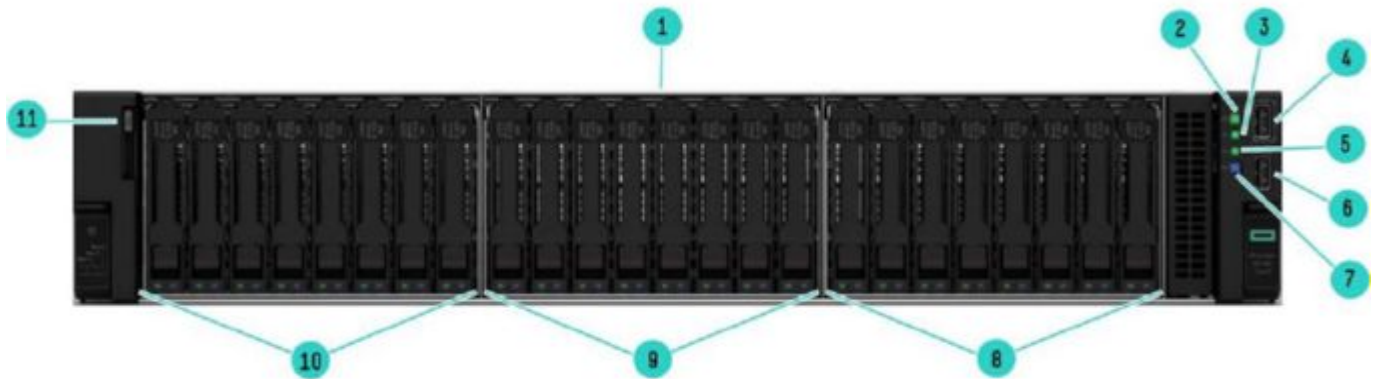


### Overview

Shape the Future of QuickSpecs – Your Input Matters

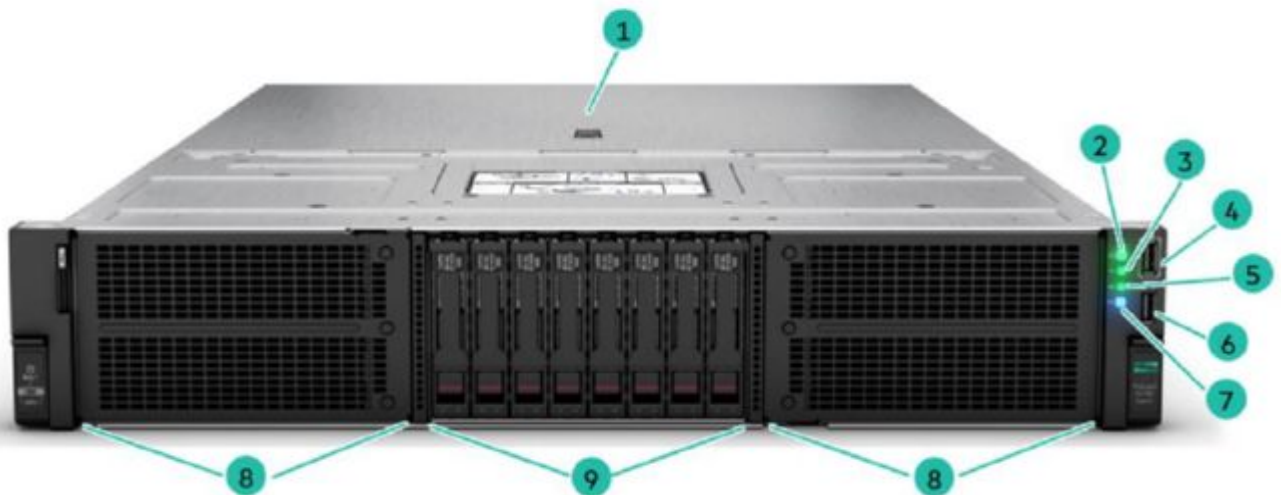
### HPE ProLiant DL385 Gen11

The new HPE ProLiant DL385 Gen11 server is an accelerator-optimized 2U 2P solution that delivers exceptional compute performance, upgraded high-speed data transfer rate and memory depth at 2P compute capability. Powered by 5<sup>th</sup> and 4<sup>th</sup> Generation AMD EPYC™ 9005 & 9004 Series Processors with up to 160 cores, increased memory speed (up to 6400 MT/s), high-speed PCIe Gen5 I/O, Gen5 EDSFF storage and the newly designed chassis supporting 8 single wide (SW) or 4 double wide (DW) GPUs\*. The HPE ProLiant DL385 Gen11 server is a perfect accelerator-optimized 2U 2P solution.



**HPE ProLiant DL385 Gen11 SFF CTO Server- Front View**

- |  |  |
|--|--|
| 1. Quick removal access panel                          | 7. UID button  |
| 2. Power On/Standby button and system power LED button | 8. Drive Bay 3. 8 SFF U.3 optional                         |
| 3. Health LED  | 9. Drive Bay 2. 8 SFF U.3 optional                         |
| 4. iLO front service port                              | 10. Drive Bay 1. 8 SFF U.3 or Universal Media Bay optional |
| 5. NIC status LED                                      | 11. Serial label pull tag                                  |
| 6. USB 3.2 Gen1  |  |

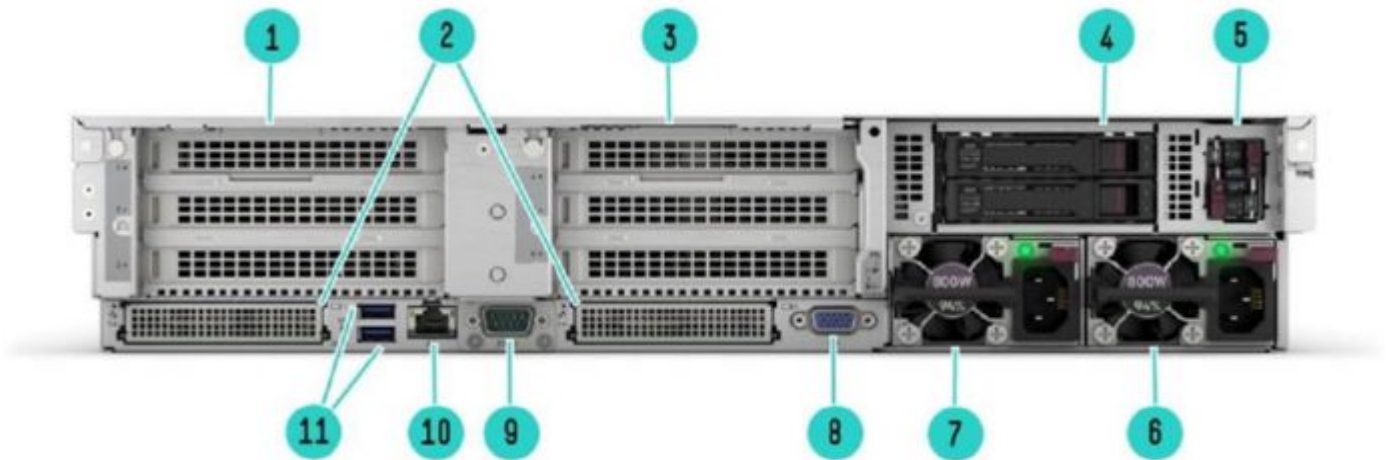


**HPE ProLiant DL385 Gen11 GPU CTO Server- Front View**

- |                               |               |
|-------------------------------|---------------|
| 1. Quick removal access panel | 7. UID button |
|-------------------------------|---------------|

### Overview

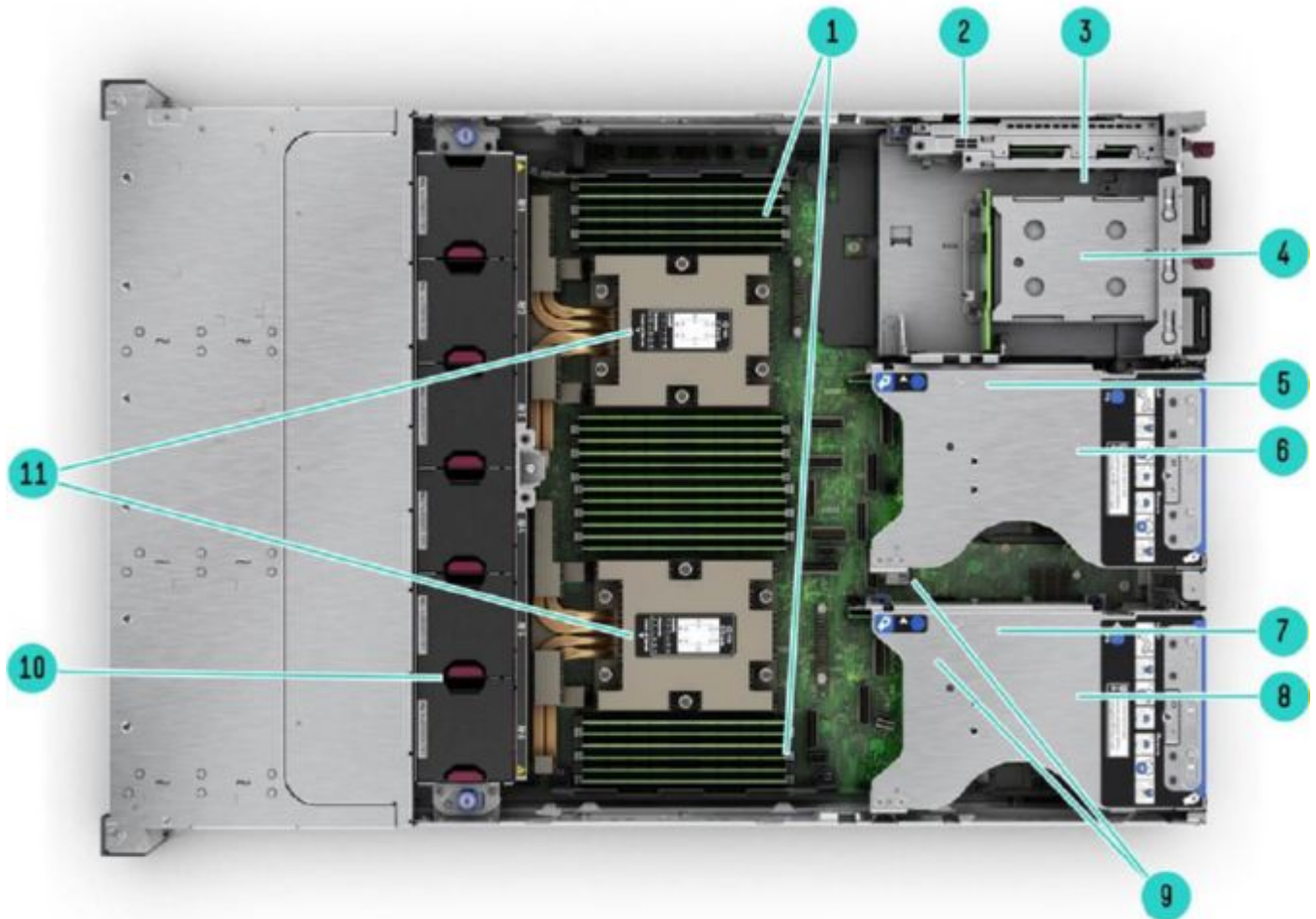
2. Power On/Standby button and system power LED button
3. Health LED
4. iLO front service port
5. NIC status LED
6. USB 3.2 Gen1
8. Double Wide GPU 1, 2; Single Wide GPU 1, 2, 3, 4 (Left Box)  
Double Wide GPU 3, 4; Single Wide GPU 5, 6, 7, 8 (Right Box)
9. Drive Bay 2. 8 SFF U.3 or 8 E3.S EDSFF optional 8 SFF shown here



### HPE ProLiant DL385 Gen11 all CTO Servers - Rear View

1. Primary Riser: PCI Slots (Slots 1-3 top to bottom)
2. OCP 3.0 Slot
3. Secondary Riser: PCI Slots (Slots 4-6 top to bottom)
4. Tertiary Riser: (Slots 7-8 top to bottom, not shown). Optional rear 2 SFF cage
5. Hot pluggable M.2 Boot Device (optional, not shown)
6. HPE Flexible Slot power supply bay 1
7. HPE Flexible Slot Power Supply bay 2
8. VGA connector
9. Serial port (optional)
10. Dedicated iLO management port
11. USB 3.2 Gen1 ports

### Overview



#### HPE ProLiant DL385 Gen11 SFF CTO Server - Internal View

1. DDR5 DIMM slots. Shown populated in 24 slots
2. Hot Pluggable M.2 Boot Device bracket
3. (Under) Up to 2 Hot Plug redundant HPE Flexible Slot Power supplies
4. Rear 2SFF drive cage
5. Secondary PCIe riser cage
6. (Under) OCP 3.0 Slot 2
7. Primary PCIe riser cage
8. (Under) OCP 3.0 Slot 1
9. 2x USB 3.2 Gen1 ports (one under primary riser cage)
10. Fan cage shown with 6 Performance Hot-plug fans
11. 2 Processors (heatsinks shown)

### Overview

#### What's New

- Launching the new 5<sup>th</sup> Generation AMD EPYC™ Series Processors with models up to 160 cores and 5.0 GHz frequency
  - Launching the new 6400 MT/s memory DIMMs to support the new 5<sup>th</sup> Generation AMD EPYC™ Series Processors
  - NVIDIA H100 94GB NVL GPU added
- 

### Platform Information

#### Form Factor

- 2U rack

#### Chassis Types

- 8 SFF with optional Universal Media Bay, and optional SFF or NVMe drive bay options. Front drive bay supported up to 24 SFF
- 8 LFF with Universal Media Bay, and optional SFF or NVMe drive bay options. Front drive bay supported up to 12 LFF
- 12 EDSFF with no Universal Media Bay, no rear drive support. Configure up to 36 EDSFF
- GPU CTO Server that supports up to 4x Double Wide GPUs or 8x Single Wide GPUs and with 1x 8SFF U.3 x4 backplane or 1x 8EDSFF x4 backplane
- 48SFF CTO Server that supports up to 48SFF SAS/SATA/NVMe with tri-mode controllers

#### Notes:

- DL385 Gen11 uses Basic Carrier drive cages.
- The 4 LFF rear drive box will consume space for the primary, secondary and tertiary risers.
- 3x 8 SFF drive cages can be used to build up a 24 SFF configuration.
- The 12 LFF configuration needs to be built up with 8LFF chassis and one 4LFF drive cage.
- The Universal Media Bay (P57857-B21) is not available with the LFF chassis or the 24 SFF (3x 8SFF cages) configuration, and can only be populated in Box 1.
- U.3 x1 and U.3 x4 drive cages CAN mix.
- EDSFF offerings will be available within 1H 2023.

#### System Fans

Standard - fan types included

- Choice of Standard Fan Kit or Performance Fan Kit

#### Notes:

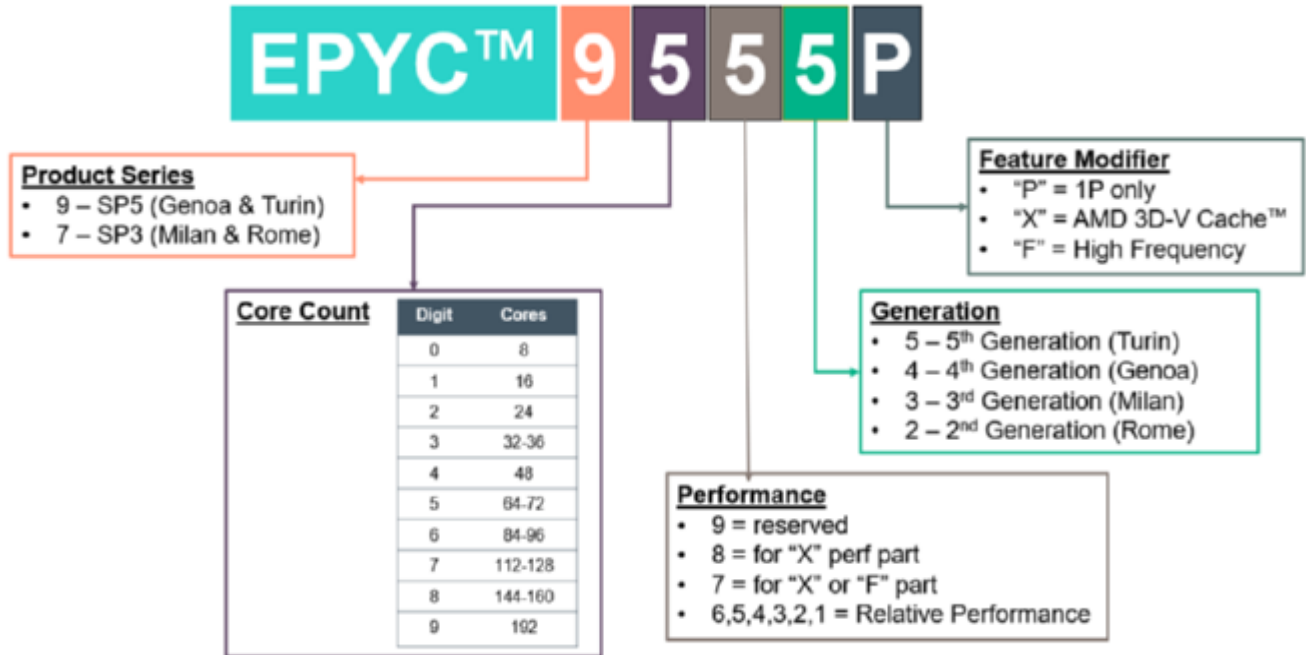
- The DL385 Gen11 supports up to 6 fans with fan redundancy built in. One fan rotor failure will place server in degraded mode but fully functional. Two fan rotor failures could provide warning and imminent server shutdown.
  - Each Fan kits are designated to operate under different configuration. For more information, please refer to the Cooling option message in the Unique option section.
-

## 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/processors/server/epyc.html>



4 <sup>th</sup> Gen AMD EPYC Processor	Cores	Base Frequency	Max Frequency	Max Memory	Wattage	Cache	Memory
EPYC 9124	16	3.0 GHz	3.7 GHz	3TB	200W	64MB	4800MT/s
EPYC 9174F	16	4.1 GHz	4.4 GHz		320W	256MB	
EPYC 9224	24	2.5 GHz	3.7 GHz		200W	64MB	
EPYC 9254	24	2.9 GHz	4.15 GHz		200W	128MB	
EPYC 9274F	24	4.05 GHz	4.3 GHz		320W	256MB	
EPYC 9334	32	2.7 GHz	3.9 GHz		210W	128MB	
EPYC 9354	32	3.25 GHz	3.8 GHz		280W	256MB	
EPYC 9374F	32	3.85 GHz	4.3 GHz		320W	256MB	
EPYC 9454	48	2.75 GHz	3.8 GHz		290W	256MB	
EPYC 9474F	48	3.6 GHz	4.1 GHz		360W	256MB	
EPYC 9534	64	2.45 GHz	3.7 GHz		280W	256MB	
EPYC 9554	64	3.1 GHz	3.75 GHz		360W	256MB	
EPYC 9634	84	2.25 GHz	3.7 GHz		290W	384MB	
EPYC 9654	96	2.4 GHz	3.7 GHz		360W	384MB	
EPYC 9734	112	2.2 GHz	3.0 GHz		340W	256MB	
EPYC 9754	128	2.25 GHz	3.1 GHz		360W	256MB	
EPYC 9184X	16	3.55 GHz	4.2 GHz		320W	768MB	
EPYC 9384X	32	3.1 GHz	3.9 GHz		320W	768MB	
EPYC 9684X	96	2.55 GHz	3.7 GHz		400W	1,150MB	

## Standard Features

5 <sup>th</sup> Gen AMD EPYC Processor	Cores	Base Frequency	Max Frequency	Max Memory	Wattage	Cache	Memory
EPYC 9015	8	3.6	4.1	3TB	125W	64MB	6400MT/s
EPYC 9115	16	2.6	4.1		125W	64MB	
EPYC 9135	16	3.65	4.3		200W	64MB	
EPYC 9255	24	3.25	4.3		200W	128MB	
EPYC 9335	32	3.0	4.4		210W	128MB	
EPYC 9355	32	3.55	4.4		280W	256MB	
EPYC 9365	36	3.4	4.3		300W	192MB	
EPYC 9455	48	3.15	4.4		300W	256MB	
EPYC 9535	64	2.4	4.3		300W	256MB	
EPYC 9555	64	3.2	4.4		360W	256MB	
EPYC 9565	72	3.15	4.3		400W	384MB	
EPYC 9645	96	2.3	3.7		320W	256MB	
EPYC 9655	96	2.6	4.5		400W	384MB	
EPYC 9745	128	2.4	3.7		400W	256MB	
EPYC 9825	144	2.2	3.7		390W	384MB	
EPYC 9845	160	2.1	3.7		390W	320MB	
EPYC 9175F	16	4.2	5.0		320W	512MB	
EPYC 9275F	24	4.1	4.8		320W	256MB	
EPYC 9375F	32	3.85	4.8		320W	256MB	
EPYC 9475F	48	3.65	4.8		400W	256MB	
EPYC 9575F	64	3.3	5.0	400W	512MB		

### Notes:

- The new 5<sup>th</sup> Gen AMD EPYC 9005 processors now support 6400 MT/s.
- All AMD EPYC processors can support up to 3TB of memory each under 1DPC, 12 channel per processor. 6TB of memory per two processors.
- 160 PCIe 5.0 lanes support with two sockets. Motherboard supports 3XGMI two-processor interconnect by default.
- The wattage information indicates the default cTDP (Configurable TDP) of the processor.

## Chipset

No chipset - System on Chip (SoC) design.

### On System Management Chipset

HPE iLO 6 ASIC

Read and learn more in the [iLO QuickSpecs](#).

## Memory

One of the following depending on model

Type	HPE DDR5 Smart Memory, Registered (RDIMM)
DIMM Slots Available	24 12 DIMM slots per processor, 12 channels per processor, 1 DIMM per channel
Maximum capacity (RDIMM)	6.0TB (when 2 processors are supported) 24 x 256 GB RDIMM* @ 4800 MT/s at 1 DPC (on 4 <sup>th</sup> Gen AMD EPYC) 24 x 256 GB RDIMM* @ 6400 MT/s at 1 DPC (on 5 <sup>th</sup> Gen AMD EPYC)

### Notes:

### Standard Features

- All processors support up to 6TB memory per server when 2 processors are supported.
- LRDIMM and Persistent Memory are not supported.
- For additional information, please see the **HPE DDR5 Smart Memory QuickSpecs**.
- For General Server Memory Population Rules and Guidelines for Gen11 see details here: <http://www.hpe.com/docs/memory-population-rules>

### Memory Protection

#### Advanced ECC

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

### Expansion Slots

#### Primary Riser

##### Notes:

- Bus width indicates the number of physical electrical lanes running to the connector.
- There are three Primary riser configurations:
  - o Default 1 slot only (1x16 on Slot3)
  - o Default Slot3 + Slot1 & 2 with HPE DL385 G11 2x16 Prim FIO Upg Rsr Kit (P57890-B21)
  - o HPE DL385 G11 x16 Prim FIO Rsr LFF Rear (P55098-B21) selectable when rear 4LFF SAS/SATA cage kit (P55088-B21) is configured
- When both Primary Slot1 & OCP Slot21 (OCP1) are supported, Slot1 & Slot21 (OCP1) combined can only support up to 112GB/s bandwidth due to processor limitation

Primary Riser config#1					
Slots #	Technology	Bus Width	Connector Width	Slot Form Factor	Notes
1	N/A	N/A	N/A	N/A	N/A
2	N/A	N/A	N/A	N/A	N/A
3	PCIe 5.0	X16	X16	Full-height, half-length slot	Proc 1

Primary Riser config#2					
Slots #	Technology	Bus Width	Connector Width	Slot Form Factor	Notes
1	PCIe 5.0	X16	X16	Full-height, half-length slot	Proc 1. Supported with P57890-B21
2	PCIe 5.0	X16	X16	Full-height, half-length slot	Proc 1. Supported with P57890-B21
3	PCIe 5.0	X16	X16	Full-height, half-length slot	Proc 1

### Standard Features

Primary Riser config#3					
Slots #	Technology	Bus Width	Connector Width	Slot Form Factor	Notes
1 (below the 4LFF drive cage)	PCIe 5.0	X16	X16	Full-height, half-length slot	Proc 1. Scenario when rear 4LFF SAS/SATA cage is selected

### Secondary Riser:

#### Notes:

- Bus width indicates the number of physical electrical lanes running to the connector.
- There are four Secondary riser configurations:

- o 1 slot using HPE DL385 Gen11 x16 Sec Riser Kit (P55097-B21)

- o 2 slots using Slot 6 P55097-B21 + Slot 5 with HPE DL385 G11 x16 Slot5 Sec Upg Rsr Kit (P68392-B21)

- o 3 slots using Slot 6 P55097-B21 + Slot4 & 5 with HPE DL385 Gen11 2x16 Sec Upg Riser Kit (P57891-B21)

- o HPE DL385 Gen11 x16 Sec FIO Rsr LFF Rear (P57892-B21) selectable when rear 4LFF SAS/SATA cage kit (P55088-B21) is configured

- o HPE DL385 Gen11 x16 LP Sec Riser Kit (P59260-B21) is selectable when HPE NS204i-u boot device is selected and rear 4LFF SAS/SATA cage kit (P55088-B21) is also configured

- When both Secondary Slot6 & Tertiary Slot7 are supported, Slot6 & Slot7 combined can only support up to 112GB/s bandwidth due to processor limitation

Secondary Riser config#1					
Slots #	Technology	Bus Width	Connector Width	Slot Form Factor	Notes
4	N/A	N/A	N/A	N/A	N/A
5	N/A	N/A	N/A	N/A	N/A
6	PCIe 5.0	X16	X16	Full-height, half-length slot	Proc 2

Secondary Riser config#2					
Slots #	Technology	Bus Width	Connector Width	Slot Form Factor	Notes
4	N/A	N/A	N/A	N/A	N/A
5	PCIe 5.0	X16	X16	Full-height, half-length slot	Proc 2
6	PCIe 5.0	X16	X16	Full-height, half-length slot	Proc 2

## Standard Features

Secondary Riser config#3					
Slots #	Technology	Bus Width	Connector Width	Slot Form Factor	Notes
4	PCIe 5.0	X16	X16	Full-height, half-length slot	Proc 2
5	PCIe 5.0	X16	X16	Full-height, half-length slot	Proc 2
6	PCIe 5.0	X16	X16	Full-height, half-length slot	Proc 2

Secondary Riser config#4					
Slots #	Technology	Bus Width	Connector Width	Slot Form Factor	Notes
1 (below the 4LFF drive cage)	PCIe 5.0	X16	X16	Full-height, half-length slot	Proc 2. Scenario when rear 4LFF SAS/SATA cage is selected

Secondary Riser config#5					
Slots #	Technology	Bus Width	Connector Width	Slot Form Factor	Notes
1, Low Profile Type (below the 4LFF drive cage)	PCIe 5.0	X16	X16	Low Profile, half-length slot	Proc 2. Scenario when NS204i-u boot device and rear 4LFF SAS/SATA cage are selected

## Tertiary Riser

### Notes:

- Bus Width Indicates the number of physical electrical lanes running to the connector.
- There is one type of Tertiary riser configuration by selecting HPE DL385 Gen11 2x16 Tert FIO Riser Kit (P57893-B21)
- When both Secondary Slot6 & Tertiary Slot7 are supported, Slot6 & Slot7 combined can only support up to 112GB/s bandwidth due to processor limitation

Tertiary Riser					
Slots #	Technology	Bus Width	Connector Width	Slot Form Factor	Notes
7	PCIe 5.0	X16	X16	Full-height, half-length slot	Proc 2
8	PCIe 5.0	X16	X16	Full-height, half-length slot	Proc 2

### Standard Features

#### Storage Controllers

The Gen11 controller naming framework has been updated to simplify identification as depicted below. For a more detailed breakout of the available Gen11 Smart Array controllers visit the controller data sheet

##### NVMe Boot Device

HPE NS204i-u Gen11 NVMe Hot Plug Boot Optimized Storage Device

##### Notes:

- NS204i-u is a boot device module and is not a PCIe card. The M.2 drives that come with the module are externally accessible. 2pcs of 480GB M.2 NVMe SSD are included in the NS204i-u Hot Plug Boot Device
- RAID 1 supported on the NS204i-u Hot Plug Boot Device.
- There are three locations where NS204i-u Hot Plug Boot Device can be supported and PCIe slots will reduce in some cases:
  - o Tertiary location above power supplies. Tertiary risers will not be supported.
  - o Secondary Slot 4 location. Slot 4 and Slot 5 of the secondary riser cage will not be supported.
  - o Secondary location when selected with the low profile secondary riser, below the 4LFF rear drive cage. In this case, only one riser will be supported in the secondary riser location.

##### Software RAID - NO Software RAID is support on AMD Gen11 servers

##### Essential RAID Controllers

- HPE Smart Array E208e-p SR Gen10 Controller

##### Performance RAID Controllers

- HPE MR216i-p Gen11 x16 Lanes without Cache PCI SPDM Plug-in Storage Controller
- HPE MR216i-o Gen11 x16 Lanes without Cache OCP SPDM Storage Controller
- HPE MR408i-o Gen11 x8 Lanes 4GB Cache OCP SPDM Storage Controller
- HPE MR416i-o Gen11 x16 Lanes 8GB Cache OCP SPDM Storage Controller
- HPE MR416i-p Gen11 x16 Lanes 8GB Cache PCI SPDM Plug-in Storage Controller
- HPE SR932i-p Gen11 x32 Lanes 8GB Wide Cache PCI SPDM Plug-in Storage

**Notes:** For additional details, please visit:

[HPE Compute MR Gen11 Controllers QuickSpecs](#)

[HPE Compute SR Gen11 Controllers QuickSpecs](#)

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#### Internal Storage Devices

One of the following depending on model

##### Optical Drive

- Available on SFF and LFF CTO Servers as an option (DVD-ROM or DVD-RW)

##### Hard Drives

- None ship standard
- 

#### Graphics

##### Integrated Video Standard

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### Standard Features

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

### HPE iLO 6 on system management memory

- 64 MB Flash
- 8 Gbit DDR4 with ECC protection

Maximum Internal Storage		
Drive	Capacity	Configuration
Hot Plug LFF SAS HDD	400 TB	(12+4+4) x20TB (with optional mid -tray and rear 4LFF drive cage)
Hot Plug LFF SATA HDD	400 TB	(12+4+4) x20TB (with optional mid -tray and rear 4LFF drive cage)
Hot Plug LFF SATA SSD	53.6 TB	(12+4+4) x7.68TB (with optional mid -tray and rear 4LFF drive cage)
Hot Plug SFF SAS HDD	81.6 TB	(24+8+2) x2.4TB (with optional mid -tray and rear 2SFF drive cage)
Hot Plug SFF SAS SSD	261.12 TB	(24+8+2) x7.68TB (with optional mid -tray and rear 2SFF drive cage)
Hot Plug SFF SATA HDD	68 TB	(24+8+2) x2TB (with optional mid -tray and rear 2SFF drive cage)
Hot Plug SFF SATA SSD	261.12 TB	(24+8+2) x7.68TB (with optional mid -tray and rear 2SFF drive cage)
Hot Plug SFF NVMe PCIe SSD	522.24 TB NVMe	(24+8+2) x15.36TB (with optional mid -tray and rear 2SFF drive cage)

### Power Supply

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

**Notes:** Available in 94% Power Efficiency

- HPE 1000W Flex Slot Titanium Hot Plug Power Supply Kit

**Notes:** Available in 96% Power Efficiency

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

**Notes:**

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

- HPE 1600W ~48VDC Power Supply Kit

**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 Gen11 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.

### Standard Features

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

<b>Serial</b>	Optional, rear
<b>Display Port</b>	1 optional on both Universal Media Bay and LFF optical drive module
<b>VGA Port</b>	1 VGA Port standard at rear
<b>Network Ports</b>	None. Choice of OCP or stand up card
<b>HPE iLO Remote Management Network Port</b>	1 Gb Dedicated
<b>Front iLO Service Port</b>	1 standard
<b>USB 3.2 Gen1</b>	5 standard on all models: 1 front, 2 rear, 2 internal 1 optional with Universal Media Bay
<b>USB 2.0</b>	1 optional with Universal Media Bay
<b>SID (Systems Insight Display)</b>	Optional

### 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 HPE Servers

HPE servers are designed for seamless integration with partner Operating Systems and Virtualization Software. By collaborating closely with our partners, we ensure that their products are optimized, certified, and fully supported within your HPE server environment.

Access the certified and supported servers for each of the OS and Virtualization software: [HPE Servers Support & Certification Matrices](#)

### HPE Server UEFI

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 Gen11 servers have a UEFI Class 2 implementation.

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

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

### Standard Features

- Secure Boot and Secure Start enabled for enhanced security
- Operating system specific functionality
- Support for > 2.2 TB (using GPT) boot drives
- 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.
- Enabling TPM 2.0 no longer requires TPM module option kit for Gen11. It is an embedded feature.

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### Industry Standard Compliance

- ACPI 6.1 Compliant
- PCIe 4.0 Compliant
- WOL Support
- Microsoft® Logo certifications
- Support for Microsoft Secure Code
- PXE Support
- VGA/Display Port

**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.

- USB NIC Driver in UEFI for Factory
- OCP 3.0 SFF NIC Support
- OCP 3.0 SFF Storage Support
- Embedded TPM Support
- Energy Star 4.0

**Notes:** Energy Star 4.0 is supported. Please configure P68503-B21 to trigger Energy Star 4.0

- SMBIOS 3.1/UEFI 2.7
- Redfish API
- IPMI 2.0
- Secure Digital 2.0
- Advanced Encryption Standard (AES)
- Triple Data Encryption Standard (3DES)
- SNMP v3
- TLS 1.2
- DMTF Systems Management Architecture for Server Hardware Command Line Protocol (SMASH CLP)
- DMTF Redfish support for SecureBoot Key Management

### Standard Features

- ACPI DSM Drive LED Management
- Memory Page Retire Support
- Retire old VMware Secure Boot Key
- MCTP over PCIe multi-segment
- APML 1.0
- One Button Secure Erase Enhancements
- 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 Class 3 (Unified Extensible Firmware Interface Forum)

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### 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

<http://www.hpe.com/info/restfulapi>.

#### OpenBMC Support

OpenBMC Capable through iLO6 Transfer of Ownership Process.

Learn more at [OpenBMC enablement on HPE ProLiant servers | HPE](#)

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### 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>.

#### Smart Update

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

<https://www.hpe.com/us/en/servers/smart-update.html>

#### 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>.

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### Standard Features

#### Scripting Tools

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

Transform compute lifecycle management with a cloud experience that delivers greater simplicity, agility, and speed across your entire server environment, wherever it lives. This software-as-a-service tool provides a dashboard with global visibility and intuitive management of server health, security and compliance status to help you easily identify areas that need immediate attention. Users can update tens to thousands of servers faster through intelligent delta-based firmware downloads and on-demand HPE iLO firmware updates.

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

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

For information on supported HPE servers, the complete list can be found here:

<https://www.hpe.com/info/com-supported-servers>

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### Security

- UEFI Secure Boot and Secure Start support
- Immutable Silicon Root of Trust
- FIPS 140-3 validation (iLO 6 certification in progress)
- Common Criteria certification (iLO 6 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

**Notes:** enabling TPM 2.0 no longer requires TPM module option kit for Gen11. It is an embedded feature.

- Bezel Locking Kit option
  - Chassis Intrusion detection option
-

### Service and Support

#### HPE Services

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

<https://www.hpe.com/services>

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#### Warranty

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

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

<https://www.hpe.com/support/ProLiantServers-Warranties>

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#### Consulting Services

No matter where you are in your journey to hybrid cloud, experts can help you map out your next steps. From determining what workloads should live where, to handling governance and compliance, to managing costs, our experts can help you optimize your operations.

<https://www.hpe.com/services/consulting>

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#### HPE Managed Services

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

[HPE Managed Services | HPE](#)

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#### Operational services

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

<https://www.hpe.com/services/operational>

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### Service and Support

#### HPE Complete Care Service

HPE Complete Care Service is a modular, edge-to-cloud IT environment service designed to help optimize your entire IT environment and achieve agreed upon IT outcomes and business goals through a personalized experience. All delivered by an assigned team of HPE Services experts. HPE Complete Care Service provides:

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

<https://www.hpe.com/services/complecare>

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#### HPE Tech Care Service

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

<https://www.hpe.com/services/techcare>

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#### HPE Lifecycle Services

HPE Lifecycle Services provide a variety of options to help maintain your HPE systems and solutions at all stages of the product lifecycle. A few popular examples include:

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

**Notes:** To review the list of Lifecycle Services available for your product go to:

<https://www.hpe.com/services/lifecycle>

For a list of the most frequently purchased services using service credits, see the [HPE Service Credits Menu](#)

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### Service and Support

#### Other Related Services from HPE Services:

##### HPE Education Services

Training and certification designed for IT and business professionals across all industries. Broad catalogue of course offerings to expand skills and proficiencies in topics ranging from cloud and cybersecurity to AI and DevOps. Create learning paths to expand proficiency in a specific subject. Schedule training in a way that works best for your business with flexible continuous learning options.

<https://www.hpe.com/services/training>

##### Defective Media Retention

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

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

##### Parts and Materials

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

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

##### How to Purchase Services

Services are sold by Hewlett Packard Enterprise and Hewlett Packard Enterprise Authorized Service Partners:

- Services for customers purchasing from HPE or an enterprise reseller are quoted using HPE order configuration tools.
- Customers purchasing from a commercial reseller can find services at <https://ssc.hpe.com/portal/site/ssc/>

##### AI Powered and Digitally Enabled Support Experience

Achieve faster time to resolution with access to product-specific resources and expertise through a digital and data driven customer experience.

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

<https://support.hpe.com/hpesc/public/home/signin>

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### Consume IT On Your Terms

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

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

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

For more information

<http://www.hpe.com/services>



### Pre-configured Models

#### HPE Smart Choice purchase program

The HPE Smart Choice purchase program features popular fully configured products that can be quoted in minutes and shipped quickly through HPE Authorized Partners. Products are configured and tested in an HPE factory and stocked at HPE Authorized Distributors and Partners. The products arrive in a single box, making onsite integration easier and more efficient for partners and customers. Additionally, there are aggressively priced HPE Tech Care Services available only through the HPE Smart Choice program when you purchase an HPE Smart Choice product.

For HPE Smart Choice configuration and product details, please visit the Smart Choice Supplemental QuickSpecs: <https://www.hpe.com/psnow/doc/a50009219enw>

Pre-Configured models ship with the configurations below.

- Pre-Configured models ship with the configurations below. Options can be selected from the Core or Additional options section of this QuickSpecs.
- Hewlett Packard Enterprise does not allow factory integration of options into pre-configured models. Any additional options purchased will not be shipped inside the server.
- Network Choice models do not include embedded LOM.

SKU Number	P66781-B21 P66781-291	P66782-B21 P66782-291
Model Name	HPE ProLiant DL385 Gen11 9124 3.0GHz 16-core 1P 32GB-R 8SFF 800W PS Server	HPE ProLiant DL385 Gen11 9224 2.5GHz 24-core 1P 32GB-R 8SFF 800W PS Server
Chassis	HPE ProLiant DL385 Gen11 8SFF Configure-to-order Server	
Processor	9124 (16 core, 3.0 GHz, 200W)	9224 (24 core, 2.5 GHz, 200W)
Number of Processors	One with standard heatsink	
Memory	32 GB (1x32 GB, 4800 MT/s)	
Network Controller	Broadcom BCM5719 Ethernet 1Gb 4-port BASE-T OCP3 Adapter for HPE	Broadcom BCM57416 Ethernet 10Gb 2-port BASE-T OCP3 Adapter for HPE
Storage Controller	HPE MR408i-o Gen11 x8 Lanes 4GB Cache OCP SPDM Storage Controller	
Included Hard Drives	None ship standard, 8 SFF supported	
Optical Drive	None ship as standard	
Power Supply	1x HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	
Fans	6 Fans	
Rail Kit	HPE Easy Install Rail 2 Kit	

### Pre-configured Models

<b>SKU Number</b>	P59705-421	P59706-421
<b>Model Name</b>	HPE ProLiant DL385 Gen11 9124 3.0GHz 16-core 1P 32GB-R 8SFF 1000W PS EU Server	HPE ProLiant DL385 Gen11 9224 2.5GHz 24-core 1P 32GB-R 8SFF 1000W PS EU Server
<b>Chassis</b>	HPE ProLiant DL385 Gen11 8SFF Configure-to-order Server	
<b>Processor</b>	9124 (16 core, 3.0 GHz, 200W)	9224 (24 core, 2.5 GHz, 200W)
<b>Number of Processors</b>	One with standard heatsink	
<b>Memory</b>	32 GB (1x32 GB, 4800 MT/s)	
<b>Network Controller</b>	Broadcom BCM5719 Ethernet 1Gb 4-port BASE-T OCP3 Adapter for HPE	Broadcom BCM57416 Ethernet 10Gb 2-port BASE-T OCP3 Adapter for HPE
<b>Storage Controller</b>	HPE MR408i-o Gen11 x8 Lanes 4GB Cache OCP SPDM Storage Controller	
<b>Included Hard Drives</b>	None ship standard, 8 SFF supported	
<b>Optical Drive</b>	None ship as standard	
<b>Power Supply</b>	1x HPE 1000W Flex Slot Titanium Hot Plug Power Supply Kit	
<b>Fans</b>	6 Fans	
<b>Rail Kit</b>	HPE Easy Install Rail 2 Kit	

## Pre-configured Models

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### Country Code Key

- -B21 = Worldwide
  - -291 = Japan
  - -421 = Europe, the Middle East and Africa
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### Configuration Information

#### Smart Templates from HPE

HPE is releasing new Smart Template technology in the One Config Advanced (OCA) configurator. These Templates represent the CTO equivalents of the top-selling BTO configurations. They are intended to provide simple starting points to assist you in easily creating and customizing your desired Server solutions. HPE Servers that have Platform Templates, developed by HPE Product Managers, will have a separate tab in the HPE OCA configurator.

#### Workload Solutions Templates from HPE

The Workload Solutions Templates build on the Smart Templates technology to easily develop working configurations of the most compelling Workload Solutions. The templates complement the Reference Builds developed by HPE. Workload Solutions templates preconfigure some of the key architecture decisions and make it easier for Sellers to get started and complete a differentiated server solution for your customer's specific workload.

#### Mainstream SKUs

HPE launched the Mainstream SKU initiative as a market-driven approach to Demand Steering. It is a simplified portfolio of our top selling options that meet the current and future market trends. HPE has committed to provide a more predictable and faster experience for these options. Mainstream SKUs enjoy higher safety stock levels and have higher fulfillment service levels than non-Mainstream SKUs. Mainstream orders are fulfilled +30% faster than non-Mainstream orders, have fewer shortages and better recovery dates. This platform has Mainstream SKUs in the options portfolio, and is eligible for the improved Mainstream experience. Mainstream SKUs are designated with a Mainstream symbol in our configurators.

#### Mainstream Configurations

HPE is using the new Smart Templates technology to present Mainstream configurations. All the options in a Mainstream configuration are pre-selected Mainstream SKUs to optimize the performance, predictability and fulfillment experience. Check the Template section in our configurators for eligible Mainstream configurations.

#### European Union ErP Lot 9 Regulation

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

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

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

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

### Configuration Information

<b>CTO Server</b>	<b>HPE ProLiant DL385 Gen11 8SFF CTO Server</b>	<b>HPE ProLiant DL385 Gen11 8LFF CTO Server</b>
<b>SKU Number</b>	P53921-B21	P53925-B21
<b>Processor</b>	Not included as standard	Not included as standard
<b>DIMM Slots</b>	24-DIMM slots*	24-DIMM slots*
<b>Storage Controller</b>	Choice of HPE OCP and PCIe plug-in controller	
<b>PCIe</b>	One standard in primary riser, up to eight slots with 2 processors	
<b>Drive Cage - included</b>	8 SFF	8 LFF
<b>Network Controller</b>	Choice of OCP or PCIe stand up card	
<b>Fans</b>	Not included as standard**	
<b>Management</b>	Default: HPE iLO Standard with Intelligent Provisioning, HPE OneView Standard (requires download), HPE GreenLake for Compute Ops Management (subscription included)	
<b>USB</b>	Front: 1 USB 3.1 Gen1 + iLO service port Rear: 2 USB 3.1 Gen1 Internal: 2 USB 3.1 Gen1	Front: 1 USB 3.1 Gen1 + iLO service port Rear: 2 USB 3.1 Gen1 Internal: 2 USB 3.1 Gen1

<b>CTO Server</b>	<b>HPE ProLiant DL385 Gen11 12EDSFF CTO Server</b>	<b>HPE ProLiant DL385 Gen11 GPU CTO Server***</b>	<b>HPE ProLiant DL385 Gen11 48SFF CTO Server</b>
<b>SKU Number</b>	P53929-B21	P54198-B21	P57844-B21
<b>Processor</b>	Not included as standard	Not included as standard	Not included as standard
<b>DIMM Slots</b>	24-DIMM slots*	24-DIMM slots*	24-DIMM slots*
<b>Storage Controller</b>	Not Supported	Choice of HPE OCP and PCIe plug-in controller	Choice of HPE OCP and PCIe plug-in controller
<b>PCIe</b>	One standard in primary riser, up to eight slots with 2 processors	Two standard in primary and secondary riser. Cannot support riser upgrade kits	Two standard in primary and secondary riser, up to eight slots with 2 processors
<b>Drive Cage - included</b>	12 EDSFF	N/A	6x 8SFF
<b>Network Controller</b>	Choice of OCP or PCIe stand up card		
<b>Fans</b>	Not included as standard**		
<b>Management</b>	Default: HPE iLO Standard with Intelligent Provisioning, HPE OneView Standard (requires download), HPE GreenLake for Compute Ops Management (subscription included)		
<b>USB</b>	Front: 1 USB 3.1 Gen1 + iLO service port Rear: 2 USB 3.1 Gen1 Internal: 2 USB 3.1 Gen1		

#### Notes:

- \* 24 DIMM slots require selection of 2 processors.
- \*\* Fans should be selected separately depending on the configuration.
- \*\*\* To support Double Wide or Single Wide GPUs, the DL385 Gen11 GPU CTO Server must be selected. GPUs cannot be supported in rear PCIe slots for DL385 Gen11.
- 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).
- All CTO servers are Energy Star 3.0 compliant.

### Configuration Information

CTO Server	8 SFF CTO Chassis	8 LFF CTO Chassis
Included Drive Cage	None included as standard	8 LFF SAS/SATA
Universal Media Bay	Optional	Not available
ODD	Optional	Optional
4 LFF SAS/SATA Drive Cage	Not available	Up to 1 Additional
8 SFF SAS/SATA Drive Cage	Up to 3 Optional	Not available
8 SFF SAS/SATA/NVMe (Mid-tray)	Up to 1 Optional	Not available
8 SFF NVMe U.3 Drive Cage	Up to 3 Optional	Not available
2 SFF SAS/SATA/NVMe (Stacked/Front)	Up to 1 Optional	Not available
2 SFF SATA/NVMe (Side-by-side/Front)	Not available	Up to 1 Optional
4 LFF SAS/SATA (Mid-tray)	Not available	Up to 1 Optional
4 LFF SAS/SATA (Rear)	Not available	Up to 1 Optional

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

CTO Server	12 EDSFF CTO Chassis	GPU CTO Chassis	48SFF CTO Chassis
Included Drive Cage	12 EDSFF	None included as standard	6x 8SFF
Universal Media Bay	Not available	Not available	Not available
ODD	Not available	Not available	Not available
4 LFF SAS/SATA Drive Cage	Not available	Not available	Not available
8 SFF SAS/SATA Drive Cage	Not available	Not available	Not available
8 SFF SAS/SATA/NVMe (Mid-tray)	Not available	Not available	Not available
8 SFF NVMe U.3 Drive Cage	Not available	Up to 1 Optional	Not available
2 SFF SAS/SATA/NVMe (Stacked/Front)	Up to 1 Optional	Not available	Up to 1 Optional
2 SFF SATA/NVMe (Side-by-side/Front)	Not available	Not available	Not available
4 LFF SAS/SATA (Mid-tray)	Not available	Not available	Not available
4 LFF SAS/SATA (Rear)	Not available	Not available	Not available
12 EDSFF Drive Cage	Up to 2 Optional	Up to 1 Optional	Not available

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

### Backplane Types - Compatible Drive Type

	SATA	SAS	NVMe (U.3 Static)	NVMe (U.3 Dynamic)
4 LFF SAS/SATA BP	x	x	Not Supported	Not Supported
8 SFF SAS/SATA BP	x	x	Not Supported	Not Supported
8 SFF U.3 Tri-mode BP (Mid-tray)	x	x	x	x
8 SFF U.3 Tri-mode BP (Front)	x	x	x	x
2 SFF U.3 Tri-mode BP (Stacked/Front)	x	x	x	x

	SATA	SAS	NVMe (U.3 Static)	NVMe (U.3 Dynamic)
2 SFF U.3 Tri-mode BP (Side-by-side/Front)	x	x	x	x
4 LFF SAS/SATA BP (Mid-tray)	x	x	Not Supported	Not Supported
4 LFF SAS/SATA BP (Rear)	x	x	Not Supported	Not Supported

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

Please select one -B21 processor required below.

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

### Configuration Information

#### Notes:

- Mixing of 2 different processor models are NOT allowed. For example: first processor, select P53696-B21 then for second processor, select P53696-B21 as well.
- Processor kits don't include heat sink and fans.

### Step 2a: Choose Processors

#### Processor Option Kits - 4<sup>th</sup> Gen AMD EPYC 9004 Series

##### AMD EPYC 9124 3.0GHz 16-core 200W Processor for HPE

AMD EPYC 9224 2.5GHz 24-core 200W Processor for HPE	P53702-B21
AMD EPYC 9254 2.9GHz 24-core 200W Processor for HPE	P58540-B21
AMD EPYC 9334 2.7GHz 32-core 210W Processor for HPE	P53707-B21
AMD EPYC 9354 3.25GHz 32-core 280W Processor for HPE	P53712-B21
AMD EPYC 9454 2.75GHz 48-core 290W Processor for HPE	P53701-B21
AMD EPYC 9534 2.45GHz 64-core 280W Processor for HPE	P53708-B21
AMD EPYC 9554 3.1GHz 64-core 360W Processor for HPE	P53699-B21
AMD EPYC 9634 2.25GHz 84-core 290W Processor for HPE	P53700-B21
AMD EPYC 9654 2.4GHz 96-core 360W Processor for HPE	P53705-B21
AMD EPYC 9734 2.2GHz 112-core 340W Processor for HPE	P53696-B21
AMD EPYC 9754 2.25GHz 128-core 360W Processor for HPE	P60465-B21
AMD EPYC 9174F 4.1GHz 16-core 320W Processor for HPE	P60463-B21
AMD EPYC 9274F 4.05GHz 24-core 320W Processor for HPE	P53698-B21
AMD EPYC 9374F 3.85GHz 32-core 320W Processor for HPE	P53711-B21
AMD EPYC 9474F 3.6GHz 48-core 360W Processor for HPE	P53710-B21
AMD EPYC 9184X 3.55GHz 16-core 320W Processor for HPE	P53706-B21
AMD EPYC 9384X 3.1GHz 32-core 320W Processor for HPE	P63491-B21
AMD EPYC 9684X 2.55GHz 96-core 400W Processor for HPE	P63492-B21
	P63493-B21

#### Processor Option Kits - 5<sup>th</sup> Gen AMD EPYC 9005 Series

AMD EPYC 9015 3.6GHz 8-core 125W Processor for HPE	P72661-B21
AMD EPYC 9135 3.65GHz 16-core 200W Processor for HPE	P72660-B21
AMD EPYC 9115 2.6GHz 16-core 125W Processor for HPE	P72659-B21
AMD EPYC 9255 3.20GHz 24-core 200W Processor for HPE	P72658-B21
AMD EPYC 9355 3.55GHz 32-core 280W Processor for HPE	P72657-B21
AMD EPYC 9335 3.0GHz 32-core 210W Processor for HPE	P72656-B21
AMD EPYC 9365 3.4GHz 36-core 300W Processor for HPE	P72655-B21
AMD EPYC 9455 3.15GHz 48-core 300W Processor for HPE	P72654-B21
AMD EPYC 9575F 3.3GHz 64-core 400W Processor for HPE	P72758-B21
AMD EPYC 9555 3.2GHz 64-core 360W Processor for HPE	P72653-B21
AMD EPYC 9535 2.4GHz 64-core 300W Processor for HPE	P72652-B21
AMD EPYC 9565 3.15GHz 72-core 400W Processor for HPE	P72651-B21
AMD EPYC 9655 2.6GHz 96-core 400W Processor for HPE	P72650-B21
AMD EPYC 9645 2.3GHz 96-core 320W Processor for HPE	P72649-B21
AMD EPYC 9745 2.4GHz 128-core 400W Processor for HPE	P72648-B21
AMD EPYC 9825 2.2GHz 144-core 390W Processor for HPE	P72647-B21
AMD EPYC 9845 2.1GHz 160-core 390W Processor for HPE	P72646-B21
AMD EPYC 9175F 4.2GHz 16-core 320W Processor for HPE	P72669-B21
AMD EPYC 9275F 4.1GHz 24-core 320W Processor for HPE	P72668-B21
AMD EPYC 9375F 3.80GHz 32-core 320W Processor for HPE	P72667-B21
AMD EPYC 9475F 3.65GHz 48-core 400W Processor for HPE	P72666-B21

#### Notes:

- 4<sup>th</sup> Gen AMD EPYC processors are compatible with 4800 MT/s memory DIMMs; 5<sup>th</sup> Gen

## Configuration Information

AMD EPYC processors are compatible with 6400 MT/s memory DIMMs

- For processors less than 240W, standard heatsink and standard fan kit are required. User is allowed to change to performance/max performance heatsink and performance fan kit
- If Processor wattage is above 240W and below 300W then High Performance Heat Sink and High Performance fan kit must be selected
- If Processor wattage is above 300W then Maximum Performance HS and Max Performance fan kit must be selected
- If Processor is above 300W then Mid Cage cannot be selected

### Step 2b: Choose Memory Options

Please select one or more memory from below.

For new Gen11 memory population rule whitepaper and optimal memory performance guidelines, please go to: <https://www.hpe.com/psnow/doc/a50007481enw>

For additional information, please see the [HPE DDR5 Smart Memory QuickSpecs](#).

For Gen11 memory speed table, please go to: [Server memory population rules for HPE ProLiant Gen11 servers with AMD EPYC 9004 series processors](#)

#### 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.
- System may throttle if ambient temp. is over 30C.
- Memory compatibility may vary or be limited within a specific server family depending upon the specific configuration being requested. Because each server environment and requirements can vary, memory compatibility is based not only upon the server family, but may also be affected by the amount and type of additional hardware options installed within a specific server configuration. For this reason, some HPE memory DIMMs may be qualified for a server model or family and yet occasionally not be supported with limited configurations within that server family. Please consult with the HPE server QuickSpecs or your HPE representative if you have any questions regarding memory compatibility with a specific HPE server configuration.

### Registered DIMMs (RDIMMs)

#### 4800 MT/s DIMMs supported on 4<sup>th</sup> Gen AMD EPYC Processors

##### HPE 16GB (1x16GB) Single Rank x8 DDR5-4800 CAS-40-39-39 EC8 Registered

##### Smart Memory Kit

HPE 32GB (1x32GB) Dual Rank x8 DDR5-4800 CAS-40-39-39 EC8 Registered Smart Memory Kit	P50309-B21
HPE 64GB (1x64GB) Dual Rank x4 DDR5-4800 CAS-40-39-39 EC8 Registered Smart Memory Kit	P50311-B21
HPE 96GB (1x96GB) Dual Rank x4 DDR5-4800 CAS-46-45-45 EC8 Registered Smart Memory Kit	P50312-B21
HPE 128GB (1x128GB) Dual Rank x4 DDR5-4800 CAS-40-39-39 EC8 Registered Smart Memory Kit	P66676-B21
HPE 128GB (1x128GB) Quad Rank x4 DDR5-4800 CAS-46-39-39 EC8 Registered 3DS Smart Memory Kit	P69982-B21
HPE 256GB (1x256GB) Octal Rank x4 DDR5-4800 CAS-46-39-39 EC8 Registered 3DS Smart Memory Kit	P50313-B21
	P50314-B21

#### 6400 MT/s DIMMs supported on 5<sup>th</sup> Gen AMD EPYC Processors

HPE 16GB (1x16GB) Single Rank x8 DDR5-6400 CAS-46-45-45 EC8 Registered Smart Memory Kit	P64984-B21
HPE 32GB (1x32GB) Dual Rank x8 DDR5-6400 CAS-46-45-45 EC8 Registered Smart Memory Kit	P64985-B21
HPE 64GB (1x64GB) Dual Rank x4 DDR5-6400 CAS-46-45-45 EC8 Registered Smart Memory Kit	P64986-B21
HPE 96GB (1x96GB) Dual Rank x4 DDR5-6400 CAS-46-45-45 EC8 Registered Smart Memory Kit	P64987-B21

### Configuration Information

HPE 128GB (1x128GB) Dual Rank x4 DDR5-6400 CAS-46-45-45 EC8 Registered Smart Memory Kit

P64988-B21

HPE 256GB (1x256GB) Quad Rank x4 DDR5-6400 CAS-60-52-52 EC8 Registered 3DS Smart Memory Kit

P73446-B21

#### Notes:

- The 128GB 2Rx4 RDIMM (P69982-B21) for 4<sup>th</sup> Gen AMD EPYC and 128GB 2Rx4 RDIMM (P64988-B21) for 5<sup>th</sup> Gen AMD EPYC are not 3DS DIMMs
- Server system can support 24x of this 256GB DDR5 4800 MT/s DIMMs even with processors >300W, if below components are configured:
  - o P57886-B21/ HPE DL385 G11 2U Std/Perf FIO Baffle Kit
  - o P58459-B21/ HPE DL3X5 Gen11 Perf 2U Heat Sink Kit
- Mixing of x4 & x8 memory is not allowed
- Mixing of Non-3DS and 3DS DIMMs is not allowed
- 256GB DIMM requires Q'ty 6 of Performance Fans
- When Direct Liquid Cooling (DLC) is configured, there will be no configuration restriction with 256GB DIMMs and ambient temperature can be maintained at 35C
- When processor cTDP >= 300W, and server front-end configurations are any of 24SFF, 12LFF, 36EDSFF, 48SFF or GPU, and 256GB DIMMs q'ty is more than 12 then below NIC cards cannot be selected due to thermal:
  - o P31324-B21/ HPE IB HDR/EN 200Gb 2p QSFP56 Adapter
  - o P45641-B21/ HPE IB NDR 1p OSFP MCX75310AAS Adapter
  - o P45642-B21/ HPE IB NDR200 1p OSFP MCX75310AAS Adapter
  - o P26269-B21/ BCM 57504 10/25GbE 4p SFP28 OCP3 Adapter
  - o P22767-B21/ INT E810 100GbE 2p QSFP28 OCP3 Adapter
  - o P31323-B21/ HPE IB HDR/EN 200Gb 1p QSFP56 OCP3 Adapter
  - o P31348-B21/ HPE IB HDR/EN 200Gb 2p QSFP56 OCP3 Adapter
- 256GB DIMM might impose more configuration restrictions due to its high profile thermal condition. Refer to the HPE configurator tool for detailed instructions
- For more detailed information regarding memory population rules, please visit

<https://www.hpe.com/docs/server-memory>

### Thermal Support Matrix - Processors

DL385 Gen11 Config.							
Front Cage	Mid Cage	Rear Cage	CPU TDP	Supported Ambient Temp.	Fan Type	Heatsink Type	Boot Device - NS204i-u
8 LFF	N/A	2SFF or PCIe cards	210W and below	30C	STD Fan X6 (P58464-B21)	2U STD HS (P58458-B21)	30C
12 LFF	N/A	2SFF or PCIe cards	210W and below	30C	Perf Fan X6 (P58465-B21)	2U PERF HS (P58459-B21)	
12 LFF	N/A	2SFF or PCIe cards	260W - 290W	30C	Perf Fan X6 (P58465-B21)	2U PERF HS (P58459-B21)	
8 LFF	N/A	2SFF or PCIe cards	320W - 400W	30C	Perf Fan X6 (P58465-B21)	2U Max PERF HS (P58460-B21)	

### Configuration Information

DL385 Gen11 Config.							
Front Cage	Mid Cage	Rear Cage	CPU TDP	Supported Ambient Temp.	Fan Type	Heatsink Type	Boot Device - NS204i-u
12 LFF	N/A	2SFF or PCIe cards	320W - 400W	Ta=25C	Perf Fan X6 (P58465-B21)	2U Max PERF HS (P58460-B21)	30C
12 LFF	N/A	2SFF or PCIe cards	All	30C	Perf Fan X6 (P58465-B21)	DLC*	
12 LFF	N/A	4 LFF	210W and below	30C	Perf Fan X6 (P58465-B21)	2U PERF HS (P58459-B21)	
12 LFF	N/A	4 LFF	260W - 290W	30C	Perf Fan X6 (P58465-B21)	2U PERF HS (P58459-B21)	
12 LFF	4 LFF	2SFF or PCIe cards	260W - 290W	30C	Perf Fan X6 (P58465-B21)	1U PERF HS (Included in mid cage kit)	
12 LFF	4 LFF	4 LFF	210W and below	30C	Perf Fan X6 (P58465-B21)	1U PERF HS (Included in mid cage kit)	
12 LFF	4 LFF	4 LFF	260W - 290W	Ta=25C	Perf Fan X6 (P58465-B21)	1U PERF HS (Included in mid cage kit)	
12 LFF	4 LFF	4 LFF	320W - 400W	30C	Perf Fan X6 (P58465-B21)	DLC*	
16 SFF	N/A	2SFF or PCIe cards	210W and below	30C	STD Fan X6 (P58464-B21)	2U STD HS (P58458-B21)	
24 SFF		2SFF or PCIe cards	210W and below	30C	Perf Fan X6 (P58465-B21)	2U PERF HS (P58459-B21)	
24 SFF		2SFF or PCIe cards	260W - 290W	30C	Perf Fan X6 (P58465-B21)	2U PERF HS (P58459-B21)	
24 SFF		2SFF or PCIe cards	320W - 400W	30C	Perf Fan X6 (P58465-B21)	DLC*	
24 SFF		2SFF or PCIe cards	320W - 400W	30C	Perf Fan X6 (P58465-B21)	2U Max PERF HS (P58460-B21)	
24 SFF		8 SFF	2SFF or PCIe cards	260W - 290W	30C	Perf Fan X6 (P58465-B21)	
24 SFF		8 SFF	2SFF or PCIe cards	320W - 400W	30C	Perf Fan X6 (P58465-B21)	DLC*

## Configuration Information

DL385 Gen11 Config.							
Front Cage	Mid Cage	Rear Cage	CPU TDP	Supported Ambient Temp.	Fan Type	Heatsink Type	Boot Device - NS204i-u
EDSFF	N/A	N/A	210W and below	30C	Perf Fan X6 (P58465-B21)	2U PERF HS (P58459-B21)	30C
	N/A	N/A	260W - 290W	30C	Perf Fan X6	2U PERF HS (P58459-B21)	
	N/A	N/A	320W - 400W	30C	Perf Fan X6 (P58465-B21)	2U Max PERF HS (P58460-B21)	
EDSFF	N/A	N/A	All	30C	Perf Fan X6 (P58465-B21)	DLC*	
GPU	N/A	N/A	210W and below	30C	Perf Fan X6 (P58465-B21)	2U PERF HS (P58459-B21)	
	N/A	N/A	260W - 290W	30C	Perf Fan X6 (P58465-B21)	2U PERF HS (P58459-B21)	
	N/A	N/A	320W - 400W	30C	Perf Fan X6 (P58465-B21)	2U Max PERF HS (P58460-B21)	
GPU	N/A	N/A	All	30C	Perf Fan X6 (P58465-B21)	DLC*	
48 SFF	N/A	N/A	210W and below	30C	Perf Fan X6 (P58465-B21)	2U PERF HS (P58459-B21)	
	N/A	N/A	260W - 290W	30C	Perf Fan X6 (P58465-B21)	2U PERF HS (P58459-B21)	
	N/A	N/A	320W - 400W	30C	Perf Fan X6 (P58465-B21)	2U Max PERF HS (P58460-B21)	
48 SFF	N/A	N/A	All	30C	Perf Fan X6 (P58465-B21)	DLC*	

- Notes:**
- \*For DLC, depending on your rear I/O requirement you can select either one of below kits which supports different tubing outlet locations
  - If you need one more PCIe slot and don't require NS204i-u, we recommend you to select P62032-B21
  - If you need NS204i-u and don't necessarily need one more PCIe slot, we recommend you to select P62035-B21

### Configuration Information

#### Thermal Support Matrix - 256GB Memory

DL385 Gen11 Front Ends	CPU TDP	256GB Memory Max. Quantity	Supported Ambient Temp.
8LFF	=290W	24	25C
	>290W	8	
	>290W	24*	
12LFF	=290W	24	25C
	>290W	8	
8SFF	=290W	24	25C
	>290W	16	
	>290W	24*	
16SFF	=290W	24	25C
	>290W	8	
24SFF	=290W	24	25C
	>290W	8	
12EDSFF	=290W	24	25C
	>290W	8	
	>290W	24*	
24EDSFF	=290W	24	25C
	>290W	8	
36EDSFF	=290W	24	25C
	>290W	8	
GPU CTO Svr	=290W	8	25C
	>290W	8	
48SFF CTO Svr	=290W	8	25C
	>290W	8	
All front ends + DLC	All CPU types	24	25C

**Notes:** \* For the configs that have CPU TDP >290W and fully populated 256GB DIMMs (24), please select P57886-B21 Standard/ Performance Air Baffle Kit and P58459-B21 Performance 2U Heatsink Kit

#### 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 1800W-2200W Flex Slot Titanium Hot Plug Power Supply Kit	P44712-B21
HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	P38997-B21
HPE 1600W Flex Slot -48VDC Hot Plug Power Supply Kit	P17023-B21
HPE 1000W Flex Slot Titanium Hot Plug Power Supply Kit	P03178-B21
HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	P38995-B21

#### Notes:

- Mixing of different Power Supply SKU is not allowed
- 1600W -48VDC PSU requires 1x HPE 1600W DC PSU power lug option kit or HPE 1600W DC PSU Power Cable Kit
- Prior to making a power supply selection it is highly recommended that the HPE Power Advisor is run to determine the right size power supply for your server configuration. The HPE Power Advisor is located at: <http://www.hpe.com/info/poweradvisor>.
- HPE ProLiant servers ship with an IEC-IEC power cord used for rack mounting with Power Distribution Units (PDUs). Visit [HPE power cords](#) for a full list of optional power cords.

#### Step 2d: Choose Backplane

#### Notes:

- Select up to 3x front cage/ 1x mid cage/ 1x rear cage (8SFF chassis); 1x additional front cage/ 1x mid cage/ 1x rear cage (8LFF chassis)

### Configuration Information

– In this generation of DL385, backplane power cables need to be selected separately. Part number and notes describes below

HPE ProLiant DL385 Gen11 SFF Backplane Power Cable Kit	P57845-B21
<b>Notes:</b> If Front 8SFF Drive cage is selected Qty above one then SFF Backplane Power Cable Kit must be selected	
HPE ProLiant DL385 Gen11 8SFF Tri-Mode U.3 x1 BC Backplane Kit	P55082-B21
<b>Notes:</b>	
– x1 U.3 8SFF Drive cage can support SAS/SATA and U.3 NVMe drives	
– Backplane power cable kit needs to be selected to support this backplane	
– Configurable up to 3	
– OROC and PCIe controllers support this backplane. OROC x1 or PCIe x1 cable kit selection is needed for controller support	
– Mixture of x1 U.3 8SFF and x4 U.3 8SFF backplanes is ALLOWED	
– X4 U.3 8SFF mid cage cannot be supported if x1 U.3 8SFF is supported	
– Mid cage cannot be supported if server has mixture of x1 U.3 8SFF and x4 U.3 8SFF backplanes	
HPE ProLiant DL385 Gen11 8SFF Tri-Mode U.3 x4 BC Backplane Kit	P55083-B21
<b>Notes:</b>	
– X4 U.3 8SFF Drive cage can support NVMe and SAS/SATA drives	
– Backplane power cable kit needs to be selected to support this backplane	
– Configurable up to 3	
– OROC and PCIe controllers support this backplane. OROC x2/x4 or PCIe x2/x4 cable kit selection is needed for controller support	
– Mixture of x1 U.3 8SFF and x4 U.3 8SFF backplanes is ALLOWED	
– Mid cage cannot be supported if server has mixture of x1 U.3 8SFF and x4 U.3 8SFF backplanes	
HPE ProLiant DL385 Gen11 4LFF SAS/SATA Mid Tray Backplane Kit	P55085-B21
<b>Notes:</b>	
– This cage kit can only be supported with 8LFF chassis	
– This mid cage only allows OROC controllers for controller support. If no controller selected, server can support up to 16x LFF SAS/SATA direct attach with 12 from front cages and 4 from the mid cage	
– Two 1U Processor Heatsinks are included in the mid cage kit	
HPE ProLiant DL385 Gen11 8SFF Tri-Mode U.3 x1 Mid Tray Backplane Kit	P55086-B21
<b>Notes:</b>	
– This cage kit can only be supported with 8SFF chassis	
– This cage kit can support SAS/SATA and U.3 NVMe drives	
– Mid cage cannot be supported if server has mixture of x1 U.3 8SFF and x4 U.3 8SFF backplanes	
– 8SFF x1 U.3 mid cage and 8SFF x4 U.3 front cage cannot mix	
– Two 1U Processor Heatsinks are included in the mid cage kit	
HPE ProLiant DL385 Gen11 8SFF Tri-Mode U.3 x4 Mid Tray Backplane Kit	P55087-B21
<b>Notes:</b>	
– This cage kit can only be supported with 8SFF chassis	
– Mid cage cannot be supported if server has mixture of x1 U.3 8SFF and x4 U.3 8SFF backplanes	
– 8SFF x4 U.3 mid cage and 8SFF x1 U.3 front cage cannot mix	
– Two 1U Processor Heatsinks are included in the mid cage kit	
HPE ProLiant DL385 Gen11 4LFF SAS/SATA Front FIO Drive Cage Kit	P55089-B21
<b>Notes:</b>	

### Configuration Information

- This cage kit can only be supported with 8LFF chassis. Installed on drive cage Box1, it adds front 8LFF to 12LFF
- This cage only allows OROC controllers for controller support. If no controller selected, server can support up to 16x LFF SAS/SATA direct attach with 12 from front cages and 4 from the mid cage
- If this cage is selected, ODD/DP Enablement Kit cannot be selected

HPE ProLiant DL385 Gen11 4LFF SAS/SATA Rear FIO Backplane Kit P55088-B21

**Notes:**

- This cage kit can only be supported with 8LFF chassis
- Maximum LFF drive count is 20x LFF when 12LFF front + 4LFF mid + 4LFF rear is configured
- If 4LFF Rear drive cage is selected then 2SFF TM U.3 x4 BC Frnt/Rear Kit cannot be selected in the Tertiary location
- When this drive cage is selected, then Primary upgrade riser, Secondary upgrade Risers kit, Tertiary Riser or 1 x16 2U Secondary Riser Kit cannot be selected

HPE ProLiant DL385 Gen11 2SFF Tri-Mode U.3 x4 BC Front/Tertiary Drive Cage Kit P55091-B21

**Notes:**

- This cage kit can be supported in the 8SFF Universal Media Bay or rear Tertiary position
- Only Tri-mode controller is supported with this cage kit. No direct attach

HPE ProLiant DL385 Gen11 2SFF Tri-Mode U.3 x4 BC Side-by-Side Drive Cage Kit P55093-B21

**Notes:**

- This cage kit can only be supported with 8LFF chassis on LFF Box1 position. Therefore, when this is configured, 4LFF front cage cannot be supported
- Only Tri-mode controller is supported with this cage kit. No direct attach

HPE ProLiant DL3X5 Gen11 SFF Universal Media Bay Kit P57857-B21

**Notes:**

- Can only be supported with 8SFF chassis
- This kit is required to support ODD with SFF configurations
- 2SFF x4 Tri-Mode cage kit is supported with selection of this UMB kit
- When the SFF UMB kit is selected and ODD is also in the configuration, the DL385 Gen11 ODD/DP enablement kit (P57889-B21) should also be selected

HPE ProLiant DL3X5 Gen11 GPU 8SFF U.3 FIO Backplane Kit P57867-B21

**Notes:**

- Can only be supported with GPU CTO chassis
- Supports up to 8 SFF drives

HPE ProLiant DL3X5 Gen11 GPU EDSFF FIO Backplane Kit P62355-B21

**Notes:**

- Can only be supported with GPU CTO chassis
- Supports up to 8 E3.S EDSFF drives

### 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 ProLiant DL385 Gen11 8NVMe U.3 2P Balanced FIO Bundle Kit P59754-B21

HPE ProLiant DL385 Gen11 8NVMe U.3 1P Direct FIO Bundle Kit P59755-B21

HPE ProLiant DL385 Gen11 16NVMe U.3 2P Balanced FIO Kit P59756-B21

HPE ProLiant DL385 Gen11 24NVMe U.3 2P Balanced FIO Kit P59875-B21

HPE ProLiant DL385 Gen11 24EDSFF x4 Direct Attach FIO Enablement Kit P57873-B21

HPE ProLiant DL385 Gen11 32EDSFF x4 Direct Attach FIO Enablement Kit P57871-B21

### Configuration Information

**Notes:** When the 32EDSFF x4 DA FIO Kit is configured, no OCP card can be supported because this FIO Kit includes two OCP re-timer cards which provide PCIe lanes for EDSFF drives.

HPE ProLiant DL385 Gen11 36EDSFF x2 Direct Attach FIO Enablement Kit P57874-B21

HPE ProLiant DL385 Gen11 System Insight Display Kit P57895-B21

### HPE Security Options

HPE Trusted Supply Chain for HPE ProLiant P36394-B21

HPE Trusted Supply Chain E-LTU R6X85AAE

### Notes:

– Intrusion Cable Kit (P48922-B21) must be selected with then Trusted Supply Chain Config

– If Trusted Supply Chain section is selected, only one instance of the HPE Trusted Supply Chain E-LTU software option is required per order (not per server)

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

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### 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

#### Riser Kits

The CTO or BTO server has 1x Primary riser (slot3) by default. Here are the additional risers available to select:

HPE ProLiant DL385 Gen11 x16/x16 Primary FIO Upgrade Riser Kit P578C

- Notes:**
- This provides Slot1 and Slot2 in the Primary position
  - Cannot be selected if 4LFF rear cage is selected

HPE ProLiant DL385 Gen11 x16 2U Secondary Riser Kit P550C

- Notes:**
- This provides Slot6 in the Secondary position
  - This requires the 2nd processor
  - This riser kit is required to select the 2x16 Secondary Riser Upgrade Kit

HPE ProLiant DL385 Gen11 x16 Slot 5 Secondary Upgrade Riser Kit P683C

- Notes:**
- This provides Slot5 in the Secondary position
  - This requires the 2nd processor
  - This riser provides the 3<sup>rd</sup> PCIe slot for the GPU CTO Server
  - This riser provides support flexibility by adding only one Secondary riser on top of Slot 6.

Whereas P57891-B21 provides two additional Secondary risers.

– This riser kit cannot be supported with P57849-B21 x16 OCP1 OCP2 2P Upgrade Kit  
 HPE ProLiant DL385 Gen11 x16/x16 Secondary Upgrade Riser Kit P578C

- Notes:**
- This provides Slot4 and Slot5 in the Secondary position
  - This requires the 2nd processor
  - To select this kit, the 1x16 Secondary Riser Kit is required
  - This riser kit cannot be supported with P57849-B21 x16 OCP1 OCP2 2P Upgrade Kit

HPE ProLiant DL385 Gen11 Secondary NEBS-compliant FIO Riser Kit P658C

- Notes:**
- This is a NEBS compliant riser kit for Telco customers' requirements
  - This provides Slots 4, 5, 6 in the Secondary position

HPE ProLiant DL385 Gen11 2x16 Tertiary Riser FIO Kit P578C

- Notes:**
- This provides Slot7 and Slot8 in the Tertiary position
  - This requires the 2nd processor

HPE ProLiant DL385 Gen11 Tertiary NEBS-compliant FIO Riser Kit P658C

- Notes:**
- This is a NEBS compliant riser kit for Telco customers' requirements
  - This provides Slots 7, 8 in the Tertiary position

HPE ProLiant DL385 Gen11 x16 Primary FIO Riser Kit for LFF Rear Cage P550C

- Notes:**
- This provides one Primary riser positioned below the 4LFF rear cage when it is configured
  - When the 4LFF rear cage is configured, only one Primary riser is supported

HPE ProLiant DL385 Gen11 1x16 Secondary Riser FIO Kit for 4LFF rear cage P578C

- Notes:**
- This provides one Secondary riser positioned below the 4LFF rear cage when it is configured
  - When the 4LFF rear cage is configured, only one Secondary riser is supported

HPE ProLiant DL385 Gen11 x16 Low Profile Secondary Riser Kit P592C

### Core Options

#### Notes:

- This provides one Secondary riser positioned below the 4LFF rear cage when it is configured
- This riser kit is required when NS204i-u NVMe Boot Device is selected along with 4LFF rear cage selection

### Cooling Options

#### Air-Cooled Solutions

HPE ProLiant DL3X5 Gen11 2U Standard Heat Sink Kit P584E

HPE ProLiant DL3X5 Gen11 2U Performance Heat Sink Kit P584E

**Notes:** When Standard or Performance 2U Heat Sink Kit is selected, Standard/Perf Air Baffle Kit is required

HPE ProLiant DL3X5 Gen11 Max Performance 2U Heat Sink Kit P584E

**Notes:** When Maximum Performance 2U Heat Sink Kit is selected, Hi-Perf Air Baffle Kit is required

#### Direct Liquid Cooling (DLC) Solutions

HPE ProLiant DL3X5 Gen11 Direct Liquid Cooling Cold Plate Module FIO Kit From Boot Device P6203

HPE ProLiant DL3X5 Gen11 Direct Liquid Cooling Cold Plate Module FIO Kit From PCIe P6203

HPE ProLiant DL3XX Gen11 Direct Liquid Cooling 55cm Quick Disconnect Tube Set FIO Kit P6204

HPE ProLiant Direct Liquid Cooling 450mm Female-Male Connection Quick Disconnect Tube Set FIO Kit P6204

Set FIO Kit

#### Notes:

- When DLC is configured, most of the configurations can be supported at 35C ambient temperature
- When server is configured as a liquid cooling system, the server can only be shipped to customer within the whole rack. The rack would include a HPE Rack, Liquid Cooling Manifold, CDU, Primary & Secondary Hose kits and servers with DLC CPM module kits and QD Tube Set kits installed
- If DLC Module is selected then 2 processor must be selected
- If DLC Module is selected with server and the server is not standalone then only below racks are allowed in the configuration:
  - o Rack 42U 800mm x 1200mm Ent G2
  - o Rack 48U 800mm x 1200mm Ent G2
- If P62032-B21 is selected with 4LFF rear cage in the configuration, then NS204i-u Gen11 Ht Plg Boot Option Dev cannot be selected
- If DLC Module is selected with LFF CTO Server or 8SFF CTO Server or EDSFF CTO Server then 55cm Tube Kit must be selected
- If DLC Module is selected with GPU CTO Server or 48SFF CTO Server then 45cm Tube kit must be selected
- If DLC Module is selected then Standard Heat Sink or Perf Heat Sink or Max Perf Heat Sink cannot be selected
- DLC Modules only support the 2U Standard/Performance Air Baffle Kit, 2U High Perf Air Baffle Kit cannot be supported
- If DLC Module is selected then Performance Fan kit must be selected

#### Fan Kits and Air Baffle Kits

HPE ProLiant DL3X5 Gen11 2U Standard Fan Kit P584E

HPE ProLiant DL3X5 Gen11 2U Performance Fan Kit P584E

#### Notes:

- Gen11 Fan Kits contain only 1 fan
- 1-socket config 6 Standard Fan kits, 2-socket config needs 6 Standard Fan kits
- 1-socket config 4 Performance Fan kits, 2-socket config needs 6 Performance Fan kits

HPE ProLiant DL385 Gen11 2U Standard/Performance FIO Air Baffle Kit P578E

HPE ProLiant DL385 Gen11 2U High Performance FIO Air Baffle Kit P578E

#### Notes:

### Core Options

- Air Baffles cannot be configured if mid cages are configured
- Refer to OCA for Air Baffle configuration rules
- When Standard or Performance 2U Heat Sink Kit is selected, Standard/Perf Air Baffle Kit is required
- When Maximum Performance 2U Heat Sink Kit is selected, Hi-Perf Air Baffle Kit is required

Cooling options summary			
CPU cTDP	=< 240W (8LFF and 8/16SFF)	240W - 320W	=> 320 W
Heatsink	Standard 2U H/S	Performance 2U H/S	Max Performance 2U H/S
Fans	Standard Fans	Performance Fans	Performance Fans

### HPE Boot Controllers

HPE NS204i-u Gen11 NVMe Hot Plug Boot Optimized Storage Device	P4818
HPE NS204i-u v2 NVMe Hot Plug Boot Optimized Storage Device	P7827
HPE ProLiant DL3X5 Gen11 NS204i-u NVMe Hot Plug Boot Device Cable Kit	P5701
HPE ProLiant DL3X5 Gen11 Tertiary NS204i-u NVMe Hot Plug Boot Device Enablement Kit	P5785
HPE ProLiant DL3X5 Gen11 Secondary NS204i-u NVMe Hot Plug Boot Device Enablement Kit	P5788

#### Notes:

- NS204i-u is the HPE Gen11 Hot Pluggable M.2 NVMe RAIDed Boot Device
- NS204i-u v2 (P78279-B21) is only supported with 9005 processors
- HPE DL3X5 Gen11 NS204i-u NVMe Boot Cable Kit is required when the NS204i-u boot device is configured along with the 4LFF rear cage
- If HPE DL3X5 Gen11 Tertiary NS204i-u Enablement Kit is configured, then Tertiary riser kit cannot be selected
- If HPE DL3X5 Gen11 Secondary NS204i-u Enablement Kit is configured, then 2x16 Secondary Upgrade Riser Kit cannot be selected

### HPE Optical Drives

HPE ProLiant DL385 Gen11 LFF ODD/Display Port Enablement Kit	P5788
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**Notes:** This kit is supportable only for LFF chassis media bays

HPE ProLiant DL385 Gen11 Optical Disk Drive Cable Kit	P6351
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**Notes:** This kit is supportable only for SFF chassis media bays

HPE 9.5mm SATA DVD-ROM Optical Drive	72653
HPE 9.5mm SATA DVD-RW Optical Drive	72653
HPE Mobile USB DVD-RW Optical Drive	70149

#### Notes:

- Maximum 1 Optical Drive is supported
- ODD needs Universal Media Bay for 8SFF CTO Server

### Software as a Service Management

#### HPE Compute Ops Management

HPE Compute Ops Management Standard 3-year Upfront ProLiant SaaS	R7A1
HPE Compute Ops Management Standard 5-year Upfront ProLiant SaaS	R7A1
HPE Compute Ops Management Advanced 1-year Upfront ProLiant SaaS	S5E8
HPE Compute Ops Management Advanced 3-year Upfront ProLiant SaaS	S5E8
HPE Compute Ops Management Advanced 5-year Upfront ProLiant SaaS	S5E8
HPE Compute Ops Management Advanced 7-year Upfront ProLiant SaaS	S5E8
HPE Compute Ops Management Advanced Flex with ProLiant Enablement	S6C2

#### HPE OneView

HPE OneView including 3yr 24x7 Support Flexible Quantity E-LTU	E5Y3
HPE OneView w/o iLO including 3yr 24x7 Support Flexible Quantity E-LTU	P8B2

## Core Options

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

HPE Compute Ops Management Base SaaS

R6Z7

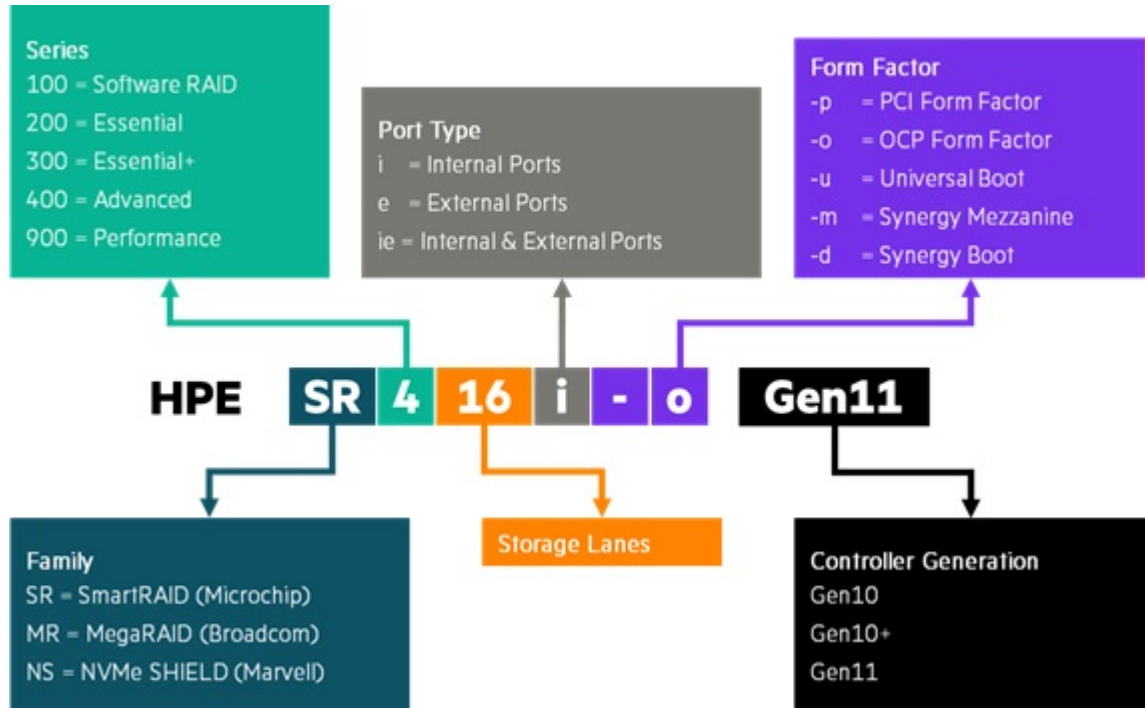
For more information, visit the HPE Compute Ops Management QuickSpecs:

<https://www.hpe.com/psnow/doc/a50004263enw>

Supported Servers - CTO only. No OEM. - Complete list can be found here: Latest Supported Server List:

<https://www.hpe.com/info/com-supported-servers>

## HPE Storage Controllers



### Notes:

- When selecting SR RAID controllers for external storage (E208e, 804398-B21) and MR RAID controllers for internal storage (MR216i/MR416i/MR408i) in the order, please be aware these two products use different RAID configuration tools. HPSSA (HP SR Storage Administrator) is only supported on SR (SmartRAID) controllers. MR (MegaRAID) controllers will support a different tool named MR Storage Administrator
- Not supporting mixing of MR (MegaRAID) series internal controllers and SR (SmartRAID) series internal controllers
- MR (MegaRAID) series controllers are not supported with Intelligent Provisioning feature
- For more information on the HPE Gen11 Storage Controller, please refer to:

### HPE Compute MR Gen11 Controllers QuickSpecs

### HPE Compute SR Gen11 Controllers QuickSpecs

### Essential RAID Controllers

HPE Smart Array E208e-p SR Gen10 (8 External Lanes/No Cache) 12G SAS PCIe Plug-in Controller

80439

### Notes:

- E208e-p is currently not supported when 2x AMD EPYC 9005 processors are configured. HPE targets to support such configurations by Feb. 2025
- This controller supports up to 8 SAS/SATA Drives (external)
- Controller Based Encryption (CBE) with a remote key management server is not supported. Local key management (LKM) is supported
- One Button Secure Erase (OBSE) used to sanitize drives and factory reset the controller is not

## Core Options

supported

- For more information on the HPE Smart Array E208i-p SR Gen10 Controller, please refer to the [QuickSpecs](#)

## Tri-mode RAID Controllers

**Notes:** MR controllers don't support SPDM function with EPYC 9005 processors if it's set to enable. SPDM is a toggled option in RBSU which is "disabled" by default. The support is targeted to be enabled within December.

HPE MR216i-o Gen11 x16 Lanes without Cache OCP SPDM Storage Controller P4778

**Notes:**

- This is an OROC type controller which takes up an OCP slot
- This controller supports up to 16 SAS/SATA/NVMe Drives (Only 4 x4 NVMe drives can be supported; 8 x2 NVMe drives can be supported)

HPE MR408i-o Gen11 x8 Lanes 4GB Cache OCP SPDM Storage Controller P5833

**Notes:**

- This is an OROC type controller which takes up an OCP slot
- This controller supports up to 8 SAS/SATA/NVMe Drives (Only 2 x4 NVMe drives can be supported; 4 x2 NVMe drives can be supported)

HPE MR416i-o Gen11 x16 Lanes 8GB Cache OCP SPDM Storage Controller P4778

**Notes:**

- This is an OROC type controller which takes up an OCP slot
- This controller supports up to 16 SAS/SATA/NVMe Drives (Only 4 x4 NVMe drives can be supported; 8 x2 NVMe drives can be supported)

HPE MR216i-p Gen11 x16 Lanes without Cache PCI SPDM Plug-in Storage Controller P4778

**Notes:**

- This is an PCIe type controller which takes up a PCIe slot
- This controller supports up to 16 SAS/SATA/NVMe Drives (Only 4 x4 NVMe drives can be supported; 8 x2 NVMe drives can be supported)

HPE MR416i-p Gen11 x16 Lanes 8GB Cache PCI SPDM Plug-in Storage Controller P4777

**Notes:**

- This is an PCIe type controller which takes up a PCIe slot
- This controller supports up to 16 SAS/SATA/NVMe Drives (Only 4 x4 NVMe drives can be supported; 8 x2 NVMe drives can be supported)

**HPE SR932i-p Gen11 x32 Lanes 8GB Wide Cache PCI SPDM Plug-in Storage Controller** P4718

**Notes:**

- This is an PCIe type controller which takes up a PCIe slot
- This controller supports up to 32 SAS/SATA/NVMe Drives (Only 8 x4 NVMe drives can be supported; 16 x2 NVMe drives can be supported)

## Controller Battery Cable Kits

HPE Smart Storage Hybrid Capacitor with 260mm Cable Kit P0238

HPE 96W Smart Storage Lithium-ion Battery with 260mm Cable Kit P0136

HPE ProLiant DL3X5 Gen11 Smart Storage Battery 2P 96W Cable Kit P5788

**Notes:**

- The two 260mm battery cable kit can't be selected together.
- The Extension cable kit is required for either the selection of Hybrid Capacitor or 96W Smart Storage Battery

## HPE Drives

### Enterprise - 12G SAS - SFF Drives

### Core Options

HPE 2.4TB SAS 12G Mission Critical 10K SFF BC 3-year Warranty 512e Multi Vendor HDD	P2835
HPE 1.2TB SAS 12G Mission Critical 10K SFF BC 3-year Warranty Multi Vendor HDD	P2858
HPE 300GB SAS 12G Mission Critical 10K SFF BC 3-year Warranty Multi Vendor HDD	P4043
HPE 600GB SAS 12G Mission Critical 10K SFF BC 3-year Warranty Multi Vendor HDD	P5356
HPE 1.8TB SAS 12G Mission Critical 10K SFF BC 3-year Warranty 512e Multi Vendor HDD	P5356

### Midline - 12G SAS - LFF Drives

HPE 12TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e Multi Vendor HDD	88178
HPE 8TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty 512e Multi Vendor HDD	83403
HPE 2TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Multi Vendor HDD	83392
HPE 4TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Multi Vendor HDD	83392
HPE 6TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty 512e Multi Vendor HDD	86174
HPE 16TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e ISE Multi Vendor HDD	P236C
HPE 20TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e ISE Multi Vendor HDD	P5355
HPE 24TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e ISE Multi Vendor HDD	P685E

### Midline - 6G SATA - LFF Drives

HPE 2TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Multi Vendor HDD	86168
HPE 4TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Multi Vendor HDD	86168
HPE 1TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Multi Vendor HDD	86168
HPE 12TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e Multi Vendor HDD	88178
HPE 8TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty 512e Multi Vendor HDD	83402
HPE 6TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty 512e Multi Vendor HDD	86174
HPE 16TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e ISE Multi Vendor HDD	P2344
HPE 20TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e ISE Multi Vendor HDD	P5355
HPE 24TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e ISE Multi Vendor HDD	P685E

### SED (Self-Encryption Drive)

HPE 2.4TB SAS 12G Mission Critical 10K SFF BC 3yr Wty 512e FIPS 140-2 TAA-compliant HDD	P2861
HPE 1.2TB SAS 12G Mission Critical 10K SFF BC 3yr Wty FIPS 140-2 TAA-compliant HDD	P2862

### Notes:

– Requirements for MR Tri-mode controller SED support

- o TPM is not required for Local Key Management as key is stored in controller

- o iLO Advanced is required for Remote Key Management. Key is stored in remote key manager}

(Ex. ESKM)

### SSD Selection

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

<b>HPE 960GB SAS 12G Read Intensive SFF BC Value SAS Multi Vendor SSD</b>	P405C
HPE 1.92TB SAS 12G Read Intensive SFF BC Value SAS Multi Vendor SSD	P405C
HPE 3.84TB SAS 12G Read Intensive SFF BC Value SAS Multi Vendor SSD	P405C
HPE 7.68TB SAS 12G Read Intensive SFF BC Value SAS Multi Vendor SSD	P405C
HPE 960GB SAS 24G Read Intensive SFF BC Multi Vendor SSD	P4902
HPE 1.92TB SAS 24G Read Intensive SFF BC Multi Vendor SSD	P4903
HPE 3.84TB SAS 24G Read Intensive SFF BC Multi Vendor SSD	P4903
HPE 7.68TB SAS 24G Read Intensive SFF BC Multi Vendor SSD	P4904
HPE 15.36TB SAS 24G Read Intensive SFF BC Multi Vendor SSD	P4904

### Core Options

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

HPE 960GB SAS 12G Mixed Use SFF BC Value SAS Multi Vendor SSD	P4051
HPE 1.92TB SAS 12G Mixed Use SFF BC Value SAS Multi Vendor SSD	P4051
HPE 3.84TB SAS 12G Mixed Use SFF BC Value SAS Multi Vendor SSD	P4051
HPE 800GB SAS 24G Mixed Use SFF BC Multi Vendor SSD	P4904
HPE 1.6TB SAS 24G Mixed Use SFF BC Multi Vendor SSD	P4904
HPE 3.2TB SAS 24G Mixed Use SFF BC Multi Vendor SSD	P4905
HPE 6.4TB SAS 24G Mixed Use SFF BC Multi Vendor SSD	P4905

#### Mixed Use SAS- LFF- Solid State Drives

HPE 960GB SAS 12G Mixed Use LFF LPC Value SAS Multi Vendor SSD	P370C
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#### Mixed Use - 6G SATA - SFF - Solid State Drives

HPE 480GB SATA 6G Mixed Use SFF BC Multi Vendor SSD	P405C
HPE 960GB SATA 6G Mixed Use SFF BC Multi Vendor SSD	P405C
HPE 1.92TB SATA 6G Mixed Use SFF BC Multi Vendor SSD	P405C
HPE 3.84TB SATA 6G Mixed Use SFF BC Multi Vendor SSD	P405C
HPE 960GB SATA 6G Mixed Use SFF BC Self-encrypting 5400M SSD	P5824

#### Read Intensive - 6G SATA - SFF - Solid State Drives

HPE 240GB SATA 6G Read Intensive SFF BC Multi Vendor SSD	P4049
HPE 480GB SATA 6G Read Intensive SFF BC Multi Vendor SSD	P4049
HPE 960GB SATA 6G Read Intensive SFF BC Multi Vendor SSD	P4049
HPE 1.92TB SATA 6G Read Intensive SFF BC Multi Vendor SSD	P4049
HPE 3.84TB SATA 6G Read Intensive SFF BC Multi Vendor SSD	P405C
HPE 7.68TB SATA 6G Read Intensive SFF BC Multi Vendor SSD	P405C
HPE 480GB SATA 6G Read Intensive SFF BC Self-encrypting 5400P SSD	P5823

#### Read Intensive - 6G SATA - LFF - Solid State Drives

HPE 960GB SATA 6G Read Intensive LFF LPC Multi Vendor SSD	P478C
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#### Very Read Optimized (VRO) - EDSFF - E3.S 1T - Solid State Drives

<b>HPE 3.84TB NVMe Gen4 Mainstream Performance Very Read Optimized E3S EC1 EDSFF P5430 SSD</b>	P6393
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HPE 7.68TB NVMe Gen4 Mainstream Performance Very Read Optimized E3S EC1 EDSFF P5430 SSD	P6393
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HPE 15.36TB NVMe Gen4 Mainstream Performance Very Read Optimized E3S EC1 EDSFF P5430 SSD	P6393
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#### Read Intensive - EDSFF - E3.S 1T - Solid State Drives

HPE 1.92TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 CD8P SSD	P6923
HPE 1.92TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 EDSFF SPDM PE1010 SSD	P7726

HPE 3.84TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 CD8P SSD	P6923
HPE 3.84TB NVMe Gen5 High Performance Read Intensive E3S EC1 EDSFF SPDM PM1743 SSD	P5779

HPE 3.84TB NVMe Gen5 High Performance Read Intensive E3S EC1 EDSFF SPDM CM7 SSD	P6117
HPE 3.84TB NVMe Gen5 High Performance Read Intensive E3S EC1 PS1010 SSD	P7039

HPE 3.84TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 EDSFF SPDM PE1010 SSD	P7727
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HPE 7.68TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 CD8P SSD	P6923
HPE 7.68TB NVMe Gen5 High Performance Read Intensive E3S EC1 EDSFF SPDM PM1743 SSD	P578C

HPE 7.68TB NVMe Gen5 High Performance Read Intensive E3S EC1 EDSFF SPDM CM7 SSD	P6118
HPE 7.68TB NVMe Gen5 High Performance Read Intensive E3S EC1 Self-encrypting FIPS 140-3 CM7 SSD	P7067

HPE 7.68TB NVMe Gen5 High Performance Read Intensive E3S EC1 PS1010 SSD	P7039
HPE 7.68TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 EDSFF SPDM PE1010 SSD	P7727

HPE 15.36TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 CD8P SSD	P6954
HPE 15.36TB NVMe Gen5 High Performance Read Intensive E3S EC1 EDSFF SPDM PM1743 SSD	P578C

HPE 15.36TB NVMe Gen5 High Performance Read Intensive E3S EC1 EDSFF SPDM CM7 SSD	P6118
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### Core Options

HPE 15.36TB NVMe Gen5 High Performance Read Intensive E3S EC1 Self-encrypting FIPS 140-3 CM7 SSD P7912

HPE 15.36TB NVMe Gen5 High Performance Read Intensive E3S EC1 PS1010 SSD P7039

HPE 15.36TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 EDSFF SPDM PE1010 SSD P7727

**Notes:** When the PM1743 EDSFF drives are selected with a VMware OS, the internal or external NS204i-u OS Boot device must be selected to run VMware. If a boot device is not used, VMware 8.0 U1 release or later version must be supported.

#### Mixed Use - EDSFF - E3.S 1T - Solid State Drives

HPE 1.6TB NVMe Gen5 Mainstream Performance Mixed Use E3S EC1 CD8P SSD P6924

HPE 1.6TB NVMe Gen5 Mainstream Performance Mixed Use E3S EC1 EDSFF SPDM PE1030 SSD P7726

HPE 3.2TB NVMe Gen5 Mainstream Performance Mixed Use E3S EC1 CD8P SSD P6924

HPE 3.2TB NVMe Gen5 High Performance Mixed Use E3S EC1 EDSFF SPDM CM7 SSD P6119

HPE 3.2TB NVMe Gen5 High Performance Mixed Use E3S EC1 Self-encrypting FIPS 140-3 CM7 SSD P7066

HPE 3.2TB NVMe Gen5 High Performance Mixed Use E3S EC1 PS1030 SSD P7039

HPE 3.2TB NVMe Gen5 Mainstream Performance Mixed Use E3S EC1 EDSFF SPDM PE1030 SSD P7726

HPE 6.4TB NVMe Gen5 Mainstream Performance Mixed Use E3S EC1 CD8P SSD P6924

HPE 6.4TB NVMe Gen5 High Performance Mixed Use E3S EC1 EDSFF SPDM CM7 SSD P6119

HPE 6.4TB NVMe Gen5 High Performance Mixed Use E3S EC1 Self-encrypting FIPS 140-3 CM7 SSD P7067

HPE 6.4TB NVMe Gen5 High Performance Mixed Use E3S EC1 PS1030 SSD P7040

HPE 6.4TB NVMe Gen5 Mainstream Performance Mixed Use E3S EC1 EDSFF SPDM PE1030 SSD P7726

HPE 12.8TB NVMe Gen5 High Performance Mixed Use E3S EC1 PS1030 SSD P7040

#### Read Intensive - NVMe - SFF - Solid State Drives

HPE 1.92TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PM1733a SSD P5021

HPE 1.92TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 Self-encrypting FIPS 140-3 CM7 SSD P6101

HPE 3.84TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PM1733a SSD P5021

HPE 3.84TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 Self-encrypting FIPS 140-3 CM7 SSD P6102

HPE 7.68TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PM1733a SSD P5022

HPE 7.68TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PS1010 SSD P7043

HPE 7.68TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 Self-encrypting FIPS 140-3 CM7 SSD P6103

HPE 15.36TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PM1733a SSD P5022

HPE 15.36TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PS1010 SSD P7043

HPE 960GB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 Static V2 Multi Vendor SSD P6484

HPE 1.92TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 Static V2 Multi Vendor SSD P6484

HPE 3.84TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 Static V2 Multi Vendor SSD P6484

HPE 7.68TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 Static V2 Multi Vendor SSD P6484

HPE 15.36TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 Static SPDM Multi Vendor SSD P6925

#### Mixed Use - NVMe - SFF - Solid State Drives

HPE 1.6TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PM1735a SSD P5022

HPE 1.6TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 Self-encrypting FIPS 140-3 CM7 SSD P6104

HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PM1735a SSD P5023

HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PS1030 SSD P7042

HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 Self-encrypting FIPS 140-3 CM7 SSD P6105

### Core Options

HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PM1735a SSD	P5023
HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PS1030 SSD	P7042
HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 Self-encrypting FIPS 140-3 CM7 SSD	P6105
HPE 800GB NVMe Gen4 Mainstream Performance Mixed Use SFF BC U.3 Static V2 Multi Vendor SSD	P649C
HPE 1.6TB NVMe Gen4 Mainstream Performance Mixed Use SFF BC U.3 Static V2 Multi Vendor SSD	P650C
HPE 3.2TB NVMe Gen4 Mainstream Performance Mixed Use SFF BC U.3 Static V2 Multi Vendor SSD	P6501
HPE 6.4TB NVMe Gen4 Mainstream Performance Mixed Use SFF BC U.3 Static V2 Multi Vendor SSD	P6502

### HPE Tape Backup

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

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

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

<http://www.hpe.com/storage/BURCompatibility>

### HPE Storage Options

#### Emulex Fibre Channel HBAs

HPE SN1610E 32Gb 1-port Fibre Channel Host Bus Adapter	R
HPE SN1610E 32Gb 2-port Fibre Channel Host Bus Adapter	R
HPE SN1700E 64Gb 1-port Fibre Channel Host Bus Adapter	R7
HPE SN1700E 64Gb 2-port Fibre Channel Host Bus Adapter	R7

#### QLogic Fibre Channel HBAs

HPE SN1610Q 32Gb 1-port Fibre Channel Host Bus Adapter	R:
HPE SN1610Q 32Gb 2-port Fibre Channel Host Bus Adapter	R:
HPE SN1700Q 64Gb 1-port Fibre Channel Host Bus Adapter	R7
HPE SN1700Q 64Gb 2-port Fibre Channel Host Bus Adapter	R7

### HPE Networking

#### 1 Gigabit Ethernet adapters

Intel I350-T4 Ethernet 1Gb 4-port BASE-T Adapter for HPE	P211C
Broadcom BCM5719 Ethernet 1Gb 4-port BASE-T Adapter for HPE	P5117

#### 10 Gigabit Ethernet adapters

Broadcom BCM57416 Ethernet 10Gb 2-port BASE-T Adapter for HPE	P2625
Broadcom BCM57412 Ethernet 10Gb 2-port SFP+ Adapter for HPE	P2625

#### 10/25 Gigabit Ethernet adapters

Broadcom BCM57414 Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	P2626
Broadcom BCM57504 Ethernet 10/25Gb 4-port SFP28 Adapter for HPE	P2626
Intel E810-XXVDA2 Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	P0844
Mellanox MCX631102AS-ADAT Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	P4204
Intel E810-XXVDA4 Ethernet 10/25Gb 4-port SFP28 Adapter for HPE	P0845
NVIDIA Ethernet 10/25Gb 2-port SFP28 NVMe-oF Crypto Adapter for HPE	S:

#### 100/200 Gigabit Ethernet adapters

Mellanox MCX623106AS-CDAT Ethernet 100Gb 2-port QSFP56 Adapter for HPE	P259C
Intel E810-CQDA2 Ethernet 100Gb 2-port QSFP28 Adapter for HPE	P2111
HPE Slingshot SA210S Ethernet 200Gb 1-port PCIe NIC	R:
NVIDIA Ethernet 100Gb 2-port NVMe-oF Offload Adapter for HPE	R8

#### Notes:

- Almost all PCIe Networking Cards need 6x Performance Fans. Refer to OCA configurator for exceptions and details
- Direct Attach Cable (DAC) for copper environments or fiber transceivers and cables for fiber-optic

## Core Options

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>

Recommended System Ambient Temperature							
System Config	CPU cTDP	P08458-B21	R8M41A	R4K46A	P25960-B21	P21112-B21	P10180-B21
12 LFF	< or = 240W	30C	30C	30C	30C	30C	30C
24SFF		30C	30C	30C	30C	30C	30C
8 LFF / 16 SFF	> 240W	30C	30C	30C	30C	30C	25C
12 LFF		25C	25C	25C	25C	25C	25C
24SFF		25C	25C	25C	25C	25C	25C
8SFF		30C	30C	30C	30C	30C	30C

### Notes: Other Restrictions

- Required to use Performance Fan Kit
- Only supported on 1/4/5/6/7 PCIe slots
- This recommended system ambient temperature is based on HPE AOC (Active Optical Cables)

### OCP Adapter

#### 1 Gigabit Ethernet OCP adapters

Intel I350-T4 Ethernet 1Gb 4-port BASE-T OCP3 Adapter for HPE	P0844
Broadcom BCM5719 Ethernet 1Gb 4-port BASE-T OCP3 Adapter for HPE	P5118

#### 10 Gigabit Ethernet OCP Adapters

Broadcom BCM57412 Ethernet 10Gb 2-port SFP+ OCP3 Adapter for HPE	P2625
Broadcom BCM57416 Ethernet 10Gb 2-port BASE-T OCP3 Adapter for HPE	P1009

#### 10/25 Gigabit Ethernet OCP adapters

Broadcom BCM57414 Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE	P1011
Broadcom BCM57504 Ethernet 10/25Gb 4-port SFP28 OCP3 Adapter for HPE	P2626
Intel E810-XXVDA2 Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE	P101C
Mellanox MCX631432AS-ADAI Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE	P4204

#### 100/200 Gigabit Ethernet adapters

Intel E810-CQDA2 Ethernet 100Gb 2-port QSFP28 OCP3 Adapter for HPE	P2276
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### Notes:

- Almost all PCIe Networking Cards need 6x Performance Fans. Refer to OCA configurator for exceptions and details
- P22767-B21 and P26269-B21 needs selection of an OCP upgrade cable kit

Recommended System Ambient Temperature					
System Config	CPU cTDP	P26269-B21	P10106-B21	P42041-B21	P22767-B21
12 LFF	< or = 240W	30C	30C	30C	30C
24 SFF		30C	30C	30C	30C
8 LFF /16 SFF	>240W	25C	25C	30C	30C
12 LFF		25C	25C	25C	25C
24 SFF		25C	25C	25C	25C
8 SFF		30C	30C	30C	30C

### Notes: Other Restrictions

1. Required to use Performance Fan Kit
2. This recommended system ambient temperature is based on HPE AOC (Active Optical Cables)

### HPE InfiniBand

HPE InfiniBand HDR100/Ethernet 100Gb 1-port QSFP56 PCIe4 x16 MCX653105A-ECAT Adapter	P2366
HPE InfiniBand HDR100/Ethernet 100Gb 2-port QSFP56 PCIe4 x16 MCX653106A-ECAT Adapter	P2366
HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe4 x16 MCX653105A-HDAT Adapter	P2366
HPE InfiniBand HDR/Ethernet 200Gb 2-port QSFP56 PCIe4 x16 MCX653106A-HDAT Adapter	P3132

### Core Options

HPE InfiniBand NDR 1-port OSFP PCIe5 x16 MCX75310AAS-NEAT Adapter	P4564
HPE InfiniBand NDR200/Ethernet 200Gb 1-port OSFP PCIe5 x16 MCX75310AAS-HEAT Adapter	P4564
HPE InfiniBand NDR200/Ethernet 200GbE 2-port QSFP112 PCIe5 x16 MCX755106AC-HEAT Adapter	P6533
HPE InfiniBand HDR/Ethernet 200Gb 2-port QSFP56 PCIe4 x16 OCP3 MCX653436A-HDAI Adapter	P3134

#### Notes:

- All InfiniBand options require 6 performance fan kit
- For InfiniBand OCP options, OCP upgrade kit is needed
- 200Gb 2-port OCP option cannot be supported with Mid Cages due to thermal restriction
- For more information, please visit: [HPE InfiniBand Options for HPE ProLiant and Apollo Servers](#)

### Servers

Recommended System Ambient Temperature								
System Config	CPU cTDP	P23666-B21	P23664-B21	P31324-B21	P45641-B21	P45642-B21	P31323-B21	P31348-B21
12 LFF	< or = 240W	30C	30C	30C	30C	30C	30C	23C
24 SFF		30C	30C	30C	30C	30C	30C	25C
8 LFF /16 SFF	>240W	30C	30C	25C	30C	30C	25C	25C
12 LFF		25C	25C	25C	25C	25C	25C	Not Support
24 SFF		25C	25C	25C	25C	25C	25C	Not Support
8 SFF		30C	30C	30C	30C	30C	30C	25C

#### Notes:

##### Other Restrictions

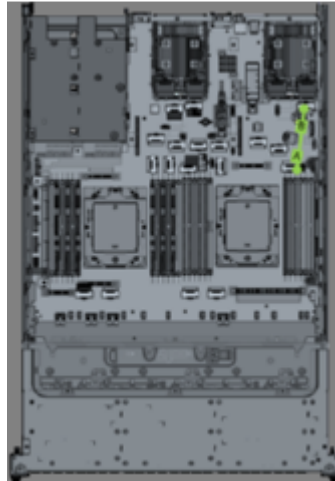
- Required to use Performance Fan Kit
- Only supported on 1/4/5/6/7 PCIe slots
- The P31348-B21 only supported on 2 OCP slot
- This recommended system ambient temperature is based on HPE AOC (Active Optical Cables)

HPE ProLiant DL3X5 Gen11 x16 OCP1 1P Upgrade Cable Kit	P5788
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#### Notes:

- This cable kit cannot be selected when 2 processors are configured
- This cable kit upgrades OCP1 from x8 to x16
- When this kit is selected, OCP2 will not be available

## Core Options



HPE ProLiant DL3X5 Gen11 x16 OCP1 OCP2 2P Upgrade Cable Kit

P5784

**Notes:**

- This cable kit needs 2 processors configured
- This cable kit upgrades OCP1 from x8 to x16 and OCP2 from x8 to x16
- When this cable kit is selected then the Secondary Riser Upgrade Kit cannot be configured
- When this cable kit is selected then 8SFF x4 U.3 Mid Cage cannot be supported with Direct Attach




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## HPE Computation and Graphics Accelerator and related option kits

NVIDIA L40S 48GB PCIe Accelerator

SI

**Notes:**

- Double wide GPUs can only be supported with the GPU CTO chassis
- Mixing different types of GPU is not supportable
- Double wide GPUs require selection of 4DW GPU FIO enablement kit
- When this GPU is selected, the PDB kit must be selected
- When this GPU is selected, the CPU 16pin GPU Power Cable Kit to PDB must be selected (P57866-B21)
- When this GPU is selected, the NVIDIA Ampere NVLink 2x2 Bridge cannot be selected

NVIDIA L4 24GB PCIe Accelerator for HPE

SI

**Notes:**

- Single wide GPUs can only be supported with the GPU CTO chassis

## Core Options

<ul style="list-style-type: none"> <li>– Mixing different types of GPU is not supportable</li> <li>– This GPU is now supportable with 8SW GPU FIO enablement kit</li> <li>– This GPU is supportable with 4DW GPU FIO enablement kit</li> <li>– Maximum supported quantity is 8 when supported with the 8SW GPU FIO enablement kit</li> <li>– Maximum supported quantity is 4 when supported with the 4DW GPU FIO enablement kit</li> <li>– This GPU doesn't require a GPU power cable kit</li> <li>– When this GPU is selected, the NVIDIA Ampere NVLink 2x2 Bridge cannot be selected</li> </ul>	S0
<p>NVIDIA L40 48GB PCIe Accelerator for HPE</p> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>– Double wide GPUs can only be supported with the GPU CTO chassis</li> <li>– Mixing different types of GPU is not supportable</li> <li>– Double wide GPUs require selection of 4DW GPU FIO enablement kit</li> <li>– When this GPU is selected, the PDB kit must be selected</li> <li>– When this GPU is selected, the CPU 16pin GPU Power Cable Kit to PDB must be selected (P57866-B21)</li> <li>– When this GPU is selected, the NVIDIA Ampere NVLink 2x2 Bridge cannot be selected</li> </ul>	S2
<p>NVIDIA H100 NVL 94GB PCIe Accelerator for HPE</p> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>– Double wide GPUs can only be supported with the GPU CTO chassis</li> <li>– Mixing different types of GPU is not supportable</li> <li>– Double wide GPUs require selection of 4DW GPU FIO enablement kit</li> <li>– When this GPU is selected, the PDB kit must be selected</li> <li>– When this GPU is selected, the 16pin GPU Power Cable Kit to PDB must be selected (P70192-B21)</li> <li>– This GPU supports the NVIDIA Ampere NVLink 2x2 Bridge</li> </ul>	R1
<p>NVIDIA A16 64GB PCIe Non-CEC Accelerator for HPE</p> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>– Double wide GPUs can only be supported with the GPU CTO chassis</li> <li>– Mixing different types of GPU is not supportable</li> <li>– Double wide GPUs require selection of 4DW GPU FIO enablement kit</li> <li>– If A16 64GB GPU is selected without the PDB kit then CPU 8pin GPU Power Cable Kit to MB must be selected (P57851-B21)</li> <li>– If A16 64GB GPU is selected with the PDB kit then CPU 8p GPU Power Cable Kit to PDB must be selected (P57858-B21)</li> <li>– When this GPU is selected, the NVIDIA Ampere NVLink 2x2 Bridge cannot be selected</li> </ul>	R0
<p>NVIDIA Ampere 2-way 2-slot Bridge for HPE</p> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>– Quantity of this bridge must be 3 or 6. A pair of GPUs can be linked with 3 bridges, therefore a maximum quantity of 6 can be configured with a pair of GPUs installed on each side of the GPU front-end. i.e. 4 double-width GPUs installed.</li> <li>– Minimum of 2x DW GPUs must be selected to support this bridge</li> </ul>	P578E
<p>HPE ProLiant DL385 Gen11 8 Single Wide GPU FIO Enablement Kit</p> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>– Due to internal space interference, this kit cannot be used together with any storage back-up battery for controllers</li> <li>– This kit is required for 8x Single Wide GPUs</li> <li>– This kit provides eight GPU risers supporting up to 8x Single Wide GPUs</li> </ul>	P578C
<p>HPE ProLiant DL385 Gen11 GPU FIO Switchboard Kit</p> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>– This kit is required for the 8SW GPU FIO enablement kit and 8x SW GPUs</li> <li>– This kit provides two switchboards which provide PCIe lanes for the 8x GPU risers</li> </ul>	P550C
<p>HPE ProLiant DL385 Gen11 4 Double Wide GPU FIO Enablement Kit</p>	

### Core Options

<b>Notes:</b>	
– This kit is required for Double Wide GPUs	
– This kit provides four GPU risers supporting up to 4x Double Wide GPUs	
HPE ProLiant DL385 Gen11 CPU 8-pin GPU Power Cable From Motherboard	P5785
<b>Notes:</b>	
– Required for A16 and A100 GPU	
– Maximum quantity =1	
– One GPU power cable kit can support up to 4x DW GPUs	
HPE ProLiant DL385 Gen11 CPU 8-pin GPU Power Cable From Power Distribution Board	P5785
<b>Notes:</b>	
– This cable kit connects to the Power Distribution Board (PDB) supported when four power supplies are configured in the system	
– Required for A16 and A100 GPU	
– Maximum quantity =1	
– One GPU power cable kit can support up to 4x DW GPUs	
HPE ProLiant DL385 Gen11 CPU 16-pin GPU Power Cable From Motherboard	P7357
<b>Notes:</b>	
– This GPU option can be selected only with GPU CTO Server. Mixing of GPU cable kit is not allowed	
– This cable kit connects to the motherboard. It's for configurations which don't require a PDB or four power supplies	
– Maximum quantity =1	
– One GPU cable kit can support up to 4x DW GPU	
HPE ProLiant DL385 Gen11 16-pin GPU Power Cable v2 Kit	P8074
<b>Notes:</b>	
– This cable kit connects to the Power Distribution Board (PDB) and the motherboard when four power supplies are configured	
– This is a new GPU power cable kit to support H100 94GB NVL GPU	
– This option is set up as both factory integratable and orderable as a standalone kit	
HPE ProLiant DL385 Gen11 16-pin GPU Power Cable From Power Distribution Board	P5786
<b>Notes:</b>	
– This cable kit connects to the Power Distribution Board (PDB) supported when four power supplies are configured in the system	
– Required for L40, L40S and H100 80GB GPU	
– Maximum quantity =1	
– One GPU power cable kit can support up to 4x DW GPUs	

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### HPE Power Supplies and Power Related Option Kits

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.

<b>Notes:</b>	
– 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: <a href="https://poweradvisorex.it.hpe.com/?Page=Index">https://poweradvisorex.it.hpe.com/?Page=Index</a>	
– HPE ProLiant servers ship with an IEC-IEC power cord used for rack mounting with Power Distribution Units (PDUs). Visit <a href="#">HPE Power Cords and Cables</a> for a full list of optional power cords.	
HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	P389C

### Core Options

**Notes:** Flex Slot Platinum Plus power supplies support power efficiency of up to 94% and include a C-14 power inlet connector that can support HPE Power Discovery Services (blue connector).

HPE 1000W Flex Slot Titanium Hot Plug Power Supply Kit

P0317

**Notes:** Flex Slot Titanium Plus power supplies support power efficiency of up to 96% and include a C-14 power inlet connector that can support HPE Power Discovery Services (blue connector).

HPE 1600W Flex Slot -48VDC Hot Plug Power Supply Kit

P1702

**Notes:**

– Flex Slot universal power supplies support power efficiency of up to 94% and support both 277VAC/380VDC power inputs.

– HPE 1600W DC PSU Power Lug Option Kit (P36877-B21) must be selected along with this power supplies.

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

P389C

**Notes:**

– Flex Slot Platinum Plus power supplies support power efficiency of up to 94% and include a C-14 power inlet connector that can support HPE Power Discovery Services (blue connector).

– The power supply selected only supports high line voltage (200VAC to 240VAC)

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

P4471

**Notes:**

– Flex Slot Titanium Plus power supplies support power efficiency of up to 96% and include a C-14 power inlet connector that can support HPE Power Discovery Services (blue connector)

– The power supply selected only supports high line voltage (200VAC to 240VAC)

– When 4 PSUs is selected including this PSU, mixing two types of PSU is allowed

HPE 1600W -48VDC Power Cable Lug Kit

P3687

**Notes:** Must be selected along with HPE 1600W Flex Slot -48VDC Hot Plug Power Supply Kit (P17023-B21)

HPE ProLiant DL385 Gen11 Power Distribution Board Kit

P578E

**Notes:**

– PDB kit is required when four power supplies are configured in the system

– PDB kit cannot be configured with 8SFF or 8LFF CTO server

Riser Support Matrix									
Primary Riser Part Number	Secondary Riser Part Number	Tertiary Riser Part Number	Description	Riser position (number denotes number of slots present)			Bus width (Gen5 lanes)		
				Primary	Secondary	Tertiary	Top slot	Middle Slot	Bottom slot
Default riser	N/A	N/A	This is the default riser in the chassis	1	0	0	0	0	X16
Default riser + P57890-B21	N/A	N/A	Default riser + HPE DL385 G11 2x16 Prim FIO Upg Rsr Kit	3	0	0	X16	X16	X16
N/A	P55097-B21	N/A	HPE DL385 Gen11 x16 Slot6 Sec Riser Kit	0	1	0	0	0	X16
N/A	P55097-B21 + P68392-	N/A	HPE DL385 Gen11 x16 Slot6 Sec	0	2	0	0	X16	X16

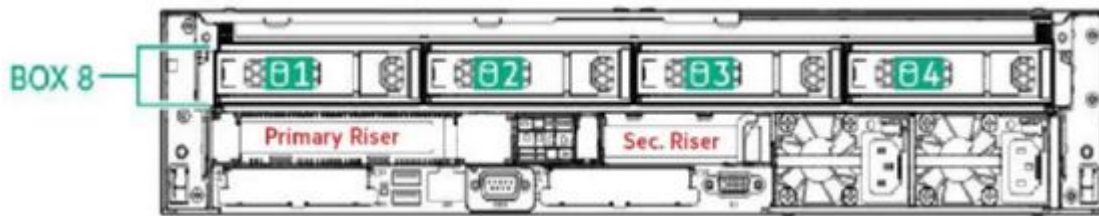
### Core Options

	B21		Riser Kit + HPE DL385 G11 x16 Slot5 Sec Upg Rsr Kit						
N/A	P55097-B21 + P57891-B21	N/A	HPE DL385 Gen11 x16 Slot1 Sec Riser Kit + HPE DL385 Gen11 2x16 Sec Upg Riser Kit	0	3	0	X16	X16	X16
N/A	P65830-B21	N/A	HPE DL385 Gen11 Secondary NEBS FIO Riser Kit	0	3	0	X16	X16	X16
N/A	N/A	P57893-B21	HPE DL385 Gen11 2x16 Tert FIO Riser Kit	0	0	2	X16	X16	0
N/A	N/A	P65833-B21	HPE DL385 Gen11 Tertiary NEBS FIO Riser Kit	0	0	2	X16	X16	0
P55098-B21	N/A	N/A	HPE DL385 G11 x16 Prim FIO Rsr LFF Rear*	1 (Below 4LFF)	0	0	0	0	X16
N/A	P57892-B21	N/A	HPE DL385 Gen11 x16 Sec FIO Rsr LFF Rear**	0	1 (Below 4LFF)	0	0	0	X16
N/A	P59260-B21	N/A	HPE DL385 Gen11 x16 LP Sec Riser Kit***	0	1 (Below 4LFF + when NS204i-u boot device is supported)	0	0	0	X16

## Core Options

### Notes:

- P68392-B21 is a new riser kit that provides Slot 5 on the Secondary position. This provides an additional slot to use under configurations such as GPU configurations or 24x NVMe/ 24x EDSFF configurations where most MCIO connectors are used for GPU risers or direct attached drives.
- \* P55098-B21 is supportable when 4LFF rear cage is selected. With this rear cage configured, primary position is supported up to 1 riser
- \*\* P57892-B21 is supportable when 4LFF rear cage is selected. With this rear cage configured, secondary position is supported up to 1 riser
- \*\*\* P59260-B21 is supportable when 4LFF rear cage + NS204i-u M.2 boot device are selected. This riser kit is an alternative to P57892-B21 riser kit in the secondary position
- An illustration of the 4LFF rear cage, Primary riser kit (P55098-B21) and LP Sec. riser kit (P59260-B21) are as follows:



### 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 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 AKA Tracking License with 3yr Support on iLO Licensed Features	BD507A
HPE iLO Advanced 1-server License with 1yr Support on iLO Licensed Features	512485-B21
HPE iLO Advanced AKA Tracking License with 1yr Support on iLO Licensed Features	512487-B21

#### HPE Converged Infrastructure Management Software

HPE OneView Standard 1yr 9x5 Support Flexible Quantity E-RTU	K6F98AAE
HPE OneView w/o iLO including 3yr 24x7 Support Track 1-server LTU	P8B25A
HPE OneView w/o iLO including 3yr 24x7 Support Flexible Quantity E-LTU	P8B26AAE
HPE OneView including 3yr 24x7 Support Flexible Quantity E-LTU	E5Y35AAE
HPE OneView including 3yr 24x7 Support Track 1-server LTU	E5Y36A
HPE OneView for ProLiant DL Server including 3yr 24x7 Support Bundle Track 1-server LTU	E5Y44A

**Notes:** Licenses ship without media. The HPE OneView Media Kit can be ordered separately, or can be [downloaded](#).

#### HPE Security

HPE Bezel Lock Kit	875519-B21
HPE ProLiant DL385 Gen11 Intrusion Cable Kit	P55713-B21
HPE Gen11 2U Bezel Kit	P50400-B21

#### HPE Cable Options

HPE ProLiant DL3X5 Gen11 XGMI Interconnection Cable Kit	P57880-B21
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##### Notes:

- This kit enhances the interconnection between 2 processors by providing the 4<sup>th</sup> XGMI interconnection on top of the defaulted 3 interconnections which optimizes system performance
- Requires 2 processors
- This cable kit cannot be supported with 8 NVMe, 16 NVMe or 24 NVMe Balance Kits
- This cable kit cannot be supported with Tertiary riser or Primary riser upgrade kits
- This cable kit cannot be supported with GPU CTO server
- This cable kit cannot be supported with EDSFF CTO server when the EDSFF drives are configured as direct attach
- This cable kit only works with mainboard that is P48793-002 or P48793-003 or a newer version. The XGMI cable kit doesn't work with the P48793-001 mainboard. Here's how you can check version of your mainboard:
  - o By part number/AS# on the CT label of the mainboard. CT labels are usually pasted next to memory DIMM slots. Please see below images and learn where you can find AS# on a CT label

### Additional Options



- o In the Active Health System Log (AHS Log), inside the Dashboard tab, you can find PCA part number under the System Board section

HPE ProLiant DL385 Gen11 GPU Storage Battery Bracket Kit P69872-B21

**Notes:**

- This bracket kit acts as the holder for a smart storage battery for storage controllers
- This kit is only supported with the GPU CTO Server

HPE ProLiant DL3X5 Gen11 GPU 8SFF/EDSFF x4 PCIe Tri-Mode Cable Kit P69866-B21

**Notes:**

- This cable kit is only supported by the GPU CTO Server
- This cable kit is used for x4 controller support on the 8SFF or 8EDSFF drive cages
- Only supportable with PCIe controllers
- Controllers on GPU CTO Servers won't support storage backup battery until the battery bracket is launched by July 2024

HPE ProLiant DL3X5 Gen11 GPU 8SFF x2 OCP Tri-Mode Cable Kit P69868-B21

**Notes:**

- This cable kit is only supported by the GPU CTO Server
- This cable kit is used for x2 controller support on the 8SFF drive cage only
- Only supportable with OROC controllers
- Controllers on GPU CTO Servers won't support storage backup battery until the battery bracket is launched by July 2024

HPE ProLiant DL385 Gen11 GPU 8SFF x2 PCIe Tri-Mode Cable Kit P70316-B21

**Notes:**

- This cable kit is only supported by the GPU CTO Server
- This cable kit is used for x2 controller support on the 8SFF drive cage only
- Only supportable with PCIe controllers
- Controllers on GPU CTO Servers won't support storage backup battery until the battery bracket is launched by July 2024

HPE ProLiant DL385 Gen11 8SFF x1 SATA Direct Attach Cable Kit P57846-B21

HPE ProLiant DL385 Gen11 8SFF x2 NVMe Direct Attach Cable Kit P57859-B21

**Notes:** This DA Cable kit requires 8SFF x4 U.3 front drive cage

HPE ProLiant DL385 Gen11 8SFF x4 NVMe Box 3 Direct Attach Cable Kit P57853-B21

HPE ProLiant DL385 Gen11 8SFF x4 NVMe Box 2 Direct Attach Cable Kit P57854-B21

HPE ProLiant DL385 Gen11 8SFF x4 NVMe Box 1 Direct Attach Cable Kit P57855-B21

**Notes:** These three x4 NVMe direct attach cable kits are used for 8SFF x4 U.3 drive cages. Acquire these by selecting the matching NVMe Bundle SKU

HPE ProLiant DL385 Gen11 8SFF OROC x1 SAS/SATA Cable Kit P57847-B21

**Notes:** This OROC Cable kit is used with 8SFF x1 U.3 front drive cage

HPE ProLiant DL385 Gen11 8SFF x1 SAS/SATA PCIe Cable Kit P57848-B21

**Notes:** This PCIe Cable kit is used for 8SFF x1 U.3 front drive cage

HPE ProLiant DL385 Gen11 8SFF x4 NVMe PCIe Cable Kit P57856-B21

**Notes:**

- This PCIe Cable kit is used for 8SFF x4 U.3 drive cage
- This cable kit supports the SR932i-p controller

HPE ProLiant DL385 Gen11 8SFF OROC x2 NVMe Box 3 Cable Kit P57862-B21

### Additional Options

HPE ProLiant DL385 Gen11 8SFF OROC x2 NVMe Box 2 Cable Kit	P57863-B21
HPE ProLiant DL385 Gen11 8SFF OROC x2 NVMe Box 1 Cable Kit	P57864-B21
<b>Notes:</b> These three x2 OROC tri-mode cable kits are used for 8SFF x4 U.3 drive cages	
HPE ProLiant DL385 Gen11 8SFF x2 NVMe PCIe Cable Kit	P57865-B21
<b>Notes:</b> This PCIe Cable kit is used for 8SFF x4 U.3 drive cages	
HPE ProLiant DL385 Gen11 8SFF x1 SAS/SATA OROC/PCIe Mid Tray Cable Kit	P57868-B21
<b>Notes:</b> This OROC/PCIe Cable kit is used for 8SFF x1 U.3 Mid Cage kit	
HPE ProLiant DL385 Gen11 8SFF x2 NVMe Mid Tray PCIe Splitter Cable Kit	P57869-B21
<b>Notes:</b> This PCIe Cable kit is used for 8SFF x4 U.3 Mid Cage kit	
HPE ProLiant DL385 Gen11 8LFF OROC x1 SAS/SATA Cable Kit	P57870-B21
HPE ProLiant DL385 Gen11 SFF Backplane Power Cable Kit	P57845-B21
<b>Notes:</b> If Front 8SFF Drive cage is selected Qty above one then SFF Backplane Power Cable Kit must be selected	
HPE ProLiant DL36X Gen11 Rear Serial Port Cable Kit	P59431-B21

### Supported Storage Configurations

#### 8LFF CTO Server

Drives				Drive Cages					Storage Cables
Max Q'ty	LFF SAS	LFF SATA	SFF (SAS, SATA, NVMe)	Front Box1	Front Box2	Front Box3	Mid Box7	Rear Box8	
8	0	8	0	N/A	Included	Included	N/A	N/A	SATA direct attach. Cables included in 8LFF CTO
8	8	8	0	N/A	Included	Included	N/A	N/A	HW RAID with controllers. Need P57870-B21 as the controller cable
10	0	8	2	P55093-B21 2SFF SBS cage kit	Included	Included	N/A	P55091-B21 2SFF rear cage kit	Two options for 8LFF DA + 2SFF drives : 1. 2SFF at front with P55093-B21 2. 2SFF at rear with P55091-B21 Storage signal cables are all included in CTO & cages
10	8	8	2	P55093-	Included	Included	N/A	P55091-	Two options

### Additional Options

				B21 2SFF SBS cage kit				B21 2SFF rear cage kit	for 8LFF HW RAID + 2SFF drives : 3. 2SFF at front with P55093-B21 4. 2SFF at rear with P55091-B21 Need P57870-B21 as the controller cable
14	0	12	2	P55089-B21 4LFF SAS/SATA Front Cage	Included	Included	N/A	P55091-B21 2SFF rear cage kit	SATA DA. Cables included in 8LFF CTO, 4LFF cage and the 2SFF rear cage
14	12	12	2	P55089-B21 4LFF SAS/SATA Front Cage	Included	Included	N/A	P55091-B21 2SFF rear cage kit	HW RAID with controllers. Need P57870-B21
16	16	16	0	P55089-B21 4LFF SAS/SATA Front Cage	Included	Included	N/A	P55088-B21 4LFF SAS/SATA Rear Cage	SATA DA for front drives. HW RAID for 4LFF, cables included in cages
16	16	16	0	P55089-B21 4LFF SAS/SATA Front Cage	Included	Included	N/A	P55088-B21 4LFF SAS/SATA Rear Cage	HW RAID with controllers. Need P57870-B21
18	0	16	2	P55089-B21 4LFF SAS/SATA Front Cage	Included	Included	P55085-B21 4LFF SAS/SATA Mid Cage	P55091-B21 2SFF rear cage kit	SATA DA for front & mid drives. HW RAID for 2SFF, cables included in cages
18	16	16	2	P55089-B21 4LFF SAS/SATA Front Cage	Included	Included	P55085-B21 4LFF SAS/SATA Mid Cage	P55091-B21 2SFF rear cage kit	HW RAID with controllers. Need P57870-B21
20	4	16	0	P55089-B21 4LFF SAS/SATA	Included	Included	P55085-B21 4LFF SAS/SATA	P55088-B21 4LFF SAS/SATA	SATA DA for front & mid drives. HW

### Additional Options

				Front Cage			Mid Cage	Rear Cage	RAID for 4LFF rear, cables included in cages
20	20	20	0	P55089-B21 4LFF SAS/SATA Front Cage	Included	Included	P55085-B21 4LFF SAS/SATA Mid Cage	P55088-B21 4LFF SAS/SATA Rear Cage	HW RAID with controllers. Need P57870-B21

### 8SFF & 48SFF CTO Server

Drives				Drive Cages					Storage Cables
Max Q'ty	SAS	SATA	NVMe	Front Box1	Front Box2	Front Box3	Mid Box7	Rear Box8	
8	0	8	0	N/A	N/A	P55082-B21 8SFF U.3 x1 Cage Kit	N/A	N/A	SATA DA cable required. Need P57846-B21
8	8	8	0	N/A	N/A	P55082-B21 8SFF U.3 x1 Cage Kit	N/A	N/A	HW RAID controller cables required. P57847-B21 for OROC controllers; P57848-B21 for PCIe controllers
16	0	16	0	N/A	P55082-B21 8SFF U.3 x1 Cage Kit	P55082-B21 8SFF U.3 x1 Cage Kit	N/A	N/A	SATA DA cable required. Need P57846-B21
16	16	16	0	N/A	P55082-B21 8SFF U.3 x1 Cage Kit	P55082-B21 8SFF U.3 x1 Cage Kit	N/A	N/A	HW RAID controller cables required. P57847-B21 for OROC controllers; P57848-B21 for PCIe controllers
24	0	24	0	N/A	P55082-B21 8SFF U.3 x1 Cage Kit	P55082-B21 8SFF U.3 x1 Cage Kit	P55086-B21 8SFF U.3 x1 Mid Cage Kit	N/A	SATA DA cable required. Need P57846-B21 Mid cage DA cable already included
24	24	24	0	N/A	P55082-B21 8SFF U.3	P55082-B21 8SFF U.3	P55086-B21 8SFF U.3 x1	N/A	HW RAID controller cables

### Additional Options

					x1 Cage Kit	x1 Cage Kit	Mid Cage Kit		required. P57847-B21 for OROC controllers; P57848-B21 for PCIe controllers Use P57868-B21 for HW RAID with 8SFF mid cage
24	0	24	0	P55082-B21 8SFF U.3 x1 Cage Kit	P55082-B21 8SFF U.3 x1 Cage Kit	P55082-B21 8SFF U.3 x1 Cage Kit	N/A	N/A	SATA DA cable required. Need P57846-B21
24	24	24	0	P55082-B21 8SFF U.3 x1 Cage Kit	P55082-B21 8SFF U.3 x1 Cage Kit	P55082-B21 8SFF U.3 x1 Cage Kit	N/A	N/A	HW RAID controller cables required. P57847-B21 for OROC controllers; P57848-B21 for PCIe controllers
32	0	32	0	P55082-B21 8SFF U.3 x1 Cage Kit	P55082-B21 8SFF U.3 x1 Cage Kit	P55082-B21 8SFF U.3 x1 Cage Kit	P55086-B21 8SFF U.3 x1 Mid Cage Kit	N/A	SATA DA cable required. Need P57846-B21 Mid cage DA cable already included
32	32	32	0	P55082-B21 8SFF U.3 x1 Cage Kit	P55082-B21 8SFF U.3 x1 Cage Kit	P55082-B21 8SFF U.3 x1 Cage Kit	P55086-B21 8SFF U.3 x1 Mid Cage Kit	N/A	HW RAID controller cables required. P57847-B21 for OROC controllers; P57848-B21 for PCIe controllers Use P57868-B21 for HW RAID with 8SFF mid cage
8	0	0	8	N/A	N/A	P55083-B21 8SFF U.3 x4 Cage Kit	N/A	N/A	NVMe DA : P57853-B21 (This is an unbalanced 8SFF NVMe DA config) HW RAID : P57856-B21
8	0	0	8	N/A	P55083-	N/A	N/A	N/A	NVMe DA :

### Additional Options

					B21 8SFF U.3 x4 Cage Kit				P57854-B21 (This is a balanced 8SFF NVMe DA config)
16	0	0	16	N/A	P55083- B21 8SFF U.3 x4 Cage Kit	P55083- B21 8SFF U.3 x4 Cage Kit	N/A	N/A	NVMe DA : P57853-B21+ P57854-B21 (This is a balanced 16SFF NVMe DA config)
16	0	0	16	N/A	P55083- B21 8SFF U.3 x4 Cage Kit	P55083- B21 8SFF U.3 x4 Cage Kit	N/A	N/A	HW RAID : P57856-B21
24	0	0	24	P55083- B21 8SFF U.3 x4 Cage Kit	P55083- B21 8SFF U.3 x4 Cage Kit	P55083- B21 8SFF U.3 x4 Cage Kit	N/A	N/A	NVMe DA : P57853-B21+ P57854-B21+ P57855-B21 (This is a balanced 24SFF NVMe DA config)
24	0	0	24	P55083- B21 8SFF U.3 x4 Cage Kit	P55083- B21 8SFF U.3 x4 Cage Kit	P55083- B21 8SFF U.3 x4 Cage Kit	N/A	N/A	HW RAID : P57856-B21
24	0	0	24	P55083- B21 8SFF U.3 x4 Cage Kit	P55083- B21 8SFF U.3 x4 Cage Kit	P55083- B21 8SFF U.3 x4 Cage Kit	N/A	N/A	NVMe DA : P57859-B21 (This is a 24SFF x2 NVMe DA config)
24	0	0	24	P55083- B21 8SFF U.3 x4 Cage Kit	P55083- B21 8SFF U.3 x4 Cage Kit	P55083- B21 8SFF U.3 x4 Cage Kit	N/A	N/A	HW RAID : P57865-B21 (This is a 24SFF x2 NVMe HW RAID config)
32	0	0	32	P55083- B21 8SFF U.3 x4 Cage Kit	P55083- B21 8SFF U.3 x4 Cage Kit	P55083- B21 8SFF U.3 x4 Cage Kit	P55087- B21 8SFF U.3 x4 Cage Kit	N/A	NVMe DA : P57859-B21 8SFF mid cage cable already included (This is a 32SFF x2 NVMe DA config)
32	0	0	32	P55083- B21 8SFF U.3 x4	P55083- B21 8SFF U.3	P55083- B21 8SFF U.3	P55087- B21 8SFF U.3 x4	N/A	HW RAID : P57865-B21 + P57869-B21

### Additional Options

				Cage Kit	x4 Cage Kit	x4 Cage Kit	Cage Kit		(This is a 32SFF x2 NVMe HW RAID config)
48	48	48	48	For this configuration, Box1~6 are supported. Boxes are included in the 48SFF CTO server					HW RAID : signal cables are included in the 48SFF CTO server to support x1 across drives

### 12EDSFF CTO Server

Drives		Drive Cages					Storage Cables
Max Q'ty	E3.S 1T EDSFF	Front Box1	Front Box2	Front Box3	Mid Box7	Rear Box8	
12	12	N/A	N/A	Included in the 12EDSFF CTO	N/A	N/A	EDSFF DA : signal cables are already included in the 12 EDSFF CTO
12	12	N/A	N/A	Included in the 12EDSFF CTO	N/A	N/A	HW RAID : requires P57877-B21
24	24	Included in P57873-B21	N/A	Included in the 12EDSFF CTO	N/A	N/A	EDSFF DA : requires P57873-B21
24	24	Included in P57873-B21	N/A	Included in the 12EDSFF CTO	N/A	N/A	HW RAID : requires P57873-B21 + P57878-B21
32	32	Included in P57871-B21	Included in P57871-B21	Included in the 12EDSFF CTO	N/A	N/A	EDSFF DA : requires P57871-B21
36	36	Included in P57874-B21	Included in P57874-B21	Included in the 12EDSFF CTO	N/A	N/A	EDSFF DA : This is a 36EDSFF x2 configuration. It requires P57874-B21

### GPU CTO Server

## Additional Options

Drives				Drive Cages	Storage Cables
Max Q'ty	SAS/SATA	NVMe	E3.S 1T EDSFF	Front Box2	
8	0	8	0	P57867-B21 8SFF U.3 BP kit for GPU CTO	NVMe DA : signal cables included in P57883-B21
8	8	8	0	N/A	HW RAID : select either one of below cable kits : <ul style="list-style-type: none"> <li>• P69866-B21 for PCIe controllers at x4</li> <li>• P70316-B21 for PCIe controllers at x2</li> <li>• P69868-B21 for OROC controllers at x2</li> </ul>
8	0	0	8	P62355-B21 8EDSFF BP kit for GPU CTO	NVMe DA : signal cables included in P57883-B21
8	0	0	8	P62355-B21 8EDSFF BP kit for GPU CTO	HW RAID : only supports P69866-B21 for PCIe controllers at x4

## HPE Racks

- Please see the [HPE Advanced Series Racks QuickSpecs](#) for information on additional racks options and rack specifications. **[HPE G2 Advanced Series Racks](#)**
- Please see the [HPE Enterprise Series Racks QuickSpecs](#) for information on additional racks options and rack specifications. **[HPE G2 Enterprise Series Racks](#)**

## HPE Power Distribution Units (PDUs)

- Please see the [HPE Basic Power Distribution Units \(PDU\) QuickSpecs](#) for information on these products and their specifications.
- Please see the [HPE Metered Power Distribution Units \(PDU\) QuickSpecs](#) for information on these products and their specifications.
- Please see the [HPE Intelligent Power Distribution Unit \(PDU\) QuickSpecs](#) for information on these products and their specifications.
- Please see the [HPE Metered and Switched Power Distribution Units \(PDU\) QuickSpecs](#) for information on these products and their specifications.

## HPE Uninterruptible Power Systems (UPS)

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

### Additional Options

#### HPE Rack Options

- Please see the [HPE KVM Switches web page](#) for information on these products and their specifications.

### Rail Kits

#### Notes:

– HPE rail kits are designed to work with HPE racks in compliance with industry standard EIA-310-E. In the event a customer elects to purchase a third-party rack for use with an HPE rail kit, any such use is at customer's own risk. HPE makes no express or implied warranties with respect to such third-party racks and specifically disclaims any implied warranties of merchantability and fitness for a particular purpose. Furthermore, HPE has no obligation and assumes no liability for the materials, design, specifications, installation, safety, and compatibility of any such third-party racks with any rail kits, including HPE rail kits.

– 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.

– CTO Models do not ship with rail kits, they need to be ordered separately

HPE DL3XX Gen11 Easy Install Rail 2 Kit P52351-B21

**Notes:** Supported on both SFF and LFF Models

HPE Ball Bearing Rail 8 Kit P52345-B21

**Notes:** Supported on only GPU models

HPE Ball Bearing Rail 10 Kit P52347-B21

**Notes:** Supported on only 48 SFF models

HPE DL38X Gen10 Plus 2U Cable Management Arm for Rail Kit P22020-B21

**Notes:** Supportable when rail kit is selected. Only supported by SFF, LFF and EDSFF models

HPE Apollo 4200 Gen10 Plus Cable Management Arm P28726-B21

**Notes:** Only supported by GPU models

HPE ProLiant DL3XX Gen11 2U 2-row Cable Management Arm Kit P54963-B21

**Notes:** Only supported by 48 SFF models

### HPE Support Services

#### Installation & Startup Services

HPE ProLiant DL/ML Install Service U4554E

HPE ProLiant DL/ML Startup Service U4555E

#### Tech Care

HPE 3 Year Tech Care Essential DL385 Gen11 Service H79H3E

HPE 3 Year Tech Care Essential wDMR DL385 Gen11 Service H79H4E

HPE 5 Year Tech Care Essential DL385 Gen11 Service H79K7E

HPE 5 Year Tech Care Essential wDMR DL385 Gen11 Service H79K8E

**Notes:** For a full listing of Support Services available for this server, please visit

<http://www.hpe.com/services>.

### 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

## Additional Options

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 your critical dense data center is covered in power outages.

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

Learn more about HPE Racks, KVM, PDUs and UPSs at [\*\*HPE Rack and Power Infrastructure\*\*](#).

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## Memory



----- Front side of the server -----

### General Memory Population Rules and Guidelines

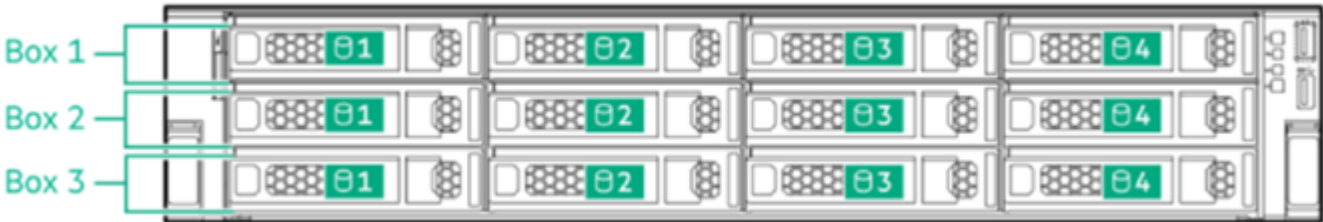
- Install DIMMs only if the corresponding processor is installed.
- If only one processor is installed in a two-processor system, only half of the DIMM slots are available.
- To maximize performance, it is recommended to balance the total memory capacity between all installed processors.
- When two processors are installed, balance the DIMMs across the two processors.
- 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.
- To realize the performance memory capabilities listed in this document, HPE DDR5 Smart Memory is required. For additional information, please see the: **HPE DDR5 Smart Memory QuickSpecs**
- For General Server Memory Population Rules and Guidelines and HPE Server Memory speed, see details here:

<http://www.hpe.com/docs/memory-population-rules>

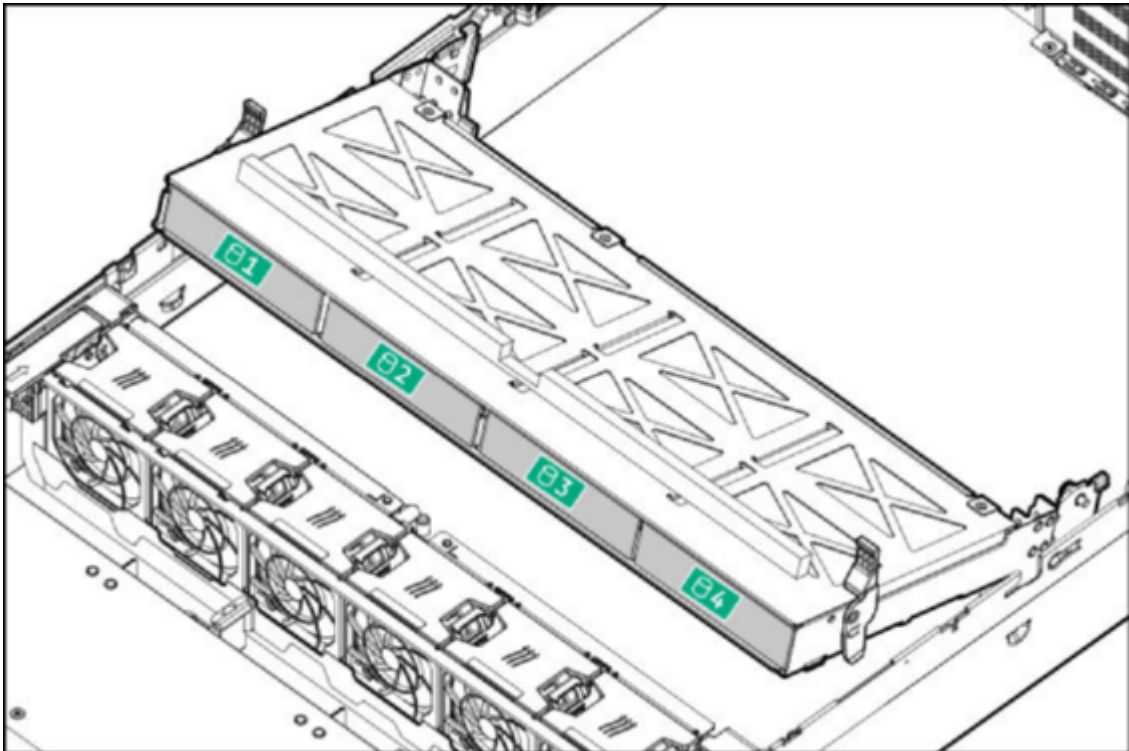
## Storage



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

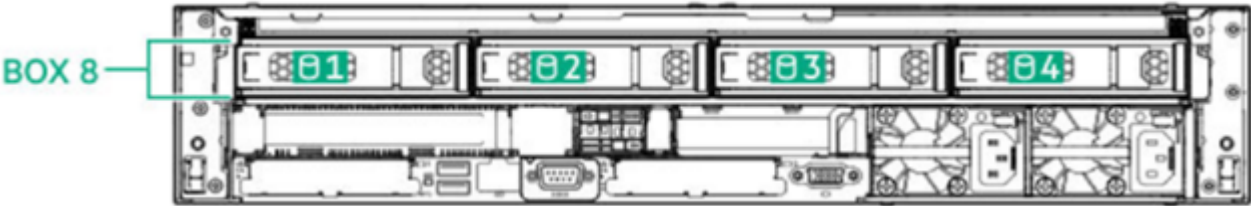


12LFF Front Panel

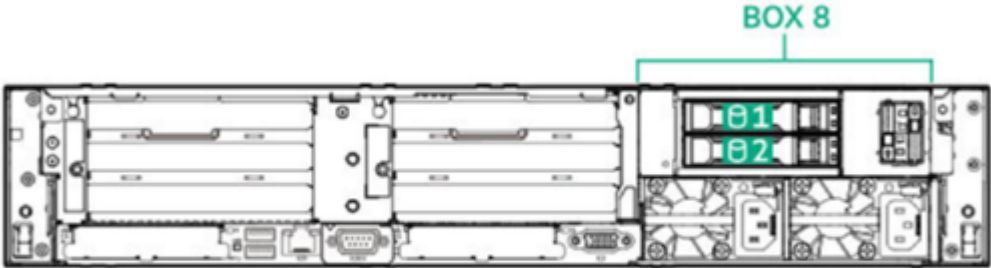
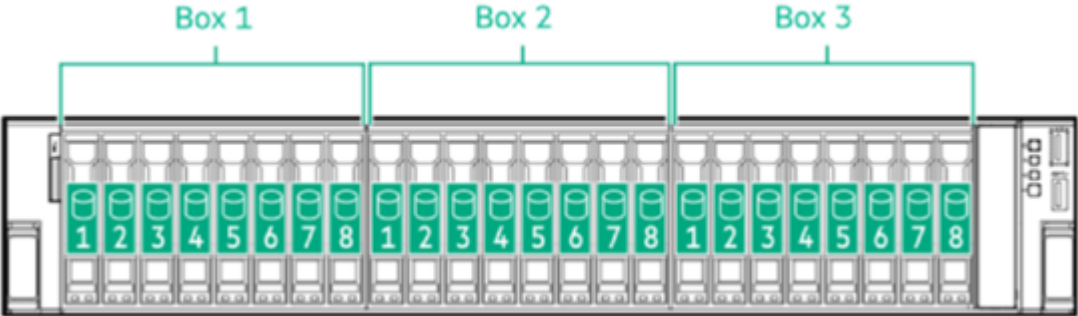


Midplane Box (LFF)

## Storage

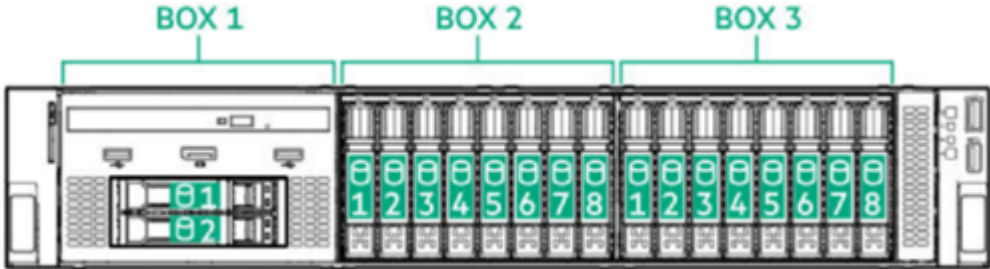


Rear Panel 1x 4LFF



24 SFF + rear 2 SFF drives

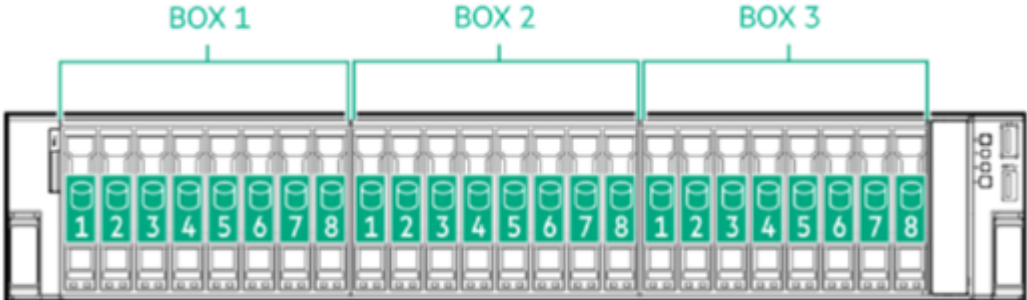
Storage



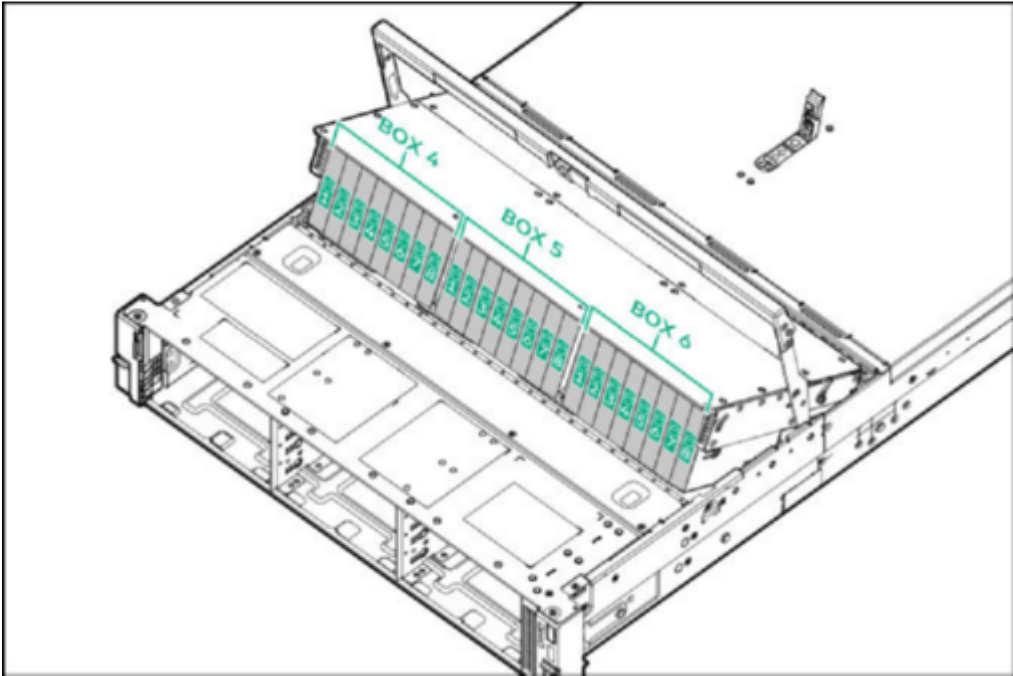
16 SFF + Universal Media Bay



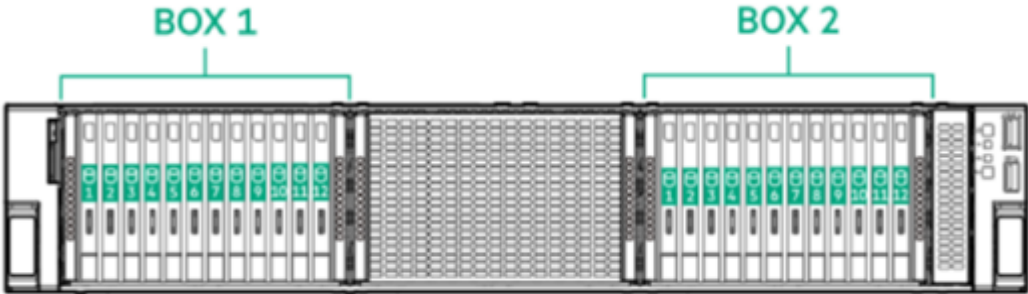
Universal Media Bay



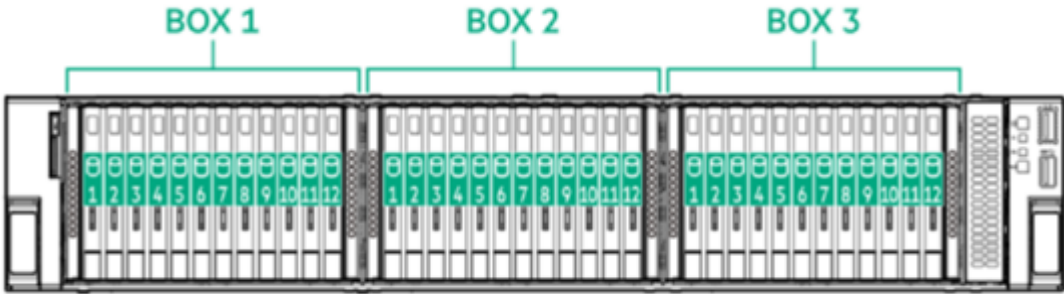
Storage



48 SFF

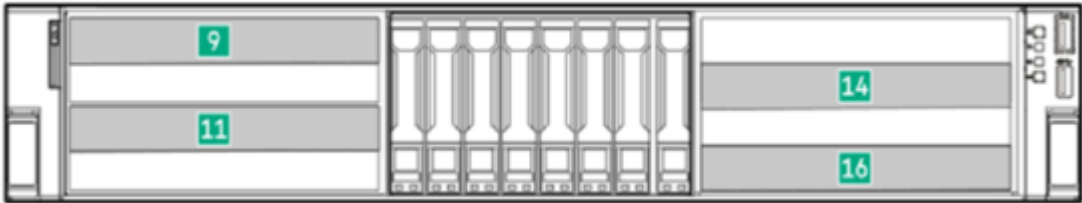


24 E3.S EDSFF



36 E3.S EDSFF

Storage



GPU Server with 8 SFF NVMe (Image shows both 4 single-wide and 4 double-wide GPU scenarios)



GPU Server with 8 EDSFF

### Technical Specifications

#### System Unit

##### Dimensions

- **SFF Drives**  
8.75 x 43.47 x 64.64 cm; 3.44 x 17.11 x 25.44 in
- **LFF Drives**  
8.75 x 43.47 x 66.3 cm; 3.44 x 17.11 x 26.1 in
- **EDSFF Drives**  
8.75 x 43.47 x 64.6 cm; 3.44 x 17.11 x 25.4 in
- **48SFF Drives**  
8.75 x 43.47 x 83.3 cm; 3.44 x 17.11 x 32.8 in
- **GPU**  
8.75 x 43.47 x 79.9 cm; 3.44 x 17.11 x 31.4 in
- **Packaging**
  - (SFF, LFF, EDSFF) 99.8 x 60 x 27 cm; 39.29 x 23.63 x 10.63 in
  - (GPU, 48SFF) 106.0 x 60 x 27 cm; 41.73 x 23.63 x 10.63 in

##### Weight (approximate)

- **SFF configuration**
  - **Maximum** 33.4 kg / 73.48 lbs. with 24 hard drives  
Packaged weight: 39.54 kg
  - **Minimum** 16.78 kg / 36.92 lbs. 8 SFF chassis with 1x SFF HDD and 7 HDD blanks, 2x Drive Bay blanks, 1x processor including standard heat sink, 1x power supply (plus blank), 1x Smart Array, 1x Riser installed, cables for the above)  
Packaged weight: 26.2 kg
- **LFF configuration**
  - **Maximum** 36.72 kg / 80.78 lbs. with 12x LFF hard drives (no rear drives), 2x processors, 2x power supplies, 1x Smart Array, 2x Risers installed  
Packaged weight: 42.82 kg
  - **Minimum** 18.24 kg / 40.13 lbs. with 1x LFF hard drive and 7 HDD blanks  
Packaged weight: 28.42 kg
- **48SFF configuration**
  - **Maximum** 41.41 kg / 91.29 lbs. with 48x SFF HDD, 2x processors, 4x power supplies, 2x OCP NIC cards, 2 DIMMs (plus 22 DIMM blanks)
  - **Minimum** 20.47 kg / 45.13 lbs. with 1x SFF HDD, 1x processor, 1x power supply, 1x DIMM (no DIMM blank)
- **GPU configuration**
  - **Maximum** 32.52 kg / 71.69 lbs. with 8x SFF HDD, 2x processors, 4x power supplies, 2x OCP NIC cards, 1 DIMM (plus 23 DIMM blanks), 4x DW GPUs
  - **Minimum** 20.04 kg / 44.18 lbs. with 1x SFF HDD, 1x processor, 1x power supply, 1x DIMM, 4x DW GPUs

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#### Input Requirements (per power supply)

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### Technical Specifications

#### Rated Line Voltage

- For 1600W (Platinum): 200 to 240 VAC
- For 1000W (Titanium): 100 to 240 VAC
- For 800W (Platinum): 100 to 240 VAC For 1600W (-48 VDC): -40 to -72 VdC

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#### BTU Rating

##### Maximum

- For 1600W (Platinum) Power Supply: 5918 BTU/hr. (at 200 VAC), 5884 BTU/hr. (at 240 VAC) for China
- For 1000W (Titanium) Power Supply: 3741 BTU/hr. (at 100 VAC), 3596 BTU/hr. (at 200 VAC), 3582 BTU/hr. (at 240 VAC) for China
- For 800W (Platinum) Power Supply: 3207 BTU/hr. (at 100 VAC), 3071 BTU/hr. (at 200 VAC), 3112 BTU/hr. (at 240 VAC) for China Only
- For 1600W (48VDC) Power Supply: 6026 BTU/hr. (at -40 VdC), 6000 BTU/hr. (at -48 VdC), 5989 BTU/hr. (at -72 VdC)

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#### Power Supply Output (per power supply)

##### Rated Steady-State Power

- For 1600W (Platinum) Power Supply: 1600W (at 240 VAC), 1600W (at 240 VDC) input for China only
- For 1000W (Titanium) Power Supply: 1000W (at 100 VAC), 1000W (at 240 VAC), 1000W (at 240 VDC) input for China only
- For 800W (Platinum) Power Supply: 800W (at 100 VAC), 800W (at 240 VAC), 800W (at 240 VDC) input for China only
- For 1600W (-48VDC) Power Supply: 1600W (at -40 Vdc), 1600W (at -72Vdc)

##### Maximum Peak Power

- For 1600W (Platinum) Power Supply: 1600W (at 240 VAC), 1600W (at 240 VDC) input for China only
- For 1000W (Titanium) Power Supply: 1000W (at 100 VAC), 1000W (at 240 VAC), 1000W (at 240 VDC) input for China only
- For 800W (Platinum) Power Supply: 800W (at 100 VAC), 800W (at 240 VAC), 800W (at 240 VDC) input for China only
- For 1600W (-48VDC) Power Supply: 1600W (at -40 VdC), 1600W (at -72 VdC)

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#### 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

### Technical Specifications

410 ft.) above 900 m (2953 ft.) to a maximum of 3050 m (10,000 ft.). The approved hardware configurations for this system are listed at the URL: <http://www.hpe.com/servers/ashrae>

System performance may be reduced if operating in the extended ambient operating range or with a fan fault.

- **Non-operating**

-30° to 60°C (-22° to 140°F). Maximum rate of change is 20°C/hr. (36°F/hr.).

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### 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.

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### 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).

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### RTC Accuracy

- 50 ppm
- 

### 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>

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### Acoustic Noise

Listed are the declared mean A-Weighted sound power levels (LwAm), declared average bystander position A-Weighted sound pressure levels (LpAm) and the statistical adder for verification, Kv, is a quantity to be added to the declared mean A-weighted sound power level, LwA,m 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.

## Technical Specifications

<b>Idle</b>	
LWAd	5.0 B Base
LpAm	36 dBA Base
<b>Operating</b>	
LWAd	5.5 B Base
LpAm	37 dBA Base

### Notes:

- The declared mean A-weighted sound power level, LWA,m, is computed as the arithmetic average of the measured.
- A-weighted sound power levels for a randomly selected sample, rounded to the nearest 0,1 B.
- The declared mean A-weighted emission sound pressure level, LpA,m, is computed as the arithmetic average of the measured A-weighted emission sound pressure levels at the bystander positions for a randomly selected sample, rounded to the nearest 1 dB.
- The statistical adder for verification, Kv, is a quantity to be added to the declared mean A-weighted sound power level, LWA,m, such that there will be a 95 % probability of acceptance, when using the verification procedures of ISO 9296, if no more than 6,5 % of the batch of new equipment, has A-weighted sound power levels greater than (LWA,m + Kv).
- The quantity, LWA,c (formerly called LWAd), can be computed from the sum of LWA,m and Kv.
- All measurements made to conform to ISO 7779 / ECMA-74 and declared to conform to ISO 9296 / ECMA-109.
- B, dB, abbreviations for bels and decibels, respectively, where 1 B = 10 dB.
- The results in this declaration apply only to the model numbers listed above when operating and tested according to the indicated modes and standards. A system with additional configuration components or increased operating functionality may increase the noise emission values.

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

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

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

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### Summary of Changes

Date	Version History	Action	Description of Change
05-May-2025	Version 32	Changed	Core Options section was updated. Added: Software as a Service Management Enablement SKU (COM), European Union ErP Lot 9 Regulation section to include Turkey and Ireland. Removed: HPE Converged Infrastructure Management Software OBS SKUs and HPE Computation and Graphics Accelerator and related option kits OBS SKU.
07-Apr-2025	Version 31	Changed	Core Options and Additional Options sections were updated. Added: COM Advanced SKUs, HPE ProLiant DL385 Gen11 16-pin GPU Power Cable v2 Kit SKU and QuickSpecs Survey. Removed: NVIDIA H100 80GB PCIe Accelerator for HPE SKU, HPE Disk-Based Backup SKUs.
18-Mar-2025	Version 30	Changed	Standard Features section was updated. (AMD EPYC 9xx5 series now support 6400MT/s DIMM speed).
03-Mar-2025	Version 29	Changed	Overview, Standard Features and Core Options sections were updated. Removed OBS SKUs. Added <ul style="list-style-type: none"> <li>• New 256GB 6400 MT/s 3DS DIMM SKU to support AMD 9005 processors</li> <li>• New EDSFF drives</li> </ul>
06-Jan-2025	Version 28	Changed	Additional Options section was updated. Removed SKUs as they were OBS: <ul style="list-style-type: none"> <li>• HPE iLO Advanced Flexible Quantity License with 3yr Support on iLO Licensed Features</li> <li>• HPE iLO Advanced Flexible Quantity License with 1yr Support on iLO Licensed Features</li> </ul>
02-Dec-2024	Version 27	Changed	Standard Features, Configuration Information and Core Options sections were updated. Added: <ul style="list-style-type: none"> <li>• FIPS CM7 E3.S 1T EDSFF drives</li> <li>• FIPS CM7 U.3 NVMe drives</li> </ul> Removed due to OBS: <ul style="list-style-type: none"> <li>• HPE 32GB (1x32GB) Single Rank x4 DDR5-4800 CAS-40-39-39 EC8 Registered Smart Memory Kit P50310-B21</li> <li>• HPE 300GB SAS 12G Mission Critical 15K SFF BC 3-year Warranty Multi Vendor HDD P28028-B21</li> <li>• HPE 900GB SAS 12G Mission Critical 15K SFF BC 3-year Warranty Multi Vendor HDD P40432-B21</li> <li>• HPE 600GB SAS 12G Mission Critical 15K SFF BC 3-year Warranty Multi Vendor HDD P53560-B21</li> <li>• HPE 1.92TB SATA 6G Mixed Use SFF BC Self-encrypting 5400M SSD P58248-B21</li> <li>• HPE 1.92TB SATA 6G Read Intensive SFF BC Self-encrypting 5400P SSD P58240-B21</li> <li>• HPE 7.68TB SAS 24G Read Intensive SFF BC Self-encrypting FIPS PM6 SSD P41399-B21</li> </ul>
Date	Version History	Action	Description of Change

### Summary of Changes

04-Nov-2024	Version 26	Changed	Standard Features and Additional Options sections were updated. (Base frequency of processors).
10-Oct-2024	Version 25	Changed	Overview, Standard Features, Configuration Information, Core Options and Additional Options sections were updated.  Added: <ul style="list-style-type: none"> <li>• New 5<sup>th</sup> Gen AMD EPYC processor SKUs and new 6400 MT/s memory DIMMs</li> <li>• New CD8P E3.S 1T EDSFF drives</li> </ul>
26-Sep-2024	Version 24	Changed	Standard Features (Operating Systems and Virtualization Software Support for HPE Servers)
05-Aug-2024	Version 23	Changed	Core Options section was updated.  Added DL385 CPU 16-pin GPU Power Cable from MB (P73574-B21), 24TB SAS/SATA Biz Critical LFF HDDs.  Removed Obsolete HDD/SSD SKUs
15-Jul-2024	Version 22	Changed	Pre-Configured Models section was updated.
01-Jul-2024	Version 21	Changed	Overview, Core Options and Additional Options sections were updated.
20-May-2024	Version 20	Changed	Added: <ul style="list-style-type: none"> <li>• NVIDIA H100 NVL 94GB GPU (S2D86C)</li> <li>• DL380a Gen11 16-pin GPU power cable for H100 NVL (P70192-B21)</li> <li>• 3.84TB, 7.68TB, 15.36TB P5430 E3.S EDSFF drives</li> </ul> New 128GB 2Rx4 4800 MT/s RDIMM
08-Apr-2024	Version 19	Changed	Core Options section was updated. (Removed OBS SKU P58228-B21)
18-Mar-2024	Version 18	Changed	Standard Features, Core Options and Additional Options sections were updated.
05-Feb-2024	Version 17	Changed	Configuration Information, Core Options and Memory sections were updated. Removed Obsolete SKUs (HPE Drives, SSD Selection and HPE Computation and Graphics Accelerator and related option kits).
08-Jan-2024	Version 16	Changed	Overview, Service and Support and Core Options sections were updated. Added new 8SW GPU Enablement Kit and 8SW GPU Switchboard Kit  Added new CM7 EDSFF E3.S 1T drives  Added a new Riser Support Matrix in the Configuration Information section  Added new Thermal Support Matrices below Processor & Memory sections within the Configuration Information section
04-Dec-2023	Version 15	Changed	Overview, Standard Features, and Configuration Information sections were updated.
06-Nov-2023	Version 14	Changed	Overview, Standard Features, Service and Support, Configuration Information, and Additional Options sections were updated
02-Oct-2023	Version 13	Changed	Standard Features, Configuration Information and Additional Options sections were updated.
05-Sep-2023	Version 12	Changed	Configuration Information section was updated.

## Summary of Changes

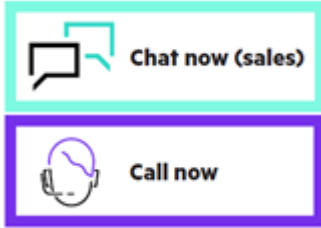
07-Aug-2023	Version 11	Changed	Standard Features, Configuration Information, Core Options, and Additional Options sections were updated
10-Jul-2023	Version 10	Changed	Standard Features, Service and Support, Configuration Information, Core Options, Additional Options and Memory sections were updated

Date	Version History	Action	Description of Change
13-Jun-2023	Version 9	Changed	Overview, Standard Features, Service and Support, Pre-Configured Models, and Core Options sections were updated.
01-May-2023	Version 8	Changed	Standard Features and Core Options sections were updated
17-Apr-2023	Version 7	Changed	Overview and Core Options sections were updated
03-Apr-2023	Version 6	Changed	Overview, Configuration Information and Core Options sections were updated.
06-Mar-2023	Version 5	Changed	Standard Features and Configuration Information sections were updated.
06-Feb-2023	Version 4	Changed	Overview, Standard Features, Configuration Information, additional Options and Technical Specifications sections were updated.
19-Dec-2022	Version 3	Changed	Standard Features section was updated.
05-Dec-2022	Version 2	Changed	Standard Features, Configuration Information, Core Options and Additional Options sections were updated.
10-Nov-2022	Version 1	New	New QuickSpecs

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