructure that functions well is of great significance when managing and controlling critical business processes in a company. The wide range of complex information transported across the network relies on fast and reliable data processing by the network cards.

PLAN EP QL45611 100Gb QSFP28
The FUJITSU PLAN EP QL45611 100GbE is based on Marvell's® FastLinQ™ QL45611 HLCU (Single port) Network Interface Card. QL45611 Network Controller with 100Gb/s Ethernet connectivity addresses virtualized infrastructure challenges, delivering high performance to various demanding markets and applications.

Providing true hardware-based I/O isolation with unmatched scalability and efficiency, achieving the most cost-effective and flexible solution for Web 2.0, Cloud, data analytics, database, and storage platforms. 100Gb Ethernet (100GbE) enables network bandwidth to be cost-effectively scaled in support of next-generation server and storage solutions residing in Cloud and Web-scale data center environments.

FUJITSU PLAN EP QL45611 100GbE Network Interface Cards deliver advanced Ethernet solutions designed for FUJITSU Server PRIMERGY and PRIMEQUEST systems with Microsoft Windows Server 2016, Red Hat Enterprise Linux 7, SuSE Linux Enterprise Server 12, VMware ESXi 6.5.

Main Features	Benefits
Scalable performance ■ Industry's powerful 100G Ethernet network adapter with 4X25G compatibility	■ This Marvell(TM) FastLinQ(R) RDMA RoCE Ethernet network adapter is backward compatible with existing 25GbE installations while allowing an upgrade to 100GbE infrastructure; It provides true hardware-based I/O isolation with unmatched scalability and efficiency
Flexible technology support ■ RoCE RDMA - Remote Direct Memory Access.	■ Delivers RoCE v2 technologies and uses a single driver architecture; Recommended as a discrete PCIe adapter for high-density servers.
Efficient networking ■ Intelligent Hardware Offload Adapter with iSCSI - iBFT.	■ Increase VM density and accelerate multitenant networks with full offload for tunneling protocols; iSCSI Boot will be commercially supported once the server UEFI is implemented
Simplified Management ■ Designed for UEFI	■ Works best on UEFI (Unified Extensible Firmware Interface) PRIMERGY and PRIMEQUEST servers; Supports legacy boot as well, however Fujitsu's ServerView Update Tools and iRMC network inventory are not supported on legacy

Technical details

Technical details

Controller Silicon	Cavium QLogic FastLinQ(TM) QL45611 Single-Port 100 Gigabit Ethernet Controller
Released drivers list link	http://support.ts.fujitsu.com/Download/Index.asp
Number of Connectors	1
Number of external ports	1
Auto Negotiation support	Yes
Bus type	PCIe 3.0
Bus transfer rate	8GT/s
Bus width	x16
Network protocol and standards compatibility	IEEE 802.1q VLAN IEEE 802.1Qaz Enhanced Transmission Selection (ETS) IEEE 802.1Qbb Priority Flow Control (PFC) IEEE 802.3x Flow Control IPv4, IPv6 and mixed IPv4/IPv6 network protocols
HW Virtualization	SR-IOV: up to 240 virtual functions, 120 per port, NPAR: up to 16 physical functions, 8 per port
Interrupt Levels	MSI-X
WoL	No
Virtualization	Server Virtualization - Windows Server 2016 Hyper-V Virtual Machine Queue (VMQ) and Virtual Machine Multi-Queue (VMMQ) - SR-IOV Network Virtualization Offload - VXLAN - NVGRE
Teaming	Windows Server 2016 Teaming Driver
Flow Control	IEEE 802.3-2012 and Ethernet flow control
Offloading	- TCP Stateless Offloads (include checksum, TSO, TSS, RSS, and RSC) - TX/RX IP, TCP & UDP checksum offload (IPv4, IPv6) capabilities
Data transfer rate up to	100 Gbit/s

Supported Interface Modules / Cables

Order code	Application	Type / mode	Connector / cable Length
S26361-F4052-E701	Ethernet 100 Gbit/s	QSFP28 / MMF (SWL)	up to 100m
S26361-F4052-E801	Ethernet 100 Gbit/s	QSFP28 / SMF (LWL)	up to 500m
S26361-F4052-L701	Ethernet 100 Gbit/s	QSFP28 / MMF (SWL)	up to 100m
S26361-F4052-L801	Ethernet 100 Gbit/s	QSFP28 / SMF (LWL)	up to 500m
Description optional cable	100G AOC: - Cisco QSFP-100G-AOCxM (x= 1, 2, 3, 5, 7, 10, 15, 20, 25, 30) m length QSFP28. - Mellanox MFA1A00-Cxxx (xxx= 3, 5, 10, 15, 20, 30) m length QSFP28; note: No Smart AN for connecting QL45611 to each other directly. 100G DAC: - Cisco QSFP-100G-CU-xM (x=1, 2, 3, 5) m length 100GBase QSFP Copper Cable. - Mellanox MCP1600-Cxxx (xxx= 0.5, 1, 1.5, 2, 2.5, 3) m length QSFP Copper Cable. - Splitting 4x25G tested with these cables Optics: - Mellanox MMA1B00-C100D QSFP28 SR4 - Mellanox MMS1C10-CM QSFP28 PSM4		

Environment

Power consumption	Single-Port QSFP28 with passive DAC 100G or DAC 100G to 4x25G splitter cables: 25W Single-Port QSFP28 with active AOC 100G cables: 25W Single-Port QSFP28 with QSFP28 optical transceivers: 25 W
Temperature (operating)	0 - 55 °C
Storage temperature	-40 - 65 °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 PLAN EP QL45611 100Gb QSFP28, 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 PLAN EP QL45611 100Gb QSFP28, 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/global/about/environment

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