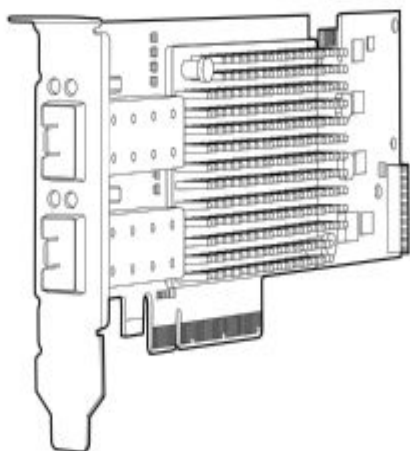


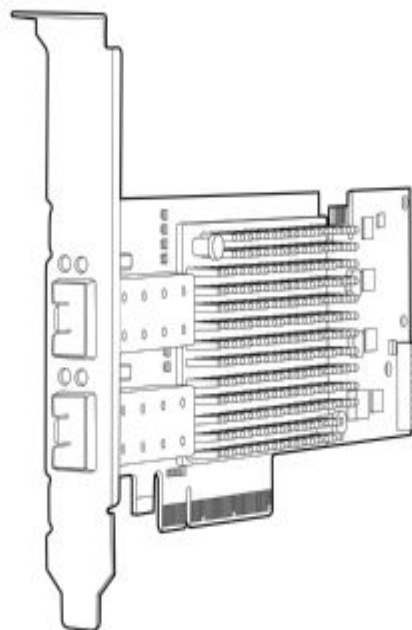
Overview

The NC552SFP is an eight lane (x8) PCI Express (PCIe) 10 Gigabit network solution offering optimal throughput. This PCI Express Gen 2 adapter from Emulex ships with two SFP+ (Small Form-factor Pluggable) cages suitable for connecting to Direct Attach Cable (DAC) or fiber modules supporting SR fiber optic cabling.

The NC552SFP ships with advanced server features that ProLiant customers have come to expect, such as support for TCP checksum and segmentation, Large Send and Large Receive offload capability, NetQueue, VLAN tagging, 9K jumbo frames, IPv4 and IPv6, teaming for failover and load balancing, and TCP/IP Offload for Windows. Easy to install and configure, the NC552SFP can be used in either standard or low profile slots.



NC552SFP - Low profile bracket



NC552SFP - Standard bracket

Models

HP NC552SFP 10Gb 2-port Ethernet Server Adapter

614203-B21

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.

Kit Contents

- HP NC552SFP 10Gb 2-port Ethernet Server Adapter
- Full height bracket (installed on card)
- Low-profile bracket
- Quick install card
- Product warranty statement

Overview

Compatibility

Servers

ProLiant DL (rack-optimized):

- HP ProLiant DL160 G6
- HP ProLiant DL160se G6
- HP ProLiant DL160 Gen8
- HP ProLiant DL165 G7
- HP ProLiant DL170e G6
- HP ProLiant DL180 G6
- HP ProLiant DL320 G6
- HP ProLiant DL320e Gen8
- HP ProLiant DL360 G7
- HP ProLiant DL360e Gen8
- HP ProLiant DL360p Gen8
- HP ProLiant DL370 G6
- HP ProLiant DL380 G7
- HP ProLiant DL380e Gen8
- HP ProLiant DL380p Gen8
- HP ProLiant DL385 G7
- HP ProLiant DL385p Gen8
- HP ProLiant DL560 Gen8
- HP ProLiant DL580 G7
- HP ProLiant DL585 G7
- HP ProLiant DL980 G7

ProLiant ML (expansion-optimized):

- HP ProLiant ML310e Gen8
- HP ProLiant ML330 G6
- HP ProLiant ML350 G6
- HP ProLiant ML350e Gen8
- HP ProLiant ML350p Gen8
- HP ProLiant ML370 G6

ProLiant SL (scalable line):

- HP ProLiant SL160s G6
- HP ProLiant SL160z G6
- HP ProLiant SL165s G7
- HP ProLiant SL165z G7
- HP ProLiant SL170s G6
- HP ProLiant SL170z G6
- HP ProLiant SL2x170z G6
- HP ProLiant SL230s Gen8
- HP ProLiant SL250s Gen8
- HP ProLiant SL335s G7
- HP ProLiant SL390s G7

NOTE: This is a list of supported servers. Some may be discontinued.

Standard Features**Performance****Dual-port 10 Gigabit Ethernet Throughput**

The 20,000 Mbps full duplex Ethernet transfer rate per port (40 Gbps aggregate full duplex) delivers outstanding network performance that improves response time and removes bottlenecks for the next generation data center. 10 Gigabit Ethernet bandwidth is ideal for high performance computing, database clusters, iSCSI storage, storage backups, grid systems, virtualization, server and I/O consolidation, fabric consolidation, and more.

PCI Express Interface

The NC552SFP is designed with an eight lane (x8) PCI Express bus based on the PCIe v2.0 standard. The adapter is backward compatible with four lane (x4) PCI Express, automatically auto-sensing between x8 and x4 slots.

Jumbo Frames

Jumbo frames (also known as extended frames) permit a 9,000 byte transmission unit (MTU). The NC552SFP adapter supports 9KB jumbo frames as a way to achieve higher throughput and better CPU utilization. Jumbo frames are particularly useful for database transfers and tape backups.

TCP Stateless Offloading

For overall improved system response, the NC552SFP adapter supports standard TCP/IP offloading techniques including:

- TCP/IP checksum offload (TCO) moves the TCP and IP checksum offloading from the CPU to the network adapter.
 - Large Send Offload (LSO) or TCP Segmentation Offload (TSO) allows the TCP segmentation to be handled by the adapter rather than the CPU.
-

Interrupt Coalescing

Interrupt coalescing (interrupt moderation) groups multiple packets, thereby reducing the number of interrupts sent to the host. This process optimizes host efficiency, leaving the CPU available for other duties.

802.1p QoS Tagging

IEEE quality of service (QoS) 802.1p tagging allows the adapter to mark or tag frames with a priority level across a QoS-aware network for improved traffic flow.

Optimized for Virtualization

I/O Virtualization support for VMware NetQueue and Microsoft VMQ help meet the performance demands of consolidated virtual workloads.

Network Management**Management Support**

Like all HP ProLiant server adapters, the NC552SFP adapter ships with agents that can be managed from HP Systems Insight Manager or other management application that support SNMP.

Server Integration

The NC552SFP adapter is a validated, tested, and qualified solution that is optimized for HP ProLiant servers. HP validates a wide variety of major operating systems drivers with the full suite of web-based enterprise management utilities including SmartStart and HP Systems Insight Manager that simplify network management.

This approach provides a more robust and reliable networking solution than offerings from other vendors and provides users with a single point of contact for both their servers and their network adapters.

Standard Features

Configuration Utilities Each NC552SFP ships with a suite of operating system-tailored configuration utilities that allow the user to enable initial diagnostics and configure adapter teaming. This includes a patented teaming GUI for Microsoft Windows operating systems. Additionally, support for scripted installations of teams in a Microsoft Windows environment allow for unattended OS installations.

LED Indicators Bracket LED indicators show link integrity and network activity for easy troubleshooting.

PXE Support for pre-boot execution environment (PXE) enables automatic deployment of computing resources remotely from anywhere. It allows a new or existing server to boot over the network and download software, including the operating system, from a management/ deployment server at another location on the network. Additionally, PXE enables decentralized software distribution and remote troubleshooting and repairs.

Warranty Maximum: The remaining warranty of the HP product in which it is installed (to a maximum three-year, limited warranty).
Minimum: One year limited warranty.
[Additional information regarding worldwide limited warranty and technical support is available at:](#)
<http://h18004.www1.hp.com/products/servers/platforms/warranty/index.html>

Service and Support

Service and Support	<p>HP Technology Services</p> <p>HP Technology Services offers you consultants and support experts to solve your most complex infrastructure problems. We help keep your business running, boost availability and avoid downtime.</p> <p>Protect your business beyond warranty with HP Care Pack Services</p> <p>When you buy HP Options, it's also a good time to think about what level of service you may need. HP Care Pack services provide total care and support expertise with committed response choices designed to meet your IT and business need.</p>
---------------------	---

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

Recommended Services	<p>3-Year HP 24x7 4 hour Response, Hardware Support Onsite Service</p> <p>Provides you with rapid remote support and if required an HP authorized representative who will arrive on site any time and day of the year to begin hardware maintenance service within 4 hours of the service request being logged.</p> <p>http://h20195.www2.hp.com/V2/GetPDF.aspx/5982-6547EEE</p> <p>HP ProLiant Server Hardware Installation</p> <p>Provides for the basic hardware installation of HP branded servers, storage devices and networking options to assist you in bringing your new hardware into operation in a timely and professional manner</p>
----------------------	---

Related HP Care Pack Services to enhance your HP product experience

Related Services	<p>3-Year HP 6 hour Hardware Support Onsite Call-to-Repair Service</p> <p>Provides an IT manager with a team of support specialists who will quickly begin troubleshooting the system to help return the hardware to operating condition within 6 hours of the initial service request to the HP Global Solution Center</p> <p>http://h20195.www2.hp.com/V2/GetPDF.aspx/5981-6636ENN</p> <p>HP Proactive Select Service</p> <p>Provides a flexible way to purchase HP best-in-class consultancy and technical services. You can buy Proactive Select Service Credits when you purchase your hardware and then use the credits over the next 12 months. http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA2-3842ENN</p>
------------------	--

Insight Remote Support	Delivers secure remote monitoring and support for HP servers and storage, 24x7 at no additional cost. Available as part of HP Warranty, Care Pack and Service Contract offers.
------------------------	--

Parts and materials	HP will provide HP-supported replacement parts and materials necessary to maintain the covered hardware product in operating condition, including parts and materials for available and recommended engineering improvements. Supplies and consumable parts will not be provided as part of this service; standard warranty terms and conditions apply. Parts and components that have exceeded their maximum supported lifetime and/or the maximum usage limitations as set forth in the manufacturer's operating manual or the technical product data sheet will not be provided, repaired or replaced as part of this service.
---------------------	---

Service and Support

Coverage

For ProLiant servers and storage systems, this service covers HP-branded hardware options qualified for the server, purchased at the same time or afterward, internal to the enclosure, as well as external monitors up to 22" and tower UPS products; these items will be covered at the same service level and for the same coverage period as the server unless the maximum supported lifetime and/or the maximum usage limitation has been exceeded. Coverage of the UPS battery is not included; standard warranty terms and conditions apply.

The defective media retention service feature option applies only to Disk or eligible SSD/Flash Drives replaced by HP due to malfunction. It does not apply to any exchange of Disk or SSD/Flash Drives that have not failed. SSD/Flash Drives that are specified by HP as consumable parts and/or that have exceeded maximum supported lifetime and/or the maximum usage limit as set forth in the manufacturer's operating manual or the technical data sheet are not eligible for the defective media retention service feature option.

For more information To learn more on services for HP ESSN Options, please contact your HP sales representative or HP Authorized Channel Partner. Or visit: <http://www.hp.com/services/proliant> or www.hp.com/services/bladesystem

Related Options

Direct Attach Cable	HP BladeSystem c-Class Small Form-Factor Pluggable .5m 10GbE Copper Cable	487649-B21
	HP BladeSystem c-Class Small Form-Factor Pluggable 1m 10GbE Copper Cable	487652-B21
	HP BladeSystem c-Class Small Form-Factor Pluggable 3m 10GbE Copper Cable	487655-B21
	HP BladeSystem c-Class Small Form-Factor Pluggable 5m 10GbE Copper Cable	537963-B21
	NOTE: Direct Attach Cable (DAC) must be purchased separately for copper environments.	

Ethernet Optical Transceivers	HP BladeSystem c-Class 10Gb Short Range Small Form-Factor Pluggable Option	455883-B21
	HP BladeSystem c-Class 10Gb Long Range Small Form-Factor Pluggable Option	455886-B21
	HP BladeSystem c-Class 10Gb Long Range Mode Small Form-Factor Pluggable Option	455889-B21
	NOTE: Fiber transceivers and cables must be purchased separately for fiber-optic environments.	

Fiber Optic Cables	2M LC-SC Cable Kit (2Gb to 1Gb)	221691-B21
	5M LC-SC Cable Kit (2Gb to 1Gb)	221691-B22
	15M LC-SC Cable Kit (2Gb to 1Gb)	221691-B23
	2m LC-LC FC Cable Kit	221692-B21
	5m LC-LC FC Cable Kit	221692-B22
	15m LC-LC FC Cable Kit	221692-B23
	30m LC-LC FC Cable Kit	221692-B26
	50m LC-LC FC Cable Kit	221692-B27
	HP LC to LC Multi-mode OM3 2-Fiber 0.5m 1-Pack Fiber Optic Cable	AJ833A
	HP LC to LC Multi-mode OM3 2-Fiber 1.0m 1-Pack Fiber Optic Cable	AJ834A
	HP LC to LC Multi-mode OM3 2-Fiber 5.0m 1-Pack Fiber Optic Cable	AJ836A
	HP LC to LC Multi-mode OM3 2-Fiber 15.0m 1-Pack Fiber Optic Cable	AJ837A
	HP LC to LC Multi-mode OM3 2-Fiber 30.0m 1-Pack Fiber Optic Cable	AJ838A
	HP LC to LC Multi-mode OM3 2-Fiber 50.0m 1-Pack Fiber Optic Cable	AJ839A
	NOTE: Fiber transceivers and cables must be purchased separately for fiber-optic environments.	
	NOTE: For additional information on 10Gb cable specifications go to: http://www.hewlett-packard.com/rnd/pdfs/10gig_cabling_technical_brief.pdf	

Gigabit Server Adapters	HP NC112T PCI Express Gigabit Server Adapter	503746-B21
	HP NC360T PCI-E Dual Port Gigabit Server Adapter	412648-B21
	HP NC364T PCI-E Quad Port Gigabit Server Adapter	435508-B21
	HP NC365T 4-port Ethernet Server Adapter	593722-B21
	HP NC373T PCI-E Multifunction Gigabit Server Adapter	394791-B21
	HP NC373F PCI-E Multifunction 1000SX Gigabit Svr Adapter	394793-B21
	HP NC375T PCI Express Quad Port Gigabit Server Adapter	538696-B21
	HP NC382T PCI Express Dual Port Multifunction Gigabit Server Adapter	458492-B21
	HP Ethernet 1Gb 4-port 331T Adapter	647594-B21



Related Options

10 Gigabit Server Adapters

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.

HP NC522SFP Dual Port 10GbE Gigabit Server Adapter	468332-B21
HP NC523SFP 10Gb 2-port Server Adapter	593717-B21
HP NC524SFP Dual Port 10GbE Module	489892-B21
NOTE: NC524SFP is available only on DL370 G6, ML370 G6, DL580 G7, DL585 G7, and DL980 G7.	
HP NC550SFP Dual Port 10GbE Server Adapter	581201-B21

FlexibleLOM Adapters

HP Ethernet 1Gb 4-port 331FLR Adapter	629135-B21
HP Ethernet 10Gb 2-port 530FLR-SFP+ Adapter	647581-B21
HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter	629142-B21
NOTE: Please see the QuickSpecs for Technical Specifications and additional information: www.hp.com/go/ProLiantNICs	

Technical Specifications

Compliance	IEEE	802.3ae,802.3ad, 802.1p, 802.1Q 802.3x,802.1qau, 802.3	
	Safety	UL, Canada UL, EN 60950	
	Emissions	FCC Class A, VCCI Class A, BSMI Class A, CISPR 22 Class A, ACA Class A, EN55022 Class A, EN55024-1, ICES-003 Class A, MIC Class A	
	Other	PCIe v2.0 RoHS compliance 6 of 6 IPv4, IPv6 CE ACPI 1.1a Microsoft WHQL (Windows Hardware Quality Labs) Server Design Guide version 3.0 (SDG 3.0)	
General Specifications	Controller	Emulex Blades-Engine 3 (BE3)	
	Onboard memory	128MB	
	Data rate	10,000 Mbps per port, (40 Gbps aggregate full duplex, dual ports)	
	Data Path	8 Lane (x8) PCI Express, compatible with x4 and x8 bus widths	
	Dimensions (LxW)	6.6 x 2.7 in (16.7 x 6.8 cm) without bracket	
Power and Environmental Specifications	Operating	Temperature	32° to 131° F (0° to 55° C)
		Humidity	10% to 90% non-condensing
	Non-operating	Temperature	-40° to 158° F (-40° to 70° C)
		Humidity	5% to 95%
	Power	10 Watts typical, 11Watts maximum	
Operating System Support	Microsoft Windows Server 2008, Server 2008R2, and HPC Server 2008, 32 and 64-bit		
	Microsoft Windows Server Hyper-V		
	Red Hat Enterprise Linux 5.x and 6.0		
	SLES 10 and 11		
	VMware 4.0 and 4.1		
	Solaris 10		
	NOTE: For more Linux OS support & certification information, please visit our the ProLiant & BladeSystem Server Linux matrix: http://h18004.www1.hp.com/products/servers/linux/hplinuxcert.html		

Environment-friendly Products and Approach	End-of-life Management and Recycling	Hewlett-Packard offers end-of-life HP product return, trade-in, and recycling programs in many geographic areas. For trade-in information, please go to: http://www.hp.com/go/green . To recycle your product, please go to: http://www.hp.com/go/green or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner.	
		The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: http://www.hp.com/go/green . These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.	

Technical Specifications

© Copyright 2012 Hewlett-Packard Development Company, L.P.

The information contained herein is subject to change without notice.

Windows is a US registered trademark of Microsoft Corporation.

The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.