Data Sheet
FUJITSU Network Adapter EmulexOCe14102-NT

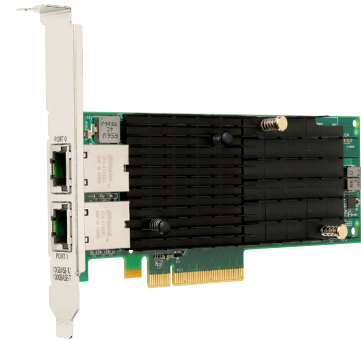## Dual-port with 10GbE Network Adapter

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. The cards offers at least one Ethernet interface which is designed for the respective network types and network architectures. The bus interface links the network card with the server.

Network Adapter EmulexOCe14102-NT

As a member of the OCe14000 network adapter family the "Fujitsu OCe14102-NT" offers a high performance networking solution, which perfectly fits for virtualization, enterprise cloud and datacenter tasks. The difference - in contrast to the Emulex OCe14102 adapter - is the use of the RJ45 connector type. This connector is compatible with CAT6/6A/7/7A twisted pair cabling standards for a maximum 10Gb strong Ethernet connectivity at very low costs. The NIC only adapter OCe14102-NT focusses on cloud functions; it can thus not handle the storage off-load functions (iSCSI and FCoE) of a Converged Network Adapter.

The OCe14102-NT from Emulex is a high availability dual-port adapter combined with many scalability options as well as massive bandwidth speeds in long-established and field-proven

networking technology. This includes a rich set of features, for example enhanced Single-Root I/O Virtualization (SR-IOV) for cost-effective virtualization, RDMA over Converged Ethernet v2 (RoCE) which guarantees a direct memory movement of server data over the internet in a way that is more performant than normal application communication. SMB Direct (SMB over RDMA) provides an improvement of the SMB protocol for remote storage and ensures better performance values like RoCE. Moreover, NIC port partitioning for dividing physical ports into multiple virtual ports and other next generation overlay technologies acts as a flexible platform to overachieve virtual machines requirements in public or hybrid enterprise cloud environments.

Main Features	Benefits
■ Superior network scalability - 10GbE bandwidth on common software platform	■ Maximizes server hardware ROI with high virtual machine density
■ RDMA over Converged Ethernet v2 (Routable RoCE) Support	■ Extends the RoCE network protocol with internet routing functionality. Lays on previous benefits as higher throughput at lower latency and a low utilization of the system processor through memory level processing.
■ Powerful Overlay Networking offloads (NVGRE and VXLAN)	■ Address the requirements of virtual machine (VM) mobility and massive scaling of Layer 2 subnets inside private or hybrid cloud infrastructures
■ Stateless TCP/IP offloads	■ Provides the bandwidth needed for slot constrained server platforms
■ Common technology with Dynamic LoM	■ Same driver and management support as for LOM on new dual socket M1 server generation

Technical details

Technical details	
Controller Silicon	Emulex Engine XE100
Controller type	Ethernet Ctrl.
Connector type	10Gbit/s Eth (RJ45)
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	2
Data transfer rate(s)	10 Gbit/s
Bus interface	PCIe 3.0 x8
Bus transfer rate	8GT/s
LEDs	2 LED per port Green: Blink = Activity Off = No activity Amber: On = Link up Off = Link down
HW Virtualization	SR-IOV support (up to 64 virtual functions per port for NIC) Overlay Network Virtualization (NVGRE & VXLAN) Universal Multi-Channel for Port Partitioning
Interrupt Levels	MSI-X
Teaming	all teaming functions provided by the OS
Remote boot support	PXE 2.1
Additional features	RoCE and RoCE v2 (RDMA over Converged Ethernet) observe OS dependencies
Offloading	Powerful hardware offload for: - Overlay networks (NVGRE and VXLAN) - Stateless TCP

Standards	**Ethernet:**
	- IEEE 802.3an 10GBASE-T
	- IEEE 802-3ab 1000BASE-T
	- IEEE 802.1Q virtual LANs (VLAN)
	- IEEE 802.3x Flow control with Pause frames
	- IEEE 802.1Qbg Edge Virtual Bridging
	- IEEE 802.1Qaz Enhanced Transmission Selection (ETS);
	              Data Center Bridging Capability Exchange (DCBX)
	- IEEE 802.1Qbb Priority Flow Control (PFC)
	- IEEE 802-1AX Link Aggregation/LACP
	- IEEE 802.1AB Link Layer Discovery Protocol (LLDP)
	- IEEE 802.1Qau Congestion Notification
	DCE/CEE Support:
	- IEEE 802.1Qbb Priority Flow Control (PFC)
	- IEEE 802.1Qaz Enhanced Transmission Selection (ETS)
	              Data Center Bridging Capability
	Exchange (DCBX)
	- IEEE 802.1Qau Congestion Notification (QCN)

Technology

Order code	Height of bracket	Number of ports	Related product
MC-0JXE71	Low Profile (LP)	2	PRIMEQUEST Server
MC-0JXE72	Full Height (FH)	2	PRIMEQUEST Server
MCX0JXE71	Full Height / Low Profile	2	PRIMEQUEST Server
S26361-F5557-E1	Full Height (FH)	2	PRIMERGY Server
S26361-F5557-E201	Low Profile (LP)	2	PRIMERGY Server
S26361-F5557-L501	Full Height / Low Profile	2	PRIMERGY Server

Supported Interface Modules / Cables

Description optional cable	10GBASE-T - 100m on Cat 6A or Cat 7 - 55m on Cat 6 (compliant to TSB-155) 1000BASE-T - 100m on Cat 5e, Cat 6, Cat 6A or CAT 7 100BASE-T - 100m on Cat 5e, Cat 6, Cat 6A or CAT 7

Environment

Power consumption	max. 15 W
Temperature (operating)	0 - 55 ℃
Temperature (not operating)	-40 - 70 ℃

Compliance

Compliance notes	According to the corresponding system
Compliance link	http://globalsp.ts.fujitsu.com/sites/certificates

More information

Fujitsu OPTIMIZATION Services

In addition to Fujitsu with Network Adapter EmulexOCe14102-NT, 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 Network Adapter EmulexOCe14102-NT, 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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