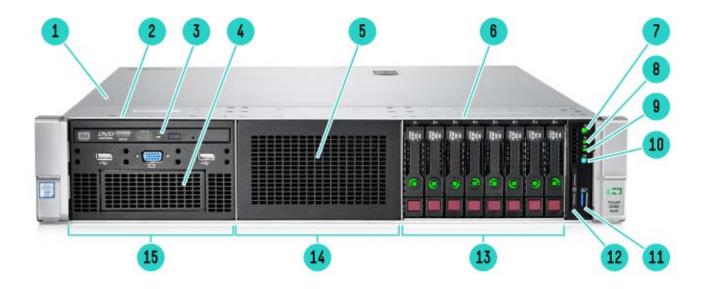
## QuickSpecs

#### **Overview**

#### HPE ProLiant DL380 Generation9 (Gen9)

The HPE ProLiant DL380 Gen9 Server delivers the best performance and expandability in the Hewlett Packard Enterprise 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.



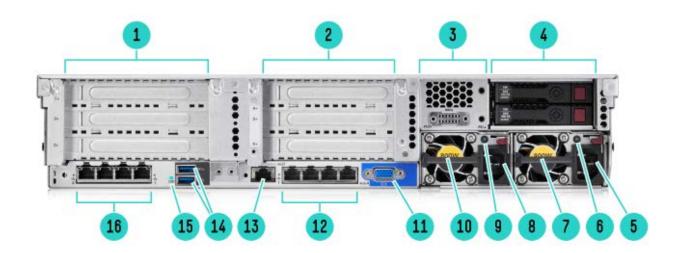
#### Front View - 8SFF Chassis with Optional Universal Media Bay shown

- 1. Quick removal access panel
- 3. Optional Optical drive. Requires Universal Media bay
- 5. Drive Bay 2. Blank shown, 8SFF or 6NVMe optional
- 7. Power On/Standby button and system power LED button
- 9. NIC status
- 11. USB 3.0
- 13. Bay 3
- 15. Bay 1

- 2. Universal Media bay. 2 USB 2.0 and VGA standard (8SFF bay optional)
- 4. Optional 2 SFF HDD, blank shown. Requires Universal Media bay
- 6. 8 SFF Drive Cage Bay
- 8. Health LED
- 10. UID button
- 12. Serial label pull tag
- 14. Bay 2



#### **Overview**

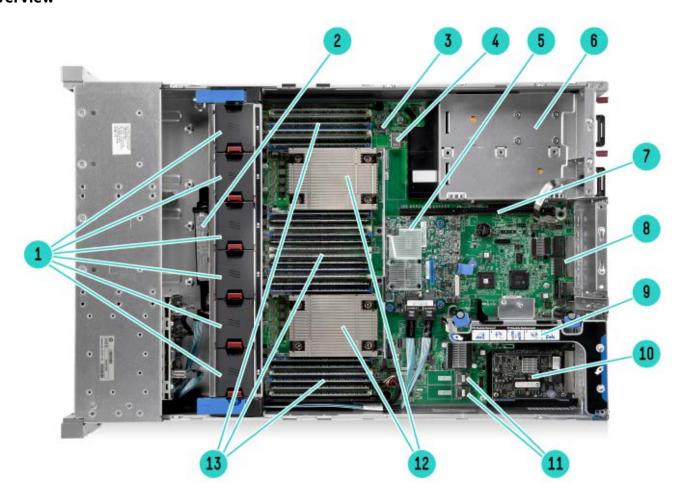


#### **Rear View**

- 1. PCI Slots (Slots 1-3 top to bottom, riser shipped standard)
- 3. Optional serial port
- 5. Power supply Power connection
- 7. HPE Flexible Slot Power Supply bay 2 (800w shown)
- 9. Power supply Power LED
- 11. VGA connector
- 13. Dedicated iLO connector
- 15. Unit ID LED

- 2. PCI Slots (Slots 4-6top to bottom, requires second riser card, and second processor)
- 4. Optional rear 2 SFF HDD (supported in 24 SFF or 12 LFF front end)
- 6. Power supply Power LED
- 8. Power supply Power connection
- 10. HPE Flexible Slot Power Supply bay 1 (800w shown) **NOTE:** Optional Battery Back up option.
- 12. Embedded 4x1GbE Network Adapter
- 14. USB 3.0 connectors (2)
- 16. Optional FlexibleLOM ports (Shown: 4x1GbE)

#### Overview



#### **Internal View**

- 1. Fan cage shown with 6 standard Hot-plug fans (High Performance fans optional)
- MicroSD card slot NOTE: Optional Dual MicroSD.

Optional HPE Flexible Smart Array or Smart HBA (H240ar

- 5. shown)
- 7. Connection for second (optional) riser (Required second CPU)
- 9. Primary PCIe riser, standard (Optional double wide GPU riser)
- 11. X4 SATA ports (1 and 2)
- DDR4 DIMM slots. Shown fully populated in 24 slots (12 per processor)

- 2. Optional HPE Smart Storage Battery
- 4. Internal USB 3.0 connector (2)
- 6. (Under) Hot Plug redundant HPE Flexible Slot Power supplies

**NOTE:** Optional Micro UPS Battery Back up option.

- 8. Embedded 4x1Gbe NIC
- 10. Optional FlexibleLOM slot
- 12. 2 Processors, heatsink showing, with HPE Smart Socket Guide

#### What's New

• Expanded the HBA, HDD and SSD selection

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

#### Processor

Up to two of the following depending on model

Model	CPU frequency	Cores	L3 Cache	Power	QPI	DDR4 Hz
E5-2699v3	2.3GHz	18	45MB	145W	9.6GT/s	2133
E5-2698v3	2.3GHz	16	40MB	135W	9.6GT/s	2133
E5-2697v3	2.6GHz	14	35MB	145W	9.6GT/s	2133
E5-2695v3	2.3GHz	14	35MB	120W	9.6GT/s	2133
E5-2690v3	2.6GHz	12	30MB	135W	9.6GT/s	2133
E5-2687Wv3	3.1GHz	10	25MB	160W	9.6GT/s	2133
E5-2683v3	2.0GHz	14	35MB	120W	9.6GT/s	2133
E5-2680v3	2.5GHz	12	30MB	120W	9.6GT/s	2133
		12				2133
E5-2670v3	2.3GHz		30MB	120W	9.6GT/s	
E5-2667v3	3.2GHz	8	20MB	135W	9.6GT/s	2133
E5-2660v3	2.6GHz	10	25MB	105W	9.6GT/s	2133
E5-2650v3	2.3GHz	10	25MB	105W	9.6GT/s	2133
E5-2650Lv3	1.8GHz	12	30MB	65W	9.6GT/s	2133
E5-2643v3	3.4GHz	6	20MB	135W	9.6GT/s	2133
E5-2640v3	2.6GHz	8	20MB	90W	8.0GT/s	1866
E5-2637v3	3.5GHz	4	15MB	135W	9.6GT/s	2133
E5-2630v3	2.4GHz	8	20MB	85W	8.0GT/s	1866
E5-2630Lv3	1.8GHz	8	20MB	55W	8.0GT/s	1866
E5-2623v3	3.0GHz	4	10MB	105W	8.0GT/s	1866
E5-2620v3	2.4GHz	6	15MB	85W	8.0GT/s	1866
E5-2609v3	1.9GHz	6	15MB	85W	6.4GT/s	1600
E5-2603v3	1.6GHz	6	15MB	85W	6.4GT/s	1600
E5-2699v4	2.2GHz	22	55MB	145W	9.6GT/s	2400
E5-2698v4	2.2GHz	20	50MB	135W	9.6GT/s	2400
E5-2697v4	2.3GHz	18	45MB	145W	9.6GT/s	2400
E5-2697Av4	2.6GHz	16	40MB	145W	9.6GT/s	2400
E5-2695v4	2.1GHz	18	45MB	120W	9.6GT/s	2400
E5-2690v4	2.6GHz	14	35MB	135W	9.6GT/s	2400
E5-2687Wv4	3.0GHz	12	30MB	160W	9.6GT/s	2400
E5-2683v4	2.1GHz	16	40MB	120W	9.6GT/s	2400
E5-2680v4	2.4GHz	14	35MB	120W	9.6GT/s	2400
E5-2667v4	3.2GHz	8	25MB	135W	9.6GT/s	2400
E5-2660v4	2.0GHz	14	35MB	105W	9.6GT/s	2400
E5-2650v4	2.2GHz	12	30MB	105W	9.6GT/s	2400
E5-2650Lv4	1.7GHz	14	35MB	65W	9.6GT/s	2400
E5-2643v4	3.4GHz	6	20MB	135W	9.6GT/s	2400
E5-2640v4	2.4GHz	10	25MB	90W	8.0GT/s	2133
E5-2637v4	3.5GHz	4	15MB	135W	9.6GT/s	2400
E5-2630v4	2.2GHz	10	25MB	85W	8.0GT/s	2133
E5-2630Lv4	1.8GHz	10	25MB	55W	8.0GT/s	2133
E5-2623v4	2.6GHz	4	10MB	85W	8.0GT/s	2133

E5-2620v4	2.1GHz	8	20MB	85W	8.0GT/s	2133
E5-2609v4	1.7GHz	8	20MB	85W	6.4GT/s	1866
E5-2603v4	1.7GHz	6	15MB	85W	6.4GT/s	1866
E5-2699Av4	2.4GHz	22	55MB	145W	9.6GT/s	2400

**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).

NOTE: Mixing of E5-2600v3 and E5-2600v4 processors is not supported.

NOTE: Field upgrade from E5-2600v3 to E5-2600v4 is supported.

NOTE: All processors support Hyper-Threading except E5-2609 v4/v3 and E5-2603 v4/v3.

**Chipset** Intel® C610 Series Chipset

Intel® E5-2600v3 Processor Family Intel® E5-2600v4 Processor Family

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

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

**On System** HPE iLO (Firmware HPE iLO4 2.0) 4GB NAND

Management Chipset NOTE: Read and learn more in the iLO QuickSpecs

**Memory** Type:

One of the following depending on model

HPE SmartMemory

DDR4 Registered (RDIMM), Load Reduced (LRDIMM) or Persistent Memory (NVDIMM)

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

channel)

Maximum Capacity

(LRDIMM)

3TB

(24 x 128GB LRDIMM @2400MHz)\*

Maximum Capacity

768GB

(24 x 32GB RDIMM @2400MHz)

(RDIMM)

Maximum Capacity

128GB

(16 x 8GB NVDIMM)\*

(NVDIMM)

NVDIMM support only with the E5-2600v4 processors, and RDIMMs only

Note mixing of 2133 and 2400MHz memory is not supported

Note mixing of RDIMM and LRDIMM memory is not supported

Note the 128GB LRDIMM may not be mixed with other DIMM capacities/types

Memory Protection Advanced ECC Advanced ECC uses single device data correction to detect and correct single and

all multibit error that occurs within a single DRAM chip.

Online Spare Memory online spare mode detects a rank that is degrading and switches

operation to the spare rank.

**Expansion Slots** 

Primary Riser Expansion Technology Bus Connector Bus Form Factor Notes (Standard) Slots # Width Width Number

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

NOTE: Bus Width 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.

**NOTE:** Double wide PCIe cards are only supported in risers with the Processors leveraging the High Performance Heatsink. For Processors requiring double wide GPU support please order the GPU enablement kit (719082-B21).

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

Expansion Slots #	Technology	Bus Width	Connector Width	Bus 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

**NOTE:** Bus Width 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 PCle 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.

**NOTE:** Double wide PCIe cards are only supported in risers with the Processors leveraging the High Performance Heatsink. For Processors requiring double wide GPU support please order the GPU enablement kit (719082-B21).

Slot 1 PCle Riser
(Optional 2-slot)
719076-B21

Expansion Slots #	Technology	Bus Width	Connector Width	Bus Number	Form Factor	Notes
2	PCle 3.0	X16	X16	0x05	Full-height, full-length slot	Proc 1
3	PCIe 3.0	X8	X8	0x08	Full-height, half-length slot	Proc 1

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

**NOTE:** This will replace the standard primary riser and supports double wide cards.

**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.

**NOTE:** Double wide PCIe cards are only supported in risers with the Processors leveraging the High Performance Heatsink. For Processors requiring double wide GPU support please order the GPU enablement kit (719082-B21).

One of the following depending on model

**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-

**NOTE:** The B140i defaults to AHCl 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

HPE Smart Array P840ar/2G Controller

Performance Models HPE Dynamic Smart Array B140i Controller

HPE Flexible Smart Array P440ar/2GB

#### Internal Storage Devices

One of the following depending on model

Optical Drive Ships standard in Performance Models

Optional: DVD-ROM, DVD-RW

Hard Drives None ship standard

Hard Drive Bays 8 SFF with optional Universal Media Bay, 8 SFF bay or 6 NVME drive options

24 SFF plus optional 2 SFF drives rear 12 LFF plus optional 3 LFF drives rear

**NOTE:** The 3 LFF rear drives will consume space for the secondary riser.

**NOTE:** The 12 LFF chassis also supports 2 SFF rear which allows for the second

riser.

**NOTE:** The 6 NVMe drive option can only be leveraged in the SFF model and

replaces Bay 2.

4 LFF drive bays total

NOTE: The Universal Media Bay (724865-B21) not available with the LFF

model or the 24SFF model, and can only be populated in Bay1.

**NOTE:** The 8SFF can be upgraded with a drive cage to 16 or 24 SFF with field upgrades. For optimal upgrade Bay2 should be populated second, with Bay 3

the last to be populated for a field upgrade to 24 SFF.

NOTE: The 4LFF model cannot be upgraded to 12LFF in the field.

**NOTE:** All Pre-configured models come with an embedded 10-Port SATA controller. Optional HPE Flexible Smart Array and Smart SAS HBA Controllers

can be added.

<b>Maximum Internal</b>		CAPACITY	CONFIGURATION
Storage	Hot Plug SFF SAS	52.0TB	24+2 x 2TB (with optional rear SFF drive cage)
	Hot Plug SFF SATA	52.0TB	24+2 x 2TB (with optional SFF drive cage)
	Hot Plug LFF SAS	150.0TB	12+3 x 10TB (with optional rear LFF drive cage)
	Hot Plug LFF SATA	150.0TB	12+3 x 10TB (with optional rear LFF drive cage)
	Hot Plug SFF SAS SSD	99.84TB	24+2 x 3.84TB (with optional rear SFF drive cage)
	Hot Plug LFF SATA SSD	57.6B	12+3 x 3.84TB (with optional rear LFF drive cage)
	Hot Plug SFF NVMe PCle SSD	12TB NVMe + 36TB SFF	6x2TB NVMe plus 36TB with 18 SFF (Bay 1, bay 3 and optional rear drive support)

#### **Power Supply**

HPE 500W Flex Slot Platinum Hot Plug Power Supply

NOTE: Available in 94% efficiency.

HPE 800W Flex Slot Platinum Hot Plug Power Supply

NOTE: Available in 94% and 96% efficiency.

**NOTE:** Also available in -48VDC and 227VAC/380VDC power inputs.

HPE 1400W Flex Slot Platinum Plus Hot Plug Power Supply

NOTE: Available in 94% efficiency.

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

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

To review the power requirements for your selected system, please use the HPE Power Advisor Tool located at <a href="http://www.hp.com/go/hppoweradvisor">http://www.hp.com/go/hppoweradvisor</a>.

Power specifications and technical content for all HPE Server power supplies can be found at <a href="http://www.hp.com/go/proliant/powersupply">http://www.hp.com/go/proliant/powersupply</a>.

#### System Fans

One of the following depending on model

Non-redundant Redundant

2P model 6 fans

NOTE: 1P models typically ship with 4 standard fans. The second processor option kit contains 2

additional fans

**NOTE:** The 12LFF and 24SFF model ship with 6 High Performance fans as standard. **NOTE:** High Performance Fan Kit is available to meet ambient temperature environments.

**NOTE:** High Performance Fan Kit is required for Passive GPU support.

NOTE: The 8SFF Bay1 kit (719067-B21) will ship with 6 High efficiency fans.

#### **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 1 Gb Dedicated

Management Network Port

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 Hewlett Packard Enterprise 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://h20566.www2.hpe.com/hpsc/swd/public/readIndex?sp4ts.oid=7271242

#### Upgradeability

Upgradeable to 2 processors (36 Cores)

**NOTE:** Processor upgrade available from Intel® Xeon® Processors E5-2600v3. Please contact Hewlett Packard Enterprise Technology Sales (<a href="http://www.hpe.com/support">http://www.hpe.com/support</a>), your local Hewlett Packard Enterprise Re-seller.

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 models. 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.hp.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

Unified Extensible Firmware Interface (UEFI) is an industry standard that provides better manageability and more secured configuration than the legacy ROM 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 <a href="http://www.hpe.com/servers/uefi">http://www.hpe.com/servers/uefi</a>.

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

- Secure Boot
- Operating system specific functionality
- Support for > 2.2 TB (using GPT) boot drives
- USB 3.0 Stack
- Embedded UEFI Shell
- Mass Configuration Deployment Tool using RESTful API for iLO 4
- PXE boot support for IPv6 networks
- Boot support for option cards that only support a UEFI option ROM
- Network Stack configurations

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

**NOTE:** UEFI FIO Setting (758959-B22) can be selected to configure the system in Legacy mode in the factory for your HPE ProLiant Gen9 Server.

#### Form Factor

2U Rack form factor

One of the following depending on model

8 SFF & 24SFF Drive Bay Version:

3.44 x 17.54 x 26.75 in (8.73 x 44.55 x 67.94 cm)

4 LFF & 12LFF Drive Bay Version:

3.44 x 17.54 x 28.75 in (8.73 x 44.55 x 73.02 cm)

NOTE: Dimensions without bezel.

#### **Embedded**

**HPE Integrated** Monitor your servers for ongoing management, service alerting, reporting and remote

Manag	gement
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**Lights-Out** (HPE iLO)

management with HPE iLO. Learn more at http://www.hpe.com/info/ilo.

**UEFI** 

Configure and boot your servers securely with industry standard Unified Extensible Firmware Interface (UEFI). Learn more at http://www.hpe.com/servers/uefi.

**RESTful API** 

RESTful API for iLO 4 is Redfish 1.0 conformance for simplified server management

such as configuration and maintenance tasks based on modern industry

standards. Learn more at <a href="http://www.hpe.com/info/restfulapi">http://www.hpe.com/info/restfulapi</a>.

Intelligent **Provisioning**  Hassle free server and OS provisioning for 1 or few servers with Intelligent Provisioning.

Learn more at <a href="http://www.hpe.com/servers/intelligentprovisioning">http://www.hpe.com/servers/intelligentprovisioning</a>.

**Embedded** 

The Hewlett Packard **Enterprise** embedded remote support, when used with Insight Remote Support Online direct connect or HPE Insight Remote Support, allows HPE ProLiant servers to transmit hardware events directly to Hewlett Packard Enterprise or a Hewlett Packard Enterprise Authorized Partner for automated phone home support. Learn more at

http://www.hpe.com/info/insightonline/explore.

#### Server utilities

**Smart Update** 

Optimize firmware and driver updates with Smart Update solutions including Smart

Update Manager (SUM) and Service Pack for ProLiant (SPP). Learn more at

http://www.hpe.com/servers/smartupdatemanager.

**HPE Systems** (HPE SIM)

HPE SIM allows you to monitor the health of your HPE ProLiant Servers and HPE **Insight Manager** Integrity Servers, and also provides you with basic support for non-HPE servers. HPE SIM also integrates with Smart Update Manager to provide quick and seamless

firmware updates. Learn more at <a href="http://www.hpe.com/servers/hpsim">http://www.hpe.com/servers/hpsim</a>.

**Scripting Tool** Kit and Windows PowerShell

Provision 1 to many servers using your own scripts to discover and deploy them with Scripting Tool Kit (STK) for Windows and Linux or Scripting Tools for Windows

PowerShell. Learn more at <a href="http://www.hpe.com/servers/proliant/stk">http://www.hpe.com/servers/proliant/stk</a> or

http://www.hpe.com/servers/powershell

RESTful Interface Tool RESTful Interface tool is a scripting tool to provision using RESTful API for iLO 4 to

discover and deploy servers at scale. Learn more at

http://www.hpe.com/info/resttool

**HPE iLO Mobile Application** 

Enables the ability to access, deploy, and manage your server anytime from anywhere from select smartphones and mobile devices. For additional information please visit:

http://www.hpe.com/info/ilo/mobileapp.

**HPE Insight** Online

HPE Insight Online, available at no additional cost as part of your Hewlett Packard Enterprise warranty or contractual support agreement with Hewlett Packard Enterprise,

is a personalized dashboard for simplified tracking of IT operations and support

information from anywhere, anytime. Learn more at http://www.hpe.com/info/insightonline/explore

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

**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 Hewlett Packard Enterprise replace Optional CSR parts at no charge. Additional information regarding worldwide limited warranty and technical support is available at:

http://h17007.www1.hpe.com/us/en/enterprise/servers/warranty/.

#### **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 <a href="http://www.hpe.com/servers/iloadvanced">http://www.hpe.com/servers/iloadvanced</a>.

#### Server Management HPE Insight

## 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.hpe.com/info/insightcontrol.

#### HPE Insight Cluster Management Utility (CMU)

HPE Insight Cluster Management Utility is a HyperScale management framework that includes software for the centralized provisioning, management and monitoring of nodes and infrastructure. Learn more at <a href="http://www.hpe.com/info/cmu">http://www.hpe.com/info/cmu</a>.

#### 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 HPEC Server. A Cluster Platform Configurator simplifies ordering. <a href="http://www.hp.com/go/clusters">http://www.hp.com/go/clusters</a>.

**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 Hewlett Packard Enterprise when integrated within a Hewlett Packard Enterprise 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 Hewlett Packard Enterprise when they are part of these configure to order clusters. Solutions can be defined with a lot of flexibility with the help of configuration tools. Please visit the following URL to configure HPEC Clusters with InfiniBand Interconnects:

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

#### Storage Software

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

#### **Optional Features**

#### Data Protection and Recovery Software

Whether you're a large enterprise or a smaller business, Hewlett Packard Enterprise data protection and recovery software will cost-effectively protect you against disaster and ensure business continuity.

#### Data Archive and Migration Software

Hewlett Packard Enterprise storage software enables you to comply with data retention and retrieval requirements, improve application performance, and reduce costs by efficiently migrating infrequently accessed or less valuable data to lower cost storage.

#### • Storage Resource Management Software (SRM)

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

#### • Data Replication Software

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

#### • Storage Device Management Software

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

#### HPE StoreVirtual VSA

Enable highly available and clustered storage in your HPE ProLiant servers with virtualized storage: Add StoreVirtual VSA to multiple servers, manage it as a single pool of shared storage capacity, and scale it to match your evolving needs. To simplify deployment, HPE offers StoreVirtual Ready Nodes, pre-defined reference configurations for converged vSphere and Hyper-V virtualization solutions. You also have the option to install free 1TB-capacity StoreVirtual VSA software during server setup within Intelligent Provisioning. HPE ProLiant Gen9 servers include a 3-year limited license for this HPE software-defined storage at no extra cost. More information, instructional videos, and free management software are available at

**NOTE:** For more information about Storage Software including QuickSpecs, please see:

http://www.hp.com/go/storage/software.

http://www.hpe.com/storage/storevirtual

## One Config Simple (SCE)

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

#### Service and Support

#### HPE Support Services

HPE Technology Services delivers confidence, reduces risk and helps customers realize agility and stability. Connect to Hewlett Packard Enterprise to help prevent problems and solve issues faster. HPE Support Services enable you to choose the right service level, length of coverage and response time as you purchase your new server, giving you full entitlement to the support for need for your IT and business.

## Connect your devices

Unlock all of the benefits of your technology investment by connecting your products to Hewlett Packard Enterprise. Achieve up to  $77\%^1$  reduction in down time, near  $100\%^2$  diagnostic accuracy and a single consolidated view of your environment. By connecting, you will receive 24x7monitoring, pre-failure alerts, automatic call logging, and automatic parts dispatch. HPE Proactive Care Service and HPE Datacenter Care Service customers will also benefit from proactive activities to help prevent issues and increase optimization. All of these benefits are already available to you with your server storage and networking products, securely connected to Hewlett Packard Enterprise support.

#### Recommended Support

#### Standard: HPE Proactive Care\* with 24x7 coverage, three year Support Service

HPE Proactive Care gives customers an enhanced call experience. When your products are connected to Hewlett Packard Enterprise, Proactive Care helps prevent problems and maintains IT stability by utilizing personalized proactive reports with recommendations and advice. This service combines three years proactive reporting and advice with our 24x7 coverage, four hour hardware response time when there is a problem. This service also includes collaborative software support for Independent Software Vendors (ISVs), (Red Hat, VMWare, Microsoft, etc.) running on your HPE servers.

https://www.hpe.com/h20195/v2/GetPDF.aspx/4AA3-8855ENW.pdf

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

HPE Proactive Care gives customers an enhanced call experience. When your products are connected to Hewlett Packard Enterprise, Proactive Care helps prevent problems and maintains IT stability by utilizing personalized proactive reports with recommendations and advice. This service combines three years' proactive reporting and advice with our highest level of hardware support – Hewlett Packard Enterprise 24x7, six hour hardware call-to-repair. Hewlett Packard Enterprise is the only leading manufacturer who makes this level of coverage available as a standard service offering for your most valuable servers. This service also includes collaborative software support for Independent Software Vendors (ISVs), (Red Hat, VMWare, Microsoft, etc.) running on your HPE servers.

https://www.hpe.com/h20195/v2/GetPDF.aspx/4AA3-8855ENW.pdf

#### Parts and Materials

Hewlett Packard Enterprise will provide Hewlett Packard Enterprise-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 QuickSpecs, 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.

#### **Related Services**

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

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

https://www.hpe.com/h20195/V2/GetPDF.aspx/5981-9356EN.pdf

#### **HPE Installation and Startup Service**

Provides for the installation and startup of Hewlett Packard Enterprise technology including BladeSystems,

#### Service and Support

C-Class enclosure, HPE ProLiant c-Class and Integrity server blades, storage blades, SAN switch blades, HPE Virtual Connect modules (Ethernet and Fibre Channel), Ethernet network interconnects, and InfiniBand, as well as the installation of one supported operating system type (Windows® or Linux).

#### **HPE Technology Services Support Credits**

Offer flexible services and technical skills to meet your changing IT demands. With a menu of service that is tailored to suit your needs, you get additional resources and specialist skills to help you maintain peak performance of your IT. Offered as annual credits, you can plan your budgets while proactively responding to your dynamic business.

#### **HPE Education Services**

Keep your IT staff trained making sure they have the right skills to deliver on your business outcomes. Book on a class today and learn how to get the most from your technology investment.

#### http://www.hpe.com/ww/learn

HPE Support Center The HPE Support Center is a personalized online support portal with access to information, tools and experts to support Hewlett Packard Enterprise business products. Submit support cases online, chat with Hewlett Packard Enterprise experts, access support resources or collaborate with peers.

#### Learn more <a href="http://www.hpe.com/support/hpesc">http://www.hpe.com/support/hpesc</a>

The Hewlett Packard Enterprise Support Center Mobile App\* allows you to resolve issues yourself or quickly connect to an agent for live support. Now, you can get access to personalized IT support anywhere, anytime.

HPE Insight Remote Support and HPE Support Center are available at no additional cost with a Hewlett Packard Enterprise warranty, HPE Support Service or Hewlett Packard Enterprise contractual support agreement.

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

For more information: <a href="http://www.hpe.com/services">http://www.hpe.com/services</a>

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

- 1. Pre-configured models ship with the configurations below. Options can be selected from the Core or Additional options section of this QuickSpecs.
- 2. Hewlett Packard Enterprise does not allow factory integration of options into pre-configured models. Any additional options purchased will be shipped separately.
- 3. If you desire a custom configuration please see "Configuration Information Factory Integrated Models" section of this QuickSpecs.

**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 P/N 666986-B21: HPE LFF Hard Drive Blank Kit.

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

**CAUTION:** 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.

	Entry Models						
[SKU Number]	766342-B21	752686-B21	826681-B21				
Model Name	HPE ProLiant DL380 Gen9 E5- 2609v3 1P 8GB-R B140i 4LFF SATA 500W PS Entry Server	HPE ProLiant DL380 Gen9 E5- 2609v3 1P 8GB-R B140i 8SFF SATA 500W PS Entry Server	HPE ProLiant DL380 Gen9 E5- 2609v4 1P 8GB-R B140i 8SFF 500W PS Entry SATA Server				
Processor	Intel® Xeon® E5-2609v3 Intel® Xeon® E5-2609v4						
Number of Processors	One						
Memory	8GB (1x8GB Registered DIMMs, 2133 MHz) NOTE: With the E5-2609v3 this memory DIMM will only operate at 1600MHz.	NOTE: With the E5-2609v4 this memory DIMM will only operate 1866MHz.					
Network Controller	HPE Embedded 1Gb Ethernet 4-port 331i Adapter, plus optional HPE Flexible LOM or stand up card						
Storage Controller		40i, plus optional HPE Flexible Smart Arroff chipset, Smart Array needs to be ena	•				
Hard Drive		None ship standard					
Internal Storage	4 LFF HDD Bays	8 SFF HDD Bays (up	ogradable to 24)				
Optical Drive Bay	Not Available	Optional Universal Media	a Bay (724865-B21)				
Optical Drive	Optional via HPE Mobile USB DVDRW Drive (701498-B21)	Optional DVD-ROM (726536-B21) or DVD-RW (726537-B21) via the Universal Media Bay (724865-B21)					
PCI-Express Slots	3 PCIe slots (+3 PCI slots available with upgrade option, second processor required)						
Power Supply	(1) F	IPE 500W Flex Slot Platinum Power Supp	oly				
Fans		4 hot plug fans, redundant					

Management	iLO Management (standard), Intelligent Provisioning (standard), iLO Advanced (optional), Insight Control (optional), HPE OneView (optional)
Form Factor	Rack (2U), HPE Easy Install Rails
Warranty	Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response

	Base Models							
[SKU Number]	752688-B21	752687-B21	826682-B21	826683-B21	848774-B21			
Model Name	HPE ProLiant DL380 Gen9 E5-2620v3 2.4GHz 6-core 1P 16GB-R P840/4GB 12LFF 2x800W PS Base Server	HPE ProLiant DL380 Gen9 E5- 2620v3 1P 16GB-R P440ar 8SFF 500W PS Base Server	HPE ProLiant DL380 Gen9 E5- 2620v4 1P 16GB-R P440ar 8SFF 500W PS Base Server	HPE ProLiant DL380 Gen9 E5- 2620v4 1P 16GB-R P440ar 12LFF 2x800W PS Base Server	HPE ProLiant DL380 Gen9 E5- 2630v4 1P 16GB-R P440ar 8SFF 500W PS Base Server			
Processor	Intel® Xeon® E5- 2620v3	Intel® Xeon® E5- 2620v3	Intel® Xeon® E5- 2620v4	Intel® Xeon® E5- 2620v4	Intel® Xeon® E5- 2630v4			
Number of Processors			One					
Memory	16GB (1x16GB Registered DIMMs, 2133 MHz)  NOTE: With the E5-2620v3 this memory DIMM will only operate at 1866MHz.  16GB (1x16GB Registered DIMMs MHz)  NOTE: With the E5-2620v4 this memory DIMM will only operate at 2133			Hz) 2620v4 this memory	16GB (1x16GB Registered DIMMs, 2400 MHz) NOTE: With the E5- 2630v4 this memory DIMM will only operate at 2133MHz.			
Network Controller	HPE Embedded 1Gb Ethernet 4-port 331i Adapter, plus optional HPE Flexible LOM or stand up card							
Storage Controller	HPE Flexible Smart Array P840/4G Controller	HPE Flexible Smart	Array P440ar/2GB	HPE Flexible Smart Array P840ar/2G Controller	HPE Flexible Smart Array P440ar/2GB			
Hard Drive	None ship standard; includes 10 LFF hard drive blanks		None ship	o standard				
Internal Storage	12 LFF HDD Bays	8 SFF HDD Bays (	upgradable to 24)	12 LFF HDD Bays	8 SFF HDD Bays (upgradable to 24)			
Optical Drive Bay	Not Available	Optional Universal Media Bay (724865- Not Available B21)			Optional Universal Media Bay (724865-B21)			
Optical Drive	Optional via HPE Mobile USB DVDRW Drive (701498-B21)		1 (726536-B21) or 121) via the Universal 124865-B21)	Optional via HPE Mobile USB DVDRW Drive (701498- B21)	Optional DVD-ROM (726536-B21) or DVD-RW (726537- B21) via the Universal Media Bay (724865-B21)			
PCI-Express Slots	3 PCle	slots (+3 PCI slots avail	lable with upgrade option	on, second processor red	quired)			
Power Supply	(2) HPE 800W Flex Slot Platinum Power Supply	(1) HPE 500W Flex Sup		(2) HPE 800W Flex Slot Platinum Power Supply	(1) HPE 500W Flex Slot Platinum Power Supply			

Fans	6 hot plug high performance fans, redundant	4 hot plug fans, redundant		6 hot plug l performance redundar	e fans,		ot plug fans, edundant
Management	iLO Management (star	ndard), Intelligent Provisioning ( HPE One	standard), iLO A eView (optional)	•	onal), Insig	ght Cor	ntrol (optional),
Form Factor	Rack (2U), HPE E	asy Install Rails with CMA	Rack (2U), HF Rails wi	•	Rack (2 HPE E Install F with Cl	asy Rails	Rack (2U), HPE Easy Install Rails
Warranty	Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response						

		Performance Mode	els	High Perfor	mance Models
[SKU Number]	752689-B21	826684-B21	852432-B21	803860-B21	803861-B21
Model Name	HPE ProLiant DL380 Gen9 E5- 2650v3 2P 32GB-R P440ar 8SFF 2x10Gb 2x800W Perf Server	HPE ProLiant DL380 Gen9 E5- 2650v4 2P 32GB- R P440ar 8SFF 2x10Gb 2x800W Perf Server	HPE ProLiant DL380 Gen9 E5- 2660v4 2P 64GB- R P440ar 8SFF 2x10Gb 2x800W Perf Server	HPE ProLiant DL380 Gen9 E5- 2690v3 2P 32GB- R P440ar 8SFF 2x10Gb 2x800W High Perf Server	HPE ProLiant DL380 Gen9 E5- 2690v3 2P 32GB-R P440ar 8SFF 2x10Gb 2x800W OneView Server
Processor	Intel® Xeon® E5- 2650v3	Intel® Xeon® E5- 2650v4	Intel® Xeon® E5- 2660v4	Intel® Xeon	® E5-2690v3
Number of Processors			Two		
Memory	32GB (2x16GB Registered DIMMs, 2133 MHz)	32GB (2x16GB Registered DIMMs, 2400 MHz)	64GB (4x16GB Registered DIMMs, 2400 MHz)	32GB (2x16GB Registered DIMMs, 213 MHz)	
Network Controller		ed 4x1Gb, plus 2x10Gb- Flexible LOM  HPE Embedded  4x1Gb, plus  2x10Gb SFP+  Flexible LOM  HPE Embedded 4x1Gb, plus 2x  Flexible LOM		-	
Storage Controller		HPE F	-lexible Smart Array P	440ar/2GB	
Hard Drive			None ship standar	·d	
Internal Storage		8 SF	F HDD Bays (upgrada	ble to 24)	
Optical Drive Bay	Optional Universal Media Bay (724865- B21)		Universal Media Bay (724865-B21)		
Optical Drive		HPE Half-	-Height SATA DVD-R	W Optical Drive	
PCI-Express Slots	6 PCIe slots (includes second riser slot upgrade option)	6 PCle 3.0 slots			des second riser slot e option)
Power Supply		(2) HPE 8	00W Flex Slot Platinuı	m Power Supply	
Fans			6 hot plug fans, redur	ndant	
Management	iLO Managemer	t (standard), Intelligent Provisioning (standard), iLO Advanced iLO Manage (standard), HPE OneView (optional) (standard Intelliger		iLO Management (standard), Intelligent Provisioning	

		(standard), iLO Advanced (standard), HPE OneView (Standard)
Energy Star	Meets Energy Star requirements	
Form Factor	Rack (2U), HPE Easy Install Rails with CMA	
Warranty	Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support wi response	th next business day

**NOTE:** UEFI is the standard default for all Predefined models.

	E5-2600v4 Series Smart Buy Models				
[SKU Number]	859085-S01	859083-S01	850520-S01	850519-S01	
Model Name	HPE DL380 Gen9 E5- 2690v4 2P SFF US Svr/S-Buy	HPE DL380 Gen9 E5- 2660v4 2P SFF US Svr/S-Buy	HPE DL380 Gen9 E5- 2667v4 2P SFF US Svr/S-Buy	HPE DL380 Gen9 E5- 2650v4 2P SFF US Svr/S-Buy	
Processor	Intel® Xeon® E5-2690v4	Intel® Xeon® E5- 2660v4	Intel® Xeon® E5- 2667v4	Intel® Xeon® E5- 2650v4	
Number of Processors	Tv	VO	0	ne	
Memory	64GB (4x16GB Registe NOTE: DIMMs will opera proce	te at 2400MHz with this	32GB (2x16GB Registered DIMMs, 2400Ml NOTE: DIMMs will operate at 2400MHz w this processor.		
Network Controller	HPE Embedded 1Gb Ethernet 4-port 331i Adapter				
Storage Controller	HPE Flexible Smart Array P440ar/2GB + Smart Storage Battery				
Hard Drive	None ship standard				
Internal Storage	8 SFF SATA/SAS Bays				
Optical Drive Bay	None Included: Optional DVD-ROM (726536-B21) or DVD-RW (726537-B21) via the Universal Med Bay (724865-B21)				
PCI-Express Slots	Six (6) PCle	Gen3 Slots	available with upgrade o	ots (+3 PCIe Gen3 slots option, second processor iired)	
Power Supply	Two (2) HPE 800W Flo Supp	ex Slot Platinum Power olies	, ,	ex Slot Platinum Power plies	
Fans	Six (6) Standard hot	plug fans, redundant	Four (4) Standard ho	t plug fans, redundant	
Management	Standard: iLO Advanced Optional: Insight Control, HPE OneView		Standard: iLO Management Advanced, Insight Control, HPE OneView		
Form Factor		Rack (2U), HPE	Easy Install Rails		
Warranty	3-Year Parts, 3-	-Year Labor, 3-Year Onsite	e support with next busines	ss day response	

	E5-2600v4 Series Smart Buy Models				
[SKU Number]	850518-S01	867450-S01	850517-S01		
Model Name	HPE DL380 Gen9 E5-2643v4 SFF US Svr/S-Buy	HPE DL380 Gen9 E5-2640v4 SFF US Svr/S-Buy	HPE DL380 Gen9 E5-2609v4 SAS US Svr/S-Buy		
Processor	Intel® Xeon® E5-2643v4	Intel® Xeon® E5-2640v4	Intel® Xeon® E5-2609v4		
Number of Processors		One			
Memory	32GB (2x16GB Registered DIMMs, 2400 MHz) <b>NOTE:</b> DIMMs will operate at 2400MHz with this processor	16GB (1x16GB Registered DIMMs, 2400 MHz) NOTE: DIMMs will operate at 2133MHz with this processor	8GB (1x8GB Registered DIMMs, 2400 MHz) NOTE: DIMMs will operate at 1866MHz with this processor		
Network Controller	HPE Embedded 1Gb Ethernet 4-port 331i Adapter				
Storage Controller	, , , , , , , , , , , , , , , , , , , ,		HPE H240ar Smart Host Bus Adapter		
Hard Drive	None ship standard				
Internal Storage		8 SFF SATA/SAS Bays			
Optical Drive Bay	None Included: Optional DVD-RO	M (726536-B21) or DVD-RW (726 Bay (724865-B21)	537-B21) via the Universal Media		
PCI-Express Slots	3 PCIe Gen3 slots (+3 PCIe Ge	n3 slots available with upgrade opt	ion, second processor required)		
Power Supply	One (1)	HPE 500W Flex Slot Platinum Pow	er Supply		
Fans	Fou	r (4) Standard hot plug fans, redun	dant		
Management	Standard: iLO Management Optional: iLO Advanced, Insight Control, HPE OneView				
Form Factor		Rack (2U), HPE Easy Install Rails			
Warranty	3-Year Parts, 3-Year La	bor, 3-Year Onsite support with nex	rt business day response		

	E5	5-2600v4 Series Smart Buy Mode	els	
[SKU Number]	867448-S01	859084-S01	867449-S01	
Model Name	HPE DL380 Gen9 E5-2620v4 SFF US Svr/S-Buy	HPE DL380 Gen9 E5-2620v4 24S US Svr/S-Buy	HPE DL380 Gen9 E5-2620v4 12LFF US Svr/S-Buy	
Processor		Intel® Xeon® E5-2620v4		
Number of Processors		One		
Memory	16GB (1x16GB Registered DIMMs, 2400 MHz) NOTE: DIMMs will operate at 2133MHz with this processor	64GB (4x16GB Registered DIMMs, 2400 MHz) NOTE: DIMMs will operate at 2133MHz with this processor	16GB (1x16GB Registered DIMMs, 2400 MHz) NOTE: DIMMs will operate at 2133MHz with this processor	
Network Controller	·	bedded 1Gb Ethernet 4-port 331i		
Storage Controller	HPE Flexible Smart Array P440ar/2GB + Smart Storage Battery	HPE Flexible Smart Array P440ar/2GB + Smart Storage Battery + SAS Expander	HPE H240ar Smart Host Bus Adapter	
Hard Drive		None ship standard		
Internal Storage	8 SFF SATA/SAS Bays	24 SFF SATA/SAS Bays	12 LFF SATA/SAS Bays	
Optical Drive Bay	None Included: Optional DVD- ROM (726536-B21) or DVD-RW (726537-B21) via the Universal Media Bay (724865-B21)			
PCI-Express Slots	Three (3) PCIe Gen3 slots (+3	PCle Gen3 slots available with upg required)	grade option, second processor	
Power Supply	One (1) HPE 500W Flex Slot Platinum Power Supply	Two (2) HPE 800W Flex Slot Platinum Power Supplies		
Fans	Four	(4) Standard hot plug fans, redun	dant	
Management		Standard: iLO Management Engine LO Advanced, Insight Control, HPE		
Form Factor		Rack (2U), HPE Easy Install Rails		
Warranty	3-Year Parts, 3-Year Lab	oor, 3-Year Onsite support with nex	rt business day response	

	E5-2600v3 Series Smart Buy Models			
[SKU Number]	800078-S01	800077-S01	784655-S01	777338-S01
Model Name	HP DL380 Gen9 E5- 2697v3 2P SFF US Svr/S-Buy	HP DL380 Gen9 E5- 2690v3 2P SFF US Svr/S-Buy	HP DL380 Gen9 E5- 2670v3 2P SFF US Svr/S-Buy	HP DL380 Gen9 E5- 2640v3 2P SFF US Svr/S-Buy
Processor	Intel® Xeon® E5-2697v3	Intel® Xeon® E5- 2690v3	Intel® Xeon® E5- 2670v3	Intel® Xeon® E5- 2640v3
Number of Processors		Τι	WO	
Memory	64GB (4x16GB Registered DIMMs, 2133 MHz)  NOTE: DIMMs will operate at 2133MHz with this processor.			16GB (2x8GB Registered DIMMs, 2133 MHz) NOTE: DIMMs will operate at 1866MHz with this processor.
Network Controller	HP Embedded 1Gb Ether	rnet 4-port 331i Adapter	HP Embedded 1Gb Ethernet 4-port 331i Adapter plus HP FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter	HP Embedded 1Gb Ethernet 4-port 331i Adapter
Storage Controller	HP F	lexible Smart Array P440a	ar/2GB + Smart Storage Ba	ttery
Hard Drive		None ship	o standard	
Internal Storage		8 SFF SAT	A/SAS Bays	
Optical Drive Bay	None Included: Optional E		or DVD-RW (726537-B21 865-B21)	L) via the Universal Media
PCI-Express Slots	Three (3) PCIe Gen3 slo available with upgrade o requi	ption, second processor	Six (6) PCle	e Gen3 slots
Power Supply	Two (2) HP 800W Flex Slot Platinum Power Supply		Power Supply	Two (2) HP 500W Flex Slot Platinum Power Supply
Fans		Six (6) Standard hot	plug fans, redundant	
Management	Standard: iLO Optional: iLO Advance One\	ed, Insight Control, HP	Standard: iLO Advanced Optional: Insight Control, HP OneView	Standard: iLO Management Optional: iLO Advanced, Insight Control, HP OneView
	Rack (2U), HP Easy Install Rails			
Form Factor		Rack (2U), HP E	Easy Install Rails	

	E5-2600v3 Series Smart Buy Models				
[SKU Number]	800076-S01	800075-S01	800073-S01	777336-S01	
Model Name	HP DL380 Gen9 E5- 2667v3 SFF Svr/S-Buy	HP DL380 Gen9 E5- 2643v3 SFF Svr/S-Buy	HP DL380 Gen9 E5- 2620v3 SFF Svr/S-Buy	HP DL380 Gen9 E5- 2609v3 US Svr/S-Buy	
Processor	Intel® Xeon® E5-2667v3	Intel® Xeon® E5- 2643v3	Intel® Xeon® E5- 2620v3	Intel® Xeon® E5- 2609v3	
Number of Processors		0	ne		
Memory	NOTE: DIMMs will opera	red DIMMs, 2133 MHz) te at 2133MHz with this essor.	16GB (1x16GB Registered DIMMs, 2133 MHz) NOTE: DIMMs will operate at 1866MHz with this processor.	8GB (1x8GB Registered DIMMs, 2133 MHz) NOTE: DIMMs will operate at 1600MHz with this processor.	
Network Controller	HP Embedded 1Gb Ethernet 4-port 331i Adapter				
Storage Controller	HP Flexible Smart	HP Flexible Smart Array P440ar/2GB + Smart Storage Battery  HP H240ar Sr  Bus Ada			
Hard Drive	None ship standard				
Internal Storage		8 SFF SAT	A/SAS Bays		
Optical Drive Bay	None Included: Optional [		or DVD-RW (726537-B2: 865-B21)	1) via the Universal Media	
PCI-Express Slots	Three (3) PCIe Gen3		available with upgrade opt	tion, second processor	
Power Supply	Two (2) HP 500W Flex Slot Platinum Power Supplies	One (1) HP	500W Flex Slot Platinum I	Power Supply	
Fans		Four (4) Standard ho	t plug fans, redundant		
Management	Standard: iLO Management Optional: iLO Advanced, Insight Control, HP OneView				
Form Factor		Rack (2U), HP (	Easy Install Rails		
Warranty	3-Year Parts, 3-	-Year Labor, 3-Year Onsite	support with next busine	ss day response	

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

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

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

CTO Server	HPE ProLiant DL380 Gen9 8SFF Configure-to-order Server	HPE ProLiant DL380 Gen9 NVMe 6 Solid State Drive Express Bay Configure-to-order Server	HPE ProLiant DL380 Gen9 24SFF Configure- to-order Server	HPE ProLiant DL380 Gen9 4LFF Configure-to-order Server	HPE ProLiant DL380 Gen9 12LFF Configure-to-order Server	
SKU Number	719064-B21	810393-B21	767032-B21	767033-B21	719061-B21	
Processor		2 (optio	nal) x HPE Smart Sock	et Guide		
DIMM Slots		24 DIMM slots	for RDIMM, LRDIMM I	DDR4 Memory		
Storage Controller	HPE Dynamic	Smart Array B140i, plu	us optional HPE Flexible Smart Array or Smart HBA controller			
PCIe	3 PCle	3 PCIe slots (+3 PCI slots available with upgrade option, second processor required)			equired)	
Drive Cage	8SFF Hot Plug (+8SFF and Universal Media Bay Optional)	8SFF +6NVMe Hot Plug (+8SFF or Universal Media Bay Optional)	24SFF Hot Plug	4LFF Hot Plug	12LFF Hot Plug	
Network Controller	HPE Embedded 1Gb Ethernet 4-port 331i Adapter, plus optional HPE Flexible LOM or stand up card	HPE Embedded 1Gb Ethernet 4- port 331i Adapter		E Embedded 1Gb Ethernet 4-port 331i Adapter, plus optiona HPE Flexible LOM or stand up card		
Fans	4 hot plug fans, redundant				6 hot plug high performance fans, redundant	
Management		iLO Management (st	tandard), Intelligent Pro	ovisioning (standard)		
USB	1 front, 2 internal, 2 rear	1 front, 1 internal, 2 rear	1 front, 2 internal, 2 rear	No front USB support		
Ears		-	HPE Quick Release Ear	s		

NOTE: With the NVMe CTO Server (810393-B21) there are limitations on GPU support.

NOTE: The NVMe CTO Server (810393-B21) ships with the standard x8 Risers supporting 2xNVMe drives.

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

HPE Processors Entry Processors – E5-2600v4 series Processors

HPE DL380 Gen9 Intel® Xeon® E5-2650Lv4 (1.7GHz/14-core/35MB/65W) FIO 817941-L21

Processor Kit

HPE DL380 Gen9 Intel® Xeon® E5-2630Lv4 (1.8GHz/10-core/25MB/55W) FIO

Processor Kit

817931-L21

**NOTE:** Ships with a High Performance Heatsink.

HPE DL380 Gen9 Intel® Xeon® E5-2643v4 (3.4GHz/6-core/20MB/135W) FIO Processor Kit	817939-L21
NOTE: Ships with a High Performance Heatsink.	
HPE DL380 Gen9 Intel® Xeon® E5-2637v4 (3.5GHz/4-core/15MB/135W) FIO Processor Kit	817935-L21
NOTE: Ships with a High Performance Heatsink.	
HPE DL380 Gen9 Intel® Xeon® E5-2623v4 (2.6GHz/4-core/10MB/85W) FIO Processor Kit	817929-L21
HPE DL380 Gen9 Intel® Xeon® E5-2620v4 (2.1GHz/8-core/20MB/85W) FIO Processor Kit	817927-L21
HPE DL380 Gen9 Intel® Xeon® E5-2609v4 (1.7GHz/8-core/20MB/85W) FIO Processor Kit	817925-L21
HPE DL380 Gen9 Intel® Xeon® E5-2603v4 (1.7GHz/6-core/15MB/85W) FIO Processor Kit	817923-L21
Entry Processors- E5-2600v3 series Processors	
HPE DL380 Gen9 Intel® Xeon® E5-2603v3 (1.6GHz/6-core/15MB/85W) FIO Processor Kit	719053-L21
HPE DL380 Gen9 Intel® Xeon® E5-2609v3 (1.9GHz/6-core/15MB/85W) FIO Processor Kit	719052-L21
Base Processors- E5-2600v3 series Processors	
HPE DL380 Gen9 Intel® Xeon® E5-2620v3 (2.4GHz/6-core/15MB/85W) FIO Processor Kit	719051-L21
HPE DL380 Gen9 Intel® Xeon® E5-2623v3 (3GHz/4-core/10MB/105W) FIO Processor Kit	779556-L21
HPE DL380 Gen9 Intel® Xeon® E5-2630v3 (2.4GHz/8-core/20MB/85W) FIO Processor Kit	719050-L21
HPE DL380 Gen9 Intel® Xeon® E5-2630Lv3 (1.8GHz/8-core/20MB/55W) FIO Processor Kit	719060-L21
HPE DL380 Gen9 Intel® Xeon® E5-2637v3 (3.5GHz/4-core/15MB/135W) FIO Processor Kit	719058-L21
NOTE: Ships with a High Performance Heatsink.	
HPE DL380 Gen9 Intel® Xeon® E5-2640v3 (2.6GHz/8-core/20MB/90W) FIO Processor Kit	719049-L21
Performance Processors - E5-2600v4 series Processors	
HPE DL380 Gen9 Intel® Xeon® E5-2687Wv4 (3.0GHz/12-core/30MB/160W) FIO Processor Kit	817957-L21
NOTE: Ships with a High Performance Heatsink.	
<b>NOTE:</b> This processor is not supported in a 12LFF or 24LFF CTO Server + Rear drive.	
HPE DL380 Gen9 Intel® Xeon® E5-2699v4 (2.2GHz/22-core/55MB/145W) FIO	817967-L21
Processor Kit  NOTE: Ships with a High Performance Heatsink.	
HPE DL380 Gen9 Intel® Xeon® E5-2698v4 (2.2GHz/20-core/50MB/135W) FIO Processor Kit	817965-L21
NOTE: Ships with a High Performance Heatsink.	047077
HPE DL380 Gen9 Intel® Xeon® E5-2697v4 (2.3GHz/18-core/45MB/145W) FIO Processor Kit NOTE: Ships with a High Performance Heatsink	817963-L21
NOTE: Ships with a High Performance Heatsink.	047055 1 04
HPE DL380 Gen9 Intel® Xeon® E5-2697Av4 (2.6GHz/16-core/40MB/145W) FIO Processor Kit	817955-L21

HPE DL380 Gen9 Intel® Xeon® E5-2695v4 (2.1GHz/18-core/45MB/120W) FIO Processor Kit  NOTE: Ships with a High Performance Heatsink.	817961-L21
HPE DL380 Gen9 Intel® Xeon® E5-2690v4 (2.6GHz/14-core/35MB/135W) FIO Processor Kit  NOTE: Ships with a High Performance Heatsink.	817959-L21
HPE DL380 Gen9 Intel® Xeon® E5-2683v4 (2.1GHz/16-core/40MB/120W) FIO Processor Kit  NOTE: Ships with a High Performance Heatsink.	817953-L21
HPE DL380 Gen9 Intel® Xeon® E5-2680v4 (2.4GHz/14-core/35MB/120W) FIO Processor Kit  NOTE: Ships with a High Performance Heatsink.	817951-L21
HPE DL380 Gen9 Intel® Xeon® E5-2660v4 (2.0GHz/14-core/35MB/105W) FIO Processor Kit	817945-L21
HPE DL380 Gen9 Intel® Xeon® E5-2650v4 (2.2GHz/12-core/30MB/105W) FIO Processor Kit	817943-L21
HPE DL380 Gen9 Intel® Xeon® E5-2640v4 (2.4GHz/10-core/25MB/90W) FIO Processor Kit	817937-L21
HPE DL380 Gen9 Intel® Xeon® E5-2667v4 (3.2GHz/8-core/25MB/135W) FIO Processor Kit	817947-L21
NOTE: Ships with a High Performance Heatsink.  HPE DL380 Gen9 Intel® Xeon® E5-2630v4 (2.2GHz/10-core/25MB/85W) FIO  Processor Kit	817933-L21
Performance Processors- E5-2600v3 series Processors	
HPE DL380 Gen9 Intel® Xeon® E5-2643v3 (3.4GHz/6-core/20MB/135W) FIO	719057-L21
Processor Kit	, 1, 00, 221
Processor Kit  NOTE: Ships with a High Performance Heatsink.	
Processor Kit  NOTE: Ships with a High Performance Heatsink.  HPE DL380 Gen9 Intel® Xeon® E5-2650v3 (2.3GHz/10-core/25MB/105W) FIO Processor Kit	719048-L21
Processor Kit  NOTE: Ships with a High Performance Heatsink.  HPE DL380 Gen9 Intel® Xeon® E5-2650v3 (2.3GHz/10-core/25MB/105W) FIO Processor Kit  HPE DL380 Gen9 Intel® Xeon® E5-2650Lv3 (1.8GHz/12-core/30MB/65W) FIO Processor Kit	719048-L21 719059-L21
Processor Kit  NOTE: Ships with a High Performance Heatsink.  HPE DL380 Gen9 Intel® Xeon® E5-2650v3 (2.3GHz/10-core/25MB/105W) FIO Processor Kit  HPE DL380 Gen9 Intel® Xeon® E5-2650Lv3 (1.8GHz/12-core/30MB/65W) FIO	719048-L21
Processor Kit  NOTE: Ships with a High Performance Heatsink.  HPE DL380 Gen9 Intel® Xeon® E5-2650v3 (2.3GHz/10-core/25MB/105W) FIO Processor Kit  HPE DL380 Gen9 Intel® Xeon® E5-2650Lv3 (1.8GHz/12-core/30MB/65W) FIO Processor Kit  HPE DL380 Gen9 Intel® Xeon® E5-2660v3 (2.6GHz/10-core/25MB/105W) FIO Processor Kit  HPE DL380 Gen9 Intel® Xeon® E5-2667v3 (3.2GHz/8-core/20MB/135W) FIO Processor Kit	719048-L21 719059-L21
Processor Kit  NOTE: Ships with a High Performance Heatsink.  HPE DL380 Gen9 Intel® Xeon® E5-2650v3 (2.3GHz/10-core/25MB/105W) FIO Processor Kit  HPE DL380 Gen9 Intel® Xeon® E5-2650Lv3 (1.8GHz/12-core/30MB/65W) FIO Processor Kit  HPE DL380 Gen9 Intel® Xeon® E5-2660v3 (2.6GHz/10-core/25MB/105W) FIO Processor Kit  HPE DL380 Gen9 Intel® Xeon® E5-2667v3 (3.2GHz/8-core/20MB/135W) FIO Processor Kit  NOTE: Ships with a High Performance Heatsink.	719048-L21 719059-L21 762764-L21 719056-L21
Processor Kit  NOTE: Ships with a High Performance Heatsink.  HPE DL380 Gen9 Intel® Xeon® E5-2650v3 (2.3GHz/10-core/25MB/105W) FIO Processor Kit  HPE DL380 Gen9 Intel® Xeon® E5-2650Lv3 (1.8GHz/12-core/30MB/65W) FIO Processor Kit  HPE DL380 Gen9 Intel® Xeon® E5-2660v3 (2.6GHz/10-core/25MB/105W) FIO Processor Kit  HPE DL380 Gen9 Intel® Xeon® E5-2667v3 (3.2GHz/8-core/20MB/135W) FIO Processor Kit  NOTE: Ships with a High Performance Heatsink.  HP DL380 Gen9 Intel® Xeon® E5-2670v3 (2.3GHz/12-core/30MB/120W) FIO Processor Kit	719048-L21 719059-L21 762764-L21
Processor Kit  NOTE: Ships with a High Performance Heatsink.  HPE DL380 Gen9 Intel® Xeon® E5-2650v3 (2.3GHz/10-core/25MB/105W) FIO Processor Kit  HPE DL380 Gen9 Intel® Xeon® E5-2650Lv3 (1.8GHz/12-core/30MB/65W) FIO Processor Kit  HPE DL380 Gen9 Intel® Xeon® E5-2660v3 (2.6GHz/10-core/25MB/105W) FIO Processor Kit  HPE DL380 Gen9 Intel® Xeon® E5-2667v3 (3.2GHz/8-core/20MB/135W) FIO Processor Kit  NOTE: Ships with a High Performance Heatsink.  HP DL380 Gen9 Intel® Xeon® E5-2670v3 (2.3GHz/12-core/30MB/120W) FIO Processor Kit  NOTE: Ships with a High Performance Heatsink.	719048-L21 719059-L21 762764-L21 719056-L21 719046-L21
Processor Kit  NOTE: Ships with a High Performance Heatsink.  HPE DL380 Gen9 Intel® Xeon® E5-2650v3 (2.3GHz/10-core/25MB/105W) FIO Processor Kit  HPE DL380 Gen9 Intel® Xeon® E5-2650Lv3 (1.8GHz/12-core/30MB/65W) FIO Processor Kit  HPE DL380 Gen9 Intel® Xeon® E5-2660v3 (2.6GHz/10-core/25MB/105W) FIO Processor Kit  HPE DL380 Gen9 Intel® Xeon® E5-2667v3 (3.2GHz/8-core/20MB/135W) FIO Processor Kit  NOTE: Ships with a High Performance Heatsink.  HP DL380 Gen9 Intel® Xeon® E5-2670v3 (2.3GHz/12-core/30MB/120W) FIO Processor Kit  NOTE: Ships with a High Performance Heatsink.  HPE DL380 Gen9 Intel® Xeon® E5-2680v3 (2.5GHz/12-core/30MB/120W) FIO Processor Kit	719048-L21 719059-L21 762764-L21 719056-L21
Processor Kit  NOTE: Ships with a High Performance Heatsink.  HPE DL380 Gen9 Intel® Xeon® E5-2650v3 (2.3GHz/10-core/25MB/105W) FIO Processor Kit  HPE DL380 Gen9 Intel® Xeon® E5-2650Lv3 (1.8GHz/12-core/30MB/65W) FIO Processor Kit  HPE DL380 Gen9 Intel® Xeon® E5-2660v3 (2.6GHz/10-core/25MB/105W) FIO Processor Kit  HPE DL380 Gen9 Intel® Xeon® E5-2667v3 (3.2GHz/8-core/20MB/135W) FIO Processor Kit  NOTE: Ships with a High Performance Heatsink.  HP DL380 Gen9 Intel® Xeon® E5-2670v3 (2.3GHz/12-core/30MB/120W) FIO Processor Kit  NOTE: Ships with a High Performance Heatsink.  HPE DL380 Gen9 Intel® Xeon® E5-2680v3 (2.5GHz/12-core/30MB/120W) FIO Processor Kit  NOTE: Ships with a High Performance Heatsink.	719048-L21 719059-L21 762764-L21 719056-L21 719046-L21
Processor Kit  NOTE: Ships with a High Performance Heatsink.  HPE DL380 Gen9 Intel® Xeon® E5-2650v3 (2.3GHz/10-core/25MB/105W) FIO Processor Kit  HPE DL380 Gen9 Intel® Xeon® E5-2650Lv3 (1.8GHz/12-core/30MB/65W) FIO Processor Kit  HPE DL380 Gen9 Intel® Xeon® E5-2660v3 (2.6GHz/10-core/25MB/105W) FIO Processor Kit  HPE DL380 Gen9 Intel® Xeon® E5-2667v3 (3.2GHz/8-core/20MB/135W) FIO Processor Kit  NOTE: Ships with a High Performance Heatsink.  HP DL380 Gen9 Intel® Xeon® E5-2670v3 (2.3GHz/12-core/30MB/120W) FIO Processor Kit  NOTE: Ships with a High Performance Heatsink.  HPE DL380 Gen9 Intel® Xeon® E5-2680v3 (2.5GHz/12-core/30MB/120W) FIO Processor Kit  NOTE: Ships with a High Performance Heatsink.  HPE DL380 Gen9 Intel® Xeon® E5-2683v3 (2.5GHz/12-core/35MB/120W) FIO Processor Kit  NOTE: Ships with a High Performance Heatsink.  HPE DL380 Gen9 Intel® Xeon® E5-2683v3 (2GHz/14-core/35MB/120W) FIO Processor Kit	719048-L21 719059-L21 762764-L21 719056-L21 719046-L21
Processor Kit  NOTE: Ships with a High Performance Heatsink.  HPE DL380 Gen9 Intel® Xeon® E5-2650v3 (2.3GHz/10-core/25MB/105W) FIO Processor Kit  HPE DL380 Gen9 Intel® Xeon® E5-2650Lv3 (1.8GHz/12-core/30MB/65W) FIO Processor Kit  HPE DL380 Gen9 Intel® Xeon® E5-2660v3 (2.6GHz/10-core/25MB/105W) FIO Processor Kit  HPE DL380 Gen9 Intel® Xeon® E5-2667v3 (3.2GHz/8-core/20MB/135W) FIO Processor Kit  NOTE: Ships with a High Performance Heatsink.  HP DL380 Gen9 Intel® Xeon® E5-2670v3 (2.3GHz/12-core/30MB/120W) FIO Processor Kit  NOTE: Ships with a High Performance Heatsink.  HPE DL380 Gen9 Intel® Xeon® E5-2680v3 (2.5GHz/12-core/30MB/120W) FIO Processor Kit  NOTE: Ships with a High Performance Heatsink.  HPE DL380 Gen9 Intel® Xeon® E5-2683v3 (2.5GHz/12-core/35MB/120W) FIO Processor Kit  NOTE: Ships with a High Performance Heatsink.  HPE DL380 Gen9 Intel® Xeon® E5-2683v3 (2.5GHz/14-core/35MB/120W) FIO Processor Kit  NOTE: Ships with a High Performance Heatsink.	719048-L21 719059-L21 762764-L21 719056-L21 762766-L21 719055-L21
Processor Kit  NOTE: Ships with a High Performance Heatsink.  HPE DL380 Gen9 Intel® Xeon® E5-2650v3 (2.3GHz/10-core/25MB/105W) FIO Processor Kit  HPE DL380 Gen9 Intel® Xeon® E5-2650Lv3 (1.8GHz/12-core/30MB/65W) FIO Processor Kit  HPE DL380 Gen9 Intel® Xeon® E5-2660v3 (2.6GHz/10-core/25MB/105W) FIO Processor Kit  HPE DL380 Gen9 Intel® Xeon® E5-2667v3 (3.2GHz/8-core/20MB/135W) FIO Processor Kit  NOTE: Ships with a High Performance Heatsink.  HP DL380 Gen9 Intel® Xeon® E5-2670v3 (2.3GHz/12-core/30MB/120W) FIO Processor Kit  NOTE: Ships with a High Performance Heatsink.  HPE DL380 Gen9 Intel® Xeon® E5-2680v3 (2.5GHz/12-core/30MB/120W) FIO Processor Kit  NOTE: Ships with a High Performance Heatsink.  HPE DL380 Gen9 Intel® Xeon® E5-2683v3 (2GHz/14-core/35MB/120W) FIO Processor Kit  NOTE: Ships with a High Performance Heatsink.  HPE DL380 Gen9 Intel® Xeon® E5-2683v3 (2GHz/14-core/35MB/120W) FIO Processor Kit  NOTE: Ships with a High Performance Heatsink.  HPE DL380 Gen9 Intel® Xeon® E5-2690v3 (2.6GHz/12-core/30MB/135W) FIO Processor Kit	719048-L21 719059-L21 762764-L21 719056-L21 719046-L21
Processor Kit  NOTE: Ships with a High Performance Heatsink.  HPE DL380 Gen9 Intel® Xeon® E5-2650v3 (2.3GHz/10-core/25MB/105W) FIO Processor Kit  HPE DL380 Gen9 Intel® Xeon® E5-2650Lv3 (1.8GHz/12-core/30MB/65W) FIO Processor Kit  HPE DL380 Gen9 Intel® Xeon® E5-2660v3 (2.6GHz/10-core/25MB/105W) FIO Processor Kit  HPE DL380 Gen9 Intel® Xeon® E5-2667v3 (3.2GHz/8-core/20MB/135W) FIO Processor Kit  NOTE: Ships with a High Performance Heatsink.  HP DL380 Gen9 Intel® Xeon® E5-2670v3 (2.3GHz/12-core/30MB/120W) FIO Processor Kit  NOTE: Ships with a High Performance Heatsink.  HPE DL380 Gen9 Intel® Xeon® E5-2680v3 (2.5GHz/12-core/30MB/120W) FIO Processor Kit  NOTE: Ships with a High Performance Heatsink.  HPE DL380 Gen9 Intel® Xeon® E5-2683v3 (2GHz/14-core/35MB/120W) FIO Processor Kit  NOTE: Ships with a High Performance Heatsink.  HPE DL380 Gen9 Intel® Xeon® E5-2680v3 (2.6GHz/14-core/35MB/120W) FIO Processor Kit  NOTE: Ships with a High Performance Heatsink.	719048-L21 719059-L21 762764-L21 719056-L21 762766-L21 719055-L21

**NOTE:** Ships with a High Performance Heatsink.

HPE DL380 Gen9 Intel® Xeon® E5-2697v3 (2.6GHz/14-core/35MB/145W) FIO 719054-L21 Processor Kit

**NOTE:** Ships with a High Performance Heatsink.

HPE DL380 Gen9 Intel® Xeon® E5-2698v3 (2.3GHz/16-core/40MB/135W) FIO 781913-L21 Processor Kit

NOTE: Ships with a High Performance Heatsink.

HPE DL380 Gen9 Intel® Xeon® E5-2699v3 (2.3GHz/18-core/45MB/145W) FIO 781915-L21 Processor Kit

NOTE: Ships with a High Performance Heatsink.

HPE DL380 Gen9 Intel® Xeon® E5-2687Wv3 (3.1GHz/10-core/25MB/160W) FIO 762768-L21

Processor Kit

NOTE: 2SFF rear drives are not supported with this processor in a 12LFF model.

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

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

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

NOTE: When v4 Processor is selected, then only PC4-2400T Memory Kit can be selected.

NOTE: When v3 Processor is selected, then only PC4-2133P Memory Kit can be selected.

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

#### **HPE Memory**

**NOTE:** Select one or more memory from below

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

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

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

**NOTE:** Kits described as LP include Low Power DIMMs. For more information on ProLiant Energy Efficient Features, see: <a href="http://www.hp.com/go/proliant-energy-efficient">http://www.hp.com/go/proliant-energy-efficient</a>.

**NOTE:** Depending on the memory configuration and processor model, the memory speed may run at 2400MHz, 2133MHz, 1866MHz, 1600MHz, or 1333MHz. Please see Memory Population Table or Online Memory Configuration Tool at: <a href="http://www.hp.com/go/ddr4config">http://www.hp.com/go/ddr4config</a>.

#### Registered DIMMs (RDIMMs) for E5-2600v3 Series

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

HP 32GB (1x32GB) Quad Rank x4 DDR4-2133 CAS-15-15-15 Load Reduced Memory 726722-B21

Kit
HP 16GB (1x16GB) Dual Rank x4 DDR4-2133 CAS-15-15 Load Reduced Memory 726720-B21

Kit

#### Registered DIMMs (RDIMMs) for E5-2600v4 Series

HP 8GB (1x8GB) Single Rank x8 DDR4-2400 CAS-17-17-17 Registered Memory Kit	805347-B21
HP 16GB (1x16GB) Single Rank x4 DDR4-2400 CAS-17-17-17 Registered Memory Kit	805349-B21
HPE 16GB (1x16GB) Dual Rank x4 DDR4-2400 CAS-17-17-17 Registered Memory Kit	836220-B21
HP 32GB (1x32GB) Dual Rank x4 DDR4-2400 CAS-17-17-17 Registered Memory Kit	805351-B21
Load Reduced DIMMs (LRDIMMs) for E5-2600v4 Series	
HPE 32GB (1x32GB) Dual Rank x4 DDR4-2400 CAS-17-17-17 Load Reduced Memory Kit	805353-B21
HPE 64GB (1x64GB) Quad Rank x4 DDR4-2400 CAS-17-17-17 Load Reduced Memory Kit	805358-B21
HPE 128GB (1x128GB) Octal Rank x4 DDR4-2400 CAS-20-18-18 Load Reduced Memory Kit	809208-B21

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

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

#### **HPE Flex Slot Platinum Hot-Plug Power Supplies**

HPE 500W Flex Slot Platinum Hot Plug Power Supply Kit	720478-B21
HPE 800W Flex Slot Platinum Hot Plug Power Supply Kit	720479-B21
HPE 800W Flex Slot Titanium Hot Plug Power Supply Kit	720482-B21
<b>NOTE:</b> Flex Slot Titanium power supplies support power efficiency of up to 96% and	
include a standard C-14 power inlet connector.	
HPE 800W Flex Slot Universal Hot Plug Power Supply Kit	720484-B21
<b>NOTE:</b> Flex Slot universal power supplies support power efficiency of up to 94% and	
support both 277VAC/380VDC power inputs.	
HPE 800W Flex Slot -48VDC Hot Plug Power Supply Kit	720480-B21
<b>NOTE:</b> Flex Slot -48VDC power supplies support power efficiency of up to 94%.	
HPE 1400W Flex Slot Platinum Plus Hot Plug Power Supply Kit	720620-B21
HPE 750W Flex Slot Hot Plug Battery Backup Module	738024-B21
NOTE: Flex Slot Battery Backup provides 750W output and 500W in paralleled	

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

**NOTE:** The above power supply options are all 80Plus Platinum-certified with an efficiency rating of up to 94%. Support for HPE Power Discovery Services is included with the 1400W Flex Slot option. Power specifications and technical content for all HPE Server power supplies can be found at:

http://www.hp.com/go/proliant/powersupply

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

**HPE Storage Controllers** 

NOTE: The embedded B140i controller will be used as the primary controller if no controller is selected from the list below. Embedded SATA controller can support up to 8 SATA hard drives. Cable Kit may be required.

#### **HPE Flexible Smart Array Controllers**

configuration.

HP Smart Array P440ar/2GB FBWC 12Gb 2-ports Int FIO SAS Controller NOTE: Provides support for up to 8 internal SAS/SATA drives without using a PCle slot.

749974-B21

<b>3</b>		
	NOTE: Includes the HP Smart Storage Battery.	
	HPE Smart Array Controllers	7/4072 024
	HP Smart Array P440/4GB FBWC 12Gb 1-port Int FIO SAS Controller  NOTE: Provides support for up to 8 internal SAS/SATA drives without using a PCle slot.	761872-B21
	NOTE: Includes the HP Smart Storage Battery.	
	HP Smart Array P840/4GB FBWC 12Gb 2-ports Int FIO SAS Controller NOTE: Includes the HP Smart Storage Battery.	761874-B21
	HPE Smart Host Bus Adapters	
	HP H240ar 12Gb 2-ports Int FIO Smart Host Bus Adapter  NOTE: Provides support for up to 8 internal SAS/SATA drives without using a PCIe slot.	749976-B21
	HPE Cable Options	
	HP DL380 Gen9 12LFF Rear 2SFF or 3LFF P840/440 SAS Cable Kit	783007-B21
	HP DL380 Gen9 2SFF Front SAS x4 Cable Kit <b>NOTE:</b> Required for front mount 2SFF to H240/P440ar, H240 or embedded B140i  SATA controller.	783008-B21
	HP DL380 Gen9 8SFF SAS Cable Kit  NOTE: Required for 8/16/24 SFF models for use with P840/440 controllers.	783009-B21
	HP DL380 Gen9 2SFF x8 Front Cable Kit  NOTE: Required for front/rear mount 2SFF to P440/840 PCIe controller.	785989-B21
	HP DL380 Gen9 12LFF SAS Cable Kit  NOTE: Required for 12LFF models with P440/840 PCIe controllers.	785991-B21
	HP DL380 Gen9 8SFF H240 Cable Kit  NOTE: Required for 8/16/24 SFF models for use with H240/P440ar, H240 PCle or embedded B140i SATA controller.	786092-B21
	HP DL380 Gen9 12LFF Smart HBA H240 SAS Cable Kit  NOTE: Required for 12LFF models with H240/P440ar, H240 or embedded B140i SATA controller.	786215-B21
BIOS Mode	HP Legacy FIO Mode Setting  NOTE: If selected, then B140i will not be supported and can no longer be a primary controller, therefore SAS internal controller must be selected to be the primary controller.	758959-B22
Controller State	HP FIO Enable Smart Array B140i Setting  NOTE: Must be selected when B140i is used as primary controller and RAID is desired.	784308-B21
	HP Manufacturing FIO Enable HBA Mode Setting <b>NOTE:</b> When selected if H240ar/H240 are used as the primary controller then RAID is not allowed.	792962-B21
HPE Unique Options	HP 2SFF Front Spec Perf FIO Mount  NOTE: May only be selected with 8SFF CTO Server and optical media cage kit and 2SFF Drive cage option. When this option is selected, a primary controlleris not required for the 8SFF CTO Server.	787945-B21
HPE Insight	HPE Insight Control	
Software	HPE Insight Control including 1yr 24x7 Support ProLiant ML/DL/BL-bundle Single Server FIO LTU	C6N36A
	HPE Insight Control including 1yr 24x7 Support ProLiant ML/DL/BL-bundle FIO E-LTU	C6N36ABE
HPE Converged	HPE OneView Advanced (with iLO Advanced)	
Infrastructure	HPE OneView for ProLiant DL Server including 3yr 24x7 Support FIO Bundle Physical 1-	E5Y43A

Management

server LTU

Software

HPE OneView Advanced (without HPE iLO Advanced)

HPE OneView w/o iLO including 3yr 24x7 Support 1-server FIO LTU

P8B31A

# Step 4: Choose Additional Options for Factory Integration from Core and Additional Options sections below

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

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

## HPE Unique Options

HP DL380 Gen9 NVMe 6 Solid State Drive Express Bay Enablement Kit 774741-B21

**NOTE:** This option provides support for up to 6NVMe drives, and can only be populated in BAY2 in SFF model only, can be used with Bay1 and Bay 3 populated. **NOTE:** The HPE DL380 Gen9 High Performance Fan Kit is required for NVMe support (719079-B21).

**NOTE:** The PCIe card in this enablement kit can only be populated in slot2 (primary) or slot 5 (secondary).

**NOTE:** For true x16 support with this option a secondary riser (719073-B21) is needed (second processor required).

**NOTE:** Kit includes Mylar film for Universal Media Bay (724865-B21) support to ensure optimal airflow.

NOTE: There are limitations on GPU support with the NVMe bay installed.

HP DL380 Gen9 Universal Media Bay Kit

**NOTE:** The HPE DL380 Gen9 Universal Media bay provides front VGA and 2xUSB 2.0; plus support for 2xSFF front drives (724864-B21) and ODD support (No included); and can only be located in Bay1 in either an 8SFF or 8+8SFF front end.

HP DL380 Gen9 Graphics Enablement Kit 719082-B21

**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.

HP DL380 Gen9 High Performance Fan Kit

**NOTE:** This kit is required for specific Ambient temperature environments, more

details here: <a href="http://www.hp.com/servers/Ashrae">http://www.hp.com/servers/Ashrae</a>.

**NOTE:** This kit is also required to support Passive GPUs.

**NOTE:** This kit provides max cooling for your Server.

HP DL380 Gen9 2SFF Front/Rear SAS/SATA Kit 724864-B21

**NOTE:** For 2SFF front the Universal Media Bay (724865-B21) is required. **NOTE:** 2SFF in the rear is only supported with a 24SFF (CTO chassis or field upgraded) or 12LFF (719061-B21) front end.

**NOTE:** Rear drives are only supported with the following processor characteristics: 145W, 22/18/16 Cores; 135W, 20/8/6/4 Cores; 120W, 18/16/14 Cores; 105W, 14/12 Cores; 90W, 10 Cores; 85W, 10/8/6/4 Cores; 65W, 14 Cores and 55W, 10 Cores, 160W v4 Processor.

HP DL380 Gen9 3LFF Rear SAS/SATA Kit

768856-B21

724865-B21

719079-B21

**NOTE:** This is only supported in the 12LFF model

**NOTE:** 3LFF rear drives will consume the 2nd riser expansion slot.

**NOTE:** 3LFF Rear drives are only supported with the following processor characteristics: 145W, 22/18/16 Cores; 135W, 20/8/6/4 Cores; 120W, 18/16/14

Cores; 105W, 14/12 Cores; 90W, 10 Cores; 85W, 10/8/6/4 Cores; 65W, 14 Cores and 55W, 10 Cores, 160w v4 Processor.

	HP DL380 Gen9 Primary 2 Slot GPU Ready Riser Kit	719076-B21
	Slot1: 1x Gen3 x16 FH/FL, 1xGen3 x8 FH/HL.	
	NOTE: This replaces the standard Primary riser in slot1.	
	HP DL380 Gen9 Secondary 3 Slot GPU Ready Riser Kit	719073-B21
	Slot2: 2xGen3 x16 FH/FL, 1xGen3 x8 FH/HL.	=100/= 501
	HPE DL380 Gen9 8SFF Bay1 Cage/Backplane Kit	719067-B21
	NOTE: To add an additional 8SFF drive cage in Bay1.	
	<b>NOTE:</b> To get to 16SFF total please populate bay 2 with 768857-B21 (from an 8SFF starting point).	
	NOTE: This ships with 6 High Efficiency Fans.	
	NOTE: Selecting this option does not allow you to select the Universal Media Bay.	
	HP DL380 Gen9 Additional 8SFF Bay2 Cage/Backplane Kit	768857-B21
	<b>NOTE:</b> 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.	
	HP 12Gb SAS Expander Card with Cables for DL380 Gen9	727250-B21
	NOTE: SAS expander to enable 24SFF field upgrade.	
	<b>NOTE:</b> Primary population in slot2 or 3 of the Primary Riser.	
	HP DL380 Gen9 Systems Insight Display Kit	768900-B21
	<b>NOTE:</b> The Systems Insight Display no longer ships as standard but is available as a Factory Integrated or field upgrade option.	
	HP DL380 Gen9 Rear Serial Port and Enablement Kit	768896-B21
	HPE DL380 12Gb SAS Expander Card Riser 1 Cable Bundle Kit	839786-B21
	<b>NOTE:</b> Cable kit required to support the SAS Expander (727250-B21) in the secondary riser (719073-B21) without the second processor.	
	HPE DL380 Gen9 P440ar/H240ar Riser 2 SAS Expander Kit	844115-B21
	<b>NOTE:</b> Cable kit required to support the SAS Expander (727250-B21) in the secondary riser (719073-B21) with the P840ar or P440ar.	
LIDE Drossess	FE 2400v/ corice Processors	
HPE Processors	E5-2600v4 series Processors	0470/4 004
	HPE DL380 Gen9 Intel® Xeon® E5-2650Lv4 (1.7GHz/14-core/35MB/65W) Processor Kit	817941-B21
	HPE DL380 Gen9 Intel® Xeon® E5-2630Lv4 (1.8GHz/10-core/25MB/55W) Processor Kit	817931-B21
	HPE DL380 Gen9 Intel® Xeon® E5-2609v4 (1.7GHz/8-core/20MB/85W) Processor Kit	817925-B21
	NOTE: This processor does not support Hyper-Threading.	
	HPE DL380 Gen9 Intel® Xeon® E5-2603v4 (1.7GHz/6-core/15MB/85W) Processor Kit	817923-B21
	NOTE: This processor does not support Hyper-Threading.	
	HPE DL380 Gen9 Intel® Xeon® E5-2637v4 (3.5GHz/4-core/15MB/135W) Processor Kit	817935-B21
	NOTE: Ships with a High Performance Heatsink.	
	HPE DL380 Gen9 Intel® Xeon® E5-2623v4 (2.6GHz/4-core/10MB/85W) Processor Kit	817929-B21
	HPE DL380 Gen9 Intel® Xeon® E5-2620v4 (2.1GHz/8-core/20MB/85W) Processor Kit	817927-B21
	HPE DL380 Gen9 Intel® Xeon® E5-2643v4 (3.4GHz/6-core/20MB/135W) Processor Kit	817939-B21
	HPE DL380 Gen9 Intel® Xeon® E5-2687Wv4 (3.0GHz/12-core/30MB/160W)	817957-B21 Page 34

Processor Kit	
NOTE: Ships with a High Performance Heatsink.	
HPE DL380 Gen9 Intel® Xeon® E5-2699v4 (2.2GHz/22-core/55MB/145W) Processor Kit	817967-B21
NOTE: Ships with a High Performance Heatsink.	
HPE DL380 Gen9 Intel® Xeon® E5-2698v4 (2.2GHz/20-core/50MB/135W) Processor Kit	817965-B21
NOTE: Ships with a High Performance Heatsink.	
HPE DL380 Gen9 Intel® Xeon® E5-2697v4 (2.3GHz/18-core/45MB/145W) Processor Kit	817963-B21
NOTE: Ships with a High Performance Heatsink.	
HPE DL380 Gen9 Intel® Xeon® E5-2697Av4 (2.6GHz/16-core/40MB/145W) Processor Kit	817955-B21
NOTE: Ships with a High Performance Heatsink.	
HPE DL380 Gen9 Intel® Xeon® E5-2695v4 (2.1GHz/18-core/45MB/120W) Processor Kit	817961-B21
NOTE: Ships with a High Performance Heatsink.	
HPE DL380 Gen9 Intel® Xeon® E5-2690v4 (2.6GHz/14-core/35MB/135W) Processor Kit	817959-B21
NOTE: Ships with a High Performance Heatsink.	0.1-0
HPE DL380 Gen9 Intel® Xeon® E5-2683v4 (2.1GHz/16-core/40MB/120W) Processor Kit	817953-B21
NOTE: Ships with a High Performance Heatsink.	0.1-0-1-001
HPE DL380 Gen9 Intel® Xeon® E5-2680v4 (2.4GHz/14-core/35MB/120W) Processor Kit	817951-B21
NOTE: Ships with a High Performance Heatsink.	0.1-0.1
HPE DL380 Gen9 Intel® Xeon® E5-2660v4 (2.0GHz/14-core/35MB/105W) Processor Kit	817945-B21
HPE DL380 Gen9 Intel® Xeon® E5-2650v4 (2.2GHz/12-core/30MB/105W) Processor Kit	817943-B21
HPE DL380 Gen9 Intel® Xeon® E5-2640v4 (2.4GHz/10-core/25MB/90W) Processor Kit	817937-B21
NOTE: Ships with a High Performance Heatsink.	
HPE DL380 Gen9 Intel® Xeon® E5-2667v4 (3.2GHz/8-core/25MB/135W) Processor Kit	817947-B21
NOTE: Ships with a High Performance Heatsink.	
HPE DL380 Gen9 Intel® Xeon® E5-2630v4 (2.2GHz/10-core/25MB/85W) Processor Kit	817933-B21
HPE DL380 Gen9 Intel® Xeon® E5-2699Av4 (2.4GHz/22-core/55MB/145W) Processor Kit	871026-B21
E5-2600v3 series Processors	
HPE DL380 Gen9 Intel® Xeon® E5-2609v3 (1.9GHz/6-core/15MB/85W) Processor Kit NOTE: This processor does not support Hyper-Threading.	719052-B21
HPE DL380 Gen9 Intel® Xeon® E5-2603v3 (1.6GHz/6-core/15MB/85W) Processor Kit	719053-B21
NOTE: This processor does not support Hyper-Threading.  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) Processor Kit HPE DL380 Gen9 Intel® Xeon® E5-2637v3 (3.5GHz/4-core/15MB/135W) Processor Kit	719049-B21 719058-B21
NOTE: Ships with a High Performance Heatsink.  HPE DL380 Gen9 Intel® Xeon® E5-2630v3 (2.4GHz/8-core/20MB/85W) Processor Kit  HPE DL380 Gen9 Intel® Xeon® E5-2623v3 (3GHz/4-core/10MB/105W) Processor Kit  HPE DL380 Gen9 Intel® Xeon® E5-2620v3 (2.4GHz/6-core/15MB/85W) Processor Kit  HPE DL380 Gen9 Intel® Xeon® E5-2687Wv3 (3.1GHz/10-core/25MB/160W)  Processor Kit	719050-B21 779556-B21 719051-B21 762768-B21
NOTE: Ships with a High Performance Heatsink.	
<b>NOTE:</b> This processor is not supported in a 12LFF or 24SFF Model + Rear drive.	
HPE DL380 Gen9 Intel® Xeon® E5-2699v3 (2.3GHz/18-core/45MB/145W) Processor Kit	781915-B21
NOTE: Ships with a High Performance Heatsink.	
HPE DL380 Gen9 Intel® Xeon® E5-2698v3 (2.3GHz/16-core/40MB/135W) Processor Kit	781913-B21
NOTE: Ships with a High Performance Heatsink.	
HPE DL380 Gen9 Intel® Xeon® E5-2697v3 (2.6GHz/14-core/35MB/145W) Processor Kit	719054-B21
NOTE: Ships with a High Performance Heatsink.	
HPE DL380 Gen9 Intel® Xeon® E5-2695v3 (2.3GHz/14-core/35MB/120W) Processor Kit	762760-B21
NOTE: Ships with a High Performance Heatsink.	
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 DL380 Gen9 Intel® Xeon® E5-2683v3 (2GHz/14-core/35MB/120W) Processor Kit	719055-B21
NOTE: Ships with a High Performance Heatsink.	
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® E5-2670v3 (2.3GHz/12-core/30MB/120W) Processor Kit	719046-B21
NOTE: Ships with a High Performance Heatsink.	
HPE DL380 Gen9 Intel® Xeon® E5-2660v3 (2.6GHz/10-core/25MB/105W) Processor Kit	762764-B21
HPE DL380 Gen9 Intel® Xeon® E5-2650Lv3 (1.8GHz/12-core/30MB/65W) Processor Kit	719059-B21
HPE DL380 Gen9 Intel® Xeon® E5-2650v3 (2.3GHz/10-core/25MB/105W) Processor Kit	719048-B21
HPE DL380 Gen9 Intel® Xeon® E5-2667v3 (3.2GHz/8-core/20MB/135W) Processor Kit	719056-B21
NOTE: Ships with a High Performance Heatsink.	
HPE DL380 Gen9 Intel® Xeon® E5-2643v3 (3.4GHz/6-core/20MB/135W) Processor Kit	719057-B21
NOTE: Ships with a High Performance Heatsink.	

NOTE: Up to 2 processors supported. Performance and Energy Star Model configurations include two

processors.

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

**NOTE:** The xxxxxx-B21 is the 2nd processor and ships with 2 additional FANs for factory of field installation.

**NOTE:** Double wide PCIe cards are only supported in risers with the Processors leveraging the High Performance Heatsink. For Processors requiring double wide GPU support please order the GPU enablement kit (719082-B21).

**NOTE:** Mixing of E5-2600v3 and E5-2600v4 Processors is not supported.

**NOTE:** Field upgrade from E5-2600v3 to E5-2600v4 is supported.

#### **Memory Selection**

To streamline the configuration process for HPE ProLiant Gen9 servers and to provide the best product availability, HPE recommends memory from the list located here: <a href="http://www.hpe.com/products/recommend">http://www.hpe.com/products/recommend</a>.

Best product availability is limited to US, Canada, and Latin America at this time.

#### **HPE Memory**

#### Registered DIMMs (RDIMMs) for E5-2600v3 Series

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

HP 4GB (1x4GB) Single Rank x8 DDR4-2133 CAS-15-15 Registered Memory Kit	726717-B21
HP 8GB (1x8GB) Single Rank x4 DDR4-2133 CAS-15-15 Registered Memory Kit	726718-B21
HP 8GB (1x8GB) Dual Rank x8 DDR4-2133 CAS-15-15 Registered Memory Kit	759934-B21
HP 16GB (1x16GB) Dual Rank x4 DDR4-2133 CAS-15-15-15 Registered Memory Kit	726719-B21
HP 32GB (1x32GB) Dual Rank x4 DDR4-2133 CAS-15-15-15 Registered Memory Kit	728629-B21

NOTE: Depending on Processor selected this memory will run at 1600, 1866 or 2133MHz.

**NOTE:** Mixing of DIMM types is not supported.

NOTE: Mixing of 2133 and 2400MHz DIMMs is not supported.

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

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

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

**NOTE:** Depending on Processor selected this memory will run at 1600, 1866 or 2133MHz.

**NOTE:** Mixing of DIMM types is not supported. **NOTE:** Mixing of 2133 and 2400MHz DIMMs is not supported.

#### Registered DIMMs (RDIMMs) for E5-2600v4 Series

**NOTE:** The following memory is supported by the E5-2600v4 series Processor only.

HP 8GB (1x8GB) Single Rank x8 DDR4-2400 CAS-17-17-17 Registered Memory Kit	805347-B21
HP 16GB (1x16GB) Single Rank x4 DDR4-2400 CAS-17-17-17 Registered Memory Kit	805349-B21
HPE 16GB (1x16GB) Dual Rank x4 DDR4-2400 CAS-17-17-17 Registered Memory Kit	836220-B21
HP 32GB (1x32GB) Dual Rank x4 DDR4-2400 CAS-17-17-17 Registered Memory Kit	805351-B21

NOTE: Depending on Processor selected this memory will run at 1866, 2133 or 2400MHz.

**NOTE:** Mixing of DIMM types is not supported.

NOTE: Mixing of 2133 and 2400MHz DIMMs is not supported.

#### Load Reduced DIMMs (LRDIMMs) for E5-2600v4 Series

NOTE: The following memory is supported by the E5-2600v4 series Processor only.

HPE 32GB (1x32GB) Dual Rank x4 DDR4-2400 CAS-17-17 Load Reduced Memory 805353-B21

Kit

HPE 64GB (1x64GB) Quad Rank x4 DDR4-2400 CAS-17-17-17 Load Reduced 805358-B21

Memory Kit

HPE 128GB (1x128GB) Octal Rank x4 DDR4-2400 CAS-20-18-18 Load Reduced 809208-B21

Memory Kit

NOTE: Depending on Processor selected this memory will run at 1866, 2133 or 2400MHz.

**NOTE:** These LRDIMMs do not support NVDIMMs. **NOTE:** Mixing of DIMM types is not supported.

NOTE: Mixing of 2133 and 2400MHz DIMMs is not supported.

**NOTE:** Mixing the 128GB LRDIMM with other capacities is not supported.

#### **HPE Persistent Memory (NVDIMM)**

NOTE: The following memory is supported by the E5-2600v4 series Processor only.

HPE 8GB NVDIMM Single Rank x4 DDR4-2133 Module 782692-B21

NOTE: NVDIMMs are only supported with E5-2600v4 processors, excluding field upgrades from E5-2600v3 to E5-2600v4.

**NOTE:** A maximum of 16 NVDIMMs supported.

**NOTE:** Can only be mixed with RDIMMs.

NOTE: Depending on Processor selected this memory will run at 2133MHz maximum.

#### HP 9.5mm SATA DVD-ROM JackBlack Gen9 Optical Drive **HPE Optical Drives**

726536-B21

NOTE: The Universal Media Bay (724865-B21) is required for this option.

HP 9.5mm SATA DVD-RW JackBlack G9 Optical Drive 726537-B21

**NOTE:** The Universal Media Bay (724865-B21) is required for this option.

HP Mobile USB Non Leaded System DVD RW Drive 701498-B21

**NOTE:** This is only supported on USB 3.0 ports.

#### **HPE Drives** SAS Hot Plug SFF (2.5-inch) Enterprise (ENT) Drives

HPE 1.8TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty 512e Digitally Signed 872481-B21 Firmware HDD

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

Drive

HPE 1.2TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware 872479-B21

HDD

HP 1.2TB 12G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive 781518-B21

HPE 900GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty DS Digitally Signed 870759-B21 Firmware HDD

HPE 900GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty 512e Digitally Signed

870765-B21 Firmware HDD

HP 900GB 12G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive 785069-B21 HPE 600GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware 870757-B21

**HDD** 

870763-B21

### **Core Options**

Firmware HDD	8/U/03-B2I
HPE 600GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	872477-B21
HP 600GB 12G SAS 15K rpm SFF (2.5-inch) SC 512e Enterprise 3yr Warranty Hard Drive	748387-B21
HP 600GB 12G SAS 15K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	759212-B21
HP 600GB 12G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	781516-B21
HP 450GB 12G SAS 15K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	759210-B21
HPE 300GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	870753-B21
HPE 300GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	872475-B21
HP 300GB 12G SAS 15K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	759208-B21
HP 300GB 12G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	785067-B21
HP 146GB 6G SAS 15K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	652605-B21
SAS Hot Plug SFF (2.5-inch) Midline (MDL) Drives	
HP 2TB 12G SAS 7.2K rpm SFF (2.5-inch) SC 512e 1yr Warranty Hard Drive	765466-B21
HP 1TB 12G SAS 7.2K rpm SFF (2.5-inch) SC 512e 1yr Warranty Hard Drive	765464-B21
HPE 1TB 12G SAS 7.2K rpm SFF (2.5in) SC Midline 1yr Warranty Hard Drive	832514-B21
SAS Hot Plug LFF (3.5-inch) Enterprise (ENT) Drives	
HP 600GB 12G SAS 15K rpm LFF (3.5-inch) SC Converter Enterprise 3yr Warranty Hard Drive	765424-B21
HP 450GB 12G SAS 15K rpm LFF (3.5-inch) SC Converter Enterprise 3yr Warranty Hard Drive	737394-B21
HP 300GB 12G SAS 15K rpm LFF (3.5-inch) SC Converter Enterprise 3yr Warranty Hard Drive	737261-B21
SAS Hot Plug LFF (3.5-inch) Midline (MDL) Drives	
HPE 10TB 12G SAS 7.2K rpm LFF (3.5in) 512e SC Midline 1yr Warranty Hard Drive	857644-B21
HPE 8TB 12G SAS 7.2K rpm LFF (3.5in) 512e SC Midline 1yr Warranty Hard Drive	861590-B21
HPE 8TB 12G SAS 7.2K rpm LFF (3.5in) 512e SC Midline 1yr Warranty Hard Drive	819201-B21
HP 8TB 12G SAS 7.2K rpm LFF (3.5-inch) SC 512e Helium 1yr Warranty Hard Drive	793703-B21
HPE 6TB 12G SAS 7.2K rpm LFF (3.5in) SC Midline 1yr Warranty Hard Drive	846514-B21
HP 6TB 12G SAS 7.2K rpm LFF (3.5-inch) SC 512e Helium 1yr Warranty Hard Drive	793699-B21
HP 6TB 12G SAS 7.2K rpm LFF (3.5-inch) SC Midline 512e 1yr Warranty Hard Drive	765259-B21
HPE 6TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e Digitally Signed Firmware HDD	861754-B21
HP 6TB 12G SAS 7.2K rpm LFF (3.5-inch) SC 512e Performance 1yr Warranty Hard Drive	793671-B21
HP 4TB 12G SAS 7.2K rpm LFF (3.5-inch) SC Midline 512e 1yr Warranty Hard Drive	765257-B21
HPE 4TB 12G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	818367-B21
HPE 4TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e Digitally Signed Firmware HDD	861756-B21
HP 4TB 12G SAS 7.2K rpm LFF (3.5-inch) SC 512e Performance 1yr Warranty Hard Drive	793669-B21
HPE 3TB 12G SAS 7.2K rpm LFF (3.5in) SC Midline 1yr Warranty Hard Drive	846528-B21
HPE 2TB 12G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	818365-B21

HPE 600GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty 512e Digitally Signed

846524-B21

### **Core Options**

HP 2TB 6G SATA 7.2K rpm SFF (2.5-inch) SC 512e 1yr Warranty Hard Drive	765455-B21
HP 1TB 6G SATA 7.2K rpm SFF (2.5-inch) SC 512e 1yr Warranty Hard Drive	765453-B21
HP 1TB 6G SATA 7.2K rpm SFF (2.5-inch) SC Midline 1yr Warranty Hard Drive	655710-B21
SATA Hot Plug LFF (3.5-inch) Midline (MDL) Drives	
HPE 10TB 6G SATA 7.2K rpm LFF (3.5in) 512e SC Midline 1yr Warranty Hard Drive	857648-B21
HPE 8TB 6G SATA 7.2K rpm LFF (3.5in) 512e SC Midline 1yr Warranty Hard Drive	861594-B21
HPE 8TB 6G SATA 7.2K rpm LFF (3.5in) 512e SC Midline 1yr Warranty Hard Drive	819203-B21
HPE 6TB 6G SATA 7.2K rpm LFF (3.5in) SC Midline 1yr Warranty Hard Drive	846510-B21
HP 6TB 6G SATA 7.2K rpm LFF (3.5-inch) SC 512e Helium 1yr Warranty Hard Drive	793683-B21
HPE 6TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e Digitally Signed Firmware HDD	861750-B21
HP 6TB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 512e 1yr Warranty Hard Drive	765255-B21
HP 6TB 6G SATA 7.2K rpm LFF (3.5-inch) SC 512e Performance 1yr Warranty Hard Drive	793667-B21
HPE 4TB 6G SATA 7.2K rpm LFF (3.5in) SC Midline 1yr Warranty Hard Drive	861678-B21
HP 4TB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 512e 1yr Warranty Hard Drive	765253-B21
HPE 4TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e Digitally Signed Firmware HDD	861752-B21
HP 4TB 6G SATA 7.2K rpm LFF (3.5-inch) SC 512e Performance 1yr Warranty Hard Drives	793665-B21
HPE 3TB 6G SATA 7.2K rpm LFF (3.5in) SC Midline 1yr Warranty Hard Drive	861693-B21
HPE 2TB 6G SATA 7.2K rpm LFF (3.5in) SC Midline 1yr Warranty Hard Drive	861676-B21
HPE 1TB 6G SATA 7.2K rpm LFF (3.5in) SC Midline 1yr Warranty Hard Drive	861691-B21
HP 500GB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	658071-B21
SSD Selection	
To streamline the configuration process for HPE ProLiant Gen9 servers and to provide the best product availability, HPE recommends SSDs from the list located here:	
http://www.hpe.com/products/recommend.  Best product availability is limited to US, Canada, and Latin America at this time.	
To further assist with configuration, HPE also offers an SSD Selector Tool located here:	
http://ssd.hpe.com	
12G SAS Hot Plug SFF (2.5-inch) SC Write Intensive Solid State Drives	0///72 D24
HPE 1.6TB 12G SAS Write Intensive-1 SFF (2.5in) SC 3yr Wty Solid State Drive	846432-B21
HPE 800GB 12G SAS Write Intensive-1 SFF (2.5in) SC 3yr Wty Solid State Drive	846430-B21
12G SAS Mixed Use Hot Plug SFF (2.5-inch) Solid State Drives	0005/7 004
HPE 3.2TB 12G SAS Mixed Use-3 SFF 2.5-in SC 3yr Wty Solid State Drive	822567-B21
HPE 1.6TB 12G SAS Mixed Use-1 SFF (2.5in) SC 3yr Wty Solid State Drive	846436-B21
HPE 1.6TB 12G SAS Mixed Use-3 SFF 2.5-in SC 3yr Wty Solid State Drive	822563-B21
HPE 800GB 12G SAS Mixed Use-1 SFF (2.5in) SC 3yr Wty Solid State Drive	846434-B21
HPE 800GB 12G SAS Mixed Use-3 SFF 2.5-in SC 3yr Wty Solid State Drive	822559-B21
HPE 400GB 12G SAS Mixed Use-3 SFF 2.5-in SC 3yr Wty Solid State Drive	822555-B21
6G SATA Hot Plug RI-3 SFF (2.5-inch) SC Solid State Drives	04::
HPE 3.84TB 12G SAS Read Intensive-3 SFF 2.5-in SC 3yr Wty Solid State Drive	816576-B21
12G SAS Hot Plug SFF (2.5-inch) Enterprise Mainstream Solid State Drives	
	Pane 4N

HPE 1TB 12G SAS 7.2K rpm LFF (3.5in) SC Midline 1yr Warranty Hard Drive

SATA Hot Plug SFF (2.5-inch) Midline (MDL) Drives

HP 1.92TB 12G SAS Read Intensive SFF 2.5-in SC 3yr Wty Solid State Drive	802891-B21
HP 1.6TB 12G SAS Mainstream Endurance SFF 2.5-in ENT Mainstream SC 3yr Wty H2 Solid State Drive	779176-B21
HP 800GB 12G SAS Write Intensive SFF 2.5-in SC 3yr Wty Solid State Drive	802586-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
HP 200GB 12G SAS Write Intensive SFF 2.5-in SC 3yr Wty Solid State Drive	802578-B21
HP 400GB 12G SAS Write Intensive SFF 2.5-in SC 3yr Wty Solid State Drive	802582-B21
12G SAS Hot Plug SFF (2.5-inch) Enterprise Value Solid State Drives	
HP 1.6TB 12G SAS Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive	762263-B21
HP 800GB 12G SAS Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive	762261-B21
HP 800GB 12G SAS Value Endurance LFF 3.5-in SC Enterprise Value 3yr Wty Solid State Drive	762270-B21
12G SAS Hot Plug LFF (3.5-inch) Enterprise Value Solid State Drives	
HP 1.6TB 12G SAS Value Endurance LFF 3.5-in SC Enterprise Value 3yr Wty Solid State Drive	762272-B21
6G SATA Hot Plug SFF Value Endurance (2.5-inch) Enterprise Value M1 Solid State Drives	
HP 480GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty M1 Solid State Drive	764927-B21
6G SATA Hot Plug SFF (2.5-inch) SC Read Intensive Solid State Drives	
HPE 3.8TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	868830-B21
HP 3.84TB 6G SATA Read Intensive-3 SFF 2.5-in SC 3yr Wty Solid State Drive	816929-B21
HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	868826-B21
HPE 1.92TB 6G SATA Read Intensive SFF (2.5in) SC 1yr Warranty Solid State Drive	871770-B21
HPE 1.6TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	869386-B21
HP 1.6TB 6G SATA Read Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804605-B21
HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	869384-B21
HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	868822-B21
HPE 960GB 6G SATA Read Intensive SFF (2.5in) SC 1yr Warranty Solid State Drive	871768-B21
HP 800GB 6G SATA Read Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804599-B21
HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	869378-B21
	869378-B21 868818-B21
SSD HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware	

HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	869376-B21
HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty SSD	872853-B21
HP 240GB 6G SATA Read Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804587-B21
HPE 150GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware	869374-B21
SSD	
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 SFF (2.5-inch) SC Write Intensive Solid State Drives	
HPE 1.6TB 6G SATA Write Intensive-2 SFF 2.5-in SC 3yr Wty Digitally Signed Firmware SSD	872363-B21
NOTE: There will be delayed availability on this drive.	
HP 1.2TB 6G SATA Write Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804677-B21
HPE 800GB 6G SATA Write Intensive-2 SFF 2.5-in SC 3yr Wty Digitally Signed Firmware SSD	872359-B21
NOTE: There will be delayed availability on this drive.	
HP 800GB 6G SATA Write Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804671-B21
HPE 400GB 6G SATA Write Intensive-2 SFF 2.5-in SC 3yr Wty Digitally Signed Firmware SSD	872355-B21
NOTE: There will be delayed availability on this drive.	
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 Hot Plug SFF (2.5-inch) SC Mixed Use Solid State Drives	
HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	872352-B21
NOTE: There will be delayed availability on this drive.	
HP 1.6TB 6G SATA Mixed Use-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804631-B21
HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	872348-B21
NOTE: There will be delayed availability on this drive.	
HP 800GB 6G SATA Mixed Use-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804625-B21
HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	872344-B21
NOTE: There will be delayed availability on this drive.	
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
6G SATA Hot Plug LFF (3.5-inch) SC Read Intensive Solid State Drives	
HPE 1.6TB SATA 6G Read Intensive LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	869388-B21
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
HPE 480GB SATA 6G Read Intensive LFF (3.5in) SCC 3yr Wty Digitally Signed	869380-B21
Firmware SSD	
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 Hot Plug LFF (3.5-inch) SC Write Intensive Solid State Drives	
HPE 1.6TB 6G SATA Write Intensive-2 LFF 2.5-in SC 3yr Wty Digitally Signed Firmware	872365-B21

SSD **NOTE:** There will be delayed availability on this drive. 804680-B21 HP 1.2TB 6G SATA Write Intensive-2 LFF 3.5-in SCC 3yr Wty Solid State Drive HPE 800GB 6G SATA Write Intensive-2 LFF 2.5-in SC 3yr Wty Digitally Signed 872361-B21 Firmware SSD NOTE: There will be delayed availability on this drive. HP 800GB 6G SATA Write Intensive-2 LFF 3.5-in SCC 3yr Wty Solid State Drive 804674-B21 HPE 400GB 6G SATA Write Intensive-2 LFF 2.5-in SC 3yr Wty Digitally Signed 872357-B21 Firmware SSD NOTE: There will be delayed availability on this drive. 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 6G SATA Hot Plug LFF (3.5-inch) SC Mixed Use Solid State Drives HP 1.6TB 6G SATA Mixed Use-2 LFF 3.5-in SCC 3yr Wty Solid State Drive 804634-B21 HPE 960GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware 872350-B21 SSD **NOTE:** There will be delayed availability on this drive. HP 800GB 6G SATA Mixed Use-2 LFF 3.5-in SCC 3yr Wty Solid State Drive 804628-B21 HPE 480GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware 872346-B21 SSD **NOTE:** There will be delayed availability on this drive. 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 HPE NVMe PCIe Read Intensive SFF (2.5 inch) Solid State Drives HP 2TB NVMe PCIe Read Intensive SFF 2.5-in SC2 3yr Wty Solid State Drive 764908-B21 HP 1.2TB NVMe PCle Read Intensive SFF 2.5-in SC2 3yr Wty Solid State Drive 764906-B21 HP 400GB NVMe PCle Read Intensive SFF 2.5-in SC2 3yr Wty Solid State Drive 764904-B21 **NOTE:** With NVMe support only 1xDouble Wide Graphics card is supported. HPE NVMe PCIe Mixed Use SFF (2.5 inch) Solid State Drives HP 2TB NVMe PCle Mixed Use SFF 2.5-in SC2 3yr Wty Solid State Drive 765044-B21 HP 1.6TB NVMe PCle Mixed Use SFF 2.5-in SC2 3yr Wty Solid State Drive 765038-B21 HP 800GB NVMe PCIe Mixed Use SFF 2.5-in SC2 3yr Wty Solid State Drive 765036-B21 HP 400GB NVMe PCIe Mixed Use SFF 2.5-in SC2 3yr Wty Solid State Drive 765034-B21 **NOTE:** With NVMe support only 1xDouble Wide Graphics card is supported. HPE NVMe PCIe Write Intensive SFF (2.5-inch) Solid State Drives HP 2TB NVMe PCIe Write Intensive SFF 2.5-in SC2 3yr Wty Solid State Drive 764894-B21 HP 1.6TB NVMe PCIe Write Intensive SFF 2.5-in SC2 3yr Wty Solid State Drive 764892-B21 HP 800GB NVMe PCIe Write Intensive SFF 2.5-in SC2 3yr Wty Solid State Drive 736939-B21 HP 400GB NVMe PCIe Write Intensive SFF 2.5-in SC2 3yr Wty Solid State Drive 736936-B21 NOTE: The NVMe CTO chassis (810393-B21) or the NVMe Express Bay Enablement kit (774741-B21) are required to support these drives. NOTE: HPE has qualified the NVMe drive portfolio using the Operating System inbox drivers, full detail on the HPE Solid State Drive QuickSpecs. **NOTE:** With NVMe support only 1xDouble Wide Graphics card is supported. M.2 SSD

HPE Dual 340GB Read Intensive-2 Solid State M.2 Enablement Kit for ProLiant ML/DL

835565-B21

Servers

HPE 340GB Read Intensive-2 Solid State M.2 Enablement Kit for ProLiant ML/DL 835563-B21

Servers

HP Dual 120GB Value Endurance Solid State M.2 Enablement Kit for ProLiant ML/DL 777894-B21

Servers

HP 120GB Value Endurance Solid State M.2 Enablement Kit for ProLiant ML/DL Servers 788028-B21

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

**NOTE:** M.2 supports Software RAID only.

NOTE: No HPE Flexible Smart Array supported.

#### Hard Drive Blank Kits

HP Large Form Factor Hard Drive Blank Kit

666986-B21

HP Small Form Factor Hard Drive Blank Kit

666987-B21

#### **Hard Drive Kits**

HP DL380 Gen9 NVMe 6 Solid State Drive Express Bay Enablement Kit 774741-B21

**NOTE:** This option provides support for up to 6NVMe drives, and can only be populated in BAY2 in SFF chassis only, can be used with Bay1 and Bay 3 populated.

**NOTE:** The HPE DL380 Gen9 High Performance Fan Kit is required for NVMe support (719079-B21).

**NOTE:** The PCIe card in this enablement kit can only be populated in slot2 (primary) or slot 5 (secondary).

**NOTE:** For true x16 support with this option a secondary riser (719073-B21) is needed (second processor required).

**NOTE:** Kit includes Mylar film for Universal Media Bay (724865-B21) support to ensure optimal airflow.

HPE DL380 Gen9 8SFF Bay1 Cage/Backplane Kit

HP DL380 Gen9 Additional 8SFF Bay2 Cage/Backplane Kit

T68857-B21

HP DL380 Gen9 2SFF Front/Rear SAS/SATA Kit

724864-B21

HP DL380 Gen9 3LFF Rear SAS/SATA Kit

768856-B21

**NOTE:** For a complete list of the drive, controller and cable options please check the compatibility matrix:

# https://www.hpe.com/h20195/V2/GetDocument.aspx?docname=4AA5-4154ENW&cc=us&lc=en

#### **Media Bay Kits**

HP DL380 Gen9 Universal Media Bay Kit 724865-B21

**NOTE:** The Universal Media Bay offers front VGA and 2xUSB 2.0, plus ability to add optional Optical drive, and 2SFF.

**NOTE:** This is only compatible with the 8SFF or 8+8 SFF front end configurations and can only be populated in Bay1.

#### 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

HP Ethernet 10Gb 2-port 530SFP Adapter 652503-B21

HPE Ethernet 10Gb 2-port 530T Adapter HPE Ethernet 10Gb 2-port 546SFP+ Adapter HPE Ethernet 10Gb 2-port 557SFP+ Adapter HPE Ethernet 10Gb 2-port 560SFP+ Adapter HPE Ethernet 10Gb 2-port 561T Adapter HPE Ethernet 10Gb 2-port 562SFP+ Adapter HPE Ethernet 10Gb 2-port 562SFP+ Adapter 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:	656596-B21 779793-B21 788995-B21 665249-B21 716591-B21 727055-B21
http://www.hp.com/go/ProLiantNICs	
25 Gigabit Ethernet adapters	017742 D21
HPE Ethernet 4x25Gb 1-port 620QSFP28 Adapter	817762-B21
NOTE: Initially available as a BTO only option.	017757 D21
HPE Ethernet 10/25Gb 2-port 640SFP28 Adapter	817753-B21
FlexibleLOM Adapters	629135-B22
HPE Ethernet 1Gb 4-port 331FLR Adapter  HPE Ethernet 1Gb 4-port 366FLR Adapter	665240-B21
HP FlexFabric 10Gb 2-port 533FLR-T Adapter	700759-B21
HPE FlexFabric 10Gb 2-port 533FLR-1 Adapter	700759-B21 700751-B21
HPE FlexFabric 10Gb 4-port 536FLR-T Adapter	764302-B21
HPE Ethernet 10Gb 2-port 546FLR-SFP+ Adapter	779799-B21
HPE FlexFabric 10Gb 2-port 556FLR-T Adapter	794525-B21
HPE FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter	727060-B21
HPE Ethernet 10Gb 2-port 560FLR-SFP+ Adapter	665243-B21
HPE Ethernet 10Gb 2-port 561FLR-T Adapter	700699-B21
HPE Ethernet 10Gb 2-port 562FLR-SFP+ Adapter	727054-B21
HPE Ethernet 10/25Gb 2-port 640FLR-SFP28 Adapter	817749-B21
NOTE: The DL380 Gen9 chassis ships with 4x1Gb Embedded.	01// 1/ 021
<b>NOTE:</b> 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.	
<b>NOTE:</b> Direct Attach Cable (DAC) for copper environments or fiber transceivers and cables for fiber-optic environments must be purchased separately. Please see the	
related NIC QuickSpecs for Technical Specifications and additional information:	
http://www.hp.com/go/ProLiantNICs	

#### **HPE InfiniBand**

HP InfiniBand FDR 2-port 545QSFP Adapter 702211-B21

NOTE: The RHEL6.5 driver is not part of SPP, but may be downloaded here:

http://downloads.linux.hp.com/SDR/downloads/MLNX\_OFED/.

HP InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+QSFP Adapter 764284-B21

HP InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+FLR-QSFP Adapter 764285-B21

HP InfiniBand QDR/Ethernet 10Gb 2-port 544+FLR-QSFP Adapter 764286-B21

HPE 100Gb 1-port OP101 QSFP28 x16 PCle Gen3 with Intel® Omni-Path Architecture 829335-B21

Adapter

HPE 100Gb 1-port OP101 QSFP28 x8 PCle Gen3 with Intel® Omni-Path Architecture Adapter	829334-B21
HPE InfiniBand EDR/Ethernet 100Gb 1-port 840QSFP28 Adapter	825110-B21
HPE InfiniBand EDR/Ethernet 100Gb 2-port 840QSFP28 Adapter	825111-B21
QLogic InfiniBand 4X QDR PCI-E G2 Dual Port HCA	583211-B21

# HPE I/O Expansion Options

HP DL380 Gen9 Primary 2 Slot GPU Ready Riser Kit

719076-B21

**NOTE:** This is for slot 1 and supports double wide GPGPUs.

NOTE: For Graphics cards please also order the DL380 Gen9 Graphics Enablement

kit, 719082-B21

Slot1: 1xGen3 x16 FH/FL, 1xGen3 x8 FH/HL.

**NOTE:** Double wide PCIe cards are only supported in risers with the Processors leveraging the High Performance Heatsink. For Processors requiring double wide GPU support please order the GPU enablement kit (719082-B21).

HP DL380 Gen9 Secondary 3 Slot GPU Ready Riser Kit

719073-B21

**NOTE:** This is for slot 2 and supports double wide GPGPUs.

NOTE: For Graphics cards please also order the DL380 Gen9 Graphics Enablement

kit, 719082-B21

Slot2: 2xGen3 x16 FH/FL, 1xGen3 x8 FH/HL.

**NOTE:** Double wide PCIe cards are only supported in risers with the Processors leveraging the High Performance Heatsink. For Processors requiring double wide GPU support please order the GPU enablement kit (719082-B21).

# HPE Power Supplies

### HPE Flex Slot Platinum Hot-plug Power supplies

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

NOTE: Flex Slot Platinum power supplies support power efficiency of up to 94% and

include a standard C-14 power inlet connector.

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

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

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.

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

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

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

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

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

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

**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: <a href="http://www.hp.com/go/hppoweradvisor">http://www.hp.com/go/hppoweradvisor</a>.

**NOTE:** Support for HPE Power Discovery Services is included with the 1400W Flex Slot option. Power specifications and technical content for all HPE Server power supplies can be found at

#### http://www.hp.com/go/proliant/powersupply.

**NOTE:** Maximum of 2 Flex Slot PS per platform.

# HPE Computation and Graphics Accelerators

#### HP DL380 Gen9 Graphics Enablement Kit

719082-B21

**NOTE:** This GPU enablement kit includes 2 Heatsinks and 8 cables to enable double wide GPUs to be supported.

**NOTE:** For doublewide GPU support you are required to have at least 1x1400W Power Supply (720620-B21), per card for cards over 150W. Cards 150W or under can used 800W Power Supplies; however check the power usage via the HPE Power Advisor Tool located at <a href="http://www.hp.com/go/hppoweradvisor">http://www.hp.com/go/hppoweradvisor</a>.

**NOTE:** There are limitations on the chassis and processor supported when adding Graphics accelerators.

**NOTE:** Passive cards will require the addition of the High Performance Fan Kit (719079-B21).

**NOTE:** We support up to 2 Double wide and 3 single wide Graphics cards, limitations apply.

**NOTE:** This kit support up to 2 double wide Graphics cards.

**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 (1x double wide) with the NVMe bay installed.

**NOTE:** All GPU support is limited with 1TB max memory support with the exception on NVIDIA P series, AMD and Intel cards.

**NOTE:** This kit includes PCIe GPU Retention Brackets that need to be installed on the air baffle to support FL cards.

**NOTE:** Not required for M2000.

HP NVIDIA GRID K1 Quad GPU PCIe Graphics Accelerator

JOG94A

**NOTE:** This is supported in all chassis.

**NOTE:** 1x 1400W PS recommended, but this card will work with 1x800W PS (Per GPU). However check the power usage via the HPE Power Advisor Tool located at

#### http://www.hp.com/go/hppoweradvisor.

**NOTE:** This card only runs at PCleGen2 speeds.

**NOTE:** The Primary GPU riser (719076-B21) is required to support this in slot1. **NOTE:** The secondary GPU riser (719073-B21) is required to support this in slot2

(2nd processor required). **NOTE:** This card will require the addition of the High Performance Fan Kit (719079-

NVIDIA Tesla K40C 12GB Computational Accelerator

753960-B21

**NOTE:** This is supported in all models.

B21).

**NOTE:** The Primary GPU riser (719076-B21) is required to support this in slot1.

**NOTE:** The secondary GPU riser (719073-B21) is required to support this in slot2 (2nd processor required).

NOTE: For doublewide GPU support you are required to have at least 1x1400W

Power Supply (720620-B21), per card.

**NOTE:** Double-wide cards require the addition of the High Performance Fan Kit (719079-B21).

**NOTE:** Only supported with E5-2600v3 processors.

HP NVIDIA Tesla K80 Dual GPU PCIe Computational Accelerator

JOG95A

NOTE: For doublewide GPU support you are required to have at least 1x1400W

Power Supply (720620-B21), per card.

**NOTE:** This card only runs at PCleGen2 speeds.

**NOTE:** The Primary GPU riser (719076-B21) is required to support this in slot1. **NOTE:** The secondary GPU riser (719073-B21) is required to support this in slot2 (2nd processor required).

**NOTE:** PCIe accelerators are not supported in conjunction with this card.

**NOTE:** This card will require the addition of the High Performance Fan Kit (719079-R21)

**NOTE:** Max cooling setting required to support in RSBU.

**NOTE:** There are limitations operating this card with operative environment temperature limitations: 24SFF chassis to 30°C and 12LFF chassis to 25°C

HP NVIDIA Quadro K2200 Graphics Accelerator

JOG89A

**NOTE:** This is supported in all models.

**NOTE:** This card only runs at PCleGen2 speeds.

**NOTE:** The Primary GPU riser (719076-B21) is required to support this in slot1. **NOTE:** The secondary GPU riser (719073-B21) is required to support this in slot2 (2nd processor required).

**NOTE:** 1x 1400W PS recommended, but this card will work with 1x800W PS (Per GPU). However check the power usage via the HPE Power Advisor Tool located at

#### http://www.hp.com/go/hppoweradvisor

NVIDIA Quadro K6000 PCI-E Graphics Adapter

730874-B21

**NOTE:** This is supported in all models.

**NOTE:** The Primary GPU riser (719076-B21) is required to support this in slot1. **NOTE:** The secondary GPU riser (719073-B21) is required to support this in slot2 (2nd processor required).

**NOTE:** For doublewide GPU support you are required to have at least 1x1400W Power Supply (720620-B21), per card.

**NOTE:** Double-wide cards require the addition of the High Performance Fan Kit (719079-B21).

HPE NVIDIA Tesla M4 4GB Computational Accelerator

P9U90A

**NOTE:** Maximum of 3 cards supported per server.

**NOTE:** This is supported in all models.

**NOTE:** The Primary GPU riser (719076-B21) is required to support this in slot1. **NOTE:** The secondary GPU riser (719073-B21) is required to support this in slot2

(2nd processor required).

**NOTE:** 1x 1400W PS recommended, but this card will work with 1x800W PS (Per GPU). However check the power usage via the HPE Power Advisor Tool located at

#### http://www.hp.com/go/hppoweradvisor.

**NOTE:** No GPU enablement kit is required for this option.

NOTE: Only supported with E5-2600v4 processors.

NVIDIA Tesla M10 Quad GPU Module

Q0J62A

**NOTE:** This is supported in all models.

**NOTE:** The Primary GPU riser (719076-B21) is required to support this in slot1.

**NOTE:** The secondary GPU riser (719073-B21) is required to support this in slot2 (2nd processor required).

**NOTE:** For doublewide GPU support you are required to have at least 1x1400W Power Supply (720620-B21), per card.

**NOTE:** Double-wide cards require the addition of the High Performance Fan Kit (719079-B21).

NOTE: Only supported with E5-2600v4 processors.

HPE NVIDIA Tesla M40 24GB Computational Accelerator

P8Y46A

**NOTE:** Maximum 2 supported with both risers, support for 2 cards requires the 1400W Power Supply (720620-B21) to be selected.

**NOTE:** Double-wide cards require the addition of the High Performance Fan Kit (719079-B21).

**NOTE:** The Primary GPU riser (719076-B21) is required to support this in slot1. **NOTE:** The secondary GPU riser (719073-B21) is required to support this in slot2 (2nd processor required).

**NOTE:** Only supported with E5-2600v4 processors.

**NOTE:** There are limitations operating this card with operative environment temperature limitations: 24SFF chassis to 30°C and 12LFF chassis to 25°C

HPE NVIDIA Tesla M60 Reverse Air Flow Dual GPU PCIe Graphics Accelerator

M3X67A

**NOTE:** Maximum 2 supported with both risers, support for 2 cards requires the 1400W Power Supply (720620-B21) to be selected.

**NOTE:** Double-wide cards require the addition of the High Performance Fan Kit (719079-B21).

**NOTE:** This card only runs at PCleGen2 speeds.

**NOTE:** The Primary GPU riser (719076-B21) is required to support this in slot1.

**NOTE:** The secondary GPU riser (719073-B21) is required to support this in slot2 (2nd processor required).

**NOTE:** There are limitations operating this card with a 160W processor with operative environment temperature limitations: 8SFF to 35°C, 16 SFF to 25°C and 24SFF/12LFF to 20°C

**NOTE:** Additional Grid 2.0 Licensing from NVIDIA is required.

HPE NVIDIA Tesla P100 PCIe 16GB Computational Accelerator

Q0E21A

**NOTE:** For doublewide GPU support you are required to have at least 1x1400W Power Supply (720620-B21), per card.

**NOTE:** The Primary GPU riser (719076-B21) is required to support this in slot1.

**NOTE:** The secondary GPU riser (719073-B21) is required to support this in slot2 (2nd processor required).

**NOTE:** There are limitations on the models and processor supported when adding Graphics accelerators.

**NOTE:** This card will require the addition of the High Performance Fan Kit (719079-B21).

**NOTE:** This card is supported on the E5-2600v4 series processors only.

HPE NVIDIA Quadro M2000 Graphics Accelerator

P8Y48A

**NOTE:** Maximum of 3 cards supported per server.

**NOTE:** This is supported in all models.

**NOTE:** The Primary GPU riser (719076-B21) is required to support this in slot1.

**NOTE:** The secondary GPU riser (719073-B21) is required to support this in slot2

(2nd processor required).

NOTE: Only supported with E5-2600v4 processors.

NOTE: 1x 1400W PS recommended, but this card will work with 1x800W PS (Per GPU). However check the power usage via the HPE Power Advisor Tool located at

#### http://www.hp.com/go/hppoweradvisor.

NOTE: No GPU enablement kit is required for this option.

HPE NVIDIA Quadro M4000 Graphics Accelerator

M9X58A

NOTE: Only supported with E5-2600v4 processors.

NOTE: This is supported in all models.

**NOTE:** The Primary GPU riser (719076-B21) is required to support this in slot1.

NOTE: The secondary GPU riser (719073-B21) is required to support this in slot2

(2nd processor required).

NOTE: 1x 1400W PS recommended, but this card will work with 1x800W PS (Per GPU). However check the power usage via the HPE Power Advisor Tool located at

#### http://www.hp.com/go/hppoweradvisor.

HP NVIDIA Quadro M5000 Graphics Accelerator

M9R60A

**NOTE:** Only supported with E5-2600v4 processors.

**NOTE:** This is supported in all models.

**NOTE:** The Primary GPU riser (719076-B21) is required to support this in slot1.

**NOTE:** The secondary GPU riser (719073-B21) is required to support this in slot2 (2nd processor required).

NOTE: 1x 1400W PS recommended, but this card will work with 1x800W PS (Per GPU). However check the power usage via the HPE Power Advisor Tool located at

#### http://www.hp.com/go/hppoweradvisor.

NOTE: Double-wide cards require the addition of the High Performance Fan Kit (719079-B21).

HP NVIDIA Quadro M6000 Graphics Accelerator

JOG92A

NOTE: Maximum 2 supported with both risers, support for 2 cards requires the 1400W Power Supply (720620-B21) to be selected.

NOTE: Double-wide cards require the addition of the High Performance Fan Kit (719079-B21).

NOTE: The Primary GPU riser (719076-B21) is required to support this in slot1.

**NOTE:** The secondary GPU riser (719073-B21) is required to support this in slot2 (2nd processor required).

NOTE: This card only runs at PCleGen2 speeds.

HPE NVIDIA Quadro M6000 24GB Graphics Accelerator

P8Y47A

NOTE: Maximum 2 supported with both risers, support for 2 cards requires the 1400W Power Supply (720620-B21) to be selected.

NOTE: Double-wide cards require the addition of the High Performance Fan Kit (719079-B21).

**NOTE:** The Primary GPU riser (719076-B21) is required to support this in slot1.

**NOTE:** The secondary GPU riser (719073-B21) is required to support this in slot2 (2nd processor required).

**NOTE:** Only supported with E5-2600v4 processors.

Intel® Xeon® Phi 7120P (16GB/300W) Coprocessor Kit

E2M34A

**NOTE:** This card only runs at PCleGen2 speeds.

NOTE: Maximum 2 supported with both risers, support for 2 cards requires the 1400W Power Supply (720620-B21) to be selected.

**NOTE:** The Primary GPU riser (719076-B21) is required to support this in slot1.

**NOTE:** The secondary GPU riser (719073-B21) is required to support this in slot2 (2nd processor required).

NOTE: This card will require the addition of the High Performance Fan Kit (719079-

B21).

**NOTE:** This is supported in an 8SFF model only.

**NOTE:** Max cooling setting required to support in RSBU.

HP AMD FirePro W7100 Accelerator Kit

JOH10A

**NOTE:** This is supported in all models.

**NOTE:** The secondary GPU riser (719073-B21) is required to support this in slot2

(2nd processor required).

**NOTE:** Up to 3 of these single wide cards are supported.

**NOTE:** 1x 1400W PS recommended, but this card will work with 1x800W PS (Per GPU). However check the power usage via the HPE Power Advisor Tool located at

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

HP AMD FirePro S9150 Accelerator Kit

JOH11A

**NOTE:** For doublewide GPU support you are required to have at least 1x1400W Power Supply (720620-B21), per card.

**NOTE:** The Primary GPU riser (719076-B21) is required to support this in slot1. **NOTE:** The secondary GPU riser (719073-B21) is required to support this in slot2 (2nd processor required).

**NOTE:** There are limitations on the model and processor supported when adding Graphics accelerators.

**NOTE:** This card will require the addition of the High Performance Fan Kit (719079-B21).

**NOTE:** This card is supported on the E5-2600v3 series processors only.

**NOTE:** 12LFF support is restricted to 30C Server Ambient only.

HPE AMD FirePro S7150x2 Accelerator Kit

M3X68A

**NOTE:** For doublewide GPU support you are required to have at least 1x1400W Power Supply (720620-B21), per card.

**NOTE:** The Primary GPU riser (719076-B21) is required to support this in slot1. **NOTE:** The secondary GPU riser (719073-B21) is required to support this in slot2

(2nd processor required).

**NOTE:** There are limitations on the model and processor supported when adding Graphics accelerators.

**NOTE:** This card will require the addition of the High Performance Fan Kit (719079-B21).

**NOTE:** This card is supported on the E5-2600v4 series processors only.

**NOTE:** This card only runs at PCleGen2 speeds.

**NOTE:** There are limitations operating this card with operative environment temperature limitations: 12LFF model to 30°C

HP 150W PCI-E Power Cable Kit

669777-B21

NOTE: This cable is required for the K1, K4200, K5200, M5000 and W7100 cards.

**NOTE:** Each DL380 Gen9 server will accommodate up to three single-width or two double width PCle cards for Computational Graphics support. Note that 11.25" is the max length for a card to also allow for cabling. This applies to primary slots 1 & 2 or secondary slots 4 & 5.

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

**NOTE:** There are limitations on fan types, setting, and chassis support by card.

**NOTE:** Mixing of GPUs is not supported.

NOTE: All NVIDIA, Intel and AMD cards limit configurations to having less than 1TB

memory installed.

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.

# HPE Cooling Options

HP DL380 Gen9 High Performance Fan Kit

719079-B21

**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 12LFF and 24SFF chassis (including field upgrades to 24SFF) will already

include 6 High Performance Fan kits.

**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.hp.com/servers/ASHRAE.

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

HPE	Insight
Soft	ware

#### **HPE Insight Control**

HPE Insight Control including 1yr 24x7 Technical Support and Updates 1-server LTU

C6N27A

HPE Insight Control including 1yr 24x7 TSU E-LTU

C6N28ABE

HPE Insight Management Media Kit

C6N31A

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

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

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

http://www.hp.com/go/insightupdates

NOTE: For additional license options please see the HPE Insight Control QuickSpecs.

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

https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04123391

#### Embedded Management

#### **HPE iLO Advanced**

HPE iLO Advanced including 1yr 24x7 Technical Support and Updates 1-server LTU	512485-B21
HPE iLO Advanced including 3yr 24x7 Tech Support and Updates 1-server LTU	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)

HPF OneView including 3vr 24x7 Support Physical 1-server LTU

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HPE OneView including 3yr 24x7 Support Flexible Quantity E-LTU	E5Y35AAE
HPE OneView Advanced (without HPE iLO Advanced)	
HPE OneView w/o iLO including 3yr 24x7 Support 1-server LTU	P8B24A

HPE OneView w/o iLO including 3yr 24x7 Support Flexible Quantity E-LTU

P8B26AAE

HPE OneView Physical Media Kit LTU

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 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: <a href="http://www.hp.com/go/oneview">http://www.hp.com/go/oneview</a>.

E5Y34A

High	Performance
Clust	ers

#### **HPE Cluster Management Utility**

HPE Insight Cluster Management Utility 1yr 24x7 Flexible LTU QL803B

HPE Insight Cluster Management Utility 3yr 24x7 Flexible LTU 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.

HPE Insight Cluster Management Utility Media BD477A

NOTE: For additional license kits please see the HPE Insight Cluster Management

**Utility QuickSpecs** 

#### HPE PCIe Workload Accelerator Options

#### Light Endurance (LE) PCIe Workload Accelerators

HPE 1.6TB Read Intensive-2 HH/HL PCIe Workload Accelerator

HPE 5.2TB FH/HL Light Endurance (LE) PCIe Workload Accelerator	775672-B21
HPE 2.6TB HH/HL Light Endurance (LE) PCIe Workload Accelerator	775670-B21
HPE 1.3TB HH/HL Light Endurance (LE) PCIe Workload Accelerator	775668-B21
HPE 1.0TB HH/HL Light Endurance (LE) PCIe Workload Accelerator	775666-B21
NVME PCIe Workload Accelerators	
HPE 6.4TB Read Intensive-2 FH/HL PCIe Workload Accelerator	831739-B21
HPE 3.2TB Read Intensive-2 HH/HL PCIe Workload Accelerator	831737-B21
HPE 2.0TB NVMe Mixed Use HH/HL PCIe Workload Accelerator	803204-B21

HPE 1.6TB NVMe Write Intensive HH/HL PCIe Workload Accelerator

HPE 1.6TB NVMe Mixed Use HH/HL PCIe Workload Accelerator

803197-B21

803202-B21

HPE 1.3TB Read Intensive-2 HH/HL PCIe Workload Accelerator

831733-B21

HPE 800GB NVMe Write Intensive HH/HL PCIe Workload Accelerator

803195-B21
HPE 800GB NVMe Mixed Use HH/HL PCIe Workload Accelerator

803200-B21

#### **HPE Security**

HP 2U Security Bezel Kit

HP Trusted Platform Module 2.0 Kit 745823-B21

**NOTE:** If the TPM Module (488069-B21) is installed, then there is no support for TPM 2.0

NOTE: This is supported on both the E5-2600v3 and E5-2600v4 processors.

**NOTE:** HPE Trusted Platform Module 2.0 Option works with Gen9 servers with UEFI Mode not Legacy Mode. It is not compatible with HPE ProLiant Gen8 servers or earlier generation variants.

**NOTE:** HPE Gen9 servers purchased earlier may need the latest firmware update to be compatible with the TPM 2.0 Option.

**NOTE:** HPE server systems can have a TPM module (of any type) installed only once. It cannot be replaced with any other TPM module.

HP Trusted Platform Module Option

488069-B21

831735-B21

666988-B21

**NOTE:** The HPE Trusted Platform Module Option (488069-B21) is the TPM 1.2 version. Compatible server platforms include Gen8 and Gen9 servers.

**NOTE:** HPE server systems can have a TPM module (of any type) installed only once. It cannot be replaced with any other TPM module.

Additional Op	Additional Options		
HPE Storage	SAS Controllers		
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.		
	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 P440/4GB FBWC 12Gb 1-port Int SAS Controller	726821-B21	
	NOTE: Provides support for up to 8 internal SAS/SATA drives.	720021 021	
	HPE Smart Array P840/4GB FBWC 12Gb 2-ports Int SAS Controller	726897-B21	
	HPE Smart Array P841/4GB FBWC 12Gb 4-ports Ext SAS Controller	726903-B21	
	HPE Smart Array P441/4GB FBWC 12Gb 2-ports Ext SAS Controller	726825-B21	
	HPE Smart Host Bus Adapters		
	HPE H241 12Gb 2-ports Ext Smart Host Bus Adapter	726911-B21	
	HPE H240 12Gb 2-ports Int Smart Host Bus Adapter	726907-B21	
	HPE H240ar 12Gb 2-ports Int Smart Host Bus Adapter	726757-B21	
	<b>NOTE:</b> Provides support for up to 8 internal SAS/SATA drives without using a PCIe slot.		
	HPE Cable Options		
	HP DL380 Gen9 12LFF Rear 2SFF or 3LFF P840/440 SAS Cable Kit	783007-B21	
	NOTE: 12LFF port 3 to 2SFF or 3LFF to P440/840 PCle.		
	HP DL380 Gen9 2SFF Front SAS x4 Cable Kit	783008-B21	
	NOTE: For front mount 2SFF to H240/P440ar, H240 or embedded B140i SATA.		
	HP DL380 Gen9 8SFF SAS Cable Kit	783009-B21	
	<b>NOTE:</b> 8/16/24 SFF to P840/440 bay 3.		
	HP DL380 Gen9 2SFF x8 Front Cable Kit	785989-B21	
	NOTE: For front/rear mount 2SFF to P440/840 PCIe).		
	HP DL380 Gen9 12LFF SAS Cable Kit	785991-B21	
	NOTE: For 12LFF to P440/840 PCle cables- ports 1/2/3.		
	HP DL380 Gen9 8SFF H240 Cable Kit	786092-B21	
	NOTE: 8/16/24SFF to 240/440ar, H240 PCIe or embedded B140i SATA.		
	HP DL380 Gen9 12LFF Smart HBA H240 SAS Cable Kit	786215-B21	
	NOTE: For 12LFF ports 1&2 to H240/P440ar, H240 or embedded B140i SATA.		
	NOTE: For details on cabling options, additional information available here: <u>Cabling</u> <u>Matrix</u> .		
	Optional Software		
	HPE SmartCache No Media 24x7 Technical Support 1-server LTU	D7S26A	

HPE SmartCache No Media 24x7 Technical Support Flexible LTU

**NOTE:** HPE SmartCache is supported when one of the supported Smart Array

HPE SmartCache No Media 24x7 Technical Support E-LTU

Controllers is installed in the server.

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D7S27A D7S27AAE

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

#### **Optional Upgrades**

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

727258-B21

**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 Tape Backup**

**NOTE:** For the complete range of tape drives, autoloaders, libraries and media see: <a href="http://www.hp.com/go/tape">http://www.hp.com/go/tape</a>. For hardware and software compatibility of Hewlett Packard

Enterprise tape backup products <a href="http://www.hpe.com/storage/BURAcompatibility">http://www.hpe.com/storage/BURAcompatibility</a>.

#### **Tape Drives**

HPE StoreEver LTO-7 Ultrium 15000 External Tape Drive	BB874A
HPE StoreEver LTO-6 Ultrium 6650 SAS External Tape Drive	EH964A
HPE StoreEver 1/8 G2 LTO-6 Ultrium 6250 Fibre Channel Tape Autoloader	COH19A
HPE StoreEver LTO-6 Ultrium 6250 Tape Drive in a 1U Rack Mount Kit	COL99A
HPE StoreEver LTO-6 Ultrium 6250 External Tape Drive	EH970A
HPE StoreEver LTO-5 Ultrium 3000 SAS Tape Drive in a 1U Rack Mount Kit	EJ014B
HPE StoreEver LTO-5 Ultrium 3000 SAS External Tape Drive	EH958B
HPE StoreEver LTO-5 Ultrium 3280 SAS External Tape Drive	EH900B
HPE StoreEver LTO-4 Ultrium 1760 SAS (1) in a 1U Rack Mount Kit	EH946C
HPE StoreEver LTO-4 Ultrium 1760 SAS External Tape Drive	EH920B
HPE StoreEver LTO-3 Ultrium 920 SAS External Tape Drive	EH848B
HPE StoreEver 1U SAS Rack Mount Kit	AE459B
HPE Tape Storage Systems	

#### HPE Tape Storage Systems

#### **HPE StoreEver MSL6480**

HPE StoreEver MSL6480 Scaleable Expansion Module

NOTE: Please see the HPE StoreEver MSL6480 Tape Library QuickSpecs for

Technical Specifications and additional information).

HPE StoreEver MSL6480 Scalable Base Module
HPE StoreEver MSL2024 O-drive Tape Library

#### **HPE Disk Backup**

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

HPE StoreEver MSL4048 0-drive Tape Library

HPE RDX+ 3TB USB 3.0 External Disk Backup System	P9L72A
HPE RDX 3TB USB 3.0 Internal Disk Backup System	P9L71A
HP RDX 2TB USB3.0 External Disk Backup System	E7X53B
HP RDX+ 1TB External Backup System	B7B69B
HP RDX+ 500GB External Backup System	B7B66B
HPE RDX+ External Docking System	C8S07B
HPE D3700 Enclosure	QW967A
HPE D3600 Enclosure	QW968A

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

http://www.hp.com/go/rdx. For hardware and software compatibility of Hewlett

QU626A

QU625A

AK379A

AK381A

Packard Enterprise disk backup products see: <a href="http://www.hp.com/storage/SPOCK">http://www.hp.com/storage/SPOCK</a>.

#### 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.

2003 and Linux, please see: <a href="http://h18006.www1.hp.com/storage/saninfrastructure/hba.html">http://h18006.www1.hp.com/storage/saninfrastructure/hba.html</a> .		
Emulex Fibre Channel HBAs		
HPE 81E 8Gb 1-port PCle Fibre Channel Host Bus Adapter	AJ762B	
HPE 82E 8Gb 2-port PCle Fibre Channel Host Bus Adapter	AJ763B	
HPE StoreFabric 84E 4-port 8Gb Fibre Channel Host Bus Adapter	E7Y63A	
HPE StoreFabric SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter	C8R38A	
HPE StoreFabric SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter	C8R39A	
HPE StoreFabric SN1100E 4-port 16Gb Fibre Channel Host Bus Adapter	P9D99A	
QLogic Fibre Channel HBAs		
HPE 81Q 8Gb 1-port PCIe Fibre Channel Host Bus Adapter	AK344A	
HPE 82Q 8Gb 2-port PCIe Fibre Channel Host Bus Adapter	AJ764A	
HPE StoreFabric 84Q 4-port 8Gb Fibre Channel Host Bus Adapter	P9D91A	
HPE StoreFabric SN1000Q 16GB 1-port PCle Fibre Channel Host Bus Adapter	QW971A	
HPE StoreFabric SN1100Q 16Gb Single Port Fibre Channel Host Bus Adapter	P9D93A	
HPE StoreFabric SN1000Q 16GB 2-port PCle Fibre Channel Host Bus Adapter	QW972A	
HPE StoreFabric SN1100Q 16Gb Dual Port Fibre Channel Host Bus Adapter	P9D94A	
HPE StoreFabric SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter	Q0L13A	
HPE StoreFabric SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter	Q0L14A	
HPE StoreFabric SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter	Q0L11A	
HPE StoreFabric SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter	Q0L12A	
HPE StoreFabric SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter	P9M75A	
HPE StoreFabric SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter	P9M76A	
Converged Network Adapter		
HPE StoreFabric CN1100R Dual Port Converged Network Adapter	QW990A	
HPE StoreFabric CN1100R 10GBASE-T Dual Port Converged Network Adapter	N3U52A	
HPE StoreFabric CN1200E 10Gb Converged Network Adapter	E7Y06A	
HPE StoreFabric CN1200E 10GBASE-T Dual Port Converged Network Adapter	N3U51A	

#### HPE Disk Storage Systems

#### **Disk Enclosures**

HP D6000 Dual I/O Module Disk Enclosure	QQ695A
HP D6000 w/35 4TB 6G SAS 7.2K LFF Dual Port MDL HDD 140TB Bundle	E7W30A
HP D6000 w/70 4TB 6G SAS 7.2K LFF Dual Port MDL HDD 280TB Bundle	E7W31A
HP D6000 w/35 2TB 6G SAS 7.2K LFF Dual port MDL HDD 70TB Bundle	QQ697A
HP D6000 w/70 2TB 6G SAS 7.2K LFF Dual port MDL HDD 140TB Bundle	QQ698A
HP D6000 w/35 3TB 6G SAS 7.2K LFF Dual port MDL HDD 105TB Bundle	QQ699A
HP D6000 w/70 3TB 6G SAS 7.2K LFF Dual port MDL HDD 210TB Bundle	QQ700A
HPE D6000 w/70 8TB 12G SAS 7.2K LFF (3.5in) Dual Port MDL HDD 560TB Bundle	MOT59A
HPE D6000 w/35 8TB 12G SAS 7.2K LFF (3.5in) Dual Port MDL HDD 280TB Bundle	MOT58A

**HPE Data Center** 

**HPE Advanced Series Racks** 

Additional Options			
Racks	HPE 48U 600mm x 1075mm Advanced Pallet Rack	H6J87A	
	HPE 48U 600mm x 1075mm Advanced Shock Rack	H6J88A	
	HPE 42U 600mm x 1075mm Advanced Pallet Rack	H6J65A	
	HPE 42U 600mm x 1075mm Advanced Shock Rack	H6J66A	
	HPE 42U 600mm x 1200mm Advanced Pallet Rack	H6J67A	
	HPE 42U 600mm x 1200mm Advanced Shock Rack	H6J68A	
	HPE 36U 600mm x 1075mm Advanced Pallet Rack	H6J77A	
	HPE 36U 600mm x 1075mm Advanced Shock Rack	H6J78A	
	HPE 22U 600mm x 1075mm Advanced Pallet Rack	H6J83A	
	HPE 22U 600mm x 1075mm Advanced Shock Rack	H6J84A	
	HPE 14U 600mm x 1075mm Advanced Shock Rack	H6J82A	
	<b>NOTE:</b> Please see the <u>HPE Advanced Series Racks QuickSpecs</u> for information on additional racks options and rack specifications.		
	HPE Enterprise Series Racks		
	HP 47U 600mm x 1075mm Enterprise Pallet Rack	BW911A	
	HP 47U 600mm x 1075mm Enterprise Shock Rack	BW912A	
	HP 47U 600mm x 1200mm Enterprise Pallet Rack	BW913A	
	HP 47U 600mm x 1200mm Enterprise Shock Rack	BW914A	
	HPE 42U 600mm x 1075mm Enterprise Pallet Rack	BW903A	
	HP 42U 600mm x 1075mm Enterprise Shock Rack	BW904A	
	HP 42U 600mm x 1200mm Enterprise Pallet Rack	BW907A	
	HP 42U 600mm x 1200mm Enterprise Shock Rack	BW908A	
	HP 36U 600mm x 1075mm Enterprise Pallet Rack	BW895A	
	HP 36U 600mm x 1075mm Enterprise Shock Rack	BW896A	
	HP 42U 800mm x 1075mm Enterprise Pallet Rack	BW917A	
	HP 42U 800mm x 1075mm Enterprise Shock Rack	BW918A	
	NOTE: Please see the HPE Enterprise Series Racks QuickSpecs for information		
	on additional racks options and rack specifications.		
	HPE Value Series Rack		
	HP 42U 600mm x 1075mm Standard Pallet Rack	AF046A	
	NOTE: Please see the HPE Standard Series Racks QuickSpecs for information		
	on additional racks options and rack specifications.		
HPE Power	HPE Basic Power Distribution Units (PDU)		
Distribution Units (PDUs)	HPE Basic 1.9kVA/L5-20P 16A/120V Outlets (12) 5-20R/Horizontal NA/JP PDU	H5M54A	
(PDOS)	HPE Basic 3.6kVA/60320 C20 Detachable 16A/230V Outlets (12) C13/Horizontal WW PDU	H5M56A	
	HPE Basic 2.8kVA/L5-30P 24A/120V Outlets (18) 5-20R/Vertical NA/JP PDU	H5M55A	
	HPE Basic 4.9kVA/60320 C20 Detachable 16A/230V Outlets (20) C13/Vertical WW PDU	H5M57A	
	HPE Basic 4.9kVA/L6-30P 24A/208V Outlets (20) C13/Vertical NA/JP PDU	H5M58A	
	HPE Basic 3Ph 8.6kVA/L15-30P 24A/208V Outlets (18) C13/Vertical NA/JP PDU	H5M61A	

HPE Basic 4.9kVA/L6-30P 24A/208V Outlets (24) C13 (6) C19/Vertical NA/JP PDU

HPE Basic 8.3kVA/CS8265C 40A/208V Outlets (30) C13 (6) C19/Vertical NA PDU

HPE Basic 9.2kVA/50A Terminal Block 40A/230V Outlets (30) C13 (6) C19/Vertical

H5M59A

H5M60A

H5M75A

WW PDU	
HPE Basic 3Ph 5.7kVA/ L21-20P 16A/120-208V Outlets (24) C13 (3) 5-20R/Vertical	H5M63A
NA/JP PDU	HISMOSA
HPE Basic 3Ph 8.6kVA/L21-30P 24A/120-208V Outlets (24) C13 (3) C19 (3) 5-20R/Vertical NA/JP PDU	H5M64A
HPE Basic 3Ph 8.6kVA/L15-30P 24A/208V Outlets (24) C13 (6) C19/Vertical NA/JP PDU	H5M62A
HPE Basic 3Ph 11kVA/60309 16A/240V Outlets (36) C13 (6) C19/Vertical NA PDU	H5M67A
HPE Basic Modular 2.8kVA/L5-30P 24A/120V Outlets (4) C19/Horizontal NA/JP PDU	252663-D71
HPE Basic Modular 4.9kVA/L6-30P 24A/208V Outlets (4) C19/Horizontal NA/JP Core Only PDU	252663-D74
HPE Basic Modular 8.3kVA/CS8265C 40A/208V Outlets (4) C19/Horizontal NA/JP PDU	252663-D75
HPE Basic Modular 3Ph 8.6kVA/L15-30P 24A/208V Outlets (6) C19/Horizontal NA/JP PDU	AF512A
HPE Basic Modular 3Ph 11kVA/60309 5-wire 16A/230V Outlets (6) C19/Horizontal INTL PDU	AF513A
HPE Basic Modular 3Ph 14.4kVA/CS8365C 40A/208V Outlets (6) C19/Horizontal NA/JP PDU	AF519A
HPE Basic Modular 3Ph 17.3kVA/60309 60A 4-wire 48A/208V Outlets (6) C19/Horizontal NA/JP PDU	AF511A
HP 800VA - 277V Input / 230V Output NA Rack Mount Transformer	H3X09A
NOTE: Please see the HPE Basic Power Distribution Units (PDU) QuickSpecs	
for information on additional options and product specifications.	
HPE Metered Power Distribution Units (PDU)	
HPE Metered 2.8kVA/L5-30P 24A/120V Outlets (12) 5-20R/Horizontal NA/JP PDU	D9N43A
HPE Metered 3.6kVA/60320 C20 Detachable 16A/230V Outlets (12) C13/Horizontal WW PDU	D9N46A
HPE Metered 4.9kVA/L6-30P 24A/208V Outlets (12) C13/Horizontal NA/JP PDU	D9N44A
HPE Metered 3.6kVA/60320 C20 Detachable 16A/230V Outlets (16) C13/Vertical WW PDU	D9N45A
HPE Metered 4.9kVA/L6-30P 24A/208V Outlets (12) C13/Vertical NA/JP PDU	G9Z05A
HPE Metered 4.9kVA/L6-30P 24A/208V Outlets (20) C13 (4) C19/Vertical NA/JP PDU	D9N47A
HPE Metered 3Ph 8.6kVA/L15-30P 24A/208V Outlets (18) C13 (3) C19/Vertical NA/JP PDU	D9N51A
HPE Metered 3Ph 8.6kVA/L21-30P 24A/120-208V Outlets (18) C13 (3) C19 (3) 5-20R/Vertical NA/JP PDU	D9N53A
HPE Metered 8.3kVA/CS8265C 40A/208V Outlets (30) C13 (3) C19/Vertical NA PDU	D9N49A
HPE Metered 3Ph 14.4kVA/CS8365C 40A/208V Outlets (12) C13 (12) C19/Vertical NA/JP PDU	D9N58A
HPE Metered 3Ph 16.6kVA/60309 32A-30A 5-wire 24A/230V Outlets (30) C13 (3) C19/Vertical NA/JP PDU	D9N61A
HPE Metered 3Ph 16.6kVA/60309 32A-30A 5-wire 24A/230V Outlets (12) C13 (12) C19/Vertical NA/JP PDU	D9N62A
HPE Metered 3Ph 17.3kVA/60309 60A 4-wire 48A/208V Outlets (24) C13 (3) C19/Vertical NA/JP PDU	D9N54A
HPE Metered 3Ph 17.3kVA/60309 60A 4-wire 48A/208V Outlets (12) C13 (12) C19/Vertical NA/JP PDU	D9N59A

HPE Metered 3Ph 17.3kVA/60309 60A 4-wire 48A/208V Outlets (12) C13 (12)	G9Z07A
C19/Vertical NA/JP PDU	G9207A
HPE Metered 3Ph 19.9kVA/L22-30P 24A/277V Outlets (30) RF-203P-HP/Vertical NA PDU	D9N63A
HP Environmental Sensor for Remote Monitored and Managed PDUs	E2D53A
NOTE: Please see the HPE Metered Power Distribution Units (PDU) QuickSpecs for information on additional options and product specifications.	
HPE Intelligent Power Distribution Unit (PDU)	
HPE Intelligent Modular 4.9kVA/L6-30P 24A/208V Outlets (6) C19/Horizontal NA/JP PDU	AF520A
HPE Intelligent Modular 8.3kVA/CS8265C 40A/208V Outlets (6) C19/Horizontal NA/JP PDU	AF521A
HPE Intelligent Modular 3Ph 8.6kVA/L15-30P 24A/208V Outlets (6) C19/Horizontal NA/JP PDU	AF522A
HPE Intelligent Modular 3Ph 17.3kVA/60309 60A 4-wire 48A/208V (6) C19/Horizontal NA/JP PDU	AF523A
HPE Intelligent Modular 3Ph 17.3kVA/60309 30A 5-wire 24A/240V (6) C19/Horizontal NA/JP PDU	AF901A
HPE Intelligent Modular 3Ph 17.3kVA/IEC 60309 60A 4-wire 48A/208V (12) C19/Horizontal NA/JP PDU	AF535A
HPE Intelligent Modular 4.9kVA/L6-30P 24A/208V Outlets (20) C13 (6) C19/Horizontal NA/JP PDU	AF531A
HPE Intelligent Modular 3Ph 8.6kVA/L15-30P 24A/208V Outlets (20) C13 (6) C19/Horizontal NA/JP PDU	AF532A
HPE Intelligent Modular 3Ph 14.4kVA/CS8365C 40A/208V Outlets (6) C19/Horizontal NA/JP PDU	AF533A
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 HPE Intelligent Power Distribution Unit (PDU) QuickSpecs for	
information on additional options and product specifications.	
HPE Metered and Switched Power Distribution Units (PDU)	
HPE Metered Switched 2.8kVA/L5-30P 24A/120V Outlets (24) 5-20R /Vertical NA/JP PDU	H8B48A
HPE Metered Switched 3.6kVA/60320 C20 Detachable 16A/230V Outlets (7) C13 (1) C19/Vertical WW PDU	H8B49A
HPE Metered Switched 4.9kVA/L6-30P 24A/208V Outlets (20) C13 (4) C19/Vertical NA/JP PDU	H8B50A
HPE Metered Switched 3Ph 8.6kVA/L15-30P 24A/208V Outlets (18) C13 (6) C19/Vertical NA/JP PDU	H8B52A
HPE Metered Switched 3Ph 8.6kVA/L21-30P 24A/208V Outlets (20)C13 (3)C19 (1)5-20R/Vertical NA/JP PDU	H8B53A
HPE Metered Switched 3Ph 14.4kVA/CS8365C 40A/208V Outlets (12) C13 (12) C19/Vertical NA/JP PDU	H8B55A
HPE Metered Switched 3Ph 17.3kVA/60309 4-wire 48A/208V Outlets (12) C13 (12) C19/Vertical NA/JP PDU	H8B56A
NOTE: Please see the HPE Metered and Switched Power Distribution Units (PDU)  QuickSpecs for information on additional options and product specifications.	
NOTE: To learn more, please visit the HPE Uninterruptible Power Systems (UPS)	
web page	

**HPE Rack Mount** Consoles, KVM Switches, and **Keyboards** 

#### **HPE Location Discovery Services**

HPE 36U Location Discovery Kit	BW945A
HPE 42U Location Discovery Kit	BW946A
HPE 47U Location Discovery Kit	BW947A
HP DL380 Gen9 Location Discovery Services Ear Kit	768884-B21
HPE Location Discovery Services LCD8500 Kit	TL052A

#### NOTE: Please see the HPE Location Discovery Services QuickSpecs for information

on additional options and product specifications.

#### **HPE Rack Mount Consoles**

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

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

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

#### **HPE USB Keyboard and Mouse**

HP USB BFR with PVC Free US Keyboard/Mouse Kit

631341-B21

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#### **Rail Kits**

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.

HP 2U Small Form Factor Easy Install Rail Kit	733660-B21
NOTE: Does not include CMA (733664-B21).	
HP 2U Large Form Factor Easy Install Rail Kit	733662-B21
NOTE: Does not include CMA (733664-B21).	
HP 2U Cable Management Arm for Easy Install Rail Kit	733664-B21
HP 2U Small Form Factor Ball Bearing Rail Kit	720863-B21

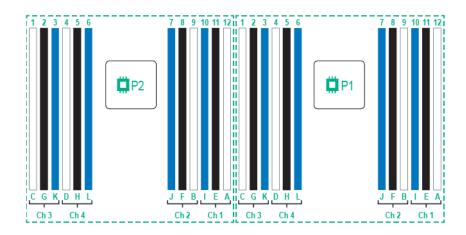
•	NOTE: Data not include CMA (7200/E D24)				
	NOTE: Does not include CMA (720865-B21).	7000// 001			
	HP 2U Large Form Factor Ball Bearing Rail Kit	720864-B21			
	NOTE: Does not include CMA (720865-B21).				
	HP 2U Cable Management Arm for Ball Bearing Rail Kit	720865-B21			
	HPE Other Options				
	HPE Rack LED Light Kit	BW939A			
	HP Kit LCD 1.83m Latch Display Port Cable	G7T29A			
HPE Uninterruptible	HPE DirectFlow Three Phase UPS				
Power Systems	Power Unit (1U UPS)				
(UPS)	HPE R12000 DirectFlow - 1U Rackmount Uninterruptible Power System	G9Y75A			
	HPE R12000 DirectFlow - POD 1U Rackmount Uninterruptible Power System	AF478A			
	Input/Output Module Options for 1U UPS	7(1 47 07)			
	HPE 30A 400-415 Volt Three Phase NA R10000 DirectFlow UPS IEC309 Input/Output	AF489A			
	Module				
	HPE 30A 480 Volt Three Phase NA R12000 DirectFlow UPS L22-30 Input/Output Module	AF491A			
	HPE 30A 480 Volt Three Phase NA R12000 DirectFlow UPS IEC309 Input/Output Module	AF492A			
	HPE 30A 400-415 Volt Three Phase NA R12000 DirectFlow UPS IEC309 Input/Output Module	G9Y76A			
	HPE DirectFlow UPS Management Card	AF493A			
	Power Unit (2U UPS)				
	HPE R18000 DirectFlow - 2U Rackmount Uninterruptible Power System	AF479A			
	Input/Output Module Options for 2U UPS				
	HPE 30A 480 Volt Three Phase NA R18000 DirectFlow UPS IEC309 Input/Output Module	AF486A			
	HPE 30A 480 Volt Three Phase NA R18000 DirectFlow UPS IEC309 Input/Output Module	AF487A			
	HPE 30A 400 Volt Three Phase NA R18000 DirectFlow UPS IEC309 Input/Output Module	D9Q02A			
	HPE 30A 400-415V Three Phase NA R18000 DirectFlow UPS 1:1 IEC309 Input/Output Module	AF484A			
	NOTE: All Input/Output Modules support dual output outlets except the AF484A.				
	Battery Pack Options				
	HPE DirectFlow UPS - 1U Rackmount Lithium-ion Battery Pack	AF480A			
	HPE DirectFlow UPS - 3U Rackmount VRLA Battery Pack	AF482A			
	HPE WW DirectFlow Secondary Battery Cable	AF497A			
	NOTE: Please see the HPE DirectFlow Three Phase Uninterruptible Power System				
	QuickSpecs for information on additional options and product specifications.				
	HPE Tower UPS				
	HPE T750 G4 UPS Models				
	HPE T750 G4 NA/JP Uninterruptible Power System	J2P85A			
	HPE T1000 G4 UPS Models				
	HPE T1000 G4 NA/JP Uninterruptible Power System	J2P86A			
	•				

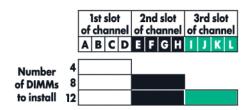
	HPE T1500 G4 UPS Models	
	HPE T1500 G4 NA/JP Uninterruptible Power System	J2P87A
	HPE Rack-mountable UPS	
	HPE R/T2200 G4 UPS Models	
	HPE R/T2200 G4 NA/JP Uninterruptible Power System	J2R00A
	HPE R/T3000 G4 UPS Models	
	HPE R/T3000 G4 Low Voltage NA/JP Uninterruptible Power System	J2R01A
	HPE R/T3000 G4 High Voltage NA/JP Uninterruptible Power System	J2R02A
	R1500 G4 Models	
	HPE R1500 G4 NA Uninterruptible Power System	J2Q99A
	R7000 Uninterruptible Power System (UPS)	
	HPE R7000 4U 50A High Voltage NA/JP Uninterruptible Power System	AF462A
	R5000 Uninterruptible Power System (UPS)	
	HPE R5000 3U L630 High Voltage NA/JP Uninterruptible Power System	AF460A
	NOTE: Please see the HPE Line Interactive Single Phase UPS QuickSpecs for	
	information on additional options and product specifications.	
	HPE UPS Options	
	HPE R/T2200 G4 Extended Runtime Module	J2R09A
	HPE R/T3000 G4 Extended Runtime Module	J2R10A
	HPE 2U Rack/Tower UPS Shipping Kit	L4Q11A
	NOTE: To learn more, please visit the HPE Uninterruptible Power Systems (UPS)	
	<u>web page</u> .	
HPE USB and SD	HPE Enterprise Mainstream Flash Media Kits for Memory Cards	
Options	HPE 32GB microSD Mainstream Flash Media Kit	700139-B21
	HPE 8GB microSD Enterprise Mainstream Flash Media Kit	724114 D21
	LID CODE I COME A COME	726116-B21
	HP 8GB USB Enterprise Mainstream Flash Media Drive Key Kit	737953-B21
	HP 8GB USB Enterprise Mainstream Flash Media Drive Key Kit  HP Dual 8GB microSD Enterprise Midline USB Kit	
LIDE Comment	HP Dual 8GB microSD Enterprise Midline USB Kit	737953-B21
HPE Support	HP Dual 8GB microSD Enterprise Midline USB Kit  Installation & Start-up Services	737953-B21 741279-B21
HPE Support Services	Installation & Start-up Services HPE Install ProLiant DL38x(p) Service	737953-B21 741279-B21 U4554E
= =	Installation & Start-up Services HPE Installation and Startup DL38x(p) Service HPE Installation and Startup DL38x(p) Service	737953-B21 741279-B21 U4554E
= =	Installation & Start-up Services HPE Install ProLiant DL38x(p) Service HPE Installation and Startup DL38x(p) Service Proactive Care	737953-B21 741279-B21 U4554E U4555E
= =	Installation & Start-up Services HPE Install ProLiant DL38x(p) Service HPE Installation and Startup DL38x(p) Service Proactive Care HPE 3 year Proactive Care 24x7 DL380 Gen9 w/IC Service	737953-B21 741279-B21 U4554E U4555E U5HW1E
= =	Installation & Start-up Services HPE Install ProLiant DL38x(p) Service HPE Installation and Startup DL38x(p) Service Proactive Care HPE 3 year Proactive Care 24x7 DL380 Gen9 w/IC Service HPE 3 year Proactive Care 24x7 with DMR DL380 Gen9 w/IC Service	737953-B21 741279-B21 U4554E U4555E U5HW1E U5HW2E
= =	Installation & Start-up Services HPE Install ProLiant DL38x(p) Service HPE Installation and Startup DL38x(p) Service Proactive Care HPE 3 year Proactive Care 24x7 DL380 Gen9 w/IC Service HPE 3 year Proactive Care 24x7 with DMR DL380 Gen9 w/IC Service HPE 3 year Proactive Care 24x7 with CDMR DL380 Gen9 w/IC Service	737953-B21 741279-B21 U4554E U4555E U5HW1E U5HW2E U5HW3E
= =	Installation & Start-up Services HPE Install ProLiant DL38x(p) Service HPE Installation and Startup DL38x(p) Service Proactive Care HPE 3 year Proactive Care 24x7 DL380 Gen9 w/IC Service HPE 3 year Proactive Care 24x7 with DMR DL380 Gen9 w/IC Service HPE 3 year Proactive Care 24x7 with CDMR DL380 Gen9 w/IC Service HPE 3 year Proactive Care 24x7 with CDMR DL380 Gen9 w/IC Service HPE 3 year Proactive Care Call to Repair DL380 Gen9 w/IC Service	737953-B21 741279-B21 U4554E U4555E U5HW1E U5HW2E U5HW3E U5HX0E
= =	Installation & Start-up Services HPE Install ProLiant DL38x(p) Service HPE Installation and Startup DL38x(p) Service Proactive Care HPE 3 year Proactive Care 24x7 DL380 Gen9 w/IC Service HPE 3 year Proactive Care 24x7 with DMR DL380 Gen9 w/IC Service HPE 3 year Proactive Care 24x7 with CDMR DL380 Gen9 w/IC Service HPE 3 year Proactive Care 24x7 with CDMR DL380 Gen9 w/IC Service HPE 3 year Proactive Care Call to Repair DL380 Gen9 w/IC Service HPE 3 year Proactive Care Call to Repair DL380 Gen9 w/IC Service	737953-B21 741279-B21 U4554E U4555E U5HW1E U5HW2E U5HW3E U5HX0E U5HX1E
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= =	Installation & Start-up Services HPE Install ProLiant DL38x(p) Service HPE Installation and Startup DL38x(p) Service Proactive Care HPE 3 year Proactive Care 24x7 DL380 Gen9 w/IC Service HPE 3 year Proactive Care 24x7 with DMR DL380 Gen9 w/IC Service HPE 3 year Proactive Care 24x7 with CDMR DL380 Gen9 w/IC Service HPE 3 year Proactive Care 24x7 with CDMR DL380 Gen9 w/IC Service HPE 3 year Proactive Care Call to Repair DL380 Gen9 w/IC Service HPE 3 year Proactive Care Call to Repair 24x7 with DMR DL380 Gen9 w/IC Service HPE 3 year Proactive Care Call to Repair with CDMR DL380 Gen9 w/IC Service HPE 3 year Proactive Care Call to Repair with CDMR DL380 Gen9 w/IC Service HPE 3 year Proactive Care Call to Repair with CDMR DL380 Gen9 w/IC Service	737953-B21 741279-B21 U4554E U4555E U5HW1E U5HW2E U5HW3E U5HX0E U5HX1E U5HX1E U5HX2E U7AE8E
= =	Installation & Start-up Services  HPE Install ProLiant DL38x(p) Service  HPE Installation and Startup DL38x(p) Service  Proactive Care  HPE 3 year Proactive Care 24x7 DL380 Gen9 w/IC Service  HPE 3 year Proactive Care 24x7 with DMR DL380 Gen9 w/IC Service  HPE 3 year Proactive Care 24x7 with CDMR DL380 Gen9 w/IC Service  HPE 3 year Proactive Care 24x7 with CDMR DL380 Gen9 w/IC Service  HPE 3 year Proactive Care Call to Repair DL380 Gen9 w/IC Service  HPE 3 year Proactive Care Call to Repair 24x7 with DMR DL380 Gen9 w/IC Service  HPE 3 year Proactive Care Call to Repair with CDMR DL380 Gen9 w/IC Service  HPE 3 year Proactive Care 24x7 DL380 Gen9 Service  HPE 3 year Proactive Care 24x7 with DMR DL380 Gen9 Service	737953-B21 741279-B21  U4554E U4555E  U5HW1E U5HW2E U5HX0E U5HX1E U5HX1E U5HX2E U7AE8E U7AE9E
= =	Installation & Start-up Services HPE Install ProLiant DL38x(p) Service HPE Installation and Startup DL38x(p) Service Proactive Care HPE 3 year Proactive Care 24x7 DL380 Gen9 w/IC Service HPE 3 year Proactive Care 24x7 with DMR DL380 Gen9 w/IC Service HPE 3 year Proactive Care 24x7 with CDMR DL380 Gen9 w/IC Service HPE 3 year Proactive Care 24x7 with CDMR DL380 Gen9 w/IC Service HPE 3 year Proactive Care Call to Repair DL380 Gen9 w/IC Service HPE 3 year Proactive Care Call to Repair 24x7 with DMR DL380 Gen9 w/IC Service HPE 3 year Proactive Care Call to Repair with CDMR DL380 Gen9 w/IC Service HPE 3 year Proactive Care Call to Repair with CDMR DL380 Gen9 w/IC Service HPE 3 year Proactive Care Call to Repair with CDMR DL380 Gen9 w/IC Service	737953-B21 741279-B21 U4554E U4555E U5HW1E U5HW2E U5HW3E U5HX0E U5HX1E U5HX1E U5HX2E U7AE8E

HPE 3 year Proactive Care Call to Repair 24x7 with DMR DL380 Gen9 Service HPE 3 year Proactive Care Call to Repair with CDMR DL380 Gen9 Service

U7AF5E U7AF6E

# Memory Population guidelines





#### General Memory Population Rules and Guidelines:

- . White DIMM slots denote the first slot of a channel. For 1 DPC (DIMM per channel) populate white slots only.
- . A minimum of one DIMM is required per server.
- . 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.
- . When two processors are installed, balance the DIMMs across the two processors.
- . Populate DIMMs from heaviest load (quad-rank) to lightest load (single-rank) within a channel. Heaviest load (DIMM with most ranks) within a channel goes furthest from the processor.
- . Do not mix RDIMMs or LRDIMMs.
- . LRDIMMs are supported up to 3 DIMMs per channel.
- . DIMMs of different speeds may be mixed in any order; the server will select a common optimal speed.
- . The maximum memory speed is a function of the memory type, memory configuration, and processor model.
- . The maximum memory capacity is a function of the memory type and number of installed processors.
- . HPE memory from previous generation servers is not compatible with the DL380 Gen9 Server. Certain HPE SmartMemory features such as memory authentication and enhanced performance may not be supported.
- . To realize the performance memory capabilities listed in this document, HPE SmartMemory is required. For additional information, please see the HPE SmartMemory QuickSpecs at:

#### https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04111535

For memory population rules and additional memory guidelines, please see the DL380 Gen9 user guide at <a href="http://www.hp.com/support">http://www.hp.com/support</a>.

- . There are four (4) Memory channels per processor; eight (8) channels per 2 processor server.
- . There are three (3) DIMM slots for each memory channel; twenty four (24) total slots for 2 processor server.
- . Memory channels1 and 3 consists of the three (3) DIMMs that are furthest from the processor.
- . Memory channel 2 and 4 consists of the three (3) DIMMs that are closest to the processor.

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

Memory Bandwidth	and Capacit	у						
[DIMM Type]		Registe	red DIMMs (R	RDIMMs)		Load F	Reduced (LRI	DIMMs)
HPE SKU P/N	726717- B21	726718- B21	759934- B21	726719- B21	728629- B21	726720- B21	726722- B21	726724- B21
DIMM Rank	Single Rank	Single Rank	Dual Rank	Dual Rank	Dual Rank	Dual Rank	Quad Rank	Quad Rank
DIMM Capacity	4GB	8GB	8GB	16GB	32GB	16GB	32GB	64GB
Voltage		Std Voltage 1.2V						
DRAM Depth [bit]	512M	1G	512M	1G	1G	2G	2G	2G
DRAM Width [bit]	x8	x4	x8	x4	x4	x4	x4	x4
DRAM Density	4Gb	4Gb	4Gb	4Gb	4Gb	8Gb	8Gb	8Gb
CAS Latency	15-15-15	15-15-15	15-15-15	15-15-15	15-15-15	15-15-15	15-15-15	15-15-15
DIMM Native Speed (MT/s)	2133	2133	2133	2133	2133	2133	2133	2133
SLOTS THAT CAN	BE POPULAT	ED						•
24 slot servers	24	24	24	24	24	24	24	24
MAXIMUM CAPACI	TY (GB)	•						•
	96	192	192	384	768	384	768	1536
POPULATED DIMM	SPEED (MT/	(s)	I	I	I		I	1
1 DIMM Per Channel	2133	2133	2133	2133	2133	2133	2133	2133
2 DIMM Per Channel	2133	2133	2133	2133	2133	2133	2133	2133
3 DIMM Per Channel	1600	1600	1600	1600	1600	1866	1866	1866

#### Intel Gen9 Supported Memory Bandwidth for HPE ProLiant Gen9 Intel® Xeon® E5-2600v4 Series Processor Family

Memory Bandwidth and Capacity							
[DIMM Type]	Registered DIMMs (RDIMMs) Load Reduced (LRDIMN					IMMs)	
HPE SKU P/N	805347-B21	805349-B21	836220-B21	805351-B21	805353-B21	805358-B21	809208-B21
DIMM Rank	Single Rank	Single Rank	Dual Rank	Dual Rank	Dual Rank	Quad Rank	Octal Rank

				_			
DIMM Capacity	8GB	16GB	16GB	32GB	32GB	64GB	128GB
Voltage	Std Voltage 1.2V						
DRAM Depth [bit]	1G	2G	1G	2G	2G	2G	2G
DRAM Width [bit]	x8	х4	х4	х4	x4	х4	x4
DRAM Density	8Gb	8Gb	4Gb	8Gb	8Gb	8Gb	8Gb
CAS Latency	17-17-17	17-17-17	17-17-17	17-17-17	17-17-17	17-17-17	20-18-18
DIMM Native Speed (MT/s)	2400	2400	2400	2400	2400	2400	2400
SLOTS THAT CAN BE PO	PULATED						
24 slot servers	24	24	24	24	24	24	24
MAXIMUM CAPACITY (G	B)		l	I.		I.	I
	192	384	384	768	768	1536	3072
POPULATED DIMM SPEE	D (MT/s)		l	I.		I.	I
1 DIMM Per Channel	2400	2400	2400	2400	2400	2400	2400
2 DIMM Per Channel	2133	2133	2400	2400	2400	2400	2400
3 DIMM Per Channel	1866	1866	1866	1866	2400	2400	2400

**NOTE:** Mixing the 128GB LRDIMM with other capacities is not supported.

#### Memory Speed by Processor Model

Processor Models	Supported Memory Speeds
E5-2609v3, E5-2603v3	1600MT/s
E5-2630Lv3, E5-2640v3, E5-2630v3, E5-2623v3, E5-2620v3	1866MT/s
E5-2637v3, E5-2687Wv3, E5-2699v3, E5- 2698v3, E5-2697v3, E5-2695v3, E5-2690v3, E5- 2683v3, E5-2680v3, E5-2670v3, E5-2660v3, E5- 2650Lv3, E5-2650v3, E5-2667v3, E5-2643v3	2133MT/s
E5-2609v4, E5-2603v4	1866MT/s
E5-2630Lv4, E5-2623v4, E5-2620v4, E5-2640v4, E5-2630v4	2133MT/s
E5-2650Lv4, E5-2643v4, E5-2637v4, E5- 2687Wv4, E5-2699v4, E5-2698v4, E5-2697v4, E5-2697Av4, E5-2695v4, E5-2690v4, E5- 2683v4, E5-2680v4, E5-2660v4, E5-2650v4, E5- 2667v4, E5-2699Av4	2400MT/s

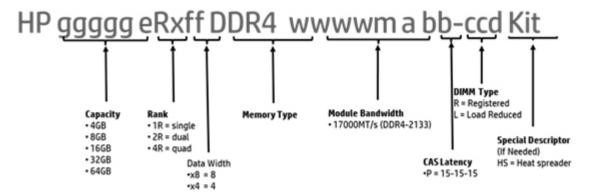
Standard and Maximum Memory Capacity (Preconfigured Models)

Pre Configured Models	Standard Memory	Maximum Memory Plus Optional Memory	Standard Memory Replaced with Optional Memory
E5-2690v3, E5-2650v3	32GB (2x16GB)	736GB (22x32GB, 2x16GB)	1536GB (24x64GB)
E5-2660v4	64GB (4x16GB)	704GB (20x32GB, 4x16GB)	3072GB (24x128GB)
E5-2650v4	32GB (2x16GB)	736GB (22x32GB, 2x16GB)	3072GB (24x128GB)
E5-2630v4, E5-2620v4	16GB (1x16GB)	752GB (23x32GB, 1x16GB)	3072GB (24x128GB)
E5-2620v3	16GB (1x16GB)	752GB (23x32GB, 1x16GB)	1536GB (24x64GB)
E5-2609v4	8GB (1x8GB)	744GB (23x32GB, 1x8GB)	3072GB (24x128GB)
E5-2609v3	8GB (1x8GB)	744GB (23x32GB, 1x8GB)	1536GB (24x64GB)

#### DDR4 memory options part number decoder

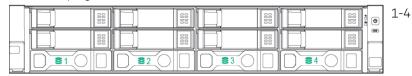
NOTE: Capacity references are rounded to the common gigabyte (GB) values.

- 4GB = 4,096MB
- 8GB = 8,192MB
- 16GB = 16,384MB
- 32GB = 32,768MB
- 64GB = 65,536MB
- 128GB = 13,072MB



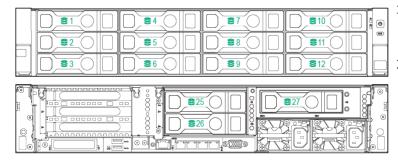
#### **Storage**

#### 4 LFF hot-plug drive model



4 x LFF SATA/SAS/SSD Hot Pluggable Hard Drive Bays

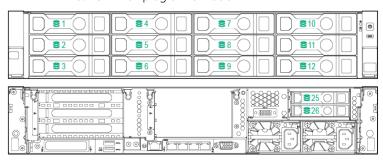
#### 12 LFF + 3 rear LFF hot-plug drive model



1-12 12 x LFF SATA/SAS/SSD Hot Pluggable Hard Drive Bays

25-27 3 x LFF SATA/SAS/SSD Hot Pluggable Rear Hard Drive Bays

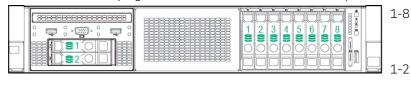
#### 12 LFF + 2 rear SFF hot-plug drive model



1-12 12 x LFF SATA/SAS/SDD Hot Pluggable Hard Drive Bays

25-26 2 x SFF SATA/SAS/SSD Hot Pluggable Rear Hard Drive Bays

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



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

2 x SFF SATA/SAS/SSD Hot Pluggable Hard Drive Bays

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

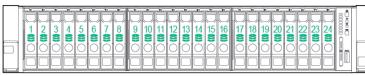


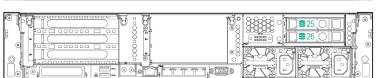
16 x SFF SATA/SAS/SDD Hot Pluggable Hard drive bays

2 x SFF SATA/SAS/SSD Hot Pluggable Hard Drive Bays

#### Storage

24 SFF + rear 2 SFF hot-plug drive model





- 1-24 24 x SFF SATA/SAS/SDD Hot Pluggable Hard drive bays
- 25-26 2 x SFF SATA/SAS/SSD Hot Pluggable Rear Hard Drive Bays

**NOTE:** Drives behind the SAS expander will be labeled continuous, drives behind a controller will be numbered 1-8. **NOTE:** With a SAS Expander and rear drive support the 2SFF rear will be labeled 25 & 26, for 3LFF they will be numbered 25-27.

System Unit	Dimensions		x 26.75 in (8.73 x 44.55 x 67.94 cm) x 28.75 in (8.73 x 44.55 x 73.02 cm)
	Weight (approximate)	Minimum: (Minimum - 8SFF chassis with 1xSFF HDD and 7 HDD blanks, 1x processor, 1x power supply (plus blank), 1x Flexible Smart Array, 1x Riser installed)	32.6 lb (14.759 kg)
		Maximum: (Maximum - 12 LFF hard drives (No rear drives), 2x processors, 2x power supplies, 1x Flexible Smart Array, 2x Risers installed)	51.5 lb (23.6 kg)
	Input Requirements	Rated Line Voltage	100 to 120 VAC
	(per power supply)		200 to 240 VAC
	BTU Rating	Maximum	For 800W Power Supply: 3207 BTU/hr (at 100 VAC), 3071 BTU/hr (at 200 VAC), 3112 BTU/hr (at 240 VAC) for China Only
			For 500W Power Supply: 1979 BTU/hr (at 100 VAC), 1911 BTU/hr (at 200 VAC), 1965 BTU/hr (at 240 VAC) for China Only
	Power Supply Output (per power supply)	Rated Steady-State Power	For 1400W Power Supply: 1400W (at 240 VAC), 1400W (at 240 VAC)
			For 800W Power Supply: 800W (at 100 VAC), 800W (at 240 VAC), 800W (at 240 VAC) input for China only
			For 500W Power Supply: 500W (at 100 VAC), 500W (at 240 VAC), 500W (at 240 VAC) input for China only
		Maximum Peak Power	For 1400W Power Supply: 1400W (at 200 to 240 1VAC), 1400W (at 240 VAC) input for China only
			For 800W Power Supply: 800W (at 100 to 127 VAC), 800W (at 200 to 240 1VAC), 800W (at 240 VAC) input for China only
			For 500W Power Supply: 500W (at 100 to 127 VAC), 500W (at 200 to 240 VAC), 500W (at 240 VAC) input for China only
	System Inlet Temperature	Standard Operating Support	10° to 35°C (50° to 95°F) at sea level with an altitude derating of 1.0°C per every 305 m (1.8°F per every 1000 ft) above sea level to a maximum of 3050 m (10,000 ft), no direct sustained sunlight. Maximum rate of change is 20°C/hr (36°F/hr). The upper limit and rate of change may be limited by the type and number of options installed. System performance during standard operating support may be reduced if operating with a fan fault or above 30°C (86°F).

Extended Ambient Operating Support

Non-operating

Operating

**Relative Humidity** 

(non-condensing)

Altitude

For approved hardware configurations, the supported system inlet range is extended to be: 5° to 10°C (41° to 50°F) and 35° to 40°C (95° to 104°F) at sea level with an altitude derating of 1.0°C per every 175 m (1.8°F per every 574 ft) above 900 m (2953 ft) to a maximum of 3050 m (10,000 ft). The approved hardware configurations for this system are listed at the URL:

#### http://www.hp.com/servers/Ashrae

For approved hardware configurations, the supported system inlet range is extended to be:  $40^{\circ}$  to  $45^{\circ}$ C ( $104^{\circ}$  to  $113^{\circ}$ F) at sea level with an altitude derating of  $1.0^{\circ}$ C per every 125 m ( $1.8^{\circ}$ F per every 410 ft) above 900 m (2953 ft) to a maximum of 3050 m (10,000 ft). The approved hardware configurations for this system are listed at the URL:

#### http://www.hp.com/servers/Ashrae

System performance may be reduced if operating in the extended ambient operating range or with a fan fault.

-30° to 60°C (-22° to 140°F). Maximum rate of change is 20°C/hr (36°F/hr).

Operating Minimum to be the higher (more moisture) of -

12°C (10.4°F) dew point or 8% relative humidity. Maximum to be the lower (less moisture) of 24°C (75.2°F) dew point or 90% relative humidity.

(75.2°F) dew point or 90% relative numidity.

5 to 95% relative humidity (Rh), 38.7°C (101.7°F)

Non-operating 5 to 95% relative humidity (Rh), 38.7°C (101.7°F) maximum wet bulb temperature, non-condensing.

3050 m (10,000 ft). This value may be limited by

the type and number of options installed.

Maximum allowable altitude change rate is 457

m/min (1500 ft/min).

Non-operating 9144 m (30,000 ft). Maximum allowable altitude

change rate is 457 m/min (1500 ft/min).

**Acoustic Noise**Listed are the declared A-Weighted sound power levels (LWAd) and declared average bystander position A-Weighted sound pressure levels

(LpAm) when the product is operating in a 23°C ambient environment. Noise emissions were measured in accordance with ISO 7779 (ECMA 74)

and declared in accordance with ISO 9296 (ECMA 109).

Idle

LWAd 4.0 B Entry LFF

4.1 B Entry 4.2 B Base 5.7 B Base LFF 4.3 B Perf

LpAm 23 dBA Entry LFF

24 dBA Entry 24 dBA Base

39 dBA Base LFF

25 dBA Perf

**Operating** 

LWAd 4.3 B Entry LFF

> 4.6 B Entry 4.8 B Base 5.9 B Base LFF 5.6 B Perf

25 dBA Entry LFF LpAm

> 29 dBA Entry 30 dBA Base 31 dBA Base LFF 39 dBA Perf

**NOTE:** The Listed sound levels apply to standard shipping configurations (Entry LFF, Entry, Base, Base LFF and Performance models) additional options may result in increased sound levels. The Base LFF model leverages our High Efficiency Fans, other models are shipping with standard fan options.

**Emissions Classification** (EMC)

FCC Rating Class A

Normative Standards CISPR 22; EN55022; EN55024; FCC CFR 47, Pt

> 15; ICES-003; CNS13438; GB9254; K22;K24; EN 61000-3-2; EN 61000-3-3; EN 60950-1; IEC

60950-1

**NOTE:** Product conformance to cited product specifications is based on sample (type) testing, evaluation, or assessment. This product or family of products is eligible to bear the appropriate compliance logos and statements.

**NOTE:** The Listed sound levels apply to standard shipping configurations. Additional options may result in increased sound levels.

**HPE Dynamic Smart** Number of PCI links Array B140i Controller

Four 4Gb/s

Storage protocol support

SATA

SAS/SATA peak data

6Gb/s

transfer rate

PCI link rate

10 links

Number of SAS/SATA links

2x4 connectors; 2x1 connectors

**SAS/SATA** connectivity **Expander support** 

Drives supported (max)

Up to 10 Internal Drives

**RAID** support

0, 1, 10, 5 SATA

Software management

Server warranty

HPE SSA, SMH, SIM

Warranty **HPE Secure Encryption** 

license

Not Supported

**HPE SmartCache License** 

Not Supported

**HPE Smart Storage** 

Supported

#### Administrator

**HPE Ethernet 1Gb** 4-port 331i Adapter Compatibility

Network Interface

10Base-T/100Base-TX/1000Base-TX

IEEE 802.3 10Base-T

IEEE 802.3ab 1000Base-T IEEE 802.3u 100Base-TX

**Data Transfer Method** 

PCI Express, two lanes (x2)

Controller

BCM5719

**Network Transfer Rate** 10Base-T (Half-Duplex)

10 Mb/s per port, 40 Mb/s combined

20 Mb/s per port, 80 Mb/s combined 10Base-T (Full-Duplex)

100Base-TX (Half-

Duplex) 100 Mb/s per port, 400 Mb/s combined 100Base-TX (Full-Duplex) 200 Mb/s per port, 800 Mb/s combined

1000Base-TX (Half and

Full-Duplex) 1000 Mb/s per port, 4000 Mb/s combined

1000Base-TX (Full-

Duplex) 2000 Mb/s per port, 8000 Mb/s combined

Four RJ-45 Connector

Cable Support 10 Base-T Categories 3, 4 or 5 UTP; up to 328 ft (100 m)

> Category 5 or higher UTP; up to 328 ft (100 m) 10/100/1000 Base-TX

**Environment**friendly Products and Approach

Recycling

End-of-life Management and 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://www8.hp.com/us/en/hpe/hpinformation/livingprogress/environmentalprogress/productrecycling.html#.V-IPA\_krKiM

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.

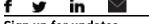
http://www8.hp.com/us/en/hpe/hpinformation/livingprogress/environmentalprogress/productrecycling.html#.V-IPA\_krKiM

Date	Version History	Action	Description of Change
17-Feb-2017	From Version 26 to 27	Changed	HPE Memory section under Core Options was revised.
13-Feb-2017	From Version 25 to 26	Added	Added new HDD and SSD offering to HPE Drives section.
		Changed	Processors and Memory under Standard Features were revised.
			Storage Software, HPE Unique Options, HPE Processors, and HPE Memory were revised.
16-Dec-2016	From Version 24 to 25	Added	Availability note was added to the HPE Drives section.
		Changed	Overview, Storage Software, and HPE Computation and Graphics Accelerators were revised.
28-Nov-2016	From Version 23 to 24	Added	Added new NVIDIA Tesla M10 and P100 cards new Virtualization and High-End General Compute GPU offering.  Added new LFF HDDs up to 10TB capacity now bring the DL380 max storage capacity to 150TB SAS.  Added new Fiber Channel HBA's up to 32Gb.  Added new E5-2699Av4 processor.
		Changed	Processors, Memory, Maximum Internal Storage, HPE Drives, HPE Computation and Graphics Accelerators, and HPE Storage Options were revised.
		Removed	Obsolete SKUs were removed from the QuickSpecs.
28-Oct-2016	From Version 22 to 23	Removed	Obsolete Hard Drives were removed from the QuickSpecs.
26-Sep-2016	From Version 21 to 22	Added	Added new NVIDIA Tesla M4/M40 GPUs and new 10TB LFF hard drives offering.
		Changed	Memory, Maximum Internal Storage, HPE Computation and Graphics Accelerators, and HPE Storage Options were revised.
		Removed	Obsolete SKUs were removed from the QuickSpecs.
19-Aug-2016	From Version 20 to 21	Changed	Smart Buy models section was revised for the NA version only.
15-Aug-2016	From Version 19 to 20	Added	Added new options to HPE Networking, HPE Infiniband, HPE Computation and Graphics Accelerators, HPE Disk Backup, and HPE Storage Options.
		Changed	HPE Unique Options was revised.
		Removed	Obsolete SKUs were removed from the QuickSpecs.
8-Jul-2016	From Version 18 to 19	Changed	Smart Buy models section was revised for the NA version only.
6-Jun-2016	From Version 17 to 18	Added	Added new 25GbE networking options, OneView 3.0, and new NVIDIA Quadro GPU options.
		Changed	Pre-configured Models, HPE Memory, HPE Drives, HPE Computation and Graphics Accelerators, HPE Disk Backup, and HPE Storage Options were updated.

29-Apr-2016	From Version 16 to 17	Changed	E5-2600v4 Series Smart Buy Models table was updated in the NA version only.
1-Apr-2016	From Version 15 to 16	Changed	What's New section was updated. Standard Features/Memory and HPE Memory sections were revised.
31-Mar-2016	From Version 14 to 15	Added	Added new Smart Memory DDR4 2400MHz, Intel Xeon E5-2600v4 processor support, new Flexible Smart Array P840ar controller, new graphic options, new HPE Trusted Platform Module (TPM) 2.0, new HDD offering.
		Changed	Embedded Management, Service and Support, Preconfigured Models, HPE Security, and Memory sections were revised.
		Removed	Obsolete SKUs were removed from the QuickSpecs.
16-Feb-2016	From Version 13 to 14	Added	New HDD offering was added to HPE Drives.
		Changed	HPE Computation and Graphics Accelerators, HPE Data Center Racks, and HPE Power Distribution Units (PDUs) were revised.
		Removed	Obsolete SKUs were removed from the QuickSpecs.
17-Dec-2015	From Version 12 to 13	Changed	Smart Buy models section was revised in the NA version only.
1-Dec-2015	From Version 11 to 12	Added	New HDD offering was added to HPE Drives.
			New options added to Graphics Options, HPE PCIe Workload Accelerator Options, and HPE Tape Backup.
		Changed	On System Management Chipset, Maximum Internal Storage, Embedded Management, and Server utilities were revised.
			Product images were updated.
		Removed	Obsolete SKUs were removed from the QuickSpecs.
28-Sep-2015	From Version 10 to 11	Added	Added new 6Gb SATA Solid State Drives.
			Added new HPE OneView management software.
		Changed	Maximun Internal Storage was revised.
		Removed	Obsolete SKUs were removed from the QuickSpecs.
17-Aug-2015	From Version 9 to 10	Added	Added new Solid State Drives offering.
			Added new graphic options.
		Changed	What's New changed to:
			New support for NVMe PCIe SSDs
			New Graphic card options
			Service and Support section was updated.
			Maximun Internal Storage and Core Options were revised.
		Removed	Obsolete SKUs were removed from the QuickSpecs.
1-Jun-2015	From Version 8 to 9	Added	New larger capacity HDDs (up to 8TB LFF), Max capacity 120TB were added.
			New higher capacity memory (64GB), Max capacity

			1.5TB was added.
			New Networking options were added.
			Optional Software added to HPE Storage Controllers.
		Changed	Updated max HDD and memory capacity due to new options added.
			HPE SmartCache Software, HPE Disk Backup System, HPE Uninterruptible Power Systems (UPS) were updated.
30-Mar-2015	From Version 7 to 8	Added	New Hard Drives offering.
			Optical Software added to HPE Storage Controllers.
			Added new HPE Care Pack Services.
			Added new HPE PCIe Workload Accelerator Options.
		Changed	What's New, Standard Features, Unique Options, Power Supplies, HPE Storage Controllers, HPE Disk Storage Systems, and Technical Specifications were revised.
		Removed	Removed obsolete HPE Care Pack Services.
17-Feb-2015	From Version 6 to 7	Added	Added Smart Buy Models to the NA version only.
9-Feb-2015	From Version 5 to 6	Added	What's new section was added.
			Added new HDD offering, new computational Graphics options, and new G4 UPS models.
		Changed	HPE Drives, HPE Computation and Graphics Accelerators, HPE Tape Backup, HPE Disk Backup, HPE Rack Mount, Consoles, KVM Switches, and Keyboards, and HPE Uninterruptible Power Systems (UPS) sections were revised.
1-Dec-2014	From Version 4 to 5	Changed	Changes made throughout the entire QuickSpecs.
13-Oct-2014	From Version 3 to 4	Changed	Corrected inconsistencies between Product Bulletin and Concentra versions.
13-Oct-2014	From Version 2 to 3	Added	6G SATA Enterprise Value G1 Solid State Drives were added to Core Option section.
			HPE PCIe Workload Accelerator Options, HPE USB and SD options, and HPE Care Pack Services were added to the Additional Options section.
		Changed	Standard Features, Optional Features, Pre- Configured Models, Configuration Information - Factory Integrated Models, Core Options, Additional Options, and Memory sections were revised.
19-Sep-2014	From Version 1 to 2	Changed	Changes were made throughout the QuickSpecs.





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

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