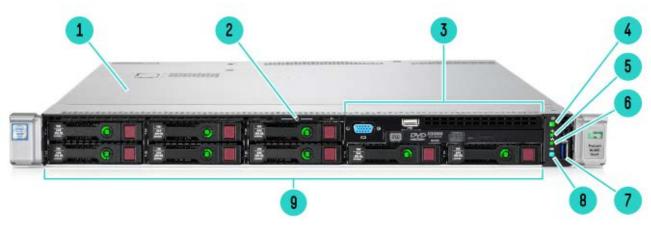
## QuickSpecs

#### **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.



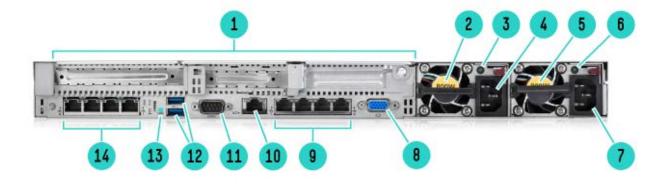
#### Front View

- 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



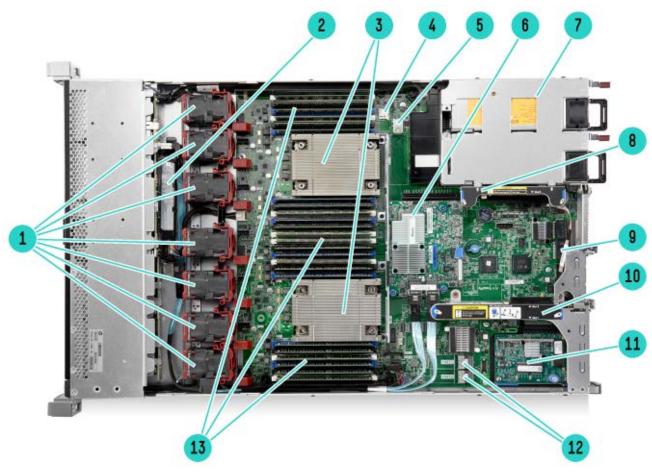
#### Rear view



#### **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

- HPE NVIDIA Tesla M4 4GB Module
- HPE 10TB, 8TB, 3TB and 1TB 6G SATA LFF HDD
- HPE 3TB and 1TB 12G SAS LFF HDD
- HPE SN1600Q 32Gb 1p FC HBA
- HPE SN1600Q 32Gb 2p FC HBA
- HPE 100Gb 1p OP101 QSFP28 x8 OPA Adptr
- HPE Flexfabric 10Gb 4P 536FLR-T Adptr

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

#### **Processor**

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
L3 2003 V T	1.7 01 12		10110	0311	0.101/3	1000

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

**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: <a href="http://www.intel.com/products/server/chipsets/">http://www.intel.com/products/server/chipsets/</a>

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 Туре:

One of the following HPE SmartMemory

depending on

model

DDR4 Registered (RDIMM) or Load Reduced (LRDIMM) 24

DIMM Slots Available

per channel)

Maximum Capacity

(LRDIMM)

3TB

(24 x 128GB LRDIMM)

Maximum Capacity

(RDIMM)

768GB 24 x 32GB RDIMM

Maximum Capacity

128GB (16 x 8GB NVDIMM)\*

(NVDIMM)

3

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

NOTE: \*NVDIMM available 2H2O16. 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.

(12 DIMM slots per processor, 4 channels per processor, 3 DIMMs

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

operation to the spare rank.

**Expansion Slots** 

Primary Riser **Expansion Technology** Bus Connector Bus Form Factor Notes Slots # Width Width Number 1 PCIe 3.0 x16 x16 Full-height, ¾ length Processor 1 (up to 9.5") Slot 2 PCIe 3.0 8x 8x Low profile slot Processor 1

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

Secondary Riser Bus **Device Expansion Technology** Bus Connector Form Factor **Notes** Slots # Width Width Number Number

PCIe 3.0 x16 x16 Low profile Processor 2

3 PCle 3.0 x16 x16

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

\*If secondary FH kit (764644-B21) or (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.

CONFICURATION

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

Maxi	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	32.0TB	4 x 8TB
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

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

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

#### Industry Standard ACPI 2.0b Compliant Compliance

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**

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 <a href="http://www.hpe.com/servers/uefi">http://www.hpe.com/servers/uefi</a>.

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

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

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

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

C ~ ***	Easta#
COLL	Factor

1U Rack form factor

depending on

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

model 4 LFF Drive Bay Version:

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

1.7" (4.32cm) Height x 17.11" (43.47cm) Width x 27.5" (69.85cm) 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 <a href="http://www.hpe.com/info/ilo">http://www.hpe.com/info/ilo</a>.

UEFI

Configure and boot your servers securely with industry standard Unified

Extensible Firmware Interface (UEFI). Learn more

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

RESTful API

RESTful API for iLO 4 is Redfish 1.0 conformance for simplified server management such as configuration and maintenance tasks based on modern industry standards. Learn more at <a href="http://www.hpe.com/info/restfulapi">http://www.hpe.com/info/restfulapi</a>.

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

Provisioning. Learn more

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

**Scripting Tool** Kit and Windows PowerShell

Provision 1 to many servers using your own scripts to discover and deploy them with Scripting Tool Kit (STK) for Windows and Linux or Scripting Tools for Windows PowerShell. Learn more at <a href="http://www.hpe.com/servers/proliant/stk">http://www.hpe.com/servers/proliant/stk</a> or <a href="http://www.hpe.com/servers/powershell">http://www.hpe.com/servers/powershell</a>.

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 <a href="http://www.hpe.com/info/insightonline/explore">http://www.hpe.com/info/insightonline/explore</a>.

#### 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 <a href="http://www.hpe.com/info/insightcontrol">http://www.hpe.com/info/insightcontrol</a>.

**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 <a href="http://www.hp.com/go/vsa1TB">http://www.hp.com/go/vsa1TB</a>.

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. <a href="https://h22174.www2.hp.com/SimplifiedConfig/Index">https://h22174.www2.hp.com/SimplifiedConfig/Index</a>.

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

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

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

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

### **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 (1x8GE DIMMs, 2: NOTE: With Processor, the speed will ope MHz depend configu	133 MHz) E5-2603 v3 e actual DIMM erate at 1600 ing on DIMM uration.	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 Ethernet 4-port 331i Adapter					
Storage Controller	HPE H240ar Smart Host Bus Adapter	HPE Dynamic Smart Array B140i	HPE H240ar Smart Host Bus Adapter	HPE Flexible Smart Array P440ar/2GB		40ar/2GB

## Pre-configured Models

		NOTE: The embedded B140i will operate in UEFI mode only. For legacy support an additional controller will be needed.			
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		ii iiccaca.	8 \$	FF HDD Bays	
Optical Drive Bay			Optional via	a Universal 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 Manageme	ent (standard), In		oning (standard), iLO Advanced (optional), Insight Control PE OneView (optional)	
Form Factor			Rack (1U),	HPE Easy Install Rails	
				bor, 3-Year Onsite support with next business day response	

### **Pre-configured Models**

	Performa	nce Models	High Performance Models			
[SKU Number]	818209-B21	755263-B21	851937-B21	795236-B21		
Model Name	HPE ProLiant DL360 Gen9 E5-2650v4 2P 32GB-R P440ar 8SFF 800W RPS Perf SAS Server	HP ProLiant DL360 Gen9 E5-2650v3 2P 32GB-R P440ar 800W RPS Performance SAS Server	HPE ProLiant DL360 Gen9 E5-2660v4 2P 64GB-R P440ar 8SFF 800W RPS Perf2 SAS Server	HP ProLiant DL360 Gen9 E5-2670v3 2P 64GB P440ar 8SFF 2x10Gb-T 2x800W OneView Server		
Processor	Intel® Xeon® E5- 2650v4	Intel® Xeon® E5- 2650v3	Intel® Xeon® E5- 2660v4	Intel® Xeon® E5- 2670v3		
Number of Processors		Т	-wo			
Memory	32GB (2x16GB Registered DIMMs, 2400 MHz) NOTE: With E5-2650 v4 Processor, the actual DIMM speed will operate at 2400 MHz depending on DIMM configuration.	32GB (2x16GB Registered DIMMs, 2133 MHz) NOTE: With E5-2650 v3 Processor, the actual DIMM speed will operate at 2133MHz depending on DIMM configuration.	64GB (4x16GB Registered DIMMs, 2400 MHz) NOTE: With E5-2660 v4 Processor, the actual DIMM speed will operate at 2400 MHz depending on DIMM configuration.	64GB (4x16GB Registered DIMMs, 2133 MHz) NOTE: With E5-2670 v3 Processor, the actual DIMM speed will 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	t Array P440ar/2GB	HPE Smart Array P440ar/2G Controller	HPE Flexible Smart Array P440ar/2GB		
Hard Drive		None shi	ip standard			
Internal Storage		8 SFF H	HDD Bays			
Optical Drive Bay		Optional via Un	iversal Media Bay			
PCI-Express Slots	2 Standard (1-FH,	/¾ L, 1-LP) PCle 3.0	3 Standard (1-FH/	HL, 2-LP) PCIe 3.0		
Power Supply	(2) HPE 8	800W Flex Slot Platinum Po	ower Supply	(1) 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 Managemen (standard), Intellige 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	O	ne			
Memory	64GB (4x16GB Registered DIMMs, 2400 MHz)  NOTE: DIMMs will operate at 2400MHz with this processor.	32GB (2x16GB Registered DIMMs, 2400 MHz)  NOTE: DIMMs will operate at 2400MHz with this proce				
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 S	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	rtional: 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) PCle 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	ext business day response			

	E5-2600v4 Series Smart Buys					
[SKU Number]	850365-S01	867446-S01	867446-S01 867447-S01 8494			
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) <b>NOTE:</b> 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	ernet 4-port 331i Adapter			
Storage Controller	HPE Flexible Smar	t Array P440ar/2GB + Sm	art Storage Battery	HPE H240ar Smart Host Bus Adapter		
Hard Drive		None ship	standard			
Internal Storage		8 SFF SATA	A/SAS Bays			
Optical Drive Bay	None incl	uded, (Optional: DVD-ROM	1, DVD-RW via Universal N	Лedia 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 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 busine	ss 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	64GB (4x16GB Registered DIMMs, 2133 MHz)  NOTE: The DIMM will operate at 2133 MHz with this processor.					
Network Controller	HPE Emb	HPE Embedded 1Gb Ethernet 4-port 331i Adapter					
Storage Controller	HPE Flexible Sr	mart 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) PCIe 3.0				
Power Supply	Two (2) HPE 800W Flex SI	ot Platinum Power Supplies	Two (2) HPE 500W Flex Slot Platinum Power Supplies				
Fans	Seven	(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	3				
Warranty	3-Year Parts, 3-Year Lab	or, 3-Year Onsite support with ne	ext 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		0	ne	
Memory		6GB Registered DIMMs, vill operate at 2133MHz		16GB (1x16GB Registered DIMMs, 2133 MHz) NOTE: The DIMM will operate at 2133MHz with this processor.
Network Controller	ŀ	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-RON	1, DVD-RW via Universal	Media Bay)
PCI-Express Slots		Two (2) Standard (1-FH/¾ L, 1-LP) PCIe 3.0		
Power Supply	Two (2) HPE 800W Flex Slot Platinum Power Supplies	7 7	ex Slot Platinum Power plies	Two (2) HPE 800W Flex Slot Platinum Power Supplies
Fans	Five (5) Standard hot plug fans, redundant			
Management	Op	Standard: iLO Management Engine Optional: iLO Advanced, Insight Control, HPE OneView		ew
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]	780017-S01	780018-S01	800079-S01
Model Name	HP ProLiant DL360 Gen9 E5- 2609v3 SAS US Svr/S-Buy	HP ProLiant DL360 Gen9 E5-2620v3 SAS US Svr/S- Buy	HP ProLiant DL360 Gen9 E5-2620v3 SFF US Svr/S- Buy
Processor	Intel® Xeon® E5-2609v3	Intel® Xeon®	E5-2620v3
Number of Processors		One	
Memory	8GB (1x8GB Registered DIMMs, 2133 MHz)  NOTE: The DIMM will operate at 1600 MHz with this processor.	NOTE: The DIMM will operate at 1866 MHz with this	
Network Controller	HPE Embedded 1Gb Ethernet 4-port 331i Adapter		
Storage Controller	HPE H240ar Smart	Host Bus Adapter  HPE Flexible 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, (Opt	cluded, (Optional: DVD-ROM, DVD-RW via Universal Media Bay)	
PCI-Express Slots	Two (2	Two (2) Standard (1-FH/¾ L, 1-LP) PCle 3.0	
Power Supply	One (1) HPE 500W Flex Slot Platinum Power Supply	Two (2) 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 Labo	or, 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)

CTO Server Model	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 RDIMM, LRDIMM DDR4 Memory		
Storage Controller	HPE Dynamic Smart Array B140i		
PCle	2 PCle 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 int	ernal, 2 rear	
Ears	HPE Quick F	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	755382-L21
HP DL360 Gen9 Intel® Xeon® E5-2630v3 (2.4GHz/8-core/20MB/85W) FIO Processor Kit	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	
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	755392-L21
Processor Kit HP DL360 Gen9 Intel® Xeon® E5-2680v3 (2.5GHz/12-core/30MB/120W) FIO	755394-L21
Processor Kit HP DL360 Gen9 Intel® Xeon® E5-2690v3 (2.6GHz/12-core/30MB/135W) FIO	755396-L21
Processor Kit HP DL360 Gen9 Intel® Xeon® E5-2683v3 (2GHz/14-core/35MB/120W) FIO	755398-L21
Processor Kit HP DL360 Gen9 Intel® Xeon® E5-2695v3 (2.3GHz/14-core/35MB/120W) FIO	755400-L21
Processor Kit HP DL360 Gen9 Intel® Xeon® E5-2697v3 (2.6GHz/14-core/35MB/145W) FIO	755402-L21
Processor Kit HP DL360 Gen9 Intel® Xeon® E5-2643v3 (3.4GHz/6-core/20MB/135W) FIO	755406-L21
Processor Kit  HP DL360 Gen9 Intel® Xeon® E5-2667v3 (3.2GHz/8-core/20MB/135W) FIO	755408-L21
Processor Kit	
HP DL360 Gen9 Intel® Xeon® E5-2687Wv3 (3.1GHz/10-core/25MB/160W) FIO Processor Kit	755410-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 Kit	780003-L21

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: <a href="http://www.hp.com/go/proliant-energy-efficient">http://www.hp.com/go/proliant-energy-efficient</a>

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

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

HP 8GB (1x8GB) Single Rank x8 DDR4-2400 CAS-17-17-17 Registered Memory 805347-B21 Kit

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-15-15-15 Registered Memory Kit	726717-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 16GB (1x16GB) Dual Rank x4 DDR4-2133 CAS-15-15-15 Registered Memory Kit	726719-B21
HP 32GB (1x32GB) Dual Rank x4 DDR4-2133 CAS-15-15-15 Registered Memory Kit	728629-B21
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 Memory Kit	809208-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

#### **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
<b>NOTE:</b> 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
<b>NOTE:</b> 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
<b>NOTE:</b> Flex Slot Titanium power supplies support power efficiency of up to 96%	

**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
<b>NOTE:</b> 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
<b>NOTE:</b> 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
<b>NOTE:</b> 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.	
<b>NOTE:</b> Only one Battery Backup module per server, and a Flex Slot Power Supply needed in parallel.	

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

HPE Storage	
Controllers	

**BIOS Mode** 

**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.

support up to 8 SATA hard drives. Cable kit may be required.	
HPE Smart Array Controllers	
HP Smart Array P440ar/2GB FBWC 12Gb 2-ports Int FIO SAS Controller	

HP Smart Array P440ar/2GB FBWC 12Gb 2-ports Int FIO SAS Controller

NOTE: Provides support for up to 8 internal SAS/SATA drives without using a PCle slot.

HP Smart Array P440/4GB FBWC 12Gb 1-port Int FIO SAS Controller

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

NOTE: Provides support for up to 8 internal SAS/SATA drives without using a PCle slot.

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

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 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)

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

Page 28

**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 C6N36A

Server FIO License

HP Insight Control including 1yr 24x7 support ProLiant ML/DL/BL-bundle Single C6N36ABE

Server FIO E-LTU

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 E5Y43A

Management Software Lic

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	764630-B21
<b>NOTE:</b> Required when upgrading from an 8SFF config to a 10SFF config.	
<b>NOTE:</b> This option kit is not supported on the 4LFF CTO Server.	
<b>NOTE:</b> This option kit cannot be used with the DVD-ROM or DVD-RW Universal	
Media Bay option kits.	
NOTE: This kit contains a cable to attach the 2 drives to the internal B140i	
SATA controller.	
<b>NOTE:</b> For SAS, an alternate storage controller and its associated cable kit are required.	
HP DL360 Gen9 SFF DVD-RW/USB Universal Media Bay Kit	764632-B21
NOTE: DVD-RW, USB 2.0 and VGA included.	/0403Z-BZI
NOTE: This option kit cannot be used with the 2 SFF SAS/SATA option kit	
(764630-B21)	
HP DL360 Gen9 SFF DVD/USB Universal Media Bay Kit	818213-B21
NOTE: DVD ROM, USB 2.0 and VGA included.	010213 821
NOTE: This option kit cannot be used with the 2 SFF SAS/SATA option kit	
(764630-B21)	
HP DL360 Gen9 SFF USB/VGA Universal Media Bay Kit	764634-B21
<b>NOTE:</b> Adds front VGA and USB 2.0 ports to SFF CTO Server.	
<b>NOTE:</b> This option kit cannot be used with the 2 SFF SAS/SATA option kit	
(764630-B21)	
HP DL360 Gen9 LFF USB/VGA Kit	764638-B21
<b>NOTE:</b> 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)	
HP DL360 Gen9 High Performance Heat Sink Kit	795235-B21
<b>NOTE:</b> 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.	
HP DL360 Gen9 Rear Serial Port and Enablement Kit	764646-B21
HP DL360 Gen9 Location Discovery Services Ear Kit	764757-B21
<b>NOTE:</b> Requires ProLiant Location Discovery Services Infrastructure within	
server racks.	
HP DL360 Gen9 SFF Systems Insight Display Kit	764636-B21
NOTE: Adds a System Insight Display for improved diagnosis capabilities on an	
8FF or 10SFF model.	7,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
HP DL360 Gen9 LFF Systems Insight Display Kit	764640-B21
<b>NOTE:</b> Adds a System Insight Display for improved diagnosis capabilities on a 4LFF model.	
	764628-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.	/04020-DZI
NOTE: 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.	
<b>NOTE:</b> The PCle 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

**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	818168-B21
	HPE DL360 Gen9 Intel® Xeon® E5-2609v4 (1.7GHz/8-core/20MB/85W) Processor Kit	818170-B21
	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

E5-2600v3 series Processors

HP DL360 Gen9 Intel® Xeon® E5-2603v3 (1.6GHz/6-core/15MB/85W) Processor Kit	755374-B21
HP DL360 Gen9 Intel® Xeon® E5-2609v3 (1.9GHz/6-core/15MB/85W) Processor Kit	755378-B21
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) Processor Kit	780003-B21
NOTE: Mixing of E5-2600 v3 and E5-2600 v4 processors is not supported.	

**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 Optical Drives** 

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 C	QuickSpecs.
HPE Persistent Memory (NVDIMM)	
HPE 8GB NVDIMM Single Rank x4 DDR4-2133 Module	782692-B21
NOTE: NVDIMM available 2H2016.	
NOTE: A maximum of 16 NVDIMMs can be supported. NVDIMMs cannot	
be used with LRDIMMs.	
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.	
HP 9.5mm SATA DVD-ROM JackBlack Gen9 Optical Drive  NOTE: Supported only with the 4LFF Models & requires cable kit 766203-B21.	726536-B21
	70/577 504
HP 9.5mm SATA DVD-RW JackBlack G9 Optical Drive	726537-B21

**NOTE:** Supported only with the 4LFF Models & requires cable kit 766203-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 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	765424-B21
Warranty Hard Drive	
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 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
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 Wty H2 Solid State Drive	779176-B21
HP 800GB 12G SAS Mainstream Endurance SFF 2.5-in ENT Mainstream SC 3yr Wty H2 Solid State Drive	779172-B21
HP 400GB 12G SAS Mainstream Endurance SFF 2.5-in ENT Mainstream SC 3yr Wty H2 Solid State Drive	779168-B21
HP 200GB 12G SAS Mainstream Endurance SFF 2.5-in ENT Mainstream SC 3yr Wty H2 Solid State Drive	779164-B21
12G SAS Hot Plug SFF (2.5-inch) SC Read Intensive Solid State Drives	
HPE 3.84TB 12G SAS Read Intensive-3 SFF 2.5-in SC 3yr Wty Solid State Drive	816576-B21
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	
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
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 3.2TB 12G SAS Mixed Use-3 SFF 2.5-in SC 3yr Wty Solid State Drive	822567-B21
HPE 1.6TB 12G SAS Mixed Use-1 SFF (2.5in) SC 3yr Wty Solid State Drive	846436-B21
HPE 800GB 12G SAS Mixed Use-1 SFF (2.5in) SC 3yr Wty Solid State Drive	846434-B21
HPE 400GB 12G SAS Mixed Use-3 SFF 2.5-in SC 3yr Wty Solid State Drive	822555-B21
12G SAS Hot Plug SFF (2.5-inch) Enterprise Value Solid State Drives	
HP 1.6TB 12G SAS Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive	762263-B21
HP 800GB 12G SAS Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive	762261-B21
12G SAS Hot Plug LFF (3.5-inch) Enterprise Value Solid State Drives	
HP 1.6TB 12G SAS Value Endurance LFF 3.5-in SC Enterprise Value 3yr Wty Solid State Drive	762272-B21
6G 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	032747 021
	7/1/77 D21
HP 6TB 6G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	761477-B21
HP 4TB 6G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	695510-B21
HP 3TB 6G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	652766-B21
HP 2TB 6G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	652757-B21
HP 1TB 6G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	652753-B21
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 8TB 6G SATA 7.2K rpm LFF (3.5-inch) SC 512e Helium 1yr Warranty Hard	793695-B21
Drive	
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	
HP 6TB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	753 <u>0</u> 7/001
	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	
HP 3.84TB 6G SATA Read Intensive-3 SFF 2.5-in SC 3yr Wty Solid State Drive	816929-B21
HP 1.6TB 6G SATA Read Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804605-B21
HP 800GB 6G SATA Read Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804599-B21
HP 480GB 6G SATA Read Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804593-B21
HP 240GB 6G SATA Read Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804587-B21
HP 120GB 6G SATA Read Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804581-B21
HP 80GB 6G SATA Read Intensive-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804575-B21
6G SATA Hot Plug 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 1.92TB 6G SATA Mixed Use-3 SFF 2.5-in SC 3yr Wty Solid State Drive	817011-B21
HP 1.6TB 6G SATA Mixed Use-2 SFF 2.5-in SC 3yr Wty Solid State Drive	804631-B21
HP 960GB 6G SATA Mixed Use-3 SFF 2.5-in SC 3yr Wty Solid State Drive	816995-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-3 SFF 2.5-in SC 3yr Wty Solid State Drive	816985-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 1.6TB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive	757339-B21
HP 800GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty 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 3.84TB 6G SATA Read Intensive-3 LFF 3.5-in SC Converter 3yr Wty Solid State Drive	816933-B21
HP 1.6TB 6G SATA Read Intensive-2 LFF 3.5-in SCC 3yr Wty Solid State Drive	804608-B21
HP 800GB 6G SATA Read Intensive-2 LFF 3.5-in SCC 3yr Wty Solid State Drive	804602-B21
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	
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	
HP 1.6TB 6G SATA Mixed Use-2 LFF 3.5-in SCC 3yr Wty Solid State Drive	804634-B21
HP 960GB 6G SATA Mixed Use-3 LFF 3.5-in SC Converter 3yr Wty Solid State Drive	816999-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-3 LFF 3.5-in SC Converter 3yr Wty Solid State Drive	816989-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	
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 PCle Read Intensive SFF 2.5-in SC2 3yr Wty Solid State Drive	764904-B21
<b>NOTE:</b> HPE NVMe drives need the enablement kit 764628-B21.	
<b>NOTE:</b> HPE has qualified the NVMe drive portfolio using the Operating System inbox	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 PCle Write Intensive SFF 2.5-in SC2 3yr Wty Solid State Drive	764892-B21
HP 800GB NVMe PCle Write Intensive SFF 2.5-in SC2 3yr Wty Solid State Drive	736939-B21
HP 400GB NVMe PCle 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 PCle Mixed Use SFF 2.5-in SC2 3yr Wty Solid State Drive	765038-B21
HP 800GB NVMe PCle Mixed Use SFF 2.5-in SC2 3yr Wty Solid State Drive	765036-B21
HP 400GB NVMe PCle 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
HP 120GB Value Endurance Solid State M.2 Enablement Kit for ProLiant ML/DL Servers	788028-B21
<b>NOTE:</b> M.2 drives go in PCle 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

817676-B21

#### **Core Options**

NOTE: Required when upgrading 8SFF config to 10SFF CTO Server.

**NOTE:** 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

**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.

#### **HPE Networking**

#### 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 chassis ships with 4x1Gb Embedded.

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

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

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

#### 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	647594-B21
HP Ethernet 1Gb 2-port 361T Adapter	652497-B21
HP Ethernet 1Gb 2-port 332T Adapter	615732-B21

#### FlexibleLOM Adapters

1 ICAIDICEON Adapters	
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.	
	<b>NOTE:</b> 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 PCle Gen3 with Intel® Omni-Path Architecture Adapter	829335-B21
	NOTE: For additional InfiniBand	
	information: https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c041544	<u>440</u> .
HPE I/O Expansion	HP DL360 Gen9 Low Profile PCle Slot CPU2 Kit	764642-B21
Options	<b>NOTE:</b> 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	867249-B21
	NOTE: This enablement kit can support more than one Full Height/GPU card	
	<b>NOTE:</b> This option kit requires a second CPU and will add an additional FH / $\frac{3}{4}$	
	Length PCle 3.0 slot.	
	<b>NOTE:</b> This kit includes GPU power cable and bracket; when this option kit is installed the Low Profile PCle3.0 riser is not useable.	
	HP DL360 Gen9 Full Height PCIe Slot CPU2 Kit with GPU Power Cable	764644-B21
	NOTE: This option kit requires a second CPU and will add an additional FH / ¾	
	Length PCIe 3.0 slot.	
	<b>NOTE:</b> This kit includes GPU power cable and bracket; when this option kit is	
	installed the Low Profile PCle3.0 riser is not useable	
HPE Power	HPE Flex Slot Platinum Hot-plug Power supplies	
Supplies	HPE 1400W Flex Slot Platinum Plus Hot Plug Power Supply Kit	720620-B21
	<b>NOTE:</b> 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	
	Power Discovery Services.	
	HPE 500W Flex Slot Platinum Hot Plug Power Supply Kit	720478-B21
	HPE 800W Flex Slot Platinum Hot Plug Power Supply Kit	720479-B21
	<b>NOTE:</b> 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%.

HPE 750W Flex Slot Hot Plug Battery Backup Module 738024-B21

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

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

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

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

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

HPE Computation	ı
and Graphics	

HPE NVIDIA Tesla M4 4GB Computational Accelerator

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

Accelerators 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 P8Y48A

**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

**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

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 PCle

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).

P9U90A

JOG89A

**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 CTO Server, 160W CPUs or higher, LRDIMMs, NVMe SSDs) and extended ambient operating temperatures above 35° C. Qualifications for extended ambient configurations are at: <a href="https://www.hp.com/servers/ashrae">https://www.hp.com/servers/ashrae</a>. 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
Softv	ware

#### **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

P8B24A

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

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

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

#### **Embedded** Management

#### **HPE iLO Advanced**

HPE iLO Advanced including 3yr 24x7 Technical Support and Updates E-LTU	E6U64ABE
HPE iLO Advanced including 1yr 24x7 Technical Support and Updates E-LTU	E6U59ABE
HPE iLO Advanced including 3yr 24x7 Tech Support and Updates 1-server LTU	BD505A
HPE iLO Advanced including 1yr 24x7 Technical Support and Updates 1-server	512485-B21
LTU	

#### **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)

HPF OneView w/o iLO including 3vr 24x7 Support 1-server LTU

The E one view w/o led melading by 2 1x7 support is server ello	1 002 17 (
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.

NOTE: 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 HPE Insight Cluster Management Utility 3yr 24x7 Flexible LTU QL803B 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 PCIE
Workload
Accelerator
Options

HPE Read Intensive PCIe Workload Accelerator	
HPE 6.4TB Read Intensive-2 FH/HL PCIe Workload Accelerator	831739-B21
HPE 3.2TB Read Intensive-2 HH/HL PCIe Workload Accelerator	831737-B21
HPE 1.6TB Read Intensive-2 HH/HL PCIe Workload Accelerator	831735-B21
HPE 1.3TB Read Intensive-2 HH/HL PCIe Workload Accelerator	831733-B21
HPE Write Intensive PCIe Workload Accelerator	
HP 1.6TB NVMe Write Intensive HH/HL PCIe Workload Accelerator	803197-B21
HP 800GB NVMe Write Intensive HH/HL PCIe Workload Accelerator	803195-B21
HPE Mixed Use PCIe Workload Accelerator	
HP 2.0TB NVMe Mixed Use HH/HL PCIe Workload Accelerator	803204-B21
HP 1.6TB NVMe Mixed Use HH/HL PCIe Workload Accelerator	803202-B21
HP 800GB NVMe Mixed Use HH/HL PCIe Workload Accelerator	803200-B21
NOTE: Please see the HPE PCIe Workload Accelerators for ProLiant Servers Quicks	Specs
for Technical Specifications and additional information.	
Light Endurance (LE) PCIe Workload Accelerators	
HP 5.2TB FH/HL Light Endurance (LE) PCIe Workload Accelerator	775672-B21
HP 2.6TB HH/HL Light Endurance (LE) PCIe Workload Accelerator	775670-B21

**HPE Security** 

HP 1U Security Bezel Kit

664918-B21

775668-B21

775666-B21

763840-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.

HP 1.3TB HH/HL Light Endurance (LE) PCle Workload Accelerator

HP 1.0TB HH/HL Light Endurance (LE) PCIe Workload Accelerator

HP 6.4TB FH/HL Value Endurance (VE) PCIe Workload Accelerator

Value Endurance (VE) PCIe Workload Accelerators

**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 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

843199-B21

#### **Additional Options**

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

**NOTE:** Compatible server platforms include Gen8 and Gen9 servers.

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

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

<b>HPE Storage</b>
Controllers

#### **SAS 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
<b>NOTE:</b> Includes the P840 Smart Array controller with 4GB integrated cache,	

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.

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<sup>nd</sup> 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:** 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 PCle 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

HBA 240ar or HPE Smart Array P440ar.

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

NOTE: Options noted "DL360 Gen9 LFF..." are supported on the 4 LFF Models only.

#### **Optional Software**

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: <a href="http://www.hp.com/go/tape">http://www.hp.com/go/tape</a>. For hardware and software compatibility of HPE tape backup

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

#### **Rack-Mount Tape Solutions**

#### **Tape Drives**

Tupe Diffes	
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 StoreEver Mini-SAS High Density to 4-lane Mini-SAS External Fanout 2m	K2R09A
Cable	
HPE StoreEver Mini-SAS High Density to 4-lane Mini-SAS External Fanout 4m	K2R10A
Cable	

#### **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.

HPF Disk Backup	HPE RDX Removable Disk Backup System
HEE DISK BACKUD	HEE KDV KEIIIOAADIE DISK DACKAD SASIEIII

P9L71A
P9L72A
E7X53B
B7B69B
B7B66B
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: <a href="http://www.hp.com/go/rdx">http://www.hp.com/go/rdx</a>. 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/products/data-storage/storefabric.html **Emulex Fibre Channel HBAs**

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 SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter	C8R39A
HPE StoreFabric 84E 4-port 8Gb Fibre Channel Host Bus Adapter	E7Y63A
HPE 82E 8Gb 2-port PCle 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 PCle Fibre Channel Host Bus Adapter	QW971A
HPE StoreFabric SN1000Q 16GB 2-port PCle Fibre Channel Host Bus Adapter	QW972A
HPE StoreFabric 84Q 4-port 8Gb Fibre Channel Host Bus Adapter	P9D91A
HPE 82Q 8Gb 2-port PCle 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	E7Y06A
HPE StoreFabric CN1100R Dual Port Converged Network Adapter	QW990A
HPE StoreFabric CN1200E 10GBASE-T Dual Port Converged Network Adapter	N3U51A
HPE StoreFabric CN1100R 10GBASE-T Dual Port Converged Network Adapter	N3U52A

#### **HPE Disk Storage** Disk Enclosures **Systems**

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 HP D6000 w/35 3TB 6G SAS 7.2K LFF Dual port MDL HDD 105TB Bundle HP D6000 w/70 3TB 6G SAS 7.2K LFF Dual port MDL HDD 210TB Bundle HPE D6000 w/70 8TB 12G SAS 7.2K LFF (3.5in) Dual Port MDL HDD 560TB Bundle HPE D6000 w/35 8TB 12G SAS 7.2K LFF (3.5in) Dual Port MDL HDD 280TB Bundle	QQ698A QQ699A QQ700A M0T59A M0T58A
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
	-	BW896A
	HPE 636 1075mm Shock Intelligent Series Rack	
	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	
	HPF V1/2 1075mm deen Pallet 100 series Pack	$\Delta = 0.6 \Delta$

HPE V142 1075mm deep Pallet 100 series Rack

AF046A

#### NOTE: Please see the HPE Standard Series Racks QuickSpecs

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 server to help you with the installation of your Gen9 server.

**NOTE:** Rail kits are optional for DL360/380 Gen9 and is no longer standard with the server. Customers have the option to purchase their server without a rail kit.

NOTE: Ball bearing and Easy Install rail kits contain telescoping rails to allow for in-rack servicing.

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

### **Additional Options**

**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 Power	HPE Basic Power Distribution Units (PDU)	
<b>Distribution Units</b>	HPE Basic 1.9kVA/L5-20P 16A/120V Outlets (12) 5-20R/Horizontal NA/JP PDU	H5M54A
(PDUs)	HPE Basic 3.6kVA/60320 C20 Detachable 16A/230V Outlets (12)	H5M56A
	C13/Horizontal WW PDU  HPE Basic 2.8kVA/L5-30P 24A/120V Outlets (18) 5-20R/Vertical NA/JP PDU	H5M55A
	HPE Basic 4.9kVA/60320 C20 Detachable 16A/230V Outlets (20) C13/Vertical	H5M57A
	WW PDU	TISIMS/A
	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 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 PDU	H5M67A
	HPE Basic Modular 2.8kVA/L5-30P 24A/120V Outlets (4) C19/Horizontal NA/JP PDU	252663-D71
	HPE Basic Modular 4.9kVA/L6-30P 24A/208V Outlets (4) C19/Horizontal NA/JP Core Only PDU	252663-D74
	HPE Basic Modular 8.3kVA/CS8265C 40A/208V Outlets (4) C19/Horizontal NA/JP PDU	252663-D75
	HPE Basic Modular 3Ph 8.6kVA/L15-30P 24A/208V Outlets (6) C19/Horizontal NA/JP PDU	AF512A
	HPE Basic Modular 3Ph 14.4kVA/CS8365C 40A/208V Outlets (6) C19/Horizontal NA/JP PDU	AF519A
	HPE Basic Modular 3Ph 17.3kVA/60309 60A 4-wire 48A/208V Outlets (6) C19/Horizontal NA/JP PDU	AF511A
	HP 800VA - 277V Input / 230V Output NA Rack Mount Transformer	H3X09A
	NOTE: Please see the HPE Basic Power Distribution Units (PDU) QuickSpecs	
	for information on additional options and product specifications.	
	HPE Metered Power Distribution Units (PDU)	
	HPE Metered 2.8kVA/L5-30P 24A/120V Outlets (12) 5-20R/Horizontal NA/JP PDU	D9N43A
	HPE Metered 3.6kVA/60320 C20 Detachable 16A/230V Outlets (12) C13/Horizontal WW PDU	D9N46A
	HPE Metered 4.9kVA/L6-30P 24A/208V Outlets (12) C13/Horizontal NA/JP PDU	D9N44A
	HPE Metered 3.6kVA/60320 C20 Detachable 16A/230V Outlets (16) C13/Vertical WW PDU	D9N45A

HPE Metered 4.9kVA/L6-30P 24A/208V Outlets (12) C13/Vertical NA/JP PDU HPE Metered 4.9kVA/L6-30P 24A/208V Outlets (20) C13 (4) C19/Vertical NA/JP PDU	G9Z05A D9N47A
HPE Metered 3Ph 8.6kVA/L15-30P 24A/208V Outlets (18) C13 (3) C19/Vertical NA/JP PDU	D9N51A
HPE Metered 3Ph 8.6kVA/L21-30P 24A/120-208V Outlets (18) C13 (3) C19 (3) 5-20R/Vertical NA/JP PDU	D9N53A
HPE Metered 8.3kVA/CS8265C 40A/208V Outlets (30) C13 (3) C19/Vertical NA PDU	D9N49A
HPE Metered 3Ph 14.4kVA/CS8365C 40A/208V Outlets (12) C13 (12) C19/Vertical NA/JP PDU	D9N58A
HPE Metered 3Ph 16.6kVA/60309 32A-30A 5-wire 24A/230V Outlets (30) C13 (3) C19/Vertical NA/JP PDU	D9N61A
HPE Metered 3Ph 16.6kVA/60309 32A-30A 5-wire 24A/230V Outlets (12) C13 (12) C19/Vertical NA/JP PDU	D9N62A
HPE Metered 3Ph 17.3kVA/60309 60A 4-wire 48A/208V Outlets (24) C13 (3) C19/Vertical NA/JP PDU	D9N54A
HPE Metered 3Ph 17.3kVA/60309 60A 4-wire 48A/208V Outlets (12) C13 (12) C19/Vertical NA/JP PDU	D9N59A
HPE Metered 3Ph 17.3kVA/60309 60A 4-wire 48A/208V Outlets (12) C13 (12) C19/Vertical NA/JP PDU	G9Z07A
HPE Metered 3Ph 19.9kVA/L22-30P 24A/277V Outlets (30) RF-203P-HP/Vertical NA PDU	D9N63A
HP Environmental Sensor for Remote Monitored and Managed PDUs  NOTE: Please see the HPE Metered Power Distribution Units (PDU) QuickSpecs	E2D53A
for information on additional options and product specifications.	
HPE Intelligent Power Distribution Unit (PDU)	
HPE Intelligent Modular 4.9kVA/L6-30P 24A/208V Outlets (6) C19/Horizontal NA/JP PDU	AF520A
NA/JP PDU HPE Intelligent Modular 8.3kVA/CS8265C 40A/208V Outlets (6) C19/Horizontal NA/JP PDU	AF521A
NA/JP PDU HPE Intelligent Modular 8.3kVA/CS8265C 40A/208V Outlets (6) C19/Horizontal NA/JP PDU HPE Intelligent Modular 3Ph 8.6kVA/L15-30P 24A/208V Outlets (6) C19/Horizontal NA/JP PDU	
NA/JP PDU  HPE Intelligent Modular 8.3kVA/CS8265C 40A/208V Outlets (6) C19/Horizontal NA/JP PDU  HPE Intelligent Modular 3Ph 8.6kVA/L15-30P 24A/208V Outlets (6) C19/Horizontal NA/JP PDU  HPE Intelligent Modular 3Ph 17.3kVA/60309 60A 4-wire 48A/208V (6) C19/Horizontal NA/JP PDU	AF521A
NA/JP PDU  HPE Intelligent Modular 8.3kVA/CS8265C 40A/208V Outlets (6) C19/Horizontal NA/JP PDU  HPE Intelligent Modular 3Ph 8.6kVA/L15-30P 24A/208V Outlets (6) C19/Horizontal NA/JP PDU  HPE Intelligent Modular 3Ph 17.3kVA/60309 60A 4-wire 48A/208V (6) C19/Horizontal NA/JP PDU  HPE Intelligent Modular 3Ph 17.3kVA/60309 30A 5-wire 24A/240V (6) C19/Horizontal NA/JP PDU	AF521A AF522A
NA/JP PDU  HPE Intelligent Modular 8.3kVA/CS8265C 40A/208V Outlets (6) C19/Horizontal NA/JP PDU  HPE Intelligent Modular 3Ph 8.6kVA/L15-30P 24A/208V Outlets (6) C19/Horizontal NA/JP PDU  HPE Intelligent Modular 3Ph 17.3kVA/60309 60A 4-wire 48A/208V (6) C19/Horizontal NA/JP PDU  HPE Intelligent Modular 3Ph 17.3kVA/60309 30A 5-wire 24A/240V (6) C19/Horizontal NA/JP PDU  HPE Intelligent Modular 3Ph 17.3kVA/IEC 60309 60A 4-wire 48A/208V (12) C19/Horizontal NA/JP PDU	AF521A AF522A AF523A AF901A AF535A
NA/JP PDU  HPE Intelligent Modular 8.3kVA/CS8265C 40A/208V Outlets (6) C19/Horizontal NA/JP PDU  HPE Intelligent Modular 3Ph 8.6kVA/L15-30P 24A/208V Outlets (6) C19/Horizontal NA/JP PDU  HPE Intelligent Modular 3Ph 17.3kVA/60309 60A 4-wire 48A/208V (6) C19/Horizontal NA/JP PDU  HPE Intelligent Modular 3Ph 17.3kVA/60309 30A 5-wire 24A/240V (6) C19/Horizontal NA/JP PDU  HPE Intelligent Modular 3Ph 17.3kVA/IEC 60309 60A 4-wire 48A/208V (12) C19/Horizontal NA/JP PDU  HPE Intelligent Modular 4.9kVA/L6-30P 24A/208V Outlets (20) C13 (6) C19/Horizontal NA/JP PDU	AF521A AF522A AF523A AF901A
NA/JP PDU  HPE Intelligent Modular 8.3kVA/CS8265C 40A/208V Outlets (6) C19/Horizontal NA/JP PDU  HPE Intelligent Modular 3Ph 8.6kVA/L15-30P 24A/208V Outlets (6) C19/Horizontal NA/JP PDU  HPE Intelligent Modular 3Ph 17.3kVA/60309 60A 4-wire 48A/208V (6) C19/Horizontal NA/JP PDU  HPE Intelligent Modular 3Ph 17.3kVA/60309 30A 5-wire 24A/240V (6) C19/Horizontal NA/JP PDU  HPE Intelligent Modular 3Ph 17.3kVA/IEC 60309 60A 4-wire 48A/208V (12) C19/Horizontal NA/JP PDU  HPE Intelligent Modular 4.9kVA/L6-30P 24A/208V Outlets (20) C13 (6)	AF521A AF522A AF523A AF901A AF535A
NA/JP PDU  HPE Intelligent Modular 8.3kVA/CS8265C 40A/208V Outlets (6) C19/Horizontal NA/JP PDU  HPE Intelligent Modular 3Ph 8.6kVA/L15-30P 24A/208V Outlets (6) C19/Horizontal NA/JP PDU  HPE Intelligent Modular 3Ph 17.3kVA/60309 60A 4-wire 48A/208V (6) C19/Horizontal NA/JP PDU  HPE Intelligent Modular 3Ph 17.3kVA/60309 30A 5-wire 24A/240V (6) C19/Horizontal NA/JP PDU  HPE Intelligent Modular 3Ph 17.3kVA/IEC 60309 60A 4-wire 48A/208V (12) C19/Horizontal NA/JP PDU  HPE Intelligent Modular 4.9kVA/L6-30P 24A/208V Outlets (20) C13 (6) C19/Horizontal NA/JP PDU  HPE Intelligent Modular 3Ph 8.6kVA/L15-30P 24A/208V Outlets (20) C13 (6)	AF521A AF522A AF523A AF901A AF535A AF531A
NA/JP PDU  HPE Intelligent Modular 8.3kVA/CS8265C 40A/208V Outlets (6) C19/Horizontal NA/JP PDU  HPE Intelligent Modular 3Ph 8.6kVA/L15-30P 24A/208V Outlets (6) C19/Horizontal NA/JP PDU  HPE Intelligent Modular 3Ph 17.3kVA/60309 60A 4-wire 48A/208V (6) C19/Horizontal NA/JP PDU  HPE Intelligent Modular 3Ph 17.3kVA/60309 30A 5-wire 24A/240V (6) C19/Horizontal NA/JP PDU  HPE Intelligent Modular 3Ph 17.3kVA/IEC 60309 60A 4-wire 48A/208V (12) C19/Horizontal NA/JP PDU  HPE Intelligent Modular 4.9kVA/L6-30P 24A/208V Outlets (20) C13 (6) C19/Horizontal NA/JP PDU  HPE Intelligent Modular 3Ph 8.6kVA/L15-30P 24A/208V Outlets (20) C13 (6) C19/Horizontal NA/JP PDU  HPE Intelligent Modular 3Ph 14.4kVA/CS8365C 40A/208V Outlets (6)	AF521A AF522A AF523A AF901A AF535A AF531A AF532A
NA/JP PDU HPE Intelligent Modular 8.3kVA/CS8265C 40A/208V Outlets (6) C19/Horizontal NA/JP PDU HPE Intelligent Modular 3Ph 8.6kVA/L15-30P 24A/208V Outlets (6) C19/Horizontal NA/JP PDU HPE Intelligent Modular 3Ph 17.3kVA/60309 60A 4-wire 48A/208V (6) C19/Horizontal NA/JP PDU HPE Intelligent Modular 3Ph 17.3kVA/60309 30A 5-wire 24A/240V (6) C19/Horizontal NA/JP PDU HPE Intelligent Modular 3Ph 17.3kVA/IEC 60309 60A 4-wire 48A/208V (12) C19/Horizontal NA/JP PDU HPE Intelligent Modular 4.9kVA/L6-30P 24A/208V Outlets (20) C13 (6) C19/Horizontal NA/JP PDU HPE Intelligent Modular 3Ph 8.6kVA/L15-30P 24A/208V Outlets (20) C13 (6) C19/Horizontal NA/JP PDU HPE Intelligent Modular 3Ph 14.4kVA/CS8365C 40A/208V Outlets (6) C19/Horizontal NA/JP PDU HPE Intelligent Modular 3Ph 14.4kVA/CS8365C 40A/208V Outlets (6)	AF521A AF522A AF523A AF901A AF535A AF531A AF532A AF533A AF547A AF528A
NA/JP PDU HPE Intelligent Modular 8.3kVA/CS8265C 40A/208V Outlets (6) C19/Horizontal NA/JP PDU HPE Intelligent Modular 3Ph 8.6kVA/L15-30P 24A/208V Outlets (6) C19/Horizontal NA/JP PDU HPE Intelligent Modular 3Ph 17.3kVA/60309 60A 4-wire 48A/208V (6) C19/Horizontal NA/JP PDU HPE Intelligent Modular 3Ph 17.3kVA/60309 30A 5-wire 24A/240V (6) C19/Horizontal NA/JP PDU HPE Intelligent Modular 3Ph 17.3kVA/IEC 60309 60A 4-wire 48A/208V (12) C19/Horizontal NA/JP PDU HPE Intelligent Modular 4.9kVA/L6-30P 24A/208V Outlets (20) C13 (6) C19/Horizontal NA/JP PDU HPE Intelligent Modular 3Ph 8.6kVA/L15-30P 24A/208V Outlets (20) C13 (6) C19/Horizontal NA/JP PDU HPE Intelligent Modular 3Ph 14.4kVA/CS8365C 40A/208V Outlets (6) C19/Horizontal NA/JP PDU HPE Intelligent Modular 3Ph 14.4kVA/CS8365C 40A/208V Outlets (6) C19/Horizontal NA/JP PDU HPE SxC13 Intelligent PDU Extension Bar G2 Kit HP 5xC13 Outlets Power and UID LEDs Pair Standard Extension Bar	AF521A AF522A AF523A AF901A AF535A AF531A AF532A AF533A AF547A AF528A
NA/JP PDU  HPE Intelligent Modular 8.3kVA/CS8265C 40A/208V Outlets (6) C19/Horizontal NA/JP PDU  HPE Intelligent Modular 3Ph 8.6kVA/L15-30P 24A/208V Outlets (6) C19/Horizontal NA/JP PDU  HPE Intelligent Modular 3Ph 17.3kVA/60309 60A 4-wire 48A/208V (6) C19/Horizontal NA/JP PDU  HPE Intelligent Modular 3Ph 17.3kVA/60309 30A 5-wire 24A/240V (6) C19/Horizontal NA/JP PDU  HPE Intelligent Modular 3Ph 17.3kVA/IEC 60309 60A 4-wire 48A/208V (12) C19/Horizontal NA/JP PDU  HPE Intelligent Modular 4.9kVA/L6-30P 24A/208V Outlets (20) C13 (6) C19/Horizontal NA/JP PDU  HPE Intelligent Modular 3Ph 8.6kVA/L15-30P 24A/208V Outlets (20) C13 (6) C19/Horizontal NA/JP PDU  HPE Intelligent Modular 3Ph 14.4kVA/CS8365C 40A/208V Outlets (6) C19/Horizontal NA/JP PDU  HPE Intelligent Modular 3Ph 14.4kVA/CS8365C 40A/208V Outlets (6) C19/Horizontal NA/JP PDU  HPE SxC13 Intelligent PDU Extension Bar G2 Kit  HP 5xC13 Outlets Power and UID LEDs Pair Standard Extension Bar  NOTE: Please see the HPE Intelligent Power Distribution Unit (PDU) QuickSpecs	AF521A AF522A AF523A AF901A AF535A AF531A AF532A AF533A AF547A AF528A

HPE Metered Switched 3.6kVA/60320 C20 Detachable 16A/230V Outlets (7) C13 (1) C19/Vertical WW PDU	H8B49A
HPE Metered Switched 4.9kVA/L6-30P 24A/208V Outlets (20) C13 (4) C19/Vertical NA/JP PDU	H8B50A
HPE Metered Switched 3Ph 8.6kVA/L15-30P 24A/208V Outlets (18) C13 (6) C19/Vertical NA/JP PDU	H8B52A
HPE Metered Switched 3Ph 8.6kVA/L21-30P 24A/208V Outlets (20)C13 (3)C19 (1)5-20R/Vertical NA/JP PDU	H8B53A
HPE Metered Switched 3Ph 14.4kVA/CS8365C 40A/208V Outlets (12) C13 (12) C19/Vertical NA/JP PDU	H8B55A
HPE Metered Switched 3Ph 17.3kVA/60309 4-wire 48A/208V Outlets (12) C13 (12) C19/Vertical NA/JP PDU	H8B56A

**NOTE:** Please see the <u>HPE Metered and Switched Power Distribution Units (PDU) QuickSpecs</u> 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	
HP 36U Location Discovery Kit	BW945A
HP 42U Location Discovery Kit	BW946A
HP 47U Location Discovery Kit	BW947A
HP 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

**HPE Other Options** 

HP 1U Cable Management Arm for Ball Bearing Rail Kit

663202-B21

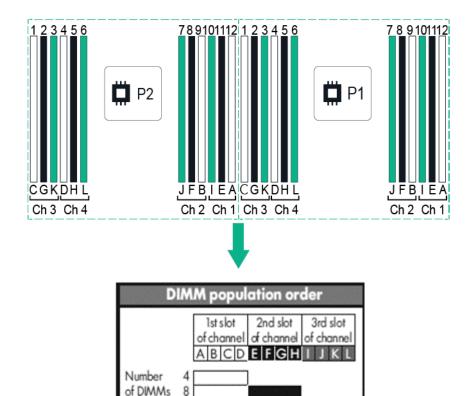
663203-B21

### **Additional Options**

	HP Rack LED Light Kit	BW939A
	HP Kit LCD 1.83m Latch Display Port Cable	G7T29A
	HP Advanced Power Manager Kit	741192-B21
HPE Uninterru	ptible 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	٨.
	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
	<b>NOTE:</b> Please see the <b>HPE DirectFlow Three Phase Uninterruptible Power Syst</b> for information on additional options and product specifications.	<u>łem QuickSpecs</u>
	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	10000
	HPE R/T2200 G4 NA/JP Uninterruptible Power System	J2R00A
	HPE R/T3000 G4 UPS Models	10004 4
	HPE R/T3000 G4 Low Voltage NA/JP Uninterruptible Power System	J2R01A
	HPE R/T3000 G4 High Voltage NA/JP Uninterruptible Power System <b>R1500 G4 Models</b>	J2R02A

	HPE R1500 G4 NA Uninterruptible Power System	J2Q99A
	R7000 Uninterruptible Power System (UPS)	
	HPE R7000 4U 50A High Voltage NA/JP Uninterruptible Power System	AF462A
	R5000 Uninterruptible Power System (UPS)	
	HPE R5000 3U L630 High Voltage NA/JP Uninterruptible Power System	AF460A
	NOTE: Please see the HPE Line Interactive Single Phase UPS QuickSpecs	
	for information on additional options and product specifications.	
	HPE UPS Options	
	HPE R/T2200 G4 Extended Runtime Module	J2R09A
	HPE R/T3000 G4 Extended Runtime Module	J2R10A
	HPE 2U Rack/Tower UPS Shipping Kit	L4Q11A
	NOTE: To learn more, please visit the HPE Uninterruptible Power Systems (UP:	S) web page.
HPE USB and SD	HPE Enterprise Mainstream Flash Media Kits for Memory Cards	
Options	HP 32GB microSD Enterprise Mainstream Flash Media Kit	700139-B21
	HP Dual 8GB microSD Enterprise Midline USB Kit	741279-B21
	HP 8GB microSD Enterprise Mainstream Flash Media Kit	726116-B21
	HP 8GB USB Enterprise Mainstream Flash Media Drive Key Kit	737953-B21
HPE Support	Installation & Start-up Services	
Services	HPE Install ProLiant DL36x(p) Service	U4506E
	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 Service	U5HN4E
	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	U7AM9E
	HPE 3 year Proactive Care Call to Repair with CDMR DL360 Gen9 Service	U7AN0E

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.

to install

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

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 <a href="http://www.hp.com/support">http://www.hp.com/support</a>.
- . There are four (4) Memory channels per processor; eight (8) channels per 2 processor server.
- . There are three (3) DIMM slots for each memory channel; twenty four (24) total slots for 2 processor server.

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

Memory Bandwidth and Capacity			
[DIMM Type]	Registered DIMMs (RDIMMs)	Load Reduced (LRDIMMs)	

HPE SKU P/N	805347-B21	805349-B21	836220-B21	805351-B21	805353-B21	805358-B21	809208-B2
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	1G	2G	2G	2G	2G	2G
DRAM Width [bit]	x8	x4	x4	x4	x4	x4	х4
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 (GE	3)		l .		l .	l .	
	192	384	384	768	768	1536	3072
POPULATED DIMM SPEEI	O (MT/s)		l .		l .	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

**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

Memory Bandwidth and Capacity									
[DIMM Type]		Registered DIMMs (RDIMMs)					Load Reduced (LRDIMMs)		
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	Std Voltage 1.2V	Std Voltage 1.2V	Std Voltage 1.2V	Std Voltage 1.2V	Std Voltage 1.2V	Std Voltage 1.2V	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	SLOTS THAT CAN BE POPULATED							
24 slot servers	24	24	24	24	24	24	24	24
MAXIMUM CAPACI	TY (GB)	I.						
	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.
- ullet 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#	oopulation 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#	oopulation order	
Chnl 4	4	D	4	D	Chnl 4
	5	Н	5	Н	
	6	L	6	L	
		CPU 1		CPU 2	
i				CPU Z	
	Slot #	T	Slot#	population order	
Chnl 2	Slot #	T	Slot #		Chnl 2
Chnl 2		T	Slot #   7 8		Chnl 2
Chnl 2	7	population order	7	population order	Chnl 2
Chnl 2	7 8	population order J F	7	J F B	Chnl 2
Chnl 2	7 8	population order  J F B CPU 1	7 8 9	J F	Chnl 2
Chnl 2 Chnl 1	7 8 9	population order  J F B CPU 1	7 8 9	J F B	Chnl 2 Chnl 1
	7 8 9 Slot #	population order  J F B CPU 1	7 8 9 Slot #	J F B	

#### 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, E5-2650Lv3, 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	,2400MT/s

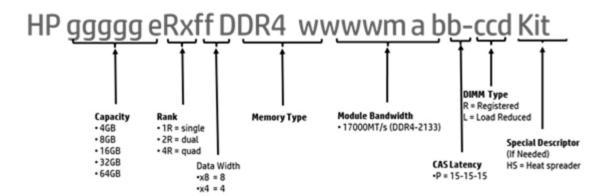
#### Standard and Maximum Memory Capacity (Preconfigured Models)

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)

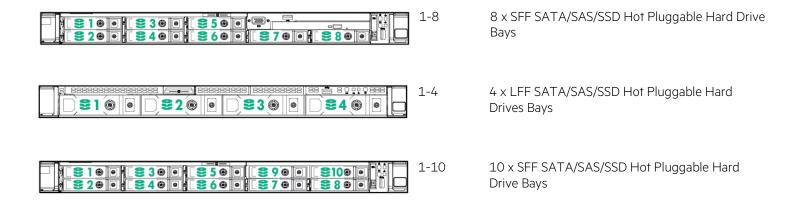
#### DDR4 memory options part number decoder

**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 Unit	<b>Dimensions</b> (H × W × D)		1.7 x 17.1 x 27.5 inches (4.32 x 43.47 x 69.85 cm) x 29.5 inches (4.32 x 43.46 x 75.0 cm)
	Weight (approximate)	Maximum: (all hard drives, power supply, and processor installed)	8 SFF CTO Server 33.3 lb. (15.31 kg) <b>NOTE:</b> Includes 2 SFF Option for a total of 10 SFF HDD.
		Minimum: (one hard drive, power supply, and processor installed)	4 LFF CTO Server 37 lb. (16.78kg) 8SFF CTO Server 27 lb. (12.25 kg)
			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 Only
			For 500W Power Supply: 1979 BTU/hr (at 100 VAC), 1911 BTU/hr (at 200 VAC), 1965 BTU/hr (at 240 VAC) for China Only
	Power Supply Output	Rated Steady- State Power	For 1400W Power Supply: 1400W (at 240 VAC), 1400W (at 240 VAC
			For 800W Power Supply: 800W (at 100 VAC), 800W (at 240 VAC), 800W (at 240 VAC) input for China only For 500W Power Supply: 500W (at 100 VAC), 500W (at 240 VAC), 500W (at 240 VAC) input for China only
		Maximum Peak Power	For 1400W Power Supply: 1400W (at 200 to 240 1VAC), 1400W (at 240 VAC) input for China only
			For 800W Power Supply: 800W (at 100 to 127 VAC), 800W (at 200 to 240 1VAC), 800W (at 240 VAC) input for China only
			For 500W Power Supply: 500W (at 100 to 127 VAC), 500W (at 200 to 240 VAC), 500W (at 240 VAC) input for China only
	System Inlet Temperature	Standard Operating Support	10° to 35°C (50° to 95°F) at sea level with an altitude derating of 1.0°C per every 305 m (1.8°F per every 1000 ft) above sea level to a maximum of 3050 m (10,000 ft), no direct sustained sunlight. Maximum rate of change is 20°C/hr (36°F/hr). The upper limit and rate of change may be limited by the type and number of options installed.  NOTE: System performance during standard operating
			support may be reduced if operating with a fan fault or above 30°C (86°F).
			For approved hardware configurations, the supported system inlet range is extended to be: 5° to 10°C (41° to 50°F) and 35° to 40°C (95° to 104°F) at sea level with an altitude derating of 1.0°C per every 175 m (1.8°F per every 574 ft) above 900 m (2953 ft) to a maximum of 3050 m (10,000 ft).

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

listed at the URL:

The approved hardware configurations for this system are

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

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

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

Non-operating  $-30^{\circ}$  to  $60^{\circ}$ 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,  $2.3 \, \text{GHz}$  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

**Emissions** 

Normative CISPR 22; EN55022; EN55024; FCC CFR 47, Pt 15; ICES-003; Standards CNS13438; GB9254; K22;K24; EN 61000-3-2; EN 61000-3-3;

EN 60950-1; IEC 60950-1

(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 Controller** 

**Number of PCI** 

Classification

links

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** 

license

Not Supported

**HPE SmartCache** Not Supported

License

**HPE Smart** Storage

Administrator

Supported

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

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** Method

PCI Express, two lanes (x2)

Controller

Network

BCM5719 10Base-T (Half-

**Transfer Rate** Duplex)

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

10Base-T (Full-

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

100Base-TX (Half-

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

100Base-TX (Full-

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

1000Base-TX (Half 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 offers end-of-life Hewlett Packard Enterprise product return, trade-in, and recycling programs in many geographic areas. For trade-in information, please go to: <a href="http://www.hp.com/go/green">http://www.hp.com/go/green</a>. To recycle your product, please go to: <a href="http://www.hp.com/go/green">http://www.hp.com/go/green</a> or contact your nearest Hewlett Packard Enterprise sales office. Products returned to Hewlett Packard Enterprise will be recycled, recovered or disposed of in a responsible manner.

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

### **Summary of Changes**

Date	Version History	Action	Description of Change
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, Pre- configured 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.

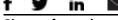
### Summary of Changes

		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.		

#### **Summary of Changes**

			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.





Sign up for updates

© Copyright 2016 Hewlett Packard Enterprise Development LP. The information contained herein is subject to change without notice. The only warranties for Hewlett Packard Enterprise products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. Hewlett Packard Enterprise shall not be liable for technical or editorial errors or omissions contained herein.

Intel @ and Xeon @ are registered trademarks of Intel Corporation in the U.S. and other countries.

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

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

c04375623 - 15033 - North America - V24 - 7-October-2016

