

# Data Sheet

## FUJITSU Converged Network Adapter

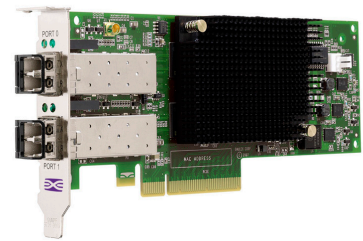
OCe10102-F dual port 10Gbit Ethernet Controller PCIe x8 based on Emulex OCe10102

A Converged Network Adapter (CNA) is a Network Adapter that supports both the Ethernet and Fibre Channel standards. It provides 10 Gb 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 and FC traffic, reducing the number of cables and adapters needed for a server. The CNA provides 2 independent physical functions per channel 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 switch which segregates Ethernet and Fibre Channel I/O to the appropriate network.

### Converged Network Adapter

As a member of the Emulex OneConnect Universal CNA family, the OCe10102-F uses a 10Gbps DCB or 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 OneConnect OCe10102-F supports protocol offloads for FCoE, TCP/IP and TCP Chimney to provide maximum bandwidth with minimum use of CPU resources. For virtualized server deployments, OneConnect protocol offloads enable more VMs per server, providing greater

cost saving to optimize return on investment. The OneCommand™ Manager application provides centralized management of Emulex One Connect UCNAs and LightPulse® HBAs and CNAs throughout the data center from a centralized management console. The OneCommand Manager application provides both, a graphical user interface (GUI) and a scriptable command line user interface (CLI) to optimize administration efficiency.



Main Features	Benefits
<ul style="list-style-type: none"> <li>■ DCB convergence with high-performance FCoE protocol offload</li> <li>■ Superior network support with TCIP/IP and TCP Chimney offloads</li> <li>■ Easy to deploy and manage with the OneCommand™ Manager application</li> <li>■ Enterprise-ready with hardware parity, CRC, ECC and other advanced error checking</li> <li>■ One management console for network and storage, integrated management of UCNAs and HBAs</li> </ul>	<ul style="list-style-type: none"> <li>■ Leverages ten generations of advanced, field-proven Fibre Channel technology</li> <li>■ One infrastructure for network and storage reduces CapEx</li> <li>■ Industry-leading performance per watt reduces OpEx</li> <li>■ Protocol offloads support Emulex VEngine™ technology to enable more virtual machines per server</li> <li>■ Easy to deploy and manage with the OneCommand Manager application</li> </ul>

# Technical details

## Technical details

Controller Silicon	BladeEngine 2
Controller type	Converged Network Adapter
Number of ports	2
Data transfer rate(s)	10 Gbit/s
Auto Negotiation support	No
Bus interface	PCIe Gen2 x8
Bus transfer rate	5GT/s
Interrupt Levels	MSI-X
WoL	No
WoL comment	not supported
LEDs	2 LED per port Green: Blink = Activity Off = No activity Amber: On = Link up Off = Link down
Teaming	Yes
Switch fault tolerance (SFT)	Yes
Adapter fault tolerance (AFT)	Yes
Adaptive load balancing (ALB)	Yes
Flow Control	IEEE 802.3x
Remote Boot support	Fibre Channel iSCSI
iSCSI support	Yes
Offloading	TCP/IP stateless offloads TCO Chimney offload FCoE offload iSCSI offload
Standards	<p><b>Ethernet:</b></p> <ul style="list-style-type: none"> <li>- IEEE 802.3ae (10Gb/s Ethernet)</li> <li>- IEEE 802.1q (VLAN)</li> <li>- IEEE 802.1p (QoS/CoS)</li> <li>- IEEE 802.3ad (Link Aggregation)</li> <li>- IEEE 802.3x (Flow Control)</li> </ul> <p><b>Data Center Bridging:</b></p> <ul style="list-style-type: none"> <li>- IEEE 802.1Qaz (Enhanced Transmission Selection, ETS)</li> <li>- IEEE 802.1Qbb (Priority-based Flow Control, PFC)</li> <li>- IEEE 802.1AB (Data Center Bridging Capabilities eXchange Protocol, DCBX)</li> </ul> <p><b>Fibre Channel:</b></p> <ul style="list-style-type: none"> <li>- FC-BB-5 2.0</li> <li>- FC-PI-2</li> <li>- FC-GS-4</li> <li>- FC-TAPE</li> <li>- FCP-3</li> </ul> <p><b>Fibre Channel over Ethernet:</b></p> <ul style="list-style-type: none"> <li>FC-BB-5 by INCITS Technical Committee T11</li> </ul>

Order code	Height of bracket	Type / mode	Number of Connectors	Related product
S26361-F3592-E108		SFP+ / MMF (SWL)	1	PRIMERGY Server
S26361-F3592-E202	Low Profile (LP)		2	PRIMERGY Server
S26361-F3592-E2	Full Height (FH)		2	PRIMERGY Server
S26361-F3592-L108		SFP+ / MMF (SWL)	1	PRIMERGY Server
S26361-F3592-L202	Low Profile (LP)		2	PRIMERGY Server
S26361-F3592-L2	Full Height (FH)		2	PRIMERGY Server

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**Environmental**

Power consumption	15 W
Temperature (operating)	0 - 55 °C
Temperature (not operating)	-40 - 70 °C

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**Compliance**

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

# More information

## Fujitsu OPTIMIZATION Services

In addition to Fujitsu with Converged Network Adapter, 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/services/computing/](http://www.fujitsu.com/global/services/computing/)

## Software

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

## More information

Learn more about Fujitsu Converged Network Adapter, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.  
[www.fujitsu.com/fts](http://www.fujitsu.com/fts)

## 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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