**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
2. Optional Universal Media bay. 2 USB 2.0 and Display port standard (8 SFF bay or 6 SFF+2NVMe or 8 NVMe optional)
3. Optional Optical drive. Requires Universal Media bay
4. Optional 2 SFF HDD, requires optional Universal Media bay
5. Drive Bay 2. NVMe shown (8 SFF, 6SFF+2NVMe or 8 NVMe PCIe SSD optional)
6. 8 SFF Drive Cage Bay
7. Power On/Standby button and system power LED button
8. Health LED
9. NIC status
10. UID button
11. iLO Front Service Port
12. USB 3.0
13. Box 3
14. Box 1
15. Box 2
16. Optional front display port (Via Universal Media Bay)
17. Optional front display port (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 2nd CPU, FlexLOM, Smart array shown

1. Fan cage shown with 6 standard Hot-plug fans (High Performance temperature fans optional)
2. 2 Processors, heatsink showing
3. Optional HPE Smart 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)
9. (Under) Hot Plug redundant HPE Flexible Slot Power supplies
10. Connection for second (optional) riser (Requires second CPU)
11. Embedded 4x1Gbe NIC
12. Primary PCIe riser, standard (Optional double wide GPU riser)
13. Optional Flexible LOM slot
14. X4 SATA ports (1, 2 and 3)
15. Clear air baffle
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 4-6 top 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 2 (800W shown)
8. Power supply Power connection
9. Power supply Power LED
10. HPE Flexible Slot Power Supply bay 1 (800W shown)
11. VGA connector
12. Embedded 4 x 1GbE Network Adapter
13. Dedicated iLO management port
14. USB connectors 3.0 (2)
15. Unit ID LED
16. Optional FlexibleLOM ports (Shown: 4 x 1GbE)

What’s New:
- Greater chassis flexibility with up to 20 NVMe drives supported
- 4 LFF Mid-tray bringing total LFF storage capacity to over 190 TB
- HPE Persistent memory at over 1TB scale
- Expanded GPU support to 3xDW or 5xSW cards
- Additional boot/drive/rear options: SATA M.2; dual uFF SSD (2x M.2 cartridges)
- Intel® Xeon® Processor Scalable Family from 4 - 28 Cores; 85 - 205W; 1.8 - 3.6 GHz
- HPE DDR4 SmartMemory up to 2666 MT/s
- Security features: iLO 5 (Security Root of Trust); Chassis Intrusion Detection; TPM 2.0; digitally signed FW
Platform Information

Form Factor

2U rack

Chassis Types

- 8 SFF with optional Universal Media Bay, and optional SFF or NVMe drive bay options
- 24 SFF bay with additional 6SFF rear drive bay option to total 30 SFF drives
- 8 LFF with Universal Media Bay
- 12 LFF with optional 4 LFF mid-plane and optional 3LFF + 2 SFF rear drive bay to total 19 LFF drives + 2 SFF drives
  
  **NOTE:** The 3 LFF rear drive box will consume space for the secondary and tertiary riser.
  
  **NOTE:** The 8 and 12 LFF chassis also supports the 2 SFF rear drive box which allows for the user to attach a secondary or tertiary riser.
  
  **NOTE:** The 8 NVMe drive option (826689-B21) can only be leveraged in the SFF chassis and replaces Box 1, 2 or 3, however there is a maximum of 20 NVMe drives supported with Partial population of Box1.
  
  **NOTE:** The Premium cage (826690-B21, 6 SAS/SATA+2 NVMe) can only be leveraged in the SFF chassis and replaces Box 1, 2 or 3.
  
  **NOTE:** The Universal Media Bay (826708-B21) not available with the LFF chassis or the 24 SFF front end, and can only be populated in Box1.
  
  **NOTE:** The 8 SFF can be upgraded with additional 8SFF drive box to total 16 or 24 SFF drives. For optimal upgrade Box 2 should be populated second, with Box 1 the last to be populated for a field upgrade to 24 SFF. For CTO builds requiring 24 SFF please use the 24 SFF chassis (868704-B21). Note a field upgrade to 24 SFF will require a High Performance fan kit (867810-B21).
  
  **NOTE:** The 8 LFF chassis cannot be upgraded to 12 LFF front in the field; however the 4-LFF Mid plane (826686-B21) is supported, but will also require a performance fan kit (867810-B21).
  
  **NOTE:** The 8LFF chassis ships with 6-standard fans.
  
  **NOTE:** All models come with the S100i Smart Array Controller with embedded software RAID support for 12 drives. The S100i uses 14 embedded SATA ports, but only 12 ports are accessible as 2 are leveraged to support the 2 M.2 options on the primary riser.

System Fans

Standard – fan types included

- **NOTE:** 1P models typically ship with 4 standard fans. The second processor option kit contains 2 additional fans.
- **NOTE:** The 12 LFF and 24 SFF chassis ship with 6 High performance fans as standard.
- **NOTE:** The 8LFF chassis ships with 6 standard fans as standard.
- **NOTE:** High performance fan kit is available to meet ambient temperature environments.
- **NOTE:** High performance fan kits are required for rear drives, Graphics (GPU) card or NVMe configurations.
### Standard Features

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

**NOTE:** For more information regarding Intel Xeon processors, please see the following [link](http://www.intel.com/xeon).

<table>
<thead>
<tr>
<th>Intel Xeon Models</th>
<th>CPU Frequency</th>
<th>Cores</th>
<th>L3 Cache</th>
<th>Power</th>
<th>UPI</th>
<th>DDR4</th>
<th>Memory per socket</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Platinum Processors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Platinum 8180M Processor</td>
<td>2.5 GHz</td>
<td>28</td>
<td>38.50 MB</td>
<td>205W</td>
<td>3 @ 10.4 GT/s</td>
<td>2666 MT/s</td>
<td>1.5 TB</td>
</tr>
<tr>
<td>Platinum 8180 Processor</td>
<td>2.5 GHz</td>
<td>28</td>
<td>38.50 MB</td>
<td>205W</td>
<td>3 @ 10.4 GT/s</td>
<td>2666 MT/s</td>
<td>768 GB</td>
</tr>
<tr>
<td>Platinum 8176M Processor</td>
<td>2.1 GHz</td>
<td>28</td>
<td>38.50 MB</td>
<td>165W</td>
<td>3 @ 10.4 GT/s</td>
<td>2666 MT/s</td>
<td>1.5 TB</td>
</tr>
<tr>
<td>Platinum 8176 Processor</td>
<td>2.1 GHz</td>
<td>28</td>
<td>38.50 MB</td>
<td>165W</td>
<td>3 @ 10.4 GT/s</td>
<td>2666 MT/s</td>
<td>768 GB</td>
</tr>
<tr>
<td>Platinum 8170M Processor</td>
<td>2.1 GHz</td>
<td>26</td>
<td>35.75 MB</td>
<td>165W</td>
<td>3 @ 10.4 GT/s</td>
<td>2666 MT/s</td>
<td>1.5 TB</td>
</tr>
<tr>
<td>Platinum 8170 Processor</td>
<td>2.1 GHz</td>
<td>26</td>
<td>35.75 MB</td>
<td>165W</td>
<td>3 @ 10.4 GT/s</td>
<td>2666 MT/s</td>
<td>768 GB</td>
</tr>
<tr>
<td>Platinum 8168 Processor</td>
<td>2.7 GHz</td>
<td>24</td>
<td>33.00 MB</td>
<td>205W</td>
<td>3 @ 10.4 GT/s</td>
<td>2666 MT/s</td>
<td>768 GB</td>
</tr>
<tr>
<td>Platinum 8164 Processor</td>
<td>2.0 GHz</td>
<td>26</td>
<td>35.75 MB</td>
<td>150W</td>
<td>3 @ 10.4 GT/s</td>
<td>2666 MT/s</td>
<td>768 GB</td>
</tr>
<tr>
<td>Platinum 8160M Processor</td>
<td>2.1 GHz</td>
<td>24</td>
<td>33.00 MB</td>
<td>150W</td>
<td>3 @ 10.4 GT/s</td>
<td>2666 MT/s</td>
<td>1.5 TB</td>
</tr>
<tr>
<td>Platinum 8160 Processor</td>
<td>2.1 GHz</td>
<td>24</td>
<td>33.00 MB</td>
<td>150W</td>
<td>3 @ 10.4 GT/s</td>
<td>2666 MT/s</td>
<td>768 GB</td>
</tr>
<tr>
<td>Platinum 8158 Processor</td>
<td>3.0 GHz</td>
<td>12</td>
<td>24.75 MB</td>
<td>150W</td>
<td>3 @ 10.4 GT/s</td>
<td>2666 MT/s</td>
<td>768 GB</td>
</tr>
<tr>
<td>Platinum 8156 Processor</td>
<td>3.6 GHz</td>
<td>4</td>
<td>16.50 MB</td>
<td>105W</td>
<td>3 @ 10.4 GT/s</td>
<td>2666 MT/s</td>
<td>768 GB</td>
</tr>
<tr>
<td>Platinum 8153 Processor</td>
<td>2.0 GHz</td>
<td>16</td>
<td>22.00 MB</td>
<td>125W</td>
<td>3 @ 10.4 GT/s</td>
<td>2666 MT/s</td>
<td>768 GB</td>
</tr>
<tr>
<td><strong>Gold Processors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gold 6154 Processor</td>
<td>3.0 GHz</td>
<td>18</td>
<td>24.75 MB</td>
<td>200W</td>
<td>3 @ 10.4 GT/s</td>
<td>2666 MT/s</td>
<td>768 GB</td>
</tr>
<tr>
<td>Gold 6152 Processor</td>
<td>2.1 GHz</td>
<td>22</td>
<td>30.25 MB</td>
<td>140W</td>
<td>3 @ 10.4 GT/s</td>
<td>2666 MT/s</td>
<td>768 GB</td>
</tr>
<tr>
<td>Gold 6150 Processor</td>
<td>2.7 GHz</td>
<td>18</td>
<td>24.75 MB</td>
<td>165W</td>
<td>3 @ 10.4 GT/s</td>
<td>2666 MT/s</td>
<td>768 GB</td>
</tr>
<tr>
<td>Gold 6148 Processor</td>
<td>2.4 GHz</td>
<td>20</td>
<td>27.50 MB</td>
<td>150W</td>
<td>3 @ 10.4 GT/s</td>
<td>2666 MT/s</td>
<td>768 GB</td>
</tr>
<tr>
<td>Gold 6142M Processor</td>
<td>2.6 GHz</td>
<td>16</td>
<td>22.00 MB</td>
<td>150W</td>
<td>3 @ 10.4 GT/s</td>
<td>2666 MT/s</td>
<td>1.5 TB</td>
</tr>
<tr>
<td>Gold 6142 Processor</td>
<td>2.6 GHz</td>
<td>16</td>
<td>22.00 MB</td>
<td>150W</td>
<td>3 @ 10.4 GT/s</td>
<td>2666 MT/s</td>
<td>768 GB</td>
</tr>
<tr>
<td>Gold 6140M Processor</td>
<td>2.3 GHz</td>
<td>18</td>
<td>24.75 MB</td>
<td>140W</td>
<td>3 @ 10.4 GT/s</td>
<td>2666 MT/s</td>
<td>1.5 TB</td>
</tr>
<tr>
<td>Gold 6140 Processor</td>
<td>2.3 GHz</td>
<td>18</td>
<td>24.75 MB</td>
<td>140W</td>
<td>3 @ 10.4 GT/s</td>
<td>2666 MT/s</td>
<td>768 GB</td>
</tr>
<tr>
<td>Gold 6138 Processor</td>
<td>2.0 GHz</td>
<td>20</td>
<td>27.50 MB</td>
<td>125W</td>
<td>3 @ 10.4 GT/s</td>
<td>2666 MT/s</td>
<td>768 GB</td>
</tr>
<tr>
<td>Gold 6136 Processor</td>
<td>3.0 GHz</td>
<td>12</td>
<td>24.75 MB</td>
<td>150W</td>
<td>3 @ 10.4 GT/s</td>
<td>2666 MT/s</td>
<td>768 GB</td>
</tr>
<tr>
<td>Gold 6134M Processor</td>
<td>3.2 GHz</td>
<td>8</td>
<td>24.75 MB</td>
<td>130W</td>
<td>3 @ 10.4 GT/s</td>
<td>2666 MT/s</td>
<td>1.5 TB</td>
</tr>
<tr>
<td>Gold 6134 Processor</td>
<td>3.2 GHz</td>
<td>8</td>
<td>24.75 MB</td>
<td>130W</td>
<td>3 @ 10.4 GT/s</td>
<td>2666 MT/s</td>
<td>768 GB</td>
</tr>
<tr>
<td>Gold 6132 Processor</td>
<td>2.6 GHz</td>
<td>14</td>
<td>19.25 MB</td>
<td>140W</td>
<td>3 @ 10.4 GT/s</td>
<td>2666 MT/s</td>
<td>768 GB</td>
</tr>
<tr>
<td>Gold 6130 Processor</td>
<td>2.1 GHz</td>
<td>16</td>
<td>22.00 MB</td>
<td>125W</td>
<td>3 @ 10.4 GT/s</td>
<td>2666 MT/s</td>
<td>768 GB</td>
</tr>
<tr>
<td>Gold 6128 Processor</td>
<td>3.4 GHz</td>
<td>6</td>
<td>19.25 MB</td>
<td>115W</td>
<td>3 @ 10.4 GT/s</td>
<td>2666 MT/s</td>
<td>768 GB</td>
</tr>
<tr>
<td>Gold 6126 Processor</td>
<td>2.6 GHz</td>
<td>12</td>
<td>19.25 MB</td>
<td>125W</td>
<td>3 @ 10.4 GT/s</td>
<td>2666 MT/s</td>
<td>768 GB</td>
</tr>
<tr>
<td>Gold 5122 Processor</td>
<td>3.6 GHz</td>
<td>4</td>
<td>16.50 MB</td>
<td>105W</td>
<td>2 @ 10.4 GT/s</td>
<td>2666 MT/s</td>
<td>768 GB</td>
</tr>
<tr>
<td>Gold 5120 Processor</td>
<td>2.2 GHz</td>
<td>14</td>
<td>19.25 MB</td>
<td>105W</td>
<td>2 @ 10.4 GT/s</td>
<td>2400 MT/s</td>
<td>768 GB</td>
</tr>
<tr>
<td>Gold 5118 Processor</td>
<td>2.3 GHz</td>
<td>12</td>
<td>16.50 MB</td>
<td>105W</td>
<td>2 @ 10.4 GT/s</td>
<td>2400 MT/s</td>
<td>768 GB</td>
</tr>
<tr>
<td>Gold 5115 Processor</td>
<td>2.4 GHz</td>
<td>10</td>
<td>13.75 MB</td>
<td>85W</td>
<td>2 @ 10.4 GT/s</td>
<td>2400 MT/s</td>
<td>768 GB</td>
</tr>
<tr>
<td><strong>Silver Processors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Silver 4116 Processor</td>
<td>2.1 GHz</td>
<td>12</td>
<td>16.50 MB</td>
<td>85W</td>
<td>2 @ 9.6 GT/s</td>
<td>2400 MT/s</td>
<td>768 GB</td>
</tr>
</tbody>
</table>
Silver 4114 Processor
- 2.2 GHz
- 10
- 13.75 MB
- 85W
- 2 @ 9.6 GT/s
- 2400 MT/s
- 768 GB

Silver 4112 Processor
- 2.6 GHz
- 4
- 8.25 MB
- 85W
- 2 @ 9.6 GT/s
- 2400 MT/s
- 768 GB

Silver 4110 Processor
- 2.1 GHz
- 8
- 11.00 MB
- 85W
- 2 @ 9.6 GT/s
- 2400 MT/s
- 768 GB

Silver 4108 Processor
- 1.8 GHz
- 8
- 11.00 MB
- 85W
- 2 @ 9.6 GT/s
- 2400 MT/s
- 768 GB

Bronze Processors
Bronze 3106 Processor
- 1.7 GHz
- 8
- 11.00 MB
- 85W
- 2 @ 9.6 GT/s
- 2133 MT/s
- 768 GB

Bronze 3104 Processor
- 1.7 GHz
- 6
- 8.25 MB
- 85W
- 2 @ 9.6 GT/s
- 2133 MT/s
- 768 GB

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

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

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

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

Chipset
- Intel C621 Chipset

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

On System Management Chipset
- HPE iLO 5 ASIC

NOTE: Read and learn more in the iLO QuickSpecs

Memory
One of the following depending on model
- Type:
  - HPE DDR4 SmartMemory, Registered (RDIMM), Load Reduced (LRDIMM)
  - 12 DIMM slots per processor, 6 channels per processor, 2 DIMMs per channel

- Maximum capacity (LRDIMM) 1.5 TB
- Maximum capacity (RDIMM) 768 GB

NOTE: The maximum memory by socket is limited by the processor selection.
NOTE: Mixing of RDIMM and LRDIMM memory is not supported.

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

Expansion Slots

<table>
<thead>
<tr>
<th>Slots #</th>
<th>Technology</th>
<th>Bus Width</th>
<th>Connector Width</th>
<th>Slot Form Factor</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PCIe 3.0</td>
<td>X8</td>
<td>X8</td>
<td>Full-height, half-length slot</td>
<td>Proc 1</td>
</tr>
<tr>
<td>2</td>
<td>PCIe 3.0</td>
<td>X16</td>
<td>X16</td>
<td>Full-height, half-length slot</td>
<td>Proc 1</td>
</tr>
</tbody>
</table>
Full-length slot
Full-height, half-length slot
Proc 1

NOTE: Bus Width Indicates the number of physical electrical lanes running to the connector.
NOTE: This riser also supports dual m.2 cards.

<table>
<thead>
<tr>
<th>Slots #</th>
<th>Technology</th>
<th>Bus Width</th>
<th>Connector Width</th>
<th>Slot Form Factor</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PCIe 3.0</td>
<td>X8</td>
<td>X8</td>
<td>Full-height, half-length slot</td>
<td>Proc 2</td>
</tr>
<tr>
<td>2</td>
<td>PCIe 3.0</td>
<td>X16</td>
<td>X16</td>
<td>Full-height, full-length slot</td>
<td>Proc 2</td>
</tr>
<tr>
<td>3</td>
<td>PCIe 3.0</td>
<td>X8</td>
<td>X8</td>
<td>Full-height, half-length slot</td>
<td>Proc 2</td>
</tr>
</tbody>
</table>

NOTE: Bus Width Indicates the number of physical electrical lanes running to the connector.
NOTE: When populating the second optional riser slot, the second processor must be installed.
NOTE: This only calls out the Standard Riser, and Secondary riser included in WW Predefined skus. Please see riser section for full list of risers.
NOTE: Max 8-PCIe slots are available on the DL380 Gen10.

### Storage Controllers

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

One of the following depending on model

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

**NOTE:** HPE Smart Array S100i SR Gen10 SW RAID will operate in UEFI mode only. For legacy support an additional controller will be needed, and for CTO orders please also select the Legacy mode settings part, 758959-B22.

**NOTE:** HPE Smart Array S100i SR Gen10 SW RAID is off by default and must be enabled.

**NOTE:** The S100i uses 14 embedded SATA ports, but only 12 ports are accessible as 2 are leveraged to support the 2 M.2 options on the primary riser.

**Essential RAID Controller**
- HPE Smart Array E208i-a SR Gen10 Controller
- HPE Smart Array E208i-p SR Gen10 Controller
- HPE Smart Array E208e-p SR Gen10 Controller

**Performance RAID Controller**
- HPE Smart Array P408i-a SR Gen10 Controller
- HPE Smart Array P408i-p SR Gen10 Controller
- HPE Smart Array P408e-p SR Gen10 Controller
- HPE Smart Array P816i-a SR Gen10 Controller

**NOTE:** Performance RAID Controllers require the HPE Smart Storage Battery (875241-B21) which is sold separately.

### Internal Storage Devices

One of the following depending on model

**Optical Drive**
- Ships standard in Performance Models
- Optional: DVD-ROM, DVD-RW

**Hard Drives**
- None ship standard
Maximum Internal Storage

<table>
<thead>
<tr>
<th>Storage Type</th>
<th>Capacity</th>
<th>Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hot Plug SFF SAS</td>
<td>72.0 TB</td>
<td>24+6 x 2.4 TB* (with optional rear SFF drive cage)</td>
</tr>
<tr>
<td>Hot Plug SFF SATA</td>
<td>60.0 TB</td>
<td>24+6 x 2 TB (with optional SFF drive cage)</td>
</tr>
<tr>
<td>Hot Plug LFF SAS</td>
<td>197.68 TB</td>
<td>12+4+3 x 10 TB + 2 x 3.84 TB (with optional mid – tray and rear LFF drive cage, plus 2 SFF SSD rear)</td>
</tr>
<tr>
<td>Hot Plug LFF SATA</td>
<td>197.68 TB</td>
<td>12+4+3 x 10 TB + 2 x 3.84 TB (with optional mid – tray and rear LFF drive cage, plus 2 SFF SSD rear)</td>
</tr>
<tr>
<td>Hot Plug SFF SAS SSD</td>
<td>115.2 TB</td>
<td>24+6 x 3.84 TB (with optional rear SFF drive cage)</td>
</tr>
<tr>
<td>Hot Plug LFF SATA SSD</td>
<td>44.16 TB</td>
<td>12+4+3 x 1.92 TB + 2 x 3.84 TB (with optional mid – tray and rear LFF drive cage, plus 2 SFF SSD rear)</td>
</tr>
<tr>
<td>Hot Plug SFF NVMe PCIe SSD</td>
<td>40 TB NVMe</td>
<td>20 x 2 TB NVMe</td>
</tr>
</tbody>
</table>

**NOTE:** 2.4 TB SFF SAS drives coming 2H 2017.
**NOTE:** 2x m.2 drives are supported on the Primary Riser.
**NOTE:** uFF drives are also supported.

Power Supply

HPE 500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit
**NOTE:** Available in 94% efficiency.

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

HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit
**NOTE:** Available in 94% efficiency.

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

All pre-configured servers ship with a standard 6-foot IEC C-13/C-14 jumper cord (A0K02A). This jumper cord is also included with each standard AC power supply option kit. If a different power cord is required, please check the ProLiant Power Cables web page.

To review the power requirements for your selected system, please use the HPE Power Advisor Tool.

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

Interfaces

<table>
<thead>
<tr>
<th>Interface</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serial</td>
<td>Optional, rear</td>
</tr>
<tr>
<td>Display Port</td>
<td>1 (SFF 1 front, optional via Universal Media Bay, 826708-B21), 8 LFF chassis standard</td>
</tr>
<tr>
<td>FlexibleLOM Network Ports</td>
<td>4 x 1 Gb ports shipping standard with optional FlexibleLOM or stand up card</td>
</tr>
<tr>
<td>HPE iLO Remote</td>
<td>1 Gb Dedicated</td>
</tr>
<tr>
<td>Management Network Port</td>
<td></td>
</tr>
<tr>
<td>Front iLO Service Port</td>
<td>1 standard (Not available on 12 LFF chassis or when SID is ordered)</td>
</tr>
<tr>
<td>Micro SD Slot</td>
<td>1 Micro SD</td>
</tr>
</tbody>
</table>

**NOTE:** The Micro SD slot is not a hot-pluggable device. Customers should not attempt to plug an SD card into the SD slot while the server is powered.

USB 3.0
Up to 5 total: 1 front, 2 rear, 2 internal (secure), 2 optional USB 2.0 front via Universal Media
Bay, or standard on 8LFF chassis

SID (Systems Insight Display)  Optional

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

Operating Systems and Virtualization Software Support for ProLiant Servers

Windows Server 2012 R2 (Most Recent Version)
Windows Server 2016 (Most Recent Version)
VMware ESXi 6.0 U3
VMware ESXi 6.5 and U1 upon release
Red Hat Enterprise Linux (RHEL) 6.9 and 7.3
SUSE Linux Enterprise Server (SLES) 11 SP4 and 12 SP2

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

NOTE: ClearOS allows you to build a fully functional server that is just right for you at no upfront cost.
For more information on ClearOS, please visit http://www.hpe.com/servers/clearos.

CentOS
NOTE: CentOS not directly supported / Community Supported (Based on RHEL so RHEL testing and enablement applicable to CentOS) CentOS 6.9 / CentOS 7.3.

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

Industry Standard Compliance

ACPI 6.1 Compliant
PCle 3.0 Compliant
WOL Support
Microsoft® Logo certifications
PXE Support
VGA/Display Port

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

USB 3.0 Compliant (internal)
USB 2.0 Compliant (external ports via SUV)

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

Energy Star
SMBIOS 3.1
UEFI 2.6
Redfish API
IPMI 2.0
Secure Digital 2.0
Advanced Encryption Standard (AES)
Triple Data Encryption Standard (3DES)
SNMP v3
TLS 1.2

DMTF Systems Management Architecture for Server Hardware Command Line Protocol (SMASH CLP)
Active Directory v1.0
ASHRAE A3/A4

NOTE: For additional technical thermal details regarding ambient temperatures, humidity and features support please visit: http://www.hpe.com/servers/ashrae

UEFI (Unified Extensible Firmware Interface Forum)

NOTE: UEFI is the default for the DL380 Gen10. Legacy mode can be selected in the field or as a CTO option (758959-B22).

Graphics

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

HPE iLO 5 on system management memory
- 32 MB Flash
- 4 Gbit DDR 3 with ECC protection

HPE Server UEFI/Legacy ROM

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

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

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

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

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

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

Embedded Management

HPE Integrated Lights-Out (HPE iLO)

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

UEFI

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

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

Server Utilities

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

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

**Smart Update**
Keep your servers up to date with the HPE Smart Update solution by using Smart Update Manager (SUM) to optimize the firmware and driver updates of the Service Pack for ProLiant (SPP). Learn more at [http://www.hpe.com/info/smartupdate](http://www.hpe.com/info/smartupdate).

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

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

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

**Scripting Tools**

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

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

Security

UEFI Secure Boot and Secure Start support
Immutable Silicon Root of Trust
FIPS 140-2 validation (iLO 5 certification in progress)
Common Criteria certification (iLO 5 certification in progress)
Configurable for PCI DSS compliance
Advanced Encryption Standard (AES) and Triple Data Encryption Standard (3DES) on browser
Support for Commercial National Security Algorithms (CNSA)
Tamper-free updates – components digitally signed and verified
Secure Recovery – recover critical firmware to known good state on detection of compromised firmware
Ability to rollback firmware
Secure erase of NAND/User data
TPM (Trusted Platform Module) 1.2 option
TPM (Trusted Platform Module) 2.0 option
Bezel Locking Kit option
Chassis Intrusion detection option

Warranty
This product is covered by a global limited warranty and supported by HPE Services and a worldwide network of HPE Authorized Channel Partners resellers. Hardware diagnostic support and repair is available for three years from date of purchase. Support for software and initial setup is available for 90 days from date of purchase. Enhancements to warranty services are available through HPE Care Pack 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.

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

HPE iLO Advanced

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

HPE iLO Advanced Premium Security Edition


HPE OneView Advanced

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

HPE Insight Cluster Management Utility (CMU)

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

Accelerator and GPGPU Information

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

Rack and Power Infrastructure

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

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

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

HPE Uninterruptible Power Systems are cost-effective power protection for any type workload. Some UPSs include options for remote management and extended runtime modules so you’re critical dense data center is covered in power outages.

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

Learn more about HPE Racks, KVM, PDUs and UPSs at HPE Rack and Power Infrastructure.
One Config Simple (SCE)

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

https://h22174.ww2.hpe.com/SimplifiedConfig/Welcome#
HPE Pointnext - Service and Support

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

Connect your devices:
Unlock all of the benefits of your technology investment by connecting your products to Hewlett Packard Enterprise. Reduce down time and improve diagnostic accuracy with a single consolidated view of your environment. By connecting, you will receive 24x7 monitoring, pre-failure alerts, automatic call logging, and automatic parts dispatch. HPE Proactive Care Service and HPE Datacenter Care Service customers will also benefit from proactive activities to help prevent issues and increase optimization. All of these benefits are already available to you with your server storage and networking products, securely connected to HPE support.

Learn more about getting connected at http://www.hpe.com/services/getconnected

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

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

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

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

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

For more information: http://www.hpe.com/services
<table>
<thead>
<tr>
<th><strong>Entry Models</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SKU Number</strong></td>
</tr>
<tr>
<td><strong>Model Name</strong></td>
</tr>
<tr>
<td><strong>Processor</strong></td>
</tr>
<tr>
<td><strong>Number of Processors</strong></td>
</tr>
<tr>
<td><strong>Memory</strong></td>
</tr>
<tr>
<td><strong>Network Controller</strong></td>
</tr>
<tr>
<td><strong>Storage Controller</strong></td>
</tr>
<tr>
<td><strong>Hard Drive</strong></td>
</tr>
<tr>
<td><strong>Internal Storage</strong></td>
</tr>
<tr>
<td><strong>Optical Drive Bay</strong></td>
</tr>
<tr>
<td><strong>Optical Drive</strong></td>
</tr>
<tr>
<td><strong>PCI-Express Slots</strong></td>
</tr>
<tr>
<td><strong>Power Supply</strong></td>
</tr>
<tr>
<td><strong>Fans</strong></td>
</tr>
<tr>
<td><strong>Management</strong></td>
</tr>
<tr>
<td><strong>Energy Star</strong></td>
</tr>
<tr>
<td><strong>Form Factor</strong></td>
</tr>
<tr>
<td><strong>Warranty</strong></td>
</tr>
<tr>
<td><strong>[SKU Number]</strong></td>
</tr>
<tr>
<td>------------------------</td>
</tr>
<tr>
<td><strong>Model Name</strong></td>
</tr>
<tr>
<td><strong>Processor</strong></td>
</tr>
<tr>
<td><strong>Number of Processors</strong></td>
</tr>
<tr>
<td><strong>Memory</strong></td>
</tr>
<tr>
<td><strong>Network Controller</strong></td>
</tr>
<tr>
<td><strong>Storage Controller</strong></td>
</tr>
<tr>
<td><strong>Hard Drive</strong></td>
</tr>
<tr>
<td><strong>Internal Storage</strong></td>
</tr>
<tr>
<td><strong>Optical Drive Bay</strong></td>
</tr>
<tr>
<td><strong>Optical Drive</strong></td>
</tr>
<tr>
<td><strong>PCI-Express Slots</strong></td>
</tr>
<tr>
<td><strong>Power Supply</strong></td>
</tr>
<tr>
<td><strong>Fans</strong></td>
</tr>
<tr>
<td><strong>Management</strong></td>
</tr>
<tr>
<td><strong>Energy Star</strong></td>
</tr>
<tr>
<td><strong>Form Factor</strong></td>
</tr>
<tr>
<td><strong>Warranty</strong></td>
</tr>
<tr>
<td>Performance Models</td>
</tr>
<tr>
<td>--------------------</td>
</tr>
<tr>
<td><strong>SKU Number</strong></td>
</tr>
<tr>
<td><strong>Model Name</strong></td>
</tr>
<tr>
<td><strong>Processor</strong></td>
</tr>
<tr>
<td><strong>Number of Processors</strong></td>
</tr>
<tr>
<td><strong>Memory</strong></td>
</tr>
<tr>
<td><strong>Network Controller</strong></td>
</tr>
<tr>
<td><strong>Storage Controller</strong></td>
</tr>
<tr>
<td><strong>Hard Drive</strong></td>
</tr>
<tr>
<td><strong>Internal Storage</strong></td>
</tr>
<tr>
<td><strong>Optical Drive Bay</strong></td>
</tr>
<tr>
<td><strong>Optical Drive</strong></td>
</tr>
<tr>
<td><strong>PCI-Express Slots</strong></td>
</tr>
<tr>
<td><strong>Power Supply</strong></td>
</tr>
<tr>
<td><strong>Fans</strong></td>
</tr>
<tr>
<td><strong>Management</strong></td>
</tr>
<tr>
<td><strong>Energy Star</strong></td>
</tr>
<tr>
<td><strong>Form Factor</strong></td>
</tr>
<tr>
<td><strong>Warranty</strong></td>
</tr>
</tbody>
</table>

**Country Code Key**

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

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

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

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

**NOTE:** HPE offers multiple Trade Agreement Act (TAA) compliant configurations to meet the needs of US Federal Government customers. These products are either manufactured or substantially transformed in a designated country. TAA compliance is only provided when HPE options are included as part of factory integrated orders (CTO).

**NOTE:** TAA chassis are only orderable in North America and Canada.

**NOTE:** The HPE ProLiant DL380 Gen10 12 LFF CTO Server ships with the cable required for the P816i-a installation.

<table>
<thead>
<tr>
<th>CTO Server</th>
<th>8 SFF CTO Chassis</th>
<th>24 SFF CTO Chassis</th>
<th>8 LFF CTO Chassis</th>
<th>12 LFF CTO Chassis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Included Drive Cage</td>
<td>8 SFF SAS/SATA</td>
<td>3x 8 SFF SAS/SATA</td>
<td>8 LFF + UMB</td>
<td>12 LFF Chassis</td>
</tr>
<tr>
<td>Additional drive cages</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Universal Media Bay</td>
<td>1 Optional</td>
<td>Not available</td>
<td>1 Included</td>
<td>Not available</td>
</tr>
<tr>
<td>ODD</td>
<td>1 Optional with UMB</td>
<td>Not available</td>
<td>1 Optional</td>
<td>Not available</td>
</tr>
<tr>
<td>8 SFF Drive Cage</td>
<td>Up to 2 Optional</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
</tr>
<tr>
<td>8 NVME/SAS Bay</td>
<td>Up to 3 Optional</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
</tr>
<tr>
<td>8 NVME Cage</td>
<td>Up to 3 Optional</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
</tr>
<tr>
<td>2 SFF SAS/SATA (Front)</td>
<td>1 Optional with UMB</td>
<td>Not available</td>
<td>1 Optional</td>
<td>Not available</td>
</tr>
<tr>
<td>2 SFF SAS/SATA (Rear)</td>
<td>Not available</td>
<td>Up to 3 Optional</td>
<td>Not available</td>
<td>Up to 3 Optional</td>
</tr>
<tr>
<td>2 NVMe (Front)</td>
<td>1 Optional with UMB</td>
<td>Not available</td>
<td>1 Optional</td>
<td>Not available</td>
</tr>
<tr>
<td>4 LFF Mid-plane</td>
<td>Not available</td>
<td>Not available</td>
<td>1 Optional</td>
<td>1 Optional</td>
</tr>
</tbody>
</table>
NOTE: This applies to CTO configurations, field upgrades may differ depending field configuration.

NOTE: 3x 8 NVMe option on SFF will only allow for partial population of Box1 to max 20 NVMe.

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

Please select one –L21 processor required below.
For second processor, please select the same processor model with –B21 from Core Options – HPE Processors section.
For example: first processor, select 874752-L21 then for second processor, select 874752-B21.

NOTE: 8SFF CTO 1P models ship with 4 standard fans. The second processor option kit contains 2 additional fans. 12 LFF and 24 SFF CTO Servers ship with 6 High performance fans included; 8LFF CTO Servers ship with 6 Standard fans included. High performance fan kit is available to meet ambient temperature environments are are required for rear drives or NVMe configurations.

NOTE: Maximum memory capacity per processor is dependent on processor models. All processors support up to 768 GB max memory per processor except “M” model processors will support up to 1.5 TB max memory per processor.

NOTE: Mixing of 2 different processor models are NOT allowed.

NOTE: DDR4 speed is the maximum memory speed of the processor. Actual memory speed may depend on the quantity and type of DIMMs installed.

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

Processor Option Kits

<table>
<thead>
<tr>
<th>Processor Option Kit</th>
<th>Required Processor</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPE DL380 Gen10 Intel® Xeon-Platinum 8180M (2.5GHz/28-core/205W) FIO Processor Kit</td>
<td>874752-L21</td>
</tr>
</tbody>
</table>

NOTE: Ships with Performance Heatsink.

<table>
<thead>
<tr>
<th>Processor Option Kit</th>
<th>Required Processor</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPE DL380 Gen10 Intel® Xeon-Platinum 8180 (2.5GHz/28-core/205W) FIO Processor Kit</td>
<td>871619-L21</td>
</tr>
</tbody>
</table>

NOTE: Ships with Performance Heatsink.

<table>
<thead>
<tr>
<th>Processor Option Kit</th>
<th>Required Processor</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPE DL380 Gen10 Intel® Xeon-Platinum 8176M (2.1GHz/28-core/165W) FIO Processor Kit</td>
<td>874754-L21</td>
</tr>
</tbody>
</table>

NOTE: Ships with Performance Heatsink.

<table>
<thead>
<tr>
<th>Processor Option Kit</th>
<th>Required Processor</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPE DL380 Gen10 Intel® Xeon-Platinum 8176 (2.1GHz/28-core/165W) FIO Processor Kit</td>
<td>871618-L21</td>
</tr>
</tbody>
</table>

NOTE: Ships with Performance Heatsink.

<table>
<thead>
<tr>
<th>Processor Option Kit</th>
<th>Required Processor</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPE DL380 Gen10 Intel® Xeon-Platinum 8170M (2.1GHz/26-core/165W) FIO Processor Kit</td>
<td>874756-L21</td>
</tr>
</tbody>
</table>

NOTE: Ships with Performance Heatsink.

<table>
<thead>
<tr>
<th>Processor Option Kit</th>
<th>Required Processor</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPE DL380 Gen10 Intel® Xeon-Platinum 8170 (2.1GHz/26-core/165W) FIO Processor Kit</td>
<td>871617-L21</td>
</tr>
</tbody>
</table>

NOTE: Ships with Performance Heatsink.

<table>
<thead>
<tr>
<th>Processor Option Kit</th>
<th>Required Processor</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPE DL380 Gen10 Intel® Xeon-Platinum 8168 (2.7GHz/24-core/205W) FIO Processor Kit</td>
<td>869089-L21</td>
</tr>
</tbody>
</table>

NOTE: Ships with Performance Heatsink.

<table>
<thead>
<tr>
<th>Processor Option Kit</th>
<th>Required Processor</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPE DL380 Gen10 Intel® Xeon-Platinum 8164 (2.0GHz/26-core/145W) FIO Processor Kit</td>
<td>869088-L21</td>
</tr>
</tbody>
</table>

NOTE: Ships with Performance Heatsink.

<table>
<thead>
<tr>
<th>Processor Option Kit</th>
<th>Required Processor</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPE DL380 Gen10 Intel® Xeon-Platinum 8160M (2.1GHz/24-core/145W) FIO Processor Kit</td>
<td>874758-L21</td>
</tr>
</tbody>
</table>

NOTE: Ships with Performance Heatsink.

<table>
<thead>
<tr>
<th>Processor Option Kit</th>
<th>Required Processor</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPE DL380 Gen10 Intel® Xeon-Platinum 8160 (2.1GHz/24-core/150W) FIO Processor Kit</td>
<td>869086-L21</td>
</tr>
</tbody>
</table>

NOTE: Ships with Performance Heatsink.

<table>
<thead>
<tr>
<th>Processor Option Kit</th>
<th>Required Processor</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPE DL380 Gen10 Intel® Xeon-Platinum 8158 (3.0GHz/12-core/150W) FIO Processor Kit</td>
<td>869090-L21</td>
</tr>
</tbody>
</table>

NOTE: Ships with Performance Heatsink.

<table>
<thead>
<tr>
<th>Processor Option Kit</th>
<th>Required Processor</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPE DL380 Gen10 Intel® Xeon-Platinum 8156 (3.6GHz/4-core/105W) FIO Processor Kit</td>
<td>871616-L21</td>
</tr>
</tbody>
</table>

NOTE: Ships with Performance Heatsink.

<table>
<thead>
<tr>
<th>Processor Option Kit</th>
<th>Required Processor</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPE DL380 Gen10 Intel® Xeon-Gold 6154 (3.0GHz/18-core/200W) FIO Processor Kit</td>
<td>826888-L21</td>
</tr>
</tbody>
</table>
Step 2b: Choose Memory Options

Please select one or more memory from below.

For new Gen10 memory population rule whitepaper and optimal memory performance guidelines, please go to: https://www.hpe.com/docs/memory-population-rules
For Gen10 memory speed table, please go to: https://www.hpe.com/docs/memory-speed-table
For memory Reliability, Accessibility, Serviceability (RAS) features whitepaper like Gen10 Fast Fault Tolerance and legacy mirrored memory feature etc. please go to: http://www.hpe.com/docs/memory-ras-feature

NOTE: Memory DIMM availability with a server platform is dependent upon completion of certification testing.

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

HPE 8GB (1x8GB) Single Rank x8 DDR4-2666 CAS-19-19-19 Registered Memory Kit 815097-B21
HPE 16GB (1x16GB) Single Rank x4 DDR4-2666 CAS-19-19-19 Registered Memory Kit 815098-B21
HPE 16GB (1x16GB) Dual Rank x8 DDR4-2666 CAS-19-19-19 Registered Memory Kit 835955-B21
HPE 32GB (1x32GB) Dual Rank x4 DDR4-2666 CAS-19-19-19 Registered Memory Kit 815100-B21
HPE 64GB (1x64GB) Quad Rank x4 DDR4-2666 CAS-19-19-19 Load Reduced Memory Kit 815101-B21

Step 2: Choose Power Supplies

Select one or two power supplies from below.

NOTE: Mixing of 2 different power supplies is NOT allowed.

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 Universal Hot Plug Low Halogen Power Supply Kit 865428-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 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 Unique Options

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

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

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

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

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

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

HPE 2 NVMe Instr Spec FIO 878189-B21

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

HPE 6+2 NVMe Instr Spec FIO 878192-B21

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

HPE 8SFF Front Remove SPEC Perf FIO 873763-B21

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

HPE Riser Remove SPEC FIO 873766-B21

NOTE: This is a factory integrated only option.
NOTE: Will remove the Primary shipping PCIe riser.
NOTE: UEFI is the default, this FIO part can be used for CTO to enable Legacy mode.

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

Step 4: Choose additional options for Factory Integration from Core and Additional Options sections below
NOTE: Some options may not be integrated at the factory. To ensure only valid configurations are ordered, Hewlett Packard Enterprise recommends the use of an HPE approved configurator. Contact your local sales representative for additional information. Note the http://www.hpe.com/info/CablingMatrixGen10 can help to explain the cable routing for each option:

### HPE Unique Options

**HPE DL38X NVMe 8 Solid State Drive Express Bay Enablement Kit**

**NOTE:** This option provides support for up to 8 NVMe drives, and can only be populated in Box 1, Box 2 and Box 3 of the SFF chassis, note Box 1 can only be partially populated with four drives if Box 2 and Box 3 are fully populated with NVMe drives.

**NOTE:** The HPE DL380 Gen10 High Performance fan kit is required for NVMe support (867810-B21).

**NOTE:** The HPE DL38X Gen10 4-port 8 NVMe SlimSAS Riser (867807-B21) is required to support this.

**NOTE:** There are limitations on GPU support with the NVMe bay installed.

**HPE DL38X Gen10 Universal Media Bay Kit**

**NOTE:** The HPE DL380 Gen10 Universal Media bay provides front Display Port and 2xUSB 2.0; plus support for 2x SFF front drives (826688-B21) or 2 NVMe front drives (826687-B21, riser required) and ODD support (Not included); and can only be located in Box1 in either an 8 SFF or 8+8 SFF model.

**NOTE:** This is a SFF model option only.

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

**NOTE:** This kit can be supported in Box 1, 2 or 3 and provides support for up to 8 SFF SAS/SATA or 6 SAS/SATA + 2 NVMe drives per Box.

**NOTE:** With NVMe drives a specific riser is required.

**NOTE:** When adding to Box 1 the addition of the High Performance Fan kit (867810-B21) is required.

**HPE DL380 Gen10 High Performance Heat Sink Kit**

**NOTE:** Required for GPU installations.

**NOTE:** Processor kits above 130W include a High Performance Heatsink, along with the 8156, 6128 and 5122.

**HPE DL38X Gen10 High Performance Temperature Fan Kit**

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

**NOTE:** This kit is also required to support GPUs configurations.

**NOTE:** This is required for NVMe configurations.

**NOTE:** This kit provides maximum cooling for your Server.

**NOTE:** This kit is required when Box 1, 2 and 3 are populated.

**HPE DL38X Gen10 2SFF HDD SAS/SATA Riser Kit**

**NOTE:** 2 SFF in the rear is only supported with a 24 SFF model or 12 LFF model.

**NOTE:** In the rear this leaves 1x16 slot accessible.

**NOTE:** Rear drives require the addition of the High Performance Fan kit (867810-B21).

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

**NOTE:** For 2 SFF front in the Universal Media Bay (826708-B21).

**NOTE:** Can be used for rear 2 SFF drive support.

**NOTE:** Required an additional riser to support for NVMe drives.

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

**NOTE:** Adds support for 2 SFF in front of 8 LFF chassis (868706-B21).

**HPE DL38X Gen10 8LFF Front 2NVMe HDD Bay Kit**

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

**NOTE:** For support of the 2 NVMe drives this will require the addition of the HPE DL38X Gen10 x8/x8/x8 1-port 2 NVMe SlimSAS Riser (867806-B21); or the HPE DL38X Gen10 2-port 4 NVMe SlimSAS Riser (867808-B21).

**NOTE:** NVMe drives require the addition of the High Performance Fan kit (867810-B21).

**HPE DL38X Gen10 12Gb SAS Expander Card Kit with Cables**

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

**NOTE:** Primary population in slot 3 of the primary riser.
HPE DL380 Gen10 SFF Systems Insight Display Kit 826703-B21

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

HPE DL38X Gen10 Rear Serial Cable Kit 873770-B21

HPE Processors
Processor Option Kits

HPE DL380 Gen10 Intel® Xeon-Platinum 8180M (2.5GHz/28-core/205W) Processor Kit 874752-B21

NOTE: Ships with Performance Heatsink.

HPE DL380 Gen10 Intel® Xeon-Platinum 8180 (2.5GHz/28-core/205W) Processor Kit 871619-B21

NOTE: Ships with Performance Heatsink.

HPE DL380 Gen10 Intel® Xeon-Platinum 8180 (2.5GHz/28-core/205W) Processor Kit 871619-B21

NOTE: Ships with Performance Heatsink.

HPE DL380 Gen10 Intel® Xeon-Platinum 8176M (2.1GHz/28-core/165W) Processor Kit 874754-B21

NOTE: Ships with Performance Heatsink.

HPE DL380 Gen10 Intel® Xeon-Platinum 8176 (2.1GHz/28-core/165W) Processor Kit 871618-B21

NOTE: Ships with Performance Heatsink.

HPE DL380 Gen10 Intel® Xeon-Platinum 8170M (2.1GHz/26-core/165W) Processor Kit 874756-B21

NOTE: Ships with Performance Heatsink.

HPE DL380 Gen10 Intel® Xeon-Platinum 8170 (2.1GHz/26-core/165W) Processor Kit 871617-B21

NOTE: Ships with Performance Heatsink.

HPE DL380 Gen10 Intel® Xeon-Platinum 8168 (2.7GHz/24-core/205W) Processor Kit 869089-B21

NOTE: Ships with Performance Heatsink.

HPE DL380 Gen10 Intel® Xeon-Platinum 8164 (2.0GHz/26-core/145W) Processor Kit 869088-B21

NOTE: Ships with Performance Heatsink.

HPE DL380 Gen10 Intel® Xeon-Platinum 8160M (2.1GHz/24-core/165W) Processor Kit 874758-B21

NOTE: Ships with Performance Heatsink.

HPE DL380 Gen10 Intel® Xeon-Platinum 8160 (2.1GHz/24-core/150W) Processor Kit 869086-B21

NOTE: Ships with Performance Heatsink.

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

NOTE: Ships with Performance Heatsink.

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

NOTE: Ships with Performance Heatsink.

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

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

NOTE: Ships with Performance Heatsink.

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

NOTE: Ships with Performance Heatsink.

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

NOTE: Ships with Performance Heatsink.

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

NOTE: Ships with Performance Heatsink.

HPE DL380 Gen10 Intel® Xeon-Gold 6142M (2.6GHz/16-core/150W) Processor Kit 874760-B21

NOTE: Ships with Performance Heatsink.

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

NOTE: Ships with Performance Heatsink.

HPE DL380 Gen10 Intel® Xeon-Gold 6140M (2.3GHz/18-core/135W) Processor Kit 874762-B21

NOTE: Ships with Performance Heatsink.

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

NOTE: Ships with Performance Heatsink.
HPE DL380 Gen10 Intel® Xeon-Gold 6138 (2.0GHz/20-core/125W) Processor Kit 826876-B21
HPE DL380 Gen10 Intel® Xeon-Gold 6136 (3.0GHz/12-core/150W) Processor Kit 826874-B21

NOTE: Ships with Performance Heatsink.

HPE DL380 Gen10 Intel® Xeon-Gold 6134M (3.2GHz/8-core/130W) Processor Kit 873645-B21
HPE DL380 Gen10 Intel® Xeon-Gold 6134 (3.2GHz/8-core/130W) Processor Kit 826872-B21

NOTE: Ships with Performance Heatsink.

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

NOTE: Ships with Performance Heatsink.

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

NOTE: Ships with Performance Heatsink.

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

NOTE: Ships with Performance Heatsink.

HPE DL380 Gen10 Intel® Xeon-Gold 5120 (2.2GHz/14-core/105W) Processor Kit 826856-B21
HPE DL380 Gen10 Intel® Xeon-Gold 5118 (2.3GHz/12-core/105W) Processor Kit 826854-B21
HPE DL380 Gen10 Intel® Xeon-Gold 5115 (2.4GHz/10-core/85W) Processor Kit 876562-B21
HPE DL380 Gen10 Intel® Xeon-Silver 4116 (2.1GHz/12-core/85W) Processor Kit 826852-B21
HPE DL380 Gen10 Intel® Xeon-Silver 4114 (2.2GHz/10-core/85W) Processor Kit 826850-B21
HPE DL380 Gen10 Intel® Xeon-Silver 4112 (2.6GHz/4-core/85W) Processor Kit 873647-B21
HPE DL380 Gen10 Intel® Xeon-Silver 4110 (2.1GHz/8-core/85W) Processor Kit 826846-B21
HPE DL380 Gen10 Intel® Xeon-Silver 4108 (1.8GHz/8-core/85W) Processor Kit 826848-B21
HPE DL380 Gen10 Intel® Xeon-Bronze 3106 (1.7GHz/8-core/85W) Processor Kit 873643-B21
HPE DL380 Gen10 Intel® Xeon-Bronze 3104 (1.7GHz/6-core/85W) Processor Kit 873641-B21

NOTE: Up to two processors supported. Performance Models include two processors.

NOTE: HT indicates that the processor model supports Intel® Hyper-Threading Technology.

NOTE: Turbo2: Intel® Turbo Boost Technology 2.0 provides more computing power when you need it with performance that adapts to spikes in your workload and delivers more performance upside than than previous generation turbo technology.

NOTE: DDR4 speed is the maximum memory speed of the processor. Actual memory speed may depend on the quantity and type of DIMMs installed.

NOTE: The xxxxxx-L21 is the first processor shipped, the xxxxxx-B21 is the 2nd processor and ships with 2 additional fans for factory of field installation.

NOTE: Maximum memory per socket depends on the processor selected.

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

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

Best product availability is limited to US, Canada, and Latin America at this time.

HPE Memory

HPE 8GB (1x8GB) Single Rank x8 DDR4-2666 CAS-19-19-19 Registered Memory Kit 815097-B21
HPE 16GB (1x16GB) Single Rank x4 DDR4-2666 CAS-19-19-19 Registered Memory Kit 815098-B21
HPE 32GB (1x32GB) Dual Rank x4 DDR4-2666 CAS-19-19-19 Registered Memory Kit 815100-B21
HPE 64GB (1x64GB) Quad Rank x4 DDR4-2666 CAS-19-19-19 Load Reduced Memory Kit 815101-B21
HPE 16GB (1x16GB) Dual Rank x8 DDR4-2666 CAS-19-19-19 Registered Memory Kit 835955-B21

NOTE: Memory DIMM availability with a server platform is dependent upon completion of certification testing.

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

HP 9.5mm SATA DVD-ROM JackBlack Gen9 Optical Drive

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

HP 9.5mm SATA DVD-RW JackBlack G9 Optical Drive

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

HP Mobile USB Non Leaded System DVD RW Drive

NOTE: This is only supported on USB 3.0 ports.

HPE Drives

Enterprise - 12G SAS - SFF Drives

HPE 300GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD 870753-B21
HPE 300GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD 872475-B21
HPE 600GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD 870757-B21
HPE 600GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty 512e Digitally Signed Firmware HDD 872477-B21
HPE 900GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD 870759-B21
HPE 900GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD 870765-B21
HPE 1.2TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD 872479-B21
HPE 1.8TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty 512e Digitally Signed Firmware HDD 872481-B21

Midline - 12G SAS - SFF Drives

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

Midline - 12G SAS - LFF Drives

HPE 1TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty HDD 846524-B21
HPE 2TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty HDD 818356-B21
HPE 2TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD 872485-B21
HPE 3TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty HDD 846528-B21
HPE 4TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty HDD 818367-B21
HPE 4TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e HDD 861756-B21
HPE 4TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD 872487-B21
HPE 6TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty HDD 846514-B21
HPE 6TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e HDD 861754-B21
HPE 8TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e HDD 861590-B21
HPE 8TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD 872489-B21
HPE 10TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e HDD 857644-B21

Midline - 6G SATA - SFF Drives

HPE 1TB SATA 6G Midline 7.2K SFF (2.5in) SC 1yr Wty Digitally Signed Firmware HDD 655710-B21
HPE 1TB SATA 6G Midline 7.2K SFF (2.5in) SC 1yr Wty 512e Digitally Signed Firmware HDD 765453-B21
HPE 2TB SATA 6G Midline 7.2K SFF (2.5in) SC 1yr Wty 512e Digitally Signed Firmware HDD 765455-B21

Midline - 6G SATA - LFF Drives

HPE 1TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty HDD 861691-B21
HPE 2TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty HDD 861676-B21
HPE 2TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e Digitally Signed Firmware HDD 872489-B21
HPE 3TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD 861693-B21
HPE 4TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty HDD 861678-B21
SSD Selection
To streamline the configuration process for HPE ProLiant Gen10 servers and to provide the best product availability, HPE recommends SSDs from the list located here: [http://www.hpe.com/products/recommend](http://www.hpe.com/products/recommend)

### Read Intensive - 12G SAS - SFF - Solid State Drives
- HPE 960GB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD 872390-B21
- HPE 1.92TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD 872392-B21
- HPE 3.84TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD 872394-B21

### Mixed Use - 12G SAS - SFF - Solid State Drives
- HPE 400GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD 872374-B21
- HPE 800GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD 872376-B21
- HPE 1.6TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD 872382-B21
- HPE 3.2TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD 872386-B21

### Mixed Use - 12G SAS - LFF - Solid State Drives
- HPE 800GB SAS 12G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD 872378-B21

### Write Intensive - 6G SATA - SFF - Solid State Drives
- HPE 400GB SATA 6G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD 872355-B21
- HPE 400GB SATA 6G Write Intensive LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD 872357-B21
- HPE 800GB SATA 6G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD 872359-B21
- HPE 800GB SATA 6G Write Intensive LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD 872361-B21
- HPE 1.6TB SATA 6G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD 872363-B21
- HPE 1.6TB SATA 6G Write Intensive LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD 872365-B21

### Write Intensive - PCIe/NVMe - SFF - Solid State Drives
- HPE 400GB NVMe x4 Lanes Write Intensive SFF (2.5in) SC 3yr Wty SSD 736936-B21
- HPE 800GB NVMe x4 Lanes Write Intensive SFF (2.5in) SC 3yr Wty SSD 736939-B21
- HPE 1.6TB NVMe x4 Lanes Write Intensive SFF (2.5in) SC 3yr Wty SSD 764892-B21
- HPE 2TB NVMe x4 Lanes Write Intensive SFF (2.5in) SC 3yr Wty SSD 764894-B21

**NOTE:** An NVMe (826689-B21 or 873781-B21) or Premium (826690-B21) drive cage are required to support these drives in conjunction with a NVMe riser kit.
**NOTE:** HPE has qualified the NVMe drive portfolio using the Operating System inbox drivers, full detail on the [HPE Solid State Drive QuickSpecs](http://www.hpe.com/products/recommend).
**NOTE:** With NVMe support only 1x Double Wide Graphics card is supported.

### Read Intensive - 6G SATA - SFF - Solid State Drives
- HPE 150GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD 869374-B21
- HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD 869376-B21
- HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD 868814-B21
- HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD 869378-B21
- HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD 868818-B21
- HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD 869384-B21
- HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD 868822-B21
- HPE 1.6TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD 869386-B21
- HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD 868826-B21
- HPE 3.8TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD 868830-B21
**Read Intensive - 6G SATA - LFF - Solid State Drives**

- HPE 480GB SATA 6G Read Intensive LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD 869380-B21
- HPE 1.6TB SATA 6G Read Intensive LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD 869388-B21

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

- HPE 150GB SATA 6G Read Intensive M.2 2280 3yr Wty Digitally Signed Firmware SSD 875317-B21
- HPE 340GB SATA 6G Read Intensive M.2 2280 3yr Wty SSD 777264-B21
- HPE 340GB SATA 6G Read Intensive 3yr Wty M.2 Kit 835563-B21
- HPE 340GB SATA 6G Read Intensive 3yr Wty Dual M.2 Kit 835565-B21
- HPE 480GB SATA 6G Read Intensive M.2 2280 3yr Wty Digitally Signed Firmware SSD 875319-B21
- HPE 960GB SATA 6G Read Intensive M.2 2280 3yr Wty Digitally Signed Firmware SSD 875500-B21
- HPE 840GB SATA 6G Mixed Use M.2 2280 3yr Wty Digitally Signed Firmware SSD 875490-B21
- HPE 960GB SATA 6G Mixed Use M.2 2280 3yr Wty Digitally Signed Firmware SSD 875492-B21

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

**NOTE:** M.2 supports Software RAID only.

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

- HPE 340GB SATA 6G Read Intensive UFF 3yr Wty Dual M.2 Kit 815605-B21
- HPE 340GB SATA 6G Read Intensive UFF 3yr Wty M.2 Kit 815606-B21

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

**NOTE:** M.2 supports Software RAID only.

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

- HPE 400GB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty SSD 764904-B21
- HPE 1.2TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty SSD 764906-B21

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

- HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD 872344-B21
- HPE 480GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD 872346-B21
- HPE 960GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD 872350-B21
- HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD 872348-B21
- HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD 872352-B21

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

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

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

- HPE 400GB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty SSD 765034-B21
- HPE 800GB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty SSD 765036-B21
- HPE 1.6TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty SSD 765038-B21
- HPE 2TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty SSD 765044-B21

**NOTE:** An NVMe (826689-B21 or 873781-B21) or Premium (826690-B21) drive cage is required to support these drives in conjunction with an NVMe riser kit.

**NOTE:** HPE has qualified the NVMe drive portfolio using the Operating System inbox drivers, full detail on the HPE Solid State Drive QuickSpecs.

**NOTE:** With NVMe support only 1x Double Wide Graphics card is supported.

**NOTE:** Not supported by HPE Smart Array controllers.

**NOTE:** NVMe drives require the addition of the High Performance Fan kit (867810-B21).

**Read Intensive – 6G SATA uFF - Solid State Drives**

- HPE 120GB SATA 6G Read Intensive UFF 3yr Wty M.2 Kit 822594-B21
- HPE 120GB SATA 6G Read Intensive UFF 3yr Wty Dual M.2 Kit 822593-B21
- HPE 340GB SATA 6G Read Intensive UFF 3yr Wty M.2 Kit 815606-B21
- HPE 340GB SATA 6G Read Intensive UFF 3yr Wty Dual M.2 Kit 815605-B21

**NOTE:** HPE has qualified the NVMe drive portfolio using the Operating System inbox drivers, full detail on the HPE Solid State Drive QuickSpecs.

**NOTE:** With NVMe support only 1x Double Wide Graphics card is supported.

**NOTE:** Not supported by HPE Smart Array controllers.

**NOTE:** NVMe drives require the addition of the High Performance Fan kit (867810-B21).
### Hard Drive Blank Kits
- HPE Universal SATA HHHL 3yr Wty M.2 Kit 878783-B21
- HPE Large Form Factor Hard Drive Blank Kit 666986-B21
- HPE Small Form Factor Hard Drive Blank Kit 666987-B21

### Hard Drive Kits
- HPE DL38X Gen10 3LFF Rear SAS/SATA Drive Kit 826685-B21
  **NOTE:** This is supported in the LFF model only.
  **NOTE:** 3 LFF rear drives will consume the 2nd riser expansion slot.
- HPE DL38X Gen10 4LFF Midplane SAS/SATA HDD Kit 826686-B21
  **NOTE:** Supported with both the 8 and 12 LFF model.
  **NOTE:** Ships with low profile HeatSink for installation. Supporting processors below 125W.
  **NOTE:** No support for the 8156, 6128 or the 5122 Processors.
  **NOTE:** With this mid-tray only single-wide (8.5-inch cards with connections or less) cards are supported.
  **NOTE:** This drive does support hot-swap drives.
  **NOTE:** This requires High Performance Fans (867810-B21).
- HPE DL38X Gen10 2SFF Premium HDD SAS/SATA Riser Kit 826690-B21
  **NOTE:** This option provides support up to 8NVMe drives, and can be populated in all Boxes in the 8 SFF model.
  **NOTE:** A maximum of 20 NVMe drives only are supported, this will mean partial population (4 drives) when the 3rd cage is populated in Box 1.
  **NOTE:** This will require the HPE DL38X Gen10 4-port 8 NVMe SlimSAS Riser (867807-B21).
  **NOTE:** NVMe drives require the addition of the High Performance Fan kit (867810-B21).
- Media Bay Kits
  - HPE DL38X Gen10 Universal Media Bay Kit 826708-B21
    **NOTE:** The HPE DL380 Gen10 Universal Media bay provides front Display Port and 2xUSB 2.0; plus...
support for 2x SFF front drives (826688-B21) or 2 NVME front drives (826687-B21, riser required) and ODD support (Not included); and can only be located in Box1 in either an 8 SFF or 8+8 SFF model.

NOTE: This is a SFF model option only.

HPE Networking

1 Gigabit Ethernet adapters
- HPE Ethernet 1Gb 4-port 331T Adapter 647594-B21
- HPE Ethernet 1Gb 2-port 332T Adapter 615732-B21
- HPE Ethernet 1Gb 2-port 361T Adapter 652497-B21
- HPE Ethernet 1Gb 4-port 366T Adapter 811546-B21
- HPE Ethernet 10Gb 2-port 530T Adapter 656596-B21
- HPE Ethernet 10Gb 2-port 535T Adapter 813661-B21

25 Gigabit Ethernet adapters
- HPE Ethernet 4x25Gb 1-port 620QSFP Adapter 817762-B21
- HPE Ethernet 10/25Gb 2-port 631SFP Adapter 817718-B21
- HPE Ethernet 10/25Gb 2-port 640SFP Adapter 817753-B21

NOTE: The DL380 Gen10 ships with 4x 1 Gb Embedded.

NOTE: A minimum of two Gigabytes (2 GB) of server memory is required per each adapter.

NOTE: Direct Attach Cable (DAC) for copper environments or fiber transceivers and cables for fiber-optic environments must be purchased separately. Please see the related NIC QuickSpecs for Technical Specifications and additional information:

FlexibleLOM adapters
- HPE Ethernet 1Gb 4-port 331FLR Adapter 629135-B22
- HPE Ethernet 1Gb 4-port 366FLR Adapter 665240-B21
- HPE Ethernet 10Gb 2-port 530SFP Adapter 652503-B21
- HPE FlexFabric 10Gb 2-port 533FLR-T Adapter 700759-B21
- HPE FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter 700751-B21
- HPE Ethernet 10Gb 2-port 535FLR-T Adapter 817721-B21
- HPE FlexFabric 10Gb 2-port 536FLR-T Adapter 764302-B21
- HPE Ethernet 10Gb 2-port 562FLR-SFP+ Adapter 727054-B21
- HPE Ethernet 10Gb 2-port 562SFP+ Adapter 727055-B21
- HPE Ethernet 10/25Gb 2-port 631FLR-SFP28 Adapter 817709-B21
- HPE Ethernet 10/25Gb 2-port 640FLR-SFP28 Adapter 817749-B21

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

NOTE: 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.

NOTE: Direct Attach Cable (DAC) for copper environments or fiber transceivers and cables for fiber-optic environments must be purchased separately. Please see the related NIC QuickSpecs for Technical Specifications and additional information:

HPE InfiniBand
- HPE InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+QSFP Adapter 764284-B21
- HPE InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+FLR-QSFP Adapter 764285-B21
- HPE InfiniBand EDR/Ethernet 100Gb 1-port 840QSF28 Adapter 825110-B21
- HPE InfiniBand EDR/Ethernet 100Gb 2-port 840QSF28 Adapter 825111-B21

HPE I/O Expansion Options

NOTE: The Primary Riser shipping default in the chassis is a x8 FH, HL, x16 FH, FL and x8 FH, HL with m.2 support.

NOTE: For a Secondary/Tertiary riser the second processor is required.
HPE DL38X Gen10 x16/x16 Riser Kit

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

HPE DL Gen10 x8/x16/x8 Riser Kit

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

HPE DL38X Gen10 4-port 8 NVMe Slim SAS Riser

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

HPE DL Gen10 x16/x16 GPU Riser Kit

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

HPE DL38X Gen10 25FF HDD SAS/SATA Riser Kit

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

HPE DL38X Gen10 x8/x8/x8 1-port 2 NVMe Slim SAS Riser

**NOTE:** Supports NVMe drives in Primary or Secondary location.
**NOTE:** Supports Full Height and half-length cards.
**NOTE:** Bus width x8, x8. x8 Connector Width x8, x8, x8.

HPE DL38X Gen10 2-port 4 NVMe Slim SAS Riser

**NOTE:** Supports up to 4 NVMe drives in Tertiary location.

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

**NOTE:** Riser supporting up to 8 NVMe drives in Secondary location.

HPE DL38X Gen10 2 x8 PCIe Tertiary Riser Kit

**NOTE:** Supports 2x 8 slots in the Tertiary location.

HPE DL38X Gen10 x16 Tertiary Riser Kit

**NOTE:** Supports 1x 16 slot in the Tertiary location.
**NOTE:** Supports Full Height and full-length card.
**NOTE:** Bus width x16 Connector Width x16.

### HPE Power Supplies

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

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

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

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

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

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

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

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

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

**NOTE:** Flex Slot Platinum power supplies support power efficiency of up to 94% and include a standard C-14 power inlet connector.
NOTE: Flex Slot -48VDC power supplies support power efficiency of up to 94%.
HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit

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

---

**GPGPU Information**

<table>
<thead>
<tr>
<th>Part number</th>
<th>Card</th>
<th>Qty support</th>
<th>Processor support</th>
<th>PCIe speed</th>
<th>DL380 configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8SFF</td>
</tr>
<tr>
<td>Q0J62A</td>
<td>NVIDIA Tesla M10 4 GB Module</td>
<td>2</td>
<td>Under 160W</td>
<td>Gen3</td>
<td>35C</td>
</tr>
<tr>
<td>Q0V79A</td>
<td>NVIDIA Tesla P4 8GB Module</td>
<td>5</td>
<td>All</td>
<td>Gen3</td>
<td>35C</td>
</tr>
<tr>
<td>Q0E21A</td>
<td>NVIDIA Tesla P100 PCIe</td>
<td>2</td>
<td>All</td>
<td>Gen3</td>
<td>30C</td>
</tr>
<tr>
<td>Q0V77A</td>
<td>NVIDIA Quadro P2000 GPU Module</td>
<td>5</td>
<td>All</td>
<td>Gen3</td>
<td>35C</td>
</tr>
<tr>
<td>Q0V78A</td>
<td>NVIDIA Quadro P4000 GPU Module</td>
<td>5</td>
<td>Under 160W</td>
<td>Gen3</td>
<td>35C</td>
</tr>
<tr>
<td>Q0V76A</td>
<td>NVIDIA Quadro P6000 PCIe GPU Adptr</td>
<td>2</td>
<td>All</td>
<td>Gen3</td>
<td>35C</td>
</tr>
</tbody>
</table>

**NOTE:** 1x 1600W PS recommended, but this card will work with 1x800W PS (per GPU). However check the power usage via the HPE Power Advisor Tool located at [http://www.hpe.com/info/hppoweradvisor](http://www.hpe.com/info/hppoweradvisor).

**NOTE:** Performance fans (867810-B21) are required for all GPU installations (Note these ship as standard with the 24SFF and 12LFF models).

**NOTE:** Performance Heatsinks (826706-B21) are required for Double Wide GPU installations (Note these ship as standard on Processors over 130W processors and the 8156, 6128 and 5122).

**NOTE:** Mixing of GPUs is not supported.

**NOTE:** With the Standard Primary Riser the top x8 PCIe Slot connector will not be accessible with the installation of a doublewide GPU.

**NOTE:** The P100, M10, P6000 and P40 cards are not supported with Processors over 160W.

**NOTE:** Only 2 SFF rear drives supported over Power Supply as would require Riser 1 and Riser 2 for GPU support.

**NOTE:** 4 LFF mid-tray will not support DW cards.

**NOTE:** 1 Invalid configuration or no HW support may apply to multiple GPUs installed. HW limitation may not be a thermal limitation.

**NOTE:** The M10, P2000 and P4000 are limited to a max memory support of under 1TB.

---

**HPE Computation and Graphics Accelerators**

HPE NVIDIA Quadro P2000 GPU Module

**NOTE:** Performance Heatsink is not required.
<table>
<thead>
<tr>
<th>HPE NVIDIA Quadro P4000 GPU Module</th>
<th>Q0V78A</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NOTE:</strong> This required the HPE GPU 6px6p Y-Power Cable Kit 874212-B21.</td>
<td></td>
</tr>
<tr>
<td><strong>NOTE:</strong> Performance Heatsink is not required.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HPE NVIDIA Quadro P6000 GPU Module</th>
<th>Q0V76A</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NOTE:</strong> This required the HPE DL380 Gen10 8P Cable Kit 871828-B21.</td>
<td></td>
</tr>
<tr>
<td><strong>NOTE:</strong> 3 of these cards are supported.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NVIDIA Tesla M10 Quad GPU Module</th>
<th>Q0J62A</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NOTE:</strong> This required the HPE DL380 Gen10 8P Cable Kit 871828-B21.</td>
<td></td>
</tr>
<tr>
<td><strong>NOTE:</strong> Only 2x M10 can be supported (on any x16 slot 2, 5 or 7) due to system running out of PCIe lanes.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HPE NVIDIA Tesla P4 8GB Module</th>
<th>Q0V79A</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NOTE:</strong> Performance Heatsink is not required.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HPE NVIDIA Tesla P40 24GB Module</th>
<th>Q0V80A</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NOTE:</strong> This required the HPE DL380 Gen10 8P Keyed Cable Kit 871829-B21.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Graphics Cable Kits</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>HPE GPU 6px6p Y-Power Cable Kit</td>
<td>874212-B21</td>
</tr>
<tr>
<td>HPE DL380 Gen10 8-pin Cable Kit</td>
<td>871828-B21</td>
</tr>
<tr>
<td>HPE DL380 Gen10 8-pin Keyed Cable Kit</td>
<td>871829-B21</td>
</tr>
<tr>
<td>HPE DL380 Gen10 8x 6-pin Cable Kit</td>
<td>871830-B21</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HPE Cooling Options</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>HPE DL38X Gen10 High Performance Temperature Fan Kit</td>
<td>867810-B21</td>
</tr>
<tr>
<td><strong>NOTE:</strong> This kit is required for specific Ambient temperature environments, coming in 2H2017.</td>
<td></td>
</tr>
<tr>
<td><strong>NOTE:</strong> 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.</td>
<td></td>
</tr>
<tr>
<td><strong>NOTE:</strong> The 12 LFF and 24 SFF models (including field upgrades to 24 SFF) will already include 6 High Performance fan kits.</td>
<td></td>
</tr>
<tr>
<td><strong>NOTE:</strong> The High Performance fan kit is needed to support certain Passive GPGPU (Graphics cards) configurations; or ASHRAE operating environments.</td>
<td></td>
</tr>
<tr>
<td><strong>NOTE:</strong> For elevated ambient temperature support please see <a href="http://www.hpe.com/servers/ashrae">http://www.hpe.com/servers/ashrae</a>.</td>
<td></td>
</tr>
</tbody>
</table>
NOTE: Some options may not be integrated at the factory. To ensure only valid configurations are ordered, Hewlett Packard Enterprise recommends the use of an HPE approved configurator. Contact your local sales representative for additional information.

Embedded Management

HPE iLO Advanced

HPE iLO Advanced including 1yr 24x7 Technical Support and Updates E-LTU  E6U59ABE
HPE iLO Advanced including 1yr 24x7 Technical Support and Updates 1-server LTU  512485-B21
HPE iLO Advanced including 1yr 24x7 Technical Support and Updates Flexible Quantity LTU  512486-B21
HPE iLO Advanced including 1yr 24x7 Technical Support and Updates Tracking LTU  512487-B21
HPE iLO Advanced including 3yr 24x7 Technical Support and Updates E-LTU  E6U64ABE
HPE iLO Advanced including 3yr 24x7 Tech Support and Updates 1-server LTU  BD505A
HPE iLO Advanced including 3yr 24x7 Tech Support and Updates Flexible Quantity LTU  BD506A
HPE iLO Advanced including 3yr 24x7 Tech Support and Updates Tracking LTU  BD507A

HPE iLO Advanced Security

HPE iLO Advanced Premium Security Edition License with 1yr Support on Licensed Features  Q7E31A
HPE iLO Advanced Premium Security Flex Qty License with 1yr Support on Licensed Features  Q7E32A
HPE iLO Advanced Premium Security Edition Electronic License with 1yr Support on Licensed Features  Q7E32AAE
HPE iLO Advanced Premium Security AKA Tracking License with 1yr Support on Licensed Features  Q7E35A
HPE iLO Adv Security Upg Elc Lic 3yr Sup  Q7E12AAE
HPE iLO Advanced Premium Security Edition License with 3yr Support on Licensed Features  Q7E33A
HPE iLO Advanced Premium Security Flex Qty License with 3yr Support on Licensed Features  Q7E34A
HPE iLO Advanced Premium Security Edition Electronic License with 3yr Support on Licensed Features  Q7E34AAE
HPE iLO Advanced Premium Security AKA Tracking License with 3yr Support on Licensed Features  Q7E36A

HPE Converged Infrastructure Management Software

HPE OneView Physical Media Kit LTU  E5Y37A
HPE OneView including 3yr 24x7 Support Physical 1-server LTU  E5Y34A
HPE OneView including 3yr 24x7 Support Track 1-server LTU  E5Y36A
HPE OneView including 3yr 24x7 Support Flexible Quantity E-LTU  E5Y35AAE
HPE OneView Upgrade from Insight Management 3yr 24x7 Support 1-server LTU  F6Q91A
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 Advance including 3yr 24x7 Support Track 1-server LTU  E5Y40A
HPE OneView w/o ILO including 3yr 24x7 Support Flexible Quantity E-LTU  P8B26AAE

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

HPE PCIe Workload Accelerator Options

HPE 800GB NVMe Write Intensive HH/HL PCIe Workload Accelerator  803195-B21
HPE 1.6TB NVMe Write Intensive HH/HL PCIe Workload Accelerator  803197-B21
HPE 800GB NVMe Mixed Use HH/HL PCIe Workload Accelerator  803200-B21
HPE 1.6TB NVMe Mixed Use HH/HL PCIe Workload Accelerator  803202-B21
HPE 2.0TB NVMe Mixed Use HH/HL PCIe Workload Accelerator  803204-B21
HPE Security

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

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

HPE Trusted Platform Module 2.0 Kit 872108-B21

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

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

NOTE: There is a FIO setting to allow this TPM module to operate in a TPM 1.2 mode (872108-B21).

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.

Performance RAID Controllers

NOTE: All performance RAID controllers are supported by the HPE Smart Storage Battery (875241-B21), which supports multiple devices and is sold separately.

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

NOTE: Does not occupy a PCIe expansion slot and includes SmartCache license.

NOTE: The P816i-a cable ships in the 12LFF chassis only (868705-B21).

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

NOTE: Does not occupy a PCIe expansion slot.

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

NOTE: Does not occupy a PCIe expansion slot.

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 DL380 Gen10 Mini SAS 3POS Cable Kit 826709-B21
HPE DL38X Gen10 2 Drive NVMe Slim SAS Cable Kit 871827-B21

Optional Software

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

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

Optional Upgrades

- HPE 96W Smart Storage Battery (up to 20 Devices/145mm Cable) Kit 875241-B21

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

HPE Tape Backup


HPE Storage Options

**Emulex Fibre Channel HBAs**

- HPE StoreFabric SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter QQL13A
- HPE StoreFabric SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter QQL14A
- HPE StoreFabric SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter QQL11A
- HPE StoreFabric SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter QQL12A

**QLogic Fibre Channel HBAs**

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

**Converged Network Adapters**

- HPE StoreFabric CN1100R Dual Port Converged Network Adapter QW990A
- HPE StoreFabric CN1100R 10GBASE-T Dual Port Converged Network Adapter N3U52A
- HPE StoreFabric CN1200E 10Gb Converged Network Adapter E7Y06A
- HPE StoreFabric CN1200E 10GBASE-T Dual Port Converged Network Adapter N3U51A


HPE Racks

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

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

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

HPE Power Distribution Units (PDUs)

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

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

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

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

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

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

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

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

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

CAUTION: Hewlett Packard Enterprise recommends that a minimum of two people are required for all Rack Server installations. Please refer to your installation instructions for proper tools and number of people to use for any installation.

HP 2U Small Form Factor Easy Install Rail Kit
NOTE: Does not include CMA (733664-B21).
HP 2U Large Form Factor Easy Install Rail Kit
NOTE: Does not include CMA (733664-B21).
HP 2U Cable Management Arm for Easy Install Rail Kit
HP 2U Small Form Factor Ball Bearing Rail Kit
NOTE: Does not include CMA (720865-B21).
HP 2U Large Form Factor Ball Bearing Rail Kit
NOTE: Does not include CMA (720865-B21).
HP 2U Cable Management Arm for Ball Bearing Rail Kit

HPE Other Options
HPE Rack LED Light Kit
HP Kit LCD 1.83m Latch Display Port Cable

HPE USB and SD Options
HPE Enterprise Mainstream Flash Media Kits for Memory Cards
HPE 32GB microSD Mainstream Flash Media Kit
HPE 8GB microSD Enterprise Mainstream Flash Media Kit
HP 8GB USB Enterprise Mainstream Flash Media Drive Key Kit
HP Dual 8GB microSD Enterprise Midline USB Kit
HPE Support Services

Installation & Startup Services
- HPE Install ProLiant DL38x(p) Service
- HPE Installation and Startup DL38x(p) Service

Proactive Care
- HPE 3Y PC 24x7 DL380 Gen10 SVC
- HPE 3Y PC 24x7 wDMR DL380 Gen10 SVC
- HPE 3Y PC 24x7 wCDMR DL380 Gen10 SVC
- HPE 3Y PC CTR DL380 Gen10 SVC
- HPE 3Y PC CTR wDMR DL380 Gen10 SVC
- HPE 3Y PC CTR wCDMR DL380 Gen10 SVC
Memory Population guidelines

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

2 Slots per Channel

Front of Server

### HPE ProLiant Gen10 12 slot per CPU

<table>
<thead>
<tr>
<th>DIMM Population Order</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 DIMM</td>
</tr>
<tr>
<td>2 DIMMs</td>
</tr>
<tr>
<td>3 DIMMs</td>
</tr>
<tr>
<td>4 DIMMs</td>
</tr>
<tr>
<td>5 DIMMs</td>
</tr>
<tr>
<td>6 DIMMs</td>
</tr>
<tr>
<td>7 DIMMs</td>
</tr>
<tr>
<td>8 DIMMs</td>
</tr>
<tr>
<td>9 DIMMs</td>
</tr>
<tr>
<td>10 DIMMs</td>
</tr>
<tr>
<td>11 DIMMs</td>
</tr>
<tr>
<td>12 DIMMs</td>
</tr>
</tbody>
</table>

*Unbalanced, not recommended

**General Memory Population Rules and Guidelines:**

- Install DIMMs only if the corresponding processor is installed.
- If only one processor is installed in a two-processor system, only half of the DIMM slots are available.
- To maximize performance, it is recommended to balance the total memory capacity between all installed processors.
- When two processors are installed, balance the DIMMs across the two processors.
- White DIMM slots denote the first slot to be populated in a channel.
- Mixing of DIMM types (UDIMM, RDIMM, and LRDIMM) is not supported.
- The maximum memory speed is a function of the memory type, memory configuration, and processor model.
- The maximum memory capacity is a function of the number of DIMM slots on the platform, the largest DIMM capacity qualified on the platform, the number and model of installed processors qualified on the platform.
For details on the HPE Server Memory Options Population Rules, visit:  
http://www.hpe.com/docs/memory-population-rules

To realize the performance memory capabilities listed in this document, HPE DDR4 SmartMemory is required. For additional information, please see the HPE DDR4 SmartMemory QuickSpecs.

<table>
<thead>
<tr>
<th>DIMM Type</th>
<th>Register DIMM (RDIMM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPE SKU P/N</td>
<td>815097-B21</td>
</tr>
<tr>
<td>SKU Description</td>
<td>HPE 8GB 1Rx8 PC4-2666V-R Kit</td>
</tr>
<tr>
<td>DIMM Rank - -&gt;</td>
<td>Single Rank (1R)</td>
</tr>
<tr>
<td>DIMM Capacity - -&gt;</td>
<td>8GB</td>
</tr>
<tr>
<td>Voltage</td>
<td>1.2V</td>
</tr>
<tr>
<td>DRAM depth [bit]</td>
<td>1G</td>
</tr>
<tr>
<td>DRAM Width [bit]</td>
<td>x8</td>
</tr>
<tr>
<td>DRAM Density</td>
<td>8Gb</td>
</tr>
<tr>
<td>CAS Latency</td>
<td>19-19-19</td>
</tr>
<tr>
<td>DIMM Native Speed (MT/s)</td>
<td>2666 MT/s</td>
</tr>
</tbody>
</table>

Intel Xeon®Platinum 81xx Processors Officially Supported Memory Speed (MT/s)

<table>
<thead>
<tr>
<th>DIMM Type</th>
<th>Load Reduced (LRDIMM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPE SKU P/N</td>
<td>815098-B21</td>
</tr>
<tr>
<td>SKU Description</td>
<td>HPE 16GB 1Rx4 PC4-2666V-R Kit</td>
</tr>
<tr>
<td>DIMM Rank - -&gt;</td>
<td>Single Rank (1R)</td>
</tr>
<tr>
<td>DIMM Capacity - -&gt;</td>
<td>16GB</td>
</tr>
<tr>
<td>Voltage</td>
<td>1.2V</td>
</tr>
<tr>
<td>DRAM depth [bit]</td>
<td>2G</td>
</tr>
<tr>
<td>DRAM Width [bit]</td>
<td>x4</td>
</tr>
<tr>
<td>DRAM Density</td>
<td>8Gb</td>
</tr>
<tr>
<td>CAS Latency</td>
<td>19-19-19</td>
</tr>
<tr>
<td>DIMM Native Speed (MT/s)</td>
<td>2666 MT/s</td>
</tr>
</tbody>
</table>

Intel Xeon®Platinum 41xx/51xx/61xx Processors Officially Supported Memory Speed (MT/s)

<table>
<thead>
<tr>
<th>DIMM Type</th>
<th>Load Reduced (LRDIMM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPE SKU P/N</td>
<td>835955-B21</td>
</tr>
<tr>
<td>SKU Description</td>
<td>HPE 16GB 2Rx8 PC4-2666V-R Kit</td>
</tr>
<tr>
<td>DIMM Rank - -&gt;</td>
<td>Dual Rank (2R)</td>
</tr>
<tr>
<td>DIMM Capacity - -&gt;</td>
<td>16GB</td>
</tr>
<tr>
<td>Voltage</td>
<td>1.2V</td>
</tr>
<tr>
<td>DRAM depth [bit]</td>
<td>1G</td>
</tr>
<tr>
<td>DRAM Width [bit]</td>
<td>x8</td>
</tr>
<tr>
<td>DRAM Density</td>
<td>8Gb</td>
</tr>
<tr>
<td>CAS Latency</td>
<td>19-19-19</td>
</tr>
<tr>
<td>DIMM Native Speed (MT/s)</td>
<td>2666 MT/s</td>
</tr>
</tbody>
</table>

Intel Xeon®Platinum 31xx Processors Officially Supported Memory Speed (MT/s)

<table>
<thead>
<tr>
<th>DIMM Type</th>
<th>Load Reduced (LRDIMM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPE SKU P/N</td>
<td>815100-B21</td>
</tr>
<tr>
<td>SKU Description</td>
<td>HPE 32GB 2Rx4 PC4-2666V-R Kit</td>
</tr>
<tr>
<td>DIMM Rank - -&gt;</td>
<td>Dual Rank (2R)</td>
</tr>
<tr>
<td>DIMM Capacity - -&gt;</td>
<td>32GB</td>
</tr>
<tr>
<td>Voltage</td>
<td>1.2V</td>
</tr>
<tr>
<td>DRAM depth [bit]</td>
<td>2G</td>
</tr>
<tr>
<td>DRAM Width [bit]</td>
<td>x4</td>
</tr>
<tr>
<td>DRAM Density</td>
<td>8Gb</td>
</tr>
<tr>
<td>CAS Latency</td>
<td>19-19-19</td>
</tr>
<tr>
<td>DIMM Native Speed (MT/s)</td>
<td>2666 MT/s</td>
</tr>
</tbody>
</table>

NOTE: The maximum memory speed is a function of the memory type, memory configuration, and processor model.
For details on the HPE Server Memory speed, visit:  
https://www.hpe.com/docs/memory-speed-table
| CAS Latency | 19-19-19 | 22-19-19 |
| DIMM Native Speed (MT/s) | 2666 | 2666 |

**Intel Xeon® Platinum 81xx Processors Officially Supported Memory Speed (MT/s)**

<table>
<thead>
<tr>
<th></th>
<th>1 DIMM Per Channel</th>
<th>2 DIMM Per Channel</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2666 MT/s</td>
<td>2666 MT/s</td>
</tr>
</tbody>
</table>

**Intel Xeon® Gold/Silver 41xx/51xx/61xx Processors Officially Supported Memory Speed (MT/s)**

<table>
<thead>
<tr>
<th></th>
<th>1 DIMM Per Channel</th>
<th>2 DIMM Per Channel</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2400 MT/s</td>
<td>2400 MT/s</td>
</tr>
</tbody>
</table>

**Intel Xeon® Bronze 31xx Processors Officially Supported Memory Speed (MT/s)**

<table>
<thead>
<tr>
<th></th>
<th>1 DIMM Per Channel</th>
<th>2 DIMM Per Channel</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2133 MT/s</td>
<td>2133 MT/s</td>
</tr>
</tbody>
</table>

**HPE Server Memory Speed (MT/s): Intel Xeon® Platinum 81xx Processors**

<table>
<thead>
<tr>
<th></th>
<th>1 DIMM Per Channel</th>
<th>2 DIMM Per Channel</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2666 MT/s</td>
<td>2666 MT/s</td>
</tr>
</tbody>
</table>

**HPE Server Memory Speed (MT/s): Intel Xeon® Gold/Silver 41xx/51xx/61xx Processors**

<table>
<thead>
<tr>
<th></th>
<th>1 DIMM Per Channel</th>
<th>2 DIMM Per Channel</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2400 MT/s</td>
<td>2400 MT/s</td>
</tr>
</tbody>
</table>

**HPE Server Memory Speed (MT/s): Intel Xeon® Bronze 31xx Processors**

<table>
<thead>
<tr>
<th></th>
<th>1 DIMM Per Channel</th>
<th>2 DIMM Per Channel</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2133 MT/s</td>
<td>2133 MT/s</td>
</tr>
</tbody>
</table>

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

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

<table>
<thead>
<tr>
<th>Pre Configured Models</th>
<th>Standard Memory</th>
<th>Maximum Memory Plus Optional Memory</th>
<th>Standard Memory Replaced with Optional Memory</th>
</tr>
</thead>
<tbody>
<tr>
<td>3106</td>
<td>16 GB (1x16 GB RDIMM DR)</td>
<td>384 GB (24x 16 GB)</td>
<td>3072 GB (24x 128 GB)</td>
</tr>
<tr>
<td>4110</td>
<td>32 GB (2x16 GB RDIMM DR)</td>
<td>384 GB (24x 16 GB)</td>
<td>3072 GB (24x 128 GB)</td>
</tr>
<tr>
<td>4114</td>
<td>32 GB (2x16 GB RDIMM DR)</td>
<td>384 GB (24x 16 GB)</td>
<td>3072 GB (24x 128 GB)</td>
</tr>
<tr>
<td>5118</td>
<td>64 GB (2x32 GB RDIMM DR)</td>
<td>768 GB (24x 32 GB)</td>
<td>3072 GB (24x 128 GB)</td>
</tr>
<tr>
<td>6130</td>
<td>64 GB (2x32 GB RDIMM DR)</td>
<td>768 GB (24x 32 GB)</td>
<td>3072 GB (24x 128 GB)</td>
</tr>
</tbody>
</table>

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

**DDR4 memory options part number decoder**

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

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

For more information on memory, please see the Memory Quickspecs: [HPE DDR4 SmartMemory](https://www.hpe.com/en-us/smartmemory)
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

6 rear SFF drives
24 SFF + rear 2 SFF drives
**System Unit**

**Dimensions**

- 8.73 x 44.55 x 67.94 cm (3.44 x 17.54 x 26.75 in)
- 8.73 x 44.55 x 73.02 cm (3.44 x 17.54 x 28.75 in)

**Weight (approximate)**

- SFF Drives: 14.9 kg (32.75 lb)
- LFF Drives: 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: 12 LFF hard drives (no rear drives), 2x processors, 2x power supplies, 1x Smart Array, 2x Risers installed

**Input Requirements**

*(per power supply)*

- Rated Line Voltage: 100 to 120 VAC, 200 to 240 VAC
- BTU Rating:
  - Maximum: For 800W Power Supply: 3207 BTU/hr (at 100 VAC), 3071 BTU/hr (at 200 VAC), 3112 BTU/hr (at 240 VAC) for China Only
  - For 500W Power Supply: 1979 BTU/hr (at 100 VAC), 1911 BTU/hr (at 200 VAC), 1965 BTU/hr (at 240 VAC) for China Only
- Power Supply Output:
  - Rated Steady-State Power:
    - For 1400W Power Supply: 1400W (at 240 VAC), 1400W (at 240 VAC)
    - For 800W Power Supply: 800W (at 100 VAC), 800W (at 240 VAC), 800W (at 240 VAC) input for China only
    - For 500W Power Supply: 500W (at 100 VAC), 500W (at 240 VAC), 500W (at 240 VAC) input for China only
  - Maximum Peak Power:
    - For 1400W Power Supply: 1400W (at 200 to 240 1VAC), 1400W (at 240 VAC) input for China only
    - For 800W Power Supply: 800W (at 100 to 127 VAC), 800W (at 200 to 240 1VAC), 800W (at 240 VAC) input for China only
    - For 500W Power Supply: 500W (at 100 to 127 VAC), 500W (at 200 to 240 VAC), 500W (at 240 VAC) input for China only

**System Inlet Temperature**

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

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

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

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

Relative Humidity

<table>
<thead>
<tr>
<th>State</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating</td>
<td>8%</td>
<td>90%</td>
</tr>
<tr>
<td>Non-operating</td>
<td>5%</td>
<td>95%</td>
</tr>
</tbody>
</table>

Maximum rate of change is 20°C/hr (36°F/hr).

Altitude

<table>
<thead>
<tr>
<th>State</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating</td>
<td>3050 m</td>
<td>9144 m</td>
</tr>
<tr>
<td>Non-operating</td>
<td>9144 m</td>
<td>30,000 ft</td>
</tr>
</tbody>
</table>

Relative Humidity (non-condensing)

Operating
5% to 95% relative humidity (Rh), 38.7°C (101.7°F) 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.

Acoustic Noise

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

**Idle**

<table>
<thead>
<tr>
<th>State</th>
<th>LWAd</th>
<th>LpAm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entry</td>
<td>4.7 B</td>
<td>31 dBA</td>
</tr>
<tr>
<td>Base</td>
<td>4.9 B</td>
<td>34 dBA</td>
</tr>
<tr>
<td>Perf</td>
<td>4.8 B</td>
<td>33 dBA</td>
</tr>
</tbody>
</table>

**Operating**

<table>
<thead>
<tr>
<th>State</th>
<th>LWAd</th>
<th>LpAm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entry</td>
<td>4.7 B</td>
<td>31 dBA</td>
</tr>
<tr>
<td>Base</td>
<td>4.9 B</td>
<td>34 dBA</td>
</tr>
<tr>
<td>Perf</td>
<td>4.8 B</td>
<td>33 dBA</td>
</tr>
</tbody>
</table>

**NOTE:** Acoustics levels presented here are generated by the test configuration only. Acoustics levels will vary depending on system configuration. Values are subject to change without notification and are for reference only.

**NOTE:** Product conformance to cited product specifications is based on sample (type) testing, evaluation, or assessment. This product or family of products is eligible to bear the appropriate compliance logos and statements.

**NOTE:** The listed sound levels apply to standard shipping configurations. Additional options may result in increased sound levels.

Emissions Classification (EMC) – Regulatory Information

To view the regulatory information for your product, view the Safety and Compliance Information for Server, Storage, Power, Networking, and Rack Products, available at the Hewlett Packard Enterprise Support Center:

For information on the HPE Smart Array E208i-a SR Gen10 Controller please refer to their QuickSpecs.

For information on the HPE Smart Array E208i-p SR Gen10 Controller please refer to their QuickSpecs.

For information on the HPE Smart Array E208e-p SR Gen10 Controller please refer to their QuickSpecs.

For information on the HPE Smart Array P408i-a SR Gen10 Controller please refer to their QuickSpecs.

For information on the HPE Smart Array P408i-p SR Gen10 Controller please refer to their QuickSpecs.

For information on the HPE Smart Array P408e-p SR Gen10 Controller please refer to their QuickSpecs.

For information on the HPE Smart Array P816i-a SR Gen10 Controller please refer to their QuickSpecs.

<table>
<thead>
<tr>
<th>Environment-friendly Products and Approach</th>
<th>End-of-life Management and Recycling</th>
</tr>
</thead>
</table>

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.
<table>
<thead>
<tr>
<th>Date</th>
<th>Version History</th>
<th>Action</th>
<th>Description of Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-Sep-2017</td>
<td>From Version 2 to 3</td>
<td>Changed</td>
<td>Smart Buy models section was revised (NA version only).</td>
</tr>
<tr>
<td>7-Aug-2017</td>
<td>From Version 1 to 2</td>
<td>Added</td>
<td>Added new Solid State Drives offering to the HPE Drives section.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Changed</td>
<td>Platform Information, Standard Features, Optional Features, Pre-configured Models, Configuration Information - Factory Integrated Models, Core Options, and Additional Options section were revised.</td>
</tr>
</tbody>
</table>