

Overview

HPE Ethernet 10Gb 2-port 570FLB Adapter

The HPE Ethernet 10Gb 2-port 570FLB Onload server adapter is based on Solarflare's next generation 10GbE controller, Solarflare™ SFC9120, and delivers unmatched message rates with low latency and jitter over standard Ethernet along with the lowest CPU utilization and power consumption, enabling the industry's best performance and scalability for financial services and other enterprise data centers. The HPE 570FLB supports enterprise class features such as VLAN tagging, adaptive interrupt coalescing, MSI-X, NIC teaming (bonding), Wake-on-LAN, Receive Side Scaling (RSS), jumbo frames, EEE 1588, PXE boot



HPE Ethernet 10Gb 2-port 570FLB Adapter

Platform Information

Models

HP Ethernet 10Gb 2-port 570FLB Adapter	718939-B21
HP Ethernet 10Gb 2-port 570FLB FIO Adapter	718940-B21

NOTE: This adapter on each server blade connects to a 10 Gb interconnect in bays 1-2 (HPE BladeSystem c7000 Enclosure) or bay 1 (HPE BladeSystem c3000 Enclosure).

NOTE: This adapter supports linking at 1000 Mbps or 10000 Mbps when not connected to a Flex-10 device.

NOTE: This adapter will only support 1000 Mbps when connected to a 1 Gb Ethernet interconnect.

Kit Contents	HPE Ethernet 10Gb 2-port 570FLB Adapter Quick install card Product warranty statement
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Compatibility - Supported Servers	HPE ProLiant BL460c Gen8 NOTE: This is a list of supported servers. Some may be discontinued.
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Compatibility - Supported Interconnect Modules	HPE 6120XG Blade Switch HPE 6120G/XG Blade Switch HPE 1:10Gb Ethernet BL-c Switch Cisco Catalyst 3120G Blade Switch for HPE Cisco Catalyst 3120X Blade Switch for HPE Cisco Catalyst 3020 Blade Switch Cisco Fabric Extender B22HP for HPE HPE GbE2c Layer 2/3 Ethernet Blade Switch HPE 1GbE Pass Thru Module 10GbE Ethernet Pass-Thru Module HPE 6125G Ethernet Blade Switch HPE 6125G/XG Ethernet Blade Switch NOTE: Except for the HPE 6120XG and the Cisco B22 Fabric Extender, all other supported interconnects are limited to 1Gb per port connection.
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Standard Features

At a Glance Features

- Dual-port 10GbE FlexibleLOM network adapter that provides the flexibility to choose the type of LOM to meet growing infrastructure needs
- Hardware and software acceleration and offloads for stateless TCP/IP
- Industry-leading throughput and latency performance
- Up to 40 Gb/s bi-directional near line rate throughput
- Improved small packet performance
- Integrated PHY and MAC
- Support for Preboot eXecution Environment (PXE)
- Interrupt Coalescing
- Uses an x8 PCI Express 2.0 compliant compatible Bus Interface
- Supports Wake-on-LAN (at 1 Gb)

NOTE: Wake-on-LAN is supported only on Port1 from system power state S5.

Throughput-Theoretical Bandwidth	This adapter delivers 20 Gb/s bi-directional Ethernet transfer rate per port (40 Gb/s per adapter), providing the network performance needed to improve response times and alleviate bottlenecks.
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.
802.1Q VLANs	IEEE 802.1Q virtual local area network (VLAN) protocol allows each physical port of this adapter to be separated into multiple virtual NICs for added network segmentation and enhanced security and performance. VLANs increase security by isolating traffic between users. Limiting the broadcast traffic to within the same VLAN domain also improves performance.
HPE Sea Of Sensors 3D	Support for the HPE Sea of Sensors which is a collection of 32 sensors that automatically track thermal activity - heat - across the server. When temperatures get too high, sensors can initiate fans and make other adjustments to reduce energy usage. A significant improvement lies in the ability to apply fan speed increases only to the portion of the system that is rising in temperature, rather than all six fans in unison, which reduces the amount of energy used for cooling.
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.
Jumbo Frames	This adapter supports Jumbo Frames (also known as extended frames), permitting up to a 9,000 byte (KB) transmission unit (MTU) when running Ethernet I/O traffic. This is over five times the size of a standard 1500-byte Ethernet frame. With Jumbo Frames, networks can achieve higher throughput performance and greater CPU utilization. These attributes are particularly useful for database transfer and tape backup operations.

Standard Features

Management Support	This adapter ships with agents that can be managed from HPE Systems Insight Manager or other management application that support SNMP.
Message Signaled Interrupt (Extended) (MSI-X)	Message Signaled Interrupt (Extended) provides performance benefits for multi-core servers by load balancing interrupts between CPUs/cores.
Network Adapter Teaming	This adapter support for NIC teaming helps IT administrators increase network fault tolerance and increased network bandwidth, the team of adapters can work together as a single virtual adapter, providing support for several different types of teaming enabling IT administrators to optimize availability, improve performance and help reduce costs.
Optimized for Virtualization	I/O Virtualization support for VMware NetQueue and Microsoft VMQ helps meet the performance demands of consolidated virtual workloads.
Preboot eXecution Environment (PXE)	Support for PXE enables automatic deployment of computing resources remotely from anywhere. It allows a new or existing server to boot over the network and download software, including the operating system, from a management/ deployment server at another location on the network. Additionally, PXE enables decentralized software distribution and remote troubleshooting and repairs.
TCP/UDP/IP	For overall improved system response, this adapter supports standard TCP/IP offloading techniques including: TCP/IP, UDP 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.
Precision Time Protocol (IEEE 1588 PTP)	Synchronization of system clocks throughout a network, achieving clock accuracy in the sub-microsecond range, making it suitable for measurement and control systems.
Warranty	Maximum: The remaining warranty of the HPE product in which it is installed (to a maximum three-year, limited warranty). Minimum: One year limited warranty. NOTE: Additional information regarding worldwide limited warranty and technical support is available at: http://h17007.www1.hpe.com/us/en/enterprise/servers/warranty/index.aspx#.V4e3tPkrJhE

Service and Support

Service and Support **NOTE:** This adapter is covered under HPE Support Services/ Service Contract applied to the HPE ProLiant Server or enclosure. No separate HPE Support Services# need to be purchased.

Most HPE branded options sourced from HPE that are compatible with your product will be covered under your main product support at the same level of coverage, allowing you to upgrade freely. Additional support is required on select workload accelerators, switches, racks and UPS options 12KVA and over. Coverage of the UPS battery is not included under HPE support services; standard warranty terms and conditions apply.

Warranty and Support Services

Warranty and Support Services will extend to include HPE options configured with your server or storage device. The price of support service is not impacted by configuration details. HPE sourced options that are compatible with your product will be covered under your server support at the same level of coverage allowing you to upgrade freely. Installation for HPE options is available as needed. To keep support costs low for everyone, some high value options will require additional support. Additional support is only required on select high value workload accelerators, fibre switches, InfiniBand and UPS options 12KVA and over. Coverage of the UPS battery is not included under TS support services; standard warranty terms and conditions apply.

Protect your business beyond warranty with HPE Support Services

HPE Technology Services delivers confidence, reduces risk and helps customers realize agility and stability. Connect to HPE to help prevent problems and solve issues faster. HPE Support Services enable you to choose the right service level, length of coverage and response time as you purchase your new server, giving you full entitlement to the support you need for your IT and business.
Protect your product, beyond warranty.

Parts and Materials

Hewlett Packard Enterprise will provide HPE-supported replacement parts and materials necessary to maintain the covered hardware product in operating condition, including parts and materials for available and recommended engineering improvements. Parts and components that have reached their maximum supported lifetime and/or the maximum usage limitations as set forth in the manufacturer's operating manual, product quick-specs, or the technical product data sheet will not be provided, repaired, or replaced as part of these services. The defective media retention service feature option applies only to Disk or eligible SSD/Flash Drives replaced by Hewlett Packard Enterprise due to malfunction.

For more information

Visit the Hewlett Packard Enterprise Service and Support [website](#).

Technical Specifications

General Specifications	Network Processor Data Rate	Solarflare SFC9120 Ethernet Controller Two ports, each at 20 Gb/s bi-directional; 40 Gb/s aggregate bi-directional theoretical bandwidth.
	Bus type Form Factor IEEE Compliance	PCI Express 3.0 (Gen 3) x8 FlexibleLOM 802.3, 802.3x, 802.3ad, 802.3p, 802.1q, 802.3ae
Power and Environmental Specifications	Power Temperature - Operating Humidity - Operating Emissions Classification Agency Approvals	<8W 0° to 55° C (32° to 131° F) 10% to 90% non-condensing FCC Class A USA: FCC Part 15 Class A Canada: ICES-003, Issue 4 Japan: VCCI V3 (2010.04) Class A International: EN55022:2006 + A1:2007 Class A, EN55024:1998+A1:2011+A2; EN61000-3-2:2006, EN61000-3-3:2008 Taiwan: BSMI, CNS13438 (2006) Class A Australia/New Zealand (AS/NZS): EN55022:2006+A12007 class A Korea: KN22 Class A, KN24
	RoHS Compliance Safety	6 of 6 UL Mark (USA and Canada) CE Mark EN 60590
Operating System and Virtualization Support	The Operating Systems supported by this adapter are based on the server OS support. Please refer to the OS Support Matrix at https://www.hpe.com/us/en/servers/server-operating-systems.html .	
Environment-friendly Products and Approach - End-of-life Management and Recycling	Hewlett Packard Enterprise offers end-of-life product return, trade-in, and recycling programs in many geographic areas, for our products. Products returned to Hewlett Packard Enterprise will be recycled, recovered or disposed of in a responsible manner. The EU WEEE Directive (2012/19/EU) 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 Enterprise web site . These instructions may be used by recyclers and other WEEE treatment facilities as well as Hewlett Packard Enterprise OEM customers who integrate and re-sell Hewlett Packard Enterprise equipment.	

Summary of Changes

Date	Version History	Action	Description of Change
23-Oct-2017	Version 4	Changed	Technical specifications - operating system, Service and Support and Part and Materials sections were updated.
05-Dec-2016	Version 3	Changed	Related Options and Technical Specifications sections were updated.
		Removed	Obsolete SKU was deleted: 647590-B21
20-May-2016	Version 2	Changed	Sections were updated in QuickSpecs
		Removed	Obsolete SKUs were deleted: 498358-B21, 438031-B21, 451438-B21, 451439-B21, 410916-B21.
10-Jun-2014	Version 1	New	Initial Version.



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c04312718 - 14970 - Worldwide - V4 - 23-October-2017