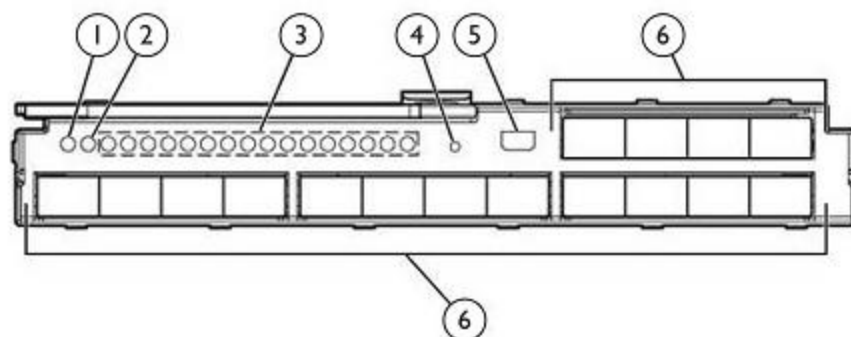


Overview

HPE 10GbE Pass-Thru Module

The HPE 10GbE Pass-Thru Module is designed for c-Class BladeSystem and HPE Integrity Superdome 2 customers requiring a non-blocking, one-to-one connection between each server and the network. The pass-thru module provides 16 uplink ports that accept both SFP and SFP+ connectors.

The HPE 10GbE Pass-Thru Module can support 1Gb and 10Gb connections on a port by port basis. Optical as well as Direct Attach Copper (DAC) cables are also supported. Both standard Ethernet as well as Converged Enhanced Ethernet (CEE) traffic to an FCoE capable switch is possible when using the appropriate NIC or adapter module.



HPE 10GbE Pass-Thru Module

- | | |
|---|--|
| 1. UID LED | 4. Reset Button |
| 2. Health LED | 5. Mini USB RS-232 management port |
| 3. Ethernet port link status and speed LEDs | 6. Uplinks ports that accept SFP and SFP+ transceiver modules and Direct Attach Cables (DAC) |

What's New

- Support for HPE ProLiant G7 servers
- Support for Converged Network Adapters

At A Glance

Performance:

- 16 direct server to network connections
- Auto-sense 1Gb or 10Gb operation on a port by port basis
- Supports standard Ethernet as well as Converged Enhanced Ethernet
- Supports all NICs and mezzanine adapters including Flex Adapters

Management:

- No management required
- Module performance monitored by the On-Board Administrator
- Front panel or OA access for service and test and firmware updates

Models and Options

Models

HPE 10GbE Ethernet Pass-Thru Module for c-Class BladeSystem

HP 10GbE Pass-Thru Interconnect Module

538113-B21

AT084A

Compatibility

HPE ProLiant
Servers

- HPE ProLiant BL2x220c G7
- HPE ProLiant BL2x220c G5
- HPE ProLiant BL260c G5
- HPE ProLiant BL280c G6
- HPE ProLiant BL420 Gen8
- HPE ProLiant BL460c
- HPE ProLiant BL460c G5
- HPE ProLiant BL460c G6
- HPE ProLiant BL460c G7
- HPE ProLiant BL460c Gen8
- HPE ProLiant BL460c Gen9
- HPE ProLiant WS460c Gen8
- HPE ProLiant WS460c Gen9
- HPE ProLiant BL465c
- HPE ProLiant BL465 G5
- HPE ProLiant BL465 G6
- HPE ProLiant BL465 G7
- HPE ProLiant BL465 Gen8
- HPE ProLiant BL480c
- HPE ProLiant BL490c G7
- HPE ProLiant BL490c G6
- HPE ProLiant BL495c G5
- HPE ProLiant BL495c G6
- HPE ProLiant BL620c G7
- HPE ProLiant BL660c Gen8
- HPE ProLiant BL660c Gen9
- HPE ProLiant BL680c
- HPE ProLiant BL680c G7
- HPE ProLiant BL685c
- HPE ProLiant BL685 G5
- HPE ProLiant BL685 G6
- HPE ProLiant BL685 G7

NOTE: Some servers listed above may be discontinued

HPE Integrity
Servers

- HPE Integrity BL860c
- HPE Integrity BL860c i2
- HPE Integrity BL870c
- HPE Integrity BL870c i2
- HPE Integrity BL890c i2

HPE Superdome
Servers

- HPE Superdome 2 - 8s Server
- HPE Superdome 2 - 8s Promotional Server
- HPE Superdome 2 - 16s Server

ProLiant BL c-
Class
Server Blade
Enclosures

- HPE BladeSystem c3000 Enclosure
- HPE BladeSystem c7000 Enclosure

HPE c-Class
Mezzanine
Adapters

- HPE NC325m PCI Express Quad Port 1Gb Server Adapter
- HPE NC326m PCI Express Dual Port 1Gb Server Adapter
- HPE NC360m Dual Port 1GbE BL-c Adapter
- HPE NC364m Quad Port 1GbE BL-c Adapter
- HPE NC373m PCI Express Dual Port Multifunction Gigabit Server Adapter
- HPE NC382m PCI Express Dual Port Multifunction Gigabit Server Adapter
- HPE NC522m Dual Port Flex-10 10GbE Multifunction BLc Adapter
- HPE NC530m HPE Flex-10 10Gb 2-port 530M Adapter
- HPE NC532m Dual Port Flex-10 10GbE Multifunction BLc Adapter
- HPE NC542m Dual Port Flex-10 10GbE Multifunction BLc Adapter
- HPE NC550m Dual Port Flex-10 10GbE Multifunction BLc Adapter
- HPE NC552m Dual Port Flex-10 10GbE Multifunction BLc Adapter

- HPE NC551m Dual Port FlexFabric 10Gb Network Adapter
- HPE NC544m HPE InfiniBand QDR/Ethernet 10Gb 2P 544M Adapter
- HPE NC554m HPE FlexFabric 10Gb 2-port 554M Adapter
- QLogic QMH4062 1GbE iSCSI Adapter for HPE BladeSystem c-Class

NOTE: Some adapters listed above may be discontinued.

Cabling and Transceivers

SFP+ Direct attached cables:

- HPE 1m SFP+ 10GbE Copper Cable
- HPE 3m SFP+ 10GbE Copper Cable
- HPE 5m SFP+ 10GbE Copper Cable
- HPE 7m SFP+ 10GbE Copper Cable
- HPE 10-GbE SFP+-SFP+ 1m Direct Attach Cable
- HPE 10-GbE SFP+-SFP+ 3m Direct Attach Cable
- HPE 10-GbE SFP+-SFP+ 7m Direct Attach Cable

NOTE: The above cables have been tested and verified to work with the HPE 10GbE Pass-Thru Module. However, the module will accept cables from any vendor. Hewlett Packard Enterprise does not guarantee the performance of non HPE cables and users may receive a warning message via the CLI when a non verified cable has been inserted.

Transceivers:

- HPE BladeSystem 10Gb SR SFP+
- HPE BladeSystem 10Gb LR SFP+
- HPE BladeSystem 10Gb LRM SFP+
- HPE BladeSystem 1Gb SX SFP Opt Kit
- HPE BladeSystem 1Gb RJ-45 SFP Opt Kit

NOTE: Only HPE transceivers listed above may be used in the HPE 10GbE Pass-Thru Module.

Compatibility Matrix

Downlink Server LOM or Mezzanine port	Installed uplink port transceiver or cable	Supported port speed
NC522m	10Gb SR SFP+	10Gb
NC530m	10Gb LR SFP+	
NC532m	10Gb LRM SFP+	
NC532i	HPE 1m SFP+ 10GbE Copper Cable	
NC542m	HPE 3m SFP+ 10GbE Copper Cable	
NC544m	HPE 5m SFP+ 10GbE Copper Cable	
NC550m	HPE 7m SFP+ 10GbE Copper Cable	
NC552m	10Gb SR SFP+	10Gb Ethernet
	10Gb LR SFP+	
	10Gb LRM SFP+	
NC551m	HPE 1m SFP+ 10GbE Copper Cable	
NC551i	HPE 3m SFP+ 10GbE Copper Cable	
NC553i	HPE 5m SFP+ 10GbE Copper Cable	
NC554m	HPE 7m SFP+ 10GbE Copper Cable	
NC522m	1Gb SX SFP Opt Kit	1Gb
NC530m	1Gb RJ-45 SFP Opt Kit	
NC532m		
NC532i		

NC542m		
NC550m		
NC552m		
NC551m/i		
NC553i		
NC325m		
NC326m		
NC360m		
NC364m		
NC373m		
NC382m		
QLogic QMH4062		
All HPE ProLiant Generation 5 (G5) and earlier servers		
NC325m	10Gb SR SFP+	
NC326m	10Gb LR SFP+	
NC360m	10Gb LRM SFP+	
NC364m	HPE 1m SFP+ 10GbE Copper Cable	
NC373m	HPE 3m SFP+ 10GbE Copper Cable	Not supported
NC382m	HPE 5m SFP+ 10GbE Copper Cable	
QLogic QMH4062, All HPE ProLiant Generation 5 (G5) and earlier servers (except HPE ProLiant BL495c G5)	HPE 7m SFP+ 10GbE Copper Cable	

NOTE: Some options listed above may be discontinued.

Service and Support

Service and Support	HPE Technology Services HPE Technology Services offers you consultants and support experts to solve your most complex infrastructure problems. We help keep your business running, boost availability and avoid downtime. Protect your business beyond warranty with HPE Pointnext operational services When you buy HPE Options, it's also a good time to think about what level of service you may need. HPE Pointnext operational services provide total care and support expertise with committed response choices designed to meet your IT and business need.
Recommended Services	Recommended HPE Pointnext operational services for optimal satisfaction with your HPE product 3-Year HPE 24x7 4 hour Response, Hardware Support Onsite Service Provides you with rapid remote support and if required an Hewlett Packard Enterprise authorized representative who will arrive on site any time and day of the year to begin hardware maintenance service within 4 hours of the service request being logged. https://www.hpe.com/h20195/v2/getpdf.aspx/5982-6547eee HPE ProLiant Server Hardware Installation Provides for the basic hardware installation of Hewlett Packard Enterprise branded servers, storage devices and networking options to assist you in bringing your new hardware into operation in a timely and professional manner.https://www.hpe.com/h20195/v2/getpdf.aspx/5981-9356en
Related Services	Related HPE Pointnext operational services to enhance your HPE product experience 3-Year HPE 6 hour Hardware Support Onsite Call-to-Repair Service Provides an IT manager with a team of support specialists who will quickly begin troubleshooting the system to help return the hardware to operating condition within 6 hours of the initial service request to the HPE Global Solution Center.

<https://www.hpe.com/h20195/v2/getpdf.aspx/5982-6547en.pdf>

HPE Proactive Select Service

Provides a flexible way to purchase Hewlett Packard Enterprise best-in-class consultancy and technical services. You can buy Proactive Select Service Credits when you purchase your hardware and then use the credits over the next 12

months. <https://www.hpe.com/h20195/v2/getpdf.aspx/4aa2-3842enn>

Insight Remote Support	Delivers secure remote monitoring and support for Hewlett Packard Enterprise servers and storage, 24x7 at no additional cost. Available as part of Hewlett Packard Enterprise Warranty, Care Pack and Service Contract offers.
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.
Service limitation	Limitations to the defective media retention service feature option The defective media retention service feature option applies only to Disk or eligible SSD/Flash Drives replaced by Hewlett Packard Enterprise due to malfunction. It does not apply to any exchange of Disk or SSD/Flash Drives that have not failed. SSD/Flash Drives that are specified by Hewlett Packard Enterprise as consumable parts and/or that have exceeded maximum supported lifetime and/or the maximum usage limit as set forth in the manufacturer's operating manual or the technical data sheet are not eligible for the defective media retention service feature option.
For more information	To learn more on services for HPE ESSN Options, please contact your Hewlett Packard Enterprise sales representative or Hewlett Packard Enterprise Authorized Channel Partner. Or visit: http://www.hp.com/services/proliant or www.hp.com/services/bladeSystem

Related Options

Cabling and Transceivers	SFP+ Direct attached cables	
	HPE BladeSystem c-Class 10GbE SFP+ to SFP+ 1m Direct Attach Copper Cable	487652-B21
	HPE BladeSystem c-Class 10GbE SFP+ to SFP+ 3m Direct Attach Copper Cable	487655-B21
	HPE BladeSystem c-Class 10GbE SFP+ to SFP+ 5m Direct Attach Copper Cable	537963-B21
	HPE BladeSystem c-Class 10GbE SFP+ to SFP+ 7m Direct Attach Copper Cable	487658-B21
	Transceivers	
	HPE BladeSystem c-Class 10Gb SFP+ SR Transceiver	455883-B21
	HPE BladeSystem c-Class 10Gb SFP+ LR Transceiver	455886-B21
	HPE BladeSystem c-Class 10Gb SFP+ LRM Transceiver	455889-B21
	HPE BladeSystem c-Class Virtual Connect 1G SFP SX Transceiver	453151-B21
	HPE BladeSystem c-Class Virtual Connect 1G SFP RJ-45 Transceiver	453154-B21
Service and Support Offerings (HPE Pointnext operational services)	NOTE: HPE Pointnext operational services for the c7000 and c3000 Enclosure cover the enclosure, power supplies and fans. HPE qualified rack options are covered by these services when installed within the same rack. Hewlett Packard Enterprise supported c-Class enclosure devices including	

pass thru, Ethernet interconnect and virtual connect modules are also covered by the c7000 and c3000 enclosure Care Pack services.

NOTE: SAN/Fabric switches for the HPE c-Class BladeSystem are not covered under the c7000 and c3000 enclosure Care Packs, SAN/Fabric switches carry separate Care Packs. SAN/Fabric Switch Care Pack service level support should always be uplifted to match existing storage or server service level.

Hardware Support Services On-site Service

HPE 3 year Next business day c7000 Enclosure Hardware Support

UE477E

NOTE:NOTE: Uplifts the Ethernet devices to the same level of warranty as the c-class enclosure.

HPE 3 year 4-Hour 24x7 c7000 Enclosure Hardware Support

UE479E

Installation & Start-up Services

HPE BladeSystem c7000 Infrastructure Startup Service

UE602E

HPE BladSys c7000 Encd Network Startup Service

UE603E

HPE Install c-Class Server Blade Service

UE493E

HPE Hardware Install c-Class Enclosure and Server Blade Service

UE494E

NOTE: For more information, customer/resellers can contact:

<http://www.hp.com/services/blade-system-services>

Technical Specifications

Shipping Dimensions	Length	11.42 in (290 mm)
	Width	14.49 in (368 mm)
	Height	2.36 in. (60 mm)
Shipping Weight		2.1 kg (4.6 lbs)
Product Specifications Hardware	Performance	320 Gbps external port bandwidth per module Measured latency under 536nS per port @ 10Gb Line rate 10Gb full-wire speed performance Auto-negotiation and auto-sensing with full-duplex support
	Connectors and Cabling	Uplink Ports 16 SFP/SFP+ Modules Management Mini-USB Management
	Network Transfer Rate	1 Gbps Port (2,000 Mbps full duplex) 10 Gbps port (20,000 Mbps full duplex)
	LED Indicators	UID LED Blue light on module is activated. Blue light off module is deactivated.
		Health LED Off: The pass-thru module is powered off. Green: The pass-thru module is powered up, and all ports match. Amber: An issue exists, such as a port mismatch.
	Ethernet port	Green Link is 10G Flashing green 10G link activity is detected
		Amber Link is 1G Flashing amber 1G link activity is detected.
		Flashing alternately green and

		amber A link mismatch condition exists.
Product Dimensions	Length	10.5 in (267.7 mm)
	Width	7.5 in (192.79 mm)
	Height	1.1 in (27.94mm)
Product Weight	1.6 kg (3.97 lbs)	
Environmental Ranges	Operating Temperature 50° to 95° F (10° to 35° C)	
	Non-operating Temperature -40° to 158° F (-40° to 70° C)	
	Relative Humidity (non-condensing) Operating 5% to 95%	
Power Specification	Power Requirements 12VDC: 6.3A, 68W maximum	
Safety and Compliance	TUV to UL 60950-1, and CAN/CSA C22.2 No. 60950-1 and to EN 60950-1	
Safety Certifications	CE Marking RoHS 6/6 compliant	
Electromagnetic Emissions	FCC Part 15 Class A EN 55022: 1998 (CISPR22)	
Certifications	EN 55024: 1998 (CISPR24)	
FCC Part 15 Class A	VCCI Class A AS/NZS 3548 Class A CE CNS 13438 Class A MIC MIC	

Environment-friendly Products and Approach	End-of-life Management and Recycling	Hewlett Packard Enterprise offers end-of-life Hewlett Packard Enterprise product return, trade-in, and recycling programs in many geographic areas. For trade-in information, please go to: http://www.hp.com/go/green. To recycle your product, please go to: http://www.hp.com/go/green or contact your nearest Hewlett Packard Enterprise sales office. Products returned to Hewlett Packard Enterprise will be recycled, recovered or disposed of in a responsible manner. The EU WEEE directive (2002/95/EC) 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 at: http://www.hp.com/go/green. 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 10	Changed	Care Pack naming and Service and Support- Parts and Materials updated.
17-Dec-2015	From Version 8 to 9	Changed	Related Options and Compatibility sections were updated.
		Removed	Obsolete SKUs deleted: UE478E, UE480E
17-Aug-2011	From Version 7 to 8	Changed	Changes made in Compatibility section.

26-Mar-2012	From Version 6 to 7	Changed	HPE ProLiant BL460c Gen8 server was added to Compatibility HPE NC530m HPE Flex-10 10Gb 2-port 520M Adapter, HPE NC544m HPE Infiniband QDR/Ethernet 10Gb 2P 544m Adapter and HPE NC554m HPE FlexFabric 10Gb 2-port 554M Adapter were added to HPE c-Class Mezzanine Options ProCurve 10-GbE SFP+ 1m Direct Attach Cable, ProCurve 10-GbE SFP+ 3m Direct Attach Cable and ProCurve 10-GbE SFP+ 7m Direct Attach Cable were removed from Cabling and Transceivers
20-Jun-2011	From Version 5 to 6	Changed	Model and Related Options product descriptions were revised Mentions of ProCurve were removed
18-Mar-2011	From Version 4 to 5	Changed	Service and Support was completely revised HPE ProLiant BL620c G7 and BL680c G7 were added to HPE ProLiant Servers HPE BladeSystem 10Gb LR SFP+ was added to Cabling and Transceivers
24-Nov-2010	From Version 3 to 4	Added	HPE Integrity 10GbE Pass-Thru Module was added to Models and Options HPE Superdome Servers was added to Compatibility
05-Oct-2010	From Version 2 to 3	Added	HPE ProLiant BL2x220c G7, BL460c G7, BL465 G7, BL490c G7, BL680c G7 and BL685c G7 were added to HPE ProLiant Servers HPE NC550m and NC552m Dual Port Flex-10 10GbE Multifunction BLc Adapters and HPE NC551m Dual Port FlexFabric 10Gb Network Adapter was added to HPE c-Class Mezzanine Adapters and Compatibility Matrix Service and Support was added
22-Jun-2010	From Version 1 to 2	Added	What's New was added to the Overview NOTE was added to HPE c-Class Mezzanine Adapters and Compatibility Matrix HPE Integrity BL860c i2, BL870c i2 and BL890c i2 Server Blades were added






[Sign up for updates](#)

 Rate this document

© Copyright 2017 Hewlett Packard Enterprise Development LP. The information contained herein is subject to change without notice. The only warranties for Hewlett Packard Enterprise products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. Hewlett Packard Enterprise shall not be liable for technical or editorial errors or omissions contained herein.



Microsoft and Windows are US registered trademarks of Microsoft Corporation.

C04123342 - 13508 - Worldwide - V10 - 23-October-2017