

QuickSpecs

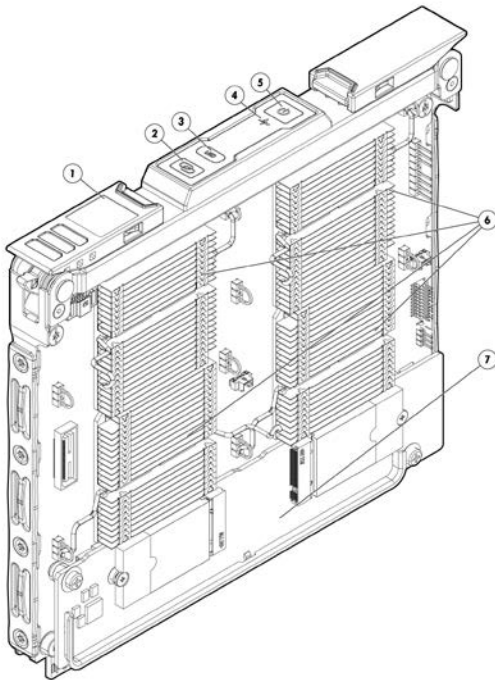
HPE ProLiant m800 Server Cartridge

Overview

HPE ProLiant m800 Server Cartridge

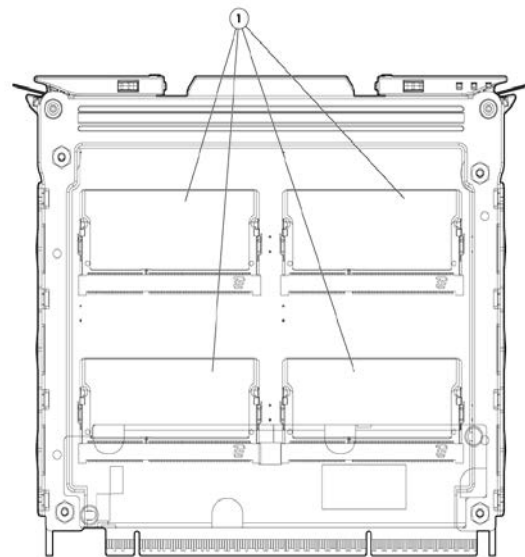
HPE Moonshot System with the HPE ProLiant m800 server cartridge was designed for applications that perform analysis or processing on streaming data, such as telecommunication, financials. The ProLiant m800 server cartridge has four Texas Instruments KeyStone™ II based 66AK2H System on Chip (SoC) servers featuring four ARM A15 cores and eight C66x DSP cores per processor with 32GB (8GB per SoC) of memory and 32GB (8GB per SoC) of solid state device on a compact cartridge.

The HPE Moonshot System uses an innovative new architecture that results from one simple design tenet: to align purpose-built modules with the right workload to provide optimal results for your environment. Traditional servers rely on dedicated components, including management, networking, storage, power cords and cooling fans in a single chassis. In contrast, the Moonshot system shares these chassis components and are capable of supporting 45 compute cartridges per 4.3U chassis. This gives you the ability to generate greater revenue from a smaller footprint while driving down your operational costs.



Front View:

1. QR Code label
2. Cartridge Link LED/button
3. Cartridge UID LED/button
4. Cartridge health LED
5. Cartridge power LED/button
6. Four TI KeyStone™ II based 66AK2H System on Chip (SoC)
7. Four m.2 Solid State Device



Rear View:

1. Four (4) DDR3 SO-DIMM memory slots

NOTE: For information on Hewlett Packard Enterprise Moonshot Switch and Uplink Modules, please see the following: Switch:

HPE Moonshot-180G Switch Module QuickSpecs:

<https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04111343>

Overview

Uplink

HPE Moonshot- 16SFP+ Uplink Module QuickSpecs:

<http://h18000.www1.hp.com/products/QuickSpecs/>

HPE Moonshot- 4QSFP Uplink Module QuickSpecs:

<https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04111341>

Standard Features

Processor	Texas Instruments KeyStone™ II based 66AK2H System on Chip (SoC), 1.0Ghz Quad Cortex-A15 processors with Eight C66x DSP cores (per SoC)	
Cache Memory	1MB L2 cache per C66 DSP core	
Memory Protection	ECC	
Memory	Type	HPE 8GB (1x8GB) PC3L-12800 (DDR3-1600) SODIMM Low Voltage Memory
	DIMM Slots Available	Four (4) SODIMM Slots
	Maximum Configuration	32GB (4x8GB)
Network Controller	Integrated into the System on a Chip (SoC) Dual 1Gbe NIC	
Storage Controller	via SATA mezzanine card	
Maximum Internal Storage (per Moonshot Server)	32GB solid state device (8GB per SOC) via Mezzanine card	
Interfaces	Cartridge Link LED/button Cartridge UID LED/button Drive LED Cartridge health LED	
Industry Standard Compliance	PCIe 2.0	
Operating Systems and Virtualization Software Support for ProLiant Servers	<p>Canonical Ubuntu</p> <p>NOTE: For more information on Hewlett Packard Enterprise's Certified and Supported ProLiant Servers for OS and Virtualization Software and latest listing of software drivers available for your server including how to purchase from Hewlett Packard Enterprise, please visit our OS Support Site at: http://www.hp.com/go/ossupport and our driver download page: http://www.hp.com/go/servers/Moonshot/download</p>	
HPE Moonshot 1500 Chassis	<p>The Moonshot 1500 chassis holds up to 45 server cartridges plus redundant network switches. It includes a shared base-plane with three multi-terabit high-speed fabrics: to connect server cartridges to the network, to connect server cartridges to neighboring server cartridges and 2D Torus fabric. Power is delivered through a pooled-power back-plane that ensures the full capacity of the hot-plug power supplies is available to all cartridges.</p>	

Each Moonshot 1500 Chassis is built with the following functions:

- Up to 45 server cartridges per chassis.
- Up to 2 independently paired network and uplink modules supported simultaneously within the chassis.
- Five dual-rotor, hot-plug, redundant fans as standard.
- Optionally redundant hot-plug power supplies
- Optionally redundant interconnect modules.
- The HPE Moonshot 1500 Chassis Management module manages the health of the chassis

Standard Features

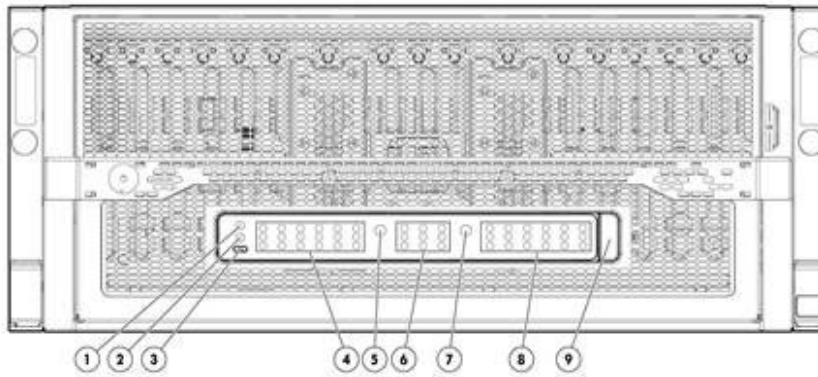
and servers.

A Moonshot 1500 chassis provides the following benefits:

- Lowest cost of ownership.
- With local and remote hardware management integrated across the solution, one full enclosure can be managed as easily as one server.
- Investment protection: Accommodates multiple server and network designs in one enclosure.
- Lower costs per server, in comparison to rack-mounted servers
- Lower power consumption, in comparison to rack-mounted servers.
- Lower airflow requirements, in comparison to rack-mounted servers

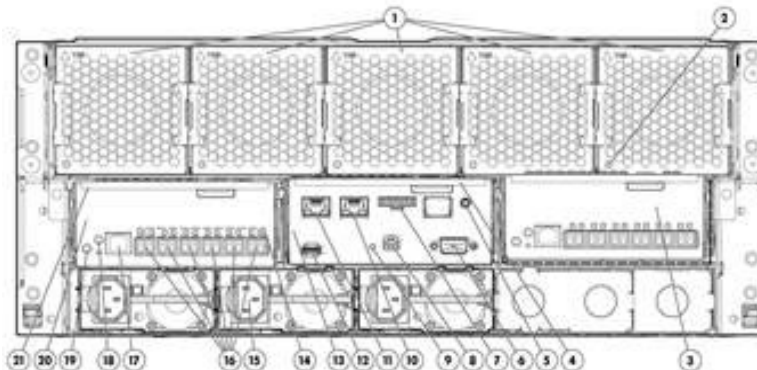
HPE Moonshot 1500 Chassis

Faster innovation and unprecedented scale begins with the Moonshot 1500 Chassis. Specifically designed to support servers using System on a Chip (SoC) technology, the 4.3U chassis enables shared management, networking, storage, power, cooling, and switching. It supports up to 45 hot-pluggable, efficient, extreme low-energy servers, each tuned to a specific workload.



Front View

- | | |
|--|---|
| 1. Chassis Power LED | 6. Front Panel Display LED, Moonshot server 19-27 |
| 2. System health LED | 7. Switch module B health LED |
| 3. Chassis UID/LED/button | 8. Front Panel Display LED, Moonshot server 28-45 |
| 4. Front Panel Display LED, Moonshot server 1-18 | 9. Front Panel Display release |
| 5. Switch Module A Health LED | |

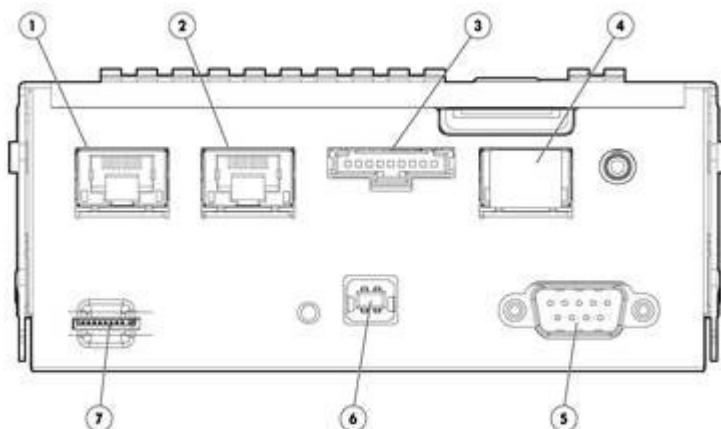


Back View

- | | |
|------------|--|
| 1. Fans | 12. HPE Moonshot 1500 CM Module MicroSD slot |
| 2. Fan LED | 13. HPE Moonshot 1500 Chassis Management (CM) Module |
| | 14. Switch Module uplink/downlink activity LEDs |

Standard Features

- | | |
|---|----------------------------------|
| 3. Uplink Module A | 15. Power supply connector |
| 4. HPE Moonshot 1500 CM Module release lever | 16. 40Gb QSFP+ connector (x4) |
| 5. HPE Moonshot 1500 CM Module UID/LED button | 17. Serial connector |
| 6. HPE Moonshot 1500 CM Module serial port | 18. Uplink Module UID/LED button |
| 7. HPE Moonshot 1500 CM Module HPE APM port | 19. Uplink Module health LED |
| 8. HPE Moonshot 1500 CM Module USB connector | 20. Uplink Module B |
| 9. HPE Moonshot 1500 CM Module LED | 21. Uplink Module release lever |
| 10. iLO CM link port (disabled by default) | |
| 11. iLO CM Management port | |



HPE Moonshot 1500 Chassis Management (CM) Module

- | | |
|--|--|
| 1. iLO CM Management port | 5. HPE Moonshot 1500 CM Module serial port |
| 2. iLO CM link port (disabled by default) | 6. HPE Moonshot 1500 CM Module USB connector |
| 3. HPE Moonshot 1500 CM Module HPE APM port | 7. HPE Moonshot 1500 CM Module MicroSD slot |
| 4. HPE Moonshot 1500 CM Module diagnostic port | |

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 on Hewlett Packard Enterprise Moonshot Switch and Uplink Modules, please see the following:

Switch:

HPE Moonshot-180G Switch Module QuickSpecs:

<https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04111343>

Uplink

HPE Moonshot- 16SFP+ Uplink Module QuickSpecs:

<http://h18000.www1.hp.com/products/QuickSpecs/>

HPE Moonshot- 4QSFP Uplink Module QuickSpecs:

<https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04111341>

	Cartridges	UpLink
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Standard Features

Switch	Speed	m300	m350	M400	M700	M710	M800	Moonshot 6SFP + Uplink	Moonshot 16SFP+ Uplink	Moonshot 4QSFP + Uplink
Moonshot- 45G Switch	1Gb	X		X		X		X		
Moonshot- 180G Switch	1Gb	X	X	X	X	X	X		X	X

HPE Common Slot Power Supply HPE Moonshot 1500 Chassis can accommodate up to four (4) HPE Common slot power supplies listed in Step 2 of the Configure to Order section of this QuickSpecs.

HPE's Common Slot (CS) power supplies allow for commonality of power supplies across a wide range of ProLiant and Integrity servers, as well as HPE Storage solutions, and are designed to provide the highest power supply efficiency without degrading system performance. HPE CS power supplies are tested by the Electric Power Research Institute (EPRI) and certified through the ECOS 80 Plus power supply program. HPE CS power supply options provide efficiency ratings of up to 94% and are available in a 1200W and 1500W configurations for this platform. All HPE Common Slot power sources are UL, CE Mark Compliant, hot-plug and support redundant configurations. HPE Power Advisor can be accessed at: <http://www.hp.com/go/hppoweradvisor>.

NOTE: Redundant Power: Optional redundant power supplies will vary based on configurations. Please refer to specific HPE Moonshot server cartridge for details.

Embedded Management Included in all HPE Moonshot Systems, the HPE Moonshot 1500 Chassis Management module manages the health of the chassis and servers via a command-line interface accessible via SSH as well as a Graphical User Interface. Customers can configure the chassis, set server settings, and flash firmware in the HPE Moonshot 1500 chassis. The HPE Moonshot 1500 Chassis Management module also supports **Intelligent Platform Management Interface (IPMI)**.

The HPE Moonshot 1500 Chassis Management module supports the HPE RESTful Interface Tool, this tool provides mass scripting configuration for rapid deployment of multiple HPE Moonshot Systems.

For more information on the HPE Moonshot 1500 Chassis Management Module, please contact your sales representative or go to: <http://www.hp.com/go/moonshot/docs>

HPE Moonshot Component Pack

HPE Moonshot 1500 Chassis Setup and Installation Guide
HPE Moonshot iLO Chassis Management Firmware User Guide

The HPE Moonshot Component Pack, is the delivery mechanism for firmware updates on the HPE Moonshot System, it includes firmware, and tools including the HPE Smart Update Manager (HPE SUM).

The HPE Smart Update Manager (SUM) - is the engine/application that deploys the updates from the HPE Moonshot Component Pack on HPE Moonshot Systems. HPE SUM helps you inventory and identify which servers require updates, gets the necessary components from the HPE Moonshot Component Pack, and then performs the respective updates individually, as a group, or at scale. HPE SUM simplifies the update process, making HPE Moonshot servers much easier to manage by letting you know

Standard Features

what's happening throughout the update process. The tool provides a graphical user interface (GUI), scriptable command line interface (CLI), and an interactive CLI. In addition, HPE SUM offers comprehensive reporting to ensure the latest drivers, software, and firmware are implemented into the server environment

To download the HPE Moonshot Component Pack, please reference:

<http://www.hp.com/go/moonshot/download>

Security

Serial interface control

Power switch security

Administrator's password

Warranty

This product is covered by a global limited warranty and supported by Hewlett Packard Enterprise Services and a worldwide network of Hewlett Packard Enterprise Authorized Channel Partners resellers. Hardware diagnostic support and repair is available for three years from date of purchase. Support for software and initial setup is available for 90 days from date of purchase. Enhancements to warranty services are available through HPE Care Pack services or customized service agreements. Hard drives have either a one year or three year warranty; refer to the specific hard drive QuickSpecs for details.

NOTE: Chassis Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support

Server Cartridge Warranty includes 3-Year Parts, 0-Year Labor, 0-Year Onsite support.

Warranty terms may vary by region. Additional information regarding worldwide limited warranty and technical support is available at:

<http://h18004.www1.hp.com/products/servers/platforms/warranty/index.html>

Service and Support

HPE Insight Cluster Management Utility (CMU)

HPE Insight Cluster Management Utility (CMU) is an Hewlett Packard Enterprise-licensed and Hewlett Packard Enterprise-supported suite of tools that are used to manage large-scale systems. Insight CMU includes software for the centralized provisioning, management and monitoring of nodes. Insight CMU makes the administration of clusters more user friendly, efficient, and error free than if they were being managed by scripts, or on a node-by-node basis. For more information on Hewlett Packard Enterprise Insight Cluster Management Utility, please contact your sales representative or go to:

<http://www.hp.com/go/cmu>

Factory Express Portfolio for Servers and Storage

HPE Factory Express offers configuration, customization, integration and deployment services for Hewlett Packard Enterprise servers and storage products. Customers can choose how their factory solutions are built, tested, integrated, shipped and deployed.

Factory Express offers service packages for simple configuration, racking, installation, complex configuration and design services as well as individual factory services, such as asset tagging, and custom packaging. Hewlett Packard Enterprise products supported through Factory Express include a wide array of servers and storage: HPE Moonshot, HPE Integrity, HPE ProLiant, HPE ProLiant Server Blades, and HPE BladeSystem, HPE 9000 servers as well as the MSAXxxx, VA7xxx, EVA, XP, rackable tape libraries and configurable network switches.

For more information on Factory Express services for your specific server model please contact your sales representative or go to: <http://www.hp.com/go/factory-express>.

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>

Service and Support

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 HPE

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

1- IDC

2 – HPE CSC reports 2014 - 2015

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.

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:

- 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

Hewlett Packard Enterprise provides several tools that make it simpler to get help from HPE:

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>

The HPE Support Center Mobile App allows you to resolve issues yourself or quickly connect to an

Service and Support

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.

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

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 QuickSpecs, 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

To learn more on HPE Moonshot System, please contact your Hewlett Packard Enterprise sales representative.

Configuration Information - Factory Integrated Models

NOTE: This section lists some of the steps required to configure a Factory Integrated Model. To ensure only valid configurations are ordered, Hewlett Packard Enterprise recommends the use of an Hewlett Packard Enterprise approved configurator. Contact your local sales representative for information on configurable product offerings and requirements.

NOTE: Factory Integrated Models must start with an HPE Moonshot 1500 Chassis. Each Moonshot Chassis will be ordered with minimum configurations as follows:

One (1) Cartridge

Three (3) 1200w or 1500w power supplies

One (1) Switch

One (1) Uplink

NOTE: A second Switch and Uplink Module Kit may be ordered to give a redundant network configuration or to enable two separate networks utilizing different Moonshot servers.

NOTE: Some options may not be integrated at the factory. To ensure only valid configurations are ordered, Hewlett Packard Enterprise recommends the use of an Hewlett Packard Enterprise approved configurator. Contact your local sales representative for additional information.

Step 1: Base Configuration (Choose one chassis or one upgrade kit)

HPE Moonshot 1500 Chassis	HPE Moonshot 1500 Configure-to-order Chassis with Optional OS	755372-B21
	NOTE: This chassis does NOT include 1 year of Ubuntu support	
	NOTE: If you prefer Ubuntu support for the chassis consider part number 755371-B21	
	NOTE: Mixed Cartridge configuration is supported – See Network section in step 2 for restrictions	
HPE Moonshot Server Upgrade Kit	HPE Moonshot Server Multipack	814659-B21
	NOTE: up to 15 cartridges of any kind fit in this multipack	

Step 1A: Configure Moonshot Servers (one of each unless otherwise noted)

HPE Moonshot Server	HPE ProLiant m800 4x66AK2H 32xC66x DSP 4x8GB Configure-to-order Server Cartridge	721702-B21
	NOTE: Mixed Cartridge configuration is supported – See Network section in step 2 for restrictions	
	NOTE: Each Moonshot cartridge is pre-configured with four Texas Instruments KeyStone™ II based 66AK2H System on Chip (SoC) servers featuring four ARM A15 cores and eight C66x DSP cores per processor.	
	NOTE: Each Moonshot server comes preconfigured with four 8 GB SODIMM pre-installed. This is the only memory configuration available on this server.	
HPE Solid State Device	Factory Integration Options (FIO)	
	NOTE: Must order identically Solid State Device	
	NOTE: Must order four (4) quantity as configured HPE m800 SATA Mezz FIO Kit.	

Step 2: Choose Required Chassis Options (one of each unless otherwise noted)

NOTE: Additional options are not configurable for server upgrade kits.

Power Supplies	HPE Common Slot Platinum Plus Power Supply Kits	
	NOTE: 94% efficiency	
	NOTE: Minimum of three and maximum of four power supplies per chassis	
	HPE 1500W Common Slot Platinum Plus Power Supply Kit	684532-B21
	HPE 1200W Common Slot Platinum Plus Hot Plug Power Supply Kit	656364-B21
	NOTE: Due to restricted airflow at 110v max power is 600w per power supply – this is for the 1200w power supply only	

Configuration Information - Factory Integrated Models

NOTE: Due to restricted airflow at 220v max power is 850w per power supply – this is for the 1200w power supply only

NOTE: Power Specification and Technical Content for supported power supplies can be found at:

<https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04111541>

NOTE: Minimum of three and maximum of four power supplies per chassis when configured with the HPE Moonshot Server (PN 734619-B21).

HPE Common Slot -48VDC Power Supplies

HPE 1500W Common Slot 48VDC Hot Plug Power Supply Kit 746708-B21

Networking

NOTE: Must order one Switch Kit and one Uplink Kit per chassis.

NOTE: Maximum of two Switch Kits and two Uplink Kit per chassis to allow configurations with redundant or dual networks.

Ordering Guidance for Moonshot 1500 chassis with mixed cartridge configurations

1. **Customer ordering a Quad Node Cartridge (m700, m350, m800) MUST use Moonshot-180G Switch Module.**
 - a. Choose one of the following Uplink Module:
 - i. Moonshot -16SFP+ Uplink Module
 - ii. Moonshot -4QSFP+ Uplink Module

Switches

HPE Moonshot-180G Switch Module Kit 704642-B21

Uplinks

HPE Moonshot-16SFP+ Uplink Module Kit 783263-B21

HPE Moonshot-4QSFP+ Uplink Module Kit 704652-B21

Step 3: Choose Additional Chassis Factory Integration Options

NOTE: Additional options are not configurable for server upgrade kits.

HPE Rail Kits

HPE 4.3U Server Rail Kit 681254-B21

(Chassis Specific)

HPE 0.66U Spacer Blank Kit 681260-B21

NOTE: For data center airflow management purposes, it is recommended that either the .66U Spacer Blank or the 13U FIO Rack Adapter Kit can be ordered.

NOTE: The HPE 4.3U Rail Kit is required to be ordered for every chassis to properly install the chassis into a rack.

NOTE: The .66U Spacer Blank kit may be ordered and will give an even 5U (4.3U+0.66U) spacing in a rack. This would enable installing up to 8 chassis in a 42U rack. It is also possible to stack up to 9 chassis in a 42U rack using the 13U FIO Rack Adapter Kit.

HPE Rack Adapter

HPE 13U FIO Rack Adapter Kit for 3X4.3U Chassis 681677-B21

NOTE: Group the HPE Moonshot 1500 Chassis units into a 13U space. Order one per three chassis.

NOTE: HPE 4.3U Server Rail Kit (PN 681254-B21) is still required

NOTE: The 0.66U spacer is not used when selecting this option.

Step 4: Choose Additional Chassis Options

NOTE: Additional options are not configurable for server upgrade kits.

HPE Care Pack Services 3 year Care Pack

HPE 3 year Foundation Care Next business day Moonshot 1500 Opt OS Service U8K89E

HPE 3 year Foundation Care Next business day with DMR Moonshot 1500 Opt OS Service U8K90E

Configuration Information - Factory Integrated Models

HPE 3 year Foundation Care Next business day with CDMR Moonshot 1500 Opt OS Service	U8K91E
HPE 3 year Foundation Care 24x7 Moonshot 1500 Opt OS Service	U8K92E
HPE 3 year Foundation Care 24x7 wDMR Moonshot 1500 Opt OS Service	U8K93E
HPE 3 year Foundation Care 24x7 wCDMR Moonshot 1500 Opt OS Service	U8K94E
HPE 3 year Foundation Care Call to Repair Moonshot 1500 Opt OS Service	U8K95E
HPE 3 year Foundation Care Call to Repair wDMR Moonshot 1500 Opt OS Service	U8K96E
HPE 3 year Foundation Care Call to Repair wCDMR Moonshot 1500 Opt OS Service	U8K97E

4 year Care Pack

HPE 4 year Foundation Care Next business day Moonshot 1500 Opt OS Service	U8AT3E
HPE 4 year Foundation Care Next business day with DMR Moonshot 1500 Opt OS Service	U8AT4E
HPE 4 year Foundation Care Next business day with CDMR Moonshot 1500 Opt OS Service	U8AT5E
HPE 4 year Foundation Care 24x7 Moonshot 1500 Opt OS Service	U8AT6E
HPE 4 year Foundation Care 24x7 wDMR Moonshot 1500 Opt OS Service	U8AT7E
HPE 4 year Foundation Care 24x7 wCDMR Moonshot 1500 Opt OS Service	U8AT8E
HPE 4 year Foundation Care Call to Repair Moonshot 1500 Opt OS Service	U8AT9E
HPE 4 year Foundation Care Call to Repair wDMR Moonshot 1500 Opt OS Service	U8AU0E
HPE 4 year Foundation Care Call to Repair wCDMR Moonshot 1500 Opt OS Service	U8AU1E

5 year Care Pack

HPE 5 year Foundation Care Next business day Moonshot 1500 Opt OS Service	U8AU2E
HPE 5 year Foundation Care Next business day with DMR Moonshot 1500 Opt OS Service	U8AU3E
HPE 5 year Foundation Care Next business day with CDMR Moonshot 1500 Opt OS Service	U8AU4E
HPE 5 year Foundation Care 24x7 Moonshot 1500 Opt OS Service	U8AU5E
HPE 5 year Foundation Care 24x7 wDMR Moonshot 1500 Opt OS Service	U8AU6E
HPE 5 year Foundation Care 24x7 wCDMR Moonshot 1500 Opt OS Service	U8AU7E
HPE 5 year Foundation Care Call to Repair Moonshot 1500 Opt OS Service	U8AU8E
HPE 5 year Foundation Care Call to Repair wDMR Moonshot 1500 Opt OS Service	U8AU9E
HPE 5 year Foundation Care Call to Repair wCDMR Moonshot 1500 Opt OS Service	U8AV0E

HPE Power Cords

HPE C13 - Nema 5-15P US/CA 110V 10Amp 1.83m Power Cord	AF556A
HPE C13 - GB-1002 CN 250V 10Amp 1.83m Power Cord	AF557A
HPE C13 - IRAM -2073 AR 250V 10A 2.5m Power Cord	AF558A
HPE C13 - Nema 5-15P TH/PH 250V 10Amp 1.83m Power Cord	AF559A
HPE C13 - CNS-690 TW 110V 13Amp 1.83m Power Cord	AF561A
HPE C13 - IS-1293 IN 240V 6Amp LV 2.0m Power Cord	AF562A
HPE C13 - KSC- 8305 KR 250V 10Amp 1.83m Power Cord	AF560A
HPE C13 - SI-32 IL 250V 10Amp 1.83m Power Cord	AF564A
HPE C13 - SEV 1011 CH 250V 10Amp 1.83m Power Cord	AF565A
HPE C13 - DK-2.5A DK 250V 10Amp 1.83m Power Cord	AF566A
HPE C13 - SABS-164 ZA 250V 10Amp 2.5m Power Cord	AF567A
HPE C13 - CEE-VII EU 250V 10Amp 1.83m Power Cord	AF568A
HPE C13 - AS3112-3 AU 250V 10Amp 2.5m Power Cord	AF569A

Configuration Information - Factory Integrated Models

HPE C13 - BS-1363A UK/HK/SG 250V 10Amp 1.83m Power Cord	AF570A
HPE C13 - CEI-23-50 IT/CL 250V 10Amp 1.83m Power Cord	AF571A
HPE C13 - JIS C8303 JP 100V 12Amp 2.0m Power Cord	AF572A
HPE C13 - IS-1293 IN 250V 10Amp HV 2.5m Power Cord	SG579A
HPE C13 - C14 WW 250V 10Amp Flint Gray 2.0m Jumper Cord	AF573A
HPE C13 - NBR-14136 BR 250V 10Amp 1.83m Power Cord	AF591A
HPE C13 - C14 WW 250V 10Amp 2.0m Jumper Cord	A0K02A
HPE C13 - C14 WW 250V 10A Gray 0.7m Jumper Cord	A0K03A
HPE C13 - C14 WW 250V 10A Gray 1.37m Jumper Cord	A0K04A
HPE C13 - C14 WW 250V 10A Gray 3.0m Jumper Cord	A0K06A
HPE C13 - Nema 6-15P US 250V 15A JP 3.6m Power Cord	A0N33A

Technical Specifications

NOTE: Some options may not be integrated at the factory. To ensure only valid configurations are ordered, Hewlett Packard Enterprise recommends the use of an Hewlett Packard Enterprise approved configurator. Contact your local sales representative for additional information.

HPE Insight Cluster Management Utility (CMU)	HPE Insight Cluster Management Utility Media NOTE: For additional license kits please see the QuickSpecs at: https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04111735	BD477A
HPE Advanced Power Manager	<p>The HPE Advanced Power Manager is an optional rack level solution for the HPE Moonshot System which enables server-level DC (or hardware) power on and off and server-level monitoring. In addition, the HPE APM will automatically discover hardware components, dynamic rack power capping, provides efficient Rack management, manages shared infrastructure, and participates in federation with other HPE APM units.</p> <p>The HPE APM does not replace rack PDUs, but is designed to enable the utilization of basic, low cost, rack PDUs while providing the functionality of 'switched' PDUs (which provide hardware power on/off of individual servers by turning off the AC power to the power supplies of a given server).</p> <p>Because the HPE Moonshot System shares power supplies to optimize power efficiency, using 'switched' PDUs to turn off all the power supplies in the chassis will result in the loss of all server nodes in that chassis. The HPE APM solves this by allowing server node-level hardware power on/off of the DC power to the individual server node motherboards.</p> <p>HPE Advanced Power Manager Kit</p> <p>NOTE: Each HPE APM can connect to 2 HPE SL Advanced Power Manager Distribution (SL APMD) modules</p> <p>HPE SL Advanced Power Manager Distribution Module Kit</p> <p>NOTE: Each SL APMD can connect up to 10 chassis</p>	741192-B21 620002-B21
SFP Options	HPE BladeSystem c-Class Virtual Connect 1G SFP SX Transceiver HPE BladeSystem c-Class Virtual Connect 1G SFP RJ-45 Transceiver	453151-B21 453154-B21
SFP+ Options	HPE BladeSystem c-Class 10Gb SFP+ SR Transceiver	455883-B21
Direct Attach Cables	<p>HPE BladeSystem c-Class 10GbE SFP+ to SFP+ 0.5m Direct Attach Copper Cable</p> <p>HPE BladeSystem c-Class 10GbE SFP+ to SFP+ 1m Direct Attach Copper Cable</p> <p>HPE BladeSystem c-Class 10GbE SFP+ to SFP+ 3m Direct Attach Copper Cable</p> <p>HPE BladeSystem c-Class 10GbE SFP+ to SFP+ 5m Direct Attach Copper Cable</p> <p>HPE BladeSystem c-Class 10GbE SFP+ to SFP+ 7m Direct Attach Copper Cable</p> <p>HPE X242 10G SFP+ to SFP+ 1m Direct Attach Copper Cable</p> <p>HPE X242 10G SFP+ to SFP+ 3m Direct Attach Copper Cable</p> <p>HPE X242 10G SFP+ to SFP+ 7m Direct Attach Copper Cable</p> <p>HPE FlexNetwork X240 10G SFP+ to SFP+ 5m Direct Attach Copper Cable</p> <p>HPE B-series SFP+ to SFP+ Active Copper 1.0m Direct Attach Cable</p> <p>HPE B-series SFP+ to SFP+ Active Copper 3.0m Direct Attach Cable</p> <p>HPE B-series SFP+ to SFP+ Active Copper 5.0m Direct Attach Cable</p> <p>HPE B-series SFP+ to SFP+ Active Copper 5.0m Direct Attach Cable</p>	487649-B21 487652-B21 487655-B21 537963-B21 487658-B21 J9281B J9283B J9285B JG081C AP818A AP819A AP820A AP820A
HPE Rack Series	HPE Intelligent Series Rack	

Technical Specifications

HPE 36U 600mm x 1200mm Enterprise Shock Rack	BW900A
HPE 42U 600mm x 1200mm Enterprise Pallet Rack	BW907A
HPE 42U 600mm x 1200mm Enterprise Shock Rack	BW908A
HPE 47U 600mm x 1200mm Enterprise Pallet Rack	BW913A
HPE 47U 600mm x 1200mm Enterprise Shock Rack	BW914A

NOTE: Rack chosen is required to have 1200mm to provide space for cable management arm at the rear of the chassis and host PDU in the rear of the rack.

NOTE: Please see the QuickSpecs for Technical Specifications such as height, width, depth, weight, and color:

<https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04123237>
(Worldwide)

NOTE: For additional information regarding Rack Cabinets, please see the following URL: <http://www.hp.com/go/rackandpower>.

HPE 11000 G2 Series Racks

HPE 42U 600mm x 1075mm Advanced Pallet Rack	H6J65A
HPE 42U 600mm x 1075mm Advanced Shock Rack	H6J66A
HPE 48U 600mm x 1075mm Advanced Pallet Rack	H6J87A
HPE 48U 600mm x 1075mm Advanced Shock Rack	H6J88A
HPE 36U 600mm x 1075mm Advanced Pallet Rack	H6J77A
HPE 36U 600mm x 1075mm Advanced Shock Rack	H6J78A
HPE 22U 600mm x 1075mm Advanced Pallet Rack	H6J83A
HPE 22U 600mm x 1075mm Advanced Shock Rack	H6J84A
HPE 14U 600mm x 1075mm Advanced Shock Rack	H6J82A

NOTE: When using the 1075mm racks with the Moonshot 1500 Chassis, the rear door will not be able to be closed.

HPE Rack Options

KVM Consoles

HPE 47U 600mm x 1200mm Enterprise Shock Rack	BW914A
HPE 0x2x16 KVM Server Console Switch G2 with Virtual Media CAC Software	AF618A
HPE 0x2x32 KVM Server Console Switch G2 with Virtual Media CAC Software	AF619A
HPE 1x1Ex8 KVM IP Console Switch G2 with Virtual Media CAC Software	AF620A
HPE 2x1Ex16 KVM IP Console Switch G2 with Virtual Media CAC Software	AF621A
HPE 4x1Ex32 KVM IP Console Switch G2 with Virtual Media CAC Software	AF622A
HPE 0x2x32 KVM Server Console Switch G2 with Virtual Media CAC Software	AF619A

HPE Uninterruptible Power Systems

HPE Rack-mountable UPS

HPE R1500 G3 Uninterruptible Power Supply (UPS)

NOTE: Please see the QuickSpecs for additional information:

<https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04154376>
(Worldwide)

HPE R/T3000 G2 Uninterruptible Power System (UPS)

NOTE: For additional information on Hewlett Packard Enterprise Uninterruptible Power Systems please go to: <http://www.hp.com/servers/rackups>.

NOTE: For additional information on sizing your server, please reference:

<http://www.upssizer.com>.

NOTE: Please see the UPS and PDU cable matrix's on the HPE Power Protection and Management page. Under Power Cords, click on the "HPE Power Cord Matrix" link. That link will list cable descriptions, requirements, and specifications for UPS

Technical Specifications

and PDU units. Please see the following link:
<http://www.hp.com/products/powercords>.

HPE Intelligent Power Distribution Units (iPDU)	iPDU Core Units	
	HPE Intelligent Modular 4.9kVA/L6-30P 24A/208V Outlets (6) C19/Horizontal NA/JP PDU	AF520A
	HPE Intelligent Modular 8.3kVA/CS8265C 40A/208V Outlets (6) C19/Horizontal NA/JP PDU	AF521A
	HPE Intelligent Modular 3Ph 8.6kVA/L15-30P 24A/208V Outlets (6) C19/Horizontal NA/JP PDU	AF522A
	HPE Intelligent Modular 3Ph 17.3kVA/60309 60A 4-wire 48A/208V (6) C19/Horizontal NA/JP PDU	AF523A
	HPE Intelligent Modular 7.3kVA/60309 3-wire 32A/230V Outlets (6) C19/Horizontal INTL PDU	AF525A
	HPE Intelligent Modular 3Ph 11kVA/60309 5-wire 16A/230V Outlets (6) C19/Horizontal INTL PDU	AF526A
	HPE Intelligent Modular 3Ph 22kVA/60309 5-wire 32A/230V Outlets (6) C19/Horizontal INTL PDU	AF527A
	HPE Intelligent Modular 3Ph 14.4kVA/CS8365C 40A/208V Outlets (6) C19/Horizontal NA/JP PDU	AF533A
	iPDU Extension Bars	
	HPE 5xC13 Intelligent PDU Extension Bar G2 Kit	AF547A
	HPE 5xC13 Outlets Power and UID LEDs Pair Standard Extension Bar	AF528A
	NOTE: Please see the QuickSpecs for Technical Specifications and additional information: https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04123329 (Worldwide)	
	HPE Basic Power Distribution Units	HPE Basic 2.8kVA/L5-30P 24A/120V Outlets (18) 5-20R/Vertical NA/JP PDU
HPE Basic 3.6kVA/60320 C20 Detachable 16A/230V Outlets (12) C13/Horizontal WW PDU		H5M56A
HPE Basic 4.9kVA/60320 C20 Detachable 16A/230V Outlets (20) C13/Vertical WW PDU		H5M57A
HPE Basic 4.9kVA/L6-30P 24A/208V Outlets (20) C13/Vertical NA/JP PDU		H5M58A
HPE Basic 4.9kVA/L6-30P 24A/208V Outlets (24) C13 (6) C19/Vertical NA/JP PDU		H5M59A
HPE Basic 8.3kVA/CS8265C 40A/208V Outlets (30) C13 (6) C19/Vertical NA PDU		H5M60A
HPE Basic 3Ph 8.6kVA/L15-30P 24A/208V Outlets (18) C13/Vertical NA/JP PDU		H5M61A
HPE Basic 3Ph 8.6kVA/L15-30P 24A/208V Outlets (24) C13 (6) C19/Vertical NA/JP PDU		H5M62A
HPE Basic 3Ph 5.7kVA/ L21-20P 16A/120-208V Outlets (24) C13 (3) 5-20R/Vertical NA/JP PDU		H5M63A
HPE Basic 3Ph 8.6kVA/L21-30P 24A/120-208V Outlets (24) C13 (3) C19 (3) 5-20R/Vertical NA/JP PDU		H5M64A
HPE Basic 7.3kVA/60309 5-wire 32A/230V Outlets (20) C13/Vertical INTL PDU		H5M68A
HPE Basic 7.3kVA/60309 3-wire 32A/230V Outlets (24) C13 (6) C19/Vertical INTL PDU		H5M70A
HPE Basic 11kVA/60309 63A 3-wire 48A/230V Outlets (30) C13 (6) C19/Vertical INTL PDU		H5M71A

Technical Specifications

HPE Basic 3Ph 11kVA/60309 5-wire 16A/230V Outlets (24) C13 (6) C19/Vertical INTL PDU H5M72A

HPE Basic 9.2kVA/50A Terminal Block 40A/230V Outlets (30) C13 (6) C19/Vertical WW PDU H5M75A

HPE 277 Volt options for H3X07A and H3X08A

HPE 800VA - 277V Input / 230V Output NA Rack Mount Transformer H3X09A

NOTE: Please see the QuickSpecs for Technical Specifications and additional information:

<https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04111392>
(Worldwide)

NOTE: Additional HPE Power Distribution Units are available. For a complete list of all HPE PDUs and additional information please visit:

[http://www.hp.com/go/rackandpower.](http://www.hp.com/go/rackandpower)

HPE Remote Monitored Power Distribution Units	HPE Metered 2.8kVA/L5-30P 24A/120V Outlets (12) 5-20R/Horizontal NA/JP PDU	D9N43A
	HPE Metered 3.6kVA/60320 C20 Detachable 16A/230V Outlets (12) C13/Horizontal WW PDU	D9N46A
	HPE Metered 4.9kVA/L6-30P 24A/208V Outlets (12) C13/Horizontal NA/JP PDU	D9N44A
	HPE Metered 3.6kVA/60320 C20 Detachable 16A/230V Outlets (16) C13/Vertical WW PDU	D9N45A
	HPE Metered 4.9kVA/L6-30P 24A/208V Outlets (20) C13 (4) C19/Vertical NA/JP PDU	D9N47A
	HPE Metered 7.3kVA/60309 32A 3-wire/230V Outlets (20) C13 (4) C19/Vertical INTL PDU	D9N48A
	HPE Metered 7.3kVA/60309 32A 3-wire/230V Outlet (32) C13 (4) C19/Vertical INTL PDU	D9N50A
	HPE Metered 8.3kVA/CS8265C 40A/208V Outlets (30) C13 (3) C19/Vertical NA PDU	D9N49A
	HPE Metered 3Ph 8.6kVA/L21-30P 24A/120-208V Outlets (18) C13 (3) C19 (3) 5-20R/Vertical NA/JP PDU	D9N53A
	HPE Metered 3Ph 8.6kVA/L15-30P 24A/208V Outlets (18) C13 (3) C19/Vertical NA/JP PDU	D9N51A
	HPE Metered 3Ph 11kVA/60309 5-wire 16A/230V Outlets (18) C13 (3) C19/Vertical INTL PDU	D9N55A
	HPE Metered 3Ph 11kVA/60309 5-wire 16A/230V Outlets (30) C13 (3) C19/Vertical INTL PDU	D9N57A
	HPE Metered 3Ph 14.4kVA/CS8365C 40A/208V Outlets (12) C13 (12) C19/Vertical NA/JP PDU	D9N58A
	HPE Metered 3Ph 16.6kVA/60309 32A-30A 5-wire 24A/230V Outlets (12) C13 (12) C19/Vertical NA/JP PDU	D9N62A
	HPE Metered 3Ph 16.6kVA/60309 32A-30A 5-wire 24A/230V Outlets (30) C13 (3) C19/Vertical NA/JP PDU	D9N61A
	HPE Metered 3Ph 17.3kVA/60309 60A 4-wire 48A/208V Outlets (12) C13 (12) C19/Vertical NA/JP PDU	D9N59A
	HPE Metered 3Ph 17.3kVA/60309 60A 4-wire 48A/208V Outlets (24) C13 (3) C19/Vertical NA/JP PDU	D9N54A
	HPE Metered 3Ph 19.9kVA/L22-30P 24A/277V Outlets (30) RF-203P-HPE/Vertical NA PDU	D9N63A

Technical Specifications

HPE Metered 3Ph 22kVA/60309 5-wire 32A/230V Outlets (12) C13 (12) C19/Vertical INTL PDU	D9N60A
HPE Metered 3Ph 22kVA/60309 5-wire 32A/230V Outlet (30) C13 (3) C19/Vertical INTL PDU	D9N56A

HPE Moonshot System

HPE Moonshot System contains forty-five (45) server cartridges each with four TI “Hawking” System on a Chip processors. Each SoC has an 8GB Memory DIMM and can have either a 32GB or 64GB solid state storage device. The chassis has four (4) Power Supplies One (1) Switch Module Kit and One (1) Uplink Module Kit.

HPE Moonshot 1500 Chassis Dimensions (H x W x D) 7.47 x 17.45 x 35.34in (18.96 x 44.33 x 89.97cm)
NOTE: Rack chosen is required to have 1200mm to provide space for cable management arm at the rear of the chassis and host PDU in the rear of the rack.)

Weight (approximate) Maximum 180 lbs.
(all server cartridges, power supplies, one switch and one uplink installed)

Typical Power 3075W

Max Power 4700W

Input Requirements (per power supply) Rated Line Voltage

Power Specifications

Rated Input Current	180 to 264 VAC
Rated Input Frequency	8.4A at 200VAC 7.0A at 240VAC
Rated Input Power	47 to 63 Hz

To review typical system power ratings use the HPE Power Advisor which is available via the online tool located at URL:

<http://www.hp.com/go/hppoweradvisor>

Power Supply Output (per power supply) Rated Steady-State Power 1661W at 200VAC
1649W at 240VAC

Maximum Peak Power 1500W (Max) @ 200VAC
1500W (Max) @ 240VAC

System Inlet Temperature Operating 50° to 95° F (10° to 35° C) at sea level with an altitude derating of 1.8°F per every 1000 ft (1.0°C per every 304.8 m) above sea level to a maximum of 10,000 ft (3048 m), no direct sustained sunlight. Maximum rate of change is 18°F/hr (10°C/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 86°F (30°C).

Non-operating -22° to 140° F (-30° to 60° C)
Maximum rate of change is 36°F/hr (20°C/hr).

Relative Humidity (non-condensing) Operating 10 to 90% relative humidity (Rh), 28°C (82.4°F) maximum wet bulb temperature, non-condensing.

Non-operating 5 to 95% relative humidity (Rh), 38.7°C (101.7°F) maximum wet bulb temperature, non-

Technical Specifications

Altitude	Operating	condensing. 10,000 ft (3048 m). This value may be limited by the type and number of options installed. Maximum allowable altitude change rate is 1500 ft/min (457 m/min).	
	Non-operating	30,000 ft (9144 m). Maximum allowable altitude change rate is 1500 ft/min (457 m/min).	
Acoustic Noise	Listed are the declared A-Weighted sound power levels (LWAd) and declared average bystander position A-Weighted sound pressure levels (LpAm) when the product is operating in a 23°C ambient environment. Noise emissions were measured in accordance with ISO 7779 (ECMA 74) and declared in accordance with ISO 9296 (ECMA 109).		
Emissions Classification (EMC)	FCC Rating	Idle	
		L WAd	7.1 Bels
		L pAm	54 dB
		Operating	
		L WAd	7.3 Bels
		L pAm	57 dB
Classification (EMC)	Normative Standards	Class A CISPR 22; EN55022; EN55024; FCC CFR 47, Pt 15; ICES-003; CNS13438; K22;K24; EN 61000-3-2; EN 61000-3-3; EN 60950-1; IEC 60950-1	

NOTE: Product conformance to cited product specifications is based on sample (type) testing, evaluation, or assessment. This product or family of products is eligible to bear the appropriate compliance logos and statements.

Server Cartridge	HPE Moonshot m800 Server Cartridge	6.57 x 7.23 x 0.78in (16.71 x 18.37 x 1.98cm)
	Dimensions (H x W x D)	
	Typical Power	65.8W
	Max Power	91W

HPE 1200W Common Slot Platinum Plus Hot Plug Power Supply

Part Number	656364-B21						
Input Voltage Range (Vrms)	100 – 240						
Frequency Range (Nominal) (Hz)	50 – 60						
Nominal Input Voltage (Vrms)	100	120	200	208	220	230	240
Maximum Rated Output Wattage	800	900	1200	1200	1200	1200	1200
Nominal Input Current (A rms)	9.1	8.4	6.7	6.4	6.1	5.8	5.5
Maximum Rated Input Wattage Rating (Watts)	897	999	1321	1319	1317	1315	1314
Maximum Rated VA (Volt-Amp)	909	1012	1338	1337	1334	1332	1331
Efficiency (%) at Max. Rated Output Wattage	89.2	90.1	90.9	91.0	91.1	91.2	91.3

Technical Specifications

Power Factor					.998		
Leakage Current (mA)	.42	.50	.83	.87	.92	.96	1.00
Maximum Inrush Current (A peak)					30		
Maximum Inrush Current duration (mS)					20		
Maximum British Thermal Unit Rating (BTU-Hr)	3061	3408	4506	4501	4493	4487	4483

NOTE: Due to restricted airflow at 110v max power is 600w per power supply

NOTE: Due to restricted airflow at 220v max power is 850w per power supply

HPE 1500W Common Slot Platinum Plus Hot Plug Power Supply

Part Number	684532-B21					
Input Voltage Range (Vrms)	200 - 240					
Frequency Range (Nominal) (Hz)	50 - 60					
Nominal Input Voltage (Vrms)	200	208	220	230	240	
Maximum Rated Output Wattage	1500	1500	1500	1500	1500	
Nominal Input Current (A rms)	8.4	8.1	7.6	7.3	7.0	
Maximum Rated Input Wattage Rating (Watts)	1661	1659	1655	1652	1649	
Maximum Rated VA (Volt-Amp)	1681	1679	1675	1672	1669	
Efficiency (%) at Max. Rated Output Wattage	90.3	90.4	90.6	90.8	91.0	
Power Factor	0.999	0.999	0.999	0.999	0.999	
Leakage Current (mA)	0.50	0.75	0.79	0.83	1.00	
Maximum Inrush Current (A peak)			40			
Maximum Inrush Current duration (mS)			0.2			
Maximum British Thermal Unit Rating (BTU-Hr)	5667	5661	5648	5637	5627	

HPE 1500W Common Slot -48V

Hot Plug Power Supply Kit

Part Number	746708-B21		
Input Voltage Range (VDC)	-40 to -72		
Frequency Range (Nominal) (Hz)	DC		
Nominal Input Voltage (VDC)	-40	-48	-72
Maximum Rated Output Wattage	1500	1500	1500
Nominal Input Current (ADC)	40.5	33.5	22.2
Maximum Rated Input Wattage Rating (Watts)	1621	1607	1598
Maximum Rated VA (Volt-Amp)	1621	1607	1598
Efficiency (%) at Max. Rated Output Wattage	92.6	93.3	93.9
Power Factor		N/A	
Leakage Current (mA)		N/A	
Maximum Inrush Current (A peak)		63	
Maximum Inrush Current duration (mS)		10	
Maximum British Thermal Unit Rating (BTU-Hr)	5530	5484	5451

Technical Specifications

HPE Power Advisor The HPE Power Advisor is a tool provided by Hewlett Packard Enterprise to assist in the estimation of power consumption and proper selection of components including power supplies at a system, rack, and multi-rack level. A variety of additional features are also provided including a condensed bill of materials, a cost of ownership calculator, and a power report. The HPE Power Advisor allows for the mixing of rack, tower, blade, and other products in a single environment.

Available at: <http://www.hp.com/go/hppoweradvisor>

Power Supply Specifications

To review typical system power ratings use the HPE Power Advisor which is available via the online tool located at URL: <http://www.hp.com/go/hppoweradvisor>.

NOTE: Power Specification and Technical Content for supported power supplies can be found at: <https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04111541>

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 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 11 to 12	Updated	Update QuickSpecs for Rebranding
28-Sept-2015	From version 10 to 11	Updated	Updates throughout the QuickSpecs
17-Aug-2015	From version 9 to 10	Changed	Changes throughout the QuickSpecs.
17-Jul-2015	From version 8 to 9	Updated	Updates throughout the QuickSpecs
1-Jun-2015	From version 7 to 8	Updated	Update the configuration section
5-May-2015	From version 6 to 7	Updated	Add chassis part number
1-Jul-2015	From version 5 to 6	Changed	Changes throughout the QuickSpecs.
3-Feb-2015	From version 4 to 5	Changed	Changes throughout the QuickSpecs.
21-Jan-2015	From version 3 to 4	Changed	Update the configuration section
01-Dec-2014	From version 2 to 3	Changed	Changes throughout the QuickSpecs.
05-Nov-2014	From version 1 to 2	Changed	Changes in images and verbiage
09-Sept-2014	Version 1	Created	Create QS for HPE ProLiant m800 Sever Cartridge



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For hard drives, 1GB = 1 billion bytes. Actual formatted capacity is less.

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