



NC522m

Dual Port Flex-10 10GbE Multifunction Adapter for HP® c-Class BladeSystem

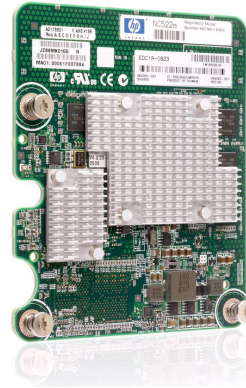
HP Part Number: 467801-B21

Benefits

- Better utilization of the network pipe due to partitioning and applying bandwidth management
- Increased application throughput and reduced host CPU utilization
 - Stateless offloads
 - Complete protocol offload (TOE)
- Operation tuned to system conditions with Dynamic Power Management
- Shared driver with other QLogic-based ProLiant® network adapters

Features

- 10GbE to PCI Express® Gen2
- Stateless and stateful offloads
- HP Virtual Connect Flex-10 support
- 802.1Q VLAN support
- Jumbo frames support
- Receive side scaling (RSS) support
- Dynamic Power Management



NC522m Intelligent Ethernet Adapter. The NC522m is a dual port, IEEE 10GbE-KR 10-Gigabit Ethernet network adapter for the HP ProLiant c-Class BladeSystem. This adapter is based on the QLogic NX3031 controller.

Virtualization Optimized. By supporting HP Virtual Connect Flex-10, the NC522m gives the user the power to control and manage bandwidth at the server edge for maximum flexibility and performance.

Each 10GbE port on the NC522m can be carved into multiple individual Flex NICs. The bandwidth for each Flex NIC, from 100Mb to 10Gb, is user defined. In addition, each Flex NIC is recognized by the system as an individual NIC, providing a three-fold increase in network server connections over standard NICs. Flex NICs allow overall system performance to scale dramatically.

Performance Optimized. The NC522m is a high-performance Intelligent Ethernet adapter that can support offload of TCP/IP tasks, significantly improving throughput of servers, server appliances, and storage platforms, all while reducing host CPU utilization. This allows overall system performance to scale dramatically.

System Optimized. Dynamic power management modulates core frequency and core voltage to keep the controller operating at its ideal thermal and performance profile, increasing the reliability and uptime of the network. This feature provides a built-in warning and shutdown mechanism to protect the adapter in case of an extreme thermal condition.

Investment Protection. The NC522m is built around QLogic's revolutionary Protocol Processing Engine architecture and allows for the support of performance enhancements on the same hardware. QLogic provides a single driver that runs across all its protocol processing engine based HP ProLiant network adapters, which reduces total cost of ownership (TCO).

Unmatched Expertise. QLogic is a leading supplier of high performance network infrastructure solutions including Fibre Channel, Ethernet, iSCSI, InfiniBand, and Converged Network Adapters.

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Ethernet Specifications

Negotiation

- 10/1Gbps auto-negotiation

High performance network mode

- Checksum offload
 - TCP, UDP, IP
 - Tx, Rx, IPv4, IPv6
- Advanced stateless offloads
 - Large send offload (LSO)
 - Large receive offload (LRO)
 - TCP segmentation offload (TSO)
 - Receive side scaling (RSS)
- Jumbo frames
- 802.1p – priority
- 802.1q – VLAN (up to 4K)
- Teaming (load balance/failover): 802.3ad/LACP
- 802.3x pause frame
- IPv6, IPv4
- Interrupt coalescing

Compliance

- PCI Express Base Specification rev. 2.0

Physical and electrical

- HP BladeSystem PCIe mezzanine slot connector
- PCIe® x8 Gen2

Connectivity

- Ports
 - Dual 10Gbps Ethernet

Adapter Specifications

Airflow

- Provided by BladeSystem enclosure

Power consumption

- 20 Watts (maximum)

Form Factor

- HP c-Class Type II mezzanine form factor

Temperature

- Operating: 0°C/32°F to 55°C/131°F
- Storage: -20°C/-4°F to 70°C/158°F

Humidity

- Relative: 10% to 90%
- Storage: 5% to 95%

Tools and Utilities

Management tools

- Diagnostic tools

Device utilities

- Utility for flashing boot code and firmware
- Utility for debug

Remote boot support

- PXE

Platform/Operating System Support

Hardware platforms

- HP ProLiant BL260c G5
- HP ProLiant BL280c G6
- HP ProLiant BL460c
- HP ProLiant BL460c G5
- HP ProLiant BL460c G6
- HP ProLiant BL465c
- HP ProLiant BL465 G5
- HP ProLiant BL465 G6
- HP ProLiant BL480c
- HP ProLiant BL490c G6
- HP ProLiant BL495c G5
- HP ProLiant BL495c G6
- HP ProLiant BL680c
- HP ProLiant BL685c
- HP ProLiant BL685 G5
- HP ProLiant BL685 G6

Operating systems

- Windows Server® 2003, 2008
- Red Hat® Linux® 4/5
- Novell® SLES 9/10/11
- Novell NetWare® 5.2/6.5
- VMware® ESX 3.5 and ESX/ESXi 4.0 (vSphere™)
- Citrix® XenServer™ 5.2
- Solaris® 10 (x86/x64)

Agency Approvals—EMI and EMC

US/Canada

- FCC Part 15, Subpart B, Class A; ICES-003, Class A

Europe

- CE Mark, EN55022:1998 (CISPR 22), EN55024:1998, and IEC60950:1999 (EN60590:2000)

New Zealand/Australia

- ACA, AS/NZS3548/EN55022:1998, EN55024:1998

Japan

- VCCI V-3/2004.4, Class A

Korea

- MIC (RRL)
- EMC registration

Agency Approvals—Safety

US/Canada

- UL

Europe

- EN60950

Ordering Information

The NC522m is available from HP (HP part number: 467801-B2)



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