Data Sheet
FUJITSU PLAN EP QL41134 4X 10G SFP+.

Quad-port 10Gbit/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 QL41134 4X 10G SFP+.
The Fujitsu PLAN EP QL41134 4X 10G SFP+ PCIe adapter is based on Marvell's® FastLinQ™ QL41134 HLCU Quad Port RDMA Ethernet Network Interface Adapter. This intelligent Ethernet Network adapter uses Marvell's eights generation technology to deliver true 10Gb per second (10Gbps) Ethernet performance per port. Integrated, advanced networking eliminates I/O bottlenecks and conserves CPU cycles.

Compared to other 10GbE solutions, NPAR technology unique to this adapter provides switch-independent network partitioning. Fujitsu PLAN EP QL41134 Quad-Port 10GbE Network Interface Adapters deliver advanced Ethernet solutions designed for FUJITSU Server PRIMERGY systems with general purpose operating systems.

Main Features	Benefits
Scalable performance ■ Industry's most powerful 10G Ethernet network adapter with both iWARP and RoCE RDMA	■ Delivers full line-rate 10GbE performance across both ports.10G/1G Autonegotiation. Boosts host CPU efficiency with hardware offloads for GRE, NVGRE, and VXLAN tunnels. NPAR is unique to this adapter and allows network partitioning
Flexible technology support ■ Universal RDMA— iWARP and RoCE Remote Direct Memory Access	■ Delivers choice and flexibility with concurrent support for RoCE v2 and iWARP technologies; Recommended as a discrete PCIe adapter for scale-up of Fujitsu's default DynamicLoM iWARP adapter capabilities
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
Connectivity ■ NPAR and General Purpose Operating System Support	■ Enables provisioning of 10GbE ports for greater deployment flexibility through switch-independent NIC partitioning, Microsoft Windows Server, VMware ESXi, SLES, and RHEL
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	Marvell(R) FastLinQ(TM) QL41134 10G Quad-Port Ethernet Controller
Controller type	Ethernet Ctrl.
Connector type	SFP+
Released drivers list link	http://support.ts.fujitsu.com/Download/Index.asp
Number of ports	4
Number of Connectors	4
Number of external ports	4
Data transfer rate(s)	10 Gbit/s; 1 Gbit/s
Auto Negotiation support	No
Bus interface	PCIe 3.0 x8
Bus type	PCIe 3.0
Bus transfer rate	8GT/s
Bus width	x8
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

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Virtualization	Server Virtualization - Windows Server Hyper-V Virtual Machine Queue (VMQ) and Virtual Machine Multi-Queue (VMMQ) - SR-IOV Network Virtualization Offload - VXLAN - NVGRE
Teaming	Windows Server Teaming Driver
Flow Control	IEEE 802.3-2012 and Ethernet flow control
iSCSI support	Yes
Additional features	Microsoft SDDC PREMIUM and STANDARD Logo Qualifiers for e.g., Storage Spaces Direct
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	10 Gbit/s

Order code	Product Name	Height of bracket	Number of ports	Related product
MC-0JXF51	Cavium FastLinQ® QL41134HLCU Intelligent Ethernet Adapter 10G SFP+ Quad-Port	Low Profile (LP)	4	PRIMEQUEST Server
MCX0JXF51	Cavium FastLinQ® QL41134HLCU Intelligent Ethernet Adapter 10G SFP+ Quad-Port	Low Profile (LP)#Full Height (FH)	4	PRIMEQUEST Server

Supported Interface Modules / Cables

Order code	Application	Type / mode	Connector / cable Length
S26361-F3986-E3	Ethernet 10 Gbit/s	SFP+ / MMF (SWL)	LC-style / up to 400m
S26361-F3986-L3	Ethernet 10 Gbit/s	SFP+ / MMF (SWL)	LC-style / up to 400m
S26361-F3986-E4	Ethernet 10 Gbit/s	SFP+ / SMF (LWL)	LC-style / up to 10km
S26361-F3986-L4	Ethernet 10 Gbit/s	SFP+ / SMF (LWL)	LC-style / up to 10Km
S26361-F3986-E5	Ethernet 10 Gbit/s ; 1 Gbit/s	SFP+ / MMF (SWL)	LC-style / up to 400m
S26361-F3986-L5	Ethernet 10 Gbit/s ; 1 Gbit/s	SFP+ / MMF (SWL)	LC-style / up to 400m
S26361-F3986-E6	Ethernet 10 Gbit/s ; 1 Gbit/s	SFP+ / SMF (LWL)	LC-style / up to 10km
S26361-F3986-L6	Ethernet 10 Gbit/s ; 1 Gbit/s	SFP+ / SMF (LWL)	LC-style / up to 10km
S26361-F3989-E600	Ethernet 10 Gbit/s	SFP+ Twinax Cable / active	SFP+ / 2m or 5m
S26361-F3989-L102	Ethernet 10 Gbit/s	SFP+ Twinax Cable / active	SFP+ / 2m
S26361-F3989-L105	Ethernet 10 Gbit/s	SFP+ Twinax Cable / active	SFP+ / 5m
S26361-F3989-L110	Ethernet 10 Gbit/s	SFP+ Twinax Cable / active	SFP+ / 10m
Description optional cable	10Gbit/s optical transceiver module for MMF (S26361-F3986-E3, -L3 and MC-0JXE51, MCX0JXE51): - OM1 (Multi Mode Fiber 62.5/125µm, 200 MHz*km) up to 33m - OM2 (Multi Mode Fiber 50.0/125µm, 500 MHz*km) up to 82m - OM3 (Multi Mode Fiber 50.0/125µm, 2000 MHz*km) up to 300m - OM4 (Multi Mode Fiber 50.0/125µm, 4700 MHz*km) up to 400m 10Gbit/s optical transceiver module for SMF (S26361-F3986-E4, -L4): - OS1 (Single Mode Fiber 9µm) up to 10kn: 10Gbit/s active twinax cable: - Amphenol 2m, 5m, 10m (S26361-F3989-L102, -L105, -L110) - Brocade 1m, 3m, 5m (S26361-F3873-L501, -L503, -L505) - Cisco 7m, 10m (S26361-F4571-E107, -L107, -E110, -L110) 10Gbit/s passive twinax cable: - Cisco 1m, 3m, 5m (S26361-F4571-E101, -L101, -E103, -L103, -E105, -L105)		

Environment

Power consumption	typ. 24 W, max. 27 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 QL41134 4X 10G SFP+., 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 QL41134 4X 10G SFP+., 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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