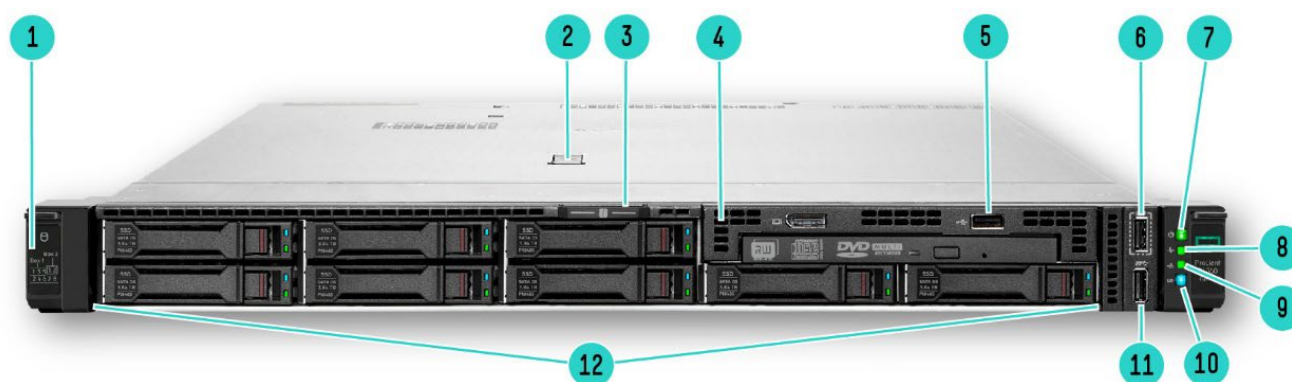


Overview

HPE ProLiant DX360 Gen11

Do you need to efficiently expand or refresh your IT infrastructure to propel the business? Adaptable for diverse workloads and environments, the compact 1U HPE ProLiant DX360 Gen11 delivers enhanced performance with the right balance of expandability and density. Designed for supreme versatility and resiliency while backed by a comprehensive warranty, the HPE ProLiant DX360 Gen11 is ideal for IT infrastructure, either physical, virtual, or containerized.

The HPE ProLiant DX360 Gen11 supports the 4th Generation Intel® Xeon® Scalable Processors with up to 56 cores, plus 4800 MT/s HPE DDR5 Smart Memory up to 4.0 TB per socket. Introducing PCIe Gen5 and Intel® Software Guard Extensions (SGX) support on the dual-socket segment, the HPE ProLiant DX360 Gen11 complements Gen10 Plus reach by delivering premium compute, memory, networking communication, discrete graphic, I/O, and security capabilities for customers focused on performance at any cost. DX360 Gen11 server is an excellent choice of daily business and workloads in General Compute, Database Management, Virtual Desktop Infrastructure, Content Delivery Network, Edge Acceleration and Intelligent Video Analytics.

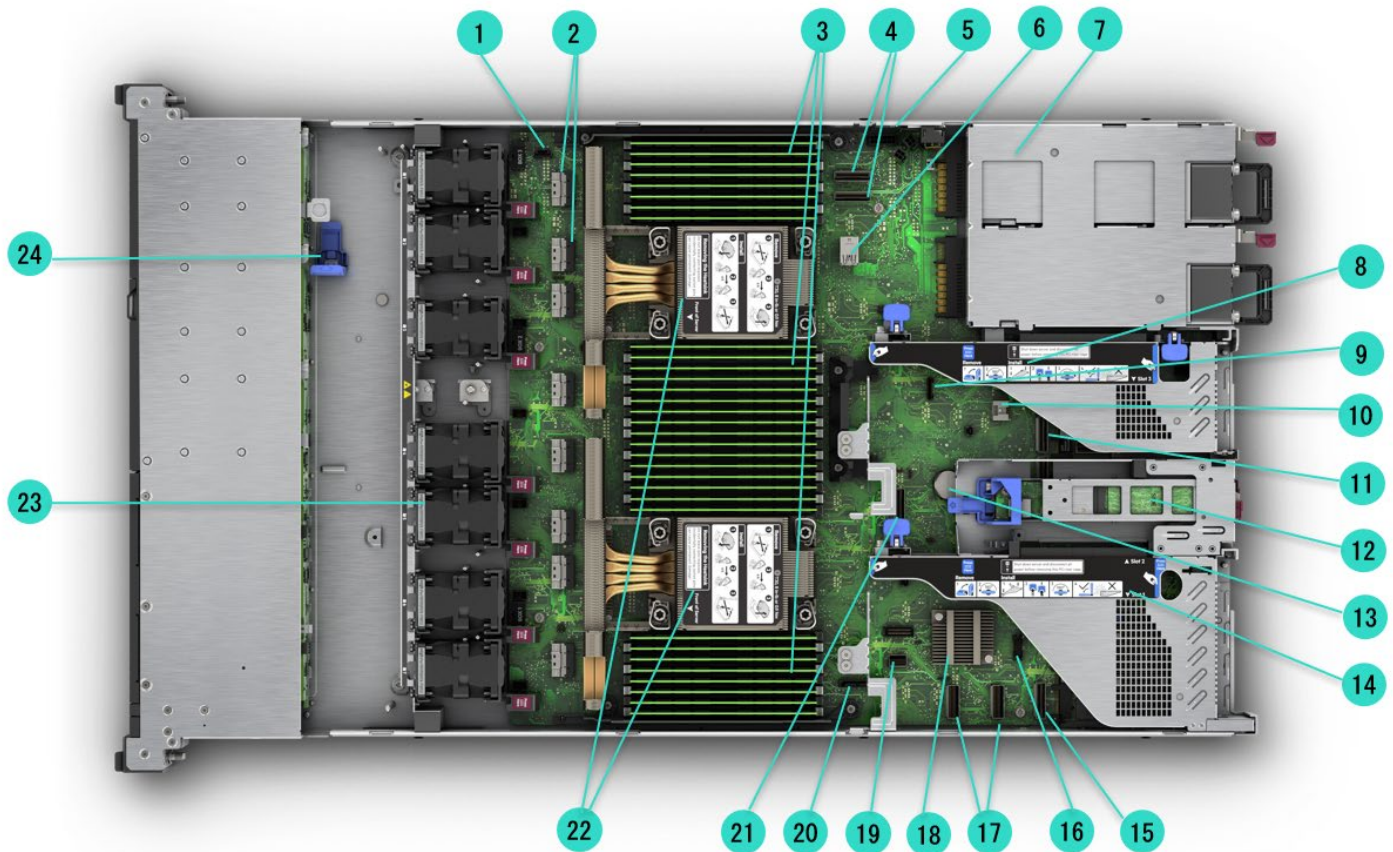


8 SFF Front View – 8 SFF + optional Universal Media Bay, optical drive, Display Port, USB2.0 and SAS drives shown

- | | |
|---|--|
| 1. Drive support label | 7. Power On/Standby button and system power LED |
| 2. Quick removal access panel | 8. Health LED |
| 3. Serial number/iLO information pull tab (optional - shown) | 9. NIC status LED |
| 4. Universal Media Bay (optional): | 10. Unit ID button/LED |
| <ul style="list-style-type: none"> Option: Optical drive bay + Display port & USB 2.0 port kit (shown) Option: 2 SFF 24G x4 Tri-Mode SAS/SATA/U.3 NVMe cage | 11. USB 3.2 Gen1 port |
| 5. USB2.0 port (optional) | 12. Drive bays; optional backplanes: |
| 6. iLO Service port | Option: |
| | <ul style="list-style-type: none"> 8 SFF x1 24G Tri-Mode SAS/SATA/U.3 NVMe Option: 8 SFF x4 24G Tri-Mode SAS/SATA/U.3 NVMe |

Notes: Optional- Systems Insight Display (SID) module is available for 8SFF CTO Server, and will be installed at the left-hand side of iLO Service port and USB 3.2 Gen1 port.

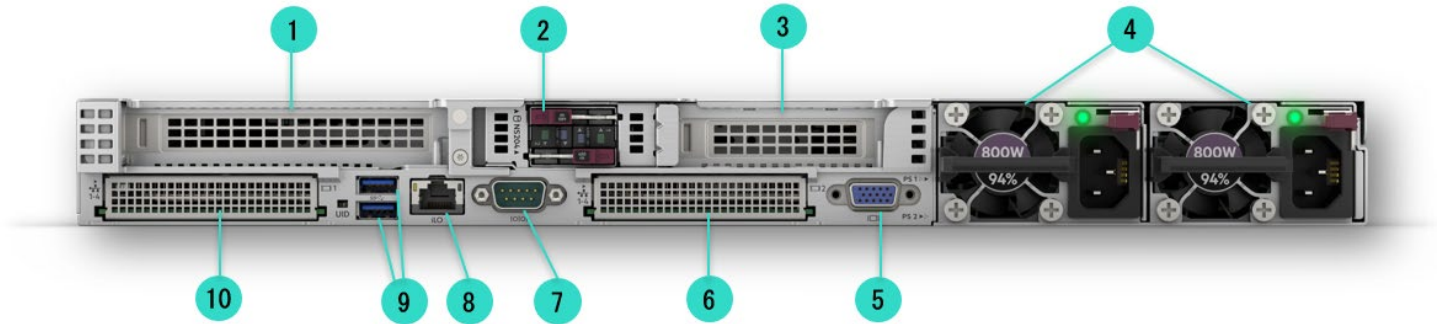
Overview



Internal View - Standard for all DX360 Gen11

- | | |
|---|---|
| 1. Liquid Cooling Module connector | 13. System Battery |
| 2. x8 SlimSAS ports (1A to 4A, 1B to 4B) | 14. Primary (CPU1) Riser PCIe 5.0 |
| 3. DDR5 DIMM Slots (fully populated 32 DIMMs shown) | <ul style="list-style-type: none"> • 1x 16 FH and 1x16 LP slots |
| 4. Socket 2 MCIO ports (1 & 2) | 15. OCP Slot port |
| 5. Backplane Power connector | 16. Front Display Port and USB 2.0 connector (optional feature) |
| 6. Internal USB port (top USB 3.2 Gen1 and bottom USB 2.0) | 17. LP SlimSAS ports (1 & 2) |
| 7. Redundant Power Supply (1 & 2 as shown) | 18. Chipset |
| 8. Secondary (CPU 2) Riser PCIe 5.0 | 19. Front I/O and USB 3.2 Gen1 connector |
| <ul style="list-style-type: none"> • Option: Low Profile x16 • Option: Full height x16 (lose Slot 2 on Primary Riser) | 20. SATA Optical port |
| 9. SID connector (optional feature, 8SFF only) | 21. Socket 1 MCIO connector |
| 10. Energy Pack connector | 22. CPU 1 (bottom) and CPU 2 (top) (shown with High Performance Heatsink) |
| 11. OCP Slot port | 23. Hot plug (dual rotor) High Performance Fan Kit (7 fans) |
| 12. HPE NS204i-u NVMe Hot Plug Boot Optimized Storage Device (optional – shown) | <ul style="list-style-type: none"> • Option: Closed-loop Liquid Cooling Heat Sink Fan FIO Bundle Kit |
| | 24. HPE Hybrid Capacitor or HPE Storage Battery holder |

Overview



Rear View - Standard for all DX360 Gen11

- | | |
|---|---|
| 1. Slot 1 PCIe 5.0 – Full Height | 6. OCP 3.0 Slot 2: x16 PCIe 5.0 ^{1,2} (Requires 2 nd Processor) |
| 2. Slot 2 PCIe 5.0 – Low Profile* | 7. Serial port (optional - shown) |
| 3. Option: Slot 3 PCIe 5.0 (Requires 2 nd processor) | 8. iLO Management Port |
| • Low Profile and Full Height options | 9. USB 3.2 Gen1 Ports |
| 4. Redundant Power Supply (1 & 2 as shown) | 10. OCP 3.0 Slot 1: x16 PCIe 5.0 ² |
| 5. Video (VGA) port | |

Notes:

- ¹Supports various NICs, up to 200GbE
- ²Or supports each slot with x8 PCIe 5.0 under one processor, with the selection of “P51911-B21, CPU1 to the “OCP2 x8 Enablement Kit”.

What's New

- All new DX360 Gen11 server
- 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® Xeon® Scalable Processors
- New PCIe 5.0 support
- New HPE DDR5 SmartMemory – Registered (RDIMM), 4800MT/s
- New HPE Gen11 Storage Controllers
- New HPE NS204i-u Gen11 NVMe Hot Plug Boot Optimized Storage Device
- New HPE Storage SSD support
- New HPE iLO6 support

Platform Information

Form Factor

- 1U rack

Overview

Chassis Types

- 8 SFF drive bays: SAS/SATA
 - With options for additional 2 SFF drive bays: NVMe
- 10 SFF drive bays: NVMe

System Fans

- Performance Fan Kit Standard

Notes:

- Dual rotor hot plug High Performance Fan Kit available (includes 7 fans), for one or two processors from 186W to 270W TDP
 - The DX360 Gen11 will support up to 7 fans with fan redundancy built in. One fan rotor failure will place server in degraded mode but fully functional. Two fan rotor failures could provide warning and imminent server shutdown
-



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 = New 4th Generation Intel® Xeon® Scalable Processors)

Notes:

- All information provided here is subject to change without notice. Intel may make changes to specifications and product descriptions at any time, without notice. Please contact your Intel representative to obtain the latest Intel product specifications and roadmaps.
- For more information regarding Intel® Xeon® Scalable Processors, please see the following <http://www.intel.com/xeon>.

New 4th Generation Intel® Xeon® Scalable Processors numbering convention

Workload

New 4 th Generation Intel® Xeon® Scalable Processors		
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 (Hight TPT/Low latency)	Designed for NFV and networking workloads, such as: L3 forwarding, 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	One Socket Optimized	Optimized for targeted platforms adequately served by the cores, memory bandwidth and IO capacity. Available from a single processor configuration.
V	Cloud- SaaS	Optimized for orchestration efficiency that delivers higher core counts and VMs per rack.
Y	Speed Select ¹	Intel® SST-Performance Profile (PP) increases base frequency when fewer cores are enabled. Allows greater flexibility, deployment options and platform longevity.

Notes:

- Covers the Intel public offering only.
- New Built-in Accelerators.
 - 1 to 8 socket support
 - Intel® Data Streaming Accelerator (DSA)
 - Intel® Dynamic Load Balancer (DLB)
 - Intel® Quick Assist Technology (QAT)
 - Intel® In-Memory Analytics Accelerator (IAA)
- Increased memory bandwidth with 8 channels DDR5, up to 4800 MT/s, 4.0TB maximum RAM per socket.
- Increased I/O bandwidth up to 80 PCIe 5.0 lanes per socket, and new Compute Express Link (CXL).
- Built-in AI Acceleration: Intel® Advanced Matrix Extension (AMX)
- Hardware-enhanced Security: Enhanced Intel® Software Guard Extensions (SGX) – with new cryptographic memory integrity
- Increased Multi-Socket Bandwidth with new UPI2.0 (up to 16GT/s) with maximum 4 UPI Links
- New FlexBus I/O Interface PCIe5.0 + CXL
- ¹ The 4th Generation Intel® Xeon® Scalable Processors are featured with Intel Speed Select Technology (SST) for Infrastructure as a Service, Networking and Virtualized environments workloads. The SST includes,
 - SST- Performance Profile
 - SST- Base Frequency
 - SST- Core Power

Standard Features

- o SST- Turbo Frequency
- Default setting in ROM-Based Setp Utility (RBSU) as shown.

Intel® SST Features	RBSU Options	Granular Control over CPU Performance	Default Setting
SST- Performance Profile	Dynamic Intel® Speed Select Technology – Performance Profile	Allows the CPU to run in one of three performance profiles	CPU hardware-based. Enabled by default
SST-Base Frequency	Intel® Speed Select Technology – Base Frequency	Enables some CPU cores to run at a higher base frequency in return for other cores running at a lower base frequency	Disabled by default
SST-Core Power	Intel® Speed Select Technology – Core Power	Allows software to prioritize with cores will receive excess power after satisfying minimum requirements	Disabled by default
Intel SST Turbo Frequency	Intel® Turbo Boost Technology	Allows software-selected cores to achieve a higher max turbo frequency by reducing other cores' max turbo frequency	Enabled by default

5th Generation Intel® Xeon® Scalable Processor Family (Platinum)

Intel® Xeon® Models	CPU Frequency	Cores	L3 Cache	Power	UPI	DDR5	SGX Enclave size
Intel Xeon-Platinum 8562Y+ Processor for HPE	2.8 GHz	32	60.0MB	300W	3	5600 MT/s	512 GB
Intel Xeon-Platinum 8568Y Processor for HPE	2.3 GHz	48	300 MB	350W	4	5600 MT/s	512 GB
Intel Xeon-Platinum 8570 Processor for HPE	2.1 GHz	56	300 MB	350W	4	5600 MT/s	512 GB
Intel Xeon-Platinum 8580 Processor for HPE	2.0 GHz	60	300 MB	350W	4	5600 MT/s	512 GB
Intel Xeon-Platinum 8592+ Processor for HPE	1.9 GHz	64	320 MB	350W	4	5600 MT/s	512 GB
Intel Xeon-Platinum 8558 Processor for HPE	2.1 GHz	48	260 MB	330W	4	5200 MT/s	512 GB
Intel Xeon-Platinum 8558U Processor for HPE	2.0 GHz	48	260 MB	300W	0	4800 MT/s	512 GB
Intel Xeon-Platinum 8592V Processor for HPE	2.0 GHz	64	320 MB	330W	3	4800 MT/s	512 GB
Intel Xeon-Platinum 8558P Processor for HPE	2.7 GHz	48	260 MB	350W	3	5600 MT/s	512 GB
Intel Xeon-Platinum 8581V Processor for HPE	2.0 GHz	60	300 MB	270W	0	4800 MT/s	512 GB

Standard Features

5th Generation Intel® Xeon® Scalable Processor Family (Gold 6)							
Intel® Xeon® Models	CPU Frequency	Cores	L3 Cache	Power	UPI	DDR5	SGX Enclave size
Intel Xeon-Gold 6526Y Processor for HPE	2.8 GHz	16	37.5 MB	195W	3	5200 MT/s	128 GB
Intel Xeon-Gold 6542Y Processor for HPE	2.9 GHz	24	600 MB	250W	3	5200 MT/s	128 GB
Intel Xeon-Gold 6548Y+ Processor for HPE	2.5 GHz	32	600 MB	250W	3	5200 MT/s	128 GB
Intel Xeon-Gold 6534 Processor for HPE	3.9 GHz	8	22.5 MB	195W	3	4800 MT/s	128 GB
Intel Xeon-Gold 6544Y Processor for HPE	3.6 GHz	16	45.0 MB	270W	3	5200 MT/s	128 GB
Intel Xeon-Gold 6530 Processor for HPE	2.1 GHz	32	130 MB	270W	3	4800 MT/s	128 GB
Intel Xeon-Gold 6538Y+ Processor for HPE	2.2 GHz	32	60.0 MB	225W	3	5200 MT/s	128 GB
Intel Xeon-Gold 6538N Processor for HPE	2.1 GHz	32	60.0 MB	205W	3	5200 MT/s	128 GB
Intel Xeon-Gold 6548N Processor for HPE	2.8 GHz	32	60.0 MB	250W	3	5200 MT/s	128 GB
Intel Xeon-Gold 6554S Processor for HPE	2.2 GHz	36	180 MB	270W	4	5200 MT/s	128 GB

4th Generation Intel® Xeon® Scalable Processor Family (Platinum)							
Intel® Xeon® Models	CPU Frequency	Cores	L3 Cache	Power	UPI	DDR5	SGX Enclave size
Platinum 8480+ Processor	2.0 GHz	56	105 MB	350W	4	4800 MT/s	512 GB
Platinum 8470 Processor	2.0 GHz	52	105 MB	350W	4	4800 MT/s	512 GB
Platinum 8470Q Processor	2.1 GHz	52	105 MB	350W	4	4800 MT/s	512 GB
Platinum 8470N Processor	1.7 GHz	52	105 MB	300W	3	4800 MT/s	128 GB
Platinum 8468 Processor	2.1 GHz	48	105 MB	350W	4	4800 MT/s	512 GB
Platinum 8468V Processor	2.4 GHz	48	97.5 MB	330W	3	4800 MT/s	128 GB
Platinum 8462Y+ Processor	2.8 GHz	32	60.0 MB	300W	3	4800 MT/s	128 GB
Platinum 8460Y1+2 Processor	2.0 GHz	40	105 MB	300W	4	4800 MT/s	128 GB
Platinum 8458P Processor	2.7 GHz	44	82.5 MB	350W	3	4800 MT/s	512 GB
Platinum 8452Y1 Processor	2.0 GHz	36	67.5 MB	300W	4	4800 MT/s	128GB
Platinum 8444H Processor	2.9GHz	16	45	270W	4	4800 MT/s	512
Platinum 8490H Processor	1.9GHz	60	112.5	350W	3	4800 MT/s	512

Notes:

- One or two processor(s) with TDP equal to or greater than 186W through 270W require High Performance Heatsink Kit (P48905-B21) and High Performance Fan Kit (P48908-B21)
- Two processors with TDP equal or greater than 271W require Closed-loop Liquid Cooling Heat Sink Fan FIO Bundle Kit (P48906-B21)
- Intel® Speed Select enabled processors: Platinum 8468V, 8460Y+, 8458P and 8452Y



Standard Features

4 th Generation Intel® Xeon® Scalable Processor Family (Gold 6)							
Intel® Xeon® Models	CPU Frequency	Cores	L3 Cache	Power	UPI	DDR5	SGX Enclave size
Gold 6458Q Processor	3.1 GHz	32	60 MB	350W	3	4800 MT/s	128 GB
Gold 6454S Processor	2.2 GHz	32	60 MB	270W	4	4800 MT/s	128 GB
Gold 6430 Processor	2.1 GHz	32	60 MB	270W	3	4400 MT/s	128 GB
Gold 6414U Processor ¹	2.0 GHz	32	60 MB	250W	-	4800 MT/s	128 GB
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	3.0 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

4 th 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	-	4400 MT/s	128 GB

4 th 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:

- ¹Single socket capable, no dual socket support
- One or two processor(s) with TDP equal to or greater than 186W through 270W require High Performance Heatsink Kit (P48905-B21) and High Performance Fan Kit (P48908-B21)
- Two processors with TDP equal or greater than 271W require Closed-loop Liquid Cooling Heat Sink Fan FIO Bundle Kit (P48906-B21)



Standard Features

Chipset

Intel® C741 Chipset (Code Name: Product formerly Emmitsburg)

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>

System Management Chipset

HPE iLO 6 ASIC

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

Memory

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

Notes:

- All processors support up to 4TB memory per socket.
- The maximum memory speed is limited by the processor selection.
- To realize the performance memory capabilities listed in this document, HPE DDR5 Smart Memory is required.
- For additional information, please visit the [HPE Memory QuickSpecs and Technical White Papers or HPE DDR5 Smart Memory QuickSpecs](#).

Memory Protection

Advanced ECC

Advanced ECC uses single device data correction to detect and correct single and all multibit error that occurs within a single DRAM chip.

Online Spare

Memory online spare mode detects a rank that is degrading and switches operation to the spare rank.

Notes: For more information see our [Memory RAS feature technical whitepaper](#).

PCIe Expansion Slots

Primary Riser (default in chassis)					
Expansion Slots #	Technology	Bus Width	Connector Width	Processor	Slot Form Factor
1	PCIe 5.0	x16	x16	CPU 1	Full-height, half-length, up to 9.5" length
2	PCIe 5.0	x16	x16	CPU 1	Half-height (Low-profile), up to 9.5" length

Notes: The specifications above correspond with the default primary butterfly riser, which comes with CTO chassis

Secondary Riser*					
Expansion Slots #	Technology	Bus Width	Connector Width	Processor	Slot Form Factor (two options)
3	PCIe 5.0	x16	x16	CPU 2	-Half-height (Low-profile), up to 9.5" or -Full-height, half-length, up to 9.5" length

Notes:

- If Secondary riser is selected, then 2 Processor must be selected.
- If secondary FH riser is installed, then primary PCIe Slot #2 cannot be used, maximum 2 quantity of PCIe cards can be selected.
- If secondary FH riser is not selected, then maximum 1 quantity of FH PCIe cards can be selected.



Standard Features

- If secondary riser is not selected and "NS204i-u Rear Cable Kit" is not selected, then maximum 2 quantity of PCIe cards can selected.
- If secondary riser is not selected and "NS204i-u Rear Cable Kit" is selected, then maximum 1 quantity of PCIe cards can selected.
- If Secondary LP riser and "NS204i-u Rear Cable Kit" are selected, then maximum 2 quantity of PCIe cards can selected.
- If Secondary LP riser is selected and "NS204i-u Rear Cable Kit" is not selected, then maximum 3 quantity of PCIe cards can selected.
- All PCIe Slots support Wake-on-Lane (WoL) feature.

OCP Expansion Slots

OCP3.0 Slot Priority Support Matrix						
Rear wall		Selected OCP cards (Qty & type)				
OCP Slots #	Share NIC Feature	2 1xOROC ¹ + 1x NIC ²	1 1xNIC	1 2xNICs	1 1xOROC	2 2x OROCs
1	N/A	OROC	(Secondary)	NIC	OROC (Primary)	OROC ⁴ (Primary)
2	Available (Incl. Wake-on-Lane)	NIC	NIC (Primary)	NIC (Primary)	N/A ³	OROC ⁴

Notes:

- ¹ OCP form factor internal controller.
- ² OCP Networking card.
- ³ If only 1 OROC card is selected, by default connected from 8SFF backplane to OCP Slot1. And there is no controller cable can connect from 8SFF Backplane to OCP Slot 2.
- ⁴ If 2 OROC cards are selected, by default the 8SFF controller cable is connected to OCP Slot1 (the comparably higher-end OROC card to be selected by default) and the 2SFF backplane is connected to OCP Slot2 with another OROC card selected (comparably less high-end one) with 2FF controller cable.

Internal Storage Devices

- **Hard Drives**
None ship standard

Storage Controllers

NVMe Boot Devices

- HPE DX NS204i-u NVMe Hot Plug Boot Optimized Storage Device (P60454-B21)¹
- HPE ProLiant DX360 Gen11 NS204i-u Rear Cable Kit (P54702-B21)
- HPE ProLiant DX360 Gen11 NS204i-u Internal Cable Kit (P48920-B21)

DX360 Gen11 NS204i-u Enablement Kit Support Matrix				
Enablement Kit	Description	Field Inst.	NS204i-u Location	Hot-plug Capability
P54702-B21	HPE ProLiant DX360 Gen11 NS204i-u Rear Cable Kit	Yes	PCIe Slot 2	Yes
P48920-B21	HPE ProLiant DX360 Gen11 NS204i-u Internal Cable Kit	Yes	Internal	N/A

Performance RAID Controllers

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



Standard Features

Maximum Storage

Storage	Capacity	Configuration
Hot Plug SFF SAS HDD	24.0 TB	8+2 x 2.4 TB (with optional 2 SFF cage on UMB)
Hot Plug SFF SAS SSD	153.6 TB	8+2 x 15.36 TB (with optional 2 SFF cage on UMB)
Hot Plug SFF U.3 NVMe PCIe SSD	153.6 TB	8+2 x 15.36 TB (with optional 2 SFF cage on UMB)
NVMe M.2 SSD - Standard	960 GB	2 x 480 GB (shipped with HPE DX NS204i-u Gen11 NVMe Hot Plug Boot Optimized Storage Device)

Graphics

Integrated video standard

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

HPE iLO 6 on system management memory

- 32 MB Flash
- 8 Gbit DDR4 with ECC protection

Power Supply

- HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit
Notes: Available in 94% and 96% efficiency.
- HPE 1000W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit
Notes: Available in 96% efficiency.
- HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit
Notes:
 - Available in 94% efficiency.
 - 1600W Power supplies only support high line voltage (200 VAC to 240 VAC).

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.

All pre-configured servers ship with a standard 6-foot IEC C-13/C-14 jumper cord (A0K02A). This jumper cord is also 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 visit the HPE Power Advisor located at: [HPE Power Advisor](#)

For information on power specifications and technical content visit [HPE Server power supplies](#).

Standard Features

Interfaces

Serial	1 port - Optional
Video	1 Front - Display port (optional) 1 Rear - VGA port (standard on all models) Notes: Both ports are not active simultaneously.
Network Ports	None. Choice of OCP or stand up card, supporting a wide arrange of NIC adapters. BTO models will come pre-selected with a primary networking card.
HPE iLO Remote Mgmt Port at rear	1 GbE Dedicated
Front iLO Service Port	1 standard
USB	5 standard on all models: 1 front, 2 rear, 2 internal +1 optional at the front • Front: 1 USB 3.2 Gen1 + iLO service port • Rear: 2 USB 3.2 Gen1 • Internal: 1 USB 3.2 Gen1 + 1 USB 2.0 • Optional: 1 Front USB 2.0

Operating Systems and Virtualization Software

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

- [VMware ESXi: 7.0 U3, 8.0](#)
- [Nutanix AHV](#)

Industry Standard Compliance

- ACPI 6.4 Compliant
- PCIe 5.0 Compliant
- WOL Support
- Microsoft® Logo certifications
- PXE Support
- VGA
- Display Port
Notes: This support is on the optional Universal Media Bay.
- USB 3.2 Gen1 Compliant
- USB 2.0 Compliant (only on optional Universal Media Bay and embedded internal USB)
- SMBIOS 3.4
- Redfish API
- IPMI 2.0
- Secure Digital 4.0
- Embedded TPM 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 (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>
- At Standard Operating Support conditions, there is no time limitation for operating the servers in ASHRAE Class A2 conditions, unless otherwise specified in the applicable product information.

- EU Lot9

Notes: European Union (EU) eco-design regulations for server and storage products, known as Lot 9, establishes power thresholds for idle state, as well as efficiency and performance in active state which vary among configurations. HPE ProLiant Gen11 servers are compliant with Lot9 requirements.

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

Notes: UEFI is the default for the DX360 Gen11.

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.

Embedded Management

HPE Integrated Lights-Out (HPE iLO)

Monitor your servers for ongoing management, service alerting, reporting and remote management with HPE iLO.

Learn more at <http://www.hpe.com/info/ilo>.

UEFI

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

Learn more at <http://www.hpe.com/servers/uefi>.

Standard Features

Security

- UEFI Secure Boot and Secure Start support
- Immutable Silicon Root of Trust
- FIPS 140-2 validation
- Common Criteria certification
- Configurable for PCI DSS compliance
- Advanced Encryption Standard (AES) and Triple Data Encryption Standard (3DES) on browser
- Support for Commercial National Security Algorithms (CNSA)
- iLO Security Modes
- Granular control over iLO interfaces
- Smart card (PIV/CAC) and Kerberos based 2-factor Authentication
- Tamper-free updates – components digitally signed and verified
- Secure Recovery – recover critical firmware to known good state on detection of compromised firmware
- Ability to rollback firmware
- Secure erase of NAND/User Data
- TPM 2.0 (Trusted Platform Module 2.0)
- Chassis Intrusion detection option

HPE Trusted Platform Module

HPE Trusted Platform Module 2.0 is included on Pre-Configured models and can be enabled and disabled using the BIOS.

Notes: The TPM (Trusted Platform Module) is a microcontroller chip that can securely store artifacts used to authenticate the server platform. These artifacts can include passwords, certificates, and encryption keys.

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/completecure>

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 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.
- Some options may not be integrated at the factory. Contact your local sales representative for additional information

Step 1: Base Configuration (choose one of the following configurable models)

CTO Server models do not include embedded LOM. To enable networking capability please select a validated alternative NIC – OCP or PCIe- from the Core Options section.

CTO Server	HPE DX360 Gen11 8SFF CTO Server	HPE DX360 Gen11 10SFF NVMeCTO Server
SKU Number	P52498-B21	P52499-B21
HPE Trusted Supply Chain	Standard: P36394-B21	
Processor	Not included as standard	
DIMM Slots	32-DIMM slots	
DIMM Blanks	DIMM Blanks are required, embedded and shipped as default in all CTO Servers	
Storage Controller	HPE ProLiant Gen11 MR216i-o controller	
PCIe Slots	PCIe 5.0. One standard primary/butterfly riser: 2 slots as Slot 1 & Slot 2 (1 x16 FH / 1 x16 LP) and 4 x8 front NVMe connectors Optional: Slot 3 in 1 x16 FH or LP slot	
OCP3.0 Slots	PCIe 5.0: 2 slots (1x16/ 1x16)	
CTO Server	HPE DX360 Gen11 8SFF CTO Server	HPE DX360 Gen11 10 SFF NVMe CTO Server
Drive Cage – included	8SFF – x1 TriMode 24G SAS/SATA/U.3 NVMe	10SFF NVMe – default NVMe backplane
Network Controller	Customer is allowed to remove and select other cards (PCIe or OCP) from Networking category. Choice of OCP3.0 or stand-up cards for primary networking selection plus additional/optional stand-up networking adapters. Notes: – No embedded networking from motherboard. – ¹ In 1 Processor configuration, “CPU1 to OCP2 x8 Enablement Kit” will be selected as default as OCP NIC is pre-selected at OCP Slot 2, to be defaulted in the configurator if 1 Processor is selected. Customer is allowed to remove if OCP NIC is not selected but need to be replaced by a PCIe standup NIC. Meanwhile, the “CPU1 to OCP2 x8 Enablement Kit” will be removed. – ¹ “CPU2 to OCP2 x8 Enablement Kit” or “CPU2 to OCP2 x16 Enablement Kit” must be selected if OCP NIC is selected in 2 Processors configuration. “CPU2 to OCP2 x8 Enablement Kit” to be defaulted in the configurator if 2 Processors are selected. User should be allowed to remove “CPU2 to OCP2 x8 Enablement Kit” and should be forced select “CPU2 to OCP2 x16 Enablement Kit” if OCP NIC is selected. Customer is allowed to remove if OCP NIC is not selected but need to be replaced by a PCIe standup NIC. Meanwhile, the “CPU2 to OCP2 x8 Enablement Kit” will be removed.	

Configuration Information

Fans	Choice of High Performance Fan Kits Standard
Management	HPE iLO Advanced (standard)
Video Output	Rear: 1 VGA Optional: 1 Front Display Port (standalone in 8SFF; USB2.0+ Display Port bundle kit in 4LFF), 1 Rear Serial Port
USB	Front: 1 USB 3.2 Gen1 + iLO service port Rear: 2 USB 3.2 Gen1 Internal: 1 USB 3.2 Gen1 + 1 USB2.0 Optional: 1 Front USB 2.0
Security	TPM2.0 (Trusted Platform Module) embedded Notes: Disabled on shipments to China
Rail Kit	Optional Easy Install rails and CMA Notes: Server does not support shelf mounted rail kits ("L" brackets).
Form Factor	1U Rack
Warranty	3-year parts, 3-year labor, 3-year onsite support with next business day response.

Notes:

- All DX360 Gen11 CTO Server models require a networking selection of a network adapters in the "HPE Networking" section.
- Minimum One card (PCIe or OCP) must be selected from Networking
- 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.

Step 2: Choose Core Options

- Mixing of 2 different processor models is not supported.
- CTO server will populate necessary heatsink and fan kits per system thermal requirements and processor models
- DIMM Blanks are pre-selected as default, minimum Q'ty 1 of memory need to be selected in 1 Processor configuration, and minimum Q'ty 2 of memory need to be selected in 2 Processor configuration
- Factory Configuration Settings
- Choice of riser card for PCIe5.0 slots enablement
- Choice of Networking solution

Step 3: Choose Additional Options

- Choice of Accessories
- Choice of GPGPU



Core Options

Choose Core Options

Processor

Please select one or two matching processors.

For example: for a single Xeon-Platinum 8470 processor configuration select 1x P49606-B21. If dual Xeon-Platinum 8470 processor configuration, select 2x P49606-B21.

Notes:

- Mixing of 2 different processor models is not supported.
- CTO server will populate necessary fan kits per system thermal requirements and processor models, minimum as 5 standard fans. Dual processor configurations require 7 fans, either standard or high performance.
- Processors with Wattage equal to or greater than 186W require High Performance Heatsink (P48905-B21).
- Processors with Wattage equal to or greater than 186W require High Performance Fan Kit (P48908-B21).
- If Processor Wattage is more than 271W, then Closed-loop LC Heat Sink Fan Bundle FIO Kit must be selected (P48906-B21).
- If 8470Q Processor is selected, then SAS drive/ NVMe drive cannot be selected in the server. Only 8xSATA HDD can be selected.

4th Generation Intel Xeon-Platinum

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

Intel Xeon-Platinum 8480+ 2.0GHz 56-core 350W FIO Processor for HPE DX	P62396-B21
Intel Xeon-Platinum 8470 2.0GHz 52-core 350W FIO Processor for HPE DX	P62395-B21
Intel Xeon-Platinum 8470Q 2.1GHz 52-core 350W FIO Processor for HPE DX	P62399-B21
Intel Xeon-Platinum 8470N 1.7GHz 52-core 300W FIO Processor for HPE DX	P62401-B21
Intel Xeon-Platinum 8468 2.1GHz 48-core 350W FIO Processor for HPE DX	P62394-B21
Intel Xeon-Platinum 8468V 2.4GHz 48-core 330W FIO Processor for HPE DX	P62402-B21
Intel Xeon-Platinum 8462Y+ 2.8GHz 32-core 300W FIO Processor for HPE DX	P62411-B21
Intel Xeon-Platinum 8460Y+ 2.0GHz 40-core 300W FIO Processor for HPE DX	P62393-B21
Intel Xeon-Platinum 8458P 2.7GHz 44-core 350W FIO Processor for HPE DX	P62403-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
Intel Xeon-Platinum 8490H 1.9GHz 60-core 350W Processor for HPE	P49630-B21

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-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

4th Generation Intel Xeon-Gold 6

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

Intel Xeon-Gold 6458Q 3.1GHz 32-core 350W FIO Processor for HPE DX	P62417-B21
Intel Xeon-Gold 6454S 2.2GHz 32-core 270W FIO Processor for HPE DX	P62404-B21
Intel Xeon-Gold 6448Y 2.1GHz 32-core 225W FIO Processor for HPE DX	P62408-B21
Intel Xeon-Gold 6444Y 3.6GHz 16-core 270W FIO Processor for HPE DX	P62410-B21
Intel Xeon-Gold 6438Y+ 2.0GHz 32-core 205W FIO Processor for HPE DX	P62416-B21
Intel Xeon-Gold 6438N 2.0GHz 32-core 205W FIO Processor for HPE DX	P62420-B21

Core Options

Intel Xeon-Gold 6434 3.7GHz 8-core 195W FIO Processor for HPE DX	P62409-B21
Intel Xeon-Gold 6430 2.1GHz 32-core 270W FIO Processor for HPE DX	P62397-B21
Intel Xeon-Gold 6421N 1.8GHz 32-core 185W FIO Processor for HPE DX	P62423-B21
Intel Xeon-Gold 6414U 2.0GHz 32-core 250W FIO Processor for HPE DX	P62400-B21
Intel Xeon-Gold 6426Y 2.5GHz 16-core 185W FIO Processor for HPE DX	P62406-B21
Intel Xeon-Gold 6442Y 2.6GHz 24-core 225W FIO Processor for HPE DX	P62407-B21
Intel Xeon-Gold 6416H 2.2GHz 18-core 165W Processor for HPE	P49620-B21
Intel Xeon-Gold 6418H 2.1GHz 24-core 185W Processor for HPE	P49621-B21
Intel Xeon-Gold 6448H 2.4GHz 32-core 250W Processor for HPE	P49622-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
Intel Xeon-Gold 6554S 2.2GHz 36-core 270W Processor for HPE	P67110-B21

4th Generation Intel Xeon-Gold 5

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

5th Generation Intel Xeon-Gold 5

Intel Xeon-Gold 5515+ 3.2GHz 8-core 165W Processor for HPE	P67079-B21
Intel Xeon-Gold 5520+ 2.2GHz 28-core 205W Processor for HPE	P67094-B21

4th Generation Intel Xeon-Silver

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



Core Options

Heatsinks

For more details, please refer to the support matrix in Power and Cooling solutions (Additional Option section)

HPE ProLiant DL3XX/560 Gen11 High Performance Heat Sink Kit

P48905-B21

Notes:

- If Processor Wattage is more than 185W and less than or equal to 270W, then "Performance Heatsink" and "Performance Fan" must be selected.
- Quantity of Processor and Quantity of Heatsink must match.

Memory

Please select one or more memory DIMMs from below.

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

<http://www.hpe.com/docs/memory-population-rules>

Server memory population rules for HPE Gen11 servers with 4th Gen Intel Xeon Scalable processors

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

Notes:

- The maximum memory speed and capacity is a function of the memory type, memory configuration, and processor model.
- Quantity of memory DIMMs selected per socket must be 1, 2, 4, 6, 8, 12 or 16.
- x8 and x4 cannot be mixed.
- 3DS and non-3DS Memory cannot be mixed.
- Mixing of different Rank Memory is not allowed if less than 16 quantity of Memory is selected for 1 Processor configuration.
- Mixing of different Rank Memory is not allowed if less than 32 quantity of Memory is selected for 2 Processor configuration.
- If different Rank Memory are mixed, then quantity of each Memory part number must be same.
- If 256GB Memory is selected, will be limited to 1P1D, thus Maximum of 8 can be selected per Processor.
- If 256GB Memory is selected, then high speed Networking/ InfiniBand card (PCIe and OCP), that is 100G or more, cannot be selected.
- Long boot time may be introduced because of DDR5 initialization takes much longer than last generation DDR4, as an industry impact. HPE ProLiant server boot times will go through multiple reboots during POST for default restore.
- If 256GB Memory is selected, will be limited using 7x performance fan or CLC fan (not allow standard fan), and limit at 25C.

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 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: If 256GB DIMM is selected, then high speed Networking/ InfiniBand card (PCIe and OCP) that is 100G or more cannot be selected.

Core Options

HPE DIMM blanks

HPE DDR4 DIMM Blank Kit

P07818-B21

Notes: Required, embedded and shipped as default in all CTO Servers. Leverage the same from, DL360 Gen10 Plus DIMM Blank.

Storage Devices

Hardware Storage Controller

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

P47789-B21

SSD – Read Intensive (max 8)

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 FIO SSD

P75500-B21

HPE DX 3.84TB SAS Read Intensive SFF BC Multi Vendor SSD

P75498-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

SSD – Mixed Use (max 8)

Mixed Use - 24G 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

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

NVMe – SSD – Read Intensive (max 10)

Read Intensive - NVMe - SFF - Solid State Drives

HPE DX 15.36TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PM1733a FIO SSD

P57771-B21

HPE DX 7.68TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PM1733a FIO SSD

P57769-B21

HPE DX 7.68TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 Static Multi Vendor FIO SSD

P57759-B21

HPE DX 3.84TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PM1733a FIO SSD

P57767-B21

HPE DX 3.84TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 Static Multi Vendor FIO SSD

P57758-B21

HPE DX 1.92TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PM1733a FIO SSD

P57765-B21

HPE DX 1.9TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 Static Multi Vendor FIO SSD

P57757-B21

Core Options

NVMe – SSD Mixed Use (max 10)

Mixed Use - NVMe - SFF - Solid State Drives

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

Factory Configuration Settings

Each of the following may be selected if desired at time of factory integration

iLO Common Password - Standard

HPE iLO Common Password FIO Setting	P08040-B21
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Notes:

- It is advisable to match the order quantity of this SKU matching the quantity of servers being ordered.
- Below Warning message to be displayed in the configurators upon the selection of this SKU:
- "Use of iLO Common Password SKU sets the initial iLO password to be a well-known string rather than a random password. It is advisable to match the order quantity of this SKU matching the quantity of servers being ordered."
- 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

Riser Cards

Standard Primary (Butterfly) Riser: (embedded in all CTO adn BTO Server)

- Slot 1 - 1x PCIe 5.0 x16 FHHL
- Slot 2 - 1x PCIe 5.0 x16 LP

Notes: If Hot-plug NS204i-u is installed, the Slot 2 cage need to be removed

HPE ProLiant DL360 Gen11 x16 Full Height Riser Kit	P48901-B21
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Notes:

- Referred as Secondary FH riser.
- 2nd Processor is required.
- Slot 3: 1x PCIe5.0 x 16 FHHL
- If both 4P Networking (Base-T and Full-Height) and Half-Height Internal PCIe controller are selected, then Secondary FH riser cannot be selected.

HPE ProLiant DX360 Gen11 x16 Low Profile FIO Riser Kit	P62803-B21
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Notes:

- Referred as Secondary Low Profile (LP) riser.
- 2nd Processor is required.
- Slot 3: 1xPCIe5.0 x 16 LP



Core Options

Riser Information ^{*,**}										
Part number	Description	Riser position		Slot Bus width (Gen5 lanes)			GPU Support	NVMe Direct Connect		M.2 Connec.
		Prim.	Sec.	#1	#2	#3		Connectors	Max SSDs	
(default in chassis)	HPE DL360 Gen11 x16/x16 Primary Riser	D	N/A	x16	x16	N/A	Y	N/A	N/A	N/A
P48901-B21	HPE ProLiant DX360 Gen11 x16 Full Height Riser Kit ¹	N/A	O	N/A	N/A ¹	x16	Y	N/A	N/A	N/A
P48903-B21	HPE ProLiant DX360 Gen11 x16 LP Riser Kit	N/A	O	N/A	N/A	x16	Y ²	N/A	N/A	N/A

Notes:

- D = Default on server; O = Optional; N = not supported or slot/connector not present.
- Quantity of Processor and Quantity of Heatsink must match.
- ¹When secondary full height kit is installed, then primary PCIe Slot 2 cannot be used. Only 2 full height slots are supported.
- ²GPU max 75W
- If Secondary riser is selected, then 2 Processor must be selected.
- If secondary riser is not selected and "NS204i-u Rear Cbl Kit" is not selected, then maximum 2 quantity of PCIe cards can be selected.
- If secondary FH riser is not selected, then maximum 1 quantity of FH PCIe cards can be selected.
- If secondary riser is not selected and "NS204i-u Rear Cbl Kit" is selected, then maximum 1 quantity of PCIe cards can be selected.
- If Secondary FH riser is selected, then maximum 2 quantity of PCIe cards can be selected.
- If Secondary LP riser is selected and "NS204i-u Rear Cbl Kit" is not selected, then maximum 3 quantity of PCIe cards can be selected.
- If Secondary LP riser and "NS204i-u Rear Cbl Kit" are selected, then maximum 2 quantity of PCIe cards can be selected.
- 4 ports base-T Low Profile NIC adapters are not allowed to be installed at Slot 2 (P51178-B21, P21106-B21)
- All DX360 Gen11 Riser cards are designed in x16 PCIe slot form factor (physical length) as well as in full x16 lanes of PCIe5.0 as electrical bandwidth.

PCIe Slotting

Configuration 1: Primary Riser only (default in chassis)		
Riser	(Primary as default)	
Slot Number	Slot 1	Slot 2
Bus Width	x16	x16
Form Factor	FHHL	HHHL (LP)
PCIe adapter	Slot Priority	
-PCIe x16	1	2
-PCIe x8	1	2
-PCIe x4	1	2
-PCIe x1	1	2

Core Options

Configuration 2: Primary Riser (default in chassis) & Secondary FH Riser, 2 CPUs

Riser	(Primary as default)		Secondary (P48901-B21)
Slot Number	Slot 1		Slot 3
Bus Width	x16	N/A	x16
Form Factor	FHHL		FHHL
PCIe adapter	Slot Priority		
-PCIe x16	1		2
-PCIe x8	1	N/A	2
-PCIe x4	1		2
-PCIe x1	1		2

Configuration 3: Primary Riser (default in chassis) & Secondary HH/LP Riser, 2 CPUs

Riser	(Primary riser as default)		Secondary (P48903-B21)
Slot Number	Slot 1	Slot 2	Slot 3
Bus Width	x16	x16	x16
Form Factor	FHHL	HHHL (LP)	HHHL (LP)
PCIe adapter	Slot Priority		
-PCIe x16	1	3	2
-PCIe x8	1	3	2
-PCIe x4	1	3	2
-PCIe x1	1	3	2
-2xControllers	1	2	N/A

Installation Rules

Priority	Description & Rules
1	x16 electrical bandwidth card to x16 electric slot
2	x8 electrical card to x8 electric slot
3	x8 electrical card to x16 electric slot

Priority from Card Types

Priority	Description & Rules
2	4-Port Networking PCIe Adapter (restricted in Slot 2)
4	GPGPU Adapters
5	Others

OS Boot Device - Standard

HPE DX NS204i-u Gen11 NVMe Hot Plug Boot Optimized FIO Storage Device

P60454-B21

HPE ProLiant DL360 Gen11 NS204i-u Internal Cable Kit

P48920-B21

HPE ProLiant DL360 Gen11 NS204i-u Rear Cable Kit

P54702-B21

DX360 Gen11 NS204i-u Enablement Kit Support Matrix

Enablement Kit	Description	Field Inst.	NS204i-u Location	Hot-plug Capability
P54702-B21	HPE ProLiant DX360 Gen11 NS204i-u Rear Cable Kit	Yes	PCIe Slot 2 ²	Yes
P48920-B21	HPE ProLiant DX360 Gen11 NS204i-u Internal Cable Kit	Yes	Internal	N/A

Notes:

- ¹x4 PCIe Gen3.0 OS Boot device includes 2x 480GB M.2 NVMe SSDs, with preconfigured hardware RAID1.
- ²With removing the original PCIe Slot 2 cage and re-install the dedicated DX360 Gen11 NS204i-u cage, latch and cables in the P54702-B21. The NS204i-u will take up PCIe Slot 2 space only. The PCIe Slot 1 (FHHL) and PCIe Slot 3 (to be Low Profile) are available in the system with the selection of optional “HPE ProLiant DX360 Gen11 x16 LP Riser Kit (P48903-B21)”.

Core Options

- If NS204i-u is selected, then either NS204i-u Internal or Rear cable must be selected and vice versa.
- Both NS204i-u Internal and Rear cable cannot be selected together.
- If Secondary FH riser is selected, then "NS204i-u Rear Cbl Kit" cannot be selected.
- If 2SFF U.3 drive cage is connected to Direct Attach (without internal controller & 2SFF controller cable), then SATA drive cannot be selected in 2SFF drive cage when "NS204i-u Gen11 Hot Plug Boot Opt Dev" is selected.
- For additional information, please see the [HPE OS Boot Device QuickSpecs](#)

Networking

The thermal conditions variate as a combination of types of Networking PCIe OR OCP adapter in different DX360 Gen11 CTO Servers. In general:

- Standard Fan Kit cannot be selected when above 100GbE
- 256GB DIMM is not allowed when above 100GbE
- Ambient limitation will variate in the combination of Networking Adapter OR OCP bandwidth, DIMM capacity and cable type, incl. Direct Attach Copper (AOC) cable and Active Optical Cable (DAC)

A detailed ambient temperature recommendation upon high-speed networking adapters is described in later session.

Default settings in 8SFF CTO Server

- In 1 Processor configuration, "CPU1 to OCP2 x8 Enablement Kit" will be selected as default as "BCM5719 Ethernet 1Gb 4-port BASE-T OCP3 Adapter" is pre-selected at OCP Slot 2, to be defaulted in the configurator if 1 Processor is selected. Customer is allowed to remove if OCP NIC is not selected but need to be replaced by a PCIe standup NIC. Meanwhile, the "CPU1 to OCP2 x8 Enablement Kit" will be removed.

"CPU2 to OCP2 x8 Enablement Kit" or "CPU2 to OCP2 x16 Enablement Kit" must be selected if OCP NIC is selected in 2 Processors configuration. "CPU2 to OCP2 x8 Enablement Kit" to be defaulted in the configurator if 2 Processors are selected. User should be allowed to remove "CPU2 to OCP2 x8 Enablement Kit" and should be forced select "CPU2 to OCP2 x16 Enablement Kit" if OCP NIC is selected. Customer is allowed to remove if OCP NIC is not selected but need to be replaced by a PCIe standup NIC. Meanwhile, the "CPU2 to OCP2 x8 Enablement Kit" will be removed.

Ethernet PCIe

Mellanox MCX623106AS-CDAT Ethernet 100Gb 2-port QSFP56 FIO Adapter for HPE DX

P43273-B21

Notes:

- If 256GB Memory is selected, then high speed Networking/ InfiniBand card (PCIe and OCP) that is 100G or more cannot be selected.
- PCIe 4.0 x16// HL/ HH/ LP
- If above 100GbE Networking PCIe adapter or OCP adapter is selected, Standard Fan Kit cannot be configured.
- Minimum "1" capacity is not applicable when MLX MCX623106A 100G 2p QSFP56 FIO Adp DX Networking card is in the configuration. Minimum OCP can be 0 in this scenario.

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

P43271-B21

Notes: PCIe 3.0 x8// HH/ HL/ LP

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

P53862-B21

Notes: PCIe 4.0 x16// HH/ HL/ LP

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

P60340-B21

Notes: PCIe 4.0 x8// HH/ HL/ LP

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

P08443-B21

Notes: PCIe 4.0 x8// HH/ HL/ LP

Ethernet OCP

Broadcom BCM57416 Ethernet 10Gb 2-port BASE-T OCP3 FIO Adapter for HPE DX

P43272-B21

Notes: Minimum "1" capacity is not applicable when MLX MCX623106A 100G 2p QSFP56 FIO Adp DX Networking card is in the configuration. Minimum OCP can be 0 in this scenario.

Core Options

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

Notes: Minimum "1" capacity is not applicable when MLX MCX623106A 100G 2p QSFP56 FIO Adp DX Networking card is in the configuration. Minimum OCP can be 0 in this scenario.

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

Notes:

- Warning Message has to be displayed in the configurator any time this OCP card is selected: "CPU1 to OCP1 x16" or "CPU2 to OCP2 x16" OCP Upgrade kit can be selected with this OCP card if customer wants to have OCP x16 connectivity. With below restriction:
 - o OCP Slot 2 is the default OCP networking slot with the Share NIC & Wake-on-Lane features. The "CPU1 to OCP1 x16" will be available in only one OCP Networking card configuration, after April 2023.
 - o Yet the "CPU2 to OCP2x16" OCP Upgrade kit will be only available in two processor configurations.

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

Notes: Minimum "1" capacity is not applicable when MLX MCX623106A 100G 2p QSFP56 FIO Adp DX Networking card is in the configuration. Minimum OCP can be 0 in this scenario.

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

Notes: Minimum "1" capacity is not applicable when MLX MCX623106A 100G 2p QSFP56 FIO Adp DX Networking card is in the configuration. Minimum OCP can be 0 in this scenario.

OCP 3.0 Adapters

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

Notes: Minimum "1" capacity is not applicable when MLX MCX623106A 100G 2p QSFP56 FIO Adp DX Networking card is in the configuration. Minimum OCP can be 0 in this scenario.

Power and Cooling

Power Supplies

Please select one or two power supplies from below.

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

HPE DX 1600W Flex Slot Platinum Hot Plug Low Halogen FIO Power Supply Kit P18222-B21

HPE DX 800W Flex Slot Platinum Hot Plug Low Halogen FIO Power Supply Kit P18223-B21

HPE DX 800W Flex Slot Titanium Hot Plug Low Halogen FIO Power Supply Kit P18224-B21

HPE DX 1000W Flex Slot Titanium Hot Plug FIO Power Supply Kit P44807-B21

HPE DX 1800-2200W FS Ti HtPlg FIO PS Kit P56724-B21

HPE DX 1600W Flex Slot -48VDC Hot Plug FIO Power Supply Kit P60246-B21

Notes:

For EMEA Region: Commission Regulation (EU) 2019/424 laying down ecodesign requirements for servers and data-storage products applies from 1 March 2020. A more stringent (compared to the currently applicable values) value for the minimum power efficiency at 96% of PSUs will apply latest from, 1 January 2024, after deferral. For more details, please refer to Lot9 enforcement deferral notice "**European Union law Document 52022XC1209 (01)**"

Only supports high line voltage (200 VAC to 240 VAC).

Core Options

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.

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: [HPE Power Advisor](#)

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. 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 [HPE ProLiant Power Cables](#) web page.

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

Power Cooling Options

Heatsinks

HPE ProLiant DX360 Gen11 High Performance FIO Heat Sink Kit

P62372-B21

Notes:

- If Processor Wattage is equal to or greater than 186W and less than or equal to 270W, then "Performance Heatsink" and "Performance Fan" must be selected.
- Quantity of Processor and Quantity of Heatsink must match.
- If Liquid Cooling HeatSink is selected, then "High Perf Heat Sink" cannot be selected.

HPE ProLiant DX360 Gen11 Liquid Cooling FIO Heat Sink Kit

P62801-B21

Notes:

- Maximum quantity for LC Heat Sink is one per system.
- If Processor Wattage is more than 185W and less than or equal to 270W, then "Performance Heatsink" and "Performance Fan" must be selected.
- If Processor Wattage is more than 270W, then LC Heat Sink Kit must be selected. This applies to all processor SKUs for DX360 Gen11 including High Bandwidth Memory (HBM) processors.
- If Liquid Cooling HeatSink Fan FIO Bundle Kit is selected, then a 2P configuration must be selected.
- If Liquid Cooling HeatSink Fan FIO Bundle Kit is selected, then any Fans (Standard Fan Kit or High Performance Fan Kit) cannot be selected.
- If Liquid Cooling HeatSink Fan FIO Bundle Kit is selected, then "Standard heat Sink" or "High Perf Heat Sink" cannot be selected.
- The HPE DX360 Gen11 Closed-loop Liquid Cooling Heat Sink Fan FIO Bundle kit is designed as Factory Installation only & is not designated as a Customer Self-Repair (CSR) part to prevent damage to CPUs when customer is conducting the field upgrade on the Liquid Cooling modular itself or CPUs.
- The HPE DX360 Gen11 Closed-loop liquid Cooling Heat Sink Fan FIO Bundle kit contains (2) cold plates (1 per CPU) each with a pump, Tubes, (7) 4028 fans and a radiator. The LC Heat Sink option is designed to cool down the processor effectively using cooled inlet air.
- The water-cooling liquid is not corrosive for human body, but to avoid the risk of connection or damages in a longer term, it is recommended to wash hands after contact. There is no leak detection capability, yet the pumps inside of the system are redundant. If a pump or any of the components inside the solution fail, the CPU temperature or internal server temperature may increase leading to a iLO alert message.
- The HPE DX360 Gen11 Closed-loop liquid Cooling Heat Sink Fan FIO Bundle kit is offered with Standard (3/3/3) Warranty support along with the server. Customers are able to purchase extended support for years (4) and (5).
- This Cooling Solution is subject to a maximum usage (operational) limitation not to exceed (5) years and required to be replaced when this time limit has been reached. HPE recommends replacing the Closed-loop Liquid Cooling solution when it has reached the maximum (5) years of use. Parts and components that Hewlett Packard Enterprise determines have surpassed the standard (3) years warranty* will not be

Core Options

provided, repaired, or replaced under warranty coverage. Contact your local HPE sales representative for additional information.		
– * Or to the extended (4) or (5) years if warranty contract purchased, and subject to the maximum usage (operation) limitation of (5) years.		
Fan Kits - Standard		
HPE ProLiant DL3X0 Gen11 1U High Performance Fan Kit		P48908-B21
Notes:		
– Includes 7 fans, required by		
– Two processors with a TDP equal or greater than 186W and below 270Watt		

Security Options

Serurity Hardware

HPE Bezel Lock Kit		875519-B21
Notes:		
– Maximum 1 of each can be selected		
– If Bezel lock is selected, then "HPE DL3XX Gen11 1U Bezel Kit" or "HPE OEM Gen11 1U Bezel KIT" must be selected.		
HPE ProLiant DL3XX Gen11 Intrusion Cable Kit		P48922-B21
Notes:		
– Maximum 1 of each can be selected.		
– If "HPE Trusted Supply Chain FIO Config" is selected then "Gen11 Intrusion Cable Kit" must be selected.		
– If HPE Trusted Supply Chain FIO Config is selected, then Configurator should default "Gen11 Intrusion Cable Kit".		
HPE ProLiant Gen11 1U Common Bezel Kit		P50450-B21
Notes:		
– Maximum 1 of each can be selected.		
– If Bezel lock is selected, then "HPE DL3XX Gen11 1U Bezel Kit" or "HPE OEM Gen11 1U Bezel KIT" must be selected.		
– Both "HPE DL3XX Gen11 1U Bezel Kit" and "HPE OEM Gen11 1U Bezel KIT" cannot be selected together.		



Core Options

Software as a Service Management

Accessories

HPE Remove Standard Power Cords 469774-409

Notes: If "Remove Standard IEC-IEC Power Cords" is selected, then the following Warning message should be displayed: By selecting this option, you will not receive standard power cords with this server. Please verify that no power cords are needed for this server prior to proceeding with your order. If "Remove Standard Power Cords" is selected by mistake, then please make sure to de-select it.

Rack Options

HPE ProLiant DX Gen11 Easy Install FIO Rail 3 Kit P62374-B21

HPE ProLiant DX3XX Gen11 1U FIO Cable Management Arm for Rail Kit P60633-B21

Notes:

- HPE rail kits contain telescoping rails which allow for in-rack serviceability.
- 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.
- Maximum 1 of each can be selected.
- If CMA is selected, then Rail kit must be selected.
- ¹Supported with 8SFF CTO Model only.
- 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.



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 a Hewlett Packard Enterprise approved configurator. Contact your local sales representative for additional information.

Embedded Management

Software Skus

Nutanix AOS Pre-installed FIO Software for HPE	R6T15A
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HPE Support Services

Installation & Start-up Services

Tech Care

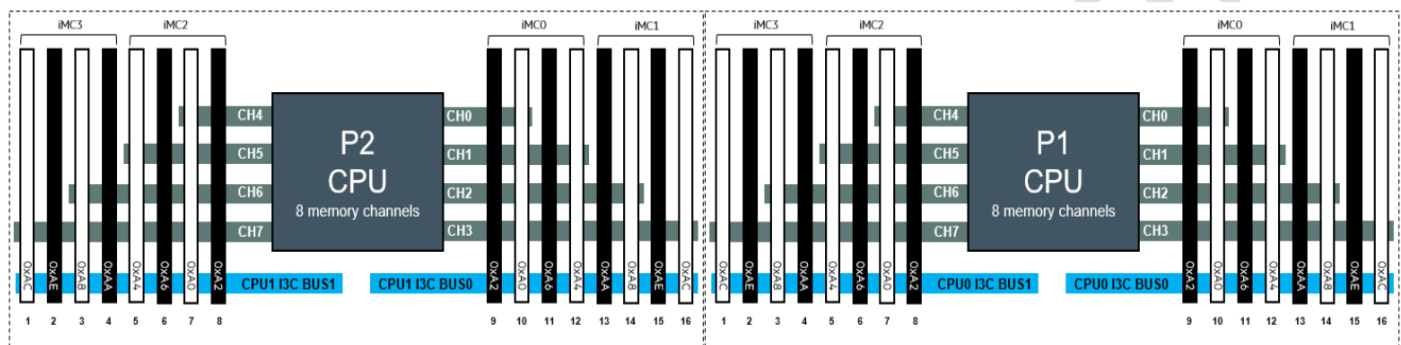
HPE 3 Year Tech Care Essential DL360 Gen11 HW Service	H93B6E
HPE 3 Year Tech Care Essential wDMR DL360 Gen11 HW Service	H93B7E
HPE 5 Year Tech Care Essential DL360 Gen11 HW Service	H93E0E
HPE 5 Year Tech Care Essential wDMR DL360 Gen11 HW Service	H93E1E

Notes: For a full listing of support services available for this server, please visit <http://www.hpe.com/services>.



Memory

Memory Population guidelines



Front End / HPE ProLiant DX360 Gen11

Notes:

- Listed below are general Memory Module Population Rules supported by the processor for reference.
- There is no longer a need to install DIMMs in pairs in non-RAS modes.
- The same information is displayed alternatively by rank, by speed, or by qty. That is, when viewing by rank, selecting a particular rank will then show the DIMM qty vs DIMM speed tradeoff/combinations. All DIMMs must be either all DDR5 DIMMs or DDR5 and Crow Pass DIMMs.
- There should be at least one DDR5 DIMM per socket.
- When one DIMM is used in a channel, it must be populated in DIMM slot farthest away from the CPU (DIMM slot 0) of a given channel.
- For 16 + 0 configuration with 1R + 2R mixed rank population, on each channel always populated the higher electrical load (2R) in DIMM0 followed by single rank DIMM in DIMM1.
- A maximum of 8 logical ranks (ranks seen by the host) per channel is allowed.
- For a DDR5 DIMM and Crow Pass DIMM in a channel, the DDR5 DIMM must be populated in the farthest DIMM slot (0), while CPS has to be in the nearest slot (1).
- All DIMMs in a Processor socket must have the same number of ranks (unless explicitly specified otherwise).
- x8 DIMMs and x4 DIMMs can not be mixed in the same channel or same Processor socket.
- Mixing of non-3DS and 3DS RDIMMs is not allowed in the same channel, across different channels, and across different sockets.
- 9x4 RDIMMs can not be mixed with another DIMM types (Crow Pass 10x4RDIMMs or Non 9x4 RDIMMs).
- All DDR5 DIMMs must operate at the same speed per Processor socket.
- Rank mixing is not allowed on a channel except for Standard RDIMM 1 Rank + 2 Rank combination, when all 16 DIMMs for a Processor socket is populated.
- Mixing vendor is allowed for RDIMMs, but it is not allowed for 3DS RDIMMS

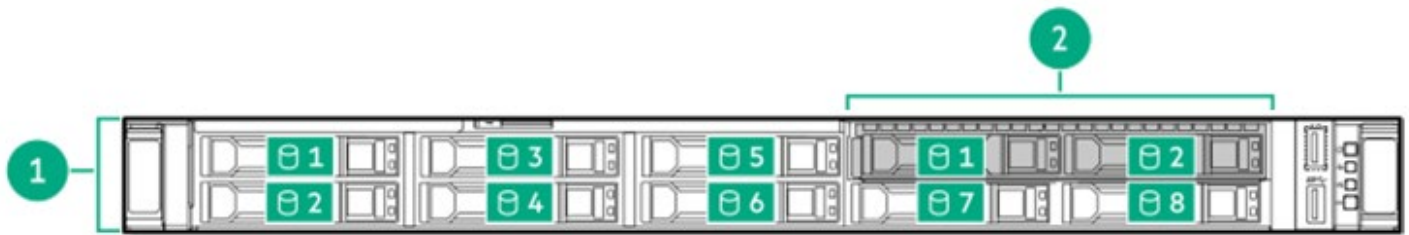
General Memory Population Rules and Guidelines

- 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, the number and model of installed processors qualified on the platform.

For additional information, please visit the [HPE Memory QuickSpecs and Technical White Papers](#) or [HPE DDR5 Smart Memory QuickSpecs](#).

Notes: The maximum memory speed is a function of the memory type, memory configuration, and processor model.

Storage



8 SFF + 2 SFF (optional) device bay numbering

Technical Specifications

System Unit

Dimensions (Height x Width x Depth)

SFF Drives

- 4.29 x 43.46 x 75.31 cm
1.69 x 17.11 x 29.65 in

LFF Drives

- 4.29 x 43.46 x 77.31 cm
- 1.69 x 17.11 x 30.43 in

Weight (approximate)

- **14.56 kg (32.1 lb.)**
 - **SFF minimum:** One drive, one processor, one power supply, two heatsinks, one Smart Array controller, and five fans.
- **20.44 kg (45.07 lb.)**
 - **SFF maximum:** 10 drives, two processors, two power supplies, two heatsinks, one Smart Array controller and seven fans.
- **14.95 kg (32.96 lb.)**
 - **LFF minimum:** one drive, one processor, one power supply, two heatsinks, one Smart Array controller and five fans.
- **21.58 kg (47.58 lb.)**
 - **LFF maximum:** Four drives, two processors, two power supplies, two heatsinks, one Smart Array controller and seven fans.

Input Requirements (per power supply)

Rated Line Voltage

- For 1600W (Platinum): 200-240 VAC
- For 1000W (Titanium): 100-240 VAC
- 800W (Platinum): 100-240 VAC

British Thermal Unit (BTU) Rating

Maximum

- For 1600W (Platinum) Power Supply: 5918 BTU/hr (at 200 VAC), 5888 BTU/hr (at 220 VAC), 5884 BTU/hr (at 240 VAC)
 - For 1000W (Titanium) Power Supply: 3741 BTU/hr (at 100 VAC), 3596 BTU/hr (at 200 VAC), 3582 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)
-



Technical Specifications

Power Supply Output (per power supply)

Rated Steady-State Power

- For 1600W (Platinum) Power Supply: 1600W (at 240 VAC), 1600W (at 240 VDC) input for China only
- For 1000W (Titanium) Power Supply: 1000W (at 100 VAC), 1000W (at 240 VAC), 1000W (at 240 VDC) input for China only
- For 800W (Platinum) Power Supply: 800W (at 100 VAC), 800W (at 240 VAC), 800W (at 240 VDC) input for China only

Maximum Peak Power

- For 1600W (Platinum) Power Supply: 1600W (at 240 VAC), 1600W (at 240 VDC) input for China only
- For 1000W (Titanium) Power Supply: 1000W (at 100 VAC), 1000W (at 240 VAC), 1000W (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

Notes: For more information, pls visit [HPE Flexible Slot Power Supplies](#)

System Inlet Temperature

- **Standard Operating Support**

10° to 35°C (50° to 95°F) at sea level with an altitude derating of 1.0°C per every 305 m (1.8°F per every 1000 ft) above sea level to a maximum of 3050 m (10,000 ft), no direct sustained sunlight. 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) or above 27°C (81°F) at 900M.

10° to 35°C (50° to 95°F) at 900M 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 27°C (81°F) at 900M and 30°C (86°F) at sea level.

The approved hardware configurations for this system are listed at the URL: <http://www.hpe.com/servers/ashrae>

- **Extended Ambient Operating Support**

For approved hardware configurations, the supported system inlet range is extended to be: 5° to 10°C (41° to 50°F) and 35° to 40°C (95° to 104°F) at sea level with an altitude derating of 1.0°C per every 175 m (1.8°F per every 574 ft) above 900 m (2953 ft) to a maximum of 3050 m (10,000 ft).

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 require the High Performance Fan Kit (P26477-B21) and 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).

Technical Specifications

Relative Humidity (non-condensing)

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

Notes: Configuration with Nvidia A2 GPU would be addressed specifically as below.

- **Operating**
-12°C DP and 8% Rh to 21°C DP 80% - Relative humidity (Rh), 21°C maximum wet bulb temperature, non-condensing.
- **Non-Operating**
-12°C DP and 8% Rh to 21°C DP 80% - Relative humidity (Rh), 21°C 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)

To view the regulatory information for your product, view the Safety and Compliance Information for Server, Storage, Power, Networking, and Rack Products, available at the Hewlett Packard Enterprise Support Center:

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

Acoustic Noise

Listed are the declared mean A-Weighted sound power levels (LWA,m), declared average bystander position A-Weighted sound pressure levels (LpAm), and the statistical adder for verification (Kv) is a quantity to be added to the declared mean A-weighted sound power level. LWA,m when the product is operating in a 23°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.

Test case	1	2	3	4	5	6	7	8
Idle								
LWA,m	5.1 B	4.7 B	4.7 B	5.0 B	4.7 B	4.7 B	4.7 B	5.2 B
LpAm	37 dBA	35 dBA	36 dBA	37 dBA	36 dBA	36 dBA	36 dBA	38 dBA
Kv	0.4 B	0.4 B	0.4 B	0.4 B	0.4 B	0.4 B	0.4 B	0.4 B
Operating								
LW,m	5.3 B	5.0 B	5.2 B	5.3 B	5.1 B	5.4 B	5.5 B	6.0 B
LpAm	40 dBA	37 dBA	39 dBA	41 dBA	37 dBA	41 dBA	41 dBA	49 dBA
Kv	0.4 B	0.4 B	0.4 B	0.4 B	0.4 B	0.4 B	0.4 B	0.4 B

Technical Specifications

Notes:

- Acoustics levels presented here are generated by the test configuration only. Acoustics levels will vary depending on system configuration. Values are subject to change without notification and are for reference only.
- 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.

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.

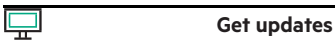
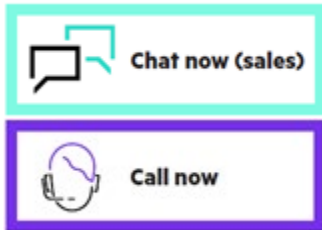
Summary of Changes

Date	Version History	Action	Description of Change
27-May-2025	Version 9	Changed	Standard Features, Core Options and Additional Options sections were updated. Added: 5th Generation Intel® Xeon® Scalable Processor Family (Platinum), 5th Generation Intel® Xeon® Scalable Processor Family (Gold 6), Ethernet PCIe SKUs. Removed: OBS HPE iLO Advanced - Standard SKU.
02-Dec-2024	Version 8	Changed	Core Options section was updated. (HDD SKUs were removed from storage devices).
21-Oct-2024	Version 7	Changed	Core Options section was updated. (New SKUs for memories, procesors and SSDs were added)
16-Sep-2024	Version 6	Changed	Standard Features (Operating Systems and Virtualization Software Support for HPE Servers) section was updated.
03-Sep-2024	Version 5	Changed	Core Options Section was updated. (New capacity configuration for adps)
15-Jul-2024	Version 4	Changed	Overview and Standard Features sections were updated.
01-Jul-2024	Version 3	Changed	Standard Features and Core Options sections were updated.
11-Mar-2024	Version 2	Changed	Overview, Standard Features, Configuration Information, and Core Options sections were updated.
05-Jun-2023	Version 1	New	New QuickSpecs.



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