# QuickSpecs

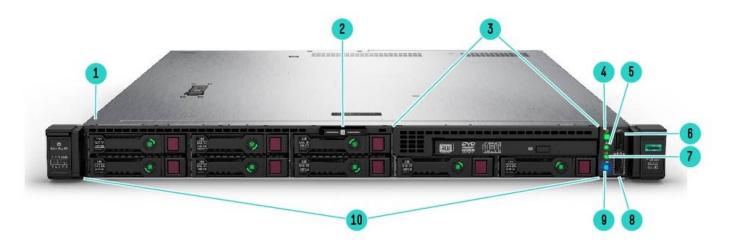
# Overview

# HPE ProLiant DL325 Gen10 Server

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

Powered by the latest AMD® EPYC® 7xx2 Series Processors, the HPE ProLiant DL325 Gen10 Server offers greater processing power and faster memory speeds upto 2933 MT/s

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



8SFF Front View - 8SFF + ODD Shown

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

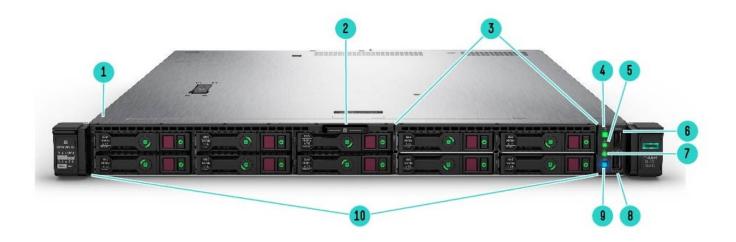
### Notes: \*

- Option Shown: DVD-RW or DVD-ROM
- Option +2 SFF SAS/SATA (total 10 SFF)
- Option +2 SFF NVMe drives

- 6. USB 3.0 port
- 7. NIC status LED
- 8. iLO Service Port
- 9. UID button/LED
- 10. Standard 8 SAS/SATA drive bays



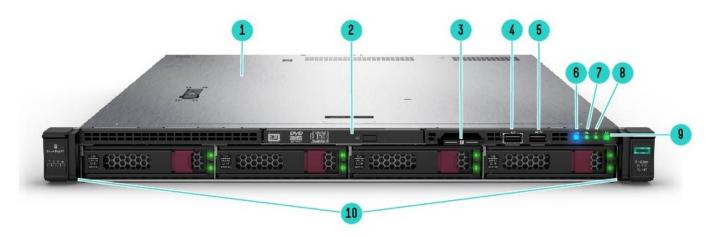
# Overview



### NVMe SFF Front View - 10 SFF NVMe Shown

- 1. Quick removal access panel
- 2. Serial no. label pull tab
- 3. Optional Media Bay\*.
- 4 Power On/Standby button and system power LED
- 5. Health LED
- Notes: \*
- Option Shown: +2 SFF NVMe drives (total 10SFF NVMe)
- Option: +2 SFF SAS/SATA
- Option: DVD-RW or DVD-ROM

- 6. USB 3.0 port
- 7. NIC status LED
- 8. iLO Service Port
- 9. UID button/LED
- 10. Standard 8 NVMe drive bays



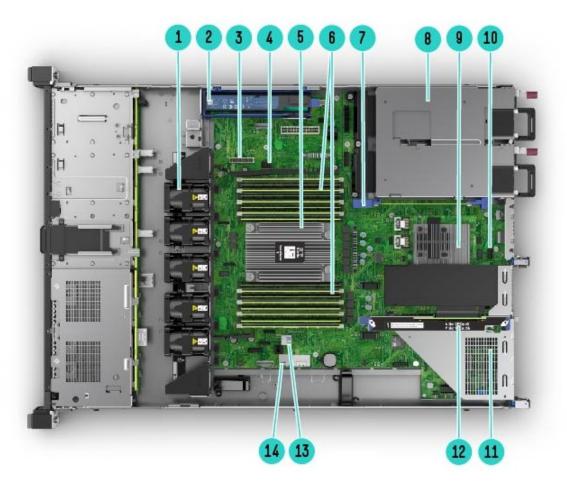
### 4LFF Front View – with Optional ODD shown

- 1. Quick removal access panel
- 2. Optional: DVD-RW or DVD-ROM shown
- 3 Serial no. label pull tab
- 4 iLO Service Port
- 5 USB 3.0 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 bays



# Overview

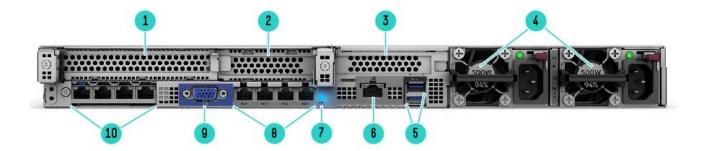


### Internal View 8SFF chassis –with optional FlexLOM, Smart array shown

- 1 Fan cage shown with 5 Performance Hot-swappable fans
- 2 Optional HPE Smart Storage Battery
- 3 Hard drive Backplane Power Connector
- 4 Chassis intrusion detection connector
- 5 Processor (heatsink shown)
- 6 DDR4 DIMM slots. Shown fully populated in 16 slots
- 7 Connection for second (optional) riser

- 8 Hot Plug redundant HPE Flexible Slot Power supplies
- 9 Optional HPE Flexible Smart Array Controller (P408i-a shown)
- 10 Serial Port Connector
- 11 (Under) Optional Flexible LOM slot
- 12 Primary PCIe riser, standard
- 13 Internal USB 3.0 connector
- 14 MicroSD card slot

# Overview



### Rear View – With optional FlexLOM shown.

- 1. Slot 1 PCIe 3.0
- 2. Slot 2 PCIe 3.0

USB 3.0 Ports

- 3 Optional Slot 3 PCIe 3.0
- 4. HPE Flexible Slot Power Supply Bay

- 6 iLO Management Port7 UID LED
- 8 \*\*Embedded 4x 1GbE Adapter ( if equipped)
- 9 VGA Port
- 10 \*\*Option: FlexibleLOM (Shown: 4x 1GbE)

### Notes:

5

- \*\*Supports Various NICs up to 25GbE.
- \*\*Embedded 4x 1GbE Adapter is not equipped on new boards for 7xx2 series processors.

# What's New

- Supports the next generation AMD EPYC 7xx2 Series processor with double the core density compared to the previous
  generation and memory speeds up to 2933 MT/s
- Embedded 4x 1GbE LOM is not supported with 7xx2 series processors.
- New 2933 Memory DIMMs with capacity upto 128 GB
- New Disk Cartridge Options
- New SATA Read Intensive SSD drives
- New NVMe Read Intensive and Mixed Use SSD drives
- European Union (EU) Lot 9 regulation, please visit: <u>https://www.hpe.com/us/en/about/environment/msds-specs-more.html</u> for more information.

# **Platform Information**

### Form Factor

• 1U rack

### **Chassis Types**

- 8 SFF with optional Optical Drive, 2 SFF SAS/SATA or 2 NVMe drive bay options
- 8 SFF NVMe with optional Optical Drive 2 SFF SAS/SATA or 2 NVMe drive bay options
- 4 LFF with an optional Optical Drive bay

### Notes:

- 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.
- The 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.

### System Fans

- 4LFF Chassis includes 5 Single Rotor Hot Swappable cable fans
- 8SFF Chassis includes 5 Dual Rotor Hot Swappable cable fans
- NVMe Chassis includes 7 Dual Rotor Hot Swappable cable fans



### 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-server

AMD EPYC Processor	Cores	Base	Max	Max	Wattage	Cache	Memory
		Frequency	Frequency	Memory			-
EPYC 7702P	64	2.0Ghz	3.35Ghz	2TB	200	256MB	2933MT/S
EPYC 7702	64	2.0Ghz	3.35Ghz	2TB	200	256MB	2933MT/S
EPYC 7552	48	2.2Ghz	3.3Ghz	2TB	200	192MB	2933MT/S
EPYC 7532	32	2.4GHz	3.3GHz	4TB	200	256MB	2933MT/s
EPYC 7502P	32	2.5Ghz	3.35Ghz	2TB	180	128MB	2933MT/S
EPYC 7452	32	2.35Ghz	3.35Ghz	2TB	155	128MB	2933MT/S
EPYC 7402P	24	2.8Ghz	3.35Ghz	2TB	180	128MB	2933MT/S
EPYC 7352	24	2.3Ghz	3.2Ghz	2TB	155	128MB	2933MT/S
EPYC 7302P	16	3.0Ghz	3.3Ghz	2TB	155	128MB	2933MT/S
EPYC 7282	16	2.8GHz	3.2GHz	4TB	120	64MB	2933MT/s
EPYC 7272	12	2.9GHz	3.2GHz	4TB	120	64MB	2933MT/s
EPYC 7262	8	3.2GHz	3.4GHz	2TB	155	128MB	2933MT/S
EPYC 7232P	8	3.1GHz	3.2GHz	4TB	120	32MB	2933MT/s

Notes: All AMD EPYC processors can support up to 2TB of memory each.

# Chipset

No chipset – System on Chip (SoC) design.

# **On System Management Chipset**

HPE iLO 5 ASIC Notes: Read and learn more in the <u>iLO QuickSpecs</u>.

# Memory

One of the following depending on model

Туре:	HPE DDR4 SmartMemory	Registered (RDIMM), Load Reduced (LRDIMM)
DIMM Slots Available 16		16 DIMM slots per processor, 8 channels per processor, 2
		DIMMs per channel

# With AMD<sup>®</sup> EPYC<sup>®</sup> 7xx2 Series Processor Family

Maximum capacity (LRDIMM)	2.0TB	16 x 128 GB RDIMM @ 2933 MHz at 1 DPC
Maximum capacity (RDIMM)	1.0TB	16 x 64 GB RDIMM @ 2933 MT/S

Notes:

- The maximum memory speed is limited by the processor selection.
- When 2DIMMs are populated per channel, memory speed drops to 2666 MT/S

# **Expansion Slots**

Default Primary Riser					
Slots #	Technology	Bus Width	<b>Connector Width</b>	Slot Form Factor	Notes
1	PCIe 3.0	X16	X16	Full-height, full-length slot	Proc 1
2	PCIe 3.0	X8	X8	Low Profile	Proc 1

Notes: Bus Width Indicates the number of physical electrical lanes running to the connector.



Secondary Riser					
Slots #	Technology	<b>Bus Width</b>	<b>Connector Width</b>	Slot Form Factor	Notes
1	PCIe 3.0	X16	X16	Low Profile	Proc 1

### Notes:

- Secondary riser cannot be installed with Modular Smart Array Options
- Bus width indicated the number of physical electrical lanes running to the connector

# **Storage Controllers**

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

# Software RAID

HPE Smart Array S100i SR Gen10 SW RAID

Notes:

- HPE Smart Array S100i SR Gen10 SW RAID will operate in UEFI mode only. For legacy support an additional controller will be needed, and for CTO orders please also select the Legacy mode settings part, 758959-B22.
- HPE Smart Array S100i SR Gen10 SW RAID is off by default and must be enabled.
- HPE Smart Array S100i SR Gen10 SW RAID can operate only in Windows OS
- HPE Smart Array S100i SR Gen10 SW RAID is supported only on 4LFF chassis or on the optional 2SFF SAS/SATA Kit when selected with the 8SFF chasiss/ 8SFF SFF NVMe chassis.
- A maximum of 4 devices can be connected to HPE Smart Array S100i SR Gen10 SW RAID.
- HPE Smart Array S100i SR Gen10 SW RAID can support M.2 SSDs

### **Essential RAID Controller**

- HPE Smart Array E208i-a SR G10 LH 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 P816i-a SR G10 LH Controller

Notes: Performance RAID Controllers require the HPE Smart Storage Battery (P01366-B21) which is sold separately.

# **Internal Storage Devices**

One of the following depending on model

- Optical Drive Optional: DVD-ROM, DVD-RW
- Hard Drives

None ship standard

# **Maximum Internal Storage**

Drive	Capacity	Configuration	
Hot Plug SFF SAS	24.0 TB	8+2 x 2.4 TB (with optional 2SFF drive cage)	
Hot Plug SFF SATA	20.0 TB	$8+2 \times 2 \text{ TB}$ (with optional 2SFF drive cage)	
Hot Plug LFF SAS	56 TB	4 x 14 TB	
Hot Plug LFF SATA	56 TB	4 x 14 TB	
Hot Plug SFF SAS SSD	153 TB	8+2 x 15.3 TB (with optional 2SFF drive cage)	
Hot Plug LFF SATA SSD	7.68 TB	4 x 1.92 TB	
Hot Plug SFF SATA SSD	76.8 TB	8+2 x 7.68 TB (with optional 2SFF drive cage)	
Hot Plug SFF NVMe PCIe SSD	153.6 TB	8+2 x 15.36 TB	

# **Power Supply**

HPE 500W Non Hot Plug Low Halogen FIO Power Supply **Notes:** Available in 92% efficiency.

HPE 500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit

Notes: Available in 94% efficiency.

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

- Available in 94% and 96% efficiency.
- Also available in -48VDC and 227VAC/380VDC power inputs.

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

- Available in 94% efficiency.
- 240v power input only.

The HPE 500W FIO Power Supply offers Gold-certified 80 Plus power efficiency up to 92% with an optimized set of features for non-redundant power configurations for Gen10 ProLiant ML 10/100 Series Servers, as well as ML350 Gen10 and DL325 Gen10. 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 Performance Servers. Flex Slot power supplies are certified for high-efficiency operation and offer multiple power output options, allowing users to "right-size" a power supply for specific server configurations. This flexibility helps to reduce power waste, lower overall energy costs, and avoid "trapped" power capacity in the data center.

All pre-configured servers ship with a standard 6-foot IEC C-13/C-14 jumper cord (AOKO2A). 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.

# Interfaces

Serial	Optional, rear
Video Port	1 Rear VGA Port - Standard
Network Ports	4 x 1 Gb ports shipping standard ( if equipped), with optional FlexibleLOM or stand up card <b>Notes:</b> Embedded 4x 1GbE LOM is not equipped on new boards for 7xx2 series processors.
HPE iLO Remote	1 Gb Dedicated
Management Network Port	
Front iLO Service Port	1 standard
Micro SD Slot	1 Micro SD
	Notes: The Micro SD slot is not a hot-pluggable device. Customers should not attempt to
	plug an SD card into the SD slot while the server is powered
USB 3.0	Up to 4 total: 1 front, 2 rear, 1 internal (secure)



# Operating Systems and Virtualization Software Support for ProLiant Servers

# AMD® EPYC® 7xx2 Series Processor Family

- <u>Windows Server 2016 (Most Recent Version)</u>
- <u>Windows Server 2019 (Most Recent Version)</u>
- <u>VMware ESXi 6.5 U3</u>
- VMware ESXi 6.7 U3
- <u>Red Hat Enterprise Linux (RHEL) 7.6</u>
- Red Hat Enterprise Linux (RHEL) 8.1
- SUSE Linux Enterprise Server (SLES) 12 SP4
- <u>SUSE Linux Enterprise Server (SLES) 15 SP1</u>
- <u>Citrix XenServer</u>

HPE and ClearCenter will help you lower the cost of building on-premise solutions without sacrificing security and ease of use. HPE ProLiant servers with ClearOS give you a simple, secure, and affordable operating system with an intuitive web based graphical user interface that provides a cloud-like experience on- premise, and an Application Marketplace with over 100 apps and growing. Whether you're starting out or scaling, you decide what applications you need and pay as you grow.

**Notes:** ClearOS allows you to build a fully functional server that is just right for you at no upfront cost. For more information on ClearOS, please visit <u>http://www.hpe.com/servers/clearos</u>

<u>CentOS</u>

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

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

# **Industry Standard Compliance**

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

For more information regarding HPE Lot 9 conformance, please visit:

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

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

# 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

# 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 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 3.0 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:

- TPM 2.0 Support
- NVMe Boot Support
- iSCSI Software Initiator Support.
- HTTP/HTTPs Boot support as a PXE alternative.
- Boot support for option cards that only support a UEFI option ROM

### Notes:

- For UEFI Boot Mode, boot environment and OS image installations should be configured properly to support UEFI.
- UEFI FIO Setting (758959-B22) can be selected to configure the system in Legacy mode in the factory for your HPE ProLiant Gen10 Server.

## **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 **http://www.hpe.com/info/ilo**.

### UEFI

Configure and boot your servers securely with industry standard Unified Extensible Firmware Interface (UEFI). Learn more at <u>http://www.hpe.com/servers/uefi</u>

### **Intelligent Provisioning**

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

### **iLO RESTful API**

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

### **Server Utilities**

### **Active Health System**

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

### **Active Health System Viewer**

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

### 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 and Gen10 HPE servers at unmatched speed and scale. Use with an iLO Advanced License to unlock full capabilities. Learn more at http://www.hpe.com/servers/iLOamplifierpack.

### **HPE iLO Mobile Application**

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

### **RESTful Interface Tool**

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

### **Scripting Tools**

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



# **HPE OneView Standard**

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

# HPE Systems Insight Manager (HPE SIM)

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

# Security

- UEFI Secure Boot and Secure Start support
- Immutable Silicon Root of Trust
- FIPS 140-2 validation (iLO 5 certification in progress)
- Common Criteria certification (iLO 5 certification in progress)
- Configurable for PCI DSS compliance
- Advanced Encryption Standard (AES) and Triple Data Encryption Standard (3DES) on browser
- Support for Commercial National Security Algorithms (CNSA)
- Tamper-free updates components digitally signed and verified
- Secure Recovery recover critical firmware to known good state on detection of compromised firmware
- Ability to rollback firmware
- Secure erase of NAND/User data
- TPM (Trusted Platform Module) 1.2 option
- 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 and Gen10 servers. To learn more visit <u>http://www.hpe.com/info/oneview</u>.

### **HPE InfoSight for Servers**

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

### HPE Insight Cluster Management Utility (CMU)

HPE Insight Cluster Management Utility is a HyperScale management framework that includes software for the centralized provisioning, management and monitoring of nodes and infrastructure. Learn more at <u>http://www.hpe.com/info/cmu</u>.

### Accelerator and GPU Information

Hewlett Packard Enterprise supports various accelerators on select HPE Proliant servers to support different workloads. The accelerators enable seamless integration of GPU computing with HPE ProLiant servers for high-performance computing, large data center graphics, deep learning and virtual desktop deployments. These accelerators deliver all of the standard benefits of GPU computing while enabling maximum reliability and tight integration with system monitoring and management tools such as HPE Insight Cluster Management Utility.

### **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.

# **Optional Features**

# **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</u> <u>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 <u>Advisory Services</u>, focus on your business outcomes and goals, partnering with you to design your transformation and build a roadmap tuned to your unique challenges. Our <u>Professional</u> and <u>Operational Services</u> can be leveraged to speed up time-to-production, boost performance and accelerate your business. HPE Pointnext specializes in flawless and on-time implementation, on-budget execution, and creative configurations that get the most out of software and hardware alike

# Consume IT on your terms

**HPE GreenLake** 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

# **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 AI driven digital experience, and general technical guidance to not only reduce risk but constantly search for ways to do things better. HPE Pointext Tech Care has been reimagined from the ground up to support a customer-centric, AI driven, and digitally enabled customer experience to move your business forward. HPE Pointext 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/h20195/v2/Getdocument.aspx?docname=a00108652enw

# **HPE Datacenter Care**

**HPE Datacenter Care** helps customers address the pressing needs of IT today and smoothly transform to a more agile cloud-like IT operations model. We help run and monitor your IT by offloading the day to day routine tasks, helping customers be more predictive and proactive, and saving time with one place to call with for all of their IT.

Partner with an assigned account team backed by local and global experts, access HPE enhanced call experience with priority access, use specialized support for complex, technologies, choose hardware and software support for your devices, implement proactive monitoring to stay ahead of issues, and access HPE IT best practices and IP. HPE Datacenter Care advantage options are available to add to your agreement to give you specialized expertise for performance, security, back up analysis, and much more. Datacenter Care is available as both tailored statement of work and as a packaged service for 3, 4, and 5 year terms. https://www.hpe.com/us/en/services/datacenter-hybrid-services.html

# 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<sup>®</sup> or Linux).

### **DC for Hyperscale**

Datacenter 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. **http://www.hpe.com/ww/learn** 

# 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 <u>http://www.hpe.com/support/hpesc</u>.

The HPE Support Center Mobile App<sup>\*</sup> 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 Packard Enterprise due to malfunction.

# **Pre-configured Models**

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

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

	Entry Models	Base Model
SKU Number	P17199-B21 P17199-291	P17200-B21 P17200-291
Model Name	HPE ProLiant DL325 Gen10 7262 3.2GHz 8- core 1P 16GB-R S100i 4LFF 800W RPS Server	HPE ProLiant DL325 Gen10 7262 3.2GHz 8- core 1P 16GB-R P408i-a 8SFF 500W RPS Server
Processor	7262 (8-Core, 3.2 GHz, 155W)	7262 (8-Core, 3.2 GHz, 155W)
Number of Processors	One processor	One processor
Memory	16 GB RDIMM SR 2933 MT/s (1x 16 GB)	16 GB RDIMM SR 2933 MT/s (2x 8 GB)
Network Controller	HPE 1Gb Ethernet 4-Port 336FLR Adapter plus optional HPE FlexibleLOM or stand up card	HPE 1Gb Ethernet 4-Port 336FLR Adapter plus optional HPE FlexibleLOM or stand up card
Storage Controller	S100i	P408i-a <b>Notes:</b> 8-Port modular Smart Array.
Hard Drive	None ship as standard	None ship as standard
Internal Storage	4 LFF chassis	8 SFF Chassis
Optical Drive Bay	Optional	Optional
Optical Drive	None ship as standard	None ship as standard
PCI-Express Slots	2-slots (x16, x8) as standard	2-slots (x16, x8) as standard
Power Supply	1X800W HPE FlexSlot Power Supply	1x 500W HPE FlexSlot Power Supply
Fans	5-performance fans	5-performance fans
Management	Default: HPE iLO Standard with Intelligent Prov download) Optional (require licenses): HPE iLO Advanced, HPE OneView Advanced	-
Energy Star	2.1 certified	
Form Factor	1U Rack, Easy Install rails without CMA	
Warranty	3-year parts, 3-year labor, 3-year onsite suppor	rt with next business day response.

# **Pre-configured Models**

Performance Model			
SKU Number	P17201-B21 P17201-291	P16696-B21 P16696-291	
Model Name	HPE ProLiant DL325 Gen10 7302P 3.0GHz 16-core 1P 16GB-R P408i-a 8SFF 800W RPS Server	HPE ProLiant DL325 Gen10 7402P 2.8GHz 24-core 1P 64GB-R P408i-a 8SFF 800W RPS Server	
Processor	7302P (16-Core, 3.0 GHz, 155W)	7402P (24-Core, 2.8 GHz, 180W)	
Number of Processors	One processor	One processor	
Memory	16 GB RDIMM SR 2933 MT/s (1x 16 GB)	64 GB RDIMM SR 2933 MT/s (2x 32 GB)	
Network Controller	HPE 1Gb Ethernet 4-Port 336FLR Adapter plus optional HPE FlexibleLOM or stand up card	HPE 1Gb Ethernet 4-Port 336FLR Adapter plus optional HPE FlexibleLOM or stand up card	
Storage Controller	P408i-a	P408i-a <b>Notes:</b> 8-Port modular Smart Array.	
Hard Drive	None ship as standard	None ship as standard	
Internal Storage	8 SFF 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, x8) as standard	2-slots (x16, x8) as standard	
Power Supply	1X800W HPE FlexSlot Power Supply	1x 800W HPE FlexSlot Power Supply	
Fans	5-performance fans	5-performance 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	2.1 certified		
Form Factor	1U Rack, Easy Install rails without CMA		
Warranty	3-year parts, 3-year labor, 3-year onsite suppor	rt with next business day response.	

# **Pre-configured Models**

Entry Model	
SKU Number	P27086-B21 P27086-291
Model Name	HPE ProLiant DL325 Gen10 7232P 3.1GHz 8-core 1P 16GB-R P408i-a 8SFF 500W RPS Performance Server
Processor	7232P (8-Core, 3.1 GHz, 120W)
Number of Processors	One processor
Memory	16 GB RDIMM DR 2933 MT/s (1x 16 GB)
Network Controller	HPE 1Gb Ethernet 4-Port 336FLR Adapter plus optional HPE FlexibleLOM or stand up card
Storage Controller	P408i-a Notes: – 8-Port modular Smart Array. – Smart Storage battery included.
Hard Drive	None ship as standard
Internal Storage	8 SFF Chassis
Optical Drive Bay	Optional
Optical Drive	Optional
PCI-Express Slots	2-slots (x16, x8) as standard
Power Supply	1x 500W HPE FlexSlot Power Supply
Fans	5-performance 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	2.1 certified
Form Factor	1U Rack, Easy Install rails without CMA
Warranty	3-year parts, 3-year labor, 3-year onsite support with next business day response.

# **Pre-configured Models**

SMB Model	
SKU Number	P27087-B21 P27087-291
Model Name	HPE ProLiant DL325 Gen10 7282 2.8GHz 16-core 1P 16GB-R P408i-a 8SFF 500W RPS Performance Server
Processor	7282 (16 Core, 2.8GHz, 120W)
Number of Processors	One processor
Memory	16 GB RDIMM DR 2933 MT/s (1x 16 GB)
Network Controller	HPE 1Gb Ethernet 4-Port 336FLR Adapter plus optional HPE FlexibleLOM or stand up card
Storage Controller	P408i-a Notes: — 8-Port modular Smart Array. — Smart Storage battery included.
Hard Drive	None ship as standard
Internal Storage	8 SFF Chassis
Optical Drive Bay	Optional
Optical Drive	Optional
PCI-Express Slots	2-slots (x16, x8) as standard
Power Supply	1x 500W HPE FlexSlot Power Supply
Fans	5-performance 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	2.1 certified
Form Factor	1U Rack, Easy Install rails without CMA
Warranty	3-year parts, 3-year labor, 3-year onsite support with next business day response.

# **Configuration Information**

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

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

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

- 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.

CTO Server	HPE ProLiant DL325 Gen10 4 LFF CTO Server	HPE ProLiant DL325 Gen10 8 SFF CTO Server	HPE ProLiant DL325 Gen10 NVMe SFF CTO Server		
SKU Number	P04653-B21	P04654-B21	P04662-B21		
TAA SKU	P04652-B21	P04848-B21	P05046-B21		
Processor	Not included as standard	Not included as standard	Not included as standard		
DIMM Slots	16-DIMM slots	16-DIMM slots	16-DIMM slots		
Storage Controller	Choice of HPE modular Sma	rt Array and PCIe plug-in contr	oller		
PCle	Two standard in primary riser				
Drive Cage - included	4 LFF	8 SFF	8 SFF NVMe		
Network Controller	HPE 1Gb Ethernet 4-Port 331i Adapter (if equipped) and /or optional HPE FlexibleLOM or stand up card				
Fans	5-Standard	5-Performance	7-Performance		
Management	HPE iLO with Intelligent Prov	visioning (standard), iLO Advar	nces and OneView (optional)		
USB	Front: 1 USB 3.0 + iLO service port Rear: 2 USB 3.0	Front: 1 USB 3.0 + iLO service port Rear: 2 USB 3.0	Front: 1 USB 3.0 + iLO service port Rear: 2 USB 3.0		
	Internal: 1 USB 3.0	Internal: 1 USB 3.0	Internal: 1 USB 3.0		

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

#### Notes:

- HPE offers multiple Trade Agreement Act (TAA) compliant configurations to meet the needs of US Federal Government customers. These products are either manufactured or substantially transformed in a designated country. TAA compliance is only provided when HPE options are included as part of factory integrated orders (CTO).
- TAA chassis are only orderable in North America and Canada.
- The HPE ProLiant DL325 Gen10 NVMe SFF CTO Server ships with the cable required for 8 NVMe drives installation.
- All CTO servers are Energy Star 2.1 compliant.
- CTO servers do not ship with Rail Kits ,they need to be ordered separately.
- Embedded 4x 1GbE Adapter is not equipped on new boards for 7xx2 series processors.

CTO Server	8 SFF CTO Chassis	4 LFF CTO Chassis	NVMe SFF CTO Chassis
Included Drive Cage	8 SFF SAS/SATA	4 LFF + UMB	8 NVMe Chassis
Additional drive cages	-	-	-
Universal Media Bay	1 Optional	1 Included	1 Optional
ODD	1 Optional with UMB	1 Optional	1 Optional with UMB
2 SFF SAS/SATA	1 Optional	Not available	1 Optional
2 SFF NVMe	1 Optional	Not available	1 Optional

# **Configuration Information**

### Notes:

- This aplies to CTO configurations, field upgrades may differ depending field configuration. \_
- Only one of the 2 SFF SAS/SATA or 2 SFF NVMe can be selected at any time. \_

# **Step 2: Choose Required Options**

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 170W will ship with the High Performance heatsink.

Step 2a Choose Processors (only one of the following unless otherwise noted)	
Processor Option Kits	SKU
AMD <sup>®</sup> EPYC <sup>®</sup> 7xx2 Generation Processor Family	
AMD EPYC 7702P (2.0GHz/64-core/200W) FIO Processor Kit for HPE ProLiant DL325 Gen10	P16637-L21
Notes: Ships with High Performance Heatsink.	
AMD EPYC 7702 (2.0GHz/64-core/200W) FIO Processor Kit for HPE ProLiant DL325 Gen10	P22034-L21
Notes: Ships with High Performance Heatsink.	
AMD EPYC 7552 (2.2GHz/48-core/165-200W) FIO Processor Kit for HPE ProLiant DL325 Gen10	P21864-L21
Notes: Ships with High Performance Heatsink.	
AMD EPYC 7532 (2.4GHz/32-core/200W) FIO Processor Kit for HPE ProLiant DL325 Gen10	P25854-L21
Notes: Ships with Standard Heatsink.	
AMD EPYC 7502P (2.5GHz/32-core/180-200W) FIO Processor Kit for HPE ProLiant DL325 Gen10	P16639-L21
Notes: Ships with High Performance Heatsink.	
AMD EPYC 7402P (2.8GHz/24-core/180-200W) FIO Processor Kit for HPE ProLiant DL325 Gen10	P16641-L21
Notes: Ships with High Performance Heatsink.	
AMD EPYC 7352 (2.3GHz/24-core/155W) FIO Processor Kit for HPE ProLiant DL325 Gen10	P21424-L21
Notes: Ships with Standard Heatsink.	
AMD EPYC 7452 (2.35GHz/32-core/155W) FIO Processor Kit for HPE ProLiant DL325 Gen10	P16921-L21
Notes: Ships with Standard Heatsink.	
AMD EPYC 7302P (3.0GHz/16-core/155-180W) FIO Processor Kit for HPE ProLiant DL325 Gen10	P16644-L21
Notes: Ships with Standard Heatsink.	
AMD EPYC 7282 (2.8GHz/16-core/120W) FIO Processor Kit for HPE ProLiant DL325 Gen10	P25853-L21
Notes: Ships with Standard Heatsink.	
AMD EPYC 7272 (2.9GHz/12-core/120W) FIO Processor Kit for HPE ProLiant DL325 Gen10	P25852-L21
Notes: Ships with Standard Heatsink.	
AMD EPYC 7262 (3.2GHz/8-core/155-180W) FIO Processor Kit for HPE ProLiant DL325 Gen10	P16922-L21
Notes: Ships with Standard Heatsink.	
AMD EPYC 7232P (3.1GHz/8-core/120W) FIO Processor Kit for HPE ProLiant DL325 Gen10	P25851-L21
Notes: Ships with Standard Heatsink.	



# **Configuration Information**

# Step 2b: Choose Memory Options

Please select one or more memory from below.

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

### 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 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P19040-B21
HPE 16GB (1x16GB) Dual Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P19042-B21
HPE 16GB (1x16GB) Single Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart	P19041-B21
HPE 32GB (1x32GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart	P19043-B21
HPE 64GB (1x64GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P19045-B21
Load Reduced DIMMs (LRDIMMs)	
HPE 64GB (1x64GB) Quad Rank x4 DDR4-2933 CAS-21-21-21 Load Reduced Smart Memory Kit	P19044-B21
HPE 128GB (1x128GB) Quad Rank x4 DDR4-2933 CAS-21-21-21 Load Reduced Smart Memory Kit	P19047-B21
Notes:	
<ul> <li>Mixing of x4 &amp; x8 memory is not allowed</li> </ul>	
<ul> <li>2933 MT/s DIMMs are only supported with AMD<sup>®</sup> EPYC<sup>®</sup> 7xx2 Series Processor Family</li> </ul>	
<ul> <li>2933 MT/s memory SKUs offer a transfer rate of 2933 MT/s at 1 DIMM per channel and 2666 MT/s at 2 DIMMs per channel</li> </ul>	
Step 2c: Choose Power Supplies	
Select one or two power supplies from below.	
Notes: Mixing of 2 different power supplies is NOT allowed.	
HPE ProLiant Gen10 Entry Level Server Power Supplies – Non-Redundant	
HPE 500W Low Halogen FIO Power Supply Kit	837074-B21
HPE 500W Low Halogen FIO Power Supply Kit Notes:	837074-B21
HPE 500W Low Halogen FIO Power Supply Kit Notes: - This is a Factory Installed Option (FIO) only.	837074-B21
<ul> <li>HPE 500W Low Halogen FIO Power Supply Kit</li> <li>Notes: <ul> <li>This is a Factory Installed Option (FIO) only.</li> <li>Supports Gold-level efficiency (92%) with a standard C14 inlet connector. No support for HPE Power</li> </ul> </li> </ul>	837074-B21
<ul> <li>HPE 500W Low Halogen FIO Power Supply Kit</li> <li>Notes: <ul> <li>This is a Factory Installed Option (FIO) only.</li> <li>Supports Gold-level efficiency (92%) with a standard C14 inlet connector. No support for HPE Power Discovery Services.</li> </ul> </li> </ul>	837074-B21
<ul> <li>HPE 500W Low Halogen FIO Power Supply Kit</li> <li>Notes: <ul> <li>This is a Factory Installed Option (FIO) only.</li> <li>Supports Gold-level efficiency (92%) with a standard C14 inlet connector. No support for HPE Power Discovery Services.</li> </ul> </li> <li>Select one or two power supplies from below.</li> </ul>	837074-B21
<ul> <li>HPE 500W Low Halogen FIO Power Supply Kit</li> <li>Notes: <ul> <li>This is a Factory Installed Option (FIO) only.</li> <li>Supports Gold-level efficiency (92%) with a standard C14 inlet connector. No support for HPE Power Discovery Services.</li> </ul> </li> </ul>	837074-B21
<ul> <li>HPE 500W Low Halogen FIO Power Supply Kit</li> <li>Notes: <ul> <li>This is a Factory Installed Option (FIO) only.</li> <li>Supports Gold-level efficiency (92%) with a standard C14 inlet connector. No support for HPE Power Discovery Services.</li> </ul> </li> <li>Select one or two power supplies from below. <ul> <li>Mixing of 2 different power supplies is NOT allowed.</li> <li>HPE DL325 Gen10 Redundant Power Supply Enablement Kit (P04983-B21) is mandatory to use any of</li> </ul> </li> </ul>	837074-B21 865408-B21
<ul> <li>HPE 500W Low Halogen FIO Power Supply Kit</li> <li>Notes: <ul> <li>This is a Factory Installed Option (FIO) only.</li> <li>Supports Gold-level efficiency (92%) with a standard C14 inlet connector. No support for HPE Power Discovery Services.</li> </ul> </li> <li>Select one or two power supplies from below. <ul> <li>Mixing of 2 different power supplies is NOT allowed.</li> <li>HPE DL325 Gen10 Redundant Power Supply Enablement Kit (P04983-B21) is mandatory to use any of the following power supplies.</li> </ul> </li> </ul>	
<ul> <li>HPE 500W Low Halogen FIO Power Supply Kit</li> <li>Notes: <ul> <li>This is a Factory Installed Option (FIO) only.</li> <li>Supports Gold-level efficiency (92%) with a standard C14 inlet connector. No support for HPE Power Discovery Services.</li> </ul> </li> <li>Select one or two power supplies from below. <ul> <li>Mixing of 2 different power supplies is NOT allowed.</li> <li>HPE DL325 Gen10 Redundant Power Supply Enablement Kit (P04983-B21) is mandatory to use any of the following power supplies.</li> </ul> </li> <li>HPE 500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit</li> </ul>	865408-B21
<ul> <li>HPE 500W Low Halogen FIO Power Supply Kit</li> <li>Notes: <ul> <li>This is a Factory Installed Option (FIO) only.</li> <li>Supports Gold-level efficiency (92%) with a standard C14 inlet connector. No support for HPE Power Discovery Services.</li> </ul> </li> <li>Select one or two power supplies from below. <ul> <li>Mixing of 2 different power supplies is NOT allowed.</li> <li>HPE DL325 Gen10 Redundant Power Supply Enablement Kit (P04983-B21) is mandatory to use any of the following power supplies.</li> </ul> </li> <li>HPE 500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit</li> <li>HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit</li> </ul>	865408-B21 865414-B21
<ul> <li>HPE 500W Low Halogen FIO Power Supply Kit</li> <li>Notes: <ul> <li>This is a Factory Installed Option (FIO) only.</li> <li>Supports Gold-level efficiency (92%) with a standard C14 inlet connector. No support for HPE Power Discovery Services.</li> </ul> </li> <li>Select one or two power supplies from below. <ul> <li>Mixing of 2 different power supplies is NOT allowed.</li> <li>HPE DL325 Gen10 Redundant Power Supply Enablement Kit (P04983-B21) is mandatory to use any of the following power supplies.</li> </ul> </li> <li>HPE 500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit</li> <li>HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit</li> </ul>	865408-B21 865414-B21 865438-B21
<ul> <li>HPE 500W Low Halogen FIO Power Supply Kit</li> <li>Notes: <ul> <li>This is a Factory Installed Option (FIO) only.</li> <li>Supports Gold-level efficiency (92%) with a standard C14 inlet connector. No support for HPE Power Discovery Services.</li> </ul> </li> <li>Select one or two power supplies from below. <ul> <li>Mixing of 2 different power supplies is NOT allowed.</li> <li>HPE DL325 Gen10 Redundant Power Supply Enablement Kit (P04983-B21) is mandatory to use any of the following power supplies.</li> </ul> </li> <li>HPE 500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit</li> <li>HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit</li> <li>HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit</li> <li>HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit</li> </ul>	865408-B21 865414-B21 865438-B21 865434-B21

 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.



# **Configuration Information**

# 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 2SFF Smart Array SAS FIO Cable Kit	P05036-B21
<b>Notes:</b> This option kit is required to connect the 2SFF FIO Enablement Kit (881179-B21) to E208i-a or P408i-a controller.	
HPE DL325 Gen10 8SFF Embedded SATA Controller FIO Cable Kit	P05030-B21
Notes:	
- This option kit is used with the 8SFF CTO to connect to the embedded SATA controller on mother board.	
<ul> <li>The embedded SATA controller works only in the AHCI mode and does not support SW RAID.</li> </ul>	
HPE DL325 Gen10 2SFF Embedded SATA Controller FIO Cable Kit	P05039-B21
<b>Notes:</b> This option kit is used with the 2SFF SAS/SATA FIO Enablement Kit to connect to the embedded SATA controller on mother board.	
HPE 1U Gen10 4LFF Embedded SATA Controller FIO Cable Kit	866444-B21
Notes:	
- This option kit is used with the 4LFF CTO to connect to the embedded SATA controller on mother board.	
<ul> <li>The embedded SATA controller works only in the AHCI mode and does not support SW RAID</li> </ul>	
HPE 1U Gen10 2SFF SAS/SATA FIO Enablement Kit without Cables	881179-B21
Notes:	
<ul> <li>This option can be selected only on 8SFF CTO or NVMe SFF CTO.</li> </ul>	
<ul> <li>This is an FIO option only.</li> </ul>	
<ul> <li>This option kit will enable 2SFF SAS/SATA drives.</li> </ul>	
Security	
HPE Gen10 TPM 1.2 FIO Setting	872108-B21
<b>Notes:</b> HPE Trusted Platform Module 2.0 Gen10 Option (864279-B21), if it needs to be operated in TPM 1.2 Mode.	
BIOS Mode	
HPE Legacy FIO Mode Setting	758959-B22
Notes: UEFI is the default, this FIO part can be used for CTO to enable Legacy mode.	
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

# 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
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HPE DL325 Gen10 PCIe Low Profile Riser Kit	P04849-B21
<b>Notes:</b> This riser cannot be used when Modular Smart Array is chosen.	104047 021
HPE DL325 Gen10 2SFF NVMe Enablement Kit	P04979-B21
<b>Notes:</b> This option provides support for up to 2 NVMe drives, and can only be populated in SFF or NVMe model only.	
HPE DL325 Gen10 2SFF SAS/SATA Enablement Kit	P05050-B21
Notes:	
<ul> <li>This option can be selected only on 8SFF CTO or NVMe SFF CTO.</li> </ul>	
<ul> <li>This is an Field Upgrade option only.</li> </ul>	
<ul> <li>This option kit will enable 2SFF SAS/SATA drives.</li> </ul>	
<ul> <li>This option kit contains the necessary cables to connect to controllers</li> </ul>	
HPE DL325 Gen10 Serial Port Enablement Kit	P05045-B21
Notes: This kit would take up the position of Slot 3 and thus cannot be selected in conjunction with Low	
Profile Riser Kit.	
HPE DL325 Gen10 GPU Enablement Kit	P10779-B21
Notes:	
<ul> <li>This option kit requires addition of standard fans if 4LFF model is chosen</li> </ul>	
<ul> <li>This option kit requires addition of performance fans if 8LFF model is chosen</li> </ul>	
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 4LFF Optical Disk Drive Cable Kit	P05968-B21
Notes: This cable kit must be selected if Optical Drive is chosen on the 4LFF CTO Model	
HPE Mobile USB DVD-RW Optical Drive	701498-B21
Notes: This is only supported on USB 3.0 ports.	
HPE 1U Gen10 8SFF Optical Disk Drive Enablement Kit	873961-B21
Notes: This enablement kit must be selected if Optical Drive is chosen on the 8SFF or NVMe CTO Model	

# **HPE Drives**

# Enterprise - 12G SAS - SFF Drives

HPE 300GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware	HDD 870753-B21
HPE 300GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware	HDD 872475-B21
HPE 600GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware	HDD 870757-B21
HPE 600GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware	HDD 872477-B21
HPE 900GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware	HDD 870759-B21
HPE 1.2TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware H	IDD 872479-B21
HPE 1.8TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty 512e Digitally Signed Firm	ware HDD 872481-B21
HPE 2.4TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty 512e Digitally Signed Firm	ware HDD 881457-B21
Midline - 12G SAS - SFF Drives	
HPE 1TB SAS 12G Midline 7.2K SFF (2.5in) SC 1yr Wty Digitally Signed Firmware HDD	832514-B21
HPE 2TB SAS 12G Midline 7.2K SFF (2.5in) SC 1yr Wty 512e HDD	765466-B21
Midline - 12G SAS - LFF Drives	
HPE 2TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware HDD	833926-B21
HPE 4TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware HDD	833928-B21

HPE 6TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty 512e HDD	861746-B21
HPE 8TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty 512e Digitally Signed Firmware HDD	834031-B21
Midline - 12G SAS - LFF Drives	
HPE 10TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty Helium 512e Digitally Signed Firmware HDD	P09149-B21
HPE 12TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty Helium 512e Digitally Signed Firmware HDD	881781-B21
HPE 14TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty Helium 512e Digitally Signed Firmware HDD	P09155-B21
HPE 16TB SAS 12G Business Critical 7.2K LFF (3.5in) LP 1yr Wty 512e ISE HDD	P23608-B21
HPE 18TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty 512e ISE HDD	P37669-B21
Midline - 6G SATA - SFF Drives	
HPE 1TB SATA 6G Midline 7.2K SFF (2.5in) SC 1yr Wty Digitally Signed Firmware HDD	655710-B21
HPE 2TB SATA 6G Midline 7.2K SFF (2.5in) SC 1yr Wty 512e Digitally Signed Firmware HDD	765455-B21
Midline - 6G SATA - LFF Drives	
HPE 1TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware HDD	861686-B21
HPE 2TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware HDD	861681-B21
HPE 4TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware HDD	861683-B21
HPE 6TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty 512e HDD	861742-B21
HPE 8TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty 512e Digitally Signed Firmware HDD	834028-B21
HPE 10TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty Helium 512e Digitally Signed Firmware HDD	P09161-B21
HPE 12TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty Helium 512e Digitally Signed Firmware HDD	881787-B21
HPE 14TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty Helium 512e Digitally Signed Firmware HDD	P09165-B21
HPE 16TB SATA 6G Business Critical 7.2K LFF (3.5in) LP 1yr Wty 512e ISE HDD	P23449-B21
HPE 18TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty 512e ISE HDD	P37678-B21

# **SSD Selection**

To streamline the configuration process for HPE ProLiant Gen10 servers and to provide the best product availability,

HPE recommends SSDs from the list located here: http://www.hpe.com/products/recommend

# Read Intensive - 12G SAS - SFF - Solid State Drives

I	HPE 960GB SAS 12G Read Intensive SFF SC PM5 SSD	P04517-B21
	HPE 960GB SAS 24G Read Intensive SFF SC PM6 SSD	P26285-B21
I	HPE 960GB SAS 12G Read Intensive SFF SC PM1643a SSD	P19903-B21
l	HPE 1.92TB SAS 24G Read Intensive SFF SC PM6 SSD	P26302-B21
I	HPE 1.92TB SAS 12G Read Intensive SFF SC PM1643a SSD	P19905-B21
l	HPE 3.84TB SAS 12G Read Intensive SFF SC PM5 SSD	P04521-B21
I	HPE 3.84TB SAS 24G Read Intensive SFF SC PM6 SSD	P26306-B21
I	HPE 3.84TB SAS 12G Read Intensive SFF SC PM1643a SSD	P19907-B21
	HPE 7.68TB SAS 12G Read Intensive SFF SC PM5 SSD	P04523-B21
l	HPE 7.68TB SAS 24G Read Intensive SFF SC PM6 SSD	P26310-B21
	HPE 7.68TB SAS 12G Read Intensive SFF SC PM1643a SSD	P19909-B21
	HPE 15.3TB SAS 24G Read Intensive SFF SC PM6 SSD	P26314-B21
I	HPE 15.36TB SAS 12G Read Intensive SFF SC PM1643a SSD	P19911-B21
I	Mixed Use - 12G SAS - SFF - Solid State Drives	
l	HPE 800GB SAS 24G Mixed Use SFF SC PM6 SSD	P26290-B21
l	HPE 800GB SAS 12G Mixed Use SFF SC PM1645a SSD	P19913-B21
l	HPE 1.6TB SAS 24G Mixed Use SFF SC PM6 SSD	P26354-B21
l	HPE 1.6TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04553-B21
l	HPE 1.6TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P09092-B21
I	HPE 1.6TB SAS 12G Mixed Use SFF SC PM1645a SSD	P19915-B21
I	HPE 3.2TB SAS 24G Mixed Use SFF SC PM6 SSD	P26358-B21

HPE 3.2TB SAS 12G Mixed Use SFF SC PM1645a SSD	P19917-B21
HPE 6.4TB SAS 24G Mixed Use SFF SC PM6 SSD	P26362-B21
HPE 6.4TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P09096-B21
HPE 6.4TB SAS 12G Mixed Use SFF SC PM1645a SSD	P19919-B21
Write Intensive - 12G SAS - SFF - Solid State Drives	
HPE 400GB SAS 12G Write Intensive SFF SC PM5 SSD	P04541-B21
HPE 400GB SAS 24G Write Intensive SFF SC PM6 SSD	P26295-B21
HPE 400GB SAS 12G Write Intensive SFF SC SS540 SSD	P21125-B21
HPE 800GB SAS 12G Write Intensive SFF SC PM5 SSD	P04543-B21
HPE 800GB SAS 24G Write Intensive SFF SC PM6 SSD	P26372-B21
HPE 800GB SAS 12G Write Intensive SFF SC SS540 SSD	P21127-B21
HPE 1.6TB SAS 12G Write Intensive SFF SC PM5 SSD	P04545-B21
HPE 1.6TB SAS 24G Write Intensive SFF SC PM6 SSD	P26376-B21
HPE 1.6TB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P09102-B21
HPE 1.6TB SAS 12G Write Intensive SFF SC SS540 SSD	P21129-B21
Read Intensive - 12G Value SAS - SFF - Solid State Drives	
HPE 960GB SAS 12G Read Intensive SFF SC SS540 SSD	P21139-B21
HPE 1.92TB SAS 12G Read Intensive SFF SC SS540 SSD	P21141-B21
HPE 3.84TB SAS 12G Read Intensive SFF SC SS540 SSD	P21143-B21
HPE 7.68TB SAS 12G Read Intensive SFF SC SS540 SSD	P21145-B21
HPE 15.3TB SAS 12G Read Intensive SFF SC SS540 SSD	P21147-B21
Mixed Use - 12G Value SAS - SFF - Solid State Drives	
HPE 800GB SAS 12G Mixed Use SFF SC SS540 SSD	P21131-B21
HPE 1.6TB SAS 12G Mixed Use SFF SC SS540 SSD	P21133-B21
HPE 3.2TB SAS 12G Mixed Use SFF SC SS540 SSD	P21135-B21
HPE 6.4TB SAS 12G Mixed Use SFF SC SS540 SSD	P21137-B21
Read Intensive - 6G SATA - SFF - Solid State Drives	
HPE 480GB SATA 6G Read Intensive SFF SC SE4011 SSD	P06194-B21
HPE 960GB SATA 6G Read Intensive SFF SC SE4011 SSD	P06196-B21
HPE 1.92TB SATA 6G Read Intensive SFF SC SE4011 SSD	P06198-B21
HPE 3.84TB SATA 6G Read Intensive SFF SC SE4011 SSD	P06200-B21
HPE 240GB SATA 6G Read Intensive SFF SC PM883 SSD	P04556-B21
HPE 240GB SATA 6G Read Intensive SFF SC S4510 SSD	P05924-B21
HPE 240GB SATA 6G Read Intensive SFF SC Multi Vendor SSD	P18420-B21
HPE 480GB SATA 6G Read Intensive SFF SC PM883 SSD	P04560-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 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 1.92TB SATA 6G Read Intensive SFF SC PM883 SSD	P04566-B21
HPE 1.92TB SATA 6G Read Intensive SFF SC S4510 SSD	P05938-B21
HPE 1.92TB SATA 6G Read Intensive SFF SC Multi Vendor SSD	P18426-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 Multi Vendor SSD	P18428-B21
HPE 7.68TB SATA 6G Read Intensive SFF SC Multi Vendor SSD	P18430-B21
HPE 240GB SATA 6G Read Intensive SFF SC 5300P SSD	P19935-B21

HPE 480GB SATA 6G Read Intensive SFF SC 5300P SSD	P19937-B21
HPE 960GB SATA 6G Read Intensive SFF SC 5300P SSD	P19939-B21
HPE 1.92TB SATA 6G Read Intensive SFF SC 5300P SSD	P19941-B21
HPE 3.84TB SATA 6G Read Intensive SFF SC 5300P SSD	P19943-B21
HPE 7.68TB SATA 6G Read Intensive SFF SC 5300P SSD	P19945-B21
Mixed Use - 6G SATA - SFF - Solid State Drives	
HPE 480GB SATA 6G Mixed Use SFF SC SM883 SSD	P09712-B21
HPE 480GB SATA 6G Mixed Use SFF SC SE5031 SSD	P13658-B21
HPE 480GB SATA 6G Mixed Use SFF SC S4610 SSD	P05976-B21
HPE 480GB SATA 6G Mixed Use SFF SC Multi Vendor SSD	P18432-B21
HPE 960GB SATA 6G Mixed Use SFF SC SM883 SSD	P09716-B21
HPE 960GB SATA 6G Mixed Use SFF SC SE5031 SSD	P13660-B21
HPE 960GB SATA 6G Mixed Use SFF SC S4610 SSD	P05980-B21
HPE 960GB SATA 6G Mixed Use SFF SC Multi Vendor SSD	P18434-B21
HPE 1.92TB SATA 6G Mixed Use SFF SC SM883 SSD	P09722-B21
HPE 1.92TB SATA 6G Mixed Use SFF SC SE5031 SSD	P13662-B21
HPE 1.92TB SATA 6G Mixed Use SFF SC Multi Vendor SSD	P18436-B21
HPE 3.84TB SATA 6G Mixed Use SFF SC Multi Vendor SSD	P18438-B21
HPE 3.84TB SATA 66 Mixed Use SFF SC SM883 SSD	P10450-B21 P21517-B21
HPE 1.92TB SATA 6G Mixed Use SFF SC S4610 SSD	P05986-B21
HPE 1.92 TB SATA 6G Mixed Use SFF SC 54610 SSD HPE 3.84TB SATA 6G Mixed Use SFF SC 54610 SSD	P05994-B21
HPE 3.84TB SATA 6G Mixed Use SFF RW SE5031 SSD	P13664-B21
HPE 480GB SATA 6G Mixed Use SFF SC 5300M SSD	P19947-B21
HPE 960GB SATA 6G Mixed Use SFF SC 5300M SSD	P19949-B21
HPE 1.92TB SATA 6G Mixed Use SFF SC 5300M SSD	P19951-B21
HPE 3.84TB SATA 6G Mixed Use SFF SC 5300M SSD	P19953-B21
Read Intensive - 6G SATA - LFF - Solid State Drives	
HPE 960GB SATA 6G Read Intensive LFF LPC PM883 SSD	P09691-B21
HPE 480GB SATA 6G Read Intensive LFF LPC 5300P SSD	P19974-B21
Mixed Use - 6G SATA - LFF - Solid State Drives	
HPE 960GB SATA 6G Mixed Use LFF LPC 5300M SSD	P19980-B21
VRO – 6G SATA – SFF – Solid State Drives	
HPE 1.92TB SATA 6G Very Read Optimized SFF SC 5210 SSD	P23487-B21
HPE 3.84TB SATA 6G Very Read Optimized SFF SC 5210 SSD	P23489-B21
HPE 7.68TB SATA 6G Very Read Optimized SFF SC 5210 SSD	P23493-B21
VRO – 6G SATA – LFF – Solid State Drives	
HPE 3.84TB SATA 6G Very Read Optimized LFF LPC 5210 SSD	P23491-B21
HPE 7.68TB SATA 6G Very Read Optimized LFF LPC 5210 SSD	P23495-B21
Read Intensive - NVMe - SFF - Solid State Drives	
HPE 960GB NVMe Gen3 Mainstream Performance Read Intensive SFF SCN U.2 PE6011 SSD	D17474 D21
	P13676-B21
HPE 960GB NVMe Gen4 High Performance Read Intensive SFF SCN U.3 CM6 SSD	P20015-B21
HPE 960GB NVMe Gen4 Mainstream Performance Read Intensive SFF SC U.3 PE8010 SSD	P19807-B21
HPE 960GB NVMe Gen4 Mainstream Performance Read Intensive SFF SCN U.3 PE8010 SSD	P19809-B21
HPE 1.92TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	P10214-B21
HPE 1.92TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	P10210-B21
HPE 1.92TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	P07192-B21
HPE 1.92TB NVMe Gen3 Mainstream Performance Read Intensive SFF SCN U.2 PE6011 SSD	P13678-B21
HPE 1.92TB NVMe Gen4 High Performance Read Intensive SFF SCN U.3 CM6 SSD	P20017-B21

HPE 1.92TB NVMe Gen4 Mainstream Performance Read Intensive SFF SC U.3 PE8010 SSD	P19811-B21
HPE 1.92TB NVMe Gen4 Mainstream Performance Read Intensive SFF SCN U.3 PE8010 SSD	P19813-B21
HPE 2TB NVMe Gen3 High Performance Read Intensive SFF SCN U.2 P4510 SSD	P13695-B21
HPE 3.84TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	P10212-B21
HPE 3.84TB NVMe Gen3 Mainstream Performance Read Intensive SFF SCN U.2 PE6011 SSD	P13680-B21
HPE 3.84TB NVMe Gen4 High Performance Read Intensive SFF SCN U.3 CM6 SSD	P20019-B21
HPE 3.84TB NVMe Gen4 Mainstream Performance Read Intensive SFF SC U.3 PE8010 SSD	P19815-B21
HPE 3.84TB NVMe Gen4 Mainstream Performance Read Intensive SFF SCN U.3 PE8010 SSD	P19817-B21
HPE 4TB NVMe Gen3 High Performance Read Intensive SFF SCN U.2 P4510 SSD	P13697-B21
HPE 7.68TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	P07196-B21
HPE 7.68TB NVMe Gen4 Mainstream Performance Read Intensive SFF SC U.3 PE8010 SSD	P19819-B21
HPE 7.68TB NVMe Gen4 Mainstream Performance Read Intensive SFF SCN U.3 PE8010 SSD	P19821-B21
HPE 960GB NVMe Gen4 Mainstream Performance Read Intensive SFF SCN U.3 CD6 SSD	P25944-B21
HPE 1.92TB NVMe Gen4 Mainstream Performance Read Intensive SFF SCN U.3 CD6 SSD	P20139-B21
HPE 3.84TB NVMe Gen4 Mainstream Performance Read Intensive SFF SCN U.3 CD6 SSD	P20141-B21
HPE 7.68TB NVMe Gen4 Mainstream Performance Read Intensive SFF SCN U.3 CD6 SSD	P20143-B21
Mixed Use - NVMe - SFF - Solid State Drives	
HPE 800GB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	P07179-B21
HPE 800GB NVMe Gen3 Mainstream Performance Mixed Use SFF SCN U.2 PE6031 SSD	P13668-B21
HPE 800GB NVMe Gen4 High Performance Mixed Use SFF SCN U.3 CM6 SSD	P20094-B21
HPE 800GB NVMe Gen4 Mainstream Performance Mixed Use SFF SC U.3 PE8030 SSD	P19823-B21
HPE 800GB NVMe Gen4 Mainstream Performance Mixed Use SFF SCN U.3 PE8030 SSD	P19825-B21
HPE 1.6TB NVMe Gen3 High Performance Mixed Use SFF SCN U.2 P4610 SSD	P13699-B21
HPE 1.6TB NVMe Gen3 Mainstream Performance Mixed Use SFF SCN U.2 PE6031 SSD	P13670-B21
	P13070-B21 P20096-B21
HPE 1.6TB NVMe Gen4 High Performance Mixed Use SFF SCN U.3 CM6 SSD HPE 1.6TB NVMe Gen4 Mainstream Performance Mixed Use SFF SC U.3 PE8030 SSD	
	P19827-B21
HPE 1.6TB NVMe Gen4 Mainstream Performance Mixed Use SFF SCN U.3 PE8030 SSD	P19829-B21
HPE 3.2TB NVMe Gen3 Mainstream Performance Mixed Use SFF SCN U.2 PE6031 SSD	P13672-B21
HPE 3.2TB NVMe Gen3 High Performance Mixed Use SFF SCN U.2 P4610 SSD	P13701-B21
HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF SCN U.3 CM6 SSD	P20098-B21
HPE 3.2TB NVMe Gen4 Mainstream Performance Mixed Use SFF SCN U.3 PE8030 SSD	P19831-B21
HPE 3.2TB NVMe Gen4 Mainstream Performance Mixed Use SFF SC U.3 PE8030 SSD	P19833-B21
HPE 6.4TB NVMe Gen3 High Performance Mixed Use SFF SCN U.2 P4610 SSD	P13703-B21
HPE 6.4TB NVMe Gen3 Mainstream Performance Mixed Use SFF SCN U.2 PE6031 SSD	P13674-B21
HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF SCN U.3 CM6 SSD	P20100-B21
HPE 6.4TB NVMe Gen4 Mainstream Performance Mixed Use SFF SC U.3 PE8030 SSD	P19835-B21
HPE 6.4TB NVMe Gen4 Mainstream Performance Mixed Use SFF SCN U.3 PE8030 SSD	P19837-B21
HPE 800GB NVMe Gen4 Mainstream Performance Mixed Use SFF SCN U.3 CD6 SSD	P25953-B21
HPE 1.6TB NVMe Gen4 Mainstream Performance Mixed Use SFF SCN U.3 CD6 SSD	P20203-B21
HPE 3.2TB NVMe Gen4 Mainstream Performance Mixed Use SFF SCN U.3 CD6 SSD	P20205-B21
HPE 6.4TB NVMe Gen4 Mainstream Performance Mixed Use SFF SCN U.3 CD6 SSD	P20207-B21
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
HPE 750GB NVMe Gen3 High Performance Low Latency Write Intensive SFF SCN U.2 P4800X SSD	P06952-B21
Hard Drive Blank Kits	
HPE Gen9 LFF HDD Spade Blank Kit	807878-B21
HPE Small Form Factor Hard Drive Blank Kit	666987-B21

P19892-B21

# **Core Options**

# 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.	
Read Intensive - M.2 - Solid State Drives	
HPE 240GB SATA 6G Read Intensive M.2 2280 5300B SSD	P19888-B21
HPE 480GB SATA 6G Read Intensive M.2 2280 5300P SSD	P19890-B21

# **HPE Smart IO**

HPE 960GB SATA 6G Read Intensive M.2 2280 5300P SSD

# **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 iLO Management Module	
Pensando Distributed Services Platform for HPE iLO Sideband Management Adaptive LOM Module	P26969-B21
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

HPE Ethernet 1Gb 4-port BASE-T BCM5719 Adapter	647594-B21
HPE Ethernet 1Gb 4-port BASE-T I350-T4V2 Adapter	811546-B21
HPE Ethernet 1Gb 2-port BASE-T BCM5720 Adapter	615732-B21
HPE Ethernet 1Gb 2-port BASE-T I350-T2V2 Adapter	652497-B21
10 Gigabit Ethernet adapters	
HPE Ethernet 10Gb 2-port BASE-T 57810S Adapter	656596-B21
HPE Ethernet 10Gb 2-port SFP+ 57810S Adapter	652503-B21
HPE Ethernet 10Gb 2-port BASE-T BCM57416 Adapter	813661-B21
HPE Ethernet 10Gb 2-port BASE-T QL41401-A2G Adapter	867707-B21
HPE Ethernet 10Gb 2-port BASE-T X550-AT2 Adapter	817738-B21
10 Gigabit Ethernet adapters	
HPE Ethernet 10Gb 2-port SFP+ X710-DA2 Adapter	727055-B21
HPE Ethernet 10Gb 2-port SFP+ QL41401-A2G Adapter	P08446-B21

# 25 Gigabit Ethernet adapters

HPE Ethernet 10/25Gb 2-port SFP28 BCM57414 Adapter	817718-B21
HPE Ethernet 10/25Gb 2-port SFP28 MCX4121A-ACUT Adapter	817753-B21
HPE Ethernet 10/25Gb 2-port SFP28 QL41401-A2G Adapter	867328-B21
100 Gigabit Ethernet adapters	
HPE Ethernet 100Gb 1-port QSFP28 MCX515A-CCAT Adapter	874253-B21
FlexibleLOM adapters	
HPE Ethernet 1Gb 4-port FLR-T BCM5719 Adapter	629135-B22
HPE Ethernet 1Gb 4-port FLR-T I350-T4V2 Adapter	665240-B21
HPE FlexFabric 10Gb 2-port FLR-T 57810S Adapter	700759-B21
HPE FlexFabric 10Gb 2-port FLR-SFP+ 57810S Adapter	700751-B21
HPE Ethernet 10Gb 2-port FLR-T BCM57416 Adapter	817721-B21
HPE FlexFabric 10Gb 4-port FLR-T 57840S Adapter	764302-B21
FlexibleLOM adapters	
HPE Ethernet 10/25Gb 2-port FLR-SFP28 BCM57414 Adapter	817709-B21
HPE Ethernet 10/25Gb 2-port FLR-SFP28 MCX4121A-ACFT Adapter	817749-B21
Notes:	
- The DL325 Gen10 chassis ships with 4x 1 Gb embedded. (if equipped). It is not equipped on new boards	
for 7xx2 series processors.	
<ul> <li>Only one FlexibleLOM can be added to the server. These options are upgradeable and can be changed from the original configuration after the server is shipped.</li> </ul>	
- 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:	
http://www.hpe.com/us/en/product-catalog/servers/server-adapters.hits-12.html	
HPE Ethernet 10Gb 2-port FLR-T X550-AT2 Adapter HPE Ethernet 10Gb 2-port FLR-SFP+ X710-DA2 Adapter	817745-B21 727054-B21
HPE Ethernet 10/25Gb 2-port FLR-SFP28 QL41401-A2G Converged Network Adapter	867334-B21
Notes:	007554-021
<ul> <li>The DL325 Gen10 chassis ships with 4x 1 Gb embedded. (if equipped). It is not equipped on new boards</li> </ul>	for 7xx2 series
processors.	
<ul> <li>Only one FlexibleLOM can be added to the server. These options are upgradeable and can be changed fr configuration after the server is shipped.</li> </ul>	om the original
<ul> <li>Direct Attach Cable (DAC) for copper environments or fiber transceivers and cables for fiber-optic enviro</li> </ul>	onments must be
purchased separately. Please see the related NIC QuickSpecs for Technical Specifications and additional	
- 622FLR-SFP28, CN1300R & CN1200R adapters with FCoE used in conjunction with all Red Hat 7.x version	ion OS's are not
supported at this time <a href="http://www.hpe.com/us/en/product-catalog/servers/server-adapters.hits-12.h">http://www.hpe.com/us/en/product-catalog/servers/server-adapters.hits-12.h</a>	<u>ıtml</u> .
HPE InfiniBand	
HPE InfiniBand FDR/Ethernet 40/50Gb 2-port 547FLR-QSFP Adapter	879482-B21
HPE InfiniBand EDR 100Gb 1-port 841QSFP28 Adapter	872725-B21
HPE InfiniBand EDR/Ethernet 100Gb 2-port 841QSFP28 Adapter	872726-B21
LIDE Infinitional EDD/Ethornet 100Ch 2 part 9/00SED29 Adaptor	07E111 D01

HPE InfiniBand EDR/Ethernet 100Gb 2-port 840QSFP28 Adapter

HPE InfiniBand EDR/Ethernet 100Gb 2-port 840QSFP28 Adapter	825111-B21
HPE InfiniBand HDR100/Ethernet 100Gb 1-port QSFP56 PCIe3 x16 MCX653105A-ECAT Adapter	P06250-B21
HPE InfiniBand HDR100/Ethernet 100Gb 2-port QSFP56 PCIe3 x16 MCX653106A-ECAT Adapter	P06251-B21

#### PN Card DL325Gen10 Configuration Qtv Processor Supported Supported P06250-B21 HPE InfiniBand 2 (Slot1&3) All Passive Slot 1 Slot 3 Active Slot 1 Slot 3 HDR100/Ethernet 100Gb Cable Cable 35C 35C 35C 30C 1-port 940QSFP56 Adapter P06251-B21 HPE InfiniBand 2 (Slot1&3) All Passive Slot 1 Slot 3 Active Slot 1 Slot 3 HDR100/Ethernet 100Gb Cable Cable 35C 35C 35C 25C 2-port 940QSFP56 Adapter

# **Infiniband Information**

# **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 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 U	nits (PDUs).
	Visit HPE power cords for a full list of optional HPE power cords.	
ΗF	2E 500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	865408-B21

# Notes:

notes.	
- Flex Slot Platinum power supplies support power efficiency of up to 94% and include a standard C-14	
power inlet connector.	
<ul> <li>HPE DL325 Gen10 RPS Enablement Kit (P04983-B21) is mandatory to use this power supply.</li> </ul>	
HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit	865438-B21

### Notes:

Flex Slot Titanium power supplies support power efficiency of up to 96% and include a standard C-14 power inlet connector.
 HPE DL325 Gen10 RPS Enablement Kit (P04983-B21) is mandatory to use this power supply.
 HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit 865414-B21
 Notes:

- Flex Slot Platinum power supplies support power efficiency of up to 94% and include a standard C-14 power inlet connector.
   UPE DI 725 Con10 DDS Eachlement Kit (D0 (007 D21) is mendetenets use this neuron supplies)
- HPE DL325 Gen10 RPS Enablement Kit (P04983-B21) is mandatory to use this power supply.

#### HPE 800W Flex Slot -48VDC Hot Plug Low Halogen Power Supply Kit Notes:

- Flex Slot -48VDC power supplies support power efficiency of up to 94%.
- HPE DL325 Gen10 RPS Enablement Kit (P04983-B21) is mandatory to use this power supply.

HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit **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 DL325 Gen10 RPS Enablement Kit (P04983-B21) is mandatory to use this power supply.



865434-B21

830272-B21

HPE DL325 Gen10 Redundant Power Supply Enablement Kit	P04983-B21
Notes: This enablement kit is required to use the Flex Slot power supplies	
HPE 800W Flex Slot Universal Hot Plug Low Halogen Power Supply Kit	865428-B21
Notes:	
<ul> <li>Flex Slot universal power supplies support power efficiency of up to 94% and support both</li> </ul>	
277VAC/380VDC power inputs.	

- HPE DL325 Gen10 RPS Enablement Kit (P04983-B21) is mandatory to use this power supply.

# **GPU Information**

Part	Card	Qty	Processor	HPE P	HPE ProLiant DL325 Gen10 Server Configuration				
Number		Supported	Supported	4LFF	8SFF	8+2 SFF SAS/SATA	8SFFSAS/SATA +2NVMe	8SFF NVMe	SFF NVMe
ROW29C	HPE NVIDIA Tesla T4 16GB Module	1 (Slot1)	All	30C	30C	30C	25C	30C	25C

# **HPE Computation and Graphics Accelerators**

NVIDIA T4 16GB Computational Accelerator for HPE **Notes:** HPE DL325 Gen10 GPU Enablement Kit (P10779-B21) is mandatory to use this accelerator ROW29C

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 <b>downloaded</b> .	

# **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 1.6TB NVMe x8 Lanes Mixed Use HHHL 3yr Wty Digitally Signed Firmware Card	P10264-B21
HPE 3.2TB NVMe Gen4 x8 High Performance Mixed Use AIC HHHL PM1735 SSD	P26936-B21

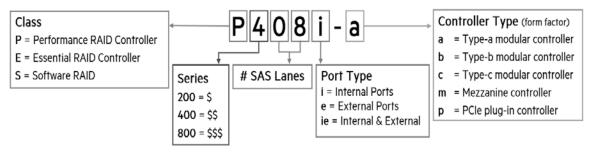
# **HPE Security**

•	
HPE 1U Gen10 Bezel Kit	867998-B21
HPE Bezel Lock Kit	875519-B21
HPE Trusted Platform Module 2.0 Gen10 Option	864279-B21
Notes:	
<ul> <li>HPE Trusted Platform Module 2.0 option works with Gen10 servers with UEFI Mode not Legacy Mode. It is not compatible with HPE ProLiant Gen8 servers or earlier generation variants.</li> <li>HPE server systems can have a TPM module (of any type) installed only once. It cannot be replaced with any other TPM module.</li> </ul>	
<ul> <li>There is a FIO setting to allow this TPM module to operate in a TPM 1.2 mode (872108-B21).</li> </ul>	
HPE 1U Gen10 Chassis Intrusion Detection Kit	866473-B21
<b>Notes:</b> 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 Controllers**

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



# **Smart Array Controllers**

Smart Array Controllers	
HPE 96W Smart Storage Battery (up to 20 Devices) with 145mm Cable Kit	
<b>Notes:</b> All performance RAID controllers are supported by the HPE Smart Storage Battery (P01366-B21),	
which supports multiple devices and is sold separately.	0 / 00 07 00 1
HPE Smart Array P816i-a SR Gen10 (16 Int Lanes/4GB Cache/SmartCache) 12G SAS Modular LH Controller	869083-B21
Notes:	
<ul> <li>Does not occupy a PCIe expansion slot and includes SmartCache license.</li> <li>The PO1/(i.e. schlashing in the POEE chaosis and).</li> </ul>	
The P816i-a cable ships in the 8SFF chassis only.	0/0001 001
HPE Smart Array P408i-a SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS Modular LH Controller	869081-B21
Notes: Does not occupy a PCIe expansion slot.	
HPE Smart Array P408e-p SR Gen10 (8 External Lanes/4GB Cache) 12G SAS PCIe Plug-in Controller	804405-B21
HPE Smart Array P408i-p SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS PCIe Plug-in Controller	830824-B21
Essential RAID Controllers	
HPE Smart Array E208e-p SR Gen10 (8 External Lanes/No Cache) 12G SAS PCIe Plug-in Controller	804398-B21
HPE Smart Array E208i-p SR Gen10 (8 Internal Lanes/No Cache) 12G SAS PCIe Plug-in Controller	804394-B21
HPE Smart Array E208i-a SR Gen10 (8 Internal Lanes/No Cache) 12G SAS Modular LH Controller	869079-B21
Notes: Does not occupy a PCIe expansion slot.	
HPE Cable Options	
HPE DL325 Gen10 10SFF Smart Array SAS Cable Kit	P05042-B21
HPE 1U Gen10 4LFF Smart Array SAS Cable Kit	866452-B21
HPE 1U Gen10 8SFF Smart Array SAS Cable Kit	866448-B21
HPE Smart Storage Hybrid Capacitor with 145mm Cable Kit	P02377-B21
HPE DL325 Gen10 4LFF Smart Array S100i SATA FIO Cable Kit	P09409-B21
Notes: HPE DL325 Gen10 4LFF Smart Array S100i SATA FIO Cable Kit must be selected in order to support	
HPE Smart Array S100i SR Gen10 SW RAID on 4LFF CTO chassis	
Optional Software	
HPE Smart Array SR SmartCache (Single Key/Single Server) LTU	D7S26A
HPE Smart Array SR SmartCache (Single Key/Multiple Servers) LTU	D7S27A
HPE Smart Array SR SmartCache (Single Key/Multiple Servers) E-LTU	D7S27AAE
Notes: SmartCache is offered on HPE Smart Array performance RAID controllers and comes standard (no	

**Notes:** SmartCache is offered on HPE Smart Array performance RAID controllers and comes standard (no licensing is required) if the HPE Smart Array P816i-a SR Gen10 Controller is installed in the server.

# **Optional Upgrades**

HPE 96W Smart Storage Lithium-ion Battery with 145mm Cable Kit **Notes:** Provides backup power for multiple HPE Smart Array controllers or other devices. Is required with performance RAID controllers.

# **HPE Tape Backup**

For the complete range of tape drives, autoloaders, libraries and media see: <u>https://www.hpe.com/us/en/storage/storeever-tape-storage.html.</u> For hardware and software compatibility of Hewlett Packard Enterprise tape backup products <u>http://www.hpe.com/storage/BURAcompatibility.</u>

# **HPE Disk-Based Backup**

HPE RDX External Docking Station	C8S07B
HPE RDX 500GB Removable Disk Cartridge	Q2042A
HPE RDX 1TB Removable Disk Cartridge	Q2044A
HPE RDX 2TB Removable Disk Cartridge	Q2046A
HPE RDX 4TB Removable Disk Cartridge	Q2048A

# **HPE Storage Options**

### **Emulex Fibre Channel HBAs**

HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter	Q0L13A
HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter	Q0L14A
HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter	Q0L11A
HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter	Q0L12A
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
Converged Network Adapters	
HPE CN1200R 10GBASE-T Converged Network Adapter	Q0F26A
HPE CN1300R 10/25Gb Dual Port Converged Network Adapter	Q0F09A

#### Notes:

 For the complete listing of Fibre Channel Converged Network Adapters please see: <u>https://www.hpe.com/us/en/product-catalog/servers/adapters/pip.models.hpe-storefabric-converged-network-adapters.4118472.html</u>

 622FLR-SFP28, CN1300R & CN1200R adapters with FCoE used in conjunction with all Red Hat 7.x version OS's are not supported at this time.

### **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 <u>HPE Standard Series Racks QuickSpecs</u> for information on additional racks options and rack specifications.

P01366-B21

# HPE Power Distribution Units (PDUs)

- Please see the HPE Basic Power Distribution Units (PDU) QuickSpecs for information on these products and their • specifications.
- Please see the <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 HPE Metered and Switched Power Distribution Units (PDU) QuickSpecs 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 HPE DirectFlow Three Phase Uninterruptible Power System QuickSpecs for information on these products and their specifications.

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

# **HPE Rack Options**

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

# **Rail Kits**

Ball bearing and 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

Notes: 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 1U Small Form Factor Easy Install Rail Kit	734807-B21
Notes: HPE 1U Cable Management Arm for Rail Kit (734811-B21).	
HPE 1U Cable Management Arm for Rail Kit	734811-B21

HPE 10 Cable Management Arm for Rail Kit

# HPE USB and SD Options

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

HPE 32GB microSD Flash Memory Card	700139-B21
HPE 32GB microSD RAID 1 USB Boot Drive	P21868-B21

# HPE Support Services

# **Tech Care**

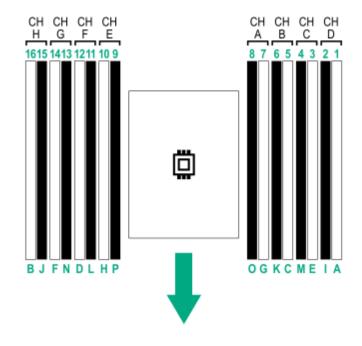
HPE 5 Year Tech Care Essential DL325 Gen10 Service	HV6H3E
HPE 5 Year Tech Care Essential wDMR DL325 Gen10 Service	HV6H8E
HPE 3 Year Tech Care Essential DL325 Gen10 Service	HV6H1E
HPE 3 Year Tech Care Essential wDMR DL325 Gen10 Service	HV6H6E
Foundation Care	
HPE 3 Year Foundation Care 24x7 DL325 Gen10 Service	HB4G8E
HPE 3 Year Foundation Care 24x7 with DMR DL325 Gen10 Service	HB4G9E
HPE 3 Year Foundation Care 24x7 with CDMR DL325 Gen10 Service	HB4H0E

# **Additional Options**

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

# 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 (UDIMM, 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
- To realize the performance memory capabilities listed in this document, HPE DDR4 SmartMemory is required. For additional information, please see the: **HPE DDR4 Smart Memory QuickSpecs**
- For details on the HPE Server Memory speed, visit: http://www.hpe.com/docs/amd-speed-tables

### Notes:

- The maximum memory speed is a function of the memory type, memory configuration, and processor model.
- Model 7251 1 DIMM per channel is 2400 MT/s.

For details on the HPE Server Memory speed, visit: http://www.hpe.com/docs/amd-speed-tables

### DDR4 memory options part number decoder

### Notes:

- Capacity references are rounded to the common gigabyte (GB) values.
  - o 8GB = 8,192 MB
  - o 16GB = 16,384 MB
  - o 32GB = 32,768 MB
  - o 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

## Dimensions

• 4.29 x 43.46 x 61.49 cm 1.69 x 17.11 x 24.21 in

Weight (approximate)

- **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)
  - 10 kg
  - 22.05 lb
- **Maximum:** 10 SFF hard drives, 1x processors, 2x power supplies, 1x Smart Array, 2x Risers installed, 16x DIMMs, 2x power supply, cables for the above)
  - 15.60 kg
    - 35.27 lb

# 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° to 35°C (50° to 95°F) at sea level with an altitude derating of 1.0°C per every 305 m (1.8°F per every 1000 ft) above sea level to a maximum of 3050 m (10,000 ft), no direct sustained sunlight. Maximum rate of change is 20°C/hr (36°F/hr). The upper limit and rate of change may be limited by the type and number of options installed.

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

### • Extended Ambient Operating Temperature

For approved hardware configurations, the supported system inlet range is extended to be: 5° to 10°C (41° to 50°F) and 35° to 40°C (95° to 104°F) at sea level with an altitude derating of 1.0°C per every 175 m (1.8°F per every 574 ft) above 900 m (2953 ft) to a maximum of 3050 m (10,000 ft). The approved hardware configurations for this system are listed at the URL:<u>http://www.hpe.com/servers/ashrae</u>

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

### **RTC Accuracy**

• 50 PPM

# 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).

# **Technical Specifications**

# **Acoustic Noise**

Listed are the declared A-Weighted sound power levels ( $L_{WAd}$ ) and declared average bystander position A-Weighted sound pressure levels ( $L_{pAm}$ ) when the product is operating in a 23°C ambient environment. Noise emissions were measured in accordance with ISO 7779 (ECMA 74) and declared in accordance with ISO 9296 (ECMA 109). The listed sound levels apply to standard shipping configurations. Additional options may result in increased sound levels. Please have your HPE representative provide information from the HPE EMESC website for further technical details regarding the configurations listed below.

Idle				
LWAd	4.8 B Entry 4.8 B Base 4.8 B Perf			
LpAm	32 dBA Entry 34 dBA Base 35 dBA Perf			
Operating				
LWAd	5.2 B Entry 5.2 B Base 5.2 B Perf			
LpAm	37 dBA Entry 38 dBA Base 37 dBA Perf			

#### Notes:

- Acoustics levels presented here are generated by the test configuration only. Acoustics levels will vary depending on system configuration. Values are subject to change without notification and are for reference only.
- Product conformance to cited product specifications is based on sample (type) testing, evaluation, or assessment. This
  product or family of products is eligible to bear the appropriate compliance logos and statements.
- The Listed sound levels apply to standard shipping configurations. Additional options may result in increased sound levels.

### **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 **HPE Smart Array Gen10 Controllers for HPE ProLiant DL, ML and Apollo Servers** 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.

# Summary of Changes

Date	Version History	Action	Description of Change
06-Apr-2021	Version 25	Changed	Service and Support and Additional Options sections were updated. Obsolete SKUs were removed.
01-Feb-2021	Version 24	Changed	Core Options section was updated. Obsolete SKUs were removed.
02-Nov-2020	Version 23	Changed	Standard Features and Pre-configured Models sections were updated. Obsolete SKUs were removed.
05-Oct-2020	Version 22	Changed	Core Options section was updated. Obsolete SKUs were removed.
03-Aug-2020	Version 21	Changed	Standard Features, Configuration Information, Core Options and Additional Options sections were updated. Obsolete SKUs were removed.
01-Jun-2020	Version 20	Changed	Pre-configured Models and Core Options sections were updated.
06-Apr-2020	Version 19	Changed	Standard Features, Configuration Information and Core Options sections were updated.
17-Feb-2020	Version 18	Changed	Overview, Standard Features, Configuration Information, and Pre-configured Models sections were updated.
02-Dec-2019	Version 17	Changed	Configuration Information, Core Options and Additional Options sections were updated.
04-Nov-2019	Version 16	Changed	Configuration Information section was updated.
07-Oct-2019	Version 15	Changed	Overview, Standard Features, Pre-configured Models, Configuration Information, Core Options and Additional Options sections were updated.
03-Sep-2019	Version 14	Changed	Overview, Standard Features, Pre-configured Models, Core Options and Technical Specifications sections were updated.
26-Aug-2019	Version 13	Changed	Overview,Standard Features,Pre-configured Models, Core Options and Memory sections were updated.
05-Aug-2019	Version 12	Changed	Configuration Information and Core Options sections were updated.
01-Jul-2019	Version 11	Changed	SKUs description were updated
03-Jun-2019	Version 10	Changed	Overview, Standard Features, Optional Features, Service and Support, Configuration Information, Core Options, Additional Options and Memory sections were updated. The U.S. version of QuickSpecs is no longer being updated, please reference the Worldwide QuickSpecs for latest information
15-Apr-2019	Version 9	Changed	SKUs were updated.
02-Apr-2019	Version 8	Changed	Overview, Standard Features, Core Options and Aditional Options sections were updated.
04-Feb-2019	Version 7	Changed	Optional Features section was updated.
10-Dec-2018	Version 6	Changed	SKU 829335-B21 was deleted from Core Options section
03-Dec-2018	Version 5	Changed	Overview and Standard Features sections were updated SKUs were Added and deleted in Core Options
01-Oct-2018	Version 4	Changed	Standard Features, Pre-configured Models, Configuration Information, Additional Options, Memory and Core Options sections were updated. SKU descriptions were updated.
13-Aug-2018	Version 3	Added	HPE Support Services section was added to the QuickSpecs.
06-Aug-2018	Version 2	Changed	Configuration Information – Factory Integrated Models, Core Options, and Additional Options were revised.
02-Jul-2018	Version 1	New	New QuickSpecs.

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