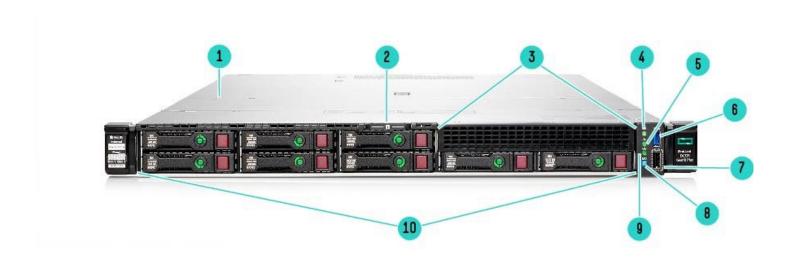
# QuickSpecs

# **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 PCIe Gen4 capabilities. This 1P, 1U server delivers an exceptional balance of processor, memory and I/O for 2P performance at 1P TCO. Get the most out of your virtualized environment with this versatile server.



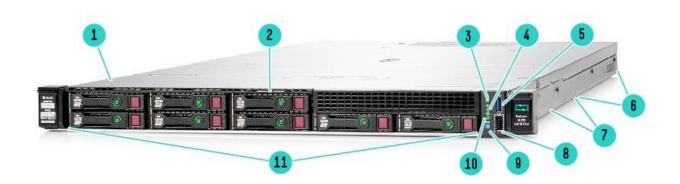
# 8SFF Front View - 8SFF + ODD Shown

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

- \*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

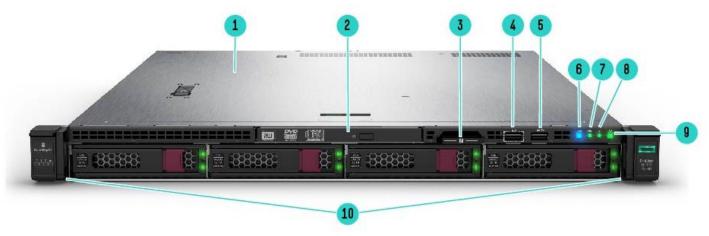
# **Overview**



# 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

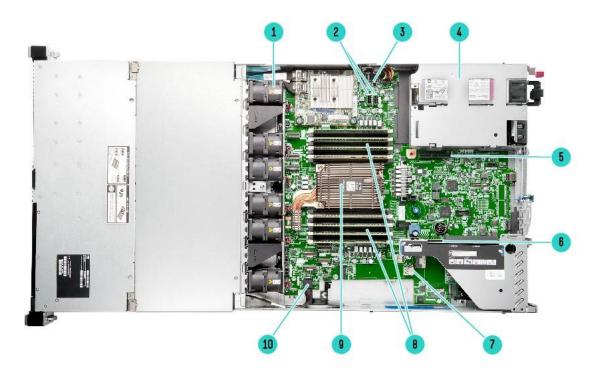


# 4LFF Front View - with Optional ODD shown

- 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

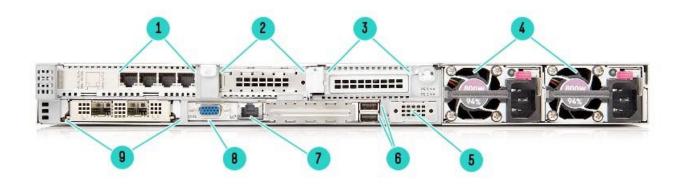
# Overview



# 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 PCle riser slot.

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



# Rear View - With optional OCP shown

- 1. Slot 1 PCle 4.0, (4 port 10 GB Adapter shown)
- 2. Slot 2 PCIe 4.0
- 3 Optional Slot 3 PCle 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

- 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 Frequency	Max Frequency	Max Memory	Wattage	Cache	Memory
EPYC 7742	64	2.25GHz	3.4GHz	4TB	225	256MB	3200MT/s
EPYC 7702P	64	2.0GHz	3.35GHz	4TB	200	256MB	3200MT/s
EPYC 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 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

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

#### **Memory Protection**

#### Advanced ECC

Advanced ECC uses single device data correction to detect and correct single and all multibit error that occurs within a single DRAM chip.

# **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>	Connector Width	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
- Windows Server 2022
- 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

• Ubuntu 20.04 LTS

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

- 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. https://h22174.www2.hpe.com/SimplifiedConfig/Welcome

# Service and Support

# **HPE Pointnext - Service and Support**

**Get the most from your HPE Products.** Get the expertise you need at every step of your IT journey with <u>HPE Pointnext Services</u>. We help you lower your risks and overall costs using automation and methodologies that have been tested and refined by HPE experts through thousands of deployments globally. HPE Pointnext **Advisory Services**, 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

<u>HPE GreenLake</u> brings the cloud experience directly to your apps and data wherever they are—the edge, colocations, or your data center. It delivers cloud services for on-premises IT infrastructure specifically tailored to your most demanding workloads. With a pay-per-use, scalable, point-and-click self-service experience that is managed for you, HPE GreenLake accelerates digital transformation in a distributed, edge-to-cloud world.

- Get faster time to market
- Save on TCO, align costs to business
- Scale quickly, meet unpredictable demand
- Simplify IT operations across your data centers and clouds

# Managed services to run your IT operations

**HPE GreenLake Management Services** provides services that monitor, operate, and optimize your infrastructure and applications, delivered consistently and globally to give you unified control and let you focus on innovation.

# **Recommended Services**

# HPE Pointnext Tech Care.

HPE Pointnext Tech Care is the new operational service experience for HPE products. Tech Care goes beyond traditional support by providing access to product specific experts, an Al driven digital experience, and general technical guidance to not only reduce risk but constantly search for ways to do things better. HPE Pointnext Tech Care has been reimagined from the ground up to support a customer-centric, Al driven, and digitally enabled customer experience to move your business forward. HPE Pointnext Tech Care is available in three response levels. Basic, which provides 9x5 business hour availability and a 2 hour response time. Essential which provides a 15 minute response time 24x7 for most enterprise level customers, and Critical which includes a 6 hour repair commitment where available and outage management response for severity 1 incidents.

#### https://www.hpe.com/services/techcare

#### **HPE Pointnext Complete Care**

HPE Pointnext Complete Care is a modular, edge-to-cloud IT environment service that provides a holistic approach to optimizing your entire IT environment and achieving agreed upon IT outcomes and business goals through a personalized and customercentric experience. All delivered by an assigned team of HPE Pointnext Services experts. HPE Pointnext Complete Care provides:

- A complete coverage approach -- edge to cloud
- An assigned HPE team
- Modular and fully personalized engagement
- Enhanced Incident Management experience with priority access
- Digitally enabled and AI driven customer experience

# https://www.hpe.com/services/completecare

# Service and Support

#### Other related Services

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

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

https://h20195.www2.hpe.com/v2/Getdocument.aspx?docname=5981-9356enw

# **HPE Installation and Startup Service**

Provides for the installation of your HPE hardware according to product specifications including options. The HPE service delivery technician will connect the product to a LAN as appropriate and enable remote support to allow for automatic case creation for hardware failures. Installation and start up services also includes the installation of one supported operating system type (Windows® or Linux).

#### DC for Hyperscale

Complete Care for Hyperscale is available for Service Providers and HPC customers who use a scale out approach to computing with a high volume homogenous infrastructure and resilient architecture can take advantage of this environment support tailored to their operating model.

### **HPE Factory Express for Servers and storage**

HPE Factory Express offers configuration, customization, integration and deployment services for HPE servers and storage products. Customers can choose how their factory solutions are built, tested, integrated, shipped and deployed.

Factory Express offers service packages for simple configuration, racking, installation, complex configuration and design services as well as individual factory services, such as image loading, asset tagging, and custom packaging. HPE products supported through Factory Express include a wide array of servers and storage: HPE Integrity, HPE ProLiant, HPE Apollo, HPE ProLiant Server Blades, HPE BladeSystem, HPE 9000 servers as well as the MSAxxxx3PAR suite, XP, rackable tape libraries and configurable network switches.

#### **HPE Service Credits**

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

#### **HPE Education Services**

Keep your IT staff trained making sure they have the right skills to deliver on your business outcomes. Book on a class today and learn how to get the most from your technology investment. <a href="http://www.hpe.com/ww/learn">http://www.hpe.com/ww/learn</a>

# Service and Support

# **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 HPE experts, access support resources or collaborate with peers. Learn more http://www.hpe.com/support/hpesc.

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

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

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>.

**Notes:** HPE ProLiant DL385 Gen10 Plus Server is covered under the HPE Service Contract applied to the HPE ProLiant Server. No separate HPE support services need to be purchased.

Warranty and Support Services will extend to include HPE options configured with your server or storage device. The price of support service is not impacted by configuration details. HPE sourced options that are compatible with your product will be covered under your server support at the same level of coverage allowing you to upgrade freely. Installation for HPE options is available as needed. To keep support costs low for everyone, some high value options will require additional support. Additional support is only required on select high value workload accelerators, fibre switches, InfiniBand and UPS batteries over 12KVA. See the specific high value options that require additional support **here**.

#### 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 with 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
PCI-Express Slots	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 Gen10 Plus 24SFF CTO Server	HPE ProLiant DL325 Gen10 Plus 24SFF NVMe U.3 CTO Server	HPE ProLiant DL325 Gen10 Plus CTO Server	HPE ProLiant DL325 Gen10 Plus 12LFF CTO Server
SKU Number	P15535-B21	P15735-B21	P18606-B21	P18608-B21
Processor	Not included as standard			
DIMM Slots	16-DIMM slots	16-DIMM slots	16-DIMM slots	16-DIMM slots
Storage Controller	P408i-a + SAS Expander	Not Supported	Choice of HPE modular Smart Array and PCIe plug in controller	P816i-a
PCIe	**Two standard in primary riser	**One standard in primary riser	Two standard in primary riser	Two standard in primary riser
Drive Cage - included	24SFF	24SFF U.3 NVMe	No Drive Cage	12 LFF
<b>Network Controller</b>	Choice of OCP and stand	l 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 + iLO service port Rear: 2 USB 3.1 Gen1 Internal: 1 USB 3.1 Gen1	Front: 1 USB 3.1 Gen1 + iLO service port Rear: 2 USB 3.1 Gen1 Internal: 1 USB 3.1 Gen1	Front: 1 USB 3.1 Gen1 + iLO service port Rear: 2 USB 3.1 Ge 1 Internal: 1 USB 3.1 Gen1	Front: 1 USB 3.1 Gen1 + iLO service port Rear: 2 USB 3.1 Gen1 Internal: 1 USB 3.1 Gen1

- 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
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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 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 P17209-B21

#### **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

- 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.



# **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 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	
HPE DL325 Gen10 Plus 4LFF to 8LFF Low Profile Drive Cage Upgrade Kit	P15504-B21
Notes:	
<ul> <li>Mixing of LFF &amp; SFF drive cages is not allowed</li> </ul>	
<ul> <li>P408i-p and E208i-p controllers cannot be selected with 4LFF Drive cage kits</li> </ul>	
<ul> <li>2SFF SAS SATA/2SFF UFF/2SFF U.3 drive cage cannot be selected with LFF Drive cages</li> </ul>	
<ul> <li>This is used to support additional 4LFF SAS/SATA with CTO Model (P18606-B21)</li> </ul>	
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:	
<ul> <li>This is used to support additional 2SFF SAS/SATA with CTO Model (P18606-B21)</li> </ul>	
This kit cannot be selected with LFF drive cages	
<ul> <li>Optical Drives cannot be selected with this kit.</li> </ul>	
HPE DL325 Gen10 Plus 2SFF U.3 Smart Carrier Enablement Kit	P20418-B21
Notes:	
<ul> <li>This is used to support additional 2SFF U.3 NVMe with CTO Model (P18606-B21) .</li> </ul>	
This kit cannot be selected with LFF drive cages	
HPE DL325 Gen10 Plus 2SFF UFF Smart Carrier Enablement Kit	P15540-B21
Notes:	
<ul> <li>This is used to support additional 2SFF UFF with the CTO Model (P18606-B21)</li> </ul>	
This kit cannot be selected with LFF drive cages	
<ul> <li>This kit cannot be selected along with M.2 Kit (878783-B21) or Optical drives</li> </ul>	
HPE DL325 Gen10 Plus 2SFF U.2 Smart Carrier NVMe Enablement Kit	P17202-B21
Notes:	
<ul> <li>This is used to support additional 2SFF U.2 NVMe with CTO Model (P18606-B21)</li> </ul>	
This kit cannot be selected with LFF drive cages	
<ul> <li>Only one of this kit can be selected</li> </ul>	
HPE DL325 Gen10 Plus 16SFF SAS Expander Kit	P16946-B21
Notes:	
<ul> <li>This kit includes the SAS Expander and cable to connect to 16 SFF drives</li> </ul>	
<ul> <li>SAS expander to enable 16 SFF field upgrade</li> </ul>	
HPE DL325 Gen10 Plus x16 Low Profile PCle Riser Kit	P17264-B21
Notes:	
<ul> <li>This riser sits into the secondary PCle slot</li> </ul>	
This riser can support only low profile PCIe Cards	
<ul> <li>x16 LP Riser Kit and x16 FHHL Riser Kit cannot be selected together.</li> </ul>	
HPE DL325 Gen10 Plus x16 FHHL PCle Riser Kit	P20421-B21
Notes:	
<ul> <li>When HPE DL325 Gen10 Plus FHHL PCle Riser Kit is selected then Slot 2 cannot be used</li> </ul>	
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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:	
MLX MCX623106AS-CDAT 100GbE 2p QSFP56 Adptr (P25960-B21)	D00/0/ D01
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
Notes: 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
Notes:	
This enablement kit must be selected if Optical Drive or M.2 drives are selected on the 8SFF CTO Model	

- Optical drive cannot be selected with 12LFF/24SFF/24SFF U.3 Model-X.
- Optical drives cannot be selected with 2 SFF SAS/SATA enablement kit (P20417-B21) or 2SFF UFF enablement kit (P15540-B21)

# **HPE Drives**

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

HPE 300GB SAS 12G Mission Critical 15K SFF SC 3-year Warranty Multi Vendor HDD	870753-B21
HPE 300GB SAS 12G Mission Critical 10K SFF SC 3-year Warranty Multi Vendor HDD	872475-B21
HPE 600GB SAS 12G Mission Critical 15K SFF SC 3-year Warranty Multi Vendor HDD	870757-B21
HPE 600GB SAS 12G Mission Critical 10K SFF SC 3-year Warranty Multi Vendor HDD	872477-B21
HPE 900GB SAS 12G Mission Critical 15K SFF SC 3-year Warranty Multi Vendor HDD	870759-B21
HPE 1.2TB SAS 12G Mission Critical 10K SFF SC 3-year Warranty Multi Vendor HDD	872479-B21
HPE 1.8TB SAS 12G Mission Critical 10K SFF SC 3-year Warranty 512e Multi Vendor HDD	872481-B21
HPE 2.4TB SAS 12G Mission Critical 10K SFF SC 3-year Warranty 512e Multi Vendor HDD	881457-B21
HPE 1TB SAS 12G Business Critical 7.2K SFF SC 1-year Warranty HDD	832514-B21
HPE 2TB SAS 12G Business Critical 7.2K SFF SC 1-year Warranty 512e HDD	765466-B21
Midline - 12G SAS - LFF Drives	
HPE 2TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Multi Vendor HDD	833926-B21
HPE 4TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Multi Vendor HDD	833928-B21
HPE 6TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty 512e Multi Vendor HDD	861746-B21
HPE 8TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty 512e Multi Vendor HDD	834031-B21
HPE 10TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e Multi Vendor HDD	P09149-B21
HPE 12TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e Multi Vendor HDD	881781-B21
HPE 14TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e Multi Vendor HDD	P09155-B21
HPE 16TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e ISE Multi Vendor HDD	P23608-B21
HPE 18TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e ISE Multi Vendor HDD	P37669-B21

Midline - 6G SATA - SFF Drives	
HPE 1TB SATA 6G Business Critical 7.2K SFF SC 1-year Warranty HDD	655710-B21
HPE 2TB SATA 6G Business Critical 7.2K SFF SC 1-year Warranty 512e HDD	765455-B21
Midline - 6G SATA - LFF Drives	
HPE 1TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Multi Vendor HDD	861686-B21
HPE 2TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Multi Vendor HDD	861681-B21
HPE 4TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Multi Vendor HDD	861683-B21
HPE 6TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty 512e Multi Vendor HDD	861742-B21
HPE 8TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty 512e Multi Vendor HDD	834028-B21
HPE 10TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e Multi Vendor HDD	P09161-B21
HPE 12TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e Multi Vendor HDD	881787-B21
HPE 14TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e Multi Vendor HDD	P09165-B21
HPE 16TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e ISE Multi Vendor HDD	P23449-B21
HPE 18TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e ISE Multi Vendor HDD	P37678-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 Intensive - 12G SAS - SFF - Solid State Drives	
HPE 960GB SAS 12G Read Intensive SFF SC PM6 SSD	P26285-B21
HPE 960GB SAS 12G Read Intensive SFF SC PM1643a SSD	P19903-B21
HPE 960GB SAS 12G Read Intensive SFF SC Multi Vendor SSD	P49028-B21
HPE 1.92TB SAS 12G Read Intensive SFF SC PM6 SSD	P26302-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 or three 8 SFF drive cages	
HPE 1.92TB SAS 12G Read Intensive SFF SC Multi Vendor SSD	P49030-B21
HPE 3.84TB SAS 12G Read Intensive SFF SC Multi Vendor SSD	P49034-B21
HPE 3.84TB SAS 12G Read Intensive SFF SC PM6 SSD	P26306-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 or three 8 SFF drive cages	
HPE 7.68TB SAS 12G Read Intensive SFF SC PM6 SSD	P26310-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 or three 8 SFF drive cages	
HPE 7.68TB SAS 12G Read Intensive SFF SC SS540 SSD	P21145-B21
HPE 7.68TB SAS 12G Read Intensive SFF SC Multi Vendor SSD	P49039-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 or three 8 SFF drive cages	
HPE 15.3TB SAS 12G Read Intensive SFF SC PM6 SSD	P26314-B21
HPE 15.36TB SAS 12G Read Intensive SFF SC Multi Vendor SSD	P49044-B21
Mixed Use - 12G SAS - SFF - Solid State Drives	
HPE 800GB SAS 12G Mixed Use SFF SC PM6 SSD	P26290-B21
HPE 800GB SAS 12G Mixed Use SFF SC PM1645a SSD	P19913-B21
HPE 800GB SAS 12G Mixed Use SFF SC Multi Vendor SSD	P49046-B21
HPE 1.6TB SAS 12G Mixed Use SFF SC PM6 SSD	P26354-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 or three 8 SFF drive cages	
HPE 1.6TB SAS 12G Mixed Use SFF SC Multi Vendor SSD	P49048-B21



HPE 3.2TB SAS 12G Mixed Use SFF SC PM6 SSD

P26358-B21

HPE 3.2TB SAS 12G Mixed Use SFF SC PM1645a SSD	P19917-B21
HPE 3.2TB SAS 12G Mixed Use SFF SC Multi Vendor SSD	P49052-B21
HPE 6.4TB SAS 12G Mixed Use SFF SC PM6 SSD	P26362-B21
HPE 6.4TB SAS 12G Mixed Use SFF SC PM1645a SSD	P19919-B21
HPE 6.4TB SAS 12G Mixed Use SFF SC Multi Vendor SSD	P49056-B21
Write Intensive - 12G SAS - SFF - Solid State Drives	
HPE 400GB SAS 12G Write Intensive SFF SC PM6 SSD	P26295-B21
HPE 800GB SAS 12G Write Intensive SFF SC PM6 SSD	P26372-B21
HPE 1.6TB SAS 12G Write Intensive SFF SC PM6 SSD	P26376-B21
Read Intensive - 6G SATA - SFF - Solid State Drives	1 2007 0 521
HPE 240GB SATA 6G Read Intensive SFF SC S4510 SSD	P05924-B21
	P18420-B21
HPE 240GB SATA 6G Read Intensive SFF SC Multi Vendor SSD	
HPE 480GB SATA 6G Read Intensive SFF SC PM893 SSD	P47810-B21
HPE 480GB SATA 6G Read Intensive SFF SC S4510 SSD	P05928-B21
HPE 480GB SATA 6G Read Intensive SFF SC Multi Vendor SSD	P18422-B21
HPE 960GB SATA 6G Read Intensive SFF SC PM893 SSD	P47811-B21
HPE 960GB SATA 6G Read Intensive SFF SC PM883 SSD	P04564-B21
HPE 960GB SATA 6G Read Intensive SFF SC S4510 SSD	P05932-B21
HPE 960GB SATA 6G Read Intensive SFF SC Multi Vendor SSD	P18424-B21
HPE 1.9TB SATA 6G Read Intensive SFF SC PM893 SSD	P47812-B21
HPE 1.92TB SATA 6G Read Intensive SFF SC S4510 SSD	P05938-B21
HPE 1.92TB SATA 6G Read Intensive SFF SC S4520 SSD	P47319-B21
HPE 1.92TB SATA 6G Read Intensive SFF SC Multi Vendor SSD	P18426-B21
HPE 3.84TB SATA 6G Read Intensive SFF SC PM893 SSD	P47813-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 SC S4520 SSD	P47321-B21
HPE 3.84TB SATA 6G Read Intensive SFF SC Multi Vendor SSD	P18428-B21
HPE 7.68TB SATA 6G Read Intensive SFF SC Multi Vendor SSD	P18430-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 PM897 SSD	P47814-B21
HPE 480GB SATA 6G Mixed Use SFF SC \$4610 SSD	P05976-B21
HPE 480GB SATA 6G Mixed Use SFF SC S4620 SSD	P47323-B21
HPE 480GB SATA 6G Mixed Use SFF SC Multi Vendor SSD	P18432-B21
HPE 960GB SATA 6G Mixed Use SFF SC PM897 SSD	P47815-B21
HPE 960GB SATA 6G Mixed Use SFF SC S4610 SSD	P05980-B21
Notes: Not supported with two 8SFF drive cages with Megacell battery or three 8 SFF drive cages	D40/7/ D04
HPE 960GB SATA 6G Mixed Use SFF SC 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 1.92TB SATA 6G Mixed Use SFF SC PM897 SSD	P47816-B21
HPE 1.92TB SATA 6G Mixed Use SFF SC S4610 SSD	P05986-B21
<b>Notes:</b> 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 S4620 SSD	P47325-B21
<b>Notes:</b> 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 Multi Vendor SSD	P18436-B21
<b>Notes:</b> 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 SC S4620 SSD	P47326-B21
HPE 3.84TB SATA 6G Mixed Use SFF SC Multi Vendor SSD	P18438-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 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
HPE 960GB SATA 6G Read Intensive LFF LPC Multi Vendor SSD	P47808-B21
HPE 7.68TB SAS 24G Read Intensive LFF LPC Multi Vendor SSD	P49040-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
Universal Connect SSD (U.3 SSDs)	
Oniversal Connect 33D (0.3 33Ds)	
Read Intensive - NVMe - SFF - Solid State Drives	
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 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 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 1.9TB NVMe Gen3 Mainstream Performance Read Intensive SFF SC U.3 Static Multi Vendor SSD	P47841-B21
HPE 3.84TB NVMe Gen3 Mainstream Performance Read Intensive SFF SC U.3 Static Multi Vendor SSD	P47842-B21
HPE 7.68TB NVMe Gen3 Mainstream Performance Read Intensive SFF SC U.3 Static Multi Vendor SSD	P47843-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 PM1735 SSD	P26543-B21
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 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

- Cannot be selected in a two NVMe drive cage population when Megacell battery (P20422-B21) is selected.
- Cannot be selected in a three NVMe drive cage population for ambient temperatures above 25C



HPE 1.6TB NVMe Gen3 Mainstream Performance Mixed Use SFF SC U.3 Static Multi Vendor SSD HPE 3.2TB NVMe Gen3 Mainstream Performance Mixed Use SFF SC U.3 Static Multi Vendor SSD HPE 6.4TB NVMe Gen3 Mainstream Performance Mixed Use SFF SC U.3 Static Multi Vendor SSD	P47834-B21 P47835-B21 P47836-B21
U.2 NVMe SSDs	
Read Intensive - NVMe - SFF - Solid State Drives	
HPE 1.92TB NVMe Gen3 Mainstream Performance Read Intensive SFF SCN U.2 Multi Vendor SSD	P47823-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 Multi Vendor SSD	P47824-B21
HPE 4TB NVMe Gen3 High Performance Read Intensive SFF SCN U.2 P4510 SSD	P13697-B21
<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 Multi Vendor SSD	P47825-B21
Mixed Use - NVMe - SFF - Solid State Drives	
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 1.6TB NVMe Gen3 Mainstream Performance Mixed Use SFF SCN U.2 Multi Vendor SSD	P47820-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 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 3.2TB NVMe Gen3 Mainstream Performance Mixed Use SFF SCN U.2 Multi Vendor SSD	P47821-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 Multi Vendor SSD	P47822-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	
SED (Self-Encryption Drive)	
HPE 1.6TB NVMe Gen4 High Performance Mixed Use SFF SC Self-encrypting FIPS U.3 CM6 SSD	P44584-B21
HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF SC Self-encrypting FIPS U.3 CM6 SSD	P44592-B21
HPE 1.92TB NVMe Gen4 High Performance Read Intensive SFF SC Self-encrypting FIPS U.3 CM6 SSD	P44568-B21
HPE 3.84TB NVMe Gen4 High Performance Read Intensive SFF SC Self-encrypting FIPS U.3 CM6 SSD	P44576-B21
Notes:  Requirements for Direct Attach SED support	
- Requirements for Direct Attach NED SUpport	

- Requirements for Direct Attach SED support
  - TPM2.0 is required for Local Key Management. Keys will be locally encrypted and stored by TPM
  - o iLO Advanced is required for Remote Key Management. Key is stored in remote key manager (Ex. ESKM)
- Requirements for MR Tri-mode controller SED support
  - o TPM is not required for Local Key Management as key is stored in controller
  - o iLO Advanced is required for Remote Key Management. Key is stored in remote key manager (Ex. ESKM)

#### Internal Dual M.2 Kit

HPE Universal SATA 6G AIC HHHL M.2 SSD Enablement Kit

878783-B21

#### **Notes:**

- The Universal SATA M.2 Kit above will require a PCIe slot and support up to two of the same M.2 cards below.
- M.2 kit can only be populated in Slot 1 with 24SFF U.3 CTO.
- This kit cannot be selected along with 2SFF UFF Enablement Kit (P15540-B21)

#### Read Intensive - M.2 - Solid State Drives

HPE 240GB SATA 6G Read Intensive M.2 2280 5300B SSD	P19888-B21
HPE 240GB SATA 6G Read Intensive M.2 Multi Vendor SSD	P47817-B21
HPE 480GB SATA 6G Read Intensive M.2 2280 5300P SSD	P19890-B21
HPE 480GB SATA 6G Read Intensive M.2 Multi Vendor SSD	P47818-B21
HPE 960GB SATA 6G Read Intensive M.2 2280 5300P SSD	P19892-B21
HPE Dual 480GB SATA 6G Read Intensive M.2 to SFF SCM Multi Vendor SSD	P47819-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 DSC-25 Enterprise 10/25Gb 2-port SFP28 Card

P26966-B21

**Notes:** Each card instance requires one RTU license of Silver or Platinum software. In case of more than one adapter, RTU licenses doesn't need to be of the same part number.

#### **Pensando DSP Silver Software Licenses**

Pensando Distributed Services Platform Enterprise 1-year Renewal Subscription 24x7 Support E-RTU	R6A06AAE
Pensando Distributed Services Platform Enterprise 3-year Subscription 24x7 Support E-RTU	R6A07AAE
Pensando Distributed Services Platform Enterprise 4-year Subscription 24x7 Support E-RTU	R6F68AAE
Pensando Distributed Services Platform Enterprise 5-year Subscription 24x7 Support E-RTU	R6A08AAE

#### Pensando DSP Platinum Software Licenses

Pensando Distributed Services Platform Enterprise Pro 1-year Renewal Subscription 24x7 Support E-RTU	R6A09AAE
Pensando Distributed Services Platform Enterprise Pro 3-year Subscription 24x7 Support E-RTU	R6A10AAE
Pensando Distributed Services Platform Enterprise Pro 4-year Subscription 24x7 Support E-RTU	R6F69AAE
Pensando Distributed Services Platform Enterprise Pro 5-year Subscription 24x7 Support E-RTU	R6A11AAE

#### **HPE Networking**

# 1 Gigabit Ethernet adapters

Intel I350-T4 Ethernet 1Gb 4-port BASE-T Adapter for HPE

P21106-B21

#### **Notes:**

- This option can be populated only in Slot 1 and Slot 3
- If QTY=2, FHHL secondary riser kit will be required

# 10 Gigabit Ethernet adapters

Marvell QL41132HLRJ Ethernet 10Gb 2-port BASE-T Adapter for HPE	P08437-B21
Marvell QL41132HLCU Ethernet 10Gb 2-port SFP+ Adapter for HPE	P21933-B21
Marvell QL41134HLCU Ethernet 10Gb 4-port SFP+ Adapter for HPE	P10094-B21



Intel X710-DA2 Ethernet 10Gb 2-port SFP+ Adapter for HPE  Notes:	P28787-B21
<ul> <li>This option can be populated only in Slot 1 or Slot 3</li> </ul>	
<ul> <li>If QTY=2, FHHL secondary riser kit will be required</li> </ul>	
Broadcom BCM57416 Ethernet 10Gb 2-port BASE-T Adapter for HPE	P26253-B21
Broadcom BCM57412 Ethernet 10Gb 2-port SFP+ Adapter for HPE	P26259-B21
10/25 Gigabit Ethernet adapters	
Mellanox MCX512F-ACHT Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	P13188-B21
Mellanox MCX631102AS-ADAT Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	P42044-B21
Xilinx X2522-25G-PLUS Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	P21109-B21
Marvell QL41232HLCU Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	P22702-B21
Xilinx X2522-25G Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	P24437-B21
Broadcom BCM57414 Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	P26262-B21
Intel E810-XXVDA4 Ethernet 10/25Gb 4-port SFP28 Adapter for HPE	P08458-B21
100 Gigabit Ethernet adapters	
HPE Ethernet 100Gb 1-port QSFP28 PCle3 x16 MCX515A-CCAT Adapter	P31246-B21
Notes:	
This antion can be namelated only in Clat 1 or Clat 2	

This option can be populated only in Slot 1 or Slot 2

- Need high performance fan kit
- Server ambient support temperature limitations are shown below:

Slot1	Slot2	Slot3
30C	25C	no support

HPE Ethernet 100Gb 2-port QSFP28 MCX516A-CCHT AdapterP21927-B21Mellanox MCX623106AS-CDAT Ethernet 100Gb 2-port QSFP56 Adapter for HPEP25960-B21

#### **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	
Mellanox MCX631432AS-ADAI Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE	P42041-B21
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 PCle4 x16 MCX653105A-ECAT Adapter HPE InfiniBand HDR100/Ethernet 100Gb 2-port QSFP56 PCle4 x16 MCX653106A-ECAT Adapter

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

# **HPE Power Supplies**

HPE Flexible Slot (Flex Slot) Power Supplies share a common electrical and physical design that allows for hot plug, tool-less installation into HPE ProLiant Gen10 Plus Performance Servers. Flex Slot power supplies are certified for high-efficiency operation and offer multiple power output options, allowing users to "right-size" a power supply for specific server configurations. This flexibility helps to reduce power waste, lower overall energy costs, and avoid "trapped" power capacity in the data center.

# 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 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
<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 Titanium Hot Plug Low Halogen Power Supply Kit	865438-B21
<b>Notes:</b> Flex Slot Titanium power supplies support power efficiency of up to 96% and include a standard C-14 power inlet connector.	
HPE 800W Flex Slot 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
Notes: 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
Notes: 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
Notes: 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 Informatio</b>	n				
Card	Slot	Storage Config	Max Processor Wattage	Ambient Temperature	
NVIDIA T4	Slot 1	4LFF	≤ 240W	30C	
		8LFF			
		12LFF			
		10 SFF SAS/SATA			
		20 SFF SAS/SATA			
		10 SFF NVMe			
		20SFF NVMe			
		24SFF NVMe			
	Slot 3	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	878038-B21
HPE 1.6TB NVMe Gen4 x8 High Performance Mixed Use AIC HHHL PM1735 SSD	P26934-B21
HPE 3.2TB NVMe Gen4 x8 High Performance Mixed Use AIC HHHL PM1735 SSD	P26936-B21

PCIe Workload Accelerator Information					
SKU	Card	Qty 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 Supported
P10264-B21	HPE 1.6TB NVMe x8 Lanes Mixed Use HHHL 3yr Wty Digitally Signed Firmware Card	3	35C	35C	25C
P10266-B21	HPE 3.2TB NVMe x8 Lanes Mixed Use HHHL 3yr Wty Digitally Signed Firmware Card	3	35C	35C	25C
P10268-B21	HPE 6.4TB NVMe x8 Lanes Mixed Use HHHL 3yr Wty Digitally Signed Firmware Card	3	35C	35C	25C

#### **HPE Security**

HPE Server Platform LDevID FIO Setting P49803-B21

#### **Notes:**

- Directs HPE manufacturing site to create, digitally sign and store a platform certificate on the server
- Requires HPE Trusted Platform Module (TPM)
- Locally Significant Device Identifier (LDevID) certificates are part of a Zero Trust Architecture. This SKU instructs factory to provision LDevID on HPE iLO

HPE Server Identity LDevID FIO Setting

P49814-B21

**Notes:** Locally Significant Device Identifier (LDevID) certificates are part of a Zero Trust Architecture. This SKU instructs factory to only provision LDevID on HPE iLO

HPE DL325 Gen10 Plus Bezel Kit

HPE Bezel Lock Kit

875519-B21

HPE Gen10 TPM 1.2 FIO Setting

HPE Trusted Platform Module 2.0 Gen10 Plus Black Rivets Kit

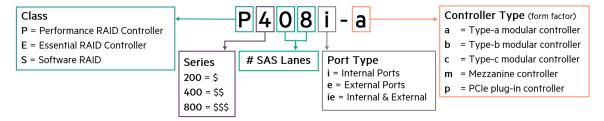
HPE Gen10 Plus Chassis Intrusion Detection Kit

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 E208i-p SR Gen10 (8 Internal Lanes/No Cache) 12G SAS PCIe Plug-in Controller

# **HPE Smart Array Controllers**



# **Smart Array Controllers**

HPE 12W Smart Storage Lithium-ion Battery 782961-B21 Notes: 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 PCIe expansion slot and includes SmartCache license. HPE Smart Array P408i-a SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS Modular LH Controller 869081-B21 **Notes:** Does not occupy a PCle expansion slot. HPE Smart Array P408e-p SR Gen10 (8 External Lanes/4GB Cache) 12G SAS PCle Plug-in Controller 804405-B21 HPE Smart Array P408i-p SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS PCIe Plug-in Controller 830824-B21 **Essential RAID Controllers** HPE Smart Array E208e-p SR Gen10 (8 External Lanes/No Cache) 12G SAS PCle Plug-in Controller 804398-B21

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.

804394-B21

869079-B21

Boot Device	
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
Notes: 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
Notes: 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 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
Notes: 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 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 DL3XX Gen10 Rear Serial Cable and Enablement Kit

Notes: This option kit is used to enable serial port

# **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



873770-B21

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
HPE SN1700E 64Gb 1-port Fibre Channel Host Bus Adapter	R7N77A
HPE SN1700E 64Gb 2-port Fibre Channel Host Bus Adapter	R7N78A
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 **HPE Intelligent Power Distribution Unit (PDU) QuickSpecs** 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).

- 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	
HPE DL325 Gen10 Plus Cable Management Arm	P18546-B21

# **HPE USB and SD Options**

#### HPE Enterprise Mainstream Flash Media Kits for Memory Cards

HPE 32GB microSD RAID 1 USB Boot Drive

P21868-B21

#### **Notes:**

In vSphere 7.0, VMware made changes that impact the use of an SD Card/USB media as a standalone boot device and will be removing support for them after version 7.x.

SD Card/USB media can still be used as a standalone boot option through all 7.x releases via published

Customer Advisory <u>Usage of SD Card/USB Devices As Standalone Boot Devices Has Changed Due to</u>

# System Storage Changes For VMware ESXi 7.0 (Or Later).

For any major release beyond VMware ESXi 7.x, VMware will require M.2 or another local persistent device as the standalone boot option.

# **HPE Support Services**

#### **Tech Care**

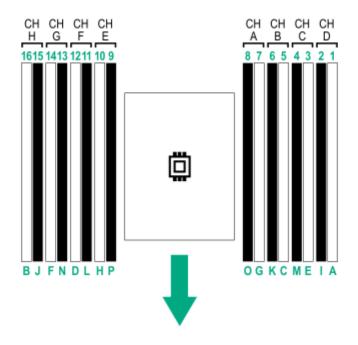
HPE 5 Year Tech Care Essential DL325 Gen10 Plus Service	HV6M2E
HPE 5 Year Tech Care Essential wDMR DL325 Gen10 Plus Service	HV6M5E
HPE 3 Year Tech Care Essential DL325 Gen10 Plus Service	HV6M0E
HPE 3 Year Tech Care Essential wDMR DL325 Gen10 Plus Service	HV6M3E

# **Installation & Startup Services**

HPE Install ProLiant DL3xx Service	U4506E
HPE Installation and Startup DL3xx Service	U4507E

**Notes:** For a full listing of support services available for this server, please visit <a href="http://www.hpe.com/services">http://www.hpe.com/services</a>.

# **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)
 25.9 kg

57.09 lb

Maximum: 12 LFF hard drives, 1x processors, 2x power supplies, 1x Smart Array, 2x Risers installed, 16x DIMMs, 2x power supply, cables for the above)

# Input Requirements(per power supply)

#### **Rated Line Voltage**

- 100 to 120 VAC
- 200 to 240 VAC

# **BTU Rating**

#### Maximum

- For 800W Power Supply: 3207 BTU/hr (at 100 VAC), 3071 BTU/hr (at 200 VAC), 3112 BTU/hr (at 240 VAC) for China Only
- For 500W Power Supply: 1979 BTU/hr (at 100 VAC), 1911 BTU/hr (at 200 VAC), 1965 BTU/hr (at 240 VAC) for China Only

# Power Supply Output(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:  $5^{\circ}$  to  $10^{\circ}$ C ( $41^{\circ}$  to  $50^{\circ}$ F) and  $35^{\circ}$  to  $40^{\circ}$ C ( $95^{\circ}$  to  $104^{\circ}$ F) at sea level with an altitude derating of  $1.0^{\circ}$ C per every 175 m ( $1.8^{\circ}$ 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**

The HPE ProLiant DL325 Gen10 Plus Server has been TCO Certified. All HPE TCO Certified products can be found on TCO Certified Product Finder.

More information on TCO Certified can be downloaded here: <a href="https://www.hpe.com/us/en/about/environment/eco-labels.html">https://www.hpe.com/us/en/about/environment/eco-labels.html</a>

#### **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 30 dBA Base 30 dBA Perf		
Operating			
LWAd	4.8 B Entry 4.5 B Base 4.8 B Perf		
LpAm	36 dBA Entry 30 dBA Base 35 dBA Perf		

- 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
07-Feb-2022	Version 18	Changed	Core Options and Technical Specifications section were updated. Obsolete SKUs were removed.
06-Dec-2021	Version 17	Changed	Core Options and Additional Options sections were updated. Obsolete SKUs were removed.
01-Nov-2021	Version 16	Changed	Core Options and Service and Support sections were updated. Obsolete SKUs were removed.
07-Sep-2021	Version 15	Changed	Core Options section was updated. Obsolete SKUs were removed.
06-Apr-2021	Version 14	Changed	Service and Support and Additional Options sections were updated.
01-Feb-2021	Version 13	Changed	Core Options section was updated. Obsolete SKUs were removed.
07-Dec-2020	Version 12	Changed	Standard Features and Core Options sections were updated. Obsolete SKUs were removed.
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.

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