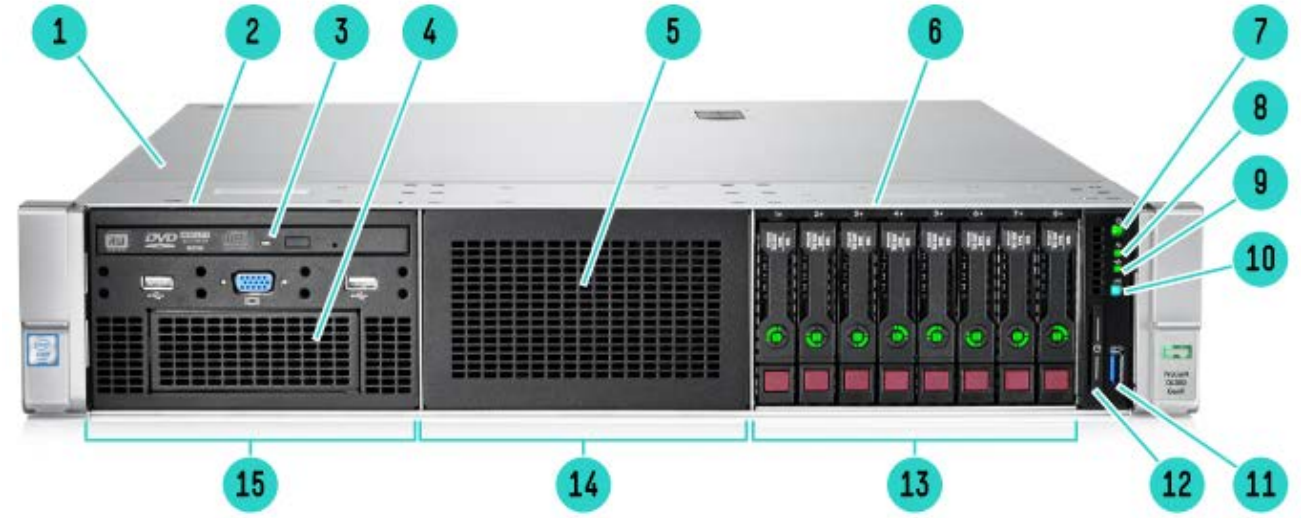
RETIRED: This document has been officially retired, and the base products listed herein are now considered obsolete and are no longer available for sale. Consequently, the information contained within may no longer be current. This document is provided exclusively for reference and informational purposes.

Overview

HPE ProLiant DL380 Generation9 (Gen9)
NEBS Level 3 and ETSI Certified

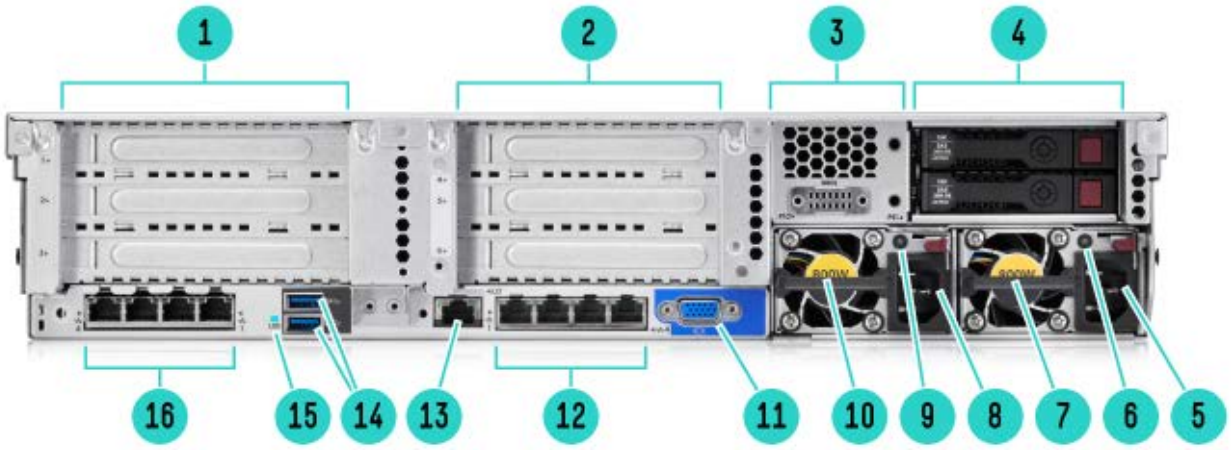
The HPE ProLiant DL380 Gen9 Server delivers the best performance and expandability in the HPE 2P rack portfolio. Reliability, serviceability and near continuous availability, backed by a comprehensive warranty, make it ideal for any environment. Deploy the data center standard.



Front View - 8SFF Chassis with Optional Universal Media Bay shown

1. Quick removal access panel
2. Universal Media bay. 2 USB 2.0 and VGA standard (8SFF bay optional)
3. Optional Optical drive. Requires Universal Media bay
4. Optional 2 SFF HDD, blank shown. Requires Universal Media bay
5. Drive Bay 2. Blank shown, 8SFF optional
6. 8 SFF Drive Cage Bay
7. Power On/Standby button and system power LED button
8. Health LED
9. NIC status
10. UID button
11. USB 3.0
12. Serial label pull tag
13. Bay 3
14. Bay 2
15. Bay 1

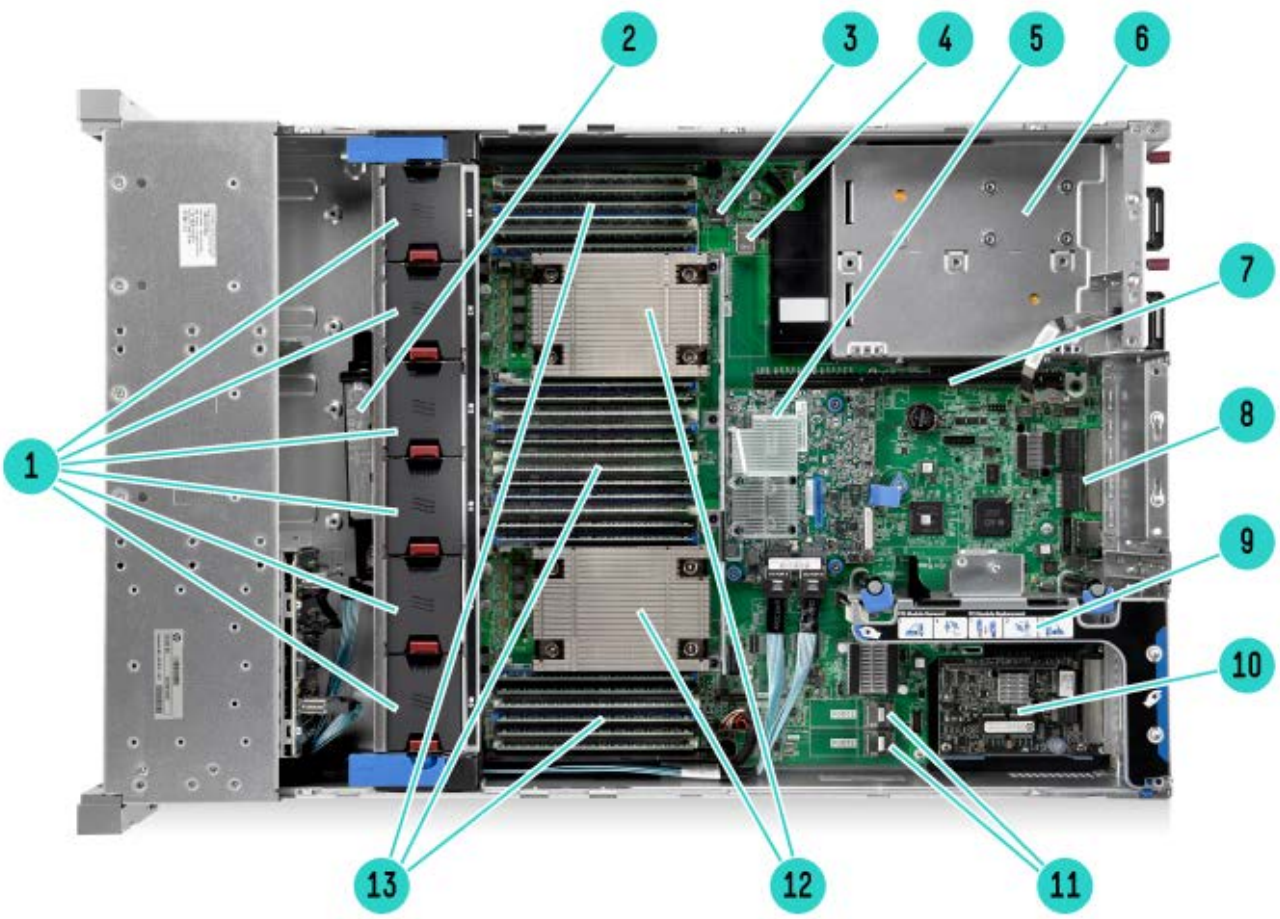
Overview



Rear view

1. PCI Slots (Slots 1-3 top to bottom, riser shipped standard)
2. PCI Slots (Slots 4-6top to bottom, requires second riser card, and second processor)
3. Optional serial port
4. Optional rear 2 SFF HDD (supported in 24 SFF front end)
5. Power supply Power connection
6. Power supply Power LED
7. HPE Flexible Slot Power Supply bay 2 (800w shown)
8. Power supply Power connection
9. Power supply Power LED
10. HPE Flexible Slot Power Supply bay 1 (800w shown)
    NOTE: Optional Micro UPS option.
11. VGA connector
12. Embedded 4x1GbE Network Adapter
13. Dedicated iLO connector
14. USB 3.0 connectors (2)
15. Unit ID LED
16. Optional FlexibleLOM ports (Shown: 4x1GbE)

Overview



Internal View

1. Fan cage shown with 6 standard Hot-plug fans (High Performance fans optional)
2. Optional HPE Smart Storage Battery
3. MicroSD card slot
   NOTE: Optional Dual MicroSD.
4. Internal USB 3.0 connector (2)
5. Optional HPE Flexible Smart Array or Smart HBA (H240ar shown)
6. (Under) Hot Plug redundant HPE Flexible Slot Power supplies
   NOTE: Optional Micro UPS option.
7. Connection for second (optional) riser (Required second CPU)
8. Embedded 4x1Gbe NIC
9. Primary PCIe riser, standard (Optional double wide GPU riser)
10. Optional Flexible LOM slot
11. X4 SATA ports (1 and 2)
12. 2 Processors, heatsink showing, with HPE Smart Socket Guide
13. DDR4 DIMM slots. Shown fully populated in 24 slots (12 per processor)

Standard Features

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

Processor
Up to two of the following depending on model

Model	CPU frequency	Cores	L3 Cache	Power	QPI	DDR4 Hz
E5-2690v3	2.6GHz	12	30MB	135W	9.6GT/s	2133
E5-2680v3	2.5GHz	12	30MB	120W	9.6GT/s	2133
E5-2670v3	2.3GHz	12	30MB	120W	9.6GT/s	2133
E5-2667v3	3.2GHz	8	20MB	135W	9.6GT/s	2133
E5-2660v3	2.6GHz	10	25MB	105W	9.6GT/s	2133
E5-2650v3	2.3GHz	10	25MB	105W	9.6GT/s	2133
E5-2650Lv3	1.8GHz	12	30MB	65W	9.6GT/s	2133
E5-2643v3	3.4GHz	6	20MB	135W	9.6GT/s	2133
E5-2640v3	2.6GHz	8	20MB	90W	8.0GT/s	1866
E5-2630v3	2.4Ghz	8	20MB	85W	8.0GT/s	1866
E5-2630Lv3	1.8GHz	8	20MB	55W	8.0GT/s	1866
E5-2620v3	2.4GHz	6	15MB	85W	8.0GT/s	1866
E5-2609v3	1.9GHz	6	15MB	85W	6.4GT/s	1600
E5-2603v3	1.6GHz	6	15MB	85W	6.4GT/s	1600
E5-2698v4	2.2GHz	20	50MB	135W	9.6GT/s	2400
E5-2697v4	2.3GHz	18	45MB	145W	9.6GT/s	2400
E5-2695v4	2.1GHz	18	45MB	120W	9.6GT/s	2400
E5-2683v4	2.1GHz	16	40MB	120W	9.6GT/s	2400
E5-2620v4	2.1GHz	8	20MB	85W	8.0GT/s	2133

NOTE: All processors above 120W use a high efficiency Heatsink. Doublewide PCIe cards are only supported with this Heatsink. For processors with a standard Heatsink that require double wide PCIe cards, the Graphics Enablement kit option is also required (719082-B21).

Chipset

Intel® C610 Series Chipset
Intel® E5-2600v3 Processor Family
NOTE: For more information regarding Intel chipsets, please see the following URL: **http://www.intel.com/products/server/chipsets/**.

On System Management Chipset

HPE iLO (Firmware HPE iLO4 2.0) 4GB NAND
NOTE: 1GB USB user space configurable via UEFI and accessible via iLO. Read and learn more in the **iLO QuickSpecs**.

Memory
One of the following depending on model

Type:
HPE SmartMemory
DDR4 Registered (RDIMM) or Load Reduced (LRDIMM)

DIMM Slots Available	24	(12 DIMM slots per processor, 4 channels per processor, 3 DIMMs per channel)
Maximum Capacity (LRDIMM)	1.5TB	(24 x 64GB LRDIMM @2133MHz)
Maximum Capacity (RDIMM)	768GB	(24 x 32GB RDIMM @2133MHz)

Standard Features

Memory Protection

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

Expansion Slots

Primary Riser (Standard)

Expansion Slots #	Technology	Bus Width	Connector Width	Bus Number	Form Factor	Notes
1	PCIe 3.0	x8	x16	7	Full-height, half-length slot	Proc 1
2	PCIe 3.0	x8	x16	10	Full-height, half-length slot	Proc 1
3	PCIe 3.0	x8	x8	13	Half Length/Full Height	Proc 1

* Default bus assignment (in decimal). Inserting cards with PCI bridges may alter the actual bus assignment number.
** Indicates the number of physical electrical lanes running to the connector.
NOTE: All slots support PCIe cards to 150W or more depending on card, but an additional Power Cord Option is required (PN 669777-B21). See Option Section below for offering.

Slot 2 PCIe Riser (Optional 3-slot) 719073-B21

Expansion Slots #	Technology	Bus Width	Connector Width	Bus Number	Device Number	Form Factor	Notes
4	PCIe 3.0	x16	x16	16		Full-height, full-length slot	Proc 2
5	PCIe 3.0	x16	x16	20		Full-height, full-length slot	Proc 2
6	PCIe 3.0	x8	x8	23		Full-height, half-length slot	Proc 2

* Default bus assignment (in decimal). Inserting cards with PCI bridges may alter the actual bus assignment number.
** Indicates the number of physical electrical lanes running to the connector.
NOTE: When populating the second optional riser slot, the second processor must be installed.
NOTE: All slots support PCIe cards to 150W or more depending on card but an additional Power Cord Option is required (PN 669777-B21). See Option Section below for offering.

Storage Controller
One of the following depending on model

Entry Models	HPE Dynamic Smart Array B140i Controller

NOTE: The embedded B140i controller will operate in UEFI only mode. For legacy support an additional controller will be needed, and for CTO orders please also select the Legacy mode settings part, 758959-B22.
NOTE: The B140i defaults to AHCI off the chipset. Smart array needs to be enables on the SATA only models if required.
NOTE: The B140i will not operate in Legacy mode.

Base Models	HPE Dynamic Smart Array B140i Controller HPE Flexible Smart Array P440ar/2G FIO Controller HPE Flexible Smart Array P840/4G FIO Controller
Performance Models	HPE Dynamic Smart Array B140i Controller HPE Flexible Smart Array P440ar/2GB

Internal Storage Devices

Optical Drive	Ships standard in Performance Models Optional: DVD-ROM, DVD-RW

Standard Features

One of the following depending on model	Hard Drives	None ship standard
	Hard Drive Bays	8 SFF with optional Universal Media bay or 8SFF bay options

Power Supply

HPE 800W Flex Slot Platinum Hot Plug Power Supply
HPE 800W Flex Slot -48VDC Hot Plug Power Supply
All pre-configured servers ship with a standard 6-foot IEC C-13/C-14 jumper cord (A0K02A). This jumper cord is also included with each standard AC power supply option kit. If a different power cord is required, please check the **ProLiant Power Cables** web page.

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

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

System Fans

	Non-redundant	Redundant
One of the following depending on model	2P model	6 fans

NOTE: High Performance Fan Kit is required for NEBS Compliance.

Interfaces

Serial	Optional
Video	2 (1 front, optional via Universal Media Bay, 724865-B21), 1 back not active simultaneously
FlexibleLOM Network Ports	4 x 1Gb ports shipping standard with optional FlexibleLOM
HPE iLO Remote Management Network Port	1 Gb Dedicated
Micro SD Slot	1 Micro SD

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

USB 3.0	Up to 5 total: 1 front, 2 rear, 2 internal (secure), 2 optional USB 2.0 front via Universal Media Bay
SID (Systems Insight Display)	Optional

NOTE: Not shipping as standard. Available as a CTO option or as a field upgrade (768900-B21).

Operating Systems and Virtualization Software Support for ProLiant Servers

Microsoft Windows Server
Canonical Ubuntu
Red Hat Enterprise Linux (RHEL)
SUSE Linux Enterprise Server (SLES)
Oracle Solaris
VMware
Citrix XenServer

NOTE: For more information on HPE'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/DL380Gen9**.

Upgradeability

Upgradeable to two processors (36 Cores)
NOTE: Processor upgrade available from Intel® Xeon® Processors E5-2600v3. Please contact HPE Technology Sales (**http://www.hp.com/support**), your local Hewlett Packard Enterprise Re-seller.

Standard Features

Up to 24 DIMM slots available for higher Memory capacity
FlexibleLOM connector for 1 Gigabit or 10 Gigabit networking options
HPE Flexible Smart Array or Smart HBA Controllers
Embedded 10-Port SATA, B140i as standard
Optional 3 slot riser (x16, x16, x8), or 2 slot primary riser (x16, x8)
NOTE: To take advantage of the additional 3 PCI slot upgrade, the second processor must be installed.
Redundant Power Supply
Optical Drive supported via Universal Media Bay
NOTE: The Universal Media bay provides front VGA and 2xUSB 2.0, plus ability to add 2SFF and Optical.
NOTE: Universal Media bay is only available with 8 or 8+8SFF chassis & can be populated in Bay1 only.
HPE Legacy Mode (FIO only, 758959-B22)
NOTE: UEFI is the default mode for CTO and BTO SKUs. Can change default to legacy via CTO.

Industry Standard Compliance

ACPI 2.0b Compliant
PCIe 3.0 Compliant
PXE Support
WOL Support
Microsoft® Logo certifications
USB 3.0 Support
USB 2.0 Support
NOTE: This support is on the optional Universal Media Bay.
Energy Star
ASHRAE A3/A4
NOTE: The DL380 Gen9 is now one of the first HPE ProLiant Gen9 Servers with Extended Ambient Support up to 45 C for data center infrastructures designed for better energy efficiency such as but not limited to fresh air cooling.
For additional technical thermal details regarding ambient temperatures, humidity and features support please visit: **http://www.hpe.com/servers/ashrae**.
UEFI (Unified Extensible Firmware Interface Forum)
NOTE: UEFI is the default for the DL380 Gen9. Legacy model can be selected in the field or as a CTO option (758959-B22).

Graphics

Integrated Matrox G200eH2 video standard with 16MB of Video RAM

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

HPE iLO 4 On System Management Memory

- 16 MB Flash
- 256 MB DDR3 with ECC (112 MB after ECC and video)

HPE Server UEFI/Legacy ROM

HPE Server UEFI /Legacy ROM

Unified Extensible Firmware Interface (UEFI) is an industry standard that provides better manageability and more secured configuration while interacting with your server at boot time. HPE ProLiant Gen9 platform defaults to UEFI and can be factory or field configured for Legacy BIOS Boot Mode.
NOTE: The UEFI System Utilities function is analogous to the HPE ROM-Based Setup Utility (RBSU) of legacy BIOS. For more information, please visit **http://www.hp.com/go/proliantuefi/docs**.
UEFI enables numerous new capabilities specific to HPE ProLiant servers such as:

- Secure Boot

Standard Features

- Operating system specific functionality
- Support for > 2.2 TB (using GPT) boot drives
- USB 3.0 Stack
- Embedded UEFI Shell
- Mass Configuration Deployment Tool using HPE RESTful API.
- PXE boot support for IPv6 networks
- Boot support for option cards that only support a UEFI option ROM

For more information please visit **http://www.hp.com/go/proliant/uefi**.
NOTE: For UEFI Boot Mode, boot environment and OS image installations should be configured properly to support UEFI.
NOTE: HPE Legacy FIO Mode Setting (758959-B22) can be selected to configure the system in Legacy mode in the factory.

Form Factor One of the following depending on model	2U Rack form factor 8 SFF Version: 3.44 x 17.54 x 26.75 in (8.73 x 44.55 x 67.94 cm) **NOTE:** Dimensions without bezel.	
Embedded Management	**HPE Integrated Lights-Out (HPE iLO)**	Monitor your servers for ongoing management, service alerting, reporting and remote management with iLO. Learn more at **http://www.hp.com/go/ilo**.
	UEFI	Configure and boot your servers securely with industry standard Unified Extensible Firmware Interface (UEFI). Learn more at **http://www.hp.com/go/ProLiant/uefi**.
	HPE RESTful API	RESTful API is an application programming interface. RESTful Web Service API served by iLO's web server. Learn more at **http://www.hp.com/go/restfulapi**.
	Intelligent Provisioning	Provision servers by discovering and deploying 1 to few servers with Intelligent Provisioning. Learn more at **http://www.hp.com/go/intelligentprovisioning**.
	Embedded Remote Support	HPE's embedded remote support, used with Insight Online direct connect or HPE Insight Remote Support, allows HPE ProLiant servers to transmit hardware events directly to HPE or a Hewlett Packard Enterprise Authorized Partner for automated phone home support. Learn more at **http://www.hp.com/go/insightonline/info**.
Server utilities	**HPE Smart Update**	Optimize firmware and driver updates with HPE Smart Update solutions. Learn more at **http://www.hp.com/go/smartupdate**.
	HPE Systems Insight Manager (HPE SIM)	HPE SIM allows you to monitor the health of your HPE ProLiant Servers and HPE Integrity Servers, and also provides you with basic support for non-Hewlett Packard Enterprise servers. HPE SIM also integrates with HPE SUM to provide quick and seamless firmware updates. Learn more at **http://www.hp.com/go/sim**.
	Scripting Tool Kit and Windows PowerShell	Provision 1 to many servers using your own scripts to discover and deploy them with HPE Scripting Tool Kit for Windows and Linux or HPE Scripting Tools for Windows PowerShell. Learn more at **http://www.hp.com/go/ProLiantSTK**

Standard Features

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

Security

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

Warranty

This product is covered by a global limited warranty and supported by HPE Services and a worldwide network of Hewlett Packard Enterprise Authorized Channel Partners resellers. Hardware diagnostic support and repair is available for three years from date of purchase. Support for software and initial setup is available for 90 days from date of purchase. Enhancements to warranty services are available through HPE Pointnext operational services or customized service agreements. Hard drives have either a one year or three year warranty; refer to the specific hard drive QuickSpecs for details.
NOTE: Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response. Warranty repairs may be accomplished through the use of Customer Self Repair (CSR) parts. These parts fall into two categories: 1) Mandatory CSR parts are designed for easy replacement. A travel and labor charge will result when customers decline to replace a Mandatory CSR part; 2) Optional CSR parts are also designed for easy replacement but may involve added complexity. Customers may choose to have HPE 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

Embedded Management	**iLO Advanced**	HPE iLO Advanced licenses offer smart remote functionality without compromise, for all HPE ProLiant servers. The license includes the full integrated remote console, virtual keyboard, video, and mouse (KVM), multi-user collaboration, console record and replay, and GUI-based and scripted virtual media and virtual folders. You can also activate the enhanced security and power management functionality. Learn more about HPE iLO Advanced at **http://www.hp.com/go/iloadvanced**
Server Management	**HPE Insight Control**	HPE Insight Control, lets you deploy, migrate, monitor, remote control, and optimize your IT infrastructure through a single, simple management console. For more information, see **http://www.hp.com/go/insightcontrol**.
	HPE OneView Advanced	HPE OneView Advanced is converged management that eliminates infrastructure complexity with automation simplicity. This modern architecture is designed to accelerate your IT operations across servers, storage, and network resources using software-defined approaches and automation, see **http://www.hp.com/go/oneview**.
	HPE Insight Cluster Management Utility (CMU)	HPE Insight Cluster Management Utility is a hyperscale-optimized management framework that includes software for the provisioning, control, performance management and monitoring of groups of nodes and infrastructure. Learn more at **http://www.hp.com/go/cmu**.
Rack and Power Infrastructure		HPE Rack and Power Infrastructure products and services create highly efficient and intelligent solutions for existing or new IT data centers. HPE Rack and Power infrastructure solutions – rack infrastructure, power protection and management, performance optimized data centers (PODs) – are the foundation you are looking for to help secure your long-term IT success. These products are designed to help you react to changes in the industry. They deliver efficient, easy-to-use capabilities to manage, monitor, deploy and provision infrastructure from entry to enterprise. As an industry leader, Hewlett Packard Enterprise is uniquely positioned to address the key concerns of power, cooling, cable management and system access. Learn more at **HPE Rack and Power Infrastructure**.
High Performance Clusters		HPE 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**. **NOTE:** High Performance Computing (HPC) interconnect technologies are available for this server as part of the HPE Cluster Platform portfolio. These high-speed InfiniBand and Gigabit interconnects are fully supported by HPE when integrated within an HPE cluster. Flexible, validated solutions can be defined with the help of configuration tools. **http://www.hp.com/techservers/clusters/ucp/index.html**.
HPC Interconnects		**NOTE:** High Performance Computing (HPC) interconnect technologies are available for this server under the HPE Cluster Platform product portfolio. These high-speed interconnects are fully supported by HPE 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**.

Optional Features

Storage Software

Whether you need to solve a specific data protection, archiving, or storage command and control challenge, or deliver on strategic consolidation, compliance, or continuity initiatives, look no further than HPE storage software. Our storage software helps you reduce costs, simplify storage infrastructure, protect vital assets and respond faster to business opportunities.
Storage software that gets the job done:

- **Data Protection and Recovery Software**
  Whether you're a large enterprise or a smaller business, HPE data protection and recovery software will cost-effectively protect you against disaster and ensure business continuity.
- **Data Archive and Migration Software**
  HPE'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)**
  HPE'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**
  Hewlett Packard Enterprise offers array-based and host-based replication software for use in disaster recovery, testing, application development and reporting.
- **Storage Device Management Software**
  Maximize your investment in HPE storage and networking with software that enables hardware-specific configuration, performance tuning and connectivity management.
- **HPE StoreVirtual VSA**
  With HPE StoreVirtual VSA you can use the power of virtualization to create a virtual array within your host server. Manage it as a single pool of shared storage capacity, and scale it to match your evolving needs. HPE ProLiant Gen9 servers include a 3-year limited license for HPE StoreVirtual VSA software with 1TB of capacity at no extra cost. Simply select to install HPE StoreVirtual VSA software during server setup within Intelligent Provisioning. More information, instructional videos, and free console management software are available at **http://www.hp.com/go/vsa1TB**.

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

One Config Simple (SCE)

SCE is a guided self-service tool to help sales and non-technical people provide customers with initial configurations in 3 to 5 minutes. You may then send the configuration on for configuration help, or use in your existing ordering processes. If you require "custom" rack configuration or configuration for products not available in SCE, please contact HPE's Customer Business Center or an Authorized Partner for assistance. **http://www.hp.com/products/configurator**.

Service and Support

HPE Technology Services	HPE Technology Services delivers confidence, reduces risk and helps customers realize agility and stability. Connect to HPE to help prevent problems and solve issues faster. Our support technology lets you to tap into the knowledge of millions of devices and thousands of experts to stay informed and in control, anywhere, any time.
Protect your business beyond warranty with HPE Pointnext operational services	HPE Pointnext operational services enable you to order the right service level, length of coverage and response time as you purchase your new server, giving you full entitlement for the term you select.
Optimized Support recommendation	**HPE Proactive Care - Call to Repair commitment, 24x7 coverage, three year Care Pack Service** Prevent problems and stabilize IT by utilizing secure, real-time, predictive analytics and proactive consultations when your products are connected to HPE. Includes enhanced escalation management and the industry's highest level of hardware support commitment – hardware will be returned to operating conditions within six (6) hours after you open your case. Comes with collaborative software call management with two hour call back to reduce troubleshooting. As a leading global support provider for Microsoft, Red Hat, VMware, SUSE and other operating systems, Hewlett Packard Enterprise is able to simplify and shorten your time to resolution with one call for hardware or software questions. **https://www.hpe.com/h20195/v2/GetPDF.aspx/4AA3-8855ENW.pdf**. **HPE ProLiant Server Hardware Installation** Help ensure your new HPE ProLiant hardware is installed smoothly, efficiently and with minimal disruption to your IT and business operations. **https://www.hpe.com/h20195/V2/GetPDF.aspx/5981-9356EN.pdf.**
Standard Support recommendation	**HPE Proactive Care - 24x7 coverage, three year Care Pack Service** This service helps prevent problems and stabilize IT by utilizing secure, real-time, predictive analytics and proactive consultations when your products are connected to HPE. Includes four hour response for hardware, and collaborative call management for software with a two hour callback. **https://www.hpe.com/h20195/v2/GetPDF.aspx/4AA3-8855ENW.pdf**. **HPE ProLiant Hardware Installation** Help ensure your new HPE ProLiant hardware is installed smoothly, efficiently and with minimal disruption to your IT and business operations. **https://www.hpe.com/h20195/V2/GetPDF.aspx/5981-9356EN.pdf**.
Related Services	**Data Center Platform Consulting Services** These services help modernize key systems and leverage new technology to support a changing business climate and prepare you for the new style of IT. Hewlett Packard Enterprise understands the needs of the data center of the future and will serve as your guide for the journey. **http://www.hp.com/services/consulting** **Data Privacy Services** Protect your data through better media management. HPE Data privacy services help manage and protect sensitive data. **http://www.hp.com/services/dataprivacy** **Factory Express for Servers and storage** HPE Factory Express offers configuration, customization, integration and deployment services for Hewlett

Service and Support

Packard Enterprise servers and storage products. Choose how your factory solutions are built, tested, integrated, shipped and deployed. **http://www.hp.com/go/factory-express**.

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

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

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

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

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

Configuration Information - Factory Integrated Models

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

1. Factory Integrated Models must start with a CTO Server.
2. FIO indicates that this option is only available as a factory installable option.
3. All Factory Integrated Models will be populated with sufficient hard drive blanks based on the number of initial hard drives ordered with the server.
4. Some options may not be integrated at the factory. Contact your local sales representative for additional information.

IMPORTANT: To yield a carrier grade server that is compliant with all the required technical criteria, the product content is limited to what is listed in this document. In addition to this, system maintenance switch #10 must be turned on to enable the expanded operating temperature range and the hardware from the following kits must be installed:

HPE DL380 Gen9 High Performance Fan Kit
HPE DL380 Gen9 Primary NEBS Conversion Cage Kit
HPE DL380 Gen9 Secondary NEBS Conversion Cage Kit (if secondary PCIe riser required)

Please refer to the HPE DL380 Gen9 Carrier Grade Conversion documentation on the Hewlett Packard Enterprise web site: **http://www.hp.com/go/hpsc**

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

[Chassis]	HPE ProLiant DL380 Gen9 8SFF Configure-to-order Server
SKU Number	719064-B21
Processor	2 (optional) x HPE Smart Socket Guide
DIMM Slots	24 DIMM slots for RDIMM, LRDIMM DDR4 Memory
Storage Controller	HPE Dynamic Smart Array B140i, plus optional HPE Flexible Smart Array or Smart HBA controller
PCIe	3 PCIe slots (+3 PCI slots available with upgrade option, second processor required)
Drive Cage	8SFF Hot Plug
Network Controller	HPE Embedded 1Gb Ethernet 4-port 331i Adapter, plus optional HPE Flexible LOM or stand up card
Fans	4 hot plug fans, redundant
Management	iLO Management (standard), Intelligent Provisioning (standard), iLO Advanced (optional), Insight Control (optional), HPE OneView (optional)
USB	1 front, 2 internal, 2 rear
Ears	HPE Quick Release Ears

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

HPE Processors Select one or two processors from Core options-Processor section below.

- If one processor is desired, select one xxxxxx-L21
- If two processors are desired, select one xxxxxx-L21 and one xxxxxx-B21.
- Up to 2 processors supported. Mixing different processor models is not supported.

Configuration Information - Factory Integrated Models

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

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

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

- LRDIMM, RDIMM are all distinct memory technologies and cannot be mixed within a server. The majority of ProLiant Gen9 servers support LRDIMM and RDIMM.
- HPE memory from previous generation servers are not qualified or warranted with this HPE ProLiant Server. HPE SmartMemory is required to realize the memory performance improvements and enhanced functionality listed in this document for Gen9.
- If only one processor is installed, only half of the total DIMM slots are available. When populating with two processors all DIMM slots are available.
- Kits described as LP include Low Power DIMMs. For more information on ProLiant Energy Efficient Features, see: **http://www.hp.com/go/proliant-energy-efficient**.
- Depending on the memory configuration and processor model, the memory speed may run at 2133MHz, 1866MHz, 1600MHz or 1333MHz. Please see Memory Population Table or the Online Memory Configuration Tool at: **http://www.hp.com/go/ddr4config**.

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

- Prior to selecting a power supply option, it is highly recommended that you review your server configuration in the HPE Power Advisor tool to determine the right size power supply for your server configuration. The HPE Power Advisor is located at: **http://www.hpe.com/info/hppoweradvisor**.
- Mixing of power supplies in the same server is not supported. All power supplies must be of the same input voltage, output rating, and efficiency rating. If non-matching power supplies are installed, you may receive an error message and/or experience operational issues with your server.

Step 3: Choose Additional Factory Integratable Options

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

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

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

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

HPE Drives Select one or more drives from Core options-HPE Drives section below.

- The components of a storage subsystem (e.g. the drive, the HBA/controller, firmware, and the server backplane) should operate at the same data transfer rate or the system bandwidth will be negotiated down to an acceptable level for all components.

Configuration Information - Factory Integrated Models

- Hard drives have either a one year or three year warranty; refer to the specific hard drive QuickSpecs for details.
- The HPE ProLiant Gen9 Smart Storage solutions are equipped with re-designed Small Form Factor (SFF 2.5 in) and Large Form Factor (LFF 3.5 in) hot plug carriers for HPE Qualified Hard Drives and Solid State Drives. These new carriers provide status and activity indicators as well as caution indicators for "Do Not Remove".

HPE Flexible LOM Select a FlexibleLOM from Core options-Networking section below.

- Only one FlexibleLOM can be added to the server. These options are upgradeable and can be changed from the original configuration after the server is shipped.
- For 10Gb adapters, a minimum of two Gigabytes (2 GB) of server memory is required per each adapter.
- Please see the QuickSpecs for Technical Specifications and additional information: **http://www.hp.com/go/ProLiantNICs**.

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

- Please see the QuickSpecs for Technical Specifications and additional information: **http://www.hp.com/go/ProLiantNICs**.
- These options are upgradeable and can be changed from the original configuration after the server is shipped.
- For 10Gb adapters, a minimum of two Gigabytes (2 GB) of server memory is required per each adapter.

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

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

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

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

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

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

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

- Please take a moment to review the installation documentation that comes with the server to help you with the installation of your Gen9 server.

Configuration Information - Factory Integrated Models

- To assist in the installation of the server into the rack, an optional installation tool is available by contacting your local services representative (p/n 695539-001).
- See HPE Rack Options in Additional Options section of this QuickSpecs for more rack kit choices.

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

Core Options

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

HPE Unique Options	HPE DL380 Gen9 High Performance Fan Kit **NOTE:** Required for NEBS compliance. **NOTE:** This kit is required for specific Ambient temperature environments, more details here: **http://www.hpe.com/servers/ashrae**. **NOTE:** This kit is also required to support Passive GPUs.	719079-B21
	HPE DL380 Gen9 Primary NEBS Conversion kit **NOTE:** Required for NEBS compliance. Slot1: 2xGen3 x16 FH/FL, 1xGen3 x8 FH/HL **NOTE:** Kit replaces the standard Primary riser in slot1 and adds NEBS certified system air baffle.	719070-B21
	HPE DL380 Gen9 Secondary NEBS Conversion Cage Kit **NOTE:** NEBS Certified Secondary PCIe Riser. Slot2: 2xGen3 x16 FH/FL, 1xGen3 x8 FH/HL **NOTE:** It is no longer necessary to purchase the commercial riser option and the NEBS conversion kit. The Gen9 NEBS conversion cage ships as a complete product with both the cage and PCIe riser installed.	783286-B21
	HPE DL380 Gen9 Universal Media Bay Kit **NOTE:** The HPE DL380 Gen9 Universal Media bay provides front VGA and 2xUSB 2.0.	724865-B21
	HPE DL380 Gen9 Systems Insight Display Kit **NOTE:** The Systems Insight Display no longer ships as standard but is available as a Factory Integrated or field upgrade option.	768900-B21
	HPE DL380 Gen9 Rear Serial Port and Enablement Kit	768896-B21
	HP DL380 Gen9 Graphics Enablement Kit **NOTE:** This kit includes alternative 2 heatsinks plus6 cables to enable GPU support. Other limitations apply, see Graphic section for more details. **NOTE:** We support up to 2 Double wide and 3 single wide Graphics cards, limitations apply. **NOTE:** Double Wide GPUs will occupy slots 2 and 5 and will leave only 2 slots left open. **NOTE:** There are limitations on GPU support with the NVMe bay installed.	719082-B21
	HP DL380 Gen9 Additional 8SFF Bay2 Cage/Backplane Kit **NOTE:** To add an additional 8SFF drive cage in Bay 2. This is the optimal solution to upgrade to 16SFF total and allows the flexibility to add the Universal Media Bay (724865-B21) for 2 additional SFF or Optical.	768857-B21

HPE Processors	**Entry Processors - E5-2600v3 series Processors**	
	HPE DL380 Gen9 Intel® Xeon® E5-2603v3 (1.6GHz/6-core/15MB/85W) FIO Processor Kit **NOTE:** FIO indicates factory integrated option via CTO.	719053-L21
	HPE DL380 Gen9 Intel® Xeon® E5-2603v3 (1.6GHz/6-core/15MB/85W) Processor Kit	719053-B21
	HPE DL380 Gen9 Intel® Xeon® E5-2609v3 (1.9GHz/6-core/15MB/85W) FIO Processor Kit **NOTE:** FIO indicates factory integrated option via CTO.	719052-L21

Core Options

HPE DL380 Gen9 Intel® Xeon® E5-2609v3 (1.9GHz/6-core/15MB/85W) Processor Kit	719052-B21
Base Processors - E5-2600v3 series Processors	
HPE DL380 Gen9 Intel® Xeon® E5-2620v3 (2.4GHz/6-core/15MB/85W) FIO Processor Kit **NOTE:** FIO indicates factory integrated option via CTO.	719051-L21
HPE DL380 Gen9 Intel® Xeon® E5-2620v3 (2.4GHz/6-core/15MB/85W) Processor Kit	719051-B21
HPE DL380 Gen9 Intel® Xeon® E5-2630v3 (2.4GHz/8-core/20MB/85W) FIO Processor Kit **NOTE:** FIO indicates factory integrated option via CTO.	719050-L21
HPE DL380 Gen9 Intel® Xeon® E5-2630v3 (2.4GHz/8-core/20MB/85W) Processor Kit	719050-B21
HPE DL380 Gen9 Intel® Xeon® E5-2630Lv3 (1.8GHz/8-core/20MB/55W) FIO Processor Kit **NOTE:** FIO indicates factory integrated option via CTO.	719060-L21
HPE DL380 Gen9 Intel® Xeon® E5-2630Lv3 (1.8GHz/8-core/20MB/55W) Processor Kit	719060-B21
HPE DL380 Gen9 Intel® Xeon® E5-2640v3 (2.6GHz/8-core/20MB/90W) FIO Processor Kit **NOTE:** FIO indicates factory integrated option via CTO.	719049-L21
HPE DL380 Gen9 Intel® Xeon® E5-2640v3 (2.6GHz/8-core/20MB/90W) Processor Kit	719049-B21
Performance Processors - E5-2600v3 series Processors	
HPE DL380 Gen9 Intel® Xeon® E5-2698v3 (2.3GHz/16-core/40MB/135W) FIO Processor Kit **NOTE:** FIO indicates factory integrated option via CTO.	781913-B21
HPE DL380 Gen9 Intel® Xeon® E5-2650v3 (2.3GHz/10-core/25MB/105W) Processor Kit	719048-B21
HPE DL380 Gen9 Intel® Xeon® E5-2650Lv3 (1.8GHz/12-core/30MB/65W) FIO Processor Kit **NOTE:** FIO indicates factory integrated option via CTO.	719059-L21
HPE DL380 Gen9 Intel® Xeon® E5-2650Lv3 (1.8GHz/12-core/30MB/65W) Processor Kit	719059-B21
HPE DL380 Gen9 Intel® Xeon® E5-2660v3 (2.6GHz/10-core/25MB/105W) FIO Processor Kit **NOTE:** FIO indicates factory integrated option via CTO.	762764-L21
HPE DL380 Gen9 Intel® Xeon® E5-2660v3 (2.6GHz/10-core/25MB/105W) Processor Kit	762764-B21
HPE DL380 Gen9 Intel® Xeon® E5-2670v3 (2.3GHz/12-core/30MB/120W) FIO Processor Kit **NOTE:** Ships with a High Performance Heatsink. **NOTE:** FIO indicates factory integrated option via CTO.	719046-L21
HPE DL380 Gen9 Intel® Xeon® E5-2670v3 (2.3GHz/12-core/30MB/120W) Processor Kit **NOTE:** Ships with a High Performance Heatsink.	719046-B21
HPE DL380 Gen9 Intel® Xeon® E5-2680v3 (2.5GHz/12-core/30MB/120W) FIO Processor Kit **NOTE:** Ships with a High Performance Heatsink.	762766-L21

Core Options

NOTE: FIO indicates factory integrated option via CTO.

HPE DL380 Gen9 Intel® Xeon® E5-2680v3 (2.5GHz/12-core/30MB/120W) Processor Kit	762766-B21

NOTE: Ships with a High Performance Heatsink.

HPE DL380 Gen9 Intel® Xeon® E5-2690v3 (2.6GHz/12-core/30MB/135W) FIO Processor Kit	719044-L21

NOTE: Ships with a High Performance Heatsink.

NOTE: FIO indicates factory integrated option via CTO.

HPE DL380 Gen9 Intel® Xeon® E5-2690v3 (2.6GHz/12-core/30MB/135W) Processor Kit	719044-B21

NOTE: Ships with a High Performance Heatsink.

HPE Processors - E5-2600v4 series Processors

HPE DL380 Gen9 Intel® Xeon® E5-2698v4 (2.2GHz/20-core/50MB/135W) FIO Processor Kit	817965-L21

NOTE: FIO indicates factory integrated option via CTO.

HPE DL380 Gen9 Intel® Xeon® E5-2698v4 (2.2GHz/20-core/50MB/135W) Processor Kit	817965-B21
HPE DL380 Gen9 Intel® Xeon® E5-2697v4 (2.3GHz/18-core/45MB/145W) FIO Processor Kit	817963-L21

NOTE: FIO indicates factory integrated option via CTO.

HPE DL380 Gen9 Intel® Xeon® E5-2697v4 (2.3GHz/18-core/45MB/145W) Processor Kit	817963-B21
HPE DL380 Gen9 Intel® Xeon® E5-2695v4 (2.1GHz/18-core/45MB/120W) FIO Processor	817961-L21

NOTE: FIO indicates factory integrated option via CTO.

HPE DL380 Gen9 Intel® Xeon® E5-2695v4 (2.1GHz/18-core/45MB/120W) Processor	817961-B21
HPE DL380 Gen9 Intel® Xeon® E5-2683v4 (2.1GHz/16-core/40MB/120W) FIO Processor	817953-L21

NOTE: FIO indicates factory integrated option via CTO.

HPE DL380 Gen9 Intel® Xeon® E5-2683v4 (2.1GHz/16-core/40MB/120W) Processor	817953-B21
HPE DL380 Gen9 Intel® Xeon® E5-2620v4 (2.1GHz/8-core/20MB/85W) FIO Processor Kit	817927-L21

NOTE: FIO indicates factory integrated option via CTO.

HPE DL380 Gen9 Intel® Xeon® E5-2620v4 (2.1GHz/8-core/20MB/85W) Processor Kit	817927-B21

HPE Memory

Registered DIMMs (RDIMMs) for E5-2600v3 Series

NOTE: The following memory is supported by the E5-2600v3 series Processors.

HPE 8GB (1x8GB) Single Rank x4 DDR4-2133 CAS-15-15-15 Registered Memory Kit	726718-B21
HPE 16GB (1x16GB) Dual Rank x4 DDR4-2133 CAS-15-15-15 Registered Memory Kit	726719-B21
HPE 32GB (1x32GB) Dual Rank x4 DDR4-2133 CAS-15-15-15 Registered Memory Kit	726728-B21
HPE 32GB (1x32GB) Quad Rank x4 DDR4-2133 CAS-15-15-15 Load Reduced Memory Kit	726722-B21

Registered DIMMs (RDIMMs) for E5-2600v4 Series

Core Options

	NOTE: The following memory is supported by the E5-2600v4 series Processors.	
	HP 32GB (1x32GB) Dual Rank x4 DDR4-2400 CAS-17-17-17 Registered Memory	805351-B21
	HPE 16GB (1x16GB) Dual Rank x4 DDR4-2400 CAS-17-17-17 Registered Memory Kit	836220-B21
	HP 16GB (1x16GB) Single Rank x4 DDR4-2400 CAS-17-17-17 Registered Memory Kit	805349-B21
	HP 8GB (1x8GB) Single Rank x8 DDR4-2400 CAS-17-17-17 Registered Memory Kit	805347-B21
	NOTE: Depending on Processor selected this memory will run at 1600, 1866 or 2133MHz.	
HPE Optical Drives	HPE 9.5mm SATA DVD-ROM JackBlack Gen9 Optical Drive	726536-B21
	NOTE: The Universal Media Bay (724865-B21) is required for this option.	
	HPE 9.5mm SATA DVD-RW JackBlack G9 Optical Drive	726537-B21
	NOTE: The Universal Media Bay (724865-B21) is required for this option.	
HPE Drives	**SAS Hot Plug SFF (2.5-inch) Enterprise (ENT) Drives**	
	HPE 1.2TB 6G SAS 10K rpm SFF (2.5-inch) SC Dual Port Enterprise 3yr Warranty Hard Drive	718162-B21
	HPE 900GB 12G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	785069-B21
	HPE 900GB 6G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	652589-B21
	HPE 600GB 12G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	781516-B21
	HPE 600GB 12G SAS 15K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	759212-B21
	HPE 600GB 6G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	652583-B21
	HPE 450GB 12G SAS 15K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	759210-B21
	HPE 450GB 6G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	652572-B21
	HPE 300GB 12G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	785067-B21
	HPE 300GB 12G SAS 15K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	759208-B21
	HPE 300GB 6G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	652564-B21
	12G SAS Hot Plug SFF (2.5-inch) Enterprise Performance Solid State Drives	
	HPE 800GB 12G SAS High Endurance SFF 2.5-in SC Enterprise Performance 3yr Wty Solid State Drive	741159-B21
	HPE 400GB 12G SAS Mainstream Endurance SFF 2.5-in ENT Mainstream SC 3yr Wty H2 Solid State Drive	779168-B21
	HPE 800GB 12G SAS Mainstream Endurance SFF 2.5-in ENT Mainstream SC 3yr Wty H2 Solid State Drive	779172-B21
	HPE 3.2TB 12G SAS Mixed Use-3 SFF 2.5-in SC 3yr Wty Solid State Drive	822567-B21

Core Options

	HPE 1.6TB 12G SAS Mainstream Endurance SFF 2.5-in ENT Mainstream SC 3yr Wty H2 Solid State Drive	779176-B21
	12G SAS Hot Plug SFF (2.5-inch) SC Mixed Use Solid State Drives	
	HPE 1.6TB 12G SAS Mixed Use-1 SFF (2.5in) SC 3yr Wty Solid State	846436-B21
	HPE 800GB 12G SAS Mixed Use-1 SFF (2.5in) SC 3yr Wty Solid State Drive	846434-B21
	16G SATA Hot Plug SFF (2.5-inch) SC Write Intensive Solid State Drives	
	HP 200GB 6G SATA Write Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804639-B21
HPE Networking	**1 Gigabit Ethernet adapters**	
	HPE Ethernet 1Gb 4-port 331T Adapter	647594-B21
	HPE Ethernet 1Gb 2-port 332T Adapter	615732-B21
	HPE Ethernet 1Gb 2-port 361T Adapter	652497-B21
	HPE Ethernet 1Gb 4-port 366T Adapter	811546-B21
	10 Gigabit Ethernet adapters	
	HPE Ethernet 10Gb 2-port 530SFP Adapter	652503-B21
	HPE Ethernet 10Gb 2-port 530T Adapter	656596-B21
	HPE Ethernet 10Gb 2-port 557SFP+ Adapter	788995-B21
	HPE Ethernet 10Gb 2-port 560SFP+ Adapter	665249-B21
	HPE Ethernet 10Gb 2-port 561T Adapter	716591-B21
	HPE Ethernet 10Gb 2-port 562SFP+ Adapter	817753-B21
	HPE Ethernet 10/25Gb 2-port 640SFP28 Adapter	727055-B21
	25 Gigabit Ethernet adapters	817762-B21
	HPE Ethernet 4x25Gb 1-port 620QSFP28 Adapter **NOTE:** Initially available as a BTO only option.	
	NOTE: The DL380 Gen9 chassis ships with 4x1Gb Embedded. **NOTE:** A minimum of two Gigabytes (2 GB) of server memory is required per each adapter. **NOTE:** Direct Attach Cable (DAC) for copper environments or fiber transceivers and cables for fiber-optic environments must be purchased separately. Please see the related NIC QuickSpecs for Technical Specifications and additional information: **http://www.hp.com/go/ProLiantNICs**.	
	HPE Infiniband Adapters	
	HP InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+QSFP Adapter	764284-B21
	FlexibleLOM Adapters	
	HPE Ethernet 1Gb 4-port 331FLR Adapter	629135-B22
	HPE Ethernet 1Gb 4-port 366FLR Adapter	665240-B21
	HPE FlexFabric 10Gb 2-port 533FLR-T Adapter	700759-B21
	HPE FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter	700751-B21
	HPE FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter	727060-B21
	HPE Ethernet 10Gb 2-port 562FLR-SFP+ Adapter	727054-B21
	NOTE: The DL380 Gen9 chassis ships with 4x1Gb Embedded. **NOTE:** Only one FlexibleLOM can be added to the server. These options are upgradeable and can be changed from the original configuration after the server is shipped. **NOTE:** Direct Attach Cable (DAC) for copper environments or fiber transceivers and cables for fiber-optic environments must be purchased separately. Please see the related NIC QuickSpecs for Technical Specifications and additional information: **http://www.hp.com/go/ProLiantNICs**.	

Core Options

HPE PCIe Workload Accelerator Options	**NVME PCIe Workload Accelerators**	
	HPE 3.2TB Read Intensive-2 HH/HL PCIe Workload Accelerator	831737-B21
	HPE 1.6TB Read Intensive-2 HH/HL PCIe Workload Accelerator	831735-B21
	HPE 1.3TB Read Intensive-2 HH/HL PCIe Workload Accelerator	831733-B21
HPE I/O Expansion Options	HPE DL380 Gen9 Primary NEBS Conversion Cage Kit	719070-B21
	NOTE: NEBS Certified Primary PCIe Riser. Slot2: 2xGen3 x16 FH/FL, 1xGen3 x8 FH/HL	
	HPE DL380 Gen9 Secondary NEBS Conversion Cage Kit	783286-B21
	NOTE: NEBS Certified Secondary PCIe Riser.	
	NOTE: It is no longer necessary to purchase the commercial riser option and the NEBS conversion kit. The Gen9 NEBS conversion cage ships as a complete product with both the cage and PCIe riser installed.	
HPE Storage Controllers	**SAS Controllers**	
	HPE Flexible Smart Array Controllers	
	HPE Smart Array P440ar/2GB FBWC 12Gb 2-ports Int SAS Controller	726736-B21
	NOTE: Provides support for up to 8 internal SAS/SATA drives without using a PCIe slot.	
	NOTE: Includes the HPE Smart Storage Battery.	
	HP Smart Array P440ar/2GB FBWC 12Gb 2-ports Int FIO SAS Controller	749974-B21
	NOTE: Provides support for up to 8 internal SAS/SATA drives without using a PCIe slot.	
	NOTE: Includes the HPE Smart Storage Battery.	
	NOTE: FIO indicates factory integrated option via CTO.	
	HPE Smart Array P840ar/2GB FBWC 12Gb 2-port Internal SAS Controller	843199-B21
	NOTE: Provides support for up to 16 internal SAS/SATA drives without using a PCIe slot.	
	NOTE: Includes the HPE Smart Storage Battery.	
	HPE Smart Array Controllers	
	HPE Smart Array P840/4GB FBWC 12Gb 2-ports Int SAS Controller	726897-B21
	HP Smart Array P840/4GB FBWC 12Gb 2-ports Int FIO SAS Controller	761874-B21
	NOTE: Includes the HPE Smart Storage Battery.	
	NOTE: When ordering controllers, please reference the HPE Cable Options below for the required cable.	
	NOTE: FIO indicates factory integrated option via CTO.	
	HP 96W Smart Storage Battery with 145mm Cable for DL/ML/SL Servers	727258-B21
	NOTE: Provides backup power for multiple HPE Smart Array controllers or other devices (up to 16).	
	NOTE: Ships as standard with some HPE Flexible Smart Array Controllers.	
	HPE Smart Host Bus Adapters	
	HPE H241 12Gb 2-ports Ext Smart Host Bus Adapter	726911-B21
	HPE H240ar 12Gb 2-ports Int Smart Host Bus Adapter	726757-B21
	NOTE: Provides support for up to 8 internal SAS/SATA drives without using a PCIe slot.	
HPE Power Supplies	**HPE Flex Slot Platinum Hot-plug Power supplies**	
	HPE 800W Flex Slot Platinum Hot Plug Power Supply Kit	720479-B21
	NOTE: Flex Slot Platinum power supplies support power efficiency of up to 94% and include a standard C-14 power inlet connector.	

Core Options

	HPE 800W Flex Slot -48VDC Hot Plug Power Supply Kit **NOTE:** Flex Slot -48VDC power supplies support power efficiency of up to 94%.	720480-B21
	HPE 500W Flex Slot Platinum Hot Plug Power Supply Kit **NOTE:** Flex Slot Platinum power supplies support power efficiency of up to 94% and include a standard C-14 power inlet connector. **NOTE:** All power supplies must be of the same input voltage, output rating, and efficiency rating. If non-matching power supplies are installed, you may receive an error message and/or experience operational issues with your server. **NOTE:** Mixing different power supplies in the same server may limit or disable some power supply features including support for power redundancy. To ensure access to all available features, all power supplies within the same server should have the same output and efficiency ratings. **NOTE:** Prior to selecting a power supply option, it is highly recommended that you review your server configuration in the HPE Power Advisor tool to determine the right size power supply for your server configuration. The HPE Power Advisor is located at: **http://www.hpe.com/info/hppoweradvisor**.	720478-B21
HPE Cooling Options	HPE DL380 Gen9 High Performance Fan Kit **NOTE:** Required for NEBS Compliance. **NOTE:** High Performance Fan kit consists of 6 fans, these will need to replace all the standard Fans in the unit, and fill all 6-Fan cages. **NOTE:** The High Performance Fan Kit is needed to support certain Passive GPGPU (Graphics cards) configurations; or ASHRAE operating environments. **NOTE:** For elevated ambient temperature support please see: **http://www.hpe.com/servers/ashrae**.	719079-B21

Additional Options

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

HPE Insight Software	**HPE Insight Control**	
	HPE Insight Control including 1yr 24x7 Technical Support and Updates Single Server License	C6N27A
	HPE Insight Control including 1yr 24x7 Technical Support and Updates Electronic License	C6N28ABE
	HPE Insight Control Server Provisioning Media Kit	BD883A
	HPE Insight Management Media Kit **NOTE:** Electronic and Flexible-Quantity licenses can be used to purchase multiple licenses with a single activation key. **NOTE:** Customer will receive a license entitlement certificate. The license entitlement certificate must be redeemed online or via fax in order to obtain the license activation key(s). Includes one year of 24 x 7 HPE Software Technical Support and Update Service. **NOTE:** Licenses ship without media. The HPE Insight Control Media Kit can be ordered separately, or can be downloaded at: **http://www.hp.com/go/insightupdates**. **NOTE:** For additional license options please see the QuickSpecs at: **https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04123391**.	C6N31A
	HPE Insight Control including 1yr 24x7 Support ProLiant ML/DL/BL-bundle Single Server FIO License	C6N36A
	HPE Insight Control including 1yr 24x7 Support ProLiant ML/DL/BL-bundle FIO Electronic License	C6N36ABE
Embedded Management	**HPE iLO Advanced**	
	HPE iLO Advanced including 1yr 24x7 Technical Support and Updates Single Server License	512485-B21
	HPE iLO Advanced 1 Server License with 3yr 24x7 Tech Support and Updates	BD505A
	HPE iLO Advanced including 1yr 24x7 Technical Support and Updates E-LTU	E6U59ABE
	HPE iLO Advanced including 3yr 24x7 Technical Support and Updates E-LTU	E6U64ABE
HPE Converged Infrastructure Management Software	**HPE OneView Advanced (with HPE iLO Advanced)**	
	HPE OneView incl 3yr 24x7 Supp Phys 1 Svr Lic	E5Y34A
	HPE OneView incl 3yr 24x7 Supp Flex Qty E-LTU	E5Y35AAE
	HPE OneView for ProLiant DL Server incl 3yr 24x7 Supp FIO Bundle Physical 1 Svr Lic	E5Y43A
	HPE OneView Advanced (without HPE iLO Advanced)	
	HPE OneView w/o iLO Adv incl 3yr 24x7 Supp Phys 1 Svr Lic	E5Y38A
	HPE OneView w/o iLO Adv inc 3yr 24x7 Supp Flex Qty E-LTU	E5Y39AAE
	HPE OneView Media Kit Phys No Lic	E5Y37A
	HPE Operations Analytics for HPE OneView LTU	K8G29A
	HPE Operations Analytics for HPE OneView E-LTU	K8G29AAE
	NOTE: Full licenses of HPE OneView Advanced also provide the right-to-use HPE Insight Control without additional charge. **NOTE:** Server provisioning (via 'HPE Insight Control server provisioning') is licensed as part of HPE OneView Advanced and provides multi-server OS and	

Additional Options

	driver provisioning. Media kit #BD883A can be ordered for a physical copy of this software (USB flash drive). **NOTE:** Licenses ship without media. The HPE OneView Media Kit can be ordered separately, or can be downloaded at: **http://www.hp.com/go/oneview**. **NOTE:** Electronic and Flexible-Quantity licenses can be used to purchase multiple licenses with a single activation key.	
High Performance Clusters	**HPE Cluster Management Utility**	
	HPE Insight Cluster Management Utility 1yr 24x7 Flexible License	QL803B
	HPE Insight Cluster Management Utility 3yr 24x7 Flexible License **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.	BD476A
	HPE Insight Cluster Management Utility Media **NOTE:** For additional license kits please see the QuickSpecs at: **http://h18004.www1.hp.com/products/QuickSpecs/12612_div/12612_div.html**.	BD477A
HPE Security	HPE Trusted Platform Module Option **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.	488069-B21
HPE Storage Controllers	**SAS Controllers** **Optional Software**	
	HPE Secure Encryption No Media Flexible License per Drive	D8S84A
	HPE Secure Encryption No Media E-LTU per Drive **NOTE:** HPE Secure Encryption is supported when one of the supported Smart Array Controllers or the supported Smart SAS HBA (configured in a RAID mode) is installed in the server. HPE Secure Encryption licensing is based on the number of physical drives requiring encryption. **NOTE:** For more information about HPE Secure Encryption, go to **http://www.hp.com/go/hpsecureencryption**.	D8S85AAE
	HPE SmartCache No Media 24x7 Technical Support 1 Svr License	D7S26A
	HPE SmartCache No Media 24x7 Technical Support Flexible License	D7S27A
	HPE SmartCache No Media 24x7 Technical Support Electronic License **NOTE:** HPE SmartCache is supported when one of the supported Smart Array Controllers is installed in the server.	D7S27AAE

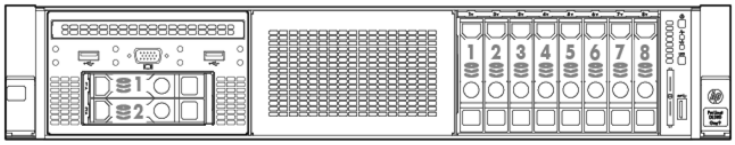
Additional Options

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

HPE Storage Options	**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**.	
	QLogic Fibre Channel HBAs	
	HPE 82Q 8Gb 2-port PCIe Fibre Channel Host Bus Adapter	AJ764A
	HPE StoreFabric SN1000Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter	QW972A
	Converged Network Adapter	
	HPE StoreFabric CN1100R Dual Port Converged Network Adapter	QW990A
HPE Rack Mount Rail Kit	HPE 2U Small Form Factor Ball Bearing Rail	720863-B21
	NOTE: Gen9 rail kits have changed significantly from prior generation rail kits. Please take a moment to review the installation documentation that comes with the server to help you with the installation of your Gen9 server. **NOTE:** Rail kits are optional for DL380 Gen9 and are no longer included standard with the server. Customers have the option to purchase their server without a rail kit. **NOTE:** Ball bearing and Easy Install rail kits contain telescoping rails which allow for in-rack serviceability. **NOTE:** To assist in the installation of the server into the rack an optional installation tool is available by contacting your local services representative (P/N: 695539-001). **CAUTION:** Hewlett Packard Enterprise recommends that a minimum of two people are required for all Rack Server installations. Please refer to your installation instructions for proper tools and number of people to use for any installation.	
HPE Care Pack Services	**Installation & Start-up Services**	
	HPE Install ProLiant DL38x(p) Service	U4554E
	HPE Startup ProLiant DL38x(p) Service	U4555E
	Proactive Care	
	HPE 3 year 24x7 DL380 Gen9 w/IC Proactive Care Service	U5HW1E
	HPE 3 year 24x7 with Defective Media Retention DL380 Gen9 w/IC Proactive Care Service	U5HW2E
	HPE 3 year 24x7 w/ Comprehensive Defective Material Retention DL380 Gen9 w/IC Proactive Care Service	U5HW3E
	HPE 3 year Call to Repair DL380 Gen9 w/IC Proactive Care Service	U5HX0E
	HPE 3 year Call to Repair with Defective Media Retention DL380 Gen9 w/IC Proactive Care Service	U5HX1E
	HPE 3 year CTR with Comprehensive Defective Material Retention DL380 Gen9 w/IC Proactive Care Service	U5HX2E
	HPE 3 year 24x7 DL380 Gen9 Proactive Care Service	U7AE8E
	HPE 3 year 24x7 with Defective Media Retention DL380 Gen9 Proactive Care Service	U7AE9E
	HPE 3 year 24x7 with Comprehensive Defective Material Retention DL380 Gen9 Proactive Care Service	U7AF0E
	HPE 3 year Call to Repair DL380 Gen9 Proactive Care Service	U7AF4E
	HPE 3 year Call to Repair with Defective Media Retention DL380 Gen9 Proactive Care Service	U7AF5E
	HPE 3 year CTR with Comprehensive Defective Material Retention DL380 Gen9 Proactive Care Service	U7AF6E

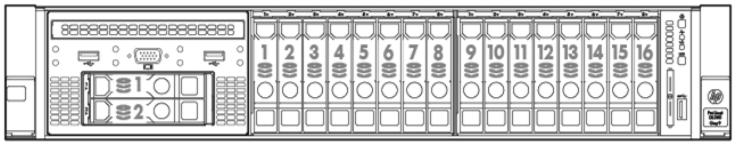
Storage

8 SFF (+2 SFF) hot-plug drive model with Universal Media Bay



1-8 8 x SFF SATA/SAS/SDD Hot Pluggable Hard drive bays

16 SFF (+2 SFF) hot-plug drive model with Universal Media Bay



9-24 16 x SFF SATA/SAS/SDD Hot Pluggable Hard drive bays

Technical Specifications

System Unit	**Dimensions** (H x W x D)	SFF Drives	3.44 x 17.54 x 26.75 in (8.73 x 44.55 x 67.94 cm)
	Weight (approximate)	Maximum: (all hard drives, power supply, and processor installed)	8 SFF Chassis 51.5 lb. (23.6 kg)
		Minimum: (one hard drive, power supply, and processor installed)	8SFF Chassis 32.6 lb. (14.759 kg)
	Input Requirements (per power supply)	Range Line Voltage	100 to 120 VAC 200 to 240 VAC -40 to -72 VDC
	BTU Rating	Maximum	For 800W AC Power Supply: 3207 BTU/hr (at 100 VAC), 3071 BTU/hr (at 200 VAC), 3112 BTU/hr (at 240 VAC) for China Only For 800W DC Power Supply: 3008 BTU/hr (at -40 VDC), 2971 BTU/hr (at -48 VDC), 2929 BTU/hr (at -72 VDC)
	Power Supply Output (per power supply)	Rated Steady-State Power	For 800W AC Power Supply: 800W (at 100 VAC), 800W (at 240 VAC), 800W (at 240 VAC) input for China only For 800W DC Power Supply: 800W (at -40 VDC), 800W (at -48 VDC), 800W (at -72 VDC)
		Maximum Peak Power	For 800W AC Power Supply: 800W (at 100 to 127 VAC), 800W (at 200 to 240 1VAC), 800W (at 240 VAC) input for China only For 800W DC Power Supply: 800W (at -40 VDC), 800W (at -48 VDC), 800W (at -72 VDC)
	System Inlet Temperature	Extended Ambient Operating Support	For approved hardware configurations, the supported system inlet range is extended to be: 5° to 10°C (41° to 50°F) and 35° to 40°C (95° to 104°F) at sea level with an altitude derating of 1.0°C per every 175 m (1.8°F per every 574 ft) above 900 m (2953 ft) to a maximum of 3050 m (10,000 ft). The approved hardware configurations for this system are listed at the URL: **http://www.hpe.com/servers/ashrae** For approved hardware configurations, the supported system inlet range is extended to be: 40° to 45°C (104° to 113°F) at sea level with an altitude derating of 1.0°C per every 125 m (1.8°F per every 410 ft) above 900 m (2953 ft) to a maximum of 3050 m (10,000 ft). The approved hardware configurations for this system are listed at the URL: **http://www.hpe.com/servers/ashrae** System performance may be reduced if operating in the extended ambient operating range or with a fan fault.

Technical Specifications

	Operating	GR-63-CORE, Section 4.1.2: Shelf Level Operating Temperature and Humidity ETSI EN 300 019-2-3: Stationary Use at Weather Protected Locations, Class 3.1E
	Non-operating	GR-63-CORE, Section 4.1.1, Transportation and Storage Environment ETSI EN 300 019-2-1: Storage, Class 1.2 ETSI EN 300 019-2-2: Transportation, Class 2.3
Relative Humidity	Operating	GR-63-CORE, Section 4.1.2: Shelf Level Operating Temperature and Humidity ETSI EN 300 019-2-3: Stationary Use at Weather Protected Locations, Class 3.1E
(non-condensing)	Non-operating	GR-63-CORE, Section 4.1.1: Transportation and Storage Environment ETSI EN 300 019-2-1:Storage, Class 1.2
Altitude	Operating	GR-63-CORE, Section 4.1.3: Shelf Level Altitude
	Non-operating	9144 m (30,000 ft). Maximum allowable altitude change rate is 457 m/min (1500 ft/min).
Emissions Classification (EMC)	FCC Rating	Class A
	Telecom	GR-1089-CORE, Section 3: Electromagnetic Interference ETSI EN 300 386: Electromagnetic Compatibility
	Normative Standards	CISPR 22; EN55022; EN55024; FCC CFR 47, Pt 15; ICES-003; CNS13438; GB9254; K22;K24; EN 61000-3-2; EN 61000-3-3; EN 60950-1; IEC 60950-1

NOTE: Product conformance to cited product specifications is based on sample (type) testing, evaluation, or assessment. This product or family of products is eligible to bear the appropriate compliance logos and statements.
NOTE: The Listed sound levels apply to standard shipping configurations. Additional options may result in increased sound levels.

Environment-friendly Products and Approach	**End-of-life Management and Recycling**	Hewlett Packard Enterprise offers end-of-life product return, trade-in, and recycling programs, in many geographic areas, for our products. Products returned to Hewlett Packard Enterprise will be recycled, recovered or disposed of in a responsible manner. **http://www.hpe.com/recycle** The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard Enterprise web site. These instructions may be used by recyclers and other WEEE treatment facilities as well as Hewlett Packard Enterprise OEM customers who integrate and re-sell Hewlett Packard Enterprise equipment. **http://www.hpe.com/recycle**

Summary of Changes

Date	Version History	Action	Description of Change
23-Oct-2017	From Version 5 to 6	Changed	Care Pack naming and Service and Support- Parts and Materials updated.
4-Sep-2017	From Version 4 to 5	Added	Added new HPE Storage Controllers.
		Removed	Obsolete storage options were removed from the QuickSpecs.
12-Jun-2017	From Version 3 to 4	Changed	HPE Unique Options section was revised.
10-Mar-2017	From Version 2 to 3	Added	Added new HPE Processors. New options were added to the HPE Unique Options, HPE Memory, HPE Drives, HPE Networking, HPE PCIe Workload Accelerator Options, and HPE Power Supplies sections.
15-Apr-2016	From Version 1 to 2	Added	HPE Storage Controllers section was added to Core Options.
		Changed	HPE Processors, HPE Memory, HPE Drives, HPE Networking, and HPE I/O Expansion Options were revised.



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

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