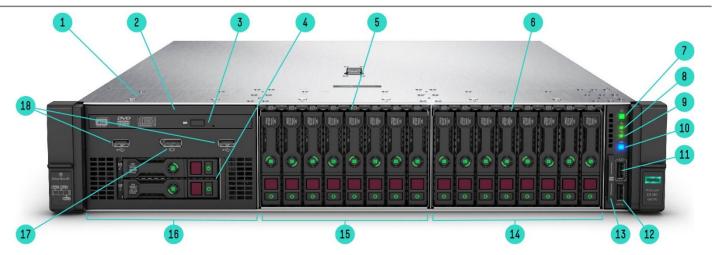
# QuickSpecs

# **Overview**

# HPE ProLiant DL380 Gen10 Server

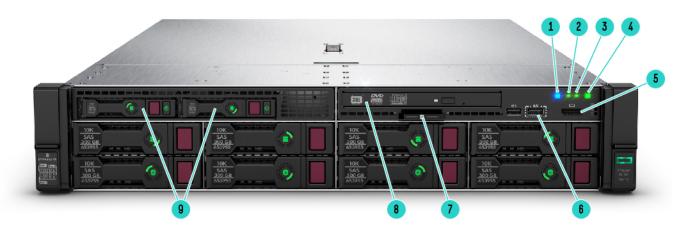
Adaptable for diverse workloads and environments, the secure 2P 2U HPE ProLiant DL380 Gen10 delivers world-class performance with the right balance of expandability and scalability. Designed for supreme versatility and resiliency while being backed by a comprehensive warranty make it ideal for multiple environments from Containers to Cloud to Big Data. Standardize on the industry's most trusted compute platform.



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

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

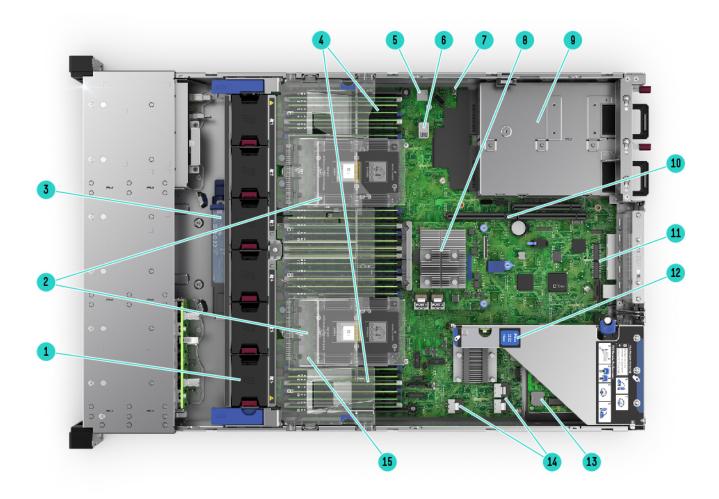




Front View - 8LFF chassis with Universal media bay and optional 2SFF and optical drive shown

- 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

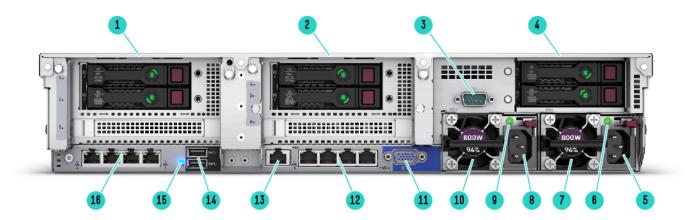


# Internal View 8SFF chassis – with optional 2<sup>nd</sup> CPU, FlexLOM, Smart array shown

- 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)<sup>1</sup>
- 12. Primary PCle 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:** <sup>1</sup> 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.



# 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)<sup>1</sup>
- 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:** <sup>1</sup> 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

- New Read-Intensive SFF Value SAS SSD (960GB/1.92TB/3.84TB/7.68TB)
- New Mixed-Use SFF Value SAS SSD (960GB/1.92TB/3.84TB)
- New Mixed-Use LFF Value SAS SSD (1.92TB)
- New HPE 32GB 1Rx4 DDR4-2933 Registered Memory Kit (P38466-B21)
- New HPE Trusted Supply Chain/HPE ProLiant DL380T Gen10 option (P36394-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.
- 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). 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.

**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 1<sup>st</sup> generation processors (x1xx) to 2<sup>nd</sup> 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 <a href="http://www.intel.com/xeon">http://www.intel.com/xeon</a>.

This table covers the public Intel offering only.

| Intel Xeon processors   |                    |                                                                                                                                                                                                                                                           |
|-------------------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Processor Suffix</b> | 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/largervirtual machines per host.                                                                                                                                                                    |
| Υ                       | 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       | Cores    | L3 Cache | Power | UPI           | DDR4      | Memory per |  |  |  |
|                                                       | Frequency |          | (MB)     |       |               |           | 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   | 24/20/16 | 35.75    | 165W  | 3 @ 10.4 GT/s | 2933 MT/s | 1TB        |  |  |  |
|                                                       | /2.7GHz   |          |          |       |               |           |            |  |  |  |
| 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        |  |  |  |

#### **Notes:**

- Platinum 8200 Series 2 Socket supports 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 will processors will ship with the Standard heatsink.

| 1st Generation Intel® Xeon® Scalable Processor Family |           |       |          |       |               |           |            |  |  |  |
|-------------------------------------------------------|-----------|-------|----------|-------|---------------|-----------|------------|--|--|--|
| Intel Xeon Models                                     | CPU       | Cores | L3 Cache | Power | UPI           | DDR4      | Memory per |  |  |  |
|                                                       | Frequency |       | (MB)     |       |               |           | 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 will processors will ship with the Standard heatsink.

| 2nd Generation Intel® Xeon® Scalable Processor Family |                     |         |                  |             |               |          |                   |  |  |  |  |
|-------------------------------------------------------|---------------------|---------|------------------|-------------|---------------|----------|-------------------|--|--|--|--|
| Intel Xeon Models                                     | CPU<br>Frequency    | Cores   | L3 Cache<br>(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 <sup>4</sup>                      | 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 <sup>4</sup>                      | 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/<br>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             |  |  |  |  |

| 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 | 0             | 2933MT/s | 1TB   |
| Gold 6210U Processor              | 2.5GHz | 20 | 27.5  | 150W | 0             | 2933MT/s | 1TB   |
| Gold 6209U Processor              | 2.1GHz | 20 | 27.5  | 125W | 0             | 2933MT/s | 1TB   |
| Gold 6208U Processor              | 2.9GHz | 16 | 22    | 150W | 0             | 2933MT/s | 1TB   |
| Gold 5222 Processor <sup>1</sup>  | 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 <sup>3</sup> | 2.3GHz | 16 | 22    | 110W | 2 @ 10.4 GT/s | 2666MT/s | 1TB   |
| Gold 5218B Processor <sup>2</sup> | 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:

- <sup>1</sup>Gold Processor 5222 supports 2933 DDR4 and 2 512-bit FMA units
- <sup>2</sup> 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
- 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.
- <sup>4</sup>Configuration support and facilities-requirements matrix for Gold Processor 6256 and Gold Processor 6250 listed below:

| Intel Xeon Scalable Se | eries 6250, 6250L, and | 6256 Configuration and            | d Facilities Requireme | ents Matrix                       |
|------------------------|------------------------|-----------------------------------|------------------------|-----------------------------------|
| DL380 Gen10            | 6250 & 6250L           |                                   | 6256                   |                                   |
| Max inlet temp.        | Without DIMM blanks    | With DIMM blanks kit <sup>1</sup> | Without DIMM blanks    | With DIMM blanks kit <sup>1</sup> |
| 8SFF                   | Up to 30°C / 86°F      | Up to 35°C / 95°F1                | Up to 30°C / 86°F      | Up to 35°C / 95°F1                |
| 16SFF + front 2SFF     | Up to 25°C / 77°F      | Up to 30°C / 86°F1                | Up to 30°C / 86°F      | Up to 35°C / 95°F <sup>1</sup>    |
| 16SFF + 8NVMe          | Not Supported          | Not Supported                     | Not Supported          | Not Supported                     |
| 24SFF                  | Up to 25°C / 77°F      | Up to 30°C / 86°F1                | Up to 30°C / 86°F      | Up to 35°C / 95°F1                |
| 24SFF + rear SFF       | Not Supported          | Not Supported                     | Not Supported          | Not Supported                     |
| 8LFF                   | Up to 25°C / 77°F      | Up to 30°C / 86°F1                | Up to 30°C / 86°F      | Up to 35°C / 95°F1                |
| 12LFF                  | Up to 20°C / 68°F      | Up to 25°C / 77°F1                | Up to 20°C / 68°F      | Up to 25°C / 77°F1                |
| 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: <sup>1</sup>Must install DDR4 DIMM blanks (P07818-B21) on all empty DIMM slots

| Intel Xeon Models    | CPU       | Cores | L3 Cache | Power | UPI           | DDR4      | Memory     |
|----------------------|-----------|-------|----------|-------|---------------|-----------|------------|
|                      | Frequency |       | (MB)     |       |               |           | 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.

- 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 PCle 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 will processors will ship with the Standard heatsink.

| 2nd Generation Intel® Xeon® Scalable Processor Family |                    |         |          |       |              |           |            |  |  |  |
|-------------------------------------------------------|--------------------|---------|----------|-------|--------------|-----------|------------|--|--|--|
| Intel Xeon Models                                     | CPU                | Cores   | L3 Cache | Power | UPI          | DDR4      | Memory     |  |  |  |
|                                                       | Frequency          |         | (MB)     |       |              |           | per socket |  |  |  |
| Silver 4216 Processor                                 | 2.1GHz             | 16      | 22       | 100W  | 2 @ 9.6 GT/s | 2400 MT/s | 1TB        |  |  |  |
| Silver 4215R Processor <sup>4</sup>                   | 3.2GHz             | 8       | 11       | 130W  | 2 @ 9.6 GT/s | 2400 MT/s | 1TB        |  |  |  |
| Silver 4215 Processor <sup>4</sup>                    | 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/<br>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

| 1 <sup>st</sup> Generation Intel® Xeon® Scalable Processor Family |                  |       |                  |       |              |           |                   |  |  |  |
|-------------------------------------------------------------------|------------------|-------|------------------|-------|--------------|-----------|-------------------|--|--|--|
| Intel Xeon Models                                                 | CPU<br>Frequency | Cores | L3 Cache<br>(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 PCle 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<br>Frequency | Cores | L3 Cache<br>(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

| 1st Generation Intel® Xeon® Scalable Processor Family |           |       |          |       |              |           |            |  |  |  |
|-------------------------------------------------------|-----------|-------|----------|-------|--------------|-----------|------------|--|--|--|
| Intel Xeon Models                                     | CPU       | Cores | L3 Cache | Power | UPI          | DDR4      | Memory per |  |  |  |
|                                                       | Frequency |       | (MB)     |       |              |           | 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 PCle 3.0, standard RAS supported.

# Chipset

Intel C621 Chipset

For more information regarding Intel® chipsets, please see the following URL: <a href="http://www.intel.com/products/server/chipsets/">http://www.intel.com/products/server/chipsets/</a>

# On System Management Chipset

HPE iLO 5 ASIC

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

# Memory

One of the following depending on model.

| Туре                     | HPE DDR4 SmartMemory,                                                      |
|--------------------------|----------------------------------------------------------------------------|
|                          | Registered (RDIMM), Load Reduced (LRDIMM)                                  |
| DIMM Slots Available     | 24                                                                         |
|                          | 12 DIMM slots per processor, 6 channels per processor, 2 DIMMs per channel |
| Maximum capacity         | 3.0 TB                                                                     |
| (LRDIMM)                 | 24 x 128 GB LRDIMM @ 2933 MT/s                                             |
| Maximum capacity         | 1.54 TB                                                                    |
| (RDIMM)                  | 24 x 64 GB RDIMM @ 2933 MT/s                                               |
| Maximum capacity         | 6.0 TB                                                                     |
| (Intel Optane Persistent | 12 X 512 GB Memory Modules @ 2666 MT/s                                     |
| Memory for HPE)          |                                                                            |
| Maximum capacity         | 192 GB                                                                     |
| (HPE NVDIMMs)            | 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. 2<sup>nd</sup> 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). 1<sup>st</sup> generation processors supporting 1.5 TB per CPU are indicated by the "M" in the processor model names (ie 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: <a href="https://www.hpe.com/docs/memory-speed-table">https://www.hpe.com/docs/memory-speed-table</a>
- To realize the performance memory capabilities listed in this document, HPE DDR4 SmartMemory is required.
- For additional information, please see the <u>HPE DDR4 SmartMemory QuickSpecs</u>.

# **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 | <b>Bus Width</b> | <b>Connector Width</b> | 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 | <b>Bus Width</b> | <b>Connector Width</b> | 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 | <b>Bus Width</b> | <b>Connector Width</b> | 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

# **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 | $12+4+3 \times 16 \text{ TB} + 2 \times 3.84 \text{ TB}$ (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  | $12+4+3 \times 1.92 \text{ TB} + 2 \times 3.84 \text{ TB}$ (with optional mid –tray and rear LFF drive |
|                            |           | cage, plus 2 SFF SSD rear)                                                                             |
| Hot Plug LFF SAS SSD       | 44.16 TB  | $12+4+3 \times 1.92$ 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.
- 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. o 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**.

# **Storage Controllers**

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

## **Software RAID**

HPE Smart Array S100i SR Gen10 SW RAID

### **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: <a href="https://downloads.linux.hpe.com/SDR/project/lsrrb/">https://downloads.linux.hpe.com/SDR/project/lsrrb/</a>

# **Essential RAID Controller**

- HPE Smart Array E208i-a SR Gen10 Controller
- HPE Smart Array E208i-p SR Gen10 Controller
- HPE Smart Array E208e-p SR Gen10 Controller

### **Performance RAID Controller**

- HPE Smart Array P408i-a SR Gen10 Controller
- HPE Smart Array P408i-p SR Gen10 Controller
- HPE Smart Array P408e-p SR Gen10 Controller
- HPE Smart Array P816i-a SR Gen10 Controller 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 **HPE Smart Array Gen10 Controllers Data Sheet**.

### **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) One (1) FlexibleLOM slot available on all chassis types (supporting various NIC adapters)                      |  |  |
| HPE iLO Remote                 | 1 Gb Dedicated                                                                                                                                                    |  |  |
| <b>Management Network Port</b> |                                                                                                                                                                   |  |  |
| 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  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                            | Optional                                                                                                                                                          |  |  |
| (Systems Insight Display)      | <b>Notes:</b> Not shipping as standard. Available as a CTO option or as a field upgrade (826703-B21).                                                             |  |  |

# Operating Systems and Virtualization Software Support for ProLiant Servers

### 2<sup>nd</sup> Generation Intel® Xeon® Scalable Processor Family

- Windows Server 2019: Essentials, Standard, Datacenter
- Windows Server 2016: Essentials. Standard. Datacenter
- Windows Server 2012 R2: Essentials, Standard, Datacenter
- Microsoft Hyper-V Server: 2012 R2, 2016 & 2019
- VMware vSphere 6.0 U3, 6.5 U2 through U.3 & 6.7 U1 through U3, 7.0
   Notes: 6.5 U3, 6.7 U3 & 7.0 minimums for Xeon "R", Gold 6256, Gold 6250L & Gold 6250 processors.
- ClearOS: 7.6; ClearVM: 2.0
- Red Hat Enterprise Linux (RHEL) 7.6 w/ Kbase\*\*, 8.0
- SUSE Linux Enterprise Server (SLES) 12 SP3, 15 (includes Xen) \*\*

#### **Notes:**

- SLES12 SP4 is the minimum for servers featuring Intel® Optane™ DC Persistent Memory.
- Ubuntu: 18.04 LTS (4.15.0)
- Oracle Linux: Oracle Linux 7.6 UEK Release 5 Update 2; Oracle VM 3.4.6 (UEK Release 4 Update 7)
- Citrix: Hypervisor: 8,0, 8.1, 8.2; XenServer 7.1, 7.4, 7.5, 7.6

## 1st Generation Intel® Xeon® Scalable Processor Family

- Windows Server 2019: Essentials, Standard & Datacenter
- Windows Server 2016: Essentials, Standard & Datacenter
- Windows Server 2012 R2: Essentials, Standard & Datacenter
- Micrsoft Hyper-V Server: 2012 R2, 2016 & 2019
- VMware vSphere 6.0 U3, 6.5 through U.3 & 6.7 through U3, 7.0
- **ClearOS**: 7.6; ClearVM: 2.0
- Red Hat Enterprise Linux (RHEL) 6.9, 7.3 \*\*
- SUSE Linux Enterprise Server (SLES) 11 SP4, 12 SP2 & 15 (includes Xen) \*\*
- Ubuntu: 16.04.3 HWE (4.10), 18.04 LTS (4.15.0)
- Oracle Linux: Oracle Linux/UEK 6.9, 7.4; Oracle VM 3.4.4
- Citrix: Hypervisor: 8,0, 8.1, 8.2; XenServer 7.1, 7.4, 7.5, 7.6

### **Notes:**

- For more information on Hewlett Packard Enterprise Certified and Supported ProLiant Servers for OS and Virtualization
   Software and latest listing of software drivers available for your server <a href="http://www.hpe.com/info/ossupport">http://www.hpe.com/info/ossupport</a>
- \*\* 64-bit only;includes KVM

# **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 <a href="http://www.hpe.com/servers/uefi">http://www.hpe.com/servers/uefi</a>.

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

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



• Workload Profiles for simple performance optimization

## **UEFI Boot Mode only:**

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

#### **Notes:**

- For UEFI Boot Mode, boot environment and OS image installations should be configured properly to support UEFI.
- UEFI FIO Setting (758959-B22) can be selected to configure the system in Legacy mode in the factory for your HPE ProLiant Gen10 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 Encrytion Standard (3DES)
- SNMP v3
- TLS 1.2
- DMTF Systems Management Architecture for Server Hardware Command Line Protocol (SMASH CLP)
- Active Directory v1.0
- ASHRAE A3/A4

**Notes:** For additional technical, thermal details regarding ambient temperature, humidity, and feature support, please visit <a href="http://www.hpe.com/servers/ashrae">http://www.hpe.com/servers/ashrae</a>

EU Lot9

**Notes:** European Union (EU) eco-design regulations for server and storage products, known as Lot 9, go into effect on March 1st, 2020. Among other requirements, for servers this directive establishes power thresholds for idle state, as well as efficiency and performance in active state which vary among configurations. HPE ProLiant Gen10 servers are compliant with Lot9 requirements.

Please visit: <a href="https://www.hpe.com/us/en/about/environment/msds-specs-more.html">https://www.hpe.com/us/en/about/environment/msds-specs-more.html</a> 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.



# **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 <a href="http://www.hpe.com/info/ilo">http://www.hpe.com/info/ilo</a>.

#### **UEFI**

Configure and boot your servers securely with industry standard Unified Extensible Firmware Interface (UEFI). Learn more at <a href="http://www.hpe.com/servers/uefi">http://www.hpe.com/servers/uefi</a>.

# **Intelligent Provisioning**

Hassle free server and OS provisioning for 1 or more servers with Intelligent Provisioning. Learn more at <a href="http://www.hpe.com/servers/intelligentprovisioning">http://www.hpe.com/servers/intelligentprovisioning</a>.

### **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 <a href="http://www.hpe.com/info/restfulapi">http://www.hpe.com/info/restfulapi</a>

# **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 <a href="http://www.hpe.com/servers/ahs">http://www.hpe.com/servers/ahs</a>.

# **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 <a href="http://www.hpe.com/servers/iLOamplifierpack">http://www.hpe.com/servers/iLOamplifierpack</a>.

# **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: <a href="http://www.hpe.com/info/ilo/mobileapp">http://www.hpe.com/info/ilo/mobileapp</a>.

## **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 <a href="http://www.hpe.com/info/resttool">http://www.hpe.com/info/resttool</a>.

### **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 <a href="http://www.hpe.com/servers/powershell">http://www.hpe.com/servers/powershell</a>.

# **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 <a href="http://www.hpe.com/info/oneview">http://www.hpe.com/info/oneview</a>.

# **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 guick 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

# 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 Pointnext 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:

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

# **Optional Features**

# Server Management

#### **HPE iLO Advanced**

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

### **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 <a href="http://www.hpe.com/info/oneview">http://www.hpe.com/info/oneview</a>.

# **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 <a href="https://www.hpe.com/servers/infosight">https://www.hpe.com/servers/infosight</a>

# **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 <a href="http://www.hpe.com/info/cmu">http://www.hpe.com/info/cmu</a>.

## **Accelerator and GPGPU Information**

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

# **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#

# **Optional Features**

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

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

# Service and Support

# **HPE Pointnext - Service and Support**

**Get the most from your HPE Products.** Get the expertise you need at every step of your IT journey with **HPE Pointnext Services.** We help you lower your risks and overall costs using automation and methodologies that have been tested and refined by HPE experts through thousands of deployments globally. HPE Pointnext **Advisory Services**, focus on your business outcomes and goals, partnering with you to design your transformation and build a roadmap tuned to your unique challenges. Our **Professional** and **Operational Services** can be leveraged to speed up time-to-production, boost performance and accelerate your business. HPE Pointnext specializes in flawless and on-time implementation, on-budget execution, and creative configurations that get the most out of software and hardware alike

# Consume IT on your terms

**HPE GreenLake** 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 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

### **Recommended Services**

# **HPE Pointnext Tech Care**

HPE Pointnext Tech Care is the new operational service experience for HPE products. Tech Care goes beyond traditional support by providing access to product specific experts, an Al driven digital experience, and general technical guidance to not only reduce risk but constantly search for ways to do things better. HPE Pointext Tech Care has been reimagined from the ground up to support a customer-centric, Al driven, and digitally enabled customer experience to move your business forward. HPE Pointnext Tech Care 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/h20195/v2/Getdocument.aspx?docname=a00108652enw

### **HPE Datacenter Care**

**HPE Datacenter Care** helps customers address the pressing needs of IT today and smoothly transform to a more agile cloud-like IT operations model. We help run and monitor your IT by offloading the day to day routine tasks, helping customers be more predictive and proactive, and saving time with one place to call with for all of their IT.

Partner with an assigned account team backed by local and global experts, access HPE enhanced call experience with priority access, use specialized support for complex, technologies, choose hardware and software support for your devices, implement proactive monitoring to stay ahead of issues, and access HPE IT best practices and IP. HPE Datacenter Care advantage options are available to add to your agreement to give you specialized expertise for performance, security, back up analysis, and much more. Datacenter Care is available as both tailored statement of work and as a packaged service for 3, 4, and 5 year terms.

https://www.hpe.com/us/en/services/datacenter-hybrid-services.html

# Service and Support

### Other related Services

#### **HPE Server Hardware Installation**

Provides for the basic hardware installation of HPE branded servers, storage devices and networking options to assist you in bringing your new hardware into operation in a timely and professional manner.

https://h20195.www2.hpe.com/v2/Getdocument.aspx?docname=5981-9356enw

# **HPE Installation and Startup Service**

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

# DC for Hyperscale

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

# **HPE Factory Express for Servers and storage**

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

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

#### **HPE Service Credits**

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

### **HPE Education Services**

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

# Service and Support

# **HPE Support Center**

The HPE Support Center is a personalized online support portal with access to information, tools and experts to support HPE business products. Submit support cases online, chat with HPE experts, access support resources or collaborate with peers. Learn more http://www.hpe.com/support/hpesc.

The HPE Support Center Mobile App\* allows you to resolve issues yourself or quickly connect to an agent for live support. Now, you can get access to personalized IT support anywhere, anytime.

HPE Insight Remote Support and HPE Support Center are available at no additional cost with a HPE warranty, HPE Support Service or HPE contractual support agreement.

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

For more information: <a href="http://www.hpe.com/services">http://www.hpe.com/services</a>.

**Notes:** HPE ProLiant DL385 Gen10 Plus Server is covered under the HPE Service Contract applied to the HPE ProLiant Server. No separate HPE support services need to be purchased.

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

# **Parts and Materials**

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

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

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

# **Powered by 2nd Generation Intel Processors**

| Worldwide & Japan BT        | O Networking Choice (NC) Mod                                                                                                                                                                                 | dels                                                                                                                                          |                                                                                                                                               |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| SKU Number                  | P20182-B21                                                                                                                                                                                                   | P20172-B21                                                                                                                                    | P20174-B21                                                                                                                                    |
|                             | P20182-291                                                                                                                                                                                                   | P20172-291                                                                                                                                    | P20174-291                                                                                                                                    |
| Model Name                  | HPE ProLiant DL380 Gen10<br>3204 1.9GHz 6-core 1P 16GB-R<br>S100i<br>NC 8LFF 500W PS Server                                                                                                                  | HPE ProLiant DL380 Gen10<br>4208 2.1GHz 8-core 1P 32GB-R<br>P816i-a NC 12LFF 800W RPS<br>Server                                               | HPE ProLiant DL380 Gen10<br>4210 2.2GHz 10-core 1P<br>32GB-R P408i-a NC 8SFF<br>500W PS Server                                                |
| Chassis                     | 8LFF NC Chassis (P19717-B21)                                                                                                                                                                                 | 12LFF NC Chassis (P19718-<br>B21)                                                                                                             | 8SFF NC Chassis (P19720-B21)                                                                                                                  |
| Processor                   | 3204 (6 core, 1.9GHz, 85W)                                                                                                                                                                                   | 4208 (8 core, 2.1GHz, 85W)                                                                                                                    | 4210 (10 core, 2.2GHz, 85W)                                                                                                                   |
| <b>Number of Processors</b> | One with standard heatsink                                                                                                                                                                                   | One with standard heatsink                                                                                                                    | One with standard heatsink                                                                                                                    |
| Memory                      | 16 GB RDIMM 2R 2933 MT/s (1x 16 GB)  Notes: Runs at 2133MT/s due to processor limitation                                                                                                                     | 32 GB RDIMM 2R 2933MT/s<br>(1x 32 GB)<br>Notes: Runs at 2400MT/s due<br>to processor limitation                                               | 32 GB RDIMM 2R 2933 MT/s (1x 32GB)  Notes: Runs at 2400MT/s due to processor limitation                                                       |
| Network Controller          | HPE Ethernet 1Gb 4-port FLR-T<br>I350-T4V2 Adapter (665240-<br>B21) plus optional<br>stand-up card<br><b>Notes:</b> No embedded<br>networking                                                                | HPE Ethernet 1Gb 4-port FLR-T<br>I350-T4V2 Adapter (665240-<br>B21) plus optional<br>stand-up card<br><b>Notes:</b> No embedded<br>networking | HPE Ethernet 1Gb 4-port FLR-<br>T I350-T4V2 Adapter<br>(665240-B21) plus optional<br>stand-up card<br><b>Notes:</b> No embedded<br>networking |
| Storage Controller          | S100i embedded SW RAID with<br>14 SATA ports (12-ports<br>accessible)                                                                                                                                        | P816i-a/4GB with Smart Storage<br>Battery                                                                                                     | P408i-a/2GB with Smart<br>Storage Battery                                                                                                     |
| Hard Drive                  | None Included                                                                                                                                                                                                | None Included                                                                                                                                 | None Included                                                                                                                                 |
| Internal Storage            | 8 LFF chassis, with 2 SFF bays optional (upgradeable to 15LFF with 4LFF mid and 3LFF rear + 2SFF rear)                                                                                                       | 12 LFF chassis, with 2 SFF bays optional (upgradeable to 19LFF with 4LFF mid and 3LFF rear + 2SFF rear)                                       | 8 SFF Chassis (upgradeable to 24 SFF front + 6SFF rear)                                                                                       |
| PCIe Slots                  | 3-slots (x8, x16, x8 with dual m.2)                                                                                                                                                                          | as standard; upgradeable to 8-slot                                                                                                            | rs in a 2 processor configuration                                                                                                             |
| Power Supply                | 1x HPE 500W Flex Slot Platinum<br>Hot Plug Low Halogen Power<br>Supply Kit                                                                                                                                   | 2x HPE 800W Flex Slot Platinum<br>Hot Plug Low Halogen Power<br>Supply Kit                                                                    |                                                                                                                                               |
| Fans                        | 6 - Standard                                                                                                                                                                                                 | 6 - Performance                                                                                                                               | 4 - 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) |                                                                                                                                               |                                                                                                                                               |
| Rail Kit                    | LFF Easy Install Rail Kit; cable management arm not included                                                                                                                                                 | LFF Easy Install Rail Kit with Cable Management Arm                                                                                           | SFF Easy Install Rail Kit with Cable Management Arm                                                                                           |
| Energy Star                 | Energy Star 3.0                                                                                                                                                                                              |                                                                                                                                               |                                                                                                                                               |
| Form Factor                 | 2U Rack                                                                                                                                                                                                      |                                                                                                                                               |                                                                                                                                               |
| Warranty                    | 3-year parts, 3-year labor, 3-year o                                                                                                                                                                         | onsite support with next business d                                                                                                           | ay response.                                                                                                                                  |

# **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.
- UEFI is the standard default for all SMB models.

- -B21 = Worldwide (excl. Japan and PRC)
- -291 = Japan

# Powered by 2nd Generation Intel Xeon Processors SMB Models

- New SMB focused offers regionally released as "Smart Buy Express" in the U.S. and Canada, "Top Value" in Europe, and "Intelligent Buy" in Asia Pacific and Japan".
- SMB 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 provide factory integration of options into SMB Models. Any additional options purchased will be shipped separately and would need to be field integrated.
- If you desire to custom configure an SMB Model please consult your preferred reseller.

| <b>SMB Networking Choi</b>  | ce (NC) Models                                                                                                                                                                                               |                                                                                                                                                                                                |                                                                                                                                               |  |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|--|
| SKU Number                  | P23465-B21                                                                                                                                                                                                   | P24840-B21                                                                                                                                                                                     | P24841-B21                                                                                                                                    |  |
|                             | P23465-291                                                                                                                                                                                                   | P24840-291                                                                                                                                                                                     | P24841-291                                                                                                                                    |  |
| Model Name                  | HPE ProLiant DL380 Gen10                                                                                                                                                                                     | HPE ProLiant DL380 Gen10                                                                                                                                                                       | HPE ProLiant DL380 Gen10                                                                                                                      |  |
|                             | 4208 2.1GHz 8-core 1P 32GB-R                                                                                                                                                                                 | 4210R 2.4GHz 10-core 1P                                                                                                                                                                        | 4210R 2.4GHz 10-core 1P                                                                                                                       |  |
|                             | P408i-a NC 8SFF 500W PS                                                                                                                                                                                      | 32GB-R P408i-a NC 24SFF                                                                                                                                                                        | 32GB-R P408i-a NC 8SFF 800W                                                                                                                   |  |
|                             | Server                                                                                                                                                                                                       | 800W PS Server                                                                                                                                                                                 | PS Server                                                                                                                                     |  |
| Chassis                     | 8SFF NC Chassis (P19720-B21)                                                                                                                                                                                 | 24SFF NC Chassis (P19719-<br>B21)                                                                                                                                                              | 8SFF NC Chassis (P19720-B21)                                                                                                                  |  |
| Processor                   | 4208 (2.1GHz, 8 core, 85W)                                                                                                                                                                                   |                                                                                                                                                                                                | 4210R (2.4GHz, 10 core, 100W)                                                                                                                 |  |
| <b>Number of Processors</b> | One with standard heatsink                                                                                                                                                                                   | One with standard heatsink                                                                                                                                                                     | One with standard heatsink                                                                                                                    |  |
| Memory                      | 32 GB RDIMM 2R 2933 MT/s<br>(1x 32 GB; P00924-B21)<br>Notes: Runs at 2400 MT/s due                                                                                                                           | 32 GB RDIMM 2R 2933 MT/s<br>(1x 32 GB; P00924-B21)<br>Notes: Runs at 2400 MT/s due                                                                                                             | 32 GB RDIMM 2R 2933 MT/s<br>(1x 32 GB; P00924-B21)<br>Notes: Runs at 2400 MT/s due                                                            |  |
|                             | to processor limitation.                                                                                                                                                                                     | to processor limitation.                                                                                                                                                                       | to processor limitation.                                                                                                                      |  |
| Network Controller          | HPE Ethernet 1Gb 4-port FLR-T<br>I350-T4V2 Adapter (665240-<br>B21) plus optional<br>stand-up card<br><b>Notes:</b> No embedded<br>networking                                                                | HPE Ethernet 1Gb 4-port FLR-T<br>I350-T4V2 Adapter (665240-<br>B21) plus optional<br>stand-up card<br><b>Notes:</b> No embedded<br>networking                                                  | HPE Ethernet 1Gb 4-port FLR-T<br>I350-T4V2 Adapter (665240-<br>B21) plus optional<br>stand-up card<br><b>Notes:</b> No embedded<br>networking |  |
| Storage Controller          | P408i-a w/2GB cache (804331-B21) Notes: 8-Port modular Smart Array. Smart Storage battery (P01366-B21) included.                                                                                             | P408i-a w/2GB cache (804331-<br>B21) + HPE 12Gb SAS<br>Expander Card Kit w/ cables<br>(870549-B21)<br>Notes:<br>8-Port modular Smart Array.<br>Smart Storage battery<br>(P01366-B21) included. | P408i-a w/2GB cache (804331-<br>B21)<br>Notes:<br>8-Port modular Smart Array.<br>Smart Storage battery<br>(P01366-B21) included.              |  |
| Hard Drive                  | None ship as standard                                                                                                                                                                                        |                                                                                                                                                                                                |                                                                                                                                               |  |
| Internal Storage            | 8 SFF (upgradeable to 24 SFF front + 6SFF rear)                                                                                                                                                              | 24 SFF (upgradeable + 6SFF rear)                                                                                                                                                               | 8 SFF (upgradeable to 24 SFF front + 6SFF rear)                                                                                               |  |
| PCIe Slots                  | 3-slots (x8, x16, x8 with dual m.2)                                                                                                                                                                          | ) as standard; upgradeable to 8-slo                                                                                                                                                            |                                                                                                                                               |  |
| Power Supply                | 1x HPE 500W Flex Slot Platinum<br>Hot Plug Low Halogen Power<br>Supply Kit (865408-B21)                                                                                                                      | 1x HPE 800W Flex Slot Platinum<br>Hot Plug Low Halogen Power<br>Supply Kit (865414-B21)                                                                                                        | 1x HPE 800W Flex Slot Platinum<br>Hot Plug Low Halogen Power<br>Supply Kit (865414-B21)                                                       |  |
| Fans                        | 4-standard fans                                                                                                                                                                                              | 6 - Performance                                                                                                                                                                                | 4-standard fans                                                                                                                               |  |
| Management                  | HPE iLO Standard with Intelligent Provisioning (embedded), HPE OneView Standard (requires download); HPE iLO Advanced, HPE iLO Advanced Premium Security Edition and HPE OneView Advanced (require licenses) |                                                                                                                                                                                                |                                                                                                                                               |  |
| Rail Kit                    | SFF Easy install rail kit (73360-B21) with Cable Management Arm (733664-B21)                                                                                                                                 |                                                                                                                                                                                                |                                                                                                                                               |  |
| Energy Star                 | 3.0 Certified                                                                                                                                                                                                |                                                                                                                                                                                                |                                                                                                                                               |  |
| Form Factor                 | 2U Rack                                                                                                                                                                                                      |                                                                                                                                                                                                |                                                                                                                                               |  |
| Warranty                    | 3-year parts, 3-year labor, 3-year onsite support with next business day response.                                                                                                                           |                                                                                                                                                                                                |                                                                                                                                               |  |



### **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.
- UEFI is the standard default for all SMB models.

- -B21 = Worldwide (excl. Japan and PRC)
- -291 = Japan

| Model Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | SKU Number         | P24842-B21<br>P24842-291                                                                                                                                                         | P24848-B21 / P40425-B21<br>P24848-291 / P40425-291                                                                                | P40717-B21<br>P40717-291                                                                              |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|--|
| Chassis   85FF NC Chassis (P19720-821)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Model Name         | 4214R 2.4GHz 12-core 1P 32GB-<br>R P408i-a NC 8SFF 800W PS                                                                                                                       | 4215R 3.2GHz 8-core 1P<br>32GB-R S100i NC 8SFF 800W                                                                               | 4215R 3.2GHz 8-core 1P<br>32GB-R P408i-a NC 8SFF                                                      |  |
| Processor   4214R (2.4GHz, 12 core, 100W)   4215R (3.2GHz, 8 core, 130W)   Number of Processors   One with standard heatsink   One with performance heatsink   23 GB RDIMM 2R 2933 MT/s   (1 x 32 GB, P00924-B21)   Notes: Runs at 2400 MT/s due to processor limitation.   Network Controller   HPE Ethernet 16b 4-port FLR-T   1350-T4V2 Adapter (665240-B21) plus optional stand-up card   Notes: No embedded networking   PA0425-B21 / (27954-B21) plus optional stand-up card   Notes: No embedded networking   PA0425-B21 / (2791-B21) plus optional stand-up card   Notes: No embedded networking   PA0425-B21 / (2791-B21) plus optional stand-up card   Notes: No embedded networking   PA0425-B21 / (2791-B21) plus optional stand-up card   Notes: No embedded networking   PA0425-B21 / (2791-B21) plus optional stand-up card   Notes: No embedded networking   PA0425-B21 / (2791-B21) plus optional stand-up card   Notes: No embedded networking   PA0425-B21 / (2791-B21) plus optional stand-up card   Notes: No embedded   Notes: No | Chassis            |                                                                                                                                                                                  | 1 3 Server                                                                                                                        | 0000013301001                                                                                         |  |
| Number of Processors   One with performance heatsink   One with performance heatsink   Memory   32 GB RDIMM 2R 2933 MT/s   (1x 32 GB; P00924-B21)   Notes: Runs at 2400 MT/s due to processor limitation.   HPE Ethernet 1.Gb 4-port FLR-T   1350-TAV2 Adapter (665240-B21) plus optional stand-up card   Notes: No embedded networking   P40425-B21 /291   HPE Ethernet 1.0Gb 2-port   FLR-SFP+ BCM57414 Adapter (727054-B21) plus optional stand-up card   Notes: No embedded networking   P40425-B21 /291   HPE Ethernet 1.0Gb 2-port   FLR-SFP+ BCM57414 Adapter (727054-B21) plus optional stand-up card   Notes: No embedded networking   Notes: No embedded networking   Notes: No embedded networking   Notes: No embedded networking   P40425-B21 /291   HPE Ethernet 1.0Gb 2-port   FLR-SFP+ BCM57414 Adapter (727054-B21) plus optional stand-up card   Notes: No embedded networking   Notes: No embedded networ |                    |                                                                                                                                                                                  | 4215R (3.2GHz 8 core 130W)                                                                                                        | 4215R (3.2GHz 8 core 130W)                                                                            |  |
| Memory                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                    |                                                                                                                                                                                  |                                                                                                                                   |                                                                                                       |  |
| I350-T4V2 Adapter (665240-B21) plus optional stand-up card   Notes: No embedded networking   P40425-B21 / 291                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                    | 32 GB RDIMM 2R 2933 MT/s<br>(1x 32 GB; P00924-B21)<br><b>Notes:</b> Runs at 2400 MT/s due                                                                                        | 32 GB RDIMM 2R 2933 MT/s<br>(1x 32 GB; P00924-B21)<br><b>Notes:</b> Runs at 2400 MT/s due                                         | 32 GB RDIMM 2R 2933 MT/s<br>(1x 32 GB; P00924-B21)<br><b>Notes:</b> Runs at 2400 MT/s due             |  |
| HPE Ethernet 10Gb 2-port FLR-SFP+ BCM57414 Adapter (P08440-B21) plus optional stand-up card Notes: No embedded networking  Storage Controller  P408i-a w/2GB cache (804331-B21) S100i embedded SW RAID with 14 SATA ports (12-ports accessible)  Notes:  - 8-Port modular Smart Array.  - Smart Storage battery (P01366-B21) included.  None ship as standard  Internal Storage  8 SFF (upgradeable to 24 SFF front + 6SFF rear)  PCle 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 (865414-B21)  Fans  4-standard fans  Management  HPE iLO Standard with Intelligent Provisioning (embedded), HPE OneView Standard (requires download); HPE iLO Advanced, HPE iLO Advanced Premium Security Edition and HPE OneView Advanced (require licenses)  Rail Kit  SFF Easy install rail kit (73360-B21) with Cable Management Arm (733664-B21)  Energy Star  Form Factor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Network Controller | HPE Ethernet 1Gb 4-port FLR-T I350-T4V2 Adapter (665240- B21) plus optional stand-up card Notes: No embedded networking Notes: No embedded Notes: No embedded Notes: No embedded |                                                                                                                                   |                                                                                                       |  |
| Storage Controller  P408i-a w/2GB cache (804331-B21) Notes:  - 8-Port modular Smart Array Smart Storage battery (P01366-B21) included.  Where a standard Internal Storage  8 SFF (upgradeable to 24 SFF front + 6SFF rear)  PCIe 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 (865414-B21)  Fans  Hanagement  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)  Rail Kit  SFF Easy install rail kit (73360-B21) with Cable Management Arm (733664-B21)  Energy Star  Form Factor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                    |                                                                                                                                                                                  | HPE Ethernet 10Gb 2-port<br>FLR-SFP+ BCM57414 Adapter<br>(P08440-B21) plus optional<br>stand-up card<br><b>Notes:</b> No embedded | FLR-SFP+ BCM57414 Adapter<br>(P08440-B21) plus optional<br>stand-up card<br><b>Notes:</b> No embedded |  |
| Internal Storage  8 SFF (upgradeable to 24 SFF front + 6SFF rear)  3-slots (x8, x16, x8 with dual m.2) as standard; upgradeable to 8-slots in a 2 processor configuration  1 x HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit (865414-B21)  4-standard fans  4-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)  Rail Kit  SFF Easy install rail kit (73360-B21) with Cable Management Arm (733664-B21)  Energy Star  3.0 Certified  Form Factor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Storage Controller | B21) Notes:  - 8-Port modular Smart Array.  - Smart Storage battery                                                                                                              | S100i embedded SW RAID with 14 SATA ports (12-ports                                                                               | (804331-B21) Notes:  — 8-Port modular Smart Array. Smart Storage battery                              |  |
| Internal Storage 8 SFF (upgradeable to 24 SFF front + 6SFF rear)  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 (865414-B21)  Fans 4-standard fans  Management HPE iLO Standard with Intelligent Provisioning (embedded), HPE OneView Standard (requires download); HPE iLO Advanced, HPE iLO Advanced Premium Security Edition and HPE OneView Advanced (require licenses)  Rail Kit SFF Easy install rail kit (73360-B21) with Cable Management Arm (733664-B21)  Energy Star 3.0 Certified  Form Factor 2U Rack                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Hard Drive         | None ship as standard                                                                                                                                                            |                                                                                                                                   |                                                                                                       |  |
| PCIe 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 (865414-B21)  4-standard fans  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)  Rail Kit  SFF Easy install rail kit (73360-B21) with Cable Management Arm (733664-B21)  Energy Star  3.0 Certified  Form Factor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                    | ·                                                                                                                                                                                | t + 6SFF rear)                                                                                                                    |                                                                                                       |  |
| Fans 4-standard fans  Management HPE iLO Standard with Intelligent Provisioning (embedded), HPE OneView Standard (requires download); HPE iLO Advanced, HPE iLO Advanced Premium Security Edition and HPE OneView Advanced (require licenses)  Rail Kit SFF Easy install rail kit (73360-B21) with Cable Management Arm (733664-B21)  Energy Star 3.0 Certified  Form Factor 2U Rack                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | PCIe Slots         |                                                                                                                                                                                  |                                                                                                                                   |                                                                                                       |  |
| Fans 4-standard fans  Management HPE iLO Standard with Intelligent Provisioning (embedded), HPE OneView Standard (requires download); HPE iLO Advanced, HPE iLO Advanced Premium Security Edition and HPE OneView Advanced (require licenses)  Rail Kit SFF Easy install rail kit (73360-B21) with Cable Management Arm (733664-B21)  Energy Star 3.0 Certified  Form Factor 2U Rack                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Power Supply       | · · · · · · · · · · · · · · · · · · ·                                                                                                                                            |                                                                                                                                   |                                                                                                       |  |
| ManagementHPE 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)Rail KitSFF Easy install rail kit (73360-B21) with Cable Management Arm (733664-B21)Energy Star3.0 CertifiedForm Factor2U Rack                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                    |                                                                                                                                                                                  |                                                                                                                                   |                                                                                                       |  |
| Rail KitSFF Easy install rail kit (73360-B21) with Cable Management Arm (733664-B21)Energy Star3.0 CertifiedForm Factor2U Rack                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Management         | download); HPE iLO Advanced, HPE iLO Advanced Premium Security Edition and HPE OneView                                                                                           |                                                                                                                                   |                                                                                                       |  |
| Form Factor 2U Rack                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Rail Kit           |                                                                                                                                                                                  |                                                                                                                                   |                                                                                                       |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Energy Star        | ·                                                                                                                                                                                |                                                                                                                                   |                                                                                                       |  |
| Warranty 3-year parts 3-year labor 3-year onsite support with next husiness day response                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                    | 2U Rack                                                                                                                                                                          |                                                                                                                                   |                                                                                                       |  |
| J year parts, J year labor, J year orisite support with thext business day response.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Warranty           | 3-year parts, 3-year labor, 3-year o                                                                                                                                             | nsite support with next business of                                                                                               | lay response.                                                                                         |  |



### **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.
- UEFI is the standard default for all SMB models.

# **Country Code Key**

- -B21 = Worldwide (excl. Japan and PRC)
- -291 = Japan

| SMB Networking Choi         | ce (NC) Models                                                                     |                                                       |  |
|-----------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------|--|
| SKU Number                  | P36135-B21                                                                         | P24844-B21                                            |  |
|                             | P36135-291                                                                         | P24844-291                                            |  |
| Model Name                  | HPE ProLiant DL380 Gen10 5218R 2.1GHz                                              | HPE ProLiant DL380 Gen10 5218R 2.1GHz 20-             |  |
|                             | 20-core 1P 32GB-R S100i NC 8SFF 800W PS                                            | core 1P 32GB-R S100i NC 8SFF 800W PS Server           |  |
|                             | Server                                                                             |                                                       |  |
| Chassis                     | 8SFF NC Chassis (P19720-B21)                                                       |                                                       |  |
| Processor                   | 5218R (2.1GHz, 20 core, 125W)                                                      |                                                       |  |
| <b>Number of Processors</b> | One with standard heatsink                                                         |                                                       |  |
| Memory                      | 32 GB RDIMM 2R 2933 MT/s                                                           |                                                       |  |
|                             | (1x 32 GB; P00924-B21)                                                             |                                                       |  |
|                             | Notes: Runs at 2666 MT/s due to processor lim                                      | nitation.                                             |  |
| Network Controller          | P36135-B21 / 291                                                                   | P24844-B21 / 291                                      |  |
|                             | HPE Ethernet 10Gb 2-port FLR-T BCM57416                                            | HPE Ethernet 10Gb 2-port FLR-SFP+ X710-DA2            |  |
|                             | Adapter (817721-B21) plus optional                                                 | Adapter (727054-B21) plus optional stand-up card      |  |
|                             | stand-up card                                                                      | Notes: No embedded networking                         |  |
|                             | Notes: No embedded networking                                                      |                                                       |  |
| Storage Controller          | S100i embedded SW RAID with 14 SATA ports                                          | (12-ports accessible)                                 |  |
| Hard Drive                  | None ship as standard                                                              |                                                       |  |
| Internal Storage            | 8 SFF (upgradeable to 24 SFF front + 6SFF rear)                                    | )                                                     |  |
| PCIe Slots                  | 3-slots (x8, x16, x8 with dual m.2) as standard; u                                 | ipgradeable to 8-slots in a 2 processor configuration |  |
| Power Supply                | 1x HPE 800W Flex Slot Platinum Hot Plug Low                                        | Halogen Power Supply Kit (865414-B21)                 |  |
| Fans                        | 4-standard fans                                                                    |                                                       |  |
| Management                  | HPE iLO Standard with Intelligent Provisioning (                                   | embedded), HPE OneView Standard (requires             |  |
| _                           | download); HPE iLO Advanced, HPE iLO Advance                                       | ced Premium Security Edition and HPE OneView          |  |
|                             | Advanced (require licenses)                                                        |                                                       |  |
| Rail Kit                    | SFF Easy install rail kit (73360-B21) with Cable Management Arm (733664-B21)       |                                                       |  |
| Energy Star                 | 3.0 Certified                                                                      |                                                       |  |
| Form Factor                 | 2U Rack                                                                            |                                                       |  |
| Warranty                    | 3-year parts, 3-year labor, 3-year onsite support with next business day response. |                                                       |  |

# 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.
- UEFI is the standard default for all SMB models.

- -B21 = Worldwide (excl. Japan and PRC)
- -291 = Japan

| SMB Networking Choice       | ce (NC) Models                                                                                                                                                                                                                                                                                                                                                 |                                                                                               |                                                                                             |  |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|--|
| SKU Number                  | P24845-B21/ P40422-B21<br>P24845-291/ P40422-291                                                                                                                                                                                                                                                                                                               | P24846-B21/ P40423-B21<br>P24846-291/ P40423-291                                              | P24847-B21/ P40424-B21<br>P24847-291/ P40424-291                                            |  |
| Model Name                  | HPE ProLiant DL380 Gen10<br>5222 3.8GHz 4-core 1P 32GB-R<br>S100i NC 8SFF 800W PS Server                                                                                                                                                                                                                                                                       | HPE ProLiant DL380 Gen10<br>6226R 2.9GHz 16-core 1P<br>32GB-R S100i NC 8SFF 800W<br>PS Server | HPE ProLiant DL380 Gen10<br>6234 3.3GHz 8-core 1P<br>32GB-R S100i NC 8SFF 800W<br>PS Server |  |
| Chassis                     | 8SFF NC Chassis (P19720-B21)                                                                                                                                                                                                                                                                                                                                   |                                                                                               |                                                                                             |  |
| Processor                   | 5222 (3.8GHz, 4 core, 105W)                                                                                                                                                                                                                                                                                                                                    | 6226R (2.9GHz, 16 core, 150W)                                                                 | 6234 (3.3GHz, 8 core, 130W)                                                                 |  |
| <b>Number of Processors</b> | One with performance heatsink                                                                                                                                                                                                                                                                                                                                  | One with performance heatsink                                                                 | One with performance heatsink                                                               |  |
| Memory                      | 32 GB RDIMM 2R 2933 MT/s<br>(1x 32 GB; P00924-B21)                                                                                                                                                                                                                                                                                                             | 32 GB RDIMM 2R 2933 MT/s<br>(1x 32 GB; P00924-B21)                                            | 32 GB RDIMM 2R 2933 MT/s<br>(1x 32 GB; P00924-B21)                                          |  |
| Network Controller          | P24845-B21 / 291, P24846-B21 / 291, P24847-B21 / 291 HPE Ethernet 10Gb 2-port FLR-SFP+ X710-DA2 Adapter (727054-B21) plus optional stand-up card Notes: No embedded networking  P40422-B21 / 291, P40423-B21 / 291, P40424-B21 / 291 HPE Ethernet 10Gb 2-port FLR-SFP+ BCM57414 Adapter (P08440-B21) plus optional stand-up card Notes: No embedded networking |                                                                                               |                                                                                             |  |
| Storage Controller          | S100i embedded SW RAID with 1                                                                                                                                                                                                                                                                                                                                  | 4 SATA ports (12-ports accessible)                                                            | )                                                                                           |  |
| Hard Drive                  | None ship as standard                                                                                                                                                                                                                                                                                                                                          |                                                                                               |                                                                                             |  |
| Internal Storage            | 8 SFF (upgradeable to 24 SFF fro                                                                                                                                                                                                                                                                                                                               | nt + 6SFF rear)                                                                               |                                                                                             |  |
| PCIe Slots                  | 3-slots (x8, x16, x8 with dual m.2)                                                                                                                                                                                                                                                                                                                            | ) as standard; upgradeable to 8-slo                                                           | ts in a 2 processor configuration                                                           |  |
| Power Supply                | 1x HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit (865414-B21)                                                                                                                                                                                                                                                                              |                                                                                               |                                                                                             |  |
| Fans                        | 4-standard fans                                                                                                                                                                                                                                                                                                                                                |                                                                                               |                                                                                             |  |
| Management                  | HPE iLO Standard with Intelligent Provisioning (embedded), HPE OneView Standard (requires download); HPE iLO Advanced, HPE iLO Advanced Premium Security Edition and HPE OneView Advanced (require licenses)                                                                                                                                                   |                                                                                               |                                                                                             |  |
| Rail Kit                    | SFF Easy install rail kit (73360-B2                                                                                                                                                                                                                                                                                                                            | 21) with Cable Management Arm (7                                                              | 733664-B21)                                                                                 |  |
| Energy Star                 | 3.0 Certified                                                                                                                                                                                                                                                                                                                                                  |                                                                                               |                                                                                             |  |
| Form Factor                 | 2U Rack                                                                                                                                                                                                                                                                                                                                                        |                                                                                               |                                                                                             |  |
| Warranty                    | 3-year parts, 3-year labor, 3-year onsite support with next business day response.                                                                                                                                                                                                                                                                             |                                                                                               |                                                                                             |  |

# **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.
- UEFI is the standard default for all SMB models.

- -B21 = Worldwide (excl. Japan and PRC)
- -291 = Japan

| SMB Networking Choice | e (NC) Models                                                                                                                                                                                                                                                                                                               |                                                     |  |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|--|
| SKU Number            | P24849-B21/ P40426-B21                                                                                                                                                                                                                                                                                                      | P24850-B21/ P40427-B21                              |  |
|                       | P24849-291/ P40426-291                                                                                                                                                                                                                                                                                                      | P24850-291/ P40427-291                              |  |
| Model Name            | HPE ProLiant DL380 Gen10 6248R 3.0GHz 24-                                                                                                                                                                                                                                                                                   | HPE ProLiant DL380 Gen10 6250 3.9GHz 8-             |  |
|                       | core 1P 32GB-R S100i NC 8SFF 800W PS Server                                                                                                                                                                                                                                                                                 | core 1P 32GB-R S100i NC 8SFF 800W PS                |  |
|                       |                                                                                                                                                                                                                                                                                                                             | Server                                              |  |
| Chassis               | 8SFF                                                                                                                                                                                                                                                                                                                        |                                                     |  |
| Processor             | 6248R (3.0GHz, 24 core, 205W)                                                                                                                                                                                                                                                                                               | 6250 (3.9GHz, 8 core, 185W) <sup>1</sup>            |  |
| Number of Processors  | One with performance heatsink                                                                                                                                                                                                                                                                                               | One with performance heatsink                       |  |
| Memory                | 32 GB RDIMM 2R 2933 MT/s (1x 32 GB; P00924-                                                                                                                                                                                                                                                                                 | -B21)                                               |  |
| Network Controller    | P24849-B21 / 291, P24850-B21 / 291 HPE Ethernet 10Gb 2-port FLR-SFP+ X710-DA2 Adapter (727054-B21) plus optional stand-up card  Notes: No embedded networking P40426-B21 / 291, P40427-B21 / 291 HPE Ethernet 10Gb 2-port FLR-SFP+ BCM57414 Adapter (P08440-B21) plus optional stand-up card  Notes: No embedded networking |                                                     |  |
| Storage Controller    | S100i embedded SW RAID with 14 SATA ports (12                                                                                                                                                                                                                                                                               | 2-ports accessible)                                 |  |
| Hard Drive            | None ship as standard                                                                                                                                                                                                                                                                                                       |                                                     |  |
| Internal Storage      | 8 SFF Chassis (upgradeable to 24 SFF front + 6SFF                                                                                                                                                                                                                                                                           | rear)                                               |  |
| PCIe Slots            | 3-slots (x8, x16, x8 with dual m.2) as standard; upg                                                                                                                                                                                                                                                                        | gradeable to 8-slots in a 2 processor configuration |  |
| Power Supply          | 1x HPE 800W Flex Slot Platinum Hot Plug Low Ha                                                                                                                                                                                                                                                                              | logen Power Supply Kit (865414-B21)                 |  |
| Fans                  | 4-standard fans 6-high performance fans                                                                                                                                                                                                                                                                                     |                                                     |  |
| Management            | HPE iLO Standard with Intelligent Provisioning (embedded), HPE OneView Standard (requires download); HPE iLO Advanced, HPE iLO Advanced Premium Security Edition and HPE OneView Advanced (require licenses)                                                                                                                |                                                     |  |
| Rail Kit              | SFF Easy install rail kit (73360-B21) with Cable Management Arm (733664-B21)                                                                                                                                                                                                                                                |                                                     |  |
| Energy Star           | 3.0 Certified                                                                                                                                                                                                                                                                                                               |                                                     |  |
| Form Factor           | 2U Rack                                                                                                                                                                                                                                                                                                                     |                                                     |  |
| Warranty              | 3-year parts, 3-year labor, 3-year onsite support wi                                                                                                                                                                                                                                                                        | th next business day response.                      |  |

# **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.
- UEFI is the standard default for all SMB models.
- <sup>1</sup>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.

- -B21 = Worldwide (excl. Japan and PRC)
- -291 = Japan

| <b>SMB Networking Choi</b>  | ce (NC) Models                                          |                                     |                                |
|-----------------------------|---------------------------------------------------------|-------------------------------------|--------------------------------|
| SKU Number                  | P20245-B21/ P40428-B21                                  | P20248-B21/ P39380-B21              | P20249-B21                     |
|                             | P20245-291/ P40428-291                                  | P20248-291/ P39380-291              | P20249-291                     |
| Model Name                  | HPE ProLiant DL380 Gen10                                | HPE ProLiant DL380 Gen10            | HPE ProLiant DL380 Gen10       |
|                             | 6242 2.8GHz 16-core 1P 32GB-                            | 5220 2.2GHz 18-core 1P 32GB-        | 5218 2.3GHz 16-core 1P         |
|                             | R P408i-a NC 8SFF 800W PS                               | R P408i-a NC 8SFF 800W PS           | 32GB-R P408i-a NC 8SFF         |
|                             | Server                                                  | Server                              | 800W PS Server                 |
| Chassis                     | 8SFF                                                    |                                     |                                |
| Processor                   | 6242 (16C, 2.8GHz, 150W)                                | 5220 (18C, 2.2GHz, 125W)            | 5218 (16 core, 2.3 GHz, 125W)  |
| <b>Number of Processors</b> | 1                                                       | 1                                   | 1                              |
| Memory                      | 32 GB RDIMM 2R 2933 MT/s                                | 32 GB RDIMM 2R 2933 MT/s            | 32 GB RDIMM 2R 2933 MT/s       |
|                             | (1x 32 GB)                                              | (1x 32 GB)                          | (1x 32 GB)                     |
|                             |                                                         | Notes: Runs at 2666 MT/s due        | Notes: Runs at 2666 MT/s due   |
|                             |                                                         | to processor limitation.            | to processor limitation.       |
| Network Controller          | P20245-B21 / 291                                        | P20248-B21/291                      | HPE Ethernet 1Gb 4-port FLR-   |
|                             | HPE Ethernet 10/25Gb 2-port                             | HPE Ethernet 10/25Gb 2-port         | T I350-T4V2 Adapter            |
|                             | FLR-SFP28 MCX4121A-ACFT                                 | FLR-SFP28 MCX4121A-ACFT             | (665240-B21) plus optional     |
|                             | Adapter (817749-B21) plus                               | Adapter (817749-B21) plus           | stand-up card                  |
|                             | optional stand-up card                                  | optional stand-up card              | Notes: No embedded             |
|                             | Notes: No embedded                                      | Notes: No embedded                  | networking                     |
|                             | networking                                              | networking                          |                                |
|                             | P40428-B21 / 291                                        | P39380-B21 / 291                    |                                |
|                             | HPE Ethernet 10/25Gb 2-port                             | HPE Ethernet 10/25Gb 2-port         |                                |
|                             | FLR-SFP28 BCM57414 Adapter                              | FLR-SFP28 BCM57414 Adapter          |                                |
|                             | (817709-B21) plus optional                              | (817709-B21) plus optional          |                                |
|                             | stand-up card                                           | stand-up card                       |                                |
|                             | Notes: No embedded                                      | Notes: No embedded                  |                                |
| a. a . II                   | networking                                              | networking                          |                                |
| Storage Controller          | P408i-a w/2GB cache                                     |                                     |                                |
|                             | Notes:                                                  |                                     |                                |
|                             | - 8-Port modular Smart Array.                           | l                                   |                                |
| Hand Duise                  | - Smart Storage battery include                         | ed.                                 |                                |
| Hard Drive                  | None ship as standard  8 SFF Chassis (upgradeable to 24 | CFF (ront + 4CFF roor)              |                                |
| Internal Storage PCIe Slots | 3-slots (x8, x16, x8 with dual                          | 3-slots (x8, x16, x8 with dual      | 3-slots (x8, x16, x8 with dual |
| PCIE SIOIS                  | 7 /                                                     | m.2) as standard; upgradeable to    | m.2) as standard; upgradeable  |
|                             | 8-slots in a 2 processor                                | 8-slots in a 2 processor            | to 8-slots in a 2 processor    |
|                             | configuration                                           | configuration                       | configuration                  |
| Power Supply                | 1x HPE 800W Flex Slot Platinum                          | 1x HPE 800W Flex Slot Platinum      | 1x HPE 800W Flex Slot          |
| . onci ouppiy               | Hot Plug Low Halogen Power                              | Hot Plug Low Halogen Power          | Platinum Hot Plug Low          |
|                             | Supply Kit                                              | Supply Kit                          | Halogen Power Supply Kit       |
| Fans                        | 4-standard fans                                         | 4-standard fans                     | 6-standard fans                |
| Management                  |                                                         | Provisioning (embedded), HPE On     | II.                            |
| <del>-</del>                |                                                         | PE iLO Advanced Premium Security    |                                |
|                             | Advanced (require licenses)                             |                                     |                                |
| Rail Kit                    | SFF Easy install rails with Cable M                     | anagement Arm                       |                                |
| Energy Star                 | 3.0 Certified                                           | <u> </u>                            |                                |
| Form Factor                 | 2U Rack                                                 |                                     |                                |
| Warranty                    |                                                         | onsite support with next business d | av response                    |
|                             | 5 , car paris, 5 year labor, 5 year                     | onone support with the housiness a  | a, 100p01100.                  |

#### 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.
- UEFI is the standard default for all SMB models.

- -B21 = Worldwide (excl. Japan and PRC)
- -291 = Japan

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<br>Server Models | HPE ProLiant DL380<br>Gen10 8LFF<br>NC CTO Server                                                                                                                                       | HPE ProLiant DL380<br>Gen10 12LFF<br>NC CTO Server      | HPE ProLiant DL380<br>Gen10 8SFF<br>NC CTO Server | HPE ProLiant DL380<br>Gen10 24SFF<br>NC CTO Server |  |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|---------------------------------------------------|----------------------------------------------------|--|
| SKU Number                             | P19717-B21                                                                                                                                                                              | P19718-B21                                              | P19720-B21                                        | P19719-B21                                         |  |
| <b>HPE Trusted Supply Chain</b>        | 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                                                                |                                                         |                                                   |                                                    |  |
| PCle                                   | Three standard in prim                                                                                                                                                                  | 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  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        |  |

# **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 <a href="http://www.hpe.com/security">http://www.hpe.com/security</a>

- 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                    | HPE ProLiant DL380                                                                     | HPE ProLiant DL380 | HPE ProLiant DL380     | HPE ProLiant DL380     |
|---------------------------------|----------------------------------------------------------------------------------------|--------------------|------------------------|------------------------|
| CTO Server Models               | Gen10 8LFF                                                                             | Gen10 12LFF        | Gen10 8SFF             | Gen10 24SFF            |
|                                 | CTO Server                                                                             | CTO Server         | CTO Server             | CTO Server             |
| SKU Number                      | 868706-B21                                                                             | 868705-B21         | 868703-B21             | 868704-B21             |
| <b>HPE Trusted Supply Chain</b> | P36394-B21 Optional                                                                    |                    |                        |                        |
| TAA Instruction SKU             | P19713-B21 Optional                                                                    |                    |                        |                        |
| Processor                       | Not included as                                                                        | Not included as    | Not included as        | Not included as        |
|                                 | standard                                                                               | standard           | standard               | 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                                                      |                    |                        |                        |
| PCle                            | Three standard in primary riser (with dual M.2 support)                                |                    |                        |                        |
| Drive Cage - included           | 8 LFF                                                                                  | 12 LFF             | 8 SFF                  | 24 SFF                 |
| <b>Network Controller</b>       | 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                                                                   | None as standard   | 1x 3.0 standard plus   | 1x 3.0 standard plus   |
|                                 | iLo front service port                                                                 |                    | iLo front service port | 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 <a href="http://www.hpe.com/security">http://www.hpe.com/security</a>
- 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.

# **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 will processors will ship with the Standard heat sink.

## **Step 2a: Choose Processors**

**Processor Option Kits** (Required Processor)

## 2<sup>nd</sup> Generation Intel Xeon-Platinum

#### **Notes:**

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

| Intel Xeon-Platinum 8280L (2.7GHz/28-core/205W) FIO Processor Kit for HPE ProLiant DL380 Gen10 | P02540-L21 |
|------------------------------------------------------------------------------------------------|------------|
| Intel Xeon-Platinum 8280 (2.7GHz/28-core/205W) FIO Processor Kit for HPE ProLiant DL380 Gen10  | P02527-L21 |
| Intel Xeon-Platinum 8276L (2.2GHz/28-core/165W) FIO Processor Kit for HPE ProLiant DL380 Gen10 | P02539-L21 |
| Intel Xeon-Platinum 8276 (2.2GHz/28-core/165W) FIO Processor Kit for HPE ProLiant DL380 Gen10  | P02526-L21 |
| Intel Xeon-Platinum 8270 (2.7GHz/26-core/205W) FIO Processor Kit for HPE ProLiant DL380 Gen10  | P02525-L21 |
| Intel Xeon-Platinum 8268 (2.9GHz/24-core/205W) FIO Processor Kit for HPE ProLiant DL380 Gen10  | P02524-L21 |
| Intel Xeon-Platinum 8260Y (2.4GHz/24-core/165W) FIO Processor Kit for HPE ProLiant DL380 Gen10 | P02508-L21 |
| Intel Xeon-Platinum 8260L (2.4GHz/24-core/165W) FIO Processor Kit for HPE ProLiant DL380 Gen10 | P02538-L21 |
| Intel Xeon-Platinum 8260 (2.4GHz/24-core/165W) FIO Processor Kit for HPE ProLiant DL380 Gen10  | P02521-L21 |
| Intel Xeon-Platinum 8256 (3.8GHz/4-core/105W) FIO Processor Kit for HPE ProLiant DL380 Gen10   | P02519-L21 |
| Intel Xeon-Platinum 8253 (2.2GHz/16-core/125W) FIO Processor Kit for HPE ProLiant DL380 Gen10  | P02518-L21 |
| Notes: Do not ship with Performance Heatsink.                                                  |            |

#### 2<sup>nd</sup> Generation Intel Xeon-Gold

#### Notes:

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

| Intel Xeon-Gold 6262V (1.9GHz/24-core/135W) FIO Processor Kit for HPE ProLiant DL380 Gen10 | P11822-L21 |
|--------------------------------------------------------------------------------------------|------------|
| 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 6254 (3.1GHz/18-core/200W) FIO Processor Kit for HPE ProLiant DL380 Gen10  | P02517-L21 |
|--------------------------------------------------------------------------------------------|------------|
| Intel Xeon-Gold 6252N (2.3GHz/24-core/150W) FIO Processor Kit for HPE ProLiant DL380 Gen10 | P11829-L21 |
| Intel Xeon-Gold 6252 (2.1GHz/24-core/150W) FIO Processor Kit for HPE ProLiant DL380 Gen10  | P02516-L21 |
| Intel Xeon-Gold 6250L (3.9GHz/8-core/185W) FIO Processor Kit for HPE ProLiant DL380 Gen10  | P28387-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 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 6242 (2.8GHz/16-core/150W) FIO Processor Kit for HPE ProLiant DL380 Gen10       | P02510-L21 |
| Intel Xeon-Gold 6240R (2.4GHz/24-core/165W) FIO Processor Kit for HPE ProLiant DL380 Gen10      | P24470-L21 |
| Intel Xeon-Gold 6240L (2.6GHz/18-core/150W) FIO Processor Kit for HPE ProLiant DL380 Gen10      | P02537-L21 |
| Intel Xeon-Gold 6240Y (2.6GHz/18-14-8-core/150W) FIO Processor Kit for HPE ProLiant DL380 Gen10 | P02507-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 6238L (2.1GHz/22-core/140W) FIO Processor Kit for HPE ProLiant DL380 Gen10      | P02536-L21 |
| Intel Xeon-Gold 6238 (2.1GHz/22-core/140W) FIO Processor Kit for HPE ProLiant DL380 Gen10       | P02504-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 |
| Notes: Do not ship with Performance Heatsink.                                                   |            |
| 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 6222V (1.8GHz/20-core/115W) FIO Processor Kit for HPE ProLiant DL380 Gen10  Notes: Do not ship with Performance Heatsink.                                                                                                    | P11823-L21  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Intel Xeon-Gold 6212U (2.4GHz/24-core/165W) FIO Processor Kit for HPE ProLiant DL380 Gen10                                                                                                                                                   | P11825-L21  |
| <b>Notes:</b> 2-processor configurations NOT supported with this processor; secondary and tertiary risers not supported                                                                                                                      | . 11020 121 |
| Intel Xeon-Gold 6210U (2.5GHz/20-core/150W) FIO Processor Kit for HPE ProLiant DL380 Gen10                                                                                                                                                   | P11826-L21  |
| Notes: 2-processor configurations NOT supported with this processor; secondary and tertiary risers not                                                                                                                                       |             |
| supported                                                                                                                                                                                                                                    |             |
| Intel Xeon-Gold 6209U (2.1GHz/20-core/125W) FIO Processor Kit for HPE ProLiant DL380 Gen10                                                                                                                                                   | P11827-L21  |
| Notes:                                                                                                                                                                                                                                       |             |
| <ul> <li>2-processor configurations NOT supported with this processor; secondary and tertiary risers not supported</li> <li>Do not ship with Performance Heatsink.</li> </ul>                                                                |             |
| Intel Xeon-Gold 6208U (2.9GHz/16-core/150W) FIO Processor Kit for HPE ProLiant DL380 Gen10                                                                                                                                                   | P24477-L21  |
| Intel Xeon-Gold 5222 (3.8GHz/4-core/105W) FIO Processor Kit for HPE ProLiant DL380 Gen10                                                                                                                                                     | P02500-L21  |
| Intel Xeon-Gold 5220S (2.7GHz/18-core/125W) FIO Processor Kit for HPE ProLiant DL380 Gen10                                                                                                                                                   | P11824-L21  |
| Notes: Do not ship with Performance Heatsink.                                                                                                                                                                                                |             |
| Intel Xeon-Gold 5220R (2.2GHz/24-core/150W) FIO Processor Kit for HPE ProLiant DL380 Gen10                                                                                                                                                   | P23553-L21  |
| Intel Xeon-Gold 5220 (2.2GHz/18-core/125W) FIO Processor Kit for HPE ProLiant DL380 Gen10                                                                                                                                                    | P02499-L21  |
| Notes: Do not ship with Performance Heatsink.                                                                                                                                                                                                |             |
| 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 5218N (2.3GHz/16-core/110W) FIO Processor Kit for HPE ProLiant DL380 Gen10                                                                                                                                                   | P11831-L21  |
| Notes: Do not ship with Performance Heatsink.                                                                                                                                                                                                |             |
| Intel Xeon-Gold 5218B (2.3GHz/16-core/125W) FIO Processor Kit for HPE ProLiant DL380 Gen10                                                                                                                                                   | P12513-L21  |
| Notes:                                                                                                                                                                                                                                       |             |
| <ul> <li>5218B has consistent features with the 5218 processor but from a different die. Mixing both 5218B &amp;</li> <li>5218 in a system is not supported</li> </ul>                                                                       |             |
| <ul> <li>Do not ship with Performance Heatsink.</li> </ul>                                                                                                                                                                                   |             |
| 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 5215L (2.5GHz/10-core/85W) FIO Processor Kit for HPE ProLiant DL380 Gen10                                                                                                                                                    | P02533-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.                                                                                                                                                                                                |             |
| 2 <sup>nd</sup> Generation Intel Xeon-Silver                                                                                                                                                                                                 |             |
| Notes:                                                                                                                                                                                                                                       |             |
| <ul> <li>Field upgrades from 1<sup>st</sup> generation processors (x1xx) to 2<sup>nd</sup> generation processors (x2xx) not supported.</li> <li>All the below models do not ship with Performance Heatsink unless otherwise noted</li> </ul> |             |
| 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 4215 (2.5GHz/8-core/85W) FIO Processor Kit for HPE ProLiant DL380 Gen10                                                                                                                                                    | P02494-L21  |
| Intel Xeon-Silver 4214R (2.4GHz/12-core/100W) FIO Processor Kit for HPE ProLiant DL380 Gen10                                                                                                                                                 | P23550-L21  |



# **Configuration Information**

| Intel Xeon-Silver 4214Y (2.2GHz/12-10-8-core/85W) FIO Processor Kit for HPE ProLiant DL380 Gen10 | P02506-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 |
| Intel Xeon-Silver 4208 (2.1GHz/8-core/85W) FIO Processor Kit for HPE ProLiant DL380 Gen10        | P02491-L21 |

#### 2<sup>nd</sup> Generation Intel Xeon-Bronze

#### Notes:

- Field upgrades from 1<sup>st</sup> generation processors (x1xx) to 2<sup>nd</sup> 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 Intel Xeon-Bronze 3204 (1.9GHz/6-core/85W) FIO Processor Kit for HPE ProLiant DL380 Gen10 P02489-L21

**Notes:** Processors with 130W or higher will ship with the High Performance heatsink plus SKUs 8256, 8156, 6128, 5222, 5122 as noted below. All other will processors will ship with the Standard heat sink.

## **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: <a href="https://www.hpe.com/docs/memory-speed-table">https://www.hpe.com/docs/memory-speed-table</a>

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

#### **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.

## Registered DIMMs (RDIMMs)

| HPE 8GB (1x8GB) Single Rank x8 DDR4-2933 CAS-21-21 Registered Smart Memory Kit             | P00918-B21 |
|--------------------------------------------------------------------------------------------|------------|
| HPE 8GB (1x8GB) Single Rank x8 DDR4-2666 CAS-19-19 Registered Smart Memory Kit             | 815097-B21 |
| HPE 16GB (1x16GB) Single Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit        | P00920-B21 |
| HPE 16GB (1x16GB) Single Rank x4 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit        | 815098-B21 |
| HPE 16GB (1x16GB) Dual Rank x8 DDR4-2933 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) Single Rank x4 DDR4-2933 CAS-21-21 Registered Memory Kit                 | P38446-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 64GB (1x64GB) Quad Rank x4 DDR4-2933 CAS-21-21 Load Reduced Smart Memory Kit           | P00926-B21 |
| HPE 64GB (1x64GB) Quad Rank x4 DDR4-2666 CAS-19-19-19 Load Reduced Smart Memory Kit        | 815101-B21 |
| HPE 128GB (1x128GB) Octal Rank x4 DDR4-2933 CAS-24-21-21 Load Reduced 3DS Smart Memory Kit | P00928-B21 |
| HPE Persistent Memory (Intel Optane)                                                       |            |
| Intel Optane 128GB persistent memory 100 Series for HPE                                    | 835804-B21 |
| Intel Optane 256GB persistent memory 100 Series for HPE                                    | 835807-B21 |
| Intel Optane 512GB persistent memory 100 Series for HPE                                    | 835810-B21 |
| Makas                                                                                      |            |

#### **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.

# **Configuration Information**

- For configurations exceeding 1TB/socket, the "M" series (2TB/socket) or "L" series processors (4.5TB/socket) are required.
- For information regarding Intel Optane Persistent Memory for HPE visit: <a href="http://www.hpe.com/info/persistentmemory">http://www.hpe.com/info/persistentmemory</a>

#### **HPE NVDIMMs**

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

845264-B21

#### **Notes:**

- A maximum of 12 HPE NVDIMMs supported.
- Can only be mixed with RDIMMs.
- 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: <a href="https://www.hpe.com/docs/memory-speed-table">https://www.hpe.com/docs/memory-speed-table</a>
- To realize the performance memory capabilities listed in this document, HPE DDR4 SmartMemory is required.
- For additional information, please see the <u>HPE DDR4 SmartMemory QuickSpecs</u>.

## **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 |
| HPE 800W Flex Slot Universal Hot Plug Low Halogen Power Supply Kit | 865428-B21 |
| HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit | 830272-B21 |

## **Step 3: Choose Additional Factory Integratable Options**

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

## **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.

#### 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

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



# **Configuration Information**

| HPE DL380X/Apollo 6500 Gen10 6+2 NVMe FIO Option                                                                     | 878192-B21 |
|----------------------------------------------------------------------------------------------------------------------|------------|
| Notes:                                                                                                               |            |
| - This is a factory integrated only option.                                                                          |            |
| <ul> <li>Indicates the cage will also have an NVMe connection.</li> </ul>                                            |            |
| HPE DL38X Gen10 8 SFF Front Cage Removal FIO Option                                                                  | 873763-B21 |
| Notes:                                                                                                               |            |
| <ul> <li>This is a factory integrated only option.</li> </ul>                                                        |            |
| <ul> <li>Will remove the Primary 8SFF cage in Box 3 of the 8SFF and replace with a Box blank.</li> </ul>             |            |
| HPE DL38X Gen10 Primary Riser Removal FIO Option                                                                     | 873766-B21 |
| Notes:                                                                                                               |            |
| <ul> <li>This is a factory integrated only option.</li> </ul>                                                        |            |
| <ul> <li>Will remove the Primary shipping PCle riser.</li> </ul>                                                     |            |
| 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 |
| <b>Notes:</b> 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                                                                                                       |            |
| • 7 6 9 or 16 node vSAN Clusters (7 node minimum)                                                                    |            |

- 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

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 <a href="http://www.hpe.com/info/CablingMatrixGen10">http://www.hpe.com/info/CablingMatrixGen10</a> 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.

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 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.
- 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

- 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

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

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

873770-B21

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**

#### 2<sup>nd</sup> Generation Intel Xeon-Platinum

#### Notes

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

| Intel Xeon-Platinum 8280L (2.7GHz/28-core/205W) Processor Kit for HPE ProLiant DL380 Gen10       | P02540-B21 |
|--------------------------------------------------------------------------------------------------|------------|
| Intel Xeon-Platinum 8280 (2.7GHz/28-core/205W) Processor Kit for HPE ProLiant DL380 Gen10        | P02527-B21 |
| Intel Xeon-Platinum 8276L (2.2GHz/28-core/165W) Processor Kit for HPE ProLiant DL380 Gen10       | P02539-B21 |
| Intel Xeon-Platinum 8276 (2.2GHz/28-core/165W) Processor Kit for HPE ProLiant DL380 Gen10        | P02526-B21 |
| Intel Xeon-Platinum 8270 (2.7GHz/26-core/205W) Processor Kit for HPE ProLiant DL380 Gen10        | P02525-B21 |
| Intel Xeon-Platinum 8268 (2.9GHz/24-core/205W) Processor Kit for HPE ProLiant DL380 Gen10        | P02524-B21 |
| Intel Xeon-Platinum 8260L (2.4GHz/24-core/165W) Processor Kit for HPE ProLiant DL380 Gen10       | P02538-B21 |
| Intel Xeon-Platinum 8260Y (2.4GHz/24-20-16-core/165W) Processor Kit for HPE ProLiant DL380 Gen10 | P02508-B21 |
| Intel Xeon-Platinum 8260 (2.4GHz/24-core/165W) Processor Kit for HPE ProLiant DL380 Gen10        | P02521-B21 |
| Intel Xeon-Platinum 8256 (3.8GHz/4-core/105W) Processor Kit for HPE ProLiant DL380 Gen10         | P02519-B21 |
| Intel Xeon-Platinum 8253 (2.2GHz/16-core/125W) Processor Kit for HPE ProLiant DL380 Gen10        | P02518-B21 |
| Notes: Do not ship with Performance Heatsink.                                                    |            |

#### 2<sup>nd</sup> Generation Intel Xeon-Gold

#### **Notes**:

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

| 7 iii The Below Models Ship Will Ferrormance Fredromik amess Shierwise Norea.          |            |
|----------------------------------------------------------------------------------------|------------|
| Intel Xeon-Gold 6262V (1.9GHz/24-core/135W) Processor Kit for HPE ProLiant DL380 Gen10 | P11822-B21 |
| 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 |
| Market                                                                                 |            |

- 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 6254 (3.1GHz/18-core/200W) Processor Kit for HPE ProLiant DL380 Gen10  | P02517-B21 |
|----------------------------------------------------------------------------------------|------------|
| Intel Xeon-Gold 6252N (2.3GHz/24-core/150W) Processor Kit for HPE ProLiant DL380 Gen10 | P11829-B21 |
| Intel Xeon-Gold 6252 (2.1GHz/24-core/150W) Processor Kit for HPE ProLiant DL380 Gen10  | P02516-B21 |
| Intel Xeon-Gold 6250L (3.9GHz/8-core/185W) Processor Kit for HPE ProLiant DL380 Gen10  | P28387-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 6240L (2.6GHz/18-core/150W) Processor Kit for HPE ProLiant DL380 Gen10      | P02537-B21 |
| Intel Xeon-Gold 6240 (2.6GHz/18-core/150W) Processor Kit for HPE ProLiant DL380 Gen10       | P02509-B21 |
| Intel Xeon-Gold 6240Y (2.6GHz/18-14-8-core/150W) Processor Kit for HPE ProLiant DL380 Gen10 | P02507-B21 |
| Intel Xeon-Gold 6238R (2.2GHz/28-core/165W) Processor Kit for HPE ProLiant DL380 Gen10      | P24469-B21 |
| Intel Xeon-Gold 6238L (2.1GHz/22-core/140W) Processor Kit for HPE ProLiant DL380 Gen10      | P02536-B21 |
| Intel Xeon-Gold 6238 (2.1GHz/22-core/140W) Processor Kit for HPE ProLiant DL380 Gen10       | P02504-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 |
| Notes: Do not ship with Performance Heatsink.                                               |            |
| 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 6222V (1.8GHz/20-core/115W) Processor Kit for HPE ProLiant DL380 Gen10      | P11823-B21 |
| Notes: Do not ship with Performance Heatsink.                                               |            |
| Intel Xeon-Gold 6212U (2.4GHz/24-core/165W) Processor Kit for HPE ProLiant DL380 Gen10      | P11825-B21 |
|                                                                                             |            |

- 2-processor configurations not supported with this processor; secondary and tertiary risers not supported

Field upgrades from 1<sup>st</sup> generation processors (x1xx) to 2<sup>nd</sup> generation processors (x2xx) not supported. This standalone option kit is intended to upgrade a system originally installed with a 2<sup>nd</sup> generation Intel Xeon Scalable Series processor. Intel Xeon-Gold 6210U (2.5GHz/20-core/150W) Processor Kit for HPE ProLiant DL380 Gen10 P11826-B21 **Notes:** - 2-processor configurations NOT supported with this processor; secondary and tertiary risers not supported Field upgrades from 1<sup>st</sup> generation processors (x1xx) to 2<sup>nd</sup> generation processors (x2xx) not supported. This standalone option kit is intended to upgrade a system originally installed with a 2<sup>nd</sup> generation Intel Xeon Scalable Series processor. P11827-B21 Intel Xeon-Gold 6209U (2.1GHz/20-core/125W) Processor Kit for HPE ProLiant DL380 Gen10 **Notes:**  2-processor configurations NOT supported with this processor; secondary and tertiary risers not supported Field upgrades from 1<sup>st</sup> generation processors (x1xx) to 2<sup>nd</sup> generation processors (x2xx) not supported. This standalone option kit is intended to upgrade a system originally installed with a 2<sup>nd</sup> generation Intel Xeon Scalable Series processor. Do not ship with Performance Heatsink. Intel Xeon-Gold 6208U (2.9GHz/16-core/150W) Processor Kit for HPE ProLiant DL380 Gen10 P24477-B21 Notes: - 2-processor configurations NOT supported with this processor; secondary and tertiary risers not supported Field upgrades from 1<sup>st</sup> generation processors (x1xx) to 2<sup>nd</sup> generation processors (x2xx) not supported. This standalone option kit is intended to upgrade a system originally installed with a 2<sup>nd</sup> generation Intel Xeon Scalable Series processor. Intel Xeon-Gold 5222 (3.8GHz/4-core/105W) Processor Kit for HPE ProLiant DL380 Gen10 P02500-B21 Intel Xeon-Gold 5220S (2.7GHz/18-core/125W) Processor Kit for HPE ProLiant DL380 Gen10 P11824-B21 **Notes:** Do not ship with Performance Heatsink. Intel Xeon-Gold 5220R (2.2GHz/24-core/150W) Processor Kit for HPE ProLiant DL380 Gen10 P23553-B21 Intel Xeon-Gold 5220 (2.2GHz/18-core/125W) Processor Kit for HPE ProLiant DL380 Gen10 P02499-B21 Notes: Do not ship with Performance Heatsink. 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. Intel Xeon-Gold 5218B (2.3GHz/16-core/125W) Processor Kit for HPE ProLiant DL380 Gen10 P12513-B21 **Notes:**  5218B has consistent features with the 5218 processor but from a different die. Mixing both 5218B & 5218 in a system is not supported - Do not ship with Performance Heatsink. Intel Xeon-Gold 5218N (2.3GHz/16-core/110W) Processor Kit for HPE ProLiant DL380 Gen10 P11831-B21

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

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

Notes: Do not ship with Performance Heatsink.

Notes: Do not ship with Performance Heatsink.

Notes: Do not ship with Performance Heatsink.

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

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

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

Notes: Do not ship with Performance Heatsink.

#### 2nd Generation Intel Xeon-Silver

#### **Notes:**

- Field upgrades from 1<sup>st</sup> generation processors (x1xx) to 2<sup>nd</sup> 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

P02498-B21

P02497-B21

P02533-B21

P02496-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 4215 (2.5GHz/8-core/85W) Processor Kit for HPE ProLiant DL380 Gen10        | P02494-B21 |
| Intel Xeon-Silver 4214Y (2.2GHz/12-10-8-core/85W) Processor Kit for HPE ProLiant DL380 Gen10 | P02506-B21 |
| 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 |

## 2<sup>nd</sup> Generation Intel Xeon-Bronze

#### **Notes:**

- Field upgrades from 1<sup>st</sup> generation processors (x1xx) to 2<sup>nd</sup> 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: <a href="http://www.hpe.com/products/recommend">http://www.hpe.com/products/recommend</a>.

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 1<sup>st</sup> Generation Intel Xeon Scalable Series Processors.

## **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 8GB (1x8GB) Single Rank x8 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit   | 815097-B21 |
| HPE 16GB (1x16GB) Single Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit | P00920-B21 |
| HPE 16GB (1x16GB) Single Rank x4 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit | 815098-B21 |
| HPE 16GB (1x16GB) Dual Rank x8 DDR4-2933 CAS-21-21 Registered Smart Memory Kit      | P00922-B21 |
| HPE 16GB (1x16GB) Dual Rank x8 DDR4-2666 CAS-19-19 Registered Smart Memory Kit      | 835955-B21 |
| HPE 32GB (1x32GB) Single Rank x4 DDR4-2933 CAS-21-21 Registered Memory Kit          | P38446-B21 |
| HPE 32GB (1x32GB) Dual Rank x4 DDR4-2933 CAS-21-21 Registered Smart Memory Kit      | P00924-B21 |
| HPE 32GB (1x32GB) Dual Rank x4 DDR4-2666 CAS-19-19 Registered Smart Memory Kit      | 815100-B21 |
| HPE 64GB (1x64GB) Dual Rank x4 DDR4-2933 CAS-21-21 Registered Smart Memory Kit      | P00930-B21 |

D00040 D04

**Notes:** For configurations exceeding 1TB/socket, the "M" series (2TB/socket) or "L" series processors (4.5TB/socket) are required.

## Load Reduced DIMMs (LRDIMMs)

| HPE 64GB (1x64GB) Quad Rank x4 DDR4-2933 CAS-21-21 Load Reduced Smart Memory Kit           | P00926-B21 |
|--------------------------------------------------------------------------------------------|------------|
| HPE 64GB (1x64GB) Quad Rank x4 DDR4-2666 CAS-19-19-19 Load Reduced Smart Memory Kit        | 815101-B21 |
| HPE 128GB (1x128GB) Quad Rank x4 DDR4-2933 CAS-21-21-21 Load Reduced Smart Memory Kit      | P11040-B21 |
| HPE 128GB (1x128GB) Octal Rank x4 DDR4-2933 CAS-24-21-21 Load Reduced 3DS Smart Memory Kit | P00928-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 |
|---------------------------------------------------------|------------|
| Intel Optane 256GB persistent memory 100 Series for HPE | 835807-B21 |
| Intel Optane 512GB persistent memory 100 Series for HPE | 835810-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.
- For information regarding Intel Optane Persistent Memory for HPE
  - visit: http://www.hpe.com/info/persistentmemory

#### **HPE NVDIMMs**

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

845264-B21

#### **Notes:**

- A maximum of 12 HPE NVDIMMs supported with 1<sup>st</sup> Generation Intel Xeon Scalable Processors and can only be mixed with RDIMMs.
- Can only be mixed with RDIMMs.
- For General Server Memory and HPE NVDIMM Population Rules and Guidelines for Gen10 see details here:

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

#### **HPE DDR-4 Blank Kit**

| HPE DDR4 DIMM Blank Kit                                                                                 | P07818-B21 |
|---------------------------------------------------------------------------------------------------------|------------|
| HPE Optical Drives                                                                                      |            |
| HPE 9.5mm SATA DVD-ROM Optical Drive                                                                    | 726536-B21 |
| 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.                                                         |            |



# **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.

## **HPE Hard Disk Drives**

| <b>Enterprise</b> | - 12G | SAS- | SFF | <b>Drives</b> |
|-------------------|-------|------|-----|---------------|
|-------------------|-------|------|-----|---------------|

|                                                                                                | 004/57 504  |
|------------------------------------------------------------------------------------------------|-------------|
| HPE 2.4TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty 512e Digitally Signed Firmware HDD     | 881457-B21  |
| HPE 1.8TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty 512e Digitally Signed Firmware HDD     | 872481-B21  |
| HPE 1.2TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD          | 872479-B21  |
| HPE 900GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD          | 870759-B21  |
| HPE 600GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD          | 870757-B21  |
| HPE 600GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD          | 872477-B21  |
| HPE 300GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD          | 870753-B21  |
| HPE 300GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD          | 872475-B21  |
| Midline - 12G SAS - SFF Drives                                                                 |             |
| HPE 2TB SAS 12G Midline 7.2K SFF (2.5in) SC 1yr Wty 512e HDD                                   | 765466-B21  |
| HPE 1TB SAS 12G Midline 7.2K SFF (2.5in) SC 1yr Wty Digitally Signed Firmware HDD              | 832514-B21  |
| Midline - 6G SATA - SFF Drives                                                                 |             |
| HPE 2TB SATA 6G Midline 7.2K SFF (2.5in) SC 1yr Wty 512e Digitally Signed Firmware HDD         | 765455-B21  |
| HPE 1TB SATA 6G Midline 7.2K SFF (2.5in) SC 1yr Wty Digitally Signed Firmware HDD              | 655710-B21  |
| Enterprise - 12G SAS - LFF Drives                                                              |             |
| HPE 600GB SAS 12G Enterprise 15K LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware HDD         | P04695-B21  |
| HPE 300GB SAS 12G Enterprise 15K LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware HDD         | P04693-B21  |
| Midline - 12G SAS - LFF Drives                                                                 | . 0.070 521 |
| HPE 16TB SAS 12G Business Critical 7.2K LFF (3.5in) SC 1yr Wty 512e ISE HDD                    | P23863-B21  |
| HPE 14TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Helium 512e Digitally Signed Firmware HDD | P09153-B21  |
| HPE 12TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Helium 512e Digitally Signed Firmware HDD | 881779-B21  |
| HPE 10TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Helium 512e Digitally Signed Firmware HDD | 857644-B21  |
| HPE 8TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e Digitally Signed Firmware HDD         | 819201-B21  |
| HPE 6TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e HDD                                   | 861754-B21  |
| HPE 4TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD              | 872487-B21  |
| HPE 2TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD              | 872485-B21  |
| Midline - 6G SATA - LFF Drives                                                                 | 0,2.00 521  |
| HPE 16TB SATA 6G Business Critical 7.2K LFF (3.5in) SC 1yr Wty 512e ISE HDD                    | P23857-B21  |
| HPE 14TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty Helium 512e Digitally Signed Firmware HDD | P09163-B21  |
| HPE 12TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty Helium 512e Digitally Signed Firmware HDD | 881785-B21  |
| HPE 10TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty Helium 512e Digitally Signed Firmware HDD | 857648-B21  |
| HPE 8TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e Digitally Signed Firmware HDD         | 819203-B21  |
| HPE 6TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e HDD                                   | 861750-B21  |
| HPE 4TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD              | 872491-B21  |
| HPE 2TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD              | 872489-B21  |
| HPE 1TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty HDD                                        | 861691-B21  |
| TIFE ITO SATA OU MIGIIILE 7.2K EFF (S.SIII) SC IYI WIY MUU                                     | OOTOAT-DST  |



# **SSD Selection**

| For CCD colortion guidance places visit https://end.hna.com/                                     |               |
|--------------------------------------------------------------------------------------------------|---------------|
| For SSD selection guidance, please visit <a href="https://ssd.hpe.com/">https://ssd.hpe.com/</a> |               |
| Read Intensive - 12G SAS - SFF - Solid State Drives                                              |               |
| HPE 15.36TB SAS 12G Read Intensive SFF SC PM1643a SSD                                            | P19911-B21    |
| HPE 7.68TB SAS 12G Read Intensive SFF SC PM1643a SSD                                             | P19909-B21    |
| HPE 7.68TB SAS 12G Read Intensive SFF SC SS540 SSD                                               | P21145-B21    |
| HPE 7.68TB SAS 12G Read Intensive SFF SC PM5 SSD                                                 | P04523-B21    |
| HPE 3.84TB SAS 12G Read Intensive SFF SC PM1643a SSD                                             | P19907-B21    |
| HPE 3.84TB SAS 12G Read Intensive SFF SC SS540 SSD                                               | P21143-B21    |
| HPE 3.84TB SAS 12G Read Intensive SFF SC PM5 SSD                                                 | P04521-B21    |
| HPE 1.92TB SAS 12G Read Intensive SFF SC PM1643a SSD                                             | P19905-B21    |
| HPE 1.92TB SAS 12G Read Intensive SFF SC SS540 SSD                                               | P21141-B21    |
| HPE 960GB SAS 12G Read Intensive SFF SC PM1643a SSD                                              | P19903-B21    |
| HPE 960GB SAS 12G Read Intensive SFF SC SS540 SSD                                                | P21139-B21    |
| HPE 960GB SAS 12G Read Intensive SFF SC PM5 SSD                                                  | P04517-B21    |
| Read Intensive - 12G SAS - SFF - SC Value SAS Digitally Signed Firmware SSD                      |               |
| HPE 7.68TB SAS 12G Read Intensive SFF SC Value SAS Multi Vendor SSD                              | P37003-B21    |
| HPE 3.84TB SAS 12G Read Intensive SFF SC Value SAS Multi Vendor SSD                              | P37001-B21    |
| HPE 1.92TB SAS 12G Read Intensive SFF SC Value SAS Multi Vendor SSD                              | P36999-B21    |
| HPE 960GB SAS 12G Read Intensive SFF SC Value SAS Multi Vendor SSD                               | P36997-B21    |
| Write Intensive - 12G SAS - SFF - Solid State Drives                                             |               |
| HPE 1.6TB SAS 12G Write Intensive SFF SC SS540 SSD                                               | P21129-B21    |
| HPE 1.6TB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD           | P09102-B21    |
| HPE 1.6TB SAS 12G Write Intensive SFF SC PM5 SSD                                                 | P04545-B21    |
| HPE 800GB SAS 12G Write Intensive SFF SC SS540 SSD                                               | P21127-B21    |
| HPE 800GB SAS 12G Write Intensive SFF SC PM5 SSD                                                 | P04543-B21    |
| HPE 400GB SAS 12G Write Intensive SFF SC SS540 SSD                                               | P21125-B21    |
| HPE 400GB SAS 12G Write Intensive SFF SC PM5 SSD                                                 | P04541-B21    |
| Mixed Use - 12G SAS - SFF - Solid State Drives                                                   |               |
| HPE 6.4TB SAS 12G Mixed Use SFF SC SS540 SSD                                                     | P21137-B21    |
| HPE 6.4TB SAS 12G Mixed Use SFF SC PM1645a SSD                                                   | P19919-B21    |
| HPE 6.4TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD                 | P09096-B21    |
| HPE 3.2TB SAS 12G Mixed Use SFF SC SS540 SSD                                                     | P21135-B21    |
| HPE 3.2TB SAS 12G Mixed Use SFF SC PM1645a SSD                                                   | P19917-B21    |
| HPE 1.6TB SAS 12G Mixed Use SFF SC SS540 SSD                                                     | P21133-B21    |
| HPE 1.6TB SAS 12G Mixed Use SFF SC PM1645a SSD                                                   | P19915-B21    |
| HPE 800GB SAS 12G Mixed Use SFF SC SS540 SSD                                                     | P21131-B21    |
| HPE 800GB SAS 12G Mixed Use SFF SC PM1645a SSD                                                   | P19913-B21    |
| Mixed Use - 12G SAS - SFF - SC Value SAS Digitally Signed Firmware SSD                           |               |
| HPE 960GB SAS 12G Mixed Use SFF SC Value SAS Multi Vendor SSD                                    | P37005-B21    |
| HPE 1.92TB SAS 12G Mixed Use SFF SC Value SAS Multi Vendor SSD                                   | P37011-B21    |
| HPE 3.84TB SAS 12G Mixed Use SFF SC Value SAS Multi Vendor SSD                                   | P37017-B21    |
| Read Intensive - 6G SATA - SFF - Solid State Drives                                              | 10,01, 511    |
| HPE 7.68TB SATA 6G Read Intensive SFF SC 5300P SSD                                               | P19945-B21    |
| HPE 7.68TB SATA 6G Read Intensive SFF SC Multi Vendor SSD                                        | P18430-B21    |
| HPE 3.84TB SATA 6G Read Intensive SFF SC 5300P SSD                                               | P19943-B21    |
| HPE 3.84TB SATA 6G Read Intensive SFF SC Multi Vendor SSD                                        | P18428-B21    |
| HPE 3.84TB SATA 6G Read Intensive SFF SC PM883 SSD                                               | P04570-B21    |
| THE SOFTE SATA OF ACOUNTINE ISLANDED IN SCHOOL SOL                                               | F 045 / 0-DZI |

| HPE 3.84TB SATA 6G Read Intensive SFF SC S4510 SSD                     | P05946-B21 |
|------------------------------------------------------------------------|------------|
| HPE 3.84TB SATA 6G Read Intensive SFF SC SE4011 SSD                    | P06200-B21 |
| HPE 1.92TB SATA 6G Read Intensive SFF SC 5300P SSD                     | P19941-B21 |
| HPE 1.92TB SATA 6G Read Intensive SFF SC Multi Vendor SSD              | P18426-B21 |
| HPE 1.92TB SATA 6G Read Intensive SFF SC PM883 SSD                     | P04566-B21 |
| HPE 1.92TB SATA 6G Read Intensive SFF SC S4510 SSD                     | P05938-B21 |
| HPE 1.92TB SATA 6G Read Intensive SFF SC SE4011 SSD                    | P06198-B21 |
| HPE 960GB SATA 6G Read Intensive SFF SC 5300P SSD                      | P19939-B21 |
| HPE 960GB SATA 6G Read Intensive SFF SC PM883 SSD                      | P04564-B21 |
| HPE 960GB SATA 6G Read Intensive SFF SC Multi Vendor SSD               | P18424-B21 |
| HPE 960GB SATA 6G Read Intensive SFF SC S4510 SSD                      | P05932-B21 |
| HPE 960GB SATA 6G Read Intensive SFF SC SE4011 SSD                     | P06196-B21 |
| HPE 480GB SATA 6G Read Intensive SFF SC 5300P SSD                      | P19937-B21 |
| HPE 480GB SATA 6G Read Intensive SFF SC PM883 SSD                      | P04560-B21 |
| HPE 480GB SATA 6G Read Intensive SFF SC Multi Vendor SSD               | P18422-B21 |
| HPE 480GB SATA 6G Read Intensive SFF SC S4510 SSD                      | P05928-B21 |
| HPE 480GB SATA 6G Read Intensive SFF SC SE4011 SSD                     | P06194-B21 |
| HPE 240GB SATA 6G Read Intensive SFF SC 5300P SSD                      | P19935-B21 |
| HPE 240GB SATA 6G Read Intensive SFF SC PM883 SSD                      | P04556-B21 |
| HPE 240GB SATA 6G Read Intensive SFF SC Multi Vendor SSD               | P18420-B21 |
| HPE 240GB SATA 6G Read Intensive SFF SC S4510 SSD                      | P05924-B21 |
| Mixed Use - 6G SATA - SFF - Solid State Drives                         |            |
| HPE 3.84TB SATA 6G Mixed Use SFF SC 5300M SSD                          | P19953-B21 |
| HPE 3.84TB SATA 6G Mixed Use SFF SC SM883 SSD                          | P21517-B21 |
| HPE 3.84TB SATA 6G Mixed Use SFF SC Multi Vendor SSD                   | P18438-B21 |
| HPE 3.84TB SATA 6G Mixed Use SFF SC S4610 SSD                          | P05994-B21 |
| HPE 3.84TB SATA 6G Mixed Use SFF RW SE5031 SSD                         | P13664-B21 |
| HPE 1.92TB SATA 6G Mixed Use SFF SC 5300M SSD                          | P19951-B21 |
| HPE 1.92TB SATA 6G Mixed Use SFF SC Multi Vendor SSD                   | P18436-B21 |
| HPE 1.92TB SATA 6G Mixed Use SFF SC SM883 SSD                          | P09722-B21 |
| HPE 1.92TB SATA 6G Mixed Use SFF SC S4610 SSD                          | P05986-B21 |
| HPE 1.92TB SATA 6G Mixed Use SFF SC SE5031 SSD                         | P13662-B21 |
| HPE 960GB SATA 6G Mixed Use SFF SC 5300M SSD                           | P19949-B21 |
| HPE 960GB SATA 6G Mixed Use SFF SC Multi Vendor SSD                    | P18434-B21 |
| HPE 960GB SATA 6G Mixed Use SFF SC SM883 SSD                           | P09716-B21 |
| HPE 960GB SATA 6G Mixed Use SFF SC S4610 SSD                           | P05980-B21 |
| HPE 960GB SATA 6G Mixed Use SFF SC SE5031 SSD                          | P13660-B21 |
| HPE 480GB SATA 6G Mixed Use SFF SC 5300M SSD                           | P19947-B21 |
| HPE 480GB SATA 6G Mixed Use SFF SC Multi Vendor SSD                    | P18432-B21 |
| HPE 480GB SATA 6G Mixed Use SFF SC SM883 SSD                           | P09712-B21 |
| HPE 480GB SATA 6G Mixed Use SFF SC S4610 SSD                           | P05976-B21 |
| HPE 480GB SATA 6G Mixed Use SFF SC SE5031 SSD                          | P13658-B21 |
| Very Read Optimized – QLC-NAND SATA – SFF – Solid State Drives         |            |
| HPE 7.68TB SATA 6G Very Read Optimized SFF SC 5210 SSD                 | P23493-B21 |
| HPE 3.84TB SATA 6G Very Read Optimized SFF SC 5210 SSD                 | P23489-B21 |
| HPE 1.92TB SATA 6G Very Read Optimized SFF SC 5210 SSD                 | P23487-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 PM883 SSD                                                  | P09687-B21 |
|-----------------------------------------------------------------------------------------------------|------------|
| Mixed Use - 6G SATA - LFF - Solid State Drives                                                      |            |
| HPE 1.92TB SATA 6G Mixed Use LFF SCC SM883 SSD                                                      | P09724-B21 |
| HPE 960GB SATA 6G Mixed Use LFF SCC SM883 SSD                                                       | P09718-B21 |
| HPE 480GB SATA 6G Mixed Use LFF SCC 5300M SSD                                                       | P19978-B21 |
| Read Intensive - 6G SATA - M.2 - Solid State Media (2280 type)                                      |            |
| HPE 960GB SATA 6G Read Intensive M.2 2280 5300P SSD                                                 | P19892-B21 |
| HPE 480GB SATA 6G Read Intensive M.2 2280 5300P SSD                                                 | P19890-B21 |
| HPE 240GB SATA 6G Read Intensive M.2 2280 5300B SSD                                                 | P19888-B21 |
| Notes:                                                                                              |            |
| <ul> <li>M.2 drives supported in the Primary Riser and use S100i SATA controller only.</li> </ul>   |            |
| <ul> <li>M.2 supports Software RAID only.</li> </ul>                                                |            |
| Internal Dual M.2 Kit                                                                               |            |
| HPE Universal SATA 6G AIC HHHL M.2 SSD Enablement Kit                                               | 878783-B21 |
| Notes: This is a M.2 enablement standup card.                                                       |            |
| Dual Read Intensive - 6G SATA – UFF SCM M.2 - Solid State Drives                                    |            |
| HPE Dual 480GB SATA 6G Read Intensive M.2 to SFF SCM 5300P SSD Kit                                  | P19896-B21 |
| HPE Dual 240GB SATA 6G Read Intensive M.2 to SFF SCM 5300B SSD Kit                                  | P19894-B21 |
| 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               |            |
| 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.              |            |
| Read Intensive - NVMe - SFF - Solid State Drives                                                    |            |
| HPE 15.36TB NVMe Gen4 High Performance Read Intensive SFF SCN U.3 PM1733 SSD                        | P22282-B21 |
| HPE 7.68TB NVMe Gen4 Mainstream Performance Read Intensive SFF SCN U.3 PE8010 SSD                   | P19821-B21 |
| HPE 7.68TB NVMe Gen4 High Performance Read Intensive SFF SCN U.3 PM1733 SSD                         | P22280-B21 |
| HPE 7.68TB NVMe Gen4 Mainstream Performance Read Intensive SFF SCN U.3 CD6 SSD                      | P20143-B21 |
| HPE 7.68TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD       | P07196-B21 |
| HPE 4TB NVMe Gen3 High Performance Read Intensive SFF SCN U.2 P4510 SSD                             | P13697-B21 |
| HPE 3.84TB NVMe Gen4 Mainstream Performance Read Intensive SFF SCN U.3 PE8010 SSD                   | P19817-B21 |
| HPE 3.84TB NVMe Gen4 High Performance Read Intensive SFF SCN U.3 CM6 SSD                            | P20019-B21 |
| HPE 3.84TB NVMe Gen4 High Performance Read Intensive SFF SCN U.3 PM1733 SSD                         | P22278-B21 |
| HPE 3.84TB NVMe Gen4 Mainstream Performance Read Intensive SFF SCN U.3 CD6 SSD                      | P20141-B21 |
| HPE 3.84TB NVMe Gen3 Mainstream Performance Read Intensive SFF SCN U.2 PE6011 SSD                   | P13680-B21 |
| HPE 3.84TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD       | P10212-B21 |
| HPE 2TB NVMe Gen3 High Performance Read Intensive SFF SCN U.2 P4510 SSD                             | P13695-B21 |
| HPE 1.92TB NVMe Gen4 Mainstream Performance Read Intensive SFF SCN U.3 PE8010 SSD                   | P19813-B21 |
| HPE 1.92TB NVMe Gen4 High Performance Read Intensive SFF SCN U.3 CM6 SSD                            | P20017-B21 |
| HPE 1.92TB NVMe Gen4 High Performance Read Intensive SFF SCN U.3 PM1733 SSD                         | P22276-B21 |
| HPE 1.92TB NVMe Gen4 Mainstream Performance Read Intensive SFF SCN U.3 CD6 SSD                      | P20139-B21 |
| HPE 1.92TB NVMe Gen3 Mainstream Performance Read Intensive SFF SCN U.2 PE6011 SSD                   | P13678-B21 |
| HPE 1.92TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD       | P10214-B21 |
| HPE 1.92TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD       | P10210-B21 |
| HPE 1.92TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD       | P07192-B21 |
| HPE 960GB NVMe Gen4 Mainstream Performance Read Intensive SFF SCN U.3 PE8010 SSD                    | P19809-B21 |
| HPE 960GB NVMe Gen4 High Performance Read Intensive SFF SCN U.3 CM6 SSD                             | P20015-B21 |
|                                                                                                     |            |



| HPE 960GB NVMe Gen4 High Performance Read Intensive SFF SCN U.3 PM1733 SSD              | P22331-B21 |
|-----------------------------------------------------------------------------------------|------------|
| HPE 960GB NVMe Gen4 Mainstream Performance Read Intensive SFF SCN U.3 CD6 SSD           | P25944-B21 |
| HPE 960GB NVMe Gen3 Mainstream Performance Read Intensive SFF SCN U.2 PE6011 SSD        | P13676-B21 |
| Write Intensive - NVMe - SFF - Solid State Drives                                       |            |
| HPE 750GB NVMe Gen3 High Performance Low Latency Write Intensive SFF SCN U.2 P4800X SSD | P06952-B21 |
| HPE 375GB NVMe Gen3 High Performance Low Latency Write Intensive SFF SCN U.2 P4800X SSD | 878014-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.3 PE8030 SSD             | P19837-B21 |
| HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF SCN U.3 CM6 SSD                      | P20100-B21 |
| HPE 6.4TB NVMe Gen4 Mainstream Performance Mixed Use SFF SCN U.3 CD6 SSD                | P20207-B21 |
| HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF SCN U.3 PM1735 SSD                   | P22272-B21 |
| HPE 6.4TB NVMe Gen3 Mainstream Performance Mixed Use SFF SCN U.2 PE6031 SSD             | P13674-B21 |
| HPE 6.4TB NVMe Gen3 High Performance Mixed Use SFF SCN U.2 P4610 SSD                    | P13703-B21 |
| HPE 3.2TB NVMe Gen4 Mainstream Performance Mixed Use SFF SC U.3 PE8030 SSD              | P19833-B21 |
| HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF SCN U.3 CM6 SSD                      | P20098-B21 |
| HPE 3.2TB NVMe Gen4 Mainstream Performance Mixed Use SFF SCN U.3 CD6 SSD                | P20205-B21 |
| HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF SCN U.3 PM1735 SSD                   | P22270-B21 |
| HPE 3.2TB NVMe Gen3 High Performance Mixed Use SFF SCN U.2 P4610 SSD                    | P13701-B21 |
| HPE 1.6TB NVMe Gen4 Mainstream Performance Mixed Use SFF SCN U.3 PE8030 SSD             | P19829-B21 |
| HPE 1.6TB NVMe Gen4 High Performance Mixed Use SFF SCN U.3 CM6 SSD                      | P20096-B21 |
| HPE 1.6TB NVMe Gen4 Mainstream Performance Mixed Use SFF SCN U.3 CD6 SSD                | P20203-B21 |
| HPE 1.6TB NVMe Gen4 High Performance Mixed Use SFF SCN U.3 PM1735 SSD                   | P22268-B21 |
| HPE 1.6TB NVMe Gen3 High Performance Mixed Use SFF SCN U.2 P4610 SSD                    | P13699-B21 |
| HPE 800GB NVMe Gen4 Mainstream Performance Mixed Use SFF SCN U.3 PE8030 SSD             | P19825-B21 |
| HPE 800GB NVMe Gen4 High Performance Mixed Use SFF SCN U.3 CM6 SSD                      | P20094-B21 |
| HPE 800GB NVMe Gen4 Mainstream Performance Mixed Use SFF SCN U.3 CD6 SSD                | P25953-B21 |
| HPE 800GB NVMe Gen4 High Performance Mixed Use SFF SCN U.3 PM1735 SSD                   | P22329-B21 |
| HPE 800GB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | P07179-B21 |
| Notes:                                                                                  |            |

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

## HPE NVMe x8 Lanes Mixed Use HHHL

| HPE 3.2TB NVMe Gen4 x8 High Performance Mixed Use AIC HHHL PM1735 SSD | P26936-B21 |
|-----------------------------------------------------------------------|------------|
| HPE 1.6TB NVMe Gen4 x8 High Performance Mixed Use AIC HHHL PM1735 SSD | P26934-B21 |

# **HPE PCIe Workload Accelerator Options**

HPE 750GB NVMe Gen3 x4 High Performance Low Latency Write Intensive AIC HHHL P4800X SSD 878038-B21

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

## **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.

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 bla | nks 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                   | <ul><li>CPU≤125W</li><li>135W (6262V)</li><li>140W (6238, 6152, 6140)</li></ul>                                                                                                                                                             |                                                                                                                                                                                                                                            |
| 30C                   | <ul> <li>140W (6132)</li> <li>150W (6210U)</li> <li>165 W (8276, 8260, 8260Y, 6240R, 6238R, 8176, 8170, 6150)</li> </ul>                                                                                                                    | <ul><li>CPU≤125W</li><li>135W (6262V)</li><li>140W (6238, 6152, 6140)</li></ul>                                                                                                                                                            |
| 25C                   | <ul> <li>105W (8256, 5222, 5122, 8156)</li> <li>115W (5217, 6128)</li> <li>125W (6230N)</li> <li>130W (6234, 4215R, 6134)</li> <li>150W (6252, 6248, 6240, 6242, 6230R, 6226R, 6208U, 5220R, 8164, 8160, 8158, 6148, 6142, 6136)</li> </ul> | <ul> <li>140W (6132)</li> <li>150W (6210U)</li> <li>165 W (8276, 8260, 8260Y, 6240R, 6238R, 8176, 8170, 6150)</li> </ul>                                                                                                                   |
| 20C                   | <ul> <li>150W (6252N, 6244, 6240Y, 6144)</li> <li>165W (6246, 6146)</li> <li>200W (6254, 6154)</li> <li>205W (8280, 8270, 8268, 8180, 8168)</li> </ul>                                                                                      | <ul> <li>105W (8256, 5222, 5122, 8156)</li> <li>115W (5217, 6128)</li> <li>125W (6230N)</li> <li>130W (6234, 4215R 6134)</li> <li>150W (6252, 6248, 6242, 6240, 6230R, 6226R, 6208U, 5220R, 8164, 8160, 8158, 6148, 6142, 6136)</li> </ul> |

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

826687-B21

- 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.

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 3<sup>rd</sup> 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 2-port BASE-T BCM5720 Adapter   | 615732-B21 |
| HPE Ethernet 1Gb 2-port BASE-T I350-T2V2 Adapter | 652497-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 QL41401-A2G Adapter
 867707-B21

 HPE Ethernet 10Gb 2-port SFP+ QL41401-A2G Adapter
 P08446-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 BASE-T 57810S Adapter   | 656596-B21 |
|--------------------------------------------------|------------|
| HPE Ethernet 10Gb 2-port SFP+ 57810S Adapter     | 652503-B21 |
| 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) Configureto-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.

HPE Ethernet 10/25Gb 2-port SFP28 QL41401-A2G Adapter 867328-B21 817718-B21 HPE Ethernet 10/25Gb 2-port SFP28 BCM57414 Adapter

Notes: Legacy FIO Mode (758959-B22) not supported with this option on Networking Choice (NC) Configureto-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

## 100 Gigabit Ethernet Adapters

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

## **Notes:**

**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-networkadapters.4118472.html

## FlexibleLOM adapters

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

- 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 FlexFabric 10Gb 2-port FLR-T 57810S Adapter             | 700759-B21 |
| HPE FlexFabric 10Gb 2-port FLR-SFP+ 57810S Adapter          | 700751-B21 |
| HPE Ethernet 10Gb 2-port FLR-T BCM57416 Adapter             | 817721-B21 |
| HPE FlexFabric 10Gb 4-port FLR-T 57840S Adapter             | 764302-B21 |
| HPE Ethernet 10Gb 2-port FLR-SFP+ BCM57414 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 |



HPE Ethernet 10/25Gb 2-port FLR-SFP28 QL41401-A2G Converged Network Adapter

867334-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 InfiniBand FDR/Ethernet 40/50Gb 2-port 547FLR-QSFP Adapter                                     | 879482-B21 |
| HPE InfiniBand EDR/Ethernet 100Gb 2-port 841QSFP28 Adapter                                         | 872726-B21 |
| Notes: 8SFF, 16SFF, 8LFF no restrictions; 24SFF, 12LFF supported, but limited to 25C.              |            |
| HPE InfiniBand EDR 100Gb 1-port 841QSFP28 Adapter                                                  | 872725-B21 |
| HPE 100Gb 1-port OP101 QSFP28 x16 PCle Gen3 with Intel Omni-Path Architecture Adapter              | 829335-B21 |
| HPE InfiniBand EDR/Ethernet 100Gb 2-port 840QSFP28 Adapter                                         | 825111-B21 |
| HPE InfiniBand HDR100/Ethernet 100Gb 1-port QSFP56 PCle3 x16 MCX653105A-ECAT Adapter               | P06250-B21 |
| HPE InfiniBand HDR100/Ethernet 100Gb 2-port QSFP56 PCle3 x16 MCX653106A-ECAT Adapter               | P06251-B21 |
| HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCle3 x16 MCX653105A-HDAT Adapter                  | P06154-B21 |
| Notes: Max Qty=1; Must be ordered with HPE Infiniband HDR PCIe G3 Auxiliary Card (P06154-B23)      |            |
| 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) |            |

## **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

- 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 |

## **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.
- 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

- 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
- 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 is a factory integrated only option.
- 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 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

- 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

Notes: Supports up to 4 NVMe drives in Tertiary riser location; All PCle 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.

HPE DL38X Gen10 2 x8 PCle 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.

## **Risers**

| Riser Inform   |                                                                      |           | •-•       |          |             | 1.1 42 =       |                        |       |             |
|----------------|----------------------------------------------------------------------|-----------|-----------|----------|-------------|----------------|------------------------|-------|-------------|
| Part<br>number | Description                                                          | Riser pos | sition    |          | Bus wi      | dth (Gen3      | NVMe Direct<br>Connect |       |             |
|                |                                                                      | Primary   | Secondary | Tertiary | Top<br>slot | Middle<br>Slot | Bottom<br>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<br>Riser Kit                                  | N         | 0         | Ν        | x8          | x16            | x8                     | -     | -           |
| 826704-B21     | HPE DL Gen10 x16/x16 GPU<br>Riser Kit                                | N         | Ο         | Ν        | 0           | x16            | x16                    | -     | -           |
| 826694-B21     | HPE DL38X Gen10 x16/x16<br>Riser Kit                                 | N         | О         | N        | x16         | x16            | 0                      | -     | -           |
| 867807-B21     | HPE DL38X Gen10 4-port 8<br>NVMe Primary SlimSAS Riser               | 0         | N         | N        | 0           | 0              | 0                      | 4     | 8           |
| 867808-B21     | HPE DL38X Gen10 2-port 4<br>NVMe SlimSAS Riser                       | N         | N         | 0        | 0           | 0              | 0                      | 2     | 4           |
| 873732-B21     | HPE DL38X Gen10 4-port 8<br>NVMe Secondary SlimSAS Riser             | N         | Ο         | N        | 0           | 0              | 0                      | 4     | 8           |
| 867806-B21     | HPE DL38X Gen10 x8/x8/x8<br>1-port 2 NVMe SlimSAS Riser              | N         | Ο         | N        | x8          | x8             | x8                     | 1     | 2           |
| 871673-B21     | HPE DL38X Gen10 x8/x8/x8<br>1-port 2 NVMe SlimSAS FIO<br>Riser Kit   | 0         | N         | N        | x8          | x8             | x8                     | 1     | 2           |
| 826688-B21     | HPE DL38X Gen10 2SFF HDD SAS/SATA Riser Kit                          | 0         | 0         | N        | 0           | 0              | x16                    | -     | -           |
| 826700-B21     | HPE DL38X Gen10 x16<br>Tertiary Riser Kit                            | N         | N         | 0        | X16         | 0              | 0                      | -     | -           |
| 875780-B21     | HPE DL38X Gen10 2 x8 PCle Tertiary Riser Kit                         | N         | N         | 0        | X8          | X8             | 0                      | -     | -           |
| 871674-B21     | HPE DL38X Gen10 Slot 1/2<br>x16/x16 FIO Riser Kit                    | 0         | N         | N        | x16         | x16            | 0                      | -     | -           |
| 871676-B21     | HPE DL38X Gen10 x16/x16<br>GPU Slot2/3 FIO Riser Kit                 | 0         | N         | N        | 0           | x16            | x16                    | -     | -           |
| P14374-B21     | HPE DL38X Gen10<br>x16/x16/x16 Primary GPU FIO<br>Kit <sup>1</sup>   | 0         | N         | N        | x8          | x16            | x8                     | -     | -           |
| P14373-B21     | HPE DL38X Gen10<br>x16/x16/x16 Secondary GPU<br>FIO Kit <sup>1</sup> | N         | 0         | N        | x8          | x16            | x8                     | -     | -           |

#### **Notes:**

- <sup>1</sup> 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 seconday riser (balanced across both processors in a 2-processor configuration). Connector width = x16/x16/x16; Bus width = x8/x16/x8.
- 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

# **HPE Power Supplies**

| 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 Universal Hot Plug Low Halogen 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 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)

## **Accelerators**

| Accelerate     | Accelerators Information                              |     |                  |                         |          |          |                               |                     |           |                           |           |                            |
|----------------|-------------------------------------------------------|-----|------------------|-------------------------|----------|----------|-------------------------------|---------------------|-----------|---------------------------|-----------|----------------------------|
| Part<br>number | Description                                           | Qty |                  | Processor<br>Generation | 8<br>SFF | 8<br>LFF | 16SFF<br>+UMB<br>with<br>2SFF | 16<br>SFF<br>+8NVMe | 24<br>SFF | 24<br>SFF<br>+SFF<br>rear | 12<br>LFF | 12<br>LFF+<br>2SFF<br>rear |
| Q1K38C         | AMD Radeon<br>Instinct MI25                           | 3   | 165W or<br>below | 1st Gen                 | 35C      | 25C      | 25C                           | 25C <sup>1</sup>    | 25C       | 25C <sup>1</sup>          | N/S*      | N/S*                       |
| Q9B37C         | Intel Arria 10<br>GX FPGA<br>Accelerator              | 5   | 205W or<br>below | 1st and<br>2nd Gen      | 35C      | 35C      | 30C                           | 30C                 | 30C       | 30C                       | 25C       | 25C                        |
| ROX82C         | Intel FPGA PAC D5005 (Stratix 10 SX) FPGA Accelerator | 3   | 205W or<br>below | 2nd Gen                 | 30C      | N/S*     | 20C                           | N/S*                | N/S*      | N/S*                      | N/S*      | N/S*                       |
| Q7G75C         | NEC Vector<br>Engine<br>Accelerator<br>Module         | 3   | 165W or<br>below | 2nd Gen                 | 30C      | N/S*     | N/S*                          | N/S*                | N/S*      | N/S*                      | N/S*      | N/S*                       |
| R6B53C         | HPE NVIDIA<br>A100 40GB<br>GPU                        | 2   | 205W or<br>below | 2nd Gen                 | 30C      | 25C      | 20C                           | 20C                 | 20C       | 20C                       | N/S*      | N/S*                       |

| R2U55C | HPE NVIDIA<br>Quadro<br>P2200 GPU<br>Module             | 5 | 205W or<br>below | 2nd Gen                   | 35C | 35C  | 35C   | 35C <sup>1</sup> | 35C   | 35C <sup>1</sup> | 35C  | 35C <sup>1</sup> |
|--------|---------------------------------------------------------|---|------------------|---------------------------|-----|------|-------|------------------|-------|------------------|------|------------------|
| R1F95C | HPE NVIDIA<br>Quadro<br>RTX4000<br>GPU Module           | 5 | 205W or<br>below | 2nd Gen                   | 35C | 35C  | 35C   | 35C <sup>1</sup> | 35C   | 35C <sup>1</sup> | 30C  | 30C <sup>1</sup> |
| ROZ45C | HPE NVIDIA<br>Quadro RTX<br>6000                        | 2 | 205W or<br>below | 1st and<br>2nd Gen        | 35C | 35C  | 35C   | 35C              | 35C   | 35C              | 25C  | 25C              |
| R1F97C | HPE NVIDIA<br>Quadro<br>RTX8000<br>GPU Module           | 2 | 205W or<br>below | 2nd Gen                   | 35C | 35C  | 35C   | 35C              | 35C   | 35C              | 30C  | 30C              |
| Q0J62C | NVIDIA Tesla<br>M10 32GB<br>Module <sup>2</sup>         | 2 | 165W or<br>below | 1st Gen<br>and 2nd<br>Gen | 35C | 35C  | 35C   | 25C <sup>1</sup> | 35C   | 35C              | 30C  | 30C <sup>1</sup> |
| Q0V80C | NVIDIA Tesla<br>P40 24GB<br>Module                      | 3 | 165W or<br>below | 1st and<br>2nd Gen        | 35C | 35C  | 25C   | 25C <sup>1</sup> | 25C   | 25C <sup>1</sup> | 20C  | 20C <sup>1</sup> |
| ROW29C | NVIDIA Tesla<br>T4 16GB<br>Computational<br>Accelerator | 7 | 205W or<br>below | 1st and<br>2nd Gen        | 35C | N/S* | ≤ 30C | ≤20C             | ≤ 20C | ≤ 20C            | N/S* | N/S*             |
| Q9U36C | HPE NVIDIA<br>Tesla V100<br>PCIe 32GB<br>Module         | 3 | 165W or<br>below | 1st and<br>2nd Gen        | 30C | 20C  | 20C   | 20C <sup>1</sup> | 20C   | 20C <sup>1</sup> | N/S* | N/S*             |
| R4D73C | HPE NVIDIA<br>Tesla V100S<br>PCIe 32GB<br>Module        | 3 | 165W or<br>below | 2nd Gen                   | 30C | 20C  | 20C   | 20C <sup>1</sup> | 20C   | 20C <sup>1</sup> | N/S* | N/S*             |
| R4B02C | HPE Xilinx<br>Alveo U50<br>Accelerator                  | 7 | 205W or<br>below | 2nd Gen                   | 30C | 20C  | 20C   | N/S*             | 20C   | N/S*             | N/S* | N/S*             |
| R4B03C | HPE Xilinx<br>Alveo U250<br>Accelerator                 | 3 | 205W or<br>below | 2nd Gen                   | 35C | 20C  | 20C   | N/S*             | N/S*  | N/S*             | N/S* | N/S*             |

- \*Not Supported
- <sup>1</sup> Invalid configuration or no HW support may apply to multiple GPUs installed. HW limitation may not be a thermal limitation
- <sup>2</sup> 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). However check the power usage via the HPE Power Advisor Tool located at <a href="http://www.hpe.com/info/hppoweradvisor">http://www.hpe.com/info/hppoweradvisor</a>.
- 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.
- Installations with Graphics cards do not support Microsoft Windows Server 2012 R2 installations.
- For Graphics cards there is a limitation of 1 single wide GPU on the slot 2/3 riser (826704-B21 Secondary and 871676-B21 Primary).

## **HPE Computation and Graphics Accelerators**

HPE NEC Vector Engine Accelerator Module

#### Q7G75C

#### **Notes:**

- 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.
- Only supported on 8SFF server models.
- 3 of these cards are supported.
- NEC VE requires "Max Cooling" settings in current ROM.
- This option requires the High Performance Fan Kit (867810-B21) and the High Performance Heatsink (826706-B21).
- Only supported on 8SFF server models
- Only Supported with 2nd Generation Intel Scalable Series Processors "x2xx"

NVIDIA A100 40GB PCIe Computational Accelerator for HPE

## R6B53C

#### **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).
- 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 Quadro P2200 Graphics Accelerator for HPE

## R2U55C

#### **Notes:**

- Max Qty=5 per server
- This option requires the High Performance Fan Kit (867810-B21), and the High Performance Heatsink (826706-B21); heatsink rule does not apply if ordering processors above 126W or higher.
- System Memory Restriction <128TB.</li>
- Only Supported with 2nd Generation Intel Scalable Series Processors "x2xx"
- Mixing of GPUs is not supported

NVIDIA Quadro RTX 6000 Graphics Accelerator for HPE

#### ROZ45C

- Max Qty=2 per server
- This option requires the High Performance Fan Kit (867810-B21), and the High Performance Heatsink (826706-B21).
- This GPU requires Pwr Cable Kit (871830-B21) to also be selected.
- One Pwr Cable Kit can support multiple (max=3) GPUs.

NVIDIA Quadro RTX 4000 Graphics Accelerator for HPE

R1F95C

#### **Notes:**

- Max Qty=5 per server.
- This GPU requires Pwr Cable Kit (P03849-B21) to also be selected. One Pwr Cable Kit can support multiple (Max=3 Doublewide or Max=6 Singlewide) accelerators.
- This option requires the High Performance Fan Kit (867810-B21), and the High Performance Heatsink (826706-B21)
- Only Supported with 2nd Generation Intel Scalable Series Processors "x2xx"

NVIDIA Quadro RTX 8000 Graphics Accelerator for HPE

R1F97C

#### **Notes:**

- Max Qty=2 per server
- This option requires the High Performance Fan Kit (867810-B21), and the High Performance Heatsink (826706-B21)
- System Memory Restriction <128TB;</li>
- Only Supported with 2nd Generation Intel Scalable Series Processors "x2xx"
- This GPU requires Pwr Cable Kit (871830-B21) to also be selected. One Pwr Cable Kit can support multiple (max=3) Accelerators.

NVIDIA T4 16GB Computational Accelerator for HPE

ROW29C

#### **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

NVIDIA M10 Quad GPU Module for HPE

Q0J62C

## **Notes:**

- This required the HPE DL380 Gen10 8P Cable Kit 871828-B21. One Pwr Cable Kit can support multiple (Max=3 Doublewide or Max=6 Singlewide) GPUs.
- Only 2x M10 can be supported (on any x16 slot 2, 5 or 7) due to system running out of PCle lanes.
- 2 of these cards are supported with a processor 165W or below.
- GRID License required.
- System Memory Restriction <1TB. No support on 12LFF chassis</li>

NVIDIA P40 24GB Computational Accelerator for HPE

Q0V80C

- This required the HPE DL380 Gen10 8P Keyed Cable Kit 871829-B21. \*One Pwr Cable Kit can support multiple (Max=3) Accelerators.
- 3 of these cards are supported with a processor 165W or below.
- System Memory Restriction <128TB.</li>
- This option requires the High Performance Fan Kit (867810-B21), and the High Performance Heatsink (826706-B21)
- 5 of these cards are supported.
- GRID License required.
- System Memory Restriction <128TB.</li>
- Not supported on 12LFF chassis.
- This requires the Power Cable Kit P03849-B21. \*One Pwr Cable Kit can support multiple (Max=3 Doublewide or Max=6 Singlewide) Accelerators.
- This option requires the High Performance Fan Kit (867810-B21), and the High Performance Heatsink (826706-B21)



NVIDIA V100 PCIe 32GB Computational Accelerator for HPE

#### Q9U36C

#### Notes:

- 3 of these cards are supported with a processor 165W or below.
- System Memory Restriction <128TB.
- No support on 12LFF chassis.
- V100 requires "Max Cooling" settings required in ROM. Exception: the need for max cooling with the V100 is not required with the 2.16 ROM [or higher/later] which added thermal support to cool the V100 with normal cooling algorithms. Reference 2.16 U30 release notes.
- 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)

NVIDIA V100S 32GB Computational Accelerator for HPE

## R4D73C

#### Notes:

- 3 of these cards are supported with a processor 165W or below.
- System Memory Restriction <128TB.</li>
- No support on 12LFF chassis.
- 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)
- Only Supported with 2nd Generation Intel Scalable Series Processors "x2xx"

Xilinx Alveo U50 Accelerator for HPE

#### R4B02C

#### **Notes:**

- Max Qtv=7 per server
- This option requires the High Performance Fan Kit (867810-B21), and the High Performance Heatsink (826706-B21); heatsink rule does not apply if ordering processors above 126W or higher.
- System Memory Restriction <128TB.</li>
- Only Supported with 2nd Generation Intel Scalable Series Processors "x2xx"
- Mixing of GPUs is not supported
- Not supported on 12LFF chassis; not supported on 24SFF chassis when SFF rear drives installed
- Not supported with NVMe 8 SSD Express bay (826689-B21) nor Premium 8SFF Bay Kit (826690-B21) nor 2SFF HDD Riser Kit (826688-B21)

Xilinx Alveo U250 Accelerator for HPE

## R4B03C

#### **Notes:**

- Max Qty=3 per server
- This option requires the High Performance Fan Kit (867810-B21), and the High Performance Heatsink (826706-B21); heatsink rule does not apply if ordering processors above 126W or higher.
- This GPU requires Pwr Cable Kit (871828-B21) to also be selected.
- One Pwr Cable Kit can support multiple (Max=3 Doublewide or Max=6 Singlewide) GPUs.
- System Memory Restriction <128TB.
- Only Supported with 2nd Generation Intel Scalable Series Processors "x2xx"
- Mixing of GPUs is not supported
- Not supported on 12LFF Chassis nor 24SFF Chassis
- Not supported with NVMe 8 SSD Express bay (826689-B21) nor Premium 8SFF Bay Kit (826690-B21) nor 2SFF HDD Riser Kit (826688-B21)

## **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

- This kit is required for specific <u>Ambient temperature environments</u>.
- 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: <a href="http://www.hpe.com/servers/ashrae">http://www.hpe.com/servers/ashrae</a>.

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.

## **HPE Security**

HPE Trusted Supply Chain FIO Configuration

P36394-B21

- 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 rebranded 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 <a href="http://www.hpe.com/security">http://www.hpe.com/security</a>
- 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 875519-B21 HPE Bezel Lock Kit

**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

- 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.

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

## **HPE Boot Controllers**

HPE Gen10 TPM 1.2 FIO Setting

HPE NS204i-p x2 Lanes NVMe PCle3 x8 OS Boot Device

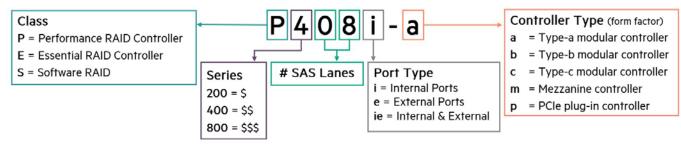
P12965-B21

872108-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 **HPE Smart Array Gen10 Controllers Data Sheet**.



## **HPE Flexible Smart Array Performance RAID Controllers**

- 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.



| 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).                                                                                                                                                                                                                          |                  |
| HPE Smart Array P408i-a SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS Modular Controller                                                                                                                                                                                                   | 804331-B21       |
| HPE Flexible Smart Array Essential Controllers                                                                                                                                                                                                                                             |                  |
| HPE Smart Array E208i-a SR Gen10 (8 Internal Lanes/No Cache) 12G SAS Modular Controller                                                                                                                                                                                                    | 804326-B21       |
| Performance RAID Controllers                                                                                                                                                                                                                                                               |                  |
| <b>Notes:</b> 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.                                                                     |                  |
| HPE Smart Array P408i-p SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS PCIe Plug-in Controller                                                                                                                                                                                              | 830824-B21       |
| HPE Smart Array P408e-p SR Gen10 (8 External Lanes/4GB Cache) 12G SAS PCIe Plug-in Controller                                                                                                                                                                                              | 804405-B21       |
| Essential RAID Controllers                                                                                                                                                                                                                                                                 |                  |
| HPE Smart Array E208i-p SR Gen10 (8 Internal Lanes/No Cache) 12G SAS PCIe Plug-in Controller                                                                                                                                                                                               | 804394-B21       |
| HPE Smart Array E208e-p SR Gen10 (8 External Lanes/No Cache) 12G SAS PCIe Plug-in Controller                                                                                                                                                                                               | 804398-B21       |
| HPE Cable Options                                                                                                                                                                                                                                                                          |                  |
| HPE DL380 SFF Smart Array HBA H200/P400 Series SAS Cable Kit                                                                                                                                                                                                                               | 786092-B21       |
| HPE DL38X Gen10 2 Drive NVMe Slim SAS Cable Kit                                                                                                                                                                                                                                            | 871827-B21       |
| HPE DL380 Gen10 Mini SAS 3POS Cable Kit                                                                                                                                                                                                                                                    | 826709-B21       |
| <b>Notes:</b> 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:                                                                                                                                                                                                              |                  |
| http://www.hpe.com/info/CablingMatrixGen10                                                                                                                                                                                                                                                 |                  |
| Optional Software                                                                                                                                                                                                                                                                          |                  |
| HPE Smart Array SR Secure Encryption (Data at Rest Encryption/per Server Entitlement) E-LTU                                                                                                                                                                                                | Q2F26AAE         |
| HPE Smart Array SR SmartCache (Single Key/Single Server) LTU                                                                                                                                                                                                                               | D7S26A           |
| HPE Smart Array SR SmartCache (Single Key/Multiple Servers) LTU                                                                                                                                                                                                                            | D7S27A           |
| HPE Smart Array SR SmartCache (Single Key/Multiple Servers) E-LTU                                                                                                                                                                                                                          | D7S27AAE         |
| <b>Notes:</b> SmartCache is offered on HPE Smart Array performance RAID controllers and comes standard (no licensi if the HPE Smart Array P816i-a SR Gen10 Controller is installed in the server.                                                                                          | ing is required) |
| 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       |
| <b>Notes:</b> Provides backup power for multiple HPE Smart Array controllers or other devices. Is required with perfor controllers.                                                                                                                                                        | mance RAID       |

## **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 <a href="http://www.hpe.com/storage/BURAcompatibility">http://www.hpe.com/storage/BURAcompatibility</a>

## **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 SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter | P9M75A |
| HPE SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter   | P9M76A |
| 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 |

#### **HPE Racks**

- Please see the <u>HPE Advanced Series Racks</u> QuickSpecs for information on additional racks options and rack specifications.
- Please see the <u>HPE Enterprise Series Racks QuickSpecs</u> for information on additional racks options and rack specifications.
- Please see the <u>HPE Standard Series Racks QuickSpecs</u> for information on additional racks options and rack specifications.

## **HPE Power Distribution Units (PDUs)**

- Please see the <u>HPE Basic Power Distribution Units (PDU) QuickSpecs</u> for information on these products and their specifications.
- Please see the <u>HPE Metered Power Distribution Units (PDU) QuickSpecs</u> for information on these products and their specifications. Please see the <u>HPE Intelligent Power Distribution Unit (PDU)</u> 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 <u>HPE Uninterruptible Power Systems (UPS)</u> web page.
- Please see the <u>HPE DirectFlow Three Phase Uninterruptible Power System QuickSpecs</u> for information on these products and their specifications.
- Please see the <u>HPE Line Interactive Single Phase UPS QuickSpecs</u> for information on these products and their specifications.

## **HPE Rack Options**

Please see the <u>HPE KVM Switches web page</u> 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 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 |
| Notes: Does not include Cable Management Arm (720865-B21). | 720865-B21 |

## **HPE USB and SD Options**

## **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 Install ProLiant DL38x(p) Service

| HPE Instal | llation and Startup DL38x(p) Service       | U4555E |
|------------|--------------------------------------------|--------|
| Tech Car   | e                                          |        |
| HPE 5 Yea  | ar Tech Care Essential DL380 Gen10 Service | HS7Y9E |
|            |                                            |        |

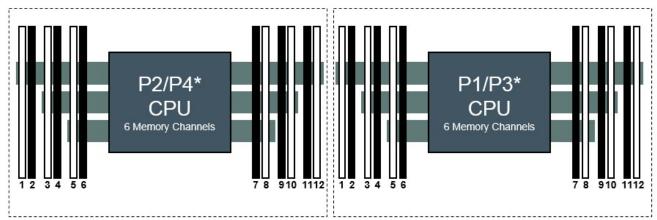
| HPE 5 Year Tech Care Essential wDMR DL380 Gen10 Service | HS7Z4E |
|---------------------------------------------------------|--------|
| HPE 3 Year Tech Care Essential DL380 Gen10 Service      | HS7Y7E |
| HPE 3 Year Tech Care Essential wDMR DL380 Gen10 Service | HS7Z2E |

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

U4554E

## 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.
- 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 SmartMemory is required.
 For additional information, please see the <u>HPE DDR4 SmartMemory QuickSpecs</u>.

# Memory

| Registered DIMM (RDII            | MM)                       |                         |                    |                    |  |  |
|----------------------------------|---------------------------|-------------------------|--------------------|--------------------|--|--|
| HPE SKU P/N                      | 815097-B21                | 815098-B21              | 835955-B21         | 815100-B21         |  |  |
| SKU Description                  | HPE 8GB (1x8GB)           | HPE 16GB (1x16GB)       | HPE 16GB (1x16GB)  | HPE 32GB (1x32GB)  |  |  |
|                                  | Single Rank x8 DDR4-      | Single Rank x4 DDR4-    | Dual Rank x8 DDR4- | Dual Rank x4 DDR4- |  |  |
|                                  | 2666 CAS-19-19-19         | 2666 CAS-19-19-19       | 2666 CAS-19-19-19  | 2666 CAS-19-19-19  |  |  |
|                                  | Registered Smart          | Registered Smart        | Registered Smart   | Registered Smart   |  |  |
|                                  | Memory Kit                | Memory Kit              | Memory Kit         | Memory Kit         |  |  |
| DIMM Capacity                    | 8GB                       | 16GB                    | 16GB               | 32GB               |  |  |
| DIMM Rank                        | Single Rank (1R)          | Single Rank (1R)        | Dual Rank (2R)     | Dual Rank (2R)     |  |  |
| Voltage                          | 1.2 V                     | 1.2 V                   | 1.2 V              | 1.2 V              |  |  |
| DRAM Depth [bit]                 | 1G                        | 2G                      | 1G                 | 2G                 |  |  |
| DRAM Width [bit]                 | x8                        | x4                      | x8                 | x4                 |  |  |
| DRAM Density                     | 8Gb                       | 8Gb                     | 8Gb                | 8Gb                |  |  |
| CAS Latency                      | 19-19-19 19-19-19         |                         |                    | 19-19-19           |  |  |
| DIMM Native Speed                | 2666 MT/s                 | 2666 MT/s               | 2666 MT/s          | 2666 MT/s          |  |  |
| <b>Processors Officially Sup</b> | ported Memory Speed       |                         |                    |                    |  |  |
| Intel Xeon®Platinum/Gol          | d 81xx/61xx               |                         |                    |                    |  |  |
| 1 RDIMM Per Channel              | 2666 MT/s                 | 2666 MT/s               | 2666 MT/s          | 2666 MT/s          |  |  |
| 2 RDIMMs Per Channel             | 2666 MT/s                 | 2666 MT/s               | 2666 MT/s          | 2666 MT/s          |  |  |
| Intel Xeon®Gold/Silver 5         | 1xx/41xx                  |                         |                    |                    |  |  |
| 1 RDIMM Per Channel              | 2400 MT/s                 | 2400 MT/s               | 2400 MT/s          | 2400 MT/s          |  |  |
| 2 RDIMMs Per Channel             | 2400 MT/s                 | 2400 MT/s               | 2400 MT/s          | 2400 MT/s          |  |  |
| Intel Xeon®Bronze 31xx           |                           |                         |                    |                    |  |  |
| 1 RDIMM Per Channel              | 2133 MT/s                 | 2133 MT/s               | 2133 MT/s          | 2133 MT/s          |  |  |
| 2 RDIMMs Per Channel             | 2133 MT/s                 | 2133 MT/s               | 2133 MT/s          | 2133 MT/s          |  |  |
| <b>HPE Server Memory Spe</b>     | ed: Intel Xeon® Platinum  | n/Gold 81xx/61xx Proces | sors *             |                    |  |  |
| 1 RDIMM Per Channel              | 2666 MT/s                 | 2666 MT/s               | 2666 MT/s          | 2666 MT/s          |  |  |
| 2 RDIMMs Per Channel             | 2666 MT/s                 | 2666 MT/s               | 2666 MT/s          | 2666 MT/s          |  |  |
| <b>HPE Server Memory Spe</b>     | ed: Intel Xeon® Gold/Silv | ver 51xx/41xx Processor |                    |                    |  |  |
| 1 RDIMM Per Channel              | 2400 MT/s                 | 2400 MT/s               | 2400 MT/s          | 2400 MT/s          |  |  |
| 2 RDIMMs Per Channel             | 2400 MT/s                 | 2400 MT/s               | 2400 MT/s          | 2400 MT/s          |  |  |
| <b>HPE Server Memory Spe</b>     | ed: Intel Xeon® Bronze 3  | 1xx Processors *        |                    |                    |  |  |
| 1 RDIMM Per Channel              | 2133 MT/s                 | 2133 MT/s               | 2133 MT/s          | 2133 MT/s          |  |  |
| 2 RDIMMs Per Channel             | 2133 MT/s                 | 2133 MT/s               | 2133 MT/s          | 2133 MT/s          |  |  |

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: <a href="https://www.hpe.com/docs/memory-speed-table">https://www.hpe.com/docs/memory-speed-table</a>

| 1)                                                                       |  |  |  |  |
|--------------------------------------------------------------------------|--|--|--|--|
| 815101-B21                                                               |  |  |  |  |
| HPE 64GB (1x64GB) Quad Rank x4 DDR4-2666 CAS-19-19-19 Load Reduced Smart |  |  |  |  |
| Memory Kit                                                               |  |  |  |  |
| 64GB                                                                     |  |  |  |  |
| Quad Rank (4R)                                                           |  |  |  |  |
| 1.2 V                                                                    |  |  |  |  |
| 2G                                                                       |  |  |  |  |
| x4                                                                       |  |  |  |  |
| 8Gb                                                                      |  |  |  |  |
| 19-19-19                                                                 |  |  |  |  |
| 2666 MT/s                                                                |  |  |  |  |
| Memory Speed                                                             |  |  |  |  |
| /61xx                                                                    |  |  |  |  |
| 2666 MT/s                                                                |  |  |  |  |
| 2666 MT/s                                                                |  |  |  |  |
| xx                                                                       |  |  |  |  |
| 2400 MT/s                                                                |  |  |  |  |
| 2400 MT/s                                                                |  |  |  |  |
|                                                                          |  |  |  |  |
| 2133 MT/s                                                                |  |  |  |  |
| 2133 MT/s                                                                |  |  |  |  |
| Xeon® Platinum/Gold 81xx/61xx Processors *                               |  |  |  |  |
| 2666 MT/s                                                                |  |  |  |  |
| 2666 MT/s                                                                |  |  |  |  |
| HPE Server Memory Speed: Intel Xeon® Gold/Silver 51xx/41xx Processors *  |  |  |  |  |
| 2400 MT/s                                                                |  |  |  |  |
| 2400 MT/s                                                                |  |  |  |  |
| Xeon® Bronze 31xx Processors *                                           |  |  |  |  |
| 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: <a href="https://www.hpe.com/docs/memory-speed-table">https://www.hpe.com/docs/memory-speed-table</a>

| RDIMM                                                             |                                          |                                           |                                           |                                           |                                           |
|-------------------------------------------------------------------|------------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|
| HPE SKU P/N                                                       | P00918-B21                               | P00920-B21                                | P00922-B21                                | P00924-B21                                | P00930-B2                                 |
| SKU description                                                   | HPE 8GB 1Rx8<br>PC4-2933Y-R<br>Smart Kit | HPE 16GB 1Rx4<br>PC4-2933Y-R<br>Smart Kit | HPE 16GB 2Rx8<br>PC4-2933Y-R<br>Smart Kit | HPE 32GB 2Rx4<br>PC4-2933Y-R<br>Smart Kit | HPE 64GB 2Rx4<br>PC4-2933Y-R<br>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                                      |
| <b>HPE Server Memory spe</b>                                      | eed (MT/s): Intel Xed                    | on Platinum/Gold 82                       | xx/62xx processors                        | *                                         |                                           |
| 1 DIMM per channel                                                | 2933                                     | 2933                                      | 2933                                      | 2933                                      | 2933                                      |
| 2 DIMM per channel                                                | 2933                                     | 2933                                      | 2933                                      | 2933                                      | 2933                                      |
| <b>HPE Server Memory spe</b>                                      | eed (MT/s): Intel Xed                    | on Gold 52xx proces                       | sors*                                     |                                           |                                           |
| 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.

| LRDIMM                      |                                     |                           |                            |  |
|-----------------------------|-------------------------------------|---------------------------|----------------------------|--|
| HPE SKU P/N                 | P00926-B21                          | P00928-B21                | P11040-B21                 |  |
| SKU description             | HPE 64GB 4Rx4 PC4-2933Y-L           | HPE 128GB 8Rx4 PC4-       | HPE 128GB 4Rx4 PC4-2933Y-L |  |
|                             | Smart Kit                           | 2933Y-L 3DS Smart Kit     | 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 (GE        | 3)                                  |                           |                            |  |
| 16-slot servers             | 1024                                | 2048                      | 2048                       |  |
| 24-slot servers             | 1536                                | 3072                      | 3072                       |  |
| 48-slot servers             | 3072                                | 6144                      | 6144                       |  |
| <b>HPE Server Memory sp</b> | eed (MT/s): Intel Xeon Platinum/Go  | old 82xx/62xx processors* |                            |  |
| 1 DIMM per channel 2933     |                                     | 2933                      | 2933                       |  |
| 2 DIMM per channel          | 2933                                | 2933                      | 2933                       |  |
| <b>HPE Server Memory sp</b> | eed (MT/s): Intel Xeon Gold 52xx p  | rocessors*                |                            |  |
| 1 DIMM per channel          | 2666                                | 2666                      | 2666                       |  |
| 2 DIMM per channel          | 2666                                | 2666                      | 2666                       |  |
| HPE Server Memory sp        | eed (MT/s): Intel Xeon Silver 42xx  | processors                |                            |  |
| 1 DIMM per channel 2400     |                                     | 2400                      | 2400                       |  |
| 2 DIMM per channel          | 2400                                | 2400                      | 2400                       |  |
| <b>HPE Server Memory sp</b> | oeed (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.

| 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.

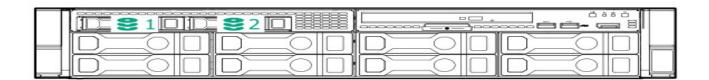
- 8GB = 8,192 MB
- 16GB = 16,384 MB
- 32GB = 32,768 MB
- 64GB = 65,536 MB

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

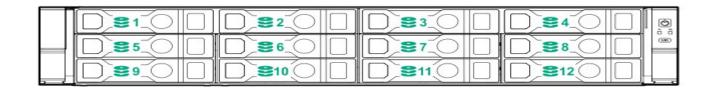
## Memory Speed Table for HPE ProLiantDL380 Gen 10

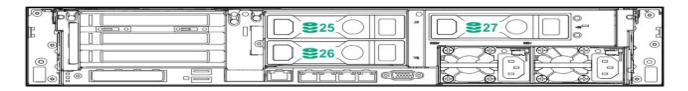
For details on the HPE Server Memory speed, please visit: <a href="https://www.hpe.com/docs/memory-speed-table">https://www.hpe.com/docs/memory-speed-table</a>

# Storage

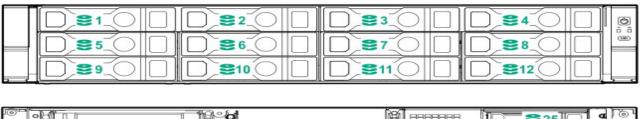


8LFF chassis with Universal media bay and optional 2SFF and optical drive shown





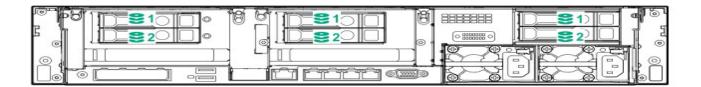
12 LFF + 3 rear LFF drives





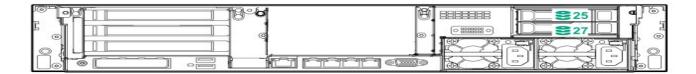
12 LFF + 2 rear SFF drives

## 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:

 $8.73 \times 44.54 \times 73.02 \text{ cm} / 3.44 \times 17.54 \times 28.75 \text{ in}$ 

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

## **BTU Rating**

#### **Maximum**

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

## **Relative Humidity** (non-condensing)

Operating

8% to 90% - Relative humidity (Rh), 28°C maximum wet bulb temperature, non-condensing.

Non-operating

5 to 95% relative humidity (Rh), 38.7°C (101.7°F) maximum wet bulb temperature, non-condensing.

## **Technical Specifications**

## **Power Supply Output**

(per power supply)

## **Rated Steady-State Power**

- For 1600W Power Supply: 1600W (at 240 VAC), 1600W (at 240 VDC) for China only
- For 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 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

 $10^{\circ}$  to  $35^{\circ}$ C ( $50^{\circ}$  to  $95^{\circ}$ F) at sea level with an altitude derating of  $1.0^{\circ}$ C per every 305 m ( $1.8^{\circ}$ 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  $20^{\circ}$ C/hr ( $36^{\circ}$ 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:  $5^{\circ}$  to  $10^{\circ}$ C ( $41^{\circ}$  to  $50^{\circ}$ F) and  $35^{\circ}$  to  $40^{\circ}$ C ( $95^{\circ}$  to  $104^{\circ}$ F) at sea level with an altitude derating of  $1.0^{\circ}$ C per every 175 m ( $1.8^{\circ}$ 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:  $40^{\circ}$  to  $45^{\circ}$ C ( $104^{\circ}$  to  $113^{\circ}$ F) at sea level with an altitude derating of  $1.0^{\circ}$ C per every 125 m ( $1.8^{\circ}$ F per every 410 ft) above 900 m (2953 ft) to a maximum of 3050 m (10,000 ft). The approved hardware configurations for this system are listed at the URL:

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

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

#### Non-operating

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

#### Altitude

#### Operating

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

### Non-operating

9144 m (30,000 ft). Maximum allowable altitude change rate is 457 m/min (1500 ft/min).



## **Technical Specifications**

#### **Acoustic Noise**

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

| <b>Acoustic Noise</b> |                                            |  |  |  |
|-----------------------|--------------------------------------------|--|--|--|
| Idle                  |                                            |  |  |  |
| LWAd                  | 4.8 B Entry 4.4 B Base 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 <u>HPE Smart Array Gen10 Controllers for HPE ProLiant DL, ML and Apollo Servers</u> please refer to their QuickSpecs. (E208i-a,E208i-p,E208e-p,P408i-a,P408i-p,P408e-p,P816i-a)

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

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

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

# **Summary of Changes**

| Date        | <b>Version History</b> | Action      | Description of Change                                                                                          |
|-------------|------------------------|-------------|----------------------------------------------------------------------------------------------------------------|
| 06-Apr-2021 | Version 45             | Changed     | Service and Support and Additional Options sections were updated.                                              |
|             |                        |             | Obsolete SKUs were removed.                                                                                    |
| 01-Mar-2021 | Version 44             | Changed     | Overview, Pre-configured Models, and Configuration Information sections were                                   |
|             |                        |             | updated. Obsolete SKUs were removed.                                                                           |
| 01-Feb-2021 | Version 43             | Changed     | Pre-configured Models section was updated.                                                                     |
| 01-Feb-2021 | VEISIOI1 43            | Changeu     | Obsolete SKUs were removed.                                                                                    |
| 07-Dec-2020 | Version 42             | Changed     | Standard Features, Core Options and Technical Specifications sections were                                     |
|             |                        |             | updated.                                                                                                       |
|             |                        |             | Obsolete SKUs were removed.                                                                                    |
| 02-Nov-2020 | Version 41             | Changed     | Pre-configured Models, Core Options and Additional Options sections were                                       |
|             |                        |             | updated.                                                                                                       |
| 05.0 + 2020 |                        | CI I        | Obsolete SKUs were removed.                                                                                    |
| 05-Oct-2020 | Version 40             | Changed     | Overview, Standard Features, Pre-configured Models, Configuration                                              |
|             |                        |             | Information and Core Options sections were updated. Obsolete SKUs were removed.                                |
| 01-Oct-2020 | Version 39             | Changed     | Overview, Configuration Information and Additional Options sections were                                       |
| 01 001 2020 | V C131011 3 7          | Charigea    | updated.                                                                                                       |
|             |                        |             | Obsolete SKUs were removed.                                                                                    |
| 03-Aug-2020 | Version 38             | Changed     | Overview, Standard Features, Core Options and Additional Options sections                                      |
|             |                        |             | were updated.                                                                                                  |
|             |                        |             | 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                                      |
| 21100 2020  | V C131011 3 Z          | Charigea    | Options and Additional Options sections were updated                                                           |
| 03-Feb-2020 | Version 31             | Changed     | Overview, Core Options, and Aditional Options . sections were updated.                                         |
|             |                        |             | 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.                                                                      |
| 07.0-+ 2010 | \/i20                  | Clarational | Obsolete SKUs were removed.                                                                                    |
| 07-Oct-2019 | Version 28             | Changed     | Overview, Standard Features, Pre-configured Models, Core Options and Additional Options sections were updated. |
|             |                        |             | Obsolete SKU was removed.                                                                                      |
| 16-Sep-2019 | Version 27             | Changed     | Configuration Information section was updated.                                                                 |
|             |                        |             | 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.                                                                                                       |
|             |                        |             | Obsolete SKUs were removed.                                                                                    |

# **Summary of Changes**

| Date                       | <b>Version History</b> | Action             | Description of Change                                                                                                                                                                                                                                                                                                                                                                                |
|----------------------------|------------------------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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.  Obsolete SKUs were removed.                                                                                                                                                                                       |
| 01-Jul-2019                | Version 24             | Changed            | Pre-Configured models section was updated. The 5218N wattage has changed from 105 to 110W TDP. 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. SKU descriptions were updated. 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, Aditional 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.  SKU descriptions were updated. 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, Added new GPU option. Configuration Information - Factory Integrated Models, Core Options, and Additional Options were revised. 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. Core Options, Additional Options, and Memory were updated. Obsolete SKUs were removed from the QuickSpecs.                                                                                                                                                                                                                                        |
| 07-May-2018                | Version 12             | Changed            | New SMB Models offering was added. Riser Information was revised. Obsolete SKUs were removed from the QuickSpecs.                                                                                                                                                                                                                                                                                    |
| 02-Apr-2018                | Version 11             | Changed            | SKUs description were updated. 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 PCle accelerator cards.                                                                                                                                                                                                                                                                                                                                        |
| 18-Dec-2017<br>04-Dec-2017 | Version 8<br>Version 7 | Changed<br>Changed | Weight specifications were revised.  Added HPE Scalable Persistent Memory.  Added HPE Specific IST Processor offering Gold 6143 and Platinum 8165 bins.  Added Large capacity 15.3TB SSDs.  Added new AMD and NVIDIA Graphics card options.  Processors, Memory, Maximun Internal Storage, Configuration Information - Factory Integrated Models, Core Options, and Additional Options were revised. |

# **Summary of Changes**

| Date        | <b>Version History</b> | Action  | Description of Change                                                                                                                                                                                                                                                                                                                                                                               |  |
|-------------|------------------------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 23-Oct-2017 | Version 6              | Changed | Memory speed table was updated to display the 61XX processors running at 2666MT/s.                                                                                                                                                                                                                                                                                                                  |  |
| 16-Oct-2017 | Version 5              | Changed | 8GB Dual Rank Memory was added. Riser table was added under Core Options. 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. Additional Intel® Xeon® Processor Scalable Family processor bins were added. Added new NVIDIA GPU cards. Added new drive options offering (SSD, m.2, NVMe). Memory, Standard Features, Configuration Information - Factory Integrated Models, Core Options, Additional Options, and Technical Specifications were revised. 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. Platform Information, Standard Features, Optional Features, Pre-configured Models, Configuration Information - Factory Integrated Models, Core Options, and Additional Options section were revised.                                                                                                                               |  |
| 11-Jul-2017 | Version 1              | New     | New QuickSpecs.                                                                                                                                                                                                                                                                                                                                                                                     |  |

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For hard drives, 1GB = 1 billion bytes. Actual formatted capacity is less

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