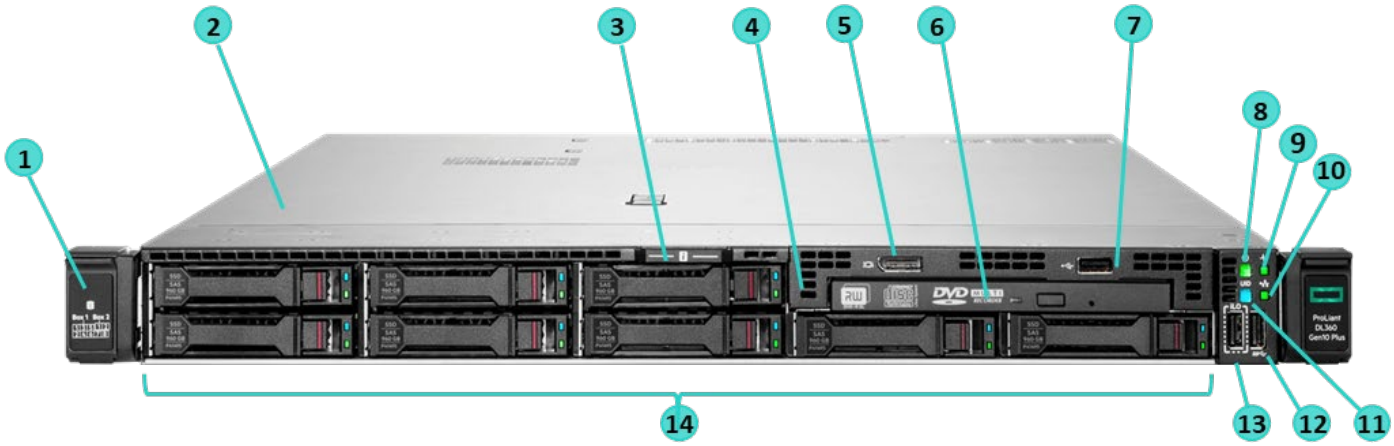
Overview

HPE ProLiant DX360 Gen10 Plus server

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 Gen10 Plus server 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 Gen10 Plus server is ideal for IT infrastructure, either physical, virtual, or containerized.

The HPE ProLiant DX360 Gen10 Plus server along with Nutanix provide a global partnership to deliver hyper-converged solutions in an on-premise appliance or through the HPE Greenlake consumption model. This offering will leverage Nutanix's free AHV hypervisor and Nutanix Enterprise Cloud software to provide customers with a pre-integrated and optimized solution that dramatically lowers total cost of ownership and accelerates operational productivity.

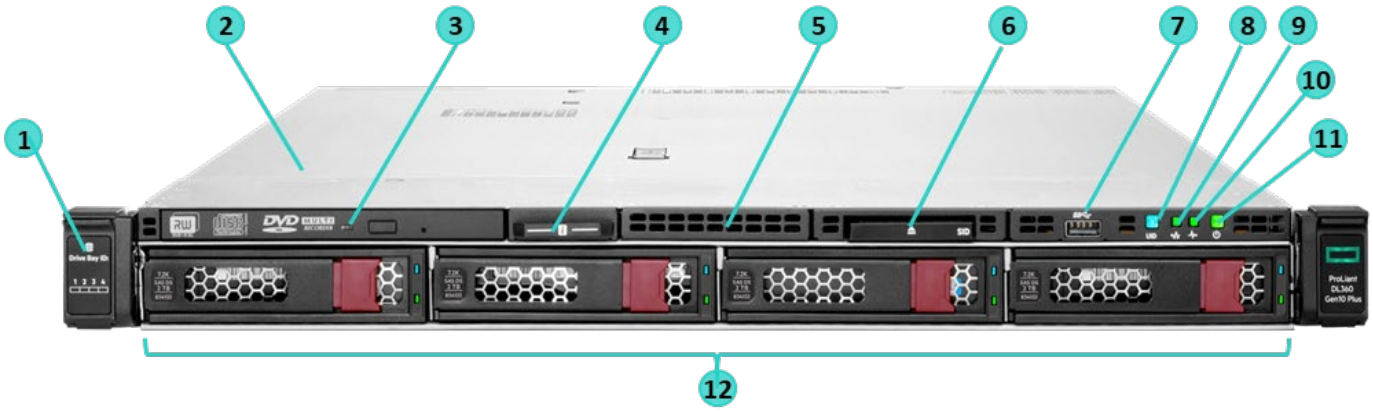
The HPE ProLiant DX360 Gen10 Plus server supports the 3rd Generation Intel® Xeon® Scalable Processors with up to 40 cores, plus 3200 MT/s HPE DDR4 Smart Memory up to 4.0 TB per socket. Introducing PCIe Gen4 and Intel® Software Guard Extensions (SGX) support on the dual-socket segment, the HPE ProLiant DX360 Gen10 Plus server complements Gen10 reach by delivering premium compute, memory, I/O, and security capabilities for customers focused on performance at any cost.



8 SFF Front View

1. Drive support label
2. Quick removal access panel
3. Serial number/iLO information pull tab
4. Universal Media Bay (optional):
   - Option: Optical drive bay + Display port & USB 2.0
   - Port kit (shown)
   - Option: 2 SFF 12G x1 SAS/SATA cage
   - Option: 2 SFF 24G x4 Tri-Mode U.3 cage
   - Option: 2 SFF 16G x4 NVMe U.2 cage
5. Display Port (optional)
6. Optical drive (optional – shown)
7. USB 2.0 port (optional)
8. Power On/Standby button and system power LED
9. Health LED
10. NIC status LED
11. UID button/LED
12. USB 3.0 port
13. iLO Service Port
14. Drive bays; optional backplanes::
    - Option: 8 SFF 12G x1 SAS/SATA
    - Option: 8 SFF 24G x1 Tri-Mode U.3
    - Option: 8 SFF 24G x4 Tri-Mode U.3
    - Option: 8 SFF 16G x4 NVMe U.2

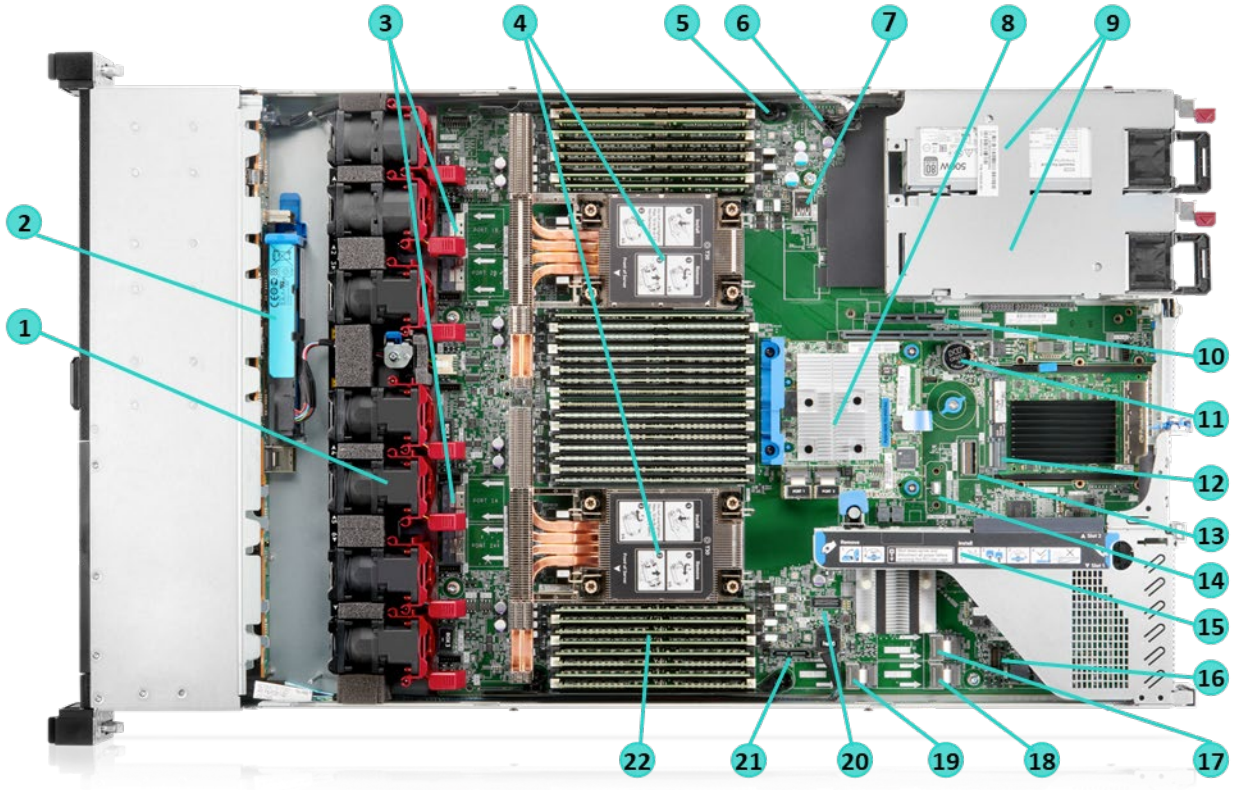
Overview



4 LFF Front View

1. Drive support label
2. Quick removal access panel
3. Optical drive (optional – shown)
4. Serial number/iLO information pull tab
5. Option: Display port & USB 2.0 port Kit (blank shown)
6. Option: Systems Insight Display (SID)[1] - Shown
7. USB 3.0 Port
8. UID button/LED
9. NIC status LED
10. Health LED
11. Power On/Standby button and system power LED
12. SAS/SATA drive bays

Overview



Internal View - Standard for all DX360 Gen10 Plus

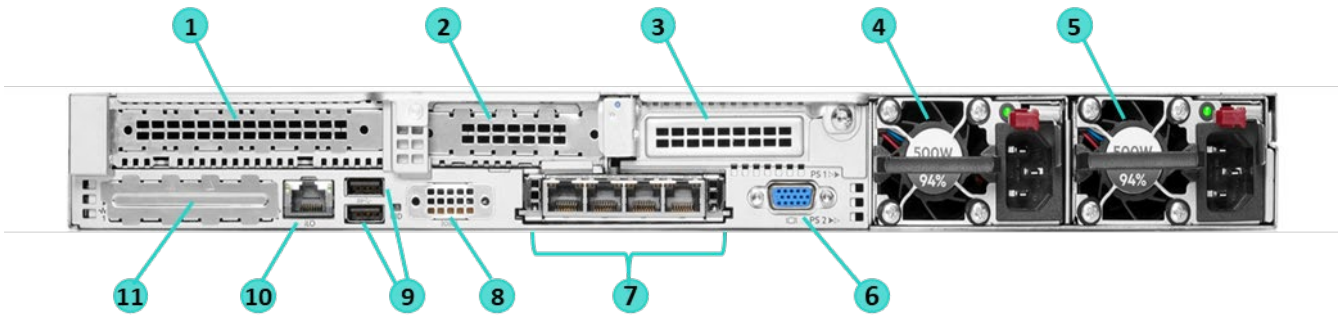
1. Hot plug fans (single rotor standard)
   - 1 CPU – 5 fans
   - 2 CPUs – 7 fans
   - Option: High Performance fans
2. Option: HPE Smart Hybrid Capacitor or HPE Smart Storage Battery
3. 4 x8 NVMe ports (1A – 2B)
4. Up to 2 processors
   - (shown with high performance heat sinks)
5. Optional Chassis Intrusion Detection connector
6. Hard Drive backplane power connector
7. Dual internal USB 3.0 connector
8. Storage Controller (Type -a shown)
9. Up to 2 Power Supplies for redundant power
10. Secondary (CPU2) PCIe 4.0 riser
    - Option: Low Profile x16
    - Option: Full Height x16 (lose slot 2 on Primary riser)
11. System Battery
12. x16 OCP connector (supports various NICs up to 200GbE)
13. Vertical slimline SAS connector (AROC lane recovery)
14. TPM 2.0 (included on Pre-Configured Models)
15. Primary (CPU1) PCIe 4.0 riser

Standard: 2x 16 slots, AUX power block

- Option: 1 x16 and 1 x8 slots + 2x PCIe M.2
- Connectors with HW RAID support
- Option: (SFF only): 1 x16 and 1 x8 slots + 1 x8
- NVMe connector

16. Optional front Display Port / USB 2.0 port connector
17. x4 SATA port 1
18. x4 SATA port 2
19. x4 SATA port 3
20. Front Power USB 3.0 connector
21. Optical/SATA port
22. DDR4 DIMM slots (Fully populated 32 DIMMs shown)

Overview



Rear View – Standard for all DX360 Gen10 Plus

1. Slot 1 PCIe 4.0 – Full Height
2. Slot 2 PCIe 4.0 – Low Profile
3. Option: Slot 3 PCIe 4.0 (Requires 2nd processor)
   - Low Profile and Full Height options
4. Power Supply 2
5. Power Supply 1
6. Video (VGA) port
7. OCP 3.0 Adapter (if equipped)[1]
8. Option: Serial port (knockout blank shown)
9. USB 3.0 Ports
10. iLO Management Port
11. Blank cover, not available for use

What's New

- HPE ProLiant DX360 Gen10 Plus Server with Broadcom controller
- 3rd Generation Intel® Xeon® Scalable processors

Platform Information

Form Factor

- 1U rack

Chassis Types

- 10 SFF NVMe
- 8 SFF
- 4 LFF

Standard Features

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

Notes:

- The 2nd digit of the processor model number "x3xx" is used to denote the processor generation (i.e. 3 = 3rd generation).
- This table covers the public Intel offering only.
- For more information regarding Intel Xeon processors, please see the following **http://www.intel.com/xeon**.

Intel Xeon Processor		
Processor Suffix	**Description**	**Offering**
M	Media and AI Optimized	Media, AI and HPC Segment Optimized for lower TDP & higher frequencies, targeting following use cases: Media Processing and Delivery, Deep Learning Inference, Media Analytics wrokloads and HPC acceleration.
N	NFV/Networking Optimized	SKUs specifically 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. SKUs have higher base frequency with lower TDPs to enable best performance/WattUp to 4.5 TB addressable memory per socket.
P	High performance IaaS	Optimized for orchestration efficiency, IaaS higher frequency for VM markets.
S	Max SGX Enclave	Supports Software Guard Extensions maximum enclave size (512GB).
U	1 Socket Optimized	Focused on single socket (1P) configurations, delivering competitive system perf/$. Does not support two socket (2P) arrangements.
V	High VM Density	Optimized for orchestration efficency and high density, lower power VM environments.
Y	Speed Select – Performance Profile	Intel® SST-PP (performance profile) provides the ability to set a guaranteed base frequency for a specific number of cores, and assign this performance profile to a particular application/workload to guarantee performance requirements. Also enables configuration of settings during runtime and provides additional frequency profile arrangement opportunities.

Notes:

- 4.0TB maximum RAM per socket.
- 64 PCIe 4.0 lanes.
- 1.5 MB L3 cache/core, except on 6354 and 6346 processors (2.16 and 2.25 MB L3/core respectively).
- "U" processors (i.e. 6314U, 6312U) only supported in single socket configurations.
- Intel SST-CP (Core Power)- Enables flexibility for workloads that benefit from higher base frequency on a subset of the processor's cores. While the max turbo frequency across the cores remain constant across the cores, a subset of the cores can be assigned as to run at a higher base frequency than specified, while the other cores run at lower base frequency.
- Intel SST-TF (Turbo Frequency)- Enables flexibility for workloads that benefit from higher turbo frequency on a subset of the processor's cores. While the base frequency remains constant across the cores, a subset of the cores can be assigned to run at a higher turbo frequency than specified, while the other cores run at lower turbo frequency.
- Intel SST-BF (Base Frequency)- Allows the configuration of a guaranteed higher base frequency, for a specific number of cores, to support those workloads and applications that are not optimized for turbo frequencies.
- Intel Speed select SST-BF, SST-TF, SST-CP supported on Gold and Platinum processors. Power Profile (SST-PP) suppported on Y, and select V, S and N processors.

Standard Features

3rd Generation Intel® Xeon® Scalable Processor Family							
Intel Xeon Models	**CPU Frequency**	**Cores**	**L3 Cache**	**Power**	**UPI**	**DDR4**	**SGX Enclave size**
Platinum 8380 Processor	2.3 GHz	40	60 MB	270W	3 @ 11.2 GT/s	3200 MT/s	512GB
Platinum 8368 Processor[5]	2.4 GHz	38	57 MB	270W	3 @ 11.2 GT/s	3200 MT/s	512GB
Platinum 8362 Processor[6]	2.8 GHz	32	48 MB	265W	3 @ 11.2 GT/s	3200 MT/s	64GB
Platinum 8360Y Processor	2.4 GHz[4] 2.5 GHz 2.6 GHz	36[4] 32 24	54 MB	250W[4] 250W 220W	3 @ 11.2 GT/s	3200 MT/s	64GB
Platinum 8358P Processor[1]	2.6 GHz	32	48 MB	240W	3 @ 11.2 GT/s	3200 MT/s	8GB
Platinum 8358 Processor	2.6 GHz	32	48 MB	250W	3 @ 11.2 GT/s	3200 MT/s	64GB
Platinum 8352V Processor [1,2]	2.1 GHz[4] 2.0 GHz 2.0 GHz	36[4] 32 24	54 MB	195W[4] 180W 155W	3 @ 11.2 GT/s	3200 MT/s	64GB
Platinum 8352M Processor [2,4,6]	2.3 GHz[6] 2.4 GHz 2.6 GHz	32[6] 28 24	48 MB	185W[4] 185W 185W	3 @ 11.2 GT/s	3200 MT/s	64GB
Platinum 8352S Processor[2]	2.2 GHz[4] 2.3 GHz 2.6 GHz	32[4] 24 16	48 MB	205W[4] 185W 185W	3 @ 11.2 GT/s	3200 MT/S	512 GB
Platinum 8352Y Processor[2]	2.2 GHz[4] 2.3 GHz 2.6 GHz	32[4] 24 16	48 MB	205W[4] 185W 185W	3 @ 11.2 GT/s	3200 MT/s	512GB

Notes:

- 8-Channel DDR4 @ 3200 MT/s (lower DDR4 speed may be used in segment optimized processors (i.e. Cloud, NFV, etc).
- Support for Intel Optane Persistent Memory 200 Series, enabling up to 6TB memory per socket (does not work with SGX).
- 2 socket capable, 3 UPI @ 11.2 GT/s.
- Advanced RAS (except 8358P), AVX-512 2 FMA, SGX 64GB, TME-MT 64 keys.
- [1]Deterministic base frequency rating only applicable to VM workloads. Other workloads may see throttling.
- [2]Supports Intel® Speed Select Performance Profile (SST-P), even though not being a "Y" processor.
- [3]Single socket capable even though not being a "U" processor. No dual socket support.
- [4]Default Speed Select Performance Profile value.
- [5]Does not support Sub-NUMA 2 (SNC2).
- [6]Does not support Intel Speed Select Technology – Base Frequency (SST-BF).

3rd Generation Intel® Xeon® Scalable Processor Family							
Intel Xeon Models	**CPU Frequency**	**Cores**	**L3 Cache**	**Power**	**UPI**	**DDR4**	**SGX Enclave size**
Gold 6354 Processor	3.0 GHz	18	39 MB	205W	3 @ 11.2 GT/s	3200 MT/s	64GB
Gold 6348 Processor	2.6 GHz	28	42 MB	235W	3 @ 11.2 GT/s	3200 MT/s	64GB
Gold 6346 Processor	3.1 GHz	16	36 MB	205W	3 @ 11.2 GT/s	3200 MT/s	64GB
Gold 6342 Processor	2.8 GHz	24	36 MB	230W	3 @ 11.2 GT/s	3200 MT/s	64GB
Gold 6338 Processor	2.0 GHz	32	48 MB	205W	3 @ 11.2 GT/s	3200 MT/s	64GB
Gold 6336Y Processor	2.4 GHz[3] 2.9 GHz 3.1 GHz	24[3] 12 8	36 MB	185W[3] 150W 150W	3 @ 11.2 GT/s	2933 MT/s	64GB
Gold 6334 Processor	3.6 GHz	8	18 MB	165W	3 @ 11.2 GT/s	3200 MT/s	64GB
Gold 6330 Processor	2.0 GHz	28	42 MB	205W	3 @ 11.2 GT/s	2933 MT/s	64GB
Gold 6326 Processor	2.9 GHz	16	24 MB	185W	3 @ 11.2 GT/s	3200 MT/s	64GB
Gold 6314U Processor[2]	2.3 GHz	32	48 MB	205W	N/A	3200 MT/s	64GB
Gold 6312U Processor[2]	2.4 GHz	24	36 MB	185W	N/A	3200 MT/s	64GB

Standard Features

Notes:

- 8-channel DDR4 @ 3200 MT/s (lower DDR4 speed may be used in segment optimized processors (i.e. NFV, etc).
- Support for Intel Optane Persistent Memory 200 Series, enabling up to 6TB memory per socket (does not work with SGX).
- 2 sockets capable, 3 UPI @ 11.2 GT/s.
- Advanced RAS, AVX-512 2 FMA, SGX 64GB, TME-MT 64 keys.
- [1]Deterministic base frequency rating only applicable for NFV workloads. Other workloads may see throttling.
- [2]Single socket capable, no dual socket support
- [3]Default Speed Select Performance Profile value.

3rd Generation Intel® Xeon® Scalable Processor Family							
Intel Xeon Models	**CPU Frequency**	**Cores**	**L3 Cache**	**Power**	**UPI**	**DDR4**	**SGX Enclave size**
Gold 5320 Processor	2.2 GHz	26	39 MB	185W	3 @ 11.2 GT/s	2933 MT/s	64GB
Gold 5318Y Processor	2.1 GHz[3] 1.9GHz 2.0GHz	24[3] 24 22	36 MB	165W[3] 150W 150W	3 @ 11.2 GT/s	2933 MT/s	64GB
Gold 5318S Processor[1]	2.1 GHz[3] 1.9GHz 2.0GHz	24[3] 24 22	36 MB	165W[3] 150W 150W	3 @ 11.2 GT/s	2933 MT/s	512MB
Gold 5317 Processor	3.0 GHz	12	18 MB	150W	3 @ 11.2 GT/s	2933 MT/s	64GB
Gold 5315Y Processor	3.2 GHz[3] 3.2GHz 3.4GHz	8[3] 6 4	12 MB	140W	3 @ 11.2 GT/s	2933 MT/s	64GB

Notes:

- 8-channel DDR4 @ 2933 MT/s (lower DDR4 speed may be used in segment optimized processors (i.e. NFV, etc).
- Support for Intel Optane Persistent Memory 200 Series, enabling up to 6TB memory per socket (does not work with SGX).
- 2 sockets capable, 3 UPI @ 11.2 GT/s.
- Advanced RAS, AVX-512 2 FMA, SGX 64GB, TME-MT 64 keys.
- [1]Supports Intel® Speed Select Performance Profile (SST-P), even though not being a "Y" processor.
- [2]Deterministic base frequency rating only applicable for NFV workloads. Other workloads may see throttling.
- [3]Default Speed Select Performance Profile value.

3rd Generation Intel® Xeon® Scalable Processor Family							
Intel Xeon Models	**CPU Frequency**	**Cores**	**L3 Cache**	**Power**	**UPI**	**DDR4**	**SGX Enclave size**
Silver 4316 Processor	2.3 GHz	20	30 MB	150W	2 @ 10.4 GT/s	2667 MT/s	8GB
Silver 4314 Processor[1]	2.4 GHz	16	24 MB	135W	2 @ 10.4 GT/s	2667 MT/s	8GB
Silver 4310 Processor	2.1 GHz	12	18 MB	120W	2 @ 10.4 GT/s	2667 MT/s	8GB
Silver 4309Y Processor	2.8 GHz[2] 2.6GHz 2.3GHz	8[2] 8 8	12MB	105W[2] 95W 85W	2 @ 10.4 GT/s	2667 MT/s	8GB

Notes:

- 8-channel DDR4 @ 2667 MT/s.
- 2 sockets capable, 2 UPI @ 10.4 GT/s.
- Standard RAS, AVX-512 2 FMA, SGX 8GB, TME-MT 64 keys.
- [1]Supports Intel Optane Persistent Memory 200 Series, enabling up to 6TB memory per socket (does not work with SGX).
- [2]Default Speed Select Performance Profile value.

Standard Features

Chipset

Intel C621A 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

System Management Chipset

HPE iLO 5 ASIC

Notes: Read and learn more in the **iLO QuickSpecs**.

Memory

Type	HPE DDR4 Smart Memory	Registered (RDIMM), Load Reduced (LRDIMM)
DIMM Slots Available	32	16 DIMM slots per processor, 8 channels per processor, 2 DIMMs per channel
Maximum capacity (LRDIMM)	8.0 TB	32 x 256 GB LRDIMM @ 3200 MT/s
Maximum capacity (RDIMM)	2.0 TB	32 x 64 GB RDIMM @ 3200 MT/s

Notes:

- All processors support up to 6TB memory per socket.
- Mixing of RDIMM and LRDIMM memory is not supported.
- To realize the performance memory capabilities listed in this document, HPE DDR4 Smart Memory is required.
- For additional information, please see the **HPE DDR4 Smart Memory QuickSpecs**.
- Intel Persistent Memory 200 series only supported on Gold and Platinum Processors.
- For General Server Memory and Persistent Memory Population Rules and Guidelines for Gen10 Plus see details here: **http://www.hpe.com/docs/memory-population-rules**

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**.

Expansion Slots

Primary GPU Riser					
Expansion Slots #	**Technology**	**Bus Width**	**Connector Width**	**Processor**	**Slot Form Factor**
1	PCIe 4.0	x16	x16	CPU 1	Full-height, up to 9.5” length
2	PCIe 4.0	x16	x16	CPU 1	Low Profile, up to 9.5” length

Notes: The specifications above correspond with the default primary riser.

Standard Features

Primary PCIe M.2 Riser with HW RAID support (NS204i-r)					
Expansion Slots #	**Technology**	**Bus Width**	**Connector Width**	**Processor**	**Slot Form Factor**
1	PCIe 4.0	x16	x16	CPU 1	Full-height, up to 9.5" length
2	PCIe 4.0	X8	X8	CPU 1	Low Profile, up to 9.5" length

Notes:
- Does not include M.2 media, 22110 capable.
- Requires high performance fan kit (P26477-B21).

Primary NVMe Riser					
Expansion Slots #	**Technology**	**Bus Width**	**Connector Width**	**Processor**	**Slot Form Factor**
1	PCIe 4.0	x16	x16	CPU 1	Full-height, up to 9.5" length
2	PCIe 4.0	x8	x8	CPU 1	Low Profile, up to 9.5" length

Secondary Riser					
Expansion Slots #	**Technology**	**Bus Width**	**Connector Width**	**Processor**	**Slot Form Factor**
3	PCIe 4.0	x16	x16	CPU 2	Low Profile or Full-height, up to 9.5" length

Notes: If secondary full height kit is installed, then primary PCIe Slot #2 cannot be used. Only 2 full height slots are supported

Internal Storage Devices

- **Hard Drives**
  None ship standard

Essential RAID Controllers

- HPE Smart Array MR216i-a Gen10 Plus Controller

Performance RAID Controllers

- For additional details, please see **HPE Smart Array Gen10 Plus Controllers Data Sheet**.

Maximum Storage

Storage	Capacity	Configuration
Hot Plug SFF SAS HDD	19.2 TB	8 x 2.4 TB
Hot Plug SFF SAS SSD	122.4 TB	8 x 15.3 TB
Hot Plug SFF SATA SSD	76.8 TB	8 x 7.68 TB
Hot Plug LFF SAS HDD	72.0 TB	4 x 18 TB
Hot Plug LFF SATA HDD	72.0 TB	4 x 18 TB
Hot Plug LFF SAS SSD	30.72 TB	4 x 7.68 TB
Hot Plug LFF SATA SSD	15.36 TB	4 x .84 TB

Standard Features

Graphics

- Integrated video standard
- Video modes up to 1920 x 1200 @ 60 Hz (32 bpp)
- 16 MB Video Memory
- HPE iLO 5 on system management memory
- 32 MB Flash
- 4 Gbit DDR3 with ECC protection

Power Supply

- HPE DX 500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit
  Notes: Available in 94% efficiency.
- HPE DX 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit
  Notes:
  - Available in 94% and 96% efficiency.
  - Also available in -48VDC and 227VAC/380VDC power inputs.
- HPE DX 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 Gen10 Plus Performance Servers. Flex Slot power supplies are certified for high-efficiency operation and offer multiple power output options, allowing users to "right-size" a power supply for specific server configurations. This flexibility helps to reduce power waste, lower overall energy costs, and avoid "trapped" power capacity in the data center.

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 use the **HPE Power Advisor Tool.**

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

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
HPE iLO Remote Mgmt Port	1 GbE Dedicated
Front iLO Service Port	1 standard
MicroSD Slot	Optional via HPE 32GB microSD RAID1 USB Boot Device **Notes:** MicroSD cards are not hot-pluggable, server must be powered down before removal.
USB 3.0	5 standard on all models: 1 front, 2 rear, 2 internal +1 optional USB 2.0 front

Standard Features

Operating Systems and Virtualization Software

- Nutanix Acropolis Operating System (AOS) Version 5.10.5 and higherNutanix Acropolis Hypervisor (AHV) Version 2017030.279 and higher
- **VMware vSphere:** Version 6.7 U3, 7.0, 7.0 U1, 7.0 U2
  Notes: The latest version of AOS and AHV are pre-installed in each server at the factory. vSphere must be installed separately.

Industry Standard Compliance

- ACPI 6.3 Compliant
- PCIe 4.0 Compliant
- WOL Support
- Microsoft® Logo certifications
- PXE Support
- USB 3.0 Compliant
- USB 2.0 Compliant (only on optional Universal Media Bay)
- SMBIOS 3.2
- Redfish API
- IPMI 2.0
- Secure Digital 4.0
- TPM 1.2 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 (SMASH CLP)
- Active Directory v1.0
- 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: 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 Gen10 Plus 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) 2.6
  Notes: UEFI is the default for the DX360 Gen10 Plus. Legacy mode can be selected in the field or as a factory option (758959-B22); some configuration restrictions apply.

HPE Server UEFI/Legacy ROM

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 Gen10 Plus servers have a UEFI Class 2 implementation and support both UEFI Mode (default) and Legacy BIOS 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
- Operating system specific functionality
- Support for > 2.2 TB (using GPT) boot drives

Standard Features

- USB 3.0 Stack
- Embedded UEFI Shell
- Mass Configuration Deployment Tool using iLO RESTful API that is Redfish API Conformant
- PXE boot support for IPv6 networks
- Workload Profiles for simple performance optimization

UEFI Boot Mode only:

- TPM 2.0 Support
- NVMe Boot Support
- Platform Trust Technology (PTT) can be enabled.
- iSCSI Software Initiator Support.
- HTTP/HTTPs Boot support as a PXE alternative.
- Boot support for option cards that only support a UEFI option ROM

Notes:

– For UEFI Boot Mode, boot environment and OS image installations should be configured properly to support UEFI.
– UEFI FIO Setting (758959-B22) can be selected to configure the system in Legacy mode in the factory for your HPE ProLiant Gen10 Plus Server.

Embedded Management

HPE Integrated Lights-Out (HPE iLO)

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

UEFI

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

Intelligent Provisioning

Hassle free server and OS provisioning for one or more servers with Intelligent Provisioning.
Learn more at **http://www.hpe.com/servers/intelligentprovisioning**.

iLO RESTful API

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

Server Utilities

Active Health System

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

Active Health System Viewer

Use the Active Health System Viewer, a web-based portal, to easily read AHS logs and speed problem resolution with HPE self-repair recommendations, to learn more visit: **http://www.hpe.com/servers/ahsv**.

Smart Update

Keep your servers up to date with the HPE Smart Update solution by using Smart Update Manager (SUM) to optimize the firmware and driver updates of the Service Pack for ProLiant (SPP).
Learn more at **https://www.hpe.com/us/en/servers/smart-update.html**.

Standard Features

iLO Amplifier Pack
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, Gen10 and Gen10 Plus HPE servers at unmatched speed and scale. Use with an iLO Advanced License to unlock full capabilities.
Learn more at **http://www.hpe.com/servers/iLOamplifierpack**.

HPE iLO Mobile Application
Enables the ability to access, deploy, and manage your server anytime from anywhere from select smartphones and mobile devices. For additional information please visit: **http://www.hpe.com/info/ilo/mobileapp**.

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

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

HPE OneView Standard
HPE OneView Standard can be used for inventory, health monitoring, alerting, and reporting without additional fees. It can monitor multiple HPE server generations. The user interface is similar to the HPE OneView Advanced version, but the software-defined functionality is not available. Learn more at **http://www.hpe.com/info/oneview**.

HPE Systems Insight Manager (HPE SIM)
Ideal for environments already using HPE SIM, it allows you to monitor the health of your HPE ProLiant Servers and HPE Integrity Servers. Also provides you with basic support for non-HPE servers. HPE SIM also integrates with Smart Update Manager to provide quick and seamless firmware updates. Learn more at **http://www.hpe.com/info/hpesim**.

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 FW
- Ability to rollback firmware
- Secure erase of NAND
- TPM (Trusted Platform Module)
- Bezel Locking Kit
- Chassis Intrusion detection option

Standard Features

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

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.

HPE OneView Advanced

HPE OneView brings a new level of automation to infrastructure management by taking a template driven approach to provisioning, updating, and integrating compute, storage, and networking infrastructure. It provides full-featured licenses which can be purchased for managing Gen8, Gen9, Gen10 and Gen10 Plus servers. To learn more visit **http://www.hpe.com/info/oneview**.

HPE InfoSight for Servers

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

HPE Insight Cluster Management Utility (CMU)

HPE Insight Cluster Management Utility is a HyperScale management framework that includes software for the centralized provisioning, management and monitoring of nodes and infrastructure. Learn more at **http://www.hpe.com/info/cmu**.

Accelerator and GPGPU Information

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

Rack and Power Infrastructure

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

HPE G2 Advanced and Enterprise Racks are perfect for the server room or today's modern data center with enhanced airflow and thermal management, flexible cable management, and a 10 year Warranty to support higher density computing.
HPE G2 PDUs offer reliable power in flexible form factors that operate at temperatures up to 60°, include color-coded outlets and load segments and a low-profile design for optimal access to the rack and support for dense rack environments.
HPE Uninterruptible Power Systems are cost-effective power protection for any type workload. Some UPSs include options for remote management and extended runtime modules so you're critical dense data center is covered in power outages.

HPE KVM Solutions include a console and switches designed to work with your server and IT equipment reliably. We've got a cost-effective KVM switch for your first rack and multiple connection IP switches with remote management and security capabilities to keep your data center rack up and running.

Learn more about HPE Racks, KVM, PDUs and UPSs at **HPE Rack and Power Infrastructure.**

Optional Features

One Config Simple (SCE)

SCE is a guided self-service tool to help sales and non-technical people provide customers with initial configurations in 3 to 5 minutes. You may then send the configuration on for configuration help, or use in your existing ordering processes. If you require "custom" rack configuration or configuration for products not available in SCE, please contact Hewlett Packard Enterprise Customer Business Center or an Authorized Partner for assistance
https://h22174.www2.hpe.com/SimplifiedConfig/Welcome#

Service and Support

HPE Services

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

https://www.hpe.com/services

Consulting Services

No matter where you are 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 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)

DX Models

DX 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 Gen10 Plus 4 LFF FSC CTO Server	HPE DX360 Gen10 Plus 8 SFF FSC CTO Server	HPE DX360 Gen10 Plus 10SFF NVMe CTO Server
SKU Number	P56706-B21	P56707-B21	P43109-B21
Processor	Not included as standard		
DIMM Slots	32-DIMM slots		
Storage Controller	1x MR216-a	1x MR216i-a	N/A
PCIe	PCIe 4.0: 2 slots (1 x16 FH / 1 x16 LP) and 4 x8 front NVMe connectors Optional: 1 x16 FH or LP slot		
Drive Cage - included	4 LFF – SAS/SATA	8 SFF – SAS/SATA	10 SFF - NVMe
Network Controller	Choice of OCP or stand up cards **Notes:** No embedded networking.		
Fans	7 High Performance Fans		
Management	HPE iLO Advanced with 3 year support (standard)		
USB	Front: 1 USB 3.0 + iLO service port Rear: 2 USB 3.0 Internal: 2 USB 3.0 Optional: 1 Front USB 2.0 (lose iLO serv. port on 4 LFF)		
Security	Optional TPM (Trusted Platform Module) **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: HPE offers multiple Trade Agreement Act (TAA) compliant configurations to meet the needs of US Federal Government customers. These products are either manufactured or substantially transformed in a designated country.

Configuration Information

Step 2: Choose Options

Please select one or two matching processors.

For example: for a single Xeon-Platinum 8380 processor configuration select 1x P36941-B21. If dual Xeon-Platinum 8380 processor configuration, select 2x P36941-B21

Notes:
- Mixing of 2 different processor models is not supported.
- CTO server includes 5 standard fans. Dual processor configurations require 7 fans, either standard or high performance (dependent on processor model).
- Processors with TDP equal to or greater than 150W require High Performance Heatsink (P26479-B21).
- Processors with TDP equal to or greater than 205W require High Performance Fan Kit (P26477-B21).
- Options as NVMe SSDs, 100GbE or greater NICs/HCAs, accelerators, 24G SAS drives -among others- require high performance fans.
- Processors with TDP up to 140W, or starting at 230W -both included- require DIMM blanks kit (P07818-B21).
- DIMM blanks kit (P07818-B21) recommended with processor TDPs ranging from 150W to 225W -both included- as enhance cooling.
- Each processor feeds 2 x8 front NVMe connectors, supporting up to 4 drives. Socket must populated for NVMe connectors to be usable.

Step 2a: Choose Processor Options

Processor Option Kits

3rd Generation Intel Xeon-Platinum

Notes:
- All SKUs below ship with processor only. Adequate fans and heatsinks (standard, or high performance) must be selected.
- 3200 MT/S maximum memory speed unless otherwise noted.
- 64GB SGX Enclave unless otherwise noted.

Intel Xeon-Platinum 8380 2.3GHz 40-core 270W FIO Processor for HPE DX Gen10 Plus P43457-B21

Notes:
- Requires DIMM blanks kit (P07818-B21).
- 512GB SGX Enclave.

Intel Xeon-Platinum 8368 2.4GHz 38-core 270W FIO Processor for HPE DX Gen10 Plus P43456-B21

Notes:
- Requires DIMM blanks kit (P07818-B21).
- 512GB SGX Enclave.

Intel Xeon-Platinum 8362 2.8GHz 32-core 265W Processor for HPE P45418-B21

Intel Xeon-Platinum 8360Y 2.4GHz 36-core 250W Processor for HPE P36939-B21

Notes:
- Requires DIMM blanks kit (P07818-B21).
- Does not support Intel Speed Select Technology – Base Frequency (SST-BF).

Intel Xeon-Platinum 8358 2.6GHz 32-core 250W FIO Processor for HPE DX Gen10 Plus P43455-B21

Intel Xeon-Platinum 8352S 2.2GHz 32-core 205W Processor for HPE P37613-B21

Intel Xeon-Platinum 8352Y 2.2GHz 32-core 205W Processor for HPE P36929-B21

Intel Xeon-Platinum 8358P 2.6GHz 32-core 240W Processor for HPE P37598-B21

Intel Xeon-Platinum 8352M 2.3GHz 32-core 185W Processor for HPE P45414-B21

Intel Xeon-Platinum 8352V 2.1GHz 36-core 195W Processor for HPE P37599-B21

Notes: DIMM blanks kit (P07818-B21).

Configuration Information

3rd Generation Intel Xeon-Gold

Notes:
- All SKUs below ship with processor only.
- 3200 MT/S maximum memory speed unless otherwise noted.
- 64GB SGX Enclave unless otherwise noted.

Intel Xeon-Gold 6354 3.0GHz 18-core 205W FIO Processor for HPE DX Gen10 Plus P43452-B21

Notes:DIMM blanks kit (P07818-B21) recommended as enhance cooling.

Intel Xeon-Gold 6348 2.6GHz 28-core 235W FIO Processor for HPE DX Gen10 Plus P43454-B21

Intel Xeon-Gold 6346 3.1GHz 16-core 205W FIO Processor for HPE DX Gen10 Plus P43451-B21

Notes:DIMM blanks kit (P07818-B21) recommended as enhance cooling.

Intel Xeon-Gold 6342 2.8GHz 24-core 230W FIO Processor for HPE DX Gen10 Plus P43453-B21

Notes:DIMM blanks kit (P07818-B21) recommended as enhance cooling.

Intel Xeon-Gold 6338 2.0GHz 32-core 205W FIO Processor for HPE DX Gen10 Plus P43447-B21

Intel Xeon-Gold 6336Y 2.4GHz 24-core 185W Processor for HPE P36926-B21

Notes:DIMM blanks kit (P07818-B21) recommended as enhance cooling.

Intel Xeon-Gold 6334 3.6GHz 8-core 165W FIO Processor for HPE DX Gen10 Plus P43450-B21

Notes:DIMM blanks kit (P07818-B21) recommended as enhance cooling.

Intel Xeon-Gold 6330 2.0GHz 28-core 205W FIO Processor for HPE DX Gen10 Plus P43446-B21

Notes:
- DIMM blanks kit (P07818-B21) recommended as enhance cooling.
- 2933 MT/s max. memory speed.

Intel Xeon-Gold 6326 2.9GHz 16-core 185W FIO Processor for HPE DX Gen10 Plus P43449-B21

Notes:DIMM blanks kit (P07818-B21) recommended as enhance cooling.

Intel Xeon-Gold 6314U 2.3GHz 32-core 205W FIO Processor for HPE DX Gen10 Plus P43458-B21

Notes:DIMM blanks kit (P07818-B21) recommended as enhance cooling.

Intel Xeon-Gold 6312U 2.4GHz 24-core 185W FIO Processor for HPE DX Gen10 Plus P43459-B21

Notes:DIMM blanks kit (P07818-B21) recommended as enhance cooling.

Intel Xeon-Gold 5320 2.2GHz 26-core 185W FIO Processor for HPE DX Gen10 Plus P43445-B21

Notes:
- DIMM blanks kit (P07818-B21) recommended as enhance cooling.
- 2933 MT/s max. memory speed.

Intel Xeon-Gold 5318S 2.1GHz 24-core 165W Processor for HPE P37612-B21

Intel Xeon-Gold 5317 3.0GHz 12-core 150W FIO Processor for HPE DX Gen10 Plus P43448-B21

Intel Xeon-Gold 5318Y 2.1GHz 24-core 165W Processor for HPE P36924-B21

Intel Xeon-Gold 5315Y 3.2GHz 8-core 140W Processor for HPE P36930-B21

Notes:
- DIMM blanks kit (P07818-B21) recommended as enhance cooling.
- 2933 MT/s max. memory speed.

3rd Generation Intel Xeon-Silver

Notes:
- All SKUs below ship with processor only..
- 2667 MT/S maximum memory speed.
- 8GB SGX Enclave unless otherwise noted.

Intel Xeon-Silver 4316 2.3GHz 20-core 150W FIO Processor for HPE DX Gen10 Plus P43444-B21

Notes:DIMM blanks kit (P07818-B21) recommended as enhance cooling.

Configuration Information

Intel Xeon-Silver 4314 2.4GHz 16-core 135W FIO Processor for HPE DX Gen10 Plus	P43443-B21

Notes: Requires DIMM blanks kit (P07818-B21).

Intel Xeon-Silver 4310 2.1GHz 12-core 120W FIO Processor for HPE DX Gen10 Plus	P43442-B21
Intel Xeon-Silver 4309Y 2.8GHz 8-core 105W Processor for HPE	P36920-B21

Notes: Requires DIMM blanks kit (P07818-B21).

Step 2b: Choose Memory Options

Please select one or more memory DIMMs from below.

For new Gen10 Plus memory population rule whitepaper and optimal memory performance guidelines, please go to: **http://www.hpe.com/docs/memory-population-rules**

For Gen10 Plus memory speed table, please go to: **https://www.hpe.com/psnow/doc/a00019564enw**

For memory Reliability, Accessibility, Serviceability (RAS) features whitepaper like Gen10 Plus Fast Fault Tolerance and legacy mirrored memory feature etc. please go to: **http://www.hpe.com/docs/memory-ras-feature.**

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.
- For additional information, please see the **HPE DDR4 Smart Memory QuickSpecs**

Registered DIMMs (RDIMMs)

HPE DX 64GB (1x64GB) Dual Rank x4 DDR4-3200 CAS-22-22-22 Registered Smart FIO Memory Kit	P43170-B21
HPE DX 32GB (1x32GB) Dual Rank x4 DDR4-3200 CAS-22-22-22 Registered Smart FIO Memory Kit	P43169-B21
HPE DX 32GB (1x32GB) Single Rank x4 DDR4-3200 CAS-22-22-22 Registered Smart FIO Memory Kit	P43789-B21
HPE DX 16GB (1x16GB) Dual Rank x8 DDR4-3200 CAS-22-22-22 Registered Smart FIO Memory Kit	P43168-B21
HPE DX 16GB (1x16GB) Single Rank x4 DDR4-3200 CAS-22-22-22 Registered Smart FIO Memory Kit	P43167-B21

Load Reduced DIMMs (LRDIMMs)

Notes: Mixing of 3DS and non-3DS DIMMs not allowed.

HPE DX 256GB (1x256GB) Octal Rank x4 DDR4-3200 CAS-26-22-22 3DS Load Reduced Smart FIO Memory Kit	P43172-B21
HPE DX 128GB (1x128GB) Quad Rank x4 DDR4-3200 CAS-22-22-22 Load Reduced Smart FIO Memory Kit	P43171-B21

Notes:

- Requires DIMM blanks kit (P07818-B21).
- Support limited to 25°C maximum inlet temperature.
- Not supported with HPE IB HDR/EN 200Gb 2p QSFP56 OCP3 Adapter.

HPE DIMM blanks

HPE DDR4 DIMM Blank Kit	P07818-B21

Notes:

- Required by processors with TDP up to 140W, or starting at 230W (both included).
- Recommended with processor TDPs ranging from 150W to 225W -both included- as enhance cooling.

Step 2c: Choose Power Supplies

Please select one or two power supplies from below.

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

HPE Flex Slot Power Supplies

HPE DX 500W Flex Slot Platinum Hot Plug Low Halogen FIO Power Supply Kit	P18226-B21
HPE DX 800W Flex Slot Titanium Hot Plug Low Halogen FIO Power Supply Kit	P18224-B21

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

Configuration Information

HPE DX 800W Flex Slot Platinum Hot Plug Low Halogen FIO Power Supply Kit	P18223-B21
HPE DX 800W Flex Slot -48VDC Hot Plug Low Halogen FIO Power Supply Kit	P25214-B21
HPE DX 1000W Flex Slot Titanium Hot Plug FIO Power Supply Kit	P44807-B21
HPE DX 1600W Flex Slot Platinum Hot Plug Low Halogen FIO Power Supply Kit	P18222-B21

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

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

HPE Unique Options

Risers

HPE ProLiant DL36X Gen10 Plus x16/x8 PCIe M.2 NS204i-r Riser Kit P26463-B21

Notes:

- M.2 media not included, 22110 capable.
- This kit is not available on the 4 LFF model.

HPE ProLiant DX360 Gen10 Plus Low Profile FIO Riser Kit P43562-B21

HPE ProLiant DX360 Gen10 Plus 2P FH GPU FIO Enablement Kit P43561-B21

Riser Information*

Part number	Description	Riser position		Slot Bus width (Gen4 lanes)			GPU Support	NVMe Direct Connect		M.2 Connec.
		Prim.	Sec.	#1	#2	#3		Connectors	Max SSDs	N/A
N/A	HPE DX360 Gen10 Plus x16/x16 Primary GPU Riser	D	N/A	x16	x16	N/A	Y	N/A	N/A	N/A
P26463-B21	HPE DX36X G10 Plus x16/x8 2x M.2 NS204i-r Primary Riser[1,2,3]	O	N/A	x16	x8	N/A	Y	N/A	N/A	2
P43561-B21	HPE DX36x Gen10 Plus x16 FH GPU Secondary Riser Kit[5]	N/A	O	N/A	N/A[5]	x16	Y	N/A	N/A	N/A
P43562-B21	HPE DX360 Gen10 Plus x16 LP Secondary Riser Kit	N/A	O	N/A	N/A	x16	N	N/A	N/A	N/A

Notes:

- D = Default on server; O = Optional; N = not supported or slot/connector not present.
- [1]Supports 2x 22110 M.2 media, not included.
- [2]Provides HW RAID 1 capabilities utilizing inbox Windows, Linux or VMware drivers.
- [3]Requires High Performance Fan Kit (P26477-B21).
- [4]Not supported on 4 LFF models.
- [5]When secondary full height kit is installed, then primary PCIe Slot #2 cannot be used. Only 2 full height slots are supported.
- [5]GPU max 75W
- *For additional details on ProLiant DL Gen10 Plus server risers. Please visit: **https://www.hpe.com/h20195/v2/Getdocument.aspx?docname=a00043229enw**

Boot Devices

HPE DX NS204i-p Gen10 Plus x2 Lanes NVMe PCIe3 x8 FIO Boot Device P35837-B21

HPE Universal SATA 6G AIC HHHL M.2 SSD Enablement Kit 878783-B21

Notes: M.2 media not included with HPE Universal SATA SSD Kit – must select single M.2 drive

Core Options

Cooling Options

HPE DDR4 DIMM Blank Kit P07818-B21

Notes:

- Instructs factory to install blanks on unused DIMM slots. Max. 1 kit per system.
- Required by processors with TDP up to 140W, or starting at 230W (both included).
- Recommended with processor TDPs ranging from 150W to 225W -both included- as enhance cooling.

Security

HPE DX Trusted Platform Module 2.0 Gen10 Plus FIO Black Rivets Kit P24372-B21

HPE DX Gen10 Plus Chassis Intrusion FIO Detection Kit P24373-B21

HPE Hard Disk Drives

For HDDs with optimal product availability, HPE advocates HDDs from the list located

Enterprise – 12G SAS – SFF Basic Carrier Drives

HPE DX 2.4TB SAS 12G Mission Critical 10K SFF BC 1-year Warranty 512e FIO HDD P43382-B21

Midline – 12G SAS – SFF Basic Carrier Drives

HPE DX 2TB SAS 12G Business Critical 7.2K SFF BC 1-year Warranty 512e ISE FIO HDD P43289-B21

Midline – 12G SAS – LFF Low Profile Carrier Drives

HPE DX 18TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty 512e ISE FIO HDD P43286-B21

HPE 8TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty 512e Multi Vendor HDD 834031-B21

HPE 4TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Multi Vendor HDD 833928-B21

HPE DX 4TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware FIO HDD P17963-B21

- Standalone: 833928-B21

HPE DX 8TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty 512e Digitally Signed Firmware FIO HDD P17965-B21

- Standalone: 834031-B21

HPE DX 12TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty HE 512e Digitally Signed Firmware FIO HDD P17966-B21

- Standalone: 881781-B21

HPE DX 16TB SAS 12G Business Critical 7.2K LFF (3.5in) LP 1yr Wty 512e ISE FIO HDD P35152-B21

- Standalone: P23608-B21

HPE Solid State Drives

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

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

HPE DX 3.84TB SAS 24G Read Intensive SFF BC PM1653 FIO SSD P56759-B21

- Standalone HPE DX 3.84TB SAS Read Intensive SFF BC PM1653 SSD (P57573-B21)

HPE DX 7.68TB SAS 24G Read Intensive SFF BC Multi Vendor FIO SSD P56763-B21

- Standalone HPE DX 7.68TB SAS Read Intensive SFF BC MV SSD (P57581-B21)

Read Intensive – 6G SATA – SFF Basic Carrier Solid State Drives

HPE DX 1.92TB SATA 6G Read Intensive SFF BC S4520 FIO SSD P56749-B21

- Standalone HPE 1.92TB SATA Read Intensive SFF BC S4520 SSD (P47320-B21)

HPE DX 1.92TB SATA 6G Read Intensive SFF BC PM893 FIO SSD P56739-B21

- Standalone HPE 1.92TB SATA Read Intensive SFF BC PM893 SSD (P44009-B21)

HPE DX 3.84TB SATA 6G Read Intensive SFF BC S4520 FIO SSD P56753-B21

Core Options

- Standalone HPE 3.84TB SATA Read Intensive SFF BC S4520 SSD (P47322-B21)

HPE DX 3.84TB SATA 6G Read Intensive SFF BC PM893 FIO SSD P56743-B21

- Standalone HPE 3.84TB SATA Read Intensive SFF BC PM893 SSD (P44010-B21)

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

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

- Standalone: HPE DX 3.84TB SAS Read Intensive LFF LPC PM1653 SSD (P57553-B21)

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

- Standalone: HPE DX 7.68TB SAS Read Intensive LFF LPC MV SSD (P57561-B21)

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

- Standalone: P57565-B21

HPE DX 3.84TB SAS 12G Read Intensive LFF LPC Self-encrypting FIPS PM6 FIO SSD P49344-B21

- Standalone: P41398-B21

Read Intensive - SFF - Solid State Drives

HPE DX 15.36TB SAS 24G Read Intensive SFF BC Multi Vendor FIO SSD P56767-B21

- Standalone: P57569-B21

Read Intensive - SFF - Solid State Drives

HPE DX 3.84TB SAS 12G Read Intensive SFF BC Self-encrypting FIPS PM6 FIO SSD P43388-B21

- Standalone: P41398-B21

HPE DX 7.68TB SAS 12G Read Intensive SFF BC Self-encrypting FIPS PM6 FIO SSD P43389-B21

- Standalone: P41399-B21

Read Intensive – 6G SATA – LFF Low Profile Carrier Solid State Drives

HPE DX 1.92TB SATA 6G Read Intensive LFF LPC S4520 FIO SSD P56752-B21

- Standalone: HPE DX 1.92TB SATA Read Intensive LFF LPC S4520 SSD (P57541-B21)

HPE DX 1.9TB SATA 6G Read Intensive LFF LPC PM893 FIO SSD P56742-B21

- Standalone: HPE DX 1.9TB SATA Read Intensive LFF LPC PM893 SSD (P57533-B21)

HPE DX 3.84TB SATA 6G Read Intensive LFF LPC S4520 FIO SSD P56756-B21

- Standalone: HPE DX 3.84TB SATA Read Intensive LFF LPC S4520 SSD (P56757-B21)

HPE DX 3.84TB SATA 6G Read Intensive LFF LPC PM893 FIO SSD P56746-B21

- Standalone: HPE DX 3.84TB SATA Read Intensive LFF LPC PM893 SSD (P56747-B21)

Mixed Use - 24G SAS - SFF - Solid State Drives

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

- Standalone: HPE DX 3.2TB SAS Mixed Use SFF BC MV SSD (P57637-B21)

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

- Standalone: HPE DX 6.4TB SAS Mixed Use SFF BC MV SSD (P57641-B21)

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

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

- Standalone: HPE 1.92TB SATA Mixed Use SFF BC PM897 SSD (P44013-B21)

HPE DX 1.92TB SATA 6G Mixed Use SFF BC Multi Vendor FIO SSD P56735-B21

Core Options

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

HPE DX 1.6TB SAS 12G Mixed Use LFF LPC Multi Vendor FIO SSD P58747-B21

- Standalone: HPE DX 1.6TB SAS Mixed Use LFF LPC MV SSD (P57629-B21)

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

- Standalone: HPE DX 3.2TB SAS Mixed Use LFF LPC MV SSD (P57613-B21)

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

- Standalone: HPE DX 6.4TB SAS Mixed Use LFF LPC MV SSD (P57617-B21)

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

HPE DX 960GB SATA 6G Mixed Use LFF LPC PM897 SSD P57509-B21

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

- Standalone: HPE DX 1.92TB SATA Mixed Use LFF LPC S4620 SSD (P57525-B21)

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

- Standalone: HPE DX 1.92TB SATA Mixed Use LFF LPC PM897 SSD (P57517-B21)

Read Intensive – NVMe U.3 – SFF Basic Carrier Solid State Drives

Notes: Mixing of HDD and NVMe drives not allowed.

HPE DX 1.92TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PM1733a FIO SSD P57765-B21

- Standalone: P50216-B21

HPE DX 3.84TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PM1733a FIO SSD P57767-B21

- Standalone: P50219-B21

HPE DX 7.68TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PM1733a FIO SSD P57769-B21

- Standalone: P50222-B21

HPE DX 15.36TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PM1733a FIO SSD P57771-B21

- Standalone: P50224-B21

Mixed Use – NVMe U.3 – SFF Basic Carrier Solid State Drives

Notes: Mixing of HDD and NVMe drives not allowed.

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

- Stanalone: P50230-B21

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

- Standalone: P50233-B21

HPE Networking

1 Gigabit Ethernet adapters

Intel I350-T4 Ethernet 1Gb 4-port BASE-T FIO Adapter for HPE DX P43270-B21

Notes:

- Cannot be installed on slot #2.
- Can be used to fulfill factory diagnostics requirements.

10 Gigabit Ethernet adapters

Notes: All cards below can be used to fulfill factory diagnostics requirements.

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

Core Options

25 Gigabit Ethernet adapters

Notes: Unless otherwise stated, all cards below can be used to fulfill factory diagnostics requirements.

Mellanox MCX512F-ACHT Ethernet 10/25Gb 2-port SFP28 FIO Adapter for HPE DX P43274-B21

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

DX BCM 57414 10/25GbE 2p SFP28 FIO Adptr P53862-B21

- Standalone: P26262-B21

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

100 Gigabit Ethernet adapters

Notes:

- All cards below limited to 30°C maximum inlet temperature.
- None of the cards below support PXE Boot.
- Unless otherwise stated, all cards below can be used to fulfill factory diagnostics requirements.

Mellanox MCX623106AS-CDAT Ethernet 100Gb 2-port QSFP56 FIO Adapter for HPE DX P43273-B21

OCP Adapters

Notes: Unless otherwise stated, all cards below can be used to fulfill factory diagnostics requirements.

Intel I350-T4 Ethernet 1Gb 4-port BASE-T OCP3 FIO Adapter for HPE DX P43269-B21

Notes: Requires UEFI, not supported on Legacy Mode.

Broadcom BCM57416 Ethernet 10Gb 2-port BASE-T OCP3 FIO Adapter for HPE DX P43272-B21

Notes: Requires UEFI, not supported on Legacy Mode.

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

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

Mellanox MCX562A-ACAI Ethernet 10/25Gb 2-port SFP28 OCP3 FIO Adapter for HPE DX P43275-B21

DX BCM 57414 10/25G 2p SFP28 OCP3 FIO Adapter for HPE DX Servers P53861-B21

- Standalone: P10115-B21

Notes:

- Cannot be used to fulfill factory diagnostics requirements, select an alternate NIC.
- Must add x16 OCP enablement kit (P36661-B21) if NIC x16 connectivity desired.

HPE ProLiant DL300 Gen10 Plus OCP x16 Enablement Kit P36661-B21

Notes:

- Adds x8 PCIe 4.0 lanes to OCP slot, recovering from unused AROC connector on configurations without Flexible Storage controllers.
- Cannot be used in conjunction with any Flexible Storage Controller.
- Requires High Performance Fan Kit (P26477-B21).
- 30°C maximum inlet temperature.

Core Options

HPE Power Supplies

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

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 use the **HPE Power Advisor Tool**.

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

HPE Flex Slot Platinum Hot-plug Power supplies

HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	830272-B21
Notes: 1600W Power supplies only support high line voltage (200 VAC to 240 VAC).	
HPE 1000W Flex Slot Titanium Hot Plug Power Supply Kit	P03178-B21
HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	865414-B21
HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit	865438-B21
HPE 800W Flex Slot -48VDC Hot Plug Low Halogen Power Supply Kit	865434-B21
HPE 500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	865408-B21

HPE Computation and Graphics Accelerators

NVIDIA Tesla T4 16GB FIO Computational Accelerator for HPE DX — P17819-B21

- Standalone: R0W29C

Notes:

- Requires High Performance Fan Kit (P26477-B21).
- This option cannot be installed in slot 2.
- When this GPU is selected with the FH secondary riser (P26467-B21), server cannot be shipped integrated into a rack.

HPE ProLiant DL36X Gen10 Plus CPU1 GPU Cable Kit — P26469-B21

Notes: For cards requiring more than 75W and up to 150W.

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.

Embedded Management

HPE iLO Common Password Setting

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.

HPE Converged Infrastructure Management Software

HPE OneView Advanced (with HPE iLO Advanced)

HPE OneView including 3yr 24x7 Support Physical 1-server LTU E5Y34A

HPE OneView including 3yr 24x7 Support Flexible Quantity E-LTU E5Y35AAE

HPE OneView Advanced (without HPE iLO Advanced)

HPE OneView w/o iLO including 3yr 24x7 Support 1-server LTU P8B24A

HPE OneView w/o iLO including 3yr 24x7 Support Track 1-server LTU P8B25A

HPE OneView w/o iLO including 3yr 24x7 Support Flexible Quantity E-LTU P8B26AAE

Notes:

- Licenses ship without media. The HPE OneView Media Kit can be ordered separately, or can be downloaded at: **https://www.hpe.com/us/en/integrated-systems/software.html**
- Electronic and Flexible-Quantity licenses can be used to purchase multiple licenses with a single activation key.
- Licenses ship without media. The HPE OneView Media Kit can be ordered separately, or can be downloaded at: **https://www.hpe.com/us/en/integrated-systems/software.html**

HPE Security

HPE 1U Gen10 Bezel Kit 867998-B21

HPE Bezel Lock Kit 875519-B21

HPE Gen10 Plus Chassis Intrusion Detection Kit P14604-B21

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

HPE Trusted Platform Module 2.0 Gen10 Plus Black Rivets Kit P13771-B21

Notes:

- HPE Trusted Platform Module 2.0 option works with Gen10 Plus servers with UEFI Mode not Legacy Mode. It is not compatible with HPE ProLiant Gen10 or earlier servers.
- HPE server systems can have a TPM module (of any type) installed only once. It cannot be replaced with any other TPM module.

HPE Gen10 TPM 1.2 FIO Setting 872108-B21

Notes: This is a FIO setting to allows the TPM 2.0 module to operate in a TPM 1.2 mode.

Additional Options

HPE Rack Options

Rail Kits

HPE ProLiant DX300 Gen10 Plus 1U SFF Easy Install FIO Rail Kit	P43922-B21
HPE DX 1U LFF Easy Install FIO Rail Kit	P43560-B21
HPE ProLiant DX300 Gen10 Plus 1U FIO Cable Management Arm for Rail Kit	P43923-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.
- 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 Racks

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

HPE Power Distribution Units (PDUs)

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

HPE Uninterruptible Power Systems (UPS)

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

HPE Support Services

Installation & Start-up Services

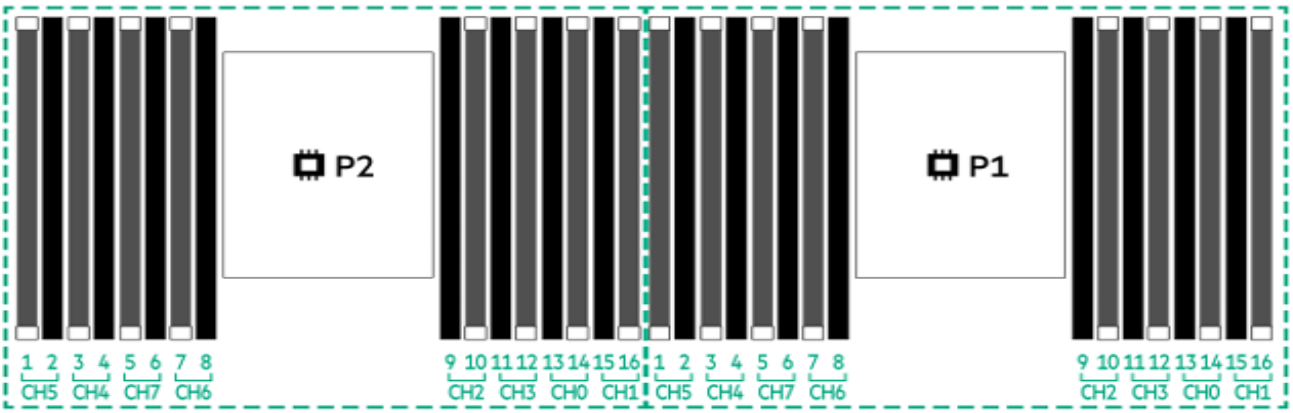
Tech Care

HPE 3 Year Tech Care Essential Proliant DL360 Gen10+ Service	HY4U7E
HPE 3 Year Tech Care Essential wDMR Proliant DL360 Gen10+ Service	HY4U8E
HPE 5 Year Tech Care Essential Proliant DL360 Gen10+ Service	HY4X1E
HPE 5 Year Tech Care Essential wDMR Proliant DL360 Gen10+ Service	HY4X2E

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

Memory

Memory Population guidelines



HPE ProLiant DX360 Gen10 Plus

HPE ProLiant Gen10 Plus 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														14		
2 DIMMs			3											14		
4 DIMMs			3				7			10				14		
6 DIMMs	1		3				7			10				14		16
8 DIMMs	1		3		5		7			10		12		14		16
12 DIMMs	1	2	3	4			7	8	9	10			13	14	15	16
12 DIMMs[1]	1		3	4	5		7	8	9	10		12	13	14		16
16 DIMMs	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Notes:

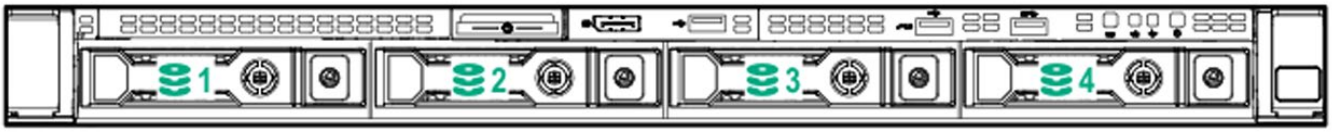
- Ommited DIMM counts/socket not qualified by Intel.
- [1] Required by Sub-NUMA Cluster (SNC) configurations, must be ordered with 12 DIMM SNC2 FIO Enable Kit (P26933-B21).

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 details on the HPE Server Memory Options Population Rules, visit: **http://www.hpe.com/docs/memory-population-rules**
- To realize the performance memory capabilities listed in this document, HPE DDR4 Smart Memory is required. For additional information, please see the **HPE DDR4 Smart Memory QuickSpecs.**

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/psnow/doc/a00019564enw**

Storage



4 LFF device bay numbering

8 SFF + ODD device bay numbering

8 SFF + 2 SFF device bay numbering

Box	Description
1	Bays 1-8
2	Bays 1 and 2

Technical Specifications

System Unit

Dimensions (Height x Width x Depth)

SFF Drives

- 4.29 x 43.46 x 74.19 cm
  1.69 x 17.11 x 29.21 in

LFF Drives

- 4.29 x 43.46 x 77.31 cm
  1.69 x 17.11 x 30.44 in

Weight (approximate)

- **13.29 kg (29.29 lb)**
  - **SFF minimum**: One drive, one processor, one power supply, two heatsinks, one Smart Array controller, and five fans.
- **18.11 kg (39.92 lb)**
  - **SFF maximum:** 10 drives, two processors, two power supplies, two heatsinks, one Smart Array controller and seven fans.
- **15.09 kg (33.27 lb)**
  - **LFF minimum:** one drive, one processor, one power supply, two heatsinks, one Smart Array controller and five fans.
- **19.45 kg (42.88 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
- For 800W (Titanium): 200-240 VAC
- For 800W (Platinum): 100-240 VAC
- For 800W (Universal): 200-277 VAC
- For 800W (-48VDC): -40 Vdc to -72 Vdc
- 500W (Platinum): 100-240 VAC

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 (Platium) 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)
- For 500W (Platinum) Power Supply: 1902 BTU/hr (at 100 VAC), 1840 BTU/hr (at 200 VAC), 1832 BTU/hr (at 240 VAC)

Technical Specifications

Power Supply Output (per power supply)

Rated Steady-State Power

- For 1600W (Titanium) Power Supply: 1600W (at 240 VAC), 1600W (at 240 VDC) 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 (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)
- For 500W (Platinum) Power Supply: 500W (at 100 VAC), 500W (at 240 VAC), 500W (at 240 VDC) input for China only

Maximum Peak Power

- For 1600W (Titanium) Power Supply: 1600W (at 240 VAC), 1600W (at 240 VDC) 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 (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)
- For 500W (Platinum) Power Supply: 500W (at 100 VAC), 500W (at 240 VAC), 500W (at 240 VDC) input for China only

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 10°C/hr (18°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).
  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**

- **Extended Ambient Operating Support**
  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).

Relative Humidity (non-condensing)

- **Operating**
  10% 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

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:
http://www.hpe.com/support/Safety-Compliance-EnterpriseProducts

HPE Smart Array

For latest information on **HPE Smart Array Gen10 Plus Controllers for HPE ProLiant DL, ML and Apollo Servers** please refer to their QuickSpecs.

Acoustic Noise

Listed are the declared A-Weighted sound power levels (LWAd) and declared average bystander position A-Weighted sound pressure levels (LpAm) 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	3	4	5	6
Idle					
LWAd	5.1 B	5.4 B	5.4 B	5.1 B	5.1 B
LpAm	35 dBA	38 dBA	39 dBA	36 dBA	35 dBA
Operating					
LWAd	5.9 B	5.6 B	6.2 B	5.1 B	5.6 B
LpAm	45 dBA	41 dBA	47 dBA	34 dBA	40 dBA

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.

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
18-Mar-2024	Version 10	Changed	Standard Features, Configuration Information and Additional Options sections were updated.
20-Nov-2023	Version 9	Changed	HPE Services Rebranding
24-Jul-2023	Version 8	Changed	Updated GPU SKU information
10-Jul-2023	Version 7	Changed	Core Options section was updated.
01-May-2023	Version 6	Changed	Updated SSD's / Core Options section was updated
10-Jan-2023	Version 5	Changed	Standard Features, Configuration Information and Core Options sections were updated. Updated SSD, Processor and boot devices
12-Sep-2022	Version 4	Changed	Core Options and Additional Options sections were updated
04-Apr-2022	Version 3	Changed	Configuration Information section was updated. Obsolete SKU was removed.
15-Nov-2021	Version 2	Changed	Service and Support section was updated.
07-Sep-2021	Version 1	New	New QuickSpecs.

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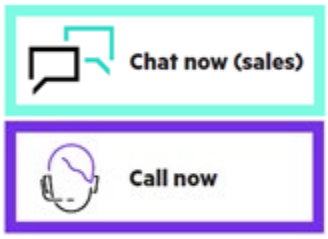

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