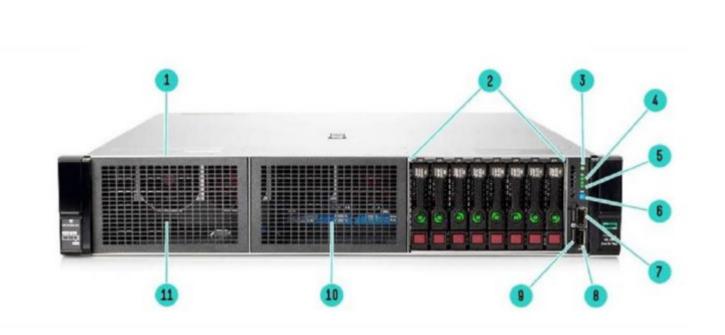
#### Overview

# HPE ProLiant DL385 Gen10 Plus Server

The HPE ProLiant DL385 Gen10 Plus Server is redefining price/performance with the new math for virtualized compute. Powered by the latest AMD® EPYC® 7002 Series Processors, the HPE ProLiant DL385 Gen10 Plus Server offers greater processing power, faster memory speeds up to 3200 MT/s. and increased data transfer rates with PCIe Gen4 capabilities.

This 2P, 2U 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.

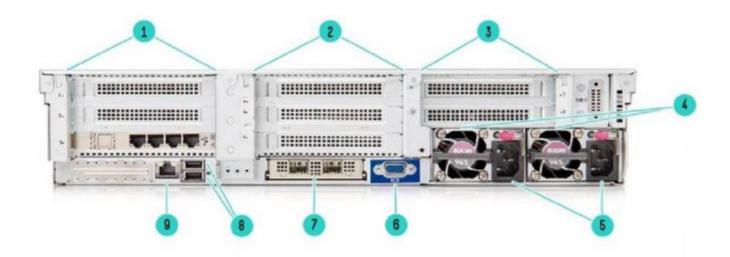


#### HPE ProLiant DL385 Gen10 Plus 8 SFF Server- Front View

- 1 Quick removal access panel
- 2 Box3: 8SFF SAS/SATA shown
- 3 Power On/Standby button and system power LED 9 button
- 4 Health LED
- 5 NIC Status
- 6 UID Button/LED

- 7 iLO Front Service Port
- 8 USB 3.1 Gen1
  - Serial label pull tag
- 11 Box1: Optional 8SFF SAS/SATA or 8 NVMe (not populated)
- 10 Box2: Optional 8SFF SAS/SATA or 8 NVMe (not populated)

Overview



#### **HPE ProLiant DL385 Gen10 Plus Server - Rear View** lots<sup>1</sup> 6. VGA Connector

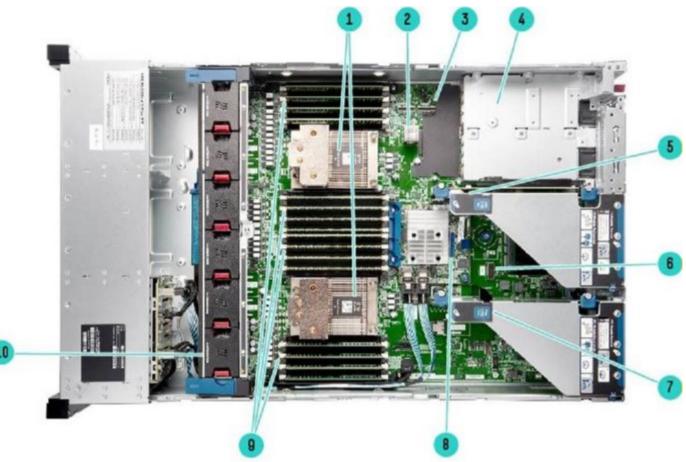
- 1. Primary Riser. PCIe Slots<sup>1</sup>
- 2. Optional Secondary Riser. PCIe Slots<sup>2</sup>
- 3. Optional Tertiary Riser, PCIe Slots (Slots 7-8 top 8. to bottom)
- 4. HPE Flexible Slot Power Supply Bay 1 & 2
- 5. Power supply power connection. Bay 1 & 2
- VGA Connector
   OCP 3.0 Slot
- 3. USB 3.1 Gen1 connectors (2)
- 9. Dedicated iLO management port

#### Notes:

-1 Slots 1-3 top to bottom, Slot 3 populated with 4 Port 10 GB NIC) Optional 2SFF rear drives

-<sup>2</sup> Slots 4-6 top to bottom, requires second riser card, and second processor). Optional 2 SFF rear drives

Overview



HPE ProLiant DL385 Gen10 Plus Server - Internal View

8SFF chassis with optional 2<sup>nd</sup> CPU

- 1 Primary & Secondary Processors
- 2 Dual USB Port
- 3 Chassis intrusion detection connector
- 4 Hot Plug redundant HPE Flexible Slot Power supplies
- 5 Optional Secondary & Tertiary Risers

#### Notes:

-1 Shown half populated in 1 DPC

-<sup>2</sup> Max Performance fans optional

## What's New:

- Supports the latest AMD EPYC 7002 Series processor with double the core density compared to the previous generation and increased memory speeds up to 3200 MT/s.
- Support for PCIe Gen4, resulting in improved networking speeds.
- Support for OCP Network Adapters.
- New SATA Read Intensive SSD drives.
- New NVMe Read Intensive and Mixed Use SSD drives.
- Support for PCIe Smart Array controllers for internal and external drives.
- European Union (EU) Lot 9 regulation, please visit: <u>https://www.hpe.com/us/en/about/environment/msds-specs-more.html</u> for more information

- 6 OCP x16 Uprgrade Connector
- 7 Primary PCIe riser, standard
- 8 Flexible Smart Array Connector
- 9 DDR4 DIMM slots<sup>1</sup>.
- 10 Fan cage shown with 6 standard Hot-plug fans<sup>2</sup>

#### Overview

## **Platform Information**

#### Form Factor

2U rack

#### **Chassis Types**

- 8 SFF with optional Universal Media Bay, and optional SFF or NVMe drive bay options
- 24 SFF bay with 4 SFF rear drive bay option to total 28 SFF drives
- 8 LFF with Universal Media Bay, and optional SFF or NVMe drive bay options
- 12 LFF with optional 4 LFF mid-plane and optional 4LFF + 2 SFF rear drive bay to total 20LFF drives + 2 SFF drives Notes:
- The 4 LFF rear drive box will consume space for the primary and secondary riser.
- The 8 and 12 LFF chassis also supports the 2 SFF rear drive box which allows for the user to attach a secondary or tertiary riser.
- The 8 NVMe drive option (P14578-B21) can only be leveraged in the SFF chassis and replaces Box 1, 2 or 3.
- The Universal Media Bay (P14609-B21) not available with the LFF chassis or the 24 SFF front, and can only be populated in Box 1.
- -The 8 NVMe SFF can be upgraded with additional 8 NVMe SFF drive box to total 16 SFF NVMe drives.
- -The 8 LFF chassis cannot be upgraded to 12 LFF front in the field.
- -12LFF or more drives require Max performance fan kit (P14608-B21).
- The 8 LFF chassis ships with 6-standard fans.
- -CPU selection is limited 200W or lower with 4LFF mid-tray selected & DIMM blanks populate empty DIMM slots.
- If CPU power is >180W then it is required to use 2U Performance Heat sink.

#### System Fans

Standard - fan types included

On SFF Chassis only, 1P models ship with 4 standard fans. The second processor option kit contains 2 additional fans. The 12 LFF and 24 SFF chassis ship with 6 Max performance fans as standard.

The 8 LFF chassis ships with 6 standard fans as standard.

Max performance fan kit is available to meet ambient temperature environments.

Max performance fan kits are required for rear drives, or >180w Processors SKUs, or if High Performance NVMe drive being used.

## Standard Features

#### 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/products/epyc.

AMD EPYC	Cores	Base	Max	Max	Wattage	Cache	Memory
Processor		Frequency	Frequency	Memory			
EPYC 7742	64	2.25GHz	3.4GHz	4TB	225	256MB	3200MT/s
EPYC 7702	64	2.0GHz	3.35GHz	4TB	200	256MB	3200MT/s
EPYC 7642	48	2.3GHz	3.3GHz	4TB	225	192MB	3200MT/s
EPYC 7552	48	2.2GHz	3.3GHz	4TB	200	192MB	3200MT/s
EPYC 7502	32	2.5GHz	3.35GHz	4TB	180	128MB	3200MT/s
EPYC 7542	32	2.9GHz	3.4GHz	4TB	225	128MB	3200MT/s
EPYC 7452	32	2.35GHz	3.35GHz	4TB	155	128MB	3200MT/s
EPYC 7402	24	2.8GHz	3.35GHz	4TB	180	128MB	3200MT/s
EPYC 7352	24	2.3GHz	3.2GHz	4TB	155	128MB	3200MT/s
EPYC 7282	16	2.8GHz	3.2GHz	4TB	120	64MB	3200MT/s
EPYC 7302	16	3.0GHz	3.3GHz	4TB	155	128MB	3200MT/s
EPYC 7272	12	2.9GHz	3.2GHz	4TB	120	64MB	3200MT/s
EPYC 7262	8	3.2GHz	3.4GHz	4TB	155	128MB	3200MT/s
EPYC 7252	8	3.1GHz	3.2GHz	4TB	120	64MB	3200MT/s

**Notes:** All AMD EPYC processors can support up to 4TB of memory each.

#### Chipset

No chipset - System on Chip (SoC) design.

#### **On System Management Chipset**

HPE iLO 5 ASIC Read and learn more in the **iLO QuickSpecs**.

#### Memory

One of the following depending on model

Туре	HPE DDR4 SmartMemory,
	Registered (RDIMM)
DIMM Slots Available	32
	16 DIMM slots per processor, 8 channels per processor, 2 DIMMs per channel
Maximum capacity	2.0TB
(RDIMM)	32 x 64 GB RDIMM @ 3200 MHz
	·

#### Notes:

- The maximum memory speed is limited by the processor selection.

-When 2DIMMs are populated per channel, memory speed drops to 2933MT/S

#### **Expansion Slots**

#### **Primary Riser**

#### Notes:

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

- There are 3 types of risers supported on Primary Slot

## Standard Features

Primary R	liser1				
Slots #	Technology	Bus Width	Connector Width	Slot Form Factor	Notes
1	PCIe 4.0	X8	X16	Full-height,full- length slot	Proc 1
2	PCIe 4.0	X16	X16	Full-height,full- length slot	Proc 1
3	PCIe 4.0	X8	X16	Full-height,half- length slot	Proc 1
Primary I	Riser2			•	
Slots #	Technology	Bus Width	Connector Width	Slot Form Factor	Notes
1	PCIe 4.0	X16	X16	Full-height,full- length slot	Proc 1
2	PCIe 4.0	X16	X16	Full-height,full- length slot	Proc 1
3	NA	NA	NA	NA	NA
Primary R	liser3	·		·	·
Slots #	Technology	Bus Width	Connector Width	Slot Form Factor	Notes
1**	NA	NA	NA	NA	NA
1	PCIe 4.0	X16	X16	Full-height,full- length slot	Proc 1
2	PCIe 4.0	X16	X16	Full-height,full- length slot	Proc 1
3	PCIe 4.0	X16	X16	Full-height,half- length slot	Proc 1

**Notes:** \*\* Default Slot1 on the Primary Riser3 is empty and not available. It requires P14600-B21 in conjunction with the Primary Riser3 to add additional x16 PCIe Gen4 in slot1.

#### Secondary Riser:

#### Notes:

- -Bus Width Indicates the number of physical electrical lanes running to the connector.
- There are 3 types of risers support on Secondary Slot

# **Standard Features**

Slots #	Technology	Bus Width	Connector Width	Slot Form Factor	Notes
4	PCIe 4.0	X8	X16	Full-height,full-length slot	Proc 2
5	PCIe 4.0	X16	X16	Full-height,full-length slot	Proc 2
6	PCIe 4.0	X8	X16	Full-height,half- length slot	Proc 2
Secondary Ri	ser2			-	
Slots #	Technology	Bus Width	Connector Width	Slot Form Factor	Notes
4	PCIe 4.0	X16	X16	Full-height,full-length slot	Proc 2
5	PCIe 4.0	X16	X16	Full-height,full-length slot	Proc 2
6	NA	NA	NA	NA	NA
Secondary Ris	er3			<u>`</u>	- ^-
Slots #	Technology	Bus Width	Connector Width	Slot Form Factor	Notes
4*	NA	NA	NA	NA	NA
4	PCIe 4.0	X16	X16	Full-height,full-length slot	Proc 2
5	PCIe 4.0	X16	X16	Full-height,full-length slot	Proc 2
6	PCIe 4.0	X16	X16	Full-height,half- length slot	Proc 2

Notes: \* Default Slot4 on the Secondary Riser3 is empty and not available. It requires P14600-B21 in conjunction with the Secondary Riser3 to add additional x16 PCIe Gen4 in slot4

#### **Tertiary Riser:**

#### Notes:

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

- There are 2 types of risers support on Tertiary Slot

<b>Tertiary Rise</b>	r1				
Slots #	Technology	Bus Width	Connector Width	Slot Form Factor	Notes
7	PCle 4.0	X16	X16	Full-height,full- length slot	Proc 2
8	NA	NA	NA	NA	NA
<b>Tertiary Rise</b>	r2				
Slots #	Technology	Bus Width	Connector Width	Slot Form Factor	Notes
7	PCle 4.0	X8	X16	Full-height,full- length slot	Proc 2
8	PCIe 4.0	X8	X16	Full-height,full- length slot	Proc 2

### **Standard Features**

## **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 <u>HPE Smart Array Gen10</u> Controllers Data Sheet. One of the following depending on model

#### **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.

#### **Internal Storage Devices**

One of the following depending on model

#### **Optical Drive**

Ships standard in Performance Models

Optional: DVD-ROM, DVD-RW

#### **Hard Drives**

None ship standard

Maximum Internal Storage			
	Capacity	Configuration	
Hot Plug SFF SAS	67.2TB	24+4 x 2.4 TB* (with optional rear SFF drive cage)	
Hot Plug SFF SATA	56.0 TB	24+4 x 2 TB (with optional rear SFF drive cage)	
Hot Plug LFF SAS	310.6 TB	12+4+4 x 14 TB + 2 x 15.3 TB (with optional mid - tray and rear LFF drive cage, plus 2 SFF SSD rear)	
Hot Plug LFF SATA	310.6 TB	12+4+4 x 14 TB + 2 x 15.3 TB (with optional mid - tray and rear LFF drive cage, plus 2 SFF SSD rear)	
Hot Plug SFF SAS SSD	428.4 TB	24+4 x 15.3 TB (with optional rear SFF drive cage)	
Hot Plug LFF SATA SSD	49.8 TB	12+4+4 x 0.96 TB + 2 x 15.3 TB (with optional mid -tray and rear LFF drive cage, plus 2 SFF SSD rear)	
Hot Plug SFF SATA SSD	215 TB	24+4 x 7.68 TB (with optional 2SFF drive cage)	
Hot Plug SFF NVMe PCIe SSD	61.44TB NVMe	16 x 3.84TB NVMe	

#### **Standard Features**

**Notes:** UFF drives are also supported.

## **Power Supply**

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

**Notes:** Available in 94% Power Efficiency. HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit

Notes: Available in 94%. Power Efficiency

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

-Available in 96% Power Efficiency

-200-240VAC power input only.

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

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

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

Notes:

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

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

- Notes:
- -Available in 94% Power Efficiency.
- -200-240VAC power input only.

HPE Flexible Slot (Flex Slot) Power Supplies share a common electrical and physical design that allows for hot plug, tool-less installation into HPE ProLiant Gen10 Plus 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

#### **Standard Features**

Serial	Optional, rear
Display Port	1 standard on both SFF & LFF chassis, rear.
VGA Port	Optional via Universal Media Bay, P14609-B21.
Network Ports	None. Choice of OCP or stand up card
HPE iLO Remote	1 Gb Dedicated
Management	
Network Port	
Front iLO Service	1 standard (Not available on 12 LFF chassis or when SID is ordered, note iLO
Port	dongle required, 880123-B21)
USB 3.1 Gen1	Up to 7 total: 1 front, 2 rear, 2 internal (secure), 2 optional USB 3.0 front via Universal Media
	Bay, or standard on 8 LFF chassis
SID (Systems Insight	Optional
Display)	

Notes: Not shipping as standard. Available as a CTO option or as a field upgrade (P14611-B21).

#### UEFI

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

Learn more at http://www.hpe.com/servers/uefi.

### **Operating Systems and Virtualization Software Support for ProLiant Servers**

#### Windows Server 2016 (Most Recent Version)

Windows Server 2019 (Most Recent Version)

VMware ESXi 6.5 U3

VMware ESXi 6.7 U3

#### SUSE Linux Enterprise Server (SLES) 12 SP4

#### SUSE Linux Enterprise Server (SLES) 15 SP1

#### Red Hat Enterprise Linux (RHEL)

**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

#### **Industry Standard Compliance**

ACPI 6.1 Compliant

PCIe 4.0 Compliant

WOL Support Microsoft® Logo certifications PXE Support VGA/Display Port

#### **Standard Features**

Notes: This support is on the optional Universal Media Bay.

USB 3.1 Gen1 Compliant (internal)

#### USB 2.0 Compliant (external ports)

Notes: This support is on the optional Universal Media Bay.

Energy Star

SMBIOS 3.1 UEFI 2.6 Redfish API IPMI 2.0 Secure Digital 2.0 Advanced Encryption Standard (AES) Triple Data Encrytion Standard (3DES) SNMP v3 TLS 1.2 DMTF Systems Management Architecture for Server Hardware Command Line Protocol (SMASH CLP) Active Directory v1.0 European Union (EU) eco-design regulations for server and storage products, known as Lot 9, go into effect on March 1st, 2020. Among other requirements, for servers this directive establishes power thresholds for idle state, as well as efficiency and performance in active state which vary among configurations. HPE ProLiant Gen10 servers are

compliant with Lot9 requirements. For more information regarding HPE Lot 9 conformance, please visit: https://www.hpe.com/us/en/about/environment/msds-specs-more.html

ASHRAE A3/A4

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

UEFI (Unified Extensible Firmware Interface Forum)

#### Graphics

#### Integrated Video Standard

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

#### HPE iLO 5 on system management memory

32 MB Flash 4 Gbit DDR 3 with ECC protection

#### **HPE Server UEFI/Legacy ROM**

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

**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.

## Standard Features

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.

#### **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.

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

#### **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**.

#### **Standard Features**

#### 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 <a href="https://buy.hpe.com/b2c/us/en/enterprise-software/infrastructure-management-software/system-server-management-software/hpe-system-server-software-management-software/smart-update-manager-%28sum%29/p/5182020.">https://buy.hpe.com/b2c/us/en/enterprise-software/infrastructure-management-software/system-server-software/software/smart-update-manager-%28sum%29/p/5182020.</a>

#### **iLO Amplifier Pack**

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

Learn more at http://www.hpe.com/servers/iLOamplifierpack.

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

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

#### **RESTful Interface Tool**

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

#### **Scripting Tools**

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

#### HPE OneView Standard

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

#### HPE Systems Insight Manager (HPE SIM)

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

#### Standard Features

#### 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 Pointnext operational services or customized service agreements. Hard drives have either a one year or three year warranty; refer to the specific hard drive QuickSpecs for details.

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

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

#### 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 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

#### HPE Insight Cluster Management Utility (CMU)

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

#### **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.

## Optional Features

HPE KVM Solutions include a console and switches designed to work with your server and IT equipment reliably. We've got a cost-effective KVM switch for your first rack and multiple connection IP switches with remote management and security capabilities to keep your data center rack up and running. Learn more about HPE Racks, KVM, PDUs and UPSs at **HPE Rack and Power Infrastructure**.

#### **One Config Simple (SCE)**

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

Service and Support

## **HPE Pointnext - Service and Support**

#### Achieve maximum return from your IT investment

Get the expertise you need at every step of your IT journey with <u>HPE Pointnext Services</u>. We help you lower your risks and costs using proven best practices, automation and methodologies that have been tested and refined by HPE experts through thousands of deployments globally. With <u>Advisory Services</u>, we focus on your business outcomes and goals, partnering with you to design your transformation and build a roadmap tuned to your unique challenges. Our <u>Professional</u> and <u>Operational Services</u> can be leveraged to speed up time-to-production, boost performance and accelerate your business. HPE Pointnext specializes in flawless and on-time implementation, on-budget execution, and creative configurations that get the most out of software and hardware alike.

#### Consume IT on your terms

<u>HPE GreenLake Flex Capacity</u> combines the simplicity, agility, and economics of public cloud with the security and performance benefits of on-premises IT. You determine your own "Right Mix" of Hybrid IT and workload placement without having to use. With its agile pay-per-use service, HPE GreenLake Flex Capacity can help your IT organization:

- Avoid IT expenses stemming from overprovisioning
- Improve time to market by maintaining a safe buffer of capacity, ready for use when you need it
- Keep capacity ahead of demand with regular monitoring-and a simple change order to replenish
- Pay for only the capacity used, not the capacity deployed
- Reduce IT risk with tailored support

#### **Connect your devices:**

Unlock all of the benefits of your technology investment by connecting your products to Hewlett Packard Enterprise. Reduce down time, increase diagnostic accuracy and have a single consolidated view of your environment. By connecting, you will receive 24x7monitoring, pre-failure alerts, automatic call logging, and automatic parts dispatch. HPE Proactive Care Service and HPE Datacenter Care Service customers will also benefit from proactive activities to help prevent issues and increase optimization. All of these benefits are already available to you with your server storage and networking products, securely connected to HPE support. Learn more about getting connected at <a href="http://www.hpe.com/services/getconnected">http://www.hpe.com/services/getconnected</a>

#### **Recommended Services**

**HPE Proactive Care** gives customers an enhanced call experience. When your products are connected to HPE, Proactive Care helps prevent problems and maintains IT stability by utilizing personalized proactive reports with recommendations and advice. HPE Proactive Care is available in 3, 4 and 5 year terms with a choice of response levels: Next Business day (NBD), 24x7 with a 4 hour response, and 24x7 with 6 hour call to repair (CTR). This Service combines both reactive support when there is a problem with an enhanced call experience and start to finish case management with proactive reporting and advice. This service also includes collaborative software support for Independent Software Vendors (ISVs), (Red Hat, VMWare, Microsoft, etc.).

#### https://www.hpe.com/h20195/v2/GetPDF.aspx/4AA3-8855ENW.pdf

#### HPE Proactive Care Advanced

Incorporates all the deliverables of HPE Proactive Care plus includes personalized support from a local, assigned Account Support Manager who will share best practice advice and personalized recommendations designed to help improve availability and performance to help increase stability and reduce unplanned downtime. Leverage your system's ability to connect to HPE for pre-failure alerts, automatic call logging and parts dispatch. For business critical incidents, Proactive Care Advanced offers critical event management to help reduce mean time to resolution. HPE Service Credits are included to redeem for technical and

### Service and Support

operational services. HPE Proactive Care Advanced is offered in 3, 4, and 5 year terms with a choice of response levels: Next Business day (NBD), 24x7 with a 4 hour response, and 24x7 with 6 hour call to repair (CTR).

#### https://www.hpe.com/h20195/v2/getdocument.aspx?docname=4AA5-3259ENW

**Notes:** \*HPE Proactive Care and HPE Proactive Care Advanced require that the customer connect their devices to make the most of these services and receive all the deliverables.

#### **Other related Services**

#### HPE Server Hardware Installation

Provides for the basic hardware installation of HPE branded servers, storage devices and networking options to assist you in bringing your new hardware into operation in a timely and professional manner. https://h20195.www2.hpe.com/v2/Getdocument.aspx?docname=5981-9356enw

#### HPE Installation and Startup Service

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

#### **HPE Datacenter Care service**

**HPE Datacenter Care** helps customers to address the pressing needs of IT today and smoothly transform to a more agile cloud-like IT operations model. We help run and monitor your IT by offloading the day to day routine tasks, helping customers be more predictive and proactive, and saving time with one place to call with for all of their IT. Datacenter Care is available as both tailored statement of work and as a packaged service for 3, 4, and 5 year terms.

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

#### DC for Hyperscale

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

#### HPE Factory Express for Servers and storage

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

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

#### Service and Support

#### **HPE Service Credits**

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

#### **HPE Education Services**

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

#### **HPE Support Center**

The HPE Support Center is a personalized online support portal with access to information, tools and experts to support HPE business products. Submit support cases online, chat with HPE experts, access support resources or collaborate with peers.

Learn more http://www.hpe.com/support/hpesc.

The HPE Support Center Mobile App\* allows you to resolve issues yourself or quickly connect to an agent for live support. Now, you can get access to personalized IT support anywhere, anytime. HPE Insight Remote Support and HPE Support Center are available at no additional cost with a HPE warranty, HPE Support Service or HPE contractual support agreement. **Notes:** \*HPE Support Center Mobile App is subject to local availability. For more information: http://www.hpe.com/services.

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

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

#### **Parts and Materials**

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

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

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

# Pre-configured Models

Entry Models			
[SKU Number]	P07594-xx1	P07595-xx1	
Model Name	HPE ProLiant DL385 Gen10 Plus 7262 3.2GHz 8-core 1P 16GB-R 8LFF 500W PS Server	HPE ProLiant DL385 Gen10 Plus 7262 3.2GHz 8-core 1P 16GB-R 8SFF 500W PS Server	
Processor	7262 (8-Core, 3.2 GHz, 155W)	7262 (8-Core, 3.2 GHz, 155W)	
Number of Processors	One processor	One processor	
Memory	16 GB RDIMM DR 3200 MT/s (1x 16 GB)	16 GB RDIMM DR 3200 MT/s (1x 16 GB)	
Network Controller	HPE 1GbE 4-port OCP3 Adapter plus choice of OCP or standup card	HPE 1GbE 4-port OCP3 Adapter plus choice of OCP or standup card	
Storage Controller	E208i-a Notes: 8-Port modular Smart Array.	E208i-a Notes: 8-Port modular Smart Array.	
Hard Drive	None ship as standard	None ship as standard	
Internal Storage	8 LFF chassis (upgradeable to 12LFF in front + 4LFF mid + 4LFF rear)	8 SFF Chassis (upgradeable to 24 SFF front + 4SFF rear)	
Optical Drive Bay	Optional	Optional	
Optical Drive	None ship as standard	None ship as standard	
PCI-Express Slots	3-slots (x8, x16, x8) as standard	3-slots (x8, x16, x8) as standard	
Power Supply	1x 500W HPE FlexSlot Power Supply	1x 500W HPE FlexSlot Power Supply	
Fans	6-standard fans	4-standard fans	
Management	Default: HPE iLO Standard with Intelligent Provisioning, HPE OneView Standard (requires download) Optional (require licenses): HPE iLO Advanced, HPE iLO Advanced Premium Security Edition, HPE OneView Advanced		
Energy Star	3.0 certified		
Form Factor	2U Rack, LFF Easy Install rails with optional CMA	2U Rack, SFF Easy Install rails with optional CMA	
Warranty	3-year parts, 3-year labor, 3-year onsite su	pport with next business day response.	

Base model	
[SKU Number]	P07596-xx1
Model Name	HPE ProLiant DL385 Gen10 Plus 7302 3.0GHz 16-core 1P 32GB-R 8SFF 500W
	PS Server
Processor	7302 (16-Core, 3.0GHz, 155W)
Number of	One processor
Processors	
Memory	32 GB RDIMM DR 3200 MT/s (2x 16 GB)
Network Controller	HPE 10Gb 2-port OCP Adapter
Storage Controller	P408i-a/2GB
	Notes:
	-8-Port modular Smart Array.
	-Smart Storage battery included.
Hard Drive	None ship as standard
Internal Storage	8 SFF Chassis (upgradeable to 24 SFF front + 4 SFF rear)
<b>Optical Drive Bay</b>	Optional
Optical Drive	None ship as standard
PCI-Express Slots	3-slots (x8, x16, x8) as standard
Power Supply	1x 500W HPE FlexSlot Power Supply
Fans	4-standard fans

Pre-configured	Models
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Management	Default: HPE iLO Standard with Intelligent Provisioning, HPE OneView Standard (requires download) Optional (require licenses): HPE iLO Advanced, HPE iLO Advanced Premium Security Edition, HPE OneView Advanced
Energy Star	3.0 certified
Form Factor	2U Rack, SFF Easy Install rails with optional CMA
Warranty	3-year parts, 3-year labor, 3-year onsite support with next business day response.

[SKU Number]	P07597-xx1
Model Name	HPE ProLiant DL385 Gen10 Plus 7702 2.0GHz 64-core 1P 32GB-2R 24SFF 800W
	PS Server
Processor	7702 (64-Core, 2.0GHz, 200W)
Number of	One processor
Processors	
Memory	32 GB RDIMM DR 3200 MT/s (2x 16 GB)
Network Controller	HPE 10Gb 2-port SFP+ OCP Adapter
Storage Controller	P408i-a/2GB w/Expander
_	Notes:
	-8-Port modular Smart Array.
	- Smart Storage battery included.
Hard Drive	None ship as standard
Internal Storage	24 SFF chassis
Optical Drive Bay	Optional
Optical Drive	None ship as standard
PCI-Express Slots	3-slots (x8, x16, x8) as standard
Power Supply	1x 800W HPE FlexSlot Power Supply
Fans	6 Performance fans
Management	Default: HPE iLO Standard with Intelligent Provisioning, HPE OneView Standard
	(requires download)
	Optional (require licenses): HPE iLO Advanced, HPE iLO Advanced Premium
	Security Edition, HPE OneView Advanced
Energy Star	3.0 certified
Form Factor	2U Rack, SFF Easy Install with CMA
Warranty	3-year parts, 3-year labor, 3-year onsite support with next business day response.

[SKU Number]	P07598-xx1			
Model Name	HPE DL385 Gen10+ 7402 32G 16SFF NVMe Svr (BTO SKU)			
Processor	7402 (24-Core, 2.8GHz, 180W)			
Number of	Two processors			
Processors				
Memory	32 GB RDIMM DR 3200 MT/s (2x 16 GB)			
<b>Network Controller</b>	HPE Z 10/25GbE 2 Port SFP28 MCX562A OCP3 Adapter			
Storage Controller	E208i-p SR			
	Notes:			
	-8-Port modular Smart Array.			
	- Smart Storage battery included.			
Hard Drive	None ship as standard			
Internal Storage	16 NVME chassis			
<b>Optical Drive Bay</b>	Optional			
Optical Drive	None ship as standard			
PCI-Express Slots	3-slots (x8, x16, x8) as standard			
Power Supply	1x 800W HPE FlexSlot Power Supply			
Fans	6 Performance fans			

<b>Pre-configured</b>	Aodels
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Management	Default: HPE iLO Standard with Intelligent Provisioning, HPE OneView Standard (requires download) Optional (require licenses): HPE iLO Advanced, HPE iLO Advanced Premium Security Edition, HPE OneView Advanced
Energy Star	3.0 certified
Form Factor	2U Rack, SFF Easy Install with CMA
Warranty	3-year parts, 3-year labor, 3-year onsite support with next business day response.

[SKU Number]	P14281-B21
Model Name	HPE ProLiant DL385 Gen10 Plus 8LFF Configure-to-order Server
Processor	7402 (24-Core, 2.8GHz, 180W)
Number of	Two processors
Processors	
Memory	32 GB RDIMM DR 3200 MT/s (2x 16 GB)
Network Controller	HPE 10/25GbE 2p SFP28 MCX562A OCP3 Adptr
Storage Controller	E208i-a SR
Hard Drive	None ship as standard
Internal Storage	8 SFF chassis
Optical Drive Bay	Optional
Optical Drive	None ship as standard
PCI-Express Slots	3-slots (x8, x16, x8) as standard
Power Supply	1x 800W HPE FlexSlot Power Supply
Fans	N/A
Management	Default: HPE iLO Standard with Intelligent Provisioning, HPE OneView Standard (requires download)
	Optional (require licenses): HPE iLO Advanced, HPE iLO Advanced Premium Security Edition, HPE OneView Advanced
Energy Star	3.0 certified
Form Factor	2U Rack, SFF Easy Install with CMA
Warranty	3-year parts, 3-year labor, 3-year onsite support with next business day response.

#### **Country Code Key**

xx1 = B21 Worldwide

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

xx1 = 291 Japan

## **Configuration Information**

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

For more information regarding HPE Lot 9 conformance, please visit: https://www.hpe.com/us/en/about/environment/msds-specs-more.html

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

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

CTO Server	HPE ProLiant DL385 Gen10 Plus 8 SFF CTO	HPE ProLiant DL385 Gen10 Plus 12 LFF CTO	HPE ProLiant DL385 Gen10 Plus 8LFF CTO	HPE ProLiant DL385 Gen10 Plus 24 SFF CTO	
	Server	Server	Server	Server	
SKU Number	P14278-B21	P14280-B21	P14281-B21	P14279-B21	
Processor	Not included as standard	Not included as standard	Not included as standard	Not included as standard	
DIMM Slots	32-DIMM slots**	32-DIMM slots**	32-DIMM slots**	32-DIMM slots**	
Storage	Choice of HPE mod	Choice of HPE modular Smart Array and PCIe plug-in controller			
Controller					
PCIe	Three standard in p	orimary riser, upto Eigh	t slots with 2 process	ors	
Drive Cage -	8 SFF	12 LFF	8LFF	24 SFF	
included					
Network	Choice of OCP or s	stand up card			
Controller		•			
Fans	4-Standard	6 Performance	6-Standard	6-Performance	
Management	HPE iLO with Intell	HPE iLO with Intelligent Provisioning (standard), iLO Advanced and OneView			
•	(optional)				
USB	1x 3.0 standard	1x 3.0 standard	1x 3.0 standard	1x 3.0 standard	
	plus iLo front	plus iLo front	plus iLo front	plus iLo front	
	service port	service port	service port	service port	

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

#### Notes:

- HPE offers multiple Trade Agreement Act (TAA) compliant configurations to meet the needs of US Federal Government customers. These products are either manufactured or substantially transformed in a designated country. TAA compliance is only provided when HPE options are included as part of factory integrated orders (CTO).

- -TAA compliant configuration requires HPE DL385 Gen10 Plus TAA FIO Enablement Kit (P14282-B21)
- -All CTO servers are Energy Star 3.0 compliant.

<sup>-\*\* 32</sup> DIMM slots require selection of 2 processors

## **Configuration Information**

CTO Server	8 SFF CTO	12 LFF CTO	8 LFF CTO	24 SFF CTO
	Chassis	Chassis	Chassis	Chassis12
Included Drive Cage	8 SFF SAS/SATA	12 LFF Chassis3x	8 LFF SAS/SATA	8 SFF SAS/SATA
Universal Media Bay	Optional	Not available	Not available	Not available
ODD	Optional	Not available	Optional	Not available
8 SFF Drive Cage	Up to 2 Optional	Not available	Not available	Not available
8 SFF	Not available	Not available	Not available	Not available
SAS/SATA/NVMe				
(Mid- plane)				
8 NVME/SAS Bay	Up to 2 Optional	Not available	Not available	Not available
8 NVME Cage	Up to 2 Optional	Not available	Not available	Not available
2 SFF SAS/SATA	1 Optional	Not available	1 Optional	Not available
(Front)				
2 SFF SAS/SATA	1 Optional	1 Optional	1 Optional	1 Optional
(Rear)				
2 NVMe (Front)	1 Optional	Not available	1 Optional	Not available
4 LFF Mid-plane	Not available	1 Optional	1 Optional	Not available
4 LFF Rear	Not available	1 Optional	1 Optional	Not available

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

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

Please select one -L21 processor required below.

For second processor, please select the same processor model with -B21 from Core Options - HPE Processors section.

For example: first processor, select P17537-L21 then for second processor, select P17537-B21. Notes:

-8SFF CTO 1P models ship with 4 standard fans. The second processor option kit contains 2 additional fans. 12 LFF and 24 SFF CTO Servers ship with 6 Max performance fans included; 8 LFF CTO Servers ship with 6 Standard fans included. Max performance fan kit is available to meet ambient temperature environments are required for rear drives or NVMe SFF configurations. NVMe is limited to front install only.

- -Mixing of 2 different processor models are NOT allowed.
- -DDR4 memory speed will depend on the quantity and type of DIMMs installed.
- Processors with greater than 180W will ship with the High Performance heatsink.
- -Processors with greater than 180W will require the Max Performance fan kit.

Description	SKU
Processor Option Kits	
AMD EPYC 7262 (3.2GHz/8-core/155W) FIO Processor Kit for HPE ProLiant DL385 Gen10 Plus	P17537-L21
Notes: Ships with Standard Heatsink.	
AMD EPYC 7252 (3.1GHz/8-core/120W) FIO Processor Kit for HPE ProLiant DL385 Gen10 Plus	P21730-L21
Notes: Ships with Standard Heatsink.	
AMD EPYC 7272 (2.9GHz/12-core/120W) FIO Processor Kit for HPE ProLiant DL385 Gen10 Plus	P21785-L21
Notes: Ships with Standard Heatsink.	
AMD EPYC 7302 (3.0GHz/16-core/155W) FIO Processor Kit for HPE ProLiant DL385 Gen10 Plus	P17540-L21
Notes: Ships with standard Heatsink.	

Configuration Information	
AMD EPYC 7282 (2.8GHz/16-core/120W) FIO Processor Kit for HPE ProLiant DL385 Gen10 Plus	P21727-L21
Notes: Ships with standard Heatsink.	
AMD EPYC 7352 (2.3GHz/24-core/155W) FIO Processor Kit for HPE ProLiant DL385 Gen10 Plus	P21724-L21
Notes: Ships with Standard Heatsink.	
AMD EPYC 7402 (2.8GHz/24-core/180W) FIO Processor Kit for HPE ProLiant DL385 Gen10 Plus	P17543-L21
Notes: Ships with Standard Heatsink.	
AMD EPYC 7452 (2.3GHz/32-core/155W) FIO Processor Kit for HPE ProLiant DL385 Gen10 Plus	P21655-L21
Notes: Ships with standard Heatsink.	
AMD EPYC 7502 (2.5GHz/32-core/180W) FIO Processor Kit for HPE ProLiant DL385 Gen10 Plus	P21628-L21
Notes: Ships with High Performance Heatsink.	
AMD EPYC 7542 (2.9GHz/32-core/225W) FIO Processor Kit for HPE ProLiant DL385 Gen10 Plus	P21718-L21
Notes: Ships with High Performance Heatsink.	
AMD EPYC 7552 (2.2GHz/48-core/200W) FIO Processor Kit for HPE ProLiant DL385 Gen10 Plus	P21721-L21
Notes: Ships with High Performance Heatsink.	
AMD EPYC 7642 (2.3GHz/48-core/225W) FIO Processor Kit for HPE ProLiant DL385 Gen10 Plus	P21663-L21
Notes: Ships with High Performance Heatsink.	
AMD EPYC 7742 (2.2GHz/64-core/225W) FIO Processor Kit for HPE ProLiant DL385 Gen10 Plus	P21630-L21
Notes: Ships with High Performance Heatsink.	
AMD EPYC 7702 (2.0GHz/64-core/200W) FIO Processor Kit for HPE ProLiant DL385 Gen10 Plus	P17546-L21

Notes: Ships with High Performance Heatsink.

#### **CPU Support in Different Chassis Configurations**

Chassis config	25C ambient	35C ambient
8SFF, 16SFF SAS/SATA with standard fan & standard heat sink	240W	240W
8SFF, 16SFF NVMe with Perf fan & Perf heat sink	240W	240W
24SFF, >=1SFF NVMe, w/ Perf Fan & Perf heat sink kit	240W	240W
12LFF w/ Perf Fan & Perf heat sink kit	240W	240W
8LFF w Standard Fan and Standard Heat sink	240W	240W
12+4LFF, 12+4+4LFF w Perf Fan & Perf Heat sink kit	240W	240W
24+8SFF w/ Perf Fan & Perf Heat sink kit	N/A until Feb'20	N/A until Feb'20

#### 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

## **Configuration Information**

For Gen10 Plus memory speed table, please go to: <u>http://www.hpe.com/docs/amd-speed-table-Gen10Plus</u>

#### Notes:

-Memory DIMM availability with a server platform is dependent upon completion of certification testing.

- The maximum memory speed is a function of the memory type, memory configuration, and processor model.

#### Registered DIMMs (RDIMMs)

HPE 8GB (1x8GB) Single Rank x8 DDR4-3200 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 x8 DDR4-3200 CAS-22-22-22 Registered Smart Memory Kit	P07644-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
Notes:	
<ul> <li>Mixing of x4 &amp; x8 memory is not allowed</li> <li>3200 MT/s memory SKUs offer a transfer rate of 3200 MT/s at 1 DIMM per channel and 2933 MT/s at 2 DIMMs per channel</li> </ul>	
Memory Blank Kit	
HPE DDR4 DIMM Blank Kit	P07818-B21
<b>Notes:</b> Required only when configuration includes 4LFF Mid Tray kit and a processor(s) that is 126W and above.	
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	865414-B21
HPE 800W Flex Slot -48VDC Hot Plug Low Halogen Power Supply Kit	865434-B21
HPE 800W Flex Slot Universal Hot Plug Low Halogen Power Supply Kit	865428-B21
HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	830272-B21
Notes:	
-Select one or more power supplies.	
- 1600W Power supplies only support high line voltage (200VAC to 240VAC).	
<ul> <li>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:</li> </ul>	
-http://www.hpe.com/info/hppoweradvisor.	

- 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 <u>HPE power cords</u> 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 DL325 Gen10 Plus TAA-compliant FIO Enablement Kit	P14282-B21
<b>Notes:</b> This kit enables TAA compliance. HPE offers multiple Trade Agreement Act (TAA) compliant configurations to meet the needs of US Federal Government customers. These products are either manufactured or substantially transformed in a designated country. TAA compliance is only provided when HPE options are included as part of factory integrated orders (CTO)	
HPE DL38X Gen10 Plus 2LFF Tertiary FIO Riser Kit	P14580-B21
Notes: - Supported only on 8 LFF & 12 LFF Models - When this option is selected, secondary riser cannot be selected - This option occupies tertiary riser slot	
HPE DL38X Gen10 Plus x8/x8 Tertiary Riser Kit	P14581-B21
Notes: – Supports Full Height, Full-length cards and Full Height, Half- length cards. – Bus width x8, x16, x8, Connector Width x8, x16, x8.	
HPE DL38X Gen10 Plus x16/x16 Slot 1/2 FIO Riser Kit	P14592-B21
Notes:	
<ul> <li>Supports Full Height and Full length cards.</li> <li>Bus width x16, x16, Connector Width x16, x16</li> <li>Slot 1 or 2 in Primary or Secondary location</li> </ul>	
HPE DL38X Gen10 Plus x16/x16 Slot 2/3 FIO Riser Kit	P14599-B21
<ul> <li>Notes:</li> <li>Slot 1 or 2 in Primary or Secondary location</li> <li>Supports Full Height and Full length cards.</li> <li>Bus width x16, x16, Connector Width x16, x16</li> <li>Requires the option HPE Gen10 Plus Slot1 x16 Adder S2/3 Rsr Kit (P14600-B21), to add additional x16 PCIe Gen4 in slot 1</li> </ul>	
HPE DL38X Gen10 Plus 8NVMe Balanced Support FIO Bundle	P19358-B21
Notes:	
This is a trigger SKU having the below list of options bundled together . This bundle SKU needs to be selected in order to support 8 NVMe Drives with two processors HPE DL Gen10 Plus 8NVMe CPU1/2 Cable kit (P22829-B21) HPE DL Gen10 Plus 8SFF x4NVMe/SAS SC Kit (P14578-B21) HPE DL Gen10 Plus Max Performance Fan (P14608-B21)	
Requires 2nd Processor	
HPE DL385 Gen10 Plus 8NVMe Direct Support FIO Bundle	P22750-B21
Notes:	
<ul> <li>This is a trigger SKU having the below list of options bundled together . This bundle SKU needs to be selected in order to support 8 NVMe Drives with one processor only HPE DL38X Gen10 Plus 8NVMe CPU1 Cable Kit (P22834-B21) HPE DL38X Gen10 Plus AROC to NVMe Adapter Kit (P14602-B21) HPE DL385 Gen10 Plus 8SFF NVMe/SAS Box1-3 Smart Carrier Drive Cage Kit (P14578-B21) HPE DL38X Gen10 Plus Max Performance Fan Kit (P14608-B21)</li> </ul>	

-This requires only one processor.

#### **Configuration Information** HPE DL385 Gen10 Plus 16NVMe Balanced Support FIO Bundle P22751-B21 Notes: -This is a trigger SKU having the below options bundled together . This bundle SKU needs to be selected in order to support 16 NVMe drives HPE DL38X Gen10 Plus 16NVMe CPU1/2 Cable Kit (P22835-B21) HPE DL38X Gen10 Plus AROC to NVMe Adapter Kit (P14602-B21) HPE DL385 Gen10 Plus 8SFF NVMe/SAS Box1-3 Smart Carrier Drive Cage Kit (P14578-B21) HPE DL38X Gen10 Plus Max Performance Fan Kit (P14608-B21) - This requires 2nd Processor to be selected HPE DL38X Gen10 8 SFF Front Cage Removal FIO Option 873763-B21 Notes: - This is a factory integrated only option. - Will remove the Primary 8SFF cage in Box 3 of the 8SFF and replace with a Box blank.

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

P14609-B21

## **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 an HPE approved configurator. Contact your local sales representative for additional information.

#### **HPE Unique Options**

HPE DL38X Gen10 Plus Universal Media Bay Kit Notes:

- The HPE DL385 Gen10 Plus Universal Media bay provides front Display Port and 2xUSB 2.0; plus support for 2x SFF front drives or 2 NVMe front drives and ODD support (Not included); and can only be located in Box1 in either an 8 SFF or 8+8 SFF model.

- This is a 8SFF model option only.

<ul> <li>This option cannot be ordered when Qty=2 of following options is selected : HPE DL380 Gen10 Box1/2 Cage BkpIn Kit (826691-B21) and HPE DL Gen10 Plus 8SFF x4NVMe/SAS SC Kit (P14578-B21)</li> </ul>	
HPE DL38X Gen10 Plus System Insight Display Kit	P14611-B21
HPE DL38X Gen10 Plus AROC to NVMe Adapter Kit	P14602-B21
Notes: Used to support upto 16 NVMe drives with Modular Controller (AROC)	
HPE DL38X Gen10 Plus Maximum Performance Fan Kit	P14608-B21
Notes:	
- For elevated ambient temperature support please see: http://www.hpe.com/servers/ashrae	
<ul> <li>Max Performance fan kit consists of 6 fans, these will need to replace all the standard fans in the unit, and fill all 6 fan cages.</li> </ul>	

- The 12 LFF and 24 SFF models (including field upgrades to 24 SFF) will already include 6 Max Performance fans.

- The Max Performance fan kit is needed to support certain Passive GPGPU (Graphics cards) configurations;	
or ASHRAE operating environments.	
HPE DL38X Gen10 Plus High Performance Heat Sink Kit	P14610-B21

Notes: Processor kits above 180W include a High Performance Heatsink.	
HPE Gen10 Plus Chassis Intrusion Detection Kit	P14604-B21
<b>Notes:</b> This provides a physical connection from the chassis board and hood and detects any physical intrusion into the chassis, providing security during the entire supply chain process of shipping, receiving, distribution, and operation.	
HPE DL38X Gen10 SFF Box1/2 Cage/Backplane Kit	826691-B21
Notes: Supports 8 SAS/SAFA SFF drives in Box 1 or 2 to a max of 24 SFF SAS/SATA front	
HPE DL38X Gen10 Plus 12Gb SAS Expander Card	P23388-B21

#### **HPE Processors**

# Processor Option KitsAMD EPYC 7262 (3.2GHz/8-core/155W) Processor Kit for HPE ProLiant DL385 Gen10 PlusP17537-B21Notes: Ships with standard Heatsink.P17537-B21AMD EPYC 7252 (3.1GHz/8-core/120W) Processor Kit for HPE ProLiant DL385 Gen10 PlusP21730-B21Notes: Ships with standard Heatsink.P21730-B21Notes: Ships with standard Heatsink.P21730-B21Notes: Ships with standard Heatsink.P21785-B21PlusP21785-B21

## Core Options

Notes: Ships with standard Heatsink.	
AMD EPYC 7302 (3.0GHz/16-core/155W) Processor Kit for HPE ProLiant DL385 Gen10 Plus	P17540-B21
Notes: Ships with standard Heatsink.	
AMD EPYC 7282 (2.8GHz/16-core/120W) Processor Kit for HPE ProLiant DL385 Gen10 Plus	P21727-B21
Notes: Ships with standard Heatsink.	
AMD EPYC 7352 (2.3GHz/24-core/155W) Processor Kit for HPE ProLiant DL385 Gen10 Plus	P21724-B21
Notes: Ships with standard Heatsink.	
AMD EPYC 7402 (2.8GHz/24-core/180W) Processor Kit for HPE ProLiant DL385 Gen10 Plus	P17543-B21
Notes: Ships with standard Heatsink.	
AMD EPYC 7452 (2.3GHz/32-core/155W) Processor Kit for HPE ProLiant DL385 Gen10 Plus	P21655-B21
Notes: Ships with standard Heatsink.	
AMD EPYC 7502 (2.5GHz/32-core/180W) FIO Processor Kit for HPE ProLiant DL385 Gen10 Plus	P21628-B21
Notes: Ships with High Performance Heatsink.	
AMD EPYC 7542 (2.9GHz/32-core/225W) Processor Kit for HPE ProLiant DL385 Gen10 Plus	P21718-B21
Notes: Ships with High Performance Heatsink.	
AMD EPYC 7552 (2.2GHz/48-core/200W) Processor Kit for HPE ProLiant DL385 Gen10 Plus	P21721-B21
Notes: Ships with High Performance Heatsink.	
AMD EPYC 7642 (2.3GHz/48-core/225W) Processor Kit for HPE ProLiant DL385 Gen10 Plus	P21663-B21
Notes: Ships with High Performance Heatsink.	
AMD EPYC 7742 (2.2GHz/64-core/225W) Processor Kit for HPE ProLiant DL385 Gen10 Plus	P21630-B21
Notes: Ships with High Performance Heatsink.	
AMD EPYC 7702 (2.0GHz/64-core/200W) Processor Kit for HPE ProLiant DL385 Gen10 Plus	P17546-B21
Notes:	
- Ships with High Performance Heatsink.	
<ul> <li>DDR4 memory speed will depend on the quantity and type of DIMMs installed.</li> <li>The xxxxxx-L21 is the first processor shipped, the xxxxx-B21 is the 2nd processor and ships with 2 a factory or field installation.</li> </ul>	dditional fans for
Decrementary of a 100M second likely Decrementary the state of the likely of second second second	

- Processors above 180W use a High Performance Heatsink and the high performance fan kit.

- Processors with greater than 180W do not include the fans as the selection of processors above 180W requires the High Performance fan kit that comes with 6 fans.

## **Core Options**

#### **Memory Selection**

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

Best product availability is limited to US, Canada, and Latin America at this time.

### **HPE Memory**

#### **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 x8 DDR4-3200 CAS-22-22-22 Registered Smart Memory Kit	P07644-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
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.

-Mixing of x4 & x8 memory is not allowed

-3200 MT/s memory SKUs offer a transfer rate of 3200 MT/s at 1 DIMM per channel and 2933 MT/s at 2 DIMMs per channel

## **HPE Optical Drives**

HPE Drives Enterprise - 12G SAS - SFF Drives	
HPE Mobile USB DVD-RW Optical Drive	701498-B21
– Supported only on 8 SFF & 8 LFF Models	
<ul> <li>– HPE DL385 Gen10 Plus Universal Media Bay Kit (P14609-B21) is required for this option on a SFF model.</li> </ul>	
Notes:	
HPE 9.5mm SATA DVD-RW Optical Drive	726537-B21
-Supported only on 8 SFF & 8 LFF Models	
<ul> <li>– HPE DL385 Gen10 Plus Universal Media Bay Kit (P14609-B21) is required for this option on a SFF model.</li> </ul>	
Notes:	
HPE 9.5mm SATA DVD-ROM Optical Drive	726536-B21

HPE 300GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	870753-B21
HPE 300GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	872475-B21
HPE 600GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	870757-B21

## Core Options

HPE 600GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	872477-B21
HPE 900GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	870759-B21
HPE 1.2TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	872479-B21
HPE 1.8TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty 512e Digitally Signed Firmware HDD	872481-B21
HPE 2.4TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty 512e Digitally Signed Firmware HDD	881457-B21
Midline - 12G SAS - SFF Drives	
HPE 1TB SAS 12G Midline 7.2K SFF (2.5in) SC 1yr Wty Digitally Signed Firmware HDD	832514-B21
HPE 2TB SAS 12G Midline 7.2K SFF (2.5in) SC 1yr Wty 512e HDD	765466-B21
Midline - 12G SAS - LFF Drives	
HPE 2TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware HDD	833926-B21
HPE 4TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware HDD	833928-B21
HPE 6TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty 512e HDD	861746-B21
HPE 8TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty 512e Digitally Signed Firmware HDD	834031-B21
HPE 10TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty Helium 512e Digitally Signed Firmware HDD	P09149-B21
HPE 10TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty He 512e DS 6-pack FIO HDD	P09799-B21
HPE 12TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty Helium 512e Digitally Signed Firmware HDD	881781-B21
HPE 14TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty Helium 512e Digitally Signed Firmware HDD	P09155-B21
HPE 16TB SAS 12G Business Critical 7.2K LFF (3.5in) LP 1yr Wty 512e ISE HDD	P23608-B21
Midline - 6G SATA - SFF Drives	
HPE 1TB SATA 6G Midline 7.2K SFF (2.5in) SC 1yr Wty Digitally Signed Firmware HDD	655710-B21
HPE 2TB SATA 6G Midline 7.2K SFF (2.5in) SC 1yr Wty 512e Digitally Signed Firmware HDD	765455-B21
Midline - 6G SATA - LFF Drives	
HPE 1TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware HDD	861686-B21
HPE 2TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware HDD	861681-B21
HPE 4TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware HDD	861683-B21
HPE 6TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty 512e HDD	861742-B21
HPE 8TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty 512e Digitally Signed Firmware HDD	834028-B21
HPE 10TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty Helium 512e Digitally Signed Firmware HDD	P09161-B21
HPE 10TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty He 512e DS 6-pack FIO HDD	P09797-B21
HPE 12TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty Helium 512e Digitally Signed Firmware HDD	881787-B21
HPE 14TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty Helium 512e Digitally Signed Firmware HDD	P09165-B21
HPE 16TB SATA 6G Business Critical 7.2K LFF (3.5in) LP 1yr Wty 512e ISE HDD	P23449-B21

P06584-B21

P04517-B21

P19903-B21

P06586-B21

P04519-B21

P19905-B21

P04521-B21

P19907-B21

P06588-B21

P04523-B21

P19909-B21

P06590-B21

P06592-B21

P19911-B21

P04525-B21

P09088-B21

P04527-B21

P09090-B21

P19913-B21

P04533-B21

P09092-B21

P19915-B21

P04537-B21

P09094-B21

P19917-B21

P04539-B21

P09096-B21

P19919-B21

P04535-B21

P10452-B21

## **Core Options** SSD Selection To streamline the configuration process for HPE ProLiant Gen10 Plus servers and to provide the best product availability, HPE recommends SSDs from the list located here: http://www.hpe.com/products/recommend. Read Intensive - 12G SAS - SFF - Solid State Drives HPE 960GB SAS 12G Read Intensive SFF (2.5in) SC 3vr Wty Digitally Signed Firmware SSD HPE 960GB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD HPE 960GB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty SSD HPE 1.92TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD HPE 1.92TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD HPE 1.92TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty SSD HPE 3.84TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD HPE 3.84TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty SSD HPE 3.84TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD HPE 7.68TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD HPE 7.68TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty SSD HPE 7.68TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD HPE 15.3TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD HPE 15.36TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty SSD Mixed Use - 12G SAS - SFF - Solid State Drives HPE 400GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD HPE 400GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD HPE 800GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD HPE 800GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD HPE 800GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty SSD HPE 1.6TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD HPE 1.6TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD HPE 1.6TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty SSD HPE 3.2TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD HPE 3.2TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD HPE 3.2TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty SSD HPE 6.4TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD HPE 6.4TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD HPE 6.4TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty SSD Mixed Use SAS- LFF- Solid State Drives HPE 1.6TB SAS 12G Mixed Use LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD

Firmware SSD HPE 1.92TB SAS 12G Mixed Use LFF (3.5in) LPC 3yr Wty Value SAS Digitally Signed P10458-B21 Firmware SSD

HPE 960GB SAS 12G Mixed Use LFF (3.5in) LPC 3yr Wty Value SAS Digitally Signed

# Core Options

HPE 3.84TB SAS 12G Mixed Use LFF (3.5in) LPC 3yr Wty Value SAS Digitally Signed Firmware SSD	P10462-B21
Write Intensive - 12G SAS - SFF - Solid State Drives	
HPE 400GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04541-B21
HPE 400GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P09098-B21
HPE 800GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04543-B21
HPE 800GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P09100-B21
HPE 1.6TB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P09102-B21
HPE 1.6TB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04545-B21
HPE 3.2TB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04547-B21
Mixed Use - 6G SATA - SFF - Solid State Drives	
HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P07922-B21
HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Multi Vendor SSD	P18432-B21
HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P07926-B21
HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Multi Vendor SSD	P18434-B21
HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P07930-B21
HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P09712-B21
HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P07922-B21
HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P09716-B21
HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P07926-B21
HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P07930-B21
HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Multi Vendor SSD	P18436-B21
HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P09722-B21
HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P13662-B21
HPE 3.84TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P00896-B21
HPE 3.84TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Multi Vendor SSD	P18438-B21
HPE 3.84TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P21517-B21
HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty SSD	P19947-B21
HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty SSD	P19949-B21
HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty SSD	P19951-B21
HPE 3.84TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty SSD	P19953-B21

# **Core Options**

Mixed Use - 6G SATA- LFF - Solid State Drives	
HPE 1.92TB SATA 6G Mixed Use LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD	P09726-B21
HPE 1.92TB SATA 6G Mixed Use LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD	P07934-B21
HPE 960GB SATA 6G Mixed Use LFF (3.5in) LPC 3yr Wty SSD	P19980-B21
HPE 1.92TB SATA 6G Mixed Use LFF (3.5in) LPC 3yr Wty SSD	P19984-B21
Read Intensive - 6G SATA - SFF - Solid State Drives	
HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04556-B21
HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	875503-B21
HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04556-B21
HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor SSD	P18420-B21
HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P06194-B21
HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor SSD	P18422-B21
HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04560-B21
HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04474-B21
HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04560-B21
HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04564-B21
HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P06196-B21
HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04476-B21
HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor SSD	P18424-B21
HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04564-B21
HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04566-B21
HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P06198-B21
HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04478-B21
HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor SSD	P18426-B21
HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04566-B21
HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04480-B21
HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04570-B21
HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P06200-B21
HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor SSD	P18428-B21

## Core Options

http://www.hpe.com/storage/BURAcompatibility	
For hardware and software compatibility of Hewlett Packard Enterprise tape backup produce	cts
https://www.hpe.com/us/en/storage/storeever-tape-storage.html.	
For the complete range of tape drives, autoloaders, libraries and media see:	
HPE Tape Backup	
HPE Small Form Factor Hard Drive Blank Kit	666987-B21
HPE Large Form Factor Hard Drive Blank Kit	666986-B21
Hard Drive Blank Kits	
HPE 3.2TB NVMe High Performance Mixed Use SFF (2.5in) SC 3yr Wty Universal Connect SSD	P16499-B21
HPE 1.6TB NVMe High Performance Mixed Use SFF (2.5in) SC 3yr Wty Universal Connect SSD	F 10497-B21
	P16497-B21
Connect SSD Mixed Use - NVMe - SFF - Solid State Drives	
Connect SSD HPE 3.84TB NVMe High Performance Read Intensive SFF (2.5in) SC 3yr Wty Universal	P16503-B21
HPE 1.92TB NVMe High Performance Read Intensive SFF (2.5in) SC 3yr Wty Universal	P16501-B21
Read Intensive - NVMe - SFF - Solid State Drives	FZ3493-BZ1
HPE 3.84TB SATA 6G Very Read Optimized LFF (3.5in) LPC 3yr Wty SSD HPE 7.68TB SATA 6G Very Read Optimized LFF (3.5in) LPC 3yr Wty SSD	P23491-B21 P23495-B21
	D00404 D04
HPE 7.68TB SATA 6G Very Read Optimized SFF (2.5in) SC 3yr Wty SSD VRO - 6G SATA - LFF - Solid State Drives	P23493-B21
HPE 3.84TB SATA 6G Very Read Optimized SFF (2.5in) SC 3yr Wty SSD	P23489-B21
HPE 1.92TB SATA 6G Very Read Optimized SFF (2.5in) SC 3yr Wty SSD	P23487-B21
VRO - 6G SATA - SFF - Solid State Drives	
HPE 1.92TB SATA 6G Read Intensive LFF (3.5in) LPC 3yr Wty SSD	P19976-B21
HPE 480GB SATA 6G Read Intensive LFF (3.5in) LPC 3yr Wty SSD	P19974-B21
Firmware SSD	
Firmware SSD HPE 1.92TB SATA 6G Read Intensive LFF (3.5in) LPC 3yr Wty Digitally Signed	P04501-B21
Firmware SSD HPE 480GB SATA 6G Read Intensive LFF (3.5in) LPC 3yr Wty Digitally Signed	P04499-B21
HPE 960GB SATA 6G Read Intensive LFF (3.5in) LPC 3yr Wty Digitally Signed	P09691-B21
Read Intensive - 6G SATA - LFF - Solid State Drives	
HPE 7.68TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty SSD	P19945-B21
HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty SSD	P19943-B21
HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty SSD	P19941-B21
HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty SSD	P19939-B21
HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty SSD	P19937-B21
HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty SSD	P19935-B21
HPE 7.68TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor	P18430-B21
HPE 7.68TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04482-B21
HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04570-B21
core options	

## Hard Drive Kits

HPE DL38X Gen10 Plus 4LFF SAS/SATA Low Profile Mid Tray Drive Cage Kit

P14503-B21

## **Core Options**

Notes:	
- Supported with both the 8 and 12 LFF model.	
- With this mid-tray only single-wide (8.5-inch cards with connections or less) cards are supported. Full	
Length PCIe cards cannot be supported. – This drive does support hot-swap drives.	
- This requires Max Performance Fan kit (P14608-B21).	
– Requires DIMM Blank kit (P07818-B21), if this option is selected with processor 200W and above.	
HPE DL38X Gen10 Plus 2LFF Primary FIO Riser Kit	P14579-B21
Notes:	
-Supported only on 8 LFF & 12 LFF Models.	
<ul> <li>This option occupies primary riser slot.</li> </ul>	
HPE DL385 Gen10 Plus 2SFF NVMe/SAS Smart Carrier Primary Riser Kit	P14505-B21
Notes:	
<ul> <li>– 2SFF NVMe/SAS SC Kit (P14506-B21) and 2 SFF NVMe/SAS Riser Kit (P14505-B21) CANNOT be selected together</li> </ul>	
<ul> <li>- 35 degree C is the max ambient can be supported and no A3 or A4 support when putting the Shiner Expander in Slot3 and Slot6 under the 2SFF drive cage</li> </ul>	
- "To have the optimal drive performance, it is recommended to put NVMe drives towards the middle or front of the server. If customer want to put NVMe drives in rear, it is recommended to have	
maximum NVMe drives not to exceed one per 2SFF drive cage kit."	
<ul> <li>Supports 2 SFF rear in Riser1 or 2 location - max 2 supported SFF model.</li> <li>Supports 2 SFF rear in Riser1 or 2 location in LFF model.</li> </ul>	
HPE DL385 Gen10 Plus 2SFF NVMe/SAS Smart Carrier Front/Rear Drive Cage Kit	P14506-B21
Notes:	1 14000 B21
– Supports upto 2 SFF drives in 8 SFF, 12 LFF & 24 SFF Models.	
– Max Qty=2 ,allowed on 8 SFF model.	
-Only 1 drive cage can be ordered with 12 LFF and 24 SFF models.	
<ul> <li>8SFF Model with 2 drive cages, requires Universal Media Bay.</li> </ul>	
HPE DL385 Gen10 Plus 2SFF SAS/SATA Smart Carrier LFF Chassis Drive Cage Kit	P14507-B21
Notes: Supported only on 8 LFF Model.	
HPE DL385 Gen10 Plus 8SFF NVMe/SAS Smart Carrier Box 1-3 Drive Cage Kit	P14578-B21
Notes:	
- Supported only on 8 SFF Model.	
- Maximum upto 2 drive cages can be selected.	
<ul> <li>If Drive Cage Qty=1 is selected with one processor only, it requires the 8NVMe Direct Support Bundle (P22750-B21) to be selected.</li> </ul>	
<ul> <li>If Drive Cage Qty=1 is selected with two processors, it requires the 8NVMe Direct Support Bundle (P19358-B21) to be selected.</li> </ul>	
- If Qty=2 is selected, it requires 16 NVMe Balanced Support Bundle (P22751-B21) to be selected	
HPE DL385 Gen10 Plus 2SFF U.3 Premium Secondary Riser Kit	P25902-B21
HPE DL38X Gen10 Plus 2LFF Low Profile Secondary Riser Kit	P25903-B21
Media Bay Kits	
HPE DL38X Gen10 Plus Universal Media Bay Kit	P14609-B21
Notes:	
- The HPE DL385 Gen10 Plus Universal Media bay provides front Display Port and 2xUSB 2.0; plus	
support for 2x SFF front drives or 2 NVMe front drives and ODD support (Not included); and can only be located in Box1 in either an 8 SFF or 8+8 SFF model.	
-This is a 8SFF model option only.	
<ul> <li>This option cannot be ordered when Qty=2 of following options is selected : HPE DL380 Gen10 Box1/2 Cage Bkpln Kit (826691-B21) and HPE DL Gen10 Plus 8SFF x4NVMe/SAS SC Kit (P14578-B21).</li> </ul>	

## **HPE Storage Options**

## **Core Options**

### Emulex Fibre Channel HBAs

HPE StoreFabric SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter	Q0L13A
HPE StoreFabric SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter	Q0L14A
HPE StoreFabric SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter	Q0L11A
HPE StoreFabric SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter	Q0L12A
QLogic Fibre Channel HBAs	
HPE StoreFabric SN1100Q 16Gb Single Port Fibre Channel Host Bus Adapter	P9D93A
HPE StoreFabric SN1100Q 16Gb Dual Port Fibre Channel Host Bus Adapter	P9D94A
HPE SN1610Q 32Gb 1-port Fibre Channel Host Bus Adapter	R2E08A
HPE SN1610Q 32Gb 1-port Fibre Channel Host Bus Adapter HPE SN1610Q 32Gb 1-port Fibre Channel Host Bus Adapter	R2E08A R2E08A

## **HPE Networking**

1 Gigabit Ethernet adapters	
HPE Ethernet 1Gb 4-port BASE-T I350-T4 Adapter	P21106-B21
10 Gigabit Ethernet adapters	
HPE Ethernet 10Gb 2-port BASE-T QL41132HLRJ Adapter	P08437-B21
HPE Ethernet 10Gb 2-port SFP+ QL41132HLCU Adapter	P21933-B21
HPE Ethernet 10Gb 2-port SFP+ MCX4121A-XCHT Adapter	P21930-B21
HPE Ethernet 10Gb 4-port SFP+ QL41134HLCU Adapter	P10094-B21
10/25 Gigabit Ethernet adapters	
HPE Ethernet 10/25Gb 2-port SFP28 MCX512F-ACHT Adapter	P13188-B21
HPE Ethernet 10/25Gb 2-port SFP28 X2522-25G-PLUS Adapter	P21109-B21
HPE Ethernet 10/25Gb 2-port SFP28 QL41232HLCU Adapter	P22702-B21
HPE Ethernet 10/25Gb 2-port SFP28 X2522-25G Adapter	P24437-B21
100 Gigabit Ethernet adapters	
HPE Ethernet 100Gb 2-port QSFP28 MCX516A-CCHT Adapter	P21927-B21
Notes:	
-4-port adapters go only into Slot 1.	
<ul> <li>A minimum of two Gigabytes (2 GB) of server memory is required per each adapter.</li> <li>Direct Attach Cable (DAC) for copper environments or fiber transceivers and cables for fiber-optic</li> </ul>	
environments must be purchased separately. Please see the related NIC QuickSpecs for Technical	
Specifications and additional information:	
https://h20195.www2.hpe.com/v2/getpdf.aspx/A00002507ENW.pdf?	
OCP Adapters	
HPE Ethernet 1Gb 4-port BASE-T I350-T4 OCP3 Adapter	P08449-B21
HPE Ethernet 10Gb 2-port SFP+ QL41132HQCU OCP3 Adapter	P08452-B21
HPE Ethernet 10Gb 2-port BASE-T QL41132HQRJ OCP3 Adapter	P10103-B21
HPE Ethernet 10/25Gb 2-port SFP+ MCX4621A-ACAB OCP3 Adapter	P11341-B21
HPE Ethernet 10/25Gb 2-port SFP28 MCX562A-ACAI OCP3 Adapter	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." HPE Ethernet 10/25Gb 2-port SFP28 QL41232HQCU OCP3 Adapter	P10118-B21
	FIVIIO-DZI

## **Core Options**

Notes:	
<ul> <li>OCP adapters do not consume PCIe slot.</li> <li>Only 1 slot is available for OCP adapters.</li> </ul>	
– Only SFF OCP adapters below 35W can be supported	
HPE DL385 Gen10 Plus OCP Upgrade Cable Kit	P14603-B21
HPE InfiniBand	
HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 MCX653105A-HDAT PCIe 4 x16	P23664-B21
Adapter HPE InfiniBand HDR100/Ethernet 100Gb 1-port QSFP56 MCX653105A-ECAT PCIe 4 x16	P23665-B21
Adapter	F23003-D21
HPE InfiniBand HDR100/Ethernet 100Gb 2-port QSFP56 MCX653106A-ECAT PCIe 4 x16	P23666-B21
Adapter	
HPE I/O Expansion Options	
Notes: For a Secondary/Tertiary riser the second processor is required	
HPE DL38X Gen10 Plus Primary NEBS-compliant Riser Kit	P14575-B21
Notes: Requires selection of HPE DL38X Gen10 Plus Tertiary NEBS-compliant Riser Kit	
(P14577-B21)	
HPE DL38X Gen10 Plus Tertiary NEBS-compliant Riser Kit	P14577-B21
Notes: Requires selection of a 2nd processor	
HPE DL38X Gen10 Plus x8/x16/x8 Secondary Riser Kit	P14587-B21
Notes: Requires selection of a 2nd processor	
HPE DL38X Gen10 Plus x16 Tertiary Riser Kit	P14588-B21
Notes: Requires selection of a 2nd processor	
HPE DL38X Gen10 Plus x16/x16 Slot 1/2 Secondary Riser Kit	P14589-B21
Notes: Requires selection of a 2nd processor	
HPE DL38X Gen10 Plus x16/x16 Slot 2/3 Secondary Riser Kit	P14590-B21
Notes: Requires selection of a 2nd processor	D44000 D04
HPE DL38X Gen10 Plus Slot1 x16 Adder for Slot2/3 Riser Kit	P14600-B21
<b>Notes:</b> Required to add additional x16 PCIe Gen4 lanes for Primary/Secondary Riser3	
HPE PCIe Workload Accelerator Options	070000 504
HPE 750GB PCIe x4 Lanes Write Intensive HHHL 3yr Wty Digitally Signed Firmware Card	878038-B21

## **Core Options**

Part number	Card	QTY	CPU	Max Ambie	ent Temperatur	е	
		per Server	Supported	8/16 SFF	24 SFF (Or 8 SSF/16 SFF if >1 SFF is NVMe storage	8LFF w/ Power Switch	12LFF
R0W29C	HPE NVIDIA Tesla T4 16GB Computational Accelerator	8	240W or below	35C (>30C may throttle)		35C (>30C may throttle)	25C
R4D73C	NVIDIA Tesla V100S 32GB Computational Accelerator	3	240W or below	35C (>30C may throttle)	20C or Not Supported	25C (35C max w/ increased cooling)	No Support
R1F95C	HPE NVIDIA Quadro RTX 4000 Graphics Accelerator	3	240W or below	40C, 3Kft (35C max w/ NVME drive)	35C (>30C may throttle)	40C, 3Kft	35C (>30C may throttle)
R0Z45C	HPE NVIDIA Quadro RTX 6000 Graphics Accelerator	3	240W or below	40C, 3Kft (35C max w/ NVME drive)	35C (>30C may throttle)	40C, 3Kft	35C (>30C may throttle)
R1F97C	HPE NVIDIA Quadro RTX 8000 Graphics Accelerator	3	240W or below	40C, 3Kft (35C max w/ NVME drive)	35C (>30C may throttle)	40C, 3Kft	35C (>30C may throttle)
HPE NVIDI	A Tesla T4 16GB Com	•		elerator			R0W29
	885 Gen10 Plus can su						
Notes: DL3 NVIDIA Tes Notes: DL3	la V100S 32GB Comp 885 Gen10 Plus can su	utational A	to 3 of this acc	elerator			
Notes: DL3 NVIDIA Tes Notes: DL3 HPE NVIDIA Notes: DL3	ala V100S 32GB Comp 85 Gen10 Plus can su A Quadro RTX 4000 G 885 Gen10 Plus can su	utational A ipport up f raphics A ipport up f	to 3 of this acc ccelerator to 3 of this acc				R1F95
Notes: DL3 NVIDIA Tes Notes: DL3 HPE NVIDIA Notes: DL3 Notes: DL3	ala V100S 32GB Comp 85 Gen10 Plus can su A Quadro RTX 4000 G 85 Gen10 Plus can su A Quadro RTX 6000 G 85 Gen10 Plus can su	utational A ipport up t raphics A ipport up t raphics A ipport up t	to 3 of this acc ccelerator to 3 of this acc ccelerator to 3 of this acc	celerator			R1F98 R0Z45
Notes: DL3 NVIDIA Tes Notes: DL3 HPE NVIDIA Notes: DL3 HPE NVIDIA Notes: DL3 HPE NVIDIA	a V100S 32GB Comp S5 Gen10 Plus can su A Quadro RTX 4000 G S5 Gen10 Plus can su A Quadro RTX 6000 G	utational A ipport up f raphics A ipport up f raphics A ipport up f raphics A	to 3 of this acc ccelerator to 3 of this acc ccelerator to 3 of this acc ccelerator	celerator			R4D73 R1F95 R0Z45 R1F97
Notes: DL3 NVIDIA Tes Notes: DL3 HPE NVIDIA Notes: DL3 HPE NVIDIA Notes: DL3 HPE NVIDIA Notes: DL3 HPE GPU 2	ala V100S 32GB Comp 85 Gen10 Plus can su A Quadro RTX 4000 G 85 Gen10 Plus can su A Quadro RTX 6000 G 85 Gen10 Plus can su A Quadro RTX 8000 G 85 Gen10 Plus can su <b>hic Cable Kits</b> 2x 8-pin Cable Kit	utational A ipport up t raphics A ipport up t raphics A ipport up t raphics A ipport up t	to 3 of this acc ccelerator to 3 of this acc ccelerator to 3 of this acc ccelerator to 3 of this acc	celerator celerator celerator			R1F95 R0Z45
Notes: DL3 NVIDIA Tes Notes: DL3 HPE NVIDIA Notes: DL3 HPE NVIDIA Notes: DL3 HPE GPU 2 Notes: This HPE DL38x	a V100S 32GB Comp S5 Gen10 Plus can su A Quadro RTX 4000 G S5 Gen10 Plus can su A Quadro RTX 6000 G S5 Gen10 Plus can su A Quadro RTX 8000 G S5 Gen10 Plus can su bhic Cable Kits	ith the RT able Kit	to 3 of this acc ccelerator to 3 of this acc ccelerator to 3 of this acc ccelerator to 3 of this acc ccelerator to 3 of this acc	celerator celerator celerator	tor		R1F95 R0Z45 R1F97

HPE DL38X Gen10 Plus Maximum Performance Fan Kit

## **Core Options**

### Notes:

<ul> <li>This kit is required for specific <u>Ambient temperature environments</u>,.</li> <li>Max Performance fan kit consists of 6 fans, these will need to replace all the standard fans in the unit, and fill all 6 fan cages.</li> <li>The 12 LFF and 24 SFF models (including field upgrades to 24 SFF) will already include 6 Max Performance fan kits.</li> <li>The High Performance fan kit is needed to support certain Passive GPGPU (Graphics cards) configurations; or ASHRAE operating environments.</li> <li>For elevated ambient temperature support please see: <u>http://www.hpe.com/servers/ashrae</u>.</li> </ul>	
HPE Power Supplies	
HPE 500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	865408-B21
Notes: Flex Slot Platinum power supplies support power efficiency of up to 94% and	
include a standard C-14 power inlet connector.	
HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit	865438-B21
<b>Notes:</b> Flex Slot Titanium power supplies support power efficiency of up to 96% and	
include a standard C-14 power inlet connector.	005444 004
HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	865414-B21
<b>Notes:</b> Flex Slot Platinum power supplies support power efficiency of up to 94% and include a standard C-14 power inlet connector.	
HPE 800W Flex Slot -48VDC Hot Plug Low Halogen Power Supply Kit	865434-B21
<b>Notes:</b> Flex Slot -48VDC power supplies support power efficiency of up to 94%.	000404-021
HPE 800W Flex Slot Universal Hot Plug Low Halogen Power Supply Kit	865428-B21
HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	830272-B21
Notes:	000272-021
– Flex Slot universal power supplies support power efficiency of up to 94% and support both	
277VAC/380VDC power inputs.	
- Flex Slot Platinum Plus power supplies support power efficiency of up to 94% and include a C-14	
power inlet connector that can support HPE Power Discovery Services (blue connector). – Prior to making a power supply selection it is highly recommended that the HPE Power Advisor is run	
to determine the right size power supply for your server configuration. The HPE Power Advisor is	
located at:	

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

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

-Option kits contain the specified power supply and a PDU IEC cable.

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

Riser Info	ormation*								
Part number	ber Description Riser position		Bus width (Gen4 lanes)			NVMe Direct Connect			
		Primary	Secondary	Tertiary	Top slot	Middle Slot	Bottom slot	Ports	Drive count
n/a	This is the default riser in the chassis	D	N	N	x8	x16	x8	0	0
P14587- B21	HPE DL38X Gen10 Plus x8/x16/x8 Secondary Riser Kit	N	0	N	x8	x16	x8	0	0

## **Core Options**

core optio									
P14592- B21	HPE DL38X Gen10 Plus x16x16 Slot1/2 Riser FIO Kit	0	N	N	X16	x16	0	0	0
P14589- B21	HPE DL38X Gen10 Plus x16/x16 Slot1/2 Secondary Riser Kit	N	0	N	X16	x16	0	0	0
P14599- B21	HPE DL38X Gen10 Plus x16 x16 Slot2/3 Riser FIO Kit	0	N	N	0	x16	X16	0	0
P14590- B21	HPE DL38X Gen10 Plus x16/x16 Slot2/3 Secondary Riser Kit	N	0	N	0	x16	X16	0	0
P14600- B21	HPE DL38X Gen10 Plus Slot1 x16 Adder for Slot2/3 Riser	0	0	N	x16	0	0	0	0
P14581- B21	HPE DL38X Gen10 Plus x8x8 2x16 TER Rsr Kit	N	N	0	x8	x8	0	0	0
P14588- B21	HPE DL38X Gen10 Plus x16 Tertiary Riser Kit	N	N	0	x16	0	0	0	0
P14575- B21	HPE DL38X Gen10 Plus Primary NEBS- compliant Riser Kit	0	0	N	0	0	0	0	0
P14577- B21	HPE DL38X Gen10 Plus Tertiary NEBS- compliant Riser Kit	N	N	0	0	0	0	0	0
P14505- B21	HPE DL385 Gen10 Plus 2SFF NVMe/SAS Smart Carrier Riser Kit	0	0	N	0	0	0	0	0
P25902- B21	HPE DL385 Gen10 Plus	N	0	N	0	0	0	1	2

## Core Options

	2SFF NVMe/SAS Smart Carrier Secondary Riser Kit								
P14579- B21	HPE DL38X Gen10 Plus 2LFF Primary Riser Kit	0	0	N	0	0	0	0	0
P25903- B21	HPE DL38X Gen10 Plus 2LFF Secondary Riser Kit	N	0	N	0	0	0	0	0
P14580- B21	HPE DL38X Gen10 Plus 2LFF FIO Riser Kit	N	N	0	0	0	0	0	0

**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 Electronic License with 1yr Support on iLO Licensed Features	E6U59ABE
HPE iLO Advanced 1-server License with 1yr Support on iLO Licensed Features	512485-B21
HPE iLO Advanced Flexible Quantity License with 1yr Support on iLO Licensed Features	512486-B21
HPE iLO Advanced AKA Tracking License with 1yr Support on iLO Licensed Features	512487-B21
HPE iLO Advanced Electronic License with 3yr Support on iLO Licensed Features	E6U64ABE
HPE iLO Advanced 1-server License with 3yr Support on iLO Licensed Features	BD505A
HPE iLO Advanced Flexible Quantity License with 3yr Support on iLO Licensed Features	BD506A
HPE iLO Advanced AKA Tracking License with 3yr Support on iLO Licensed Features	BD507A
HPE iLO Common Password FIO Setting	P08040-B21

### HPE Converged Infrastructure Management Software

HPE OneView Physical Media Kit LTU	E5Y37A
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 w/o iLO Advance including 3yr 24x7 Support Track 1-server LTU	E5Y40A
HPE OneView for ProLiant DL Server including 3yr 24x7 Support FIO Bundle Physical 1- server LTU	E5Y43A
HPE OneView for ProLiant DL Server including 3yr 24x7 Support Bundle Track 1-server LTU	E5Y44A
HPE OneView Upgrade from Insight Management including 3yr 24x7 Support Flexible Quantity E-LTU	E5Y45AAE
HPE OneView w/o iLO including 3yr 24x7 Support Flexible Quantity E-LTU	P8B26AAE
<b>Notes:</b> Licenses ship without media. The HPE OneView Media Kit can be ordered separately, or <u>downloaded</u> .	can be

HPE Security	
HPE Gen10 2U Bezel Kit	867809-B21
HPE Bezel Lock Kit	875519-B21
HPE Gen10 Plus Chassis Intrusion Detection Kit	P14604-B21
HPE Gen10 TPM 1.2 FIO Setting	872108-B21

### Additional Options

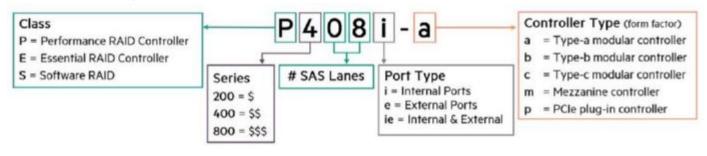
### HPE Gen10 Plus TPM BR Module Kit

Notes:

- This is TPM 2.0 for Gen10 plus

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

## **HPE Smart Array Controllers**



## HPE 96W Smart Storage Battery (up to 20 Devices) with 145mm Cable Kit

<b>Notes:</b> All performance RAID controllers are supported by the HPE Smart Storage Battery (P013 which supports multiple devices and is sold separately.	66-B21),
HPE Smart Array P816i-a SR Gen10 (16 Internal Lanes/4GB Cache/SmartCache) 12G SAS Modular Controller	804338-B21
Notes:	
<ul> <li>Does not occupy a PCIe expansion slot and includes SmartCache license.</li> <li>The P816i-a cable ships in the 12LFF chassis only.</li> </ul>	
HPE Smart Array P408i-a SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS Modular Controller	804331-B21
Notes: Does not occupy a PCIe expansion slot.	
HPE Smart Array P408i-p SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS PCIe Plug-in Controller	830824-B21
HPE Smart Array P408e-p SR Gen10 (8 External Lanes/4GB Cache) 12G SAS PCIe Plug-in Controller	804405-B21
Essential RAID Controllers	
HPE Smart Array E208i-p SR Gen10 (8 Internal Lanes/No Cache) 12G SAS PCIe Plug- in Controller	804394-B21
HPE Smart Array E208e-p SR Gen10 (8 External Lanes/No Cache) 12G SAS PCIe Plug-in Controller	804398-B21
HPE Smart Array E208i-a SR Gen10 (8 Internal Lanes/No Cache) 12G SAS Modular Controller	804326-B21
Notes: Does not occupy a PCIe expansion slot.	
HPE Cable Options	
HPE DL38X Gen10 Plus Rear Serial Cable Kit	P14606-B21
HPE DL38X Gen10 Plus 8NVMe CPU1/2 Cable Kit	P22829-B21
HPE DL38X Gen10 Plus 8NVMe CPU1 Cable Kit	P22834-B21

P13771-B21

### Additional Options

HPE DL38X Gen10 Plus 16NVMe CPU1/2 Cable Kit	P22835-B21
HPE Gen10 Plus Chassis Intrusion Detection Kit	P14604-B21
HPE DL38X Gen10 Plus Mini SAS 3 Position Cable	P14605-B21

HPE Disk-Based Backup	
HPE RDX 1TB External Disk Backup System	B7B69B
HPE RDX External Docking Station	C8S07B
HPE RDX 2TB External Disk Backup System	E7X53B

### **HPE Racks**

Please see the **HPE Advanced Series Racks QuickSpecs** for information on additional racks options and rack specifications.

Please see the **HPE Enterprise Series Racks QuickSpecs** for information on additional racks options and rack specifications.

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

### **HPE Power Distribution Units (PDUs)**

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

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

### HPE Uninterruptible Power Systems (UPS)

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

Please see the <u>HPE DirectFlow Three Phase Uninterruptible Power System QuickSpecs</u> for information on these products and their specifications.

Please see the <u>HPE Line Interactive Single Phase UPS QuickSpecs</u> for information on these products and their specifications.

### **HPE Rack Options**

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

### **Rail Kits**

#### Notes:

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

-To assist in the installation of the server into the rack an optional installation tool is available by contacting

### **Additional Options**

your local services representative (695539-001).

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.

Notes: CTO Models do not ship with rail kits, they need to be ordered seperately

HPE DL38X Gen10 Plus 2U SFF Easy Install Rail Kit	P22018-B21
Notes: Supported on SFF Model only	
HPE DL38X Gen10 Plus 2U LFF Easy Install Rail Kit	P22019-B21
Notes: Supported on LFF Model only	
HPE DL38X Gen10 Plus 2U Cable Management Arm for Rail Kit	P22020-B21
HPE DL38X Gen10 Plus 2U LFF Ball Bearing Rail Kit	P22022-B21
Notes: Supported on LFF Model only	
HPE DL38X Gen10 Plus 2U SFF Ball Bearing Rail Kit	P22021-B21
Notes: Supported on SFF Model only	

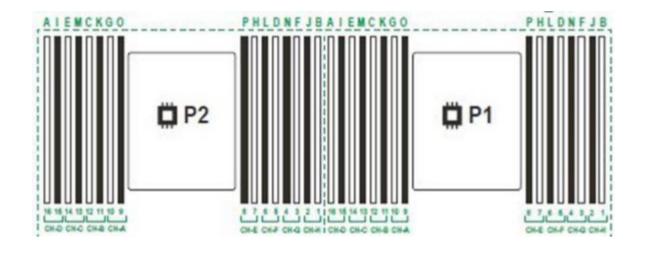
## **HPE USB and SD Options**

HPE Enterprise Mainstream Flash Media Kits for Memory Cards	
HPE 8GB Dual microSD Flash USB Drive	741279-B21
HPE 32GB microSD Flash Memory Card	700139-B21
HPE 8GB microSD Flash Memory Card	726116-B21
HPE 8GB microSD Flash USB Drive	737953-B21
HPE 32GB microSD RAID 1 USB Boot Drive	P21868-B21

### **HPE Support Services**

Installation & Startup Services	
HPE Install ProLiant DL38x(p) Service	U4554E
HPE Installation and Startup DL38x(p) Service	U4555E
Proactive Care	
HPE 3 Year Proactive Care 24x7 DL385 GEN10 PLUS Service	HK9Q4E
HPE 3 Year Proactive Care 24x7 with DMR DL385 GEN10 PLUS Service	HK9Q5E
HPE 3 Year Proactive Care 24x7 with CDMR DL385 GEN10 PLUS Service	HK9Q6E
HPE 3 Year Proactive Care Call-To-Repair DL385 GEN10 PLUS Service	HK9R5E
HPE 3 Year Proactive Care Call-To-Repair 24x7 with DMR DL385 GEN10 PLUS Service	HK9R6E
HPE 3 Year Proactive Care Call-To-Repair with CDMR DL385 GEN10 PLUS Service	HK9R7E
<b>Notes:</b> For a full listing of Support Services available for this server, please visit <a href="https://ssc.hpe.com/">https://ssc.hpe.com/</a>	

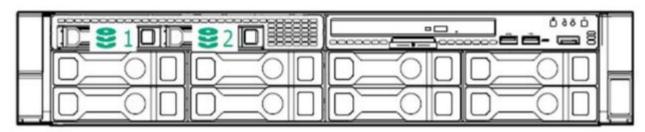
### Memory



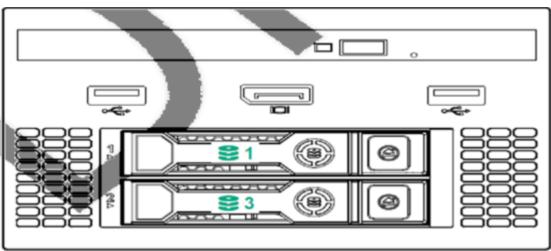
## **General Memory Population Rules and Guidelines:**

- Install DIMMs only if the corresponding processor is installed.
- If only one processor is installed in a two-processor system, only half of the DIMM slots are available.
- To maximize performance, it is recommended to balance the total memory capacity between all installed processors.
- When two processors are installed, balance the DIMMs across the two processors.
- White DIMM slots denote the first slot to be populated in a channel.
- 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 SmartMemory is required. For additional information, please see the: HPE DDR4 Smart Memory QuickSpecs
- For details on the HPE Server Memory speed, visit: http://www.hpe.com/docs/amd-speed-tables

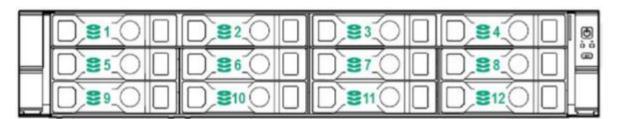
Storage



8LFF chassis with Universal media bay and optional 2SFF and optical drive shown

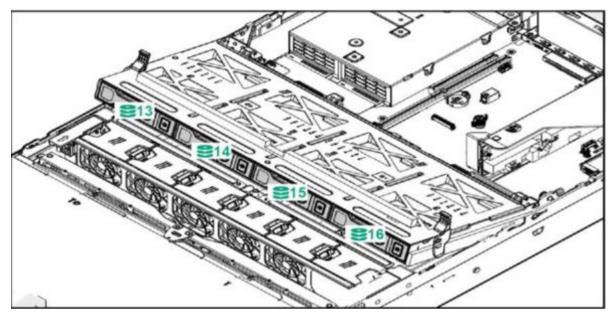


**Universal Media Bay** 

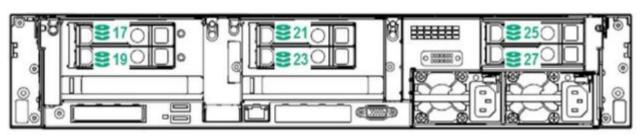


**12LFF Front Panel** 

## Storage



Midplane Box (LFF Only)



Rear Panel 4LFF +2SFF





24 SFF Chassis + rear 2 SFF drives

Technical Specifications

## System Unit

Dimensions

### • SFF Drives:

8.75 x 44.54 x 71.1 cm 3.44 x 17.54 x 28 in

### • LFF Drives:

8.75 x 44.54 x 74.9 cm 3.44 x 17.54 x 29.5 in **Weight** (approximate)

#### • Minimum:

15.1 kg / 33.25 lbs with 1 hard drive

-Maximum:

19.7 kg / 43.50 lbs with 24 hard drives

– Minimum:

8 SFF chassis with 1x SFF HDD and 7 HDD blanks, 2x Drive Bay blanks, 1x processor including standard heatsink, 1x power supply (plus blank), 1x Smart Array, 1x Riser installed, cables for the above)

• Maximum:

24.7 kg / 54.5 lbs with 12 hard drives

– Minimum:

17.3 kg / 38.25 lbs with 1 hard drive

Maximum: 12 LFF hard drives (no rear drives), 2x processors, 2x power supplies, 1x Smart Array, 2x Risers installed)

### Input Requirements (per power supply) Rated Line Voltage

- 100 to 120 VAC
- 200 to 240 VAC

#### BTU Rating Maximum

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

### Power Supply Output (per power supply) Rated Steady-State Power

- For 1400W Power Supply: 1400W (at 240 VAC), 1400W (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 1400W Power Supply: 1400W (at 200 to 240 1VAC), 1400W (at 240 VAC) input for China only

### **Technical Specifications**

- 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

### **System Inlet Temperature**

### • Standard Operating Temperature

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

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

#### • Extended Ambient Operating Temperature

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

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

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

- **Operating** 8% to 90% - Relative humidity (Rh), 28°C maximum wet bulb temperature, non-condensing.
- Non-operating (non-condensing)
   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).

## **Technical Specifications**

### **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)

### **Acoustic Noise**

Listed are the declared A-Weighted sound power levels (LWAd) and declared average bystander position A-Weighted sound pressure levels (LpAm) 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	5.0 B Entry	
	5.2 B Base	
	5.7 B Perf	
LpAm	32 dBA Entry	
	34 dBA Base	
	44 dBA Perf	
Operating		
LWAd	5.0 B Entry	
	5.3 B Base	
	6.4 B Perf	
LpAm	32 dBA Entry	
	37 dBA Base	
	48 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.

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

Hewlett Packard Enterprise offers <u>end-of-life product return, trade-in, and recycling programs</u>, 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

## **Technical Specifications**

treatment facilities as well as Hewlett Packard Enterprise OEM customers who integrate and re-sell Hewlett Packard Enterprise equipment.

## Summary of Changes

Date	Version History	Action	Description of Change
04-May-2020	Version 7	Changed	Pre-configured Models and Core Options sections were updated.
06-Apr-2020	Version 6	Changed	Configuration Information, Core Options, Additional Options, Memory and Technical Specifications sections were updated.
09-Mar-2020	Version 5	Changed	Core Options and Adittional Options sections were updated.
24-Feb-2020	Version 4	Changed	Overview, Standard Features, Pre-configured Models, Configuration Information, Additional Options, Core Options sections were updated. Obsolete SKU was removed
17-Feb-2020	Version 3	Changed	SKUs descriptions were updated.
23-Dec-2019	Version 2	Changed	Core Options Section was updated.
02-Dec-2019	Version 1	New	New QuickSpecs.

## Copyright

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

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