

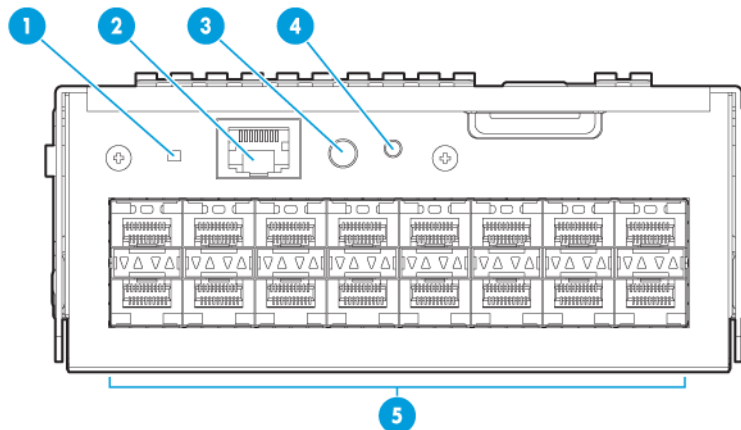
# QuickSpecs

## HP Moonshot-16SFP+ Uplink Module

### Overview

#### HP Moonshot-16SFP+ Uplink Module

The HP Moonshot system's modular design dramatically simplifies and future-proofs your datacenter for a variety of workloads. The HP Moonshot-16SFP+ Uplink Module, along with the HP Moonshot-45XGc Switch Module or HP Moonshot-180G Switch Module, provides the Ethernet networking functionality for the new HP 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 HP 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

HP 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

#### HP 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 HP Moonshot Cartridges and Switch Modules, please see the following:

##### Cartridge:

HP ProLiant m300 Server Cartridge

<http://www8.hp.com/h20195/v2/GetHtml.aspx?docname=c04111351>

HP ProLiant m350 Server Cartridge

<http://www8.hp.com/h20195/v2/GetHtml.aspx?docname=c04384060>

HP ProLiant m400 Server Cartridge

<http://www8.hp.com/h20195/v2/GetHtml.aspx?docname=c04384048>

HP ProLiant m700 Server Cartridge

<http://www8.hp.com/h20195/v2/GetHtml.aspx?docname=c04111350>

HP ProLiant m710 Server Cartridge

<http://www8.hp.com/h20195/v2/GetHtml.aspx?docname=c04384063>

HP ProLiant m800 Server Cartridge

<http://www8.hp.com/h20195/v2/GetHtml.aspx?docname=c04384065>

##### Switch:

HP Moonshot-45XGc Switch Module

<http://www8.hp.com/h20195/v2/GetHtml.aspx?docname=c04384058>

HP Moonshot-180G Switch Module

<http://www8.hp.com/h20195/v2/GetHTML.aspx?docname=c04111290>

# QuickSpecs

## HP Moonshot-16SFP+ Uplink Module

### Compatibility

		Cartridges							Uplink		
Switch	Speed	m300	m350	m400	m700	m710	m710p	m800	Moonshot-6SFP+ Uplink	Moonshot-16SFP+ Uplink	Moonshot-4QSFP+ Uplink
Fastpath Switches											
Moonshot-45G Switch	1Gb	✓		✓ 1Gb speed only		✓ 1Gb speed only	✓ 1Gb speed only		✓		
Moonshot-180G Switch	1Gb	✓	✓	✓ 1Gb speed only	✓	✓ 1Gb speed only	✓ 1Gb speed only	✓		✓	✓
Comware Switches											
Moonshot-45Gc Switch	1Gb	✓		✓ 1Gb speed only		✓ 1Gb speed only	✓ 1Gb speed only		✓		
Moonshot-45XGc Switch	1Gb	✓		✓ 1Gb speed only		✓ 1Gb speed only	✓ 1Gb speed only			✓	✓
	10Gb			✓		✓	✓			✓	✓

## Service and Support

## Service and Support

**Recommended HP Care Pack Services for your HP product**

(4 and 5 year Service offerings are also available)

**HP Technology Services**

HP Technology Services delivers confidence, reduces risk and helps customers realize agility and stability. Connect to HP 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 HP Care Pack Services**

HP 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 HP Care Pack Services for your HP product**

(4 and 5 year Service offerings are also available)

**Optimized Care****Foundation Care 24x7, three-year Care Pack Service**

HP Foundation Care 24x7 connects you to HP 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 HP server. Simplify your support experience and make HP your first call for hardware or software questions.

<http://h20195.www2.hp.com/V2/GetDocument.aspx?docname=4AA4-8876ENW&cc=us&lc=en>

**Standard Care****Foundation Care NBD, three-year Care Pack Service**

HP Foundation Care Next Business Day connects you to HP 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 HP your first call for hardware or software questions.

<http://h20195.www2.hp.com/V2/GetDocument.aspx?docname=4AA4-8876ENW&cc=us&lc=en>

**Related Services****HP Moonshot Installation & Startup Service**

HP 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

**HP Datacenter Care service**

HP 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 HP Datacenter Care, you benefit from a personalized relationship with HP via a single point of accountability for HP and others’ products. For more information, visit

<http://www.hp.com/services/datacentercare>

**HP 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 HP**

Unlock all of the benefits of your technology investment by connecting your products to HP. 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. HP Proactive Care Service and HP 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,

### Service and Support

securely connected to HP support.

#### **Defective Media Retention (DMR) and Comprehensive Defective Material Retention**

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.

HP 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 HP Foundation Care service purchase. This service is critical for customers who:

- 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: [www.hp.com/services/dataprivacy](http://www.hp.com/services/dataprivacy).

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#### **HP Support Center**

HP provides several tools that make it simpler to get help from HP:

HP Support Center is personalized online support portal with access to information, tools and experts to support HP business products. Submit support cases online, chat with HP experts, access support resources or collaborate with peers. Learn more: <http://www.hp.com/go/hpsc>

HP's 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. HP Support Center are available at no additional cost with a HP warranty, HP Care Pack or HP contractual support agreement.

**NOTE:** HP Support Center Mobile App is subject to local availability.

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#### **For more information**

To learn more on HP Moonshot, please contact your HP sales representative

## Related Options

**Supported Cables with Fastpath Switch (Moonshot 180G Switch)**

<b>SFP Options</b>	HP BLc Virtual Connect 1Gb SX Small Form Factor Pluggable Option Kit	453151-B21
	HP X120 1G SFP RJ45 T Transceiver	JD089B
	HP BLc Virtual Connect 1Gb RJ-45 Small Form Factor Pluggable Option Kit	453154-B21
	HP X120 1G SFP LC SX Transceiver	JD118B
<b>SFP+ Options</b>	HP BladeSystem c-Class 10Gb Short Range Small Form-Factor Pluggable Option	455883-B21
	HP X130 10G SFP+ LC SR Transceiver	JD092B
<b>Direct Attach Cables</b>	HP BladeSystem c-Class Small Form-Factor Pluggable .5m 10GbE Copper Cable	487649-B21
	HP BladeSystem c-Class Small Form-Factor Pluggable 1m 10GbE Copper Cable	487652-B21
	HP BladeSystem c-Class Small Form-Factor Pluggable 3m 10GbE Copper Cable	487655-B21
	HP BladeSystem c-Class Small Form-Factor Pluggable 5m 10GbE Copper Cable	537963-B21
	HP BladeSystem c-Class Small Form-Factor Pluggable 7m 10GbE Copper Cable	487658-B21
	HP X242 10G SFP+ to SFP+ 1m Direct Attach Copper Cable	J9281B
	HP X242 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	J9283B
	HP X242 10G SFP+ to SFP+ 7m Direct Attach Copper Cable	J9285B
	HP X240 10G SFP+ SFP+ 0.65m DA Cable	JD095C
	HP X240 10G SFP+ SFP+ 1.2m DA Cable	JD096C
	HP X240 10G SFP+ SFP+ 3m DA Cable	JD097C
	HP X240 10G SFP+ SFP+ 5m DA Cable	JG081C
	HP X240 10G SFP+ SFP+ 7m Direct Attach Copper Cable	JC784C
	HP 3m C-series Passive Copper SFP+ Cable	K2Q21A
	HP 5m C-series Passive Copper SFP+ Cable	K2Q22A
	HP B-series SFP+ to SFP+ Active Copper 1.0m Direct Attach Cable	AP818A
	HP B-series SFP+ to SFP+ Active Copper 3.0m Direct Attach Cable	AP819A
HP 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 HP.

**Supported Cables with Fastpath Switch (Moonshot 45XGc Switch)**

<b>SFP Options</b>	HP BLc Virtual Connect 1Gb SX Small Form Factor Pluggable Option Kit	453151-B21
	HP X120 1G SFP RJ45 T Transceiver	JD089B
	HP BLc Virtual Connect 1Gb RJ-45 Small Form Factor Pluggable Option Kit	453154-B21
	HP X120 1G SFP LC SX Transceiver	JD118B
<b>SFP+ Options</b>	HP BladeSystem c-Class 10Gb Short Range Small Form-Factor Pluggable Option	455883-B21
	HP X130 10G SFP+ LC SR Transceiver	JD092B
<b>Direct Attach Cables</b>	HP BladeSystem c-Class Small Form-Factor Pluggable .5m 10GbE Copper Cable	487649-B21
	HP BladeSystem c-Class Small Form-Factor Pluggable 1m 10GbE Copper Cable	487652-B21
	HP BladeSystem c-Class Small Form-Factor Pluggable 3m 10GbE Copper Cable	487655-B21
	HP BladeSystem c-Class Small Form-Factor Pluggable 5m 10GbE Copper Cable	537963-B21
	HP X242 10G SFP+ to SFP+ 1m Direct Attach Copper Cable	J9281B
	HP X242 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	J9283B
	HP X242 10G SFP+ to SFP+ 7m Direct Attach Copper Cable	J9285B
HP X240 10G SFP+ SFP+ 0.65m DA Cable	JD095C	

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### Related Options

HP X240 10G SFP+ SFP+ 1.2m DA Cable	JD096C
HP X240 10G SFP+ SFP+ 3m DA Cable	JD097C
HP X240 10G SFP+ SFP+ 5m DA Cable	JG081C
HP X240 10G SFP+ SFP+ 7m Direct Attach Copper Cable	JC784C
HP 3m C-series Passive Copper SFP+ Cable	K2Q21A
HP 5m C-series 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 HP.

### Serial Console Cable

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

## HP Moonshot-16SFP+ Uplink Module

### Technical Specifications

<b>Product Specifications</b> <b>Hardware</b>	<b>Ports</b>	Sixteen (16) 10 Gb SFP+ uplink ports One (1) RJ-45 Serial Console Port for management
	<b>Indicators/Buttons</b>	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
<b>Physical Characteristics</b>	<b>Length</b>	5.40 in (13.71 cm)
	<b>Width</b>	8.83 in (24.96 cm)
	<b>Height</b>	2.22 in (5.64 cm)
	<b>Weight</b>	0.95 kg (2.09 lbs)
<b>Environmental Ranges</b>	<b>Temperature Range</b>	Operating 50° to 95° F (10° to 35° C)
		Non-operating -22° to 140° F (-30° to 60° C)
	<b>Relative Humidity (non-condensing)</b>	Operating 10% to 90%
		Non-operating 5% to 95%
	<b>Altitude</b>	Operating 10,000 ft. (3048 m)
		Non-operating 30,000 ft. (9144 m)
<b>Power Consumption</b>	<b>Typical</b>	18W
	<b>Maximum</b>	24W

**Standards Support** **NOTE:** For Standard Support details, please see the HP Moonshot-45G Switch QuickSpecs: [http://h18000.www1.hp.com/products/quickspecs/14732\\_div/14732\\_div.html](http://h18000.www1.hp.com/products/quickspecs/14732_div/14732_div.html)

**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 offers end-of-life HP 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 HP sales office. Products returned to HP 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 web site at: <http://www.hp.com/go/green>. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.



# QuickSpecs

## HP Moonshot-16SFP+ Uplink Module

### Summary of Changes

Date	Version History	Action	Description of Change:
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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