Have feedback on QuickSpecs? We're listening

HPE ProLiant Compute DL380 Gen12

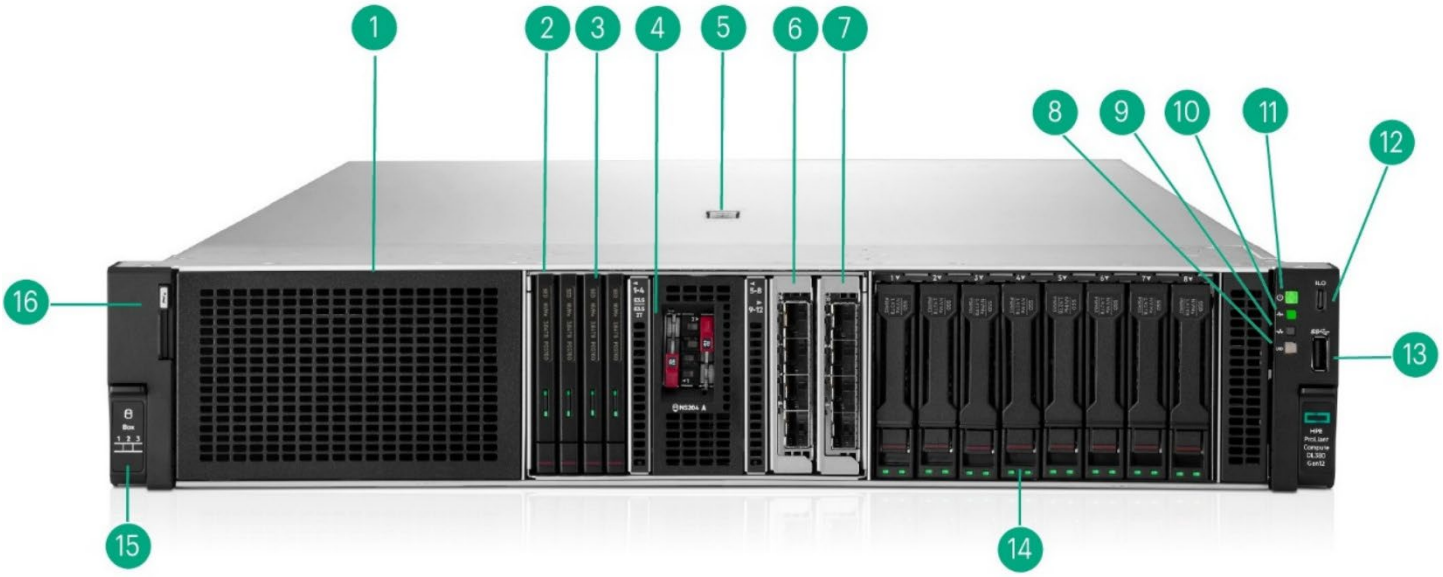
QuickSpecs

The HPE ProLiant Compute DL380 Gen12 is a versatile 2U rack server designed for demanding enterprise workloads.

Supporting up to two Intel® Xeon® 6 processors with up to 144 E-cores or 86 P-cores per processor, the DL380 Gen12 delivers high compute performance, up to 8 TB of memory capacity, and high-speed PCIe 5.0 connectivity for accelerators such as GPUs. Its balanced 2U design provides the flexibility to support a wide range of storage and expansion options while enabling future growth.

HPE ProLiant Compute DL380 Gen12

The HPE ProLiant Compute DL380 Gen12 is built with a focus on security, automation, and operational simplicity. HPE Silicon Root of Trust helps protect the server throughout its lifecycle, while HPE Compute Ops Management and HPE iLO 7 provide comprehensive remote monitoring and management capabilities. Designed to support virtualization, database, AI inferencing, cloud infrastructure, analytics, and business-critical enterprise applications, the DL380 Gen12 delivers the performance, scalability, and resilience required for modern data center environments.



Front view – SFF CTO server with optional multipurpose cage

Item	Description	Item	Description
1.	Box 1 for 8SFF drives or optional Universal Media Bay (optical disc drive [ODD], DisplayPort, and 2 USB 3.2 Gen 1 ports) with 2SFF drives, shown empty	9.	NIC status[1]
2.	Box 2 for 8SFF drives or optional multipurpose cage (shown)	10.	Health LED
3.	Optional 4EDSFF drives (shown in multipurpose cage in Box 2)	11.	Power on / standby button / LED
4.	Optional front NS204i-u (shown in multipurpose cage in Box 2)	12.	USB-C iLO service port
5.	Quick-removal access panel	13.	USB 3.2 Gen 1 port
6.	Optional front Primary OCP Slot (shown in multipurpose cage in Box 2)	14.	Box 3 for 8SFF drives (shown)
7.	Optional front Secondary OCP Slot (shown in multipurpose cage in Box 2)	15.	Drive support label
8.	Unit identification button / LED	16.	Serial number label pull tab

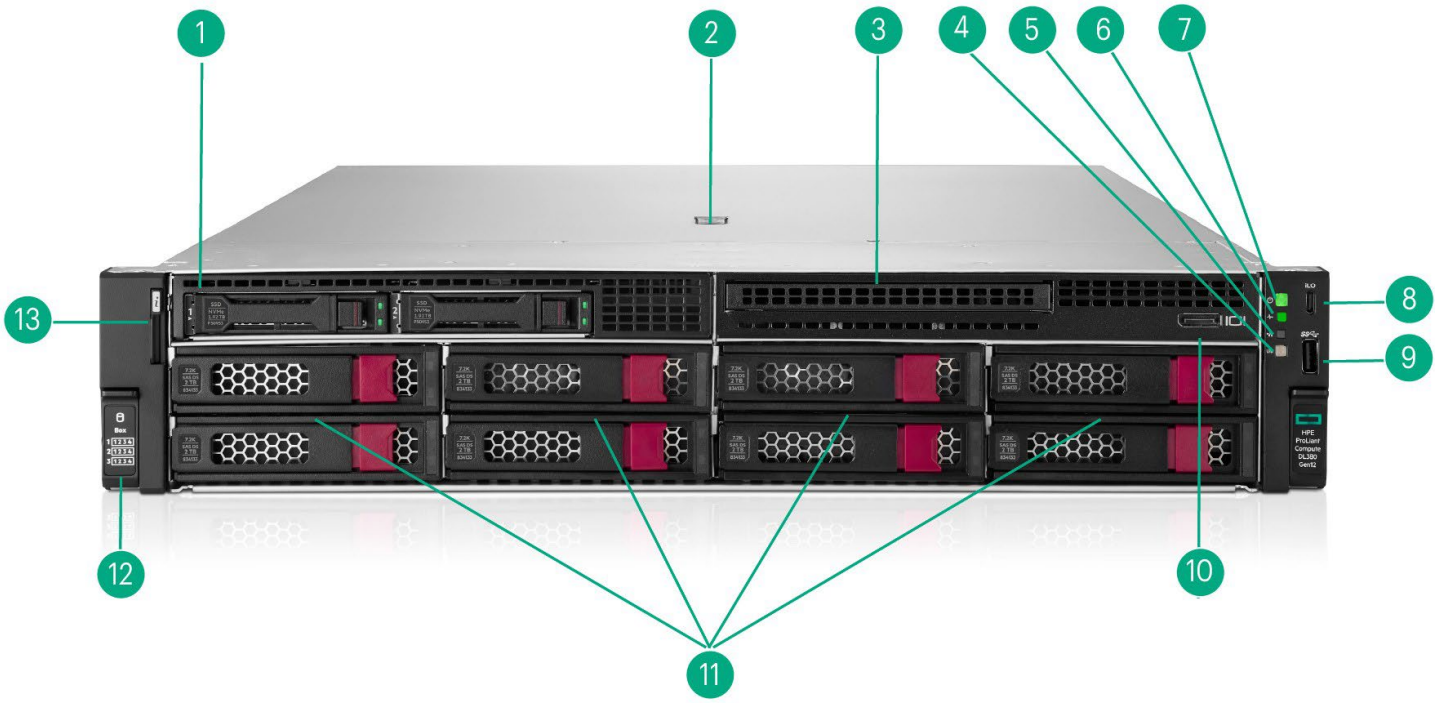
Notes:

- [1]Front NIC LED display doesn't support NIC LED ACT/LINK indication from PCIe NICs.
- Default SFF CTO Server 8SFF drive cage installation sequence is Box 3, Box 2, then Box 1.



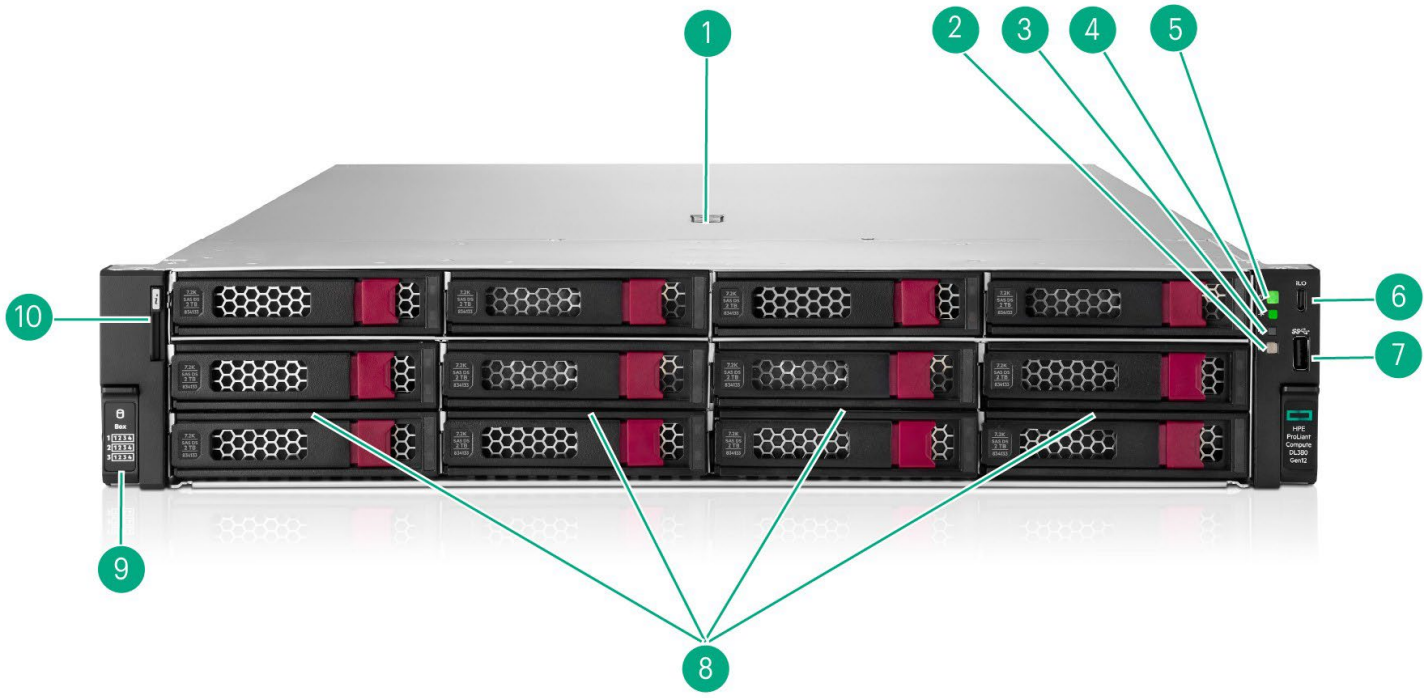
Front view – 24SFF CTO server

Item	Description	Item	Description
1.	Box 1 for 8SFF drives (shown)	7.	Health LED
2.	Box 2 for 8SFF drives (shown)	8.	Power on / standby button / LED
3.	Quick-removal access panel	9.	USB-C iLO service port
4.	Box 3 for 8SFF drives (shown)	10.	USB 3.2 Gen 1 port
5.	Unit identification button / LED	11.	Drive support label
6.	NIC status	12.	Serial number label pull tab



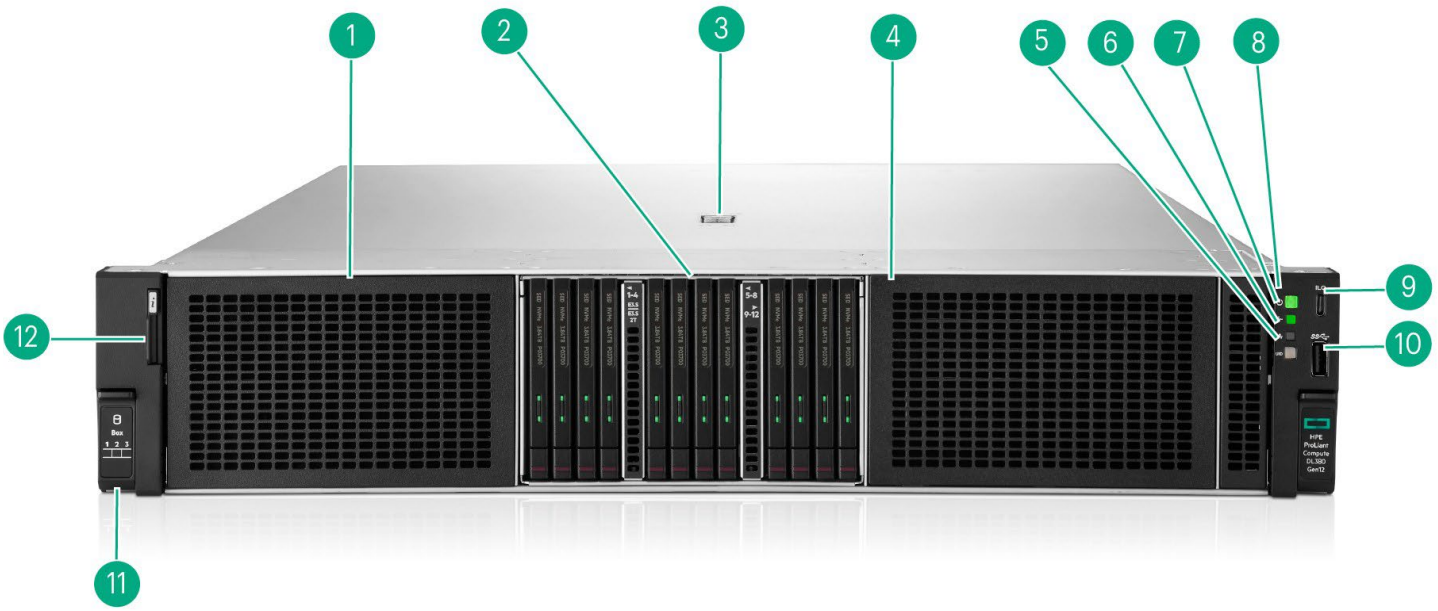
Front view – 8LFF CTO server with optional 2SFF and Universal Media Bay

Item	Description	Item	Description
1.	Optional 2SFF drives in Box 1	8.	USB-C iLO service port
2.	Quick-removal access panel	9.	USB 3.2 Gen 1 port
3.	Optional ODD Kit in Box 1 (shown without the ODD)	10.	Optional DisplayPort via ODD Kit in Box 1 (shown)
4.	Unit identification button / LED	11.	Box 2 and 3 for 4LFF drives in each box (shown)
5.	NIC status	12.	Drive support label
6.	Health LED	13.	Serial number label pull tab
7.	Power on / standby button / LED		



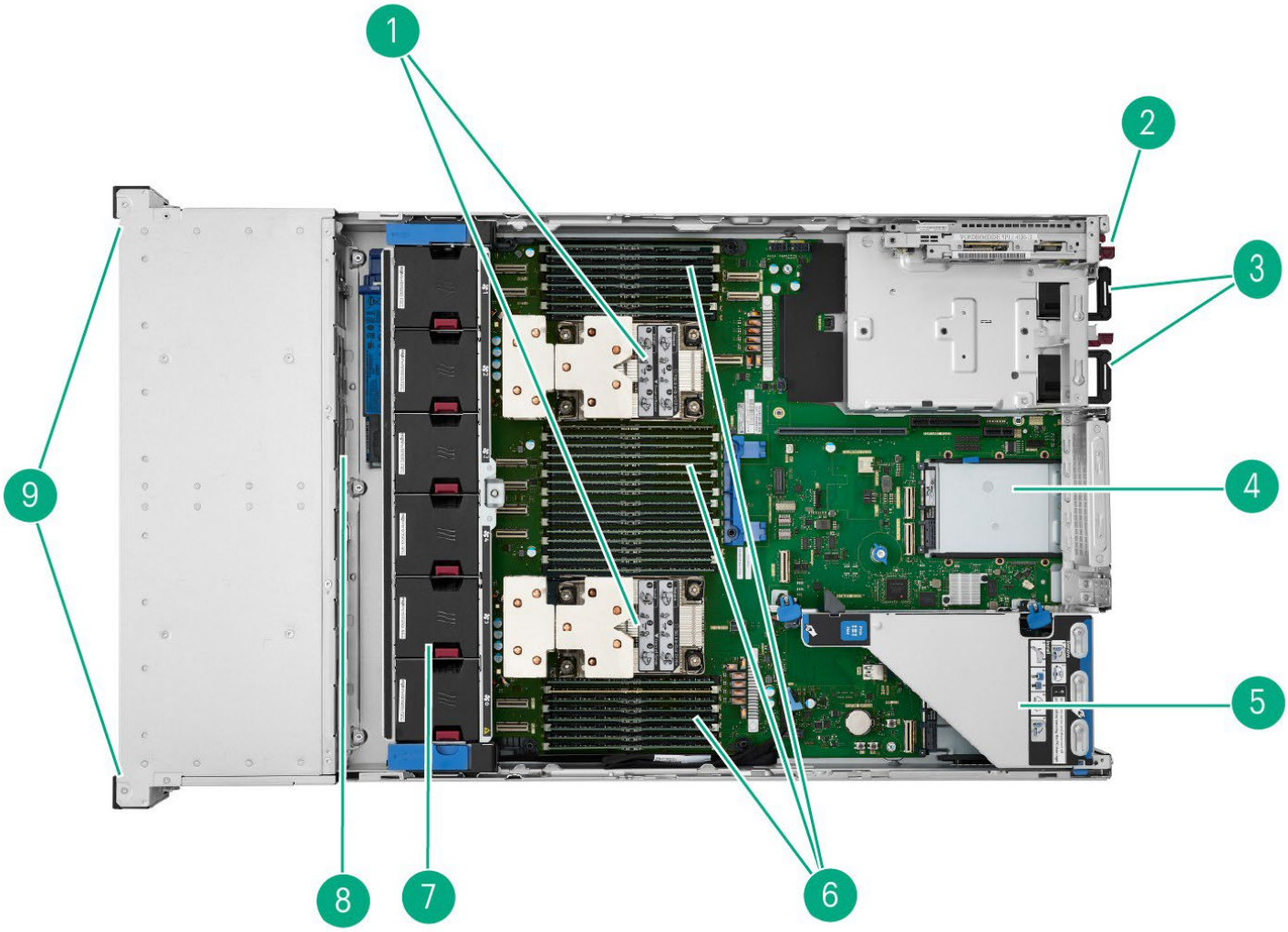
Front view – 12LFF CTO server

Item	Description	Item	Description
1.	Quick-removal access panel	6.	USB-C iLO service port
2.	Unit identification button / LED	7.	USB 3.2 Gen 1 port
3.	NIC status	8.	Box 1, 2, and 3 for 4LFF drives in each box (shown)
4.	Health LED	9.	Drive support label
5.	Power on / standby button / LED	10.	Serial number label pull tab



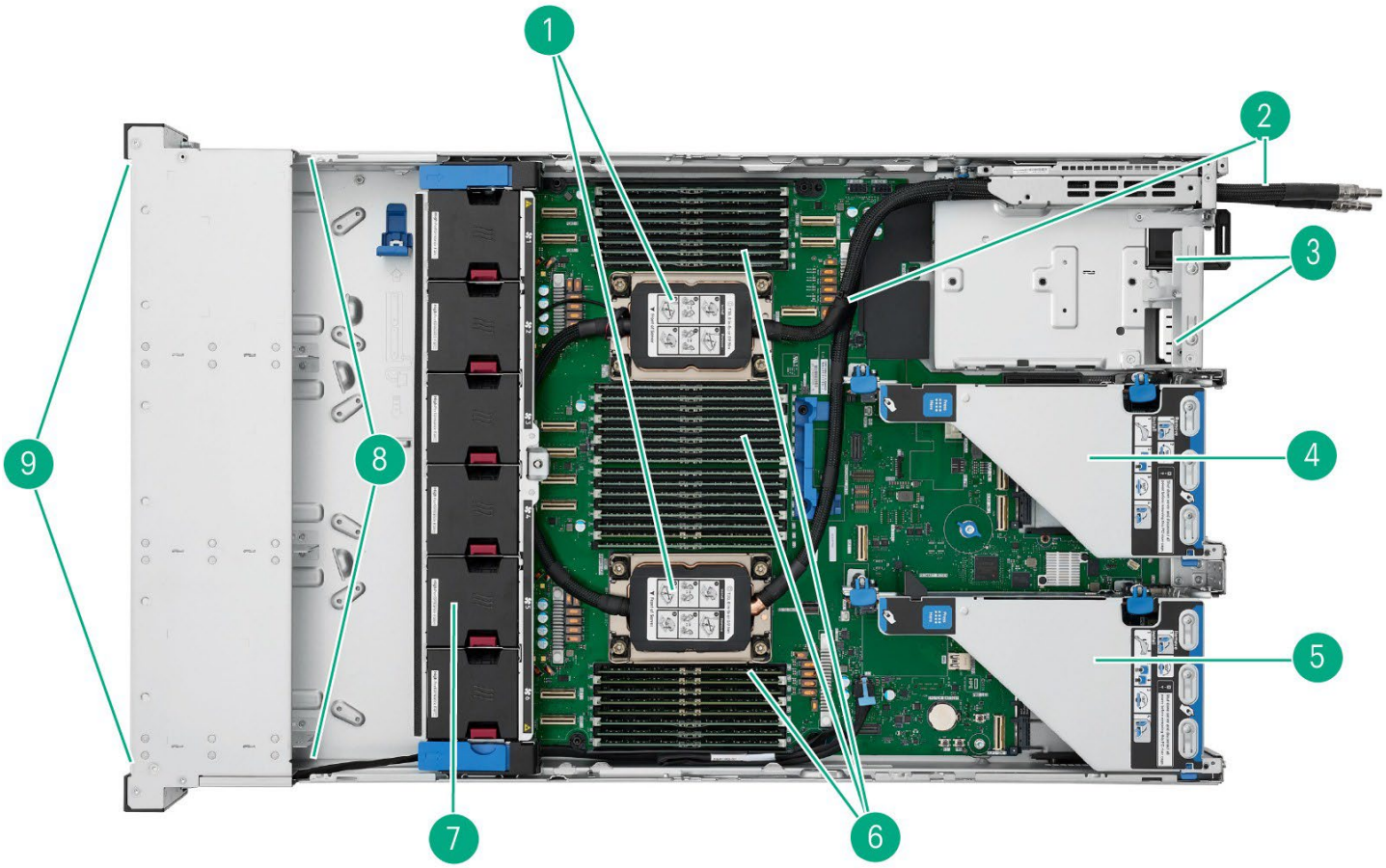
Front view – EDSFF CTO server

Item	Description	Item	Description
1.	Box 1 for 12EDSFF drives or 8SFF drives (shown empty)	7.	Health LED
2.	Box 2 for 12EDSFF drives (shown) or multipurpose cage	8.	Power on / standby button / LED
3.	Quick-removal access panel	9.	USB-C iLO service port
4.	Box 3 for 12EDSFF drives or 8SFF drives (shown empty)	10.	USB 3.2 Gen 1 port
5.	Unit identification button / LED	11.	Drive support label
6.	NIC status	12.	Serial number label pull tab
Notes: Default EDSFF CTO Server drive cage installation sequence is Box 2, Box 3, then Box 1.			



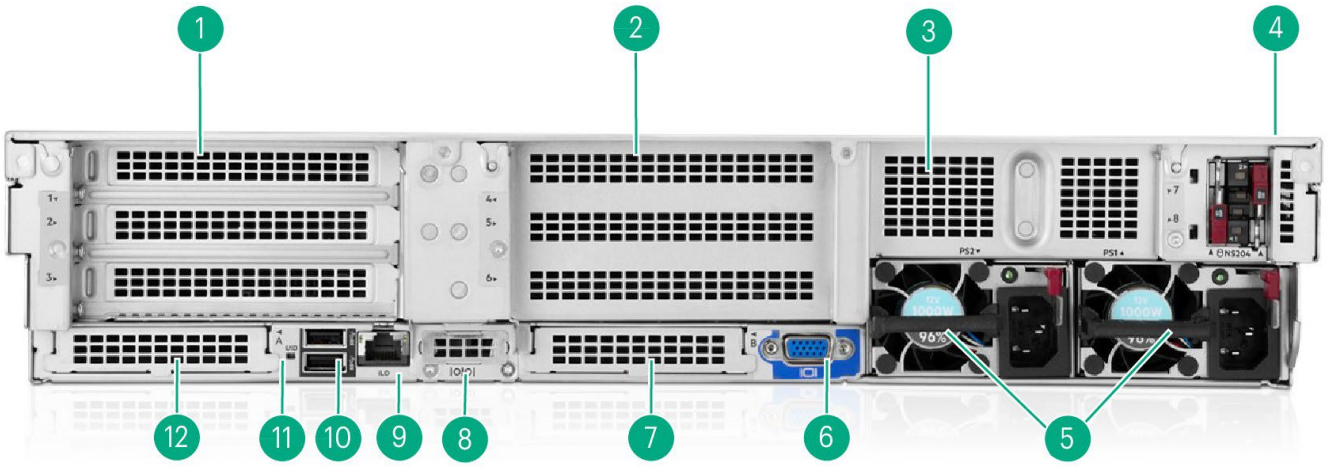
Internal view – SFF chassis – air-cooled

Item	Description	Item	Description
1.	Processors, heatsinks (shown)	6.	DIMM slots, shown fully populated in 32 slots
2.	Optional NS204i-u boot device	7.	Hot-plug fans
3.	Hot-plug redundant HPE Flexible Slot power supplies	8.	Drive backplanes
4.	Secondary riser (optional, not shown; requires second processor)	9.	Drive cages
5.	Primary riser		



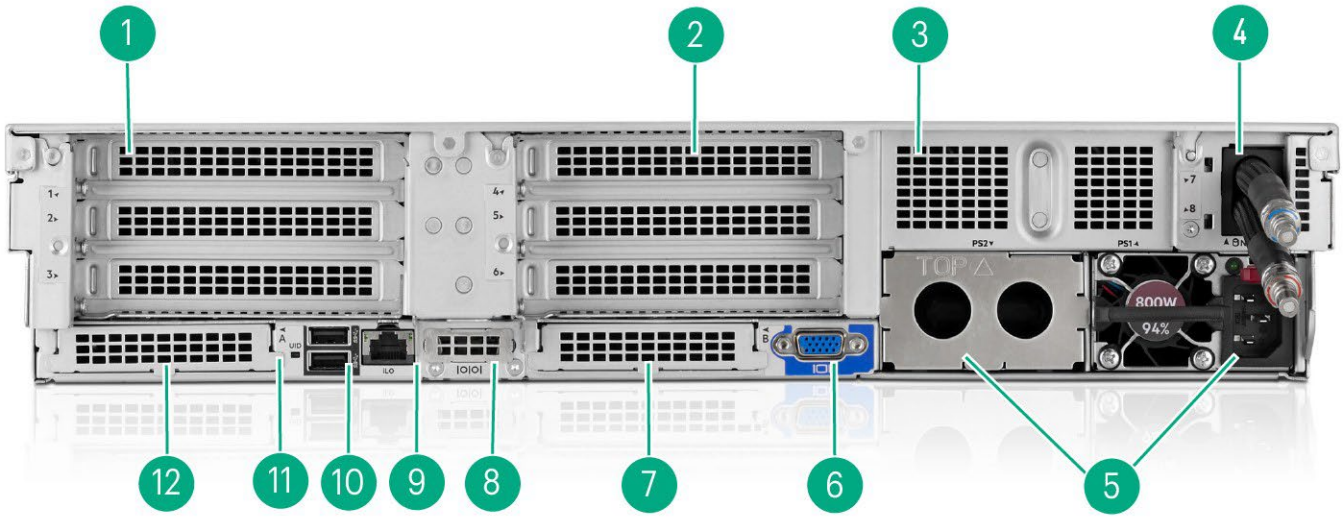
Internal view – 12LFF chassis – direct liquid cooling

Item	Description	Item	Description
1.	Processors, heatsinks (shown)	6.	DIMM slots, shown fully populated in 32 slots
2.	Direct liquid cooling tubes (NS204i-u version)	7.	Hot-plug fans
3.	Hot-plug redundant HPE Flexible Slot power supplies	8.	Drive backplanes
4.	Secondary riser (optional, shown; requires second processor)	9.	Drive cages
5.	Primary riser		



Rear view – DL380 Gen12 air-cooled

Item	Description	Item	Description
1.	Box 4 for Primary Riser (Default PCIe 5.0 Slots 1, 2 & 3) or optional 2 SFF drive & slot 3 or Optional 2 LFF	7.	OCP 3.0 Slot-B
2.	Box 5 for Secondary Riser (Optional PCIe 5.0 Slots 4, 5 & 6) or optional 2 SFF drives & slot 6 or Optional 2 LFF	8.	Serial Port (Optional)
3.	Box 6 for Tertiary riser (slots 7 & 8) or optional 2 SFF	9.	Dedicated iLO Management Port
4.	NS204i-u Boot Device (Optional)	10.	USB 3.2 Gen 1 Connectors (2)
5.	Power Supply 1 & 2	11.	UID Indicator LED
6.	VGA Connector	12.	OCP 3.0 Slot-A



Rear view – DL380 Gen12 direct liquid cooling

Item	Description	Item	Description
1.	Box 4 for Primary Riser (Default PCIe 5.0 Slots 1, 2 & 3) or optional 2 SFF drive & slot 3 or Optional 2 LFF	7.	OCP 3.0 Slot-B
2.	Box 5 for Secondary Riser (Optional PCIe 5.0 Slots 4, 5 & 6) or optional 2 SFF drives & slot 6 or Optional 2 LFF	8.	Serial Port (Optional)
3.	Box 6 for Tertiary riser (slots 7 & 8) or optional 2 SFF	9.	Dedicated iLO Management Port
4.	DLC Tubes (NS204i-u position)	10.	USB 3.2 Gen 1 Connectors (2)
5.	Power Supply 1 (Blank shown for Power Supply 2)	11.	UID Indicator LED
6.	VGA Connector	12.	OCP 3.0 Slot-A

What's new

- 64 GB, 96 GB, and 128 GB DDR5 8000 MT/s DIMMs on select processors.
- Intel E835 10/25 GbE 2-port and 4-port SFP28, and 100 GbE 2-port QSFP28 PCIe and OCP Ethernet Adapters.
- 6.4 TB and 12.8 TB NVMe Gen6 High Performance Mixed Use, and 7.68 TB, 15.36 TB, and 30.72 TB NVMe Gen6 High Performance Read Intensive E3.S EC1 Self-Encrypting SSDs.
- Intel® Xeon® 6503P processor, 8-core, 2.8 GHz, 135 W.
- NVIDIA BlueField Data Processing Units 200 Gb 2-port B3220 and 400 Gb 1-port B3140H adapters.
- Support for 16 EDSFF drives attached to the HPE MR932i-p controller using the new HPE ProLiant Compute DL380 Gen12 x2 EDSFF Controller Attach FIO Kit (P92742-B21). Selection of this kit automatically configures the required drive cages, controller, cables, and power cabling.
- NVIDIA H200 NVL 141 GB PCIe Accelerator.
- AMD Solarflare X4522-PLUS 10/25 GbE 2-port SFP56 Adapter.
- NVIDIA RTX PRO™ 4500 Blackwell Server.
- HPE MR932i-p x32 Lanes PCIe 5.0 SPDM Plug-in Storage Controller.
- NVIDIA RTX PRO™ 6000 96 GB PCIe Accelerator.

Platform information

Form factor

- 2U rack.

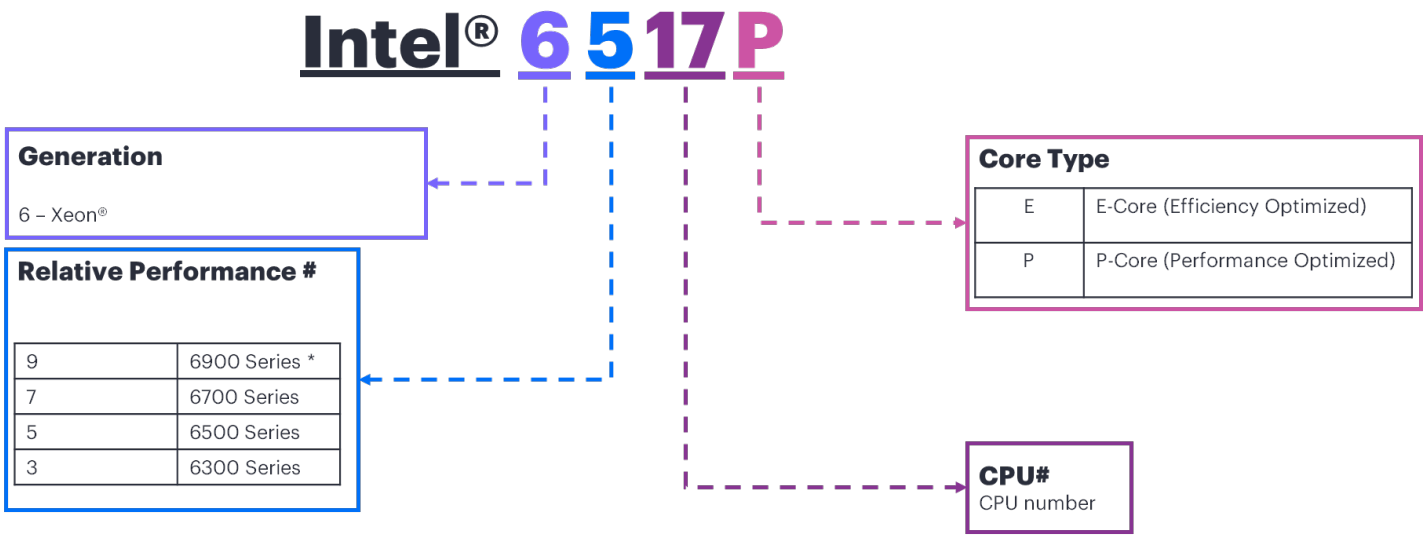
Chassis types

- SFF CTO Server: Supports up to 24SFF front drive cages, or alternate front configurations using the Universal Media Bay, multipurpose cage, and up to 6SFF rear drive cage options.
- 24SFF CTO Server: Includes 24SFF front drive cages and supports up to 6SFF rear drive cage options.
- 8LFF CTO Server: Includes 8LFF front drive cages and supports optional 2SFF front drive cages, optional 4LFF midplane drive cage, and rear drive cage options up to 4LFF or 2SFF.
- 12LFF CTO Server: Includes 12LFF front drive cages and supports optional 4LFF midplane drive cage and rear drive cage options up to 4LFF or 2SFF.
- EDSFF CTO Server: Supports up to 36EDSFF front drive cages, or 12EDSFF plus up to 16SFF front drive cages, and up to 2SFF rear drive cages.

Notes:

- The SFF CTO Server can be configured to support up to 24SFF front drives using supported 8SFF drive cage options, including 8SFF U.3 x1 tri-mode and 8SFF U.3 x4 tri-mode drive cages. See the Drive Cages section for available options.
- The 8LFF CTO Server cannot be upgraded to 12LFF front drives in the field.

Processors



Intel® Xeon® 6 processor naming convention

Notes:

*CPU Series not supported on HPE ProLiant Compute Gen12 platforms.

The information provided here is subject to change without notice. Intel® may make changes to specifications and product descriptions at any time, without notice. Contact your Intel® representative to obtain the latest Intel® product specifications and roadmaps.

For more information about Intel® Xeon® processors, refer to the following https://www.intel.com/xeon.

The HPE ProLiant Compute DL380 Gen12 server supports Intel® Xeon® 6 processors.
Up to two of the following, depending on the model: Efficient-core (E-core) and Performance-core (P-core) processors.

The following processors are supported on the HPE ProLiant Compute DL380 Gen12 server.

Intel® Xeon® 6 processors with Efficient cores (E-cores)								
Performance per Watt Processors								
Intel® Xeon® Models	**Base speed (GHz)**	**Cores**	**L3 Cache (MB)**	**Power (W)**	**UPI**	**DDR5 (MT/s)**	**SGX enclave size (GB)**	**Die**
6710E	2.4	64	96	205	4	5600	512	HDCC
6731E	2.2	96	96	250	0	5600	512	HDCC
6740E	2.4	96	96	250	4	6400	512	HDCC
6746E	2.0	112	96	250	4	5600	512	HDCC
6756E	1.8	128	96	225	4	6400	512	HDCC
6766E	1.9	144	108	250	4	6400	512	HDCC
6780E	2.2	144	108	330	4	6400	512	HDCC

Intel® Xeon® 6 processors with Performance cores (P-cores)								
Performance General Purpose Processors								
Intel® Xeon® Models	**Base speed (GHz)**	**Cores**	**L3 Cache (MB)**	**Power (W)**	**UPI**	**DDR5 (MT/s)***	**SGX enclave size (GB)**	**Die**
6503P	2.8	8	48	135	3	6400	512	LCC
6507P	3.5	8	48	150	3	6400	512	LCC
6517P	3.2	16	72	190	3	6400	512	LCC
6527P	3.0	24	144	255	4	6400	512	HCC
6725P	3.7	16	192	235	4	6400	512	HCC
6730P	2.5	32	288	250	4	6400	512	XCC
6732P	3.8	32	144	350	4	6400	512	HCC
6736P	2.0	36	144	205	4	6400	512	HCC
6737P	2.9	32	144	270	4	6400	512	HCC
6745P	3.1	32	336	300	4	6400	512	XCC
6747P	2.7	48	288	330	4	8000/ 6400	512	XCC
6762P	2.9	64	320	350	4	8000/ 6400	512	XCC
6767P	2.4	64	336	350	4	8000/ 6400	512	XCC
6787P	2.0	86	336	350	4	8000/ 6400	512	XCC

Mainline Processors								
Intel® Xeon® Models	**Base speed (GHz)**	**Cores**	**L3 Cache (MB)**	**Power (W)**	**UPI**	**DDR5 (MT/s)***	**SGX enclave size (GB)**	**Die**
6505P	2.2	12	48	150	3	6400	128	LCC
6515P	2.3	16	72	150	3	6400	128	LCC
6520P	2.4	24	144	210	4	6400	128	HCC
6530P	2.3	32	144	225	4	6400	128	HCC
6740P	2.1	48	288	270	4	6400	128	XCC
6760P	2.2	64	320	330	4	6400	128	XCC

Socket Scalable Processors								
Intel® Xeon® Models	**Base speed (GHz)**	**Cores**	**L3 Cache (MB)**	**Power (W)**	**UPI**	**DDR5 (MT/s)***	**SGX enclave size (GB)**	**Die**
6714P	4.0	8	48	195	3	6400	512	LCC
6724P	3.6	16	72	210	3	6400	512	LCC
6728P	2.7	24	144	210	4	6400	512	HCC
6738P	2.9	32	144	270	4	6400	512	HCC
6748P	2.5	48	192	300	4	6400	512	HCC
6768P	2.4	64	336	330	4	6400	512	XCC
6788P	2.0	86	336	350	4	6400	512	XCC

Notes: *Intel® Xeon® 6 processors support DDR5 memory at a maximum speed of 6400 MT/s at 1 DIMM per channel (1DPC) and 6000 MT/s at 2DPC.

iLO

HPE iLO 7 ASIC.
Learn more in the iLO QuickSpecs.

Memory	
Type	HPE DDR5 Smart Memory, Registered (RDIMM)
DIMM slots available	32 DIMM slots, 16 per processor, 8 channels per processor, 2 DIMMs per channel
Maximum capacity	8 TB at 6000 MT/s – 32 x 256 GB RDIMMs – 2 DIMMs per channel (2DPC) 2 TB at 8000 MT/s – 16 x 128 GB RDIMMs – 1 DIMM per channel (1DPC) – Select Intel® Xeon® 6 processors: 6747P, 6762P, 6767P, and 6787P

Notes:
- Maximum memory speed is dependent on the processor selected.
- HPE DDR5 Smart Memory is required to achieve the memory performance capabilities listed in this document.
- For additional information, visit the HPE Memory QuickSpecs and Technical White Papers.

Memory protection

Advanced ECC

Advanced ECC uses single device data correction to detect and correct single-bit and multi-bit errors that occur within a single DRAM chip.

Adaptive Double DRAM Device Correction (ADDDC)

Adaptive Double DRAM Device Correction enables the server to dynamically map out a failing DRAM device. Enabling it can have some impact on system performance under certain workloads. It is enabled by default.

Memory mirroring

Memory mirroring enables full memory redundancy.

Network controller

There is no default network controller included. The HPE ProLiant Compute DL380 Gen12 server offers a variety of networking options that are described in the Core Options section of this document.

PCIe expansion slots

Notes:

- Bus width indicates the number of electrical lanes connected to the slot. Connector width indicates the physical slot size.
- Installing a PCIe card that requires more lanes than the slot supports may result in reduced performance.
- A second processor is required when selecting a secondary or tertiary riser.
- The 3x16 secondary riser and tertiary riser cannot be selected together.

Final PCIe slot availability is configuration-dependent and may vary by riser selection, cable kit selection, processor count, storage configuration, and FIO bundle selection. Validate the final configuration in HPE One Config Advanced.

Primary Riser

Notes:

- Up to one Primary Riser can be selected per server.
- Two Primary Riser types are supported.

Primary Riser Option 1 (Default)					
Slots #	**Technology**	**Bus Width**	**Connector Width**	**Slot Form Factor**	**Notes**
1	PCIe 5.0	X8	X16	Full-height, full-length slot	Proc 1
2	PCIe 5.0	X16	X16	Full-height, full-length slot	Proc 1
3	PCIe 5.0	X8	X16	Full-height, half-length slot	Proc 1

Primary Riser Option 2 (P48803-B21)					
Slots #	**Technology**	**Bus Width**	**Connector Width**	**Slot Form Factor**	**Notes**
1[a]	N/A	N/A	N/A	N/A	N/A
1[b]	PCIe 5.0	X16[c]	X16	Full-height, full-length slot	Proc 1
2	PCIe 5.0	X16	X16	Full-height, full-length slot	Proc 1
3	PCIe 5.0	X16	X16	Full-height, half-length slot	Proc 1

Notes:

- [a] PCIe Slot Availability (Without Cable Kit)
  - If the HPE ProLiant Compute DL380 Gen12 x16/x16/x16 Cable Kit (P76471-B21) is not selected:
    - Only Slot 2 and Slot 3 are available for PCIe card selection.
    - Slot 1 is disabled (no PCIe cards can be selected).
- [b] Enabling Slot 1 (Full Functionality)
  - To enable Slot 1 on the DL380 Gen11 2U 3x16 Primary Riser Kit:
  - Select Qty 2 × P76471-B21 (HPE ProLiant Compute DL380 Gen12 x16/x16/x16 Cable Kit), and
  - Select the associated trigger SKU P78117-B21 (HPE ProLiant Compute DL380 Gen12 Primary Riser x16 FIO Bundle Kit).
- [c] Factory Bundle Kit Behavior (Slot 1 bandwidth):
  - For the following bundle kits:
    - P77961-B21 (HPE ProLiant Compute DL380 Gen12 24SFF x2 Direct Attach x16/x16/x16 OCP FIO Bundle Kit)
    - P77946-B21 (HPE ProLiant Compute DL380 Gen12 12EDSFF x16/x16/x16 OCP Direct Attach PCIe FIO Bundle Kit)
    - P77964-B21 (HPE ProLiant Compute DL380 Gen12 12EDSFF x2 1P Direct Attach x16/x16/x16 PCIe FIO Bundle Kit)
  - Slot 1 operates at x8 (not x16)

Secondary Riser

Notes:

- Up to one Secondary Riser can be selected per server.
- Two Secondary Riser types are supported.

Secondary Riser Option 1 (P48802-B21)					
Slots #	**Technology**	**Bus Width**	**Connector Width**	**Slot Form Factor**	**Notes**
4	PCIe 5.0	X8	X16	Full-height, full-length slot	Proc 2
5	PCIe 5.0	X16	X16	Full-height, full-length slot	Proc 2
6	PCIe 5.0	X8	X16	Full-height, half-length slot	Proc 2

Secondary Riser Option 2 (P51083-B21)					
Slots #	**Technology**	**Bus Width**	**Connector Width**	**Slot Form Factor**	**Notes**
4*	N/A	N/A	N/A	N/A	N/A
4**	PCIe 5.0	X16***	X16	Full-height, full-length slot	Proc 2
5	PCIe 5.0	X16	X16	Full-height, full-length slot	Proc 2
6	PCIe 5.0	X16	X16	Full-height, half-length slot	Proc 2

Notes:

- *If the HPE ProLiant Compute DL380 Gen12 x16/x16/x16 Cable Kit (P76471-B21) is not selected:
  - Only Slot 5 and Slot 6 are available.
  - Slot 4 is disabled (no PCIe card support).
- ** To enable Slot 4:
  - Select Qty 2 × P76471-B21 (HPE ProLiant Compute DL380 Gen12 x16/x16/x16 Cable Kit), and
  - Select trigger SKU P78120-B21.
- *** Factory Bundle behavior (Slot 4 bandwidth):
  - For the following bundle kits:
    - P77961-B21 (HPE ProLiant Compute DL380 Gen12 24SFF x2 Direct Attach x16/x16/x16 OCP FIO Bundle Kit).
    - P77946-B21 (HPE ProLiant Compute DL380 Gen12 12EDSFF Direct Attach x16/x16/x16 OCP FIO Bundle Kit).
  - Slot 4 operates at x8 (not x16).

Tertiary Riser

Notes:

- Up to one Tertiary Riser can be selected per server.
- Two Tertiary Riser options are supported.

Tertiary Riser Option 1 (P76451-B21)					
Slots #	**Technology**	**Bus Width**	**Connector Width**	**Slot Form Factor**	**Notes**
7	PCIe 5.0	X16	X16	Full-height, full-length slot	Proc 2
8	PCIe 5.0	X16	X16	Full-height, full-length slot	Proc 2

Tertiary Riser Option 2 (P74737-B21)					
Slots #	**Technology**	**Bus Width**	**Connector Width**	**Slot Form Factor**	**Notes**
7	PCIe 5.0	X16	X16	Full-height, full-length slot	Proc 2
8	PCIe 5.0	X8	X16	Full-height, full-length slot	Proc 2

OCP Expansion Slots				
Expansion Slots #	**HPE Part No.**	**Technology**	**Bus Width**	**Connector Width**
1 Rear OCP A[2] (OCP 3.0) embedded	Default & P72201-B21	PCIe 5.0	x 8[1]	x16
1 Rear OCP B[2] (OCP 3.0) optional cabled	P72203-B21, P72205-B21 & P72207-B21	PCIe 5.0	x 8[1]	x 16
1 Front Primary OCP[2] (OCP3.0) (Box 2, Bay 9)	P74757-B21	PCIe 5.0	x16	x16
1 Front Secondary OCP (OCP3.0) (Box 2, Bay 11)	P74758-B21	PCIe 5.0	x16	x 16

Notes:

- [1]Can be extended to x16 with one processor if we don't use the other OCP, with 2 processors we can have both OCPA and OCP B as x16.
- [2]Provides the share-NIC function with Network Controller Sideband Interface (NCSI).Front and rear OCPs cannot be enabled at the same time.
- Front OCPs are enabled with the multipurpose cage (only with SFF and EDSFF CTO Server) and can only support networking cards.

OCP 3.0 Slot Priority Support Matrix					
OCP Slot Location	**1 OCP Storage Controller (OROC) + 1 OCP NIC**	**1 OCP NIC (if both OCPs are enabled)**	**2 OCP NICs**	**1 OCP Storage Controller (OROC)**	**2 OCP Storage Controllers (OROC)**
OCP A	OROC	N/A	OCP NIC	OROC (Higher priority)	OROC (Higher priority)
OCP B	OCP NIC	NIC (higher priority)	OCP NIC (higher priority)	N/A	OROC

Internal Storage Devices

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

Graphics

Integrated Video Standard

- VGA Port in the rear.
- DisplayPort with optional optical disk drive.
- Video modes up to 1920 x 1200@60Hz (32 bpp).
- 16MB Video Memory.

Maximum Internal Storage

Drive	Total Storage	Configuration
Hot Plug SFF SAS HDD	72 TB	24 + 6 x 2.4 TB
Hot Plug SFF SAS SSD	460.8 TB	24 + 6 x 15.36 TB
Hot Plug SFF SATA HDD	60 TB	24 + 6 x 2 TB
Hot Plug SFF SATA SSD	230.4 TB	24 + 6 x 7.68 TB
Hot Plug LFF SAS HDD	360 TB	12+ 4+ 4 x 18 TB
Hot Plug LFF SAS SSD	480 TB	12+ 4+ 4 x 24 TB
Hot Plug LFF SATA HDD	360 TB	12+4+4 x 18 TB
Hot Plug LFF SATA SSD	480 TB	12+4+4 x 24 TB
Hot Plug SFF NVMe SSD	921.6TB	24+6 x 30.72 TB
EDSFF NVMe	4420.8 TB	36 x 122.8 TB

Interfaces

Serial Port	1 Optional rear.
DisplayPort	1 optional front DisplayPort via Universal Media Bay. (Supported only on SFF and EDSFF CTO Server.)
VGA Port	1 standard, rear.
Network Ports	None as standard. The choice of stand-up or OCP networking card is required.
HPE iLO Remote Management Network Port	1 Gb Dedicated, rear.
Front iLO Service Port	1 standard
USB 3.2 Port Gen 1	Up to 5 total: 1 front (3.2 Gen 1), 2 rear (3.0), 2 internal (3.0), 2 optional USB 2.0 front via Universal Media Bay.
System Insight Display (SID)	Optional, front. Supported with SFF and EDSFF CTO Server only.

Operating Systems and Virtualization Software Support for HPE Servers

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

Access the certified and supported servers for each of the OS and Virtualization software: HPE Servers Support & Certification Matrices

HPE Server UEFI

Unified Extensible Firmware Interface (UEFI) is an industry standard that provides better manageability and more secured configuration than the legacy ROM while interacting with your server at boot time. HPE ProLiant Compute Gen12 servers have a UEFI Class 3 implementation to support UEFI Mode.

Notes: The UEFI System Utilities tool is analogous to the HPE ROM-Based Setup Utility (RBSU) of legacy BIOS. For more information, please visit https://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.
- Embedded UEFI Shell.
- Operating system specific functionality.
- Mass Configuration Deployment Tool using iLO RESTful API that is Redfish API Conformant.
- Support for > 2.2 TB (using GPT) boot drives.
- PXE boot support for IPv6 networks.
- USB 3.0 Stack.
- Workload Profiles for simple performance optimization.

UEFI Boot Mode only

- TPM 2.0 Support.
  Notes: Enabling TPM 2.0 no longer requires TPM module option kit for Gen12. It is an embedded feature.
- iSCSI Software Initiator Support.
- NVMe Boot Support.
- HTTP/HTTPs Boot support as a PXE alternative.
- Platform Trust Technology (PTT) can be enabled.
- Boot support for option cards that only support a UEFI option ROM.

Notes: For UEFI Boot Mode, boot environment and OS image installations should be configured properly to support UEFI.

Industry Standard Compliance

- ACPI 6.5 Compliant.
- PCIe 5.0 Compliant.
- Wake on LAN (WOL) Support.
- Microsoft® Logo certifications.
- PXE Support.
- VGA.
- DisplayPort.
  Notes: This support is on the optional Universal Media Bay.
- USB 3.2 Gen1 Compliant.
- USB 2.0 Compliant (via Universal Media Bay).
  Notes: This support is on the optional Universal Media Bay.
- Energy Star.
- SMBIOS 3.7.
- Unified Extensible Firmware Interface (UEFI) 2.10.
- UEFI Class 3.

- Redfish API.
- IPMI 2.0.
- Advanced Encryption Standard (AES).
- SNMP v3.
- TLS 1.2.
- DMTF Redfish support for Secure Boot Key Management.
- ACPI DSM Drive LED Management.
- Memory Page Retire Support.
- Retire old VMware Secure Boot Key.
- APML.
- Active Directory v1.0.
- ASHRAE A3/A4.

  Notes: For additional technical, thermal details regarding ambient temperature, humidity, and feature support, please visit DL380 Gen12 Extended Ambient Temperature Guidelines.

HPE Compute Ops Management

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

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

A 3-year subscription to HPE Compute Ops Management is added by default when ordering an HPE ProLiant Compute Gen12 rack or tower server.

For more information, visit the HPE Compute Ops Management QuickSpecs:
https://www.hpe.com/psnow/doc/a50004263enw

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 https://www.hpe.com/info/iLO.

UEFI

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

OpenBMC Support

OpenBMC Capable through iLO 7 Transfer of Ownership Process.
Learn more at OpenBMC Support

Intelligent Provisioning

Hassle-free server and OS provisioning for 1 or more servers with Intelligent Provisioning.
Learn more at HPE Intelligent Provisioning.
Notes: Please refer to Advisory: HPE ProLiant Compute Gen12 Servers - HPE Intelligent Provisioning 5.00 Is Available with Limited Feature Support.

iLO RESTful API

iLO RESTful API is DMTF Redfish API implementation and offers simplified server management automation such as configuration and maintenance tasks based on modern industry standards. Learn more at https://www.hpe.com/info/restfulapi.

Server Utilities

Active Health System

The HPE Active Health System (AHS) is an essential component of the iLO management portfolio that provides continuous, proactive health monitoring of HPE servers. Learn more at https://www.hpe.com/servers/ahs.

Smart Update

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

HPE iLO Mobile Application

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

RESTful Interface Tool

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

HPE OneView Standard

HPE OneView is an on premise, multi-generational server monitoring and management solution. HPE OneView Standard can be used for inventory, health monitoring, alerting, and reporting without additional fees. Customers can upgrade their management experience with an HPE OneView Advanced license all provided by the same tool. Learn more at https://www.hpe.com/info/oneview.

Security

Experience unparalleled security benefits with HPE ProLiant Compute Gen12 servers, designed to enhance your infrastructure's security and performance. These servers come equipped with cutting-edge embedded security features, ensuring robust protection for your critical data and applications. Key features include:

- **HPE Integrated Lights-Out (HPE iLO 7):** This product offers advanced embedded security features for monitoring, service alerting, reporting, and remote management**.**
- **Enhanced Server Data Security:** Encryption and key management, iLO Managed Encryption, UEFI-managed encryption, and self-encrypting drives (SED) for enhanced data-at-rest protection.
- **Sanitize Data with One-Button Secure Erase:** This method complies with NIST SP 800-88 guidelines for media sanitization, ensuring the secure decommissioning of servers.
- **Expanded Industry Security Compliance:** Adherence to standards such as FIPS 140-3, NIST SP 800-53, NIST SP 800-171, and NIST SP 800-88.
- **HPE Compute Ops Management:** Provides an intuitive cloud operating experience, ensuring streamlined and highly secure operations.
- **Physical Security Options:** System maintenance switch, USB security, rack and power security, bezel lock, and chassis intrusion detection switch.
- **HPE Trusted Supply Chain:** HPE Trusted Supply Chain offers enhanced security and compliance for organizations worldwide. Servers built with this option undergo rigorous inspections and checkpoints to detect and mitigate malicious microcode and counterfeit parts throughout the server build and lifecycle

Please refer to the HPE ProLiant Compute Gen12 Embedded Security QuickSpecs document for more detailed information at: https://www.hpe.com/psnow/doc/a50009218enw.

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 by Customer Self Repair (CSR) parts. These parts fall into two categories: 1) Mandatory CSR parts are designed for easy replacement. 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.
https://www.hpe.com/support/ProLiantServers-Warranties.

Server Management

HPE iLO Advanced

HPE iLO Advanced licenses offer smart remote functionality without compromise, for all HPE ProLiant servers. The license includes the full integrated remote console, virtual keyboard, video, and mouse (KVM), multi-user collaboration, console record and replay, and GUI-based and scripted virtual media and virtual folders. You can also activate enhanced security and power management functionality.

HPE OneView Advanced

HPE OneView Advanced offers a sophisticated level of automation to infrastructure management by taking a template driven approach to provisioning, updating, and integrating compute, storage, and networking infrastructure. It builds upon the base features of HPE OneView Standard, provides full-featured licenses which can be purchased for managing multiple HPE server generations.
To learn more visit https://www.hpe.com/info/oneview.

One Config Simple (OCS/SCE)

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

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've 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 includes 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.

Service and Support

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

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

HPE Smart Choice Purchase Program

The HPE Smart Choice Purchase Program offers popular, factory-configured products that can be quoted in minutes and delivered quickly through HPE Authorized Partners. These Smart Choice SKUs replace the previous BTO SKUs, streamlining the purchasing process. Each system is configured and tested at an HPE facility, stocked with Authorized Distributors and Partners, and shipped in a single box to simplify and accelerate on-site integration. When you purchase an HPE Smart Choice product, you also gain access to exclusive, competitively priced HPE Tech Care Services available only through the Smart Choice Purchase Program. Please visit the Smart Choice Supplemental QuickSpecs or the website for details.

Configuration Details

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.

- 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.
- HPE ProLiant Compute DL380 Gen12 is highly configurable, the configuration information below does not include all CTO configuration rules. Please use one of HPE's approved configurators for the final configuration validation.

SAP Solution Configuration

For customers configuring the HPE ProLiant Compute DL380 Gen12 for SAP solutions, please use the following solution SKU:

- P79970-B21 HPE ProLiant Compute DL380 Gen12 Solution Server.

For additional details on HPE's SAP solutions, please visit the HPE SAP solutions portfolio on HPE.com.

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

CTO Server models do not include embedded LOM. To enable networking capability please select a validated alternative NIC -OCP or PCIe- from the Core Options section.

CTO Server	HPE ProLiant Compute DL380 Gen12 SFF NC Configure-to-Order Server	HPE ProLiant Compute DL380 Gen12 24SFF NC Configure-to-Order Server	HPE ProLiant Compute DL380 Gen12 12LFF NC Configure-to-Order Server	HPE ProLiant Compute DL380 Gen12 8LFF NC Configure-to-Order Server	HPE ProLiant Compute DL380 Gen12 EDSFF NC Configure-to-Order Server
SKU Number	P73282-B21	P73283-B21	P73284-B21	P73285-B21	P73286-B21
TAA SKU*	P73282-B21#GTA	P73283-B21#GTA	P73284-B21#GTA	P73285-B21#GTA	P73286-B21#GTA
Processor	Not included as default				
Memory	32-DIMM slots for HPE ProLiant Compute DDR5 Smart Memory Not included as default – select capacity and quantity from available DIMMs				
DIMM Blanks	Optional – Not included as default.				
Heat Sinks	Choice of standard, performance, high performance or max performance heatsinks				
Fans	Included as default in the following quantities:				
	4-Standard	6-High Performance	6-Standard	4-Standard	6-Standard
Rear PCIe Slots	– Up to 8 PCIe Gen5 slots (up to 6 x16 & up to 2 x8) – Default primary riser slots 1, 2 & 3 (x8 x16 x8 bus width) – Optional secondary and tertiary risers				
OCP 3.0 - Rear	Up to 2 PCIe 5.0; OCP A (Default) and OCP B (Optional)				
Network Controller	No embedded networking. Choice of either OCP 3.0 or select stand-up network adapters for primary networking selection plus additional/optional stand-up network adapters.				
Storage Controller	Not included as default. Choice of – Intel® Virtual RAID on CPU (VROC) for HPE ProLiant. – HPE Compute MR Gen11 Controllers. – HPE NS204i-u V2 NVMe Hot Plug Boot Optimized Storage Device at Rear, internal or front cage (front cage is available in SFF/EDSFF CTO Server only).				
I/O Ports	– Front: 1 USB 3.2 Gen1, 1 USB-C iLO service port, 1 DisplayPort (optional), 2 USB 2.0 (optional via UMB). – Rear: Two (2) USB 3.2 Gen1, 1 iLO Management Ethernet Port, VGA port, 1 optional Serial Port. – Internal: Two (2) USB 3.0.				
Security	Trusted Platform Module (TPM) 2.0. It is an embedded feature globally and can be disabled in the BIOS setting.				
HPE Trusted Supply Chain	P36394-B21 – Optional.				
Rail Kit	Optional Easy Install rails and CMA.				

Form Factor	2U
Management	HPE iLO with Intelligent Provisioning (standard), iLO Advanced and OneView (optional) **Notes:** Please refer to Advisory: HPE ProLiant Compute Gen12 Servers - HPE Intelligent Provisioning 5.00 Is Available with Limited Feature Support.
Warranty	3-year parts, 3-year labor, 3-year onsite support with next business day response.

CTO Server	HPE ProLiant Compute DL380 Gen12 SFF NC Configure-to-Order Server	HPE ProLiant Compute DL380 Gen12 24SFF NC Configure-to-Order Server	HPE ProLiant Compute DL380 Gen12 12LFF NC Configure-to-Order Server	HPE ProLiant Compute DL380 Gen12 8LFF NC Configure-to-Order Server	HPE ProLiant Compute DL380 Gen12 EDSFF NC Configure-to-Order Server
SKU Number	P73282-B21	P73283-B21	P73284-B21	P73285-B21	P73286-B21
Front Drive Cages – Included	None by default Select from available options	Qty-3 of 8SFF x1 U.3	Qty-3 of 4LFF	Qty-2 of 4LFF	None by default Select from available options
Front Drive Cages Options	– DL3XX Gen12 8SFF x1 U.3 TM Kit (P75740-B21) or/and – DL3XX Gen12 8SFF x4 U.3 TM Kit (P75741-B21) or/and – DL3XX Gen12 Multipurpose Drive Cage Kit (P76449-B21)	Not available	Not available	Not available	– HPE Gen12 12EDSFF Kit (P74738-B21) and – HPE DL3XX Gen12 8SFF x4 U.3 TM Kit (P75741-B21) or – DL3XX Gen12 8SFF x1 U.3 TM Kit (P75740-B21) or/and – DL3XX Gen12 Multipurpose Drive Cage Kit (P76449-B21)
Optional 2 SFF Drives (Front)	– DL3XX Gen12 Front SFF for 2SFF Enablement U.3 HDD Front Cage Kit (P75807-B21)	Not available	Not available	– DL3XX Gen12 Front LFF for 2SFF Enablement Side-by-Side U.3 HDD Front Cage Kit (P74744-B21)	Not available

4 LFF Drives in Midplane Cage	Not available	Not available	DL380 Gen12 4LFF SAS/SATA LP Midplane Drive Cage Kit (P74741-B21)		Not available
Rear Drive Cage Options	Up to 6 SFF in rear – DL380 Gen12 2SFF Rear Primary/Secondary Riser Cage Kit (P74734-B21) – DL3XX Gen12 Rear 2SFF U.3 HDD Stacking Drive Cage Kit (P74743-B21)		Option 1: Up to 4 LFF or 2 SFF Option 2: 2 LFF or/and 2 SFF – DL380 Gen12 2LFF Rear Primary Drive Cage Kit (P74746-B21) – DL380 Gen12 2LFF Rear Secondary Drive Cage Kit (P76875-B21) – DL380 Gen12 2LFF Rear/Tertiary Drive Cage Kit (P75411-B21) – DL3XX Gen12 Rear 2SFF U.3 HDD Stacking Drive Cage Kit (P74743-B21)		2 SFF in rear – DL3XX Gen12 Rear 2SFF U.3 HDD Stacking Drive Cage Kit (P74743-B21)
Universal Media Bay	1 Optional	Not available	Not supported	Not supported	Not supported
Optical Disk Drive	1 Optional with UMB	Not available	Not available	1 Optional with ODD Enablement Kit	Not supported

Notes:

- *HPE offers multiple Trade Agreement Act (TAA) compliant configurations to meet the needs of US Federal Government customers. These products are either manufactured or substantially transformed into a designated country. TAA compliance is only provided when HPE options are included as part of factory integrated orders (CTO).
- Energy Star 4.0 Compliance: No restriction from processors when server shipment starts, but the Platinum Power Supply 800W & 1600W are not compatible.

STEP 1: PROCESSORS

Step 1a: Processors

Intel® Xeon 6® Scalable Processors

Notes:

- Mixing of 2 different processor models is NOT allowed.
- 4LFF Midplane drive cage (P74741-B21) can be selected with 225W or below Processors only.

Intel® Xeon 6® Scalable Processors with Efficient-Cores (E-Cores)

Efficient – Performance per Watt

Intel Xeon 6710E 2.4GHz 64-core 205W Processor for HPE	P71117-B21
Intel Xeon 6731E 2.2GHz 96-core 250W Processor for HPE	P71118-B21
Intel Xeon 6740E 2.4GHz 96-core 250W Processor for HPE	P71119-B21
Intel Xeon 6746E 2.0GHz 112-core 250W Processor for HPE	P71120-B21
Intel Xeon 6756E 1.8GHz 128-core 225W Processor for HPE	P71121-B21
Intel Xeon 6766E 1.9GHz 144-core 250W Processor for HPE	P71122-B21

Efficient – Performance

Intel Xeon 6780E 2.2GHz 144-core 330W Processor for HPE	P71124-B21

Intel® Xeon 6® Processors with Performance-Cores (P-Cores)

Performance - General Purpose

Intel Xeon 6503P 2.8GHz 8-core 135W Processor for HPE	P94926-B21
Intel Xeon 6507P 3.5GHz 8-core 150W Processor for HPE	P74504-B21
Intel Xeon 6517P 3.2GHz 16-core 190W Processor for HPE	P74507-B21
Intel Xeon 6527P 3.0GHz 24-core 255W Processor for HPE	P74570-B21
Intel Xeon 6725P 3.7GHz 16-core 235W Processor for HPE	P87302-B21
Intel Xeon 6730P 2.5GHz 32-core 250W Processor for HPE	P74573-B21
Intel Xeon 6732P 3.8GHz 32-core 350W Processor for HPE	P74578-B21
Intel Xeon 6736P 2.0GHz 36-core 205W Processor for HPE	P74575-B21
Intel Xeon 6737P 2.9GHz 32-core 270W Processor for HPE	P74576-B21
Intel Xeon 6745P 3.1GHz 32-core 300W Processor for HPE	P81591-B21
Intel Xeon 6747P 2.7GHz 48-core 330W Processor for HPE	P73831-B21
Intel Xeon 6762P 2.9GHz 64-core 350W Processor for HPE	P90157-B21
Intel Xeon 6767P 2.4GHz 64-core 350W Processor for HPE	P73834-B21
Intel Xeon 6787P 2.0GHz 86-core 350W Processor for HPE	P73837-B21

Mainline Processors

Intel Xeon 6505P 2.2GHz 12-core 150W Processor for HPE	P74503-B21
Intel Xeon 6515P 2.3GHz 16-core 150W Processor for HPE	P74506-B21
Intel Xeon 6520P 2.4GHz 24-core 210W Processor for HPE	P74568-B21
Intel Xeon 6530P 2.3GHz 32-core 225W Processor for HPE	P74571-B21
Intel Xeon 6740P 2.1GHz 48-core 270W Processor for HPE	P73829-B21
Intel Xeon 6760P 2.2GHz 64-core 330W Processor for HPE	P73832-B21
Intel Xeon 6714P 4.0GHz 8-core 165W Processor for HPE	P74508-B21
Intel Xeon 6724P 3.6GHz 16-core 210W Processor for HPE	P74509-B21

Intel Xeon 6728P 2.7GHz 24-core 210W Processor for HPE P74572-B21

Scalable Socket Processors

Intel Xeon 6738P 2.9GHz 32-core 270W Processor for HPE P74577-B21

Intel Xeon 6748P 2.5GHz 48-core 300W Processor for HPE P74579-B21

Intel Xeon 6768P 2.4GHz 64-core 330W Processor for HPE P73835-B21

Intel Xeon 6788P 2.0GHz 86-core 350W Processor for HPE P73838-B21

Step 1b: Heatsink

Notes:

- One Config Advanced automatically selects the required heat sink option based on the selected processor model and system thermal requirements.
- Mixing heat sink types is not supported.

HPE ProLiant DL380 2U Standard Heat Sink Kit P49145-B21

Notes:

- 2U heat sink.
- Includes one heat sink.
- Supports processors up to 185W.

HPE ProLiant Compute DL380 Gen12 2U High Performance Heat Sink Kit P74792-B21

Notes:

- 2U heat sink.
- Includes one heat sink.

HPE ProLiant Compute DL3XX Gen12 High Performance Heat Sink Kit P74787-B21

Notes:

- 1U heat sink.
- Includes one heat sink.

HPE ProLiant Compute DL380 Gen12 2U Max Performance Heat Sink Kit P74794-B21

Notes:

- 2U heat sink.
- Supported with 2-processor configurations only.
- Includes two heat sinks.
- Cannot be selected with 256GB DDR5-6400 DIMM

Direct Liquid Cooling (DLC) Modules

Notes:

- Direct Liquid Cooling (DLC) module configurations include two cold plate modules and one quick disconnect module.
- DLC modules cannot be mixed with air-cooled heat sink kits.
- DLC modules and the mid tray cannot be selected together.
- Two DLC module options are available:
    - Via NS204i-u DLC configuration.
    - Via PCIe DLC configuration.
- The required quick-disconnect tube set depends on the selected DLC module location.

HPE ProLiant Compute DL380 Gen12 Cold Plate Module FIO Kit from PCIe NS204-u P74204-B21

Notes

- Requires Qty 1 of 65cm Quick Disconnect Tube Set FIO Kit (P62038-B21).
- Cannot be selected with the NS204i-u Rear Enable Kit (P74755-B21).

HPE ProLiant Compute Direct Liquid Cooling 0.65m Quick Disconnect Tube Set FIO Kit P62038-B21

Notes: Provides the 65cm quick-disconnect tube set required for the NS204i-u DLC configuration.

HPE ProLiant Compute DL3XX Gen12 Cold Plate Module FIO Kit from PCIe P74208-B21

Notes:

- Requires Qty 1 of 55cm Quick Disconnect Tube Set FIO Kit (P62042-B21).
- Requires a Secondary Riser Kit.
- PCIe Slot 6 on the Secondary Riser is unavailable when this kit is selected.

HPE ProLiant DL3XX Gen11 Direct Liquid Cooling 55cm Quick Disconnect Tube Set FIO Kit P62042-B21

Notes:

- Maximum quantity: 1
- Supported with the PCIe DLC configuration.

HPE Gen12 DLC Infrastructure

Notes:

- iLO 7 provides built-in leak detection alerting and can initiate system shutdown if a leak event is detected.
- HPE ProLiant DL3XX Gen12 Direct Liquid Cooling solutions require compatible rack-level liquid cooling infrastructure, including a supported 800mm x 1200mm HPE rack, rack manifold, coolant distribution unit (CDU), primary hose kit, and secondary hose kit.
- The required DLC rack infrastructure must be included and validated for the DLC server configuration to function.
- HPE ProLiant DL3XX Direct Liquid Cooling solutions must be configured and shipped to the customer as a complete rack-level liquid cooling system, including a supported HPE rack, liquid cooling manifold, coolant distribution unit (CDU), primary and secondary hose kits, pre-filled coolant, and servers with the required DLC CPM module and QD tube set kits installed.
- Supported DLC rack options include:
  - Rack 42U 800mm x 1200mm Enterprise G2, applicable for DL3XX Gen12 DLC.
  - Rack 48U 800mm x 1200mm Enterprise G2, applicable for DL3XX Gen12 DLC.
- HPE Services should be engaged to validate and enable the complete DLC rack solution.
- Key DLC infrastructure validation factors include:
  - Server-to-manifold connectivity.
  - DLC rack capability, including liquid supply temperature, loop flow rate, and CDU capacity.
  - CDU settings, including coolant type, number of servers per rack, and any mixed-server rack configuration.
- If a customer already has compatible HPE DLC rack infrastructure installed, standalone server shipment or field upgrade may be supported by exception. Approval from ProLiant Product Management is required, and the existing infrastructure must be validated before shipment.

STEP 2: MEMORY

Step 2a: Memory Options

For detailed information on HPE server memory options, population rules, whitepapers and optimal memory performance guidelines, please go to:
HPE Memory QuickSpecs and Technical White Papers.

Registered DIMMs DDR5 (RDIMMs)

6400 MT/s DIMMs

HPE 16GB (1x16GB) Single Rank x8 DDR5-6400 CAS-52-52-52 EC8 Registered Smart Memory Kit	P69726-B21
HPE 32GB (1x32GB) Dual Rank x8 DDR5-6400 CAS-52-52-52 EC8 Registered Smart Memory Kit	P69727-B21
HPE 64GB (1x64GB) Dual Rank x4 DDR5-6400 CAS-52-52-52 EC8 Registered Smart Memory Kit	P69728-B21
HPE 96GB (1x96GB) Dual Rank x4 DDR5-6400 CAS-52-52-52 EC8 Registered Smart Memory Kit	P69729-B21
HPE 128GB (1x128GB) Dual Rank x4 DDR5-6400 CAS-52-52-52 EC8 Registered Smart Memory Kit	P69730-B21
HPE 256GB (1x256GB) Quad Rank x4 DDR5-6400 CAS-60-52-52 EC8 Registered 3DS Smart Memory Kit	P73447-B21

8000 MT/s DIMMs

HPE 64GB (1x64GB) Dual Rank x4 DDR5-8000 CAS-64-64-64 EC8 Registered Smart Memory Kit	P83865-B21
HPE 96GB (1x96GB) Dual Rank x4 DDR5-8000 CAS-64-64-64 EC8 Registered Smart Memory Kit	P83867-B21
HPE 128GB (1x128GB) Dual Rank x4 DDR5-8000 CAS-64-64-64 EC8 Registered Smart Memory Kit	P83869-B21

Notes:

- The -B21 memory SKUs shown in this document are for stand-alone memory orders only. Each -B21 SKU has a corresponding -F21 SKU for server configurations with factory-integrated memory.
- Mixing x4 and x8 memory is not supported.
- Mixing 3DS and non 3DS memory is not supported.
- Mixing 8000 MT/s and 6400 MT/s memory is not supported.
- 16 GB 6400 MT/s DIMMs and 64 GB, 96 GB, and 128 GB 8000 MT/s DIMMs are supported only in 1 DIMM per channel (1DPC) configurations.
- 8000 MT/s memory speed is supported only with the following Intel® Xeon® 6 Processor:
  - P73831-B21 - INT Xeon 6747P CPU for HPE
  - P90157-B21 - INT Xeon 6762P CPU for HPE
  - P73834-B21 - INT Xeon 6767P CPU for HPE
  - P73837-B21 - INT Xeon 6787P CPU for HPE
- Please refer to the “Step 14: Ambient Temperature Support” section for the supported operating temperature range and any associated configuration restrictions.
- Please refer to the Server memory population rules for HPE Gen12 servers with Intel Xeon 6 processors technical white paper for additional information.

Step 2b: Memory Blank Kit

HPE DDR4 DIMM Blank Kit	P07818-B21

Notes:

- DIMM blanks can be installed in unused memory slots to help maintain proper airflow within the server.
- For configurations that include GPUs or other high-thermal components, HPE recommends using DIMM blanks in empty memory slots to support optimal cooling and thermal performance.

STEP 3: SMART CHASSIS

Smart Chassis is a feature in One Config Advanced (OCA) that automatically selects the required cable kits based on the chosen drive cages and storage controllers.

Notes:

- After completing your Smart Chassis configuration, set the Smart Chassis quantity to 1. OCA will automatically select the required cables, which will appear under Storage Devices (Step 5) > Internal Storage Controller Cables.

– No manual cable selection is required.

Follow the steps below to configure your Smart Chassis:

3a. Top-Selling Smart Chassis Configurations (Optional)

Notes:

– These configurations represent the most ordered customer setups.
– Selecting a top-selling configuration will automatically pre-populate:
  - Drive cage(s).
  - Direct Attach FIO Bundle Kit (If applicable).
  - Riser card(s).
  - Riser accessories.
  - Storage controller.
– You can modify any of these selections or adjust quantities as needed.

3b: Drive Cage(s)

HPE ProLiant Compute DL3XX Gen12 8SFF x1 U.3 Tri-Mode Drive Cage Kit P75740-B21

Notes:

– Adds an 8SFF U.3 x1 tri-mode cage for SAS, SATA, or NVMe drives when connected to an MR tri-mode controller.
– Available with SFF and EDSFF CTO Server models only.

HPE ProLiant Compute DL3XX Gen12 8SFF x4 U.3 Tri-Mode Drive Cage Kit P75741-B21

Notes:

– Adds an 8SFF U.3 x4 cage for higher-bandwidth NVMe storage, either direct-attached to the processors or connected to a tri-mode controller.
– Supported connection: x4 (Higher PCIe bandwidth) and x2 (Reduced PCIe Bandwidth).
– Available with SFF and EDSFF CTO Server models only.

HPE ProLiant Compute DL3XX Gen12 Multipurpose Drive Cage Kit P76449-B21

Notes:

– Adds the multipurpose cage in Box 2 so the server can host front NS204i-u, front OCP NICs, and/or a 4EDSFF drive cage.
– Available with SFF and EDSFF CTO Server models only.

HPE ProLiant Compute Gen12 4EDSFF Drive Cage Kit P76450-B21

Notes:

– Adds a 4EDSFF drive cage that fits inside the multipurpose cage.
– Available with SFF and EDSFF CTO Server models only.

HPE ProLiant Compute DL3XX Gen12 Rear 2SFF U.3 HDD Stacking Drive Cage Kit P74743-B21

Notes:

- Replaces Tertiary riser position with rear stacked 2SFF U.3 drive cage above the power supplies.
- Available with all CTO Server models.

HPE ProLiant Compute DL380 Gen12 2SFF Rear Primary/Secondary Riser Cage Kit P74734-B21

Notes:

- Replaces a primary or secondary riser position with a rear 2SFF cage while retaining one PCIe slot in that riser position.
- Available with SFF and 24SFF CTO Server models only.

HPE ProLiant Compute DL3XX Gen12 SFF Universal Media Bay Kit P74749-B21

Notes:

- Converts Box 1 into the Universal Media Bay, adding support for front Display Port, two front USB 2.0 ports, an internal optical drive, and the optional front 2SFF cage.
- Available with SFF CTO Server model only.

HPE ProLiant Compute DL3XX Gen12 Front SFF for 2SFF Enablement U.3 HDD Front Cage Kit P75807-B21

Notes:

- Adds a front stacked 2SFF U.3 cage in the Universal Media Bay for two front SFF drives.
- Available with SFF CTO Server model only.

HPE ProLiant Compute Gen12 12EDSFF Drive Cage Kit P74738-B21

Notes:

- Adds a 12EDSFF drive cage for high-density front EDSFF NVMe storage.
- Available with EDSFF CTO Server model only.

HPE ProLiant Compute DL3XX Gen12 Front LFF for 2SFF Enablement Side-by-Side U.3 HDD Front Cage Kit P74744-B21

Notes:

- Adds a front side-by-side 2SFF U.3 cage for 8LFF CTO server model
- Available with 8LFF CTO Server model only

HPE ProLiant Compute DL380 Gen12 2LFF Rear Primary Drive Cage Kit P74746-B21

Notes:

- Adds a rear 2LFF drive cage in the primary rear cage position in place of the primary riser.
- Available with 8LFF and 12LFF CTO Server models only.

HPE ProLiant Compute DL380 Gen12 2LFF Rear Secondary Drive Cage Kit P76875-B21

Notes:

- Adds a rear 2LFF drive cage in the secondary rear position in place of the secondary riser.
- Available with 8LFF and 12LFF CTO Server models only.

HPE ProLiant Compute DL380 Gen12 2LFF Rear/Tertiary Drive Cage Kit P75411-B21

Notes:

- Adds a rear 2LFF drive cage together with the special tertiary-riser arrangement used for LFF rear expansion.
- Available with 8LFF and 12LFF CTO Server models only.

HPE ProLiant Compute DL380 Gen12 4LFF SAS/SATA LP Midplane Drive Cage Kit P74741-B21

Notes:

- Adds a 4LFF midplane cage above the processors for extra internal LFF storage.
- Available with 8LFF and 12LFF CTO Server models only.
- Requires 1U Heatsink.

3c. Define connectivity for x2 or x4 capable drive cages, if applicable

This may apply to configurations such as 8SFF x4 or applicable EDSFF x4 configurations presented in OCA.
These configurations may support both x4 and x2 PCIe connectivity:

- x4 connection: Higher PCIe bandwidth, preferred for performance-sensitive workloads.
- x2 connection: Reduced PCIe bandwidth, used where required by the selected configuration.

Select the appropriate Controller x4 or Controller x2 option based on the desired performance and configuration requirements.
For direct attach configurations, select the applicable Direct Attach FIO Bundle Kit so OCA can add the correct cable kits.

Notes:

- Cable Kits are not part of the Smart Chassis selection.
- After completing your Smart Chassis configuration, set the Smart Chassis quantity to 1. OCA will automatically select the required cables, which will appear under Storage Devices (Step 5) → Internal Storage Controller Cables.
- No manual cable selection is required.

HPE ProLiant Compute DL380 Gen12 8SFF x4 1P Direct Attach FIO Bundle Kit P78070-B21

Notes:

- Factory bundle that configures a single 8SFF x4 direct-attach storage cage in the 1-processor layout and includes the required high-performance fan kit and cabling.
- Available for SFF CTO Server configurations with 1 or 2 processors.

Bundle components:
Qty 1:

- P48820-B21 (HPE ProLiant DL380/DL560 Gen11 2U High Performance Fan Kit).
- P75741-B21 (HPE ProLiant Compute DL3XX Gen12 8SFF x4 U.3 Tri-Mode Drive Cage Kit).
- P77489-B21 (HPE ProLiant Compute DL380 Gen12 8SFF x4 Direct Attach Box 2/3 Cable Kit).

HPE ProLiant Compute DL380 Gen12 8SFF x4 Direct Attach Balanced FIO Bundle Kit P78047-B21

Notes:

- Factory bundle that configures a single 8SFF x4 direct-attach storage cage in balanced 2-processor mode and includes the required high-performance fan kit and cabling.
- Available for SFF CTO Server configurations with 2 processors only.

Bundle components:
Qty 1:

- P48820-B21 (HPE ProLiant DL380/DL560 Gen11 2U High Performance Fan Kit).
- P75741-B21 (HPE ProLiant Compute DL3XX Gen12 8SFF x4 U.3 Tri-Mode Drive Cage Kit).
- P76462-B21 (HPE ProLiant Compute DL380 Gen12 8SFF x4 Direct Attach Box 2 Cable Kit).

HPE ProLiant Compute DL380 Gen12 8SFF x4 Direct Attach Multiple Purpose Cage FIO Bundle Kit P78058-B21

Notes:

- Factory bundle that configures a single 8SFF x4 direct-attach storage cage with the multi-purpose cage and includes the required high-performance fan kit, front 4EDSFF support, front NS204i-u boot device support, front OCP enablement, and cabling.
- Available for SFF CTO Server configurations with 2 processors only.

Bundle components:
Qty 1:

- P48820-B21 (HPE ProLiant DL380/DL560 Gen11 2U High Performance Fan Kit).
- P75741-B21 (HPE ProLiant Compute DL3XX Gen12 8SFF x4 U.3 Tri-Mode Drive Cage Kit).

- P76468-B21 (HPE ProLiant Compute DL380 Gen12 Front 8SFF x4 Direct Attach Box 1/3 Cable Kit).
- P76449-B21 (HPE ProLiant Compute DL380 Gen12 Multi-purpose Cage Kit).
- 4EDSFF support: P76450-B21 (HPE ProLiant Compute Gen12 4EDSFF Drive Cage Kit) + P77476-B21 (HPE ProLiant Compute DL380 Gen12 4EDSFF Front Cable Kit).
- NS204i-u front boot support: P74759-B21 (HPE ProLiant Compute Gen12 NS204i-u Front Hot Plug Enablement Kit) + one supported HPE NS204i-u V2 Hot Plug Boot Optimized Storage Device.
- Front OCP support: P74757-B21 (HPE ProLiant Compute Gen12 Front Primary OCP Box2 Bay9 Enablement Kit) + P74758-B21 (HPE ProLiant Compute Gen12 Front Secondary OCP Box2 Bay11 Enablement Kit) to enable two front OCP slots.

HPE ProLiant Compute DL380 Gen12 8SFF x4 Direct Attach UMB Multiple Purpose Cage FIO Bundle Kit P78061-B21

Notes:

- Factory bundle that configures a single 8SFF x4 direct-attach storage cage with the Universal Media Bay and multi-purpose cage, and includes the required high-performance fan kit, front 4EDSFF support, front NS204i-u boot device support, front OCP enablement, and cabling.
- Available for SFF CTO Server configurations with 2 processors only.

Bundle components:

Qty 1:

- P48820-B21 (HPE ProLiant DL380/DL560 Gen11 2U High Performance Fan Kit).
- P75741-B21 (HPE ProLiant Compute DL3XX Gen12 8SFF x4 U.3 Tri-Mode Drive Cage Kit).
- P76468-B21 (HPE ProLiant Compute DL380 Gen12 Front 8SFF x4 Direct Attach Box 1/3 Cable Kit).
- P74749-B21 (HPE ProLiant Compute DL3XX Gen12 SFF Universal Media Bay Kit).
- P76449-B21 (HPE ProLiant Compute DL380 Gen12 Multi-purpose Cage Kit).
- 4EDSFF support: P76450-B21 (HPE ProLiant Compute Gen12 4EDSFF Drive Cage Kit) + P77476-B21 (HPE ProLiant Compute DL380 Gen12 4EDSFF Front Cable Kit).
- NS204i-u front boot support: P74759-B21 (HPE ProLiant Compute Gen12 NS204i-u Front Hot Plug Enablement Kit) + one supported HPE NS204i-u V2 Hot Plug Boot Optimized Storage Device.
- Front OCP support: P74757-B21 (HPE ProLiant Compute Gen12 Front Primary OCP Box2 Bay9 Enablement Kit) + P74758-B21 (HPE ProLiant Compute Gen12 Front Secondary OCP Box2 Bay11 Enablement Kit) to enable two front OCP slots.

HPE ProLiant Compute DL380 Gen12 16SFF x4 Direct Attach Balanced FIO Bundle Kit P77931-B21

Notes:

- Factory bundle that configures two 8SFF x4 direct-attach storage cages in balanced 2-processor mode and includes the required high-performance fan kit and cabling.

Bundle components:

Qty 2:

- P75741-B21 (HPE ProLiant Compute DL3XX Gen12 8SFF x4 U.3 Tri-Mode Drive Cage Kit).

Qty 1:

- P48820-B21 (HPE ProLiant DL380/DL560 Gen11 2U High Performance Fan Kit).
- P77489-B21 (HPE ProLiant Compute DL380 Gen12 8SFF x4 Direct Attach Box 2/3 Cable Kit).
- P76461-B21 (HPE ProLiant Compute DL380 Gen12 8SFF x4 Direct Attach Box 1/2 for 2 Processors Cable Kit).

HPE ProLiant Compute DL380 Gen12 16SFF x4 Direct Attach Universal Media Bay FIO Bundle Kit P77934-B21

Notes:

– Factory bundle that configures 16SFF x4 direct-attach storage with the Universal Media Bay and includes the required high-performance fan kit and cabling.

Bundle components:

Qty 2:

– P75741-B21 (HPE ProLiant Compute DL3XX Gen12 8SFF x4 U.3 Tri-Mode Drive Cage Kit).

Qty 1:

– P48820-B21 (HPE ProLiant DL380/DL560 Gen11 2U High Performance Fan Kit).
– P74749-B21 (HPE ProLiant Compute DL3XX Gen12 SFF Universal Media Bay Kit).
– P77489-B21 (HPE ProLiant Compute DL380 Gen12 8SFF x4 Direct Attach Box 2/3 Cable Kit).
– P76461-B21 (HPE ProLiant Compute DL380 Gen12 8SFF x4 Direct Attach Box 1/2 for 2 Processors Cable Kit).

HPE ProLiant Compute DL380 Gen12 16SFF x4 Direct Attach Multiple Purpose Cage FIO Bundle Kit P78064-B21

Notes:

– Factory bundle that configures 16SFF x4 direct-attach storage with the multi-purpose cage, retimer cards, risers, required high-performance fan kit, front support options, and cabling.

Bundle components:

Qty 2:

– P75741-B21 (HPE ProLiant Compute DL3XX Gen12 8SFF x4 U.3 Tri-Mode Drive Cage Kit).
– P25527-B21 (HPE DL385 Gen10 Plus 12Gb NVMe 2-port Adapter).

Qty 1:

– P48820-B21 (HPE ProLiant DL380/DL560 Gen11 2U High Performance Fan Kit).
– P76449-B21 (HPE ProLiant Compute DL380 Gen12 Multi-purpose Cage Kit).
– 4EDSFF support: P76450-B21 (HPE ProLiant Compute Gen12 4EDSFF Drive Cage Kit) + P77476-B21 (HPE ProLiant Compute DL380 Gen12 4EDSFF Front Cable Kit).
– NS204i-u front boot support: P74759-B21 (HPE ProLiant Compute Gen12 NS204i-u Front Hot Plug Enablement Kit) + one supported HPE NS204i-u V2 Hot Plug Boot Optimized Storage Device.
– Front OCP support: P74757-B21 (HPE ProLiant Compute Gen12 Front Primary OCP Box2 Bay9 Enablement Kit) + P74758-B21 (HPE ProLiant Compute Gen12 Front Secondary OCP Box2 Bay11 Enablement Kit) to enable two front OCP slots.
– P48803-B21 (HPE ProLiant DL380 2U x16/x16/x16 Primary Riser Kit).
– P48802-B21 (HPE ProLiant DL380 Gen11 2U x8/x16/x8 Secondary Riser Kit).
– P76463-B21 (HPE ProLiant Compute DL380 Gen12 16SFF x4 2x Gen4 Retimer Card Box 1/3 Cable Kit).

HPE ProLiant Compute DL380 Gen12 16SFF x2 1P Direct Attach FIO Bundle Kit P77955-B21

Notes:

– Factory bundle that configures 16SFF direct-attach storage in x2 connection mode from processor 1 and includes the required high-performance fan kit, drive cages, and cabling.
– Available for SFF CTO Server configurations with 1 or 2 processors.

Bundle components:

Qty 2:

– P75741-B21 (HPE ProLiant Compute DL3XX Gen12 8SFF x4 U.3 Tri-Mode Drive Cage Kit).
– P77486-B21 (HPE ProLiant Compute DL380 Gen12 8SFF x2 Direct Attach Cable Kit).

Qty 1:

– P48820-B21 (HPE ProLiant DL380/DL560 Gen11 2U High Performance Fan Kit).

HPE ProLiant Compute DL380 Gen12 16SFF x2 1P Direct Attach Universal Media Bay FIO Bundle Kit P77958-B21

Notes:

- Factory bundle that configures 16SFF direct-attach storage in x2 connection mode from processor 1 with the Universal Media Bay, and includes the required high-performance fan kit, drive cages, and cabling.
- Available for SFF CTO Server configurations with 1 or 2 processors.

Bundle components:

Qty 2:

- P75741-B21 (HPE ProLiant Compute DL3XX Gen12 8SFF x4 U.3 Tri-Mode Drive Cage Kit).
- P77486-B21 (HPE ProLiant Compute DL380 Gen12 8SFF x2 Direct Attach Cable Kit).

Qty 1:

- P48820-B21 (HPE ProLiant DL380/DL560 Gen11 2U High Performance Fan Kit).
- P74749-B21 (HPE ProLiant Compute DL3XX Gen12 SFF Universal Media Bay Kit).

HPE ProLiant Compute DL380 Gen12 24SFF x16/x16/x16 OCP Balanced FIO Bundle Kit P77937-B21

Notes:

- Factory bundle that configures 24SFF x4 direct-attach storage with two Gen4 retimer cards and the associated x16 OCP and riser layout.

Bundle components:

Qty 3:

- P75741-B21 (HPE ProLiant Compute DL3XX Gen12 8SFF x4 U.3 Tri-Mode Drive Cage Kit).

Qty 2:

- P25527-B21 (HPE DL385 Gen10 Plus 12Gb NVMe 2-port Adapter).

Qty 1:

- P48820-B21 (HPE ProLiant DL380/DL560 Gen11 2U High Performance Fan Kit).
- P48803-B21 (HPE ProLiant DL380 2U x16/x16/x16 Primary Riser Kit); Slot 1 unavailable.
- P51083-B21 (HPE ProLiant DL380 2U x16/x16/x16 Secondary Riser Kit); Slot 4 unavailable.
- Rear OCP x16 support: P72201-B21 (HPE ProLiant Compute DL3XX/ML350 Gen12 CPU1 to Rear OCP SlotA x16 Cable Kit) + P72207-B21 (HPE ProLiant Compute DL3XX/ML350 Gen12 CPU2 to Rear OCP SlotB x16 Cable Kit).
- P76463-B21 (HPE ProLiant Compute DL380 Gen12 16SFF x4 2x Gen4 Retimer Card Box 1/3 Cable Kit).
- P76462-B21 (HPE ProLiant Compute DL380 Gen12 8SFF x4 Direct Attach Box 2 Cable Kit).

HPE ProLiant Compute DL380 Gen12 24SFF x16/x16/x16 OCP Gen4 Retimer Card FIO Bundle Kit P77940-B21

Notes:

- Factory bundle that configures 24SFF x4 direct-attach storage with two processors, x16 OCP support, and one Gen4 retimer card. In this configuration, primary riser slots 1 and 3 are not available.

Bundle components:

Qty 3:

- P75741-B21 (HPE ProLiant Compute DL3XX Gen12 8SFF x4 U.3 Tri-Mode Drive Cage Kit).

Qty 1:

- P48820-B21 (HPE ProLiant DL380/DL560 Gen11 2U High Performance Fan Kit).
- P48803-B21 (HPE ProLiant DL380 2U x16/x16/x16 Primary Riser Kit).
- P48802-B21 (HPE ProLiant DL380 Gen11 2U x8/x16/x8 Secondary Riser Kit).
- P25527-B21 (HPE DL385 Gen10 Plus 12Gb NVMe 2-port Adapter).
- P77492-B21 (HPE ProLiant Compute DL380 Gen12 16SFF x4 1x Gen4 Retimer Card Box 1/3 Direct Attach Cable Kit).
- P76462-B21 (HPE ProLiant Compute DL380 Gen12 8SFF x4 Direct Attach Box 2 Cable Kit).
- P72201-B21 (HPE ProLiant Compute DL3XX/ML350 Gen12 CPU1 to Rear OCP SlotA x16 Cable Kit).

HPE ProLiant Compute DL380 Gen12 Tertiary Riser 24SFF x16/x16/x16 OCP Balanced FIO Bundle Kit P77943-B21

Notes:

– Factory bundle that configures 24SFF x4 direct-attach storage in balanced 2-processor mode with x16 OCP support and two Gen4 retimer cards. In this configuration, primary riser slots 1 and 3 and secondary riser slot 5 are not available.

Bundle components:

Qty 3:

– P75741-B21 (HPE ProLiant Compute DL3XX Gen12 8SFF x4 U.3 Tri-Mode Drive Cage Kit).

Qty 2:

– P25527-B21 (HPE DL385 Gen10 Plus 12Gb NVMe 2-port Adapter).

Qty 1:

– P48820-B21 (HPE ProLiant DL380/DL560 Gen11 2U High Performance Fan Kit).
– P48803-B21 (HPE ProLiant DL380 2U x16/x16/x16 Primary Riser Kit).
– P48802-B21 (HPE ProLiant DL380 Gen11 2U x8/x16/x8 Secondary Riser Kit).
– P76462-B21 (HPE ProLiant Compute DL380 Gen12 8SFF x4 Direct Attach Box 2 Cable Kit).
– P76463-B21 (HPE ProLiant Compute DL380 Gen12 16SFF x4 2x Gen4 Retimer Card Box 1/3 Cable Kit).
– P72201-B21 (HPE ProLiant Compute DL3XX/ML350 Gen12 CPU1 to Rear OCP SlotA x16 Cable Kit).
– P72207-B21 (HPE ProLiant Compute DL3XX/ML350 Gen12 CPU2 to Rear OCP SlotB x16 Cable Kit).

HPE ProLiant Compute DL380 Gen12 24SFF x2 Direct Attach x16/x16/x16 OCP FIO Bundle Kit P77961-B21

Notes:

– Factory bundle that configures 24SFF x2 direct-attach storage with two processors and x16 OCP support. In this configuration, primary riser slot 1 and secondary riser slot 4 operate at x8 bus width.

Bundle components:

Qty 3:

– P75741-B21 (HPE ProLiant Compute DL3XX Gen12 8SFF x4 U.3 Tri-Mode Drive Cage Kit).
– P77486-B21 (HPE ProLiant Compute DL380 Gen12 8SFF x2 Direct Attach Cable Kit).

Qty 2:

– P76471-B21 (HPE ProLiant Compute DL380 Gen12 x16/x16/x16 Cable Kit).

Qty 1:

– P48820-B21 (HPE ProLiant DL380/DL560 Gen11 2U High Performance Fan Kit).
– P48803-B21 (HPE ProLiant DL380 2U x16/x16/x16 Primary Riser Kit); Slot 1 with x8 only.
– P51083-B21 (HPE ProLiant DL380 2U x16/x16/x16 Secondary Riser Kit); Slot 4 with x8 only.
– P72201-B21 (HPE ProLiant Compute DL3XX/ML350 Gen12 CPU1 to Rear OCP SlotA x16 Cable Kit).
– P72207-B21 (HPE ProLiant Compute DL3XX/ML350 Gen12 CPU2 to Rear OCP SlotB x16 Cable Kit).

HPE ProLiant Compute DL380 Gen12 12EDSFF x16/x16/x16 OCP Direct Attach PCIe FIO Bundle Kit P77946-B21

Notes:

– Factory bundle that configures 12EDSFF x4 direct-attach storage with two processors and x16 OCP support in an EDSFF CTO Server configuration. In this configuration, primary riser slot 1 and secondary riser slot 4 operate at x8 bus width.

Bundle components:

Qty 2:

– P76471-B21 (HPE ProLiant Compute DL380 Gen12 x16/x16/x16 Cable Kit).

Qty 1:

– P48820-B21 (HPE ProLiant DL380/DL560 Gen11 2U High Performance Fan Kit).
– P74738-B21 (HPE ProLiant Compute Gen12 12EDSFF Drive Cage Kit).
– P48803-B21 (HPE ProLiant DL380 2U x16/x16/x16 Primary Riser Kit).
– P51083-B21 (HPE ProLiant DL380 2U x16/x16/x16 Secondary Riser Kit).
– P76465-B21 (HPE ProLiant Compute DL380 Gen12 12EDSFF x4 Direct Attach Box 2 Cable Kit).
– P72201-B21 (HPE ProLiant Compute DL3XX/ML350 Gen12 CPU1 to Rear OCP SlotA x16 Cable Kit).
– P72207-B21 (HPE ProLiant Compute DL3XX/ML350 Gen12 CPU2 to Rear OCP SlotB x16 Cable Kit).

HPE ProLiant Compute DL380 Gen12 12EDSFF x2 1P Direct Attach x16/x16/x16 PCIe FIO Bundle Kit P77964-B21

Notes:

– Factory bundle that configures 12EDSFF x2 direct-attach storage from CPU1 in an EDSFF CTO Server configuration. In this configuration, primary riser slot 1 operates at x8 bus width.
– Supported with EDSFF CTO Server configurations only.
– The HPE ProLiant Compute DL380 Gen12 Primary Riser x16 FIO Bundle Kit (P78117-B21) and HPE ProLiant Compute DL380 Gen12 Secondary Riser x16 FIO Bundle Kit (P78120-B21) cannot be selected with this bundle.

Bundle components:

Qty 1:

– P48820-B21 (HPE ProLiant DL380/DL560 Gen11 2U High Performance Fan Kit).
– P74738-B21 (HPE ProLiant Compute Gen12 12EDSFF Drive Cage Kit).
– P48803-B21 (HPE ProLiant DL380 2U x16/x16/x16 Primary Riser Kit).
– P76471-B21 (HPE ProLiant Compute DL380 Gen12 x16/x16/x16 Cable Kit).
– P76467-B21 (HPE ProLiant Compute DL380 Gen12 12EDSFF x2 Direct Attach Box 1/2 Cable Kit).

HPE ProLiant Compute DL380 Gen12 20EDSFF x4 FIO Bundle Kit P77949-B21

Notes:

– Factory bundle that configures 20EDSFF x4 direct-attach storage with two processors in an EDSFF CTO Server configuration. In this configuration, OCP A and OCP B operate at x8 bus width.

Bundle components:

Qty 3:

– P74738-B21 (HPE ProLiant Compute Gen12 12EDSFF Drive Cage Kit).

Qty 1:

– P48820-B21 (HPE ProLiant DL380/DL560 Gen11 2U High Performance Fan Kit).
– P72205-B21 (HPE ProLiant Compute DL3XX/ML350 Gen12 CPU2 to Rear OCP SlotB x8 Cable Kit).
– P76465-B21 (HPE ProLiant Compute DL380 Gen12 12EDSFF x4 Direct Attach Box 2 Cable Kit).
– P77490-B21 (HPE ProLiant Compute DL380 Gen12 4EDSFF x4 Direct Attach Box 1 Cable Kit).
– P77491-B21 (HPE ProLiant Compute DL380 Gen12 4EDSFF x4 Direct Attach Box 3 Cable Kit).

HPE ProLiant Compute DL380 Gen12 12EDSFF x4 Direct Attach Multiple Purpose Cage FIO Bundle Kit P78067-B21

Notes:

– Factory bundle that configures 12EDSFF x4 direct-attach storage with the multi-purpose cage in an EDSFF CTO Server configuration.

Bundle components:

Qty 2:

– P74738-B21 (HPE ProLiant Compute Gen12 12EDSFF Drive Cage Kit).

Qty 1:

– P48820-B21 (HPE ProLiant DL380/DL560 Gen11 2U High Performance Fan Kit).
– P76449-B21 (HPE ProLiant Compute DL380 Gen12 Multi-purpose Cage Kit).
– P76450-B21 (HPE ProLiant Compute Gen12 4EDSFF Drive Cage Kit).
– P77476-B21 (HPE ProLiant Compute DL380 Gen12 4EDSFF Front Cable Kit).
– P48803-B21 (HPE ProLiant DL380 2U x16/x16/x16 Primary Riser Kit).
– P51083-B21 (HPE ProLiant DL3802U x16/x16/x16 Secondary Riser Kit).
– P77490-B21 (HPE ProLiant Compute DL380 Gen12 4EDSFF x4 Direct Attach Box 1 Cable Kit).
– P77491-B21 (HPE ProLiant Compute DL380 Gen12 4EDSFF x4 Direct Attach Box 3 Cable Kit).
– NS204i-u front boot support: P74759-B21 (HPE ProLiant Compute Gen12 NS204i-u Front Hot Plug Enablement Kit) + P78279-B21 (HPE NS204i-u V2 Hot Plug Boot Optimized Storage Device).
– One front OCP slot: P74757-B21 (HPE ProLiant Compute Gen12 Front Primary OCP Box2 Bay9 Enablement Kit).
– Two front OCP slots: P74757-B21 (HPE ProLiant Compute Gen12 Front Primary OCP Box2 Bay9 Enablement Kit)+ P74758-B21 (HPE ProLiant Compute Gen12 Front Secondary OCP Box2 Bay11 Enablement Kit).

HPE ProLiant Compute DL380 Gen12 36EDSFF x4 Direct Attach x8/x8 OCP SlotA FIO Bundle Kit P77952-B21

Notes:

– Factory bundle that configures 36EDSFF x4 direct-attach storage with two processors and paddle cards in an EDSFF CTO Server configuration. In this configuration, primary, secondary, and tertiary riser slots are not available, and OCP A and OCP B operate at x8 bus width.

Bundle components:

Qty 3:

– P74738-B21 (HPE ProLiant Compute Gen12 12EDSFF Drive Cage Kit).

Qty 1:

– P48820-B21 (HPE ProLiant DL380/DL560 Gen11 2U High Performance Fan Kit).
– P72205-B21 (HPE ProLiant Compute DL3XX/ML350 Gen12 CPU2 to Rear OCP SlotB x8 Cable Kit).
– P76465-B21 (HPE ProLiant Compute DL380 Gen12 12EDSFF x4 Direct Attach Box 2 Cable Kit).
– P77490-B21 (HPE ProLiant Compute DL380 Gen12 4EDSFF x4 Direct Attach Box 1 Cable Kit).
– P77491-B21 (HPE ProLiant Compute DL380 Gen12 4EDSFF x4 Direct Attach Box 3 Cable Kit).
– P83356-B21 (HPE ProLiant Compute DL380 Gen12 Primary Riser Paddle Card FIO Kit).
– P80997-B21 (HPE ProLiant Compute DL380 Gen12 Secondary Riser Paddle Card FIO Kit).

HPE ProLiant Compute DL380 Gen12 36EDSFF x2 Direct Attach 2xOCP x8 FIO Bundle Kit P77967-B21

Notes:

– Factory bundle that configures 36EDSFF x2 direct-attach storage with two processors and OCP x8 support in an EDSFF CTO Server configuration.

Bundle components:

Qty 3:

– P74738-B21 (HPE ProLiant Compute Gen12 12EDSFF Drive Cage Kit).

Qty 1:

– P48820-B21 (HPE ProLiant DL380/DL560 Gen11 2U High Performance Fan Kit).
– P72205-B21 (HPE ProLiant Compute DL3XX/ML350 Gen12 CPU2 to Rear OCP SlotB x8 Cable Kit).

3d. Model-X Component Removal/Replacement Setting

Notes:

– Select this SKU in the smart chassis section to build drive less configuration with SFF CTO Server.
– Selecting this SKU adds a bay blank instead of a drive cage.

HPE ProLiant Compute DL380 No Drive Configuration FIO Kit 873763-B21

3e. Riser Card(s) and Accessories

Notes: Refer to the *PCIe Expansion Slot* section above for detailed Riser card and accessory selection guidance.

Riser Cards

Notes:

– Review the PCIe Expansion Slots section for slot numbering, bus width, processor requirements, and riser configuration details.
– A second processor is required when selecting a secondary or tertiary riser.
– The 3x16 secondary riser and tertiary riser cannot be selected together.

HPE ProLiant DL380 2U x16/x16/x16 Primary Riser Kit P48803-B21

HPE ProLiant DL380 Gen11 2U x8/x16/x8 Secondary Riser Kit P48802-B21

HPE ProLiant DL380 2U x16/x16/x16 Secondary Riser Kit P51083-B21

HPE ProLiant Compute DL380 Gen12 2U x8/x16 Tertiary Riser Kit P74737-B21

HPE ProLiant Compute DL380 Gen12 2U 2x16 Tertiary Riser Kit P76451-B21

Riser Cards Accessories

Notes: Review the PCIe Expansion Slots section for slot enablement details and configuration dependencies.

HPE ProLiant Compute DL380 Gen12 x8 Riser Enablement Cable Kit P76471-B21

Notes:

– Required cable kit used to enable the top slot on a 3x16 primary or 3x16 secondary riser.
– Select Qty 2 with the applicable primary or secondary riser x16 FIO bundle kit.

HPE ProLiant Compute DL380 Gen12 Primary Riser x16 FIO Bundle Kit P78117-B21

Notes: Factory Integrated Only bundle used with Qty 2 of P76471-B21 to enable Slot 1 on the 3x16 primary riser at x16 from processor 1.

HPE ProLiant Compute DL380 Gen12 Secondary Riser x16 FIO Bundle Kit P78120-B21

Notes: Factory Integrated Only bundle used with Qty 2 of P76471-B21 to enable Slot 4 on the 3x16 secondary riser at x16 from processor 2.

3f. Storage Controller

HPE MR416i-p Gen11 x16 Lanes 8GB Cache PCI SPDM Plug-in Storage Controller	P47777-B21
HPE MR416i-o Gen11 x16 Lanes 8GB Cache OCP SPDM Storage Controller	P47781-B21
HPE MR216i-p Gen11 x16 Lanes without Cache PCI SPDM Plug-in Storage Controller	P47785-B21
HPE MR216i-o Gen11 x16 Lanes without Cache OCP SPDM Storage Controller	P47789-B21
HPE MR408i-o Gen11 x8 Lanes 4GB Cache OCP SPDM Storage Controller	P58335-B21
HPE MR408i-p Gen11 x8 Lanes 4GB Cache PCI SPDM Plug-in Storage Controller	P74775-B21
HPE Smart Array E208e-p SR Gen12 x8 Lanes without Cache SAS 12G PCIe Plug-in Controller	P95072-B21
HPE DL385 Gen10 Plus 12Gb NVMe 2-port Adapter	P25527-B21
HPE MR932i-p x32 Lanes PCIe Gen5 SPDM Plug-in Storage Controller	P75697-B21

Notes: The MR932i-p controller supports SAS and NVMe SSDs only. It does not support HDDs.

3g. Finalize Smart Chassis Selection

Once configuration is complete, set Smart Chassis quantity = 1.

STEP 4: AMBIENT TEMPERATURE

Please refer to the “Step 14: Ambient Temperature Support” section for the supported operating temperature range and any associated configuration restrictions.

Notes:

- Only one ambient temperature SKU can be selected per system configuration.
- Ambient temperature selection may impact the availability of thermally sensitive options, including select GPUs and high-speed networking adapters.
- Selecting a higher ambient temperature may restrict options that are supported only at lower ambient temperature selections.
- Final configuration support must be validated in HPE One Config Advanced.

HPE ProLiant Compute 30C Maximum Recommended Ambient Temperature Configuration Tracking	P79552-B21
HPE ProLiant Compute 27C Maximum Recommended Ambient Temperature Configuration Tracking	P79555-B21
HPE ProLiant Compute 25C Maximum Recommended Ambient Temperature Configuration Tracking	P79558-B21
HPE ProLiant Compute 23C Maximum Recommended Ambient Temperature Configuration Tracking	P79561-B21
HPE ProLiant Compute 20C Maximum Recommended Ambient Temperature Configuration Tracking	P79564-B21
HPE ProLiant Compute 18C Maximum Recommended Ambient Temperature Configuration Tracking	P79567-B21

STEP 5: STORAGE DEVICES

Smart Storage Battery

Notes:

- Smart storage battery is required when an MR416 or MR408 internal storage controller is selected.
- Smart storage battery is not required with the MR932i-p controller because battery backup is integrated with the controller.
- Max 1 of Smart storage battery can be selected per server.

HPE 96W Smart Storage Lithium-ion Battery with 145mm Cable Kit	P01366-B21

Notes: P01366-B21 (HPE 96W Smart Storage Lithium-ion Assembled Battery with 145mm Cable Kit) is not available as a standalone option. Customers requiring a standalone 96W battery should order P68039-B21 (HPE 96W Smart Storage Lithium-ion Battery with 145mm Cable Kit).

HPE Smart Storage Hybrid Capacitor with 145mm Cable Kit	P02377-B21
HPE 16W Smart Hybrid Capacitor with 145mm Cable	P65038-B21

Internal Storage Controller Cables

Notes:

- After completing your Smart Chassis configuration, OCA will automatically select the required cables.
- No manual cable selection is required.

HPE ProLiant Storage Controller Enablement Cable Kit	P48918-B21
HPE ProLiant Compute DL380 Gen12 8SFF/2SFF UMB OROC Cable Kit	P76452-B21
HPE ProLiant Compute DL380 Gen12 8SFF/2SFF UMB PCIe Cable Kit	P76453-B21
HPE ProLiant Compute DL380 Gen12 8SFF x4 Direct Attach Box 1 for 2 Processors Cable Kit	P76461-B21
HPE ProLiant Compute DL380 Gen12 8SFF x4 Direct Attach Box 2 Cable Kit	P76462-B21
HPE ProLiant Compute DL380 Gen12 8SFF x4 Direct Attach Box 2/3 for 1P Cable Kit	P77489-B21
HPE ProLiant Compute DL380 Gen12 8SFF x2 Direct Attach Cable Kit	P77486-B21
HPE ProLiant Compute DL380 Gen12 Front 8SFF x4 Direct Attach Box 1/3 Cable Kit	P76468-B21
HPE ProLiant Compute DL380 Gen12 8SFF x4 PCIe for 2 Controllers Box 1/2 Cable Kit	P77488-B21
HPE ProLiant Compute DL380 Gen12 8SFF x2 PCIe Box 2 Controller Cable Kit	P76456-B21
HPE ProLiant Compute DL380 Gen12 OROC 8SFF x2 Controller Cable Kit	P76454-B21
HPE ProLiant Compute DL380 Gen12 16SFF x4 2x Gen4 Retimer Card Box 1/3 Cable Kit	P76463-B21
HPE ProLiant Compute DL380 Gen12 36EDSFF x2 Direct Attach Cable Kit	P76464-B21
HPE ProLiant Compute DL380 Gen12 12EDSFF x4 Direct Attach Box 2 Cable Kit	P76465-B21
HPE ProLiant Compute DL380 Gen12 12EDSFF x2 Direct Attach Box 1/2 Cable Kit	P76467-B21
HPE ProLiant Compute DL380 Gen12 8LFF PCIe Controller Box 2/3 Cable Kit	P76473-B21
HPE ProLiant Compute DL380 Gen12 8LFF OROC Box 2/3 Cable Kit	P76474-B21
HPE ProLiant Compute DL380 Gen12 2SFF x4 PCIe Box 6 Cable Kit	P76475-B21
HPE ProLiant Compute DL380 Gen12 2SFF x4 U.3 Side-by-Side Cable Kit	P76476-B21
HPE ProLiant Compute DL380 Gen12 8LFF PCIe Box 1/7 Cable Kit	P77474-B21
HPE ProLiant Compute DL380 Gen12 8LFF OROC Box 1/7 Cable Kit	P77475-B21
HPE ProLiant Compute DL380 Gen12 4EDSFF Front Cable Kit	P77476-B21
HPE ProLiant Compute DL380 Gen12 2SFF x4 OROC Box 6 OCP Cable Kit	P77477-B21
HPE ProLiant Compute DL380 Gen12 2SFF HDD Stacking Drive Direct Attach Cable Kit	P77478-B21
HPE ProLiant Compute DL380 Gen12 OROC 2SFF U.3 Side-by-Side Cable Kit	P77480-B21

HPE ProLiant Compute DL380 Gen12 2SFF U.3 Side-by-Side Direct Attach Cable Kit	P77481-B21
HPE ProLiant Compute DL380 Gen12 2SFF Rear PCIe Cable Kit	P77482-B21
HPE ProLiant Compute DL380 Gen12 2SFF Rear OROC Cable Kit	P77483-B21
HPE ProLiant Compute DL380 Gen12 2LFF Rear PCIe Cable Kit	P77484-B21
HPE ProLiant Compute DL380 Gen12 2LFF Rear OROC Cable Kit	P77485-B21
HPE ProLiant Compute DL380 Gen12 4EDSFF x4 Direct Attach Box 1 Cable Kit	P77490-B21
HPE ProLiant Compute DL380 Gen12 4EDSFF x4 Direct Attach Box 3 Cable Kit	P77491-B21
HPE ProLiant Compute DL380 Gen12 16SFF x4 1x Gen4 Retimer Card Box 1/3 Direct Attach Cable Kit	P77492-B21
HPE ProLiant Compute DL380 Gen12 2SFF x4 Direct Attach Box 6 Cable Kit	P77493-B21
HPE ProLiant Double Wide GPU Power Cable Kit	P56072-B21
HPE ProLiant Compute DL380 Gen12 Secondary Riser Paddle Card FIO Kit	P80997-B21
HPE ProLiant Compute DL380 Gen12 Primary Riser Paddle Card FIO Kit	P83356-B21

Notes: The Riser Paddle Card Kits (P80997-B21 & P83356-B21) are offered to configure up to 36 EDSFF drives as x4 direct attach.

HPE ProLiant Compute DL380 Gen12 MR932i-p 8SFF x4 Cable Kit	P83800-B21
HPE ProLiant Compute DL380 Gen12 MR932i-p 8SFF x2 Cable Kit	P83801-B21
HPE ProLiant Compute DL380 Gen12 MR932i-p 8SFF x1 Cable Kit	P84481-B21
HPE ProLiant Compute DL380 Gen12 12EDSFF Power Cable Kit	P87968-B21
HPE ProLiant Compute DL380 Gen12 MR932i-p 4EDSFF x4 Signal Cable Kit	P83798-B21
HPE ProLiant Compute DL380 Gen12 MR932i-p 4EDSFF x2 Signal Cable Kit	P83799-B21
HPE ProLiant Compute DL380 Gen12 MR932i-p Rear 2SFF Box 4/5 Cable Kit	P87235-B21
HPE ProLiant Compute DL380 Gen12 MR932i-p Rear 2SFF Box 6 Cable Kit	P87236-B21
HPE ProLiant Compute DL380 Gen12 12EDSFF Drive Cage Box 3 FIO Kit	P87692-B21

Hard Disk Drives

Mission Critical – 12G SAS – SFF Drives

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

Business Critical – 12G SAS – LFF Drives

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

Business Critical – 6G SATA – LFF Drives

HPE 26TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e ISE Multi Vendor HDD	P80578-B21
HPE 20TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e ISE Multi Vendor HDD	P53554-B21
HPE 16TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e ISE Multi Vendor HDD	P23449-B21
HPE 24TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e ISE Multi Vendor HDD	P68585-B21

Solid State Drives

Notes: For SSD selection guidance, please visit https://ssd.hpe.com/

Very Read Optimized – NVMe – EDSFF – Solid State Drives

HPE 3.84TB NVMe Gen4 Mainstream Performance Very Read Optimized E3S EC1 EDSFF P5430 SSD	P63930-B21
HPE 7.68TB NVMe Gen4 Mainstream Performance Very Read Optimized E3S EC1 EDSFF P5430 SSD	P63934-B21
HPE 15.36TB NVMe Gen4 Mainstream Performance Very Read Optimized E3S EC1 EDSFF P5430 SSD	P63938-B21
HPE 30.72TB NVMe Gen4 Mainstream Performance Very Read Optimized E3S EC1 EDSFF P5430 SSD	P79065-B21
HPE 61.44TB NVMe Gen5 Mainstream Performance Very Read Optimized E3.S EC1 Self-encrypting 6600 SSD	P86746-B21
HPE 122.8TB NVMe Gen5 Mainstream Performance Very Read Optimized E3.S EC1 Self-encrypting 6600 SSD	P86748-B21

Read Intensive – NVMe – EDSFF – Solid State Drives

HPE 7.68TB NVMe Gen6 High Performance Read Intensive E3.S EC1 PQC27 Self-encrypting 9650 SSD	P90660-B21
HPE 15.36TB NVMe Gen6 High Performance Read Intensive E3.S EC1 PQC27 Self-encrypting 9650 SSD	P90663-B21
HPE 30.72TB NVMe Gen6 High Performance Read Intensive E3.S EC1 PQC27 Self-encrypting 9650 SSD	P90665-B21
HPE 1.92TB NVMe Gen5 Mainstream Performance Read Intensive E3.S EC1 E3 Thin PQC27 CD9P SSD	P86024-B21
HPE 3.84TB NVMe Gen5 Mainstream Performance Read Intensive E3.S EC1 E3 Thin PQC27 CD9P SSD	P86026-B21
HPE 7.68TB NVMe Gen5 Mainstream Performance Read Intensive E3.S EC1 E3 Thin PQC27 CD9P SSD	P86028-B21
HPE 15.36TB NVMe Gen5 Mainstream Performance Read Intensive E3.S EC1 E3 Thin PQC27 CD9P SSD	P86030-B21
HPE 30.72TB NVMe Gen5 Mainstream Performance Read Intensive E3.S EC1 E3 Thin PQC27 CD9P SSD	P86032-B21
HPE 3.84TB NVMe Gen5 Mainstream Performance Read Intensive E3.S EC1 PQC27 Self-encrypting CD9P SSD	P88539-B21
HPE 7.68TB NVMe Gen5 Mainstream Performance Read Intensive E3.S EC1 PQC27 Self-encrypting CD9P SSD	P88541-B21
HPE 15.36TB NVMe Gen5 Mainstream Performance Read Intensive E3.S EC1 PQC27 Self-encrypting CD9P SSD	P88543-B21
HPE 1.92TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 Self-encrypting 7600 SSD	P87719-B21
HPE 3.84TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 Self-encrypting 7600 SSD	P87721-B21
HPE 7.68TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 Self-encrypting 7600 SSD	P87723-B21
HPE 1.92TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 SPDM 7600 SSD	P85121-B21
HPE 3.84TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 SPDM 7600 SSD	P85124-B21
HPE 7.68TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 SPDM 7600 SSD	P85126-B21
HPE 15.36TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 SPDM 7600 SSD	P85128-B21
HPE 3.84TB NVMe Gen5 High Performance Read Intensive E3.S EC1 E3 Thin PQC27 CM9 SSD	P85739-B21
HPE 7.68TB NVMe Gen5 High Performance Read Intensive E3.S EC1 E3 Thin PQC27 CM9 SSD	P85741-B21
HPE 15.36TB NVMe Gen5 High Performance Read Intensive E3.S EC1 E3 Thin PQC27 CM9 SSD	P85743-B21
HPE 30.72TB NVMe Gen5 High Performance Read Intensive E3.S EC1 E3 Thin PQC27 CM9 SSD	P85745-B21

HPE 1.92TB NVMe Gen5 Mainstream Performance Read Intensive E3.S EC1 E3 Thin Multi Vendor SSD	P91090-B21
HPE 3.84TB NVMe Gen5 Mainstream Performance Read Intensive E3.S EC1 E3 Thin Multi Vendor SSD	P91092-B21
HPE 7.68TB NVMe Gen5 Mainstream Performance Read Intensive E3.S EC1 E3 Thin Multi Vendor SSD	P91094-B21
HPE 15.36TB NVMe Gen5 Mainstream Performance Read Intensive E3.S EC1 E3 Thin Multi Vendor SSD	P91096-B21
HPE 3.84TB NVMe Gen5 High Performance Read Intensive E3.S EC1 E3 Thin Multi Vendor SSD	P91229-B21
HPE 7.68TB NVMe Gen5 High Performance Read Intensive E3.S EC1 E3 Thin Multi Vendor SSD	P91231-B21
HPE 15.36TB NVMe Gen5 High Performance Read Intensive E3.S EC1 E3 Thin Multi Vendor SSD	P91233-B21
HPE 1.92TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 EDSFF SPDM PM9D3a SSD	P78914-B21
HPE 15.36TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 EDSFF SPDM PM9D3a SSD	P78921-B21
HPE 3.84TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 EDSFF SPDM PM9D3a SSD	P78917-B21
HPE 7.68TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 EDSFF SPDM PM9D3a SSD	P78919-B21
HPE 1.92TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 Self-encrypting 7600 SSD	P87719-B21
HPE 3.84TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 Self-encrypting 7600 SSD	P87721-B21
HPE 7.68TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 Self-encrypting 7600 SSD	P87723-B21
HPE 1.92TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 SPDM 7600 SSD	P85121-B21
HPE 3.84TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 SPDM 7600 SSD	P85124-B21
HPE 7.68TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 SPDM 7600 SSD	P85126-B21
HPE 15.36TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 SPDM 7600 SSD	P85128-B21
HPE 30.72TB NVMe Gen5 High Performance Read Intensive E3.S EC1 EDSFF SPDM 9550 SSD	P79965-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 EDSFF SPDM PM1743 SSD	P57807-B21
HPE 7.68TB NVMe Gen5 High Performance Read Intensive E3S EC1 EDSFF SPDM CM7 SSD	P61183-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 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 EDSFF SPDM PE1010 SSD	P77271-B21
HPE 15.36TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 EDSFF SPDM PE1010 SSD	P77275-B21
HPE 7.68TB NVMe Gen5 High Performance Read Intensive E3S EC1 PS1010 SSD	P70395-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 CD8P SSD	P69546-B21
HPE 7.68TB NVMe Gen5 High Performance Read Intensive E3S EC1 Self-encrypting FIPS 140-3 CM7 SSD	P70674-B21
HPE 15.36TB NVMe Gen5 High Performance Read Intensive E3S EC1 Self-encrypting FIPS 140-3 CM7 SSD	P79122-B21

Mixed Use – NVMe – EDSFF – Solid State Drives

HPE 6.4TB NVMe Gen6 High Performance Mixed Use E3.S EC1 PQC27 Self-encrypting 9650 SSD	P90655-B21
HPE 12.8TB NVMe Gen6 High Performance Mixed Use E3.S EC1 PQC27 Self-encrypting 9650 SSD	P90658-B21
HPE 1.6TB NVMe Gen5 Mainstream Performance Mixed Use E3.S EC1 E3 Thin PQC27 CD9P SSD	P86016-B21
HPE 3.2TB NVMe Gen5 Mainstream Performance Mixed Use E3.S EC1 E3 Thin PQC27 CD9P SSD	P86018-B21
HPE 6.4TB NVMe Gen5 Mainstream Performance Mixed Use E3.S EC1 E3 Thin PQC27 CD9P SSD	P86020-B21
HPE 1.6TB NVMe Gen5 Mainstream Performance Mixed Use E3.S EC1 PQC27 Self-encrypting CD9P SSD	P88535-B21
HPE 3.2TB NVMe Gen5 Mainstream Performance Mixed Use E3.S EC1 PQC27 Self-encrypting CD9P SSD	P88537-B21
HPE 1.6TB NVMe Gen5 Mainstream Performance Mixed Use E3S EC1 SPDM 7600 SSD	P85114-B21

HPE 3.2TB NVMe Gen5 Mainstream Performance Mixed Use E3S EC1 SPDM 7600 SSD	P85117-B21
HPE 6.4TB NVMe Gen5 Mainstream Performance Mixed Use E3S EC1 SPDM 7600 SSD	P85119-B21
HPE 1.6TB NVMe Gen5 Mainstream Performance Mixed Use E3.S EC1 Self-encrypting 7600 SSD	P87715-B21
HPE 3.2TB NVMe Gen5 Mainstream Performance Mixed Use E3.S EC1 Self-encrypting 7600 SSD	P87717-B21
HPE 3.2TB NVMe Gen5 High Performance Mixed Use E3.S EC1 E3 Thin PQC27 CM9 SSD	P85731-B21
HPE 6.4TB NVMe Gen5 High Performance Mixed Use E3.S EC1 E3 Thin PQC27 CM9 SSD	P85733-B21
HPE 12.8TB NVMe Gen5 High Performance Mixed Use E3.S EC1 E3 Thin PQC27 CM9 SSD	P85735-B21
HPE 1.6TB NVMe Gen5 Mainstream Performance Mixed Use E3.S EC1 E3 Thin Multi Vendor SSD	P91084-B21
HPE 3.2TB NVMe Gen5 Mainstream Performance Mixed Use E3.S EC1 E3 Thin Multi Vendor SSD	P91086-B21
HPE 6.4TB NVMe Gen5 Mainstream Performance Mixed Use E3.S EC1 E3 Thin Multi Vendor SSD	P91088-B21
HPE 3.2TB NVMe Gen5 High Performance Mixed Use E3.S EC1 E3 Thin Multi Vendor SSD	P91098-B21
HPE 6.4TB NVMe Gen5 High Performance Mixed Use E3.S EC1 E3 Thin Multi Vendor SSD	P91100-B21
HPE 12.8TB NVMe Gen5 High Performance Mixed Use E3.S EC1 E3 Thin Multi Vendor SSD	P91102-B21
HPE 1.6TB NVMe Gen5 Mainstream Performance Mixed Use E3.S EC1 Self-encrypting 7600 SSD	P87715-B21
HPE 3.2TB NVMe Gen5 Mainstream Performance Mixed Use E3.S EC1 Self-encrypting 7600 SSD	P87717-B21
HPE 1.6TB NVMe Gen5 Mainstream Performance Mixed Use E3S EC1 SPDM 7600 SSD	P85114-B21
HPE 3.2TB NVMe Gen5 Mainstream Performance Mixed Use E3S EC1 SPDM 7600 SSD	P85117-B21
HPE 6.4TB NVMe Gen5 Mainstream Performance Mixed Use E3S EC1 SPDM 7600 SSD	P85119-B21
HPE 3.2TB NVMe Gen5 High Performance Mixed Use E3.S EC1 PM1755 SSD	P78784-B21
HPE 6.4TB NVMe Gen5 High Performance Mixed Use E3.S EC1 PM1755 SSD	P78787-B21
HPE 3.2TB NVMe Gen5 High Performance Mixed Use E3S EC1 PS1030 SSD	P70399-B21
HPE 3.2TB NVMe Gen5 High Performance Mixed Use E3S EC1 EDSFF SPDM CM7 SSD	P61191-B21
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 EDSFF SPDM PE1030 SSD	P77265-B21
HPE 6.4TB NVMe Gen5 Mainstream Performance Mixed Use E3S EC1 EDSFF SPDM PE1030 SSD	P77267-B21
HPE 6.4TB NVMe Gen5 High Performance Mixed Use E3S EC1 PS1030 SSD	P70401-B21
HPE 12.8TB NVMe Gen5 High Performance Mixed Use E3S EC1 PS1030 SSD	P70403-B21
HPE 3.2TB NVMe Gen5 Mainstream Performance Mixed Use E3S EC1 CD8P SSD	P69243-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 Self-encrypting FIPS 140-3 CM7 SSD	P70672-B21

Read Intensive – SAS – SFF – Solid State Drives

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

HPE 960GB SAS 24G Read Intensive SFF BC Multi Vendor SSD	P49029-B21
Mixed Use – SAS – SFF – Solid State Drives	
HPE 1.6TB SAS Mixed Use SFF BC Self-encrypting FIPS 140-3 PM7 SSD	P83344-B21
HPE 6.4TB SAS 24G Mixed Use SFF BC Multi Vendor SSD	P49057-B21
HPE 3.2TB SAS 24G Mixed Use SFF BC Multi Vendor SSD	P49053-B21
HPE 1.6TB SAS 24G Mixed Use SFF BC Multi Vendor SSD	P49049-B21
HPE 800GB SAS 24G Mixed Use SFF BC Multi Vendor SSD	P49047-B21
Mixed Use – 12G SAS – SFF – Solid State Drives	
HPE 3.84TB SAS 12G Mixed Use SFF BC Value SAS Multi Vendor SSD	P40512-B21
HPE 1.92TB SAS 12G Mixed Use SFF BC Value SAS Multi Vendor SSD	P40511-B21
HPE 960GB SAS 12G Mixed Use SFF BC Value SAS Multi Vendor SSD	P40510-B21
Read Intensive – 6G SATA – SFF – Solid State Drives	
HPE 7.68TB SATA 6G Read Intensive SFF BC Multi Vendor SSD	P40501-B21
HPE 3.84TB SATA 6G Read Intensive SFF BC Multi Vendor SSD	P40500-B21
HPE 1.92TB SATA 6G Read Intensive SFF BC Multi Vendor SSD	P40499-B21
HPE 480GB SATA 6G Read Intensive SFF BC Self-encrypting 5400P SSD	P58236-B21
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
Mixed Use – 6G SATA – SFF – Solid State Drives	
HPE 3.84TB SATA 6G Mixed Use SFF BC Multi Vendor SSD	P40505-B21
HPE 1.92TB SATA 6G Mixed Use SFF BC Multi Vendor SSD	P40504-B21
HPE 960GB SATA 6G Mixed Use SFF BC Self-encrypting 5400M SSD	P58244-B21
HPE 960GB SATA 6G Mixed Use SFF BC Multi Vendor SSD	P40503-B21
HPE 480GB SATA 6G Mixed Use SFF BC Multi Vendor SSD	P40502-B21
Mixed Use – 12G SAS – LFF –Solid State Drives	
HPE 960GB SAS 12G Mixed Use LFF LPC Value SAS Multi Vendor SSD	P37009-B21
Read Intensive – 6G SATA – LFF – Solid State Drives	
HPE 960GB SATA 6G Read Intensive LFF LPC Multi Vendor SSD	P47808-B21
Read Intensive – NVMe – SFF – Solid State Drives	
HPE 1.92TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 PQC27 CD9P SSD	P92315-B21
HPE 3.84TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 PQC27 CD9P SSD	P92317-B21
HPE 7.68TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 PQC27 CD9P SSD	P92319-B21
HPE 15.36TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 PQC27 CD9P SSD	P92321-B21
HPE 30.72TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 PQC27 CD9P SSD	P88533-B21
HPE 1.92TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PQC27 CM9 SSD	P85668-B21
HPE 3.84TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PQC27 CM9 SSD	P85670-B21
HPE 7.68TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PQC27 CM9 SSD	P85672-B21
HPE 15.36TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PQC27 CM9 SSD	P85674-B21
HPE 30.72TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PQC27 CM9 SSD	P85676-B21
HPE 1.92TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 Multi Vendor SSD	P91243-B21
HPE 3.84TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 Multi Vendor SSD	P91245-B21

HPE 7.68TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 Multi Vendor SSD	P91247-B21
HPE 15.36TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 Multi Vendor SSD	P91249-B21
HPE 3.84TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 Static PM1753 SSD	P78806-B21
HPE 7.68TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 Static PM1753 SSD	P78808-B21
HPE 15.36TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 Static PM1753 SSD	P78810-B21
HPE 15.36TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PS1010 SSD	P70436-B21
HPE 7.68TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PS1010 SSD	P70434-B21
HPE 7.68TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 Static V2 Multi Vendor SSD	P64848-B21
HPE 3.84TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 Static V2 Multi Vendor SSD	P64846-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 High Performance Read Intensive SFF BC U.3 Self-encrypting FIPS 140-3 CM7 SSD	P61027-B21
HPE 7.68TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 Self-encrypting FIPS 140-3 CM7 SSD	P61035-B21
HPE 7.68TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 SPDM 7500 SSD	P84242-B21
HPE 3.84TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 SPDM 7500 SSD	P84244-B21
HPE 15.36TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 SPDM 7500b SSD	P84239-B21
HPE 7.68TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 SPDM 7500 SSD	P84242-B21
HPE 3.84TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 SPDM 7500 SSD	P84244-B21

Mixed Use – NVMe – SFF – Solid State Drives

HPE 1.6TB NVMe Gen4 Mainstream Performance Mixed Use SFF BC U.3 PQC27 CD9P SSD	P92309-B21
HPE 3.2TB NVMe Gen4 Mainstream Performance Mixed Use SFF BC U.3 PQC27 CD9P SSD	P92311-B21
HPE 6.4TB NVMe Gen4 Mainstream Performance Mixed Use SFF BC U.3 PQC27 CD9P SSD	P92313-B21
HPE 1.6TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PQC27 CM9 SSD	P85662-B21
HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PQC27 CM9 SSD	P85664-B21
HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PQC27 CM9 SSD	P85666-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 Self-encrypting FIPS 140-3 CM7 SSD	P61051-B21
HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 Self-encrypting FIPS 140-3 CM7 SSD	P61059-B21
HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 Static PM1755 SSD	P78801-B21
HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 Static PM1755 SSD	P78804-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 High Performance Mixed Use SFF BC U.3 Multi Vendor SSD	P91237-B21
HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 Multi Vendor SSD	P91239-B21
HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 Multi Vendor SSD	P91241-B21
HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PS1030 SSD	P70428-B21
HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 CM7 SSD	P63853-B21
HPE 6.4TB NVMe Gen4 Mainstream Performance Mixed Use SFF BC U.3 Static V2 Multi Vendor SSD	P65023-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 CM7 SSD	P63849-B21
HPE 1.6TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 CM7 SSD	P63845-B21
HPE 1.6TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PM1735a SSD	P50227-B21

Optical Drive

Notes:

- Internal optical drives are supported with SFF CTO Server and 8LFF CTO Server configurations only.
- For SFF CTO Server configurations, the Universal Media Bay Kit (P74749-B21), and the Optical Disk Drive USB to SATA Signal Cable Kit (P72199-B21), are required when an internal optical drive is selected.
- For 8LFF CTO Server configurations, the LFF ODD/DisplayPort Enablement Kit (P74752-B21), and the Optical Disk Drive USB to SATA Signal Cable Kit (P72199-B21), are required when an internal optical drive is selected.
- Internal optical drives are not supported with 24SFF, 12LFF, or EDSFF CTO Server configurations.

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:

- Supported as an external USB optical drive only.
- Connects through server USB ports.

Optical Drive Accessories

HPE ProLiant Compute Gen12 Optical Disk Drive USB to SATA Signal Cable Kit P72199-B21

Notes: Required when an internal optical drive is selected with supported SFF CTO Server or 8LFF CTO Server configurations.

HPE ProLiant Compute Gen12 LFF ODD/Display Port Enablement Kit P74752-B21

Notes:

- Enables internal optical drive support and front DisplayPort support for 8LFF CTO Server configurations.
- Supported with 8LFF CTO Server configurations only.

HDD Blank Kit

HPE Small Form Factor Hard Drive Blank Kit 666987-B21

Notes: Blank filler used to cover an unused SFF drive bay and maintain proper airflow.

HPE Gen9 LFF HDD Spade Blank Kit 807878-B21

Notes: Blank filler used to cover an unused SFF drive bay and maintain proper airflow.

Boot Controllers

HPE NS204i-u v2 480GB NVMe Hot Plug Boot Optimized Storage Device P78279-B21

HPE NS204i-u v2 960GB NVMe Hot Plug Boot Optimized Storage Device P81160-B21

HPE NS204i-u v2 960GB NVMe SED Hot Plug Boot Optimized Storage Device P81162-B21

HPE ProLiant Compute DL380 Gen12 NS204i-u Rear Mount Enablement Kit P74755-B21

Notes: Includes the cable required to connect the NS204i-u to the server.

HPE ProLiant Compute DL380 Gen12 NS204i-u Rear Access FIO Enablement Kit P77928-B21

Notes:

- Rear NS204i-u location includes a metal security cover by default as part of the server.
- Select P77928-B21 to enable the rear-mounted, externally accessible NS204i-u boot device.
- This option removes the metal cover, allowing the NS204i-u device to be accessed and serviced from the back of the server.

HPE ProLiant Compute Gen12 NS204i-u Front Enablement Kit P74759-B21

Notes: Enables front installation of the NS204i-u boot device in the multipurpose cage; use this when NS204 is fitted in the front.

Virtual RAID

Intel Virtual RAID on CPU Premium FIO Software for HPE	R7J57A
Intel Virtual RAID on CPU RAID 1 FIO Software for HPE	S3Q19A

STEP 6: FACTORY CONFIGURATION SETTINGS

Complex Configuration (Drive Cage Box Placement FIO Settings)

Notes:

- Drive cage location can impact supportability of high-power PCIe devices, including GPUs, DPUs, NICs, and accelerators.
- Some configurations require alternate drive cage placement to meet thermal and cooling requirements.
- Drive cage placement may affect support for high thermal PCIe options, including select GPUs and accelerators, when installed behind the intended riser location.
- Riser thermal support is configuration-dependent and may vary based on drive cage location, installed drive type, processor TDP, cooling configuration, riser location, and ambient temperature.
- Refer to the “STEP 14: AMBIENT TEMPERATURE SUPPORT” section to determine whether an alternate drive cage placement is required for the selected PCIe, GPU, DPU, or OCP configuration.
- If NVMe Direct Attach FIO Bundle Kit is selected, Drive Cage Box Placement FIO Kits cannot be selected because the bundle kit uses predefined drive cage locations.

HPE ProLiant Compute DL380 Gen12 SFF/EDSFF Drive Cage Box 1 FIO Kit P79311-B21

Notes:

- P79311-B21 is a Factory Integrated Option (FIO) that instructs the factory to install the 8SFF or 12 EDSFF drive cage in Box 1 instead of the default location. This improves airflow for high-power GPUs and NICs installed in the primary and secondary riser.
- Supported only on configurations with a single drive cage (8SFF or 12 EDSFF).
- Not supported on 24SFF, 8LFF, or 12LFF server models.
- By default, the 8SFF drive cage is installed in Box 3 and the 12 EDSFF drive cage is installed in Box 2. This option relocates the drive cage to Box 1 during factory integration to optimize system cooling.

HPE ProLiant Compute DL380 Gen12 16SFF Drive Cage Box 1/2 FIO Kit P79308-B21

Notes:

- P79308-B21 is a Factory Integrated Option (FIO) that instructs the factory to install the 16SFF drive cages in Box 1 and Box 2. This improves airflow for high-power GPUs and NICs installed in the primary riser.
- Supported only on configurations with two drive cages.
- Supported on SFF CTO server model only.
- This option may be required when alternate drive cage placement is needed to support the thermal requirements of selected high-power PCIe options.
- By default, 16SFF drive cages are installed in Box 3 first, followed by Box 2. This option relocates the drive cages to Box 1 and Box 2 during factory integration to optimize system cooling.

HPE ProLiant Compute DL380 Gen12 8SFF Drive Cage Box 2 FIO Kit P79314-B21

Notes:

- P79314-B21 is a Factory Integrated Option (FIO) that instructs the factory to install the 8SFF drive cage in Box 2. This improves airflow for high-power GPUs and NICs installed in the primary and tertiary riser.
- Supported only on configurations with a single drive cage.
- Supported on SFF CTO server model only.

– By default, the 8SFF drive cage is installed in Box 3. This option relocates the drive cage to Box 2 during factory integration to accommodate specific thermal validation requirements.

HPE ProLiant Compute DL380 Gen12 12EDSFF Drive Cage Box 3 FIO Kit P87692-B21

Notes:

– P87692-B21 is a Factory Integrated Option (FIO) that instructs the factory to install the 12 EDSFF drive cage in Box 3 instead of the default location Box 2.
– Supported on EDSFF CTO server models only.
– This option may be required when an alternate drive cage location is needed to support the thermal requirements of selected high-power PCIe options in secondary or tertiary riser.

Complex Configuration

HPE ProLiant Compute DL380 Gen12 x2 EDSFF Controller Attach FIO Kit P92742-B21

Notes:

– This controller-attached storage trigger SKU enables up to 16 EDSFF drives connected to an HPE MR932i-p controller in an EDSFF CTO Server.
– Supported with EDSFF CTO Server configurations only.
– Selecting this SKU automatically configures the required drive cages, controller, signal and power cables
– Qty 1 of the following is automatically selected and cannot be removed:
  • P76449-B21 (HPE DL380 Gen12 Multi-Purpose Cage)
  • P76450-B21 (HPE Gen12 4EDSFF Drive Cage Kit)
  • P74738-B21 (HPE Gen12 12EDSFF Drive Cage Kit)
  • HPE MR932i-p Controller
– Qty 2 of the following is automatically selected and cannot be removed:
  • P87968-B21 (HPE DL380 Gen12 12EDSFF Power Cable Kit)
– Qty 4 of the following is automatically selected and cannot be removed:
  • P83799-B21 (HPE 4EDSFF x2 MR932i-p Cable)

STEP 7: NETWORKING

Please refer to the “Step 14: Ambient Temperature Support” section for the supported operating temperature range and any associated configuration restrictions.

PCIe Networking

1 Gigabit Ethernet adapters

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

Intel E835-XXVDA2 Ethernet 10/25Gb 2-port SFP28 Adapter for HPE P76851-B21

Intel E835-XXVDA4 Ethernet 10/25Gb 4-port SFP28 Adapter for HPE P76857-B21

Intel E810-XXVDA2 Ethernet 10/25Gb 2-port SFP28 Adapter for HPE P08443-B21

Intel E810-XXVDA4 Ethernet 10/25Gb 4-port SFP28 Adapter for HPE P08458-B21

AMD Solarflare X4522-PLUS 10/25GbE 2-port SFP56 Adapter for HPE P87940-B21

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

NVIDIA Ethernet 10/25Gb 2-port SFP28 NVMe-oF Crypto Adapter for HPE	S2A69A
Xilinx X2522-25G-PLUS Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	P21109-B21
Mellanox MCX631102AS-ADAT Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	P42044-B21

100 Gigabit Ethernet Adapters

Broadcom BCM57608 Ethernet 100Gb 2-port QSFP112 Adapter for HPE	P73111-B21
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
Intel E835-CQDA2 Ethernet 100Gb 2-port QSFP28 Adapter for HPE	P76863-B21

Storage Offload Adapters

NVIDIA Ethernet 100Gb 2-port NVMe-oF Offload Adapter for HPE	R8M41A

HPE InfiniBand & Ethernet

HPE InfiniBand NDR/Ethernet 400Gb 1-port OSFP PCIe5 x16 MCX75310AAS-NEAT Generic Adapter	P45641-H24
HPE InfiniBand NDR200/Ethernet 200Gb 1-port OSFP PCIe5 x16 MCX75310AAS-HEAT Generic Adapter	P45642-H23
HPE InfiniBand NDR200/Ethernet 200GbE 2-port QSFP112 PCIe5 x16 MCX755106AC-HEAT Adapter	P65333-H21
HPE InfiniBand XDR400/Ethernet 400GbE 2-port QSFP112 PCIe6 x16 HHHL CX8 Crypto Adapter	P79115-H21
HPE InfiniBand XDR/Ethernet 2x400GbE 1-port OSFP PCIe6 x16 HHHL CX8 Crypto Adapter	P79114-H21
HPE InfiniBand XDR PCIe Gen6 x16 Multi Host/Socket Direct Auxiliary Card with 250mm MCIO Cable Kit	P81264-H21

HPE Bluefield Data Processing Unit (DPU)

Notes:

- Supports a maximum of 2 DPUs per server, subject to available PCIe slots and thermal configuration rules.
- Supported with SFF, EDSFF, and 8LFF CTO Server models.
- Not supported with 12LFF AND 24SFF CTO Server models.

HPE Data Processing Unit InfiniBand NDR/Ethernet 400Gb 1-port QSFP112 HHHL B3140H Adapter	P66387-H21
HPE Data Processing Unit InfiniBand NDR200/Ethernet 200Gb 2-port QSFP112 FHHL B3220 Adapter	P66386-H21
HPE ProLiant Compute DL360/DL380 Gen12 B3220 Power Cable Kit	P95271-B21

Notes:

- When P66386-H21 (HPE Data Processing Unit InfiniBand NDR200/Ethernet 200Gb 2-port QSFP112 FHHL B3220 Adapter) is selected, P95271-B21 (HPE ProLiant Compute DL360/DL380 Gen12 B3220 Power Cable Kit) is required.
- When P66386-H21 (HPE Data Processing Unit InfiniBand NDR200/Ethernet 200Gb 2-port QSFP112 FHHL B3220 Adapter) is selected, Cooling Upgrade Enablement Kit (P81130-B21) must also be selected for better ambient temperature support.

Fibre Channel HBAs

Emulex Fibre Channel HBAs

HPE SN1620E 32Gb 2p FC SecureHBA	S4S01A
HPE SN1720E 64Gb 2p FC SecureHBA	S4T09A

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

Notes:

- For the complete range of tape drives, autoloaders, libraries and media refer to: https://www.hpe.com/us/en/storage/storeever-tape-storage.html
- For hardware and software compatibility of Hewlett Packard Enterprise tape backup products: https://www.hpe.com/storage/BURAcompatibility

OCP Networking

Please refer to the "Step 14: Ambient Temperature Support" section for the supported operating temperature range and any associated configuration restrictions.

1 Gigabit Ethernet adapters

Broadcom BCM5719 Ethernet 1Gb 4-port BASE-T OCP3 Adapter for HPE	P51181-B21
Intel E610-IT4 Ethernet 1Gb 4-port BASE-T OCP3 Adapter for HPE	P79833-B21

10 Gigabit Ethernet adapters

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

10/25 Gigabit Ethernet adapters

Intel E835-XXVDA2 Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE	P76848-B21
Intel E835-XXVDA4 Ethernet 10/25Gb 4-port SFP28 OCP3 Adapter for HPE	P76854-B21
Intel E810-XXVDA2 Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE	P10106-B21
Intel E810-XXVDA4 Ethernet 10/25Gb 4-port SFP28 OCP3 Adapter for HPE	P41614-B21
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
Mellanox MCX631432AS-ADAI Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE	P42041-B21

100 Gigabit Ethernet adapters

Broadcom BCM57608 Ethernet 100Gb 2-port QSFP112 OCP3 Adapter for HPE	P73114-B21
Intel E810-CQDA2 Ethernet 100Gb 2-port QSFP28 OCP3 Adapter for HPE	P22767-B21
Intel E835-CQDA2 Ethernet 100Gb 2-port QSFP28 OCP3 Adapter for HPE	P76860-B21

OCP 3.0 Enablement

Notes:

- Rear OCP Slot A is supported by default at x8. Select the applicable cable kit to enable rear OCP Slot A at x16.
- Rear OCP Slot B requires an enablement cable kit. Select the applicable cable kit based on the desired bus width and processor lane source.
- Cable kits using processor 2 require a 2-processor configuration.
- Front OCP enablement kits are used with the multi-purpose cage to enable front OCP NIC support.

HPE ProLiant Compute DL3XX/ML350 Gen12 CPU1 to Rear OCP SlotA x16 Cable Kit P72201-B21

Notes: Enables rear OCP Slot A at x16 using PCIe lanes from processor 1.

HPE ProLiant Compute DL3XX/ML350 Gen12 CPU1 to Rear OCP SlotB x8 Cable Kit P72203-B21

Notes: Enables rear OCP Slot B at x8 using PCIe lanes from processor 1.

HPE ProLiant Compute DL3XX/ML350 Gen12 CPU2 to Rear OCP SlotB x8 Cable Kit P72205-B21

Notes:

- Enables rear OCP Slot B at x8 using PCIe lanes from processor 2.
- Requires a 2-processor configuration.

HPE ProLiant Compute DL3XX/ML350 Gen12 CPU2 to Rear OCP SlotB x16 Cable Kit P72207-B21

Notes:

- Enables rear OCP Slot B at x16 using PCIe lanes from processor 2.
- Requires a 2-processor configuration.

HPE ProLiant Compute Gen12 Front Primary OCP Box2 Bay9 Enablement Kit P74757-B21

Notes:

- Enables the front primary OCP NIC slot of the multi-purpose cage.
- Used when front OCP NIC support is required instead of the rear OCP Slot A position.

HPE ProLiant Compute Gen12 Front Secondary OCP Box2 Bay11 Enablement Kit P74758-B21

Notes:

- Enables the front secondary OCP NIC slot of the multi-purpose cage.
- Requires the Front Primary OCP Box2 Bay9 Enablement Kit (P74757-B21).

STEP 8: GRAPHIC OPTIONS

Please refer to the “Step 14: Ambient Temperature Support” section for the supported operating temperature range and any associated configuration restrictions.

Notes:

- Mixing of GPUs is not allowed
- GPU and rear drive options cannot be selected together.

Full Height Full Length / Double Wide

NVIDIA H200 NVL 141GB PCIe Accelerator for HPE S3U30C

Notes:

- Maximum quantity 2 (subject to PCIe slot/thermal rules).
- Occupies 2 PCIe Slots per GPU (Primary Riser Slot 1 and 2 or Secondary Riser Slots 4 and 5 or Tertiary Riser Slot 7 and 8) Supported with power capped at 450W. Requires HPE iLO Advanced with Advanced Power Management enabled.2-way NVLink is not supported on DL380 Gen12.
- 1U High Performance Heat Sink (P74787-B21) and Cooling Upgrade Enablement Kit (P81130-B21) must be selected.
- Qty-2 of HPE GPU 16-pin Power Cable Kit (P93055-B21) must be selected which can support up to 2 GPUs (1 cable per GPU).
- Maximum ambient temperature support = 27C (subject to PCIe slot/quantity rules).
- Available with SFF and EDSFF CTO server model.

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

Notes:

- Maximum quantity 3 (subject to PCIe slot/thermal rules).
- Occupies 2 PCIe Slots per GPU (Primary Riser Slot 1 and 2 or Secondary Riser Slots 4 and 5 or Tertiary Riser Slot 7 and 8)
- Supported with power capped at 450W.
- 1U High Performance Heat Sink (P74787-B21) and Cooling Upgrade Enablement Kit (P81130-B21) must be selected.

- Qty-1 of HPE ProLiant Double Wide GPU Power Cable Kit (P56072-B21) must be selected which can support up to 3 DW GPUs.
- Maximum ambient temperature support = 27C (subject to PCIe slot/quantity rules).
- Available with SFF and EDSFF CTO server model.

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

Notes: Same as S6A73C above

NVIDIA L40S 48GB PCIe Accelerator S2L70C

Notes:

- Maximum quantity 3 (subject to PCIe slot/thermal rules).
- Occupies 2 PCIe Slots per GPU (Primary Riser Slot 1 and 2 or Secondary Riser Slot 4 and 5 or Tertiary Riser Slot 7 and 8)
- 2U High Performance Heat Sink (P74792-B21) OR DLC Module must be selected
- Qty-1 of HPE ProLiant Double Wide GPU Power Cable Kit (P56072-B21) must be selected which can support up to 3 DW GPUs.
- Maximum ambient temperature support = 30C (subject to PCIe slot/quantity rules).

Full Height Full Length / Single Wide

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

Notes:

- Maximum of 5 (subject to PCIe slot/thermal rules)
- Cannot be installed in Primary Riser Slot 3 or Secondary Riser Slot 6, which support half-length/low-profile cards only.
- Qty 1 of HPE DL380 Gen11 2U 8p GPU Power Cable Kit (P77896-B21) must be selected. One kit contains three Y-cables; each cable supports up to two GPUs, covering the maximum of 5 GPUs. Maximum ambient temperature support = 30C (subject to PCIe slot/quantity rules).

Half Height Half Length / Single Wide

NVIDIA L4 24GB PCIe Accelerator for HPE S0K89C

NVIDIA RTX A1000 8GB PCIe Accelerator for HPE S5T74C

Notes:

- Maximum quantity 8 of single wide GPUs can be supported.
- Maximum ambient temperature support = 30C (subject to PCIe slot/quantity rules).

STEP 9: POWER SUPPLIES & COOLING

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 Compute Gen12 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.

The product configurator will guide you in selecting the appropriate type and quantity of power cords based on the destination country, power supply type, and quantity. If a different standalone power cord is required, please check the ProLiant Power Cables web page.

To select the right size power supply for your ProLiant Server it is highly recommended to use "HPE Power Advisor" located at https://poweradvisorext.it.hpe.com/

For information on power specifications and technical content visit: HPE Server power supplies.

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.

Notes:

- The mixing of 2 different power supplies is NOT allowed.
- Select a minimum (1) and a maximum (2) power supplies.
- 1600W Power supplies only support high line voltage (200 VAC to 240 VAC).
- HPE 1600W Flex Slot -48VDC Hot Plug Power Supply Kit requires selection of HPE 1600W DC PSU power lug option kit OR HPE 1600W DC PSU Power Cable Kit.

HPE Flex Slot Power Supplies

HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	P38995-B21
HPE 1000W Flex Slot Titanium Hot Plug Power Supply Kit	P03178-B21
HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	P38997-B21
HPE 1800W-2200W Flex Slot Titanium Hot Plug Power Supply Kit	P44712-B21
HPE 1600W Flex Slot -48VDC Hot Plug Power Supply Kit	P17023-B21
HPE 1600W -48VDC Power Cable Lug Kit	P36877-B21

Notes: Provides the DC power lug hardware for connecting the 1600W -48VDC PSU to customer-supplied DC power cables, used instead of the 1600W DC power cable kit.

Fan Kits

Notes:

- Maximum Qty=1.
- High-Performance Fan Kit and Standard Fan Kit cannot be selected together
- SFF and 8LFF CTO models include 4 standard fans. 12LFF and EDSFF CTO models include 6 standard fans. 24SFF CTO models include 6 standard high-performance fans.
- CTO Server configurations automatically select the required fan configuration for higher-TDP processors and thermally demanding options, including NVMe direct attach bundles, GPUs, and high-speed NICs.

HPE ProLiant DL380/DL560 Gen11 2U High Performance Fan Kit P48820-B21

Notes: Includes 6 High Performance Fans

HPE ProLiant DL380 2U Standard Fan Kit P49146-B21

Notes: Includes 2 Standard Fans

Cooling Upgrade

HPE ProLiant Compute DL380 Gen12 Cooling Upgrade Enablement Kit P81130-B21

Notes: The DL380 Cooling Upgrade Enablement Kit (P81130-B21) is designed to provide enhanced cooling for Double Wide GPUs and DPUs. It allows GPUs and DPUs to operate at higher ambient temperatures or supports more drives at the same temperatures as previously offered. The kit includes six additional fans and air baffles. The only heat sink supported with it is the 1U high-performance heat sink kit (P74787-B21).

STEP 10: HPE SECURITY OPTIONS

HPE Trusted Supply Chain for HPE ProLiant P36394-B21

Notes:

- HPE Trusted Supply Chain (P36394-B21) is an optional security upgrade intended for agencies and regulated industries needing enhanced security and compliance needs. Applying this option ensures it is built in the USA in a secure facility by vetted HPE personnel assigned to the manufacturing processes. A multitude of checkpoints/inspections for malicious microcode and counterfeit parts are performed throughout the server build, and additional safeguards are put in place against cyber-exploits throughout the server lifecycle. The HPE ProLiant Compute DL380 Gen12 is re-branded as a HPE ProLiant Compute DL380T Gen12 to denote the HPE Trusted Supply Chain security enhancements. The DL380T Gen12 is Trade Agreement Act (TAA) compliant. Learn more at https://www.hpe.com/security
- This option requires the selection of HPE Intrusion Detection Kit (P48922-B21)
- This option requires the selection of HPE iLO Advanced 1-server License with 3yr Support on iLO Licensed Features (BD505A).

HPE iLO Common Password FIO Setting P08040-B21

Notes:

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

HPE ProLiant Platform Certificate and IDevID iLO FIO Setting P42104-B21

Notes:

- Initial Device Identity (IDevID) certificates are part of a Zero Trust Architecture. This SKU instructs factory to provision IDevID on HPE iLO.
- Directs HPE manufacturing site to create, digitally sign and store a platform certificate on the server.
- Requires HPE Trusted Platform Module (TPM).

HPE Bezel Lock Kit 875519-B21

Notes:

- Maximum quantity = 1.
- Requires selection of HPE Gen11 2U Bezel Kit (P50400-B21) is selected.

HPE Gen11 2U Bezel Kit P50400-B21

HPE ProLiant DL3XX Gen11 Intrusion Cable Kit P48922-B21

Notes: This option must be selected if HPE Trusted Supply Chain SKU (P36394-B21) is selected.

HPE OEM Gen11 2U Bezel KIT P55441-B21

Notes: Requires selection of HPE Gen11 2U Bezel Kit (P50400-B21) is selected.

STEP 11: SYSTEM MANAGEMENT

HPE Compute Ops Management

HPE Compute Ops Management Standard with ProLiant Enablement	S2R34AAE
HPE Compute Ops Management Standard 3-year Upfront ProLiant SaaS	R7A11AAE
HPE Compute Cloud Management Server FIO Enablement	S1A05A
HPE Compute Ops Management Standard 5-year Upfront ProLiant SaaS	R7A12AAE
HPE Compute Ops Management Standard 7-year Upfront ProLiant SaaS	S2E10AAE
HPE Compute Ops Management Advanced Flex with ProLiant Enablement	S6C28AAE
HPE Compute Ops Management Advanced 1-year Upfront ProLiant SaaS	S5E58AAE
HPE Compute Ops Management Advanced 3-year Upfront ProLiant SaaS	S5E59AAE
HPE Compute Ops Management Advanced 5-year Upfront ProLiant SaaS	S5E60AAE
HPE Compute Ops Management Advanced 7-year Upfront ProLiant SaaS	S5E61AAE

Notes:

- 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 iLO Management

HPE iLO Common Password FIO Setting

HPE iLO Common Password FIO Setting	P08040-B21

Notes:

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

HPE ILO Advanced

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 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 OneView/ Converged Infrastructure Management

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 w/o iLO including 3yr 24x7 Support 1-server FIO LTU	P8B31A
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 FIO Bundle Physical 1-server LTU	E5Y43A
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.

Management Hardware

HPE ProLiant DL380 Rear Serial Cable Kit	P48824-B21
HPE ProLiant Compute DL380 Gen12 System Insight Display Kit	P74748-B21

STEP 12: RACK OPTIONS

Easy Install Rail Kits

Easy Install rail kits contain telescoping rails which allow for in-rack serviceability.
To assist in the installation of the server into the rack an optional installation tool is available by contacting your local services representative.

Notes:

- Hewlett Packard Enterprise recommends that a minimum of two people is required for all Rack Server installations. Please refer to your installation instructions for proper tools and number of people to use for any installation.
- HPE 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 the 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.

HPE ProLiant DL3XX Gen11 Easy Install Rail 3 Kit	P52341-B21

Notes: Does not include Cable Management Arm (CMA) (P70744-B21).

HPE ProLiant Compute DL3XX Gen12 2U Cable Management Arm for Rail Kit	P70744-B21

STEP 13: HPE SUPPORT SERVICES

Installation & Startup Services

HPE ProLiant DL/ML Install Service	U4554E
HPE Proliant DL/ML Ons Startup Service	U4555E

Tech Care Services

HPE 3 Year Tech Care Essential DL380 Gen12 HW Service	H49RRE
HPE 3 Year Tech Care Essential wDMR DL380 Gen12 HW Service	H49RSE
HPE 5 Year Tech Care Essential DL380 Gen12 HW Service	H49SWE
HPE 5 Year Tech Care Essential wDMR DL380 Gen12 HW Service	H49SXE

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

STEP 14: AMBIENT TEMPERATURE SUPPORT

In this section, server ambient temperature refers to the temperature of the air entering the server at the front of the chassis.

The supported maximum server ambient temperature is determined by the complete server configuration, including:

- Processor thermal design power (TDP)
- Cooling solution, including air cooling or Direct Liquid Cooling (DLC)
- Memory
- Front drive cage type, quantity, and placement
- Networking, InfiniBand, and DPU adapters, including the installed cable or transceiver connectivity
- GPU type and installation location and other installed options

To determine the supported maximum server ambient temperature:

1. Identify all installed components that have thermal requirements.

2. For networking, InfiniBand, and DPU adapters listed in the Thermal Level tables, identify the applicable Thermal Level based on the adapter and its cable or transceiver connectivity, and apply it to the corresponding PCIe or OCP Thermal Support Matrix.
3. For components with a dedicated Thermal Support Matrix, such as memory and certain DPUs or GPUs, use the applicable dedicated matrix.
4. Compare the results from all applicable Thermal Support Matrices and configuration rules. The lowest applicable maximum server ambient temperature determines the supported operating temperature of the complete server configuration.
   Example: For a server configured with an NVIDIA H200 NVL GPU and one or more networking adapters, refer to the applicable GPU Thermal Support Matrix and each applicable networking-adapter Thermal Support Matrix. Compare the results and use the lowest applicable maximum server ambient temperature for the complete server configuration.

Notes:

- Components that are not covered by the Thermal Level tables may have a dedicated Thermal Support Matrix. Examples include double-wide GPUs and the HPE Data Processing Unit InfiniBand NDR200/Ethernet 200Gb 2-port QSFP112 FHHL B3220 Adapter (P66386-H21).
- Final configuration support must be validated in HPE One Config Advanced (OCA), which automatically applies applicable configuration and ambient-temperature rules.

Thermal Level: Networking/InfiniBand/DPU

Thermal Level is an index based on the thermal profile and validated thermal performance of a PCIe or OCP adapter. A lower Thermal Level indicates fewer thermal configuration constraints, while a higher Thermal Level may require additional cooling or impose configuration restrictions, such as a lower maximum server ambient temperature or limitations on processor TDP, drive cage configuration, adapter location, or other installed components.

Notes:

- The Thermal Level of a networking, InfiniBand, or DPU adapter may vary based on the installed cable or transceiver type.
- AOC (Active optical cable) or optical transceiver connectivity can have a higher Thermal Level than passive DAC (Direct attach copper cable) connectivity because active components consume additional power and can generate additional localized heat.
- Use the Thermal Level corresponding to the installed adapter and cable or transceiver type when applying the applicable PCIe or OCP Thermal Support Matrix.
- Thermal Level may also be referred to as Cooling Level or Thermal Tier in other HPE thermal guidance.

Thermal Level: PCIe Networking, InfiniBand and DPU Adapters

SKU #	SKU Description	Form Factor	Thermal Level
P51178-B21	BCM 5719 1Gb 4p BASE-T Adptr	HHHL	1
P26253-B21	BCM 57416 10GbE 2p BASE-T Adptr	HHHL	4

Additional Options

SKU #	SKU Description	Form Factor	Thermal Level with AOC/ Transceiver	Thermal Level with DAC
P26259-B21	BCM 57412 10GbE 2p SFP+ Adptr	HHHL	3	2
P08443-B21	INT E810 10/25GbE 2p SFP28 Adptr	HHHL	5	3
P76851-B21	INT E835 10/25GbE 2p SFP28 Adptr	HHHL	5	4
P08458-B21	INT E810 10/25GbE 4p SFP28 Adptr	FHHL	6	3
P76857-B21	INT E835 10/25GbE 4p SFP28 Adptr	HHHL	6	4
P21109-B21	XIL X2522-25G-PLUS 10/25GbE 2p SFP28 Adp	HHHL	6	6
P26262-B21	BCM 57414 10/25GbE 2p SFP28 Adptr	HHHL	5	2
P26264-B21	BCM 57504 10/25GbE 4p SFP28 Adptr	HHHL	6	3
P42044-B21	MLX MCX631102 10/25GbE 2p SFP28 Adptr	HHHL	5	4
P87940-B21	AMD X4522-PLUS 10/25G 2p SFP56 Adptr	HHHL	6	6
S2A69A	NVIDIA 10/25GbE 2p SFP28 NVMeoF Adptr	HHHL	5	4
P73111-B21	BCM 57608 100GbE 2p QSFP112 Adptr	HHHL	7	6
P25960-B21	MLX MCX623106AS 100GbE 2p QSFP56 Adptr	HHHL	7	6
P21112-B21	INT E810 100GbE 2p QSFP28 Adptr	HHHL	7	4
P76863-B21	INT E835 100GbE 2p QSFP28 Adptr	HHHL	6	5
R8M41A	NVIDIA Ethernet 100Gb 2-port NVMe-oF Offload Adapter for HPE	HHHL	7	6
P45641-H24	HPE IB NDR/EN 400G 1p OSFP Gen Adptr	HHHL	7	5
P45642-H23	HPE IB NDR200/EN 200G 1p OSFP Adptr	HHHL	6	5
P65333-H21	HPE IB NDR200/EN 200G 2p QSFP112 Adptr	HHHL	7	5
P79115-H21	HPE IB XDR400/EN 400G 2p PCIe6x16 Adptr	HHHL	8	8
P79114-H21	HPE IB XDR/EN 2x400GbE 1p PCIe6x16 Adptr	HHHL	8	8

P66387-H21	HPE DPU IB NDR/EN 400G 1p HHHL Adptr	HHHL	8	8

Thermal Level: OCP Networking

SKU #	SKU Description	Thermal Level with BASE-T
P51181-B21	BCM 5719 1Gb 4p BASE-T OCP Adptr	3
P79833-B21	INT E610 1GbE 4p BASE-T OCP3 Adptr	3
P10097-B21	BCM 57416 10GbE 2p BASE-T OCP3 Adptr	5

SKU #	SKU Description	Thermal Level with AOC	Thermal Level with DAC
P26256-B21	BCM 57412 10GbE 2p SFP+ OCP3 Adptr	2	2
P10115-B21	BCM 57414 10/25GbE 2p SFP28 OCP3 Adptr	3	3
P26269-B21	BCM 57504 10/25GbE 4p SFP28 OCP3 Adptr	9	6
P10106-B21	INT E810 10/25GbE 2p SFP28 OCP3 Adptr	7	3
P76848-B21	INT E835 10/25GbE 2p SFP28 OCP3 Adptr	9	4
P41614-B21	INT E810 10/25GbE 4p SFP28 OCP3 Adptr	10	3
P76854-B21	INT E835 10/25GbE 4p SFP28 OCP3 Adptr	9	4
P42041-B21	MLX MCX6314 10/25GbE 2p SFP28 OCP3 Adptr	7	5
P73114-B21	BCM 57608 100GbE 2p QSFP112 OCP3 Adptr	11	9
P22767-B21	INT E810 100GbE 2p QSFP28 OCP3 Adptr	9	3
P76860-B21	INT E835 100GbE 2p QSFP28 OCP3 Adptr	9	6

Thermal Support Matrices

Thermal Matrix: Memory

DIMM category	Maximum DIMM population	Maximum front-drive-cage quantity	Maximum Supported Ambient Temperature
DDR5 ≤64GB, 6000 MT/s+	2 DPC	2	30°C
DDR5 ≤64GB, 6000 MT/s+	2 DPC	3	27°C
DDR5 96GB, 6000 MT/s	2 DPC	3	25°C
DDR5 128GB, 6000 MT/s	2 DPC	2	25°C
DDR5 256GB, 6000 MT/s	2 DPC	2	23°C
DDR5 128GB, 8000 MT/s	1 DPC	2	23°C

Notes:

Configurations using 128GB or 256GB DDR5 6000 MT/s DIMMs, or 128GB DDR5 8000 MT/s DIMMs, with three front drive cages require thermal review by the HPE Tech Center.

Thermal Matrix: PCIe Cards Thermal Level 5 or Lower

Processor TDP Range	Processor Cooling Solution	Applicable Front Drive Configuration	Maximum Supported Ambient Temperature
Up to 350W	Any	1–3 SFF cages; 1–3 EDSFF cages; or 8LFF or 12LFF CTO	30°C, all slots

Thermal Matrix: PCIe Cards Thermal Level 6

Processor TDP Range	Processor Cooling Solution	Applicable Front Drive Configuration	Maximum Supported Ambient Temperature and Slot Rule
Up to 270W	Direct Liquid Cooling (DLC)	1–3 SFF cages; 1–3 EDSFF cages; or 8LFF or 12LFF CTO	30°C, all slots
Up to 270W	Air cooling	1–3 SFF cages; 1–3 EDSFF cages; or 8LFF or 12LFF CTO	30°C, all slots
Above 270W to 350W	Direct Liquid Cooling (DLC)	1–3 SFF cages; 1–3 EDSFF cages; or 8LFF or 12LFF CTO	30°C, all slots
Above 270W to 350W	Air cooling	1–3 SFF cages; 1–3 EDSFF cages; or 8LFF CTO	30°C, all slots
Above 270W to 350W	Air cooling	12LFF CTO	27°C to 30°C, Dependent on Slot location

Thermal Matrix: PCIe Cards Thermal Level 7

Processor TDP Range	Processor Cooling Solution	1 SFF or 1 EDSFF Drive Cage	2 SFF Drive Cages	2 EDSFF Drive Cages	3 SFF Drive Cages	3 EDSFF Drive Cages	8LFF CTO	12LFF CTO
Up to 270W	Direct Liquid Cooling (DLC)	30°C, all slots	30°C, all slots	30°C, all slots	30°C, all slots	30°C, all slots	30°C, all slots	27°C, all slots
Up to 270W	Air cooling	30°C, all slots	30°C, all slots	30°C, all slots	30°C, all slots	25°C, all slots	30°C, all slots	25°C, all slots
Above 270W to 350W	Direct Liquid Cooling (DLC)	30°C, all slots	30°C, all slots	30°C, all slots	30°C, all slots	30°C, all slots	30°C, all slots	27°C, all slots
Above 270W to 350W	Air cooling	30°C, all slots	27°C, all slots	27°C, Dependent on slot location	25°C, all slots	23°C to 27°C, Dependent on slot location	27°C to 30°C, Dependent on slot location	23°C to 30°C, Dependent on slot location

Thermal Matrix: PCIe Cards Thermal Level 8

Processor TDP Range	Processor Cooling Solution	1 SFF or 1 EDSFF Drive Cage	2 SFF or 2 EDSFF Drive Cages	3 SFF or 3 EDSFF Drive Cages	8LFF CTO	12LFF CTO
Up to 270W	Direct Liquid Cooling (DLC)	30°C, all slots	27°C, Dependent on drive cage placement and slot location	25°C, Dependent on slot location	25°C to 27°C, Dependent on slot location	23°C to 25°C, Dependent on slot location
Up to 270W	Air cooling	30°C, all slots	25°C to 27°C, Dependent on drive cage placement and slot location	23°C to 27°C, Dependent on slot location	23°C to 27°C, Dependent on slot location	20°C to 25°C, Dependent on slot location
Above 270W to 350W	Direct Liquid Cooling (DLC)	30°C, all slots	27°C, Dependent on drive cage placement and slot location	25°C, Dependent on slot location	25°C to 27°C, Dependent on slot location	23°C to 25°C, Dependent on slot location
Above 270W to 350W	Air cooling	27°C, all slots	23°C to 25°C, Dependent on drive cage placement and slot location	20°C to 23°C, Dependent on slot location	20°C to 25°C, Dependent on slot location	18°C to 25°C, Dependent on slot location

Notes:

- For configurations showing a temperature range, contact the HPE Tech Center to confirm the supported maximum server ambient temperature based on the specific front drive cage placement and PCIe slot.
- The Universal Media Bay (UMB) and Multipurpose Drive Cage are not included in the front drive cage count because they have less impact on airflow.
- For mixed front drive cage configurations, such as SFF plus EDSFF, use the EDSFF rule with the combined front drive cage quantity.
- PCIe adapters at Thermal Level 6 or higher require High Performance Fans. OCA automatically selects the required fan configuration.

Thermal Matrix: OCP Cards

Applicable to processor TDPs up to 350W

Rear OCP

Supported Rear OCP Thermal Level	Processor Cooling Solution	Front Drive Cages Quantity	Maximum Supported Ambient Temperature
Up to Thermal Level 7	Direct Liquid Cooling (DLC)	Up to 3	30°C
Thermal Level 8–9	Direct Liquid Cooling (DLC)	1–2	30°C
Thermal Level 8–9	Direct Liquid Cooling (DLC)	3	25°C
Thermal Level 10–11	Direct Liquid Cooling (DLC)	1	30°C
Thermal Level 10–11	Direct Liquid Cooling (DLC)	2–3	25°C
Up to Thermal Level 6	Air Cooling	Up to 3	30°C
Thermal Level 7	Air Cooling	1–2	30°C
Thermal Level 7	Air Cooling	3	30°C; not supported in Rear OCP Slot B
Thermal Level 7	Air Cooling	3	25°C
Thermal Level 8	Air Cooling	1–2	30°C
Thermal Level 8	Air Cooling	3	25°C
Thermal Level 9	Air Cooling	1	30°C
Thermal Level 9	Air Cooling	2	30°C; not supported in Rear OCP Slot B
Thermal Level 9	Air Cooling	2	25°C
Thermal Level 9	Air Cooling	3	25°C; not supported in Rear OCP Slot B
Thermal Level 10	Air Cooling	1	30°C
Thermal Level 10	Air Cooling	2	25°C; not supported in Rear OCP Slot B
Thermal Level 10	Air Cooling	3	Not supported
Thermal Level 11	Air Cooling	1	30°C; not supported in Rear OCP Slot B
Thermal Level 11	Air Cooling	1	25°C
Thermal Level 11	Air Cooling	2	25°C; not supported in Rear OCP Slot B
Thermal Level 11	Air Cooling	3	Not supported

Front OCP: Front OCP supports adapters up to Thermal Level 11 with no OCP slot restriction.

Notes:

- The Universal Media Bay (UMB) and Multipurpose Drive Cage are not included in the front drive cage count.
- 256GB DIMMs cannot be configured with OCP Thermal Level 10 or 11 adapters.

Thermal Matrix: HPE Data Processing Unit InfiniBand NDR200/Ethernet 200Gb 2-port QSFP112 FHHL B3220 Adapter (P66386-H21)

For configurations with the HPE ProLiant Compute DL380 Gen12 Cooling Upgrade Enablement Kit (P81130-B21)

Notes:

- Select the table that matches the processor TDP and cooling solution. Then locate the applicable front drive cage type, quantity, and location, followed by the DPU installation slot. The value shown is the maximum supported server ambient temperature for that DPU configuration.
- After determining the value from this matrix, compare it with the limits from all other applicable Thermal Support Matrices and configuration rules. When multiple components or configuration rules have thermal restrictions, the lowest applicable maximum server ambient temperature determines the supported operating temperature of the complete server configuration.

Processor TDP: Up to 350W – Direct Liquid Cooling (DLC)								
Front Drive Cage Type	**Front Drive Cages Quantity**	**Front Drive Cage Location(s)**	**Slot 1**	**Slot 2**	**Slot 4**	**Slot 5**	**Slot 7**	**Slot 8**
SFF	1	Any box	30°C	30°C	30°C	30°C	30°C	30°C
SFF	2	Any two boxes	30°C	30°C	30°C	30°C	30°C	30°C
SFF	3	All	25°C	25°C	27°C	30°C	30°C	30°C
EDSFF	1	Any box	30°C	30°C	30°C	30°C	30°C	30°C
EDSFF	2	Any two boxes	30°C	30°C	30°C	30°C	30°C	30°C
EDSFF	3	All	23°C	23°C	25°C	30°C	30°C	27°C
LFF	2 (8LFF CTO)	All	25°C	23°C	30°C	30°C	30°C	27°C
LFF	3 (12LFF CTO)	All	23°C	20°C	23°C	27°C	27°C	23°C

Processor TDP: Above 270W and up to 350W – Air Cooling								
Front Drive Cage Type	**Front Drive Cages Quantity**	**Front Drive Cage Location(s)**	**Slot 1**	**Slot 2**	**Slot 4**	**Slot 5**	**Slot 7**	**Slot 8**
SFF	1	Any box	30°C	30°C	30°C	30°C	30°C	30°C
SFF	2	Boxes 3 and 2	25°C	25°C	30°C	30°C	30°C	30°C
SFF	2	Boxes 2 and 1	30°C	30°C	30°C	30°C	30°C	30°C
SFF	2	Boxes 3 and 1	27°C	27°C	30°C	30°C	30°C	30°C
SFF	3	All	18°C	20°C	25°C	30°C	27°C	23°C
EDSFF	1	Any box	30°C	30°C	30°C	30°C	30°C	30°C
EDSFF	2	Boxes 2 and 1	30°C	30°C	30°C	30°C	30°C	27°C
EDSFF	2	Boxes 1 and 3	27°C	27°C	30°C	30°C	30°C	30°C
EDSFF	2	Boxes 2 and 3	23°C	23°C	30°C	30°C	30°C	30°C
EDSFF	3	All	X	18°C	23°C	27°C	25°C	20°C
LFF	2 (8LFF CTO)	All	18°C	18°C	27°C	30°C	27°C	23°C
LFF	3 (12LFF CTO)	All	X	X	23°C	25°C	23°C	X

Processor TDP: Above 225W and up to 270W – Air Cooling								
Front Drive Cage Type	**Front Drive Cages Quantity**	**Front Drive Cage Location(s)**	**Slot 1**	**Slot 2**	**Slot 4**	**Slot 5**	**Slot 7**	**Slot 8**
SFF	1	Any box	30°C	30°C	30°C	30°C	30°C	30°C
SFF	2	Boxes 3 and 2	27°C	27°C	30°C	30°C	30°C	30°C
SFF	2	Boxes 2 and 1	30°C	30°C	30°C	30°C	30°C	30°C
SFF	2	Boxes 3 and 1	30°C	30°C	30°C	30°C	30°C	30°C
SFF	3	All	20°C	20°C	25°C	30°C	30°C	23°C
EDSFF	1	Any box	30°C	30°C	30°C	30°C	30°C	30°C
EDSFF	2	Boxes 2 and 1	30°C	30°C	30°C	30°C	30°C	27°C
EDSFF	2	Boxes 1 and 3	27°C	27°C	30°C	30°C	30°C	30°C
EDSFF	2	Boxes 2 and 3	25°C	25°C	30°C	30°C	30°C	30°C
EDSFF	3	All	18°C	18°C	23°C	27°C	27°C	23°C
LFF	2 (8LFF CTO)	All	20°C	18°C	27°C	30°C	30°C	23°C
LFF	3 (12LFF CTO)	All	18°C	X	23°C	25°C	23°C	18°C

Processor TDP: Up to 225W – Air Cooling								
Front Drive Cage Type	Front Drive Cages Quantity	Front Drive Cage Location(s)	Slot 1	Slot 2	Slot 4	Slot 5	Slot 7	Slot 8
SFF	1	Any box	30°C	30°C	30°C	30°C	30°C	30°C
SFF	2	Boxes 3 and 2	27°C	27°C	30°C	30°C	30°C	30°C
SFF	2	Boxes 2 and 1	30°C	30°C	30°C	30°C	30°C	30°C
SFF	2	Boxes 3 and 1	30°C	30°C	30°C	30°C	30°C	30°C
SFF	3	All	23°C	23°C	25°C	30°C	30°C	25°C
EDSFF	1	Any box	30°C	30°C	30°C	30°C	30°C	30°C
EDSFF	2	Boxes 2 and 1	30°C	30°C	30°C	30°C	30°C	30°C
EDSFF	2	Boxes 1 and 3	30°C	30°C	30°C	30°C	30°C	30°C
EDSFF	2	Boxes 2 and 3	25°C	25°C	30°C	30°C	30°C	30°C
EDSFF	3	All	20°C	20°C	23°C	27°C	30°C	23°C
LFF	2 (8LFF CTO)	All	23°C	20°C	27°C	30°C	30°C	23°C
LFF	3 (12LFF CTO)	All	20°C	18°C	23°C	25°C	23°C	20°C

Notes:

- Values shown are the maximum supported server ambient temperatures in °C for the applicable DPU configuration.
- X = Not supported.
- The Universal Media Bay (UMB) and Multipurpose Drive Cage are not included in the front drive cage count because they have less impact on airflow.
- For mixed front drive cage configurations, such as SFF plus EDSFF, use the EDSFF rule with the combined front drive cage quantity.

Thermal Matrix: NVIDIA H200 NVL (S3U30C), NVIDIA RTX PRO 6000 (S6A73C) and NVIDIA RTX PRO 6000D (S6W21C) 450W GPUs

For configurations with the HPE ProLiant Compute DL380 Gen12 Cooling Upgrade Enablement Kit (P81130-B21)

Notes:

- Select the table that matches the processor TDP and cooling solution. Then locate the applicable front drive cage type, quantity, and location, followed by the GPU installation slot. The value shown is the maximum supported server ambient temperature for that GPU configuration.
- After determining the value from this matrix, compare it with the limits from all other applicable Thermal Support Matrices and configuration rules. When multiple components or configuration rules have thermal restrictions, the lowest applicable maximum server ambient temperature determines the supported operating temperature of the complete server configuration.

Processor TDP: Up to 350W – Direct Liquid Cooling (DLC)					
Front Drive Cage Type	Front Drive Cages Quantity	Front Drive Cage Location(s)	Slot 2	Slot 5	Slot 7
SFF	1	Box 3	23°C	25°C	23°C
SFF	1	Box 2	25°C	23°C	25°C
SFF	1	Box 1	25°C	27°C	27°C
SFF	2	Boxes 3 and 2	18°C	23°C	23°C
SFF	2	Boxes 2 and 1	23°C	23°C	23°C
SFF	2	Boxes 3 and 1	20°C	23°C	23°C
EDSFF	1	Box 2	25°C	23°C	25°C
EDSFF	1	Box 1	25°C	27°C	27°C
EDSFF	1	Box 3	18°C	23°C	23°C
EDSFF	2	Boxes 2 and 1	23°C	23°C	23°C
EDSFF	2	Boxes 1 and 3	20°C	23°C	23°C
EDSFF	2	Boxes 2 and 3	18°C	23°C	23°C

Processor TDP: Above 270W and up to 350W – Air Cooling					
Front Drive Cage Type	Front Drive Cages Quantity	Front Drive Cage Location(s)	Slot 2	Slot 5	Slot 7
SFF	1	Box 3	18°C	25°C	18°C
SFF	1	Box 2	20°C	23°C	20°C
SFF	1	Box 1	20°C	27°C	23°C
SFF	2	Boxes 3 and 2	X	23°C	18°C
SFF	2	Boxes 2 and 1	18°C	23°C	X
SFF	2	Boxes 3 and 1	X	23°C	X
EDSFF	1	Box 2	20°C	23°C	20°C
EDSFF	1	Box 1	20°C	27°C	23°C
EDSFF	1	Box 3	X	23°C	18°C
EDSFF	2	Boxes 2 and 1	18°C	23°C	X
EDSFF	2	Boxes 1 and 3	X	23°C	X
EDSFF	2	Boxes 2 and 3	X	23°C	18°C

Processor TDP: Above 225W and up to 270W – Air Cooling					
Front Drive Cage Type	Front Drive Cages Quantity	Front Drive Cage Location(s)	Slot 2	Slot 5	Slot 7
SFF	1	Box 3	18°C	25°C	20°C
SFF	1	Box 2	20°C	23°C	23°C
SFF	1	Box 1	23°C	27°C	23°C
SFF	2	Boxes 3 and 2	X	23°C	18°C
SFF	2	Boxes 2 and 1	18°C	23°C	18°C
SFF	2	Boxes 3 and 1	X	23°C	18°C
EDSFF	1	Box 2	20°C	23°C	23°C
EDSFF	1	Box 1	23°C	27°C	23°C
EDSFF	1	Box 3	X	23°C	18°C
EDSFF	2	Boxes 2 and 1	18°C	23°C	18°C
EDSFF	2	Boxes 1 and 3	X	23°C	18°C
EDSFF	2	Boxes 2 and 3	X	23°C	18°C

Processor TDP: Up to 225W – Air Cooling					
Front Drive Cage Type	Front Drive Cages Quantity	Front Drive Cage Location(s)	Slot 2	Slot 5	Slot 7
SFF	1	Box 3	20°C	25°C	20°C
SFF	1	Box 2	23°C	23°C	23°C
SFF	1	Box 1	23°C	27°C	23°C
SFF	2	Boxes 3 and 2	X	23°C	20°C
SFF	2	Boxes 2 and 1	20°C	23°C	18°C
SFF	2	Boxes 3 and 1	18°C	23°C	18°C
EDSFF	1	Box 2	23°C	23°C	23°C
EDSFF	1	Box 1	23°C	27°C	23°C
EDSFF	1	Box 3	X	23°C	20°C
EDSFF	2	Boxes 2 and 1	20°C	23°C	18°C
EDSFF	2	Boxes 1 and 3	18°C	23°C	18°C
EDSFF	2	Boxes 2 and 3	X	23°C	20°C

Notes:

- Values shown are the maximum supported server ambient temperatures in °C for the applicable GPU configuration.
- X = Not supported.
- Configurations with three SFF or EDSFF front drive cages, and all LFF configurations (8LFF CTO and 12LFF CTO), are not supported with these GPUs.
- The Universal Media Bay (UMB) and Multipurpose Drive Cage are not included in the front drive cage count because they have less impact on airflow.
- For mixed front drive cage configurations, such as SFF plus EDSFF, use the EDSFF rule with the combined front drive cage quantity.

Thermal Matrix: NVIDIA L40S (S2L70C), 350W GPUs

This matrix applies to configurations without the HPE ProLiant Compute DL380 Gen12 Cooling Upgrade Enablement Kit (P81130-B21).

Notes:

- Select the table that matches the processor TDP and cooling solution. Then locate the applicable front drive cage type, quantity, and location, followed by the GPU installation slot. The value shown is the maximum supported server ambient temperature for that GPU configuration.
- After determining the value from this matrix, compare it with the limits from all other applicable Thermal Support Matrices and configuration rules. When multiple components or configuration rules have thermal restrictions, the lowest applicable maximum server ambient temperature determines the supported operating temperature of the complete server configuration.

Processor TDP: Up to 350W – Direct Liquid Cooling (DLC)					
Front Drive Cage Type	Front Drive Cages Quantity	Front Drive Cage Location(s)	Slot 2	Slot 5	Slot 7
SFF	1	Box 3	30°C	30°C	30°C
SFF	1	Box 2	30°C	30°C	30°C
SFF	1	Box 1	30°C	30°C	30°C
SFF	2	Boxes 3 and 2	30°C	30°C	30°C
SFF	2	Boxes 2 and 1	30°C	30°C	30°C
SFF	2	Boxes 3 and 1	30°C	30°C	30°C
EDSFF	1	Box 2	30°C	30°C	30°C
EDSFF	1	Box 1	30°C	30°C	30°C
EDSFF	1	Box 3	30°C	30°C	30°C
EDSFF	2	Boxes 2 and 1	30°C	30°C	30°C
EDSFF	2	Boxes 1 and 3	30°C	30°C	30°C
EDSFF	2	Boxes 2 and 3	30°C	30°C	30°C

Processor TDP: Above 270W and up to 350W – Air Cooling					
Front Drive Cage Type	Front Drive Cages Quantity	Front Drive Cage Location(s)	Slot 2	Slot 5	Slot 7
SFF	1	Box 3	30°C	30°C	30°C
SFF	1	Box 2	30°C	30°C	30°C
SFF	1	Box 1	30°C	30°C	30°C
SFF	2	Boxes 3 and 2	23°C	30°C	30°C
SFF	2	Boxes 2 and 1	30°C	30°C	30°C
SFF	2	Boxes 3 and 1	25°C	30°C	30°C
EDSFF	1	Box 2	30°C	30°C	30°C
EDSFF	1	Box 1	30°C	30°C	30°C
EDSFF	1	Box 3	30°C	30°C	30°C
EDSFF	2	Boxes 2 and 1	27°C	30°C	27°C
EDSFF	2	Boxes 1 and 3	25°C	30°C	30°C
EDSFF	2	Boxes 2 and 3	23°C	30°C	30°C

Processor TDP: Above 225W and up to 270W – Air Cooling					
Front Drive Cage Type	Front Drive Cages Quantity	Front Drive Cage Location(s)	Slot 2	Slot 5	Slot 7
SFF	1	Box 3	30°C	30°C	30°C
SFF	1	Box 2	30°C	30°C	30°C
SFF	1	Box 1	30°C	30°C	30°C
SFF	2	Boxes 3 and 2	25°C	30°C	30°C
SFF	2	Boxes 2 and 1	30°C	30°C	30°C
SFF	2	Boxes 3 and 1	27°C	30°C	30°C
EDSFF	1	Box 2	30°C	30°C	30°C
EDSFF	1	Box 1	30°C	30°C	30°C
EDSFF	1	Box 3	30°C	30°C	30°C
EDSFF	2	Boxes 2 and 1	30°C	30°C	30°C
EDSFF	2	Boxes 1 and 3	27°C	30°C	30°C
EDSFF	2	Boxes 2 and 3	25°C	30°C	30°C

Processor TDP: Up to 225W – Air Cooling					
Front Drive Cage Type	Front Drive Cages Quantity	Front Drive Cage Location(s)	Slot 2	Slot 5	Slot 7
SFF	1	Box 3	30°C	30°C	30°C
SFF	1	Box 2	30°C	30°C	30°C
SFF	1	Box 1	30°C	30°C	30°C
SFF	2	Boxes 3 and 2	27°C	30°C	30°C
SFF	2	Boxes 2 and 1	30°C	30°C	30°C
SFF	2	Boxes 3 and 1	30°C	30°C	30°C
EDSFF	1	Box 2	30°C	30°C	30°C
EDSFF	1	Box 1	30°C	30°C	30°C
EDSFF	1	Box 3	30°C	30°C	30°C
EDSFF	2	Boxes 2 and 1	30°C	30°C	30°C
EDSFF	2	Boxes 1 and 3	30°C	30°C	30°C
EDSFF	2	Boxes 2 and 3	27°C	30°C	30°C

Notes:

- Values shown are the maximum supported server ambient temperatures in °C for the applicable GPU configuration.
- X = Not supported.
- Configurations with three SFF or EDSFF front drive cages, and all LFF configurations, require additional cooling enablement and are not included in this matrix.
- The Universal Media Bay (UMB) and Multipurpose Drive Cage are not included in the front drive cage count because they have less impact on airflow.
- For mixed front drive cage configurations, such as SFF plus EDSFF, use the EDSFF rule with the combined front drive cage quantity.

Thermal Matrix: NVIDIA RTX PRO 4500 Blackwell Server Edition 32GB PCIe Accelerator for HPE (S6W30C)

Notes:

- Select the table that matches the processor TDP and cooling solution. Then locate the applicable front drive cage type, quantity, and location, followed by the GPU installation slot. The value shown is the maximum supported server ambient temperature for that GPU configuration.
- After determining the value from this matrix, compare it with the limits from all other applicable Thermal Support Matrices and configuration rules. When multiple components or configuration rules have thermal restrictions, the lowest applicable maximum server ambient temperature determines the supported operating temperature of the complete server configuration.

Processor TDP: Up to 350W – Direct Liquid Cooling (DLC)								
Front Drive Cage Type	Front Drive Cages Quantity	Front Drive Cage Location(s)	Slot 1	Slot 2	Slot 4	Slot 5	Slot 7	Slot 8
SFF	1	Any box	30°C	30°C	30°C	30°C	30°C	30°C
SFF	2	Any two boxes	30°C	30°C	30°C	30°C	30°C	30°C
SFF	3	All	25°C	25°C	27°C	30°C	30°C	30°C
EDSFF	1	Any box	30°C	30°C	30°C	30°C	30°C	30°C
EDSFF	2	Any two boxes	30°C	30°C	30°C	30°C	30°C	30°C
EDSFF	3	All	23°C	23°C	25°C	30°C	30°C	27°C
LFF	2 (8LFF CTO)	All	25°C	23°C	30°C	30°C	30°C	27°C
LFF	3 (12LFF CTO)	All	23°C	20°C	23°C	27°C	27°C	23°C

Processor TDP: Above 270W and up to 350W – Air Cooling								
Front Drive Cage Type	Front Drive Cages Quantity	Front Drive Cage Location(s)	Slot 1	Slot 2	Slot 4	Slot 5	Slot 7	Slot 8
SFF	1	Any box	30°C	30°C	30°C	30°C	30°C	30°C
SFF	2	Boxes 3 and 2	25°C	25°C	30°C	30°C	30°C	30°C
SFF	2	Boxes 2 and 1	30°C	30°C	30°C	30°C	30°C	30°C
SFF	2	Boxes 3 and 1	27°C	27°C	30°C	30°C	30°C	30°C
SFF	3	All	18°C	20°C	25°C	30°C	27°C	23°C
EDSFF	1	Any box	30°C	30°C	30°C	30°C	30°C	30°C
EDSFF	2	Boxes 3 and 2	23°C	23°C	30°C	30°C	30°C	30°C
EDSFF	2	Boxes 2 and 1	30°C	30°C	30°C	30°C	30°C	27°C
EDSFF	2	Boxes 3 and 1	27°C	27°C	30°C	30°C	30°C	30°C
EDSFF	3	All	X	18°C	23°C	27°C	25°C	20°C
LFF	2 (8LFF CTO)	All	18°C	18°C	27°C	30°C	27°C	23°C
LFF	3 (12LFF CTO)	All	X	X	23°C	25°C	23°C	X

Processor TDP: Above 225W and up to 270W – Air Cooling								
Front Drive Cage Type	Front Drive Cages Quantity	Front Drive Cage Location(s)	Slot 1	Slot 2	Slot 4	Slot 5	Slot 7	Slot 8
SFF	1	Any box	30°C	30°C	30°C	30°C	30°C	30°C
SFF	2	Boxes 3 and 2	27°C	27°C	30°C	30°C	30°C	30°C
SFF	2	Boxes 2 and 1 or Boxes 3 and 1	30°C	30°C	30°C	30°C	30°C	30°C
SFF	3	All	20°C	20°C	25°C	30°C	30°C	23°C
EDSFF	1	Any box	30°C	30°C	30°C	30°C	30°C	30°C
EDSFF	2	Boxes 3 and 2	25°C	25°C	30°C	30°C	30°C	30°C
EDSFF	2	Boxes 2 and 1	30°C	30°C	30°C	30°C	30°C	27°C
EDSFF	2	Boxes 3 and 1	27°C	27°C	30°C	30°C	30°C	30°C
EDSFF	3	All	18°C	18°C	23°C	27°C	27°C	23°C
LFF	2 (8LFF CTO)	All	20°C	18°C	27°C	30°C	30°C	23°C
LFF	3 (12LFF CTO)	All	18°C	X	23°C	25°C	23°C	18°C

Processor TDP: Up to 225W – Air Cooling								
Front Drive Cage Type	Front Drive Cages Quantity	Front Drive Cage Location(s)	Slot 1	Slot 2	Slot 4	Slot 5	Slot 7	Slot 8
SFF	1	Any box	30°C	30°C	30°C	30°C	30°C	30°C
SFF	2	Boxes 3 and 2	27°C	27°C	30°C	30°C	30°C	30°C
SFF	2	Boxes 2 and 1 or Boxes 3 and 1	30°C	30°C	30°C	30°C	30°C	30°C
SFF	3	All	23°C	23°C	25°C	30°C	30°C	25°C
EDSFF	1	Any box	30°C	30°C	30°C	30°C	30°C	30°C
EDSFF	2	Boxes 3 and 2	25°C	25°C	30°C	30°C	30°C	30°C
EDSFF	2	Boxes 2 and 1 or Boxes 3 and 1	30°C	30°C	30°C	30°C	30°C	30°C
EDSFF	3	All	20°C	20°C	23°C	27°C	30°C	23°C
LFF	2 (8LFF CTO)	All	23°C	20°C	27°C	30°C	30°C	23°C
LFF	3 (12LFF CTO)	All	20°C	18°C	23°C	25°C	23°C	20°C

Notes:

- Values shown are the maximum supported server ambient temperatures in °C for the applicable GPU configuration.
- X = Not supported.
- The Universal Media Bay (UMB) and Multipurpose Drive Cage are not included in the front drive cage count because they have less impact on airflow.
- For mixed front drive cage configurations, such as SFF plus EDSFF, use the EDSFF rule with the combined front drive cage quantity.

Thermal Matrix: NVIDIA L4 24GB PCIe Accelerator for HPE (S0K89C)			
Processor TDP: Up to 350W – Direct Liquid Cooling (DLC)			
Front Drive Configuration	**Maximum GPU Quantity**	**Supported PCIe Slots**	**Maximum Supported Ambient Temperature**
2 front drive cages or 8LFF CTO	8	Slots 1–8	30°C
3 front drive cages or 12LFF CTO	6	Slots 1, 4, 5, 6, 7, and 8	30°C
3 front drive cages or 12LFF CTO	8	Slots 1–8	25°C

Processor TDP: Up to 350W – Air Cooling			
Front Drive Configuration	**Maximum GPU Quantity**	**Supported PCIe Slots**	**Maximum Supported Ambient Temperature**
1 front drive cage	8	Slots 1–8	30°C
2 front drive cages or 8LFF CTO	6	Slots 1, 4, 5, 6, 7, and 8	30°C
2 front drive cages or 8LFF CTO	8	Slots 1–8	25°C
3 front drive cages or 12LFF CTO	6	Slots 1, 4, 5, 6, 7, and 8	25°C

Thermal Matrix: NVIDIA RTX A1000 8GB PCIe Accelerator for HPE (S5T74C)			
Processor TDP Range	**Processor Cooling Solution**	**Applicable Front Drive Configuration**	**Maximum Supported Ambient Temperature**
Up to 350W	Any	1–3 SFF cages; 1–3 EDSFF cages; or 8LFF or 12LFF CTO	30°C, all slots

System Unit

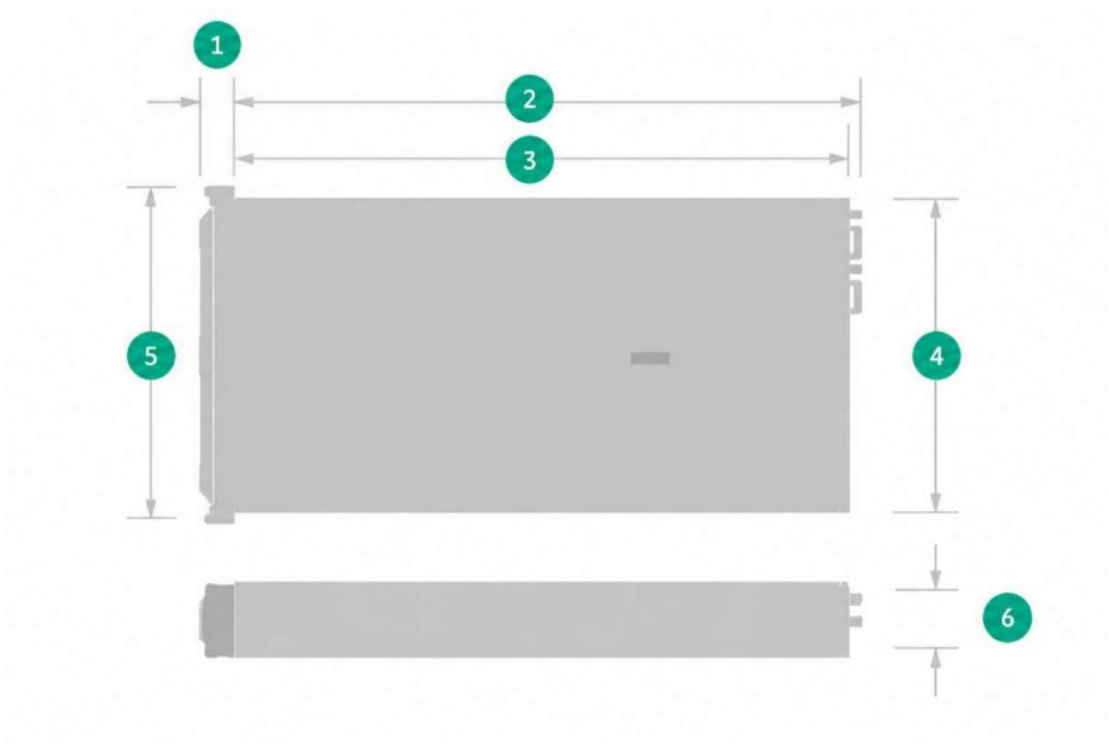
Dimensions (height x width x depth)

- **SFF/EDSFF CTO servers:**
  8.75 x 44.80 x 72.70 cm / 3.44 x 17.64 x 28.62 in.
- **LFF CTO servers:**
  8.75 x 44.80 x 73.25 cm / 3.44 x 17.64 x 28.84 in.

Notes: The depth is measured from the back of the front ear to rear IO wall surface, does not include PSUs.

Weight (approximate)

- **SFF**
  - **Maximum:** 33 kg / 72.75 lbs.
  - **Minimum:** 18 kg / 39.68 lbs.
- **LFF**
  - **Maximum:** 37 kg / 81.57 lbs.
  - **Minimum:** 23 kg / 50.70 lbs.



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: https://www.hpe.com/support/ASHRAEGen12
- 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: https://www.hpe.com/support/ASHRAEGen12
- 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). The maximum rate of change is 20°C/hr. (36°F/hr.).

Relative Humidity (non-condensing)

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

Altitude

- **Operating**
  3050 m (10,000 ft.). This value may be limited by the type and number of options installed. The 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).

Acoustic Noise

Listed are the declared mean A-Weighted sound power levels (LWA,m), 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± 2°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.

Acoustic Noise	
Idle	
LwA,m	4.2 B Entry – SFF 4.7 B Medium - SFF 5.7 B Performance – SFF 5.6 B Base - EDSFF 5.9 B Dense - LFF
LpAm	28 dBA Entry – SFF 32 dBA Medium - SFF 44 dBA Performance – SFF 45 dBA Base - EDSFF 48 dBA Dense - LFF
Kv	0.4 B Entry – SFF 0.4 B Medium - SFF 0.4 B Performance – SFF 0.4 B Base - EDSFF 0.4 B Dense - LFF
Operating	
LWA,m	4.2 B Entry – SFF 5.5 B Medium - SFF 5.7 B Performance – SFF 5.6 B Base - EDSFF 6.0 B Dense - LFF
LpAm	28 dBA Entry – SFF 41 dBA Medium - SFF 44 dBA Performance – SFF 45 dBA Base - EDSFF 49 dBA Dense - LFF
Kv	0.4 B Entry – SFF 0.4 B Medium - SFF 0.4 B Performance – SFF 0.4 B Base - EDSFF 0.4 B Dense - LFF

Notes:

- All measurements were made to conform to ISO 7779 / ECMA-74 and declared to conform to ISO 9296 / ECMA-109. Operating mode is represented by 50% of CPU and GPU TDP.
- The results in this declaration apply only to the specific configuration listed below 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.
  - Entry – SFF Configuration: 1x Intel® GNR-SP 6507P CPU, 2x SAS 10K SFF BC HDD, 1x 32GB DIMM, 1x 800W PSU, 4x STD fan, 1x 1Gb 4p BASE-T OCP Adapter, 1x MR416i-p PCIe.
  - Medium – SFF Configuration: 2x Intel® GNR-SP 6517P CPU, 8x SAS 10K SFF BC HDD, 2x 32GB DIMM, 2x 800W PSU, 6x STD fan, 2x 1Gb 4p BASE-T OCP Adapter, 1x MR416i-p PCIe.
  - Performance – SFF Configuration: 2x Intel® Xeon® 6530P CPU, 8x NVMe PCIe SSD U.3, 8x 32GB DIMM, 2x 800W PSU, 6x Perf fan, 2x 10/25GbE 2p SFP28 OCP3 Adapter, 1x MR416i-p PCIe, 1x Gen12 Hot Plug Boot Opt. Dev.
  - Base – EDSFF Configuration: 2x Intel® Xeon® 6530P CPU, 8x PCIe ED SSD E3.S, 8x 64GB DIMM, 2x 800W PSU, 6x Perf fan, 1x 10/25GbE 2p SFP28 OCP3 Adapter, 1x Gen12 Hot Plug Boot Opt. Dev.
  - Dense - LFF Configuration: 2x Intel® Xeon® 6730P CPU, 12x SAS 7.2K SFF BC HDD, 8x 32GB DIMM, 2x 800W PSU, 6x Perf fan, 1x 1Gb 4p BASE-T OCP Adapter, 1x MR216i-p PCIe.
- 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, LpAm, 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.
- B, dB, abbreviations for bels and decibels, respectively, where 1 B = 10 dB.
- Systems under abnormal conditions may increase the noise level, people in the vicinity of the product [cabinet] for extended periods of time should consider wearing hearing protection or using other means to reduce noise exposure.

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: https://www.hpe.com/support/Safety-Compliance-EnterpriseProducts

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

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

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

Summary of Changes

Date	Version History	Action	Description of Change
02-Nov-2026	Version 21	Changed	Configuration Information and Core Options sections were updated.
			Registered DIMMs DDR5 (RDIMMs) Read Intensive – NVMe – EDSFF – Solid State Drives Mixed Use – NVMe – EDSFF – Solid State Drives 10/25 Gigabit Ethernet adapters 100 Gigabit Ethernet Adapters Thermal Matrix: NVIDIA L40S (S2L70C), 350W GPUs
05-Oct-2026	Version 20	Changed	Service and Support, Configuration Information and Core Options sections were updated.
		Added	Direct Liquid Cooling rules. Very Read Optimized – NVMe – EDSFF – Solid State Drives Read Intensive – NVMe – EDSFF – Solid State Drives Mixed Use – NVMe – EDSFF – Solid State Drives Read Intensive – NVMe – SFF – Solid State Drives Mixed Use – NVMe – SFF – Solid State Drives HPE Bluefield Data Processing Unit (DPU) Emulex Fibre Channel HBAs QLogic Fibre Channel HBAs
		Removed	Obsolete SKUs: Read Intensive – NVMe – EDSFF – Solid State Drives Read Intensive – NVMe – SFF – Solid State Drives
08-Sep-2026	Version 19	Changed	Overview, Configuration Information and Core Options sections were updated.
		Added	Intel Xeon 6503P Processor, NVIDIA BlueField Data Processing Units, and NVIDIA RTX PRO 4500 rules.
03-Aug-2026	Version 18	Changed	Configuration Information and Core Options sections were updated.
		Added	Ambient temperature SKUs, boot controller rules, Complex Configuration
		Removed	Obsolete SKUs: Business Critical – 12G SAS – LFF Drives Read Intensive – 6G SATA – SFF – Solid State Drives Read Intensive – NVMe – SFF – Solid State Drives
06-Jul-2026	Version 17	Changed	Overview, Core Options
		Added	OCP 3.0 enablement rules, Mixed Use - NVMe – EDSFF E3.S 1T, Read Intensive – NVMe - EDSFF E3.S 1T,
		Removed	Obsolete SKUs. Read Intensive – SAS – SFF – Solid State Drives Mixed Use –SAS – SFF – Solid State Drives
01-Jun-2026	Version 16	Changed	Core Options section was updated.
		Added	Read Intensive – NVMe – EDSFF – Solid State Drives Mixed Use – NVMe – EDSFF – Solid State Drives Read Intensive – NVMe – SFF – Solid State Drives Mixed Use – NVMe – SFF – Solid State Drives

Summary of Changes

Date	Version History	Action	Description of Change
04-May-2026	Version 15	Changed	Overview and Core Options sections were updated.
		Added	AMD Solarflare X4522-PLUS 10/25GbE 2-port SFP56 Adapter for HPE, HPE InfiniBand NDR/Ethernet 400Gb 1-port OSFP PCIe5 x16, MCX75310AAS-NEAT Generic Adapter, Read Intensive – NVMe – EDSFF – Solid State Drives, and Mixed Use – NVMe – EDSFF – Solid State Drives
		Removed	Read Intensive – SFF – Solid State Drives obsolete SKU.
06-Apr-2026	Version 14	Changed	Overview, Standard Features, Configuration Information and Additional Options sections were updated.
		Added	Welcoming text, SAP Solution Configuration, Registered DIMMs DDR5 (RDIMMs), Intel® Xeon 6® Processors with Performance-Cores (P-Cores), HPE InfiniBand & Ethernet, Mixed Use – NVMe – EDSFF – Solid State Drives, Mixed Use –SAS – SFF – Solid State Drives, Read Intensive – NVMe – SFF – Solid State Drives, and Full Height Full Length / Low Profile / Double Wide GPUs.
02-Mar-2026	Version 13	Changed	Service and Support and Additional Options sections were updated.
		Added	Updated GreenLake statement. Intel® Xeon 6® Processors with Performance-Cores (P-Cores) and Half Height Half Length / Single Wide Graphic Options (GPU) SKUs.
02-Feb-2026	Version 12	Changed	Standard Features, Configuration Information and Additional Options sections were updated.
		Added	Storage Controller, Cable Kit, HPE InfiniBand, Midline – 12G SAS – LFF Drives, and Midline – 6G SATA – LFF Drives SKUs.
		Removed	HPE InfiniBand obsolete SKU.
05-Jan-2026	Version 11	Changed	Additional Options section was updated.
		Added	Intel® Xeon 6® Processors with Performance-Cores (P-Cores)
		Removed	Read Intensive – NVMe – EDSFF – Solid State Drives
01-Dec-2025	Version 10	Changed	Standard Features and Additional Options sections were updated.
		Added	Intel® Xeon 6® Processors with Performance-Cores (P-Cores) matrix, Cable Kits, Read Intensive – 24G SAS – SFF – Solid State Drives, Mixed Use –SAS – SFF – Solid State Drives, and Graphic Options (GPU) SKUs.
		Removed	Read Intensive – NVMe – SFF – Solid State Drives obsolete SKU.

Summary of Changes

Date	Version History	Action	Description of Change
03-Nov-2025	Version 9	Changed	Configuration Information, Core Options, and Additional Options sections were updated.
		Added	Riser Cards and Storage Controller SKUs, Factory Configuration/NVMe Enablement Settings, Midline – 12G SAS – LFF Drives SKUs, Midline – 6G SATA – LFF Drives SKUs, Read Intensive – NVMe – SFF – Solid State Drives SKUs, and GPU Half Height Half Length / Single Wide SKU.
		Removed	OBS items: InfiniBand and Mixed Use – 12G SAS – LFF –Solid State Drives SKUs.
02-Sep-2025	Version 8	Changed	Standard Features and Additional Options sections were updated.
		Added	OCP Expansion Slots, 10 Gigabit Ethernet Adapters, HPE InfiniBand, and GPU Cooling Upgrade SKUs.
04-Aug-2025	Version 7	Changed	Additional Options and Technical Specifications sections were updated.
		Added:	Cable Kits SKUs, Acoustic Noise rules.
		Removed:	HPE Insight Cluster Management Utility sub-section.
07-Jul-2025	Version 6	Changed	Additional Options section was updated. Added: Intel® Xeon 6® Processors with Performance-Cores (P-Cores) SKUs and Boot Controller SKUs.
02-Jun-2025	Version 5	Changed	Standard Features and Additional Options sections were updated. Added: Scalable Processors SKUs, RDIMMs SKUs and SSDs SKUs.
05-May-2025	Version 4	Changed	Standard Features and Additional Options sections were updated. Added: Intelligent Provisioning URL, Factory Configuration/NVMe Enablement Settings SKUs, Software as a Service Management Enablement SKU (COM) and European Union ErP Lot 9 Regulation section to include Turkey and Ireland.
07-Apr-2025	Version 3	Changed	Core Options and Additional Options sections were updated. Added: Factory Configuration/NVMe Enablement Settings verbiage, Read Intensive – NVMe – EDSFF – Solid State Drives SKU, GPU Notes and QuickSpecs Survey.
17-Mar-2025	Version 2	Changed	Overview and Core Options sections were updated. (Added: 8LFF CTO Server Photography. Datacenter Inlet Ambient Temperature SKUs for Smart Chassis).
24-Feb-2025	Version 1	New	New QuickSpecs

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