Overview

## HPE ProLiant DL380 Gen10 Server

Adaptable for diverse workloads and environments, the secure 2P 2U HPE ProLiant DL380 Gen10 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.
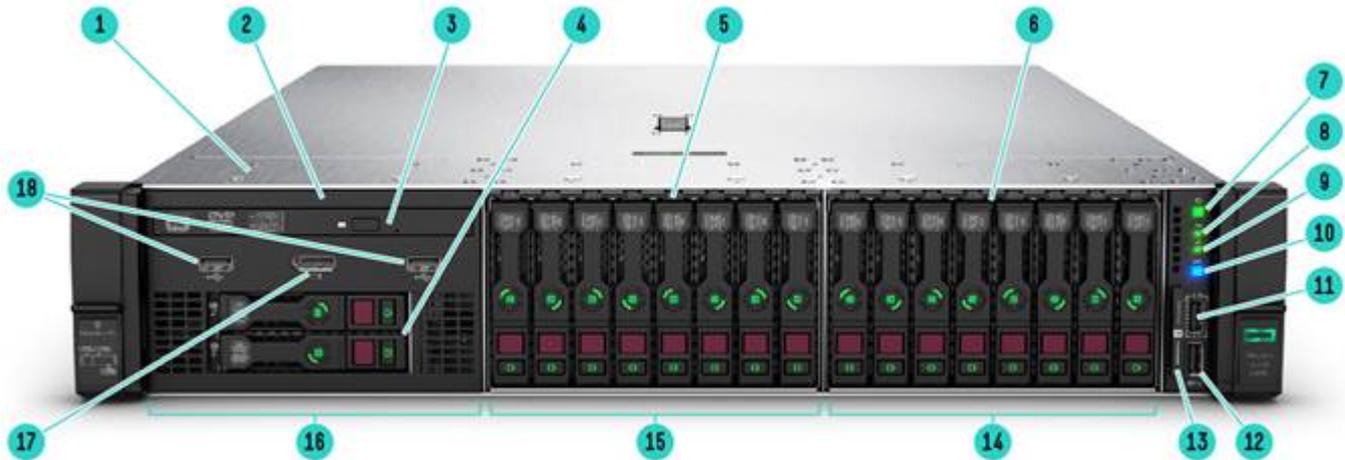


**Front View - SFF chassis with optional Universal Media bay with optical and 2 NVME plus 16 NVMe shown**

| | | | |
|---|---|---|---|
| 1. | Quick removal access panel | 10. | UID button |
| 2. | Optional Universal Media bay. 2 USB 2.0 and Display port standard (8 SFF bay or 6 SFF+2NVMe or 8NVMe optional) | 11. | iLO Front Service Port |
| 3. | Optional Optical drive. Requires Universal Media bay | 12. | USB 3.0 |
| 4. | Optional 2 SFF HDD, requires optional Universal Media bay | 13. | Serial label pull tag |
| 5. | Drive Bay 2. NVMe shown (8 SFF, 6SFF+2NVMe or 8 NVMe PCIe SSD optional) | 14. | Box 3 |
| 6. | 8 SFF Drive Cage Bay | 15. | Box 2 |
| 7. | Power On/Standby button and system power LED button | 16. | Box 1 |
| 8. | Health LED | 17. | Optional front display port (Via Universal Media Bay) |
| 9. | NIC status | 18. | Optional USB 2.0 (via Universal Media Bay) |

Overview
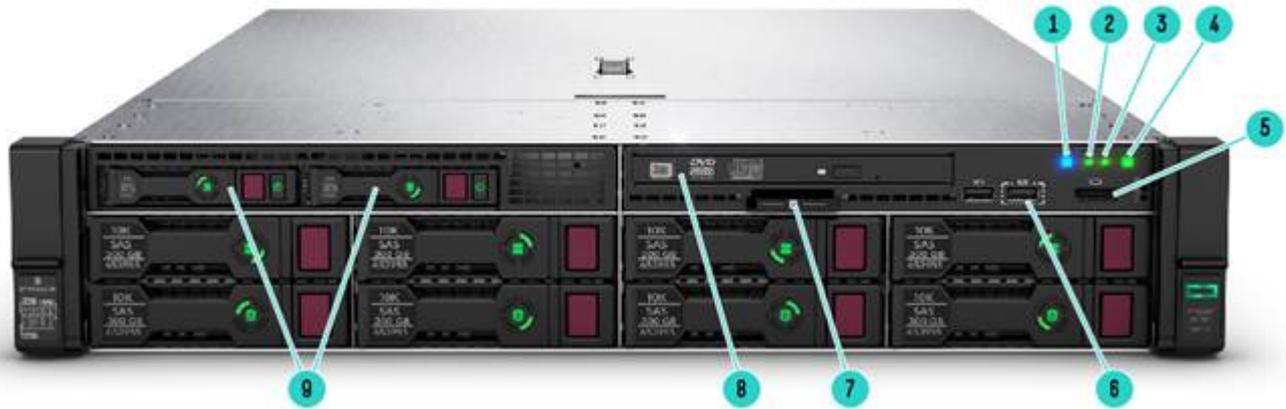


**Front View - 8LFF chassis with Universal media bay and optional 2SFF and optical drive shown**

1. UID button
2. Health LED
3. NIC status
4. Power On/Standby button and system power LED button
5. Front display port

6. iLO Front Service Port
7. Serial label pull tag
8. Optional optical drive shown (blank as standard)
9. Optional 2 SFF Drive bay, 2 NVMe shown

Overview
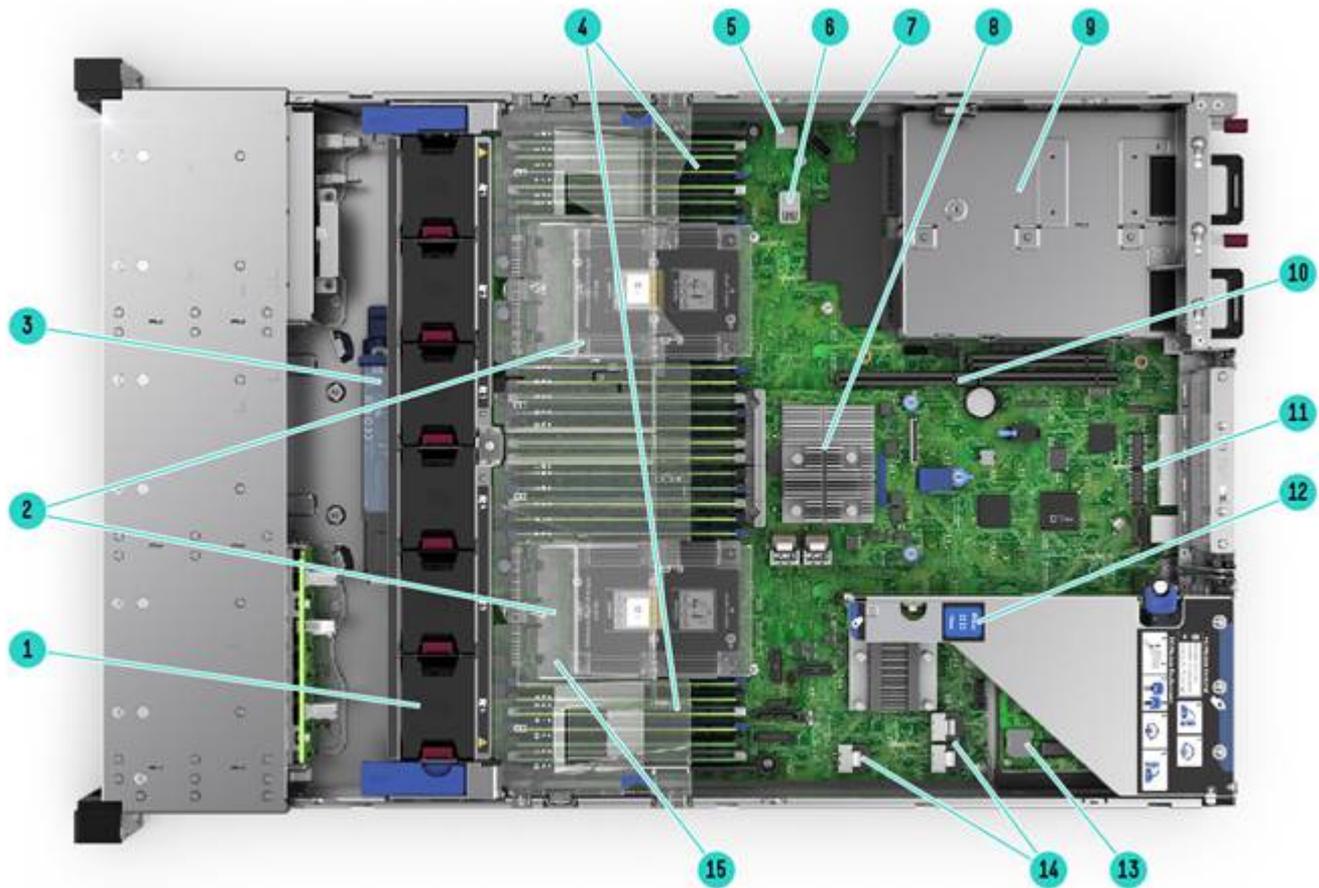


**Internal View 8SFF chassis - with optional 2$^{nd}$ CPU, FlexLOM, Smart array shown**

1. Fan cage shown with 6 standard Hot-plug fans (High Performance temperature fans optional)
2. 2 Processors, heatsink showing
3. Optional HPE Smart Storage Battery
4. DDR4 DIMM slots. Shown fully populated in 24 slots (12 per processor)
5. MicroSD card slot (Optional Dual Micro-SD option)
6. Internal USB 3.0 connector
7. Chassis intrusion detection connector
8. Optional HPE Smart Array (P408i-a shown)Clear air baffle

9.. (Under) Hot Plug redundant HPE Flexible Slot Power supplies
10. Connection for second (optional) riser (Requires second CPU)
11. Embedded 4x1Gbe NIC
12. Primary PCIe riser, standard (Optional double wide GPU riser)
13. Optional Flexible LOM slot
14. X4 SATA ports (1, 2 and 3)
15. Clear air baffle

## Overview
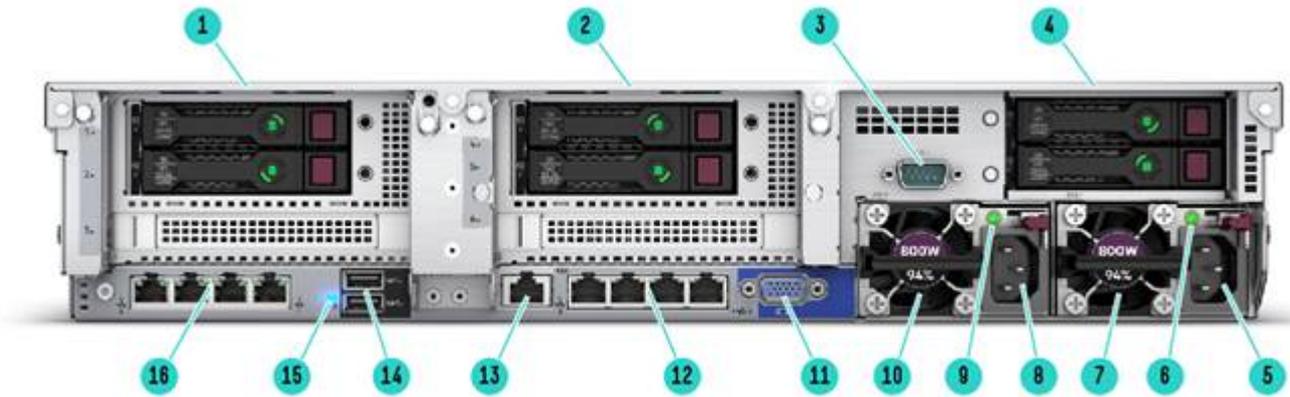


**Rear View - With optional FlexLOM, Rear drives and Serial port shown.**

1. Primary Riser. PCI Slots (Slots 1-3 top to bottom, riser shipped standard, not shown), optional 2SFF rear drives
2. Secondary Riser. PCI Slots (Slots 4-6top to bottom, not shown, requires second riser card, and second processor). Showing optional 2 SFF rear
3. Optional serial port
74. Tertiary Riser (Slots 7-8). Optional rear 2 SFF HDD (supported in 24 SFF or 12 LFF front end)
5. Power supply Power connection
6. Power supply Power LED
7. HPE Flexible Slot Power Supply bay 1 (800W shown)
8. Power supply Power connection

9. Power supply Power LED
10. HPE Flexible Slot Power Supply bay 2 (800W shown)
11. VGA connector
12. Embedded 4 x 1GbE Network Adapter
13. Dedicated iLO management port
14. USB connectors 3.0 (2)
15. Unit ID LED
16. Optional FlexibleLOM ports (Shown: 4 x 1GbE)

**What's New:**

- Xeon Gold 5117 Processor
- HPE StoreFabric - 'CN1200R 10GBASE-T' and 'CN1300R 10/25Gb Dual Port' Converged Network Adapters
- AMD Radeon Pro V340 Graphics Accelerator
- HPE DDR-4 DIMM Blanks Kit
- Bezel Air Filter NEBS-compliant Kit
- NVIDIA Tesla V100-32GB PCIe Module
- Smart Array P824i-p MR Gen10 (24 Internal Lanes/4GB Cache/CacheCade) 12G SAS PCIe Controller

## Overview

**Platform Information**

**Form Factor**

2U rack

**Chassis Types**

8 SFF with optional Universal Media Bay, and optional SFF or NVMe drive bay options

24 SFF bay with additional 6SFF rear drive bay option to total 30 SFF drives

8 LFF with Universal Media Bay

12 LFF with optional 4 LFF mid-plane and optional 3LFF + 2 SFF rear drive bay to total 19 LFF drives + 2 SFF drives

**NOTE:** The 3 LFF rear drive box will consume space for the secondary and tertiary riser.

**NOTE:** The 8 and 12 LFF chassis also supports the 2 SFF rear drive box which allows for the user to attach a secondary or tertiary riser.

**NOTE:** The 8 NVMe drive option (826689-B21) can only be leveraged in the SFF chassis and replaces Box 1, 2 or 3, however there is a maximum of 20 NVMe drives supported with Partial population of Box 1.

**NOTE:** The Premium cage (826690-B21, 6 SAS/SATA+2 NVMe) can only be leveraged in the SFF chassis and replaces Box 1, 2 or 3.

**NOTE:** The Universal Media Bay (826708-B21) not available with the LFF chassis or the 24 SFF front end, and can only be populated in Box 1.

**NOTE:** The 8 SFF can be upgraded with additional 8SFF drive box to total 16 or 24 SFF drives. For optimal upgrade Box 2 should be populated second, with Box 1 the last to be populated for a field upgrade to 24 SFF. For CTO builds requiring 24 SFF please use the 24 SFF chassis (868704-B21). Note a field upgrade to 24 SFF will require a High Performance fan kit (867810-B21).

**NOTE:** The 8 LFF chassis cannot be upgraded to 12 LFF front in the field; however the 4-LFF Mid plane (826686-B21) is supported, but will also require a performance fan kit (867810-B21).

**NOTE:** The 8LFF chassis ships with 6-standard fans.

**NOTE:** All models come with the S100i Smart Array Controller with embedded software RAID support for 12 drives. The S100i uses 14 embedded SATA ports, but only 12 ports are accessible as 2 are leveraged to support the 2 M.2 options on the primary riser.

**System Fans**

Standard - fan types included

**NOTE:** 1P models typically ship with 4 standard fans. The second processor option kit contains 2 additional fans. 1P Models have (4) (N+1 redundancy standard).

**NOTE:** 2P models typically ship with 6 standard fans. 2P Models have (6) (N+1 redundancy standard).

**NOTE:** The 12 LFF and 24 SFF chassis ship with 6 High performance fans as standard.

**NOTE:** The 8LFF chassis ships with 6 standard fans as standard.

**NOTE:** High performance fan kit is available to meet ambient temperature environments.

**NOTE:** High performance fan kits are required for rear drives, Graphics (GPU) card  or NVMe configurations.

Standard Features

## Standard Features

Processors - Up to 2 of the following depending on model.
**NOTE:** This table covers the public Intel offering only.

| Intel Xeon Models | CPU Frequency | Cores | L3 Cache | Power | UPI | DDR4 | Memory per socket |
|---|---|---|---|---|---|---|---|
| **Platinum Processors** | | | | | | | |
| Platinum 8180M Processor | 2.5 GHz | 28 | 38.50 MB | 205W | 3 @ 10.4 GT/s | 2666 MT/s | 1.5TB |
| Platinum 8180 Processor | 2.5 GHz | 28 | 38.50 MB | 205W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Platinum 8176 Processor | 2.1 GHz | 28 | 38.50 MB | 165W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Platinum 8170 Processor | 2.1 GHz | 26 | 35.75 MB | 165W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Platinum 8168 Processor | 2.7 GHz | 24 | 33.00 MB | 205W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Platinum 8165 Processor | 2.3 GHz | 24 | 33.00 MB | 205W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Platinum 8164 Processor | 2.0 GHz | 26 | 35.75 MB | 150W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Platinum 8160 Processor | 2.1 GHz | 24 | 33.00 MB | 150W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Platinum 8158 Processor | 3.0 GHz | 12 | 24.75 MB | 150W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Platinum 8156 Processor | 3.6 GHz | 4 | 16.50 MB | 105W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Platinum 8153 Processor | 2.0 GHz | 16 | 22.00 MB | 125W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| **Gold Processors** | | | | | | | |
| Gold 6154 Processor | 3.0 GHz | 18 | 24.75 MB | 200W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Gold 6152 Processor | 2.1 GHz | 22 | 30.25 MB | 140W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Gold 6150 Processor | 2.7 GHz | 18 | 24.75 MB | 165W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Gold 6148 Processor | 2.4 GHz | 20 | 27.50 MB | 150W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Gold 6146 Processor | 3.2 GHz | 12 | 24.75 MB | 165W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Gold 6144 Processor | 3.5 GHz | 8 | 24.75 MB | 150W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Gold 6143 Processor | 2.8 GHz | 16 | 22.00 MB | 205W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Gold 6142 Processor | 2.6 GHz | 16 | 22.00 MB | 150W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |

## Standard Features

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Gold 6140 Processor | 2.3 GHz | 18 | 24.75 MB | 140W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Gold 6138 Processor | 2.0 GHz | 20 | 27.50 MB | 125W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Gold 6137 Processor | 3.9 GHz | 8 | 24.75 MB | 205W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Gold 6136 Processor | 3.0 GHz | 12 | 24.75 MB | 150W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Gold 6134M Processor | 3.2 GHz | 8 | 24.75 MB | 130W | 3 @ 10.4 GT/s | 2666 MT/s | 1.5TB |
| Gold 6134 Processor | 3.2 GHz | 8 | 24.75 MB | 130W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Gold 6132 Processor | 2.6 GHz | 14 | 19.25 MB | 140W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Gold 6130 Processor | 2.1 GHz | 16 | 22.00 MB | 125W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Gold 6128 Processor | 3.4 GHz | 6 | 19.25 MB | 115W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Gold 6126 Processor | 2.6 GHz | 12 | 19.25 MB | 125W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Gold 5122 Processor | 3.6 GHz | 4 | 16.50 MB | 105W | 2 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Gold 5120 Processor | 2.2 GHz | 14 | 19.25 MB | 105W | 2 @ 10.4 GT/s | 2400 MT/s | 768GB |
| Gold 5118 Processor | 2.3 GHz | 12 | 16.50 MB | 105W | 2 @ 10.4 GT/s | 2400 MT/s | 768GB |
| Gold 5117 processor | 2.0GHz | 14 | 19.25 MB | 105W | 2 @ 10.4 GT/s | 2400 MT/s | 768GB |
| Gold 5115 Processor | 2.4 GHz | 10 | 13.75 MB | 85W | 2 @ 10.4 GT/s | 2400 MT/s | 768GB |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Silver Processors** | | | | | | | |
| Silver 4116 Processor | 2.1 GHz | 12 | 16.50 MB | 85W | 2 @ 9.6 GT/s | 2400 MT/s | 768GB |
| Silver 4114 Processor | 2.2 GHz | 10 | 13.75 MB | 85W | 2 @ 9.6 GT/s | 2400 MT/s | 768GB |
| Silver 4112 Processor | 2.6 GHz | 4 | 8.25 MB | 85W | 2 @ 9.6 GT/s | 2400 MT/s | 768GB |
| Silver 4110 Processor | 2.1 GHz | 8 | 11.00 MB | 85W | 2 @ 9.6 GT/s | 2400 MT/s | 768GB |
| Silver 4108 Processor | 1.8 GHz | 8 | 11.00 MB | 85W | 2 @ 9.6 GT/s | 2400 MT/s | 768GB |
| **Bronze Processors** | | | | | | | |
| Bronze 3106 Processor | 1.7 GHz | 8 | 11.00 MB | 85W | 2 @ 9.6 GT/s | 2133 MT/s | 768GB |
| Bronze 3104 Processor | 1.7 GHz | 6 | 8.25 MB | 85W | 2 @ 9.6 GT/s | 2133 MT/s | 768GB |

**NOTE:** Platinum - 8100 Series -2 Socket supports 2UPI, supports 6-Channel DDR4 @ 2666 MT/s providing up to 768GB memory capacity (1.5 TB on select processor skus).  Intel Turbo Boost Technology, Intel Hyper-Threading Technology supported.  Intel AVX-512 (2x 512-bit FMA), 48 lanes PCIe 3.0, advanced RAS.

## Standard Features

**NOTE:** Gold - 5100, 6100 Series - 2 Socket supports 2UPI, supports 6-Channel DDR4 @ 2400 MHz (SKU 5122=supports 2666) providing up to 768GB memory capacity (1.5 TB on select skus).  Intel Turbo Boost Technology, Intel Hyper-Threading Technology, Intel AVX-512(1x 512-bit FMA)  (SKU 5122 supports 2x 512 bit FMA), 48 lanes PCIe 3.0, advanced RAS supported.

**NOTE:** Silver - 4100 Series - 2 Socket supports 2UPI  @ 9.6 GT/s, 6-Channel DDR4 @ 2400 MHz providing up to 768 GB memory capacity. Intel Turbo Boost Technology, Intel Hyper-Threading Technology, Intel AVX-512(1x 512-bit FMA), 48 lanes PCIe 3.0, standard RAS supported.

**NOTE:** Bronze - 3100 Series - 2 Socket supports 2UPI @ 9.6 GT/s, supports 6-Channel DDR4 @ 2133 MHz providing up to 768GB memory capacity. Intel AVX-512(1x 512-bit FMA), 48 lanes PCIe 3.0, standard RAS supported.

## Chipset

Intel C621 Chipset

**NOTE:** For more information regarding Intel® chipsets, please see the following URL:
**http://www.intel.com/products/server/chipsets/**

## On System Management Chipset

HPE iLO 5 ASIC

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

## Memory

One of the following depending on model

| | | |
|---|---|---|
| Type: | | HPE DDR4 SmartMemory, Registered (RDIMM), Load Reduced (LRDIMM) |
| DIMM Slots Available | 24 | 12 DIMM slots per processor, 6 channels per processor, 2 DIMMs per channel |
| Maximum capacity (LRDIMM) | 3.0 TB | 24 x 128 GB LRDIMM @ 2666 MHz |
| Maximum capacity (RDIMM) | 768 GB | 24 x 32 GB RDIMM @ 2666 MHz |
| Maximum capacity (NVDIMM) | 192 GB | 12 x 16 GB NVDIMM @ 2666 MHz |

**NOTE:** NVDIMMs can be mixed with RDIMMs only.

**NOTE:** Maximum memory per socket is dependent on processor selection. Processors supporting 1.5 TB per CPU is indicated by the "M"? in the processor model names (i.e. 8160M).

**NOTE:** Mixing of RDIMM and LRDIMM memory is not supported.

**NOTE:** For General Server Memory and NVDIMM Population Rules and Guidelines for Gen10 see details here:
**http://www.hpe.com/docs/memory-population-rules**

## Memory Protection

For details on the HPE Server Memory Options RAS feature, visit: **http://www.hpe.com/docs/memory-ras-feature**.

## Expansion Slots

| Slots # | Technology | Bus Width | Connector Width | Slot Form Factor | Notes |
|---|---|---|---|---|---|

## Standard Features

| | | | | | |
|---|---|---|---|---|---|
| 1 | PCIe 3.0 | X8 | X8 | Full-height, full-length slot | Proc 1 |
| 2 | PCIe 3.0 | X16 | X16 | Full-height, full-length slot | Proc 1 |
| 3 | PCIe 3.0 | X8 | X8 | Full-height, half-length slot | Proc 1 |

**NOTE:** Bus Width Indicates the number of physical electrical lanes running to the connector.

**NOTE:** This riser also supports dual m.2 cards.

| Slots # | Technology | Bus Width | Connector Width | Slot Form Factor | Notes |
|---|---|---|---|---|---|
| 1 | PCIe 3.0 | X8 | X8 | Full-height, full-length slot | Proc 2 |
| 2 | PCIe 3.0 | X16 | X16 | Full-height, full-length slot | Proc 2 |
| 3 | PCIe 3.0 | X8 | X8 | Full-height, half-length slot | Proc 2 |

## Storage 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**.

One of the following depending on model

**Software RAID**            HPE Smart Array S100i SR Gen10 SW RAID

**NOTE:** HPE Smart Array S100i SR Gen10 SW RAID will operate in UEFI mode only. For legacy support an additional controller will be needed, and for CTO orders please also select the Legacy mode settings part, 758959-B22.
**NOTE:** HPE Smart Array S100i SR Gen10 SW RAID is off by default and must be enabled.
**NOTE:** The S100i uses 14 embedded SATA ports, but only 12 ports are accessible as 2 are leveraged to support the 2 M.2 options on the primary riser.
**NOTE:** The S100i supports windows only
**NOTE:** For Linux users, HPE offers a solution that uses in-distro open-source software to create a two-disk RAID 1 boot volume. For more information visit: **https://downloads.linux.hpe.com/SDR/project/lsrrb/**

**Essential RAID Controller**       HPE Smart Array E208i-a SR Gen10 Controller

HPE Smart Array E208i-p SR Gen10 Controller

HPE Smart Array E208e-p SR Gen10 Controller

**Performance RAID Controller**       HPE Smart Array P408i-a SR Gen10 Controller

HPE Smart Array P408i-p SR Gen10 Controller

HPE Smart Array P408e-p SR Gen10 Controller

HPE Smart Array P816i-a SR Gen10 Controller

**NOTE:** Performance RAID Controllers require the HPE Smart Storage Battery (P01366-B21) which is sold separately.

## Standard Features

### Internal Storage Devices

One of the following depending on model

| | |
|---|---|
| Optical Drive | Ships standard in Performance Models |
| | Optional: DVD-ROM, DVD-RW |
| Hard Drives | None ship standard |

### Maximum Internal Storage

| | CAPACITY | CONFIGURATION |
|---|---|---|
| Hot Plug SFF SAS | 72.0 TB | 24+6 x 2.4 TB* (with optional rear SFF drive cage) |
| Hot Plug SFF SATA | 60.0 TB | 24+6 x 7.68 TB (with optional SFF drive cage) |
| Hot Plug LFF SAS | 231.84 TB | 12+4+3 x 12 TB + 2 x 3.84 TB (with optional mid-tray and rear LFF SSD rear) |
| Hot Plug LFF SATA | 197.68 TB | 12+4+3 x 10 TB + 2 x 3.84 TB (with optional mid-tray and rear LFF SSD rear) |
| Hot Plug SFF SAS SSD | 459 TB | 24+6 x 15.3 TB (with optional rear SFF drive cage) |
| Hot Plug LFF SATA SSD | 44.16 TB | 12+4+3 x 1.92 TB + 2 x 3.84 TB (with optional mid-tray and rear L SFF SSD rear) |
| Hot Plug SFF NVMe PCIe SSD | 80 TB NVMe | 20 x4 TB NVMe |

**NOTE:** 2x m.2 drives are supported on the Primary Riser.

**NOTE:** uFF drives are also supported.

### Power Supply

HPE 500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit

**NOTE:** Available in 94% efficiency.

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

**NOTE:** Available in 94% and 96% efficiency.

**NOTE:** Also available in -48VDC and 227VAC/380VDC power inputs.

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

**NOTE:** Available in 94% efficiency.

HPE Flexible Slot (Flex Slot) Power Supplies share a common electrical and physical design that allows for hot plu installation into HPE ProLiant Gen10 Performance Servers. Flex Slot power supplies are certified for high-efficiency offer multiple power output options, allowing users to "right-size" a power supply for specific server configurations. 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 wi 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**.

## Standard Features

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

### Interfaces

| | |
|---|---|
| Serial | Optional, rear |
| Display Port | 1 (SFF 1 front, optional via Universal Media Bay, 826708-B21), 8 LFF chassis standard |
| FlexibleLOM Network Ports | 4 x 1 Gb ports shipping standard with optional FlexibleLOM or stand up card |
| HPE iLO Remote Management Network Port | 1 Gb Dedicated |
| Front iLO Service Port | 1 standard (Not available on 12 LFF chassis or when SID is ordered, note iLO dongle required, 880123-B21) |
| Micro SD Slot | 1 Micro SD |

**NOTE:** 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 |

**NOTE:** Not shipping as standard. Available as a CTO option or as a field upgrade (826703-B21).

### Operating Systems and Virtualization Software Support for ProLiant Servers

**Windows Server 2012 R2** (Most Recent Version)

**Windows Server 2016** (Most Recent Version)

**VMware ESXi 6.0 U3**

**VMware ESXi 6.5 and U1** upon release

**CentOS**

**Red Hat Enterprise Linux (RHEL)** 6.9 and 7.3

**SUSE Linux Enterprise Server (SLES)** 11 SP4 and 12 SP2

**Canonical Ubuntu**

**ClearOS**

HPE and ClearCenter will help you lower the cost of building on-premise solutions without sacrificing security and ease of use. HPE ProLiant servers with ClearOS give you a simple, secure, and affordable operating system with an intuitive web based graphical user interface that provides a cloud-like experience on- premise, and an Application Marketplace with over 100 apps and growing. Whether you're starting out or scaling, you decide what applications you need and pay as you grow.

**NOTE:** ClearOS allows you to build a fully functional server that is just right for you at no upfront cost.

For more information on ClearOS, please visit **http://www.hpe.com/servers/clearos**.

**NOTE:** For more information on Hewlett Packard Enterprise Certified and Supported ProLiant Servers for OS and Virtualization Software and latest listing of software drivers available for your server.

## Standard Features

**http://www.hpe.com/info/ossupport**

**Industry Standard Compliance**

ACPI 6.1 Compliant

PCIe 3.0 Compliant

WOL Support
Microsoft® Logo certifications
PXE Support
VGA/Display Port

**NOTE:** This support is on the optional Universal Media Bay.

USB 3.0 Compliant (internal)

USB 2.0 Compliant (external ports via SUV)

**NOTE:** This support is on the optional Universal Media Bay.

Energy Star

SMBIOS 3.1
UEFI 2.6
Redfish API
IPMI 2.0
Secure Digital 2.0
Advanced Encryption Standard (AES)
Triple Data Encrytion 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
**NOTE:** For additional technical thermal details regarding ambient temperatures, humidity and features support please visit:
**http://www.hpe.com/servers/ashrae**.
UEFI (Unified Extensible Firmware Interface Forum)
**NOTE:** UEFI is the default for the DL380 Gen10. Legacy mode can be selected in the field or as a CTO option (758959-B22).

**Graphics**

Integrated Video Standard

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

HPE iLO 5 on system management memory

## Standard Features

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

**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.

**NOTE:** 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
- 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

**NOTE:** For UEFI Boot Mode, boot environment and OS image installations should be configured properly to support UEFI.

**NOTE:** UEFI FIO Setting (758959-B22) can be selected to configure the system in Legacy mode in the factory for your HPE ProLiant Gen10 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**.

## Standard Features

### 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**.

### 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 **http://www.hpe.com/info/smartupdate**.

### 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**.

## Standard Features

### 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/stk** or **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 (iLO 5 certification in progress)

Common Criteria certification (iLO 5 certification in progress)
Configurable for PCI DSS compliance
Advanced Encryption Standard (AES) and Triple Data Encryption Standard (3DES) on browser

Support for Commercial National Security Algorithms (CNSA)

Tamper-free updates - components digitally signed and verified

Secure Recovery - recover critical firmware to known good state on detection of compromised firmware

Ability to rollback firmware

Secure erase of NAND/User data
TPM (Trusted Platform Module) 1.2 option
TPM (Trusted Platform Module) 2.0 option
Bezel Locking Kit option
Chassis Intrusion detection option

### Warranty

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

## Standard Features

to the specific hard drive QuickSpecs for details.

**NOTE:** 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:

**http://h17007.www1.hpe.com/us/en/enterprise/servers/warranty/**.

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. Learn more about HPE iLO Advanced at **http://www.hpe.com/servers/iloadvanced**.

### HPE iLO Advanced Premium Security Edition

HPE iLO Advanced Premium Security Edition for iLO 5 includes iLO Advanced License plus high-end security modes, unique security capabilities, like Automatic FW recovery; Runtime FW verification, and Secure erase. Learn more about HPE iLO Advanced Premium Security Edition at: **http://www.hpe.com/servers/ilopremium**.

### 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 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°C, include color-coded outlets and load segments and a low-profile design for optimal access to the rack and support

## Optional Features

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**.

**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 Pointnext - Service and Support

### Protect your business beyond warranty with HPE Pointnext Operational Service

HPE Pointnext provides a comprehensive portfolio including Advisory and Transformational, Professional, and Operational Services to help accelerate your digital transformation. From the onset of your transformation journey, Advisory and Transformational Services focus on designing the transformation and creating a solution roadmap. Professional Services specializes in creative configurations with flawless and on-time implementation, and on-budget execution.  Finally, operational services provides innovative new approaches like Flexible Capacity and Datacenter Care, to keep your business at peak performance. HPE is ready to bring together all the pieces of the puzzle for you, with an eye on the future, and make the complex simple.

### Connect your devices:

Unlock all of the benefits of your technology investment by connecting your products to Hewlett Packard Enterprise. Achieve up to 77%[1] reduction in down time, near 100%[2] diagnostic accuracy and a single consolidated view of your environment. By connecting, you will receive 24x7monitoring, pre-failure alerts, automatic call logging, and automatic parts dispatch. HPE Proactive Care Service and HPE Datacenter Care Service customers will also benefit from proactive activities to help prevent issues and increase optimization. All of these benefits are already available to you with your server storage and networking products, securely connected to HPE support.

 1- IDC 2 - HP CSC reports 2014 - 2015
Learn more about getting connected at **http://www.hpe.com/services/getconnected**.

### Recommended Services

### HPE Proactive Care* with 6 hour call-to-repair commitment, three year Support Service

HPE Proactive Care gives customers an enhanced call experience. When your products are connected to HPE, Proactive Care helps prevent problems and maintains IT stability by utilizing personalized proactive reports with recommendations and advice. This Service combines three years' proactive reporting and advice with our highest level of hardware support - HPE's 24x7, six hour hardware call-to-repair. HPE is the only leading manufacturer who makes this level of coverage available as a standard service offering for your most valuable servers. This service also includes collaborative software support for Independent Software Vendors (ISVs), (Red Hat, VMWare, Microsoft, etc.) running on your HPE servers.
**https://www.hpe.com/h20195/v2/GetPDF.aspx/4AA3-8855ENW.pdf**

### HPE Proactive Care* with 24x7 coverage, three year Support Service

HPE Proactive Care gives customers an enhanced call experience. When your products are connected to HPE, Proactive Care helps prevent problems and maintains IT stability by utilizing personalized proactive reports with recommendations and advice This Service combines three years proactive reporting and advice with our 24x7 coverage, four hour hardware response time when there is a problem. This service also includes collaborative software support for Independent Software Vendors (ISVs), (Red Hat, VMWare, Microsoft, etc.) running on your HPE servers.
**https://www.hpe.com/h20195/v2/GetPDF.aspx/4AA3-8855ENW.pdf**

### HPE Proactive Care* - Next Business Day service, three year Support Service

HPE Proactive Care gives customers an enhanced call experience. When your products are connected to

## Service and Support

HPE, Proactive Care helps prevent problems and maintains IT stability by utilizing personalized proactive reports with recommendations and advice. This service combines three years of Hardware Support where an HPE authorized representative will arrive at the Customer's site during the onsite coverage window to begin hardware maintenance service the next coverage day after the service request has been logged. This service also includes collaborative software support for Independent Software Vendors (ISVs), (Red Hat, VMWare, Microsoft, etc.) running on your HPE servers.
**https://www.hpe.com/h20195/v2/GetPDF.aspx/4AA3-8855ENW.pdf**

*HPE Proactive Care and HPE Proactive Care Advanced require that the customer connect their devices to make the most of these services and receive all the deliverables.

### Parts and Materials

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

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

The defective media retention service feature option applies only to Disk or eligible SSD/Flash Drives replaced by HPE due to malfunction.

### Other related Services

### HPE Server Hardware Installation

Provides for the basic hardware installation of HPE branded servers, storage devices and networking options to assist you in bringing your new hardware into operation in a timely and professional manner.
**https://www.hpe.com/h20195/V2/GetPDF.aspx/5981-9356EN.pdf**

### HPE Installation and Startup Service

Provides for the installation of your HPE hardware according to product specifications including options. The HPE service delivery technician will connect the product to a LAN as appropriate and enable remote support to allow for automatic case creation for hardware failures. Installation and start up services also includes the installation of one supported operating system type (Windows® or Linux).

### HPE Datacenter Care service

HPE Datacenter Care helps improve IT stability and security, increase the value of IT, and enable agility and innovation. It is a structured framework of repeatable, tested, and globally available services "building blocks."? You can deploy, operate, and evolve your datacenter wherever you are on your IT journey. With HPE Datacenter Care, you benefit from a personalized relationship with HPE via a single point of accountability for HPE and others' products. For more information, visit
**http://www.hpe.com/services/datacentercare**

### HPE GreenLake Flex Capacity

With HPE GreenLake Flex Capacity, you get the speed, scalability, and economics of the public cloud in the privacy of your data center. Gain the advantages of the public cloud-consumption-based payment, rapid

## Service and Support

scalability without worrying about capacity constraints. Reduce the "heavy lifting"? needed to operate a data center. And retain the advantages that IT provides the business (i.e., control, security). Deliver the right user experience, choose the right technology for the business, manage privacy and compliance, and manage the cost of IT. And, you have the option to use the public cloud when needed.

### DC for Hyperscale

Datacenter Care for Hyperscale is available for Service Providers and HPC customers who use a scale out approach to computing with a high volume homogenous infrastructure and resilient architecture can take advantage of this environment support tailored to their operating model.

### HPE Factory Express for Servers and storage

HPE Factory Express offers configuration, customization, integration and deployment services for HPE servers and storage products. Customers can choose how their factory solutions are built, tested, integrated, shipped and deployed.

Factory Express offers service packages for simple configuration, racking, installation, complex configuration and design services as well as individual factory services, such as image loading, asset tagging, and custom packaging. HPE products supported through Factory Express include a wide array of servers and storage: HPE Integrity, HPE ProLiant, HPE Apollo, HPE ProLiant Server Blades, HPE BladeSystem, HPE 9000 servers as well as the MSAxxxx3PAR suite, XP, rackable tape libraries and configurable network switches.

### HPE Service Credits

HPE Service Credits offers flexible services and technical skills to meet your changing IT demands. With a menu of service that is tailored to suit your needs, you get additional resources and specialist skills to help you maintain peak performance of your IT. Offered as annual credits, you can plan your budgets while proactively responding to your dynamic business.

### HPE Education Services

Keep your IT staff trained making sure they have the right skills to deliver on your business outcomes. Book on a class today and learn how to get the most from your technology investment.
**http://www.hpe.com/ww/learn**

### HPE Support Center

The HPE Support Center is a personalized online support portal with access to information, tools and experts to support HPE business products. Submit support cases online, chat with HPE experts, access support resources or collaborate with peers.

Learn more **http://www.hpe.com/support/hpesc**.

HPE's Support Center Mobile App* allows you to resolve issues yourself or quickly connect to an agent for live support. Now, you can get access to personalized IT support anywhere, anytime.
HPE Insight Remote Support and HPE Support Center are available at no additional cost with a HPE warranty, HPE Support Service or HPE contractual support agreement.

*HPE Support Center Mobile App is subject to local availability.

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

## Service and Support

**NOTE:** HPE ProLiant DL380 Gen10 Server is covered under the HPE Service Contract applied to the HPE ProLiant Server. No separate HPE support services need to be purchased.

Warranty and Support Services will extend to include HPE options configured with your server or storage device. The price of support service is not impacted by configuration details. HPE sourced options that are compatible with your product will be covered under your server support at the same level of coverage allowing you to upgrade freely. Installation for HPE options is available as needed. To keep support costs low for everyone, some high value options will require additional support. Additional support is only required on select high value workload accelerators, fibre switches, InfiniBand and UPS batteries over 12KVA. See the specific high value options that require additional support **HERE**.

## Pre-configured Models

| | Entry Models | |
|---|---|---|
| **[SKU Number]** | 868709-xx1 | 826564-xx1 |
| **Model Name** | Entry LFF | Entry SFF |
| **Processor** | 3106 (8-Core, 1.7 GHz, 85W) | 3106 (8-Core, 1.7 GHz, 85W) |
| **Number of Processors** | One processor | One processor |
| **Memory** | 16 GB RDIMM DR 2600 MT/s (1x 16 GB) **NOTE:** running at 2133 MT/s due to Processor limitation. | 16 GB RDIMM DR 2600 MT/s (1x 16 GB) **NOTE:** running at 2133 MT/s due to Processor limitation. |
| **Network Controller** | HPE 1Gb Ethernet 4-Port 331i Adapter plus optional HPE FlexibleLOM or stand up card | HPE 1Gb Ethernet 4-Port 331i Adapter plus optional HPE FlexibleLOM or stand up card |
| **Storage Controller** | Embedded 14-Port S100i **NOTE:** SATA only, 12-PORT accessible. | Embedded 14-Port S100i **NOTE:** SATA only, 12-PORT accessible. |
| **Hard Drive** | None ship as standard | None ship as standard |
| **Internal Storage** | 8 LFF chassis, with 2 SFF bays optional (upgradeable to 15LFF with 4LFF mid and 3LFF rear + 2SFF rear) | 8 SFF Chassis (upgradeable to 24 SFF front + 6SFF rear) |
| **Optical Drive Bay** | Optional via Universal Media Bay (included) | Optional Universal Media Bay (826708-B21) |
| **Optical Drive** | None ship as standard | None ship as standard |
| **PCI-Express Slots** | 3-slots (x8, x16, x8) as standard | 3-slots (x8, x16, x8) as standard |
| **Power Supply** | 1x 500W HPE FlexSlot Power Supply | 1x 500W HPE FlexSlot Power Supply |
| **Fans** | 6-standard fans | 4-standard fans |
| **Management** | HPE iLO Standard with Intelligent Provisioning (embedded), HPE OneView Standard (requires download); HPE iLO Advanced, HPE iLO Advanced Premium Security Edition and HPE OneView Advanced (require licenses) | |
| **Energy Star** | 2.1 certified | |
| **Form Factor** | 2U Rack, Easy Install rails without CMA | |
| **Warranty** | 3-year parts, 3-year labor, 3-year onsite support with next business day response. | |

## Pre-configured Models

| | Base Models | |
|---|---|---|
| **[SKU Number]** | 868710-xx1 | 826565-xx1 |
| **Model Name** | Base LFF | Base SFF |
| **Processor** | 4110 (8-Core, 2.1 GHz, 85W) | 4114 (10-Core, 2.2 GHz, 85W) |
| **Number of Processors** | One processor | One processor |
| **Memory** | 32 GB RDIMM DR 2600 MT/s (2x 16 GB) **NOTE:** running at 2400 MT/s due to Processor limitation. | 32 GB RDIMM DR 2600 MT/s (2x 16 GB) **NOTE:** running at 2400 MT/s due to Processor limitation. |
| **Network Controller** | HPE 1Gb Ethernet 4-Port 331i Adapter plus optional HPE FlexibleLOM or stand up card | HPE 1Gb Ethernet 4-Port 331i Adapter plus optional HPE FlexibleLOM or stand up card |
| **Storage Controller** | P816i-a **NOTE:** 16-Port modular Smart Array. **NOTE:** Smart Storage battery included. | P408i-a **NOTE:** 8-Port modular Smart Array. **NOTE:** Smart Storage battery included. |
| **Hard Drive** | None ship as standard | None ship as standard |
| **Internal Storage** | 12 LFF chassis (upgradeable to 19LFF with 4LFF mid and 3LFF rear + 2SFF) | 8 SFF Chassis (upgradeable to 24 SFF front + 6SFF rear) |
| **Optical Drive Bay** | Optional via Universal Media Bay (included) | Optional Universal Media Bay (826708-B21) |
| **Optical Drive** | None ship as standard | None ship as standard |
| **PCI-Express Slots** | 3-slots (x8, x16, x8) as standard | 3-slots (x8, x16, x8) as standard |
| **Power Supply** | 2x 800W HPE FlexSlot power supply | 1x 500W HPE FlexSlot power supply |
| **Fans** | 6-High Performance fans | 4-standard fans |
| **Management** | HPE iLO Standard with Intelligent Provisioning (embedded), HPE OneView Standard (requires download); HPE iLO Advanced, HPE iLO Advanced Premium Security Edition and HPE OneView Advanced (require licenses) | |
| **Energy Star** | 2.1 certified | |
| **Form Factor** | 2U Rack, Easy install rails with CMA | |
| **Warranty** | 3-year parts, 3-year labor, 3-year onsite support with next business day response | |

## Pre-configured Models

| | Performance Models | High Performance Models | |
|---|---|---|---|
| **[SKU Number]** | 826566-xx1 | 826567-xx1 | 879938-xx1 |
| **Model Name** | Performance | High-Perferformance | High-Perferformance |
| **Processor** | 5118 (12-Core, 2.3 GHz, 105W) | 6130 (16-Core, 2.1 GHz, 120W) | 6130 (16-Core, 2.1 GHz, 120W) |
| **Number of Processors** | Two processors | Two processors | Two processors |
| **Memory** | 64 GB RDIMM DR 2666 MT/s (2x 32 GB) **NOTE:** running at 2400 MT/s due to processor limitation. | 64 GB RDIMM DR 2666 MT/s (2x 32 GB) | 64 GB RDIMM DR 2666 MT/s (2x 32 GB) |
| **Network Controller** | HPE 1Gb Ethernet 4-Port 331i Adapter plus HPE Ethernet 10/25 Gb 2-port 640FLR-SFP28 Adapter (817749-B21) | HPE 1Gb Ethernet 4-Port 331i Adapter plus HPE Ethernet 10/25 Gb 2-port 640FLR-SFP28 Adapter (817749-B21) | HPE 1Gb Ethernet 4-Port 331i Adapter plus HPE Ethernet 25 Gb 2-port 631FLR Adapter (817709-B21) |
| **Storage Controller** | P408i-a **NOTE:** 8-Port modular Smart Array. **NOTE:** Smart Storage battery included. | P408i-a **NOTE:** 8-Port modular Smart Array. **NOTE:** Smart Storage battery included. | P408i-a **NOTE:** 8-Port modular Smart Array. **NOTE:** Smart Storage battery included. |
| **Hard Drive** | None ship as standard | None ship as standard | None ship as standard |
| **Internal Storage** | 8 SFF Chassis (upgradeable to 24 SFF front + 6SFF rear) | 8 SFF Chassis (upgradeable to 24 SFF front + 6SFF rear) | 8 SFF Chassis (upgradeable to 24 SFF front + 6SFF rear) |
| **Optical Drive Bay** | Universal Media Bay (826708-B21) | Universal Media Bay (826708-B21) | Universal Media Bay (826708-B21) |
| **Optical Drive** | DVD-RW | DVD-RW | DVD-RW |
| **PCI-Express Slots** | 6 total: 3-slots (x8, x16, x8 with m.2) as standard, plus 3 PCIe (x8, x16, x8) | 6 total: 3-slots (x8, x16, x8 with m.2) as standard, plus 3 PCIe (x8, x16, x8) | 6 total: 3-slots (x8, x16, x8 with m.2) as standard, plus 3 PCIe (x8, x16, x8) |
| **Power Supply** | 2x 800W HPE FlexSlot power supply | 2x 800W HPE FlexSlot power supply | 2x 800W HPE FlexSlot power supply |
| **Fans** | 6-standard fans | | |
| **Management** | HPE iLO Advanced with Intelligent Provisioning, HPE OneView Standard (requires download) Optional (require licenses): HPE iLO Advanced Premium Security Edition, HPE OneView Advanced | | |
| **Energy Star** | 2.1 certified | | |
| **Form Factor** | 2U Rack, Easy Install rails with CMA | | |
| **Warranty** | 3-3-3 | | |

| **Country Code Key** | xx1 = B21 | Worldwide |
|---|---|---|
| | **NOTE:** The -B21 WW SKU is to be ordered in all countries other than Japan. | |
| | xx1 = 291 | Japan |

# QuickSpecs

## SMB Models

1. New SMB focused offers regionally released as "Smart Buy Express"? in the U.S. and Canada, "Top Value"? in Europe, and "Intelligent Buy"? in Asia Pacific and Japan"?.
2. SMB Models ship with the configurations below. Options can be selected from the Core or Additional options section of this QuickSpecs.
3. Hewlett Packard Enterprise does not provide factory integration of options into SMB Models. Any additional options purchased will be shipped separately and would need to be field integrated.
4. If you desire to custom configure an SMB Model please consult your preferred reseller.

| | SMB Models | |
|---|---|---|
| **SKU Number** | P06419-xx1 | P06420-xx1 |
| **Model Name** | HPE ProLiant DL380 Gen10 3104 1.7GHz 6-core 1P 16GB-R S100i 8LFF 500W PS Entry SATA Server | HPE ProLiant DL380 Gen10 4110 2.1GHz 8-core 1P 16GB-R P408i-a 8SFF 500W PS Performance Server |
| **Chassis** | 8LFF | 8SFF |
| **Processor** | 3104 (6 core, 1.7 GHz, 85W) | 4110 (8 core, 2.1 GHz, 85W) |
| **Number of Processors** | One processor With standard heatsink | One processor With standard heatsink |
| **Memory** | 16 GB RDIMM 2R 2666 MT/s (1x 16 GB) **NOTE:** Runs at 2133 MT/s due to processor limitation. | 16 GB RDIMM 2R 2666 MT/s (1x 16 GB) **NOTE:** Runs at 2400 MT/s due to processor limitation. |
| **Network Controller** | HPE 1Gb Ethernet 4-Port 331i Adapter | HPE 1Gb Ethernet 4-Port 331i Adapter |
| **Storage Controller** | Embedded 14-port S100i **NOTE:** SATA only, 12-port accessible. | P408i-a/2GB with Smart Storage Battery |
| **Hard Drive** | None included | None included |
| **Optical Drive** | None included | None included |
| **PCIe Slots** | 3 PCIe: 2 x16, 1 x8 | 3 PCIe: 2 x16, 1 x8 |
| **Power Supply** | 1x 500W | 1x 500W |
| **Fans** | 4 - Standard | 4 - Standard |
| **Management** | HPE iLO 5 | HPE iLO 5 |
| **Rail Kit** | LFF Easy Install w/o CMA | SFF Easy Install with CMA |
| **Energy Star** | Energy Star 2.1 | |
| **Form Factor** | 2U Rack | |
| **Warranty** | 3-year parts, 3-year labor, 3-year onsite support with next business day response. | |
| **NOTE:** UEFI is the standard default for all SMB models. | | |

## SMB Models

| | SMB Models | | |
|---|---|---|---|
| **SKU Number** | P06421-xx1 | P06422-xx1 | P06423-xx1 |
| **Model Name** | HPE ProLiant DL380 Gen10 4114 2.2GHz 10-core 1P 32GB-R P408i-a 8SFF 800W PS Performance Server | HPE ProLiant DL380 Gen10 5118 2.3GHz 12-core 1P 64GB-R P408i-a 8SFF 800W RPS Performance Server | HPE ProLiant DL380 Gen10 6130 2.1GHz 16-core 1P 64GB-R P408i-a 8SFF 800W RPS Performance Server |
| **Chassis** | 8SFF | 8SFF | 8SFF |
| **Processor** | 4114 (10 core, 2.2 GHz, 85W) | 5118 (12 core, 2.3 GHz, 105W) | 6130 (16 core, 2.1 GHz, 125W) |
| **Number of Processors** | One processor With standard heatsink | One processor With standard heatsink | One processor With standard heatsink |
| **Memory** | 32 GB RDIMM 2R 2666 MT/s (1x 32 GB) **NOTE:** Runs at 2400 MT/s due to processor limitation. | 64 GB RDIMM 2R 2666 MT/s (2x 32 GB) **NOTE:** Runs at 2400 MT/s due to processor limitation. | 64 GB RDIMM 2R 2666 MT/s (2x 32 GB) **NOTE:** Runs at 2666 MT/s. |
| **Network Controller** | HPE 1Gb Ethernet 4-Port 331i Adapter | HPE 1Gb Ethernet 4-Port 331i Adapter | HPE 1Gb Ethernet 4-Port 331i Adapter |
| **Storage Controller** | P408i-a/2GB with Smart Storage Battery | P408i-a/2GB with Smart Storage Battery | P408i-a/2GB with Smart Storage Battery |
| **Hard Drive** | None included | None included | None included |
| **Optical Drive** | None included | None included | None included |
| **PCIe Slots** | 3 PCIe: 2 x16, 1 x8 | 3 PCIe: 2 x16, 1 x8 | 3 PCIe: 2 x16, 1 x8 |
| **Power Supply** | 1x 800W | 2x 800W | 2x 800W |
| **Fans** | 4 - Standard | 4 - Standard | 4 - Standard |
| **Management** | HPE iLO 5 | HPE iLO 5 | HPE iLO 5 |
| **Rail Kit** | SFF Easy Install with CMA | | |
| **Energy Star** | Energy Star 2.1 | | |
| **Form Factor** | 2U Rack | | |
| **Warranty** | 3-year parts, 3-year labor, 3-year onsite support with next business day response. | | |
| | **NOTE:** UEFI is the standard default for all SMB models. | | |

## SMB Models

| | SMB Solution Models |
|---|---|
| **SKU Number** | P05524-xx1 |
| **Model Name** | HPE ProLiant DL380 Gen10 4110 2.1GHz 8-core 1P 16GB-R P408i-a 8SFF 500W RPS Solution Server |
| **Chassis** | 8SFF |
| **Processor** | 4110 (8 core, 2.1 GHz, 85W) |
| **Number of Processors** | One processor<br>With standard heatsink |
| **Memory** | 16 GB RDIMM 2R 2666 MT/s<br>(1x 16 GB)<br>NOTE: Runs at 2400 MT/s due to processor limitation. |
| **Network Controller** | HPE 1Gb Ethernet 4-Port 331i Adapter |
| **Storage Controller** | P408i-a/2GB with Smart Storage Battery |
| **Hard Drive** | None included |
| **Optical Drive** | None included |
| **PCIe Slots** | 3 PCIe: 2 x16, 1 x8 |
| **Power Supply** | 2x 500W |
| **Fans** | 4 - Standard |
| **Management** | HPE iLO 5 |
| **Rail Kit** | SFF Easy Install with CMA |
| **Energy Star** | Energy Star 2.1 |
| **Form Factor** | 2U Rack |
| **Operating System** | ClearOS/VM Installer (USB)<br>NOTE: ClearOS, an easy to use OS with an application marketplace, allows you to build a fully functional server that is just right for you at no upfront cost. To learn more on what you can do, please visit **http://www.hpe.com/servers/clearos**. |
| **Warranty** | 3-year parts, 3-year labor, 3-year onsite support with next business day response. |
| | NOTE: UEFI is the standard default for all SMB models. |

| **Country Code Key** | xx1 = B21 | Worldwide |
|---|---|---|
| | NOTE: The -B21 WW SMB SKU is to be ordered in all countries other than Japan or PRC. | |
| | xx1 = 291 | Japan |

## Configuration Information – Factory Integrated Models

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

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

| CTO Server | HPE ProLiant DL380 Gen10 8 LFF CTO Server | HPE ProLiant DL380 Gen10 12 LFF CTO Server | HPE ProLiant DL380 Gen10 8 SFF CTO Server | HPE ProLiant DL380 Gen10 24 SFF CTO Server |
|---|---|---|---|---|
| **SKU Number** | 868706-B21 | 868705-B21 | 868703-B21 | 868704-B21 |
| **TAA SKU** | 875784-B21 | 875785-B21 | 875782-B21 | 875783-B21 |
| **Processor** | Not included as standard | Not included as standard | Not included as standard | Not included as standard |
| **DIMM Slots** | 24-DIMM slots | 24-DIMM slots | 24-DIMM slots | 24-DIMM slots |
| **Storage Controller** | Embedded SW RAID with 14 SATA ports (12-ports accessible), choice of HPE modular Smart Array and PCIe plug-in controller | | | |
| **PCIe** | Three standard in primary riser (with dual M.2 support) | | | |
| **Drive Cage - included** | 8 LFF | 12 LFF | 8 SFF | 24 SFF |
| **Network Controller** | HPE 1Gb Ethernet 4-Port 331i Adapter plus optional HPE FlexibleLOM or stand up card | | | |
| **Fans** | 6-Standard | 6-High Performance | 4-Standard | 6-Performance |
| **Management** | HPE iLO with Intelligent Provisioning (standard), iLO Advances and OneView (optional) | | | |
| **USB** | 1x 3.0 standard plus iLo front service port | None as standard | 1x 3.0 standard plus iLo front service port | 1x 3.0 standard plus iLo front service port |

**NOTE:** 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).
**NOTE:** TAA chassis are only orderable in North America and Canada.
**NOTE:** The HPE ProLiant DL380 Gen10 12 LFF CTO Server ships with the cable required for the P816i-a installation.
**NOTE:** All CTO servers are Energy Star 2.1 compliant.

## Configuration Information - Factory Integrated Models

| CTO Server | 8 SFF CTO Chassis | 24 SFF CTO Chassis | 8 LFF CTO Chassis | 12 LFF CTO Chassis |
|---|---|---|---|---|
| **Included Drive Cage** | 8 SFF SAS/SATA | 3x 8 SFF SAS/SATA | 8 LFF + UMB | 12 LFF Chassis |
| **Additional drive cages** | | | | |
| **Universal Media Bay** | 1 Optional | Not available | 1 Included | Not available |
| **ODD** | 1 Optional with UMB | Not available | 1 Optional | Not available |
| **8 SFF Drive Cage** | Up to 2 Optional | Not available | Not available | Not available |
| **8 NVME/SAS Bay** | Up to 3 Optional | Not available | Not available | Not available |
| **8 NVME Cage** | Up to 3 Optional | Not available | Not available | Not available |
| **2 SFF SAS/SATA (Front)** | 1 Optional with UMB | Not available | 1 Optional | Not available |
| **2 SFF SAS/SATA (Rear)** | 1 Optional | 1 Optional | 1 Optional | 1 Optional |
| **2 NVMe (Front)** | 1 Optional with UMB | Not available | 1 Optional | Not available |
| **4 LFF Mid-plane** | Not available | Not available | 1 Optional | 1 Optional |
| **3 LFF Rear** | Not available | Not available | 1 Optional | 1 Optional |

**NOTE:** This aplies to CTO configurations, field upgrades may differ depending field configuration.
**NOTE:** 3x 8 NVMe option on SFF will only allow for partial population of Box1 to max 20 NVMe.

**Step 2a: Choose Required Options - Processors**
**(only one of the following unless otherwise noted)**

Please select one -L21 processor required below.
For second processor, please select the same processor model with -B21 from Core Options - HPE Processors section.
For example: first processor, select 874752-L21 then for second processor, select 874752-B21.
**NOTE:** 8SFF CTO 1P models ship with 4 standard fans. The second processor option kit contains 2 additional fans. 12 LFF and 24 SFF CTO Servers ship with 6 High performance fans included; 8LFF CTO Servers ship with 6 Standard fans included. High performance fan kit is available to meet ambient temperature environments and are required for rear drives or NVMe configurations.
**NOTE:** Maximum memory capacity per processor is dependent on processor models. All processors support up to 768 GB max memory per processor except "M"? model processors will support up to 1.5 TB max memory per processor.
**NOTE:** Mixing of 2 different processor models are NOT allowed.
**NOTE:** DDR4 speed is the maximum memory speed of the processor. Actual memory speed may depend on the quantity and type of DIMMs installed.
**NOTE:** Processors with 130W or higher will ship with the High Performance heat sink plus SKUs 8156, 6128, 5122 as noted below. All other will processors will ship with the Standard heat sink.

| **Processor Option Kits** | **Required Processor** |
|---|---|
| **Intel Xeon-Platinum** | |
| HPE DL380 Gen10 Intel Xeon-Platinum 8180M (2.5GHz/28-core/205W) FIO Processor Kit | 874752-L21 |
| **NOTE:** Ships with Performance Heatsink. | |
| HPE DL380 Gen10 Intel Xeon-Platinum 8180 (2.5GHz/28-core/205W) FIO Processor Kit | 871619-L21 |
| **NOTE:** Ships with Performance Heatsink. | |
| HPE DL380 Gen10 Intel Xeon-Platinum 8176 (2.1GHz/28-core/165W) FIO Processor Kit | 871618-L21 |
| **NOTE:** Ships with Performance Heatsink. | |
| HPE DL380 Gen10 Intel Xeon-Platinum 8170 (2.1GHz/26-core/165W) FIO Processor Kit | 871617-L21 |

## Configuration Information - Factory Integrated Models

**NOTE:** Ships with Performance Heatsink.

| | |
|---|---|
| HPE DL380 Gen10 Intel Xeon-Platinum 8168 (2.7GHz/24-core/205W) FIO Processor Kit | 869089-L21 |

**NOTE:** Ships with Performance Heatsink.

| | |
|---|---|
| HPE DL380 Gen10 Intel Xeon-Platinum 8165 (2.3GHz/24-core/205W) FIO Processor Kit | 879423-L21 |

**NOTE:** Ships with Performance Heatsink.

**NOTE:** Supports "Core boosting"? Learn more **http://www.hpe.com/info/ist**.

**NOTE:** To enable this feature an iLO Advanced, or iLO Advanced Premium Security edition License are required.

| | |
|---|---|
| HPE DL380 Gen10 Intel Xeon-Platinumn 8164 (2.0GHz/26-core/145W) FIO Processor Kit | 869088-L21 |

**NOTE:** Ships with Performance Heatsink.

| | |
|---|---|
| HPE DL380 Gen10 Intel Xeon-Platinum 8160 (2.1GHz/24-core/150W) FIO Processor Kit | 869086-L21 |

**NOTE:** Ships with Performance Heatsink.

| | |
|---|---|
| HPE DL380 Gen10 Intel Xeon-Platinum 8158 (3.0GHz/12-core/150W) FIO Processor Kit | 869090-L21 |

**NOTE:** Ships with Performance Heatsink.

| | |
|---|---|
| HPE DL380 Gen10 Intel Xeon-Platinum 8156 (3.6GHz/4-core/105W) FIO Processor Kit | 871616-L21 |

**NOTE:** Ships with Performance Heatsink.

| | |
|---|---|
| HPE DL380 Gen10 Intel Xeon-Platinum 8153 (2.0GHz/16-core/125W) FIO Processor Kit | 826890-L21 |

**Intel Xeon-Gold**

| | |
|---|---|
| HPE DL380 Gen10 Intel Xeon-Gold 6154 (3.0GHz/18-core/200W) FIO Processor Kit | 826888-L21 |

**NOTE:** Ships with Performance Heatsink.

| | |
|---|---|
| HPE DL380 Gen10 Intel Xeon-Gold 6152 (2.1GHz/22-core/140W) FIO Processor Kit | 826886-L21 |

**NOTE:** Ships with Performance Heatsink.

| | |
|---|---|
| HPE DL380 Gen10 Intel Xeon-Gold 6150 (2.7GHz/18-core/165W) FIO Processor Kit | 826884-L21 |

**NOTE:** Ships with Performance Heatsink.

| | |
|---|---|
| HPE DL380 Gen10 Intel Xeon-Gold 6148 (2.4GHz/20-core/150W) FIO Processor Kit | 826882-L21 |

**NOTE:** Ships with Performance Heatsink.

| | |
|---|---|
| HPE DL380 Gen10 Intel Xeon-Gold 6146 (3.2GHz/12-core/165W) FIO Processor Kit | 826868-L21 |

**NOTE:** Ships with Performance Heatsink.

| | |
|---|---|
| HPE DL380 Gen10 Intel Xeon-Gold 6144 (3.5GHz/8-core/150W) FIO Processor Kit | 826860-L21 |

**NOTE:** Ships with Performance Heatsink.

| | |
|---|---|
| HPE DL380 Gen10 Intel Xeon-Gold 6143 (2.8GHz/16-core/205W) FIO Processor Kit | 879424-L21 |

**NOTE:** Ships with Performance Heatsink.

**NOTE:** Supports "Core boosting"? Learn more **http://www.hpe.com/info/ist**.

**NOTE:** To enable this feature an iLO Advanced, or iLO Advanced Premium Security edition License are required.

| | |
|---|---|
| HPE DL380 Gen10 Intel Xeon-Gold 6142 (2.6GHz/16-core/150W) FIO Processor Kit | 826880-L21 |

**NOTE:** Ships with Performance Heatsink.

| | |
|---|---|
| HPE DL380 Gen10 Intel Xeon-Gold 6140 (2.3GHz/18-core/150W) FIO Processor Kit | 826878-L21 |

**NOTE:** Ships with Performance Heatsink.

| | |
|---|---|
| HPE DL380 Gen10 Intel Xeon-Gold 6138 (2.0GHz/20-core/125W)FIO Processor Kit | 826876-L21 |

## Configuration Information - Factory Integrated Models

| | |
|---|---|
| HPE DL380 Gen10 Intel Xeon-Gold 6137 (3.9GHz/8-core/205W) Financial Sector FIO Processor Kit | 880168-L21 |

**NOTE:** Ships with Performance Heatsink.
**NOTE:** High frequency bin targeting FSI workloads. Configuration restrictions will apply, support on 8SFF only.
**NOTE:** The system inlet ambient temperature is restricted at 22C.
**NOTE:** NVMe drives CANNOT be ordered with this Processor.
**NOTE:** HPE DL38X Gen10 High Performance Temperature Fan Kit (867810-B21) to be selected.
**NOTE:** No rear drives are supported with this processor.
**NOTE:** No Graphic cards (GPUs) are available with this processor selection.
**NOTE:** For additional details on this processor please visit:
**https://h20195.www2.hpe.com/v2/Getdocument.aspx?docname=a00039606enw**

| | |
|---|---|
| HPE DL380 Gen10 Intel Xeon-Gold 6136 (3.0GHz/12-core/150W) FIO Processor Kit | 826874-L21 |

**NOTE:** Ships with Performance Heatsink.

| | |
|---|---|
| HPE DL380 Gen10 Intel Xeon-Gold 6134 (3.2GHz/8-core/130W) FIO Processor Kit | 826872-L21 |

**NOTE:** Ships with Performance Heatsink.

| | |
|---|---|
| HPE DL380 Gen10 Intel Xeon-Gold 6134M (3.2GHz/8-core/130W) FIO Processor Kit | 873645-L21 |

**NOTE:** Ships with Performance Heatsink.

| | |
|---|---|
| HPE DL380 Gen10 Intel Xeon-Gold 6132 (2.6GHz/14-core/140W) FIO Processor Kit | 826870-L21 |

**NOTE:** Ships with Performance Heatsink.

| | |
|---|---|
| HPE DL380 Gen10 Intel Xeon-Gold 6130 (2.1GHz/16-core/120W) FIO Processor Kit | 826866-L21 |
| HPE DL380 Gen10 Intel Xeon-Gold 6128 (3.4GHz/6-core/115W) FIO Processor Kit | 826864-L21 |

**NOTE:** Ships with Performance Heatsink.

| | |
|---|---|
| HPE DL380 Gen10 Intel Xeon-Gold 6126 (2.6GHz/12-core/120W) FIO Processor Kit | 826862-L21 |
| HPE DL380 Gen10 Intel Xeon-Gold 5122 (3.6GHz/4-core/105W) FIO Processor Kit | 826858-L21 |

**NOTE:** Ships with Performance Heatsink.

| | |
|---|---|
| HPE DL380 Gen10 Intel Xeon-Gold 5120 (2.2GHz/14-core/105W) FIO Processor Kit | 826856-L21 |
| HPE DL380 Gen10 Intel Xeon-Gold 5118 (2.3GHz/12-core/105W) FIO Processor Kit | 826854-L21 |
| Intel Xeon-Gold Special Processor Kits | P00756-L21 |
| HPE DL380 Gen10 Intel Xeon-Gold 5115 (2.4GHz/10-core/85W) FIO Processor Kit | 876562-L21 |

**Intel Xeon-Silver**

| | |
|---|---|
| HPE DL380 Gen10 Intel Xeon-Silver 4116 (2.1GHz/12-core/85W) FIO Processor Kit | 826852-L21 |
| HPE DL380 Gen10 Intel Xeon-Silver 4114 (2.2GHz/10-core/85W) FIO Processor Kit | 826850-L21 |
| HPE DL380 Gen10 Intel Xeon-Silver 4112 (2.6GHz/4-core/85W) FIO Processor Kit | 873647-L21 |
| HPE DL380 Gen10 Intel Xeon-Silver 4110 (2.1GHz/8-core/85W) FIO Processor Kit | 826846-L21 |
| HPE DL380 Gen10 Intel Xeon-Silver 4108 (1.8GHz/8-core/85W) FIO Processor Kit | 826848-L21 |

**Intel Xeon-Bronze**

| | |
|---|---|
| HPE DL380 Gen10 Intel Xeon-Bronze 3106 (1.7GHz/8-core/85W) FIO Processor Kit | 873643-L21 |
| HPE DL380 Gen10 Intel Xeon-Bronze 3104 (1.7GHz/6-core/85W) FIO Processor Kit | 873641-L21 |

**NOTE:** Processors above 130W use a High Performance Heatsink, along with the 8156, 6128 and 5122.

## Step 2b: Choose Memory Options

## Configuration Information – Factory Integrated Models

Please select one or more memory from below.
For new Gen10 memory population rule whitepaper and optimal memory performance guidelines, please go to: **https://www.hpe.com/docs/memory-population-rules**
For Gen10 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**

**NOTE:** Memory DIMM availability with a server platform is dependent upon completion of certification testing.
**NOTE:** The maximum memory speed is a function of the memory type, memory configuration, and processor model.

### Registered DIMMs (RDIMMs)

| | |
|---|---|
| HPE 8GB (1x8GB) Single Rank x8 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit | 815097-B21 |
| HPE 8GB (1x8GB) Dual Rank x8 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit | 876181-B21 |
| HPE 16GB (1x16GB) Single Rank x4 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit | 815098-B21 |
| HPE 16GB (1x16GB) Dual Rank x8 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit | 835955-B21 |
| HPE 32GB (1x32GB) Dual Rank x4 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit | 815100-B21 |

### Load Reduced DIMMs (LRDIMMs)

| | |
|---|---|
| HPE 64GB (1x64GB) Quad Rank x4 DDR4-2666 CAS-19-19-19 Load Reduced Smart Memory Kit | 815101-B21 |
| HPE 128GB (1x128GB) Octal Rank x4 DDR4-2666 CAS-22-19-19 3DS Load Reduced Memory Kit | 815102-B21 |

### HPE Persistent Memory (NVDIMM)

| | |
|---|---|
| HPE 16GB NVDIMM Single Rank x4 DDR4-2666 Module Kit | 845264-B21 |

**NOTE:** A maximum of 12 NVDIMMs supported.
**NOTE:** Can only be mixed with RDIMMs.
**NOTE:** For General Server Memory and NVDIMM Population Rules and Guidelines for Gen10 see details here: **http://www.hpe.com/docs/memory-population-rules**

### Step 2c: Choose Power Supplies

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

### HPE Flex Slot Power Supplies

| | |
|---|---|
| HPE 500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit | 865408-B21 |
| HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit | 865438-B21 |
| HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit | 865414-B21 |
| HPE 800W Flex Slot -48VDC Hot Plug Low Halogen Power Supply Kit | 865434-B21 |
| HPE 800W Flex Slot Universal Hot Plug Low Halogen Power Supply Kit | 865428-B21 |
| HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit | 830272-B21 |

### Step 3: Choose Additional Factory Integratable Options

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

## Configuration Information – Factory Integrated Models

### HPE Security Options

| | |
|---|---|
| HPE Trusted Platform Module 2.0 Gen10 Option | 864279-B21 |

**NOTE:** HPE Trusted Platform Module 2.0 option works with Gen10 servers with UEFI Mode not Legacy Mode. It is not compatible with HPE ProLiant Gen8 servers or earlier generation variants.

**NOTE:** 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 |

**NOTE:** TPM 2.0 is set as default, for 1.2 TPM setting instead, please select this option.

### HPE Unique Options

| | |
|---|---|
| HPE DL38X Gen10 Slot 1/2 x16/x16 FIO Riser Kit | 871674-B21 |

**NOTE:** Slot 1 or 2 in Primary location.
**NOTE:** Supports Full Height and Full length cards.
**NOTE:** Bus width x16, x16, Connector Width x16, x16.

| | |
|---|---|
| HPE DL38X Gen10 x16/x16 GPU Slot2/3 FIO Riser Kit | 871676-B21 |

**NOTE:** Primary Riser, Connector in slot 2 & 3 for GPU support.
**NOTE:** Supports Full Height and Full length cards.
**NOTE:** Bus width x16, x16, Connector Width x16, x16.

| | |
|---|---|
| HPE 4 NVMe Box 1 Instr Spec FIO | 878186-B21 |
| HPE DL38X Gen10 x8/x8/x8 1-port 2 NVMe Slim SAS FIO Riser Kit | 871673-B21 |

**NOTE:** Supports 3x 8 and 1-port for NVMe.
**NOTE:** Supports Full Height and half-length cards.
**NOTE:** Bus width x8, x8, x8 Connector Width x8, x8, x8.

| | |
|---|---|
| HPE 2 NVMe Instr Spec FIO | 878189-B21 |

**NOTE:** This is a factory integrated only option.
**NOTE:** This will connect 2 SFF cage installed in the front of the chassis to NVMe.

| | |
|---|---|
| HPE Special Enablement Kits | 878192-B21 |

**NOTE:** This is a factory integrated only option.
**NOTE:** Indicates the cage will also have an NVMe connection.

| | |
|---|---|
| HPE 8SFF Front Remove SPEC Perf FIO | 873763-B21 |

**NOTE:** This is a factory integrated only option.
**NOTE:** Will remove the Primary 8SFF cage in Box 3 of the 8SFF and replace with a Box blank.

| | |
|---|---|
| HPE Riser Remove SPEC FIO | 873766-B21 |

**NOTE:** This is a factory integrated only option.
**NOTE:** Will remove the Primary shipping PCIe riser.

| | |
|---|---|
| HPE Legacy FIO Mode Setting | 758959-B22 |

**NOTE:** UEFI is the default, this FIO part can be used for CTO to enable Legacy mode.

| | |
|---|---|
| HPE Smart Memory Fast Fault Tolerance FIO Setting | 875293-B21 |

**NOTE:** Fast Fault Tolerance is a new feature in Gen10 server memory that enables the system to boot with full memory performance while monitoring for DRAM device failures.

| | |
|---|---|
| HPE 2U Bezel Air Filter NEBS-compliant Kit | P05420-B21 |

### HPE Converged Infrastructure Management Software

## Configuration Information – Factory Integrated Models

| | |
|---|---|
| HPE OneView for ProLiant DL Server including 3yr 24x7 Support FIO Bundle Physical 1-server LTU | E5Y43A |
| HPE OneView w/o iLO including 3yr 24x7 Support 1-server FIO LTU | P8B31A |

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

## Core Options

**NOTE:** 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. Note the **http://www.hpe.com/info/CablingMatrixGen10** can help to explain the cable routing for each option:

**HPE Unique Options**

HPE DL38X NVMe 8 Solid State Drive Express Bay Enablement Kit                   826689-B21
**NOTE:** This option provides support for up to 8 NVMe drives, and can only be populated in Box 1, Box 2 and Box 3 of the SFF chassis, note Box 1 can only be partially populated with four drives if Box 2 and Box 3 are fully populated with NVMe drives.
**NOTE:** The HPE DL380 Gen10 High Performance fan kit is required for NVMe support (867810-B21).
**NOTE:** The HPE DL38X Gen10 4-port 8 NVMe SlimSAS Riser (867807-B21) is required to support this.
**NOTE:** There are limitations on GPU support with the NVMe bay installed.

HPE DL38X Gen10 Universal Media Bay Kit                   826708-B21
**NOTE:** The HPE DL380 Gen10 Universal Media bay provides front Display Port and 2xUSB 2.0; plus support for 2x SFF front drives or 2 NVME front drives (826687-B21, riser required) and ODD support (Not included); and can only be located in Box1 in either an 8 SFF or 8+8 SFF model.
**NOTE:** This is a SFF model option only.

HPE DL38X Gen10 Premium 6 SFF SAS/SATA + 2 NVMe or 8 SFF SAS/SATA Bay Kit                   826690-B21
**NOTE:** This kit can be supported in Box 1, 2 or 3 and provides support for up to 8 SFF SAS/SATA or 6 SAS/SATA + 2 NVMe drives per Box.
**NOTE:** With NVMe drives a specific riser is required.
**NOTE:** When adding to Box 1 the addition of the High Performance Fan kit (867810-B21) is required.

HPE DL380 Gen10 High Performance Heat Sink Kit                   826706-B21
**NOTE:** Required for GPU installations.
**NOTE:** Processor kits above 130W include a High Performance Heatsink, along with the 8156, 6128 and 5122.
**NOTE:** This kit contains 2 High Performance Heatsinks.

HPE DL38X Gen10 High Performance Temperature Fan Kit                   867810-B21
**NOTE:** This kit is required for specific **Ambient temperature environments**, coming in 2H2017.
**NOTE:** This kit is also required to support GPUs configurations.
**NOTE:** This is required for NVMe configurations.
**NOTE:** This kit provides maximum cooling for your Server.
**NOTE:** This kit is required when Box 1, 2 and 3 are populated.

HPE DL38X Gen10 2SFF HDD SAS/SATA Riser Kit                   826688-B21
**NOTE:** 2 SFF in the rear is only supported with a 24 SFF model or 12 LFF model.
**NOTE:** In the rear this leaves 1x16 slot accessible.
**NOTE:** Rear drives require the addition of the High Performance Fan kit (867810-B21).

HPE DL38X Gen10 2SFF Premium HDD Front NVMe or Front/Rear SAS/SATA Kit                   826687-B21
**NOTE:** HPE DL38X Gen10 Universal Media Bay Kit (826708-B21).
**NOTE:** NVMe drives require the addition of the High Performance Fan kit (867810-B21).
**NOTE:** NVMe drives require the addition of an NVMe capable riser.
**NOTE:** Drive cage can be used in the rear of the chassis, but will not support NVMe drives

## Core Options

rear.
**NOTE:** Supports uFF drives.

HPE DL38X Gen10 8LFF Front 2NVMe HDD Bay Kit                                       873781-B21

**NOTE:** Supports 2 NVMe in the Universal Media bay (included) on the 8 LFF model.
**NOTE:** For support of the 2 NVMe drives this will require the addition of the HPE DL38X Gen10 x8/x8/x8 1-port 2 NVMe SlimSAS Riser (867806-B21); or the HPE DL38X Gen10 2-port 4 NVMe SlimSAS Riser  (867808-B21).
**NOTE:** NVMe drives require the addition of the High Performance Fan kit (867810-B21).

HPE DL38X Gen10 12Gb SAS Expander Card Kit with Cables                             870549-B21

**NOTE:** SAS expander to enable 24 SFF field upgrade.
**NOTE:** Primary population in slot 3 of the primary riser.

HPE DL380 Gen10 SFF Systems Insight Display Kit                                    826703-B21

**NOTE:** Systems Insight Display no longer ships as standard but is available as a Factory Integrated or field upgrade option.

HPE DL3XX Gen10 Rear Serial Cable and Enablement Kit                               873770-B21
HPE DL38X Gen10 8LFF Front 2SFF SAS/SATA HDD Kit                                   867805-B21

**NOTE:** HPE ProLiant DL380 Gen10 8LFF with Universal Media Bay Configure-to-order Server
(868706-B21).

HPE 2U Bezel Air Filter NEBS-compliant Kit                                         P05420-B21

**HPE Processors**
**Processor Option Kits**
**Intel Xeon-Platinum**

HPE DL380 Gen10 Intel Xeon-Platinum 8180M (2.5GHz/28-core/205W) Processor Kit      874752-B21
**NOTE:** Ships with Performance Heatsink.

HPE DL380 Gen10 Intel Xeon-Platinum 8180 (2.5GHz/28-core/205W) Processor Kit       871619-B21
**NOTE:** Ships with Performance Heatsink.

HPE DL380 Gen10 Intel Xeon-Platinum 8180 (2.5GHz/28-core/205W) Processor Kit       871619-B21
**NOTE:** Ships with Performance Heatsink.

HPE DL380 Gen10 Intel Xeon-Platinum 8176 (2.1GHz/28-core/165W) Processor Kit       871618-B21
**NOTE:** Ships with Performance Heatsink.

HPE DL380 Gen10 Intel Xeon-Platinum 8170 (2.1GHz/26-core/165W) Processor Kit       871617-B21
**NOTE:** Ships with Performance Heatsink.

HPE DL380 Gen10 Intel Xeon-Platinum 8168 (2.7GHz/24-core/205W) Processor Kit       869089-B21
**NOTE:** Ships with Performance Heatsink.

HPE DL380 Gen10 Intel Xeon-Platinum 8165 (2.3GHz/24-core/205W) Processor Kit       879423-B21
**NOTE:** Ships with Performance Heatsink.
**NOTE:** Supports "Core boosting"? Learn more **http://www.hpe.com/info/ist**.
**NOTE:** To enable this feature an iLO Advanced, or iLO Advanced Premium Security edition License are required.

HPE DL380 Gen10 Intel Xeon-Platinum 8164 (2.0GHz/26-core/145W) Processor Kit       869088-B21
**NOTE:** Ships with Performance Heatsink.

HPE DL380 Gen10 Intel Xeon-Platinum 8160 (2.1GHz/24-core/150W) Processor Kit       869086-B21
**NOTE:** Ships with Performance Heatsink.

## Core Options

| | |
|---|---|
| HPE DL380 Gen10 Intel Xeon-Platinum 8158 (3.0GHz/12-core/150W) Processor Kit | 869090-B21 |

**NOTE:** Ships with Performance Heatsink.

| | |
|---|---|
| HPE DL380 Gen10 Intel Xeon-Platinum 8156 (3.6GHz/4-core/105W) Processor Kit | 871616-B21 |

**NOTE:** Ships with Performance Heatsink.

| | |
|---|---|
| HPE DL380 Gen10 Intel Xeon-Platinum 8153 (2.0GHz/16-core/125W) Processor Kit | 826890-B21 |

**Intel Xeon-Gold**

| | |
|---|---|
| HPE DL380 Gen10 Intel Xeon-Gold 6154 (3.0GHz/18-core/200W) Processor Kit | 826888-B21 |

**NOTE:** Ships with Performance Heatsink.

| | |
|---|---|
| HPE DL380 Gen10 Intel Xeon-Gold 6152 (2.1GHz/22-core/140W) Processor Kit | 826886-B21 |

**NOTE:** Ships with Performance Heatsink.

| | |
|---|---|
| HPE DL380 Gen10 Intel Xeon-Gold 6150 (2.7GHz/18-core/165W) Processor Kit | 826884-B21 |

**NOTE:** Ships with Performance Heatsink.

| | |
|---|---|
| HPE DL380 Gen10 Intel Xeon-Gold 6148 (2.4GHz/20-core/150W) Processor Kit | 826882-B21 |

**NOTE:** Ships with Performance Heatsink.

| | |
|---|---|
| HPE DL380 Gen10 Intel Xeon-Gold 6146 (3.2GHz/12-core/165W) Processor Kit | 826868-B21 |

**NOTE:** Ships with Performance Heatsink.

| | |
|---|---|
| HPE DL380 Gen10 Intel Xeon-Gold 6144 (3.5GHz/8-core/150W) Processor Kit | 826860-B21 |

**NOTE:** Ships with Performance Heatsink.

| | |
|---|---|
| HPE DL380 Gen10 Intel Xeon-Gold 6143 (2.8GHz/16-core/205W) Processor Kit | 879424-B21 |

**NOTE:** Ships with Performance Heatsink.

**NOTE:** Supports "Core boosting"? Learn more **http://www.hpe.com/info/ist**.

**NOTE:** To enable this feature an iLO Advanced, or iLO Advanced Premium Security edition License are required.

| | |
|---|---|
| HPE DL380 Gen10 Intel Xeon-Gold 6142 (2.6GHz/16-core/150W) Processor Kit | 826880-B21 |

**NOTE:** Ships with Performance Heatsink.

| | |
|---|---|
| HPE DL380 Gen10 Intel Xeon-Gold 6140 (2.3GHz/18-core/150W) Processor Kit | 826878-B21 |

**NOTE:** Ships with Performance Heatsink.

| | |
|---|---|
| HPE DL380 Gen10 Intel Xeon-Gold 6138 (2.0GHz/20-core/125W) Processor Kit | 826876-B21 |
| HPE DL380 Gen10 Intel Xeon-Gold 6137 (3.9GHz/8-core/205W) Financial Sector Processor Kit | 880168-B21 |

**NOTE:** Ships with Performance Heatsink.

**NOTE:** High frequency bin targeting FSI workloads. Configuration restrictions will apply, support on 8SFF only.

**NOTE:** The system inlet ambient temperature is restricted at 22C.

**NOTE:** NVMe drives CANNOT be ordered with this Processor.

**NOTE:** HPE DL38X Gen10 High Performance Temperature Fan Kit (867810-B21) to be selected.

**NOTE:** No rear drives are supported with this processor.

**NOTE:** No Graphic cards (GPUs) are available with this processor selection.

**NOTE:** For additional details on this processor please visit:

**https://h20195.www2.hpe.com/v2/Getdocument.aspx?docname=a00039606enw**

| | |
|---|---|
| HPE DL380 Gen10 Intel Xeon-Gold 6136 (3.0GHz/12-core/150W) Processor Kit | 826874-B21 |

**NOTE:** Ships with Performance Heatsink.

| | |
|---|---|
| HPE DL380 Gen10 Intel Xeon-Gold 6134M (3.2GHz/8-core/130W) Processor Kit | 873645-B21 |

**QUTE:** Ships with Performance Heatsink.

## Core Options

| | |
|---|---|
| HPE DL380 Gen10 Intel Xeon-Gold 6134 (3.2GHz/8-core/130W) Processor Kit | 826872-B21 |

**NOTE:** Ships with Performance Heatsink.

| | |
|---|---|
| HPE DL380 Gen10 Intel Xeon-Gold 6132 (2.6GHz/14-core/140W) Processor Kit | 826870-B21 |

**NOTE:** Ships with Performance Heatsink.

| | |
|---|---|
| HPE DL380 Gen10 Intel Xeon-Gold 6130 (2.1GHz/16-core/120W) Processor Kit | 826866-B21 |
| HPE DL380 Gen10 Intel Xeon-Gold 6128 (3.4GHz/6-core/115W) Processor Kit | 826864-B21 |

**NOTE:** Ships with Performance Heatsink.

| | |
|---|---|
| HPE DL380 Gen10 Intel Xeon-Gold 6126 (2.6GHz/12-core/120W) Processor Kit | 826862-B21 |
| HPE DL380 Gen10 Intel Xeon-Gold 5122 (3.6GHz/4-core/105W) Processor Kit | 826858-B21 |

**NOTE:** Ships with Performance Heatsink.

| | |
|---|---|
| HPE DL380 Gen10 Intel Xeon-Gold 5120 (2.2GHz/14-core/105W) Processor Kit | 826856-B21 |
| HPE DL380 Gen10 Intel Xeon-Gold 5118 (2.3GHz/12-core/105W) Processor Kit | 826854-B21 |
| HPE DL380 Gen10 Intel Xeon-Gold 5117 (2.0GHz/14-core/105W) Processor Kit | P00756-B21 |
| HPE DL380 Gen10 Intel Xeon-Gold 5115 (2.4GHz/10-core/85W) Processor Kit | 876562-B21 |

**Intel Xeon-Silver**

| | |
|---|---|
| HPE DL380 Gen10 Intel Xeon-Silver 4116 (2.1GHz/12-core/85W) Processor Kit | 826852-B21 |
| HPE DL380 Gen10 Intel Xeon-Silver 4114 (2.2GHz/10-core/85W) Processor Kit | 826850-B21 |
| HPE DL380 Gen10 Intel Xeon-Silver 4112 (2.6GHz/4-core/85W) Processor Kit | 873647-B21 |
| HPE DL380 Gen10 Intel Xeon-Silver 4110 (2.1GHz/8-core/85W) Processor Kit | 826846-B21 |
| HPE DL380 Gen10 Intel Xeon-Silver 4108 (1.8GHz/8-core/85W) Processor Kit | 826848-B21 |

**Intel Xeon-Bronze**

| | |
|---|---|
| HPE DL380 Gen10 Intel Xeon-Bronze 3106 (1.7GHz/8-core/85W) Processor Kit | 873643-B21 |
| HPE DL380 Gen10 Intel Xeon-Bronze 3104 (1.7GHz/6-core/85W) Processor Kit | 873641-B21 |

**NOTE:** Up to two processors supported. Performance Models include two processors.
**NOTE:** HT indicates that the processor model supports Intel® Hyper-Threading Technology.
**NOTE:** Turbo2: Intel® Turbo Boost Technology 2.0 provides more computing power when you need it with performance that adapts to spikes in your workload and delivers more performance upside than previous generation turbo technology.
**NOTE:** DDR4 speed is the maximum memory speed of the processor. Actual memory speed may depend on the quantity and type of DIMMs installed.
**NOTE:** The xxxxxx-L21 is the first processor shipped, the xxxxxx-B21 is the 2nd processor and ships with 2 additional fans for factory of field installation.
**NOTE:** Maximum memory per socket depends on the processor selected.
**NOTE:** Processors above 130W use a High Performance Heatsink, along with the 8156, 6128 and 5122.

## Memory Selection

To streamline the configuration process for HPE ProLiant Gen10 servers and to provide the best product availability, HPE recommends memory from the list located here:
**http://www.hpe.com/products/recommend**.
Best product availability is limited to US, Canada, and Latin America at this time.

**HPE DDR4 Memory**

**Registered DIMMs (RDIMMs)**

| | |
|---|---|
| HPE 8GB (1x8GB) Single Rank x8 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit | 815097-B21 |
| HPE 8GB (1x8GB) Dual Rank x8 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit | 876181-B21 |
| HPE 16GB (1x16GB) Single Rank x4 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit | 815098-B21 |

## Core Options

| | |
|---|---|
| HPE 16GB (1x16GB) Dual Rank x8 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit | 835955-B21 |
| HPE 32GB (1x32GB) Dual Rank x4 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit | 815100-B21 |

**Load Reduced DIMMs (LRDIMMs)**

| | |
|---|---|
| HPE 64GB (1x64GB) Quad Rank x4 DDR4-2666 CAS-19-19-19 Load Reduced Smart Memory Kit | 815101-B21 |
| HPE 128GB (1x128GB) Octal Rank x4 DDR4-2666 CAS-22-19-19 3DS Load Reduced Memory Kit | 815102-B21 |

**NOTE:** Memory DIMM availability with a server platform is dependent upon completion of certification testing.
**NOTE:** The maximum memory speed is a function of the memory type, memory configuration, and processor model.
**NOTE:** Mixing of RDIMM and LRDIMM is not supported.

**HPE Persistent Memory (NVDIMM)**

| | |
|---|---|
| HPE 16GB NVDIMM Single Rank x4 DDR4-2666 Module Kit | 845264-B21 |

**NOTE:** A maximum of 12 NVDIMMs supported.
**NOTE:** Can only be mixed with RDIMMs.
**NOTE:** For General Server Memory and NVDIMM Population Rules and Guidelines for Gen10 see details here: **http://www.hpe.com/docs/memory-population-rules**

| | |
|---|---|
| HPE DDR-4 Blank Kit | |
| HPE DDR4 DIMM Blank Kit | P07818-B21 |

## HPE Optical Drives

| | |
|---|---|
| HPE 9.5mm SATA DVD-ROM Optical Drive | 726536-B21 |

**NOTE:** HPE DL38X Gen10 Universal Media Bay Kit (826708-B21) is required for this option on a SFF model. No support in 12 LFF or 24 SFF models.

| | |
|---|---|
| HPE 9.5mm SATA DVD-RW Optical Drive | 726537-B21 |

**NOTE:** HPE DL38X Gen10 Universal Media Bay Kit (826708-B21) is required for this option on a SFF model. No support in 12 LFF or 24 SFF models.

| | |
|---|---|
| HPE Mobile USB DVD-RW Optical Drive | 701498-B21 |

**NOTE:** This is only supported on USB 3.0 ports.

## HPE Drives

**Enterprise - 12G SAS - SFF Drives**

| | |
|---|---|
| HPE 300GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD | 870753-B21 |
| HPE 300GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD | 872475-B21 |
| HPE 600GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD | 870757-B21 |
| HPE 600GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD | 872477-B21 |
| HPE 900GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD | 870759-B21 |
| HPE 900GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty 512e Digitally Signed Firmware HDD | 870765-B21 |
| HPE 1.2TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD | 872479-B21 |

## Core Options

| | |
|---|---|
| HPE 1.8TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty 512e Digitally Signed Firmware HDD | 872481-B21 |
| HPE 2.4TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty 512e Digitally Signed Firmware HDD | 881457-B21 |

### Midline - 12G SAS - SFF Drives

| | |
|---|---|
| HPE 1TB SAS 12G Midline 7.2K SFF (2.5in) SC 1yr Wty Digitally Signed Firmware HDD | 832514-B21 |
| HPE 1TB SAS 12G Midline 7.2K SFF (2.5in) SC 1yr Wty 512e Digitally Signed Firmware HDD | 765464-B21 |
| HPE 2TB SAS 12G Midline 7.2K SFF (2.5in) SC 1yr Wty 512e HDD | 765466-B21 |

### Midline - 12G SAS - LFF Drives

| | |
|---|---|
| HPE 1TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD | 846524-B21 |
| HPE 2TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD | 872485-B21 |
| HPE 4TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD | 872487-B21 |
| HPE 6TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD | 846514-B21 |
| HPE 6TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e HDD | 861754-B21 |
| HPE 8TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e Digitally Signed Firmware HDD | 819201-B21 |
| HPE 10TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Helium 512e Digitally Signed Firmware HDD | 857644-B21 |
| HPE 12TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Helium 512e Digitally Signed Firmware HDD | 881779-B21 |

### Midline - 6G SATA - SFF Drives

| | |
|---|---|
| HPE 1TB SATA 6G Midline 7.2K SFF (2.5in) SC 1yr Wty Digitally Signed Firmware HDD | 655710-B21 |
| HPE 2TB SATA 6G Midline 7.2K SFF (2.5in) SC 1yr Wty 512e Digitally Signed Firmware HDD | 765455-B21 |

### Midline - 6G SATA - LFF Drives

| | |
|---|---|
| HPE 1TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty HDD | 861691-B21 |
| HPE 2TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD | 872489-B21 |
| HPE 4TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD | 872491-B21 |
| HPE 6TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e HDD | 861750-B21 |
| HPE 8TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e Digitally Signed Firmware HDD | 819203-B21 |
| HPE 10TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty Helium 512e Digitally Signed Firmware HDD | 857648-B21 |
| HPE 12TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty Helium 512e Digitally Signed Firmware HDD | 881785-B21 |

### SSD Selection

To streamline the configuration process for HPE ProLiant Gen10 servers and to provide the best product availability, HPE recommends SSDs from the list located here:
**http://www.hpe.com/products/recommend**.

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

| | |
|---|---|
| HPE 480GB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 875311-B21 |
| HPE 960GB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 872390-B21 |
| HPE 960GB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 875313-B21 |

## Core Options

| | |
|---|---|
| HPE 960GB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | P06584-B21 |
| HPE 1.92TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 872392-B21 |
| HPE 1.92TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 875326-B21 |
| HPE 1.92TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | P06586-B21 |
| HPE 3.84TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 872394-B21 |
| HPE 3.84TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 875330-B21 |
| HPE 3.84TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | P06588-B21 |
| HPE 7.68TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 870144-B21 |
| HPE 7.68TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | P06590-B21 |
| HPE 15.3TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 870148-B21 |
| HPE 15.3TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | P06592-B21 |
| **Mixed Use - 12G SAS - SFF - Solid State Drives** | |
| HPE 400GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 872374-B21 |
| HPE 400GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 873359-B21 |
| HPE 800GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 872376-B21 |
| HPE 800GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 873363-B21 |
| HPE 1.6TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 872382-B21 |
| HPE 1.6TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 873365-B21 |
| HPE 3.2TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 873367-B21 |
| HPE 3.2TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 872386-B21 |
| **Write Intensive - 12G SAS - SFF - Solid State Drives** | |
| HPE 400GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 873351-B21 |
| HPE 800GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 873355-B21 |
| HPE 1.6TB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 873357-B21 |
| **Mixed Use - 12G SAS - LFF - Solid State Drives** | |
| HPE 800GB SAS 12G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD | 872378-B21 |
| **Mixed Use - 6G SATA - SFF - Solid State Drives** | |
| HPE 240GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 875483-B21 |
| HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 875470-B21 |
| HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 875474-B21 |
| HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 875478-B21 |
| **Mixed Use - 6G SATA - LFF - Solid State Drives** | |
| HPE 1.92TB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD | 875480-B21 |
| **Read Intensive - 6G SATA - SFF - Solid State Drives** | |

## Core Options

| | |
|---|---|
| HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 875503-B21 |
| HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | P04556-B21 |
| HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 877740-B21 |
| HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | P06194-B21 |
| HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 875509-B21 |
| HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | P04560-B21 |
| HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | P04474-B21 |
| HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 877746-B21 |
| HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 875511-B21 |
| HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | P06196-B21 |
| HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | P04564-B21 |
| HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | P04476-B21 |
| HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | P06198-B21 |
| HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 875513-B21 |
| HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | P04566-B21 |
| HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | P04478-B21 |
| HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | P06200-B21 |
| HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | P04480-B21 |
| HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | P04570-B21 |
| HPE 7.68TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | P04482-B21 |

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

| | |
|---|---|
| HPE 240GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 880295-B21 |
| HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | P07922-B21 |
| HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 877776-B21 |
| HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | P07926-B21 |
| HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | P07930-B21 |
| HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 877788-B21 |
| HPE 3.84TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | P00896-B21 |

## Core Options

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

| | |
|---|---|
| HPE 600GB SAS 12G Enterprise 15K LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware HDD | P04695-B21 |
| HPE 480GB SATA 6G Read Intensive LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD | 877748-B21 |
| HPE 300GB SAS 12G Enterprise 15K LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware HDD | P04693-B21 |

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

| | |
|---|---|
| HPE 480GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD | P07924-B21 |
| HPE 960GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD | P07928-B21 |
| HPE 960GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD | P03691-B21 |
| HPE 1.92TB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD | 877790-B21 |
| HPE 1.92TB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD | P07932-B21 |

### Read Intensive - 6G SATA - M.2 - Solid State Drives

| | |
|---|---|
| HPE 480GB SATA 6G Read Intensive M.2 2280 3yr Wty Digitally Signed Firmware SSD | 875498-B21 |
| HPE 960GB SATA 6G Read Intensive M.2 2280 3yr Wty Digitally Signed Firmware SSD | 875500-B21 |

**NOTE:** M.2 drives go in the Primary Riser and use S100i SATA controller only.
**NOTE:** M.2 supports Software RAID only.

### Read Intensive - NVMe - SFF - Solid State Drives

| | |
|---|---|
| HPE 4TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 877988-B21 |
| HPE 2TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 877986-B21 |
| HPE 1.92TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 875591-B21 |
| HPE 1TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 877984-B21 |
| HPE 960GB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 875589-B21 |
| HPE 480GB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 875587-B21 |
| HPE 375GB NVMe x4 Lanes Write Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 878014-B21 |

### Mixed Use - 6G SATA - M.2 - Solid State Drives

| | |
|---|---|
| HPE 240GB SATA 6G Mixed Use M.2 2280 3yr Wty Digitally Signed Firmware SSD | 875488-B21 |
| HPE 480GB SATA 6G Mixed Use M.2 2280 3yr Wty Digitally Signed Firmware SSD | 875490-B21 |
| HPE 960GB SATA 6G Mixed Use M.2 2280 3yr Wty Digitally Signed Firmware SSD | 875492-B21 |

### Dual - SATA 6G M.2 UFF to SFF SCM - Solid State Drives

| | |
|---|---|
| HPE Dual 480GB SATA 6G Read Intensive M.2 - UFF to SFF SCM 3yr Wty Digitally Signed Firmware SSD | P06609-B21 |
| HPE Dual 240GB SATA 6G Mixed Use M.2 - UFF to SFF SCM 3yr Wty Digitally Signed Firmware SSD | P06607-B21 |

### Mixed Use - NVMe - SFF - Solid State Drives

| | |
|---|---|
| HPE 400GB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 875593-B21 |
| HPE 800GB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 875595-B21 |

## Core Options

| | |
|---|---|
| HPE 1.6TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 877994-B21 |
| HPE 1.6TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 875597-B21 |
| HPE 3.2TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 877998-B21 |

**NOTE:** An NVME (826689-B21 or 873781-B21) or Premium (826690-B21) drive cage is required to support these drives in conjunction with a NVMe riser kit.
**NOTE:** HPE has qualified the NVMe drive portfolio using the Operating System inbox drivers, full detail on the **HPE Solid State Drive QuickSpecs**.
**NOTE:** With NVMe support only 1x Double Wide Graphics card is supported.
**NOTE:** Not supported by HPE Smart Array controllers.
**NOTE:** NVMe drives require the addition of the High Performance Fan kit (867810-B21).

### Hard Drive Blank Kits

| | |
|---|---|
| HPE Universal SATA HHHL 3yr Wty M.2 Kit | 878783-B21 |

**NOTE:** This is a M.2 enablement standup card.

| | |
|---|---|
| HPE Large Form Factor Hard Drive Blank Kit | 666986-B21 |
| HPE Small Form Factor Hard Drive Blank Kit | 666987-B21 |

### Hard Drive Kits

| | |
|---|---|
| HPE DL38X Gen10 3LFF Rear SAS/SATA Drive Kit | 826685-B21 |

**NOTE:** This is supported in the LFF model only.
**NOTE:** 3 LFF rear drives will consume the 2nd riser expansion slot.

| | |
|---|---|
| HPE DL38X Gen10 4LFF Midplane SAS/SATA HDD Kit | 826686-B21 |

**NOTE:** Supported with both the 8 and 12 LFF model.
**NOTE:** Ships with low profile HeatSink for installation. Supporting processors below 125W.
**NOTE:** No support for the 8156, 6128 or the 5122 Processors.
**NOTE:** With this mid-tray only single-wide (8.5-inch cards with connections or less) cards are supported.
**NOTE:** This drive does support hot-swap drives.
**NOTE:** This requires High Performance Fans (867810-B21).

| CPUs Supported with 4LFF mid-tray | | |
|---|---|---|
| | Must install DIMM blanks on all empty DIMM Slots | |
| System Inlet Ambient | 8LFF/12LFF with 4LFF mid-tray | 8LFF/12LFF + 4LFF mid-tray + any rear SAS/SATA HDDs |
| 35C | CPU=125W<br>140W (6152, 6140) | |
| 30C | 140W (6132)<br>165 W (8176, 8170, 6150) | CPU=125W<br>140W (6152, 6140) |
| 25C | 105W (5122, 8156)<br>115W (6128)<br>130W (6134)<br>150W (8164, 8160, 8158, 6148, 6142, 6136) | 140W (6132)<br>165 W (8176, 8170, 6150) |

## Core Options

| 20C | 150W (6144)<br>165W (6146)<br>200W (6154)<br>205W (8180, 8168) | 105W (5122, 8156)<br>115W (6128)<br>130W (6134)<br>150W (8164, 8160, 8158, 6148, 6142, 6136) |
|---|---|---|

HPE DL38X Gen10 2SFF Premium HDD Front NVMe or Front/Rear SAS/SATA Kit     826687-B21
**NOTE:** HPE DL38X Gen10 Universal Media Bay Kit (826708-B21).
**NOTE:** NVMe drives require the addition of the High Performance Fan kit (867810-B21).
**NOTE:** NVMe drives require the addition of an NVMe capable riser.
**NOTE:** Drive cage can be used in the rear of the chassis, but will not support NVMe drives rear.

HPE DL38X Gen10 2SFF HDD SAS/SATA Riser Kit     826688-B21
**NOTE:** Supports 2 SFF rear in Riser1 or 2 location - max 2 supported SFF model.
**NOTE:** Supports 2 SFF rear in Riser1 or 2 location in LFF model. Note is 3 LFF rear option is selected maximum of one in riser 1 location.
**NOTE:** Supports uFF drives.

HPE DL38X NVMe 8 Solid State Drive Express Bay Enablement Kit     826689-B21
**NOTE:** This option provides support for up to 8NVMe drives, and can be populated in all Boxes in the 8 SFF model.
**NOTE:** A maximum of 20 NVMe drives only are supported., this will mean partial population (4 drives) when the 3$^{rd}$ cage is populated in Box 1.
**NOTE:** This will require the HPE DL38X Gen10 4-port 8 NVMe SlimSAS Riser (867807-B21).
**NOTE:** NVMe drives require the addition of the High Performance Fan kit (867810-B21).

HPE DL38X Gen10 Premium 6 SFF SAS/SATA + 2 NVMe or 8 SFF SAS/SATA Bay Kit     826690-B21
**NOTE:** This option provides supports up to 8 SAS/SATA SFF drives or a combination of 6 SAT/SATA and 2 NVMe drives in the same cage, and can be populated in all Boxes in the SFF model.
**NOTE:** For support of the 2 NVMe drives this will require the addition of the HPE DL38X Gen10 x8/x8/x8 1-port 2 NVMe SlimSAS Riser (867806-B21); or the HPE DL38X Gen10 2-port 4 NVMe SlimSAS Riser (867808-B21).
**NOTE:** NVMe drives require the addition of the High Performance Fan kit (867810-B21).

HPE DL38X Gen10 SFF Box1/2 Cage/Backplane Kit     826691-B21
**NOTE:** Supports 8 SAS/SAFA SFF drives in Box 1 or 2 to a max of 24 SFF SAS/SATA front.

HPE DL38X Gen10 8LFF Front 2NVMe HDD Bay Kit     873781-B21
**NOTE:** Supports 2 NVMe in the Universal Media bay (included) on the 8 LFF model.
**NOTE:** For support of the 2 NVMe drives this will require the addition of the HPE DL38X Gen10 x8/x8/x8 1-port 2 NVMe SlimSAS Riser (867806-B21); or the HPE DL38X Gen10 2-port 4 NVMe SlimSAS Riser (867808-B21).
**NOTE:** NVMe drives require the addition of the High Performance Fan kit (867810-B21).

**Hard Drive Kits**

HPE DL38X Gen10 8LFF Front 2SFF SAS/SATA HDD Kit     867805-B21
**NOTE:** For 2 SFF SAS/SATA in UMB on 8 LFF model only.

**Media Bay Kits**

HPE DL38X Gen10 Universal Media Bay Kit     826708-B21

## Core Options

**NOTE:** The HPE DL380 Gen10 Universal Media bay provides front Display Port and 2xUSB 2.0; plus support for 2x SFF front drives or 2 NVME front drives (826687-B21, riser required) and ODD support (Not included); and can only be located in Box1 in either an 8 SFF or 8+8 SFF model.
**NOTE:** This is a SFF model option only.

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**HPE Networking**

**100 Gigabit Ethernet Adapters**

| | |
|---|---|
| HPE Ethernet 100Gb 1-port 842QSFP28 Adapter | 874253-B21 |

**1 Gigabit Ethernet adapters**

| | |
|---|---|
| HPE Ethernet 1Gb 4-port 331T Adapter | 647594-B21 |
| HPE Ethernet 1Gb 4-port 366T Adapter | 811546-B21 |
| HPE Ethernet 1Gb 2-port 332T Adapter | 615732-B21 |
| HPE Ethernet 1Gb 2-port 361T Adapter | 652497-B21 |

**10 Gigabit Ethernet adapters**

| | |
|---|---|
| HPE Ethernet 10Gb 2-port 530T Adapter | 656596-B21 |
| HPE Ethernet 10Gb 2-port 530SFP Adapter | 652503-B21 |
| HPE Ethernet 10Gb 2-port 535T Adapter | 813661-B21 |
| HPE Ethernet 10Gb 2-port 521T Adapter | 867707-B21 |
| HPE Ethernet 10Gb 2-port 562SFP+ Adapter | 727055-B21 |
| HPE Ethernet 10Gb 2-port 562T Adapter | 817738-B21 |

**25 Gigabit Ethernet adapters**

| | |
|---|---|
| HPE Ethernet 10/25Gb 2-port 631SFP28 Adapter | 817718-B21 |
| HPE Ethernet 10/25Gb 2-port 640SFP28 Adapter | 817753-B21 |
| HPE Ethernet 10/25Gb 2-port 621SFP28 Adapter | 867328-B21 |

**NOTE:** The DL380 Gen10 ships with 4x 1 Gb Embedded.
**NOTE:** A minimum of two Gigabytes (2 GB) of server memory is required per each adapter.
**NOTE:** 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:
**http://www.hpe.com/us/en/product-catalog/servers/server-adapters.hits-12.html**.

**FlexibleLOM adapters**

| | |
|---|---|
| HPE Ethernet 1Gb 4-port 331FLR Adapter | 629135-B22 |
| HPE Ethernet 1Gb 4-port 366FLR Adapter | 665240-B21 |

**NOTE:** Delayed availability.

| | |
|---|---|
| HPE FlexFabric 10Gb 2-port 533FLR-T Adapter | 700759-B21 |
| HPE FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter | 700751-B21 |
| HPE Ethernet 10Gb 2-port 535FLR-T Adapter | 817721-B21 |
| HPE FlexFabric 10Gb 4-port 536FLR-T Adapter | 764302-B21 |
| HPE Ethernet 10/25Gb 2-port 631FLR-SFP28 Adapter | 817709-B21 |
| HPE Ethernet 10/25Gb 2-port 640FLR-SFP28 Adapter | 817749-B21 |

**FlexibleLOM adapters**

| | |
|---|---|
| HPE Ethernet 10Gb 2-port 562FLR-SFP+ Adapter | 727054-B21 |
| HPE Ethernet 10Gb 2-port 562FLR-T Adapter | 817745-B21 |
| HPE Ethernet 10/25Gb 2-port 622FLR-SFP28 Converged Network Adapter | 867334-B21 |

**NOTE:** The DL380 Gen10 chassis ships with 4x 1 Gb embedded.

## Core Options

### HPE InfiniBand

| | |
|---|---|
| HPE InfiniBand FDR/Ethernet 40/50Gb 2-port 547FLR-QSFP Adapter | 879482-B21 |
| HPE InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+FLR-QSFP Adapter | 764285-B21 |
| HPE InfiniBand EDR/Ethernet 100Gb 2-port 841QSFP28 Adapter | 872726-B21 |

**NOTE:** 8SFF, 16SFF, 8LFF no restrictions; 24SFF, 12LFF supported, but limited to 25C.

| | |
|---|---|
| HPE InfiniBand EDR 100Gb 1-port 841QSFP28 Adapter | 872725-B21 |
| HPE 100Gb 1-port OP101 QSFP28 x16 PCIe Gen3 with Intel Omni-Path Architecture Adapter | 829335-B21 |
| HPE InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+QSFP Adapter | 764284-B21 |
| HPE InfiniBand EDR/Ethernet 100Gb 1-port 840QSFP28 Adapter | 825110-B21 |
| HPE InfiniBand EDR/Ethernet 100Gb 2-port 840QSFP28 Adapter | 825111-B21 |

### HPE I/O Expansion Options

**NOTE:** The Primary Riser shipping default in the chassis is a x8 FH, FL, x16 FH, FL and x8 FH, HL with m.2 support.
**NOTE:** For a Secondary/Tertiary riser the second processor is required.

| | |
|---|---|
| HPE DL38X Gen10 x16/x16 Riser Kit | 826694-B21 |

**NOTE:** Slot 1 or 2 in Primary or Secondary location.
**NOTE:** Supports Full Height and Full length cards.
**NOTE:** Bus width x16, x16, Connector Width x16, x16.

| | |
|---|---|
| HPE DL Gen10 x8/x16/x8 Riser Kit | 870548-B21 |

**NOTE:** No M.2 support on this riser.
**NOTE:** Supports Full Height, Half- length cards; Full Height, Full-length cards and Full Height, Half- length cards.
**NOTE:** Bus width x8, x16, x8, Connector Width x8, x16, x8.

| | |
|---|---|
| HPE DL38X Gen10 4-port 8 NVMe Primary Slim SAS FIO Riser | 867807-B21 |

**NOTE:** Riser supporting up to 8 NVMe drives in Primary location.
**NOTE:** This is a factory integrated only option.
**NOTE:** This can be connected to an 8SFF NVMe drive cage in box 3.
**NOTE:** To achieve max 20 NVMe support, connect 4 NVMe drives to the tertiary riser.

| | |
|---|---|
| HPE DL Gen10 x16/x16 GPU Riser Kit | 826704-B21 |

**NOTE:** Primary or Secondary Riser, Connector in slot 2 & 3 for GPU support.
**NOTE:** Supports Full Height and Full length cards.
**NOTE:** Bus width x16, x16, Connector Width x16, x16.
**NOTE:** For additional details on ProLiant DL Gen10 server risers please visit:
**https://www.hpe.com/h20195/v2/Getdocument.aspx?docname=a00043229enw**

| | |
|---|---|
| HPE DL38X Gen10 2SFF HDD SAS/SATA Riser Kit | 826688-B21 |

## Core Options

**NOTE:** Premium bay supporting SFF SAS/SATA .
**NOTE:** Available in Primary or Secondary Riser location.
**NOTE:** Will leave 1 x16 Connector available in bottom slot.

HPE DL38X Gen10 x8/x8/x8 1-port 2 NVMe SlimSAS Riser     867806-B21
**NOTE:** Supports NVMe drives in Primary or Secondary location.
**NOTE:** Supports Full Height and half-length cards.
**NOTE:** Bus width x8, x8, x8 Connector Width x8, x8, x8.

HPE DL38X Gen10 2-port 4 NVMe SlimSAS Riser     867808-B21
**NOTE:** Supports up to 4 NVMe drives in Tertiary location.

HPE DL38X Gen10 4-port 8 NVMe Secondary Slim SAS Riser     873732-B21
**NOTE:** Riser supporting up to 8 NVMe drives in Secondary location.

HPE DL38X Gen10 2 x8 PCIe Tertiary Riser Kit     875780-B21
**NOTE:** Supports 2x 8 slots in the Tertiary location.

HPE DL38X Gen10 x16 Tertiary Riser Kit     826700-B21
**NOTE:** Supports 1x 16 slot in the Tertiary location.
**NOTE:** Supports Full Height and full-length card.
**NOTE:** Bus width x16 Connector Width x16.

### Riser Information*

| Part number | Description | Riser position | | | Bus width (Gen3 lanes) | | | NVMe Direct Connect | |
|---|---|---|---|---|---|---|---|---|---|
| | | Primary | Secondary | Tertiary | Top slot | Middle Slot | Bottom slot | Ports | Drive count |
| n/a | This is the default riser in the chassis | D | N | N | x8 | x16 | x8 | | |
| 870548-B21 | HPE DL Gen10 x8/x16/x8 Riser Kit | O | O | N | x8 | x16 | x8 | | |
| 826704-B21 | HPE DL Gen10 x16/x16 GPU Riser Kit | O | O | N | 0 | x16 | x16 | | |
| 826694-B21 | HPE DL38X Gen10 x16/x16 Riser Kit | O | O | N | x16 | x16 | 0 | | |
| 867807-B21 | HPE DL38X Gen10 4-port 8 NVMe Primary SlimSAS Riser | O | N | N | 0 | 0 | 0 | 4 | 8 |
| 867808-B21 | HPE DL38X Gen10 2-port 4 NVMe SlimSAS Riser | N | N | O | 0 | 0 | 0 | 2 | 4 |
| 873732-B21 | HPE DL38X Gen10 4-port 8 NVMe Secondary SlimSAS Riser | N | O | N | 0 | 0 | 0 | 4 | 8 |
| 867806-B21 | HPE DL38X Gen10 x8/x8/x8 1-port 2 NVMe SlimSAS Riser | O | O | N | x8 | x8 | x8 | 1 | 2 |
| 871673-B21 | HPE DL38X Gen10 x8/x8/x8 1-port 2 NVMe SlimSAS FIO Riser Kit | O | N | N | x8 | x8 | x8 | 1 | 2 |
| 826688-B21 | HPE DL38X Gen10 2SFF HDD SAS/SATA Riser Kit | O | O | N | 0 | 0 | x16 | | |
| 826700-B21 | HPE DL38X Gen10 x16 Tertiary Riser Kit | N | N | O | X16 | 0 | 0 | | |
| 875780-B21 | HPE DL38X Gen10 2 x8 PCIe Tertiary Riser Kit | N | N | O | X8 | X8 | 0 | | |

## Core Options

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 871674-B21 | HPE DL38X Gen10 Slot 1/2 x16/x16 FIO Riser Kit | O | O | N | x16 | x16 | 0 | |
| 871676-B21 | HPE DL38X Gen10 x16/x16 GPU Slot2/3 FIO Riser Kit | O | O | N | 0 | x16 | x16 | |

**NOTE:** The 826687-B21 premium 2SFF cage is leveraged both UMB, plus 2SFF rear over PS.

**NOTE:** D = Default on chassis; O = Optional; N = not supported or slot/connector not present.

**NOTE:** The 826687-B21 premium 2SFF cage is leveraged both UMB, plus 2SFF rear over PS. Backplane Kit.

**NOTE:** *For additional details on ProLiant DL Gen10 server risers please visit: **https://www.hpe.com/h20195/v2/Getdocument.aspx?docname=a00043229enw**

## HPE Power Supplies

HPE 500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit — 865408-B21
**NOTE:** Flex Slot Platinum power supplies support power efficiency of up to 94% and include a standard C-14 power inlet connector.

HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit — 865438-B21
**NOTE:** 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 Platinum Hot Plug Low Halogen Power Supply Kit — 865414-B21
**NOTE:** Flex Slot Platinum power supplies support power efficiency of up to 94% and include a standard C-14 power inlet connector.

HPE 800W Flex Slot -48VDC Hot Plug Low Halogen Power Supply Kit — 865434-B21
**NOTE:** Flex Slot -48VDC power supplies support power efficiency of up to 94%.

HPE 800W Flex Slot Universal Hot Plug Low Halogen Power Supply Kit — 865428-B21
**NOTE:** Flex Slot universal power supplies support power efficiency of up to 94% and support both 277VAC/380VDC power inputs.

HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit — 830272-B21
**NOTE:** 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).

## GPGPU Information

| Part number | Card | Qty supported | Processor supported | PCIe speed | 8SFF | 8LFF | 16SFF +UMB with 2SFF | 16SFF +8NVMe | 24SFF | 24SFF +SFF rear | 12LFF | 12LFF+2SFF rear |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Q0J62A | NVIDIA Tesla M10 4GB Module[2] | 2 | 165W or below | Gen3 | 35C | 35C | 35C | 25C[1] | 35C | 35C | 30C | 30C[1] |
| M3X67A | NVIDIA GRID M60 RAF Module | 3 | 165W or below | Gen3 | 30C | 25C | 25C | 25C[1] | 25C | 25C[1] | Not supported | Not supported |

## Core Options

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Q0V79A | NVIDIA Tesla P4 8GB Module | 5 | All | Gen3 | 35C | 35C | 35C | 35C[1] | 35C | 35C[1] | 35C | 35C[1] |
| Q0V80A | NVIDIA Tesla P40 24GB Module | 3 | 165W or below | Gen3 | 35C | 35C | 25C | 25C[1] | 25C | 25C[1] | 20C | 20C[1] |
| Q0E21A | NVIDIA Tesla P100 16GB PCIe | 3 | 165W or below | Gen3 | 30C | 25C | 30C | 25C[1] | 25C | 25C[1] | 20C | 20C[1] |
| | | | | | | | | | | | | |
| Q2N68A | HPE NVIDIA Tesla V100 PCIe 16GB Module | 3 | 165W or below | Gen3 | 30C | 25C | 25C | 25C[1] | 25C | 25C[1] | Not supported | Not supported |
| Q0V77A | NVIDIA Quadro P2000 GPU Module | 5 | All | Gen3 | 35C | 35C | 35C | 35C[1] | 35C | 35C[1] | 35C | 35C[1] |
| Q0V78A | NVIDIA Quadro P4000 GPU Module | 5 | All | Gen3 | 35C | 35C | 35C | 35C[1] | 35C | 35C[1] | 35C | 35C[1] |
| Q0V76A | NVIDIA Quadro P6000 PCIe GPU Adptr | 3 | 165W or below | Gen3 | 35C | 35C | 35C | 25C[1] | 35C | 35C[1] | 35C | 35C[1] |
| Q1K38A | AMD Radeon Instinct MI25 | 3 | 165W or below | Gen3 | 35C | 25C | 25C | 25C[1] | 25C | 25C[1] | Not supported | Not supported |
| Q1K34A | NVIDIA Quadro GV100 | 3 | 165W or below | Gen3 | 35C | 35C | 35C | 35C[1] | 35C | 35C[1] | 35C | 35C[1] |
| M3X68A | AMD FirePro S7150x2 | 3 | 165W or below | Gen3 | 35C | 30C | 30C | 30C[1] | 30C | 30C | 20C | 20C[1] |
| Q8Z50A | HPE NVIDIA Tesla V100 | 5 | 165W or below | Gen3 | 35C | 25C | 30C | 20C[1] | 20C | 20C | Not supported | Not supported |

## Core Options

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | PCIe 16GB FHHL Module | | | | | | | | | | | |
| Q9U36A | HPE NVIDIA Tesla V100 PCIe 32GB Module | 3 | 165W or below | Gen3 | 30C | 25C | 25C | 25C[1] | 25C | 25C[1] | Not supported | Not supported |

**NOTE:** 1x 1600W PS recommended, but this card will work with 1x800W PS (per GPU). However check the power usage via the HPE Power Advisor Tool located at **http://www.hpe.com/info/hppoweradvisor**.
**NOTE:** Performance fans (867810-B21) are required for all GPU installations (Note these ship as standard with the 24SFF and 12LFF models).
**NOTE:** Performance Heatsinks (826706-B21) are required for Double Wide GPU installations (Note these ship as standard on Processors over 130W processors and the 8156, 6128 and 5122)
**NOTE:** Mixing of GPUs is not supported.
**NOTE:** With the Standard Primary Riser the top x8 PCIe Slot connector will not be accessible with the installation of a doublewide GPU.
**NOTE:** Only 2 SFF rear drives supported over Power Supply as would require Riser 1 and Riser 2 for GPU support.
**NOTE:** 4 LFF mid-tray will not support any GPU cards.
**NOTE:** [1] Invalid configuration or no HW support may apply to multiple GPUs installed. HW limitation may not be a thermal limitation.
**NOTE:** [2] Only 2xM10 can be supported (on any x16 slot 2, 5 or 7) due to system running out of PCIe lanes.
**NOTE:** The M10 is limited to a max memory support of under 1TB.
**NOTE:** Any GPU installation does not meet Energy Star requirements.
**NOTE:** Installations with Graphics cards do not support Microsoft Windows Server 2012 R2 installations.
**NOTE:** For Graphics cards there is a limitation of 1 single wide GPU on the slot 2/3 riser (826704-B21 Secondary and 871676-B21 Primary).

### HPE Computation and Graphics Accelerators

HPE AMD Radeon Pro V340 Graphics Accelerator — Q0Y81A
HPE NVIDIA Quadro P2000 Graphics Accelerator — Q0V77A
**NOTE:** Performance Heatsink is not required.
**NOTE:** 5 of these cards are supported.
**NOTE:** System Memory Restriction <128TB.

HPE NVIDIA Quadro P4000 Graphics Accelerator — Q0V78A
**NOTE:** This required the HPE GPU 6px6p Y-Power Cable Kit 874212-B21.
**NOTE:** Performance Heatsink is not required.
**NOTE:** 5 of these cards are supported.
**NOTE:** System Memory Restriction <128TB.

HPE NVIDIA Quadro P6000 Graphics Accelerator — Q0V76A
**NOTE:** This required the HPE DL380 Gen10 8P Cable Kit 871828-B21.
**NOTE:** 3 of these cards are supported, with a processor 165W or below.
**NOTE:** System Memory Restriction <128TB.

HPE NVIDIA Quadro GV100 Graphics Accelerator — Q1K34A

## Core Options

NVIDIA Tesla M10 Quad GPU Module                                                        Q0J62A
**NOTE:** This required the HPE DL380 Gen10 8P Cable Kit 871828-B21.
**NOTE:** Only 2x M10 can be supported (on any x16 slot 2, 5 or 7) due to system running out of PCIe lanes.
**NOTE:** 2 of these cards are supported with a processor 165W or below.
**NOTE:** GRID Lic required.
**NOTE:** System Memory Restriction <1TB.

HPE NVIDIA Tesla P4 8GB Computational Accelerator                                       Q0V79A
**NOTE:** Performance Heatsink is not required.
**NOTE:** 5 of these cards are supported.
**NOTE:** System Memory Restriction <128TB.

HPE NVIDIA Tesla P40 24GB Computational Accelerator                                     Q0V80A
**NOTE:** This required the HPE DL380 Gen10 8P Keyed Cable Kit 871829-B21.
**NOTE:** 3 of these cards are supported with a processor 165W or below.
**NOTE:** System Memory Restriction <128TB.

HPE NVIDIA Tesla P100 PCIe 16GB Computational Accelerator                               Q0E21A
**NOTE:** This required the HPE DL380 Gen10 8P Keyed Cable Kit 871829-B21.
**NOTE:** 3 of these cards are supported, with a processor 165W or below.
**NOTE:** System Memory Restriction <128TB.

HPE NVIDIA Tesla V100 PCIe 16GB Computational Accelerator                               Q2N68A
**NOTE:** 3 of these cards are supported with a processor 165W or below.
**NOTE:** System Memory Restriction <128TB.
**NOTE:** No support on 12LFF chassis.
**NOTE:** V100 requires "Max Cooling"?settings in current ROM.
**NOTE:** This requires the HPE DL380 Gen10 8P Keyed Cable Kit 871829-B21.

HPE NVIDIA Tesla V100 FHHL 16GB Computational Accelerator                               Q8Z50A
HPE NVIDIA Tesla M60 Reverse Air Flow Dual GPU PCIe Graphics Accelerator               M3X67A
**NOTE:** 5 of these cards are supported.
**NOTE:** GRID Lic required.
**NOTE:** System Memory Restriction <1TB.
**NOTE:** Not supported in a 12LFF chassis.
**NOTE:** This requires the HPE DL380 Gen10 8P Keyed Cable Kit 871829-B21.

HPE NVIDIA Tesla V100 PCIe 32GB Computational Accelerator                               Q9U36A
**NOTE:** 3 of these cards are supported with a processor 165W or below.
**NOTE:** System Memory Restriction <128TB.
**NOTE:** No support on 12LFF chassis.
**NOTE:** V100 requires "Max Cooling"?settings in current ROM.
**NOTE:** This requires the HPE DL380 Gen10 8P Keyed Cable Kit 871829-B21.

HPE AMD Radeon Instinct MI25 Graphics Accelerator                                       Q1K38A
**NOTE:** 3 of these cards are supported.
**NOTE:** Not supported in a 12LFF chassis.
**NOTE:** This requires the HPE DL380 Gen10 8x6P Cable Kit 871830-B21.

HPE AMD Radeon Pro WX7100 Graphics Accelerator                                          Q1K37A
HPE AMD FirePro S7150x2 Accelerator Kit                                                 M3X68A

## Core Options

### Graphics Cable Kits

| | |
|---|---|
| HPE DL38x GPU 6px6p Y-Power Cable Kit | 874212-B21 |
| HPE DL38x Gen10 8-pin Cable Kit | 871828-B21 |
| HPE DL38x Gen10 8-pin Keyed Cable Kit | 871829-B21 |
| HPE GPU 2x 8-pin Cable Kit | P03849-B21 |
| HPE DL38x Gen10 8x 6-pin Cable Kit | 871830-B21 |

### HPE Cooling Options

| | |
|---|---|
| HPE DL38X Gen10 High Performance Temperature Fan Kit | 867810-B21 |

**NOTE:** This kit is required for specific **Ambient temperature environments**, coming in 2H2017.

**NOTE:** High Performance fan kit consists of 6 fans, these will need to replace all the standard fans in the unit, and fill all 6 fan cages.

**NOTE:** The 12 LFF and 24 SFF models (including field upgrades to 24 SFF) will already include 6 High Performance fan kits.

**NOTE:** The High Performance fan kit is needed to support certain Passive GPGPU (Graphics cards) configurations; or ASHRAE operating environments.

**NOTE:** For elevated ambient temperature support please see:

**http://www.hpe.com/servers/ashrae**.

## Additional Options

**NOTE:** 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 Advanced

| | |
|---|---|
| HPE iLO Advanced Electronic License with 1yr Support on iLO Licensed Features | E6U59ABE |
| HPE iLO Advanced 1-server License with 1yr Support on iLO Licensed Features | 512485-B21 |
| HPE iLO Advanced Flexible Quantity License with 1yr Support on iLO Licensed Features | 512486-B21 |
| HPE iLO Advanced AKA Tracking License with 1yr Support on iLO Licensed Features | 512487-B21 |
| HPE iLO Advanced Electronic License with 3yr Support on iLO Licensed Features | E6U64ABE |
| HPE iLO Advanced 1-server License with 3yr Support on iLO Licensed Features | BD505A |
| HPE iLO Advanced Flexible Quantity License with 3yr Support on iLO Licensed Features | BD506A |
| HPE iLO Advanced AKA Tracking License with 3yr Support on iLO Licensed Features | BD507A |

#### HPE iLO Advanced Security

| | |
|---|---|
| HPE iLO Advanced Premium Security Upgrade Electronic License with 3yr Support on Licensed Features | Q7E12AAE |
| HPE iLO Advanced Premium Security Edition License with 1yr Support on Licensed Features | Q7E31A |
| HPE iLO Advanced Premium Security Flex Qty License with 1yr Support on Licensed Features | Q7E32A |
| HPE iLO Advanced Premium Security Edition Electronic License with 1yr Support on Licensed Features | Q7E32AAE |
| HPE iLO Advanced Premium Security AKA Tracking License with 1yr Support on Licensed Features | Q7E35A |
| HPE iLO Advanced Premium Security Upgrade Electronic License with 3yr Support on Licensed Features | Q7E12AAE |
| HPE iLO Advanced Premium Security Edition License with 3yr Support on Licensed Features | Q7E33A |
| HPE iLO Advanced Premium Security Flex Qty License with 3yr Support on Licensed Features | Q7E34A |
| HPE iLO Advanced Premium Security Edition Electronic License with 3yr Support on Licensed Features | Q7E34AAE |
| HPE iLO Advanced Premium Security AKA Tracking License with 3yr Support on Licensed Features | Q7E36A |

### HPE Converged Infrastructure Management Software

| | |
|---|---|
| HPE OneView Physical Media Kit LTU | E5Y37A |
| HPE OneView including 3yr 24x7 Support Physical 1-server LTU | E5Y34A |
| HPE OneView including 3yr 24x7 Support Flexible Quantity E-LTU | E5Y35AAE |
| HPE OneView w/o iLO including 3yr 24x7 Support 1-server LTU | P8B24A |

## Additional Options

| | |
|---|---|
| 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 |

**NOTE:** Licenses ship without media. The HPE OneView Media Kit can be ordered separately, or can be **downloaded**.

## HPE PCIe Workload Accelerator Options

| | |
|---|---|
| HPE 1.6TB PCIe x8 Lanes Mixed Use HHHL 3yr Wty Digitally Signed Firmware Card | 877825-B21 |
| HPE 3.2TB PCIe x8 Lanes Mixed Use HHHL 3yr Wty Digitally Signed Firmware Card | 877827-B21 |
| HPE 6.4TB PCIe x8 Lanes Mixed Use HHHL 3yr Wty Digitally Signed Firmware Card | 877829-B21 |
| HPE 4TB PCIe x4 Lanes Read Intensive HHHL 3yr Wty Digitally Signed Firmware Card | 877831-B21 |
| HPE 750GB PCIe x4 Lanes Write Intensive HHHL 3yr Wty Digitally Signed Firmware Card | 878038-B21 |

**NOTE:** Please see the **HPE PCIe Workload Accelerators for ProLiant Servers QuickSpecs** for Technical Specifications and additional information.

## HPE Security

| | |
|---|---|
| HPE Gen10 2U Bezel Kit | 867809-B21 |
| HPE Bezel Lock Kit | 875519-B21 |
| HPE Gen10 Chassis Intrusion Detection Kit | 867824-B21 |

**NOTE:** 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 Option | 864279-B21 |

**NOTE:** HPE Trusted Platform Module 2.0 option works with Gen10 servers with UEFI Mode not Legacy Mode. It is not compatible with HPE ProLiant Gen8 servers or earlier generation variants.
**NOTE:** HPE server systems can have a TPM module (of any type) installed only once. It cannot be replaced with any other TPM module.
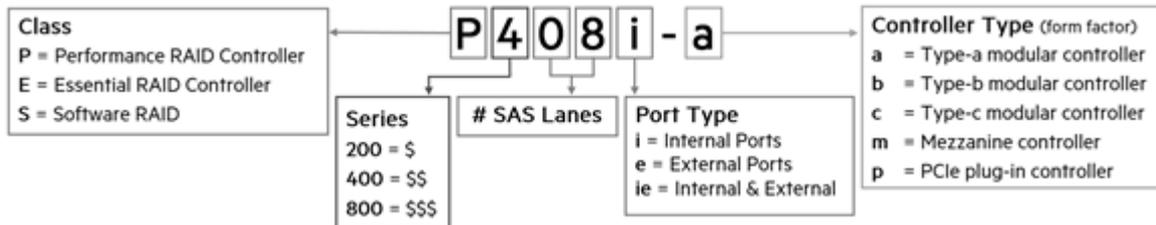
| | |
|---|---|
| HPE Gen10 TPM 1.2 FIO Setting | 872108-B21 |

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

## Additional Options

### 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**.

| Class | | Controller Type (form factor) |
|---|---|---|
| P = Performance RAID Controller | P 4 0 8 i - a | a = Type-a modular controller |
| E = Essential RAID Controller | | b = Type-b modular controller |
| S = Software RAID | | c = Type-c modular controller |
| | Series | m = Mezzanine controller |
| | 200 = $ | p = PCIe plug-in controller |
| | 400 = $$ | |
| | 800 = $$$ | |

Series 200 = $, 400 = $$, 800 = $$$ — # SAS Lanes — Port Type: i = Internal Ports, e = External Ports, ie = Internal & External

### HPE Flexible Smart Array Controllers

**NOTE:** All performance RAID controllers are supported by the HPE Smart Storage Battery (P01366-B21), which supports multiple devices and is sold separately.
**NOTE:** Flexible Smart Array controllers do not consume a PCIe slot.

| | |
|---|---|
| HPE Smart Array P816i-a SR Gen10 (16 Internal Lanes/4GB Cache/SmartCache) 12G SAS Modular Controller | 804338-B21 |

**NOTE:** Does not occupy a PCIe expansion slot and includes SmartCache license.
**NOTE:** The P816i-a cable ships in the 12LFF chassis only (868705-B21).

| | |
|---|---|
| HPE Smart Array P408i-a SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS Modular Controller | 804331-B21 |

### HPE Flexible Smart Array Controllers

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

### Performance RAID Controllers

**NOTE:** All performance RAID controllers are supported by the HPE Smart Storage Battery (P01366-B21), which supports multiple devices and is sold separately.

| | |
|---|---|
| HPE Smart Array P408i-p SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS PCIe Plug-in Controller | 830824-B21 |
| HPE Smart Array P408e-p SR Gen10 (8 External Lanes/4GB Cache) 12G SAS PCIe Plug-in Controller | 804405-B21 |
| HPE Smart Array P824i-p MR Gen10 (24 Internal Lanes/4GB Cache/CacheCade) 12G SAS PCIe Controller | 870658-B21 |

### Essential RAID Controllers

| | |
|---|---|
| HPE Smart Array E208i-p SR Gen10 (8 Internal Lanes/No Cache) 12G SAS PCIe Plug-in Controller | 804394-B21 |
| HPE Smart Array E208e-p SR Gen10 (8 External Lanes/No Cache) 12G SAS PCIe Plug-in Controller | 804398-B21 |

### HPE Cable Options

| | |
|---|---|
| HPE DL380 SFF Smart Array HBA H200/P400 Series SAS Cable Kit | 786092-B21 |
| HPE DL38X Gen10 2 Drive NVMe Slim SAS Cable Kit | 871827-B21 |

## Additional Options

| | |
|---|---|
| HPE DL380 Gen10 Mini SAS 3POS Cable Kit | 826709-B21 |

**NOTE:** For details on cabling options, additional information available here: **http://www.hpe.com/info/CablingMatrixGen10**.

### Optional Software

| | |
|---|---|
| HPE Smart Array SR Secure Encryption (Data at Rest Encryption/per Server Entitlement) E-LTU | Q2F26AAE |
| HPE Smart Array SR SmartCache (Single Key/Single Server) LTU | D7S26A |
| HPE Smart Array SR SmartCache (Single Key/Multiple Servers) LTU | D7S27A |
| HPE Smart Array SR SmartCache (Single Key/Multiple Servers) E-LTU | D7S27AAE |

**NOTE:** SmartCache is offered on HPE Smart Array performance RAID controllers and comes standard (no licensing is required) if the HPE Smart Array P816i-a SR Gen10 Controller is installed in the server.

### Optional Upgrades

| | |
|---|---|
| HPE 96W Smart Storage Battery (up to 20 Devices) with 145mm Cable Kit | P01366-B21 |
| HPE DL38X/560/580/ML350 Gen10 P824i-p Cable Kit | P00614-B21 |

**NOTE:** Provides backup power for multiple HPE Smart Array controllers or other devices. Is required with performance RAID controllers.

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### HPE Tape Backup

**NOTE:** For the complete range of tape drives, autoloaders, libraries and media see: **https://www.hpe.com/us/en/storage/storeever-tape-storage.html**. For hardware and software compatibility of Hewlett Packard Enterprise tape backup products **http://www.hpe.com/storage/BURAcompatibility**.

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### HPE Storage Options

**Emulex Fibre Channel HBAs**

| | |
|---|---|
| HPE StoreFabric SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter | Q0L13A |
| HPE StoreFabric SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter | Q0L14A |
| HPE StoreFabric SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter | Q0L11A |
| HPE StoreFabric SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter | Q0L12A |

**QLogic Fibre Channel HBAs**

| | |
|---|---|
| HPE StoreFabric SN1100Q 16Gb Single Port Fibre Channel Host Bus Adapter | P9D93A |
| HPE StoreFabric SN1100Q 16Gb Dual Port Fibre Channel Host Bus Adapter | P9D94A |
| HPE StoreFabric SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter | P9M75A |
| HPE StoreFabric SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter | P9M76A |

**Converged Network Adapters**

| | |
|---|---|
| HPE StoreFabric CN1100R Dual Port Converged Network Adapter | QW990A |
| HPE StoreFabric CN1100R 10GBASE-T Dual Port Converged Network Adapter | N3U52A |
| HPE StoreFabric CN1200E 10Gb Converged Network Adapter | E7Y06A |
| HPE StoreFabric CN1200E 10GBASE-T Dual Port Converged Network Adapter | N3U51A |
| HPE StoreFabric CN1200R 10GBASE-T Converged Network Adapter | Q0F26A |
| HPE StoreFabric CN1300R 10/25Gb Dual Port Converged Network Adapter | Q0F09A |

## Additional Options

**NOTE:** For the complete listing of Fibre Channel Host Bus Adapters for Windows 2000, Windows Server 2003 and Linux, please see: **https://www.hpe.com/us/en/product-catalog/storage/storage-adapters.hits-12.html**.

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### HPE Racks

**NOTE:** Please see the **HPE Advanced Series Racks QuickSpecs** for information on additional racks options and rack specifications.

**NOTE:** Please see the **HPE Enterprise Series Racks QuickSpecs** for information on additional racks options and rack specifications.

**NOTE:** Please see the **HPE Standard Series Racks QuickSpecs** for information on additional racks options and rack specifications.

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### HPE Power Distribution Units (PDUs)

**NOTE:** Please see the **HPE Basic Power Distribution Units (PDU) QuickSpecs** for information on these products and their specifications.

**NOTE:** Please see the **HPE Metered Power Distribution Units (PDU) QuickSpecs** for information on these products and their specifications.

**NOTE:** Please see the **HPE Intelligent Power Distribution Unit (PDU) QuickSpecs** for information on these products and their specifications.

**NOTE:** Please see the **HPE Metered and Switched Power Distribution Units (PDU) QuickSpecs** for information on these products and their specifications.

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### HPE Uninterruptible Power Systems (UPS)

**NOTE:** To learn more, please visit the **HPE Uninterruptible Power Systems (UPS) web page**.

**NOTE:** Please see the **HPE DirectFlow Three Phase Uninterruptible Power System QuickSpecs** for information on these products and their specifications.

**NOTE:** Please see the **HPE Line Interactive Single Phase UPS QuickSpecs** for information on these products and their specifications.

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### HPE Rack Options

**NOTE:** Please see the **HPE KVM Switches web page** for information on these products and their specifications.

### Rail Kits

**NOTE:** Ball bearing and Easy Install rail kits contain telescoping rails which allow for in-rack serviceability.

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

**CAUTION:** 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.

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## Additional Options

| | |
|---|---|
| HPE 2U Small Form Factor Easy Install Rail Kit | 733660-B21 |

**NOTE:** Does not include CMA (733664-B21).

| | |
|---|---|
| HPE 2U Large Form Factor Easy Install Rail Kit | 733662-B21 |

**NOTE:** Does not include CMA (733664-B21).

| | |
|---|---|
| HPE 2U Cable Management Arm for Easy Install Rail Kit | 733664-B21 |
| HPE 2U Small Form Factor Ball Bearing Rail Kit | 720863-B21 |
| HPE 2U Large Form Factor Ball Bearing Rail Kit | 720864-B21 |

**NOTE:** Does not include CMA (720865-B21).

| | |
|---|---|
| HPE 2U Cable Management Arm for Ball Bearing Rail Kit | 720865-B21 |

## HPE USB and SD Options

### HPE Enterprise Mainstream Flash Media Kits for Memory Cards

| | |
|---|---|
| HPE 32GB microSD Flash Memory Card | 700139-B21 |
| HPE 8GB microSD Flash Memory Card | 726116-B21 |
| HPE 8GB microSD Flash USB Drive | 737953-B21 |
| HPE 8GB Dual microSD Flash USB Drive | 741279-B21 |

## HPE Support Services

### Installation & Startup Services

| | |
|---|---|
| HPE Install ProLiant DL38x(p) Service | U4554E |
| HPE Installation and Startup DL38x(p) Service | U4555E |

### Proactive Care

| | |
|---|---|
| HPE 3 Year Proactive Care 24x7 DL38x Gen10 Service | H8QQ0E |
| HPE 3 Year Proactive Care 24x7 with DMR DL38x Gen10 Service | H8QQ1E |
| HPE 3 Year Proactive Care 24x7 with CDMR DL38x Gen10 Service | H8QQ2E |
| HPE 3 Year Proactive Care Call-To-Repair DL38x Gen10 Service | H8QQ9E |
| HPE 3 Year Proactive Care Call-To-Repair 24x7 with DMR DL38x Gen10 Service | H8QR0E |
| HPE 3 Year Proactive Care Call-To-Repair with CDMR DL38x Gen10 Service | H8QR1E |

**NOTE:** For a full listing of support services available for this server, please visit
**https://ssc.hpe.com/**

Memory

## Memory Population guidelines

### HPE Gen10 DL360 / DL380 / DL560* Servers

2 Slots per Channel



*Front of Server*

* DL560 is a 4 socket server (uses P3, P4)
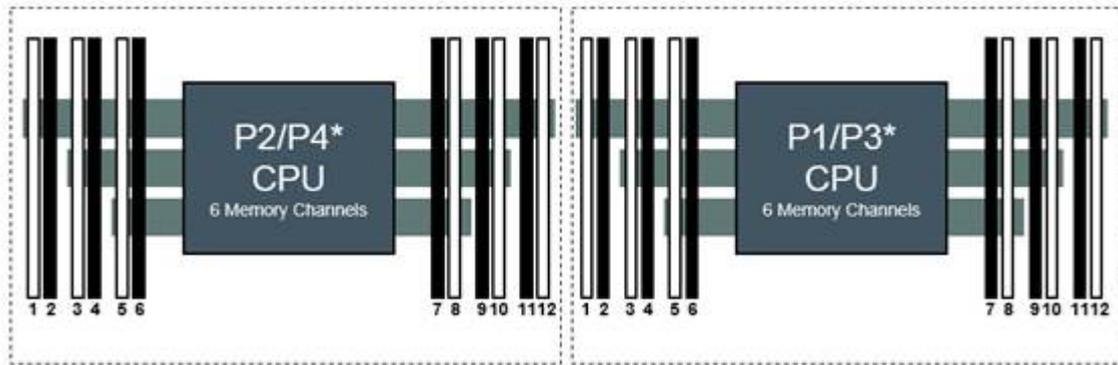
| HPE ProLiant Gen10 12 slot per CPU DIMM Population Order | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 DIMM | | | | | | | 8 | | | | |
| 2 DIMMs | | | | | | | 8 | | 10 | | |
| 3 DIMMs | | | | | | | 8 | | 10 | | 12 |
| 4 DIMMs | | | 3 | | 5 | | 8 | | 10 | | |
| 5 DIMMs * | | | 3 | | 5 | | 8 | | 10 | | 12 |
| 6 DIMMs | 1 | | 3 | | 5 | | 8 | | 10 | | 12 |
| 7 DIMMs * | 1 | | 3 | | 5 | 7 | 8 | | 10 | | 12 |
| 8 DIMMs | | | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | | |
| 9 DIMMs * | 1 | | 3 | | 5 | | 7 | 8 | 9 | 10 | 11 | 12 |
| 10 DIMMs * | 1 | | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | | 12 |
| 11 DIMMs * | 1 | | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 12 DIMMs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| * Unbalanced, not recommended | | | | | | | | | | | |

**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.

## Memory

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 SmartMemory is required. For additional information, please see the **HPE DDR4 SmartMemory QuickSpecs**.

| DIMM Type | Registered DIMM (RDIMM) | | | |
|---|---|---|---|---|
| HPE SKU P/N | 815097-B21 | 815098-B21 | 835955-B21 | 815100-B21 |
| SKU Description | HPE 8GB (1x8GB) Single Rank x8 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit | HPE 16GB (1x16GB) Single Rank x4 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit | HPE 16GB (1x16GB) Dual Rank x8 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit | HPE 32GB (1x32GB) Dual Rank x4 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit |
| DIMM Capacity | 8GB | 16GB | 16GB | 32GB |
| DIMM Rank | Single Rank (1R) | Single Rank (1R) | Dual Rank (2R) | Dual Rank (2R) |
| Voltage | 1.2 V | 1.2 V | 1.2 V | 1.2 V |
| DRAM Depth [bit] | 1G | 2G | 1G | 2G |
| DRAM Width [bit] | x8 | x4 | x8 | x4 |
| DRAM Density | 8Gb | 8Gb | 8Gb | 8Gb |
| CAS Latency | 19-19-19 | 19-19-19 | 19-19-19 | 19-19-19 |
| DIMM Native Speed | 2666 MT/s | 2666 MT/s | 2666 MT/s | 2666 MT/s |
| **Processors Officially Supported Memory Speed:** | | | | |
| **Intel Xeon®Platinum/Gold 81xx/61xx** | | | | |
| 1 RDIMM Per Channel | 2666 MT/s | 2666 MT/s | 2666 MT/s | 2666 MT/s |
| 2 RDIMMs Per Channel | 2666 MT/s | 2666 MT/s | 2666 MT/s | 2666 MT/s |
| **Intel Xeon®Gold/Silver 51xx/41xx** | | | | |
| 1 RDIMM Per Channel | 2400 MT/s | 2400 MT/s | 2400 MT/s | 2400 MT/s |
| 2 RDIMMs Per Channel | 2400 MT/s | 2400 MT/s | 2400 MT/s | 2400 MT/s |
| **Intel Xeon®Bronze 31xx** | | | | |
| 1 RDIMM Per Channel | 2133 MT/s | 2133 MT/s | 2133 MT/s | 2133 MT/s |
| 2 RDIMMs Per Channel | 2133 MT/s | 2133 MT/s | 2133 MT/s | 2133 MT/s |
| **HPE Server Memory Speed: Intel Xeon® Platinum/Gold 81xx/61xx Processors *** | | | | |
| 1 RDIMM Per Channel | 2666 MT/s | 2666 MT/s | 2666 MT/s | 2666 MT/s |
| 2 RDIMMs Per Channel | 2666 MT/s | 2666 MT/s | 2666 MT/s | 2666 MT/s |
| **HPE Server Memory Speed: Intel Xeon® Gold/Silver 51xx/41xx Processors *** | | | | |

## Memory

| | | | | |
|---|---|---|---|---|
| 1 RDIMM Per Channel | 2400 MT/s | 2400 MT/s | 2400 MT/s | 2400 MT/s |
| 2 RDIMMs Per Channel | 2400 MT/s | 2400 MT/s | 2400 MT/s | 2400 MT/s |
| **HPE Server Memory Speed: Intel Xeon® Bronze 31xx Processors *** | | | | |
| 1 RDIMM Per Channel | 2133 MT/s | 2133 MT/s | 2133 MT/s | 2133 MT/s |
| 2 RDIMMs Per Channel | 2133 MT/s | 2133 MT/s | 2133 MT/s | 2133 MT/s |

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

For details on the HPE Server Memory speed, visit: **https://www.hpe.com/docs/memory-speed-table**

| DIMM Type | Load Reduced DIMM (LRDIMM) | |
|---|---|---|
| HPE SKU P/N | 815101-B21 | 815102-B21 |
| SKU Description | HPE 64GB (1x64GB) Quad Rank x4 DDR4-2666 CAS-19-19-19 Load Reduced Smart Memory Kit | HPE 128GB (1x128GB) Octal Rank x4 DDR4-2666 CAS-22-19-19 3DS Load Reduced Memory Kit |
| DIMM Capacity | 64GB | 128GB |
| DIMM Rank | Quad Rank (4R) | Octal Rank (8R) |
| Voltage | 1.2 V | 1.2 V |
| DRAM Depth [bit] | 2G | 2G |
| DRAM Width [bit] | x4 | x4 |
| DRAM Density | 8Gb | 8Gb |
| CAS Latency | 19-19-19 | 22-19-19 |
| DIMM Native Speed | 2666 MT/s | 2666 MT/s |
| **Processors Officially Supported Memory Speed:** | | |
| **Intel Xeon® Platinum/Gold 81xx/61xx** | | |
| 1 LRDIMM Per Channel | 2666 MT/s | 2666 MT/s |
| 2 LRDIMMs Per Channel | 2666 MT/s | 2666 MT/s |
| **Intel Xeon® Gold/Silver 51xx/41xx** | | |
| 1 LRDIMM Per Channel | 2400 MT/s | 2400 MT/s |
| 2 LRDIMMs Per Channel | 2400 MT/s | 2400 MT/s |
| **Intel Xeon® Bronze 31xx** | | |
| 1 LRDIMM Per Channel | 2133 MT/s | 2133 MT/s |
| 2 LRDIMMs Per Channel | 2133 MT/s | 2133 MT/s |
| **HPE Server Memory Speed: Intel Xeon® Platinum/Gold 81xx/61xx Processors *** | | |
| 1 LRDIMM Per Channel | 2666 MT/s | 2666 MT/s |
| 2 LRDIMMs Per Channel | 2666 MT/s | 2666 MT/s |
| **HPE Server Memory Speed: Intel Xeon® Gold/Silver 51xx/41xx Processors *** | | |
| 1 LRDIMM Per Channel | 2400 MT/s | 2400 MT/s |
| 2 LRDIMMs Per Channel | 2400 MT/s | 2400 MT/s |
| **HPE Server Memory Speed: Intel Xeon® Bronze 31xx Processors *** | | |
| 1 LRDIMM Per Channel | 2133 MT/s | 2133 MT/s |

Memory

| 2 LRDIMMs Per Channel | 2133 MT/s | 2133 MT/s |

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

For details on the HPE Server Memory speed, visit: **https://www.hpe.com/docs/memory-speed-table**

**Standard and Maximum Memory Capacity (Pre-configured Models)**

| Pre Configured Models | Standard Memory | Maximum Memory Plus Optional Memory | Standard Memory Replaced with Optional Memory |
|---|---|---|---|
| 3106 | 16 GB (1x16 GB RDIMM DR) | 384 GB (24x 16 GB) | 3072 GB (24x 128 GB) |
| 4110 | 32 GB (2x16 GB RDIMM DR) | 384 GB (24x 16 GB) | 3072 GB (24x 128 GB) |
| 4114 | 32 GB (2x16 GB RDIMM DR) | 384 GB (24x 16 GB) | 3072 GB (24x 128 GB) |
| 5118 | 64 GB (2x32 GB RDIMM DR) | 768 GB (24x 32 GB) | 3072 GB (24x 128 GB) |
| 6130 | 64 GB (2x32 GB RDIMM DR) | 768 GB (24x 32 GB) | 3072 GB (24x 128 GB) |

**NOTE:** 128 GB coming 2H 2017.

**DDR4 memory options part number decoder**

**NOTE:** 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

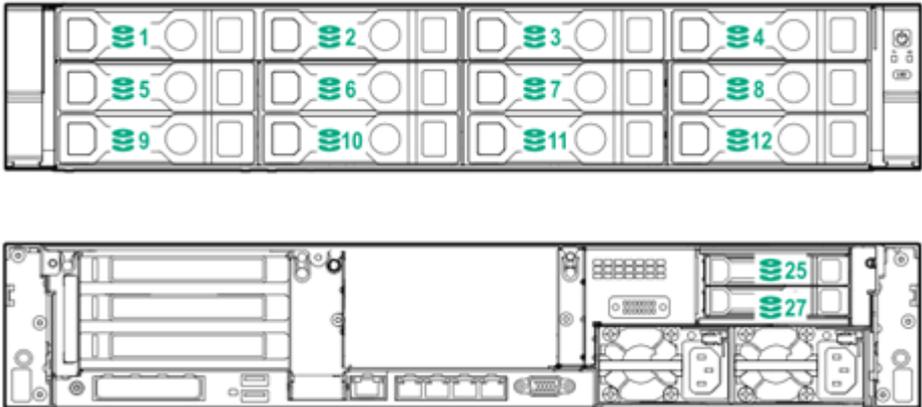For more information on memory, please see the Memory Quickspecs: **HPE DDR4 SmartMemory**

Storage

**8LFF chassis with Universal media bay and optional 2SFF and optical drive shown**
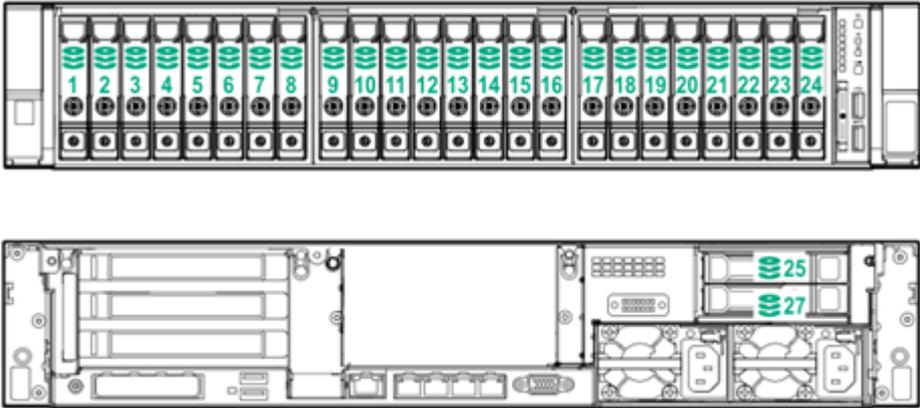
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**12 LFF + 3 rear LFF drives**



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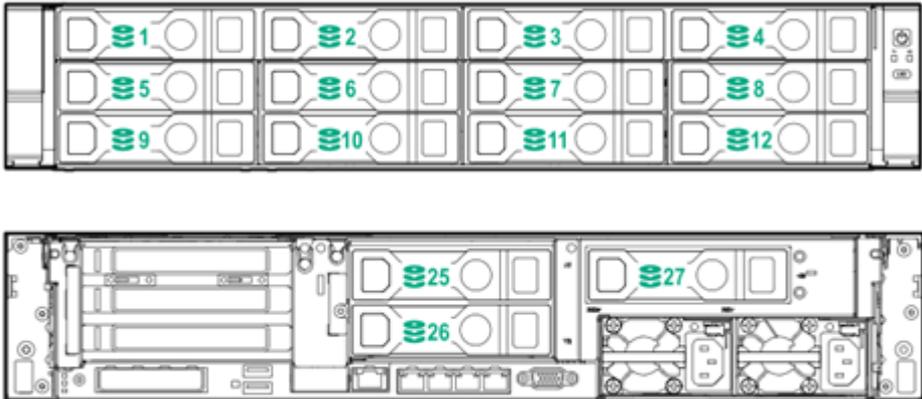
**12 LFF + 2 rear SFF drives**



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Storage

**6 rear SFF drives**

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**24 SFF + rear 2 SFF drives**

Technical Specifications

**System Unit**

| | | |
|---|---|---|
| **Dimensions** | 8.73 x 44.54 x 67.94 cm 3.44 x 17.54 x 26.75 in | SFF Drives: |
| | 8.73 x 44.54 x 73.02 cm 3.44 x 17.54 x 28.75 in | LFF Drives: |
| **Weight (approximate)** | Maximum: 19.5 kg 43.00 lbs<br>Minimum: 14.9 kg 32.75 lbs | Minimum: 8 SFF chassis with 1x SFF HDD and 7 HDD blanks, 2x Drive Bay blanks, 1x processor including standard heatsink, 1x power supply (plus blank), 1x Smart Array, 1x Riser installed, cables for the above) |
| | Maximum: 24.5 kg 54 lbs<br>Minimum: 17.1 kg 37.75 lbs | Maximum: 12 LFF hard drives (no rear drives), 2x processors, 2x power supplies, 1x Smart Array, 2x Risers installed) |
| **Input Requirements** (per power supply) | Rated Line Voltage | 100 to 120 VAC |
| | | 200 to 240 VAC |
| **BTU Rating** | Maximum | For 800W Power Supply: 3207 BTU/hr (at 100 VAC), 3071 BTU/hr (at 200 VAC), 3112 BTU/hr (at 240 VAC) for China Only |
| | | For 500W Power Supply: 1979 BTU/hr (at 100 VAC), 1911 BTU/hr (at 200 VAC), 1965 BTU/hr (at 240 VAC) for China Only |
| **Power Supply Output** (per power supply) | Rated Steady-State Power | For 1400W Power Supply: 1400W (at 240 VAC), 1400W (at 240 VAC) |
| | | For 800W Power Supply: 800W (at 100 VAC), 800W (at 240 VAC), 800W (at 240 VAC) input for China only |
| | | For 500W Power Supply: 500W (at 100 VAC), 500W (at 240 VAC), 500W (at 240 VAC) input for China only |
| | Maximum Peak Power | For 1400W Power Supply: 1400W (at 200 to 240 1VAC), 1400W (at 240 VAC) input for China only |
| | | For 800W Power Supply: 800W (at 100 to 127 VAC), 800W (at 200 to 240 1VAC), 800W (at 240 VAC) input for China only |
| | | For 500W Power Supply: 500W (at 100 to 127 VAC), 500W (at 200 to 240 VAC), 500W (at 240 VAC) input for China only |
| **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.<br><br>System performance during standard operating support may be reduced if operating with a fan fault or above 30°C |

## Technical Specifications

| | | |
|---|---|---|
| | | (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**<br><br>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**<br><br>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** | Operating | 8% to 90% - Relative humidity (Rh), 28°C maximum wet bulb temperature, non-condensing. |
| (non-condensing) | Non-operating | 5 to 95% relative humidity (Rh), 38.7°C (101.7°F) maximum wet bulb temperature, non-condensing.. |
| **Altitude** | Operating | 3050 m (10,000 ft). This value may be limited by the type and number of options installed. Maximum allowable altitude change rate is 457 m/min (1500 ft/min). |
| | Non-operating | 9144 m (30,000 ft). Maximum allowable altitude change rate is 457 m/min (1500 ft/min). |

**Acoustic Noise**  Listed are the declared A-Weighted sound power levels ($L_{W\text{Ad}}$) and declared average bystander position A-Weighted sound pressure levels ($L_{p\text{Am}}$) 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.

**Idle**

| | |
|---|---|
| LWAd | 4.8 B Entry |
| | 4.4 B Base |
| | 4.6 B Perf |
| LpAm | 37 dBA Entry |
| | 31 dBA Base |
| | 31 dBA Perf |

Technical Specifications

|  | **Operating** | |
|---|---|---|
| LWAd | 4.8 B Entry | |
|  | 4.4 B Base | |
|  | 4.6 B Perf | |
| LpAm | 37 dBA Entry | |
|  | 31 dBA Base | |
|  | 31 dBA Perf | |

**NOTE:** 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.
**NOTE:** 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.
**NOTE:** 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**

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For information on the HPE Smart Array E208i-a SR Gen10 Controller please refer to their **QuickSpecs**.
For information on the HPE Smart Array E208i-p SR Gen10 Controller please refer to their **QuickSpecs**.
For information on the HPE Smart Array E208e-p SR Gen10 Controller please refer to their **QuickSpecs**.
For information on the HPE Smart Array P408i-a SR Gen10 Controller please refer to their **QuickSpecs**.
For information on the HPE Smart Array P408i-p SR Gen10 Controller please refer to their **QuickSpecs**.
For information on the HPE Smart Array P408e-p SR Gen10 Controller please refer to their **QuickSpecs**.
For information on the HPE Smart Array P816i-a SR Gen10 Controller please refer to their **QuickSpecs**.

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**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 |
|---|---|---|---|
| 15-Oct-2018 | Version 18 | Changed | Configuration Information, Core Options and Additional Options sections were updated |
| 01-Oct-2018 | Version 17 | Changed | Overview, Standard Features, Preconfigured Models, Configuration Information, Core Options, Additional Options, and Memory sections were updated.<br>SKU descriptions were updated.<br>Obsolete SKUs were removed. |
| 13-Aug-2018 | Version 16 | Changed | Core Options and Additional Options were revised. |
| 06-Aug-2018 | Version 15 | Added | Added new Solid State Drives offering,<br>Added new GPU option. |
| | | Changed | Configuration Information - Factory Integrated Models, Core Options, and Additional Options were revised. |
| | | Removed | Obsolete SKUs were removed from the QuickSpecs. |
| 11-Jun-2018 | Version 14 | Changed | Smart Buy Models section for the NA version was revised. |
| 04-Jun-2018 | Version 13 | Added | Added new SSDs offering to the HPE Drives section. |
| | | Changed | Core Options, Additional Options, and Memory were updated. |
| | | Removed | Obsolete SKUs were removed from the QuickSpecs. |
| 07-May-2018 | Version 12 | Added | New SMB Models offering was added. |
| | | Changed | Riser Information was revised. |
| | | Removed | Obsolete SKUs were removed from the QuickSpecs. |
| 02-Apr-2018 | Version 11 | Changed | SKUs description were updated. |
| | | Removed | Obsolete SKUs were removed from the QuickSpecs. |
| 05-Mar-2018 | Version 10 | Removed | Obsolete SKUs were removed from the QuickSpecs. |
| 05-Feb-2018 | Version 9 | Added | Added new SATA SSDs, NVMe drives, and PCIe accelerator cards. |
| 18-Dec-2017 | Version 8 | Changed | Weight specifications were revised. |
| 04-Dec-2017 | Version 7 | Added | Added HPE Scalable Persistent Memory.<br>Added HPE Specific IST Processor offering Gold 6143 and Platinum 8165 bins.<br>Added Large capacity 15.3TB SSDs.<br>Added new AMD and NVIDIA Graphics card options. |
| | | Changed | Processors, Memory, Maximun Internal Storage, Configuration Information - Factory Integrated Models, Core Options, and Additional Options were revised. |
| 23-Oct-2017 | Version 6 | Changed | Memory speed table was updated to display the 61XX processors running at 2666MT/s. |
| 16-Oct-2017 | Version 5 | Added | 8GB Dual Rank Memory was added.<br>Riser table was added under Core Options. |
| | | Changed | Platform Information, FlexibleLOM adapters, GPGPU table under Core Options, HPE Computation and Graphics Accelerators, and HPE Smart Array Controllers were revised. |
| 25-Sep-2017 | Version 4 | Added | Added new 128GB GB DIMM.<br>Additional Intel® Xeon® Processor Scalable Family processor bins were added.<br>Added new NVIDIA GPU cards.<br>Added new drive options offering (SSD, m.2, NVMe). |

## Summary of Changes

|  |  | Changed | Memory, Standard Features, Configuration Information - Factory Integrated Models, Core Options, Additional Options, and Technical Specifications were revised. |
|---|---|---|---|
|  |  | Removed | Obsolete SKUs were removed from the QuickSpecs. |
| 4-Sep-2017 | Version 3 | Changed | Smart Buy models section was revised (NA version only). |
| 7-Aug-2017 | Version 2 | Added | Added new Solid State Drives offering to the HPE Drives section. |
|  |  | Changed | Platform Information, Standard Features, Optional Features, Pre-configured Models, Configuration Information - Factory Integrated Models, Core Options, and Additional Options section were revised. |
| 11-Jul-2017 | Version 1 | New | New QuickSpecs. |

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