Shape the Future of QuickSpecs - Your Input Matters

HPE ProLiant Compute DL384 Gen12

QuickSpecs

HPE ProLiant Compute DL384 Gen12 is the first server from HPE enabled with NVIDIA GH200 NVL2. It is optimized for AI inferencing for large language models requiring large memory capacity and for non-AI workloads such as large-scale simulation, EDA, and weather forecasting.

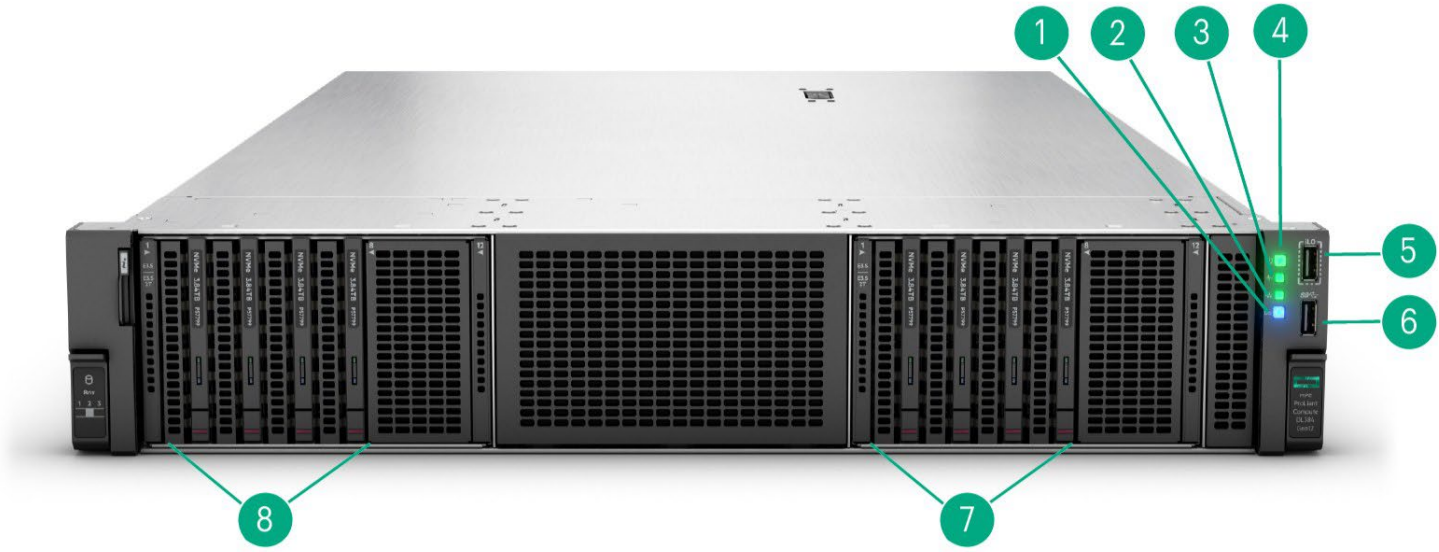
With up to 1.2 TB of fast unified memory and 5TB/s bandwidth, the NVIDIA GH200 NVL2 can handle large language models fine-tuning and inferencing with Retrieval Augmented Generation (RAG) and more users featuring twice the performance of the previous generation.

HPE ProLiant Compute DL384 Gen12

The HPE ProLiant Compute DL384 Gen12 delivers the best performance per GPU in our HPE ProLiant portfolio. HPE ProLiant Compute DL384 is ideal for mixed or memory intensive workloads, whether you are doing AI or traditional HPC.

Building on HPE ProLiant as the legendary foundation, the HPE ProLiant Compute DL384 Gen12 delivers a consistent experience across the HPE ProLiant portfolio with HPE iLO management and firmware that delivers robust reliability and security with silicon Root of Trust technology from HPE.

HPE and NVIDIA are continuing to innovate to help our customers unlock next-gen scale-out accelerated computing for generative AI, with superchip performance for their Enterprise AI Factory.

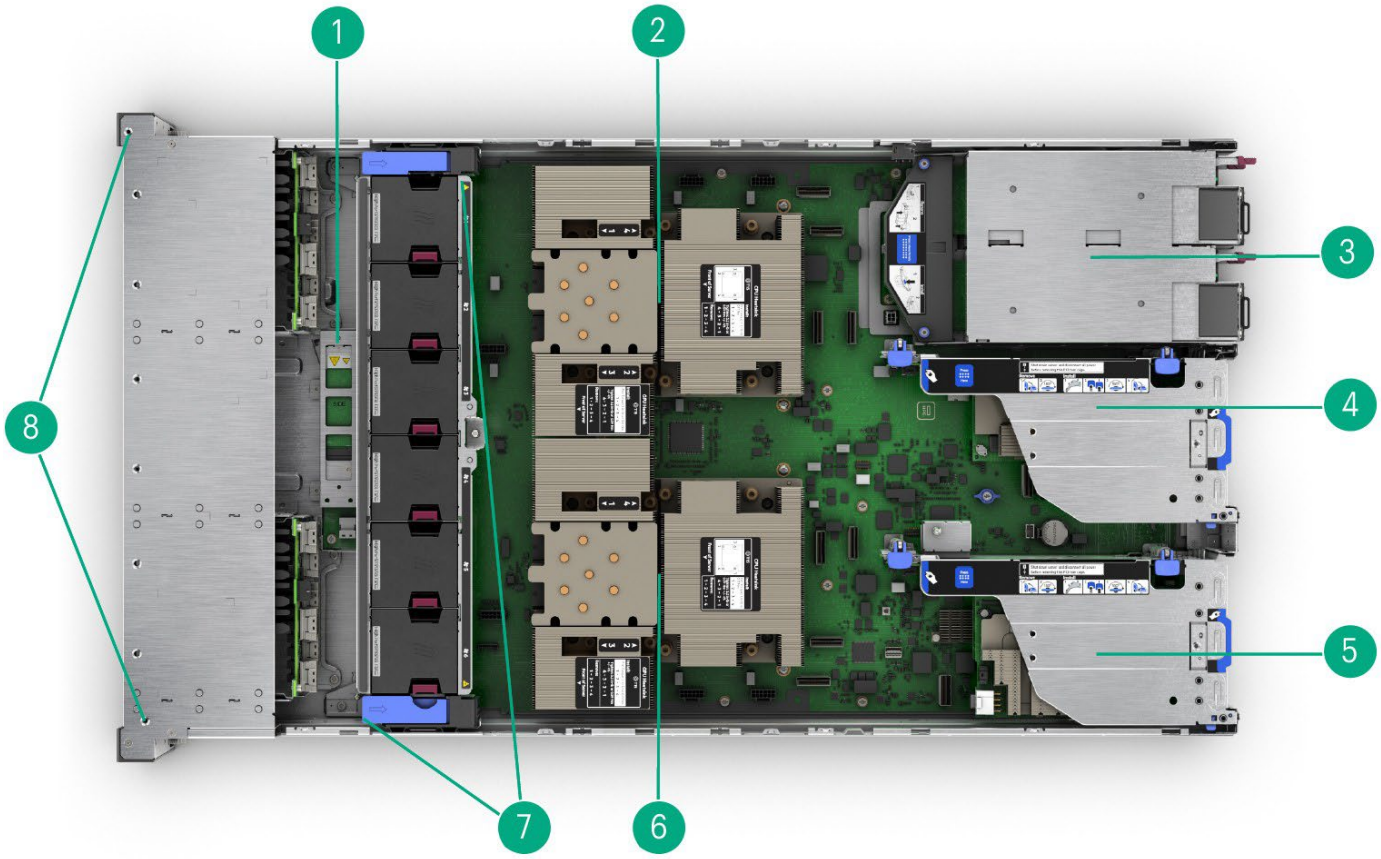


HPE ProLiant Compute DL384 Gen12 – Front View

Item	Description	Item	Description
1.	UID button LED	5.	iLO Service Port
2.	NIC status LED	6.	USB 3.1 port
3.	Health LED	7.	EDSFF Gen5 x4 NVME*
4.	Power On/Standby button/LED	8.	EDSFF Gen5 x4 NVME*

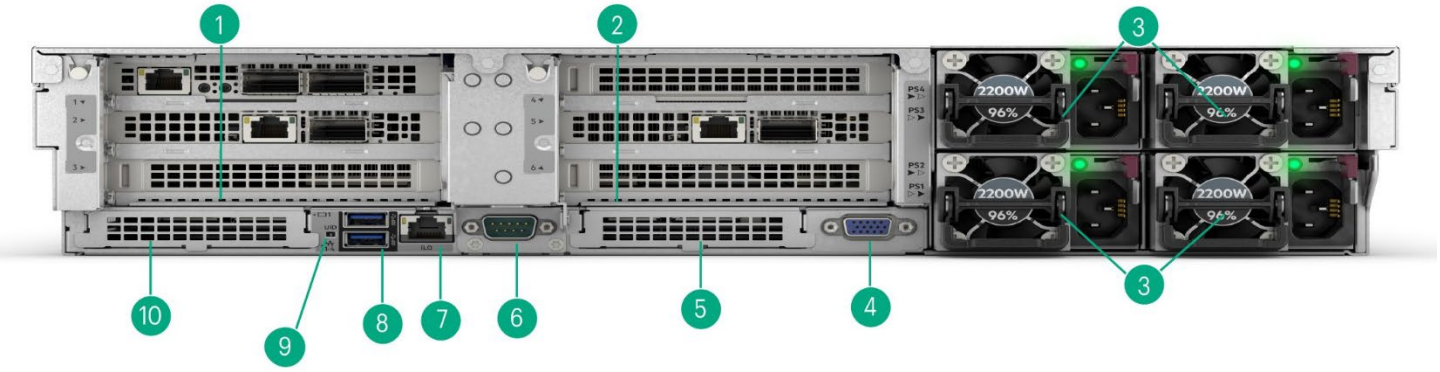
Notes:

- *Up to 4 EDSFF drives.
- 2u stackable.
- Recommended: 2x EDSFF drives per Superchip up to 4 EDSFF for dual superchip system.
- Up to 4 EDSFF drives per Superchip can be supported. PCIe support reduced to one PCIe per Superchip for this option.



HPE ProLiant Compute DL384 Gen12 – Internal View

Item	Description	Item	Description
1.	M.2 drives (Up to 2, not in H W RAID)	5.	Up to PCIe slots (Primary riser)
2.	Secondary Superchip	6.	Primary Superchip
3.	Power supplies (up to 4)	7.	Hot Plug redundant Fans
4.	Up to 2 PCIe slots (Secondary riser)	8.	Drive cages



HPE ProLiant Compute DL384 Gen12 – Rear View

Item	Description	Item	Description
1.	Up to 2 FHHL PCIe slots (Primary riser)	6.	Serial Port
2.	Up to 2 FHHL PCIe slots (Secondary riser)	7.	iLO Management Port
3.	Power Supply 1, 2, 3 and 4	8.	USB 3.1 ports (2)
4.	Video (VGA) port	9.	UID Indicator Light
5.	OCP 3.0 (Slot 2) (Optional)	10.	OCP 3.0 (Slot 1) (Optional)

What's New

- The first HPE ProLiant rack mount server with the latest NVIDIA GH200 Grace Hopper™ Superchip
- Support for dual superchips with NVIDIA GH200 NVL2. NVLink between two GH200 for twice the memory and performance.
- Support for the latest NVIDIA InfiniBand, Ethernet, and Bluefield adapters ensures your AI fabric runs at top performance.
- NVIDIA OVX™ certified for Artificial Intelligence workloads
- High-performance LLM inference to maximize data center utilization
- With up to 2X higher inference performance compared to H100
- HPE Silicon Root of Trust offers industry leading innovation based on the HPE zero trust architecture, to protect your infrastructure, workloads, and data

Platform Information

Form Factor

- 2U standard 19" rack design, air cooled server

Superchip		
Feature	**GH200**	**GH200 NVL2**
CPU core count	72 Arm Neoverse V2 cores	144 Arm Neoverse V2 cores
L1 cache	64KB i-cache + 64KB d-cache	
L2 cache	1MB per core	
L3 cache	114MB	228MB
Base frequency | all-core single instruction, multiple data (SIMD) frequency	3.1GHz | 3.0GHz	
LPDDR5X size	480GB	960GB
Memory bandwidth	512GB/s	1024GB/s
Feature	**GH200**	**GH200 NVL2**
FP64	34 teraFLOPS	68 teraFLOPS
FP64 Tensor Core	67 teraFLOPS	134 teraFLOPS
FP32 Tensor Core	989 teraFLOPS* | 494 teraFLOPS	1979 teraFLOPS | 990 teraFLOPS
BFLOAT 16 Tensor Core	1979 teraFLOPS* | 990 teraFLOPS	3958 teraFLOPS* | 1979 teraFLOPS
FP8 Tensor Core	3958 teraFLOPS* | 1979 teraFLOPS	7916 teraFLOPS* | 3958 teraFLOPS
INT8 Tensor Core	3958 TOPS* | 1979 TOPS	7916 TOPS* | 3958 TOPS
High-bandwidth memory (HBM) size	144GB HBM3e **	288 GB HBM3e **
Memory bandwidth	Up to 4.9TB/s	Up to 9.8TB/s
Nvidia NVLink-C2C CPU-to-GPU bandwidth	900GB/s	1800GB/s
Thermal solution	Air cooled	

Notes: * With sparsity, ** 96GB GH200 available to select customers. Check with your HPE representative for details.

On System Management Chipset

HPE iLO 6 ASIC

Notes: Read and learn more in the iLO QuickSpecs

Interfaces	
Standard Rear Interfaces	
Rear Unit ID indicator	1 Standard
USB 3.0	2 Standard
HPE iLO Remote Management Network Port	1 1Gb iLO dedicated NIC
Serial	1 Standard
Video Port	1 Rear VGA Port - Standard
Standard Front Interfaces	
Front Panel LED	1 each of Unit ID, NIC Status, Health, Power On/Standby button and system power LED
Front iLO Service Port	1 standard
USB 3.2	1 Standard

European Union (EU) Lot 9 regulation

Beginning on January 1st, 2024, units sold into the European Union (EU), European Economic Area (EEA), the United Kingdom, Ireland, Switzerland or Turkey, must include more efficient AC power supplies: 94% for multi-output and 96% for single-output. HPE Flexible Slot power supplies are single-output, and part numbers 865438-B21, P03178-B21, and P44712-B21 are 96% efficient, thus meeting requirements.

HPE is on target to fulfill compliant systems ahead of time and will begin enforcing these requirements in advance to satisfy requests with the current power supplies by the set deadline. For more information regarding HPE Lot 9 conformance, please visit: https://www.hpe.com/us/en/about/environment/msds-specs-more.html

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.

- For the latest information please access the certified and supported servers for each of the OS and Virtualization software to see latest completed certifications: HPE Servers Support & Certification Matrices
- Initial certification plans are RHEL 9.4, Ubuntu 24.04, and SLES15 SP5 QU1, and will be posted to above matrix upon completion and certification.

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.

The most commonly used iLO features are enabled in HPE ARM servers, and we continue to enhance support for ARM. To see the latest, please visit the HPE Support Center iLO 6 User Guide for a list of unsupported features for the HPE ProLiant Compute DL384 Gen12 server at https://support.hpe.com/hpesc/public/docDisplay?docId=sd00002007en_us&page=GUID-ED2BEBFE-3298-4D0C-8D10-B091B5084AC3.html

UEFI

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

iLO RESTful API

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

HPE Server UEFI

Unified Extensible Firmware Interface (UEFI) is an industry standard that provides better manageability and more secured configuration than the legacy ROM while interacting with your server at boot time. HPE ProLiant Gen11 servers have a UEFI Class 3 implementation.

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

- Secure Boot and Secure Start enable for enhanced security
- Support for > 2.2 TB (using GPT) boot drives
- Embedded UEFI Shell
- Redfish assistance for configuring BIOS settings
- PXE boot support for IPv6 networks
- UEFI Boot Mode only
- NVMe Boot Support
- iSCSI Software Initiator Support.
- HTTP/HTTPs Boot support as a PXE alternative.
- Boot support for option cards that only support a UEFI option ROM

Notes: No support for Legacy mode

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.

RESTful Interface Tool

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

Scripting Tools

Provision one to many servers using your own scripts to discover and deploy with Scripting Tool (STK) for Windows and Linux or Scripting Tools for Windows PowerShell. Learn more at http://www.hpe.com/servers/powershell.

Warranty

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

Notes: Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response. Warranty repairs may be accomplished through the use of Customer Self Repair (CSR) parts. These parts fall into two categories: 1) Mandatory CSR parts are designed for easy replacement. A travel and labor charge will result when customers decline to replace a Mandatory CSR part; 2) Optional CSR parts are also designed for easy replacement but may involve added complexity. Customers may choose to have Hewlett Packard Enterprise replace Optional CSR parts at no charge. Additional information regarding worldwide limited warranty and technical support is available 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 full integrated remote console, virtual keyboard, video, and mouse (KVM), multi-user collaboration, console record and replay, and GUI-based and scripted virtual media and virtual folders. You can also activate the enhanced security and power management functionality.

Rack and Power Infrastructure

The story may end with servers, but it starts with the foundation that makes compute go – and business grow. We've reinvented our entire portfolio of rack and power products to make IT infrastructure more secure, more practical, and more efficient. In other words, we've created a stronger, smarter, and simpler infrastructure to help you get the most out of your IT equipment. As an industry leader, Hewlett Packard Enterprise is uniquely positioned to address the key concerns of power, cooling, cable management and system access.
HPE G2 Advanced and Enterprise Racks are perfect for the server room or today's modern data center with enhanced airflow and thermal management, flexible cable management, and a 10 year Warranty to support higher density computing.

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

HPE Uninterruptible Power Systems are cost-effective power protection for any type 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.

HPE Services

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

Consulting Services

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

HPE Managed Services

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

Operational services

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

HPE Complete Care Service

HPE Complete Care Service is a modular, 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
- 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 in three response levels. Basic, which provides 9x5 business hour availability and a 2-hour response time. Essential which provides a 15-minute response time 24x7 for most enterprise level customers, and Critical which includes a 6-hour repair commitment where available and outage management response for severity 1 incidents.
https://www.hpe.com/services/techcare

HPE Lifecycle Services

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

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

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

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

---

Other Related Services from HPE Services

HPE Education Services

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

HPE TechPro AI Training:

As an HPE Partner, come learn about NVIDIA AI Computing by HPE. Examples of free self-paced learning path and badge training available include below. Visit TechPro to see more:

- NVIDIA AI Compute Foundations: https://www.mylearninghpe.com/hpcpbenefits/LearningPaths.aspx?family=NVDAIF
- NVIDIA AI Technical Training: https://www.mylearninghpe.com/hpcpbenefits/LearningPaths.aspx?family=NVDAITT

Defective Media Retention

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

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

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

GreenLake

GreenLake is the cloud to run and manage your entire hybrid landscape—private, public, and edge. It helps you to:

- Streamline IT Operations across compute, storage, and networking without the chaos
- Unify and secure data, as you move faster
- Accelerate AI, from pilot to production

The result: greater operational efficiency, lower TCO, and faster AI delivery—all from one unified, intelligent platform built for today's hybrid enterprise.

Mainstream SKUs

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

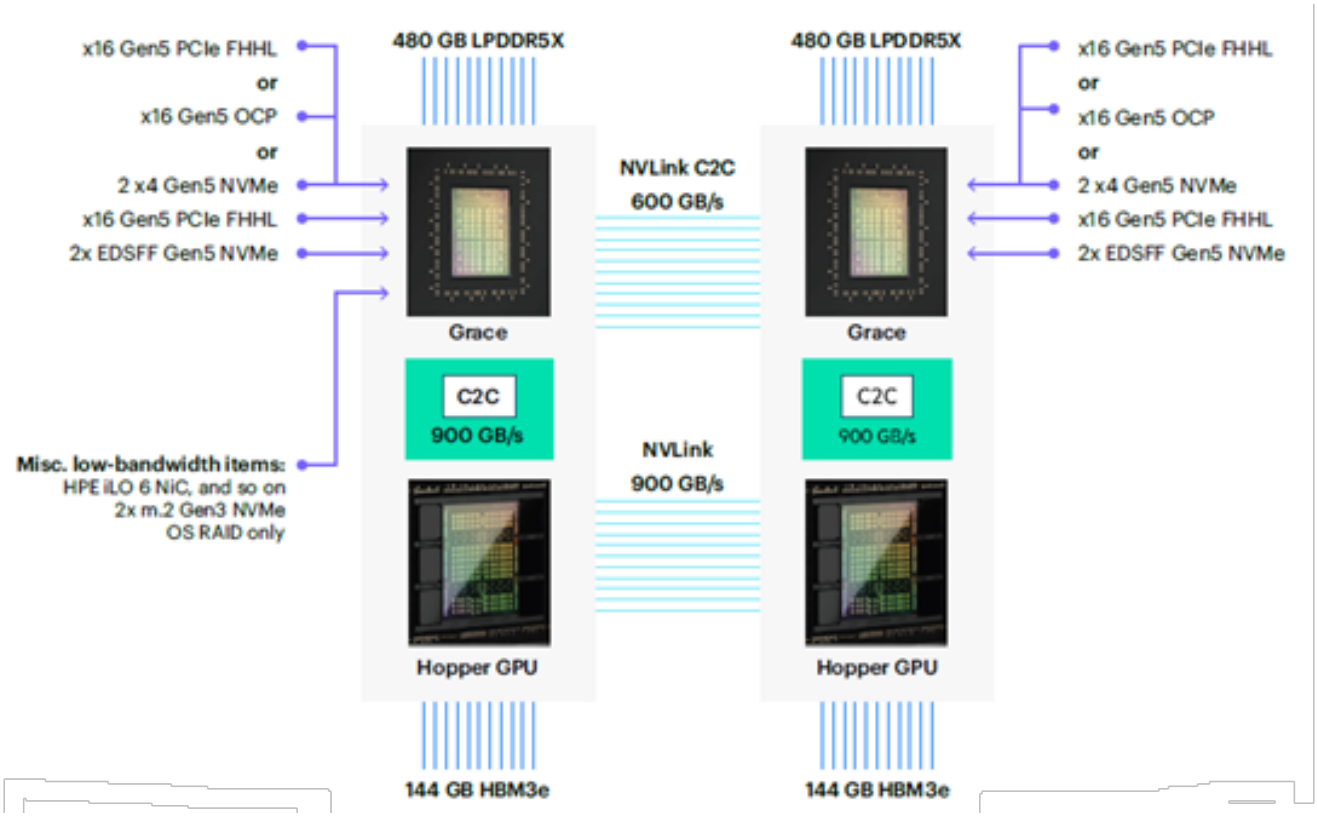
- Factory Integrated Models must start with a CTO Server.
- FIO indicates that this option is only available as a factory installable option.
- All Factory Integrated Models will be populated with sufficient hard drive blanks based on the number of initial hard drives ordered with the server.
- Some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

Step 1: Base Configuration (choose single or dual GH200 configuration)

The block diagram below shows a GH200 NVL2 configuration with dual superchips. For a single superchip configuration only the left side superchip would be populated.

Per superchip, the DL384 is highly symmetric. Each superchip will support 2 EDSFF NVME drives and a full height half length PCIe (FHHL) card standard. Then we have a factory configurable option to choose either another FHHL PCIe card, an OCP, or 2 more drives per superchip.

To simplify your experience, configuration of the server has been streamlined significantly. In brief we have set up only three core hardware kits- the server itself, a kit with a single GH200 superchip, and a kit with two GH200 superchips. The superchip kits include the enablement items needed to build any supported configuration of the server. Then we have a small number of configuration settings to choose that set whether you configure with the spare PCIe, OCP, or added drives. This is summarized in tables below:



Notes: To maintain quality and reliability of the expensive GH200, this system is sold only as a completely assembled system. The configurations below are not able to be updated or modified in the field. Options can be changed, but the fundamental configurations are set as in the next table.

1a: Single NVIDIA GH200 per server configuration (one superchip.) Choose your desired PCIe, OCP, and drive configuration from table below, use listed SKUs to configure

	1 GH200 2 PCIe Configuration (Recommended)	1 GH200 1 PCIe / 1 OCP Configuration	1 GH200 1 PCIe 4xEDSFF Configuration
Desired Features			
Full Height Half Length x16 Gen5 PCIe slots	2	1	1
OCP 3.0 x16 slots	0	1	0
EDSFF Drive support (number of drives)	2	2	4
SKU list for feature stack			
HPE ProLiant Compute DL384 Gen12	P71411-B21	P71411-B21	P71411-B21
NVIDIA GH200 144GB 1P Enable FIO Bdl	P71406-B21	P71406-B21	P71406-B21
HPE DL384 Gen11 1P 2EDSFF 2PCIe FIO	P72451-B21 *	-	-
HPE DL384 Gen11 1P 2EDSFF 1OCP FIO	-	P72454-B21 *	-
HPE DL384 Gen11 1P 4EDSFF FIO	-	-	P72457-B21 *

Notes *: This configuration, as built at HPE factories, may not be upgraded in the field.
Supported Ambient Air Conditions for High Speed (200/400 Gb) Networking cards as listed below.
Low speed Ethernet (10/25 or 100GbE) cards can be used in any remaining slots, in any combinations.
For more details on slots and CPU affinities refer to the User and Maintenance guides at
https://www.hpe.com/info/dl384gen12-docs

	1 GH200 2 PCIe Configuration (Recommended)	1 GH200 1 PCIe / 1 OCP Configuration	1 GH200 1 PCIe 4xEDSFF Configuration
1x 200Gb B3220 P66386-H21	AOC 30C / DAC 30C	AOC 20C (see note 2) / DAC 20C	AOC 20C (see note 2) / DAC 20C
1x 400Gb B3140H P66387-H21	AOC 30C / DAC 30C	AOC 18C (see note 2) / DAC 19C (see note 2)	AOC 18C (see note 2) / DAC 19C (see note 2)
1x CX7 class adapter (note 1)	AOC 30C / DAC 30C	AOC 25C / DAC 30C	AOC 25C / DAC 30C
1x 200Gb B3220 P66386-H21 1x 400Gb B3140H P66387-H21	AOC 23C / DAC 23C	NA	NA
1x 200Gb B3220 P66386-H21 1x CX7 class adapter (note 1)	AOC 26C / DAC 26C	NA	NA
1x 400Gb B3140H P66387-H21 1x CX7 class adapter (note 1)	AOC 26C / DAC 30C	NA	NA
2x 400Gb B3140H P66387-H21	AOC 18C (see note 2) / DAC 23C	NA	NA
2x CX7 class adapter (note 1)	AOC 26C / DAC 30C	NA	NA

Notes:

AOC are Active Optical Cables. DAC are Direct Attach (copper) Cables

1. CX-7 Class adapters
   - 400Gb 1P MCX75310AAS-NEAT
   - 200Gb 1P MCX75310AAS-HEAT
   - 200Gb 2P MCX755106AC-HEAT
2. H1: Environment specifications for high-density air-cooling, 18C to 22C, Dry-Bulb Temp.
3. There are no field upgrade kits for the HPE ProLiant Compute DL384 Gen12. HPE does not support changes outside the quality controlled factory environment to the number of superchip, drives, PCIe, or OCP slots.
4. While NVIDIA has bundled NVIDIA AI Enterprise licenses with select PCIe GPU, NVIDIA AI Enterprise is not included in purchase of the GH200, but is a supported option which can be purchased through HPE. To know more about the NVIDIA SW products that HPE offers, please refer to the QS: NVIDIA Software Products at HPE. Refer to more on NVIDIA software from HPE at https://www.hpe.com/psnow/doc/a00059765enw

1b: NVIDIA GH200 NVL2 server configuration (dual superchip.) Choose your desired PCIe, OCP, and drive configuration from table below, use listed SKUs to configure.

	Dual GH200 4 PCIe Configuration (Recommended)	Dual GH200 2 PCIe / 2 OCP Configuration	Dual GH200 2 PCIe / 8xEDSFF Configuration
Desired Features			
Full Height Half Length x16 Gen5 PCIe slots	4	2	2
OCP 3.0 x16 slots	0	2	0
EDSFF Drive support (number of drives)	4	4	8
SKU list for feature stack			
HPE ProLiant Compute DL384 Gen12	P71411-B21	P71411-B21	P71411-B21
NVIDIA GH200 NVL2 144GB 2P Enable FIO Bdl	P71407-B21	P71407-B21	P71407-B21
HPE 4 PCIe 4xEDSFF 2P FIO Sys Setting	P72460-B21 *	-	-
HPE 2 PCIe 2xOCP 2P FIO Sys Setting	-	P72463-B21 *	-
HPE 2 PCIe 8xEDSFF 2P FIO Sys Setting	-	-	P72466-B21 *

Notes: This configuration, as built at HPE factories, may not be upgraded in the field.
Supported Ambient Air Conditions for High Speed (200/400 Gb) Networking cards as listed below.
Low speed Ethernet (10/25 or 100GbE) cards can be used in any remaining slots, in any combinations.
For more details on slots and CPU affinities refer to the User and Maintenance guides at
https://www.hpe.com/info/dl384gen12-docs

1x 200Gb B3220 P66386-H21	AOC 28C / DAC 28C	AOC 26C / DAC 26C	AOC 26C / DAC 26C
1x 400Gb B3140H P66387-H21	AOC 26C / DAC 30C	AOC 23C / DAC 30C	AOC 23C / DAC 30C
1x CX7 class adapter, see note below	AOC 30C / DAC 30C	AOC 30C / DAC 30C	AOC 30C / DAC 30C
1x 200Gb B3220 P66386-H21 1x 400Gb B3140H P66387-H21	AOC 26C / DAC 26C	AOC 22C / DAC 22C	AOC 22C / DAC 22C
1x 200Gb B3220 P66386-H21 1x CX7 class adapter (note 2)	AOC 28C / DAC 28C	AOC 26C / DAC 26C	AOC 26C / DAC 26C
1x 400Gb B3140H P66387-H21 1x CX7 class adapter, see note below	AOC 26C / DAC 30C	AOC 23C / DAC 30C	AOC 23C / DAC 30C
2x 400Gb B3140H P66387-H21	AOC 23C / DAC 30C	AOC 18C (see note 2) / DAC 23C	AOC 18C (see note 2) / DAC 23C
2x CX7 class adapter, see note below	AOC 30C / DAC 30C	AOC 26C / DAC 30C	AOC 26C / DAC 30C

1x 200Gb B3220 P66386-H21 2x 400Gb B3140H P66387-H21	AOC 23C / DAC 25C	AOC 23C / DAC 26C	NA
1x 200Gb B3220 P66386-H21 2x CX7 class adapter, see note below	AOC 28C / DAC 28C	AOC 28C / DAC 28C	NA
2x 200Gb B3220 P66386-H21	AOC 22C (see note 2) / DAC 22C	AOC 22C (see note 2) / DAC 22C	AOC 22C (see note 2) / DAC 22C
1xSuperNIC 400G 2xCX7 400G/200G	AOC 26C / DAC 26C	AOC 26C / DAC 26C	NA
2xSuperNIC 400G 1xCX7 400G/200G	AOC 23C / DAC 30C	AOC 23C / DAC 30C	NA
3xSuperNIC 400G	AOC 21C (see note 2) / DAC 23C	AOC 21C / DAC 23C	NA
3xCX7 400G/200G	AOC 26C / DAC 26C	AOC 26C / DAC 26C	NA
1xDPU 2xSuperNIC 400G 1xCX7 400G/200G	AOC 22C (see note 2) DAC 22C (see note 2)	AOC 21C / DAC 21C	NA

Notes:

AOC are Active Optical Cables. DAC are Direct Attach (copper) Cables

1. CX-7 Class adapters
   - 400Gb 1P MCX75310AAS-NEAT
   - 200Gb 1P MCX75310AAS-HEAT
   - 200Gb 2P MCX755106AC-HEAT
2. H1: Environment specifications for high-density air-cooling, 18C to 22C, Dry-Bulb Temp.
3. There are no field upgrade kits for the HPE ProLiant Compute DL384 Gen12. HPE does not support changes outside the quality controlled factory environment to the number of superchip, drives, PCIe, or OCP slots.
4. While NVIDIA has bundled NVIDIA AI Enterprise licenses with select PCIe GPU, NVIDIA AI Enterprise is not included in purchase of the GH200, but is a supported option which can be purchased through HPE. To know more about the NVIDIA SW products that HPE offers, please refer to the QS: NVIDIA Software Products at HPE. Refer to more on NVIDIA software from HPE at https://www.hpe.com/psnow/doc/a00059765enw

HPE Networking

10/25 Gigabit Ethernet adapters

Mellanox MCX631102AS-ADAT Ethernet 10/25Gb 2-port SFP28 Adapter for HPE P42044-B21

100/200 Gigabit Ethernet adapters

Mellanox MCX623106AS-CDAT Ethernet 100Gb 2-port QSFP56 Adapter for HPE P25960-B21

OCP Adapter

Mellanox MCX631432AS-ADAI Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE P42041-B21

HPE InfiniBand PCIe

HPE InfiniBand NDR200/Ethernet 200Gb 1-port OSFP PCIe5 x16 MCX75310AAS-HEAT Generic Adapter P45642-H23

HPE InfiniBand XDR/Ethernet 2x400GbE 1-port OSFP PCIe6 x16 HHHL CX8 Crypto Adapter P79114-H21

HPE InfiniBand XDR400/Ethernet 400GbE 2-port QSFP112 PCIe6 x16 HHHL CX8 Crypto Adapter	P79115-H21
HPE InfiniBand XDR PCIe Gen6 x16 Multi Host/Socket Direct Auxiliary Card with 250mm MCIO Cable Kit	P81264-H21

HPE Bluefield PCIe

HPE Data Processing Unit InfiniBand NDR200/Ethernet 200Gb 2-port QSFP112 FHHL B3220 Adapter	P66386-H21
HPE Data Processing Unit InfiniBand NDR/Ethernet 400Gb 1-port QSFP112 HHHL B3140H Adapter	P66387-H21

Notes: HPE has aligned our support to match NVIDIA recommendations for fabric design with Bluefield adapters, supporting

- One North-South HPE Data Processing Unit InfiniBand NDR200/Ethernet 200Gb 2-port QSFP112 FHHL B3220 Adapter P66386-H21 per server
- Up to four East-West HPE Data Processing Unit InfiniBand NDR/Ethernet 400Gb 1-port QSFP112 HHHL B3140H Adapter P66387-H21 per server
- Other NIC and fabric adapters supported up to four per server

Notes: For Ethernet NIC, Direct Attach Cable (DAC) for copper environments or fiber transceivers and cables for fiber-optic environments must be purchased separately. Refer to the related Ethernet NIC QuickSpecs for Technical Specifications and additional information in the HPE Compute Transceiver and Cable Hardware Matrix at
https://www.hpe.com/psnow/doc/A00002507ENW.pdf?jumpid=in_lit-psnow-getpdf

Notes: For the Bluefield digital processing units and InfiniBand adapters refer to the HPE InfiniBand NDR Cables QuickSpecs for transceivers and cables at https://www.hpe.com/psnow/doc/a50006974enw

Notes: For RJ-45 needs, select a SFP to RJ-45 adaptor: 453154-B21 - HPE BLc VC 1G SFP RJ45. Refer to customer advisory for Auto-Negotiation setting - HPE Network Adapters - Auto-Negotiation May Fail For Certain HPE Mellanox ConnectX-6-Based Network Adapters When Using An HPE BladeSystem c-Class Virtual Connect 1G SFP RJ-45 Transceiver (453154-B21)

Step 2: Choose Power Supplies and jumper cords

HPE Power Supplies

HPE Flexible Slot (Flex Slot) Power Supplies share a common electrical and physical design that allows for hot plug, tool-less installation into HPE ProLiant Gen10 Plus Performance Servers. Flex Slot power supplies are certified for high-efficiency operation and offer multiple power output options, allowing users to "right-size" a power supply for specific server configurations. This flexibility helps to reduce power waste, lower overall energy costs, and avoid "trapped" power capacity in the data center.

Select power supplies from below.

For a single superchip configuration two HPE 1800 W-2200 W Flex Slot Titanium Hot Plug Power Supply Kit are sufficient, three provides 2+1 redundancy and four provides 2+2 redundancy.

For a dual superchip configuration four HPE 1800 W-2200 W Flex Slot Titanium Hot Plug Power Supply Kit are the required configuration, and provides 3+1 redundancy.

HPE 1800W-2200W Flex Slot Titanium Hot Plug Power Supply Kit	P44712-B21

Notes:

- Flex Slot Titanium power supplies support power efficiency of up to 96% and include a standard C-14 power inlet connector.
- For information on power specifications and technical content visit HPE Server power supplies.

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.

Power Cords: Choose one per power supply

HPE C13 - C14 WW 250V 10Amp 2.0m Jumper Cord	A0K02A
HPE C13 - Nema 5-15P US/CA 110V 10Amp 1.83m Power Cord	AF556A
HPE C13 - IRAM -2073 AR 250V 10A 2.5m Power Cord	AF558A
HPE C13 - Nema 5-15P TH/PH 250V 10Amp 1.83m Power Cord	AF559A
HPE C13 - KSC- 8305 KR 250V 10Amp 1.83m Power Cord	AF560A
HPE C13 - CNS-690 TW 110V 13Amp 1.83m Power Cord	AF561A
HPE C13 - SI-32 IL 250V 10Amp 1.83m Power Cord	AF564A
HPE C13 - DK-2.5A DK 250V 10Amp 1.83m Power Cord	AF566A
HPE C13 - SABS-164 ZA 250V 10Amp 2.5m Power Cord	AF567A
HPE C13 - CEE-VII EU 250V 10Amp 1.83m Power Cord	AF568A
HPE C13 - AS3112-3 AU 250V 10Amp 2.5m Power Cord	AF569A
HPE C13 - BS-1363A UK/HK/SG 250V 10Amp 1.83m Power Cord	AF570A
HPE C13 - JIS C8303 JP 100V 12Amp 2.0m Power Cord	AF572A
HPE C13 - C14 WW 250V 10Amp Flint Gray 2.0m Jumper Cord	AF573A
HPE C13 - NBR-14136 BR 250V 10Amp 1.83m Power Cord	AF591A

Step 3: Choose additional options for Factory Integration from Core and Additional Options sections below

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

Internal Storage Devices

The HPE ProLiant Compute DL384 Gen12 server supports up to two M.2 devices. In this product generation hardware RAID controllers are not supported. As these are PCIe Gen3, HPE recommends use of M.2 for boot drives and not for local cache.

The HPE ProLiant Compute DL384 Gen12 server supports up to 8 EDSFF NVMe Gen5 E3S drives in a NVIDIA GH200 NVL2 configuration with dual superchips. In this NVIDIA Grace product generation neither hardware RAID controllers nor hot pluggable drives are supported.

In a single superchip configuration all drives below will be configured to the boot superchip. While drives may be upgraded in the field, with this novel Grace Hopper technology, the initial choice of server configuration for the maximum number of drives, PCIe and OCP as set in factory is not field upgradeable.

For dual superchip configurations, HPE supports placing all your drives on the boot superchip in our unbalanced storage configuration (max 4 drives,) or with an even number of drives you can elect to distribute your cache drives equally on the superchips in a balanced configuration.

HPE EDSFF Unbalanced 2P FIO Configuration P72469-B21

HPE EDSFF Balanced 2P FIO Configuration P72472-B21

Notes:

- Drives: None ship standard
- While hardware RAID controllers are not supported in this generation, boot options can be set in HPE iLO as you would with a traditional x86 server for booting from the m.2 NVME drives, the EDSFF NVME drives, or over network using PXE.
- Balanced drive configurations place drives equally on both GH200 Superchip. Example balanced configurations for an NVL2 configuration include:
  - Two drives: One would be set on each GH200
  - Four drives: Two set on each GH200
- In unbalanced drive configurations, drives will be configured to the first GH200 until all available lanes are filled, then we will start populating the next GH200. Examples for a 2P configuration include:
  - Four drives: All four would be on the first GH200
  - Six drives: The first four drives would be configured to the first GH200, the next two to the second GH200.

Maximum Internal Storage		
	Capacity	**Configuration**
Hot Plug SFF NVMe PCIe U.3 SSD	122.8 TB	8 x 15.36 TB

Read Intensive - M.2 - Solid State Drives

HPE 480GB NVMe Gen4 Mainstream Performance Read Intensive M.2 PM9A3 SSD	P69543-B21
HPE 960GB NVMe Gen4 Mainstream Performance Read Intensive M.2 2280 Self-encrypting PE9010 SSD	P80327-B21
HPE 480GB NVMe Gen4 Mainstream Performance Read Intensive M.2 2280 PE9010 SSD	P80318-B21
HPE 960GB NVMe Gen4 Mainstream Performance Read Intensive M.2 2280 PE9010 SSD	P80321-B21
HPE 1.92TB NVMe Gen4 Mainstream Performance Read Intensive M.2 2280 PE9010 SSD	P80324-B21

Read Intensive - NVMe - EDSFF - Solid State Drives

HPE 3.84TB NVMe Gen5 High Performance Read Intensive E3S EC1 EDSFF SPDM PM1743 SSD	P57799-B21
HPE 15.36TB NVMe Gen5 High Performance Read Intensive E3S EC1 EDSFF SPDM PM1743 SSD	P57807-B21
HPE 3.84TB NVMe Gen5 High Performance Read Intensive E3S EC1 EDSFF SPDM CM7 SSD	P61179-B21
HPE 7.68TB NVMe Gen5 High Performance Read Intensive E3S EC1 EDSFF SPDM CM7 SSD	P61183-B21
HPE 15.36TB NVMe Gen5 High Performance Read Intensive E3S EC1 EDSFF SPDM CM7 SSD	P61187-B21
HPE 1.92TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 CD8P SSD	P69234-B21
HPE 3.84TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 CD8P SSD	P69237-B21
HPE 7.68TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 CD8P SSD	P69239-B21
HPE 15.36TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 CD8P SSD	P69546-B21
HPE 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 PS1010 SSD	P70395-B21
HPE 15.36TB NVMe Gen5 High Performance Read Intensive E3S EC1 PS1010 SSD	P70397-B21
HPE 3.84TB NVMe Gen5 High Performance Read Intensive E3.S EC1 PM1753 SSD	P78789-B21
HPE 7.68TB NVMe Gen5 High Performance Read Intensive E3.S EC1 PM1753 SSD	P78791-B21
HPE 15.36TB NVMe Gen5 High Performance Read Intensive E3.S EC1 PM1753 SSD	P78793-B21

Mixed Use - NVMe - EDSFF - Solid State Drives

HPE 3.2TB NVMe Gen5 High Performance Mixed Use E3S EC1 EDSFF SPDM CM7 SSD	P61191-B21
HPE 6.4TB NVMe Gen5 High Performance Mixed Use E3S EC1 EDSFF SPDM CM7 SSD	P61195-B21
HPE 1.6TB NVMe Gen5 Mainstream Performance Mixed Use E3S EC1 CD8P SSD	P69241-B21
HPE 3.2TB NVMe Gen5 Mainstream Performance Mixed Use E3S EC1 CD8P SSD	P69243-B21
HPE 6.4TB NVMe Gen5 Mainstream Performance Mixed Use E3S EC1 CD8P SSD	P69245-B21
HPE 3.2TB NVMe Gen5 High Performance Mixed Use E3S EC1 PS1030 SSD	P70399-B21
HPE 6.4TB NVMe Gen5 High Performance Mixed Use E3S EC1 PS1030 SSD	P70401-B21
HPE 12.8TB NVMe Gen5 High Performance Mixed Use E3S EC1 PS1030 SSD	P70403-B21
HPE 3.2TB NVMe Gen5 High Performance Mixed Use E3S EC1 EDSFF SPDM CM7 SSD	P61191-B21
HPE 6.4TB NVMe Gen5 High Performance Mixed Use E3S EC1 EDSFF SPDM CM7 SSD	P61195-B21
HPE 1.6TB NVMe Gen5 Mainstream Performance Mixed Use E3S EC1 CD8P SSD	P69241-B21
HPE 3.2TB NVMe Gen5 Mainstream Performance Mixed Use E3S EC1 CD8P SSD	P69243-B21
HPE 6.4TB NVMe Gen5 Mainstream Performance Mixed Use E3S EC1 CD8P SSD	P69245-B21
HPE 3.2TB NVMe Gen5 High Performance Mixed Use E3S EC1 PS1030 SSD	P70399-B21
HPE 6.4TB NVMe Gen5 High Performance Mixed Use E3S EC1 PS1030 SSD	P70401-B21
HPE 3.2TB NVMe Gen5 High Performance Mixed Use E3.S EC1 PM1755 SSD	P78784-B21
HPE 6.4TB NVMe Gen5 High Performance Mixed Use E3.S EC1 PM1755 SSD	P78787-B21

Notes: HPE NVMe Mainstream Performance Very-read-optimized (VRO) Enterprise and Datacenter Standard Form Factor (EDSFF) E3.S Solid State Drives (SSDs) are best suited for applications requiring a massive amount of data to be stored and assessed at a strong price point. It provides high-performance data transfers at rates faster than SAS or SATA SSDs. The HPE NVMe Mainstream Performance Very-read-optimized EDSFF E3.S SSDs were designed to utilize the high bandwidth of PCIe Gen5 on Hewlett Packard Enterprise servers and storage with workloads high in reads such as AI, content-delivery networks, and data analytics. For detailed specs see the HPE Solid State Disk Drives (SSD & Accelerators) QuickSpecs.

Very-read-optimized - NVMe - EDSFF - Solid State Drives

HPE 3.84TB NVMe Gen4 Mainstream Performance Very Read Optimized E3S EC1 EDSFF P5430 SSD	P63930-B21
HPE 7.68TB NVMe Gen4 Mainstream Performance Very Read Optimized E3S EC1 EDSFF P5430 SSD	P63934-B21
HPE 15.36TB NVMe Gen4 Mainstream Performance Very Read Optimized E3S EC1 EDSFF P5430 SSD	P63938-B21
HPE 30.72TB NVMe Gen4 Mainstream Performance Very Read Optimized E3S EC1 EDSFF P5430 SSD	P79065-B21

Hard Drive Blank Kits

Not required. HPE will populate blanks (included) as required based on customer drive configuration choices.

Embedded Management

HPE iLO Advanced

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

- Refer to the HPE Advanced Series Racks QuickSpecs for information on additional racks options and rack specifications. HPE G2 Advanced Series Racks
- Refer to the HPE Enterprise Series Racks QuickSpecs for information on additional racks options and rack specifications. HPE G2 Enterprise Series Racks
- For more detail on HPE's complete portfolio of Rack and Power Infrastructure products please visit http://www.hpe.com/info/rackandpower

HPE Power Distribution Units (PDUs)

- Refer to the HPE Basic Power Distribution Units (PDU) QuickSpecs for information on these products and their specifications.
- Refer to the HPE Metered Power Distribution Units (PDU) QuickSpecs for information on these products and their specifications.
- Refer to the HPE Intelligent Power Distribution Unit (PDU) QuickSpecs for information on these products and their specifications.
- Refer to the HPE Metered and Switched Power Distribution Units (PDU) QuickSpecs for information on these products and their specifications.

HPE Uninterruptible Power Systems (UPS)

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

HPE Rack Options

- Refer to the HPE KVM Switches web page for information on these products and their specifications.

Rail Kits

Easy Install rail kits contain telescoping rails which allow for in-rack serviceability. Each HPE ProLiant Compute DL384 Gen12 server is shipped with a rail kit as a standard component.

To assist in the installation of the server into the rack an optional installation tool is available by contacting your local services representative (695539-001).

Notes:

- The HPE ProLiant Compute DL384 Gen12 server ships with a rail kit included.
- Hewlett Packard Enterprise recommends that a minimum of two people are required for all Rack Server installations. Please refer to your installation instructions for proper tools and number of people to use for any installation.
- HPE rail kits are designed to work with HPE racks in compliance with industry standard EIA-310-E. In the event a customer elects to purchase a third-party rack for use with an HPE rail kit, any such use is at customer's own risk. HPE makes no express or implied warranties with respect to such third-party racks and specifically disclaims any implied warranties of merchantability and fitness for a particular purpose. Furthermore, HPE has no obligation and assumes no liability for the materials, design, specifications, installation, safety, and compatibility of any such third-party racks with any rail kits, including HPE rail kits.

Recommended HPE Support Services, link to full list below:

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 DL384 Gen12 Service	H44QJE
HPE 3 Year Tech Care Essential wDMR DL384 Gen12 Service	H44QKE
HPE 5 Year Tech Care Essential DL384 Gen12 Service	H44RNE
HPE 5 Year Tech Care Essential wDMR DL384 Gen12 Service	H44RQE

Notes: For a full listing of support services available for this server, please enter the HPE ProLiant Compute DL384 Gen12 SKU in search bar at P71411-B21 Support Services Central at https://ssc.hpe.com/portal/site/ssc/ .

HPE ProLiant Compute DL384 Gen12

Physical Information

Site planning and installation	Recommended
Depth	789 mm / 31.08”
Width	448 mm / 17.64"
Height	87.5 mm / 3.44" (2U)
Weight - Maximum (fully populated)	Single Superchip: Max 26 kg (58 lbs.) Dual Superchip: Max 31 kg (69 lbs.)

Electrical Characteristics (at 25C)

Rated Line Voltage	200 to 240 VAC per power supply, up to four power supplies per server
Power Supplies	Single GH200: Two, three, or four power supplies (N+0, N+1, N+2) Dual GH200: Four power supplies (N+1)
Power cords	Up to 4 C13 power cords, depending on configuration
Maximum Input Power total	See HPE Power Advisor at https://poweradvisorext.it.hpe.com/

Environmental Characteristics (at 25C)

Maximum Heat dissipation (fully populated GH200 NVL2 system)	– 3048 Watts (10.4k BTU/hr.)
Cooling airflow (front to back) at 25C ambient	– Entry, without DPU: idle, 52CFM – Typical, with DPU: idle, 133CFM – Operating max: 240CFM
Acoustics	LWA,m: 9.5 B LpAm: 80 dBA Kv: 0.4 B Tested in Performance Configuration: 2x GH200 GPU&CPU, 8x NVMe VRO E3S EC1 SSD, 4x 2200 W FS PSU, 6x Perf Fan, 1x PCIe fan kit, 1x HPE DPU 200G 2p Adapter (AOC), 1x HPE DPU 400G 1p HHHL Adapter (AOC), in operating mode represented by 100% of CPU and GPU TDP. The results in this declaration apply only to the specific configuration listed below when operating and tested according to the indicated modes and standards. A system with additional configuration components or increased operating functionality may increase the noise emission values.

System Inlet Temperature

- **Standard Operating Temperature**
  - 10° to 35°C (50° to 95°F) at sea level with an altitude derating of 1.0°C per every 305 m (1.8°F per every 1000 ft.) above sea level to a maximum of 3050 m (10,000 ft.), no direct sustained sunlight. Maximum rate of change is 20°C/hr. (36°F/hr.). The upper limit and rate of change may be limited by the type and number of options installed.
  - System performance during standard operating support may be reduced if operating with a fan fault or above 30°C (86°F).
- **Extended Ambient Operating Temperature**
  - For approved hardware configurations, the supported system inlet range is extended to be: 5° to 10°C (41° to 50°F) and 35° to 40°C (95° to 104°F) at sea level with an altitude derating of 1.0°C per every 175 m (1.8°F per every 574 ft.) above 900 m (2953 ft.) to a maximum of 3050 m (10,000 ft.). The approved hardware configurations for this system are listed at the URL:http://www.hpe.com/servers/ashrae
  - For approved hardware configurations, the supported system inlet range is extended to be: 40° to 45°C (104° to 113°F) at sea level with an altitude derating of 1.0°C per every 125 m (1.8°F per every 410 ft.) above 900 m (2953 ft.) to a maximum of 3050 m (10,000 ft.). The approved hardware configurations for this system are listed at the URL: http://www.hpe.com/servers/ashrae

  System performance may be reduced if operating in the extended ambient operating range or with a fan fault.
- **Non-operating**
  - -30° to 60°C (-22° to 140°F). Maximum rate of change is 20°C/hr. (36°F/hr.).

Relative Humidity(non-condensing)

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

Altitude

- **Operating**
  - 3050 m (10,000 ft.). This value may be limited by the type and number of options installed. Maximum allowable altitude change rate is 457 m/min (1500 ft./min).
- **Non-operating**
  - 9144 m (30,000 ft.). Maximum allowable altitude change rate is 457 m/min (1500 ft./min).

Emissions Classification (EMC) – Regulatory Information

To view the regulatory information for your product, view the Safety and Compliance Information for Server, Storage, Power, Networking, and Rack Products, available at the Hewlett Packard Enterprise Support Center: http://www.hpe.com/support/Safety-Compliance-EnterpriseProducts

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

Summary of Changes

Date	Version History	Action	Description of Change
06-Apr-2026	Version 11	Changed	Service and Support, Configuration Information and Core Options sections were updated.
		Added	Updated GreenLake statement, Read Intensive - NVMe - EDSFF - Solid State Drives, and Mixed Use - NVMe - EDSFF - Solid State Drives SKUs.
		Removed	HPE InfiniBand obsolete SKUs.
05-Jan-2026	Version 10	Changed	Configuration Information section was updated.
		Added	HPE InfiniBand SKUs.
		Removed	Read Intensive - M.2 - Solid State Drives and Read Intensive - NVMe - EDSFF - Solid State Drives obsolete SKUs.
04-Aug-2025	Version 9	Changed	Configuration Information section was updated. Auto-Negotiation rules were updated.
21-Jul-2025	Version 8	Changed	Survey link updated.
23-Jun-2025	Version 7	Changed	Additional Options and Summary of Changes sections were updated. Added: Version History with links. Removed: iLO obsolete SKUs.
05-May-2025	Version 6	Changed	Core Options section was updated. Added: Read Intensive - M.2 - Solid State Drives SKUs, Very-read-optimized - NVMe - EDSFF - Solid State Drive SKU, European Union ErP Lot 9 Regulation section to include Turkey and Ireland and QuickSpecs Survey.
03-Feb-2025	Version 5	Changed	Configuration Information and Technical Specifications sections were updated.
06-Jan-2025	Version 4	Changed	Overview, Standard Features and Configuration Information sections were updated.
07-Oct-2024	Version 3	Changed	Standard Features, Configuration Information and Technical Specifications sections were updated.
19-Aug-2024	Version 2	Changed	Overview, Standard Features (Operating Systems and Virtualization Software Support for HPE Servers), Configuration Information and Additional Options sections were updated.
01-July-2024	Version 1	New	New QuickSpecs.

Shape the Future of QuickSpecs - Your Input Matters

Chat now

© Copyright 2026 Hewlett Packard Enterprise Development LP. The information contained herein is subject to change without notice. The only warranties for Hewlett Packard Enterprise products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. Hewlett Packard Enterprise shall not be liable for technical or editorial errors or omissions contained herein.

For hard drives, 1GB = 1 billion bytes. Actual formatted capacity is less

a50009209enw - 17241 - Worldwide - V12 - 06-April-2026
HEWLETT PACKARD ENTERPRISE
HPE.com