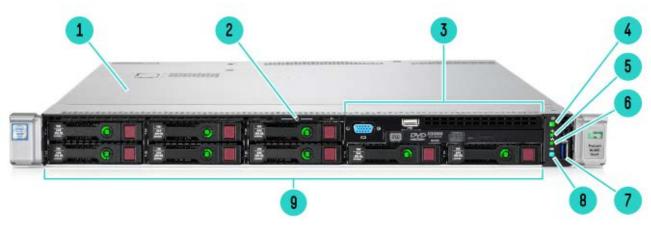
QuickSpecs

Overview

HPE ProLiant DL360 Generation9 (Gen9)

The Hewlett Packard Enterprise leading server for dense general-purpose computing, the HPE ProLiant DL360 Gen9 Server delivers increased performance with the best memory and I/O expandability packed in a 1U dense rack design. Reliability, serviceability and always on availability, backed by a comprehensive warranty, make it ideal for the most space constrained server workloads.



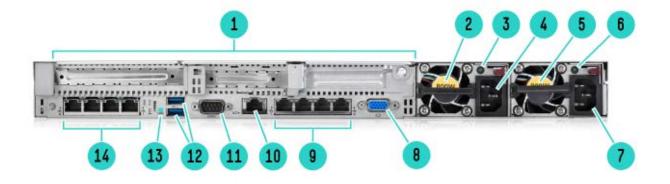
Front View

- 1 Access Panel
- 3 HPE Universal Media Bay or NVMe NOTE: Shown w/ VGA, USB 2.0 and DVD-ROM or DVD-RW option. Alternative options: NVMe HDD Kits, 2 SFF HDDs or VGA and USB 2.0.
- 5 Health LED
- 7 USB 3.0 Connector
- 9 SAS/SATA/SSD/NVMe Drive Bays

NOTE: 8SFF Model shown can be configured:

- 8 SAS/SATA Drives or 10 SAS/SATA drives
- 4 SAS/SATA (Drive 1-4) + 6 NVMe (Drive 5-10)
- 8 SAS/SATA + Universal Media Bay
- 4 LFF Models are also available.

- 2 Serial Label Pull Tab
- 4 Power On/Standby button and system power LED button
- 6 NIC Status LED
- 8 Unit Identification Button & LED



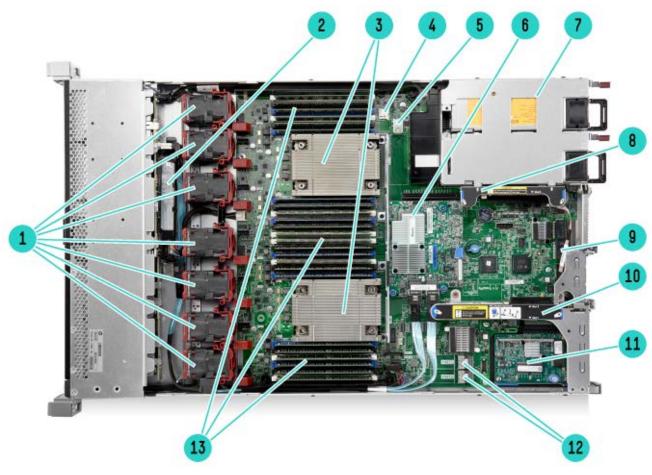
Rear view



Overview

- 1 PCle 3.0 Slots 1-3
 - **NOTE:** Slot 1 and 2 Riser Ships Standard, Slot 3 Optional one FH/ ¾ length and two Low Profile slots available (shown) or two FH/ ¾ length slots.
- 3 Power Supply 2 Status LED
- 5 HPE Flexible Slot Power Supply Bay 1
- 7 Power Supply 1 C13 Connection
- 9 Embedded 4x1GbE Network Adapter
- 11 Serial Port Connector (Optional)
- 13 Unit Identification LED

- 2 HPE Flexible Slot Power Supply Bay 2
- 4 Power Supply 2 C13 Connection
- 6 Power Supply 1 Status LED
- 8 Video Connector
- 10 Dedicated iLO 4 connector
- 12 USB 3.0 Connectors (2)
- 14 FlexibleLOM bay (Optional)
 NOTE: Shown: 4x1Gbe.



Internal View

- 1 5 Standard Fans Ship for 1P and 7 Standard Fans Ship for 2P
 - **NOTE:** High Performance Fans also available as an option.
- 3 2 Processors with HPE Smart Socket Guide
- 5 Dual Internal USB 3.0 connector
- 7 2 HPE Flexible Slot Power supplies NOTE: Optional Micro UPS option.
- 9 Embedded 4x1Gbe NIC
- 11 FlexibleLOM Bay (Optional)
- 13 24 DDR4 DIMM slots (12 per processor)

- 2 HPE Smart Storage Battery (Optional)
- 4 MicroSD card slot
 - **NOTE:** Optional Dual Micro-SD option.
- 6 HPE Flexible Smart Array or Smart HBA (Optional) NOTE: H240ar shown and P440ar available.
- 8 Secondary PCle 3.0 riser for PCle slot 3 (requires CPU 2)
- 10 Primary PCle 3.0 riser for PCle slots 1 & 2
- 12 Embedded SATA Controller ports

Overview

What's New

- New LFF HDDs up to 10TB brings the DL360 max LFF storage capacity to 40TB SAS
- New Fiber Channel HBAs up to 32Gb
- New E5-2699A v4 CPU from Intel

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

Processor

| Model | CPU frequency | Cores | L3 Cache | Power | QPI | DDR4 Hz |
|------------|------------------|-------|----------|-------|---------|---------|
| E5-2699v3 | 2.3GHz | 18 | 45MB | 145W | 9.6GT/s | 2133 |
| E5-2698v3 | 2.3GHz | 16 | 40MB | 135W | 9.6GT/s | 2133 |
| E5-2697v3 | 2.6GHz | 14 | 35MB | 145W | 9.6GT/s | 2133 |
| E5-2695v3 | 2.3GHz | 14 | 35MB | 120W | 9.6GT/s | 2133 |
| E5-2690v3 | 2.6GHz | 12 | 30MB | 135W | 9.6GT/s | 2133 |
| E5-2687Wv3 | 3.1GHz | 10 | 25MB | 160W | 9.6GT/s | 2133 |
| E5-2683v3 | 2.0GHz | 14 | 35MB | 120W | 9.6GT/s | 2133 |
| E5-2680v3 | 2.5GHz | 12 | 30MB | 120W | 9.6GT/s | 2133 |
| E5-2670v3 | 2.3GHz | 12 | 30MB | 120W | 9.6GT/s | 2133 |
| E5-2667v3 | 3.2GHz | 8 | 20MB | 135W | 9.6GT/s | 2133 |
| E5-2660v3 | 2.6GHz | 10 | 25MB | 105W | 9.6GT/s | 2133 |
| E5-2650v3 | 2.3GHz | 10 | 25MB | 105W | 9.6GT/s | 2133 |
| E5-2650Lv3 | 1.8GHz | 12 | 30MB | 65W | 9.6GT/s | 2133 |
| E5-2643v3 | 3.4GHz | 6 | 20MB | 135W | 9.6GT/s | 2133 |
| E5-2640v3 | 2.6GHz | 8 | 20MB | 90W | 8.0GT/s | 1866 |
| E5-2637v3 | 3.5GHz | 4 | 15MB | 135W | 9.6GT/s | 2133 |
| E5-2630v3 | 2.4GHz | 8 | 20MB | 85W | 8.0GT/s | 1866 |
| E5-2630Lv3 | 1.8GHz | 8 | 20MB | 55W | 8.0GT/s | 1866 |
| E5-2623v3 | 3.0GHz | 4 | 10MB | 105W | 8.0GT/s | 1866 |
| E5-2620v3 | 2.4GHz | 6 | 15MB | 85W | 8.0GT/s | 1866 |
| E5-2609v3 | 1.9GHz | 6 | 15MB | 85W | 6.4GT/s | 1600 |
| E5-2603v3 | 1.6GHz | 6 | 15MB | 85W | 6.4GT/s | 1600 |
| 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 | 3.6GHz | 22 | 55MB | 145W | 9.6GT/s | 2400 |

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

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

NOTE: Processors consuming up to 120w ship with standard heat sink.

Processors consuming over 120w ships with a High Performance heat sink as standard.

A High Performance heat sink can be added to help reduce power consumption (795235-B21).

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 or later) 4GB NAND

Management

NOTE: 1GB USB user space configurable via UEFI and accessible via iLO. Read and learn more in

Chipset the iLO QuickSpecs.

Memory Type:

One of the following HPE SmartMemory

depending on

model

DDR4 Registered (RDIMM) or Load Reduced (LRDIMM)

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

per channel)

Maximum Capacity

3ТВ (24 x 128GB LRDIMM)

(LRDIMM)

Maximum Capacity

768GB 24 x 32GB RDIMM

(RDIMM)

Maximum Capacity

128GB (16 x 8GB NVDIMM)*

(NVDIMM)

NOTE: 128GB DIMMs cannot be mixed with any other size DIMMs.

NOTE: *NVDIMMs cannot be used with LRDIMMs. **NOTE:** *A maximum of 16 NVDIMMs can be supported.

NOTE: *NVDIMMs only supported on factory configured servers with E5-2600 v4 processors, not

supported on servers upgraded from E5-2600 v3 to E5-2600 v4 processors.

Memory Protection Advanced ECC

Advanced ECC uses single device data correction to detect and correct

single and all multibit error that occurs within a single DRAM chip.

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

operation to the spare rank.

Expansion Slots

| Primary Riser | Expansion Slots # | Technology | Bus Width | Connector Width | Bus Number | Form Factor | Notes |
|---------------|-------------------|------------|--------------|--------------------|---------------|---|-------------|
| | 1 | PCIe 3.0 | x16 | x16 | | Full-height, ¾ length (up to 9.5") Slot | Processor 1 |
| | 2 | PCIe 3.0 | x8 | x8 | | Low profile slot | Processor 1 |

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

Secondary Riser **Device Expansion Technology** Connector Bus Form Factor Bus **Notes** Slots # Width Number Number Width 3 PCle 3.0 x16 x16 Processor 2 Low profile

3 PCle 3.0 x16 x16

Full-height, ¾ Processor 2* length (up to 9.5")
Slot

NOTE: *If secondary FH kit (867249-B21) is installed, then primary PCle Slot 2 cannot be used. Only 2 FH slots are supported.

Storage Controller Entry Models

One of the following depending on model

Entry Models HPE Dynamic Smart Array B140i Controller

HPE H240ar Smart Host Bus Adapter

NOTE: For E5-2600v3 Entry models, the embedded B140i will operate in UEFI mode only.

For legacy mode support an additional controller will be needed.

For Factory Integrated Model orders please also select "HP Legacy FIO Mode

Setting", 758959-B22.

NOTE: The embedded B140i defaults to AHCI off the chipset.

HPE Dynamic Smart Array Controller needs to be enabled on the SATA only models if

needed.

Base Models HPE Flexible Smart Array P440ar/2GB Performance Models HPE Flexible Smart Array P440ar/2GB

Internal Storage

Devices

One of the following depending on model

Optical Drives 8 SFF with optional Universal Media bay

Option Kit 764632-B21 VGA, SFF DVD-RW USB Kit Option Kit 818213-B21 VGA, SFF DVD-ROM USB Kit

4 LFF

Option Kit 726536-B21 - HP 9.5mm SATA DVD-ROM Jb Gen9 Kit Option Kit 726537-B21 - HP 9.5mm SATA DVD-RW Jb Gen9 Kit **NOTE:** Optical cable kit Required for optical drives, 766203-B21.

Hard Drives None ship standard

Hard Drive Bays 8 SFF with optional Universal Media Bay or NVMe drive support

4 LFF

10 SFF; 8 SFF Model with optional 2 SFF SAS/SATA kit: 764630-B21 **NOTE:** HPE ProLiant DL360 Servers offer both SFF and LFF versions. **NOTE:** Pre-configured models come populated with some hard drive

blanks.

To order additional (single) hard drive blanks, use either: P/N 666987-B21: HPE SFF Hard Drive Blank Kit or P/N 666986-B21: HPE LFF Hard Drive Blank Kit.

NOTE: The 2SFF kit comes with cable for internal B140i SATA controller.

CONFIGURATION

For SAS an alternate storage controller and cable kit are required.

| Max | imum | Int | ernal | |
|------|------|-----|-------|--|
| Stor | age | | | |

| | CAPACITY | CONFIGURATION |
|------------------------|----------|--------------------|
| Hot Plug SFF SAS SSD | 38.4TB | 10 x 3.84TB |
| Hot Plug SFF SATA SSD | 38.4TB | 10 x 3.84TB |
| Hot Plug SFF SAS | 20.0TB | 10 x 2.0TB |
| Hot Plug SFF SATA | 20.0TB | 10 x 2.0TB |
| Hot Plug LFF SAS SSD | 6.4TB | 4 x 1.6TB |
| Hot Plug LFF SATA SSD | 15.36TB | 4 x 3.84TB |
| Hot Plug LFF SAS | 40.0TB | 4 x 10TB |
| Hot Plug LFF SATA | 40.0TB | 4 x 10TB |
| Hot Plug SFF NVMe PCle | 27.36TB | 6 x 2.0TB NVMe + |
| SSD | | 4 x 3.84TB SFF SSD |
| 3 | 27.3018 | |

CADACITY

Redundant

Standard Features

Power Supply HPE 500W Flex Slot Platinum Hot Plug Power Supply

One of the following **NOTE:** Available in 94% efficiency.

depending on HPE 800W Flex Slot Platinum Hot Plug Power Supply model

NOTE: Available in 94% and 96% efficiency.

NOTE: Also available in -48VDC and 227VAC/380VDC power inputs, 720480-B21.

HPE 1400W Flex Slot Platinum Plus Hot Plug Power Supply

NOTE: Available in 94% efficiency.

HPE Flexible Slot Battery Backup Unit Kits

NOTE: Flex Slot Battery Backup provides 750W output and 500W in paralleled configuration.

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

Non-redundant

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

| System | Fans |
|----------|-------------|
| One of t | ha fallowir |

One of the following 1P model depending on model

N/A 5 fans Non-redundant Redundant 7 fans 2P model N/A

NOTE: The second processor option kit contains two fans.

NOTE: High Performance Fan Kit, 766201-B21, is available to meet some extended ambient operating temperatures above 35° C. Qualifications for extended ambient configurations are

detailed at: https://www.hp.com/servers/ashrae.

Interfaces

Serial

NOTE: Serial Cable Option Kit: 764646-B21.

Video 1 rear (Standard)

1 front (Optional)

NOTE: Front VGA options available for 8SFF and 4LFF models. See Core Options section of this QuickSpecs for more details.

Network RJ-45 (Ethernet) Embedded 4x1GBE + FlexibleLOM bay

NOTE: Both the SFF and LFF chassis have an embedded 4x1GbE NIC and FlexibleLOM bay.

See HPE Networking section below for more details.

HPE iLO Remote Management 1Gb Dedicated

Network Port SD Connector

1 micro SD Internal

NOTE: The SD slot is not a hot-pluggable device.

Customers should not attempt to plug an SD card into the SD slot while the server is powered.

USB 3.0 5 total: 2 rear, 1 front, 2 internal

Operating Systems Microsoft Windows Server

VMware

and Virtualization **Software Support** for ProLiant Servers

Red Hat Enterprise Linux (RHEL) **SUSE Linux Enterprise Server (SLES)**

Canonical Ubuntu Oracle Linux CentOS

Citrix XenServer **Oracle Solaris Wind River Linux**

NOTE: For more information on HPE Certified and Supported ProLiant Servers for OS and Virtualization Software and latest listing of software drivers available for your server including how to purchase from Hewlett Packard Enterprise, please visit our OS Support Site

at: http://www.hp.com/go/ossupport and our driver download

page http://h20566.www2.hpe.com/hpsc/swd/public/readIndex?sp4ts.oid=7252838

Upgradeability

Upgradeable to 2 processors (44 Cores)

Up to 24 DIMM slots available for higher Memory capacity Up to 10 SFF Hard Drive Bays; or 4 LFF Hard Drive Bays

FlexibleLOM slot for 1GbE or 10GbE or QDR/FDR InfiniBand Networking Options

3 PCle 3.0 I/O slots for additional communications and storage expansion

NOTE: Slot 1 and 2 Riser Shipped Standard.

Slot 3 Optional 1 FH, ¼ length and 2 Low Profile slots available or two FH, ¼ length slots.

Redundant Power Supplies

Optical Drive supported via Universal Media Bay

8SFF Model with:

Option Kit 764632-B21 VGA, SFF DVD-RW USB Kit Option Kit 818213-B21 VGA, SFF DVD-ROM USB Kit

4LFF Model with:

Option Kit 726536-B21 - HP 9.5mm SATA DVD-ROM Jb Gen9 Kit Option Kit 726537-B21 - HP 9.5mm SATA DVD-RW Jb Gen9 Kit **NOTE:** Optical cable kit Required for optical drives, 766203-B21.

Compliance

Industry Standard ACPI 2.0b Compliant PCIe 3.0 Compliant

PXE Support WOL Support

Microsoft® Logo certifications

USB 3.0 Support Energy Star ASHRAE A3/A4

NOTE: The DL360 Gen9 is now one of the first HPE ProLiant Gen9 Servers with Extended Ambient Support up to 45C for data center infrastructures designed for better energy efficiency.

For additional technical thermal details regarding ambient temperatures, humidity and features support please visit https://www.hp.com/servers/ashrae.

Graphics

Integrated Matrox G200 video standard

1280 x 1024 (32 bpp)

1920 x 1200 (16 bpp)

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

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 | Ea | c+c | |
| CULIII | Гα | CIC | " |

1U Rack form factor

One of the following 8 SFF Drive Bay Version and 10 SFF Drive Bay Version:

depending on model

1.7" (4.32cm) Height x 17.11" (43.47cm) Width x 27.5" (69.85cm) Length

4 LFF Drive Bay Version:

1.7" (4.32cm) Height x 17.11" (43.47cm) Width x 29.5" (74.67cm) Length

Embedded Management

Lights-Out (HPE iLO)

HPE Integrated Monitor your servers for ongoing management, service alerting, reporting and remote 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 http://www.hpe.com/info/restfulapi.

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

Provisioning. Learn more

at http://www.hpe.com/servers/intelligentprovisioning.

Embedded

The Hewlett Packard Enterprise embedded remote support, when used with Remote Support Insight 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 guick and seamless firmware updates. Learn more at http://www.hpe.com/servers/hpsim.

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 http://www.hpe.com/servers/proliant/stk 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.

Application

HPE iLO Mobile 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.

Security

Power-on password Keyboard password

QuickLock, Network Server Mode

Serial interface control Administrator's password

iLO 4 (Integrated Lights-Out 4) has 12 customizable user accounts and SSL encryption

iLO 4 can be disabled via a Global Setting

iLO Advanced supports directory services integration

TPM 2.0 UEFI

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

Server Management

HPE Insight Control

HPE Insight Control, lets you deploy, migrate, monitor, remote control, and optimize your IT infrastructure through a single, simple management console. For

more information, see http://www.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 http://www.hpe.com/info/cmu.

Rack and Power Infrastructure

HPE Rack and Power Infrastructure products and services create highly efficient and intelligent solutions for existing or new IT data centers. HPE Rack and Power infrastructure solutions – rack infrastructure, power protection and management, performance optimized data centers (PODs) – are the foundation you are looking for to help secure your long-term IT success. These products are designed to help you react to changes in the industry. They deliver efficient, easy-to-use capabilities to manage, monitor, deploy and provision infrastructure from entry to enterprise. As an industry leader, Hewlett Packard Enterprise is uniquely positioned to address the key concerns of power, cooling, cable management and system access.

Learn more at HPE Rack and Power Infrastructure.

High Performance HPE Insight Clusters

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

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:

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.

Optional Features

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

With HPE StoreVirtual VSA you can use the power of virtualization to create a virtual array within your host server. Manage it as a single pool of shared storage capacity, and scale it to match your evolving needs. HPE ProLiant Gen9 servers include a 3-year limited license for HPE StoreVirtual VSA software with 1TB of capacity at no extra cost. Simply select to install HPE StoreVirtual VSA software during server setup within Intelligent Provisioning. More information, instructional videos, and free console management software are available at http://www.hp.com/go/vsa1TB.

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

(SCE)

One Config Simple 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.

1-IDC 2-HPCSC reports 2014-2015

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, 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).

Service and Support

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 http://www.hpe.com/support/hpesc

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: http://www.hpe.com/services

Pre-configured Models

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

- 1. Pre-configured models ship with the configurations below. Options can be selected from the Core or Additional options section of this QuickSpecs.
- 2. 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 either P/N 666987-B21: HPE SFF Hard Drive Blank Kit or 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 | | | Base Models | | |
|-------------------------|---|---|---|---|---|---|
| [SKU Number] | 818207-B21 | 755260-B21 | 755261-B21 | 818208-B21 | 848736-B21 | 755262-B21 |
| Model Name | HPE ProLiant DL360 Gen9 E5-2603v4 1P 8GB-R H240ar 8SFF 500W PS Entry SAS Server | HP ProLiant DL360 Gen9 E5-2603v3 1P 8GB-R B140i 500W PS Entry SATA Server | HP ProLiant DL360 Gen9 E5-2603v3 1P 8GB-R H240ar 500W PS Entry SAS Server | HPE ProLiant DL360 Gen9 E5-2630v4 1P 16GB-R P440ar 8SFF 500W PS Base SAS Server | HPE ProLiant DL360 Gen9 E5-2640v4 1P 16GB-R P440ar 8SFF 500W PS Base Server | HP ProLiant DL360 Gen9 E5-2630v3 1P 16GB-R P440ar 500W PS Base SAS Server |
| Processor | Intel® Xeon® E5- 2603v4 | Intel® Xeon® | E5-2603v3 | Intel® Xeon® E5- 2630v4 | Intel® Xeon® E5- 2640v4 | Intel® Xeon® E5- 2630v3 |
| Number of Processors | One | | | | | |
| Memory | 8GB (1x8GB Registered DIMMs, 2400 MHz) NOTE: With E5- 2603 v4 Processor, the actual DIMM speed will operate at 1866 MHz depending on DIMM configuration. | 8GB (1x8GB Registered DIMMs, 2133 MHz) NOTE: With E5-2603 v3 Processor, the actual DIMM speed will operate at 1600 MHz depending on DIMM configuration. | | 16GB (1x16GB Registered DIMMs, 2400 MHz) NOTE: With E5- 2630 v4 Processor, the actual DIMM speed will operate at 2133 MHz depending on DIMM configuration. | 16GB (1x16GB Registered DIMMs, 2400 MHz) NOTE: With E5- 2640 v4 Processor, the actual DIMM speed will operate at 2133 MHz depending on DIMM configuration. | 16GB (1x16GB Registered DIMMs, 2133 MHz) NOTE: With E5- 2630 v3 Processor, the actual DIMM speed will operate at 1866 MHz depending on DIMM configuration. |
| Network Controller | | HPE | Embedded 1Gb E | thernet 4-port 331 | i Adapter | |
| Storage Controller | HPE H240ar Smart Host Bus Adapter | HPE Dynamic Smart Array B140i NOTE: The embedded | HPE H240ar Smart Host Bus Adapter | HPE Flexi | ible Smart Array P4 | 40ar/2GB |

Pre-configured Models

| | T | 1 | | | | |
|----------------------|--|---|-------------------|--|--|--|
| Used Drive | Nana ship | B140i will operate in UEFI mode only. For legacy support an additional controller will be needed. | | New again standard | | |
| Hard Drive | None ship standard | None ship standard NOTE: The embedded B140i defaults to AHCI off the chipset. HPE Dynamic Smart Array Controller needs to be enabled on the SATA only models if needed. | | None ship standard | | |
| Internal Storage | | | 8 SFF | HDD Bays | | |
| Optical Drive Bay | | | Optional via U | Iniversal Media Bay | | |
| PCI-Express Slots | 2 Standard (1-FH/¾ L, 1-LP) PCle 3.0 | | | | | |
| Power Supply | (1) HPE 500W Flex Slot Platinum Power Supply | | | | | |
| Fans | 5 standard hot plug fans, redundant | | | | | |
| Management | iLO Managem | iLO Management (standard), Intelligent Provisioning (standard), iLO Advanced (optional), Insight Control (optional), HPE OneView (optional) | | | | |
| Form Factor | | | Rack (1U), HF | PE Easy Install Rails | | |
| Warranty | Server Warranty | includes 3-Year P | arts, 3-Year Labo | r, 3-Year Onsite support with next business day response | | |
| | | D (| M. J.L. | Historia Martin | | |

| | Performa | nce Models | High Performance Models | | |
|----------------------|---|------------------------|-------------------------|------------------------|--|
| [SKU Number] | 818209-B21 755263-B21 85193 | | 851937-B21 | 795236-B21 | |
| Model Name | HPE ProLiant DL360 | HP ProLiant DL360 | HPE ProLiant DL360 | HP ProLiant DL360 | |
| | Gen9 E5-2650v4 2P | Gen9 E5-2650v3 2P | Gen9 E5-2660v4 2P | Gen9 E5-2670v3 2P | |
| | 32GB-R P440ar 8SFF | 32GB-R P440ar 800W | 64GB-R P440ar 8SFF | 64GB P440ar 8SFF | |
| | 800W RPS Perf SAS | RPS Performance SAS | 800W RPS Perf2 SAS | 2x10Gb-T 2x800W | |
| | Server | Server | Server | OneView Server | |
| Processor | Intel® Xeon® E5- | Intel® Xeon® E5- | Intel® Xeon® E5- | Intel® Xeon® E5- | |
| | 2650v4 | 2650v3 | 2660v4 | 2670v3 | |
| Number of Processors | | Ţ | wo | | |
| Memory | 32GB (2x16GB | 32GB (2x16GB | 64GB (4x16GB | 64GB (4x16GB | |
| | Registered DIMMs, | Registered DIMMs, | Registered DIMMs, | Registered DIMMs, | |
| | 2400 MHz) | 2133 MHz) | 2400 MHz) | 2133 MHz) | |
| | NOTE: With E5-2650 | NOTE: With E5-2650 | NOTE: With E5-2660 | NOTE: With E5-2670 | |
| | v4 Processor, the | v3 Processor, the | v4 Processor, the | v3 Processor, the | |
| | actual DIMM speed will | actual DIMM speed will | actual DIMM speed will | actual DIMM speed will | |

Pre-configured Models

| | operate at 2400 MHz depending on DIMM configuration. | operate at 2133MHz depending on DIMM configuration. | operate at 2400 MHz depending on DIMM configuration. | operate at 2133 MHz depending on DIMM configuration. | | |
|--------------------|--|--|--|---|--|--|
| Network Controller | HPE Embedded 4x1Gb, plus 2x10Gb-T Flexible LOM | HPE Embedded 4x1Gb, plus 2x10Gb FLR-T FlexFabric Flexible LOM | HPE Embedded 4x1Gb, plus 2x10Gb SFP+ Flexible LOM | HPE Embedded 4x1Gb, plus 2x10Gb FLR-T FlexFabric Flexible LOM | | |
| Storage Controller | HPE Flexible Smar | HPE Flexible Smart Array P440ar/2GB HPE Smar P440ar/2G 0 | | HPE Flexible Smart Array P440ar/2GB | | |
| Hard Drive | | None shi | ip standard | | | |
| Internal Storage | | 8 SFF HDD Bays | | | | |
| Optical Drive Bay | | Optional via Universal Media Bay | | | | |
| PCI-Express Slots | 2 Standard (1-FH) | 2 Standard (1-FH/¾ L, 1-LP) PCIe 3.0 3 Standard (1-FH/HL, 2-LP) PCIe 3.0 | | | | |
| Power Supply | (2) HPE 8 | (2) HPE 800W Flex Slot Platinum Power Supply | | | | |
| Fans | | 7 standard hot p | lug fans, redundant | | | |
| Management | iLO Management (standard), Intelligent Provisioning (standard), iLO Advanced (standard), HPE OneView (optional) iLO Managem (standard), Inte Provisionin (standard), i Advanced (stan HPE OneView | | | iLO Management (standard), Intelligent Provisioning (standard), iLO Advanced (standard), HPE OneView (Standard) | | |
| Energy Star | | Meets Energy S | Star requirements | | | |
| Form Factor | | Rack (1U), HPE Easy Install Rails | | | | |
| Warranty | Server Warranty includ | | abor, 3-Year Onsite suppor ponse | t with next business day | | |

| | E5-2600v4 Series Smart Buys | | | | |
|----------------------|---|--|---|--|--|
| [SKU Number] | 850366-S01 | 861540-S01 | 850367-S01 | | |
| Model Name | HPE ProLiant DL360 Gen9 E5-2680v4 2P SFF US Svr/S- Buy | HPE ProLiant DL360 Gen9 E5- 2697v4 SFF US Svr/S-Buy | HPE ProLiant DL360 Gen9 E5-2690v4 SFF US Svr/S-Buy | | |
| Processor | Intel® Xeon® E5-2680v4 | Intel® Xeon® E5-2697v4 | Intel® Xeon® E5-2690v4 | | |
| Number of Processors | Two | Oı | ne | | |
| Memory | 64GB (4x16GB Registered DIMMs, 2400 MHz) NOTE: DIMMs will operate at 2400MHz with this processor. | _ | red DIMMs, 2400 MHz) 2400MHz with this processor. | | |
| Network Controller | HPE Embedded 1Gb Ethernet 4-port 331i Adapter + HPE 533FLR-T 10GbE 2- port | HPE Embedded 1Gb Ethernet 4-port 331i Adapter | HPE Embedded 1Gb Ethernet 4-port 331i Adapter + HPE 533FLR-T 10GbE 2- port | | |
| Storage Controller | HPE Flexible Si | mart Array P440ar/2GB + Smart | Storage Battery | | |
| Hard Drive | | None ship standard | | | |
| Internal Storage | | 8 SFF SATA/SAS Bays | | | |
| Optical Drive Bay | None included, (Op | tional: DVD-ROM, DVD-RW via U | niversal Media Bay) | | |
| PCI-Express Slots | Three (3) Standard (1- FH/HL, 2-LP) PCIe 3.0 | Two (2) Standard (1-F | FH/¾ L, 1-LP) PCIe 3.0 | | |
| Power Supply | Two (2) HPE 800W Flex Slot Platinum Power Supplies | Two (2) HPE 550W Flex Slot Platinum Power Supplies | Two (2) HPE 800W Flex Slot Platinum Power Supplies | | |
| Fans | Seven (7) Standard hot plug fans, redundant | Five (5) Standard hot plug fans, redundant | | | |
| Management | Standard: iLO Management Optional: iLO Advanced, Insight Control, HPE OneView | | | | |
| Form Factor | | Rack (1U), HPE Easy Install Rails | | | |
| Warranty | 3-Year Parts, 3-Year Lab | or, 3-Year Onsite support with ne | xt business day response | | |

| | E5-2600v4 Series Smart Buys | | | | |
|----------------------|--|--|--|---|--|
| [SKU Number] | 850365-S01 | 867446-S01 | 867447-S01 | 849455-S01 | |
| Model Name | HPE ProLiant DL360 Gen9 E5-2643v4 SFF US Svr/S-Buy | HPE ProLiant DL360 Gen9 E5-2640v4 SFF US Svr/S-Buy | HPE ProLiant DL360 Gen9 E5-2620v4 SFF US Svr/S-Buy | HPE ProLiant DL360 Gen9 E5-2620v4 SAS US Svr/S-Buy | |
| Processor | Intel® Xeon® E5- 2643v4 | Intel® Xeon® E5-2640v4 | Intel® Xeon® | E5-2620v4 | |
| Number of Processors | | Oı | ne | | |
| Memory | 32GB (2x16GB Registered DIMMs, 2400 MHz) NOTE: DIMMs will operate at 2400MHz with this processor. | 16GB (1x16GB 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. | 16GB (2x8GB Registered DIMMs, 2400 MHz) NOTE: DIMMs will operate at 2133MHz with this processor. | |
| Network Controller | | HPE Embedded 1Gb Ethe | d 1Gb Ethernet 4-port 331i Adapter | | |
| Storage Controller | HPE Flexible Smar | † Array P440ar/2GB + Sm | art Storage Battery HPE H240ar Smart Host Bus Adapter | | |
| Hard Drive | None ship standard | | | | |
| Internal Storage | | 8 SFF SAT | A/SAS Bays | | |
| Optical Drive Bay | None included, (Optional: DVD-ROM, DVD-RW via Universal Media Bay) | | | Media Bay) | |
| PCI-Express Slots | | Two (2) Standard (1-F | H/¾ L, 1-LP) PCle 3.0 | | |
| Power Supply | Two (2) HPE 550W Flex Slot Platinum Power Supplies | (1) HPE 50 | .) HPE 500W Flex Slot Platinum Power Supplies | | |
| Fans | Five (5) Standard hot plug fans, redundant | | | | |
| Management | Standard: iLO Management Engine Optional: iLO Advanced, Insight Control, HPE OneView | | | | |
| Form Factor | | Rack (1U), HPE Easy Install Rails | | | |
| Warranty | 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response | | | | |

| | | E5-2600v3 Series Smart Buys | | |
|----------------------|---|---|--|--|
| [SKU Number] | 800082-S01 | 780022-S01 | 780019-S01 | |
| Model Name | HP ProLiant DL360 Gen9 E5- 2697v3 2P SFF US Svr/S-Buy | HP ProLiant DL360 Gen9 E5-2670v3 2P SFF US Svr/S- Buy | HP ProLiant DL360 Gen9 E5-2640v3 2P SFF US Svr/S- Buy | |
| Processor | Intel® Xeon® E5-2697v3 | Intel® Xeon® E5-2670v3 | Intel® Xeon® E5-2640v3 | |
| Number of Processors | | Two | | |
| Memory | NOTE: The DIMM will open | red DIMMs, 2133 MHz) rate at 2133 MHz with this essor. | 16GB (2x8GB Registered DIMMs, 2133 MHz) NOTE: The DIMM will operate at 1866 MHz with this processor. | |
| Network Controller | HPE Emb | HPE Embedded 1Gb Ethernet 4-port 331i Adapter | | |
| Storage Controller | HPE Flexible Sr | lle Smart Array P440ar/2GB + Smart Storage Battery | | |
| Hard Drive | | None ship standard | | |
| Internal Storage | | 8 SATA/SAS SFF HDD Bays | | |
| Optical Drive Bay | None included, (Op | tional: DVD-ROM, DVD-RW via U | Iniversal Media Bay) | |
| PCI-Express Slots | Two (2) Standard (1-FH/¾ L, 1- LP) PCIe 3.0 | Three (3) Standard (1-FH/HL, 2-LP) PCle 3.0 | | |
| Power Supply | Two (2) HPE 800W Flex SI | ot Platinum Power Supplies Two (2) HPE 500W Flex Slot Platinum Power Supplies | | |
| Fans | Sever | (7) Standard hot plug fans, redu | ındant | |
| Management | Standard: iLO Management Engine Optional: iLO Advanced, Insight Control, HPE OneView | Standard: iLO Management Engine Optional: iLO Advanced, Insight Control, HPE OneView | | |
| Form Factor | | Rack (1U), HPE Easy Install Rails | | |
| Warranty | 3-Year Parts, 3-Year Lab | 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response | | |

| | E5-2600v3 Series Smart Buys | | | |
|----------------------|---|---|---|--|
| [SKU Number] | 780021-S01 | 800081-S01 | 800080-S01 | 780020-S01 |
| Model Name | HP ProLiant DL360 Gen9 E5-2690v3 SFF US Svr/S-Buy | HP ProLiant DL360 Gen9 E5-2667v3 SFF US Svr/S-Buy | HP ProLiant DL360 Gen9 E5-2643v3 SFF US Svr/S-Buy | HP ProLiant DL360 Gen9 E5-2660v3 SAS US Svr/S-Buy |
| Processor | Intel® Xeon® E5- 2690v3 | Intel® Xeon® E5- 2667v3 | Intel® Xeon® E5- 2643v3 | Intel® Xeon® E5- 2660v3 |
| Number of Processors | | O | ne | |
| Memory | | 6GB Registered DIMMs, i vill operate at 2133MHz | | 16GB (1x16GB Registered DIMMs, 2133 MHz) NOTE: The DIMM will operate at 2133MHz with this processor. |
| Network Controller | F | 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 SATA/SAS S | SFF HDD Bays | |
| Optical Drive Bay | None includ | ded, (Optional: DVD-ROM | 1, DVD-RW via Universal | Media Bay) |
| PCI-Express Slots | | Two (2) Standard (1-F | FH/¾ L, 1-LP) PCIe 3.0 | |
| Power Supply | Two (2) HPE 800W Flex Slot Platinum Power Supplies | , , | ex Slot Platinum Power plies | Two (2) HPE 800W Flex Slot Platinum Power Supplies |
| Fans | | Five (5) Standard hot | plug fans, redundant | |
| Management | Ор | Standard: iLO Management Engine Optional: iLO Advanced, Insight Control, HPE OneView | | |
| Form Factor | | Rack (1U), HPE Easy Install Rails | | |
| Warranty | 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business 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)

| [Chassis] | HP ProLiant DL360 Gen9 4LFF Configure-to-order Server | HP ProLiant DL360 Gen9 8SFF Configure-to-order Server | | |
|-----------------------|--|--|--|--|
| SKU Number | 755259-B21 | 755258-B21 | | |
| Processor | 2 (optional) x HPE | Smart Socket Guide | | |
| DIMM Slots | 24 DIMM slots for RDIMN | M, LRDIMM DDR4 Memory | | |
| Storage Controller | HPE Dynamic S | Smart Array B140i | | |
| PCle | 2 PCle 3.0 Slots: Slot 1, FH / | 2 PCIe 3.0 Slots: Slot 1, FH / ¾ Length; Slot 2, Low Profile | | |
| Drive Cage | 4LFF Hot Plug | 8SFF Hot Plug | | |
| Network Controller | HPE Embedded 1Gb Ethernet 4-port 331i Adapter | | | |
| Fans | 5 standard hot plug fans, redundant | | | |
| Management | iLO Management (standard), Intelligent Provisioning (standard) | | | |
| USB | 1 front, 2 internal, 2 rear | | | |
| Ears | HPE Quick | Release Ears | | |

NOTE: 4LFF CTO Server includes 1 SATA Cable, option kit: 766213-B21, which attaches to the B140i controller. **NOTE:** 8SFF CTO Server includes two 4 x Mini-SAS Cables, option kit: 766209-B21, which attaches to an optional HPE Smart HBA H240ar or HPE Smart Array P440ar controller.

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 DL360 Gen9 Intel® Xeon® E5-2630Lv4 (1.8GHz/10-core/25MB/55W) FIO Processor Kit | 818164-L21 |
| | HPE DL360 Gen9 Intel® Xeon® E5-2650Lv4 (1.7GHz/14-core/35MB/65W) FIO Processor Kit | 818166-L21 |
| | HPE DL360 Gen9 Intel® Xeon® E5-2603v4 (1.7GHz/6-core/15MB/85W) FIO Processor Kit | 818168-L21 |
| | HPE DL360 Gen9 Intel® Xeon® E5-2609v4 (1.7GHz/8-core/20MB/85W) FIO Processor Kit | 818170-L21 |
| | HPE DL360 Gen9 Intel® Xeon® E5-2620v4 (2.1GHz/8-core/20MB/85W) FIO Processor Kit | 818172-L21 |
| | HPE DL360 Gen9 Intel® Xeon® E5-2623v4 (2.6GHz/4-core/10MB/85W) FIO Processor Kit | 818190-L21 |
| | HPE DL360 Gen9 Intel® Xeon® E5-2637v4 (3.5GHz/4-core/15MB/135W) FIO Processor Kit | 818192-L21 |
| | HPE DL360 Gen9 Intel® Xeon® E5-2643v4 (3.4GHz/6-core/20MB/135W) FIO Processor Kit | 818194-L21 |
| | Entry Processors - E5-2600v3 series Processors | |
| | HP DL360 Gen9 Intel® Xeon® E5-2603v3 (1.6GHz/6-core/15/MB/85W) FIO Processor Kit | 755374-L21 |
| | HP DL360 Gen9 Intel® Xeon® E5-2609v3 (1.9GHz/6-core/15MB/85W) FIO Processor Kit | 755378-L21 |
| | Base Processors - E5-2600v3 series Processors | |
| | HP DL360 Gen9 Intel® Xeon® E5-2623v3 (3GHz/4-core/10MB/105W) FIO Processor Kit | 755376-L21 |

| HP DL360 Gen9 Intel® Xeon® E5-2620v3 (2.4GHz/6-core/15MB/85W) FIO Processor Kit HP DL360 Gen9 Intel® Xeon® E5-2630v3 (2.4GHz/8-core/20MB/85W) FIO Processor Kit | 755382-L21 755384-L21 |
|---|--------------------------|
| HP DL360 Gen9 Intel® Xeon® E5-2640v3 (2.6GHz/8-core/20MB/90W) FIO Processor Kit | 755836-L21 |
| HP DL360 Gen9 Intel® Xeon® E5-2637v3 (3.5GHz/4-core/15MB/135W) FIO Processor Kit | 755404-L21 |
| HP DL360 Gen9 Intel® Xeon® E5-2630Lv3 (1.8GHz/8-core/20MB/55W) FIO Processor Kit | 764097-L21 |
| Performance Processors - E5-2600v4 series Processors | ,010,, 221 |
| HPE DL360 Gen9 Intel® Xeon® E5-2640v4 (2.4GHz/10-core/25MB/90W) FIO Processor Kit | 818176-L21 |
| HPE DL360 Gen9 Intel® Xeon® E5-2650v4 (2.2GHz/12-core/30MB/105W) FIO Processor Kit | 818178-L21 |
| HPE DL360 Gen9 Intel® Xeon® E5-2660v4 (2.0GHz/14-core/35MB/105W) FIO Processor Kit | 818180-L21 |
| HPE DL360 Gen9 Intel® Xeon® E5-2697Av4 (2.6GHz/16-core/40MB/145W) FIO Processor Kit | 818182-L21 |
| HPE DL360 Gen9 Intel® Xeon® E5-2680v4 (2.4GHz/14-core/35MB/120W) FIO Processor Kit | 818184-L21 |
| HPE DL360 Gen9 Intel® Xeon® E5-2690v4 (2.6GHz/14-core/35MB/135W) FIO Processor Kit | 818186-L21 |
| HPE DL360 Gen9 Intel® Xeon® E5-2687Wv4 (3.0GHz/12-core/30MB/160W) FIO Processor Kit | 818188-L21 |
| HPE DL360 Gen9 Intel® Xeon® E5-2667v4 (3.2GHz/8-core/25MB/135W) FIO Processor Kit | 818196-L21 |
| HPE DL360 Gen9 Intel® Xeon® E5-2683v4 (2.1GHz/16-core/40MB/120W) FIO Processor Kit | 818198-L21 |
| HPE DL360 Gen9 Intel® Xeon® E5-2695v4 (2.1GHz/18-core/45MB/120W) FIO Processor Kit | 818200-L21 |
| HPE DL360 Gen9 Intel® Xeon® E5-2697v4 (2.3GHz/18-core/45MB/145W) FIO Processor Kit | 818202-L21 |
| HPE DL360 Gen9 Intel® Xeon® E5-2698v4 (2.2GHz/20-core/50MB/135W) FIO Processor Kit | 818204-L21 |
| HPE DL360 Gen9 Intel® Xeon® E5-2699v4 (2.2GHz/22-core/55MB/145W) FIO Processor Kit | 818206-L21 |
| HPE DL360 Gen9 Intel® Xeon® E5-2630v4 (2.2GHz/10-core/25MB/85W) FIO Processor Kit | 818174-L21 |
| Performance Processors - E5-2600v3 series Processors | |
| HP DL360 Gen9 Intel® Xeon® E5-2650v3 (2.3GHz/10-core/25MB/105W) FIO Processor Kit | 755388-L21 |
| HP DL360 Gen9 Intel® Xeon® E5-2660v3 (2.6GHz/10-core/25MB/105W) FIO Processor Kit | 755390-L21 |
| HP DL360 Gen9 Intel® Xeon® E5-2670v3 (2.3GHz/12-core/30MB/120W) FIO Processor Kit | 755392-L21 |
| HP DL360 Gen9 Intel® Xeon® E5-2680v3 (2.5GHz/12-core/30MB/120W) FIO Processor Kit | 755394-L21 |
| HP DL360 Gen9 Intel® Xeon® E5-2690v3 (2.6GHz/12-core/30MB/135W) FIO Processor Kit | 755396-L21 |
| HP DL360 Gen9 Intel® Xeon® E5-2683v3 (2GHz/14-core/35MB/120W) FIO Processor Kit | 755398-L21 |
| HP DL360 Gen9 Intel® Xeon® E5-2695v3 (2.3GHz/14-core/35MB/120W) FIO Processor Kit | 755400-L21 |
| HP DL360 Gen9 Intel® Xeon® E5-2697v3 (2.6GHz/14-core/35MB/145W) FIO Processor Kit | 755402-L21 |
| HP DL360 Gen9 Intel® Xeon® E5-2643v3 (3.4GHz/6-core/20MB/135W) FIO Processor Kit | 755406-L21 |
| HP DL360 Gen9 Intel® Xeon® E5-2667v3 (3.2GHz/8-core/20MB/135W) FIO Processor Kit | 755408-L21 |

| HP DL360 Gen9 Intel® Xeon® E5-268/Wv3 (3.1GHz/10-core/25MB/160W) FIO Processor Kit | /55410-L21 |
|---|------------|
| HP DL360 Gen9 Intel® Xeon® E5-2698v3 (2.3GHz/16-core/40MB/135W) FIO Processor Kit | 764099-L21 |
| HP DL360 Gen9 Intel® Xeon® E5-2650Lv3 (1.8GHz/12-core/30MB/65W) FIO Processor Kit | 764101-L21 |
| HP DL360 Gen9 Intel® Xeon® E5-2699v3 (2.3GHz/18-core/45MB/145W) FIO Processor | 780003-L21 |
| Kit | |

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, 00=Processor SKU, x=L for Low Power SKUs and v# (not yet designated)=version number.

HPE Memory

NOTE: Select one or more memory kits from below.

NOTE: LRDIMM, 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. HPE SmartMemory 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: http://www.hp.com/go/proliant-energy-efficient

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 the Online Memory Configuration Tool at: http://www.hp.com/go/ddr4config

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 |
| HP 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 |
| 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 Registered Memory Kit | 759934-B21 |
| HP 16GB (1x16GB) Dual Rank x4 DDR4-2133 CAS-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 (RDIMMs) for E5-2600v4 Series | |
| HP 32GB (1x32GB) Dual Rank x4 DDR4-2400 CAS-17-17-17 Load Reduced Memory Kit | 805353-B21 |
| HP 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-17-17-17 Load Registered | 809208-B21 |
| Memory Kit | |
| 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 Load Reduced Memory Kit

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

726722-B21

726720-B21

HPE Power Supplies 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

> 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: 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 two (2) Flex Slot Power Supplies per platform.

HPE Flex Slot Hot-Plug Power Supplies

| · · · · · · · · · · · · · · · · · · · | |
|--|------------|
| HP 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. | |
| HP 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. | |
| HP 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. | |
| HP 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. | |
| HP 800W Flex Slot -48VDC Hot Plug Power Supply Kit | 720480-B21 |
| NOTE: Flex Slot -48VDC power supplies support power efficiency of up to 94% | |
| HP 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). | |
| HP 750W Flex Slot Hot Plug Battery Backup Module | 738024-B21 |
| NOTE: Flex Slot Battery Backup provides 750W output and 500W in paralleled | |
| configuration. | |

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.

NOTE: Only one Battery Backup module per server, and a Flex Slot Power Supply needed

HPE Smart Array Controllers

in parallel.

| HP Smart Array P440ar/2GB FBWC 12Gb 2-ports Int FIO SAS Controller | 749974-B21 |
|---|------------|
| NOTE: Provides support for up to 8 internal SAS/SATA drives without using a PCle slot. | |
| HP Smart Array P440/4GB FBWC 12Gb 1-port Int FIO SAS Controller | 761872-B21 |
| NOTE: Provides support for up to 8 internal SAS/SATA drives, consumes one PCle slot. | |
| NOTE: Includes the HP Smart Storage Battery | |
| HPE Smart Host Bus Adapters | |

| HP H240ar 12Gb 2-ports Int FIO Smart Host Bus Adapter | 749976-B21 |
|---|------------|
| NOTE: Provides support for up to 8 internal SAS/SATA drives without using a PCIe slot | |

HP H240 12Gb 2-ports Int FIO Smart Host Bus Adapter 761873-B21

| | HPE Cable Options | |
|-------------------------|---|------------|
| | HP DL360 Gen9 LFF Smart Array P440ar/H240ar SAS Cable | 766211-B21 |
| | NOTE: Required with P440ar/2GB (749974-B21) or H240ar (749976-B21) if using the HP ProLiant DL360 Gen9 4LFF CTO Server (755259-B21) | |
| | HP DL360 Gen9 SFF Embedded SATA Cable | 766207-B21 |
| | NOTE: Required with the HP ProLiant DL360 Gen9 8SFF CTO Server (755258-B21) if | 700207 BZ1 |
| | using the embedded B140i as primary controller | |
| | HP DL360 Gen9 SFF Smart Array P440/H240 SAS Cable | 775927-B21 |
| | NOTE: Required with P440/4GB (761872-B21) or H240 (761873-B21) if using the HP | |
| | ProLiant DL360 Gen9 8SFF CTO Server (755258-B21) | |
| | HP DL360 Gen9 LFF Smart Array P440/H240 SAS Cable | 775929-B21 |
| | NOTE: Required with P440/4GB (761872-B21) or H240 (761873-B21) if using the HP ProLiant DL360 Gen9 4LFF CTO Server (755259-B21) | |
| BIOS Mode | HP Legacy FIO Mode Setting | 758959-B22 |
| | 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 | |
| Controller State | HP FIO Enable B140i Setting | 784308-B21 |
| | NOTE: Must be selected when B140i is used as the primary controller and RAID is desired. | |
| | HP Mfg FIO Enable HBA Mode Setting | 792962-B21 |
| | NOTE: When selected if H240ar/H240 are used as the primary controller then RAID is not allowed. | |
| HPE Insight Software | HP Insight Control including 1yr 24x7 support ProLiant ML/DL/BL-bundle Single Server FIO License | C6N36A |
| | HP Insight Control including 1yr 24x7 support ProLiant ML/DL/BL-bundle Single Server FIO E-LTU | C6N36ABE |
| HPE Converged | HPE OneView Advanced (with HPE iLO Advanced) | |
| Infrastructure | HP OneView for ProLiant DL Server incl 3yr 24x7 Supp FIO Bundle Physical 1 Svr Lic | E5Y43A |
| | HPE OneView Advanced (without HPE iLO Advanced) | |
| | HP OneView w/o iLO including 3yr 24x7 Support FIO 1 Server 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.

HPE Unique Options

Core Options

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

| HP DL360 Gen9 2SFF SAS/SATA Universal Media Bay Kit NOTE: Required when upgrading from an 8SFF config to a 10SFF config. NOTE: This option kit is not supported on the 4LFF CTO Server. NOTE: This option kit cannot be used with the DVD-ROM or DVD-RW Universal | 764630-B21 |
|--|------------|
| Media Bay option kits. NOTE: This kit contains a cable to attach the 2 drives to the internal B140i SATA controller. NOTE: For SAS, an alternate storage controller and its associated cable kit are | |
| required. HP DL360 Gen9 SFF DVD-RW/USB Universal Media Bay Kit NOTE: DVD-RW, USB 2.0 and VGA included. NOTE: This option kit cannot be used with the 2 SFF SAS/SATA option kit (764630-B21) | 764632-B21 |
| HP DL360 Gen9 SFF DVD/USB Universal Media Bay Kit NOTE: DVD ROM, USB 2.0 and VGA included. NOTE: This option kit cannot be used with the 2 SFF SAS/SATA option kit (764630-B21) | 818213-B21 |
| HP DL360 Gen9 SFF USB/VGA Universal Media Bay Kit NOTE: Adds front VGA and USB 2.0 ports to SFF CTO Server. NOTE: This option kit cannot be used with the 2 SFF SAS/SATA option kit (764630-B21) | 764634-B21 |
| HP DL360 Gen9 LFF USB/VGA Kit NOTE: Adds front VGA and USB 2.0 ports to LFF CTO Server. NOTE: This option kit cannot be used with the 2 SFF SAS/SATA Option Kit (764630-B21) | 764638-B21 |
| HP DL360 Gen9 High Performance Heat Sink Kit NOTE: These are included in some higher Watt processors (see processor section), but may also be added to lower power processors to reduce fan power consumption. | 795235-B21 |
| HP DL360 Gen9 Rear Serial Port and Enablement Kit | 764646-B21 |
| HP DL360 Gen9 Location Discovery Services Ear Kit NOTE: Requires ProLiant Location Discovery Services Infrastructure within server racks. | 764757-B21 |
| HP DL360 Gen9 SFF Systems Insight Display Kit NOTE: Adds a System Insight Display for improved diagnosis capabilities on an 8FF or 10SFF model. | 764636-B21 |
| HP DL360 Gen9 LFF Systems Insight Display Kit NOTE: Adds a System Insight Display for improved diagnosis capabilities on a 4LFF model. | 764640-B21 |
| HP DL360 Gen9 NVMe 2 Solid State Drive Express Bay Enablement Kit NOTE: This option provides support for up to 2 NVMe SFF drives. This option cannot be used with the Universal Media Bay Kit. NOTE: The HP DL360 Gen9 High Performance Fan Kit (766201-B21) will be required with this option. | 764628-B21 |
| NOTE: The PCIe card in this enablement kit can only be populated in slot1 of | |
| primary riser or in slot3 of secondary optional FH riser. HP DL360 Gen9 6 NVMe + 4 SAS/SATA Express Bay Enablement Kit | 817676-B21 |
| LIE DEPOORDELLA O LAALAGE + 4 DAPLOALLA EXPLEZZ DAÀ ELIGNIGILIGIT VII | 01/0/0-D21 |

NOTE: This option kit provides support for up to 6 NVMe drives (drives 5-10). **NOTE:** The PCIe card in this enablement kit can only be populated in slot1 of primary riser.

| HPE Processors | E5-2600v4 series Processors | |
|----------------|---|------------|
| | HPE DL360 Gen9 Intel® Xeon® E5-2630Lv4 (1.8GHz/10-core/25MB/55W) Processor Kit | 818164-B21 |
| | HPE DL360 Gen9 Intel® Xeon® E5-2650Lv4 (1.7GHz/14-core/35MB/65W) Processor Kit | 818166-B21 |
| | HPE DL360 Gen9 Intel® Xeon® E5-2603v4 (1.7GHz/6-core/15MB/85W) Processor Kit NOTE: This processor does not support Hyper-Threading. | 818168-B21 |
| | HPE DL360 Gen9 Intel® Xeon® E5-2609v4 (1.7GHz/8-core/20MB/85W) Processor Kit | 818170-B21 |
| | NOTE: This processor does not support Hyper-Threading. HPE DL360 Gen9 Intel® Xeon® E5-2620v4 (2.1GHz/8-core/20MB/85W) Processor Kit | 818172-B21 |
| | HPE DL360 Gen9 Intel® Xeon® E5-2623v4 (2.6GHz/4-core/10MB/85W) Processor Kit | 818190-B21 |
| | HPE DL360 Gen9 Intel® Xeon® E5-2637v4 (3.5GHz/4-core/15MB/135W) Processor Kit | 818192-B21 |
| | HPE DL360 Gen9 Intel® Xeon® E5-2643v4 (3.4GHz/6-core/20MB/135W) Processor Kit | 818194-B21 |
| | HPE DL360 Gen9 Intel® Xeon® E5-2640v4 (2.4GHz/10-core/25MB/90W) Processor Kit | 818176-B21 |
| | HPE DL360 Gen9 Intel® Xeon® E5-2650v4 (2.2GHz/12-core/30MB/105W) Processor Kit | 818178-B21 |
| | HPE DL360 Gen9 Intel® Xeon® E5-2660v4 (2.0GHz/14-core/35MB/105W) Processor Kit | 818180-B21 |
| | HPE DL360 Gen9 Intel® Xeon® E5-2697Av4 (2.6GHz/16-core/40MB/145W) Processor Kit | 818182-B21 |
| | HPE DL360 Gen9 Intel® Xeon® E5-2680v4 (2.4GHz/14-core/35MB/120W) Processor Kit | 818184-B21 |
| | HPE DL360 Gen9 Intel® Xeon® E5-2690v4 (2.6GHz/14-core/35MB/135W) Processor Kit | 818186-B21 |
| | HPE DL360 Gen9 Intel® Xeon® E5-2687Wv4 (3.0GHz/12-core/30MB/160W) Processor Kit | 818188-B21 |
| | HPE DL360 Gen9 Intel® Xeon® E5-2667v4 (3.2GHz/8-core/25MB/135W) Processor Kit | 818196-B21 |
| | HPE DL360 Gen9 Intel® Xeon® E5-2683v4 (2.1GHz/16-core/40MB/120W) Processor Kit | 818198-B21 |
| | HPE DL360 Gen9 Intel® Xeon® E5-2695v4 (2.1GHz/18-core/45MB/120W) Processor Kit | 818200-B21 |
| | HPE DL360 Gen9 Intel® Xeon® E5-2697v4 (2.3GHz/18-core/45MB/145W) Processor Kit | 818202-B21 |
| | HPE DL360 Gen9 Intel® Xeon® E5-2698v4 (2.2GHz/20-core/50MB/135W) Processor Kit | 818204-B21 |
| | HPE DL360 Gen9 Intel® Xeon® E5-2699v4 (2.2GHz/22-core/55MB/145W) Processor Kit | 818206-B21 |

| HPE DL360 Gen9 Intel® Xeon® E5-2630v4 (2.2GHz/10-core/25MB/85W) Processor Kit | 818174-B21 |
|---|------------|
| HPE DL360 Gen9 Intel® Xeon® E5-2699Av4 (3.6GHz/22-core/55MB/145W) Processor Kit | 871580-B21 |
| E5-2600v3 series Processors | |
| HP DL360 Gen9 Intel® Xeon® E5-2603v3 (1.6GHz/6-core/15MB/85W) Processor Kit | 755374-B21 |
| NOTE: This processor does not support Hyper-Threading. | |
| HP DL360 Gen9 Intel® Xeon® E5-2609v3 (1.9GHz/6-core/15MB/85W) Processor Kit NOTE: This processor does not support Hyper-Threading. | 755378-B21 |
| | 755777 004 |
| HP DL360 Gen9 Intel® Xeon® E5-2623v3 (3GHz/4-core/10MB/105W) Processor Kit | 755376-B21 |
| HP DL360 Gen9 Intel® Xeon® E5-2620v3 (2.4GHz/6-core/15MB/85W) Processor Kit | 755382-B21 |
| HP DL360 Gen9 Intel® Xeon® E5-2630v3 (2.4GHz/8-core/20MB/85W) Processor Kit | 755384-B21 |
| HP DL360 Gen9 Intel® Xeon® E5-2640v3 (2.6GHz/8-core/20MB/90W) Processor Kit | 755386-B21 |
| HP DL360 Gen9 Intel® Xeon® E5-2637v3 (3.5GHz/4-core/15MB/135W) Processor Kit | 755404-B21 |
| HP DL360 Gen9 Intel® Xeon® E5-2630Lv3 (1.8GHz/8-core/20MB/55W) Processor Kit | 764097-B21 |
| HP DL360 Gen9 Intel® Xeon® E5-2650v3 (2.3GHz/10-core/25MB/105W) Processor Kit | 755388-B21 |
| HP DL360 Gen9 Intel® Xeon® E5-2660v3 (2.6GHz/10-core/25MB/105W) Processor Kit | 755390-B21 |
| HP DL360 Gen9 Intel® Xeon® E5-2670v3 (2.3GHz/12-core/30MB/120W) Processor Kit | 755392-B21 |
| HP DL360 Gen9 Intel® Xeon® E5-2680v3 (2.5GHz/12-core/30MB/120W) Processor Kit | 755394-B21 |
| HP DL360 Gen9 Intel® Xeon® E5-2690v3 (2.6GHz/12-core/30MB/135W) Processor Kit | 755396-B21 |
| HP DL360 Gen9 Intel® Xeon® E5-2683v3 (2GHz/14-core/35MB/120W) Processor Kit | 755398-B21 |
| HP DL360 Gen9 Intel® Xeon® E5-2695v3 (2.3GHz/14-core/35MB/120W) Processor Kit | 755400-B21 |
| HP DL360 Gen9 Intel® Xeon® E5-2697v3 (2.6GHz/14-core/35MB/145W) Processor Kit | 755402-B21 |
| HP DL360 Gen9 Intel® Xeon® E5-2643v3 (3.4GHz/6-core/20MB/135W) Processor Kit | 755406-B21 |
| HP DL360 Gen9 Intel® Xeon® E5-2667v3 (3.2GHz/8-core/20MB/135W) Processor Kit | 755408-B21 |
| HP DL360 Gen9 Intel® Xeon® E5-2687Wv3 (3.1GHz/10-core/25MB/160W) Processor Kit | 755410-B21 |
| HP DL360 Gen9 Intel® Xeon® E5-2698v3 (2.3GHz/16-core/40MB/135W) Processor Kit | 764099-B21 |
| HP DL360 Gen9 Intel® Xeon® E5-2650Lv3 (1.8GHz/12-core/30MB/65W) Processor Kit | 764101-B21 |

HP DL360 Gen9 Intel® Xeon® E5-2699v3 (2.3GHz/18-core/45MB/145W) 780003-B21 Processor Kit

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

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

NOTE: Processors consuming up to 120w ship with standard heat sink.

NOTE: Processors consuming over 120w ships with a High Performance heat sink as standard.

NOTE: A High Performance heat sink can be added to help reduce power consumption (795235-B21).

| HPE Memory | Registered DIMMs (RDIMMs) for E5-2600v4 Series | | | |
|------------|--|-------------|--|--|
| | HP 32GB (1x32GB) Dual Rank x4 DDR4-2400 CAS-17-17-17 Registered Memory Kit | 805351-B21 | | |
| | HPE 16GB (1x16GB) Dual Rank x4 DDR4-2400 CAS-17-17-17 Registered Memory Kit | 836220-B21 | | |
| | HP 16GB (1x16GB) Single Rank x4 DDR4-2400 CAS-17-17-17 Registered Memory Kit | 805349-B21 | | |
| | HP 8GB (1x8GB) Single Rank x8 DDR4-2400 CAS-17-17-17 Registered Memory Kit | 805347-B21 | | |
| | Load Reduced DIMMs (LRDIMMs) for E5-2600v4 Series | | | |
| | HPE 128GB (1x128GB) Octal Rank x4 DDR4-2400 CAS-20-18-18 Load Reduced Memory Kit | 809208-B21 | | |
| | NOTE: 128GB DIMMs cannot be mixed with any other size DIMMs. | | | |
| | HPE 64GB (1x64GB) Quad Rank x4 DDR4-2400 CAS-17-17-17 Load Reduced Memory Kit | 805358-B21 | | |
| | HPE 32GB (1x32GB) Dual Rank x4 DDR4-2400 CAS-17-17-17 Load Reduced Memory Kit | 805353-B21 | | |
| | Registered DIMMs (RDIMMs) for E5-2600v3 Series | | | |
| | HP 32GB (1x32GB) Dual Rank x4 DDR4-2133 CAS-15-15-15 Registered Memory Kit | 728629-B21 | | |
| | HP 16GB (1x16GB) Dual Rank x4 DDR4-2133 CAS-15-15-15 Registered Memory Kit | 726719-B21 | | |
| | HP 8GB (1x8GB) Single Rank x4 DDR4-2133 CAS-15-15-15 Registered Memory Kit | 726718-B21 | | |
| | HP 8GB (1x8GB) Dual Rank x8 DDR4-2133 CAS-15-15-15 Registered Memory Kit | 759934-B21 | | |
| | HP 4GB (1x4GB) Single Rank x8 DDR4-2133 CAS-15-15-15 Registered Memory Kit | 726717-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 Kit | 726722-B21 | | |
| | HP 16GB (1x16GB) Dual Rank x4 DDR4-2133 CAS-15-15-15 Load Reduced Memory Kit | 726720-B21 | | |
| | NOTE: Memory speeds will vary by processor model, please see memory section of | QuickSpecs. | | |

HPE Persistent Memory (NVDIMM)

be used with LRDIMMs.

HPE 8GB NVDIMM Single Rank x4 DDR4-2133 Module

NOTE: A maximum of 16 NVDIMMs can be supported. NVDIMMs cannot

782692-B21

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NOTE: NVDIMMs only supported on factory configured servers with E5-2600 v4 processors, not supported on servers upgraded from E5-2600 v3 to E5-2600 v4 processors.

| HPE Optical Dri | ives HP 9.5mm SATA DVD-ROM JackBlack Gen9 Optical Drive NOTE: Supported only with the 4LFF Models & requires cable kit 766203-B21. | 726536-B21 |
|-----------------|---|------------|
| | HP 9.5mm SATA DVD-RW JackBlack G9 Optical Drive NOTE: Supported only with the 4LFF Models & requires cable kit 766203-B21. | 726537-B21 |
| | HP DL360 Gen9 LFF Optical Cable | 766203-B21 |
| | HP DL360 Gen9 SFF DVD/USB Universal Media Bay Kit NOTE: Front DVD ROM, USB 2.0, and VGA and optical cable. | 818213-B21 |
| | HP DL360 Gen9 SFF DVD-RW/USB Universal Media Bay Kit NOTE: Front DVD-RW, USB 2.0 and VGA, and optical cable. | 764632-B21 |
| | HP Mobile USB Non Leaded System DVD RW Drive NOTE: This is only supported on USB 3.0 ports. | 701498-B21 |
| HPE Drives | 12G SAS Hot Plug SFF (2.5-inch) Enterprise Drives | |
| | HP 1.2TB 12G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive | 781518-B21 |
| | HP 900GB 12G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive | 785069-B21 |
| | HP 600GB 12G SAS 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 |
| | 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 |
| | 12G SAS Hot Plug SFF (2.5-inch) Midline Drives | |
| | HPE 1TB 12G SAS 7.2K rpm SFF (2.5in) SC Midline 1yr Warranty Hard Drive | 832514-B21 |
| | 12G SAS Hot Plug SFF (2.5-inch) SC 512e Drives | |
| | HP 2TB 12G SAS 7.2K rpm SFF (2.5-inch) SC 512e 1yr Warranty Hard Drive | 765466-B21 |
| | HP 1.8TB 12G SAS 10K rpm SFF (2.5-inch) SC Enterprise 512e 3yr Warranty Hard Drive | 791034-B21 |
| | HP 1TB 12G SAS 7.2K rpm SFF (2.5-inch) SC 512e 1yr Warranty Hard Drive | 765464-B21 |
| | 12G SAS Hot Plug LFF (3.5-inch) SC 512e Helium Drives | |
| | HP 8TB 12G SAS 7.2K rpm LFF (3.5-inch) SC 512e Helium 1yr Warranty Hard Drive | 793703-B21 |
| | HP 6TB 12G SAS 7.2K rpm LFF (3.5-inch) SC 512e Helium 1yr Warranty Hard Drive | 793699-B21 |
| | 12G SAS Hot Plug LFF (3.5-inch) SC 512e Performance Drives | |
| | HP 6TB 12G SAS 7.2K rpm LFF (3.5-inch) SC 512e Performance 1yr Warranty Hard Drive | 793671-B21 |
| | HP 4TB 12G SAS 7.2K rpm LFF (3.5-inch) SC 512e Performance 1yr Warranty Hard Drive | 793669-B21 |

| 12G SAS Hot Plug LFF (3.5-inch) SC 512e Midline 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 6TB 12G SAS 7.2K rpm LFF (3.5-inch) SC Midline 512e 1yr Warranty Hard Drive | 765259-B21 |
| HP 4TB 12G SAS 7.2K rpm LFF (3.5-inch) SC Midline 512e 1yr Warranty Hard Drive | 765257-B21 |
| 12G SAS Hot Plug LFF (3.5-inch) SC 512e Enterprise Drives | |
| HP 600GB 12G SAS 15K rpm SFF (2.5-inch) SC 512e Enterprise 3yr Warranty Hard Drive | 748387-B21 |
| 12G SAS Hot Plug LFF (3.5-inch) Enterprise Drives | |
| HP 600GB 12G SAS 15K rpm LFF (3.5-inch) SC Converter Enterprise 3yr Warranty Hard Drive | 765424-B21 |
| HP 450GB 12G SAS 15K rpm LFF (3.5-inch) SC Converter Enterprise 3yr Warranty Hard Drive | 737394-B21 |
| HP 300GB 12G SAS 15K rpm LFF (3.5-inch) SC Converter Enterprise 3yr Warranty Hard Drive | 737261-B21 |
| 12G SAS Hot Plug LFF (3.5-inch) Midline Drives | |
| HPE 6TB 12G SAS 7.2K rpm LFF (3.5in) SC Midline 1yr Warranty Hard Drive | 846514-B21 |
| HPE 4TB 12G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive | 818367-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 1TB 12G SAS 7.2K rpm LFF (3.5in) SC Midline 1yr Warranty Hard Drive | 846524-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: https://ssd.hpe.com/recommend | |
| 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) Enterprise Mainstream Solid State Drives | |
| HP 1.6TB 12G SAS Mainstream Endurance SFF 2.5-in ENT Mainstream SC 3yr | 779176-B21 |
| Wty H2 Solid State Drive HP 800GB 12G SAS Mainstream Endurance SFF 2.5-in ENT Mainstream SC 3yr | 779172-B21 |
| Wty H2 Solid State Drive | |
| HP 400GB 12G SAS Mainstream Endurance SFF 2.5-in ENT Mainstream SC 3yr Wty H2 Solid State Drive | 779168-B21 |
| HP 200GB 12G SAS Mainstream Endurance SFF 2.5-in ENT Mainstream SC 3yr Wty H2 Solid State Drive | 779164-B21 |
| 12G SAS Hot Plug SFF (2.5-inch) SC Read Intensive Solid State Drives | |
| HP 1.92TB 12G SAS Read Intensive SFF 2.5-in SC 3yr Wty Solid State Drive | 802891-B21 |
| 12G SAS Hot Plug SFF (2.5-inch) SC Write Intensive Solid State Drives | 011170 001 |
| 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 |
| HP 800GB 12G SAS Write Intensive SFF 2.5-in SC 3yr Wty Solid State Drive | 802586-B21 |
| HP 400GB 12G SAS Write Intensive SFF 2.5-in SC 3yr Wty Solid State Drive | 802582-B21 |

| LID 200CD 12C CAS Write Intensive SEE 2 F in SC 7 or Wty Solid State Drive | 000E70 D01 |
|---|------------|
| HP 200GB 12G SAS Write Intensive SFF 2.5-in SC 3yr Wty Solid State Drive | 802578-B21 |
| 12G SAS Hot Plug SFF (2.5-inch) SC Mixed Use Solid State Drives HPE 1.6TB 12G SAS Mixed Use-1 SFF (2.5in) SC 3yr Wty Solid State Drive | 846436-B21 |
| HPE 800GB 12G SAS Mixed Use-1 SFF (2.5in) SC 3yr Wty Solid State Drive | 846434-B21 |
| 12G SAS Hot Plug SFF (2.5-inch) Enterprise Value Solid State Drives | 040434-021 |
| HP 1.6TB 12G SAS Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty | 742247 D21 |
| Solid State Drive | 762263-B21 |
| HP 800GB 12G SAS Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive | 762261-B21 |
| 12G SAS Hot Plug LFF (3.5-inch) Enterprise Value Solid State Drives | |
| HP 1.6TB 12G SAS Value Endurance LFF 3.5-in SC Enterprise Value 3yr Wty Solid State Drive | 762272-B21 |
| HP 800GB 12G SAS Value Endurance LFF 3.5-in SC Enterprise Value 3yr Wty Solid State Drive | 762270-B21 |
| 6G SAS Hot Plug SFF (2.5-inch) Enterprise Drives | |
| HP 1.2TB 6G SAS 10K rpm SFF (2.5-inch) SC Dual Port Enterprise 3yr Warranty Hard Drive | 718162-B21 |
| HP 900GB 6G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive | 652589-B21 |
| HP 600GB 6G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive | 652583-B21 |
| HP 450GB 6G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive | 652572-B21 |
| HP 300GB 6G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive | 652564-B21 |
| HP 146GB 6G SAS 15K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive | 652605-B21 |
| 6G SAS Hot Plug SFF (2.5-inch) Midline Drives | |
| HP 1TB 6G SAS 7.2K rpm SFF (2.5-inch) SC Midline 1yr Warranty Hard Drive | 652749-B21 |
| 6G SAS Hot Plug LFF (3.5-inch) Midline Drives | |
| HP 6TB 6G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive | 761477-B21 |
| HP 3TB 6G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive | 652766-B21 |
| HP 1TB 6G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive | 652753-B21 |
| 6G SATA Hot Plug SFF (2.5 inch) SC Midline Hard Drives | |
| HP 1TB 6G SATA 7.2K rpm SFF (2.5-inch) SC Midline 1yr Warranty Hard Drive | 655710-B21 |
| 6G SATA Hot Plug SFF (2.5-inch) SC 512e Drives | |
| HP 2TB 6G SATA 7.2K rpm SFF (2.5-inch) SC 512e 1yr Warranty Hard Drive | 765455-B21 |
| HP 1TB 6G SATA 7.2K rpm SFF (2.5-inch) SC 512e 1yr Warranty Hard Drive | 765453-B21 |
| 6G SATA Hot Plug LFF (3.5-inch) SC 512e Helium Drives | |
| HP 6TB 6G SATA 7.2K rpm LFF (3.5-inch) SC 512e Helium 1yr Warranty Hard Drive | 793683-B21 |
| 6G SATA Hot Plug LFF (3.5-inch) SC 512e Performance Drives | |
| HP 6TB 6G SATA 7.2K rpm LFF (3.5-inch) SC 512e Performance 1yr Warranty Hard Drive | 793667-B21 |
| HP 4TB 6G SATA 7.2K rpm LFF (3.5-inch) SC 512e Performance 1yr Warranty Hard Drives | 793665-B21 |
| | |

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

| HPE 8TB 6G SATA 7.2K rpm LFF (3.5in) 512e SC Midline 1yr Warranty Hard Drive | 819203-B21 |
|---|------------|
| HP 6TB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 512e 1yr Warranty Hard Drive | 765255-B21 |
| HP 4TB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 512e 1yr Warranty Hard Drive | 765253-B21 |
| 6G SATA Hot Plug LFF (3.5-inch) SC 512e 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 |
| 6G SATA Hot Plug LFF (3.5-inch) Midline Drives | |
| 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 Midline 1yr Warranty Hard Drive | 753874-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 1yr Warranty Hard Drive | 693687-B21 |
| HPE 3TB 6G SATA 7.2K rpm LFF (3.5in) SC Midline 1yr Warranty Hard Drive | 861693-B21 |
| HP 3TB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive | 628061-B21 |
| HPE 2TB 6G SATA 7.2K rpm LFF (3.5in) SC Midline 1yr Warranty Hard Drive | 861676-B21 |
| HP 2TB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive | 658079-B21 |
| HPE 1TB 6G SATA 7.2K rpm LFF (3.5in) SC Midline 1yr Warranty Hard Drive | 861691-B21 |
| HP 1TB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive | 657750-B21 |
| HP 500GB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive | 658071-B21 |
| 6G SATA Hot Plug SFF (2.5-inch) SC Read Intensive Solid State Drives | |
| HPE 1.92TB 6G SATA Read Intensive SFF (2.5in) SC 1yr Warranty Solid State Drive | 871770-B21 |
| HP 1.6TB 6G SATA Read Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive | 804605-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 |
| HP 480GB 6G SATA Read Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive | 804593-B21 |
| HP 240GB 6G SATA Read Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive | 804587-B21 |
| HP 120GB 6G SATA Read Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive | 804581-B21 |
| HP 80GB 6G SATA Read Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive | 804575-B21 |
| 6G SATA Hot Plug SFF (2.5-inch) SC Write Intensive Solid State Drives | |
| HP 1.2TB 6G SATA Write Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive | 804677-B21 |
| HP 800GB 6G SATA Write Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive | 804671-B21 |
| HP 400GB 6G SATA Write Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive | 804665-B21 |
| HP 200GB 6G SATA Write Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive | 804639-B21 |
| 6G SATA Hot Plug SFF (2.5-inch) SC Mixed Use Solid State Drives | |
| HP 1.6TB 6G SATA Mixed Use-2 SFF 2.5-in SC 3yr Wty Solid State Drive | 804631-B21 |
| HP 800GB 6G SATA Mixed Use-2 SFF 2.5-in SC 3yr Wty Solid State Drive | 804625-B21 |
| HP 480GB 6G SATA Mixed Use-2 SFF 2.5-in SC 3yr Wty Solid State Drive | 832414-B21 |
| HP 200GB 6G SATA Mixed Use-2 SFF 2.5-in SC 3yr Wty Solid State Drive | 804613-B21 |
| 6G SATA Hot Plug SFF (2.5-inch) Enterprise Value Solid State Drives | |
| HP 800GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty M1 Solid State Drive | 764929-B21 |

| HP 480GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty M1 Solid State Drive | 764927-B21 |
|--|-------------|
| HP 240GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty M1 Solid State Drive | 764925-B21 |
| HP 120GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty M1 Solid State Drive | 764923-B21 |
| 6G SATA Hot Plug LFF (3.5-inch) SC Read Intensive Solid State Drives | |
| HP 1.6TB 6G SATA Read Intensive-2 LFF 3.5-in SCC 3yr Wty Solid State Drive | 804608-B21 |
| HP 800GB 6G SATA Read Intensive-2 LFF 3.5-in SCC 3yr Wty Solid State Drive | 804602-B21 |
| HP 480GB 6G SATA Read Intensive-2 LFF 3.5-in SCC 3yr Wty Solid State Drive | 804596-B21 |
| HP 240GB 6G SATA Read Intensive-2 LFF 3.5-in SCC 3yr Wty Solid State Drive | 804590-B21 |
| HP 120GB 6G SATA Read Intensive-2 LFF 3.5-in SCC 3yr Wty Solid State Drive | 804584-B21 |
| HP 80GB 6G SATA Read Intensive-2 LFF 3.5-in SCC 3yr Wty Solid State Drive | 804578-B21 |
| 6G SATA Hot Plug LFF (3.5-inch) SC Write Intensive Solid State Drives | 001370 BZI |
| HP 1.2TB 6G SATA Write Intensive-2 LFF 3.5-in SCC 3yr Wty Solid State Drive | 804680-B21 |
| HP 800GB 6G SATA Write Intensive-2 LFF 3.5-in SCC 3yr Wty Solid State Drive | 804674-B21 |
| HP 400GB 6G SATA Write Intensive-2 LFF 3.5-in SCC 3yr Wty Solid State Drive | 804668-B21 |
| HP 200GB 6G SATA Write Intensive-2 LFF 3.5-in SCC 3yr Wty Solid State Drive | 804642-B21 |
| 6G SATA Hot Plug LFF (3.5-inch) SC Mixed Use Solid State Drives | 001012 021 |
| HP 1.6TB 6G SATA Mixed Use-2 LFF 3.5-in SCC 3yr Wty Solid State Drive | 804634-B21 |
| HP 800GB 6G SATA Mixed Use-2 LFF 3.5-in SCC 3yr Wty Solid State Drive | 804628-B21 |
| HP 480GB 6G SATA Mixed Use-2 LFF 3.5-in SCC 3yr Wty Solid State Drive | 832417-B21 |
| HP 200GB 6G SATA Mixed Use-2 LFF 3.5-in SCC 3yr Wty Solid State Drive | 804616-B21 |
| HPE NVMe PCIe Read Intensive SFF (2.5 inch) Solid State Drives | 00.010.011 |
| HP 2TB NVMe PCIe Read Intensive SFF 2.5-in SC2 3yr Wty Solid State Drive | 764908-B21 |
| HP 1.2TB NVMe PCIe Read Intensive SFF 2.5-in SC2 3yr Wty Solid State Drive | 764906-B21 |
| HP 400GB NVMe PCIe Read Intensive SFF 2.5-in SC2 3yr Wty Solid State Drive | 764904-B21 |
| NOTE: HPE NVMe drives need the enablement kit 764628-B21. | |
| NOTE: HPE has qualified the NVMe drive portfolio using the Operating System inb | ox drivers. |
| NOTE: For full detail please see the HPE Solid State Drive QuickSpecs. | |
| HPE NVMe PCIe Write Intensive SFF (2.5-inch) Solid State Drives | |
| 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 |
| HPE NVMe PCIe Mixed Use SFF (2.5 inch) Solid State Drives | |
| HP 2TB NVMe PCIe Mixed Use SFF 2.5-in SC2 3yr Wty Solid State Drive | 765044-B21 |
| HP 1.6TB NVMe PCIe 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 |
| M.2 SSD | |
| HPE Dual 340GB Read Intensive-2 Solid State M.2 Enablement Kit for ProLiant ML/DL Servers | 835565-B21 |
| HPE 340GB Read Intensive-2 Solid State M.2 Enablement Kit for ProLiant ML/DL Servers | 835563-B21 |
| HP Dual 120GB Value Endurance Solid State M.2 Enablement Kit for ProLiant ML/DL Servers | 777894-B21 |
| | |

HPE Networking

FlexibleLOM Adapters

| 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 DL360 Gen9 2SFF SAS/SATA Universal Media Bay Kit | 764630-B21 |
| NOTE: Required when upgrading 8SFF config to 10SFF model. | |
| Not supported in the 4LFF CTO Server. | |
| HP DL360 Gen9 NVMe 2 Solid State Drive Express Bay Enablement Kit | 764628-B21 |
| NOTE: This option provides support for up to 2NVMe drives in SFF only. | |
| NOTE: This option cannot be used with the Universal Media Bay Kit. | |
| NOTE: The HP DL360 Gen9 High Performance Fan Kit (766201-B21) is required with the NVMe kit. | |
| NOTE: The PCle card can only be used in slot1 of primary riser or slot3 of | |
| secondary optional FH riser. | |
| HP DL360 Gen9 6 NVMe + 4 SAS/SATA Express Bay Enablement Kit | 817676-B21 |
| NOTE: This option provides support for up to 6NVMe drives in SFF only. | |
| Adding NVMe drives replaces support for Universal Media Bay. | |
| NOTE: The PCIe card in this enablement kit can only be populated in slot1 of | |
| primary riser. | |
| 25 Gigabit Ethernet adapters | |
| HPE Ethernet 4x25Gb 1-port 620QSFP28 Adapter | 817762-B21 |
| HPE Ethernet 10/25Gb 2-port 640SFP28 Adapter | 817753-B21 |
| 10 Gigabit Ethernet adapters | |
| HPE Ethernet 10Gb 2-port 562SFP+ Adapter | 727055-B21 |
| HP Ethernet 10Gb 2-port 561T Adapter | 716591-B21 |
| HP Ethernet 10Gb 2-port 560SFP+ Adapter | 665249-B21 |
| HP Ethernet 10Gb 2-port 557SFP+ Adapter | 788995-B21 |
| HP Ethernet 10Gb 2-port 546SFP+ Adapter | 779793-B21 |
| HP Ethernet 10Gb 2-port 530SFP Adapter | 652503-B21 |
| HP Ethernet 10Gb 2-port 530T Adapter | 656596-B21 |
| NOTE: The DL360 Gen9 ships with 4x1Gb Embedded. | |
| NOTE: A minimum of two Gigabytes (2 GB) of server memory is required per each | |
| NOTE: Direct Attach Cable (DAC) for copper environments or fiber transceivers a environments must be purchased separately. | na cables for fiber-optic |
| NOTE: Please see NIC QuickSpecs for Technical Specifications and additional info | rmation: |
| http://www.hp.com/go/ProLiantNICs. | |
| 1 Gigabit Ethernet adapters | |
| HP Ethernet 1Gb 4-port 366T Adapter | 811546-B21 |
| HP Ethernet 1Gb 4-port 331T Adapter | //7E0/ D21 |
| | 647594-B21 |
| HP Ethernet 1Gb 2-port 361T Adapter | 652497-B21 |
| HP Ethernet 1Gb 2-port 361T Adapter HP Ethernet 1Gb 2-port 332T Adapter | |

| | HPE Ethernet 10/25Gb 2-port 640FLR-SFP28 Adapter | 817749-B21 |
|---|--|--------------------------|
| | HPE Ethernet 10Gb 2-port 562FLR-SFP+ Adapter | 727054-B21 |
| | HP Ethernet 10Gb 2-port 561FLR-T Adapter | 700699-B21 |
| | HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter | 665243-B21 |
| | HPE FlexFabric 10Gb 2-port 556FLR-T Adapter | 794525-B21 |
| | HP FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter | 727060-B21 |
| | HP Ethernet 10Gb 2-port 546FLR-SFP+ Adapter | 779799-B21 |
| | HPE FlexFabric 10Gb 4-port 536FLR-T Adapter | 764302-B21 |
| | HP FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter | 700751-B21 |
| | HP FlexFabric 10Gb 2-port 533FLR-T Adapter | 700759-B21 |
| | HP Ethernet 1Gb 4-port 366FLR Adapter | 665240-B21 |
| | HP Ethernet 1Gb 4-port 331FLR Adapter | 629135-B22 |
| | NOTE: The DL360 Gen9 ships with 4x1Gb Embedded. | |
| | NOTE: Only one FlexibleLOM can be added to the server as an upgradeable option. | |
| | | |
| HPE InfiniBand | QLogic InfiniBand 4X QDR PCI-E G2 Dual Port HCA | 583211-B21 |
| | HP InfiniBand FDR 2-port 545QSFP Adapter | 702211-B21 |
| | HP InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+QSFP Adapter | 764284-B21 |
| | HP InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+FLR-QSFP Adapter | 764285-B21 |
| | HP InfiniBand QDR/Ethernet 10Gb 2-port 544+FLR-QSFP Adapter | 764286-B21 |
| | HPE InfiniBand EDR/Ethernet 100Gb 1-port 840QSFP28 Adapter | 825110-B21 |
| | HPE InfiniBand EDR/Ethernet 100Gb 2-port 840QSFP28 Adapter | 825111-B21 |
| | HPE 100Gb 1-port OP101 QSFP28 x8 PCle Gen3 with Intel® Omni-Path Architecture Adapter | 829334-B21 |
| | HPE 100Gb 1-port OP101 QSFP28 x16 PCIe Gen3 with Intel® Omni-Path Architecture Adapter | 829335-B21 |
| | | |
| | NOTE: For additional InfiniBand | |
| | NOTE: For additional InfiniBand information: https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04154 | <u>.440</u> |
| HPF I/O Expansio | information: https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04154 | |
| | information: https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04154 HP DL360 Gen9 Low Profile PCIe Slot CPU2 Kit | 764642-B21 |
| | information: https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04154 HP DL360 Gen9 Low Profile PCIe Slot CPU2 Kit NOTE: This option kit requires a second CPU and will add an additional Low | |
| | information: https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04154 In HP DL360 Gen9 Low Profile PCIe Slot CPU2 Kit NOTE: This option kit requires a second CPU and will add an additional Low Profile PCIe 3.0 slot. | 764642-B21 |
| | information: https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04154 In HP DL360 Gen9 Low Profile PCIe Slot CPU2 Kit NOTE: This option kit requires a second CPU and will add an additional Low Profile PCIe 3.0 slot. HPE DL360 Gen9 2P Full Height PCIe Slot 2 GPU Enablement Kit | |
| | information: https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04154 In HP DL360 Gen9 Low Profile PCIe Slot CPU2 Kit NOTE: This option kit requires a second CPU and will add an additional Low Profile PCIe 3.0 slot. HPE DL360 Gen9 2P Full Height PCIe Slot 2 GPU Enablement Kit NOTE: This enablement kit can support more than one Full Height/GPU card | 764642-B21 |
| | information: https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04154 In HP DL360 Gen9 Low Profile PCIe Slot CPU2 Kit NOTE: This option kit requires a second CPU and will add an additional Low Profile PCIe 3.0 slot. HPE DL360 Gen9 2P Full Height PCIe Slot 2 GPU Enablement Kit NOTE: This enablement kit can support more than one Full Height/GPU card NOTE: This option kit requires a second CPU and will add an additional FH / ¾ | 764642-B21 |
| | information: https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04154 In HP DL360 Gen9 Low Profile PCIe Slot CPU2 Kit NOTE: This option kit requires a second CPU and will add an additional Low Profile PCIe 3.0 slot. HPE DL360 Gen9 2P Full Height PCIe Slot 2 GPU Enablement Kit NOTE: This enablement kit can support more than one Full Height/GPU card | 764642-B21 |
| | information: https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04154 In HP DL360 Gen9 Low Profile PCle Slot CPU2 Kit NOTE: This option kit requires a second CPU and will add an additional Low Profile PCle 3.0 slot. HPE DL360 Gen9 2P Full Height PCle Slot 2 GPU Enablement Kit NOTE: This enablement kit can support more than one Full Height/GPU card NOTE: This option kit requires a second CPU and will add an additional FH / ¾ Length PCle 3.0 slot. | 764642-B21 |
| Options | information: https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04154 In HP DL360 Gen9 Low Profile PCle Slot CPU2 Kit NOTE: This option kit requires a second CPU and will add an additional Low Profile PCle 3.0 slot. HPE DL360 Gen9 2P Full Height PCle Slot 2 GPU Enablement Kit NOTE: This enablement kit can support more than one Full Height/GPU card NOTE: This option kit requires a second CPU and will add an additional FH / ¾ Length PCle 3.0 slot. NOTE: This kit includes GPU power cable and bracket; when this option kit is installed the Low Profile PCle3.0 riser is not useable. | 764642-B21 |
| Options HPE Power | information: https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04154 In HP DL360 Gen9 Low Profile PCle Slot CPU2 Kit NOTE: This option kit requires a second CPU and will add an additional Low Profile PCle 3.0 slot. HPE DL360 Gen9 2P Full Height PCle Slot 2 GPU Enablement Kit NOTE: This enablement kit can support more than one Full Height/GPU card NOTE: This option kit requires a second CPU and will add an additional FH / ¾ Length PCle 3.0 slot. NOTE: This kit includes GPU power cable and bracket; when this option kit is installed the Low Profile PCle3.0 riser is not useable. HPE Flex Slot Platinum Hot-plug Power supplies | 764642-B21 867249-B21 |
| Options HPE Power | information: https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04154 In HP DL360 Gen9 Low Profile PCle Slot CPU2 Kit NOTE: This option kit requires a second CPU and will add an additional Low Profile PCle 3.0 slot. HPE DL360 Gen9 2P Full Height PCle Slot 2 GPU Enablement Kit NOTE: This enablement kit can support more than one Full Height/GPU card NOTE: This option kit requires a second CPU and will add an additional FH / ¾ Length PCle 3.0 slot. NOTE: This kit includes GPU power cable and bracket; when this option kit is installed the Low Profile PCle3.0 riser is not useable. HPE Flex Slot Platinum Hot-plug Power supplies HPE 1400W Flex Slot Platinum Plus Hot Plug Power Supply Kit NOTE: Flex Slot Platinum Plus power supplies support power efficiency of up to | 764642-B21 |
| Options HPE Power | information: https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04154 In HP DL360 Gen9 Low Profile PCle Slot CPU2 Kit NOTE: This option kit requires a second CPU and will add an additional Low Profile PCle 3.0 slot. HPE DL360 Gen9 2P Full Height PCle Slot 2 GPU Enablement Kit NOTE: This enablement kit can support more than one Full Height/GPU card NOTE: This option kit requires a second CPU and will add an additional FH / ¾ Length PCle 3.0 slot. NOTE: This kit includes GPU power cable and bracket; when this option kit is installed the Low Profile PCle3.0 riser is not useable. HPE Flex Slot Platinum Hot-plug Power supplies HPE 1400W Flex Slot Platinum Plus Hot Plug Power Supply Kit | 764642-B21 867249-B21 |
| HPE I/O Expansion Options HPE Power Supplies | information: https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04154 In HP DL360 Gen9 Low Profile PCle Slot CPU2 Kit NOTE: This option kit requires a second CPU and will add an additional Low Profile PCle 3.0 slot. HPE DL360 Gen9 2P Full Height PCle Slot 2 GPU Enablement Kit NOTE: This enablement kit can support more than one Full Height/GPU card NOTE: This option kit requires a second CPU and will add an additional FH / ¾ Length PCle 3.0 slot. NOTE: This kit includes GPU power cable and bracket; when this option kit is installed the Low Profile PCle3.0 riser is not useable. HPE Flex Slot Platinum Hot-plug Power supplies HPE 1400W Flex Slot Platinum Plus Hot Plug Power Supply Kit NOTE: Flex Slot Platinum Plus power supplies support power efficiency of up to 94%. NOTE: Includes a C-14 power inlet (blue) connector that can support HPE | 764642-B21 867249-B21 |

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

NOTE: Includes a 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%.

NOTE: Includes a 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%.

NOTE: Supports 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%.

NOTE: Maximum of 2 Flex Slot power supplies per platform.

NOTE: All power supplies must be of the same input voltage, output rating, and efficiency rating.

NOTE: If non-matching power supplies are installed, you may receive an error message and/

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.

The HPE Power Advisor is located at: http://www.hp.com/go/hppoweradvisor.

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.

| HPE Computation |
|-----------------|
| and Graphics |
| Accelerators |

HPE NVIDIA Tesla M4 4GB Computational Accelerator
 NOTE: Max of 2 cards can be ordered (Slots 1 and 3).

P9U90A

NOTE: If 2 cards are installed, then 764642-B21 (HP DL360 Gen9 Low Profile

PCIe Slot CPU2 Kit) is required.

HPE NVIDIA Quadro M2000 Graphics Accelerator

NOTE: Max of 2 cards can be ordered (Slots 1 and 3).

NOTE: If 2 cards are installed, then 867249-B21 (HPE DL360 Gen9 2P PCIe

GPU Enablemnt Kit) is required.

HPE NVIDIA Quadro M4000 Graphics Accelerator

M9X58A

P8Y48A

NOTE: Max of 2 cards can be ordered (Slots 1 and 3).

NOTE: If 1 card is installed, then 766199-B21 (HP DL360 Gen9 GPU Cable for

CPU1 Kit) is required.

NOTE: If 2 cards are installed, then only 867249-B21 (HPE DL360 Gen9 2P

PCIe GPU Enablemnt Kit) is required (GPU cable will be included in kit).

HP NVIDIA Quadro K2200 Graphics Accelerator

JOG89A

NOTE: Max of 2 cards can be ordered (Slots 1 and 3).

NOTE: If 2 cards are installed, then 867249-B21 (HPE DL360 Gen9 2P PCIe

GPU Enablemnt Kit) is required.

HP DL360 Gen9 GPU Cable for CPU1 Kit

766199-B21

NOTE: This kit is required if one HPE NVIDIA Quadro M4000 Graphics Accelerator card is installed (includes GPU cable and brackets).

NOTE: The NVIDIA Quadro modules are supported only on 64-bit versions of Linux and Windows operating systems as well as on Virtual Machine client operating systems. The supported bare metal operating systems are RHEL6, RHEL7, SLES 11, SLES12 and Windows Server 2012 R2.

HPE Cooling Options

HP DL360 Gen9 High Performance Fan Kit

766201-B21

NOTE: High Performance Fan Kit is required for some supported configurations (10SFF Model, 160W CPUs or higher, LRDIMMs, NVMe SSDs) and extended ambient operating temperatures above 35° C. Qualifications for extended ambient configurations are at: https://www.hp.com/servers/ashrae.

NOTE: High performance fan kit increases power consumption. To reduce power consumption use high performance heat sinks (795235-B21).

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 |
|--------------------|
| Software |

HPE Insight Control

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

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

NOTE: Customer will receive a license entitlement certificate. The license entitlement certificate must be redeemed online or via fax in order to obtain the license activation key(s). Includes one year of 24x7 HPE Software Technical Support and Update Service.

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

NOTE: For additional license options please see the QuickSpecs

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

HPE Converged Infrastructure Management Software

HPE OneView Advanced (with HPE iLO Advanced)

| HPE OneView including 3yr 24x7 Support Physical 1-server LTU | E5Y34A |
|--|----------|
| 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 Track 1-server LTU | P8B25A |
| 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.

NOTE: Licenses ship without media.

The HPE OneView Media Kit can be ordered separately, or can be

downloaded at: http://www.hp.com/go/oneview.

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

Clusters

High Performance 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 will also 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 PCle | HPE Read Intensive PCIe Workload Accelerator | | | | | |
|--------------|--|---|--|--|--|--|
| Workload | HPE 6.4TB Read Intensive-2 FH/HL PCIe Workload Accelerator | 831739-B21 | | | | |
| Accelerator | HPE 3.2TB Read Intensive-2 HH/HL PCIe Workload Accelerator | 831737-B21 | | | | |
| Options | HPE 1.6TB Read Intensive-2 HH/HL PCIe Workload Accelerator | 831735-B21 | | | | |
| opiions | HPE 1.3TB Read Intensive-2 HH/HL PCIe Workload Accelerator | 831733-B21 | | | | |
| | | 031/33-DZ1 | | | | |
| | HPE Write Intensive PCIe Workload Accelerator | 007407 D04 | | | | |
| | HPE 1.6TB NVMe Write Intensive HH/HL PCIe Workload Accelerator | 803197-B21 | | | | |
| | HPE 800GB NVMe Write Intensive HH/HL PCIe Workload Accelerator | 803195-B21 | | | | |
| | HPE Mixed Use PCIe Workload Accelerator | | | | | |
| | HPE 2.0TB NVMe Mixed Use HH/HL PCIe Workload Accelerator | 803204-B21 | | | | |
| | HPE 1.6TB NVMe Mixed Use HH/HL PCIe Workload Accelerator | 803202-B21 | | | | |
| | HPE 800GB NVMe Mixed Use HH/HL PCIe Workload Accelerator | 803200-B21 | | | | |
| | | NOTE: Please see the HPE PCIe Workload Accelerators for ProLiant Servers QuickSpecs for Technical | | | | |
| | Specifications and additional information. | | | | | |
| | Light Endurance (LE) PCIe Workload Accelerators | | | | | |
| | 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 | | | | |
| HPE Security | HP 1U Security Bezel Kit | 664918-B21 | | | | |
| | HP Trusted Platform Module 2.0 Kit | 745823-B21 | | | | |
| | NOTE: This option kit is supported on Gen9 servers with UEFI Mode not Legacy Mode. | | | | | |
| | NOTE: It is not compatible with HP ProLiant Gen8 servers or earlier generation variants. | | | | | |
| | NOTE: HPE Gen9 servers purchased earlier may require latest BIOS update to be compatible. | | | | | |
| | NOTE: HPE server systems can have a TPM module (of any type) installed only once. | | | | | |
| | NOTE: It cannot be replaced with any other TPM module. | | | | | |
| | HP Trusted Platform Module Option | 488069-B21 | | | | |
| | NOTE: The TPM (Trusted Platform Module) is a microcontroller chip that can | 100007 BZI | | | | |
| | securely store artifacts used to authenticate the server platform. These artifacts | | | | | |
| | can include passwords, certificates and encryption keys. Windows® BitLocker™ | | | | | |
| | Drive Encryption (BitLocker) is a data protection feature available in Windows | | | | | |
| | Server® 2008. BitLocker leverages the enhanced security capabilities of a | | | | | |
| | Trusted Platform Module (TPM) version 1.2. The TPM works with BitLocker to | | | | | |
| | help protect user data and to ensure that a server running Windows Server | | | | | |
| | 2008 has not been tampered with while the system was offline. For more | | | | | |
| | information about TPM, including a white paper, go | | | | | |
| | to: http://www.hp.com/go/TPM. | | | | | |
| | NOTE: ProLiant OS pre-installed units will come with the partition required for | | | | | |
| | TPM deployment. | | | | | |
| | NOTE: The TPM key is unique to every TPM deployed server and must be | | | | | |
| | retained. | | | | | |

NOTE: Misplacing or losing the key could result in data loss.

NOTE: Compatible server platforms include Gen8 and Gen9 servers.

version.

NOTE: The HPE Trusted Platform Module Option (488069-B21) is the TPM 1.2

Page 42

NOTE: HPE server systems can have a TPM module (of any type) installed only once.

NOTE: It cannot be replaced with any other TPM module.

| LIDE Character | | |
|----------------------------|---|------------|
| HPE Storage Controllers | SAS Controllers | |
| Controllers | HPE Smart Array Controllers HP Smart Array P841/4GB FBWC 12Gb 4-ports Ext SAS Controller | 726903-B21 |
| | HP Smart Array P840/4GB FBWC 12Gb 2-ports Int SAS Controller | 726897-B21 |
| | HP DL360 Gen9 Smart Array P840 SAS Card with Cable Kit | 766205-B21 |
| | NOTE: Includes the P840 Smart Array controller with 4GB integrated cache, | 700203 BZ1 |
| | HPE Smart Storage Battery, and associated cabling required to attach it to a | |
| | 10SFF chassis configuration. | |
| | HPE Smart Array P840ar/2GB FBWC 12Gb 2-port Internal SAS Controller NOTE: The Smart Array P840ar SAS controller will require the P840ar Cable Kit 843234-B21. | 843199-B21 |
| | HP Smart Array P441/4GB FBWC 12Gb 2-ports Ext SAS Controller | 726825-B21 |
| | HP Smart Array P440/4GB FBWC 12Gb 1-port Int SAS Controller | 726821-B21 |
| | HP Smart Array P440ar/2GB FBWC 12Gb 2-ports Int SAS Controller | 726736-B21 |
| | HP DL360 Gen9 Smart Array P440ar Controller for 2 GPU Configurations | 726740-B21 |
| | NOTE: This controller is specific for the DL360 Gen9 with 2 GPGPUs installed. | |
| | NOTE: It has a unique heatsink that will allow the 2 nd GPU to fit. | |
| | NOTE: When ordering controllers, see HPE Cable Options below for required cable | (s). |
| | HPE Smart Host Bus Adapters | |
| | HP H241 12Gb 2-ports Ext Smart Host Bus Adapter | 726911-B21 |
| | HP H240 12Gb 2-ports Int Smart Host Bus Adapter | 726907-B21 |
| | HP H240ar 12Gb 2-ports Int Smart Host Bus Adapter | 726757-B21 |
| | NOTE: The H240ar will support up to 8 internal SAS/SATA drives without using | |
| | a PCIe slot. | |
| | NOTE: When ordering controllers, see HPE Cable Options below for required cable | (s). |
| | HPE Cable Options | |
| | HPE DL360 Gen9 Smart Array P840ar Cable Kit | 843234-B21 |
| | HP DL360 Gen9 SFF Embedded SATA Cable | 766207-B21 |
| | NOTE: Needed only when attaching drive bays to the B140i controller in an 8 SFF Model. | |
| | HP DL360 Gen9 SFF Smart Array P440/H240 SAS Cables | 775927-B21 |
| | NOTE: Required for use with the HPE Smart Array P440 (PCIe | |
| | Controllers) 726821-B21 or 761872-B21, the option kit documentation details | |
| | out cable placement with the HPE Smart Array P440 in PCIe 3.0 Slots 1 or 2 | |
| | connecting to the 8SFF backplane or the 2 SFF SAS/SATA option kit. | |
| | HP DL360 Gen9 SFF Smart Array P440ar/H240ar SAS Cable | 766209-B21 |
| | HP DL360 Gen9 LFF Embedded SATA Cable | 766213-B21 |
| | HP DL360 Gen9 LFF Smart Array P440/H240 SAS Cables | 775929-B21 |
| | NOTE: Required for use with the HPE Smart Array P440 (PCIe | |
| | Controllers) 726821-B21 or 761872-B21, the option kit documentation details | |
| | out cable placement with the HPE Smart Array P440 in PCle 3.0 Slots 1 or 2 connecting to the 4LFF backplane. | |
| | HP DL360 Gen9 LFF Smart Array P440ar/H240ar SAS Cable | 766211-B21 |

NOTE: Required for an upgrade from a B140i SATA controller to a HPE Smart

NOTE: Options noted "DL360 Gen9 SFF..." are supported on the 8 SFF Model only.

HBA 240ar or HPE Smart Array P440ar.

Options noted "DL360 Gen9 LFF..." are supported on the 4 LFF Model only.

| 0 | pti | on | al | So | ft۱ | wa | re |
|---|-----|----|----|----|-----|----|----|
| | | | | | | | |

HPE SmartCache No Media 24x7 Technical Support 1-server LTU D7S26A HPE SmartCache No Media 24x7 Technical Support Flexible LTU D7S27A HPE SmartCache No Media 24x7 Technical Support E-LTU D7S27AAE

NOTE: HPE SmartCache is supported when a supported Smart Array

Controllers is installed.

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

HPE Tape Backup NOTE: For the complete range of tape drives, autoloaders, libraries and media

see: http://www.hp.com/go/tape. For hardware and software compatibility of HPE tape backup

products http://www.hpe.com/storage/BURAcompatibility.

Rack-Mount Tape Solutions

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 StoreEver MSL6480

| HPE StoreEver MSL6480 Scaleable Expansion Module | QU626A |
|--|--------|
| HPE StoreEver MSL6480 Scalable Base Module | QU625A |
| HPE StoreEver MSL2024 0-drive Tape Library | AK379A |
| HPE StoreEver MSL4048 0-drive Tape Library | AK381A |

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

Technical Specifications and additional information.

HPE Disk Backup HPE RDX Removable Disk Backup System

| • • | |
|--|--------|
| HPE RDX 3TB USB 3.0 Internal Disk Backup System | P9L71A |
| HPE RDX+ 3TB USB 3.0 External Disk Backup System | P9L72A |
| 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 StoreOnce Backup systems

| HPE D3700 Enclosure | QW967A |
|--------------------------------|--------|
| HPE D3600 Enclosure | QW968A |
| HPE StoreOnce 5100 48TB System | BB915A |
| HPE StoreOnce 3540 24TB System | BB914A |

HPE StoreOnce 3520 12TB System BB922A HPE StoreOnce 3100 8TB System BB913A

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

NOTE: Please see the HPE RDX Removable Disk Backup System QuickSpecs for additional part numbers, Technical Specifications, and additional information

HPE Storage Options

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

| http://www8.hp.com/us/en/ | <u>products</u> | <u>/data-storag</u> | <u>ge/storefabri</u> | <u>c.html</u> . |
|----------------------------------|-----------------|---------------------|----------------------|-----------------|
| Emulex Fibre Channel HBAs | | | | |

| 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 SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter | Q0L13A |
| HPE StoreFabric SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter | Q0L14A |
| HPE StoreFabric SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter | C8R39A |
| HPE StoreFabric SN1100E 4-port 16Gb Fibre Channel Host Bus Adapter | P9D99A |
| HPE StoreFabric SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter | C8R38A |
| HPE StoreFabric 84E 4-port 8Gb Fibre Channel Host Bus Adapter | E7Y63A |
| HPE 82E 8Gb 2-port PCIe Fibre Channel Host Bus Adapter | AJ763B |
| HPE 81E 8Gb 1-port PCIe Fibre Channel Host Bus Adapter | AJ762B |

QLogic Fibre Channel HBAs

| HPE StoreFabric SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter | P9M75A |
|---|--------|
| HPE StoreFabric SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter | P9M76A |
| HPE StoreFabric SN1100Q 16Gb Single Port Fibre Channel Host Bus Adapter | P9D93A |
| HPE StoreFabric SN1100Q 16Gb Dual Port Fibre Channel Host Bus Adapter | P9D94A |
| HPE StoreFabric SN1000Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter | QW971A |
| HPE StoreFabric SN1000Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter | QW972A |
| HPE StoreFabric 84Q 4-port 8Gb Fibre Channel Host Bus Adapter | P9D91A |
| HPE 82Q 8Gb 2-port PCIe Fibre Channel Host Bus Adapter | AJ764A |
| HPE 81Q 8Gb 1-port PCle Fibre Channel Host Bus Adapter | AK344A |

Converged Network Adapter

| HPE StoreFabric CN1200E 10Gb Converged Network Adapter | F7Y06A |
|---|--------|
| THE STOTE ADDITION TO THE TOOL CONVEYED THE STOTE ACAPTED | ETTOOA |
| HPE StoreFabric CN1100R Dual Port Converged Network Adapter | QW990A |
| HPE StoreFabric CN1200E 10GBASE-T Dual Port Converged Network Adapter | N3U51A |
| HPF StoreFabric CN1100R 10GBASE-T Dual Port Converged Network Adapter | N3U52A |

HPE Disk Storage Disk Enclosures **Systems**

Bundle

| 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 | MOT59A |
| Bundle | |
| HPE D6000 w/35 8TB 12G SAS 7.2K LFF (3.5in) Dual Port MDL HDD 280TB | MOT58A |

(PDUs)

Additional Options

HPE Data Center HPE Advanced Series Racks

| HPE Data Center | HPE Advanced Series Racks | |
|------------------------------|--|---------------------|
| Racks | HPE 11642 1075mm Pallet Universal Rack | H6J65A |
| | HPE 11642 1075mm Shock Universal Rack | H6J66A |
| | HPE 11642 1200mm Pallet Universal Rack | H6J67A |
| | HPE 11642 1200mm Shock Universal Rack | H6J68A |
| | HPE 11636 1075mm Pallet Universal Rack | H6J77A |
| | HPE 11636 1075mm Shock Universal Rack | H6J78A |
| | HPE 11614 1075mm Shock Universal Rack | H6J82A |
| | HPE 11622 G2 1075mm Pallet Universal Rack | H6J83A |
| | HPE 11622 G2 1075mm Shock Universal Rack | H6J84A |
| | HPE 11648 1075mm Pallet Universal Rack | H6J87A |
| | HPE 11648 1075mm Shock Universal Rack | H6J88A |
| | NOTE: Please see the HPE Advanced Series Racks QuickSpecs for information on additional racks options and rack specifications. | |
| | | |
| | HPE Enterprise Series Racks HPE 636 1075mm Pallet Intelligent Series Rack | BW895A |
| | • | |
| | HPE 636 1075mm Shock Intelligent Series Rack | BW896A |
| | HPE 642 1075mm Pallet Intelligent Series Rack | BW903A |
| | HPE 642 1075mm Shock Intelligent Series Rack | BW904A |
| | HPE 642 1200mm Pallet Intelligent Series Rack | BW907A |
| | HPE 642 1200mm Shock Intelligent Series Rack | BW908A |
| | HPE 647 1075mm Pallet Intelligent Series Rack | BW911A |
| | HPE 647 1075mm Shock Intelligent Series Rack | BW912A |
| | HPE 647 1200mm Pallet Intelligent Series Rack | BW913A |
| | HPE 647 1200mm Shock Intelligent Series Rack | BW914A |
| | HPE 842 1075mm Pallet Intelligent Series Rack | BW917A |
| | HPE 842 1075mm Shock Intelligent Series Rack | BW918A |
| | NOTE: Please see the HPE Enterprise Series Racks QuickSpecs for information | |
| | on additional racks options and rack specifications. | |
| | HPE Standard Series Rack | |
| | HPE V142 1075mm deep Pallet 100 series Rack | AF046A |
| | NOTE: Please see the <u>HPE Standard Series Racks QuickSpecs</u> for information | |
| | on additional racks options and rack specifications. | |
| | 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 sto help you with the installation of your Gen9 server. | server |
| | NOTE: Rail kits are optional for DL360/380 Gen9 and is no longer standard with the | corvor |
| | Customers have the option to purchase their server without a rail kit. | Server. |
| | NOTE: Ball bearing and Easy Install rail kits contain telescoping rails to allow for in-rack servicing. | |
| | NOTE: To assist in the installation of the server into the rack an optional installation | |
| | contacting your local services representative (695539-001). | ioonio avanabie by |
| | CAUTION: Hewlett Packard Enterprise recommends that a minimum of two people a | re required for all |
| | Rack Server installations. Please refer to your installation instructions for proper tools | |
| | people to use for any installation. | |
| | | |
| HPE Power Distribution Units | HPE Basic Power Distribution Units (PDU) HPE Basic 1.9kVA/L5-20P 16A/120V Outlets (12) 5-20R/Horizontal NA/JP PDU | H5M5 |
| (PDHs) | LIDE Dasia 7 (1)/1/ (40720 C20 Datashable 1 (4 /270)/ Outlate (12) | 1151454 |

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 HPE Basic 4.9kVA/60320 C20 Detachable 16A/230V Outlets (20) C13/Vertical | H5M55A H5M57A |
|---|------------------|
| WW PDU | ПЭМЭ/А |
| 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 | H5M59A |
| HPE Basic 7.3kVA/60309 3-wire 32A/230V Outlets (24) C13 (6) C19/Vertical INTL PDU | H5M70A |
| HPE Basic 8.3kVA/CS8265C 40A/208V Outlets (30) C13 (6) C19/Vertical NA PDU | H5M60A |
| HPE Basic 9.2kVA/50A Terminal Block 40A/230V Outlets (30) C13 (6) C19/Vertical WW PDU | H5M75A |
| HPE Basic 3Ph 5.7kVA/ L21-20P 16A/120-208V Outlets (24) C13 (3) 5-20R/Vertical NA/JP PDU | H5M63A |
| 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 | H5M67A |
| PDU HPE Basic Modular 2.8kVA/L5-30P 24A/120V Outlets (4) C19/Horizontal NA/JP | 252663-D71 |
| PDU HPE Basic Modular 4.9kVA/L6-30P 24A/208V Outlets (4) C19/Horizontal NA/JP | 252663-D74 |
| Core Only PDU HPE Basic Modular 8.3kVA/CS8265C 40A/208V Outlets (4) C19/Horizontal | 252663-D75 |
| NA/JP PDU | |
| HPE Basic Modular 3Ph 8.6kVA/L15-30P 24A/208V Outlets (6) C19/Horizontal NA/JP PDU | AF512A |
| 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 infe | ormation |
| 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 | D9N62A |
| (12) C19/Vertical NA/JP PDU HPE Metered 3Ph 17.3kVA/60309 60A 4-wire 48A/208V Outlets (24) C13 (3) | D9N54A |
| C19/Vertical NA/JP PDU HPE Metered 3Ph 17.3kVA/60309 60A 4-wire 48A/208V Outlets (12) C13 (12) | D9N59A |
| C19/Vertical NA/JP PDU HPE Metered 3Ph 17.3kVA/60309 60A 4-wire 48A/208V Outlets (12) C13 (12) | G9Z07A |
| C19/Vertical NA/JP PDU HPE Metered 3Ph 19.9kVA/L22-30P 24A/277V Outlets (30) RF-203P- | D9N63A |
| HP/Vertical NA PDU HP Environmental Sensor for Remote Monitored and Managed PDUs | E2D53A |
| NOTE: Please see the HPE Metered Power Distribution Units (PDU) QuickSpecs for info | |
| on additional options and product specifications. | manon |
| 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 infe | ormation 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) | H8B52A |
|---|--------|
| C19/Vertical NA/JP PDU | |
| HPE Metered Switched 3Ph 8.6kVA/L21-30P 24A/208V Outlets (20)C13 | H8B53A |
| (3)C19 (1)5-20R/Vertical NA/JP PDU | |
| HPE Metered Switched 3Ph 14.4kVA/CS8365C 40A/208V Outlets (12) C13 (12) | H8B55A |
| C19/Vertical NA/JP PDU | |
| HPE Metered Switched 3Ph 17.3kVA/60309 4-wire 48A/208V Outlets (12) C13 | H8B56A |
| (12) C19/Vertical NA/JP PDU | |
| NOTE DI LI LIDENA IL LO SIL LID. DI L'IL SI ADDINO SI | |

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 |
| HPE Location Discovery Services LCD8500 Kit | TL052A |
| NOTE: Please see the HPE Location Discovery Services QuickSpecs for | |
| Technical Specifications and additional information | |
| 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 |
| Rail Kits | |
| HP 1U LFF Gen9 Easy Install Rail Kit | 789388-B21 |
| HP 1U Small Form Factor Easy Install Rail Kit | 734807-B21 |
| HP 1U Cable Management Arm for Easy Install Rail Kit | 734811-B21 |
| HP 1U Small Form Factor Ball Bearing Rail Kit | 663201-B21 |
| HP 1U Large Form Factor Ball Bearing Rail Kit | 663202-B21 |
| HP 1U Cable Management Arm for Ball Bearing Rail Kit | 663203-B21 |
| HPE Other Options | |
| HPE Rack LED Light Kit | BW939A |
| HP Kit LCD 1.83m Latch Display Port Cable | G7T29A |
| | |

Additional Options

| = | le 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 | |
| | HPE 30A 400-415 Volt Three Phase NA R10000 DirectFlow UPS IEC309 Input/Output Module | AF489A |
| | 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 Q | uickSpecs |
| | 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/Tower 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 |
| | 2 | |

737953-B21

U4506E

U7AM9E

U7AN0E

Additional Options

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) web page.

HPE USB and SD Options

HPE Enterprise Mainstream Flash Media Kits for Memory CardsHPE 32GB microSD Mainstream Flash Media Kit700139-B21HP Dual 8GB microSD Enterprise Midline USB Kit741279-B21HPE 8GB microSD Enterprise Mainstream Flash Media Kit726116-B21

HPE Support Services

Installation & Start-up Services

HPE Install ProLiant DL36x(p) Service

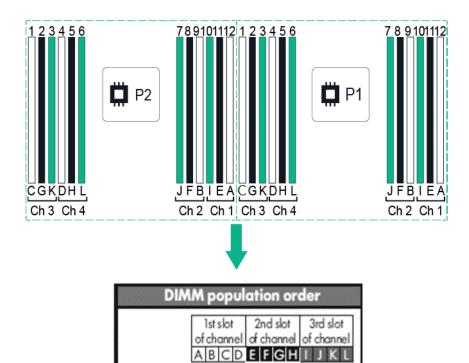
HP 8GB USB Enterprise Mainstream Flash Media Drive Key Kit

| 11.7 | |
|--|--------|
| HPE Installation and Startup DL36x(p) Service | U4507E |
| Proactive Care | |
| HPE 3 year Proactive Care 24x7 DL360 Gen9 w/IC Service | U5HM4E |
| HPE 3 year Proactive Care 24x7 with DMR DL360 Gen9 w/IC Service | U5HM5E |
| HPE 3 year Proactive Care 24x7 with CDMR DL360 Gen9 w/IC Service | U5HM6E |
| HPE 3 year Proactive Care Call to Repair DL360 Gen9 w/IC Service | U5HN3E |
| HPE 3 year Proactive Care Call to Repair 24x7 with DMR DL360 Gen9 w/IC | U5HN4E |
| Service | |
| HPE 3 year Proactive Care Call to Repair with CDMR DL360 Gen9 w/IC Service | U5HN5E |
| HPE 3 year Proactive Care 24x7 DL360 Gen9 Service | U7AM2E |
| HPE 3 year Proactive Care 24x7 with DMR DL360 Gen9 Service | U7AM3E |
| HPE 3 year Proactive Care 24x7 with CDMR DL360 Gen9 Service | U7AM4E |
| HPE 3 year Proactive Care Call to Repair DL360 Gen9 Service | U7AM8E |
| | |

HPE 3 year Proactive Care Call to Repair 24x7 with DMR DL360 Gen9 Service

HPE 3 year Proactive Care Call to Repair with CDMR DL360 Gen9 Service

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 processor
- . Install DIMMs only if the corresponding processor is installed.

Number

of DIMMs to install

. When two processors are installed, balance the DIMMs across the two processors.

8

12

- . Populate DIMMs from heaviest load (quad-rank) to lightest load (single-rank) within a channel. Heaviest load (DIMM with most ranks) within a channel goes furthest from the processor.
- . Do not mix RDIMMs or LRDIMMs.
- . DIMMs of different speeds may be mixed in any order; the server will select a common optimal speed.
- . The maximum memory speed is a function of the memory type, memory configuration, and processor model.
- . The maximum memory capacity is a function of the memory type and number of installed processors.
- . HPE memory from previous generation servers is not compatible with the DL360 Gen9 Server.
- . For memory population rules and additional memory guidelines, please see the DL360 Gen9 user guide at http://www.hp.com/support.
- . There are four (4) Memory channels per processor; eight (8) channels per 2 processor server.
- . There are three (3) DIMM slots for each memory channel; twenty four (24) total slots for 2 processor server.

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

| Memory Bandwidth and Ca | apacity | |
|-------------------------|---------------------------|------------------------|
| [DIMM Type] | Registered DIMMs (RDIMMs) | Load Reduced (LRDIMMs) |

| 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 | x4 | x4 | х4 | x4 | 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 (C | GB) | l | | | l | | <u>I</u> |
| | 192 | 384 | 384 | 768 | 768 | 1536 | 3072 |
| POPULATED DIMM SPE | ED (MT/s) | l | | | | | |
| 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 |
| | | | | <u> </u> | | | |

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

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

| Nemory Bandwidth and Capacity | | | | | | | | |
|-------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| [DIMM Type] | | Registe | red DIMMs (R | Load F | Reduced (LRD | IMMs) | | |
| 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 POPULATED | | | | | | | | |
| 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) | | | | | | |
| 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 |

DIMM slot and configuration diagram

DIMM slot and configuration diagrams

- Population order; start with "A" first, "B" second, "C" third, etc.
- When one processor is installed, install DIMMs in sequential alphabetic order: A, B, C, D, E, F.
- When two processors are installed, install DIMMs in sequential alphabetic order: CPU1-A, CPU2-A,CPU1-B,CPU2-B,CPU1-C, CP2-C

| | | CPU 1 | | CPU 2 | |
|--------|-------------|------------------|-------------|------------------|--------|
| | Slot # | population order | Slot # | population order | |
| Chnl 3 | 1 | С | 1 | С | Chnl 3 |
| | 2 | G | 2 | G | |
| | 3 | K | 3 | K | |
| | | CPU 1 | | CPU 2 | |
| | Slot # | population order | Slot # | population order | |
| Chnl 4 | 4 | D | 4 | D | Chnl 4 |
| | 5 | Н | 5 | Н | |
| | 6 | L | 6 | L | |
| | | CPU 1 | | CPU 2 | |
| | Slot # | population order | Slot # | population order | |
| | | | | | |
| Chnl 2 | 7 | J | 7 | J | Chnl 2 |
| Chnl 2 | 7 | J F | 7 8 | J F | Chnl 2 |
| Chnl 2 | 7 8 9 | J F B | 7 8 9 | J F B | Chnl 2 |
| Chnl 2 | | <u> </u> | | В | Chnl 2 |
| Chnl 2 | 9 | В | 9 | | Chnl 2 |
| Chnl 2 | 9 | B CPU 1 | 9 | B CPU 2 | Chnl 2 |
| | 9 Slot # | B CPU 1 | 9 Slot # | B CPU 2 | |

Memory Speed by Processor Model

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

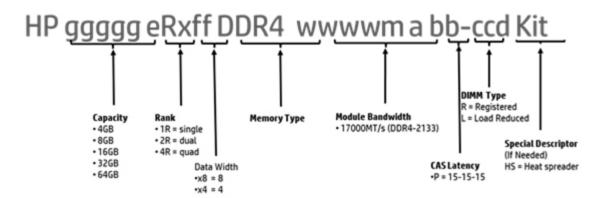
Standard and Maximum Memory Capacity (Preconfigured Models)

| Pre Configured Models | Standard Memory | Maximum Memory Plus Optional Memory | Standard Memory Replaced with Optional Memory |
|-----------------------|-----------------|--|---|
| E5-2670v3 | 64GB (4x16GB) | 704GB (20x32GB, 4x16GB) | 1536GB (24x64GB) |
| E5-2660v4 | 64GB (4x16GB) | 704GB (20x32GB, 4x16GB) | 3072GB (24x128GB) |
| E5-2650v4 | 32GB (2x16GB) | 736GB (22x32GB, 2x16GB) | 3072GB (24x128GB) |
| E5-2650v3 | 32GB (2x16GB) | 736GB (22x32GB, 2x16GB) | 1536GB (24x64GB) |
| E5-2640v4, E5-2630v4 | 16GB (1x16GB) | 752GB (23x32GB, 1x16GB) | 3072GB (24x128GB) |
| E5-2630v3 | 16GB (1x16GB) | 752GB (23x32GB, 1x16GB) | 1536GB (24x64GB) |
| E5-2603v4 | 8GB (1x8GB) | 744GB (23x32GB, 1x8GB) | 3072GB (24x128GB) |
| E5-2603v3 | 8GB (1x8GB) | 744GB (23x32GB, 1x8GB) | 1536GB (24x64GB) |

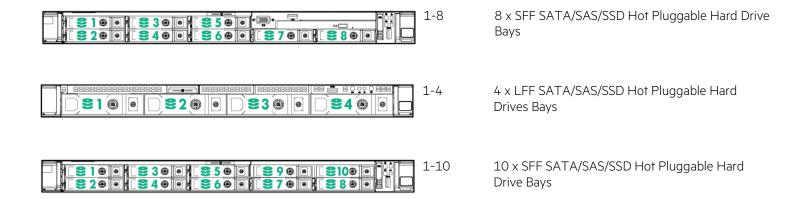
DDR4 memory options part number decoder

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

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



Storage



| System U | Jnit |
|----------|------|
|----------|------|

Dimensions 8 SFF and 10 SFF 1.7 x 17.1 x 27.5 inches (4.32 x 43.47 x 69.85 cm)

 $(H \times W \times D)$ 4 LFF - 1.7 x 17.1 x 29.5 inches (4.32 x 43.46 x 75.0 cm)

Weight

Maximum: 8 SFF CTO Server 33.3 lb. (15.31 kg) NOTE: Includes 2 SFF Option for a total of 10 SFF HDD.

(approximate) (all hard drives,

power supply, and

processor installed)

4 LFF CTO Server 37 lb. (16.78kg) 8SFF CTO Server 27 lb. (12.25 kg)

Minimum: (one hard drive, power supply, and processor installed)

4 LFF CTO Server 30.36 lb. (13.77 kg)

Input Requirements Range Line Voltage

100 to 120 VAC 200 to 240 VAC

BTU Rating

Maximum

For 800W Power Supply: 3207 BTU/hr (at 100 VAC), 3071 BTU/hr (at 200 VAC), 3112 BTU/hr (at 240 VAC) for China

For 500W Power Supply: 1979 BTU/hr (at 100 VAC), 1911 BTU/hr (at 200 VAC), 1965 BTU/hr (at 240 VAC) for China

Power Supply Output

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

10° to 35°C (50° to 95°F) at sea level with an altitude derating Operating Support 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.

NOTE: System performance during standard operating support may be reduced if operating with a fan fault or above 30°C (86°F).

Extended Ambient For approved hardware configurations, the supported system Operating Support 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° to 45° C (104° to 113° F) at sea level with an altitude derating of 1.0° C per every 125 m (1.8° F per every 410 ft) above 900 m (2953 ft) to a maximum of 3050 m (10,000 ft). The approved hardware configurations for this system are listed at the URL:

http://www.hp.com/servers/ashrae

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

Non-operating -30° to 60°C (-22° to 140°F). Maximum rate of change is

20°C/hr (36°F/hr).

Relative Humidity Operating Minimum to be the higher (more moisture) of -12°C (10.4°F)

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

humidity.

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

bulb temperature, non-condensing.

Altitude Operating 3050 m (10,000 ft). This value may be limited by the type and

number of options installed. Maximum allowable altitude change

rate is 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

L WAd (1P non-redundant) 4.6 A Average Bystander

(2P redundant) 5.5 A Average Bystander

L pAm (1P non-redundant) 29 dBA

(2P redundant) 37 dBA

Operating

L WAd (1P non-redundant) 4.6 A Average Bystander

(2P redundant) 6.2 C Average Bystander

L pAm (1P non-redundant) 30 dBA

(2P redundant) 46 dBA

NOTE: 1P Configuration tested included two Intel E5-2630 v3, 2.3GHz processors, one 500GB SAS HDD, five standard hot plug fans, one 8GB

DDR4 RDIMM's 2133MHz, one 500W power supply.

NOTE: 2P Configuration tested included two Intel E5-2650 v3, 2.6GHz processors, one 500GB SAS HDD, seven standard hot plug fans, two 16GB DDR4 RDIMM's 2133MHz, one 500W power supply, P440ar HDD controller PCI card with 2GB cache.

NOTE: Values are subject to change without notification and are for reference only.

NOTE: Performance of system, options, and ancillary equipment will vary depending on the system configuration.

NOTE: Levels presented do not account for non-Hewlett-Packard installed hardware.

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

Emissions Classification

(EMC)

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.

HPE Dynamic Smart Array B140i links Controller

Number of PCI

Four

PCI link rate 4 Gb/s Storage protocol SATA

support

SAS/SATA peak 6 Gb/s

data transfer

rate

Number of

10 links

SAS/SATA links

SAS/SATA

2x4 connectors; 2x1 connectors

connectivity

Expander No

support

Drives supported Up to 10 Internal Drives

(max)

RAID support

0, 1, 10, 5 SATA

Software

HPE SSA, SMH, SIM

management

Warranty

Server warranty

HPE Secure Encryption

Not Supported

license

HPE SmartCache Not Supported

License

HPE Smart

Supported

Storage

Administrator

HPE Ethernet 1Gb

4-port 331i Adapter

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

Compatibility IEEE 802.3 10Base-T

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

Data Transfer

PCI Express, two lanes (x2)

Method

Controller

Transfer Rate

BCM5719

Network 10Base-T (Half-

> 10 Mb/s per port, 40 Mb/s combined Duplex)

10Base-T (Full-

Duplex) 20 Mb/s per port, 80 Mb/s combined

100Base-TX (Half-

Duplex) 100 Mb/s per port, 400 Mb/s combined

100Base-TX (Full-

Duplex) 200 Mb/s per port, 800 Mb/s combined

1000Base-TX (Half and Full-

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

1000Base-TX

(Full-Duplex) 2000 Mb/s per port, 8000 Mb/s combined

Connector Four RJ-45

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

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

Environmentfriendly Products and Approach End-of-life Management and Recycling Hewlett Packard Enterprise offers end-of-life product return, trade-in, and recycling programs, in many geographic areas, for our products. Products returned to Hewlett Packard Enterprise will be recycled, recovered or disposed of in a responsible manner.

http://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 |
|-------------|-----------------------|---------|--|
| 28-Nov-2016 | From Version 24 to 25 | Added | Added new LFF Hard Drives, new Fiber Channel HBAs up to 32Gb, and new E5-2699A v4 processor. |
| | | Changed | Processors, Memory, Maximum Internal Storage, HPE Drives, and HPE Computation and Graphics Accelerators were revised. |
| | | Removed | Obsolete SKUs were removed from the QuickSpecs. |
| 7-Oct-2016 | From Version 23 to 24 | Changed | Notes under the HPE Computation and Graphics Accelerators section were revised. |
| 26-Sep-2016 | From Version 22 to 23 | Added | Added new SATA LFF hard drives offering. New NVIDIA Tesla M4 4GB Module was added. |
| | | Changed | Maximum Internal Storage was revised. |
| | | Removed | Obsolete SKUs were removed from the QuickSpecs. |
| 19-Aug-2016 | From Version 21 to 22 | Changed | Smart Buy models section was revised for the NA version only. |
| 15-Aug-2016 | From Version 20 to 21 | Added | Added new Networking, Storage, and Unique options. |
| | | Changed | Overview, Memory, Standard Features section, Preconfigured Models, Configuration Information - Factory Integrated Models, HPE Drives, InfiniBand, and Computation and Graphics Accelerators were revised. |
| 8-Jul-2016 | From Version 19 to 20 | Changed | Smart Buy models section was revised for the NA version only. |
| 6-Jun-2016 | From Version 18 to 19 | Added | Added new HPE 25GB Ethernet Adapters, HPE 100GB OPA Adapter, HPE 128GB DIMM (8Rx4 PC4-2400T-L) Kit, HPE NVIDIA Quadro M2000 GPU Module, HPE StoreFabric 84Q 4-port 8Gb FC HBA, and new 2TB, 4TB, and 8TB LFF Drives. |
| | | Changed | Memory, Maximum Internal Storage, Pre-configured Models, HPE Unique Options, HPE Memory, HPE Drives, HPE InfiniBand, HPE Power Supplies, HPE Computation and Graphics Accelerators, HPE Insight Software, HPE PCIe Workload Accelerator Options, HPE Storage Controllers, HPE Disk Backup, and HPE Storage Options were updated. |
| 22-Apr-2016 | From Version 17 to 18 | Changed | Smart Buy model 800079-S01 was revised. |
| 15-Apr-2016 | From Version 16 to 17 | Changed | Smart Buy models section was revised for the NA version only. |
| 5-Apr-2016 | From Version 15 to 16 | Added | Added new NVIDIA Quadro M4000 GPU module. |
| · | | 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 Intel E5-2600v4 Processors support, new HPE Smart Memory DDR4 2400MHz, new HPE Persistent Memory, new HPE Flexible Smart Array P840ar controller, new NVIDIA Quadro GPU options, and new TPM 2.0 module. |
| | | Changed | Embedded Management, Security, Warranty, Service and Support, Pre-configured Models, Memory, and Storage Options sections were revised. |
| | | Removed | Obsolete SKUs were removed from the QuickSpecs. |

| 26-Feb-2016 | From Version 13 to 14 | Changed | Note for front view image – callout #9 was updated. |
|-------------|-----------------------|---------|---|
| 16-Feb-2016 | From Version 12 to 13 | Added | New HDD offering was added to HPE Drives. |
| | | Changed | Maximum Internal Storage, HPE Power Supplies, HPE Computation and Graphics Accelerators, HPE Disk Backup, 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 11 to 12 | Added | Smart Buy models were added to the NA version. |
| 1-Dec-2015 | From Version 10 to 11 | Added | New HDD offering was added to HPE Drives. |
| | | | New options added to HPE PCIe Workload Accelerator Options, HPE Tape Backup, and HPE Disk Storage Systems. |
| | | Changed | On System Management Chipset, Embedded Management, and Server utilities were revised. |
| | | | Product images were updated. |
| | | Removed | Obsolete SKUs were removed from the QuickSpecs. |
| 28-Sep-2015 | From Version 9 to 10 | Added | Added support for PCIe Solid State Drives, additional 6Gb SATA SSD drives, support for new Network adapters, and support for new PCIe workload accelerators. |
| | | | Added new HP OneView management software. |
| | | Changed | Internal Storage Devices, Maximum Internal Storage, and HP Drives were updated. |
| | | Removed | Obsolete SKUs were removed from the QuickSpecs. |
| 17-Aug-2015 | From Version 8 to 9 | Added | Added new Solid State Drives offering. |
| | | Changed | What's New changed to: Support for PCIe Solid State Drives Support for additional 6Gb SATA SSD drives Maximum Internal Storage and HPE Unique Options |
| | | | were revised. |
| 1-Jun-2015 | From Version 7 to 8 | Added | New DVD Universal Media Bay option was added. |
| | | | New larger capacity HDDs (up to 8TB LFF), Max capacity 32TB were added. |
| | | | New higher capacity memory (64GB), Max capacity 1.5TB was added. |
| | | | New Networking options were added. |
| | | | Optional Software was added to HPE Storage Controllers. |
| | | Changed | HPE Disk Backup and HPE Uninterruptible Power Systems (UPS) were updated. |
| 30-Mar-2015 | From Version 6 to 7 | Added | New Hard Drives offering. Added new HPE PCIe Workload Accelerator Options. Optional Software added to HPE Storage Controllers. Added new HPE Care Pack Services. |

| | | Changed | What's New, Core Options, and Additional Options were revised. |
|-------------|-----------------------------|---------|---|
| | | Removed | Removed obsolete HPE Care Pack Services. |
| 17-Feb-2015 | From Version 5 to 6 | Added | Added Smart Buy Models to the NA version only. |
| 9-Feb-2015 | From Version 4 to 5 | Added | Added What's New section. |
| | | | Added new HPE Drives, Pre-configured Models, and G4 UPS models. |
| | | Changed | HPE Processors, HPE Disk Backup, HPE Tape Backup, HPE Rack Mount Consoles, KVM Switches, and Keyboards, HPE Uninterruptible Power Systems (UPS), and HPE Computation and Graphics Accelerators sections were revised. |
| 1-Dec-2014 | From Version 3 to 4 | Changed | Changes were made throughout the QuickSpecs. |
| 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 were added to the Additional Options section. |
| | | | Smart Buys section was added to NA version. |
| | | Changed | Call outs description for images, Standard Features, Optional Features, Pre-Configured Models, Configuration Information - Factory Integrated Models, Core Options, Additional Options, and Memory sections were revised. |
| 23-Sep-2014 | From version 1 to version 2 | Changed | Changes were made throughout the QuickSpecs. |





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 $\label{thm:microsoft} \mbox{Microsoft} \mbox{\@ndows} \mbox{\@nd$

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

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