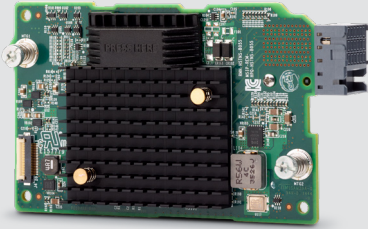


Product Brief



Key Benefits

- Provides flexible connectivity to HPE Synergy Virtual Connect FC Modules and Brocade FC Switch Modules
- Ideal for high bandwidth flash storage deployments and storage intensive applications with higher throughput and lower latency
- Meet SLAs and ensure QoS for prioritized LUN traffic with ExpressLane
- More IOPS and lower latency with existing 8Gb infrastructure
- Superior quality and thorough diagnostics ensure high reliability and data availability

Key Features

- Up to 1.2 million IOPS on a single port, 2X more than other Gen 5 FC HBAs
- Multi-core ASIC enables maximum virtual machine (VM) density with 8192 logins/open exchanges—up to 4x more than other adapters
- Support for 1024 Message Signaled Interrupts eXtended (MSI-X) improves host utilization and enhances application performance

HPE 3530C

Gen 5 (16Gb) Fibre Channel Type C Mezzanine Host Bus Adapter

For HPE Gen9/Gen10 Synergy Compute Modules

Overview

Superior performance, streamlined installation and management, unrivaled scalability and industry-leading virtualization support makes the HPE Synergy 3530C dual-channel Gen 5 Fibre Channel (FC) Type C mezzanine card an ideal solution for the HPE Synergy Gen9/Gen10 compute modules.

Key features include:

- Flexibility for connectivity to HPE Synergy Virtual Connect FC Modules and Brocade FC Switch Modules.
- Emulex Dynamic Multi Port architecture delivers up to 600K Input Output Operations per second (IOPS) on each port or up to 1.2 million IOPS with single port operation.
- Provisions and updates all adapters quickly and consistently using HPE Synergy's template- driven server profiles.
- Security Optimized: SAN-level authentication (FC-SP), fabric-level isolation (NPIV) and end-to- end data integrity (T10-PI).

Proven Design, Architecture and Interface

The HPE 3530C is based on the Gen 5 Emulex HBA by Broadcom which provides maximum performance and scalability with advanced error-checking methods to assure robust data integrity. The Emulex firmware-based architecture enables feature and performance upgrades without costly hardware changes. The unique Service Level Interface (SLI) allows use of a common driver across all models of Emulex HBAs. Installation and management applications are designed to minimize reboots and further simplify deployment.

Deployment and management features

- Emulex HBAs feature-rich deployment and management facilities streamline and simplify HBA deployment and device management, helping to reduce administration costs and protect IT investments.
- The OneCommand® Manager (OCM) management application enables secure, centralized discovery, monitoring, reporting and administration of Emulex adapters on local and remote hosts. Powerful automation capabilities facilitate remote driver settings, firmware and boot code upgrades. Advanced diagnostic features and HBA statistics help optimize management and network performance. In addition to the graphical user interface (GUI), management functions can be performed with a scriptable command line interface (CLI) and web browser.
- ExpressLane™ technology implements Quality of Service (QoS) at both the host and fabric level. Configurable via OCM, ExpressLane allows users to prioritize LUNs, such as flash devices, for significant latency gains. ExpressLane makes the HPE Synergy 3530C a ideal solution for flash-based storage connectivity.

Key Features (con't)

- SAN best practices for virtualized servers with N_Port ID Virtualization (NPIV) and up to 255 virtual ports
- Efficient centralized administration of Emulex HBAs anywhere in the SAN with powerful management applications
- Up-to date support of pre-boot UEFI based configuration, including UEFI Secure Boot

Additional Features

Emulex LightPulse® HBA technology features frame-level multiplexing and out-of-order frame reassembly for maximum link utilization.

- End-to-end data protection with hardware parity, CRC, ECC and other advanced error checking and correcting algorithms ensure data is safe from corruption.
- Enhanced silent data corruption protection provided by T10 Protection Information (T10-PI) with high performance offload. T10-PI provides additional protection against corruption in Oracle Unbreakable Linux environments
- Full integrated support for HPE Virtual Connect SE 16Gb FC Module for HPE Synergy and all Brocade switch modules for HP Synergy.
- Boot from SAN capability reduces system management costs and maximize network uptime storage and server management solutions.

Gen 5 FC is designed for the virtualization, cloud and database era, taking FC SANs to the next level by delivering more than just incredible performance and higher throughput.

Emulex Gen 5 FC HBAs deliver:

- Increased SAN reliability, data integrity, availability
- Performance demanded by All Flash and Hybrid Flash storage
- Management simplicity
- Reduced operational costs across the data center
- Performance acceleration for virtualization and mission critical applications

Standards

- ANSI Fibre Channel: FC-PI-4, FC-FS-2, FC FS-2/AM1, FC-LS, FC-AL-2, FC-GS-6, FC FLA, FC-PLDA, FC-TAPE, FC-DA, FCP through FCP-4, SBC-3, FC-SP, FC-HBA and SMI-S v1.1
- PCI Express Gen 2.0 and 3.0
- Fibre Channel class 2 and 3

Architecture

- Dual-channel
- Gen 5 FC or 8GFC link speeds automatically detected
- Integrated data buffer and code space memory

Comprehensive OS Support

- Windows Server, Red Hat, SUSE and Ubuntu (Ubuntu for HPE Synergy 480 only) Linux, VMware, CITRIX and Solaris

Hardware Environment

- HPE Synergy 480 Gen9/Gen10 Configure-to-order Compute Module
- HPE Synergy 480 Gen9/Gen10 Configure-to-order w/o Drive Bays Compute Module
- HPE Synergy 480 Gen9/Gen10 Configure-to-order Expanded Storage Compute Module
- HPE Synergy 660 Gen9/Gen10 Configure-to-order SAS Compute Module
- HPE Synergy 660 Gen9/Gen10 Configure-to-order SATA Compute Module
- HPE Synergy 660 Gen9/Gen10 Configure-to-order Expanded Storage Compute Module
- HPE Synergy 12000 Frame

Interconnect Compatibility

- Brocade 16Gb/12 Fibre Channel SAN Switch Module for HPE Synergy
- Brocade 16Gb/24 Fibre Channel SAN Switch Module for HPE Synergy
- Brocade 16Gb/24 PowerPack+ Fibre Channel SAN Switch Module for HPE Synergy
- HPE Virtual Connect SE 16Gb FC Module for HPE Synergy

Power and Environmental Requirements

- Volts: 3.3
- Power consumption (max): 10W
- System inlet temperature: 10° to 70°C (55° to 158°F)
- Relative humidity: 10% to 90% non-condensing

Added Features

Performance features

- Doubling the maximum FC link rate from 8GFC to Gen 5 FC and enhanced virtualization capabilities, help support IT “green” initiatives.

Deployment and management features

- Universal boot capability allows the appropriate boot environment to be automatically selected for any given hardware.
- Boot from SAN capability reduces system management costs and increases uptime.
- Detailed, real-time event logging and tracing enables quick diagnosis of SAN problems.
- Beaconing feature flashes the HBA LEDs, simplifying their identification within server racks.

Additional Management Features

- The OneCommand Manager application enables centralized discovery, monitoring, reporting, and administration of Emulex adapters on local and remote hosts. Powerful automation capabilities facilitate remote driver parameter, firmware and boot code upgrades.
- Advanced diagnostic features, such as adapter port beaconing and adapter statistics, help optimize management and network performance, while the environmental monitoring feature helps to maintain optimum host-to-fabric connections. In addition to the GUI interface, management functions can also be performed via a scriptable CLI as well as a web browser.
- Meet SLAs and QoS with ExpressLane application prioritization on hosts. ExpressLane is fully compatible with majority of switches offering QoS features.
- Emulex HBA's management instrumentation complies to open management standards, such as SMI-S and common HBA API support, which enables seamless upward integration into enterprise storage and server management solutions.

Agency Approvals

North America

- FCC Class A
- UL/CSA Recognized

Europe

- CE Mark
- EU RoHS compliant
- TUV Bauart Certified

Japan

- VCCI Class A

Taiwan

- BSMI Class A

Korea

- MSIP (formally KCC/MIC) Class A

China

- China RoHS Compliant

Ordering Information

The HPE 3530C is available from HPE. Please use the following part number:

HPE Orderable Part Number
777454-B21



Hewlett Packard
Enterprise