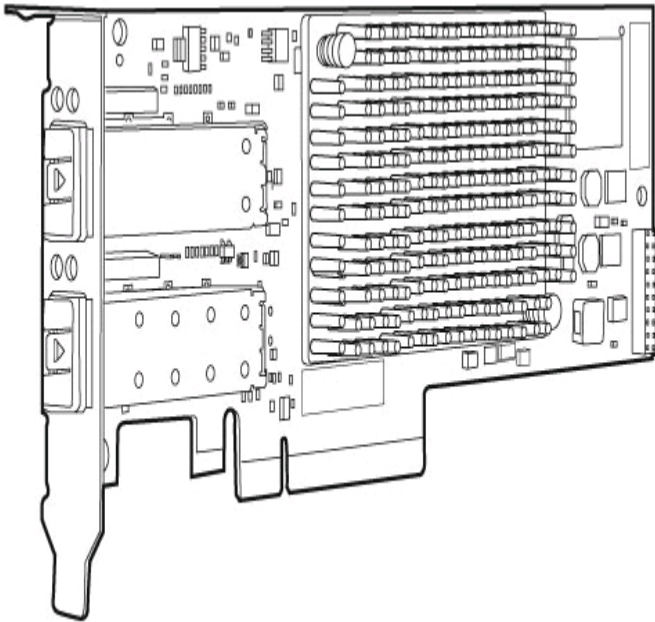


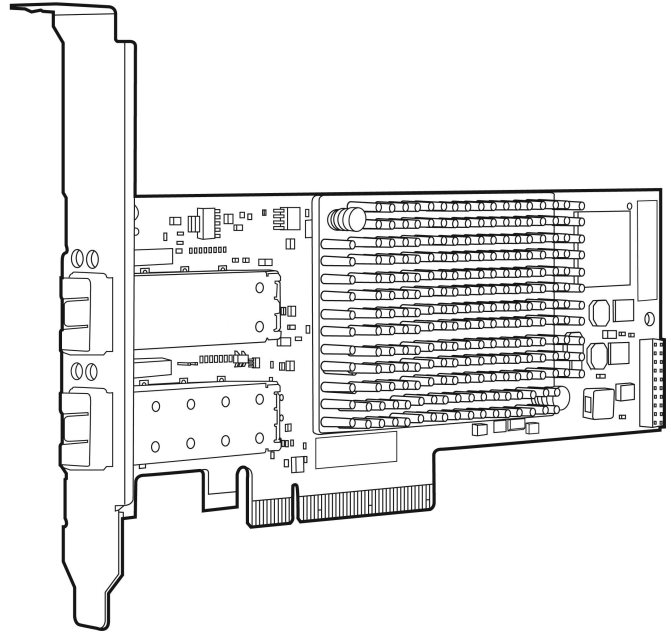
Overview

The NC550SFP is an eight lane (x8) PCI Express (PCIe) 10 Gigabit network solution offering optimal throughput for a ProLiant Ethernet adapter. This PCI Express Gen 2 adapter from an Emulex/ServerEngines alliance 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 NC550SFP 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 NC550SFP can be used in either standard or low profile slots.



NC550SFP - Low profile bracket



NC550SFP - Standard bracket

Models

HP NC550SFP Dual Port 10GbE Server Adapter

581201-B21

NOTE: A minimum of two Gigabytes (2 GB) of server memory is required per each NC550SFP adapter.

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

Kit Contents

1. HP NC550SFP Dual Port 10GbE Server Adapter
2. Full height bracket (installed on card)
3. Low-profile bracket
4. Quick install card
5. User documentation and driver download information
6. Product warranty statement

Overview

Standard Features

Server Support

ProLiant DL (rack-optimized):

- HP ProLiant DL160 G6
- HP ProLiant DL160se G6
- HP ProLiant DL165 G7
- HP ProLiant DL170h G6
- HP ProLiant DL180 G6
- HP ProLiant DL320 G6
- HP ProLiant DL360 G6
- HP ProLiant DL360 G7
- HP ProLiant DL370 G6
- HP ProLiant DL380 G6
- HP ProLiant DL380 G7
- HP ProLiant DL385 G6
- HP ProLiant DL385 G7
- HP ProLiant DL585 G6
- HP ProLiant DL785 G6

ProLiant ML (expansion-optimized):

- HP ProLiant ML330 G6
- HP ProLiant ML350 G6
- HP ProLiant ML370 G6

ProLiant SL (scalable line):

- HP ProLiant SL160z G6
- HP ProLiant SL165z G6
- HP ProLiant SL165z G7
- HP ProLiant SL170z G6
- HP ProLiant SL2x170z G6

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



Performance

Performance

Dual-port 10 Gigabit Ethernet Throughput

With a theoretical Ethernet transfer rate of 40Gbps (dual port, bi-directional, full duplex mode) the NC550SFP delivers outstanding network performance that improves response time and removes bottlenecks for the next generation data center. 10 Gigabit Ethernet bandwidth is ideal for virtualization, high performance computing, database clusters, iSCSI storage, storage backups, grid systems, server and I/O consolidation, fabric consolidation, and more.

PCI Express Interface

HP was an early champion of PCI Express bus technology and has played a key role in the development and industry adoption of the PCI Express specification. The NC550SFP 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 NC550SFP 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 NC550SFP 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.

Network Management

Management Support

Like all HP ProLiant server adapters, the NC550SFP adapter ships with agents that can be managed from HP Systems Insight Manager or other management application that support SNMP.

Server Integration

The NC550SFP adapter is a validated, tested, and qualified solution that is optimized for HP ProLiant servers. 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.

LED Indicators

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



Service and Support, HP Care Pack, and Warranty Information

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>

Support Services

Care Pack services provide a range of life cycle support options that let you choose the service levels that meet your business requirements, from basic to mission-critical.

A full range of HP Care Pack hardware and software services are available including:

- Installation and start up
- Education courses
- Extended onsite hardware coverage hours from same business day 13 hours, 5 day to 24 hours, 7 days call window with options including 4-hour response or 6-hour Call-To-Repair.
- Comprehensive range of software technical support for Microsoft, Linux, ProLiant Essentials, and VMWare-based IT solutions helping to deliver high level of application availability. Response times ranging from 30 minutes for critical problems to 2 hours.
- System Management, Performance Services and Mission Critical Support Solution

NOTE: For more information on HP Care Pack services, contact any of our worldwide sales offices or resellers or visit our worldwide Web site on the internet at: <http://www.hp.com/hps/carepack>

NOTE: For more complete information on HP Services offerings, customers and resellers, please visit us at: <http://www.hp.com/hps>

NOTE: Additional information regarding worldwide limited warranty and technical support is available at: <http://h18004.www1.hp.com/products/servers/platforms/warranty/index.html>



Related Options

Direct Attach Cable	HP 0.5m SFP+ 10GbE Copper Cable	487649-B21
	HP 1m SFP+ 10GbE Copper Cable	487652-B21
	HP 3m SFP+ 10GbE Copper Cable	487655-B21
	HP 5m SFP+ 10GbE Copper Cable	537963-B21
	HP 7m SFP+ 10GbE Copper Cable	487658-B21
	NOTE: Direct Attach Cable (DAC) must be purchased separately for copper environments.	
Fiber Optic Modules	HP BLc 10Gb SR SFP+ NOTE: Fiber transceivers and cables must be purchased separately for fiber-optic environments.	455883-B21
Fiber Optic Cables	HP 2m SW LC/SC FC Cable Kit HP 5m SW LC/SC FC Cable Kit HP 15m SW LC/SC FC Cable Kit HP 2m SW LC/LC FC Cable Kit HP 5m SW LC/LC FC Cable Kit HP 15m SW LC/LC FC Cable Kit HP 30 m LC-LC Multi-Mode OM2 Fiber Optic Cable HP 50 m LC-LC Multi-Mode OM2 Fiber Optic Cable HP .5 m LC-LC Multi-Mode OM3 Fiber Optic Cable HP 1 m LC-LC Multi-Mode OM3 Fiber Optic Cable HP 5 m LC-LC Multi-Mode OM3 Fiber Optic Cable HP 15 m LC-LC Multi-Mode OM3 Fiber Optic Cable HP 30 m LC-LC Multi-Mode OM3 Fiber Optic Cable HP 50 m LC-LC Multi-Mode OM3 Fiber Optic Cable NOTE: Fiber transceivers and cables must be purchased separately for fiber-optic environments.	221691-B21 221691-B22 221691-B23 221692-B21 221692-B22 221692-B23 221692-B26 221692-B27 AJ833A AJ834A AJ836A AJ837A AJ838A AJ839A
Gigabit Server Adapters	HP NC110T PCI Express Gigabit Server Adapter NOTE: Does not support Windows 2000. HP NC112T PCI Express Gigabit Server Adapter HP NC360T PCI Express Dual Port Gigabit Server Adapter HP NC364T PCI Express Quad Port Gigabit Server Adapter NOTE: Does not support Windows 2000. HP NC373F PCI Express Multifunction Gigabit Server Adapter HP NC373T PCI Express Multifunction Gigabit Server Adapter HP NC375T PCI Express Quad Port Gigabit Server Adapter HP NC382T PCI Express Dual Port Multifunction Giqabit Server Adapter	434905-B21 503746-B21 412648-B21 435508-B21 394793-B21 394791-B21 538696-B21 458492-B21



Related Options

10 Gigabit Server Adapter	HP NC522SFP Dual Port 10GbE Server Adapter	468332-B21
	NOTE: A minimum of two Gigabytes (2 GB) of server memory is required per each NC522SFP adapter.	
	NOTE: Direct Attach Cable (DAC) for copper environments or fiber transceivers and cables for fiber-optic environments must be purchased separately.	
	HP NC524SFP Dual Port 10GbE Server Adapter	489892-B21
	NOTE: A minimum of two Gigabytes (2 GB) of server memory is required per each NC524SFP module.	
	NOTE: Direct Attach Cable (DAC) for copper environments or fiber transceivers and cables for fiber-optic environments must be purchased separately.	
	NOTE: NC524SFP is available only on DL370 G6 and ML370 G6.	



Technical Specifications

Compliance	IEEE	IEEE802.3x, IEEE802.3ad, IEEE802.1p, IEEE802.1q, IEEE802.3az, IEEE802.3ae, IEEE802.3ap, IEEE802.1qau	
	Emissions	Complies with the limits for a Class A digital device	
	Other	PCIe v2.0	
		RoHS 6 of 6	
General Specifications		IPv4, IPv6	
		Microsoft WHQL (Windows Hardware Quality Labs)	
		Server Design Guide version 3.0 (SDG 3.0)	
		SFF-8431- 10 Gigabit Small Form Factor Pluggable Module "SFP+"	
	Controller	ServerEngines BE4210 (BladeEngine2TM)	
	Onboard memory	128MB	
	Data rate	10Gbps, full-duplex	
	Data Path	8 Lane (x8) PCI Express, compatible with x4 and x8 bus widths	
	Dimensions (LxW)	6.6 x 2.7 in (16.765 x 6.89 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	1.25A@12V typical, 1.5A@12V maximum
Operating System Support	● Microsoft Windows Server 2008 (32 and 64-bit) ● Microsoft Windows HPC Server 2008 ● Microsoft Windows Server 2003 Standard and Enterprise Editions (32 and 64-bit) ● Red Hat Enterprise Linux, 5 ● SLES 10, 11		
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

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