QuickSpecs

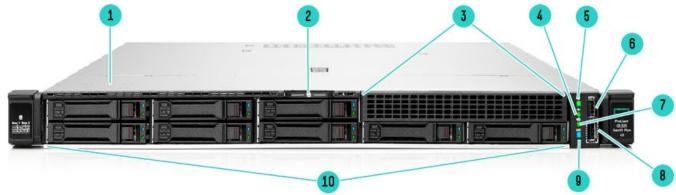
Overview

HPE ProLiant DL325 Gen10 Plus v2 server

The HPE ProLiant DL325 Gen10 Plus v2 is a secure and versatile single socket server for virtualization, I/O intensive and storage intensive workloads.

Powered by the 3rd generation AMD® EPYC® 7003 Series processor, the HPE ProLiant DL325 Gen10 Plus v2 offers greater processing power. On top of that, the chassis is smaller compared to the previous generation providing better compatibility to your infrastructure. Tri-mode RAID controller support provides flexibility to support across SAS/SATA/NVMe types of storage options.

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

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

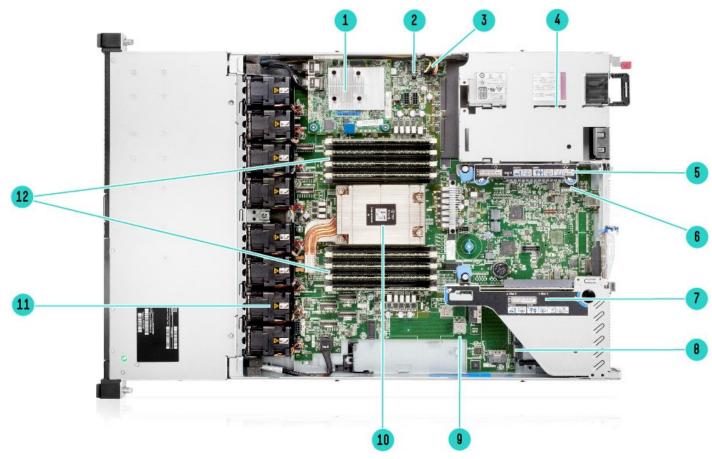
Notes:

- * Option Shown: No media
- * Optional: +2SFF U.3 SAS/SATA/NVMe drives (total max 10SFF)
- * Optional: +2SFF U.2 NVMe drives (total max 10SFF)
- * Optional: 9.5 mm SATA DVD-ROM/RW Optical Drive

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



Overview

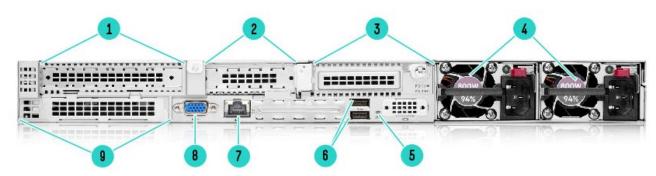


Internal View 8SFF chassis

- 1. Optional HPE Flexible Smart Array Controller (Type -a shown) 7.
- 2. Chassis intrusion detection connector
- 3. Hard drive backplane power connector
- 4. Hot Plug redundant HPE Flexible Slot Power supplies
- 5. Connection for (optional) secondary riser
- 6. Serial Port Connector

- 7. Primary PCIe riser, standard
- 8. (Under) OCP 3.0 Slot
- 9. Internal USB 3.1 Gen1 connector
- 10. Processor (heatsinks shown)
- 11. Fan cage shown with 8 Performance Hot-swappable fans
- 12. DDR4 DIMM slots. Only 8 slots are populated as shown.

Overview



Rear View

- 1. Slot 1 PCIe 4.0
- 2. Slot 2 PCIe 4.0
- 3. Optional Slot 3 PCIe 4.0
- 4. Hot-plug Power Supply 1 and 2 (Optional)
- 5. UID LED

- 6. USB 3.1 Gen1 Ports (2)
- 7. iLO Management Port
- 8. VGA port
- 9. Optional: OCP 3.0 Slot (not shown)

What's New

- Supports the latest AMD EPYC 7003 Series processor with up to 280W
- Chassis is less than 1 meter of depth
- Support for Tri-mode storage controllers for SAS/SATA/NVMe drives
- New Basic Carrier SAS/SATA/NVMe drives.
- Support for up to 10 SFF/4 LFF drives
- European Union (EU) Lot 9 regulation, please visit:

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

Platform Information

Form Factor

• 1U rack

Chassis Types

- 4 LFF SAS/SATA, with optional Optical Drive options
- 8 SFF SAS/SATA, with optional 2SFF SAS/SATA or 2 NVMe and Optical Drive options
- 8 SFF NVMe U.2/U.3, with optional 2SFF SAS/SATA or 2 NVMe and Optical Drive options

Notes:

- Mixing LFF & SFF is not supported
- When a 8 SFF chassis is selected, minimum one 8 SFF SAS/SATA, 8 SFF NVMe U.3 or 8 SFF NVMe U.2 backplane kit must be selected
- When a 4 LFF chassis is selected, one 4 LFF SAS/SATA backplane kit must be selected
- The 8 SFF can be upgraded with either an additional 2 SFF drive kit for a total 10 SAS/SATA drives or 2SFF NVMe Kit for a total of 8 SAS/SATA + 2 NVMe drives or an optional Optical Drive
- The 8 SFF NVMe chassis can be upgraded with either an additional 2SFF NVMe kit for a total of 10 NVMe drives or 2SFF drive kit for a total of 8NVMe + 2 SAS/SATA drives or an optional Optical Drive

System Fans

• Standard Fan Kit and Maximum Performance Fan Kit are not included in the chassis

Processors – One of the following depending on model.

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

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

| AMD EPYC Processor | Cores | Base Frequency | Max Frequency | Max Memory | Wattage | Cache | Memory |
|--------------------|-------|----------------|------------------|---------------|---------|-------|----------|
| EPYC 7763 | 64 | 2.45 GHz | 3.5 GHz | 4TB | 280W | 256MB | 3200MT/s |
| EPYC 7413 | 24 | 2.65 GHz | 3.6 GHz | 4TB | 180W | 128MB | 3200MT/s |

Chipset

No chipset - System on Chip (SoC) design.

On System Management Chipset

HPE iLO 5 ASIC

Notes: Read and learn more in the iLO QuickSpecs

Memory

One of the following depending on model

| Туре: | HPE DDR4 SmartMemory | Registered (RDIMM) |
|---------------------------|-------------------------|--|
| DIMM Slots Available | 16 | 16 DIMM slots per processor, 8 channels per processor, 2 DIMMs per channel |
| Maximum capacity (RDIMM) | 1.0 TB | 16 x 64 GB RDIMM @ 3200 MT/S at 1 or 2 DPC |
| Maximum capacity (LRDIMM) | 2.0 TB | 16 x 128 GB LRDIMM @ 3200 MT/s at 1 or 2 DPC |

Notes:

The maximum memory speed is limited by the processor selection.

Expansion Slots

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

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

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

Notes:

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

Storage Controllers

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

HPE also launched Tri-Mode controllers which will support NVMe U.3/U.2 drives as wells as SAS/SATA drives. Please see below list for the tri-mode controllers supported on the server. For a more detailed breakout of the available Tri-Mode controllers visit the https://example.com/hee-detailed-breakout-of-the-available-tri-Mode controllers-bata-sheet



One of the following depending on model

Essential RAID Controller

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

Performance RAID Controller

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

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

Tri-Mode RAID Controller

- HPE Tri-Mode MR216i-a Gen10 Plus Controller
- HPE Tri-Mode MR216i-p Gen10 Plus Controller
- HPE Tri-Mode MR416i-a Gen10 Plus Controller
- HPE Tri-Mode MR416i-p Gen10 Plus Controller
- HPE Tri-Mode SR416i-a Gen10 Plus Controller
- HPE Tri-Mode SR932i-p Gen10 Plus Controller

Notes: MR216i-a and MR216i-p controllers do not need the support of a smart storage battery.

Internal Storage Devices

One of the following depending on model

Optical Drive

None ship standard

Hard Drives

None ship standard

| Maximum Internal Storage | | | |
|--------------------------------|----------|---------------|--|
| | Capacity | Configuration | |
| Hot Plug LFF SAS HDD | 72 TB | 4 x 18 TB | |
| Hot Plug LFF SATA HDD | 72 TB | 4 x 18 TB | |
| Hot Plug SFF SAS SSD | 153 TB | 10 x 15.3 TB | |
| Hot Plug SFF SATA SSD | 76.8 TB | 10 x 7.68 TB | |
| Hot Plug SFF NVMe PCIe U.3 SSD | 153.6 TB | 10 x 15.36 TB | |
| Hot Plug SFF NVMe PCle U.2 SSD | 64 TB | 10 x 6.4 TB | |

Interfaces

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

Power Supply

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

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

All pre-configured servers ship with a standard 6-foot IEC C-13/C-14 jumper cord (A0K02A). This jumper cord is also included with each standard AC power supply option kit. If a different power cord is required, please check the **ProLiant Power Cables** web page. To review the power requirements for your selected system, please use the **HPE Power Advisor Tool**.

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

Operating Systems and Virtualization Software Support for ProLiant Servers

- Windows Server 2016
- Windows Server 2019 (Most Recent Version)
- VMware ESXi 6.7 U3
- VMware ESXi 7.0 U1/U2
- SUSE Linux Enterprise Server (SLES) 12 SP5
- SUSE Linux Enterprise Server (SLES) 15 SP2
- Red Hat Enterprise Linux (RHEL) 8.3

Notes: 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.

https://www.hpe.com/us/en/servers/server-operating-systems.html

Graphics

Integrated Video Standard

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

HPE iLO 5 on system management memory

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

Industry Standard Compliance

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

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

ASHRAE A3/A4

Notes: For additional technical thermal details regarding ambient temperatures, humidity and features support please visit: http://www.hpe.com/servers/ashrae.

UEFI (Unified Extensible Firmware Interface Forum)
 Notes: UEFI is the default for the DL325 Gen10 Plus. Legacy mode can be selected in the field or as a CTO option (758959-B22).

Embedded Management

HPE Integrated Lights-Out (HPE iLO)

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

UEFI

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

Intelligent Provisioning

Hassle free server and OS provisioning for 1 or more servers with Intelligent Provisioning.

Learn more at https://support.hpe.com/hpesc/public/docDisplay?docId=c04465280&docLocale=en_US

iLO RESTful API

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

HPE Server UEFI/Legacy ROM

Unified Extensible Firmware Interface (UEFI) is an industry standard that provides better manageability and more secured configuration than the legacy ROM while interacting with your server at boot time. HPE ProLiant Gen10 Plus servers have a UEFI Class 2 implementation and support both UEFI Mode (default) and Legacy BIOS Mode.

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

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

Notes:

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

Server Utilities

Active Health System

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

Active Health System Viewer

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

Smart Update

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

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

iLO Amplifier Pack

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

HPE iLO Mobile Application

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

RESTful Interface Tool

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

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 http://www.hpe.com/servers/powershell.

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 http://www.hpe.com/info/oneview.

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 http://www.hpe.com/info/hpesim.

Security

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

Warranty

This product is covered by a global limited warranty and supported by HPE Services and a worldwide network of HPE Authorized Channel Partners resellers. Hardware diagnostic support and repair is available for three years from date of purchase. Support for software and initial setup is available for 90 days from date of purchase. Enhancements to warranty services are available through HPE Pointnext operational services or customized service agreements. Hard drives have either a one year or three year warranty; refer to the specific hard drive QuickSpecs for details.

Notes: Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response. Warranty repairs may be accomplished through the use of Customer Self Repair (CSR) parts. These parts fall into two categories: 1) Mandatory CSR parts are designed for easy replacement. A travel and labor charge will result when customers decline to replace a Mandatory CSR part; 2) Optional CSR parts are also designed for easy replacement but may involve added complexity. Customers may choose to have Hewlett Packard Enterprise replace Optional CSR parts at no charge. Additional information regarding worldwide limited warranty and technical support is available at:

http://h17007.www1.hpe.com/us/en/enterprise/servers/warranty/.

Optional Features

Server Management

HPE iLO Advanced

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

HPE OneView Advanced

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

HPE InfoSight for Servers

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

Learn more at https://www.hpe.com/servers/infosight

Rack and Power Infrastructure

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

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

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

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

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

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

One Config Simple (OCS/SCE)

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

Service and Support

HPE Pointnext - Service and Support

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

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

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

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

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

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.

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

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

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

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

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

| CTO Server | HPE ProLiant DL325 Gen10 Plus v2 8SFF CTO Server | HPE ProLiant DL325 Gen10 Plus v2 4LFF CTO Server | | |
|---------------------------|---|---|--|--|
| SKU Number | P38471-B21 | P38474-B21 | | |
| Processor | Not included as standard | Not included as standard | | |
| DIMM Slots | 16-DIMM slots | 16-DIMM slots | | |
| Storage Controller | Choice of HPE modular Smart Array and PCIe plug | g-in controller | | |
| PCle | Two standard in primary riser | Two standard in primary riser | | |
| Drive Cage - included | 8 SFF (Backplane is not included) | 4 LFF (Backplane is not included) | | |
| Network Controller | Choice of OCP and stand up card | | | |
| Fans | Not included as standard | | | |
| Management | HPE iLO with Intelligent Provisioning (standard), i | LO Advances and OneView (optional) | | |
| USB | Front: 1 USB 3.1 Gen1 + iLO service port | Front: 1 USB 3.1 Gen1 + iLO service port | | |
| | Rear: 2 USB 3.1 Gen1 | Rear: 2 USB 3.1 Gen1 | | |
| | Internal: 1 USB 3.1 Gen1 | Internal: 1 USB 3.1 Gen1 | | |

Notes:

- HPE offers multiple Trade Agreement Act (TAA) compliant configurations to meet the needs of US Federal Government customers. These products are either manufactured or substantially transformed in a designated country. TAA compliance is only provided when HPE options are included as part of factory integrated orders (CTO).
- TAA compliant configuration requires
- All CTO servers are Energy Star 3.0 compliant.
- CTO servers do not ship with rail kits, they need to be ordered separately

Configuration Information

| CTO Server | 8 SFF CTO Chassis | 4 LFF Chassis |
|---------------------|-------------------|---------------|
| Included Drive Cage | 8 SFF | 4 LFF |
| Universal Media Bay | Optional | Not Available |
| ODD | 1 Optional | 1 Optional |
| 4 LFF SAS/SATA | Not Available | 1 Optional |
| 8 SFF SAS/SATA | 1 Optional | Not Available |
| 8 SFF NVMe | 1 Optional | Not Available |
| 2 SFF SAS/SATA | 1 Optional | Not Available |
| 2 SFF NVMe | 1 Optional | Not Available |

Notes:

- This applies to CTO configurations, field upgrades may differ depending field configuration.
- Backplane kits need to be ordered separately for CTO servers

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

Please select one -B21 processor required below.

Notes:

DDR4 memory speed will depend on the quantity and type of DIMMs installed

Step 2a: Choose Processors

Processor Option Kits SKU

AMD EPYC 7763 2.45GHz 64-core 280W Processor for HPE P38696-B21

Notes:

- 280W processors need Maximum Performance Fan Kit
- When this CPU is installed, maximum supported ambient temperature is 25C

AMD EPYC 7413 2.65GHz 24-core 180W Processor for HPE P38675-B21

Step 2b: Choose Memory Options

Please select one or more memory from below.

For new Gen10 Plus memory population rule whitepaper and optimal memory performance guidelines, please go to:

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

Notes:

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

Registered DIMMs (RDIMMs)

| HPE 8GB (1x8GB) Single Rank x8 DDR4-3200 CAS-22-22-22 Registered Smart Memory Kit | P07638-B21 |
|--|------------|
| HPE 16GB (1x16GB) Single Rank x4 DDR4-3200 CAS-22-22-22 Registered Smart Memory Kit. | P07640-B21 |
| HPE 16GB (1x16GB) Dual Rank x8 DDR4-3200 CAS-22-22 Registered Smart Memory Kit | P07642-B21 |
| HPE 32GB (1x32GB) Dual Rank x8 DDR4-3200 CAS-22-22 Registered Smart Memory Kit | P07644-B21 |
| HPE 32GB (1x32GB) Dual Rank x4 DDR4-3200 CAS-22-22 Registered Smart Memory Kit | P07646-B21 |
| HPE 64GB (1x64GB) Dual Rank x4 DDR4-3200 CAS-22-22 Registered Smart Memory Kit | P07650-B21 |

Load Reduced DIMMs (LRDIMMs)

HPE 128GB (1x128GB) Quad Rank x4 DDR4-3200 CAS-22-22 Load Reduced Smart Memory Kit P07652-B21

Notes:

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

Step 2c: Choose Power Supplies

Select one or two power supplies from below.

Notes: Mixing of 2 different power supplies is NOT allowed.

| HPE 500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit | 865408-B21 |
|--|------------|
| HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit | P38995-B21 |
| HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit | 865438-B21 |
| HPE 800W Flex Slot -48VDC Hot Plug Low Halogen Power Supply Kit | 865434-B21 |
| HPE 800W Flex Slot Universal Hot Plug Low Halogen Power Supply Kit | 865428-B21 |
| HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit | P38997-B21 |

Notes:

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

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

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

Step 3: Choose Additional Factory Integratable Options

One of the following from each list may be selected if desired at time of factory integration

HPE Unique Options

HPE DL325 Gen10 Plus x16 Low Profile PCle Riser Kit

P17264-B21

Notes:

- This riser sits into the secondary PCIe slot
- This riser can support only low profile PCle Cards
- x16 LP Riser Kit and x16 FHHL Riser Kit cannot be selected together.

HPE DL325 Gen10 Plus x16 FHHL PCle Riser Kit

P20421-B21

Notes:

- When HPE DL325 Gen10 Plus FHHL PCIe Riser Kit is selected then Slot 2 cannot be used
- 16 LP Riser Kit and x16 FHHL Riser Kit cannot be selected together.
- This riser can support only FHHL PCIe Cards

HPE ProLiant DL325 Gen10 Plus v2 8SFF SAS/SATA BC Backplane Kit

P38473-B21

Notes:

- Mixing of LFF & SFF Backplane/Drive cage are not allowed.
- One Standard Fan Kit (P41471-B21) must be selected if this backplane kit is supported.

HPE ProLiant DL325 Gen10 Plus v2 8SFF U.3 BC Backplane Kit

P38476-B21

Notes:

- Mixing of LFF & SFF Backplane/Drive cage are not allowed.
- If this Backplane Kit is selected along with Tri-mode Controller then SAS/SATA/NVMe U.3 drives can be selected. If this Backplane Kit is selected without Tri-mode Controller then only NVMe U.3 drives can be selected.
- 2SFF U.2 NVMe backplane kit (P38389-B21) cannot be selected with this backplane kit.
- One Maximum Performance Fan Kit (P38506-B21) must be selected if this backplane kit is supported.

HPE ProLiant DL325 Gen10 Plus v2 8SFF U.2 BC Backplane Kit

P38479-B21

Notes:

- Mixing of LFF & SFF Backplane/Drive cage are not allowed.
- If 2SFF SAS/SATA/U.3 NVMe backplane kit (P38386-B21) is selected along with this backplane kit, then P38386-B21 can support only SFF SAS/SATA drives.
- One Maximum Performance Fan Kit (P38506-B21) must be selected if this backplane kit is supported.

HPE ProLiant DL325 Gen10 Plus v2 2SFF U.3 Enablement Kit

P38386-B21

Notes:

- Mixing of LFF & SFF Backplane/Drive cage are not allowed.
- For 8SFF models, customer can select max q'ty=1 of either the 2SFF SAS/SATA/U.3 NVMe Enablement Kit (P38386-B21) or 2SFF U.2 NVMe Enablement Kit (P38389-B21)
- If this backplane kit is selected along with 8SFF SAS/SATA/U.2 NVMe Basic Carrier Backplane Kit (P38479-B21), then this backplane kit can support only SFF SAS/SATA drives.

HPE ProLiant DL325 Gen10 Plus v2 2SFF U.2 Enablement Kit

P38389-B21

Notes:

- Mixing of LFF & SFF Backplane/Drive cage are not allowed.
- For 8SFF models, customer can select max q'ty=1 of either the 2SFF SAS/SATA/U.3 NVMe Enablement Kit (P38386-B21) or 2SFF U.2 NVMe Enablement Kit (P38389-B21)
- This backplane kit cannot be selected with 8SFF SAS/SATA/U.3 NVMe Basic Carrier Backplane Kit (P38476-B21)

HPE ProLiant DL325 Gen10 Plus v2 4LFF SAS/SATA LP Backplane Kit

P38470-B21

Notes:

- Mixing of LFF & SFF Backplane/Drive cage are not allowed.
- One Standard Fan Kit (P41471-B21) must be selected if this backplane kit is supported.

BIOS Mode

HPE Legacy FIO Mode Setting

758959-B22

Notes:

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

HPE Converged Infrastructure Management Software

| HPE OneView including 3yr 24x7 Support Physical 1-server LTU | E5Y34A |
|--|----------|
| HPE OneView w/o iLO including 3yr 24x7 Support 1-server FIO LTU | P8B31A |
| HPE OneView Standard 1yr 9x5 Support Flexible Quantity E-RTU | K6F98AAE |
| HPE OneView w/o iLO including 3yr 24x7 Support 1-server LTU | P8B24A |
| HPE OneView w/o iLO including 3yr 24x7 Support Track 1-server LTU | P8B25A |
| HPE OneView w/o iLO including 3yr 24x7 Support Flexible Quantity E-LTU | P8B26AAE |
| HPE OneView w/o iLO including 3yr 24x7 Support 1-server FIO LTU | P8B31A |
| HPE OneView including 3yr 24x7 Support Flexible Quantity E-LTU | E5Y35AAE |
| HPE OneView Upgrade from Insight Management 3yr 24x7 Support 1-server LTU | F6Q91A |
| HPE OneView including 3yr 24x7 Support Track 1-server LTU | E5Y36A |
| HPE OneView w/o iLO Advance including 3yr 24x7 Support Track 1-server LTU | E5Y40A |
| HPE OneView for ProLiant DL Server including 3yr 24x7 Support FIO Bundle Physical 1-server LTU | E5Y43A |
| HPE OneView for ProLiant DL Server including 3yr 24x7 Support Bundle Track 1-server LTU | E5Y44A |
| HPE OneView Upgrade from Insight Management including 3yr 24x7 Support Flexible Quantity E-LTU | E5Y45AAE |

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

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

HPE Unique Options

HPE ProLiant DL325 Gen10 Plus v2 Standard Fan Kit

P41471-B21

Notes: This is required if 4 LFF chassis or 8 SFF SAS/SATA backplane is selected.

HPE ProLiant DL325 Gen10 Plus v2 Max Performance Fan Kit

P38506-B21

P28028-B21

P40430-B21

Notes: This kit is required when 8 SFF NVMe U.3 or U.2 backplanes are selected or when CPU =280W and or when any of the below options are selected:

- HPE IB HDR/EN 200Gb 1p QSFP56 OCP3 Adptr (P31323-B21)
- HPE IB HDR/EN 200Gb 2p QSFP56 OCP3 Adptr (P31348-B21)
- HPE IB HDR/EN 200Gb 2p QSFP56 Adptr (P31324-B21)
- HPE 100GbE 1p QSFP28 MCX515A-CCAT Adptr (P31246-B21)
- MLX MCX623106AS 100GbE 2p QSFP56 Adptr (P25960-B21)
- MLX MCX623105AS 200GbE 1p QSFP56 Adptr (P10180-B21)
- INT E810 100GbE 2p QSFP28 OCP3 Adptr (P22767-B21)

HPE 300GB SAS 12G Mission Critical 15K SFF BC 3-year Warranty HDD

HPE 300GB SAS 12G Mission Critical 10K SFF BC 3-year Warranty HDD

HPE 2TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware HDD

HPE 4TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware HDD

HPE 6TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty 512e HDD

HPE Optical Drives

| HPE 9.5mm SATA DVD-ROM Optical Drive | 726536-B21 |
|--------------------------------------|------------|
| HPE 9.5mm SATA DVD-RW Optical Drive | 726537-B21 |
| HPE Mobile USB DVD-RW Optical Drive | 701498-B21 |

Notes:

- If optical drive is selected along with 4 LFF chassis then LFF ODD SATA M.2 Cable (P39141-B21) must be selected.
- If optical drive is selected along with 8 SFF chassis then SFF ODD SATA M.2 Cable (P39144-B21) must be selected.

Enterprise - 12G SAS - SFF Drives

| HPE 600GB SAS 12G Mission Critical 15K LFF LPC 3-year Warranty HDD | P40431-B21 |
|--|------------|
| HPE 900GB SAS 12G Mission Critical 15K SFF BC 3-year Warranty HDD | P40432-B21 |
| HPE 1.2TB SAS 12G Mission Critical 10K SFF BC 3-year Warranty HDD | P28586-B21 |
| HPE 2.4TB SAS 12G Mission Critical 10K SFF BC 3-year Warranty 512e HDD | P28352-B21 |
| Midline - 12G SAS - SFF Drives | |
| HPE 2TB SAS 12G Business Critical 7.2K SFF BC 1-year Warranty 512e HDD | P28505-B21 |
| Midline - 12G SAS - LFF Drives | |
| HPE 2TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware HDD | 833926-B21 |
| HPE 4TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware HDD | 833928-B21 |
| HPE 6TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty 512e HDD | 861746-B21 |
| HPE 8TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty 512e Digitally Signed Firmware HDD | 834031-B21 |
| HPE 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 Business Critical 7.2K SFF BC 1-year Warranty HDD | P28610-B21 |
| HPE 2TB SATA 6G Business Critical 7.2K SFF BC 1-year Warranty 512e HDD | P28500-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 |



861681-B21

861683-B21 861742-B21

| HPE 8TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty 512e Digitally Signed Firmware HDD | 834028-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 |
| SED (Self-Encryption Drive) | |
| HPE 2.4TB SAS 12G Mission Critical 10K SFF BC 3-year Warranty 512e Self-encrypting FIPS HDD | P28618-B21 |
| HPE 1.2TB SAS 12G Mission Critical 10K SFF BC 3-year Warranty Self-encrypting FIPS HDD | P28622-B21 |

SSD Selection

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

| Read Intensive - 12G SAS - SFF - Solid State Drives | |
|---|------------|
| HPE 960GB SAS 24G Read Intensive SFF BC PM6 SSD | P40470-B21 |
| HPE 960GB SAS 12G Read Intensive SFF BC PM1643a SSD | P40556-B21 |
| HPE 960GB SAS 12G Read Intensive SFF BC Value SAS Multi Vendor SSD | P40506-B21 |
| HPE 1.92TB SAS 24G Read Intensive SFF BC PM6 SSD | P40471-B21 |
| HPE 1.92TB SAS 12G Read Intensive SFF BC PM1643a SSD | P40557-B21 |
| HPE 1.92TB SAS 12G Read Intensive SFF BC Value SAS Multi Vendor SSD | P40507-B21 |
| HPE 3.84TB SAS 24G Read Intensive SFF BC PM6 SSD | P40472-B21 |
| HPE 3.84TB SAS 12G Read Intensive SFF BC PM1643a SSD | P40558-B21 |
| HPE 3.84TB SAS 12G Read Intensive SFF BC Value SAS Multi Vendor SSD | P40508-B21 |
| HPE 7.68TB SAS 24G Read Intensive SFF BC PM6 SSD | P40473-B21 |
| HPE 7.68TB SAS 12G Read Intensive SFF BC PM1643a SSD | P40559-B21 |
| HPE 7.68TB SAS 12G Read Intensive SFF BC Value SAS Multi Vendor SSD | P40509-B21 |
| HPE 15.3TB SAS 24G Read Intensive SFF BC PM6 SSD | P40474-B21 |
| Mixed Use - 12G SAS - SFF - Solid State Drives | |
| HPE 800GB SAS 24G Mixed Use SFF BC PM6 SSD | P40475-B21 |
| HPE 800GB SAS 12G Mixed Use SFF BC PM1645a SSD | P40560-B21 |
| HPE 800GB SAS 12G Mixed Use SFF BC SS540 SSD | P40573-B21 |
| HPE 960GB SAS 12G Mixed Use SFF BC Value SAS Multi Vendor SSD | P40510-B21 |
| HPE 1.6TB SAS 24G Mixed Use SFF BC PM6 SSD | P40476-B21 |
| HPE 1.6TB SAS 12G Mixed Use SFF BC PM1645a SSD | P40561-B21 |
| HPE 1.6TB SAS 12G Mixed Use SFF BC SS540 SSD | P40574-B21 |
| HPE 1.92TB SAS 12G Mixed Use SFF BC Value SAS Multi Vendor SSD | P40511-B21 |
| HPE 3.2TB SAS 24G Mixed Use SFF BC PM6 SSD | P40478-B21 |
| HPE 3.2TB SAS 12G Mixed Use SFF BC PM1645a SSD | P40562-B21 |
| HPE 3.2TB SAS 12G Mixed Use SFF BC SS540 SSD | P40575-B21 |
| HPE 3.84TB SAS 12G Mixed Use SFF BC Value SAS Multi Vendor SSD | P40512-B21 |
| HPE 6.4TB SAS 24G Mixed Use SFF BC PM6 SSD | P40479-B21 |
| HPE 6.4TB SAS 12G Mixed Use SFF BC PM1645a SSD | P40563-B21 |
| Mixed Use SAS- LFF- Solid State Drives | |
| HPE 1.6TB SAS 24G Mixed Use LFF LPC PM6 SSD | P40477-B21 |
| HPE 960GB SAS 12G Mixed Use LFF LPC Value SAS Multi Vendor SSD | P37009-B21 |
| Write Intensive - 12G SAS - SFF - Solid State Drives | |
| HPE 400GB SAS 12G Write Intensive SFF BC SS540 SSD | P40576-B21 |
| HPE 400GB SAS 24G Write Intensive SFF BC PM6 SSD | P40480-B21 |



HPE 800GB SAS 12G Write Intensive SFF BC SS540 SSD

HPE 800GB SAS 24G Write Intensive SFF BC PM6 SSD

P40577-B21

P40481-B21

| HPE 1.6TB SAS 24G Write Intensive SFF BC PM6 SSD | P40482-B21 |
|--|------------|
| Mixed Use - 6G SATA - SFF - Solid State Drives | |
| HPE 480GB SATA 6G Mixed Use SFF BC Multi Vendor SSD | P40502-B21 |
| HPE 480GB SATA 6G Mixed Use SFF BC S4610 SSD | P40545-B21 |
| HPE 960GB SATA 6G Mixed Use SFF BC Multi Vendor SSD | P40503-B21 |
| HPE 1.92TB SATA 6G Mixed Use SFF BC Multi Vendor SSD | P40504-B21 |
| HPE 3.84TB SATA 6G Mixed Use SFF BC Multi Vendor SSD | P40505-B21 |
| HPE 3.84TB SATA 6G Mixed Use SFF BC S4610 SSD | P40546-B21 |
| Mixed Use – 6G SATA- LFF – Solid State Drives | |
| HPE 960GB SATA 6G Mixed Use LFF LPC 5300M SSD | P19980-B21 |
| Read Intensive - 6G SATA - SFF - Solid State Drives | |
| HPE 240GB SATA 6G Read Intensive SFF BC Multi Vendor SSD | P40496-B21 |
| HPE 480GB SATA 6G Read Intensive SFF BC Multi Vendor SSD | P40497-B21 |
| HPE 960GB SATA 6G Read Intensive SFF BC Multi Vendor SSD | P40498-B21 |
| HPE 1.92TB SATA 6G Read Intensive SFF BC Multi Vendor SSD | P40499-B21 |
| HPE 1.92TB SATA 6G Read Intensive SFF BC S4510 SSD | P40543-B21 |
| HPE 3.84TB SATA 6G Read Intensive SFF BC Multi Vendor SSD | P40500-B21 |
| HPE 3.84TB SATA 6G Read Intensive SFF BC S4510 SSD | P40544-B21 |
| HPE 7.68TB SATA 6G Read Intensive SFF BC Multi Vendor SSD | P40501-B21 |
| Read Intensive – 6G SATA - LFF – Solid State Drives | |
| HPE 480GB SATA 6G Read Intensive LFF LPC 5300P SSD | P19974-B21 |
| VRO - 6G SATA - SFF - Solid State Drives | |
| HPE 1.92TB SATA 6G Very Read Optimized SFF BC 5210 SSD | P40554-B21 |
| HPE 7.68TB SATA 6G Very Read Optimized SFF BC 5210 SSD | P40555-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 |
| Notes: PM6 SSDs can operate at SAS 24G speed with SR series Tri-mode controllers installed | |
| Write Intensive - NVMe - SFF - Solid State Drives | |
| HPE 375GB NVMe Gen3 High Performance Low Latency Write Intensive SFF BC U.2 P4800X SSD | P40552-B21 |
| HPE 750GB NVMe Gen3 High Performance Low Latency Write Intensive SFF BC U.2 P4800X SSD | P40553-B21 |
| Read Intensive - NVMe - SFF - Solid State Drives | |
| HPE 960GB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PM1733 SSD | P40564-B21 |
| HPE 960GB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 PE8010 SSD | P29161-B21 |
| HPE 1.92TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PM1733 SSD | P40565-B21 |
| HPE 1.92TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 CM6 SSD | P40490-B21 |
| HPE 1.92TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 CD6 SSD | P40483-B21 |
| HPE 1.92TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 PE8010 SSD | P31185-B21 |
| HPE 2TB NVMe Gen3 High Performance Read Intensive SFF BC U.2 P4510 SSD | P40547-B21 |
| HPE 3.84TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PM1733 SSD | P40566-B21 |
| HPE 3.84TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 CM6 SSD | P40491-B21 |
| HPE 3.84TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 CD6 SSD | P40484-B21 |
| HPE 3.84TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 PE8010 SSD | P31187-B21 |
| HPE 4TB NVMe Gen3 High Performance Read Intensive SFF BC U.2 P4510 SSD | P40548-B21 |
| HPE 7.68TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 CD6 SSD | P40485-B21 |
| HPE 7.68TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PM1733 SSD | P40567-B21 |
| HPE 7.68TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 PE8010 SSD | P31189-B21 |
| HPE 15.36TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PM1733 SSD | P40568-B21 |



666987-B21

Core Options

HPE Small Form Factor Hard Drive Blank Kit

| Mixed Use - NVMe - SFF - Solid State Drives | |
|--|------------|
| HPE 800GB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PM1735 SSD | P40569-B21 |
| HPE 800GB NVMe Gen4 High Performance Mixed Use SFF BC U.3 CM6 SSD | P40492-B21 |
| HPE 800GB NVMe Gen4 Mainstream Performance Mixed Use SFF BC U.3 CD6 SSD | P40486-B21 |
| HPE 800GB NVMe Gen4 Mainstream Performance Mixed Use SFF BC U.3 PE8030 SSD | P29166-B21 |
| HPE 1.6TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PM1735 SSD | P40570-B21 |
| HPE 1.6TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 CM6 SSD | P40493-B21 |
| HPE 1.6TB NVMe Gen4 Mainstream Performance Mixed Use SFF BC U.3 CD6 SSD | P40487-B21 |
| HPE 1.6TB NVMe Gen3 High Performance Mixed Use SFF BC U.2 P4610 SSD | P40549-B21 |
| HPE 1.6TB NVMe Gen4 Mainstream Performance Mixed Use SFF BC U.3 PE8030 SSD | P31191-B21 |
| HPE 3.2TB NVMe Gen4 Mainstream Performance Mixed Use SFF BC U.3 PE8030 SSD | P31193-B21 |
| HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PM1735 SSD | P40571-B21 |
| HPE 3.2TB NVMe Gen3 High Performance Mixed Use SFF BC U.2 P4610 SSD | P40550-B21 |
| HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 CM6 SSD | P40494-B21 |
| HPE 3.2TB NVMe Gen4 Mainstream Performance Mixed Use SFF BC U.3 CD6 SSD | P40488-B21 |
| HPE 6.4TB NVMe Gen3 High Performance Mixed Use SFF BC U.2 P4610 SSD | P40551-B21 |
| HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PM1735 SSD | P40572-B21 |
| HPE 6.4TB NVMe Gen4 Mainstream Performance Mixed Use SFF BC U.3 PE8030 SSD | P31195-B21 |
| HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 CM6 SSD | P40495-B21 |
| HPE 6.4TB NVMe Gen4 Mainstream Performance Mixed Use SFF BC U.3 CD6 SSD | P40489-B21 |
| SED (Self-Encryption Drive) | |
| HPE 960GB SATA 6G Mixed Use SFF BC Self-encrypting 5300M SSD | P42128-B21 |
| HPE 1.92TB SATA 6G Mixed Use SFF BC Self-encrypting 5300M SSD | P42132-B21 |
| HPE 480GB SATA 6G Read Intensive SFF BC Self-encrypting 5300P SSD | P42120-B21 |
| HPE 1.92TB SATA 6G Read Intensive SFF BC Self-encrypting 5300P SSD | P42124-B21 |
| Internal Dual M.2 Kit | |
| HPE Universal SATA 6G AIC HHHL M.2 SSD Enablement Kit | 878783-B21 |
| Notes: | |
| This M.2 SSD Enablement Kit requires the selection of M.2 SSD Drives (Min 1 // Max 2) | |
| o For 4LFF Model: | |
| M.2 kit requires the selection of one qty of LFF ODD SATA M.2 cable (P39141-B21) | |
| o For 8SFF Model: | |
| M.2 kit requires the selection of one qty of SFF ODD SATA M.2 cable (P39144-B21). | |
| One qty of LFF ODD SATA M.2 cable (P39141-B21) or SFF ODD SATA M.2 cable (P39144-B21) can support both HPE Universal SATA HH M.2 Kit and Optical Disk Drive (726536-B21/726537-B21). | |
| | |
| · · · · · · · · · · · · · · · · · · · | |
| Read Intensive - M.2 - Solid State Drives | D10000 D21 |
| HPE 240GB SATA 6G Read Intensive M.2 2280 5300B SSD | P19888-B21 |
| HPE 480GB SATA 6G Read Intensive M.2 2280 5300P SSD | P19890-B21 |
| HPE 960GB SATA 6G Read Intensive M.2 2280 5300P SSD | P19892-B21 |
| Hard Drive Blank Kits | |
| HPE Gen9 LFF HDD Spade Blank Kit | 807878-B21 |

P26966-R21

Core Options

HPE Smart IO

Requirements:

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

Pensando Distributed Services Platform DSC-25 Enterprise 10/25Gb 2-port SEP28 Card

Pensando Distributed Services Card (DSC)

| A06AAE |
|--------|
| A07AAE |
| F68AAE |
| AO8AAE |
| |
| A09AAE |
| A10AAE |
| F69AAE |
| A11AAE |
| / |

HPE Networking

1 Gigabit Ethernet adapters

| Intel I350-T4 Ethernet 1Gb 4-port BASE-T Adapter for HPE | P21106-B21 |
|---|------------|
| 10 Gigabit Ethernet adapters | |
| Marvell QL41132HLRJ Ethernet 10Gb 2-port BASE-T Adapter for HPE | P08437-B21 |
| Marvell QL41132HLCU Ethernet 10Gb 2-port SFP+ Adapter for HPE | P21933-B21 |
| Marvell QL41134HLCU Ethernet 10Gb 4-port SFP+ Adapter for HPE | P10094-B21 |
| Broadcom BCM57412 Ethernet 10Gb 2-port SFP+ Adapter for HPE | P26259-B21 |
| Intel X710-DA2 Ethernet 10Gb 2-port SFP+ Adapter for HPE | P28787-B21 |
| 10/25 Gigabit Ethernet adapters | |
| Mellanox MCX512F-ACHT Ethernet 10/25Gb 2-port SFP28 Adapter for HPE | P13188-B21 |
| Xilinx X2522-25G-PLUS Ethernet 10/25Gb 2-port SFP28 Adapter for HPE | P21109-B21 |
| Marvell QL41232HLCU Ethernet 10/25Gb 2-port SFP28 Adapter for HPE | P22702-B21 |

Intel E810-XXVDA4 Ethernet 10/25Gb 4-port SFP28 Adapter for HPE **100/200 Gigabit Ethernet adapters**

| Intel E810-CQDA2 Ethernet 100Gb 2-port QSFP28 Adapter for HPE | P21112-B21 |
|--|------------|
| HPE Ethernet 100Gb 1-port QSFP28 PCle3 x16 MCX515A-CCAT Adapter | P31246-B21 |
| Mellanox MCX623106AS-CDAT Ethernet 100Gb 2-port QSFP56 Adapter for HPE | P25960-B21 |
| Mellanox MCX623105AS-VDAT Ethernet 200Gb 1-port QSFP56 Adapter for HPE | P10180-B21 |

Notes:

 Direct Attach Cable (DAC) for copper environments or fiber transceivers and cables for fiber-optic environments must be purchased separately. Please see the related NIC QuickSpecs for Technical Specifications and additional information:

https://h20195.www2.hpe.com/v2/getpdf.aspx/A00002507ENW.pdf?

Xilinx X2522-25G Ethernet 10/25Gb 2-port SFP28 Adapter for HPE Broadcom BCM57414 Ethernet 10/25Gb 2-port SFP28 Adapter for HPE

Intel E810-XXVDA2 Ethernet 10/25Gb 2-port SFP28 Adapter for HPE



P24437-B21

P26262-B21

P08443-B21

P08458-B21

| Recommended System Ambient Temperature | | | | |
|--|-------------|-------------|-------------|-------------|
| PCIe Slot | P21112-B21 | P31246-B21 | P25960-B21 | P10180-B21 |
| Slot 1 | 35C | 30C | 30C | 30C |
| Slot 2 | 25C | 25C | 25C | 25C |
| Slot 3 | Not Support | Not Support | Not Support | Not Support |

OCP Adapters

| Intel I350-T4 Ethernet 1Gb 4-port BASE-T OCP3 Adapter for HPE | P08449-B21 |
|--|------------|
| Marvell QL41132HQCU Ethernet 10Gb 2-port SFP+ OCP3 Adapter for HPE | P08452-B21 |
| Marvell QL41132HQRJ Ethernet 10Gb 2-port BASE-T OCP3 Adapter for HPE | P10103-B21 |
| Broadcom BCM57416 Ethernet 10Gb 2-port BASE-T OCP3 Adapter for HPE | P10097-B21 |
| Broadcom BCM57412 Ethernet 10Gb 2-port SFP+ OCP3 Adapter for HPE | P26256-B21 |
| Intel X710-DA2 Ethernet 10Gb 2-port SFP+ OCP3 Adapter for HPE | P28778-B21 |
| Broadcom BCM57414 Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE | P10115-B21 |
| Mellanox MCX562A-ACAI Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE | P10112-B21 |
| Marvell QL41232HQCU Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE | P10118-B21 |
| Intel E810-XXVDA2 Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE | P10106-B21 |
| Intel E810-CQDA2 Ethernet 100Gb 2-port QSFP28 OCP3 Adapter for HPE | P22767-B21 |
| Notes: Max support ambient temp. = 30C | |
| HPE DL385 Gen10 Plus OCP Upgrade Cable Kit | P14603-B21 |
| | |

HPF InfiniBand

| APE INTINIBANG | |
|--|------------|
| HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 MCX653435A-HDAI OCP3 PCIe4 x16 Adapter | P31323-B21 |
| Notes: Max support ambient temp. = 30C | |
| HPE InfiniBand HDR/Ethernet 200Gb 2-port QSFP56 MCX653436A-HDAI OCP3 PCIe4 x16 Adapter | P31348-B21 |
| Notes: Max support ambient temp. = 30C | |
| HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCle4 x16 MCX653105A-HDAT Adapter | P23664-B21 |
| HPE InfiniBand HDR/Ethernet 200Gb 2-port QSFP56 PCle4 x16 MCX653106A-HDAT Adapter | P31324-B21 |
| HPE InfiniBand HDR100/Ethernet 100Gb 1-port QSFP56 PCIe4 x16 MCX653105A-ECAT Adapter | P23665-B21 |
| HPE InfiniBand HDR100/Ethernet 100Gb 2-port QSFP56 PCle4 x16 MCX653106A-ECAT Adapter | P23666-B21 |

| Recommended System Ambient Temperature | | | | |
|--|-------------|-------------|------------|-------------|
| PCIe Slot | P23664-B21 | P31324-B21 | P23665-B21 | P23666-B21 |
| Slot 1 | 35C | 35C | 35C | 35C |
| Slot 2 | 30C | 25C | 30C | 25C |
| Slot 3 | Not Support | Not Support | 25C | Not Support |

HPE PCIe Workload Accelerator Options

| HPE 750GB NVMe Gen3 x4 High Performance Low Latency Write Intensive AIC HHHL P4800X SSD | 878038-B21 |
|---|------------|
| HPE 1.6TB NVMe Gen4 x8 High Performance Mixed Use AIC HHHL PM1735 SSD | P26934-B21 |
| HPE 3.2TB NVMe Gen4 x8 High Performance Mixed Use AIC HHHL PM1735 SSD | P26936-B21 |

| Recommended System Ambient Temperature | | | | |
|--|---------------------|------------|------------|--|
| PCIe Slot | 878038-B21 | P26934-B21 | P26936-B21 | |
| | (Max =2 in slot1&2) | (Max =3) | (Max =3) | |
| Slot 1 | 35C | 35C | 35C | |
| Slot 2 | 25C | 30C | 30C | |
| Slot 3 | Not Support | 25C | 25C | |

HPE Cooling Options

HPE ProLiant DL325 Gen10 Plus v2 Standard Fan Kit

P41471-B21

Notes:

- The Standard Fan Kit and the Maximum Performance Fan Kit cannot be selected together
- Standard Fan Kit must be selected if any of the below options is in the order: 4 LFF Model, 8SFF SAS/SATA BP (P38473-B21)

HPE ProLiant DL325 Gen10 Plus v2 Max Performance Fan Kit

P38506-B21

Notes:

- The Standard Fan Kit and the Maximum Performance Fan Kit cannot be selected together
- Max Perf Fan Kit (P38506-B21) can also support the configurations supported by a Standard Fan Kit (P41471-B21)
- Max Perf Fan Kit (P38506-B21) must be selected if any of the below options is in the order
 - 8SFF NVMe U.3 BP (P38476-B21)
 - 8SFF NVMe U.2 BP (P38479-B21) 0
 - HPE IB HDR/EN 200Gb 1p QSFP56 OCP3 Adptr (P31323-B21)
 - HPE IB HDR/EN 200Gb 2p QSFP56 OCP3 Adptr P31348-B21)
 - HPE IB HDR/EN 200Gb 2p QSFP56 Adptr (P31324-B21)
 - HPE 100GbE 1p QSFP28 MCX515A-CCAT Adptr (P31246-B21) 0
 - MLX MCX623106AS 100GbE 2p QSFP56 Adptr (P25960-B21) \circ
 - MLX MCX623105AS 200GbE 1p QSFP56 Adptr (P10180-B21)
 - INT E810 100GbE 2p QSFP28 OCP3 Adptr (P22767-B21) 0
 - Processors with 280W

HPE Power Supplies

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

Notes: Flex Slot Platinum power supplies support power efficiency of up to 94% and include a standard C-14

power inlet connector.

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

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

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

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

P38995-B21

865408-B21

865438-B21

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

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

865434-B21

Notes: Flex Slot -48VDC power supplies support power efficiency of up to 94%

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

865428-B21

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

P38997-B21

Notes:

- Flex Slot universal power supplies support power efficiency of up to 94% and support both 277VAC/380VDC power inputs.
- 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).
- Prior to making a power supply selection it is highly recommended that the HPE Power Advisor is run to determine the right size power supply for your server configuration. The HPE Power Advisor is located at:http://www.hpe.com/info/hppoweradvisor.
- All power supplies in a server should match. Mixing Power Supplies is not supported.
- Option kits contain the specified power supply and a PDU IEC cable.



- 1600W power supplies only support high line voltage.
- HPE ProLiant servers ship with an IEC-IEC power cord used for rack mounting with Power Distribution Units (PDUs). Visit <u>HPE power cords</u> for a full list of optional HPE power cords.

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 | | | |
|--|------------|--|--|
| 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 E6U6 | | | |
| 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 | | | |
| HPE iLO Common Password FIO Setting | P08040-B21 | | |

HPE Converged Infrastructure Management Software

| HPE OneView including 3yr 24x7 Support Physical 1-server LTU | E5Y34A |
|--|----------|
| HPE OneView including 3yr 24x7 Support Flexible Quantity E-LTU | E5Y35AAE |
| HPE OneView w/o iLO including 3yr 24x7 Support 1-server LTU | P8B24A |
| HPE OneView w/o iLO including 3yr 24x7 Support Track 1-server LTU | P8B25A |
| HPE OneView w/o iLO including 3yr 24x7 Support Flexible Quantity E-LTU | P8B26AAE |

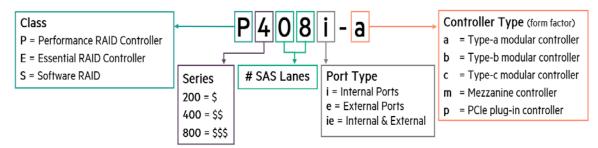
Notes: Licenses ship without media. The HPE OneView Media Kit can be ordered separately, or can be downloaded.

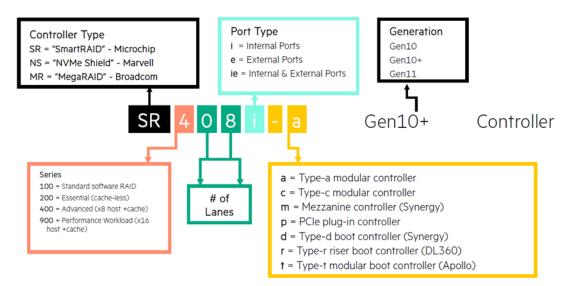
HPE Security

| HPE DL325 Gen10 Plus Bezel Kif | P18547-B21 |
|---|------------|
| HPE Bezel Lock Kit | 875519-B21 |
| HPE Gen10 TPM 1.2 FIO Setting | 872108-B21 |
| HPE Trusted Platform Module 2.0 Gen10 Plus Black Rivets Kit | P13771-B21 |
| HPE Gen10 Plus Chassis Intrusion Detection Kit | P14604-B21 |

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

HPE Smart Array Controllers





Smart Array Controllers

| HPE Smart Array Controller Batteries | 782961-B21 |
|--|------------|
| Notes: All performance RAID controllers are supported by the HPE Smart Storage Battery (782961-B21), which supports multiple devices and is sold separately | |
| HPE Smart Array P816i-a SR Gen10 (16 Int Lanes/4GB Cache/SmartCache) 12G SAS Modular LH Controller | 869083-B21 |
| Notes: Does not occupy a PCIe expansion slot and includes SmartCache license. | |
| HPE Smart Array P408i-a SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS Modular LH Controller | 869081-B21 |
| Notes: Does not occupy a 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. | |
| Boot Device | |
| HPE NS204i-p x2 Lanes NVMe PCle3 x8 OS Boot Device | P12965-B21 |

Notes: Need any notes? Tri-mode RAID Controllers

HPE ProLiant DL325 Gen10 Plus v2 Smart Array Cable Kit

| Microchip SmartRAID SR932i-p x32 Lanes 8GB Wide Cache NVMe/SAS 24G Controller for HPE Gen10 Plus | P04220-B21 |
|--|------------|
| Microchip SmartRAID SR416i-a x16 Lanes 4GB Cache NVMe/SAS 24G Controller for HPE Gen10 Plus | P12688-B21 |
| Broadcom MegaRAID MR416i-p x16 Lanes 4GB Cache NVMe/SAS 12G Controller for HPE Gen10 Plus | P06367-B21 |
| Broadcom MegaRAID MR416i-a x16 Lanes 4GB Cache NVMe/SAS 12G Controller for HPE Gen10 Plus | P26279-B21 |
| Broadcom MegaRAID MR216i-p x16 Lanes without Cache NVMe/SAS 12G Controller for HPE Gen10 Plus | P26324-B21 |
| Broadcom MegaRAID MR216i-a x16 Lanes without Cache NVMe/SAS 12G Controller for HPE Gen10 Plus | P26325-B21 |
| HPE Cable Options | |
| HPE ProLiant DL325 Gen10 Plus v2 SATA FIO Cable Kit | P39134-B21 |
| | |

Notes: This option kit is required to support AROC type smart array controller with 4LFF/8SFF drive cages

P39137-B21

| HPE ProLiant DL325 Gen10 Plus v2 SFF Smart Array PCle Cable Kit | 39147-B21 |
|--|-----------|
| Notes: This option kit is required to support E208i-p/P408i-p smart array controller with 8SFF drive cage | |
| HPE ProLiant DL325 Gen10 Plus v2 10SFF P816i-a Cable Kit | 39151-B21 |
| Notes: This option kit is required to support 10SFF drives connected to P816i-a controller | |
| HPE ProLiant DL325 Gen10 Plus v2 2SFF SATA Cable Kit | 39156-B21 |
| Notes: This option kit is required to support 2SFF SATA drives | |
| HPE ProLiant DL325 Gen10 Plus v2 2SFF Smart Array Cable Kit | 39159-B21 |
| Notes: This option kit is required to support 2SFF with E208i-a/P408i-a controller | |
| HPE ProLiant DL325 Gen10 Plus v2 2SFF Smart Array PCle Cable Kit | 39162-B21 |
| Notes: This option kit is required to support E208i-p/P408i-p smart array controller with 2SFF drive cage | |
| HPE ProLiant DL325 Gen10 Plus v2 2SFF NVMe Direct Attach Cable Kit | 39165-B21 |
| Notes: This option kit is required to support direct attach NVMe drives with 2SFF drive cages | |
| HPE ProLiant DL325 Gen10 Plus v2 2SFF NVMe Tri-Mode Cable Kit | 39168-B21 |
| Notes: This option kit is required to support modular tri-mode controllers with NVMe drives with 2SFF drive cages | |
| | 39171-B21 |
| Notes: This option kit is required to support PCIe tri-mode controllers with NVMe drives with 2SFF drive cages | |
| HPE ProLiant DL325 Gen10 Plus v2 8SFF NVMe Direct Attach Cable Kit | 39174-B21 |
| Notes: This option kit is required to support direct attach NVMe drives with 8SFF drive cages | |
| HPE ProLiant DL325 Gen10 Plus v2 8SFF SR932i-p NVMe Tri-Mode PCle Cable Kit | 39180-B21 |
| Notes: This option kit is required to support PCle tri-mode controller "SR932i-p" with NVMe drives with 8SFF drive cages | |
| HPE ProLiant DL325 Gen10 Plus v2 4SFF NVMe Tri-Mode Cable Kit | 39185-B21 |
| Notes: This option kit is required to support modular tri-mode controllers with 4x SFF NVMe drives | |
| HPE ProLiant DL325 Gen10 Plus v2 4SFF NVMe Tri-Mode PCle Cable Kit | 39189-B21 |
| Notes: This option kit is required to support PCle tri-mode controllers with 4x SFF NVMe drives | |
| HPE ProLiant DL325 Gen10 Plus v2 10SFF SR932i-p NVMe Tri-Mode PCle Cable Kit | 39193-B21 |
| Notes: This option kit is required to support PCle tri-mode controller "SR932i-p" with 10x SFF NVMe drives | |
| HPE ProLiant DL325 Gen10 Plus v2 8SFF NVMe Tri-Mode Cable Kit | 39198-B21 |
| HPE ProLiant DL325 Gen10 Plus v2 LFF Optical Disk Drive SATA M.2 Cable Kit | 39141-B21 |
| HPE ProLiant DL325 Gen10 Plus v2 SFF Optical Disk Drive SATA M.2 Cable Kit | 39144-B21 |
| Notes: | |
| If optical drive or HPE Universal SATA HH M.2 Kit is selected along with 4 LFF chassis then LFF ODD SATA M.2 Cable (P39141-B21) must be selected. | |
| If optical drive or HPE Universal SATA HH M.2 Kit is selected along with 8 SFF chassis then SFF ODD SATA M.2 Cable (P39144-B21) must be selected. | |
| HPE ProLiant DL325 Gen10 Plus v2/DL345 Gen10 Plus OCP Upgrade Cable Kit | 39732-B21 |
| Notes: This cable kit must be selected If any of the below option is selected: - HPE 10/25GbE 2p SFP28 MCX562A OCP3 Adptr (P10112-B21) - HPE IB HDR/EN 200Gb 2p QSFP56 OCP3 Adptr (P31348-B21) | |



HPE IB HDR/EN 200Gb 1p QSFP56 OCP3 Adptr (P31323-B21) INT E810 100GbE 2p QSFP28 OCP3 Adptr (P22767-B21)

HPE Tape Backup

For the complete range of tape drives, autoloaders, libraries and media see:

https://www.hpe.com/us/en/storage/storeever-tape-storage.html.

For hardware and software compatibility of Hewlett Packard Enterprise tape backup products

http://www.hpe.com/storage/BURAcompatibility.

HPE Storage Options

Emulex Fibre Channel HBAs

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

HPE Racks

- Please see the <u>HPE Advanced Series Racks QuickSpecs</u> for information on additional racks options and rack specifications.
- Please see the <u>HPE Enterprise Series Racks QuickSpecs</u> 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.

HPE Power Distribution Units (PDUs)

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

HPE Uninterruptible Power Systems (UPS)

- To learn more, please visit the <u>HPE Uninterruptible Power Systems (UPS) web page</u>.
- Please see the <u>HPE DirectFlow Three Phase Uninterruptible Power System QuickSpecs</u> for information on these products and their specifications.
- Please see the <u>HPE Line Interactive Single Phase UPS QuickSpecs</u> for information on these products and their specifications.

HPE Rack Options

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

Rail Kits

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

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

Notes:

- CTO servers do not ship with rail kits, they need to be ordered seperately
- Hewlett Packard Enterprise recommends that a minimum of two people are required for all Rack Server installations. Please refer to your installation instructions for proper tools and number of people to use for any installation.

HPE ProLiant DL300 Gen10 Plus 1U SFF Easy Install Rail Kit
HPE ProLiant DL300 Gen10 Plus 1U Cable Management Arm for Rail Kit

P26485-B21

P26489-B21

HPE USB and SD Options

HPE Enterprise Mainstream Flash Media Kits for Memory Cards

HPE 32GB microSD RAID 1 USB Boot Drive

P21868-B21

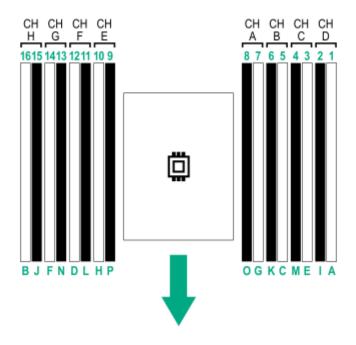
HPE Support Services

Tech Care

| HPE 3 Year Tech Care Essential Proliant DL325 Gen10 Plus V2 Service | HY5E3E |
|--|--------|
| HPE 3 Year Tech Care Essential wDMR Proliant DL325 Gen10 Plus V2 Service | HY5E4E |
| HPE 5 Year Tech Care Essential Proliant DL325 Gen10 Plus V2 Service | HY5G7E |
| HPE 5 Year Tech Care Essential wDMR Proliant DL325 Gen10 Plus V2 Service | HY5G8E |

Notes: For a full listing of support services available for this server, please visit http://www.hpe.com/services.

Memory



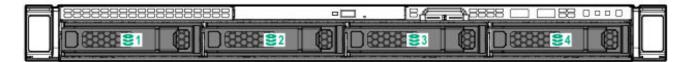
General Memory Population Rules and Guidelines:

- 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 (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 gualified on the platform, the number and model of installed processors gualified on the platform.
- For details on the HPE Server Memory Options Population Rules, visit:

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

- To realize the performance memory capabilities listed in this document, HPE DDR4 SmartMemory is required. For additional information, please see the: <u>HPE DDR4 Smart Memory QuickSpecs</u>
- For details on the HPE Server Memory speed, visit: http://www.hpe.com/docs/amd-speed-table-Gen10Plus

Storage



4LFF drives



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

Technical Specifications

System Unit

Dimensions

4.29 X 43.46 X 64.43 cm (1.69 X 17.11 X 25.37 ln)

- **Weight** (approximate)
 - Minimum: 8 SFF chassis with 8 HDD blanks, 1x processor including standard heatsink, 2x DIMMs, 1x power supply (plus blank), 1x Smart Array, 1x Riser installed, cables for the above 12.19 kg

26.86 lb

Maximum: 10 SFF chassis with 10 SFF hard drives, 1x processors including standard heatsink, 16x DIMMs, 2x power supplies, 1x Smart Array, 2x Risers installed, cables for the above 16.19 kg
 35.68 lb

Input Requirements(per power supply)

Rated Line Voltage

- 100 to 120 VAC
- 200 to 240 VAC

BTU Rating

Maximum

- For 1600W Power Supply: 5918 BTU/hr (at 200 VAC), 5884 BTU/hr (at 240 VAC) for China
- 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: http://www.hpe.com/servers/ashrae

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.

Altitude

Operating

3050 m (10,000 ft). This value may be limited by the type and number of options installed. Maximum allowable altitude change rate is 457 m/min (1500 ft/min).

Non-operating

9144 m (30,000 ft). Maximum allowable altitude change rate is 457 m/min (1500 ft/min).

Emissions Classification (EMC) – Regulatory Information

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

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

HPE Smart Array

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

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

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

The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard Enterprise web site. These instructions may be used by recyclers and other WEEE treatment facilities as well as Hewlett Packard Enterprise OEM customers who integrate and re-sell Hewlett Packard Enterprise equipment.

Technical Specifications

Acoustic Noise

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

| Idle | | |
|-----------|--------------|--|
| LWAd | 4.8 B Entry | |
| | 4.4 B Base | |
| | 4.4 B Perf | |
| LpAm | 36 dBA Entry | |
| • | 30 dBA Base | |
| | 30 dBA Perf | |
| Operating | | |
| LWAd | 4.8 B Entry | |
| | 4.5 B Base | |
| | 4.8 B Perf | |
| LpAm | 36 dBA Entry | |
| • | 30 dBA Base | |
| | 35 dBA Perf | |

Notes:

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

Summary of Changes

| Date | Version History | Action | Description of Change |
|-------------|-----------------|--------|-----------------------|
| 19-Apr-2021 | Version 1 | New | New QuickSpecs. |

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

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