

HPE ProLiant Compute DL340e Gen12 QuickSpecs

The HPE ProLiant Compute DL340e Gen12 is a 2U 1P storage-optimized server that offers a CTO chassis supporting up to 24 LFF drives with optional rear E3.S SSD or GPU configurations.

The front enhanced storage density and optional rear EDSFF drive cage design is optimized for data-centric workloads. Due to the configuration flexibility (balance between thermal and storage capacity) and storage efficiency, the HPE ProLiant Compute DL340e Gen12 server is ideal for Software-defined Storage (SDS) and in-server storage analytics workloads.

Overview

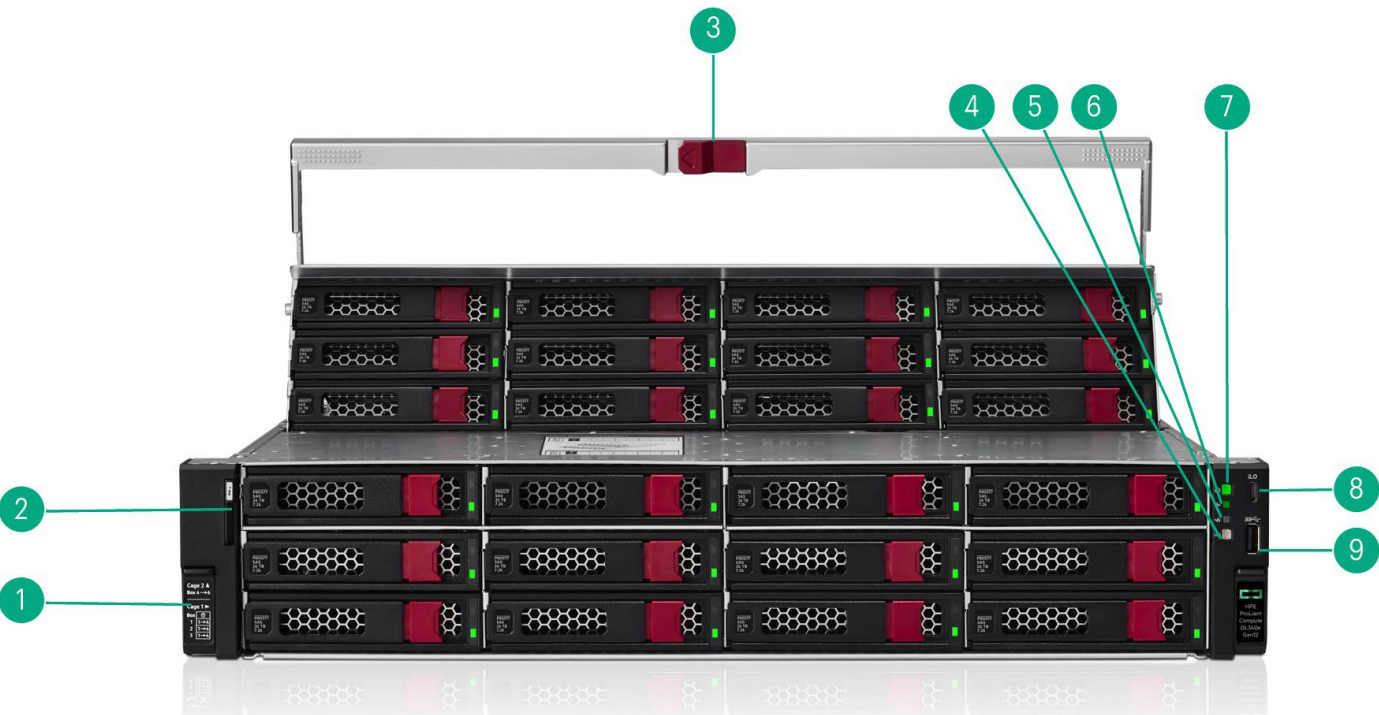
HPE ProLiant Compute DL340e Gen12

Are you looking for secure and efficient server-based data infrastructure with larger economical storage capacity and balanced performance for data-driven initiatives?

The HPE ProLiant Compute DL340e Gen12 is a 2U 1P enhanced storage server that offers one CTO chassis that supports up to 24 LFF in the front and optional EDSFF in the rear. The new generation ProLiant enhanced storage servers are built for data-intensive applications with optimized storage density and balanced data processing design as the future generation of the current HPE Alletra Storage Server 4000 family. The ProLiant Compute DL340e Gen12 server is ideal for customers that have a requirement for larger storage capacity and higher data management efficiency.

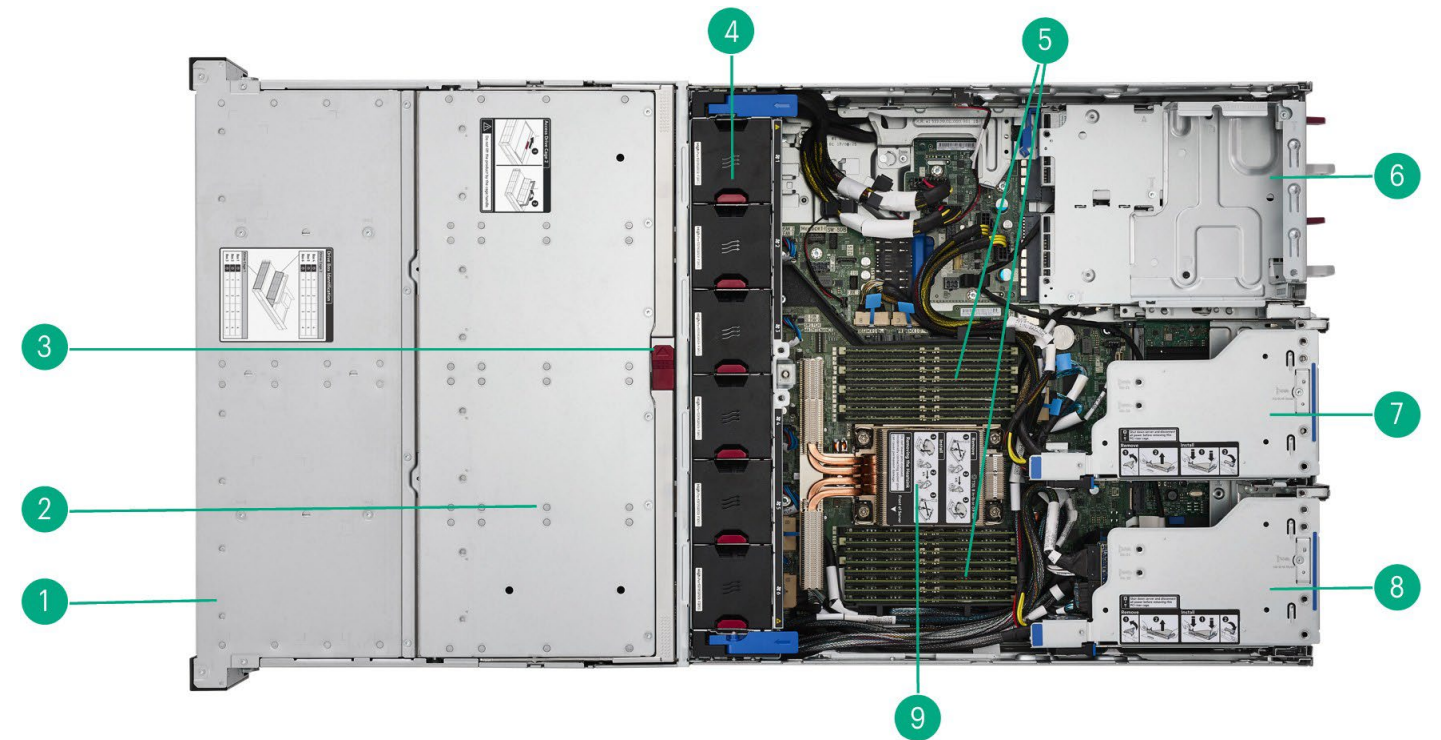
From active analytics AI data lakes to deep archives and data protection, file and object Software-Defined Storage, and so much more, the HPE ProLiant Compute DL340e Gen12 enhanced storage server provides the data infrastructure for any successful data-driven organization.

The HPE ProLiant Compute DL340e Gen12 is powered by Intel® Xeon® 6 processors with up to 144 cores, memory capability up to 2TB, and high-speed PCIe Gen5. The DL340e Gen12 SP server is a great 2U single socket storage solution driving better storage density and capacity efficiency.



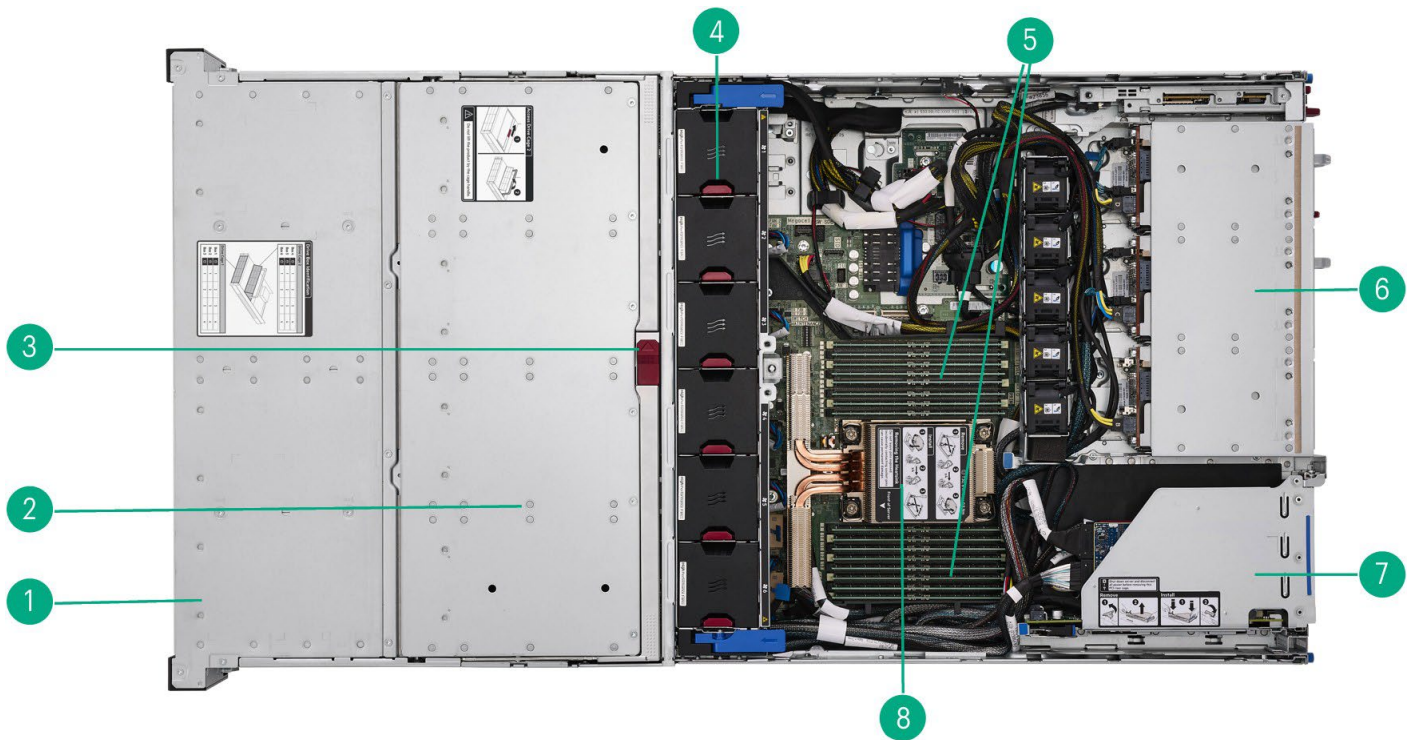
Front View – LFF CTO chassis (with Front 24LFF FIO Enablement Kit shown)

Item	Description	Item	Description
1.	Chassis Box Label	6.	Health LED
2.	Serial Number Label Pull Tab	7.	Power On/Standby button
3.	Front Drive Cage 2 Release Latch and Handle	8.	iLO Service Port
4.	UID Button/LED	9.	USB 3.2 Port
5.	NIC Status LED		



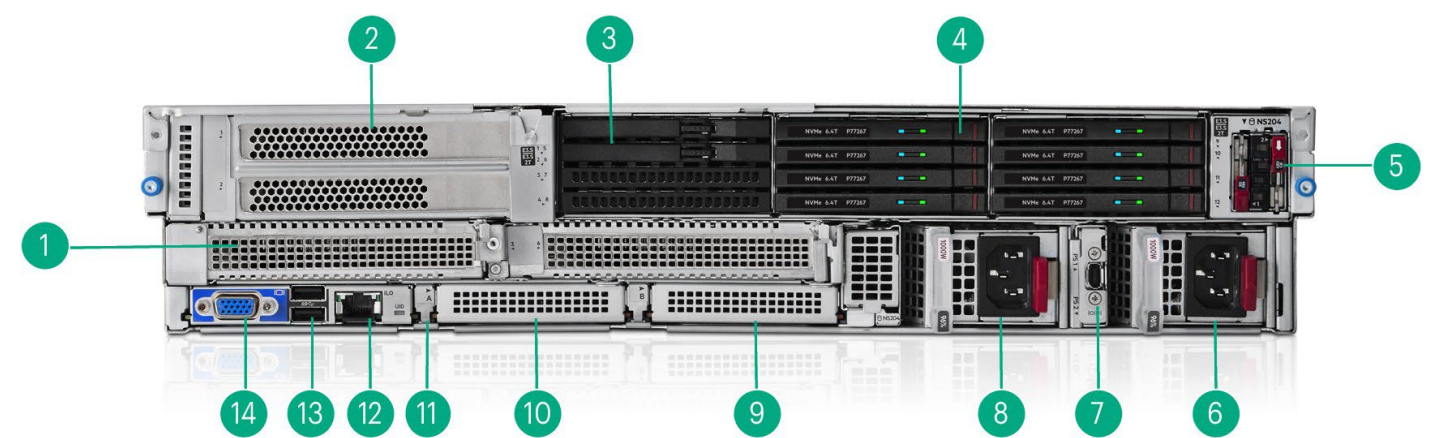
Internal View (with Rear 6x PCIe Enablement Kit shown)

Item	Description	Item	Description
1.	Front Drive Cage 1	6.	Blank Upper; PSU Lower
2.	Front Drive Cage 2	7.	Secondary Riser
3.	Front Drive Cage Release Latch and Handle	8.	Primary Riser
4.	Six System Fans	9.	CPU
5.	Memory		



Internal View (with Rear EDSFF 4x PCIe Enablement Kit shown)

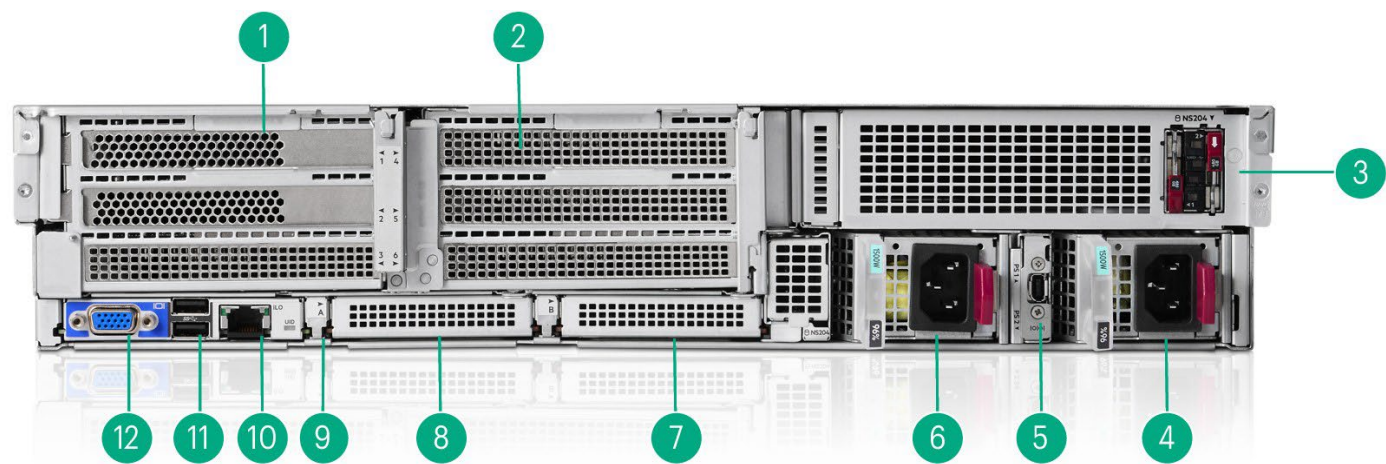
Item	Description	Item	Description
1.	Front Drive Cage 1	5.	Memory
2.	Front Drive Cage 2	6.	Rear EDSFF Drive Cage Upper
3.	Front Drive Cage Release Latch and Handle	7.	Primary Riser
4.	Six System Fans	8.	CPU



Rear View – EDSFF and 4x PCIe Enablement Kit

Item	Description	Item	Description
1.	1U Riser: 2 PCIe5 x16 slots (slot 3 and slot 6)	8.	M-CRPS 2 (optional)
2.	2 PCIe5 x8 slots (slot 1 and slot 2)	9.	Rear EDSFF Cage Fan Interposer Board
3.	Dedicated PCIe controller-connected 2 E3.S 1T bays (SSD blank shown)	10.	OCP A PCIe5 x16
4.	8 E3.S 1T bays (SSD installed shown)	11.	UID (Unit ID) LED
5.	NS204i-u Boot Device (optional)	12.	iLO dedicated network port
6.	M-CRPS 1	13.	2 USB 3.2 Gen1 ports
7.	ix Port (optional)	14.	VGA Port

Overview



Rear View – 6x PCIe Enablement Kit

Item	Description	Item	Description
1.	Primary Riser	7.	OCP B (depending on configuration)
2.	Secondary Riser	8.	OCP A PCIe5 x16
3.	NS204i-u Boot Device (optional)	9.	UID (Unit ID) LED
4.	M-CRPS 1	10.	iLO Dedicated Network Port
5.	ix Port (optional)	11.	2 USB 3.2 Gen1 ports
6.	M-CRPS 2 (optional)	12.	VGA Port

Overview

What's New

- All-New DL340e Gen12 server.
 - Front 24LFF drive cages and optional rear E3.S EDSFF SSD drive cage.
 - 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.
 - DDR5 6400 MT/s memory.
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Platform Information

Form Factor

- 2U rack.

Chassis Types

- Front 24 LFF FIO (P85519-B21).
- Front 16 LFF FIO (P85520-B21).

System Fans

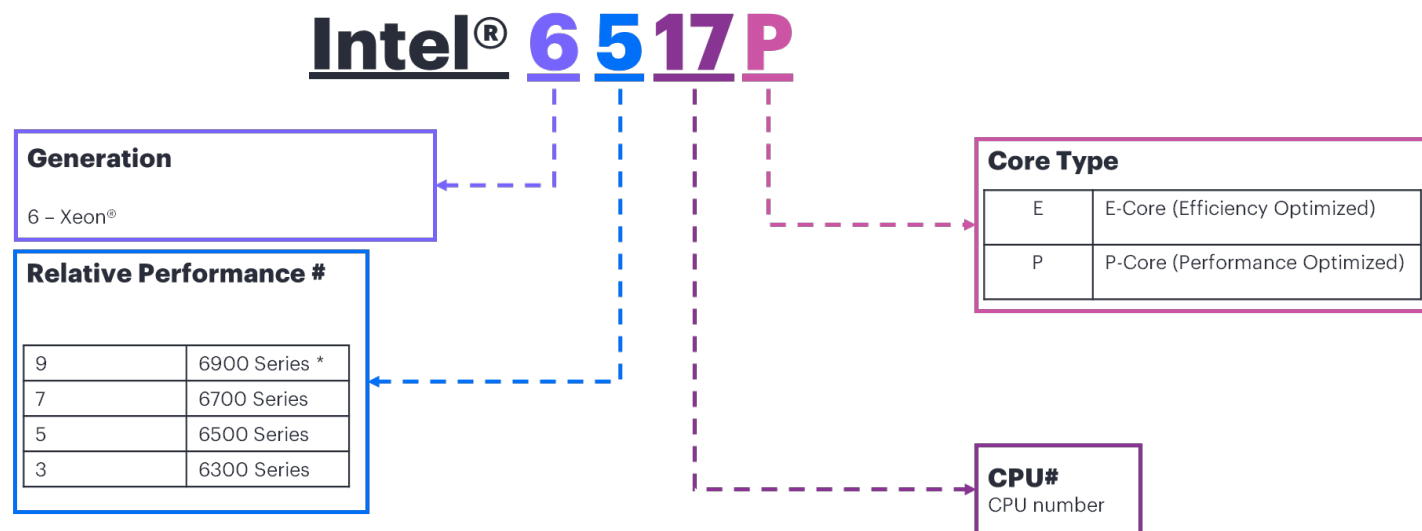
- Performance fans (6) are included in the CTO server.

Rear options

- Rear 6x PCIe Enablement Kit (P85521-B21).
 - Rear EDSFF add 4x PCIe Enablement Kit (P85522-B21).
-

Standard Features

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 DL340e Gen12 platform supports Intel® Xeon® 6 Efficient Core (E-Core) and Performance-Core (P-Core) processors. The following processors are supported on the DL340e 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	2.3	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.

Standard Features

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)	2TB 16 x 128 GB RDIMM 6400 MT/s @ 1 DPC and 5200 MT/s @ 2 DPC

- Notes:** All processors listed support up to 2TB memory.
- The maximum memory speed is limited by the processor selection.
 - The -B21 memory SKUs shown in this document are to be used when ordering stand-alone memory only. For each -B21 SKU, there is a corresponding -F21 SKU which is to be used when configuring servers with integrated memory DIMMs.
 - 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

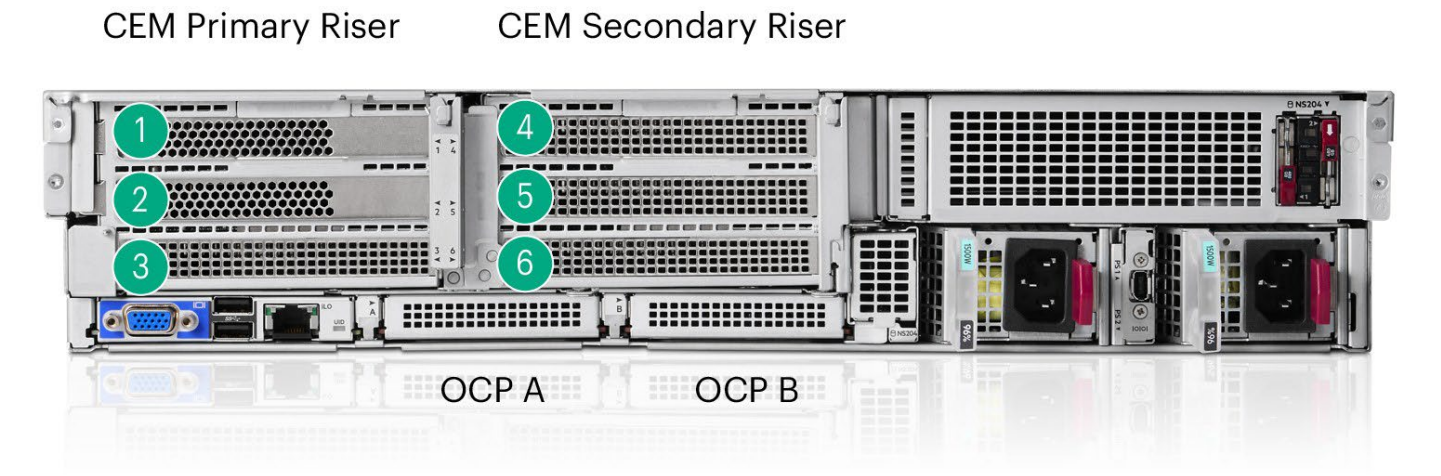
Memory Mirroring enables full memory redundancy.

Network Controller

There is no default network controller included. The HPE ProLiant Compute DL340e Gen12 server offers the customer a variety of networking options which are outlined in the Core Options selection in this document.

Standard Features

Expansion Slots



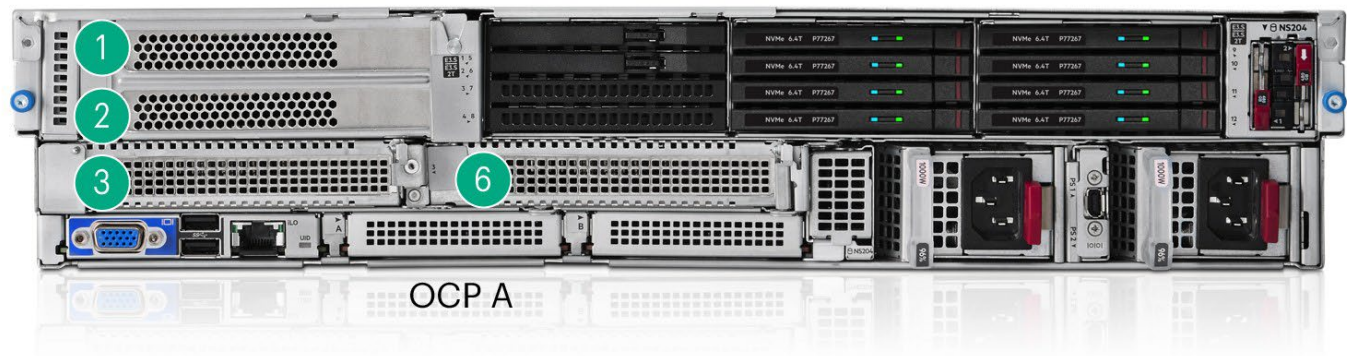
Notes: Rear 6x PCIe Enablement Kit (P85521-B21).

Expansion Slots #	Technology	Bus Width	Connector Width	Slot Form Factor
1 (CEM Primary Riser) - Slot 1	PCIe 5.0	x8	x16	FHHL
1 (CEM Primary Riser) - Slot 2	PCIe 5.0	x8	x16	FHHL
1 (CEM Primary Riser) - Slot 3	PCIe 5.0	x16	x16	FHHL
1 (CEM Secondary Riser) - Slot 4	PCIe 5.0	x16	x16	FHHL
1 (CEM Secondary Riser) - Slot 5 *Slot 5 is available only when Rich I/O CPU and Rear 6x PCIe Enablement Kit (P85521-B21) installed	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	PCIe 5.0	x16	x16
1 Rear OCP B (OCP 3.0) optional *OCP B is available only when Rich I/O CPU and Rear 6x PCIe Enablement Kit (P85521-B21) installed	PCIe 5.0	x16	x16

Standard Features



Rear Panel – EDSFF Slot numbering

Notes: Rear EDSFF 4x PCIe Enablement Kit (P85522-B21).

Expansion Slots #	Technology	Bus Width	Connector Width	Slot Form Factor
Slot 1	PCIe 5.0	x8	x16	FHHL
Slot 2	PCIe 5.0	x8	x16	FHHL
Slot 3	PCIe 5.0	x16	x16	FHHL
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	PCIe 5.0	x16	x16

Internal Storage Devices

- **Drives** - None shipped as standard.

Standard Features

Graphics

Integrated Video

- VGA port on DC-SCM module.
- Video modes up to 1920 x 1200@60Hz (32 bpp).
- 16MB Video Memory.

Maximum Storage

Chassis	Drive Type	Drive Capacity	Total Storage
HPE DL340e Gen12 LFF CTO Server	LFF SATA HDD	26 TB	624 TB (24 x 26 TB)
HPE DL340e Gen12 LFF CTO Server	LFF SAS HDD	26 TB	624 TB (24 x 26 TB)
HPE DL340e optional Rear EDSFF 4x PCIe Enablement Kit	E3.S EDSFF NVMe SSD	61.44 TB	491.52 TB (8 x 61.44 TB)

Storage Controllers

The available internal controllers are depicted below.

- HPE MR216i-p Gen11 x16 Lanes without Cache PCI SPDM Plug-in Storage Controller.
- HPE MR416i-p Gen11 x16 Lanes 8GB Cache PCI SPDM Plug-in Storage Controller.

Notes: For additional information, please see the [HPE Compute MR Gen11 Controller QuickSpecs](#).

Standard Features

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)
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)

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>.

Standard Features

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.
- TPM 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](#)

Standard Features

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 Compute 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>

Standard Features

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.
- **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>

Optional Features

Server Management

HPE iLO Advanced

HPE iLO Advanced licenses offer smart remote functionality without compromise, for all HPE ProLiant servers. The license includes the 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

For the most up-to-date information on HPE Services, please refer to the [HPE Services – Supplemental QuickSpecs](#), which provides a comprehensive and regularly updated overview of available 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.

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

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

CTO Server	HPE DL340e Gen12 LFF CTO Server
SKU Number	P85518-B21
TAA SKU¹	P85518-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	Performance heatsink must be selected
Fans	Performance fans included
PCIe	Optional rear enablement kits (must select one)
OCP 3.0 Slot	Default OCP A and Optional OCP B (depending on configuration)
Drive Cage	Optional front LFF HDD FIO enablement kits (must select one)
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	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 HPE Ball Bearing Rail Kit 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 processor selected.
- Choice of DDR5 memory options.
- Choice of Front Drive FIO Enablement kit.
- Choice of Rear Enablement kit.
- Choice of Storage Controllers and Storage Controller Cables (depending on configuration).
- Choice of HDD and SSD.

Configuration Information

- Choice of OS Boot Devices, Intel® VROC.
 - Choice of Networking options:
 - PCIe standup or OCP 3.0. 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
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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 6732P 3.8GHz 32-core 350W Processor for HPE	P74578-B21
Intel Xeon 6736P 2.0GHz 36-core 205W Processor for HPE	P74575-B21
Intel Xeon 6737P 2.9GHz 32-core 270W Processor for HPE	P74576-B21
Intel Xeon 6745P 3.1GHz 32-core 300W Processor for HPE	P81591-B21
Intel Xeon 6747P 2.7GHz 48-core 330W Processor for HPE	P73831-B21
Intel Xeon 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

Core Options

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

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

Notes: All SKUs below ship with one processor only. Adequate fans and heatsinks must be selected.

Backplane / Drive cage / Enablement Kit

HPE ProLiant Compute DL340e Gen12 Front 24LFF FIO Enablement Kit	P85519-B21
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Notes: Supports up to 24 SAS/SATA LFF drives.

HPE ProLiant Compute DL340e Gen12 Front 16LFF FIO Enablement Kit	P85520-B21
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Notes: Supports up to 16 SAS/SATA LFF drives.

Rear Drive cage / Risers / Enablement kit**Each server must select one from the two rear enablement kits**

HPE ProLiant Compute DL340e Gen12 Rear 6x PCIe Enablement Kit	P85521-B21
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Notes: This kit enables up to six PCIe slots depending on the processor selected.

HPE ProLiant Compute DL340e Gen12 Rear EDSFF 4x PCIe Enablement Kit	P85522-B21
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Notes: This kit enables up to ten E3.S EDSFF SSD bays and four PCIe slots depending on the Storage Controller and Storage Cable(s) selected.

Storage Controller – Please select a storage controller from the below list.**Drive / Interface Support Matrix**

Drive Type	Interface	MR200 & MR400 Series
HDD	SATA	Supported
	SAS	Supported
SSD	SATA	Supported
	SAS	Supported
	NVMe	Supported

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

[HPE Compute MR Gen11 Controllers QuickSpecs](#)

HPE MR216i-p Gen11 x16 Lanes without Cache PCI SPDM Plug-in Storage Controller	P47785-B21
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Notes: These controllers support up to 16 SAS/SATA/NVMe Drives.

Core Options

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

804398-B21

Battery and Hybrid Capacitor

HPE 16W Smart Hybrid Capacitor with 145mm Cable

P65038-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

HPE ProLiant Compute DL340e Gen12 Rear 8EDSFF x4 Direct Attach Cable Kit

P85523-B21

Notes:

- This SKU can be selected only when HPE ProLiant Compute DL340e Gen12 Rear EDSFF 4x PCIe Enablement Kit (P85522-B21) is selected.
- This SKU can be selected only when Intel® Xeon® 6 Single Socket Processors (RICH I/O) is selected.
- When this SKU is selected, the rear 8 EDSFF bays are PCIe Gen5 x4 directly attached to the processor.
- When this SKU is selected, HPE ProLiant Compute DL340e Gen12 Rear 8EDSFF x2 Direct Attach Cable Kit (P85524-B21) cannot be selected.
- When this SKU is selected, HPE ProLiant Compute DL340e Gen12 Rear 8EDSFF Controller Cable Kit (P85525-B21) cannot be selected.
- When this SKU is selected, HPE DL360 G12 2SFF B4 B5 PCIe S1 Cbl Kit (P77188-B21) cannot be selected.

HPE ProLiant Compute DL340e Gen12 Rear 8EDSFF x2 Direct Attach Cable Kit

P85524-B21

Notes:

- This SKU can be selected only when HPE ProLiant Compute DL340e Gen12 Rear EDSFF 4x PCIe Enablement Kit (P85522-B21) is selected.
- When this SKU is selected, the rear 8 EDSFF bays are PCIe Gen5 x2 directly attached to the processor.
- When this SKU is selected, HPE ProLiant Compute DL340e Gen12 Rear 8EDSFF x4 Direct Attach Cable Kit (P85523-B21) cannot be selected.
- When this SKU is selected, HPE ProLiant Compute DL340e Gen12 Rear 8EDSFF Controller Cable Kit (P85525-B21) cannot be selected.
- When this SKU is selected, HPE DL360 G12 2SFF B4 B5 PCIe S1 Cbl Kit (P77188-B21) cannot be selected.

HPE ProLiant Compute DL340e Gen12 Rear 8EDSFF Controller Cable Kit

P85525-B21

- This SKU can be selected only when HPE ProLiant Compute DL340e Gen12 Rear EDSFF 4x PCIe Enablement Kit (P85522-B21) is selected.
- This SKU can be selected only when additional internal controller is selected for the rear 8 EDSFF bays.

Core Options

- When this SKU is selected, the rear 8 EDSFF bays are connected to the selected internal storage controller.
- When this SKU is selected, HPE ProLiant Compute DL340e Gen12 Rear 8EDSFF x4 Direct Attach Cable Kit (P85523-B21) cannot be selected.
- When this SKU is selected, HPE ProLiant Compute DL340e Gen12 Rear 8EDSFF x2 Direct Attach Cable Kit (P85524-B21) cannot be selected.

HPE ProLiant Compute DL360 Gen12 2SFF Stacking x2 Box4 Box5 PCIe Slot1 Controller Cable Kit P77188-B21

Notes:

- This SKU can be selected only when HPE ProLiant Compute DL340e Gen12 Rear EDSFF 4x PCIe Enablement Kit (P85522-B21) is selected.
- When this SKU is selected, the dedicated rear 2 EDSFF bays for boot are connected to additional selected HPE MR216i-p Gen11 x16 Lanes without Cache PCI SPDM Plug-in Storage Controller (P47785-B21).
- When this SKU is selected, HPE ProLiant Compute DL340e Gen12 Rear 8EDSFF Controller Cable Kit (P85525-B21) cannot be selected.

HPE ProLiant Compute DL3X0 Gen12 OCP SlotB MCIO Cable Kit P71426-B21

Notes:

- This SKU can be selected only when HPE ProLiant Compute DL340e Gen12 Rear 6x PCIe Enablement Kit (P85521-B21) is selected.
- This SKU can be selected only when Intel® Xeon® 6 Single Socket Processors (RICH I/O) is selected.
- When this SKU is selected, the OCP SlotB is PCIe Gen5 X16 connected.

HPE ProLiant Compute DL3X0 Gen12 OCP SlotB for R1S MCIO Cable Kit P75154-B21

Notes:

- This SKU can be selected only when HPE ProLiant Compute DL340e Gen12 Rear 6x PCIe Enablement Kit (P85521-B21) is selected.
- This SKU can be selected only when Intel® Xeon® 6 Single Socket Processors (RICH I/O) is selected.
- When this SKU is selected, the OCL SlotB is PCIe Gen5 X8 connected.

HPE ProLiant Compute DL3X0 Gen12 Direct Attach OCP SlotB MXIO Cable Kit P77556-B21

HPE ProLiant Compute DL3X0 Gen12 SP MHS Serial Port Enablement Kit P71432-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](#)

Mixed Use – 12G SAS - LFF

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

Read Intensive – 6G SATA – LFF

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

Core Options

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
HPE 1.92TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 SPDM 7600 SSD	P85121-B21
HPE 3.84TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 EDSFF SPDM PE1010 SSD	P77271-B21
HPE 3.84TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 CD8P SSD	P69237-B21
HPE 3.84TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 SPDM 7600 SSD	P85124-B21
HPE 7.68TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 EDSFF SPDM PE1010 SSD	P77273-B21
HPE 7.68TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 CD8P SSD	P69239-B21
HPE 7.68TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 SPDM 7600 SSD	P85126-B21
HPE 15.36TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 EDSFF SPDM PE1010 SSD	P77275-B21
HPE 15.36TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 CD8P SSD	P69546-B21
HPE 15.36TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 SPDM 7600 SSD	P85128-B21
HPE 3.84TB NVMe Gen5 High Performance Read Intensive 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 1.6TB NVMe Gen5 Mainstream Performance Mixed Use E3S EC1 SPDM 7600 SSD	P85114-B21
HPE 3.2TB NVMe Gen5 Mainstream Performance Mixed Use E3S EC1 EDSFF SPDM PE1030 SSD	P77265-B21
HPE 3.2TB NVMe Gen5 Mainstream Performance Mixed Use E3S EC1 CD8P SSD	P69243-B21
HPE 3.2TB NVMe Gen5 Mainstream Performance Mixed Use E3S EC1 SPDM 7600 SSD	P85117-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 6.4TB NVMe Gen5 Mainstream Performance Mixed Use E3S EC1 SPDM 7600 SSD	P85119-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) – NVMe - EDSFF E3.S 1T

HPE 1.92TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 Self-encrypting 7600 SSD	P87719-B21
HPE 3.84TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 Self-encrypting 7600 SSD	P87721-B21
HPE 7.68TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 Self-encrypting 7600 SSD	P87723-B21
HPE 7.68TB NVMe Gen5 High Performance Read Intensive E3S EC1 Self-encrypting FIPS 140-3 CM7 SSD	P70674-B21
HPE 1.6TB NVMe Gen5 Mainstream Performance Mixed Use E3.S EC1 Self-encrypting 7600 SSD	P87715-B21

Core Options

HPE 3.2TB NVMe Gen5 Mainstream Performance Mixed Use E3.S EC1 Self-encrypting 7600 SSD	P87717-B21
HPE 3.2TB NVMe Gen5 High Performance Mixed Use 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](#)

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
HPE 26TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e ISE Multi Vendor HDD	P80577-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
HPE 26TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e ISE Multi Vendor HDD	P80578-B21

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
HPE ProLiant Compute DL3XX Gen12 NS204i-u Rear Cable Kit	P71433-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.

Core Options

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

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

Core Options

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
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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
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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

HPE InfiniBand

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

Accelerators

NVIDIA L4 24GB PCIe Accelerator for HPE	S0K89C
NVIDIA RTX A1000 8GB PCIe Accelerator for HPE	S5T74C

Core Options

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 Gen12 Performance Heat Sink Kit	P73668-B21
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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 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
HPE 1300W M-CRPS -48VDC Hot Plug Power Supply Kit	P82412-B21
HPE 2200W M-CRPS -48VDC Hot Plug Power Supply Kit	P73210-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://poweradvisor.ext.it.hpe.com/>.
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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 Onsite Startup Service	U4555E

Tech Care Services

HPE 3 Year Tech Care Essential DL340e Gen12 HW Service	H56YXE
HPE 3 Year Tech Care Essential wDMR DL340e Gen12 HW Service	H56YYE
HPE 5 Year Tech Care Essential DL340e Gen12 HW Service	H56ZVE
HPE 5 Year Tech Care Essential wDMR DL340e Gen12 HW Service	H56ZWE

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 Ball Bearing Rail 6 Kit

P69769-B21

HPE Cable Management Arm 2 for Ball Bearing Rail Kit

P69776-B21

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](#)

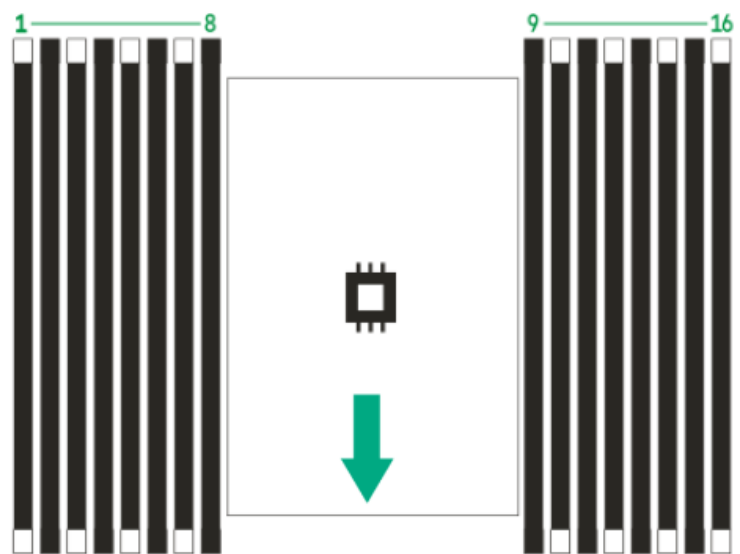
HPE Power Distribution Units (PDUs)

- 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.

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.
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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).

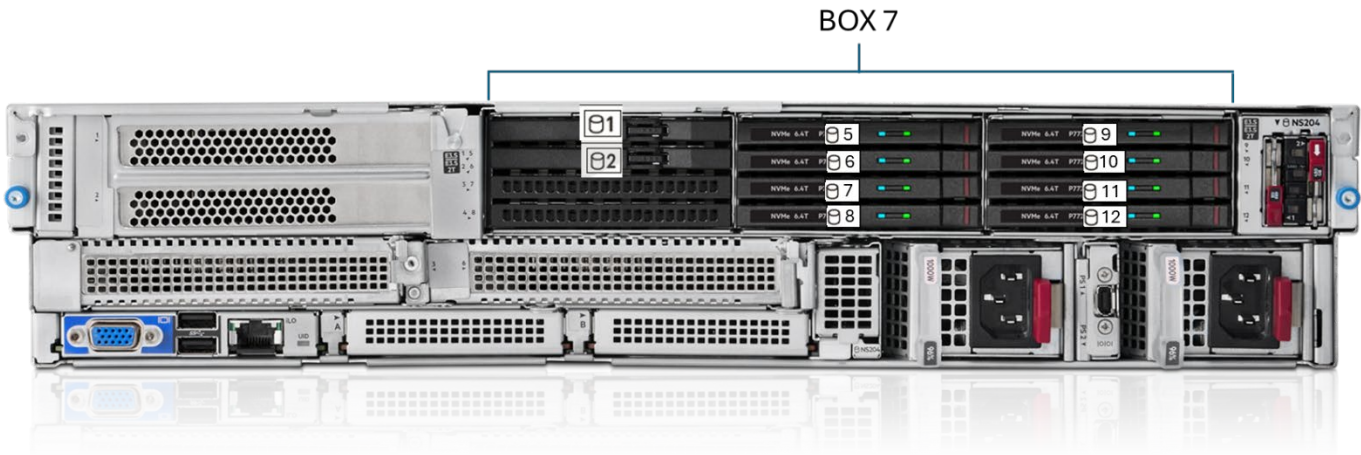
Memory

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.
 - For additional information, please reference the [HPE DDR5 Smart Memory QuickSpecs](#).
-



24 LFF Box & Drive Bay Numbering



Optional Rear EDSFF Box & Drive Bay Numbering

Notes: The Box 7 Bay 1-2 are only available when NS204i-u is not installed, and one additional storage controller is required to connect to these two drives.

Technical Specifications

System Unit

Dimensions (Height x Width x Depth)

- **LFF chassis:**
 - 8.75 x 44.80 x 80.65 cm.
 - 3.45 x 17.64 x 32.36 in.

Weight (approximate)

- **LFF chassis:**
 - **Minimum:** LFF chassis and rear PCIe with 2 LFF drives, 1 processor, 1 power supply, 1 performance heatsink, 1 DIMM, 1 MR controller, and 6 performance fans.
 - 22.93 kg (50.51 lb).
 - **Maximum:** LFF chassis and rear EDSFF with 24 LFF drives, 8 E3.S drives, 1 processor, 2 power supply, 1 performance heatsink, 16 DIMM, 2 MR PCIe controller, and 6 performance fans.
 - 46.55 kg (102.53 lb).

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.

Technical Specifications

- 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).

Technical Specifications

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

Technical Specifications

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	5.4 B SKU1, Entry 5.9 B SKU2, Typical 1 6.2 B SKU3, Performance 1
LpAm	40 dBA SKU1, Entry 45 dBA SKU2, Typical 1 48 dBA SKU3, Performance 1
Kv	0.4 B SKU1, Entry 0.4 B SKU2, Typical 1 0.4 B SKU3, Performance 1
Operating	
LWA,m	5.4 B SKU1, Entry 5.9 B SKU2, Typical 1 6.4 B SKU3, Performance 1
LpAm	40 dBA SKU1, Entry 45 dBA SKU2, Typical 1 49 dBA SKU3, Performance 1
Kv	0.4 B SKU1, Entry 0.4 B SKU2, Typical 1 0.4 B SKU3, Performance 1

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 TDP.
- The results in this declaration apply only to the specific configuration listed below when operating and tested according to the indicated modes and standards. A system with additional configuration components or increased operating functionality may increase the noise emission values.
- SKU1, Entry - 12LFF + R1S(RIO) MAX IO (NO EDSFF): 1x INT Xeon 6511P CPU, 12x 20TB SAS 7.2K LFF HDD, 4x 32GB DIMM, 2x 800W PSU, 6x SYS Fan, 1x NS204i-u V2 Ht Plg Boot Opt Dev, 1x MR216i-p, 2x 10/25GbE 4p SFP28 Adptr
- SKU2, Typical 1 - 18LFF + 8EDSFF: 1x INT Xeon 6521P CPU, 18x 20TB SAS 7.2K LFF HDD, 4x 3.2TB NVMe MU E3S SSD, 8x 32GB DIMM, 2x 1000W PSU, 6x SYS Fan & 5x rear Fan, 1x NS204i-u V2 Ht Plg Boot Opt Dev, 1x Fan OCP interposer, 2x MR416i-p, 1x 200G 2p QSFP112 Adptr

Technical Specifications

- SKU3, Performance 1 - 16LFF + L4 GPU x1: 1x INT Xeon 6731P CPU, 16x 20TB SAS 7.2K LFF HDD, 8x 3.2TB NVMe MU E3S SSD, 16x 32GB DIMM, 2x 2400W PSU, 6x SYS Fan & 5x rear Fan, 1x NS204i-u v2 960GB NVMe HP Boot Dev, 1x Fan OCP interposer, 1x MR416i-p, 1x 200G 2p QSFP112 Adptr, 1x NVIDIA L4 24GB PCIe Accelerator
 - 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.
 - System 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
03-Aug-2026	Version 5	Changed	Core Options section was updated.
06-Jul-2026	Version 4	Changed	Core Options and Technical Specifications sections were updated.
		Added	26TB SAS 12G HDD 26TB SATA 6G HDD Acoustic Noise tables.
01-Jun-2026	Version 3	Changed	Standard Features section was updated. Intel® Xeon® 6 Single Socket Processors (RICH I/O) 6511 Speed attributes.
04-May-2026	Version 2	Changed	Core Options section was updated. Intel® Xeon® 6 Performance-Core (P-Core) Processors, Memory factory rules, and HPE InfiniBand SKU.
06-Apr-2026	Version 1	New	New QuickSpecs.

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