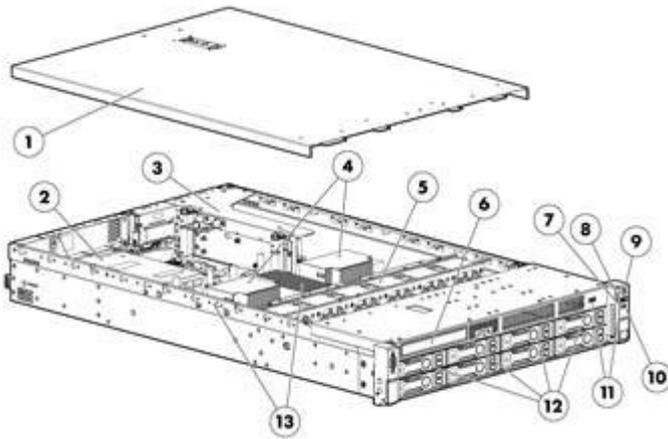


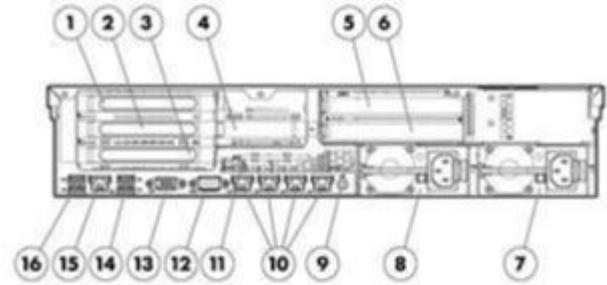
Overview

The HP ProLiant DL380e Gen8 sets the next generation standards of 2U 2-socket rack servers for the industry. With enhanced configuration flexibility, unmatched performance, and leading energy efficient design the DL380e Gen8 offers the perfect solution for the dynamic compute and storage requirements of today's demanding datacenters.



Front View:

1. Quick removal access panel
2. Redundant Hot Plug Power Supplies(upgradeable option)
3. Removable Riser Cage assembly
4. Up to 2 Intel E5-2400 Series Processors
5. Removable Hot Plug Fans modules, (optional, full N+1 redundancy)
6. Optical Disk Drive Bay
7. Health LED
8. Network activity LED
9. Power On /Standby button and system power LED button
10. Unit ID LED
11. USB connectors
12. Hard Drive bays
13. 12 DIMM slots: DDR3 Registered(RDIMM), Load Reduced (LRDIMM) or Unbuffered(UDIMM) memory



Rear View:

1. Slot1 PCIe3 x8 (4, 1)
2. Slot2 PCIe3 x16 (8, 4, 1)
3. Only for riser board without SAS support: Slot3 PCIe3 x8 (8, 4, 1)
4. Slot4 PCIe2 x8 (4, 1)
5. Slot5 PCIe3 x16 (16, 8, 4, 1) (optional)
6. Slot6 PCIe3 x16 (8, 4, 1) (optional)
7. Power Supply bay1 (Primary Power Supply)
8. Power Supply bay 2 (Shown populated: optional)
9. Unit ID LED/Button
10. HP Ethernet 1Gb 4-port 366i Adapter (4 x 1GbE)
11. Service tool
12. Serial connector
13. Video connector
14. USB connectors (2)
15. iLO connector
16. USB connectors (2)

What's New

- 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

Entry Processors - E5-2400v2 series Processors

NOTE: All support up to 1333MHz DDR3 memory speeds.

Intel® Xeon® E5-2407v2(2.4GHz/4-core/10MB/6.4GT/s QPI/80W, DDR3-1333)

Intel® Xeon® E5-2403v2(1.8GHz/4-core/10MB/6.4GT/s QPI/80W, DDR3-1333)

Base Processors - E5-2400v2 series Processors

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

Intel® Xeon® E5-2430v2(2.5GHz/6-core/15MB/7.2GT/s QPI/80W, DDR3-1600,HT, Turbo2- 3/3/4/4/5/5) Turbo

Intel® Xeon® E5-2430Lv2(2.4GHz/6-core/15MB/7.2GT/s QPI/60W, DDR3-1600,HT, Turbo2- 3/3/4/4/5/5) Turbo

Intel® Xeon® E5-2420v2(2.2GHz/6-core/15MB/7.2GT/s QPI/80W, DDR3-1600,HT, Turbo2- 3/3/4/4/5/5) Turbo

Intel® Xeon® E5-2440v2(1.9GHz/8-core/20MB/7.2GT/s QPI/95W, DDR3-1600,HT, Turbo2- 3/3/4/4/5/5) Turbo

Performance Processors - E5-2400v2 series Processors

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

Intel® Xeon® E5-2450v2(2.5GHz/8-core/20MB/8.0GT/s QPI/95W, DDR3-1600,HT, Turbo2- 5/5/6/6/7/7/8/8) Turbo +

Intel® Xeon® E5-2470v2(2.4GHz/10-core/25MB/8.0GT/s QPI/95W, DDR3-1600,HT, Turbo2- 5/5/6/6/7/7/8/8) Turbo+

Intel® Xeon® E5-2450Lv2(1.7GHz/10-core/25MB/8.0GT/s QPI/60W, DDR3-1600, HT, Turbo2- 5/5/6/6/7/7/8/8) Turbo+

Entry Processors - E5-2400 series Processors

NOTE: All support up to 1066MHz DDR3 memory speeds.

Intel® Xeon® E5-2407(2.2GHz/4 -core/10MB/6.4GT-s QPI/80W, DDR3-1066)

Intel® Xeon® E5-2403(1.8GHz/4 -core/10MB/6.4GT-s QPI/80W, DDR3-1066)

Base Processors - E5-2400 series Processors

NOTE: All support up to 1333MHz DDR3 memory speeds.

Intel® Xeon® E5-2440(2.4GHz/6 -core/15MB/7.2GT-s QPI/95W, DDR3-1333, HT, Turbo2- 3/3/4/4/5/5) Turbo

Intel® Xeon® E5-2430(2.2GHz/6 -core/15MB/7.2GT-s QPI/95W, DDR3-1333, HT,Turbo2- 3/3/4/4/5/5) Turbo

Intel® Xeon® E5-2430L(2.0GHz/6 -core/15MB/7.2GT-s QPI/60W, DDR3-1333,HT, Turbo2- 3/3/4/4/5/5) Turbo

Intel® Xeon® E5-2420(1.9GHz/6 -core/15MB/7.2GT/s QPI/95W, DDR3-1333, HT, Turbo2- 3/3/4/4/5/5) Turbo

Performance Processors - E5-2400 series Processors

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

Intel® Xeon® E5-2470(2.3GHz/8-core/20MB/8.0GT-s QPI/95W, DDR3-1600,HT, Turbo2- 5/5/6/6/7/7/8/8) Turbo+

Intel® Xeon® E5-2450(2.1GHz/8 -core/20MB/8.0GT-s QPI/95W, DDR3-1600,HT, Turbo2- 5/5/6/6/7/7/8/8) Turbo+

Intel® Xeon® E5-2450L(1.8GHz/8 -core/20MB/8.0GT-s QPI/70W, DDR3-1600,HT, Turbo2- 2/2/3/3/4/4/5/5) Turbo+

NOTE: HT indicates that the processor model supports Intel® Hyper-Threading Technology.

NOTE: Turbo2 indicates the maximum potential frequency increment when using Intel® Turbo Boost Technology, with 8, 7, 6, 5, 4, 3, 2 and 1 cores active.

NOTE: DDR3 speed is the maximum memory speed of the processor. Actual memory speed may depend on

Standard Features

the quantity and type of DIMMs installed.

NOTE: Up to 2 processors supported. Mixing different processor models is not supported.

NOTE: For the Intel® C600 Chipset E5-2400 Series, the letter preceding the model number indicates the Product Line (E3, E5, E7); 2400x v#, 2 = number of CPUs in a Node, 4 is socket/segment designation, 00 = Processor SKU, x = L for low power SKUs and v# (not yet designated) = version number.

Cache Memory

One of the following depending on model

25MB (1x25MB) Level 3 cache

NOTE: for ten-core processors.

20MB (1x20MB) Level 3

NOTE: For Eight-core processors.

15MB (1x15MB) Level 3

NOTE: For Six-core processors.

10MB (1x10MB) Level 3

NOTE: For Quad-core processors.

NOTE: All processor models above list the L3 Cache associated with that particular processor.

Chipset

One of the following depending on model

Intel® C600 Series Chipset

Intel® E5-2400 Processor Family

Intel® E5-2400v2 Processor Family

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

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

Upgradeability

One of the following depending on model

Upgradeable to two processors (20 cores)

NOTE: Processor upgrade available from Intel® Xeon® Processors E5-2400 to E5-2400 v2. Please contact HP Technology Sales (<http://www.hp.com/support>), your local HP Re-seller, or reference the following Customer Advisory: [ProLiant Servers-Instructions for Upgrading an HP ProLiant Gen8 Server from an Intel Xeon Processor E5-2400 to an Intel Xeon Processor E5-2400v2](#), regarding critical details before upgrading. An explanation of requirements and limitations are provided.

On System Management

Chipset

One of the following depending on model

HP iLO (Firmware: HP iLO 4)

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

Memory Protection

One of the following depending on model

Advanced ECC

Online Spare

Lock-step mode

Standard Features

Memory

One of the following depending on model

Type	HP SmartMemory DDR3 Load Reduced (LRDIMM), Registered (RDIMM) or Unbuffered (UDIMM)
Maximum Capacity (LRDIMM)	384GB (12 x 32GB LRDIMM @1333MHz)
Maximum Capacity (RDIMM)	192GB (12 x 16GB RDIMM @1600MHz or 1333MHz)
Maximum Capacity (UDIMM)	96GB (12 x 8GB UDIMM @1333MHz)

NOTE: HP memory from previous generation servers are not fully compatible with the HP ProLiant DL380e Gen8 Server.

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

http://h18000.www1.hp.com/products/quickspecs/14225_div/14225_div.html

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

NOTE: UDIMM max DIMM population is 12

NOTE: Depending on the memory configuration and processor model, the memory speed may run at 1600MHz, 1333MHz, or 1066MHz. 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

The HP ProLiant DL380e Gen8 server offers the customer a quad-port NIC standard with the option to upgrade with a variety of networking options.

HP Ethernet 1Gb 4-port 366i Adapter

Expansion Slots

Primary Riser (Standard)

Expansion Slots #	Technology	Bus Width**	Connector Width	Form Factor	Notes
1	PCIe 3.0	X4	X8	Full Length, Full Height Slot	
2	PCIe 3.0	X8	X16	Half Length, Full Height Slot	
3	PCIe 3.0	X8	X8	Half Length, Full Height Slot	
4	PCIe 2.0	X4	X8	Low Profile	

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

Primary Riser (Riser with SAS)

Expansion Slots #	Technology	Bus Width**	Connector Width	Form Factor	Notes
1	PCIe 3.0	X4	X8	Full Length, Full Height Slot	
2	PCIe 3.0	X8	X16	Half Length, Full Height Slot	
3	PCIe 3.0	NA	NA	NA	Not available for Riser with SAS
4	PCIe 2.0	X4	X8	Low Profile	

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

NOTE: This riser kit comes with B320i Smart Array controller which provides support for up to 8 SAS or SATA drives and requires a SAS license key to support SAS drives.

Secondary Riser (Optional)

Expansion Slots #	Technology	Bus Width**	Connector Width	Form Factor	Notes
5	PCIe 3.0	X16	X16	Full length, full height slot	

Standard Features

6 PCIe 3.0 X8 X16 Half length, full height slot

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

NOTE: When populating slots on secondary riser (p/n 661628-B21), a second processor must be installed.

NOTE: Slot 5 supports up to 225w PCIe cards. An additional Graphic Card Power Adapter Kit is required (663282-B21). See Option Section below for offering.

NOTE: Adding the rear drive cage negates the space required for secondary optional riser slots 5 & 6.

HP Server ROM

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

HP 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.

HP 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.

HP's 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 HP ROM-Based Setup Utility (RBSU).

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

Storage Controller

One of the following depending on model

Entry Model - SATA	HP Dynamic Smart Array B120i Controller NOTE: Provides support for up to 6 SATA drives and data transmission speeds up to 3Gb/s
Entry Model - SAS	HP Dynamic Smart Array B320i/512MB FBWC Controller NOTE: Provides support for up to 8 SAS/SATA drives, data transmission speeds up to 6Gb/s and includes SAS license key.
Base Models - LFF	HP Dynamic Smart Array B320i/512MB FBWC Controller NOTE: Provides support for up to 8 SATA drives, data transmission speeds up to 6Gb/s and requires purchase of SAS license key for SAS mode.
Base Model - SFF	HP Dynamic Smart Array B320i/512MB FBWC Controller NOTE: Provides support for up to 8 SAS/SATA drives, data transmission speeds up to 6Gb/s and includes SAS license key.
High Performance Models	HP Smart Array P420/1GB FBWC Controller (RAID 0/1/1+0/5/5+0/6/6+0)
Storage Models - LFF	HP Smart Array P420/1GB FBWC Controller (RAID 0/1/1+0/5/5+0/6/6+0)
Storage Models - SFF	HP Smart Array P420/2GB FBWC Controller (RAID 0/1/1+0/5/5+0/6/6+0)

Standard Features

Internal Storage Devices One of the following depending on model	Diskette Drive	None
	Optical Drive	Optional DVD-ROM, DVD-RW NOTE: This option available with all 8SFF or 8LFF drive bay models.
Hard Drives Drive Bays		None ship standard
		8 SFF drive bays total with Optical Bay Optional: +8SFF drive bay (total of 16SFF drive bays) NOTE: The Optical Drive bay is not available with +8SFF drive bay optional upgrade. 8 LFF drive bays total with Optical Bay 12 LFF drive bays total without Optical Bay Optional: +2 Rear Drive Bays (LFF or SFF) 25 SFF drive bays total without Optical Bay Optional: +2 Rear Drive Bays (LFF or SFF) NOTE: Drive cage changes are not supported except for adding +8SFF to an existing 8SFF drive cage. NOTE: Adding the rear drive cage negates the space required for secondary optional riser slots 5 & 6. NOTE: All Pre-configured Models come populated with some hard drive blanks installed. Should the customer need additional hard drive blanks, they can order more using either P/N 666987-B21: HP SFF Gen8 Hard Drive Blank Kit or P/N 666986-B21: HP 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.

Maximum Internal Storage One of the following depending on model	Hot Plug SFF SAS	32.4TB	27 x 1.2TB (with 25SFF drive cage + Rear 2SFF drive cage)
	Hot Plug SFF SATA	27.0TB	27 x 1TB (with 25SFF drive cage + Rear 2SFF drive cage)
	Hot Plug LFF SAS	56.0TB	14 x 4TB (with 12LFF drive cage + Rear 2LFF drive cage)
	Hot Plug LFF SATA	56.0TB	14 x 4TB (with 12LFF drive cage + Rear 2LFF drive cage)
	Hot Plug SFF SAS SSD	21.6TB	27 x 800GB (with 25SFF drive cage + Rear 2SFF drive cage)
	Hot Plug SFF SATA SSD	21.6TB	27 x 800GB (with 25SFF drive cage + Rear 2SFF drive cage)
	Hot Plug LFF SATA SSD	11.2TB	14 x 800GB (with 12LFF drive cage + Rear 2LFF drive cage)

Standard Features

Interfaces

Serial	1
Video	2 (1 front, 1 back) not active simultaneously
LOM Network Ports	4x1GbE ports
HP iLO Remote Management Network Port	1 Gb Dedicated
SD slot	1 Internal Secure NOTE: The SD slot is not a hot-pluggable device. Customers should not attempt to plug an SD card into the SD slot while the server is powered.
USB 2.0 Ports	Up to 7 total: up to 2 front, 4 back, 1 internal (secure) NOTE: 12LFF and 25SFF drive cage models have 1 front, 4 back and 1 internal USB ports.

Industry Standard Compliance

ACPI 2.0b Compliant
PCIe 3.0 Compliant
PXE Support
WOL Support
Microsoft® Logo certifications
USB 2.0 Compliant

Server Power Cords

One of the following depending on model

High voltage power cord ships standard with all part numbers.

NOTE: HP 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 HP 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_div/14209_div.html

Standard Features

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.

HP's Common Slot (CS) power supplies allow for commonality of power supplies across a wide range of ProLiant and Integrity servers, as well as HP Storage solutions, and are designed to provide the highest power supply efficiency without degrading system performance. HP CS power supplies are tested by the Electric Power Research Institute (EPRI) and certified through the ECOS 80 Plus power supply program. HP CS power supply options provide efficiency ratings of up to 96% (Titanium) 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 HP 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.

HP CS Platinum Plus and Titanium power supplies are required when enabling HP's 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 HP's IPD solution, go to <http://www.hp.com/go/ipd>.

It is highly recommended that you use the HP Power Advisor in defining the "Right-Size" power supply for your needs. HP Power Advisor can be accessed at: <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 <http://www.80plus.org/>.

Redundant Power: Optional (1+ 1) 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_div/14209_div.html

System Fans

One of the following depending on model

(4) Hot-Plug Non-redundant Fans ship standard in 1P Models

- 1P: 4 fans - non-redundancy
- 1P: 5 fans - redundancy

(6) Hot-plug Redundant Fans ship standard in 2P Models

- 2P: 5 fans - non-redundancy
- 2P: 6 fans - redundancy

NOTE: Customers may separately purchase redundant fans with the 667855-B21 option kit. Additional fan to support redundancy are also included in -B21 processor option kits when upgrading from one processor to two processors.

Required Cabling

For required cabling information, refer to the HP Web site at: <http://www.hp.com/servers/dl380e-gen8>.

Standard Features

Operating Systems and Virtualization Software Support for ProLiant Servers

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

NOTE: For more information on HP's Certified and Supported ProLiant Servers for OS and Virtualization Software and latest listing of software drivers available for your server, please visit our Support Matrix at: <http://www.hp.com/go/ossupport> and our driver download page <http://www.hp.com/support/DL380eGen8>

Graphics

Integrated Matrox G200 video standard

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

Form Factor

One of the following depending on model

2U Rack form factor
Entry models ship with fixed rails.
All other models ship with sliding rails and cable management system.
8 SFF Drive Bay Version:
3.44 (8.75 cm) Height x 17.54" (44.55 cm) Width x 27.5" (69.85 cm) Length
8 LFF Drive Bay Version:
3.44 (8.75cm) Height x 17.54" (44.55 cm) Width x 29.5" (74.94cm) Length
12 LFF Drive Bay Version:
3.44 (8.75cm) Height x 17.54" (44.55 cm) Width x 29.5" (74.94cm) Length
25 SFF Drive Bay Version:
3.44 (8.75 cm) Height x 17.54" (44.55 cm) Width x 27.5" (69.85 cm) Length

On System Management

HP iLO Management Engine

HP 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. HP iLO Management Engine comes standard on all HP ProLiant Gen8 servers. The HP iLO Management Engine portfolio includes:

- **HP iLO:** The HP iLO (Integrated Lights-Out) management processor is the core foundation for the HP iLO Management Engine
- **HP 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.
- **HP 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.
- **HP 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

Standard Features

updates.

- **HP 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 HP iLO Management Engine technologies whitepaper

Security

Power-on password
Serial interface control
Administrator's password

Warranty

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

NOTE: Server Warranty includes 3-Year Parts, 1-Year Labor, 1-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 involve added complexity. Customers may choose to have HP 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

HP Insight Management	HP Insight Control	<p>HP 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. HP Insight Control 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.</p> <p>HP Insight Control includes one year of 24 x 7 HP Software Technical Support and Update Service ensuring rapid access to HP support staff and proactive delivery of software updates. For more information about this service, see: http://www.hp.com/services/insight.</p>
	HP iLO Essentials	<p>HP iLO Essentials license ideal for small and medium business customers. The specially created HP iLO Essentials (a subset of iLO Advanced functionality) saves SMB customers time and money, by ease of remote server set up through the interactive virtual media, lowering operational costs with remote access via the Integrated Remote Console, and faster time to resolution with email-based proactive notifications. With this newly designed HP iLO Essentials license SMB customers now have the option of a server management package solely design and priced just right for their IT environments. HP iLO Essentials is available on all HP ProLiant Gen8 e-series making this an ideal solution for small business owners. For more information, see: http://www.hp.com/go/iLO/essentials</p>
	HP iLO Advanced	<p>HP 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 HP 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/iLOADVANCE</p>
	HP Matrix Operating Environment	<p>The HP 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.</p>

The HP Matrix OE includes the automated provisioning, optimization, and recovery management capabilities for HP 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>

Optional Features

High Performance Clusters

HP Cluster Platforms	HP 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
HP HPC Interconnects	High Performance Computing (HPC) interconnect technologies are available for this server as part of the HP Cluster Platform portfolio. These high-speed InfiniBand and Gigabit interconnects are fully supported by HP when integrated within an HP cluster. Flexible, validated solutions can be defined with the help of configuration tools. http://www.hp.com/techservers/clusters/ucp/index.html
HP Insight Cluster Management Utility	HP Insight Cluster Management Utility (CMU) is an HP-licensed and HP-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 HP storage software. Our storage software helps you reduce costs, simplify storage infrastructure, protect vital assets and respond faster to business opportunities.

Storage software that gets the job done:

- **Data Protection and Recovery Software**
Whether you're a large enterprise or a smaller business, HP data protection and recovery software will cost-effectively protect you against disaster and ensure business continuity.
- **Data Archive and Migration Software**
HP's storage software enables you to comply with data retention and retrieval requirements, improve application performance, and reduce costs by efficiently migrating infrequently accessed or less valuable data to lower cost storage.
- **Storage Resource Management Software (SRM)**
HP's storage resource management software reduces operational costs and provides the command and control foundation you need to efficiently manage and visualize your physical and virtual environments.
- **Data Replication Software**
HP offers array-based and host-based replication software for use in disaster recovery, testing, application development and reporting.
- **Storage Device Management Software**
Maximize your investment in HP storage and networking with software that enables hardware-specific configuration, performance tuning and connectivity management.
- **HP StoreVirtual VSA**
With HP StoreVirtual VSA you can use the power of virtualization to 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>

Optional Features

HP Insight Online

HP Insight Online is a new addition to the HP Support Center for one stop, secure access to product and HP support information personalized to your IT environment. Insight Online can automatically display devices remotely monitored by HP 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>

HPC Interconnects

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

InfiniBand

PCI-Express Generation 2 adapters

Factory Express Portfolio for Servers and Storage

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

Factory Express offers service packages for simple configuration, racking, installation, complex configuration and design services as well as individual factory services, such as image loading, asset tagging, and custom packaging. HP products supported through Factory Express include a wide array of servers and storage: HP Integrity, HP ProLiant, HP ProLiant Server Blades, HP BladeSystem, HP 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>.

HP Proactive Insight experience

Prevent problems with innovative, automated monitoring tools and proactive services. The HP Proactive Insight experience consists 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: <http://www.hp.com/go/proactiveinsightexperience>

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

Service and Support

Service and Support

HP Technology Services for Industry Standard Servers

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

Protect your business beyond warranty with HP Care Pack Services

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

Optimized Care

Optimized Care: Supports maintaining servers at optimum performance availability

HP Proactive Care with 24x7 coverage, three year Care Pack Service

HP Proactive Care helps prevent problems and stabilize IT by utilizing secure, real-time, predictive analytics and proactive consultations when your products are connected to HP. 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 HP 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

Foundation Care 24x7, three-year Care Pack Service

HP Foundation Care 24x7 connects you to HP 24 hours a day, seven days a week for assistance on resolving issues. Hardware onsite response within four hours if needed; collaborative software included in this Care Pack service provides troubleshooting assistance on industry leading software running on your HP server. Simplify your support experience and make HP your first call for hardware or software questions.

<http://h20195.www2.hp.com/V2/GetDocument.aspx?docname=4AA4-8876ENW&cc=us&lc=en>

Related services

HP ProLiant Server Hardware Installation

Provides for the basic hardware installation of HP 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

HP Factory Express offers configuration, customization, integration and deployment services for HP servers and storage products. Customers can choose how their factory solutions are built, tested, integrated, shipped and deployed. 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. HP Data privacy services help manage and 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 HP Care Pack services can be found at: <http://www.hp.com/go/cpc>

Service and Support

Get connected to HP to improve your support experience

Prevent problems with innovative, automated monitoring tools and proactive services. Combining Proactive Care Services with our remote support technology such as Insight Online 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: <http://www.hp.com/go/proactiveinsightexperience>

HP Support Center

Personalized online support portal with access to information, tools and experts to support HP business products. Submit support cases online, chat with HP experts, access support resources or collaborate with peers. Learn more <http://www.hp.com/go/hpsc>

HP's 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. HP Insight Remote Support and HP Support Center are available at no additional cost with a HP warranty, HP Care Pack or HP contractual support agreement.

*HP' Support Center Mobile App is subject to local availability

Warranty / Service Coverage

For ProLiant servers and storage systems, the services cover HP-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" and tower UPS products; 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 HP 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 HP 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 HP ProLiant servers and HP BladeSystem servers, please contact your HP sales representative or HP 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: HP 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: HP SFF Gen8 Hard Drive Blank Kit or P/N 666986-B21: HP LFF Gen8 Hard Drive Blank Kit.

NOTE: When the SAS-enabled riser board with the Smart Array B320i controller is installed in the server, the embedded Smart Array B120i controller is automatically disabled. In the absence of another storage controller or an expander backplane, front drives operate in AHCI or Legacy mode. In these two modes, the drives are not part of a hardware RAID or a member of a logical drive. The Locate, Drive status, and Do not remove LEDs in the drive carrier are disabled.

NOTE: Not all models are available in all regions. Check with your local country HP offices for availability.

Entry Models - SATA

HP ProLiant DL380e Gen8 E5-2403v2 4GB-R B120i Hot Plug SATA 4 LFF 460W PS Server 747766-xx1	Processor	(1) Intel® Xeon® E5-2403v2 (1.8GHz/4-core/10MB/80W, DDR3-1333) Processor
	Cache Memory	10MB (1 x 10MB) L3 cache
	Memory	4GB (1x4GB) DDR3 Registered DIMMs PC3-10600R (1333MHz)
	Network Controller	HP Ethernet 1Gb 4-port 366i Adapter
	Storage Controller	HP Dynamic Smart Array B120i Controller NOTE: Provides support for up to 6 SATA drives and data transmission speeds up to 3Gb/s Greater than 4 drives requires an additional cable (see p/n 675856-B21)
	Hard Drive	None ship standard; includes 7 LFF hard drive blanks NOTE: This model comes with 7 HDD blanks if no HDD is ordered.
	Internal Storage	8 LFF HDD Bays NOTE: This model comes with 8LFF Chassis.
	Power Supply	(1) HP 460W CS Gold Hot Plug Power Supply (92% Efficient)
	Fans	4 Hot-Plug Non-redundant Fans NOTE: Customers can upgrade to a redundant fan configuration with the purchase of an option kit (see p/n 667855-B21)
	Form Factor	Rack (2U) NOTE: Includes Rack Mounting Gen8 non-telescoping Friction Rail Kit which does not allow for in rack serviceability. The HP 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: HP recommends that a minimum of two people are required for all Rack Server installations. Please refer to your installation instructions for proper tools and number of people to use for any installation.
	Warranty	Server Warranty includes 3-Year Parts, 1-Year Labor, 1-Year Onsite support with next business day response.

Pre-configured Models

<p>HP ProLiant DL380e Gen8 E5-2403 1P 4GB-R Hot Plug 4 LFF 460W PS Entry Server 648255-xx1</p>	<p>Processor (1) Intel® Xeon® E5-2403 (1.8GHz/4-core/10MB/6.4GT-s QPI/80W, DDR3-1066) Processor</p> <p>Cache Memory 10MB (1 x 10MB) L3 cache</p> <p>Memory 4GB (1 x 4GB) Registered DIMMs PC3-10600R (1333MHz) NOTE: Memory runs at 1066MHz speed due to processor.</p> <p>Network Controller HP Ethernet 1Gb 4-port 366i Adapter</p> <p>Storage Controller HP Dynamic Smart Array B120i Controller NOTE: Provides support for up to 6 SATA drives and data transmission speeds up to 3Gb/s Greater than 4 drives requires an additional cable (see p/n 675856-B21)</p> <p>Hard Drive None ship standard; includes 7 LFF hard drive blanks NOTE: This model comes with 7 HDD blanks if no HDD is ordered.</p> <p>Internal Storage 8 LFF HDD Bays NOTE: This model comes with 8LFF Chassis.</p> <p>Power Supply (1) HP 460W CS Gold Hot Plug Power Supply (92% Efficient)</p> <p>Fans 4 Hot-Plug Non-redundant Fans NOTE: Customers can upgrade to a redundant fan configuration with the purchase of an option kit (see p/n 667855-B21)</p> <p>Form Factor Rack (2U) NOTE: Includes Rack Mounting Gen8 non-telescoping Friction Rail Kit which does not allow for in rack serviceability. The HP 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: HP recommends that a minimum of two people are required for all Rack Server installations. Please refer to your installation instructions for proper tools and number of people to use for any installation.</p> <p>Warranty Server Warranty includes 3-Year Parts, 1-Year Labor, 1-Year Onsite support with next business day response.</p>
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Entry Models - SAS

<p>HP ProLiant DL380e Gen8 E5-2403 1P 4GB-R Hot Plug 8 SFF 460W PS Entry Server 648256-xx1</p>	<p>Processor (1) Intel® Xeon® E5-2403 (1.8GHz/4-core/10MB/6.4GT-s QPI/80W, DDR3-1066) Processor</p> <p>Cache Memory 10MB (1 x 10MB) L3 cache</p> <p>Memory 4GB (1 x 4GB) Registered DIMMs PC3L-10600R (1333MHz) NOTE: Memory runs at 1066MHz speed due to processor.</p> <p>Network Controller HP Ethernet 1Gb 4-port 366i Adapter</p> <p>Storage Controller HP Dynamic Smart Array B320i Controller NOTE: Provides support for up to 8 SAS/SATA drives, data transmission speeds up to 6Gb/s and includes SAS license key.</p> <p>Hard Drive None ship standard; includes 7 SFF hard drive blanks NOTE: This model comes with 7 HDD blanks if no HDD is ordered.</p> <p>Internal Storage 8 SFF HDD Bays</p> <p>Power Supply (1) HP 460W CS Gold Hot Plug Power Supply (92% Efficient)</p> <p>Fans 4 Hot-Plug Non-redundant Fans NOTE: Customers can upgrade to a redundant fan configuration with the purchase of an option kit (see p/n 667855-B21)</p> <p>Form Factor Rack (2U) NOTE: Includes Rack Mounting Gen8 non-telescoping Friction Rail Kit which does not allow for in rack serviceability. The HP 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</p>
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Pre-configured Models

your local services representative (p/n 695539-001). Caution: HP recommends that a minimum of two people are required for all Rack Server installations. Please refer to your installation instructions for proper tools and number of people to use for any installation.

Warranty

Server Warranty includes 3-Year Parts, 1-Year Labor, 1-Year Onsite support with next business day response.

Base Models - LFF

**HP ProLiant DL380e Gen8
E5-2407v2 8GB-R B320i
Hot Plug SAS 8 LFF 460W
PS Server
747767-xx1**

Processor

(1) Intel® Xeon® E5-2407v2 (2.4GHz/4-core/10MB/6.4GT-s QPI/80W, DDR3-1333) Processor

Cache Memory

10MB (1 x 10MB) L3 cache

Memory

8GB (1 x 8GB DDR3-1600MHZ RDIMMs)

NOTE: Memory runs at 1333MHz speed due to processor.

Network Controller

HP Ethernet 1Gb 4-port 366i Adapter

Storage Controller

HP Dynamic Smart Array B320i/512 MB FBWC Controller

NOTE: Provides support for up to 8 SATA drives, data transmission speeds up to 6Gb/s and requires purchase of SAS license key for SAS mode.

Hard Drive

None ship standard; includes 7 LFF hard drive blanks

NOTE: This model comes with 7 HDD blanks if no HDD is ordered.

Internal Storage

8 LFF HDD Bays

Power Supply

(1) HP 460W CS Gold Hot Plug Power Supply (92% Efficient)

Fans

4 Hot-Plug Non-redundant Fans

NOTE: Customers can upgrade to a redundant fan configuration with the purchase of an option kit (see p/n 667855-B21)

Form Factor

Rack (2U)

NOTE: Includes Rack Mounting Gen8 telescoping LFF Ball Bearing Rail Kit which does allow for in rack serviceability. 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: HP recommends that a minimum of two people are required for all Rack Server installations. Please refer to your installation instructions for proper tools and number of people to use for any installation.

Warranty

Server Warranty includes 3-Year Parts, 1-Year Labor, 1-Year Onsite support with next business day response.

Pre-configured Models

<p>HP ProLiant DL380e Gen8 E5-2407 1P 8GB-R Hot Plug 8 LFF 460W PS Base Server 668665-xx1</p>	<p>Processor Cache Memory Memory Network Controller Storage Controller Hard Drive Internal Storage Power Supply Fans Form Factor Warranty</p>	<p>Intel® Xeon® E5-2407 (2.2GHz/4-core/10MB/6.4GT-s QPI/80W, DDR3-1066) Processor 10MB (1 x 10MB) L3 cache 8GB (2 x 4GB) Registered DIMMs PC3L-10600R (1333MHz) HP Ethernet 1Gb 4-port 366i Adapter HP Dynamic Smart Array B320i/512MB FBWC Controller NOTE: Provides support for up to 8 SATA drives, data transmission speeds up to 6Gb/s and requires purchase of SAS license key for SAS mode. None ship standard; includes 7 LFF hard drive blanks NOTE: This model comes with 7 HDD blanks if no HDD is ordered. 8 LFF HDD Bays (1) HP 460W CS Gold Hot Plug Power Supply (92% Efficient) 4 Hot-Plug Non-redundant Fans NOTE: Customers can upgrade to a redundant fan configuration with the purchase of an option kit (see p/n 667855-B21) Rack (2U) NOTE: Includes Rack Mounting Gen8 telescoping LFF Ball Bearing Rail Kit which does allow for in rack serviceability. 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: HP recommends that a minimum of two people are required for all Rack Server installations. Please refer to your installation instructions for proper tools and number of people to use for any installation. Server Warranty includes 3-Year Parts, 1-Year Labor, 1-Year Onsite support with next business day response.</p>
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Base Models - SFF

<p>HP ProLiant DL380e Gen8 E5-2407v2 8GB-R B320i Hot Plug SAS 8 SFF 460W PS Server 747768-xx1</p>	<p>Processor Cache Memory Memory Network Controller Storage Controller Hard Drive Internal Storage Power Supply Fans Form Factor</p>	<p>(1) Intel® Xeon® E5-2407v2 (2.4GHz/4-core/10MB/6.4GT-s QPI/80W, DDR3-1333) Processor 10MB (1 x 10MB) L3 cache 8GB (1 x 8GB DDR3-1600MHZ RDIMMs) NOTE: Memory runs at 1333MHz speed due to processor. HP Ethernet 1Gb 4-port 366i Adapter HP Dynamic Smart Array B320i/512MB FBWC Controller NOTE: Provides support for up to 8 SATA drives, data transmission speeds up to 6Gb/s and requires purchase of SAS license key for SAS mode. None ship standard; includes 7 SFF hard drive blanks NOTE: This model comes with 7 HDD blanks if no HDD is ordered. 8 SFF HDD Bays (1) HP 460W CS Gold Hot Plug Power Supply (92% Efficient) 4 Hot-Plug Non-redundant Fans NOTE: Customers can upgrade to a redundant fan configuration with the purchase of an option kit (see p/n 667855-B21) Rack (2U) NOTE: Includes Rack Mounting Gen8 telescoping LFF Ball Bearing Rail Kit which does allow for in rack serviceability. 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: HP recommends that a minimum of two people are required for all Rack Server installations. Please refer to your installation instructions for proper tools and number of people to use for any installation.</p>
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Pre-configured Models

Warranty Server Warranty includes 3-Year Parts, 1-Year Labor, 1-Year Onsite support with next business day response.

<p>HP ProLiant DL380e Gen8 E5-2407 1P 8GB-R Hot Plug 8 SFF 460W PS Base Server 668666-xx1</p>	<p>Processor (1) Intel® Xeon® E5-2407 (2.2GHz/4-core/10MB/6.4GT-s QPI/80W, DDR3-1066) Processor</p> <p>Cache Memory 10MB (1 x 10MB) L3 cache</p> <p>Memory 8GB (2 x 4GB) Registered DIMMs PC3L-10600R (1333MHz)</p> <p>Network Controller HP Ethernet 1Gb 4-port 366i Adapter</p> <p>Storage Controller HP Dynamic Smart Array B320i/512MB FBWC Controller NOTE: Provides support for up to 8 SAS/SATA drives, data transmission speeds up to 6Gb/s and includes SAS license key.</p> <p>Hard Drive None ship standard; includes 7 SFF hard drive blanks NOTE: This model comes with 7 HDD blanks if no HDD is ordered.</p> <p>Internal Storage 8 SFF HDD Bays</p> <p>Power Supply (1) HP 460W CS Gold Hot Plug Power Supply (92% Efficient)</p> <p>Fans 4 Hot-Plug Non-redundant Fans NOTE: Customers can upgrade to a redundant fan configuration with the purchase of an option kit (see p/n 667855-B21)</p> <p>Form Factor Rack (2U) NOTE: Includes Rack Mounting Gen8 telescoping SFF Ball Bearing Rail Kit which does allow for in rack serviceability. 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: HP recommends that a minimum of two people are required for all Rack Server installations. Please refer to your installation instructions for proper tools and number of people to use for any installation.</p> <p>Warranty Server Warranty includes 3-Year Parts, 1-Year Labor, 1-Year Onsite support with next business day response.</p>
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High Performance Models

<p>HP ProLiant DL380e Gen8 E5-2450v2 24GB-R Hot Plug SAS/SATA 8 SFF 750W RPS Server 747771-xx1</p>	<p>Processor (2) Intel® Xeon® E5-2450v2 (2.5GHz/8-core/20MB/8.0GT-s QPI/95W, DDR3-1600) Processor</p> <p>Cache Memory 20MB (1x20MB) Level 3</p> <p>Memory 24GB (3 x 8GB) Registered DIMMs PC3L-12800R (1600MHz)</p> <p>Network Controller HP Ethernet 1Gb 4-port 366i Adapter</p> <p>Storage Controller HP Smart Array P420/1GB FBWC Controller (RAID 0/1/1+0/5/5+0+6/6+0) NOTE: This controller would be installed on the standard riser card or the optional secondary riser card.</p> <p>Hard Drive None ship standard; includes 7 SFF hard drive blanks NOTE: This model comes with 7 HDD blanks if no HDD is ordered.</p> <p>Internal Storage 8 SFF HDD Bays</p> <p>Power Supply (2) HP 750W CS Gold Plus Hot Plug Power Supplies (92% Efficient)</p> <p>Fans 6 Hot-plug Redundant Fans</p> <p>Form Factor Rack (2U) NOTE: Includes Rack Mounting Gen8 telescoping 8SFF Ball Bearing Rail Kit which does allow for in rack serviceability. 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: HP recommends that a minimum of two people are required for all Rack Server installations. Please refer to your installation instructions for proper tools and number of people to</p>
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Pre-configured Models

<p>HP ProLiant DL380e Gen8 E5-2450 2P 24GB-R P420 Hot Plug 8 SFF 750W PS Perf Svr 668669-xx1</p>	<p>Processor Cache Memory Memory Network Controller Storage Controller Hard Drive Internal Storage Power Supply Fans Energy Star Form Factor</p>	<p>use for any installation.</p> <p>Server Warranty includes 3-Year Parts, 1-Year Labor, 1-Year Onsite support with next business day response.</p> <hr/> <p>(2) Intel® Xeon® E5-2450 (2.1GHz/8-core/20MB/8GT-s QPI/95W, DDR3-1600, 5/5/6/6/7/7/8/8) Processors</p> <p>20MB (1x20MB) Level 3</p> <p>24GB (6 x 4GB) Registered DIMMs PC3L-10600R (1333MHz)</p> <p>HP Ethernet 1Gb 4-port 366i Adapter</p> <p>HP Smart Array P420/1GB FBWC Controller (RAID 0/1/1+0/5/5+0/6/6+0) NOTE: This controller would be installed on the standard riser card or the optional secondary riser card.</p> <p>None ship standard; includes 7 SFF hard drive blanks NOTE: This model comes with 7 HDD blanks if no HDD is ordered.</p> <p>8 SFF HDD Bays</p> <p>(1) HP 750W CS Gold Plus Hot Plug Power Supplies (92% Efficient)</p> <p>6 Hot-plug Redundant Fans</p> <p>Meets Energy Star requirements</p> <p>Rack (2U) NOTE: Includes Rack Mounting Gen8 telescoping 8SFF Ball Bearing Rail Kit which does allow for in rack serviceability. 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: HP recommends that a minimum of two people are required for all Rack Server installations. Please refer to your installation instructions for proper tools and number of people to use for any installation.</p> <p>Server Warranty includes 3-Year Parts, 1-Year Labor, 1-Year Onsite support with next business day response.</p>
<p>HP ProLiant DL380e Gen8 E5-2420v2 12GB-R Hot Plug SAS/SATA 12 LFF 750W PS Server 747769-xx1</p>	<p>Processor Cache Memory Memory Network Controller Storage Controller Hard Drive Internal Storage Power Supply Fans Form Factor</p>	<p>(1) Intel® Xeon® E5-2420v2 (2.2GHz/6-core/15MB/7.2GT-s QPI/80W, DDR3-1600) Processor</p> <p>15MB (1 x 15MB) L3 cache</p> <p>12GB (3 x 4GB) Registered DIMMs PC3L-12800R (1600MHz)</p> <p>HP Ethernet 1Gb 4-port 366i Adapter</p> <p>HP Smart Array P420/1GB FBWC Controller (RAID 0/1/1+0/5/5+0/6/6+0) NOTE: This controller would be installed on the standard riser card or the optional secondary riser card.</p> <p>None ship standard; includes 11 LFF hard drive blanks NOTE: This model comes with 11 HDD blanks if no HDD is ordered.</p> <p>12 LFF HDD Bays</p> <p>(1) HP 750W CS Gold Hot Plug Power Supply (92% Efficient)</p> <p>4 Hot-Plug Non-redundant Fans</p> <p>Rack (2U) NOTE: Includes Rack Mounting Gen8 telescoping LFF Ball Bearing Rail Kit which does allow for in rack serviceability. 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: HP recommends that a minimum of two people are required for all</p>

Storage Models - LFF

<p>HP ProLiant DL380e Gen8 E5-2420v2 12GB-R Hot Plug SAS/SATA 12 LFF 750W PS Server 747769-xx1</p>	<p>Processor Cache Memory Memory Network Controller Storage Controller Hard Drive Internal Storage Power Supply Fans Form Factor</p>	<p>(1) Intel® Xeon® E5-2420v2 (2.2GHz/6-core/15MB/7.2GT-s QPI/80W, DDR3-1600) Processor</p> <p>15MB (1 x 15MB) L3 cache</p> <p>12GB (3 x 4GB) Registered DIMMs PC3L-12800R (1600MHz)</p> <p>HP Ethernet 1Gb 4-port 366i Adapter</p> <p>HP Smart Array P420/1GB FBWC Controller (RAID 0/1/1+0/5/5+0/6/6+0) NOTE: This controller would be installed on the standard riser card or the optional secondary riser card.</p> <p>None ship standard; includes 11 LFF hard drive blanks NOTE: This model comes with 11 HDD blanks if no HDD is ordered.</p> <p>12 LFF HDD Bays</p> <p>(1) HP 750W CS Gold Hot Plug Power Supply (92% Efficient)</p> <p>4 Hot-Plug Non-redundant Fans</p> <p>Rack (2U) NOTE: Includes Rack Mounting Gen8 telescoping LFF Ball Bearing Rail Kit which does allow for in rack serviceability. 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: HP recommends that a minimum of two people are required for all</p>
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Pre-configured Models

<p>HP ProLiant DL380e Gen8 E5-2420 1P 12GB-R P420 Hot Plug 12 LFF 750W PS Server 668667-xx1</p>	<p>Processor Cache Memory Memory Network Controller Storage Controller Hard Drive Internal Storage Power Supply Fans Form Factor</p>	<p>Rack Server installations. Please refer to your installation instructions for proper tools and number of people to use for any installation.</p> <p>Server Warranty includes 3-Year Parts, 1-Year Labor, 1-Year Onsite support with next business day response.</p> <hr/> <p>(1) Intel® Xeon® E5-2420 (1.9GHz/6-core/15MB/7.2GT-s QPI/95W, DDR3-1333, 3/3/4/4/5/5) Processor</p> <p>15MB (1x15MB) Level 3</p> <p>12GB (3 x 4GB) Registered DIMMs PC3L-10600R (1333MHz)</p> <p>HP Ethernet 1Gb 4-port 366i Adapter</p> <p>HP Smart Array P420/1GB FBWC Controller (RAID 0/1/1+0/5/5+0/6/6+0) NOTE: This controller would be installed on the standard riser card or the optional secondary riser card.</p> <p>None ship standard; includes 11 LFF hard drive blanks NOTE: This model comes with 11 HDD blanks if no HDD is ordered.</p> <p>12 LFF HDD Bays</p> <p>(1) HP 750W CS Gold Hot Plug Power Supply (92% Efficient)</p> <p>4 Hot-Plug Non-redundant Fans</p> <p>Rack (2U) NOTE: Includes Rack Mounting Gen8 telescoping LFF Ball Bearing Rail Kit which does allow for in rack serviceability. 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: HP recommends that a minimum of two people are required for all Rack Server installations. Please refer to your installation instructions for proper tools and number of people to use for any installation.</p> <p>Server Warranty includes 3-Year Parts, 1-Year Labor, 1-Year Onsite support with next business day response.</p>
<p>HP ProLiant DL380e Gen8 E5-2420v2 12GB-R Hot Plug SAS/SATA 25 SFF 750W PS Server 747770-xx1</p>	<p>Processor Cache Memory Memory Network Controller Storage Controller Hard Drive Internal Storage Power Supply Fans Form Factor</p>	<p>(1) Intel® Xeon® E5-2420v2 (2.2GHz/6-core/15MB/7.2GT-s QPI/80W, DDR3-1600) Processor</p> <p>15MB (1 x 15MB) L3 cache</p> <p>12GB (3 x 4GB) Registered DIMMs PC3L-12800R (1600MHz)</p> <p>HP Ethernet 1Gb 4-port 366i Adapter</p> <p>HP Smart Array P420/2GB FBWC Controller (RAID 0/1/1+0/5/5+0/6/6+0) NOTE: This controller would be installed on the standard riser card or the optional secondary riser card.</p> <p>None ship standard; includes 24 SFF hard drive blanks NOTE: This model comes with 24 HDD blanks if no HDD is ordered.</p> <p>25 SFF HDD Bays</p> <p>(1) HP 750W CS Gold Hot Plug Power Supply (92% Efficient)</p> <p>4 Hot-Plug Non-redundant Fans</p> <p>Rack (2U) NOTE: Includes Rack Mounting Gen8 telescoping SFF Ball Bearing Rail Kit which does allow for in rack serviceability. 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: HP recommends that a minimum of two people are required for all Rack Server installations. Please refer to your installation instructions for</p>

Storage Models - SFF

<p>HP ProLiant DL380e Gen8 E5-2420v2 12GB-R Hot Plug SAS/SATA 25 SFF 750W PS Server 747770-xx1</p>	<p>Processor Cache Memory Memory Network Controller Storage Controller Hard Drive Internal Storage Power Supply Fans Form Factor</p>	<p>(1) Intel® Xeon® E5-2420v2 (2.2GHz/6-core/15MB/7.2GT-s QPI/80W, DDR3-1600) Processor</p> <p>15MB (1 x 15MB) L3 cache</p> <p>12GB (3 x 4GB) Registered DIMMs PC3L-12800R (1600MHz)</p> <p>HP Ethernet 1Gb 4-port 366i Adapter</p> <p>HP Smart Array P420/2GB FBWC Controller (RAID 0/1/1+0/5/5+0/6/6+0) NOTE: This controller would be installed on the standard riser card or the optional secondary riser card.</p> <p>None ship standard; includes 24 SFF hard drive blanks NOTE: This model comes with 24 HDD blanks if no HDD is ordered.</p> <p>25 SFF HDD Bays</p> <p>(1) HP 750W CS Gold Hot Plug Power Supply (92% Efficient)</p> <p>4 Hot-Plug Non-redundant Fans</p> <p>Rack (2U) NOTE: Includes Rack Mounting Gen8 telescoping SFF Ball Bearing Rail Kit which does allow for in rack serviceability. 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: HP recommends that a minimum of two people are required for all Rack Server installations. Please refer to your installation instructions for</p>
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Pre-configured Models

Warranty

proper tools and number of people to use for any installation.

Server Warranty includes 3-Year Parts, 1-Year Labor, 1-Year Onsite support with next business day response.

**HP ProLiant DL380e Gen8
E5-2420 1P 12GB-R P420
Hot Plug 25 SFF 750W PS
Server
668668-xx1**

Processor

(1) Intel® Xeon® E5-2420 (1.9GHz/6-core/15MB/7.2GT-s QPI/95W, DDR3-1333, HT, Turbo2- 3/3/4/4/5/5) Turbo Processor

Cache Memory

15MB (1 x 15MB) L3 cache

Memory

12GB (3 x 4GB) Registered DIMMs PC3L-10600R (1333MHz)

Network Controller

HP Ethernet 1Gb 4-port 366i Adapter

Storage Controller

HP Smart Array P420/2GB FBWC Controller (RAID 0/1/1+0/5/5+0/6/6+0)
NOTE: This controller would be installed on the standard riser card or the optional secondary riser card.

Hard Drive

None ship standard; includes 24 SFF hard drive blanks
NOTE: This model comes with 24 HDD blanks if no HDD is ordered.

Internal Storage

25 SFF HDD Bays

Power Supply

(1) HP 750W CS Gold Hot Plug Power Supply (92% Efficient)

Fans

4 Hot-Plug Non-redundant Fans

Form Factor

Rack (2U)

NOTE: Includes Rack Mounting Gen8 telescoping SFF Ball Bearing Rail Kit which does allow for in rack serviceability. 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: HP recommends that a minimum of two people are required for all Rack Server installations. Please refer to your installation instructions for proper tools and number of people to use for any installation.

Warranty

Server Warranty includes 3-Year Parts, 1-Year Labor, 1-Year Onsite support with next business day response.

Country Code Key

xx = 00	U.S.
xx = 20	Brazil
xx = 29	Japan
xx = 37	APD
xx = 42	Europe
xx = AA	PRC

Configuration Information - Factory Integrated Models

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

NOTE: 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)

NOTE: Rail kits and cable management solutions are optional in CTO. See "Step 3: Choose Additional Factory Integratable Options" for details on ordering.

NOTE: The DL380e ships standard with the Dynamic Smart Array B120i controller which provides support for up to 6 SATA drives (greater than 4 drives requires additional cable, p/n 675856-B21) and data transmission speeds up to 3Gb/s. Customers requiring SAS support or greater than 6 drives should select either a Smart Array family controller or the HP Dynamic Smart Array B320i controller (p/n 661402-B21, implemented via riser).

NOTE: When the SAS-enabled riser board with the Smart Array B320i controller is installed in the server, the embedded Smart Array B120i controller is automatically disabled. In the absence of another storage controller or an expander backplane, front drives operate in ACHI or Legacy mode. In these two modes, the drives are not part of a hardware RAID or a member of a logical drive. The Locate, Drive status, and Do not remove LEDs in the drive carrier are disabled.

NOTE: Number of HDD blanks in a given chassis is same as number of drive cage bays.

NOTE: Power Supply not included - choose from Options section.

HP Models

HP ProLiant DL380e Gen8 12 LFF Configure-to-order Server

669257-B21

NOTE: This CTO server includes an "expander-based" storage backplane. A single Smart Array P420 controller is capable of controlling all 12 LFF drives and optional rear drives.

Factory Integrated Model ships with:

2 x HP Smart Socket Guides for fast processor installation.
 12 DIMM slots for RDIMM, LRDIMM and UDIMM Memory installation
 HP Ethernet 1Gb 4-port 366i Adapter
 HP Dynamic Smart Array B120i Controller with Zero Memory (ZM)
 I/O slots - 4 Slots come standard:

- Slot 1 - FL/FH x4 PCIe 3.0 (x8 connector)
- Slot 2 - HL/FH x8 PCIe 3.0 (x16 connector)
- Slot 3 - HL/FH x8 PCIe 3.0 (x8 connector)
- Slot 4 - Low Profile x4 PCIe 2.0 (x8 connector)
- Additional Slots may be added via selections from the PCI Information and Options subsection

System Fans - 4 (1 additional fan included with purchase of second processor)

Drive Cage - 12-LFF

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

HP iLO Management Engine (standard)

NOTE: New options are available for Rack Rail Kits; these options are no longer standard on-board with this Model Part Number. Please see HP Rack Options below for optional required options.

HP ProLiant DL380e Gen8 25 SFF Configure-to-order Server

669256-B21

NOTE: This CTO server includes an "expander-based" storage backplane. A single Smart Array P420 is capable of controlling all 25 SFF drives and optional rear drives.

Factory Integrated Model ships with:

2 x HP Smart Socket Guides for fast processor installation.
 12 DIMM slots for RDIMM, LRDIMM and UDIMM Memory installation
 HP Ethernet 1Gb 4-port 366i Adapter
 HP Dynamic Smart Array B120i Controller with Zero Memory (ZM)
 I/O slots - 4 Slots come standard:

- Slot 1 - FL/FH x4 PCIe 3.0 (x8 connector)
- Slot 2 - HL/FH x8 PCIe 3.0 (x16 connector)

Configuration Information - Factory Integrated Models

- Slot 3 - HL/FH x8 PCIe 3.0 (x8 connector)
- Slot 4 - Low Profile x4 PCIe 2.0 (x8 connector)
- Additional Slots may be added via selections from the PCI Information and Options subsection

System Fans - 4 (1 additional fans included with purchase of second processor)

Drive Cage - 25-SFF

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

HP iLO Management Engine (standard)

NOTE: New options are available for Rack Rail Kits; these options are no longer standard on-board with this Model Part Number. Please see HP Rack Options below for optional required options.

HP ProLiant DL380e Gen8 8 LFF Configure-to-order Server

669255-B21

NOTE: This CTO server supports 4, 6, and 8LFF drive configurations based on the selection of controller. The HP Dynamic Smart Array B120i is capable of controlling up to 6 SATA drives. Greater than 4 SATA drives require the use of an option cable, p/n 675856-B21). Greater than 6 SATA drives require an HP Dynamic Smart Array B320i or P420 or greater controller.

Factory Integrated Model ships with:

2 x HP Smart Socket Guides for fast processor installation.

12 DIMM slots for RDIMM, LRDIMM and UDIMM Memory installation

HP Ethernet 1Gb 4-port 366i Adapter

HP Dynamic Smart Array B120i Controller with Zero Memory (ZM)

I/O slots - 4 Slots come standard:

- Slot 1 - FL/FH x4 PCIe 3.0 (x8 connector)
- Slot 2 - HL/FH x8 PCIe 3.0 (x16 connector)
- Slot 3 - HL/FH x8 PCIe 3.0 (x8 connector)
- Slot 4 - Low Profile x4 PCIe 2.0 (x8 connector)
- Additional Slots may be added via selections from the PCI Information and Options subsection

System Fans - 4 (one additional fan included with purchase of second processor)

Drive Cage - 8-LFF (Optical media drive optional)

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

HP iLO Management Engine (standard)

NOTE: New options are available for Rack Rail Kits; these options are no longer standard on-board with this Model Part Number. Please see HP Rack Options below for optional required options.

HP ProLiant DL380e Gen8 8 SFF Configure-to-order Server

669253-B21

NOTE: This CTO server supports up to 8SFF drives and is expandable up to 16 SFF drives via the optional 8SFF upgrade kit (p/n 668295-B21).

Factory Integrated Model ships with:

2 x HP Smart Socket Guides for fast processor installation.

12 DIMM slots for RDIMM, LRDIMM and UDIMM Memory installation

HP Ethernet 1Gb 4-port 366i Adapter

HP Dynamic Smart Array B120i Controller with Zero Memory (ZM)

I/O slots - 4 Slots ship standard:

- Slot 1 - FL/FH x4 PCIe 3.0 (x8 connector)
- Slot 2 - HL/FH x8 PCIe 3.0 (x16 connector)
- Slot 3 - HL/FH x8 PCIe 3.0 (x8 connector)
- Slot 4 - Low Profile x4 PCIe 2.0 (x8 connector)
- Additional Slots may be added via selections from the PCI Information and Options subsection

System Fans - 4 (one additional fan included with purchase of second processor)

Drive Cage - 8-SFF (Optical media drive optional)

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

Configuration Information - Factory Integrated Models

HP iLO Management Engine (standard)

NOTE: New options are available for Rack Rail Kits; these options are no longer standard on-board with this Model Part Number. Please see HP Rack Options below for optional required options.

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

HP Processors

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

Base Processors - E5-2400 series Processors

NOTE: All support up to 1333MHz DDR3 memory speeds.

HP DL380e Gen8 Intel® Xeon® E5-2430 (2.2GHz/6-core/15MB/95W) FIO Processor Kit 661126-L21

HP Memory

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

http://h18000.www1.hp.com/products/quickspecs/14225_div/14225_div.html
(Worldwide)

NOTE: HP memory from previous generation servers are not fully compatible with Smart Memory features in Gen8 Servers.

Registered DIMMs (RDIMMs)

NOTE: The following memory is supported by the E5-2400v2 series Processors

HP 4GB (1x4GB) Single Rank x4 PC3L-12800R (DDR3-1600) Registered CAS-11 Low Voltage Memory Kit 713981-B21

HP 8GB (1x8GB) Single Rank x4 PC3L-12800R (DDR3-1600) Registered CAS-11 Low Voltage Memory Kit 731765-B21

HP 8GB (1x8GB) Dual Rank x4 PC3L-12800R (DDR3-1600) Registered CAS-11 Low Voltage Memory Kit 713983-B21

HP 16GB (1x16GB) Dual Rank x4 PC3L-12800R (DDR3-1600) Registered CAS-11 Low Voltage Memory Kit 713985-B21

NOTE: The following memory is supported by the E5-2400 series Processors

HP 4GB (1x4GB) Single Rank x4 PC3L-10600R (DDR3-1333) Registered CAS-9 Low Voltage Memory Kit 647893-B21

HP 4GB (1x4GB) Single Rank x4 PC3-12800R (DDR3-1600) Registered CAS-11 Memory Kit 647895-B21

HP 8GB (1x8GB) Dual Rank x4 PC3L-10600R (DDR3-1333) Registered CAS-9 Low Voltage Memory Kit 647897-B21

HP 8GB (1x8GB) Single Rank x4 PC3-12800R (DDR3-1600) Registered CAS-11 Memory Kit 647899-B21

HP 8GB (1x8GB) Dual Rank x4 PC3-12800R (DDR3-1600) Registered CAS-11 Memory Kit 690802-B21

HP 16GB (1x16GB) Dual Rank x4 PC3L-10600R (DDR3-1333) Registered CAS-9 Low Voltage Memory Kit 647901-B21

HP 16GB (1x16GB) Dual Rank x4 PC3-12800R (DDR3-1600) Registered CAS-11 Memory Kit 672631-B21

Unbuffered with ECC DIMMs (UDIMMs)

NOTE: The following memory is supported by the E5-2400v2 series Processors

HP 2GB (1x2GB) Single Rank x8 PC3L-12800E (DDR3-1600) Unbuffered CAS-11 Low Voltage Memory Kit 713975-B21

HP 4GB (1x4GB) Dual Rank x8 PC3L-12800E (DDR3-1600) Unbuffered CAS-11 Low Voltage Memory Kit 713977-B21

HP 8GB (1x8GB) Dual Rank x8 PC3L-12800E (DDR3-1600) Unbuffered CAS-11 Low Voltage Memory Kit 713979-B21

NOTE: The following memory is supported by the E5-2400 series Processors

Configuration Information - Factory Integrated Models

HP 2GB (1x2GB) Single Rank x8 PC3-12800E (DDR3-1600) Unbuffered CAS-11 Memory Kit	669320-B21
HP 2GB (1x2GB) Single Rank x8 PC3L-10600E (DDR3-1333) Unbuffered CAS-9 Low Voltage Memory Kit	647905-B21
HP 4GB (1x4GB) Dual Rank x8 PC3-12800E (DDR3-1600) Unbuffered CAS-11 Memory Kit	669322-B21
HP 4GB (1x4GB) Dual Rank x8 PC3L-10600E (DDR3-1333) Unbuffered CAS-9 Low Voltage Memory Kit	647907-B21
HP 8GB (1x8GB) Dual Rank x8 PC3-12800E (DDR3-1600) Unbuffered CAS-11 Memory Kit	669324-B21
HP 8GB (1x8GB) Dual Rank x8 PC3L-10600E (DDR3-1333) Unbuffered CAS-9 Low Voltage Memory Kit	647909-B21

Load Reduced DIMMs (LRDIMMs)

NOTE: The following memory is supported by E5-2400v2 or E5-2400 series Processors

HP 32GB (1x32GB) Quad Rank x4 PC3L-10600L (DDR3-1333) Load Reduced CAS-9 Low Voltage Memory Kit	647903-B21
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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>.

NOTE: PC3L is a low voltage memory.

NOTE: Depending on the memory configuration and processor model, 1600MHz and 1333MHz memory may operate at a lower speed. Please see the "Memory" section later in this document and the Online Memory Configuration Tool for details at <http://www.hp.com/go/ddr3memory-configurator>.

HP 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 HP Power Advisor is run to determine the right size power supply for your server configuration. The HP Power Advisor is located at: <http://www.hp.com/go/hppoweradvisor>.

HP Common Slot Titanium Power Supply Kits

NOTE: The following Power Supplies offer up to 96% Efficiency support for Intelligent Power Discovery.

HP 750W Common Slot Titanium Hot Plug Power Supply Kit	697581-B21
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HP Common Slot Platinum Plus Power Supply Kits

NOTE: The following Power Supplies offer up to 94% Efficiency 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

HP 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

HP 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
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NOTE: The HP 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.

Configuration Information - Factory Integrated Models

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

HP I/O Expansion Options	HP DL380e Gen8 CPU1 with SAS Support FIO Riser Kit	661402-B21
	<p>NOTE: If selected with HP DL380e Gen8 8LFF CTO Chassis, HP DL380eGen8 8LFF Mini SAS FIO Kit is required. This option can only be selected for HP DL380e Gen8 8LFF CTO Chassis, HP DL380e Gen8 8SFF CTO Chassis, or HP DL380e Gen8 12LFF 1:1 CTO Chassis.</p> <p>NOTE: Includes HP Dynamic Smart Array B320i controller</p> <p>NOTE: SAS license key (PN BC393A) is selected by default when this riser kit is selected. If SAS support is not needed, SAS license key (PN BC393A) can be deselected. SAS license key is mandatory for SAS support. Supports up to 8 drives.</p>	
	HP DL380e Gen8 CPU1 Riser Kit	661404-B21
	NOTE: Cannot be selected if 661402-B21 is selected.	

Step 3: Choose Additional Factory Integratable Options

HP Rack Kits

NOTE: Gen8 rail kits have changed significantly from prior generation rail kits. Please take a moment to review the installation documentation that comes with the server to help you with the installation of your Gen8 server.

NOTE: The HP 2U 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: HP recommends that a minimum of two people are required for all Rack Server installations. Please refer to your installation instructions for proper tools and number of people to use for any installation.

HP 2U FIO Friction Rail Kit	663476-B21
NOTE: Kit contains non-telescoping friction rails which do not allow for in-rack serviceability. The HP Gen8 Cable Management Arm is not available when using Friction Rails.	

HP Insight Software	HP Insight Control including 1yr 24x7 Support ProLiant ML/DL/BL-bundle Single Server FIO License	C6N36A
	HP Insight Control including 1yr 24x7 Support ProLiant ML/DL/BL-bundle FIO Electronic License	C6N36ABE

HP Converged Infrastructure Management Software	HP OneView with iLO Advanced - Server hardware required on same purchase order	
	HP OneView for ProLiant DL Server incl 3yr 24x7 Supp FIO Bundle Physical 1 Svr Lic	E5Y43A

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.

HP Unique Options	HP DL380e Gen8 Hot Plug Fan Kit NOTE: Upgrades a non-redundant server with additional hot-plug fans.	667855-B21
	HP DL380e Gen8 8 Small Form Factor (SFF) Hard Drive Cage Kit NOTE: With upgrade of 8SFF Cage, there is no Optical Drive support and an additional storage controller is required for 1:1 CTO Server.	668295-B21
	HP DL380e Gen8 CPU1 Riser Kit	661404-B21

HP Processors

Entry Processors - E5-2400v2 series Processors

NOTE: All support up to 1333MHz memory speeds.

HP DL380e Gen8 Intel® Xeon® E5-2407v2 (2.4GHz/4-core/10MB/80W) Processor Kit	708497-B21
HP DL380e Gen8 Intel® Xeon® E5-2403v2 (1.8GHz/4-core/10MB/80W) Processor Kit	708495-B21

Base Processors - E5-2400v2 series Processors

NOTE: All support up to 1600MHz memory speeds.

HP DL380e Gen8 Intel® Xeon® E5-2430Lv2 (2.4GHz/6-core/15MB/60W) Processor Kit	746521-B21
HP DL380e Gen8 Intel® Xeon® E5-2430v2 (2.5GHz/6-core/15MB/80W) Processor Kit	724569-B21
HP DL380e Gen8 Intel® Xeon® E5-2420v2 (2.2GHz/6-core/15MB/80W) Processor Kit	724567-B21
HP DL380e Gen8 Intel® Xeon® E5-2440v2 (1.9GHz/8-core/20MB/95W) Processor Kit	724571-B21

Performance Processors - E5-2400v2 series Processors

NOTE: All support up to 1600MHz memory speeds.

HP DL380e Gen8 Intel® Xeon® E5-2450v2 (2.5GHz/8-core/20MB/95W) Processor Kit	724573-B21
HP DL380e Gen8 Intel® Xeon® E5-2470v2 (2.4GHz/10-core/25MB/95W) Processor Kit	724575-B21
HP DL380e Gen8 Intel® Xeon® E5-2450Lv2 (1.7GHz/10-core/25MB/60W) Processor Kit	746523-B21

Entry Processors - E5-2400 series Processors

NOTE: All support up to 1066MHz memory speeds.

HP DL380e Gen8 Intel® Xeon® E5-2407 (2.2GHz/4-core/10MB/80W) Processor Kit	661132-B21
HP DL380e Gen8 Intel® Xeon® E5-2403 (1.8GHz/4-core/10MB/80W) Processor Kit	661134-B21

Base Processors - E5-2400 series Processors

NOTE: All support up to 1333MHz DDR3 memory speeds.

HP DL380e Gen8 Intel® Xeon® E5-2440 (2.4GHz/6-core/15MB/95W) Processor Kit	661124-B21
HP DL380e Gen8 Intel® Xeon® E5-2430 (2.2GHz/6-core/15MB/95W) Processor Kit	661126-B21
HP DL380e Gen8 Intel® Xeon® E5-2430L (2.0GHz/6-core/15MB/60W) Processor Kit	661138-B21
HP DL380e Gen8 Intel® Xeon® E5-2420 (1.9GHz/6-core/15MB/95W) Processor Kit	661128-B21

Performance Processors - E5-2400 series Processors

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

HP DL380e Gen8 Intel® Xeon® E5-2470 (2.3GHz/8-core/20MB/95W) Processor Kit	661118-B21
HP DL380e Gen8 Intel® Xeon® E5-2450 (2.1GHz/8-core/20MB/95W) Processor Kit	661120-B21
HP DL380e Gen8 Intel® Xeon® E5-2450L (1.8GHz/8-core/20MB/70W) Processor Kit	661136-B21

NOTE: Up to 2 processors supported.

NOTE: HT indicates that the processor model supports Intel® /Hyper-Threading Technology

NOTE: Turbo2: Intel® Turbo Boost Technology 2.0 provides more computing power when you need it with performance that adapts to spikes in your workload and delivers more performance upside than then previous generation turbo technology.

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

NOTE: For the Intel® C600 Chipset E5-2400 and E5-2400 v2 Series, the letter preceding the model number indicates the Product Line (E3, E5, E7); 2400x v#, 2 = number of CPUs

Core Options

in a Node, 4 is socket/segment designation, 00 = Processor SKU, x = L for low power SKUs and v# = version number.

HP Memory

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

http://h18000.www1.hp.com/products/quickspecs/14225_div/14225_div.html
(Worldwide)

NOTE: HP memory from previous generation servers are not fully compatible with Smart Memory features in Gen8 Servers.

Registered DIMMs (RDIMMs)

NOTE: The following memory is supported by the E5-2400v2 series Processors

HP 4GB (1x4GB) Single Rank x4 PC3L-12800R (DDR3-1600) Registered CAS-11 Low Voltage Memory Kit	713981-B21
HP 8GB (1x8GB) Single Rank x4 PC3L-12800R (DDR3-1600) Registered CAS-11 Low Voltage Memory Kit	731765-B21
HP 8GB (1x8GB) Dual Rank x4 PC3L-12800R (DDR3-1600) Registered CAS-11 Low Voltage Memory Kit	713983-B21
HP 16GB (1x16GB) Dual Rank x4 PC3L-12800R (DDR3-1600) Registered CAS-11 Low Voltage Memory Kit	713985-B21

NOTE: The following memory is supported by the E5-2400 series Processors

HP 4GB (1x4GB) Single Rank x4 PC3L-10600R (DDR3-1333) Registered CAS-9 Low Voltage Memory Kit	647893-B21
HP 4GB (1x4GB) Single Rank x4 PC3-12800R (DDR3-1600) Registered CAS-11 Memory Kit	647895-B21
HP 8GB (1x8GB) Dual Rank x4 PC3L-10600R (DDR3-1333) Registered CAS-9 Low Voltage Memory Kit	647897-B21
HP 8GB (1x8GB) Single Rank x4 PC3-12800R (DDR3-1600) Registered CAS-11 Memory Kit	647899-B21
HP 8GB (1x8GB) Dual Rank x4 PC3-12800R (DDR3-1600) Registered CAS-11 Memory Kit	690802-B21
HP 16GB (1x16GB) Dual Rank x4 PC3L-10600R (DDR3-1333) Registered CAS-9 Low Voltage Memory Kit	647901-B21
HP 16GB (1x16GB) Dual Rank x4 PC3-12800R (DDR3-1600) Registered CAS-11 Memory Kit	672631-B21

Unbuffered with ECC DIMMs (UDIMMs)

NOTE: The following memory is supported by the E5-2400v2 series Processors

HP 2GB (1x2GB) Single Rank x8 PC3L-12800E (DDR3-1600) Unbuffered CAS-11 Low Voltage Memory Kit	713975-B21
HP 4GB (1x4GB) Dual Rank x8 PC3L-12800E (DDR3-1600) Unbuffered CAS-11 Low Voltage Memory Kit	713977-B21
HP 8GB (1x8GB) Dual Rank x8 PC3L-12800E (DDR3-1600) Unbuffered CAS-11 Low Voltage Memory Kit	713979-B21

NOTE: The following memory is supported by the E5-2400 series Processors

HP 2GB (1x2GB) Single Rank x8 PC3-12800E (DDR3-1600) Unbuffered CAS-11 Memory Kit	669320-B21
HP 2GB (1x2GB) Single Rank x8 PC3L-10600E (DDR3-1333) Unbuffered CAS-9 Low Voltage Memory Kit	647905-B21
HP 4GB (1x4GB) Dual Rank x8 PC3-12800E (DDR3-1600) Unbuffered CAS-11 Memory Kit	669322-B21
HP 4GB (1x4GB) Dual Rank x8 PC3L-10600E (DDR3-1333) Unbuffered CAS-9 Low Voltage Memory Kit	647907-B21

Core Options

HP 8GB (1x8GB) Dual Rank x8 PC3-12800E (DDR3-1600) Unbuffered CAS-11 Memory Kit	669324-B21
HP 8GB (1x8GB) Dual Rank x8 PC3L-10600E (DDR3-1333) Unbuffered CAS-9 Low Voltage Memory Kit	647909-B21
Load Reduced DIMMs (LRDIMMs)	
NOTE: The following memory is supported by E5-2400v2 or E5-2400 series Processors	
HP 32GB (1x32GB) Quad Rank x4 PC3L-10600L (DDR3-1333) Load Reduced CAS-9 Low Voltage Memory Kit	647903-B21
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 .	
NOTE: PC3L is a low voltage memory.	

HP Optical Drives

HP 12.7mm Slim SATA DVD-ROM JackBlack Optical Drive	652232-B21
HP 12.7mm Slim SATA DVD-RW JackBlack Optical Drive	652235-B21

HP Hard Drives

12G SAS Hot Plug with 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

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

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
HP 1.8TB 12G SAS 10K rpm SFF (2.5-inch) SC Enterprise 512e 3yr Warranty Hard Drive	791034-B21

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

HP 600GB 12G SAS 15K rpm LFF (3.5-inch) SC Converter Enterprise 3yr Warranty Hard Drive	765424-B21
HP 450GB 12G SAS 15K rpm LFF (3.5-inch) SC Converter Enterprise 3yr Warranty Hard Drive	737394-B21
HP 300GB 12G SAS 15K rpm LFF (3.5-inch) SC Converter Enterprise 3yr Warranty Hard Drive	737261-B21

12G SAS Hot Plug SFF (2.5-inch) SC 512e Drives

HP 2TB 12G SAS 7.2K rpm SFF (2.5-inch) SC 512e 1yr Warranty Hard Drive	765466-B21
HP 1TB 12G SAS 7.2K rpm SFF (2.5-inch) SC 512e 1yr Warranty Hard Drive	765464-B21

12G SAS Hot Plug LFF (3.5-inch) Midline (MDL) 512e Drives

HP 6TB 12G SAS 7.2K rpm LFF (3.5-inch) SC Midline 512e 1yr Warranty Hard Drive	765259-B21
HP 6TB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 512e 1yr Warranty Hard Drive	765255-B21
HP 4TB 12G SAS 7.2K rpm LFF (3.5-inch) SC Midline 512e 1yr Warranty Hard Drive	765257-B21
HP 4TB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 512e 1yr Warranty Hard Drive	765253-B21

12G SAS Hot Plug LFF (3.5-inch) SC 512e Performance Drives

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

6G SAS Hot Plug with SmartDrive SFF (2.5-inch) Enterprise Drives

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

Core Options

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
6G SAS Hot Plug SmartDrive SFF (2.5-inch) Midline Drives	
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
6G SAS Hot Plug SmartDrive LFF (3.5-inch) Midline Drives	
HP 6TB 6G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	761477-B21
HP 4TB 6G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	695510-B21
HP 3TB 6G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	652766-B21
HP 2TB 6G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	652757-B21
HP 1TB 6G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	652753-B21
NOTE: Please see the QuickSpecs for Technical Specifications and additional information:	
http://h18000.www1.hp.com/products/quickspecs/12244_div/12244_div.html	
(Worldwide)	
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 2.5in WI-PLP SCC SSD	
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
6G SATA 2.5in MU-PLP SCC SSD	
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
6G SATA 2.5in RI-PLP SCC SSD	
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
6G SATA 2.5in WI-PLP SC SSD	
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
6G SATA 2.5in MU-PLP SC SSD	
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

Core Options

6G SATA 2.5in RI-PLP SC SSD

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

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

HP 6TB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	753874-B21
HP 4TB 6G SATA 7.2k rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	693687-B21
HP 3TB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	628061-B21
HP 2TB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	658079-B21
HP 1TB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	657750-B21
HP 500GB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	658071-B21

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

6G SATA Hot Plug LFF (3.5-inch) SC 512e Performance Drives

HP 6TB 6G SATA 7.2K rpm LFF (3.5-inch) SC 512e Performance 1yr Warranty Hard Drive	793667-B21
HP 4TB 6G SATA 7.2K rpm LFF (3.5-inch) SC 512e Performance 1yr Warranty Hard Drives	793665-B21

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

http://h18000.www1.hp.com/products/quickspecs/13021_div/13021_div.html
(Worldwide)

12G SAS Hot Plug Value Endurance SFF (2.5-inch) Enterprise Value Solid State Drives

HP 1.6TB 12G SAS Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive	762263-B21
HP 800GB 12G SAS Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive	762261-B21

12G SAS Hot Plug Value Endurance LFF (3.5-inch) Enterprise Value Solid State Drives

HP 1.6TB 12G SAS Value Endurance LFF 3.5-in SC Enterprise Value 3yr Wty Solid State Drive	762272-B21
HP 800GB 12G SAS Value Endurance LFF 3.5-in SC Enterprise Value 3yr Wty Solid State Drive	762270-B21

12G SAS High Endurance Hot Plug SFF (2.5-inch) Enterprise Performance Solid State Drives

HP 400GB 12G SAS High Endurance SFF 2.5-in SC Enterprise Performance 3yr Wty Solid State Drive	741155-B21
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NOTE: This drive supports Gen8 servers only.

12G SAS Mainstream Endurance Hot Plug SFF (2.5-inch) Enterprise Mainstream H2 Solid State Drives

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

12G SAS Hot Plug SFF (2.5-inch) SC Read/Write Intensive Solid State Drives

HP 1.92TB 12G SAS Read Intensive SFF 2.5-in SC 3yr Wty Solid State Drive	802891-B21
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Core Options

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
HP 200GB 12G SAS Write Intensive SFF 2.5-in SC 3yr Wty Solid State Drive	802578-B21
6G SATA Value Endurance Hot Plug SFF (2.5-inch) Enterprise Boot Solid State Drives	
HP 120GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Boot 3yr Wty Solid State Drive	717965-B21
HP 80GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Boot 3yr Wty Solid State Drive	734360-B21
6G SATA Value Endurance Hot Plug LFF (3.5-inch) Enterprise Boot Solid State Drives	
HP 120GB 6G SATA Value Endurance LFF 3.5-in SC Enterprise Boot 3yr Wty Solid State Drive	718171-B21
HP 80GB 6G SATA Value Endurance LFF 3.5-in SC Enterprise Boot 3yr Wty Solid State Drive	734362-B21
6G SATA Hot Plug Value Endurance LFF (3.5-inch) Converter Enterprise Value G1 Solid State Drives	
HP 480GB 6G SATA Value Endurance LFF 3.5-in SC Converter ENT Value 3yr Wty G1 Solid State Drive	756660-B21
HP 240GB 6G SATA Value Endurance LFF 3.5-in SC Converter ENT Value 3yr Wty G1 Solid State Drive	756639-B21
HP 120GB 6G SATA Value Endurance LFF 3.5-in SC Converter ENT Value 3yr Wty G1 Solid State Drive	756624-B21
6G SATA Hot Plug Value Endurance SFF (2.5-inch) Enterprise Value G1 Solid State Drives	
HP 480GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty G1 Solid State Drive	756657-B21
HP 120GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty G1 Solid State Drive	756621-B21
6G SATA Value Endurance Hot Plug SFF (2.5-inch) Enterprise Value Solid State Drives	
HP 1.6TB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive	757339-B21
HP 800GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive	717973-B21
HP 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
6G SATA Value Endurance Hot Plug LFF (3.5-inch) Enterprise Value Solid State Drives	
HP 1.6TB 6G SATA Value Endurance LFF 3.5-in SC Converter Enterprise Value 3yr Wty Solid State Drive	757342-B21
HP 800GB 6G SATA Value Endurance LFF 3.5-in SC Enterprise Value 3yr Wty Solid State Drive	718189-B21
HP 600GB 6G SATA Value Endurance LFF 3.5-in SC Converter Enterprise Value 3yr Wty Solid State Drive	739900-B21
HP 480GB 6G SATA Value Endurance LFF 3.5-in SC Enterprise Value 3yr Wty Solid State Drive	718183-B21
HP 300GB 6G SATA Value Endurance LFF 3.5-in SC Converter Enterprise Value 3yr Wty Solid State Drive	739890-B21
HP 240GB 6G SATA Value Endurance LFF 3.5-in SC Enterprise Value 3yr Wty Solid State Drive	718177-B21

Core Options

6G SATA Hot Plug Light Endurance SFF (2.5-inch) Enterprise Light G1 Solid State Drives

HP 960GB 6G SATA Light Endurance SFF 2.5-in SC Enterprise Light 3yr Wty G1 Solid State Drive 756601-B21

6G SATA Hot Plug Light Endurance LFF (3.5-inch) Enterprise Light G1 Solid State Drives

HP 960GB 6G SATA Light Endurance LFF 3.5-in SC Converter ENT Light 3yr Wty G1 Solid State Drive 756604-B21

6G SATA Mainstream Endurance Hot Plug SFF (2.5-inch) Enterprise Mainstream Solid State Drives

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

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

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

HP 100GB 6G SATA Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive 691862-B21

6G SATA 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 960GB 6G SATA Read Intensive SFF 2.5-in SC 3yr Wty Solid State Drive 789155-B21

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 960GB 6G SATA Read Intensive LFF 3.5-in SC Converter 3yr Wty Solid State Drive 789157-B21

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_div/14038_div.html
(Worldwide)

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 Large Form Factor Hard Drive Blank Kit 666986-B21

HP Small Form Factor Hard Drive Blank Kit 666987-B21

HP 2U Gen8 2 LFF Rear Kit 663278-B21

NOTE: Supports 2 hot plug drives in the back of server and the kit includes multiple cable options which allow connections between rear, front backplanes and also between rear backplane, motherboard.

HP 2U Gen8 2 SFF Rear Kit 663280-B21

NOTE: Supports 2 hot plug drives in the back of server and the kit includes multiple cable options which allow connections between rear, front backplanes and also between rear backplane, motherboard.

Core Options

NOTE: The HP ProLiant DL380e 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 HP Qualified Hard Drives and Solid State Drives. These new carriers provide status 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.

HP Networking

Gigabit Ethernet adapters

HP NC112T PCI Express Gigabit Server Adapter	503746-B21
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 Ethernet Adapters

HP NC523SFP 10Gb 2-port Server Adapter	593717-B21
HP Ethernet 10Gb 2-port 530SFP Adapter	652503-B21
HP Ethernet 10Gb 2-port 530T Adapter	656596-B21
HP Ethernet 10Gb 2-port 560SFP+ Adapter	665249-B21
HP NC552SFP 10Gb 2-port Ethernet Server Adapter	614203-B21
HP Ethernet 10Gb 2-port 561T Adapter	716591-B21

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

NOTE: Direct Attach Cable (DAC) for copper environments or fiber transceivers and cables for fiber-optic environments must be purchased separately.

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

HP 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: Please see the QuickSpecs for additional information:

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

HP I/O Expansion Options

HP DL380e Gen8 CPU1 Riser Kit	661404-B21
NOTE: This kit provides three slots that run off of first processor.	
HP DL380e Gen8 x16 PCI-E Riser Kit	661628-B21
NOTE: This kit provides two additional slots that run off of second processor.	

Core Options

HP 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 HP Power Advisor is run to determine the right size power supply for your server configuration. The HP Power Advisor is located at:

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

HP Common Slot Titanium Power Supply Kits

HP 750W Common Slot Titanium Hot Plug Power Supply Kit 697581-B21

NOTE: The above Power Supplies offer 96% Efficiency with support for Intelligent Power Discovery.*

HP Common Slot Platinum Plus Power Supply Kits

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

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

HP Common Slot Gold Power Supplies

HP 460W CS Gold Ht Plg Power Supply Kit 503296-B21

HP 750W Common Slot Gold Hot Plug Power Supply Kit 512327-B21

HP Common Slot -48VDC Power Supplies

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

NOTE: The HP 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: HP ProLiant servers ship with an IEC-IEC power cord used for rack mounting with Power Distribution Units (PDUs). For a full list of optional HP 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_div/14209_div.html

HP Graphic Options

HP Graphic Card Power Adapter Kit 663282-B21

NOTE: The adapter kit is used to provide power to high-wattage cards (example: graphics cards) that require up to 225W of power.

NOTE: High wattage cards are supported on the x16 FL/FH slot which is controlled by the second processor. p/n 661628-b21 is required.

NOTE: Because of a single x16 FL/FH slot, we support only one of the below graphic cards at a time.

NVIDIA Quadro K4000 PCI-E Graphics Adapter 730870-B21

NOTE: Only the following OS types are supported: 64-bit Only: Red Hat Enterprise Linux 5.x, Red Hat Enterprise Linux 6.x, SUSE Linux Enterprise Server 11 SPx. 64-bit Only: Windows Server 2008 R2 SPx.

HP Cooling Options

HP DL380e Gen8 Hot Plug Fan Kit 667855-B21

NOTE: This kit contains a single fan and is used to upgrade non-redundant configurations to redundant configurations.

Additional Options

HP Insight Software

HP Insight Control

HP Insight Control including 1yr 24x7 Technical Support and Updates Single Server License C6N27A

HP Insight Control including 1yr 24x7 Technical Support and Updates Electronic License C6N28ABE

HP Insight Control Server Provisioning Media Kit BD883A

HP Insight Management Media Kit C6N31A

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 HP Software Technical Support and Update Service.

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

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

http://h18000.www1.hp.com/products/quickspecs/12631_div/12631_div.html

HP 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

HP iLO Essentials

HP Integrated Lights-Out Essentials including 3yr 24x7 Technical Support and Updates E-LTU E6U61ABE

HP Integrated Lights-Out Essentials including 1yr 24x7 Technical Support and Updates E-LTU E6U62ABE

HP Integrated Lights-Out Essentials including 3yr 24x7 Tech Support and Updates Single Svr License BD774A

HP Integrated Lights-Out Essentials including 1yr 24x7 Tech Support and Updates Single Svr License BD775A

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

http://h18004.www1.hp.com/products/quickspecs/14276_div/14276_div.html

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

HP Converged Infrastructure Management Software

HP OneView

HP OneView incl 3yr 24x7 Supp Phys 1 Svr Lic E5Y34A

HP OneView Media Kit Phys No Lic E5Y37A

HP OneView w/o iLO Adv incl 3yr 24x7 Supp Phys 1 Svr Lic E5Y38A

HP OneView incl 3yr 24x7 Supp Flex Qty E-LTU E5Y35AAE

HP OneView w/o iLO Adv inc 3yr 24x7 Supp Flex Qty E-LTU E5Y39AAE

Additional Options

High Performance Clusters

HP Insight Cluster Management Utility 1yr 24x7 Flexible License	QL803B
HP Insight Cluster Management Utility 3yr 24x7 Flexible License	BD476A
NOTE: These part numbers can be used to purchase one certificate for multiple licenses and support with a single activation key. Each license is for one node (server). Customer will receive a printed end user license agreement and license entitlement certificate via physical shipment. The license entitlement certificate must be redeemed online in order to obtain a license key. Customer also will receive a support agreement.	
HP Insight Cluster Management Utility Media	BD477A
NOTE: For additional license kits please see the QuickSpecs at: http://h18004.www1.hp.com/products/quickspecs/12612_div/12612_div.html	

HP I/O Accelerator Options

Second Generation Accelerators

HP 365GB Multi Level Cell G2 PCIe ioDrive2 for ProLiant Servers	673642-B21
HP 785GB Multi Level Cell G2 PCIe ioDrive2 for ProLiant Servers	673644-B21
HP 1205GB Multi Level Cell G2 PCIe ioDrive2 for ProLiant Servers	673646-B21
HP 2410GB Multi Level Cell G2 PCIe ioDrive2 Duo for ProLiant Servers	673648-B21
NOTE: Please see the QuickSpecs for Technical Specifications and additional information: http://h18000.www1.hp.com/products/quickspecs/13587_div/13587_div.html (Worldwide)	

HP Security

HP 2U Security Bezel Kit	666988-B21
HP Trusted Platform Module Option	488069-B21
NOTE: The TPM (Trusted Platform Module) is a microcontroller chip that can securely store artifacts used to authenticate the server platform. These artifacts can include passwords, certificates and encryption keys. Windows® BitLocker™ Drive Encryption (BitLocker) is a data protection feature available in Windows Server® 2008. BitLocker leverages the enhanced security capabilities of a Trusted Platform Module (TPM) version 1.2. The TPM works with BitLocker to help protect user data and to ensure that a server running Windows Server 2008 has not been tampered with while the system was offline. For more information about TPM, including a white paper, go to: http://www.hp.com/go/TPM .	
NOTE: ProLiant OS pre-installed units will come with the partition required for TPM deployment.	
NOTE: The TPM key is unique to every TPM deployed server and must be retained. Misplacing or losing the key could result in data loss.	

HP Storage Controllers

SAS Controllers

Smart Array P222 Controller

HP Smart Array P222/512 FBWC 6Gb 1-port Int/1-port Ext SAS Controller	631667-B21
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Smart Array P420 Controller

HP Smart Array P420/1GB FBWC 6Gb 2-ports Int SAS Controller	631670-B21
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HP Smart Array P420/2GB FBWC 6Gb 2-ports Int SAS Controller	631671-B21
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Smart Array P421 Controller

HP Smart Array P421/1GB FBWC 6Gb 2-ports Ext SAS Controller	631673-B21
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HP Smart Array P421/2GB FBWC 6Gb 2-ports Ext SAS Controller	631674-B21
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HP Smart Array P430 Controller

HP Smart Array P430/2GB FBWC 12Gb 1-port Int SAS Controller	698529-B21
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Additional Options

HP Smart Array P430/4GB FBWC 12Gb 1-port Int SAS Controller	698530-B21
HP Smart Array P431 Controller	
HP Smart Array P431/2GB FBWC 12Gb 2-ports Ext SAS Controller	698531-B21
HP Smart Array P431/4GB FBWC 12Gb 2-ports Ext SAS Controller	698532-B21
Smart Array P822 Controller	
HP Smart Array P822/2GB FBWC 6Gb 2-ports-Int/4-ports Ext SAS Controller	615418-B21
HP Smart Array P830 Controller	
HP Smart Array P830/4GB FBWC 12Gb 2-ports Int SAS Controller	698533-B21
Optional Upgrades	
HP 2GB P-series Smart Array Flash Backed Write Cache	631681-B21
HP 512MB B-series 36 inch Dynamic Smart Array Flash Backed Write Cache for ML/DL	631922-B21
NOTE: This kit includes a cable and cache module that is used in conjunction with the B320i controller.	
HP SAS License Key No Media 1 Single Server License for B320i	BC393A
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
HP Secure Encryption No Media Flexible License per Drive	D8S84A
NOTE: Please see the QuickSpecs for Technical Specifications and additional information:	
http://h18000.www1.hp.com/products/quickspecs/14227_div/14227_div.html (Smart Array P222 Controller)	
http://h18000.www1.hp.com/products/quickspecs/14228_div/14228_div.html (Smart Array P420 Controller)	
http://h18000.www1.hp.com/products/quickspecs/14229_div/14229_div.html (Smart Array P421 Controller)	
http://h18000.www1.hp.com/products/quickspecs/14341_div/14341_div.html (Smart Array P822 Controller)	
http://h18000.www1.hp.com/products/quickspecs/14343_div/14343_div.html (Dynamic Smart Array Controllers)	
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_div/14336_div.html (HBA 220)	
http://h18004.www1.hp.com/products/quickspecs/14222_div/14222_div.html (HBA 221)	
http://h18004.www1.hp.com/products/quickspecs/14337_div/14337_div.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_div/12566_div.html (SC11Xe HBA)	

Additional Options

HP Cable Options	HP Premier Flex LC/LC Multi-mode OM4 2 fiber 15m Cable	QK735A
	HP Premier Flex LC/LC Multi-mode OM4 2 fiber 1m Cable	QK732A
	HP Premier Flex LC/LC Multi-mode OM4 2 fiber 2m Cable	QK733A
	HP Premier Flex LC/LC Multi-mode OM4 2 fiber 30m Cable	QK736A
	HP Premier Flex LC/LC Multi-mode OM4 2 fiber 50m Cable	QK737A
	HP Premier Flex LC/LC Multi-mode OM4 2 fiber 5m Cable	QK734A

HP Power Cords	HP C13 - SEV 1011 CH 250V 10Amp 1.83m Power Cord	AF565A
	HP C13 - DK-2.5A DK 250V 10Amp 1.83m Power Cord	AF566A
	HP C13 - CEE-VII EU 250V 10Amp 1.83m Power Cord	AF568A
	HP C13 - BS-1363A UK/HK/SG 250V 10Amp 1.83m Power Cord	AF570A
	HP C13 - CEI-23-50 IT/CL 250V 10Amp 1.83m Power Cord	AF571A
	HP C13 - SABS-164 ZA 250V 10Amp 2.5m Power Cord	AF567A
	HP C13 - Nema 6-15P US 250V 15A JP 3.6m Power Cord	A0N33A
	HP C13 - Nema 5-15P US/CA 110V 10Amp 1.83m Power Cord	AF556A

NOTE: HP ProLiant servers ships with an IEC-IEC power cord used for rack mounting with Power Distribution Units (PDUs).

HP Tape Backup	NOTE: For the complete range of tape drives, autoloaders, libraries and media see: http://www.hp.com/go/tape . For hardware and software compatibility of HP tape backup products see: http://www.hp.com/storage/SPOCK and http://www.hp.com/go/ebs .	
	NOTE: For Internal drives to be connected to DL servers please make sure that you order rack mount kit as well.	
	HP StoreEver 1U USB Rack-mount Kit	A8007B
	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 Disk Backup	HP RDX Removable Disk Backup System	
	HP RDX320 USB3.0 External Disk Backup System	B7B63A
	HP RDX500 USB3.0 Internal Disk Backup System	B7B64A
	HP RDX500 USB 3.0 External Disk Backup System	B7B66A
	HP RDX1000 USB3.0 Internal Disk Backup System	B7B67A
	HP RDX1000 USB 3.0 External Disk Backup System	B7B69A

NOTE: Please see the QuickSpecs for additional part numbers, Technical Specifications, and additional information: http://h18000.www1.hp.com/products/quickspecs/13036_div/13036_div.html (Worldwide)

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

Additional Options

HP 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

HP 81B 8Gb 1-port PCIe Fibre Channel Host Bus Adapter AP769B

HP 82B 8Gb 2-port PCIe Fibre Channel Host Bus Adapter AP770B

Emulex Fibre Channel HBAs

HP 81E 8Gb 1-port PCIe Fibre Channel Host Bus Adapter AJ762B

HP 82E 8Gb 2-port PCIe Fibre Channel Host Bus Adapter AJ763B

HP StoreFabric SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter C8R38A

HP StoreFabric SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter C8R39A

QLogic Fibre Channel HBAs

HP 81Q 8Gb 1-port PCIe Fibre Channel Host Bus Adapter AK344A

HP 82Q 8Gb 2-port PCIe Fibre Channel Host Bus Adapter AJ764A

HP StoreFabric SN1000Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter QW971A

HP StoreFabric SN1000Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter QW972A

Converged Network Adapter

HP CN1100E Dual Port Converged Network Adapter BK835A

HP CN1000Q Dual Port Converged Network Adapter BS668A

HP StoreFabric CN1100R Dual Port Converged Network Adapter QW990A

HP Uninterruptible Power Systems

HP DirectFlow Three Phase UPS

Power Unit (1U UPS)

NOTE: #0D1 will appear after the part number on the sales order if HP factory integration is indicated.

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.

NOTE: #0D1 will appear after the part number on the sales order if HP factory integration is indicated.

HP 32A 400-415 Volt Three Phase INTL R12000 DirectFlow UPS IEC309 Input/Output Module AF488A

HP 30A 400-415 Volt Three Phase NA R10000 DirectFlow UPS IEC309 Input/Output Module AF489A

HP 32A 380 Volt Three Phase China R12000 DirectFlow UPS Unterminated Input/Output Module AF490A

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.

HP Tower UPS

HP T750 G4 UPS Models

HP T750 G4 NA/JP Uninterruptible Power System J2P85A

HP T750 G4 INTL Uninterruptible Power System J2P88A

HP T1000 G4 UPS Models

Additional Options

HP T1000 G4 NA/JP Uninterruptible Power System	J2P86A
HP T1000 G4 INTL Uninterruptible Power System	J2P89A
HP T1500 G4 UPS Models	
HP T1500 G4 NA/JP Uninterruptible Power System	J2P87A
HP T1500 G4 INTL Uninterruptible Power System	J2P90A
HP Rack/Tower UPS	
HP R/T2200 G4 UPS Models	
HP R/T2200 G4 NA/JP Uninterruptible Power System	J2R00A
HP 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
HP R/T3000 G4 High Voltage INTL Uninterruptible Power System	J2R04A
NOTE: Please see the QuickSpecs for additional information: http://h18000.www1.hp.com/products/quickspecs/14059_div/14059_div.html (Worldwide)	
HP R1500 G4 Uninterruptible Power Supply (UPS)	
HP R1500 G4 NA Uninterruptible Power System	J2Q99A
HP R1500 G4 INTL Uninterruptible Power System	J2R03A
HP R1500 G4 JP/TWN Uninterruptible Power System	J2R05A
NOTE: Please see the QuickSpecs for additional information: http://h18000.www1.hp.com/products/quickspecs/14058_div/14058_div.html (Worldwide)	
R5000 Uninterruptible Power System (UPS)	
HP R5000 3U IEC309-32A High Voltage INTL Uninterruptible Power System	AF461A
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_div/14109_div.html (Worldwide)	
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_div/14110_div.html (Worldwide)	
NOTE: For additional information on sizing your HP UPS, please reference: http://www.upssizer.com	
NOTE: Please see the UPS and PDU cable matrix's on the HP Power Protection and Management page. Under Power Cords, click on the "HP 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 .	

Additional Options

HP Basic Power Distribution Units (bPDU)	<p>HP Basic Power Distribution Unit: 1U/0U Version</p> <p>HP 1.9kVA 120 Volt L5-20 Input (12xNEMA 5-20R) NA/JP Basic PDU H5M54A</p> <p>HP 3.6kVA 200-240 Volt Detachable C20 Input (12xC13) WW Basic PDU H5M56A</p> <p>HP Basic Power Distribution Unit: Half Height Version</p> <p>HP 2.8kVA 120 Volt L5-30 Input (18xNEMA 5-20R) NA/JP Basic PDU H5M55A</p> <p>HP 3.6kVA 200-240 Volt Detachable C20 Input (18xC13) WW Basic PDU H5M57A</p> <p>HP 4.9kVA 208 Volt L6-30 Input (20xC13) NA/JP Basic PDU H5M58A</p> <p>HP 7.3kVA 230 Volt IEC309 32A Input (20xC13) INTL Basic PDU H5M68A</p> <p>HP 8.6kVA 208 Volt L15-30 3-Phase Input (18xC13) NA/JP Basic PDU H5M61A</p> <p>HP Basic Power Distribution Unit: Mid Height Version</p> <p>HP 4.9kVA 208 Volt L6-30 Input (24xC13/6xC19) NA/JP Basic PDU H5M59A</p> <p>HP 7.3kVA 230 Volt IEC309 32A Input (24xC13/6xC19) INTL Basic PDU H5M70A</p> <p>HP 8.3kVA 208 Volt CS8265C Input (30xC13/6xC19) NA/JP Basic PDU H5M60A</p> <p>HP 11kVA 230 Volt IEC309 63A Input (30xC13/6xC19) INTL Basic PDU H5M71A</p> <p>HP Hardwired 200-240 Volt Input (30xC13/6xC19) WW Basic PDU H5M75A</p> <p>HP 5.7kVA 208 Volt L21-20 3-Phase Input (24xC13/3xNEMA 5-20R) NA/JP Basic PDU H5M63A</p> <p>HP 8.6kVA 208 Volt L21-30 3-Phase Input (24xC13/3xC19/3xNEMA 5-20R) NA/JP Basic PDU H5M64A</p> <p>HP 8.6kVA 208 Volt L15-30 3-Phase Input (24xC13/6xC19) NA/JP Basic PDU H5M62A</p> <p>HP 11kVA 400 Volt IEC309 16A 3-Phase Input (30xC13/6xC19) INTL Basic PDU H5M72A</p> <p>HP Basic Power Distribution Unit: Full Height Version</p> <p>HP 11kVA 400 Volt IEC309 16A 3-Phase Input (36xC13/6xC19) INTL Basic PDU H5M73A</p> <p>HP 11kVA 400 Volt IEC309 30A 3-Phase Input (36xC13/6xC19) NA Basic PDU H5M67A</p> <p>HP Basic Power Distribution Unit: 480/277 Volt Version</p> <p>HP 19.9kVA 480 Volt IEC309 30A 3-Phase Input (30 Outlet) NA Basic PDU H3X08A</p> <p>HP 277 Volt options for H3X08A</p> <p>HP 800VA - 277V Input / 230V Output NA Rack Mount Transformer H3X09A</p> <p>NOTE: Please see the QuickSpecs for Technical Specifications and additional information: http://h18000.www1.hp.com/products/quickspecs/14557_div/14557_div.html (Worldwide)</p> <p>NOTE: Additional HP Power Distribution Units are available. For a complete list of all HP PDUs and additional information please visit http://www.hp.com/go/rackandpower.</p>
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Additional Options

HP Remote Monitored Power Distribution Units (mPDU)

HP 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

HP 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
HP 7.3kVA 230 Volt IEC309 32A Input (12xC13) INTL Monitored PDU	G9Z06A

HP Remote Monitored Power Distribution Unit: Mid Height Version

HP 4.9kVA 208 Volt L6-30 Input (20xC13/4xC19) NA/JP Monitored PDU	D9N47A
HP 7.3kVA 230 Volt IEC309 32A Input (20xC13/4xC19) INTL Monitored PDU	D9N48A
HP 8.6kVA 208 Volt L15-30 3-Phase Input (18xC13/3xC19) NA/JP Monitored PDU	D9N51A
HP 5.7kVA 208 Volt L21-20 3-Phase Input (18xC13/3xNEMA 5-20R) NA/JP Monitored PDU	D9N52A
HP 8.6kVA 208 Volt L21-30 3-Phase Input (20xC13/3xC19/3xNEMA 5-20R) NA/JP Monitored PDU	D9N53A
HP 11kVA 400 Volt IEC309 16A 3-Phase Input (18xC13/3xC19) INTL Monitored PDU	D9N55A

HP Remote Monitored Power Distribution Unit: Full Height Version

HP 8.3kVA 208 Volt CS8265C Input (30xC13/3xC19) NA Monitored PDU	D9N49A
HP 7.3kVA 230 Volt IEC309 32A Input (32xC13/4xC19) INTL Monitored PDU	D9N50A
HP 11kVA 400 Volt IEC309 16A 3-Phase Input (30xC13/3xC19) INTL Monitored PDU	D9N57A
HP 14.4kVA 208 Volt CS8365C 3-Phase Input (12xC13/12xC19)NA Monitored PDU	D9N58A
HP 16.6kVA 400 Volt IEC309 30A 3-Phase Input (30xC13/3xC19) NA Monitored PDU	D9N61A
HP 16.6kVA 400 Volt IEC309 30A 3-Phase Input (12xC13/12xC19) NA Monitored PDU	D9N62A
HP 17.3kVA 208 Volt IEC309 60A 3-Phase Input (24xC13/3xC19) NA/JP Monitored PDU	D9N54A
HP 17.3kVA 208 Volt IEC309 60A 3-Phase Input (12xC13/12xC19) NA/JP Monitored PDU	D9N59A
HP 19.9kVA 480 Volt 3-Phase (30 Outlet) NA Monitored PDU	D9N63A
HP 22kVA 400 Volt IEC309 32A 3-Phase Input (30xC13/3xC19) INTL Monitored PDU	D9N56A
HP 22kVA 400 Volt IEC309 32A 3-Phase Input (12xC13/12xC19) INTL Monitored PDU	D9N60A

HP Environmental Sensor for Remote Monitored PDUs

HP Environmental Sensor for Remote Monitored and Managed PDUs	E2D53A
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NOTE: Please see the QuickSpecs for additional information:

http://h18000.www1.hp.com/products/quickspecs/14669_div/14669_div.html
(Worldwide)

Additional Options

HP Intelligent Power Distribution Units (iPDU)	iPDU Core Units	
	HP 4.9kVA 24A Single Phase NA/JP Core Intelligent Modular Power Distribution Unit	AF520A
	HP 8.6kVA 24A Three Phase NA/JP Core Intelligent Modular Power Distribution Unit	AF522A
	HP 7.3kVA 32A Single Phase INTL Core Intelligent Modular Power Distribution Unit	AF525A
	HP 11kVA 16A Three Phase INTL Core Intelligent Modular Power Distribution Unit	AF526A
	iPDU Extension Bars	
	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_div/13650_div.html (Worldwide)	

HP Managed Power Distribution Units (maPDU)	Half Height Models	
	HP 3.6kVA 200-240 Volt Detachable C20 Input (7xC13/1xC19) WW Managed PDU	H8B49A
	Full Height Models	
	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 7.3kVA 200-240 Volt IEC309 32A Input (20xC13/4xC19) INTL Managed PDU	H8B51A
	HP 8.6kVA 208 Volt L15-30 3 Phase Input (18xC13/6xC19) NA/JP Managed PDU	H8B52A
	HP 8.6kVA 208 Volt L21-30 3 Phase Input (20xC13/3xC19/1x NEMA 5-20) NA/JP Managed PDU	H8B53A
	HP 11kVA 400 Volt IEC309 16A 3 Phase Input (21xC13/3xC19) INTL Managed PDU	H8B54A
	HP 14.4kVA 208V CS8365C 3 Phase Input (12xC13/12xC19) NA/JP Managed PDU	H8B55A
	HP 17.3kVA 208V IEC309 60A 3 Phase Input (12xC13/12xC19) NA/JP Managed PDU	H8B56A
	NOTE: Please see the QuickSpecs for Technical Specifications and additional information:	
	http://www8.hp.com/h20195/v2/GetHtml.aspx?docname=c04376673 (Worldwide)	

HP Rack Series	HP Intelligent Series Rack	
	HP 636 1075mm Pallet Intelligent Rack	BW895A
	HP 636 1075mm Shock Intelligent Rack	BW896A
	HP 642 1075mm Pallet Intelligent Rack	BW903A
	HP 642 1075mm Shock Intelligent Rack	BW904A
	HP 647 1075mm Pallet Intelligent Rack	BW911A
	HP 647 1075mm Shock Intelligent 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_div/14223_div.html (Worldwide)		
NOTE: For additional information regarding Rack Cabinets, please see the following URL: http://www.hp.com/go/rackandpower .		

HP Rack Options	HP LCD8500 1U Rackmount Console Kit Models	
	HP LCD8500 1U US Rackmount Console Kit	AF630A
	HP LCD8500 1U UK Rackmount Console Kit	AF631A
	HP LCD8500 1U DE Rackmount Console Kit	AF632A

Additional Options

HP LCD8500 1U FR Rackmount Console Kit	AF633A
HP LCD8500 1U JP Rackmount Console Kit	AF642A
HP LCD8500 1U RU Rackmount Console Kit	AF643A
HP LCD8500 1U INTL Rackmount Console Kit	AF644A
HP LCD8500 1U US TAA Rackmount Console Kit	AF645A

HP 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

HP Location Discovery Services

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

NOTE: Please see the [QuickSpecs for Technical Specifications and additional information:](#)

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

HP USB Keyboard and Mouse

HP USB BFR with PVC Free US Keyboard/Mouse Kit	631341-B21
HP USB BFR with PVC Free UK Keyboard/Mouse Kit	631344-B21
HP USB BFR with PVC Free FR Keyboard/Mouse Kit	631346-B21
HP USB BFR with PVC Free ES Keyboard/Mouse Kit	631348-B21
HP USB BFR with PVC Free DE Keyboard/Mouse Kit	631358-B21
HP USB BFR with PVC Free JP Keyboard/Mouse Kit	631360-B21
HP USB BFR with PVC Free IT Keyboard/Mouse Kit	631362-B21
HP USB BFR with PVC Free CN Keyboard/Mouse Kit	631364-B21
HP USB BFR with PVC Free AE Keyboard/Mouse Kit	638212-B21
HP USB BFR with PVC Free RU Keyboard/Mouse Kit	638214-B21
HP USB BFR with PVC Free AP-Intl Keyboard/Mouse Kit	672097-373
HP USB BFR with PVC Free Intl Keyboard/Mouse Kit	672097-B33
HP USB BFR with PVC Free PT Keyboard/Mouse Kit	672097-133
HP USB BFR with PVC Free TR Keyboard/Mouse Kit	672097-143
HP USB BFR with PVC Free CZ Keyboard/Mouse Kit	672097-223
HP USB BFR with PVC Free FI Keyboard/Mouse Kit	672097-353
HP USB BFR with PVC Free SE Keyboard/Mouse Kit	672097-103
HP USB BFR with PVC Free CH Keyboard/Mouse Kit	672097-113
HP USB BFR with PVC Free KR Keyboard/Mouse Kit	672097-KD3
HP USB BFR with PVC Free IN Keyboard/Mouse Kit	672097-D63

NOTE: Please see the [QuickSpecs for Technical Specifications and additional information:](#)

http://h18000.www1.hp.com/products/quickspecs/13972_div/13972_div.html
(Worldwide)

HP 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

Additional Options

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

http://h18000.www1.hp.com/products/quickspecs/11834_div/11834_div.html
(Worldwide)

HP 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 Itfc Adapter 1PK ALL	336047-B21

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

http://h18000.www1.hp.com/products/quickspecs/13475_div/13475_div.html
(Worldwide)

HP 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_div/13474_div.html
(Worldwide)

Rail Kits

HP 2U Large Form Factor Ball Bearing Gen8 Rail Kit with CMA	663480-B21
HP 2U Small Form Factor Ball Bearing Gen8 Rail Kit with CMA	663478-B21
HP Rack Cable Management Velcro Clips	379820-B21

NOTE: Gen8 rail kits have changed significantly from prior generation rail kits. Please take a moment to review the installation documentation that comes with the server to help you with the installation of your Gen8 server.

NOTE: Rail kits are optional for DL380e Gen8 and are no longer included standard with the server. Customers have the option to purchase their server without a rail kit.

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

NOTE: The HP 2U Gen8 Cable Management Arm is not available when using Friction Rails.

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

HP USB and SD Options

HP Flash Media Kits for USB Drives

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

HP Care Pack Services

Proactive Care

HP 3 year 4 hour 24x7 ProLiant DL380e Proactive Care Service	U6E33E
HP 3 year 4 hour 24x7 with Defective Media Retention ProLiant DL380e Proactive Care Service	U6E34E
HP 3 year 4-Hour 24x7 with Comprehensive Defective Material Retention DL380e Proactive Care Service	U9C04E
HP 3 year 4 hour 24x7 ProLiant DL380e with Insight Control Proactive Care Service	U6G61E
HP 3 year 4 hour 24x7 w/Defective Media Retention DL380e with Insight Control Proactive Care Service	U6G62E
HP 3 year 4-Hour 24x7 w/Comprehensive Defective Material Retention DL380e w/IC ProactiveCare Service	U9C15E

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

Foundation Care

HP 3 year 24x7 DL380e Foundation Care Service	U2GN9E
HP 3 year 24x7 with Defective Media Retention DL380e Foundation Care Service	U2GP0E
HP 3 year 24x7 with Comprehensive Defective Material Retention DL380e Foundation Care Service	U2GP1E
HP 3 year 24x7 DL380e w/IC Foundation Care Service	U2JB1E
HP 3 year 24x7 with Defective Media Retention DL380e w/IC Foundation Care Service	U2JB2E
HP 3 year 24x7 with Comprehensive Defective Material Retention DL380e w/IC Foundation Care Service	U2JB3E

Installation Services

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

HP Installation ProLiant DL180/DL380e Service	U6E81E
HP Startup ProLiant DL180/DL380e Service	U6E83E

NOTE: For more information, customer/resellers can contact:
<http://www.hp.com/services/carepack>

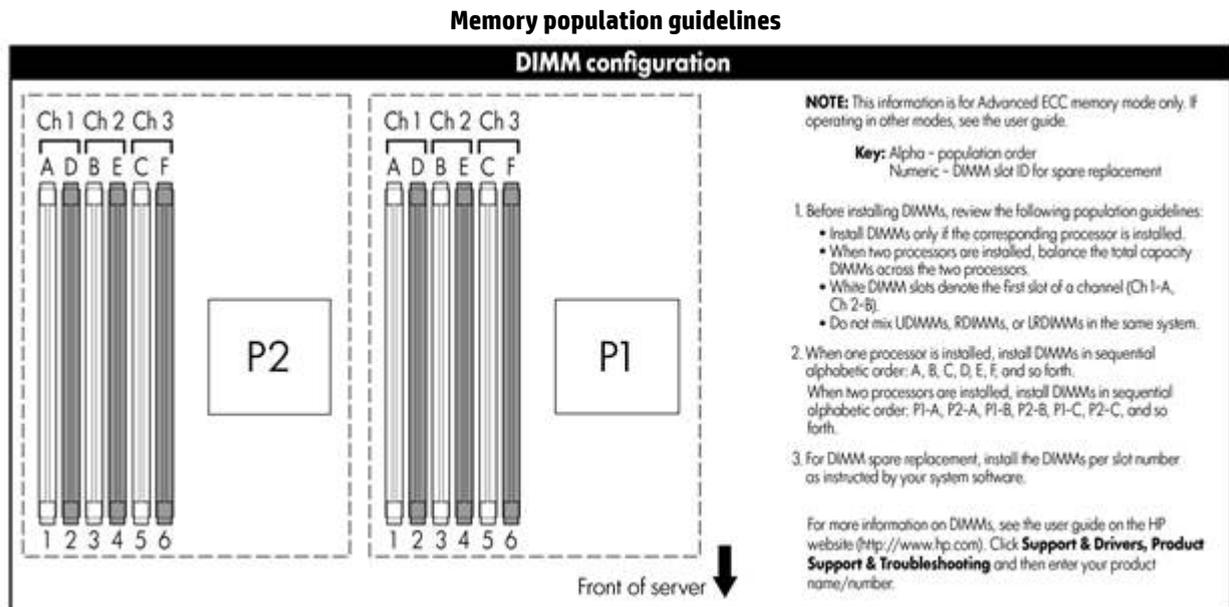
NOTE: Reduce the time required to get your system up and running and help minimize disruptions to your business.

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 Intel® Xeon® E5-2400v2 and E5-2400 family processor socket contains three memory channels per installed processor with two DIMMs per channel for a total of six (6) DIMMs or a grand total of twelve (12) DIMMs for the server. Up to 32GB capacity DIMMs are supported for 384GB of memory (12 DIMM slots x 32GB per DIMM).



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.
- Populate DIMMs from heaviest load (quad-rank) to lightest load (single-rank) within a channel. Heaviest load (DIMM with most ranks) within a channel goes furthest from the processor
- 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.
- Do not mix RDIMMs, LRDIMMs, and UDIMMs.
- DIMMs of different speeds may be mixed in any order; the server will select a common optimal speed.
- The maximum memory speed is a function of the memory type, memory configuration, and processor model.
- The maximum memory capacity is a function of the memory type and number of installed processors.
- HP memory from previous generation servers is not qualified on the DL380e Gen8 Server. Certain HP SmartMemory features such as memory authentication and enhanced performance may not be supported.
- To realize the performance memory capabilities listed in this document, HP SmartMemory is required. For additional information, please see the HP SmartMemory QuickSpecs at:
http://h18000.www1.hp.com/products/quickspecs/14225_div/14225_div.html.
- For memory population rules and additional memory guidelines, please see the DL380e Gen8 user guide at
<http://www.hp.com/support>.
- There are three(3) Memory channels per processor; six(6) channels for 2 processors server.
- There are two(2) DIMM slots for each memory channel; twelve(12) total slots for 2 processors server.

Memory

Intel Gen8 Supported Memory Bandwidth for HP ProLiant Gen8 Intel® Xeon®E5-2400v2 Series Processor Family

DIMM Type	Registered DIMMS (RDIMMs)				Unbuffered with ECC DIMMs (UDIMMs)		
	Single Rank	Dual Rank	Single Rank	Dual Rank	Single Rank	Dual Rank	Dual Rank
DIMM Capacity	4GB	8GB	8GB	16GB	2GB	4GB	8GB
DIMM Native Speed (MT/s)	1600	1600	1600	1600	1600	1600	1600
Voltage	LV	LV	Std	LV	LV	LV	LV
12 slot servers	12	12	12	12	12	12	12
	48	96	96	192	24	48	96
1 DIMM Per Channel	1600	1600	1600	1600	1600	1600	1600
2 DIMM Per Channel	1600	1600	1600	1600	1600	1600	1600
3 DIMM Per Channel	800	800	800	800	n/a	n/a	n/a

Intel Gen8 Supported Memory Bandwidth for HP ProLiant Gen8 Intel® Xeon®E5-2400 Series Processor Family

Memory Bandwidth and Capacity															
DIMM Type	Registered DIMMS (RDIMMs)								Load Reduced (LRDIMMs)	Unbuffered with ECC DIMMs (UDIMMs)					
	Single Rank	Single Rank	Dual Rank	Dual Rank	Single Rank	Dual Rank	Dual Rank	Quad Rank		Single Rank	Single Rank	Dual Rank	Dual Rank	Dual Rank	Dual Rank
DIMM Capacity	4GB	4GB	8GB	8GB	8GB	16GB	16GB	32GB	2GB	2GB	4GB	4GB	8GB	8GB	
DIMM Native Speed (MT/s)	1333	1600	1333	1600	1600	1333	1600	1333	1333	1600	1333	1600	1600	1333	
Voltage	LV	Std	LV	Std	Std	LV	Std	LV	LV	Std	LV	Std	Std	LV	
SLOTS THAT CAN BE POPULATED															
12 slot servers	12	12	12	12	12	12	12	12	12	12	12	12	12	12	
MAXIMUM CAPACITY (GB)*															
	48	48	96	96	96	192	192	384	24	24	48	48	96	96	
1 DIMM Per Channel	1333	1600	1333	1600	1600	1333	1600	1333****	1333	1600	1333	1600	1600	1333	
2 DIMM Per Channel	1333	1600	1333	1600	1600	1333	1600	1333****	1333***	1600	1333***	1600	1600	1333***	
3 DIMM Per Channel	1066**	1333#	1066**	1333#	1333#	1066**	1333#	1066	n/a	n/a	n/a	n/a	n/a	n/a	

*Maximum capacity will vary based on individual server platform qualification schedule

** For HP SmartMemory, RDIMM support 3DPC@ DDR3-1066 at 1.35V. Third party memory may only support up to 3DPC@DDR3-1066 at 1.5V.

****LRDIMM enables 2 DIMMs per channel. HP SmartMemory supports up to 2DPC@1333 at 1.35V. Third party memory may only support up to 2DPC@1066 at 1.5V.

*** For UDIMMs, HP SmartMemory supports 2DPC@1333 at 1.35V. Third party memory may only support up to 2DPC@1066 at 1.5V.

RBSU setting required.

Memory

DIMM slot and configuration diagrams

Basic memory slot & population diagram

- Population order; looking from the front of your server CPU#1 is on right side and CPU#2 is on the left. See the population order by alphabetic and numeric progression below

CPU #1 IS PROCESSOR ON RIGHT - LOOKING FROM FRONT OF SERVER							
Chnl 1	CPU 1			CPU 2			CPU 1
	Slot #	population order		Slot #	population order		
	1	A	1	1	A	1	
	2	D	4	2	D	4	
Chnl 2	CPU 1			CPU 2			CPU 2
	Slot #	population order		Slot #	population order		
	3	B	2	3	B	2	
	4	E	5	4	E	5	
Chnl 3	CPU 1			CPU 2			CPU 3
	Slot #	population order		Slot #	population order		
	5	C	3	5	C	3	
	6	F	6	6	F	6	

Memory Speed by Processor Model

Processor Models	Supported Memory Speeds
E5-2470, E5-2450,	1600/1333/1066MHz
E5-2440, E5-2430, E5-2420, E5-2450L,	1333/1066MHz
E5-2407, E5-2403, E5-2430L,	1066MHz
E5-2430v2, E5-2430Lv2, E5-2420v2, E5-2440v2, E5-2450v2, E5-2470v2, E5-2450Lv2,	1600/1333/1066MHz
E5-2407v2, E5-2403v2,	1333/1066MHz

Standard and Maximum Memory Capacity (Pre-configured Models)

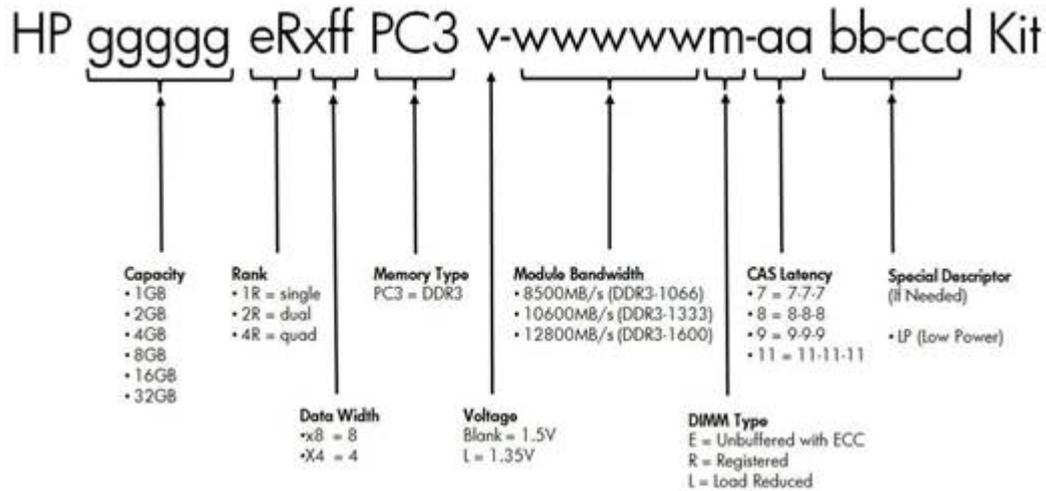
Pre-Configured Models	Standard Memory	Maximum Memory Plus Optional Memory	Standard Memory Replaced with Optional Memory
E5-2403v2, E5-2403, E5-2403,	4GB (1x4GB)	180GB (11x16GB, 1x4GB)	384GB (12x32GB)
E5-2407v2, E5-2407v2,	8GB (1x8GB)	184GB (11x16GB, 1x8GB)	384GB (12x32GB)
E5-2407, E5-2407,	8GB (2x4GB)	168GB (10x16GB, 2x4GB)	384GB (12x32GB)
E5-2450,	24GB (6x4GB)	120GB (6x16GB, 6x4GB)	384GB (12x32GB)
E5-2420v2, E5-2420, E5-2420v2, E5-2420,	12GB (3x4GB)	156GB (9x16GB, 3x4GB)	384GB (12x32GB)

DDR3 memory options part number decoder

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

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

Memory



HP Memory

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

http://h18000.www1.hp.com/products/quickspecs/14225_div/14225_div.html (Worldwide)

NOTE: HP memory from previous generation servers are not fully compatible with the DL360e Gen8 Server.

Registered DIMMs (RDIMMs)

HP 4GB (1x4GB) Single Rank x4 PC3L-12800R (DDR3-1600) Registered CAS-11 Low Voltage Memory Kit 713981-B21

HP 8GB (1x8GB) Dual Rank x4 PC3L-12800R (DDR3-1600) Registered CAS-11 Low Voltage Memory Kit 713983-B21

HP 8GB (1x8GB) Single Rank x4 PC3L-12800R (DDR3-1600) Registered CAS-11 Low Voltage Memory Kit 731765-B21

HP 16GB (1x16GB) Dual Rank x4 PC3L-12800R (DDR3-1600) Registered CAS-11 Low Voltage Memory Kit 713985-B21

NOTE: The above memory is supported by the E5-2400 v2 series Processors.

HP 4GB (1x4GB) Single Rank x4 PC3L-10600R (DDR3-1333) Registered CAS-9 Low Voltage Memory Kit 647893-B21

HP 4GB (1x4GB) Single Rank x4 PC3-12800R (DDR3-1600) Registered CAS-11 Memory Kit 647895-B21

HP 8GB (1x8GB) Dual Rank x4 PC3L-10600R (DDR3-1333) Registered CAS-9 Low Voltage Memory Kit 647897-B21

HP 8GB (1x8GB) Single Rank x4 PC3-12800R (DDR3-1600) Registered CAS-11 Memory Kit 647899-B21

HP 8GB (1x8GB) Dual Rank x4 PC3-12800R (DDR3-1600) Registered CAS-11 Memory Kit 690802-B21

HP 16GB (1x16GB) Dual Rank x4 PC3L-10600R (DDR3-1333) Registered CAS-9 Low Voltage Memory Kit 647901-B21

HP 16GB (1x16GB) Dual Rank x4 PC3-12800R (DDR3-1600) Registered CAS-11 Memory Kit 672631-B21

NOTE: The above memory is supported by the E5-2400 series Processors.

Unbuffered with ECC DIMMs (UDIMM)

HP 2GB (1x2GB) Single Rank x8 PC3L-12800E (DDR3-1600) Unbuffered CAS-11 Low Voltage Memory Kit 713975-B21

HP 4GB (1x4GB) Dual Rank x8 PC3L-12800E (DDR3-1600) Unbuffered CAS-11 Low Voltage Memory Kit 713977-B21

Memory

HP 8GB (1x8GB) Dual Rank x8 PC3L-12800E (DDR3-1600) Unbuffered CAS-11 Low Voltage Memory Kit 713979-B21

NOTE: The above memory is supported by the E5-2400 v2 series Processors.

HP 2GB (1x2GB) Single Rank x8 PC3-12800E (DDR3-1600) Unbuffered CAS-11 Memory Kit 669320-B21

HP 2GB (1x2GB) Single Rank x8 PC3L-10600E (DDR3-1333) Unbuffered CAS-9 Low Voltage Memory Kit 647905-B21

HP 4GB (1x4GB) Dual Rank x8 PC3-12800E (DDR3-1600) Unbuffered CAS-11 Memory Kit 669322-B21

HP 4GB (1x4GB) Dual Rank x8 PC3L-10600E (DDR3-1333) Unbuffered CAS-9 Low Voltage Memory Kit 647907-B21

HP 8GB (1x8GB) Dual Rank x8 PC3-12800E (DDR3-1600) Unbuffered CAS-11 Memory Kit 669324-B21

HP 8GB (1x8GB) Dual Rank x8 PC3L-10600E (DDR3-1333) Unbuffered CAS-9 Low Voltage Memory Kit 647909-B21

NOTE: The above memory is supported by the E5-2400 series Processors.

Load Reduced DIMMs (LRDIMMs)

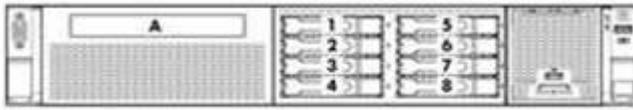
HP 32GB (1x32GB) Quad Rank x4 PC3L-10600L (DDR3-1333) Load Reduced CAS-9 Low Voltage Memory Kit 647903-B21

NOTE: The above memory is supported by the E5-2400 v2 and E5-2400 series Processors.

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>.

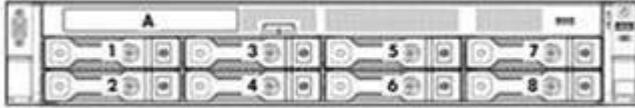
NOTE: PC3L is a low voltage memory.

Storage



A Optical Media Bay optional

1-8 8 x SFF SATA/SAS/SDD Hot Pluggable Hard Drive Bays

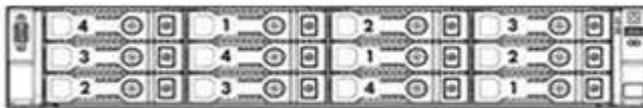


A Optical Media Bay optional

1-8 8 x LFF SATA/SAS/SDD Hot Pluggable Hard Drive Bays



1-25 25 x SFF SATA/SAS/SDD Hot Pluggable Hard Drive Bays



1-4 12 x LFF (1:1) SATA/SAS/SDD Hot Pluggable Hard drive bays with point to point backplane

Maximum Storage Capacity - (with D2700)

Internal (25 SFF Drive Cage)	32.4TB (27 x 1.2TB SAS/SATA SFF with 25SFF drive cage + Rear 2SFF drive cage)
Internal (12 LFF Drive Cage)	56TB (14 x 4TB SAS/SATA LFF with 12LFF drive cage + Rear 2LFF drive cage)
External	240TB (200 x 1.2TB SAS SFF)
Total (25 SFF Drive)	272.4TB
Total (12 LFF Drive)	296TB

Technical Specifications

System Unit	Dimensions (with bezel)	SFF Drives: 3.44 x 17.54 x 27.5 in (8.75 x 44.55 x 69.85 cm) LFF Drives: 3.44 x 17.54 x 29.5 in (8.75 x 44.55 x 74.94 cm)	
	Weight (approximate)	Maximum	71.20 lb (32.30 kg)
		Minimum	30.80 lb (14.00 kg)
	Input Requirements	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)	
	BTU Rating	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)
Power Supply Output (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), 750 W (at 200 to 240 VAC)	
	Maximum Peak Power	For 460 W Power Supply: 460 W (at 100 to 120 VAC), 460 W (at 200 to 240 VAC)	
		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)	
System Inlet Temperature	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)	

Technical Specifications

		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).
Relative Humidity (non-condensing)	Non-operating	-30° to 60°C (-22° to 140°F). Maximum rate of change is 20°C/hr (36°F/hr).
	Operating	10 to 90% relative humidity (Rh), 28°C (82.4°F) maximum wet bulb temperature, non-condensing.
Altitude	Non-operating	5 to 95% relative humidity (Rh), 38.7°C (101.7°F) maximum wet bulb temperature, non-condensing.
	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).
Acoustic Noise	Non-operating	9144 m (30,000 ft). Maximum allowable altitude change rate is 457 m/min (1500 ft/min).
		Listed are the declared A-Weighted sound power levels (LWAd) and declared average bystander position A-Weighted sound pressure levels (LpAm) when the product is operating in a 23°C ambient environment. Noise emissions were measured in accordance with ISO 7779 (ECMA 74) and declared in accordance with ISO 9296 (ECMA 109).
	Idle	1P Non- Redundant 2P Redundant
		SKU SKU
	LWAd	5.8 B 5.4 B
	LpAm	41 dBA 38 dBA
	Operating	1P SKU 2P SKU
	LWAd	5.9 B 5.7 B
	LpAm	42 dBA 41 dBA
		NOTE: The Listed sound levels apply to standard shipping configurations. Additional options may result in increased sound levels.
Emissions Classification (EMC)	FCC Rating	Class A
	Normative Standards	CISPR 22; EN55022; EN55024; FCC CFR 47, Pt 15; ICES-003; CNS14336-1; CNS13438; GB4943; GB9254; EN 61000-3-2; EN 61000-3-3; EN 60950-1; IEC 60950-1
		NOTE: Product conformance to cited product specifications is based on sample (type) testing, evaluation, or assessment. This product or family of products is eligible to bear the appropriate compliance logos and statements.
		NOTE: The Listed sound levels apply to standard shipping configurations. Additional options may result in increased sound levels.

Technical Specifications

HP Dynamic Smart Array B120i Controller	Dimensions	Embedded
	Disk Drive and Enclosure Interface - Transfer rate	Up to 6Gb/s SATA (Serial ATA)
	SAS Connectors	6 internal SATA connectors
	Server Interface	x4 PCIe 2.0
	SAS Speed	6Gb/s SATA links
	Cache Memory	Zero Memory RAID has no cache memory
	Logical Drives Supported	Up to 8 logical volumes (6 physical drives)
	Host Memory Addressing	64-bit, supporting greater than 4GB server memory space
	Hot Plug Support	Yes
	RAID Support	RAID 0 (Striping), RAID 1 (Mirroring) RAID 1+0 (Striping & Mirroring)

HP Dynamic Smart Array B320i Controller	Dimensions	Embedded
	Disk Drive and Enclosure Interface - Transfer rate	Up to 6Gb/s SATA (Serial ATA)
	SAS Connectors	2 internal x4 connectors
	Server Interface	x4 PCIe 2.0
	SAS Speed	6Gb/s SAS links
	Cache Memory	Zero Memory RAID has no cache memory optional 40-bit 512MB ECC protected Flash Backed Write Cache (FBWC)
	Logical Drives Supported	Zero Memory, Up to 2 logical volumes (6 physical drives)
	Host Memory Addressing	64-bit, supporting greater than 4GB server memory space
	RAID Support	RAID 0 (Striping), RAID 1 (Mirroring) RAID 1+0 (Striping & Mirroring) RAID 5 with optional 512MB FBWC NOTE: 512 MB cache is required to enable RAID 5 support. NOTE: NO SAS supported.

HP Smart Array P420 Controller	Dimensions	Low Profile PCIe Form Factor
	Disk Drive and Enclosure Interface - transfer rate	6Gb/s SAS (Serial Attached SCSI) 3Gb/s SATA (Serial ATA)
	SAS Connectors	2 internal 4X connectors
	Cache Memory Speed	DDR2-800MHz with 40 or 72-bit wide bus
	Server Interface	x4 PCIe 2.0 provides 2GB/s maximum bandwidth
	SAS Speed	8 6Gb/s SAS links provide 4.8GB/s maximum bandwidth
	Cache Memory	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)
	Logical Drives Supported	Up to 64 logical drives with cache
	Host Memory Addressing	64-bit, supporting greater than 4GB server memory space
	RAID Support	RAID 6, 60 (Advanced Data Guarding) RAID 5, 50 (Distributed Data Guarding)

Technical Specifications

NOTE: Either a minimum of 256MB cache and battery kit or a minimum of 512MB BBWC/FBWC is required to enable RAID 5, 50, 6, 60.

NOTE: HP Smart Array Advanced Pack (SAAP 2.0) is no longer required to enable 6 & 60 (Advanced Data Guarding). However, controller must be in firmware version 4.68 (or later).

RAID 1+0 (Striping & Mirroring)

HP Ethernet 1Gb 4-port 366i Adapter	Network Interface	10Base-T/100Base-TX/1000Base-TX	
	Compatibility	EEE 802.3 10Base-T	
		IEEE 802.3ab 1000Base-T	
	Data Transfer Method	IEEE 802.3u 100Base-TX	
		IEEE 1588, IEEE 802.1AS	
	Controller	IEEE 802.3az - Energy Efficient Ethernet (EEE)	
		PCI Express v 2.0, 5.0 GT/s, two lanes (x2)	
	Network Transfer Rate	10Base-T (Half-Duplex)	10 Mb/s per port, 40 Mb/s combined
		10Base-T (Full-Duplex)	20 Mb/s per port, 80 Mb/s combined
		100Base-TX (Half-Duplex)	100 Mb/s per port, 400 Mb/s combine
100Base-TX (Full-Duplex)		200 Mb/s per port, 800 Mb/s combined	
1000Base-TX (Half and Full-Duplex)		1000Mb/s per port, 4000 Mb/s combined	
Connector	Two RJ-45		
Cable Support	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)	

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

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

Summary of Changes

Date	Version History	Action	Description of Change
17-Aug-2015	From Version 41 to 42	Added	New Solid State Drives offering was added to HP Hard Drives section.
01-Jun-2015	From Version 40 to 41	Added	New Hard Drives were added to Core Options.
		Removed	Obsolete SKUs were removed from Configuration Information - Factory Integrated Models, Core Options, and Additional Options.
30-Mar-2015	From Version 39 to 40	Added	New Hard Drives were added to Core Options.
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	HP Uninterruptible Power Systems, HP Rack Options, and HP Care Pack Services in Additional Options section were revised.
01-Dec-2014	From Version 37 to 38	Added	HP 1.6TB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive and HP 1.6TB 6G SATA Value Endurance LFF 3.5-in SC Converter Enterprise Value 3yr Wty Solid State Drive were added to HP Hard Drives.
		Removed	Proactive Care Services (U6E39E, U6E40E, U6G63E, and U6G64E), Collaborative Support, and Proactive Care Personalized Support Option were removed from HP Care Pack Services.
01-Nov-2014	From Version 36 to 37	Changed	Service and Support section was revised.
29-Sep-2014	From Version 35 to 36	Added	New Solid State Drives were added. HP Managed Power Distribution Units (mPDU) was added to Additional Options.
		Changed	Service and Support section was revised. HP Hard Drives was revised in Core Options section.
		Removed	HP Power Distribution Units was removed from Additional Options.
09-Sep-2014	From Version 34 to 35	Added	12G SAS Hot Plug VE SFF (2.5-inch) SC EV SSD and 12G SAS Hot Plug VE SFF (2.5-inch) SCC EV SSD hard drives were added to Core Options section.
		Changed	Memory section was revised.
18-Aug-2014	From Version 33 to 34	Added	New Hard Drives were added. HP Remote mPDUs half height version were added.
		Changed	Pre-configured Models, Configuration Information - Factory Integrated Models, Core Options, Additional Options, and Memory sections were revised.
16-Jun-2014	From Version 32 to 33	Changed	Memory, Hard Drives, Networking, Insight Software, Storage Controllers, Disk Backup, Storage Options, Power Distribution Units, and USB and SD Options were revised.
09-May-2014	From Version 31 to 32	Changed	Service and Support, Memory, Hard Drives, Storage Controllers, and Basic and Remote Monitoring Power Distribution Units were revised.
11-Apr-2014	From Version 30 to 31	Changed	Changes made to the North America and Canada versions only.
22-Jan-2014	From Version 29 to 30	Changed	The link in the Note was corrected in the Standard Features/ Upgradeability section.
15-Jan-2014	From Version 28 to 29	Changed	Changes made to the North America and Canada versions only.
09-Jan-2014	From Version 27 to 28	Changed	Changes made throughout the entire QuickSpecs.
16-Dec-2013	From Version 26 to 27	Changed	Changes made to the North America and Canada versions only.
15-Nov-2013	From Version 25 to 26	Changed	Minor change made to the Core Options/ Hard Drives Section.
10-Oct-2013	From Version 24 to 25	Changed	Changes made to the Tape Backup section of Additional Options.
18-Sep-2013	From Version 23 to 24	Changed	Changes made to the following sections: Configuration Information section: Step 1 Technical Specifications section: HP Dynamic Smart Array B120i Controller

Summary of Changes

10-Sep-2013	From Version 22 to 23	Changed	Changes made to the following sections: Standard Features - HP Insight Management Optional Features - High Performance Clusters Pre-configured Models Memory Core Options - HP Hard Drives
10-Jul-2013	From Version 21 to 22	Removed	Removed Part number 721458-B21 from the HP I/O Accelerator Options section.
12-Jun-2013	From Version 20 to 21	Changed	Changes made in the North America and Canada versions only.
31-May-2013	From Version 19 to 20	Changed	Changes made in the North America and Canada versions only.
15-May-2013	From Version 18 to 19	Added	Additional Options: Added HP Basic Power Distribution Units section.
		Changed	Standard Features: Updated Processor and Maximum Internal Storage sections. Core Options: Updated HP Hard Drives and HP InfiniBand sections. Additional Options: Updated HP I/O Accelerator Options, HP Storage Controllers, HP Power Distribution Units, HP Rack Options, updated entire HP USB and SD Options and HP Care Pack Services sections. Technical Specifications: Updated HP Dynamic Smart Array B120i Controller and HP Dynamic Smart Array B320i Controller sections.
29-Apr-2013	From Version 17 to 18	Added	Technical Specifications: Updated HP Dynamic Smart Array B120i Controller section.
25-Mar-2013	From Version 16 to 17	Added	Configuration Information: Added a NOTE to the HP Power Supplies section. Core Options: Added a NOTE to the HP Power Supplies section.
		Removed	Additional Options: Removed 641027-B21, 600282-B21 and 600279-B21 from the HP I/O Accelerator Options.
19-Feb-2013	From Version 15 to 16	Changed	Standard Features: Updated Maximum Internal Storage Optional Features: HP Insight Management added HP iLO Essentials and HP iLO Advanced Additional Options: completely updated HP Insight Software, updated product description for BC393A in HP Storage Controllers, updated product description for A8007B in HP Tape Backup
		Added	Optional Feature: Added Storage Software section Pre-configured Models: Added HP iLO Essentials to Management section Configuration Information-Factory Integrated Models: Added HP Insight Software to Step 3. Core Options: 697514-B21, 693687-B21 HP, 6GSATA ME HotPlug SFF(2.5-inch) Enterprise Mainstream Solid State Drive and 6GSATA ME HotPlug SFF(3.5-inch) Enterprise Mainstream Solid State Drive to Hard Drives Section Added 656596-B21 to HP Networking Additional Options: Added 721458-B21 to HP ILO Accelerator Options
21-Dec-2012	From Version 14 to 15	Changed	Additional Options: in HP Cable Options = changed HP Premier Flex LC/LC Multi-mode OM4 5 fiber 5m Cable to a 2 fiber 5m Cable
07-Dec-2012	From Version 13 to 14	Removed	Removed the HP Backup & Recovery Software and HP Disk Storage Systems sections from the Additional Options section.
		Changed	Standard Features: Graphics, On System Management Optional Features: HP Insight Management Configuration Information: Step 1 - Added Notes, Step 2 - HP Power Supplies section changes Core Options: Optical Drives, HP Hard Drives, HP Power Supplies

Summary of Changes

			Additional Options: Completely revised the HP Insight Software section, HP Rack Series, HP Rack Options & HP Care Pack Services
26-Oct-2012	From Version 12 to 13	Changed	Changes made in Standard Features, Pre-Configured Models, Configuration Information, and Additional Options sections.
12-Oct-2012	From Version 11 to 12	Changed	Change made in the North America and Canada versions only.
24-Sep-2012	From Version 10 to 11	Changed	Change made in Standard Features, Optional Features and Technical Specifications sections.
06-Sep-2012	From Version 9 to 10	Changed	Change made in the North America and Canada versions only.
31-Aug-2012	From Version 8 to 9	Changed	Change made in the Models section.
27-Aug-2012	From Version 7 to 8	Changed	Change made in the North America and Canada versions only.
22-Aug-2012	From Version 6 to 7	Changed	Change made in Technical Specifications.
17-Aug-2012	From Version 5 to 6	Changed	Change made throughout the QuickSpecs.
03-Jul-2012	From Version 4 to 5	Changed	Change made in the Additional Options section.
27-Jun-2012	From Version 3 to 4	Changed	Changes made within the Standard Features, Models, Options and Memory sections.
15-Jun-2012	From Version 2 to 3	Changed	Changes made throughout the QuickSpecs.
08-Jun-2012	From Version 1 to 2	Changed	Added Care Pack Services.

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