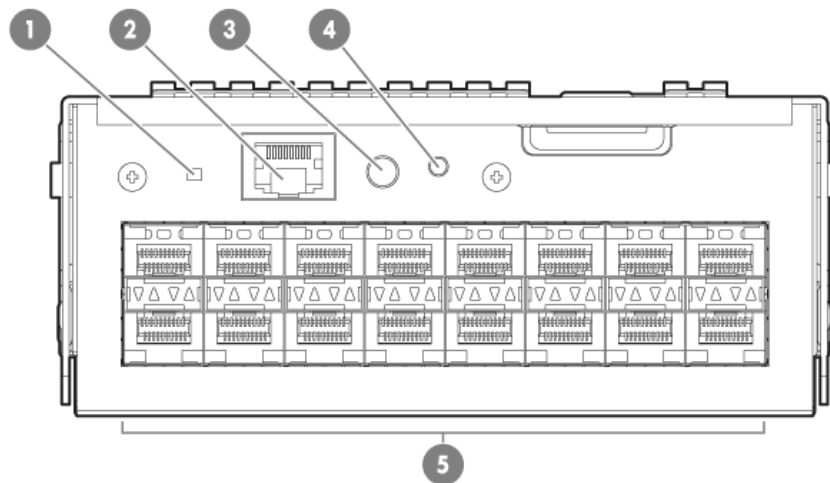


Overview

HPE Moonshot-16SFP+ Uplink Module

The HPE Moonshot system's modular design dramatically simplifies and future-proofs your datacenter for a variety of workloads. The HPE Moonshot-16SFP+ Uplink Module, along with the HPE Moonshot-45XGc Switch Module or HPE Moonshot-180G Switch Module, provides the Ethernet networking functionality for the new HPE Moonshot 1500 chassis. Each chassis supports up to two Moonshot-16SFP+ Uplink Modules which can be configured for redundancy or traffic isolation. Each uplink module delivers 160 GbE of bandwidth to connect the HPE Moonshot system to an external network.



16SFP+ Uplink Module Components

1. Reset button
2. Serial console port
3. UnitID (UID) LED / Button
4. Health LED
5. Sixteen (16) SFP+ ports

Models

HPE Moonshot-16SFP+ Uplink Module Kit

783263-B21

Standard Features

Standard Features

- SFP+ ports support either 10Gb or 1Gb depending on pluggable module inserted
- Serial port for out-of-band management
- Link connectivity and activity LEDs
- UnitID (UID) LED / Button for serviceability
- Reset button

HPE Interconnect modules

NOTE: Up to two identical pairs of Switch and Uplink modules are supported in the Moonshot 1500 Chassis. Dual switch modules are required for network redundancy, regardless of cartridge configuration.

NOTE: Check Compatibility matrix below for supported switch and uplink modules

NOTE: For information HPE Moonshot Cartridges and Switch Modules, please see the following:

Cartridge:

HPE ProLiant m300 Server Cartridge

<https://www.hpe.com/h20195/v2/GetHtml.aspx?docname=c04111351>

HPE ProLiant m350 Server Cartridge

<https://www.hpe.com/h20195/v2/GetHtml.aspx?docname=c04384060>

HPE ProLiant m400 Server Cartridge

<https://www.hpe.com/h20195/v2/GetHtml.aspx?docname=c04384048>

HPE ProLiant m700 Server Cartridge

<https://www.hpe.com/h20195/v2/GetHtml.aspx?docname=c04111350>

HPE ProLiant m710 Server Cartridge

<https://www.hpe.com/h20195/v2/GetHtml.aspx?docname=c04384063>

HPE ProLiant m800 Server Cartridge

<https://www.hpe.com/h20195/v2/GetHtml.aspx?docname=c04384065>

Switch:

HPE Moonshot-45XGc Switch Module

<https://www.hpe.com/h20195/v2/GetHtml.aspx?docname=c04384058>

HPE Moonshot-180G Switch Module

<https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04111290>

Compatibility

| | | CARTRIDGES | | | | | | | Uplink | | |
|-----------------------------|-------|------------|------|---------------------------|------|---------------------------|---------------------------|------|-----------------------------|------------------------------|------------------------------|
| Switch | Speed | m300 | m350 | m400 | M700 | M710 | M710p | M800 | Moonshot 6SFP+ Uplink | Moonshot 16SFP+ Uplink | Moonshot 4QSFP+ Uplink |
| FASTPAST SWITCHES | | | | | | | | | | | |
| Moonshot 45G Switch | 1Gb | X | | X 1Gb speed only | | X 1Gb speed only | X 1Gb speed only | | X | | |
| Moonshot 180G Switch | 1Gb | X | X | X 1Gb speed only | X | X 1Gb speed only | X 1Gb speed only | X | | X | X |
| COMWARE SWITCHES | | | | | | | | | | | |
| Moonshot 45Gc Switch | 1Gb | X | | X 1Gb speed only | | X 1Gb speed only | X 1Gb speed only | | X | | |
| Moonshot 45XGc Switch | 1Gb | X | | X 1Gb speed only | | X 1Gb speed only | X 1Gb speed only | | | X | X |
| | 10 Gb | | | X | | X | X | | | X | X |

Service and Support

Service and Support **Recommended HPE Care Pack Services for your HPE product**
(4 and 5 year Service offerings are also available)

HPE Technology Services

HPE Technology Services delivers confidence, reduces risk and helps customers realize agility and stability. Connect to Hewlett Packard Enterprise to help prevent problems and solve issues faster. Our support technology lets you to tap into the knowledge of millions of devices and thousands of experts to stay informed and in control, anywhere, any time.

Protect your business beyond warranty with HPE Care Pack Services

HPE Care Pack Services enable you to order the right service level, length of coverage and response time as you purchase your new server, giving you full entitlement for the selected support.

Recommended HPE Care Pack Services for your HPE product
(4 and 5 year Service offerings are also available)

Optimized Care

Foundation Care 24x7, three-year Care Pack Service

HPE Foundation Care 24x7 connects you to Hewlett Packard Enterprise 24 hours a day, seven days a week for assistance on resolving issues. Hardware onsite response within four hours if needed; collaborative software included in this Care Pack service provides troubleshooting assistance on industry leading software running on your HPE server. Simplify your support experience and make Hewlett Packard Enterprise your first call for hardware or software questions.

<https://www.hpe.com/h20195/V2/GetDocument.aspx?docname=4AA4-8876ENW&cc=us&lc=en>

Standard Care

Foundation Care NBD, three-year Care Pack Service

HPE Foundation Care Next Business Day connects you to Hewlett Packard Enterprise during business hours for assistance on resolving issues – features next business day hardware onsite response if needed and software call back within two hours. Collaborative software support is included and provides troubleshooting assistance on industry leading software running on your server. Simplify your support experience and make Hewlett Packard Enterprise your first call for hardware or software questions.

<https://www.hpe.com/h20195/V2/GetDocument.aspx?docname=4AA4-8876ENW&cc=us&lc=en>

Related Services

HPE Moonshot Installation & Startup Service

HPE Installation and Startup Service for the Moonshot System provides for the installation of one system and its associated Moonshot servers and network switches, as well as operating system deployment and basic configuration of OS network parameters to establish network connectivity

HPE Datacenter Care service

HPE Datacenter Care helps you improve IT stability and security, increase the value of IT, and enable agility and innovation. It is a structured framework of repeatable, tested, and globally available services “building blocks.” You can deploy, operate, and evolve your datacenter wherever you are on your IT journey. With HPE Datacenter Care, you benefit from a personalized relationship with Hewlett Packard Enterprise via a single point of accountability for Hewlett Packard Enterprise and others’ products. For more information, visit <http://www.hp.com/services/datacentercare>

HPE Self-Service Spares Service answers the question: What do you do when you need parts? We can set it up so that you get spare parts onsite through our automated self-service spares. You simply go to the part of your data center where the parts live, scan them out, scan in the broken one, and you're done. We maintain your inventory of good spares, so that what you need is ready to go when you need it. And we provide monthly service excellence reports illustrating onsite inventory performance.

Connect your devices to Unlock all of the benefits of your technology investment by connecting your products to Hewlett

Service and Support

| | |
|---|--|
| HPE | Packard Enterprise. Achieve up to 77% ¹ reduction in down time, near 100% ² diagnostic accuracy and a single consolidated view of your environment. By connecting, you will receive 24x7 monitoring, pre-failure alerts, automatic call logging, and automatic parts dispatch. HPE Proactive Care Service and HPE Datacenter Care Service customers will also benefit from proactive activities to help prevent issues and increase optimization. All of these benefits are already available to you with your server storage and networking products, securely connected to Hewlett Packard Enterprise support. |
| Defective Media Retention (DMR) and Comprehensive Defective Material Retention | <p>If your business deals with sensitive or legally protected data, you know that it's not a simple matter to return a defective hardware component, but keeping it conflicts with the terms and conditions of many standard warranty agreements. If you don't return the component, you'll be charged for the replacement part.</p> <p>HPE Foundation Care services are available with defective media retention of failed hard drives and comprehensive defective material retention of those other data-retentive components, such as memory, switches, processors and more. This may be purchased as an optional add-on to your HPE Foundation Care service purchase. This service is critical for customers who:</p> <ul style="list-style-type: none">• Need to control and secure their classified, proprietary and confidential data.• Are subject to current data privacy regulations.• Want a simpler, more cost-effective solution when choosing not to return a malfunctioning disk drive or other data retentive component. |
| | For more information on our data privacy services, see: http://www.hp.com/services/dataprivacy . |
| HPE Support Center | <p>Hewlett Packard Enterprise provides several tools that make it simpler to get help from HPE:</p> <p>HPE Support Center is personalized online support portal with access to information, tools and experts to support Hewlett Packard Enterprise business products. Submit support cases online, chat with Hewlett Packard Enterprise experts, access support resources or collaborate with peers. Learn more: http://www.hp.com/go/hpsc</p> <p>The HPE Support Center Mobile App allows you to resolve issues yourself or quickly connect to an agent for live support. Now, you can get access to personalize IT support anywhere, anytime. HPE Support Center are available at no additional cost with a Hewlett Packard Enterprise warranty, HPE Care Pack or Hewlett Packard Enterprise contractual support agreement.</p> |
| | NOTE: HPE Support Center Mobile App is subject to local availability. |
| For more information | To learn more on HPE Moonshot, please contact your Hewlett Packard Enterprise sales representative |

Related Options

Supported Cables with Fastpath Switch (Moonshot 180G Switch)

| | | |
|--|--|------------|
| SFP Options | HPE BladeSystem c-Class Virtual Connect 1G SFP SX Transceiver | 453151-B21 |
| | HPE X120 1G SFP RJ45 T Transceiver | JD089B |
| | HPE BladeSystem c-Class Virtual Connect 1G SFP RJ-45 Transceiver | 453154-B21 |
| | HPE X120 1G SFP LC SX Transceiver | JD118B |
| SFP+ Options | HPE BladeSystem c-Class 10Gb SFP+ SR Transceiver | 455883-B21 |
| | HPE X130 10G SFP+ LC SR Transceiver | JD092B |
| Direct Attach Cables | HPE BladeSystem c-Class 10GbE SFP+ to SFP+ 0.5m Direct Attach Copper Cable | 487649-B21 |
| | 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 |
| | HPE X242 10G SFP+ to SFP+ 1m Direct Attach Copper Cable | J9281B |
| | HPE X242 10G SFP+ to SFP+ 3m Direct Attach Copper Cable | J9283B |
| | HPE X242 10G SFP+ to SFP+ 7m Direct Attach Copper Cable | J9285B |
| | HPE FlexNetwork X240 10G SFP+ to SFP+ 0.65m Direct Attach Copper Cable | JD095C |
| | HPE FlexNetwork X240 10G SFP+ to SFP+ 1.2m Direct Attach Copper Cable | JD096C |
| | HPE FlexNetwork X240 10G SFP+ to SFP+ 3m Direct Attach Copper Cable | JD097C |
| | HPE FlexNetwork X240 10G SFP+ to SFP+ 5m Direct Attach Copper Cable | JG081C |
| | HPE FlexNetwork X240 10G SFP+ SFP+ 7m Direct Attach Copper Cable | JC784C |
| | HPE StoreFabric C-series 3M Passive Copper SFP+ Cable | K2Q21A |
| | HPE StoreFabric C-series 5M Passive Copper SFP+ Cable | K2Q22A |
| | HPE B-series SFP+ to SFP+ Active Copper 1.0m Direct Attach Cable | AP818A |
| | HPE B-series SFP+ to SFP+ Active Copper 3.0m Direct Attach Cable | AP819A |
| HPE B-series SFP+ to SFP+ Active Copper 5.0m Direct Attach Cable | AP820A | |

NOTE: The transceivers and cables listed above have been qualified and certified to work with this product. Transceiver and DAC cables from any manufacturer will be accepted, but they will not be supported by Hewlett Packard Enterprise.

Supported Cables with Fastpath Switch (Moonshot 45XGc Switch)

| | | |
|-----------------------------|--|------------|
| SFP Options | HPE BladeSystem c-Class Virtual Connect 1G SFP SX Transceiver | 453151-B21 |
| | HPE X120 1G SFP RJ45 T Transceiver | JD089B |
| | HPE BladeSystem c-Class Virtual Connect 1G SFP RJ-45 Transceiver | 453154-B21 |
| | HPE X120 1G SFP LC SX Transceiver | JD118B |
| SFP+ Options | HPE BladeSystem c-Class 10Gb SFP+ SR Transceiver | 455883-B21 |
| | HPE X130 10G SFP+ LC SR Transceiver | JD092B |
| Direct Attach Cables | HPE BladeSystem c-Class 10GbE SFP+ to SFP+ 0.5m Direct Attach Copper Cable | 487649-B21 |
| | 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 X242 10G SFP+ to SFP+ 1m Direct Attach Copper Cable | J9281B |
| | HPE X242 10G SFP+ to SFP+ 3m Direct Attach Copper Cable | J9283B |
| | HPE X242 10G SFP+ to SFP+ 7m Direct Attach Copper Cable | J9285B |

Related Options

| | |
|--|--------|
| HPE FlexNetwork X240 10G SFP+ to SFP+ 0.65m Direct Attach Copper Cable | JD095C |
| HPE FlexNetwork X240 10G SFP+ to SFP+ 1.2m Direct Attach Copper Cable | JD096C |
| HPE FlexNetwork X240 10G SFP+ to SFP+ 3m Direct Attach Copper Cable | JD097C |
| HPE FlexNetwork X240 10G SFP+ to SFP+ 5m Direct Attach Copper Cable | JG081C |
| HPE FlexNetwork X240 10G SFP+ SFP+ 7m Direct Attach Copper Cable | JC784C |
| HPE StoreFabric C-series 3M Passive Copper SFP+ Cable | K2Q21A |
| HPE StoreFabric C-series 5M Passive Copper SFP+ Cable | K2Q22A |

NOTE: The transceivers and cables listed above have been qualified and certified to work with this product. Transceiver and DAC cables from any manufacturer will be accepted, but they will not be supported by Hewlett Packard Enterprise.

Serial Console Cable

| | |
|--|-----------|
| RJ45 to (F) DB-9 serial console port cable | 5188-6699 |
|--|-----------|

Technical Specifications

| | | | |
|--|---------------------------------|--|--|
| Product Specifications Hardware | Ports | Sixteen (16) 10 Gb SFP+ uplink ports One (1) RJ-45 Serial Console Port for management | |
| | Indicators/Buttons | Module health, red/amber/green Module locator (UID), blue (LED & push button switch) Port link indicator, green Port activity indicator, green Recessed push button reset switch | |
| | Physical Characteristics | Length | 5.40 in (13.71 cm) |
| | | Width | 8.83 in (24.96 cm) |
| | | Height | 2.22 in (5.64 cm) |
| | | Weight | 0.95 kg (2.09 lbs) |
| | Environmental Ranges | Temperature Range | Operating 50° to 95° F (10° to 35° C) |
| | | | Non-operating -22° to 140° F (-30° to 60° C) |
| | | Relative Humidity (non-condensing) | Operating 10% to 90% |
| | | | Non-operating 5% to 95% |
| Altitude | | Operating 10,000 ft. (3048 m) | |
| | | Non-operating 30,000 ft. (9144 m) | |
| Power Consumption | Typical | 18W | |
| | Maximum | 24W | |

Standards Support **NOTE:** For Standard Support details, please see the [HPE Moonshot-45G Switch QuickSpecs: <https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04111342>](https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04111342)

**Safety and Compliance
Safety Certifications** Complies with UL 60950-1, CAN/CSA C22.2 No. 60950-1 and EN 60950-1. UL certified.
CE Marking
RoHS 6/6 compliant

**Emissions Classifications
(EMC)** Class A

**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

Technical Specifications

facilities as well as HPE OEM customers who integrate and re-sell Hewlett Packard Enterprise equipment.

Summary of Changes

| Date | Version History | Action | Description of Change |
|--------------|---------------------|---------|---|
| 26-Oct-2016 | From version 4 to 5 | Update | Update QuickSpecs for Rebranding |
| 28-Sept-2015 | From version 3 to 4 | Update | Update the related options section |
| 03-Oct-2014 | From Version 2 to 3 | Changed | Changes made throughout the QS |
| 28-Feb-2014 | From Version 1 to 2 | Added | A part number was added to the Related Options section. |



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