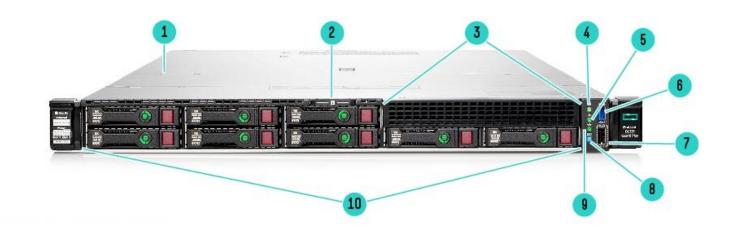
# HPE ProLiant DL325 Gen10 Plus Server

The HPE ProLiant DL325 Gen10 Plus Server is a secure and versatile single socket server for virtualization, I/O intensive and storage intensive workloads.

Powered by the 2<sup>nd</sup> generation AMD® EPYC® 7000 Series processor, the HPE ProLiant DL325 Gen10 Plus Server offers greater processing power, faster memory speeds up to 3200 MT/s. and improved data transfer rates with PCIe Gen4 capabilities. This 1P, 1U server delivers an exceptional balance of processor, memory and I/O for 2P performance at 1P TCO. Get the most out of your virtualized environment with this versatile server.



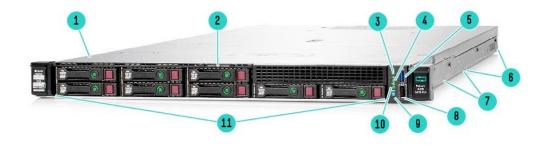
# 8SFF Front View - 8SFF + ODD Shown

- 1. Quick removal access panel
- 2. Serial no. label pull tab
- 3. Optional Media Bay\*
- 4. Power On/Standby button and system power LED
- 5. Health LED

**NOTE:** \*Choice of Optical Drive **NOTE:** \*Option +2 SFF SAS/SATA **NOTE:** \*Option +2 SFF U.3 NVMe drives **NOTE:** \*Option +2 SFF dual uFF drives

- 6. USB 3.1 Gen1 port
- 7. iLO Service Port
- 8. UID button/LED
- 9. NIC status LED
- 10. Standard 8 SAS/SATA Hot Plug drive bays

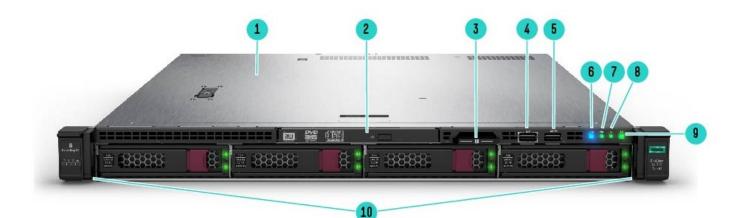
Hewlett Packard Enterprise



# 24SFF Front View – Long Chassis

- 1. Quick removal access panel
- 2. Serial no. label pull tab
- 3. Power On/Standby button and system power LED
- 4 Health LED
- 5. USB 3.1 Gen1 port
- 6. Inner 8 SFF Hot Plug Drive Cage 3

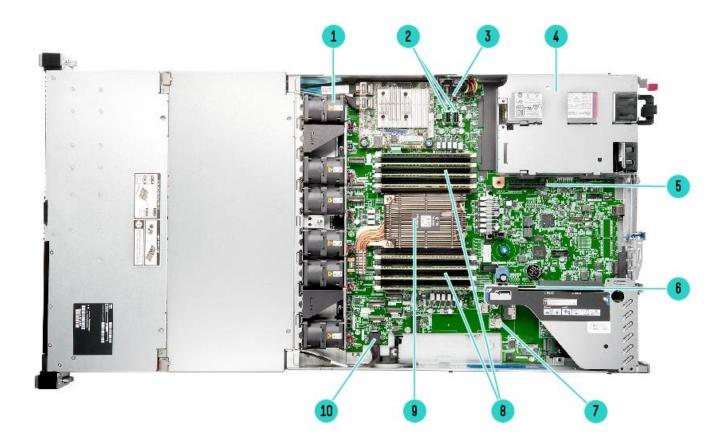
- 7. Inner 8 SFF Hot Plug Drive Cage 2
- 8. iLO Service Port
- 9. UID button/LED
- 10. NIC status LED
- 11. Standard 8 SFF Hot Plug Drive Cage 1



#### 1. Quick removal access panel

- 2. DVD-RW with Optional DVD (shown)
- 3. Serial no. label pull tab
- 4. iLO Service Port
- 5. USB 3.1 Gen1 Port

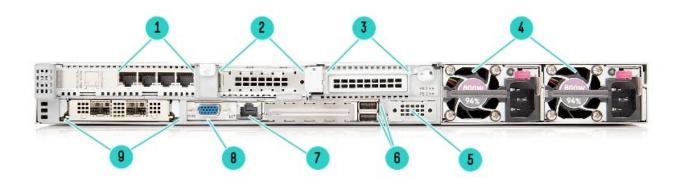
- 4LFF Front View with Optional ODD shown
  - 6. UID button/LED
  - 7. NIC status LED
  - 8. Health LED
  - 9. Power On/Standby button and system power LED
  - 10. Standard 4 SAS/SATA drive cage



# Internal View 8SFF (short) chassis

- 1 Fan cage shown with 6 standard Hot-swappable fans
- 2 Hard Drive Backplane power connector
- 3 Chassis Intrusion Detection Connector
- 4 Hot Plug redundant HPE Flexible Slot Power supplies
- 5 Secondary PCIe riser slot.

- 6 Primary PCIe riser slot.
- 7 Internal USB 3.1 Gen1 connector
- 8 DDR4 DIMM slots. Shown populated in 8 slots
- 9 Processor (heatsink shown)
- 10 Front Panel Connector



# Rear View – With optional OCP shown

- 1. Slot 1 PCle 4.0, (4 port 10 GB Adapter shown)
- 2. Slot 2 PCIe 4.0
- 3 Optional Slot 3 PCIe 4.0
- 4. HPE Flexible Slot Power Supply Bay
- 5 Serial Port ( Optional)

- 6 USB 3.1 Gen1 Ports
- 7 iLO Management Port
- 8 VGA Port
- 9 Optional: OCP 3.0 Slot (2 port 10 Gb NIC shown)

# What's New

- Supports the latest AMD EPYC 7002 Series processor with upto 64 cores i.e double the core density compared to the previous generation and increased memory speeds up to 3200 MT/s
- Support for PCIe Gen4, resulting in improved networking speeds
- Support for up to 24 SFF/12 LFF drives
- Support for OCP Network Adapters
- New SATA Read Intensive SSD drives
- New NVMe Read Intensive and Mixed Use SSD drives
- Support for PCIe Smart Array controllers for internal & external drives
- European Union (EU) Lot 9 regulation, please visit:

https://www.hpe.com/us/en/about/environment/msds-specs-more.html for more information.

# **Platform Information**

Form Factor

1U rack

# Chassis Types

- **4 LFF SAS/SATA,** with additional drive bay option to total 8 LFF drives and optional Optical Drive bay Cage1: 4 LFF SAS/SATA (Default) + Cage2: 4 LFF SAS/SATA (Optional),
- 12 LFF SAS/SATA Cage1: 4 LFF SAS/SATA (Default) + Cage2: 4 LFF SAS/SATA(Default) + Cage3: 4 LFF SAS/SATA (Default),
- 8 SFF SAS/SATA, with additional drive bay option to total 16 SFF drives and optional 2 SFF SAS/SATA or 2 NVMe, dual uFF drive, Optical Drive bay options
  - Cage1: 8 SFF SAS/SATA (Default) + Cage2: 8 SFF SAS/SATA (Optional)

• 24SFF SAS/SATA Cage1: 8 SFF SAS/SATA (Default) + Cage2: 8 SFF SAS/SATA (Default) + Cage3: 8 SFF SAS/SATA (Default)

- 8SFF NVMe U.3, with additional drive bay option to total 16 SFF drives and optional 2 SFF SAS/SATA or 2 NVMe, dual uFF, Optical Drive drive bay options
   Cage1: 8 SFF NVMe U.3 (Default) + Cage2: 8 SFF NVMe U.3 (Optional)
- 24SFF NVMe U.3

Cage1: 8 NVMe U.3 (Default) + Cage2: NVMe U.3 (Default) + Cage3: NVMe U.3 (Default)

NOTE: Mixing LFF & SFF is not supported

**NOTE:** 4LFF & 8 SFF options are only supported on P18606-B21 (HPE DL325 Gen10 Plus CTO Server) **NOTE:** 12 LFF option is supported on P18608-B21 (HPE DL325 Gen10 Plus 12LFF CTO Server)

NOTE: 24 SFF option is supported on P15535-B21 (HPE DL325 Gen10 Plus 24SFF CTO Server)

NOTE: 24 SFF U.3 option is supported on P15735-B21 (HPE DL325 Gen10 Plus 24SFF U.3 CTO Svr)

NOTE: HDD Wattage maybe limited when multiple drive cages are installed.

**NOTE:** The 8 SFF can be upgraded with either an additional 2SFF SAS/SATA kit for a total 10 SAS/SATA drives or 2SFF NVMe Kit for a total of 8 SAS/SATA + 2 NVMe drives or 2 dual uFF for a total of 8 SAS/SATA + 4 uFF and optional Optical Drive bay **NOTE:** The 8SFF NVMe chassis can be upgraded with either an additional 2SFF NVMe kit for a total of 10 NVMe drives or 2SFF SAS/SATA kit for a total of 8NVMe + 2 SAS/SATA drives or 2 dual uFF for a total of 8 NVMe + 4 uFF and optional Optical Drive bay

# System Fans

Standard – fan types included

**NOTE:** 24 SFF and 12 LFF & chassis ship with 8 High performance fans as standard.

NOTE: 24 SFF NVMe U.3 chassis ship with 8 High performance fans as standard

NOTE: High performance fan kit is available to meet ambient temperature environments.

# **Standard Features**

Processors – One of the following depending on model.

NOTE: For more information regarding AMD EPYC processors, please see the following:

### https://www.amd.com/en/products/epyc.

AMD EPYC Processor	Cores	Base Frequency	Max Frequency	Max Memory	Wattage	Cache	Memory
EPYC 7742	64	2.25GHz	3.4GHz	4TB	225	256MB	3200MT/s
EPYC 7702P	64	2.0GHz	3.35GHz	4TB	200	256MB	3200MT/s
EPYC 7642	48	2.3GHz	3.3GHz	4TB	225	256MB	3200MT/s
EPYC 7552	48	2.2GHz	3.3GHz	4TB	200	192MB	3200MT/s
EPYC 7542	32	2.9GHz	3.4GHz	4TB	225	128MB	3200MT/s
EPYC 7502P	32	2.5GHz	3.35GHz	4TB	180	128MB	3200MT/s
EPYC 7452	32	2.35GHz	3.35GHz	4TB	155	128MB	3200MT/s
EPYC 7402P	24	2.8GHz	3.35GHz	4TB	180	128MB	3200MT/s
EPYC 7352	24	2.3GHz	3.2GHz	4TB	155	128MB	3200MT/s
EPYC 7302P	16	3.0GHz	3.3GHz	4TB	155	128MB	3200MT/s
EPYC 7282	16	2.8GHz	3.2GHz	4TB	120	64MB	3200MT/s
EPYC 7262	8	3.2GHz	3.4GHz	4TB	155	128MB	3200MT/s
EPYC 7232P	8	3.1GHz	3.2GHz	4TB	120	32MB	3200MT/s

# Chipset

No chipset - System on Chip (SoC) design.

# **On System Management Chipset**

HPE ILO 5 ASIC

NOTE: Read and learn more in the *iLO QuickSpecs*.

# Memory

One of the following depending on model

Туре:	HPE DDR4 SmartMemory	Registered (RDIMM)
DIMM Slots Available	16	16 DIMM slots per processor, 8 channels per processor, 2 DIMMs per channel
Maximum capacity (RDIMM)	1.0 TB	16 x 64 GB RDIMM @ 3200 MT/S at 1 DPC

**NOTE:** The maximum memory speed is limited by the processor selection. **NOTE:** When 2DIMMs are populated per channel, memory speed drops to 2933 MT/S

# **Expansion Slots**

Default Primary Riser					
Slots #	Technology	Bus Width	<b>Connector Width</b>	Slot Form Factor	Notes
1	PCle 4.0	X16	X16	Full-height, Full-length slot	Proc 1
2	PCIe 4.0	X16	X16	Low Profile	Proc 1

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

Slots #	Technology	<b>Bus Width</b>	<b>Connector Width</b>	Slot Form Factor	Notes
1	PCIe 4.0	X16	X16	Low Profile or Full-height, half-length	Proc 1

**NOTE:** Bus width indicated the number of electrical lanes running to the connector. **NOTE:** Secondary riser supports both Low Profile or FHHL cards, when FHHL card is installed, slot 2 will not be available.

# **Storage Controllers**

The Gen10/Gen10 Plus controller naming framework has been updated to simplify identification as depicted below. For a more detailed breakout of the available Gen10/Gen10 Plus Smart Array controllers visit the **HPE Smart Array Gen10 Controllers Data Sheet**.

One of the following depending on model

### **Essential RAID Controller**

- HPE Smart Array E208i-a SR G10 LH Controller
- HPE Smart Array E208e-p SR Gen10 Controller
- HPE Smart Array E208e-p SR Gen10 Controller

# Performance RAID Controller

- HPE Smart Array P408i-a SR G10 LH Controller
- HPE Smart Array P408e-p SR Gen10 Controller
- HPE Smart Array P408i-p SR Gen10 Controller
- HPE Smart Array P816i-a SR G10 LH Controller

NOTE: Performance RAID Controllers require the HPE 12W Smart Storage Battery (782961-B21) which is sold separately.

# **Internal Storage Devices**

One of the following depending on model **Optical Drive** None ship standard **Hard Drives** None ship standard

# **Maximum Internal Storage**

	Capacity	Configuration
Hot Plug SFF SAS	57.6 TB	24 x 2.4 TB
Hot Plug SFF SATA	57.6 TB	24 x 2.4 TB
Hot Plug LFF SAS	168 TB	12 x 14 TB
Hot Plug LFF SATA	168 TB	12 x 14 TB
Hot Plug SFF SAS SSD	367.2 TB	24 x 15.3 TB
Hot Plug LFF SAS SSD	9.6 TB	12 x 800 GB
Hot Plug LFF SATA SSD	23 TB	12 x 1.92 TB
Hot Plug SFF SATA SSD	184.3 TB	24 x 7.68 TB
Hot Plug SFF NVMe PCIe U.3 SSD	92.16 TB	24 x 3.84 TB

Interfaces	
Serial	Optional, rear
Video Port	1 Rear VGA Port - Standard
HPE iLO Remote Management Network Port	1 Gb Dedicated
Front iLO Service Port	1 standard
USB 3.1 Gen1	Up to 4 total: 1 front, 2 rear, 1 internal (secure)

# **Power Supply**

HPE 500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit **NOTE:** Available in 94% Power Efficiency. HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit **NOTE:** Available in 94% Power Efficiency. HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit **NOTE:** Available in 96% Power Efficiency. **NOTE:** 200-240VAC power input only. HPE 800W Flex Slot Universal Hot Plug Low Halogen Power Supply Kit **NOTE:** Available in 94% Power Efficiency. NOTE: 277VAC power input. HPE 800W Flex Slot 48VDC Hot Plug Low Halogen Power Supply Kit **NOTE:** Available in 94% Power Efficiency. **NOTE:** -48VDC power input. HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit **NOTE:** Available in 94% Power Efficiency. NOTE: 200-240VAC power input only.

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 Gen10 Plus 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**.

For information on power specifications and technical content visit HPE Server power supplies.

# Operating Systems and Virtualization Software Support for ProLiant Servers

- <u>Windows Server 2016 (Most Recent Version)</u>
- Windows Server 2019
- VMware ESXi 6.5 U3
- VMware ESXi 6.7 U3
- Red Hat Enterprise Linux (RHEL) 7.6
- Red Hat Enterprise Linux (RHEL) 7.7
- <u>Red Hat Enterprise Linux (RHEL) 8.0</u>
- SUSE Linux Enterprise Server (SLES) 12 SP4
- <u>SUSE Linux Enterprise Server (SLES) 15 SP1</u>

# **CentOS**

CentOS not directly supported / Community Supported (Based on RHEL so RHEL testing and enablement applicable to CentOS) CentOS 7.4/ CentOS 7.5

For more information on Hewlett Packard Enterprise Certified and Supported ProLiant Servers for OS and Virtualization Software and latest listing of software drivers available for your server <u>http://www.hpe.com/info/ossupport.</u>

# Graphics

# Integrated Video Standard

- Video modes up to 1920 x 1200@60Hz (32 bpp)
  - 16MB Video Memory

### HPE iLO 5 on system management memory

- 32 MB Flash
- 4 Gbit DDR 3 with ECC protection

### Industry Standard Compliance

- ACPI 6.1 Compliant
- PCle 4.0 Compliant
- WOL Support
- Microsoft® Logo certifications
- PXE Support
- VGA Port
- USB 3.1 Gen1 Compliant (internal)
- USB 2.0 Compliant (external ports via SUV)
- Energy Star 3.0
- SMBIOS 3.1
- UEFI 2.6
- Redfish API
- IPMI 2.0
- Secure Digital 2.0
- Advanced Encryption Standard (AES)
- Triple Data Encrytion Standard (3DES)
- SNMP v3
- TLS 1.2
- DMTF Systems Management Architecture for Server Hardware Command Line Protocol (SMASH CLP)
- Active Directory v1.0
- European Union (EU) eco-design regulations for server and storage products, known as Lot 9, go into effect on March 1st, 2020. Among other requirements, for servers this directive establishes power thresholds for idle state, as well as efficiency and performance in active state which vary among configurations. HPE ProLiant Gen10 servers are compliant with Lot9 requirements. For more information regarding HPE Lot 9 conformance, please visit:

# https://www.hpe.com/us/en/about/environment/msds-specs-more.html

- ASHRAE A3/A4
  NOTE: For additional technical thermal details regarding ambient temperatures, humidity and features support please visit: <u>http://www.hpe.com/servers/ashrae</u>.
- UEFI (Unified Extensible Firmware Interface Forum)
  NOTE: UEFI is the default for the DL325 Gen10 Plus. Legacy mode can be selected in the field or as a CTO option (758959-B22).

#### **Embedded Management**

# HPE Integrated Lights-Out (HPE iLO)

Monitor your servers for ongoing management, service alerting, reporting and remote management with HPE iLO. Learn more at **<u>http://www.hpe.com/info/ilo</u>**.

# UEFI

Configure and boot your servers securely with industry standard Unified Extensible Firmware Interface (UEFI).

# Intelligent Provisioning

Hassle free server and OS provisioning for 1 or more servers with Intelligent Provisioning. Learn more at<u>https://www.hpe.com/us/en/product-catalog/detail/pip.5219984.html</u>

# iLO RESTful API

iLO RESTful API is Redfish API conformance and offer simplified server management automation such as configuration and maintenance tasks based on modern industry standards. Learn more at <u>http://www.hpe.com/info/restfulapi</u>.

# 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 Gen10 Plus servers have a UEFI Class 2 implementation and support both UEFI Mode (default) and Legacy BIOS Mode.

 $\mathsf{UEFI}$  enables numerous new capabilities specific to  $\mathsf{HPE}$   $\mathsf{ProLiant}$  servers such as:

- Secure Boot and Secure Start enable for enhanced security
- Operating system specific functionality
- Support for > 2.2 TB (using GPT) boot drives
- USB 3.1 Gen1 Stack
- Embedded UEFI Shell
- Mass Configuration Deployment Tool using iLO RESTful API that is Redfish API Conformant
- PXE boot support for IPv6 networks
- Workload Profiles for simple performance optimization
- UEFI Boot Mode only
- NVMe Boot Support
- iSCSI Software Initiator Support.
- HTTP/HTTPs Boot support as a PXE alternative.
- Boot support for option cards that only support a UEFI option ROM
- **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 Gen10 Plus Server.

# **Server Utilities**

# **Active Health System**

The HPE Active Health System (AHS) is an essential component of the iLO management portfolio that provides continuous, proactive health monitoring of HPE servers. Learn more at <u>http://www.hpe.com/servers/ahs</u>.

# **Active Health System Viewer**

Use the Active Health System Viewer, a web-based portal, to easily read AHS logs and speed problem resolution with HPE self-repair recommendations, to learn more visit: **http://www.hpe.com/servers/ahsv**.

# Smart Update

Keep your servers up to date with the HPE Smart Update solution by using Smart Update Manager (SUM) to optimize the firmware and driver updates of the Service Pack for ProLiant (SPP). Learn more at

https://buy.hpe.com/b2c/us/en/enterprise-software/infrastructure-management-software/system-server-management-software/hpe-system-server-software-management-software/smart-update-manager-%28sum%29/p/5182020

# **iLO Amplifier Pack**

Designed for large enterprise and service provider environments with hundreds of HPE servers, the iLO Amplifier Pack is a free, downloadable open virtual application (OVA) that delivers the power to discover, inventory and update Gen8, Gen9, Gen10 and Gen10 Plus HPE servers at unmatched speed and scale. Use with an iLO Advanced License to unlock full capabilities. Learn more at http://www.hpe.com/servers/iLOamplifierpack.

# HPE iLO Mobile Application

Enables the ability to access, deploy, and manage your server anytime from anywhere from select smartphones and mobile devices. For additional information please visit: <u>http://www.hpe.com/info/ilo/mobileapp</u>.

# **RESTful Interface Tool**

RESTful Interface tool (iLOREST) is a single scripting tool to provision using iLO RESTful API to discover and deploy servers at scale. Learn more at <u>http://www.hpe.com/info/resttool</u>.

# **Scripting Tools**

Provision one to many servers using your own scripts to discover and deploy with Scripting Tool (STK) for Windows and Linux or Scripting Tools for Windows PowerShell. Learn more at <u>http://www.hpe.com/servers/powershell</u>.

# **HPE OneView Standard**

HPE OneView Standard can be used for inventory, health monitoring, alerting, and reporting without additional fees. It can monitor multiple HPE server generations. The user interface is similar to the HPE OneView Advanced version, but the software-defined functionality is not available. Learn more at <u>http://www.hpe.com/info/oneview</u>.

# HPE Systems Insight Manager (HPE SIM)

Ideal for environments already using HPE SIM, it allows you to monitor the health of your HPE ProLiant Servers and HPE Integrity Servers. Also provides you with basic support for non-HPE servers. HPE SIM also integrates with Smart Update Manager to provide quick and seamless firmware updates. Learn more at <u>http://www.hpe.com/info/hpesim</u>.

# Security

- UEFI Secure Boot and Secure Start support
- Immutable Silicon Root of Trust
- FIPS 140-2 validation (iLO 5 certification in progress)
- Common Criteria certification (iLO 5 certification in progress)
- Configurable for PCI DSS compliance
- Advanced Encryption Standard (AES) and Triple Data Encryption Standard (3DES) on browser
- Support for Commercial National Security Algorithms (CNSA)
- Tamper-free updates components digitally signed and verified
- Secure Recovery recover critical firmware to known good state on detection of compromised firmware
- Ability to rollback firmware
- Secure erase of NAND/User data
- TPM (Trusted Platform Module) 2.0 option
- Bezel Locking Kit option
- Chassis Intrusion detection option

# 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 Pointnext operational services or customized service agreements. Hard drives have either a one year or three year warranty; refer to the specific hard drive QuickSpecs for details.

**NOTE:** Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response. Warranty repairs may be accomplished through the use of Customer Self Repair (CSR) parts. These parts fall into two categories: 1) Mandatory CSR parts are designed for easy replacement. A travel and labor charge will result when customers decline to replace a Mandatory CSR part; 2) Optional CSR parts are also designed for easy replacement but may involve added complexity. Customers may choose to have 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 iLO Advanced

HPE iLO Advanced licenses offer smart remote functionality without compromise, for all HPE ProLiant servers. The license includes the full integrated remote console, virtual keyboard, video, and mouse (KVM), multi-user collaboration, console record and replay, and GUI-based and scripted virtual media and virtual folders. You can also activate the enhanced security and power management functionality.

#### **HPE OneView Advanced**

HPE OneView brings a new level of automation to infrastructure management by taking a template driven approach to provisioning, updating, and integrating compute, storage, and networking infrastructure. It provides full-featured licenses which can be purchased for managing Gen8, Gen9, Gen10 and Gen10 Plus servers. To learn more visit <u>http://www.hpe.com/info/oneview</u>.

#### HPE InfoSight for Servers

HPE InfoSight for Servers combines the cloud-based machine learning of InfoSight with the health and performance monitoring of Active Health System (AHS) and iLO to optimize performance and predict and prevent problems. The end result is an intelligent environment that modernizes IT operations and enhances the support experience by predicting and preventing the infrastructure issues that lead to application disruptions, wasted IT staff time and missed business opportunities. Learn more at https://www.hpe.com/servers/infosight

#### 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 <u>http://www.hpe.com/info/cmu</u>.

# **Rack and Power Infrastructure**

The story may end with servers, but it starts with the foundation that makes compute go – and business grow. We've reinvented our entire portfolio of rack and power products to make IT infrastructure more secure, more practical, and more efficient. In other words, we've created a stronger, smarter, and simpler infrastructure to help you get the most out of your IT equipment. As an industry leader, Hewlett Packard Enterprise is uniquely positioned to address the key concerns of power, cooling, cable management and system access.

HPE G2 Advanced and Enterprise Racks are perfect for the server room or today's modern data center with enhanced airflow and thermal management, flexible cable management, and a 10 year Warranty to support higher density computing.

HPE G2 PDUs offer reliable power in flexible form factors that operate at temperatures up to 60°C, include color-coded outlets and load segments and a low-profile design for optimal access to the rack and support for dense rack environments.

HPE Uninterruptible Power Systems are cost-effective power protection for any type workload. Some UPSs include options for remote management and extended runtime modules so you're critical dense data center is covered in power outages.

HPE KVM Solutions include a console and switches designed to work with your server and IT equipment reliably. We've got a costeffective KVM switch for your first rack and multiple connection IP switches with remote management and security capabilities to keep your data center rack up and running.

Learn more about HPE Racks, KVM, PDUs and UPSs at HPE Rack and Power Infrastructure.

# One Config Simple (SCE)

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

# Service and Support

#### **HPE Pointnext - Service and Support**

#### Achieve maximum return from your IT investment

Get the expertise you need at every step of your IT journey with <u>HPE Pointnext services and support</u>. We help you lower your risks and costs using proven best practices, automation and methodologies that have been tested and refined by HPE experts through thousands of deployments globally. With <u>Advisory Services</u>, we focus on your business outcomes and goals, partnering with you to design your transformation and build a roadmap tuned to your unique challenges. Our <u>Professional</u> and <u>Operational Services</u> can be leveraged to speed up time-to-production, boost performance and accelerate your business. HPE Pointnext specializes in flawless and on-time implementation, on-budget execution, and creative configurations that get the most out of software and hardware alike.

#### Consume IT on your terms

**HPE GreenLake Flex Capacity** combines the simplicity, agility, and economics of public cloud with the security and performance benefits of on-premises IT. You determine your own "Right Mix" of Hybrid IT and workload placement without having to use. With its agile pay-per-use service, HPE GreenLake Flex Capacity can help your IT organization:

- Avoid IT expenses stemming from overprovisioning
- Improve time to market by maintaining a safe buffer of capacity, ready for use when you need it
- Keep capacity ahead of demand with regular monitoring—and a simple change order to replenish
- Pay for only the capacity used, not the capacity deployed
- Reduce IT risk with tailored support

# Connect your devices:

Unlock all of the benefits of your technology investment by connecting your products to Hewlett Packard Enterprise. Reduce down time and improve diagnostic accuracy with 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 HPE support. Learn more about getting connected at <a href="http://www.hpe.com/services/getconnected">http://www.hpe.com/services/getconnected</a>

#### **HPE Proactive Care**

HPE Proactive Care gives customers an enhanced call experience. When your products are connected to HPE, Proactive Care helps prevent problems and maintains IT stability by utilizing personalized proactive reports with recommendations and advice.

HPE Proactive Care is available in 3, 4 and 5 year terms with a choice of response levels: Next Business day (NBD), 24x7 with a 4 hour response, and 24x7 with 6 hour call to repair (CTR). This Service combines both reactive support when there is a problem with an enhanced call experience and start to finish case management with proactive reporting and advice. This service also includes collaborative software support for Independent Software Vendors (ISVs), (Red Hat, VMWare, Microsoft, etc.).

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

**NOTE:** HPE Proactive Care requires that the customer connect their devices to HPE to help make the most of these services and receive all the deliverables

# **HPE Proactive Care Advanced**

HPE Proactive Care Advanced\_incorporates all the deliverables of HPE Proactive Care plus includes personalized support from a local, assigned Account Support Manager who will share best practice advice and personalized recommendations designed to help improve availability and performance to help increase stability and reduce unplanned downtime. Leverage your system's ability to connect to HPE for pre-failure alerts, automatic call logging and parts dispatch. For business critical incidents, Proactive Care Advanced offers critical event management to help reduce mean time to resolution. HPE Service Credits are included to redeem for technical and operational services. HPE Proactive Care Advanced is offered in 3, 4, and 5 year terms with a choice of response levels: Next Business day (NBD), 24x7 with a 4 hour response, and 24x7 with 6 hour call to repair (CTR).

#### https://www.hpe.com/h20195/v2/getdocument.aspx?docname=4AA5-3259ENW

**NOTE:** HPE Proactive Care requires that the customer connect their devices to HPE to help make the most of these services and receive all the deliverables.

# HPE Foundation Care- (choose the response level that meets your needs)

HPE Foundation Care helps when there is a problem and is available in 3, 4, and 5 year terms with a choice of response levels: Next Business day (NBD), 24x7 with a 4 hour response, and 24x7 with 6 hour call to repair (CTR). Note that Call-To-Repair Service connects you to HPE 24 hours a day, seven days a week for assistance on resolving issues -this includes our highest level commitment to repair hardware within six hours after opening your case and respond to software questions within two hours. In addition, Collaborative software support is included and provides troubleshooting assistance on industry leading software running on your server. Simplify your support experience and make HPE your first call to help resolve hardware or software problems.

https://www.hpe.com/h20195/V2/GetDocument.aspx?docname=4AA4-8876ENW&cc=us&lc=en

# **Other related Services**

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

Provides for the basic hardware installation of HPE 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/5981-9356ENW.pdf

#### **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. <u>http://www.hpe.com/ww/learn</u>

#### **HPE Support Center**

The HPE Support Center is a personalized online support portal with access to information, tools and experts to support HPE business products. Submit support cases online, chat with Hewlett Packard Enterprise experts, access support resources or collaborate with peers. Learn more **http://www.hpe.com/support/hpesc** 

The HPE 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 HPE warranty, HPE Support Service or HPE contractual support agreement.

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

For more information: http://www.hpe.com/services

#### **Parts and Materials**

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

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

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

# **Pre-configured Models**

European Union (EU) eco-design regulations for server and storage products, known as Lot 9, go into effect on March 1st, 2020. Among other requirements, for servers this directive establishes power thresholds for idle state, as well as efficiency and performance in active state which vary among configurations. HPE ProLiant Gen10 servers are compliant with Lot9 requirements. For more information regarding HPE Lot 9 conformance, please visit:

https://www.hpe.com/us/en/about/environment/msds-specs-more.html

[SKU Number]	P18603-xx1	P18604-xx1		
Model Name	HPE ProLiant DL325 Gen10 Plus 7262 3.2 GHz 8-core 1P 16GB-R 4LFF 500W RPS Server	HPE ProLiant DL325 Gen10 Plus 7302P 2.8GHz 16-core 1P 32G-R 8SFF 500W RPS Server		
Processor	7262 (8-Core, 3.2 GHz, 155W)	7302P (16-Core, 3.0 GHz, 155W)		
Number of Processors	One processor	One processor		
Memory	16 GB RDIMM SR 3200 MT/s (1x 16 GB)	32 GB RDIMM SR 3200 MT/s (2x 16GB)		
Network Controller	HPE 1Gb Ethernet 4-Port BaseT I350-T4 OCP3 Adapter plus choice of stand up card	HPE 1Gb Ethernet 4-Port BaseT I350-T4 OCP3 Adapter plus choice of stand up card		
Storage Controller	E208i-a	P408i-a <b>NOTE:</b> 8-Port modular Smart Array.		
Hard Drive	None ship as standard	None ship as standard		
Internal Storage	4 LFF chassis	8 SFF Chassis		
Optical Drive Bay	Optional	Optional		
Optical Drive	None ship as standard	None ship as standard		
PCI-Express Slots	2-slots (x16, x16) as standard	2-slots (x16, x16) as standard		
Power Supply	1X500W HPE FlexSlot Power Supply	1X500W HPE FlexSlot Power Supply		
Fans	6-standard fans	7-standard fans		
Management	Default: HPE iLO Standard with Intelligent Provision Optional (require licenses): HPE iLO Advanced, HI OneView Advanced	oning, HPE OneView Standard (requires download) PE iLO Advanced Premium Security Edition, HPE		
Energy Star	3.0 certified			
Form Factor	1U Rack, Easy Install rails with optional CMA			
Warranty	3-year parts, 3-year labor, 3-year onsite support with next business day response.			

European Union (EU) eco-design regulations for server and storage products, known as Lot 9, go into effect on March 1st, 2020. Among other requirements, for servers this directive establishes power thresholds for idle state, as well as efficiency and performance in active state which vary among configurations. HPE ProLiant Gen10 servers are compliant with Lot9 requirements. For more information regarding HPE Lot 9 conformance, please visit:

### https://www.hpe.com/us/en/about/environment/msds-specs-more.html

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

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

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

CTO Server	HPE ProLiant DL325 Gen10 Plus 24SFF CTO Server	HPE ProLiant DL325 Gen10 Plus 24SFF NVMe U.3 CTO Server	HPE ProLiant DL325 Gen10 Plus CTO Server	HPE ProLiant DL325 Gen10 Plus 12LFF CTO Server
SKU Number	P15535-B21	P15735-B21	P18606-B21	P18608-B21
Processor	Not included as standard			
DIMM Slots	16-DIMM slots	16-DIMM slots	16-DIMM slots	16-DIMM slots
Storage Controller	P408i-a + SAS Expander	Not Supported	Choice of HPE modular Smart Array and PCIe plug in controller	P816i-a
PCle	**Two standard in primary riser	**One standard in primary riser	Two standard in primary riser	Two standard in primary riser
Drive Cage - included	24SFF	24SFF U.3 NVMe	No Drive Cage	12 LFF
Network Controller	Choice of OCP and stan	d up card		
Fans	8-High Performance	8-High Performance	Not included as standard*	8-High Performance
Management	HPE iLO with Intelligent	Provisioning (standard), i	LO Advances and OneVie	ew (optional)
USB	Front: 1 USB 3.1 Gen1 + iLO service port Rear: 2 USB 3.1 Gen1 Internal: 1 USB 3.1 Gen1	Front: 1 USB 3.1 Gen1 + iLO service port Rear: 2 USB 3.1 Gen1 Internal: 1 USB 3.1 Gen1	Front: 1 USB 3.1 Gen1 + iLO service port Rear: 2 USB 3.1 Ge 1 Internal: 1 USB 3.1 Gen1	Front: 1 USB 3.1 Gen1 + iLO service port Rear: 2 USB 3.1 Gen1 Internal: 1 USB 3.1 Gen1

**NOTE:** HPE offers multiple Trade Agreement Act (TAA) compliant configurations to meet the needs of US Federal Government customers. These products are either manufactured or substantially transformed in a designated country. TAA compliance is only provided when HPE options are included as part of factory integrated orders (CTO).

NOTE: TAA compliant configuration requires HPE DL325 Gen10 Plus TAA FIO Enablement Kit (P18607-B21)

**NOTE:** The HPE ProLiant DL325 Gen10 Plus NVMe SFF CTO Server ships with the cable required for NVMe drives installation. **NOTE:** \*The number of fans depends on type and number of drive cages.

**NOTE:** \*\*For 24SFF chassis, Slot1 is already pre-occupied by SAS Expander.

NOTE: \*\*For 24SFF U.3 chassis, Slot2/Slot3 is already pre-occupied by NVMe connection

**NOTE:** All CTO servers are Energy Star 3.0 compliant.

NOTE: CTO servers do not ship with rail kits, they need to be ordered separately

NOTE: CTO server (P18606-B21 ) requires a drive cage to be selected

CTO Server	24 SFF CTO Chassis	24 SFF U.3 NVMe Chassis	CTO Chassis	12 LFF Chassis
Included Drive Cage	8+8+8 SFF SAS/SATA	8+8+8 SFF U.3 NVMe	Not included	4+4+4 LFF SAS/SATA
Universal Media Bay	Not Available	Not Available	Optional	Not Available
ODD	Not Available	Not Available	Optional	Not Available
2 SFF SAS/SATA	Not Available	Not Available	Optional	Not Available
2 SFF NVMe	Not Available	Not Available	Optional	Not Available
2 dual uFF	Not Available	Not Available	Optional	Not Available
		ades may differ depending fiel CTO server (P18606-B21 )	d configuration.	
Please select one –L21 proc NOTE: All CTO Models shi NOTE: DDR4 memory spee	cessor required below. p with redundant fan confi ed will depend on the quan	tity and type of DIMMs install	ed.	d)
Processor Option Kits	aier man 150w will snip w	ith the High Performance hea	IISINK.	SKL
•	10 EDVC 77/2 (2 20Hz/6/	+-core/225W) FIO Processor K	i+	P19621-L21
NOTE: Ships with High Per		FCOLE/223W) TIO FTOLESSOL K	11	FI90ZI-LZ
		64-core/200W) FIO Processor	Kit	P19622-L22
<b>NOTE:</b> Ships with High Per				
		-core/225W) FIO Processor K	it	P19623-L22
NOTE: Ships with High Per		····		
		-core/200W) FIO Processor K	it	P19624-L22
NOTE: Ships with High Per	formance Heatsink.			
		2-core/225W) FIO Processor K	it	P19625-L2:
NOTE: Ships with High Per		····		
		32-core/180W) FIO Processor	Kit	P19626-L22
NOTE: Ships with High Per				
		2-core/155W) FIO Processor K	it	P19627-L22
NOTE: Ships with High Per				
		24-core/180W) FIO Processor	Kit	P19628-L22
NOTE: Ships with High Per				. 17010 11
		+-core/155W) FIO Processor K	it	P19629-L22
NOTE: Ships with High Per				
		L6-core/155W) FIO Processor	Kit	P19630-L2
<b>NOTE:</b> Ships with High Per		., ,		
		o-core/120W) FIO Processor K	it	P19631-L2
NOTE: Ships with Standard		., . ,		
		core/155W) FIO Processor Kit		P19633-L22
NOTE: Ships with High Per				

# Step 2b: Choose Memory Options

Please select one or more memory from below.

For new Gen10 Plus memory population rule whitepaper and optimal memory performance guidelines, please go to: <u>http://www.hpe.com/docs/amd-population-rules-Gen10Plus</u>

**NOTE:** Memory DIMM availability with a server platform is dependent upon completion of certification testing. **NOTE:** The maximum memory speed is a function of the memory type, memory configuration, and processor model.

# **Registered DIMMs (RDIMMs)**

HPE 8GB (1x8GB) Single Rank x8 DDR4-3200 CAS-22-22-22 Registered Smart Memory Kit	P07638-B21
HPE 16GB (1x16GB) Single Rank x4 DDR4-3200 CAS-22-22-22 Registered Smart Memory Kit.	P07640-B21
HPE 16GB (1x16GB) Dual Rank x8 DDR4-3200 CAS-22-22-22 Registered Smart Memory Kit	P07642-B21
HPE 32GB (1x32GB) Dual Rank x8 DDR4-3200 CAS-22-22-22 Registered Smart Memory Kit	P07644-B21
HPE 32GB (1x32GB) Dual Rank x4 DDR4-3200 CAS-22-22-22 Registered Smart Memory Kit	P07646-B21
HPE 64GB (1x64GB) Dual Rank x4 DDR4-3200 CAS-22-22-22 Registered Smart Memory Kit	P07650-B21
<b>NOTE:</b> Mixing of x4 & x8 memory is not allowed <b>NOTE:</b> 3200 MT/s memory SKUs offer a transfer rate of 3200 MT/s at 1 DIMM per channel and 2933 MT/s at 2 DIM	IMs per channel

# **Step 2c: Choose Power Supplies**

Select one or two power supplies from below. **NOTE:** Mixing of 2 different power supplies is NOT allowed. HPE 500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit 865408-B21 HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit 865414-B21 865438-B21 HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit HPE 800W Flex Slot -48VDC Hot Plug Low Halogen Power Supply Kit 865434-B21 HPE 800W Flex Slot Universal Hot Plug Low Halogen Power Supply Kit 865428-B21 HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit **NOTE:** Prior to making a power supply selection it is highly recommended that the HPE Power Advisor is run to determine the right size power supply for your server configuration. The HPE Power Advisor is located at: http://www.hpe.com/info/hppoweradvisor. NOTE: All power supplies in a server should match. Mixing Power Supplies is not supported. Step 3: Choose Additional Factory Integratable Options One of the following from each list may be selected if desired at time of factory integration **HPE Unique Options** HPE DL325 Gen10 Plus 4LFF Low Profile FIO Drive Cage Kit P15525-B21 **NOTE:** This is supported with the CTO Model (P18606-B21) only. NOTE: P408i-p and E208i-p cannot be selected with 4LFF drive cages HPE DL325 Gen10 Plus 8SFF Smart Carrier FIO Drive Cage Kit P15511-B21 **NOTE:** This is supported with the CTO Model (P18606-B21) only. HPE DL325 Gen10 Plus 8SFF U.3 Smart Carrier FIO Drive Cage Kit P15730-B21 **NOTE:** This kit requires 8SFF U.3/NVMe Direct Attach FIO Cable Kit (P17226-B21) **NOTE:** This is supported with the CTO Model (P18606-B21) only. HPE DL325 Gen10 Plus TAA-compliant FIO Enablement Kit P18607-B21 NOTE: This kit enables TAA compliance. HPE offers multiple Trade Agreement Act (TAA) compliant configurations to meet the needs of US Federal Government customers. These products are either manufactured or substantially transformed in a designated country. TAA compliance is only provided when HPE options are included as part of factory integrated orders (CTO) HPE DL325 Gen10 Plus 8SFF U.3/NVMe Direct Attach FIO Cable Kit P17226-B21 NOTE: This option kit is used for CTO server (P18606-B21) with 8 SFF U.3/NVMe drive cage selection, to connect to the embedded controller on mother board. HPE DL325 Gen10 Plus LFF SATA FIO Cable Kit P15903-B21 **NOTE:** This option kit is used for CTO server (P18606-B21) with LFF drive cage selection, to connect to the

embedded controller on mother board.

NOTE: This action like is used for CTO common (D10/0/ D21) with CCEE drive composite the common to the the	
<b>NOTE:</b> This option kit is used for CTO server (P18606-B21) with 8SFF drive cage selection, to connect to the embedded controller on mother board.	
HPE DL325 Gen10 Plus 2SFF AROC to NVMe Adapter Kit P172	266-B21
NOTE: This kit contains a passthrough board to divert PCIe lanes from Modular Array Controller port to	
connect to Direct Attact NVMe	
<b>NOTE:</b> This kit can connect only to 2SFF U.3 NVMe on the inner cage	
Security	
	519-B21
	647-B21
	04-B21
BIOS Mode	
	959-B22
<b>NOTE:</b> UEFI is the default, this FIO part can be used for CTO to enable Legacy mode.	
<b>NOTE :</b> If Legacy FIO Mode Setting (758959-B22) is selected with Embedded controller (in AHCI mode) as	
primary controller then RAID Setting is not supported. <b>NOTE</b> : The Legacy Mode Setting (758959-B22) and HPE Dual 8GB microSD EM USB Kit / 32GB microSD	
CANNOT be selected together.	
HPE Converged Infrastructure Management Software	
HPE OneView including 3yr 24x7 Support Physical 1-server LTU	E5Y34A
	P8B31A
HPE OneView Standard 1yr 9x5 Support Flexible Quantity E-RTU K6	F98AAE
HPE OneView w/o iLO including 3yr 24x7 Support 1-server LTU	P8B24A
HPE OneView w/o iLO including 3yr 24x7 Support Track 1-server LTU	P8B25A
HPE OneView w/o iLO including 3yr 24x7 Support Flexible Quantity E-LTU P8	B26AAE
HPE OneView w/o iLO including 3yr 24x7 Support 1-server FIO LTU	P8B31A
HPE OneView including 3yr 24x7 Support Flexible Quantity E-LTU E5	Y35AAE
HPE OneView Upgrade from Insight Management 3yr 24x7 Support 1-server LTU	-6Q91A
HPE OneView including 3yr 24x7 Support Physical 1-server LTU	E5Y34A
HPE OneView including 3yr 24x7 Support Track 1-server LTU	E5Y36A
HPE OneView w/o iLO Advance including 3yr 24x7 Support Track 1-server LTU	E5Y40A
HPE OneView for ProLiant DL Server including 3yr 24x7 Support FIO Bundle Physical 1-server LTU	E5Y43A
HPE OneView for ProLiant DL Server including 3yr 24x7 Support Bundle Track 1-server LTU	E5Y44A
HPE OneView Upgrade from Insight Management including 3yr 24x7 Support Flexible Quantity E-LTU E5	Y45AAE

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

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

HPE Unique Options	
HPE DL325 Gen10 Plus 4LFF to 8LFF Low Profile Drive Cage Upgrade Kit	P15504-B21
NOTE: Mixing of LFF & SFF drive cages is not allowed	
<b>NOTE:</b> P408i-p and E208i-p controllers cannot be selected with 4LFF Drive cage kits	
<b>NOTE:</b> 2SFF SAS SATA/2SFF UFF/2SFF U.3 drive cage cannot be selected with LFF Drive cages <b>NOTE:</b> This is used to support additional 4LFF SAS/SATA with CTO Model (P18606-B21)	
HPE DL325 Gen10 Plus 8SFF to 16SFF Smart Carrier Drive Cage Upgrade Kit	P15497-B21
NOTE: This is used to support additional 8SFF SAS/SATA with CTO Model (P18606-B21)	
HPE DL325 Gen10 Plus 8SFF to 16SFF U.3 Smart Carrier Drive Cage Upgrade Kit	P15725-B21
NOTE: This is used to support additional 8SFF U.3 with CTO Model (P18606-B21)	
HPE DL325 Gen10 Plus 2SFF SAS/SATA Smart Carrier Enablement Kit	P20417-B21
<b>NOTE:</b> This is used to support additional 2SFF SAS/SATA with CTO Model (P18606-B21)	
<b>NOTE:</b> This kit cannot be selected with LFF drive cages <b>NOTE:</b> Optical Drives cannot be selected with this kit.	
HPE DL325 Gen10 Plus 2SFF U.3 Smart Carrier Enablement Kit	P20418-B21
<b>NOTE:</b> This is used to support additional 2SFF U.3 NVMe with CTO Model (P18606-B21).	1 20 110 021
NOTE: This kit cannot be selected with LFF drive cages	
HPE DL325 Gen10 Plus 2SFF UFF Smart Carrier Enablement Kit	P15540-B21
<b>NOTE:</b> This is used to support additional 2SFF UFF with the CTO Model (P18606-B21)	
<b>NOTE:</b> This kit cannot be selected with LFF drive cages	
<b>NOTE:</b> This kit cannot be selected along with M.2 Kit (878783-B21) or Optical drives	
HPE DL325 Gen10 Plus 16SFF SAS Expander Kit <b>NOTE:</b> This kit includes the SAS Expander and cable to connect to 16 SFF drives	P16946-B21
<b>NOTE:</b> SAS expander to enable 16 SFF field upgrade	
HPE DL325 Gen10 Plus x16 Low Profile PCIe Riser Kit	P17264-B21
NOTE: This riser sits into the secondary PCIe slot	
NOTE: This riser can support only low profile PCIe Cards	
<b>NOTE :</b> x16 LP Riser Kit and x16 FHHL Riser Kit cannot be selected together.	
HPE DL325 Gen10 Plus x16 FHHL PCIe Riser Kit	P20421-B21
<b>NOTE:</b> When HPE DL325 Gen10 Plus FHHL PCIe Riser Kit is selected then Slot 2 cannot be used	
<b>NOTE :</b> 16 LP Riser Kit and x16 FHHL Riser Kit cannot be selected together. <b>NOTE:</b> This riser can support only FHHL PCIe Cards	
HPE DL325 Gen10 Plus Additional Standard Fan Kit	P20422-B21
<b>NOTE:</b> This is required if HPE 12W Smart Storage Battery is selected along with single 4LFF or 8SFF drive cage	P20422-D21
selection.	
HPE Optical Drives	
HPE 9.5mm SATA DVD-ROM Optical Drive	726536-B21
HPE 9.5mm SATA DVD-RW Optical Drive	726537-B21
HPE DL325 Gen10 Plus LFF Optical Disk Drive SATA/M.2 Cable Kit	P15911-B21
<b>NOTE:</b> This cable kit must be selected if Optical Drive or M.2 drives are selected on the 4LFF CTO Model	701/00 001
HPE Mobile USB DVD-RW Optical Drive HPE DL325 Gen10 Plus 8SFF Optical Disk Drive SATA/M.2 Enablement Kit	701498-B21 P20423-B21
<b>NOTE:</b> This enablement kit must be selected if Optical Drive or M.2 drives are selected on the 8SFF CTO Model	FZU42J-DZI
<b>NOTE:</b> Optical drive cannot be selected with 12LFF/24SFF/24SFF U.3 Model-X.	
<b>NOTE:</b> Optical drives cannot be selected with 2 SFF SAS/SATA enablement kit (P20417-B21) or 2SFF UFF enabl (P15540-B21)	ement kit

# **HPE Drives**

### Enterprise - 12G SAS - SFF Drives

HPE 300GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HE	DD 870753-B21
HPE 300GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HE	DD 872475-B21
HPE 600GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HE	DD 870757-B21
HPE 600GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HE	DD 872477-B21
HPE 900GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HE	DD 870759-B21
HPE 1.2TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HD	D 872479-B21
HPE 1.8TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty 512e Digitally Signed Firmwa	re HDD 872481-B21
HPE 2.4TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty 512e Digitally Signed Firmwa	
Midline - 12G SAS - SFF Drives	
HPE 1TB SAS 12G Midline 7.2K SFF (2.5in) SC 1yr Wty Digitally Signed Firmware HDD	832514-B21
HPE 2TB SAS 12G Midline 7.2K SFF (2.5in) SC 1yr Wty 512e HDD	765466-B21
Enterprise - 12G SAS - LFF Drives	
HPE 900GB SAS 12G Enterprise 15K LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware H	IDD 870761-B21
Midline - 12G SAS - LFF Drives	
HPE 2TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware HDD	833926-B21
HPE 4TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware HDD	833928-B21
HPE 6TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty 512e HDD	861746-B21
HPE 8TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty 512e Digitally Signed Firmware H	
Midline - 12G SAS - LFF Drives	
HPE 1TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Helium 512e Digitally Signed Firm	ware HDD 765464-B21
HPE 10TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty Helium 512e Digitally Signed Fir	
HPE 12TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty Helium 512e Digitally Signed Fir	
HPE 14TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty Helium 512e Digitally Signed Fir	
Midline - 6G SATA - SFF Drives	
HPE 1TB SATA 6G Midline 7.2K SFF (2.5in) SC 1yr Wty Digitally Signed Firmware HDD	655710-B21
HPE 2TB SATA 6G Midline 7.2K SFF (2.5in) SC 1yr Wty 512e Digitally Signed Firmware H	
Midline - 6G SATA - LFF Drives	705455 BZ1
HPE 1TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware HDD	861686-B21
HPE 2TB SATA 6G Midline 7.2K LFF (3.5in) LF 1yr Wry Digitally Signed Firmware HDD HPE 2TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware HDD	861681-B21
HPE 4TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware HDD	861683-B21
HPE 6TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wry Digitally Signed Firthware HDD HPE 6TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty 512e HDD	861742-B21
HPE 8TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty 512e Digitally Signed Firmware H	
HPE 10TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty Helium 512e Digitally Signed Fin	
HPE 12TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty Helium 512e Digitally Signed Fin	
HPE 14TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty Helium 512e Digitally Signed Fin	mware HDD P09105-B21
<b>SSD Selection</b> To streamline the configuration process for HPE ProLiant Gen10 Plus servers and to provi	de the best product availability
HPE recommends SSDs from the list located here: <u>http://www.hpe.com/products/recom</u>	
Read Intensive - 12G SAS - SFF - Solid State Drives	inena.
	D P04517-B21
HPE 960GB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSI	
HPE 960GB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty SSD	P19903-B21
HPE 1.92TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SS	
HPE 1.92TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty SSD	P19905-B21
<b>NOTE:</b> Not supported for single/ three 8 SFF drive cage selection or when Megacell batt	
HPE 3.84TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SS	
HPE 3.84TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty SSD	P19907-B21
NOTE: Not supported for single / three 8 SFF drive cage selection or when Megacell bat	terv is selected

NOTE: Not supported for single / three 8 SFF drive cage selection or when Megacell battery is selected

HPE 7.68TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04523-B21
HPE 7.68TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty SSD	P19909-B21
NOTE: Not supported for single / three 8 SFF drive cage selection or when Megacell battery is selected	
HPE 15.36TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty SSD	P19911-B21
NOTE: Not supported for single/ three 8 SFF drive cage selection or when Megacell battery is selected	
Mixed Use - 12G SAS - SFF - Solid State Drives	
HPE 400GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04525-B21
HPE 400GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P09088-B21
HPE 800GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04527-B21
HPE 800GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P09090-B21
HPE 800GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty SSD	P19913-B21
HPE 1.6TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P09092-B21
HPE 1.6TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04533-B21
HPE 1.6TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty SSD	P19915-B21
NOTE: Not supported for single/ three 8 SFF drive cage selection or when Megacell battery is selected	
HPE 3.2TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P09094-B21
HPE 3.2TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04537-B21
HPE 3.2TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty SSD	P19917-B21
HPE 6.4TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04539-B21
HPE 6.4TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P09096-B21
HPE 6.4TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty SSD	P19919-B21
Write Intensive - 12G SAS - SFF - Solid State Drives	1 1 / / 1 / 521
HPE 400GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04541-B21
HPE 400GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P09098-B21
HPE 800GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04543-B21
HPE 800GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P09100-B21
HPE 1.6TB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04545-B21
HPE 1.6TB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P09102-B21
HPE 3.2TB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04547-B21
Mixed Use - 12G SAS - LFF - Solid State Drives	
HPE 800GB SAS 12G Mixed Use LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD	P04531-B21
Mixed Use - 12G Value SAS - LFF - Solid State Drives	101001 021
HPE 960GB SAS 12G Mixed Use LFF (3.5in) LPC 3yr Wty Value SAS Digitally Signed Firmware SSD	P10452-B21
HPE 1.6TB SAS 12G Mixed Use LFF (3.5in) LPC 3yr Wty Value 3/3 Digitally Signed Firmware SSD	P04535-B21
HPE 1.92TB SAS 12G Mixed Use LFF (3.5in) LPC 3yr Wty Value SAS Digitally Signed Firmware SSD	P10458-B21
HPE 3.84TB SAS 12G Mixed Use LFF (3.5in) LPC 3yr Wty Value SAS Digitally Signed Firmware SSD	P10462-B21
Read Intensive - 12G Value SAS - SFF - Solid State Drives	1 10 102 021
HPE 960GB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Value SAS Digitally Signed Firmware SSD	P10440-B21
HPE 1.92TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Value SAS Digitally Signed Firmware SSD	P10442-B21
<b>NOTE:</b> Not supported with single /three 8 SFF drive cage selection or when Megacell battery is selected	1 10442 D21
HPE 3.84TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Value SAS Digitally Signed Firmware SSD	P10444-B21
<b>NOTE:</b> Not supported with single /three 8 SFF drive cage selection or when Megacell battery is selected	1 10444 D21
HPE 7.68TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Value SAS Digitally Signed Firmware SSD	P10446-B21
<b>NOTE:</b> Not supported with single /three 8 SFF drive cage selection or when Megacell battery is selected	F 10440-D21
Mixed Use - 12G Value SAS - SFF - Solid State Drives	
HPE 1.92TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Value SAS Digitally Signed Firmware SSD	P10454-B21
HPE 3.84TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Value SAS Digitally Signed Firmware SSD	P10460-B21
HPE 960GB SAS 12G Mixed Use SC 3yr Wty Value SAS Digitally Signed Firmware SSD	P10448-B21
NOTE: Not supported with single/three 8 SFF drive cage selection or when Megacell battery is selected	<b>_</b>

#### Read Intensive - 6G SATA - SFF - Solid State Drives

HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD P05924-B21 P18420-B21 HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor SSD P05928-B21 HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor SSD P18422-B21 HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD P06194-B21 HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD P04474-B21 HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD P04564-B21 HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD P06196-B21 P05932-B21 HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor SSD P18424-B21 HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD P06198-B21 P04478-B21 HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD P05938-B21 HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor SSD P18426-B21 HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD P04480-B21 P06200-B21 HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD P04570-B21 HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD P05946-B21 HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor SSD P18428-B21 HPE 7.68TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD P04482-B21 HPE 7.68TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor P18430-B21 Mixed Use - 6G SATA - SFF - Solid State Drives HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD P05976-B21 HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Multi Vendor SSD P18432-B21 P05980-B21 HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD NOTE: Not supported for single 8 SFF drive cage selection or when Megacell battery is selected HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Multi Vendor SSD P18434-B21 **NOTE:** Not supported for single 8 SFF drive cage selection or when Megacell battery is selected Mixed Use - 6G SATA - SFF - Solid State Drives HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD P13658-B21 P07922-B21 HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD P07926-B21 HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD P13660-B21 NOTE: Not supported for single 8 SFF drive cage selection or when Megacell battery is selected HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD P07930-B21 P05986-B21 HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD NOTE: Not supported for single 8 SFF drive cage selection or when Megacell battery is selected HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Multi Vendor SSD P18436-B21 NOTE: Not supported for single 8 SFF drive cage selection or when Megacell battery is selected HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD P13662-B21 NOTE: Not supported for single / three 8 SFF drive cage selection or when Megacell battery is selected P05994-B21 HPE 3.84TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD HPE 3.84TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Multi Vendor SSD P18438-B21 HPE 3.84TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD P13664-B21 HPE 3.84TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD P21517-B21 Read Intensive - 6G SATA - LFF - Solid State Drives HPE 480GB SATA 6G Read Intensive LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD P04499-B21 P04501-B21 HPE 1.92TB SATA 6G Read Intensive LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD Page 23

Mind Has COCATA LEE Calid Class Drives	
Mixed Use - 6G SATA - LFF - Solid State Drives	
HPE 1.92TB SATA 6G Mixed Use LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD	P07934-B21
Read Intensive - NVMe - SFF - Solid State Drives	
HPE 1.92TB NVMe x4 Lanes Performance Read Intensive SFF (2.5in) SC U.3 SSD HPE 3.84TB NVMe x4 Lanes Performance Read Intensive SFF (2.5in) SC U.3 SSD	P16501-B21 P16503-B21
Mixed Use - NVMe - SFF - Solid State Drives	F10303-D21
	P16497-B21
HPE 1.6TB NVMe High Performance Mixed Use SFF (2.5in) SC 3yr Wty Universal Connect SSD HPE 3.2TB NVMe High Performance Mixed Use SFF (2.5in) SC 3yr Wty Universal Connect SSD	P16499-B21
<b>NOTE:</b> For two NVMe drive cage population , the allowed ambient temperature can be upto 30C , in the event	F 10477-DZ1
when Megacell battery (P20422-B21) is not selected	
<b>NOTE:</b> For three NVMe drive cage population, only 1.6 TB (P16497-B21) and 1.92 TB(P16501-B21) drives can	
be selected for ambient temperatures above 25C	
NOTE: For two NVMe drive cage population , only 1.6 TB (P16497-B21) and 1.92 TB(P16501-B21) drives can	
be selected when Megacell battery(P20422-B21) is selected	
Internal Dual M.2 Kit	
HPE Universal SATA HHHL 3yr Wty M.2 Kit	878783-B21
NOTE: The Universal SATA M.2 Kit above will require a PCIe slot and support up to two of the same M.2 cards	
below.	
<b>NOTE:</b> M.2 kit can only be populated in Slot 1 with 24SFF U.3 CTO.	
<b>NOTE:</b> This kit cannot be selected along with 2SFF UFF Enablement Kit (P15540-B21)	
Read Intensive - M.2 - Solid State Drives	
HPE 480GB SATA 6G Read Intensive M.2 2280 3yr Wty Digitally Signed Firmware SSD	875498-B21
HPE 960GB SATA 6G Read Intensive M.2 2280 3yr Wty Digitally Signed Firmware SSD	875500-B21
Mixed Use - M.2 - Solid State Drives	
HPE 240GB SATA 6G Mixed Use M.2 2280 3yr Wty Digitally Signed Firmware SSD	875488-B21
HPE Dual 240GB SATA 6G Mixed Use M.2 - UFF to SFF SCM 3yr Wty Digitally Signed Firmware SSD	P06607-B21
HPE 480GB SATA 6G Mixed Use M.2 2280 3yr Wty Digitally Signed Firmware SSD	875490-B21
HPE Dual 480GB SATA 6G Read Intensive M.2 - UFF to SFF SCM 3yr Wty Digitally Signed Firmware SSD	P06609-B21
HPE 960GB SATA 6G Mixed Use M.2 2280 3yr Wty Digitally Signed Firmware SSD	875492-B21
NOTE: M.2 drives above will require Universal SATA M.2 Kit (878783-B21)	
HPE Networking	
1 Gigabit Ethernet adapters	
HPE Ethernet 1Gb 4-port BASE-T I350-T4 Adapter	P21106-B21
NOTE: This option can be populated only in Slot 1 and Slot 3	
NOTE: If QTY=2, FHHL secondary riser kit will be required	
10 Gigabit Ethernet adapters	
HPE Ethernet 10Gb 2-port BASE-T QL41132HLRJ Adapter	P08437-B21
HPE Ethernet 10Gb 2-port SFP+ QL41132HLCU Adapter	P21933-B21
HPE Ethernet 10Gb 2-port SFP+ MCX4121A-XCHT Adapter	P21930-B21
HPE Ethernet 10Gb 4-port SFP+ QL41134HLCU Adapter	P10094-B21
<b>NOTE:</b> This option can be populated only in Slot 1 or Slot 3	
<b>NOTE:</b> If QTY=2, FHHL secondary riser kit will be required	
10/25 Gigabit Ethernet adapters	
HPE Ethernet 10/25Gb 2-port SFP28 MCX512F-ACHT Adapter	P13188-B21
HPE Ethernet 10/25Gb 2-port SFP28 X2522-25G-PLUS Adapter	P21109-B21
HPE Ethernet 10/25Gb 2-port SFP28 QL41232HLCU Adapter	P22702-B21
100 Gigabit Ethernet adapters	
HPE Ethernet 100Gb 2-port QSFP28 MCX516A-CCHT Adapter	P21927-B21
NOTE: Thermal limitation for this adapter:- Slot1 – 35C; Slot2- 25C and Slot3 – Not supported	
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**NOTE:** A minimum of two Gigabytes (2 GB) of server memory is required per each adapter. **NOTE:** Direct Attach Cable (DAC) for copper environments or fiber transceivers and cables for fiber-optic environments must be purchased separately. Please see the related NIC QuickSpecs for Technical Specifications and additional information: https://h20195.www2.hpe.com/v2/getpdf.aspx/A00002507ENW.pdf?

OCP Adapters	
HPE Ethernet 1Gb 4-port BASE-T I350-T4 OCP3 Adapter	P08449-B21
NOTE: This adapter is default NIC options for all CTO servers	
HPE Ethernet 10Gb 2-port SFP+ QL41132HQCU OCP3 Adapter	P08452-B21
HPE Ethernet 10Gb 2-port BASE-T QL41132HQRJ OCP3 Adapter	P10103-B21
HPE Ethernet 10/25Gb 2-port SFP28 QL41232HQCU OCP3 Adapter	P10118-B21

# **HPE InfiniBand**

HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 MCX653105A-HDAT PCle 4 x16 AdapterP23664-B21HPE InfiniBand HDR100/Ethernet 100Gb 1-port QSFP56 MCX653105A-ECAT PCle 4 x16 AdapterP23665-B21HPE InfiniBand HDR100/Ethernet 100Gb 2-port QSFP56 MCX653106A-ECAT PCle 4 x16 AdapterP23666-B21NOTE: For a single drive cage, one additional band (megasol enablement cable) must be populated for eachP23666-B21adaptor.P23665-B21

# InfiniBand Information

PN	Card	Qty Supported	Processor Supported	Slot 1	Slot 2	Slot 3
P23664-B21	HPE InfiniBand HDR/Ethernet 200Gb 1-port MCX653105A- HDAT QSFP56 x16 Adapter	2 (Slot1&2)	All	35C	30C	Not Supported
P23665-B21	HPE InfiniBand HDR100/Ethernet 100Gb 1-port MCX653105A- ECAT QSFP56 x16 Adapter	3	All	35C	35C	25C
P23666-B21	HPE InfiniBand HDR100/Ethernet 100Gb 2-port MCX653106A- ECAT QSFP56 x16 Adapter	2(Slot1&2)	All	35C	25C	Not Supported

# **HPE Power Supplies**

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 Gen10 Plus 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.

**NOTE:** Prior to making a power supply selection it is highly recommended that the HPE Power Advisor is run to determine the right size power supply for your server configuration. The HPE Power Advisor is located at:

# http://www.hpe.com/info/hppoweradvisor.

NOTE: All power supplies in a server should match. Mixing Power Supplies is not supported.

**NOTE:** Option kits contain the specified power supply and a PDU IEC cable.

**NOTE:** 1600W power supplies only support high line voltage.

**NOTE:** HPE ProLiant servers ship with an IEC-IEC power cord used for rack mounting with Power Distribution Units (PDUs). Visit <u>HPE power cords</u> for a full list of optional HPE power cords.

**NOTE:** Flex Slot Platinum power supplies support power efficiency of up to 94% and include a standard C-14 power inlet connector.

HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit

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

865408-B21

865438-B21

HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	865414-B21
NOTE: Flex Slot Platinum power supplies support power efficiency of up to 94% and include a standard C-14	
power inlet connector.	
HPE 800W Flex Slot -48VDC Hot Plug Low Halogen Power Supply Kit	865434-B21
<b>NOTE:</b> Flex Slot -48VDC power supplies support power efficiency of up to 94%.	
HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	830272-B21
NOTE: Flex Slot Platinum Plus power supplies support power efficiency of up to 94% and include a C-14 power	
inlet connector that can support HPE Power Discovery Services (blue connector).	
HPE 800W Flex Slot Universal Hot Plug Low Halogen Power Supply Kit	865428-B21
<b>NOTE:</b> Flex Slot universal power supplies support power efficiency of up to 94% and support both 277VAC/380VDC power inputs.	

# **Additional Options**

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.

#### Embedded Management HPE iLO Advanced

HPE iLO Advanced Electronic License with 1yr Support on iLO Licensed Features	E6U59ABE
HPE iLO Advanced 1-server License with 1yr Support on iLO Licensed Features	512485-B21
HPE iLO Advanced Flexible Quantity License with 1yr Support on iLO Licensed Features	512486-B21
HPE iLO Advanced AKA Tracking License with 1yr Support on iLO Licensed Features	512487-B21
HPE iLO Advanced Electronic License with 3yr Support on iLO Licensed Features	E6U64ABE
HPE iLO Advanced 1-server License with 3yr Support on iLO Licensed Features	BD505A
HPE iLO Advanced Flexible Quantity License with 3yr Support on iLO Licensed Features	BD506A
HPE iLO Advanced AKA Tracking License with 3yr Support on iLO Licensed Features	BD507A
HPE iLO Common Password FIO Setting	P08040-B21

HPE OneView Physical Media Kit LTU	E5Y37A
HPE OneView including 3yr 24x7 Support Physical 1-server LTU	E5Y34A
HPE OneView including 3yr 24x7 Support Flexible Quantity E-LTU	E5Y35AAE
HPE OneView w/o iLO including 3yr 24x7 Support 1-server LTU	P8B24A
HPE OneView w/o iLO including 3yr 24x7 Support Track 1-server LTU	P8B25A
HPE OneView w/o iLO including 3yr 24x7 Support Flexible Quantity E-LTU	P8B26AAE
NOTE: Licenses ship without media. The HPE OneView Media Kit can be ordered separately, or can be downloaded	<u>d</u> .

# HPE PCIe Workload Accelerator Options

HPE 750GB PCIe x4 Lanes Write Intensive HHHL 3yr Wty Digitally Signed Firmware Card	878038-B21
HPE 1.6TB NVMe x8 Lanes Mixed Use HHHL 3yr Wty Digitally Signed Firmware Card	P10264-B21
HPE 3.2TB NVMe x8 Lanes Mixed Use HHHL 3yr Wty Digitally Signed Firmware Card	P10266-B21
HPE 6.4TB NVMe x8 Lanes Mixed Use HHHL 3yr Wty Digitally Signed Firmware Card	P10268-B21

# PCIe Workload Accelerator Information

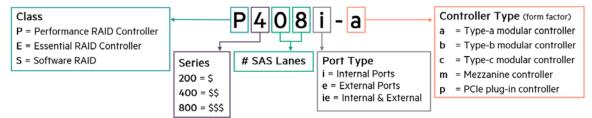
PN	Card	Qty Supported	Slot 1	Slot 2	Slot 3
878038-B21	HPE 750GB PCIe x4 Lanes Write Intensive HHHL 3yr Wty Digitally Signed Firmware Card	2 (Slot1&2)	35C	25C	Not Supported
P10264-B21	HPE 1.6TB NVMe x8 Lanes Mixed Use HHHL 3yr Wty Digitally Signed Firmware Card	3	35C	35C	25C
P10266-B21	HPE 3.2TB NVMe x8 Lanes Mixed Use HHHL 3yr Wty Digitally Signed Firmware Card	3	35C	35C	25C
P10268-B21	HPE 6.4TB NVMe x8 Lanes Mixed Use HHHL 3yr Wty Digitally Signed Firmware Card	3	35C	35C	25C

HPE Security	
HPE DL325 Gen10 Plus Bezel Kit	P18547-B21
HPE Bezel Lock Kit	875519-B21
HPE Gen10 Plus Chassis Intrusion Detection Kit	P14604-B21
<b>NOTE:</b> This provides a physical connection from the chassis board and hood and detects any physical intrusion	

**NOTE:** This provides a physical connection from the chassis board and hood and detects any physical intrusion into the chassis, providing security during the entire supply chain process of shipping, receiving, distribution, and operation.

# **Additional Options**

# **HPE Smart Array Controllers**



# **Smart Array Controllers**

HPE Smart Array Controller Batteries	782961-B21
NOTE: All performance RAID controllers are supported by the HPE Smart Storage Battery (782961-B21), which	
supports multiple devices and is sold separately	
HPE Smart Array P816i-a SR Gen10 (16 Int Lanes/4GB Cache/SmartCache) 12G SAS Modular LH Controller	869083-B21
<b>NOTE:</b> Does not occupy a PCIe expansion slot and includes SmartCache license.	
HPE Smart Array P408i-a SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS Modular LH Controller	869081-B21
NOTE: Does not occupy a PCIe expansion slot.	
HPE Smart Array P408e-p SR Gen10 (8 External Lanes/4GB Cache) 12G SAS PCIe Plug-in Controller	804405-B21
HPE Smart Array P408i-p SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS PCIe Plug-in Controller	830824-B21
Essential RAID Controllers	
HPE Smart Array E208e-p SR Gen10 (8 External Lanes/No Cache) 12G SAS PCIe Plug-in Controller	804398-B21
HPE Smart Array E208i-p SR Gen10 (8 Internal Lanes/No Cache) 12G SAS PCIe Plug-in Controller	804394-B21
HPE Smart Array E208i-a SR Gen10 (8 Internal Lanes/No Cache) 12G SAS Modular LH Controller	869079-B21
<b>NOTE:</b> Does not occupy a PCIe expansion slot.	
HPE Cable Options	
HPE DL325 Gen10 Plus LFF Smart Array Controller Cable Kit	P15899-B21
NOTE: This option kit is required to support E208i-a/P408i-a/P816i-a controller on LFF chassis	
HPE DL325 Gen10 Plus 8SFF Smart Array Modular Controller Cable Kit	P16979-B21
NOTE: This option kit is required to support E208i-a/P408i-a controller on generic CTO with 8SFF drive cage	
selection	
HPE DL325 Gen10 Plus 10SFF Smart Array P816i-a Cable Kit	P17265-B21
NOTE: This option kit is required to support 10SFF drives connected to P816i-a controller	
HPE DL325 Gen10 Plus 8SFF Smart Array PCIe Controller Cable Kit	P16983-B21
NOTE: This option kit is required to support E208i-p/P408i-p controller on generic CTO with 8SFF drive cage	
selection	
HPE DL325 Gen10 Plus 16SFF Smart Array P816i-a Cable Kit	P16989-B21
NOTE: This option kit is required to support 16SFF drives connected to P816i-a controller	
HPE DL325 Gen10 Plus 2SFF/UFF Smart Array Modular Controller Cable Kit	P15907-B21
NOTE: This option kit is required to support 2SFF/UFF Enablement kit with E208i-a/P408i-a controller	
HPE DL325 Gen10 Plus 2SFF/UFF Smart Array PCIe Controller Cable Kit	P16996-B21
NOTE: This option kit is required to support 2SFF/UFF Enablement kit with E208i-p/P408i-p controller	
HPE DL325 Gen10 Plus 2SFF Outer/Inner Drive Cage NVMe Cable Kit	P16972-B21
NOTE: This option kit is used with the 2SFF U.3 Enablement Kit to connect to the embedded PCIe controller on	
mother board	
<b>NOTE:</b> This can used with 2SFF U.3 Enablement Kit on both outer & inner cage	

# **Additional Options**

HPE DL325 Gen10 Plus 2SFF/UFF Outer Drive Cage SATA Cable Kit <b>NOTE:</b> This option kit is used with the 2SFF UFF /SAS/SATA Enablement Kit for outer cage, to connect to the embedded SATA controller on mother board	P16965-B21
HPE DL325 Gen10 Plus 2SFF/UFF SAS Expander Card Cable Kit	P15545-B21
NOTE: This is required to connect to SAS Expander to support additional 4SFF drives	
HPE DL325 Gen10 Plus 2SFF/UFF Outer/Inner Drive Cage SATA Cable Kit	P16993-B21
<b>NOTE:</b> This option kit is used with the 2SFF SFF/uFF Kit to connect to the embedded SATA controller on mother board	
HPE DL3XX Gen10 Rear Serial Cable and Enablement Kit	873770-B21
NOTE: This option kit is used to enable serial port	
Optional Software	
HPE Smart Array SR Secure Encryption (Data at Rest Encryption/per Server Entitlement) E-LTU	Q2F26AAE
HPE Smart Array SR SmartCache (Single Key/Single Server) LTU	D7S26A
HPE Smart Array SR SmartCache (Single Key/Multiple Servers) LTU	D7S27A
HPE Smart Array SR SmartCache (Single Key/Multiple Servers) E-LTU	D7S27AAE
<b>NOTE:</b> SmartCache is offered on HPE Smart Array performance RAID controllers and comes standard (no licensing is required) if the HPE Smart Array P816i-a SR Gen10 Controller is installed in the server.	
HPE Tape Backup For the complete range of tape drives, autoloaders, libraries and media see: https://www.hpe.com/us/en/storage/storeever-tape-storage.html. For hardware and software compatibility of Hewlett Packard Enterprise tape backup products http://www.hpe.com/storage/BURAcompatibility.	
HPE Storage Options	
Emulex Fibre Channel HBAs	
HPE StoreFabric SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter	Q0L13A
HPE StoreFabric SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter	QOL14A
HPE StoreFabric SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter	Q0L11A
HPE StoreFabric SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter	Q0L12A
QLogic Fibre Channel HBAs	
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 SN1100Q 16Gb Dual Port Fibre Channel Host Bus Adapter HPE SN1610Q 32Gb 1-port Fibre Channel Host Bus Adapter HPE SN1610Q 32Gb 2-port Fibre Channel Host Bus Adapter

# **HPE Racks**

Please see the **HPE Advanced Series Racks QuickSpecs** for information on additional racks options and rack specifications. Please see the **HPE Enterprise Series Racks QuickSpecs** for information on additional racks options and rack specifications. Please see the **HPE Standard Series Racks QuickSpecs** for information on additional racks options and rack specifications.

# HPE Power Distribution Units (PDUs)

Please see the **HPE Basic Power Distribution Units (PDU) QuickSpecs** for information on these products and their specifications. Please see the **HPE Metered Power Distribution Units (PDU) QuickSpecs** for information on these products and their specifications. Please see the **HPE Intelligent Power Distribution Unit (PDU) QuickSpecs** for information on these products and their specifications.

R2E08A

R2E09A

Please see the <b>HPE Metered and Switched Power Distribution Units (PDU) QuickSpecs</b> for information on these produc	ts and
their specifications.	

HPE Uninterruptible Power Systems (UPS)

To learn more, please visit the HPE Uninterruptible Power Systems (UPS) web page.

Please see the **HPE DirectFlow Three Phase Uninterruptible Power System QuickSpecs** for information on these products and their specifications.

Please see the HPE Line Interactive Single Phase UPS QuickSpecs for information on these products and their specifications.

#### **HPE Rack Options**

Please see the HPE KVM Switches web page for information on these products and their specifications.

#### **Rail Kits**

Easy Install rail kits contain telescoping rails which allow for in-rack serviceability.

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

**NOTE :** CTO servers do not ship with rail kits ,they need to be ordered seperately

**NOTE:** 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 DL325 Gen10 Plus 1075mm Easy Install Rail Kit	P18544-B21
NOTE : Required with generic CTO model (P18606-B21)	
HPE DL325 Gen10 Plus 1200mm Easy Install Outer Rail Kit	P18545-B21
NOTE: Required 12 LFF, 24 SFF & 24 SFF U.3 Models	
HPE DL325 Gen10 Plus Cable Management Arm	P18546-B21

HPE USB and SD Options

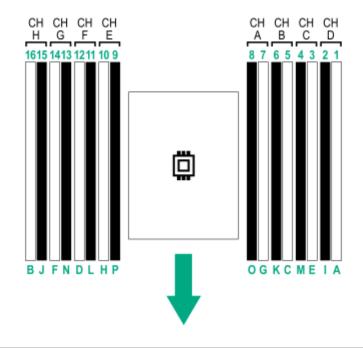
# HPE Enterprise Mainstream Flash Media Kits for Memory Cards

HPE 32GB microSD Flash Memory Card	700139-B21
HPE 8GB microSD Flash Memory Card	726116-B21
HPE 8GB microSD Flash USB Drive	737953-B21
HPE 8GB Dual microSD Flash USB Drive	741279-B21

#### HPE Support Services Proactive Care

HPE 3 Year Proactive Care 24x7 DL325 GEN10 PLUS Service	HQ2H2E
HPE 3 Year Proactive Care 24x7 with DMR DL325 GEN10 PLUS Service	HQ2H3E
HPE 3 Year Proactive Care 24x7 with CDMR DL325 GEN10 PLUS Service	HQ2H4E
Foundation Care	
HPE 3 Year Foundation Care 24x7 DL325 GEN10 PLUS Service	HQ2G7E
HPE 3 Year Foundation Care 24x7 with DMR DL325 GEN10 PLUS Service	HQ2G9E
HPE 3 Year Foundation Care 24x7 with CDMR DL325 GEN10 PLUS Service	HQ2H0E
Installation & Startup Services	
HPE Install ProLiant DL3xx Service	U4506E
HPE Installation and Startup DL3xx Service	U4507E
NOTE: For a full listing of support services available for this server, please visit https://ssc.hpe.com/	

# Memory



#### **General Memory Population Rules and Guidelines:**

- Install DIMMs only if the corresponding processor is installed.
- If only one processor is installed in a two-processor system, only half of the DIMM slots are available.
- To maximize performance, it is recommended to balance the total memory capacity between all installed processors.
- When two processors are installed, balance the DIMMs across the two processors.
- White DIMM slots denote the first slot to be populated in a channel.
- Mixing of DIMM types (RDIMM, and LRDIMM) is not supported.
- 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 number of DIMM slots on the platform, the largest DIMM capacity qualified on the platform, the number and model of installed processors qualified on the platform.
- For details on the HPE Server Memory Options Population Rules, visit: http://www.hpe.com/docs/amd-population-rules-Gen10Plus
- To realize the performance memory capabilities listed in this document, HPE DDR4 SmartMemory is required. For additional information, please see the: HPE DDR4 Smart Memory QuickSpecs
- For details on the HPE Server Memory speed, visit: http://www.hpe.com/docs/amd-speed-table-Gen10Plus

**NOTE:** The maximum memory speed is a function of the memory type, memory configuration, and processor model. For details on the HPE Server Memory speed, visit: <u>http://www.hpe.com/docs/amd-speed-table-Gen10Plus</u>

# DDR4 memory options part number decoder

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

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

For more information on memory, please see the Memory Quickspecs: HPE DDR4 SmartMemory

# Storage



**4LFF drives** 



8SFF + Optional 2SFF (SAS/SATA or NVMe) Shown

# **Technical Specifications**

System Unit	Long Chassis (3 cages)	4.28 X 43.46 X 100.88 cm (1.69 X 17.11 X 39.71 ln)
Dimensions	Short Chassis (2 cages)	4.28 X 43.46 X 82.62 cm (1.69 X 17.11 X 32.52 ln)
Weight (approximate)	17 kg 37.47 lb	Minimum: 8 SFF chassis with 8 HDD blanks, 2x Drive Bay blanks, 1x processor including standard heatsink, 2x DIMMs, 1x power supply (plus blank), 1x Smart Array, 1x Riser installed, cables for the above)
	22.4 kg 49.38 lb	Maximum: 24 SFF hard drives, 1x processors, 2x power supplies, 1x Smart Array, 2x Risers installed, 16x DIMMs, 2x power supply, cables for the above)
	17 kg 37.47 lb	Minimum: 4 LFF chassis with 8 HDD blanks, 2x Drive Bay blanks, 1x processor including standard heatsink, 2x DIMMs, 1x power supply (plus blank), 1x Smart Array, 1x Riser installed, cables for the above)
	25.9 kg 57.09 lb	Maximum: 12 LFF hard drives, 1x processors, 2x power supplies, 1x Smart Array, 2x Risers installed, 16x DIMMs, 2x power supply, cables for the above)
Input Requirements (per power supply)	Rated 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	For 1600W Power Supply: 1600W (at 240 VAC), 1600W (at 240 VAC)
(per power supply)	Power	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 1600W Power Supply: 1600W (at 200 to 240 1VAC), 1600W (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 Temperature	10° to 35°C (50° to 95°F) at sea level with an altitude derating of 1.0°C per every 305 m (1.8°F per every 1000 ft) above sea level to a maximum of 3050 m (10,000 ft), no direct sustained sunlight. Maximum rate of change is 20°C/hr (36°F/hr). The upper limit and rate of change may be limited by the type and number of options installed. System performance during standard operating support may be reduced if operating with a fan fault or above 30°C (86°F).
	Extended Ambient Operating Temperature	For approved hardware configurations, the supported system inlet range is extended to be: 5° to 10°C (41° to 50°F) and 35° to 40°C (95° to 104°F) at sea level with an altitude derating of 1.0°C per every 175 m (1.8°F per every 574 ft) above 900 m (2953 ft) to a maximum of 3050 m (10,000 ft). The approved hardware configurations for this system are listed at the URL: <u>http://www.hpe.com/servers/ashrae</u>
		For approved hardware configurations, the supported system inlet range is extended to be: 40° to 45°C (104° to 113°F) at sea level with an altitude derating of 1.0°C per every 125 m (1.8°F per every 410 ft) above 900 m (2953 ft) to a maximum of 3050 m (10,000 ft). The approved hardware configurations for this system are listed at the URL: <u>http://www.hpe.com/servers/ashrae</u>
		System performance may be reduced if operating in the extended ambient
		operating range or with a fan fault.
	Non-operating	-30° to 60°C (-22° to 140°F). Maximum rate of change is 20°C/hr (36°F/hr).

# **Technical Specifications**

Relative Humidity	Operating	8% to 90% - Relative humidity (Rh), 28°C maximum wet bulb temperature, non-condensing.
(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 ( $L_{WAd}$ ) and declared average bystander position A-Weighted sound pressure levels ( $L_{pAm}$ ) 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). The listed sound levels apply to standard shipping configurations. Additional options may result in increased sound levels. Please have your HPE representative provide information from the HPE EMESC website for further technical details regarding the configurations listed below.

Idle				
LWAd	<ul><li>4.8 B Entry</li><li>4.4 B Base</li><li>4.4 B Perf</li></ul>			
LpAm	36 dBA Entry 30 dBA Base 30 dBA Perf			
Operating				
LWAd	4.8 B Entry 4.5 B Base 4.8 B Perf			
LpAm	36 dBA Entry 30 dBA Base 35 dBA Perf			

**NOTE:** Acoustics levels presented here are generated by the test configuration only. Acoustics levels will vary depending on system configuration. Values are subject to change without notification and are for reference only.

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

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

# Emissions Classification (EMC) – Regulatory Information

To view the regulatory information for your product, view the Safety and Compliance Information for Server, Storage, Power, Networking, and Rack Products, available at the Hewlett Packard Enterprise Support Center:

# http://www.hpe.com/support/Safety-Compliance-EnterpriseProducts

# **HPE Smart Array**

For latest information on <u>HPE Smart Array Gen10 Controllers for HPE ProLiant DL, ML and Apollo Servers</u> please refer to their QuickSpecs. (E208i-a,E208i-p,E208e-p,P408i-a,P408i-p,P408e-p,P816i-a)

# Environment-friendly Products and Approach - End-of-life Management and Recycling

Hewlett Packard Enterprise offers **<u>end-of-life product return, trade-in, and recycling programs</u>, in many geographic areas, for our products. 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. These instructions may be used by recyclers and other WEEE treatment facilities as well as Hewlett Packard Enterprise OEM customers who integrate and re-sell Hewlett Packard Enterprise equipment.

# **Summary of Changes**

Date	Version History	Action	Description of Change
24-Feb-2020	Version 4	Changed	Overview, Standard Features, Configuration Information, Core Options and Additional Options sections were updated.
17-Feb-2020	Version 3	Changed	SKUs descriptions were updated.
16-Dec-2019	Version 2	Changed	SKU was removed
02-Dec-2019	Version 1	New	New QuickSpecs.



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

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