

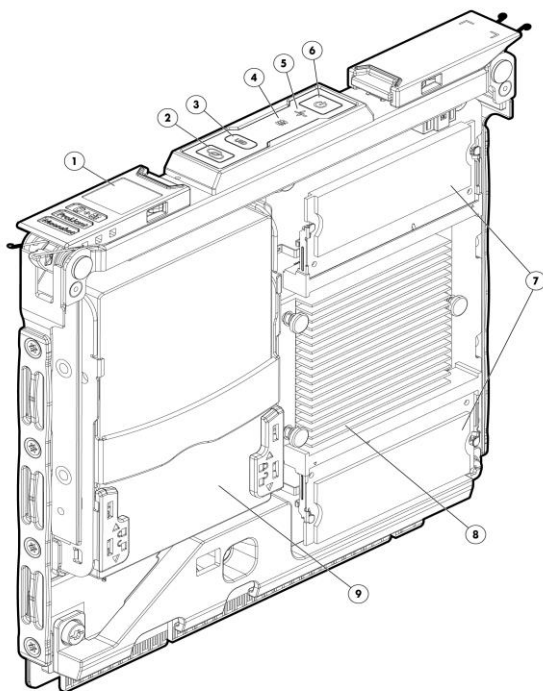
QuickSpecs

HP ProLiant m300 Server Cartridge

Overview

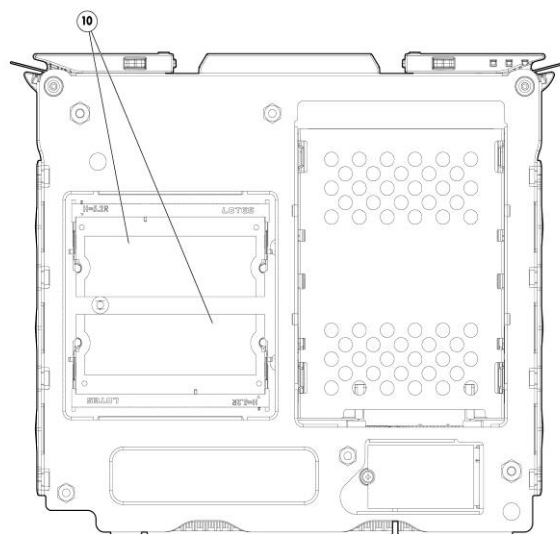
HP ProLiant m300 Server Cartridge

HP Moonshot System with the HP ProLiant m300 server cartridge was created for cost-effective Dynamic Content Delivery, front-end Web and online analytics. The ProLiant m300 server cartridge has one Intel Avoton-based System on a Chip (SoC) server having eight cores with integrated Ethernet along with one 2.5" hard drive and support for up to 32GB of memory on a compact cartridge. The HP 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 is capable of supporting 45 servers cartridge 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. Drive LED
5. Cartridge health LED
6. Cartridge power LED/button
7. Two (2) DDR3 SODIMM memory slots
8. One (1) Intel® Atom™ Processor C2750
9. One (1) small form factor (SFF) drive



Rear View:

10. Two (2) DDR3 SODIMM memory slots

Models

HP ProLiant m300 1P C2750 CPU 32GB Configure-to-order Server Cartridge

734619-B21

NOTE: For ordering the HP ProLiant m300 Server Cartridge, please see Step 1 of the Configuration to Order section of this QuickSpecs.

NOTE: For information on HP Moonshot Chassis, Switch and Uplink Modules, please see the following:
Chassis:



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Standard Features

HP Moonshot 1500 Chassis Opt OS

<http://www8.hp.com/us/en/products/servers/moonshot/index.html>

Switch:

Comware

HP Moonshot-45Gc Switch Module

<http://www8.hp.com/us/en/products/servers/moonshot/index.html>

HP Moonshot-45XGc Switch Module

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

FastPATH

HP Moonshot-45G Switch Module

<http://www8.hp.com/h20195/v2/GetHTML.aspx?docname=c04111070>

HP Moonshot-180G Switch Module

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

Uplink:

HP Moonshot-6SFP+ Uplink Module

<http://www8.hp.com/h20195/v2/GetHTML.aspx?docname=c04111292>

HP Moonshot-16SFP+ Uplink Module

<http://www8.hp.com/h20195/v2/gethtml.aspx?docname=c04499458>

HP Moonshot-4QSFP+ Uplink Module

<http://www8.hp.com/h20195/v2/GetHTML.aspx?docname=c04111291>

Processor	Intel® Atom™ Processor C2750 , 2.4 GHz		
Cache Memory	1MB shared per 2 cores		
Memory Protection	ECC		
Memory	Type	HP 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	Integrated into the System on a Chip (SoC)		
Maximum Internal Storage (per Moonshot Server)	Quick Release SFF SATA	1TB	1 x 1TB
		500GB	1 x 500GB
	Quick Release SFF SATA	240GB	1 x 240GB
	SSD		
	M.2	32GB	1 x 32GB
		64GB	1 x 64GB

NOTE: Each cartridge will ship with one (1) SATA HDD or SATA SSD hard drive.

Interfaces

Cartridge Link LED/button



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Standard Features

Cartridge UID LED/button
Drive LED
Cartridge health LED

Industry Standard Compliance

PXE Support
PCIe 3.0

Operating Systems and Virtualization Software Support for ProLiant Servers

[Microsoft Windows Server](#)
[Red Hat Enterprise Linux \(RHEL\)](#)
[SUSE Linux Enterprise Server \(SLES\)](#)
[Canonical Ubuntu](#)

NOTE: Only 64-bit versions of these operating systems are supported.

NOTE: For more information on HP'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 HP, 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>

Form Factor

HP ProLiant m300 Server Cartridge is a server cartridge that plugs into the HP Moonshot 1500 Chassis.

Security

Power-on password
Setup password
Serial interface control
Power switch security
Administrator's password

Warranty

This product is covered by a global limited warranty and supported by HP Services and a worldwide network of HP 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 HP 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: 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>

Optional Features

HP Insight Cluster Management Utility (CMU)

HP Insight Cluster Management Utility (CMU) is an HP-licensed and HP-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 HP 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

HP Factory Express offers configuration, customization, integration and deployment services for HP 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. HP products supported through Factory Express include a wide array of servers and storage: HP Moonshot, HP Integrity, HP ProLiant, HP ProLiant Server Blades, and HP BladeSystem, HP 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>.

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Service and Support

Service and Support

To see recommended HP Care Pack Services for your HP product

(4 and 5 year Service offerings are also available)

<http://www8.hp.com/us/en/products/servers/moonshot/index.html>

For more information

To learn more on HP Moonshot System, please contact your HP 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, HP recommends the use of an **HP approved configurator**. Contact your local sales representative for information on configurable product offerings and requirements.

NOTE: If you want to configure the HP Moonshot 1500 Chassis Opt OS with cartridges, proceed to the HP Moonshot 1500 Chassis Opt OS Quick Specs

<http://www8.hp.com/us/en/products/servers/moonshot/index.html>

NOTE: If you want to configure a cartridge only, proceed to Step 1

Step 1: Base Configuration (Choose upgrade kit)

HP Moonshot Server Upgrade Kit	HP Moonshot Server Multipack NOTE: up to 15 cartridges of any kind fit in this multipack NOTE: Mixed Cartridge configuration is supported	814659-B21
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Step 2: Pick Moonshot Server

HP Moonshot Server	HP ProLiant m300 1P C2750 CPU 32GB Configure-to-order Server Cartridge NOTE: Mixed Cartridge configuration is supported NOTE: Each Moonshot server comes preconfigured with four 8 GB SODIMM pre-installed. This is the only memory configuration available on this server. NOTE: Each Moonshot cartridge is pre-configured with a single Intel® Atom™ Processor C2750 running at 2.4 GHz. This processor is eight-core and contains 1 MB Cache shared per two cores. The C2750 is the only processor option available and represents a balance of performance and energy efficiency.	734619-B21
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Step 3: Configure Moonshot Servers (Choose appropriate Option)

M.2	HP Moonshot 32G SATA VE M.2 2242 FIO Kit	749892-B21
	HP Moonshot 64G SATA VE M.2 2242 FIO Kit	765849-B21
HP Hard drives	6G SATA Quick Release SFF (2.5-inch) Midline (MDL) Drives	
	HP 1TB 6G SATA 7.2K rpm SFF (2.5-inch) Quick Release Midline 1yr Warranty Hard Drive	632080-B21
	HP 500GB 6G SATA 7.2K rpm SFF (2.5-inch) Quick Release Midline 1yr Warranty Hard Drive	632078-B21
	NOTE: Please see the QuickSpecs for Technical Specifications and additional information: http://h18000.www1.hp.com/products/quickspecs/13021_div/13021_div.html	
	6G SATA Value Endurance Quick Release SFF (2.5-inch) Enterprise Value Solid State Drives	
	HP 240GB 6G SATA Value Endurance SFF 2.5-in Quick-release Enterprise Value 3yr Wty Solid State Drive	718180-B21
	NOTE: Please see the QuickSpecs for Technical Specifications and additional information: http://h18000.www1.hp.com/products/quickspecs/14038_div/14038_div.html NOTE: The non-hot plug hard drives use a quick release carrier.	

Step 4: To Select a different cartridge see details:

<http://www8.hp.com/us/en/products/servers/moonshot/index.html>

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Technical Specifications

Server Cartridge	HP Moonshot m300 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	27.5W				
	Max Power	44.0W				
	System Inlet Temperature	<table border="0"> <tr> <td style="vertical-align: top;">Operating</td> <td>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).</td> </tr> <tr> <td style="vertical-align: top;">Non-operating</td> <td>-22° to 140° F (-30° to 60° C) Maximum rate of change is 36°F/hr (20°C/hr).</td> </tr> </table>	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).
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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)	<table border="0"> <tr> <td style="vertical-align: top;">Operating</td> <td>10 to 90% relative humidity (Rh), 28°C (82.4°F) maximum wet bulb temperature, non-condensing.</td> </tr> <tr> <td style="vertical-align: top;">Non-operating</td> <td>5 to 95% relative humidity (Rh), 38.7°C (101.7°F) maximum wet bulb temperature, non-condensing.</td> </tr> </table>	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-condensing.
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	Altitude	<table border="0"> <tr> <td style="vertical-align: top;">Operating</td> <td>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).</td> </tr> <tr> <td style="vertical-align: top;">Non-operating</td> <td>30,000 ft (9144 m). Maximum allowable altitude change rate is 1500 ft/min (457 m/min).</td> </tr> </table>	Operating	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).
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Non-operating	30,000 ft (9144 m). Maximum allowable altitude change rate is 1500 ft/min (457 m/min).					
Environment-friendly Products and Approach	End-of-life Management and Recycling	<p>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.</p> <p>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.</p>				

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Summary of Changes

Date	Version History	Action	Description of Change
28-Sept-2015	From version 15 to 16	Changed	Remove and update several sections throughout the QuickSpecs
17-Aug-2015	From version 14 to 15	Changed	Updates throughout the QuickSpecs
17-Jul-2015	From version 13 to 14	Update	Update the whole QuickSpecs
1-Jun-2015	From version 12 to 13	Update	Update configuration section
5-May-2015	From version 11 to 12	Update	Add chassis information
9-Apr-2015	From version 10 to 11	Update	Add a power supply
3-Feb-2015	From version 9 to 10	Changed	Updates throughout the QuickSpecs
21-Jan-2014	From Version 8 to 9	Changed	Update the configuration section
1-Dec-2014	From Version 7 to 8	Changed	Updated several sections
5-Nov-2014	From Version 6 to 7	Changed	Updates throughout the QuickSpecs
18-Aug-2014	From Version 5 to 6	Action	Changes made throughout the QuickSpecs.
10-Jun-2014	From Version 3 to 4	Changed	Solid States Drives, Cables, and Power Distribution Units were revised.
25-Apr-2014	From Version 2 to 3	Changed	Changes made throughout the QuickSpecs.
18-Feb-2014	From Version 1 to 2	Changed	Added the What's New and the Pre-Configured Models sections. Changes made in the Configuration Information section.

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

