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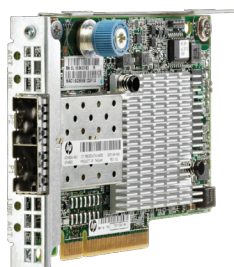
CONNECTIVITY

Dual-Port 10Gb Integrated FlexFabric Adapter for HP ProLiant Gen8 Servers

HP FlexFabric 10Gb 2-port 554FLR-SFP+ FlexibleLOM (HP Part# 629142-B21)

SIMPLIFIED NETWORKING, TRUSTED SAN INTEROPERABILITY AND INCREASED BUSINESS AGILITY

HP 554FLR-SFP+
FlexibleLOM

Overview

The HP FlexFabric 10 Gigabit Ethernet 2-port 554FLR-SFP+ FlexibleLOM is a Converged Network Adapter (CNA) that can be selected as an option for HP ProLiant Gen8 servers. It's the only network option for HP Gen8 servers that provides high performance 10Gb connectivity with the capability to support Fibre Channel over Ethernet (FCoE) or iSCSI with full protocol offload.

Based on the Emulex OneConnect® Universal Converged Network Adapter (UCNA) technology, the HP 554FLR-SFP+ FlexibleLOM supports TCP/IP and FCoE or iSCSI connectivity concurrently with high performance offloads that optimize server efficiency and maximize server virtualization ratios.

Optimized Network and Storage Connectivity

Lower cost—HP 554FLR-SFP+ FlexibleLOMs can save up to 98% on adapter cards, switch ports and cables needed to support network and storage traffic.

FCoE offload—HP 554FLR-SFP+ FlexibleLOMs support FCoE offload using the same field-proven Emulex drivers that work with Emulex LightPulse® Fibre Channel Host Bus Adapters (HBAs).

iSCSI offload—HP 554FLR-SFP+ FlexibleLOMs support iSCSI offload, providing performance that is superior to iSCSI solutions based on software initiators and standard NICs.

10 Gigabit Ethernet offload—HP 554FLR-SFP+ FlexibleLOMs optimize 10Gb network performance with support for stateless TCP/IP and TCP Chimney offloads.

Key Features

One platform for network and storage connection
- Simplifies I/O hardware choices for IT managers

Multiple protocol offloads for optimum server efficiency
- Stateless TCP/IP
- TCP Offload Engine (TOE)
- FCoE or accelerated iSCSI

Superior performance
- Full 20Gbps bidirectional Ethernet bandwidth per port

Energy-efficient design
- Industry-leading performance per watt
- Complements data center "green" initiatives

Easy to deploy and manage
- One management console for network and storage adapters
- Centralized enterprise I/O management with Emulex OneCommand® Manager
- VMware vCenter plug-in module increases productivity for ESX deployments

Key Benefits

Optimized for convergence
- Maximizes I/O consolidation with high performance 10GbE ports
- One network and management infrastructure reduces capital (CapEx) and operating expenses (OpEx)
- Leverages existing IT investments
- More virtual machines (VMs) per server with Emulex vEngine™ technology

Enterprise-ready
- Hardware parity, CRC, ECC and other advanced error checking
- Backed by field-proven HP and Emulex reliability and support

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Simplified Management

OneCommand Manager application—
The OneCommand Manager application provides centralized management of HP Storageworks and FlexFabric CNAs and Fibre Channel (FC) HBAs from Emulex throughout the data center from a centralized management console. The OneCommand Manager application provides a graphical user interface (GUI) and a scriptable command line user interface (CLI) to optimize administration efficiency. OneCommand Manager for VMware is fully integrated with VMware vCenter to simplify management for virtual server deployments.

Highest Performance and Reliability

Lower power and cooling—
HP 554FLR-SFP+ FlexibleLOMs can reduce the number of adapter cards and switches, resulting in savings of up to 40% for power and cooling.

Enterprise-ready—Leveraging ten generations of advanced, field-proven FC HBA technology, HP 554FLR-SFP+ FlexibleLOMs are based on the Emulex OneConnect architecture and meet the robust interoperability and reliability requirements of corporate data centers.

Advanced error checking—End-to-end data protection with hardware parity, CRC, ECC and other advanced error checking and correcting ensure that data is safe from corruption.

SPECIFICATIONS

Controller

· BladeEngine™ 3 (BE3)

Standards

· ANSI INCITS T11 FC-BB-5 2.0, FC-PI-2, FC-GS-4, FC-TAPE, and FCP-3
· PCI Express base spec 2.0 PCI Bus Power Management Interface, rev. 1.2, Advanced Error Reporting (AER)
· IEEE 802.3ae (10GBASE Ethernet Ports)
· IEEE 802.1q (Virtual LANs)
· IEEE 802.3ad (Link Aggregation)
· IEEE 802.3x (Flow Control)
· IEEE 802.1p (Quality/Class of Service)
· IEEE 802.1Qaz (Enhanced Transmission Selection)
· IEEE 802.1Qaz (Data Center Bridging Capabilities Exchange)
· IEEE 802.1Qbb (Priority-based Flow Control)
· IEEE 802.1ab (Link Layer Discovery Protocol)
· PHP hot plug-hot swap

Architecture

· Dual-channel, 10Gbps Ethernet link speed
· PCIe Express 2.0 (x8, 5GTps), MSI-X support
· Integrated data buffer and code space memory

FCoE Features

· Common driver for HP FCoE CNA and Fibre Channel HBAs from Emulex
· N_Port ID Virtualization (NPIV)
· Support for FIP and FCoE Ether types
· Fabric Provided MAC Addressing (FPMA) support
· 1024 concurrent port logins (RPIs)
· 1024 active exchanges (XRIs) per port

Ethernet Features

· IPv4/IPv6 TCP, UDP checksum offload; Large Send Offload (LSO); Large Receive Offload; Receive Side Scaling (RSS); IPv4 TCP Chimney Offload
· VLAN insertion and extraction
· Jumbo frames up to 9000 bytes (8000 bytes for ports using FCoE)
· Preboot eXecution Environment (PXE) 2.0 network boot support
· Interrupt coalescing
· Load balancing and failover support including adapter fault tolerance (AFT), switch fault tolerance (SFT), adaptive load balancing (ALB), teaming support and IEEE 802.3ad

Accelerated iSCSI Features

· Target discovery methods
· Authentication modes
· INT 13 Boot

Comprehensive OS Support

· Microsoft Windows Server
· VMware ESX
· Red Hat Enterprise Linux Server
· Novell SUSE Linux Enterprise Server

HP ProLiant Gen8 Server Support

· ProLiant DL360p Gen8
· ProLiant DL380p Gen8
· ProLiant ML350p Gen8
· ProLiant SL230s Gen8
· ProLiant SL250s Gen8
· ProLiant SL270s Gen8

Ordering Information

· HP Part Number 629142-B21

OneConnect™   OneCommand™

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