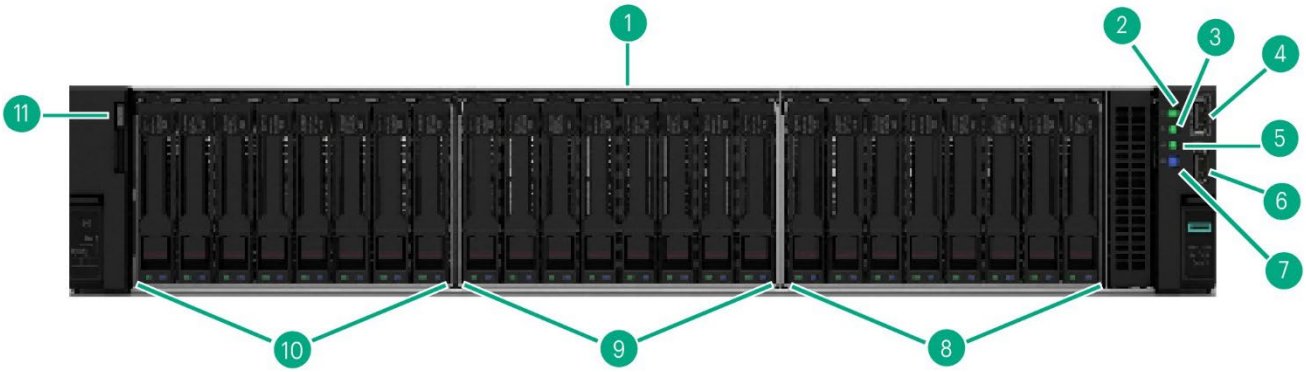
Have feedback on QuickSpecs? We're listening

HPE ProLiant DL385 Gen11 QuickSpecs

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.

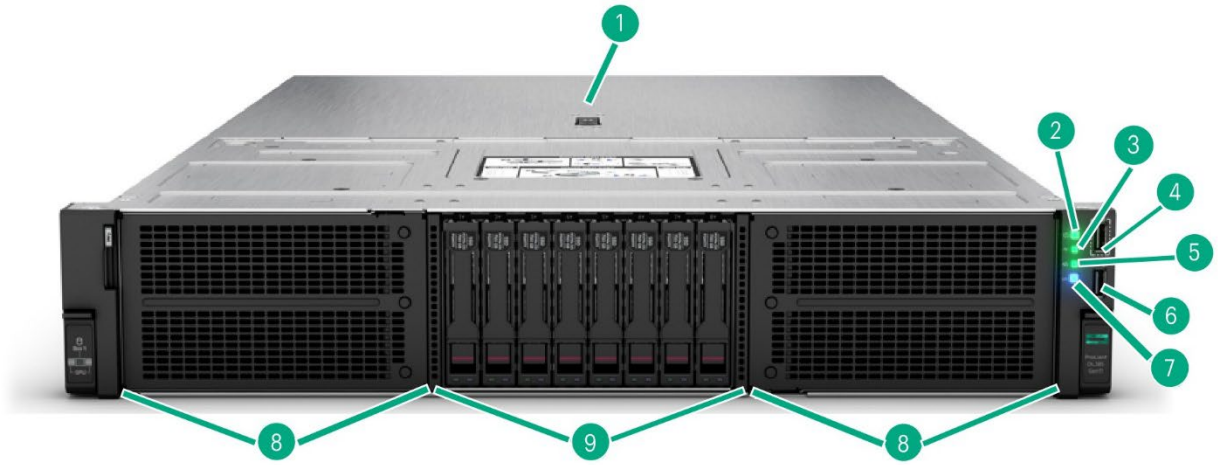
Powered by 4th and 5th Generation AMD EPYC™ 9004 and 9005 Series Processors with up to 160 cores, increased memory speed (up to 6400 MT/s), high-speed PCIe Gen5 I/O, Gen5 EDSFF storage and the newly designed chassis supporting 8 single wide (SW) or 4 double wide (DW) GPUs*. The HPE ProLiant DL385 Gen11 server is a perfect accelerator-optimized 2U, 2P solution.



HPE ProLiant DL385 Gen11 SFF CTO Server- Front View

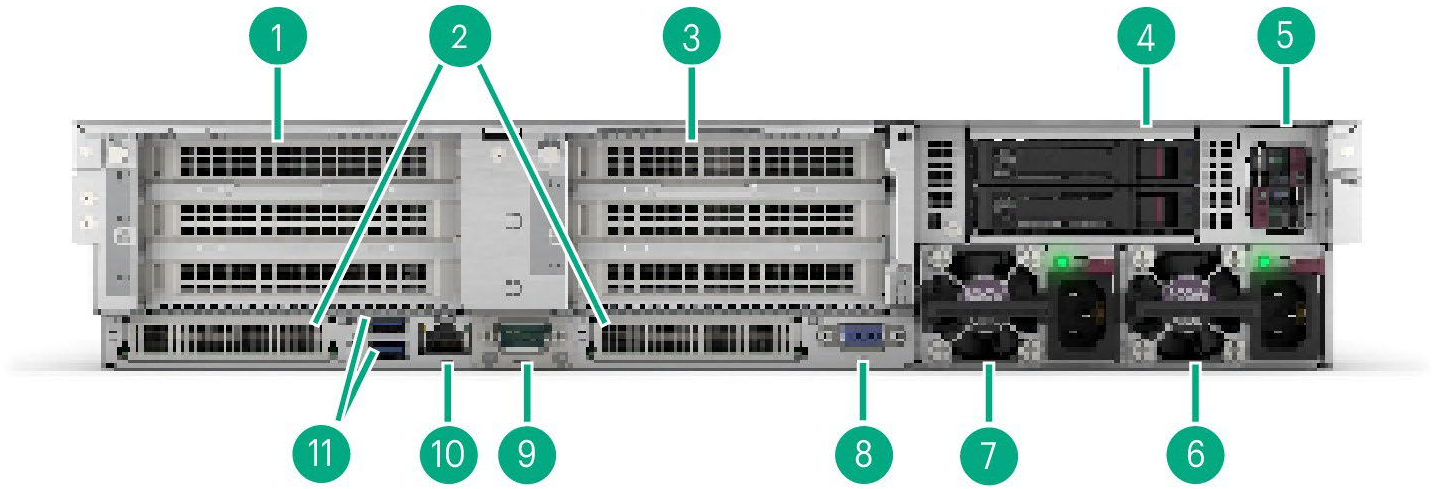
Item	Description	Item	Description
1.	Quick removal access panel	7.	UID button
2.	Power On/Standby button and system power LED button	8.	Drive Box 3. 8 SFF U.3 optional
3.	Health LED	9.	Drive Box 2. 8 SFF U.3 optional
4.	iLO front service port	10.	Drive Box 1. 8 SFF U.3 or Universal Media Bay optional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

Overview



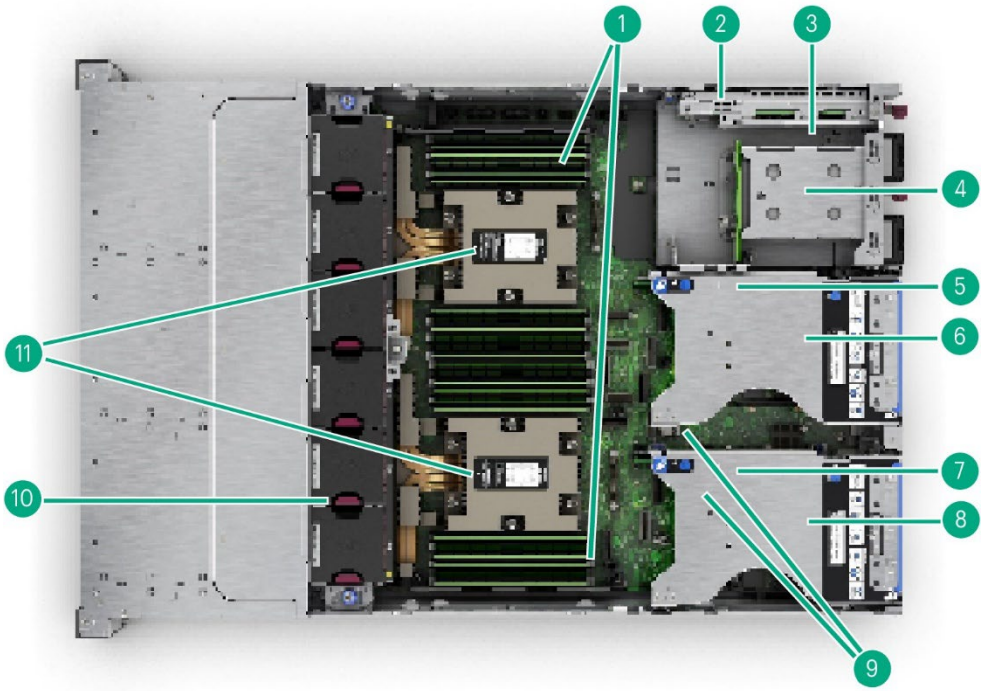
HPE ProLiant DL385 Gen11 GPU CTO Server- Front View

Item	Description	Item	Description
1.	Quick removal access panel	6.	USB 3.2 Gen 1
2.	Power On/Standby button and system power LED button	7.	UID button
3.	Health LED	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)
4.	iLO front service port	9.	Drive Box 2. 8 SFF U.3 or 8 E3.S EDSFF optional 8 SFF shown here
5.	NIC status LED		



HPE ProLiant DL385 Gen11 all CTO Servers - Rear View

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



HPE ProLiant DL385 Gen11 SFF CTO Server - Internal View

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

What's New

- Supporting MR932i-p 32 lane PCIe Gen5 SPDM storage controller for EDSFF configurations.
- Qualified MR932i-p configurations include 12, 24, 36 E3.S drives on EDSFF CTO and 8 E3.S on GPU CTO.
- Supporting NVIDIA B3220 and B3140H DPUs.
- Launching iLO GPU power capping and Maximum Performance Fan kit for 600W GPU options.
    - 25C~30C server ambient temperature is now supported.
    - 4x H200 NVL, 4x RTX PRO 6000 BSE, 4x RTX PRO 6000D BSE are now supported.
    - iLO GPU power capping can be set out-of-factory ready with 450W or 550W power capping enablement kit. It can also be set in iLO 6 GUI for servers already deployed.
- Launching the new AMD Instinct MI350P GPU card.

Platform Information

Form Factor

- 2U rack.

Chassis Types

- 8 SFF with optional Universal Media Bay, and optional SFF or NVMe drive box options. Front drive boxes supported up to 24 SFF.
- 8 LFF with Universal Media Bay, and optional SFF or NVMe drive box options. Front drive boxes 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.

System Fans

Standard – fan types included

- Choice of Standard Fan, Performance Fan or Maximum Performance Fan kit.

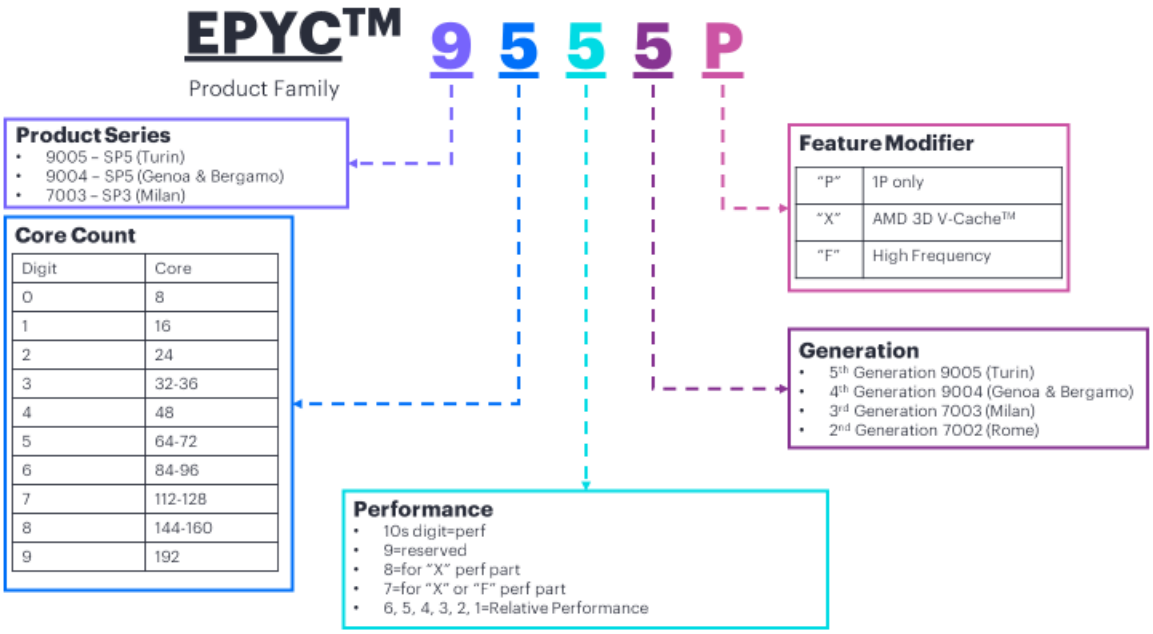
Notes:

- 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 kit is designated to operate under different configuration. For more information, please refer to the Cooling option message in the Unique option section.
- Maximum Performance Fan kit is only supported when 600W GPUs are in the configuration (Nvidia H200 NVL, RTX PRO 6000 BSE, RTX PRO 6000D BSE or AMD MI350P).

Processors

Up to 2 of the following depending on model.

Notes: For more information regarding AMD EPYC processors, refer to the following:
https://www.amd.com/en/products/processors/server/epyc.html



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

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

Notes:

- The new 5th 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. 6 TB 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)	6.0 TB (when 2 processors are supported) 24 x 256 GB RDIMM* @ 4800 MT/s at 1 DPC (on 4th Gen AMD EPYC) 24 x 256 GB RDIMM* @ 6400 MT/s at 1 DPC (on 5th Gen AMD EPYC)

Notes:

- All processors support up to 6 TB memory per server when 2 processors are supported.
- LRDIMM and Persistent Memory are not supported.
- For additional information, refer to 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-bit and all multi-bit errors that occur 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:
  - Default 1 slot only (1x16 on Slot 3).
  - Default Slot 3 + Slot 1 and 2 with HPE DL385 G11 2x16 Prim FIO Upgrade Riser Kit (P57890-B21).
  - HPE DL385 G11 x16 Prim FIO Riser LFF Rear (P55098-B21) selectable when rear 4LFF SAS/SATA cage kit (P55088-B21) is configured.
- When both Primary Slot 1 and OCP Slot 21 (OCP1) are supported, Slot 1 and Slot 21 (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

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:
  - 1 slot using HPE DL385 Gen11 x16 Sec Riser Kit (P55097-B21).
  - 2 slots using Slot 6 P55097-B21 + Slot 5 with HPE DL385 G11 x16 Slot 5 Sec Upgrade Riser Kit (P68392-B21).
  - 3 slots using Slot 6 P55097-B21 + Slot 4 and 5 with HPE DL385 Gen11 2x16 Sec Upgrade Riser Kit (P57891-B21).
  - HPE DL385 Gen11 x16 Sec FIO Riser LFF Rear (P57892-B21) selectable when rear 4LFF SAS/SATA cage kit (P55088-B21) is configured.
  - 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 Slot 6 and Tertiary Slot 7 are supported, Slot 6 and Slot 7 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

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 Tertiary FIO Riser Kit (P57893-B21).
- When both Secondary Slot 6 and Tertiary Slot 7 are supported, Slot 6 and Slot 7 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

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 is 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:
  - Tertiary location above power supplies. Tertiary risers will not be supported.
  - Secondary Slot 4 location. Slot 4 and Slot 5 of the secondary riser cage will not be supported.
  - 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 – Software RAID is not supported 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.
- HPE MR932i-p x32 lanes PCIe Gen5 SPDM plug-in storage controller.

Notes: For additional details, please visit:

HPE Compute MR Gen11 Controllers QuickSpecs

HPE Compute SR Gen11 Controllers QuickSpecs

Internal Storage Devices

One of the following, depending on model.

Optical Drive

- Available on SFF and LFF CTO Servers as options (DVD-ROM or DVD-RW).

Hard Drives

- None shipped as standard.

Graphics

Integrated Video Standard

- 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) x20 TB (with optional mid –tray and rear 4LFF drive cage)
Hot-plug LFF SATA HDD	400 TB	(12+4+4) x20 TB (with optional mid –tray and rear 4LFF drive cage)
Hot-plug LFF SATA SSD	153.6 TB	(12+4+4) x7.68 TB (with optional mid –tray and rear 4LFF drive cage)
Hot-plug SFF SAS HDD	81.6 TB	(24+8+2) x2.4 TB (with optional mid –tray and rear 2SFF drive cage)
Hot-plug SFF SAS SSD	261.12 TB	(24+8+2) x7.68 TB (with optional mid –tray and rear 2SFF drive cage)
Hot-plug SFF SATA HDD	68 TB	(24+8+2) x2 TB (with optional mid –tray and rear 2SFF drive cage)
Hot-plug SFF SATA SSD	261.12 TB	(24+8+2) x7.68 TB (with optional mid –tray and rear 2SFF drive cage)
Hot-plug SFF NVMe PCIe SSD	522.24 TB NVMe	(24+8+2) x15.36 TB (with optional mid –tray and rear 2SFF drive cage)
Hot-plug E3.S 1T EDSFF NVMe	1,105.92 TB NVMe	36x 30.72 TB

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.

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.
Notes: When disconnecting power to the server, please make sure to unplug the power cord from the PSU first.

Interfaces

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

- 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.
- TPM 2.0 is now embedded and no longer requires a separate module option kit.

Industry Standard Compliance

- ACPI 6.1 Compliant.
- PCIe 4.0 Compliant.
- WOL Support.
- Microsoft® Logo certifications.
- Support for Microsoft Secure Code.
- PXE Support.
- VGA/DisplayPort.
  Notes: This support is on the optional Universal Media Bay.
- USB 3.1 Gen 1 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.
- 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).

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

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.

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 GreenLake cloud (access via https://common.cloud.hpe.com) and leverages the 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

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: TPM 2.0 is now embedded and no longer requires a separate module option kit.
- Bezel Locking Kit option.
- Chassis Intrusion detection option.

Service and Support

HPE provides a portfolio of support, deployment, and lifecycle management services designed to help customers maximize the value, performance, and availability of their HPE infrastructure. HPE Complete Care Service provides a highly personalized support experience with proactive guidance and expert-led lifecycle management, while HPE Tech Care Service provides fast access to product specialists and flexible response options tailored to operational needs. Both HPE Complete Care Service and HPE Tech Care Service are available with defective media retention, comprehensive defective material retention, and GPU defective material recovery options.

Beyond support, HPE Lifecycle Services help customers deploy and optimize their environments with confidence. From HPE Factory Express services that streamline system configuration and integration before delivery, to Installation and Startup Services that accelerate time to value. For the latest information on HPE Services, please refer to the HPE Services - Supplemental QuickSpecs | HPE, which provides a comprehensive and regularly updated overview of available services.

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.

- 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.

Country Code Key

- -B21 = Worldwide.
- -291 = Japan.
- -421 = Europe, the Middle East and Africa.

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 are built 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 providing 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 fulfill 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.

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

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

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

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

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

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 into 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.

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 on 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. Only 8 E3.S 1T drives are supported	Not available

Notes: This applies to CTO configurations; field upgrades may differ depending on 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
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.

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 – 4th Gen AMD EPYC 9004 Series

AMD EPYC 9124 3.0GHz 16-core 200W Processor for HPE	P53702-B21
AMD EPYC 9224 2.5GHz 24-core 200W Processor for HPE	P58540-B21
AMD EPYC 9254 2.9GHz 24-core 200W Processor for HPE	P53707-B21
AMD EPYC 9334 2.7GHz 32-core 210W Processor for HPE	P53712-B21
AMD EPYC 9354 3.25GHz 32-core 280W Processor for HPE	P53701-B21
AMD EPYC 9454 2.75GHz 48-core 290W Processor for HPE	P53708-B21
AMD EPYC 9534 2.45GHz 64-core 280W Processor for HPE	P53699-B21
AMD EPYC 9554 3.1GHz 64-core 360W Processor for HPE	P53700-B21
AMD EPYC 9634 2.25GHz 84-core 290W Processor for HPE	P53705-B21
AMD EPYC 9654 2.4GHz 96-core 360W Processor for HPE	P53696-B21
AMD EPYC 9754 2.25GHz 128-core 360W Processor for HPE	P60463-B21
AMD EPYC 9174F 4.1GHz 16-core 320W Processor for HPE	P53698-B21
AMD EPYC 9274F 4.05GHz 24-core 320W Processor for HPE	P53711-B21
AMD EPYC 9374F 3.85GHz 32-core 320W Processor for HPE	P53710-B21
AMD EPYC 9474F 3.6GHz 48-core 360W Processor for HPE	P53706-B21
AMD EPYC 9184X 3.55GHz 16-core 320W Processor for HPE	P63491-B21
AMD EPYC 9384X 3.1GHz 32-core 320W Processor for HPE	P63492-B21
AMD EPYC 9684X 2.55GHz 96-core 400W Processor for HPE	P63493-B21

Processor Option Kits – 5th 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:

- 4th Gen AMD EPYC processors are compatible with 4800 MT/s memory DIMMs; 5th Gen AMD EPYC processors are compatible with 6400 MT/s memory DIMMs
- For processors less than 240W, standard heatsink, and standard fan kit are required. Users are 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, refer to 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 30°C.
- 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 4th Gen AMD EPYC Processors – Standalone Kits

HPE 16GB (1x16GB) Single Rank x8 DDR5-4800 CAS-40-39-39 EC8 Registered Smart Memory Kit	P50309-B21
HPE 32GB (1x32GB) Dual Rank x8 DDR5-4800 CAS-40-39-39 EC8 Registered Smart Memory Kit	P50311-B21
HPE 64GB (1x64GB) Dual Rank x4 DDR5-4800 CAS-40-39-39 EC8 Registered Smart Memory Kit	P50312-B21
HPE 96GB (1x96GB) Dual Rank x4 DDR5-4800 CAS-46-45-45 EC8 Registered Smart Memory Kit	P66676-B21
HPE 128GB (1x128GB) Dual Rank x4 DDR5-4800 CAS-40-39-39 EC8 Registered Smart Memory Kit	P69982-B21
HPE 256GB (1x256GB) Quad Rank x4 DDR5-4800 CAS-60-52-52 EC8 Registered 3DS Smart Memory Kit	P90552-B21

4800 MT/s DIMMs supported on 4th Gen AMD EPYC Processors – Factory Installed Kits

HPE 16GB (1x16GB) Single Rank x8 DDR5-4800 CAS-40-39-39 EC8 Registered Smart FIO Memory Kit	P50309-F21
HPE 32GB (1x32GB) Dual Rank x8 DDR5-4800 CAS-40-39-39 EC8 Registered Smart FIO Memory Kit	P50311-F21
HPE 64GB (1x64GB) Dual Rank x4 DDR5-4800 CAS-40-39-39 EC8 Registered Smart FIO Memory Kit	P50312-F21
HPE 96GB (1x96GB) Dual Rank x4 DDR5-4800 CAS-46-45-45 EC8 Registered Smart FIO Memory Kit	P66676-F21
HPE 128GB (1x128GB) Dual Rank x4 DDR5-4800 CAS-46-45-45 EC8 Registered Smart FIO Memory Kit	P69982-F21
HPE 256GB 4Rx4 PC5-4800B-R 3DS FIO Kit	P90552-F21

6400 MT/s DIMMs supported on 5th Gen AMD EPYC Processors – Standalone Kits

HPE 16GB (1x16GB) Single Rank x8 DDR5-6400 CAS-52-52-52 EC8 Registered Smart Memory Kit	P64984-B21
HPE 32GB (1x32GB) Dual Rank x8 DDR5-6400 CAS-52-52-52 EC8 Registered Smart Memory Kit	P64985-B21
HPE 64GB (1x64GB) Dual Rank x4 DDR5-6400 CAS-52-52-52 EC8 Registered Smart Memory Kit	P64986-B21
HPE 96GB (1x96GB) Dual Rank x4 DDR5-6400 CAS-52-52-52 EC8 Registered Smart Memory Kit	P64987-B21
HPE 128GB (1x128GB) Dual Rank x4 DDR5-6400 CAS-52-52-52 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

6400 MT/s DIMMs supported on 5th Gen AMD EPYC Processors – Factory Installed Kits

HPE 16GB (1x16GB) Single Rank x8 DDR5-6400 CAS-52-52-52 EC8 Registered Smart FIO Memory Kit	P64984-F21
HPE 32GB (1x32GB) Dual Rank x8 DDR5-6400 CAS-52-52-52 EC8 Registered Smart FIO Memory Kit	P64985-F21
HPE 64GB (1x64GB) Dual Rank x4 DDR5-6400 CAS-52-52-52 EC8 Registered Smart FIO Memory Kit	P64986-F21
HPE 96GB (1x96GB) Dual Rank x4 DDR5-6400 CAS-52-52-52 EC8 Registered Smart FIO Memory Kit	P64987-F21
HPE 128GB (1x128GB) Dual Rank x4 DDR5-6400 CAS-52-52-52 EC8 Registered Smart FIO Memory Kit	P64988-F21
HPE 256GB (1x256GB) Quad Rank x4 DDR5-6400 CAS-60-52-52 EC8 Registered 3DS Smart FIO Memory Kit	P73446-F21

Notes:

- The -B21 memory SKUs shown in this document are to be used when ordering stand-alone memory only. For each -B21 SKU, there is a corresponding -F21 SKU which is to be used when configuring servers with integrated memory DIMMs.

- The 128GB 2Rx4 RDIMM (P69982-B21) for 4th Gen AMD EPYC and 128GB 2Rx4 RDIMM (P64988-B21) for 5th Gen AMD EPYC are not 3DS DIMMs.
- Server system can support 24x of this 256 GB DDR5 4800 MT/s DIMMs even with processors >300W, if below components are configured:
  - P57886-B21/ HPE DL385 G11 2U Std/Perf FIO Baffle Kit.
  - P58459-B21/ HPE DL3X5 Gen11 Perf 2U Heat Sink Kit.
- Mixing of x4 and x8 memory is not allowed.
- Mixing of Non-3DS and 3DS DIMMs is not allowed.
- 256 GB DIMM requires quantity of six of Performance Fans.
- When Direct Liquid Cooling (DLC) is configured, there will be no configuration restriction with 256 GB DIMMs and ambient temperature can be maintained at 35C
- When processor cTDP >= 300 W, and server front-end configurations are any of 24SFF, 12LFF, 36EDSFF, 48SFF or GPU, and 256 GB DIMMs quantity is more than twelve, then below NIC cards cannot be selected due to thermal:
  - P31324-B21/ HPE IB HDR/EN 200Gb 2p QSFP56 Adapter.
  - P45641-B21/ HPE IB NDR 1p OSFP MCX75310AAS Adapter.
  - P45642-B21/ HPE IB NDR200 1p OSFP MCX75310AAS Adapter.
  - P26269-B21/ BCM 57504 10/25GbE 4p SFP28 OCP3 Adapter.
  - P22767-B21/ INT E810 100GbE 2p QSFP28 OCP3 Adapter.
  - P31323-B21/ HPE IB HDR/EN 200Gb 1p QSFP56 OCP3 Adapter.
  - P31348-B21/ HPE IB HDR/EN 200Gb 2p QSFP56 OCP3 Adapter.
- 256 GB 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	210 W and below	30°C	STD Fan X6 (P58464-B21)	2U STD HS (P58458-B21)	30°C
12 LFF	N/A	2SFF or PCIe cards	210 W and below	30°C	Perf Fan X6 (P58465-B21)	2U PERF HS (P58459-B21)	
12 LFF	N/A	2SFF or PCIe cards	260 W – 290 W	30°C	Perf Fan X6 (P58465-B21)	2U PERF HS (P58459-B21)	
8 LFF	N/A	2SFF or PCIe cards	320 W – 400 W	30°C	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	320 W – 400 W	Ta=25°C	Perf Fan X6 (P58465-B21)	2U Max PERF HS (P58460-B21)	30°C
12 LFF	N/A	2SFF or PCIe cards	All	30°C	Perf Fan X6 (P58465-B21)	DLC*	
12 LFF	N/A	4 LFF	210 W and below	30°C	Perf Fan X6 (P58465-B21)	2U PERF HS (P58459-B21)	
12 LFF	N/A	4 LFF	260 W – 290 W	30°C	Perf Fan X6 (P58465-B21)	2U PERF HS (P58459-B21)	
12 LFF	4 LFF	2SFF or PCIe cards	260 W – 290 W	30°C	Perf Fan X6 (P58465-B21)	1U PERF HS (Included in mid cage kit)	
12 LFF	4 LFF	4 LFF	210 W and below	30°C	Perf Fan X6 (P58465-B21)	1U PERF HS (Included in mid cage kit)	
12 LFF	4 LFF	4 LFF	260 W – 290 W	Ta=25°C	Perf Fan X6 (P58465-B21)	1U PERF HS (Included in mid cage kit)	
12 LFF	4 LFF	4 LFF	320 W – 400 W	30°C	Perf Fan X6 (P58465-B21)	DLC*	
16 SFF	N/A	2SFF or PCIe cards	210 W and below	30°C	STD Fan X6 (P58464-B21)	2U STD HS (P58458-B21)	
24 SFF		2SFF or PCIe cards	210 W and below	30°C	Perf Fan X6 (P58465-B21)	2U PERF HS (P58459-B21)	
24 SFF		2SFF or PCIe cards	260 W – 290 W	30°C	Perf Fan X6 (P58465-B21)	2U PERF HS (P58459-B21)	
24 SFF		2SFF or PCIe cards	320 W – 400 W	30°C	Perf Fan X6 (P58465-B21)	DLC*	
24 SFF		2SFF or PCIe cards	320 W – 400 W	30°C	Perf Fan X6 (P58465-B21)	2U Max PERF HS (P58460-B21)	
24 SFF	8 SFF	2SFF or PCIe cards	260 W – 290 W	30°C	Perf Fan X6 (P58465-B21)	1U PERF HS (Included in mid cage kit)	
24 SFF	8 SFF	2SFF or PCIe cards	320 W – 400 W	30°C	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	210 W and below	30°C	Perf Fan X6 (P58465-B21)	2U PERF HS (P58459-B21)	30°C
	N/A	N/A	260 W – 290 W	30°C	Perf Fan X6	2U PERF HS (P58459-B21)	
	N/A	N/A	320 W – 400 W	30°C	Perf Fan X6 (P58465-B21)	2U Max PERF HS (P58460-B21)	
EDSFF	N/A	N/A	All	30°C	Perf Fan X6 (P58465-B21)	DLC*	
GPU	N/A	N/A	210 W and below	30°C	Perf Fan X6 (P58465-B21)	2U PERF HS (P58459-B21)	
	N/A	N/A	260 W – 290 W	30°C	Perf Fan X6 (P58465-B21)	2U PERF HS (P58459-B21)	
	N/A	N/A	320 W – 400 W	30°C	Perf Fan X6 (P58465-B21)	2U Max PERF HS (P58460-B21)	
GPU	N/A	N/A	All	30°C	Perf Fan X6 (P58465-B21)	DLC*	
48 SFF	N/A	N/A	210 W and below	30°C	Perf Fan X6 (P58465-B21)	2U PERF HS (P58459-B21)	
	N/A	N/A	260 W – 290 W	30°C	Perf Fan X6 (P58465-B21)	2U PERF HS (P58459-B21)	
	N/A	N/A	320 W – 400 W	30°C	Perf Fan X6 (P58465-B21)	2U Max PERF HS (P58460-B21)	
48 SFF	N/A	N/A	All	30°C	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 select P62032-B21.
- If you need NS204i-u and don't necessarily need one more PCIe slot, we recommend you select P62035-B21.

Thermal Support Matrix – 256 GB Memory

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

Notes:

- Above thermal rules only apply when 256 GB 4800 MT/s DIMMs (P50314-B21) are supported with 9004 series processors. Rules don't apply when supporting 256 GB 6400 MT/s DIMMs (P73446-B21) with 9005 series processors and can support 30°C ambient temperature.
- * For the configs that have CPU TDP >290W and fully populated 256 GB 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 two 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: https://poweradvisorext.it.hpe.com/?Page=Index.
- 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.
- When disconnecting power to the server, please make sure to unplug the power cord from the PSU first.

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).
- In this generation of DL385, backplane power cables need to be selected separately. Part number and notes are described below.

HPE ProLiant DL385 Gen11 SFF Backplane Power Cable Kit P57845-B21

Notes: If Front 8SFF Drive cage is selected quantity 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

Notes:

- 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

Notes:

- 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

Notes:

- This cage kit can only be supported with 8LFF chassis.
- This mid cage only allows OROC controllers for controller support. If no controller is 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

Notes:

- 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

Notes:

- 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

Notes:

- 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 is 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 Front/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.

Select storage cables

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
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

Notes: 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

Notes: 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

Notes: 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

Notes: 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 MR932i-p 12EDSFF Cable Kit	P93641-B21
HPE ProLiant DL385 Gen11 MR932i-p 24EDSFF Cable Kit	P91581-B21
HPE ProLiant DL385 Gen11 MR932i-p 36EDSFF Cable Kit	P91583-B21
HPE ProLiant DL385 Gen11 GPU MR932i-p 8EDSFF Cable Kit	P91585-B21
HPE ProLiant DL385 Gen11 SFF Backplane Power Cable Kit	P57845-B21

Notes: If Front 8SFF Drive cage is selected quantity above one then SFF Backplane Power Cable Kit must be selected.

Supported Storage Configurations

8LFF CTO Server

Drives				Drive Cages					Storage Cables
Maximum Quantity	LFF SAS	LFF SATA	SFF (SAS, SATA, NVMe)	Front Box1	Front Box2	Front Box3	MidBox7	RearBox8	
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 and cages

Configuration Information

Drives				Drive Cages					Storage Cables
Maximum Quantity	LFF SAS	LFF SATA	SFF (SAS, SATA, NVMe)	Front Box1	Front Box2	Front Box3	MidBox 7	RearBox8	
10	8	8	2	P55093-B21 2SFF SBS cage kit	Included	Included	N/A	P55091-B21 2SFF rear cage kit	Two options for 8LFF HW RAID + 2SFF drives : 1. 2SFF at front with P55093-B21 2. 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

Configuration Information

Drives				Drive Cages					Storage Cables
Maximum Quantity	LFF SAS	LFF SATA	SFF (SAS, SATA, NVMe)	Front Box1	Front Box2	Front Box3	MidBox7	RearBox8	
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 Front Cage	Included	Included	P55085-B21 4LFF SAS/ SATA Mid Cage	P55088-B21 4LFF SAS/ SATA Rear Cage	SATA DA for front and mid drives. HW 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
Maximum Quantity	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 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

Configuration Information

Drives				Drive Cages					Storage Cables
Maximum Quantity	SAS	SATA	NVMe	Front Box1	Front Box2	Front Box3	Mid Box7	Rear Box8	
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	24 (NVMe x1)	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

Configuration Information

Drives				Drive Cages					Storage Cables
Maximum Quantity	SAS	SATA	NVMe	Front Box1	Front Box2	Front Box3	Mid Box7	Rear Box8	
8	0	0	8	N/A	P55083-B21 8SFF U.3 x4 Cage Kit	N/A	N/A	N/A	NVMe DA : 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)

Configuration Information

Drives				Drive Cages					Storage Cables
Maximum Quantity	SAS	SATA	NVMe	Front Box1	Front Box2	Front Box3	Mid Box7	Rear Box8	
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)

Configuration Information

Drives				Drive Cages					Storage Cables
Maximum Quantity	SAS	SATA	NVMe	Front Box1	Front Box2	Front Box3	Mid Box7	Rear Box8	
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 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	HW RAID : P57865-B21 + P57869-B21 (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

12 EDSFF CTO Server

Drives		Drive Cages|					Storage Cables
Maximum Quantity	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

Drives				Drive Cages	Storage Cables
Maximum Quantity	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 : – P69866-B21 for PCIe controllers at x4 – P70316-B21 for PCIe controllers at x2 – P69868-B21 for OROC controllers at x2
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

Step 3: Choose Additional Factory Integrable 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

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).

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

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

HPE Unique Options

Riser Kits

The CTO or BTO server has 1x Primary riser (slot 3) by default. Here are the additional risers available to select:

HPE ProLiant DL385 Gen11 x16/x16 Primary FIO Upgrade Riser Kit P57890-B21

Notes:

- This provides Slot1 and Slot 2 in the Primary position.
- Cannot be selected if 4LFF rear cage is selected.

HPE ProLiant DL385 Gen11 x16 2U Secondary Riser Kit P55097-B21

Notes:

- This provides Slot 6 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 P68392-B21

Notes:

- This provides Slot 5 in the Secondary position.
- This requires the 2nd processor.
- This riser provides the 3rd 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 P57891-B21

Notes:

- This provides Slot 4 and Slot 5 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 P65830-B21

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 P57893-B21

Notes:

- This provides Slot 7 and Slot 8 in the Tertiary position.
- This requires the 2nd processor.

HPE ProLiant DL385 Gen11 Tertiary NEBS-compliant FIO Riser Kit P65833-B21

Notes:

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

Core Options

HPE ProLiant DL385 Gen11 x16 Primary FIO Riser Kit for LFF Rear Cage P55098-B21

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 P57892-B21

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 P59260-B21

Notes:

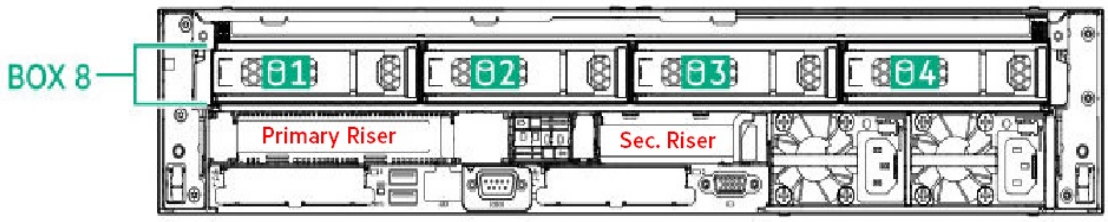
- This provides one Secondary riser positioned below the 4LFF rear cage when it is configured.
- This riser kit is required when NS204i-u NVMe Boot Device is selected along with 4LFF rear cage selection.

Riser Support Matrix (1/2)									
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 Upgrade Riser Kit	3	0	0	X16	X16	X16
N/A	P55097-B21	N/A	HPE DL385 Gen11 x16 Slot 6 Sec Riser Kit	0	1	0	0	0	X16
N/A	P55097-B21 + P68392-B21	N/A	HPE DL385 Gen11 x16 Slot 6 Sec Riser Kit + HPE DL385 G11 x16 Slot 5 Sec Upgrade Riser Kit	0	2	0	0	X16	X16
N/A	P55097-B21 + P57891-B21	N/A	HPE DL385 Gen11 x16 Slot 1 Sec Riser Kit + HPE DL385 Gen11 2x16 Sec Upgrade 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

Riser Support Matrix (2/2)									
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
N/A	P57892-B21	N/A	HPE DL385 Gen11 x16 Sec FIO Riser 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

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:



Cooling Options

Air-Cooled Solutions

HPE ProLiant DL3X5 Gen11 2U Standard Heat Sink Kit P58458-B21

HPE ProLiant DL3X5 Gen11 2U Performance Heat Sink Kit P58459-B21

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 P58460-B21

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	P62032-B21
HPE ProLiant DL3X5 Gen11 Direct Liquid Cooling Cold Plate Module FIO Kit From PCIe	P62035-B21
HPE ProLiant DL3XX Gen11 Direct Liquid Cooling 55cm Quick Disconnect Tube Set FIO Kit	P62042-B21
HPE ProLiant Direct Liquid Cooling 450mm Female-Male Connection Quick Disconnect Tube Set FIO Kit	P62046-B21

Notes:

- When DLC is configured, most of the configurations can be supported at 35C ambient temperature.
- When the server is configured as a liquid cooling system, the server can only be shipped to customer within the whole rack. The rack would include an HPE Rack, Liquid Cooling Manifold, CDU, Primary and 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 the racks below are allowed in the configuration:
  - Rack 42U 800mm x 1200mm Ent G2.
  - Rack 48U 800mm x 1200mm Ent G2.
- If P62032-B21 is selected with 4LFF rear cage in the configuration, then NS204i-u Gen11 Hot-Plug 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	P58464-B21
HPE ProLiant DL3X5 Gen11 2U Performance Fan Kit	P58465-B21

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 Max Performance Fan Kit	P94850-B21

Notes: This fan kit supports 600W GPUs (Nvidia RTX PRO 6000 BSE, H200 NVL and AMD MI350P).

HPE ProLiant DL385 Gen11 2U Standard/Performance FIO Air Baffle Kit	P57886-B21
HPE ProLiant DL385 Gen11 2U High Performance FIO Air Baffle Kit	P57887-B21

Notes:

- Air Baffles cannot be configured if mid cages are configured.
- Refer to One Config Advanced (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	P48183-B21
HPE NS204i-u v2 480GB NVMe Hot Plug Boot Optimized Storage Device	P78279-B21
HPE ProLiant DL3X5 Gen11 NS204i-u NVMe Hot Plug Boot Device Cable Kit	P57013-B21
HPE ProLiant DL3X5 Gen11 Tertiary NS204i-u NVMe Hot Plug Boot Device Enablement Kit	P57850-B21
HPE ProLiant DL3X5 Gen11 Secondary NS204i-u NVMe Hot Plug Boot Device Enablement Kit	P57885-B21

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	P57889-B21

Notes: This kit is supportable only for LFF chassis media bays.

HPE ProLiant DL385 Gen11 Optical Disk Drive Cable Kit	P63519-B21

Notes: This kit is supportable only for SFF chassis media bays.

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

Notes:

- 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	R7A11AAE
HPE Compute Ops Management Standard 5-year Upfront ProLiant SaaS	R7A12AAE
HPE Compute Ops Management Standard 3-year SaaS for Smart Choice	S7P76AAE
HPE Compute Ops Management Standard 5-year SaaS for Smart Choice	S7P77AAE
HPE Compute Ops Management Standard 7-year SaaS for Smart Choice	S7P78AAE
HPE Compute Ops Management Advanced 1-year Upfront ProLiant SaaS	S5E58AAE
HPE Compute Ops Management Advanced 3-year Upfront ProLiant SaaS	S5E59AAE
HPE Compute Ops Management Advanced 5-year Upfront ProLiant SaaS	S5E60AAE
HPE Compute Ops Management Advanced 7-year Upfront ProLiant SaaS	S5E61AAE
HPE Compute Ops Management Advanced 3-year SaaS for Smart Choice	S7P79AAE
HPE Compute Ops Management Advanced 5-year SaaS for Smart Choice	S7P80AAE
HPE Compute Ops Management Advanced 7-year SaaS for Smart Choice	S7P81AAE
HPE Compute Ops Management Advanced Flex with ProLiant Enablement	S6C28AAE

HPE OneView

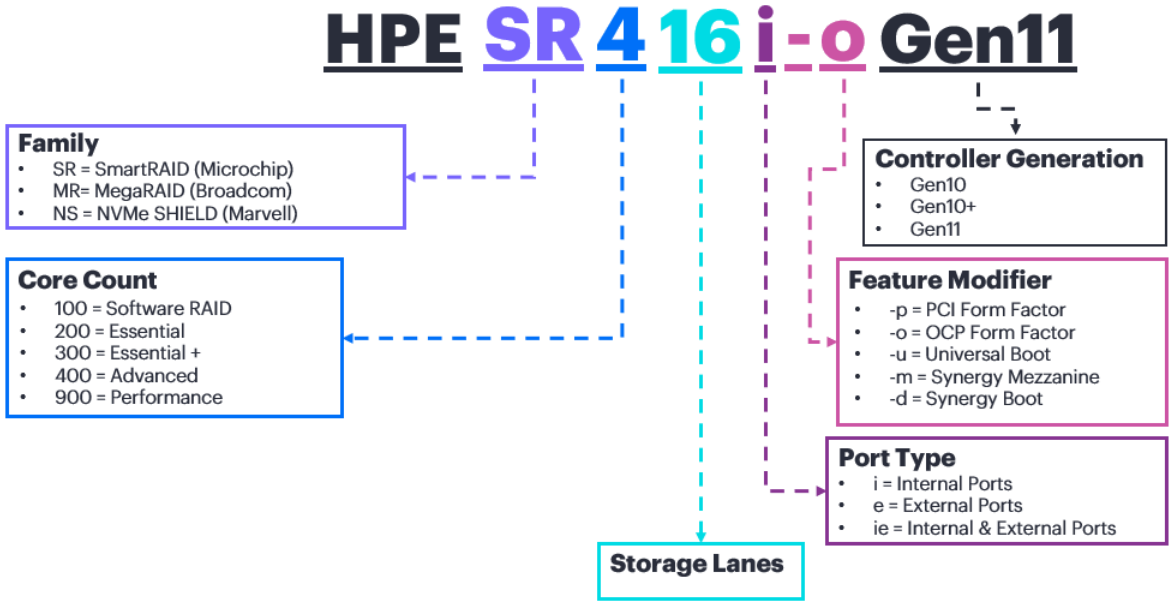
HPE OneView including 3yr 24x7 Support Flexible Quantity E-LTU	E5Y35AAE
HPE OneView w/o iLO including 3yr 24x7 Support Flexible Quantity E-LTU	P8B26AAE

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

HPE Compute Ops Management Base SaaS	R6Z73AAE

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 804398-B21

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) is used to sanitize drives, and factory reset the controller is not supported.
- For more information on the HPE Smart Array E208i-p SR Gen10 Controller, please refer to the QuickSpecs

Tri-mode RAID Controllers

HPE MR216i-o Gen11 x16 Lanes without Cache OCP SPDM Storage Controller P47789-B21

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 P58335-B21

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 P47781-B21

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 P47785-B21

Notes:

- This is a 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 P47777-B21

Notes:

- This is a 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 MR932i-p x32 Lanes PCIe Gen5 SPDM Plug-in Storage Controller P75697-B21

Notes:

- First PCIe Gen5 storage controller supported on DL385 Gen11.
- It is only supported on EDSFF configurations.

HPE SR932i-p Gen11 x32 Lanes 8GB Wide Cache PCI SPDM Plug-in Storage Controller P47184-B21

Notes:

- This is a 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	P02381-B21
HPE 96W Smart Storage Lithium-ion Battery with 260mm Cable Kit	P01367-B21
HPE 16W Smart Hybrid Capacitor with 260mm Cable	P65042-B21
HPE ProLiant DL3X5 Gen11 Smart Storage Battery 2P 96W Cable Kit	P57884-B21

Notes:

- The three 260mm battery cable kits 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

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

Midline - 12G SAS - LFF Drives

HPE 12TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e Multi Vendor HDD	881781-B21
HPE 8TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty 512e Multi Vendor HDD	834031-B21
HPE 4TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Multi Vendor HDD	833928-B21
HPE 16TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e ISE Multi Vendor HDD	P23608-B21
HPE 20TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e ISE Multi Vendor HDD	P53553-B21
HPE 24TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e ISE Multi Vendor HDD	P68583-B21
HPE 26TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e ISE Multi Vendor HDD	P80577-B21

Midline - 6G SATA - LFF Drives

HPE 2TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Multi Vendor HDD	861681-B21
HPE 4TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Multi Vendor HDD	861683-B21
HPE 1TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Multi Vendor HDD	861686-B21
HPE 12TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e Multi Vendor HDD	881787-B21
HPE 8TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty 512e Multi Vendor HDD	834028-B21
HPE 16TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e ISE Multi Vendor HDD	P23449-B21
HPE 20TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e ISE Multi Vendor HDD	P53554-B21
HPE 24TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e ISE Multi Vendor HDD	P68585-B21
HPE 26TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e ISE Multi Vendor HDD	P80578-B21

SED (Self-Encryption Drive)

HPE 2.4TB SAS 12G Mission Critical 10K SFF BC 3yr Wty 512e FIPS 140-2 TAA-compliant HDD	P28618-B21
HPE 1.2TB SAS 12G Mission Critical 10K SFF BC 3yr Wty FIPS 140-2 TAA-compliant HDD	P28622-B21

Notes:

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

SSD Selection

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

HPE 960GB SAS 12G Read Intensive SFF BC Value SAS Multi Vendor SSD	P40506-B21
HPE 1.92TB SAS 12G Read Intensive SFF BC Value SAS Multi Vendor SSD	P40507-B21
HPE 3.84TB SAS 12G Read Intensive SFF BC Value SAS Multi Vendor SSD	P40508-B21
HPE 7.68TB SAS 12G Read Intensive SFF BC Value SAS Multi Vendor SSD	P40509-B21
HPE 960GB SAS 24G Read Intensive SFF BC Multi Vendor SSD	P49029-B21
HPE 1.92TB SAS 12G Read Intensive SFF BC PM1643a SSD	P40557-B21
HPE 1.92TB SAS 24G Read Intensive SFF BC Multi Vendor SSD	P49031-B21
HPE 3.84TB SAS 24G Read Intensive SFF BC Multi Vendor SSD	P49035-B21
HPE 7.68TB SAS 24G Read Intensive SFF BC Multi Vendor SSD	P49041-B21
HPE 15.36TB SAS 24G Read Intensive SFF BC Multi Vendor SSD	P49045-B21
HPE 3.84TB SAS Read Intensive SFF BC Self-encrypting FIPS 140-3 PM7 SSD	P83347-B21

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

HPE 960GB SAS 12G Mixed Use SFF BC Value SAS Multi Vendor SSD	P40510-B21
HPE 1.92TB SAS 12G Mixed Use SFF BC Value SAS Multi Vendor SSD	P40511-B21
HPE 3.84TB SAS 12G Mixed Use SFF BC Value SAS Multi Vendor SSD	P40512-B21
HPE 800GB SAS 12G Mixed Use SFF BC PM1645a SSD	P40560-B21
HPE 800GB SAS 24G Mixed Use SFF BC Multi Vendor SSD	P49047-B21
HPE 1.6TB SAS 24G Mixed Use SFF BC Multi Vendor SSD	P49049-B21
HPE 3.2TB SAS 24G Mixed Use SFF BC Multi Vendor SSD	P49053-B21
HPE 6.4TB SAS 24G Mixed Use SFF BC Multi Vendor SSD	P49057-B21
HPE 1.6TB SAS Mixed Use SFF BC Self-encrypting FIPS 140-3 PM7 SSD	P83344-B21

Mixed Use SAS– LFF- Solid State Drives

HPE 960GB SAS 12G Mixed Use LFF LPC Value SAS Multi Vendor SSD	P37009-B21

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

HPE 480GB SATA 6G Mixed Use SFF BC Multi Vendor SSD	P40502-B21
HPE 960GB SATA 6G Mixed Use SFF BC Multi Vendor SSD	P40503-B21
HPE 1.92TB SATA 6G Mixed Use SFF BC Multi Vendor SSD	P40504-B21
HPE 3.84TB SATA 6G Mixed Use SFF BC Multi Vendor SSD	P40505-B21
HPE 960GB SATA 6G Mixed Use SFF BC Self-encrypting 5400M SSD	P58244-B21

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

HPE 480GB SATA 6G Read Intensive SFF BC Multi Vendor SSD	P40497-B21
HPE 960GB SATA 6G Read Intensive SFF BC Multi Vendor SSD	P40498-B21
HPE 1.92TB SATA 6G Read Intensive SFF BC Multi Vendor SSD	P40499-B21
HPE 3.84TB SATA 6G Read Intensive SFF BC Multi Vendor SSD	P40500-B21
HPE 7.68TB SATA 6G Read Intensive SFF BC Multi Vendor SSD	P40501-B21
HPE 480GB SATA 6G Read Intensive SFF BC Self-encrypting 5400P SSD	P58236-B21

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

HPE 960GB SATA 6G Read Intensive LFF LPC Multi Vendor SSD	P47808-B21

Very-Read-Optimized (VRO) – EDSFF – E3.S 1T – Solid State Drives

HPE 3.84TB NVMe Gen4 Mainstream Performance Very Read Optimized E3S EC1 EDSFF P5430 SSD	P63930-B21
HPE 7.68TB NVMe Gen4 Mainstream Performance Very Read Optimized E3S EC1 EDSFF P5430 SSD	P63934-B21
HPE 15.36TB NVMe Gen4 Mainstream Performance Very Read Optimized E3S EC1 EDSFF P5430 SSD	P63938-B21
HPE 30.72TB NVMe Gen4 Mainstream Performance Very Read Optimized E3S EC1 EDSFF P5430 SSD	P79065-B21

HPE 30.72TB NVMe Gen5 Mainstream Performance Very Read Optimized EC1 EDSFF Self-encrypting 6550 SSD	P79620-B21
HPE 30.72TB NVMe Gen5 Mainstream Performance Very Read Optimized E3.S EC1 EDSFF 6550 SSD	P79615-B21
HPE 61.44TB NVMe Gen5 Mainstream Performance Very Read Optimized EC1 EDSFF Self-encrypting 6550 SSD	P79623-B21
HPE 61.44TB NVMe Gen5 Mainstream Performance Very Read Optimized E3.S EC1 EDSFF 6550 SSD	P79618-B21
HPE 61.44TB NVMe Gen5 Mainstream Performance Very Read Optimized E3.S EC1 Self-encrypting 6600 SSD	P86746-B21
HPE 122.8TB NVMe Gen5 Mainstream Performance Very Read Optimized E3.S EC1 Self-encrypting 6600 SSD	P86748-B21

Read-Intensive – EDSFF – E3.S 1T – Solid State Drives

HPE 1.92TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 CD8P SSD	P69234-B21
HPE 1.92TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 EDSFF SPDM PE1010 SSD	P77269-B21
HPE 1.92TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 EDSFF SPDM PM9D3a SSD	P78914-B21
HPE 1.92TB NVMe Gen5 Mainstream Performance Read Intensive E3.S EC1 E3 Thin Multi Vendor SSD	P91090-B21
HPE 1.92TB NVMe Gen5 Mainstream Performance Read Intensive E3.S EC1 E3 Thin PQC27 CD9P SSD	P86024-B21
HPE 3.84TB NVMe Gen5 Mainstream Performance Read Intensive E3.S EC1 E3 Thin Multi Vendor SSD	P91092-B21
HPE 3.84TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 CD8P SSD	P69237-B21
HPE 3.84TB NVMe Gen5 High Performance Read Intensive E3.S EC1 E3 Thin Multi Vendor SSD	P91229-B21
HPE 3.84TB NVMe Gen5 High Performance Read Intensive E3.S EC1 PM1753 SSD	P78789-B21
HPE 3.84TB NVMe Gen5 High Performance Read Intensive E3S EC1 EDSFF SPDM CM7 SSD	P61179-B21
HPE 3.84TB NVMe Gen5 High Performance Read Intensive E3S EC1 PS1010 SSD	P70392-B21
HPE 3.84TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 EDSFF SPDM PE1010 SSD	P77271-B21
HPE 3.84TB NVMe Gen5 High Performance Read Intensive E3S EC1 EDSFF SPDM 9550 SSD	P77057-B21
HPE 3.84TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 EDSFF SPDM PM9D3a SSD	P78917-B21
HPE 3.84TB NVMe Gen5 Mainstream Performance Read Intensive E3.S EC1 PQC27 Self-encrypting CD9P SSD	P88539-B21
HPE 3.84TB NVMe Gen5 Mainstream Performance Read Intensive E3.S EC1 E3 Thin PQC27 CD9P SSD	P86026-B21
HPE 7.68TB NVMe Gen5 Mainstream Performance Read Intensive E3.S EC1 E3 Thin Multi Vendor SSD	P91094-B21
HPE 7.68TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 CD8P SSD	P69239-B21
HPE 7.68TB NVMe Gen5 High Performance Read Intensive E3.S EC1 E3 Thin Multi Vendor SSD	P91231-B21
HPE 7.68TB NVMe Gen5 High Performance Read Intensive E3.S EC1 PM1753 SSD	P78791-B21
HPE 7.68TB NVMe Gen5 High Performance Read Intensive E3S EC1 EDSFF SPDM CM7 SSD	P61183-B21
HPE 7.68TB NVMe Gen5 High Performance Read Intensive E3S EC1 Self-encrypting FIPS 140-3 CM7 SSD	P70674-B21
HPE 7.68TB NVMe Gen5 High Performance Read Intensive E3S EC1 PS1010 SSD	P70395-B21
HPE 7.68TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 EDSFF SPDM PE1010 SSD	P77273-B21
HPE 7.68TB NVMe Gen5 High Performance Read Intensive E3S EC1 EDSFF SPDM 9550 SSD	P77059-B21
HPE 7.68TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 EDSFF SPDM PM9D3a SSD	P78919-B21
HPE 7.68TB NVMe Gen5 Mainstream Performance Read Intensive E3.S EC1 PQC27 Self-encrypting CD9P SSD	P88541-B21
HPE 7.68TB NVMe Gen5 Mainstream Performance Read Intensive E3.S EC1 E3 Thin PQC27 CD9P SSD	P86028-B21
HPE 15.36TB NVMe Gen5 Mainstream Performance Read Intensive E3.S EC1 E3 Thin Multi Vendor SSD	P91096-B21
HPE 15.36TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 CD8P SSD	P69546-B21
HPE 15.36TB NVMe Gen5 High Performance Read Intensive E3.S EC1 E3 Thin Multi Vendor SSD	P91233-B21
HPE 15.36TB NVMe Gen5 High Performance Read Intensive E3S EC1 EDSFF SPDM PM1743 SSD	P57807-B21
HPE 15.36TB NVMe Gen5 High Performance Read Intensive E3.S EC1 PM1753 SSD	P78793-B21

HPE 15.36TB NVMe Gen5 High Performance Read Intensive E3S EC1 EDSFF SPDM CM7 SSD	P61187-B21
HPE 15.36TB NVMe Gen5 High Performance Read Intensive E3S EC1 Self-encrypting FIPS 140-3 CM7 SSD	P79122-B21
HPE 15.36TB NVMe Gen5 High Performance Read Intensive E3S EC1 PS1010 SSD	P70397-B21
HPE 15.36TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 EDSFF SPDM PE1010 SSD	P77275-B21
HPE 15.36TB NVMe Gen5 High Performance Read Intensive E3S EC1 EDSFF SPDM 9550 SSD	P77061-B21
HPE 15.36TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 EDSFF SPDM PM9D3a SSD	P78921-B21
HPE 15.36TB NVMe Gen5 Mainstream Performance Read Intensive E3.S EC1 PQC27 Self-encrypting CD9P SSD	P88543-B21
HPE 15.36TB NVMe Gen5 Mainstream Performance Read Intensive E3.S EC1 E3 Thin PQC27 CD9P SSD	P86030-B21
HPE 30.72TB NVMe Gen5 High Performance Read Intensive E3.S EC1 EDSFF SPDM 9550 SSD	P79965-B21
HPE 30.72TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 EDSFF SPDM PM9D3a SSD	P78923-B21
HPE 30.72TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 EDSFF Self-encrypting PM9D3a SSD	P79147-B21
HPE 30.72TB NVMe Gen5 Mainstream Performance Read Intensive E3.S EC1 E3 Thin PQC27 CD9P SSD	P86032-B21
HPE 1.92TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 Self-encrypting 7600 SSD	P87719-B21
HPE 1.92TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 SPDM 7600 SSD	P85121-B21
HPE 15.36TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 SPDM 7600 SSD	P85128-B21
HPE 3.84TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 Self-encrypting 7600 SSD	P87721-B21
HPE 3.84TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 SPDM 7600 SSD	P85124-B21
HPE 7.68TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 Self-encrypting 7600 SSD	P87723-B21
HPE 7.68TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 SPDM 7600 SSD	P85126-B21

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	P69241-B21
HPE 1.6TB NVMe Gen5 Mainstream Performance Mixed Use E3S EC1 EDSFF SPDM PE1030 SSD	P77262-B21
HPE 1.6TB NVMe Gen5 Mainstream Performance Mixed Use E3.S EC1 E3 Thin Multi Vendor SSD	P91084-B21
HPE 1.6TB NVMe Gen5 Mainstream Performance Mixed Use E3.S EC1 PQC27 Self-encrypting CD9P SSD	P88535-B21
HPE 1.6TB NVMe Gen5 Mainstream Performance Mixed Use E3.S EC1 E3 Thin PQC27 CD9P SSD	P86016-B21
HPE 3.2TB NVMe Gen5 Mainstream Performance Mixed Use E3S EC1 CD8P SSD	P69243-B21
HPE 3.2TB NVMe Gen5 Mainstream Performance Mixed Use E3.S EC1 E3 Thin Multi Vendor SSD	P91086-B21
HPE 3.2TB NVMe Gen5 High Performance Mixed Use E3.S EC1 E3 Thin Multi Vendor SSD	P91098-B21
HPE 3.2TB NVMe Gen5 High Performance Mixed Use E3S EC1 EDSFF SPDM CM7 SSD	P61191-B21
HPE 3.2TB NVMe Gen5 High Performance Mixed Use E3S EC1 Self-encrypting FIPS 140-3 CM7 SSD	P70669-B21
HPE 3.2TB NVMe Gen5 High Performance Mixed Use E3S EC1 PS1030 SSD	P70399-B21
HPE 3.2TB NVMe Gen5 High Performance Mixed Use E3.S EC1 PM1755 SSD	P78784-B21
HPE 3.2TB NVMe Gen5 Mainstream Performance Mixed Use E3S EC1 EDSFF SPDM PE1030 SSD	P77265-B21
HPE 3.2TB NVMe Gen5 High Performance Mixed Use E3S EC1 EDSFF SPDM 9550 SSD	P77050-B21
HPE 3.2TB NVMe Gen5 Mainstream Performance Mixed Use E3.S EC1 PQC27 Self-encrypting CD9P SSD	P88537-B21
HPE 3.2TB NVMe Gen5 Mainstream Performance Mixed Use E3.S EC1 E3 Thin PQC27 CD9P SSD	P86018-B21
HPE 6.4TB NVMe Gen5 Mainstream Performance Mixed Use E3S EC1 CD8P SSD	P69245-B21
HPE 6.4TB NVMe Gen5 Mainstream Performance Mixed Use E3.S EC1 E3 Thin Multi Vendor SSD	P91088-B21
HPE 6.4TB NVMe Gen5 High Performance Mixed Use E3.S EC1 E3 Thin Multi Vendor SSD	P91100-B21
HPE 6.4TB NVMe Gen5 High Performance Mixed Use E3S EC1 EDSFF SPDM CM7 SSD	P61195-B21
HPE 6.4TB NVMe Gen5 High Performance Mixed Use E3S EC1 Self-encrypting FIPS 140-3 CM7 SSD	P70672-B21

HPE 6.4TB NVMe Gen5 High Performance Mixed Use E3S EC1 PS1030 SSD	P70401-B21
HPE 6.4TB NVMe Gen5 High Performance Mixed Use E3.S EC1 PM1755 SSD	P78787-B21
HPE 6.4TB NVMe Gen5 Mainstream Performance Mixed Use E3S EC1 EDSFF SPDM PE1030 SSD	P77267-B21
HPE 6.4TB NVMe Gen5 High Performance Mixed Use E3S EC1 EDSFF SPDM 9550 SSD	P77053-B21
HPE 6.4TB NVMe Gen5 Mainstream Performance Mixed Use E3.S EC1 E3 Thin PQC27 CD9P SSD	P86020-B21
HPE 12.8TB NVMe Gen5 High Performance Mixed Use E3.S EC1 E3 Thin Multi Vendor SSD	P91102-B21
HPE 12.8TB NVMe Gen5 High Performance Mixed Use E3S EC1 PS1030 SSD	P70403-B21
HPE 12.8TB NVMe Gen5 High Performance Mixed Use E3S EC1 EDSFF SPDM 9550 SSD	P77055-B21
HPE 1.6TB NVMe Gen5 Mainstream Performance Mixed Use E3.S EC1 Self-encrypting 7600 SSD	P87715-B21
HPE 1.6TB NVMe Gen5 Mainstream Performance Mixed Use E3S EC1 SPDM 7600 SSD	P85114-B21
HPE 3.2TB NVMe Gen5 Mainstream Performance Mixed Use E3.S EC1 Self-encrypting 7600 SSD	P87717-B21
HPE 3.2TB NVMe Gen5 Mainstream Performance Mixed Use E3S EC1 SPDM 7600 SSD	P85117-B21
HPE 6.4TB NVMe Gen5 Mainstream Performance Mixed Use E3S EC1 SPDM 7600 SSD	P85119-B21

Read Intensive – NVMe – SFF – Solid State Drives

HPE 1.92TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 Self-encrypting FIPS 140-3 CM7 SSD	P61019-B21
HPE 1.92TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 Multi Vendor SSD	P91243-B21
HPE 1.92TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 PQC27 CD9P SSD	P92315-B21
HPE 3.84TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 Multi Vendor SSD	P91245-B21
HPE 3.84TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 SPDM 7500 SSD	P84244-B21
HPE 3.84TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 Static PM1753 SSD	P78806-B21
HPE 3.84TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 Self-encrypting FIPS 140-3 CM7 SSD	P61027-B21
HPE 3.84TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 PQC27 CD9P SSD	P92317-B21
HPE 7.68TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 Multi Vendor SSD	P91247-B21
HPE 7.68TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 SPDM 7500 SSD	P84242-B21
HPE 7.68TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 Static PM1753 SSD	P78808-B21
HPE 7.68TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PS1010 SSD	P70434-B21
HPE 7.68TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 Self-encrypting FIPS 140-3 CM7 SSD	P61035-B21
HPE 7.68TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 PQC27 CD9P SSD	P92319-B21
HPE 15.36TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 Multi Vendor SSD	P91249-B21
HPE 15.36TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 Static PM1753 SSD	P78810-B21
HPE 15.36TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PS1010 SSD	P70436-B21
HPE 15.36TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 SPDM 7500b SSD	P84239-B21
HPE 15.36TB NVMe Gen4 Mainstream Performance Read Intensive BC U.3 Static V2 SPDM Multi Vendor SSD	P84236-B21
HPE 15.36TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 PQC27 CD9P SSD	P92321-B21
HPE 30.72TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 PQC27 CD9P SSD	P88533-B21
HPE 960GB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 Static V2 Multi Vendor SSD	P64842-B21
HPE 1.92TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 Static V2 Multi Vendor SSD	P64844-B21
HPE 3.84TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 Static V2 Multi Vendor SSD	P64846-B21
HPE 7.68TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 Static V2 Multi Vendor SSD	P64848-B21

Mixed Use - NVMe - SFF - Solid State Drives

HPE 1.6TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PM1735a SSD	P50227-B21
HPE 1.6TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 Self-encrypting FIPS 140-3 CM7 SSD	P61043-B21

Core Options

HPE 1.6TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 Multi Vendor SSD	P91237-B21
HPE 1.6TB NVMe Gen4 Mainstream Performance Mixed Use SFF BC U.3 PQC27 CD9P SSD	P92309-B21
HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 Multi Vendor SSD	P91239-B21
HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PM1735a SSD	P50230-B21
HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 Static PM1755 SSD	P78801-B21
HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PS1030 SSD	P70426-B21
HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 Self-encrypting FIPS 140-3 CM7 SSD	P61051-B21
HPE 3.2TB NVMe Gen4 Mainstream Performance Mixed Use SFF BC U.3 PQC27 CD9P SSD	P92311-B21
HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 Multi Vendor SSD	P91241-B21
HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PM1735a SSD	P50233-B21
HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 Static PM1755 SSD	P78804-B21
HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PS1030 SSD	P70428-B21
HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 Self-encrypting FIPS 140-3 CM7 SSD	P61059-B21
HPE 6.4TB NVMe Gen4 Mainstream Performance Mixed Use SFF BC U.3 PQC27 CD9P SSD	P92313-B21
HPE 800GB NVMe Gen4 Mainstream Performance Mixed Use SFF BC U.3 Static V2 Multi Vendor SSD	P64999-B21
HPE 1.6TB NVMe Gen4 Mainstream Performance Mixed Use SFF BC U.3 Static V2 Multi Vendor SSD	P65007-B21
HPE 3.2TB NVMe Gen4 Mainstream Performance Mixed Use SFF BC U.3 Static V2 Multi Vendor SSD	P65015-B21
HPE 6.4TB NVMe Gen4 Mainstream Performance Mixed Use SFF BC U.3 Static V2 Multi Vendor SSD	P65023-B21

HPE Tape Backup

For the complete range of tape drives, autoloaders, libraries and media see:
https://www.hpe.com/us/en/storage/storeever-tape-storage.html

For hardware and software compatibility of Hewlett Packard Enterprise tape backup products
http://www.hpe.com/storage/BURAcompatibility

HPE Storage Options

Emulex Fibre Channel HBAs

HPE SN1610E 32Gb 1-port Fibre Channel Host Bus Adapter	R2J62A
HPE SN1610E 32Gb 2-port Fibre Channel Host Bus Adapter	R2J63A
HPE SN1700E 64Gb 1-port Fibre Channel Host Bus Adapter	R7N77A
HPE SN1700E 64Gb 2-port Fibre Channel Host Bus Adapter	R7N78A

QLogic Fibre Channel HBAs

HPE SN1610Q 32Gb 1-port Fibre Channel Host Bus Adapter	R2E08A
HPE SN1610Q 32Gb 2-port Fibre Channel Host Bus Adapter	R2E09A
HPE SN1700Q 64Gb 1-port Fibre Channel Host Bus Adapter	R7N86A
HPE SN1700Q 64Gb 2-port Fibre Channel Host Bus Adapter	R7N87A

HPE Networking

1 Gigabit Ethernet adapters

Intel I350-T4 Ethernet 1Gb 4-port BASE-T Adapter for HPE	P21106-B21
Broadcom BCM5719 Ethernet 1Gb 4-port BASE-T Adapter for HPE	P51178-B21

10 Gigabit Ethernet adapters

Broadcom BCM57416 Ethernet 10Gb 2-port BASE-T Adapter for HPE	P26253-B21
Broadcom BCM57412 Ethernet 10Gb 2-port SFP+ Adapter for HPE	P26259-B21

10/25 Gigabit Ethernet adapters

Broadcom BCM57414 Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	P26262-B21
Broadcom BCM57504 Ethernet 10/25Gb 4-port SFP28 Adapter for HPE	P26264-B21
Intel E810-XXVDA2 Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	P08443-B21
Mellanox MCX631102AS-ADAT Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	P42044-B21
Intel E810-XXVDA4 Ethernet 10/25Gb 4-port SFP28 Adapter for HPE	P08458-B21
NVIDIA Ethernet 10/25Gb 2-port SFP28 NVMe-oF Crypto Adapter for HPE	S2A69A
AMD Solarflare X4522-PLUS 10/25GbE 2-port SFP56 Adapter for HPE	P87940-B21

100/200 Gigabit Ethernet adapters

Mellanox MCX623106AS-CDAT Ethernet 100Gb 2-port QSFP56 Adapter for HPE	P25960-B21
Intel E810-CQDA2 Ethernet 100Gb 2-port QSFP28 Adapter for HPE	P21112-B21
HPE Slingshot SA210S Ethernet 200Gb 1-port PCIe NIC	R4K46A
NVIDIA Ethernet 100Gb 2-port NVMe-oF Offload Adapter for HPE	R8M41A
Broadcom BCM57608 Ethernet 100Gb 2-port QSFP112 Adapter for HPE	P73111-B21

Notes:

- Almost all PCIe Networking Cards need 6x Performance Fans. Refer to One Config Advanced (OCA) configurator for exceptions and details.
- Direct Attach Cable (DAC) for copper environments or fiber transceivers and cables for fiber-optic environments must be purchased separately. Refer to 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 = 240 W	30°C	30°C	30°C	30°C	30°C	30°C
24SFF		30°C	30°C	30°C	30°C	30°C	30°C
8 LFF / 16 SFF	> 240 W	30°C	30°C	30°C	30°C	30°C	25°C
12 LFF		25°C	25°C	25°C	25°C	25°C	25°C
24SFF		25°C	25°C	25°C	25°C	25°C	25°C
8SFF		30°C	30°C	30°C	30°C	30°C	30°C

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	P08449-B21
Broadcom BCM5719 Ethernet 1Gb 4-port BASE-T OCP3 Adapter for HPE	P51181-B21

10 Gigabit Ethernet OCP Adapters

Broadcom BCM57412 Ethernet 10Gb 2-port SFP+ OCP3 Adapter for HPE	P26256-B21
Broadcom BCM57416 Ethernet 10Gb 2-port BASE-T OCP3 Adapter for HPE	P10097-B21

10/25 Gigabit Ethernet OCP adapters

Broadcom BCM57414 Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE	P10115-B21
Broadcom BCM57504 Ethernet 10/25Gb 4-port SFP28 OCP3 Adapter for HPE	P26269-B21
Intel E810-XXVDA2 Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE	P10106-B21
Mellanox MCX631432AS-ADAI Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE	P42041-B21

100/200 Gigabit Ethernet adapters

Intel E810-CQDA2 Ethernet 100Gb 2-port QSFP28 OCP3 Adapter for HPE	P22767-B21
Broadcom BCM57608 Ethernet 100Gb 2-port QSFP112 OCP3 Adapter for HPE	P73114-B21

Notes:

- Almost all PCIe Networking Cards need 6x Performance Fans. Refer to One Config Advanced (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 = 240 W	30°C	30°C	30°C	30°C
24 SFF		30°C	30°C	30°C	30°C
8 LFF /16 SFF	>240 W	25°C	25°C	30°C	30°C
12 LFF		25°C	25°C	25°C	25°C
24 SFF		25°C	25°C	25°C	25°C
8 SFF		30°C	30°C	30°C	30°C

Notes: Other Restrictions.

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

NVIDIA DPU

HPE Data Processing Unit InfiniBand NDR200/Ethernet 200Gb 2-port QSFP112 FHHL B3220 Adapter	P66386-H21
HPE Data Processing Unit InfiniBand NDR/Ethernet 400Gb 1-port QSFP112 HHHL B3140H Adapter	P66387-H21
HPE ProLiant DL385 Gen11 DPU Power Cable Kit for 3x NVIDIA BlueField-3	P71949-B21

Notes:

- This 3-way power cable kit is only supported with B3220 DPU. It is able to support up to 3x B3220 in a server system.

HPE InfiniBand

HPE InfiniBand NDR200/Ethernet 200Gb 1-port OSFP PCIe5 x16 MCX75310AAS-HEAT Generic Adapter	P45642-H23
HPE InfiniBand NDR/Ethernet 400Gb 1-port OSFP PCIe5 x16 MCX75310AAS-NEAT Generic Adapter	P45641-H24

Notes:

- All InfiniBand options require 6 performance fan kits.
- For more information, please visit: HPE InfiniBand Options for HPE ProLiant and Apollo 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 = 240 W	30°C	30°C	30°C	30°C	30°C	30°C	23°C
24 SFF		30°C	30°C	30°C	30°C	30°C	30°C	25°C
8 LFF /16 SFF	>240 W	30°C	30°C	25°C	30°C	30°C	25°C	25°C
12 LFF		25°C	25°C	25°C	25°C	25°C	25°C	Not Support
24 SFF		25°C	25°C	25°C	25°C	25°C	25°C	Not Support
8 SFF		30°C	30°C	30°C	30°C	30°C	30°C	25°C

Notes:

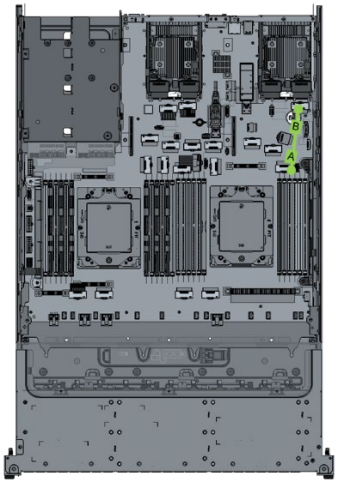
Other Restrictions.

- 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 P57882-B21

Notes:

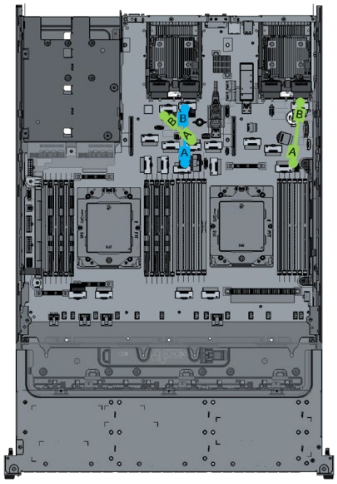
- This cable kit cannot be selected when 2 processors are configured.
- This cable kit upgrades OCP1 from x8 to x16.
- When this kit is selected, OCP2 will not be available.



HPE ProLiant DL3X5 Gen11 x16 OCP1 OCP2 2P Upgrade Cable Kit P57849-B21

Notes:

- This cable kit needs 2 configured processors.
- 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.



HPE Computation and Graphics Accelerator and related option kits

AMD Instinct MI350P 144GB PCIe Accelerator for HPE S8A40C

Notes:

- Quantity 1~4 can be configured and quoted now. Target ship start date is within December of 2026.
- 450W iLO GPU power capping is required to support from 1~4 GPUs.

NVIDIA RTX PRO 6000 Blackwell Server Edition 96GB PCIe Accelerator for HPE S6A73C

Notes:

- This is the successor to the NVIDIA L40S 48GB PCIe GPU.
- DL385 Gen11 now supports quantity 1~4. iLO GPU power capping can be selected to support server ambient temperature from 25C to 30C.
- When this GPU is selected, the PDB kit must be selected.
- When this GPU is selected, the 12-pin GPU Power Cable Kit to PDB must be selected (P82106-B21).
- This GPU doesn't support the NVIDIA 2-way NVLink Bridge.

NVIDIA RTX PRO 6000D 84GB PCIe Accelerator for HPE S6W21C

Notes:

- This is a special version of RTX PRO 6000 Blackwell Server Edition GPU for China, Hong Kong and Macau.
- Same support condition and GPU power cable as the standard RTX PRO 6000 Blackwell Server Edition GPU.

NVIDIA RTX PRO 4500 Blackwell Server Edition 32GB PCIe Accelerator for HPE S6W30C

Notes:

- Ideal GPU for Inferencing, Edge A.I. and Graphics Processing.
- Maximum supported quantity = 4.
- When quantity of 1~3 is installed, 1x HPE DL385 Gen11 16p GPU Cbl v2 Kit (P80743-B21) is required.
- When quantity of 4 is installed, 2x HPE DL385 Gen11 16p GPU Cbl v2 Kit (P80743-B21) is required.

NVIDIA L40S 48GB PCIe Accelerator S2L70C

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 L40 48GB PCIe Accelerator for HPE S0K90C

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 S0K89C

Notes:

- L4 can now be supported by SFF, EDSFF or GPU CTO chassis. Not supported with LFF or 48SFF CTO chassis.
- This GPU is now supportable with:
  - 4DW GPU FIO enablement kit (max L4 quantity =4)
  - 8SW GPU FIO enablement kit (max L4 quantity =8)
- Mixing different types of GPU cannot be supported.
- This GPU does not require a GPU power cable kit.
- When this GPU is selected, the NVIDIA Ampere NVLink 2x2 Bridge cannot be selected.

NVIDIA H200 NVL 141GB PCIe Accelerator for HPE S3U30C

Notes:

- Double wide GPUs can only be supported with the GPU CTO chassis.
- DL385 Gen11 now supports quantity 1~4. iLO GPU power capping is required to support 3 and 4 GPUs.
- 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 12-pin GPU Power Cable Kit to PDB must be selected (P82106-B21).
- This GPU supports the NVIDIA 2-way NVLink Bridge (S4A90C).

NVIDIA A16 64GB PCIe Non-CEC Accelerator for HPE R8T26C

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.
- If A16 64GB GPU is selected without the PDB kit then CPU 8pin GPU Power Cable Kit to MB must be selected (P57851-B21).
- If A16 64GB GPU is selected with the PDB kit then CPU 8p GPU Power Cable Kit to PDB must be selected (P57858-B21).
- When this GPU is selected, the NVIDIA Ampere NVLink 2x2 Bridge cannot be selected.

NVIDIA 2-way NVLink Bridge for H200 NVL S4A90C

Notes:

- Maximum quantity of this bridge per 2x H200 NVL GPUs in a DL385 Gen11 system is two.
- Minimum of 2x H200 NVL GPUs must be selected to support this bridge.

HPE ProLiant DL385 Gen11 8 Single Wide GPU FIO Enablement Kit P57883-B21

Notes:

- Due to internal space interference, this kit cannot be used together with any storage back-up battery for controllers.
- This kit is required for 8x Single Wide GPUs.
- This kit provides eight GPU risers supporting up to 8x Single Wide GPUs.

Core Options

HPE ProLiant DL385 Gen11 GPU FIO Switchboard Kit P57894-B21

Notes:

- This kit is required for the 8SW GPU FIO enablement kit and 8x SW GPUs.
- This kit provides two switchboards which provide PCIe lanes for the 8x GPU risers.

HPE ProLiant DL385 Gen11 4 Double Wide GPU FIO Enablement Kit P55094-B21

Notes:

- 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 4x GPU Power Cable Kit P94841-B21

Notes: This cable kit is required to support 4x RTX PRO 6000 BSE, H200 NVL or 1~4x MI350P.

HPE ProLiant DL385 Gen11 CPU 8-pin GPU Power Cable From Motherboard P57851-B21

Notes:

- 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 P57858-B21

Notes:

- 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 of one.
- One GPU power cable kit can support up to 4x DW GPUs.

HPE ProLiant DL385 Gen11 CPU 16-pin GPU Power Cable From Motherboard P73574-B21

Notes:

- 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 of one.
- One GPU cable kit can support up to 4x DW GPU.

HPE ProLiant DL385 Gen11 16-pin GPU Power Cable v2 Kit P80743-B21

Notes:

- 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 integrable and orderable as a standalone kit.

HPE ProLiant DL385 Gen11 16-pin GPU Power Cable From Power Distribution Board P57866-B21

Notes:

- 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.

HPE ProLiant DL385 Gen11 16(12+4)-pin 0.6m PCIe GPU Power Cable Kit P82106-B21

Notes:

- This cable kit connects to the Power Distribution Board (PDB) supported when four power supplies are configured in the system.
- One GPU power cable kit only supports one GPU.
- This cable kit supports H200 NVL GPU.
- Quantity of two are required when two H200 NVL GPU are selected and installed on the same side.

HPE ProLiant DL385 Gen11 12-pin 0.8m GPU Power Cable Kit P85893-B21

Notes:

- This cable kit connects to the Power Distribution Board (PDB) supported when four power supplies are configured in the system.
- One GPU power cable kit only supports one GPU.
- When Q'ty=2 of RTX PRO 6000 BSE or RTX PRO 6000D BSE GPU is selected, please select (1) P82106-B21 short power cable and (1) P85893-B21 0.8m power cable. Doing so ensures 2x RTX PRO 6000 BSE GPUs are installed evenly across CPU 1 and CPU 2 left and right.
- Maximum quantity =2.

Power Cable Selection	H200 NVL	RTX PRO 6000 BSE/ RTX PRO 6000D BSE	GPU Power Cables Required
Quantity Supported	1	0	1x P82106-B21
	2	0	2x P82106-B21
	0	1	1x P82106-B21
	0	2	1x P82106-B21 1x P85893-B21

HPE ProLiant DL385 Gen11 GPU Blank Kit P82523-B21

Notes:

- This blank kit blocks unused front GPU riser slots to improve system thermal.
- Only quantity of one is required regardless of number of GPUs configured.

HPE ProLiant DL385 Gen11 with iLO GPU 550W Power Capping FIO Enablement Kit	P94052-B21
HPE ProLiant DL385 Gen11 with iLO GPU 450W Power Capping FIO Enablement Kit	P94054-B21

Notes:

- Once the 550W power capping trigger (P94052-B21) is selected on OCA, your server configured with Nvidia RTX PRO 6000 BSE GPU will be capped at 550W, to support an ambient temperature higher than 25C degrees Celsius
- Once the 450W power capping trigger (P94054-B21) selected on OCA, your server configured with Nvidia RTX PRO 6000 BSE or H200 NVL GPU will be capped at 450W, to support an ambient temperature higher than 25C degrees Celsius
- GPU power capping with iLO 6 requires an iLO Advance license. iLO Advance license can be obtained by selecting one of below HPE software offerings.

  iLO Advance licenses:

  512485-B21 – HPE iLO Adv 1-svr Lic 1yr Support

  512487-B21 – HPE iLO Adv AKA Lic 1yr Support

  BD505A – HPE iLO Adv 1-svr Lic 3yr Support

  BD507A – HPE iLO Adv AKA Lic 3yr Support

  E6U59ABE – HPE iLO Adv Elec Lic 1yr Support

  E6U64ABE – HPE iLO Adv Elec Lic 3yr Support

  COM:

  S5E59AAE – HPE COM Adv 3yr Up ProLiant SaaS
  S5E60AAE – HPE COM Adv 5yr Up ProLiant SaaS
  S5E61AAE – HPE COM Adv 7yr Up ProLiant SaaS
  S6C28AAE – HPE COM Adv ProLiant Enablement

  OneView:

  E5Y35AAE – HPE OV 3yr 24x7 Supp Flex E-LTU
  E5Y36A – HPE OV 3yr 24x7 Supp Track 1 Svr Lic
  E5Y43A – HPE OV for DL 3y 24x7 FIO Phys 1 Svr Lic
  E5Y44A – HPE OV for DL 3y 24x7 Bdl Track 1Svr Lic

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.

Notes:

- Prior to making a power supply selection it is highly recommended that the HPE Power Advisor is run to determine the right size power supply for your server configuration. The HPE Power Advisor is located at: https://poweradvisorext.it.hpe.com/?Page=Index
- HPE ProLiant servers ship with an IEC-IEC power cord used for rack mounting with Power Distribution Units (PDUs). Visit HPE Power Cords and Cables for a full list of optional power cords.

HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit P38995-B21

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 P03178-B21

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 P17023-B21

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 P38997-B21

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 P44712-B21

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 P36877-B21

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 P57888-B21

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.

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

Other Cable Options

HPE ProLiant DL3X5 Gen11 XGMI Interconnection Cable Kit	P57880-B21

Notes:

- This kit enhances the interconnection between 2 processors by providing the 4th XGMI interconnection on top of the defaulted 3 interconnections which optimizes system performance.
- Requires two 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:

- By part number/AS# on the CT label of the mainboard. CT labels are usually pasted next to memory DIMM slots. Refer to the images below and learn where you can find AS# on a CT label

- 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 DL36X Gen11 Rear Serial Port Cable Kit P59431-B21

HPE Racks

- Refer to the HPE Advanced Series Racks QuickSpecs for information on additional racks options and rack specifications. HPE G2 Advanced Series Racks
- Refer to 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)

- Refer to the HPE Basic Power Distribution Units (PDU) QuickSpecs for information on these products and their specifications.
- Refer to the HPE Metered Power Distribution Units (PDU) QuickSpecs for information on these products and their specifications.
- Refer to the HPE Intelligent Power Distribution Unit (PDU) QuickSpecs for information on these products and their specifications.
- Refer to 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.
- Refer to the HPE DirectFlow Three Phase Uninterruptible Power System QuickSpecs for information on these products and their specifications.
- Refer to the HPE Line Interactive Single-Phase UPS QuickSpecs for information on these products and their specifications.

HPE Rack Options

- Refer to 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 only on 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 and Startup Services

HPE ProLiant DL/ML Install Service U4554E

HPE Proliant DL/ML Ons 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

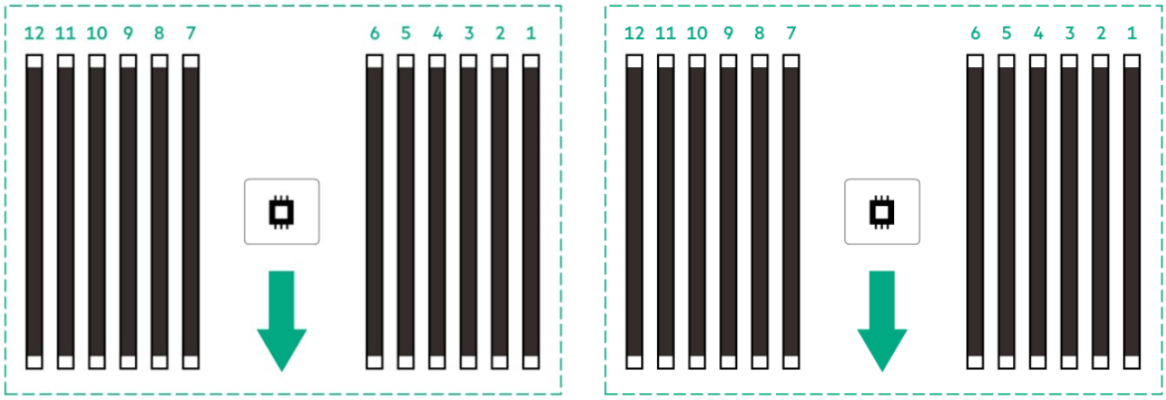
The story may end with servers, but it starts with the foundation that makes compute go – and business grow. We've reinvented our entire portfolio of rack and power products to make IT infrastructure more secure, more practical, and more efficient. In other words, we have created a stronger, smarter, and simpler 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 of 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.

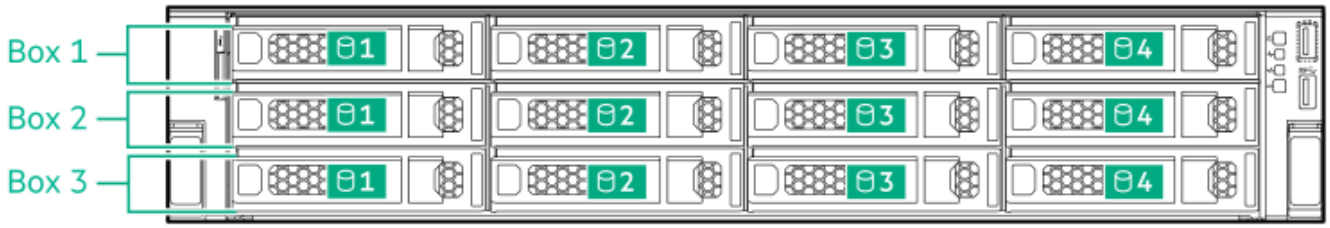


-------- Front side of the server --------

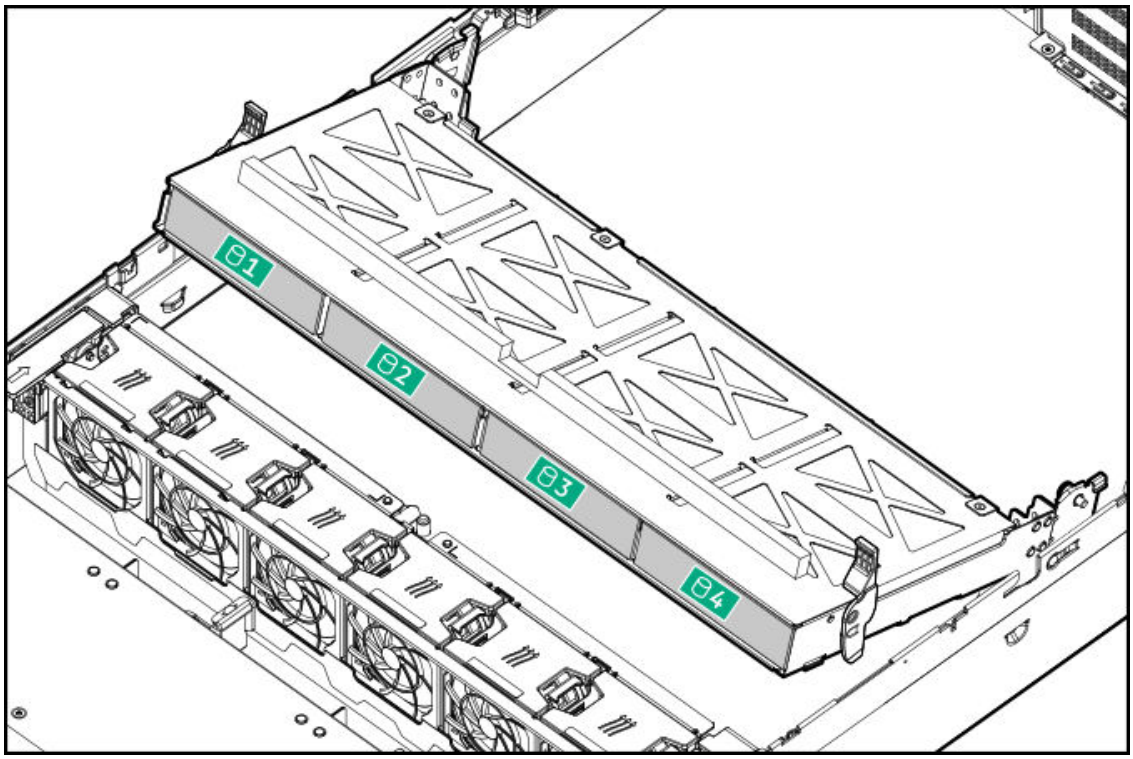
General Memory Population Rules and Guidelines

- 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, refer to 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

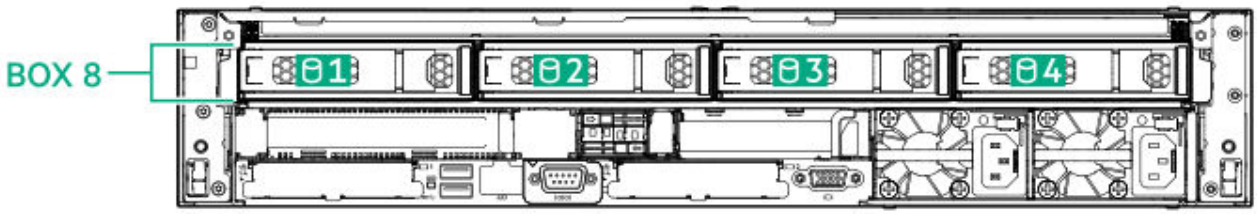
8LFF chassis with Universal media bay and optional 2SFF and optical drive shown



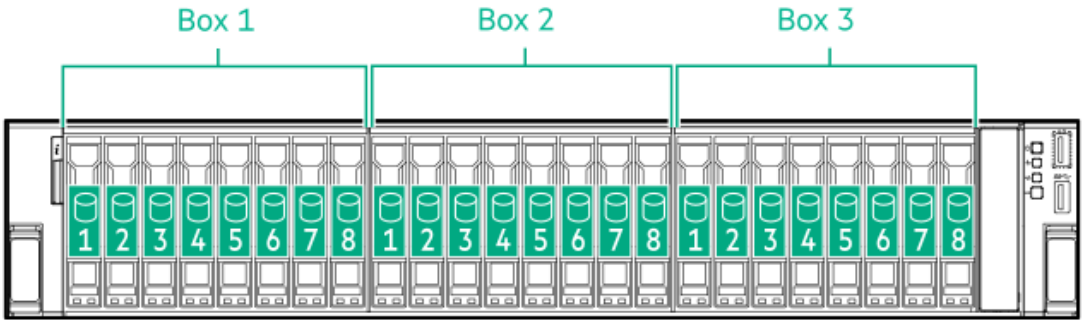
12LFF Front Panel

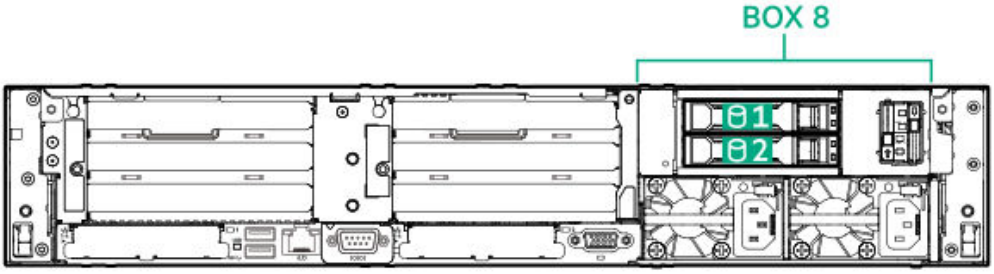


Midplane Box (LFF)

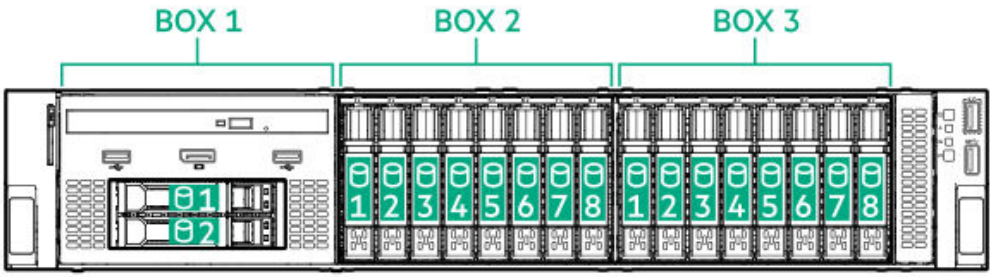


Rear Panel 1x 4LFF

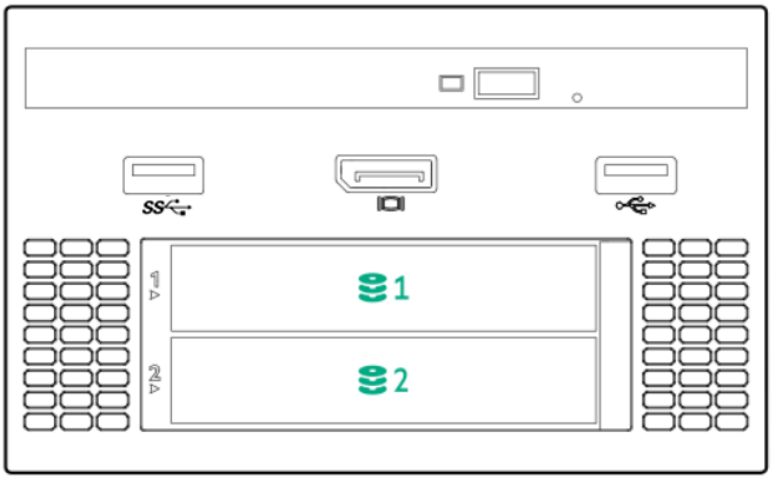




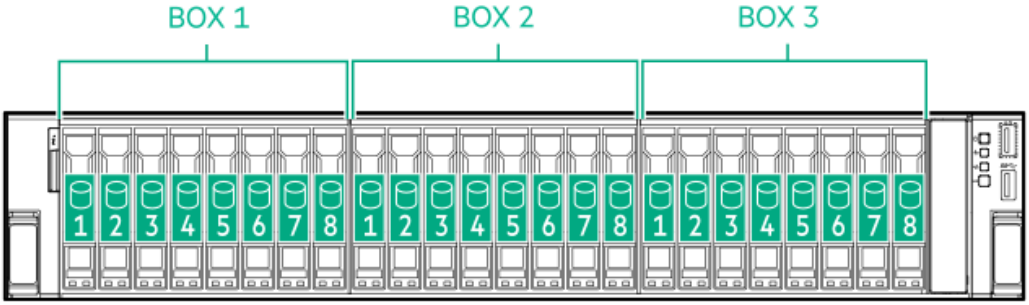
24 SFF + rear 2 SFF drives

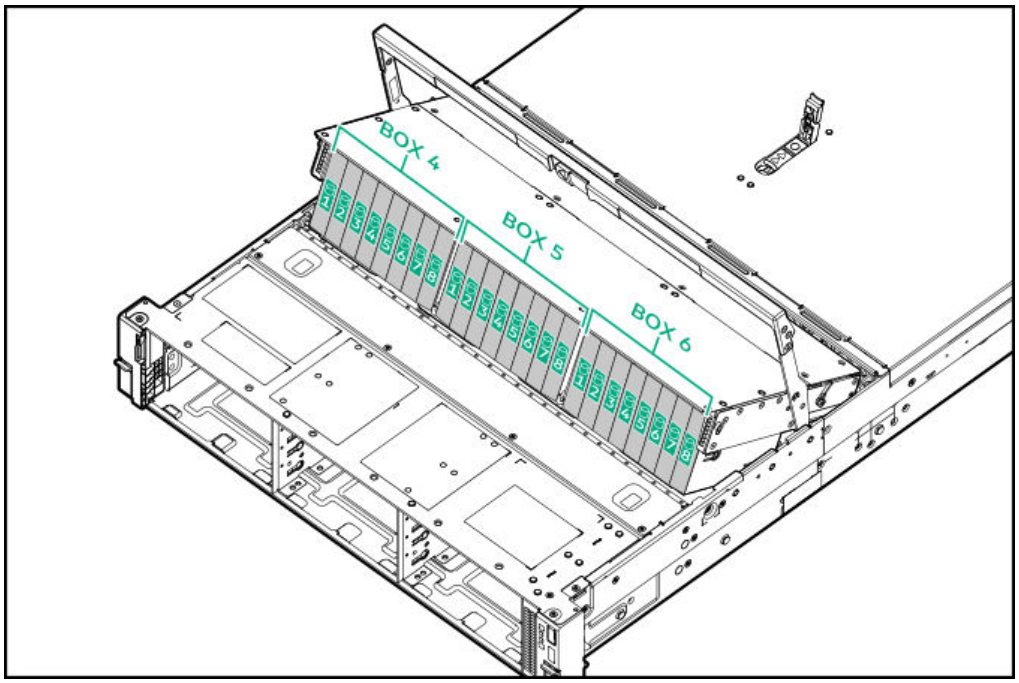


16 SFF + Universal Media Bay

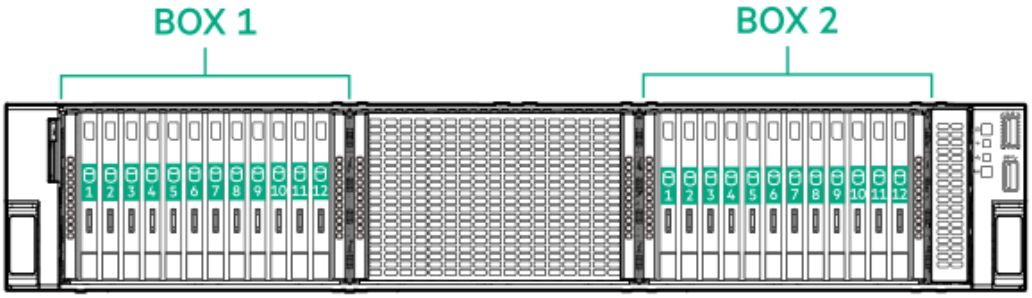


Universal Media Bay

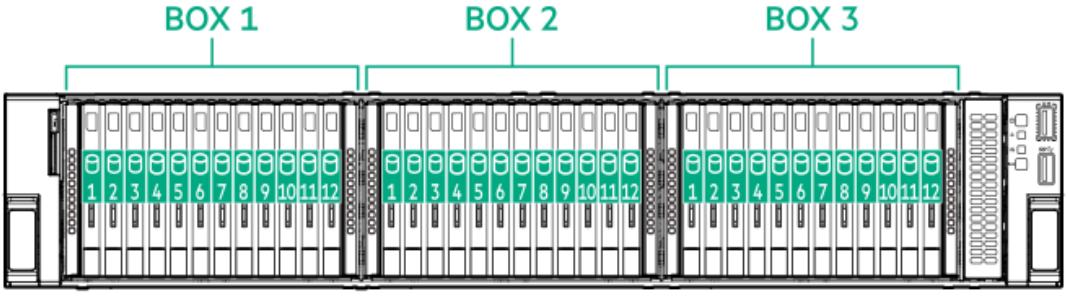




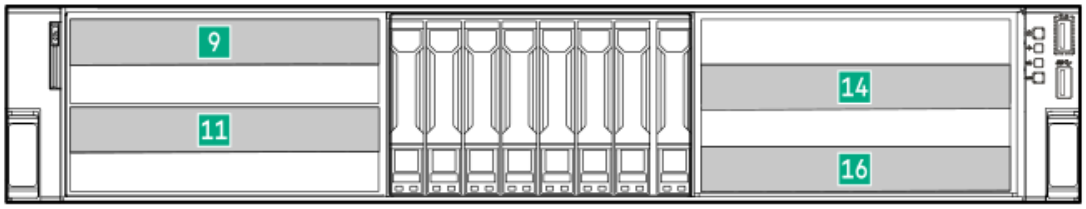
48 SFF



24 E3.S EDSFF



36 E3.S EDSFF



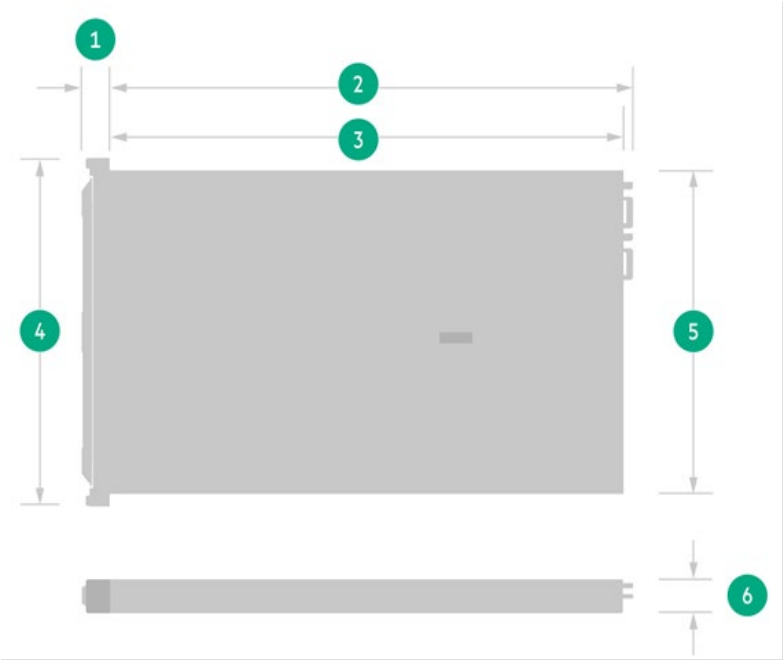
GPU Server with 8 SFF NVMe (Image shows both 4 single-wide and 4 double-wide GPU scenarios)

GPU Server with 8 EDSFF

System Unit

Dimensions (Height x Width x Depth)

The chassis depth excludes front ear depth and rear power supply handle.



Item	Description	SFF CTO	48 SFF CTO	EDSFF CTO	LFF CTO	GPU CTO
1	Front bezel to rearmost edge of chassis ear	3.93cm (1.55in)				
2	Rearmost edge of chassis ear to PSU	68.89cm(27.12in)	87.48cm(34.44in)	68.89cm(27.12in)	70.59cm(27.79in)	84.15cm(33.13in)
3	Rearmost edge of chassis ear to server rear I/O	64.6cm(25.43in)	83.2cm(32.76in)	64.6cm(25.43in)	66.31cm(26.1in)	79.87cm(31.44in)
4	Rear width	44.8cm(17.63in)				
5	Front width: Ear to ear	48.2(19in)				
6	Height	8.75cm(3.44in)				

- **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 Box 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.

Input Requirements (per power supply)

Rated Line Voltage

- For 1600 W (Platinum): 200 to 240 VAC.
- For 1000 W (Titanium): 100 to240 VAC.
- For 800 W (Platinum): 100 to 240 VAC For 1600W (-48 VDC): -40 to -72 VdC.

BTU Rating

Maximum

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

Power Supply Output (per power supply)

Rated Steady-State Power

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

Maximum Peak Power

- For 1600 W (Platinum) Power Supply: 1600W (at 240 VAC), 1600W (at 240 VDC) input for China only.
- For 1000 W (Titanium) Power Supply: 1000W (at 100 VAC), 1000W (at 240 VAC), 1000W (at 240 VDC) input for China only.
- For 800 W (Platinum) Power Supply: 800W (at 100 VAC), 800W (at240 VAC), 800W (at 240 VDC) input for China only.
- For 1600 W (-48VDC) Power Supply: 1600W (at -40 VdC), 1600W (at -72 VdC).

System Inlet Temperature

- **Standard Operating Temperature**
  10° to 35°C (50° to 95°F) at sea level with an altitude derating of 1.0°C per every 305 m (1.8°F per every 1000 ft.) above sea level to a maximum of 3050 m (10,000 ft.), no direct sustained sunlight. Maximum rate of change is 20°C/hr. (36°F/hr.). The upper limit and rate of change may be limited by the type and number of options installed.
  System performance during standard operating support may be reduced if operating with a fan fault or above 30°C (86°F).
- **Extended Ambient Operating Temperature**
  For approved hardware configurations, the supported system inlet range is extended to be: 5° to 10°C (41° to 50°F) and 35° to 40°C (95° to 104°F) at sea level with an altitude derating of 1.0°C per every 175 m (1.8°F per every 574 ft.) above 900 m (2953 ft.) to a maximum of 3050 m (10,000 ft.). The approved hardware configurations for this system are listed at the URL:http://www.hpe.com/servers/ashrae
  For approved hardware configurations, the supported system inlet range is extended to be: 40° to 45°C (104° to 113°F) at sea level with an altitude derating of 1.0°C per every 125 m (1.8°F per every 410 ft.) above 900 m (2953 ft.) to a maximum of 3050 m (10,000 ft.). The approved hardware configurations for this system are listed at the URL:http://www.hpe.com/servers/ashrae
  System performance may be reduced if operating in the extended ambient operating range or with a fan fault.
- **Non-operating**
  -30° to 60°C (-22° to 140°F). Maximum rate of change is 20°C/hr. (36°F/hr.).

Relative Humidity

- **Operating**
  8% to 90% - Relative humidity (RH), 28°C maximum wet bulb temperature, non-condensing.
- **Non-operating** (non-condensing)
  5 to 95% relative humidity (RH), 38.7°C (101.7°F) maximum wet bulb temperature, non-condensing.

Altitude

- **Operating**
  3050 m (10,000 ft.). This value may be limited by the type and number of options installed. Maximum allowable altitude change rate is 457 m/min (1500 ft./min).
- **Non-operating**
  9144 m (30,000 ft.). Maximum allowable altitude change rate is 457 m/min (1500 ft./min).

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

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.

Idle	
LWAd	5.0 B Base
LpAm	36 dBA Base
Operating	
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.

Environmentally 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 European Union's Waste Electrical and Electronic Equipment Directive (WEEE), (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 website. These instructions may be used by recyclers and other WEEE treatment facilities as well as Hewlett Packard Enterprise OEM customers who integrate and re-sell Hewlett Packard Enterprise equipment.

Summary of Changes

Date	Version History	Action	Description of Change
05-Oct-2026	Version 49	Changed	Service and Support and Core Options sections were updated.
		Added	Very-Read-Optimized (VRO) – EDSFF – E3.S 1T – Solid State Drives Read-Intensive – EDSFF – E3.S 1T – Solid State Drives Mixed-Use – EDSFF – E3.S 1T – Solid State Drives Read Intensive – NVMe – SFF – Solid State Drives Mixed Use - NVMe - SFF - Solid State Drives
		Removed	Read-Intensive – EDSFF – E3.S 1T – Solid State Drives Read Intensive – NVMe – SFF – Solid State Drives Obsolete SKUs.
21-Sep-2026	Version 48	Changed	Core Options section was updated.
		Added	HPE Computation and Graphics Accelerator and related option kits rules.
08-Sep-2026	Version 47	Changed	Overview, Configuration Information and Core Options sections were updated.
		Added	System Fans rules, MR932i-p Cable Kit SKUs and NVIDIA DPU SKUs.
03-Aug-2026	Version 46	Changed	Core Options section was updated.
		Added	Direct Liquid Cooling (DLC) Solutions rules HPE Computation and Graphics Accelerator and related option kits SKUs and rules.
		Removed	Read Intensive – NVMe – SFF – Solid State Drives obsolete SKUs.
06-Jul-2026	Version 45	Changed	Core Options section was updated.
		Added	Mixed Use - NVMe – EDSFF E3.S 1T Read Intensive – NVMe - EDSFF E3.S 1T
		Removed	Read Intensive - 12G SAS - SFF - Solid State Drives obsolete SKUs.
01-Jun-2026	Version 44	Changed	Pre-Configured Models and Core Options sections were updated.
		Added	Read Intensive - 12G SAS - SFF - Solid State Drives Mixed Use - 12G SAS - SFF - Solid State Drives Read-Intensive – EDSFF – E3.S 1T – Solid State Drives Mixed-Use – EDSFF – E3.S 1T – Solid State Drives Read Intensive – NVMe – SFF – Solid State Drives Mixed Use - NVMe - SFF - Solid State Drives
		Removed	BTO obsolete SKUs. Read Intensive - 6G SATA - SFF - Solid State Drives obsolete SKUs.
18-May-2026	Version 43	Changed	Overview and Technical Specifications sections were updated.
		Added	System Unit Dimensions chart.
04-May-2026	Version 42	Changed	Core Options section was updated.
		Added	Read-Intensive – EDSFF – E3.S 1T – Solid State Drives, Mixed-Use – EDSFF – E3.S 1T – Solid State Drives, 10/25 Gigabit Ethernet adapters, and HPE InfiniBand SKUs.

Summary of Changes

Date	Version History	Action	Description of Change
06-Apr-2026	Version 41	Changed	Pre-Configured Models, Configuration Information and Core Options sections were updated.
		Added	Registered DIMMs (RDIMMs) 4800 MT/s DIMMs supported on 4th Gen AMD EPYC Processors – Standalone Kits, 4800 MT/s DIMMs supported on 4th Gen AMD EPYC Processors – Factory Installed Kits, 6400 MT/s DIMMs supported on 5th Gen AMD EPYC Processors – Standalone Kits, 6400 MT/s DIMMs supported on 5th Gen AMD EPYC Processors – Factory Installed Kits, HPE Compute Ops Management, HPE 16W Smart Hybrid Capacitor, Very-Read-Optimized (VRO) – EDSFF – E3.S 1T – Solid State Drives, Mixed-Use – EDSFF – E3.S 1T – Solid State Drives, Read Intensive – NVMe – SFF – Solid State Drives, Mixed Use - NVMe - SFF - Solid State Drives, HPE InfiniBand, and NVIDIA RTX PRO 4500 SKUs.
		Removed	Pre-Configured Models obsolete SKUs.
02-Mar-2026	Version 40	Changed	Service and Support and Core Options sections were updated.
		Added	Updated GreenLake statement. NVIDIA RTX PRO 6000D 84GB PCIe SKU.
		Removed	NVIDIA obsolete SKUs.
02-Feb-2026	Version 39	Changed	Pre-Configured Models, Configuration Information, and Core Options sections were updated.
		Added	HPE InfiniBand , Midline - 12G SAS - LFF Drives, and Midline - 6G SATA - LFF Drives SKUs.
		Removed	Pre-Configured Models, 4800 MT/s DIMMs supported on 4th Gen AMD EPYC Processors, Midline - 12G SAS - LFF Drives, and Midline - 6G SATA - LFF Drives obsolete SKUs.
05-Jan-2026	Version 38	Changed	Core Options section was updated.
		Added	Maximum Internal Storage, SED (Self-Encryption Drive, Read Intensive 12G SAS - SFF - Solid State Drives, and Read-Intensive – EDSFF – E3.S 1T – Solid State Drives
		Removed	HPE InfiniBand obsolete SKUs.
01-Dec-2025	Version 37	Changed	Configuration Information section was updated. Core Options
		Added	Thermal Support Matrix – 256 GB Memory rules. Select storage cables. Supported Storage Configurations: 8LFF CTO Server, 8SFF & 48SFF CTO Server, 12 EDSFF CTO Server, and GPU CTO Server. Riser Support Matrix. Read Intensive - 12G SAS - SFF - Solid State Drives and Mixed Use - 12G SAS - SFF - Solid State Drives SKUs.
		Removed	Processor Option Kits – 4th Gen AMD EPYC 9004 Series, Read Intensive – NVMe – SFF – Solid State Drives and HPE InfiniBand obsolete SKUs.
03-Nov-2025	Version 36	Changed	Configuration Information and Core Options sections were updated.
		Added	Power Cables SKUs and rules.
		Removed	AMD EPYC processor and HPE InfiniBand obsolete SKUs.
22-Sep-2025	Version 35	Changed	Core Options section was updated
		Added	Read Intensive – NVMe – SFF – Solid State Drives
		Removed	HPE InfiniBand

Summary of Changes

Date	Version History	Action	Description of Change
07-Jul-2025	Version 34	Changed	Core Options section was updated. Added: 100/200 Gigabit Ethernet adapters, HPE InfiniBand SKUs, HPE Computation and Graphics Accelerator SKUs (S3U30C and S0K89C) and related option kits.
02-Jun-2025	Version 33	Changed	Core Options section was updated. Added: Very-Read-Optimized (VRO) – EDSFF – E3.S 1T – Solid State Drives SKU.
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 – New 256 GB 6400 MT/s 3DS DIMM SKU to support AMD 9005 processors – New EDSFF drives
06-Jan-2025	Version 28	Changed	Additional Options section was updated. Removed SKUs as they were OBS: – HPE iLO Advanced Flexible Quantity License with 3yr Support on iLO Licensed Features HPE iLO Advanced Flexible Quantity License with 1yr Support on iLO Licensed Features

Summary of Changes

Date	Version History	Action	Description of Change
02-Dec-2024	Version 27	Changed	Standard Features, Configuration Information and Core Options sections were updated. Added: – FIPS CM7 E3.S 1T EDSFF drives – FIPS CM7 U.3 NVMe drives Removed due to OBS: – HPE 32GB (1x32GB) Single Rank x4 DDR5-4800 CAS-40-39-39 EC8 Registered Smart Memory Kit P50310-B21 – HPE 300GB SAS 12G Mission Critical 15K SFF BC 3-year Warranty Multi Vendor HDD P28028-B21 – HPE 900GB SAS 12G Mission Critical 15K SFF BC 3-year Warranty Multi Vendor HDD P40432-B21 – HPE 600GB SAS 12G Mission Critical 15K SFF BC 3-year Warranty Multi Vendor HDD P53560-B21 – HPE 1.92TB SATA 6G Mixed Use SFF BC Self-encrypting 5400M SSD P58248-B21 – HPE 1.92TB SATA 6G Read Intensive SFF BC Self-encrypting 5400P SSD P58240-B21 HPE 7.68TB SAS 24G Read Intensive SFF BC Self-encrypting FIPS PM6 SSD P41399-B21
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: – New 5th Gen AMD EPYC processor SKUs and new 6400 MT/s memory DIMMs New CD8P E3.S 1T EDSFF drives
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.

Summary of Changes

Date	Version History	Action	Description of Change
20-May-2024	Version 20	Changed	Added: – NVIDIA H100 NVL 94GB GPU (S2D86C) – DL380a Gen11 16-pin GPU power cable for H100 NVL (P70192-B21) – 3.84TB, 7.68TB, 15.36 TB P5430 E3.S EDSFF drives 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 and 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.
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
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.

Summary of Changes

Date	Version History	Action	Description of Change
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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