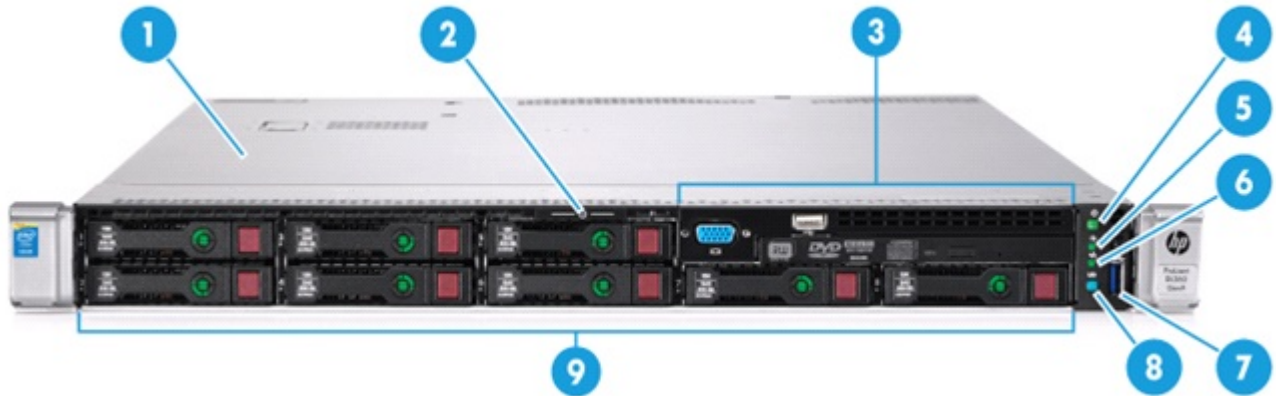


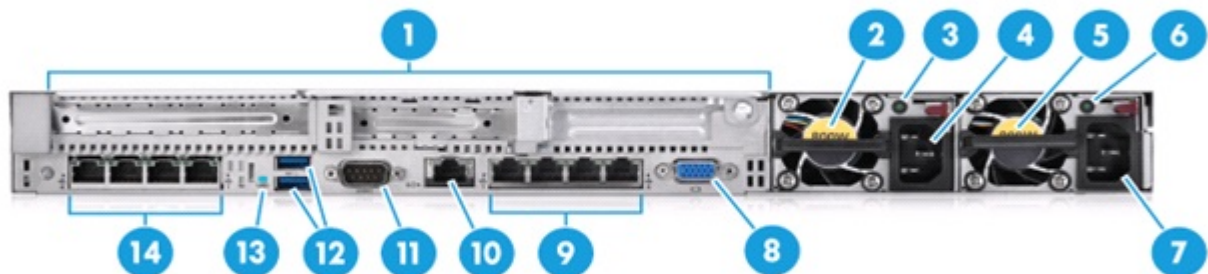
Overview

HP's leading server for dense general-purpose computing, the HP 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. HP Universal Media Bay
NOTE: Shown w/VGA, USB 2.0 and 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 Drive Bays
NOTE: 8SFF Model shown, 4LFF and 8 + 2SFF Models available.



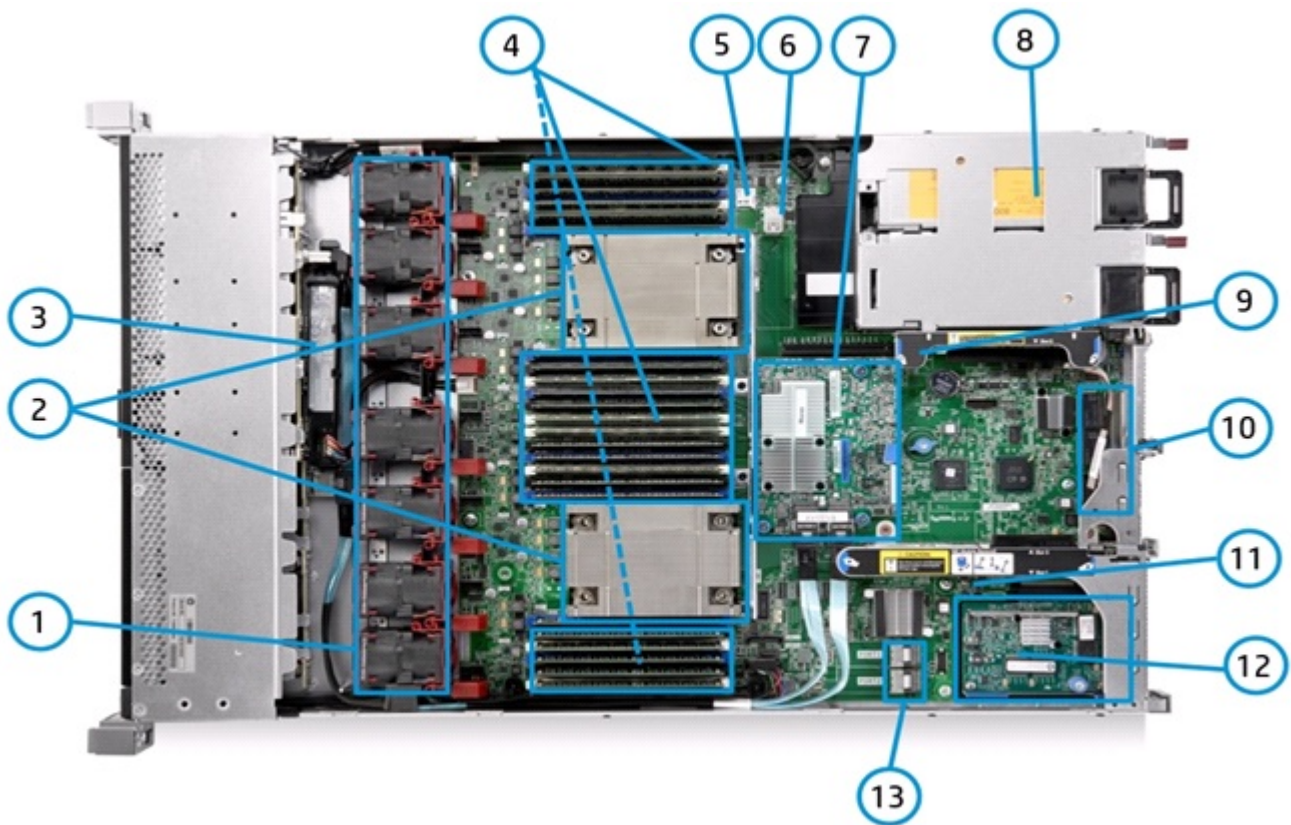
Rear view

1. PCIe 3.0 Slots 1-3
NOTE: Slot 1 and 2 Riser Ships Standard, Slot 3 Optional 1 FH / $\frac{3}{4}$ length and two Low Profile slots available (shown) or two FH/ $\frac{3}{4}$ length slots.
2. HP Flexible Slot Power Supply Bay 2
3. Power Supply 2 Status LED

Overview

4. Power Supply 2 C13 Connection
5. HP Flexible Slot Power Supply Bay 1
6. Power Supply 1 Status LED
7. Power Supply 1 C13 Connection
8. Video Connector
9. Embedded 4x1GbE Network Adapter
10. Dedicated iLO 4 connector
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. 2 Processors with HP Smart Socket Guide
3. HP Smart Storage Battery (Optional)
4. 24 DDR4 DIMM slots (12 per processor)
5. MicroSD card slot
6. Dual Internal USB 3.0 connector
7. HP Flexible Smart Array or Smart HBA (Optional)
NOTE: H240ar shown and P440ar available.
8. 2 HP Flexible Slot Power supplies
9. Secondary PCIe 3.0 riser for PCIe slot 3 (requires CPU 2)

Overview

10. Embedded 4x1Gbe NIC
11. Primary PCIe 3.0 riser for PCIe slots 1 & 2
12. FlexibleLOM Bay (Optional)
13. Embedded SATA Controller ports

Standard Features

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

Intel® Xeon® processor E5-2600 v3 product family is designed to deliver the best combination of performance, built-in capabilities, and cost-effectiveness.

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 Management Chipset

HP iLO (Firmware HP iLO4 2.0) 4GB NAND

NOTE: 1GB USB user space configurable via UEFI and accessible via iLO. Read and learn more in the [iLO QuickSpecs](#).

Standard Features

Memory

One of the following depending on model

| | | |
|---------------------------|--|--|
| Type | HP SmartMemory DDR4 Registered (RDIMM) or Load Reduced (LRDIMM) | |
| DIMM Slots Available | 24 | (12 DIMM slots per processor, 4 channels per processor, 3 DIMMs per channel) |
| Maximum Capacity (LRDIMM) | 1.5TB | (24 x 64GB LRDIMM @2133MHz) |
| Maximum Capacity (RDIMM) | 384GB | (24 x 16GB RDIMM @2133MHz) |

NOTE: 64GB LRDIMMs, feature support to be available early 2015.

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, $\frac{3}{4}$ 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, $\frac{3}{4}$ Length (up to 9.5") Slot | Processor 2 |

PCI-E Slot 2 cannot be used in conjunction with the FH $\frac{3}{4}$ Length option kit (744644-B21)

Storage Controller

One of the following depending on model

| | |
|--------------------|---|
| Entry Models | HP Dynamic Smart Array B140i Controller |
| Base Models | HP H240ar Smart Host Bus Adapter |
| Performance Models | HP Flexible Smart Array P440ar/2GB |

Standard Features

| | | |
|--|-----------------|---|
| 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 4 LFF 10 SFF; 8 SFF Model with optional 2 SFF SAS/SATA kit: 764630-B21 NOTE: HP ProLiant DL360 Series servers offer both SFF and LFF versions in CTO. 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: HP SFF Hard Drive Blank Kit or P/N 666986-B21: HP LFF Hard Drive Blank Kit. These part numbers for single HDD blanks below are also provided should the customer require replacement HDD blanks for their server. |

| Maximum Internal Storage | CAPACITY | CONFIGURATION |
|--------------------------|----------|---------------|
| Hot Plug SFF SAS SSD | 16.0TB | 10 x 1.6TB |
| Hot Plug SFF SATA SSD | 8.0TB | 10 x 800GB |
| Hot Plug LFF SATA SSD | 3.2TB | 4 x 800GB |
| Hot Plug LFF SAS SSD | 6.4TB | 4 x 1.6TB |
| Hot Plug SFF SAS | 12.0TB | 10 x 1.2TB |
| Hot Plug SFF SATA | 10.0TB | 10 x 1TB |
| Hot Plug LFF SAS | 24.0TB | 4 x 6TB |
| Hot Plug LFF SATA | 24.0TB | 4 x 6TB |

Power Supply
One of the following depending on model

HP 500W Flex Slot Platinum Hot Plug Power Supply
HP 800W Flex Slot Platinum Hot Plug Power Supply
HP 1400W Flex Slot Platinum Plus Hot Plug Power Supply

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.

HP Flexible Slot (Flex Slot) Power Supplies share a common electrical and physical design that allows for hot plug, tool-less installation into HP 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 HP Power Advisor Tool located at www.hp.com/go/hppoweradvisor.

Standard Features

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

System Fans

One of the following depending on model

1P model

Non-redundant

N/A

Redundant

5 fans

2P model

Non-redundant

N/A

Redundant

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 HP Networking section below for more details and options).

HP iLO Remote Management Network Port

1 Gb 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 [Microsoft Windows Server](#)

Virtualization Software [Canonical Ubuntu](#)

Support for ProLiant [Red Hat Enterprise Linux \(RHEL\)](#)

Servers [SUSE Linux Enterprise Server \(SLES\)](#)

[Oracle Solaris](#)

[VMware](#)

[Citrix XenServer](#)

NOTE: For more information on HP's Certified and Supported ProLiant Servers for OS and Virtualization Software and latest listing of software drivers available for your server including how to purchase from HP, please visit our OS Support Site at: <http://www.hp.com/go/ossupport> and our driver download page.

Standard Features

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 / $\frac{3}{4}$ length and two Low Profile slots available (shown) or two FH/ $\frac{3}{4}$ length slots.
Redundant Power Supplies
Optical Drive supported via Universal Media Bay
NOTE: 8SFF Chassis via VGA, USB 2.0 and DVD-RW Option kit: 764732-B21; 4LFF Chassis 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: 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>.

Graphics

Integrated Matrox G200 video standard

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

HP Server UEFI/Legacy HP 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. HP 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 HP 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 HP 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 HP 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 www.hp.com/go/proliant/uefi.

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



Standard Features

properly to support UEFI.

NOTE: HP UEFI FIO 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

HP Integrated Lights-Out (HP iLO)

Monitor your servers for ongoing management, service alerting, reporting and remote management with 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>.

HP RESTful API

RESTful API is an application programming interface. RESTful Web Service API served by iLO's web server. Learn more at <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

HP's embedded remote support, used with Insight Online direct connect or HP Insight Remote Support, allows HP ProLiant servers to transmit hardware events directly to HP or an HP Authorized Partner for automated phone home support. Learn more at <http://www.hp.com/go/insightonline/info>.

Standard Features

| | | |
|-------------------------|--|--|
| Server utilities | HP Smart Update | Optimize firmware and driver updates with HP Smart Update solutions. Learn more at http://www.hp.com/go/smartupdate . |
| | HP Systems Insight Manager (HP SIM) | HP SIM allows you to monitor the health of your HP ProLiant Servers and HP Integrity Servers, and also provides you with basic support for non-HP servers. HP SIM also integrates with HP SUM to provide quick and seamless firmware updates. Learn more at http://www.hp.com/go/sim . |
| | HP OneView Standard | HP OneView Standard can inventory, monitor, alert, and report on your G6, G7, Gen8, and Gen9 servers, while using the HP OneView user interface. Annual support is optionally available. Learn more at http://www.hp.com/go/oneview . |
| | Scripting Tool Kit and Windows PowerShell | Provision 1 to many servers using your own scripts to discover and deploy them with HP Scripting Tool Kit for Windows and Linux or HP Scripting Tools for Windows PowerShell. Learn more at http://www.hp.com/go/ProLiantSTK or http://www.hp.com/go/powershell . |
| | HP RESTful Interface Tool | HP RESTful Interface tool is a scripting tool to provision servers using RESTful API Interface to discover and deploy servers at scale. Learn more at http://www.hp.com/go/restfulapi . |
| | HP 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 . |
| | HP Insight Online | HP Insight Online, available at no additional cost as part of your HP warranty, Care Pack or contractual support agreement with HP, 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

Standard Features

Warranty

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

Optional Features

Server Management **HP Insight Control** HP 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>.

HP OneView Advanced HP OneView Advanced is converged management that eliminates infrastructure complexity with automation simplicity. This modern architecture is designed to accelerate your IT operations across servers, storage, and network resources using software-defined approaches and automation, see <http://www.hp.com/go/oneview>.

HP Insight Cluster Management Utility (CMU) HP 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/cmuc>.

Rack and Power Infrastructure HP Rack and Power Infrastructure products and services create highly efficient and intelligent solutions for existing or new IT data centers. HP 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, HP is uniquely positioned to address the key concerns of power, cooling, cable management and system access. Learn more at [HP Rack and Power Infrastructure](#).

High Performance Clusters **HP Insight Cluster Management Utility (CMU)** HP 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/cmuc>.

HPC Interconnects **NOTE:** High Performance Computing (HPC) interconnect technologies are available for this server under the HP Cluster Platform product portfolio. These high-speed interconnects are fully supported by HP 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 HPC 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 HP 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, HP data protection and recovery software will cost-effectively protect you against disaster and ensure business continuity.
- **Data Archive and Migration Software**

Optional Features

HP's storage software enables you to comply with data retention and 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)**

HP's 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**

HP 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 HP storage and networking with software that enables hardware-specific configuration, performance tuning and connectivity management.

- **HP StoreVirtual VSA**

With HP 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. HP ProLiant Gen9 servers include a 3-year limited license for HP StoreVirtual VSA software with 1TB of capacity at no extra cost. Simply select to install HP 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 available 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 HP's Customer Business Center or an Authorized Partner for assistance. <http://www.hp.com/products/configurator>.

Service and Support

HP Technology Services

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

Protect your business beyond warranty with HP Care Pack Services

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

Optimized Support recommendation

HP 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 HP. 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, HP 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>.

HP ProLiant Server Hardware Installation

Help ensure your new HP 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

HP 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 HP. 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>.

HP ProLiant Hardware Installation

Help ensure your new HP 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. HP understands the 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. HP Data privacy services help manage and protect sensitive data. <http://www.hp.com/services/dataprivacy>

Factory Express for Servers and storage

HP Factory Express offers configuration, customization, integration and deployment services for HP servers and storage products. Choose how your factory solutions are built, tested, integrated,

Service and Support

shipped and deployed. <http://www.hp.com/go/factory-express>

HP Foundation Care

Hardware and software support services provide easy connection to HP 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 HP Care Pack services can be found at: <http://www.hp.com/go/cpc>

Parts and Materials

HP will provide HP-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 HP due to malfunction.

Pre-configured Models

For the Standard Features shipped in the "Factory Integrated Models", please see the "Configuration Information - Factory Integrated Models" section.

1. Pre-configured models ship with the configurations below. Options can be selected from the Core or Additional options section of this QuickSpecs.
2. HP does not allow factory integration of options into pre-configured models. Any additional options purchased will be shipped separately.
3. If you desire a custom configuration please see "Configuration Information - Factory Integrated Models" section of this QuickSpecs.
4. Not all models are available in all regions. Check with your local country HP offices for availability.

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: HP SFF Hard Drive Blank Kit or P/N 666986-B21: HP LFF Hard Drive Blank Kit.

NOTE: 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.

CAUTION: HP 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.

| | 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. | 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 | HP Embedded 1Gb Ethernet 4-port 331i Adapter | | |
| Storage Controller | HP Dynamic Smart Array B140i | HP H240ar Smart Host Bus Adapter | HP Flexible Smart Array P440ar/2GB |
| Hard Drive | None ship standard NOTE: Only Supports SATA HDD unless HP Smart HBA or HP 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) HP 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), HP OneView (optional) | | |
| Form Factor | Rack (1U), HP Easy Install Rails | | |
| Warranty | Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response | | |

Pre-configured Models

| | Performance Models |
|-----------------------------|--|
| [SKU Number] | 755263-B21 |
| Model Name | HP ProLiant DL360 Gen9 E5-2650v3 2P 32GB-R P440ar 800W RPS Performance SAS Server |
| Processor | Intel® Xeon® E5-2650v3 |
| Number of Processors | Two |
| Memory | 32GB (2x16GB Registered DIMMs, 2133 MHz) |
| Network Controller | HP Embedded 1Gb Ethernet 4-port 331i Adapter |
| Storage Controller | HP 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 |
| Power Supply | (2) HP 800W Flex Slot Platinum Power Supply |
| Fans | 7 standard hot plug fans, redundant |
| Management | iLO Management (standard), Intelligent Provisioning (standard), iLO Advanced (standard), HP OneView (optional) |
| Form Factor | Rack (1U), HP Easy Install Rails |
| Warranty | Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response |

| | | |
|-------------------------|--------|-----------|
| Country Code Key | xx=B21 | Worldwide |
| | xx=291 | Japan |
| | xx=AA1 | PRC |

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, HP recommends the use of an HP 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)

| | | |
|---------------------------|--|---|
| [Chassis] | 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 HP Smart Socket Guides | |
| DIMMSlots | 2 (optional) x HP Smart Socket Guides | |
| Storage Controller | HP 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 | HP 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), HP OneView (optional) | |
| USB | 1 front, 2 internal, 2 rear | |
| Ears | HP Quick Release Ears | |

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

NOTE: Factory Integrated Models must start with a CTO Server.

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

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

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

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

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

HP Processors Select one or two processors from Core options-Processor section below,

- If one processor is desired, select one xxxxxx-L21
- If two processors are desired, select one xxxxxx-L21 and one xxxxxx-B21.
- Up to 2 processors supported. Mixing different processor models is not supported.
- DDR4 speed is the maximum memory speed of the processor. Actual memory speed may depend on the quantity and type of DIMMs installed

For the Intel® C610 Chipset E5-2600 Series, the letter preceding the model number indicates the

Configuration Information - Factory Integrated Models

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.

HP Memory

Select one or more memory from Core options-Memory section below,

- LRDIMM, RDIMM are all distinct memory technologies and cannot be mixed within a server. The majority of ProLiant Gen9 servers support LRDIMM and RDIMM.
- 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.
- Depending on the memory configuration and processor model, the memory speed may run at 2133MHz, 1866MHz or 1600MHz. Please see Memory Population Table or the Online Memory Configuration Tool at: <http://www.hp.com/go/ddr4config>.

HP Power Supplies

Select one or more power supplies from Core Options-Power Supplies section below:

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

Step 3: Choose Additional Factory Integratable Options

HP Unique Options

Select one or more Unique options from Core options section below.

- This section may contain FIO options, please see the Unique options section below.
- FIO indicates that this option is only available as a factory installable option.

HP Drives

Select one or more drives from Core options-HP Drives section below:

- The components of a storage subsystem (e.g. the drive, the HBA/controller, firmware, and the server backplane) should operate at the same data transfer rate or the system bandwidth will be negotiated down to an acceptable level for all components.
- Hard drives have either a one year or three year warranty; refer to the specific hard drive QuickSpecs for details.
- The HP ProLiant Gen9 Smart Storage solutions are equipped with Small Form Factor (SFF 2.5 in) and Large Form Factor (LFF 3.5 in) hot plug carriers for HP Qualified Hard Drives and Solid State Drives.

HP Flexible LOM

Select a FlexibleLOM from Core options-Networking section below,

- 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.
- For 10Gb adapters, a minimum of two Gigabytes (2 GB) of server memory is required per each adapter.
- Please see the QuickSpecs for Technical Specifications and additional information: <http://www.hp.com/go/ProLiantNICs>.

HP Networking

Select a standup NIC adapter from Core options-Networking section below,

- Please see the QuickSpecs for Technical Specifications and additional information: <http://www.hp.com/go/ProLiantNICs>.
- These options are upgradeable and can be changed from the original configuration after the

Configuration Information - Factory Integrated Models

server is shipped.

- For 10Gb adapters, a minimum of two Gigabytes (2 GB) of server memory is required per each adapter.

HP Storage Controllers Select one or more Storage options from Additional options section below.

- The embedded B140i controller will operate in UEFI only mode. For legacy support an additional controller will be needed, and for CTO orders please also select the Legacy mode settings part, 758959-B22
- This section may contain FIO options, please see HP Storage Controllers section below.
- FIO indicates that this option is only available as a factory installable option.

HP Graphics Options Select one or more graphics adapter from Additional options section below.

- Please see the HP Power Advisor for estimated power consumption of your individual system configuration prior to installing GPUs. The HP Power Advisor is located at: <http://www.hp.com/go/hppoweradvisor>.
- This section may contain FIO options, please see HP Computation & Graphics Accelerators section below.

HP I/O Expansion Options Select one or more Riser Kit options from Core options section below.

- To take advantage of the additional PCI slot upgrade, the second processor must be installed.
- This section may contain FIO options, please see HP I/O Expansion Options section below.
- FIO indicates that this option is only available as a factory installable option.

HP Cooling Options Select one or more Fan Kits from Core options section below.

- This section may contain FIO options, please see HP Cooling Options section below.
- FIO indicates that this option is only available as a factory installable option.

HP Rail Kits Select one type of rail kit from Additional options section below.

- Please take a moment to review the installation documentation that comes with the server to help you with the installation of your Gen9 server.
- 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).
- See HP Rack Options in Additional Options section of this QuickSpecs for more rack kit choices.

CAUTION: HP 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, HP recommends the use of an HP approved configurator. Contact your local sales representative for additional information.

| | |
|--------------------------|---|
| HP Unique Options | <p>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 Chassis; 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.</p> <p>HP DL360 Gen9 SFF DVD/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.</p> <p>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.</p> <p>HP DL360 Gen9 Location Discovery Services Ear Kit 764757-B21 NOTE: Requires ProLiant Location Discovery Services Infrastructure within server racks.</p> <p>HP DL360 Gen9 Serial Cable 764646-B21</p> <p>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.</p> <p>HP DL360 Gen9 LFF USB/VGA Kit 764638-B21 NOTE: Adds front VGA and USB 2.0 ports to LFF.</p> <p>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 Chassis; and Options noted with "DL360 Gen9 LFF..." are options only compatible with the 4LFF Chassis.</p> |
|--------------------------|---|

HP Processors

Entry Processors - E5-2600v3 series Processors

| | |
|---|------------|
| HP DL360 Gen9 Intel® Xeon® E5-2603v3 (1.6GHz/6-core/15MB/85W) FIO Processor Kit | 755374-L21 |
| 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) FIO Processor Kit | 755378-L21 |
| 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® E5-2620v3 (2.4GHz/6-core/15MB/85W) FIO Processor Kit | 755382-L21 |
| HP DL360 Gen9 Intel® Xeon® E5-2620v3 (2.4GHz/6-core/15MB/85W) Processor Kit | 755382-B21 |

Core Options

| | |
|---|------------|
| HP DL360 Gen9 Intel® Xeon® E5-2623v3 (3GHz/4-core/10MB/105W) FIO Processor Kit | 755376-L21 |
| HP DL360 Gen9 Intel® Xeon® E5-2623v3 (3GHz/4-core/10MB/105W) Processor Kit | 755376-B21 |
| HP DL360 Gen9 Intel® Xeon® E5-2630v3 (2.4GHz/8-core/20MB/85W) FIO Processor Kit | 755384-L21 |
| HP DL360 Gen9 Intel® Xeon® E5-2630v3 (2.4GHz/8-core/20MB/85W) Processor Kit | 755384-B21 |
| HP DL360 Gen9 Intel® Xeon® E5-2637v3 (3.5GHz/4-core/15MB/135W) FIO Processor Kit | 755404-L21 |
| HP DL360 Gen9 Intel® Xeon® E5-2637v3 (3.5GHz/4-core/15MB/135W) Processor Kit | 755404-B21 |
| HP DL360 Gen9 Intel® Xeon® E5-2640v3 (2.6GHz/8-core/20MB/90W) FIO Processor Kit | 755386-L21 |
| HP DL360 Gen9 Intel® Xeon® E5-2640v3 (2.6GHz/8-core/20MB/90W) Processor Kit | 755386-B21 |
| HP DL360 Gen9 Intel® Xeon® E5-2630Lv3 (1.8GHz/8-core/20MB/55W) FIO Processor Kit | 764097-L21 |
| 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® E5-2643v3 (3.4GHz/6-core/20MB/135W) FIO Processor Kit | 755406-L21 |
| HP DL360 Gen9 Intel® Xeon® E5-2643v3 (3.4GHz/6-core/20MB/135W) Processor Kit | 755406-B21 |
| HP DL360 Gen9 Intel® Xeon® E5-2650v3 (2.3GHz/10-core/25MB/105W) FIO Processor Kit | 755388-L21 |
| 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) FIO Processor Kit | 755390-L21 |
| HP DL360 Gen9 Intel® Xeon® E5-2660v3 (2.6GHz/10-core/25MB/105W) Processor Kit | 755390-B21 |
| HP DL360 Gen9 Intel® Xeon® E5-2667v3 (3.2GHz/8-core/20MB/135W) FIO Processor Kit | 755408-L21 |
| HP DL360 Gen9 Intel® Xeon® E5-2667v3 (3.2GHz/8-core/20MB/135W) Processor Kit | 755408-B21 |
| HP DL360 Gen9 Intel® Xeon® E5-2670v3 (2.3GHz/12-core/30MB/120W) FIO Processor Kit | 755392-L21 |
| 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) FIO Processor Kit | 755394-L21 |
| HP DL360 Gen9 Intel® Xeon® E5-2680v3 (2.5GHz/12-core/30MB/120W) Processor Kit | 755394-B21 |
| HP DL360 Gen9 Intel® Xeon® E5-2683v3 (2GHz/14-core/35MB/120W) FIO Processor Kit | 755398-L21 |

Core Options

| | |
|--|------------|
| HP DL360 Gen9 Intel® Xeon® E5-2683v3 (2GHz/14-core/35MB/120W) Processor Kit | 755398-B21 |
| HP DL360 Gen9 Intel® Xeon® E5-2690v3 (2.6GHz/12-core/30MB/135W) FIO Processor Kit | 755396-L21 |
| HP DL360 Gen9 Intel® Xeon® E5-2690v3 (2.6GHz/12-core/30MB/135W) Processor Kit | 755396-B21 |
| HP DL360 Gen9 Intel® Xeon® E5-2695v3 (2.3GHz/14-core/35MB/120W) FIO Processor Kit | 755400-L21 |
| 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) FIO Processor Kit | 755402-L21 |
| HP DL360 Gen9 Intel® Xeon® E5-2697v3 (2.6GHz/14-core/35MB/145W) Processor Kit | 755402-B21 |
| HP DL360 Gen9 Intel® Xeon® E5-2698v3 (2.3GHz/16-core/40MB/135W) FIO Processor Kit | 764099-L21 |
| HP DL360 Gen9 Intel® Xeon® E5-2698v3 (2.3GHz/16-core/40MB/135W) Processor Kit | 764099-B21 |
| HP DL360 Gen9 Intel® Xeon® E5-2699v3 (2.3GHz/18-core/45MB/145W) FIO Processor Kit | 780003-L21 |
| HP DL360 Gen9 Intel® Xeon® E5-2699v3 (2.3GHz/18-core/45MB/145W) Processor Kit | 780003-B21 |
| HP DL360 Gen9 Intel® Xeon® E5-2650Lv3 (1.8GHz/12-core/30MB/65W) FIO Processor Kit | 764101-L21 |
| HP DL360 Gen9 Intel® Xeon® E5-2650Lv3 (1.8GHz/12-core/30MB/65W) Processor Kit | 764101-B21 |
| HP DL360 Gen9 Intel® Xeon® E5-2687Wv3 (3.1GHz/10-core/25MB/160W) FIO Processor Kit | 755410-L21 |
| HP DL360 Gen9 Intel® Xeon® E5-2687Wv3 (3.1GHz/10-core/25MB/160W) Processor Kit | 755410-B21 |

NOTE: Processor XXXXXX-B21 option kits include 1 heat sink and two additional fans for 2P configs.

Core Options

| | | |
|------------------|---|------------|
| HP Memory | Registered DIMMs (RDIMMs) | |
| | HP 8GB (1x8GB) Single Rank x4 DDR4-2133 CAS-15-15-15 Registered Memory Kit | 726718-B21 |
| | HP 4GB (1x4GB) Single Rank x8 DDR4-2133 CAS-15-15-15 Registered Memory Kit | 726717-B21 |
| | HP 16GB (1x16GB) Dual Rank x4 DDR4-2133 CAS-15-15-15 Registered Memory Kit | 726719-B21 |
| | HP 8GB (1x8GB) Dual Rank x8 DDR4-2133 CAS-15-15-15 Registered Memory Kit | 759934-B21 |
| | Load Reduced DIMMs (LRDIMMs) for E5-2600v3 Series | |
| | 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. | |

| | | |
|--|---|------------|
| HP 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 | 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: External USB Drive. | | |

| | | |
|------------------|--|------------|
| HP Drives | SAS Hot Plug SFF (2.5-inch) Enterprise (ENT) Drives | |
| | HP 1.2TB 6G SAS 10K rpm SFF (2.5-inch) SC Dual Port Enterprise 3yr Warranty Hard Drive | 718162-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 Enterprise 3yr Warranty Hard Drive | 759212-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 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 | |

Core Options

| | |
|---|------------|
| 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 6TB 6G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive | 761477-B21 |
| HP 4TB 6G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive | 695510-B21 |
| HP 3TB 6G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive | 652766-B21 |
| 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 |
| SATA Hot Plug SFF (2.5-inch) Midline (MDL) Drives | |
| 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 |
| SATA Hot Plug LFF (3.5-inch) Midline (MDL) Drives | |
| HP 6TB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive | 753874-B21 |
| HP 4TB 6G SATA 7.2k rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive | 693687-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 |
| 12G SAS Hot Plug SFF (2.5-inch) Enterprise Performance Solid State Drives | |
| HP 800GB 12G SAS High Endurance SFF 2.5-in SC Enterprise Performance 3yr Wty Solid State Drive | 741159-B21 |
| HP 400GB 12G SAS High Endurance SFF 2.5-in SC Enterprise Performance 3yr Wty Solid State Drive | 741155-B21 |
| HP 200GB 12G SAS High Endurance SFF 2.5-in SC Enterprise Performance 3yr Wty Solid State Drive | 741151-B21 |
| 12G SAS Hot Plug SFF (2.5-inch) Enterprise Mainstream Solid State Drives | |
| HP 800GB 12G SAS Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive | 741146-B21 |
| HP 400GB 12G SAS Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive | 741142-B21 |
| HP 200GB 12G SAS Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive | 741138-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 |

Core Options

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 Mainstream Solid State Drives

HP 800GB 6G SATA Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive 691868-B21

HP 400GB 6G SATA Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive 691866-B21

HP 200GB 6G SATA Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive 691864-B21

HP 100GB 6G SATA Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive 691862-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

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

HP 240GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty G1 Solid State Drive 756636-B21

HP 120GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty G1 Solid State Drive 756621-B21

HP 960GB 6G SATA Light Endurance SFF 2.5-in SC Enterprise Light 3yr Wty G1 Solid State Drive 756601-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 (3.5-inch) Enterprise Mainstream Solid State Drives

HP 800GB 6G SATA Mainstream Endurance LFF 3.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive 691860-B21

HP 400GB 6G SATA Mainstream Endurance LFF 3.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive 691856-B21

Core Options

| | |
|--|------------|
| HP 200GB 6G SATA Mainstream Endurance LFF 3.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive | 691854-B21 |
| HP 100GB 6G SATA Mainstream Endurance LFF 3.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive | 691852-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 |
| HP 240GB 6G SATA Value Endurance LFF 3.5-in SC Converter ENT Value 3yr Wty G1 Solid State Drive | 756639-B21 |
| HP 120GB 6G SATA Value Endurance LFF 3.5-in SC Converter ENT Value 3yr Wty G1 Solid State Drive | 756624-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 Converter 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 Light G1 Solid State Drives | |
| HP 960GB 6G SATA Light Endurance LFF 3.5-in SC Converter ENT Light 3yr Wty G1 Solid State Drive | 756604-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 |
| 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 Chassis, required for 10SFF config, when added to the 8SFF Chassis. | |

Core Options

HP Networking

1 Gigabit Ethernet adapters

| | |
|-------------------------------------|------------|
| HP Ethernet 1Gb 4-port 331T Adapter | 647594-B21 |
| HP Ethernet 1Gb 2-port 361T Adapter | 652497-B21 |
| HP Ethernet 1Gb 2-port 332T Adapter | 615732-B21 |

10 Gigabit Ethernet adapters

| | |
|---|------------|
| HP Ethernet 10Gb 2-port 530T Adapter | 656596-B21 |
| HP Ethernet 10Gb 2-port 561T Adapter | 716591-B21 |
| HP Ethernet 10Gb 2-port 530SFP Adapter | 652503-B21 |
| HP Ethernet 10Gb 2-port 560SFP+ Adapter | 665249-B21 |

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. See cables/options below.

FlexibleLOM Adapters

| | |
|---|------------|
| HP FlexFabric 10Gb 2-port 533FLR-T Adapter | 700759-B21 |
| HP FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter | 700751-B21 |
| HP FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter | 727060-B21 |
| HP Ethernet 10Gb 2-port 561FLR-T Adapter | 700699-B21 |
| HP Ethernet 1Gb 4-port 331FLR Adapter | 629135-B22 |
| HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter | 665243-B21 |
| HP Ethernet 1Gb 4-port 366FLR Adapter | 665240-B21 |

NOTE: For the following FlexibleLOM Network Adapters, only 1 FlexibleLOM can be added to the server, which is selected in Step 2 of the "Configuration Information - Factory Integrated Models" section. These options are for upgrade or change from original configuration after the server is shipped.

NOTE: Please see the QuickSpecs for Technical Specifications and additional information: <http://www.hp.com/go/ProLiantNICs>.

HP 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 |

NOTE: Please see the QuickSpecs for additional information:

http://h18000.www1.hp.com/products/quickspecs/13078_div/13078_div.html.

HP I/O Expansion Options

| | |
|--|------------|
| HP DL360 Gen9 Low Profile PCIe Slot CPU2 Kit | 764642-B21 |
|--|------------|

NOTE: Add 3rd PCIe slot into server connected to CPU 2.

NOTE: After installation sever 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.

Core Options

| | |
|---|--|
| HP Power Supplies | <p>HP Flex Slot Platinum Hot-plug Power supplies</p> <p>HP 500W Flex Slot Platinum Hot Plug Power Supply Kit 720478-B21</p> <p>HP 800W Flex Slot Platinum Hot Plug Power Supply Kit 720479-B21</p> <p>HP 1400W Flex Slot Platinum Plus Hot Plug Power Supply Kit 720620-B21</p> <p>NOTE: 1400W Power Supply contains intelligent power discovery feature.</p> <p>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.</p> <p>NOTE: Prior to selecting a power supply option, it is highly recommended that you review your server configuration in the HP Power Advisor tool to determine the right size power supply for your server configuration. The HP Power Advisor is located at: http://www.hp.com/go/hppoweradvisor.</p> |
| HP Computation and Graphics Accelerators | <p>HP NVIDIA Quadro K4200 Graphics Accelerator J0G90A</p> <p>NOTE: HP 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 HP DL360 Gen9 Full Height PCIe Slot CPU2 Kit 764644-B21, and if the HDD need to be RAIDed, the HP Smart Array P440ar for two GPUS needs to be installed, option kit 726740-B21.</p> <p>HP NVIDIA Quadro K2200 Graphics Accelerator J0G89A</p> <p>NOTE: Supports up to two cards. Two cards installed in the both the primary and secondary PCI-e slots require an HP DL360 Gen9 Full Height PCIe Slot CPU2 Kit 764644-B21. If two K2200 GPU cards are installed it does not require HP Smart Array P440ar for two GPU option kits for RAIDed HDDs.</p> <p>HP DL360 Gen9 GPU Cable for CPU1 Kit 766199-B21</p> <p>NOTE: Includes GPU power cable and brackets</p> <p>NOTE: Only the above listed Graphics cards are HP standard supported options in this server.</p> <p>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.</p> |
| HP Cooling Options | <p>HP DL360 Gen9 High Performance Fan Kit 766201-B21</p> <p>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.</p> |

Additional Options

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

| | | |
|---|---|----------|
| HP Insight software | HP 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 |
| <p>NOTE: Electronic and Flexible-Quantity licenses can be used to purchase multiple licenses with a single activation key.</p> <p>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 HP Software Technical Support and Update Service.</p> <p>NOTE: Licenses ship without media. The HP Insight Control Media Kit can be ordered separately, or can be downloaded at: http://www.hp.com/go/insightupdates.</p> <p>NOTE: For additional license options please see the QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/12631_div/12631_div.html</p> | | |

| | | |
|----------------------------|--|------------|
| Embedded Management | HP 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 Insight Control including 1yr 24x7 Support ProLiant ML/DL/BL-bundle Single Server FIO License | C6N36A |
| | HP Insight Control including 1yr 24x7 Support ProLiant ML/DL/BL-bundle FIO Electronic License | C6N36ABE |
| | HP iLO Advanced including 1yr 24x7 Technical Support and Updates E-LTU | E6U59ABE |

Additional Options

| | | |
|--|--|----------|
| HP Converged Infrastructure Management Software | HP OneView Advanced (with HP iLO Advanced) | |
| | HP OneView incl 3yr 24x7 Supp Phys 1 Svr Lic | E5Y34A |
| | HP OneView incl 3yr 24x7 Supp Flex Qty E-LTU | E5Y35AAE |
| | HP OneView for ProLiant DL Server incl 3yr 24x7 Supp FIO Bundle Physical 1 Svr Lic | E5Y43A |
| | HP OneView incl 3yr 24x7 Supp Bundle 1 Svr E-LTU | E5Y43AAE |
| | HP OneView Advanced (without HP iLO Advanced) | |
| | HP OneView w/o iLO Adv incl 3yr 24x7 Supp Phys 1 Svr Lic | E5Y38A |
| | HP OneView w/o iLO Adv inc 3yr 24x7 Supp Flex Qty E-LTU | E5Y39AAE |
| | HP OneView Media Kit Phys No Lic | E5Y37A |
| | <p>NOTE: Full licenses of HP OneView Advanced also provide the right-to-use HP Insight Control without additional charge.</p> <p>NOTE: Server provisioning (via 'HP Insight Control server provisioning') is licensed as part of HP 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).</p> <p>NOTE: Licenses ship without media. The HP OneView Media Kit can be ordered separately, or can be downloaded at: http://www.hp.com/go/oneview.</p> <p>NOTE: Electronic and Flexible-Quantity licenses can be used to purchase multiple licenses with a single activation key.</p> | |

| | | |
|---|---|--------|
| HP High Performance Clusters | HP Cluster Management Utility | |
| | HP Insight Cluster Management Utility 1yr 24x7 Flexible License | QL803B |
| | HP Insight Cluster Management Utility 3yr 24x7 Flexible License BD476A | BD476A |
| | <p>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.</p> | |
| | HP Insight Cluster Management Utility Media | BD477A |
| <p>NOTE: For additional license kits please see the QuickSpecs at: http://h18004.www1.hp.com/products/quickspecs/12612_div/12612_div.html</p> | | |

Additional Options

| | | |
|---|---|------------|
| HP 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 |
| | 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 |

NOTE: Please see the QuickSpecs for Technical Specifications and additional information:
http://h18004.www1.hp.com/products/quickspecs/14528_div/14528_div.html
 (Worldwide)

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

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.

HP Storage Controllers SAS Controllers

HP 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 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 DL360 Gen9 Smart Array P840 SAS Card with Cable Kit | 766205-B21 |
| NOTE: Includes the P840 Smart Array controller with 4GB integrated cache, HP 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 2 nd GPU to fit. | |
| HP Smart Array P441/4GB FBWC 12Gb 2-ports Ext SAS Controller | 726825-B21 |

Additional Options

| | |
|---|------------|
| 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 HP Smart Storage Battery. | |
| 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 1 PCIe slot. | |
| NOTE: Includes the HP Smart Storage Battery. | |
| HP Smart Host Bus Adapters | |
| HP H240ar 12Gb 1-port Int Smart Host Bus Adapter | 726757-B21 |
| NOTE: Provides support for up to 8 internal SAS/SATA drives without using a PCIe slot. | |
| HP H240ar 12Gb 1-port 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 Smart Host Bus Adapter | 726907-B21 |
| HP H240 12Gb 2-ports Int FIO Smart Host Bus Adapter | 761873-B21 |
| HP H241 12Gb 2-ports Ext Smart Host Bus Adapter | 726911-B21 |
| NOTE: FIO indicates factory integrated option via CTO. | |
| HP 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 HP Smart HBA 240ar or HP Smart Array P440ar. | |
| HP DL360 Gen9 SFF Embedded SATA Cable | 766207-B21 |
| 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 HP Smart Array P440 (PCIe Controllers) 726821-B21 or 761872-B21, the option kit documentation details out cable placement with the HP 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 HP Smart Array P440 (PCIe Controllers) 726821-B21 or 761872-B21, the option kit documentation details out cable placement with the HP 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 Chassis; and Options noted with "DL360 Gen9 LFF..." are options only compatible with the 4LFF Chassis. | |
| Optional Upgrades | |
| HP 96W Smart Storage Battery with 145mm Cable for DL/ML/SL Servers | 727258-B21 |

Additional Options

HP 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 HP tape backup products see: <http://www.hp.com/storage/SPOCK> and <http://www.hp.com/go/ebs>.

Tape Drives

| | |
|---|--------|
| 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-4 Ultrium 1760 SAS (1) in 1U Rack-mount Kit | EH946C |
| HP StoreEver LTO-5 Ultrium 3000 SAS Tape Drive in 1U Rack-mount | EJ014B |
| HP StoreEver LTO-5 Ultrium 3280 SAS Tape Drive in 3U Rack-mount | EJ013B |
| HP StoreEver 1U SAS Rack-mount Kit | AE459B |

HP Tape Storage Systems

HP StoreEver MSL6480

| | |
|---|--------|
| HP StoreEver MSL6480 Scaleable Expansion Module | QU626A |
|---|--------|

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

http://h18000.www1.hp.com/products/quickspecs/14604_div/14604_div.html (Worldwide).

| | |
|---|--------|
| HP StoreEver MSL6480 Scalable Base Module | QU625A |
| HP MSL2024 0-Drive Tape Library | AK379A |
| HP MSL4048 0-Drive Tape Library | AK381A |
| HP MSL Library Extender Kit | AQ746A |

HP Storage Options

Fibre Channel HBA

NOTE: The following is a list of all Fibre Channel Host Bus Adapters for Windows and Linux. For detailed compatibility information please see:

<http://h18006.www1.hp.com/storage/saninfrastructure/hba.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

HP 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 D2600 w/12 4TB 6G SAS 7.2K LFF Dual Port MDL HDD 48TB Bundle | E7W32A |

HP Data Center Racks

HP 11000 G2 Series Racks

| | |
|--|--------|
| HP 11642 1075mm Pallet Universal Rack | H6J65A |
| HP 11642 1075mm Shock Universal Rack | H6J66A |
| HP 11642 1200mm Pallet Universal Rack | H6J67A |
| HP 11642 1200mm Shock Universal Rack | H6J68A |
| HP 11636 1075mm Pallet Universal Rack | H6J77A |
| HP 11636 1075mm Shock Universal Rack | H6J78A |
| HP 11614 1075mm Shock Universal Rack | H6J82A |
| HP 11622 G2 1075mm Pallet Universal Rack | H6J83A |
| HP 11622 G2 1075mm Shock Universal Rack | H6J84A |
| HP 11648 1075mm Pallet Universal Rack | H6J87A |
| HP 11648 1075mm Shock Universal Rack | H6J88A |

NOTE: Please see the [HP 11000 G2 Series Racks QuickSpecs](#) for information on additional racks options and rack specifications

HP Intelligent Series Racks

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

NOTE: Please see the [HP Intelligent Series Racks QuickSpecs](#) for information on additional racks options and rack specifications.

HP Value Series Rack

| | |
|--|--------|
| HP V142 1075mm deep Pallet 100 series Rack | AF046A |
|--|--------|

NOTE: Please see the [HP Value Series Rack QuickSpec](#) for information on additional racks options and rack specifications.

Additional Options

| HP Power Distribution Units (PDUs) | HP Basic Power Distribution Unit (bPDU) | |
|---|--|------------|
| | 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 7.3kVA 230 Volt IEC309 32A Input (20xC13) INTL Basic PDU | H5M68A |
| | 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 7.3kVA 230 Volt IEC309 32A Input (24xC13/6xC19) INTL Basic PDU | H5M70A |
| | HP 8.3kVA 208 Volt CS8265C Input (30xC13/6xC19) NA/JP Basic PDU | H5M60A |
| | HP 11kVA 230 Volt IEC309 63A Input (30xC13/6xC19) INTL Basic PDU | H5M71A |
| | 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 16A 3-Phase Input (30xC13/6xC19) INTL Basic PDU | H5M72A |
| | HP 11kVA 400 Volt IEC309 16A 3-Phase Input (36xC13/6xC19) INTL Basic PDU | H5M73A |
| | HP 11kVA 400 Volt IEC309 30A 3-Phase Input (36xC13/6xC19) NA Basic PDU | H5M67A |
| | HP 13.2kVA 480 Volt IEC309 30A 3-Phase Input (15 Outlet) NA Basic PDU | H3X07A |
| | HP 19.9kVA 480 Volt IEC309 30A 3-Phase Input (30 Outlet) NA Basic PDU | H3X08A |
| | HP 800VA - 277V Input / 230V Output NA Rack Mount Transformer | H3X09A |
| | 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 7.3kVA 32A High Voltage INTL Core Modular Power Distribution Unit | 252663-B33 |
| | HP 9.2kVA 40A High Voltage INTL Core Modular Power Distribution Unit | 252663-B34 |
| | HP 8.6kVA 24A Three Phase NA/JP Modular Power Distribution Unit | AF512A |
| | HP 11kVA 16A Three Phase INTL Modular Power Distribution Unit | AF513A |
| | 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 22kVA 32A Three Phase INTL Core Modular Power Distribution Unit | AF518A |
| | NOTE: To learn more about HP Basic Power Distribution Units (bPDU), please visit the HP website at www.hp.com/go/pdu . | |
| | HP Monitored Power Distribution Units (mPDU) | |
| | 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 |
| | 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 |

Additional Options

| | |
|---|--------|
| HP 4.9kVA 208 Volt L6-30 Input (12xC13) NA/JP Monitored PDU | G9Z05A |
| HP 7.3kVA 230 Volt IEC309 32A Input (12xC13) INTL Monitored PDU | G9Z06A |
| HP 4.9kVA 208 Volt L6-30 Input (20xC13/4xC19) NA/JP Monitored PDU | D9N47A |
| HP 7.3kVA 230 Volt IEC309 32A Input (20xC13/4xC19) INTL Monitored PDU | D9N48A |
| 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 11kVA 400 Volt IEC309 16A 3-Phase Input (18xC13/3xC19) INTL Monitored PDU | D9N55A |
| HP 8.3kVA 208 Volt CS8265C Input (30xC13/3xC19) NA Monitored PDU | D9N49A |
| HP 7.3kVA 230 Volt IEC309 32A Input (32xC13/4xC19) INTL Monitored PDU | D9N50A |
| HP 11kVA 400 Volt IEC309 16A 3-Phase Input (30xC13/3xC19) INTL Monitored PDU | D9N57A |
| 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 22kVA 400 Volt IEC309 32A 3-Phase Input (30xC13/3xC19) INTL Monitored PDU | D9N56A |
| HP 22kVA 400 Volt IEC309 32A 3-Phase Input (12xC13/12xC19) INTL Monitored PDU | D9N60A |
| HP 22kVA 400 Volt IEC309 32A 3-Phase Watertight Input (12xC13/12xC19) INTL Monitored PDU | G9Z08A |
| HP Environmental Sensor for Remote Monitored PDUs | E2D53A |

NOTE: Please see the [HP Monitored Power Distribution Units QuickSpecs](#) for information on additional options and product specifications

HP Intelligent Power Distribution Units (iPDU)

| | |
|---|--------|
| 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 |

Additional Options

| | |
|--|--------|
| 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 7.3kVA 32A Single Phase INTL Core Intelligent Modular Power Distribution Unit | AF525A |
| HP 11kVA 16A Three Phase INTL Core Intelligent Modular Power Distribution Unit | AF526A |
| HP 22kVA 32A Three Phase INTL Core Intelligent Modular Power Distribution Unit | AF527A |
| HP 17.3kVA 48A 208V Three Phase 12 Outlet Core NA/JP Intelligent Power Distribution Unit | AF535A |
| 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 7.3kVA 32A Single Phase INTL Intelligent Modular Power Distribution Kit | AF534A |
| | |
| HP 5xC13 Intelligent PDU Extension Bar G2 Kit | AF547A |
| HP 5xC13 Outlets Power and UID LEDs Pair Standard Extension Bar | AF528A |

NOTE: Please see the [HP Intelligent Power Distribution Units QuickSpecs](#) for information on additional options and product specifications.

HP Managed Power Distribution Units (maPDU)

| | |
|---|--------|
| 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 7.3kVA 200-240 Volt IEC309 32A Input (20xC13/4xC19) INTL Managed PDU | H8B51A |
| 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 11kVA 400 Volt IEC309 16A 3 Phase Input (21xC13/3xC19) INTL Managed PDU | H8B54A |
| 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 [QuickSpecs for Technical Specifications](#) and additional information: <http://www8.hp.com/h20195/v2/GetHtml.aspx?docname=c04376673> (Worldwide)

NOTE: To learn more, please visit the [HP Uninterruptible Power Systems \(UPS\) web page](#).

Additional Options

HP Rack Mount Consoles, KVM Switches, and Keyboards

HP Location Discovery Services

| | |
|-------------------------------|--------|
| HP 36U Location Discovery Kit | BW945A |
| HP 42U Location Discovery Kit | BW946A |
| HP 47U Location Discovery Kit | BW947A |

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

http://h18000.www1.hp.com/products/quickspecs/14429_div/14429_div.html (Worldwide)

HP Rack Mount Consoles

| | |
|---|--------|
| HP TFT7600 G2 KVM Console Rackmount Keyboard US Monitor | AZ870A |
| HP TFT7600 G2 KVM Console Rackmount Keyboard UK Monitor | AZ871A |
| HP TFT7600 G2 KVM Console Rackmount Keyboard DE Monitor | AZ872A |
| HP TFT7600 G2 KVM Console Rackmount Keyboard FR Monitor | AZ873A |
| HP TFT7600 G2 KVM Console Rackmount Keyboard IT Monitor | AZ874A |
| HP TFT7600 G2 KVM Console Rackmount Keyboard ES Monitor | AZ875A |
| HP TFT7600 G2 KVM Console Rackmount Keyboard DK Monitor | AZ876A |
| HP TFT7600 G2 KVM Console Rackmount Keyboard NO Monitor | AZ877A |
| HP TFT7600 G2 KVM Console Rackmount Keyboard SE/FI Monitor | AZ878A |
| HP TFT7600 G2 KVM Console Rackmount Keyboard CH Monitor | AZ879A |
| HP TFT7600 G2 KVM Console Rackmount Keyboard PT Monitor | AZ880A |
| HP TFT7600 G2 KVM Console Rackmount Keyboard BE Monitor | AZ881A |
| HP TFT7600 G2 KVM Console Rackmount Keyboard JP Monitor | AZ882A |
| HP TFT7600 G2 KVM Console Rackmount Keyboard RU Monitor | AZ883A |
| HP TFT7600 G2 KVM Console Rackmount Keyboard Intl Monitor | AZ884A |
| HP TFT7600 G2 KVM Console Rackmount Keyboard US TAA Monitor | AZ885A |

NOTE: Please see the [HP Rack Console QuickSpecs](#) for information on additional options and product specifications.

HP KVM Switches

| | |
|--|--------|
| HP Server Console 0x2x8 Port Analog Switch | AF616A |
| HP Server Console 0x2x16 Port Analog Switch | AF617A |
| HP TAA 0x2x16xKVM Server Console G2 Switch | AF626A |
| 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 [HP KVM Switches web page](#).

HP USB Keyboard and Mouse

| | |
|--|------------|
| HP USB BFR with PVC Free US Keyboard/Mouse Kit | 631341-B21 |
| HP USB BFR with PVC Free UK Keyboard/Mouse Kit | 631344-B21 |

Additional Options

| | |
|---|------------|
| HP USB BFR with PVC Free FR Keyboard/Mouse Kit | 631346-B21 |
| HP USB BFR with PVC Free ES Keyboard/Mouse Kit | 631348-B21 |
| HP USB BFR with PVC Free DE Keyboard/Mouse Kit | 631358-B21 |
| HP USB BFR with PVC Free JP Keyboard/Mouse Kit | 631360-B21 |
| HP USB BFR with PVC Free IT Keyboard/Mouse Kit | 631362-B21 |
| HP USB BFR with PVC Free CN Keyboard/Mouse Kit | 631364-B21 |
| HP USB BFR with PVC Free AE Keyboard/Mouse Kit | 638212-B21 |
| HP USB BFR with PVC Free RU Keyboard/Mouse Kit | 638214-B21 |
| HP USB BFR with PVC Free IN Keyboard/Mouse Kit | 672097-D63 |
| HP USB BFR with PVC Free AP-Intl Keyboard/Mouse Kit | 672097-373 |
| HP USB BFR with PVC Free Intl Keyboard/Mouse Kit | 672097-B33 |
| HP USB BFR with PVC Free PT Keyboard/Mouse Kit | 672097-133 |
| HP USB BFR with PVC Free TR Keyboard/Mouse Kit | 672097-143 |
| HP USB BFR with PVC Free CZ Keyboard/Mouse Kit | 672097-223 |
| HP USB BFR with PVC Free FI Keyboard/Mouse Kit | 672097-353 |
| HP USB BFR with PVC Free SE Keyboard/Mouse Kit | 672097-103 |
| HP USB BFR with PVC Free CH Keyboard/Mouse Kit | 672097-113 |
| HP USB BFR with PVC Free KR Keyboard/Mouse Kit | 672097-KD3 |

NOTE: Please see the [HP USB Keyboard and Mouse QuickSpecs](#) for information on additional options and product specifications.

Rail Kits

| | |
|--|------------|
| 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 |

HP Uninterruptible Power Systems (UPS)

HP Rack-mountable UPS

HP R1500 G3 Uninterruptible Power Supply (UPS)

| | |
|---|--------|
| HP R1.5kVA G3 1U INTL Uninterruptible Power System | AF471A |
| HP R1.5kVA G3 1U JP/TW Uninterruptible Power System | AF470A |
| HP R1.5kVA G3 1U NA Uninterruptible Power System | AF469A |

HP R/T3000 G2 Uninterruptible Power System (UPS)

| | |
|---|--------|
| HP R/T3000 G2 2U L530 Low Voltage NA/JP Uninterruptible Power System | AF466A |
| HP R/T3000 G2 2U L620 High Voltage NA/JP Uninterruptible Power System | AF467A |
| HP R/T3000 G2 2U Detachable Cord High Voltage INTL Uninterruptible Power System | AF468A |

R5000 Uninterruptible Power System (UPS)

| | |
|---|--------|
| HP R5KVA 3U IEC309-32A High Voltage INTL Uninterruptible Power System | AF461A |
| HP R5KVA 3U L630 High Voltage NA/JP Uninterruptible Power System | AF460A |

R7000 Uninterruptible Power System (UPS)

| | |
|--|--------|
| HP R7KVA 4U IEC-32A High Voltage INTL Uninterruptible Power System | AF463A |
|--|--------|

Additional Options

HP R7KVA 4U 50A High Voltage NA/JP Uninterruptible Power System AF462A

HP T750 G2 UPS Models

HP T750 G2 750VA NA Tower Uninterruptible Power System AF446A

HP T750 G2 750VA INTL Tower Uninterruptible Power System AF447A

HP T750J JP Uninterruptible Power System AF456A

HP T1000 G3 UPS Models

HP T1000 G3 1000VA INTL Tower Uninterruptible Power System AF449A

HP T1500 G3 UPS Models

HP T1500 G3 1400VA NA Tower Uninterruptible Power System AF450A

HP T1500 G3 1400VA INTL Tower Uninterruptible Power System AF451A

NOTE: To learn more, please visit the [HP Uninterruptible Power Systems \(UPS\) web page](#).

HP USB and SD options

HP Enterprise Mainstream Flash Media Kits for Memory Cards

HP 32GB microSD Enterprise Mainstream Flash Media Kit 700139-B21

HP 8GB microSD Enterprise Mainstream Flash Media Kit 726116-B21

HP 8GB USB Enterprise Mainstream Flash Media Drive Key Kit 737953-B21

HP Care Pack Services Installation & Start-up Services

HP Install ProLiant DL36x(p) Service U4506E

HP Startup ProLiant DL36x(p) Service U4507E

Proactive Care

HP 3 year 24x7 DL360 Gen9 w/IC Proactive Care Service U5HM4E

HP 3 year 24x7 with Defective Media Retention DL360 Gen9 w/IC Proactive Care Service U5HM5E

HP 3 year 24x7 w/Comprehensive Defective Material Retention DL360 Gen9 w/IC Proactive Care Service U5HM6E

HP 3 year Call to Repair DL360 Gen9 w/IC Proactive Care Service U5HN3E

HP 3 year Call to Repair with Defective Media Retention DL360 Gen9 w/IC Proactive Care Service U5HN4E

HP 3 year CTR with Comprehensive Defective Material Retention DL360 Gen9 w/IC Proactive Care Service U5HN5E

HP 3 year 24x7 DL360 Gen9 Proactive Care Service U7AM2E

HP 3 year 24x7 with Defective Media Retention DL360 Gen9 Proactive Care Service U7AM3E

HP 3 year 24x7 with Comprehensive Defective Material Retention DL360 Gen9 Proactive Care Service U7AM4E

HP 3 year Call to Repair DL360 Gen9 Proactive Care Service U7AM8E

HP 3 year Call to Repair with Defective Media Retention DL360 Gen9 Proactive Care Service U7AM9E

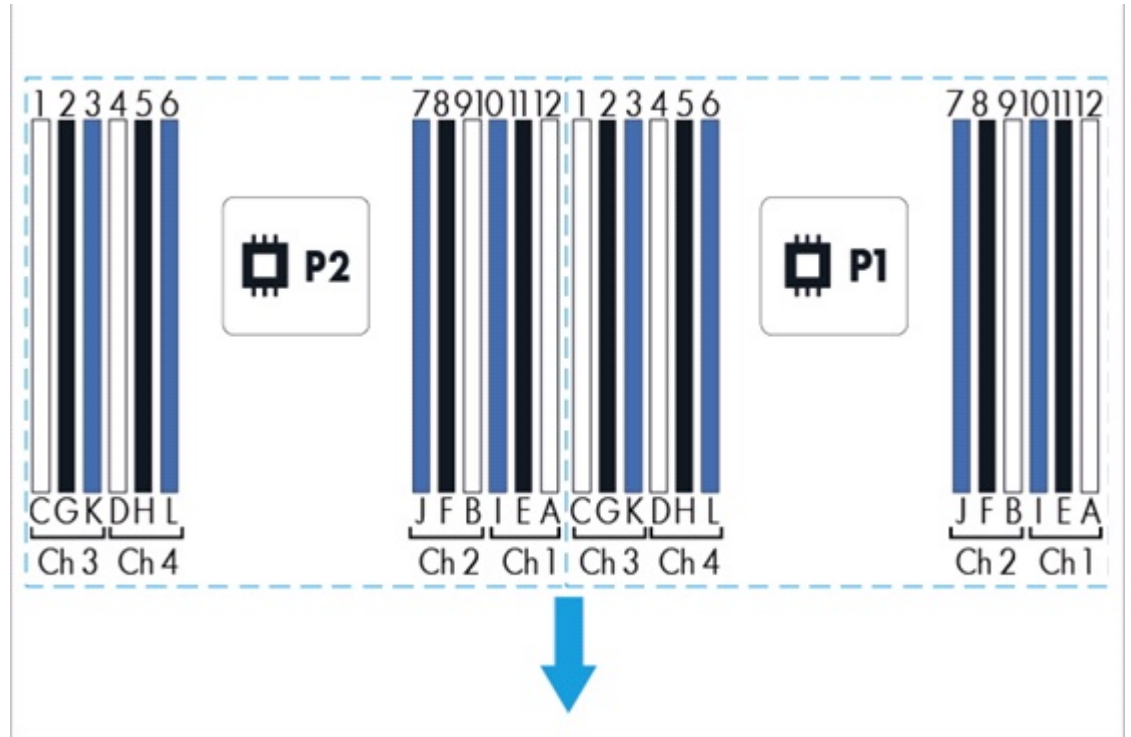
HP 3 year CTR with Comprehensive Defective Material Retention DL360 Gen9 Proactive Care Service U7AN0E

Memory

Memory Subsystem Architecture

Each Intel® Xeon® E5-2600v3 family processor socket contains four memory channels per installed processor with three DIMMs per channel for a total of twelve (12) DIMMs or a grand total of twenty-four (24) DIMMs for the server.

Memory Population guidelines



| DIMM population order | | | | | | | | | | | | |
|----------------------------|---------------------|---|---|---------------------|---|---|---------------------|---|---|---|---|---|
| | 1st slot of channel | | | 2nd slot of channel | | | 3rd slot of channel | | | | | |
| | A | B | C | D | E | F | G | H | I | J | K | L |
| Number of DIMMs to install | 4 | | | | | | | | | | | |
| | 8 | | | | | | | | | | | |
| | 12 | | | | | | | | | | | |

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 server.
- 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

Memory

- processors.
- HP memory from previous generation servers is not compatible with the DL360 Gen9 Server.
- 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 HP ProLiant Gen9 Intel® Xeon®E5-2600v3 Series Processor Family

| Memory Bandwidth and Capacity | | | | |
|------------------------------------|---------------------------|-----------|------------------------|------------------------------------|
| [DIMM Type] | Registered DIMMS (RDIMMs) | | Load Reduced (LRDIMMs) | Unbuffered with ECC DIMMs (UDIMMs) |
| DIMM Rank | Single Rank | Dual Rank | | Quad Rank |
| DIMM Capacity | 4GB | 8GB | 16GB | 32GB |
| Voltage | Std Voltage 1.2V | | | |
| SLOTS THAT CAN BE POPULATED | | | | |
| 24 slot servers | 24 | | | |
| MAXIMUM CAPACITY (GB)* | | | | |
| | 96 | 192 | 384 | 768 |
| 1 DIMM Per Channel | 2133 | | | |
| 2 DIMM Per Channel | 2133 | | | |
| 3 DIMM Per Channel | 1600 | 1600 | 1600 | 1600 |

Memory

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, CPU2-C

Memory Speed by Processor Model

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

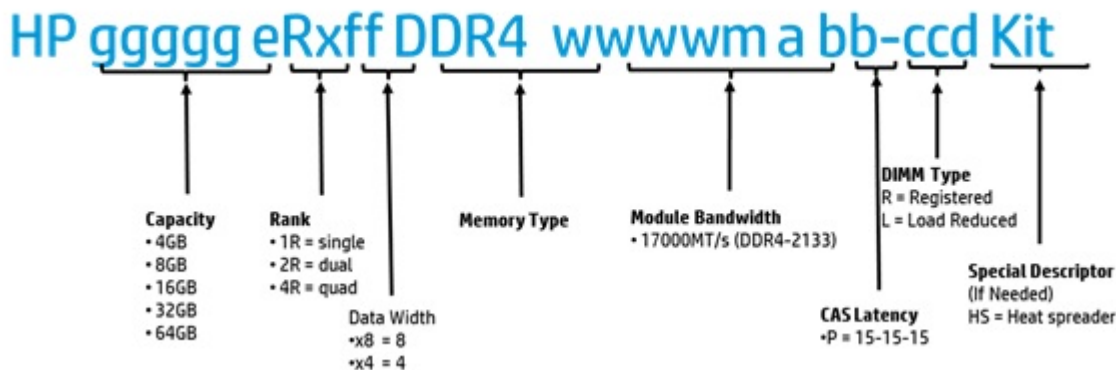
Standard and Maximum Memory Capacity (Pre-configured Models)

| Pre-Configured Models | Standard Memory | Maximum Memory Plus Optional Memory | Standard Memory Replaced with Optional Memory |
|-----------------------|-----------------|-------------------------------------|---|
| E5-2603v3, | 8GB (1x8GB) | 376GB (23x16GB, 1x8GB) | 768GB (24x32GB) |
| E5-2630v3, | 16GB (1x16GB) | 384GB (23x16GB, 1x16GB) | 768GB (24x32GB) |
| E5-2650v3, | 32GB (2x16GB) | 384GB (22x16GB, 2x16GB) | 768GB (24x32GB) |

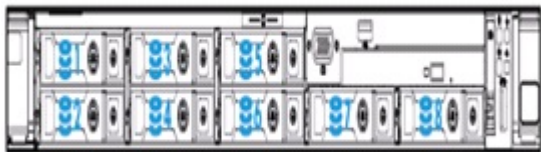
DDR4 memory options part number decoder

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

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



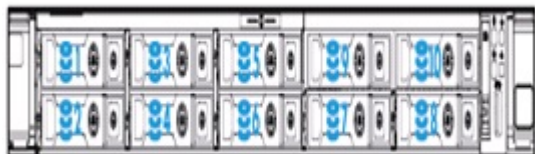
Storage



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) | <p>Maximum: (all hard drives, power supply, and processor installed)</p> <p>8 SFF Chassis 33.3 lb. (15.31 kg) NOTE: Includes 2 SFF Option for a total of 10 SFF HDD</p> <p>4 LFF Chassis 37 lb. (16.78kg)</p> <p>Minimum: (one hard drive, power supply, and processor installed)</p> <p>8 SFF Chassis 27 lb. (12.25 kg) 4 LFF Chassis 30.36 lb. (13.77 kg)</p> |
| | 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 | <p>Rated Steady-State Power For 1400W Power Supply: 1400W (at 100 VAC), 1400W (at 240 VAC), 1400W (at 240 VAC)</p> <p>For 800W Power Supply: 800W (at 100 VAC), 800W (at 240 VAC), 800W (at 240 VAC) input for China only</p> <p>For 500W Power Supply: 500W (at 100 VAC), 500W (at 240 VAC), 500W (at 240 VAC) input for China only</p> <p>Maximum Peak Power For 1400W Power Supply: 1400W (at 100 to 127 VAC), 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</p> |
| | 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. For approved hardware configurations, the supported system inlet range is extended to be: 5° to 40°C (41° 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 |

Technical Specifications

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| | | <p>approved hardware configurations for this system are listed at the URL: http://www.hp.com/servers/Ashrae</p> |
| | | <p>For approved hardware configurations, the supported system inlet range is extended to be: 5° to 45°C (41° 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 during standard operating support may be reduced if operating with a fan fault or above 30°C (86°F).</p> |
| | Extended Ambient Operating Support | <p>For approved hardware configurations, the supported system inlet range is extended to be: 5° to 10°C (41° to 50°F) and 35° 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</p> |
| | | <p>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</p> |
| | | <p>System performance may be reduced if operating in the extended ambient operating range or with a fan fault.</p> |
| | Non-operating | -30° to 60°C (-22° to 140°F). Maximum rate of change is 20°C/hr (36°F/hr). |
| Relative Humidity (non-condensing) | 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-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 |

Technical Specifications

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| | | 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 | |
| | LWAd | (1P non-redundant) 4.6 A Average Bystander (2P redundant) 5.5 A Average Bystander |
| | LpAm | (1P non-redundant) 29 dBA (2P redundant) 37 dBA |
| | Operating | |
| | LWAd | (1P non-redundant) 4.6 A Average Bystander (2P redundant) 6.2 C Average Bystander |
| | LpAm | (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 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. | |

Technical Specifications

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| HP 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 | HP SSA, SMH, SIM | |
| | Warranty | Server warranty | |
| | HP Secure Encryption license | Not Supported | |
| | HP SmartCache License | Not Supported | |
| | HP Smart Storage Administrator | Supported | |
| <hr/> | | | |
| HP Ethernet 1Gb 4-port 331i Adapter | Network Interface Compatibility | 10Base-T/100Base-TX/1000Base-TX 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) | |
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Technical Specifications

Environment-friendly Products and Approach

End-of-life Management and Recycling

Hewlett-Packard offers end-of-life HP product return, trade-in, and recycling programs in many geographic areas. For trade-in information, please go to: <http://www.hp.com/go/green>. To recycle your product, please go to: <http://www.hp.com/go/green> or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner.

The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: <http://www.hp.com/go/green>. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.

Summary of Changes

| Date | Version History | Action | Description of Change |
|------------|---------------------|---------|---|
| 12/01/2014 | From Version 3 to 4 | Changed | Changes made throughout the QuickSpecs. |
| 10/13/2014 | From Version 2 to 3 | Added | 6G SATA Enterprise Value G1 Solid State Drives were added to Core Option section. HP PCIe Workload Accelerator Options, HP 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. |
| 9/23/2014 | From Version 1 to 2 | Changed | Changes made throughout the QuickSpecs. |



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