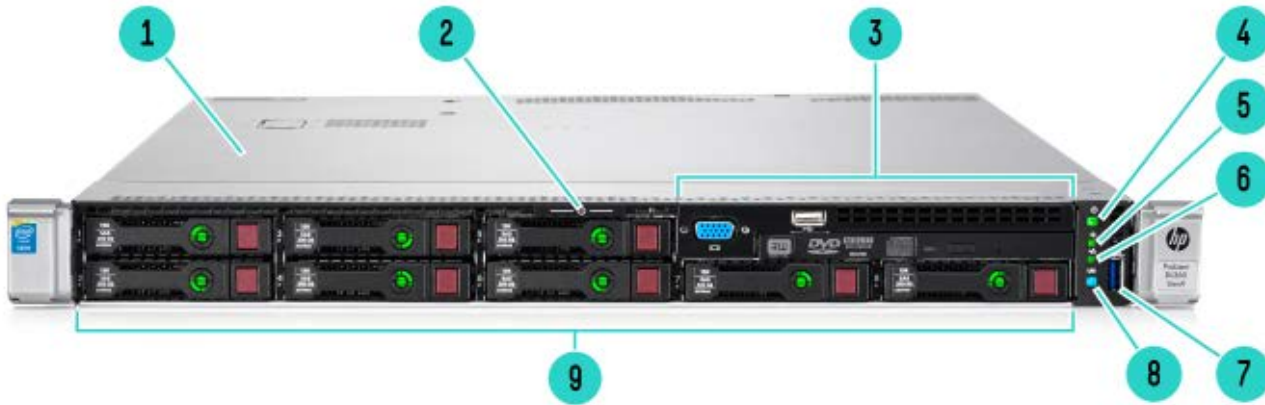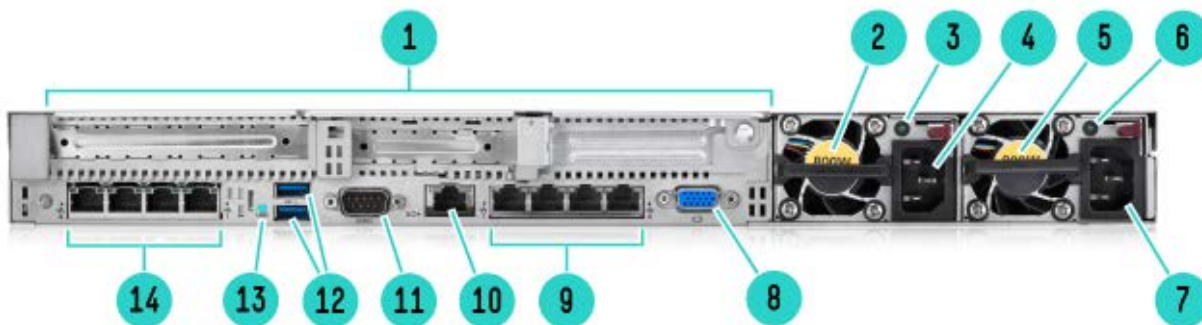## Overview

HPE ProLiant DL360 Generation9 (Gen9)

Hewlett Packard Enterprise's leading server for dense general-purpose computing, the HPE ProLiant DL360 Gen9 Server delivers increased performance with the best memory and I/O expandability packed in a 1U dense rack design. Reliability, serviceability and always on availability, backed by a comprehensive warranty, make it ideal for the most space constrained server workloads.

Front View

1. Access Panel
2. Serial Label Pull Tab
3. HPE Universal Media Bay or NVMe
   NOTE: Shown w/VGA, USB 2.0 and DVD-ROM or DVD-RW option. Alternative options 2 SFF HDDs or VGA and USB 2.0.
4. Power On/Standby button and system power LED button
5. Health LED

6. NIC Status LED
7. USB 3.0 Connector
8. Unit Identification Button & LED
9. SAS/SATA/SSD/NVMe Drive Bays
   NOTE: 8SFF Model shown. 8SFF can be configured as 8 SAS/SATA Drives, 4 SAS/SATA (Drives 1-4) + 6 NVMe (Drives 5-10), 8 SAS/SATA + Universal Media Bay or 10 SAS/SATA drives. 4 LFF Models are also available.

Rear view

1. PCIe 3.0 Slots 1-3
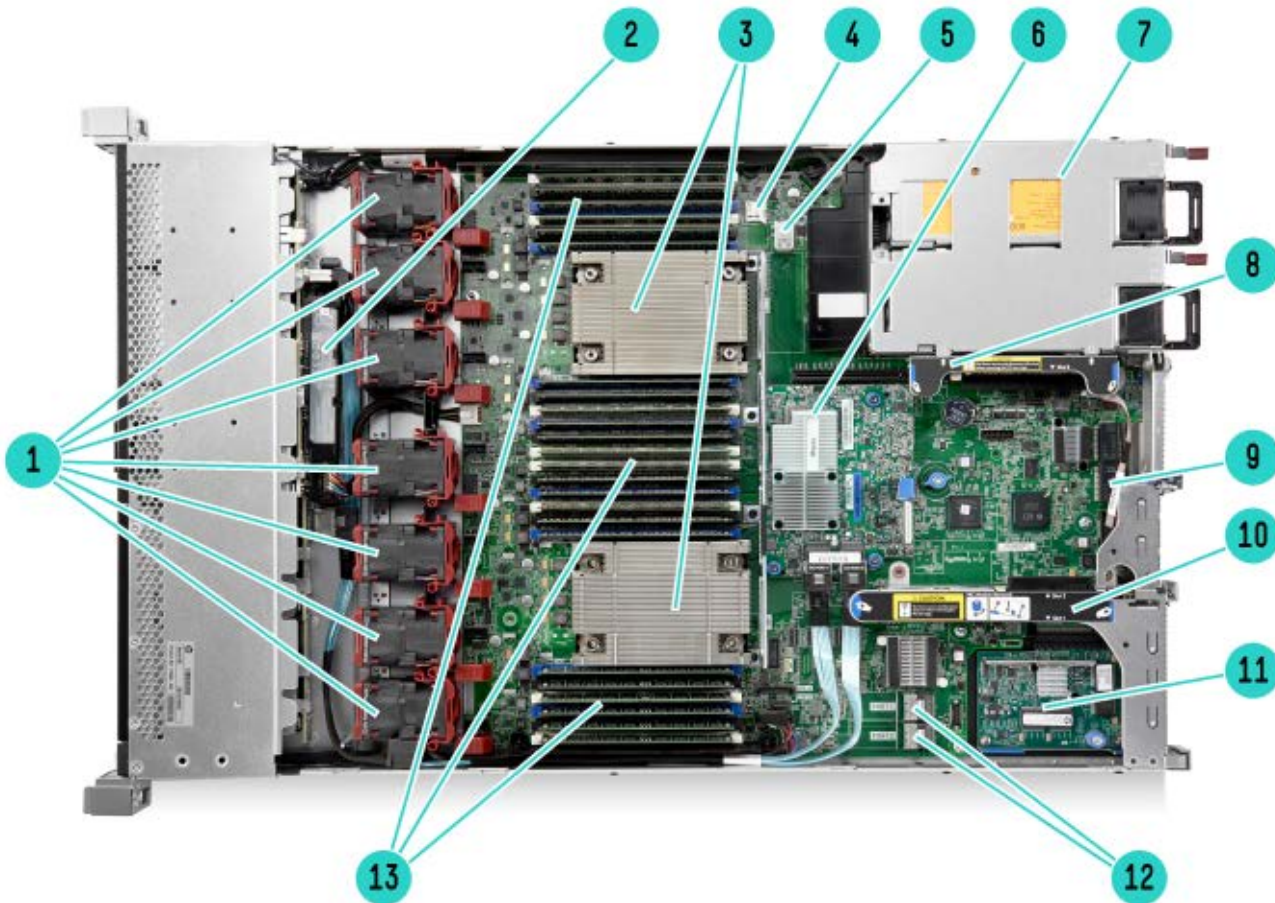   **NOTE:** Slot 1 and 2 Riser Ships Standard, Slot 3 Optional 1 FH /¾ length and two Low Profile

8. Video Connector
9. Embedded 4x1GbE Network Adapter
10. Dedicated iLO 4 connector

Overview

slots available (shown) or two FH/ ¾ length slots.

2. HPE Flexible Slot Power Supply Bay 2
3. Power Supply 2 Status LED
4. Power Supply 2 C13 Connection
5. HPE Flexible Slot Power Supply Bay 1
6. Power Supply 1 Status LED
7. Power Supply 1 C13 Connection

11. Serial Port Connector (Optional)
12. USB 3.0 Connectors (2)
13. Unit Identification LED
14. FlexibleLOM bay (Optional)
    NOTE: Shown: 4x1Gbe.

Internal View

1. 5 Standard Fans Ship for 1P and 7 Standard Fans Ship for 2P
   NOTE: High Performance Fans also available as an option.
2. HPE Smart Storage Battery (Optional)
3. 2 Processors with HPE Smart Socket Guide
4. MicroSD card slot
   NOTE: Optional Dual Micro-SD option.
5. Dual Internal USB 3.0 connector
6. HPE Flexible Smart Array or Smart HBA (Optional)
   NOTE: H240ar shown and P440ar available.
7. 2 HPE Flexible Slot Power supplies

8. Secondary PCIe 3.0 riser for PCIe slot 3 (requires CPU 2)
9. Embedded 4x1Gbe NIC
10. Primary PCIe 3.0 riser for PCIe slots 1 & 2
11. FlexibleLOM Bay (Optional)
12. Embedded SATA Controller ports
13. 24 DDR4 DIMM slots (12 per processor)

Overview

NOTE: Optional Micro UPS option.

What's New

- New HDD offering.

Standard Features

NOTE: For more information regarding Intel Xeon processors, please see the following **http://www.intel.com/xeon**.

Processor

Model	CPU frequency	Cores	L3 Cache	Power	QPI	DDR4 Hz
E5-2699v3	2.3GHz	18	45MB	145W	9.6GT/s	2133
E5-2698v3	2.3GHz	16	40MB	135W	9.6GT/s	2133
E5-2697v3	2.6GHz	14	35MB	145W	9.6GT/s	2133
E5-2695v3	2.3GHz	14	35MB	120W	9.6GT/s	2133
E5-2690v3	2.6GHz	12	30MB	135W	9.6GT/s	2133
E5-2687Wv3	3.1GHz	10	25MB	160W	9.6GT/s	2133
E5-2683v3	2.0GHz	14	35MB	120W	9.6GT/s	2133
E5-2680v3	2.5GHz	12	30MB	120W	9.6GT/s	2133
E5-2670v3	2.3GHz	12	30MB	120W	9.6GT/s	2133
E5-2667v3	3.2GHz	8	20MB	135W	9.6GT/s	2133
E5-2660v3	2.6GHz	10	25MB	105W	9.6GT/s	2133
E5-2650v3	2.3GHz	10	25MB	105W	9.6GT/s	2133
E5-2650Lv3	1.8GHz	12	30MB	65W	9.6GT/s	2133
E5-2643v3	3.4GHz	6	20MB	135W	9.6GT/s	2133
E5-2640v3	2.6GHz	8	20MB	90W	8.0GT/s	1866
E5-2637v3	3.5GHz	4	15MB	135W	9.6GT/s	2133
E5-2630v3	2.4Ghz	8	20MB	85W	8.0GT/s	1866
E5-2630Lv3	1.8GHz	8	20MB	55W	8.0GT/s	1866
E5-2623v3	3.0GHz	4	10MB	105W	8.0GT/s	1866
E5-2620v3	2.4GHz	6	15MB	85W	8.0GT/s	1866
E5-2609v3	1.9GHz	6	15MB	85W	6.4GT/s	1600
E5-2603v3	1.6GHz	6	15MB	85W	6.4GT/s	1600

Chipset　　　Intel® C610 Series Chipset

Intel® E5-2600v3 Processor Family

NOTE: For more information regarding Intel® chipsets, please see the following URL:

http://www.intel.com/products/server/chipsets/

On System　　HPE iLO (Firmware HPE iLO4 2.3) 4GB NAND

Management

Chipset　　　**NOTE: 1GB USB user space configurable via UEFI and accessible via iLO. Read and learn more in the iLO QuickSpecs.**

Memory　　　Type:

One of the following　HPE SmartMemory

depending on

model　　　　DDR4 Registered (RDIMM) or Load Reduced (LRDIMM)

DIMM Slots Available　　24　　　(12 DIMM slots per processor, 4 channels per processor, 3 DIMMs per channel)

Standard Features

Maximum Capacity (LRDIMM)	1.5TB	(24 x 64GB LRDIMM @2133MHz)	
Maximum Capacity (RDIMM)	768GB	(24 x 32GB LRDIMM @2133MHz)	

Memory Protection	Advanced ECC	Advanced ECC uses single device data correction to detect and correct single and all multibit error that occurs within a single DRAM chip.
	Online spare	Memory online spare mode detects a rank that is degrading and switches operation to the spare rank.

Expansion Slots

Primary Riser

Expansion Slots #	Technology	Bus Width	Connector Width	Bus Number	Form Factor	Notes
1	PCIe 3.0	x16	x16		Full-height, ¾ length (up to 9.5") Slot	Processor 1
2	PCIe 3.0	x8	x8		Low profile slot	Processor 1

NOTE: Bus Width indicates the number of physical electrical lanes running to the connector.

Secondary Riser

Expansion Slots #	Technology	Bus Width	Connector Width	Bus Number	Device Number	Form Factor	Notes
3	PCIe 3.0	x16	x16			Low profile	Processor 2
3	PCIe 3.0	x16	x16			Full-height, ¾ length (up to 9.5") Slot	Processor 2*

*PCI-E Slot 2 cannot be used in conjunction with the FH/¾ Length option kit (744644-B21)

Storage Controller One of the following depending on model	Entry Models	HPE Dynamic Smart Array B140i Controller
	Base Models	HPE H240ar Smart Host Bus Adapter
	Performance Models	HPE Flexible Smart Array P440ar/2GB

Internal Storage Devices One of the following depending on model	Optical Drives	8 SFF with optional Universal Media bay **NOTE: Option Kit 764632-B21 VGA, USB 2.0, and DVD-RW kit.** 4 LFF **NOTE: Two option kits available for optical drive: 726536-B21 or 726537-B21; Optical cable kit required for optical drives: 766203-B21.**
	Hard Drives	None ship standard
	Hard Drive Bays	8 SFF with optional Universal Media bay or NVMe drive support 4 LFF 10 SFF; 8 SFF Model with optional 2 SFF SAS/SATA kit: 764630-B21 **NOTE: HPE ProLiant DL360 Series servers offer both SFF and LFF versions.** **NOTE: All Pre-configured Models come populated with some hard drive blanks installed. Should the customer need additional hard drive blanks, they can order more using either P/N 666987-B21: HPE SFF Hard Drive Blank Kit or P/N 666986-B21: HPE LFF Hard Drive Blank Kit. These part**

Standard Features

numbers for single HDD blanks below are also provided should the customer require replacement HDD blanks for their server.
NOTE: The 2SFF kit comes with the cable needed to attach the 2 drives to the internal B140i SATA controller. For SAS an alternate storage controller and it associated cable kit are required.

Maximum Internal Storage		CAPACITY	CONFIGURATION
	Hot Plug SFF SAS SSD	38.4TB	10x3.84TB
	Hot Plug SFF SATA SSD	38.4TB	10x3.84TB
	Hot Plug LFF SATA SSD	15.36TB	4x3.84TB
	Hot Plug LFF SAS SSD	6.4TB	4x1.6TB
	Hot Plug SFF SAS	20.0TB	10x2.0TB
	Hot Plug SFF SATA	20.0TB	10x2.0TB
	Hot Plug LFF SAS	32.0TB	4x8TB
	Hot Plug LFF SATA	32.0TB	4x8TB
	Hot Plug SFF NVMe PCIe SSD	12TB NVMe + 8TB SFF	6 NVMe + 4 SAS

Power Supply
One of the following depending on model

HPE 500W Flex Slot Platinum Hot Plug Power Supply
NOTE: Available in 94% efficiency.

HPE 800W Flex Slot Platinum Hot Plug Power Supply
NOTE: Available in 94% and 96% efficiency.
NOTE: Also available in -48VDC and 227VAC/380VDC power inputs.

HPE 1400W Flex Slot Platinum Plus Hot Plug Power Supply
NOTE: Available in 94% efficiency.

HPE Flexible Slot Battery Backup Unit Kits
NOTE: Flex Slot Battery Backup provides 750W output and 500W in paralleled configuration.

HPE Flexible Slot (Flex Slot) Power Supplies share a common electrical and physical design that allows for hot plug, tool-less installation into HPE ProLiant Gen9 Performance Servers. Flex Slot power supplies are certified for high-efficiency operation and offer multiple power output options, allowing users to "right-size" a power supply for specific server configurations. This flexibility helps to reduce power waste, lower overall energy costs, and avoid "trapped" power capacity in the data center.

All pre-configured servers ship with a standard 6-foot IEC C-13/C-14 jumper cord (A0K02A). This jumper cord is also included with each standard AC power supply option kit. If a different power cord is required, please check the **ProLiant Power Cables** web page.

To review the power requirements for your selected system, please use the HPE Power Advisor Tool located at **http://www.hp.com/go/hppoweradvisor**.

Power specifications and technical content for all HPE Server power supplies can be found at **http://www.hp.com/go/proliant/powersupply**.

System Fans		Non-redundant	Redundant
	1P model	N/A	5 fans

Standard Features

One of the following depending on model		**Non-redundant**	**Redundant**
	2P model	N/A	7 fans

NOTE: The second processor option kit contains two fans.

NOTE: High Performance Fan Kit, 766201-B21, is available to meet some extended ambient operating temperatures above 35° C. Qualifications for extended ambient configurations are detailed at: **https://www.hp.com/servers/ashrae**.

Interfaces	Serial	1

NOTE: Optional kit: 764646-B21.

	Video	1 rear (Standard)
		1 front (Optional)

NOTE: Front VGA options available for 8SFF and 4LFF models as detailed in the core options section of this QuickSpecs.

	Network RJ-45 (Ethernet)	Both the SFF and LFF Chassis have an embedded 4x1GB NIC and a FlexibleLOM bay. (See HPE Networking section below for more details and options).
	HPE iLO Remote Management Network Port	1Gb Dedicated
	SD Connector	1 micro SD Internal

NOTE: The SD slot is not a hot-pluggable device. Customers should not attempt to plug an SD card into the SD slot while the server is powered.

	USB 3.0	5 total: 2 rear, 1 front, 2 internal

Operating Systems and Virtualization Software Support for ProLiant Servers

Microsoft Windows Server

Canonical Ubuntu

Red Hat Enterprise Linux (RHEL)

SUSE Linux Enterprise Server (SLES)

Oracle Solaris

VMware

Citrix XenServer

NOTE: For more information on HPE 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.

Upgradeability

Upgradeable to two processors (36 Cores)

Up to 24 DIMM slots available for higher Memory capacity

Up to 10 SFF Hard Drive Bays; or 4 LFF Hard Drive Bays

FlexibleLOM slot for 1Gigabit or 10 Gigabit Ethernet or QDR/FDR InfiniBand networking options

3 PCIe 3.0 I/O slots for additional communications and storage expansion

NOTE: Slot 1 and 2 Riser Shipped Standard, Slot 3 Optional 1 FH / ¾ length and two Low Profile slots available (shown) or two FH/ ¾ length slots.

Redundant Power Supplies

Optical Drive supported via Universal Media Bay

Standard Features

NOTE: 8SFF CTO Server via VGA, USB 2.0 and DVD-RW Option kit: 764732-B21; 4LFF CTO Server via DVD-RW 726537-B21, DVD 726536-B21 and the Optical Cable: 766203-B21.

Industry Standard Compliance	ACPI 2.0b Compliant
	PCIe 3.0 Compliant
	PXE Support
	WOL Support
	Microsoft® Logo certifications
	USB 3.0 Support
	Energy Star
	ASHRAE A3/A4

NOTE: The DL360 Gen9 is now one of the first HPE ProLiant Gen9 Servers with Extended Ambient Support up to 45 C for data center infrastructures designed for better energy efficiency such as but not limited to fresh air cooling.

For additional technical thermal details regarding ambient temperatures, humidity and features support please visit https://www.hp.com/servers/ashrae.

Graphics	Integrated Matrox G200 video standard

- **1280 x 1024 (32 bpp)**
- **1920 x 1200 (16 bpp)**

HPE Server UEFI/Legacy ROM	**HPE Server UEFI /Legacy ROM**

Unified Extensible Firmware Interface (UEFI) is an industry standard that provides better manageability and more secured configuration while interacting with your server at boot time. HPE ProLiant Gen9 platform defaults to UEFI and can be factory or field configured for Legacy BIOS Boot Mode.

NOTE: The UEFI System Utilities function is analogous to the HPE ROM-Based Setup Utility (RBSU) of legacy BIOS. For more information, please visit http://www.hp.com/go/proliantuefi/docs.

UEFI enables numerous new capabilities specific to HPE ProLiant servers such as:

- Secure Boot

- Operating system specific functionality

- Support for > 2.2 TB (using GPT) boot drives

- USB 3.0 Stack

- Embedded UEFI Shell

- Mass Configuration Deployment Tool using HPE RESTful API.

- PXE boot support for IPv6 networks

- Boot support for option cards that only support a UEFI option ROM

For more information please visit **http://www.hp.com/go/proliant/uefi**.

NOTE: For UEFI Boot Mode, boot environment and OS image installations should be configured properly to support UEFI.

Standard Features

NOTE: HPE Legacy FIO Mode Setting (758959-B22) can be selected to configure the system in Legacy mode in the factory.

Form Factor One of the following depending on model	1U Rack form factor 8 SFF Drive Bay Version and 10 SFF Drive Bay Version: 1.7" (4.32cm) Height x 17.11" (43.47cm) Width x 27.5" (69.85cm) Length 4 LFF Drive Bay Version: 1.7" (4.32cm) Height x 17.11" (43.47cm) Width x 29.5" (74.67cm) Length

Embedded Management	**HPE Integrated Lights-Out (HPE iLO)**	Monitor your servers for ongoing management, service alerting, reporting and remote management with HPE iLO. Learn more at **http://www.hp.com/go/ilo**.
	UEFI	Configure and boot your servers securely with industry standard Unified Extensible Firmware Interface (UEFI). Learn more at **http://www.hp.com/go/ProLiant/uefi**.
	RESTful API	A single programmatic web interface that allows you to manage and monitor your server infrastructure using basic HTTP operations (GET, PUT, POST, DELETE and PATCH). RESTful API for iLO 4 conforms to the Redfish 1.0 DMTF standard (iLO firmware version v2.30 or higher required for Redfish conformance). For more details visit: **http://www.hp.com/go/restfulapi**.
	Intelligent Provisioning	Provision servers by discovering and deploying 1 to few servers with Intelligent Provisioning. Learn more at **http://www.hp.com/go/intelligentprovisioning**.
	Embedded Remote Support	Hewlett Packard Enterprise embedded remote support, used with Insight Online direct connect or HPE Insight Remote Support, allows HPE ProLiant servers to transmit hardware events directly to Hewlett Packard Enterprise or an HPE Authorized Partner for automated phone home support. Learn more at **http://www.hp.com/go/insightonline/info**.
Server utilities	**Smart Update**	Optimize firmware and driver updates with Smart Update solutions including Smart Update Manager (SUM) and Service Pack for ProLiant (SPP). Learn more at **http://www.hp.com/go/smartupdate**.
	HPE Systems Insight Manager (HPE SIM)	HPE SIM allows you to monitor the health of your HPE ProLiant Servers and HPE Integrity Servers, and also provides you with basic support for non-HPE servers. HPE SIM also integrates with SUM to provide quick and seamless firmware updates. Learn more at **http://www.hp.com/go/sim**.
	Scripting Tool Kit and Windows PowerShell	Provision 1 to many servers using your own scripts to discover and deploy them with Scripting Tool Kit for Windows and Linux

Standard Features

	or Scripting Tools for Windows PowerShell. Learn more at **http://www.hp.com/go/ProLiantSTK** or **http://www.hp.com/go/powershell**.
RESTful Interface Tool	Scripting tool to provision servers using iLO 4 RESTful API to discover and deploy servers at scale. Learn more at **http://www.hp.com/go/resttool**.
HPE iLO Mobile Application	Enables the ability to access, deploy, and manage your server anytime from anywhere from select smartphones and mobile devices. For additional information please visit: **http://www.hp.com/go/ilo/mobileapp**.
HPE Insight Online	HPE Insight Online, available at no additional cost as part of your Hewlett Packard Enterprise warranty, Care Pack or contractual support agreement with Hewlett Packard Enterprise, is a personalized dashboard for simplified tracking of IT operations and support information from anywhere, anytime. Learn more at **http://www.hp.com/go/insightonline/info**.

Security	Power-on password
	Keyboard password
	QuickLock, Network Server Mode
	Serial interface control
	Administrator's password
	iLO 4 (Integrated Lights-Out 4) has 12 customizable user accounts and SSL encryption
	iLO 4 can be disabled via a Global Setting
	iLO Advanced supports directory services integration
	TPM 1.2
	UEFI

Warranty	This product is covered by a global limited warranty and supported by HPE Services and a worldwide network of HPE 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.

Optional Features

Server Management	**HPE Insight Control**	HPE Insight Control, lets you deploy, migrate, monitor, remote control, and optimize your IT infrastructure through a single, simple management console. For more information, see **http://www.hp.com/go/insightcontrol**.
	HPE OneView	Powerful converged management of servers, storage, and network for IT service automation and infrastructure simplicity, see **http://www.hp.com/go/oneview**
	HPE Insight Cluster Management Utility (CMU)	HPE Insight Cluster Management Utility is a hyperscale-optimized management framework that includes software for the provisioning, control, performance management and monitoring of groups of nodes and infrastructure. Learn more at **http://www.hp.com/go/cmu**.

Rack and Power Infrastructure

HPE Rack and Power Infrastructure products and services create highly efficient and intelligent solutions for existing or new IT data centers. HPE Rack and Power infrastructure solutions – rack infrastructure, power protection and management, performance optimized data centers (PODs) – are the foundation you are looking for to help secure your long-term IT success. These products are designed to help you react to changes in the industry. They deliver efficient, easy-to-use capabilities to manage, monitor, deploy and provision infrastructure from entry to enterprise. As an industry leader, Hewlett Packard Enterprise is uniquely positioned to address the key concerns of power, cooling, cable management and system access.

Learn more at **HPE Rack and Power Infrastructure.**

High Performance Clusters	**HPE Insight Cluster Management Utility (CMU)**	HPE Insight Cluster Management Utility is a Hyperscale management framework that includes software for the centralized provisioning, management and monitoring of nodes and infrastructure. Learn more at **http://www.hp.com/go/cmu**.

HPC Interconnects

NOTE: High Performance Computing (HPC) interconnect technologies are available for this server under the HPE Cluster Platform product portfolio. These high-speed interconnects are fully supported by Hewlett Packard Enterprise when they are part of these configure to order clusters. Solutions can be defined with a lot of flexibility with the help of configuration tools. Please visit the following URL to configure HPEC Clusters with InfiniBand Interconnects: **http://www.hp.com/techservers/clusters/ucp/index.html**.

Storage Software

Whether you need to solve a specific data protection, archiving, or storage command and control challenge, or deliver on strategic consolidation, compliance, or continuity initiatives, look no further than Hewlett Packard Enterprise storage software. Our storage software helps you reduce costs, simplify storage infrastructure, protect vital assets and respond faster to business opportunities.

Storage software that gets the job done:

- **Data Protection and Recovery Software**
  Whether you're a large enterprise or a smaller business, Hewlett Packard Enterprise data protection and recovery software will cost-effectively protect you against disaster and ensure business continuity.
- **Data Archive and Migration Software**
  Hewlett Packard Enterprise storage software enables you to comply with data retention and

Optional Features

retrieval requirements, improve application performance, and reduce costs by efficiently migrating infrequently accessed or less valuable data to lower cost storage.

- **Storage Resource Management Software (SRM)**
  Hewlett Packard Enterprise storage resource management software reduces operational costs and provides the command and control foundation you need to efficiently manage and visualize your physical and virtual environments.
- **Data Replication Software**
  Hewlett Packard Enterprise offers array-based and host-based replication software for use in disaster recovery, testing, application development and reporting.
- **Storage Device Management Software**
  Maximize your investment in Hewlett Packard Enterprise storage and networking with software that enables hardware-specific configuration, performance tuning and connectivity management.
- **HPE StoreVirtual VSA**
  With HPE StoreVirtual VSA you can use the power of virtualization to create a virtual array within your host server. Manage it as a single pool of shared storage capacity, and scale it to match your evolving needs. HPE ProLiant Gen9 servers include a 3-year limited license for HPE StoreVirtual VSA software with 1TB of capacity at no extra cost. Simply select to install HPE StoreVirtual VSA software during server setup within Intelligent Provisioning. More information, instructional videos, and free console management software are available at **http://www.hp.com/go/vsa1TB**.

NOTE: For more information about Storage Software including QuickSpecs, please see: **http://www.hp.com/go/storage/software**.

One Config Simple (SCE) SCE is a guided self-service tool to help sales and non-technical people provide customers with initial configurations in 3 to 5 minutes. You may then send the configuration on for configuration help, or use in your existing ordering processes. If you require "custom" rack configuration or configuration for products not available in SCE, please contact Hewlett Packard Enterprise Customer Business Center or an Authorized Partner for assistance. **https://h22174.www2.hp.com/SimplifiedConfig/Index**.

Service and Support

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 term you select.
Optimized Support recommendation	**HPE Proactive Care -** Call to Repair commitment, 24x7 coverage, three year Care Pack Service

Optimized Support recommendation

HPE Proactive Care - Call to Repair commitment, 24x7 coverage, three year Care Pack Service

Prevent problems and stabilize IT by utilizing secure, real-time, predictive analytics and proactive consultations when your products are connected to Hewlett Packard Enterprise. Includes enhanced escalation management and the industry's highest level of hardware support commitment – hardware will be returned to operating conditions within six (6) hours after you open your case. Comes with collaborative software call management with two hour call back to reduce troubleshooting.

As a leading global support provider for Microsoft, Red Hat, VMware, SUSE and other operating systems, Hewlett Packard Enterprise is able to simplify and shorten your time to resolution with one call for hardware or software questions. **http://h20195.www2.hp.com/v2/GetPDF.aspx/4AA3-8855ENW.pdf**.

HPE ProLiant Server Hardware Installation

Help ensure your new HPE ProLiant hardware is installed smoothly, efficiently and with minimal disruption to your IT and business operations. **http://h20195.www2.hp.com/V2/GetPDF.aspx/5981-9356EN.pdf**.

Standard Support recommendation

HPE Proactive Care - 24x7 coverage, three year Care Pack Service

This service helps prevent problems and stabilize IT by utilizing secure, real-time, predictive analytics and proactive consultations when your products are connected to HPE. Includes four hour response for hardware, and collaborative call management for software with a two hour callback.

http://h20195.www2.hp.com/v2/GetPDF.aspx/4AA3-8855ENW.pdf

HPE ProLiant Hardware Installation

Help ensure your new HPE ProLiant hardware is installed smoothly, efficiently and with minimal disruption to your IT and business operations. **http://h20195.www2.hp.com/V2/GetPDF.aspx/5981-9356EN.pdf**

Related Services

Data Center Platform Consulting Services

These services help modernize key systems and leverage new technology to support a changing business climate and   prepare you for the new style of IT. Hewlett Packard Enterprise understands the

Service and Support

needs of the data center of the future and will serve as your guide for the journey. **http://www.hp.com/services/consulting**

Data Privacy Services

Protect your data through better media management. HPE Data privacy services help manage and protect sensitive data. **http://www.hp.com/services/dataprivacy**

Factory Express for Servers and storage

HPE Factory Express offers configuration, customization, integration and deployment services for HPE servers and storage products. Choose how your factory solutions are built, tested, integrated, shipped and deployed. **http://www.hp.com/go/factory-express**

HPE Foundation Care

Hardware and software support services provide easy connection to Hewlett Packard Enterprise to resolve support issues quickly. Includes collaborative call management for industry leading software; full software support may also be purchased, giving you one place to call for help. **http://www.hp.com/services/foundationcare**

Additional HPE Care Pack services can be found at: **http://www.hp.com/go/cpc**

Parts and Materials	Hewlett Packard Enterprise will provide HPE-supported replacement parts and materials necessary to maintain the covered hardware product in operating condition, including parts and materials for available and recommended engineering improvements.

Parts and components that have reached their maximum supported lifetime and/or the maximum usage limitations as set forth in the manufacturer's operating manual, product quick-specs, or the technical product data sheet will not be provided, repaired, or replaced as part of these services.

The defective media retention service feature option applies only to Disk or eligible SSD/Flash Drives replaced by Hewlett Packard Enterprise due to malfunction. |

Pre-configured Models

	Entry Models		Base Models
[SKU Number]	755260-B21	755261-B21	755262-B21
Model Name	HP ProLiant DL360 Gen9 E5-2603v3 1P 8GB-R B140i 500W PS Entry SATA Server	HP ProLiant DL360 Gen9 E5-2603v3 1P 8GB-R H240ar 500W PS Entry SAS Server	HP ProLiant DL360 Gen9 E5-2630v3 1P 16GB-R P440ar 500W PS Base SAS Server
Processor	Intel® Xeon® E5-2603v3		Intel® Xeon® E5-2630v3
Number of Processors	One		
Memory	8GB (1x8GB Registered DIMMs, 2133 MHz) **NOTE: The DIMM will operate at 1600 MHz with the E5-2603v3 Processor.**		16GB (1x16GB Registered DIMMs, 2133 MHz) **NOTE: The DIMM will operate at 1866 MHz with the E5-2603v3 Processor.**
Network Controller	HPE Embedded 1Gb Ethernet 4-port 331i Adapter		
Storage Controller	HPE Dynamic Smart Array B140i	HPE H240ar Smart Host Bus Adapter	HPE Flexible Smart Array P440ar/2GB
Hard Drive	None ship standard **NOTE: Only Supports SATA HDD unless HPE Smart HBA or HPE Smart Array Controller is added.**	None ship standard	
Internal Storage	8 SFF HDD Bays		
Optical Drive Bay	Optional via Universal Media Bay		
PCI-Express Slots	2 Standard (1-FH/¾ L, 1-LP) PCIe 3.0		
Power Supply	(1) HPE 500W Flex Slot Platinum Power Supply		
Fans	5 Standard hot plug fans, redundant		
Management	iLO Management (standard), Intelligent Provisioning (standard), iLO Advanced (optional), Insight Control (optional), HPE OneView (optional)		
Form Factor	Rack (1U), HPE Easy Install Rails		
Warranty	Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response		

	Performance Models	
[SKU Number]	755263-B21	795236-B21
Model Name	HP ProLiant DL360 Gen9 E5-2650v3 2P 32GB-R P440ar 800W RPS Performance SAS Server	HP ProLiant DL360 Gen9 E5-2670v3 2P 64GB P440ar 8SFF 2x10Gb-T 2x800W OneView Server
Processor	Intel® Xeon® E5-2650v3	Intel® Xeon® E5-2670v3
Number of Processors	Two	
Memory	32GB (2x16GB Registered DIMMs, 2133 MHz)	64GB (4x16GB Registered DIMMs, 2133 MHz)

Pre-configured Models

Network Controller	HPE Embedded 4x1Gb, plus 2x10Gb FLR-T FlexFabric Flexible LOM	
Storage Controller	HPE Flexible Smart Array P440ar/2GB	
Hard Drive	None ship standard	
Internal Storage	8 SFF HDD Bays	
Optical Drive Bay	Optional via Universal Media Bay	
PCI-Express Slots	2 Standard (1-FH/¾ L, 1-LP) PCIe 3.0	3 Standard (1-FH/HL, 2-LP) PCIe 3.0
Power Supply	(2) HPE 800W Flex Slot Platinum Power Supply	
Fans	7 standard hot plug fans, redundant	
Management	iLO Management (standard), Intelligent Provisioning (standard), iLO Advanced (standard), HPE OneView (optional)	iLO Management (standard), Intelligent Provisioning (standard), iLO Advanced (standard), HPE OneView Advanced (Standard)
Energy Star	Meets Energy Star requirements	
Form Factor	Rack (1U), HPE Easy Install Rails	
Warranty	Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response	

Smart Buy Models

[SKU Number]	780017-S01	780018-S01	800079-S01
Model Name	HP ProLiant DL360 Gen9 E5-2609v3 SAS US Svr/S-Buy	HP ProLiant DL360 Gen9 E5-2620v3 SAS US Svr/S-Buy	HP ProLiant DL360 Gen9 E5-2620v3 SFF US Svr/S-Buy
Processor	Intel® Xeon® E5-2609v3	Intel® Xeon® E5-2620v3	
Number of Processors	One		
Memory	8GB (1x8GB Registered DIMMs, 2133 MHz) **NOTE:** The DIMM will operate at 1600 MHz with this processor.	16GB (1x16GB Registered DIMMs, 2133 MHz) **NOTE:** The DIMM will operate at 1866 MHz with this processor.	
Network Controller	HPE Embedded 1Gb Ethernet 4-port 331i Adapter		
Storage Controller	HPE H240ar Smart Host Bus Adapter		HPE Flexible Smart Array P440ar/2GB + Smart Storage Battery
Hard Drive	None ship standard		
Internal Storage	8 SFF HDD Bays		
Optical Drive Bay	None included, (Optional: DVD-ROM, DVD-RW via Universal Media Bay)		
PCI-Express Slots	Two (2) Standard (1-FH/¾ L, 1-LP) PCIe 3.0		
Power Supply	One (1) HPE 500W Flex Slot Platinum Power Supply	Two (2) HPE 500W Flex Slot Platinum Power Supplies	
Fans	Five (5) Standard hot plug fans, redundant		
Management	Standard: iLO Management Engine Optional: iLO Advanced, Insight Control, HPE OneView		
Form Factor	Rack (1U), HPE Easy Install Rails		
Warranty	3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response		

[SKU Number]	800080-S01	780020-S01	800081-S01	780021-S01
Model Name	HP ProLiant DL360 Gen9 E5-2643v3 SFF US Svr/S-Buy	HP ProLiant DL360 Gen9 E5-2660v3 SAS US Svr/S-Buy	HP ProLiant DL360 Gen9 E5-2667v3 SFF US Svr/S-Buy	HP ProLiant DL360 Gen9 E5-2690v3 SAS US Svr/S-Buy
Processor	Intel® Xeon® E5-2643v3	Intel® Xeon® E5-2660v3	Intel® Xeon® E5-2667v3	Intel® Xeon® E5-2690v3
Number of Processors	One			
Memory	32GB (2x16GB Registered DIMMs, 2133 MHz)	16GB (1x16GB Registered DIMMs, 2133 MHz)	32GB (2x16GB Registered DIMMs, 2133 MHz)	
Network Controller	HPE Embedded 1Gb Ethernet 4-port 331i Adapter			
Storage Controller	HPE Flexible Smart Array P440ar/2GB + Smart Storage Battery			
Hard Drive	None ship standard			
Internal Storage	8 SFF HDD Bays			
Optical Drive Bay	None included, (Optional: DVD-ROM, DVD-RW via Universal Media Bay)			
PCI-Express Slots	Two (2) Standard (1-FH/¾ L, 1-LP) PCIe 3.0			

Smart Buy Models

Power Supply	Two (2) HPE 500W Flex Slot Platinum Power Supplies	Two (2) HPE 800W Flex Slot Platinum Power Supplies	Two (2) HPE 500W Flex Slot Platinum Power Supplies	Two (2) HPE 800W Flex Slot Platinum Power Supplies
Fans	Five (5) Standard hot plug fans, redundant			
Management	Standard: iLO Management Engine Optional: iLO Advanced, Insight Control, HPE OneView			
Form Factor	Rack (1U), HPE Easy Install Rails			
Warranty	3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response			

[SKU Number]	780019-S01	780022-S01	800082-S01	784657-S01
Model Name	HP ProLiant DL360 Gen9 E5-2640v3 SAS US Svr/S-Buy	HP ProLiant DL360 Gen9 E5-2670v3 SAS US Svr/S-Buy	HP ProLiant DL360 Gen9 E5-2697v3 2P SFF US Svr/S-Buy	HP ProLiant DL360 Gen9 E5-2680v3 SFF US Svr/S-Buy
Processor	Intel® Xeon® E5-2640v3	Intel® Xeon® E5-2670v3	Intel® Xeon® E5-2697v3	Intel® Xeon® E5-2680v3
Number of Processors	Two			
Memory	16GB (2x8GB Registered DIMMs, 2133 MHz) **NOTE: The DIMM will operate at 1866 MHz with this processor**	64GB (4x16GB Registered DIMMs, 2133 MHz)		
Network Controller	HPE Embedded 1Gb Ethernet 4-port 331i Adapter			
Storage Controller	HPE Flexible Smart Array P440ar/2GB + Smart Storage Battery			
Hard Drive	None ship standard			2x80GB 6G SAT AVE 2.5in SC EB SSD
Internal Storage	8 SFF HDD Bays			
Optical Drive Bay	None included, (Optional: DVD-ROM, DVD-RW via Universal Media Bay)			
PCI-Express Slots	Three (3) Standard (1-FH/HL, 2-LP) PCIe 3.0		Two (2) Standard (1-FH/¾ L, 1-LP) PCIe 3.0	
Power Supply	Two (2) HPE 500W Flex Slot Platinum Power Supplies	Two (2) HPE 800W Flex Slot Platinum Power Supplies		Two (2) HPE 500W Flex Slot Platinum Power Supplies
Fans	Seven (7) Standard hot plug fans, redundant			
Management	Standard: iLO Management Engine Optional: iLO Advanced, Insight Control, HPE OneView			Standard: iLO Advanced Optional: Insight Control, HPE OneView
Form Factor	Rack (1U), HPE Easy Install Rails			
Warranty	3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response			

Configuration Information - Factory Integrated Models

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 HPE approved configurator. Contact your local sales representative for information on configurable product offerings and requirements.

1. Factory Integrated Models must start with a CTO Server.

2. FIO indicates that this option is only available as a factory installable option.

3. All Factory Integrated Models will be populated with sufficient hard drive blanks based on the number of initial hard drives ordered with the server.

4. Some options may not be integrated at the factory. Contact your local sales representative for additional information.

Step 1: Base Configuration (choose one of the following configurable models)

CTO Server	HP ProLiant DL360 Gen9 4LFF Configure-to-order Server	HP ProLiant DL360 Gen9 8SFF Configure-to-order Server
SKU Number	755259-B21	755258-B21
Processor	2 (optional) x HPE Smart Socket Guide	
DIMM Slots	24 DIMM slots for RDIMM, LRDIMM DDR4 Memory	
Storage Controller	HPE Dynamic Smart Array B140i	
PCIe	2 PCIe 3.0 Slots: Slot 1, FH / ¾ Length; Slot 2, Low Profile	
Drive Cage	4LFF Hot Plug	8SFF Hot Plug
Network Controller	HPE Embedded 1Gb Ethernet 4-port 331i Adapter	
Fans	5 Standard hot plug fans, redundant	
Management	iLO Management (standard), Intelligent Provisioning (standard), iLO Advanced (optional), Insight Control (optional), HPE OneView (optional)	
USB	1 front, 2 internal, 2 rear	
Ears	HPE Quick Release Ears	

NOTE: 4LFF CTO Server includes 1 SATA Cable, option kit: 766213-B21, which attaches to the B140i controller.

NOTE: 8SFF CTO Server includes two 4 x Mini-SAS Cables, option kit: 766209-B21, which attaches to an optional HPE Smart HBA H240ar or HPE Smart Array P440ar controller.

Step 2: Choose Required Options (only one of the following from each list unless otherwise noted)

HPE Processors   **Entry Processors - E5-2600v3 series Processors**

HP DL360 Gen9 Intel® Xeon® E5-2603v3 (1.6GHz/6-core/15/MB/85W) FIO Processor Kit   755374-L21

HP DL360 Gen9 Intel® Xeon® E5-2609v3 (1.9GHz/6-core/15MB/85W) FIO Processor Kit   755378-L21

Base Processors - E5-2600v3 series Processors

HP DL360 Gen9 Intel® Xeon® E5-2623v3 (3GHz/4-core/10MB/105W) FIO Processor Kit   755376-L21

HP DL360 Gen9 Intel® Xeon® E5-2620v3 (2.4GHz/6-core/15MB/85W) FIO Processor Kit   755382-L21

HP DL360 Gen9 Intel® Xeon® E5-2630v3 (2.4GHz/8-core/20MB/85W) FIO Processor Kit   755384-L21

HP DL360 Gen9 Intel® Xeon® E5-2640v3 (2.6GHz/8-core/20MB/90W) FIO Processor Kit   755836-L21

HP DL360 Gen9 Intel® Xeon® E5-2637v3 (3.5GHz/4-core/15MB/135W) FIO Processor Kit   755404-L21

HP DL360 Gen9 Intel® Xeon® E5-2630Lv3 (1.8GHz/8-core/20MB/55W) FIO Processor Kit   764097-L21

Configuration Information - Factory Integrated Models

Peformance Processors - E5-2600v3 series Processors

HP DL360 Gen9 Intel® Xeon® E5-2650v3 (2.3GHz/10-core/25MB/105W) FIO Processor Kit	755388-L21
HP DL360 Gen9 Intel® Xeon® E5-2660v3 (2.6GHz/10-core/25MB/105W) FIO Processor Kit	755390-L21
HP DL360 Gen9 Intel® Xeon® E5-2670v3 (2.3GHz/12-core/30MB/120W) FIO Processor Kit	755392-L21
HP DL360 Gen9 Intel® Xeon® E5-2680v3 (2.5GHz/12-core/30MB/120W) FIO Processor Kit	755394-L21
HP DL360 Gen9 Intel® Xeon® E5-2690v3 (2.6GHz/12-core/30MB/135W) FIO Processor Kit	755396-L21
HP DL360 Gen9 Intel® Xeon® E5-2683v3 (2GHz/14-core/35MB/120W) FIO Processor Kit	755398-L21
HP DL360 Gen9 Intel® Xeon® E5-2695v3 (2.3GHz/14-core/35MB/120W) FIO Processor Kit	755400-L21
HP DL360 Gen9 Intel® Xeon® E5-2697v3 (2.6GHz/14-core/35MB/145W) FIO Processor Kit	755402-L21
HP DL360 Gen9 Intel® Xeon® E5-2643v3 (3.4GHz/6-core/20MB/135W) FIO Processor Kit	755406-L21
HP DL360 Gen9 Intel® Xeon® E5-2667v3 (3.2GHz/8-core/20MB/135W) FIO Processor Kit	755408-L21
HP DL360 Gen9 Intel® Xeon® E5-2687Wv3 (3.1GHz/10-core/25MB/160W) FIO Processor Kit	755410-L21
HP DL360 Gen9 Intel® Xeon® E5-2698v3 (2.3GHz/16-core/40MB/135W) FIO Processor Kit	764099-L21
HP DL360 Gen9 Intel® Xeon® E5-2650Lv3 (1.8GHz/12-core/30MB/65W) FIO Processor Kit	764101-L21
HP DL360 Gen9 Intel® Xeon® E5-2699v3 (2.3GHz/18-core/45MB/145W) FIO Processor Kit	780003-L21

NOTE: If two processors are desired, select one xxxxxx-L21 and one corresponding xxxxxx-B21.

NOTE: Up to two processors supported. Mixing different processor models is not supported.

NOTE: DDR4 speed is the maximum memory speed of the processor. Actual memory speed may depend on the quantity and type of DIMMs installed.

NOTE: For the Intel® C600 Chipset E5-2600 Series, the letter preceding the model number indicates the Product Line (E3, E5, E7); 2600x v#, 2=number of CPUs in a Node, 6 is socket/segment designation, 00=Processor SKU, x=L for Low Power SKUs and v# (not yet designated)=version number.

HPE Memory   **NOTE:** Select one or more memory from section below

NOTE: LRDIMM and RDIMM are distinct memory technologies and cannot be mixed within a server. The majority of ProLiant Gen9 servers support LRDIMM and RDIMM.

NOTE: HPE memory from previous generation servers are not qualified or warranted with this HPE ProLiant server. HPE SmartMemory is required to realize the memory performance improvements and enhanced functionality listed in this document for Gen9.

NOTE: If only one processor is installed, only half of the total DIMM slots are available. When populating with two processors all DIMM slots are available.

NOTE: Kits described as LP include Low Power DIMMs. For more information on ProLiant Energy Efficient features see: **http://www.hp.com/go/proliant-energy-efficient**

NOTE: Depending on the memory configuration and processor model, the memory speed may run at 2133MHz, 1866MHz, 1600MHz, or 1333MHz. Please see Memory Population Table or Online Memory Configuration Tool at: **http://www.hp.com/go/ddr4memory-configurator** .

Registered DIMMs (RDIMMs) for E5-2600v3 Series

HP 32GB (1x32GB) Dual Rank x4 DDR4-2133 CAS-15-15-15 Registered Memory Kit	728629-B21
HP 16GB (1x16GB) Dual Rank x4 DDR4-2133 CAS-15-15-15 Registered Memory Kit	726719-B21

Configuration Information - Factory Integrated Models

HP 8GB (1x8GB) Single Rank x4 DDR4-2133 CAS-15-15-15 Registered Memory Kit	726718-B21
HP 8GB (1x8GB) Dual Rank x8 DDR4-2133 CAS-15-15-15 Registered Memory Kit	759934-B21
HP 4GB (1x4GB) Single Rank x8 DDR4-2133 CAS-15-15-15 Registered Memory Kit	726717-B21

Load Reduced DIMMs (LRDIMMs) for E5-2600v3 Series

HP 64GB (1x64GB) Quad Rank x4 DDR4-2133 CAS-15-15-15 Load Reduced Memory Kit	726724-B21
HP 32GB (1x32GB) Quad Rank x4 DDR4-2133 CAS-15-15-15 Load Reduced Memory Kit	726722-B21
HP 16GB (1x16GB) Dual Rank x4 DDR4-2133 CAS-15-15-15 Load Reduced Memory Kit	726720-B21

HPE Power Supplies

NOTE: Prior to selecting a power supply option, it is highly recommended that you review your server configuration in the HPE Power Advisor tool to determine the right size power supply for your server configuration. The HPE Power Advisor is located at: **http://www.hp.com/go/hppoweradvisor** .

NOTE: Mixing of power supplies in the same server is not supported. All power supplies must be of the same input voltage, output rating, and efficiency rating. If non-matching power supplies are installed, you may receive an error message and/or experience operational issues with your server.

NOTE: Support for HPE Power Discovery Services is included with the 1400W Flex Slot option. Power specifications and technical content for all HPE Server power supplies can be found at: **http://www.hp.com/go/proliant/powersupply** .

NOTE: Maximum of two (2) Flex Slot Power Supplies per platform.

HPE Flex Slot Hot-Plug Power Supplies

HP 500W Flex Slot Platinum Hot Plug Power Supply Kit	720478-B21

NOTE: Flex Slot Platinum power supplies support power efficiency of up to 94% and include a standard C-14 power inlet connector.

HP 800W Flex Slot Platinum Hot Plug Power Supply Kit	720479-B21

NOTE: Flex Slot Platinum power supplies support power efficiency of up to 94% and include a standard C-14 power inlet connector.

HP 800W Flex Slot Titanium Hot Plug Power Supply Kit	720482-B21

NOTE: Flex Slot Titanium power supplies support power efficiency of up to 96% and include a standard C-14 power inlet connector.

HP 800W Flex Slot Universal Hot Plug Power Supply Kit	720484-B21

NOTE: Flex Slot universal power supplies support power efficiency of up to 94% and support both 277VAC/380VDC power inputs.

HP 800W Flex Slot -48VDC Hot Plug Power Supply Kit	720480-B21

NOTE: Flex Slot -48VDC power supplies support power efficiency of up to 94%

HP 1400W Flex Slot Platinum Plus Hot Plug Power Supply Kit	720620-B21

NOTE: Flex Slot Platinum Plus power supplies support power efficiency of up to 94% and include a C-14 power inlet connector that can support HPE Power Discovery Services (blue connector).

HP 750W Flex Slot Hot Plug Battery Backup Module	738024-B21

NOTE: Flex Slot Battery Backup provides 750W output and 500W in paralleled configuration.
NOTE: Only one Battery Backup module per server, and a Flex Slot Power Supply needed in parallel.

Configuration Information - Factory Integrated Models

Step 3: Choose Additional Factory Integratable Options (only one of the following from each list unless otherwise noted)

HPE Storage Controllers	**NOTE:** The embedded B140i controller will be used as the primary controller if no controller is selected from the list below. Embedded SATA controller can support up to 8 SATA hard drives. Cable kit may be required.	
	HPE Smart Array Controllers	
	HP Smart Array P440ar/2GB FBWC 12Gb 2-ports Int FIO SAS Controller	749974-B21
	NOTE: Provides support for up to 8 internal SAS/SATA drives without using a PCIe slot.	
	HP Smart Array P440/4GB FBWC 12Gb 1-port Int FIO SAS Controller	761872-B21
	NOTE: Provides support for up to 8 internal SAS/SATA drives, consumes one PCIe slot.	
	NOTE: Includes the HP Smart Storage Battery	
	HPE Smart Host Bus Adapters	
	HP H240ar 12Gb 2-ports Int FIO Smart Host Bus Adapter	749976-B21
	NOTE: Provides support for up to 8 internal SAS/SATA drives without using a PCIe slot.	
	HP H240 12Gb 2-ports Int FIO Smart Host Bus Adapter	761873-B21
	HPE Cable Options	
	HP DL360 Gen9 LFF Smart Array P440ar/H240ar SAS Cable	766211-B21
	NOTE: Required with P/N: 749974-B21 or P/N: 749976-B21 if using the HP ProLiant DL360 Gen9 4LFF CTO Server (P/N: 755259-B21)	
	HP DL360 Gen9 SFF Embedded SATA Cable	766207-B21
	NOTE: Required with the HP ProLiant DL360 Gen9 8SFF CTO Server (P/N: 755258-B21) if using the embedded B140i as primary controller	
	HP DL360 Gen9 SFF Smart Array P440/H240 SAS Cable	775927-B21
	NOTE: Required with P/N: 761872-B21 or P/N: 761873-B21 if using the HP ProLiant DL360 Gen9 8SFF CTO Server (P/N: 755258-B21)	
	HP DL360 Gen9 LFF Smart Array P440/H240 SAS Cable	775929-B21
	NOTE: Required with P/N: 761872-B21 or P/N: 761873-B21 if using the HP ProLiant DL360 Gen9 4LFF CTO Server (P/N: 755259-B21)	
BIOS Mode	HP Legacy FIO Mode Setting	758959-B22
	NOTE: If selected, then B140i will not be supported and can no longer be a primary controller therefore, SAS internal controller must be selected to be the primary controller	
Controller State	HP FIO Enable B140i Setting	784308-B21
	NOTE: Must be selected when B140i is used as the primary controller and RAID is desired.	
	HP Mfg FIO Enable HBA Mode Setting	792962-B21
	NOTE: When selected if H240ar/H240 are used as the primary controller then RAID is not allowed.	
Embedded Management	**HPE iLO Advanced**	
	HP Insight Control including 1yr 24x7 support ProLiant ML/DL/BL-bundle Single Server FIO License	C6N36A

Configuration Information - Factory Integrated Models

	HP Insight Control including 1yr 24x7 support ProLiant ML/DL/BL-bundle Single Server FIO E-LTU	C6N36ABE
HPE Converged Infrastructure Management Software	**HPE OneView Advanced (with HPE iLO Advanced)**	
	HP OneView for ProLiant DL Server incl 3yr 24x7 Supp FIO Bundle Physical 1 Svr Lic	E5Y43A
	HPE OneView Advanced (without HPE iLO Advanced)	
	HP OneView w/o iLO including 3yr 24x7 Support FIO 1 Server LTU	P8B31A

Step 4: Choose Additional Options for Factory Integration from Core and Additional Options Sections below.

CAUTION: Hewlett Packard Enterprise recommends that a minimum of two people are required for all Rack Server installations. Please refer to your installation instructions for proper tools and number of people to use for any installation.

Core Options

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 HPE approved configurator. Contact your local sales representative for additional information.

HPE Unique Options	HP DL360 Gen9 2SFF SAS/SATA Universal Media Bay Kit	764630-B21

NOTE: Required when upgrading an 8SFF config to a 10SFF config, not supported in 4LFF CTO Server; when this option kit is installed it cannot be used in conjunction with the optical drive or USB 2.0/VGA option kits.
NOTE: Adds 2SFF drives to the 8SFF model for a total of 10SFF SAS/SATA drives. This kit comes with the cable needed to attach the 2 drives to the internal B140i SATA controller. For SAS, an alternate storage controller and its associated cable kit are required.

HP DL360 Gen9 SFF DVD-RW/USB Universal Media Bay Kit	764632-B21

NOTE: DVD RW (Drive Included), USB 2.0, and VGA; when this option kit is installed it cannot be used in conjunction with the 2 SFF SAS/SATA option kit.

HP DL360 Gen9 SFF USB/VGA Universal Media Bay Kit	764634-B21

NOTE: Front USB 2.0 and VGA, when this option kit is installed it cannot be used in conjunction with the 2 SFF SAS/SATA option kit.

HP DL360 Gen9 SFF DVD/USB Universal Media Bay Kit	818213-B21
HP DL360 Gen9 Location Discovery Services Ear Kit	764757-B21

NOTE: Requires ProLiant Location Discovery Services Infrastructure within server racks.

HP DL360 Gen9 Rear Serial Port and Enablement Kit	764646-B21
HP DL360 Gen9 SFF Systems Insight Display Kit	764636-B21

NOTE: For the 8SFF or 10SFF models, adds a System Insight Display for improved diagnosis capabilities.

HP DL360 Gen9 LFF USB/VGA Kit	764638-B21

NOTE: Adds front VGA and USB 2.0 ports to LFF.

HP DL360 Gen9 LFF Systems Insight Display Kit	764640-B21

NOTE: For the 8SFF or 10SFF models, adds a System Insight Display for improved diagnosis capabilities.
NOTE: Options noted with "DL360 Gen9 SFF..." are options only compatible with the 8 SFF CTO Server; and Options noted with "DL360 Gen9 LFF..." are options only compatible with the 4LFF CTO Server.

HP DL360 Gen9 High Performance Heat Sink Kit	795235-B21

NOTE: These are included in some higher Watt processors (see processor section), but may be added to lower power processors to reduce fan power consumption.

HP DL360 Gen9 NVMe 2 Solid State Drive Express Bay Enablement Kit	764628-B21

NOTE: This option provides support for up to 2NVMe drives in SFF only. Adding NVMe drives replaces support for Universal media bay.
NOTE: The HP DL360 Gen9 High Performance Fan Kit (766201-B21) is required with the NVMe enablement kit.
NOTE: The PCIe card in this enablement kit can only be populated in slot1 of primary riser or in slot3 of secondary optional FH riser.

Core Options

HP DL360 Gen9 6 NVMe + 4 SAS/SATA Express Bay Enablement Kit	817676-B21

NOTE: This option provides support for up to 6 NVMe drives (drives 5-10).

NOTE: The HPE DL360 Gen9 High Performance Fan Kit (719079-B21) is required for the 6 NVMe + 4 SAS/SATA kit.

NOTE: The PCIe card in this enablement kit can only be populated in slot1 of primary riser.

HPE Processors	**Entry Processors - E5-2600v3 series Processors**	
	HP DL360 Gen9 Intel® Xeon® E5-2603v3 (1.6GHz/6-core/15MB/85W) Processor Kit	755374-B21
	HP DL360 Gen9 Intel® Xeon® E5-2609v3 (1.9GHz/6-core/15MB/85W) Processor Kit	755378-B21
	Base Processors - E5-2600v3 series Processors	
	HP DL360 Gen9 Intel® Xeon® E5-2623v3 (3GHz/4-core/10MB/105W) Processor Kit	755376-B21
	HP DL360 Gen9 Intel® Xeon® E5-2620v3 (2.4GHz/6-core/15MB/85W) Processor Kit	755382-B21
	HP DL360 Gen9 Intel® Xeon® E5-2630v3 (2.4GHz/8-core/20MB/85W) Processor Kit	755384-B21
	HP DL360 Gen9 Intel® Xeon® E5-2640v3 (2.6GHz/8-core/20MB/90W) Processor Kit	755386-B21
	HP DL360 Gen9 Intel® Xeon® E5-2637v3 (3.5GHz/4-core/15MB/135W) Processor Kit	755404-B21
	HP DL360 Gen9 Intel® Xeon® E5-2630Lv3 (1.8GHz/8-core/20MB/55W) Processor Kit	764097-B21
	Performance Processors - E5-2600v3 series Processors	
	HP DL360 Gen9 Intel® Xeon® E5-2650v3 (2.3GHz/10-core/25MB/105W) Processor Kit	755388-B21
	HP DL360 Gen9 Intel® Xeon® E5-2660v3 (2.6GHz/10-core/25MB/105W) Processor Kit	755390-B21
	HP DL360 Gen9 Intel® Xeon® E5-2670v3 (2.3GHz/12-core/30MB/120W) Processor Kit	755392-B21
	HP DL360 Gen9 Intel® Xeon® E5-2680v3 (2.5GHz/12-core/30MB/120W) Processor Kit	755394-B21
	HP DL360 Gen9 Intel® Xeon® E5-2690v3 (2.6GHz/12-core/30MB/135W) Processor Kit	755396-B21
	HP DL360 Gen9 Intel® Xeon® E5-2683v3 (2GHz/14-core/35MB/120W) Processor Kit	755398-B21
	HP DL360 Gen9 Intel® Xeon® E5-2695v3 (2.3GHz/14-core/35MB/120W) Processor Kit	755400-B21
	HP DL360 Gen9 Intel® Xeon® E5-2697v3 (2.6GHz/14-core/35MB/145W) Processor Kit	755402-B21
	HP DL360 Gen9 Intel® Xeon® E5-2643v3 (3.4GHz/6-core/20MB/135W) Processor Kit	755406-B21

Core Options

HP DL360 Gen9 Intel® Xeon® E5-2667v3 (3.2GHz/8-core/20MB/135W) Processor Kit	755408-B21
HP DL360 Gen9 Intel® Xeon® E5-2687Wv3 (3.1GHz/10-core/25MB/160W) Processor Kit	755410-B21
HP DL360 Gen9 Intel® Xeon® E5-2698v3 (2.3GHz/16-core/40MB/135W) Processor Kit	764099-B21
HP DL360 Gen9 Intel® Xeon® E5-2650Lv3 (1.8GHz/12-core/30MB/65W) Processor Kit	764101-B21
HP DL360 Gen9 Intel® Xeon® E5-2699v3 (2.3GHz/18-core/45MB/145W) Processor Kit	780003-B21

NOTE: Processor option kits include 1 heat sink and two additional fans for 2P configs.

HPE Memory	**Registered DIMMs (RDIMMs) for E5-2600v3 Series**	
	HP 32GB (1x32GB) Dual Rank x4 DDR4-2133 CAS-15-15-15 Registered Memory Kit	728629-B21
	HP 16GB (1x16GB) Dual Rank x4 DDR4-2133 CAS-15-15-15 Registered Memory Kit	726719-B21
	HP 8GB (1x8GB) Single Rank x4 DDR4-2133 CAS-15-15-15 Registered Memory Kit	726718-B21
	HP 8GB (1x8GB) Dual Rank x8 DDR4-2133 CAS-15-15-15 Registered Memory Kit	759934-B21
	HP 4GB (1x4GB) Single Rank x8 DDR4-2133 CAS-15-15-15 Registered Memory Kit	726717-B21
	Load Reduced DIMMs (LRDIMMs) for E5-2600v3 Series	
	HP 64GB (1x64GB) Quad Rank x4 DDR4-2133 CAS-15-15-15 Load Reduced Memory Kit	726724-B21
	HP 32GB (1x32GB) Quad Rank x4 DDR4-2133 CAS-15-15-15 Load Reduced Memory Kit	726722-B21
	HP 16GB (1x16GB) Dual Rank x4 DDR4-2133 CAS-15-15-15 Load Reduced Memory Kit	726720-B21

NOTE: Memory speeds will vary by processor model, please see memory section of QuickSpecs.

HPE Optical Drives	HP 9.5mm SATA DVD-ROM JackBlack Gen9 Optical Drive	726536-B21
	NOTE: Supported only with the 4LFF Models & requires cable kit 766203-B21.	
	HP 9.5mm SATA DVD-RW JackBlack G9 Optical Drive	726537-B21
	NOTE: Supported only with the 4LFF Models & requires cable kit 766203-B21.	
	HP DL360 Gen9 LFF Optical Cable	766203-B21
	HP DL360 Gen9 SFF DVD/USB Universal Media Bay Kit	818213-B21
	HP DL360 Gen9 SFF DVD-RW/USB Universal Media Bay Kit	764632-B21
	NOTE: Front DVD-RW, USB 2.0 and VGA, and optical cable.	
	HP Mobile USB Non Leaded System DVD RW Drive	701498-B21
	NOTE: This is only supported on USB 3.0 ports	

HPE Drives	**SAS Hot Plug SFF (2.5-inch) Enterprise (ENT) Drives**	
	HP 1.8TB 12G SAS 10K rpm SFF (2.5-inch) SC Enterprise 512e 3yr Warranty Hard Drive	791034-B21
	HP 1.2TB 12G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	781518-B21

Core Options

HP 1.2TB 6G SAS 10K rpm SFF (2.5-inch) SC Dual Port Enterprise 3yr Warranty Hard Drive	718162-B21
HP 900GB 12G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	785069-B21
HP 900GB 6G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	652589-B21
HP 600GB 12G SAS 15K rpm SFF (2.5-inch) SC 512e Enterprise 3yr Warranty Hard Drive	748387-B21
HP 600GB 12G SAS 15K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	759212-B21
HP 600GB 12G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	781516-B21
HP 600GB 6G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	652583-B21
HP 450GB 12G SAS 15K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	759210-B21
HP 450GB 6G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	652572-B21
HP 300GB 12G SAS 15K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	759208-B21
HP 300GB 12G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	785067-B21
HP 300GB 6G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	652564-B21
HP 146GB 6G SAS 15K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	652605-B21
SAS Hot Plug SFF (2.5-inch) Midline (MDL) Drives	
HP 2TB 12G SAS 7.2K rpm SFF (2.5-inch) SC 512e 1yr Warranty Hard Drive	765466-B21
HP 1TB 12G SAS 7.2K rpm SFF (2.5-inch) SC 512e 1yr Warranty Hard Drive	765464-B21
HPE 1TB 12G SAS 7.2K rpm SFF (2.5in) SC Midline 1yr Warranty Hard Drive	832514-B21
HP 1TB 6G SAS 7.2K rpm SFF (2.5-inch) SC Midline 1yr Warranty Hard Drive	652749-B21
HP 500GB 6G SAS 7.2K rpm SFF (2.5-inch) SC Midline 1yr Warranty Hard Drive	652745-B21
SAS Hot Plug LFF (3.5-inch) Enterprise (ENT) Drives	
HP 600GB 12G SAS 15K rpm LFF (3.5-inch) SC Converter Enterprise 3yr Warranty Hard Drive	765424-B21
HP 450GB 12G SAS 15K rpm LFF (3.5-inch) SC Converter Enterprise 3yr Warranty Hard Drive	737394-B21
HP 300GB 12G SAS 15K rpm LFF (3.5-inch) SC Converter Enterprise 3yr Warranty Hard Drive	737261-B21
SAS Hot Plug LFF (3.5-inch) Midline (MDL) Drives	
HP 8TB 12G SAS 7.2K rpm LFF (3.5-inch) SC 512e Helium 1yr Warranty Hard Drive	793703-B21
HP 6TB 12G SAS 7.2K rpm LFF (3.5-inch) SC 512e Helium 1yr Warranty Hard Drive	793699-B21
HP 6TB 12G SAS 7.2K rpm LFF (3.5-inch) SC Midline 512e 1yr Warranty Hard Drive	765259-B21
HP 6TB 6G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	761477-B21
HP 6TB 12G SAS 7.2K rpm LFF (3.5-inch) SC 512e Performance 1yr Warranty Hard Drive	793671-B21
HP 4TB 12G SAS 7.2K rpm LFF (3.5-inch) SC Midline 512e 1yr Warranty Hard Drive	765257-B21
HP 4TB 6G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	695510-B21
HP 4TB 12G SAS 7.2K rpm LFF (3.5-inch) SC 512e Performance 1yr Warranty Hard Drive	793669-B21
HP 3TB 6G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	652766-B21

Core Options

HP 2TB 6G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	652757-B21
HP 1TB 6G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	652753-B21
HPE 2TB 12G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	818365-B21
HPE 4TB 12G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	818367-B21
SATA Hot Plug SFF (2.5-inch) Midline (MDL) Drives	
HP 2TB 6G SATA 7.2K rpm SFF (2.5-inch) SC 512e 1yr Warranty Hard Drive	765455-B21
HP 1TB 6G SATA 7.2K rpm SFF (2.5-inch) SC 512e 1yr Warranty Hard Drive	765453-B21
HP 1TB 6G SATA 7.2K rpm SFF (2.5-inch) SC Midline 1yr Warranty Hard Drive	655710-B21
HP 500GB 6G SATA 7.2K rpm SFF (2.5-inch) SC Midline 1yr Warranty Hard Drive	655708-B21
HP 80GB 6G SATA Read Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804575-B21
HP 1.2TB 6G SATA Write Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804677-B21
HP 120GB 6G SATA Read Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804581-B21
HP 800GB 6G SATA Write Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804671-B21
HP 240GB 6G SATA Read Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804587-B21
HP 400GB 6G SATA Write Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804665-B21
HP 480GB 6G SATA Read Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804593-B21
HP 200GB 6G SATA Write Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804639-B21
HP 800GB 6G SATA Read Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804599-B21
HP 480GB 6G SATA Mixed Use-2 SFF 2.5-in SC 3yr Wty Solid State Drive	832414-B21
HP 1.6TB 6G SATA Read Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804605-B21
HP 1.6TB 6G SATA Mixed Use-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804631-B21
HP 200GB 6G SATA Mixed Use-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804613-B21
HP 800GB 6G SATA Mixed Use-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804625-B21
HP 120GB 6G SATA Read Intensive-3 SFF 2.5-in SC 3yr Wty Solid State Drive	816879-B21
HP 240GB 6G SATA Read Intensive-3 SFF 2.5-in SC 3yr Wty Solid State Drive	816889-B21
HP 480GB 6G SATA Read Intensive-3 SFF 2.5-in SC 3yr Wty Solid State Drive	816899-B21
HP 960GB 6G SATA Read Intensive-3 SFF 2.5-in SC 3yr Wty Solid State Drive	816909-B21
HP 1.92TB 6G SATA Read Intensive-3 SFF 2.5-in SC 3yr Wty Solid State Drive	816919-B21
HP 3.84TB 6G SATA Read Intensive-3 SFF 2.5-in SC 3yr Wty Solid State Drive	816929-B21
HP 120GB 6G SATA Mixed Use-3 SFF 2.5-in SC 3yr Wty Solid State Drive	816965-B21
HP 240GB 6G SATA Mixed Use-3 SFF 2.5-in SC 3yr Wty Solid State Drive	816975-B21
HP 480GB 6G SATA Mixed Use-3 SFF 2.5-in SC 3yr Wty Solid State Drive	816985-B21
HP 960GB 6G SATA Mixed Use-3 SFF 2.5-in SC 3yr Wty Solid State Drive	816995-B21
HP 1.92TB 6G SATA Mixed Use-3 SFF 2.5-in SC 3yr Wty Solid State Drive	817011-B21
SATA Hot Plug LFF (3.5-inch) Midline (MDL) Drives	
HP 8TB 6G SATA 7.2K rpm LFF (3.5-inch) SC 512e Helium 1yr Warranty Hard Drive	793695-B21
HP 6TB 6G SATA 7.2K rpm LFF (3.5-inch) SC 512e Helium 1yr Warranty Hard Drive	793683-B21
HP 6TB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 512e 1yr Warranty Hard Drive	765255-B21

Core Options

HP 6TB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	753874-B21
HP 6TB 6G SATA 7.2K rpm LFF (3.5-inch) SC 512e Performance 1yr Warranty Hard Drive	793667-B21
HP 4TB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 512e 1yr Warranty Hard Drive	765253-B21
HP 4TB 6G SATA 7.2k rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	693687-B21
HP 4TB 6G SATA 7.2K rpm LFF (3.5-inch) SC 512e Performance 1yr Warranty Hard Drives	793665-B21
HP 3TB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	628061-B21
HP 2TB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	658079-B21
HP 1TB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	657750-B21
HP 500GB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	658071-B21
HP 80GB 6G SATA Read Intensive-2 LFF 3.5-in SCC 3yr Wty Solid State Drive	804578-B21
HP 120GB 6G SATA Read Intensive-2 LFF 3.5-in SCC 3yr Wty Solid State Drive	804584-B21
HP 240GB 6G SATA Read Intensive-2 LFF 3.5-in SCC 3yr Wty Solid State Drive	804590-B21
HP 480GB 6G SATA Read Intensive-2 LFF 3.5-in SCC 3yr Wty Solid State Drive	804596-B21
HP 800GB 6G SATA Read Intensive-2 LFF 3.5-in SCC 3yr Wty Solid State Drive	804602-B21
HP 1.6TB 6G SATA Read Intensive-2 LFF 3.5-in SCC 3yr Wty Solid State Drive	804608-B21
HP 200GB 6G SATA Mixed Use-2 LFF 3.5-in SCC 3yr Wty Solid State Drive	804616-B21
HP 800GB 6G SATA Mixed Use-2 LFF 3.5-in SCC 3yr Wty Solid State Drive	804628-B21
HP 1.6TB 6G SATA Mixed Use-2 LFF 3.5-in SCC 3yr Wty Solid State Drive	804634-B21
HP 200GB 6G SATA Write Intensive-2 LFF 3.5-in SCC 3yr Wty Solid State Drive	804642-B21
HP 400GB 6G SATA Write Intensive-2 LFF 3.5-in SCC 3yr Wty Solid State Drive	804668-B21
HP 800GB 6G SATA Write Intensive-2 LFF 3.5-in SCC 3yr Wty Solid State Drive	804674-B21
HP 1.2TB 6G SATA Write Intensive-2 LFF 3.5-in SCC 3yr Wty Solid State Drive	804680-B21
HP 480GB 6G SATA Mixed Use-2 LFF 3.5-in SCC 3yr Wty Solid State Drive	832417-B21
HP 120GB 6G SATA Read Intensive-3 LFF 3.5-in SC Converter 3yr Wty Solid State Drive	816883-B21
HP 240GB 6G SATA Read Intensive-3 LFF 3.5-in SC Converter 3yr Wty Solid State Drive	816893-B21
HP 480GB 6G SATA Read Intensive-3 LFF 3.5-in SC Converter 3yr Wty Solid State Drive	816903-B21
HP 960GB 6G SATA Read Intensive-3 LFF 3.5-in SC Converter 3yr Wty Solid State Drive	816913-B21
HP 1.92TB 6G SATA Read Intensive-3 LFF 3.5-in SC Converter 3yr Wty Solid State Drive	816923-B21
HP 3.84TB 6G SATA Read Intensive-3 LFF 3.5-in SC Converter 3yr Wty Solid State Drive	816933-B21
HP 120GB 6G SATA Mixed Use-3 LFF 3.5-in SC Converter 3yr Wty Solid State Drive	816969-B21
HP 240GB 6G SATA Mixed Use-3 LFF 3.5-in SC Converter 3yr Wty Solid State Drive	816979-B21

Core Options

HP 480GB 6G SATA Mixed Use-3 LFF 3.5-in SC Converter 3yr Wty Solid State Drive	816989-B21
HP 960GB 6G SATA Mixed Use-3 LFF 3.5-in SC Converter 3yr Wty Solid State Drive	816999-B21
HP 1.92TB 6G SATA Mixed Use-3 LFF 3.5-in SC Converter 3yr Wty Solid State Drive	817015-B21
12G SAS Hot Plug SFF (2.5-inch) Enterprise Mainstream Solid State Drives	
HP 1.92TB 12G SAS Read Intensive SFF 2.5-in SC 3yr Wty Solid State Drive	802891-B21
HP 1.6TB 12G SAS Mainstream Endurance SFF 2.5-in ENT Mainstream SC 3yr Wty H2 Solid State Drive	779176-B21
HP 800GB 12G SAS Mainstream Endurance SFF 2.5-in ENT Mainstream SC 3yr Wty H2 Solid State Drive	779172-B21
HP 800GB 12G SAS Write Intensive SFF 2.5-in SC 3yr Wty Solid State Drive	802586-B21
HP 400GB 12G SAS Mainstream Endurance SFF 2.5-in ENT Mainstream SC 3yr Wty H2 Solid State Drive	779168-B21
HP 400GB 12G SAS Write Intensive SFF 2.5-in SC 3yr Wty Solid State Drive	802582-B21
HP 200GB 12G SAS Mainstream Endurance SFF 2.5-in ENT Mainstream SC 3yr Wty H2 Solid State Drive	779164-B21
HP 200GB 12G SAS Write Intensive SFF 2.5-in SC 3yr Wty Solid State Drive	802578-B21
HPE 480GB 12G SAS Read Intensive-3 SFF 2.5-in SC 3yr Wty Solid State Drive	816562-B21
HPE 960GB 12G SAS Read Intensive-3 SFF 2.5-in SC 3yr Wty Solid State Drive	816568-B21
HPE 1.92TB 12G SAS Read Intensive-3 SFF 2.5-in SC 3yr Wty Solid State Drive	816572-B21
HPE 3.84TB 12G SAS Read Intensive-3 SFF 2.5-in SC 3yr Wty Solid State Drive	816576-B21
HPE 400GB 12G SAS Mixed Use-3 SFF 2.5-in SC 3yr Wty Solid State Drive	822555-B21
HPE 800GB 12G SAS Mixed Use-3 SFF 2.5-in SC 3yr Wty Solid State Drive	822559-B21
HPE 1.6TB 12G SAS Mixed Use-3 SFF 2.5-in SC 3yr Wty Solid State Drive	822563-B21
HPE 3.2TB 12G SAS Mixed Use-3 SFF 2.5-in SC 3yr Wty Solid State Drive	822567-B21
12G SAS Hot Plug SFF (2.5-inch) Enterprise Value Solid State Drives	
HP 1.6TB 12G SAS Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive	762263-B21
HP 800GB 12G SAS Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive	762261-B21
12G SAS Hot Plug LFF (3.5-inch) Enterprise Value Solid State Drives	
HP 1.6TB 12G SAS Value Endurance LFF 3.5-in SC Enterprise Value 3yr Wty Solid State Drive	762272-B21
HP 800GB 12G SAS Value Endurance LFF 3.5-in SC Enterprise Value 3yr Wty Solid State Drive	762270-B21
6G SATA Hot Plug SFF (2.5-inch) Enterprise Value Solid State Drives	
HP 1.6TB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive	757339-B21
HP 800GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive	717973-B21

Core Options

HP 600GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive	739898-B21
HP 480GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive	717971-B21
HP 300GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive	739888-B21
HP 240GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive	717969-B21
6G SATA Hot Plug SFF Value Endurance (2.5-inch) Enterprise Value G1 Solid State Drives	
HP 480GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty G1 Solid State Drive	756657-B21
6G SATA Hot Plug SFF (2.5-inch) SC Read Intensive Solid State Drives	
HP 480GB 6G SATA Read Intensive SFF 2.5-in SC 3yr Wty Solid State Drive	789145-B21
6G SATA Hot Plug SFF Value Endurance (2.5-inch) Enterprise Value M1 Solid State Drives	
HP 800GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty M1 Solid State Drive	764929-B21
HP 480GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty M1 Solid State Drive	764927-B21
HP 240GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty M1 Solid State Drive	764925-B21
HP 120GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty M1 Solid State Drive	764923-B21
6G SATA Hot Plug SFF (2.5-inch) Enterprise Boot Solid State Drives	
HP 120GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Boot 3yr Wty Solid State Drive	717965-B21
HP 80GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Boot 3yr Wty Solid State Drive	734360-B21
6G SATA Hot Plug LFF Value Endurance (3.5-inch) Converter Enterprise Value G1 Solid State Drives	
HP 480GB 6G SATA Value Endurance LFF 3.5-in SC Converter ENT Value 3yr Wty G1 Solid State Drive	756660-B21
6G SATA Hot Plug LFF (3.5-inch) SC Read Intensive Solid State Drives	
HP 480GB 6G SATA Read Intensive LFF 3.5-in SC Converter 3yr Wty Solid State Drive	789147-B21
6G SATA Hot Plug LFF Value Endurance (3.5-inch) Converter Enterprise Value M1 Solid State Drives	
HP 800GB 6G SATA Value Endurance LFF 3.5-in SC Converter ENT Value 3yr Wty M1 Solid State Drive	764945-B21
HP 480GB 6G SATA Value Endurance LFF 3.5-in SC Converter ENT Value 3yr Wty M1 Solid State Drive	764943-B21
HP 240GB 6G SATA Value Endurance LFF 3.5-in SC Converter ENT Value 3yr Wty M1 Solid State Drive	764941-B21

Core Options

HP 120GB 6G SATA Value Endurance LFF 3.5-in SC Converter ENT Value 3yr Wty M1 Solid State Drive	764939-B21

6G SATA Hot Plug LFF (3.5-inch) Enterprise Value Solid State Drives

HP 1.6TB 6G SATA Value Endurance LFF 3.5-in SC Converter Enterprise Value 3yr Wty Solid State Drive	757342-B21
HP 800GB 6G SATA Value Endurance LFF 3.5-in SC Enterprise Value 3yr Wty Solid State Drive	718189-B21
HP 600GB 6G SATA Value Endurance LFF 3.5-in SC Conveter Enterprise Value 3yr Wty Solid State Drive	739900-B21
HP 480GB 6G SATA Value Endurance LFF 3.5-in SC Enterprise Value 3yr Wty Solid State Drive	718183-B21
HP 300GB 6G SATA Value Endurance LFF 3.5-in SC Converter Enterprise Value 3yr Wty Solid State Drive	739890-B21
HP 240GB 6G SATA Value Endurance LFF 3.5-in SC Enterprise Value 3yr Wty Solid State Drive	718177-B21

6G SATA Hot Plug LFF (3.5-inch) Enterprise Boot Solid State Drives

HP 120GB 6G SATA Value Endurance LFF 3.5-in SC Enterprise Boot 3yr Wty Solid State Drive	718171-B21
HP 80GB 6G SATA Value Endurance LFF 3.5-in SC Enterprise Boot 3yr Wty Solid State Drive	734362-B21

HPE NVMe PCIe Read Intensive SFF (2.5-inch) Solid State Drives

HP 400GB NVMe PCIe Read Intensive SFF 2.5-in SC2 3yr Wty Solid State Drive	764904-B21
HP 1.2TB NVMe PCIe Read Intensive SFF 2.5-in SC2 3yr Wty Solid State Drive	764906-B21

HPE NVMe PCIe Mixed Use SFF (2.5-inch) Solid State Drives

HP 400GB NVMe PCIe Mixed Use SFF 2.5-in SC2 3yr Wty Solid State Drive	765034-B21
HP 800GB NVMe PCIe Mixed Use SFF 2.5-in SC2 3yr Wty Solid State Drive	765036-B21
HP 1.6TB NVMe PCIe Mixed Use SFF 2.5-in SC2 3yr Wty Solid State Drive	765038-B21

HPE NVMe PCIe Write Intensive SFF (2.5-inch) Solid State Drives

HP 400GB NVMe PCIe Write Intensive SFF 2.5-in SC2 3yr Wty Solid State Drive	736936-B21
HP 800GB NVMe PCIe Write Intensive SFF 2.5-in SC2 3yr Wty Solid State Drive	736939-B21
HP 1.6TB NVMe PCIe Write Intensive SFF 2.5-in SC2 3yr Wty Solid State Drive	764892-B21

NOTE: HPE NVMe drives need the enablement kit 764628-B21.

NOTE: HPE has qualified the NVMe drive portfolio using the Operating System inbox drivers. For full detail please see the **HPE Solid State Drive QuickSpecs**.

M.2 SSD

HP Dual 120GB Value Endurance Solid State M.2 Enablement Kit for ProLiant ML/DL Servers	777894-B21
HP 120GB Value Endurance Solid State M.2 Enablement Kit for ProLiant ML/DL Servers	788028-B21
HPE 340GB Read Intensive-2 Solid State M.2 Enablement Kit for ProLiant ML/DL Servers	835563-B21
HPE Dual 340GB Read Intensive-2 Solid State M.2 Enablement Kit for ProLiant ML/DL Servers	835565-B21

NOTE: M.2 drives go in PCIe slots and use B140i SATA controller only.

Core Options

     NOTE: M.2 supports Software RAID only.

     NOTE: No HPE Flexible Smart Array supported.

     Hard Drive Blank Kits

HP Large Form Factor Hard Drive Blank Kit	666986-B21
HP Small Form Factor Hard Drive Blank Kit	666987-B21

     Hard Drive Kits

HP DL360 Gen9 2SFF SAS/SATA Universal Media Bay Kit	764630-B21

NOTE: Not supported in the 4LFF CTO Server, required for 10SFF config, when added to the 8SFF CTO Server.

HP DL360 Gen9 NVMe 2 Solid State Drive Express Bay Enablement Kit	764628-B21

NOTE: This option provides support for up to 2NVMe drives in SFF only. Adding NVMe drives replaces support for Universal media bay.

NOTE: The HP DL360 Gen9 High Performance Fan Kit (766201-B21) is required with the NVMe enablement kit.

NOTE: The PCIe card in this enablement kit can only be populated in slot1 of primary riser or in slot3 of secondary optional FH riser.

HP DL360 Gen9 6 NVMe + 4 SAS/SATA Express Bay Enablement Kit	817676-B21

NOTE: This option provides support for up to 6NVMe drives in SFF only. Adding NVMe drives replaces support for Universal Media Bay.

NOTE: The HPE DL360 Gen9 High Performance Fan Kit (719079-B21) is required for this kit.

NOTE: The PCIe card in this enablement kit can only be populated in slot1 of primary riser.

HPE Networking

1 Gigabit Ethernet adapters

HP Ethernet 1Gb 4-port 331T Adapter	647594-B21
HP Ethernet 1Gb 4-port 331FLR Adapter	629135-B21
HP Ethernet 1Gb 2-port 332T Adapter	615732-B21
HP Ethernet 1Gb 2-port 361T Adapter	652497-B21
HP Ethernet 1Gb 4-port 366T Adapter	811546-B21

10 Gigabit Ethernet adapters

HP Ethernet 10Gb 2-port 530T Adapter	656596-B21
HP Ethernet 10Gb 2-port 530SFP Adapter	652503-B21
HP Ethernet 10Gb 2-port 546SFP+ Adapter	779793-B21
HP Ethernet 10Gb 2-port 557SFP+ Adapter	788995-B21
HP Ethernet 10Gb 2-port 560SFP+ Adapter	665249-B21
HP Ethernet 10Gb 2-port 561T Adapter	716591-B21

NOTE: The DL360 Gen9 chassis ships with 4x1Gb Embedded.

NOTE: A minimum of two Gigabytes (2 GB) of server memory is required per each adapter.

NOTE: Direct Attach Cable (DAC) for copper environments or fiber transceivers and cables for fiber-optic environments must be purchased separately. Please see the related NIC QuickSpecs for Technical Specifications and additional information: **http://www.hp.com/go/ProLiantNICs**.

FlexibleLOM Adapters

HP Ethernet 1Gb 4-port 331FLR Adapter	629135-B22

Core Options

HP Ethernet 1Gb 4-port 366FLR Adapter	665240-B21
HP FlexFabric 10Gb 2-port 533FLR-T Adapter	700759-B21
HP FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter	700751-B21
HP Ethernet 10Gb 2-port 546FLR-SFP+ Adapter	779799-B21
HP FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter	727060-B21
HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter	665243-B21
HP Ethernet 10Gb 2-port 561FLR-T Adapter	700699-B21

NOTE: The DL360 Gen9 chassis ships with 4x1Gb Embedded.

NOTE: Only one FlexibleLOM can be added to the server. These options are upgradeable and can be changed from the original configuration after the server is shipped.

NOTE: Direct Attach Cable (DAC) for copper environments or fiber transceivers and cables for fiber-optic environments must be purchased separately. Please see the related NIC QuickSpecs for Technical Specifications and additional information: **http://www.hp.com/go/ProLiantNICs**.

HPE InfiniBand	HP InfiniBand FDR 2-port 545QSFP Adapter	702211-B21
	HP InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+QSFP Adapter	764284-B21
	HP InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+FLR-QSFP Adapter	764285-B21
	HP InfiniBand QDR/Ethernet 10Gb 2-port 544+FLR-QSFP Adapter	764286-B21
	QLogic InfiniBand 4X QDR PCI-E G2 Dual Port HCA	583211-B21

NOTE: Please see the QuickSpecs for additional information: **http://h18000.www1.hp.com/products/quickspecs/13078_na/13078_na.html**.

HPE I/O Expansion Options	HP DL360 Gen9 Low Profile PCIe Slot CPU2 Kit	764642-B21

NOTE: After installation server will have 1 FH / ¾ Length, and 2 Low Profile PCIe 3.0 Slots, requires second CPU.

HP DL360 Gen9 Full Height PCIe Slot CPU2 Kit with GPU Power Cable	764644-B21

NOTE: After installation the server will have 2 FH / ¾ Length PCIe 3.0 Slots, requires second CPU.

NOTE: Includes GPU power cable and bracket; when this option kit is installed the Low Profile PCIe3.0 riser is not useable.

HPE Power Supplies	**HPE Flex Slot Platinum Hot-plug Power supplies**	
	HP 500W Flex Slot Platinum Hot Plug Power Supply Kit	720478-B21

NOTE: Flex Slot Platinum power supplies support power efficiency of up to 94% and include a standard C-14 power inlet connector.

HP 800W Flex Slot Titanium Hot Plug Power Supply Kit	720482-B21

NOTE: Flex Slot Titanium power supplies support power efficiency of up to 96% and include a standard C-14 power inlet connector.

HP 800W Flex Slot Platinum Hot Plug Power Supply Kit	720479-B21

NOTE: Flex Slot Platinum power supplies support power efficiency of up to 94% and include a standard C-14 power inlet connector.

HP 800W Flex Slot Universal Hot Plug Power Supply Kit	720484-B21

NOTE: Flex Slot universal power supplies support power efficiency of up to 94% and support both 277VAC/380VDC power inputs.

Core Options

HP 800W Flex Slot -48VDC Hot Plug Power Supply Kit	720480-B21

NOTE: Flex Slot -48VDC power supplies support power efficiency of up to 94%.

HP 1400W Flex Slot Platinum Plus Hot Plug Power Supply Kit	720620-B21

NOTE: Flex Slot Platinum Plus power supplies support power efficiency of up to 94% and include a C-14 power inlet connector that can support HPE Power Discovery Services (blue connector).

HP 750W Flex Slot Hot Plug Battery Backup Module	738024-B21

NOTE: Flex Slot Battery Backup provides 750W output and 500W in paralleled configuration.

NOTE: Only 1 Battery Backup module per server, and a Flex Slot Power Supply needed in parallel.

NOTE: All power supplies must be of the same input voltage, output rating, and efficiency rating. If non-matching power supplies are installed, you may receive an error message and/or experience operational issues with your server.

NOTE: Mixing different power supplies in the same server may limit or disable some power supply features including support for power redundancy. To ensure access to all available features, all power supplies within the same server should have the same output and efficiency ratings

NOTE: Prior to selecting a power supply option, it is highly recommended that you review your server configuration in the HPE Power Advisor tool to determine the right size power supply for your server configuration. The HPE Power Advisor is located at: **http://www.hp.com/go/hppoweradvisor**.

NOTE: Support for HPE Power Discovery Services is included with the 1400W Flex Slot option. Power specifications and technical content for all HPE Server power supplies can be found at **http://www.hp.com/go/proliant/powersupply**.

NOTE: Maximum of 2 Flex Slot PS per platform.

HPE Computation and Graphics Accelerators

HP NVIDIA Quadro K4200 Graphics Accelerator	J0G90A

NOTE: HPE DL360 Gen9 supports up to two K4200 GPU cards. A single K4200 card installed in the primary PCI-e slot requires the Gen9 GPU Cable for CPU1 Kit 766199-B21. Two cards installed in the both the primary and secondary PCI-e slots require an HPE DL360 Gen9 Full Height PCIe Slot CPU2 Kit 764644-B21, and if the HDD need to be RAIDed, the HPE Smart Array P440ar for two GPUS needs to be installed, option kit 726740-B21.

HP NVIDIA Quadro K2200 Graphics Accelerator	J0G89A

NOTE: Supports up to two cards. Two cards installed in the both the primary and secondary PCI-e slots require an HPE DL360 Gen9 Full Height PCIe Slot CPU2 Kit 764644-B21. If two K2200 GPU cards are installed it does not require HPE Smart Array P440ar for two GPU option kits for RAIDed HDDs.

HP DL360 Gen9 GPU Cable for CPU1 Kit	766199-B21

NOTE: Includes GPU power cable and brackets.

HP DL360 Gen9 SFF USB/VGA Universal Media Bay Kit	764634-B21
HP DL360 Gen9 LFF USB/VGA Kit	764638-B21

NOTE: Only the above listed Graphics cards are HPE standard supported options in this server.

NOTE: The NVIDIA Quadro modules are supported only on 64-bit versions of Linux and Windows operating systems as well as on Virtual Machine client operating systems. The supported bare metal operating systems are RHEL6, SLES 11 and Windows Server 2012 R2.

Core Options

HPE Cooling Options

HP DL360 Gen9 High Performance Fan Kit   766201-B21

NOTE: High Performance Fan Kit, is available to meet some extended ambient operating temperatures above 35° C. Qualifications for extended ambient configurations are detailed at: **https://www.hp.com/servers/ashrae**.

NOTE: High performance fan kit increases power consumption. To reduce power consumption use high performance heat sinks (795235-B21).

Additional Options

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 HPE approved configurator. Contact your local sales representative for additional information.

HPE Insight Software	**HPE Insight Control**	
	HP Insight Control including 1yr 24x7 Technical Support and Updates Single Server License	C6N27A
	HP Insight Control including 1yr 24x7 Technical Support and Updates Electronic License	C6N28ABE
	HP Insight Control Server Provisioning Media Kit	BD883A
	HP Insight Management Media Kit	C6N31A

NOTE: Electronic and Flexible-Quantity licenses can be used to purchase multiple licenses with a single activation key.

NOTE: Customer will receive a license entitlement certificate. The license entitlement certificate must be redeemed online or via fax in order to obtain the license activation key(s). Includes one year of 24x7 HPE Software Technical Support and Update Service.

NOTE: Licenses ship without media. The HPE Insight Control Media Kit can be ordered separately, or can be downloaded at: **http://www.hp.com/go/insightupdates**.

NOTE: For additional license options please see the QuickSpecs at: **http://h18000.www1.hp.com/products/quickspecs/12631_na/12631_na.html**.

Embedded Management	**HPE iLO Advanced**	
	HP iLO Advanced including 3yr 24x7 Technical Support and Updates E-LTU	E6U64ABE
	HP iLO Advanced 1 Server License with 3yr 24x7 Tech Support and Updates	BD505A
	HP iLO Advanced including 1yr 24x7 Technical Support and Updates Single Server License	512485-B21
	HP iLO Advanced including 1yr 24x7 Technical Support and Updates E-LTU	E6U59ABE

HPE Converged Infrastructure Management Software	**HPE OneView Advanced (with HPE iLO Advanced)**	
	HP OneView incl 3yr 24x7 Supp Phys 1 Svr Lic	E5Y34A
	HP OneView incl 3yr 24x7 Supp Flex Qty E-LTU	E5Y35AAE
	HPE OneView Advanced (without HPE iLO Advanced)	
	HP OneView w/o iLO including 3yr 24x7 Support 1 Server LTU	P8B24A
	HP OneView w/o iLO including 3yr 24x7 Support Flex Quantity E-LTU	P8B26AAE
	HP OneView Media Kit Phys No Lic	E5Y37A
	HP Operations Analytics for HP OneView LTU	K8G29A
	HP Operations Analytics for HP OneView E-LTU	K8G29AAE

NOTE: Full licenses of HPE OneView Advanced also provide the right-to-use HPE Insight Control without additional charge.

NOTE: Server provisioning (via 'HPE Insight Control server provisioning') is licensed as part of HPE OneView Advanced and provides multi-server OS and driver provisioning. Media kit #BD883A can be ordered for a physical copy of this software (USB flash drive).

Additional Options

NOTE: Licenses ship without media. The HPE OneView Media Kit can be ordered separately, or can be downloaded at: **http://www.hp.com/go/oneview**.
NOTE: Electronic and Flexible-Quantity licenses can be used to purchase multiple licenses with a single activation key.

High Performance Clusters

HPE Cluster Management Utility

HP Insight Cluster Management Utility 1yr 24x7 Flexible License	QL803B
HP Insight Cluster Management Utility 3yr 24x7 Flexible License	BD476A

NOTE: These part numbers can be used to purchase one certificate for multiple licenses and support with a single activation key. Each license is for one node (server). Customer will receive a printed end user license agreement and license entitlement certificate via physical shipment. The license entitlement certificate must be redeemed online in order to obtain a license key. Customer also will receive a support agreement.

HP Insight Cluster Management Utility Media	BD477A

NOTE: For additional license kits please see the **HPE Insight Cluster Management Utility QuickSpecs**.

HPE PCIe Workload Accelerator Options

Value Endurance (VE) PCIe Workload Accelerators

HP 6.4TB FH/HL Value Endurance (VE) PCIe Workload Accelerator	763840-B21
HP 3.2TB HH/HL Value Endurance (VE) PCIe Workload Accelerator	763838-B21
HP 1.6TB HH/HL Value Endurance (VE) PCIe Workload Accelerator	763836-B21
HP 1.3TB HH/HL Value Endurance (VE) PCIe Workload Accelerator	763834-B21
HPE 1.3TB Read Intensive-2 HH/HL PCIe Workload Accelerator	831733-B21
HPE 1.6TB Read Intensive-2 HH/HL PCIe Workload Accelerator	831735-B21
HPE 3.2TB Read Intensive-2 HH/HL PCIe Workload Accelerator	831737-B21
HPE 6.4TB Read Intensive-2 FH/HL PCIe Workload Accelerator	831739-B21

Light Endurance (LE) PCIe Workload Accelerators

HP 5.2TB FH/HL Light Endurance (LE) PCIe Workload Accelerator	775672-B21
HP 2.6TB HH/HL Light Endurance (LE) PCIe Workload Accelerator	775670-B21
HP 1.3TB HH/HL Light Endurance (LE) PCIe Workload Accelerator	775668-B21
HP 1.0TB HH/HL Light Endurance (LE) PCIe Workload Accelerator	775666-B21

NVME PCIe Workload Accelerators

HP 2.0TB NVMe Mixed Use HH/HL PCIe Workload Accelerator	803204-B21
HP 1.6TB NVMe Mixed Use HH/HL PCIe Workload Accelerator	803202-B21
HP 1.6TB NVMe Write Intensive HH/HL PCIe Workload Accelerator	803197-B21
HP 800GB NVMe Mixed Use HH/HL PCIe Workload Accelerator	803200-B21
HP 800GB NVMe Write Intensive HH/HL PCIe Workload Accelerator	803195-B21

NOTE: Please see the **HPE PCIe Workload Accelerators for ProLiant Servers QuickSpecs** for Technical Specifications and additional information.

HPE Security

HP 1U Security Bezel Kit	664918-B21
HP Trusted Platform Module Option	488069-B21

Additional Options

NOTE: The TPM (Trusted Platform Module) is a microcontroller chip that can securely store artifacts used to authenticate the server platform. These artifacts can include passwords, certificates and encryption keys. Windows® BitLocker™ Drive Encryption (BitLocker) is a data protection feature available in Windows Server® 2008. BitLocker leverages the enhanced security capabilities of a Trusted Platform Module (TPM) version 1.2. The TPM works with BitLocker to help protect user data and to ensure that a server running Windows Server 2008 has not been tampered with while the system was offline. For more information about TPM, including a white paper, go to: **http://www.hp.com/go/TPM**.
NOTE: ProLiant OS pre-installed units will come with the partition required for TPM deployment.
NOTE: The TPM key is unique to every TPM deployed server and must be retained. Misplacing or losing the key could result in data loss.

HPE Storage Controllers	**SAS Controllers**	
	HPE Smart Array Controllers	
	HP Smart Array P440ar/2GB FBWC 12Gb 2-ports Int SAS Controller	726736-B21
	NOTE: Provides support for up to 8 internal SAS/SATA drives without using a PCIe slot.	
	HP DL360 Gen9 Smart Array P840 SAS Card with Cable Kit	766205-B21
	NOTE: Includes the P840 Smart Array controller with 4GB integrated cache, HPE Smart Storage Battery, and associated cabling to attach it to a 10SFF chassis configuration.	
	HP DL360 Gen9 Smart Array P440ar Controller for 2 GPU Configurations	726740-B21
	NOTE: This controller is specific for the DL360 Gen9 with 2 GPUs installed. It has a unique heatsink that will allow the 2nd GPU to fit.	
	HP Smart Array P441/4GB FBWC 12Gb 2-ports Ext SAS Controller	726825-B21
	HP Smart Array P440/4GB FBWC 12Gb 1-port Int SAS Controller	726821-B21
	NOTE: Provides support for up to 8 internal SAS/SATA drives, consumes 1 PCIe slot.	
	NOTE: Includes the HPE Smart Storage Battery.	
	HP Smart Array P840/4GB FBWC 12Gb 2-ports Int SAS Controller	726897-B21
	HP Smart Array P841/4GB FBWC 12Gb 4-ports Ext SAS Controller	726903-B21
	NOTE: When ordering controllers, please reference the HPE Cable Options below for the required cable.	
	HPE Smart Host Bus Adapters	
	HP H240ar 12Gb 2-ports Int Smart Host Bus Adapter	726757-B21
	NOTE: Provides support for up to 8 internal SAS/SATA drives without using a PCIe slot.	
	HP H240 12Gb 2-ports Int Smart Host Bus Adapter	726907-B21
	HP H241 12Gb 2-ports Ext Smart Host Bus Adapter	726911-B21
	HPE Cable Options	
	HP DL360 Gen9 LFF Smart Array P440ar/H240ar SAS Cable	766211-B21
	NOTE: Required for an upgrade from a B140i SATA controller to a HPE Smart HBA 240ar or HPE Smart Array P440ar.	
	HP DL360 Gen9 SFF Embedded SATA Cable	766207-B21

Additional Options

NOTE: Needed only when attaching drive bays to the B140i controller in a 8 SFF Chassis.

HP DL360 Gen9 SFF Smart Array P440/H240 SAS Cables	775927-B21

NOTE: Required for use with the HPE Smart Array P440 (PCIe Controllers) 726821-B21 or 761872-B21, the option kit documentation details out cable placement with the HPE Smart Array P440 in PCIe 3.0 Slots 1 or 2 connecting to the 8SFF backplane or the 2 SFF SAS/SATA option kit.

HP DL360 Gen9 LFF Smart Array P440/H240 SAS Cables	775929-B21

NOTE: Required for use with the HPE Smart Array P440 (PCIe Controllers) 726821-B21 or 761872-B21, the option kit documentation details out cable placement with the HPE Smart Array P440 in PCIe 3.0 Slots 1 or 2 connecting to the 4LFF backplane.

HP DL360 Gen9 SFF Smart Array P440ar/H240ar SAS Cable	766209-B21
HP DL360 Gen9 LFF Embedded SATA Cable	766213-B21

NOTE: Options noted with "DL360 Gen9 SFF..." are options only compatible with the 8 SFF CTO Server; and Options noted with "DL360 Gen9 LFF..." are options only compatible with the 4LFF CTO Server.

Optional Software

HP SmartCache No Media 24x7 Technical Support 1 Svr License	D7S26A
HP SmartCache No Media 24x7 Technical Support Flexible License	D7S27A
HP SmartCache No Media 24x7 Technical Support Electronic License	D7S27AAE

NOTE: HPE SmartCache is supported when one of the supported Smart Array Controllers is installed in the server.

NOTE: HPE SmartCache comes standard (no licensing is required) if the HPE Smart Array P840 Controller is installed in the server.

Optional Upgrades

HP 96W Smart Storage Battery with 145mm Cable for DL/ML/SL Servers	727258-B21

HPE Tape Backup **NOTE: For the complete range of tape drives, autoloaders, libraries and media see: http://www.hp.com/go/tape. For hardware and software compatibility of HPE tape backup products see: http://www.hp.com/storage/SPOCK and http://www.hp.com/go/ebs.**

Tape Drives

HPE StoreEver LTO-7 Ultrium 15000 External Tape Drive	BB874A
HPE StoreEver LTO-7 Ultrium 15000 Internal Tape Drive	BB873A
HP StoreEver LTO-6 Ultrium 6650 SAS External Tape Drive	EH964A
HP StoreEver 1/8 G2 LTO-6 Ultrium 6250 FC Tape Autoloader	C0H19A
HP StoreEver LTO-6 Ultrium 6250 Tape Drive in 1U Rack-mount Kit	C0L99A
HP StoreEver LTO-6 Ultrium 6250 External Tape Drive	EH970A
HP StoreEver LTO-5 Ultrium 3000 SAS Tape Drive in 1U Rack-mount	EJ014B
HP StoreEver LTO-5 Ultrium 3000 SAS External Tape Drive	EH958B
HP StoreEver LTO-5 Ultrium 3280 SAS External Tape Drive	EH900B
HP StoreEver LTO-4 Ultrium 1760 SAS (1) in 1U Rack-mount Kit	EH946C
HP StoreEver LTO-4 Ultrium 1760 SAS External Tape Drive	EH920B
HP StoreEver LTO-3 Ultrium 920 SAS External Tape Drive	EH848B
HP StoreEver 1U SAS Rack-mount Kit	AE459B

Additional Options

HP Mini SAS High Density to 4-lane Mini SAS External Fanout 2 Meter Cable	K2R09A
HP Mini SAS High Density to 4-lane Mini SAS External Fanout 4 Meter Cable	K2R10A

HPE Tape Storage Systems

HPE StoreEver MSL6480

HP StoreEver MSL6480 Scaleable Expansion Module	QU626A
HP StoreEver MSL6480 Scalable Base Module	QU625A
HP MSL2024 0-Drive Tape Library	AK379A
HP MSL4048 0-Drive Tape Library	AK381A

NOTE: Please see the **HPE StoreEver MSL6480 Tape Library QuickSpecs** for Technical Specifications and additional information.

HPE Disk Backup **HPE RDX Removable Disk Backup System**

HP RDX+ 1TB External Backup System	B7B69B
HP RDX+ 500GB External Backup System	B7B66B
HP RDX 2TB USB3.0 External Disk Backup System	E7X53B
HP RDX+ External Docking System	C8S07B
HP D3700 Enclosure	QW967A
HP D3600 Enclosure	QW968A
HPE StoreOnce 5100 48TB System	BB915A
HPE StoreOnce 3540 24TB System	BB914A
HPE StoreOnce 3520 12TB System	BB922A
HPE StoreOnce 3100 8TB System	BB913A

NOTE: For the complete range of RDX drives and media see: **http://www.hp.com/go/rdx**. For hardware and software compatibility of HPE disk backup products see: **http://www.hp.com/storage/SPOCK**.

NOTE: Please see the **HPE RDX Removable Disk Backup System QuickSpecs** for additional part numbers, Technical Specifications, and additional information

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HPE Storage Options   **NOTE:** The following is a list of all Fibre Channel Host Bus Adapters for Windows and Linux. For detailed compatibility information please see:
http://www8.hp.com/us/en/products/data-storage/storefabric.html.

Emulex Fibre Channel HBAs

HP 81E 8Gb 1-port PCIe Fibre Channel Host Bus Adapter	AJ762B
HP 82E 8Gb 2-port PCIe Fibre Channel Host Bus Adapter	AJ763B
HP StoreFabric SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter	C8R38A
HP StoreFabric SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter	C8R39A

QLogic Fibre Channel HBAs

HP 81Q 8Gb 1-port PCIe Fibre Channel Host Bus Adapter	AK344A
HP 82Q 8Gb 2-port PCIe Fibre Channel Host Bus Adapter	AJ764A
HP StoreFabric SN1000Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter	QW971A
HP StoreFabric SN1000Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter	QW972A

Converged Network Adapter

HP StoreFabric CN1100R Dual Port Converged Network Adapter	QW990A
HP StoreFabric CN1200E 10Gb Converged Network Adapter	E7Y06A

Additional Options

HPE Disk Storage Systems	**Disk Enclosures**	
	HP D6000 Dual I/O Module Disk Enclosure	QQ695A
	HP D6000 w/35 4TB 6G SAS 7.2K LFF Dual Port MDL HDD 140TB Bundle	E7W30A
	HP D6000 w/70 4TB 6G SAS 7.2K LFF Dual Port MDL HDD 280TB Bundle	E7W31A
	HP D6000 w/35 2TB 6G SAS 7.2K LFF Dual port MDL HDD 70TB Bundle	QQ697A
	HP D6000 w/70 2TB 6G SAS 7.2K LFF Dual port MDL HDD 140TB Bundle	QQ698A
	HP D6000 w/35 3TB 6G SAS 7.2K LFF Dual port MDL HDD 105TB Bundle	QQ699A
	HP D6000 w/70 3TB 6G SAS 7.2K LFF Dual port MDL HDD 210TB Bundle	QQ700A
	HP D6000 w/70 8TB 12G SAS 7.2K LFF (3.5in) Dual Port MDL HDD 560TB Bundle	M0T59A
	HP D6000 w/70 6TB 12G SAS 7.2K LFF (3.5in) Dual Port MDL HDD 420TB Bundle	M0T57A
	HP D6000 w/35 8TB 12G SAS 7.2K LFF (3.5in) Dual Port MDL HDD 280TB Bundle	M0T58A
	HP D2600 w/12 4TB 6G SAS 7.2K LFF Dual Port MDL HDD 48TB Bundle	E7W32A

HPE Data Center Racks	**HPE Advanced Series Racks**	
	HPE 11642 1075mm Pallet Universal Rack	H6J65A
	HPE 11642 1075mm Shock Universal Rack	H6J66A
	HPE 11642 1200mm Pallet Universal Rack	H6J67A
	HPE 11642 1200mm Shock Universal Rack	H6J68A
	HPE 11636 1075mm Pallet Universal Rack	H6J77A
	HPE 11636 1075mm Shock Universal Rack	H6J78A
	HPE 11614 1075mm Shock Universal Rack	H6J82A
	HPE 11622 G2 1075mm Pallet Universal Rack	H6J83A
	HPE 11622 G2 1075mm Shock Universal Rack	H6J84A
	HPE 11648 1075mm Pallet Universal Rack	H6J87A
	HPE 11648 1075mm Shock Universal Rack	H6J88A

NOTE: Please see the **HPE Advanced Series Racks QuickSpecs** for information on additional racks options and rack specifications.

HPE Enterprise Series Racks

HPE 636 1075mm Pallet Intelligent Series Rack	BW895A
HPE 636 1075mm Shock Intelligent Series Rack	BW896A
HPE 642 1075mm Pallet Intelligent Series Rack	BW903A
HPE 642 1075mm Shock Intelligent Series Rack	BW904A
HPE 642 1200mm Pallet Intelligent Series Rack	BW907A
HPE 642 1200mm Shock Intelligent Series Rack	BW908A
HPE 647 1075mm Pallet Intelligent Series Rack	BW911A
HPE 647 1075mm Shock Intelligent Series Rack	BW912A
HPE 647 1200mm Pallet Intelligent Series Rack	BW913A
HPE 647 1200mm Shock Intelligent Series Rack	BW914A
HPE 842 1075mm Pallet Intelligent Series Rack	BW917A
HPE 842 1075mm Shock Intelligent Series Rack	BW918A

NOTE: Please see the **HPE Enterprise Series Racks QuickSpecs** for information on additional racks options and rack specifications.

Additional Options

HPE Standard Series Rack

HPE V142 1075mm deep Pallet 100 series Rack | AF046A

NOTE: Please see the **HPE Standard Series Racks QuickSpecs** for information on additional racks options and rack specifications.

NOTE: Gen9 rail kits have changed significantly from prior generation rail kits. Please take a moment to review the installation documentation that comes with the server to help you with the installation of your Gen9 server.

NOTE: Rail kits are optional for DL3680 Gen9 and are no longer included standard with the server. Customers have the option to purchase their server without a rail kit.

NOTE: Ball bearing and Easy Install rail kits contain telescoping rails which allow for in-rack serviceability.

NOTE: To assist in the installation of the server into the rack an optional installation tool is available by contacting your local services representative (p/n 695539-001).

CAUTION: Hewlett Packard Enterprise recommends that a minimum of two people are required for all Rack Server installations. Please refer to your installation instructions for proper tools and number of people to use for any installation.

HPE Power Distribution Units (PDUs)

HPE Basic Power Distribution Units (PDU)

HP 1.9kVA 120 Volt L5-20 Input (12xNEMA 5-20R) NA/JP Basic PDU	H5M54A
HP 3.6kVA 200-240 Volt Detachable C20 Input (12xC13) WW Basic PDU	H5M56A
HP 2.8kVA 120 Volt L5-30 Input (18xNEMA 5-20R) NA/JP Basic PDU	H5M55A
HP 3.6kVA 200-240 Volt Detachable C20 Input (18xC13) WW Basic PDU	H5M57A
HP 4.9kVA 208 Volt L6-30 Input (20xC13) NA/JP Basic PDU	H5M58A
HP 8.6kVA 208 Volt L15-30 3-Phase Input (18xC13) NA/JP Basic PDU	H5M61A
HP 4.9kVA 208 Volt L6-30 Input (24xC13/6xC19) NA/JP Basic PDU	H5M59A
HP 8.3kVA 208 Volt CS8265C Input (30xC13/6xC19) NA/JP Basic PDU	H5M60A
HP Hardwired 200-240 Volt Input (30xC13/6xC19) WW Basic PDU	H5M75A
HP 5.7kVA 208 Volt L21-20 3-Phase Input (24xC13/3xNEMA 5-20R) NA/JP Basic PDU	H5M63A
HP 8.6kVA 208 Volt L21-30 3-Phase Input (24xC13/3xC19/3xNEMA 5-20R) NA/JP Basic PDU	H5M64A
HP 8.6kVA 208 Volt L15-30 3-Phase Input (24xC13/6xC19) NA/JP Basic PDU	H5M62A
HP 11kVA 400 Volt IEC309 30A 3-Phase Input (36xC13/6xC19) NA Basic PDU	H5M67A
HP 2.8kVA 24A Low Voltage NA/JP Modular Power Distribution Unit	252663-D71
HP 4.9kVA 24A High Voltage NA/JP Core Modular Power Distribution Unit	252663-D74
HP 8.3kVA 40A High Voltage NA/JP Core Modular Power Distribution Unit	252663-D75
HP 8.6kVA 24A Three Phase NA/JP Modular Power Distribution Unit	AF512A
HP 14.4kVA 40A Three Phase NA/JP Modular Power Distribution Unit	AF519A
HP 17.3kVA 48A Three Phase NA/JP Modular Power Distribution Unit	AF511A
HP 800VA - 277V Input / 230V Output NA Rack Mount Transformer	H3X09A

NOTE: Please see the **HPE Basic Power Distribution Units (PDU) QuickSpecs** for information on additional options and product specifications.

HPE Metered Power Distribution Units (PDU)

HP 2.8kVA 120 Volt L5-30 Input (12xNEMA 5-20R)NA/JP Monitored PDU	D9N43A
HP 3.6kVA 200-240 Volt Detachable C20 Input (12xC13) WW Monitored PDU	D9N46A

Additional Options

HP 4.9kVA 208 Volt L6-30 Input (12xC13) NA/JP Monitored PDU	D9N44A
HP 3.6kVA 200-240 Volt Detachable C20 Input (16xC13) WW Monitored PDU	D9N45A
HP 4.9kVA 208 Volt L6-30 Input (12xC13) NA/JP Monitored PDU	G9Z05A
HP 4.9kVA 208 Volt L6-30 Input (20xC13/4xC19) NA/JP Monitored PDU	D9N47A
HP 8.6kVA 208 Volt L15-30 3-Phase Input (18xC13/3xC19) NA/JP Monitored PDU	D9N51A
HP 5.7kVA 208 Volt L21-20 3-Phase Input (18xC13/3xNEMA 5-20R) NA/JP Monitored PDU	D9N52A
HP 8.6kVA 208 Volt L21-30 3-Phase Input (20xC13/3xC19/3xNEMA 5-20R) NA/JP Monitored PDU	D9N53A
HP 8.3kVA 208 Volt CS8265C Input (30xC13/3xC19) NA Monitored PDU	D9N49A
HP 14.4kVA 208 Volt CS8365C 3-Phase Input (12xC13/12xC19)NA Monitored PDU	D9N58A
HP 16.6kVA 400 Volt IEC309 30A 3-Phase Input (30xC13/3xC19) NA Monitored PDU	D9N61A
HP 16.6kVA 400 Volt IEC309 30A 3-Phase Input (12xC13/12xC19) NA Monitored PDU	D9N62A
HP 17.3kVA 208 Volt IEC309 60A 3-Phase Input (24xC13/3xC19) NA/JP Monitored PDU	D9N54A
HP 17.3kVA 208 Volt IEC309 60A 3-Phase Input (12xC13/12xC19) NA/JP Monitored PDU	D9N59A
HP 17.3kVA 208 Volt IEC309 60A 3-Phase Watertight Input (12xC13/12xC19) NA/JP Monitored PDU	G9Z07A
HP 19.9kVA 480 Volt 3-Phase (30 Outlet) NA Monitored PDU	D9N63A
HP Environmental Sensor for Remote Monitored and Managed PDUs	E2D53A

NOTE: Please see the **HPE Metered Power Distribution Units (PDU) QuickSpecs** for information on additional options and product specifications.

HPE Intelligent Power Distribution Unit (PDU)

HP 4.9kVA 24A Single Phase NA/JP Core Intelligent Modular Power Distribution Unit	AF520A
HP 8.3kVA 40A Single Phase NA/JP Core Intelligent Modular Power Distribution Unit	AF521A
HP 8.6kVA 24A Three Phase NA/JP Core Intelligent Modular Power Distribution Unit	AF522A
HP 17.3kVA 48A Three Phase NA/JP Core Intelligent Modular Power Distribution Unit	AF523A
HP 11.4kVA 16A 415V Three Phase L22-20 NA Core Intelligent Power Distribution Unit	AF900A
HP 17.3kVA 24A 415V Three Phase IEC309 NA Core Intelligent Power Distribution Unit	AF901A
HP 17.3kVA 48A 208V Three Phase 12 Outlet Core NA/JP Intelligent Power Distribution Unit	AF535A
HP 17.3kVA 24A 415V Three Phase 12 Outlet Core NA/JP Intelligent Power Distribution Unit	AF537A
HP 4.9kVA 24A Single Phase NA/JP Intelligent Modular Power Distribution Kit	AF531A
HP 8.6kVA 24A Three Phase NA/JP Intelligent Modular Power Distribution Kit	AF532A
HP 14.4kVA 40A Three Phase NA/JP Intelligent Modular Power Distribution Unit	AF533A
HP 5xC13 Intelligent PDU Extension Bar G2 Kit	AF547A

Additional Options

HP 5xC13 Outlets Power and UID LEDs Pair Standard Extension Bar	AF528A

NOTE: Please see the **HPE Intelligent Power Distribution Unit (PDU) QuickSpecs** for information on additional options and product specifications.

HPE Metered and Switched Power Distribution Units (PDU)

HP 2.8kVA 120 Volt L5-30 Input (24x NEMA 5-20) NA/JP Managed PDU	H8B48A
HP 3.6kVA 200-240 Volt Detachable C20 Input (7xC13/1xC19) WW Managed PDU	H8B49A
HP 4.9kVA 208 Volt L6-30 Input (20xC13/4xC19) NA/JP Managed PDU	H8B50A
HP 8.6kVA 208 Volt L15-30 3 Phase Input (18xC13/6xC19) NA/JP Managed PDU	H8B52A
HP 8.6kVA 208 Volt L21-30 3 Phase Input (20xC13/3xC19/1x NEMA 5-20) NA/JP Managed PDU	H8B53A
HP 14.4kVA 208V CS8365C 3 Phase Input (12xC13/12xC19) NA/JP Managed PDU	H8B55A
HP 17.3kVA 208V IEC309 60A 3 Phase Input (12xC13/12xC19) NA/JP Managed PDU	H8B56A

NOTE: Please see the **HPE Metered and Switched Power Distribution Units (PDU) QuickSpecs** for information on additional options and product specifications.

NOTE: To learn more, please visit the **HPE Uninterruptible Power Systems (UPS) web page**.

HPE Rack Mount Consoles, KVM Switches, and Keyboards

HPE Location Discovery Services

HP 36U Location Discovery Kit	BW945A
HP 42U Location Discovery Kit	BW946A
HP 47U Location Discovery Kit	BW947A
HP Location Discovery Services LCD8500 Kit	TL052A

NOTE: Please see the **HPE Location Discovery Services QuickSpecs** for Technical Specifications and additional information

HPE Rack Mount Consoles

HP LCD8500 1U US Rackmount Console Kit	AF630A
HP LCD8500 1U US TAA Rackmount Console Kit	AF645A

HPE KVM Switches

HP 0x1x8 G3 KVM Console Switch	AF651A
HP 0x2x16 G3 KVM Console Switch	AF652A
HP TAA 0x2x16 G3 KVM Console Switch	AF653A
HP USB Remote Access Key for G3 KVM Console Switches	AF650A
HP KVM Console USB Interface Adapter	AF628A
HP 0x2x16 KVM Server Console Switch G2 with Virtual Media CAC Software	AF618A
HP 0x2x32 KVM Server Console Switch G2 with Virtual Media CAC Software	AF619A
HP KVM Console USB 2.0 Virtual Media CAC Interface Adapter	AF629A
HP 1x4 USB/PS2 KVM Console Switch	AF611A
HP 1x1Ex8 KVM IP Console Switch G2 with Virtual Media CAC Software	AF620A
HP 2x1Ex16 KVM IP Console Switch G2 with Virtual Media CAC Software	AF621A
HP 4x1Ex32 KVM IP Console Switch G2 with Virtual Media CAC Software	AF622A

NOTE: To learn more, please visit the **HPE KVM Switches web page**.

HPE USB Keyboard and Mouse

HP USB BFR with PVC Free US Keyboard/Mouse Kit	631341-B21

Rail Kits

Additional Options

HP 1U LFF Gen9 Easy Install Rail Kit	789388-B21
HP 1U Small Form Factor Easy Install Rail Kit	734807-B21
HP 1U Cable Management Arm for Easy Install Rail Kit	734811-B21
HP 1U Small Form Factor Ball Bearing Rail Kit	663201-B21
HP 1U Large Form Factor Ball Bearing Rail Kit	663202-B21
HP 1U Cable Management Arm for Ball Bearing Rail Kit	663203-B21

HPE Other Options

HP Rack LED Light Kit	BW939A
HP Kit LCD 1.83m Latch Display Port Cable	G7T29A
HP Advanced Power Manager Kit	741192-B21

HPE Uninterruptible Power Systems (UPS)

HPE DirectFlow Three Phase UPS

Power Unit (1U UPS)

HP R12000 DirectFlow - 1U Rackmount Uninterruptible Power System	G9Y75A
HP R12000 DirectFlow - POD 1U Rackmount Uninterruptible Power System	AF478A

Input/Output Module Options for 1U UPS

HP 30A 400-415 Volt Three Phase NA R10000 DirectFlow UPS IEC309 Input/Output Module	AF489A
HP 30A 480 Volt Three Phase NA R12000 DirectFlow UPS L22-30 Input/Output Module	AF491A
HP 30A 480 Volt Three Phase NA R12000 DirectFlow UPS IEC309 Input/Output Module	AF492A
HP 30A 400-415 Volt Three Phase NA R12000 DirectFlow UPS IEC309 Input/Output Module	G9Y76A
HP DirectFlow UPS Management Card	AF493A

Power Unit (2U UPS)

HP R18000 DirectFlow - 2U Rackmount Uninterruptible Power System	AF479A

Input/Output Module Options for 2U UPS

HP 30A 480 Volt Three Phase NA R18000 DirectFlow UPS IEC309 Input/Output Module	AF486A
HP 30A 480 Volt Three Phase NA R18000 DirectFlow UPS IEC309 Input/Output Module	AF487A
HP 30A 400 Volt Three Phase NA R18000 DirectFlow UPS IEC309 Input/Output Module	D9Q02A
HP 30A 400-415V Three Phase NA R18000 DirectFlow UPS 1:1 IEC309 Input/Output Module	AF484A

NOTE: All Input/Output Modules support dual output outlets except the AF484A.

Battery Pack Options

HP DirectFlow UPS - 1U Rackmount Lithium-ion Battery Pack	AF480A
HP DirectFlow UPS - 3U Rackmount VRLA Battery Pack	AF482A
HP WW DirectFlow Secondary Battery Cable	AF497A

NOTE: Please see the HPE DirectFlow Three Phase Uninterruptible Power System QuickSpecs for information on additional options and product specifications.

HPE Tower UPS

HPE T750 G4 UPS Models

Additional Options

HP T750 G4 NA/JP Uninterruptible Power System	J2P85A
HPE T1000 G4 UPS Models	
HP T1000 G4 NA/JP Uninterruptible Power System	J2P86A
HPE T1500 G4 UPS Models	
HP T1500 G4 NA/JP Uninterruptible Power System	J2P87A
HPE Rack/Tower UPS	
HPE R/T2200 G4 UPS Models	
HP R/T2200 G4 NA/JP Uninterruptible Power System	J2R00A
HPE R/T3000 G4 UPS Models	
HP R/T3000 G4 Low Voltage NA/JP Uninterruptible Power System	J2R01A
HP R/T3000 G4 High Voltage NA/JP Uninterruptible Power System	J2R02A
R1500 G4 Models	
HP R1500 G4 NA Uninterruptible Power System	J2Q99A
R7000 Uninterruptible Power System (UPS)	
HP R7000 4U 50A High Voltage NA/JP Uninterruptible Power System	AF462A
R5000 Uninterruptible Power System (UPS)	
HP R5000 3U L630 High Voltage NA/JP Uninterruptible Power System	AF460A

NOTE: Please see the **HPE Line Interactive Single Phase UPS QuickSpecs** for information on additional options and product specifications.

HPE UPS Options	
HP R/T2200 G4 Extended Runtime Module	J2R09A
HP R/T3000 G4 Extended Runtime Module	J2R10A
HP 2U Rack/Tower UPS Shipping Kit	L4Q11A

NOTE: To learn more, please visit the **HPE Uninterruptible Power Systems (UPS) web page**.

HPE USB and SD Options	**HPE Enterprise Mainstream Flash Media Kits for Memory Cards**	
	HP 32GB microSD Enterprise Mainstream Flash Media Kit	700139-B21
	HP 32GB SD Enterprise Mainstream Flash Media Kit	700136-B21
	HP 8GB microSD Enterprise Mainstream Flash Media Kit	726116-B21
	HP 8GB USB Enterprise Mainstream Flash Media Drive Key Kit	737953-B21
	HP Dual 8GB microSD Enterprise Midline USB Kit	741279-B21

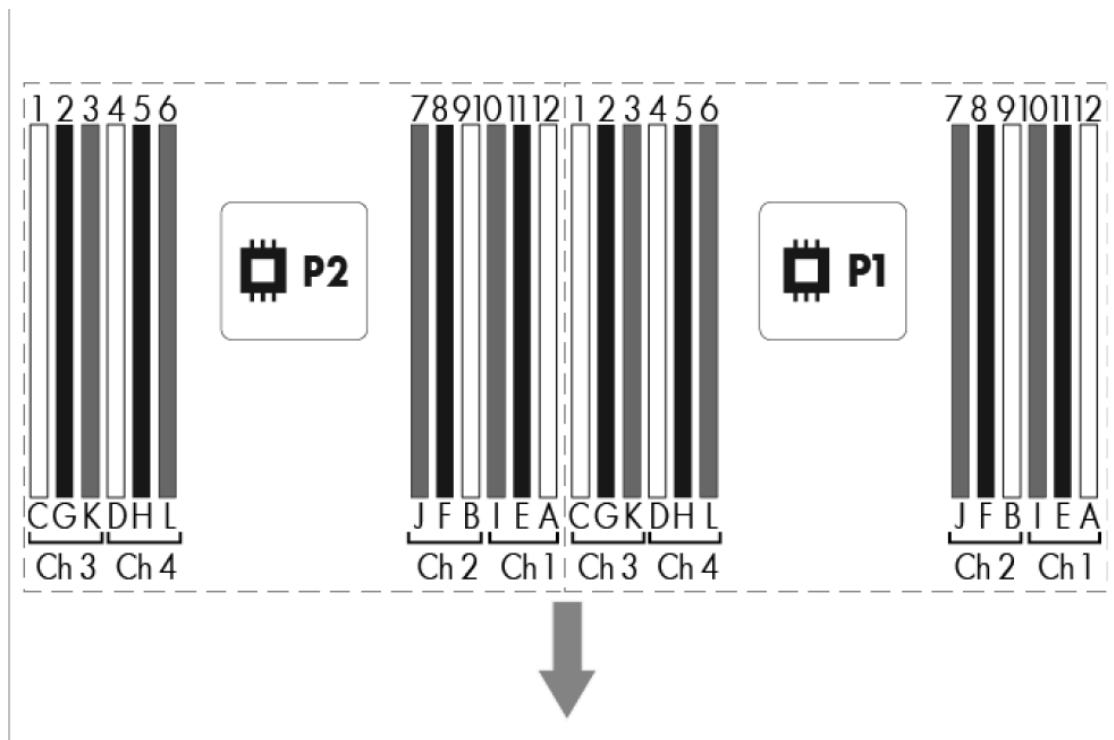|		
HPE Care Pack Services	**Installation & Start-up Services**	
	HPE Install ProLiant DL36x(p) Service	U4506E
	HPE Installation and Startup DL36x(p) Service	U4507E
	Proactive Care	
	HPE 3 year Proactive Care 24x7 DL360 Gen9 w/IC Service	U5HM4E
	HPE 3 year Proactive Care 24x7 with DMR DL360 Gen9 w/IC Service	U5HM5E
	HPE 3 year Proactive Care 24x7 with CDMR DL360 Gen9 w/IC Service	U5HM6E
	HPE 3 year Proactive Care Call to Repair DL360 Gen9 w/IC Service	U5HN3E
	HPE 3 year Proactive Care Call to Repair 24x7 with DMR DL360 Gen9 w/IC Service	U5HN4E
	HPE 3 year Proactive Care Call to Repair with CDMR DL360 Gen9 w/IC Service	U5HN5E
	HPE 3 year Proactive Care 24x7 DL360 Gen9 Service	U7AM2E

Additional Options

HPE 3 year Proactive Care 24x7 with DMR DL360 Gen9 Service	U7AM3E
HPE 3 year Proactive Care 24x7 with CDMR DL360 Gen9 Service	U7AM4E
HPE 3 year Proactive Care Call to Repair DL360 Gen9 Service	U7AM8E
HPE 3 year Proactive Care Call to Repair 24x7 with DMR DL360 Gen9 Service	U7AM9E
HPE 3 year Proactive Care Call to Repair with CDMR DL360 Gen9 Service	U7AN0E

Memory

Memory Population guidelines

General Memory Population Rules and Guidelines:

.   White DIMM slots denote the first slot of a channel. For 1 DPC (DIMM per channel) populate white slots only.

.   A minimum of one DIMM is required per processor

.   Install DIMMs only if the corresponding processor is installed.

.   When two processors are installed, balance the DIMMs across the two processors.

.   Populate DIMMs from heaviest load (quad-rank) to lightest load (single-rank) within a channel. Heaviest load (DIMM with most ranks) within a channel goes furthest from the processor.

.   Do not mix RDIMMs or LRDIMMs.

.   DIMMs of different speeds may be mixed in any order; the server will select a common optimal speed.

.   The maximum memory speed is a function of the memory type, memory configuration, and processor model.

.   The maximum memory capacity is a function of the memory type and number of installed processors.

.   HPE memory from previous generation servers is not compatible with the DL360 Gen9 Server.

Memory

. For memory population rules and additional memory guidelines, please see the DL360 Gen9 user guide at **http://www.hp.com/support**.

. There are four (4) Memory channels per processor; eight (8) channels per 2 processor server.

. There are three (3) DIMM slots for each memory channel; twenty four (24) total slots for 2 processor server.

Intel Gen9 Supported Memory Bandwidth for HPE ProLiant Gen9 Intel® Xeon® E5-2600v3 Series Processor Family

Memory Bandwidth and Capacity								
[DIMM Type]	**Registered DIMMs (RDIMMs)**					**Load Reduced (LRDIMMs)**		
DIMM Rank	Single Rank	Single Rank	Dual Rank	Dual Rank	Dual Rank	Dual Rank	Quad Rank	Quad Rank
DIMM Capacity	4GB	8GB	8GB	16GB	32GB	16GB	32GB	64GB
DIMM Native Speed (MT/s)	2133	2133	2133	2133	2133	2133	2133	2133
Voltage	Std Voltage 1.2V	Std Voltage 1.2V	Std Voltage 1.2V	Std Voltage 1.2V	Std Voltage 1.2V	Std Voltage 1.2V	Std Voltage 1.2V	Std Voltage 1.2V
SLOTS THAT CAN BE POPULATED								
24 slot servers	24	24	24	24	24	24	24	24
MAXIMUM CAPACITY (GB)								
	96	192	192	384	768	384	768	1536
POPULATED DIMM SPEED (MT/s)								
1 DIMM Per Channel	2133	2133	2133	2133	2133	2133	2133	2133
2 DIMM Per Channel	2133	2133	2133	2133	2133	2133	2133	2133
3 DIMM Per Channel	1600	1600	1600	1600	1600	1866	1866	1866

DIMM slot and configuration diagram

DIMM slot and configuration diagrams

• Population order; start with "A" first, "B" second, "C" third, etc.

• When one processor is installed, install DIMMs in sequential alphabetic order: A, B, C, D, E, F ...

• When two processors are installed, install DIMMs in sequential alphabetic order: CPU1-A, CPU2-A,CPU1-B,CPU2-B,CPU1-C, CP2-C

	CPU 1		**CPU 2**
	Slot #	population order	

Memory

		Slot #	population order			
Chnl 3	1	C		1	C	Chnl 3
	2	G		2	G	
	3	K		3	K	

	CPU 1		**CPU 2**		
	Slot #	population order	Slot #	population order	
Chnl 4	4	D	4	D	Chnl 4
	5	H	5	H	
	6	L	6	L	

	CPU 1		**CPU 2**		
	Slot #	population order	Slot #	population order	
Chnl 2	7	J	7	J	Chnl 2
	8	F	8	F	
	9	B	9	B	

	CPU 1		**CPU 2**		
	Slot #	population order	Slot #	population order	
Chnl 1	10	I	10	I	Chnl 1
	11	E	11	E	
	12	A	12	A	

Memory Speed by Processor Model	**Processor Models**	**Supported Memory Speeds**
	E5-2603v3, E5-2609v3	1600MHz
	E5-2623v3, E5-2620v3, E5-2630v3, E5-2640v3, E5-2630Lv3	1866MHz
	E5-2637v3, E5-2650v3, E5-2660v3, E5-2670v3, E5-2680v3, E5-2690v3, E5-2683v3, E5-2695v3, E5-2697v3, E5-2643v3, E5-2667v3, E5-2687Wv3, E5-2698v3, E5-2650Lv3, E5-2699v3	2133MHz

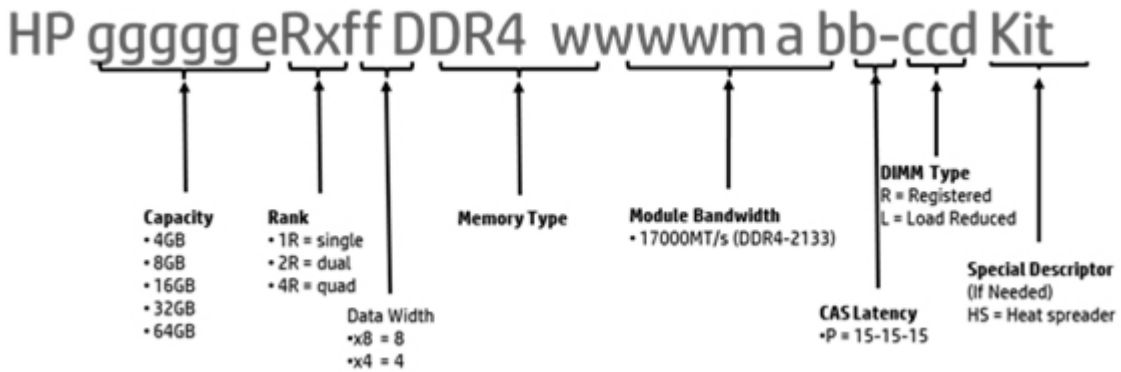| **Standard and Maximum Memory Capacity (Pre-configured Models)**	**Pre Configured Models**	**Standard Memory**	**Maximum Memory Plus Optional Memory**	**Standard Memory Replaced with Optional Memory**
	E5-2603v3	8GB (1x8GB)	1480GB (23x64GB, 1x8GB)	1536GB (24x64GB)
	E5-2630v3	16GB (1x16GB)	1488GB (23x64GB, 1x16GB)	1536GB (24x64GB)
	E5-2650v3	32GB (2x16GB)	1440GB (22x64GB, 2x16GB)	1536GB (24x64GB)
	E5-2670v3	64GB (4x16GB)	1344GB (20x64GB, 4x16GB)	1536GB (24x64GB)

Memory

DDR4 memory options part number decoder

NOTE: Capacity references are rounded to the common gigabyte (GB) values.

- 8GB = 8,192MB
- 16GB = 16,384MB
- 32GB = 32,768MB
- 64GB = 65,536MB

HP ggggg eRxff DDR4 wwwwm a bb-ccd Kit

Capacity
- 4GB
- 8GB
- 16GB
- 32GB
- 64GB

Rank
- 1R = single
- 2R = dual
- 4R = quad

Data Width
- x8 = 8
- x4 = 4

Memory Type

Module Bandwidth
- 17000MT/s (DDR4-2133)

CAS Latency
- P = 15-15-15

DIMM Type
R = Registered
L = Load Reduced

Special Descriptor
(If Needed)
HS = Heat spreader

Storage

	1-8	8 x SFF SATA/SAS/SSD Hot Pluggable Hard Drive Bays
	1-4	4 x LFF SATA/SAS/SSD Hot Pluggable Hard Drives Bays
	1-10	10 x SFF SATA/SAS/SSD Hot Pluggable Hard Drive Bays

Technical Specifications

System Unit	**Dimensions** (H x W x D)	8 SFF and 10 SFF 1.7 x 17.1 x 27.5 inches (4.32 x 43.47 x 69.85 cm) 4 LFF - 1.7 x 17.1 x 29.5 inches (4.32 x 43.46 x 75.0 cm)	
	Weight (approximate)	Maximum: **(all hard drives, power supply, and processor installed)**	8 SFF CTO Server 33.3 lb. (15.31 kg) **NOTE:** Includes 2 SFF Option for a total of 10 SFF HDD
			4 LFF CTO Server 37 lb. (16.78kg)
		Minimum: **(one hard drive, power supply, and processor installed)**	8SFF CTO Server 27 lb. (12.25 kg)
			4 LFF CTO Server 30.36 lb. (13.77 kg)
	Input Requirements	Range Line Voltage	100 to 120 VAC 200 to 240 VAC
	BTU Rating	Maximum	For 800W Power Supply: 3207 BTU/hr (at 100 VAC), 3071 BTU/hr (at 200 VAC), 3112 BTU/hr (at 240 VAC) for China Only
			For 500W Power Supply: 1979 BTU/hr (at 100 VAC), 1911 BTU/hr (at 200 VAC), 1965 BTU/hr (at 240 VAC) for China Only
	Power Supply Output	Rated Steady-State Power	For 1400W Power Supply: 1400W (at 240 VAC), 1400W (at 240 VAC
			For 800W Power Supply: 800W (at 100 VAC), 800W (at 240 VAC), 800W (at 240 VAC) input for China only
			For 500W Power Supply: 500W (at 100 VAC), 500W (at 240 VAC), 500W (at 240 VAC) input for China only
		Maximum Peak Power	For 1400W Power Supply: 1400W (at 200 to 240 1VAC), 1400W (at 240 VAC) input for China only
			For 800W Power Supply: 800W (at 100 to 127 VAC), 800W (at 200 to 240 1VAC), 800W (at 240 VAC) input for China only
			For 500W Power Supply: 500W (at 100 to 127 VAC), 500W (at 200 to 240 VAC), 500W (at 240 VAC) input for China only
	System Inlet Temperature	Standard Operating Support	10° to 35°C (50° to 95°F) at sea level with an altitude derating of 1.0°C per every 305 m (1.8°F per every 1000 ft) above sea level to a maximum of 3050 m (10,000 ft), no direct sustained sunlight. Maximum rate of change is 20°C/hr (36°F/hr). The upper limit and rate of change may be limited by the type and number of options installed. **NOTE:** System performance during standard operating support may be reduced if operating with a fan fault or above 30°C (86°F).
		Extended Ambient Operating Support	For approved hardware configurations, the supported system inlet range is extended to be: 5° to 10°C (41° to 50°F) and 35°

Technical Specifications

| | | to 40°C (95° to 104°F) at sea level with an altitude derating of 1.0°C per every 175 m (1.8°F per every 574 ft) above 900 m (2953 ft) to a maximum of 3050 m (10,000 ft). The approved hardware configurations for this system are listed at the URL: **http://www.hp.com/servers/ashrae**

For approved hardware configurations, the supported system inlet range is extended to be: 40° to 45°C (104° to 113°F) at sea level with an altitude derating of 1.0°C per every 125 m (1.8°F per every 410 ft) above 900 m (2953 ft) to a maximum of 3050 m (10,000 ft). The approved hardware configurations for this system are listed at the URL: **http://www.hp.com/servers/ashrae**

System performance may be reduced if operating in the extended ambient operating range or with a fan fault. |
	Non-operating	-30° to 60°C (-22° to 140°F). Maximum rate of change is 20°C/hr (36°F/hr).
Relative Humidity	Operating	Minimum to be the higher (more moisture) of -12°C (10.4°F) dew point or 8% relative humidity. Maximum to be the lower (less moisture) of 24°C (75.2°F) dew point or 90% relative humidity.
(non-condensing)	Non-operating	5 to 95% relative humidity (Rh), 38.7°C (101.7°F) maximum wet bulb temperature, non-condensing.
Altitude	Operating	3050 m (10,000 ft). This value may be limited by the type and number of options installed. Maximum allowable altitude change rate is 457 m/min (1500 ft/min).
	Non-operating	9144 m (30,000 ft). Maximum allowable altitude change rate is 457 m/min (1500 ft/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).

Idle

L WAd	(1P non-redundant) 4.6 A Average Bystander
	(2P redundant) 5.5 A Average Bystander
L pAm	(1P non-redundant) 29 dBA
	(2P redundant) 37 dBA

Operating

L WAd	(1P non-redundant) 4.6 A Average Bystander
	(2P redundant) 6.2 C Average Bystander
L pAm	(1P non-redundant) 30 dBA
	(2P redundant) 46 dBA

NOTE: 1P Configuration tested included two Intel E5-2630 v3, 2.3GHz processors, one 500GB SAS HDD, five standard hot plug fans, one 8GB

Technical Specifications

DDR4 RDIMM's 2133MHz, one 500W power supply.
NOTE: 2P Configuration tested included two Intel E5-2650 v3, 2.6GHz processors, one 500GB SAS HDD, seven standard hot plug fans, two 16GB DDR4 RDIMM's 2133MHz, one 500W power supply, P440ar HDD controller PCI card with 2GB cache.
NOTE: Values are subject to change without notification and are for reference only.
NOTE: Performance of system, options, and ancillary equipment will vary depending on the system configuration.
NOTE: Levels presented do not account for non-Hewlett-Packard installed hardware.

Emissions Classification (EMC)	FCC Rating	Class A
	Normative Standards	CISPR 22; EN55022; EN55024; FCC CFR 47, Pt 15; ICES-003; CNS13438; GB9254; 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.

HPE Dynamic Smart Array B140i Controller	Number of PCI links	Four
	PCI link rate	4 Gb/s
	Storage protocol support	SATA
	SAS/SATA peak data transfer rate	6 Gb/s
	Number of SAS/SATA links	10 links
	SAS/SATA connectivity	2x4 connectors; 2x1 connectors
	Expander support	No
	Drives supported (max)	Up to 10 Internal Drives
	RAID support	0, 1, 10, 5 SATA
	Software management	HPE SSA, SMH, SIM
	Warranty	Server warranty
	HPE Secure Encryption license	Not Supported
	HPE SmartCache License	Not Supported

Technical Specifications

	HPE Smart Storage Administrator	Supported

HPE Ethernet 1Gb 4-port 331i Adapter	**Network Interface**	10Base-T/100Base-TX/1000Base-TX	
	Compatibility	IEEE 802.3 10Base-T	
		IEEE 802.3ab 1000Base-T	
		IEEE 802.3u 100Base-TX	
	Data Transfer Method	PCI Express, two lanes (x2)	
	Controller	BCM5719	
	Network Transfer Rate	10Base-T (Half-Duplex)	10 Mb/s per port, 40 Mb/s combined
		10Base-T (Full-Duplex)	20 Mb/s per port, 80 Mb/s combined
		100Base-TX (Half-Duplex)	100 Mb/s per port, 400 Mb/s combined
		100Base-TX (Full-Duplex)	200 Mb/s per port, 800 Mb/s combined
		1000Base-TX (Half and Full-Duplex)	1000Mb/s per port, 4000 Mb/s combined
		1000Base-TX (Full-Duplex)	2000Mb/s per port, 8000 Mb/s combined
	Connector	Four RJ-45	
	Cable Support	10 Base-T	Categories 3, 4 or 5 UTP; up to 328 ft (100 m)
		10/100/1000 Base-TX	Category 5 or higher UTP; up to 328 ft (100 m)

Environment-friendly Products and Approach	**End-of-life Management and Recycling**	Hewlett-Packard 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-Feb-2016	From Version 13 to 14	Changed	Note for front view image – callout #9 was updated.
16-Feb-2016	From Version 12 to 13	Added	New HDD offering was added to HPE Drives.
		Changed	Maximum Internal Storage, HPE Power Supplies, HPE Computation and Graphics Accelerators, HPE Disk Backup, HPE Data Center Racks, and HPE Power Distribution Units (PDUs) were revised.
		Removed	Obsolete SKUs were removed from the QuickSpecs.
17-Dec-2015	From Version 11 to 12	Added	Smart Buy models were added to the NA version.
1-Dec-2015	From Version 10 to 11	Added	New HDD offering was added to HPE Drives. New options added to HPE PCIe Workload Accelerator Options, HPE Tape Backup, and HPE Disk Storage Systems.
		Changed	On System Management Chipset, Embedded Management, and Server utilities were revised. Product images were updated.
		Removed	Obsolete SKUs were removed from the QuickSpecs.
28-Sep-2015	From Version 9 to 10	Added	Added support for PCIe Solid State Drives, additional 6Gb SATA SSD drives, support for new Network adapters, and support for new PCIe workload accelerators. Added new HP OneView management software.
		Changed	Internal Storage Devices, Maximum Internal Storage, and HP Drives were updated.
		Removed	Obsolete SKUs were removed from the QuickSpecs.
17-Aug-2015	From Version 8 to 9	Added	Added new Solid State Drives offering.
		Changed	What's New changed to: Support for PCIe Solid State Drives Support for additional 6Gb SATA SSD drives Maximum Internal Storage and HPE Unique Options were revised.
1-Jun-2015	From Version 7 to 8	Added	New DVD Universal Media Bay option was added. New larger capacity HDDs (up to 8TB LFF), Max capacity 32TB were added. New higher capacity memory (64GB), Max capacity 1.5TB was added. New Networking options were added.

Summary of Changes

			Optional Software was added to HPE Storage Controllers.
		Changed	HPE Disk Backup and HPE Uninterruptible Power Systems (UPS) were updated.
30-Mar-2015	From Version 6 to 7	Added	New Hard Drives offering. Added new HPE PCIe Workload Accelerator Options. Optional Software added to HPE Storage Controllers. Added new HPE Care Pack Services.
		Changed	What's New, Core Options, and Additional Options were revised.
		Removed	Removed obsolete HPE Care Pack Services.
17-Feb-2015	From Version 5 to 6	Added	Added Smart Buy Models to the NA version only.
9-Feb-2015	From Version 4 to 5	Added	Added What's New section. Added new HPE Drives, Pre-configured Models, and G4 UPS models.
		Changed	HPE Processors, HPE Disk Backup, HPE Tape Backup, HPE Rack Mount Consoles, KVM Switches, and Keyboards, HPE Uninterruptible Power Systems (UPS), and HPE Computation and Graphics Accelerators sections were revised.
1-Dec-2014	From Version 3 to 4	Changed	Changes were made throughout the QuickSpecs.
13-Oct-2014	From Version 2 to 3	Added	6G SATA Enterprise Value G1 Solid State Drives were added to Core Option section. HPE PCIe Workload Accelerator Options, HPE USB and SD options were added to the Additional Options section. Smart Buys section was added to NA version.
		Changed	Call outs description for images, Standard Features, Optional Features, Pre-Configured Models, Configuration Information - Factory Integrated Models, Core Options, Additional Options, and Memory sections were revised.
23-Sep-2014	From version 1 to version 2	Changed	Changes were made throughout the QuickSpecs.

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Summary of Changes

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