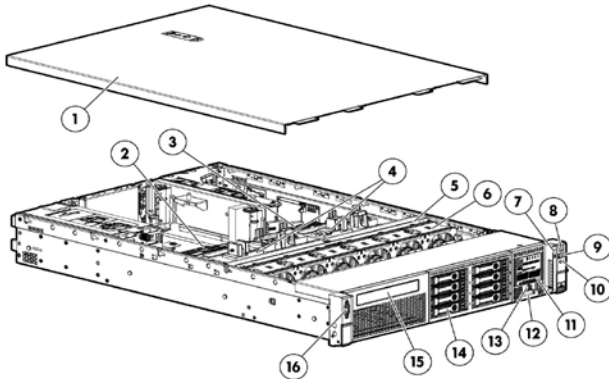


### Overview

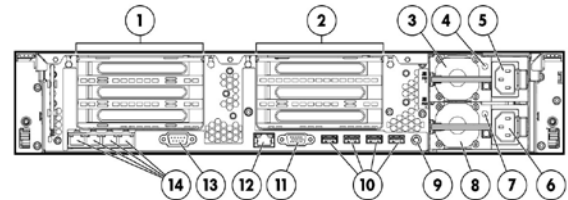
### HPE ProLiant DL385p Generation 8 (Gen8)

With enhanced innovations in performance, feature flexibility, and management capabilities, the DL385p Gen8 is the price/performance choice for your virtualization, database, and high performance computing workloads.



#### Front View:

1. Quick removal access panel
2. Second AMD Processor
3. First AMD Processor
4. (24) DDR3 DIMM slots
5. Air Baffle
6. Hot-plug fans, full N+1 redundancy
7. Health LED
8. Power On/Standby button & system power LED button
9. USB connector
10. UID LED
11. Systems Insight Display
12. Asset Tag
13. USB connector
14. 8 SFF HDD Bays
15. Optional Slim Optical Bay
16. Video connector



#### Rear View:

1. PCIe Slots (Slots 1-3 top to bottom)
2. PCIe Slots (Slots 4-6 top to bottom)
3. Power supply 1
4. Power supply 1 Power LED
5. Power supply 1 Power connection
6. Power supply 2 Power connection
7. Power supply 2 Power LED
8. Power supply 2
9. UID LED
10. USB connectors (4)
11. Video connector
12. iLO connector
13. Serial connector
14. FlexibleLOM ports (Shown: 4 ports 1Gb each-Port 1-4 starting Right to Left)

### What's New

- Support for PCIe Accelerators.
- New HDD offering.

## Standard Features

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

### Processor

One of the following depending on model

#### Sixteen-Core Processors

AMD Opteron™ 6386SE (2.8GHz/16-core/16MB/140W TDP) Processor  
 AMD Opteron™ 6380 (2.5GHz/16-core/16MB/115W TDP) Processor  
 AMD Opteron™ 6378 (2.4GHz/16-core/16MB/115W TDP) Processor  
 AMD Opteron™ 6376 (2.3GHz/16-core/16MB/115W TDP) Processor  
 AMD Opteron™ 6366HE (1.8GHz/16-core/16MB/85W TDP) Processor

#### Twelve-Core Processors

AMD Opteron™ 6348 (2.8GHz/12-core/16MB/115W TDP) Processor  
 AMD Opteron™ 6344 (2.6GHz/12-core/16MB/115W TDP) Processor

#### Eight-Core Processors

AMD Opteron™ 6328 (3.2GHz/8-core/16MB/115W TDP) Processor  
 AMD Opteron™ 6320 (2.8GHz/8-core/16MB/115W TDP) Processor

#### Quad-Core Processors

AMD Opteron™ 6308 (3.5GHz/4-core/16MB/115W TDP) Processor

**NOTE: Mixing different processor models is not supported.**

**NOTE: All processors support up to 1600MHz DDR3 memory speeds.**

### Cache Memory

16MB (2x8MB) Level 3

### Chipset

AMD SR5690 Northbridge and SP5100 Southbridge

### Upgradeability

Upgradeable to 2 processors

Up to 24 DIMM slots available for higher memory capacities

FlexibleLOM connector for 1Gb or 10Gb networking options

8SFF (plus optional upgrade of 8SFF for up to 16SFF drives-requires second Smart Array) and other Models with 8LFF, 12LFF, or 25SFF hard drive bays

Optional 3-slot PCIe 2.0 riser (x16, x8, x8)

**NOTE: The second processor must be installed to take advantage of the optional 3-slot riser.**

Redundant Power Supply

Optical Drive (available on 8SFF and 8LFF Models only)

### On System Management

HPE iLO (Firmware: HPE iLO 4)

### Chipset

**NOTE: For more information, visit: <http://www.hp.com/go/ilo>**

### Memory Protection

Advanced ECC

Online Spare

### Memory

One of the following depending on model

Type

HPE SmartMemory

DDR3 Load Reduced (LRDIMM) and Registered (RDIMM)

DIMM Slots Available

24 (12 DIMM slots per processor/4 channels per processor/3 DIMMs per

## Standard Features

	channel)
Storage Centric Model	16GB (2x8GB) PC3-10600R (DDR3-1333) Registered DIMMS
Dedicated Workload Model	32GB (4x8GB) PC3-10600R (DDR3-1333) Registered DIMMS
Maximized Consolidation Model	32GB (4x8GB) PC3-10600R (DDR3-1333) Registered DIMMS
Maximum Capacity (LDIMM)	768GB (24 x 32GB LRDIMM @ 800MHz)
Maximum Capacity (RDIMM)	364GB (24 slots x 16GB RDIMM @1600MHz) <b>NOTE: Requires 2nd processor installed</b>

**NOTE:** HPE memory from previous generation servers may not provide the same performance with the HPE ProLiant DL385p Gen8 Servers as HPE SmartMemory will.

**NOTE:** To realize the performance memory capabilities listed in this document, HPE SmartMemory is required. For additional information, please see the HPE SmartMemory QuickSpecs at: [http://h18000.www1.hp.com/products/quickspecs/14225\\_na/14225\\_na.html](http://h18000.www1.hp.com/products/quickspecs/14225_na/14225_na.html)

**NOTE:** If only one processor is installed, only half the DIMM slots are available.

**NOTE:** Depending on the memory configuration, the memory speed may run at 1600MHz, 1333MHz, 1066MHz or lower. Please see Memory Population Table or the Online Memory Configuration Tool at: <http://www.hp.com/go/ddr3memory-configurator>.

### Network Controller

One of the following depending on model

HPE ProLiant Gen8 servers offer a new networking technology - FlexibleLOM. The HPE ProLiant DL385p Gen8 server offers the customer the choice of 1 Gigabit and/or 10 Gigabit networking solutions. For additional details see the Networking Section of this document. Only one FlexibleLOM may fit on a single server - see PCIe solutions for additional networking.

HPE Ethernet 1Gb 4-port 331FLR Adapter

### Expansion Slots

#### PCIe Riser #1

(Standard)

Expansion Slots #	Technology	Bus Width**	Connector Width	Bus Number*	Form Factor	Notes
1	PCIe 2.0	X8	X16	5	Full Length, Full Height Slot	For Processor 1
2	PCIe 2.0	X8	X8	8	Half Length, Full Height Slot	For Processor 1
3	PCIe 2.0	X4	X8	11	Half Length, Full Height Slot	For Processor 1

\* Default bus assignment (in decimal). Inserting cards with PCI bridges may alter the actual bus assignment number

\*\* Indicates the number of physical electrical lanes running to the connector.

**NOTE:** When populating the second optional riser slot, the second processor must be installed.

#### PCIe Riser #2

(Optional - Requires 2nd Processor)

Expansion Slots #	Technology	Bus Width**	Connector Width	Bus Number*	Form Factor	Notes
4	PCIe 2.0	X16	X16	65	Full length, full height	For Processor 2

## Standard Features

5	PCIe 2.0	X8	X16	68	slot Half length, full height slot	For Processor 2
6	PCIe 2.0	X8	X8	71	Half length, full height slot	For Processor 2

\* **Default bus assignment (in decimal). Inserting cards with PCI bridges may alter the actual bus assignment number.**

\*\* **Indicates the number of physical electrical lanes running to the connector.**

**NOTE: When populating the second optional riser slot, the second processor must be installed.**

### HPE Server ROM

HPE ROM (Read Only Memory) is now digitally signed using the HPE Corporate Signing Service. This signature is verified before the flash process starts, reducing accidental programming and preventing malicious efforts to corrupt system ROM.

HPE ROM provides for essential initialization and validation of hardware components before control is passed to the customer-installed operating system. The ROM also provides the capability of booting from various fixed media (HDD, CD-ROM) and removable media (USB), to continue operation to the operating system.

HPE ROM performs very early configuration of the video controller, to allow monitoring of initialization progress via an attached monitor. If configuration or hardware errors are discovered during this early phase of hardware initialization, suitable messages are now displayed on the connected monitor. Additionally, these configuration or hardware errors are logged to the Integrated Management Log (IML) to assist in diagnosis.

The HPE ProLiant ROM is used to configure the following:

- Processor and chipset status registers
- System memory, memory map, and memory initialization
- System hardware configuration (Integrated PCI devices and optional PCIe cards).
- Customer-specific BIOS configuration (using the HPE ROM-Based Setup Utility (RBSU)).

**NOTE: For further information, please refer to the HPE RBSU (ROM based setup utility) user guide: <http://www.hp.com/support/rbsu>.**

### Storage Controller

One of the following depending on model

Entry Model	HPE Smart Array P420i/ZM (RAID 0/1)
Storage Centric Model	HPE Smart Array P420i/512MB FBWC (RAID 0/1/1+0/5/5+0/6/6+0)
Dedicated Workload Model	HPE Smart Array P420i/1GB FBWC (RAID 0/1/1+0/5/5+0/6/6+0)
Maximized Consolidation Model	HPE Smart Array P420i/2GB FBWC (RAID 0/1/1+0/5/5+0/6/6+0)

### Internal Storage Devices

Diskette Drive	None
Optical Drive	Optional: DVD-ROM, DVD-RW <b>NOTE: Not Available on 8+8 LFF, 12LFF or 25SFF Models.</b>
Hard Drives	None ship standard

## Standard Features

Drive Bays	Entry Model	8-SFF drive bays(additional 8-SFF option)
One of the following depending on model	Storage Centric Model	12-LFF drive bays
	Dedicated Workload Model	8-SFF drive bays total with options for DVD OR optional second 8-SFF drive bay set (total of 16SFF drive bays, no DVD)
		<b>NOTE: Optional 2nd 8-SFF drive kit requires 2nd Smart Array Controller (PCIe) for support recommend HPE Smart Array P420 PCI card).</b>
	Maximized Consolidation Model	25-SFF drive bays total
		<b>NOTE: For best performance on the 25 Small Form Factor drive cage where less than 25 drives are installed you will need to balance the drives on the backplane's two expanders. Drive bays 1-12 are on routed to expander 1 and drive bays 13-25 are routed to expander number 2. Example: if a customer purchases 16 drives, they should split 8 drives on expander 1 and 8 drives on expander 2 for optimal performance.</b>
		<b>NOTE: HPE ProLiant DL385p series servers offer both LFF and SFF versions. The optical drive bay is not available with +8SFF drive bay upgrade, 12-LFF, or 25-SFF drive bay models.</b>
		<b>NOTE: 8-LFF, 12-LFF, and 25-SFF versions are not upgradeable options from the standard 8SFF model, or vice versa.</b>
		<b>NOTE: All Pre-configured Models come populated with some hard drive blanks installed. Should the customer need additional hard drive blanks, they can order more using either P/N 666987-B21: HPE SFF Gen8 Hard Drive Blank Kit or P/N 666986-B21: HPE LFF Gen8 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.</b>
		<b>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.</b>

<b>Maximum Internal Storage</b>	Hot Plug SFF SAS	50.0TB	25 x 2.0TB (on 25 SFF Drive Bay Models)
	Hot Plug SFF SATA	50.0TB	25 x 2.0TB (on 25 SFF Drive Bay Models)
	Hot Plug LFF SAS	96.0TB	12 x 8TB (on 12 LFF Drive Bay Models)
	Hot Plug LFF SATA	96.0TB	12 x 8TB (on 12 LFF Drive Bay Models)
	Hot Plug SFF SAS SSD	48.0TB	25 x 1.92TB (on 25 SFF Drive Bay Models)
	Hot Plug LFF SATA SSD	19.2TB	12 x 1.6TB (on 12 LFF Drive Bay Models)
<b>NOTE: Storage capacities may vary depending on Models/Drive Cages and Hard Drives selected.</b>			

<b>Interfaces</b>	Serial	1 (Back)
	Video	2 (1 front, 1 back) not active simultaneously
	FlexibleLOM Network Ports	All pre-configured models come standard with 4 x 1GB ports (See HPE Networking section below for more details and options)
	HPE iLO Remote Management Network Port	1 Gb Dedicated
	SD Slot	1 Internal Secure

## Standard Features

USB 2.0 Ports Up to 8 total: up to 2 front, 4 back, 2 internal

### Industry Standard Compliance

ACPI 2.0b Compliant  
 PCIe 2.0 Compliant  
 PXE Support  
 WOL Support  
 Microsoft® Logo certifications  
 USB 2.0 Compliant

### Server Power Cords

All Pre-configured Models servers ship with a high voltage server to PDU power cord.

**NOTE: HPE ProLiant DL servers no longer ship standard with a 12-foot NEMA 5-15P to C13 power cord that connects to 110V US wall outlets in a home or office. ProLiant DL servers are primarily connected to power distribution units (PDUs) in data center racks and now ship standard with a PDU 6-foot C-14 to C13 power cord (A0K02A). If a user wishes to power a ProLiant DL server using a 110V receptacle (NEMA-15), the 6-foot NEMA 5-15 to C13 power cord must be ordered separately (AF556A). See Power Cords section for Worldwide Power Cord options.**

### Power Specifications

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

**NOTE: Power Specification and Technical Content for supported power supplies can be found at: [http://h18000.www1.hp.com/products/quickspecs/14209\\_na/14209\\_na.html](http://h18000.www1.hp.com/products/quickspecs/14209_na/14209_na.html)**

### Common Slot Power Supply

**NOTE: Mixing of power supplies in the same server is not supported. All power supplies inside a server must be exactly the same model. Mixing Gold, Platinum, and Platinum Plus certified power supplies is not supported.**

The HPE Common Slot (CS) power supplies allow for commonality of power supplies across a wide range of ProLiant and Integrity servers, as well as HPE Storage solutions, and are designed to provide the highest power supply efficiency without degrading system performance. HPE CS power supplies are tested by the Electric Power Research Institute (EPRI) and certified through the ECOS 80 Plus power supply program. HPE CS power supply options provide efficiency ratings of up to 94% (80 Plus Platinum) and are available in three power output options - 460W, 750W, and 1200W - allowing the customer to "right-size" a power supply for their specific server configuration. All HPE Common Slot power sources are UL, CE Mark Compliant, hot-plug and support redundant configurations.

**NOTE: Mixing of power supplies in the same server is not supported. All power supplies must be of the same output and efficiency rating. If non-matched power supplies are inserted you will get errors and operation will fail.**

HPE CS Platinum Plus power supplies are required when enabling the HPE Intelligent Power Discovery (IPD) solution. IPD is the first technology to create an automated, energy-aware network between IT systems and facilities. This allows your company to reclaim millions of dollars in wasted power capacity and downtime costs across data centers. For more information on the HPE IPD solution, go to <http://www.hp.com/go/ipd>.

It is highly recommended that you use the HPE Power Advisor in defining the "Right-Size" power supply for your needs. HPE Power Advisor can be accessed at:

## Standard Features

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

**NOTE:** The 80 PLUS program is a unique forum that unites electric utilities, the computer industry, and consumers in an effort to bring energy efficient technology solutions to the marketplace. 80 Plus independently tests power supply efficiency and publicly posts the results on [80Plus.org](http://80Plus.org).

Redundant Power: Optional (1+ 1 or n+n redundant) power supplies can be purchased through power supply option kits (see Power Supplies for part numbers).

**NOTE:** Power Specification and Technical Content for supported power supplies can be found at: [http://h18000.www1.hp.com/products/quickspecs/14209\\_na/14209\\_na.html](http://h18000.www1.hp.com/products/quickspecs/14209_na/14209_na.html)

### System Fans

One of the following depending on model

2P Models have (6) (N+1 redundancy standard)

1P Models have (4) (N+1 redundancy standard)

### Required Cabling

For required cabling information, refer to the Hewlett Packard Enterprise Web site at:

<http://www.hp.com/servers/dl385p-gen8>

### Operating Systems and Virtualization Software Support for ProLiant Servers

**Microsoft Windows Server**

**Red Hat Enterprise Linux (RHEL)**

**SUSE Linux Enterprise Server (SLES)**

**VMware**

**Citrix XenServer**

**NOTE:** For more information on the HPE Certified and Supported ProLiant Servers for OS and Virtualization Software and latest listing of software drivers available for your server, please visit our Support Matrix at: <http://www.hp.com/go/ossupport> and our driver download page: <http://www.hp.com/support/DL385pGen8>

### Graphics

Integrated Matrox G200 video standard

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

HPE iLO 4 On System Management Memory

- 16 MB Flash
- 256 MB DDR 3 with ECC (112 MB after ECC and video)

### Form Factor

One of the following depending on model

2U Rack form factor

**NOTE:** All pre-configured Models ship with Ball-Bearing sliding rails and cable management arm. Any customer configured models must select the appropriate Rail Kit when configuring.

8 SFF Drive Bay Model:

3.44 (8.74 cm) Height x 17.54" (44.55 cm) Width x 27.5" (69.85 cm) Length

8 LFF Drive Bay Model:

3.44 (8.74 cm) Height x 17.54" (44.55 cm) Width x 29.5" (74.94cm) Length

## Standard Features

12 LFF Drive Bay Model:

3.44 (8.74 cm) Height x 17.54" (44.55 cm) Width x 29.5" (74.94cm) Length

25 SFF Drive Bay Model:

3.44 (8.74 cm) Height x 17.54" (44.55 cm) Width x 27.5" (69.85 cm) Length

### On System Management

HPE iLO Management Engine

HPE iLO Management Engine is a comprehensive set of embedded management features supporting the complete lifecycle of the server, from initial deployment, through ongoing management, to service alerting and remote support. HPE iLO Management Engine comes standard on all HPE ProLiant Gen8 servers. The HPE iLO Management Engine portfolio includes:

- **HPE iLO:** The HPE iLO (Integrated Lights-Out) management processor is the core foundation for the HPE iLO Management Engine
- **HPE Agentless Management:** Provides built in server health monitoring and alerting capability without OS agents, that starts working the moment a power cord and an Ethernet cable are connected.
- **HPE Active Health System:** Always on, continuous monitoring for increased stability and shorter downtimes; 100% configuration history; Health and service alerts and easy export and upload to Service and Support.
- **HPE Intelligent Provisioning:** Lets customers provision and configure a single server without any separate media. No more SmartStart CDs or Smart Update Firmware DVD are needed.
  - To start Intelligent Provisioning:
    - Press the F10 key during the ProLiant Gen8 server boot process (also known as power on self-test or POST).
    - Please go to the Intelligent Provisioning website at <http://www.hp.com/go/intelligentprovisioning> for additional information and to view usage videos.
    - Use the Service Pack for ProLiant (SPP) at <http://www.hp.com/go/spp> to get firmware and software updates.
- HPE iLO Mobile App: 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>

**NOTE:** For more information, visit: <http://www.hp.com/go/ilo> or HPE iLO Management Engine technologies whitepaper

### HPE Insight management

HPE Service Pack for ProLiant

HPE Service Pack for ProLiant (SPP) and HPE Smart Update Manager (HPE SUM) provide a comprehensive approach to firmware and system software maintenance. Together they provide better operating stability and ensure maximum uptime. The SPP will be updated at a predictable cadence, typically coinciding with new Hewlett Packard Enterprise server



## Standard Features

hardware launches. By enabling firmware to be updated online and integrating firmware and system software updates in one operation, HPE SUM and the SPP offer faster updates of individual servers and dramatically faster updates of entire BladeSystem enclosures. Further improving system uptime and stability is the fact that Hewlett Packard Enterprise provides 12 months of support for each Service Pack for ProLiant release.

The user experience around HPE SUM and the SPP has been improved in several ways, starting with the web download. A single web page provides access to a single download containing both the latest version of HPE SUM and the latest SPP. Optional smaller subsets with only specific types of servers or specific operating systems are offered to save on download time. The HPE SUM application provides a straightforward, intuitive user interface that guides the user through the steps of discovery, analyses and update, providing comprehensive information on available updates, criticality and interdependencies. This information is also available in reports. By providing the option of multiple local or shared repositories which can be easily updated from hpe.com, HPE SUM provides the tools to optimize stability and consistency throughout the company. While HPE SUM and the SPP recommend the combinations of firmware and system software that Hewlett Packard Enterprise has found to be the best practice, the application gives customers the flexibility to set their own specific baseline.

The Service Pack for ProLiant has been rigorously tested with specific attention for interaction between firmware, drivers and agents. This testing ensures the highest quality as well as providing the input for HPE SUM to deploy updates taking into account all interdependencies, when determining the correct updates and order of update deployment.

**NOTE: The Service Pack for ProLiant (which includes HPE SUM) can be downloaded from <http://www.hp.com/go/spp/download>. More information can be found: <http://www.hp.com/go/SmartUpdate>, <http://www.hp.com/go/spp> and <http://www.hp.com/go/hpsum>**

---

### Security

Power-on password  
Serial interface control  
Administrator's password

---

### Warranty

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

**NOTE: Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response. Warranty repairs may be accomplished through the use of Customer Self Repair (CSR) parts. These parts fall into two categories: 1) Mandatory CSR parts are designed for easy replacement. A travel and labor charge will result when customers decline to replace a Mandatory CSR part; 2) Optional CSR parts are also designed for easy replacement but may**

## Standard Features

involve added complexity. Customers may choose to have Hewlett Packard Enterprise replace Optional CSR parts at no charge. Additional information regarding worldwide limited warranty and technical support is available at:

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

## Optional Features

### HPE Insight management

HPE Insight Control

HPE Insight Control, a product option, delivers essential infrastructure management that can help save time and money by making it easy to deploy, migrate, monitor, remote control, and optimize your IT infrastructure through a single, simple management console. HPE InsightControl also supports Location and Power Discovery Services to automate many configuration, asset tracking, and power management tasks to speed implementation and prevent downtime. For more information, see <http://www.hp.com/go/insightcontrol>.

HPE Insight Control includes one year of 24 x 7 HPE Software Technical Support and Update Service ensuring rapid access to Hewlett Packard Enterprise support staff and proactive delivery of software updates. For more information about this service, see:

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

HPE iLO Advanced

HPE Integrated Lights-Out Advanced License a product option, providing smart remote server management without compromise. iLO Advanced unlocks the full set of remote administration functionality for all HPE ProLiant servers by activating the full Virtual Keyboard Video and Mouse remote console, multi-user collaboration, console record and replay, GUI-based and scripted virtual media and virtual folders, and enhanced security and power management functionality. For more information, see:

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

HPE Matrix Operating Environment

The HPE Matrix Operating Environment (Matrix OE) for ProLiant and Integrity servers is an integrated command center that helps you instantly adjust to dynamic business demands. This advanced infrastructure management software lets you reduce the cost of common data center tasks by up to 40 percent while keeping pace with your changing business.

The HPE Matrix OE includes the automated provisioning, optimization, and recovery management capabilities for HPE CloudSystem Matrix, the ideal platform for private cloud and Infrastructure as a Service (IaaS).

**NOTE:** For more information, visit: <http://www.hp.com/go/matrixoe>

### High Performance Clusters

HPE Cluster Platforms

HPE Cluster Platforms are specifically engineered, factory-integrated large-scale ProLiant clusters optimized for High Performance Computing, with a choice of servers, networks and software. Operating system options include specially priced offerings for Red Hat Enterprise Linux and SUSE Linux Enterprise Server, as well as Microsoft Windows HPC Server. A Cluster Platform Configurator simplifies ordering.

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

HPE HPC Interconnects

High Performance Computing (HPC) interconnect technologies are available for this server as part of the HPE Cluster Platform portfolio. These high-speed InfiniBand and Gigabit interconnects are fully supported by Hewlett Packard Enterprise when integrated within an HPE cluster. Flexible, validated solutions can be defined with the help of configuration tools.

<http://www.hp.com/techservers/clusters/ucp/index.html>

## Optional Features

HPE Insight Cluster Management Utility

HPE Insight Cluster Management Utility (CMU) is an HPE-licensed and HPE-supported suite of tools that are used for lifecycle management of hyperscale clusters of Linux ProLiant systems. CMU includes software for the centralized provisioning, management and monitoring of nodes. CMU makes the administration of clusters user friendly, efficient, and effective.

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

---

## 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 HPE 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, HPE data protection and recovery software will cost-effectively protect you against disaster and ensure business continuity.

- **Data Archive and Migration Software**

The HPE 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)**

The HPE storage resource management software reduces operational costs and provides the command and control foundation you need to efficiently manage and visualize your physical and virtual environments.

- **Data Replication Software**

Hewlett Packard Enterprise offers array-based and host-based replication software for use in disaster recovery, testing, application development and reporting.

- **Storage Device Management Software**

Maximize your investment in HPE storage and networking with software that enables hardware-specific configuration, performance tuning and connectivity management.

- **HPE StoreVirtual VSA**

With HPE StoreVirtual VSA you can use the power of virtualization to turn a set of heterogeneous and disconnected physical disk drives in your servers and storage devices into a single pool of logical storage capacity.

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

---

## HPE Insight Online

HPE Insight Online is a new addition to the HPE Support Center for one stop, secure access to product and HPE support information personalized to your IT environment. Insight Online can automatically display devices remotely monitored by HPE Insight Remote Support. With Insight Online's easy navigation you can efficiently track your IT support contracts and device status from anywhere and at anytime. <http://www.hp.com/go/insightonline>

---

## HPE Proactive Insight experience

Prevent problems with innovative, automated monitoring tools and proactive services. The HPE Proactive Insight experience consist of using Insight Online, Insight Remote Support, and Proactive Care Support Service as one integrated solution. The Proactive Insight experience provides you with expert advice and personalized, cloud-based automated IT support, helping to prevent unplanned down time and solve problems quickly. For more information, visit:

## Optional Features

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

---

### **Factory Express**

#### **Portfolio for Servers and Storage**

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

Factory Express offers service packages for simple configuration, racking, installation, complex configuration and design services as well as individual factory services, such as image loading, asset tagging, and custom packaging. Hewlett Packard Enterprise products supported through Factory Express include a wide array of servers and storage: HPE Integrity, HPE ProLiant, HPE ProLiant Server Blades, HPE BladeSystem, HPE 9000 servers as well as the MSAxxxx, EVA7xxx, EVA, XP, rackable tape libraries and configurable network switches.

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

---

### **HPE Simple Configurator**

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 the HPE Customer Business Center or an Authorized Partner for assistance. <http://www.hp.com/products/configurator>

---

## Service and Support

### Service and Support

#### **HPE Technology Services for Industry Standard Servers**

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

#### **Protect your business beyond warranty with HPE Care Pack Services**

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

---

### Optimized Care

#### **Optimized Care : Supports maintaining servers at optimum performance availability**

##### **HPE Proactive Care with 6 hour call-to-repair commitment, three year Care Pack Service**

HPE Proactive Care helps prevent problems and stabilize IT by utilizing secure, real-time, predictive analytics and proactive consultations when your products are connected to Hewlett Packard Enterprise. This Care Pack Service combines three years' proactive reporting and advice with our highest level reactive coverage and enhanced escalation management, the Hewlett Packard Enterprise 24x7, six hour call-to-repair hardware commitment. Hewlett Packard Enterprise is the only leading manufacturer who makes this level of coverage available as a standard service offering for your most valuable servers. Service includes 24x7 collaborative software support for leading industry standard software running on your HPE ProLiant server.

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

---

### Standard Care

#### **Standard Care : Service recommendation that maintains high level of server availability**

##### **HPE Proactive Care with 24x7 coverage, three year Care Pack Service**

HPE Proactive Care helps prevent problems and stabilize IT by utilizing secure, real-time, predictive analytics and proactive consultations when your products are connected to Hewlett Packard Enterprise. This Care Pack Service combines three years' proactive reporting and advice with our 24x7 coverage and enhanced escalation management, four hour hardware response time and two hour call back for software questions on leading industry standard software running on your HPE ProLiant server. <http://h20195.www2.hp.com/v2/GetPDF.aspx/4AA3-8855ENW.pdf>

---

### Related Services

#### **HPE ProLiant Server Hardware Installation**

Provides for the basic hardware installation of Hewlett Packard Enterprise branded servers, storage devices and networking options to assist you in bringing your new hardware into operation in a timely and professional manner.

<http://h20195.www2.hp.com/V2/GetPDF.aspx/5981-9356EN.pdf>

#### **Factory Express for Servers and storage**

HPE Factory Express offers configuration, customization, integration and deployment services for Hewlett Packard Enterprise servers and storage products. Customers can choose how their factory solutions are built, tested, integrated, shipped and deployed. For more information on Factory Express services for your specific server model please contact your sales representative or go to:

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

#### **Data Privacy Services**

Protect your data through better media management. HPE Data privacy services help manage and

---

## Service and Support

protect sensitive data to reduce the risk of unauthorized access to private information and help meet compliance requirements. Our retention services allow you to keep drives and other devices upon failure, our removal services provide convenient data sanitization and our recovery services allow you to safely retire IT assets and capture any remaining value from the hardware.

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

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

---

### **Get connected to Hewlett Packard Enterprise to improve your support experience**

Connecting products to Hewlett Packard Enterprise will help prevent problems with 24x7 monitoring, prefailure alerts, automatic call logging, and parts dispatch. With Connected products, you can have a dashboard to manage your IT anywhere, anytime, from any device.

---

### **HPE Support Center**

Personalized online support portal with access to information, tools and experts to support Hewlett Packard Enterprise business products. Submit support cases online, chat with Hewlett Packard Enterprise experts, access support resources or collaborate with peers. Learn more

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

The HPE Support Center Mobile App\* allows you to resolve issues yourself or quickly connect to an agent for live support. Now, you can get access to personalized IT support anywhere, anytime. HPE Insight Remote Support and HPE Support Center are available at no additional cost with a Hewlett Packard Enterprise warranty, HPE Care Pack or Hewlett Packard Enterprise contractual support agreement.

**\*HPE Support Center Mobile App is subject to local availability**

---

### **Warranty / Service Coverage**

For ProLiant servers and storage systems, the services cover HPE-branded hardware options qualified for the server, purchased at the same time or afterward, internal to the enclosure, as well as external monitors up to 22"; these items will be covered at the same service level and for the same coverage period as the server unless the maximum supported lifetime and/or the maximum usage limitation has been exceeded. Coverage of the UPS battery is not included; standard warranty terms and conditions apply.

The defective media retention service feature option applies only to Disk or eligible SSD/Flash Drives replaced by Hewlett Packard Enterprise due to malfunction. It does not apply to any exchange of Disk or SSD/Flash Drives that have not failed. SSD/Flash Drives that are specified by Hewlett Packard Enterprise as consumable parts and/or that have exceeded maximum supported lifetime and/or the maximum usage limit as set forth in the manufacturer's operating manual or the technical data sheet are not eligible for the defective media retention service feature option.

---

### **For more information**

To learn more on HPE ProLiant servers, please contact your Hewlett Packard Enterprise sales representative or Hewlett Packard Enterprise Authorized Channel Partner. Or visit:

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

## Pre-configured Models

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

**NOTE:** Pre-configured models ship with the configurations below. Options can be selected from the Core or Additional options section of this QuickSpecs.

**NOTE:** Hewlett Packard Enterprise does not allow factory integration of options into pre-configured models. Any additional options purchased will be shipped separately.

**NOTE:** If you desire a custom configuration please see "Configuration Information - Factory Integrated Models" section of this QuickSpecs.

**NOTE:** All Pre-configured Models come populated with some hard drive blanks installed. Should the customer need additional hard drive blanks, they can order more using either P/N 666987-B21: HPE SFF Gen8 Hard Drive Blank Kit or P/N 666986-B21: HPE LFF Gen8 Hard Drive Blank Kit.

### Entry Model

<p><b>HP ProLiant DL385p Gen8 6320 1P 4GB-R P420i/ZM Hot Plug 8 SFF 460W PS Server</b> 710723-001</p>	<p><b>Processor(s)</b></p> <p><b>Cache Memory</b></p> <p><b>Memory</b></p> <p><b>Network Controller</b></p> <p><b>Storage Controller</b></p> <p><b>Hard Drive</b></p> <p><b>Internal Storage</b></p> <p><b>Optical Drive Bay</b></p> <p><b>PCI-Express Slots</b></p> <p><b>Power Supply</b></p> <p><b>Fans</b></p> <p><b>Management</b></p> <p><b>Form Factor</b></p>	<p>(1) AMD Opteron™ 6320 (2.8GHz/8-core/16MB/115W TDP) Processor</p> <p>16MB (2x8MB) Level 3</p> <p>4GB (1x4GB) PC3-10600R (DDR3-1333) Registered DIMMS <b>NOTE: Up to 24 DIMM slots available with 2nd Processor installed (12 DIMM Slots per processor).</b></p> <p>HPE Ethernet 1Gb 4-port 331FLR Adapter</p> <p>HPE Smart Array P420i/ZM (RAID 0/1)</p> <p>None ship standard; includes 6 SFF hard drive blanks, 2 open drive bays for drives(P/N 666987-B21: HPE SFF Gen8 Hard Drive Blank Kit available for additional blanks)</p> <p>8SFF SAS/SATA/SSD HDD Bays</p> <p>Optional Slim Optical Bay (SATA DVD-RW/ROM Optical Drive)</p> <p>3 PCIe slots <b>NOTE: 3 additional PCIe slots available with optional PCIe Riser Cage #2-requires second processor.</b></p> <p>(1) HPE 460W CS Gold Hot Plug Power Supply (92% Efficient)</p> <p>(4) (N+1 redundancy standard)</p> <p>HPE iLO Management Engine (standard) Optional: HPE iLO Advanced or HPE Insight Control</p> <p>Rack (2U), HPE Friction Rail Kit Standard/ No Cable Management Arm included <b>NOTE: The HPE 1U Gen8 Cable Management Arm is not available when using Friction Rails. 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).</b> <b>CAUTION: Hewlett Packard Enterprise recommends that a minimum of two people are required for all Rack Server installations. Please refer to your installation instructions for proper tools and number of people to use for any installation.</b></p>
	<p><b>Warranty</b></p>	<p>Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response.</p>





## Pre-configured Models

	Optional: +8 SFF (total of 16) SFF SAS/SATA HDD Bays (requires additional PCI controller)
<b>Optical Drive Bay</b>	Optional Slim Optical Bay (SATA DVD-RW /ROM Optical Drive)
<b>PCI-Express Slots</b>	6 PCIe slots <b>NOTE: Includes PCIe Riser Cage #2.</b>
<b>Power Supply</b>	(2) HPE 750W CS Platinum Plus Hot Plug Power Supplies (94% Efficient)
<b>Fans</b>	(6) (N+1 redundancy standard)
<b>Management</b>	HPE iLO Management Engine (standard) Optional: HPE iLO Advanced or HPE Insight Control
<b>Form Factor</b>	Rack (2U), HPE Ball Bearing Rail Kit /Cable Management Arm standard <b>NOTE: The HPE 1U Gen8 Cable Management Arm is not available when using Friction Rails. 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).</b> <b>CAUTION: Hewlett Packard Enterprise recommends that a minimum of two people are required for all Rack Server installations. Please refer to your installation instructions for proper tools and number of people to use for any installation.</b>
<b>Warranty</b>	Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response.

## Maximized Consolidation Models

**NOTE:** These Models are Energy Star Certified.

<b>HP ProLiant DL385p Gen8 6376 2P 32GB-R P420i/2GB Hot Plug 25 SFF 2x750W PS Svr</b> 703932-001	<b>Processor(s)</b>	(2) AMD Opteron™ 6376 (2.3GHz/16-core/16MB/115W TDP) Processors
	<b>Cache Memory</b>	16MB (2x8MB) Level 3
	<b>Memory</b>	32GB (4x8GB) PC3-10600R (DDR3-1333) Registered DIMMS <b>NOTE: Up to 24 DIMM slots available with 2nd Processor installed (12 DIMM Slots per processor).</b>
	<b>Network Controller</b>	HPE Ethernet 1Gb 4-port 331FLR Adapter
	<b>Storage Controller</b>	HPE Smart Array P420i/2GB FBWC (RAID 0/1/1+0/5/5+0/6/6+0)
	<b>Hard Drive</b>	None ship standard; includes 23 SFF hard drive blanks, 2 open drive bays for drives (P/N 666987-B21: HPE SFF Gen8 Hard Drive Blank Kit available for additional blanks)
	<b>Internal Storage</b>	25 SFF SAS/SATA HDD Bays
	<b>Optical Drive Bay</b>	None Available
	<b>PCI-Express Slots</b>	6 PCIe slots <b>NOTE: Includes PCIe Riser Cage #2.</b>
	<b>Power Supply</b>	(2) HPE 750W CS Platinum Plus Hot Plug Power Supplies (94% Efficient)
	<b>Fans</b>	(6) (N+1 redundancy standard)
	<b>Management</b>	HPE iLO Management Engine (standard) Optional: HPE iLO Advanced or HPE Insight Control
	<b>Form Factor</b>	Rack (2U), HPE Ball Bearing Rail Kit /Cable Management Arm standard <b>NOTE: The HPE 1U Gen8 Cable Management Arm is not available when using Friction Rails. To assist in the installation of the server into the rack an optional installation tool is available by contacting your local</b>

## Pre-configured Models

services representative (p/n 695539-001).

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

### Warranty

Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response.

## Smart Buy Models

<b>HP ProLiant DL385p Gen8 6320 2.8GHz 8-core 1P 8GB-R P420i/1GB Hot Plug 8 SFF 460W PS US Server/S-Buy</b> 828439-S01	<b>Processor(s)</b> <b>Cache Memory</b> <b>Memory</b> <b>Network Controller</b> <b>Storage Controller</b> <b>Hard Drive</b> <b>Internal Storage</b> <b>Optical Drive Bay</b> <b>PCI-Express Slots</b> <b>Power Supply</b> <b>Fans</b> <b>Management</b>  <b>Form Factor</b>  <b>Warranty</b>	(1) AMD Opteron™ 6320 (2.8GHz/8-core/16MB/115W TDP) Processor 16MB (2x8MB) Level 3 8GB (1x8GB) PC3-12800R (DDR3-1333) CAS-11 Memory HPE Ethernet 1Gb 4-port 331FLR Adapter HPE Smart Array P420i/1GB FBWC (RAID 0/1/1+0/5/5+0/6/6+0) None ship standard 8SFF SAS/SATA/SSD HDD Bays Optional Slim Optical Bay (SATA DVD-RW/ROM Optical Drive) 3 PCIe slots (1) HPE 460W CS Gold Hot Plug Power Supply (92% Efficient) (4) (N+1 redundancy standard) HPE iLO Management Engine (standard) Optional: HPE iLO Advanced or HPE Insight Control Rack (2U), HPE Friction Rail Kit Standard/ No Cable Management Arm included Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response.
<b>HP ProLiant DL385p Gen8 6348 2.8GHz 12-core 1P 8GB-R Hot Plug 25-SFF 750W RPS US Server/S-Buy</b> 710724-S01	<b>Processor(s)</b> <b>Cache Memory</b> <b>Memory</b>  <b>Network Controller</b> <b>Storage Controller</b> <b>Hard Drive</b>  <b>Internal Storage</b> <b>Optical Drive Bay</b> <b>PCI-Express Slots</b> <b>Power Supply</b> <b>Fans</b> <b>Management</b>  <b>Form Factor</b> <b>Warranty</b>	(1) AMD Opteron™ 6348 (2.8GHz/12-core/16MB/115W TDP) Processor 16MB (2x8MB) Level 3 8GB (1x8GB) Dual Rank x4 PC3L-10600R (DDR3-1333) Registered CAS-9 Low Voltage Memory HPE Ethernet 1Gb 4-port 331FLR Adapter HPE Smart Array P420i/1GB FBWC (RAID 0/1/1+0/5/5+0/6/6+0) None ship standard; includes 23 SFF hard drive blanks, 2 open drive bays for drives 25 SFF SAS/SATA/SSD HDD Bays None Available 3 PCIe slots (2) HPE 750W CS Platinum Plus Hot Plug Power Supplies (94% Efficient) (4) (N+1 redundancy standard) HPE iLO Management Engine (standard) Optional: HPE iLO Advanced or HPE Insight Control Rack (2U), HPE Ball Bearing Rail Kit/Cable Management Arm standard Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response.
<b>HP ProLiant DL385p Gen8 6376 2.3GHz 16-core 2P 16GB-R Hot Plug 8-SFF 750W RPS US</b>	<b>Processor(s)</b> <b>Cache Memory</b> <b>Memory</b>	(1) AMD Opteron™ 6376 (2.3GHz/16-core/16MB/115W TDP) Processor 16MB (2x8MB) Level 3 16GB (2x8GB) Dual Rank x4 PC3L-10600R (DDR3-1333) Registered CAS-9 Low Voltage Memory

## Smart Buy Models

**Server/S-Buy**

710725-S01

**Network Controller**

HPE Ethernet 1Gb 4-port 331FLR Adapter

**Storage Controller**

HPE Smart Array P420i/1GB FBWC (RAID 0/1/1+0/5/5+0/6/6+0)

**Hard Drive**

None ship standard; includes 6 SFF hard drive blanks, 2 open drive bays for drives

**Internal Storage**

8 SFF SAS/SATA/SSD HDD Bays

**Optical Drive Bay**

HPE 12.7mm Slim SATA DVD-RW JackBlack Optical Drive

**PCI-Express Slots**

6 PCIe slots

**Power Supply**

(2) HPE 750W CS Platinum Plus Hot Plug Power Supplies (94% Efficient)

**Fans**

(6) (N+1 redundancy standard)

**Management**

HPE iLO Management Engine (standard)

Optional: HPE iLO Advanced or HPE Insight Control

**Form Factor**

Rack (2U), HPE Ball Bearing Rail Kit/Cable Management Arm standard

**Warranty**

Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response.

## Configuration Information - Factory Integrated Models

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

**NOTE:** Factory Integrated Models must start with 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.

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

#### HPE Models

HP ProLiant DL385p Gen8 8 SFF Configure-to-order Server

653203-B21

#### Factory Integrated Model ships with:

Drive Cage - 8-SFF Drive Bays available (See hard drives in Section 4 for options)

SID-Systems Insight Display Included

24 DIMM slots for RDIMM or LRDIMM memory installation

Smart Array P420i Controller w/ Zero Memory (ZM)

I/O slots - 3 Slots come standard:

- Slot 1 - FL/FH x8 PCIe 2.0 (x16 connector)
- Slot 2 - HL/FH x8 PCIe 2.0 (x8 connector)
- Slot 3 - HL/FH x4 PCIe 2.0 (x8 connector)
- Additional PCIe Slots may be added with the 2nd Riser Cage option.

System Fans - 4 standard (2 additional fans included with second processor)

Drive Cage - 8SFF (drive blanks installed dependent on number of drives ordered)

USB - 4 Rear, 2 Front, 2 Internal, 1 SD slot

HPE iLO Management Engine (iLO4)

**NOTE: Smart Array Cache options, Hard drives, Optical drives, Flexible NICs\*, Power Supply\* and Rail/CMA Kits not included in the base configuration - choose these from Steps 2 or 4 below in Options section. Additional 8-SFF Drive option requires additional HPE Smart Array Controller.**

**\* This is a required selection.**

HP ProLiant DL385p Gen8 8 LFF Configure-to-order Server

669804-B21

#### Factory Integrated Model ships with:

Drive Cage - 8-LFF Drive Bays available (See hard drives in Section 4 for options)

Pop Out SID-Systems Insight Display Included

24 DIMM slots for RDIMM or LRDIMM memory installation

Smart Array P420i Controller w/ Zero Memory (ZM)

I/O slots - 3 Slots come standard:

- Slot 1 - FL/FH x8 PCIe 2.0 (x16 connector)
- Slot 2 - HL/FH x8 PCIe 2.0 (x8 connector)
- Slot 3 - HL/FH x4 PCIe 2.0 (x8 connector)
- Additional PCIe Slots may be added with the 2nd Riser Cage option.

System Fans - 4 standard (2 additional fans included with second processor)

Drive Cage - 8LFF (drive blanks installed dependent on number of drives ordered)

USB - 4 Rear, 2 Front, 2 Internal, 1 SD slot

## Configuration Information - Factory Integrated Models

HPE iLO Management Engine (iLO4)

**NOTE: Smart Array Cache options, Hard drives, Optical drives, Flexible NICs\*, Power Supply\* and Rail/CMA Kits not included in the base configuration - choose these from Steps 2 or 4 below in Options section.**

\* Required selection.

HP ProLiant DL385p Gen8 12 LFF Configure-to-order Server

669805-B21

### Factory Integrated Model ships with:

Drive Cage - 12-LFF Drive Bays available (See hard drives in Section 4 for options)

NO SID-Systems Insight Display Included

24 DIMM slots for RDIMM and LRDIMM memory installation

Smart Array P420i Controller w/ Zero Memory (ZM)

I/O slots - 3 Slots come standard:

- Slot 1 - FL/FH x8 PCIe 2.0 (x16 connector)
- Slot 2 - HL/FH x8 PCIe 2.0 (x8 connector)
- Slot 3 - HL/FH x4 PCIe 2.0 (x8 connector)
- Additional PCIe Slots may be added with the 2nd Riser Cage option.

System Fans - 4 standard (2 additional fans included with second processor)

USB - 4 Rear, 2 Front, 2 Internal, 1 SD slot

HPE iLO Management Engine (iLO4)

**NOTE: Customers can only choose from 135W processors or lower in this configure-to-order model.**

**NOTE: Smart Array Cache options, Hard drives, Flexible NICs\*, Power Supply\* and Rail/CMA Kits not included in the base configuration - choose these from Steps 2 or 4 below in Options section.**

\* Required selection.

HP ProLiant DL385p Gen8 25 SFF Configure-to-order Server

669803-B21

### Factory Integrated Model ships with:

Drive Cage - 25-SFF Drive Bays available (See hard drives in Section 4 for options)

NO SID-Systems Insight Display Included

24 DIMM slots for RDIMM, LRDIMM, and UDIMM memory installation

1 FlexibleLOM connector (see Step2: HPE Flexible NIC section below for NIC choices to populate the embedded connector)

Smart Array P420i Controller w/ Zero Memory (ZM)

I/O slots - 3 Slots come standard:

- Slot 1 - FL/FH x8 PCIe 2.0 (x16 connector)
- Slot 2 - HL/FH x8 PCIe 2.0 (x8 connector)
- Slot 3 - HL/FH x4 PCIe 2.0 (x8 connector)
- Additional Slots may be added via selection from the "PCI Information and Options" subsection

System Fans - 4 standard (2 additional fans included with second processor)

Drive Cage - 12LFF (drive blanks installed dependent on number of drives ordered)

USB - 4 Rear, 2 Front, 2 Internal, 1 SD slot

HPE iLO Management Engine (iLO4)

**NOTE: Customers can only choose from 135W processors or lower in this configure-to-order model.**

## Configuration Information - Factory Integrated Models

**NOTE:** Smart Array Cache options, Hard drives, Flexible NICs\*, Power Supply\* and Rail/CMA Kits not included in the base configuration - choose these from Steps 2 or 4 below in Options section.

\* Required selection.

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

#### HPE Processors

**NOTE:** All processors support up to 1600MHz DDR3 memory speeds.

**NOTE:** The 12LFF and 25SFF CTO chassis do not support processor greater than 135W

##### Sixteen-Core Processors

HP DL385p Gen8 AMD Opteron™ 6386SE (2.8GHz/16-core/16MB/140W) FIO Processor Kit 703939-L21

HP DL385p Gen8 AMD Opteron™ 6380 (2.5GHz/16-core/16MB/115W) FIO Processor Kit 703941-L21

HP DL385p Gen8 AMD Opteron™ 6378 (2.4GHz/16-core/16MB/115W) FIO Processor Kit 703943-L21

HP DL385p Gen8 AMD Opteron™ 6376 (2.3GHz/16-core/16MB/115W) FIO Processor Kit 703946-L21

HP DL385p Gen8 AMD Opteron™ 6366HE (1.8GHz/16-core/16MB/85W) FIO Processor Kit 703950-L21

##### Twelve-Core Processors

HP DL385p Gen8 AMD Opteron™ 6348 (2.8GHz/12-core/16MB/115W) FIO Processor Kit 703952-L21

HP DL385p Gen8 AMD Opteron™ 6344 (2.6GHz/12-core/16MB/115W) FIO Processor Kit 703954-L21

##### Eight-Core Processors

HP DL385p Gen8 AMD Opteron™ 6328 (3.2GHz/8-core/16MB/115W) FIO Processor Kit 703958-L21

HP DL385p Gen8 AMD Opteron™ 6320 (2.8GHz/8-core/16MB/115W) FIO Processor Kit 703960-L21

##### Quad-Core Processors

HP DL385p Gen8 AMD Opteron™ 6308 (3.5GHz/4-core/16MB/115W) FIO Processor Kit 703962-L21

#### HPE Memory

**NOTE:** To realize the performance memory capabilities listed in this document, HPE SmartMemory is recommended. For additional information, please see the HPE SmartMemory QuickSpecs at:

[http://h18000.www1.hp.com/products/quickspecs/14225\\_na/14225\\_na.html](http://h18000.www1.hp.com/products/quickspecs/14225_na/14225_na.html)

##### Registered DIMMs (RDIMMs)

HP 4GB (1x4GB) Single Rank x4 PC3L-10600R (DDR3-1333) Registered CAS-9 Low Voltage Memory Kit 647871-B21

HP 4GB (1x4GB) Single Rank x4 PC3-12800R (DDR3-1600) Registered CAS-11 Memory Kit 647873-B21

HP 8GB (1x8GB) Dual Rank x4 PC3-12800R (DDR3-1600) Registered CAS-11 Memory Kit 695793-B21



## Configuration Information - Factory Integrated Models

HP 8GB (1x8GB) Dual Rank x4 PC3L-10600R (DDR3-1333) Registered CAS-9 Low Voltage Memory Kit	647877-B21
HP 8GB (1x8GB) Single Rank x4 PC3-12800R (DDR3-1600) Registered CAS-11 Memory Kit	647879-B21
HP 16GB (1x16GB) Dual Rank x4 PC3L-10600R (DDR3-1333) Registered CAS-9 Low Voltage Memory Kit	647883-B21
HP 16GB (1x16GB) Dual Rank x4 PC3-12800R (DDR3-1600) Registered CAS-11 Memory Kit	672633-B21

### Load Reduced DIMMs(LRDIMMs)

HP 32GB (1x32GB) Quad Rank x4 PC3L-10600L (DDR3-1333) Load Reduced CAS-9 Low Voltage Memory Kit	647885-B21
---	------------

**NOTE:** HPE memory from previous generation servers may not provide the same performance with the HPE ProLiant DL385p Gen8 Servers as HPE SmartMemory will.

**NOTE:** If only one processor is installed, only half the DIMM slots are available.

**NOTE:** Depending on the memory configuration, the memory speed may run at 1600MHz, 1333MHz, 1066MHz or lower. Please see Memory Population Table or the Online Memory Configuration Tool at:

**<http://www.hp.com/go/ddr3memory-configurator>.**

**NOTE:** All DDR3 memory option kits consist of one DIMM per kit. For detailed memory configuration rules and guidelines, please use the Online DDR3 Memory Configuration Tool: **<http://www.hp.com/go/ddr3memory-configurator>**.

## HPE Networking

### FlexibleLOM Adapters

**NOTE:** The HPE ProLiant DL385p Gen8 server requires one FlexibleLOM to be installed in the FlexibleLOM slot.

HP Ethernet 1Gb 4-port 331FLR FIO Adapter	684208-B21
HP Ethernet 10Gb 2-port 530FLR-SFP+ FIO Adapter	684210-B21
HP FlexFabric 10Gb 2-port 554FLR-SFP+ FIO Adapter	684213-B21
HP Ethernet 1Gb 4-port 366FLR FIO Adapter	684217-B21
HP Ethernet 10Gb 2-port 560FLR-SFP+ FIO Adapter	684218-B21
HP FlexFabric 10Gb 2-port 526FLR-SFP+ FIO Adapter	684219-B21
HP Ethernet 10Gb 2-port 561FLR-T FIO Adapter	700700-B21
HP FlexFabric 10Gb 2-port 534FLR-SFP+ FIO Adapter	700752-B21
HP FlexFabric 10Gb 2-port 533FLR-T FIO Adapter	700760-B21
HP FlexFabric 10Gb 2-port 556FLR-SFP+ FIO Adapter	732456-B21

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

## HPE Power Supplies

**NOTE:** Mixing of power supplies in the same server is not supported. All power supplies inside a server must be exactly the same model. Mixing Gold, Platinum, and Platinum Plus certified power supplies is not supported.

**NOTE:** Prior to making a power supply selection it is highly recommended that the HPE Power Advisor is run to determine the right size power supply for your server configuration. The HPE Power Advisor is located at:

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

### HPE Common Slot Platinum Plus Power Supply Kits

**NOTE:** The following Power Supplies offer 94% Efficiency with support for

## Configuration Information - Factory Integrated Models

### Intelligent Power Discovery.

HP 460W Common Slot Platinum Plus Hot Plug Power Supply Kit	656362-B21
HP 750W Common Slot Platinum Plus Hot Plug Power Supply Kit	656363-B21
HP 1200W Common Slot Platinum Plus Hot Plug Power Supply Kit	656364-B21

### HPE Common Slot Gold Power Supplies

**NOTE:** The following Power Supplies offer 92% efficiency.

HP 460W CS Gold Ht Plg Power Supply Kit	503296-B21
HP 750W Common Slot Gold Hot Plug Power Supply Kit	512327-B21

### HPE Common Slot -48VDC Power Supplies

HP 750W Common Slot -48VDC Hot Plug Power Supply Kit	636673-B21
--	------------

**NOTE:** The HPE 750W Common Slot -48VDC power supply does not ship with a power cable. It has been designed with a terminal block connection allowing for custom design of power cords by the user.

**NOTE:** Option Kits for AC power supplies include the power supply and one PDU IEC cable.

**NOTE:** HPE ProLiant servers ship with an IEC-IEC power cord used for rack mounting with Power Distribution Units (PDUs). For a full list of optional HPE power cords please go to <http://www.hp.com/products/powercords>

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

[http://h18000.www1.hp.com/products/quickspecs/14209\\_na/14209\\_na.html](http://h18000.www1.hp.com/products/quickspecs/14209_na/14209_na.html)

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

### HPE Rack Kits

**NOTE:** Rail kits are optional for Gen8 and are no longer included standard with the server (except pre-configured Models). The customer has the choice to not include rail kits with their server purchase, but it is recommended.

**NOTE:** HPE 2U Ball Bearing Rail Kits and Easy Install Rail Kits provide full serviceability of the server while in the Rack and have the option to include a CMA. HPE 2U Friction Rail Kits ARE NOT serviceable in the Rack and must be removed from the rack and do not include CMA.

**NOTE:** Additional HPE Rack Kit options can be found in "Step 4: Additional Options, HPE Rack Options - Rail Kits" section of this QuickSpecs. Only FIO options are listed here.

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

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

HP 2U FIO Friction Rail Kit	663476-B21
-----------------------------	------------

**NOTE:** No in-rack serviceability.

### HPE Insight Software

HP Insight Control including 1yr 24x7 Support ProLiant ML/DL/BL-bundle Single Server FIO License	C6N36A
--	--------

---

**Configuration Information - Factory Integrated Models**

HP Insight Control including 1yr 24x7 Support ProLiant ML/DL/BL-bundle FIO Electronic License C6N36ABE

**NOTE:** The Electronic software license is available in EMEA only.

---

**Converged  
Infrastructure  
Management Software****HPE OneView without iLO Advanced - Server hardware required on same  
purchase order**

HP OneView w/o iLO including 3yr 24x7 Support FIO 1 Server LTU

P8B31A

---

**Step 4: Choose Additional Options for Factory Integration**

**NOTE:** For additional options, please refer to the "Core Options and Additional Options" section below.

## Core Options

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

<b>HPE Unique Options</b>	HP DL380/DL385 Gen8 8 Small Form Factor Hard Drive Backplane Cage Kit <b>NOTE:</b> With upgrade of 8SFF Cage/Bkpln, there is no Optical Drive support. <b>NOTE:</b> All cables necessary for proper installation of the 8SFF Cage are included with this Kit. <b>NOTE:</b> With upgrade of 8SFF Cage/Bkpln, an additional storage controller is required. Please go to the Storage Controller section for options available.	662883-B21
	HP DL385p Gen8 x16 2x8 PCI-E Riser Kit <b>NOTE:</b> 2nd Riser Cage requires 2nd Processor.	653214-B21

## HPE Processors

### Sixteen-Core Processors

**NOTE:** All support up to 1600MHz DDR3 memory speeds

HP DL385p Gen8 AMD Opteron™ 6386SE (2.8GHz/16-core/16MB/140W) Processor Kit	703939-B21
HP DL385p Gen8 AMD Opteron™ 6380 (2.5GHz/16-core/16MB/115W) Processor Kit	703941-B21
HP DL385p Gen8 AMD Opteron™ 6378 (2.4GHz/16-core/16MB/115W) Processor Kit	703943-B21
HP DL385p Gen8 AMD Opteron™ 6376 (2.3GHz/16-core/16MB/115W) Processor Kit	703946-B21
HP DL385p Gen8 AMD Opteron™ 6366HE (1.8GHz/16-core/16MB/85W) Processor Kit	703950-B21

### Twelve-Core Processors

HP DL385p Gen8 AMD Opteron™ 6348 (2.8GHz/12-core/16MB/115W) Processor Kit	703952-B21
HP DL385p Gen8 AMD Opteron™ 6344 (2.6GHz/12-core/16MB/115W) Processor Kit	703954-B21

### Eight-Core Processors

HP DL385p Gen8 AMD Opteron™ 6328 (3.2GHz/8-core/16MB/115W) Processor Kit	703958-B21
HP DL385p Gen8 AMD Opteron™ 6320 (2.8GHz/8-core/16MB/115W) Processor Kit	703960-B21

### Quad-Core Processors

HP DL385p Gen8 AMD Opteron™ 6308 (3.5GHz/4-core/16MB/115W) Processor Kit	703962-B21
--	------------

**NOTE:** Up to 2 processors supported in all models.

**NOTE:** DDR3 speed is the maximum memory speed of the processor. Actual memory speed may depend on the quantity and type of DIMMs installed.

## HPE Memory

**NOTE:** To realize the performance memory capabilities listed in this document, HPE SmartMemory is recommended. For additional information, please see the HPE SmartMemory QuickSpecs at:

[http://h18000.www1.hp.com/products/quickspecs/14225\\_na/14225\\_na.html](http://h18000.www1.hp.com/products/quickspecs/14225_na/14225_na.html)

### Registered DIMMs (RDIMMs)

HP 4GB (1x4GB) Single Rank x4 PC3L-10600R (DDR3-1333) Registered CAS-9 Low Voltage Memory Kit	647871-B21
HP 4GB (1x4GB) Single Rank x4 PC3-12800R (DDR3-1600) Registered CAS-11 Memory Kit	647873-B21
HP 8GB (1x8GB) Dual Rank x4 PC3-12800R (DDR3-1600) Registered CAS-11 Memory Kit	695793-B21

## Core Options

HP 8GB (1x8GB) Dual Rank x4 PC3L-10600R (DDR3-1333) Registered CAS-9 Low Voltage Memory Kit	647877-B21
HP 8GB (1x8GB) Single Rank x4 PC3-12800R (DDR3-1600) Registered CAS-11 Memory Kit	647879-B21
HP 16GB (1x16GB) Dual Rank x4 PC3L-10600R (DDR3-1333) Registered CAS-9 Low Voltage Memory Kit	647883-B21
HP 16GB (1x16GB) Dual Rank x4 PC3-12800R (DDR3-1600) Registered CAS-11 Memory Kit	672633-B21

### Load Reduced DIMMs (LRDIMMs)

HP 32GB (1x32GB) Quad Rank x4 PC3L-10600L (DDR3-1333) Load Reduced CAS-9 Low Voltage Memory Kit	647885-B21
---	------------

**NOTE:** HPE memory from previous generation servers may not provide the same performance with the HPE ProLiant DL385p Gen8 Servers as HPE SmartMemory will.

**NOTE:** If only one processor is installed, only half the DIMM slots are available.

**NOTE:** Depending on the memory configuration, the memory speed may run at 1600MHz, 1333MHz, 1066MHz or lower. Please see Memory Population Table or the Online Memory Configuration Tool at:

<http://www.hp.com/go/ddr3memory-configurator>.

**NOTE:** All DDR3 memory option kits consist of one DIMM per kit. For detailed memory configuration rules and guidelines, please use the Online DDR3 Memory Configuration Tool: <http://www.hp.com/go/ddr3memory-configurator>.

---

<b>HPE Optical Drives</b>	HP 12.7mm Slim SATA DVD-ROM JackBlack Optical Drive	652232-B21
	HP 12.7mm Slim SATA DVD-RW JackBlack Optical Drive	652235-B21
	<b>NOTE:</b> Not Available on 8+8 LFF, 12LFF or 25SFF Models.	

---

## HPE Hard Drives

**NOTE:** The HPE ProLiant DL385p Gen8 Smart Storage solutions are equipped with entirely re-designed Small Form Factor (SFF 2.5 in) and Large Form Factor (LFF 3.5 in) hot plug carriers for HPE Qualified Hard Drives and Solid State Drives. These new carriers provide status, location and activity indicators as well as caution indicators for "Do Not Remove".

**NOTE:** 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.

**NOTE:** Hard drives have either a one year or three year warranty; refer to the specific hard drive QuickSpecs for details.

### 12G SAS Hot Plug SmartDrive SFF (2.5-inch) Enterprise Drives

HP 600GB 12G SAS 15K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	759212-B21
HP 450GB 12G SAS 15K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	759210-B21
HP 300GB 12G SAS 15K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	759208-B21
HP 1.2TB 12G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	781518-B21
HP 900GB 12G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	785069-B21
HP 600GB 12G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	781516-B21
HP 300GB 12G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	785067-B21

### 12G SAS Hot Plug SmartDrive LFF (3.5-inch) Converter Enterprise Drives

## Core Options

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
<b>12G SAS Hot Plug SFF (2.5-inch) SC 512e Drives</b>	
HP 2TB 12G SAS 7.2K rpm SFF (2.5-inch) SC 512e 1yr Warranty Hard Drive	765466-B21
HP 1TB 12G SAS 7.2K rpm SFF (2.5-inch) SC 512e 1yr Warranty Hard Drive	765464-B21
HP 600GB 12G SAS 15K rpm SFF (2.5-inch) SC 512e Enterprise 3yr Warranty Hard Drive	748387-B21
<b>12G SAS Hot Plug LFF (3.5-inch) Midline (MDL) 512e Drives</b>	
HP 6TB 12G SAS 7.2K rpm LFF (3.5-inch) SC Midline 512e 1yr Warranty Hard Drive	765259-B21
HP 4TB 12G SAS 7.2K rpm LFF (3.5-inch) SC Midline 512e 1yr Warranty Hard Drive	765257-B21
<b>12G SAS Hot Plug LFF (3.5-inch) SC 512e Performance Drives</b>	
HP 8TB 12G SAS 7.2K rpm LFF (3.5-inch) SC 512e Helium 1yr Warranty Hard Drive	793703-B21
HP 6TB 12G SAS 7.2K rpm LFF (3.5-inch) SC 512e Helium 1yr Warranty Hard Drive	793699-B21
HP 6TB 12G SAS 7.2K rpm LFF (3.5-inch) SC 512e Performance 1yr Warranty Hard Drive	793671-B21
HP 4TB 12G SAS 7.2K rpm LFF (3.5-inch) SC 512e Performance 1yr Warranty Hard Drive	793669-B21
<b>6G SAS Hot Plug with SmartDrive SFF (2.5-inch) Enterprise Drives</b>	
HP 1.8TB 12G SAS 10K rpm SFF (2.5-inch) SC Enterprise 512e 3yr Warranty Hard Drive	791034-B21
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 6G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	652583-B21
HP 450GB 6G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	652572-B21
HP 300GB 6G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	652564-B21
HP 300GB 6G SAS 15K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	652611-B21
HP 146GB 6G SAS 15K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	652605-B21
<b>6G SAS Hot Plug SmartDrive SFF (2.5-inch) Midline Drives</b>	
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
<b>12G SAS SFF (2.5in) RI-3 SC Solid State Drives</b>	
HPE 3.84TB 12G SAS Read Intensive-3 SFF 2.5-in SC 3yr Wty Solid State Drive	816576-B21
HPE 1.92TB 12G SAS Read Intensive-3 SFF 2.5-in SC 3yr Wty Solid State Drive	816572-B21
HPE 960GB 12G SAS Read Intensive-3 SFF 2.5-in SC 3yr Wty Solid State Drive	816568-B21
HPE 480GB 12G SAS Read Intensive-3 SFF 2.5-in SC 3yr Wty Solid State Drive	816562-B21
<b>12G SAS SFF (2.5in) MU-3 SC Solid State Drives</b>	
HPE 3.2TB 12G SAS Mixed Use-3 SFF 2.5-in SC 3yr Wty Solid State Drive	822567-B21
HPE 1.6TB 12G SAS Mixed Use-3 SFF 2.5-in SC 3yr Wty Solid State Drive	822563-B21
HPE 800GB 12G SAS Mixed Use-3 SFF 2.5-in SC 3yr Wty Solid State Drive	822559-B21

## Core Options

HPE 400GB 12G SAS Mixed Use-3 SFF 2.5-in SC 3yr Wty Solid State Drive	822555-B21
<b>6G SAS Hot Plug SmartDrive LFF (3.5-inch) Midline Drives</b>	
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
<b>6G SATA 2.5in WI-PLP SCC Solid State Drives</b>	
HP 1.2TB 6G SATA Write Intensive-2 LFF 3.5-in SCC 3yr Wty Solid State Drive	804680-B21
HP 800GB 6G SATA Write Intensive-2 LFF 3.5-in SCC 3yr Wty Solid State Drive	804674-B21
HP 400GB 6G SATA Write Intensive-2 LFF 3.5-in SCC 3yr Wty Solid State Drive	804668-B21
HP 200GB 6G SATA Write Intensive-2 LFF 3.5-in SCC 3yr Wty Solid State Drive	804642-B21
HP 800GB 6G SATA Write Intensive-2 LFF 3.5-in LPC 3yr Wty Solid State Drive	831725-B21
<b>6G SATA 2.5in MU-PLP SCC Solid State Drives</b>	
HP 1.6TB 6G SATA Mixed Use-2 LFF 3.5-in SCC 3yr Wty Solid State Drive	804634-B21
HP 800GB 6G SATA Mixed Use-2 LFF 3.5-in SCC 3yr Wty Solid State Drive	804628-B21
HP 480GB 6G SATA Mixed Use-2 LFF 3.5-in SCC 3yr Wty Solid State Drive	832417-B21
HP 200GB 6G SATA Mixed Use-2 LFF 3.5-in SCC 3yr Wty Solid State Drive	804616-B21
<b>6G SATA 2.5in RI-PLP SCC Solid State Drives</b>	
HP 1.6TB 6G SATA Read Intensive-2 LFF 3.5-in SCC 3yr Wty Solid State Drive	804608-B21
HP 800GB 6G SATA Read Intensive-2 LFF 3.5-in SCC 3yr Wty Solid State Drive	804602-B21
HP 480GB 6G SATA Read Intensive-2 LFF 3.5-in SCC 3yr Wty Solid State Drive	804596-B21
HP 240GB 6G SATA Read Intensive-2 LFF 3.5-in SCC 3yr Wty Solid State Drive	804590-B21
HP 120GB 6G SATA Read Intensive-2 LFF 3.5-in SCC 3yr Wty Solid State Drive	804584-B21
HP 80GB 6G SATA Read Intensive-2 LFF 3.5-in SCC 3yr Wty Solid State Drive	804578-B21
<b>6G SATA 2.5in WI-PLP SC Solid State Drives</b>	
HP 1.2TB 6G SATA Write Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804677-B21
HP 800GB 6G SATA Write Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804671-B21
HP 400GB 6G SATA Write Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804665-B21
HP 200GB 6G SATA Write Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804639-B21
<b>6G SATA 2.5in MU-PLP SC Solid State Drives</b>	
HP 1.6TB 6G SATA Mixed Use-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804631-B21
HP 800GB 6G SATA Mixed Use-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804625-B21
HP 480GB 6G SATA Mixed Use-2 SFF 2.5-in SC 3yr Wty Solid State Drive	832414-B21
HP 200GB 6G SATA Mixed Use-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804613-B21
<b>6G SATA 2.5in RI-PLP SC Solid State Drives</b>	
HP 1.6TB 6G SATA Read Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804605-B21
HP 800GB 6G SATA Read Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804599-B21
HP 480GB 6G SATA Read Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804593-B21
HP 240GB 6G SATA Read Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804587-B21
HP 120GB 6G SATA Read Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804581-B21

## Core Options

HP 80GB 6G SATA Read Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive 804575-B21

### **6G SATA Hot Plug SFF (2.5-inch) SC 512e Drives**

HP 2TB 6G SATA 7.2K rpm SFF (2.5-inch) SC 512e 1yr Warranty Hard Drive 765455-B21

HP 1TB 6G SATA 7.2K rpm SFF (2.5-inch) SC 512e 1yr Warranty Hard Drive 765453-B21

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

**[http://h18000.www1.hp.com/products/quickspecs/12244\\_na/12244\\_na.html](http://h18000.www1.hp.com/products/quickspecs/12244_na/12244_na.html)**

### **6G SATA Hot Plug with SmartDrive 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

### **6G SATA Hot Plug MU-3 SFF (2.5-inch) SC Solid State Drives**

HP 1.92TB 6G SATA Mixed Use-3 SFF 2.5-in SC 3yr Wty Solid State Drive 817011-B21

HP 960GB 6G SATA Mixed Use-3 SFF 2.5-in SC 3yr Wty Solid State Drive 816995-B21

HP 480GB 6G SATA Mixed Use-3 SFF 2.5-in SC 3yr Wty Solid State Drive 816985-B21

HP 240GB 6G SATA Mixed Use-3 SFF 2.5-in SC 3yr Wty Solid State Drive 816975-B21

HP 120GB 6G SATA Mixed Use-3 SFF 2.5-in SC 3yr Wty Solid State Drive 816965-B21

### **6G SATA Hot Plug RI-3 SFF (2.5-inch) SC Solid State Drives**

HP 3.84TB 6G SATA Read Intensive-3 SFF 2.5-in SC 3yr Wty Solid State Drive 816929-B21

HP 1.92TB 6G SATA Read Intensive-3 SFF 2.5-in SC 3yr Wty Solid State Drive 816919-B21

HP 960GB 6G SATA Read Intensive-3 SFF 2.5-in SC 3yr Wty Solid State Drive 816909-B21

HP 480GB 6G SATA Read Intensive-3 SFF 2.5-in SC 3yr Wty Solid State Drive 816899-B21

HP 240GB 6G SATA Read Intensive-3 SFF 2.5-in SC 3yr Wty Solid State Drive 816889-B21

HP 120GB 6G SATA Read Intensive-3 SFF 2.5-in SC 3yr Wty Solid State Drive 816879-B21

### **6G SATA Hot Plug LFF (3.5-inch) RI-3 SCC SSD**

HP 3.84TB 6G SATA Read Intensive-3 LFF 3.5-in SC Converter 3yr Wty Solid State Drive 816933-B21

HP 1.92TB 6G SATA Read Intensive-3 LFF 3.5-in SC Converter 3yr Wty Solid State Drive 816923-B21

HP 960GB 6G SATA Read Intensive-3 LFF 3.5-in SC Converter 3yr Wty Solid State Drive 816913-B21

HP 480GB 6G SATA Read Intensive-3 LFF 3.5-in SC Converter 3yr Wty Solid State Drive 816903-B21

HP 240GB 6G SATA Read Intensive-3 LFF 3.5-in SC Converter 3yr Wty Solid State Drive 816893-B21

HP 120GB 6G SATA Read Intensive-3 LFF 3.5-in SC Converter 3yr Wty Solid State Drive 816883-B21

### **6G SATA Hot Plug LFF (3.5-inch) MU-3 SCC SSD**

HP 1.92TB 6G SATA Mixed Use-3 LFF 3.5-in SC Converter 3yr Wty Solid State Drive 817015-B21

HP 960GB 6G SATA Mixed Use-3 LFF 3.5-in SC Converter 3yr Wty Solid State Drive 816999-B21

HP 480GB 6G SATA Mixed Use-3 LFF 3.5-in SC Converter 3yr Wty Solid State Drive 816989-B21

HP 240GB 6G SATA Mixed Use-3 LFF 3.5-in SC Converter 3yr Wty Solid State Drive 816979-B21

HP 120GB 6G SATA Mixed Use-3 LFF 3.5-in SC Converter 3yr Wty Solid State Drive 816969-B21

### **6G SATA Hot Plug with SmartDrive LFF (3.5-inch) Midline (MDL) Drives**



## Core Options

HP 8TB 6G SATA 7.2K rpm LFF (3.5-inch) SC 512e Helium 1yr Warranty Hard Drive	793695-B21
HP 6TB 6G SATA 7.2K rpm LFF (3.5-inch) SC 512e Helium 1yr Warranty Hard Drive	793683-B21
HP 6TB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 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
<b>6G SATA Hot Plug LFF (3.5-inch) Midline (MDL) 512e Drives</b>	
HP 4TB 6G SATA 7.2K rpm LFF (3.5-inch) SC 512e Performance 1yr Warranty Hard Drives	793665-B21
HP 6TB 6G SATA 7.2K rpm LFF (3.5-inch) SC 512e Performance 1yr Warranty Hard Drive	793667-B21
HP 6TB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 512e 1yr Warranty Hard Drive	765255-B21
HP 4TB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 512e 1yr Warranty Hard Drive	765253-B21
<b>NOTE: Please see the QuickSpecs for Technical Specifications and additional information:</b>	
<b><a href="http://h18000.www1.hp.com/products/quickspecs/13021_na/13021_na.html">http://h18000.www1.hp.com/products/quickspecs/13021_na/13021_na.html</a></b>	
<b>12G SAS Hot Plug Value Endurance SFF (2.5-inch) Enterprise Value Solid State Drives</b>	
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
<b>12G SAS Hot Plug Value Endurance LFF (3.5-inch) Enterprise Value Solid State Drives</b>	
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
<b>12G SAS Mainstream Endurance Hot Plug SFF (2.5-inch) Enterprise Mainstream H2 Solid State Drives</b>	
HP 1.6TB 12G SAS Mainstream Endurance SFF 2.5-in ENT Mainstream SC 3yr Wty H2 Solid State Drive	779176-B21
HP 800GB 12G SAS Mainstream Endurance SFF 2.5-in ENT Mainstream SC 3yr Wty H2 Solid State Drive	779172-B21
HP 400GB 12G SAS Mainstream Endurance SFF 2.5-in ENT Mainstream SC 3yr Wty H2 Solid State Drive	779168-B21
HP 200GB 12G SAS Mainstream Endurance SFF 2.5-in ENT Mainstream SC 3yr Wty H2 Solid State Drive	779164-B21
<b>12G SAS Hot Plug SFF (2.5-inch) SC Read/Write Intensive Solid State Drives</b>	
HP 1.92TB 12G SAS Read Intensive SFF 2.5-in SC 3yr Wty Solid State Drive	802891-B21
HP 800GB 12G SAS Write Intensive SFF 2.5-in SC 3yr Wty Solid State Drive	802586-B21
HP 400GB 12G SAS Write Intensive SFF 2.5-in SC 3yr Wty Solid State Drive	802582-B21

## Core Options

HP 200GB 12G SAS Write Intensive SFF 2.5-in SC 3yr Wty Solid State Drive	802578-B21
<b>6G SATA Value Endurance Hot Plug SFF (2.5-inch) Enterprise Boot Solid State Drives</b>	
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
<b>6G SATA Value Endurance Hot Plug LFF (3.5-inch) Enterprise Boot Solid State Drives</b>	
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
<b>6G SATA Hot Plug Value Endurance LFF (3.5-inch) Converter Enterprise Value M1 Solid State Drives</b>	
HP 800GB 6G SATA Value Endurance LFF 3.5-in SC Converter ENT Value 3yr Wty M1 Solid State Drive	764945-B21
HP 480GB 6G SATA Value Endurance LFF 3.5-in SC Converter ENT Value 3yr Wty M1 Solid State Drive	764943-B21
HP 240GB 6G SATA Value Endurance LFF 3.5-in SC Converter ENT Value 3yr Wty M1 Solid State Drive	764941-B21
HP 120GB 6G SATA Value Endurance LFF 3.5-in SC Converter ENT Value 3yr Wty M1 Solid State Drive	764939-B21
<b>6G SATA Hot Plug Value Endurance LFF (3.5-inch) Converter Enterprise Value G1 Solid State Drives</b>	
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
<b>6G SATA Hot Plug Value Endurance SFF (2.5-inch) Enterprise Value G1 Solid State Drives</b>	
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
<b>6G SATA Value Endurance Hot Plug SFF (2.5-inch) Enterprise Value Solid State Drives</b>	
HP 1.6TB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive	757339-B21
HP 800GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive	717973-B21

## Core Options

HP 480GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive	717971-B21
HP 600GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive	739898-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
<b>6G SATA Value Endurance Hot Plug LFF (3.5-inch) Enterprise Value Solid State Drives</b>	
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
<b>6G SATA Hot Plug Light Endurance SFF (2.5-inch) Enterprise Light G1 Solid State Drives</b>	
HP 960GB 6G SATA Light Endurance SFF 2.5-in SC Enterprise Light 3yr Wty G1 Solid State Drive	756601-B21
<b>6G SATA Value Endurance Hot Plug SFF (2.5-inch) Enterprise Value M1 Solid State Drive</b>	
HP 800GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty M1 Solid State Drive	764929-B21
HP 480GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty M1 Solid State Drive	764927-B21
HP 240GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty M1 Solid State Drive	764925-B21
HP 120GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty M1 Solid State Drive	764923-B21
<b>6G SATA Mainstream Endurance Hot Plug SFF (2.5-inch) Enterprise Mainstream Solid State Drives</b>	
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

## Core Options

### 6G SATA Mainstream Endurance 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
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 SFF (2.5-inch) SC Read Intensive Solid State Drives

HP 480GB 6G SATA Read Intensive SFF 2.5-in SC 3yr Wty Solid State Drive	789145-B21
HP 240GB 6G SATA Read Intensive SFF 2.5-in SC 3yr Wty Solid State Drive	789135-B21

### 6G SATA Hot Plug LFF (3.5-inch) SC Read Intensive Solid State Drives

HP 480GB 6G SATA Read Intensive LFF 3.5-in SC Converter 3yr Wty Solid State Drive	789147-B21
HP 240GB 6G SATA Read Intensive LFF 3.5-in SC Converter 3yr Wty Solid State Drive	789137-B21

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

[http://h18000.www1.hp.com/products/quickspecs/14038\\_na/14038\\_na.html](http://h18000.www1.hp.com/products/quickspecs/14038_na/14038_na.html)

### Hard Drive Kits

**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.

HP Small Form Factor Hard Drive Blank Kit	666987-B21
HP Large Form Factor Hard Drive Blank Kit	666986-B21
HP DL380/DL385 Gen8 8 Small Form Factor Hard Drive Backplane Cage Kit	662883-B21

## HPE Networking

### Gigabit Server adapters

HP NC365T 4-port Ethernet Server Adapter	593722-B21
HP Ethernet 1Gb 4-port 331T Adapter	647594-B21
HP Ethernet 1Gb 2-port 332T Adapter	615732-B21
HP Ethernet 1Gb 2-port 361T Adapter	652497-B21

### 10 Gigabit Server Adapters

**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.

HP NC523SFP 10Gb 2-port Server Adapter	593717-B21
HP NC552SFP 10Gb 2-port Ethernet Server Adapter	614203-B21
HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter	629138-B21
HP Ethernet 10Gb 2-port 530SFP Adapter	652503-B21
HP Ethernet 10Gb 2-port 530T Adapter	656596-B21
HP FlexFabric 10Gb 2-port 533FLR-T Adapter	700759-B21
HP FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter	700751-B21

**NOTE:** This is a FIO only part.

## Core Options

HP Ethernet 10Gb 2-port 560SFP+ Adapter	665249-B21
HP Ethernet 10Gb 2-port 561FLR-T Adapter	700699-B21
HP Ethernet 10Gb 2-port 561T Adapter	716591-B21
HP Ethernet 10Gb 2-port 570SFP+ Adapter	718904-B21

### FlexibleLOM Adapters

HP Ethernet 1Gb 4-port 331FLR Adapter	629135-B21
HP Ethernet 1Gb 4-port 366FLR Adapter	665240-B21
HP Ethernet 10Gb 2-port 530FLR-SFP+ Adapter	647581-B21
HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter	629142-B21
HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter	665243-B21
HP Ethernet 10Gb 2-port 570FLR-SFP+ Adapter	717491-B21

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

## HPE InfiniBand

QLogic InfiniBand 4X QDR PCI-E G2 Dual Port HCA	583211-B21
HP InfiniBand 4X QDR ConnectX-2 PCIe G2 Dual Port HCA	592520-B21
HP Infiniband FDR/Ethernet 10Gb/40Gb 2-port 544QSFP Adapter	649281-B21

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

HP Infiniband FDR/Ethernet 10Gb/40Gb 2-port 544FLR-QSFP Adapter	649282-B21
HP Infiniband QDR/Ethernet 10Gb 2-port 544FLR-QSFP Adapter	649283-B21
HP InfiniBand FDR 2-port 545QSFP Adapter	702211-B21

**NOTE:** FLR Indicates new HPE FlexibleLOM Adapter series.

**NOTE:** Please see the QuickSpecs for additional information:

[http://h18000.www1.hp.com/products/quickspecs/13078\\_na/13078\\_na.html](http://h18000.www1.hp.com/products/quickspecs/13078_na/13078_na.html)

## HPE I/O Expansion Options

HP DL385p Gen8 x16 2x8 PCI-E Riser Kit	653214-B21
--	------------

**NOTE:** 2nd Riser Cage requires 2nd Processor.

## HPE Power Supplies

**NOTE:** Mixing of power supplies in the same server is not supported. All power supplies inside a server must be exactly the same model. Mixing Gold, Platinum, and Platinum Plus certified power supplies is not supported.

**NOTE:** Prior to making a power supply selection it is highly recommended that the HPE Power Advisor is run to determine the right size power supply for your server configuration. The HPE Power Advisor is located at:

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

### HPE Common Slot Platinum Plus Power Supply Kits

**NOTE:** The following Power Supplies offer 94% Efficiency with support for Intelligent Power Discovery.

HP 460W Common Slot Platinum Plus Hot Plug Power Supply Kit	656362-B21
HP 750W Common Slot Platinum Plus Hot Plug Power Supply Kit	656363-B21
HP 1200W Common Slot Platinum Plus Hot Plug Power Supply Kit	656364-B21

### HPE Common Slot Gold Power Supplies

## Core Options

**NOTE:** The following Power Supplies offer 92% Efficiency.

HP 460W CS Gold Ht Plg Power Supply Kit

503296-B21

HP 750W Common Slot Gold Hot Plug Power Supply Kit

512327-B21

### **HPE Common Slot -48VDC Power Supplies**

**NOTE:** The following Power Supplies offer 92% Efficiency.

HP 750W Common Slot -48VDC Hot Plug Power Supply Kit

636673-B21

**NOTE:** The HPE 750W Common Slot -48VDC power supply does not ship with a power cable. It has been designed with a terminal block connection allowing for custom design of power cords by the user.

**NOTE:** Option Kits contain optional power supply, an IEC power cable and PDU IEC cables.

**NOTE:** HPE ProLiant servers ship with an IEC-IEC power cord used for rack mounting with Power Distribution Units (PDUs). For a full list of optional HPE power cords please go to <http://www.hp.com/products/powercords>

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

[http://h18000.www1.hp.com/products/quickspecs/14209\\_na/14209\\_na.html](http://h18000.www1.hp.com/products/quickspecs/14209_na/14209_na.html)

## Additional Options

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

### HPE Insight Software HPE Insight Control

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

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

**NOTE:** Customer will receive a license entitlement certificate. The license entitlement certificate must be redeemed online or via fax in order to obtain the license activation key(s). Includes one year of 24 x 7 HPE Software Technical Support and Update Service.

**NOTE:** Licenses ship without media. The HPE Insight Control Media Kit can be ordered separately, or can be downloaded at:

**<http://www.hp.com/go/insightupdates>.**

**NOTE:** For additional license options please see the QuickSpecs at:

**[http://h18000.www1.hp.com/products/quickspecs/12631\\_na/12631\\_na.html](http://h18000.www1.hp.com/products/quickspecs/12631_na/12631_na.html)**

### HPE Integrated Lights-Out (iLO) Advanced for ProLiant

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

**NOTE:** For additional license options please see the QuickSpecs at:

**[http://h18004.www1.hp.com/products/quickspecs/14276\\_na/14276\\_na.html](http://h18004.www1.hp.com/products/quickspecs/14276_na/14276_na.html)**

**NOTE:** For more information, visit: **<http://www.hp.com/go/ilo>**

### Converged Infrastructure Management Software

#### HPE OneView

#### HPE OneView with iLO Advanced

HP OneView Media Kit Phys No Lic	E5Y37A
HP OneView incl 3yr 24x7 Supp Phys 1 Svr Lic	E5Y34A
HP OneView incl 3yr 24x7 Supp Flex Qty E-LTU	E5Y35AAE

#### HPE OneView without iLO Advanced

HP OneView w/o iLO including 3yr 24x7 Support 1 Server LTU	P8B24A
HP OneView w/o iLO including 3yr 24x7 Support Flex Quantity E-LTU	P8B26AAE

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

**[http://h18000.www1.hp.com/products/quickspecs/14621\\_na/14621\\_na.html](http://h18000.www1.hp.com/products/quickspecs/14621_na/14621_na.html)**

## Additional Options

<b>High Performance Clusters</b>	<p><b>HPE Cluster Management Utility</b></p> <p>HP Insight Cluster Management Utility 1yr 24x7 Flexible License QL803B</p> <p>HP Insight Cluster Management Utility 3yr 24x7 Flexible License BD476A</p> <p><b>NOTE:</b> 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> <p>HP Insight Cluster Management Utility Media BD477A</p> <p><b>NOTE:</b> For additional license kits please see the QuickSpecs at:  <a href="http://h18004.www1.hp.com/products/quickspecs/12612_na/12612_na.html">http://h18004.www1.hp.com/products/quickspecs/12612_na/12612_na.html</a></p>
<b>HPE I/O Accelerator Options</b>	<p><b>Second Generation Accelerators</b></p> <p>HP 1205GB Multi Level Cell G2 PCIe ioDrive2 for ProLiant Servers 673646-B21</p> <p><b>NOTE:</b> Please see the QuickSpecs for Technical Specifications and additional information:  <a href="http://h18000.www1.hp.com/products/quickspecs/13587_na/13587_na.html">http://h18000.www1.hp.com/products/quickspecs/13587_na/13587_na.html</a></p>
<b>HPE PCIe Workload Accelerator Options</b>	<p><b>Light Endurance (LE) PCIe Workload Accelerators</b></p> <p>HP 5.2TB FH/HL Light Endurance (LE) PCIe Workload Accelerator 775672-B21</p> <p>HP 2.6TB HH/HL Light Endurance (LE) PCIe Workload Accelerator 775670-B21</p> <p>HP 1.3TB HH/HL Light Endurance (LE) PCIe Workload Accelerator 775668-B21</p> <p>HP 1.0TB HH/HL Light Endurance (LE) PCIe Workload Accelerator 775666-B21</p> <p><b>Read Intensive (RI) PCIe Workload Accelerators</b></p> <p>HPE 1.3TB Read Intensive-2 HH/HL PCIe Workload Accelerator 831733-B21</p> <p>HPE 1.6TB Read Intensive-2 HH/HL PCIe Workload Accelerator 831735-B21</p> <p>HPE 3.2TB Read Intensive-2 HH/HL PCIe Workload Accelerator 831737-B21</p> <p>HPE 6.4TB Read Intensive-2 FH/HL PCIe Workload Accelerator 831739-B21</p> <p><b>NOTE:</b> Please see the QuickSpecs for Technical Specifications and additional information:  <a href="http://h18000.www1.hp.com/products/quickspecs/14528_na/14528_na.html">http://h18000.www1.hp.com/products/quickspecs/14528_na/14528_na.html</a></p>
<b>HPE Security</b>	<p>HP Trusted Platform Module Option 488069-B21</p> <p><b>NOTE:</b> 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: <a href="http://www.hp.com/go/TPM">http://www.hp.com/go/TPM</a>.</p> <p><b>NOTE:</b> ProLiant OS pre-installed units will come with the partition required for TPM deployment.</p> <p><b>NOTE:</b> The TPM key is unique to every TPM deployed server and must be</p>



## Additional Options

retained. Misplacing or losing the key could result in data loss.

HP 2U Security Bezel Kit

666988-B21

### HPE Storage Controllers

#### SAS Controllers

##### Smart Array P222 Controller

HP Smart Array P222/512 FBWC 6Gb 1-port Int/1-port Ext SAS Controller

631667-B21

##### Smart Array P420 Controller

HP Smart Array P420/1GB FBWC 6Gb 2-ports Int SAS Controller

631670-B21

HP Smart Array P420/2GB FBWC 6Gb 2-ports Int SAS Controller

631671-B21

##### Smart Array P421 Controller

HP Smart Array P421/1GB FBWC 6Gb 2-ports Ext SAS Controller

631673-B21

HP Smart Array P421/2GB FBWC 6Gb 2-ports Ext SAS Controller

631674-B21

##### Smart Array P430 Controller

HP Smart Array P430/4GB FBWC 12Gb 1-port Int SAS Controller

698530-B21

HP Smart Array P430/2GB FBWC 12Gb 1-port Int SAS Controller

698529-B21

##### Smart Array P431 Controller

HP Smart Array P431/4GB FBWC 12Gb 2-ports Ext SAS Controller

698532-B21

HP Smart Array P431/2GB FBWC 12Gb 2-ports Ext SAS Controller

698531-B21

##### Smart Array P822 Controller

HP Smart Array P822/2GB FBWC 6Gb 2-ports-Int/4-ports Ext SAS Controller

615418-B21

##### Smart Array P830 Controller

HP Smart Array P830/4GB FBWC 12Gb 2-ports Int SAS Controller

698533-B21

#### Optional Upgrades

HP 1GB P-series Smart Array Flash Backed Write Cache

631679-B21

HP 2GB P-series Smart Array Flash Backed Write Cache

631681-B21

HP 512MB P-series Smart Array Flash Backed Write Cache

661069-B21

HP SmartCache No Media 24x7 Technical Support 1 Svr License

D7S26A

HP SmartCache No Media 24x7 Technical Support Flexible License

D7S27A

HP SmartCache No Media 24x7 Technical Support Electronic License

D7S27AAE

#### HPE Cable Options

HP DL38x/DL360 Gen8 Embedded SATA Cable Kit

664009-B21

HP Mini SAS/Straight to Straight 25 SFF Bypass Cable Assembly

726974-B21

HP Mini SAS/Straight to Straight Short Bypass Cable Assembly

697691-B21

HP DL38Xp Gen8 8 Large Form Factor (LFF) P430/830 Cable Kit

729270-B21

HP DL38Xp Gen8 12 Large Form Factor (LFF) P430/830 Cable Kit

729272-B21

HP DL38Xp Gen8 25 Small Form Factor (SFF) P430/830 Cable Kit

729274-B21

HP 6G SAS P430/830 Secondary Cable Kit

729276-B21

HP 6G SAS P430/830 Primary Cable Kit

729278-B21

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

**[http://h18000.www1.hp.com/products/quickspecs/14227\\_na/14227\\_na.html](http://h18000.www1.hp.com/products/quickspecs/14227_na/14227_na.html)**  
(Smart Array P222 Controller)

## Additional Options

[http://h18000.www1.hp.com/products/quickspecs/14228\\_na/14228\\_na.html](http://h18000.www1.hp.com/products/quickspecs/14228_na/14228_na.html)

(Smart Array P420 Controller)

[http://h18000.www1.hp.com/products/quickspecs/14229\\_na/14229\\_na.html](http://h18000.www1.hp.com/products/quickspecs/14229_na/14229_na.html)

(Smart Array P421 Controller)

[http://h18000.www1.hp.com/products/quickspecs/14624\\_na/14624\\_na.html](http://h18000.www1.hp.com/products/quickspecs/14624_na/14624_na.html)

(Smart Array P430 Controller)

[http://h18000.www1.hp.com/products/quickspecs/14625\\_na/14625\\_na.html](http://h18000.www1.hp.com/products/quickspecs/14625_na/14625_na.html)

(Smart Array P431 Controller)

[http://h18000.www1.hp.com/products/quickspecs/14341\\_na/14341\\_na.html](http://h18000.www1.hp.com/products/quickspecs/14341_na/14341_na.html)

(Smart Array P822 Controller)

[http://h18000.www1.hp.com/products/quickspecs/14744\\_na/14744\\_na.html](http://h18000.www1.hp.com/products/quickspecs/14744_na/14744_na.html)

(Smart Array P830 Controller)

### Host Bus Adapter

HP H220 Host Bus Adapter

650933-B21

HP H221 PCIe 3.0 SAS Host Bus Adapter

729552-B21

HP H222 Host Bus Adapter

650926-B21

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

[http://h18004.www1.hp.com/products/quickspecs/14336\\_na/14336\\_na.html](http://h18004.www1.hp.com/products/quickspecs/14336_na/14336_na.html)

(HBA 220)

[http://h18004.www1.hp.com/products/quickspecs/14222\\_na/14222\\_na.html](http://h18004.www1.hp.com/products/quickspecs/14222_na/14222_na.html)

(HBA 221)

[http://h18004.www1.hp.com/products/quickspecs/14337\\_na/14337\\_na.html](http://h18004.www1.hp.com/products/quickspecs/14337_na/14337_na.html)

(HBA 222)

### SCSI HBA

HP SC11Xe Ultra320 Single Channel/ PCIe x4 SCSI Host Bus Adapter

412911-B21

**NOTE:** Please see the following QuickSpecs for additional information:

[http://h18000.www1.hp.com/products/quickspecs/12566\\_na/12566\\_na.html](http://h18000.www1.hp.com/products/quickspecs/12566_na/12566_na.html)

(SC11Xe HBA)

## HPE Disk Enclosures

HP D3600 Enclosure

QW968A

**NOTE:** See the D3000 Disk Enclosure QuickSpecs for additional information including configuration steps and additional options needed for a complete solution at:

<http://www8.hp.com/h20195/v2/GetDocument.aspx?docname=c04227611>

HP D3700 Enclosure

QW967A

**NOTE:** See the D3000 Disk Enclosure QuickSpecs for additional information including configuration steps and additional options needed for a complete solution at:

<http://www8.hp.com/h20195/v2/GetDocument.aspx?docname=c04227611>

HP D2600 Disk Enclosure

AJ940A

**NOTE:** See the D2000 Disk Enclosure QuickSpecs for additional information including configuration steps and additional options needed for a complete solution at:

[http://h18000.www1.hp.com/products/quickspecs/13404\\_na/13404\\_na.html](http://h18000.www1.hp.com/products/quickspecs/13404_na/13404_na.html)

HP D2700 Disk Enclosure

AJ941A

**NOTE:** See the D2000 Disk Enclosure QuickSpecs for additional information

## Additional Options

including configuration steps and additional options needed for a complete solution at:

[http://h18000.www1.hp.com/products/quickspecs/13404\\_na/13404\\_na.html](http://h18000.www1.hp.com/products/quickspecs/13404_na/13404_na.html)

HP D6000 Dual I/O Module Disk Enclosure

QQ695A

**NOTE:** See the D6000 Disk Enclosure QuickSpecs for additional information including configuration steps and additional options needed for a complete solution at:

[http://h18000.www1.hp.com/products/quickspecs/14419\\_na/14419\\_na.pdf](http://h18000.www1.hp.com/products/quickspecs/14419_na/14419_na.pdf)

### HPE Tape Backup

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

**NOTE:** For Internal drives to be connected to DL servers please make sure that you order rack mount kit as well.

HP StoreEver LTO-5 Ultrium 3000 SAS External Tape Drive

EH958B

HP StoreEver LTO-6 Ultrium 6250 Tape Drive in 1U Rack-mount Kit

COL99A

HP StoreEver LTO-6 Ultrium 6650 SAS External Tape Drive

EH964A

HP StoreEver LTO-6 Ultrium 6250 External Tape Drive

EH970A

HP StoreEver 1/8 G2 LTO-6 Ultrium 6250 FC Tape Autoloader

COH19A

### HPE Tape Storage Systems

#### HPE StoreEver MSL6480

HP StoreEver MSL6480 Scalable Base Module

QU625A

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

[http://h18000.www1.hp.com/products/quickspecs/14604\\_na/14604\\_na.html](http://h18000.www1.hp.com/products/quickspecs/14604_na/14604_na.html)

### HPE Disk Backup

**NOTE:** For the complete range of RDX drives and media see:

<http://www.hp.com/go/rdx>. For hardware and software compatibility of HPE disk backup products see: <http://www.hp.com/storage/SPOCK>.

#### HPE RDX Removable Disk Backup System

HP RDX USB 3.0 External Docking Station

C8S07A

#### HPE RDX Removable Disk Backup Systems DL Module

HP RDX1000 USB3.0 Gen8 DL Server Module

B7B70A

HP RDX USB 3.0 Gen8 DL Server Module Docking Station

C8S08A

**NOTE:** RDX Gen8 DL Server Module is only compatible with Servers that have the 8-SFF HDD Bay Configurations.

**NOTE:** Please see the QuickSpecs for additional part numbers, Technical Specifications, and additional information:

[http://h18000.www1.hp.com/products/quickspecs/13036\\_na/13036\\_na.html](http://h18000.www1.hp.com/products/quickspecs/13036_na/13036_na.html)

### HPE Storage Options

#### Storage Fibre Channel HBA

**NOTE:** For the complete listing of Fibre Channel Host Bus Adapters for Windows 2000, Windows Server 2003 and Linux, please see:

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

#### Brocade Fibre Channel HBAs

## Additional Options

HP 81B 8Gb 1-port PCIe Fibre Channel Host Bus Adapter	AP769B
HP 82B 8Gb 2-port PCIe Fibre Channel Host Bus Adapter	AP770B
<b>Emulex Fibre Channel HBAs</b>	
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
<b>QLogic Fibre Channel HBAs</b>	
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
<b>Converged Network Adapter</b>	
HP StoreFabric CN1200E 10Gb Converged Network Adapter	E7Y06A
HP CN1100E Dual Port Converged Network Adapter	BK835A
HP CN1000Q Dual Port Converged Network Adapter	BS668A
HP StoreFabric CN1100R Dual Port Converged Network Adapter	QW990A

## HPE Uninterruptible Power Systems

### HPE DirectFlow Three Phase UPS

#### Power Unit (1U UPS)

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

#### Input/Output Module Options for 1U UPS

**NOTE: Choose one I/O Module per UPS.**

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

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

#### HPE Tower UPS

##### HPE T750 G4 UPS Models

HP T750 G4 NA/JP Uninterruptible Power System	J2P85A
---	--------

##### HPE T1000 G4 UPS Models

HP T1000 G4 NA/JP Uninterruptible Power System	J2P86A
--	--------

##### HPE T1500 G4 UPS Models

HP T1500 G4 NA/JP Uninterruptible Power System	J2P87A
--	--------

#### HPE Rack/Tower UPS

## Additional Options

### HPE R/T2200 G4 UPS Models

HP R/T2200 G4 NA/JP Uninterruptible Power System J2R00A

### HPE R/T3000 G4 UPS Models

HP R/T3000 G4 Low Voltage NA/JP Uninterruptible Power System J2R01A

HP R/T3000 G4 High Voltage NA/JP Uninterruptible Power System J2R02A

### HPE R1500 G4 Uninterruptible Power Supply (UPS)

HP R1500 G4 NA Uninterruptible Power System J2Q99A

### R5000 Uninterruptible Power System (UPS)

HP R5000 3U L630 High Voltage NA/JP Uninterruptible Power System AF460A

**NOTE:** Please see the QuickSpecs for additional information:

[http://h18000.www1.hp.com/products/quickspecs/14109\\_na/14109\\_na.html](http://h18000.www1.hp.com/products/quickspecs/14109_na/14109_na.html)

### R7000 Uninterruptible Power System (UPS)

HP R7000 4U 50A High Voltage NA/JP Uninterruptible Power System AF462A

HP R7000 4U IEC-32A High Voltage INTL Uninterruptible Power System AF463A

**NOTE:** Please see the QuickSpecs for additional information:

[http://h18000.www1.hp.com/products/quickspecs/14110\\_na/14110\\_na.html](http://h18000.www1.hp.com/products/quickspecs/14110_na/14110_na.html)

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

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

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

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

<http://www.hp.com/products/powercords>.

### HPE Basic Power Distribution Units (bPDU)

#### HPE Basic Power Distribution Unit: 1U/0U Version

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

#### HPE Basic Power Distribution Unit: Half Height Version

HP 2.8kVA 120 Volt L5-30 Input (18xNEMA 5-20R) NA/JP Basic PDU H5M55A

HP 3.6kVA 200-240 Volt Detachable C20 Input (18xC13) WW Basic PDU H5M57A

HP 4.9kVA 208 Volt L6-30 Input (20xC13) NA/JP Basic PDU H5M58A

HP 8.6kVA 208 Volt L15-30 3-Phase Input (18xC13) NA/JP Basic PDU H5M61A

#### HPE Basic Power Distribution Unit: Mid Height Version

HP 4.9kVA 208 Volt L6-30 Input (24xC13/6xC19) NA/JP Basic PDU H5M59A

HP 8.3kVA 208 Volt CS8265C Input (30xC13/6xC19) NA/JP Basic PDU H5M60A

HP Hardwired 200-240 Volt Input (30xC13/6xC19) WW Basic PDU H5M75A

HP 5.7kVA 208 Volt L21-20 3-Phase Input (24xC13/3xNEMA 5-20R) NA/JP Basic PDU H5M63A

HP 8.6kVA 208 Volt L21-30 3-Phase Input (24xC13/3xC19/3xNEMA 5-20R) NA/JP Basic PDU H5M64A

HP 8.6kVA 208 Volt L15-30 3-Phase Input (24xC13/6xC19) NA/JP Basic PDU H5M62A

## Additional Options

### HPE Basic Power Distribution Unit: Full Height Version

HP 11kVA 400 Volt IEC309 30A 3-Phase Input (36xC13/6xC19) NA Basic PDU H5M67A

### HPE Basic Power Distribution Unit: 480/277 Volt Version

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

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

[http://h18000.www1.hp.com/products/quickspecs/14557\\_na/14557\\_na.html](http://h18000.www1.hp.com/products/quickspecs/14557_na/14557_na.html)

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

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

### HPE Remote Monitored Power Distribution Units (mPDU) HPE Remote Monitored Power Distribution Unit: 1U Version

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

### HPE Remote Monitored Power Distribution Unit: Half Height Version

HP 3.6kVA 200-240 Volt Detachable C20 Input (16xC13) WW Monitored PDU D9N45A

HP 4.9kVA 208 Volt L6-30 Input (12xC13) NA/JP Monitored PDU G9Z05A

### HPE Remote Monitored Power Distribution Unit: Mid Height Version

HP 4.9kVA 208 Volt L6-30 Input (20xC13/4xC19) NA/JP Monitored PDU D9N47A

HP 8.6kVA 208 Volt L15-30 3-Phase Input (18xC13/3xC19) NA/JP Monitored PDU D9N51A

HP 5.7kVA 208 Volt L21-20 3-Phase Input (18xC13/3xNEMA 5-20R) NA/JP Monitored PDU D9N52A

HP 8.6kVA 208 Volt L21-30 3-Phase Input (20xC13/3xC19/3xNEMA 5-20R) NA/JP Monitored PDU D9N53A

### HPE Remote Monitored Power Distribution Unit: Full Height Version

HP 8.3kVA 208 Volt CS8265C Input (30xC13/3xC19) NA Monitored PDU D9N49A

HP 14.4kVA 208 Volt CS8365C 3-Phase Input (12xC13/12xC19)NA Monitored PDU D9N58A

HP 16.6kVA 400 Volt IEC309 30A 3-Phase Input (30xC13/3xC19) NA Monitored PDU D9N61A

HP 16.6kVA 400 Volt IEC309 30A 3-Phase Input (12xC13/12xC19) NA Monitored PDU D9N62A

HP 17.3kVA 208 Volt IEC309 60A 3-Phase Input (24xC13/3xC19) NA/JP Monitored PDU D9N54A

HP 17.3kVA 208 Volt IEC309 60A 3-Phase Input (12xC13/12xC19) NA/JP Monitored PDU D9N59A

HP 17.3kVA 208 Volt IEC309 60A 3-Phase Watertight Input (12xC13/12xC19) NA/JP Monitored PDU G9Z07A

HP 19.9kVA 480 Volt 3-Phase (30 Outlet) NA Monitored PDU D9N63A

### HPE Environmental Sensor for Remote Monitored PDUs

HP Environmental Sensor for Remote Monitored and Managed PDUs E2D53A

### HPE Remote Monitored Power Distribution Unit: 1U Version

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

**NOTE:** Please see the QuickSpecs for additional information:

## Additional Options

[http://h18000.www1.hp.com/products/quickspecs/14669\\_na/14669\\_na.html](http://h18000.www1.hp.com/products/quickspecs/14669_na/14669_na.html)

<b>HPE Intelligent Power Distribution Units (iPDU)</b>	<b>iPDU Core Units</b>		
		HP 4.9kVA 24A Single Phase NA/JP Core Intelligent Modular Power Distribution Unit	AF520A
		HP 8.3kVA 40A Single Phase NA/JP Core Intelligent Modular Power Distribution Unit	AF521A
		HP 8.6kVA 24A Three Phase NA/JP Core Intelligent Modular Power Distribution Unit	AF522A
		HP 14.4kVA 40A Three Phase NA/JP Intelligent Modular Power Distribution Unit	AF533A
		HP 17.3kVA 48A Three Phase NA/JP Core Intelligent Modular Power Distribution Unit	AF523A
		HP 17.3kVA 48A 208V Three Phase 12 Outlet Core NA/JP Intelligent Power Distribution Unit	AF535A
		HP 17.3kVA 24A 415V Three Phase 12 Outlet Core NA/JP Intelligent Power Distribution Unit	AF537A
		<b>iPDU Kits with Standard Extension Bars</b>	
		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
		<b>iPDU Extension Bars</b>	
		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 QuickSpecs for Technical Specifications and additional information:  
[http://h18000.www1.hp.com/products/quickspecs/13650\\_na/13650\\_na.html](http://h18000.www1.hp.com/products/quickspecs/13650_na/13650_na.html)  
**NOTE:** Additional HPE Power Distribution Units are available. For a complete list of all HPE PDUs and additional information please visit:  
<http://www.hp.com/go/rackandpower>.

<b>HPE Managed Power Distribution Units (maPDU)</b>	<b>Half Height Models</b>		
		HP 3.6kVA 200-240 Volt Detachable C20 Input (7xC13/1xC19) WW Managed PDU	H8B49A
	<b>Full Height Models</b>		
		HP 2.8kVA 120 Volt L5-30 Input (24x NEMA 5-20) NA/JP Managed PDU	H8B48A
		HP 4.9kVA 208 Volt L6-30 Input (20xC13/4xC19) NA/JP Managed PDU	H8B50A
		HP 8.6kVA 208 Volt L15-30 3 Phase Input (18xC13/6xC19) NA/JP Managed PDU	H8B52A
		HP 8.6kVA 208 Volt L21-30 3 Phase Input (20xC13/3xC19/1x NEMA 5-20) NA/JP Managed PDU	H8B53A
		HP 14.4kVA 208V CS8365C 3 Phase Input (12xC13/12xC19) NA/JP Managed PDU	H8B55A
		HP 17.3kVA 208V IEC309 60A 3 Phase Input (12xC13/12xC19) NA/JP Managed PDU	H8B56A
		<b>NOTE:</b> Please see the QuickSpecs for Technical Specifications and additional information: <b>HPE Managed Power Distribution Units QuickSpecs</b>	

<b>HPE Rack Series</b>	<b>HPE Intelligent Series Rack</b>		
		HP 36U 600mm x 1075mm Enterprise Pallet Rack	BW895A
		HP 36U 600mm x 1075mm Enterprise Shock Rack	BW896A
		HP 42U 600mm x 1075mm Enterprise Pallet Rack	BW903A

## Additional Options

HP 42U 600mm x 1075mm Enterprise Shock Rack	BW904A
HP 47U 600mm x 1075mm Enterprise Pallet Rack	BW911A
HP 47U 600mm x 1075mm Enterprise Shock Rack	BW912A

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

[http://h18000.www1.hp.com/products/quickspecs/14223\\_na/14223\\_na.html](http://h18000.www1.hp.com/products/quickspecs/14223_na/14223_na.html)

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

### HPE Rack Options

#### HPE LCD8500 1U Rackmount Console Kit Models

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

#### HPE LCD8500 1U Rackmount Console Kit Options

HP Kit LCD 1.83m Latch Display Port Cable	G7T29A
HP Location Discovery Services LCD8500 Kit	TL052A
HP Rack LED Light Kit	BW939A

#### HPE 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\\_na/14429\\_na.html](http://h18000.www1.hp.com/products/quickspecs/14429_na/14429_na.html)

#### HPE USB Keyboard and Mouse

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

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

[http://h18000.www1.hp.com/products/quickspecs/13972\\_na/13972\\_na.html](http://h18000.www1.hp.com/products/quickspecs/13972_na/13972_na.html)

#### HPE Server Console Switches

HP 0x1x8 G3 KVM Console Switch	AF651A
HP 0x2x16 G3 KVM Console Switch	AF652A
HP TAA 0x2x16 G3 KVM Console Switch	AF653A
HP USB Remote Access Key for G3 KVM Console Switches	AF650A

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

[http://h18000.www1.hp.com/products/quickspecs/11834\\_na/11834\\_na.html](http://h18000.www1.hp.com/products/quickspecs/11834_na/11834_na.html)

#### HPE Server Console Switch G2 with Virtual Media & CAC

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
KVM USB Cnsl Ifc Adapter 1PK ALL	336047-B21

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

[http://h18000.www1.hp.com/products/quickspecs/13475\\_na/13475\\_na.html](http://h18000.www1.hp.com/products/quickspecs/13475_na/13475_na.html)



## Additional Options

### HPE IP Console Switch G2 with Virtual Media & CAC

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

[http://h18000.www1.hp.com/products/quickspecs/13474\\_na/13474\\_na.html](http://h18000.www1.hp.com/products/quickspecs/13474_na/13474_na.html)

### Rail Kits

**NOTE:** Rail kits are optional for Gen8 and are no longer included standard with the server (except pre-configured Models). The customer has the choice to not include rail kits with their server purchase, but it is recommended.

**NOTE:** HPE 2U Ball Bearing and Easy Install Rail Kits provide full serviceability of the server while in the Rack and are available with a CMA. HPE 2U Friction Rail Kits ARE NOT serviceable in the Rack and must be removed from the rack and do not include CMA.

**NOTE:** The HPE 1U Gen8 Cable Management Arm is not available when using Friction Rails. To assist in the installation of the server into the rack an optional installation tool is available by contacting your local services representative (p/n 695539-001).

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

HP 2U Large Form Factor Ball Bearing Gen8 Rail Kit with CMA	663480-B21
---	------------

**NOTE:** HPE 2U Ball Bearing Rail Kits provide full serviceability of the server while in the Rack and include a CMA.

HP 2U Small Form Factor Ball Bearing Gen8 Rail Kit with CMA	663478-B21
---	------------

**NOTE:** HPE 2U Ball Bearing Rail Kits provide full serviceability of the server while in the Rack and include a CMA.

HP 2U Small Form Factor Easy Install Rail Kit with CMA	733668-B21
--	------------

HP 2U Large Form Factor Easy Install Rail Kit with CMA	733670-B21
--	------------

HP 2U Small Form Factor Easy Install Rail Kit	733660-B21
---	------------

HP 2U Large Form Factor Easy Install Rail Kit	733662-B21
---	------------

## HPE USB and SD options

### HPE Flash Media Kits for USB Drives

**NOTE:** HPE qualified blank USB key for use with HPE ProLiant servers that support the VMware virtualization environment and other HPE value-add software. Hewlett Packard Enterprise recommends this industry standard USB flash device for use with VMware ESXi. USB device must be installed in the internal slot of the ProLiant server for use with VMware ESXi. Refer to HPE VMware Getting Started Guide for installation instructions.

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

### HPE Enterprise Mainstream Flash Media Kits for Memory Cards

HP 8GB SD Enterprise Mainstream Flash Media Kit	726113-B21
---	------------

HP 32GB SD Enterprise Mainstream Flash Media Kit	700136-B21
--	------------

## Additional Options

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

[http://h18000.www1.hp.com/products/quickspecs/13971\\_na/13971\\_na.html](http://h18000.www1.hp.com/products/quickspecs/13971_na/13971_na.html)

### HPE Care Pack Services **Proactive Care**

**NOTE:** Collaborative Support plus Proactive services delivered by the onshore, local language Advanced Solution Center (ASC), end-to-end case ownership from a Technical Solution Specialists and Technical Account Manager who remotely delivers firmware/software revision management, proactive scans and incident trend reports. Recommended for customers running a virtualized infrastructure and/or customers who desire an enhanced call support experience.

HP 3 year 4 hour 24x7 ProLiant DL38x(p) Proactive Care Service	U2Z50E
HP 3 year 4 hour 24x7 with Defective Media Retention ProLiant DL38x(p) Proactive Care Service	U2Z53E
HP 3 year 6 hour Call To Repair 24x7 ProLiant DL38x(p) Proactive Care Service	U2Z56E
HP 3 year 6 hour Call To Repair 24x7 w/DefectiveMedia Retention ProLiant DL38x(p) Proactive Care SVC	U2Z59E
HP 3 year 4 hour 24x7 ProLiant DL38x(p) with Insight Control Proactive Care Service	U3N23E
HP 3 year 4hr 24x7 with Defective Media Retention DL38x(p) with Insight Control Proactive Care SVC	U3N26E
HP 3 year 6 hour Call To Repair 24x7 ProLiant DL38x(p) with Insight Control Proactive Care Service	U3N29E
HP 3yr 6hrCallToRepair 24x7w/Defective Media Retention DL38x(p) w/Insight Control Proactive Care SVC	U3N32E
HP 3 year 4-Hour 24x7 with Comprehensive Defective MaterialRetention DL38x(p) ProactiveCare Service	U9B55E
HP 3year 24x7 6-HourCall-to-repair ComprehensiveDefectiveMaterialRetention DL38x(p) ProactiveCareSVC	U9B58E
HP 3year 4-Hour 24x7 w/Comprehensive Defective MaterialRetention DL38x(p) w/IC ProactiveCare Service	U9B73E
HP 3year 24x7 6-H Call-to-repairComprehensiveDefectiveMaterialRetention DL38x(p)wIC ProactiveCareSVC	U9B76E
HP 3 year 6 hour Call To Repair 24x7 ProLiant DL38x(p) with Insight Control Proactive Care Service	U3N29E
HP 3yr 6hrCallToRepair 24x7w/Defective Media Retention DL38x(p) w/Insight Control Proactive Care SVC	U3N32E

### **Installation Services**

**NOTE:** Reduce the time required to get your system up and running and help minimize disruptions to your business.

HP Install ProLiant DL38x(p) Service	U4554E
HP Startup ProLiant DL38x(p) Service	U4555E

**NOTE:** For more information, customer/resellers can contact:

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

## Memory

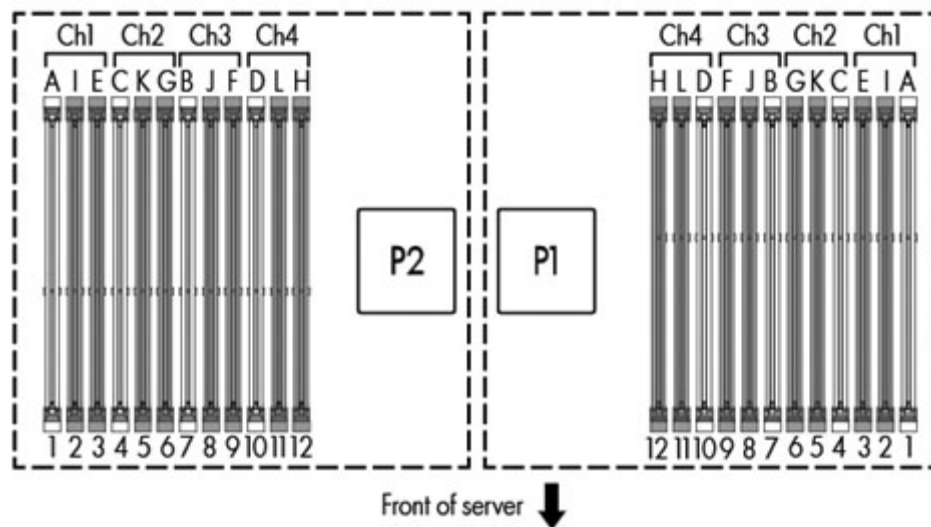
For detailed memory configuration rules and guidelines, please use the Online DDR3 Memory Configuration Tool:

<http://www.hp.com/go/ddr3memory-configurator>

### Memory Subsystem Architecture

Each AMD Opteron family processor socket contains four memory channels that support three DIMMs each for a total of twelve (12) DIMM per installed processor or a grand total of twenty-four (24) DIMMs for the server. Up to 32GB capacity DIMMs are supported for 768GB of memory (24 DIMM slots x 32GB per DIMM).

**Memory population guidelines**



General Memory Population Rules and Guidelines:

- White DIMM slots denote the first slot of a channel. For 1 DPC (DIMM per channel) populate white slots only.
- Install DIMMs only if the corresponding processor is installed.
- If only one processor is installed in a two processor system, only half of the DIMM slots are available.
- To maximize performance, it is recommended to balance the total memory capacity between all installed processors and to load the channels similarly whenever possible.
- RDIMMs operating at either 1.35V or 1.5V may be mixed in any order, but the system will power them at the higher voltage.
- RDIMMs and LRDIMMs are supported up to 3 DIMMs per channel.
- The DL385p Gen8 RBSU has options to set memory for Performance or Power modes. In Performance Mode all memory whether 1.35V DIMMs or 1.5V DIMMs will be set to 1.5V. In Power Mode all memory whether 1.35V or 1.5V will be set to 1.35V for power savings.
- 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 and memory configuration.
- The maximum memory capacity is a function of the memory type and number of installed processors.
- HPE memory from previous generation servers is not qualified on the DL385p Gen8 Server. Certain HPE SmartMemory features such as memory authentication and enhanced performance may not be supported.
- To realize the performance memory capabilities listed in this document, HPE SmartMemory is required. For additional information, please see the HPE SmartMemory QuickSpecs at:  
[http://h18000.www1.hp.com/products/quickspecs/14225\\_na/14225\\_na.html](http://h18000.www1.hp.com/products/quickspecs/14225_na/14225_na.html)
- For memory population rules and additional memory guidelines, please see the DL385p Gen8 user guide at

## Memory

<http://www.hp.com/support>.

DL385p Gen8 Supported Memory Bandwidth and Capacity								
DIMM Type	Registered DIMMS							Load Reduced (LRDIMMs)
DIMM Rank	Single Rank (1R)			Dual Rank (2R)				Quad Rank (4R)
DIMM Capacity	4GB	4GB	8GB	8GB	8GB	16GB	16GB	32GB
DIMM Native Speed (MHz)	1333	1600	1600	1333	1600	1333	1600	1066
Voltage	LV	Std	Std	LV	Std	LV	Std	LV
<b>SLOTS THAT CAN BE POPULATED</b>								
24 slot servers	24	24	24	24	24	24	24	24
<b>MAXIMUM CAPACITY (GB)<sup>1</sup></b>								
24 slot servers	96	96	192	192	192	384	384	768
<b>POPULATED DIMM SPEED (MHz)</b>								
1 DIMM Per Channel	1333	1600	1600	1333	1600	1333	1600	1333
2 DIMM Per Channel	1333	1600	1600	1333/1066 <sup>2</sup>	1600	1333/1066 <sup>2</sup>	1600	1333
3 DIMM Per Channel	1066	1066	1066	1066/800 <sup>3</sup>	1066	1066/800 <sup>3</sup>	1066	800 <sup>4</sup>
<sup>1</sup> Maximum capacity will vary based on individual server platform. <sup>2</sup> Ultra Low Voltage 8GB and 16GB dual rank operate at 1066MT/s speed in 2 DPC configurations. <sup>3</sup> Ultra Low Voltage 8GB and 16GB dual rank operate at 800MT/s speed in 3 DPC configurations. <sup>4</sup> LRDIMM capable of 3 DIMMs per channel.								

### DIMM slot and configuration diagram

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

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

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

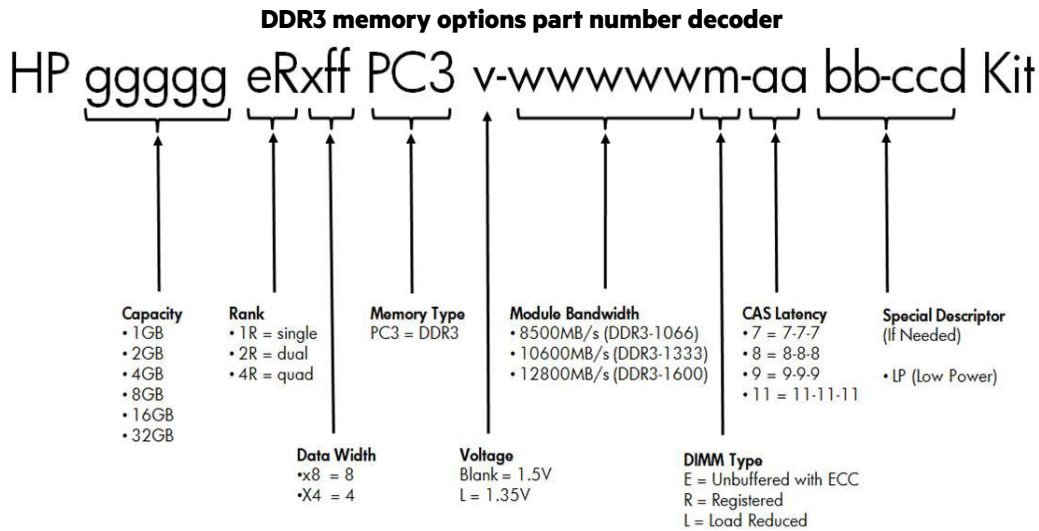
24 DIMM SLOTS (12 per CPU node)					
	slot #	population order	slot #	population order	
Chnl 1	1	A	1	A	Chnl 1
	2	I	2	I	
	3	E	3	E	
Chnl 2	4	C	4	C	Chnl 2
	5	K	5	K	
	6	G	6	G	
<b>CPU1</b>			<b>CPU2</b>		
Chnl 3	7	B	7	B	Chnl 3
	8	J	8	J	

Memory

	9	F	9	F	
Chnl 4	10	D	10	D	Chnl 4
	11	L	11	L	
	12	H	12	H	

**NOTE:** Capacity references are rounded to the common Gigabyte values.

- 1GB = 1024MB
- 2GB = 2048MB
- 4GB = 4096MB
- 8GB = 8192MB
- 16GB = 16384MB
- 32GB = 32768MB



Following are memory options available from HPE:

**HPE Memory**

**NOTE:** To realize the performance memory capabilities listed in this document, HPE SmartMemory is recommended. For additional information, please see the HPE SmartMemory QuickSpecs at:

[http://h18000.www1.hp.com/products/quickspecs/14225\\_na/14225\\_na.html](http://h18000.www1.hp.com/products/quickspecs/14225_na/14225_na.html)

**Registered DIMMs (RDIMMs)**

HP 4GB (1x4GB) Single Rank x4 PC3L-10600R (DDR3-1333) Registered CAS-9 Low Voltage Memory Kit	647871-B21
HP 4GB (1x4GB) Single Rank x4 PC3-12800R (DDR3-1600) Registered CAS-11 Memory Kit	647873-B21
HP 8GB (1x8GB) Dual Rank x4 PC3-12800R (DDR3-1600) Registered CAS-11 Memory Kit	695793-B21
HP 8GB (1x8GB) Dual Rank x4 PC3L-10600R (DDR3-1333) Registered CAS-9 Low Voltage Memory Kit	647877-B21
HP 8GB (1x8GB) Single Rank x4 PC3-12800R (DDR3-1600) Registered CAS-11 Memory Kit	647879-B21

## Memory

HP 16GB (1x16GB) Dual Rank x4 PC3L-10600R (DDR3-1333) Registered CAS-9 Low Voltage Memory Kit 647883-B21

HP 16GB (1x16GB) Dual Rank x4 PC3-12800R (DDR3-1600) Registered CAS-11 Memory Kit 672633-B21

### **Load Reduced DIMMs (LRDIMMs)**

HP 32GB (1x32GB) Quad Rank x4 PC3L-10600L (DDR3-1333) Load Reduced CAS-9 Low Voltage Memory Kit 647885-B21

**NOTE:** HPE memory from previous generation servers may not provide the same performance with the HPE ProLiant DL385p Gen8 Servers as HPE SmartMemory will.

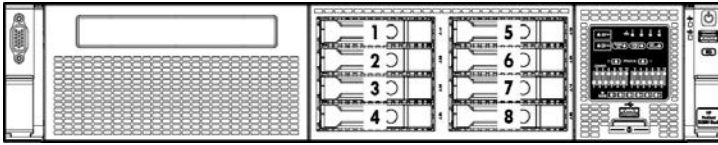
**NOTE:** If only one processor is installed, only half the DIMM slots are available.

**NOTE:** Depending on the memory configuration, the memory speed may run at 1600MHz, 1333MHz, 1066MHz or lower. Please see Memory Population Table or the Online Memory Configuration Tool at:

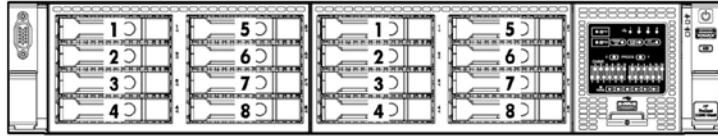
**<http://www.hp.com/go/ddr3memory-configurator>**.

**NOTE:** All DDR3 memory option kits consist of one DIMM per kit. For detailed memory configuration rules and guidelines, please use the Online DDR3 Memory Configuration Tool: **<http://www.hp.com/go/ddr3memory-configurator>**.

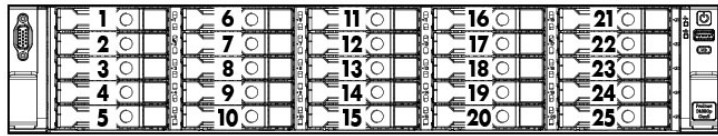
Storage



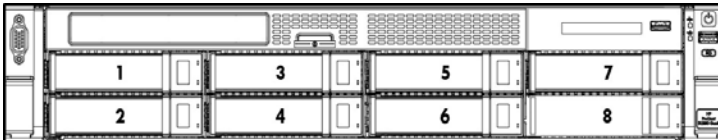
1-8 Eight SFF SAS hot plug drive bays



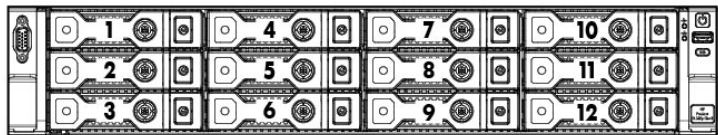
1-8, 9-16 Sixteen SFF SAS hot plug drive bays. Built-In Smart Array manages first 8 drives. Requires 2nd Smart Array Controller for second option of 8 drives.  
**NOTE: This configuration does not support optical drive.**



1-25 Twenty Five SFF SAS hot plug drive bays  
**NOTE: This configuration does not support SID or optical drive.**



1-8 Eight LFF SAS hot plug drive bays.  
**NOTE: This configuration supports a pop-out SID.**



1-12 Twelve LFF SAS hot plug drive bays  
**NOTE: This configuration does not support SID or optical drive.**

**Maximum Storage Capacity - (SAS/SATA HDD)**

Internal	48TB (12 x 4TB SATA LFF with twelve LFF drive bays)
External	200TB (200 x 1TB SAS SFF)
Total	248TB

## Technical Specifications

<b>System Unit</b>	<b>Dimensions</b> (H x W x D) (with bezel)	SFF Drives: 3.44 x 17.54 x 27.50 in (8.73 x 44.55 x 69.85 cm) LFF Drives: 3.44 x 17.54 x 29.50 in (8.73 x 44.55 x 74.93 cm)
	<b>Weight</b> (approximate)	Maximum 61.00 lb (27.66 kg) (all LFF hard drives, power supply, and processor installed)  Minimum 41.0 lb (18.59 kg) (one SFF hard drive, power supply, and processor installed, ODD not installed)
<b>Input Requirements</b> (per power supply)	Rated Line Voltage	100 to 120 VAC 200 to 240 VAC
	Rated Input Current	For 1200 W Power Supply: 10 A (at 100 VAC), 4.9 A (at 200 VAC) For 750 W Power Supply: 8.9 A (at 100 VAC), 4.3 A (at 200 VAC) For 460 W Power Supply: 5.5 A (at 100 VAC), 2.6 A (at 200 VAC)
	Rated Input Frequency	50 to 60 Hz
	Rated Input Power	For 1200 W Power Supply: 930 W (at 100 VAC), 1348 W (at 200 VAC) For 750 W Power Supply: 857 W (at 100 VAC), 824 W (at 200 VAC) For 460 W Power Supply: 526 W (at 100 VAC), 505 W (at 200 VAC)
	<b>BTU Rating</b>	Maximum  For 1200 W Power Supply: 3530 BTU/hr (at 100 VAC), 4600 BTU/hr (at 200 VAC) For 750 W Power Supply: 2925 BTU/hr (at 100 VAC), 2812 BTU/hr (at 200 VAC) For 460 W Power Supply: 1794 BTU/hr (at 100 VAC), 1725 BTU/hr (at 200 VAC)
<b>Power Supply Output</b> (per power supply)	Rated Steady-State Power	For 1200 W Power Supply: 800 W (at 100 VAC), 900 W (at 120 VAC), 1200 W (at 200 to 240 VAC) For 750 W Power Supply: 750 W (at 100 to 120 VAC),



## Technical Specifications

		750 W (at 200 to 240 VAC) For 460 W Power Supply: 460 W (at 100 to 120 VAC), 460 W (at 200 to 240 VAC)
	Maximum Peak Power	For 1200 W Power Supply: 800 W (at 100 VAC), 900 W (at 120 VAC), 1200 W (at 200 to 240 VAC) For 750 W Power Supply: 750 W (at 100 to 120 VAC), 750 W (at 200 to 240 VAC) For 460 W Power Supply: 460 W (at 100 to 120 VAC), 460 W (at 200 to 240 VAC)
<b>System Inlet Temperature</b>	Operating	10° to 35°C (50° to 95°F) at sea level with an altitude derating of 1.0°C per every 304.8 m (1.8°F per every 1000 ft) above sea level to a maximum of 3048 m (10,000 ft), no direct sustained sunlight. Maximum rate of change is 10°C/hr (18°F/hr). The upper limit may be limited by the type and number of options installed. System performance may be reduced if operating with a fan fault or above 30°C (86°F).
	Non-operating	-30° to 60°C (-22° to 140°F). Maximum rate of change is 20°C/hr (36°F/hr).
<b>Relative Humidity</b> (non-condensing)	Operating	10% to 90% relative humidity (Rh), 28°C (82.4°F) maximum wet bulb temperature, non-condensing.
	Non-operating	5% to 95% relative humidity (Rh), 38.7°C (101.7°F) maximum wet bulb temperature, non-condensing.
<b>Altitude</b>	Operating	3048 m (10,000 ft). This value may be limited by the type and number of options installed. Maximum allowable altitude change rate is 457 m/min (1500 ft/min).
	Non-operating	9144 m (30,000 ft). Maximum allowable altitude change rate is 457 m/min (1500 ft/min).
<b>Acoustic Noise</b>	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). The listed sound levels apply to standard shipping configurations. Additional options may result in increased sound levels. <b>NOTE: The Listed sound levels apply to standard shipping configurations. Additional options may result in increased sound levels.</b>	
	<b>Idle</b>	
	LWAd	5.5 B

## Technical Specifications

	LpAm	37 dBA
	<b>Operating</b>	
	LWAd	5.5 B
	LpAm	37 dBA
<b>Emissions Classification (EMC)</b>	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
	<b>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.</b>	
	<b>NOTE: The Listed sound levels apply to standard shipping configurations. Additional options may result in increased sound levels.</b>	

<b>HPE Smart Array P420i Controller</b>	<b>Dimensions</b>	Embedded
	<b>Disk Drive and Enclosure Interface - Transfer Rate</b>	6Gb/s SAS (Serial Attached SCSI) 3Gb/s SATA (Serial ATA)
	<b>SAS Connectors</b>	2 internal 4X connectors
	<b>Cache Memory Speed</b>	DDR2-800MHz with 40 or 72-bit wide bus
	<b>Server Interface</b>	x4 PCIe 2.0 provides 2GB/s maximum bandwidth
	<b>SAS Speed</b>	(8) 6Gb/s SAS links provide 4.8GB/s maximum bandwidth
	<b>Cache Memory</b>	Zero Memory RAID has no cache memory 40-bit 256MB ECC protected cache (battery upgrade available) 72-bit 512MB BBWC or 72-bit 512MB and 1G FBWC Zero Memory, Up to 2 logical volumes (8 physical drives)
	<b>Logical Drives Supported</b>	Up to 64 logical drives with cache
	<b>Host Memory Addressing</b>	64-bit, supporting greater than 4GB server memory space
	<b>RAID Support</b>	RAID 6, 60 (Advanced Data Guarding) RAID 5, 50 (Distributed Data Guarding) <b>NOTE: A minimum of 512 MB cache is required to enable RAID 5, 50, 6, 60</b> <b>NOTE: HPE Smart Array Advanced Pack (SAAP 2.0) is no longer required to enable RAID 6 &amp; 60 (Advanced Data Guarding). However, controller must be in firmware version 4.68 (or later).</b> RAID 1+0 (Striping & Mirroring) RAID 0 (Striping), RAID 1 (Mirroring)

<b>HPE Ethernet 1Gb 4-port 331FLR Adapter</b>	<b>Network Interface Compatibility</b>	10Base-T/100Base-TX/1000Base-TX IEEE 802.3 10Base-T IEEE 802.3ab 1000Base-T
---	--	---

## Technical Specifications

	IEEE 802.3u 100Base-TX	
	IEEE 802.3ad 1000Base-TX	
	IEEE 802.1p 100Base-TX	
	IEEE 802.1q 100Base-TX	
<b>Data Transfer Method</b>	PCI Express, four lanes (x4)	
<b>Number of Ports</b>	4	
<b>Controller</b>	BCM5719	
<b>Network Transfer Rate</b>	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 Duplex)	1000Mb/s per port, 4000 Mb/s Combined
	1000Base-TX (Full Duplex)	2000Mb/s per port, 8000 Mb/s Combined
	<b>Connector</b>	Two RJ-45
<b>Cable Support</b>	10Base-T	Categories 3, 4 or 5 UTP; up to 328 ft (100 m)
	10/100/1000Base-TX	Category 5 or higher UTP; up to 328 ft (100 m)

<b>HPE Ethernet 10Gb 2-port 530FLR-SFP+ Adapter</b>	<b>Network Interface</b>	10Base-T/100Base-TX/1000Base-TX	
	<b>Compatibility</b>	IEEE 802.3 10Base-T	
		IEEE 802.3ab 1000Base-T	
		IEEE 802.3u 100Base-TX	
		IEEE 802.3ad 1000Base-TX	
		IEEE 802.1p 100Base-TX	
		IEEE 802.1q 100Base-TX	
	<b>Data Transfer Method</b>	PCI Express, four lanes (x4)	
	<b>Controller</b>	BCM57810S	
	<b>Network Transfer Rate</b>	10Base-T (Half-Duplex)	10 Mb/s
10Base-T (Full-Duplex)		20 Mb/s	
100Base-TX (Half-Duplex)		100 Mb/s	
100Base-TX (Full-Duplex)		200 Mb/s	
1000Base-TX (Half and Full-Duplex)		2000Mb/s	
<b>Connector</b>	Two SFP+		
<b>Cable Support</b>	10Base-T	Categories 3, 4 or 5 UTP; up to 328 ft (100 m)	
	100Base-TX	Category 5 or higher UTP; up to 328 ft (100 m)	
	1000BaseTX	Category 5 or higher UTP;	

## Technical Specifications

up to 328 ft (100 m)

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

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

## Summary of Changes

Date	Version History	Action	Description of Change
17-Dec-2015	From Version 44 to 45	Added	Smart Buy models were added to the NA version.
01-Dec-2015	From Version 43 to 44	Added	New Hard Drives offering was added to HPE Hard Drives section. Added new HPE PCIe Workload Accelerators.
		Changed	What's New was updated.
		Removed	Obsolete SKUs were removed from the QuickSpecs.
28-Sep-2015	From Version 42 to 43	Added	Added new 6Gb SATA Solid State Drives. Added new HPE OneView management software.
		Removed	Obsolete SKUs were removed from the QuickSpecs.
17-Aug-2015	From Version 41 to 42	Added	New Solid State Drives offering was added to HPE Hard Drives section.
01-Jun-2015	From Version 40 to 41	Added	New Hard Drives were added to Core Options.
		Changed	Maximum Internal Storage section was revised.
		Removed	Obsolete SKUs were removed from Core Options and Additional Options.
30-Mar-2015	From Version 39 to 40	Added	Added new Hard Drives to Core Options.
		Changed	What's New and Standard Features were revised.
		Removed	Obsolete processors were removed from QuickSpecs.
09-Feb-2015	From Version 38 to 39	Added	New Hard Drives, DirectFlow UPS, Rack and Tower G4 Models, LCD8500 1U Rackmount Models and Options were added to the Additional Options section.
		Changed	Service and Support section was revised. HPE Uninterruptible Power Systems and HPE Rack Options in Additional Options section were revised.
01-Dec-2014	From Version 37 to 38	Added	HPE 1.6TB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive and HPE 1.6TB 6G SATA Value Endurance LFF 3.5-in SC Converter Enterprise Value 3yr Wty Solid State Drive were added to HPE Hard Drives.
		Removed	Proactive Care Services (U3N17E, U3N29E, and U3N32E), Collaborative Support, and Installation support (UD940E) were removed from HPE Care Pack Services.
01-Nov-2014	From Version 36 to 37	Changed	Version number was increased in sequence to match Product Bulletin version number.
01-Nov-2014	From Version 35 to 36	Changed	Service and Support section was revised.
29-Sep-2014	From Version 34 to 35	Added	New Solid State Drives were added. HPE Managed Power Distribution Units (maPDU) was added to Additional Options.
		Changed	Service and Support section was revised. HPE Hard Drives was revised in Core Options section.
		Removed	Obsolete part numbers were removed.
09-Sep-2014	From Version 33 to 34	Changed	Minor change made to the Memory section.
18-Aug-2014	From Version 32 to 33	Added	New Hard Drives were added. HPE Remote mPDUs half height version were added.
		Changed	Core Options, Additional Options
10-Jun-2014	From Version 31 to 32	Added	Configuration Information – Factory Integrated Models – Note added to HPE ProLiant DL385p Gen8 12 LFF Configure-to-order Server and HPE ProLiant DL385p Gen8 25 SFF Configure-to-

## Summary of Changes

			<p>order Server.</p> <p>12G SAS VE SFF (2.5-inch) SC EV Solid State Drives and 12G SAS VE LFF (3.5-inch) SCC EV Solid State Drives were added to Hard Drives.</p> <p>Light Endurance (LE) PCIe Workload Accelerators was added to HPE PCIe Workload Accelerator Options.</p> <p>HPE RDX500 USB3.0 External Disk Backup System, HPE RDX1000 USB3.0 External Disk Backup System, HPE RDX 2TB USB3.0 External Disk Backup System and HPE RDX USB3.0 External Docking Station were added to HPE RDX Removable Disk Backup System.</p> <p>HPE RDX Removable Disk Backup Systems DL Module was added to HPE Disk Backup.</p>
		Changed	<p>Core Options, Additional Options and Memory were revised.</p> <p>HPE Remote Monitoring Power Distribution Units (mPDU) was revised.</p>
		Removed	<p>HPE 8GB (1x8GB) Dual Rank x4 PC3U-10600R (DDR3-1333) Registered CAS-9 Ultra Low Voltage Memory Kit and HPE 16GB (1x16GB) Dual Rank x4 PC3U-10600R (DDR3-1333) Registered CAS-9 Ultra Low Voltage Memory Kit were removed from Memory.</p> <p>800GB 6G SAS Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive, 200GB 6G SAS Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive, 400GB 6G SAS SLC SFF (2.5-inch) SC Enterprise Performance 3yr Warranty Solid State Drive and 200GB 6G SAS SLC SFF (2.5-inch) SC Enterprise Performance 3yr Warranty Solid State Drive were removed from Hard Drives.</p>
09-May-2014	From Version 30 to 31	Changed	Service and Support, Storage Controllers, Disk Enclosures, and Basic and Remote Monitoring Power Distribution Units were revised.
31-Mar-2014	From Version 29 to 30	Changed	Hard Drives, HPE InfiniBand, Insight Software, Storage Controllers, Tape Backup, Storage Options, Rack Options, and HPE Care Pack Series were revised.
07-Mar-2014	From Version 28 to 29	Changed	Changes were made in the North America and Canada versions.
01-Mar-2014	From Version 27 to 28	Changed	Changes were made in the North America and Canada versions.
18-Feb-2014	From Version 26 to 27	Changed	Hard Drives, HPE InfiniBand, HPE Rack Options, and Storage Controllers were revised.
23-Jan-2014	From Version 25 to 26	Changed	Changes made to the North America and Canada versions only.
13-Dec-2013	From Version 24 to 25	Changed	<p>Processors and Converged Infrastructure Management Software were revised</p> <p>HPE 1.2TB 6G SAS 10k rpm SFF SC Dual Port Enterprise 3yr Warranty Hard Drive was added and 3G SATA MLC Hot Plug SFF and LFF Enterprise Mainstream Solid State Drives were removed from Hard Drives</p> <p>HPE Basic Power Distribution Units and HPE Remote Monitoring Power Distribution Units were revised in Additional Options</p> <p>First Generation Accelerators were removed from I/O</p>

## Summary of Changes

			Accelerator Options HPE Power Distribution Units was removed from Additional Options HPE SmartCache and HPE H221 PCIe 3.0 SAS Host Bus Adapter were added to Storage Controllers
15-Nov-2013	From Version 23 to 24	Changed	Minor change made to the Core Options/ Hard Drives Section.
10-Oct-2013	From Version 22 to 23	Added	Converged Infrastructure Management Software was added HPE 600GB 6G SATA Value Endurance SFF and LFF SC Enterprise Value Solid State Drives and HPE 300GB 6G SATA Value Endurance SFF and LFF SC Enterprise Value Solid State Drives were added to Hard Drives HPE Ethernet 10Gb 2-port 570SFP+ Adapter and HPE Ethernet 10Gb 2-port 570FLR-SFP+ Adapter were added to Networking Mainstream Endurance (ME) PCIe Workload Accelerators were added to HPE PCIe Workload Accelerator Options HPE Remote Monitoring Power Distribution Units were added to Additional Options HPE 8GB SD Enterprise Mainstream Flash Media Kit was added to HPE USB and SD Options
10-Sep-2013	From Version 21 to 22	Changed	Models, Core Options, and Additional Options were revised.
24-Jul-2013	From Version 20 to 21	Changed	Supported Memory and Bandwidth chart was revised in the Memory section.
15-Jul-2013	From Version 19 to 20	Changed	HPE Disk Backup was revised in Additional Options.
17-May-2013	From Version 18 to 19	Changed	Changes made to the following Sections Standard Features- Maximum Internal Storage Configuration Information- Step 3, HPE Insight Software Core Options- HPE Unique Options, HPE Hard Drives, HPE Infiniband, HPE I/O Expansion Options Additional Options- HPE PCIe Workload Accelerator, HPE Storage Controllers, HPE Intelligent Power Distribution Units (iPDU), HPE Basic Power Distribution Units, HPE Rack Options, HPE USB and SD Options, HPE Care Pack Services
05-Apr-2013	From Version 17 to 18	Added	Additional Options: Added Note to HPE Tape Backup section.
25-Mar-2013	From Version 16 to 17	Added	Configurations Options: Added a NOTE to the HPE Power Supplies section. Core Options: Added a NOTE to the HPE Power Supplies section.
		Removed	Additional Options: Removed 641027-B21, 600282-B21 and 600279-B21 from the HPE I/O Accelerator Options section.
15-Mar-2013	From Version 15 to 16	Changed	Changes made to the following sections: Models Configuration Information - Step 1 Core - HPE Optical Drives
27-Feb-2013	From Version 14 to 15	Changed	Changes made to the Optional Features, Core and Additional options sections.
19-Feb-2013	From Version 13 to 14	Changed	Changes made to the Models, Configuration Information and Options sections.
12-Dec-2012	From Version 12 to 13	Changed	Changes made to the North America and Canada versions only.
10-Dec-2012	From Version 11 to 12	Changed	Correction was made to remove a duplication in the Processors section of Standard Features.
04-Dec-2012	From Version 9 to 11	Changed	Changes were made throughout the QuickSpecs.

## Summary of Changes

28-Sep-2012	From Version 8 to 9	Changed	Change made throughout the Quick Spec.
24-Sep-2012	From Version 7 to 8	Changed	Change made in Standard Features, Optional Features and Technical Specifications sections.
31-Aug-2012	From Version 6 to 7	Changed	Change made in Models, Configuration Information and Additional Options sections.
27-Aug-2012	From Version 5 to 6	Changed	Change made in Standard Features section.
22-Aug-2012	From Version 4 to 5	Changed	Changes made in Technical Specifications.
17-Aug-2012	From Version 3 to 4	Changed	Changes made throughout the QuickSpecs.
09-Jul-2012	From Version 2 to 3	Changed	Changes made in the North America and Canada versions only.
15-Jun-2012	From Version 1 to 2	Changed	Changes made in Configuration Information and Core Options.



**Sign up for updates**

★ Rate this document

© Copyright 2015 Hewlett Packard Enterprise Development LP. The information contained herein is subject to change without notice. The only warranties for Hewlett Packard Enterprise products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. Hewlett Packard Enterprise shall not be liable for technical or editorial errors or omissions contained herein.

Microsoft and Windows NT are US registered trademarks of Microsoft Corporation. AMD, the AMD Arrow logo, AMD Opteron™, and combinations thereof, are trademarks of Advanced Micro Devices, Inc.

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

c04230735 - 14329 - North America - V45 - 17-December-2015

