

# Data Sheet

## FUJITSU Converged Network Adapter (CNA) Emulex OCe14102

Dual-port 10GbE Converged Network Adapter

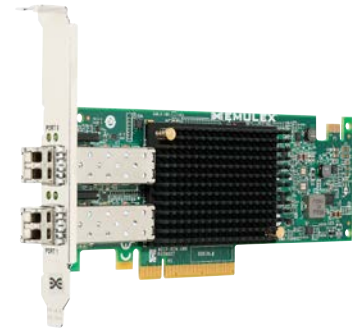
A Converged Network Adapter (CNA) is a Network Adapter that supports both the Ethernet and Fibre Channel standards. It provides 10/40 Gbps connectivity to Ethernet networks and also connects to Fibre Channel storage area networks (SANs) using Fibre Channel over Ethernet (FCoE) and Data Center Bridging (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.

### Converged Network Adapter (CNA) Emulex OCe14102

The Emulex OneConnect Universal CNA OCe14000 family of Ethernet Network Adapters is the FCoE and most advanced generation of Emulex Ethernet adapters. Powered by the XE100 controller, OCe14000 adapters offer enhanced support for virtualization, cloud and hyperscale cluster deployments. This paper highlights support for Emulex's Virtual Network eXceleration initiative that delivers support for Single Root I/O Virtualization, Universal Multi-Channel™ NIC Partitioning and

Stateless TCP/IP Offloads amongst its many capabilities.

As a member of the CNA 14000 family, the OCe14102 uses a 10Gbit/s DCB (Converged Enhanced Ethernet) infrastructure for networking and storage, reducing capital expense (CapEx) for adapters, switches and cables, and operational expense (OpEx) for power, cooling and IT administration. The OCe14102 adapter increases data center IT agility and scalability, as well as optimization of the server hardware utilization by scaling high density virtualization. The OCe14102 with 10GbE UCNAs is designed for the high bandwidth and scalability demands of Tier-1 enterprise applications with storage protocol (FCoE and iSCSI) offloads, more scalable virtualization with support for enhanced Single-Root I/O Virtualization (SR-IOV) and NIC port partitioning, and cloud optimization using Overlay Networking technology.



#### Main Features

- Superior network scalability - 10GbE bandwidth on common software platform
- Powerful Overlay Networking offloads (NVGRE and VXLAN)
- Stateless TCP/IP offloads

#### Benefits

- Maximizes server hardware ROI with high virtual machine density
- Accelerates applications performance
- Provides the bandwidth needed for slot constrained server platforms

# Technical details

## Technical details

<b>Controller Silicon</b>	Emulex Engine XE100
<b>Controller type</b>	Converged Network Adapter
<b>Connector type</b>	SFP+
<b>Operating system pre-installed</b>	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.
<b>Released drivers list link</b>	<a href="http://support.ts.fujitsu.com/Download/Index.asp">http://support.ts.fujitsu.com/Download/Index.asp</a>
<b>Number of ports</b>	2
<b>Data transfer rate(s)</b>	10 Gbit/s
<b>Bus interface</b>	PCIe 3.0 x8
<b>Bus transfer rate</b>	8GT/s
<b>HW Virtualization</b>	SR-IOV support (up to 64 virtual functions per port for NIC) Overlay Network Virtualization (NVGRE & VXLAN) Universal Multi-Channel for Port Partitioning
<b>Interrupt Levels</b>	MSI-X
<b>WoL</b>	No
<b>LEDs</b>	2 LED per port Green: Blink = Activity Off = No activity Amber: On = Link up Off = Link down
<b>Teaming</b>	all teaming functions provided by the OS
<b>Remote boot support</b>	PXE 2.1 iSCSI FCoE
<b>Remote boot support notes</b>	just one boot function can be enabled at the same time SAN boot (FCoE boot) requires a CNA configuration
<b>Offloading</b>	Stateless TCP Storage protocols: iSCSI and FCoE Virtual Network Fabrics (NVGRE & VXLAN)
<b>Standards</b>	<b>Ethernet:</b> - IEEE 802.3-2008 10Gb/s Ethernet ports - IEEE 802.1Q virtual LANs (VLAN) - IEEE 802.3x Flow control with Pause frames - IEEE 802.3ad Link Aggregation / LACP - IEEE 802.1AB Link Layer Discovery Protocol (LLDP) - IEEE 802.1Qbg Edge Virtual Bridging <b>DCE/CEE Support:</b> - IEEE 802.1Qaz Enhanced Transmission Selection (ETS) Data Center Bridging Capability Exchange (DCBX) - IEEE 802.1Qbb Priority-based Flow Control (PFC) <b>Fibre Channel over Ethernet:</b> FC-BB-5 by INCITS Technical Committee T11

Order code	Height of bracket	Number of ports	Related product
MC-OJCE61	Low Profile (LP)	2	PRIMEQUEST Server
MC-OJCE62	Full Height (FH)	2	PRIMEQUEST Server
MCXOJCE61	Full Height / Low Profile	2	PRIMEQUEST Server
S26361-F5250-E1	Full Height (FH)	2	PRIMERGY Server
S26361-F5250-E201	Low Profile (LP)	2	PRIMERGY Server
S26361-F5250-L501	Full Height / Low Profile	2	PRIMERGY Server

## Supported Interface Modules / Cables

Order code	Application	Type / mode	Connector / cable Length
MC-OJCE71	Ethernet 10 Gbit/s	SFP+ / MMF (SWL)	LC-style / up to 400m
MCXOJCE71	Ethernet 10 Gbit/s	SFP+ / MMF (SWL)	LC-style / up to 400m

**Supported Interface Modules / Cables**

Order code	Application	Type / mode	Connector / cable Length
S26361-F5250-E110	Ethernet 10 Gbit/s	SFP+ / MMF (SWL)	LC-style / up to 400m
S26361-F5250-L110	Ethernet 10 Gbit/s	SFP+ / MMF (SWL)	LC-style / up to 400m
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
S26361-F3873-E500	Ethernet 10 Gbit/s	SFP+ Twinax Cable / active	SFP+ / 3m or 5m
S26361-F3873-L501	Ethernet 10 Gbit/s	SFP+ Twinax Cable / active	SFP+ / 1m
S26361-F3873-L503	Ethernet 10 Gbit/s	SFP+ Twinax Cable / active	SFP+ / 3m
S26361-F3873-L505	Ethernet 10 Gbit/s	SFP+ Twinax Cable / active	SFP+ / 5m
Interface Module notes	Only Fujitsu certified modules are supported Order codes starting with "S26361-F3873" are Brocade branded cables, required for connections to Brocade switches Order codes starting with "S26361-F4571" are Cisco branded cables, required for connections to Cisco switches		
Description optional cable	10Gbit/s transceiver module for MMF (S26361-F5250-E110 / -L110 and MC-OJCE71 / MCXOJCE71): - 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		

**Environment**

Power consumption	9.2W (typical optical, 10GbE) 8.2W (typical passive 10GbE DAC cable)
Temperature (operating)	0 - 55 °C
Storage temperature	-40 - 70 °C

**Compliance**

Compliance notes	According to the corresponding system
Compliance link	<a href="https://sp.ts.fujitsu.com/sites/certificates">https://sp.ts.fujitsu.com/sites/certificates</a>

# More information

## Fujitsu products, solutions & services

In addition to Fujitsu with Converged Network Adapter (CNA)

Emulex OCe14102, 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/](http://www.fujitsu.com/global/products/computing/)

### Software

[www.fujitsu.com/software/](http://www.fujitsu.com/software/)

## More information

Learn more about FUJITSU Server Converged Network Adapter (CNA)

Emulex OCe14102, 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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