QuickSpecs

Overview

The HP Dual Port Converged Network Adapters (CNAs) are dual port adapters that provide Ethernet, iSCSI, and Fibre Channel (FC) connectivity over 10GbE using both Fibre Channel over Ethernet (FCoE) and Converged Enhanced Ethernet (CEE) standards. By consolidating Ethernet, iSCSI, and Fibre Channel onto a converged network adapter, HP CNAs reduce the number of separate adapters and cables required for your datacenter and also reduce operational, power and cooling costs while preserving existing Ethernet and Fibre Channel infrastructure. HP CNAs have been thoroughly tested with HP ProLiant servers and HP Top of Rack (ToR) and End of Row (EoR) switches to ensure an optimal HP FCoE solution for your datacenter.

What's New
- CN1100R HP StoreFabric Dual Port Converged Network Adapters

Key Features and Benefits

Converged Infrastructure
Ethernet, iSCSI, and Fibre Channel in one adapter

- Combines the functionality of a NIC (Ethernet), iSCSI, and Fibre Channel onto a single converged network adapter reducing the number of adapters and cables and reducing acquisition and operational costs

Reliability
Converged Enhanced Ethernet reliability standards

- Sends Fibre Channel data packets via Fibre Channel over Ethernet (FCoE) using Converged Enhanced Ethernet (CEE) standards ensuring high standards of data integrity and lossless Ethernet.

Provides HP ProLiant Connectivity to Storage and Networks
Robust interoperability testing

- Provides an HP-branded CNA solution which has undergone extensive HP interoperability testing for connecting HP ProLiant servers into storage and networking environments.
- Optimal for connecting to HP's Top of Rack (ToR) 5820X, B-series and C-series FCoE Converged Network Switches. **NOTE:** CN1100R does not support 5820X.

Flexible Connect
Optical or direct attach copper cables

- Choose between SFP+ SR (optical) or direct attach copper cable connectivity allowing maximum flexibility in connecting to HP FCoE Converged Network Switches.

QuickSpecs

HP Converged Network Adapters

Models

	Description	Part Number
CN1100E	HP CN1100E Dual Port Converged Network Adapter	BK835A
CN1000E	HP CN1000E Dual Port Converged Network Adapter	AW520B
CN1000Q	HP CN1000Q Dual Port Converged Network Adapter	BS668A
CN1100R	HP StoreFabric CN1100R Dual Port Converged Network Adapter	QW990A

NOTE: A minimum of two Gigabytes (2 GB) of server memory is required per each adapter.

NOTE: Direct Attach Cable (DAC) for copper environments or fiber transceivers and cables for fiber-optic environments must be purchased separately.

Copper Cables and SFP+ Ethernet Optical Modules (SR)

SFP+ Active Copper Cables for HP B-series FCoE Converged Network Switches

Description	Part Number
HP 1m B-series Active Copper SFP+ Cable	AP818A
HP 3m B-series Active Copper SFP+ Cable	AP819A
HP 5m B-series Active Copper SFP+ Cable	AP820A

SFP+ Copper Cables for HP C-series FCoE Converged Network Switches

Description	Part Number
HP 3m C-series Passive Copper SFP+ Cable	AP784A
HP 5m C-series Passive Copper SFP+ Cable	AP785A
HP 7m C-series Active Copper SFP+ Cable	QK701A
HP 10m C-series Active Copper SFP+ Cable	QK702A

SFP+ Copper Cables for HP 5820X SFP+ Switch

Description	Part Number
HP X240 SFP+ SFP+ 0.65 m Direct Attach Cable	JD095C
HP X240 SFP+ SFP+ 1.2 m Direct Attach Cable	JD096C
HP X240 SFP+ SFP+ 3 m Direct Attach Cable	JD097C
HP X240 SFP+ SFP+ 5 m Direct Attach Cable	JG081C

10Gb SFP+ Ethernet Optical Modules (SR)

Description	Part Number
HP 10Gb SR SFP+	455883-B21

Optical Cables	Premier Flex OM4 type cables	
NOTE: Refer to product release notes for more information regarding support of specific cables.	HP Premier Flex LC/LC Multi-mode OM4 2 fiber 1m Cable	QK732A
	HP Premier Flex LC/LC Multi-mode OM4 2 fiber 2m Cable	QK733A
	HP Premier Flex LC/LC Multi-mode OM4 2 fiber 5m Cable	QK734A
	HP Premier Flex LC/LC Multi-mode OM4 2 fiber 15m Cable	QK735A
	HP Premier Flex LC/LC Multi-mode OM4 2 fiber 30m Cable	QK736A
	HP Premier Flex LC/LC Multi-mode OM4 2 fiber 50m Cable	QK737A
	OM3 LC-LC type cables	
	.5 m LC-LC Multi-Mode OM3 Fibre Channel Cable	AJ833A
	1 m LC-LC Multi-Mode OM3 Fibre Channel Cable	AJ834A
	2 m LC-LC Multi-Mode OM3 Fibre Channel Cable	AJ835A
	5 m LC-LC Multi-Mode OM3 Fibre Channel Cable	AJ836A
	15 m LC-LC Multi-Mode OM3 Fibre Channel Cable	AJ837A
	30 m LC-LC Multi-Mode OM3 Fibre Channel Cable	AJ838A
	50 m LC-LC Multi-Mode OM3 Fibre Channel Cable	AJ839A

Service and Support, HP Care Pack and Warranty Information

Warranty

3-0-0 Three-year parts exchange warranty. Additional warranty protection can be purchased.
HP Global Services provides a three-year, limited warranty, fully supported by a worldwide network of resellers and service providers toll-free 7 x 24 hardware technical phone support for the duration of the warranty. In addition, available service offerings include a full range of HP Care Pack packaged hardware and software services.
NOTE: Certain restrictions and exclusions apply. Consult the HP Customer Support Center for details.

HP Care Pack Services: Packaged server and storage services for increased uptime, productivity and ROI
When you buy HP server and storage products and solutions, it's also a good time to think about what levels of support you may need. Our portfolio of service options reduce deployment and management worries while helping you get the most out of your server and storage investments. We take a holistic approach to your environment, bridging servers, blades, storage, software and network infrastructures with our packaged HP Care Pack Services for servers and storage.

Protect your business beyond warranty
When it comes to robustness and reliability, standard computing equipment warranties have matured along with technology. Good news that can also create problems stemming from depending on standard warranties designed to only protect against product defects and some downtime causes. Using a standard approach to warranty uplifts, such as HP Care Pack Services, helps reduce downtime risks and provides operational consistency for mission-critical and standard business computing.

HP Care Pack Services: Upgrading or extending standard server and storage warranties cost effectively
HP Care Pack Services offer a standard reactive hardware and software support services suite sold separately, or combined with our Support Plus and Support Plus 24 services. The portfolio also provides a combination of integrated proactive and reactive services, such as Proactive 24 Service and Critical Service. In addition with HP Proactive Select, you can acquire the specific proactive constancy and technical services. HP Proactive Select menu offers a broad set of service options that you can mix and match depending on your specific requirements. Proactive service options include offers for server, storage, network, SAN device, software, environment and education services.

HP server and storage lifecycle support services offers a full spectrum of customer care-from technology support to complex migrations to complete managed services. HP Factory Express provides customization, integration and deployment services for turnkey solutions. HP Education Services offer flexible, comprehensive training on to help your IT staff get the most out of your server and storage investments. HP Financial solutions extend innovative financing and cost-effective asset management programs-from purchase to equipment retirement.
Learn more: www.hp.com/services/servers and www.hp.com/services/storage

NOTE: Care Pack Services availability may vary by product and country.
HP Care Pack Services are sold by HP and HP Authorized Service Partners:

- Services for customers purchasing from HP or an enterprise reseller are quoted using HP order configuration tools.
- Customers purchasing from a commercial reseller can find HP Care Pack Services at
  http://www.hp.com/go/lookuptool

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Service and Support, HP Care Pack and Warranty Information

Recommended HP Care Pack Services for optimal satisfaction with your HP product.

3-Year HP Support Plus 24

HP Host Bus Adapters (HBAs) and Converged Network Adapters (CNAs) take on the support level of the HP server in which it is installed.

3-Year HP Support Plus 24 recommended for HBAs and CNAs installed outside of an HP environment.

For a higher return on your server and storage investment, HP Support Plus 24 provides integrated hardware and software support services designed specifically for your technology. Available 24x7, this 3-year combined reactive support option delivers onsite hardware support and over-the-phone software support around-the-clock. Leverage the full strength of HP Technology Services - customers can trust the services professionals at HP to work collaboratively with them, putting our strategic and technical know-how to work across their entire infrastructure.

- Improve uptime with responsive hardware and software services
- Enjoy consistent service coverage across geographically dispersed sites
- Update HP software at a predictable cost
- Increase customer satisfaction-with no interoperability gaps

http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA0-1614ENUC

HP Installation Service Installation is included with the HP Server install if purchased together. If HBA or CNA is ordered as an add-on to an existing HP Server or for installation into a non-HP Server, HP Installation Service is recommended.

- Allows your IT resources to stay focused on their core tasks and priorities
- Reduces implementation time, impact and risk to your storage environment

http://h71028.www7.hp.com/ERC/downloads/5981-9356EN.pdf

eSupport HP eSupport is a portfolio of technology-based services that assist you with managing your business environment - from the desktop to the data center.

Support Portal
The HP support portal provides one-stop access to the information, tools and services you need to manage the daily operations of your IT environment.

Features include:

- Access to self-solve tools (including search technical knowledge base)
- Efficient logging and tracking of support cases
- Collaboration with other business and IT professionals
- Download of patches and drivers
- Access to diagnostic tools
- Proactive notification of relevant information

Access to certain features of the support portal requires an HP service agreement. To access the support portal, visit: http://www.hp.com/support

HP Insight Remote Support software delivers secure remote monitoring and support for your HP Servers and Storage, 24 X 7, so you can spend less time solving problems and more time focused on your business. You can have your systems remotely monitored for hardware failure using secure technology that's been proven at thousands of companies around the world. In many cases, you can avoid problems before they occur.

Service and Support, HP Care Pack and Warranty Information

Customer Technical Training	HP Education Services In today's cost-conscious business environment, IT professionals, developers, consultants and users face an interesting challenge: how to keep up with the latest technologies and expand important skills while delivering profitable results on current projects. To help address this challenge, HP offers innovative training solutions that help keep you up-to-date on virtualization, server, storage, Insight Control, Citrix, Microsoft® and open source/Linux-related topics-while spending less time away from business-critical activities.
HP Services Awards	HP Technology Services continues to be recognized for service and support excellence by customers, partners, industry organizations and publications around the world. Recent honors and award reflect our services team's dedications, technical expertise, professionalism and uncompromising commitment to customer satisfaction.
Additional Services Information	To learn more on HP ProLiant servers, HP BladeSystem servers and HP storage products, please contact your HP sales representative or HP Authorized Channel Partner. Or visit www.hp.com/services/proliant or www.hp.com/services/bladesystem or http://www.hp.com/services/storage

Technical Specifications

		CN1100E	CN1000E	CN1000Q	CN1100R
Number of channels		Dual	Dual	Dual	Dual
Port Speed		10GbE	10GbE	10GbE	10GbE
Slot type supported		x8 PCIe 2.0	x8 PCIe 2.0	x8 PCIe 2.0	x8 PCIe 2.0
OS Supported	NOTE: Always refer to the HP Single Point of Connectivity Knowledge for HP Storage Products at: www.hp.com/storage/spock for specific product support information.				
	Windows Server	x86, x64	x86, x64	x86, x64	x86, x64
	Windows Server Hyper-V	x86, x64	x86, x64	x86, x64	x86, x64
	VMware	x86, x64	x86, x64	x64	x86, x64
	RHEL	x86, x64	x86, x64	X86, x64	x86, x64
	SLES	x86, x64	x86, x64	x86, x64	x86, x64
Servers Supported		Select HP ProLiant servers NOTE: Refer to server QuickSpecs for details regarding supported options.			
Array Platforms Supported		Refer to www.hp.com/storage/spock for specific product support information.			
FCoE Converged Network Switches Supported *No direct support for FC switches		HP 5820X-14XG-SFP+ Switch w/FCoE Module HP 2408 Converged Nework Switches HP Nexus 5000 Converged Network Switches HP 10/24 FCoE Blade for DC SAN Directors	HP 5820X-14XG-SFP+ Switch w/FCoE Module HP 2408 Converged Network Switches HP Nexus 5000 Converged Network Switches HP 10/24 FCoE Blade for DC SAN Directors	HP 5820X-14XG-SFP+ Switch w/FCoE Module HP 2408 Converged Switches HP Nexus 5000 Converged Network Switches HP 10/24 FCoE Blade for DC SAN Directors	HP 2408 Converged Switches HP Nexus 5000 Converged Network Switches HP 10/24 FCoE Blade for DC SAN Directors
Protocols Supported		FCoE, Ethernet, iSCSI	FCoE, Ethernet, iSCSI	FCoE, Ethernet, iSCSI	FCoE, Ethernet, iSCSI
What's Included in the Box?		CNA, low-profile bracket	CNA, low-profile bracket	CNA, low-profile bracket	CNA, low-profile bracket
Compliance		IEEE802.3x, IEEE802.3ad, IEEE802.1p, IEEE802.1q, IEEE802.3az, IEEE802.3ae, IEEE802.3ap, IEEE802.1qau, P802.1Qaz(ETS), P802.1Qbb(PFC), P802.1Qaz(DCBX)	IEEE802.3x, IEEE802.3ad, IEEE802.1p, IEEE802.1q, IEEE802.3az, IEEE802.3ae, IEEE802.3ap, IEEE802.1qau, P802.1Qaz(ETS), P802.1Qbb(PFC), P802.1Qaz(DCBX)	IEEE: 802.3ae (10Gb Ethernet), 802.1q (VLAN), 802.3ad (Link Aggregation), 802.1p (Priority Encoding), 802.3x (Flow Control), IPv4 (RFQ 791), IPv6 (RFC 2460), SCSI-3 Fibre Channel Protocol (SCSI-FCP), Fibre Channel Tape (FC-TAPE) Profile, SCSI Fibre Channel Protocol-2 (FCP-2), Second Generation FC Generic Services (FC-GS-2), Third Generation FC Generic Services (FC-GS-3), FCoE & FIP (FC-BB-5)	IEEE: 802.3x, 802.3ad/802.1ax, 802.3ae, 802.1q, 802.1as/1588 (Precision Time Protocol), 802.1Qaz, 802.1Qbb, 802.1Qbg, 802.1Qbh
Environmental - Operating Temperature		32°F to 131°F (0° to 55°C), 150 LFM	32° to 113° F (0° to 45° C)	32° to 131°F (0°to 55°C)	32°F to 131°F (0°C to 55°C)

Technical Specifications

Environmental - Storage Temperature	-40º F to 158º F (-40° to 70° C), Storage	-40º F to 158º F (-40° to 70° C)	-4º F to 158º F (-20º to 70º C)	-40°F to 149°F (-40°C to 65°C)
Environmental - Relative Humidity - Operating	5% to 95% (storage), non condensing, 22° C wet bulb 10% to 90% (operating), non condensing, 22° C wet bulb	15% to 80% (relative, non-condensing)	10% to 90% (relative, non-condensing)	5% to 95% noncondensing PCIe Low Profile
Product Dimensions (W x D x H)	10.4 x 7.7 x 2.4 (265 x 195 x 60 mm)	10.3 x 7.5 x 2.3 in. (262 x 190 x 58 mm)	12.25 x 8.75 x 2.5 in. (311 x 222 x 63 mm)	10.0 x 8.0 x 3.0 in. (254 x 203.3 x 76.2 mm)
Media	10Gb SFP+ Ethernet Optical Modules (SR) or SFP+ direct attach active and passive copper cable	10Gb SFP+ Ethernet Optical Modules (SR) or SFP+ direct attach active and passive copper cable	10Gb SFP+ Ethernet Optical Modules (SR) or SFP+ direct attach active and passive copper cable	10Gb SFP+ Ethernet Optical Modules (SR) or SFP+ direct attach active and passive copper cable
PCIe Connector	PCIe x8 Gen2	PCIe x8 Gen2	PCIe x8 Gen2	PCIe x8 Gen2
Brackets	Shipped with both ½ height and full-height brackets	Shipped with both ½ height and full-height brackets	Shipped with both ½ height and full-height brackets	Shipped with both ½ height and full-height brackets