Shape the Future of QuickSpecs - Your Input Matters

HPE ProLiant Compute DL340 Gen12

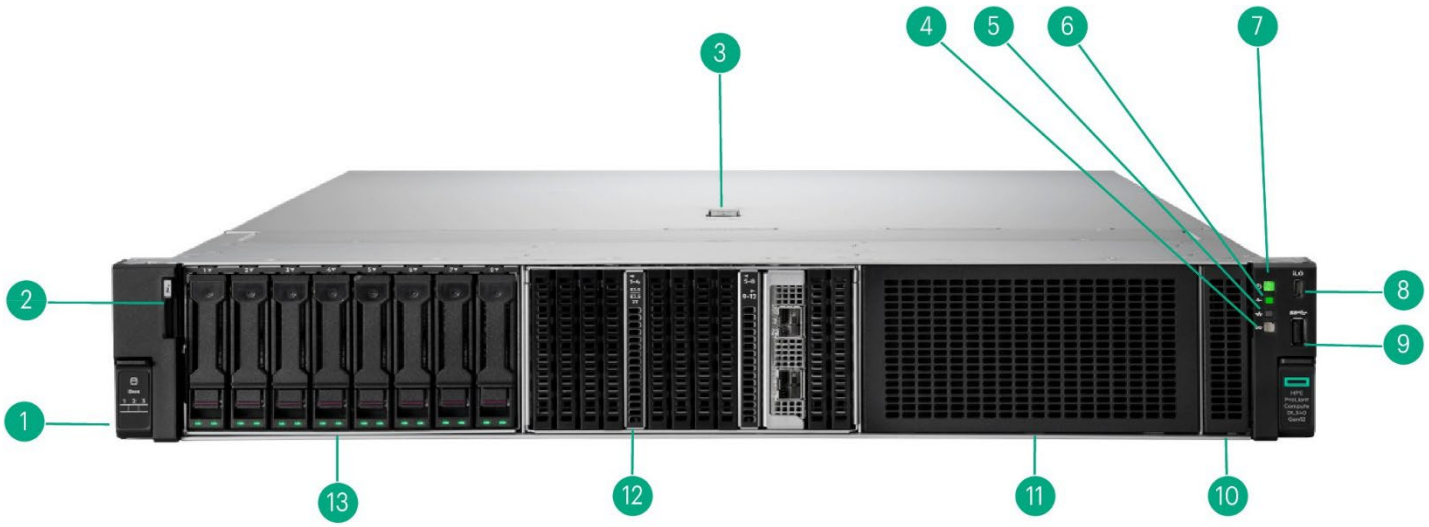
QuickSpecs

The DL340 Gen12 is a 2U 1P server that offers 3 CTO chassis that support SFF, LFF, and GPU configurations.

The 3-box modular front design enhances the configuration flexibility. Due to the configuration flexibility and energy efficiency (reduced power consumption due to better thermals within a 2U chassis), the DL340 Gen12 server is ideal for customers that have a requirement for Infrastructure as a Service (IaaS), Platform as a Service (PaaS), and Software as a Service (SaaS) workloads.

HPE ProLiant Compute DL340 Gen12

The HPE ProLiant Compute DL340 Gen12 is powered by Intel® Xeon® 6 processors with up to 144 cores, increased memory capability (up to 4TB), and high-speed PCIe Gen5. The DL340 Gen12 SP server is a great 2U single socket performance solution driving better datacenter efficiency.



Front View – SFF chassis with optional EDSFF blank, OCP, and Drive Bay blank shown

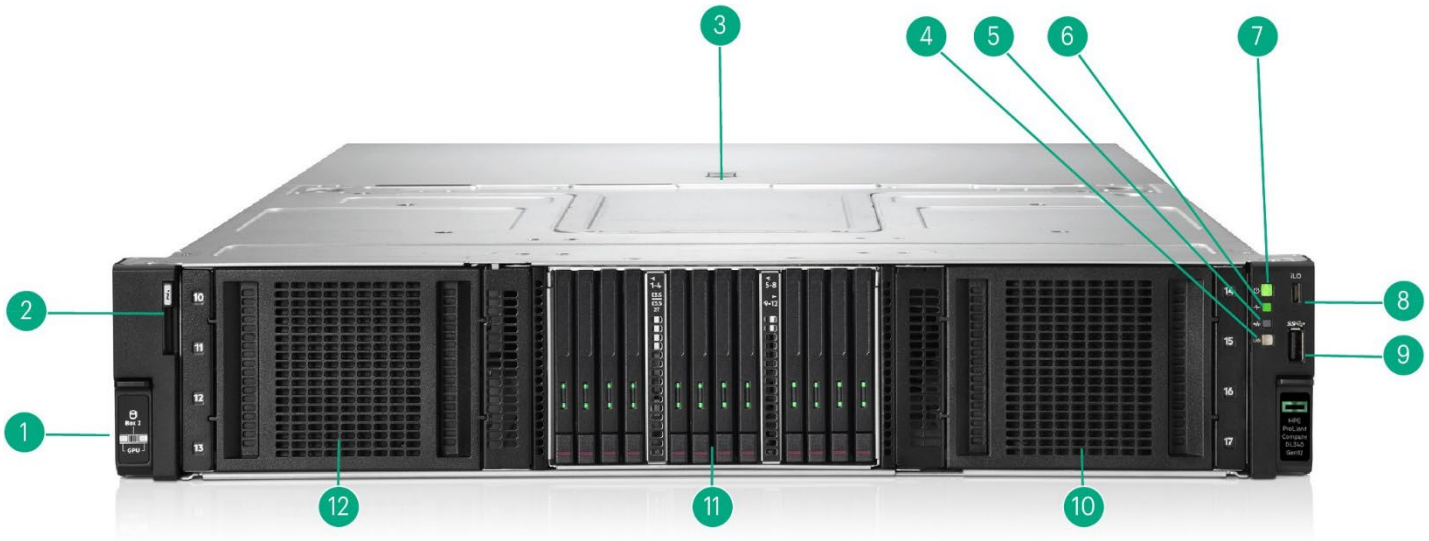
Item	Description	Item	Description
1.	Chassis Box Label	8.	iLO Service Port
2.	Serial Number Label Pull Tab	9.	USB 3.2 Port
3.	Quick Removal Access Panel Latch	10.	System Insight Display (optional)
4.	UID Button/LED	11.	Box 3 (shown with blank panel)
5.	NIC Status LED	12.	Box 2 (shown with optional OCP and EDSFF slots)
6.	Health LED	13.	Box 1 (shown with optional 8SFF drives)
7.	Power On Standby button		

Overview

Front View – LFF chassis

Item	Description	Item	Description
1.	Chassis Box Label	6.	Health LED
2.	Serial Number Label Pull Tab	7.	Power On/Standby button
3.	Quick Removal Access Panel Latch	8.	iLO Service Port
4.	UID Button/LED	9.	USB 3.2 Port
5.	NIC Status LED		

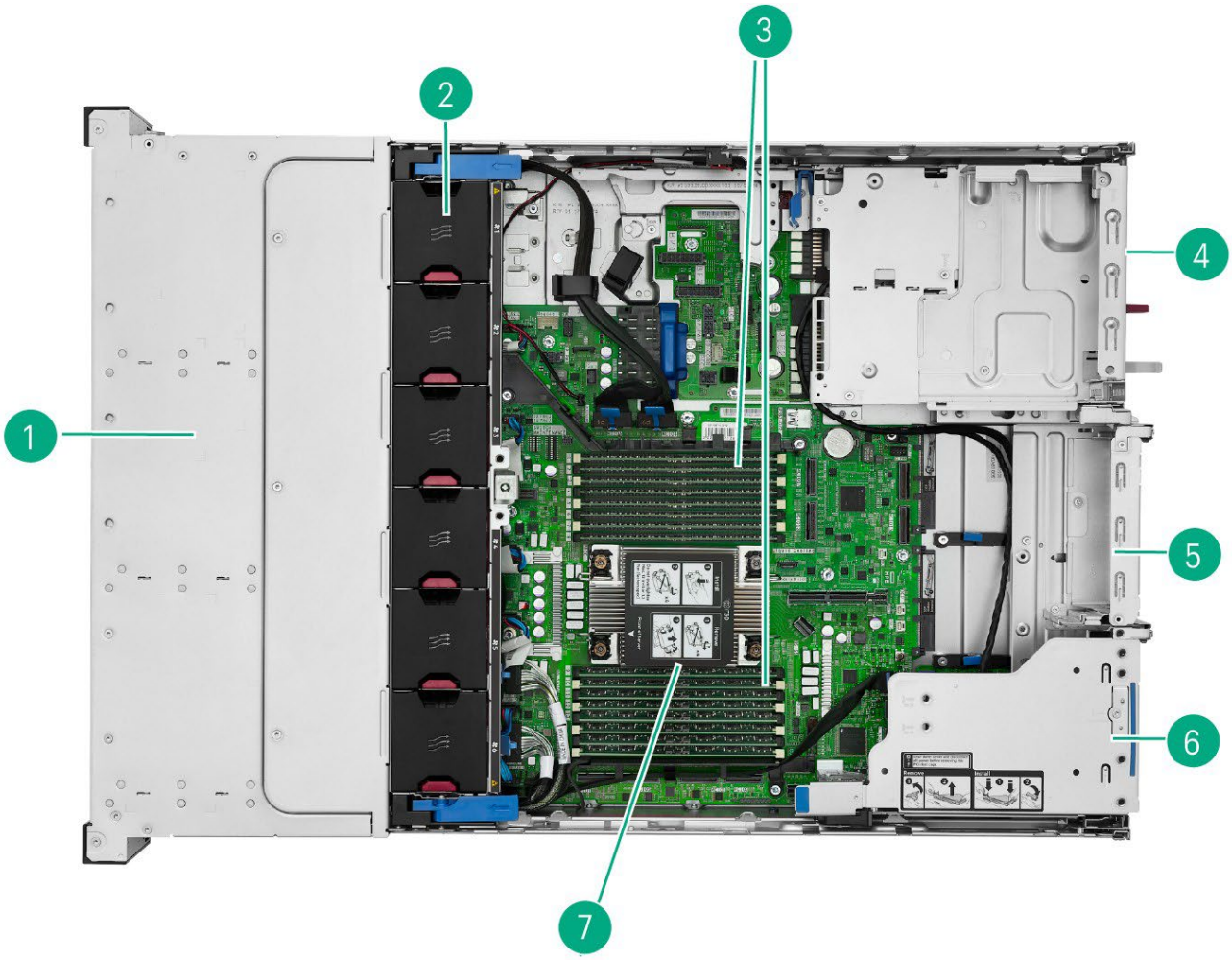
Overview



Front View – GPU chassis

Item	Description	Item	Description
1.	Chassis Box Label	7.	Power On/Standby button
2.	Serial Number Label Pull Tab	8.	iLO Service Port
3.	Quick Removal Access Panel Latch	9.	USB 3.2 Port
4.	UID Button/LED	10.	Box 3/GPU Cage 2
5.	NIC Status LED	11.	Box 2 (shown with optional EDSFF drive slots)
6.	Health LED	12.	Box 1/GPU Cage 1

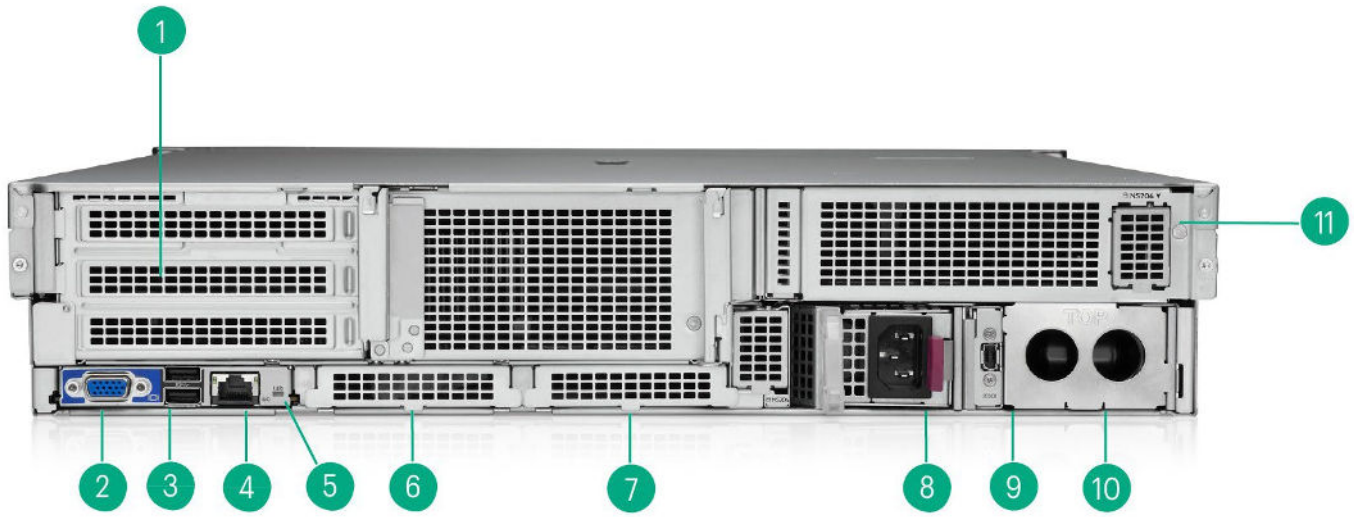
Overview



Internal View – SFF chassis

Item	Description	Item	Description
1.	Drive Bays	5.	Blank/Secondary Riser
2.	6 System Fans	6.	Primary Riser
3.	Memory	7.	CPU
4.	Blank Upper; PSU Lower		

Overview



Rear View – SFF chassis

Item	Description	Item	Description
1.	3 PCIe5 x16 slots	7.	Slot 21 OCP B PCIe5 x16 (optional)
2.	VGA Port	8.	M-CRPS 2 (optional)
3.	2 USB 3.2 Gen1 ports	9.	ix Port (optional)
4.	iLO dedicated network port	10.	M-CRPS
5.	UID (Unit ID) LED	11.	Boot Device (optional)
6.	Slot 20 OCP A PCIe5 x16		

Overview

What's New

- All-New DL340 Gen12 server
- Intel® Xeon® 6 Processors
  - Single Socket / RICH I/O Processor support (i.e., 136 PCIe lanes)
- Data Center – Modular Hardware System (DC-MHS) design
- Modular – Common Redundant Power Supply (M-CRPS) design
- OCP 3.0 (Front and Rear)
- NS204i-u front install option based on configuration
- DDR5 6400 MT/s memory

Platform Information

Form Factor

- 2U rack

Chassis Types

- 8 SFF (P71452-B21) with optional:
  - Front OCP Cage Kit
  - Optical Disk Drive
  - Front / Rear OS Boot Device support
  - EDSFF Front Cage supporting up to 36EDSFF drives
- 12 LFF (P75727-B21) with optional:
  - Optical Disk Drive
- Front GPU (P75728-B21) with optional:
  - Front OCP Cage Kit
  - Front / Rear OS Boot Device support
  - 8SFF Front Cage Kit
  - 12EDSFF Front Cage Kit

System Fans (6 fans required)

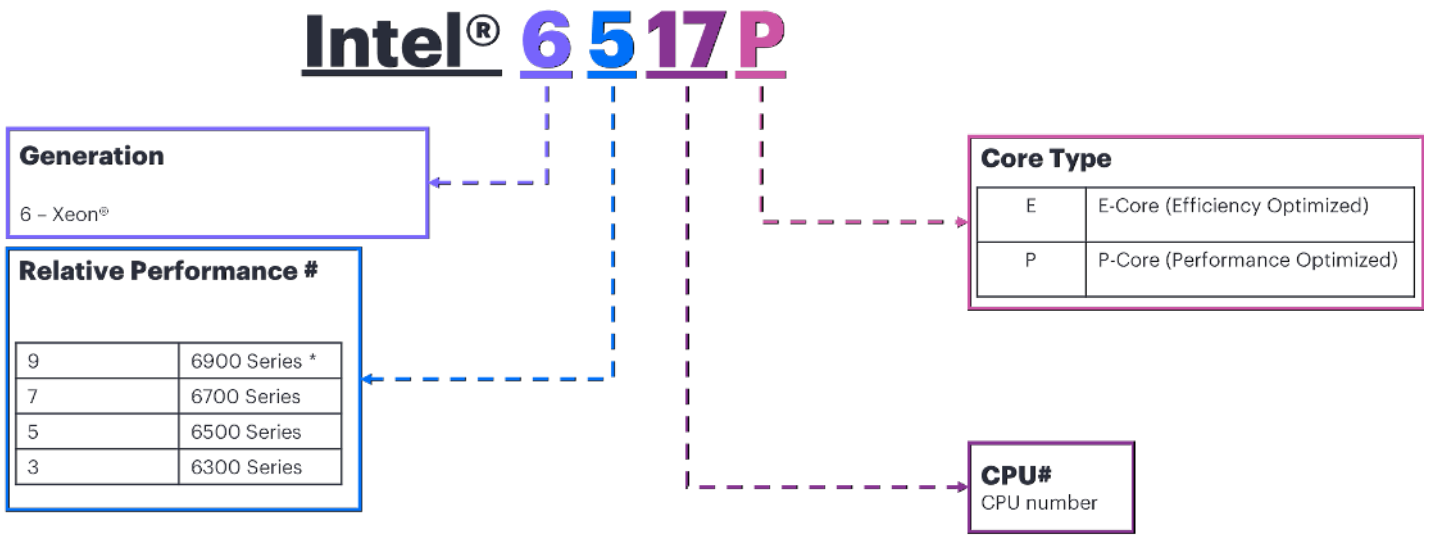
Choice of Standard or Performance Fan Kit

- HPE ProLiant DL3X5 Gen11 2U Standard Fan Kit (P58464-B21), Kit includes (1) fan, (6) required.
- HPE ProLiant DL3X5 Gen11 2U Performance Fan Kit (P58465-B21), Kit includes (1) fan, (6) required.

Notes:

- The High-Performance fan kit is required for GPU CTO server.
- The High-Performance fan kit is required for NEBS configurations.
- Standard & performance fans cannot be mixed.

Processors



Intel® Xeon® 6 processor naming convention

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

For more information regarding Intel® Xeon® 6 processors, please see the following http://www.intel.com/xeon.

The DL340 Gen12 platform supports Intel® Xeon® 6 Efficient Core (E-Core) and Performance-Core (P-Core) processors. The below processors are supported on the DL340 Gen12 platform. Select one of the below processors.

Intel® Xeon 6® Efficient-Core (E-Core) Performance per Watt Processors								
Intel® Xeon Models	**Base Speed (GHz)**	**Cores**	**L3 Cache (MB)**	**Power (W)**	**UPI Links**	**DDR5 (MT/s)**	**SGX Enclave Size (GB)**	**Die**
6710E	2.4	64	96	205	4	5600	512	HDCC
6731E	2.2	96	96	250	0	5600	512	HDCC
6740E	2.4	96	96	250	4	6400	512	HDCC
6746E	2	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

Intel® Xeon 6® Efficient-Core (E-Core) Performance Processor								
Intel® Xeon Models	**Base Speed (GHz)**	**Cores**	**L3 Cache (MB)**	**Power (W)**	**UPI Links**	**DDR5 (MT/s)**	**SGX Enclave Size (GB)**	**Die**
6780E	2.2	144	108	330	4	6400	512	HDCC

Standard Features

Intel® Xeon 6® Performance-Core (P-Core) Processors								
Intel® Xeon Models	**Base Speed (GHz)**	**Cores**	**L3 Cache (MB)**	**Power (W)**	**UPI Links**	**DDR5 (MT/s) ***	**SGX Enclave Size (GB)**	**Die****
6507P	3.5	8	48	150	3	6400	512	LCC
6517P	3.2	16	72	190	3	6400	512	LCC
6527P	3.0	24	144	255	4	6400	512	HCC
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
6745P	3.1	32	336	300	4	6400	512	XCC
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

Intel® Xeon 6® Mainline Processors								
Intel® Xeon Models	**Base Speed (GHz)**	**Cores**	**L3 Cache (MB)**	**Power (W)**	**UPI Links**	**DDR5 (MT/s) ***	**SGX Enclave Size (GB)**	**Die****
6505P	2.2	12	48	150	3	6400	128	LCC
6515P	2.4	16	72	150	3	6400	128	LCC
6520P	2.4	24	144	210	4	6400	128	HCC
6730P	2.3	32	144	225	4	6400	128	HCC
6740P	2.1	48	288	270	4	6400	128	XCC
6760P	2.2	64	320	330	4	6400	128	XCC

Intel® Xeon 6® Single Socket Processors (RICH I/O)								
Intel® Xeon Models	**Base Speed (GHz)**	**Cores**	**L3 Cache (MB)**	**Power (W)**	**UPI Links**	**DDR5 (MT/s) ***	**SGX Enclave Size (GB)**	**Die****
6511P	2.5	16	72	150	0	6400	128	LCC
6521P	2.6	24	144	225	0	6400	128	HCC
6731P	2.5	32	144	245	0	6400	128	HCC
6741P	2.5	48	288	300	0	6400	128	XCC
6761P	2.5	64	336	350	0	6400	128	XCC
6781P	2.0	80	336	350	0	6400	128	XCC

Notes:

- * DDR5 MT/s is 6400 MT/s @ 1 DIMMs per channel (DPC) and 5200 MT/s @ 2 DPC
- ** Intel® HCC & LCC die processors have delayed availability.

System Management Chipset

HPE iLO 7 ASIC on DC-SCM module required.

Notes: Read and learn more in the iLO QuickSpecs.

Memory

Type	HPE DDR5 Smart Memory Registered (RDIMM)
DIMM Slots Available	16 DIMM Slots, 8 channels, 2 DIMMs per channel.
Maximum capacity (RDIMM)	4TB 16 x 256 GB RDIMM 6400 MT/s @ 1 DPC and 5200 MT/s @ 2 DPC

Notes: All processors listed support up to 4TB memory.

- 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.

For additional information, please visit the HPE Memory QuickSpecs and Technical White Papers or HPE DDR5 Smart Memory QuickSpecs.

Memory Protection Features

Advanced ECC

Advanced ECC uses device data correction to detect and correct single and all multi-bit errors 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.

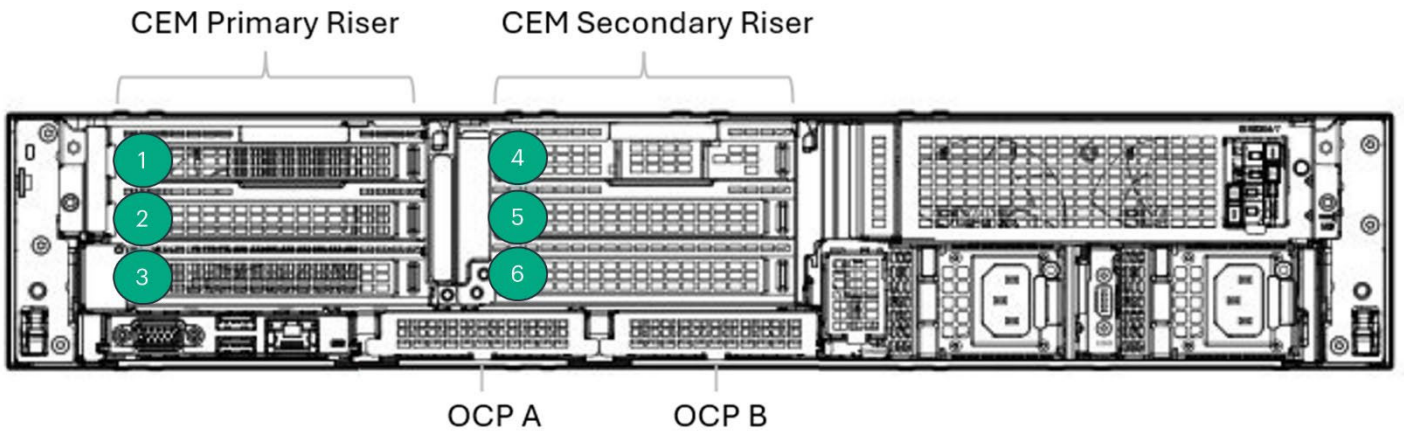
Mirroring

Memory Mirroring enables full memory redundancy.

Network Controller

There is no default network controller included. The HPE ProLiant Compute DL340 Gen12 server offers the customer a variety of networking options which are outlined in the Core Options selection in this document.

Expansion Slots



Notes:

- Slot 3 (Primary riser), optional
- Slot 6 (Secondary riser), optional

Expansion Slots #	Technology	Bus Width	Connector Width	Slot Form Factor
1 (CEM Primary Riser) - Slot 3	PCIe 5.0	x16	x16	FHHL
1 (CEM Secondary Riser) - Slot 6	PCIe 5.0	x16	x16	FHHL

OCP Expansion Slots

Expansion Slots #	Technology	Bus Width	Connector Width
1 Rear OCP A (OCP 3.0) embedded 1 Rear OCP B (OCP 3.0) optional 2 Front (OCP3.0) optional (1) w/NCSI support	PCIe 5.0	x16	x16

Internal Storage Devices

- **Optical Drive -** Available on SFF/EDSFF and LFF CTO Servers as an option (DVD-ROM or DVD-RW)
- **Drives** - None shipped as standard

Standard Features

Graphics

Integrated Video

- VGA port on DC-SCM module
- DisplayPort with optional optical disk drive
- Video modes up to 1920 x 1200@60Hz (32 bpp)
- 16MB Video Memory

Maximum Storage

Chassis	Drive Type	Drive Capacity	Total Storage
HPE DL340 Gen12 SFF CTO Server	SFF SAS HDD	2.4 TB	57.6 TB (24 x 2.4TB)
HPE DL340 Gen12 SFF CTO Server	SFF SATA SSD	3.84 TB	92.2 TB (24 x 3.84 TB)
HPE DL340 Gen12 SFF CTO Server	SFF SAS SSD	15.36 TB	368.6 TB (24 x 15.36 TB)
HPE DL340 Gen12 SFF CTO Server / EDSFF Drive Cage	SFF NVMe	15.36 TB	552.9 TB (36 x 15.36 TB)
HPE DL340 Gen12 LFF CTO Server	SFF SATA HDD	24 TB	288 TB (12 x 24 TB)
HPE DL340 Gen12 LFF CTO Server	SFF SAS HDD	24 TB	288 TB (12 x 24 TB)
HPE DL340 Gen12 Front GPU CTO Server	SFF SATA SSD	3.84 TB	30.7 TB (8 x 3.84 TB)
HPE DL340 Gen12 Front GPU CTO Server	SFF SAS SSD	15.36 TB	122.8 TB (8 x 15.36 TB)
HPE DL340 Gen12 Front GPU CTO Server / EDSFF Drive Cage	SFF NVMe	15.36 TB	184.3 TB (12 x 15.36 TB)

Storage Controllers

The available controllers are depicted below.

- HPE MR216i-p Gen11 x16 Lanes without Cache PCI SPDM Plug-in Storage Controller
- HPE MR216i-o Gen11 x16 Lanes without Cache OCP SPDM Storage Controller
- HPE MR408i-o Gen11 x8 Lanes 4GB Cache OCP SPDM Storage Controller
- HPE MR416i-o Gen11 x16 Lanes 8GB Cache OCP SPDM Storage Controller
- HPE MR416i-p Gen11 x16 Lanes 8GB Cache PCI SPDM Plug-in Storage Controller
- HPE MR932i-p x32 Lanes PCIe Gen5 SPDM Plug-in Storage Controller

Notes: For additional information, please see the HPE Compute MR Gen11 Controller QuickSpecs

Power Supply

- HPE 1000W M-CRPS Hot Plug Titanium Hot Plug Power Supply Kit
- HPE 1500W M-CRPS Hot Plug Titanium Hot Plug Power Supply Kit
- HPE 2400W M-CRPS Hot Plug Titanium Hot Plug Power Supply Kit
- HPE 3200W M-CRPS Hot Plug Titanium Hot Plug Power Supply Kit

Notes: The above power supplies have a 96% efficiency.

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

European Union ErP Lot 9 Regulation

Beginning on January 1st, 2024, units sold into the European Economic Area (EEA), the United Kingdom, Switzerland, or Turkey must include more efficient AC power supplies: 94% for multi-output and 96% for single-output. HPE M-CRPS power supplies are single-output, and part numbers P67240-B21, P67244-B21, P67248-B21, and P67252-B21 are 96% efficient, thus meeting requirements. HPE is on target to fulfill compliant systems ahead of time and will begin enforcing these requirements in advance to satisfy requests with the current power supplies by the set deadline.

Interfaces	
Serial	Optional (rear), requires Serial Enablement Kit.
Video	DC-SCM VGA port (rear) Optional DisplayPort (front)
Network Ports	None standard. Choice of OCP or standup card required.
HPE iLO Remote Mgmt Port	1 GbE Dedicated (rear)
Front iLO Service Port	1 standard (USB-C, front)
USB 3.2 Gen1 Ports	4 standard (1 front, 2 rear, 1 internal) Optional, additional USB 2.0 front in 4LFF, SFF, and SFF/EDSFF models.

Operating Systems and Virtualization Software Support for HPE Servers

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

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

HPE Server UEFI

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

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

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

- Secure Boot and Secure Start enabled for enhanced security
- Embedded UEFI Shell
- Operating system specific functionality
- Mass Configuration Deployment Tool using iLO RESTful API that is Redfish API Conformant
- Support for > 2.2 TB (using GPT) boot drives
- PXE boot support for IPv6 networks
- USB 3.0 Stack
- Workload Profiles for simple performance optimization

UEFI Boot Mode only

- TPM 2.0 Support
- 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 6.4 Compliant
- PCIe 5.0 Compliant
- Wake on LAN (WoL) Support
- Microsoft® Logo certifications
- PXE Support
- VGA
- DisplayPort
  Notes: This support is on the optional Universal Media Bay.
- USB 3.2 Gen1 Compliant
- USB 2.0 Compliant (via Universal Media Bay)
  Notes: This support is on the optional Universal Media Bay.
- Energy Star
- SMBIOS 3.4
- Redfish API
- IPMI 2.0
- Secure Digital 4.0
- 2.0 Support
  Notes: Enabling TPM 2.0 no longer requires a TPM module option kit for Gen11. It is an embedded feature.
- Advanced Encryption Standard (AES)
- Triple Data Encryption Standard (3DES)
- SNMP v3
- TLS 1.2

Standard Features

- DMTF Systems Management Architecture for Server Hardware Command Line Protocol (SMASH CLP)
- Active Directory v1.0
- ASHRAE A3/A4
- European Union ErP Lot 9 Regulation

  Notes:
  - Beginning on January 1st, 2024, units sold into the European Union (EU), European Economic Area (EEA), the United Kingdom, Ireland, Switzerland or Turkey, must include more efficient AC power supplies: 94% for multi-output and 96% for single-output. HPE Flexible Slot power supplies are single-output, and part numbers 865438-B21, P03178-B21, and P44712-B21 are 96% efficient, thus meeting requirements.
  - HPE is on target to fulfill compliant systems ahead of time and will begin enforcing these requirements in advance to satisfy requests with the current power supplies by the set deadline.
  - Please visit: https://www.hpe.com/us/en/about/environment/msds-specs-more.html for more information regarding HPE Lot 9 conformance.
  - UEFI (Unified Extensible Firmware Interface Forum) 2.8

Embedded Management

HPE Integrated Lights-Out (HPE iLO)

Monitor your servers for ongoing management, service alerting, reporting, and remote management with HPE iLO. Learn more at http://www.hpe.com/info/ilo

UEFI

Configure and boot your servers securely with industry-standard Unified Extensible Firmware Interface (UEFI). Learn more at http://www.hpe.com/servers/uefi.

Intelligent Provisioning

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

Learn more at http://www.hpe.com/servers/intelligentprovisioning.

iLO RESTful API

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

OpenBMC Support

OpenBMC Capable through iLO6 Transfer of Ownership Process.
Learn more at OpenBMC Support

Server Utilities

Active Health System

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

Smart Update

Keep your 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).
Learn more at https://www.hpe.com/us/en/servers/smart-update.html.

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 http://www.hpe.com/info/resttool.

HPE OneView Standard

HPE OneView is an on-premises, 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 http://www.hpe.com/info/oneview.

HPE Compute Ops Management

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

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

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

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

For information on supported HPE servers, the complete list can be found here:
https://www.hpe.com/info/com-supported-servers

Security

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

- **HPE Integrated Lights-Out (HPE 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.
- **HPE Trusted Supply Chain:** HPE Trusted Supply Chain offers enhanced security and compliance for organizations worldwide. Servers built with this option undergo rigorous inspections and checkpoints to detect and mitigate malicious microcode and counterfeit parts throughout the server build and lifecycle.

Please refer to the HPE ProLiant Compute Gen12 Embedded Security QuickSpecs document for more detailed information. http://psnow.ext.hpe.com/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 are available for three years from the date of purchase. Support for software and initial setup is available for 90 days from the 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, and 3-Year Onsite support with next business day response. Warranty repairs may be completed using Customer Self Repair (CSR) parts. These parts fall into two categories: 1) Mandatory CSR parts are designed for easy replacement. A travel and labor charge will result when customers decline to replace a Mandatory CSR part; 2) Optional CSR parts are also designed for easy replacement but may involve added complexity. Customers may choose to have Hewlett Packard Enterprise replace Optional CSR parts at no charge. Additional information regarding worldwide limited warranty and technical support is available at:
https://www.hpe.com/support/ProLiantServers-Warranties

Server Management

HPE iLO Advanced
HPE iLO Advanced licenses offer smart remote functionality without compromise, for all HPE ProLiant servers. The license includes the fully 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 brings a new level of automation to infrastructure management by taking a template-driven approach to provisioning, updating, and integrating compute, storage, and networking infrastructure. It provides full-featured licenses which can be purchased for managing Gen8, Gen9, Gen10 & Gen10 Plus servers. To learn more visit http://www.hpe.com/info/oneview.

HPE InfoSight for Servers
HPE InfoSight for Servers combines the cloud-based machine learning of InfoSight with the health and performance monitoring of Active Health System (AHS) and iLO to optimize performance and predict and prevent problems. The result is an intelligent environment that modernizes IT operations and enhances the support experience by predicting and preventing the infrastructure issues that lead to application disruptions, wasted IT staff time and missed business opportunities. Learn more at https://www.hpe.com/servers/infosight

Accelerator and GPU Information
Hewlett Packard Enterprise supports various accelerators on select HPE ProLiant servers to support different workloads. The accelerators enable seamless integration of GPU computing with HPE ProLiant servers for high-performance computing, large data center graphics, deep learning and virtual desktop deployments. These accelerators deliver all the standard benefits of GPU computing while enabling maximum reliability and tight integration with system monitoring and management tools such as HPE Insight Cluster Management Utility.

Rack and Power Infrastructure
The story may end with servers, but it starts with the foundation that makes compute go – and business grow. We've reinvented our entire portfolio of rack and power products to make IT infrastructure more secure, more practical, and more efficient. In other words, we have created a stronger, smarter, and simpler infrastructure to help you get the most out of your IT equipment. As an industry leader, Hewlett Packard Enterprise is uniquely positioned to address the key concerns of power, cooling, cable management and system access.

HPE G2 Advanced and Enterprise Racks are perfect for the server room or today's modern data center with enhanced airflow and thermal management, flexible cable management, and a 10-year Warranty to support higher density computing.

HPE G2 PDUs offer reliable power in flexible form factors that operate at temperatures up to 60°C, include color-coded outlets and load segments and a low-profile design for optimal access to the rack and support for dense rack environments.

Optional Features

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.

One Config Simple (SCE)
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

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 on your journey to hybrid cloud, experts can help you map out your next steps. From determining what workloads should live where, to handling governance and compliance, to managing costs, our experts can help you optimize your operations.
https://www.hpe.com/services/consulting

HPE Managed Services

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

Operational services

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

HPE Complete Care Service

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

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

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

HPE Tech Care Service

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

HPE Lifecycle Services

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

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

Notes: To review the list of Lifecycle Services available for your product go to:
https://www.hpe.com/services/lifecycle

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

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Other Related Services from HPE Services

HPE Education Services

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

Defective Media Retention

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

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

Parts and Materials

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

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

How to Purchase Services

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

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

AI Powered and Digitally Enabled Support Experience

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

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

Consume IT On Your Terms

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

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

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

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

Configuration Information

Smart Templates from HPE
HPE is releasing new Smart Template technology in the One Config Advanced (OCA) configurator. These Templates represent the CTO equivalents of the top-selling BTO configurations. They 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 meet the current and future market trends. HPE has committed to providing a more predictable and faster experience for these options. Mainstream SKUs enjoy higher safety stock levels and have higher fulfillment service levels than non-Mainstream SKUs. Mainstream orders are fulfilled 30% faster than non-Mainstream orders, have fewer shortages, and better recovery dates. This platform has Mainstream SKUs in the options portfolio and is eligible for an improved Mainstream experience.
Mainstream SKUs are designated with a Mainstream symbol in our configurators.

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

European Union ErP Lot 9 Regulation
Switzerland must include more efficient AC power supplies: 94% for multi-output and 96% for single-output. HPE Flexible Slot power supplies are single-output, and part numbers 865438-B21, P03178-B21, and P44712-B21 are 96% efficient, thus meeting requirements.

HPE is on target to fulfill compliant systems ahead of time and will begin enforcing these requirements in advance to satisfy requests with the current power supplies by the set deadline.

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

- Factory Integrated Models must start with a CTO Server.
- Factory Integrated Option (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.

Configuration Information

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.

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Step 1: Base Configuration - choose one (1) of the following three (3) configurable server models from the table below.

CTO Server	HPE DL340 Gen12 SFF CTO Server	HPE DL340 Gen12 LFF CTO Server	HPE DL340 Gen12 Front GPU CTO Server
SKU Number	P71452-B21	P75727-B21	P75728-B21
TAA SKU[1]	P71452-B21#GTA	P75727-B21#GTA	P75728-B21#GTA
Processor	Not included as standard – select one from available processors		
Memory	Not included as standard – select capacity and quantity from available DIMMs		
Management	HPE iLO 7 on DC-SCM module (P76981-B21) included		
Heatsink	Choice of standard or performance heatsink		
Fans	Choice of standard or performance fans		
PCIe	Optional primary & secondary CEM riser		
OCP 3.0 Slot	Optional	Not supported	Optional
Drive Cage	Box 3 – 8SFF default	Box 3 – 4LFF default	Optional Box 2 SFF/EDSFF
Network Controller	No embedded networking. Choice of OCP 3.0 or standup network adapters		
Storage Controller	Choice of optional MR Storage Controllers or Intel® VROC Software RAID		
Optical Disk Drive	Optional	Optional	Not supported
USB	Front: One (1) USB 3.2 Gen1 + iLO service port Rear: Two (2) USB 3.2 Gen1 ports Internal: One (1) USB 3.2 Gen1 port		
Security	Embedded TPM 2.0 (Trusted Platform Module)		
Rail Kit	Optional Easy Install rails and CMA		
Form Factor	2U Rack		
Warranty	3-year parts, 3-year labor, 3-year onsite support with next business day response.		

Step 2: Choose Core Options

- Choice of 1 Processor model and Heat Sink Kit
  - Requires necessary Heat Sink for different processor wattage.
- Choice of DDR5 memory options.
  - Requires necessary Fan Kits for different memory configurations and subjects to the recommended system ambient
    temperature.

Configuration Information

- Choice of Backplane / Drive cage / Enablement kit
- Choice of Riser Cards
- Choice of Storage Controllers, and Storage Controller Cables
- Choice of SSD, HDD, and Optical Drives
- Choice of OS Boot Devices, Intel® VROC
- Choice of Networking options
  - PCIe standup or OCP 3.0. Requires necessary Fan Kits and subjects to the recommended system ambient temperature.
- Choice of Accelerator options
- Choice of Power and Cooling options
- Choice of Management Options

Step 3: Choose Additional Options

- Choice of Security options
- Choice of Software as a Service Management - HPE Compute Ops Management and HPE OneView
- Choice of Embedded Management
- Choice of Rail Kits
- Choice of Rack options
- Choice of Support Services

Core Options

Step 2: Choice of Core Options

Processor - Select one of the below processors.

Intel® Xeon 6® Efficient-Core (E-Core) 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
Intel® Xeon 6® Efficient-Core (E-Core) Performance Processors	
Intel® Xeon® 6780E 2.2GHz 144-core 330W Processor for HPE	P71124-B21
Intel® Xeon 6® Performance-Core (P-Core) 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® 6745P 3.1GHz 32-core 300W Processor for HPE	P81591-B21
Intel® Xeon® 6747P 2.7GHz 48-core 330W Processor for HPE	P73831-B21
Intel® Xeon® 6767P 2.4GHz 64-core 350W Processor for HPE	P73834-B21
Intel® Xeon® 6787P 2.0GHz 86-core 350W Processor for HPE	P73837-B21
Intel® Xeon 6® Mainline Processors	
Intel® Xeon® 6505P 2.2GHz 12-core 150W Processor for HPE	P74503-B21
Intel® Xeon® 6515P 2.3GHz 16-core 150W Processor for HPE	P74506-B21
Intel® Xeon® 6520P 2.4GHz 24-core 210W Processor for HPE	P74568-B21
Intel® Xeon® 6530P 2.3GHz 32-core 225W Processor for HPE	P74571-B21
Intel® Xeon® 6740P 2.1GHz 48-core 270W Processor for HPE	P73829-B21
Intel® Xeon® 6760P 2.2GHz 64-core 330W Processor for HPE	P73832-B21
Intel® Xeon 6® Single Socket Processors (RICH I/O)	
Intel® Xeon® 6511P 2.3GHz 16-core 150W Processor for HPE	P74505-B21
Intel® Xeon® 6521P 2.6GHz 24-core 225W Processor for HPE	P74569-B21
Intel® Xeon® 6731P 2.5GHz 32-core 245W Processor for HPE	P74574-B21
Intel® Xeon® 6741P 2.5GHz 48-core 300W Processor for HPE	P73830-B21
Intel® Xeon® 6761P 2.5GHz 64-core 350W Processor for HPE	P73833-B21
Intel® Xeon® 6781P 2.0GHz 80-core 350W Processor for HPE	P73836-B21

Memory – Please select one or more memory DIMMs from the below.	
HPE 16GB (1x16GB) Single Rank x8 DDR5-6400 CAS-52-52-52 EC8 Registered Smart Memory Kit	P69726-B21
HPE 32GB (1x32GB) Dual Rank x8 DDR5-6400 CAS-52-52-52 EC8 Registered Smart Memory Kit	P69727-B21
HPE 64GB (1x64GB) Dual Rank x4 DDR5-6400 CAS-52-52-52 EC8 Registered Smart Memory Kit	P69728-B21
HPE 96GB (1x96GB) Dual Rank x4 DDR5-6400 CAS-52-52-52 EC8 Registered Smart Memory Kit	P69729-B21
HPE 128GB (1x128GB) Dual Rank x4 DDR5-6400 CAS-52-52-52 EC8 Registered Smart Memory Kit	P69730-B21

Core Options

HPE 256GB (1x256GB) Quad Rank x4 DDR5-6400 CAS-60-52-52 EC8 Registered 3DS Smart Memory Kit P73447-B21

Notes:
- All SKUs below ship with one processor only. Adequate fans and heatsinks must be selected.
- High-performance fan kit required with 9 DIMMs and above.

Backplane / Drive cage / Enablement Kit

Please select from the appropriate CTO Server compatibility category (SFF, LFF, GPU CTO Server)

Compatible with HPE DL340 Gen12 SFF CTO Server

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

Notes: Supports up to 8 SAS/SATA/NVMe U.3 drives

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

Notes: Supports up to 8 SAS/SATA/NVMe U.3 drives

HPE ProLiant Compute DL340 Gen12 8SFF x4 U.2 NVMe Drive Cage Kit P71465-B21

Notes: Supports up to 8 NVMe U.3 dynamic drives

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

Notes: Supports up to 2 NVMe U.3 drives

HPE ProLiant Compute DL340 Gen12 8SFF Primary Front OCP Enablement Kit P71480-B21

Notes: In SFF CTO server, if 6XX1P processor is selected along with EDSFF drive cage then 'Front OCP enable kit' can be selected only when '16EDSFF x4 R1S DA Cable Kit' is selected

HPE ProLiant Compute DL340 Gen12 8SFF Secondary Front OCP Enablement Kit P75768-B21

Notes: In SFF CTO server, if 6XX1P processor is selected along with EDSFF drive cage then 'Front OCP enable kit' can be selected only when '16EDSFF x4 R1S DA Cable Kit' is selected

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

Notes: Required to support 4EDSFF or front OCP or front NS204i-u configurations

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

Notes: Supports up to 4 EDSFF drives

HPE ProLiant Compute DL3X0 Gen12 SP MHS Serial Port Enablement Kit P71432-B21

Compatible with HPE DL340 Gen12 LFF CTO Server

HPE ProLiant Compute Gen12 4LFF Backplane Kit P75760-B21

Notes: Supports up to 4 LFF SAS/SATA drives

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

Notes: Supports up to 2 NVMe U.3 drives

HPE ProLiant Compute DL3X0 Gen12 SP MHS Serial Port Enablement Kit P71432-B21

Compatible with HPE DL340 Gen12 Front GPU CTO Server

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

Notes: Required to support 4EDSFF or front OCP or front NS204i-u configurations

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

Notes: Supports up to 4 EDSFF drives

HPE ProLiant Compute DL340 Gen12 Front GPU Primary Front OCP Enablement Kit P77277-B21

HPE ProLiant Compute DL340 Gen12 Front GPU Secondary Front OCP Enablement Kit P75767-B21

Notes:
- Primary and Secondary Front OCP Enablement Kits must be selected together

Core Options

– Cannot be selected if more than (1) 4EDSFF drive cage is selected

HPE ProLiant Compute DL340 Gen12 Front 2x GPU Enablement Kit P75813-B21

Notes: Not supported with Intel® Xeon 6® Single Socket Processors (6XX1P).

HPE ProLiant Compute DL340 Gen12 Front 4x GPU Enablement Kit P75816-B21

Notes: Requires an Intel® Xeon 6® Single Socket Processor (6XX1P).

HPE ProLiant Compute DL3X0 Gen12 SP MHS Serial Port Enablement Kit P71432-B21

Risers

HPE ProLiant Compute DL3X0 Gen12 x16 PCIe Primary Riser Kit P71430-B21

Notes:

– For use in Slot 3 as the primary riser

– In SFF CTO Server Slot 3 can be enabled only if 8SFF x4 DAC or 8SFF/EDSFF cable kit or 36EDSFF x2 R1S DA Cable Kit or Internal controller is selected

HPE ProLiant Compute DL340 Gen12 Rear Captive Riser Kit P75818-B21

Notes:

– A maximum of 2 rear captive riser kits allowed.

– Available with SFF and LFF CTO servers with Intel® Xeon 6® Single Socket Processors (6XX1P)

– Rear Captive riser cannot be selected with SFF CTO Server if OCPB cable kit is selected

HPE ProLiant Compute DL3X0 Gen12 Secondary CEM Riser Cage Kit P75014-B21

Notes:

– For use in Slot 6 as a secondary riser

– Mixing with NEBS riser is not allowed.

HPE ProLiant Compute DL340 Gen12 NEBS-compliant Riser Kit P74368-B21

Notes:

– Mixing of NEBS riser with other risers is not allowed.

– A maximum of 2 NEBS risers allowed.

– High-performance heat sink and six high-performance fan kits required

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Storage Controller – Please select a storage controller from the below list.

Drive / Interface Support Matrix

Drive Type	Interface	MR200 & MR400 Series	MR900 Series
HDD	SATA	Supported	Not Supported
	SAS	Supported	Not Supported
SSD	SATA	Supported	Not Supported
	SAS	Supported	Supported
	NVMe	Supported	Supported

Please refer to the storage controller QuickSpecs for more detailed information:

HPE Compute MR Gen11 Controllers QuickSpecs

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

HPE MR216i-p Gen11 x16 Lanes without Cache PCI SPDM Plug-in Storage Controller P47785-B21

Notes: These controllers support up to 16 SAS/SATA/NVMe Drives

Core Options

HPE MR408i-o Gen11 x8 Lanes 4GB Cache OCP SPDM Storage Controller P58335-B21

Notes:

- This controller supports up to 8 SAS/SATA/NVMe Drives.
- Requires 96W Smart Stg Li-ion Batt 145mm Kit (P01366-B21) or Smart Hybrid Capacitor w/ 145mm Cable (P02377-B21).

HPE MR416i-o Gen11 x16 Lanes 8GB Cache OCP SPDM Storage Controller P47781-B21

HPE MR416i-p Gen11 x16 Lanes 8GB Cache PCI SPDM Plug-in Storage Controller P47777-B21

Notes:

- These controllers support up to 16 SAS/SATA/NVMe Drives.
- Requires 96W Smart Stg Li-ion Batt 145mm Kit (P01366-B21) or Smart Hybrid Capacitor w/ 145mm Cable (P02377-B21).

HPE MR932i-p x32 Lanes PCIe Gen5 SPDM Plug-in Storage Controller P75697-B21

Notes:

- This controller supports up to 32 SAS/NVMe Drives.
  This controller comes with an onboard battery.

HPE Smart Array E208e-p SR Gen10 (8 External Lanes/No Cache) 12G SAS PCIe Plug-in Controller 804398-B21

Battery and Hybrid Capacitor

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

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

Notes: If HPE 96W Smart Stg Li-ion Batt 145mm Kit is selected then HPE Smart Hybrid Capacitor 145mm kit cannot be selected and vice versa.

Cables

Compatible with HPE DL340 Gen12 SFF CTO Server

HPE ProLiant Compute DL340 Gen12 8SFF x1 for PCIe Cable Kit P75742-B21

HPE ProLiant Compute DL340 Gen12 8SFF x4 Direct Attach Cable Kit P77392-B21

HPE ProLiant Compute DL340 Gen12 8SFF x4 Direct Attach Front OCP Cable Kit P75745-B21

HPE ProLiant Compute DL340 Gen12 16SFF x4 Direct Attach Cable Kit P75747-B21

HPE ProLiant Compute DL340 Gen12 16SFF x4 Direct Attach Front OCP Cable Kit P75750-B21

HPE ProLiant Compute DL340 Gen12 16SFF x1 for OCP Cable Kit P77711-B21

HPE ProLiant Compute DL340 Gen12 24SFF x2 for PCIe Cable Kit P75752-B21

HPE ProLiant Compute DL340 Gen12 24SFF x1 for PCIe Cable Kit P75754-B21

HPE ProLiant Compute DL340 Gen12 24SFF x4 Direct Attach Cable Kit P75756-B21

HPE ProLiant Compute DL340 Gen12 24SFF x2 Direct Attach Cable Kit P75758-B21

HPE ProLiant Compute DL340 Gen12 8SFF Secondary Front OCP Enablement Kit P75768-B21

HPE ProLiant Compute DL340 Gen12 8EDSFF x4 Direct Attach Cable Kit P75778-B21

HPE ProLiant Compute DL340 Gen12 8EDSFF Direct Attach Front OCP Cable Kit P76584-B21

HPE ProLiant Compute DL340 Gen12 16EDSFF x4 R1S Direct Attach Cable Kit P75784-B21

HPE ProLiant Compute DL340 Gen12 16EDSFF x4 Direct Attach Cable Kit P76588-B21

HPE ProLiant Compute DL340 Gen12 24EDSFF x4 R1S Direct Attach Cable Kit P75786-B21

Core Options

HPE ProLiant Compute DL340 Gen12 36EDSFF x2 R1S Direct Attach Cable Kit	P75794-B21
HPE ProLiant Compute DL340 Gen12 8SFF/8EDSFF Hybrid Cable Kit	P75800-B21
HPE ProLiant Compute DL340 Gen12 Front SFF for 2SFF Enablement Cable Kit	P77394-B21
HPE ProLiant Compute DL3X0 Gen12 OCP SlotB MCIO Cable Kit	P71426-B21
HPE ProLiant Compute DL3X0 Gen12 OCP SlotB for R1S MCIO Cable Kit	P75154-B21
HPE ProLiant Compute DL3X0 Gen12 Direct Attach OCP SlotB MXIO Cable Kit	P77556-B21
HPE ProLiant Compute DL340 Gen12 8SFF Primary Front OCP Enablement Kit	P71480-B21
Compatible with HPE DL340 Gen12 LFF CTO Server	
HPE ProLiant Compute DL340 Gen12 12LFF for PCIe Cable Kit	P75761-B21
HPE ProLiant Compute DL340 Gen12 Front LFF for 2SFF Enablement Cable Kit	P77395-B21
HPE ProLiant Compute DL3X0 Gen12 OCP SlotB MCIO Cable Kit	P71426-B21
HPE ProLiant Compute DL3X0 Gen12 OCP SlotB for R1S MCIO Cable Kit	P75154-B21
HPE ProLiant Compute DL3X0 Gen12 Direct Attach OCP SlotB MXIO Cable Kit	P77556-B21
Compatible with HPE DL340 Gen12 Front GPU CTO Server	
HPE ProLiant Compute DL340 Gen12 Front GPU 8SFF x1 for PCIe Cable Kit	P75770-B21
HPE ProLiant Compute DL340 Gen12 Front GPU 8SFF x4 R1S Direct Attach Cable Kit	P77397-B21
HPE ProLiant Compute DL340 Gen12 Front GPU 8SFF x4 Direct Attach Cable Kit	P75772-B21
HPE ProLiant Compute DL340 Gen12 Front GPU 4EDSFF Direct Attach Cable Kit	P75774-B21
HPE ProLiant Compute DL340 Gen12 Front GPU 12EDSFF Direct Attach Cable Kit	P75776-B21
HPE ProLiant Compute DL3X0 Gen12 Direct Attach OCP SlotB MXIO Cable Kit	P77556-B21

HPE Drives

Solid State Drives

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

Please refer to the HPE Solid State Disk Drives QuickSpecs for more detailed information:

HPE Solid State Disk Drives QuickSpecs

Read Intensive – 24G SAS - SFF	
HPE 1.92TB SAS 24G Read Intensive SFF BC Multi Vendor SSD	P49031-B21
HPE 3.84TB SAS 24G Read Intensive SFF BC Multi Vendor SSD	P49035-B21
HPE 7.68TB SAS 24G Read Intensive SFF BC Multi Vendor SSD	P49041-B21
HPE 15.36TB SAS 24G Read Intensive SFF BC Multi Vendor SSD	P49045-B21
Mixed Use – 24G SAS - SFF	
HPE 1.6TB SAS 24G Mixed Use SFF BC Multi Vendor SSD	P49049-B21
HPE 3.2TB SAS 24G Mixed Use SFF BC Multi Vendor SSD	P49053-B21
HPE 6.4TB SAS 24G Mixed Use SFF BC Multi Vendor SSD	P49057-B21
Read Intensive – 12G SAS - SFF	
HPE 960GB SAS 12G Read Intensive SFF BC Value SAS Multi Vendor SSD	P40506-B21
HPE 1.92TB SAS 12G Read Intensive SFF BC Value SAS Multi Vendor SSD	P40507-B21
HPE 3.84TB SAS 12G Read Intensive SFF BC Value SAS Multi Vendor SSD	P40508-B21
HPE 7.68TB SAS 12G Read Intensive SFF BC Value SAS Multi Vendor SSD	P40509-B21
HPE 26TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e ISE Multi Vendor HDD	P80577-B21
Mixed Use – 12G SAS - SFF	
HPE 960GB SAS 12G Mixed Use SFF BC Value SAS Multi Vendor SSD	P40510-B21
HPE 1.92TB SAS 12G Mixed Use SFF BC Value SAS Multi Vendor SSD	P40511-B21
HPE 3.84TB SAS 12G Mixed Use SFF BC Value SAS Multi Vendor SSD	P40512-B21

Core Options

Mixed Use – 12G SAS - LFF	
HPE 960GB SAS 12G Mixed Use LFF LPC Value SAS Multi Vendor SSD	P37009-B21
Read Intensive - 6G SATA – SFF	
HPE 480GB SATA 6G Read Intensive SFF BC Multi Vendor SSD	P40497-B21
HPE 960GB SATA 6G Read Intensive SFF BC Multi Vendor SSD	P40498-B21
HPE 1.92TB SATA 6G Read Intensive SFF BC Multi Vendor SSD	P40499-B21
HPE 3.84TB SATA 6G Read Intensive SFF BC Multi Vendor SSD	P40500-B21
HPE 26TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e ISE Multi Vendor HDD	P80578-B21
Mixed Use - 6G SATA - SFF	
HPE 480GB SATA 6G Mixed Use SFF BC Multi Vendor SSD	P40502-B21
HPE 960GB SATA 6G Mixed Use SFF BC Multi Vendor SSD	P40503-B21
HPE 1.92TB SATA 6G Mixed Use SFF BC Multi Vendor SSD	P40504-B21
HPE 3.84TB SATA 6G Mixed Use SFF BC Multi Vendor SSD	P40505-B21
Read Intensive – 6G SATA – LFF	
HPE 960GB SATA 6G Read Intensive LFF LPC Multi Vendor SSD	P47808-B21
Read Intensive - NVMe – SFF	
HPE 960GB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 Static V2 Multi Vendor SSD	P64842-B21
HPE 1.92TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 Static V2 Multi Vendor SSD	P64844-B21
HPE 3.84TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 Static V2 Multi Vendor SSD	P64846-B21
HPE 7.68TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 Static V2 Multi Vendor SSD	P64848-B21
HPE 1.92TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 CM7 SSD	P63829-B21
HPE 1.92TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PM1733a SSD	P50216-B21
HPE 3.84TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 CM7 SSD	P63833-B21
HPE 3.84TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PM1733a SSD	P50219-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 High Performance Read Intensive SFF BC U.3 PM1733a SSD	P50222-B21
HPE 15.36TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PS1010 SSD	P70436-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
Mixed Use - NVMe – SFF	
HPE 800GB NVMe Gen4 Mainstream Performance Mixed Use SFF BC U.3 Static V2 Multi Vendor SSD	P64999-B21
HPE 1.6TB NVMe Gen4 Mainstream Performance Mixed Use SFF BC U.3 Static V2 Multi Vendor SSD	P65007-B21
HPE 3.2TB NVMe Gen4 Mainstream Performance Mixed Use SFF BC U.3 Static V2 Multi Vendor SSD	P65015-B21
HPE 6.4TB NVMe Gen4 Mainstream Performance Mixed Use SFF BC U.3 Static V2 Multi Vendor SSD	P65023-B21
HPE 1.6TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 CM7 SSD	P63845-B21
HPE 1.6TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PM1735a SSD	P50227-B21
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 High Performance Mixed Use SFF BC U.3 PM1735a SSD	P50230-B21
HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PS1030 SSD	P70428-B21
HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 CM7 SSD	P63853-B21
HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PM1735a SSD	P50233-B21
Read Intensive – NVMe - EDSFF E3.S 1T	
HPE 1.92TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 EDSFF SPDM PE1010 SSD	P77269-B21
HPE 1.92TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 CD8P SSD	P69234-B21

Core Options

HPE 3.84TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 EDSFF SPDM PE1010 SSD	P77271-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 EDSFF SPDM PE1010 SSD	P77273-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 EDSFF SPDM PE1010 SSD	P77275-B21
HPE 15.36TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 CD8P SSD	P69546-B21
HPE 3.84TB NVMe Gen5 High Performance Read Intensive E3S EC1 EDSFF SPDM PM1743 SSD	P57799-B21
HPE 3.84TB NVMe Gen5 High Performance Read Intensive E3S EC1 EDSFF SPDM CM7 SSD	P61179-B21
HPE 3.84TB NVMe Gen5 High Performance Read Intensive E3S EC1 PS1010 SSD	P70392-B21
HPE 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 PS1010 SSD	P70395-B21
HPE 15.36TB NVMe Gen5 High Performance Read Intensive E3S EC1 EDSFF SPDM PM1743 SSD	P57807-B21
HPE 15.36TB NVMe Gen5 High Performance Read Intensive E3S EC1 EDSFF SPDM CM7 SSD	P61187-B21
HPE 15.36TB NVMe Gen5 High Performance Read Intensive E3S EC1 PS1010 SSD	P70397-B21
Mixed Use - NVMe – EDSFF E3.S 1T	
HPE 1.6TB NVMe Gen5 Mainstream Performance Mixed Use E3S EC1 EDSFF SPDM PE1030 SSD	P77262-B21
HPE 1.6TB NVMe Gen5 Mainstream Performance Mixed Use E3S EC1 CD8P SSD	P69241-B21
HPE 3.2TB NVMe Gen5 Mainstream Performance Mixed Use E3S EC1 EDSFF SPDM PE1030 SSD	P77265-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 EDSFF SPDM PE1030 SSD	P77267-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 EDSFF SPDM CM7 SSD	P61191-B21
HPE 3.2TB NVMe Gen5 High Performance Mixed Use E3S EC1 PS1030 SSD	P70399-B21
HPE 6.4TB NVMe Gen5 High Performance Mixed Use E3S EC1 EDSFF SPDM CM7 SSD	P61195-B21
HPE 6.4TB NVMe Gen5 High Performance Mixed Use E3S EC1 PS1030 SSD	P70401-B21
HPE 12.8TB NVMe Gen5 High Performance Mixed Use E3S EC1 PS1030 SSD	P70403-B21
Very-Read-Optimized – NVMe – EDSFF E3.S 1T	
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
SED (Self-Encryption Drive) – SATA SFF	
HPE 480GB SATA 6G Read Intensive SFF BC Self-encrypting 5400P SSD	P58236-B21
HPE 960GB SATA 6G Mixed Use SFF BC Self-encrypting 5400M SSD	P58244-B21
SED (Self-Encryption Drive) – SAS SFF	
HPE 3.84TB SAS Read Intensive SFF BC Self-encrypting FIPS 140-2 PM7 SSD	P63875-B21
HPE 1.6TB SAS Mixed Use SFF BC Self-encrypting FIPS 140-2 PM7 SSD	P63871-B21
SED (Self-Encryption Drive) – NVMe - SFF	
HPE 1.92TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 Self-encrypting FIPS 140-3 CM7 SSD	P61019-B21
HPE 3.84TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 Self-encrypting FIPS 140-3 CM7 SSD	P61027-B21
HPE 7.68TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 Self-encrypting FIPS 140-3 CM7 SSD	P61035-B21
HPE 1.6TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 Self-encrypting FIPS 140-3 CM7 SSD	P61043-B21
HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 Self-encrypting FIPS 140-3 CM7 SSD	P61051-B21
HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 Self-encrypting FIPS 140-3 CM7 SSD	P61059-B21

Core Options

HPE 7.68TB NVMe Gen5 High Performance Read Intensive E3S EC1 Self-encrypting FIPS 140-3 CM7 SSD	P70674-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 CM7 SSD	P70672-B21

Hard Disk Drive

Please refer to the HPE Hard Disk Drives QuickSpecs for more detailed information:
HPE Hard Disk Drives QuickSpecs

Mission Critical / Enterprise - 12G SAS - SFF Drives

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

Business Critical / Midline - 12G SAS - LFF Drives

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

Business Critical / Midline - 6G SATA - LFF Drives

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

SED (Self-Encryption Drive)

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

Optical Drives

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

Notes:

- SFF CTO Server requires the HPE ProLiant Compute DL3XX Gen12 SFF Universal Media Bay Kit (P74749-B21) and HPE ProLiant Compute Gen12 Optical Disk Drive USB to SATA Signal Cable Kit (P72199-B21).
- LFF CTO Server requires the HPE ProLiant Compute Gen12 LFF ODD/DisplayPort Enablement Kit (P74752-B21) and HPE ProLiant Compute Gen12 Optical Disk Drive USB to SATA Signal Cable Kit (P72199-B21).
- Optical drive is not supported on GPU CTO Server.

Core Options

OS Boot Device

Please refer to the HPE Boot Device Options QuickSpecs for more detailed information:

HPE Boot Device Options QuickSpecs

HPE NS204i-u v2 480GB NVMe Hot Plug Boot Optimized Storage Device	P78279-B21
HPE NS204i-u v2 960GB NVMe Hot Plug Boot Optimized Storage Device	P81160-B21
HPE NS204i-u v2 960GB NVMe SED Hot Plug Boot Optimized Storage Device	P81162-B21

Notes:

- Includes (2) NVMe SSDs
- RAID 1 is preconfigured on the NS204i-u boot device and no additional RAID can be applied.
- HPE ProLiant Compute DL3XX Gen12 NS204i-u Boot Extension Enablement Kit (P71433-B21) is required when NS204i-u v2 is selected.
- SFF and GPU CTO Servers support front mounting of the NS204i-u v2 OS Boot Device which requires HPE ProLiant Compute Gen12 NS204i-u Front Enablement Kit (P74759-B21) and HPE ProLiant Compute DL3XX Gen12 Multipurpose Drive Cage Kit (P76449-B21).

Intel® VROC for HPE

Please refer to the Intel® VROC for HPE QuickSpecs for more detailed information:

Intel VROC for HPE QuickSpecs

Intel® Virtual RAID on CPU Premium E-RTU for HPE	R7J59AAE
Intel® Virtual RAID on CPU Premium FIO Software for HPE	R7J57A

Notes:

- Supports RAID 0,1,5,10
- Supports up to 32 NVMe drives, depending on processor
- SATA drives not supported

Intel® Virtual RAID on CPU RAID 1 E-RTU for HPE	S3Q39AAE
Intel® Virtual RAID on CPU RAID 1 FIO Software for HPE	S3Q19A

Notes:

- Supports RAID 1
- Supports up to 32 NVMe drives, depending on processor
- SATA drives not supported

HPE Networking

PCIe Adapters

1 Gigabit Ethernet adapters

Broadcom BCM5719 Ethernet 1Gb 4-port BASE-T Adapter for HPE	P51178-B21

10 Gigabit Ethernet adapters

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

10/25 Gigabit Ethernet adapters

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
Broadcom BCM57414 Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	P26262-B21
Broadcom BCM57504 Ethernet 10/25Gb 4-port SFP28 Adapter for HPE	P26264-B21
NVIDIA Ethernet 10/25Gb 2-port SFP28 NVMe-oF Crypto Adapter for HPE	S2A69A

Core Options

100/200/400 Gigabit Ethernet adapters

Intel® E810-CQDA2 Ethernet 100Gb 2-port QSFP28 Adapter for HPE	P21112-B21
Mellanox MCX623106AS-CDAT Ethernet 100Gb 2-port QSFP56 Adapter for HPE	P25960-B21

Notes: Requires high-performance fan kit (P58465-B21)

OCP 3.0 Adapters

1 Gigabit Ethernet adapters

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

10 Gigabit Ethernet adapters

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

10/25 Gigabit Ethernet adapters

Intel® E810-XXVDA2 Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE	P10106-B21
Intel® E810-XXVDA4 Ethernet 10/25Gb 4-port SFP28 OCP3 Adapter for HPE	P41614-B21
Broadcom BCM57414 Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE	P10115-B21
Broadcom BCM57504 Ethernet 10/25Gb 4-port SFP28 OCP3 Adapter for HPE	P26269-B21

100 Gigabit Ethernet adapters

Intel® E810-CQDA2 Ethernet 100Gb 2-port QSFP28 OCP3 Adapter for HPE	P22767-B21
Broadcom BCM57608 Ethernet 100Gb 2-port QSFP112 OCP3 Adapter for HPE	P73114-B21
NVIDIA Ethernet 100Gb 2-port NVMe-oF Offload Adapter for HPE	R8M41A

Notes: Requires high-performance fan kit (P58465-B21)

PCIe Adapters

1 Gigabit Ethernet adapters

Broadcom BCM5719 Ethernet 1Gb 4-port BASE-T Adapter for HPE	P51178-B21

10 Gigabit Ethernet adapters

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

10/25 Gigabit Ethernet adapters

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
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

100/200/400 Gigabit Ethernet adapters

Intel® E810-CQDA2 Ethernet 100Gb 2-port QSFP28 Adapter for HPE	P21112-B21
Mellanox MCX623106AS-CDAT Ethernet 100Gb 2-port QSFP56 Adapter for HPE	P25960-B21
HPE Slingshot SA210S Ethernet 200Gb 1-port PCIe NIC	R4K46A

Notes: Requires high-performance fan kit (P58465-B21)

OCP 3.0 Adapters

1 Gigabit Ethernet adapters

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

10 Gigabit Ethernet adapters

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

10/25 Gigabit Ethernet adapters

Intel® E810-XXVDA2 Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE	P10106-B21
Intel® E810-XXVDA4 Ethernet 10/25Gb 4-port SFP28 OCP3 Adapter for HPE	P41614-B21

Core Options

Broadcom BCM57414 Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE	P10115-B21
Broadcom BCM57504 Ethernet 10/25Gb 4-port SFP28 OCP3 Adapter for HPE	P26269-B21

100 Gigabit Ethernet adapters

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

Notes: Requires high-performance fan kit (P58465-B21)

HPE InfiniBand

HPE InfiniBand NDR200/Ethernet 200GbE 2-port QSFP112 PCIe5 x16 MCX755106AC-HEAT Adapter	P65333-B21
HPE InfiniBand NDR200/Ethernet 200Gb 1-port OSFP PCIe5 x16 MCX75310AAS-HEAT Adapter	P45642-H23

Accelerators

NVIDIA L4 24GB PCIe Accelerator for HPE	S0K89C

Notes: Requires performance fan kit (P58465-B21)

NVIDIA L40S 48GB PCIe Accelerator	S2L70C

Notes:

- Compatible with GPU CTO Server
- Requires performance fan kit (P58465-B21)
- Requires HPE ProLiant Compute DL3XX Gen12 Front GPU L40S Power Cable Kit (P75110-B21)

HPE Storage Options

Fibre Channel HBAs

HPE SN1610Q 32Gb 1-port Fibre Channel Host Bus Adapter	R2E08A
HPE SN1610Q 32Gb 2-port Fibre Channel Host Bus Adapter	R2E09A
HPE SN1700Q 64Gb 1-port Fibre Channel Host Bus Adapter	R7N86A
HPE SN1700Q 64Gb 2-port Fibre Channel Host Bus Adapter	R7N87A
HPE SN1620E 32Gb 2p FC SecureHBA	S4S01A
HPE SN1720E 64Gb 2p FC SecureHBA	S4T09A

Power and Cooling

HPE ProLiant Compute DL340 Gen12 Standard Heat Sink Kit	P71475-B21
HPE ProLiant Compute Gen12 Performance Heat Sink Kit	P73668-B21

Notes:

CTO Server	Processor TDP	Heat Sink
SFF CTO server with 8SFF kit Qty <= 2 or 4EDSFF kit <= 4	<= 250 W	Standard Heat Sink
	> 250 W, <= 350 W	High-Performance Heat Sink
SFF CTO server with 8SFF kit Qty =3 or 4EDSFF kit > 4	<= 350 W	High-Performance Heat Sink
LFF CTO server	<= 350 W	High-Performance Heat Sink
Front GPU CTO server	<= 350 W	High-Performance Heat Sink
NEBS config	<= 350 W	High-Performance Heat Sink

Core Options

HPE ProLiant DL3X5 Gen11 2U Standard Fan Kit	P58464-B21
HPE ProLiant DL3X5 Gen11 2U Performance Fan Kit	P58465-B21

Notes:

- Fan kit includes one fan, six fans required per server.
- Mixing of Standard and Performance fans is not allowed

Power Supplies

HPE 800W M-CRPS Platinum Hot Plug Power Supply Kit	P73190-B21
HPE 1000W M-CRPS Titanium Hot Plug Power Supply Kit	P67240-B21
HPE 1300W M-CRPS -48VDC Hot Plug Power Supply Kit	P82412-B21
HPE 1500W M-CRPS Titanium Hot Plug Power Supply Kit	P67244-B21
HPE 2400W M-CRPS Titanium Hot Plug Power Supply Kit	P67252-B21
HPE 3200W M-CRPS Titanium Hot Plug Power Supply Kit	P67248-B21

Notes:

- Mixing of power supplies is not allowed.
- It is highly recommended that the HPE Power Advisor is run to determine the right size power supply for your server configuration. The HPE Power Advisor is located at: https://poweradvisorext.it.hpe.com/

Management

HPE ProLiant Compute DL340 Gen12 System Insight Display Module Kit	P75823-B21

Notes: Not supported on LFF or GPU CTO server

Additional Options

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

HPE Security

HPE Trusted Supply Chain for HPE ProLiant P36394-B21

Notes:

- HPE Trusted Supply Chain is an optional security upgrade intended for agencies and regulated industries needing enhanced security and compliance needs. Applying this option to a DL345 Gen11 CTO server ensures it is built in the USA in a secured 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. Learn more at http://www.hpe.com/security
- This option requires the selection of HPE Gen11 Intrusion Detection Kit (P48922-B21)
- This option requires the selection of either HPE iLO Advanced 1-server License with 3yr Support on iLO Licensed Features (BD505A) or HPE iLO Advanced 1-server License with 1yr Support on iLO Licensed Features (512485-B21)
- This option is limited to stand-alone DL345Gen11 CTO servers only. The HPE Trusted Supply Chain configuration will not be available if the server is ordered as factory integrated into a rack
- One instance of the following Electronic License to Use is required per order (not per server):
- R6X85AAE (HPE Trusted Supply Chain E-LTU)
- This option cannot be selected with TAA instruction SKU or TAA CTO Models

HPE ProLiant DL385 Gen11 Intrusion Cable Kit P55713-B21

Notes: This provides a physical connection from the chassis board and hood and detects any physical intrusion into the chassis, providing security during the entire supply chain process of shipping, receiving
distribution, and operation.

HPE Bezel Lock Kit 875519-B21

HPE Gen11 2U Bezel Kit P50400-B21

Notes: The Bezel lock kit (875519-B21) must be selected along with the bezel kit (P50400-B21).

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

Additional Options

Server Management

HPE Compute Ops Management

HPE Compute Ops Management Standard 3-year Upfront ProLiant SaaS	R7A11AAE
HPE Compute Ops Management Standard 5-year Upfront ProLiant SaaS	R7A12AAE
HPE Compute Cloud Management Server FIO Enablement	S1A05A
HPE Compute Ops Management Advanced Flex with ProLiant Enablement	S6C28AAE

HPE OneView

HPE OneView w/o iLO including 3yr 24x7 Support Track 1-server LTU	P8B25A
HPE OneView w/o iLO including 3yr 24x7 Support Flexible Quantity E-LTU	P8B26AAE
HPE OneView w/o iLO including 3yr 24x7 Support 1-server FIO LTU	P8B31A
HPE OneView including 3yr 24x7 Support Flexible Quantity E-LTU	E5Y35AAE
HPE OneView including 3yr 24x7 Support Track 1-server LTU	E5Y36A
HPE OneView for ProLiant DL Server including 3yr 24x7 Support Bundle Track 1-server LTU	E5Y44A

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

Embedded Management

HPE iLO Advanced

HPE iLO Advanced Electronic License with 1yr Support on iLO Licensed Features	E6U59ABE
HPE iLO Advanced Electronic License with 3yr Support on iLO Licensed Features	E6U64ABE
HPE iLO Advanced 1-server License with 3yr Support on iLO Licensed Features	BD505A
HPE iLO Advanced AKA Tracking License with 3yr Support on iLO Licensed Features	BD507A
HPE iLO Advanced 1-server License with 1yr Support on iLO Licensed Features	512485-B21
HPE iLO Advanced AKA Tracking License with 1yr Support on iLO Licensed Features	512487-B21

HPE 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 DL340 Gen12 SP HW Service	H44VWE
HPE 3 Year Tech Care Essential wDMR DL340 Gen12 SP HW Service	H44VXE
HPE 5 Year Tech Care Essential DL340 Gen12 SP HW Service	H44XBE
HPE 5 Year Tech Care Essential wDMR DL340 Gen12 SP HW Service	H44XCE

Additional Options

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:

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

HPE DL3XX Gen11 Easy Install Rail 2 Kit	P52351-B21
Notes: Not supported on GPU CTO Server	
HPE DL38X Gen10 Plus 2U Cable Management Arm for Rail Kit	P22020-B21
Notes: Not supported on GPU CTO Server	
HPE Cable Management Arm 2 for Ball Bearing Rail Kit	P69776-B21
Notes: This rail kit is supported on GPU CTO Server	
HPE ProLiant Compute DL3XX Gen12 2U Cable Management Arm for Rail Kit	P70744-B21
Notes: This rail kit is supported on SFF and LFF CTO Servers	
HPE Ball Bearing Rail 6 Kit	P69769-B21
Notes: This rail kit is supported on the GPU CTO Server	

HPE Racks

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

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HPE Power Distribution Units (PDUs)

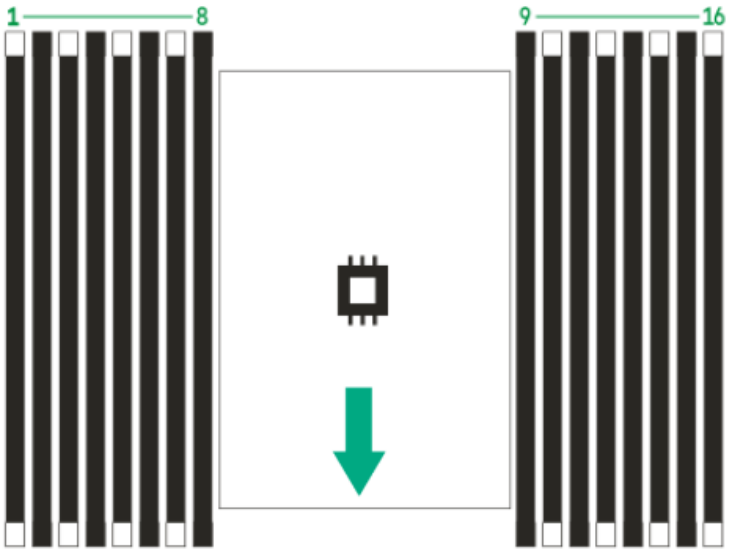
- Please see the HPE Basic Power Distribution Units (PDU) QuickSpecs for information on these products and their specifications.
- Please see the HPE Metered Power Distribution Units (PDU) QuickSpecs for information on these products and their specifications.
- Please see the HPE Metered and Switched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

Additional Options

HPE Uninterruptible Power Systems (UPS)

- To learn more, please visit the HPE Uninterruptible Power Systems (UPS) web page.
- Please see the HPE Line Interactive Rack/Tower Uninterruptible Power System QuickSpecs for information on these products and their specifications.
- Please see the HPE Online Double Conversion Rackmount Uninterruptible Power System QuickSpecs for information on these products and their specifications.

Memory



The arrow points to the front of the server

Memory DIMM population order with Intel® Xeon 6® Efficient-Core (E-Core) processors																
DIMM Slot	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
1 DIMM										10						
2 DIMMs[1]							7			10						
4 DIMMs[1]			3				7			10				14		
8 DIMMs[1,2]	1		3		5		7			10		12		14		16
16 DIMMs[1,2]	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Memory DIMM population order with Intel® Xeon 6® Performance-Core (P-Core) processors																
DIMM Slot	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
1 DIMM										10						
2 DIMMs[1]							7			10						
4 DIMMs[1]			3				7			10				14		
8 DIMMs[1,2]	1		3		5		7			10						
12 DIMMs	1		3	4	5		7	8	9	10		12	13	14		16
16 DIMMs[1,2]	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Notes:.

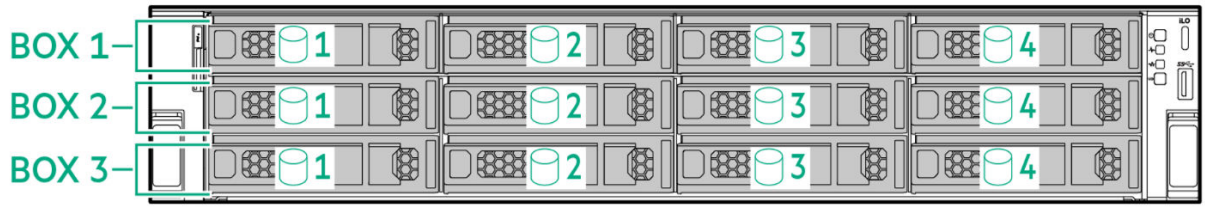
- [1] Support Hemi (hemisphere mode).
- [2] Support Software Guard Extensions (SGX).

Memory

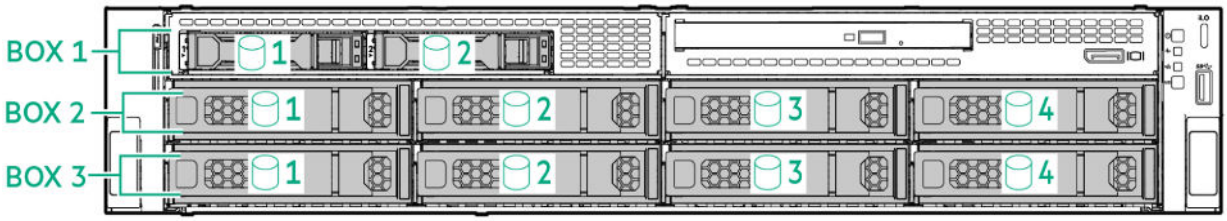
General Memory Population Rules and Guidelines:

- Install DIMMs only after the corresponding processor is installed.
- All DIMMs must be DDR5
- x4 and x8 DIMMs can be mixed in the same channel
- Mixing of non-3DS and 3DS LRDIMMs is not allowed on the same channel
- The maximum memory speed is a function of the memory type, memory configuration, and processor model.
- The maximum memory capacity is a function of the number of DIMM slots on the platform, the largest DIMM capacity
  qualified on the platform, the number and model of installed processors qualified on the platform.
- To realize the performance memory capabilities listed in this document, HPE DDR5 Smart Memory is required.
- Use of 256GB DIMMs requires a high-performance fan kit.
- For additional information, please reference the HPE DDR5 Smart Memory QuickSpecs

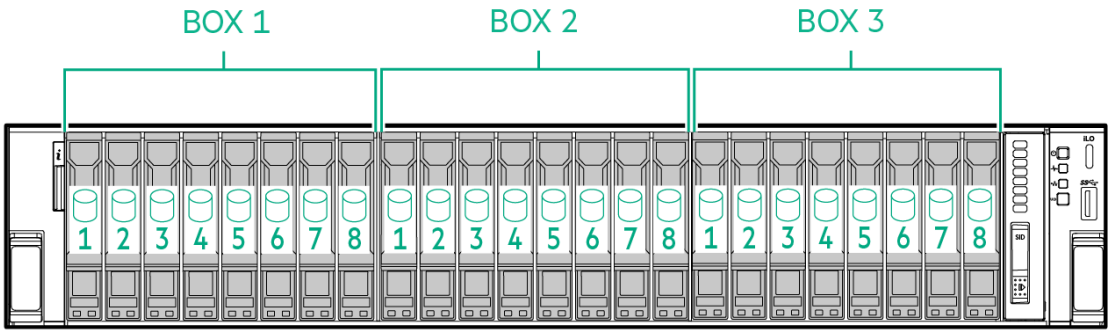
Storage



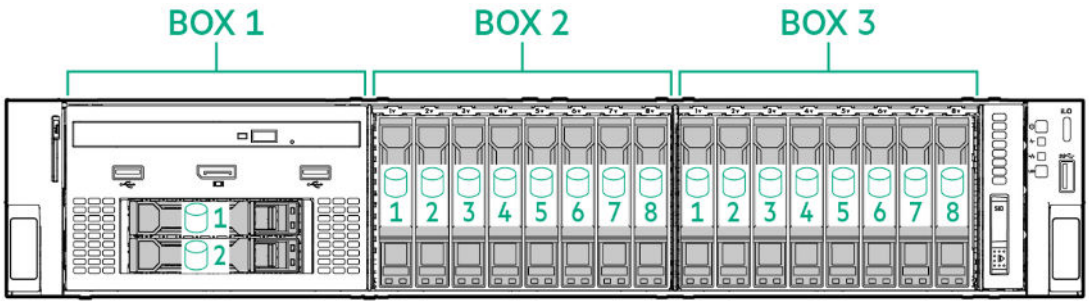
12 LFF Box & Drive Bay Numbering



8 LFF Box & Drive Bay Numbering with Optional Optical Drive + 2SFF Drives

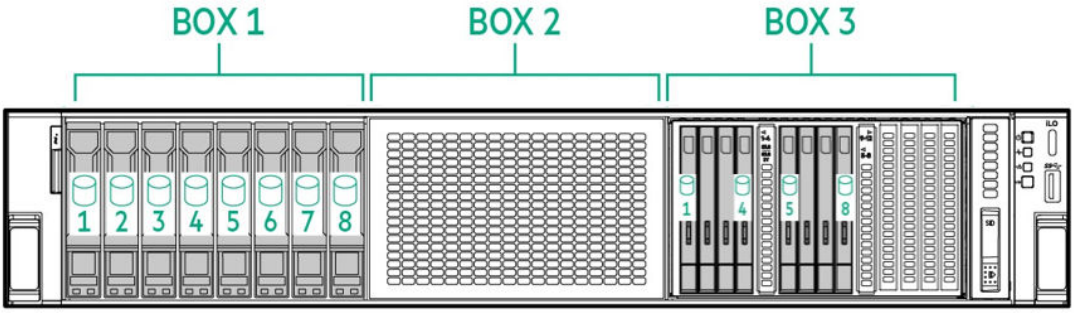


24 SFF Box & Drive Bay Numbering

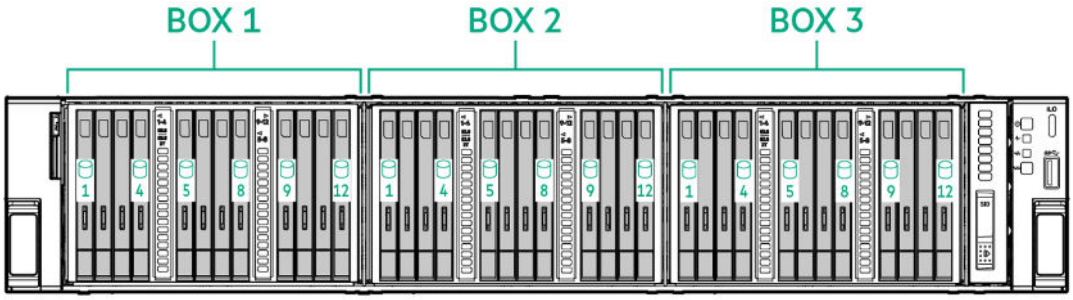


16 SFF Box & Drive Bay Numbering with Optional Optical Drive + 2SFF Stacked Drives

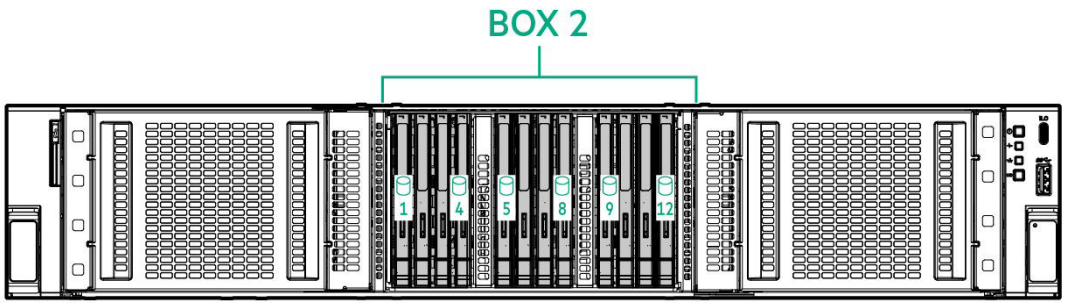
Storage



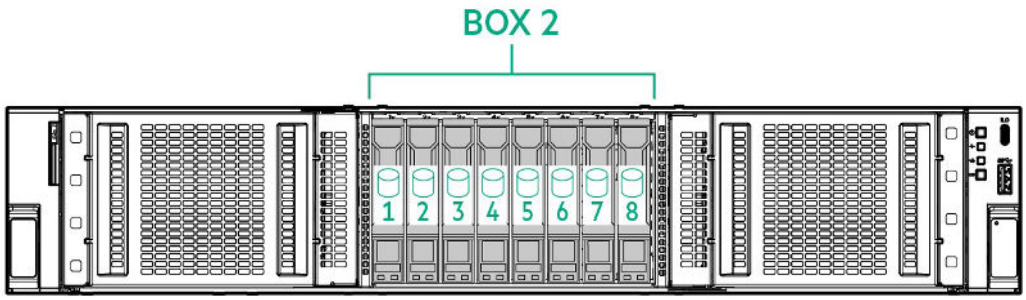
8 SFF Box & Drive Bay Numbering with Optional 8 EDSFF Drives



36 EDSFF Box & Drive Bay Numbering

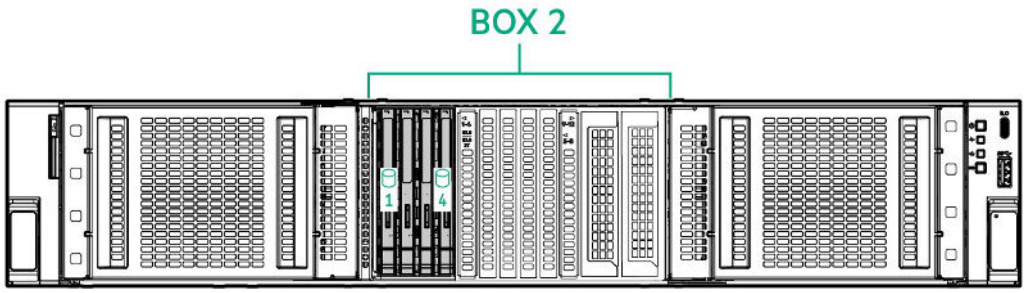


4 GPU with Optional 12 EDSFF Drives



4 GPU with Optional 8SFF Drives

Storage



4 GPU with Optional 2 OCP Slots and 4 EDSFF Drives

System Unit

Dimensions (Height x Width x Depth)

- **8SFF, 24SFF and EDSFF chassis**
  - 8.75 x 44.8 x 63.95 cm
  - 3.45 x 17.64 x 25.18 in
- **12LFF chassis:**
  - 8.75 x 44.8 x 65.61 cm
  - 3.45 x 17.64 x 25.83 in
- **GPU chassis:**
  - 8.75 x 44.8 x 83.71 cm
  - 3.45 x 17.64 x 32.96 in

Weight (approximate)

- **SFF chassis:**
  - **Minimum**: SFF chassis with 1 drive, 1 processor, 1 power supply, 1 standard heatsink, 1 DIMM, 1 MR controller, and 6 standard fans.
    - 17.6 kg (38.8 lb)
  - **Maximum**: SFF chassis with 24 drives, 1 processor, 2 power supply, 1 performance heatsink, 16 DIMM, 1 MR PCIe controller, and 6 performance fans.
    - 30.9 kg (68.12 lb)

- **SFF chassis / EDSFF front cage**:
  - **Minimum**: EDSFF chassis with 1 drive, 1 processor, 1 power supply, 1 standard heatsink, 1 DIMM, and 6 standard fans.
    - 17.4 kg (38.36 lb)
  - **Maximum**: EDSFF chassis with 36 drives, 1 processor, 2 power supply, 1 performance heatsink, 16 DIMM, and 6
    performance fans.
    - 30.71 kg (67.7 lb)

- **LFF chassis:**
  - **Minimum**: LFF chassis with 1 drive, 1 processor, 1 power supply, 1 standard heatsink, 1 DIMM, 1 MR controller, and 6 standard fans.
    - 18.98 kg (41.84 lb)
  - **Maximum**: LFF chassis with 12 drives, 1 processor, 2 power supply, 1 performance heatsink, 16 DIMM, 1 MR PCIe controller, and 6 performance fans.
    - 32.88 kg (72.49 lb)

- **GPU chassis**:
  - **Minimum**: GPU chassis with 1 single-width accelerator, 1 EDSFF drive, 1 processor, 1 power supply, 1 standard
    heatsink, 1 DIMM, and 6 standard fans.
    - 26.5kg (58.42lb)
  - **Maximum**: GPU chassis with 4 double-wide accelerators, 12 EDSFF drives, 1 processor, 2 power supply, 1 performance heatsink, 16 DIMM, and 6 performance fans.
    - 36.3kg (80.02lb)

Input Requirements (per power supply)

Rated Line Voltage

- Low-line input voltage: 100 VAC to 120 VAC
- High-line input voltage: 200 VAC to 240 VAC
- 240 VDC for China

BTU Rating

Maximum

- For 3200W M-CRPS Power Supply: 5142 (at 100 VAC), 11699 (at 240VAC)
- For 2400W M-CRPS Power Supply: 4268 (at 100 VAC), 8532 (at 240VAC)
- For 1500W M-CRPS Power Supply: 3792 (at 100 VAC), 5560 (at 200 VAC)
- For 1000W M-CRPS Power Supply: 3044 (at 100 VAC), 3680 (at 200 VAC)

Power Supply Output (per power supply)

Rated Steady-State Power

- For 3200W M-CRPS Power Supply: 1600W: (at 100-127 VAC), 3200W (at 200-240 VAC), 3200W (at 240 VDC) input for China only
- For 2400W M-CRPS Power Supply: 1200W: (at 100-127 VAC), 2400W (at 200-240 VAC), 2400W (at 240 VDC) input for China only
- For 1500W M-CRPS Power Supply: 1000W: (at 100 VAC), 1100W (at 110-120VAC), 1500W (at 200-240 VAC), 1500W (at 240 VDC) input for China only
- For 1000W M-CRPS Power Supply: 800W: (at 100-120 VAC), 1000W (at 200-240 VAC), 1000W (at 240 VDC) input for China only

Maximum Peak Power

- For 3200W M-CRPS Power Supply: 1600W: (at 100-127 VAC), 3200W (at 200-240 VAC), 3200W (at 240 VDC) input for China only
- For 2400W M-CRPS Power Supply: 2400W (at 100 to 127 VAC), 2400W (at 200 to 240 VAC), 2400W (at 240 VDC) input for China only

- For 1500W M-CRPS Power Supply: 1000W: (at 100 VAC), 1100W (at 110-120VAC), 1500W (at 200-240 VAC), 1500W (at 240 VDC) input for China only
- For 1000W M-CRPS Power Supply: 800W: (at 100-120 VAC), 1000W (at 200-240 VAC), 1000W (at 240 VDC) input for China only

For more information on power specifications and technical content, reference the HPE M-CRPS QuickSpecs.

System Inlet Temperature

- **Standard Operating Support**
  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. The 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 Support**
  For approved hardware configurations, the supported system inlet range is extended to be: 5° to 10°C (41° to 50°F) and
  35° to 40°C (95° to 104°F) at sea level with an altitude derating of 1.0°C per every 175 m (1.8°F per every 574 ft.) above
  900 m (2953 ft.) to a maximum of 3050 m (10,000 ft.). The approved hardware configurations for this system are listed at the URL: https://www.hpe.com/support/ASHRAEGen11

  For approved hardware configurations, the supported system inlet range is extended to be 40°C to 45°C (104°F to 113°F) at sea level with an altitude derating of 1.0°C per every 125 m (1.8°F per every 410 ft.)
  above 900 m (2953 ft.) to a maximum of 3050 m (10,000 ft.). The approved hardware configurations for this system are listed at the URL: https://www.hpe.com/support/ASHRAEGen11
  System performance may be reduced if operating in the extended ambient operating range or with a fan fault.

- **Non-operating**
  -30° to 60°C (-22° to 140°F). The maximum rate of change is 20°C/hr (36°F/hr).

Relative Humidity (non-condensing)

- **Operating**
  8% to 90% - Relative humidity (Rh), 28°C (82.4°F) 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.). The maximum allowable altitude change rate is 457 m/min (1500 ft./min).

Emissions Classification (EMC)

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://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=c03471072

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.

Idle	
LWA,m	5.2 B Entry-SFF 5.6 B Base-LFF
LpAm	39 dBA Entry-SFF 41 dBA Base-LFF
Kv	0.4 B Entry-SFF 0.4 B Base-LFF
Operating	
LWA,m	5.7 B Entry-SFF 5.8 B Base-LFF
LpAm	43 dBA Entry-SFF 43 dBA Base-LFF
Kv	0.4 B Entry-SFF 0.4 B Base-LFF

Notes:

- All measurements 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.

- The results in this declaration apply only to the specific configuration listed below when operating and tested according to the indicated modes and standards. A system with additional configuration components or increased operating functionality may increase the noise emission values.
  - Entry-SFF Configuration: 1x Xeon 6505P CPU, 2x SAS 10K SFF BC HDD, 1x 32GB DIMM, 1x 1000W PSU, 6x STD Fan, 1x MR416i-p PCIe, 1x 1Gb 4p BASE-T OCP Adptr.
  - Base-LFF Configuration: 1x Xeon 6505P CPU, 8x SAS 7.2K LFF 512e ISE HDD, 4x 16GB DIMM, 1x 1000W PSU, 6x STD Fan, 1x MR416i-p PCIe, 1x 1Gb 4p BASE-T OCP Adptr, 1x Gen12 Ht Plg Boot Opt Dev.
- The declared mean A-weighted sound power level, LWA,m, is computed as the arithmetic average of the measured.
- A-weighted sound power levels for a randomly selected sample, rounded to the nearest 0,1 B.
- The declared mean A-weighted emission sound pressure level, LpA,m, is computed as the arithmetic average of the measured A-weighted emission sound pressure levels at the bystander positions for a randomly selected sample, rounded to the nearest 1 dB.
- The statistical adder for verification, Kv, is a quantity to be added to the declared mean A-weighted sound power level, LWA,m, such that there will be a 95% probability of acceptance, when using the verification procedures of ISO 9296, if no more than 6,5 % of the batch of new equipment, has A-weighted sound power levels greater than (LWA,m + Kv).
- The quantity, LWA,c (formerly called LWAd), can be computed from the sum of LWA,m and Kv.
- B, dB, abbreviations for bels and decibels, respectively, where 1 B = 10 dB.
- Systems under abnormal conditions may increase the noise level, people in the vicinity of the product [cabinet] for extended periods of time should consider wearing hearing protection or using other means to reduce noise exposure.

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

Summary of Changes

Date	Version History	Action	Description of Change
02-Feb-2026	Version 8	Changed	Standard Features and Core Options sections were updated.
		Added	HPE InfiniBand, Power Supplies and HDD SKUs.
		Removed	Business Critical / Midline - 12G SAS - LFF Drives, Business Critical / Midline - 6G SATA - LFF Drives, and 100/200/400 Gigabit Ethernet adapters obsolete SKUs.
08-Dec-2025	Version 7	Changed	Core Options section was updated.
		Added	HPE 800W Power Supply SKU.
		Removed	Read Intensive - NVMe – SFF and HPE InfiniBand obsolete SKUs.
03-Nov-2025	Version 6	Changed	Memory section was updated. Document was modified to comply with HPE Rebranding strategy.
		Added	Memory population Table for P-Core Processors.
04-Aug-2025	Version 5	Changed	Standard Features and Core Options sections were updated.
		Added	NVIDIA Ethernet Adapters, EU Lot9 regulations.
07-Jul-2025	Version 4	Changed	Core Options section was updated. Added: Intel® Xeon 6® Performance-Core (P-Core) Processors SKU, OS Boot Devices SKUs.
11-Jun-2025	Version 3	Changed	Core Options section was updated.
05-May-2025	Version 2	Changed	Standard Features, Core Options and Additional Options sections were updated. Added: Backplane / Drive cage / Enablement Kit SKUs, Software as a Service Management Enablement SKU (COM), European Union ErP Lot 9 Regulation section to include Turkey and Ireland.
24-Feb-2025	Version 1	New	New QuickSpecs.

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