Data Sheet
FUJITSU PCNA EP QL41262 2X 25G SFP28

Dual-port Dual-rate 10/25Gbit/s PCIe 3.0 Network Interface Card

A Converged Network Adapter (CNA) is a Network Adapter that supports both the Ethernet and Fibre Channel standards. It provides connectivity at various transfer rates to Ethernet networks and also connects to Fibre Channel storage area networks (SANs) using Fibre Channel over Ethernet (FCoE) and Data Center Bridging (DCB). The adapter consolidates Ethernet data and FCoE storage traffic, reducing the number of cables and adapters needed for a server. The CNA provides 2 independent physical functions per port which can both be used at the same time for FC and Ethernet. Each port of the device provides separate NIC and HBA functions to the operating system or hypervisor. FC and network traffic are transmitted simultaneously over a common cable to a DCB-enabled FCoE switch which segregates Ethernet and Fibre Channel I/O to the appropriate network.

PCNA EP QL41262 2X 25G SFP28
The Fujitsu PCNA EP QL41262 is based on Marvell's® FastLinQ™ QL41262 HLCU Dual Port RDMA Converged Network Interface Adapter. This intelligent Converged Ethernet Network adapter uses Marvell's eights generation technology to deliver true 10/25Gb per second (10/25Gbps) Ethernet performance per port. Integrated, advanced networking eliminates I/O bottlenecks and conserves CPU cycles. 25Gb Ethernet (25GbE) 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. The 25GbE results in a single-lane connection similar to existing 10GbE technology—but it delivers 2.5 times greater bandwidth.

Compared to 40GbE solutions, 25GbE technology provides superior switch port density by requiring just a single switch lane compared to the 40GbE with four lanes. Fujitsu PCNA EP QL41262 Dual-Port 10/25GbE Network Interface Cards deliver advanced Ethernet solutions designed for Fujitsu Server PRIMERGY systems with general purpose operating systems.

Main Features	Benefits
Scalable performance ■ Industry's most powerful converged Ethernet network adapter with iSCSI hardware offload and FCoE capabilities for Fibre Channel over Ethernet	■ SFP+, SFP28, 10G DAC, 25G DAC connectivity options supported with either SFP+ or SFP28 optical transceivers for optical fibers, or 10G Twinax or 25G DAC (Direct Attached Copper) cables. Supports 25 Gbps line rate with 100G/4x25G Splitter DAC cables. Boosts host CPU efficiency with hardware offloads for GRE, NVGRE, and VXLAN tunnels. NPAR is unique to this adapter and allows network partitioning, successor to the UMC feature known from PCNA EP OCe14102 adapters.
Flexible technology options ■ Universal RDMA— iWARP and RoCE Remote Direct Memory Access	■ The adapter is backward compatible with existing10GbE installations while allowing an upgrade to 25GbE infrastructure; Delivers choice and flexibility with concurrent support for RoCE v2 and iWARP technologies
Flexible networking ■ iSCSI - Intelligent Hardware Offload Adapter	■ Increase VM density and accelerate multitenant networks with full offload for tunneling protocols
Connectivity ■ FCoE - Fibre Channel over Ethernet	■ Supports FCoE; Configuration works through the adapter driver's user interface
Simplified management ■ Designed for UEFI. NPAR and General Purpose Operating System Support	■ 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

Controller Silicon	Marvell FastLinQ(TM) QL41262 10/25 Dual-Port Gigabit Ethernet Controller
Released drivers list link	http://support.ts.fujitsu.com/Download/Index.asp
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
Number of Connectors	2
Number of external ports	2
Auto Negotiation support	Yes
Bus type	PCIe 3.0
Bus transfer rate	8GT/s
Bus width	x8
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

Technical details

Teaming	Windows Server 2016 Teaming Driver
Flow Control	IEEE 802.3-2012 and Ethernet flow control
Additional features	Microsoft SDDC PREMIUM and STANDARD Logo Qualifiers for Storage Spaces Direct
Offloading	- TCP Stateless Offloads (include checksum, TSO, TSS, RSS, and RSC) - TX/RX IP, TCP & UDP checksum offload (IPv4, IPv6) capabilities

Supported Interface Modules / Cables

Order code	Application	Type / mode	Connector / cable Length
S26361-F4055-E701	Ethernet 25 Gbit/s	MMF (SWL)	LC-style / up to 100m
S26361-F4055-L701	Ethernet 25 Gbit/s	MMF (SWL)	LC-style / up to 100m
S26361-F4054-E701	Ethernet 25 Gbit/s	MMF (SWL)	LC-style / up to 100m
S26361-F4054-L701	Ethernet 25 Gbit/s	MMF (SWL)	LC-style / up to 100m
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-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) 25G Direct Attach Copper DAC - Cisco 100GBase QSFP to 4xSFP25G Passive Copper Splitter Cable 1m, 2m, 3m (Cisco P/N: QSFP-4SFP25G-CU1M, QSFP-4SFP25G-CU2M, QSFP-4SFP25G-CU3M)

Environment

Power consumption	Dual Port SFP+ 10GBase-SR typ. 16 W, max. 18 W Dual Port SFP+ 10GBase-LR typ. 16 W, max. 18 W Dual Port SFP+ 10G Twinax typ. 16 W, max. 18 W Dual Port SFP28 25G typ. 16 W, max. 18W Dual Port SFP28 25G DAC typ. 16 W, max. 18 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 PCNA EP QL41262 2X 25G SFP28, 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 PCNA EP QL41262 2X 25G SFP28, 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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