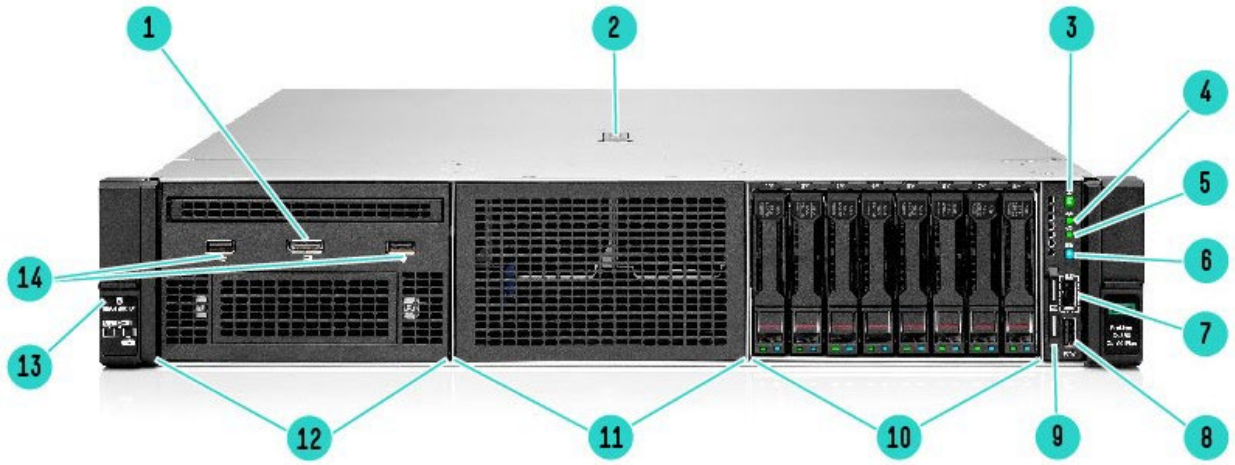
RETIRED: This document has been officially retired, and the base products listed herein are now considered obsolete and are no longer available for sale. Consequently, the information contained within may no longer be current. This document is provided exclusively for reference and informational purposes.

Overview

HPE ProLiant DX380 Gen10 Plus Server

Adaptable for diverse workloads and environments, the secure 2P 2U HPE ProLiant DX380 Gen10 Plus delivers world-class performance with the right balance of expandability and scalability. Designed for supreme versatility and resiliency while being backed by a comprehensive warranty make it ideal for multiple environments from Containers to Cloud to Big Data. Standardize on the industry's most trusted compute platform.

The HPE ProLiant DX380 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.



Front View – SFF chassis

1. Optional front display port (Via Universal Media Bay)
2. Quick removal access panel
3. Power On/Standby button and system power LED
4. Health LED
5. NIC status LED
6. UID button/LED
7. iLO Service Port
8. USB 3.0
9. Serial number label pull tab
10. Box 3 - 8 SFF Drive Cage Bay
11. Box 2 - Optional 8 SFF Drive Cage Bay
12. Box 1 - Universal Media Bay (optional):
13. Drive support label
14. Optional USB 2.0 (via Universal Media Bay)

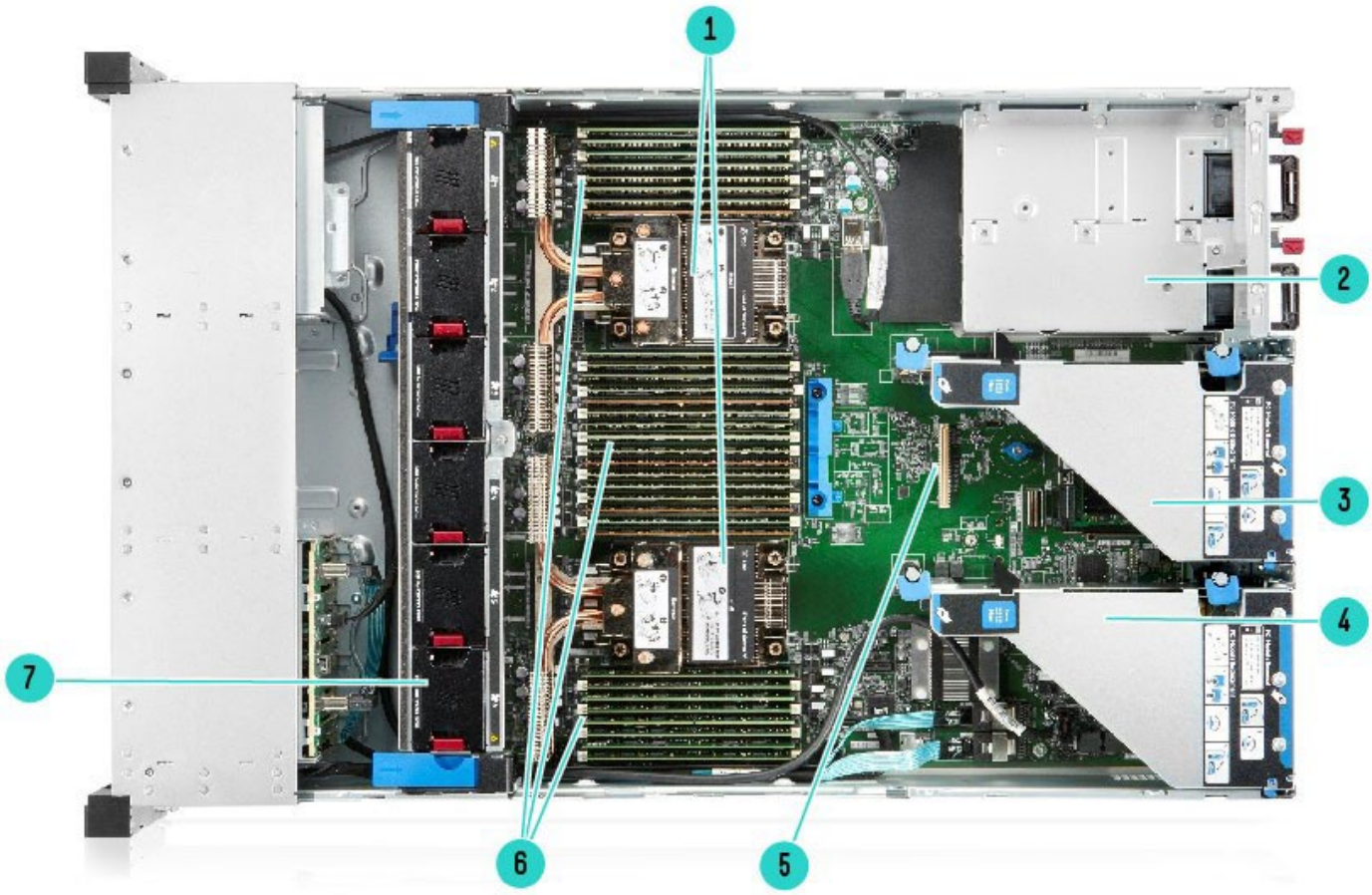
Overview



Front View – 12LFF chassis shown

1. Health Status
2. Power On/Standby button and system power LED button
3. NIC Status
4. UID button/LED
5. 12 x LFF media
6. Drive support label
7. Quick removal access panel

Overview



Internal View 8SFF chassis

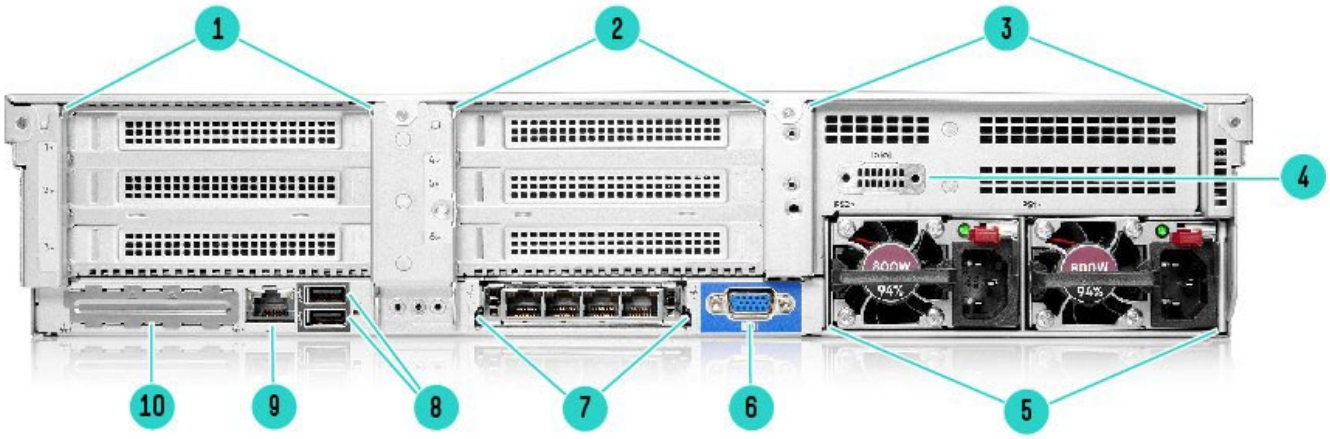
1. 2 Processors, heatsink showing
2. Hot Plug redundant HPE Flexible Slot Power supplies
3. Second (optional) riser (Requires second CPU)
4. Primary riser
5. AROC connector
6. DDR DIMM Slots[1]
7. Hot plug fans (6 single rotor standard)[2]

Notes:

– [1]Shown fully populated in 32 slots (16 per processor)

– [2]High performance temperature fans standard

Overview



Rear View – Standard for all DX380 Gen10 Plus

1. Primary Riser. PCIe 4.0 Slots (Slots 1-3)
2. Secondary Riser. PCIe 4.0 Slots (Slots 4-6)
3.. Tertiary Riser (Slots 7-8).
4. Optional serial port
5. Power Supply 1 and 2
6. VGA connector
7. OCP NIC ports (if equipped)[1]
8. USB connectors 3.0 (2)
9. Dedicated ILO Management Port
10. Blank cover, not available for use

Notes: [1] Supports various NICs, up to 100GbE.

What's New

- New HPE ProLiant DX380 Gen10 Plus Servers with Broadcom controllers
- 3rd Generation Intel® Xeon® Scalable processors

Platform Information

Form Factor

- 2U rack

Chassis Types

- 8SFF (SAS/SATA)
- 24SFF bay (SAS/SATA)
- 12LFF

System Fans

- High Performance Standard – fan types included

Standard Features

Processors – Up to 2 of the following depending on model.
The 2nd digit of the processor model number "x3xx" is used to denote the processor generation (i.e. 3=3rd generation Intel Scalable Series Processors)
Notes: Field upgrades from 1st generation processors (x1xx) and/or 2nd generation processors (x2xx) not supported.
"U" processors (i.e. 63xxU) only supported in single-socket configurations.

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

This table covers the public Intel offering only.

Intel Xeon processors		
Processor Suffix	**Description**	**Offering**
N	NFV Optimized	Targeted at Network Function Virtualization (NFV) workloads. Intel® SST-BF improves performance by directing base frequency to high priority/bottleneck cores. Other workloads may see throttling, more details to be provided in upcoming documentation.
S	Search Optimized	Optimized base frequency to address 'search' workloads. Other workloads may see throttling, more details to be provided in upcoming documentation.
U	1 Socket Optimized	Focused on single socket (1P) configurations, delivering performance at competitive price points. Does not support two socket (2P) arrangements.
V	VM Optimized	Fosters enhanced VM density, allowing to support more/larger virtual machines per host.
Y	Speed Select	Intel® SST-PP increases base frequency when fewer cores are enabled. Allows greater flexibility, deployment options and platform longevity.

Notes: More than 1.5 TB memory per socket requires memory higher than 128 GB capacity

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

Notes:
- Processors with TDP equal to or greater than 150W require High Performance Heatsink (P27095-B21)
- 8-Channel DDR4 @ 3200 MT/s (lower DDR4 speed may be used in segment optimized processors (i.e. Cloud, NFV, etc.).
- 4TB max RAM per socket. 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.
- 64 Features: Advanced RAS (except 8358P), AVX-512 2 FMA, TME-MT 64 keys.
- Speed Select Performance Profile processors ("Y") default to values in bold.
- [1]Deterministic base frequency rating only applicable to VM workloads. Other workloads may see throttling.

Standard Features

- [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]Does not support Intel Speed Select Technology – Base Frequency (SST-BF).
- [5]Does not support Sub-NUMA 2 (SNC2).
- [6]Default Speed Select Performance Profile value.

3rd Generation Intel® Xeon® Scalable Processor Family							
Intel Xeon Models	**CPU Frequency**	**Cores**	**L3 Cache (MB)**	**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 6338 Processor	2.0 GHz	32	48 MB	205W	3 @ 11.2 GT/s	3200 MT/s	64GB
Gold 6336Y Processor	2.4 GHz 2.9 GHz 3.1 GHz	24 12 8	36 MB	185W 150W 150W	3 @ 11.2 GT/s	2933 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 6342 Processor	2.8 GHz	24	36 MB	230W	3 @ 11.2 GT/s	3200 MT/s	64GB
Gold 6334 Processor	3.6 GHz	8	18 MB	165W	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

Notes:

- Processors with TDP equal to or greater than 150W require High Performance Heatsink (P27095-B21)
- 8-Channel DDR4 @ 3200 MT/s (lower DDR4 speed may be used in segment optimized processors (i.e. Cloud, NFV, etc.).
- DIMMs need to be selected in even quantities. Using odd quantity of DIMMs in configurations will cause memory to be unbalanced and may negatively impact system performance.
- 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.
- 64 lanes PCIe 4.0, advanced RAS. Features: Advanced RAS, AVX-512 2 FMA, 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

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 5315Y Processor	3.2 GHz[3] 3.2GHz 3.4GHz	8[3] 6 4	12MB	140W	3 @ 11.2 GT/s	2933 MT/s	64GB
Gold 5317 Processor	3.0 GHz	12	18 MB	150W	3 @ 11.2 GT/s	2933 MT/s	64GB
Gold 5318Y Processor	2.1 GHz3 1.9GHz 2.0GHz	24[3] 24 22	36MB	165W[3] 150W 150W	3 @ 11.2 GT/s	2933 MT/s	64GB
Gold 5318S Processor[1]	2.1 GHz	24	36MB	165W	3 @ 11.2 GT/s	2933 MT/s	512MB

Notes:

- Processors with TDP equal to or greater than 150W require High Performance Heatsink (P27095-B21)
- 8-channel DDR4 @ 2933 MT/s (lower DDR4 speed may be used in segment optimized processors (i.e. NFV, etc).
- DIMMs need to be selected in even quantities. Using odd quantity of DIMMs in configurations will cause memory to be unbalanced and may negatively impact system performance.
- 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.

Standard Features

- 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
Silverv 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:

- Processors with TDP equal to or greater than 150W require High Performance Heatsink (P27095-B21)
- 8-channel DDR4 @ 2667 MT/s.
- DIMMs need to be selected in even quantities. Using odd quantity of DIMMs in configurations will cause memory to be unbalanced and may negatively impact system performance.
- 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.

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

On System Management Chipset

HPE iLO 5 ASIC

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

Memory

One of the following depending on model.

Type	HPE DDR4 Smart Memory, Registered (RDIMM)
DIMM Slots Available	32 16 DIMM slots per processor, 8channels 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
Maximum capacity (Intel Optane Persistent Memory for HPE)	8.0 TB 16 X 512 GB Memory Modules

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

Standard Features

Expansion Slots

Primary Riser

Notes:

- Bus width indicates the number of physical electrical lanes running to the connector.
- There are 3 types of risers supported on Primary Slot

Primary Riser1					
Slots #	**Technology**	**Bus Width**	**Connector Width**	**Slot Form Factor**	**Notes**
1	PCIe 4.0	X8	X16	Full-height,full-length slot	Proc 1
2	PCIe 4.0	X16	X16	Full-height,full-length slot	Proc 1
3	PCIe 4.0	X8	X16	Full-height,half-length slot	Proc 1

Primary Riser2					
Slots #	**Technology**	**Bus Width**	**Connector Width**	**Slot Form Factor**	**Notes**
1	PCIe 4.0	X16	X16	Full-height,full-length slot	Proc 1
2	PCIe 4.0	X16	X16	Full-height,full-length slot	Proc 1
3	NA	NA	NA	NA	NA

Primary Riser3					
Slots #	**Technology**	**Bus Width**	**Connector Width**	**Slot Form Factor**	**Notes**
1**	NA	NA	NA	NA	NA
1	PCIe 4.0	X16	X16	Full-height,full-length slot	Proc 1
2	PCIe 4.0	X16	X16	Full-height,full-length slot	Proc 1
3	PCIe 4.0	X16	X16	Full-height,half-length slot	Proc 1

Notes: ** Default Slot1 on the Primary Riser3 is empty and not available. It requires P14600-B21 in conjunction with the Primary Riser3 to add additional x16 PCIe Gen4 in slot1.

Secondary Riser

Notes:

- Bus Width Indicates the number of physical electrical lanes running to the connector.
- There are 3 types of risers support on Secondary Slot

Secondary Riser1					
Slots #	**Technology**	**Bus Width**	**Connector Width**	**Slot Form Factor**	**Notes**
4	PCIe 4.0	X8	X16	Full-height,full-length slot	Proc 2
5	PCIe 4.0	X16	X16	Full-height,full-length slot	Proc 2
6	PCIe 4.0	X8	X16	Full-height,half-length slot	Proc 2

Secondary Riser2					
Slots #	**Technology**	**Bus Width**	**Connector Width**	**Slot Form Factor**	**Notes**
4	PCIe 4.0	X16	X16	Full-height,full-length slot	Proc 2
5	PCIe 4.0	X16	X16	Full-height,full-length slot	Proc 2
6	NA	NA	NA	NA	NA

Secondary Riser3					
Slots #	**Technology**	**Bus Width**	**Connector Width**	**Slot Form Factor**	**Notes**
4*	NA	NA	NA	NA	NA
4	PCIe 4.0	X16	X16	Full-height,full-length slot	Proc 2
5	PCIe 4.0	X16	X16	Full-height,full-length slot	Proc 2
6	PCIe 4.0	X16	X16	Full-height,half-length slot	Proc 2

Standard Features

Notes: * Default Slot4 on the Secondary Riser3 is empty and not available. It requires P14600-B21 in conjunction with the Secondary Riser3 to add additional x16 PCIe Gen4 in slot4

Tertiary Riser:

Notes:

- Bus Width Indicates the number of physical electrical lanes running to the connector.
- There are 2 types of risers support on Tertiary Slot

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

Tertiary Riser2					
Slots #	**Technology**	**Bus Width**	**Connector Width**	**Slot Form Factor**	**Notes**
7	PCIe 4.0	X8	X16	Full-height,full-length slot	Proc 2
8	PCIe 4.0	X8	X16	Full-height,full-length slot	Proc 2

Graphics

Integrated Video Standard

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

HPE iLO 5 on system management memory

- 32 MB Flash
- 4 Gbit DDR 3 with ECC protection

Maximum Internal Storage

Drive	Capacity	Configuration
Hot Plug SFF SAS HDD	57.6TB	24x2.4TB
Hot Plug LFF SAS HDD	216 TB	12x 18 TB
Hot Plug LFF SATA HDD	46.08 TB	12x 3.84 TB
Hot Plug SFF SAS SSD	368.64 TB	24x15.36 TB
Hot Plug SFF SATA SSD	92.16 TB	24x3.84 TB
Hot Plug SFF NVMe PCIe SSD	122.88TB	8x 15.36 TB

Notes: *UFF drives are also supported.

Internal Storage Devices

- **Hard Drives**
  None ship standard

Standard Features

Power Supply

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

HPE Flexible Slot (Flex Slot) Power Supplies share a common electrical and physical design that allows for hot plug, tool-less installation into HPE ProLiant 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.

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

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

Tri-Mode Controller

- HPE MR216i-a Gen10 Plus Controller
  Notes: PE80xx NVMe drives are not supported.

Interfaces

Serial	Optional/Rear
Display Port	1 optional front display port via Universal Media Bay
VGA Port	1 standard, rear for all chassis.
Network Ports	None standard. Choice of OCP networking card or stand-up networking card required. BTO models will come pre-selected with a primary OCP networking card.
HPE iLO Remote Management Network Port	1 Gb Dedicated, rear
Front iLO Service Port	1 standard (Not available on 12 LFF chassis or when SID is ordered, note iLO dongle required. Hewlett Packard Enterprise recommends the HPE USB to Ethernet Adapter (part number Q7Y55A).)
Micro SD Slot	Optional via HPE 32GB microSD RAID1 USB Boot Device **Notes:** The Micro SD slot is not a hot-pluggable device. Customers should not attempt to plug an SD card into the SD slot while the server is powered.
USB 3.0	Up to 5 total: 1 front, 2 rear, 2 internal (secure), 2 optional USB 2.0 front via Universal Media Bay, or standard on 8LFF chassis
SID (Systems Insight Display)	Optional **Notes:** Not shipping as standard. Available as a CTO option or as a field upgrade (P27096-B21).

Standard Features

Operating Systems and Virtualization Software Support for ProLiant Servers

HPE servers are designed for seamless integration with partner Operating Systems and Virtualization Software. By collaborating closely with our partners, we ensure that their products are optimized, certified, and fully supported within your HPE server environment. Access the certified and supported servers for each of the OS and Virtualization software: **HPE Servers Support & Certification Matrices**

- 3rd Generation Intel® Xeon® Scalable Processor Family
- Nutanix Acropolis Operating System (AOS) Version 5.10.5 and higher. Nutanix 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.

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 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
- 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.
- 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.

Industry Standard Compliance

- ACPI 6.3 Compliant
- PCIe 4.0 Compliant
- WOL Support
- Microsoft® Logo certifications
- PXE Support
- VGA/Display Port
  Notes: This support is on the optional Universal Media Bay.
- USB 3.0 Compliant (internal)

Standard Features

- USB 2.0 Compliant (external ports via SUV)
  Notes: This support is on the optional Universal Media Bay.
- Energy Star
- SMBIOS 3.2
- Redfish API
- IPMI 2.0
- Secure Digital 4.0
- TPM 1.20 and 2.0 Support
- Advanced Encryption Standard (AES)
- Triple Data Encryption Standard (3DES)
- SNMP v3
- TLS 1.2
- DMTF Systems Management Architecture for Server Hardware Command Line Protocol (SMASH CLP)
- Active Directory v1.0
- 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, go into effect on March 1st, 2020. Among other requirements, for servers this directive establishes power thresholds for idle state, as well as efficiency and performance in active state which vary among configurations. HPE ProLiant Gen10 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 DL380 Gen10 Plus. Legacy mode can be selected in the field or as a CTO option (758959-B22); some configuration restrictions apply.

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 1 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**.

Standard Features

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).

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 and Gen10 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
- Tamper-free updates – components digitally signed and verified
- Immutable Silicon Root of Trust
- Ability to rollback firmware
- FIPS 140-2 validation
- Secure erase of NAND/User data
- Common Criteria certification
- TPM (Trusted Platform Module) 1.2 option
- Configurable for PCI DSS compliance
- TPM (Trusted Platform Module) 2.0 option
- Advanced Encryption Standard (AES) and Triple Data Encryption Standard (3DES) on browser
- Bezel Locking Kit option
- Support for Commercial National Security Algorithms (CNSA)
- Chassis Intrusion detection option
- Secure Recovery – recover critical firmware to known good state on detection of compromised firmware

Standard Features

Warranty

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

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

Optional Features

Server Management

HPE iLO Advanced

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 and Gen10 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**.

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#

Rack and Power Infrastructure

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

HPE G2 Advanced and Enterprise Racks are perfect for the server room or today's modern data center with enhanced airflow and thermal management, flexible cable management, and a 10 year Warranty to support higher density computing.

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

HPE Uninterruptible Power Systems are cost-effective power protection for any type workload. Some UPSs include options for remote management and extended runtime modules so your critical dense data center is covered in power outages.
HPE KVM Solutions include a console and switches designed to work with your server and IT equipment reliably. We've got a cost-effective KVM switch for your first rack and multiple connection IP switches with remote management and security capabilities to keep your data center rack up and running.

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

Service and Support

HPE Services

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

https://www.hpe.com/services

Consulting Services

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

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

HPE Managed Services

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

HPE Managed Services | HPE

Operational services

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

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

HPE Complete Care Service

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

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

https://www.hpe.com/services/completecare

HPE Tech Care Service

HPE Tech Care Service is the operational support service experience for HPE products. The service goes beyond traditional support by providing access to product specific experts, an AI driven digital experience, and general technical guidance to not only reduce risk but constantly search for ways to do things better. HPE Tech Care Service delivers a customer-centric, AI driven, and digitally enabled customer experience to move your business forward. HPE Tech Care Service is available in three response levels. Basic, which provides 9x5 business hour availability and a 2-hour response time. Essential which provides a 15-minute response time 24x7 for most enterprise level customers, and Critical which includes a 6-hour repair commitment where available and outage management response for severity 1 incidents.

https://www.hpe.com/services/techcare

Service and Support

HPE Lifecycle Services

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

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

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

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

Other Related Services from HPE Services:

HPE Education Services

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

Defective Media Retention

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

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

Parts and Materials

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

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

How to Purchase Services

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

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

Service and Support

AI Powered and Digitally Enabled Support Experience

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

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

Consume IT On Your Terms

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

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

To learn more about HPE Services, please contact your Hewlett Packard Enterprise sales representative or Hewlett Packard Enterprise Authorized Channel Partner. Contact information for a representative in your area can be found at "Contact HPE"
https://www.hpe.com/us/en/contact-hpe.html

For more information
http://www.hpe.com/services

Configuration Information

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

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

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

CTO Server Models	HPE ProLiant DX380 Gen10 Plus 12LFF CTO Server	HPE ProLiant DX380 Gen10 Plus 8SFF CTO Server	HPE ProLiant DX380 Gen10 Plus 24SFF CTO Server
SKU Number	P56703-B21	P56704-B21	P56705-B21
Processor	Not included as standard	Not included as standard	Not included as standard
DIMM Slots	32-DIMM slots	32-DIMM slots	32-DIMM slots
Storage Controller	1 x MR216i-a	1 x MR216i-a	1 x MR216i-p+ 1 x MR216i-p
PCIe	Three standard in primary riser		
Drive Cage - included	12 LFF	8 SFF	24 SFF
Network Controller	Choice of either OCP 3.0 or select stand-up network adapters for primary networking selection plus additional/optional stand-up network adapters **Notes:** No embedded networking		
Fans	6-Performance	6-Performance	6-Performance
Management	HPE iLO Advance with 3 year support (standard)		
USB	None as standard	1x 3.0 standard plus iLO front service port	1x 3.0 standard plus iLO front service port

Notes:

- HPE Trusted Supply Chain (P36394-B21) is an optional security upgrade intended for agencies and regulated industries needing enhanced security and compliance needs. Applying this option to a DL380 Gen10 Plus CTO server ensures it is built in the USA in a secured facility by vetted HPE personnel assigned to the manufacturing processes. A multitude of checkpoints/inspections for malicious microcode and counterfeit parts are performed throughout the server build, and additional safeguards are put in place against cyber-exploits throughout the server lifecycle. The HPE ProLiant DL380 Gen10 Plus Server is re-branded as a HPE ProLiant DL380T Gen10 Plus to denote the HPE Trusted Supply Chain security enhancements. The DL380T Gen10 Plus is currently supported in the USA, exclusively, and is Trade Agreement Act (TAA) compliant. See “HPE Security” section within this document for more detail and learn more at **http://www.hpe.com/security**
- 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. TAA compliance is only provided when HPE options are included as part of factory integrated orders (CTO).
- All CTO servers are Energy Star 3.0 compliant.

Step 2: Choose Required Options

Please select up to two processors required below.

Notes:

- Maximum memory capacity per processor is dependent on processor models. All processors support up to 6 TBmax memory per processor.
- Mixing of 2 different processor models are NOT allowed.
- DDR4 speed is the maximum memory speed of the processor. Actual memory speed may depend on the quantity and type of DIMMs installed.

Configuration Information

Step 2a: Choose Processors

Processor Option Kits (Required Processor)

3rd Generation Intel Xeon-Platinum

Notes:

- Field upgrades from 1st generation processors (x1xx) or 2nd generation processors (x2xx) to 3rd generation processors (x3xx) not supported.
- All SKUs below ship with processor only.

Intel Xeon-Platinum 8380 2.3GHz 40-core 270W Processor for HPE	P36941-B21
Intel Xeon-Platinum 8368 2.4GHz 38-core 270W Processor for HPE	P36940-B21
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
Intel Xeon-Platinum 8358 2.6GHz 32-core 250W Processor for HPE	P36938-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: Requires H DIMM blanks kit (P07818-B21).

3rd Generation Intel Xeon-Gold

Notes: Field upgrades from 1st generation processors (x1xx) or 2nd generation processors (x2xx) to 3rd generation processors (x3xx) not supported.

Intel Xeon-Gold 6330 2.0GHz 28-core 205W FIO Processor for HPE DX Gen10 Plus	P43446-B21
Intel Xeon-Gold 6338 2.0GHz 32-core 205W FIO Processor for HPE DX Gen10 Plus	P43447-B21
Intel Xeon-Gold 6346 3.1GHz 16-core 205W FIO Processor for HPE DX Gen10 Plus	P43451-B21
Intel Xeon-Gold 6354 3.0GHz 18-core 205W FIO Processor for HPE DX Gen10 Plus	P43452-B21
Intel Xeon-Gold 6348 2.6GHz 28-core 235W FIO Processor for HPE DX Gen10 Plus	P43454-B21
Intel Xeon-Gold 6342 2.8GHz 24-core 230W FIO Processor for HPE DX Gen10 Plus	P43453-B21
Intel Xeon-Gold 6336Y 2.4GHz 24-core 185W Processor for HPE	P36926-B21
Intel Xeon-Gold 6334 3.6GHz 8-core 165W FIO Processor for HPE DX Gen10 Plus	P43450-B21
Intel Xeon-Gold 6326 2.9GHz 16-core 185W FIO Processor for HPE DX Gen10 Plus	P43449-B21
Intel Xeon-Gold 6314U 2.3GHz 32-core 205W FIO Processor for HPE DX Gen10 Plus	P43458-B21

Notes: Single socket capable, no dual socket support.

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

Notes: Single socket capable, no dual socket support.

Intel Xeon-Gold 5320 2.2GHz 26-core 185W FIO Processor for HPE DX Gen10 Plus	P43445-B21
Intel Xeon-Gold 5317 3.0GHz 12-core 150W FIO Processor for HPE DX Gen10 Plus	P43448-B21
Intel Xeon-Gold 5318S 2.1GHz 24-core 165W Processor for HPE	P37612-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

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
Intel Xeon-Silver 4314 2.4GHz 16-core 135W FIO Processor for HPE DX Gen10 Plus	P43443-B21
Intel Xeon-Silver 4310 2.1GHz 12-core 120W FIO Processor for HPE DX Gen10 Plus	P43442-B21

Configuration Information

Intel Xeon-Silver 4309Y 2.8GHz 8-core 105W Processor for HPE	P36920-B21

Step 2b: Choose Memory Options

Please select one or more memory from below.
For new Gen10 Plus memory population rule whitepaper and optimal memory performance guidelines, please go to:
HPE Memory Population Rules
For Gen10 Plus memory speed table, please go to: **https://www.hpe.com/docs/memory-speed-table**
For memory Reliability, Accessibility, Serviceability (RAS) features whitepaper like Gen10 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.
- DDR4-3200 Memory Kits are only supported with 3rd Generation Intel Xeon Scalable Series Processors.
- Memory compatibility may vary or be limited within a specific server family depending upon the specific configuration being requested. Because each server environment and requirements can vary, memory compatibility is based not only upon the server family, but may also be affected by the amount and type of additional hardware options installed within a specific server configuration. For this reason, some HPE memory DIMMs may be qualified for a server model or family and yet occasionally not be supported with limited configurations within that server family.
- Please consult with the HPE server QuickSpecs or your HPE representative if you have any questions regarding memory compatibility with a specific HPE server configuration.

Registered DIMMs (RDIMMs)

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

Notes:

- 3200 MT/s memory SKUs offer a transfer rate of 3200 MT/s at 1 DIMM per channel and at 2 DIMMs per channel
- Mixing of LRDIMM and RDIMM is not supported
- Mixing of 3DS memory and non-3DS memory is not supported

Load Reduced DIMMs (LRDIMMs)

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

Memory Blank Kit

HPE DDR4 DIMM Blank Kit	P07818-B21

Notes: Qty 1 of DIMM Blank kit (P07818-B21) Required only when configuration includes the population of a mid tray kit (P26919-B21 or P27193-B21 or P39769-B21) and memory quantity is less than 32.

Step 2c: Choose Power Supplies

Select one or two power supplies from below.
Notes: Mixing of 2 different power supplies is NOT allowed.

HPE Flex Slot Power Supplies

HPE DX 1600W Flex Slot Platinum Hot Plug Low Halogen FIO Power Supply Kit	P18222-B21
HPE DX 800W Flex Slot Titanium Hot Plug Low Halogen FIO Power Supply Kit	P18224-B21
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

Notes:

- Select a minimum (1), maximum (2) power supplies.
- 1600W Power supplies only support high line voltage (200VAC to 240VAC).

Configuration Information

- Prior to making a power supply selection it is highly recommended that the HPE Power Advisor is run to determine the right size power supply for your server configuration. The HPE Power Advisor is located at: **https://poweradvisorext.it.hpe.com/**.
- All power supplies in a server should match. Mixing Power Supplies is not supported.
- HPE ProLiant servers ship with an IEC-IEC power cord used for rack mounting with Power Distribution Units (PDUs). Visit **https://www.hpe.com/psnow/doc/4AA6-6836ENW** for a full list of optional power cords.

Step 3: Choose Additional Factory Integratable Options

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

HPE Security Options

HPE iLO Common Password FIO Setting P08040-B21

Notes:

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

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

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

Core Options

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

HPE Hard Disk Drives

Enterprise - 12G SAS - SFF Drives

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

Midline - 12G SAS - LFF 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

SSD Selection

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

Notes:

- For non-SED SAS4 drives: 24G SAS speeds require U.3 backplane/cage and choice of either SR932i-p, or SR416i-a Tri-Mode controller. Otherwise downclocks to 12G SAS.
- For SED SAS4 drives: SED capability requires choice of either MR416i-a, MR416i-p, MR216i-a or MR216i-p Tri-Mode controller and will run at 12G speeds.

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)

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

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

- 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)

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

- Standalone: P57569-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

Core Options

HPE DX 1.92TB SATA Read Intensive SFF BC PM893a FIO SSD P75486-B21
HPE DX 3.84TB SATA Read Intensive SFF BC PM893a FIO SSD P75480-B21
HPE DX 3.84TB SATA Read Intensive LFF LPC PM893a FIO SSD P75483-B21
HPE DX 1.92TB SATA Read Intensive LFF LPC PM893a FIO SSD P75492-B21

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 Read Intensive LFF LPC Multi Vendor SSD P75479-B21
HPE DX 3.84TB SAS Read Intensive LFF LPC Multi Vendor FIO SSD P75476-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)

HPE DX 1.92TB SATA Read Intensive LFF LPC PM893a SSD P75494-B21
HPE DX 3.84TB SATA Read Intensive LFF LPC PM893a SSD P75485-B21

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
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

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)

Core Options

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)

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

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

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

Notes:

- Mixing of HDD and NVMe drives not allowed.
- DX380 Gen10 plus 8SFF does not support NVMe

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.
- DX380 Gen10 plus 8SFF does not support NVMe

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

- Standalone: 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

10 Gigabit Ethernet adapters

Notes: Unless otherwise noted, one of the below 10Gb networking adapters below can be selected as the primary networking choice when configuring a Networking Choice (NC) Configure-to-Order (CTO) chassis. The DL380 Gen10 NC CTO chassis does not come with embedded networking, hence the requirement to configure with either a FlexibleLOM or select PCIe networking adapter.

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

25 Gigabit Ethernet adapters

Notes: Unless otherwise noted, one of the below 10/25Gb networking adapters below can be selected as the primary networking choice when configuring a Networking Choice (NC) Configure-to-Order (CTO) chassis. The DL380 Gen10 Plus NC CTO chassis does not come with embedded networking, hence the requirement to configure with either an OCP3 or select PCIe networking adapter.

Core Options

Mellanox MCX512F-ACHT Ethernet 10/25Gb 2-port SFP28 FIO Adapter for HPE DX P43274-B21
DX BCM 57414 10/25GbE 2p SFP28 FIO Adapter for HPE DX P53862-B21

- Standalone: P26262-B21

Mellanox MCX631102AS-ADAT Ethernet 10/25Gb 2-port SFP28 Adapter for HPE P42044-B21
Intel E810-XXVDA2 Ethernet 10/25Gb 2-port SFP28 Adapter for HPE P08443-B21

100 Gigabit Ethernet Adapters

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

Notes: This adapter can be installed only on Slot 1, 4 and 5 . Consider this limitation towards total PCIe selection.

Recommended System Ambient Temperature		
System Config	**P31246-B21**	**P25960-B21**
8LFF	25C	25C
24SFF	25C	25C
8SFF	30C	30C

Other Restrictions

1. These cards are not supported with 12LFF CTO config.
2. These cards are not supported with mid-tray drive cages for both LFF/SFF chassis.
3. Required to use Max Performance Fan Kit
4. Only supported on 1/4/5 PCIe slots

Notes:

- A minimum of two Gigabytes (2 GB) of server memory is required per each adapter.
- Direct Attach Cable (DAC) for copper environments or fiber transceivers and cables for fiber-optic environments must be purchased separately. Please see the related NIC QuickSpecs for Technical Specifications and additional information:

Intel E810-CQDA2 Ethernet 100Gb 2-port QSFP28 Adapter for HPE P21112-B21

Other Restrictions

1. These cards are note supported with 12LFF CTO config.
2. These cards are not supported with mid-tray drive cages for both LFF/SFF chassis.
3. Required to use Max Performance Fan Kit
4. Only supported on 1/4/5 PCIe slots

OCP 3.0 Adapters

Intel I350-T4 Ethernet 1Gb 4-port BASE-T OCP3 FIO Adapter for HPE DX P43269-B21
Broadcom BCM57416 Ethernet 10Gb 2-port BASE-T OCP3 FIO Adapter for HPE DX P43272-B21
Mellanox MCX562A-ACAI Ethernet 10/25Gb 2-port SFP28 OCP3 FIO Adapter for HPE DX P43275-B21
DXBCM 57414 10/25G 2p SFP28 OCP3 FIO Adapter for HPE DX P53861-B21

- Standalone: P10115-B21

Mellanox MCX631432AS-ADAI Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE P42041-B21
Intel E810-XXVDA2 Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE P10106-B21

Notes: Adapter operates in either x8 or x16 mode. If x16 is desired, must select the HPE ProLiant DL300 Gen10 Plus OCP x16 Enablement Kit (P36661-B21)

OCP 3.0 Enablement

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

Core Options

HPE I/O Expansion Options

Notes:

– The Primary Riser shipping default in the chassis is a x8 FH, FL, x16 FH, FL and x8 FH, HL.

– For a Secondary/Tertiary riser, the second processor is required.

HPE DX Gen10 Plus x8/x16/x8 Secondary FIO Riser Kit P24345-B21

- Standalone HPE DL38X Gen10 Plus x8/x16/x8 Secondary Riser Kit (P14587-B21)

Notes: Requires selection of a 2nd processor

HPE DX Gen10 Plus 2x8/2x16 Tertiary FIO Riser Kit P24344-B21

- Standalone HPE DL38X Gen10 Plus x8/x8 Tertiary Riser Kit (P14581-B21)

Notes: Requires selection of a 2nd processor

HPE ProLiant DX38x Gen10 Plus x16 Tertiary FIO Riser Kit P42680-B21

HPE DL38X Gen10 Plus x16 Tertiary Riser Kit P14588-B21

Notes: Requires selection of a 2nd processor

HPE ProLiant DX38x Gen10 Plus x16/x16 Slot 1/2 Secondary FIO Riser Kit P42681-B21

- Standalone HPE DL38X Gen10+ 2x16 Slot 1/2 Riser Kit (P14589-B21)

Notes: Requires selection of a 2nd processor

HPE ProLiant DX38x Gen10 Plus x16/x16 Slot 2/3 FIO Riser Kit P43648-B21

- Standalone HPE DL38X Gen10+ 2x16 Slot 2/3 Riser Kit (P14590-B21)

Notes: Requires selection of a 2nd processor

HPE ProLiant DX38x Gen10 Plus x16/x16 Slot 1/2 FIO Riser Kit P42683-B21

HPE DL38X Gen10 Plus x16/x16 Slot 2/3 FIO Riser Kit P14599-B21

Notes: Requires selection of a 2nd processor

HPE DL385 Gen10 Plus Primary/Secondary Riser Cage without Retainer Clip P38771-B21

HPE DL385 Gen10 Plus Tertiary Riser Cage without Retainer Clip P38774-B21

HPE DL38X Gen10 Plus x8/x16/x8 Secondary Riser Kit P14587-B21

Notes: Requires selection of a 2nd processor

HPE Power Supplies

HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit 865438-B21

Notes: Flex Slot Titanium power supplies support power efficiency of up to 96% and include a standard C-14 power inlet connector.

HPE 800W Flex Slot -48VDC Hot Plug Low Halogen Power Supply Kit 865434-B21

Notes: Flex Slot -48VDC power supplies support power efficiency of up to 94%.

HPE 800W Flex Slot Hot Plug Universal Low Halogen High Voltage AC/DC Power Supply Kit 865428-B21

Notes: Flex Slot universal power supplies support power efficiency of up to 94% and support both 277VAC/380VDC power inputs.

HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit P38995-B21

Notes: Flex Slot Platinum power supplies support power efficiency of up to 94% and include a standard C-14 power inlet connector.

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

HPE 1000W Flex Slot Titanium Hot Plug Power Supply Kit P03178-B21

HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit P38997-B21

Notes: Flex Slot Platinum Plus power supplies support power efficiency of up to 94% and include a C-14 power inlet connector that can support HPE Power Discovery Services (blue connector).

HPE 1600W Flex Slot -48VDC Hot Plug Power Supply Kit P17023-B21

Notes: Flex Slot -48VDC power supplies support power efficiency of up to 94%.

HPE 1600W -48VDC Power Cable Lug Kit P36877-B21

Core Options

HPE Computation and Graphics Accelerators

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

Notes:

- If more than one GPU is selected, the GPU SKU numbers must match; Mixing of GPUs is not allowed.
- This option requires the High Performance Fan Kit (P14608-B21) to be selected.
- If this option is being configured into a 12LFF Model-X or 24SFF Model-X, this rule does not apply as these models already come standard with the High Performance Fans.
- This option requires the selection of the High Performance Heatsink (P27095-B21)
- Max of 8 NVMe Drives allowed for selection with this Graphics Option (All NVMe Drives selected must be below 11W).
- If NVMe Drive is selected with this Graphics Option then it can be populated in front cage only. Please consider this limitation while selecting Drives and Drive Cage.
- This Graphics option and SAS4 Drives cannot be selected together
- Graphics Option and 100Gb or above PCIe Networking/ InfiniBand/ Smart IO (HW) Cards cannot be selected together.

GPU Information

Part number	Card	Qty supp.	PCIe	8 SFF[3]	24 SFF3[3] (Or 8 SSF if >1 SFF is NVMe storage	12LFF[3]
R9P49C[1,5] [1„5]	NVIDIA A100 80GB PCIe NonCEC Accelerator	2	Gen4	25C	Not supported	Not supported
R9S37C[1„5]	NVIDIA A40 48GB GPU NONCEC Accelerator	3	Gen4	25C	20C (not recommended support)	Not supported
R9S38C[1,]	NVIDIA A30 24GB PCIe NonCEC Accelerator	3	Gen4	30C	30C	30C
P17819-B21[1,4]	HPE DX NVIDIA Tesla T4 16GB Module	8	Gen3	35C (>30C may throttle)	35C (>30C may throttle)	25C
R9W59C[1„3]	NVIDIA A10 24GB PCIe NonCEC Accelerator	5	Gen4	25C	15C (not supported)	15C (not supported)
R8T26C[1,5]	NVIDIA A16 64GB PCIe NonCEC Accelerator	3				Not supported

Notes:

- [1]Supported on CPUs with 270W TDP or below.
- [2]Temperatures shown in column are for ambient temperature in degrees Celsius.
- [3]Requires DL300 Gen10 Plus GPU 2x8p Cable Kit (P39100-B21)
- [4]Could observe sub-optimal performance if installed in x8 slot.
- [5]Requires HPE DL300 Gen10 Plus GPU 8p Keyed Cable Kit (P39102-B21)
- System memory should be 2x GPU memory.
- There is no Energy Star certification with Graphic cards.

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 FIO Setting

HPE iLO Common Password FIO Setting P08040-B21

HPE Security

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 DX Gen10 Plus Chassis Intrusion FIO Detection Kit P24373-B21

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

HPE 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 earlier generation HPE ProLiant server variants.

HPE Boot Controllers

HPE NS204i-p x2 Lanes NVMe PCIe3 x8 OS Boot Device P12965-B21

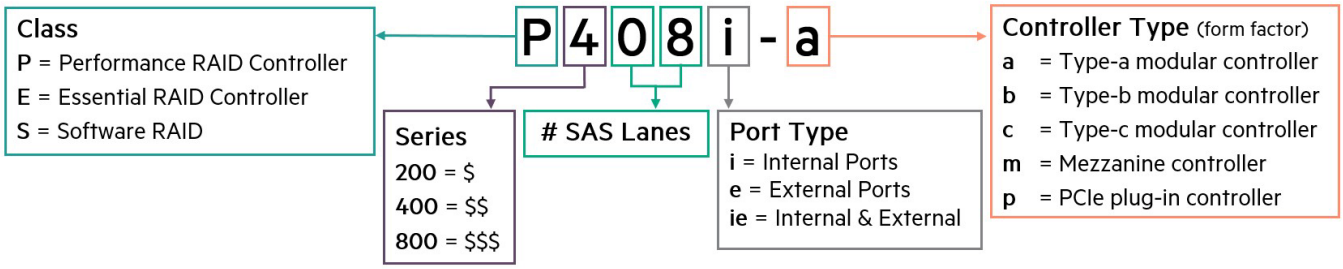
HPE DX NS204i-p Gen10 Plus x2 Lanes NVMe PCIe3 x8 FIO Boot Device P35837-B21

Notes:

- NS204i-p can be installed only on slot 1, 2, 4, 7 and 8. Consider this limitation towards total PCIe selection
- If Qty=3 of Double wide GPU is selected then NS204i-p cannot be selected
- If NS204i-p is selected then Max=2 Double wide GPU is allowed for selection

HPE Smart Array Controllers

The Gen10 controller naming framework has been updated to simplify identification as depicted below. For a more detailed breakout of the available Gen10 Smart Array controllers visit the **HPE Smart Array Gen10 Controllers Data Sheet**.



Additional Options

HPE Flexible Smart Array Essential Controllers

HPE Smart Array E208i-a SR Gen10 (8 Internal Lanes/No Cache) 12G SAS Modular Controller 804326-B21

HPE Tri-Mode Controllers

Microchip SmartRAID SR416i-a x16 Lanes 4GB Cache NVMe/SAS 24G Controller for HPE Gen10 Plus P12688-B21

Notes:

- Requires x16 riser slot
- MegaRAID tools cannot be used to script and configure SmartRAID controllers

Easy Install Rail Kits

Easy Install rail kits contain telescoping rails which allow for in-rack serviceability.
To assist in the installation of the server into the rack an optional installation tool is available by contacting your local services representative.
Notes: Hewlett Packard Enterprise recommends that a minimum of two people are required for all Rack Server installations. Please refer to your installation instructions for proper tools and number of people to use for any installation.

HPE rail kits are designed to work with HPE racks in compliance with industry standard EIA-310-E. In the event a customer elects to purchase a third-party rack for use with an HPE rail kit, any such use is at customer's own risk. HPE makes no express or implied warranties with respect to such third-party racks and specifically disclaims any implied warranties of merchantability and fitness for a particular purpose. Furthermore, HPE has no obligation and assumes no liability for the materials, design, specifications, installation, safety, and compatibility of any such third-party racks with any rail kits, including HPE rail kits.

HPE ProLiant DX38x Gen10 Plus 2U SFF Easy Install FIO Rail Kit P43645-B21

- HPE DL38X Gen10 Plus 2U SFF Easy Install Rail Kit P22018-B21

Notes: Does not include CMA (P22020-B21).

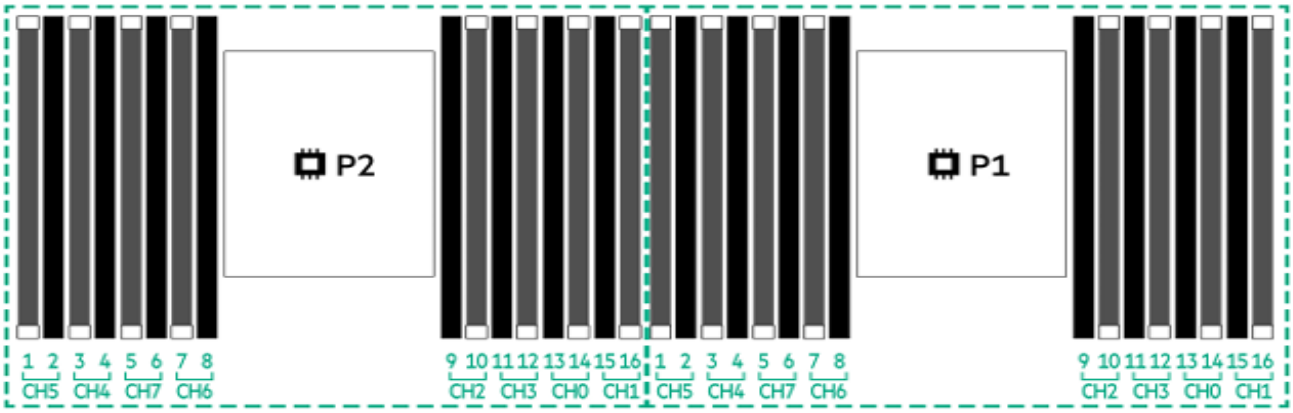
HPE DX38X Gen10 Plus 2U LFF Easy Install FIO Rail Kit P24351-B21

- Standalone HPE DL38X Gen10+ 2U LFF Easy Install Rail Kit (P22019-B21)

Notes: Does not include CMA (P22020-B21).

Memory

Memory Population guidelines



HPE ProLiant DL380 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:

- Omitted 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, and the number and model of installed processors qualified on the platform.
- For details on the HPE Server Memory Options Population Rules, visit: **https://www.hpe.com/docs/intel-population-rules-Gen10plus**
- 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**.

Memory

DDR4 memory options part number decoder

Notes:

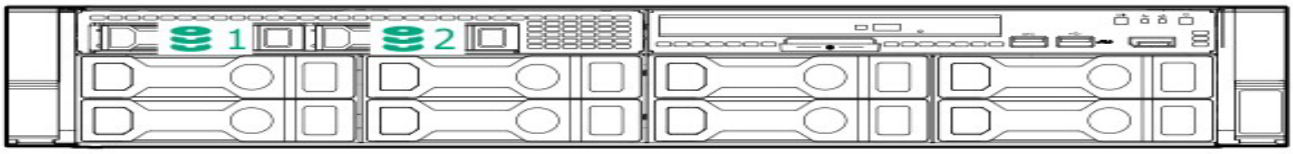
- Capacity references are rounded to the common gigabyte (GB) values.
  - 8GB = 8,192 MB
  - 16GB = 16,384 MB
  - 32GB = 32,768 MB
  - 64GB = 65,536 MB
  - 128GB = 131072 MB
  - 256GB = 262144 MB
  - 512GB = 524288 MB

For more information on memory, please see the Memory QuickSpecs: **HPE DDR4 Smart Memory**

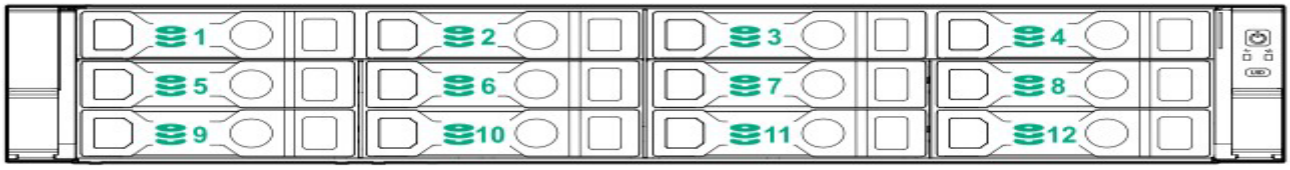
Memory Speed Table for HPE ProLiantDL380 Gen 10 Plus

For details on the HPE Server Memory speed, please visit: **https://www.hpe.com/psnow/doc/a00019564enw**

Storage



8LFF chassis with Universal media bay and optional 2SFF and optical drive shown



12 LFF chassis





24 SFF + rear 2 SFF drives

Technical Specifications

System Unit

Dimensions

- **SFF Drives:**
  8.75 x 44.54 x 71. cm / 3.44 x 17.54 x 28 in
- **LFF Drives:**
  8.75 x 44.54 x 74.9 cm / 3.44 x 17.54 x 29.5 in

Weight (approximate)

- **Maximum:** 8 SFF hard drives (no rear drives), 2x processors, 2x power supplies, 1x Smart Array, 2x Risers installed)
  - **Maximum:**
    28.77 kg / 63.43 lbs
  - **Minimum:**
    16.12 kg /35.54 lbs
- **Maximum:** 12 LFF hard drives (no rear drives), 2x processors, 2x power supplies, 1x Smart Array, 2x Risers installed)
  - **Maximum:**
    33.99 kg / 74.94 lbs
  - **Minimum:**
    22.48 kg / 49.56 lbs

Input Requirements (per power supply)

Rated Line Voltage

- For 1600W (Platinum) Power Supply: 200-240 VAC
- For 1000W (Titanium) Power Supply: 100-240 VAC
- For 800W (Titanium) Power Supply: 200-240 VAC
- For 800W (Platinum) Power Supply: 100-240 VAC
- For 800W (Universal) Power Supply: 200-277 VAC
- For 800W (-48VDC) Power Supply: -40 Vdc to -72 Vdc

BTU Rating

Maximum

- For 1600W Power Supply: 5918 BTU/hr (at 200 VAC), 5888 BTU/hr (at 220 VAC), 5884 BTU/hr (at 240 VAC)
- For 1000W (Titanium) Power Supply: 3764 BTU/hr (at 100 VAC), 3629 BTU/hr (at 200 VAC), 3616 BTU/hr (at 240 VAC)
- For 800W (Titanium) Power Supply: 2905 BTU/hr (at 200 VAC), 2899 BTU/hr (at 220 VAC), 2893 BTU/hr (at 240 VAC)
- For 800W (Platinum) Power Supply: 3067 BTU/hr (at 100 VAC), 2958 BTU/hr (at 200 VAC), 2949 BTU/hr (at 240 VAC)
- For 800W (Universal) Power Supply: 2964 BTU/hr (at 200 VAC), 2951 BTU/hr (at 230 VAC), 2936 BTU/hr (at 277 VAC)
- For 800W-(48Vdc) Power Supply: 2983 BTU/hr (at -40 Vdc), 2951 BTU/hr (at -48Vdc), 2912 BTU/hr (at -72Vdc)

Relative Humidity (non-condensing)

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

Technical Specifications

Power Supply Output

(per power supply)

Rated Steady-State Power

- For 1600W Power Supply: 1600W (at 240 VAC), 1600W (at 240 VDC) for China only
- For 1000W (Titanium) Power Supply: 1000W (at 100 VAC), 1000W (at 240 VAC), 1000W (at 240 VDC) input for China only
- For 800W (Titanium) Power Supply: 800W (at 200 VAC), 800W (at 240 VAC), 800W (at 240 VDC) for China only
- For 800W (Platinum) Power Supply: 800W (at 100 VAC), 800W (at 240 VAC), 800W (at 240 VDC) input for China only
- For 800W (Universal) Power Supply: 800W (at 200 VAC), 800W (at 277 VAC)
- For 800W (-48VDC) Power Supply: 800W (at -40 Vdc), 800W (at -72Vdc)

Maximum Peak Power

- For 1600W Power Supply: 1600W (at 240 VAC), 1600W (at 240 VDC) for China only
- For 1000W (Titanium) Power Supply: 1000W (at 100 VAC), 1000W (at 240 VAC), 1000W (at 240 VDC) input for China only
- For 800W (Titanium) Power Supply: 800W (at 200 VAC), 800W (at 240 VAC), 800W (at 240 VDC) for China only
- For 800W (Platinum) Power Supply: 800W (at 100 VAC), 800W (at 240 VAC), 800W (at 240 VDC) input for China only
- For 800W (Universal) Power Supply: 800W (at 200 VAC), 800W (at 277 VAC)
- For 800W (-48VDC) Power Supply: 800W (at -40 Vdc), 800W (at -72Vdc)

System Inlet Temperature

- **Standard Operating Temperature**
  10° to 35°C (50° to 95°F) at sea level with an altitude derating of 1.0°C per every 305 m (1.8°F per every 1000 ft) above sea level to a maximum of 3050 m (10,000 ft), no direct sustained sunlight. Maximum rate of change is 20°C/hr (36°F/hr). The upper limit and rate of change may be limited by the type and number of options installed.

  System performance during standard operating support may be reduced if operating with a fan fault or above 30°C (86°F).

- **Extended Ambient Operating Temperature**
  For approved hardware configurations, the supported system inlet range is extended to be: 5° to 10°C (41° to 50°F) and 35° to 40°C (95° to 104°F) at sea level with an altitude derating of 1.0°C per every 175 m (1.8°F per every 574 ft) above 900 m (2953 ft) to a maximum of 3050 m (10,000 ft). The approved hardware configurations for this system are listed at the URL: **http://www.hpe.com/servers/ashrae**

  For approved hardware configurations, the supported system inlet range is extended to be: 40° to 45°C (104° to 113°F) at sea level with an altitude derating of 1.0°C per every 125 m (1.8°F per every 410 ft) above 900 m (2953 ft) to a maximum of 3050 m (10,000 ft). The approved hardware configurations for this system are listed at the URL: **http://www.hpe.com/servers/ashrae**

  System performance may be reduced if operating in the extended ambient operating range or with a fan fault.

- **Non-operating**
  -30° to 60°C (-22° to 140°F). Maximum rate of change is 20°C/hr (36°F/hr).

Altitude

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

Technical Specifications

Acoustic Noise

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

Acoustic Noise	
Idle	
LWAd	4.8 B Entry 4.4 B Base 4.6 B Perf
LpAm	37 dBA Entry 31 dBA Base 31 dBA Perf
Operating	
LWAd	4.8 B Entry 4.4 B Base 4.6 B Perf
LpAm	37 dBA Entry 31 dBA Base 31 dBA Perf

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.
- Product conformance to cited product specifications is based on sample (type) testing, evaluation, or assessment. This product or family of products is eligible to bear the appropriate compliance logos and statements.
- The Listed sound levels apply to standard shipping configurations. Additional options may result in increased sound levels

Emissions Classification (EMC) – Regulatory Information

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

HPE Smart Array

For latest information on **HPE Smart Array Gen10 Controllers for HPE ProLiant DL, ML and Apollo Servers** please refer to their QuickSpecs. (E208i-a,E208i-p,E208e-p,P408i-a,P408i-p,P408e-p,P816i-a)

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.

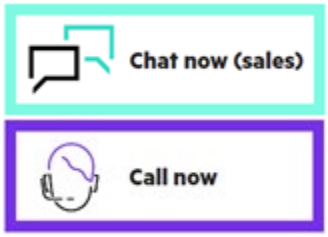
The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard Enterprise web site. These instructions may be used by recyclers and other 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
21-Oct-2024	Version 15	Changed	Core Options section was updated. (New SSD SKUs were added).
16-Sep-2024	Version 14	Changed	Standard Features (Operating Systems and Virtualization Software Support for HPE Servers) section was updated.
03-Sep-2024	Version 13	Changed	Core Options Section was updated. Boot Device information was added
15-Jul-2024	Version 12	Changed	Standard Features section was updated. Updated Maximum Internal Storage information for SSD
18-Mar-2024	Version 11	Changed	Standard Features and Additional Options sections were updated.
20-Nov-2023	Version 10	Changed	HPE Services Rebranding
05-Sep-2023	Version 9	Changed	Updated GPU information
24-Jul-2023	Version 8	Changed	Updated GPU information
10-Jul-2023	Version 7	Changed	Core Options section was updated.
01-May-2023	Version 6	Changed	Updated SSDs / Core Options section was updated.
10-Jan-2022	Version 5	Changed	Updated SSD, GPU, Rail kit and Power Supply information
12-Sep-2022	Version 4	Changed	Overview, Standard Features sections and some Broken URLs 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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