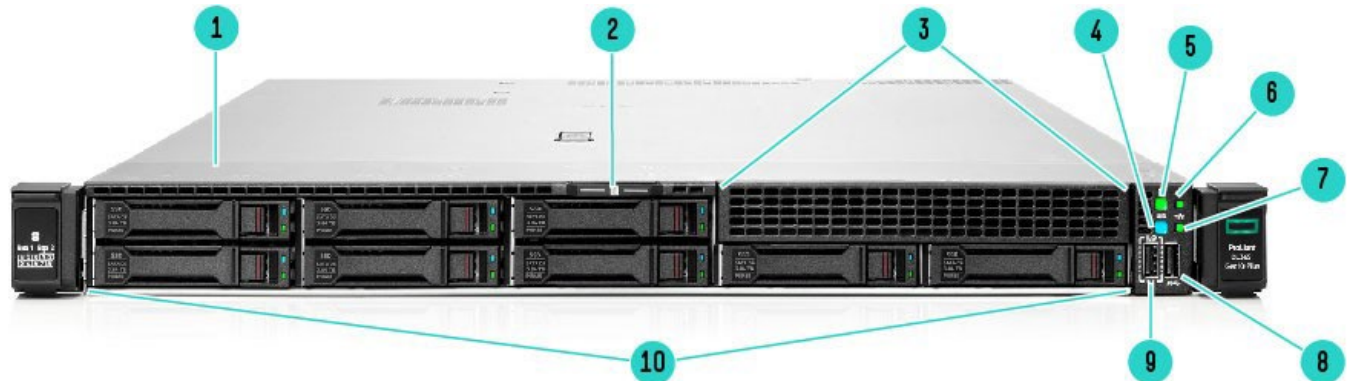## Overview

HPE ProLiant DL365 Gen10 Plus server

The HPE ProLiant DL365 Gen10 Plus Server is redefining price/performance with maximum core density. Powered by the 3rd generation AMD® EPYC® 7003 Series processors , the HPE ProLiant DL365 Gen10 Plus Server offers greater processing power, memory speeds up to 3200 MT/s. and data transfer rates with PCIe Gen4 capabilities.

This 2P, 1U server has been designed with flexibility while delivering a high core count and large memory footprint. Choose this purpose-built platform for virtualization, High Performance Compute and memory centric workloads.
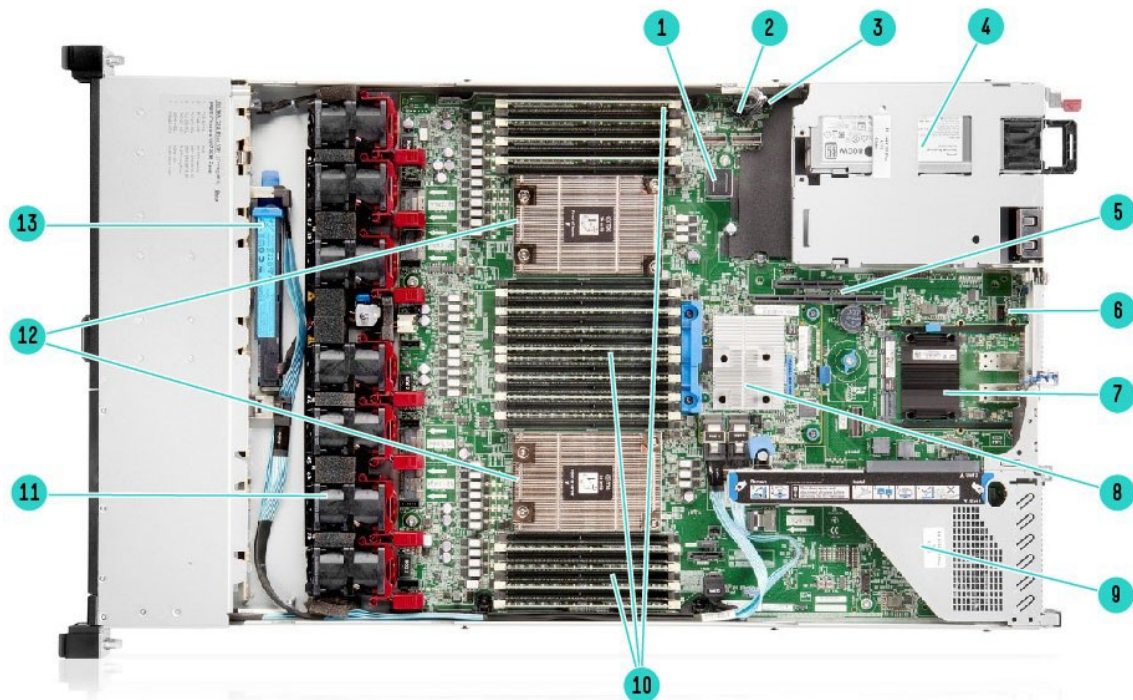

8 SFF Front View

1. Quick removal access panel
2. Serial no. label pull tab
3. Optional Media Bay*
4. UID button/LED
5. Power On/Standby button and sytem power LED
6. Health LED
7. NIC status LED
8. USB 3.1 Gen1 port
9. iLO Service Port
10. 8 SAS/STA/NVMe drive bays

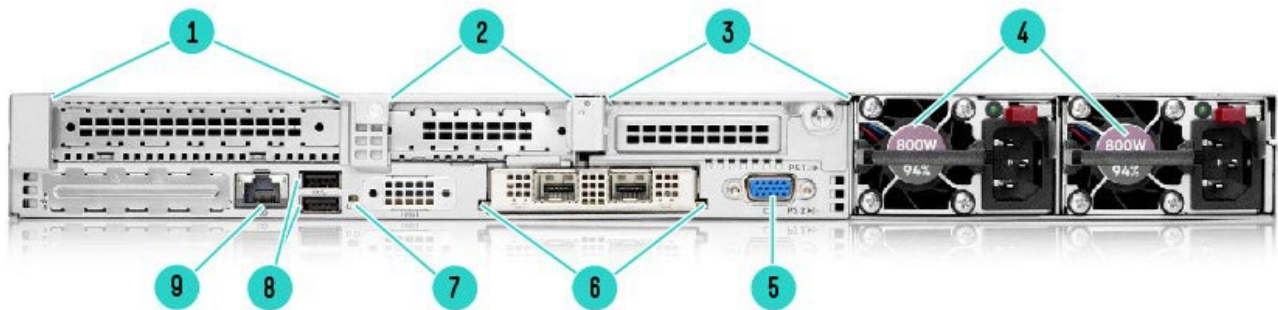**Notes:** System Insight Display (SID) module will include #4-9 above
  – * Option Shown: no media
  – * Optional: +2SFF U.3 SAS/SATA/NVMe drives (total max 10SFF)
  – * Optional: +2FF U.2 NVMe drives (total max 10SFF)
  – * Optional: 9.5mm SATA DVD-ROM/RW Optial Drive

Overview

Internal View 8 SFF chassis

1. Internal USB 3.1 Gen1 connector
2. Hard drive backplane power connector
3. Chassis intrusion detection connector
4. Hot Plug redundant HPE Flexible Slot Power supplies
5. Secondary Riser connector (Using tertiary connector). Requires a second processor.
6. Serial Port Connector
7. (Under) OCP 3.0 Slot

8. Optional HPE Flexible Smart Array Controller (Type-a shown)
9. Primary PCIe riser, standard
10. DDR4 DIMM slots, shown fully populated in 32 slots
11. Fan cage shown with 7 High Performance Fans
12. 2 processores (heat sinks shown)
13. Optional: Smart Storage Battery

Rear View

1. Slot 1 PCIe 4.0
2. Slot 2 PCIe 4.0
3. Optional: Slot 3 PCIe 4.0 (Requires 2nd processor)
4. Hot-plug Power Supply 1 and 2
5. VGA port

6. OCP 3.0 Slot
7. UID LED
8. USB 3.1 Gen1 Ports
9. iLO Management Port

Overview

What's New

- Supports the latest AMD EPYC 7003 Series processor with up to 280W
- Support for Tri-mode storage controllers for SAS/SATA/NVMe drives
- New Basic Carrier SAS/SATA/NVMe drives
- European Union (EU) Lot 9 regulation, please visit:
  https://www.hpe.com/us/en/about/environment/msds-specs-more.html for more information

Standard Features

Platform Information
Form Factor
- 1U rack

Chassis Types
- 8 SFF with optional optical drive kit, and optional SFF or NVMe drive bay options

System Fans
- Standard or perfomance fans are not included in the CTO chassis.
- 2 CPUs
  - Standard fan kits should be supported when the processors are equal to or lower than 155W
  - Performance fan kits should be supported when the processors are higher than 155W
  - Performance fan kits should be required when drive is NVMe or SAS4 drives.
  - Performance fan kits should be required when the processors are higher than 155W.
  - Performance fan kits should be required when networking PCI/OCP cards are equal or above 100G
  - Performance fan kits should be required when PCIe SATA/NVMe adapter and Riser NVMe adapter are selected

Notes: More supporting conditions will be described in further sections

Processors Up to 2 of the following depending on model.
Notes: For more information regarding AMD EPYC processors, please see the following:
https://www.amd.com/en/processors/epyc-server-cpu-family

AMD EPYC Processor	Cores	Base Frequency	Max Frequency	Max Memory	Wattage	Cache	Memory
AMD EPYC 7003 Series processor							
EPYC 7763	64	2.45 GHz	3.5 GHz	4TB	280W	256MB	3200MT/s
EPYC 7713	64	2.0 GHz	3.675 GHz	4TB	225W	256MB	3200MT/s
EPYC 7663	56	2.0 GHz	3.5 GHz	4TB	240W	256MB	3200MT/s
EPYC 7643	48	2.3 GHz	3.6 GHz	4TB	225W	256MB	3200MT/s
EPYC 7543	32	2.8 GHz	3.7 GHz	4TB	225W	256MB	3200MT/s
EPYC 7513	32	2.6 GHz	3.65 GHz	4TB	200W	128MB	3200MT/s
EPYC 7453	28	2.75 GHz	3.45 GHz	4TB	225W	64MB	3200MT/s
EPYC 7443	24	2.85 GHz	4.0 GHz	4TB	200W	128MB	3200MT/s
EPYC 7413	24	2.65 GHz	3.6 GHz	4TB	180W	128MB	3200MT/s
EPYC 7343	16	3.2 GHz	3.9 GHz	4TB	190W	128MB	3200MT/s
EPYC 7313	16	3.0 GHz	3.7 GHz	4TB	155W	128MB	3200MT/s
EPYC 7303	16	2.4 GHz	3.4 GHz	4TB	130W	128MB	3200MT/s
EPYC 7203	8	2.8 GHz	3.4 GHz	4TB	120W	128MB	3200MT/s
EPYC 75F3	32	2.95 GHz	4.0 GHz	4TB	280W	256MB	3200MT/s
EPYC 74F3	24	3.2 GHz	4.0 GHz	4TB	240W	256MB	3200MT/s
EPYC 73F3	16	3.5 GHz	4.0 GHz	4TB	240W	256MB	3200MT/s
EPYC 72F3	8	3.7 GHz	4.1 GHz	4TB	180W	256MB	3200MT/s
EPYC 7773X	64	2.2 GHz	3.5 GHz	4TB	280W	768MB	3200MT/S
EPYC 7573X	32	2.8 GHz	3.6 GHz	4TB	280W	768MB	3200MT/S
EPYC 7473X	24	2.8 GHz	3.7 GHz	4TB	240W	768MB	3200MT/S
EPYC 7373X	16	3.05 GHz	3.8 GHz	4TB	240W	768MB	3200MT/S
AMD EPYC 7002 Series processor							
EPYC 7702	64	2.0 GHz	3.35 GHz	4TB	200W	256MB	3200MT/s
EPYC 7502	32	2.5 GHz	3.35 GHz	4TB	180W	128MB	3200MT/s
EPYC 7452	32	2.35 GHz	3.35 GHz	4TB	155W	128MB	3200MT/s
EPYC 7302	16	3.0 GHz	3.3 GHz	4TB	155W	128MB	3200MT/s
EPYC 7262	8	3.2 GHz	3.4 GHz	4TB	155W	128MB	3200MT/s

Standard Features

Notes:
- All AMD EPYC processors can support up to 4TB of memory per each single CPU
- More EPYC processors will be supported on the server later in time
- Rome processors don't support storage tri-mode controllers

Chipset

No chipset – System on Chip (SoC) design.

System Management Chipset

HPE iLO 5 ASIC

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

Memory

One of the following depending on model

Type	HPE DDR4 Smart Memory, Registered (RDIMM)
DIMM Slots Available	32 16 DIMM slots per processor, 8 channels per processor, 2 DIMMs per channel
Maximum capacity (RDIMM)	8.0TB 32 x 256 GB LRDIMM @ 3200 MT/s at 1 DPC, 2933 MT/s at 2 DPC

Notes:
- The maximum memory speed is limited by the processor selection.
- 3200 MT/s memory SKUs can run the transfer rate of 3200 MT/s at both 1 DIMM and 2 DIMM per channel, except 256 GB LRDIMM
- DIMM blank kit (P07818-B21) is required for empty DIMM slots.

Memory Protection

Advanced ECC

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

Expansion Slots

Primary GPU Riser (Default Riser)					
Slots #	**Technology**	**Bus Width**	**Connector Width**	**Slot Form Factor**	**Notes**
1	PCIe 4.0	X16	X16	Full-height, 3/4-length slot	Proc 1
2	PCIe 4.0	X16	X16	Low Profile, half-length slot	Proc 1

Primary M.2 NS204i-r Riser					
Slots #	**Technology**	**Bus Width**	**Connector Width**	**Slot Form Factor**	**Notes**
1	PCIe 4.0	X16	X16	Full-height,3/4-length slot	Proc 1
2	PCIe 4.0	X8	X8	Low Profile, half-length slot	Proc 1

Secondary GPU Riser*					
Slots #	**Technology**	**Bus Width**	**Connector Width**	**Slot Form Factor**	**Notes**
3	PCIe 4.0	X16	X16	Full-height,3/4-length slot	Proc 2

Secondary Riser					
Slots #	**Technology**	**Bus Width**	**Connector Width**	**Slot Form Factor**	**Notes**
3	PCIe 4.0	X16	X16	Low Profile,half-length slot	Proc 2

Notes: *If this option is selected, Slot 2 cannot be used on any of the primary risers selected.

Standard Features

Internal Storage Devices

- **Optical Drive**
  Available on 8 SFF CTO Servers as an option (DVD-ROM or DVD-RW)
- **Hard Drives**
  None ship standard

Storage Controllers

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

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 **HPE Gen10 Plus Tri-Mode Controllers Data Sheet**

NVMe Boot Device
- HPE NS204i-p NVMe PCIe3 OS Boot Device

Software RAID – HPE Smart Storage SR100i SR Gen10 Plus SW RAID
- All models feature an embedded storage controller, capable of operating on AHCI or SR100i modes, with embedded software supporting RAID for either up to 8SFF SATA drives or 2 U.3 NVMe SSDs.
- HPE Smart Storage SR100i SR Gen10 Plus SW RAID will operate in UEFI mode only. Legacy Mode (758959-B22) and SR100i Gen10 Plus SW RAID cannot be selected together. For legacy support, and additional controller will be needed.
- Embedded SATA controller by default will work in AHCI Mode. HPE Smart Storage SR100i SR Gen10 Plus SW RAID for SATA can be enabled by selecting HPE DL365 Gen10+ SR100i SATA FIO Software RAID (P55046-B21).
- HPE Smart Storage SR100i SR Gen10 Plus SW RAID for NVMe can be enabled by selecting HPE SR100i Gen10 Plus FIO Software RAID (P28417-B21)
- Supports Microsoft Windows Server only.

Essential RAID Controller
- HPE Smart Array E208i-a SR Gen10 Controller
- HPE Smart Array E208i-p SR Gen10 Controller
- HPE Smart Array E208e-p SR Gen10 Controller

Performance RAID Controller
- HPE Smart Array P408i-a SR Gen10 Controller
- HPE Smart Array P408i-p SR Gen10 Controller
- HPE Smart Array P408e-p SR Gen10 Controller
- HPE Smart Array P816i-a SR Gen10 Controller

Notes: Performance RAID Controllers require the HPE Smart Storage Battery (P01366-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:
- Rome processors can't support tri-mode controllers.
- SR932i-p can only be supported on a x16 electrical PCIe slot. For PCIe slot information, refer to the "Expansion Slots" section in this document

Standard Features

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

Maximum Storage

Storage	Capacity	Configuration
Hot Plug SFF SAS HDD	24 TB	8+2 x 2.4 TB
Hot Plug SFF SATA HDD	20 TB	8+2 x 2.0 TB
Hot Plug SFF SAS SSD	153 TB	8+2 x 15.3 TB
Hot Plug SFF SATA SSD	76.8 TB	8+2 x 7.68 TB
Hot Plug SFF NVMe PCIe SSD	153.6 TB	8+2 x 15.36 TB

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 1000W Flex Slot Titanium Hot Plug Power Supply Kit
  Notes:
  - Available in 96% Power Efficiency.
  - 200-240VAC power input only.

- 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 1800W-2200W Flex Slot Titanium Hot Plug Power Supply Kit
  Notes:
  - Available in 96% Power Efficiency.
  - 200-240VAC power input only.
  - Gen10 Plus (and v2) output capped at 1600W maximum, greater than 1600W only feasible on Gen11 systems.

Standard Features

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.

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**.

Interfaces

Serial	1 port – Optional in rear
Video	1 Front - Display port (optional) 1 Rear - VGA port (standard on all chassis types) **Notes:** Both ports are not active simultaneously.
Network Ports	None. Choice of OCP or stand up card
HPE iLO Remote Management Network Port	1 Gb Dedicated
Front iLO Service Port	1 standard
USB 3.1 Gen1	Up to 5 total: 1 front, 2 rear, 2 internal (standard on all chassis types) +2 optional USB 2.0 front
SID (Systems Insight Display)	Optional

Operating Systems and Virtualization Software Support for ProLiant Servers
- **Windows Server 2016**
- **Windows Server 2019**
- **Windows Server 2022**
- **VMware ESXi**
  - AMD EPYC 7003 Series Processors: ESXi 6.7 U3, 7.0, 8.0
- **Red Hat Enterprise Linux (RHEL)**
  - AMD EPYC 7002 Series Processors: RHEL 7.6, 8.0, 9.0
  - AMD EPYC 7003 Series Processors: RHEL 8.3, 9.0
- **SUSE Linux Enterprise Server (SLES)**
  - AMD EPYC 7002 Series Processors: SLES12 SP5, SLES15 SP2, SLE Micro 5.0
  - AMD EPYC 7003 Series Processors: SLES12SP5, SLES15 SP2, SLE Micro 5.0
- **Citrix Hypervisor 8.2**
- **Ubuntu 20.04 LTS**
- **Ubuntu 22.04 LTS**

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

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.

Standard Features

Notes: The UEFI System Utilities tool is analogous to the HPE ROM-Based Setup Utility (RBSU) of legacy BIOS. For more information, please visit **http://www.hpe.com/servers/uefi**.

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

HPE Server UEFI/Legacy ROM
- 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.

Industry Standard Compliance
- ACPI 6.1 Compliant
- PCIe 4.0 Compliant
- WOL Support
- Microsoft® Logo certifications
- PXE Support
- VGA/Display Port
- USB 3.1 Gen1 Compliant (internal)
- USB 2.0 Compliant (external ports)
- Energy Star 4.0
  Notes: Energy Star 4.0 is supported. Please configure P68503-B21 to trigger Energy Star 4.0
- SMBIOS 3.1
- UEFI 2.6
- Redfish API
- IPMI 2.0
- Secure Digital 2.0
- Advanced Encryption Standard (AES)
- Triple Data Encryption 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, mandate that beginning on January 1st, 2024, units sold into the EU, European Economic Area (EEA), the United Kingdom, or Switzerland must include more efficient AC power supplies: 94% for multi-output and 96% for single-output. HPE Flexible Slot power supplies are single-output, and part numbers 865438-B21, P03178-B21, and P44712-B21 are 96% efficient, thus meeting requirements. HPE is on target to fulfil compliant systems ahead of time and will begin enforcing these requirements in advance to satisfy requests with the current power supplies by the set deadline.
- ASHRAE A3/A4

Standard Features

> **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)

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 **http://www.hpe.com/servers/uefi**.

Intelligent Provisioning
Hassle free server and OS provisioning for 1 or more servers with Intelligent Provisioning.
Learn more at **http://www.hpe.com/servers/intelligentprovisioning**.

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 **http://www.hpe.com/info/restfulapi**.

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://www.hpe.com/us/en/servers/smart-update.html**.

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: **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**.

Standard Features

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/stk** and **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**.

Warranty

This product is covered by a global limited warranty and supported by HPE Services and a worldwide network of Hewlett Packard Enterprise 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 Services 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:
https://www.hpe.com/support/ProLiantServers-Warranties

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

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 iLO Advanced Premium Security Edition
HPE iLO Advanced Premium Security Edition for iLO 5 includes iLO Advanced License plus high-end security modes, unique security capabilities, like Automatic FW recovery; Runtime FW verification, and Secure erase. Learn more about HPE iLO Advanced Premium Security Edition at: **http://www.hpe.com/servers/ilopremium**.

HPE GreenLake for Compute Ops Management
HPE is intelligently transforming compute management with an intuitive cloud operating experience through HPE GreenLake cloud platform to streamline and secure operations from edge-to-cloud. Automated key lifecycle tasks, for onboarding, updating, managing, and monitoring HPE servers, brings agility and greater efficiencies to wherever compute devices reside via a unified single browser-based interface. Manage single locations or multiple, distributed sites. Keep tens to thousands of servers secure with batch policy controls and automated updates.

Compute Ops Management is cloud-native software that is continually updated with new services, features, patches, and fixes. The management application resides in the HPE GreenLake cloud platform (access via **https://console.greenlake.hpe.com)** and leverages the HPE GreenLake architecture, security, and unified operations.

For a complete list of software as-a-service subscription SKUs and more information, visit the HPE GreenLake for Compute Ops Management QuickSpecs: **https://www.hpe.com/psnow/doc/a50004263enw**

For information on supported HPE servers, the complete list can be found here:
https://www.hpe.com/info/com-supported-servers

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 & 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**

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.

Optional Features

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 have created a stronger, smarter, and simpler infrastructure to help you get the most out of your IT equipment. As an industry leader, Hewlett Packard Enterprise is uniquely positioned to address the key concerns of power, cooling, cable management and system access.

HPE G2 Advanced and Enterprise Racks are perfect for the server room or today's modern data center with enhanced airflow and thermal management, flexible cable management, and a 10 year Warranty to support higher density computing.
HPE G2 PDUs offer reliable power in flexible form factors that operate at temperatures up to 60°C, include color-coded outlets and load segments and a low-profile design for optimal access to the rack and support for dense rack environments.

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

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

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

One Config Simple (SCE)

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

Service and Support

HPE Services
No matter where you are in your digital transformation journey, you can count on HPE Services to deliver the expertise you need when, where and how you need it. From planning to deployment, ongoing operations and beyond, our experts can help you realize your digital ambitions.
https://www.hpe.com/services

Consulting Services
No matter where you are in your journey to hybrid cloud, experts can help you map out your next steps. From determining what workloads should live where, to handling governance and compliance, to managing costs, our experts can help you optimize your operations.
https://www.hpe.com/services/consulting

HPE Managed Services
HPE runs your IT operations, providing services that monitor, operate, and optimize your infrastructure and applications, delivered consistently and globally to give you unified control and let you focus on innovation.
HPE Managed Services | HPE

Operational services
Optimize your entire IT environment and drive innovation. Manage day-to-day IT operational tasks while freeing up valuable time and resources. Meet service-level targets and business objectives with features designed to drive better business outcomes.
https://www.hpe.com/services/operational

HPE Complete Care Service
HPE Complete Care Service is a modular, edge-to-cloud IT environment service designed to help optimize your entire IT environment and achieve agreed upon IT outcomes and business goals through a personalized experience. All delivered by an assigned team of HPE Services experts. HPE Complete Care Service provides:
- A complete coverage approach -- edge to cloud
- An assigned HPE team
- Modular and fully personalized engagement
- Enhanced Incident Management experience with priority access
- Digitally enabled and AI driven customer experience

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

HPE Tech Care Service
HPE Tech Care Service is the operational support service experience for HPE products. The service 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 Tech Care Service delivers a customer-centric, AI driven, and digitally enabled customer experience to move your business forward. HPE Tech Care Service is available in three response levels. Basic, which provides 9x5 business hour availability and a 2-hour response time. Essential which provides a 15-minute response time 24x7 for most enterprise level customers, and Critical which includes a 6-hour repair commitment where available and outage management response for severity 1 incidents.
https://www.hpe.com/services/techcare

Service and Support

HPE Lifecycle Services
HPE Lifecycle Services provide a variety of options to help maintain your HPE systems and solutions at all stages of the product lifecycle. A few popular examples include:
- Lifecycle Install and Startup Services: Various levels for physical installation and power on, remote access setup, installation and startup, and enhanced installation services with the operating system.
- HPE Firmware Update Analysis Service: Recommendations for firmware revision levels for selected HPE products, taking into account the relevant revision dependencies within your IT environment.
- HPE Firmware Update Implementation Service: Implementation of firmware updates for selected HPE server, storage, and solution products, taking into account the relevant revision dependencies within your IT environment.
- Implementation assistance services: Highly trained technical service specialists to assist you with a variety of activities, ranging from design, implementation, and platform deployment to consolidation, migration, project management, and onsite technical forums.
- HPE Service Credits: Access to prepaid services for flexibility to choose from a variety of specialized service activities, including assessments, performance maintenance reviews, firmware management, professional services, and operational best practices.

Notes: To review the list of Lifecycle Services available for your product go to:
https://www.hpe.com/services/lifecycle

For a list of the most frequently purchased services using service credits, see the **HPE Service Credits Menu**

Other Related Services from HPE Services:
HPE Education Services
Training and certification designed for IT and business professionals across all industries. Broad catalogue of course offerings to expand skills and proficiencies in topics ranging from cloud and cybersecurity to AI and DevOps. Create learning paths to expand proficiency in a specific subject. Schedule training in a way that works best for your business with flexible continuous learning options.
https://www.hpe.com/services/training

Defective Media Retention
An option available with HPE Complete Care Service and HPE Tech Care Service and applies only to Disk or eligible SSD/Flash Drives replaced by HPE due to malfunction.

Consult your HPE Sales Representative or Authorized Channel Partner of choice for any additional questions and services options.

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

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

How to Purchase Services
Services are sold by Hewlett Packard Enterprise and Hewlett Packard Enterprise Authorized Service Partners:
- Services for customers purchasing from HPE or an enterprise reseller are quoted using HPE order configuration tools.
- Customers purchasing from a commercial reseller can find services at **https://ssc.hpe.com/portal/site/ssc/**

Service and Support

AI Powered and Digitally Enabled Support Experience
Achieve faster time to resolution with access to product-specific resources and expertise through a digital and data driven customer experience

Sign into the HPE Support Center experience, featuring streamlined self-serve case creation and management capabilities with inline knowledge recommendations. You will also find personalized task alerts and powerful troubleshooting support through an intelligent virtual agent with seamless transition when needed to a live support agent.
https://support.hpe.com/hpesc/public/home/signin

Consume IT On Your Terms
HPE GreenLake edge-to-cloud platform 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 edge-to-cloud platform 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

To learn more about HPE Services, please contact your Hewlett Packard Enterprise sales representative or Hewlett Packard Enterprise Authorized Channel Partner. Contact information for a representative in your area can be found at "Contact HPE"
https://www.hpe.com/us/en/contact-hpe.html

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

Configuration Information

Configuration Information

European Union (EU) eco-design regulations for server and storage products, known as Lot 9, mandate that beginning on January 1st, 2024, units sold into the EU, European Economic Area (EEA), the United Kingdom, or Switzerland must include more efficient AC power supplies: 94% for multi-output and 96% for single-output. HPE Flexible Slot power supplies are single-output, and part numbers 865438-B21, P03178-B21, and P44712-B21 are 96% efficient, thus meeting requirements. HPE is on target to fulfil compliant systems ahead of time and will begin enforcing these requirements in advance to satisfy requests with the current power supplies by the set deadline.
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.

Configuration Information

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

Network Choice (NC) Models

Network Choice models do not include embedded LOM. To enable networking capability please select either a FlexibleLOM NIC or a validated alternative from the Core Options section.

CTO Server	DL365 Gen10 Plus 8SFF CTO Server
SKU Number	P38578-B21
TAA SKU*	P43251-B21
Processor	Not included as standard
DIMM Slots	32-DIMM slots*
Storage Controller	Choice of HPE modular Smart Array and PCIe plug-in controller
PCIe	Two standard in primary riser, up to three slots with 2 processors
Drive Cage - included	8 SFF
Network Controller	Choice of OCP or stand up card
Fans	1 CPU – 5 Standard Fans 2 CPU – 7 Standard Fans
Management	HPE iLO with Intelligent Provisioning (standard), iLO Advanced and OneView (optional)
USB	Front: 1 USB 3.1 Gen1 + iLO service port Rear: 2 USB 3.1 Gen1 + 1 VGA port

Notes:

– *32 DIMM slots require selection of 2 processors
– 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 TAA versions of the CTO Server SKUs.
– All CTO servers are Energy Star 3.0 compliant

CTO Server	8 SFF CTO Chassis
Included Drive Cage	8 SFF
Universal Media Bay	Optional
ODD	Optional
8 SFF SAS/SATA/NVMe	Up to 1 Optional
2 SFF SAS/SATA/NVMe	Up to 1 Optional
Rear Drive Cages	Not Available

Notes: This applies to CTO configurations, field upgrades may differ depending field configuration.

Country Code Key

xx1 = B21 Worldwide

xx1 = 291 Japan

Notes: The -B21 WW SKU is to be ordered in all countries other than Japan.

Configuration Information

Step 2: Choose Required Options (only one of the following unless otherwise noted)
Notes:
- DDR4 memory speed will depend on the quantity and type of DIMMs installed
- System might throttle over 30C and it is expected.

Step 2a: Choose Processors
Select one or two Processor Option Kits from below.

Processor Option Kits	SKU
AMD EPYC 3rd Generation Processors	
AMD EPYC 75F3 2.95GHz 32-core 280W Processor for HPE	P38708-B21
AMD EPYC 7763 2.45GHz 64-core 280W Processor for HPE	P38696-B21

Notes:
- This processor doesn't include a fan kit or a heat sink kit.
- This processor needs selection of a High Performance Fan Kit (P26477-B21)
- This processor needs selection of a Max Performance Heat Sink Kit (P43104-B21)

AMD EPYC 7203 2.8GHz 8-core 120W Processor for HPE	P66935-B21
AMD EPYC 7313 3.0GHz 16-core 155W Processor for HPE	P38669-B21
AMD EPYC 7303 2.4GHz 16-core 130W Processor for HPE	P66937-B21

Notes:
- This processor doesn't include a fan kit or a heat sink kit.
- This processor needs selection of a Standard Fan Kit (P37861-B21)
- This processor needs selection of a High Performance Heat Sink Kit (P19368-B21)

AMD EPYC 72F3 3.7GHz 8-core 180W Processor for HPE	P38699-B21
AMD EPYC 7343 3.2GHz 16-core 190W Processor for HPE	P38672-B21
AMD EPYC 73F3 3.5GHz 16-core 240W Processor for HPE	P38702-B21
AMD EPYC 74F3 3.2GHz 24-core 240W Processor for HPE	P38705-B21
AMD EPYC 7413 2.65GHz 24-core 180W Processor for HPE	P38675-B21
AMD EPYC 7443 2.85GHz 24-core 200W Processor for HPE	P38681-B21
AMD EPYC 7453 2.75GHz 28-core 225W Processor for HPE	P38678-B21
AMD EPYC 7513 2.6GHz 32-core 200W Processor for HPE	P38684-B21
AMD EPYC 7543 2.8GHz 32-core 225W Processor for HPE	P38687-B21
AMD EPYC 7643 2.3GHz 48-core 225W Processor for HPE	P39365-B21
AMD EPYC 7663 2.0GHz 56-core 240W Processor for HPE	P38690-B21
AMD EPYC 7713 2.0GHz 64-core 225W Processor for HPE	P38693-B21

Notes:
- This processor doesn't include a fan kit or a heat sink kit.
- This processor needs selection of a High Performance Fan Kit (P26477-B21)
- This processor needs selection of a High Performance Heat Sink Kit (P19368-B21)

AMD EPYC 7473X 2.8GHz 24-core 240W Processor for HPE	P46924-B21
AMD EPYC 7573X 2.8GHz 32-core 280W Processor for HPE	P46921-B21
AMD EPYC 7773X 2.2GHz 64-core 280W Processor for HPE	P46915-B21

Notes:
- This processor doesn't include a fan kit or a heat sink kit.
- This processor needs selection of a High Performance Fan Kit (P26477-B21)
- This processor needs selection of a Max Performance Heat Sink Kit (P43104-B21)
- This processor cannot support 2SFF drive cage

Configuration Information

- Ambient temperature limited to 23C when 8SFF SAS3/SAS4/SATA/NVMe is selected
- The following options cannot be selected if 256GB DIMMs are in the system:
- OCP cards equal to or above 100G, PCIe cards equal to or above 100G, HPE Universal SATA AIC HHHL M.2 SSD Kit (878783-B21), HPE NS204i-p NVMe PCIe3 OS Boot Device (P12965-B21), HPE DL36X G10+ x16/x8 M.2 NS204i-r Riser (P26463-B21)

AMD EPYC 7373X 3.05GHz 16-core 240W Processor for HPE   P46927-B21
Notes:
- This processor is supported for Private offering only with specific ambient temperature requirements. Contact HPE local sales representative for more information
- This processor doesn't include a fan kit or a heat sink kit
- This processor needs selection of a High Performance Fan Kit (P26477-B21)
- This processor needs selection of a Max Performance Heat Sink Kit (P43104-B21)

CPU Support in Different Chassis Configurations		
Chassis config	**25C ambient**	**35C ambient**
8SFF, 10SFF SAS/SATA with standard fans & high performance heat sink	155W(Turbo to 180w)	155W(Turbo to 180w)
8SFF, 10SFF SAS/SATA with high performance fans & high performance heat sink	225W(Turbo to 240w)	225W(Turbo to 240w)
8SFF, 10SFF NVMe with high performance fan & high performance heat sink	225W(Turbo to 240w)	225W(Turbo to 240w)

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
For Gen10 Plus memory speed table, please go to: **https://www.hpe.com/psnow/doc/a50000674enw**
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.
- Memory compatibility may vary or be limited within a specific server family depending upon the specific configuration being requested. Because each server environment and requirements can vary, memory compatibility is based not only upon the server family, but may also be affected by the amount and type of additional hardware options installed within a specific server configuration. For this reason, some HPE memory DIMMs may be qualified for a server model or family and yet occasionally not be supported with limited configurations within that server family. Please consult with the HPE server Quickspecs or your HPE representative if you have any questions regarding memory compatibility with a specific HPE server configuration.

Registered DIMMs (RDIMMs)

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

Load Reduced DIMMs (LRDIMMs)

HPE 128GB (1x128GB) Quad Rank x4 DDR4-3200 CAS-22-22-22 Load Reduced Smart Memory Kit   P07652-B21
HPE 256GB (1x256GB) Octal Rank x4 DDR4-3200 CAS-26-22-22 Load Reduced 3DS Smart Memory Kit   P07654-B21

Recommended System Ambient Temperature for 256GB LRDIMM	
System Config	**Ambient Temperature**
8SFF (all backplane types)	23C
10SFF (all backplane types)	25C

Configuration Information

Notes:

- Mixing of x4 & x8 memory is not allowed
- 3200 MT/s memory SKUs can run the transfer rate of 3200 MT/s at both 1 DIMM and 2 DIMM per channel
- 256GB memory SKU can run the transfer rate of 3200 MT/s at 1 DIMM per channel, but only 2933 MT/s at 2 DIMM per channel
- If 256GB LRDIMM is selected then below options cannot be selected:
  - o   878783-B21 HPE Universal SATA AIC HHHL M.2 SSD Kit
  - o   P26463-B21 HPE DL36X G10+ x16/x8 M.2 NS204i-r Riser
  - o   100Gb or above (PCIe/OCP) cards from Networking, Infiniband and Pensando DSP (HW)
- Rome processors can't support 3200 MT/s at 2 DIMM per channel

Memory Blank Kit

HPE DDR4 DIMM Blank Kit   P07818-B21

Notes: DIMM blank kit cannot be selected when 32 DIMMs are ordered

Step 2c: Choose Power Supplies
Select one or two power supplies from below.
Notes: Mixing of 2 different power supplies is NOT allowed.

HPE Flex Slot Power Supplies

HPE 500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit   865408-B21
HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit   865438-B21
HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit   P38995-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 1000W Flex Slot Titanium Hot Plug Power Supply Kit   P03178-B21
HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit   P38997-B21
HPE 1600W Flex Slot -48VDC Hot Plug Power Supply Kit   P17023-B21
HPE 1600W -48VDC Power Cable Lug Kit   P36877-B21

Notes:

- P36877-B21 is to be used with HPE 1600W Flex Slot -48VDC Power Supply Kit
- Only one power cable lug kit needs to be selected with the power supply

HPE 1800W-2200W Flex Slot Titanium Hot Plug Power Supply Kit   P44712-B21

Notes:

- Select one or more power supplies.
- 1000W, 1600W and 2200W power supplies only support high line voltage (200VAC to 240VAC).
- Gen10 Plus (and v2) output capped at 1600W maximum, greater than 1600W only feasible on Gen11 systems.
- 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/poweradvisor**.
- All power supplies in a server should match. Mixing Power Supplies is not supported.
- HPE ProLiant servers ship with an IEC-IEC power cord used for rack mounting with Power Distribution Units (PDUs). Visit **HPE power cords** for a full list of optional power cords.

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 ProLiant DL36X Gen10 Plus x16/x8 PCIe M.2 NS204i-r Riser Kit   P26463-B21

Notes:

- A Max Qty=1 of this Primary riser is allowed per server. It replaces the primary riser that comes standard with the server
- Max Qty 2 of M.2 22110 drives (P40513-B21) must be selected when this option is selected

HPE ProLiant DL36X Gen10 Plus Full Height Riser Kit   P26467-B21

Notes:

- A Max Qty=1 of the following list of Secondary riser options is allowed per server. This means that only one item can be selected from the following list:
  - o   HPE DL36x Gen10+ 2P FH Riser Kit (P26467-B21)
  - o   HPE DL36x Gen10+ LP Riser Kit (P26471-B21)
- Slot 3 supports PCIe 4.0 Full Height/ ¾ Length, x16 bandwidth / x16 connector
- This riser will support GPUs
- This riser requires the selection of a second processor
- With the installation of this option into the server, you will lose physical access to the PCIe 1x8 slot (Slot 2) that is located on the Primary Riser. The "PCIe Card Capacity Limits" must account for this reduction of PCIe slots.

HPE ProLiant DL36X Gen10 Plus Low Profile Riser Kit   P26471-B21

Notes:

- A Max Qty=1 of the following list of Secondary riser options is allowed per server. This means that only one item can be selected from the following list:
  - o   HPE DL36x Gen10+ 2P FH Riser Kit (P26467-B21)
  - o   HPE DL36x Gen10+ LP Riser Kit (P26471-B21)
- Slot 3 supports PCIe 4.0 Low Profile / Half Length, x16 bandwidth / x16 connector
- This riser will not support GPUs
- This riser requires the selection of a second processor

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

Core Options

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

HPE Unique Options

Risers

Part number	Description	Riser position		Slot Bus width (Gen4 lanes)		
		Primary	Secondary	#1	#2	#3
N/A	HPE DL365 Gen10 Plus x16/x16 Riser	D	N	x16	x16	N
P26463-B21	HPE DL36X Gen10+ M.2 NS204i-r Riser Kit	O	N	x16	x8	N
P26467-B21	HPE DL36X Gen10+ FH Riser Kit	N	O	N	N	x16
P26471-B21	HPE DL36x Gen10+ LP Riser Kit	N	O	N	N	x16

Notes: D = Default on chassis; O = Optional; N = not supported or slot/connector not present.

Cooling Options

HPE DL385 Gen10 1U High Performance Heat Sink Kit	P19368-B21
HPE ProLiant DL365 Gen10 Plus Max Performance Heat Sink Kit	P43104-B21

Notes: Max performance Heat Sink Kit must be selected for processors equal to or greater than 280W

HPE ProLiant DL36X Gen10 Plus High Performance Fan Kit	P26477-B21
HPE ProLiant DL36X Gen10 Plus Standard Fan Kit	P37861-B21

Notes: For any processor greater than 155W, the High Performance Fan Kit and Hight Performance Heat Sink must be supported

HPE ProLiant DL365 Gen10 Plus Base Standard Fan Kit	P44887-B21

Notes: This option must be selected for configurations with one processor that is lower than or equal to 155W

Hard Drive Kits

HPE ProLiant DL360 Gen10 Plus 8SFF x4 Tri-Mode 24G U.3 BC Backplane Kit	P26429-B21

Notes:
- High Performance Fan Kit (P26477-B21) must be selected if this option is selected.
- U.3 and U.2 backplane kits cannot be mixed.
- If this backplane kit and a tri-mode controller are selected together, then HPE DL36x G10P 8SFF TMode Cable Kit (P26451-B21) must be selected.

HPE ProLiant DL360 Gen10 Plus 8SFF x4 NVMe 16G U.2 BC Backplane Kit	P26433-B21

Notes:
- High Performance Fan Kit (P26477-B21) must be selected if this option is selected.
- U.3 and U.2 backplane kits cannot be mixed.
- If this backplane kit and a tri-mode controller are selected together, then HPE DL36x G10P 8SFF TMode Cable Kit (P26451-B21) must be selected.

HPE ProLiant DL365 Gen10 Plus 8SFF SAS/SATA BC Backplane Kit	P38579-B21

Notes:
- If 8SFF & 2SFF UBM2 (SAS/SATA) Backplane Kits are selected, HPE recommands to select either an AROC plus a PCIe Controller or 2x PCIe Controllers.
  - ο HPE Smart Array P408i-a Controller
  - ο HPE Smart Array P408i-p Controller
  - ο HPE Smart Array E208i-a Controller
  - ο HPE Smart Array E208i-p Controller

Core Options

HPE ProLiant DL365 Gen10 Plus 2SFF SAS/SATA BC Backplane Kit   P38580-B21
Notes:
− 2SFF drive cages cannot be selected without a 8SFF drive cage selection.
− If 8SFF & 2SFF UBM2 (SAS/SATA) Backplane Kits are selected, HPE recommands to select either an AROC plus a PCIe Controller or 2x PCIe Controllers.
  o HPE Smart Array P408i-a Controller
  o HPE Smart Array P408i-p Controller
  o HPE Smart Array E208i-a Controller
  o HPE Smart Array E208i-p Controller

HPE ProLiant DL365 Gen10 Plus 2SFF U.3 BC Premium Backplane Kit   P38581-B21
Notes:
− High Performance Fan Kit (P26477-B21) must be selected if this option is selected.
− U.3 and U.2 backplane kits cannot be mixed.
− 2SFF drive cages cannot be selected without a 8SFF drive cage selection.
− If this backplane kit and a tri-mode controller are selected together, then HPE DL365 G10P 2SFF TriM Cable Kit (P36657-B21) must be selected.
− When NVMe drives are setup with SR100i SW RAID, the NVMe drives can only be supported in this backplane kit.

HPE ProLiant DL365 Gen10 Plus 2SFF U.2 BC Premium Backplane Kit   P38582-B21
Notes:
− High Performance Fan Kit (P26477-B21) must be selected if this option is selected.
− U.3 and U.2 backplane kits cannot be mixed.
− 2SFF drive cages cannot be selected without a 8SFF drive cage selection.
− If this backplane kit and a tri-mode controller are selected together, then HPE DL365 G10P 2SFF TriM Cable Kit (P36657-B21) must be selected.
− When NVMe drives are setup with SR100i SW RAID, the NVMe drives CANNOT be supported in this backplane kit. SR100i NVMe SW RAID does not support U.2 drives, nor does it support on an U.3 drive installing in an U.2 backplane kit.

HPE ProLiant DL365 Gen10 Plus NVMe Direct FIO Bundle Kit   P38587-B21
Notes:
− When this NVMe FIO bundle kit is selected, the configurator will select the below SKUs for customers:
  o P26429-B21 - HPE DL360 G10+ 8SFF x4Tmode U3 BC BP Kit
  o P38581-B21 - HPE DL365 Gen10+ 2SFF U.3 BC Prem BP Kit
  o P26477-B21 - High performance Fan kit
− However customer will be allowed to deselect the U.3 options from this defaulted configuration and select qty one each from the below U2 backplane kit options:
  o P26433-B21 - HPE DL360 G10+ 8SFF x4NVMe U.2 BC BP Kit G246
  o P38582-B21 - HPE DL365 Gen10+ 2SFF U.2 BC Prem BP Kit

Universal Media Bay Options

HPE ProLiant DL360 Gen10 Plus 8SFF Display Port/USB/Optical Drive Blank Kit   P40003-B21
Notes:
− A Max Qty=1 from the following list of options is allowed per server:
  o HPE DL360 G10+ 8SFF DP/USB/ODD Blnk Kit (P4003-B21)
  o HPE DL365 Gen10+ 2SFF SAS/SATA BC BP Kit (P38580-B21)
  o HPE DL365 Gen10+ 2SFF U.2 BC Prem BP Kit (P38582-B21)
  o HPE DL365 Gen10+ 2SFF U.3 BC Prem BP Kit (P38581-B21)

Core Options

Optical Drive Options

HPE Mobile USB DVD-RW Optical Drive																			701498-B21

Notes: This kit is supported on USB 3.0 ports only.

HPE 9.5mm SATA DVD-ROM Optical Drive																		726536-B21

Notes:

–   This option cannot be selected along with HPE Universal SATA AIC HHHL M.2 SSD Kit (878783-B21)

–   This option cannot be selected with a 2SFF drive cage.

HPE 9.5mm SATA DVD-RW Optical Drive																		726537-B21

Notes:

–   This option cannot be selected along with HPE Universal SATA AIC HHHL M.2 SSD Kit (878783-B21)

–   This option cannot be selected with a 2SFF drive cage.

System Insight Display Options

HPE ProLiant DL360 Gen10 Plus SFF System Insight Display Power Module Kit									P26447-B21

Notes: Only quantity of one can be supported.

HPE Boot Controllers

HPE NS204i-p x2 Lanes NVMe PCIe3 x8 OS Boot Device														P12965-B21

Notes: This option can only be supported on slot 1 of the primary riser

HPE Storage Controllers

Notes: For additional details, please see HPE Smart Array Gen10 Controllers Data Sheet at:
https://h20195.www2.hpe.com/v2/getdocument.aspx?docname=a00047736enw

HPE Flexible Smart Array Controllers

HPE Smart Array P816i-a SR Gen10 (16 Int Lanes/4GB Cache/SmartCache) 12G SAS Modular LH Controller			869083-B21

Notes: If this controller is selected along with any other x16 PCIe Card, then the HPE DL360 Gen10+ SFF
Internal Cable Kit (P26449-B21) is required.
Only need to support by field-upgrade. Because CTO chassis already contains the cables.

HPE Smart Array P408i-a SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS Modular LH Controller					869081-B21

Notes: If this controller is selected along with any other x16 PCIe Card, then the HPE DL360 Gen10+ SFF
Internal Cable Kit (P26449-B21) is required.
Only need to support by field-upgrade. Because CTO chassis already contains the cables.

HPE Smart Array E208i-a SR Gen10 (8 Internal Lanes/No Cache) 12G SAS Modular LH Controller					869079-B21

Notes: If this controller is selected along with any other x16 PCIe Card, then the HPE DL360 Gen10+ SFF
Internal Cable Kit (P26449-B21) is required.
Only need to support by field-upgrade. Because CTO chassis already contains the cables.

HPE Smart Array Controllers

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

Notes: If this controller is selected along with any other x16 PCIe Card, then the HPE DL360 Gen10+ SFF
Internal Cable Kit (P26449-B21) is required.
Only need to support by field-upgrade. Because CTO chassis already contains the cables.

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

Notes: If this controller is selected along with any other x16 PCIe Card, then the HPE DL360 Gen10+ SFF
Internal Cable Kit (P26449-B21) is required.

Core Options

Tri-mode RAID Controllers

Microchip SmartRAID SR932i-p x32 Lanes 8GB Wide Cache NVMe/SAS 24G Controller for HPE Gen10 Plus	P04220-B21

Notes:

- This card should only be supported on a x16 electrical PCIe slot. For PCIe slot information, refer to the "Expansion Slots" section in this document
- This controller can support below Drive Cages
  - HPE DL360 G10+ 8SFF x4Tmode U3 BC BP Kit (P26429-B21)
  - HPE DL360 G10+ 8SFF x4NVMe U.2 BC BP Kit (P26433-B21)
  - HPE DL365 Gen10+ 2SFF U.3 BC Prem BP Kit (P38581-B21)
  - HPE DL365 Gen10+ 2SFF U.2 BC Prem BP Kit (P38582-B21)

Microchip SmartRAID SR416i-a x16 Lanes 4GB Cache NVMe/SAS 24G Controller for HPE Gen10 Plus	P12688-B21
HPE MR416i-p Gen10 Plus x16 Lanes 4GB Cache NVMe/SAS 12G Controller	P06367-B21
HPE MR416i-a Gen10 Plus x16 Lanes 4GB Cache NVMe/SAS 12G Controller	P26279-B21
HPE MR216i-p Gen10 Plus x16 Lanes without Cache NVMe/SAS 12G Controller	P26324-B21
HPE MR216i-a Gen10 Plus x16 Lanes without Cache NVMe/SAS 12G Controller	P26325-B21
HPE 96W Smart Storage Lithium-ion Battery with 145mm Cable Kit	P01366-B21
HPE Smart Storage Hybrid Capacitor with 145mm Cable Kit	P02377-B21

Cable Kits

HPE ProLiant DL360 Gen10 Plus SFF Internal Cable Kit	P26449-B21

Notes: If a non-controller is installed in slot 1, and customer selects the controller for mounting in slot2, then customer must select this cable kit to connect to slot2.
Only need to support by field-upgrade. Because CTO chassis already contains the cables.

HPE ProLiant DL36X Gen10 Plus 8SFF Tri-Mode Cable Kit	P26451-B21

Notes:

- If SR932i-p controller is selected, this cable kit must be selected.
- If U.3 or U.2 BP Kit & Stand-up type or AROC Tri-mode controller card (Except SR932i-p) controller is selected, then Q'ty one of this kit must be selected.

HPE ProLiant DL36X Gen10 Plus 2SFF Tri-Mode Cable Kit	P36657-B21

Notes: If U.3 or U.2 BP Kit & AROC type Tri-mode controller card controller are selected, then q'ty one of this kit must be selected.

HPE ProLiant DL36x Gen10 Plus 8SFF SAS/SATA Tri-Mode Cable Kit	P55882-B21

Notes: When 8SFF SAS/SATA drive cage is selected along with Trimode controllers (MR216i or MR416i) then this cable kit must be selected. It is not required if Direct Attached or Embedded Controller is selected.

HPE ProLiant DL36x Gen10 Plus 2SFF SAS/SATA Tri-Mode Cable Kit	P55883-B21

Notes: When 2SFF SAS/SATA drive cage is selected along with Trimode controllers (MR216i or MR416i) then this cable kit must be selected. It is not required if Direct Attached or Embedded Controller is selected.

HPE ProLiant DL36x Gen10 Plus 8SFF SAS/SATA PCIe Slot2 Tri-Mode Cable Kit	P55884-B21

Notes: When 8SFF SAS/SATA drive cage is selected with PCIe Trimode controllers (MR216i-p or MR416i-p) along with a GPU or NS204i-p NVMe PCIe3 OS Boot Device or HPE Universal SATA AIC HHHL M.2 SSD Kit or 4P SFP / 4P BASE-T Adapters (Networking) on the Primary Riser, then this cable kit must be selected.

HPE ProLiant DL36X Gen10 Plus Rear Serial Port Cable Kit	P26475-B21
HPE DL385 Gen10 Plus OCP Upgrade Cable Kit	P14603-B21

Core Options

HPE ProLiant DL365 Gen10 Plus 8SFF SATA Direct Attach Cable Kit   P44886-B21

Notes:
- Maximum supported quantity is one
- When customer selects 8SFF SAS/SATA drive cage for Direct Attach, this cable kit must be selected
- When SR100i SW option is selected to support SATA drive, this cable kit must be selected

HPE ProLiant DL365 Gen10 Plus Smart Array to NVMe Adapter Kit   P38585-B21

Notes:
- Support up to 2 NVMe drives
- Requires high performance fans(P26477-B21) in the order
- If the x16 OCP adaptor along with the OCP x16 Upgrade kit (P14603-B21) and 10 NVMe drives selected in the order, Trimode Controller (AROC or PCIe) or this kit (P38585-B21) must in the order.

HPE Hard Disk Drives

For HDDs with optimal product availability, HPE advocates HDDs from the list located here:

Enterprise - 12G SAS - SFF Drives

HPE 300GB SAS 12G Mission Critical 15K SFF BC 3-year Warranty Multi Vendor HDD	P28028-B21
HPE 300GB SAS 12G Mission Critical 10K SFF BC 3-year Warranty Multi Vendor HDD	P40430-B21
HPE 900GB SAS 12G Mission Critical 15K SFF BC 3-year Warranty Multi Vendor HDD	P40432-B21
HPE 1.2TB SAS 12G Mission Critical 10K SFF BC 3-year Warranty Multi Vendor HDD	P28586-B21
HPE 2.4TB SAS 12G Mission Critical 10K SFF BC 3-year Warranty 512e Multi Vendor HDD	P28352-B21
HPE 600GB SAS 12G Mission Critical 15K SFF BC 3-year Warranty Multi Vendor HDD	P53560-B21
HPE 600GB SAS 12G Mission Critical 10K SFF BC 3-year Warranty Multi Vendor HDD	P53561-B21
HPE 1.8TB SAS 12G Mission Critical 10K SFF BC 3-year Warranty 512e Multi Vendor HDD	P53562-B21

Midline - 12G SAS - SFF Drives

HPE 2TB SAS 12G Business Critical 7.2K SFF BC 1-year Warranty 512e HDD	P28505-B21
HPE 1TB SAS 12G Business Critical 7.2K SFF BC 1-year Warranty HDD	P53563-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

SED (Self-Encryption Drive) Hard Drives

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

Notes:
- Requirements for MR Tri-mode controller SED support
  - TPM is not required for Local Key Management as key is stored in controller
  - iLO Advanced is required for Remote Key Management. Key is stored in remote key manager (Ex. ESKM)

HPE Solid State Drives

For SSD selection guidance, please visit **https://ssd.hpe.com/**
For SSDs with optimal product availability, HPE advocates SSDs from the list located here:

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

HPE 960GB SAS 12G Read Intensive SFF BC Value SAS Multi Vendor SSD	P40506-B21
HPE 960GB SAS 24G Read Intensive SFF BC Multi Vendor SSD	P49029-B21
HPE 1.92TB SAS 12G Read Intensive SFF BC Value SAS Multi Vendor SSD	P40507-B21

Core Options

HPE 1.92TB SAS 24G Read Intensive SFF BC Multi Vendor SSD	P49031-B21
HPE 3.84TB SAS 12G Read Intensive SFF BC Value SAS Multi Vendor SSD	P40508-B21
HPE 3.84TB SAS 24G Read Intensive SFF BC Multi Vendor SSD	P49035-B21
HPE 7.68TB SAS 12G Read Intensive SFF BC Value SAS Multi Vendor SSD	P40509-B21
HPE 7.68TB SAS 24G Read Intensive SFF BC Multi Vendor SSD	P49041-B21
HPE 15.36TB SAS 24G Read Intensive SFF BC Multi Vendor SSD	P49045-B21

Mixed Use - 12G SAS - SFF - Solid State Drives

HPE 800GB SAS 24G Mixed Use SFF BC Multi Vendor SSD	P49047-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 Multi Vendor SSD	P49049-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 Multi Vendor SSD	P49053-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 Multi Vendor SSD	P49057-B21

Mixed Use - 6G SATA - SFF - Solid State Drives

HPE 480GB SATA 6G Mixed Use SFF BC Multi Vendor SSD	P40502-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

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 480GB SATA 6G Read Intensive M.2 Multi Vendor SSD	P47818-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 3.84TB SATA 6G Read Intensive SFF BC Multi Vendor SSD	P40500-B21
HPE 7.68TB SATA 6G Read Intensive SFF BC Multi Vendor SSD	P40501-B21

Mixed Use – NVMe Mainstream Performance – SFF – Solid State Drives

HPE 800GB NVMe Gen4 Mainstream Performance Mixed Use SFF BC U.3 Static V2 Multi Vendor SSD	P64999-B21
HPE 1.6TB NVMe Gen4 Mainstream Performance Mixed Use SFF BC U.3 Static V2 Multi Vendor SSD	P65007-B21
HPE 3.2TB NVMe Gen4 Mainstream Performance Mixed Use SFF BC U.3 Static V2 Multi Vendor SSD	P65015-B21
HPE 6.4TB NVMe Gen4 Mainstream Performance Mixed Use SFF BC U.3 Static V2 Multi Vendor SSD	P65023-B21

Mixed Use – NVMe High Performance – SFF – Solid State Drives

HPE 1.6TB NVMe Gen4 High Performance Mixed Use SFF BC U.2 P5620 SSD	P51459-B21
HPE 1.6TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 CM7 SSD	P63845-B21
HPE 1.6TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PM1735a SSD	P50227-B21
HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF BC U.2 P5620 SSD	P51461-B21
HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 CM7 SSD	P63849-B21
HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PM1735a SSD	P50230-B21
HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PS1030 SSD	P70426-B21
HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF BC U.2 P5620 SSD	P51463-B21
HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 CM7 SSD	P63853-B21
HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PM1735a SSD	P50233-B21
HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PS1030 SSD	P70428-B21

Read Intensive – NVMe Mainstream Performance – SFF – Solid State Drives

HPE 960GB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 Static V2 Multi Vendor SSD	P64842-B21
HPE 1.92TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 Static V2 Multi Vendor SSD	P64844-B21
HPE 3.84TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 Static V2 Multi Vendor SSD	P64846-B21

Core Options

HPE 7.68TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 Static V2 Multi Vendor SSD	P64848-B21
HPE 15.36TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 Static SPDM Multi Vendor SSD	P69255-B21

Read Intensive – NVMe High Performance – SFF – Solid State Drives

HPE 1.92TB NVMe Gen4 High Performance Read Intensive SFF BC U.2 P5520 SSD	P51453-B21
HPE 1.92TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 CM7 SSD	P63829-B21
HPE 1.92TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PM1733a SSD	P50216-B21
HPE 3.84TB NVMe Gen4 High Performance Read Intensive SFF BC U.2 P5520 SSD	P51455-B21
HPE 3.84TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 CM7 SSD	P63833-B21
HPE 3.84TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PM1733a SSD	P50219-B21
HPE 7.68TB NVMe Gen4 High Performance Read Intensive SFF BC U.2 P5520 SSD	P51457-B21
HPE 7.68TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 CM7 SSD	P63837-B21
HPE 7.68TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PM1733a SSD	P50222-B21
HPE 7.68TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PS1010 SSD	P70434-B21
HPE 15.36TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 CM7 SSD	P63841-B21
HPE 15.36TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PS1010 SSD	P70436-B21
HPE 15.36TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PM1733a SSD	P50224-B21

Read Intensive – NVMe – Solid State Drives [Exclusively used on NS204i-R Riser (P26463-B21)]

HPE 480GB NVMe Gen3 Mainstream Performance Read Intensive M.2 Multi Vendor SSD	P40513-B21
HPE 480GB NVMe Gen4 Mainstream Performance Read Intensive M.2 PM9A3 SSD	P69543-B21

Notes:
- If this option is selected then M.2 Riser Kit (P26463-B21- HPE DL36x G10+ x16/x8/M.2 NS204i-r Riser) must be selected
- This is the only NVMe M.2 option which can be supported in the NS204i-R Riser (P26463-B21)
- This option requires the selection of a High Performance Fan Kit (P26477-B21)

SED (Self-Encryption Drive) Solid State Drives

HPE 1.92TB SATA 6G Mixed Use SFF BC Self-encrypting 5400M SSD	P58248-B21
HPE 1.92TB SATA 6G Read Intensive SFF BC Self-encrypting 5400P SSD	P58240-B21
HPE 960GB SATA 6G Mixed Use SFF BC Self-encrypting 5400M SSD	P58244-B21
HPE 480GB SATA 6G Read Intensive SFF BC Self-encrypting 5400P SSD	P58236-B21
HPE 1.6TB SAS 24G Mixed Use SFF BC Self-encrypting FIPS PM6 SSD	P41401-B21
HPE 7.68TB SAS 24G Read Intensive SFF BC Self-encrypting FIPS PM6 SSD	P41399-B21
HPE 3.84TB NVMe Gen4 High Performance Read Intensive SFF BC Self-encrypting FIPS U.3 CM6 SSD	P41403-B21

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

Internal Dual M.2 Kit

HPE Universal SATA 6G AIC HHHL M.2 SSD Enablement Kit	878783-B21

Read Intensive - M.2 - Solid State Drives

HPE 480GB SATA 6G Read Intensive M.2 Multi Vendor SSD	P47818-B21

Core Options

Hard Drive Blank Kits

HPE Small Form Factor Hard Drive Blank Kit   666987-B21

Notes: Hard drive blanks should be applied to drive slots with no drives populated

HPE Smart IO

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

Pensando Distributed Services Card (DSC)

Pensando Distributed Services Platform DSC-25 Enterprise 10/25Gb 2-port SFP28 Card   P26966-B21

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

Pensando DSP Silver Software Licenses

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

Pensando DSP Platinum Software Licenses

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

HPE Networking

1 Gigabit Ethernet adapters

Broadcom BCM5719 Ethernet 1Gb 4-port BASE-T Adapter for HPE   P51178-B21

Notes: Above two cards can be mounted in Slot1 or Slot3 of LP or FH Secondary Riser.
Max qty is 1

10 Gigabit Ethernet adapters

Broadcom BCM57416 Ethernet 10Gb 2-port BASE-T Adapter for HPE	P26253-B21
Broadcom BCM57412 Ethernet 10Gb 2-port SFP+ Adapter for HPE	P26259-B21
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
Mellanox MCX631102AS-ADAT Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	P42044-B21
Xilinx X2522-25G-PLUS Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	P21109-B21
Broadcom BCM57414 Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	P26262-B21
Intel E810-XXVDA2 Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	P08443-B21
HPE Ethernet 10/25Gb 2-port Secure Network Adapter	S2A69A

100/200 Gigabit Ethernet adapters

HPE NV60100M 100Gb 2-port Storage Offload Adapter	R8M41A
Intel E810-CQDA2 Ethernet 100Gb 2-port QSFP28 Adapter for HPE	P21112-B21
HPE Ethernet 100Gb 1-port QSFP28 PCIe3 x16 MCX515A-CCAT Adapter	P31246-B21

Core Options

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:

– A minimum of two Gigabytes (2 GB) of server memory is required per each adapter.

– Direct Attach Cable (DAC) for copper environments or fiber transceivers and cables for fiber-optic environments must be purchased separately. Please see the related NIC QuickSpecs for Technical Specifications and additional information: **https://h20195.www2.hpe.com/v2/getpdf.aspx/A00002507ENW.pdf**

– Ambient temperature for above four 100/200 GbE cards (P21112-B21, P31246-B21, P25960-B21, P10180-B21) is 23C under configuration of 8SFF, SAS/SATA/NVMe/SAS4, 280W processor, 128GB DIMM

– Ambient temperature for above four 100/200 GbE cards (P21112-B21, P31246-B21, P25960-B21, P10180-B21) is 25C under configuration of 10SFF, SAS/SATA/NVMe/SAS4, ≤240W processor, 128GB DIMM

– When supported with AOC (Active Optical Cables), ambient temperatures noted above will drop by 3 degrees C

– The AOC cables are:
  o P28169-B21   HPE IB HDR 200Gb QSFP56 3m AOC
  o P28169-B22   HPE IB HDR 200Gb QSFP56 5m AOC
  o P28169-B23   HPE IB HDR 200Gb QSFP56 10m AOC
  o P28169-B24   HPE IB HDR 200Gb QSFP56 15m AOC
  o P28169-B25   HPE IB HDR 200Gb QSFP56 20m AOC
  o P28169-B26   HPE IB HDR 200Gb QSFP56 30m AOC

OCP Adapters

Intel I350-T4 Ethernet 1Gb 4-port BASE-T OCP3 Adapter for HPE	P08449-B21
Broadcom BCM5719 Ethernet 1Gb 4-port BASE-T OCP3 Adapter for HPE	P51181-B21
Marvell QL41132HQCU Ethernet 10Gb 2-port SFP+ OCP3 Adapter for HPE	P08452-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 MCX631432AS-ADAI Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE	P42041-B21
Mellanox MCX562A-ACAI Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE	P10112-B21

Notes: Current Mellanox OCP NIC MCX562A does not support multi-host configuration as two x8, so please make sure to use cable P14318-001 to connect to CPU1 to upgrade and configure to one x16 OCP NIC."

Notes:

– OCP adapters do not consume PCIe slot.

– Only 1 slot is available for OCP adapters.

– Only SFF OCP adapters below 35W can be supported

Intel E810-XXVDA2 Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE	P10106-B21

HPE InfiniBand

HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe4 x16 MCX653105A-HDAT Adapter	P23664-B21
HPE InfiniBand HDR/Ethernet 200Gb 2-port QSFP56 PCIe4 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 PCIe4 x16 MCX653106A-ECAT Adapter	P23666-B21
HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe4 x16 OCP3 MCX653435A-HDAI Adapter	P31323-B21
HPE InfiniBand HDR/Ethernet 200Gb 2-port QSFP56 PCIe4 x16 OCP3 MCX653436A-HDAI Adapter	P31348-B21
HPE InfiniBand NDR200/Ethernet 200Gb 1-port OSFP PCIe5 x16 MCX75310AAS-HEAT Adapter	P45642-B22

Notes:

– For 100Gb/200Gb InfiniBand cards, high performance fan kits need to be supported. Ambient temperature needs to be restricted under 25C.

– For additional InfiniBand information: **https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04154440**

Core Options

- System ambient temperature for all of the above InfiniBand cards is 23C under configuration of 8SFF, SAS/SATA/NVMe/SAS4, 280W processor, 128GB DIMM
- System ambient temperature for all of the above InfiniBand cards is 25C under configuration of 10SFF, SAS/SATA/NVMe/SAS4, ≤240W processor, 128GB DIMM
- When supported with AOC (Active Optical Cables), ambient temperatures noted above will drop by 3 degrees C
- The AOC cables are:
  - o   P28169-B21   HPE IB HDR 200Gb QSFP56 3m AOC
  - o   P28169-B22   HPE IB HDR 200Gb QSFP56 5m AOC
  - o   P28169-B23   HPE IB HDR 200Gb QSFP56 10m AOC
  - o   P28169-B24   HPE IB HDR 200Gb QSFP56 15m AOC
  - o   P28169-B25   HPE IB HDR 200Gb QSFP56 20m AOC
  - o   P28169-B26   HPE IB HDR 200Gb QSFP56 30m AOC

HPE Graphics Options

NVIDIA T4 16GB Computational Accelerator for HPE   R0W29C

Notes:

- Requires selection of the High Performance Fan Kit (P26477-B21)
- See table below for ambient temperature limitations based on processor selection
- When second quantity is selected, (P26467-B21) HPE ProLiant DL36X Gen10 Plus Full Height Riser Kit must be selected, and will occupy Slot 1 and Slot 3
- Max quantity of two allowed when the secondary Full height riser is selected. (P26471-B21) HPE ProLiant DL36X Gen10 Plus Low Profile Riser Kit not supported with this T4 GPU
- This x16 GPU can only installed in x16 electrical slot

HPE Computation and Graphics Accelerator								
Part Number	Card	Form Factor	Qty Per Server	Drive Type	Processor Supported	DIMM GB	PCIe/OCP Support	Ambient Temperature
R0W29C	HPE NVIDIA Tesla T4 16GB Computational Accelerator	SW	2	8SFF NVMe/ SATA/ SAS/SAS4	280W	256	10Gb/25Gb/AIC card only	23C
					280W	128	10Gb/25Gb/AIC card /SATA M.2 Enablement Kit/ NS204i-p/ NS204i-r RIser/ >100Gb PCIe cards/ >100Gb OCP cards	23C
				10SFF NVMe/ SATA/ SAS/SAS4	280W	256	10Gb/25Gb/AIC card only	25C
					≤240W	128	10Gb/25Gb/AIC card /SATA M.2 Enablement Kit/ NS204i-p/ NS204i-r RIser/ >100Gb PCIe cards/ >100Gb OCP cards	25C
					≤240W	256	10Gb/25Gb/AIC card only	25C
					≤240W	128	10Gb/25Gb/AIC card only	30C
				10SFF SAS/ SATA	≤180W	128	10Gb/25Gb/AIC card only	Not Supported

HPE Power Supplies

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

Core Options

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

HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit   865438-B21
Notes:
- Flex Slot Titanium power supplies support power efficiency of up to 96% and include a standard C-14 power inlet connector.

HPE 800W Flex Slot -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 1000W Flex Slot Titanium Hot Plug Power Supply Kit   P03178-B21
Notes:
- This Flex Slot Titanium power supply supports power efficiency of up to 96%

HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit   P38997-B21
HPE 1600W Flex Slot -48VDC Hot Plug Power Supply Kit   P17023-B21
Notes:
- Flex Slot -48VDC power supplies support power efficiency of up to 94%

HPE 1600W -48VDC Power Cable Lug Kit   P36877-B21
Notes:
- P36877-B21 is to be used with HPE 1600W Flex Slot -48VDC Hot Plug Power Supply Kit
- Only one power cable lug kit needs to be selected with the power supply

HPE 1800W-2200W Flex Slot Titanium Hot Plug Power Supply Kit   P44712-B21
Notes:
- This Flex Slot Titanium power supply supports power efficiency of up to 96%
- Gen10 Plus (and v2) output capped at 1600W maximum, greater than 1600W only feasible on Gen11 systems.

Power Supply General 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/poweradvisor**.
- 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.
- 1000W, 1600W and 2200W power supplies only support high line voltage.
- HPE ProLiant servers ship with an IEC-IEC power cord used for rack mounting with Power Distribution Units (PDUs). Visit **HPE power cords** for a full list of optional HPE power cords.

Additional Options

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

Embedded Management

HPE iLO Advanced

HPE iLO Advanced 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 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 Advanced Electronic License with 1yr Support on iLO Licensed Features	E6U59ABE
HPE iLO Advanced Electronic License with 3yr Support on iLO Licensed Features	E6U64ABE

HPE iLO Common Password Setting

HPE iLO Common Password FIO Setting	P08040-B21

Notes:
– Replaces iLO default randomized password by an HPE defined common password. HPE highly recommends changing this password immediately after the initial onboarding process.
– Customers who want to choose their own custom iLO default password should use the HPE Factory Express Integration Services

Software as a Service Management

HPE GreenLake for Compute Ops Management

HPE GreenLake for Compute Ops Management Enhanced 3-year Upfront ProLiant SaaS	R7A11AAE

Additional Options

HPE GreenLake for Compute Ops Management Enhanced 1-year Upfront ProLiant SaaS	R7A10AAE
HPE GreenLake for Compute Ops Management Enhanced 5-year Upfront ProLiant SaaS	R7A12AAE

Notes: For customers purchasing HPE GreenLake for Compute Ops Management, without a hardware purchase or a BTO purchase, use this base SKU within ASQ order:

HPE GreenLake for Compute Ops Management Base SaaS	R6Z73AAE

HPE Converged Infrastructure Management Software

HPE OneView Standard 1yr 9x5 Support Flexible Quantity E-RTU	K6F98AAE
HPE OneView including 3yr 24x7 Support Physical 1-server LTU	E5Y34A
HPE OneView including 3yr 24x7 Support Track 1-server LTU	E5Y36A
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 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 1-server FIO LTU	P8B31A
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

Additional Options

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**.

Notes: Please see the **HPE PCIe Workload Accelerators for ProLiant Servers QuickSpecs** for Technical Specifications and additional information.

HPE Security

HPE 1U Gen10 Bezel Kit	867998-B21
HPE Bezel Lock Kit	875519-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 Trusted Platform Module 2.0 Gen10 Plus Black Rivets Kit	P13771-B21

Notes: Max q'ty =1

HPE Gen10 TPM 1.2 FIO Setting	872108-B21

Notes:
− This option requires the selection of TPM BR Module Kit (P13771-B21)
− If TPM BR Module Kit (P13771-B21) is selected along with Legacy BIOS Mode (758959-B22) then this option must be selected.

HPE Server Platform LDevID FIO Setting	P49803-B21

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

HPE Server Identity LDevID FIO Setting	P49814-B21

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

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 Dual Port Fibre Channel Host Bus Adapter	Q0L12A
HPE SN1700E 64Gb 1-port Fibre Channel Host Bus Adapter	R7N77A
HPE SN1700E 64Gb 2-port Fibre Channel Host Bus Adapter	R7N78A

QLogic Fibre Channel HBAs

HPE SN1100Q 16Gb Single Port Fibre Channel Host Bus Adapter	P9D93A
HPE SN1100Q 16Gb Dual Port Fibre Channel Host Bus Adapter	P9D94A
HPE SN1610Q 32Gb 1-port Fibre Channel Host Bus Adapter	R2E08A
HPE SN1610Q 32Gb 2-port Fibre Channel Host Bus Adapter	R2E09A
HPE SN1610E 32Gb 1-port Fibre Channel Host Bus Adapter	R2J62A
HPE SN1610E 32Gb 2-port Fibre Channel Host Bus Adapter	R2J63A

Additional Options

HPE Rack Options
Rail Kits

HPE ProLiant DL300 Gen10 Plus 1U SFF Easy Install Rail Kit	P26485-B21
HPE ProLiant DL300 Gen10 Plus 1U Cable Management Arm for Rail Kit	P26489-B21

Notes:
- HPE rail kits are designed to work with HPE racks in compliance with industry standard EIA-310-E. In the event a customer elects to purchase a third-party rack for use with an HPE rail kit, any such use is at customer's own risk. HPE makes no express or implied warranties with respect to such third-party racks and specifically disclaims any implied warranties of merchantability and fitness for a particular purpose. Furthermore, HPE has no obligation and assumes no liability for the materials, design, specifications, installation, safety, and compatibility of any such third-party racks with any rail kits, including HPE rail kits.
- Can only be selected only if the rail kit is selected.
- HPE rail kits contain telescoping rails which allow for in-rack serviceability.
- 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 Racks
- Please see the HPE Advanced Series Racks QuickSpecs for information on additional racks options and rack specifications. **HPE G2 Advanced Series Racks**
- Please see the HPE Enterprise Series Racks QuickSpecs for information on additional racks options and rack specifications. **HPE G2 Enterprise Series Racks**

HPE Power Distribution Units (PDUs)
- Please see the **HPE Basic Power Distribution Units (PDU) QuickSpecs** for information on these products and their specifications.
- Please see the **HPE Metered Power Distribution Units (PDU) QuickSpecs** for information on these products and their specifications. Please see the **HPE Intelligent Power Distribution Unit (PDU)** QuickSpecs for information on these products and their specifications.
- 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 USB and SD Options
HPE Enterprise Mainstream Flash Media Kits for Memory Cards

HPE 32GB microSD RAID 1 USB Boot Drive	P21868-B211

Notes: In vSphere 7.0, VMware made changes that impact the use of an SD Card/USB media as a standalone boot device and will be removing support for them after version 7.x.
SD Card/USB media can still be used as a standalone boot option through all 7.x releases via published Customer Advisory **Usage of SD Card/USB Devices As Standalone Boot Devices Has Changed Due to System Storage Changes For VMware ESXi 7.0 (Or Later).**
For any major release beyond VMware ESXi 7.x, VMware will require M.2 or another local persistent device as the standalone boot option.

Additional Options

Tech Care

HPE 3 Year Tech Care Essential Proliant DL365 Gen10 Plus Service	HY5P9E
HPE 3 Year Tech Care Essential wDMR Proliant DL365 Gen10 Plus Service	HY5Q0E
HPE 5 Year Tech Care Essential Proliant DL365 Gen10 Plus Service	HY5S3E
HPE 5 Year Tech Care Essential wDMR Proliant DL365 Gen10 Plus Service	HY5S4E

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

Memory

Memory Population guidelines

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.
- 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:
  https://www.hpe.com/docs/amd-population-rules-Gen10plus
- To realize the performance memory capabilities listed in this document, HPE DDR4 Smart Memory 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**

Technical Specifications

System Unit

- **Dimensions (Height x Width x Depth)**
  4.28 X 43.46 X 74.19 cm (1.69 X 17.11 X 29.21 in)

- **Weight** (approximate)
  - **SFF Minimum:** 8 SFF chassis with 8 HDD blanks, 2x Drive Bay blanks, 1x processor including standard heat sink, 2x DIMMs, 1x power supply (plus blank), 1x Smart Array, 1x Riser installed, cables for the above)
    - 13.39kg
    - 29.51 lb
  - **SFF Maximum:** 10x SFF hard drives, 2x processors, 2 heat sinks, 2x power supplies, 1x Smart Array, 2x Risers installed, 16x DIMMs, 2x power supply, cables for the above
    - 18.21kg
    - 40.14 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 10°C/hr (18°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**
  10% 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 **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.

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	5.4 B Entry 5.7 B Base 5.7 B Perf
LpAm	38 dBA Entry 41 dBA Base 41 dBA Perf
Operating	
LWAd	5.4 B Entry 5.7 B Base 5.7 B Perf
LpAm	38 dBA Entry 41 dBA Base 41 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
01-Jul-2024	Version 25	Changed	Standard Features and Core Options sections were updated. Added new and existing NVMe SSDs previously missing
03-Jun-2024	Version 24	Changed	Overview, Configuration Information, Core Options and Technical Specifications sections were updated. Removed: OBS'd BTO SKUs (P39366-B21/291, P39367-B21/291, P39368-291), duplicate Processors in various sections, and OBS'd SSD drives
22-Apr-2024	Version 23	Changed	Configuration Information section was updated. Added note in the BTO SKU section notating upcoming SKU OBS date. Removed BTO SKU P39368-B21 due to single rank memory EOL.
18-Mar-2024	Version 22	Changed	Standard Features, Core Options, and Additional Options sections were updated.
04-Dec-2023	Version 21	Changed	Standard Features, Configuration Information and Core Options sections were updated.
06-Nov-2023	Version 20	Changed	Standard Features, Service and Support, Configuration Information, and Core Options sections were updated
11-Sep-2023	Version 19	Changed	Standard Features, Configuration Information, Core Options, and Additional Options sections were updated
05-Jun-2023	Version 18	Changed	Core Options and additional Options sections were updated.
01-May-2023	Version 17	Changed	Optional Features and Additional Options sections were updated.
10-Jan-2023	Version 16	Changed	Configuration Information and Core Options sections were updated. Obsolete SKUs were removed.
05-Dec-2022	Version 15	Changed	Core Options section was updated.
07-Nov-2022	Version 14	Changed	Standard Features, Core Options and Additional Options sections were updated. Obsolete SKUs were removed.
01-Aug-2022	Version 13	Changed	Overview and Core Options sections were updated. Obsolete SKUs were removed.
13-Jun-2022	Version 12	Changed	Core Options section was updated.
02-May-2022	Version 11	Changed	Core Options section was updated. Obsolete SKUs were removed.
04-Apr-2022	Version 10	Changed	Standard Features section was updated.
21-March-2022	Version 9	Changed	Standard Features and Configuration Information sections were updated. Obsolete SKU was removed.
06-Dec-2021	Version 8	Changed	Standard Features, Core Options and Additional Options sections were updated.
01-Nov-2021	Version 7	Changed	Standard Features, Core Options and Additional Options sections were updated.
07-Sep-2021	Version 6	Changed	Standard Features and Core Options sections were updated.
02-Aug-2021	Version 5	Changed	Standard Features, Configuration Information and Core Options sections were updated.
06-Jul-2021	Version 4	Changed	Standard Features, Configuration Information and Core Options sections were updated. Obsolete SKUs were removed.
07-Jun-2021	Version 3	Changed	Standard Features, Configuration Information, Technical Specifications and Core Options sections were updated.
10-May-2021	Version 2	Changed	Standard Features, Configuration Information and Core Options sections were updated.
19-Apr-2021	Version 1	New	New QuickSpecs

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