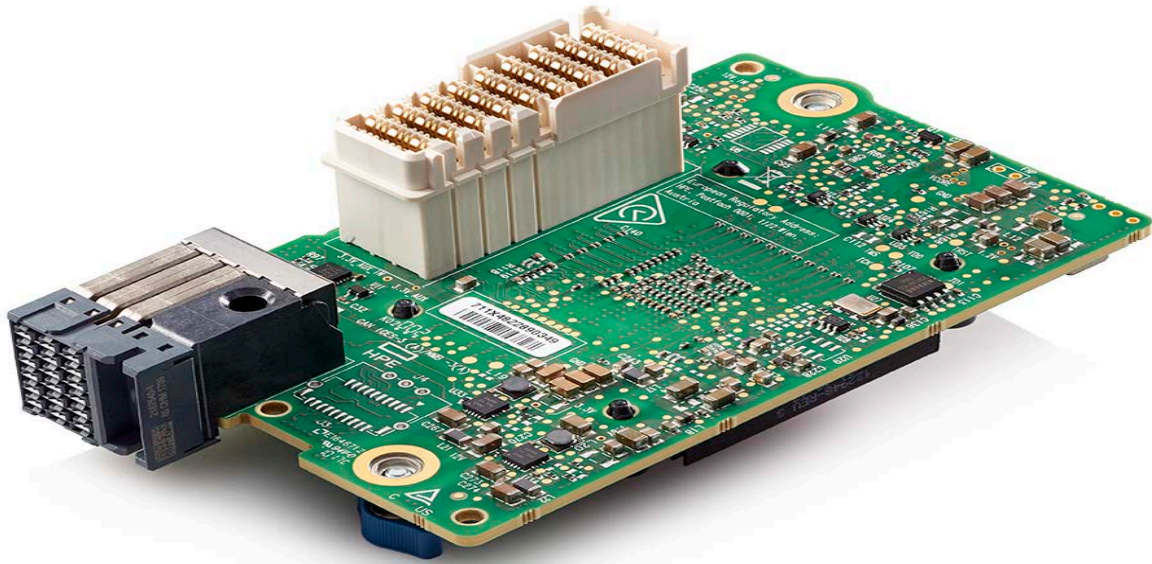


Overview

HPE Synergy Fibre Channel Host Bus Adapters

HPE Synergy Fibre Channel Host Bus Adapters provides high-performance connectivity to HPE Synergy Virtual Connect FC Modules and supports advanced virtualization, enhanced firmware security, dynamic power management and low CPU utilization features.



HPE Synergy Fibre Channel Host Bus Adapters

Platform Information

Models

HPE Synergy 3530C 16Gb Fibre Channel Host Bus Adapter	777454-B21
HPE Synergy 3830C 16Gb Fibre Channel Host Bus Adapter	777452-B21
HPE Synergy 5330C 32Gb Fibre Channel Host Bus Adapter	870828-B21
HPE Synergy 5830C 32Gb Fibre Channel Host Bus Adapter	777456-B21

Kit Contents				
SKU	777454-B21	777452-B21	870828-B21	777456-B21
Description	HPE Synergy 3530C 16Gb Fibre Channel Host Bus Adapter	HPE Synergy 3830C 16Gb Fibre Channel Host Bus Adapter	HPE Synergy 5330C 32Gb Fibre Channel Host Bus Adapter	HPE Synergy 5830C 32Gb Fibre Channel Host Bus Adapter
Quick install card	√	√	√	√
Product warranty statement	√	√	√	√

Servers Support Table				
SKU	777454-B21	777452-B21	870828-B21	777456-B21
Description	HPE Synergy 3530C 16Gb Fibre Channel Host Bus Adapter	HPE Synergy 3830C 16Gb Fibre Channel Host Bus Adapter	HPE Synergy 5330C 32Gb Fibre Channel Host Bus Adapter	HPE Synergy 5830C 32Gb Fibre Channel Host Bus Adapter
HPE Synergy 680 Gen9 Compute Module	√	√		
HPE Synergy 660 Gen10 Compute Module	√	√	√	√
HPE Synergy 480 Gen10 Compute Module	√	√	√	√

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>

Standard Features

Related Option

Please refer to table below for supported synergy interconnect modules:

SKU	777454-B21	777452-B21	870828-B21	777456-B21
Description	HPE Synergy 3530C 16Gb Fibre Channel Host Bus Adapter	HPE Synergy 3830C 16Gb Fibre Channel Host Bus Adapter	HPE Synergy 5330C 32Gb Fibre Channel Host Bus Adapter	HPE Synergy 5830C 32Gb Fibre Channel Host Bus Adapter
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	√	√	√	√
HPE Virtual Connect SE 32Gb FC Module for HPE Synergy	√	√	√	√
Brocade 32Gb Fibre Channel SAN Switch Module for HPE Synergy	√	√	√	√

Standard Features

Standard Features Table				
SKU	777454-B21	777452-B21	870828-B21	777456-B21
Description	HPE Synergy 3530C 16Gb Fibre Channel Host Bus Adapter	HPE Synergy 3830C 16Gb Fibre Channel Host Bus Adapter	HPE Synergy 5330C 32Gb Fibre Channel Host Bus Adapter	HPE Synergy 5830C 32Gb Fibre Channel Host Bus Adapter
Support for with ASN1 v.2.8.7	√	√	√	√
ECC	√	√	√	√
Forward error correction (FEC)	√	√	√	√
NVMe over Fibre Channel Ready			√	√
PLDM Temp(MCTP)	√	√	√	√
T10 DIF	√	√	√	√
T10 Protection Information (T10-PI)	√	√	√	√
VMWare VVoL	√	√	√	√
HPE SmartSAN	√	√	√	√
MCTP	√	√	√	√
HPE Sea Of Sensors 3D	√	√	√	√
Support for greater Server Virtualization	√	√	√	√
Supported with HPE Storage (see HPE SPOCK)	√	√	√	√
Secure Firmware download			√	√
Link cable beaconing (LCB)	√	√	√	√
FDMI,	√	√	√	√
FC Ping	√	√	√	√
FC Trace Route	√	√	√	√
Read Diagnostic Parameters (RDP)	√	√	√	√
Buffer-to-Buffer Credit Recovery (BB_CR)			√	√
Virtual Machine ID (VMID)			√	√
Server Integration	√	√	√	√

Standard Features

Active Health System

Supports HPE Active Health System - monitors and records changes in the server hardware and configuration enabling customers to have accurate information that will assist in diagnosing problems and delivering rapid resolution when server failures occur.

NVMe over Fibre Channel Ready

The Fibre Channel Host Bus Adapters are NVMe-enabled to support emerging NVM Express (NVMe) over Fibre Channel storage networks.

Secure Firmware download

These adapters deliver enhanced security via the new secure firmware update feature which protects and ensures the authenticity of device firmware.

T10 Protection Information (T10-PI)

These adapters support T10-PI for enhanced data integrity when connected to T10-PI enabled arrays like HPE 3PAR StoreServ.

Forward error correction (FEC)

FEC is enabled and improved at 32GFC as required by the FC Specification, automatically correcting transmission errors and improving network performance and resiliency

Class-specific Control (CS_CTL)

QoS capability that enables administrators to prioritize storage traffic to meet the needs of critical VM workloads.

Link cable beaconing (LCB)

LED beaconing for ports on both ends of a physical link simplifies cable identification and management.

FDMI,FC Ping, FC Trace Route

Quickly check connectivity to SAN devices and query the switch management server for in-depth details on connected devices.

HPE Sea of Sensors3D

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.

Read Diagnostic Parameters (RDP)

Identify the source of network and media errors like cyclic redundancy check (CRC) and loss of sync (LOS) by remotely accessing diagnostic information from anywhere in the fabric.

Fabric-assigned Port Worldwide Name (FA_WWN)

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.

Fabric-based Boot LUN (F_BLD)

Allow acquiring Boot-LUN information directly from Gen 5 16Gb or Gen 6 32GFCswitch, speeding up deployment of new servers in a SAN environment.

Buffer-to-Buffer Credit Recovery (BB_CR)

Enhance performance and resiliency by automatically recovering buffer credits, which can be lost on long distance and lossy connections with the potential to stall I/O or degrade performance.

Standard Features

Server Integration

The adapter is a validated, tested, and qualified solution that is optimized for HPE servers. Hewlett Packard Enterprise validates a wide variety of major operating systems drivers with the full suite of web-based enterprise management utilities including HPE Intelligent Provisioning and HPE Systems Insight Manager that simplify network management. This approach provides a more robust and reliable networking solution than offerings from other vendors and provides users with a single point of contact for both their servers and their network adapters.

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

Technical Specifications Table				
SKU	777454-B21	777452-B21	870828-B21	777456-B21
Description	HPE Synergy 3530C 16Gb Fibre Channel Host Bus Adapter	HPE Synergy 3830C 16Gb Fibre Channel Host Bus Adapter	HPE Synergy 5330C 32Gb Fibre Channel Host Bus Adapter	HPE Synergy 5830C 32Gb Fibre Channel Host Bus Adapter
Network Processor	Emulex G5 XE201	Marvell EP2692	Emulex G6 XE501	Marvell EP2722
Data Rate	2 port, each at 16Gb	2 port, each at 16Gb	2 port, each at 32Gb	2 port, each at 32Gb
Bus Type	PCIe 3.0 x8	PCIe 3.0 x8	PCIe 3.0 x8	PCIe 3.0 x8
Power	13W max	13W max	<12W	<12W
Temperature	Operating 0° to 55°C (32° to 131°F) Non-Operating -65° to 85° C (-85° to 185° F)			
Humidity	Operating 10% to 90% non-condensing Non-operating 5% to 95% non-condensing			

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
02-Apr-2019	Version 1	New	New QuickSpecs



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