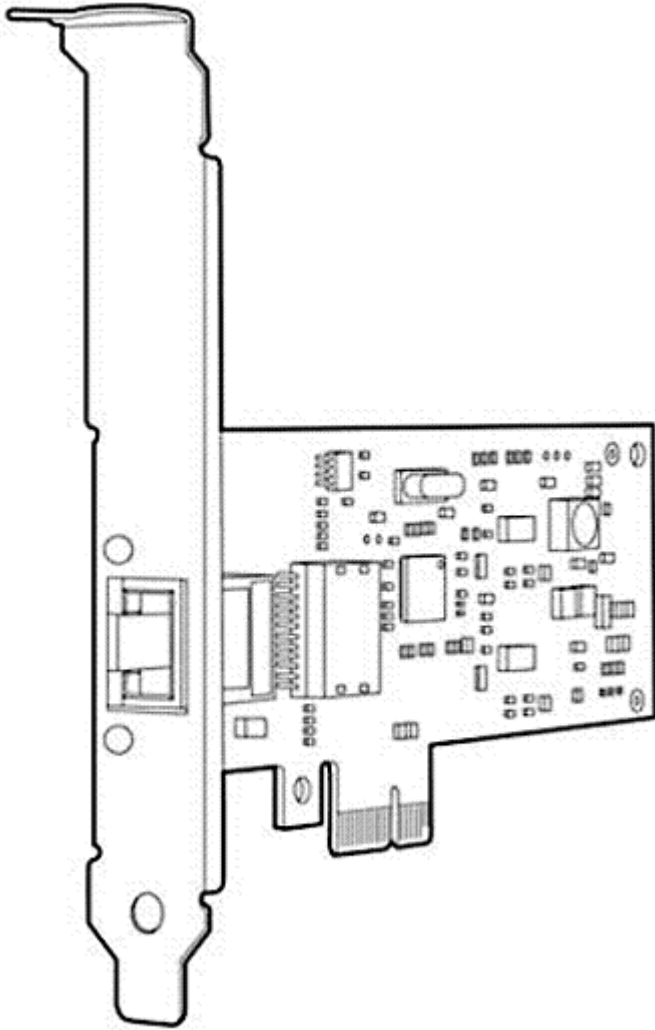
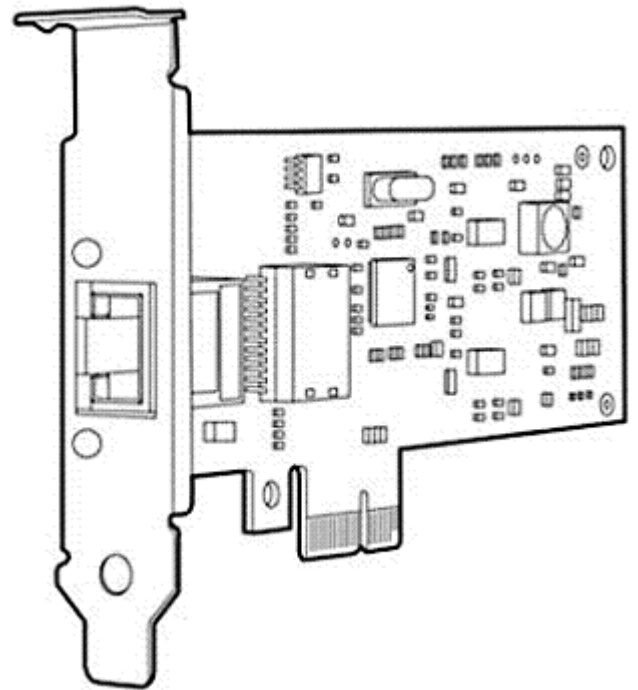


Overview

The HP NC112T is a low-priced Gigabit Ethernet server adapter that features single-port, copper, single lane (x1) PCI Express capability, with 32KB onboard memory that provides 10/100/1000T auto-negotiated speed and duplex. It makes use of the latest Intel 82574L silicon and is suitable for both standard and low profile slots.



Standard Bracket



Low Profile Bracket

Models

HP NC112T PCIe Gigabit Server Adapter

503746-B21

Overview

Kit Contents

1. HP NC112T PCI Express Gigabit Server Adapter PCA ships with a standard height bracket attached to it. (The low profile bracket is included in the clamshell in which the PCA ships.)
2. Product Warranty statement and the Quick Install Card (QIC).
3. Drivers, Installation and Diagnostic Utilities, and User Guide via: <http://www.hp.com/cgi-bin/hpsupport/index.pl>.

Standard Features

Server Support

ProLiant DL (expansion-optimized):

- HP ProLiant DL120 G6
- HP ProLiant DL160 G6
- HP ProLiant DL165 G5
- HP ProLiant DL165 G5p
- HP ProLiant DL165 G6
- HP ProLiant DL170h G6
- HP ProLiant DL180 G6
- HP ProLiant DL185 G5
- HP ProLiant DL320 G6
- HP ProLiant DL360 G6
- HP ProLiant DL370 G6
- HP ProLiant DL380 G6
- HP ProLiant DL385 G5p
- HP ProLiant DL385 G6
- HP ProLiant DL580 G5
- HP ProLiant DL585 G5
- HP ProLiant DL585 G6
- HP ProLiant DL785 G5
- HP ProLiant DL785 G6

ProLiant ML (expansion-optimized):

- HP ProLiant ML110 G6
- HP ProLiant ML150 G6
- HP ProLiant ML310 G5p
- 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 SL170z G6
- HP ProLiant SL2x170z G6

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

Performance

Performance

Gigabit Throughput Combined with Legacy Ethernet Support 10/100/1000Mbps Ethernet transfer rate delivers outstanding network performance that improves response time and removes bottlenecks. Because the NC112T supports both 10Mbps Ethernet and 100Mbps Fast Ethernet in addition to Gigabit Ethernet, users are guaranteed end-to-end protocol support across their enterprise.

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 NC112T features an Intel 82574L chipset and offers a single lane (x1) PCI Express bus based on the PCIe v1.1 standard.

Load Balancing Transmit Load Balancing (TLB) and Switch-assisted Load Balancing (SLB) are two advanced features that customers can use to build a bigger pipe for improved networking bandwidth. These port bonding techniques enable users to install up to eight NC112T adapters (or a mix of other HP adapters totaling 8 ports) in a HP ProLiant server and aggregate their throughput up to a theoretical maximum of 16 Gigabits per second full-duplex transmissions.

Jumbo Frames Jumbo Frames (also known as Extended Frames) offers a 9K byte Maximum Transmission Unit (MTU), which is six times the size of traditional Ethernet frames. Like all HP ProLiant server adapters, the NC112T supports jumbo frames as a way to achieve higher throughput and better CPU utilization when deployed in a network infrastructure that supports them.

TCP Checksum Offload and Large Send Offload (LSO) These features reduce the load on the CPU to improve overall system response. LSO is based on both IPv4 and IPv6 and TCP Checksum Offload is IPv6 based.

Scalability and Reliability

Network Fault Tolerance (NFT) Network Fault Tolerance, sometimes called "failover" or "NIC Redundancy," allows for the installation of multiple server adapters so that the active device can be backed up by a redundant adapter to improve availability. HP's teaming utility also allows users to specify that when a failed adapter is fixed and replaced, the original adapter resumes its function as the primary network connection.

Distance capabilities The NC112T supports cable runs up to 100 meters (328 feet).

Network Management

Auto-negotiation The NC112T automatically senses and configures itself to the speed of the device to which it is attached. It also automatically configures for half or full duplex, depending on the duplex mode of the switch, hub, or router at the other end of the cable.

Wake-on-LAN The NC112T provides cold boot Wake-on-LAN (WOL) support through the PCI Express bus. A system that supports Wake on LAN can remain available to a systems administrator during its normal downtime. Once the machine is awakened, the systems administrator can remotely control, audit, debug, or manage the machine.

Performance

Management Support Like all HP ProLiant server adapters, the NC112T ships with drivers and agents that can be managed from all versions of Systems Insight Manager. Additionally, it supports any management application that supports SNMP.

Server Integration The SmartStart configuration utility includes setup support for the NC112T so that the adapter can be configured as part of the SmartStart configuration process. Insight Manager can recognize the NC112T individually or in a port-bonded team, and it can collect and report SNMP statistics on the adapter events. Integrated Management Log (IML) support is provided by the NC112T for critical event logging on HP ProLiant servers.

Configuration Utilities Each NC112T ships with a set of utilities that allow the user to:

- Enable initial diagnostics within Windows, Linux, Netware, and DOS operating systems.
- Configure network adapter teaming in a Windows environment. The Windows adapter teaming configuration utility includes a patented teaming GUI for Microsoft Windows 2003 and 2008 operating systems. Support for scripted installations of teams in a Microsoft Windows environment allow for unattended OS installations.

LED Indicators Bracket LED indicators show link integrity, network activity, and speed on each port for easy troubleshooting.

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.
See Internet address <http://www.hp.com> for overall information on HP.

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 ours, 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

Gigabit Server Adapters	HP NC110T PCI Express Gigabit Server Adapter	434905-B21
	HP NC360T PCI Express Dual Port Gigabit Server Adapter	412648-B21
	HP NC364T PCI Express Quad Port Gigabit Server Adapter	435508-B21
	HP NC373F PCI Express Multifunction Gigabit Server Adapter	394793-B21
	HP NC373T PCI Express Multifunction Gigabit Server Adapter	394791-B21
	HP NC375T PCI Express Quad Port Gigabit Server Adapter	538696-B21
	HP NC380T PCI Express Dual Port Multifunction Gigabit Server Adapter	394795-B21
	NOTE: Supported on a full length-full height slot only.	
	HP NC382T PCI Express Dual Port Multifunction Gigabit Server Adapter	458492-B21
<hr/>		
10 Gigabit Server Adapter	HP NC522SFP Dual Port 10GbE Server Adapter	468332-B21
	NOTE: A minimum of two Gigabyte (2 GB) of server memory is required for each NC522SFP dual port 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	<ul style="list-style-type: none">● 802.3, 802.3u, 802.3x, 802.3ab, 802.3ad, 802.1p, 802.1Q● PCIe v1.1 standard● FCC (U.S. only) Class B● DOC (Canada) Class B● CE EN 55024, EN55022 Class B● VCCI Class II● UL 1950● CSA 950● EN 60950● CE● ACPI 1.0● MicroSoft WHQL (Windows Hardware Quality Labs)																											
General Specifications	<table><tr><td>Communications Processor</td><td>Intel 82574L</td></tr><tr><td>On-board memory</td><td>32 KB</td></tr><tr><td>Data rate</td><td>10/100/1000 Mbps, Half- and full-duplex</td></tr><tr><td>Data path</td><td>Single lane (x1) PCI Express compatible with x1, x4, x8, and x16 PCI Express slots</td></tr><tr><td>Interrupt levels</td><td>Automatically configured</td></tr><tr><td>Cable Connector</td><td>One RJ-45</td></tr><tr><td>Bus Connector</td><td>PCI Express</td></tr><tr><td>Distance and Wiring</td><td>Up to 328 feet/100 m with Category 5 (or better) twisted-pair cabling</td></tr><tr><td>Card Dimensions (without brackets) (L x W)</td><td>11.93 cm x 5.58 cm (4.7 in x 2.2 in)</td></tr></table>	Communications Processor	Intel 82574L	On-board memory	32 KB	Data rate	10/100/1000 Mbps, Half- and full-duplex	Data path	Single lane (x1) PCI Express compatible with x1, x4, x8, and x16 PCI Express slots	Interrupt levels	Automatically configured	Cable Connector	One RJ-45	Bus Connector	PCI Express	Distance and Wiring	Up to 328 feet/100 m with Category 5 (or better) twisted-pair cabling	Card Dimensions (without brackets) (L x W)	11.93 cm x 5.58 cm (4.7 in x 2.2 in)									
Communications Processor	Intel 82574L																											
On-board memory	32 KB																											
Data rate	10/100/1000 Mbps, Half- and full-duplex																											
Data path	Single lane (x1) PCI Express compatible with x1, x4, x8, and x16 PCI Express slots																											
Interrupt levels	Automatically configured																											
Cable Connector	One RJ-45																											
Bus Connector	PCI Express																											
Distance and Wiring	Up to 328 feet/100 m with Category 5 (or better) twisted-pair cabling																											
Card Dimensions (without brackets) (L x W)	11.93 cm x 5.58 cm (4.7 in x 2.2 in)																											
Power and Environmental Specifications	<table><tr><td>Operating</td><td>Temperature</td><td>32° to 131° F (0° to 55° C)</td></tr><tr><td></td><td>Humidity</td><td>10% to 95% non-condensing</td></tr><tr><td>Non-operating</td><td>Temperature</td><td>-40° to 185° F (-40° to 85° C)</td></tr><tr><td></td><td>Humidity</td><td>-5% to 95%</td></tr><tr><td>Power requirement</td><td colspan="2">575mA @ 3.3 VDC max</td></tr><tr><td>Emissions Standards</td><td colspan="2">FCC Class B, VCCI Class B, BSMI Class A, CISPR 22 Class B, EN 55022 Class B, EN55024-1, ICES-003 Class B, MIC Class B, ACA Class B</td></tr><tr><td>Safety Compliant</td><td colspan="2">UL, Canada UL, EN60950</td></tr><tr><td>Operating System Support</td><td colspan="2">Microsoft:<ul style="list-style-type: none">● Microsoft Windows Server 2008 (32-and 64-bit)● Microsoft Windows Server 2003● Microsoft Windows Server 2003 Web Edition● Microsoft Windows Server 2003 Small Business Server● Microsoft certified miniport and teaming drivers● Microsoft Windows 2003 Standard (32 and x64)● Microsoft Windows 2003 Enterprise (32 and x64)● Microsoft Windows Server 2008● Microsoft Windows HPC Server 2008</td></tr><tr><td></td><td colspan="2">Linux:</td></tr></table>	Operating	Temperature	32° to 131° F (0° to 55° C)		Humidity	10% to 95% non-condensing	Non-operating	Temperature	-40° to 185° F (-40° to 85° C)		Humidity	-5% to 95%	Power requirement	575mA @ 3.3 VDC max		Emissions Standards	FCC Class B, VCCI Class B, BSMI Class A, CISPR 22 Class B, EN 55022 Class B, EN55024-1, ICES-003 Class B, MIC Class B, ACA Class B		Safety Compliant	UL, Canada UL, EN60950		Operating System Support	Microsoft: <ul style="list-style-type: none">● Microsoft Windows Server 2008 (32-and 64-bit)● Microsoft Windows Server 2003● Microsoft Windows Server 2003 Web Edition● Microsoft Windows Server 2003 Small Business Server● Microsoft certified miniport and teaming drivers● Microsoft Windows 2003 Standard (32 and x64)● Microsoft Windows 2003 Enterprise (32 and x64)● Microsoft Windows Server 2008● Microsoft Windows HPC Server 2008			Linux:	
Operating	Temperature	32° to 131° F (0° to 55° C)																										
	Humidity	10% to 95% non-condensing																										
Non-operating	Temperature	-40° to 185° F (-40° to 85° C)																										
	Humidity	-5% to 95%																										
Power requirement	575mA @ 3.3 VDC max																											
Emissions Standards	FCC Class B, VCCI Class B, BSMI Class A, CISPR 22 Class B, EN 55022 Class B, EN55024-1, ICES-003 Class B, MIC Class B, ACA Class B																											
Safety Compliant	UL, Canada UL, EN60950																											
Operating System Support	Microsoft: <ul style="list-style-type: none">● Microsoft Windows Server 2008 (32-and 64-bit)● Microsoft Windows Server 2003● Microsoft Windows Server 2003 Web Edition● Microsoft Windows Server 2003 Small Business Server● Microsoft certified miniport and teaming drivers● Microsoft Windows 2003 Standard (32 and x64)● Microsoft Windows 2003 Enterprise (32 and x64)● Microsoft Windows Server 2008● Microsoft Windows HPC Server 2008																											
	Linux:																											



Technical Specifications

- Red Hat Enterprise Linux
 - SUSE Linux Enterprise Server
- NOTE:** For more information on Linux, please visit our Linux Certified and Supported matrix:<http://h18004.www1.hp.com/products/servers/linux/hpLinuxcert.html>.

Novell Netware:

- NetWare 6.5 and Netware OES (6.5)

Solaris:

- Solaris 10 (32- and 64-bit)
- Solaris 11 (32- and 64-bit, if supported on servers at time of launch)

SCO:

- UnixWare 7.1.3. and 7.1.4
- Open Server 5.0.7 and 6.0
- NDIS 2 for DOS unattended install (40K or less in size) Microsoft® Windows Server 2003, x64 Edition, and Windows 2000

VMware:

- VMWare ESX K/L and ESC 3.5.0 U3

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.

© Copyright 2009 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.



