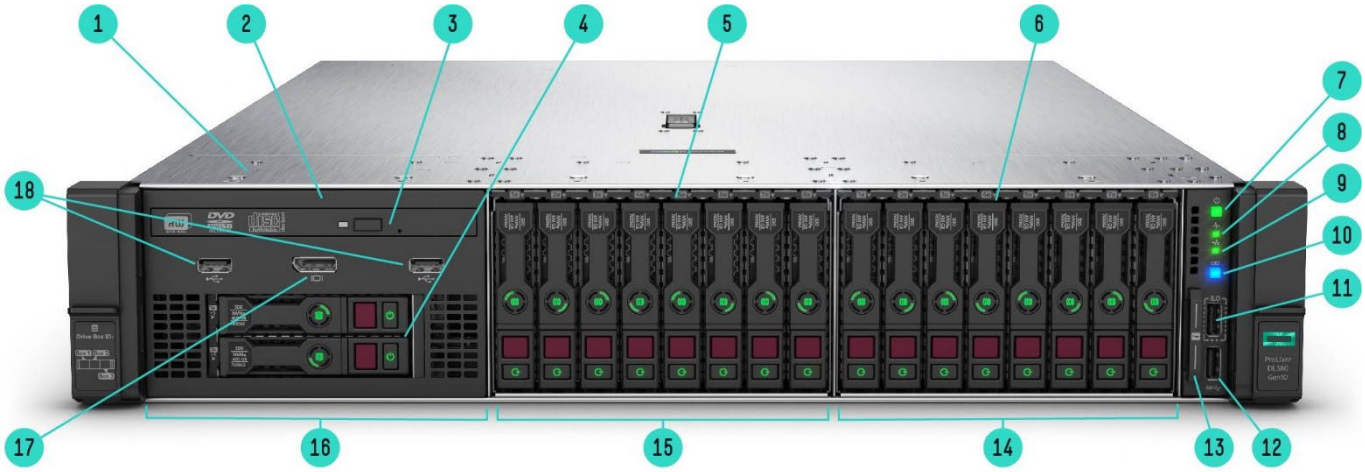
## Overview

### 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 makes it ideal for multiple environments from Containers to Cloud to Big Data. Standardize on the industry's most trusted compute platform.

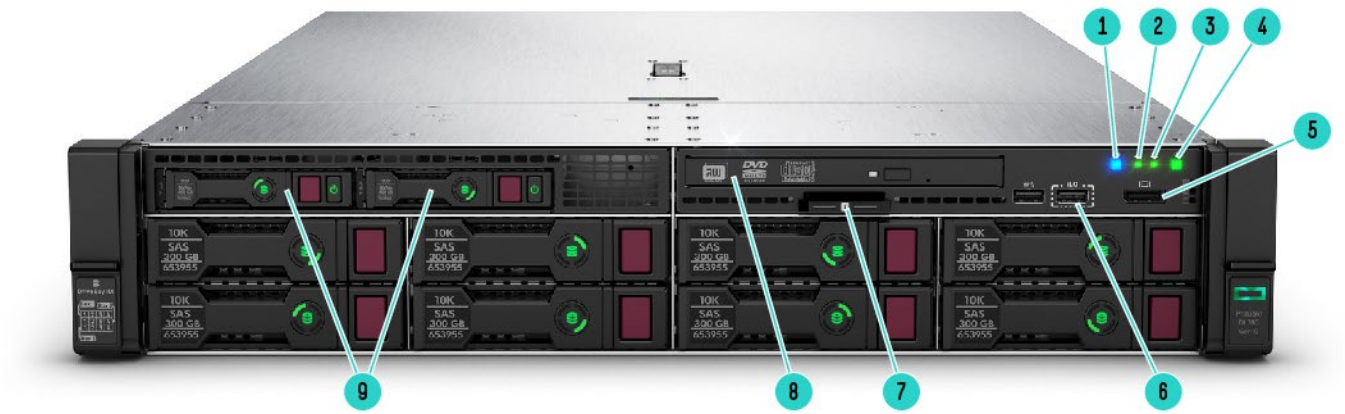



**Front View – SFF chassis with optional Universal Media bay with optical and 2 NVME plus 16 NVMe shown**

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

**Notes:** [1] Front NIC LED display doesn't support NIC LED ACT/LINK indication from ALOM/PCIE/FLOM NIC's

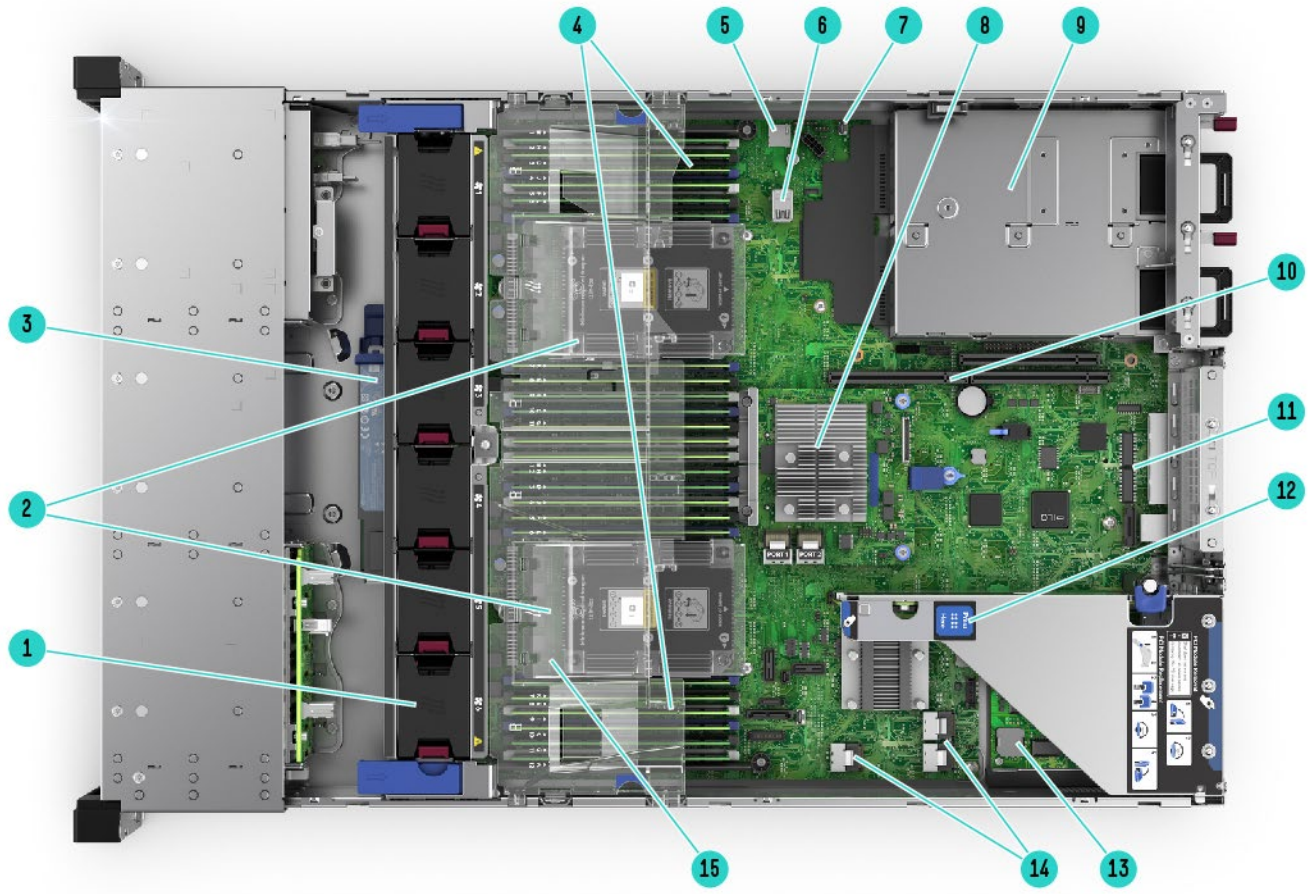
## Overview




**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

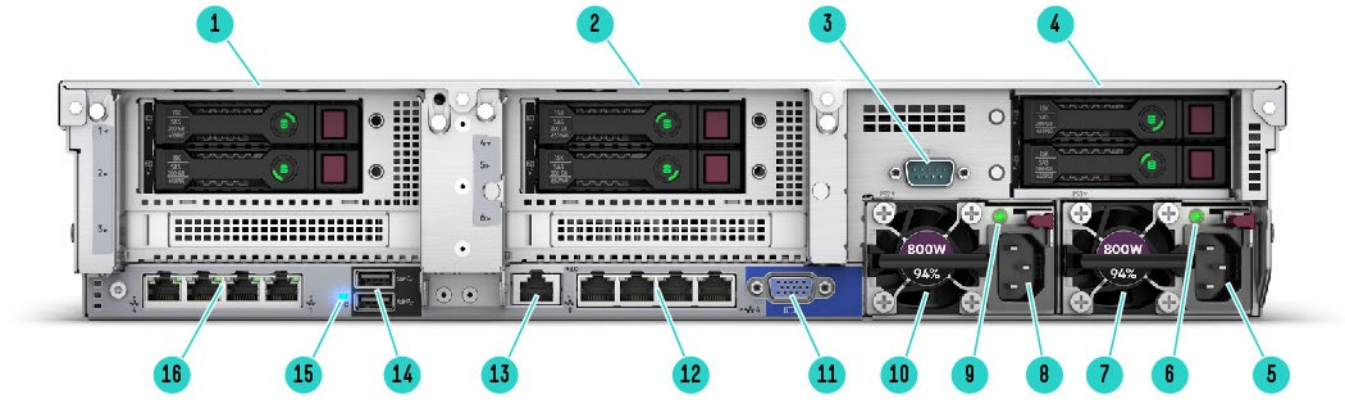



**Internal View 8SFF chassis – with optional 2nd CPU, FlexLOM, Smart array shown**

1. Fan cage shown with 6 standard Hot-plug fans (High Performance temperature fans optional)
2. 2 Processors, heatsink showing
3. Optional HPE Smart Hybrid Capacitor or 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 (if equipped)[1]
12. Primary PCIe riser, standard (Optional double wide GPU riser)
13. FlexibleLOM slot (Optional, depending on model selected)
14. X4 SATA ports (1, 2 and 3)
15. Clear air baffle

**Notes:** [1] Networking Choice (NC) models do not include an embedded NIC and have a FlexibleLOM pre-selected for Build-to-Order (BTO) models; Configure-to-Order (CTO) models require a primary networking choice of FlexibleLOM or select networking adapters NIC adapters. See “FlexibleLOM Adapters” and/or “HPE Networking” sections for available options.

## 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
4. 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 (if equipped)[1]
13. Dedicated iLO management port
14. USB connectors 3.0 (2)
15. Unit ID LED
16. FlexibleLOM ports (4 x 1GbE shown); optional, depending on model

**Notes:** [1] Networking Choice (NC) models do not include an embedded NIC and have a FlexibleLOM pre-selected for Build-to-Order (BTO) models; Configure-to-Order (CTO) models require a primary networking choice of FlexibleLOM or select networking adapters NIC adapters. See “FlexibleLOM Adapters” and/or “HPE Networking” sections for available options.

## What’s New

- North America BTO SKU - HPE ProLiant DL380 Gen10 5218 2.3GHz 16-core 1P 192GB-R P408i-a 8SFF 800W PS Server (P63680-B21)

## 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

**Notes:**

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

## Overview

- 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.
- 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.
- 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) or (P19719-B21). Note a field upgrade to 24 SFF will require a High Performance fan kit (867810-B21).
- 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).
- The 8LFF chassis ships with 6-standard fans.
- 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

**Notes:**

- 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).
- 2P models typically ship with 6 standard fans. 2P Models have (6) (N+1 redundancy standard).
- The 12 LFF and 24 SFF chassis ship with 6 High performance fans as standard.
- The 8LFF chassis ships with 6 standard fans as standard.
- High performance fan kit is available to meet ambient temperature environments.
- High performance fan kits are required for rear drives, Graphics (GPU) card or NVMe configurations.

## Standard Features

**Processors –** Up to 2 of the following depending on model.
The 2nd digit of the processor model number "x1xx" and "x2xx" is used to denote the processor generation (i.e. 1=1st generation and 2=2nd generation)
**Notes:** Field upgrades from 1st generation processors (x1xx) to 2nd generation processors (x2xx) not supported.
"U" processors (i.e. 6212U) only supported in single socket configurations
For more information regarding Intel Xeon processors, please see the following **http://www.intel.com/xeon.**
This table covers the public Intel offering only.

| Intel Xeon processors | | |
|---|---|---|
| **Processor Suffix** | **Description** | **Offering** |
| **L** | Large memory tier | Up to 4.5 TB addressable memory per socket |
| **M** | Medium memory tier | Up to 2.0 TB addressable memory per socket (up to 1.5TB for 1st generation Intel Xeon Scalable Processors denoted with the "M" suffix) |
| **N** | NFV Optimized | Targeted at Network Function Virtualization (NFV) workloads. Intel® SST-BF improves performance by directing base frequency to high priority/bottleneck cores. Other workloads may see throttling, more details to be provided in upcoming documentation. |
| **S** | Search Optimized | Optimized base frequency to address 'search' workloads. Other workloads may see throttling, more details to be provided in upcoming documentation. |
| **U** | 1 Socket Optimized | Focused on single socket (1P) configurations, delivering performance at competitive price points. Does not support two socket (2P) arrangements. |
| **V** | VM Optimized | Fosters enhanced VM density, allowing to support more/larger virtual machines per host. |
| **Y** | Speed Select | Intel® SST-PP increases base frequency when fewer cores are enabled. Allows greater flexibility, deployment options and platform longevity. |

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

| 2nd Generation Intel® Xeon® Scalable Processor Family | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Intel Xeon Models** | **CPU Frequency** | **Cores** | **L3 Cache (MB)** | **Power** | **UPI** | **DDR4** | **Memory per socket** |
| Platinum 8280M Processor | 2.7GHz | 28 | 38.5 | 205W | 3 @ 10.4 GT/s | 2933 MT/s | 2TB |
| Platinum 8280L Processor | 2.7GHz | 28 | 38.5 | 205W | 3 @ 10.4 GT/s | 2933 MT/s | 4.5TB |
| Platinum 8280 Processor | 2.7GHz | 28 | 38.5 | 205W | 3 @ 10.4 GT/s | 2933 MT/s | 1TB |
| Platinum 8276M Processor | 2.2GHz | 28 | 38.5 | 165W | 3 @ 10.4 GT/s | 2933 MT/s | 2TB |
| Platinum 8276L Processor | 2.2GHz | 28 | 38.5 | 165W | 3 @ 10.4 GT/s | 2933 MT/s | 4.5TB |
| Platinum 8276 Processor | 2.2GHz | 28 | 38.5 | 165W | 3 @ 10.4 GT/s | 2933 MT/s | 1TB |
| Platinum 8270 Processor | 2.7GHz | 26 | 35.75 | 205W | 3 @ 10.4 GT/s | 2933 MT/s | 1TB |
| Platinum 8268 Processor | 2.9GHz | 24 | 35.75 | 205W | 3 @ 10.4 GT/s | 2933 MT/s | 1TB |
| Platinum 8260Y Processor | 2.4/2.5 /2.7GHz | 24/20/16 | 35.75 | 165W | 3 @ 10.4 GT/s | 2933 MT/s | 1TB |
| Platinum 8260M Processor | 2.4GHz | 24 | 35.75 | 165W | 3 @ 10.4 GT/s | 2933 MT/s | 2TB |
| Platinum 8260L Processor | 2.4GHz | 24 | 35.75 | 165W | 3 @ 10.4 GT/s | 2933 MT/s | 4.5TB |
| Platinum 8260 Processor | 2.4GHz | 24 | 35.75 | 165W | 3 @ 10.4 GT/s | 2933 MT/s | 1TB |
| Platinum 8256 Processor | 3.8 GHz | 4 | 16.5 | 105W | 3 @ 10.4 GT/s | 2933 MT/s | 1TB |
| Platinum 8253 Processor | 2.2GHz | 16 | 22 | 125W | 3 @ 10.4 GT/s | 2933 MT/s | 1TB |

## Standard Features

**Notes:**

- Platinum – 8200 Series – Supports 6-Channel DDR4 @ 2933 MT/s providing up to 1TB memory capacity per socket (up to 2TB/socket on M series and up to 4.5TB/socket on L series); Intel Optane Persistent Memory for HPE (select SKUs), Vector Neural Network Instructions (VNNI) for inference acceleration, Intel Turbo Boost Technology, Intel Hyper-Threading Technology Intel AVX-512 (2x 512-bit FMA). 48 lanes PCIe 3.0, advanced RAS
- Processors with 130W TDP or higher and the 8256, 8156, 6128, 5222, and 5122 will ship with the High Performance heatsink. All other processors will ship with the Standard heatsink.

| 1st Generation Intel® Xeon® Scalable Processor Family | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Intel Xeon Models** | **CPU Frequency** | **Cores** | **L3 Cache (MB)** | **Power** | **UPI** | **DDR4** | **Memory per socket** |
| Platinum 8180M Processor | 2.5 GHz | 28 | 38.5 | 205W | 3 @ 10.4 GT/s | 2666 MT/s | 1.5TB |
| Platinum 8180 Processor | 2.5 GHz | 28 | 38.5 | 205W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Platinum 8176 Processor | 2.1 GHz | 28 | 38.5 | 165W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Platinum 8170 Processor | 2.1 GHz | 26 | 35.75 | 165W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Platinum 8168 Processor | 2.7 GHz | 24 | 33 | 205W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Platinum 8165 Processor | 2.3 GHz | 24 | 33 | 205W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Platinum 8164 Processor | 2.0 GHz | 26 | 35.75 | 150W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Platinum 8160 Processor | 2.1 GHz | 24 | 33 | 150W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Platinum 8158 Processor | 3.0 GHz | 12 | 24.75 | 150W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Platinum 8156 Processor | 3.6 GHz | 4 | 16.5 | 105W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Platinum 8153 Processor | 2.0 GHz | 16 | 22 | 125W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |

**Notes:**

- 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.
- Processors with 130W TDP or higher and the 8256, 8156, 6128, 5222, and 5122 will ship with the High Performance heatsink. All other processors will ship with the Standard heatsink.

| 2nd Generation Intel® Xeon® Scalable Processor Family | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Intel Xeon Models** | **CPU Frequency** | **Cores** | **L3 Cache (MB)** | **Power (TDP)** | **UPI** | **DDR4** | **Memory per socket** |
| Gold 6262V Processor | 1.9GHz | 24 | 33 | 135W | 3 @ 10.4 GT/s | 2933MT/s | 1TB |
| Gold 6258R Processor | 2.7GHz | 28 | 38.5 | 205W | 2 @ 10.4 GT/s | 2933MT/s | 1TB |
| Gold 6256 Processor[4] | 3.6GHz | 12 | 33 | 205W | 3 @ 10.4 GT/s | 2933MT/s | 1TB |
| Gold 6254 Processor | 3.1GHz | 18 | 24.75 | 200W | 3 @ 10.4 GT/s | 2933MT/s | 1TB |
| Gold 6252N Processor | 2.3GHz | 24 | 35.75 | 150W | 3 @ 10.4 GT/s | 2933MT/s | 1TB |
| Gold 6252 Processor | 2.1GHz | 24 | 35.75 | 150W | 3 @ 10.4 GT/s | 2933MT/s | 1TB |
| Gold 6250L Processor | 3.9GHz | 8 | 35.75 | 185W | 3 @ 10.4 GT/s | 2933MT/s | 4.5TB |
| Gold 6250 Processor[4] | 3.9GHz | 8 | 35.75 | 185W | 3 @ 10.4 GT/s | 2933MT/s | 1TB |
| Gold 6248R Processor | 3.0GHz | 24 | 35.75 | 205W | 2 @ 10.4 GT/s | 2933MT/s | 1TB |
| Gold 6248 Processor | 2.5GHz | 20 | 27.5 | 150W | 3 @ 10.4 GT/s | 2933MT/s | 1TB |
| Gold 6246R Processor | 3.4GHz | 16 | 35.75 | 205W | 2 @ 10.4 GT/s | 2933MT/s | 1TB |
| Gold 6246 Processor | 3.3GHz | 12 | 24.75 | 165W | 3 @ 10.4 GT/s | 2933MT/s | 1TB |
| Gold 6244 Processor | 3.6GHz | 8 | 24.75 | 150W | 3 @ 10.4 GT/s | 2933MT/s | 1TB |
| Gold 6242R Processor | 3.1GHz | 20 | 35.75 | 205W | 2 @ 10.4 GT/s | 2933MT/s | 1TB |
| Gold 6242 Processor | 2.8GHz | 16 | 22 | 150W | 3 @ 10.4 GT/s | 2933MT/s | 1TB |
| Gold 6240Y Processor | 2.6/2.8/ 3.1 GHz | 18/14/8 | 24.75 | 150W | 3 @ 10.4 GT/s | 2933MT/s | 1TB |
| Gold 6240M Processor | 2.6GHz | 18 | 24.75 | 150W | 3 @ 10.4 GT/s | 2933MT/s | 2TB |
| Gold 6240L Processor | 2.6GHz | 18 | 24.75 | 150W | 3 @ 10.4 GT/s | 2933MT/s | 4.5TB |

## Standard Features

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Gold 6240R Processor | 2.4GHz | 24 | 35.75 | 165W | 2 @ 10.4 GT/s | 2933MT/s | 1TB |
| Gold 6240 Processor | 2.6GHz | 18 | 24.75 | 150W | 3 @ 10.4 GT/s | 2933MT/s | 1TB |
| Gold 6238R Processor | 2.2GHz | 28 | 38.5 | 165W | 2 @ 10.4 GT/s | 2933MT/s | 1TB |
| Gold 6238M Processor | 2.1GHz | 22 | 30.25 | 140W | 3 @ 10.4 GT/s | 2933MT/s | 2TB |
| Gold 6238L Processor | 2.1GHz | 22 | 30.25 | 140W | 3 @ 10.4 GT/s | 2933MT/s | 4.5TB |
| Gold 6238 Processor | 2.1GHz | 22 | 30.25 | 140W | 3 @ 10.4 GT/s | 2933MT/s | 1TB |
| Gold 6234 Processor | 3.3GHz | 8 | 24.75 | 130W | 3 @ 10.4 GT/s | 2933MT/s | 1TB |
| Gold 6230R Processor | 2.1GHz | 26 | 35.75 | 150W | 2 @ 10.4 GT/s | 2933MT/s | 1TB |
| Gold 6230N Processor | 2.3GHz | 20 | 27.5 | 125W | 3 @ 10.4 GT/s | 2933MT/s | 1TB |
| Gold 6230 Processor | 2.1GHz | 20 | 27.5 | 125W | 3 @ 10.4 GT/s | 2933MT/s | 1TB |
| Gold 6226R Processor | 2.9GHz | 16 | 22 | 150W | 2 @ 10.4 GT/s | 2933MT/s | 1TB |
| Gold 6226 Processor | 2.7GHz | 12 | 19.25 | 125W | 3 @ 10.4 GT/s | 2933MT/s | 1TB |
| Gold 6222V Processor | 1.8GHz | 20 | 27.5 | 115W | 3 @ 10.4 GT/s | 2933MT/s | 1TB |
| Gold 6212U Processor | 2.4GHz | 24 | 35.75 | 165W | - | 2933MT/s | 1TB |
| Gold 6210U Processor | 2.5GHz | 20 | 27.5 | 150W | - | 2933MT/s | 1TB |
| Gold 6209U Processor | 2.1GHz | 20 | 27.5 | 125W | - | 2933MT/s | 1TB |
| Gold 6208U Processor | 2.9GHz | 16 | 22 | 150W | - | 2933MT/s | 1TB |
| Gold 5222 Processor[1] | 3.8GHz | 4 | 16.5 | 105W | 2 @ 10.4 GT/s | 2933MT/s | 1TB |
| Gold 5220S Processor | 2.7GHz | 18 | 24.75 | 125W | 2 @ 10.4 GT/s | 2666MT/s | 1TB |
| Gold 5220R Processor | 2.2GHz | 24 | 35.75 | 150W | 2 @ 10.4 GT/s | 2666MT/s | 1TB |
| Gold 5220 Processor | 2.2GHz | 18 | 24.75 | 125W | 2 @ 10.4 GT/s | 2666MT/s | 1TB |
| Gold 5218R Processor | 2.1GHz | 20 | 27.5 | 125W | 2 @ 10.4 GT/s | 2666MT/s | 1TB |
| Gold 5218N Processor[3] | 2.3GHz | 16 | 22 | 110W | 2 @ 10.4 GT/s | 2666MT/s | 1TB |
| Gold 5218B Processor [2] | 2.3GHz | 16 | 22 | 125W | 2 @ 10.4 GT/s | 2666MT/s | 1TB |
| Gold 5218 Processor | 2.3GHz | 16 | 22 | 125W | 2 @ 10.4 GT/s | 2666MT/s | 1TB |
| Gold 5217 Processor | 3.0GHz | 8 | 11 | 115W | 2 @ 10.4 GT/s | 2666MT/s | 1TB |
| Gold 5215M Processor | 2.5GHz | 10 | 13.75 | 85W | 2 @ 10.4 GT/s | 2666MT/s | 2TB |
| Gold 5215L Processor | 2.5GHz | 10 | 13.75 | 85W | 2 @ 10.4 GT/s | 2666MT/s | 4.5TB |
| Gold 5215 Processor | 2.5GHz | 10 | 13.75 | 85W | 2 @ 10.4 GT/s | 2666MT/s | 1TB |

**Notes:**

- [1] Gold Processor 5222 supports 2933 DDR4 and 2 512-bit FMA units
- [2] Gold Processor 5218B has consistent features with the 5218 processor but is from a different die. Mixing both 5218B & 5218 in a system is not supported
- [3] Gold Processor 5218N processor available April 2019, Intel® Speed Select Technology-Base Frequency enablement via System ROM upgrade targeting June 2019
- Processors with 130W TDP or higher and the 8256, 8156, 6128, 5222, and 5122 will ship with the High Performance heatsink. All other processors will ship with the Standard heatsink.
- [4] Configuration support and facilities-requirements matrix for Gold Processor 6256 and Gold Processor 6250 listed below:

## Standard Features

| Intel Xeon Scalable Series 6250, 6250L, and 6256 Configuration and Facilities Requirements Matrix | | | | |
|---|---|---|---|---|
| **DL380 Gen10** | **6250 & 6250L** | | **6256** | |
| Max inlet temp. | Without DIMM blanks | With DIMM blanks kit[1] | Without DIMM blanks | With DIMM blanks kit[1] |
| 8SFF | Up to 30°C / 86°F | Up to 35°C / 95°F[1] | Up to 30°C / 86°F | Up to 35°C / 95°F[1] |
| 16SFF + front 2SFF | Up to 25°C / 77°F | Up to 30°C / 86°F[1] | Up to 30°C / 86°F | Up to 35°C / 95°F[1] |
| 16SFF + 8NVMe | Not Supported | Not Supported | Not Supported | Not Supported |
| 24SFF | Up to 25°C / 77°F | Up to 30°C / 86°F[1] | Up to 30°C / 86°F | Up to 35°C / 95°F[1] |
| 24SFF + rear SFF | Not Supported | Not Supported | Not Supported | Not Supported |
| 8LFF | Up to 25°C / 77°F | Up to 30°C / 86°F[1] | Up to 30°C / 86°F | Up to 35°C / 95°F[1] |
| 12LFF | Up to 20°C / 68°F | Up to 25°C / 77°F[1] | Up to 20°C / 68°F | Up to 25°C / 77°F[1] |
| 12LFF + rear 2SFF | Not Supported | Not Supported | Not Supported | Not Supported |
| High Perf. fans | Mandatory | Mandatory | Mandatory | Mandatory |
| NVMe SSDs | Not supported | Not supported | Not supported | Not supported |
| Rear 2SFF | Not supported | Not supported | Not supported | Not supported |
| GPUs | Not supported | Not supported | Not supported | Not supported |
| 4LFF mid-tray | Not supported | Not supported | Not supported | Not supported |

**Notes:** [1]Must install DDR4 DIMM blanks (P07818-B21) on all empty DIMM slots

| 1st Generation Intel® Xeon® Scalable Processor Family | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Intel Xeon Models** | **CPU Frequency** | **Cores** | **L3 Cache (MB)** | **Power** | **UPI** | **DDR4** | **Memory per socket** |
| Gold 6154 Processor | 3.0 GHz | 18 | 24.75 | 200W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Gold 6152 Processor | 2.1 GHz | 22 | 30.25 | 140W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Gold 6150 Processor | 2.7 GHz | 18 | 24.75 | 165W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Gold 6148 Processor | 2.4 GHz | 20 | 27.5 | 150W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Gold 6146 Processor | 3.2 GHz | 12 | 24.75 | 165W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Gold 6144 Processor | 3.5 GHz | 8 | 24.75 | 150W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Gold 6143 Processor | 2.8 GHz | 16 | 22 | 205W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Gold 6142 Processor | 2.6 GHz | 16 | 22 | 150W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Gold 6140 Processor | 2.3 GHz | 18 | 24.75 | 140W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Gold 6138 Processor | 2.0 GHz | 20 | 27.5 | 125W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Gold 6137 Processor | 3.9 GHz | 8 | 24.75 | 205W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Gold 6136 Processor | 3.0 GHz | 12 | 24.75 | 150W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Gold 6134M Processor | 3.2 GHz | 8 | 24.75 | 130W | 3 @ 10.4 GT/s | 2666 MT/s | 1.5TB |
| Gold 6134 Processor | 3.2 GHz | 8 | 24.75 | 130W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Gold 6132 Processor | 2.6 GHz | 14 | 19.25 | 140W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Gold 6130 Processor | 2.1 GHz | 16 | 22 | 125W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Gold 6128 Processor | 3.4 GHz | 6 | 19.25 | 115W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Gold 6126 Processor | 2.6 GHz | 12 | 19.25 | 125W | 3 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Gold 5122 Processor | 3.6 GHz | 4 | 16.5 | 105W | 2 @ 10.4 GT/s | 2666 MT/s | 768GB |
| Gold 5120 Processor | 2.2 GHz | 14 | 19.25 | 105W | 2 @ 10.4 GT/s | 2400 MT/s | 768GB |
| Gold 5118 Processor | 2.3 GHz | 12 | 16.5 | 105W | 2 @ 10.4 GT/s | 2400 MT/s | 768GB |
| Gold 5117 processor | 2.0 GHz | 14 | 19.25 | 105W | 2 @ 10.4 GT/s | 2400 MT/s | 768GB |
| Gold 5115 Processor | 2.4 GHz | 10 | 13.75 | 85W | 2 @ 10.4 GT/s | 2400 MT/s | 768GB |

**Notes:**

- Gold - 6200 & 5200 Series - 6-Channel DDR4 @ 2933 MT/s (6200 & 5222 SKUs only) or 2666 MT/s (all Gold 5200 SKUs except 5222 @ 2933 MT/s); providing up to 1TB memory capacity per socket (up to 2TB/socket on M series and up to 4.5TB/socket on L series); Support for Intel Optane Persistent Memory for HPE (select SKUs), Vector Neural Network Instructions (VNNI) for inference acceleration.

## Standard Features

- Intel Turbo Boost Technology, Intel Hyper-Threading Technology Intel AVX-512 (2x 512-bit FMA for 6200 series and 5222; 1 x 512-bit FMA for 5200 series, except for 5222) 48 lanes PCIe 3.0, advanced RAS
- 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.
- Processors with 130W TDP or higher and the 8256, 8156, 6128, 5222, and 5122 will ship with the High Performance heatsink. All other processors will ship with the Standard heatsink.

| 2nd Generation Intel® Xeon® Scalable Processor Family | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Intel Xeon Models** | **CPU Frequency** | **Cores** | **L3 Cache (MB)** | **Power** | **UPI** | **DDR4** | **Memory per socket** |
| Silver 4216 Processor | 2.1GHz | 16 | 22 | 100W | 2 @ 9.6 GT/s | 2400 MT/s | 1TB |
| Silver 4215R Processor[4] | 3.2GHz | 8 | 11 | 130W | 2 @ 9.6 GT/s | 2400 MT/s | 1TB |
| Silver 4215 Processor[4] | 2.5GHz | 8 | 11 | 85W | 2 @ 9.6 GT/s | 2400 MT/s | 1TB |
| Silver 4214R Processor | 2.4GHz | 12 | 16.5 | 100W | 2 @ 9.6 GT/s | 2400 MT/s | 1TB |
| Silver 4214Y Processor | 2.2/2.3/ 2.4GHz | 12/10/8 | 16.5 | 85W | 2 @ 9.6 GT/s | 2400 MT/s | 1TB |
| Silver 4214 Processor | 2.2GHz | 12 | 16.5 | 85W | 2 @ 9.6 GT/s | 2400 MT/s | 1TB |
| Silver 4210R Processor | 2.4GHz | 10-core | 13.75 | 100W | 2 @ 9.6 GT/s | 2400 MT/s | 1TB |
| Silver 4210 Processor | 2.2GHz | 10 | 13.75 | 85W | 2 @ 9.6 GT/s | 2400 MT/s | 1TB |
| Silver 4208 Processor | 2.1GHz | 8 | 11 | 85W | 2 @ 9.6 GT/s | 2400 MT/s | 1TB |

**Notes:** [4] Silver Processors 4215R and 4215 support Intel Optane Persistent Memory for HPE

| 1st Generation Intel® Xeon® Scalable Processor Family | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Intel Xeon Models** | **CPU Frequency** | **Cores** | **L3 Cache (MB)** | **Power** | **UPI** | **DDR4** | **Memory per socket** |
| 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 |

**Notes:**
- Silver – 4200 Series - 6-Channel DDR4 @ 2400 MT/s, providing up to 1TB memory capacity per socket; Support for: Intel® Vector Neural Network Instructions (VNNI) for inference acceleration; Intel Turbo Boost Technology, Intel Hyper-Threading Technology Intel AVX-512 (1x 512-bit FMA).48 lanes PCIe 3.0, standard RAS
- 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.

| 2nd Generation Intel® Xeon® Scalable Processor Family | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Intel Xeon Models** | **CPU Frequency** | **Cores** | **L3 Cache (MB)** | **Power** | **UPI** | **DDR4** | **Memory per socket** |
| Bronze 3206R Processor | 1.9GHz | 8 | 11 | 85W | 2 @ 9.6 GT/s | 2133MT/s | 1TB |
| Bronze 3204 Processor | 1.9GHz | 6 | 8.25 | 85W | 2 @ 9.6 GT/s | 2133MT/s | 1TB |

**Notes:** Bronze – 3200 Series - 6-Channel DDR4 @ 2133 MT/s, providing up to 1TB memory capacity per socket; Support for: Intel® Vector Neural Network Instructions (VNNI) for inference acceleration; Intel AVX-512 (1x 512-bit FMA); 48 lanes PCIe 3.0, standard RAS

## Standard Features

| 1st Generation Intel® Xeon® Scalable Processor Family | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Intel Xeon Models** | **CPU Frequency** | **Cores** | **L3 Cache (MB)** | **Power** | **UPI** | **DDR4** | **Memory per socket** |
| 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 |

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

### Memory

One of the following depending on model.

| | |
|---|---|
| **Type** | HPE DDR4 Smart Memory,<br>Registered (RDIMM), Load Reduced (LRDIMM) |
| **DIMM Slots Available** | 24<br>12 DIMM slots per processor, 6 channels per processor, 2 DIMMs per channel |
| **Maximum capacity (LRDIMM)** | 3.0 TB<br>24 x 128 GB LRDIMM @ 2933 MT/s |
| **Maximum capacity (RDIMM)** | 1.54 TB<br>24 x 64 GB RDIMM @ 2933 MT/s |
| **Maximum capacity (Intel Optane Persistent Memory for HPE)** | 6.0 TB<br>12 X 512 GB Memory Modules @ 2666 MT/s |
| **Maximum capacity (HPE NVDIMMs)** | 192 GB<br>12 x 16 GB NVDIMM @ 2666 MT/s |

**Notes:**

- Intel Optane Persistent Memory for HPE only supported with select 2nd generation Intel Xeon Scalable Series Processors ONLY (82xx/62xx/52xx/4215R/4215) and can only be mixed with either RDIMMs or LRDIMMs.
- HPE NVDIMMs are only supported on 1st generation Intel Xeon Scalable Series Processors and can only be mixed with RDIMMs.
- Maximum memory per socket is dependent on processor selection. 2nd generation processors supporting 2 TB or 4.5 TB per CPU are indicated by the "M" and "L" in the processor model names (i.e. 8276M and 8276L). 1st generation processors supporting 1.5 TB per CPU are indicated by the "M" in the processor model names (i.e. 8160M)
- 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).
- Mixing of RDIMM and LRDIMM memory is not supported.
- For General Server Memory and HPE NVDIMM Population Rules and Guidelines for Gen10 see details here: **http://www.hpe.com/docs/memory-population-rules**
- For details on the HPE Server Memory speed, visit: **https://www.hpe.com/docs/memory-speed-table**
- To realize the performance memory capabilities listed in this document, HPE DDR4 Smart Memory is required.
- For additional information, please see the **HPE DDR4 Smart Memory QuickSpecs**.

# Standard Features

## Memory Protection

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

## Expansion Slots

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

**Notes:**
- Bus Width Indicates the number of physical electrical lanes running to the connector.
- The specifications above correspond with the default primary riser which also supports dual m.2 cards. Additional Primary Riser options and specifications noted in the “Riser Information” table within this document.

| Secondary Riser | | | | | |
|---|---|---|---|---|---|
| **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 |

**Notes:**
- Bus Width Indicates the number of physical electrical lanes running to the connector.
- The Secondary Riser requires Processor 2 to be populated 870548-B21
- The specifications above correspond with the x8/x16/x8 Secondary Riser Kit (870548-B21). Additional Secondary Riser options and specifications noted in the “Riser Information” table within this document.

| Tertiary Riser | | | | | |
|---|---|---|---|---|---|
| **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 | X8 | X8 | Full-height, full-length slot | Proc 2 |

**Notes:**
- Bus Width Indicates the number of physical electrical lanes running to the connector.
- The Tertiary Riser requires Processor 2 to be populated
- The specifications above correspond with the 2x8 Tertiary Riser Kit (875780-B21). Additional Tertiary Riser options and specifications noted in the “Riser Information” table within this document

## Graphics

### Integrated Video Standard

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

### HPE iLO 5 on system management memory

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

# Standard Features

## Maximum Internal Storage

| Drive | Capacity | Configuration |
|---|---|---|
| Hot Plug SFF SAS HDD | 72.0 TB | 24+6 x 2.4 TB* (with optional rear SFF drive cage) |
| Hot Plug SFF SATA HDD | 60.0 TB | 24+6 x 2 TB (with optional SFF drive cage) |
| Hot Plug LFF SAS HDD | 311.68 TB | 12+4+3 x 16 TB + 2 x 3.84 TB (with optional mid –tray and rear LFF drive cage, plus 2 SFF SSD rear) |
| Hot Plug LFF SATA HDD | 311.68 TB | 12+4+3 x 16 TB + 2 x 3.84 TB (with optional mid –tray and rear LFF drive cage, plus 2 SFF SSD rear) |
| Hot Plug SFF SAS SSD | 459 TB | 24+6 x 15.3 TB (with optional rear SFF drive cage) |
| Hot Plug SFF SATA SSD | 230.4 TB | 24+6 x 7.68 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 LFF drive cage, plus 2 SFF SSD rear) |
| Hot Plug LFF SAS SSD | 44.16 TB | 12+4+3 x 1.92 TB + 2 x 3.84 TB (with optional mid –tray and rear LFF drive cage, plus 2 SFF SSD rear) |
| Hot Plug SFF NVMe PCIe SSD | 307.2 TB | 20 x 15.36 TB NVMe |

**Notes:**
- 2x m.2 drives are supported on the Primary Riser. If RAID 1 is required, then also select HPE FIO Enable Smart Array SW RAID (784308-B21) to enable Software RAID.
- UFF drives are also supported.

## 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

## Power Supply

- HPE 500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit
  **Notes:** Available in 94% efficiency.
- HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit
  **Notes:**
  - Available in 94% and 96% efficiency.
  - Also available in -48VDC and 227VAC/380VDC power inputs.
- HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit
  **Notes:**
  - Available in 94% efficiency.
  - Also available in -48VDC

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

All pre-configured servers ship with a standard 6-foot IEC C-13/C-14 jumper cord (A0K02A). This jumper cord is also included with each standard AC power supply option kit. If a different power cord is required, please check the **ProLiant Power Cables** web page to review the power requirements for your selected system, please use the **HPE Power Advisor Tool**.
For information on power specifications and technical content visit **HPE Server power supplies**.

## Standard Features

**Notes:** Beginning on January 1st, 2024, units sold into the European Union (EU), European Economic Area (EEA), the United Kingdom, or Switzerland must include more efficient AC power supplies: 94% for multi-output and 96% for single-output. HPE Flexible Slot power supplies are single-output, and part numbers 865438-B21, P03178-B21, and P44712-B21 are 96% efficient, thus meeting requirements.

HPE is on target to fulfil compliant systems ahead of time and will begin enforcing these requirements in advance to satisfy requests with the current power supplies by the set deadline.

### 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 **https://www.hpe.com/psnow/doc/a00047736enw**
One of the following depending on model

#### Software RAID

- HPE Smart Array S100i SR Gen10 SW RAID
  **Notes:**
  - 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.
  - HPE Smart Array S100i SR Gen10 SW RAID is off by default and must be enabled.
  - 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. If more than 8 SATA devices are being supported on this controller, then a Qty=1 of the SAS 3POS Cable Kit (826709-B21) is required.
  - The S100i supports Windows only
  - 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

- Broadcom MegaRAID MR416i-a Controller for HPE
- Broadcom MegaRAID MR416i-p Controller for HPE
- Broadcom MegaRAID MR216i-a Controller for HPE
- Broadcom MegaRAID MR216i-p Controller for HPE
- 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
  **Notes:**
  - Performance RAID Controllers require the HPE Smart Hybrid Capacitor (P02377-B21) or the HPE Smart Storage Battery (P01366-B21) which are sold separately.
  - For additional details, please see **https://www.hpe.com/psnow/doc/a00047736enw**
  - Broadcom MegaRAID controllers are not supported with Windows Server 2012 R2 on HPE Gen10 servers

# Standard Features

## Interfaces

| | |
|---|---|
| **Serial** | Optional, rear |
| **Display Port** | 1 (SFF 1 front, optional via Universal Media Bay, 826708-B21), 8 LFF chassis standard |
| **Network Ports** | 4 x 1GbE embedded (if equipped/depending on model)<br>One (1) FlexibleLOM slot available on all chassis types (supporting various NIC adapters) |
| **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<br>**Notes:** The Micro SD slot is not a hot-pluggable device. Customers should not attempt to plug an SD card into the SD slot while the server is powered. |
| **USB 3.0** | Up to 5 total: 1 front, 2 rear, 2 internal (secure), 2 optional USB 2.0 front via Universal Media Bay, or standard on 8LFF chassis |
| **SID (Systems Insight Display)** | Optional<br>**Notes:** Not shipping as standard. Available as a CTO option or as a field upgrade (826703-B21). |

## Operating Systems and Virtualization Software Support for HPE Servers

HPE servers are designed for seamless integration with partner Operating Systems and Virtualization Software. By collaborating closely with our partners, we ensure that their products are optimized, certified, and fully supported within your HPE server environment.

Access the certified and supported servers for each of the OS and Virtualization software: **HPE Servers Support & Certification Matrices**

## HPE Server UEFI/Legacy ROM

Unified Extensible Firmware Interface (UEFI) is an industry standard that provides better manageability and more secured configuration than the legacy ROM while interacting with your server at boot time. HPE ProLiant Gen10 servers have a UEFI Class 2 implementation and support both UEFI Mode (default) and Legacy BIOS Mode.

**Notes:** The UEFI System Utilities tool is analogous to the HPE ROM-Based Setup Utility (RBSU) of legacy BIOS. For more information, please visit **http://www.hpe.com/servers/uefi**.

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

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

### UEFI Boot Mode only:

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

## Standard Features

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

### Industry Standard Compliance

- ACPI 6.1 Compliant
- PCIe 3.0 Compliant
- WOL Support
- Microsoft® Logo certifications
- PXE Support
- VGA/Display Port
  **Notes:** This support is on the optional Universal Media Bay.
- USB 3.0 Compliant (internal)
- USB 2.0 Compliant (external ports via SUV)
  **Notes:** This support is on the optional Universal Media Bay.
- Energy Star
- SMBIOS 3.1
- Redfish API
- IPMI 2.0
- Secure Digital 4.0
- TPM 1.20 and 2.0 Support
- Advanced Encryption Standard (AES)
- Triple Data Encryption Standard (3DES)
- SNMP v3
- TLS 1.2
- DMTF Systems Management Architecture for Server Hardware Command Line Protocol (SMASH CLP)
- Active Directory v1.0
- ASHRAE A3/A4
  **Notes:** For additional technical, thermal details regarding ambient temperature, humidity, and feature support, please visit **http://www.hpe.com/servers/ashrae**
- European Union Erp Lot 9 Regulation
  **Notes:** Beginning on January 1st, 2024, units sold into the European Union (EU), European Economic Area (EEA), the United Kingdom, or Switzerland must include more efficient AC power supplies: 94% for multi-output and 96% for single-output. HPE Flexible Slot power supplies are single-output, and part numbers 865438-B21, P03178-B21, and P44712-B21 are 96% efficient, thus meeting requirements.

  HPE is on target to fulfil compliant systems ahead of time and will begin enforcing these requirements in advance to satisfy requests with the current power supplies by the set deadline.

  Please visit: **https://www.hpe.com/us/en/about/environment/msds-specs-more.html** for more information regarding HPE Lot 9 conformance.
- UEFI (Unified Extensible Firmware Interface Forum) 2.6
  **Notes:** UEFI is the default for the DL380 Gen10. Legacy mode can be selected in the field or as a CTO option (758959-B22); some configuration restrictions apply.

# Standard Features

## Embedded Management

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

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

### Intelligent Provisioning
Hassle free server and OS provisioning for 1 or more servers with Intelligent Provisioning.
Learn more at **http://www.hpe.com/servers/intelligentprovisioning**..

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

## Server Utilities

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

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

### Smart Update
Keep your servers up to date with the HPE Smart Update solution by using Smart Update Manager (SUM) to optimize the firmware and driver updates of the Service Pack for ProLiant (SPP).

### iLO Amplifier Pack
Designed for large enterprise and service provider environments with hundreds of HPE servers, the iLO Amplifier Pack is a free, downloadable open virtual application (OVA) that delivers the power to discover, inventory and update Gen8, Gen9 and Gen10 HPE servers at unmatched speed and scale. Use with an iLO Advanced License to unlock full capabilities.
Learn more at **http://www.hpe.com/servers/iLOamplifierpack**.

## Standard Features

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

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

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

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

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

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

## Standard Features

### Warranty

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

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

# Optional Features

## Server Management

### HPE iLO Advanced

HPE iLO Advanced licenses offer smart remote functionality without compromise, for all HPE ProLiant servers. The license includes the full integrated remote console, virtual keyboard, video, and mouse (KVM), multi-user collaboration, console record and replay, and GUI-based and scripted virtual media and virtual folders. You can also activate the enhanced security and power management functionality.

### HPE GreenLake for Compute Ops Management

HPE is intelligently transforming compute management with an intuitive cloud operating experience through HPE GreenLake cloud platform to streamline and secure operations from edge-to-cloud. Automated key lifecycle tasks, for onboarding, updating, managing, and monitoring HPE servers, brings agility and greater efficiencies to wherever compute devices reside via a unified single browser-based interface. Manage single locations or multiple, distributed sites. Keep tens to thousands of servers secure with batch policy controls and automated updates.

Compute Ops Management is cloud-native software that is continually updated with new services, features, patches, and fixes. The management application resides in the HPE GreenLake cloud platform (access via **https://console.greenlake.hpe.com)** and leverages the HPE GreenLake architecture, security, and unified operations.

For a complete list of software as-a-service subscription SKUs and more information, visit the HPE GreenLake for Compute Ops Management QuickSpecs: **https://www.hpe.com/psnow/doc/a50004263enw**

For information on supported HPE servers, the complete list can be found here: **https://www.hpe.com/info/com-supported-servers**

### HPE OneView Advanced

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

### HPE InfoSight for Servers

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

### HPE Insight Cluster Management Utility (CMU)

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

## Accelerator and GPU 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.

## Optional Features

### One Config Simple (SCE)

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

### Rack and Power Infrastructure

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

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

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

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

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

## Service and Support

### HPE Services

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

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

### Consulting Services

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

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

### HPE Managed Services

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

**HPE Managed Services | HPE**

### Operational services

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

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

### HPE Complete Care Service

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

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

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

### HPE Tech Care Service

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

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

# Service and Support

## HPE Lifecycle Services

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

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

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

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

---

## Other Related Services from HPE Services:

### HPE Education Services

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

### Defective Media Retention

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

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

### Parts and Materials

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

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

### How to Purchase Services

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

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

## Service and Support

### AI Powered and Digitally Enabled Support Experience

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

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

### Consume IT On Your Terms

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

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

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

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

# Pre-configured Models

## Pre-Configured models ship with the configurations below.

- Pre-Configured models ship with the configurations below. Options can be selected from the Core or Additional options section of this QuickSpecs.
- Hewlett Packard Enterprise does not allow factory integration of options into pre-configured models. Any additional options purchased will not be shipped inside the server.
- Network Choice models do not include embedded LOM.

| | | |
|---|---|---|
| **SKU Number** | P02468-B21 | P50751-B21 |
| **Model Name** | HPE ProLiant DL380 Gen10 4214 2.2GHz 12-core 1P 16GB-R P816i-a 12LFF 800W PS Server | HPE ProLiant DL380 Gen10 4210R 2.4GHz 10-core 1P 32GB-R P408i-a 8SFF 800W PS Server |
| **Chassis** | HPE ProLiant DL380 Gen10 12LFF Configure-to-order Server | HPE ProLiant DL380 Gen10 8SFF Configure-to-order Server |
| **Processor** | 4214 (12 core, 2.2 GHz, 85W) | 4210R (10 core, 2.4 GHz, 100W) |
| **Number of Processors** | One | |
| **Memory** | 16 GB (1x16 GB, 2933 MT/s)<br>**Notes:** Runs at 2400 MT/s due to processor limitation. | 32 GB (1x32 GB, 2933 MT/s)<br>**Notes:** Runs at 2400 MT/s due to processor limitation. |
| **Network Controller** | 331i 4x 1GbE | 1x Embedded 4 x 1GbE Network Adapter |
| **Storage Controller** | HPE Smart Array P816i-a SR Gen10 (16 Internal Lanes/4GB Cache/SmartCache) 12G SAS Modular Controller | HPE Smart Array P408i-a SR Gen10 x8 Lanes 2GB Cache SAS 12G Modular Controller |
| **Included Hard Drives** | None ship standard, 12 LFF supported | None ship standard, 8 SFF supported |
| **Internal Storage** | - | 8 SFF (upgradeable to 24 SFF front + 6 SFF rear) |
| **Optical Drive** | Optional | |
| **Expansion Slots** | 3-slots (x8, x16, x8 with dual m.2) as standard; upgradeable to 8-slots in a 2 processor configuration | |
| **Power Supply** | 1x HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit | 1x HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit |
| **Fans** | 6x Performance | 4x Standard |
| **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) | |
| **Security** | TPM (Trusted Platform Module) | |
| **Form Factor** | 2U Rack | |
| **Warranty** | Server warranty includes 3-year parts, 3-year labor, 3-year onsite support with next business day response | |

## Pre-configured Models

| | | | |
|---|---|---|---|
| **SKU Number** | P56959-421 | P56961-421 | P56963-421 |
| **Model Name** | HPE ProLiant DL380 Gen10 4208 2.1GHz 8-core 1P 32GB-R MR416i-a 8SFF BC 800W PS Server | HPE ProLiant DL380 Gen10 4210R 2.4GHz 10-core 1P 32GB-R MR416i-p 8SFF BC 800W PS Server | HPE ProLiant DL380 Gen10 4214R 2.4GHz 12-core 1P 32GB-R MR416i-p 8SFF BC 800W PS Server |
| **Chassis** | HPE ProLiant DL380 Gen10 8SFF BC Configure-to-order System | | |
| **Processor** | 4208 (8 core, 2.1 GHz, 85W) | 4210R (10 core, 2.4 GHz, 100W) | 4214R (12 core, 2.4 GHz, 100W) |
| **Number of Processors** | One | | |
| **Memory** | 32 GB (1x32 GB, 2933 MT/s)<br>**Notes:** Runs at 2400 MT/s due to processor limitation. | | |
| **Network Controller** | 1x Embedded 4 x 1GbE Network Adapter | | |
| **Storage Controller** | HPE MR416i-p Gen10 Plus x16 Lanes 4GB Cache NVMe/SAS 12G Controller | | |
| **Included Hard Drives** | None ship standard, 8 SFF supported | | |
| **Internal Storage** | 8 SFF Chassis (upgradeable to 24 SFF front + 2 SFF rear) | | |
| **Optical Drive** | Optional | | |
| **Expansion Slots** | 3-slots (x8, x16, x8 with dual m.2) as standard; upgradeable to 8-slots in a 2 processor configuration | | |
| **Power Supply** | 1x HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit | | |
| **Fans** | 4x Standard | | |
| **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) | | |
| **Security** | TPM (Trusted Platform Module) | | |
| **Form Factor** | 2U Rack | | |
| **Warranty** | Server warranty includes 3-year parts, 3-year labor, 3-year onsite support with next business day response | | |

## Pre-configured Models

| Network Choice Models | | | |
|---|---|---|---|
| **SKU Number** | P20172-B21<br>P20172-291 | P20182-B21<br>P20182-291 | P20245-B21<br>P20245-291 |
| **Model Name** | HPE ProLiant DL380 Gen10 4208 2.1GHz 8-core 1P 32GB-R P816i-a NC 12LFF 800W RPS Server | HPE ProLiant DL380 Gen10 3204 1P 16G NC 8LFF Server | HPE ProLiant DL380 Gen10 6242 2.8GHz 16-core 1P 32GB-R P408i-a NC 8SFF 800W PS Server |
| **Chassis** | HPE ProLiant DL380 Gen10 12LFF NC Configure-to-order Server | HPE ProLiant DL380 Gen10 8LFF NC Configure-to-order Server | HPE ProLiant DL380 Gen10 8SFF NC Configure-to-order Server |
| **Processor** | 4208 (8 core, 2.1 GHz, 85W) | 3204 (6 core, 1.9 GHz, 85W) | 6242 (16 core, 2.8 GHz, 150W) |
| **Number of Processors** | One | | |
| **Memory** | 32 GB (1x32 GB , 2933 MT/s)<br>**Notes:** Runs at 2400 MT/s due to processor limitation. | 16 GB (1x16 GB , 2933 MT/s)<br>**Notes:** Runs at 2133 MT/s due to processor limitation. | 32 GB (1x32 GB , 2933 MT/s) |
| **Network Controller** | HPE Ethernet 1Gb 4-port FLR-T I350-T4V2 Adapter<br>**Notes:** No embedded networking | HPE Ethernet 1Gb 4-port FLR-T I350-T4V2 Adapter<br>**Notes:** No embedded networking | HPE Ethernet 10/25Gb 2-port 640FLR-SFP28 Adapter<br>**Notes:** No embedded networking |
| **Storage Controller** | HPE Smart Array P816i-a SR Gen10 (16 Internal Lanes/4GB Cache/SmartCache) 12G SAS Modular Controller | | HPE Smart Array P408i-a SR Gen10 x8 Lanes 2GB Cache SAS 12G Modular Controller |
| **Included Hard Drives** | None ship standard, 12 LFF supported | None ship standard, 8 LFF supported | None ship standard, 8 SFF supported |
| **Internal Storage** | 12 LFF chassis, with 2 SFF bays optional (upgradeable to 19 LFF with 4 LFF mid and 3 LFF rear + 2 SFF rear) | 8 LFF chassis, with 2 SFF bays optional (upgradeable to 15 LFF with 4 LFF mid and 3 LFF rear + 2 SFF rear) | 8 SFF (upgradeable to 24 SFF front + 6 SFF rear) |
| **Optical Drive** | Optional | | |
| **Expansion Slots** | 3-slots (x8, x16, x8 with dual m.2) as standard; upgradeable to 8-slots in a 2 processor configuration | | |
| **Power Supply** | 2x HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit | 1x HPE 500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit | 1x HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit |
| **Fans** | 6x Performance | 6x Standard | 4x Standard |
| **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) | | |
| **Security** | TPM (Trusted Platform Module) | | |
| **Form Factor** | 2U Rack | | |
| **Warranty** | Server warranty includes 3-year parts, 3-year labor, 3-year onsite support with next business day response | | |

## Pre-configured Models

| Network Choice Models | | | |
|---|---|---|---|
| **SKU Number** | P20249-B21<br>P20249-291 | P23465-B21<br>P23465-291 | P24840-B21 |
| **Model Name** | HPE ProLiant DL380 Gen10 5218 2.3GHz 16-core 1P 32GB-R P408i-a NC 8SFF 800W PS Server | HPE ProLiant DL380 Gen10 4208 2.1GHz 8-core 1P 32GB-R P408i-a NC 8SFF 500W PS Server | HPE ProLiant DL380 Gen10 4210R 2.4GHz 10-core 1P 32GB-R P408i-a NC 24SFF 800W PS Server |
| **Chassis** | HPE ProLiant DL380 Gen10 8SFF NC Configure-to-order Server | HPE ProLiant DL380 Gen10 8SFF NC Configure-to-order Server | HPE ProLiant DL380 Gen10 24SFF NC Configure-to-order Server |
| **Processor** | 5218 (16 core, 2.3 GHz, 125W) | 4208 (8 core, 2.1 GHz, 85W) | 4210R (10 core, 2.4 GHz, 100W) |
| **Number of Processors** | One | | |
| **Memory** | 32 GB (1x32 GB , 2933 MT/s)<br>**Notes:** Runs at 2667 MT/s due to processor limitation. | 32 GB (1x32 GB , 2933 MT/s)<br>**Notes:** Runs at 2400 MT/s due to processor limitation. | 32 GB (1x32 GB , 2933 MT/s)<br>**Notes:** Runs at 2400 MT/s due to processor limitation. |
| **Network Controller** | HPE Ethernet 1Gb 4-port FLR-T I350-T4V2 Adapter<br>**Notes:** No embedded networking | | |
| **Storage Controller** | HPE Smart Array P408i-a SR Gen10 x8 Lanes 2GB Cache SAS 12G Modular Controller | | |
| **Included Hard Drives** | None ship standard, 8 SFF supported | None ship standard, 8 SFF supported | None ship standard, 24 SFF supported |
| **Internal Storage** | 8 SFF (upgradeable to 24 SFF front + 6 SFF rear) | 8 SFF (upgradeable to 24 SFF front + 6 SFF rear) | 24 SFF (upgradeable + 6 SFF rear) |
| **Optical Drive** | Optional | | |
| **Expansion Slots** | 3-slots (x8, x16, x8 with dual m.2) as standard; upgradeable to 8-slots in a 2 processor configuration | | |
| **Power Supply** | 1x HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit | 1x HPE 500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit | 1x HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit |
| **Fans** | 6x Standard | 4x Standard | 6x Performance |
| **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) | | |
| **Security** | TPM (Trusted Platform Module) | | |
| **Form Factor** | 2U Rack | | |
| **Warranty** | Server warranty includes 3-year parts, 3-year labor, 3-year onsite support with next business day response | | |

## Pre-configured Models

| Network Choice Models | | | |
|---|---|---|---|
| **SKU Number** | P24841-B21<br>P24841-291 | P24842-B21<br>P24842-291 | P24844-B21<br>P24844-291 |
| **Model Name** | HPE ProLiant DL380 Gen10 4210R 2.4GHz 10-core 1P 32GB-R P408i-a NC 8SFF 800W PS Server | HPE ProLiant DL380 Gen10 4214R 2.4GHz 12-core 1P 32GB-R P408i-a NC 8SFF 800W PS Server | HPE ProLiant DL380 Gen10 5218R 2.1GHz 20-core 1P 32GB-R S100i NC 8SFF 800W PS Server |
| **Chassis** | HPE ProLiant DL380 Gen10 8SFF NC Configure-to-order Server | | |
| **Processor** | 4210R (10 core, 2.4 GHz, 100W) | 4214R (12 core, 2.4 GHz, 100W) | 5218R (20 core, 2.1 GHz, 125W) |
| **Number of Processors** | One | | |
| **Memory** | 32 GB (1x32 GB , 2933 MT/s)<br>**Notes:** Runs at 2400 MT/s due to processor limitation. | 32 GB (1x32 GB , 2933 MT/s)<br>**Notes:** Runs at 2400 MT/s due to processor limitation. | 32 GB (1x32 GB , 2933 MT/s)<br>**Notes:** Runs at 2667 MT/s due to processor limitation. |
| **Network Controller** | HPE Ethernet 1Gb 4-port FLR-T I350-T4V2 Adapter<br>**Notes:** No embedded networking | HPE Ethernet 1Gb 4-port FLR-T I350-T4V2 Adapter<br>**Notes:** No embedded networking | HPE Ethernet 10Gb 2-port FLR-SFP+ X710-DA2 Adapter<br>**Notes:** No embedded networking |
| **Storage Controller** | HPE Smart Array P408i-a SR Gen10 x8 Lanes 2GB Cache SAS 12G Modular Controller | HPE Smart Array P408i-a SR Gen10 x8 Lanes 2GB Cache SAS 12G Modular Controller | - |
| **Included Hard Drives** | None ship standard, 8 SFF supported | | |
| **Internal Storage** | 8 SFF (upgradeable to 24 SFF front + 6 SFF rear) | | |
| **Optical Drive** | Optional | | |
| **Expansion Slots** | 3-slots (x8, x16, x8 with dual m.2) as standard; upgradeable to 8-slots in a 2 processor configuration | | |
| **Power Supply** | 1x HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit | | |
| **Fans** | 4x Standard | | |
| **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) | | |
| **Security** | TPM (Trusted Platform Module) | | |
| **Form Factor** | 2U Rack | | |
| **Warranty** | Server warranty includes 3-year parts, 3-year labor, 3-year onsite support with next business day response | | |

## Pre-configured Models

| Network Choice Models | | | |
|---|---|---|---|
| **SKU Number** | P24846-B21<br>P24846-291 | P24849-B21<br>P24849-291 | P40717-B21 |
| **Model Name** | HPE ProLiant DL380 Gen10 6226R 2.9GHz 16-core 1P 32GB-R S100i NC 8SFF 800W PS Server | HPE ProLiant DL380 Gen10 6248R 3.0GHz 24-core 1P 32GB-R S100i NC 8SFF 800W PS Server | HPE ProLiant DL380 Gen10 4215R 3.2GHz 8-core 1P 32GB-R P408i-a NC 8SFF 800W PS Server |
| **Chassis** | HPE ProLiant DL380 Gen10 8SFF NC Configure-to-order Server | | |
| **Processor** | 6226R (16 core, 2.9 GHz, 150W) | 6248R (24 core, 3.0 GHz, 205W) | 4215R (8 core, 3.2 GHz, 130W) |
| **Number of Processors** | One | | |
| **Memory** | 32 GB (1x32 GB , 2933 MT/s) | 32 GB (1x32 GB , 2933 MT/s) | 32 GB (1x32 GB , 2933 MT/s)<br>**Notes:** Runs at 2400 MT/s due to processor limitation. |
| **Network Controller** | HPE Ethernet 10Gb 2-port FLR-SFP+ X710-DA2 Adapter<br>**Notes:** No embedded networking | HPE Ethernet 10Gb 2-port FLR-SFP+ X710-DA2 Adapter<br>**Notes:** No embedded networking | 1x Embedded 4 x 1GbE Network Adapter<br>**Notes:** No embedded networking |
| **Storage Controller** | - | - | HPE Smart Array P408i-a SR Gen10 x8 Lanes 2GB Cache SAS 12G Modular Controller |
| **Included Hard Drives** | None ship standard, 8 SFF supported | | |
| **Internal Storage** | 8 SFF (upgradeable to 24 SFF front + 6 SFF rear) | | |
| **Optical Drive** | Optional | | |
| **Expansion Slots** | 3-slots (x8, x16, x8 with dual m.2) as standard; upgradeable to 8-slots in a 2 processor configuration | | |
| **Power Supply** | 1x HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit | | |
| **Fans** | 4x Standard | | |
| **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) | | |
| **Security** | TPM (Trusted Platform Module) | | |
| **Form Factor** | 2U Rack | | |
| **Warranty** | Server warranty includes 3-year parts, 3-year labor, 3-year onsite support with next business day response | | |

## Pre-configured Models

| Network Choice Models | | | |
|---|---|---|---|
| **SKU Number** | P24845-291 | P24847-291 | P24848-291 |
| **Model Name** | HPE ProLiant DL380 Gen10 5222 3.8GHz 4-core 1P 32GB-R S100i NC 8SFF 800W PS Server | HPE ProLiant DL380 Gen10 6234 3.3GHz 8-core 1P 32GB-R S100i NC 8SFF 800W PS Server | HPE ProLiant DL380 Gen10 4215R 3.2GHz 8-core 1P 32GB-R S100i NC 8SFF 800W PS Server |
| **Chassis** | HPE ProLiant DL380 Gen10 8SFF NC Configure-to-order Server | | |
| **Processor** | 5222 (4 core, 3.8 GHz, 105W) | 6234 (8 core, 3.3 GHz, 130W) | 4215R (8 core, 3.2 GHz, 130W) |
| **Number of Processors** | One | | |
| **Memory** | 32 GB (1x32 GB , 2933 MT/s) | 32 GB (1x32 GB , 2933 MT/s) | 32 GB (1x32 GB , 2933 MT/s)<br>**Notes:** Runs at 2400 MT/s due to processor limitation. |
| **Network Controller** | HPE Ethernet 10Gb 2-port FLR-SFP+ X710-DA2 Adapter<br>**Notes:** No embedded networking | | |
| **Included Hard Drives** | None ship standard, 8 SFF supported | | |
| **Internal Storage** | 8 SFF (upgradeable to 24 SFF front + 6 SFF rear) | | |
| **Optical Drive** | Optional | | |
| **Expansion Slots** | 3-slots (x8, x16, x8 with dual m.2) as standard; upgradeable to 8-slots in a 2 processor configuration | | |
| **Power Supply** | 1x HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit | | |
| **Fans** | 4x Standard | | |
| **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) | | |
| **Security** | TPM (Trusted Platform Module) | | |
| **Form Factor** | 2U Rack | | |
| **Warranty** | Server warranty includes 3-year parts, 3-year labor, 3-year onsite support with next business day response | | |

## Pre-configured Models

| Network Choice Models | | | |
|---|---|---|---|
| **SKU Number** | P56960-421 | P56962-421 | P56964-421 |
| **Model Name** | HPE ProLiant DL380 Gen10 4215R 3.2GHz 8-core 1P 32GB-R MR416i-p NC 8SFF BC 800W PS Server | HPE ProLiant DL380 Gen10 5218 2.3GHz 16-core 1P 32GB-R MR416i-p NC 8SFF BC 800W PS Server | HPE ProLiant DL380 Gen10 5218R 2.1GHz 20-core 1P 32GB-R MR416i-p NC 8SFF BC 800W PS Server |
| **Chassis** | HPE ProLiant DL380 Gen10 8SFF BC NC Configure-to-order System | | |
| **Processor** | 4215R (8 core, 3.2 GHz, 130W) | 5218 (16 core, 2.3 GHz, 125W) | 5218R (20 core, 2.1 GHz, 125W) |
| **Number of Processors** | One | | |
| **Memory** | 32 GB (1x32 GB , 2933 MT/s)<br>**Notes:** Runs at 2400 MT/s due to processor limitation. | 32 GB (1x32 GB , 2933 MT/s)<br>**Notes:** Runs at 2667 MT/s due to processor limitation. | 32 GB (1x32 GB , 2933 MT/s)<br>**Notes:** Runs at 2667 MT/s due to processor limitation. |
| **Network Controller** | HPE Ethernet 10Gb 2-port 535FLR-T Adapter<br>**Notes:** No embedded networking | | |
| **Storage Controller** | HPE MR416i-p Gen10 Plus x16 Lanes 4GB Cache NVMe/SAS 12G Controller | | |
| **Included Hard Drives** | None ship standard, 8 SFF supported | | |
| **Internal Storage** | 8 SFF Chassis (upgradeable to 24 SFF front + 2 SFF rear) | | |
| **Optical Drive** | Optional | | |
| **Expansion Slots** | 3-slots (x8, x16, x8 with dual m.2) as standard; upgradeable to 8-slots in a 2 processor configuration | | |
| **Power Supply** | 1x HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit | | |
| **Fans** | 4x Standard | | |
| **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) | | |
| **Security** | TPM (Trusted Platform Module) | | |
| **Form Factor** | 2U Rack | | |
| **Warranty** | Server warranty includes 3-year parts, 3-year labor, 3-year onsite support with next business day response | | |

## Pre-configured Models

| Network Choice Models | | |
|---|---|---|
| **SKU Number** | P56965-421 | P56966-421 |
| **Model Name** | HPE ProLiant DL380 Gen10 6226R 2.9GHz 16-core 1P 32GB-R MR416i-p NC 8SFF BC 800W PS Server | HPE ProLiant DL380 Gen10 6248R 3.0GHz 24-core 1P 32GB-R MR416i-p NC 8SFF BC 800W PS Server |
| **Chassis** | HPE ProLiant DL380 Gen10 8SFF BC NC Configure-to-order System | |
| **Processor** | 6226R (16 core, 2.9 GHz, 150W) | 6248R (24 core, 3.0 GHz, 205W) |
| **Number of Processors** | One | |
| **Memory** | 32 GB (1x32 GB , 2933 MT/s) | |
| **Network Controller** | HPE Ethernet 10Gb 2-port 535FLR-T Adapter<br>**Notes:** No embedded networking | |
| **Storage Controller** | HPE MR416i-p Gen10 Plus x16 Lanes 4GB Cache NVMe/SAS 12G Controller | |
| **Included Hard Drives** | None ship standard, 8 SFF supported | |
| **Internal Storage** | 8 SFF Chassis (upgradeable to 24 SFF front + 2 SFF rear) | |
| **Optical Drive** | Optional | |
| **Expansion Slots** | 3-slots (x8, x16, x8 with dual m.2) as standard; upgradeable to 8-slots in a 2 processor configuration | |
| **Power Supply** | 1x HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit | |
| **Fans** | 4x Standard | |
| **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) | |
| **Security** | TPM (Trusted Platform Module) | |
| **Form Factor** | 2U Rack | |
| **Warranty** | Server warranty includes 3-year parts, 3-year labor, 3-year onsite support with next business day response | |

## Pre-configured Models

| Network Choice Models | | |
|---|---|---|
| **SKU Number** | P56967-AA1 | P56968-AA1 |
| **Model Name** | HPE ProLiant DL388 Gen10 3206R 1.9GHz 8-core 1P 16GB-R MR416i-p NC 8SFF BC 500W PS Server | HPE ProLiant DL388 Gen10 4210R 2.4GHz 10-core 1P 16GB-R MR416i-p NC 8SFF BC 800W PS Server |
| **Chassis** | HPE ProLiant DL380 Gen10 8SFF BC NC Configure-to-order System | |
| **Processor** | 3206R (8 core, 1.9 GHz, 85W) | 4210R (10 core, 2.4 GHz, 100W) |
| **Number of Processors** | One | |
| **Memory** | 16 GB (1x16 GB , 2933 MT/s)<br>**Notes:** Runs at 2133 MT/s due to processor limitation. | 16 GB (1x16 GB , 2933 MT/s)<br>**Notes:** Runs at 2400 MT/s due to processor limitation. |
| **Network Controller** | HPE Ethernet 1Gb 4-port FLR-T I350-T4V2 Adapter<br>**Notes:** No embedded networking | |
| **Storage Controller** | HPE MR416i-p Gen10 Plus x16 Lanes 4GB Cache NVMe/SAS 12G Controller | |
| **Included Hard Drives** | None ship standard, 8 SFF supported | |
| **Internal Storage** | 8 SFF Chassis (upgradeable to 24 SFF front + 2 SFF rear) | |
| **Optical Drive** | Optional | |
| **Expansion Slots** | 3-slots (x8, x16, x8 with dual m.2) as standard; upgradeable to 8-slots in a 2 processor configuration | |
| **Power Supply** | 1x HPE 500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit | 1x HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit |
| **Fans** | 4x Standard | |
| **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) | |
| **Security** | TPM disabled for shipments to China | |
| **Form Factor** | 2U Rack | |
| **Warranty** | Server warranty includes 3-year parts, 3-year labor, 3-year onsite support with next business day response | |

## Pre-configured Models

### Country Code Key

- -B21 = Worldwide
- -291 = Japan
- -421 = Europe, the Middle East and Africa
- -AA1 = China

### HPE Smart Choice purchase program

The HPE Smart Choice purchase program features popular fully configured products that can be quoted in minutes and shipped quickly through HPE Authorized Partners. Products are configured and tested in an HPE factory and stocked at HPE Authorized Distributors and Partners. The products arrive in a single box, making onsite integration easier and more efficient for partners and customers. Additionally, there are aggressively priced HPE Tech Care Services available only through the HPE Smart Choice program when you purchase an HPE Smart Choice product.
For additional information on the HPE Smart Choice purchase program, please visit:
**https://www.hpe.com/psnow/doc/a50009219enw**.

**Notes:** Network Choice (NC) models do not include an embedded NIC. A pre-selected FlexibleLOM is included in the configuration with additional options available via stand-up card NIC adapters listed in the "HPE Networking" section.
Intel® Xeon® Gold 6250 processor is not supported with NVMe SSDs, nor 2SFF HDD kits (826687-B21; 826688-B21) installed in rear, nor GPUs, nor 4LFF mid-tray. Detailed configuration and facilities requirements can be found under the "Intel Xeon Scalable Series 6250, 6250L, and 6256 Configuration and Facilities Requirements Matrix" with this document.

## Configuration Information

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

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

**Step 1: Base Configuration** (choose one (1) of the following eight (8) configurable server models from the tables below)
The below (4) CTO server models denoted with "NC" in the SKU description, provide flexibility in the networking choice and require a FlexibleLOM Adapter or a validated alternative from the "HPE Networking" section be selected.

| | | | | |
|---|---|---|---|---|
| **Networking Choice CTO Server Models** | HPE ProLiant DL380 Gen10 8LFF NC CTO Server | HPE ProLiant DL380 Gen10 12LFF NC CTO Server | HPE ProLiant DL380 Gen10 8SFF NC CTO Server | HPE ProLiant DL380 Gen10 24SFF NC CTO Server |
| **SKU Number** | P19717-B21 | P19718-B21 | P19720-B21 | P19719-B21 |
| **HPE Trusted Supply Chain** | P36394-B21 Optional | | | |
| **TAA Instruction SKU** | P19713-B21 Optional | | | |
| **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** | Choice of either HPE FlexibleLOM or select stand-up network adapters for primary networking selection plus additional/optional stand-up network adapters<br>**Notes:** No embedded networking | | | |
| **Fans** | 6-Standard | 6-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 |

| | |
|---|---|
| **Networking Choice CTO Server Models** | HPE DL380 Gen10 NC 8SFF BC CTO Svr |
| **SKU Number** | P56969-B21 |
| **HPE Trusted Supply Chain** | P36394-B21 Optional |
| **Processor** | Not included as standard |
| **DIMM Slots** | 24-DIMM slots |
| **Storage Controller** | Embedded SW RAID with 14 SATA ports (12-ports accessible), choice of HPE Tri-Mode controller |
| **PCIe** | Three standard in primary riser (with dual M.2 support) |
| **Drive Cage - included** | 8 SFF |
| **Network Controller** | Choice of either HPE FlexibleLOM or select stand-up network adapters for primary networking selection plus additional/optional stand-up network adapters<br>**Notes:** No embedded networking |
| **Fans** | 4-Standard |
| **Management** | HPE iLO with Intelligent Provisioning (standard), iLO Advances and OneView (optional) |
| **USB** | 1x 3.0 standard plus iLO front service port |

## Configuration Information

**Notes:**

- Network Choice (NC) server models require a networking selection of a FlexibleLOM from the options listed in the "FlexibleLOM Adapter" section or select network adapters in the "HPE Networking" section.
- HPE Trusted Supply Chain (P36394-B21) is an optional security upgrade intended for agencies and regulated industries needing enhanced security and compliance needs. Applying this option to a DL380 Gen10 CTO server ensures it is built in the USA in a secured facility by vetted HPE personnel assigned to the manufacturing processes. A multitude of checkpoints/inspections for malicious microcode and counterfeit parts are performed throughout the server build, and additional safeguards are put in place against cyber-exploits throughout the server lifecycle. The HPE ProLiant DL380 Gen10 server is re-branded as a HPE ProLiant DL380T Gen10 to denote the HPE Trusted Supply Chain security enhancements. The DL380T Gen10 is currently supported in the USA, exclusively, and is Trade Agreement Act (TAA) compliant. See "HPE Security" section within this document for more detail and learn more at **http://www.hpe.com/security**
- HPE offers multiple Trade Agreement Act (TAA) compliant configurations to meet the needs of US Federal Government customers. These products are either manufactured or substantially transformed in a designated country. TAA compliance is only provided when HPE options are included as part of factory integrated orders (CTO).
- To select a TAA model from the above, first select a Networking Choice CTO server model, then add the TAA Instruction SKU (P19713-B21).
- The HPE ProLiant DL380 Gen10 12 LFF CTO Server ships with the cable required for the P816i-a installation.
- All CTO servers are Energy Star 3.0 compliant.

The below (4) CTO server models come standard with an embedded HPE 1Gb Ethernet 4-port 331i adapter.

| **Embedded LOM CTO Server Models** | HPE ProLiant DL380 Gen10 8LFF CTO Server | HPE ProLiant DL380 Gen10 12LFF CTO Server | HPE ProLiant DL380 Gen10 8SFF CTO Server | HPE ProLiant DL380 Gen10 24SFF CTO Server |
|---|---|---|---|---|
| **SKU Number** | 868706-B21 | 868705-B21 | 868703-B21 | 868704-B21 |
| **HPE Trusted Supply Chain** | P36394-B21 Optional | | | |
| **TAA Instruction SKU** | P19713-B21 Optional | | | |
| **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-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 |

## Configuration Information

| | |
|---|---|
| **Embedded LOM CTO Server Models** | HPE DL380 Gen10 8SFF BC CTO Svr |
| **SKU Number** | P56970-B21 |
| **HPE Trusted Supply Chain** | P36394-B21 Optional |
| **Processor** | Not included as standard |
| **DIMM Slots** | 24-DIMM slots |
| **Storage Controller** | Embedded SW RAID with 14 SATA ports (12-ports accessible), choice of HPE Tri-Mode storage controller for SAS/SATA only. |
| **PCIe** | Three standard in primary riser (with dual M.2 support) |
| **Drive Cage - included** | 8 SFF |
| **Network Controller** | HPE 1Gb Ethernet 4-Port 331i Adapter plus optional HPE FlexibleLOM or stand up card |
| **Fans** | 4-Standard |
| **Management** | HPE iLO with Intelligent Provisioning (standard), iLO Advances and OneView (optional) |
| **USB** | 1x 3.0 standard plus iLO front service port |

**Notes:**

- HPE Trusted Supply Chain (P36394-B21) is an optional security upgrade intended for agencies and regulated industries needing enhanced security and compliance needs. Applying this option to a DL380 Gen10 CTO server ensures it is built in the USA in a secured facility by vetted HPE personnel assigned to the manufacturing processes. A multitude of checkpoints/inspections for malicious microcode and counterfeit parts are performed throughout the server build with additional safeguards in place against cyber-exploits throughout the server lifecycle. The HPE ProLiant DL380 Gen10 server is re-branded as a HPE ProLiant DL380T Gen10 Server to denote the HPE Trusted Supply Chain security enhancements. The DL380T Gen10 is currently supported in the USA, exclusively, and is Trade Agreement Act (TAA) compliant. See “HPE Security” section within this document for more detail and learn more at **http://www.hpe.com/security**
- HPE offers multiple Trade Agreement Act (TAA) compliant configurations to meet the needs of US Federal Government customers. These products are either manufactured or substantially transformed in a designated country. TAA compliance is only provided when HPE options are included as part of factory integrated orders (CTO).
- To select a TAA model from the above, first select an Embedded LOM CTO server model, then add the TAA Instruction SKU (P19713-B21)
- The HPE ProLiant DL380 Gen10 12 LFF CTO Server ships with the cable required for the P816i-a installation.
- All CTO servers are Energy Star 3.0 compliant.

| 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 |
| **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 |

**Notes:**

- This applies to CTO configurations; field upgrades may differ depending on field configuration.
- 3x 8 NVMe option on SFF will only allow for partial population of Box1 to max 20 NVMe.

## Configuration Information

### Step 2: Choose Required Options (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.

**Notes:**

- 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.
- 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.
- Mixing of 2 different processor models are NOT allowed.
- DDR4 speed is the maximum memory speed of the processor. Actual memory speed may depend on the quantity and type of DIMMs installed.
- Processors with 130W or higher will ship with the High Performance heat sink plus SKUs 8156, 6128, 5122 as noted below. All other processors will ship with the Standard heat sink.

### Step 2a: Choose Processors

**Processor Option Kits** (Required Processor)

**2nd Generation Intel Xeon-Platinum**

**Notes:**

- Field upgrades from 1st generation processors (x1xx) to 2nd generation processors (x2xx) not supported.
- All the below models ship with Performance Heatsink.

| | |
|---|---|
| Intel Xeon-Platinum 8276 (2.2GHz/28-core/165W) FIO Processor Kit for HPE ProLiant DL380 Gen10 | P02526-L21 |
| Intel Xeon-Platinum 8268 (2.9GHz/24-core/205W) FIO Processor Kit for HPE ProLiant DL380 Gen10 | P02524-L21 |
| Intel Xeon-Platinum 8260 (2.4GHz/24-core/165W) FIO Processor Kit for HPE ProLiant DL380 Gen10 | P02521-L21 |

**Notes:** Do not ship with Performance Heatsink.

**2nd Generation Intel Xeon-Gold**

**Notes:**

- Field upgrades from 1st generation processors (x1xx) to 2nd generation processors (x2xx) not supported.
- All the below models ship with Performance Heatsink.

| | |
|---|---|
| Intel Xeon-Gold 6258R (2.7GHz/28-core/205W) FIO Processor Kit for HPE ProLiant DL380 Gen10 | P24474-L21 |
| Intel Xeon-Gold 6256 (3.6GHz/12-core/205W) FIO Processor Kit for HPE ProLiant DL380 Gen10 | P24476-L21 |

**Notes:**

- Requires high performance fan kit (867810-B21), unless 24SFF or 12LFF server models are selected, which provide high performance fans as the default.
- Not supported with NVMe SSDs, nor 2SFF HDD kits (826687-B21; 826688-B21) installed in rear, nor GPUs, nor 4LFF mid-tray. Detailed configuration and facilities requirements can be found under "Intel Xeon Scalable Series 6250, 6250L, and 6256 Configuration and Facilities Requirements Matrix" with this document.

| | |
|---|---|
| Intel Xeon-Gold 6252 (2.1GHz/24-core/150W) FIO Processor Kit for HPE ProLiant DL380 Gen10 | P02516-L21 |

**Notes:**

- Requires high performance fan kit (867810-B21), unless 24SFF or 12LFF server models are selected, which provide high performance fans as the default.
- Not supported with NVMe SSDs, nor 2SFF HDD kits (826687-B21; 826688-B21) installed in rear, nor GPUs, nor 4LFF mid-tray. Detailed configuration and facilities requirements can be found under "Intel Xeon Scalable Series 6250, 6250L, and 6256 Configuration and Facilities Requirements Matrix" with this document.

## Configuration Information

| | |
|---|---|
| Intel Xeon-Gold 6250 (3.9GHz/8-core/185W) FIO Processor Kit for HPE ProLiant DL380 Gen10 | P24475-L21 |

**Notes:**
- Requires high performance fan kit (867810-B21), unless 24SFF or 12LFF server models are selected, which provide high performance fans as the default.
- Not supported with NVMe SSDs, nor 2SFF HDD kits (826687-B21; 826688-B21) installed in rear, nor GPUs, nor 4LFF mid-tray. Detailed configuration and facilities requirements can be found under "Intel Xeon Scalable Series 6250, 6250L, and 6256 Configuration and Facilities Requirements Matrix" with this document.

| | |
|---|---|
| Intel Xeon-Gold 6248R (3.0GHz/24-core/205W) FIO Processor Kit for HPE ProLiant DL380 Gen10 | P24473-L21 |
| Intel Xeon-Gold 6248 (2.5GHz/20-core/150W) FIO Processor Kit for HPE ProLiant DL380 Gen10 | P02514-L21 |
| Intel Xeon-Gold 6246R (3.4GHz/16-core/205W) FIO Processor Kit for HPE ProLiant DL380 Gen10 | P24472-L21 |
| Intel Xeon-Gold 6246 (3.3GHz/12-core/165W) FIO Processor Kit for HPE ProLiant DL380 Gen10 | P15758-L21 |
| Intel Xeon-Gold 6244 (3.6GHz/8-core/150W) FIO Processor Kit for HPE ProLiant DL380 Gen10 | P02512-L21 |
| Intel Xeon-Gold 6242R (3.1GHz/20-core/205W) FIO Processor Kit for HPE ProLiant DL380 Gen10 | P24471-L21 |
| Intel Xeon-Gold 6240R (2.4GHz/24-core/165W) FIO Processor Kit for HPE ProLiant DL380 Gen10 | P24470-L21 |
| Intel Xeon-Gold 6240 (2.6GHz/18-core/150W) FIO Processor Kit for HPE ProLiant DL380 Gen10 | P02509-L21 |
| Intel Xeon-Gold 6238R (2.2GHz/28-core/165W) FIO Processor Kit for HPE ProLiant DL380 Gen10 | P24469-L21 |
| Intel Xeon-Gold 6234 (3.3GHz/8-core/130W) FIO Processor Kit for HPE ProLiant DL380 Gen10 | P02503-L21 |
| Intel Xeon-Gold 6230R (2.1GHz/26-core/150W) FIO Processor Kit for HPE ProLiant DL380 Gen10 | P24468-L21 |
| Intel Xeon-Gold 6230 (2.1GHz/20-core/125W) FIO Processor Kit for HPE ProLiant DL380 Gen10 | P02502-L21 |

**Notes:** Do not ship with Performance Heatsink.

| | |
|---|---|
| Intel Xeon-Gold 6230N (2.3GHz/20-core/125W) FIO Processor Kit for HPE ProLiant DL380 Gen10 | P11830-L21 |
| Intel Xeon-Gold 6226R (2.9GHz/16-core/150W) FIO Processor Kit for HPE ProLiant DL380 Gen10 | P24467-L21 |
| Intel Xeon-Gold 6226 (2.7GHz/12-core/125W) FIO Processor Kit for HPE ProLiant DL380 Gen10 | P02501-L21 |

**Notes:** Do not ship with Performance Heatsink.

| | |
|---|---|
| Intel Xeon-Gold 5222 (3.8GHz/4-core/105W) FIO Processor Kit for HPE ProLiant DL380 Gen10 | P02500-L21 |
| Intel Xeon-Gold 5218R (2.1GHz/20-core/125W) FIO Processor Kit for HPE ProLiant DL380 Gen10 | P24466-L21 |

**Notes:** Do not ship with Performance Heatsink.

| | |
|---|---|
| Intel Xeon-Gold 5218 (2.3GHz/16-core/125W) FIO Processor Kit for HPE ProLiant DL380 Gen10 | P02498-L21 |

**Notes:** Do not ship with Performance Heatsink.

| | |
|---|---|
| Intel Xeon-Gold 5217 (3.0GHz/8-core/115W) FIO Processor Kit for HPE ProLiant DL380 Gen10 | P02497-L21 |

**Notes:** Do not ship with Performance Heatsink.

| | |
|---|---|
| Intel Xeon-Gold 5215 (2.5GHz/10-core/85W) FIO Processor Kit for HPE ProLiant DL380 Gen10 | P02496-L21 |

**Notes:** Do not ship with Performance Heatsink.

**2nd Generation Intel Xeon-Silver**

**Notes:**
- Field upgrades from 1st generation processors (x1xx) to 2nd generation processors (x2xx) not supported.
- All the below models do not ship with Performance Heatsink unless otherwise noted

| | |
|---|---|
| Intel Xeon-Silver 4216 (2.1GHz/16-core/100W) FIO Processor Kit for HPE ProLiant DL380 Gen10 | P02495-L21 |
| Intel Xeon-Silver 4215R (3.2GHz/8-core/130W) FIO Processor Kit for HPE ProLiant DL380 Gen10 | P24465-L21 |

**Notes:** Ships with Performance Heatsink.

| | |
|---|---|
| Intel Xeon-Silver 4214R (2.4GHz/12-core/100W) FIO Processor Kit for HPE ProLiant DL380 Gen10 | P23550-L21 |
| Intel Xeon-Silver 4214 (2.2GHz/12-core/85W) FIO Processor Kit for HPE ProLiant DL380 Gen10 | P02493-L21 |
| Intel Xeon-Silver 4210R (2.4GHz/10-core/100W) FIO Processor Kit for HPE ProLiant DL380 Gen10 | P23549-L21 |
| Intel Xeon-Silver 4210 (2.2GHz/10-core/85W) FIO Processor Kit for HPE ProLiant DL380 Gen10 | P02492-L21 |



## Configuration Information

| | |
|---|---|
| Intel Xeon-Silver 4208 (2.1GHz/8-core/85W) FIO Processor Kit for HPE ProLiant DL380 Gen10 | P02491-L21 |

**2nd Generation Intel Xeon-Bronze**

**Notes:**
- Field upgrades from 1st generation processors (x1xx) to 2nd generation processors (x2xx) not supported.
- All the below models do not ship with Performance Heatsink.

| | |
|---|---|
| Intel Xeon-Bronze 3206R (1.9GHz/8-core/85W) FIO Processor Kit for HPE ProLiant DL380 Gen10 | P23547-L21 |

### Step 2b: Choose Memory Options

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**

**Notes:**
- The maximum memory speed and capacity is a function of the memory type, memory configuration, and processor model.
- DDR4-2933 Memory Kits are only supported with 2nd Generation Intel Xeon Scalable Series Processors and DDR4-2666 Memory Kits are only supported with 1st Generation Intel Xeon Scalable Series Processors.
- For configurations with 2 CPUs, DIMMs need to be selected in even quantities. Using odd quantity of DIMMs in 2 CPU configurations will cause memory to be unbalanced and may negatively impact system performance.

**Registered DIMMs (RDIMMs)**

| | |
|---|---|
| HPE 8GB (1x8GB) Single Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit | P00918-B21 |
| HPE 16GB (1x16GB) Single Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit | P00920-B21 |
| HPE 16GB (1x16GB) Dual Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit | P00922-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 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit | P00924-B21 |
| HPE 32GB (1x32GB) Dual Rank x4 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit | 815100-B21 |
| HPE 64GB (1x64GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit | P00930-B21 |

**Load Reduced DIMMs (LRDIMMs)**

| | |
|---|---|
| HPE 128GB (1x128GB) Quad Rank x4 DDR4-2933 CAS-21-21-21 Load Reduced Smart Memory Kit | P11040-B21 |

**HPE Persistent Memory (Intel Optane)**

| | |
|---|---|
| Intel Optane 128GB persistent memory 100 Series for HPE | 835804-B21 |

**Notes:**
- A maximum of 12 Intel Optane Persistent Memory for HPE supported with select 2nd Generation Intel Xeon Scalable Series Processors ONLY (82xx/62xx/52xx/4215R/4215) and can only be mixed with either RDIMMs or LRDIMMs.
- For configurations exceeding 1TB/socket, the “M” series (2TB/socket) or “L” series processors (4.5TB/socket) are required.
- When mixing Intel Optane persistent memory with RDIMM, all RDIMM must be of same capacity and type.
- For information regarding Intel Optane Persistent Memory for HPE visit: **http://www.hpe.com/info/persistentmemory**

### Step 2c: Choose Power Supplies

Select one or two power supplies from below.

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

**HPE Flex Slot Power Supplies**

| | |
|---|---|
| HPE 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 |

## Configuration Information

| | |
|---|---|
| HPE 800W Flex Slot Hot Plug Universal Low Halogen High Voltage AC/DC Power Supply Kit | 865428-B21 |
| HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit | 830272-B21 |

**Notes:**
Beginning on January 1st, 2024, units sold into the European Union (EU), European Economic Area (EEA), the United Kingdom, or Switzerland must include more efficient AC power supplies: 94% for multi-output and 96% for single-output. HPE Flexible Slot power supplies are single-output, and part numbers 865438-B21, P03178-B21, and P44712-B21 are 96% efficient, thus meeting requirements.

HPE is on target to fulfil compliant systems ahead of time and will begin enforcing these requirements in advance to satisfy requests with the current power supplies by the set deadline.

### Step 3: Choose Additional Factory Integratable Options

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

#### HPE Security Options

| | |
|---|---|
| HPE iLO Common Password FIO Setting | P08040-B21 |

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

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

**Notes:**
- 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.
- HPE server systems can have a TPM module (of any type) installed only once. It cannot be replaced with any other TPM module.

| | |
|---|---|
| HPE Gen10 TPM 1.2 FIO Setting | 872108-B21 |

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

| | |
|---|---|
| HPE Server Platform LDevID FIO Setting | P49803-B21 |
| HPE Server Identity LDevID FIO Setting | P49814-B21 |

HPE Server Security Optimized Service for HPE ProLiant (R9S59A) is an optional security upgrade intended for agencies and regulated industries with enhanced security and compliance needs. Applying this option to a DL3XX Gen10/Gen10 Plus CTO server ensures it is hardened by turning on advanced safeguards in place against cyber-exploits throughout the server lifecycle. An iLO Advanced License required for High Security Mode and compatible intrusion detection device option kits are prerequisites for the full optimization service.

#### Factory Instructions and Server Settings

| | |
|---|---|
| HPE DL38X Gen10 4 NVMe Box 1 FIO Option | 878186-B21 |
| HPE DL38X Gen10 2 NVMe FIO Option | 878189-B21 |

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

| | |
|---|---|
| HPE DL380X/Apollo 6500 Gen10 6+2 NVMe FIO Option | 878192-B21 |

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

| | |
|---|---|
| HPE DL38X Gen10 8 SFF Front Cage Removal FIO Option | 873763-B21 |

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

## Configuration Information

| | |
|---|---|
| HPE DL38X Gen10 Primary Riser Removal FIO Option | 873766-B21 |

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

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

**Notes:** 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 |

**Notes:** 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

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

### vSAN ReadyNode

- 3, 6, 8 or 16 node vSAN Clusters (3 node minimum)
- HW is optimized for vSAN
- VMware vSAN Advanced LTU bundled

**Notes:** Software Requirements: VMware vSphere 6.7 Update 1, VMware vSphere with Operations Management™ 6.1 (any edition), VMware vCloud Suite 6.0 (any edition updated with 6.5) or VMware vCenter Server 6.7 Update 1.

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

## Core Options

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

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

HPE DL38X NVMe 8 Solid State Drive Express Bay Enablement Kit 826689-B21

**Notes:**
- 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.
- The HPE DL380 Gen10 High Performance fan kit is required for NVMe support (867810-B21).
- The HPE DL38X Gen10 4-port 8 NVMe SlimSAS Riser (867807-B21) is required to support this.
- There are limitations on GPU support with the NVMe bay installed.
- If configuration is 2x CPU + HPE DL38X NVMe 8 Solid State Drive Express Bay Enablement Kit. Then can only select 4 Port Slimline Secondary riser (873732-B21). Box3: SAS/SATA. Box2: NVMe.

HPE DL38X Gen10 Universal Media Bay Kit 826708-B21

**Notes:**
- 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.
- This is a SFF model option only.

HPE DL38X Gen10 SFF Box1/2 Cage/Backplane Kit 826691-B21

**Notes:** Supports 8 SAS/SATA SFF drives in Box 1 or 2 to a max of 24 SFF SAS/SATA front.

HPE ProLiant DL380 Gen10 2SFF Premium HDD SAS/SATA BC Front/Rear Backplane Kit P57773-B21

**Notes:**
- Max = 2
- Supported only with the 8SFF Basic Carriers Model-X
- Requires selection of a tri-mode controller
- Requires selection of 2SFF Stacked Tri Mode Cable Kit (P55469-B21).

HPE ProLiant DL380 Gen10 8SFF SAS/SATA BC Box 1-2 Backplane Kit P57774-B21

**Notes:**
- Max = 2
- Supported only with the 8SFF Basic Carriers Model-X
- Requires selection of a tri-mode controller
- If Qty 2 of this 8SFF cage is selected then High Performance Fan Kit (867810-B21) must be selected.
- Requires selection of HPE ProLiant DL38x 8SFF SAS/SATA Tri-Mode Cable Kit (P55467-B21).

HPE DL38X Gen10 Premium 6 SFF SAS/SATA + 2 NVMe or 8 SFF SAS/SATA Bay Kit 826690-B21

**Notes:**
- This kit can be supported in Box 1, 2 or 3 and provides support for up to 6 SAS/SATA + 2 NVMe or 8 SFF SAS/SATA drives per Box. If only populating SFF SAS/SATA, the HPE DL38X Gen10 SFF Box1/2 Cage/Backplane Kit (826691-B21) is the more appropriate option.
- With NVMe drives a specific riser is required.
- 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

**Notes:**
- Required for GPU installations.
- Processor kits above 130W include a High Performance Heatsink, along with the 8156, 6128 and 5122.
- This kit contains 2 High Performance Heatsinks.

HPE DL38X Gen10 High Performance Temperature Fan Kit 867810-B21

**Notes:**
- This kit is required for specific **Ambient temperature environments**
- This kit is also required to support GPUs configurations.
- This is required for NVMe configurations.

## Core Options

- This kit provides maximum cooling for your Server.
- This kit is required when Box 1, 2 and 3 are populated.

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

**Notes:**
- 2 SFF in the rear is only supported with a 24 SFF model or 12 LFF model.
- In the rear this leaves 1x16 slot accessible.
- Rear drives require the addition of the High Performance Fan kit (867810-B21).
- Supports UFF SCM drives.

HPE DL38X Gen10 2SFF Premium HDD Front NVMe or Front/Rear SAS/SATA Kit 826687-B21

**Notes:**
- HPE DL38X Gen10 Universal Media Bay Kit (826708-B21).
- NVMe drives require the addition of the High Performance Fan kit (867810-B21).
- NVMe drives require the addition of an NVMe capable riser.
- Drive cage can be used in the rear of the chassis, but will not support NVMe drives rear.
- Supports UFF SCM drives.

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

**Notes:**
- Supports 2 NVMe in the Universal Media bay (included) on the 8 LFF model.
- 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).
- 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

**Notes:** SAS expander to enable 24 SFF field upgrade.

HPE DL380 Gen10 SFF Systems Insight Display Kit 826703-B21

**Notes:**
- Systems Insight Display does not ship standard but is available as a Factory Integrated or field upgrade option.
- Primary population in slot 3 of the primary riser.

HPE DL3XX Gen10 Rear Serial Cable and Enablement Kit 873770-B21

HPE DL38X Gen10 8LFF Front 2SFF SAS/SATA HDD Kit 867805-B21

**Notes:** 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

#### 2nd Generation Intel Xeon-Platinum

**Notes:**
- Field upgrades from 1st generation processors (x1xx) to 2nd generation processors (x2xx) not supported.
- All the below models ship with Performance Heatsink unless otherwise noted.

Intel Xeon-Platinum 8276 (2.2GHz/28-core/165W) Processor Kit for HPE ProLiant DL380 Gen10 P02526-B21

Intel Xeon-Platinum 8268 (2.9GHz/24-core/205W) Processor Kit for HPE ProLiant DL380 Gen10 P02524-B21

Intel Xeon-Platinum 8260 (2.4GHz/24-core/165W) Processor Kit for HPE ProLiant DL380 Gen10 P02521-B21

**Notes:** Do not ship with Performance Heatsink.

## Core Options

### 2nd Generation Intel Xeon-Gold

**Notes:**
- Field upgrades from 1st generation processors (x1xx) to 2nd generation processors (x2xx) not supported.
- All the below models ship with Performance Heatsink unless otherwise noted.

Intel Xeon-Gold 6258R (2.7GHz/28-core/205W) Processor Kit for HPE ProLiant DL380 Gen10 P24474-B21

Intel Xeon-Gold 6256 (3.6GHz/12-core/205W) Processor Kit for HPE ProLiant DL380 Gen10 P24476-B21

**Notes:**
- Requires high performance fan kit (867810-B21), unless 24SFF or 12LFF server models are selected, which provide high performance fans as the default.
- Not supported with NVMe SSDs, nor 2SFF HDD kits (826687-B21; 826688-B21) installed in rear, nor GPUs, nor 4LFF mid-tray. Detailed configuration and facilities requirements can be found under “Intel Xeon Scalable Series 6250, 6250L, and 6256 Configuration and Facilities Requirements Matrix” with this document.

Intel Xeon-Gold 6252 (2.1GHz/24-core/150W) Processor Kit for HPE ProLiant DL380 Gen10 P02516-B21

**Notes:**
- Requires high performance fan kit (867810-B21), unless 24SFF or 12LFF server models are selected, which provide high performance fans as the default.
- Not supported with NVMe SSDs, nor 2SFF HDD kits (826687-B21; 826688-B21) installed in rear, nor GPUs, nor 4LFF mid-tray. Detailed configuration and facilities requirements can be found under “Intel Xeon Scalable Series 6250, 6250L, and 6256 Configuration and Facilities Requirements Matrix” with this document.

Intel Xeon-Gold 6250 (3.9GHz/8-core/185W) Processor Kit for HPE ProLiant DL380 Gen10 P24475-B21

**Notes:**
- Requires high performance fan kit (867810-B21), unless 24SFF or 12LFF server models are selected, which provide high performance fans as the default.
- Not supported with NVMe SSDs, nor 2SFF HDD kits (826687-B21; 826688-B21) installed in rear, nor GPUs, nor 4LFF mid-tray. Detailed configuration and facilities requirements can be found under “Intel Xeon Scalable Series 6250, 6250L, and 6256 Configuration and Facilities Requirements Matrix” with this document.

Intel Xeon-Gold 6248R (3.0GHz/24-core/205W) Processor Kit for HPE ProLiant DL380 Gen10 P24473-B21

Intel Xeon-Gold 6248 (2.5GHz/20-core/150W) Processor Kit for HPE ProLiant DL380 Gen10 P02514-B21

Intel Xeon-Gold 6246R (3.4GHz/16-core/205W) Processor Kit for HPE ProLiant DL380 Gen10 P24472-B21

Intel Xeon-Gold 6246 (3.3GHz/12-core/165W) Processor Kit for HPE ProLiant DL380 Gen10 P15758-B21

Intel Xeon-Gold 6244 (3.6GHz/8-core/150W) Processor Kit for HPE ProLiant DL380 Gen10 P02512-B21

Intel Xeon-Gold 6242R (3.1GHz/20-core/205W) Processor Kit for HPE ProLiant DL380 Gen10 P24471-B21

Intel Xeon-Gold 6242 (2.8GHz/16-core/150W) Processor Kit for HPE ProLiant DL380 Gen10 P02510-B21

Intel Xeon-Gold 6240R (2.4GHz/24-core/165W) Processor Kit for HPE ProLiant DL380 Gen10 P24470-B21

Intel Xeon-Gold 6240 (2.6GHz/18-core/150W) Processor Kit for HPE ProLiant DL380 Gen10 P02509-B21

Intel Xeon-Gold 6238R (2.2GHz/28-core/165W) Processor Kit for HPE ProLiant DL380 Gen10 P24469-B21

Intel Xeon-Gold 6234 (3.3GHz/8-core/130W) Processor Kit for HPE ProLiant DL380 Gen10 P02503-B21

Intel Xeon-Gold 6230R (2.1GHz/26-core/150W) Processor Kit for HPE ProLiant DL380 Gen10 P24468-B21

Intel Xeon-Gold 6230 (2.1GHz/20-core/125W) Processor Kit for HPE ProLiant DL380 Gen10 P02502-B21

**Notes:** Do not ship with Performance Heatsink.

Intel Xeon-Gold 6230N (2.3GHz/20-core/125W) Processor Kit for HPE ProLiant DL380 Gen10 P11830-B21

Intel Xeon-Gold 6226R (2.9GHz/16-core/150W) Processor Kit for HPE ProLiant DL380 Gen10 P24467-B21

Intel Xeon-Gold 6226 (2.7GHz/12-core/125W) Processor Kit for HPE ProLiant DL380 Gen10 P02501-B21

**Notes:** Do not ship with Performance Heatsink.

Intel Xeon-Gold 5222 (3.8GHz/4-core/105W) Processor Kit for HPE ProLiant DL380 Gen10 P02500-B21

Intel Xeon-Gold 5218R (2.1GHz/20-core/125W) Processor Kit for HPE ProLiant DL380 Gen10 P24466-B21

**Notes:** Do not ship with Performance Heatsink.

## Core Options

| | |
|---|---|
| Intel Xeon-Gold 5218 (2.3GHz/16-core/125W) Processor Kit for HPE ProLiant DL380 Gen10 | P02498-B21 |

**Notes:** Do not ship with Performance Heatsink.

| | |
|---|---|
| Intel Xeon-Gold 5217 (3.0GHz/8-core/115W) Processor Kit for HPE ProLiant DL380 Gen10 | P02497-B21 |

**Notes:** Do not ship with Performance Heatsink.

| | |
|---|---|
| Intel Xeon-Gold 5215 (2.5GHz/10-core/85W) Processor Kit for HPE ProLiant DL380 Gen10 | P02496-B21 |

**Notes:** Do not ship with Performance Heatsink.

**2nd Generation Intel Xeon-Silver**

**Notes:**

- Field upgrades from 1st generation processors (x1xx) to 2nd generation processors (x2xx) not supported.
- All the below models do not ship with Performance Heatsink unless otherwise noted

| | |
|---|---|
| Intel Xeon-Silver 4216 (2.1GHz/16-core/100W) Processor Kit for HPE ProLiant DL380 Gen10 | P02495-B21 |
| Intel Xeon-Silver 4215R (3.2GHz/8-core/130W) Processor Kit for HPE ProLiant DL380 Gen10 | P24465-B21 |

**Notes:** Ships with Performance Heatsink.

| | |
|---|---|
| Intel Xeon-Silver 4214R (2.4GHz/12-core/100W) Processor Kit for HPE ProLiant DL380 Gen10 | P23550-B21 |
| Intel Xeon-Silver 4214 (2.2GHz/12-core/85W) Processor Kit for HPE ProLiant DL380 Gen10 | P02493-B21 |
| Intel Xeon-Silver 4210R (2.4GHz/10-core/100W) Processor Kit for HPE ProLiant DL380 Gen10 | P23549-B21 |
| Intel Xeon-Silver 4210 (2.2GHz/10-core/85W) Processor Kit for HPE ProLiant DL380 Gen10 | P02492-B21 |
| Intel Xeon-Silver 4208 (2.1GHz/8-core/85W) Processor Kit for HPE ProLiant DL380 Gen10 | P02491-B21 |

**2nd Generation Intel Xeon-Bronze**

**Notes:**

- Field upgrades from 1st generation processors (x1xx) to 2nd generation processors (x2xx) not supported.
- All the below models do not ship with Performance Heatsink.

| | |
|---|---|
| Intel Xeon-Bronze 3206R (1.9GHz/8-core/85W) Processor Kit for HPE ProLiant DL380 Gen10 | P23547-B21 |
| Intel Xeon-Bronze 3204 (1.9GHz/6-core/85W) Processor Kit for HPE ProLiant DL380 Gen10 | P02489-B21 |

**Notes:**

- Up to two processors supported.
- HT indicates that the processor model supports Intel® Hyper-Threading Technology.
- 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.
- DDR4 speed is the maximum memory speed of the processor. Actual memory speed may depend on the quantity and type of DIMMs installed.
- 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.
- Maximum memory per socket depends on the processor selected.
- Processors above 130W use a High Performance Heatsink, along with the 8256, 8156, 6128, 5222, 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: **https://www.hpe.com/us/en/servers/memory.html**.
Best product availability is limited to US, Canada, and Latin America at this time.

**Notes:**

- Maximum memory capacity and speed per processor is dependent on processor model selection or limitation.
- DDR4-2933 Memory Kits are only supported with 2nd Generation Intel Xeon Scalable Series Processors and DDR4-2666 Memory Kits are only supported with 1st Generation Intel Xeon Scalable Series Processors.

## Core Options

### HPE DDR4 Memory

**Registered DIMMs (RDIMMs)**

| | |
|---|---|
| HPE 8GB (1x8GB) Single Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit | P00918-B21 |
| HPE 16GB (1x16GB) Single Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit | P00920-B21 |
| HPE 16GB (1x16GB) Dual Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit | P00922-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 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit | P00924-B21 |
| HPE 32GB (1x32GB) Dual Rank x4 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit | 815100-B21 |
| HPE 64GB (1x64GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit | P00930-B21 |

**Notes:** For configurations exceeding 1TB/socket, the “M” series (2TB/socket) or “L” series processors (4.5TB/socket) are required.
For configurations with 2 CPUs, DIMMs need to be selected in even quantities. Using odd quantity of DIMMs in 2 CPU configurations will cause memory to be unbalanced and may negatively impact system performance.

**Load Reduced DIMMs (LRDIMMs)**

| | |
|---|---|
| HPE 128GB (1x128GB) Quad Rank x4 DDR4-2933 CAS-21-21-21 Load Reduced Smart Memory Kit | P11040-B21 |

**Notes:**
- Memory DIMM availability with a server platform is dependent upon completion of certification testing.
- The maximum memory speed is a function of the memory type, memory configuration, and processor model.
- Mixing of RDIMM and LRDIMM is not supported.
- For configurations exceeding 1TB/socket, the “M” series (2TB/socket) or “L” series processors (4.5TB/socket) are required.

**Intel Optane persistent memory for HPE**

| | |
|---|---|
| Intel Optane 128GB persistent memory 100 Series for HPE | 835804-B21 |

**Notes:**
- A maximum of 12 Intel Optane Persistent Memory for HPE supported with select 2nd Generation Intel Xeor Scalable Series Processors ONLY (82xx/62xx/52xx/4215R/4215) and can only be mixed with either RDIMMs or LRDIMMs.
- For configurations exceeding 1TB/socket, the “M” series (2TB/socket) or “L” series processors (4.5TB/socket) are required.
- When mixing Intel Optane persistent memory with RDIMM, all RDIMM must be of same capacity and type.
- For information regarding Intel Optane Persistent Memory for HPE visit: **http://www.hpe.com/info/persistentmemory**

**HPE NVDIMMs**

**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 |

**Notes:** 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 |

**Notes:** 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 |

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

# Core Options

## Media Bay Kits

HPE DL38X Gen10 Universal Media Bay Kit 826708-B21

**Notes:**

- 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.
- This is a SFF model option only.

### Configuring Broadcom MegaRAID Tri-mode controllers and required components on DL380 Gen10

**Notes:**

- This section describes the components required to support Broadcom MegaRAID controllers on DL380 Gen10.
- Broadcom MegaRAID controllers and Basic Carrier drives are only supported with HPE DL380 Gen10 NC 8SFF BC CTO Server (P56969-B21) and HPE DL380 Gen10 8SFF BC CTO Server (P56970-B21).
- DL380 Gen10 with Broadcom MegaRAID controllers only support Basic Carrier SFF SAS/SATA storage devices listed below and require Basic Carrier drive cage(s) with cables needed for MegaRAID controllers.
- Do not attempt to use Smart Carrier storage devices in these DL380 models with MegaRaid controllers. Mixing of BC and SC carrier types is not allowed. SC drives are not supported with Broadcom MegaRAID controllers on the HPE DL380 Gen10 NC 8SFF BC CTO Server (P56969-B21) and HPE DL380 Gen10 8SFF BC CTO Server (P56970-B21).
- NVMe is not supported with DL380 Gen10 with MegaRaid storage controllers on the HPE DL380 Gen10 NC 8SFF BC CTO Server (P56969-B21) and HPE DL380 Gen10 8SFF BC CTO Server (P56970-B21).

### Select CTO Server – One from below

HPE ProLiant DL380 Gen10 8SFF BC NC Configure-to-order System P56969-B21

**Notes:** This CTO Server contains default SAS/SATA drive cage/backplane and tri-mode to SAS/SATA cables.

HPE ProLiant DL380 Gen10 8SFF BC Configure-to-order System P56970-B21

**Notes:** This CTO Server contains default SAS/SATA drive cage/backplane and tri-mode to SAS/SATA cables.

### Select Broadcom MegaRAID Controller – Shown below

HPE MR416i-p Gen10 Plus x16 Lanes 4GB Cache NVMe/SAS 12G Controller P06367-B21
HPE MR416i-a Gen10 Plus x16 Lanes 4GB Cache NVMe/SAS 12G Controller P26279-B21
HPE MR216i-p Gen10 Plus x16 Lanes without Cache NVMe/SAS 12G Controller P26324-B21
HPE MR216i-a Gen10 Plus x16 Lanes without Cache NVMe/SAS 12G Controller P26325-B21

**Notes:**

- The following drive cages are supported by Broadcom controllers:
  - P57772-B21 HPE ProLiant DL38x Gen10 2SFF BC HDD SAS/SATA Riser Kit
  - P57773-B21 HPE ProLiant DL380 Gen10 2SFF Premium HDD SAS/SATA BC Front/Rear Backplane Kit
  - P57774-B21 HPE ProLiant DL380 Gen10 8SFF SAS/SATA BC Box 1-2 Backplane Kit
  - Broadcom MegaRAID controllers are not supported with Windows Server 2012 R2 on HPE Gen10 servers

### Select Any Additional Drive Cage(s) – Shown below

HPE ProLiant DL38X Gen10 Plus 2SFF x4 Tri-Mode 24G U.3 BC Front/Tertiary Drive Cage Kit P26922-B21
HPE ProLiant DL300 Gen10 Plus 2U 2SFF x4 Tri-Mode 24G U.3 BC Side-by-Side Drive Cage Kit P26924-B21
HPE ProLiant DL300 Gen10 Plus 2U 8SFF x1 Tri-Mode 24G U.3 BC Front Drive Cage Kit P27194-B21
HPE ProLiant DL38X Gen10 Plus 8SFF x1 Tri-Mode 24G U.3 BC Midplane Drive Cage Kit P27193-B21
HPE ProLiant DL300 Gen10 Plus 2U 8SFF x4 Tri-Mode 24G U.3 BC Front Drive Cage Kit P26931-B21
HPE ProLiant DL38x Gen10 Plus 2LFF UBM to Tri-Mode LP Primary Riser Backplane Kit P55518-B21
HPE ProLiant DL38x Gen10 Plus 2LFF UBM to Tri-Mode LP Tertiary Riser Backplane Kit P55519-B21
HPE ProLiant DL38x Gen10 Plus 4LFF SAS/SATA LP Drive Cage Kit P55700-B21
HPE ProLiant DL3xx Gen10 Plus 2U 2SFF SAS/SATA BC Drive Cage Kit P55699-B21

## Core Options

| | |
|---|---|
| HPE ProLiant DL380 Gen10 Plus 2SFF SAS/SATA Primary Secondary Drive Cage Kit | P55696-B21 |
| HPE ProLiant DL380 Gen10 Plus 2SFF SAS/SATA BC Drive Cage Kit | P55698-B21 |
| HPE ProLiant DL38x Gen10 Plus 8SFF SAS/SATA to Tri-Mode Controller Backplane Kit | P55516-B21 |

**Notes:** All kits shown above contain the required drive cage/backplane and tri-mode to SAS/SATA cables.

### Select Basic Carrier Drives

Enterprise - 12G SAS – Basic Carrier SFF Drives
Midline - 12G SAS – Basic Carrier SFF Drives
Read Intensive - 12G SAS - SFF – Basic Carrier SSD
Mixed Use - 12G SAS – Basic Carrier SFF SSD
Mixed Use - 12G SAS - SFF – Basic Carrier Value SAS Digitally Signed Firmware SSD
Read Intensive - 6G SATA – Basic Carrier SFF - Solid State Drives
Mixed Use - 6G SATA – Basic Carrier SFF - Solid State Drives

**Notes:** Only Basic Carrier (BC) drives listed in above sections of QuickSpecs will function with Broadcom MegaRAID controllers. Smart carrier (SC) drives will not function with Broadcom controllers. Configurations must not mix BC and SC drives.

## HPE Hard Disk Drives

### Enterprise - 12G SAS – Basic Carrier SFF Drives (Only for use with Broadcom MegaRAID)

| | |
|---|---|
| HPE 2.4TB SAS 12G Mission Critical 10K SFF BC 3-year Warranty 512e Multi Vendor HDD | P28352-B21 |
| HPE 1.8TB SAS 12G Mission Critical 10K SFF BC 3-year Warranty 512e Multi Vendor HDD | P53562-B21 |
| HPE 1.2TB SAS 12G Mission Critical 10K SFF BC 3-year Warranty Multi Vendor HDD | P28586-B21 |
| HPE 900GB SAS 12G Mission Critical 15K SFF BC 3-year Warranty Multi Vendor HDD | P40432-B21 |
| HPE 600GB SAS 12G Mission Critical 15K SFF BC 3-year Warranty Multi Vendor HDD | P53560-B21 |
| HPE 600GB SAS 12G Mission Critical 10K SFF BC 3-year Warranty Multi Vendor HDD | P53561-B21 |
| HPE 300GB SAS 12G Mission Critical 15K SFF BC 3-year Warranty Multi Vendor HDD | P28028-B21 |
| HPE 300GB SAS 12G Mission Critical 10K SFF BC 3-year Warranty Multi Vendor HDD | P40430-B21 |

**Notes:** Supported on Basic Carrier CTO Server only.

### Enterprise - 12G SAS - SFF Drives

| | |
|---|---|
| HPE 2.4TB SAS 12G Mission Critical 10K SFF SC 3-year Warranty 512e Multi Vendor HDD | 881457-B21 |
| HPE 1.8TB SAS 12G Mission Critical 10K SFF SC 3-year Warranty 512e Multi Vendor HDD | 872481-B21 |
| HPE 1.2TB SAS 12G Mission Critical 10K SFF SC 3-year Warranty Multi Vendor HDD | 872479-B21 |
| HPE 900GB SAS 12G Mission Critical 15K SFF SC 3-year Warranty Multi Vendor HDD | 870759-B21 |
| HPE 600GB SAS 12G Mission Critical 15K SFF SC 3-year Warranty Multi Vendor HDD | 870757-B21 |
| HPE 600GB SAS 12G Mission Critical 10K SFF SC 3-year Warranty Multi Vendor HDD | 872477-B21 |
| HPE 300GB SAS 12G Mission Critical 15K SFF SC 3-year Warranty Multi Vendor HDD | 870753-B21 |
| HPE 300GB SAS 12G Mission Critical 10K SFF SC 3-year Warranty Multi Vendor HDD | 872475-B21 |

### Midline - 6G SATA - SFF Drives

| | |
|---|---|
| HPE 2TB SATA 6G Business Critical 7.2K SFF SC 1-year Warranty 512e HDD | 765455-B21 |

### Midline - 12G SAS - LFF Drives

| | |
|---|---|
| HPE 20TB SAS 12G Business Critical 7.2K LFF SC 1-year Warranty Helium 512e ISE Multi Vendor HDD | P53552-B21 |
| HPE 16TB SAS 12G Business Critical 7.2K LFF SC 1-year Warranty Helium 512e ISE Multi Vendor HDD | P23863-B21 |
| HPE 14TB SAS 12G Business Critical 7.2K LFF SC 1-year Warranty Helium 512e Multi Vendor HDD | P09153-B21 |
| HPE 12TB SAS 12G Business Critical 7.2K LFF SC 1-year Warranty Helium 512e Multi Vendor HDD | 881779-B21 |
| HPE 8TB SAS 12G Business Critical 7.2K LFF SC 1-year Warranty 512e Multi Vendor HDD | 819201-B21 |
| HPE 6TB SAS 12G Business Critical 7.2K LFF SC 1-year Warranty 512e Multi Vendor HDD | 861754-B21 |
| HPE 4TB SAS 12G Business Critical 7.2K LFF SC 1-year Warranty Multi Vendor HDD | 872487-B21 |
| HPE 2TB SAS 12G Business Critical 7.2K LFF SC 1-year Warranty Multi Vendor HDD | 872485-B21 |

## Core Options

### Midline - 6G SATA - LFF Drives

| | |
|---|---|
| HPE 20TB SATA 6G Business Critical 7.2K LFF SC 1-year Warranty Helium 512e ISE Multi Vendor HDD | P53555-B21 |
| HPE 16TB SATA 6G Business Critical 7.2K LFF SC 1-year Warranty Helium 512e ISE Multi Vendor HDD | P23857-B21 |
| HPE 12TB SATA 6G Business Critical 7.2K LFF SC 1-year Warranty Helium 512e Multi Vendor HDD | 881785-B21 |
| HPE 8TB SATA 6G Business Critical 7.2K LFF SC 1-year Warranty 512e Multi Vendor HDD | 819203-B21 |
| HPE 6TB SATA 6G Business Critical 7.2K LFF SC 1-year Warranty 512e Multi Vendor HDD | 861750-B21 |
| HPE 4TB SATA 6G Business Critical 7.2K LFF SC 1-year Warranty Multi Vendor HDD | 872491-B21 |
| HPE 2TB SATA 6G Business Critical 7.2K LFF SC 1-year Warranty Multi Vendor HDD | 872489-B21 |
| HPE 1TB SATA 6G Business Critical 7.2K LFF SC 1-year Warranty Multi Vendor HDD | 861691-B21 |

### SSD Selection

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

### Read Intensive - 12G SAS - SFF – Basic Carrier SSD (Only for use with Broadcom MegaRAID)

| | |
|---|---|
| HPE 3.84TB SAS 24G Read Intensive SFF BC Multi Vendor SSD | P49035-B21 |
| HPE 3.84TB SAS 12G Read Intensive SFF BC Value SAS Multi Vendor SSD | P40508-B21 |
| HPE 1.92TB SAS 12G Read Intensive SFF BC Value SAS Multi Vendor SSD | P40507-B21 |

**Notes:** Supported on Basic Carrier CTO Server only.

### Read Intensive - 12G SAS - SFF - SC Value SAS Digitally Signed Firmware SSD

| | |
|---|---|
| HPE 15.36TB SAS 12G Read Intensive SFF SC Multi Vendor SSD | P49044-B21 |
| HPE 7.68TB SAS 12G Read Intensive SFF SC Value SAS Multi Vendor SSD | P37003-B21 |
| HPE 7.68TB SAS 12G Read Intensive SFF SC Multi Vendor SSD | P49039-B21 |
| HPE 3.84TB SAS 12G Read Intensive SFF SC Value SAS Multi Vendor SSD | P37001-B21 |
| HPE 3.84TB SAS 12G Read Intensive SFF SC Multi Vendor SSD | P49034-B21 |
| HPE 1.92TB SAS 12G Read Intensive SFF SC Value SAS Multi Vendor SSD | P36999-B21 |
| HPE 1.92TB SAS 12G Read Intensive SFF SC Multi Vendor SSD | P49030-B21 |
| HPE 960GB SAS 12G Read Intensive SFF SC Value SAS Multi Vendor SSD | P36997-B21 |
| HPE 960GB SAS 12G Read Intensive SFF SC Multi Vendor SSD | P49028-B21 |

### Mixed Use - 12G SAS – Basic Carrier SFF SSD (Only for use with Broadcom MegaRAID)

| | |
|---|---|
| HPE 6.4TB SAS 24G Mixed Use SFF BC Multi Vendor SSD | P49057-B21 |
| HPE 3.2TB SAS 24G Mixed Use SFF BC Multi Vendor SSD | P49053-B21 |
| HPE 1.6TB SAS 24G Mixed Use SFF BC Multi Vendor SSD | P49049-B21 |
| HPE 800GB SAS 24G Mixed Use SFF BC Multi Vendor SSD | P49047-B21 |

**Notes:** Supported on Basic Carrier Model-X only.

### Mixed Use - 12G SAS - SFF – Basic Carrier Value SAS Digitally Signed Firmware SSD (Only for use with Broadcom MegaRAID)

| | |
|---|---|
| HPE 3.84TB SAS 12G Mixed Use SFF BC Value SAS Multi Vendor SSD | P40512-B21 |
| HPE 1.92TB SAS 12G Mixed Use SFF BC Value SAS Multi Vendor SSD | P40511-B21 |
| HPE 960GB SAS 12G Mixed Use SFF BC Value SAS Multi Vendor SSD | P40510-B21 |

**Notes:** Supported on Basic Carrier CTO Server only.

### Mixed Use - 12G SAS - SFF - SC Value SAS Digitally Signed Firmware SSD

| | |
|---|---|
| HPE 6.4TB SAS 12G Mixed Use SFF SC Multi Vendor SSD | P49056-B21 |
| HPE 3.84TB SAS 12G Mixed Use SFF SC Value SAS Multi Vendor SSD | P37017-B21 |
| HPE 3.2TB SAS 12G Mixed Use SFF SC Multi Vendor SSD | P49052-B21 |
| HPE 1.92TB SAS 12G Mixed Use SFF SC Value SAS Multi Vendor SSD | P37011-B21 |
| HPE 1.6TB SAS 12G Mixed Use SFF SC Multi Vendor SSD | P49048-B21 |
| HPE 960GB SAS 12G Mixed Use SFF SC Value SAS Multi Vendor SSD | P37005-B21 |
| HPE 800GB SAS 12G Mixed Use SFF SC Multi Vendor SSD | P49046-B21 |

## Core Options

**Read intensive - SAS - SFF – FIPS Solid State Drives**

| | |
|---|---|
| HPE 3.84TB SAS Read Intensive SFF BC Self-encrypting FIPS 140-2 PM7 SSD | P63875-B21 |

**Mixed Use - SAS - SFF – FIPS Solid State Drives**

| | |
|---|---|
| HPE 1.6TB SAS Mixed Use SFF BC Self-encrypting FIPS 140-2 PM7 SSD | P63871-B21 |

**Read Intensive - 6G SATA – Basic Carrier SFF - Solid State Drives (Only for use with Broadcom MegaRAID)**

| | |
|---|---|
| HPE 3.84TB SATA 6G Read Intensive SFF BC Multi Vendor SSD | P40500-B21 |
| HPE 1.92TB SATA 6G Read Intensive SFF BC Self-encrypting 5400P SSD | P58240-B21 |
| HPE 1.92TB SATA 6G Read Intensive SFF BC Multi Vendor SSD | P40499-B21 |
| HPE 960GB SATA 6G Read Intensive SFF BC Multi Vendor SSD | P40498-B21 |
| HPE 480GB SATA 6G Read Intensive SFF BC Self-encrypting 5400P SSD | P58236-B21 |
| HPE 480GB SATA 6G Read Intensive SFF BC Multi Vendor SSD | P40497-B21 |
| HPE 240GB SATA 6G Read Intensive SFF BC Multi Vendor SSD | P40496-B21 |

**Notes:** Supported on Basic Carrier CTO Server only.

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

| | |
|---|---|
| HPE 3.84TB SATA 6G Read Intensive SFF SC PM893a SSD | P63914-B21 |
| HPE 3.84TB SATA 6G Read Intensive SFF SC Multi Vendor SSD | P18428-B21 |
| HPE 1.92TB SATA 6G Read Intensive SFF SC Multi Vendor SSD | P18426-B21 |
| HPE 960GB SATA 6G Read Intensive SFF SC Multi Vendor SSD | P18424-B21 |
| HPE 480GB SATA 6G Read Intensive SFF SC Multi Vendor SSD | P18422-B21 |
| HPE 480GB SATA 6G Read Intensive SFF SC PM893a SSD | P63890-B21 |
| HPE 240GB SATA 6G Read Intensive SFF SC Multi Vendor SSD | P18420-B21 |

**Mixed Use - 6G SATA – Basic Carrier SFF - Solid State Drives (Only for use with Broadcom MegaRAID)**

| | |
|---|---|
| HPE 3.84TB SATA 6G Mixed Use SFF BC Multi Vendor SSD | P40505-B21 |
| HPE 1.92TB SATA 6G Mixed Use SFF BC Self-encrypting 5400M SSD | P58248-B21 |
| HPE 1.92TB SATA 6G Mixed Use SFF BC Multi Vendor SSD | P40504-B21 |
| HPE 960GB SATA 6G Mixed Use SFF BC Self-encrypting 5400M SSD | P58244-B21 |
| HPE 960GB SATA 6G Mixed Use SFF BC Multi Vendor SSD | P40503-B21 |
| HPE 480GB SATA 6G Mixed Use SFF BC Multi Vendor SSD | P40502-B21 |

**Notes:** Supported on Basic Carrier CTO Server only.

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

| | |
|---|---|
| HPE 3.84TB SATA 6G Mixed Use SFF SC Multi Vendor SSD | P18438-B21 |
| HPE 1.92TB SATA 6G Mixed Use SFF SC Multi Vendor SSD | P18436-B21 |
| HPE 960GB SATA 6G Mixed Use SFF SC Multi Vendor SSD | P18434-B21 |
| HPE 480GB SATA 6G Mixed Use SFF SC Multi Vendor SSD | P18432-B21 |

**Mixed Use - 12G SAS - LFF – SC Value SAS Digitally Signed Firmware SSD**

| | |
|---|---|
| HPE 1.92TB SAS 12G Mixed Use LFF SCC Value SAS Multi Vendor SSD | P37013-B21 |

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

| | |
|---|---|
| HPE 480GB SATA 6G Read Intensive LFF SCC Multi Vendor SSD | P47807-B21 |

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

| | |
|---|---|
| HPE 960GB SATA 6G Mixed Use LFF SCC Multi Vendor SSD | P47419-B21 |

**Read Intensive - 6G SATA - M.2 - Solid State Media (2280 type)**

| | |
|---|---|
| HPE 480GB SATA 6G Read Intensive M.2 Multi Vendor SSD | P47818-B21 |

**Notes:**

- M.2 drives supported in the Primary Riser and use S100i SATA controller only.
- M.2 supports Software RAID only.
- Must select HPE FIO Enable Smart Array SW RAID (784308-B21) to enable Software RAID



## Core Options

### Internal Dual M.2 Kit

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

**Notes:** This is an M.2 enablement standup card. Must select HPE FIO Enable Smart Array SW RAID (784308-B21) to enable Software RAID

### Dual Mixed Use - 6G SATA – UFF SCM M.2 - Solid State Drives

**Notes:** SCM dual drive functionality supported on the Premium 2SFF HDD Kit (826687-B21) and 2SFF HDD Riser Kit (826688-B21). Installation on any other bay will show one M.2 drive per bay. Must select HPE FIO Enable Smart Array SW RAID (784308-B21) to enable Software RAID

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

HPE 7.68TB NVMe Gen4 Mainstream Performance Read Intensive SFF SCN U.2 V2 Multi Vendor SSD P64890-B21
HPE 7.68TB NVMe Gen4 High Performance Read Intensive SFF SCN U.2 P5520 SSD P51456-B21
HPE 3.84TB NVMe Gen4 Mainstream Performance Read Intensive SFF SCN U.2 V2 Multi Vendor SSD P64882-B21
HPE 3.84TB NVMe Gen4 High Performance Read Intensive SFF SCN U.3 PM1733a SSD P50217-B21
HPE 1.92TB NVMe Gen4 Mainstream Performance Read Intensive SFF SCN U.2 V2 Multi Vendor SSD P64874-B21
HPE 1.92TB NVMe Gen4 High Performance Read Intensive SFF SCN U.2 P5520 SSD P51452-B21
HPE 1.92TB NVMe Gen4 High Performance Read Intensive SFF SCN U.3 PM1733a SSD P50214-B21

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

HPE 12.8TB NVMe Gen4 High Performance Mixed Use SFF SCN U.3 PM1735 SSD P22274-B21
HPE 6.4TB NVMe Gen4 Mainstream Performance Mixed Use SFF SCN U.2 V2 Multi Vendor SSD P64886-B21
HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF SCN U.2 P5620 SSD P51462-B21
HPE 3.2TB NVMe Gen4 Mainstream Performance Mixed Use SFF SCN U.2 V2 Multi Vendor SSD P64878-B21
HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF SCN U.2 P5620 SSD P51460-B21
HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF SCN U.3 PM1735a SSD P50228-B21
HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF SCN U.2 P5620 SSD P51462-B21
HPE 1.6TB NVMe Gen4 Mainstream Performance Mixed Use SFF SCN U.2 V2 Multi Vendor SSD P64870-B21
HPE 1.6TB NVMe Gen4 High Performance Mixed Use SFF SCN U.3 PM1735a SSD P50225-B21

**Notes:**

- A NVME (826689-B21 or 873781-B21) or Premium (826690-B21) drive cage is required to support these drives in conjunction with an NVMe riser kit.
- HPE has qualified the NVMe drive portfolio using the Operating System inbox drivers, full detail on the **HPE Solid State Drive QuickSpecs**.
- NVMe drives are not supported by HPE Smart Array controllers.
- NVMe drives require the addition of the High Performance Fan kit (867810-B21).

## HPE PCIe Workload Accelerator Options

### Hard Drive Blank Kits

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 8LFF Front 2SFF SAS/SATA HDD Kit 867805-B21

**Notes:** For 2 SFF SAS/SATA in UMB on 8 LFF model only.

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

**Notes:**

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

## Core Options

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

**Notes:**

- Supported with both the 8 LFF and 12 LFF models.
- Ships with low-profile heatsink for installation. Supporting processors below 125W. Additional processors supported with system inlet ambient temperature limitations. See “CPUs Supported with 4LFF mid-tray” below
- With this mid-tray only single-wide (8.5-inch cards with connections or less) cards are supported.
- This drive does support hot-swap drives.
- 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>• 135W (6262V)<br>• 140W (6238, 6152, 6140) | |
| **30C** | • 140W (6132)<br>• 150W (6210U)<br>• 165 W (8276, 8260, 8260Y, 6240R, 6238R, 8176, 8170, 6150) | • CPU≤125W<br>• 135W (6262V)<br>• 140W (6238, 6152, 6140) |
| **25C** | • 105W (8256, 5222, 5122, 8156)<br>• 115W (5217, 6128)<br>• 125W (6230N)<br>• 130W (6234, 4215R, 6134)<br>• 150W (6252, 6248, 6240, 6242, 6230R, 6226R, 6208U, 5220R, 8164, 8160, 8158, 6148, 6142, 6136) | • 140W (6132)<br>• 150W (6210U)<br>• 165 W (8276, 8260, 8260Y, 6240R, 6238R, 8176, 8170, 6150) |

| System Inlet Ambient | 8LFF/12LFF with 4LFF mid-tray | 8LFF/12LFF + 4LFF mid-tray + any rear SAS/SATA HDDs |
|---|---|---|
| **20C** | • 150W (6252N, 6244, 6240Y, 6144)<br>• 165W (6246, 6146)<br>• 200W (6254, 6154)<br>• 205W (8280, 8270, 8268, 8180, 8168) | • 105W (8256, 5222, 5122, 8156)<br>• 115W (5217, 6128)<br>• 125W (6230N)<br>• 130W (6234, 4215R 6134)<br>• 150W (6252, 6248, 6242, 6240, 6230R, 6226R, 6208U, 5220R, 8164, 8160, 8158, 6148, 6142, 6136) |

HPE DL38X Gen10 2SFF Premium HDD Front NVMe or Front/Rear SAS/SATA Kit 826687-B21

**Notes:**

- HPE DL38X Gen10 Universal Media Bay Kit (826708-B21).
- NVMe drives require the addition of the High Performance Fan kit (867810-B21).
- NVMe drives require the addition of an NVMe capable riser.
- 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

**Notes:**

- Supports 2 SFF rear in Riser1 or 2 location – max 2 supported SFF model.
- 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.
- Supports uFF drives.

## Core Options

HPE DL38X NVMe 8 Solid State Drive Express Bay Enablement Kit 826689-B21

**Notes:**
- This option provides support for up to 8NVMe drives, and can be populated in all Boxes in the 8 SFF model.
- A maximum of 20 NVMe drives are supported; this will mean partial population (4 drives) when the 3rd cage is populated in Box 1.
- This will require the HPE DL38X Gen10 4-port 8 NVMe SlimSAS Riser (867807-B21).
- NVMe drives require the addition of the High Performance Fan kit (867810-B21).

HPE DL38X Gen10 SFF Box1/2 Cage/Backplane Kit 826691-B21

**Notes:** Supports 8 SAS/SATA SFF drives in Box 1 or 2 to a max of 24 SFF SAS/SATA front.

HPE DL38X Gen10 Premium 6 SFF SAS/SATA + 2 NVMe or 8 SFF SAS/SATA Bay Kit 826690-B21

**Notes:**
- This kit can be supported in Box 1, 2 or 3 and provides support for up to 6 SAS/SATA + 2 NVMe or 8 SFF SAS/SATA drives per Box. If only populating SFF SAS/SATA, the HPE DL38X Gen10 SFF Box1/2 Cage/Backplane Kit (826691-B21) is the more appropriate option.
- With NVMe drives a specific riser is required.
- NVMe drives require the addition of the High Performance Fan kit (867810-B21).

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

**Notes:**
- Supports 2 NVMe in the Universal Media bay (included) on the 8 LFF model.
- 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).
- NVMe drives require the addition of the High Performance Fan kit (867810-B21).

## HPE Networking

### 1 Gigabit Ethernet adapters

HPE Ethernet 1Gb 4-port BASE-T BCM5719 Adapter 647594-B21

HPE Ethernet 1Gb 4-port BASE-T I350-T4V2 Adapter 811546-B21

### 10 Gigabit Ethernet adapters

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

HPE Ethernet 10Gb 2-port BASE-T BCM57416 Adapter 813661-B21

**Notes:** Legacy FIO Mode (758959-B22) not supported with this option on Networking Choice (NC) Configure-to-Order (CTO) chassis. To continue with the combined selection of this networking option and Legacy FIO Mode on NC CTO chassis, an additional networking option (stand-up NIC or FlexibleLOM) without the Legacy FIO mode restriction must be selected.

HPE Ethernet 10Gb 2-port SFP+ BCM57414 Adapter P08421-B21

**Notes:** Cannot be selected as the primary networking choice when configuring a Networking Choice (NC) Configure-to-Order (CTO) chassis.

HPE Ethernet 10Gb 2-port SFP+ X710-DA2 Adapter 727055-B21

HPE Ethernet 10Gb 2-port BASE-T X550-AT2 Adapter 817738-B21

### 25 Gigabit Ethernet adapters

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

Mellanox MCX512F-ACHT Ethernet 10/25Gb 2-port SFP28 Adapter for HPE P13188-B21

## Core Options

**Notes:** Legacy FIO Mode (758959-B22) not supported with this option on Networking Choice (NC) Configure-to-Order (CTO) chassis. To continue with the combined selection of this networking option and Legacy FIO Mode on NC CTO chassis, an additional networking option (stand-up NIC or FlexibleLOM) without the Legacy FIO mode restriction must be selected.

| | |
|---|---|
| HPE Ethernet 10/25Gb 2-port SFP28 MCX4121A-ACUT Adapter | 817753-B21 |
| Intel E810-XXVDA2 Ethernet 10/25Gb 2-port SFP28 Adapter for HPE | P08443-B21 |
| Intel E810-XXVDA4 Ethernet 10/25Gb 4-port SFP28 Adapter for HPE | P08458-B21 |
| Xilinx X2522-25G-PLUS Ethernet 10/25Gb 2-port SFP28 Adapter for HPE | P21109-B21 |

### 100 Gigabit Ethernet Adapters

| | |
|---|---|
| HPE Ethernet 100Gb 1-port QSFP28 MCX515A-CCAT Adapter | 874253-B21 |

**Notes:**

- The DL380 Gen10 embedded LOM chassis ships standard with 4x 1 Gb embedded
- A minimum of two Gigabytes (2 GB) of server memory is required per each adapter.
- Direct Attach Cable (DAC) for copper environments or fiber transceivers and cables for fiber-optic environments must be purchased separately. Please see the related NIC QuickSpecs for Technical Specifications and additional information: **https://www.hpe.com/us/en/product-catalog/servers/adapters/pip.models.hpe-storefabric-converged-network-adapters.4118472.html**

### FlexibleLOM adapters

| | |
|---|---|
| Pensando Distributed Services Platform for HPE iLO Sideband Management Adaptive LOM Module | P26969-B21 |

**Notes:**

- This option requires the selection of Pensando DSP 10/25G 2p SFP28 Card (P26966-B21).
- Legacy FIO Mode (758959-B22) not supported with this option on Networking Choice (NC) Configure-to-Order (CTO) chassis. To continue with the combined selection of this networking option and Legacy FIO Mode on NC CTO chassis, an additional networking option (stand-up NIC or FlexibleLOM) without the Legacy FIO mode restriction must be selected.
- This option cannot be selected with any GPU

| | |
|---|---|
| HPE Ethernet 1Gb 4-port FLR-T I350-T4V2 Adapter | 665240-B21 |
| HPE Ethernet 1Gb 4-port FLR-T BCM5719 Adapter | 629135-B22 |
| HPE Ethernet 10Gb 2-port FLR-T BCM57416 Adapter | 817721-B21 |
| HPE Ethernet 10Gb 2-port 537FLR-SFP+ Adapter | P08440-B21 |
| HPE Ethernet 10/25Gb 2-port FLR-SFP28 BCM57414 Adapter | 817709-B21 |
| HPE Ethernet 10/25Gb 2-port FLR-SFP28 MCX4121A-ACFT Adapter | 817749-B21 |
| HPE Ethernet 10Gb 2-port FLR-SFP+ X710-DA2 Adapter | 727054-B21 |
| HPE Ethernet 10Gb 2-port FLR-T X550-AT2 Adapter | 817745-B21 |

**Notes:**

- The DL380 Gen10 Embedded LOM Configure-to-Order (CTO) chassis ships with 4x 1Gb embedded.
- When configuring a DL380 Gen10 Networking Choice (NC) Configure-to-Order (CTO) chassis, a FlexibleLOM adapter or select stand-up card networking adapter in the “HPE Networking” section must be selected.
- Only one FlexibleLOM can be added to the server. These options are upgradeable and can be changed from the original configuration after the server is shipped.
- 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: **https://www.hpe.com/us/en/product-catalog/servers/adapters/pip.models.hpe-storefabric-converged-network-adapters.4118472.html**

### HPE InfiniBand

| | |
|---|---|
| HPE 100Gb 1-port OP101 QSFP28 x16 PCIe Gen3 with Intel Omni-Path Architecture Adapter | 829335-B21 |
| HPE InfiniBand HDR100/Ethernet 100Gb 1-port QSFP56 PCIe3 x16 MCX653105A-ECAT Adapter | P06250-B21 |
| HPE InfiniBand HDR100/Ethernet 100Gb 2-port QSFP56 PCIe3 x16 MCX653106A-ECAT Adapter | P06251-B21 |

## Core Options

| | |
|---|---|
| HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe3 x16 MCX653105A-HDAT Adapter | P06154-B21 |
| **Notes:** Max Qty=1; Must be ordered with HPE InfiniBand HDR PCIe G3 Auxiliary Card (P06154-B23)<br>Pair must be installed in same riser. If installed in separate riser, the risers should be adjacent to each other example riser 1 and riser 2 or riser2 and riser 3. | |
| HPE InfiniBand HDR PCIe3 Auxiliary Card with 350mm Cable Kit | P06154-B23 |
| **Notes:** Max Qty=1; Must be ordered with HPE InfiniBand HDR/Ethernet 200G 1p 9400QSFP56 (P06154-B21)<br>Pair must be installed in same riser. If installed in separate riser, the risers should be adjacent to each other example riser 1 and riser 2 or riser2 and riser 3. | |

### HPE Smart IO

#### Pensando Distributed Services Card (DSC)

| | |
|---|---|
| Pensando Distributed Services Platform DSC-25 Enterprise 10/25Gb 2-port SFP28 Card | P26966-B21 |

**Notes:**

- Legacy FIO Mode (758959-B22) not supported with this option on Networking Choice (NC) Configure-to-Order (CTO) chassis. To continue with the combined selection of this networking option and Legacy FIO Mode on NC CTO chassis, an additional networking option (stand-up NIC or FlexibleLOM) without the Legacy FIO mode restriction must be selected.
- DSC card must be installed in slot 1 when configured with Pensando for HPE iLO Adaptive LOM module (P26969-B21)
- Each card instance requires one RTU license of Silver or Platinum software. In case of more than one adapter, RTU licenses do not need to be of the same part number.
- One 3yr/4yr/5yr Silver or 3yr/4yr/5yr Platinum software license must be purchased for every DSC-25 card/adapter in a server.
- 1yr Silver, 1yr Platinum software licenses are reserved for renewals only.

#### Pensando Distributed Services Platform FlexibleLOM Adapter

| | |
|---|---|
| Pensando Distributed Services Platform for HPE iLO Sideband Management Adaptive LOM Module | P26969-B21 |

**Notes:**

- This option requires the selection of Pensando DSP 10/25G 2p SFP28 Card (P26966-B21).
- Legacy FIO Mode (758959-B22) not supported with this option on Networking Choice (NC) Configure-to-Order (CTO) chassis. To continue with the combined selection of this networking option and Legacy FIO Mode on NC CTO chassis, an additional networking option (stand-up NIC or FlexibleLOM) without the Legacy FIO mode restriction must be selected
- This option cannot be selected with any GPU; If a GPU is required, contact your field services representative to have the configuration evaluated.

#### DSP Silver Software Licenses

| | |
|---|---|
| Pensando Distributed Services Platform Enterprise 1-year Renewal Subscription 24x7 Support E-RTU | R6A06AAE |
| Pensando Distributed Services Platform Enterprise 3-year Subscription 24x7 Support E-RTU | R6A07AAE |
| Pensando Distributed Services Platform Enterprise 4-year Subscription 24x7 Support E-RTU | R6F68AAE |
| Pensando Distributed Services Platform Enterprise 5-year Subscription 24x7 Support E-RTU | R6A08AAE |

#### DSP Platinum Software Licenses

| | |
|---|---|
| Pensando Distributed Services Platform Enterprise Pro 1-year Renewal Subscription 24x7 Support E-RTU | R6A09AAE |
| Pensando Distributed Services Platform Enterprise Pro 3-year Subscription 24x7 Support E-RTU | R6A10AAE |
| Pensando Distributed Services Platform Enterprise Pro 4-year Subscription 24x7 Support E-RTU | R6F69AAE |
| Pensando Distributed Services Platform Enterprise Pro 5-year Subscription 24x7 Support E-RTU | R6A11AAE |

## Core Options

### HPE I/O Expansion Options

**Notes:**
- The Primary Riser shipping default in the chassis is a x8 FH, FL, x16 FH, FL and x8 FH, HL with m.2 support.
- Must select HPE FIO Enable Smart Array SW RAID (784308-B21) to enable Software RAID, if RAID is required on dual m.2 drives.
- For a Secondary/Tertiary riser, the second processor is required.

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

**Notes:**
- Slot 1 (Top slot) and 2 (Middle slot) available in Primary riser location
- Replaces the default Primary riser
- Max Qty=1 Double-wide Accelerator/GPU can be populated
- Supports Full Height and Full length cards.
- Bus width x16, x16, Connector Width x16, x16.

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

**Notes:**
- Slot 2 (Middle slot) and Slot 3 (Bottom slot) available in Primary riser location
- Replaces the default Primary riser
- Max Qty=1 Double-wide Accelerator/GPU can be populated
- Supports Full Height and Full length cards.
- Bus width x16, x16, Connector Width x16, x16.

HPE DL38X Gen10 x8/x8/x8 1-port 2 NVMe Slim SAS FIO Riser Kit 871673-B21

**Notes:**
- Slot 1 (Top slot) and 2 (Middle Slot) and 3 (Bottom slot) available in Secondary riser location with support for 2 NVMe drives
- Supports Full Height and half-length cards.
- Bus width x8, x8, x8 Connector Width x8, x8, x8.
- If this option is selected and the Premium 2SFF HDD Kit (826687-B21) has also been ordered, then the 2SFF NVMe Instruction Spec (878189-B21) MUST be selected; does not apply to 8LFF server model
- If this option is selected and HPE DL38X Gen10 Premium 6SFF SAS/SATA + 2SFF NVMe Bay Kit (826690-B21) has also been ordered, then the 6+2 NVMe Instruction Spec (878192-B21) MUST be selected.

HPE DL38X Gen10 x16/x16/x16 Primary GPU FIO Riser Kit P14374-B21

**Notes:**
- Slot 1 (Top slot) and 2 (Middle Slot) and 3 (Bottom slot) available in Primary riser location and must be populated. Supports up to (3) full-height, half-length, single-width GPU/Accelerators (depending on model)
- Replaces the default Primary riser
- Bus width x8, x16, x8; Connector width x16, x16, x16
- This is a factory-integrated only (FIO) option. All slots (3) must be populated.
- HPE DL38X Gen10 x16/x16/x16 Secondary GPU FIO Riser Kit must also be selected and requires all slots (3) be populated.

HPE DL38X Gen10 x16/x16/x16 Secondary GPU FIO Riser Kit P14373-B21

**Notes:**
- Slot 1 (Top slot) and 2 (Middle Slot) and 3 (Bottom slot) available in Secondary riser location; all slots must be populated. Supports up to (3) full-height, half-length, single-width GPU/Accelerators (depending on model)
- Bus width x8, x16, x8; Connector width x16, x16, x16
- This is a factory-integrated only (FIO) option. All slots (3) must be populated.

HPE DL38X Gen10 x16/x16 Riser Kit 826694-B21

**Notes:**
- Slot 1 (Top slot) and 2 (Middle slot) available in Secondary riser location.
- NMax Qty=1 Double-wide Accelerator/GPU can be populated

## Core Options

- Supports Full Height and Full length cards.
- Bus width x16, x16, Connector Width x16, x16.

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

**Notes:**
- Slot 1 (Top slot) and 2 (Middle slot) and 3 (Bottom slot) available in Secondary riser location.
- No M.2 support on this riser.
- Supports Full Height, Half- length cards, Full Height, Full-length cards and Full Height, Half- length cards.
- Bus width x8, x16, x8, Connector Width x8, x16, x8.

HPE DL38X Gen10 4-port 8 NVMe Primary SlimSAS Riser 867807-B21

**Notes:**
- Riser supporting up to 8 NVMe drives in Primary location. All PCIe lanes dedicated to NVMe; no additional slots available for expansion via stand-up cards in the Primary riser location.
- Replaces the default Primary riser
- This can be connected to an 8SFF NVMe drive cage in box 3.
- To achieve max 20 NVMe support, connect 4 NVMe drives to the tertiary riser.

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

**Notes:**
- Slot 2 (Middle slot) and 3 (Bottom slot) available in Secondary riser location.
- Max Qty=1 Double-wide Accelerator/GPU can be populated
- Supports Full Height and Full length cards.
- Bus width x16, x16, Connector Width x16, x16.
- For additional details on ProLiant DL Gen10 server risers please visit: **https://www.hpe.com/h20195/v2/Getdocument.aspx?docname=a00043229enw**

HPE ProLiant DL38x Gen10 2SFF BC HDD SAS/SATA Riser Kit P57772-B21

**Notes:**
- This option is housed in a Riser assembly and will be installed in the rear of the chassis. It can be installed into either the Primary Riser location, the Secondary Riser location, or both if Qty=2 is ordered.
- Requires selection of a second processor
- Supported only with the 8SFF Basic Carriers Model-X
- Requires selection of a tri-mode controller
- Requires selection of 2SFF riser tri-mode cable kit (P55471-B21)

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

**Notes:**
- Premium bay supporting SFF SAS/SATA; can be configured in Primary or Secondary riser location
- Slot 3 (Bottom slot) available in Primary or Secondary Riser location, depending on configuration
- Bus width x16, Connector width x16

HPE DL38X Gen10 x8/x8/x8 1-port 2 NVMe SlimSAS Riser 867806-B21

**Notes:**
- Slot 1 (Top slot) or 2 (Middle Slot) or 3 (Bottom slot) available in Secondary riser location with support for 2 NVMe drives
- Supports Full Height and half-length cards.
- Bus width x8, x8, x8 Connector Width x8, x8, x8.
- If this option is selected and the Premium 2SFF HDD Kit (826687-B21) has also been ordered, then the 2SFF NVMe Instruction Spec (878189-B21) MUST be selected; does not apply to 8LFF server model
- If this option is selected and HPE DL38X Gen10 Premium 6SFF SAS/SATA + 2SFF NVMe Bay Kit (826690-B21) has also been ordered, then the 6+2 NVMe Instruction Spec (878192-B21) MUST be selected.

HPE DL38X Gen10 2-port 4 NVMe SlimSAS Riser 867808-B21

**Notes:** Supports up to 4 NVMe drives in Tertiary riser location; All PCIe lanes dedicated to NVMe; no additional slots available for expansion via stand-up cards in the Tertiary riser location.

HPE DL38X Gen10 4-port 8 NVMe Secondary Slim SAS Riser 873732-B21

**Notes:** Riser supporting up to 8 NVMe drives in Secondary riser location; All PCIe lanes dedicated to NVMe; no additional slots available for expansion via stand-up cards in the Secondary riser location.

## Core Options

HPE DL38X Gen10 2 x8 PCIe Tertiary Riser Kit 875780-B21

**Notes:**

- Slot 1 (Top slot) and slot (2) available in Tertiary riser location.
- Bus width x8, x8; Connector Width x8, x8.

HPE DL38X Gen10 x16 Tertiary Riser Kit 826700-B21

**Notes:**

- Slot 1 (Top slot) available in Tertiary riser location.
- Supports Full Height and full-length card.
- Bus width x16; Connector Width x16.

HPE DL380 Gen10 Pri/Sec Rsr w/o Retainer P38515-B21

**Notes:**

- This riser cage removes the retainer clip for proper fitment of certain NVIDIA GPUs in the primary and/or secondary riser. For such applicable NVIDIA GPUs to be populated in the primary riser, first select the appropriate primary riser unless the default x8x16x8 primary is preferred. Then add P38515-B21. For such applicable NVIDIA GPUs in the secondary riser, a secondary riser must first be selected; then add P38515-B21. See “Riser Information” table within this document to select the appropriate primary and/or secondary riser options.
- If an applicable NVIDIA GPU is installed in both primary and secondary risers, a minimum quantity of (2) of P38515-B21 must be selected if the tertiary riser will not be populated; OR (1) P38515-B21 + (1) P38517-B21 HPE DL380 Gen10 Tertiary Riser without Retainer must be selected if, in addition to both primary and secondary risers containing applicable NVIDIA GPUs, the tertiary riser is being populated with any option, including NVIDIA GPUs.

HPE DL380 Gen10 Tert Riser w/o Retainer P38517-B21

**Notes:** This tertiary riser cage is a butterfly cage for both the secondary riser and tertiary riser. It removes the retainer clip in the secondary riser for proper fitment of certain NVIDIA GPUs, while allowing for a tertiary riser selection as well. This option should be selected if the tertiary riser is being populated with any option, including NVIDIA GPUs, and the secondary riser contains an applicable NVIDIA GPU. First select the appropriate secondary riser and tertiary riser (see “Riser Information” table for riser options); then add P38517-B21.

# Core Options

## Risers

| 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 | N | O | N | x8 | x16 | x8 | - | - |
| 826704-B21 | HPE DL Gen10 x16/x16 GPU Riser Kit | O[2] | O | N | 0 | x16 | x16 | - | - |
| 826694-B21 | HPE DL38X Gen10 x16/x16 Riser Kit | O[2] | 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 | N | 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 | - | - |
| 871674-B21 | HPE DL38X Gen10 Slot 1/2 x16/x16 FIO Riser Kit | O | N | N | x16 | x16 | 0 | - | - |
| 871676-B21 | HPE DL38X Gen10 x16/x16 GPU Slot2/3 FIO Riser Kit | O | N | N | 0 | x16 | x16 | - | - |
| P14374-B21 | HPE DL38X Gen10 x16/x16/x16 Primary GPU FIO Kit[1] | O | N | N | x8 | x16 | x8 | - | - |
| P14373-B21 | HPE DL38X Gen10 x16/x16/x16 Secondary GPU FIO Kit[1] | N | O | N | x8 | x16 | x8 | - | - |

**Notes:**

- [1] P14374-B21 and P14373-B21 each support up to (3) full-height, half-length, single-width Accelerators/GPUs (depending on Accelerator model selected), totaling (6) Accelerators in the primary riser and secondary riser (balanced across both processors in a 2-processor configuration). Connector width = x16/x16/x16; Bus width = x8/x16/x8.
- [2] Field upgrade only
- D = Default on chassis; O = Optional; N = not supported or slot/connector not present.
- The 826687-B21 premium 2SFF cage is leveraged both UMB, plus 2SFF rear over PS.
- *For additional details on ProLiant DL Gen10 server risers please visit: **https://www.hpe.com/h20195/v2/Getdocument.aspx?docname=a00043229enw**

## Core Options

### HPE Power Supplies

### European Union Erp Lot 9 Regulation

Beginning on January 1st, 2024, units sold into the European Union (EU), European Economic Area (EEA), the United Kingdom, or Switzerland must include more efficient AC power supplies: 94% for multi-output and 96% for single-output. HPE Flexible Slot power supplies are single-output, and part numbers 865438-B21, P03178-B21, and P44712-B21 are 96% efficient, thus meeting requirements.

HPE is on target to fulfil compliant systems ahead of time and will begin enforcing these requirements in advance to satisfy requests with the current power supplies by the set deadline.

HPE 500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit 865408-B21

**Notes:** 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

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

HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit 865414-B21

**Notes:** 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

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

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

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

HPE 1800W-2200W Flex Slot Titanium Hot Plug Power Supply Kit P44712-B21

**Notes:** Flex Slot Titanium power supplies support power efficiency of up to 96% and are EU Lot 9 compliant.

HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit 830272-B21

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

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

**Notes:**

- Flex Slot -48VDC power supplies support power efficiency of up to 94%.
- Requires selection of HPE 1600W DC PSU Power Cable Kit (P22173-B21) or HPE 1600W DC PSU Power Lug Option Kit (P36877-B21). P22173-B21 includes the power cable with lugs installed while P36877-B21 is intended for customers using their own cabling and only require the lugs.
- Not supported with Intel Optane Persistent Memory (128/256/512GB)

# Core Options

## Accelerators

| Accelerators Information | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Part number** | **Description** | **Qty** | **Processor supported** | **Processor Generation** | **8 SFF** | **8 LFF** | **16SFF +UMB with 2SFF** | **16 SFF +8NVMe** | **24 SFF** | **24 SFF +SFF rear** | **12 LFF** | **12 LFF+ 2SFF rear** |
| Q1K38C | AMD Radeon Instinct MI25 | 3 | 165W or below | 1st Gen | 35C | 25C | 25C | 25C[1] | 25C | 25C[1] | N/S* | N/S* |
| Q9B37C | Intel Arria 10 GX FPGA Accelerator | 5 | 205W or below | 1st and 2nd Gen | 35C | 35C | 30C | 30C | 30C | 30C | 25C | 25C |
| R0X82C | Intel FPGA PAC D5005 (Stratix 10 SX) FPGA Accelerator | 3 | 205W or below | 2nd Gen | 30C | N/S* | 20C | N/S* | N/S* | N/S* | N/S* | N/S* |
| Q7G75C | NEC Vector Engine Accelerator Module | 3 | 165W or below | 2nd Gen | 30C | N/S* | N/S* | N/S* | N/S* | N/S* | N/S* | N/S* |
| R9S37C | NVIDIA A40 48GB GPU NonCEC Accelerator | 2 | 205W or below | 2nd Gen | 25C | 20C | N/S* | N/S* | N/S* | N/S* | N/S* | N/S* |
| R7E31C | NVIDIA A40 PCIe 48GB GPU for HPE | 2 | 205W or below | 2nd Gen | 25C | 20C | N/S* | N/S* | N/S* | N/S* | N/S* | N/S* |
| R7G39C | NVIDIA A30 24GB PCIe GPU Module | 2 | 205W or below | 2nd Gen | 35C** | 30C** | 30C** | N/S* | 30C** | N/S* | N/S* | N/F* |
| R9H23C | NVIDIA A2 16GB PCIe NonCEC Accelerator | 8 | 205W or below | 2nd Gen | 30C | 25C | 20C | N/S* | N/S* | N/S* | N/S* | N/S* |
| R9H23C | NVIDIA A2 GPU Accelerator | 8 | 205W or below | 2nd Gen | 30C | 25C | 20C | N/S* | N/S* | N/S* | N/S* | N/S* |
| R2U55C | HPE NVIDIA Quadro P2200 GPU Module | 5 | 205W or below | 2nd Gen | 35C | 35C | 35C | 35C[1] | 35C | 35C[1] | 35C | 35C[1] |
| R1F95C | HPE NVIDIA Quadro RTX4000 GPU Module | 5 | 205W or below | 2nd Gen | 35C | 35C | 35C | 35C[1] | 35C | 35C[1] | 30C | 30C[1] |

## Core Options

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| R0Z45C | HPE NVIDIA Quadro RTX 6000 | 3 | 205W or below | 1st and 2nd Gen | 35C | 35C | 35C | 35C | 35C | 35C | 25C | 25C |
| R1F97C | HPE NVIDIA Quadro RTX8000 GPU Module | 2 | 205W or below | 2nd Gen | 35C | 35C | 35C | 35C | 35C | 35C | 30C | 30C |
| Q0J62C | NVIDIA Tesla M10 32GB Module[2] | 2 | 165W or below | 1st Gen and 2nd Gen | 35C | 35C | 35C | 25C[1] | 35C | 35C | 30C | 30C[1] |
| Q0V80C | NVIDIA Tesla P40 24GB Module | 3 | 165W or below | 1st and 2nd Gen | 35C | 35C | 25C | 25C[1] | 25C | 25C[1] | 20C | 20C[1] |
| R0W29C | NVIDIA Tesla T4 16GB Computational Accelerator | 7 | 205W or below | 1st and 2nd Gen | 35C | N/S* | ≤ 30C | ≤20C | ≤ 20C | ≤ 20C | N/S* | N/S* |
| Q9U36C | HPE NVIDIA Tesla V100 PCIe 32GB Module | 3 | 165W or below | 1st and 2nd Gen | 30C | 20C | 20C | 20C[1] | 20C | 20C[1] | N/S* | N/S* |
| R4D73C | HPE NVIDIA Tesla V100S PCIe 32GB Module | 3 | 165W or below | 2nd Gen | 30C | 20C | 20C | 20C[1] | 20C | 20C[1] | N/S* | N/S* |
| R4B02C | HPE Xilinx Alveo U50 Accelerator | 7 | 205W or below | 2nd Gen | 30C | 20C | 20C | N/S* | 20C | N/S* | N/S* | N/S* |
| R4B03C | HPE Xilinx Alveo U250 Accelerator | 3 | 205W or below | 2nd Gen | 35C | 20C | 20C | N/S* | N/S* | N/S* | N/S* | N/S* |

**Notes:**

- *Not Supported
- **Fan at 100% duty
- [1] Invalid configuration or no HW support may apply to multiple GPUs installed. HW limitation may not be a thermal limitation.
- [2] Only 2xM10 can be supported (on any x16 slot 2, 5 or 7) due to system running out of PCIe lanes.
- Within the column labeled “Processor Generation Supported”, “1st Gen” and/or “2nd Gen” denotes which generation of Intel Scalable Series processors is supported on the respective GPU/FPGA; for reference, the 2nd digit of the processor model number “x1xx” and “x2xx” is used to identify the processor generation (i.e. 1=1st generation and 2=2nd generation)
- 1x 1600W PS recommended, but this card will work with 1x800W PS (per GPU). Prior to making a power supply selection it is highly recommended that the **HPE Power Advisor** is run to determine the right size power supply for your server configuration.
- Performance fans (867810-B21) are required for all GPU installations (Note these ship as standard with the 24SFF and 12LFF models).
- Performance Heatsinks (826706-B21) are required for Double Wide GPU installations (Note these ship as standard on Processors over 130W processors and the 8256, 8156, 6128, 5222 and 5122)
- Mixing of GPUs is not supported.
- With the Standard Primary Riser, the top x8 PCIe Slot connector will not be accessible with the installation of a doublewide GPU.
- Only 2 SFF rear drives supported over Power Supply as would require Riser 1 and Riser 2 for GPU support.
- 4 LFF mid-tray will not support any GPU cards.
- The M10 is limited to a max memory support of under 1TB.
- Any GPU installation does not meet Energy Star requirements.

## Core Options

- Installations with Graphics cards do not support Microsoft Windows Server 2012 R2 installations.
- System memory should be 2x GPU memory.
- 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

NVIDIA A16 64GB PCIe Non-CEC Accelerator for HPE R8T26C

**Notes:**

- Max Qty = 2
- This GPU requires Pwr Cable Kit (871829-B21) to also be selected.
- This option requires the High Performance Fan Kit (867810-B21) to be selected
- This option requires the selection of the High Performance Heatsink (826706-B21)
- Not supported on 12LFF Model-X
- Only supported with 2nd generation processors
- Requires selection of HPE DL380 Gen10 Pri/Sec Rsr w/o Retainer (P38515-B21) and/or HPE DL380 Gen10 Tert Riser w/o Retainer (P38517-B21). Selection is based on quantity of Graphics Option selected
- This option cannot be selected if more than 8NVMe Drives are selected.

NVIDIA A40 48GB PCIe Non-CEC Accelerator for HPE R9S37C

**Notes:**

- Max Qty = 2
- This GPU requires Pwr Cable Kit (871829-B21) to also be selected.
- This option requires the High Performance Fan Kit (867810-B21) to be selected
- This option requires the selection of the High Performance Heatsink (826706-B21)
- Not supported on 12LFF Model-X
- Only supported with 2nd generation processors
- Requires selection of HPE DL380 Gen10 Pri/Sec Rsr w/o Retainer (P38515-B21) and/or HPE DL380 Gen10 Tert Riser w/o Retainer (P38517-B21). Selection is based on quantity of Graphics Option selected
- This option cannot be selected if more than 8NVMe drives are selected.
- If Qty 2 of 8SFF Drive Cage (P57774-B21) is selected, then this Graphics option cannot be selected.

NVIDIA A2 16GB PCIe Non-CEC Accelerator for HPE R9H23C

**Notes:**

- This option requires the High Performance Fan Kit (867810-B21) to be selected
- This option requires the selection of the High Performance Heatsink (826706-B21)
- Not supported on 12LFF or 24SFF Model-X
- Only supported with 2nd generation processors
- Requires selection of HPE DL380 Gen10 Pri/Sec Rsr w/o Retainer (P38515-B21) and/or HPE DL380 Gen10 Tert Riser w/o Retainer (P38517-B21). Selection is based on quantity of Graphics Option selected
- This option cannot be selected if more than 16NVMe drives are selected.
- If Qty 2 of 8SFF Drive Cage (P57774-B21) is selected, then this Graphics option cannot be selected.

## Core Options

NVIDIA A40 48GB PCIe Non-CEC Accelerator for HPE R9S37C

**Notes:**

- Max Qty = 2
  - If installed in Primary riser position, the Primary/Secondary Riser w/out Retainer (P38515-B21) must be selected in addition to the appropriate Primary Riser to support this GPU, which may include the default x8/x16/x8 Primary Riser that comes standard on all DL380 Gen10 chassis.
- The second GPU, if desired, will be defaulted to the Secondary Riser position unless one of two slimSAS risers (873732-B21/867806-B21) is selected. If neither of the aforementioned slimSAS risers are selected and no option will be populated in the tertiary riser, P38515-B21 must be selected in addition to the appropriate secondary riser. If neither of the aforementioned slimSAS risers are selected but the tertiary riser will be populated with any option, including an NVIDIA GPU, P38517-B21 should be selected in addition to the appropriate secondary and tertiary risers. If one of the aforementioned slimSAS risers are selected, the second GPU can be installed with the selection of HPE DL38X Gen10 x16 Tertiary Riser Kit (826700-B21) and without the need for a riser cage without retainer kit (P38515-B21/P38517-B21). *The first GPU in the primary riser would still need P38515-B21.
  - If installed in Tertiary Riser, the Tertiary Riser w/out Retainer (P38517-B21) must also be selected.
  - This requires the HPE DL380 Gen10 8P Keyed Cable Kit 871829-B21. One Pwr Cable Kit can support multiple (Max=3 Doublewide or Max=6 Singlewide) GPUs.
  - This option requires the High Performance Fan Kit (867810-B21) and the High Performance Heatsink (826706-B21).
- System memory should be 2x GPU memory.
- Only Supported with 2nd Generation Intel Scalable Series Processors "x2xx"
- Not supported on 12LFF chassis
- Not supported if more than 8 NVMe drives are selected

NVIDIA A2 16GB PCIe Non-CEC Accelerator for HPE R9H23C

**Notes:**

- Max Qty = 8
  - Requires selection of HPE DL380 Gen10 Pri/Sec Rsr w/o Retainer (P38515-B21) and/or HPE DL380 Gen10 Tert Riser w/o Retainer (P38517-B21). Selection is based on quantity of Graphics Option selected
- If Qty 3 or less number of this GPU is selected, then Qty 1 of Pri/Sec Rsr w/o Retainer (P38515-B21) must be selected.
- If more than Qty 3 of this GPU is selected, then anyone of below combination must be selected:
  - Qty2 of Pri/Sec Rsr w/o Retainer (P38515-B21) if Secondary 4Port Slimline Riser (873732-B21) or 1Port Slimline Riser (867806-B21) or Tertiary riser is NOT selected.
  - Qty1 of Pri/Sec Rsr w/o Retainer (P38515-B21) and Tert Riser w/o Retainer (P38517-B21) must be selected if Secondary 4Port Slimline Riser (873732-B21) or 1Port Slimline Riser (867806-B21) or Tertiary riser is selected.
- If more than Qty 6 of this GPU is selected, then Qty1 of Pri/Sec Rsr w/o Retainer (P38515-B21) and Tert Riser w/o Retainer (P38517-B21) must be selected.
  - This option requires the High Performance Fan Kit (867810-B21) and the High Performance Heatsink (826706-B21).
  - System memory should be 2x GPU memory.
  - Only Supported with 2nd Generation Intel Scalable Series Processors "x2xx"
  - Not supported on 12LFF chassis or 24SFF chassis

## Core Options

| | |
|---|---|
| NVIDIA T4 16GB Computational Accelerator for HPE | R0W29C |

**Notes:**
- Max Qty=7 per server; Requires selection of 3x16 Primary and Secondary GPU Risers (P14374-B21, P14373-B21) for Qty=6; Requires the addition of x16 Tertiary Riser for Qty=7. If ordering with a 24SFF CTO server model (868704-B21, or 875783-B21, or P19719-B21), the HPE DL380 Gen10 Tertiary x16 Riser (826700-B21) is required. To achieve a max of 7 with 24SFF model, the pre-selected HPE Smart Array P408i and SAS Expander must be replaced with HPE Smart Array P816i-a SR Gen10 Ctrlr (804338-B21). Otherwise, Max Qty=6 for 24SFF CTO server models.
- This option requires the High Performance Fan Kit (867810-B21), and the High Performance Heatsink (826706-B21)
- System Memory Restriction <128TB
- System memory should be 2x GPU memory.

### 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 |

**Notes:**
- This kit is required for specific **Ambient temperature environments**.
- 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.
- The 12 LFF and 24 SFF models (including field upgrades to 24 SFF) will already include 6 High Performance fan kits.
- The High Performance fan kit is needed to support certain Passive GPGPU (Graphics cards) configurations; or ASHRAE operating environments.
- For elevated ambient temperature support please see: **http://www.hpe.com/servers/ashrae**.

# Additional Options

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

## Embedded Management

### HPE iLO Common Password FIO Setting

| | |
|---|---|
| HPE iLO Common Password FIO Setting | P08040-B21 |

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

### HPE 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 Converged Infrastructure Management Software

| | |
|---|---|
| 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 |
| HPE OneView w/o iLO including 3yr 24x7 Support Track 1-server LTU | P8B25A |
| HPE OneView w/o iLO including 3yr 24x7 Support Flexible Quantity E-LTU | P8B26AAE |

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

## Software as a Service Management

### HPE GreenLake for Compute Ops Management

| | |
|---|---|
| HPE GreenLake for Compute Ops Management Enhanced 3-year Upfront ProLiant SaaS | R7A11AAE |

### Additional Options

| | |
|---|---|
| HPE GreenLake for Compute Ops Management Enhanced 1-year Upfront ProLiant SaaS | R7A10AAE |
| HPE GreenLake for Compute Ops Management Enhanced 5-year Upfront ProLiant SaaS | R7A12AAE |

**Notes:** For customers purchasing HPE GreenLake for Compute Ops Management, without a hardware purchase or a BTO purchase, use this base SKU within ASQ order:

| | |
|---|---|
| HPE GreenLake for Compute Ops Management Base SaaS | R6Z73AAE |

## Additional Options

### HPE Security

HPE Trusted Supply Chain for HPE ProLiant P36394-B21

**Notes:**
- HPE Trusted Supply Chain (P36394-B21) is an optional security upgrade intended for agencies and regulated industries needing enhanced security and compliance needs. Applying this option to a DL380 Gen10 CTO server ensures it is built in the USA in a secured facility by vetted HPE personnel assigned to the manufacturing processes. A multitude of checkpoints/inspections for malicious microcode and counterfeit parts are performed throughout the server build, and additional safeguards are put in place against cyber-exploits throughout the server lifecycle. The HPE ProLiant DL380 Gen10 server is re-branded as a HPE ProLiant DL380T Gen10 to denote the HPE Trusted Supply Chain security enhancements. The DL380T Gen10 is currently supported in the USA, exclusively, and is Trade Agreement Act (TAA) compliant. Learn more at **http://www.hpe.com/security**
- This option requires the selection of HPE Gen10 Intrusion Detection Kit (867824-B21)
- This option requires the selection of either HPE iLO Advanced 1-server License with 3yr Support on iLO Licensed Features (BD505A) or HPE iLO Advanced 1-server License with 1yr Support on iLO Licensed Features (512485-B21)
- This option is limited to stand-alone DL380 Gen10 CTO servers only. The HPE Trusted Supply Chain configuration will not be available if the server is ordered as factory integrated into a rack
- One instance of the following Electronic License to Use is required per order (not per server): R6X85AAE - HPE Trusted Supply Chain E-LTU
- Logistics delivery speeds and services are available and selectable within Next Gen Quoter.
- This option cannot be selected with TAA instruction SKU nor TAA CTO Models

HPE iLO Common Password FIO Setting P08040-B21

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

HPE Gen10 2U Bezel Kit 867809-B21

HPE Bezel Lock Kit 875519-B21

**Notes:** Requires the bezel kit

HPE Gen10 Chassis Intrusion Detection Kit 867824-B21

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

HPE Trusted Platform Module 2.0 Gen10 Option 864279-B21

**Notes:**
- 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.
- HPE server systems can have a TPM module (of any type) installed only once. It cannot be replaced with any other TPM module.

HPE Gen10 TPM 1.2 FIO Setting 872108-B21

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

# Additional Options

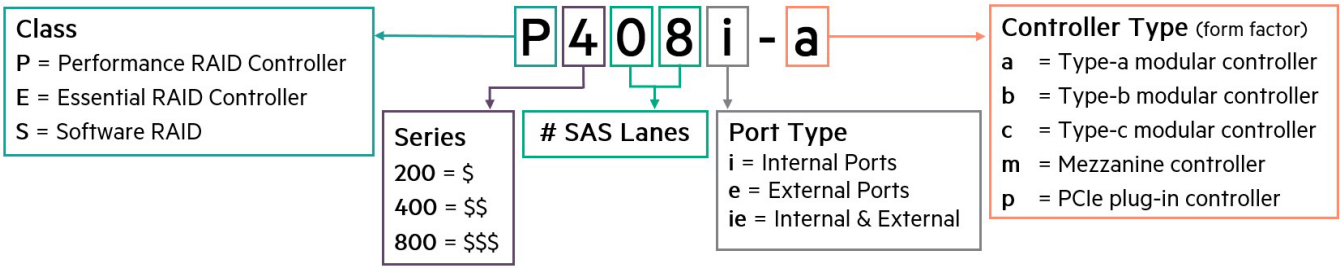
## HPE Boot Controllers

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

**Notes:** This option is pre-configured for HW RAID 1 for OS boot only and, by default, comes with 2x 480GB M.2 Read-Intensive enterprise-class NVMe with Power Loss Protection (PLP) by default

## 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 **https://www.hpe.com/psnow/doc/a00047736enw?jumpid=in_hpesitesearch**




### HPE Flexible Smart Array Performance RAID Controllers

**Notes:**

- All performance RAID controllers are supported by the HPE Smart Storage Hybrid Capacitor (P02377-B21) or HPE Smart Storage Battery (P01366-B21), which supports multiple devices and are sold separately.
- Flexible Smart Array controllers do not consume a PCIe slot.
- Smart Array controllers are not supported on HPE DL380 Gen10 NC 8SFF BC CTO Server (P56969-B21) and HPE DL380 Gen10 8SFF BC CTO Server (P56970-B21).
- Smart Array controllers only support Smart Carrier drives.

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

**Notes:**

- Includes SmartCache license.
- The P816i-a cable ships in the 12LFF chassis only (868705-B21).
- Smart Array controllers are not supported on HPE DL380 Gen10 NC 8SFF BC CTO Server (P56969-B21) and HPE DL380 Gen10 8SFF BC CTO Server (P56970-B21).
- Smart Array controllers only support Smart Carrier drives.

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

**Notes:**

- Smart Array controllers are not supported on HPE DL380 Gen10 NC 8SFF BC CTO Server (P56969-B21) and HPE DL380 Gen10 8SFF BC CTO Server (P56970-B21).
- Smart Array controllers only support Smart Carrier drives.

### HPE Flexible Smart Array Essential Controllers

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

**Notes:**

- Smart Array controllers are not supported on HPE DL380 Gen10 NC 8SFF BC CTO Server (P56969-B21) and HPE DL380 Gen10 8SFF BC CTO Server (P56970-B21).
- Smart Array controllers only support Smart Carrier drives.

## Additional Options

### Performance RAID Controllers

**Notes:** All performance RAID controllers are supported by the HPE Smart Storage Hybrid Capacitor (P02377-B21) or HPE Smart Storage Battery (P01366-B21), which support multiple devices and are sold separately.
Smart Array controllers are not supported on HPE DL380 Gen10 NC 8SFF BC CTO Server (P56969-B21) and HPE DL380 Gen10 8SFF BC CTO Server (P56970-B21).

HPE Smart Array P408i-p SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS PCIe Plug-in Controller 830824-B21

**Notes:**
- P408i-p Smart Array controller is not supported on HPE DL380 Gen10 NC 8SFF BC CTO Server (P56969-B21) and HPE DL380 Gen10 8SFF BC CTO Server (P56970-B21).
- Smart Array controllers only support Smart Carrier drives.

HPE Smart Array P408e-p SR Gen10 (8 External Lanes/4GB Cache) 12G SAS PCIe Plug-in Controller 804405-B21

### Essential RAID Controllers

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

**Notes:**
- E208i-p Smart Array controller is not supported on HPE DL380 Gen10 NC 8SFF BC CTO Server (P56969-B21) and HPE DL380 Gen10 8SFF BC CTO Server (P56970-B21).
- Smart Array controllers only support Smart Carrier drives.

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

### Tri-mode RAID Controllers

HPE MR416i-a Gen10 Plus x16 Lanes 4GB Cache NVMe/SAS 12G Controller P26279-B21
HPE MR416i-p Gen10 Plus x16 Lanes 4GB Cache NVMe/SAS 12G Controller P06367-B21
HPE MR216i-a Gen10 Plus x16 Lanes without Cache NVMe/SAS 12G Controller P26325-B21
HPE MR216i-p Gen10 Plus x16 Lanes without Cache NVMe/SAS 12G Controller P26324-B21

**Notes:**
- Supported with 8SFF Basic Carriers Model-X only. Only supports SAS/SATA.
- Broadcom MegaRAID controllers are only supported on HPE DL380 Gen10 NC 8SFF BC CTO Server (P56969-B21) and HPE DL380 Gen10 8SFF BC CTO Server (P56970-B21).
- Broadcom MegaRAID controllers are not supported with Windows Server 2012 R2 on HPE Gen10 servers
- The following drive cages are supported with Broadcom controllers:
  - P57772-B21 HPE ProLiant DL38x Gen10 2SFF BC HDD SAS/SATA Riser Kit
  - P57773-B21 HPE ProLiant DL380 Gen10 2SFF Premium HDD SAS/SATA BC Front/Rear Backplane Kit
  - P57774-B21 HPE ProLiant DL380 Gen10 8SFF SAS/SATA BC Box 1-2 Backplane Kit

## HPE Cable Options

HPE ProLiant DL38x 8SFF SAS/SATA Tri-Mode Cable Kit P55467-B21

**Notes:** Max = 2.
Supported with 8SFF Basic Carriers Model-X and 8SFF Basic Carrier BTO servers.

HPE ProLiant DL38x Gen10 Plus 2SFF SAS/SATA Tri-Mode Cable Kit P55469-B21

**Notes:** Max = 2.
Supported with 8SFF Basic Carriers Model-X only.

HPE ProLiant DL38x Gen10 Plus 2SFF Rear Tri-Mode Cable Kit P55471-B21

**Notes:** Max = 2.
Supported with 8SFF Basic Carriers Model-X only.

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 |
| **Notes:** If more than 8 SATA devices are being supported on the AHCI Embedded SATA controller, then Qty=1 of the SAS 3POS Cable Kit (826709-B21) is required. The AHCI Embedded SATA Controller is standard with all DL380 Gen10 models and can support up to 12 "SATA Only" devices. | |
| HPE DL38X/560/580/ML350 Gen10 P824i-p Cable Kit | P00614-B21 |
| **Notes:** For details on cabling options, additional information available here: **https://techhub.hpe.com/eginfolib/servers/CableMatrix/DL380_Gen10_diagrams.html** | |

### Optional Software

| | |
|---|---|
| HPE Smart Array SR Secure Encryption (Data at Rest Encryption/per Server Entitlement) E-LTU | Q2F26AAE |
| **Notes:** 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 Lithium-ion Battery with 145mm Cable Kit | P01366-B21 |
| HPE Smart Storage Hybrid Capacitor with 145mm Cable Kit | P02377-B21 |
| **Notes:** Provides backup power for multiple HPE Smart Array controllers or other devices. Is required with performance RAID controllers. | |

### HPE Tape Backup

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**

### HPE Storage Options

#### Emulex Fibre Channel HBAs

| | |
|---|---|
| HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter | Q0L13A |
| HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter | Q0L14A |
| HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter | Q0L11A |
| HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter | Q0L12A |
| HPE SN1610E 32Gb 1-port Fibre Channel Host Bus Adapter | R2J62A |
| HPE SN1610E 32Gb 2-port Fibre Channel Host Bus Adapter | R2J63A |

#### QLogic Fibre Channel HBAs

| | |
|---|---|
| HPE SN1100Q 16Gb Single Port Fibre Channel Host Bus Adapter | P9D93A |
| HPE SN1100Q 16Gb Dual Port Fibre Channel Host Bus Adapter | P9D94A |
| HPE SN1610Q 32Gb 1-port Fibre Channel Host Bus Adapter | R2E08A |
| HPE SN1610Q 32Gb 2-port Fibre Channel Host Bus Adapter | R2E09A |

#### Converged Network Adapters

| | |
|---|---|
| HPE CN1200R 10GBASE-T Converged Network Adapter | Q0F26A |
| HPE CN1300R 10/25Gb Dual Port Converged Network Adapter | Q0F09A |

# Additional Options

## HPE Racks

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

## HPE Power Distribution Units (PDUs)

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

## HPE Uninterruptible Power Systems (UPS)

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

## HPE Rack Options

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

## Rail Kits

Ball bearing and Easy Install rail kits contain telescoping rails which allow for in-rack serviceability.
To assist in the installation of the server into the rack an optional installation tool is available by contacting your local services representative (695539-001).

**Notes:**

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

| | |
|---|---|
| HPE 2U Small Form Factor Easy Install Rail Kit | 733660-B21 |
| **Notes:** Does not include CMA (733664-B21). | |
| HPE 2U Large Form Factor Easy Install Rail Kit | 733662-B21 |
| **Notes:** 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 |
| **Notes:** Does not include CMA (720865-B21). | |
| HPE 2U Large Form Factor Ball Bearing Rail Kit | 720864-B21 |
| **Notes:** Does not include Cable Management Arm (720865-B21). | |
| HPE 2U Cable Management Arm for Ball Bearing Rail Kit | 720865-B21 |

# Additional Options

## HPE USB and SD Options

**Notes:** In vSphere 7.0, VMware made changes that impact the use of an SD Card/USB media as a standalone boot device and will be removing support for them after version 7.x.
SD Card/USB media can still be used as a standalone boot option through all 7.x releases via published Customer Advisory **Usage of SD Card/USB Devices As Standalone Boot Devices Has Changed Due to System Storage Changes For VMware ESXi 7.0 (Or Later)**.
For any major release beyond VMware ESXi 7.x, VMware will require M.2 or another local persistent device as the standalone boot option.

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

| | |
|---|---|
| HPE 32GB microSD RAID 1 USB Boot Drive | P21868-B21 |
| HPE 32GB microSD Flash Memory Card | 700139-B21 |

**Notes:** Not supported with Legacy FIO mode (758959-B22)

## HPE Support Services

### Installation & Startup Services

| | |
|---|---|
| HPE ProLiant DL/ML Install Service | U4554E |
| HPE ProLiant DL/ML Startup Service | U4555E |

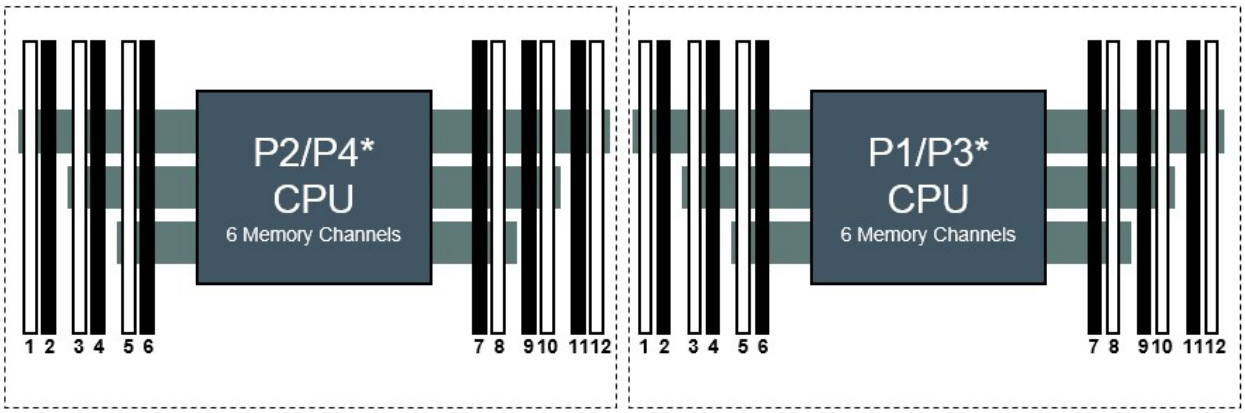
### Tech Care

| | |
|---|---|
| HPE 5 Year Tech Care Essential DL380 Gen10 Service | HS7Y9E |
| HPE 5 Year Tech Care Essential wDMR DL380 Gen10 Service | HS7Z4E |
| HPE 3 Year Tech Care Essential DL380 Gen10 Service | HS7Y7E |
| HPE 3 Year Tech Care Essential wDMR DL380 Gen10 Service | HS7Z2E |

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

# Memory

## Memory Population guidelines




**HPE ProLiant Gen10 DL360 / DL380 / DL560**

**Notes:** * Servers Front Server2 Slots per Channel

| HPE ProLiant Gen10 12 slot per CPU | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **DIMM population order** | | | | | | | | | | | | |
| **1 DIMM** | | | | | | | | 8 | | | | |
| **2 DIMM s** | | | | | | | | 8 | | 10 | | |
| **3 DIMM s** | | | | | | | | 8 | | 10 | | 12 |
| **4 DIMM s** | | | 3 | | 5 | | | 8 | | 10 | | |
| **5 DIMM s*** | | | 3 | | 5 | | | 8 | | 10 | | 12 |
| **6 DIMM s** | 1 | | 3 | | 5 | | | 8 | | 10 | | 12 |
| **7 DIMM s*** | 1 | | 3 | | 5 | | 7 | 8 | | 10 | | 12 |
| **8 DIMM s** | | | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | | |
| **9 DIMM s*** | 1 | | 3 | | 5 | | 7 | 8 | 9 | 10 | 11 | 12 |
| **10 DIMM s*** | 1 | | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | | 12 |
| **11 DIMM s*** | 1 | | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| **12 DIMM s** | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |

**Notes:** *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.
- For configurations with 2 CPUs, DIMMs need to be selected in even quantities. Using odd quantity of DIMMs in 2 CPU configurations will cause memory to be unbalanced and may negatively impact system performance.
- To maximize performance, it is recommended to balance the total memory capacity between all installed processors.
- When two processors are installed, balance the DIMMs across the two processors.
- White DIMM slots denote the first slot to be populated in a channel.
- Mixing of DIMM types (UDIMM, RDIMM, and LRDIMM) is not supported.
- The maximum memory speed is a function of the memory type, memory configuration, and processor model.
- The maximum memory capacity is a function of the number of DIMM slots on the platform, the largest DIMM capacity qualified on the platform, and the number and model of installed processors qualified on the platform.
- For details on the HPE Server Memory Options Population Rules, visit: **http://www.hpe.com/docs/memory-population-rules**
- To realize the performance memory capabilities listed in this document, HPE DDR4 Smart Memory is required. For additional information, please see the **HPE DDR4 Smart Memory QuickSpecs**.

## Memory

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

**Notes:** The maximum memory speed is a function of the memory type, memory configuration, and processor model.
For details on the HPE Server Memory speed, visit: **https://www.hpe.com/docs/memory-speed-table**

## Memory

| RDIMM | | | | | |
|---|---|---|---|---|---|
| HPE SKU P/N | P00918-B21 | P00920-B21 | P00922-B21 | P00924-B21 | P00930-B2 |
| SKU description | HPE 8GB 1Rx8 PC4-2933Y-R Smart Kit | HPE 16GB 1Rx4 PC4-2933Y-R Smart Kit | HPE 16GB 2Rx8 PC4-2933Y-R Smart Kit | HPE 32GB 2Rx4 PC4-2933Y-R Smart Kit | HPE 64GB 2Rx4 PC4-2933Y-R Smart Kit |
| DIMM rank | Single rank (1R) | Single rank (1R) | Dual rank (2R) | Dual rank (2R) | Dual rank (2R) |
| **DIMM capacity** | 8 GB | 16 GB | 16 GB | 32 GB | 64 GB |
| Voltage | 1.2V | 1.2V | 1.2V | 1.2V | 1.2V |
| DRAM depth | 1 Gb | 2 Gb | 1 Gb | 2 Gb | 4 Gb |
| DRAM width (bit) | x8 | x4 | x8 | x4 | x4 |
| DRAM density | 8 Gb | 8 Gb | 8 Gb | 8 Gb | 16 Gb |
| CAS latency | 21-21-21 | 21-21-21 | 21-21-21 | 21-21-21 | 21-21-21 |
| DIMM native speed (MT/s) | 2933 | 2933 | 2933 | 2933 | 2933 |
| **Maximum capacity (GB)** | | | | | |
| 16-slot servers | 128 | 256 | 256 | 512 | 1024 |
| 24-slot servers | 192 | 384 | 384 | 768 | 1536 |
| 48-slot servers | 384 | 768 | 768 | 1536 | 3072 |
| **HPE Server Memory speed (MT/s): Intel Xeon Platinum/Gold 82xx/62xx processors*** | | | | | |
| 1 DIMM per channel | 2933 | 2933 | 2933 | 2933 | 2933 |
| 2 DIMM per channel | 2933 | 2933 | 2933 | 2933 | 2933 |
| **HPE Server Memory speed (MT/s): Intel Xeon Gold 52xx processors*** | | | | | |
| 1 DIMM per channel | 2666 | 2666 | 2666 | 2666 | 2666 |
| 2 DIMM per channel | 2666 | 2666 | 2666 | 2666 | 2666 |
| **HPE Server Memory speed (MT/s): Intel Xeon Silver 42xx processors** | | | | | |
| 1 DIMM per channel | 2400 | 2400 | 2400 | 2400 | 2400 |
| 2 DIMM per channel | 2400 | 2400 | 2400 | 2400 | 2400 |
| **HPE Server Memory speed (MT/s): Intel Xeon Bronze 32xx processors** | | | | | |
| 1 DIMM per channel | 2133 | 2133 | 2133 | 2133 | 2133 |
| 2 DIMM per channel | 2133 | 2133 | 2133 | 2133 | 2133 |

**Notes:** *

- Intel Xeon Gold 52xx processors support 2933 MT/s.
- HPE ProLiant DL560 and DL580 servers do not support 32xx or 42xx processors.
- Memory DIMM availability and maximum memory speed with a server platform is dependent upon completion of certification testing.
- The maximum memory speed is a function of the memory type, memory configuration, and processor model.
- When HPE Persistent Memory for second-generation Intel Xeon Scalable processors is installed, the maximum supported memory speed is 2666 MT/s.

## Memory

| LRDIMM | | | |
|---|---|---|---|
| HPE SKU P/N | P00926-B21 | P00928-B21 | P11040-B21 |
| SKU description | HPE 64GB 4Rx4 PC4-2933Y-L Smart Kit | HPE 128GB 8Rx4 PC4-2933Y-L 3DS Smart Kit | HPE 128GB 4Rx4 PC4-2933Y-L Smart Kit |
| DIMM rank | Quad rank (4R) | Octal rank (8R) | Quad rank (4R) |
| **DIMM capacity** | 64 GB | 128 GB | 128 GB |
| Voltage | 1.2V | 1.2V | 1.2V |
| DRAM depth | 2 Gb | 2 Gb | 4 Gb |
| DRAM width (bit) | x4 | x4 | x4 |
| DRAM density | 8 Gb | 8 Gb | 16 Gb |
| CAS latency | 21-21-21 | 24-21-21 | 21-21-21 |
| DIMM native speed (MT/s) | 2933 | 2933 | 2933 |
| **Maximum capacity (GB)** | | | |
| 16-slot servers | 1024 | 2048 | 2048 |
| 24-slot servers | 1536 | 3072 | 3072 |
| 48-slot servers | 3072 | 6144 | 6144 |
| **HPE Server Memory speed (MT/s): Intel Xeon Platinum/Gold 82xx/62xx processors*** | | | |
| 1 DIMM per channel | 2933 | 2933 | 2933 |
| 2 DIMM per channel | 2933 | 2933 | 2933 |
| **HPE Server Memory speed (MT/s): Intel Xeon Gold 52xx processors*** | | | |
| 1 DIMM per channel | 2666 | 2666 | 2666 |
| 2 DIMM per channel | 2666 | 2666 | 2666 |
| **HPE Server Memory speed (MT/s): Intel Xeon Silver 42xx processors** | | | |
| 1 DIMM per channel | 2400 | 2400 | 2400 |
| 2 DIMM per channel | 2400 | 2400 | 2400 |
| **HPE Server Memory speed (MT/s): Intel Xeon Bronze 32xx processors** | | | |
| 1 DIMM per channel | 2133 | 2133 | 2133 |
| 2 DIMM per channel | 2133 | 2133 | 2133 |

**Notes:** *

- Intel Xeon Gold 52xx processors support 2933 MT/s.
- HPE ProLiant DL560 and DL580 servers do not support 32xx or 42xx processors.
- Memory DIMM availability and maximum memory speed with a server platform is dependent upon completion of certification testing.
- The maximum memory speed is a function of the memory type, memory configuration, and processor model.
- When HPE Persistent Memory for second-generation Intel Xeon Scalable processors is installed, the maximum supported memory speed is 2666 MT/s.

## Memory

| 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) |

### DDR4 memory options part number decoder

**Notes:** Capacity references are rounded to the common gigabyte (GB) values.

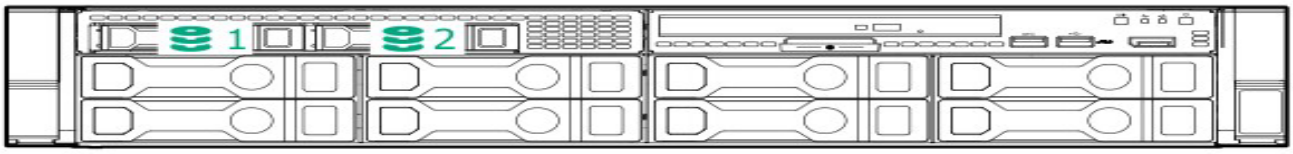
- 8GB = 8,192 MB
- 16GB = 16,384 MB
- 32GB = 32,768 MB
- 64GB = 65,536 MB

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

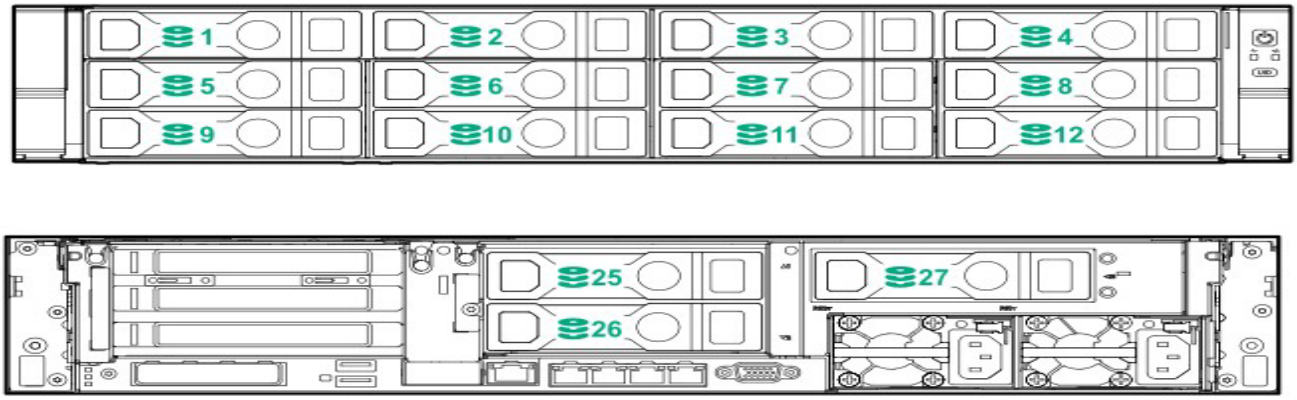
### Memory Speed Table for HPE ProLiantDL380 Gen 10

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

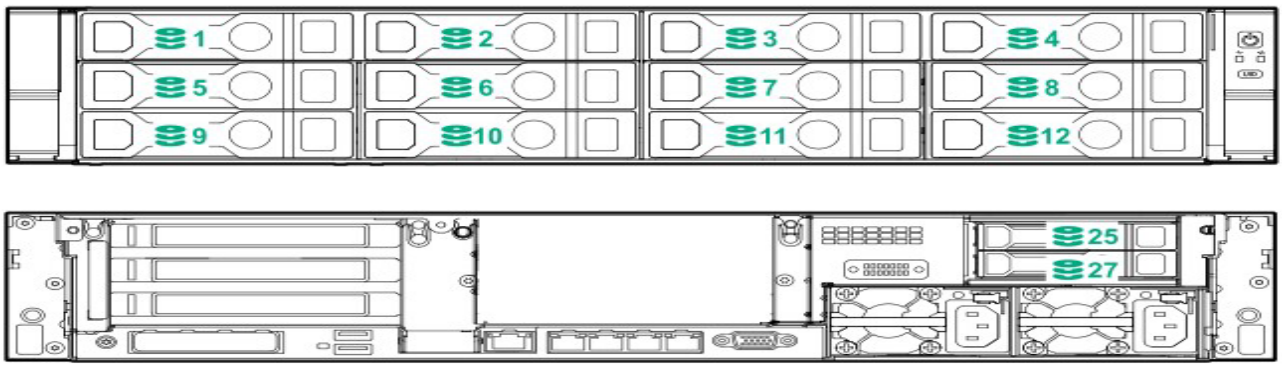
## Storage




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

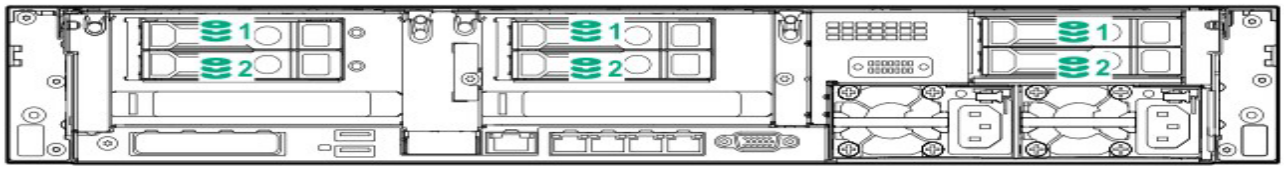



**12 LFF + 3 rear LFF drives**




**12 LFF + 2 rear SFF drives**

## Storage




**6 rear SFF drives**







**24 SFF + rear 2 SFF drives**

# Technical Specifications

## System Unit

### Dimensions

- **SFF Drives:**
  8.73 x 44.54 x 67.94 cm / 3.44 x 17.54 x 26.75 in
- **LFF Drives:**
  8.73 x 44.54 x 73.02 cm / 3.44 x 17.54 x 28.75 in

**Weight** (approximate)

- **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:**
    19.5 kg / 43.00 lbs.
  - **Minimum:**
    14.9 kg / 32.75 lbs.
- **Maximum:** 12 LFF hard drives (no rear drives), 2x processors, 2x power supplies, 1x Smart Array, 2x Risers installed)
  - **Maximum:**
    24.5 kg / 54 lbs.
  - **Minimum:**
    17.1 kg / 37.75 lbs.

## Input Requirements (per power supply)

### Rated Line Voltage

- For 1800W-2200W (Titanium) Power Supply: 200-240 VAC
- For 1600W (Platinum): 200-240 VAC
- For 800W (Titanium) Power Supply: 200-240 VAC
- For 800W (Platinum) Power Supply: 100-240 VAC
- For 800W (Universal) Power Supply: 200-277 VAC
- For 800W (-48VDC) Power Supply: -40 Vdc to -72 Vdc
- 500W (Platinum) Power Supply: 100-240 VAC
- For 1600W (-48VDC): -40 to -72

## BTU Rating

### Maximum

- For 1800W-2200W (Titanium) Power Supply: 6497 BTU/hr. (at 200 VAC), 6868 BTU/hr. (at 208 VAC), 7230 BTU/hr. (at 220 VAC), 7596 BTU/hr. (at 230VAC), 7962 BTU/hr. (at 240VAC)
- For 1600W Power Supply: 5918 BTU/hr. (at 200 VAC), 5888 BTU/hr. (at 220 VAC), 5884 BTU/hr. (at 240 VAC)
- For 800W (Titanium) Power Supply: 2905 BTU/hr. (at 200 VAC), 2899 BTU/hr. (at 220 VAC), 2893 BTU/hr. (at 240 VAC)
- For 800W (Platinum) Power Supply: 3067 BTU/hr. (at 100 VAC), 2958 BTU/hr. (at 200 VAC), 2949 BTU/hr. (at 240 VAC)
- For 800W (Universal) Power Supply: 2964 BTU/hr. (at 200 VAC), 2951 BTU/hr. (at 230 VAC), 2936 BTU/hr. (at 277 VAC)
- For 800W-(48Vdc) Power Supply: 2983 BTU/hr. (at -40 Vdc), 2951 BTU/hr. (at -48Vdc), 2912 BTU/hr. (at -72Vdc)
- For 500W (Platinum) Power Supply: 1902 BTU/hr. (at 100 VAC), 1840 BTU/hr. (at 200 VAC), 1832 BTU/hr. (at 240 VAC)
- For 1600W-(48Vdc) Power Supply: 6026 BTU/hr. (at -40 Vdc), 6000 BTU/hr. (at -48Vdc), 5989 BTU/hr. (at -72Vdc)

# Technical Specifications

## Relative Humidity (non-condensing)

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

## Power Supply Output

(per power supply)

### Rated Steady-State Power

- For 1800W-2200W (Titanium) Power Supply: 1800W (at 200 VAC), 1900W (at 208 VAC), 2000W(at 220 VAC), 2100W(at 230VAC), 2200W(at 240VAC)
- For 1600W Power Supply: 1600W (at 240 VAC), 1600W (at 240 VDC) for China only
- For 800W (Titanium) Power Supply: 800W (at 200 VAC), 800W (at 240 VAC), 800W (at 240 VDC) for China only
- For 800W (Platinum) Power Supply: 800W (at 100 VAC), 800W (at 240 VAC), 800W (at 240 VDC) input for China only
- For 800W (Universal) Power Supply: 800W (at 200 VAC), 800W (at 277 VAC)
- For 800W (-48VDC) Power Supply: 800W (at -40 Vdc), 800W (at -72Vdc)
- For 500W (Platinum) Power Supply: 500W (at 100 VAC), 500W (at 240 VAC), 500W (at 240 VDC) input for China only
- For 1600W (-48VDC) Power Supply: 1600W (at -40 Vdc), 1600W (at -72Vdc)

### Maximum Peak Power

- For 1800W-2200W (Titanium) Power Supply: 1800W (at 200 VAC), 1900W (at 208 VAC), 2000W(at 220 VAC), 2100W(at 230VAC), 2200W(at 240VAC)
- For 1600W Power Supply: 1600W (at 240 VAC), 16NVIDIA00W (at 240 VDC) for China only
- For 800W (Titanium) Power Supply: 800W (at 200 VAC), 800W (at 240 VAC), 800W (at 240 VDC) for China only
- For 800W (Platinum) Power Supply: 800W (at 100 VAC), 800W (at 240 VAC), 800W (at 240 VDC) input for China only
- For 800W (Universal) Power Supply: 800W (at 200 VAC), 800W (at 277 VAC)
- For 800W (-48VDC) Power Supply: 800W (at -40 Vdc), 800W (at -72Vdc)
- For 500W (Platinum) Power Supply: 500W (at 100 VAC), 500W (at 240 VAC), 500W (at 240 VDC) input for China only
- For 1600W (-48VDC) Power Supply: 1600W (at -40 Vdc), 1600W (at -72Vdc)

## System Inlet Temperature

- **Standard Operating Temperature**
  10° to 35°C (50° to 95°F) at sea level with an altitude derating 1.0°C per every 305 m (1.8°F per every 1000 ft) above sea level to a maximum of 3050 m (10,000 ft.), no direct sustained sunlight. Maximum rate of change is 20°C/hr. (36°F/hr.). The upper limit and rate of change may be limited by the type and number of options installed.
  System performance during standard operating support may be reduced if operating with a fan fault or above 30°C (86°F).

- **Extended Ambient Operating Temperature**
  For approved hardware configurations, the supported system inlet range is extended to be: 5° to 10°C (41° to 50°F) and 35° to 40°C (95° to 104°F) at sea level with an altitude derating of 1.0°C per every 175 m (1.8°F per every 574 ft.) above 900 m (2953 ft.) to a maximum of 3050 m (10,000 ft.). The approved hardware configurations for this system are listed at the URL: **http://www.hpe.com/servers/ashrae**
  For approved hardware configurations, the supported system inlet range is extended to be: 40° to 45°C (104° to 113°F) at sea level with an altitude derating of 1.0°C per every 125 m (1.8°F per every 410 ft.) above 900 m (2953 ft.) to a maximum of 3050 m (10,000 ft.). The approved hardware configurations for this system are listed at the URL: **http://www.hpe.com/servers/ashrae**
  System performance may be reduced if operating in the extended ambient operating range or with a fan fault.

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

# Technical Specifications

## Altitude

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

## Acoustic Noise

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

| Acoustic Noise | |
|---|---|
| **Idle** | |
| LWAd | 4.8 B Entry<br>4.4 B Base<br>4.6 B Perf |
| LpAm | 37 dBA Entry<br>31 dBA Base<br>31 dBA Perf |
| **Operating** | |
| LWAd | 4.8 B Entry<br>4.4 B Base<br>4.6 B Perf |
| LpAm | 37 dBA Entry<br>31 dBA Base<br>31 dBA Perf |

**Notes:**

- Acoustics levels presented here are generated by the test configuration only. Acoustics levels will vary depending on system configuration. Values are subject to change without notification and are for reference only.
- Product conformance to cited product specifications is based on sample (type) testing, evaluation, or assessment. This product or family of products is eligible to bear the appropriate compliance logos and statements.
- The Listed sound levels apply to standard shipping configurations. Additional options may result in increased sound levels

## Emissions Classification (EMC) – Regulatory Information

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

## HPE Smart Array

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

## Technical Specifications

### Environment-friendly Products and Approach End-of-life Management and Recycling

Hewlett Packard Enterprise offers **end-of-life product return, trade-in, and recycling programs**, in many geographic areas, for our products. Products returned to Hewlett Packard Enterprise will be recycled, recovered or disposed of in a responsible manner.

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

## Summary of Changes

| Date | Version History | Action | Description of Change |
|---|---|---|---|
| 21-Oct-2024 | Version 75 | Changed | Core Options section was updated. |
| 16-Sep-2024 | Version 74 | Changed | Standard Features (Operating Systems and Virtualization Software Support for HPE Servers) section was updated. |
| 05-Aug-2024 | Version 73 | Changed | Pre-Configured Models and Core Options sections were updated |
| 03-Jun-2024 | Version 72 | Changed | Pre-Configured Models and Core Options sections were updated. |
| 20-May-2024 | Version 71 | Changed | Configuration Information and Core Options sections were updated |
| 08-Apr-2024 | Version 70 | Changed | Overview, Standard Features, Pre-Configured Models, Configuration Information and Core Options sections were updated. |
| 01-Apr-2024 | Version 69 | Changed | Standard Features, Pre-Configured Models, Core Options and Memory sections were updated. |
| 18-Mar-2024 | Version 68 | Changed | Pre-Configured Models section was updated |
| 05-Feb-2024 | Version 67 | Changed | Core Options section was updated. |
| 11-Dec-2023 | Version 66 | Changed | Pre-Configured Models section was updated |
| 04-Dec-2023 | Version 65 | Changed | HPE Services Rebranding |
| 05-Sep-2023 | Version 64 | Changed | Core Options and Technical Specifications sections were updated. |
| 10-Jul-2023 | Version 63 | Changed | Standard Features, Core Options and Technical Specifications sections were updated. |
| 05-Jun-2023 | Version 62 | Changed | Core Options section was updated. |
| 01-May-2023 | Version 61 | Changed | Optional Features and Additional Options sections were updated. |
| 13-Mar-2023 | Version 60 | Changed | Overview and Pre-Configured Models sections were updated. |
| 06-Mar-2023 | Version 59 | Changed | Standard Features and Core Options sections were updated.<br>Obsolete SKUs were removed. |
| 10-Jan-2023 | Version 58 | Changed | Core Options section was updated, and Obsolete SKUs were removed. |
| 05-Dec-2022 | Version 57 | Changed | Core Options, Additional Options and Memory sections were updated.<br>Obsolete SKUs were removed. |
| 21-Nov-2022 | Version 56 | Changed | Optional Features, Pre-configured Models, Core Options and Additional Options sections were updated.<br>Obsolete SKUs were removed. |
| 06-Sep-2022 | Version 55 | Changed | Pre-configured Models and Core Options sections were updated.<br>Obsolete SKUs were removed. |
| 01-Aug-2022 | Version 54 | Changed | Pre-configured Models and Core Options sections were updated.<br>Obsolete SKUs were removed. |
| 05-Jul-2022 | Version 53 | Changed | Standard Features section was updated.<br>Obsolete SKUs were removed. |
| 06-Jun-2022 | Version 52 | Changed | Configuration Information, Additional Options, Pre-configured Models and Core Options sections were updated.<br>Obsolete SKUs were removed. |
| 02-May-2022 | Version 51 | Changed | Core Options section was updated.<br>Obsolete SKUs were removed. |
| 07-Feb-2022 | Version 50 | Changed | Standard Features, Core Options and Technical Specifications sections were updated.<br>Obsolete SKUs were removed. |
| 06-Dec-2021 | Version 49 | Changed | Core Options, Pre-configured Models and Additional Options sections were updated. |
| 01-Nov-2021 | Version 48 | Changed | Core Options and Service and Support sections were updated.<br>Obsolete SKUs were removed. |
| 07-Sep-2021 | Version 47 | Changed | Core Options and Technical Specifications sections were updated.<br>Obsolete SKUs were removed. |
| 02-Aug-2021 | Version 46 | Changed | Overview, Core Options and Configuration Information sections were updated. |
| 06-Apr-2021 | Version 45 | Changed | Service and Support and Additional Options sections were updated.<br>Obsolete SKUs were removed. |



## Summary of Changes

| Date | Version History | Action | Description of Change |
|---|---|---|---|
| 01-Mar-2021 | Version 44 | Changed | Overview, Pre-configured Models, and Configuration Information sections were updated.<br>Obsolete SKUs were removed. |
| 01-Feb-2021 | Version 43 | Changed | Pre-configured Models section was updated.<br>Obsolete SKUs were removed. |
| 07-Dec-2020 | Version 42 | Changed | Standard Features, Core Options and Technical Specifications sections were updated.<br>Obsolete SKUs were removed. |
| 02-Nov-2020 | Version 41 | Changed | Pre-configured Models, Core Options and Additional Options sections were updated. Obsolete SKUs were removed. |
| 05-Oct-2020 | Version 40 | Changed | Overview, Standard Features, Pre-configured Models, Configuration Information and Core Options sections were updated.<br>Obsolete SKUs were removed. |
| 01-Oct-2020 | Version 39 | Changed | Overview, Configuration Information and Additional Options sections were updated.<br>Obsolete SKUs were removed. |
| 03-Aug-2020 | Version 38 | Changed | Overview, Standard Features, Core Options and Additional Options sections were updated.<br>Obsolete SKUs were removed. |
| 01-Jun-2020 | Version 37 | Changed | Standard Features, Configuration Information and Core Options sections were updated. |
| 04-May-2020 | Version 36 | Changed | Pre-configured Models, Core Options and Additional Options sections were updated. |
| 06-Apr-2020 | Version 35 | Changed | Overview, Standard Features, Pre-configured Models, Configuration Information and Core Options sections were updated |
| 16-Mar-2020 | Version 34 | Changed | Configuration Information and Core Options sections were updated. |
| 02-Mar-2020 | Version 33 | Changed | Standard Features, Configuration Information, Core Options and Additional Options sections were updated |
| 24-Feb-2020 | Version 32 | Changed | Standard Features, Pre-configured Models, Configuration Information, Core Options and Additional Options sections were updated |
| 03-Feb-2020 | Version 31 | Changed | Overview, Core Options, and Additional Options. sections were updated.<br>Obsolete SKUs were removed. |
| 20-Jan-2020 | Version 30 | Changed | Standard Features, Pre-configured Models and Configuration Information sections were updated. |
| 02-Dec-2019 | Version 29 | Changed | Overview, Standard Features, Configuration Information, Core Options and Additional Options sections were updated.<br>Obsolete SKUs were removed. |
| 07-Oct-2019 | Version 28 | Changed | Overview, Standard Features, Pre-configured Models, Core Options and Additional Options sections were updated.<br>Obsolete SKU was removed. |
| 16-Sep-2019 | Version 27 | Changed | Configuration Information section was updated.<br>Obsolete SKU was removed |
| 03-Sep-2019 | Version 26 | Changed | Overview, Configuration Information - Factory Integrated Models, Pre-configured Models, Core Options, and Additional Options sections were updated.<br>Obsolete SKUs were removed. |
| 12-Aug-2019 | Version 25 | Changed | Overview, Standard Features, Pre-configured Models, Configuration Information - Factory Integrated Models, Core Options, SMB Models and Additional Options sections were updated.<br>Obsolete SKUs were removed. |

## Summary of Changes

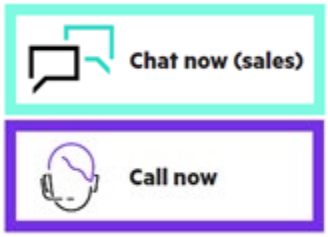
| Date | Version History | Action | Description of Change |
|---|---|---|---|
| 01-Jul-2019 | Version 24 | Changed | Pre-Configured models section was updated.<br>The 5218N wattage has changed from 105 to 110W TDP.<br>The U.S. version of QuickSpecs is no longer being updated, please reference the Worldwide QuickSpecs for latest information |
| 03-Jun-2019 | Version 23 | Changed | Overview, Standard Features, Configuration Information, Core Options, and Additional Options sections were updated.<br>SKU descriptions were updated.<br>Obsolete SKUs were removed. |
| 15-Apr-2019 | Version 22 | Changed | Standard Features section was updated |
| 02-Apr-2019 | Version 21 | Changed | Overview, Standard Features, Pre-configured Models, Configuration Information, Core Options, Additional Options and Memory sections were updated |
| 04-Feb-2019 | Version 20 | Changed | Overview, Core Options and Optional Features sections were updated. |
| 03-Dec-2018 | Version 19 | Changed | Overview, Standard Features, Core Options and Storage sections were Updated. |
| 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 | Changed | Added new Solid State Drives offering,<br>Added new GPU option.<br>Configuration Information - Factory Integrated Models, Core Options, and Additional Options were revised.<br>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 | Changed | Added new SSDs offering to the HPE Drives section.<br>Core Options, Additional Options, and Memory were updated.<br>Obsolete SKUs were removed from the QuickSpecs. |
| 07-May-2018 | Version 12 | Changed | New SMB Models offering was added.<br>Riser Information was revised.<br>Obsolete SKUs were removed from the QuickSpecs. |
| 02-Apr-2018 | Version 11 | Changed | SKUs descriptions were updated.<br>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 | Changed | 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.<br>Processors, Memory, Maximum 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. |

## Summary of Changes

| Date | Version History | Action | Description of Change |
|---|---|---|---|
| 16-Oct-2017 | Version 5 | Changed | 8GB Dual Rank Memory was added.<br>Riser table was added under Core Options.<br>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 | Changed | 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).<br>Memory, Standard Features, Configuration Information - Factory Integrated Models, Core Options, Additional Options, and Technical Specifications were revised.<br>Obsolete SKUs were removed from the QuickSpecs. |
| 04-Sep-2017 | Version 3 | Changed | Smart Buy models section was revised (NA version only). |
| 07-Aug-2017 | Version 2 | Changed | Added new Solid State Drives offering to the HPE Drives section.<br>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. |

## Copyright

**Make the right purchase decision.**
**Contact our presales specialists.**




**Get updates**

© Copyright 2024 Hewlett Packard Enterprise Development LP. The information contained herein is subject to change without notice. The only warranties for Hewlett Packard Enterprise products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. Hewlett Packard Enterprise shall not be liable for technical or editorial errors or omissions contained herein.

Intel® and Xeon® are registered trademarks of Intel Corporation in the U.S. and other countries.
Microsoft®, Windows®, and Windows Server® are U.S. registered trademarks of the Microsoft group of companies.
For hard drives, 1GB = 1 billion bytes. Actual formatted capacity is less

a00008180enw - 15930 - Worldwide - V75 - 21-October-2024

Hewlett Packard Enterprise