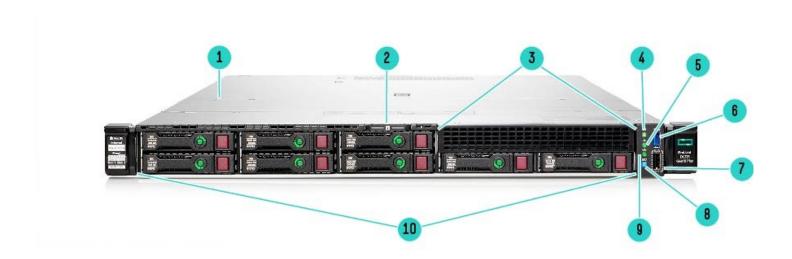
# QuickSpecs

### **Overview**

### 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® 7002 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 PCle 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

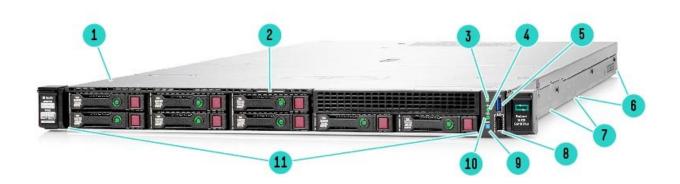
#### Notes:

- \*Choice of Optical Drive
- \*Option +2 SFF SAS/SATA
- \*Option +2 SFF U.3 NVMe drives
- 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/NVMe Hot Plug drive bays



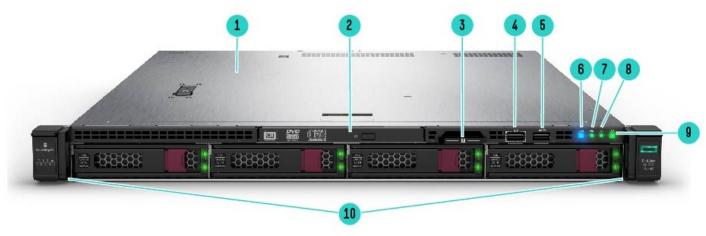
### **Overview**



### 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

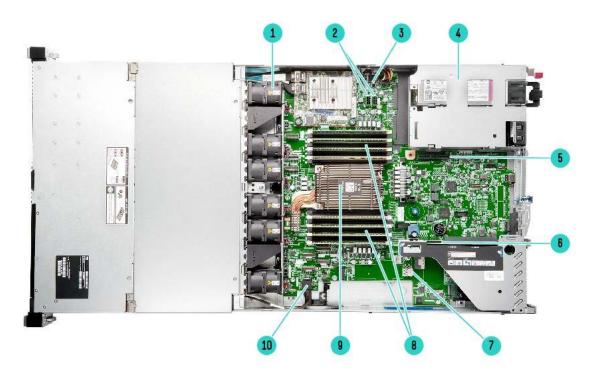


### 4LFF Front View - with Optional ODD shown

- 1. Quick removal access panel
- 2. Optional DVD-RW (shown)
- 3. Serial no. label pull tab
- 4. iLO Service Port
- 5. USB 3.1 Gen1 Port

- 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

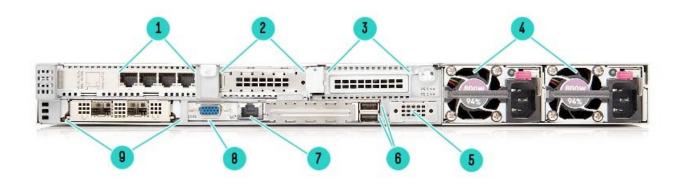
### **Overview**



### 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 PCle 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)

#### Overview

#### 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
- Supports AMD EPYC 7002 Series High Frequency processors
- Support for PCle 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
- New High Performance Fan Kit for some configurations
- 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/SATACage1: 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)

#### **Notes:**

- Mixing LFF & SFF is not supported
- 4LFF & 8 SFF options are only supported on P18606-B21 ( HPE DL325 Gen10 Plus CTO Server)
- 12 LFF option is supported on P18608-B21 ( HPE DL325 Gen10 Plus 12LFF CTO Server)
- 24 SFF option is supported on P15535-B21 ( HPE DL325 Gen10 Plus 24SFF CTO Server)
- 24 SFF U.3 option is supported on P15735-B21 (HPE DL325 Gen10 Plus 24SFF U.3 CTO Svr)
- HDD Wattage maybe limited when multiple drive cages are installed.
- 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
- 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

#### **Notes:**

- 24 SFF and 12 LFF & chassis ship with 8 High performance fans as standard.
- 24 SFF NVMe U.3 chassis ship with 8 High performance fans as standard
- High performance fan kit is available to meet ambient temperature environments.

**Processors** – One of the following depending on model.

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

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

| AMD EPYC Processor | Cores | Base      | Max       | Max    | Wattage | Cache | Memory   |
|--------------------|-------|-----------|-----------|--------|---------|-------|----------|
|                    |       | Frequency | Frequency | 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 7662          | 64    | 2.0GHz    | 3.3GHz    | 4TB    | 225     | 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 7532          | 32    | 2.3GHz    | 3.2GHz    | 4TB    | 200     | 256MB | 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 7F72          | 24    | 3.2GHz    | 3.7GHz    | 4TB    | 240     | 192MB | 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 7F52          | 16    | 3.5GHz    | 3.9GHz    | 4TB    | 240     | 256MB | 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 7272          | 12    | 2.9GHz    | 3.2GHz    | 4TB    | 120     | 64MB  | 3200MT/s |
| EPYC 7F32          | 8     | 3.7GHz    | 3.9GHz    | 4TB    | 180     | 128MB | 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

Notes: Read and learn more in the iLO QuickSpecs.

### **Memory**

One of the following depending on model

| Туре:                     | HPE DDR4<br>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                                      |
| Maximum capacity (LRDIMM) | 2.0 TB                  | 16 x 128 GB LRDIMM @ 3200 MT/s at 1 DPC                                    |

### **Notes:**

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

### **Expansion Slots**

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

Notes: 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 |

#### **Notes:**

- Bus width indicated the number of electrical lanes running to the connector.
- 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

Notes: 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              | 48 TB     | 24 x 2 TB     |  |  |
| Hot Plug LFF SAS               | 192TB     | 12 x 16 TB    |  |  |
| Hot Plug LFF SATA              | 192 TB    | 12 x 16 TB    |  |  |
| Hot Plug SFF SAS SSD           | 367.2 TB  | 24 x 15.3 TB  |  |  |
| Hot Plug LFF SAS SSD           | 46.08 TB  | 12 x 3.84 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 PCle U.3 SSD | 368.64 TB | 24 x 15.36 TB |  |  |
| Hot Plug SFF NVMe PCle U.2 SSD | 122.88 TB | 16 x 7.68 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

Notes: Available in 94% Power Efficiency.

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

**Notes:** Available in 94% Power Efficiency.

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

#### **Notes:**

- Available in 96% Power Efficiency.
- 200-240VAC power input only.

HPE 800W Flex Slot Universal Hot Plug Low Halogen Power Supply Kit **Notes:** 

- Available in 94% Power Efficiency.
- 277VAC power input.

HPE 800W Flex Slot 48VDC Hot Plug Low Halogen Power Supply Kit

#### **Notes:**

- Available in 94% Power Efficiency.
- -48VDC power input.

HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit

#### **Notes:**

- Available in 94% Power Efficiency.
- 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

- Windows Server 2016 (Most Recent Version)
- 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
- Red Hat Enterprise Linux (RHEL) 8.0
- SUSE Linux Enterprise Server (SLES) 12 SP4
- SUSE Linux Enterprise Server (SLES) 15 SP1
- Citrix XenServer

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

### **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)
- 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 Plus 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

**Notes:** For additional technical thermal details regarding ambient temperatures, humidity and features support please visit: <a href="http://www.hpe.com/servers/ashrae">http://www.hpe.com/servers/ashrae</a>.

UEFI (Unified Extensible Firmware Interface Forum)
 Notes: 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 <a href="http://www.hpe.com/info/ilo">http://www.hpe.com/info/ilo</a>.

#### **UEFI**

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

#### **Intelligent Provisioning**

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

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

### **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.

UEFI enables numerous new capabilities specific to HPE 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

#### **Notes:**

- For UEFI Boot Mode, boot environment and OS image installations should be configured properly to support UEFI.
- 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 <a href="http://www.hpe.com/servers/ahs">http://www.hpe.com/servers/ahs</a>.

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

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

#### **HPE iLO Mobile Application**

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

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

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

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

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

### 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.

**Notes:** 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 <a href="http://www.hpe.com/info/oneview">http://www.hpe.com/info/oneview</a>.

#### **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 <a href="https://www.hpe.com/servers/infosight">https://www.hpe.com/servers/infosight</a>

#### 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 cost-effective 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. <a href="https://h22174.www2.hpe.com/SimplifiedConfig/Welcome">https://h22174.www2.hpe.com/SimplifiedConfig/Welcome</a>

### Service and Support

#### **HPE Pointnext Services**

#### Achieve maximum return from your IT investment

Get the expertise you need at every step of your IT journey with **HPE Pointnext services and support**. 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 **Advisory Services**, 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 **Professional** and **Operational Services** 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 that are securely connected to HPE. 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

**Notes:** 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

**Notes:** 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.

### Service and Support

#### **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).

**Notes:** 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 and Options

#### **Defective Media Retention**

Available with HPE Datacenter Care, HPE Proactive Care, HPE Proactive Care Advanced, and HPE Foundation Care and applies only to Disk or eligible SSD/Flash Drives replaced by HPE due to malfunction.

#### **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 Service Credits**

Offers flexible services and technical skills to meet your IT demands as your business evolves. With a menu of services, you can access additional resources and specialist skills to help you maintain peak performance of your IT. HPE Service Credits help you proactively respond to your dynamic IT and business needs

### **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. <a href="http://www.hpe.com/ww/learn">http://www.hpe.com/ww/learn</a>

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

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.

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

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

### **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 QuickSpecs, or the technical product data sheet will not be provided, repaired, or replaced as part of these services.

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

# **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 Plus 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-B21   | P18604-B21                                      |  |  |  |
|-----------------------------|--|---|--|--|--|
|                             | P18603-291   | P18604-291                                      |  |  |  |
| Model Name                  | HPE ProLiant DL325 Gen10 Plus 7262 3.2 GHz           | HPE ProLiant DL325 Gen10 Plus 7302P 3.0GHz      |  |  |  |
|                             | 8-core 1P 16GB-R 4LFF 500W RPS Server                | 16-core 1P 32G-R 8SFF 500W RPS Server           |  |  |  |
| Processor                   | 7262 (8-Core, 3.2 GHz, 155W)                         | 7302P (16-Core, 3.0 GHz, 155W)                  |  |  |  |
| <b>Number of Processors</b> | 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           | HPE 1Gb Ethernet 4-Port BaseT I350-T4 OCP3      |  |  |  |
|                             | Adapter plus choice of stand up card                 | Adapter plus choice of stand up card            |  |  |  |
| Storage Controller          | E208i-a  | P408i-a   |  |  |  |
|                             | Notes: 8-Port modular Smart Array.                   | Notes: 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 | oning, HPE OneView Standard (requires download) |  |  |  |
| •                           | Optional (require licenses): HPE iLO Advanced, HI    |   |  |  |  |
|                             | OneView Advanced                                     | ,   |  |  |  |
| 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 w  | vith next business day response.                |  |  |  |

# **Pre-configured Models**

| SKU Number                  | P18605-B21  |
|-----------------------------|---|
|                             | P18605-291  |
| Model Name                  | HPE ProLiant DL325 Gen10 Plus 7402P 2.8GHz 24-core 1P 64GB-R 8SFF 800W RPS Server                 |
| Processor                   | 7402P (24-Core, 2.8 GHz, 180W)  |
| <b>Number of Processors</b> | One processor   |
| Memory                      | 64 GB RDIMM SR 3200 MT/s (2x 32 GB)   |
| <b>Network Controller</b>   | BCM 57412 10GbE 2p SFP+ OCP3 Adptr  |
| Storage Controller          | P408i-a   |
|                             | Notes: 8-Port modular Smart Array.  |
| Hard Drive                  | None ship as standard   |
| Internal Storage            | 8 SFF chassis   |
| Optical Drive Bay           | Optional  |
| Optical Drive               | None ship as standard   |
| <b>PCI-Express Slots</b>    | 2-slots (x16, x16) as standard  |
| Power Supply                | 1X800W HPE FlexSlot Power Supply  |
| Fans                        | 7-standard fans   |
| Management                  | Default: HPE iLO Standard with Intelligent Provisioning, HPE OneView Standard (requires download) |
|                             | Optional (require licenses): HPE iLO Advanced, HPE iLO Advanced Premium Security Edition, HPE     |
|                             | OneView Advanced  |
| 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 Plus 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.

- Factory Integrated Models must start with a CTO Server.
- FIO indicates that this option is only available as a factory installable option.
- All Factory Integrated Models will be populated with sufficient hard drive blanks based on the number of initial hard drives ordered with the server.
- 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<br>Gen10 Plus 24SFF<br>CTO Server   | HPE ProLiant DL325<br>Gen10 Plus 24SFF<br>NVMe U.3 CTO Server                                      | HPE ProLiant DL325<br>Gen10 Plus CTO<br>Server   | HPE ProLiant DL325<br>Gen10 Plus 12LFF<br>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<br>Expander  | Not Supported  | Choice of HPE modular<br>Smart Array and PCIe<br>plug in controller                                | P816i-a  |
| PCle                      | **Two standard in primary riser  | **One standard in<br>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   |
| <b>Network Controller</b> | Choice of OCP and stand  | up card  |  |  |
| Fans                      | 8-High Performance   | 8-High Performance   | Not included as standard*  | 8-High Performance   |
| Management                | HPE iLO with Intelligent   | Provisioning (standard), iL  | O Advances and OneView   | (optional)   |
| USB                       | Front: 1 USB 3.1 Gen1<br>+ iLO service port<br>Rear: 2 USB 3.1 Gen1<br>Internal: 1 USB 3.1<br>Gen1 | Front: 1 USB 3.1 Gen1<br>+ iLO service port<br>Rear: 2 USB 3.1 Gen1<br>Internal: 1 USB 3.1<br>Gen1 | Front: 1 USB 3.1 Gen1<br>+ iLO service port<br>Rear: 2 USB 3.1 Ge 1<br>Internal: 1 USB 3.1<br>Gen1 | Front: 1 USB 3.1 Gen1<br>+ iLO service port<br>Rear: 2 USB 3.1 Gen1<br>Internal: 1 USB 3.1<br>Gen1 |

#### **Notes:**

- 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).
- TAA compliant configuration requires HPE DL325 Gen10 Plus TAA FIO Enablement Kit (P18607-B21)
- The HPE ProLiant DL325 Gen10 Plus NVMe SFF CTO Server ships with the cable required for NVMe drives installation.
- \*The number of fans depends on type and number of drive cages.
- \*\*For 24SFF chassis, Slot1 is already pre-occupied by SAS Expander.
- \*\*For 24SFF U.3 chassis, Slot2/Slot3 is already pre-occupied by NVMe connection
- All CTO servers are Energy Star 3.0 compliant.
- CTO servers do not ship with rail kits, they need to be ordered separately
- 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 |
| <b>Universal Media Bay</b> | 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      |

#### **Notes:**

- This applies to CTO configurations, field upgrades may differ depending field configuration.
- Drive cage needs to be ordered separately for CTO server (P18606-B21)

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

Please select one -L21 processor required below.

#### **Notes:**

- All CTO Models ship with redundant fan configuration.
- DDR4 memory speed will depend on the quantity and type of DIMMs installed.
- Processors with greater than 150W will ship with the High Performance heatsink.

### **Step 2a: Choose Processors**

| Processor Option Kits  | SKU        |
|--|------------|
| AMD EPYC 7742 (2.25GHz/64-core/225W) FIO Processor Kit for HPE ProLiant DL325 Gen10 Plus | P19621-L21 |
| Notes: Ships with High Performance Heatsink.   |            |
| AMD EPYC 7702P (2.0GHz/64-core/200W) FIO Processor Kit for HPE ProLiant DL325 Gen10 Plus | P19622-L21 |
| Notes: Ships with High Performance Heatsink.   |            |
| AMD EPYC 7662 (2.0GHz/64-core/225W) FIO Processor Kit for HPE ProLiant DL325 Gen10 Plus  | P25850-L21 |
| Notes: Ships with High Performance Heatsink  |            |
| AMD EPYC 7642 (2.3GHz/48-core/225W) FIO Processor Kit for HPE ProLiant DL325 Gen10 Plus  | P19623-L21 |
| Notes: Ships with High Performance Heatsink.   |            |
| AMD EPYC 7552 (2.2GHz/48-core/200W) FIO Processor Kit for HPE ProLiant DL325 Gen10 Plus  | P19624-L21 |
| Notes: Ships with High Performance Heatsink.   |            |
| AMD EPYC 7542 (2.9GHz/32-core/225W) FIO Processor Kit for HPE ProLiant DL325 Gen10 Plus  | P19625-L21 |
| Notes: Ships with High Performance Heatsink  |            |
| AMD EPYC 7532 (2.4GHz/32-core/200W) FIO Processor Kit for HPE ProLiant DL325 Gen10 Plus  | P25849-L21 |
| Notes: Ships with High Performance Heatsink.   |            |
| AMD EPYC 7502P (2.5GHz/32-core/180W) FIO Processor Kit for HPE ProLiant DL325 Gen10 Plus | P19626-L21 |
| Notes: Ships with High Performance Heatsink.   |            |
| AMD EPYC 7452 (2.35GHz/32-core/155W) FIO Processor Kit for HPE ProLiant DL325 Gen10 Plus | P19627-L21 |
| Notes: Ships with High Performance Heatsink.   |            |
| AMD EPYC 7F72 (3.2GHz/24-core/240W) FIO Processor Kit for HPE ProLiant DL325 Gen10 Plus  | P36436-L21 |
| Notes: Ships with High Performance Heatsink.   |            |
| AMD EPYC 7402P (2.8GHz/24-core/180W) FIO Processor Kit for HPE ProLiant DL325 Gen10 Plus | P19628-L21 |
| Notes: Ships with High Performance Heatsink.   |            |
| AMD EPYC 7352 (2.3GHz/24-core/155W) FIO Processor Kit for HPE ProLiant DL325 Gen10 Plus  | P19629-L21 |
| Notes: Ships with High Performance Heatsink.   |            |
| AMD EPYC 7F52 (3.5GHz/16-core/240W) FIO Processor Kit for HPE ProLiant DL325 Gen10 Plus  | P36435-L21 |
| Michael Chine and the Divide Designation of the state of                                 |            |



Notes: Ships with High Performance Heatsink.

| AMD EPYC 7302P (3.0GHz/16-core/155W) FIO Processor Kit for HPE ProLiant DL325 Gen10 Plus | P19630-L21 |
|--|------------|
| Notes: Ships with High Performance Heatsink.   |            |
| AMD EPYC 7282 (2.8GHz/16-core/120W) FIO Processor Kit for HPE ProLiant DL325 Gen10 Plus  | P19631-L21 |
| Notes: Ships with Standard Heatsink.   |            |
| AMD EPYC 7272 (2.9GHz/12-core/120W) FIO Processor Kit for HPE ProLiant DL325 Gen10 Plus  | P19632-L21 |
| Notes: Ships with Standard Heatsink.   |            |
| AMD EPYC 7F32 (3.7GHz/8-core/180W) FIO Processor Kit for HPE ProLiant DL325 Gen10 Plus   | P36434-L21 |
| Notes: Ships with Standard Heatsink.   |            |
| AMD EPYC 7262 (3.2GHz/8-core/155W) FIO Processor Kit for HPE ProLiant DL325 Gen10 Plus   | P19633-L21 |
| Notes: Ships with High Performance Heatsink.   |            |
| AMD EPYC 7232P (3.1GHz/8-core/120W) FIO Processor Kit for HPE ProLiant DL325 Gen10 Plus  | P19634-L21 |
| Notes: Ships with Standard Heatsink.   |            |

### **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:

### http://www.hpe.com/docs/amd-population-rules-Gen10Plus

#### Notes:

- Memory DIMM availability with a server platform is dependent upon completion of certification testing.
- 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 Registered Smart Memory Kit     | P07638-B21 |
|--|------------|
| HPE 16GB (1x16GB) Single Rank x4 DDR4-3200 CAS-22-22 Registered Smart Memory Kit.  | P07640-B21 |
| HPE 16GB (1x16GB) Dual Rank x8 DDR4-3200 CAS-22-22 Registered Smart Memory Kit     | P07642-B21 |
| HPE 32GB (1x32GB) Dual Rank x8 DDR4-3200 CAS-22-22 Registered Smart Memory Kit     | P07644-B21 |
| HPE 32GB (1x32GB) Dual Rank x4 DDR4-3200 CAS-22-22 Registered Smart Memory Kit     | P07646-B21 |
| HPE 64GB (1x64GB) Dual Rank x4 DDR4-3200 CAS-22-22 Registered Smart Memory Kit     | P07650-B21 |
| Load Reduced DIMMs (LRDIMMs)   |            |
| HPE 128GB (1x128GB) Quad Rank x4 DDR4-3200 CAS-22-22 Load Reduced Smart Memory Kit | P07652-B21 |

#### Notes:

- Mixing of x4 & x8 memory is not allowed
- 3200 MT/s memory SKUs offer a transfer rate of 3200 MT/s at 1 DIMM per channel and 2933 MT/s at 2 DIMMs per channel

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

Select one or two power supplies from below.

Notes: 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 |
| HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit  | 865438-B21 |
| 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 | 830272-B21 |

#### **Notes:**

 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.

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

#### Notes:

- This is supported with the CTO Model (P18606-B21) only.
- 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

Notes: 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

#### Notes:

- This kit requires 8SFF U.3/NVMe Direct Attach FIO Cable Kit (P17226-B21)
- This is supported with the CTO Model (P18606-B21) only.

HPE DL325 Gen10 Plus TAA-compliant FIO Enablement Kit P18607-B21

**Notes:** 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

**Notes:** 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

**Notes:** This option kit is used for CTO server (P18606-B21) with LFF drive cage selection ,to connect to the embedded controller on mother board.

HPE DL325 Gen10 Plus 8SFF SATA FIO Cable Kit P16987-B21

**Notes:** 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 P17266-B21

#### Notes:

- This kit contains a passthrough board to divert PCIe lanes from Modular Array Controller port to connect to Direct Attact NVMe
- This kit can connect only to 2SFF U.3 NVMe on the inner cage

HPE DL325 Gen10 Plus 8SFF U.2 Smart Carrier NVMe FIO Drive Cage Kit

#### **Notes:**

- This is supported with the CTO Model (P18606-B21) only.
- The required cables are included in the cage kit

#### **BIOS Mode**

HPE Legacy FIO Mode Setting 758959-B22

#### **Notes:**

- UEFI is the default, this FIO part can be used for CTO to enable Legacy mode.
- If Legacy FIO Mode Setting (758959-B22) is selected with Embedded controller (in AHCI mode) as primary controller then RAID Setting is not supported.
- The Legacy Mode Setting (758959-B22) and HPE Dual 8GB microSD EM USB Kit / 32GB microSD CANNOT be selected together.



P17209-B21

### **HPE Converged Infrastructure Management Software**

| HPE OneView including 3yr 24x7 Support Physical 1-server LTU                                   | E5Y34A   |
|--|----------|
| HPE OneView w/o iLO including 3yr 24x7 Support 1-server FIO LTU                                | P8B31A   |
| HPE OneView Standard 1yr 9x5 Support Flexible Quantity E-RTU                                   | K6F98AAE |
| HPE OneView w/o iLO including 3yr 24x7 Support 1-server LTU                                    | P8B24A   |
| HPE OneView w/o iLO including 3yr 24x7 Support Track 1-server LTU                              | P8B25A   |
| HPE OneView w/o iLO including 3yr 24x7 Support Flexible Quantity E-LTU                         | P8B26AAE |
| HPE OneView w/o iLO including 3yr 24x7 Support 1-server FIO LTU                                | P8B31A   |
| HPE OneView including 3yr 24x7 Support Flexible Quantity E-LTU                                 | E5Y35AAE |
| HPE OneView Upgrade from Insight Management 3yr 24x7 Support 1-server LTU                      | F6Q91A   |
| 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 | E5Y45AAE |

# 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** P15504-B21 HPE DL325 Gen10 Plus 4LFF to 8LFF Low Profile Drive Cage Upgrade Kit **Notes:** Mixing of LFF & SFF drive cages is not allowed P408i-p and E208i-p controllers cannot be selected with 4LFF Drive cage kits 2SFF SAS SATA/2SFF UFF/2SFF U.3 drive cage cannot be selected with LFF Drive cages 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 Notes: 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 Notes: This is used to support additional 8SFF U.3 with CTO Model (P18606-B21) HPE DL325 Gen10 Plus 8SFF to 16SFF U.2 Smart Carrier NVMe Drive Cage Upgrade Kit P17224-B21 Notes: This is used to support additional 8SFF U.2 with CTO Model (P18606-B21) HPE DL325 Gen10 Plus 2SFF SAS/SATA Smart Carrier Enablement Kit P20417-B21 **Notes:** This is used to support additional 2SFF SAS/SATA with CTO Model (P18606-B21) This kit cannot be selected with LFF drive cages Optical Drives cannot be selected with this kit. HPE DL325 Gen10 Plus 2SFF U.3 Smart Carrier Enablement Kit P20418-B21 **Notes:** This is used to support additional 2SFF U.3 NVMe with CTO Model (P18606-B21) . This kit cannot be selected with LFF drive cages HPE DL325 Gen10 Plus 2SFF UFF Smart Carrier Enablement Kit P15540-B21 **Notes:** This is used to support additional 2SFF UFF with the CTO Model (P18606-B21) This kit cannot be selected with LFF drive cages This kit cannot be selected along with M.2 Kit (878783-B21) or Optical drives HPE DL325 Gen10 Plus 2SFF U.2 Smart Carrier NVMe Enablement Kit P17202-B21 Notes: This is used to support additional 2SFF U.2 NVMe with CTO Model (P18606-B21) This kit cannot be selected with LFF drive cages Only one of this kit can be selected HPE DL325 Gen10 Plus 16SFF SAS Expander Kit P16946-B21 Notes: This kit includes the SAS Expander and cable to connect to 16 SFF drives SAS expander to enable 16 SFF field upgrade HPE DL325 Gen10 Plus x16 Low Profile PCle Riser Kit P17264-B21 **Notes:** This riser sits into the secondary PCle slot This riser can support only low profile PCle Cards x16 LP Riser Kit and x16 FHHL Riser Kit cannot be selected together. HPE DL325 Gen10 Plus x16 FHHL PCIe Riser Kit P20421-B21 Notes: When HPE DL325 Gen10 Plus FHHL PCle Riser Kit is selected then Slot 2 cannot be used



16 LP Riser Kit and x16 FHHL Riser Kit cannot be selected together.

This riser can support only FHHL PCIe Cards

| HPE DL325 Gen10 Plus Additional Standard Fan Kit   | P20422-B21  |
|--|-------------|
| <b>Notes:</b> This is required if HPE 12W Smart Storage Battery is selected along with single 4LFF or 8SFF drive cage selection.   |             |
| HPE DL325 Gen10 Plus Maximum Performance Fan Kit   | P37110-B21  |
| <b>Notes:</b> This kit is required only if any of the below option is selected along with the default 4LFF/8SFF drive cages without the optional second/third 4LFF/8SFF drive cages: |             |
| <ul> <li>MLX MCX623106AS-CDAT 100GbE 2p QSFP56 Adptr (P25960-B21)</li> </ul>   |             |
| HPE DL325 Gen10 Plus GPU Enablement Kit  | P20424-B21  |
| Notes: This option kit is required to support GPUs   |             |
| HPE DL325 Gen10 Plus OCP Upgrade Cable Kit   | P16976-B21  |
| <b>Notes:</b> This is required to be ordered with selected OCP3 cards to expand the bandwidth to x16   |             |
| 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  |
| Notes: This cable kit must be selected if Optical Drive or M.2 drives are selected on the 4LFF CTO Model   |             |
| HPE Mobile USB DVD-RW Optical Drive  | 701498-B21  |
| HPE DL325 Gen10 Plus 8SFF Optical Disk Drive SATA/M.2 Enablement Kit   | P20423-B21  |
| THE DESESS OCTION TO SOUTH OPTICAL DISK DITTE SATE AND CHICKLETT AT  | 1 20423 021 |
| Notes:   | 1 20423 BZI |
| ·  |             |

Optical drives cannot be selected with 2 SFF SAS/SATA enablement kit (P20417-B21) or 2SFF UFF enablement kit

HPE 300GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD

### **HPE Drives**

(P15540-B21)

### **Enterprise - 12G SAS - SFF Drives**

| =   |               |
|---|---------------|
| HPE 300GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD         | 872475-B21    |
| HPE 600GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD         | 870757-B21    |
| HPE 600GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD         | 872477-B21    |
| HPE 900GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD         | 870759-B21    |
| HPE 1.2TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD         | 872479-B21    |
| HPE 1.8TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty 512e Digitally Signed Firmware HDD    | 872481-B21    |
| HPE 2.4TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty 512e Digitally Signed Firmware HDD    | 881457-B21    |
| 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    |
| 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 HDD        | 834031-B21    |
| HPE 10TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty Helium 512e Digitally Signed Firmware HD | D P09149-B21  |
| HPE 12TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty Helium 512e Digitally Signed Firmware HD | DD 881781-B21 |
| HPE 14TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty Helium 512e Digitally Signed Firmware HD | D P09155-B21  |
| HPE 16TB SAS 12G Business Critical 7.2K LFF (3.5in) LP 1yr Wty 512e ISE HDD                   | P23608-B21    |
| Midline - 6G SATA - SFF Drives  |               |
| HPE 1TB SATA 6G Midline 7.2K SFF (2.5in) SC 1yr Wty Digitally Signed Firmware HDD             | 655710-B21    |
|   |               |

870753-B21

| HPE 2TB SATA 6G Midline 7.2K SFF (2.5in) SC 1yr Wty 512e Digitally Signed Firmware HDD         | 765455-B21 |
|--|------------|
| Midline - 6G SATA - LFF Drives   |            |
| 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) 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 Wty 512e HDD                                   | 861742-B21 |
| HPE 8TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty 512e Digitally Signed Firmware HDD         | 834028-B21 |
| HPE 10TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty Helium 512e Digitally Signed Firmware HDD | P09161-B21 |
| HPE 12TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty Helium 512e Digitally Signed Firmware HDD | 881787-B21 |
| HPE 14TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty Helium 512e Digitally Signed Firmware HDD | P09165-B21 |
| HPE 16TB SATA 6G Business Critical 7.2K LFF (3.5in) LP 1yr Wty 512e ISE HDD                    | P23449-B21 |
|  |            |

### **SSD Selection**

To streamline the configuration process for HPE ProLiant Gen10 Plus servers and to provide the best product availability, HPE recommends SSDs from the list located here: <a href="http://www.hpe.com/products/recommend">http://www.hpe.com/products/recommend</a>.

| Read I | ntensive - | 12G SAS - | SFF - Solid | State Drives |
|--------|------------|-----------|-------------|--------------|
|        |            |           |             |              |

| 11000 1100 1 |                            |
|---|----------------------------|
| HPE 960GB SAS 12G Read Intensive SFF SC PM5 SSD   | P04517-B21                 |
| HPE 960GB SAS 12G Read Intensive SFF SC PM1643a SSD   | P19903-B21                 |
| HPE 960GB SAS 12G Read Intensive SFF SC SS540 SSD   | P21139-B21                 |
| HPE 1.92TB SAS 12G Read Intensive SFF SC PM5 SSD  | P04519-B21                 |
| HPE 1.92TB SAS 12G Read Intensive SFF SC PM1643a SSD  | P19905-B21                 |
| Notes: Not supported with two 8SFF drive cages with Megacell battery of   | or three 8 SFF drive cages |
| HPE 1.92TB SAS 12G Read Intensive SFF SC SS540 SSD  | P21141-B21                 |
| HPE 3.84TB SAS 12G Read Intensive SFF SC PM5 SSD  | P04521-B21                 |
| HPE 3.84TB SAS 12G Read Intensive SFF SC PM1643a SSD  | P19907-B21                 |
| Notes: Not supported with two 8SFF drive cages with Megacell battery of   | or three 8 SFF drive cages |
| HPE 3.84TB SAS 12G Read Intensive SFF SC SS540 SSD  | P21143-B21                 |
| HPE 7.68TB SAS 12G Read Intensive SFF SC PM5 SSD  | P04523-B21                 |
| HPE 7.68TB SAS 12G Read Intensive SFF SC PM1643a SSD  | P19909-B21                 |
| Notes: Not supported with two 8SFF drive cages with Megacell battery of   | or three 8 SFF drive cages |
| HPE 7.68TB SAS 12G Read Intensive SFF SC SS540 SSD  | P21145-B21                 |
| HPE 15.36TB SAS 12G Read Intensive SFF SC PM1643a SSD   | P19911-B21                 |
| Notes: Not supported with two 8SFF drive cages with Megacell battery of   | or three 8 SFF drive cages |
| HPE 15.3TB SAS 12G Read Intensive SFF SC SS540 SSD  | P21147-B21                 |
| Mixed Use - 12G SAS - SFF - Solid State Drives  |                            |
| HPE 400GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed F   | Firmware SSD P04525-B21    |
| HPE 800GB SAS 12G Mixed Use SFF SC PM5 SSD  | P04527-B21                 |
| HPE 800GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed F   | Firmware SSD P09090-B21    |
| HPE 800GB SAS 12G Mixed Use SFF SC PM1645a SSD  | P19913-B21                 |
| HPE 800GB SAS 12G Mixed Use SFF SC SS540 SSD  | P21131-B21                 |
| HPE 1.6TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Fi  | rmware SSD P09092-B21      |
| HPE 1.6TB SAS 12G Mixed Use SFF SC PM5 SSD  | P04533-B21                 |
| HPE 1.6TB SAS 12G Mixed Use SFF SC PM1645a SSD  | P19915-B21                 |
| Notes: Not supported with two 8SFF drive cages with Megacell battery of   | or three 8 SFF drive cages |
| HPE 1.6TB SAS 12G Mixed Use SFF SC SS540 SSD  | P21133-B21                 |
| HPE 3.2TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Fi  |                            |
| HPE 3.2TB SAS 12G Mixed Use SFF SC PM5 SSD  | P04537-B21                 |
| HPE 3.2TB SAS 12G Mixed Use SFF SC PM1645a SSD  | P19917-B21                 |
| HPE 3.2TB SAS 12G Mixed Use SFF SC SS540 SSD  | P21135-B21                 |
|   |                            |

| HPE 6.4TB SAS 12G Mixed Use SFF SC PM5 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 SC PM1645a SSD   | P19919-B21 |
| HPE 6.4TB SAS 12G Mixed Use SFF SC SS540 SSD   | P21137-B21 |
| Write Intensive - 12G SAS - SFF - Solid State Drives   |            |
| HPE 400GB SAS 12G Write Intensive SFF SC PM5 SSD   | P04541-B21 |
| HPE 400GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD                 | P09098-B21 |
| HPE 400GB SAS 12G Write Intensive SFF SC SS540 SSD   | P21125-B21 |
| HPE 800GB SAS 12G Write Intensive SFF SC PM5 SSD   | P04543-B21 |
| HPE 800GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD                 | P09100-B21 |
| HPE 800GB SAS 12G Write Intensive SFF SC SS540 SSD   | P21127-B21 |
| HPE 1.6TB SAS 12G Write Intensive SFF SC PM5 SSD   | P04545-B21 |
| HPE 1.6TB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD                 | P09102-B21 |
| HPE 1.6TB SAS 12G Write Intensive SFF SC SS540 SSD   | P21129-B21 |
| Mixed Use - 12G SAS - LFF - Solid State Drives   |            |
| HPE 1.6TB SAS 12G Mixed Use LFF LPC PM5 SSD  | P04535-B21 |
| Mixed Use - 12G Value SAS - LFF - Solid State Drives   |            |
| HPE 960GB SAS 12G Mixed Use LFF LPC Value SAS RM5 SSD  | P10452-B21 |
| Read Intensive - 12G Value SAS - SFF - Solid State Drives  |            |
| HPE 960GB SAS 12G Read Intensive SFF SC Value SAS RM5 SSD  | P10440-B21 |
| HPE 1.92TB SAS 12G Read Intensive SFF SC Value SAS RM5 SSD   | P10442-B21 |
| <b>Notes:</b> Not supported with two 8SFF drive cages with Megacell battery or three 8 SFF drive cages |            |
| HPE 3.84TB SAS 12G Read Intensive SFF SC Value SAS RM5 SSD   | P10444-B21 |
| <b>Notes:</b> Not supported with two 8SFF drive cages with Megacell battery or three 8 SFF drive cages |            |
| HPE 7.68TB SAS 12G Read Intensive SFF SC Value SAS RM5 SSD   | P10446-B21 |
| Notes: Not supported with two 8SFF drive cages with Megacell battery or three 8 SFF drive cages        |            |
| Mixed Use - 12G Value SAS - SFF - Solid State Drives   |            |
| HPE 960GB SAS 12G Mixed Use SFF SC Value SAS RM5 SSD   | P10448-B21 |
| <b>Notes:</b> Not supported with two 8SFF drive cages with Megacell battery or three 8 SFF drive cages |            |
| HPE 1.92TB SAS 12G Mixed Use SFF SC Value SAS RM5 SSD  | P10454-B21 |
| HPE 3.84TB SAS 12G Mixed Use SFF SC Value SAS RM5 SSD  | P10460-B21 |
| Read Intensive - 6G SATA - SFF - Solid State Drives  |            |
| HPE 240GB SATA 6G Read Intensive SFF SC S4510 SSD  | P05924-B21 |
| HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor SSD                               | P18420-B21 |
| HPE 480GB SATA 6G Read Intensive SFF SC S4510 SSD  | P05928-B21 |
| HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor SSD                               | P18422-B21 |
| HPE 480GB SATA 6G Read Intensive SFF SC SE4011 SSD   | P06194-B21 |
| HPE 960GB SATA 6G Read Intensive SFF SC PM883 SSD  | P04564-B21 |
| HPE 960GB SATA 6G Read Intensive SFF SC SE4011 SSD   | P06196-B21 |
| HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD                  | P04476-B21 |
| HPE 960GB SATA 6G Read Intensive SFF SC S4510 SSD  | P05932-B21 |
| 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 SC SE4011 SSD  | P06198-B21 |
| HPE 1.92TB SATA 6G Read Intensive SFF SC S4510 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 SC SE4011 SSD  | P06200-B21 |
| HPE 3.84TB SATA 6G Read Intensive SFF SC PM883 SSD   | P04570-B21 |
| HPE 3.84TB SATA 6G Read Intensive SFF SC S4510 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 Multi Vendor                                  | P18430-B21 |
| HPE 240GB SATA 6G Read Intensive SFF SC 5300P SSD  | P19935-B21 |
| HPE 480GB SATA 6G Read Intensive SFF SC 5300P SSD  | P19937-B21 |
| HPE 960GB SATA 6G Read Intensive SFF SC 5300P SSD  | P19939-B21 |
| HPE 1.92TB SATA 6G Read Intensive SFF SC 5300P SSD   | P19941-B21 |
| HPE 3.84TB SATA 6G Read Intensive SFF SC 5300P SSD   | P19943-B21 |
| HPE 7.68TB SATA 6G Read Intensive SFF SC 5300P SSD   | P19945-B21 |
| Mixed Use - 6G SATA - SFF - Solid State Drives   |            |
| HPE 480GB SATA 6G Mixed Use SFF SC S4610 SSD   | P05976-B21 |
| HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Multi Vendor SSD                                    | P18432-B21 |
| HPE 480GB SATA 6G Mixed Use SFF SC SE5031 SSD  | P13658-B21 |
| HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD                       | P07922-B21 |
| HPE 960GB SATA 6G Mixed Use SFF SC S4610 SSD   | P05980-B21 |
| <b>Notes:</b> Not supported with two 8SFF drive cages with Megacell battery or three 8 SFF drive cages |            |
| HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Multi Vendor SSD                                    | P18434-B21 |
| <b>Notes:</b> Not supported with two 8SFF drive cages with Megacell battery or three 8 SFF drive cages |            |
| HPE 960GB SATA 6G Mixed Use SFF SC SE5031 SSD  | P13660-B21 |
| Notes: Not supported with two 8SFF drive cages with Megacell battery or three 8 SFF drive cages        |            |
| HPE 1.92TB SATA 6G Mixed Use SFF SC S4610 SSD  | P05986-B21 |
| Notes: Not supported with two 8SFF drive cages with Megacell battery or three 8 SFF drive cages        |            |
| HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Multi Vendor SSD                                   | P18436-B21 |
| Notes: Not supported with two 8SFF drive cages with Megacell battery or three 8 SFF drive cages        |            |
| HPE 1.92TB SATA 6G Mixed Use SFF SC SE5031 SSD   | P13662-B21 |
| Notes: Not supported with two 8SFF drive cages with Megacell battery or three 8 SFF drive cages        |            |
| HPE 3.84TB SATA 6G Mixed Use SFF SC S4610 SSD  | P05994-B21 |
| 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 RW SE5031 SSD   | P13664-B21 |
| HPE 3.84TB SATA 6G Mixed Use SFF SC SM883 SSD  | P21517-B21 |
| HPE 480GB SATA 6G Mixed Use SFF SC 5300M SSD   | P19947-B21 |
| HPE 960GB SATA 6G Mixed Use SFF SC 5300M SSD   | P19949-B21 |
| HPE 1.92TB SATA 6G Mixed Use SFF SC 5300M SSD  | P19951-B21 |
| HPE 3.84TB SATA 6G Mixed Use SFF SC 5300M SSD  | P19953-B21 |
| Read Intensive - 6G SATA - LFF - Solid State Drives  |            |
| HPE 480GB SATA 6G Read Intensive LFF LPC 5300P SSD   | P19974-B21 |
| Mixed Use - 6G SATA - LFF - Solid State Drives   |            |
| HPE 960GB SATA 6G Mixed Use LFF LPC 5300M SSD  | P19980-B21 |
| VRO - 6G SATA - SFF - Solid State Drives   |            |
| HPE 1.92TB SATA 6G Very Read Optimized SFF SC 5210 SSD   | P23487-B21 |
| HPE 3.84TB SATA 6G Very Read Optimized SFF SC 5210 SSD   | P23489-B21 |
| HPE 7.68TB SATA 6G Very Read Optimized SFF SC 5210 SSD   | P23493-B21 |
| VRO - 6G SATA - LFF - Solid State Drives   |            |
| HPE 3.84TB SATA 6G Very Read Optimized LFF LPC 5210 SSD  | P23491-B21 |
| HPE 7.68TB SATA 6G Very Read Optimized LFF LPC 5210 SSD  | P23495-B21 |
|  |            |

### **NVMe Solid State Drives**

**Notes:** 



 For two NVMe drive cage population, the allowed ambient temperature can be upto 30C, in the event when Megacell battery (P20422-B21) is not selected

# **Universal Connect SSD (U.3 SSDs)**

| Read Intensive - NVMe - SFF - Solid State Drives   |            |
|--|------------|
| HPE 960GB NVMe Gen4 High Performance Read Intensive SFF SC U.3 CM6 SSD   | P20005-B21 |
| HPE 960GB NVMe Gen4 High Performance Read Intensive SFF SC U.3 PM1733 SSD  | P26538-B21 |
| HPE 1.92TB NVMe Gen4 High Performance Read Intensive SFF SC U.3 CM6 SSD  | P20007-B21 |
| Notes:   |            |
| - Cannot be selected in a two NVMe drive cage population when Megacell battery (P20422-B21) is selected.                   |            |
| <ul> <li>Cannot be selected in a three NVMe drive cage population for ambient temperatures above 25C</li> </ul>            |            |
| HPE 1.92TB NVMe Gen4 High Performance Read Intensive SFF SC U.3 PM1733 SSD   | P16501-B21 |
| HPE 3.84TB NVMe Gen4 High Performance Read Intensive SFF SC U.3 CM6 SSD  | P20009-B21 |
| Notes: Can only be selected in a single drive cage. Maximum 8 of these drives can be supported.                            |            |
| HPE 3.84TB NVMe Gen4 High Performance Read Intensive SFF SC U.3 PM1733 SSD   | P16503-B21 |
| Notes:   |            |
| - Cannot be selected in a two NVMe drive cage population when Megacell battery (P20422-B21) is selected.                   |            |
| <ul> <li>Cannot be selected in a three NVMe drive cage population for ambient temperatures above 25C</li> </ul>            |            |
| HPE 7.68TB NVMe Gen4 High Performance Read Intensive SFF SC U.3 CM6 SSD  | P20011-B21 |
| Notes: Can only be selected in a single drive cage. Maximum 8 of these drives can be supported.                            |            |
| HPE 7.68TB NVMe Gen4 High Performance Read Intensive SFF SC U.3 PM1733 SSD   | P26104-B21 |
| Notes:   |            |
| - Cannot be selected in a two NVMe drive cage population when Megacell battery (P20422-B21) is selected.                   |            |
| <ul> <li>Cannot be selected in a three NVMe drive cage population for ambient temperatures above 25C</li> </ul>            |            |
| HPE 15.36TB NVMe Gen4 High Performance Read Intensive SFF SC U.3 PM1733 SSD  | P26109-B21 |
| Notes:   |            |
| - Cannot be selected in a two NVMe drive cage population when Megacell battery (P20422-B21) is selected.                   |            |
| <ul> <li>Cannot be selected in a three NVMe drive cage population for ambient temperatures above 25C</li> </ul>            |            |
| HPE 960GB NVMe Gen4 Mainstream Performance Read Intensive SFF SC U.3 CD6 SSD   | P25939-B21 |
| HPE 960GB NVMe Gen4 Mainstream Performance Read Intensive SFF SC U.3 PE8010 SSD  | P19807-B21 |
| HPE 1.92TB NVMe Gen4 Mainstream Performance Read Intensive SFF SC U.3 CD6 SSD  | P20131-B21 |
| HPE 1.92TB NVMe Gen4 Mainstream Performance Read Intensive SFF SC U.3 PE8010 SSD   | P19811-B21 |
| HPE 3.84TB NVMe Gen4 Mainstream Performance Read Intensive SFF SC U.3 CD6 SSD  | P20133-B21 |
| HPE 3.84TB NVMe Gen4 Mainstream Performance Read Intensive SFF SC U.3 PE8010 SSD   | P19815-B21 |
| Notes:   |            |
| <ul> <li>Cannot be selected in a two NVMe drive cage population when Megacell battery (P20422-B21) is selected.</li> </ul> |            |
| <ul> <li>Cannot be selected in a three NVMe drive cage population for ambient temperatures above 25C</li> </ul>            |            |
| HPE 7.68TB NVMe Gen4 Mainstream Performance Read Intensive SFF SC U.3 CD6 SSD  | P20135-B21 |
| HPE 7.68TB NVMe Gen4 Mainstream Performance Read Intensive SFF SC U.3 PE8010 SSD   | P19819-B21 |
| <b>Notes:</b> Can only be selected in a single drive cage. Maximum 8 of these drives can be supported.                     |            |
| HPE 15.36TB NVMe Gen4 Mainstream Performance Read Intensive SFF SC U.3 CD6 SSD   | P20137-B21 |
|  |            |

Notes: Can only be selected in a single drive cage. Maximum 8 of these drives can be supported.



| Mixed Use - NVMe - SFF - Solid State Drives   |                          |
|---|--------------------------|
| HPE 800GB NVMe Gen4 High Performance Mixed Use SFF SC U.3 CM6 SSD   | P20084-B21               |
| Notes:  |                          |
| <ul> <li>Cannot be selected in a two NVMe drive cage population when Megacell battery (P20422-B21) is selected.</li> </ul>                        |                          |
| <ul> <li>Cannot be selected in a three NVMe drive cage population for ambient temperatures above 25C</li> </ul>                                   |                          |
| HPE 800GB NVMe Gen4 High Performance Mixed Use SFF SC U.3 PM1735 SSD  | P26543-B21               |
| HPE 1.6TB NVMe Gen4 High Performance Mixed Use SFF SC U.3 CM6 SSD   | P20086-B21               |
| Notes:  |                          |
| - Cannot be selected in a two NVMe drive cage population when Megacell battery (P20422-B21) is selected.  |                          |
| <ul> <li>Cannot be selected in a three NVMe drive cage population for ambient temperatures above 25C</li> </ul>                                   |                          |
| HPE 1.6TB NVMe Gen4 High Performance Mixed Use SFF SC U.3 PM1735 SSD  | P16497-B21               |
| HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF SC U.3 CM6 SSD   | P20088-B21               |
| <b>Notes:</b> Can only be selected in a single drive cage. Maximum 8 of these drives can be supported.  |                          |
| HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF SC U.3 PM1735 SSD  | P16499-B21               |
| Notes:  |                          |
| - Cannot be selected in a two NVMe drive cage population when Megacell battery (P20422-B21) is selected.  |                          |
| <ul> <li>Cannot be selected in a three NVMe drive cage population for ambient temperatures above 25C</li> </ul>                                   |                          |
| HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF SC U.3 PM1735 SSD  | P26124-B21               |
| Notes:  |                          |
| - Cannot be selected in a two NVMe drive cage population when Megacell battery (P20422-B21) is selected.  |                          |
| <ul> <li>Cannot be selected in a three NVMe drive cage population for ambient temperatures above 25C</li> </ul>                                   |                          |
| HPE 800GB NVMe Gen4 Mainstream Performance Mixed Use SFF SC U.3 CD6 SSD   | P25948-B21               |
| HPE 800GB NVMe Gen4 Mainstream Performance Mixed Use SFF SC U.3 PE8030 SSD  | P19823-B21               |
| HPE 1.6TB NVMe Gen4 Mainstream Performance Mixed Use SFF SC U.3 CD6 SSD   | P20195-B21               |
| HPE 1.6TB NVMe Gen4 Mainstream Performance Mixed Use SFF SC U.3 PE8030 SSD  | P19827-B21               |
| HPE 3.2TB NVMe Gen4 Mainstream Performance Mixed Use SFF SC U.3 CD6 SSD   | P20197-B21               |
| HPE 3.2TB NVMe Gen4 Mainstream Performance Mixed Use SFF SCN U.3 PE8030 SSD   | P19831-B21               |
| Notes:  |                          |
| <ul> <li>Cannot be selected in a two NVMe drive cage population when Megacell battery (P20422-B21) is selected.</li> </ul>                        |                          |
| <ul> <li>Cannot be selected in a three NVMe drive cage population for ambient temperatures above 25C</li> </ul>                                   |                          |
| HPE 6.4TB NVMe Gen4 Mainstream Performance Mixed Use SFF SC U.3 CD6 SSD   | P20199-B21               |
| HPE 6.4TB NVMe Gen4 Mainstream Performance Mixed Use SFF SC U.3 PE8030 SSD  | P19835-B21               |
| <b>Notes:</b> Can only be selected in a single drive cage. Maximum 8 of these drives can be supported.  |                          |
| HPE 12.8TB NVMe Gen4 Mainstream Performance Mixed Use SFF SC U.3 CD6 SSD  | P20201-B21               |
| <b>Notes:</b> Can only be selected in a single drive cage. Maximum 8 of these drives can be supported.  |                          |
| U.2 NVMe SSDs   |                          |
| Read Intensive - NVMe - SFF - Solid State Drives  |                          |
| HPE 960GB NVMe Gen3 Mainstream Performance Read Intensive SFF SCN U.2 PE6011 SSD  | D17474 D21               |
| HPE 1.92TB NVMe Gen3 Mainstream Performance Read Intensive SFF SCN U.2 PE6011 SSD   | P13676-B21<br>P13678-B21 |
| HPE 2TB NVMe Gen3 High Performance Read Intensive SFF SCN U.2 P4510 SSD   | P13695-B21               |
| HPE 3.84TB NVMe Gen3 Mainstream Performance Read Intensive SFF SCN U.2 PE6011 SSD   | P13680-B21               |
| HPE 4TB NVMe Gen3 High Performance Read Intensive SFF SCN U.2 PE0011 SSD  HPE 4TB NVMe Gen3 High Performance Read Intensive SFF SCN U.2 P4510 SSD | P13680-B21<br>P13697-B21 |
|   | 1- TOOA / -DZT           |
| <b>Notes:</b> Cannot be selected in a two NVMe drive cage population when Megacell battery (P20422-B21) is selected.                              |                          |
| HPE 7.68TB NVMe Gen3 Mainstream Performance Read Intensive SFF SCN U.2 PE6011 SSD   | P13682-B21               |
| Notes: Cannot be selected in a two NVMe drive cage population when Megacell battery (P20422-B21) is   | 1 10002 021              |
| selected.   |                          |
| Science.  |                          |

| Mixed Use - NVMe - SFF - Solid State Drives  |            |
|--|------------|
| HPE 800GB NVMe Gen3 Mainstream Performance Mixed Use SFF SCN U.2 PE6031 SSD  | P13668-B21 |
| HPE 1.6TB NVMe Gen3 Mainstream Performance Mixed Use SFF SCN U.2 PE6031 SSD  | P13670-B21 |
| HPE 1.6TB NVMe Gen3 High Performance Mixed Use SFF SCN U.2 P4610 SSD   | P13699-B21 |
| <b>Notes:</b> Cannot be selected in a two NVMe drive cage population when Megacell battery (P20422-B21) is selected.                 |            |
| HPE 3.2TB NVMe Gen3 Mainstream Performance Mixed Use SFF SCN U.2 PE6031 SSD  | P13672-B21 |
| HPE 3.2TB NVMe Gen3 High Performance Mixed Use SFF SCN U.2 P4610 SSD   | P13701-B21 |
| <b>Notes:</b> Cannot be selected in a two NVMe drive cage population when Megacell battery (P20422-B21) is selected.                 |            |
| HPE 6.4TB NVMe Gen3 Mainstream Performance Mixed Use SFF SCN U.2 PE6031 SSD  | P13674-B21 |
| <b>Notes:</b> Cannot be selected in a two NVMe drive cage population when Megacell battery (P20422-B21) is selected                  |            |
| HPE 6.4TB NVMe Gen3 High Performance Mixed Use SFF SCN U.2 P4610 SSD   | P13703-B21 |
| <b>Notes:</b> Cannot be selected in a two NVMe drive cage population when Megacell battery (P20422-B21) is selected                  |            |
| Write Intensive - NVMe - SFF - Solid State Drives  |            |
| HPE 375GB NVMe Gen3 High Performance Low Latency Write Intensive SFF SCN U.2 P4800X SSD  | 878014-B21 |
| Notes:   |            |
| <ul> <li>Can be selected only with single drive cage</li> </ul>  |            |
| <ul> <li>Cannot select more than 8 of these drives in a configuration</li> </ul>   |            |
| HPE 750GB NVMe Gen3 High Performance Low Latency Write Intensive SFF SCN U.2 P4800X SSD  | P06952-B21 |
| <b>Notes:</b> Cannot be selected in a two NVMe drive cage population when Megacell battery (P20422-B21) is selected                  |            |
| Internal Dual M.2 Kit  |            |
| HPE Universal SATA 6G AIC HHHL M.2 SSD Enablement Kit  | 878783-B21 |
| Notes:   |            |
| <ul> <li>The Universal SATA M.2 Kit above will require a PCIe slot and support up to two of the same M.2 cards<br/>below.</li> </ul> |            |
| <ul> <li>M.2 kit can only be populated in Slot 1 with 24SFF U.3 CTO.</li> </ul>  |            |
| <ul> <li>This kit cannot be selected along with 2SFF UFF Enablement Kit (P15540-B21)</li> </ul>                                      |            |
| Read Intensive - M.2 - Solid State Drives  |            |
| HPE 240GB SATA 6G Read Intensive M.2 2280 5300B SSD  | P19888-B21 |
| HPE 480GB SATA 6G Read Intensive M.2 2280 5300P SSD  | P19890-B21 |
| HPE 960GB SATA 6G Read Intensive M.2 2280 5300P SSD  | P19892-B21 |
| HPE Dual 240GB SATA 6G Read Intensive M.2 to SFF SCM 5300B SSD Kit   | P19894-B21 |
| HPE Dual 480GB SATA 6G Read Intensive M.2 to SFF SCM 5300P SSD Kit   | P19896-B21 |
| Mixed Use - M.2 - Solid State Drives   |            |
| Notes: M.2 drives above will require Universal SATA M.2 Kit (878783-B21)   |            |

### **HPE Smart IO**

### **Requirements:**

- One 3yr/4yr/5yr Silver or 3yr/4yr/5yr Platinum license must be purchased for every DSC-25 card in a server.
- 1yr Silver, 1yr Platinum, and 1yr Policy and Services Manager (PSM) licenses are reserved for renewals only.
- One Policy and Services Manager (PSM) license is required to manage up to 3,000 DSC-25 cards.

| Pensando Distributed Services Card (                          | DSC)  |                          |
|---|---|--------------------------|
| Pensando Distributed Services Platform DS                     | C-25 10/25Gb 2-port SFP28 Card                                  | P26966-B21               |
| Notes: Each card instance requires one RT                     | U license of Silver or Platinum software. In                    | case of more than one    |
| adapter, RTU licenses doesn't need to be o                    | of the same part number.  |                          |
| Pensando DSP Silver Software Licens                           | es  |                          |
| Pensando Distributed Services Platform Silv                   | ver 1yr Subscription 24x7 Support E-RTU                         | R6A06AAE                 |
| Pensando Distributed Services Platform Silv                   |   | R6A07AAE                 |
| Pensando Distributed Services Platform Silv                   |   | R6F68AAE                 |
| Pensando Distributed Services Platform Silv                   |   | R6A08AAE                 |
| Pensando DSP Platinum Software Lic                            | enses   |                          |
| Pensando Distributed Services Platform Pla                    | tinum 1yr Renewal Subscription 24x7 Supp                        | ort E-RTU R6A09AAE       |
|   | tinum 3yr Subscription 24x7 Support E-RTU                       |                          |
|   | tinum 4yr Subscription 24x7 Support E-RT                        |                          |
| Pensando Distributed Services Platform Pla                    | tinum 5yr Subscription 24x7 Support E-RTI                       | J R6A11AAE               |
|   |   |                          |
| HPE Networking  |   |                          |
| 1 Gigabit Ethernet adapters                                   |   |                          |
| Intel I350-T4 Ethernet 1Gb 4-port BASE-T                      | Adapter for HPE   | P21106-B21               |
| Notes:  |   |                          |
| <ul> <li>This option can be populated only in S</li> </ul>    |   |                          |
| <ul> <li>If QTY=2, FHHL secondary riser kit wi</li> </ul>     | II be required  |                          |
| 10 Gigabit Ethernet adapters                                  |   |                          |
| Marvell QL41132HLRJ Ethernet 10Gb 2-p                         | •   | P08437-B21<br>P21933-B21 |
| Marvell QL41132HLCU Ethernet 10Gb 2-port SFP+ Adapter for HPE |   |                          |
| Marvell QL41134HLCU Ethernet 10Gb 4-port SFP+ Adapter for HPE |   |                          |
| Intel X710-DA2 Ethernet 10Gb 2-port SFP+ Adapter for HPE      |   |                          |
| Notes:  |   |                          |
| <ul> <li>This option can be populated only in S</li> </ul>    |   |                          |
| <ul> <li>If QTY=2, FHHL secondary riser kit wi</li> </ul>     |   |                          |
| Broadcom BCM57416 Ethernet 10Gb 2-pc                          | •   | P26253-B21               |
| Broadcom BCM57412 Ethernet 10Gb 2-pc                          | ort SFP+ Adapter for HPE  | P26259-B21               |
| 10/25 Gigabit Ethernet adapters                               |   |                          |
| Mellanox MCX512F-ACHT Ethernet 10/25                          |   | P13188-B21               |
| Xilinx X2522-25G-PLUS Ethernet 10/25Gb                        | ·   | P21109-B21               |
| Marvell QL41232HLCU Ethernet 10/25Gb                          | ·   | P22702-B21               |
| Xilinx X2522-25G Ethernet 10/25Gb 2-poi                       |   | P24437-B21<br>P26262-B21 |
|   | Broadcom BCM57414 Ethernet 10/25Gb 2-port SFP28 Adapter for HPE |                          |
| 100 Gigabit Ethernet adapters                                 |   |                          |
| HPE Ethernet 100Gb 1-port QSFP28 PCIes                        | 3 x16 MCX515A-CCAT Adapter                                      | P31246-B21               |
| Notes:  |   |                          |
| This option can be populated only in S                        | Slot 1 or Slot 2  |                          |
| <ul> <li>Need high performance fan kit</li> </ul>             |   |                          |
| <ul> <li>Server ambient support temperature I</li> </ul>      |   | Clast7                   |
| Slot1   | Slot2   | Slot3                    |
| 30C   | 25C   | no support               |



HPE Ethernet 100Gb 2-port QSFP28 MCX516A-CCHT Adapter

#### **Notes:**

- Thermal limitation for this adapter:- Slot1 35C; Slot2- 25C and Slot3 Not supported
- A minimum of two Gigabytes (2 GB) of server memory is required per each adapter.
- 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**

| Intel I350-T4 Ethernet 1Gb 4-port BASE-T OCP3 Adapter for HPE   | P08449-B21 |
|---|------------|
| Notes: This adapter is default NIC options for all CTO servers  |            |
| Intel X710-DA2 Ethernet 10Gb 2-port SFP+ OCP3 Adapter for HPE   | P28778-B21 |
| Marvell QL41132HQCU Ethernet 10Gb 2-port SFP+ OCP3 Adapter for HPE  | P08452-B21 |
| Marvell QL41132HQRJ Ethernet 10Gb 2-port BASE-T OCP3 Adapter for HPE  | P10103-B21 |
| Broadcom BCM57416 Ethernet 10Gb 2-port BASE-T OCP3 Adapter for HPE  | P10097-B21 |
| Broadcom BCM57412 Ethernet 10Gb 2-port SFP+ OCP3 Adapter for HPE  | P26256-B21 |
| Marvell QL41232HQCU Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE  | P10118-B21 |
| Mellanox MCX562A-ACAI Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE  | P10112-B21 |
| <b>Notes:</b> This OCP3 adapter will require HPE DL325 Gen10 Plus OCP Upgrade Cable Kit (P16976-B21) to expand the bandwidth to x16 |            |
| Broadcom BCM57414 Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE  | P10115-B21 |
|   |            |

### **HPE InfiniBand**

| HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCle4 x16 MCX653105A-HDAT Adapter    | P23664-B21 |
|--|------------|
| HPE InfiniBand HDR100/Ethernet 100Gb 1-port QSFP56 PCIe4 x16 MCX653105A-ECAT Adapter | P23665-B21 |
| HPE InfiniBand HDR100/Ethernet 100Gb 2-port QSFP56 PCIe4 x16 MCX653106A-ECAT Adapter | P23666-B21 |

**Notes:** For a single drive cage, one HPE DL325 Gen10 Plus Additional Standard Fan Kit (P20422-B21) must be populated for each adaptor.

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

Notes:

 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.

- All power supplies in a server should match. Mixing Power Supplies is not supported.
- Option kits contain the specified power supply and a PDU IEC cable.
- 1600W power supplies only support high line voltage.
- HPE ProLiant servers ship with an IEC-IEC power cord used for rack mounting with Power Distribution Units (PDUs).
   Visit HPE power cords for a full list of optional HPE power cords.

| HPE 500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit   | 865408-B21 |
|---|------------|
| Notes: 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   | 865438-B21 |
| Notes: Flex Slot Titanium power supplies support power efficiency of up to 96% and include a standard C-14          |            |
| power inlet connector.  |            |
| HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit   | 865414-B21 |
| <b>Notes:</b> 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>Notes:</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 |
| <b>Notes:</b> Flex Slot Platinum Plus power supplies support power efficiency of up to 94% and include a C-14 power |            |
| inlet connector that can support HPE Power Discovery Services (blue connector).                                     |            |
| HPE 800W Flex Slot Universal Hot Plug Low Halogen Power Supply Kit  | 865428-B21 |
| <b>Notes:</b> Flex Slot universal power supplies support power efficiency of up to 94% and support both             |            |
| 277VAC/380VDC power inputs.   |            |

### **HPE Computation and Graphics Accelerators**

NVIDIA T4 16GB Computational Accelerator for HPE ROW29C

Notes: HPE DL325 Gen10 Plus GPU Enablement Kit (P20424-B21) is mandatory to use this accelerator

| <b>GPU Information</b> |        |                 |                          |                        |  |  |  |
|------------------------|--------|-----------------|--------------------------|------------------------|--|--|--|
| Card                   | Slot   | Storage Config  | Max Processor<br>Wattage | Ambient<br>Temperature |  |  |  |
| NVIDIA T4              | Slot 1 | 4LFF            | ≤ 240W                   | 30C                    |  |  |  |
|                        |        | 8LFF            |                          |                        |  |  |  |
|                        |        | 12LFF           |                          |                        |  |  |  |
|                        | Slot 3 | 10 SFF SAS/SATA |                          |                        |  |  |  |
|                        |        | 20 SFF SAS/SATA |                          |                        |  |  |  |
|                        |        | 10 SFF NVMe     |                          |                        |  |  |  |
|                        |        |                 | 20SFF NVMe               |                        |  |  |  |
|                        |        | 24SFF NVMe      |                          |                        |  |  |  |
|                        |        | 4LFF            | ≤ 150W                   | 25C                    |  |  |  |
|                        |        | 8LFF            |                          |                        |  |  |  |
|                        |        | 12LFF           |                          |                        |  |  |  |
|                        |        | 10 SFF SAS/SATA |                          |                        |  |  |  |
|                        |        | 20 SFF SAS/SATA |                          |                        |  |  |  |
|                        |        | 24 SFF SAS/SATA |                          |                        |  |  |  |
|                        |        | 10 SFF NVMe     |                          |                        |  |  |  |

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 Converged Infrastructure Management Software**

| 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 |

Notes: Licenses ship without media. The HPE OneView Media Kit can be ordered separately, or can be **downloaded**.

### **HPE PCIe Workload Accelerator Options**

| HPE 750GB NVMe Gen3 x4 High Performance Low Latency Write Intensive AIC HHHL P4800X SSD | 8/8038-B21 |
|---|------------|
| HPE 1.6TB NVMe Gen4 x8 High Performance Mixed Use AIC HHHL PM1735 SSD                   | P26934-B21 |
| HPE 1.6TB NVMe x8 Lanes Mixed Use HHHL 3yr Wty Digitally Signed Firmware Card           | P10264-B21 |
| HPE 3.2TB NVMe Gen4 x8 High Performance Mixed Use AIC HHHL PM1735 SSD                   | P26936-B21 |
| HPE 3.2TB NVMe x8 Lanes Mixed Use HHHL 3yr Wty Digitally Signed Firmware Card           | P10266-B21 |
| HPE 6.4TB NVMe Gen4 x8 High Performance Mixed Use AIC HHHL PM1735 SSD                   | P26938-B21 |
| HPE 6.4TB NVMe x8 Lanes Mixed Use HHHL 3yr Wty Digitally Signed Firmware Card           | P10268-B21 |

| PCIe Workload Accelerator Information |   |                  |        |        |                  |
|---------------------------------------|---|------------------|--------|--------|------------------|
| SKU                                   | Card  | Qty<br>Supported | Slot 1 | Slot 2 | Slot 3           |
| P26934-B21                            | HPE 1.6TB NVMe x8 Lanes Mixed Use HHHL 3yr Wty Digitally Signed Firmware Card       | 3                | 35C    | 30C    | 25C              |
| P26936-B21                            | HPE 3.2TB NVMe x8 Lanes Mixed Use HHHL 3yr Wty Digitally Signed Firmware Card       | 3                | 35C    | 30C    | 25C              |
| P26938-B21                            | HPE 6.4TB NVMe x8 Lanes Mixed Use HHHL 3yr Wty Digitally Signed Firmware Card       | 3                | 35C    | 30C    | 25C              |
| 878038-B21                            | HPE 750GB PCIe x4 Lanes Write Intensive HHHL 3yr Wty Digitally Signed Firmware Card | 2 (Slot1&2)      | 35C    | 25C    | Not<br>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<br>Wty Digitally Signed Firmware Card    | 3                | 35C    | 35C    | 25C              |

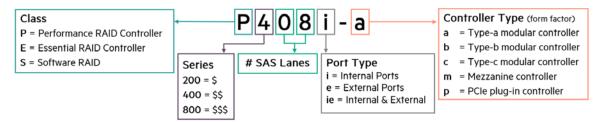
### **HPE Security**

| HPE DL325 Gen10 Plus Bezel Kit                 | P18547-B21 |
|--|------------|
| HPE Bezel Lock Kit                             | 875519-B21 |
| HPE Gen10 TPM 1.2 FIO Setting                  | 872108-B21 |
| HPE Gen10 Plus TPM BR Module Kit               | P13771-B21 |
| HPE Gen10 Plus Chassis Intrusion Detection Kit | P14604-B21 |

Notes: 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.

HPE Smart Array E208e-p SR Gen10 (8 External Lanes/No Cache) 12G SAS PCIe Plug-in Controller

### **HPE Smart Array Controllers**



| Smart Array Controllers  |            |
|--|------------|
| HPE Smart Array Controller Batteries   | 782961-B21 |
| <b>Notes:</b> 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 |
| Notes: Does not occupy a PCle 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 |
| Notes: Does not occupy a PCle 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   |            |



804398-B21

| HPE Smart Array E208i-p SR Gen10 (8 Internal Lanes/No Cache) 12G SAS PCIe Plug-in Controller HPE Smart Array E208i-a SR Gen10 (8 Internal Lanes/No Cache) 12G SAS Modular LH Controller Notes: Does not occupy a PCIe expansion slot. |            |  |  |
|---|------------|--|--|
|   |            |  |  |
| HPE NS204i-p x2 Lanes NVMe PCle3 x8 OS Boot Device  | P12965-B21 |  |  |
| Notes: 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 |  |  |
| <b>Notes:</b> 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 |  |  |
| Notes: 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 |  |  |
| <b>Notes:</b> 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 |  |  |
| <b>Notes:</b> 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 |  |  |
| Notes: 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 |  |  |
| <b>Notes:</b> 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 |  |  |
| Notes:  |            |  |  |
| <ul> <li>This option kit is used with the 2SFF U.3 Enablement Kit to connect to the embedded PCIe controller on<br/>mother board</li> </ul>   |            |  |  |
| <ul> <li>This can used with 2SFF U.3 Enablement Kit on both outer &amp; inner cage</li> </ul>   |            |  |  |
| HPE DL325 Gen10 Plus 2SFF/UFF Outer Drive Cage SATA Cable Kit   | P16965-B21 |  |  |
| <b>Notes:</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   |            |  |  |
| HPE DL325 Gen10 Plus 2SFF/UFF SAS Expander Card Cable Kit   | P15545-B21 |  |  |
| <b>Notes:</b> 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>Notes:</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 |  |  |
| Notes: This option kit is used to enable serial port  |            |  |  |

### **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 SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter | Q0L13A |
|---|--------|
| HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter   | Q0L14A |
| HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter | Q0L11A |
| HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter   | Q0L12A |
| HPE SN1610E 32Gb 1-port Fibre Channel Host Bus Adapter      | R2J62A |
| HPE SN1610E 32Gb 2-port Fibre Channel Host Bus Adapter      | R2J63A |
| QLogic Fibre Channel HBAs                                   |        |
| HPE SN1100Q 16Gb Single Port Fibre Channel Host Bus Adapter | P9D93A |
| HPE SN1100Q 16Gb Dual Port Fibre Channel Host Bus Adapter   | P9D94A |
| HPE SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter | P9M75A |
| HPE SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter   | P9M76A |
| HPE SN1610Q 32Gb 1-port Fibre Channel Host Bus Adapter      | R2E08A |
| HPE SN1610Q 32Gb 2-port Fibre Channel Host Bus Adapter      | R2E09A |
|   |        |

#### **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 <u>HPE Basic Power Distribution Units (PDU) QuickSpecs</u> for information on these products and their specifications. Please see the <u>HPE Metered Power Distribution Units (PDU) QuickSpecs</u> for information on these products and their specifications.

Please see the <u>HPE Intelligent Power Distribution Unit (PDU) QuickSpecs</u> for information on these products and their specifications.

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

### **HPE Uninterruptible Power Systems (UPS)**

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

Please see the <u>HPE DirectFlow Three Phase Uninterruptible Power System QuickSpecs</u> 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.

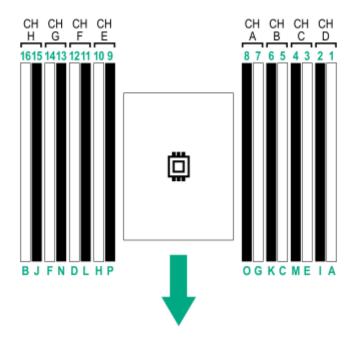
To assist in the installation of the server into the rack an optional installation tool is available by contacting your local services representative (695539-001).

#### **Notes:**

- CTO servers do not ship with rail kits ,they need to be ordered seperately
- 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                                     |
|--|--|
| Notes:Required with generic CTO model (P18606-B21)  HPE DL325 Gen10 Plus 1200mm Easy Install Outer Rail Kit  | P18545-B21                                     |
| Notes: Required 12 LFF, 24 SFF & 24 SFF U.3 Models   | F 10343-DZ1                                    |
| HPE DL325 Gen10 Plus Cable Management Arm  | P18546-B21                                     |
| HPE USB and SD Options   |  |
| HPE Enterprise Mainstream Flash Media Kits for Memory Cards  |  |
| HPE 8GB Dual microSD Flash USB Drive   | 741279-B21                                     |
| HPE 32GB microSD RAID 1 USB Boot Drive   | P21868-B21                                     |
| HPE Support Services   |  |
| Proactive Care   |  |
|  |  |
| HPE 3 Year Proactive Care 24x7 DL325 GEN10 PLUS Service  | HQ2H2E   |
| HPE 3 Year Proactive Care 24x7 DL325 GEN10 PLUS Service HPE 3 Year Proactive Care 24x7 with DMR DL325 GEN10 PLUS Service   | HQ2H2E<br>HQ2H3E                               |
|  |  |
| HPE 3 Year Proactive Care 24x7 with DMR DL325 GEN10 PLUS Service   | HQ2H3E   |
| HPE 3 Year Proactive Care 24x7 with DMR DL325 GEN10 PLUS Service HPE 3 Year Proactive Care 24x7 with CDMR DL325 GEN10 PLUS Service   | HQ2H3E   |
| HPE 3 Year Proactive Care 24x7 with DMR DL325 GEN10 PLUS Service HPE 3 Year Proactive Care 24x7 with CDMR DL325 GEN10 PLUS Service Foundation Care   | HQ2H3E<br>HQ2H4E                               |
| HPE 3 Year Proactive Care 24x7 with DMR DL325 GEN10 PLUS Service HPE 3 Year Proactive Care 24x7 with CDMR DL325 GEN10 PLUS Service  Foundation Care  HPE 3 Year Foundation Care 24x7 DL325 GEN10 PLUS Service  | HQ2H3E<br>HQ2H4E<br>HQ2G7E                     |
| HPE 3 Year Proactive Care 24x7 with DMR DL325 GEN10 PLUS Service HPE 3 Year Proactive Care 24x7 with CDMR DL325 GEN10 PLUS Service  Foundation Care  HPE 3 Year Foundation Care 24x7 DL325 GEN10 PLUS Service HPE 3 Year Foundation Care 24x7 with DMR DL325 GEN10 PLUS Service  | HQ2H3E<br>HQ2H4E<br>HQ2G7E<br>HQ2G9E           |
| HPE 3 Year Proactive Care 24x7 with DMR DL325 GEN10 PLUS Service HPE 3 Year Proactive Care 24x7 with CDMR DL325 GEN10 PLUS Service  Foundation Care HPE 3 Year Foundation Care 24x7 DL325 GEN10 PLUS Service HPE 3 Year Foundation Care 24x7 with DMR DL325 GEN10 PLUS Service HPE 3 Year Foundation Care 24x7 with CDMR DL325 GEN10 PLUS Service                                | HQ2H3E<br>HQ2H4E<br>HQ2G7E<br>HQ2G9E           |
| HPE 3 Year Proactive Care 24x7 with DMR DL325 GEN10 PLUS Service HPE 3 Year Proactive Care 24x7 with CDMR DL325 GEN10 PLUS Service Foundation Care HPE 3 Year Foundation Care 24x7 DL325 GEN10 PLUS Service HPE 3 Year Foundation Care 24x7 with DMR DL325 GEN10 PLUS Service HPE 3 Year Foundation Care 24x7 with CDMR DL325 GEN10 PLUS Service Installation & Startup Services | HQ2H3E<br>HQ2H4E<br>HQ2G7E<br>HQ2G9E<br>HQ2H0E |

### 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: <a href="http://www.hpe.com/docs/amd-speed-table-Gen10Plus">http://www.hpe.com/docs/amd-speed-table-Gen10Plus</a>

**Notes:** 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: <a href="http://www.hpe.com/docs/amd-speed-table-Gen10Plus">http://www.hpe.com/docs/amd-speed-table-Gen10Plus</a>

#### DDR4 memory options part number decoder

Notes: 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)

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**(per power supply)

#### Rated Steady-State Power

- For 1600W Power Supply: 1600W (at 240 VAC), 1600W (at 240 VAC)
- For 800W Power Supply: 800W (at 100 VAC), 800W (at 240 VAC), 800W (at 240 VAC) input for China only
- For 500W Power Supply: 500W (at 100 VAC), 500W (at 240 VAC), 500W (at 240 VAC) input for China only

#### Maximum Peak Power

- For 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

### **Technical Specifications**

### **System Inlet Temperature**

#### • Standard Operating Temperature

 $10^{\circ}$  to  $35^{\circ}$ C ( $50^{\circ}$  to  $95^{\circ}$ F) at sea level with an altitude derating of  $1.0^{\circ}$ C per every 305 m ( $1.8^{\circ}$ 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  $20^{\circ}$ C/hr ( $36^{\circ}$ 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:http://www.hpe.com/servers/ashrae

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

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

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

### Non-operating

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

### **Relative Humidity**(non-condensing)

Operating

8% to 90% - Relative humidity (Rh), 28°C maximum wet bulb temperature, 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).

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

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.

### **Technical Specifications**

#### **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      | 4.8 B Entry 4.4 B Base 4.4 B Perf          |  |
| LpAm      | 36 dBA Entry<br>30 dBA Base<br>30 dBA Perf |  |
| Operating |  |  |
| LWAd      | 4.8 B Entry 4.5 B Base 4.8 B Perf          |  |
| LpAm      | 36 dBA Entry<br>30 dBA Base<br>35 dBA Perf |  |

#### **Notes:**

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

# **Summary of Changes**

| Date        | Version History | Action  | Description of Change  |
|-------------|-----------------|---------|--|
| 09-Nov-2020 | Version 11      | Changed | Standard Features and Core Options sections were updated.  |
| 02-Nov-2020 | Version 10      | Changed | Optional Features and Pre-configured Models sections were updated. Obsolete SKUs were removed.   |
| 05-Oct-2020 | Version 9       | Changed | Overview, Standard Features, Configuration Information and Core Options sections were updated. Obsolete SKUs were removed.                   |
| 03-Aug-2020 | Version 8       | Changed | Core Options and Additional Options sections were updated.   |
| 01-Jun-2020 | Version 7       | Changed | Standard Features, Configuration Information and Core Options sections were updated.   |
| 06-Apr-2020 | Version 6       | Changed | Standard Features, Configuration Information and Core Options sections were updated.   |
| 09-Mar-2020 | Version 5       | Changed | Overview, Service and Support, Pre-configured Models, Configuration Information, Core Options, and Additional Options sections were updated. |
| 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.  |

### Copyright

Make the right purchase decision. Contact our presales specialists.









Get updates



© Copyright 2020 Hewlett Packard Enterprise Development LP. The information contained herein is subject to change without notice. The only warranties for Hewlett Packard Enterprise products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. Hewlett Packard Enterprise shall not be liable for technical or editorial errors or omissions contained herein.

AMD® and EPYC® are registered trademarks of Advanced Micro Devices Corporation in the U.S. and other countries.

Microsoft®, Windows®, and Windows Server® are U.S. registered trademarks of the Microsoft group of companies.

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

a00073548enw - 16496 - Worldwide - V11 - 09-November-2020