

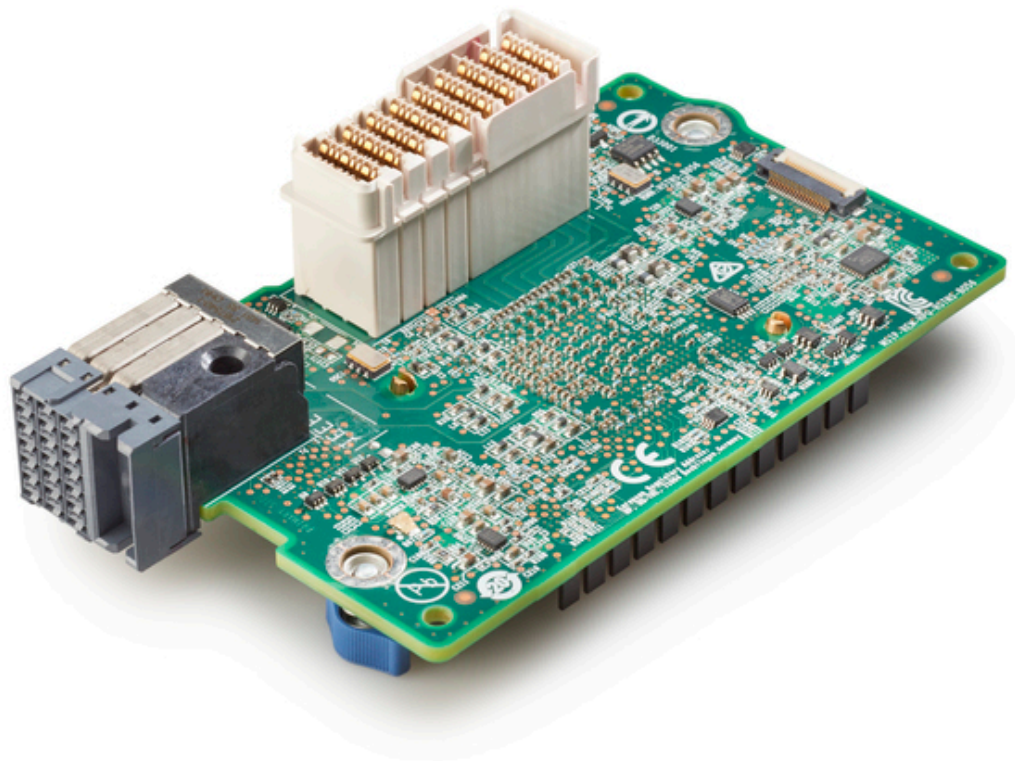
### Overview

#### HPE Synergy 3530C 16Gb Fibre Channel Host Bus Adapter

Recommended SKU - This adapter is a recommended option that has been selected by HPE experts to provide the right technology for a range of workloads and market segments offering the best combination of performance, value and availability.

Designed for the HPE Synergy composable fabric, HPE Synergy 3530C 16Gb Fibre Channel Host Bus Adapter connects Synergy compute resource pools to SANs over 16 Gb native Fibre Channel (FC) fabrics. It provides high-performance connectivity to HPE Synergy Virtual Connect FC Modules and Brocade FC Switch Modules. The Synergy 3530C supports advanced virtualization, security, dual-port isolation, dynamic power management and low CPU utilization features. Doubling the I/O performance of 8 Gb FC HBAs, the Synergy 3530C is ideal for FC storage intense workloads.

Provisioning and updating Synergy 3530C are easy, reliable and fast using HPE Synergy software-defined template-driven, frictionless operation. The HPE Synergy Composer automatically coordinates proper firmware and driver including staging updates to execute and avoid workload disruption.



HPE Synergy 3530C 16Gb Fibre Channel Host Bus Adapter

## Overview

### Models

HPE Synergy 3530C 16Gb Fibre Channel Host Bus Adapter

777454-B21

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## Platform Information

### Kit Contents

HPE Synergy 3530C 16Gb Fibre Channel Host Bus Adapter  
Quick install card  
Product warranty statement

### Compatibility - Supported Synergy Interconnect FC Modules

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

**NOTE: This is a Type C mezzanine card, and can be configured in Type C slot on HPE Synergy Gen9 Compute Module.**

**NOTE: The HPE Synergy 3530C 16Gb Fibre Channel Host Bus Adapter for HPE Synergy Gen9 Compute Module must be deployed with the HPE Synergy Gen9 Compute Module infrastructure and will only work with the HPE Synergy 12000 Frame.**

### Compatibility - Synergy Compute Module Support

HPE Synergy 480 Gen9 Configure-to-order Compute Module  
HPE Synergy 480 Gen9 Configure-to-order w/o Drive Bays Compute Module  
HPE Synergy 480 Gen9 Configure-to-order Expanded Storage Compute Module  
HPE Synergy 620 Gen9 Configure-to-order Compute Module  
HPE Synergy 620 Gen9 Configure-to-order w/o Drive Bays Compute Module  
HPE Synergy 620 Gen9 Configure-to-order Expanded Storage Compute Module  
HPE Synergy 660 Gen9 Configure-to-order Compute Module  
HPE Synergy 660 Gen9 Configure-to-order w/o Drive Bays Compute Module  
HPE Synergy 660 Gen9 Configure-to-order Expanded Storage Compute Module  
HPE Synergy 680 Gen9 Configure-to-order Compute Module  
HPE Synergy 680 Gen9 Configure-to-order w/o Drive Bays Compute Module  
HPE Synergy 680 Gen9 Configure-to-order Expanded Storage Compute Module  
HPE Synergy 480 Gen10 Configure-to-order Compute Module  
HPE Synergy 480 Gen10 Configure-to-order w/o Drive Bays Compute Module  
HPE Synergy 480 Gen10 Configure-to-order Expanded Storage Compute Module  
HPE Synergy 660 Gen10 Configure-to-order Compute Module  
HPE Synergy 660 Gen10 Configure-to-order w/o Drive Bays Compute Module  
HPE Synergy 660 Gen10 Configure-to-order Expanded Storage Compute Module

### Interoperability - HPE Storage and HPE Synergy Party Switches

16 Gb Switches and Directors  
Virtual Connect SE 16Gb FC Module for HPE Synergy  
Brocade 16Gb Fibre Channel SAN Switch Module  
Compatible with external Fibre Channel switches including Hewlett Packard Enterprise and third party vendors including Cisco and Brocade  
Compatible with 16Gb HPE Synergy Fibre Channel modules  
Compatible with 16Gb HPE Synergy Fibre Channel modules  
For details on supported HPE Fibre Channel SAN Switches, please consult the SAN Design Reference Guide at the following WEB address: <https://www.hpe.com/us/en/networking/switches.html>.

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## Standard Features

### At a Glance Features

- Flexible Configuration and Connection of Pools of Compute Resources:
  - Provides flexible connectivity to HPE Synergy Virtual Connect FC Modules and Brocade FC Switch Modules.
- Performance Optimized:
  - Capable of delivering twice the data throughput (MB/s) compared to 8Gb FC HBAs.
  - High link speed combined with larger data block sizes results in improved application performance.
  - Dynamic Port Utilization 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.
- Virtualization Optimized:
  - Ideal for high density server virtualization environments with up to 8,192 concurrent logins and open exchanges.
  - Enables more applications and Virtual Machines to run on a single HPE Synergy Compute Module and Fibre Channel port, resulting in reduced cabling and a higher return on IT investment.
- Power Optimized:
  - Latest generation technology saves power.
  - Reduced number of components on each FC HBA reduces overall power consumption.
- RAS Optimized:
  - Highest data integrity; supports rapid link diagnostics and resolution of cable link issues.
- Security Optimized:
  - SAN-level authentication (FC-SP), fabric-level isolation (NPIV and end-to-end data integrity (T10).
- Management Optimized:
  - Provisions and updates all adapters quickly and consistently using the HPE Synergy template-driven server profiles.
  - Orchestrates reliable adapter firmware updates with an entire HPE Synergy infrastructure from a single tool, HPE Synergy Composer.
- Two 16Gb/s Fibre Channel ports.
- Multi-Path support for redundant HBAs and paths including Linux driver failover.
- RoHS compliance.
- Emulex OneCommand Manager Utility for centralized management and remote control of distributed HBAs.

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### 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>**

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## 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.

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### 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.

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### 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.

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### 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.

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### For more information

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

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## Technical Specifications

<b>System Unit</b>	<b>Dimensions (L x W)</b>	3.5 in x 3.9 in
<b>Power and Environmental Specifications</b>	<b>Power</b>	13 W Max
	<b>Ports</b>	Two
	<b>Temperature - Operating</b>	10° to 70°C (55° to 158°F) at sea level with an altitude derating of 1.0°C per every 305 m (1,000 ft) above sea level to a maximum of 3050 m (10,000 ft), no direct sustained sunlight. Maximum rate of change is 10°C/hr (18°F/hr). The upper limit may be limited by the type and number of options installed. System performance may be reduced if operating with a fan fault or above 30°C (86°F).
	<b>Temperature - Non-Operating</b>	-30° to 60°C (-22° to 140°F). Maximum rate of change is 20°C/hr (36°F/hr).
	<b>Humidity - Operating</b>	10 to 90% relative humidity (Rh), 28°C (82.4°F) maximum wet bulb temperature, non-condensing.
	<b>Humidity - Non-operating</b>	5 to 95% relative humidity (Rh), 38.7°C (101.7°F) maximum wet bulb temperature, non-condensing.
	<b>Altitude - Operating</b>	3050 m (10,000 ft). This value may be limited by the type and number of options installed. Maximum allowable altitude change rate is 457 m/min (1500 ft/min).
	<b>Altitude - Non-operating</b>	9144 m (30,000 ft). Maximum allowable altitude change rate is 457 m/min (1500 ft/min).

<b>Operating System and Virtualization Support</b>	<ul style="list-style-type: none"> <li>• Microsoft Windows Server 2012 and 2012 R2</li> <li>• Microsoft Hyper-V Server 2012 and 2012 R2</li> <li>• Microsoft Windows Server 2016</li> <li>• Red Hat Enterprise Linux x64 6.7, 6.8</li> <li>• Red Hat Enterprise Linux x64 6.7, 6.8</li> <li>• Red Hat Enterprise Linux x64 7.2</li> <li>• SUSE Linux Enterprise Server 11SP4 x64</li> <li>• SUSE Linux Enterprise Server 12 &amp; 12SP1 x64</li> <li>• VMware ESXi 5.5 U3, 6.0 U2</li> <li>• VSphere 2016</li> </ul>
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**NOTE:** For more operating system support and certification information, please visit: [http://h17007.www1.hp.com/us/en/enterprise/servers/supportmatrix/redhat\\_linux.aspx#.V4e8tPkrJD8](http://h17007.www1.hp.com/us/en/enterprise/servers/supportmatrix/redhat_linux.aspx#.V4e8tPkrJD8)

### 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
05-Feb-2018	Version 7	Changed	Overview section was updated.
17-Jul-2017	Version 6	Changed	Compatibility section was updated.
10-Feb-2017	Version 5	Changed	Overview, Products Highlights, and Technical Specifications sections were updated.
18-Nov-2016	Version 4	Changed	Service and Support section was updated.
06-Jun-2016	Version 3	Changed	Overview section was updated.
		Added	SKU added in Overview section: 777454-B21
31-Mar-2016	Version 2	Changed	Overview, and Product Highlights sections were updated.
1-Dec-2015	Version 1	Created	New QuickSpecs



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