

[Shape the Future of QuickSpecs - Your Input Matters](#)

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

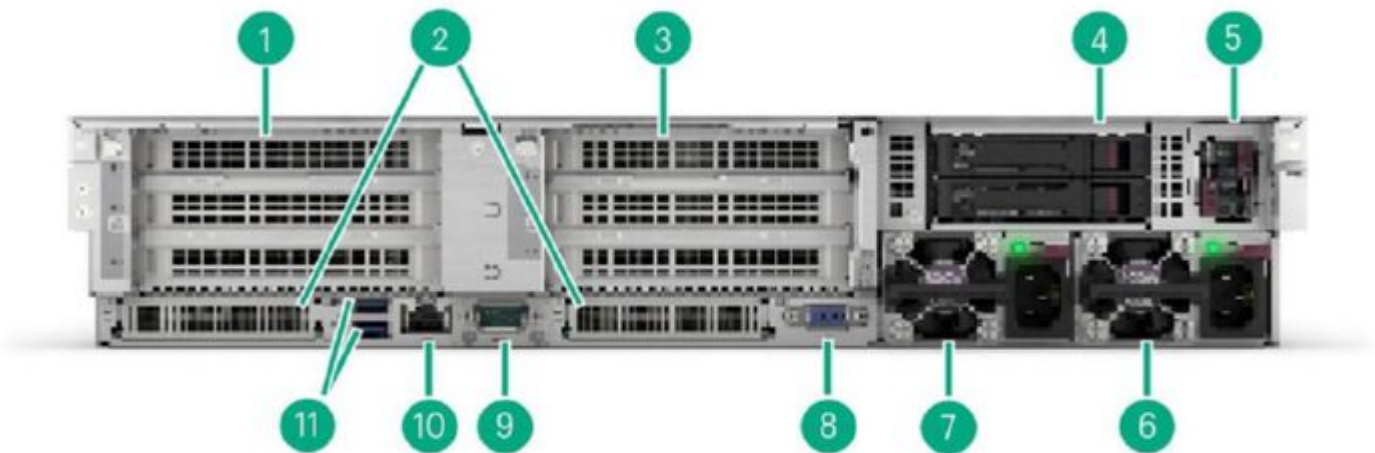
| Item | Description | Item | Description |
|------|---|------|--|
| 1. | Quick removal access panel | 7. | UID button |
| 2. | Power On/Standby button and system power LED button | 8. | Drive Bay 3. 8 SFF U.3 optional |
| 3. | Health LED | 9. | Drive Bay 2. 8 SFF U.3 optional |
| 4. | iLO front service port | 10. | Drive Bay 1. 8 SFF U.3 or Universal Media Bay optional |
| 5. | NIC status LED | 11. | Serial label pull tag |
| 6. | USB 3.2 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 Bay 2. 8 SFF U.3 or 8 E3.S EDSFF optional 8 SFF shown here |
| 5. | NIC status LED | | |

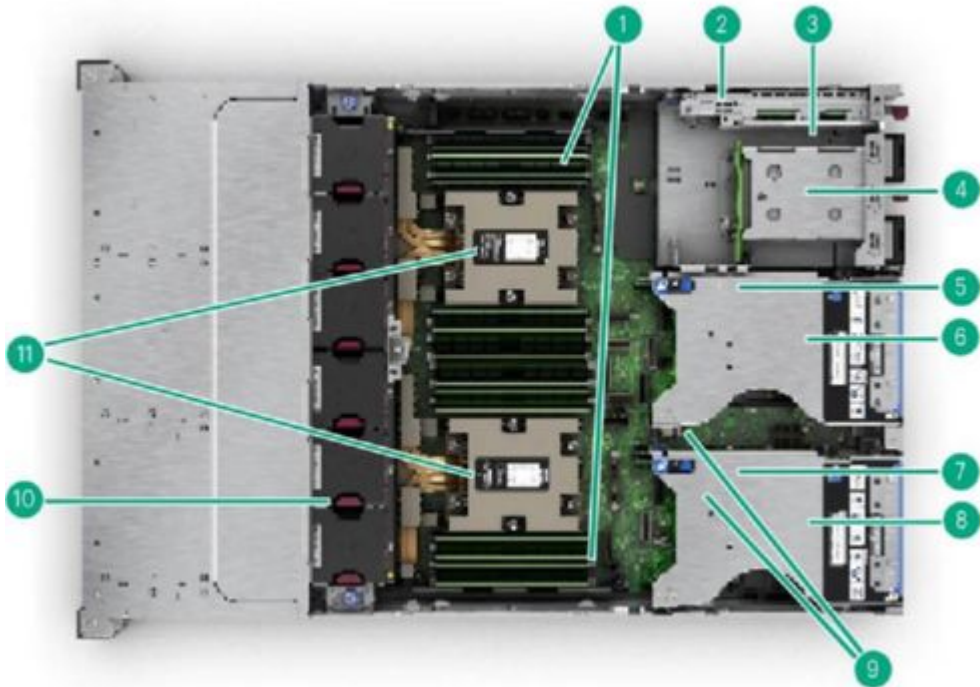


HPE ProLiant DL385 Gen11 all CTO Servers - Rear View

| 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) |

Overview

| | | | |
|----|---|-----|-------------------------------|
| 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 | | |

Overview

What's New

- Launching the new 5th Generation AMD EPYC™ Series Processors with models up to 160 cores and 5.0 GHz frequency.
 - Launching the new 6400 MT/s memory DIMMs to support the new 5th Generation AMD EPYC™ Series Processors.
 - NVIDIA H200 141GB NVL GPU added
-

Platform Information

Form Factor

- 2U rack.

Chassis Types

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

Notes:

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

System Fans

Standard - fan types included

- Choice of Standard Fan Kit or Performance Fan Kit.

Notes:

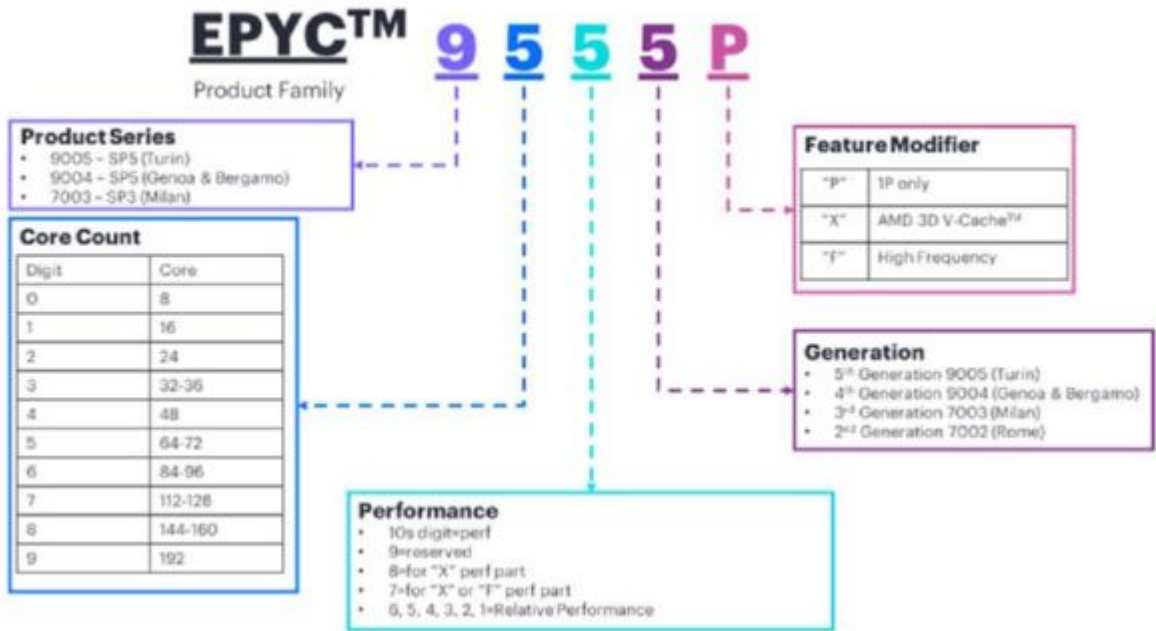
- The DL385 Gen11 supports up to 6 fans with fan redundancy built in. One fan rotor failure will place server in degraded mode but fully functional. Two fan rotor failures could provide warning and imminent server shutdown.
 - Each Fan kits are designated to operate under different configuration. For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

Standard Features

Processors

Up to 2 of the following depending on model.

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



| 4 th 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 | |
| 5 th 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 | |

Standard Features

| | | | | | | | |
|------------|-----|----------|---------|------|-------|--------|-----------|
| EPYC 9455 | 48 | 3.15 GHz | 4.4 GHz | 3 TB | 300 W | 256 MB | 6400 MT/s |
| 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 | | 400 W | 384 MB | |
| 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 4 th Gen AMD EPYC) 24 x 256 GB RDIMM* @ 6400 MT/s at 1 DPC (on 5 th Gen AMD EPYC) |

Standard Features

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 |

Standard Features

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 |

Standard Features

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 support on AMD Gen11 servers

Essential RAID Controllers

- HPE Smart Array E208e-p SR Gen10 Controller.

Performance RAID Controllers

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

Notes: For additional details, please visit:

[HPE Compute MR Gen11 Controllers QuickSpecs](#)

[HPE Compute SR Gen11 Controllers QuickSpecs](#)

Internal Storage Devices

One of the following, depending on model.

Optical Drive

Standard Features

- 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

Standard Features

the data center.

All pre-configured servers ship with a standard 6-foot IEC C-13/C-14 jumper cord (A0K02A). This jumper cord is also included with each standard AC power supply option kit. If a different power cord is required, please check the [ProLiant Power Cables](#) web page.

To review the power requirements for your selected system, please use the [HPE Power Advisor Tool](#).

For information on power specifications and technical content visit [HPE Server power supplies](#).

Interfaces

| | |
|--|---|
| Serial | 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 Gb 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

Standard Features

- 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

Standard Features

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

Standard Features

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 Services

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

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

Warranty

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

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

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

Consulting Services

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

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

HPE Managed Services

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

[HPE Managed Services | HPE](#)

Operational services

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

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

HPE Complete Care Service

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

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

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

Service and Support

HPE Tech Care Service

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

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

HPE Lifecycle Services

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

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

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

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

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

Other Related Services from HPE Services

HPE Education Services

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

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

Defective Media Retention

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

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

Parts and Materials

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

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

How to Purchase Services

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

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

Service and Support

AI Powered and Digitally Enabled Support Experience

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

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

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

Consume IT On Your Terms

[GreenLake](#) is the cloud delivering a unified platform experience that allows enterprises to simplify IT, reduce costs, and transform faster.

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

To learn more about HPE Services, please contact your Hewlett Packard Enterprise sales representative or Hewlett Packard Enterprise Authorized Channel Partner. Contact information for a representative in your area can be found at "Contact HPE"

<https://www.hpe.com/us/en/contact-hpe.html>

For more information, refer to: <http://www.hpe.com/services>

Pre-configured Models

HPE Smart Choice Purchase Program

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

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

Pre-Configured models ship with the configurations below.

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

| | | |
|----------------------|--|--|
| | | |
| SKU Number | P66781-B21 P66781-291 | P66782-B21 P66782-291 |
| Model Name | HPE ProLiant DL385 Gen11 9124 3.0GHz 16-core 1P 32GB-R 8SFF 800W PS Server | HPE ProLiant DL385 Gen11 9224 2.5GHz 24-core 1P 32GB-R 8SFF 800W PS Server |
| Chassis | HPE ProLiant DL385 Gen11 8SFF Configure-to-order Server | |
| Processor | 9124 (16 core, 3.0 GHz, 200W) | 9224 (24 core, 2.5 GHz, 200W) |
| Number of Processors | One with standard heatsink | |
| Memory | 32 GB (1x32 GB, 4800 MT/s) | |
| Network Controller | Broadcom BCM5719 Ethernet 1Gb 4-port BASE-T OCP3 Adapter for HPE | Broadcom BCM57416 Ethernet 10Gb 2-port BASE-T OCP3 Adapter for HPE |
| Storage Controller | HPE MR408i-o Gen11 x8 Lanes 4GB Cache OCP SPDM Storage Controller | |
| Included Hard Drives | None shipped as standard, 8 SFF supported | |
| Optical Drive | None shipped as standard | |
| Power Supply | 1x HPE 800W Flex Slot Platinum Hot-plug Low Halogen Power Supply Kit | |
| Fans | 6 Fans | |
| Rail Kit | HPE Easy Install Rail 2 Kit | |
| | | |
| SKU Number | P59705-421 | P59706-421 |
| Model Name | HPE ProLiant DL385 Gen11 9124 3.0GHz 16-core 1P 32GB-R 8SFF 1000W PS EU Server | HPE ProLiant DL385 Gen11 9224 2.5GHz 24-core 1P 32GB-R 8SFF 1000W PS EU Server |
| Chassis | HPE ProLiant DL385 Gen11 8SFF Configure-to-order Server | |
| Processor | 9124 (16 core, 3.0 GHz, 200W) | 9224 (24 core, 2.5 GHz, 200W) |

Pre-configured Models

| | | |
|----------------------|---|--|
| Number of Processors | One with standard heatsink | |
| Memory | 32 GB (1x32 GB, 4800 MT/s) | |
| Network Controller | Broadcom BCM5719 Ethernet 1Gb 4-port BASE-T OCP3 Adapter for HPE | Broadcom BCM57416 Ethernet 10Gb 2-port BASE-T OCP3 Adapter for HPE |
| Storage Controller | HPE MR408i-o Gen11 x8 Lanes 4GB Cache OCP SPDM Storage Controller | |
| Included Hard Drives | None shipped as standard, 8 SFF supported | |
| Optical Drive | None shipped as standard | |
| Power Supply | 1x HPE 1000W Flex Slot Titanium Hot-plug Power Supply Kit | |
| Fans | 6 Fans | |
| Rail Kit | HPE Easy Install Rail 2 Kit | |

Country Code Key

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

Configuration Information

Smart Templates from HPE

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

Workload Solutions Templates from HPE

The Workload Solutions Templates 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)

Configuration Information

| 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 |

Configuration Information

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 - 4 th 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 |

Configuration Information

| | |
|---|------------|
| 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

Configuration Information

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

| | |
|--|------------|
| 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 128GB (1x128GB) Quad Rank x4 DDR5-4800 CAS-46-39-39 EC8 Registered 3DS Smart Memory Kit | P50313-B21 |
| HPE 256GB (1x256GB) Octal Rank x4 DDR5-4800 CAS-46-39-39 EC8 Registered 3DS Smart Memory Kit | P50314-B21 |

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

| | |
|---|------------|
| 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 |

Notes:

- 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

Configuration Information

| 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) | |

| 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) | |

Configuration Information

| | | | | | | |
|--------|-------|--------------------|---------------|------|--------------------------|---------------------------------------|
| 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* |

| 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

Configuration Information

| DL385 Gen11 Front Ends | CPU TDP | 256 GB Memory Max. Quantity | Supported Ambient Temp. |
|------------------------|---------------|-----------------------------|-------------------------|
| 8LFF | =290 W | 24 | 25°C |
| | >290 W | 8 | |
| | >290 W | 24* | |
| 12LFF | =290 W | 24 | 25°C |
| | >290 W | 8 | |
| | >290 W | 24* | |
| 8SFF | =290 W | 24 | 25°C |
| | >290 W | 16 | |
| | >290 W | 24* | |
| 16SFF | =290 W | 24 | 25°C |
| | >290 W | 8 | |
| | >290 W | 24 | |
| 24SFF | =290 W | 24 | 25°C |
| | >290 W | 8 | |
| | >290 W | 24 | |
| 12EDSFF | =290 W | 24 | 25°C |
| | >290 W | 8 | |
| | >290 W | 24* | |
| 24EDSFF | =290 W | 24 | 25°C |
| | >290 W | 8 | |
| | >290 W | 24 | |
| 36EDSFF | =290 W | 24 | 25°C |
| | >290 W | 8 | |
| | >290 W | 24 | |
| GPU CTO Server | =290 W | 8 | 25°C |
| | >290 W | 8 | |
| | >290 W | 8 | |
| 48SFF CTO Server | =290 W | 8 | 25°C |
| | >290 W | 8 | |
| | >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://poweradvisor.ext.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.

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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.

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- 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.

Configuration Information

| | |
|--|------------|
| 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 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 |

Configuration Information

| | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|---|
| | | | | | | | | | Storage signal cables are all included in CTO and cages |
|--|--|--|--|--|--|--|--|--|---|

| Drives | | | | Drive Cages | | | | | Storage Cables |
|------------------|---------|----------|-----------------------|-------------------------------------|------------|------------|---------|-------------------------------------|--|
| Maximum Quantity | LFF SAS | LFF SATA | SFF (SAS, SATA, NVMe) | Front Box1 | Front Box2 | Front Box3 | MidBox7 | RearBox 8 | |
| 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 |

Configuration Information

| | | | | | | | | | |
|----|----|----|---|-----|---------------------------------|---------------------------------|-------------------------------------|-----|--|
| 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 |

| Drives Maximum Quantity | | | | Drive Cages | | | | | Storage Cables |
|-------------------------------|-----|------|--------------|---------------------------------|---------------------------------|---------------------------------|-------------------------------------|-----------|--|
| | 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) |

| 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

Configuration Information

| Drives Maximum Quantity | E3.S 1T EDSFF | Drive Cages | | | | | Storage Cables |
|-------------------------------|---------------------|------------------------|------------------------|-----------------------------|-------------|--------------|---|
| | | 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 Maximum Quantity | SAS/SATA | NVMe | E3.S 1T EDSFF | Drive Cages | | Storage Cables |
|-------------------------------|----------|------|------------------|--|--|--|
| | | | | 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 |

Configuration Information

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).

Core Options

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.

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.

Core Options

Riser Support Matrix (1/2)

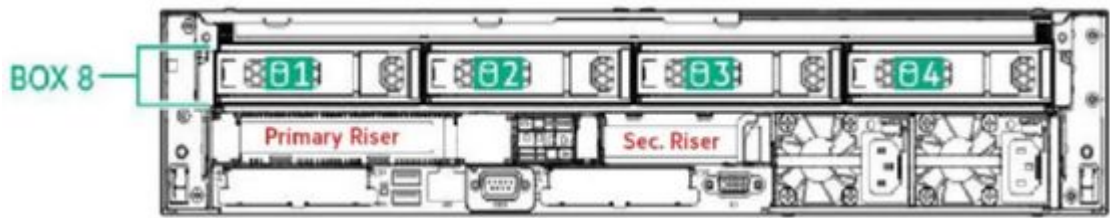
| Primary Riser Part Number | Secondary Riser Part Number | Tertiary Riser Part Number | Description | Riser position (number denotes number of slots present) | | | Bus width (Gen5 lanes) | | |
|----------------------------|-----------------------------|----------------------------|---|---|-----------|----------|------------------------|-------------|-------------|
| | | | | 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 |

Core Options

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



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 |
|--|------------|

Core Options

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 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 Advanced 1-year Upfront ProLiant SaaS

S5E58AAE

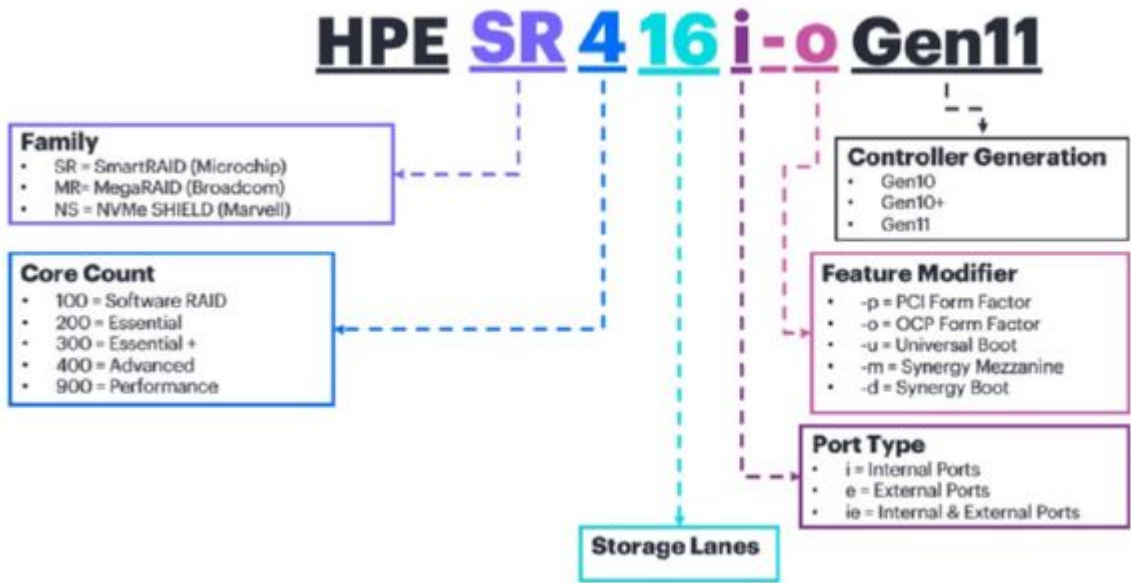
HPE Compute Ops Management Advanced 3-year Upfront ProLiant SaaS

S5E59AAE

Core Options

| | |
|---|----------|
| 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 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

Core Options

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

Tri-mode RAID Controllers

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 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 ProLiant DL3X5 Gen11 Smart Storage Battery 2P 96W Cable Kit P57884-B21

- Notes:
- The two 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 |

Core Options

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|---|------------|
| 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 2TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Multi Vendor HDD | 833926-B21 |
| HPE 4TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Multi Vendor HDD | 833928-B21 |
| HPE 6TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty 512e Multi Vendor HDD | 861746-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 |
| 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 6TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty 512e Multi Vendor HDD | 861742-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 |
| 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 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 |
| HPE 7.68TB SAS Read Intensive SFF BC Self-encrypting FIPS 140-2 PM7 SSD | P63879-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 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 240GB SATA 6G Read Intensive SFF BC Multi Vendor SSD | P40496-B21 |

Core Options

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|---|------------|
| 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 |
| 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 3.84TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 CD8P SSD | P69237-B21 |
| HPE 3.84TB NVMe Gen5 High Performance Read Intensive E3S EC1 EDSFF SPDM PM1743 SSD | P57799-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 7.68TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 CD8P SSD | P69239-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 15.36TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 CD8P SSD | P69546-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 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 30.72TB NVMe Gen5 High Performance Read Intensive E3.S EC1 EDSFF SPDM 9550 SSD | P79965-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 3.2TB NVMe Gen5 Mainstream Performance Mixed Use E3S EC1 CD8P SSD | P69243-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 Mainstream Performance Mixed Use E3S EC1 EDSFF SPDM PE1030 SSD | P77265-B21 |
| HPE 6.4TB NVMe Gen5 Mainstream Performance Mixed Use E3S EC1 CD8P SSD | P69245-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 Mainstream Performance Mixed Use E3S EC1 EDSFF SPDM PE1030 SSD | P77267-B21 |
| HPE 12.8TB NVMe Gen5 High Performance Mixed Use E3S EC1 PS1030 SSD | P70403-B21 |
| Read Intensive - NVMe - SFF - Solid State Drives | |
| HPE 1.92TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PM1733a SSD | P50216-B21 |
| HPE 1.92TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 Self-encrypting FIPS 140-3 CM7 SSD | P61019-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 PM1733a SSD | P50219-B21 |
| HPE 3.84TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 Self-encrypting FIPS 140-3 CM7 SSD | P61027-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 PM1733a SSD | P50222-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 15.36TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PM1733a SSD | P50224-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 |

Core Options

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|--|------------|
| HPE 15.36TB NVMe Gen4 Mainstream Performance Read Intensive BC U.3 Static V2 SPDM Multi Vendor SSD | P84236-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 |
| HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PM1735a SSD | P50230-B21 |
| HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PS1030 SSD | P70426-B21 |
| HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 Self-encrypting FIPS 140-3 CM7 SSD | P61051-B21 |
| HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PM1735a SSD | P50233-B21 |
| HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PS1030 SSD | P70428-B21 |
| HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 Self-encrypting FIPS 140-3 CM7 SSD | P61059-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 |

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 |

Core Options

NVIDIA Ethernet 100Gb 2-port NVMe-oF Offload Adapter for HPE
Broadcom BCM57608 Ethernet 100Gb 2-port QSFP112 Adapter for HPE

R8M41A
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-ADA1 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 |

Core Options

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

| | |
|---|------------|
| HPE InfiniBand | |
| HPE InfiniBand NDR200/Ethernet 200GbE 2-port QSFP112 PCIe5 x16 MCX755106AC-HEAT Adapter | P65333-B21 |
| HPE InfiniBand NDR/Ethernet 400Gb 1-port OSFP PCIe5 x16 MCX75310AAS-NEAT Adapter | P45641-B23 |

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

| 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 |
|---|------------|

Core Options

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

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.
- Maximum quantity of two is supported.
- 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.
- This GPU supports maximum 20C ambient temperature in a DL385 Gen11 server.

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:

Core Options

| | |
|--|------------|
| <ul style="list-style-type: none">• 4DW GPU FIO enablement kit (max L4 quantity =4)• 8SW GPU FIO enablement kit (max L4 quantity =8) <ul style="list-style-type: none">– 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 H100 NVL 94GB PCIe Accelerator for HPE | S2D86C |
| Notes: <ul style="list-style-type: none">– 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 16-pin GPU Power Cable Kit to PDB must be selected (P70192-B21).– This GPU supports the NVIDIA Ampere NVLink 2x2 Bridge (R6V66A). | |
| NVIDIA H200 NVL 141GB PCIe Accelerator for HPE | S3U30°C |
| Notes: <ul style="list-style-type: none">– Double wide GPUs can only be supported with the GPU CTO chassis.– Maximum quantity of two is supported.– 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).– This GPU supports maximum 20C ambient temperature in a DL385 Gen11 server. | |
| NVIDIA A16 64GB PCIe Non-CEC Accelerator for HPE | R8T26C |
| Notes: <ul style="list-style-type: none">– 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 Ampere 2-way 2-slot Bridge for HPE | R6V66A |
| Notes: <ul style="list-style-type: none">– Quantity of this bridge must be three or six. A pair of GPUs can be linked with three bridges, therefore a maximum quantity of six can be configured with a pair of GPUs installed on each side of the GPU front-end. i.e. four double-width GPUs installed.– Minimum of 2x DW GPUs must be selected to support this bridge. | |
| NVIDIA 2-way NVLink Bridge for H200 NVL | S4A90C |
| Notes: <ul style="list-style-type: none">– 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: <ul style="list-style-type: none">– 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. | |
| HPE ProLiant DL385 Gen11 GPU FIO Switchboard Kit | P57894-B21 |
| Notes: <ul style="list-style-type: none">– 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. | |

Core Options

- 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 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 12-pin 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 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 | 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 |

Core Options

| | |
|---|------------|
| HPE ProLiant DL385 Gen11 GPU Blank Kit | P82523-B21 |
| Notes: <ul style="list-style-type: none">– 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 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: <ul style="list-style-type: none">– 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: <ul style="list-style-type: none">– 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: <ul style="list-style-type: none">– 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: <ul style="list-style-type: none">– 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: <ul style="list-style-type: none">– PDB kit is required when four power supplies are configured in the system.– PDB kit cannot be configured with 8SFF or 8LFF CTO server. | |

Additional Options

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

Additional Options

| | |
|---|------------|
| 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 on only GPU models. | |
| HPE Ball Bearing Rail 10 Kit | P52347-B21 |
| Notes: Supported on only 48 SFF models. | |
| HPE DL38X Gen10 Plus 2U Cable Management Arm for Rail Kit | P22020-B21 |
| Notes: Supportable when rail kit is selected. Only supported by SFF, LFF and EDSFF models. | |
| HPE Apollo 4200 Gen10 Plus Cable Management Arm | P28726-B21 |
| Notes: Only supported by GPU models. | |
| HPE ProLiant DL3XX Gen11 2U 2-row Cable Management Arm Kit | P54963-B21 |

Additional Options

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 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.

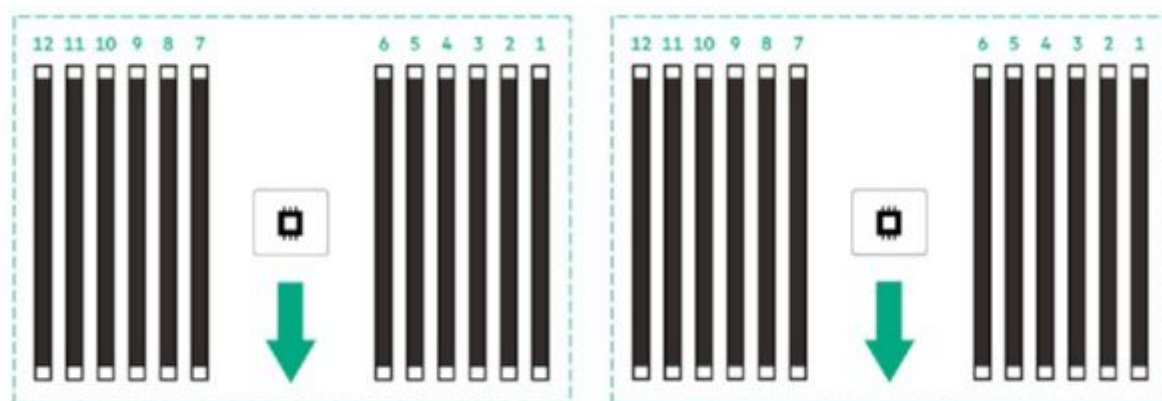
HPE G2 Advanced and Enterprise Racks are perfect for the server room or today's modern data center with enhanced airflow and thermal management, flexible cable management, and a 10-year Warranty to support higher density computing. HPE G2 PDUs offer reliable power in flexible form factors that operate 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](#).

Memory

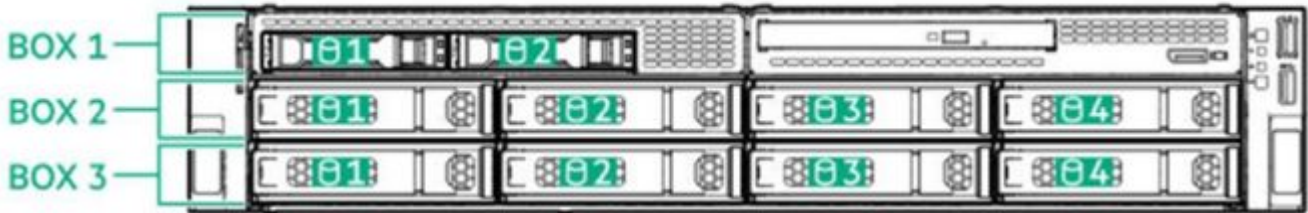


----- Front side of the server -----

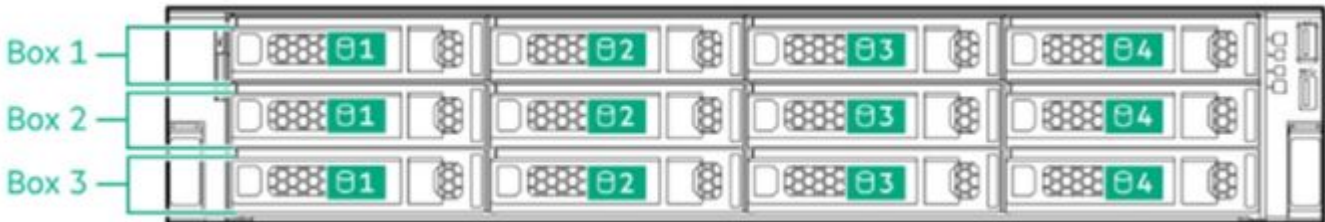
General Memory Population Rules and Guidelines

- Install DIMMs only if the corresponding processor is installed.
- If only one processor is installed in a two-processor system, only half of the DIMM slots are available.
- To maximize performance, it is recommended to balance the total memory capacity between all installed processors.
- When two processors are installed, balance the DIMMs across the two processors.
- The maximum memory speed is a function of the memory type, memory configuration, and processor model.
- The maximum memory capacity is a function of the number of DIMM slots on the platform, the largest DIMM capacity qualified on the platform, the number and model of installed processors qualified on the platform.
- To realize the performance memory capabilities listed in this document, HPE DDR5 Smart Memory is required. For additional information, 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>

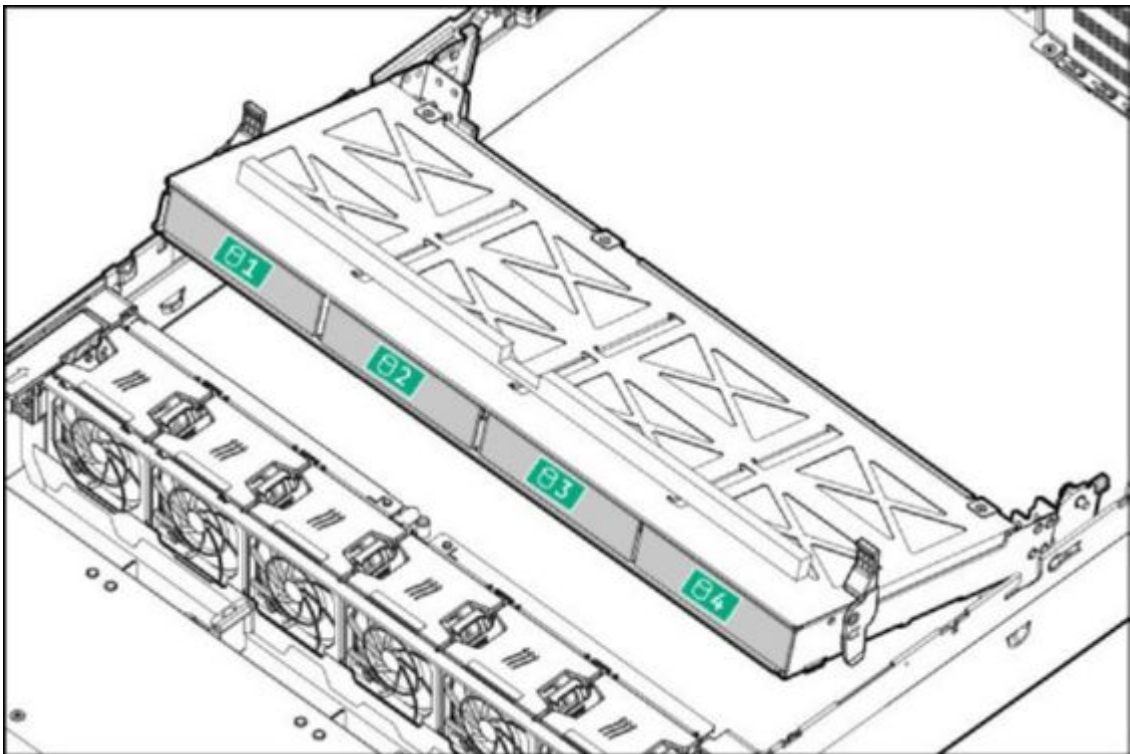
Storage



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

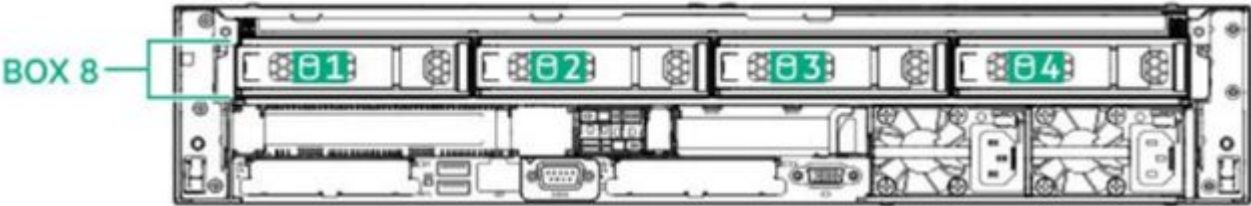


12LFF Front Panel

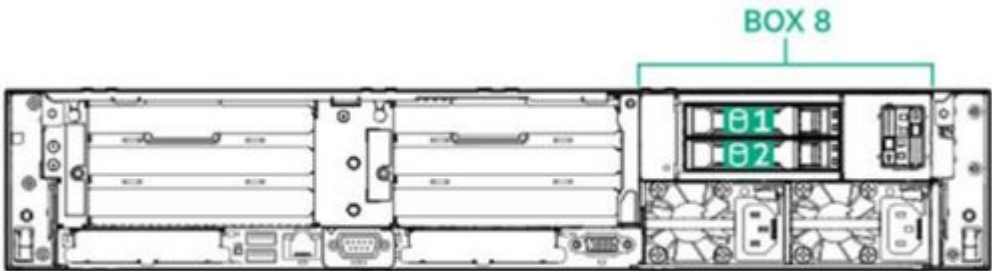
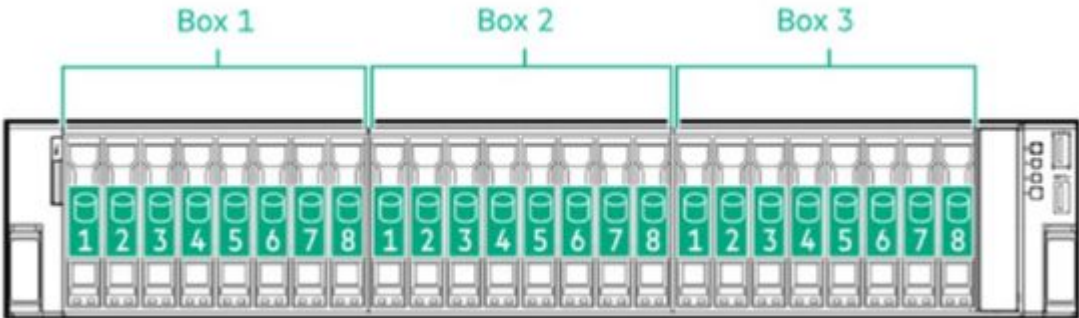


Midplane Box (LFF)

Storage

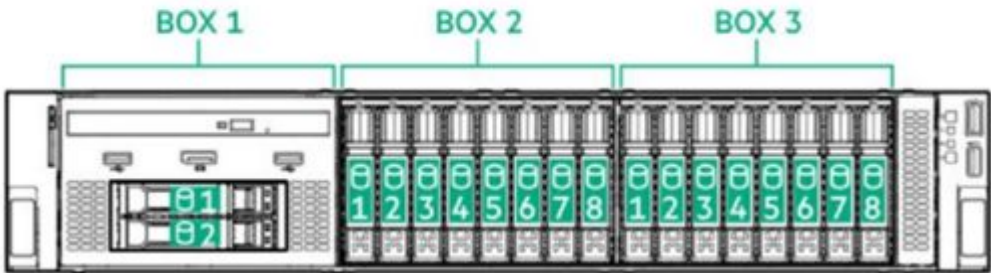


Rear Panel 1x 4LFF

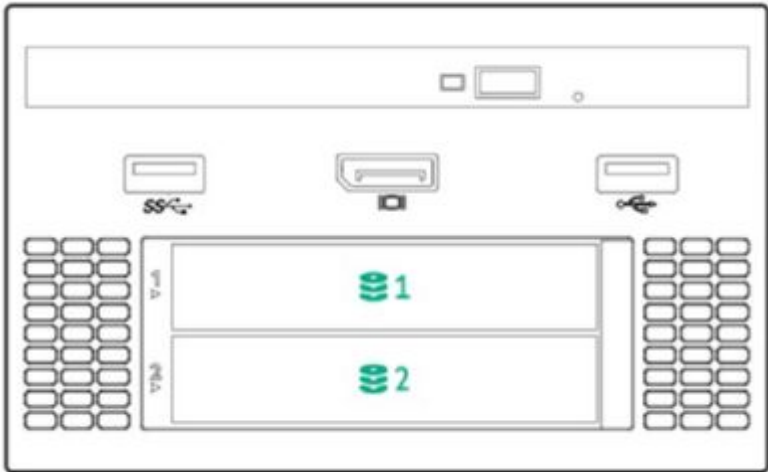


24 SFF + rear 2 SFF drives

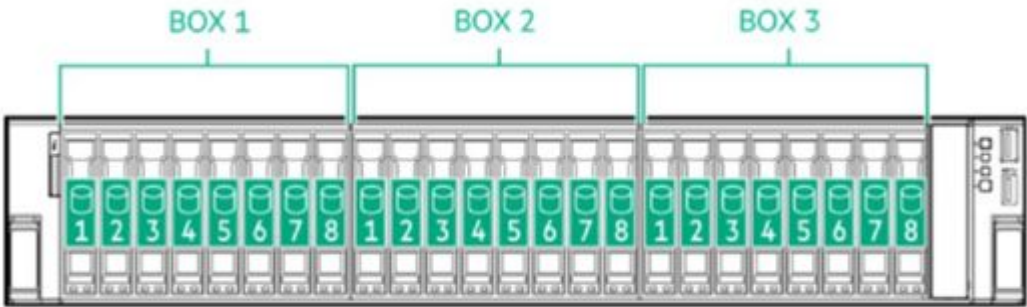
Storage



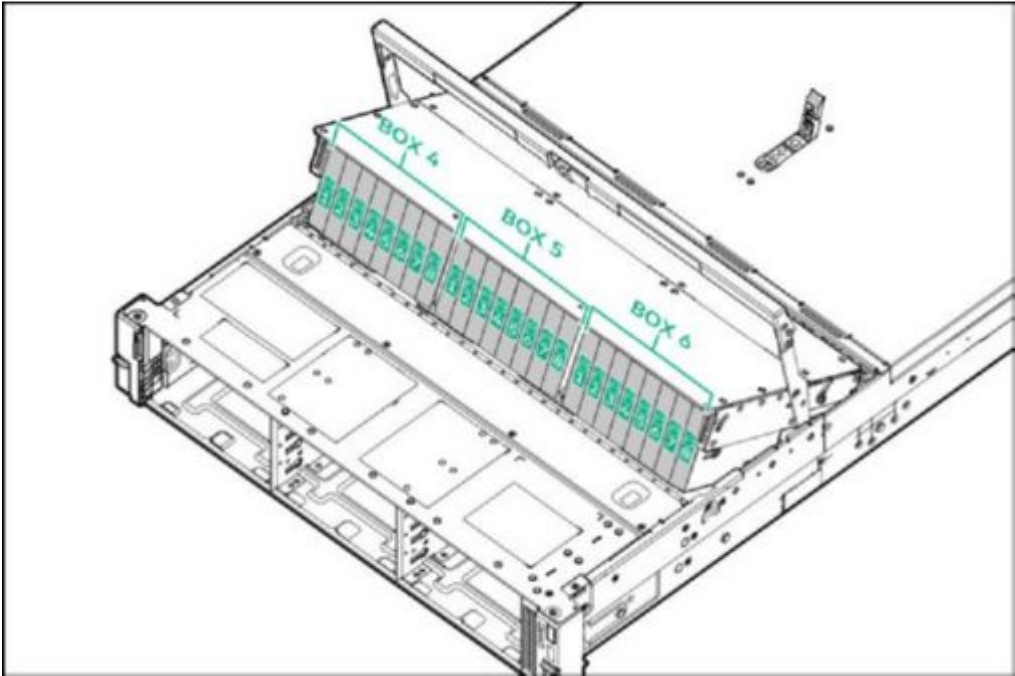
16 SFF + Universal Media Bay



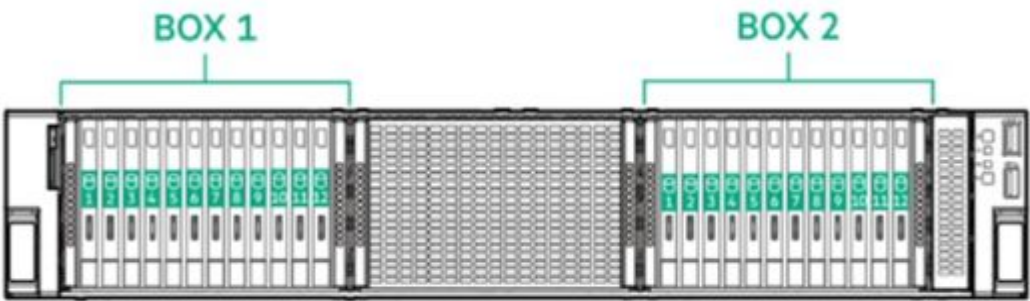
Universal Media Bay



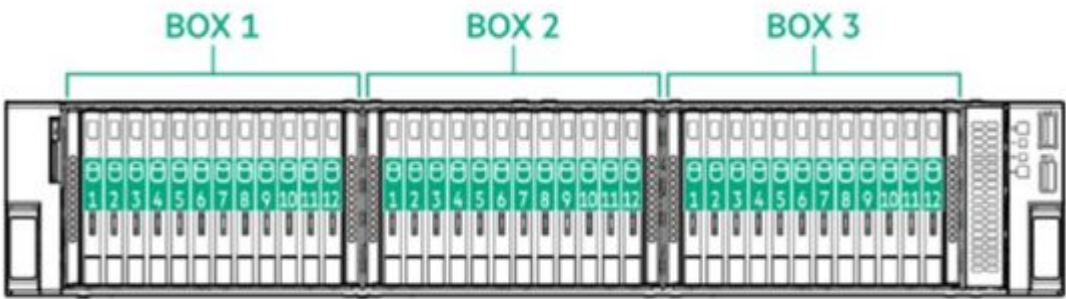
Storage



48 SFF

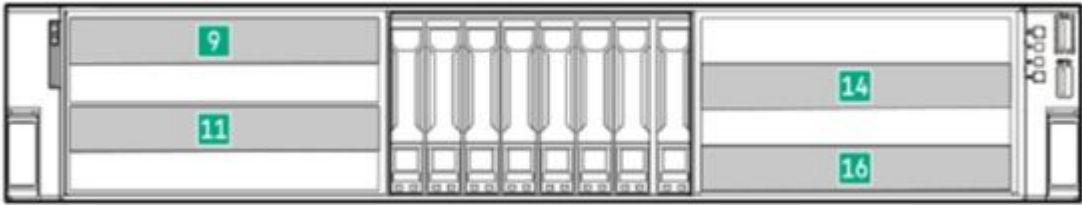


24 E3.S EDSFF



36 E3.S EDSFF

Storage



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



GPU Server with 8 EDSFF

Technical Specifications

System Unit

Dimensions

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

Weight (approximate)

- SFF configuration
 - Maximum 33.4 kg / 73.48 lbs. with 24 hard drivesPackaged weight: 39.54 kg
 - Minimum 16.78 kg / 36.92 lbs. 8 SFF chassis with 1x SFF HDD and 7 HDD blanks, 2x Drive Bay blanks, 1x processor including standard heat sink, 1x power supply (plus blank), 1x Smart Array, 1x Riser installed, cables for the above)Packaged weight: 26.2 kg
- LFF configuration
 - Maximum 36.72 kg / 80.78 lbs. with 12x LFF hard drives (no rear drives), 2x processors, 2x power supplies, 1x Smart Array, 2x Risers installed)Packaged weight: 42.82 kg
 - Minimum 18.24 kg / 40.13 lbs. with 1x LFF hard drive and 7 HDD blanksPackaged 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 to 240 VAC
- For 800 W (Platinum): 100 to 240 VAC For 1600W (-48 VDC): -40 to -72 VdC

Technical Specifications

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 (at 240 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

Technical Specifications

- 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.

Technical Specifications

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 web site. These instructions may be used by recyclers and other WEEE treatment facilities as well as Hewlett Packard Enterprise OEM customers who integrate and re-sell Hewlett Packard Enterprise equipment.

Summary of Changes

| Date | Version History | Action | Description of Change |
|-------------|----------------------------|---------|--|
| 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 - 4 th 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 |
| 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 (S3U30°C 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. |

Summary of Changes

| Date | Version History | Action | Description of Change |
|-------------|----------------------------|---------|--|
| 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 |
| 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). |

| Date | Version History | Action | Description of Change |
|-------------|----------------------------|---------|---|
| 10-Oct-2024 | Version 25 | Changed | Overview, Standard Features, Configuration Information, Core Options and Additional Options sections were updated. Added: – New 5 th 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. |
| 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 |

Summary of Changes

| | | | |
|-------------|----------------------------|---------|---|
| 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. |

| Date | Version History | Action | Description of Change |
|-------------|----------------------------|---------|--|
| 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. |
| 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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