

Overview

Shape the Future of QuickSpecs – Your Input Matters

HPE ProLiant DX380 Gen11

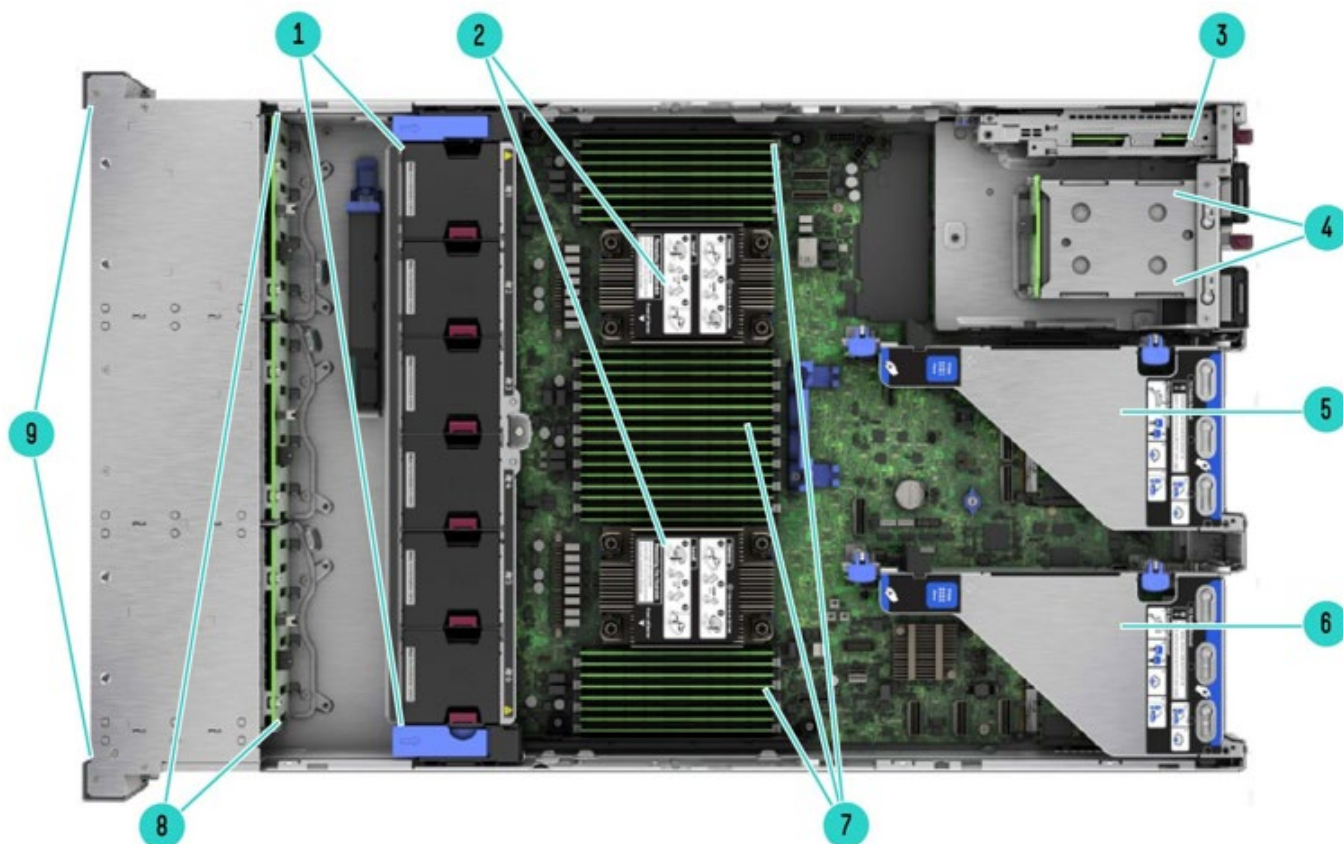
Adaptable for diverse workloads and environments, the secure 2P 2U HPE ProLiant DX380 Gen11 delivers world-class performance with the right balance of expandability and scalability. Designed for supreme versatility and resiliency while being backed by a comprehensive warranty make it ideal for multiple environments from Containers to Cloud to Big Data. Standardize on the industry's most trusted compute platform. Now with all NVMe offering providing faster data rate transfers and lower latency.



Front View – 12LFF chassis shown

- | | |
|--------------------------------------|----------------------------------|
| 1. Quick removal access panel | 6. iLO Service Port |
| 2. UID Button / LED | 7. USB 3.0 |
| 3. NIC Status | 8. 12 x LFF Media |
| 4. Health LED | 9. Drive support label |
| 5. Power On / Standby button and LED | 10. Serial Number Label Pull Tab |

Overview



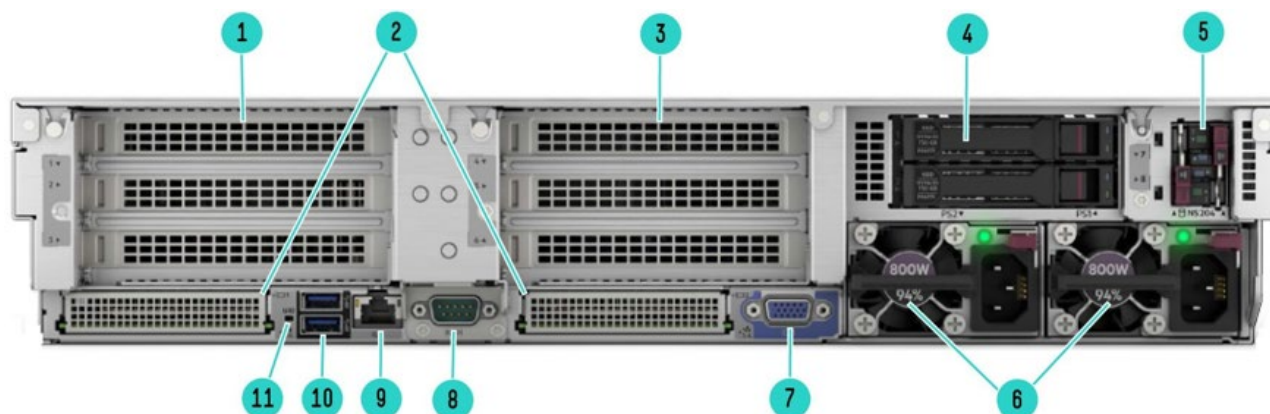
Internal View chassis

- | | |
|---|--|
| 1. Hot Plug Fans ¹ | 6. Primary Riser |
| 2. Processors, heatsinks showing | 7. DDR5 DIMM slots, shown fully populated in 32 slots ² |
| 3. NS204i-u Boot Device | 8. Drive Backplanes |
| 4. Hot Plug redundant HPE Flexible Slot Power Supplies | 9. Drive Cages |
| 5. Secondary Riser (Optional) (Requires second processor) | |

Notes:

- ¹High performance temperature fans standard
- ²Shown fully populated in 32 slots (16 per processor)

Overview



Rear View – Standard for all DX380 Gen11

- | | |
|--|----------------------------------|
| 1. Primary Riser. PCIe 5.0 Slots (Slots 1-3) | 6. Power Supply 1 and 2 |
| 2. OCP 3.0 Slots, shown covered ¹ | 7. VGA Connector |
| 3. Secondary Riser. PCIe 5.0 Slots (Slots 4-6) | 8. Optional Serial Port |
| 4. Tertiary Riser (Slots 7-8) | 9. Dedicated iLO Management Port |
| 5. Optional NS204i-u Boot Device | 10. USB 3.0 Connectors (2) |
| | 11. UID Indicator LED |

Notes: ¹ Supports various NICs, and Storage controllers.

What's New

- New 5th Generation Processors
- New DX380 24SFF NVME Gen11
- Qualified platforms /configurations recognized by both HPE & Nutanix
- Factory tuned & optimized HW settings for Nutanix environments
- Factory pre-installed Nutanix AHV & AOS
- New 4th Generation Intel Scalable Processors
- New PCIe 5.0 support
- New DDR5 Smart Memory – 4800MT/s
- New Storage Controllers
- New NS204i-u Boot Device
- New SSDs and HDDs
- New HPE iLO6 support

Platform Information

Form Factor

- 2U rack

Chassis Types

- 24SFF bay (SAS/SATA)

12LFF System Fans

- High Performance Fan Kit – Standard



Standard Features

Processors – Up to 2 of the following depending on model.

The 2nd digit of the processor model number “x4xx” is used to denote the processor generation (i.e. 4=4th generation Intel Scalable Series Processors)

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

This table covers the public Intel offering only.

Processor Suffix	Description	Offering
H	DB and Analytics	Highest core counts. Database and Analytics usages benefit from DSA and IAA accelerators.
M	Media Transcode	Optimized around AVX frequencies to deliver better performance/watt around Media, AI, and HPC workloads.
N	Network/5G/Edge (High TPT / Low Latency)	Designed for NFV and networking workloads, such as: L3 fwding, 5G UPF, OVS DPDK, VPP FIB router, VPP IPsec, web server/NGINX, vEPC, vBNG, and vCMTS.
S	Storage and HCI	Optimized for Storage UMA use cases with increased UPI Bandwidth for vs Mainline SKUs.
P	Cloud - IAAS	Designed for cloud IaaS environments to deliver higher frequencies at constrained TDPs.
Q	Liquid Cooling	Liquid cooled processors with higher frequency and performance at same TDP.
U	1 Socket Optimized	Optimized for targeted platforms adequately served by the cores, memory bandwidth and IO capacity available from a single processor
V	Cloud - SAAS	Optimized for orchestration efficiency that delivers higher core counts and VMs per rack.
Y	Speed Select	Intel® SST-PP increases base frequency when fewer cores are enabled. Allows greater flexibility, deployment options and platform longevity.



Standard Features

5 th Generation Intel® Xeon® Scalable Processor Family (Platinum)							
Intel Xeon Models	CPU Frequency	Cores	L3 Cache (MB)	Power	UPI Links	DDR5	SGX Enclave size (GB)
Intel Xeon-Platinum 8562Y+ Processor for HPE	2.8GHz	32	60.00	300W	3	5600 MT/s	512
Intel Xeon-Platinum 8568Y Processor for HPE	2.3GHz	48	300	350W	4	5600 MT/s	512
Intel Xeon-Platinum 8570 Processor for HPE	2.1GHz	56	300	350W	4	5600 MT/s	512
Intel Xeon-Platinum 8580 Processor for HPE	2.0GHz	60	300	350W	4	5600 MT/s	512
Intel Xeon-Platinum 8592+ Processor for HPE	1.9GHz	64	320	350W	4	5600 MT/s	512
Intel Xeon-Platinum 85558 Processor for HPE	2.1GHz	48	260	330W	4	5600 MT/s	512
Intel Xeon-Platinum 8558UProcessor for HPE	2.0GHz	48	260	300W	0	5600 MT/s	512
Intel Xeon-Platinum 8592V Processor for HPE	2.0GHz	64	320	330W	3	5600 MT/s	512

5 th Generation Intel® Xeon® Scalable Processor Family (Gold)							
Intel Xeon Models	CPU Frequency	Cores	L3 Cache (MB)	Power	UPI Links	DDR5	SGX Enclave size (GB)
Intel Xeon-Gold 6526Y Processor for HPE	2.8GHz	16	37.5	195W	3	5200 MT/s	128
Intel Xeon-Gold 6542Y Processor for HPE	2.9GHz	24	600	250W	3	5200 MT/s	128
Intel Xeon-Gold 6548Y Processor for HPE	2.5GHz	32	600	250W	3	5200 MT/s	128
Intel Xeon-Gold 6534 Processor for HPE	3.9GHz	8	22.5	195W	3	4800 MT/s	128
Intel Xeon-Gold 6544Y Processor for HPE	3.6GHz	16	45.0	270W	3	5200 MT/s	128
Intel Xeon-Gold 6530 Processor for HPE	2.1GHz	32	130	270W	3	4800 MT/s	128
Intel Xeon-Gold 6538Y+ Processor for HPE	2.2GHz	32	60.0	225W	3	5200 MT/s	128
Intel Xeon-Gold 6538N Processor for HPE	2.1GHz	32	60.0	205W	3	5200 MT/s	128
Intel Xeon-Gold 6548N Processor for HPE	2.8GHz	32	60.0	250W	3	5200 MT/s	128
Intel Xeon-Gold 6554S Processor for HPE	2.2GHz	36	180	270W	4	5200 MT/s	128

Notes:

- Processors with TDP equal to or greater than 150W through 350W require High Performance Heatsink (P48818-B21)
- 8-Channel DDR5 @ 4800 MT/s
- 2 socket capable, 4 UPI @ 16 GT/s.
- ¹Liquid cooled CPU. Requires Maximum Performance Heat Sink (P48817-B21). No dual socket support.



Standard Features

4th Generation Intel® Xeon® Scalable Processor Family (Gold)							
Intel Xeon Models	CPU Frequency	Cores	L3 Cache (MB)	Power	UPI Links	DDR4	SGX Enclave size
Gold 6458Q Processor	3.1 GHz	32	60 MB	350W	3	4800 MT/s	128 GB
Gold 6454S Processor	2GHz	32	60	270W	4	4800 MT/s	128
Gold 6430 Processor	2.1GHz	32	60	270W	3	4800 MT/s	128
Gold 6414U Processor ¹	2GHz	32	60	250W	0	4800 MT/s	128
Gold 6426Y Processor	2.5 GHz	16	37.5 MB	185W	3	4800 MT/s	128 GB
Gold 6421N Processor	1.8 GHz	32	60.0 MB	185W			
Gold 6442Y Processor	2.6 GHz	24	60.0 MB	225W	3	4800 MT/s	128 GB
Gold 6448Y Processor	2.1 GHz	32	600 MB	225W	3	4800 MT/s	128 GB
Gold 6434 Processor	3.7 GHz	8	22.5 MB	195W	3	4800 MT/s	128 GB
Gold 6444Y Processor	3.6 GHz	16	45.0 MB	270W	3	4800 MT/s	128 GB
Gold 6438Y+ Processor	2.0 GHz	32	60.0 MB	205W	3	4800 MT/s	128 GB
Gold 6438N Processor	2.0 GHz	32	60.0 MB	205W	3	4800 MT/s	128 GB
Gold 6416H Processor	2.2GHz	18	45	165W	3	4800 MT/s	512
Gold 6418H Processor	2.1GHz	24	60	185W	3	4800 MT/s	512
Gold 6448H Processor	2.4GHz	32	60	250W	3	4800 MT/s	512
4th Generation Intel® Xeon® Scalable Processor Family (Gold 5)							
Gold 5415+Processor	2.9 GHz	8	22.5 MB	150W	3	4400 MT/s	128 GB
Gold 5418Y Processor	2.0 GHz	24	45.0 MB	185W	3	4400 MT/s	128 GB
Gold 5418N Processor	1.8 GHz	224	45.0 MB	165W	3	4000 MT/s	128 GB
Gold 5420+ Processor	2.0 GHz	28	52.5 MB	205W	3	4400 MT/s	128 GB
Gold 5418N Processor	1.8 GHz	24	45.0 MB	165W	3	4000 MT/s	128 GB
Gold 5411N Processor	1.9 GHz	24	45.0 MB	165W	N/A	4400 MT/s	128 GB
4th Generation Intel® Xeon® Scalable Processor Family (Silver)							
Silver 4410Y Processor	2.0 GHz	12	30.0 MB	150W	2	4000 MT/s	64 GB
Silver 4416+ Processor	3.0 GHz	20	37.5 MB	165W	2	4000 MT/s	64 GB

Notes: 8-Channel DDR5 @ 4800 MT/s

Chipset

Intel C741 Chipset

Notes: For more information regarding Intel® chipsets, please see the following URL:

<https://www.intel.com/content/www/us/en/products/chipsets/server-chipsets.html>

On System Management Chipset

HPE iLO 6 ASIC

Read and learn more in the [iLO QuickSpecs](#).



Standard Features

Memory

One of the following depending on model.

Type	HPE DDR5 Smart Memory, Registered (RDIMM)
DIMM Slots Available	32 16 DIMM slots per processor, 8channels per processor, 2 DIMMs per channel
Maximum capacity	8.0 TB 32 x 256 GB RDIMM @ 4800 MT/s

Notes: The maximum memory speed is limited by the processor selection.

Expansion Slots

Primary Riser

Notes:

- Bus width indicates the number of physical electrical lanes running to the connector.
- There are 2 types of risers supported on Primary Slot
- x16 cards installed on x8 slots could observe sub-optimal performance.

Primary Riser1					
Slots #	Technology	Bus Width	Connector Width	Slot Form Factor	Notes
1	PCIe 5.0	X8	X16	Full-height, full-length slot	Proc 1
2	PCIe 5.0	X16	X16	Full-height, full-length slot	Proc 1
3	PCIe 5.0	X8	X16	Full-height, half-length slot	Proc 1

Primary Riser2					
Slots #	Technology	Bus Width	Connector Width	Slot Form Factor	Notes
1**	NA	NA	NA	NA	NA
1	PCIe 5.0	X16	X16	Full-height, full-length slot	Proc 1
2	PCIe 5.0	X16	X16	Full-height, full-length slot	Proc 1
3	PCIe 5.0	X16	X16	Full-height, half-length slot	Proc 1

Notes: **

- If Slot 1 of HPE DX380 Gen11 2U 3x16 Prim Riser Kit needs to be enabled then 3 x16 Primary Cable Kit (P56073-B21) must be selected.
- For 24SFF CTO Server, If 3 x16 Primary riser is selected along with PCIe Controller(MR216/MR416) then 3 x16 Pri cable Kit MUST be selected

Secondary Riser:

Notes:

- Bus Width Indicates the number of physical electrical lanes running to the connector.
- There are 2 types of risers support on Secondary Slot
- x16 cards installed on x8 slots could observe sub-optimal performance.

Secondary Riser1					
Slots #	Technology	Bus Width	Connector Width	Slot Form Factor	Notes
4	PCIe 5.0	X8	X16	Full-height, full-length slot	Proc 2
5	PCIe 5.0	X16	X16	Full-height, full-length slot	Proc 2
6	PCIe 5.0	X8	X16	Full-height, half-length slot	Proc 2



Standard Features

Secondary Riser2					
Slots #	Technology	Bus Width	Connector Width	Slot Form Factor	Notes
4*	NA	NA	NA	NA	NA
4	PCIe 5.0	X16	X16	Full-height, full-length slot	Proc 2
5	PCIe 5.0	X16	X16	Full-height, full-length slot	Proc 2
6	PCIe 5.0	X16	X16	Full-height, half-length slot	Proc 2

Notes:

- * If Slot 4 of HPE DX380 Gen11 2U 3x16 Sec Riser Kit needs to be enabled then 3 x16 Secondary Cable Kit (P56074-B21) must be selected.
- If 24SFF NVMe CTO server is selected then Pri 3 x16 Cable OR Sec 3 x16 Cable cannot be selected.

Tertiary Riser

Notes:

- Bus Width Indicates the number of physical electrical lanes running to the connector.
- There is 1 type of riser supported on the Tertiary Slot
- x16 cards installed on x8 slots could observe sub-optimal performance.

Tertiary Riser1 (default)					
Slots #	Technology	Bus Width	Connector Width	Slot Form Factor	Notes
7	PCIe 5.0	X16	X16	Full-height, full-length slot	Proc 2
8	PCIe 4.0	X16	X16	Full-height, full-length slot	Proc 2

Tertiary Riser1 (with Optional Tertiary Riser FIO x8 Enablement Kit P53632-B21)					
Slots #	Technology	Bus Width	Connector Width	Slot Form Factor	Notes
7	PCIe 5.0	X16	X16	Full-height, full-length slot	Proc 2
8	PCIe 5.0	X8	X16	Full-height, full-length slot	Proc 2

Graphics

Integrated Video Standard

- Video modes up to 1920 x 1200@60Hz (32 bpp)
- 16MB Video Memory

Maximum Internal Storage

Drive	Capacity	Configuration
Hot Plug SFF SATA SSD	92.16 TB	24 x 3.84TB
Hot Plug SFF SAS SSD	368.64 TB	24 x 15.36TB
Hot Plug SFF NVMe SSD	368.64 TB	24 x 15.36 TB
Hot Plug LFF SATA SSD	46.08TB	12 x 3.84 TB
Hot Plug LFF SAS SSD	184.32 TB	12x 15.36 TB
Hot Plug LFF SAS HDD	240 TB	12+4 20 TB

Internal Storage Devices

Hard Drives

- None ship standard



Standard Features

Power Supply

- HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit
Notes: 1 available in 94% efficiency.
- HPE 1000W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit
Notes: 1 available in 96% efficiency.
- HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit
Notes: 1 available in 94% efficiency.

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 Gen11 Performance Servers. Flex Slot power supplies are certified for high-efficiency operation and offer multiple power output options, allowing users to "right-size" a power supply for specific server configurations. This flexibility helps to reduce power waste, lower overall energy costs, and avoid "trapped" power capacity in the data center.

The standard 6-foot IEC C-13/C-14 jumper cord (A0K02A) is included with each standard AC power supply option kit. If a different power cord is required, please check the [ProLiant Power Cables](#) web page to review the power requirements for your selected system, please use the [Power Advisor](#) link.

For information on power specifications and technical content visit the [Power Supplies](#) web page.

Storage Controllers

The available Gen11 controllers are depicted below.

Tri-Mode Controller

- HPE MR216i-p Gen11 Controller HPE MR216i-o Gen11 Controller

Interfaces

Serial	Optional, rear
Display Port	1 optional front display port via Universal Media Bay
VGA Port	1 standard, rear for all chassis. 1 Optional front display port (Via Universal Media Bay) Notes: Both ports are not active simultaneously.
Network Ports	None standard. Choice of OCP networking card or stand-up networking card required.
HPE iLO Remote Management Network Port	1 Gb Dedicated, rear
Front iLO Service Port	1 standard (Not available when System Insight Display Kit is ordered)
USB 3.0	Up to 5 total: 1 front(3.0), 2 rear(3.0), 2 internal (secure – 1 – 3.0, 1 – 2.0), 1 optional USB 2.0 front via Universal Media Bay

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](#).

- [Nutanix Acropolis: \(AHV\)](#)
- [Nutanix AHV](#)



Standard Features

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 2 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 <http://www.hpe.com/servers/uefi>.

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

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

UEFI Boot Mode only

- TPM 2.0 Support
- 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 6.3 Compliant
- PCIe 5.0 Compliant
- Wake on LAN (WoL) Support
- Microsoft® Logo certifications
- PXE Support
- VGA
- Display Port

Notes: This support is on the optional Universal Media Bay.

- USB 3.0 Compliant
- USB 2.0 Compliant (via Universal Media Bay)

Notes: This support is on the optional Universal Media Bay.

- SMBIOS 3.2
- Redfish API
- IPMI 2.0
- Secure Digital 4.0
- TPM 1.20 and 2.0 Support
- Advanced Encryption Standard (AES)
- Triple Data Encryption Standard (3DES)
- SNMP v3
- TLS 1.2
- DMTF Systems Management Architecture for Server Hardware Command Line Protocol (SMASH CLP)
- Active Directory v1.0



Standard Features

- ASHRAE A3/A4
Notes: For additional technical, thermal details regarding ambient temperature, humidity, and feature support, please visit <http://www.hpe.com/servers/ashrae>
 - EU Lot9
Notes: 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) 2.7
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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).

Designed for large enterprise and service provider environments with hundreds of HPE servers, the iLO Amplifier Pack is a free, downloadable open virtual application (OVA) that delivers the power to discover, inventory and update Gen8, Gen9 and Gen10 HPE servers. Use with an iLO Advanced License to unlock full capabilities.

Security

- UEFI Secure Boot and Secure Start support
 - Tamper-free updates – components digitally signed and verified
 - Immutable Silicon Root of Trust
 - Ability to rollback firmware
 - FIPS 140-2 validation
 - Secure erase of NAND/User data
 - Common Criteria certification
 - TPM (Trusted Platform Module) 1.2 option
 - Configurable for PCI DSS compliance
 - TPM (Trusted Platform Module) 2.0 option
 - Advanced Encryption Standard (AES) and Triple Data Encryption Standard (3DES) on browser
 - Bezel Locking Kit option
 - Support for Commercial National Security Algorithms (CNSA)
 - Chassis Intrusion detection option
 - Secure Recovery – recover critical firmware to known good state on detection of compromised firmware
-



Standard Features

Warranty

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

Notes: Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response. Warranty repairs may be accomplished through the use of Customer Self Repair (CSR) parts. These parts fall into two categories: 1) Mandatory CSR parts are designed for easy replacement. A travel and labor charge will result when customers decline to replace a Mandatory CSR part; 2) Optional CSR parts are also designed for easy replacement but may involve added complexity. Customers may choose to have Hewlett Packard Enterprise replace Optional CSR parts at no charge. Additional information regarding worldwide limited warranty and technical support is available at:

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



Optional Features

Server Management

HPE iLO Advanced: Standard

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.



Service and Support

HPE Services

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

<https://www.hpe.com/services>

Consulting Services

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

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

HPE Managed Services

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

[HPE Managed Services | HPE](#)

Operational services

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

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

HPE Complete Care Service

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

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



Service and Support

HPE Lifecycle Services

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

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

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

<https://www.hpe.com/services/lifecycle>

For a list of the most frequently purchased services using service credits, see the [HPE Service Credits Menu](#)

Other Related Services from HPE Services:

HPE Education Services

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

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

Defective Media Retention

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

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

Parts and Materials

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

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

How to Purchase Services

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

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



Service and Support

AI Powered and Digitally Enabled Support Experience

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

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

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

Consume IT On Your Terms

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

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

To learn more about HPE Services, please contact your Hewlett Packard Enterprise sales representative or Hewlett Packard Enterprise Authorized Channel Partner. Contact information for a representative in your area can be found at "Contact HPE"

<https://www.hpe.com/us/en/contact-hpe.html>

For more information

<http://www.hpe.com/services>



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.

- 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 one (1) of the following four (4) configurable server models from the tables below)

The below (4) CTO server models, denoted with “NC” in the SKU description, provide flexibility in the networking choice and require a network adapter from the “HPE Networking” section be selected.

Networking Choice CTO Server Models	HPE ProLiant DX380 Gen11 12LFF CTO Server	HPE ProLiant DX380 Gen11 24SFF CTO Server	HPE ProLiant DX380 Gen11 24SFF NVMe CTO Server
SKU Number	P62746-B21	P62748-B21*	P74955-B21**
Processor	Not included as standard	Not included as standard	Not included as standard
DIMM Slots	32-DIMM slots	32-DIMM slots	
Storage Controller	MR216i		N/A
PCIe	Three standard in primary riser		
Drive Cage - included	12 LFF	24 SFF	24 SFF NVMe
Network Controller	Choice of either OCP 3.0 or select stand-up network adapters for primary networking selection plus additional/optional stand-up network adapters Notes: No embedded networking		
Fans	6-High Performance	6-High Performance	6-High Performance
Management	HPE iLO Advanced: Standard		
USB	5x 3.0 standard plus iLO front service port	5x 3.0 standard plus iLO front service port	5x 3.0 standard plus iLO front service port

Notes:

- HPE DX ProLiant platforms are a Server Appliance: and Energy Star except.
- Server Appliance:
 - A computer server that is bundled with a pre-installed OS and application
 - Software that is used to perform a dedicated function or set of tightly coupled functions.
- Server appliances deliver services through one or more networks (e.g., IP or SAN), and are typically managed through a web or command line interface. Server appliance hardware and software configurations are customized by the vendor to perform a specific task (e.g., name services, firewall services, authentication services, encryption services, and voice-over-IP (VoIP) services), and are not intended to execute user-supplied software.
- * Base Model includes: 24SFF Drive Slots (1x 8SFF Drive Cage supporting SAS/SATA/NVMe drives and 2x8SFF drive cage supporting SAS/SATA drives)
 - High Perf Fan Kit (6 fans)
 - Primary Riser kit (3slots x 1x Gen5 PCIe x16 FH FL)
- ** If Server P74955-B21 is ordered with Rack then Rail kit must be selected.

Configuration Information

Step 2: Choose Required Options

Please select up to two processors required below.

Notes:

- 12LFF CTO models ship with 6 High Performance fans.
- 24 SFF CTO Servers ship with 6 High performance fans included. Maximum Performance fan kit is available to meet ambient temperature environments.
- Maximum memory capacity per processor is dependent on processor models. All processors support up to 4TB max memory per processor.
- Mixing of 2 different processor models are NOT allowed.
- Processors with TDP greater than 150W require High Performance Heatsink
- Q series processors require Max Performance Heat Sink
- DDR5 speed is the maximum memory speed of the processor. Actual memory speed may depend on the quantity and type of DIMMs installed.

Step 2a: Choose Processors

Processor Option Kits (Required Processor)

4th Generation Intel Xeon-Platinum

Notes: 8470Q processor is not supported with 12LFF CTO Server and 24SFF CTO Server.

Intel Xeon-Platinum 8480+ 2.0GHz 56-core 350W FIO Processor for HPE DX	P62396-B21
Intel Xeon-Platinum 8470Q 2.1GHz 52-core 350W FIO Processor for HPE DX	P62399-B21
Intel Xeon-Platinum 8470 2.0GHz 52-core 350W FIO Processor for HPE DX	P62395-B21
Intel Xeon-Platinum 8470N 1.7GHz 52-core 300W FIO Processor for HPE DX	P62401-B21
Intel Xeon-Platinum 8468V 2.4GHz 48-core 330W FIO Processor for HPE DX	P62402-B21
Intel Xeon-Platinum 8468 2.1GHz 48-core 350W FIO Processor for HPE DX	P62394-B21
Intel Xeon-Platinum 8462Y+ 2.8GHz 32-core 300W FIO Processor for HPE DX	P62411-B21
Intel Xeon-Platinum 8458P 2.7GHz 44-core 350W FIO Processor for HPE DX	P62403-B21
Intel Xeon-Platinum 8460Y+ 2.0GHz 40-core 300W FIO Processor for HPE DX	P62393-B21
Intel Xeon-Platinum 8452Y 2.0GHz 36-core 300W FIO Processor for HPE DX	P62398-B21
Intel Xeon-Platinum 8444H 2.9GHz 16-core 270W Processor for HPE	P49625-B21

Notes: For 24SFF NVMe CTO server this 100GB NIC can be selected only with Processor <= 270W

Intel Xeon-Platinum 8490H 1.9GHz 60-core 350W Processor for HPE	P49630-B21
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5th Generation Intel Xeon-Platinum

Intel Xeon-Platinum 8562Y+ 2.8GHz 32-core 300W Processor for HPE	P67085-B21
Intel Xeon-Platinum 8568Y+ 2.3GHz 48-core 350W Processor for HPE	P67086-B21
Intel Xeon-Platinum 8570 2.1GHz 56-core 350W Processor for HPE	P67087-B21
Intel Xeon-Platinum 8580 2.0GHz 60-core 350W Processor for HPE	P67088-B21
Intel Xeon-Platinum 8592+ 1.9GHz 64-core 350W Processor for HPE	P67089-B21
Intel Xeon-Platinum 8558 2.1GHz 48-core 330W Processor for HPE	P67097-B21
Intel Xeon-Gold 6558Q 3.2GHz 32-core 350W Processor for HPE	P67098-B21
Intel Xeon-Platinum 8558U 2.0GHz 48-core 300W Processor for HPE	P67102-B21
Intel Xeon-Platinum 8592V 2.0GHz 64-core 330W Processor for HPE	P67107-B21
Intel Xeon-Platinum 8558P 2.7GHz 48-core 350W Processor for HPE	P67108-B21
Intel Xeon-Platinum 8581V 2.0GHz 60-core 270W Processor for HPE	P67109-B21
Intel Xeon-Platinum 8593Q 2.2GHz 64-core 385W Processor for HPE	P68449-B21

4th Generation Intel Xeon-Gold 6

Intel Xeon-Gold 6458Q 3.1GHz 32-core 350W FIO Processor for HPE DX	P62417-B21
Intel Xeon-Gold 6448Y 2.1GHz 32-core 225W FIO Processor for HPE DX	P62408-B21

Notes: For 24SFF NVMe CTO server this 100GB NIC can be selected only with Processor <= 270W

Intel Xeon-Gold 6444Y 3.6GHz 16-core 270W FIO Processor for HPE DX	P62410-B21
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Notes: For 24SFF NVMe CTO server this 100GB NIC can be selected only with Processor <= 270W



Configuration Information

Intel Xeon-Gold 6442Y 2.6GHz 24-core 225W FIO Processor for HPE DX	P62407-B21
Notes: For 24SFF NVMe CTO server this 100GB NIC can be selected only with Processor <= 270W	
Intel Xeon-Gold 6438Y+ 2.0GHz 32-core 205W FIO Processor for HPE DX	P62416-B21
Notes: For 24SFF NVMe CTO server this 100GB NIC can be selected only with Processor <= 270W	
Intel Xeon-Gold 6438N 2.0GHz 32-core 205W FIO Processor for HPE DX	P62420-B21
Intel Xeon-Gold 6434 3.7GHz 8-core 195W FIO Processor for HPE DX	P62409-B21
Notes: For 24SFF NVMe CTO server this 100GB NIC can be selected only with Processor <= 270W	
Intel Xeon-Gold 6430 2.1GHz 32-core 270W FIO Processor for HPE DX	P62397-B21
Notes: For 24SFF NVMe CTO server this 100GB NIC can be selected only with Processor <= 270W	
Intel Xeon-Gold 6426Y 2.5GHz 16-core 185W FIO Processor for HPE DX	P62406-B21
Notes: For 24SFF NVMe CTO server this 100GB NIC can be selected only with Processor <= 270W	
Intel Xeon-Gold 6421N 1.8GHz 32-core 185W FIO Processor for HPE DX	P62423-B21
Notes:	
– If this Processor is selected then Max Quantity of processor selection is limited to 1 and this Processor is Not supported with 24SFF NVMe CTO server	
– For 24SFF NVMe CTO server this 100GB NIC can be selected only with Processor <= 270W	
Intel Xeon-Gold 6454S 2.2GHz 32-core 270W FIO Processor for HPE DX	P62404-B21
Notes: For 24SFF NVMe CTO server this 100GB NIC can be selected only with Processor <= 270W	
Intel Xeon-Gold 6414U 2.0GHz 32-core 250W FIO Processor for HPE DX	P62400-B21
Notes: If this Processor is selected then Max Quantity of processor selection is limited to 1 and this Processor is Not supported with 24SFF NVMe CTO server	
Intel Xeon-Gold 6416H 2.2GHz 18-core 165W Processor for HPE	P49620-B21
Notes: For 24SFF NVMe CTO server this 100GB NIC can be selected only with Processor <= 270W	
Intel Xeon-Gold 6418H 2.1GHz 24-core 185W Processor for HPE	P49621-B21
Notes: For 24SFF NVMe CTO server this 100GB NIC can be selected only with Processor <= 270W	
Intel Xeon-Gold 6448H 2.4GHz 32-core 250W Processor for HPE	P49622-B21
Notes: For 24SFF NVMe CTO server this 100GB NIC can be selected only with Processor <= 270W	
4th Generation Intel Xeon-Gold 5	
Notes: For 24SFF NVMe CTO server this 100GB NIC can be selected only with Processor <= 270W	
Intel Xeon-Gold 5420+ 2.0GHz 28-core 205W FIO Processor for HPE DX	P62415-B21
Intel Xeon-Gold 5418Y 2.0GHz 24-core 185W FIO Processor for HPE DX	P62414-B21
Intel Xeon-Gold 5418N 1.8GHz 24-core 165W FIO Processor for HPE DX	P62422-B21
Intel Xeon-Gold 5416S 2.0GHz 16-core 150W Processor for HPE DX	P62426-B21
Intel Xeon-Gold 5415+ 2.9GHz 8-core 150W FIO Processor for HPE DX	P62405-B21
Intel Xeon-Gold 5411N 1.9GHz 24-core 165W FIO Processor for HPE DX	P62421-B21
Intel Xeon-Gold 5520+ 2.2GHz 28-core 205W Processor for HPE	P67094-B21
5th Generation Intel Xeon-Gold 5	
Intel Xeon-Gold 5515+ 3.2GHz 8-core 165W Processor for HPE	P67079-B21
5th Generation Intel Xeon-Gold 6	
Intel Xeon-Gold 6526Y 2.8GHz 16-core 195W Processor for HPE	P67080-B21
Intel Xeon-Gold 6542Y 2.9GHz 24-core 250W Processor for HPE	P67081-B21
Intel Xeon-Gold 6548Y+ 2.5GHz 32-core 250W Processor for HPE	P67082-B21
Intel Xeon-Gold 6534 3.9GHz 8-core 195W Processor for HPE	P67083-B21
Intel Xeon-Gold 6544Y 3.6GHz 16-core 270W Processor for HPE	P67084-B21
Intel Xeon-Gold 6530 2.1GHz 32-core 270W Processor for HPE	P67095-B21
Intel Xeon-Gold 6538Y+ 2.2GHz 32-core 225W Processor for HPE	P67096-B21
Intel Xeon-Gold 6538N 2.1GHz 32-core 205W Processor for HPE	P67104-B21
Intel Xeon-Gold 6548N 2.8GHz 32-core 250W Processor for HPE	P67105-B21



Configuration Information

Intel Xeon-Gold 6554S 2.2GHz 36-core 270W Processor for HPE

P67110-B21

Notes: If this Processor is selected then Max Quantity of processor selection is limited to 1 and this Processor is Not supported with 24SFF NVMe CTO server

4th Generation Intel Xeon-Silver

Notes: For 24SFF NVMe CTO server this 100GB NIC can be selected only with Processor <= 270W

Intel Xeon-Silver 4416+ 2.0GHz 20-core 165W FIO Processor for HPE DX

P62413-B21

Intel Xeon-Silver 4410Y 2.0GHz 12-core 150W FIO Processor for HPE DX

P62412-B21

5th Generation Intel Xeon-Silver

Intel Xeon-Silver 4509Y 2.6GHz 8-core 125W Processor for HPE

P67090-B21

Intel Xeon-Silver 4510 2.4GHz 12-core 150W Processor for HPE

P67091-B21

Intel Xeon-Silver 4514Y 2.0GHz 16-core 150W Processor for HPE

P67092-B21

Intel Xeon-Silver 4516Y+ 2.2GHz 24-core 185W Processor for HPE

P67093-B21

Step 2b: Choose Memory Options

Please select one or more memory from below.

For new Gen11 memory population rule whitepaper and optimal memory performance guidelines, please go to:

HPE Memory Population Rules

For details on the HPE Server Memory Options Population Rules, please go to:

Memory population rules for HPE Gen11 servers with 4th Generation Intel Scalable Processors

Notes:

- HPE Server Memory compatibility for a specific server platform may vary or be limited within a server platform depending upon the specific configuration being requested. Because each server environment and requirements can vary, memory compatibility is based not only upon the server family, but may also be affected by the amount and type of additional hardware options installed within a specific server configuration. For this reason, some HPE memory DIMMs may be qualified for an HPE server model or family and yet occasionally not be supported with some configurations within that server family
- Memory should be installed in even quantity of DIMMs
- The maximum memory speed and capacity is a function of the memory type, memory configuration, and processor model.
- DDR5-4800 Memory Kits are only supported with 4th Generation Intel Xeon Scalable Series Processors.
- Memory compatibility may vary or be limited within a specific server family depending upon the specific configuration being requested. Because each server environment and requirements can vary, memory compatibility is based not only upon the server family, but may also be affected by the amount and type of additional hardware options installed within a specific server configuration. For this reason, some HPE memory DIMMs may be qualified for a server model or family and yet occasionally not be supported with limited configurations within that server family.
- Please consult with the HPE server QuickSpecs or your HPE representative if you have any questions regarding memory compatibility with a specific HPE server configuration.



Configuration Information

Registered DIMMs DDR5 (RDIMMs)

HPE DX 16GB (1x16GB) Single Rank x8 DDR5-4800 CAS-40-39-39 EC8 Registered Smart FIO Memory Kit	P62601-B21
HPE DX 32GB (1x32GB) Dual Rank x8 DDR5-4800 CAS-40-39-39 EC8 Registered Smart FIO Memory Kit	P62603-B21
HPE DX 64GB (1x64GB) Dual Rank x4 DDR5-4800 CAS-40-39-39 EC8 Registered Smart FIO Memory Kit	P62604-B21
HPE 96GB (1x96GB) Dual Rank x4 DDR5-4800 CAS-46-45-45 EC8 Registered Smart Memory Kit	P66675-B21
HPE DX 128GB (1x128GB) Quad Rank x4 DDR5-4800 CAS-40-39-39 EC8 Registered 3DS Smart FIO Memory Kit	P62605-B21
HPE DX 256GB (1x256GB) Octal Rank x4 DDR5-4800 CAS-40-39-39 EC8 Registered 3DS Smart FIO Memory Kit	P62606-B21
HPE 16GB (1x16GB) Single Rank x8 DDR5-5600 CAS-46-45-45 EC8 Registered Smart Memory Kit	P64705-B21
HPE 32GB (1x32GB) Dual Rank x8 DDR5-5600 CAS-46-45-45 EC8 Registered Smart Memory Kit	P64706-B21
HPE 64GB (1x64GB) Dual Rank x4 DDR5-5600 CAS-46-45-45 EC8 Registered Smart Memory Kit	P64707-B21
HPE 96GB (1x96GB) Dual Rank x4 DDR5-5600 CAS-46-45-45 EC8 Registered Smart Memory Kit	P64708-B21
HPE 128GB (1x128GB) Quad Rank x4 DDR5-5600 CAS-52-45-45 EC8 Registered 3DS Smart Memory Kit	P64709-B21

Notes:

- 4800 MT/s memory SKUs offer a transfer rate of 4800 MT/s at 1 DIMM per channel and 4400 MT/s at 2 DIMMs per channel
- Mixing of 3DS memory and non-3DS memory is not supported
- limitation. 256GB DIMM will also need to limit the maximum front-end cage to two.
- For 12LFF/ 24SFF/24SFF NVMe CTO Server, Max quantity of 256GB memory is limited to 16 for 2 processors and limited to 8 for 1 processor.

Memory Blank Kit

HPE DDR4 DIMM Blank Kit	P07818-B21
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Step 2c: Choose Power Supplies

Select one or two power supplies from below.

Notes: Mixing of 2 different power supplies is NOT allowed.

HPE Flex Slot Power Supplies

HPE DX 1800-2200W Flex Slot Titanium Hot Plug Power Supply Kit	P56724-B21
HPE DX 1600W Flex Slot Platinum Hot Plug Low Halogen FIO Power Supply Kit	P18222-B21
HPE DX 1000W Flex Slot Titanium Hot Plug FIO Power Supply Kit	P44807-B21
HPE DX 800W Flex Slot Platinum Hot Plug Low Halogen FIO Power Supply Kit	P18223-B21
HPE DX 1600W Flex Slot -48VDC Hot Plug FIO Power Supply Kit	P60246-B21

Notes:

- Select a minimum (1), maximum (2) power supplies.
- 1600W Power supplies only support high line voltage (200VAC to 240VAC).
- Prior to making a power supply selection 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/>.
- All power supplies in a server should match. Mixing Power Supplies is not supported.
- HPE ProLiant servers ship with an IEC-IEC power cord used for rack mounting with Power Distribution Units (PDUs). Visit **HPE power cords** for a full list of optional power cords.



Configuration Information

Step 3: Choose Additional Factory Integratable Options

One of the following from each list may be selected if desired at time of factory integration

HPE Security Options

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

Factory Instructions and Server Settings

HPE iLO Common Password FIO Setting

P08040-B21

Notes: Sets common iLO password, instead of randomly generated password for each server during Factory Diagnostics.

Step 4: Choose additional options for Factory Integration from Core and Additional Options sections below



Core 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 Hard Disk Drives

Midline - 12G SAS - LFF Drives

HPE DX 20TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty 512e ISE FIO HDD	P60324-B21
HPE DX 16TB SAS 12G Business Critical 7.2K LFF (3.5in) LP 1yr Wty 512e ISE FIO HDD	P35152-B21
HPE DX 12TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty HE 512e Digitally Signed Firmware FIO HDD	P17966-B21
HPE DX 8TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty 512e Digitally Signed Firmware FIO HDD	P17965-B21
HPE DX 4TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware FIO HDD	P17963-B21

SSD Selection

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

Read Intensive - 12G SAS - SFF - Solid State Drives

HPE DX 15.36TB SAS 24G Read Intensive SFF BC Multi Vendor FIO SSD	P56767-B21
HPE DX 7.68TB SAS 24G Read Intensive SFF BC Multi Vendor FIO SSD	P56763-B21
HPE DX 3.84TB SAS 24G Read Intensive SFF BC PM1653 FIO SSD	P56759-B21

Read Intensive - 24G SAS - SFF - Solid State Drives

HPE DX 3.84TB SAS Read Intensive SFF BC Multi Vendor SSD	P75498-B21
HPE DX 3.84TB SAS Read Intensive SFF BC Multi Vendor FIO SSD	P75500-B21

Mixed Use - 12G SAS - SFF - Solid State Drives

HPE DX 6.4TB SAS 24G Mixed Use SFF BC Multi Vendor FIO SSD	P57601-B21
HPE DX 3.2TB SAS 24G Mixed Use SFF BC Multi Vendor FIO SSD	P57589-B21

Read Intensive - SFF - NVMe

HPE DX 1.92TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PM1733a FIO SSD	P57765-B21
HPE DX 3.84TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PM1733a FIO SSD	P57767-B21
HPE DX 7.68TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PM1733a FIO SSD	P57769-B21
HPE DX 15.36TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PM1733a FIO SSD	P57771-B21
HPE DX 1.9TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 Static Multi Vendor FIO SSD	P57757-B21
HPE DX 3.84TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 Static Multi Vendor FIO SSD	P57758-B21
HPE DX 7.68TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 Static Multi Vendor FIO SSD	P57759-B21

Mixed Use - SFF - NVMe

HPE DX 3.2TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PM1735a FIO SSD	P57762-B21
HPE DX 6.4TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PM1735a FIO SSD	P57764-B21

Read Intensive - 6G SATA - SFF - Solid State Drives

HPE DX 3.84TB SATA 6G Read Intensive SFF BC S4520 FIO SSD	P60322-B21
HPE DX 3.84TB SATA 6G Read Intensive SFF BC PM893 FIO SSD	P56743-B21
HPE DX 1.92TB SATA 6G Read Intensive SFF BC S4520 FIO SSD	P56749-B21
HPE DX 1.92TB SATA 6G Read Intensive SFF BC PM893 FIO SSD	P56739-B21
HPE DX 1.92TB SATA Read Intensive SFF BC PM893a SSD	P75488-B21
HPE DX 3.84TB SATA Read Intensive SFF BC PM893a SSD	P75482-B21
HPE DX 1.92TB SATA Read Intensive SFF BC PM893a FIO SSD	P75486-B21
HPE DX 3.84TB SATA Read Intensive SFF BC PM893a FIO SSD	P75480-B21
HPE DX 3.84TB SATA Read Intensive LFF LPC PM893a FIO SSD	P75483-B21
HPE DX 1.92TB SATA Read Intensive LFF LPC PM893a FIO SSD	P75492-B21

Mixed Use - 6G SATA - SFF - Solid State Drives

HPE DX 1.92TB SATA 6G Mixed Use SFF BC PM897 FIO SSD	P56731-B21
HPE DX 1.92TB SATA 6G Mixed Use SFF BC Samsung PM897a SSD	P75491-B21
HPE DX 1.92TB SATA 6G Mixed Use SFF BC Samsung PM897a FIO SSD	P75489-B21



Core Options

Mixed Use - 6G SATA - LFF - Solid State Drives

HPE DX 1.92TB SATA 6G Mixed Use LFF LPC Samsung PM897a SSD P75497-B21

Mixed Use - 6G SATA - LFF - Solid State Drives

HPE DX 1.92TB SATA 6G Mixed Use LFF LPC Samsung PM897a FIO SSD P75495-B21

Read Intensive - 12G SAS - LFF -Solid State Drives

HPE DX 15.36TB SAS 24G Read Intensive LFF LPC Multi Vendor FIO SSD P56768-B21

HPE DX 7.68TB SAS 24G Read Intensive LFF LPC Multi Vendor FIO SSD P56766-B21

HPE DX 3.84TB SAS 24G Read Intensive LFF LPC PM1653 FIO SSD P56762-B21

Mixed Use - 12G SAS - LFF -Solid State Drives

HPE DX 6.4TB SAS 24G Mixed Use LFF LPC Multi Vendor FIO SSD P57609-B21

HPE DX 3.2TB SAS 24G Mixed Use LFF LPC Multi Vendor FIO SSD P57597-B21

Read Intensive - 6G SATA - LFF - Solid State Drives

HPE DX 1.92TB SATA 6G Mixed Use LFF LPC PM897 FIO SSD P56734-B21

HPE DX 1.92TB SATA 6G Mixed Use LFF LPC S4620 FIO SSD P56738-B21

HPE DX 1.92TB SATA Read Intensive LFF LPC PM893a SSD P75494-B21

HPE DX 3.84TB SATA Read Intensive LFF LPC PM893a SSD P75485-B21

Read Intensive - 24G SAS - LFF - Solid State Drives

HPE DX 3.84TB SAS Read Intensive LFF LPC Multi Vendor SSD P75479-B21

HPE DX 3.84TB SAS Read Intensive LFF LPC Multi Vendor FIO SSD P75476-B21

HPE Networking

10 Gigabit Ethernet adapters

Notes:

- Unless otherwise noted, one of the below 10Gb networking adapters below can be selected as the primary networking choice when configuring a Networking Choice (NC) Configure-to-Order (CTO) chassis. The DL380 Gen11 NC CTO chassis does not come with embedded networking, hence the requirement to configure with either a FlexibleLOM or select PCIe networking adapter.
- For 24SFF NVMe CTO server Max=2 of Networking card can be selected.

Broadcom BCM57416 Ethernet 10Gb 2-port BASE-T FIO Adapter for HPE DX P43271-B21

10/25 Gigabit Ethernet adapters

Notes:

- Unless otherwise noted, one of the below 10/25Gb networking adapters below can be selected as the primary networking choice when configuring a Networking Choice (NC) Configure-to-Order (CTO) chassis.
- The DL380 Gen11 NC CTO chassis does not come with embedded networking, hence the requirement to configure with either an OCP3 or select PCIe networking adapter.
- For 24SFF NVMe CTO server Max=2 of Networking card can be selected.

Broadcom BCM57414 Ethernet 10/25Gb 2-port SFP28 Adapter for HPE DX P53862-B21

Mellanox MCX631102AS-ADAT Ethernet 10/25Gb 2-port SFP28 FIO Adapter for HPE DX P60340-B21

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

OCP 3.0 Adapters

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

Broadcom BCM57414 Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE DX P53861-B21

Mellanox MCX631432AS-ADAI Ethernet 10/25Gb 2-port SFP28 OCP3 FIO Adapter for HPE DX P60339-B21

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



Core Options

HPE I/O Expansion Options

Notes:

- The Primary Riser shipping default in the CTO server is a x8 FH, FL, x16 FH, FL and x8 FH, HL.
- For 12LFF/ 24SFF CTO Server, if this GPU is selected then Secondary or Tertiary riser must be selected.
- x16 cards installed on x8 slots could observe sub-optimal performance.
- For 24SFF CTO Server This PCIe cards can be populated in Slot 4, 5, 7 only. The “PCIe Card Capacity Limits” must account for this limitation.
- Cannot be populated on Primary Riser (including default primary riser).
- If this PCIe card is selected then Secondary Riser must be selected.
- If qty2 of this PCIe card is selected then either 3x16 Secondary riser MUST be selected OR x8/x16/x8 Secondary & Tertiary Riser MUST be selected
- This card cannot be populated on Half length (HL) slots."

HPE ProLiant DX380 Gen11 2U x16/x16/x16 Primary FIO Riser Kit

P62764-B21

Notes:

- Slot 1 - PCIe 5.0 x16 Full Height and Full Length
- Slot 2 - PCIe 5.0 x16 Full Height and Full Length
- Slot 3 - PCIe 5.0 x16 Full Height and Half Length
- If 24NVMe CTO server is selected then Qty 1 of HPE DL380 Gen11 3x16 Pri Riser must be selected and defaulted.

HPE ProLiant DX380 Gen11 2U x8/x16/x8 Secondary FIO Riser Kit

P62763-B21

Notes:

- Slot 4 - PCIe 5.0 x8 Full Height and Full Length
- Slot 5 - PCIe 5.0 x16 Full Height and Full Length
- Slot 6 - PCIe 5.0 x8 Full Height and Half Length
- This riser Not supported with 24SFF NVMe CTO Server

HPE ProLiant DX380 Gen11 2U x16/x16 Tertiary FIO Riser Kit

P62765-B21

Notes:

- This is the tertiary riser.
- Slot 7 - PCIe 5.0 x16 Full Height and Full Length
- Slot 8 - PCIe 4.0 x16 Full Height and Full Length
- This riser Not supported with 24SFF NVMe CTO Server

HPE ProLiant DX380 Gen11 2U x16/x16/x16 Secondary FIO Riser Kit

P62766-B21

Notes: If 24NVMe CTO server is selected then Qty 1 of HPE DL380 Gen11 3x16 SEC Riser must be selected and defaulted.



Core Options

Risers

Riser Information*							
Part number	Description	Riser position			Bus width (Gen5 lanes)		
		Primary	Secondary	Tertiary	Top slot	Middle Slot	Bottom slot
N/A	This is the default riser in the chassis	D	N	N	x8	x16	x8
P62764-B21	HPE DX380 Gen11 x16/x16/x16 Primary Riser Kit	O	N	N	x16	x16	x16 ¹
P62766-B21	HPE DX380 Gen11 x16/x16/x16 Secondary Riser Kit	N	O	N	x16	x16	x16 ²
P62763-B21	HPE DX38X Gen11 x8/x16/x8 Sec Riser Kit	N	O	N	x8	x16	x8
P62765-B21	HPE DX38X Gen11 2x16 Tertiary Riser Kit	N	N	O	x16	x16 ³	

Notes:

- D = Default on chassis; O = Optional; N = not supported or slot/connector not present.
- ¹Requires HPE DL380 Gen11 x16/x16/x16 Primary Cable Kit (P56073-B21)
- ²Requires HPE DL380 Gen11 x16/x16/x16 Secondary Cable Kit (P56074-B21)
- ³x16 cards installed on x8 slots could observe sub-optimal performance.
- *If 24-SFF NVMe CTO server is selected then Pri 3 x16 Cable OR Sec 3 x16 Cable (P56073-B21) or (P56074-B21) cannot be selected.



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 Computation and Graphics Accelerators

DX NVIDIA A16 64GB PCIe NonCEC FIO Accel	P61596-B21
DX NVIDIA L40 48GB PCIe Non-CEC Accelerator for HPE	P61598-B21

Notes:

- For 12LFF /24SFF/24SFF NVMe CTO Server, Max of 1 GPU can be selected per Server
- For 24SFF NVMe CTO Server, DW GPU cannot be selected when 100GB NIC is in the configuration

DX NVIDIA L4 SW PCIe FIO Accelerator	P65461-B21
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Notes:

- For 12LFF/ 24SFF CTO Server, If this GPU is selected then Secondary OR Tertiary Riser must be selected.
- For 24SFF NVMe CTO Server, Max of 2 SW GPU can be selected per Server

SKU	Description	Qty Supported	PCIe	24SFF/12LFF
P61596-B21	DX NVIDIA A16 64GB PCIe Non-CEC Accelerator for HPE	1	Gen4	Supported

Embedded Management

HPE iLO Common Password FIO Setting

HPE iLO Common Password FIO Setting	P08040-B21
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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

Software Skus

Nutanix AOS FIO SW for HPE	R6T15A
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HPE Security

HPE iLO Common Password FIO Setting	P08040-B21
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Notes:

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

HPE Boot Controllers

HPE DX NS204i-u Gen11 NVMe Hot Plug Boot Optimized FIO Storage Device	P60454-B21
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Notes:

- This is the NS204i-u hot pluggable boot device
- Default is NVMe are internal to system and not hot pluggable
- Max = 1

HPE Storage Controllers

The Gen11 storage controller portfolio has been updated to include new technology like OCP3.0 as well as PCIe adapters. For a more detailed breakout of the available Gen11 controllers visit the storage controllers QuickSpecs site:

HPE Tri-Mode Controllers

HPE ProLiant DX MR216i-p Gen11 x16 Lanes without Cache PCI SPDM FIO Plug-in Storage Controller	P60333-B21
HPE ProLiant DX MR216i-o Gen11 x16 Lanes without Cache OCP SPDM FIO Storage Controller	P60334-B21

Notes: Not Supported with 24SFF NVMe CTO Server



Additional Options

Easy Install Rail Kits

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

Notes:

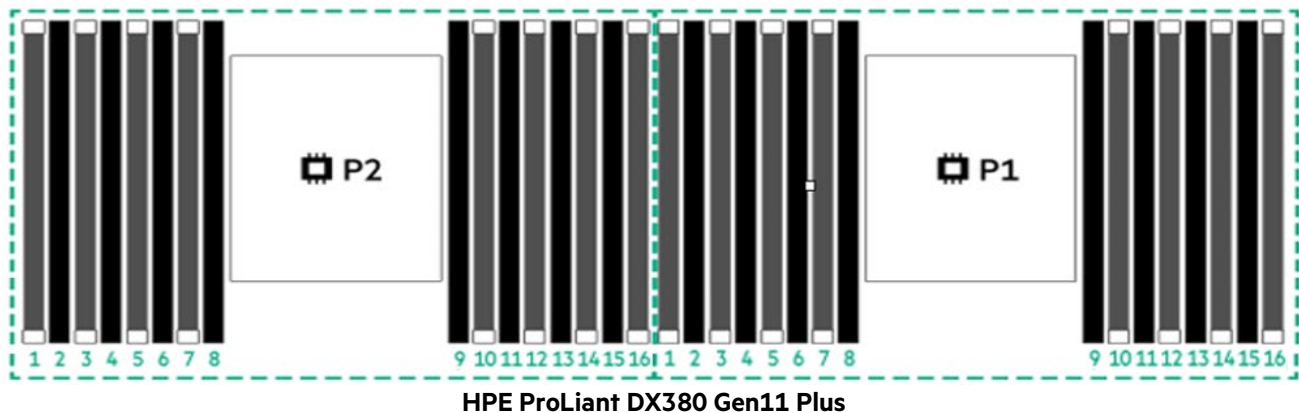
- Hewlett Packard Enterprise recommends that a minimum of two people are required for all Rack Server installations. Please refer to your installation instructions for proper tools and number of people to use for any installation.
- HPE rail kits are designed to work with HPE racks in compliance with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

HPE ProLiant DX Gen11 Easy Install FIO Rail 3 Kit	P62374-B21
Notes: Does not include Cable Management Arm (CMA) (P22020-B21).	
HPE ProLiant DX300 Gen11 2U FIO Cable Management Arm for Rail Kit	P60222-B21



Memory

Memory Population guidelines



HPE ProLiant Gen11 16 slot per CPU DIMM population order

DIMM population order

DIMM slot	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1 DIMM										10						
2 DIMMs²			3							10						
4 DIMMs²			3				7			10				14		
6 DIMMs			3		5		7			10				14		16
8 DIMMs^{1,2}	1		3		5		7			10		12		14		16
12 DIMMs	1	2	3		5	6	7			10	11	12		14	15	16
16 DIMMs^{1,2}	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Notes:

- Omitted DIMM counts/socket not qualified by Intel.
- ¹ Supports SGX (Software Guard Extensions)
- ² Support Hemi (hemisphere mode).

General Memory Population Rules and Guidelines:

- DIMMs should be installed in quantities of even numbers.
- Install DIMMs only if the corresponding processor is installed.
- If only one processor is installed in a two-processor system, only half of the DIMM slots are available.
- To maximize performance, it is recommended to balance the total memory capacity between all installed processors.
- When two processors are installed, balance the DIMMs across the two processors.
- White DIMM slots denote the first slot to be populated in a channel.
- Mixing of DIMM types (UDIMM, RDIMM, and LRDIMM) is not supported.
- 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, and the number and model of installed processors qualified on the platform.
- For details on the HPE Server Memory Options Population Rules, visit:
Server memory populations rules for HPE Gen11 servers with 4th Gen Intel Xeon Scalable processors
- To realize the performance memory capabilities listed in this document, HPE DDR4 Smart Memory is required.
- For additional information, please see the **HPE DDR5 Smart Memory QuickSpecs**.

Memory

HPE SKU P/N	P62601-B21	P62603-B21	P62604-B21
SKU Description	HPE DX 16GB (1x16GB) Single Rank x8 DDR5-4800 CAS-40-39-39 EC8 Registered Smart Memory Kit	HPE DX 32GB (1x32GB) Dual Rank x8 DDR5-4800 CAS-40-39-39 EC8 Registered Smart Memory Kit	HPE DX 64GB (1x64GB) Dual Rank x4 DDR5-4800 CAS-40-39-39 EC8 Registered Smart Memory Kit
DIMM Capacity	16GB	32GB	64GB
DIMM Rank	Single Rank (1R)	Dual Rank (2R)	Dual Rank (2R)
Voltage	1.1 V	1.1 V	1.1 V
DRAM Depth [bit]	2G	2G	4G
DRAM Width [bit]	x8	x8	x4
DRAM Density	16Gb	16Gb	16Gb
CAS Latency	40-39-39	40-39-39	40-39-39
DIMM Native Speed	4800 MT/s	4800 MT/s	4800 MT/s

HPE SKU P/N	P62605-B21	P62606-B21
SKU Description	HPE DX 128GB (1x128GB) Quad Rank x4 DDR5-4800 CAS-46-39-39 EC8 Registered 3DS Smart Memory Kit	HPE DX 256GB (1x256GB) Octal Rank x4 DDR5-4800 CAS-46-39-39 EC8 Registered 3DS Smart Memory Kit
DIMM Capacity	128GB	256GB
DIMM Rank	Quad Rank (4R)	Octal Rank (8R)
Voltage	1.1 V	1.1 V
DRAM Depth [bit]	4G	4G
DRAM Width [bit]	x4	x4
DRAM Density	16Gb	16Gb
CAS Latency	40-39-39	40-39-39
DIMM Native Speed	4800 MT/s	4800 MT/s

Notes:

- The maximum memory speed is a function of the memory type, memory configuration, and processor model. For details on the HPE Server Memory speed, visit: <https://www.hpe.com/docs/memory-speed-table>
- For 12LFF/ 24SFF CTO Server, Max Quantity of 256GB Memory is limited to 16 for 2 Processors and limited to 8 for 1 Processor.
- For 12LFF/ 24SFF/24SFF NVMe CTO Server, Max Quantity of 256GB Memory is limited to 16 for 2 Processors and limited to 8 for 1 Processor.

DDR5 memory options part number decoder

Notes:

- Capacity references are rounded to the common gigabyte (GB) values.
 - o 8GB = 8,192 MB
 - o 16GB = 16,384 MB
 - o 32GB = 32,768 MB
 - o 64GB = 65,536 MB
 - o 128GB = 131072 MB
 - o 256GB = 262144 MB
 - o 512GB = 524288 MB

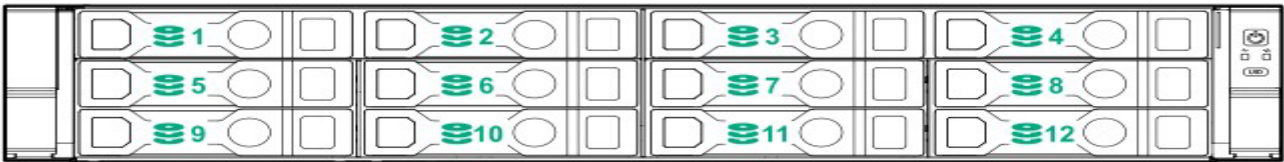
For more information on memory, please see the Memory QuickSpecs: [HPE DDR5 Smart Memory](#)

Memory Speed Table for HPE ProLiantDL380 Gen Gen11

For details on the HPE Server Memory speed, please visit: <https://www.hpe.com/docs/server-memory>



Storage



12 LFF chassis



24 SFF SAS/SATA - 24SFF NVMe



Technical Specifications

System Unit

Dimensions

- **SFF CTO servers:**
8.75 x 44.8 x 72.7 cm / 3.44 x 17.64 x 28.62 in
- **LFF CTO servers:**
8.75 x 44.8 x 73.25 cm / 3.44 x 17.64 x 28.84 in

Weight (approximate)

- **Maximum:** 8 SFF hard drives (no rear drives), 2x processors, 2x power supplies, 1x Smart Array, 2x Risers installed
 - **Maximum:** 33kg/72.75 lbs.
 - **Minimum:** 16kg/35.27 lbs.
- **Maximum:** 12 LFF hard drives (no rear drives), 2x processors, 2x power supplies, 1x Smart Array, 2x Risers installed
 - **Maximum:**
.37kg/81.57 lbs.
 - **Minimum:**
18kg/39.68 lbs.

Input Requirements (per power supply)

Rated Line Voltage

- For 1600W (Platinum) Power Supply: 200-240 VAC
- For 800W (Titanium) Power Supply: 200-240 VAC
- For 800W (Platinum) Power Supply: 100-240 VAC
- For 800W (Universal) Power Supply: 200-277 VAC
- For 800W (-48VDC) Power Supply: -40 Vdc to -72 Vdc

BTU Rating

Maximum

- For 1600W Power Supply: 5918 BTU/hr. (at 200 VAC), 5888 BTU/hr. (at 220 VAC), 5884 BTU/hr. (at 240 VAC)
- For 800W (Titanium) Power Supply: 2905 BTU/hr. (at 200 VAC), 2899 BTU/hr. (at 220 VAC), 2893 BTU/hr. (at 240 VAC)
- For 800W (Platinum) Power Supply: 3067 BTU/hr. (at 100 VAC), 2958 BTU/hr. (at 200 VAC), 2949 BTU/hr. (at 240 VAC)
- For 800W (Universal) Power Supply: 2964 BTU/hr. (at 200 VAC), 2951 BTU/hr. (at 230 VAC), 2936 BTU/hr. (at 277 VAC)
- For 800W(-48Vdc) Power Supply: 2983 BTU/hr. (at -40 Vdc), 2951 BTU/hr. (at -48Vdc), 2912 BTU/hr. (at -72Vdc)

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.
-



Technical Specifications

Power Supply Output

(per power supply)

Rated Steady-State Power

- For 1600W Power Supply: 1600W (at 240 VAC), 1600W (at 240 VDC) for China only
- For 800W (Titanium) Power Supply: 800W (at 200 VAC), 800W (at 240 VAC), 800W (at 240 VDC) for China only
- For 800W (Platinum) Power Supply: 800W (at 100 VAC), 800W (at 240 VAC), 800W (at 240 VDC) input for China only
- For 800W (Universal) Power Supply: 800W (at 200 VAC), 800W (at 277 VAC)
- For 800W (-48VDC) Power Supply: 800W (at -40 Vdc), 800W (at -72Vdc)

Maximum Peak Power

- For 1600W Power Supply: 1600W (at 240 VAC), 1600W (at 240 VDC) for China only
- For 800W (Titanium) Power Supply: 800W (at 200 VAC), 800W (at 240 VAC), 800W (at 240 VDC) for China only
- For 800W (Platinum) Power Supply: 800W (at 100 VAC), 800W (at 240 VAC), 800W (at 240 VDC) input for China only
- For 800W (Universal) Power Supply: 800W (at 200 VAC), 800W (at 277 VAC)
- For 800W (-48VDC) Power Supply: 800W (at -40 Vdc), 800W (at -72Vdc)

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.).

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).



Technical Specifications

Acoustic Noise

Listed are the declared A-Weighted sound power levels (LwA,m) and declared average bystander position A-Weighted sound pressure levels (LpA,m) when the product is operating in a 23°C ambient environment. Noise emissions were measured in accordance with ISO 7779 (ECMA 74) and declared in accordance with ISO 9296 (ECMA 109). The listed sound levels apply to standard shipping configurations. Additional options may result in increased sound levels. Please have your HPE representative provide information from the HPE EMESC website for further technical details regarding the configurations listed below.

Acoustic Noise	
Idle	
LwA,m	4.2 B Entry 4.2 B Base 4.2 B Performance
LpAm	28 dBA Entry 27 dBA Base 30 dBA Performance
Operating	
LwA,m	4.2 B Entry 4.2 B Base 4.2 B Performance
LpAm	29 dBA Entry 27 dBA Base 29 dBA Performance
Kv	0.4 B Entry 0.4 B Base 0.4 B Performance

Notes:

- 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.
- All measurements made to conform to ISO 7779 / ECMA-74 and declared to conform to ISO 9296 / ECMA-109.
- B, dB, abbreviations for bels and decibels, respectively, where 1 B = 10 dB.
- The results in this declaration apply only to the model numbers listed above 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 under abnormal conditions may increase the noise level, persons in the vicinity of the product [cabinet] for extended periods of time should consider wearing hearing protection or using other means to reduce noise exposure.



Technical Specifications

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




Summary of Changes


Date	Version History	Action	Description of Change
28-Jul-2025	<u>Version 10</u>	Changed	Update survey link.
09-Jun-2025	<u>Version 9</u>	Changed	Added 5 th Generation Intel® Xeon® Scalable Processor Family (Platinum and Gold) SKUs, Nutanix Software SKU and OCP 3.0 Adapters.
14-Apr-2025	<u>Version 8</u>	Changed	Configuration Information section was updated. Added: QuickSpecs Survey. Removed: CTO Server Drive Cage rule.
02-Dec-2024	<u>Version 7</u>	Changed	Configuration Information section was updated. (CTO Server rule was added).
21-Oct-2024	<u>Version 6</u>	Changed	New SSDs, Memories & processors were added. Configuration information was updated
03-Sep-2024	<u>Version 5</u>	Changed	Overview, Standard Features (Operating Systems and Virtualization Software Support for HPE Servers), Configuration Information, Core Options and Memory sections were updated.
15-Jul-2024	<u>Version 4</u>	Changed	Standard Features and Core Options sections were updated.
01-Jul-2024	<u>Version 3</u>	Changed	Standard Features, Configuration Information and Core Options sections were updated.
04-Mar-2024	<u>Version 2</u>	Changed	Standard Features and Configuration Information sections were updated.
07-Aug-2023	<u>Version 1</u>	New	New QuickSpecs



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

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