Overview

# **HPE ProLiant Compute DL380 Gen12**

The HPE ProLiant Compute DL380 Gen12 is a robust and versatile server designed to handle demanding workloads in today's dynamic IT environments. Known for its exceptional performance, the DL380 is a 2U rack server that supports up to two Intel® Xeon® 6 processors, each with up to 144 cores per socket. It features a memory capacity of up to 8 TB, as well as high-speed PCIe Gen5 and flexible I/O for accelerator options such as GPUs. Its 2U form factor provides a balance of density and expandability, offering ample room for future growth with support for a wide range of storage options.

Built with a focus on reliability, security, and ease of management, the HPE ProLiant Compute DL380 Gen12 comes equipped with advanced features such as silicon root of trust technology to safeguard your critical data against cyber threats. It offers a comprehensive suite of management tools, including HPE Compute Ops Management and HPE iLO 7, which provide remote management capabilities, enabling IT administrators to manage and troubleshoot the server from anywhere, thereby reducing downtime and operational costs.

Whether you are a small business looking to scale or a large enterprise managing complex workloads in the data center, the HPE ProLiant Compute DL380 Gen12 delivers unparalleled performance, flexibility, and resilience to support your business-critical applications and drive your IT initiatives forward.



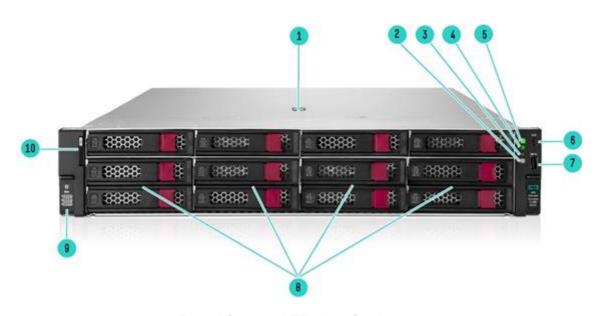
Front View - 8SFF chassis with optional multi-purpose cage

- 1. Box 1 (shown empty; Optional Universal Media Bay)
- 2. Box 2 (shown with the optional multi-purpose cage) 1
- Optional 4 EDSFF drives (shown in multi-purpose cage in 11. Box 2) 1
- 4. Optional front NS204i-u (shown in multipurpose cage in Box2) <sup>1</sup>
- 5. Quick removal access panel
- 6. Optional front OCP Slots (shown in multi-purpose cage in 14. Box 2)
- 7. Unit identification button / LED
- 8. NIC status<sup>2</sup>

- 9. Health LED
- 10. Power on / standby button / LED
  - USB-C iLO service port
- 12. USB 3.2 Gen1 Port
- 13. Box 3 (shown with 8SFF drives populated)
  - Drive support label
- 15 Serial number label pull tab

### Overview

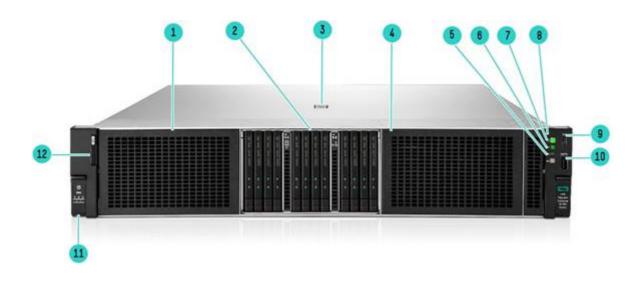
- <sup>1</sup> Post launch support
- <sup>2</sup> Front NIC LED display doesn't support NIC LED ACT/LINK indication from PCIE NIC's



Front View - 12LFF chassis shown

- 1. Quick removal access panel
- 2. Unit identification button / LED
- 3. NIC status
- 4. Health LED
- 5. Power on / standby button / LED

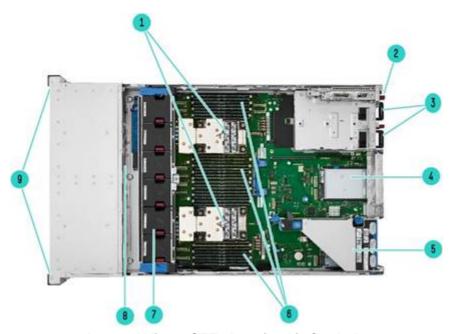
- 6. USB-C iLO service port
- 7. USB 3.2 Gen1 port
- 8. 12 x LFF Drives
- 9. Drive support label
- 10. Serial number label pull tab



### Overview

### Front View -12EDSFF chassis shown

1 Box-1 (shown empty) 7 Health LED 2 Box-2 (shown with 12 EDSFF drives) 8 Power on / standby button / LED 3 Quick removal access panel 9 USB-C iLO service port USB 3.2 Gen1 port 4 Box-3 (shown empty) 10 Drive support label 5 Unit identification button / LED 11 6 NIC status 12 Serial number label pull tab

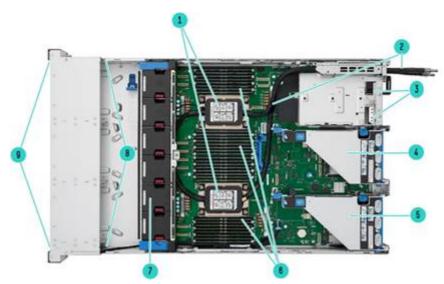


Internal View 8SFF chassis- Air Cooled

- 1. Processors, heatsinks (shown)
- 2. Optional NS204i-u Boot Device
- 3. Hot Plug redundant HPE Flexible Slot Power Supplies
- 4. Secondary Riser (Optional-not shown, Requires second processor)
- 5. Primary Riser

- DIMM slots, shown fully populated in 32 slots<sup>1</sup>
- 7. Hot Plug Fans
- 8. Drive Backplanes
- 9. Drive Cages

## **Overview**



Internal View 12LFF Chassis - Direct Liquid Cooling

7.

8.

Hot Plug Fans

**Drive Backplanes** 

- 1. Processors, heatsinks (shown)
- 2. Direct Liquid Cooling tubes (NS204i-u version)
- 3. Hot Plug redundant HPE Flexible Slot Power Supplies
- 4. Secondary Riser (Optional-shown, Requires second 9. Drive Cages processor)
- 5. Primary Riser



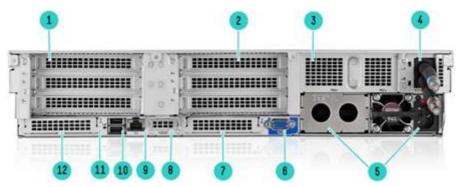
DIMM slots, shown fully populated in 32 slots

Rear View - DL380 Gen12 Air Cooled

- 1. Primary Riser (Default PCle 5.0 Slots 1, 2 & 3)
- 2. Secondary Riser (Optional PCIe 5.0 Slots 4, 5 & 6)
- 3.. Tertiary riser (slots 7 & 8) or optional 2SFF drive cage
- 4. NS204i-u Boot Device (Optional)
- 5. Power Supply 1 & 2
- 6. VGA Connector

- 7. OCP 3.0 Slot-B (shown covered)
- 8. Serial Port (Optional)
- 9. Dedicated iLO Management Port
- 10 USB 3.2 Gen1 Connectors (2)
- 11. UID Indicator LED
- 12. OCP 3.0 Slot-A (shown covered)

### Overview



### Rear View - DL380 Gen12 Direct Liquid Cooling

- 1. Primary Riser (Default PCle 5.0 Slots 1, 2 & 3)
- 2. Secondary Riser (Optional PCIe 5.0 Slots 4, 5 & 6)
- 3.. Tertiary riser (slots 7 & 8) or optional 2SFF drive cage
- 4. DLC Tubes (NS204i-u position)
- 5. Power Supply 1 (Blank shown for Power Supply 2)
- 6. VGA Connector

- 7. OCP 3.0 Slot-B (shown covered)
- 8. Serial Port (Optional)
- 9. Dedicated iLO Management Port
- 10 USB 3.2 Gen1 Connectors (2)
- 11. UID Indicator LED
- 12. OCP 3.0 Slot-B (shown covered)

### What's New

- Intel® Xeon® 6 Processors.
- Up to two front OCP NIC (post launch support).
- NS204i-u front install option.
- EDSFF drives in 8SFF CTO Server.
- DDR5 with 6400 MT/s memory at 1DPC.
- GPU performance Kit for improved thermals (post launch support).

### **Platform Information**

#### Form Factor

• 2U rack

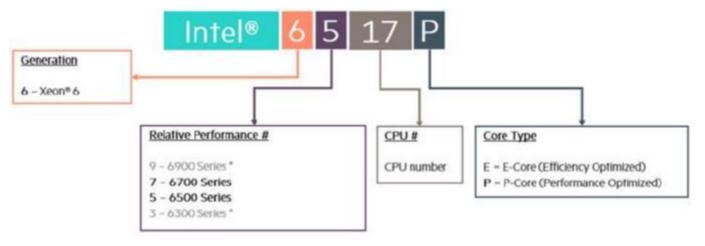
### **Chassis Types**

- 8SFF CTO Server with up to 24SFF front, Universal Media Bay (P74749-B21), multi-purpose cage, and up to 6SFF rear drive bay options.
- 24SFF CTO Server with 24SFF front, up to 6SFF rear drive bay options.
- 8LFF CTO Server with 8LFF, 2SFF front, 4LFF Mid, up to 4LFF and 2SFF rear drive bay options.
- 12LFF CTO Server with 12LFF front, 4LFF Mid, 4LFF and 2SFF rear drives.
- 12EDSFF CTO Server with 36 EDSFF front or 12EDSFF with 16SFF in front and up to 2SFF rear drive bay.

- -The 8SFF CTO Server can be upgraded to support up to 24SFF (front) with a variety of 8SFF Drive Cages to select from, including 8SFF U.3 x4/x2 Trimode, 8SFF U.3 (x1 Trimode), and 8SFF SAS/SATA. See "Drive Cages" section within this document for options.
- -The 8LFF chassis cannot be upgraded to 12LFF front in the field.

### **Standard Features**

### **Processors**



Intel® Xeon® 6 processor naming convention

For more information regarding Intel Xeon processors, please see the following https://www.intel.com/xeon.

The HPE ProLiant Compute DL380 Gen12 server supports Intel® Xeon® 6 Efficient Core (E-Core) and Performacne-Core (P-Core) processors. The below processors are (publically) 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	Cores	L3	Power	UPI	DDR5	SGX	Die
	Speed,		Cache	(W)		(MT/s)	Enclave size (GB)	
	(GHz)		(MB)					
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
Performance Processo	rs							
6780E	2.2	144	308	330	4	6400	512	HDCC
Intel	® Xeon 6® F	Processo	ors with Pe	rformanc	e-Cor	es (P-Core	s)	
Performance General I						<u> </u>	_	
Intel® Xeon® Models	Base	Cores	L3	Power	UPI	DDR5	SGX	Die**
	Speed, (GHz)		Cache (MB)	(W)		(MT/s)*	Enclave size (GB)	
6507P	3.5	8	48	150	4	6400	512	LCC
6517P	3.2	16	72	190	4	6400	512	LCC
6527P	3.0	24	144	255	4	6400	512	HCC

<sup>\*</sup> CPU Series not support on HPE ProLiant Compute Gen12 platforms.

## **Standard Features**

6730P	2.5	32	288	250	4	6400	512	XCC
6736P	2.0	36	144	205	4	6400	512	HCC
6737P	2.9	32	144	270	4	6400	512	HCC
6747P	2.7	48	288	330	4	6400	512	XCC
6767P	2.4	64	336	350	4	6400	512	XCC
6787P	2.0	86	336	350	4	6400	512	XCC
Mainline Processors								
Intel® Xeon® Models	Base	Cores	L3	Power	UPI	DDR5	SGX	Die**
	Speed,		Cache				Enclave	
	-			(W)		(MT/s)*	size (GB)	
	(GHz)		(MB)				0.20 (02)	
6505P	2.2	12	48	150	4	6400	128	LCC
6515P	2.4	16	72	150	4	6400	128	LCC
6520P	2.4	24	144	210	4	6400	128	HCC
6730P	2.3	32	144	225	4	6400	128	HCC
C740D						1	1	1,400
6740P	2.1	48	288	270	4	6400	128	XCC

#### **Notes:**

- -\*Intel® Xeon 6® Processors support DDR5 support maximum memory speed of 6400 MT/s @ 1 DIMMs per channel (DPC) and 5200 MT/S @ 2DPC.
- -\*\*Intel® HCC & LCC die processors have delayed availability.

## **ILO**

HPE iLO 7 memory

Read and learn more in the iLO QuickSpecs.

# **Memory**

Туре	HPE DDR5 Smart Memory,
	Registered (RDIMM)
DIMM Slots	32 DIMM Slots, 16 per processor, 8 channels per processor, 2 DIMMs per channel
Available	
Maximum capacity	8.0 TB
	32 x 256 GB RDIMM 6400 MT/s @ 1DPC and 5200MT/s @ 2DPC

- -The maximum memory speed is limited by the processor selection.
- -To realize the performance memory capabilities listed in this document, HPE DDR5 Smart Memory is required.

### **Standard Features**

-For additional information, please 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 and all multibit errors that occur within a single DRAM chip.

### Adaptive Double DRAM Device Correction (ADDDC)

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

### Mirroring

Memory Mirroring enables full memory redundancy.

Notes: For additional information, please visit the HPE Memory QuickSpecs and Technical White Papers.

#### **Network Controller**

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

# **PCIe Expansion Slots**

#### Notes:

- -Bus width indicates the number of physical electrical lanes running to the connector.
- -x16 cards installed on x8 slots could observe sub-optimal performance.
- -If Secondary OR Tertiary Riser is selected, then Second Processor must be selected.
- -Tertiary Riser and Secondary 3 x16 Riser cannot be selected together.

#### **Primary Riser**

Notes: There are 2 types of risers supported on Primary Slot

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

### Standard Features

Primary Riser Option-2 (P48803-B21)						
Slots #	Technology	Bus Width	Connector Width	Slot Form Factor	Notes	
1 <sup>a</sup>	NA	NA	NA	NA	NA	
1 <sup>b</sup>	PCIe 5.0	X16 <sup>c</sup>	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 maximum of 1 Primary Riser can be selected per server.
- If this Primary Riser2 is selected, then default Primary riser is replaced with this Riser.
- -a If HPE DL380 G12 x16/x16/x16 Cable Kit is NOT selected, then only Slot 2 and Slot 3 will be available for PCIe card selection on HPE DL380 Gen11 2U 3x16 Prim Riser Kit and no PCIe cards can be selected for Slot1.
- −<sup>b</sup> If Slot 1 of HPE DL380 Gen11 2U 3x16 Prim Riser Kit needs to be enabled, then HPE quantity-2 of DL380 G12 x16/x16/x16 Cable Kit must be selected (P76471-B21) and associated trigger SKU (P78117-B21) be selected.
- −c In case of these bundle kits: HPE DL38G12 24SFFx2DA2R11x8PCleOCPx16FIO (P77961-B21), HPE DL38G12 12E3Sx4DA2R11x8PCleOCPx16FIO (P77946-B21) and HPE DL380G12 1P 12E3Sx2 DA R11x8PCle FIO (P77964-B21) the slot 1 bus width will by x8.

### **Secondary Riser:**

#### Notes:

-There are 2 types of risers supported on the secondary slot.

- A maximum of 1 Secondary Riser can be selected per server.

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*	NA	NA	NA	NA	NA		
4**	PCIe 5.0	X16***	X16	Full-height, full-length slot	Proc 2		
5	PCle 5.0	X16	X16	Full-height, full-length slot	Proc 2		
6	PCIe 5.0	X16	X16	Full-height, half-length slot	Proc 2		

### **Standard Features**

#### Notes:

- -\* If HPE DL380 G12 x16/x16/x16 Cable Kit is NOT selected, then only Slot 5 and Slot 6 will be available for PCIe Card selection on HPE DL380 Gen11 2U 3x16 Sec Riser Kit and no PCIe cards can be selected for Slot4.
- -\*\*If Slot 4 of HPE DL380 Gen11 2U 3x16 Sec Riser Kit needs to be enabled then quantity-2 of HPE DL380 G12 x16/x16/x16 Cable Kit (P76471-B21) and the associated trigger SKU (P78120-B21) must be selected.
- -\*\*\*In case of these bundle kits: HPE DL38G12 24SFFx2DA2R11x8PCleOCPx16FIO (P77961-B21) and HPE DL38G12 12E3Sx4DA2R11x8PCleOCPx16FIO (P77946-B21) the slot 4 bus width will by x8.

## **Tertiary Riser**

#### **Notes:**

- -There are two types of risers supported on the Tertiary slot.
- -A maximum of 1 Tertiary Riser can be selected per server.

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 4.0	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 #	Technology	Bus Width	Connector Width
1 Rear OCP A (OCP 3.0) embedded	PCIe 5.0	x 8 <sup>1</sup>	x16
1 Rear OCP B (OCP 3.0) optional cabled	PCIe 5.0	x 8 <sup>1</sup>	x 16
2 Front (OCP3.0) optional (1) w/NCSI support	PCIe 5.0	x 16	x 16
With the multipurpose cage			

### **Standard Features**

#### **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.
- -Front OCPs are available post launch and can only support networking cards.
- -Both front and rear OCPs cannot be enabled at same time.

### **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 (with shared NIC and WoL)	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
- Display port with optional optical disk drive
- Video modes up to 1920 x 1200@60Hz (32 bpp)
- 16MB Video Memory

# **Maximum Internal Storage**



### **Standard Features**

Drive	Total	Configuration
	Storage	
Hot Plug SFF SAS HDD	72 TB	24 + 6 x 2.4TB
Hot Plug SFF SAS SSD	460.8 TB	24 + 6 x 15.36TB
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 SATA HDD	360 TB	12+4+4 x 18 TB
Hot Plug SFF NVMe SSD	460.8 TB	24+6 x 15.36 TB
EDSFF NVMe	550.8 TB	36 x 15.3 TB

### **Interfaces**

Serial Port	1 Optional rear.
Display Port	1 optional front display port via Universal Media Bay .
	(Supported only on 8SFF and 12EDSFF CTO Server.)
VGA Port	1 standard, rear.
	Notes: Both VGA and display ports are not active simultaneously.
Network Ports	None as standard. The choice of stand-up or OCP networking card is required.
HPE iLO Remote	1 Gb Dedicated, rear.
Management Network	
Port	
Front iLO Service Port	1 standard (Not available when System Insight Display Kit is ordered).
USB 3.2 Port Gen1	Up to 5 total: 1 front (3.2 Gen1), 2 rear (3.0), 2 internal (3.0), 2 optional USB 2.0 front via Universal Media Bay.
System Insight Display	Optional, front.
(SID)	

# 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: <u>HPE Servers</u>
<u>Support & Certification Matrices</u>

### **HPE Server UEFI**

#### Standard Features

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 enable 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
- PCle 5.0 Compliant
- Wake on LAN (WOL) Support
- Microsoft® Logo certifications
- PXE Support
- VGA
- Display Port

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

#### Standard Features

- 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**

HPE is intelligently transforming compute management with an intuitive cloud operating experience through HPE GreenLake cloud platform to streamline and secure operations from edge-to-cloud. Automated key lifecycle tasks, for onboarding, updating, managing, and monitoring HPE servers, brings agility and greater efficiencies to wherever compute devices reside via a unified single browser-based interface. Manage single locations or multiple, distributed sites. Keep tens to thousands of servers secure with batch policy controls and automated updates.

Compute Ops Management is cloud-native software that is continually updated with new services, features, patches, and fixes. The management application resides in the HPE GreenLake cloud platform (access via <a href="https://console.greenlake.hpe.com">https://console.greenlake.hpe.com</a>) and leverages the HPE GreenLake architecture, security, and unified operations.

A 3-year subscription to HPE GreenLake for 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 il O

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 iLO7 Transfer of Ownership Process.

### Standard Features

Learn more at OpenBMC Support

### **Intelligent Provisioning**

Hassle free server and OS provisioning for 1 or more servers with Intelligent Provisioning.

Learn more at https://support.hpe.com/hpesc/public/docDisplay?docId=c04465280&docLocale=en\_US

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

#### **Server Utilities**

### **Active Health System**

The HPE Active Health System (AHS) is an essential component of the iLO management portfolio that provides continuous, proactive health monitoring of HPE servers. Learn more at 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 <a href="https://www.hpe.com/info/oneview">https://www.hpe.com/info/oneview</a>.

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

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

# **Security**

Experience unparalleled security benefits with HPE ProLiant Gen12 servers, designed to enhance your

### **Standard Features**

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 iLO7): 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 from the edge to the cloud.
- **Physical Security Options:** System maintenance switch, USB security, rack and power security, bezel lock, and chassis intrusion detection switch.
- 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 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 accomplished through the use of Customer Self Repair (CSR) parts. These parts fall into two categories: 1) Mandatory CSR parts are designed for easy replacement. A travel and labor charge will result when customers decline to replace a Mandatory CSR part; 2) Optional CSR parts are also designed for easy replacement but may involve added complexity. Customers may choose to have Hewlett Packard Enterprise replace Optional CSR parts at no charge. Additional information regarding worldwide limited warranty and technical support is available.

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

**Optional Features** 

## **Server Management**

#### **HPE iLO Advanced**

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

#### **HPE 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 OpenView 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.

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

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

# 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 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

## **Optional Features**

for dense rack environments.

HPE Uninterruptible Power Systems are cost-effective power protection for any type of workload. Some UPSs include options for remote management and extended runtime modules, so your critical dense data center is covered in power outages.

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

Learn more about HPE Racks, KVM, PDUs and UPSs at HPE Rack and Power Infrastructure.

**Service and Support** 

### **HPE Services**

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

https://www.hpe.com/services

## **Consulting Services**

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

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

## **HPE Managed Services**

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

**HPE Managed Services | HPE** 

## **Operational services**

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

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

## **HPE Complete Care Service**

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

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

https://www.hpe.com/services/completecare

**Service and Support** 

### **HPE Tech Care Service**

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

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

### **HPE Lifecycle Services**

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

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

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

### https://www.hpe.com/services/lifecycle

For a list of the most frequently purchased services using service credits, see the HPE Service Credits Menu

# Other Related Services from HPE Services:

### **HPE Education Services**

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

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

#### **Defective Media Retention**

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

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

## **Service and Support**

#### **Parts and Materials**

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

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

### **How to Purchase Services**

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

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

### Al Powered and Digitally Enabled Support Experience

Achieve faster time to resolution with access to product-specific.

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

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

### **Consume IT On Your Terms**

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

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

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

www.hpe.com/services

# **Configuration Information**

## **HPE Smart Choice purchase program**

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

## **Smart Templates from HPE**

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

## **Workload Solutions Templates from HPE**

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

### **Mainstream SKUs**

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

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.

**Step 1: Base Configuration** - choose one (1) of the following five (5) configurable server models from the tables below.

The below (5) CTO server models, denoted with "NC" in the SKU description, provide flexibility in the networking choice and require a network adapter from the "HPE Networking" section be selected.

# **Configuration Information**

	T				
Networking	HPE ProLiant	HPE ProLiant	HPE ProLiant	HPE ProLiant	HPE ProLiant
Choice CTO	Compute	Compute DL380	Compute	Compute	Compute DL380
<b>Server Models</b>	DL380 Gen12	Gen12 24SFF NC	DL380 Gen12	DL380 Gen12	Gen12
	8SFF NC	Configure-to-order	12LFF NC	8LFF NC	12EDSFF NC
	Configure-to-	Server	Configure-to-	Configure-to-	Configure-to-
	order Server		order Server	order Server	order Server
SKU Number	P73282-B21	P73283-B21	P73284-B21	P73285-B21	P73286-B21
TAA SKU*	P73282-	P73283-	P73284-	P73285-	P73286-
	B21#GTA	B21#GTA	B21#GTA	B21#GTA	B21#GTA
Processor	Not included as standard - select one from available processors				
DIMM Slots	DIMM Slots 32-DI	MM slots			
Memory	Not included as standard - select capacity and quantity from available DIMMs				
DIMM Blanks	Optional - Not shipped as default.				
Heat Sinks	Choice of standar	rd, performance, hig	h performance or	max performance	e heatsinks
Fans	4-Standard	6-High	6-Standard	4-Standard	6-Standard
		Performance			
PCle	Three default sta	ndard (x8 x16 x8) P	rimary Riser 1. Or	otional primary ris	er 2, secondary
	riser 1 or 2 and to	` ,	, ,	, ,	,
OCP 3.0 - Rear		•	efault) OCP B (O	ptional)	
Drive Cages -	None by default	Qty-3 of 8SFF x1	Qty-3 of 4LFF	Qty-2 of 4LFF	None by default
included		U.3			
	Select from				Select from
	available				available
	options				options
Network		etworking. Choice of			
Controller		ary networking selec	ction plus addition	al/optional stand-	up network
	adapters.				
Storage	Choice of Intel®	VROC Software RAI	D or MR (MegaRa	aid) Storage Cont	rollers
Controller					
I/O Ports	Front: One (1) LIS	SB 3.2 Gen1, One (1	\ LISP C il O sone	vice part One (1)	Dienley port
I/O POILS	' '	USB 2.0 (optional v	,	,	Display purt
	(optional) Two (2)	USB 2.0 (Optional V	ia Utiliversai ivieula	а Бау)	
	Rear: Two (2) US	B 3.2 Gen1, 1 iLO M	lanagement Ether	net Port. VGA poi	rt. 1 optional
	Serial Port			, телтро	t, i opiionai
	Internal: Two (2) l	JSB 3.0			
Security	Embedded TPM 2	2.0 (Trusted Platform	n Module)		
HPE Trusted	P36394-B21 - Op	tional.			
Supply Chain					
Rail Kit	Optional Easy Ins	tall rails and CMA.			
Form Factor	2U				
Management	†	elligent Provisioning	(standard), iLO A	dvanced and One	View (optional)
Warranty		ear labor, 3-year ons	· · · · · · · · · · · · · · · · · · ·		
unitarity	D your parts, o-ye	Jan labor, o your one	ALO GAPPOIL WILLI II	on buonicoo day	100001100

### Notes:

-\*HPE offers multiple Trade Agreement Act (TAA) compliant configurations to meet the needs of US

## **Configuration Information**

Federal Government customers. These products are either manufactured or substantially transformed in a designated country. TAA compliance is only provided when HPE options are included as part of factory integrated orders (CTO).

-Energy Star 4.0 Compliance: No restriction from processors when server shipment start, but the Platinum

Power Supply 800W & 1600W are not compatible

Networking Choice CTO Server Models	HPE ProLiant Compute DL380 Gen12 8SFF 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 12EDSFF NC Configure-to- order Server
SKU Number	P73282-B21	P73283-B21	P73284-B21	P73285-B21	P73286-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
Multipurpose Cage	Optional	Not supported	Not supported	Not supported	Optional
2 SFF NVMe/SAS/SATA (Front)	1 Optional with UMB	Not available	Not available	1 Optional with Side-by-Side Drive Cage	Not supported
2 SFF NVMe/SAS/SATA (Rear)	3 Optional	3 Optional	1 Optional	1 Optional	1 Optional
2 LFF SAS/SATA (Rear)	Not available	Not available	2 Optional	2 Optional	Not available

### **Step 2: Choose Smart Chassis**

Smart Chassis is a new tool in One Config Advanced (OCA) that automatically selects the right storage backplane and controller cable kits. Once the Smart Chassis ID# is identified, the system will add the necessary Cable Kits in the BOM. Follow these steps in the listed sequence to select key components:

- a. Select the system inlet ambient temperature. If you are not certain what selection you should make, select the 30C.
  - b. Select the required drive cage(s).
  - c. Select the Riser Card(s) and the required cables as needed.
  - d. Select the Storage controller from the available MR Gen11 controllers as needed.
  - e. Define connection for 8SFF x4 cage (if needed).
  - f. One or multiple set(s) of Smart Chassis configurations will be presented with completion of the above selections. Select quantity 1 for the smart chassis configuration for your desired selection.
  - g. With the completion of the above steps, the user will be able to enter the Shared Options menu with

# **Configuration Information**

selection.

## **Step 3: Choose Core Options**

- Up to two Processors
- · Heatsinks and fan kits.
- Memory.
- Backplanes / Drive cages / Enablement Kit.
- Riser cards
- Storage controllers, and associated cables
- OS Boot Device, Intel VROC
- Networking option (PCIe Standup or OCP 3.0)
- SSD, HDD, and Optical Drives
- Factory Configuration Settings
- Power and Cooling solution
- Security Options
- Management Options

### **Step 4: Choose Additional Options**

- Choice of Accessories
- Choice of Intel® Virtual RAID on CPU Premium & Standard FIO Software for HPE
- · Choice of GPUs
- · Choice of Embedded Management
- Choice of Racks
- Choice of PDUs
- Choice of UPS

# **Core Options**

#### **Processors**

Please select up to two processors required below.

#### Notes:

- -Mixing of 2 different processor models is NOT allowed.
- -Mid Tray can be selected with 225W or below Processors only.

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

### **Performance per Watt Processors**

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
Performance Processors	
latel Veer C700F 0 00Hz 444 eers 200W Breezes for LIDE	D74404 D044

Intel Xeon 6780E 2.2GHz 144-core 330W Processor for HPE	P71124-B211

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

# **Performance General Purpose Processors**

Performance General Purpose Processors	
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 6730P 2.5GHz 32-core 250W Processor for HPE	P74573-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 6747P 2.7GHz 48-core 330W Processor for HPE	P73831-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 HPF	P74503-B21

P74503-B21
P74506-B21
P74568-B21
P74571-B21
P73829-B21
P73832-B21

### **Fan Kits**

- -Maximum Qty=1.
- -High Performance Fan Kit and Standard Fan Kit cannot be selected together.

## **Core Options**

- -8SFF and 8LFF CTO models include 4 standard fans.
- -12LFF and 12EDSFF CTO models include 6 standard fans.
- -24SFF CTO model include 6 standard high-performance fans.

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

Notes: Includes 6 High Performance Fans

HPE ProLiant DL380 Gen11 Standard Fan Kit P49146-B21

Notes: Includes 2 Standard Fans

**Heat Sinks** 

**Notes:** Mixing of Heat Sinks is not allowed.

HPE ProLiant DL380 Gen11 Standard Heat Sink Kit P49145-B21

Notes:

- -Contains one Heat Sink per Kit.
- -Can support processors with up to 185W.

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

Notes:

- -Supported only with 2P configurations.
- -Contains two Heat Sinks per Kit.

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

Notes: Contains one Heat Sink per Kit.

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

Notes:

- -Contains one Heat Sink per Kit.
- -Can support processors up to 225W.
- -Can be selected only if Mid Tray is selected.
- -Supported with 8LFF and 12LFF CTO Server only.

# **Direct Liquid Cooling (DLC) Modules**

#### Notes:

- -Contains 2 Cold Plate Module and 1 Quick Disconnect Module
- -Cannot be mixed with any other heat sinks.
- DLC Module and Mid tray cannot be selected together.

HPE ProLiant Compute DL380 Gen12 Cold Plate Module NS204 Quick Disconnect Tube Set P74204-B21

FIO Kit

#### **Notes**

- -Qty1 of 65cm Tube Kit must be selected.
- -Cannot be selected with NS204i-u Rear Enable Kit (P74755-B21).

HPE ProLiant DL3XX Gen11 Direct Liquid Cooling 600mm FIO Hose Kit

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

P74208-B21

## **Core Options**

#### Notes:

- -Qty1 of 55cm Tube Kit must be selected.
- -Secondary Riser must be selected.
- -Slot 6 on Secondary Riser will be blocked.

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

- -Max quantity = 1.
- -55cm Tube Kit can be selected with PCIe DLC Module only.

### **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)

Memory Blank Kit	
HPE 256GB (1x256GB) Quad Rank x4 DDR5-6400 CAS-60-52-52 EC8 Registered 3DS Smart Memory Kit	P73447-B21
HPE 128GB (1x128GB) Dual Rank x4 DDR5-6400 CAS-46-45-45 EC8 Registered Smart Memory Kit	P69730-B21
HPE 96GB (1x96GB) Dual Rank x4 DDR5-6400 CAS-46-45-45 EC8 Registered Smart Memory Kit	P69729-B21
HPE 64GB (1x64GB) Dual Rank x4 DDR5-6400 CAS-46-45-45 EC8 Registered Smart Memory Kit	P69728-B21
HPE 32GB (1x32GB) Dual Rank x8 DDR5-6400 CAS-46-45-45 EC8 Registered Smart Memory Kit	P69727-B21
HPE 16GB (1x16GB) Single Rank x8 DDR5-6400 CAS-46-45-45 EC8 Registered Smart Memory Kit	P69726-B21

HPE DDR4 DIMM Blank Kit P07818-B21

#### **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, Switzerland or Turkey must include more efficient AC power supplies: 94% for multi-output designs and 96% for single output ones. HPE Flexible Slot power supplies are single-output, and part numbers P03178-B21, and P44712-B21 are 96% efficient, thus meeting requirements. Please select one or two power supplies from below list.

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.

A standard 6-foot IEC C-13/C-14 jumper cord (A0K02A) is included with each standard AC

## **Core Options**

power supply option kit. If a different 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**.

Select one or two power supplies from below.

#### **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 (200VAC to 240VAC).
- –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

## **Drive Cage and Backplane**

HPE ProLiant Compute DL380 Gen12 2SFF Rear Primary/Secondary Riser Cage Kit	P74734-B21
HPE ProLiant Compute Gen12 12EDSFF Drive Cage Kit	P74738-B21
HPE ProLiant Compute DL380 Gen12 4LFF SAS/SATA LP Midplane Drive Cage Kit	P74741-B21
HPE ProLiant Compute DL3XX Gen12 Rear 2SFF U.3 HDD Stacking Drive Cage Kit	P74743-B21
HPE ProLiant Compute DL3XX Gen12 Front LFF for 2SFF Enablement Side-by-Side U.3 HDD Front Cage Kit	P74744-B21
HPE ProLiant Compute DL380 Gen12 2LFF Rear Primary Drive Cage Kit	P74746-B21
HPE ProLiant Compute DL380 Gen12 2LFF Rear/Tertiary Drive Cage Kit	P75411-B21
HPE ProLiant Compute DL3XX Gen12 8SFF x1 U.3 Tri-Mode Drive Cage Kit	P75740-B21
HPE ProLiant Compute DL3XX Gen12 8SFF x4 U.3 Tri-Mode Drive Cage Kit	P75741-B21
HPE ProLiant Compute DL3XX Gen12 Front SFF for 2SFF Enablement U.3 HDD Front Cage Kit	P75807-B21

Core Options	
HPE ProLiant Compute DL3XX Gen12 Multipurpose Drive Cage Kit	P76449-B21
HPE ProLiant Compute Gen12 4EDSFF Drive Cage Kit	P76450-B21
HPE ProLiant Compute DL380 Gen12 2LFF Rear Secondary Drive Cage Kit	P76875-B21
Riser Cards	
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
HPE ProLiant DL380 Gen11 2U x8/x16/x8 Secondary Riser Kit	P48802-B21
HPE ProLiant DL380 Gen11 2U x16/x16/x16 Primary Riser Kit	P48803-B21
HPE ProLiant DL380 Gen11 2U x16/x16/x16 Secondary Riser Kit	P51083-B21
Riser Cards Accessories	
HPE ProLiant Compute DL380 Gen12 x8 Riser Enablement Cable Kit	P76471-B21
HPE ProLiant Compute DL380 Gen12 Primary Riser x16 FIO Bundle Kit	P78117-B21
HPE ProLiant Compute DL380 Gen12 Primary/Secondary x16 FIO Bundle Kit	P78120-B21
OCP 3.0 Enablement	
HPE ProLiant Compute DL3XX/ML350 Gen12 CPU1 to Rear OCP SlotA x16 Cable Kit	P72201-B21
HPE ProLiant Compute DL3XX/ML350 Gen12 CPU1 to Rear OCP SlotB x8 Cable Kit	P72203-B21
HPE ProLiant Compute DL3XX/ML350 Gen12 CPU2 to Rear OCP SlotB x8 Cable Kit	P72205-B21
HPE ProLiant Compute DL3XX/ML350 Gen12 CPU2 to Rear OCP SlotB x16 Cable Kit	P72207-B21
Boot Controllers	
HPE NS204i-u v2 NVMe Hot Plug Boot Optimized Storage Device	P78279-B21
HPE ProLiant Compute DL380 Gen12 NS204i-u Rear Boot Device Enablement Kit	P74755-B21
HPE ProLiant Compute Gen12 NS204i-u Front Enablement Kit	P74759-B21
HPE ProLiant Compute DL380 Gen12 NS204i-u Blank Panel FIO Kit	P77928-B21
Storage Centreller	
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 DL385 Gen10 Plus 12Gb NVMe 2-port Adapter	P25527-B21
Storage Battery	
HPE 96W Smart Storage Lithium-ion Battery with 145mm Cable Kit	P01366-B21
HPE Smart Storage Hybrid Capacitor with 145mm Cable Kit	P02377-B21

**Core Options** 

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	
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
HPE Ethernet 10/25Gb 2-port Secure Network Adapter	S2A69A
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
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
Storage Offload Adapters	
HPE NV60100M 100Gb 2-port Storage Offload Adapter	R8M41A
OCP Adapters	
1 Gigabit Ethernet adapters	
Broadcom BCM5719 Ethernet 1Gb 4-port BASE-T OCP3 Adapter for HPE	P51181-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	
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	P10115-B21 P26269-B21
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Broadcom BCM57504 Ethernet 10/25Gb 4-port SFP28 OCP3 Adapter for HPE	P26269-B21
Broadcom BCM57504 Ethernet 10/25Gb 4-port SFP28 OCP3 Adapter for HPE Intel E810-XXVDA2 Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE	P26269-B21 P10106-B21
Broadcom BCM57504 Ethernet 10/25Gb 4-port SFP28 OCP3 Adapter for HPE Intel E810-XXVDA2 Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE Intel E810-XXVDA4 Ethernet 10/25Gb 4-port SFP28 OCP3 Adapter for HPE Mellanox MCX631432AS-ADAI Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for	P26269-B21 P10106-B21 P41614-B21
Broadcom BCM57504 Ethernet 10/25Gb 4-port SFP28 OCP3 Adapter for HPE Intel E810-XXVDA2 Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE Intel E810-XXVDA4 Ethernet 10/25Gb 4-port SFP28 OCP3 Adapter for HPE Mellanox MCX631432AS-ADAI Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE	P26269-B21 P10106-B21 P41614-B21
Broadcom BCM57504 Ethernet 10/25Gb 4-port SFP28 OCP3 Adapter for HPE Intel E810-XXVDA2 Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE Intel E810-XXVDA4 Ethernet 10/25Gb 4-port SFP28 OCP3 Adapter for HPE Mellanox MCX631432AS-ADAI Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE 100 Gigabit Ethernet adapters	P26269-B21 P10106-B21 P41614-B21 P42041-B21

**HPE InfiniBand** 

Core Options	
HPE InfiniBand NDR/Ethernet 400Gb 1-port OSFP PCIe5 x16 MCX75310AAS-NEAT Adapter	P45641-B23
HPE InfiniBand NDR200/Ethernet 200Gb 1-port OSFP PCIe5 x16 MCX75310AAS-HEAT Adapter	P45642-B22
HPE InfiniBand NDR200/Ethernet 200GbE 2-port QSFP112 PCle5 x16 MCX755106AC-HEAT Adapter	P65333-B21
Cable Vite	
Cable Kits  UDE Prol iont DI 260 Con44 Storage Controller Engblement Coble Kit	D40040 D04
HPE ProLiant DL360 Gen11 Storage Controller Enablement Cable Kit	P48918-B21
HPE ProLiant Compute DL380 Gen12 8SFF SFF x4 UMB OROC Box 1/2 Cable Kit	P76452-B21
HPE ProLiant Compute DL380 Gen12 8SFF SFF x4 UMB PCIe Box 1/2 Cable Kit	P76453-B21 P76454-B21
HPE ProLiant Compute DL380 Gen12 OROC 8SFF x2 Controller Cable Kit	P76454-B21 P76456-B21
HPE ProLiant Compute DL380 Gen12 8SFF x2 PCle Box 2 Controller Cable Kit	
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 16SFF x4 2x Gen4 Retimer Card Box 1/3 Cable Kit	P76463-B21
	P76464-B21
HPE ProLiant Compute DL380 Gen12 36EDSFF x2 Direct Attach Cable Kit HPE ProLiant Compute DL380 Gen12 12EDSFF x4 Direct Attach Box 2 Cable Kit	P76465-B21
HPE ProLiant Compute DE380 Gen12 12EDSFF x2 Direct Attach Box 2 Cable Kit	P76467-B21
HPE ProLiant Compute DE380 Gen12 T2ED3FF x2 Direct Attach Box 1/2 Cable Kit	P76468-B21
HPE ProLiant Compute DL380 Gen12 Profit 63FF X4 Direct Attach Box 1/3 Cable Kit	P76473-B21
HPE ProLiant Compute DL380 Gen12 8LFF PCIe Controller Box 2/3 Cable Kit	P76474-B21
HPE ProLiant Compute DL380 Gen12 SEFF OROC Box 2/3 Cable Kit	P76474-B21
HPE ProLiant Compute DL380 Gen12 2SFF x4 FCle Box 6 Cable Kit	P76476-B21
HPE ProLiant Compute DL380 Gen12 8LFF PCIe Box 1/7 Cable Kit	P77474-B21
HPE ProLiant Compute DL380 Gen12 8LFF PCIe Box 1/7 Cable Kit	P77474-B21
HPE ProLiant Compute DE380 Gen12 4EDSFF Front Cable Kit	P77476-B21
HPE ProLiant Compute DL380 Gen12 4ED3FF Front Cable Kit  HPE ProLiant Compute DL380 Gen12 2SFF x4 OROC Box 6 OCP SlotB Cable Kit	P77470-B21
HPE ProLiant Compute DL380 Gen12 2SFF NA OROC Box 6 OCF Slots Cable Nit	P77477-B21 P77478-B21
Kit	F11410-DZ1
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 8SFF x2 Direct Attach Cable Kit	P77486-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 x4 Direct Attach Box 2/3 for 1P Cable Kit	P77489-B21

## **Core Options**

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 DL380/DL560 Gen11 2U GPU Power Cable Kit	P56072-B21

### **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 rebranded 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 <a href="https://www.hpe.com/security">https://www.hpe.com/security</a>
- -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

## **Core Options**

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.

### **Factory Configuration/NVMe Enablement Settings**

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

P77931-B21

#### **Notes:**

- -Available for 8SFF CTO Server with 2 processors configurations only.
- −Qty 2 of the following is selected:
  - -P75741-B21 (HPE DL3XX Gen12 8SFF x4 U.3 TM Kit).
- −Qty 1 of the following is selected:
  - -P48820-B21 (High Perf Fan Kit).
  - -P77489-B21 (HPE DL380 G12 8SFF x4 DA B2 1P/ B3).
  - -P76461-B21 (HPE DL380 G12 8SFF x4 DA Box1 Cable Kit).

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

P77934-B21

#### Notes:

- -Available for 8SFF CTO Server with 2 processors configurations only.
- −Qty 1 of the following is selected:
  - -P48820-B21 (High Perf Fan Kit).
  - -P74749-B21 (HPE DL3XX Gen12 SFF Univ Media Bay Kit).
  - -P77489-B21 (HPE DL380 G12 8SFF x4 DA B2 1P/ B3).
  - -P76461-B21 (HPE DL380 G12 8SFF x4 DA Box1 Cable Kit).
- -Qty 2 of P75741-B21 (HPE DL3XX Gen12 8SFF x4 U.3 TM Kit) is selected.

# HPE ProLiant Compute DL380 Gen12 24SFF x16/x16/x16 OCP Balanced FIO Bundle Kit

P77937-B21

## Notes:

- Available for 8SFF CTO Server with 2 processor configurations only.
- −Qty1 of the following is selected:
  - o P48820-B21 (High Perf Fan Kit).
  - o P48803-B21 (HPE DL380 Gen11 2U 3x16 Prim Riser Kit).
  - o P51083-B21 (HPE DL380 Gen11 2U 3x16 Sec Riser Kit).
  - o P72201-B21 (HPE DL3XX/ML350 G12 CPU1/OCPAx16 Cable Kit).
  - o P72207-B21 (HPE DL3XX/ML350 G12 CPU2/OCPBx16 Cable Kit).
  - o P76462-B21 (HPE DL380 G12 8SFF x4 DA Box2 2P Cable Kit).
  - o P76463-B21 (HPE DL380 G12 24SFFx4 Cable Kit).
- -Qty 2 P25527-B21 (HPE DL385 Gen10+ 12Gb NVMe 2p Adapter) is selected.
- -Qty3 of P75741-B21 (HPE DL3XX Gen12 8SFF x4 U.3 TM Kit) is selected.

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

P77940-B21

## **Core Options**

- -Available for 8SFF CTO Server with 2 processors configurations only.
- -Qty1 of the following is selected:
  - o P48820-B21 (High Perf Fan Kit).
  - o P48803-B21 (HPE DL380 Gen11 2U 3x16 Prim Riser Kit).
  - o P48802-B21 (HPE DL380 G11 2U x8/x16/x8 Sec Riser Kit).
  - o P25527-B21 (HPE DL385 Gen10+ 12Gb NVMe 2p Adptr).
  - o P77492-B21 (HPE DL380 G12 1xG4 Retimer B1/3 Cable Kit).
  - o P72201-B21 (HPE DL3XX/ML350 G12 CPU1/OCPAx16 Cable Kit).
  - o P76462-B21 (HPE DL380 G12 8SFF x4 DA Box2 2P Cable Kit).
- -Qty3 of P75741-B21 (HPE DL3XX Gen12 8SFF x4 U.3 TM Kit) is selected.

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

### **Notes:**

- -Available for 8SFF CTO Server with 2 processors configurations only.
- -Qty1 of the following is selected:
  - o P48820-B21 (High Perf Fan Kit).
  - o P48803-B21 (HPE DL380 Gen11 2U 3x16 Prim Riser Kit).
  - o P48802-B21 (HPE DL380 G11 2U x8/x16/x8 Sec Riser Kit).
  - o P72201-B21 (HPE DL3XX/ML350 G12 CPU1/OCPAx16 Cable Kit).
  - o P72207-B21 (HPE DL3XX/ML350 G12 CPU2/OCPBx16 Cable Kit).
  - o P76462-B21 (HPE DL380 G12 8SFF x4 DA Box2 2P Cable Kit).
  - o P76463-B21 (HPE DL380 G12 24SFFx4 Cable Kit).
- -Qty2 of P25527-B21 (HPE DL385 Gen10+ 12Gb NVMe 2p Adptr) is selected.
- -Qty3 of P75741-B21 (HPE DL3XX Gen12 8SFF x4 U.3 TM Kit).

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

P77946-B21

### Notes:

- -Available for 8SFF CTO Server with 2 processors configurations only.
- –Qty1 of the following is selected:
  - o P48820-B21 (High Perf Fan Kit) is selected and defaulted.
  - o P74738-B21 (HPE Gen12 12EDSFF Kit).
  - o P48803-B21 (HPE DL380 Gen11 2U 3x16 Prim Riser Kit)
  - o P51083-B21 (HPE DL380 Gen11 2U 3x16 Sec Riser Kit).
  - o P72201-B21 (HPE DL3XX/ML350 G12 CPU1/OCPAx16 Cable Kit).
  - o P72207-B21 (HPE DL3XX/ML350 G12 CPU2/OCPBx16 Cable Kit).
  - o P76465-B21 (HPE DL380 G12 12EDSFF x4 DA Box2 Cable Kit).
- -Qty 2 of P76471-B21 (HPE DL380 G12 x16/x16/x16 Cable Kit) is selected.

# HPE ProLiant Compute DL380 Gen12 12EDSFF x4 FIO Bundle Kit

P77949-B21

- -Available for 8SFF CTO Server with 2 processors configurations only.
- –Qty1 of the following is selected by default:
  - o P48820-B21 (High Perf Fan Kit).
  - o P72205-B21 (HPE DL3XX/ML350 G12 CPU2/OCPBx8 Cable Kit).
  - o P76465-B21 (HPE DL380 G12 12EDSFF x4 DA Box2 Cable Kit).
  - o P77490-B21 (HPE DL380 G12 4EDSFF x4 B1 DA Cable Kit).

## **Core Options**

- o P77491-B21 (HPE DL380 G12 4EDSFF x4 B3 DA Cable Kit).
- -Qty3 of P74738-B21 (HPE Gen12 12EDSFF Kit) is selected.
- If 20EDSFF Trigger is selected, then max EDSFF drive support is limited to 20.

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

P77955-B21

#### Notes:

- -Available for 8SFF CTO Server with 2 processors configurations only.
- -Qty1 of P48820-B21 (High Perf Fan Kit) is selected.
- -Qtv2 of the following is selected:
  - o P75741-B21 (HPE DL3XX Gen12 8SFF x4 U.3 TM Kit).
  - o P77486-B21 (HPE DL380 G12 8SFF x2 DA Cable Kit).

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

P77958-B21

- -Available for 8SFF CTO Server with 2 processors configurations only.
- -Qty1 of the following is selected:
  - o P48820-B21 (High Perf Fan Kit).
  - o P74749-B21 (HPE DL3XX Gen12 SFF Univ Media Bay Kit).
- -Qty2 of the following is selected:
  - o P75741-B21 (HPE DL3XX Gen12 8SFF x4 U.3 TM Kit)
  - o P77486-B21 (HPE DL380 G12 8SFF x2 DA Cable Kit)

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

P77961-B21

- -Available for 8SFF CTO Server with 2 processors configurations only.
- -Qty1 of the following is selected:
  - o P48820-B21 (High Perf Fan Kit).
  - o P48803-B21 (HPE DL380 Gen11 2U 3x16 Prim Riser Kit).
  - o P51083-B21 (HPE DL380 Gen11 2U 3x16 Sec Riser Kit).
  - o P72201-B21 (HPE DL3XX/ML350 G12 CPU1/OCPAx16 Cable Kit).
  - o P72207-B21 (HPE DL3XX/ML350 G12 CPU2/OCPBx16 Cable Kit).
- -Qty2 of P76471-B21 (HPE DL380 G12 x16/x16/x16 Cable Kit) is selected.
- -Qty3 of the following is selected:
  - o P75741-B21 (HPE DL3XX Gen12 8SFF x4 U.3 TM Kit).
  - o P77486-B21 (HPE DL380 G12 8SFF x2 DA Cable Kit).

# HPE ProLiant Compute DL380 Gen12 12EDSFF x2 1P Direct Attach x16/x16/x16 OCP x8 P77964-B21 PCIe FIO Bundle Kit

### **Notes:**

- -Supported with 12EDSFF CTO Server only.
- −Qty1 of the following is selected:
  - o P48820-B21 (High Perf Fan Kit).
  - o P74738-B21 (HPE Gen12 12EDSFF Kit).
  - o P48803-B21 (HPE DL380 Gen11 2U 3x16 Prim Riser Kit).
  - o P76471-B21 (HPE DL380 G12 x16/x16/x16 Cable Kit).
  - o P76467-B21 (HPE DL380 G12 12EDSFF x2 DA B1/B2 Cable Kit).

# HPE ProLiant Compute DL380 Gen12 36EDSFF x2 Direct Attach 2xOCP x8 FIO Bundle

P77967-B21

# Kit

#### **Core Options**

- -Available for 12 SFF CTO Server with 2 processor configurations only.
- −Qty1 of the following is selected:
  - o P48820-B21 (High Perf Fan Kit).
  - o P72205-B21 (HPE DL3XX/ML350 G12 CPU2/OCPBx8 Cable Kit).
  - o P72205-B21 (HPE DL3XX/ML350 G12 CPU2/OCPBx8 Cable Kit).
- -Qty3 of P74738-B21 (HPE Gen12 12EDSFF Kit) is selected.

## HPE ProLiant Compute DL380 Gen12 8SFF x4 Direct Attach Balanced FIO Bundle Kit

P78047-B21

#### Notes:

- -Available for 8SFF CTO Server with 2 processor configurations only.
- −Qty 1 of the following is selected:
  - o P48820-B21 (High Perf Fan Kit).
  - o P75741-B21 (HPE DL3XX Gen12 8SFF x4 U.3 TM Kit).
  - o P76462-B21 (HPE DL380 G12 8SFF x4 DA Box2 2P Cable Kit).

## HPE ProLiant Compute DL380 Gen12 8SFF x4 1P Direct Attach FIO Bundle Kit

P78070-B21

#### Notes:

- -Supported with 8SFF CTO Server only.
- −Qty 1 of the following must be selected:
  - o P48820-B21 (High Perf Fan Kit)
  - o P75741-B21 (HPE DL3XX Gen12 8SFF x4 U.3 TM Kit)
  - o P77489-B21 (HPE DL380 G12 8SFF x4 DA B2 1P/ B3)

#### **Additional Options**

## Software as a Service Management HPE Compute Ops Management

Base S	SK	U
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HPE Compute Ops Management Enhanced 3-year Upfront ProLiant SaaS R7A11AAE

**Upgrade SKUS** 

HPE Compute Ops Management Enhanced 5-year Upfront ProLiant SaaS

HPE Compute Cloud Management Server FIO Enablement

HPE Compute Ops Management Flex Tracking

HPE Compute Ops Management Enhanced 7-year Upfront ProLiant SaaS

R7A12AAE

S1A05A

S2R34AAE

S2E10AAE

**HPE OneView** 

HPE OneView including 3yr 24x7 Support Flexible Quantity E-LTU E5Y35AAE

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

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

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

Management Hardware HPE ProLiant DL380/DL560 Gen11 2U Rear Serial Port Cable Kit HPE ProLiant Compute DL380 Gen12 System Insight Display Kit HPE Optical Drives and Accessories	P48824-B21 P74748-B21
HPE 9.5mm SATA DVD-ROM Optical Drive  Notes: HPE DL3XX Gen12 SFF Univ Media Bay Kit (P74749-B21) is required for this option on a SFF model. No support in 12LFF or 24SFF models.	726536-B21
HPE 9.5mm SATA DVD-RW Optical Drive HPE ProLiant Compute Gen12 LFF ODD/Display Port Enablement Kit	726537-B21 P74752-B21
HPE ProLiant Compute Gen12 Optical Disk Drive USB to SATA Signal Cable Kit HPE Mobile USB DVD-RW Optical Drive Media Bay Kits	P72199-B21 701498-B21
HPE ProLiant Compute DL3XX Gen12 SFF Universal Media Bay Kit	P74749-B21
UDE Hand Diele Deiter	
HPE Hard Disk Drives Mission Critical - 12G SAS - SEE Drives	
HPE Hard Disk Drives Mission Critical - 12G SAS - SFF Drives HPE 2.4TB SAS 12G Mission Critical 10K SFF BC 3-year Warranty 512e Self-encrypting FIPS HDD	P28618-B21
Mission Critical - 12G SAS - SFF Drives  HPE 2.4TB SAS 12G Mission Critical 10K SFF BC 3-year Warranty 512e Self-encrypting FIPS HDD  HPE 1.2TB SAS 12G Mission Critical 10K SFF BC 3-year Warranty Self-encrypting FIPS HDD	P28618-B21 P28622-B21
Mission Critical - 12G SAS - SFF Drives  HPE 2.4TB SAS 12G Mission Critical 10K SFF BC 3-year Warranty 512e Self-encrypting FIPS HDD  HPE 1.2TB SAS 12G Mission Critical 10K SFF BC 3-year Warranty Self-encrypting FIPS HDD  Enterprise - 12G SAS - SFF Drives  HPE 2.4TB SAS 12G Mission Critical 10K SFF BC 3-year Warranty 512e Multi Vendor	
Mission Critical - 12G SAS - SFF Drives HPE 2.4TB SAS 12G Mission Critical 10K SFF BC 3-year Warranty 512e Self-encrypting FIPS HDD HPE 1.2TB SAS 12G Mission Critical 10K SFF BC 3-year Warranty Self-encrypting FIPS HDD Enterprise - 12G SAS - SFF Drives	P28622-B21

Additional Options	
HPE 300GB SAS 12G Mission Critical 10K SFF BC 3-year Warranty Multi Vendor HDD  Midline - 12G SAS - LFF Drives	P40430-B21
HPE 20TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e ISE Multi Vendor HDD	P53553-B21
HPE 16TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e ISE Multi Vendor HDD	P23608-B21
Midline - 6G SATA - LFF Drives 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
SSD Selection	
For SSD selection guidance, please visit <a href="https://ssd.hpe.com/">https://ssd.hpe.com/</a> Read Intensive - NVMe - EDSFF - Solid State Drives	
HPE 15.36TB NVMe Gen5 High Performance Read Intensive E3S EC1 EDSFF SPDM CM7	P61187-B21
SSD	
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 PM1743 SSD	P57803-B21
HPE 7.68TB NVMe Gen5 High Performance Read Intensive E3S EC1 EDSFF SPDM CM7 SSD	P61183-B21
HPE 7.68TB NVMe Gen5 High Performance Read Intensive E3S EC1 EDSFF SPDM PM1743 SSD	P57803-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 EDSFF SPDM PM1743 SSD	P57799-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 HPE 1.92TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 EDSFF SPDM	P69234-B21
PE1010 SSD	P77269-B21
HPE 3.84TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 EDSFF SPDM PE1010 SSD	P77271-B21
HPE 7.68TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 EDSFF SPDM PE1010 SSD	P77273-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 3.84TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 CD8P SSD	P69237-B21
HPE 7.68TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 CD8P SSD	P69239-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

## **Additional Options**

Mixed Use - NVMe - EDSFF - Solid State Drives	
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 6.4TB NVMe Gen5 High Performance Mixed Use E3S EC1 EDSFF SPDM CM7 SSD	P61195-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	D77007 D04
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 3.2TB NVMe Gen5 High Performance Mixed Use E3S EC1 Self-encrypting FIPS 140-3 CM7 SSD	P70669-B21
HPE 6.4TB NVMe Gen5 High Performance Mixed Use E3S EC1 Self-encrypting FIPS 140-3	1 70003-B21
CM7 SSD	P70672-B21
Read Intensive - 24G SAS - SFF - Solid State Drives	
HPE 15.36TB SAS 24G Read Intensive SFF BC Multi Vendor SSD	P49045-B21
HPE 3.84TB SAS Read Intensive SFF BC Self-encrypting FIPS 140-2 PM7 SSD	P63875-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
Read Intensive - 12G SAS - SFF - Solid State Drives	
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 - 24G SAS - SFF - Solid State Drives	
HPE 1.6TB SAS Mixed Use SFF BC Self-encrypting FIPS 140-2 PM7 SSD	P63871-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
HPE 1.6TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 Self-encrypting FIPS	D04040 D04
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	F01031-621
140-3 CM7 SSD	P61059-B21
Mixed Use - 12G SAS - SFF - Solid State Drives	. 0.000 521
HPE 3.84TB SAS 12G Mixed Use SFF BC Value SAS Multi Vendor SSD	P40512-B21
	<u></u> ·

Additional Options	
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
HPE 240GB SATA 6G Read Intensive SFF BC Multi Vendor SSD	P40496-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
HPE 24TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e ISE Multi	P68583-B21
Vendor HDD	
Read Intensive - 6G SATA - LFF - Solid State Drives	
HPE 960GB SATA 6G Read Intensive LFF LPC Multi Vendor SSD	P47808-B21
HPE 24TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e ISE Multi	P68585-B21
Vendor HDD	
Read Intensive - NVMe - SFF - Solid State Drives	D70400 D04
HPE 15.36TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PS1010 SSD	P70436-B21
HPE 15.36TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 Static SPDM Multi Vendor SSD	P69255-B21
HPE 15.36TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 CM7 SSD	P63841-B21
HPE 15.36TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PM1733a SSD	P50224-B21
HPE 7.68TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PS1010 SSD	P70434-B21
HPE 7.68TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 CM7 SSD	P63837-B21
HPE 7.68TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 Static V2	
Multi Vendor SSD	P64848-B21
HPE 7.68TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PM1733a SSD	P50222-B21
HPE 3.84TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 CM7 SSD	P63833-B21
HPE 3.84TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 Static V2	
Multi Vendor SSD	P64846-B21
HPE 3.84TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PM1733a SSD	P50219-B21
HPE 1.92TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 CM7 SSD	P63829-B21
HPE 1.92TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 Static V2	
Multi Vendor SSD	P64844-B21
HPE 1.92TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PM1733a SSD	P50216-B21
HPE 960GB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 Static V2	P64842-B21
Multi Vendor SSD	

Additional Options	
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
Mixed Use - NVMe - SFF - Solid State Drives	
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 6.4TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PM1735a SSD	P50233-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 3.2TB NVMe Gen4 Mainstream Performance Mixed Use SFF BC U.3 Static V2 Multi	
Vendor SSD	P65015-B21
HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PM1735a SSD	P50230-B21
HPE 1.6TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 CM7 SSD	P63845-B21
HPE 1.6TB NVMe Gen4 Mainstream Performance Mixed Use SFF BC U.3 Static V2 Multi	D0-00- D0/
Vendor SSD	P65007-B21
HPE 1.6TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PM1735a SSD	P50227-B21
HPE 800GB NVMe Gen4 Mainstream Performance Mixed Use SFF BC U.3 Static V2 Multi	D04000 D04
Vendor SSD	P64999-B21
VRO - NVMe - SFF - Solid State Drives	D00000 D04
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
Hard Drive Blank Kits	
HPE Gen9 LFF HDD Spade Blank Kit	807878-B21
HPE Small Form Factor Hard Drive Blank Kit	666987-B21

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

## **HPE Computation and Graphics Accelerators**

#### **Notes:**

-Mixing of GPUs is not allowed

#### **Additional Options**

- -GPU and rear drive options cannot be selected together.
- -High Performance Fan Kit must be selected

### Full Height Full Length / Low Profile / Double Wide

#### Notes:

- -High Performance Heat Sink OR DLC Module must be selected for Processors.
- –HPE DL380/DL560 Gen11 2U GPU Power Cable Kit must be selected which can support 3 DW GPUs

NVIDIA H100 NVL 94GB PCIe Accelerator for HPE	S2D86C
NVIDIA L40S 48GB PCIe Accelerator	S2L70C

### Half Height Half Length / Single Wide

NVIDIA L4 24GB PCIe Accelerator for HPE S0K89C

### **Embedded Management**

**HPE iLO Common Password FIO Setting** 

HPE iLO Common Password FIO Setting P08040-B21

#### **Notes:**

LTU

- 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 OneView for ProLiant DL Server including 3yr 24x7 Support FIO Bundle Physical 1-server

HPE OneView for ProLiant DL Server including 3yr 24x7 Support Bundle Track 1-server LTU

#### **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 Converged Infrastructure Management Software	
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

E5Y43A

E5Y44A

#### **Additional Options**

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

#### **HPE Tape Backup**

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

https://www.hpe.com/us/en/storage/storeever-tape-storage.html
For hardware and software compatibility of Hewlett Packard Enterprise tape backup products https://www.hpe.com/storage/BURAcompatibility

#### **HPE Storage Options**

#### **Emulex Fibre Channel HBAs**

S4S01A
S4T09A
R2E08A
R2E09A
R7N86A
R7N87A

#### **HPE Racks**

- Please see the HPE Advanced Series Racks QuickSpecs for information on additional racks options and rack specifications. HPE G2 Advanced Series Racks
- Please see the HPE Enterprise Series Racks QuickSpecs for information on additional racks options and rack specifications. <u>HPE G2 Enterprise Series Racks</u>

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

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

## **HPE Uninterruptible Power Systems (UPS)**

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#### **Additional Options**

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

### **HPE Rack Options**

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

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

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

## **HPE Support Services**

### **Installation & Startup Services**

HPE ProLiant DL/ML Install Service	U4554E
HPE ProLiant DL/ML 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.



**Additional Options** 

### **Technical Specifications**

### **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 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.).

- 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: DL380 Gen12 Extended Ambient Temperature Guidelines.
- 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.).

### **Technical Specifications**

#### 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	5.9 B Dense - LFF
LpAm	48 dBA Dense - LFF
Κν	0.4 B Dense - LFF
Operating	
LWA,m	6.0 B Dense - LFF
LpAm	49 dBA Dense - LFF
Κν	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.
- LFF Dense Configuration: 2x INTEL Xeon 6730P CPU, 12 SAS 7.2K SFF BC HDD, 8x 32GB DIMM, 2x 800W PSU, 6x HPR Fan, 1x MR216i-p PCIe, 1x 1Gb 4p BASE-T OCP Adapter.

### **Technical Specifications**

- -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, persons 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.

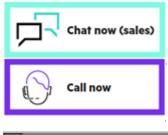
The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard Enterprise web site. These instructions may be used by recyclers and other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

## **Summary of Changes**

Date	Version History	Action	Description of Change
24-Feb-2025	Version 1	New	New QuickSpecs

## Copyright

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