

### Overview

#### HPE ProLiant DL380 Gen10 Carrier Grade Server

NEBS Level 3 and ETSI Certified

This section lists some of the steps required to configure a Factory Integrated Model compliant with typically requested telecom carrier NEBS and ETSI requirements. In addition to the worldwide compliance criteria applied to the commercial version of the product, all components listed in this document have been evaluated to the following criteria:

- SR-3580, Level 3, NEBS Criteria Levels
- GR-1089-CORE, EMC & Electrical Safety
- GR-63-CORE, Physical Protections
- ETSI EN 300 386, Class A, EMC
- ETSI EN 300 019-2-1, Class 1.2, Storage
- ETSI EN 300 019-2-2, Class 2.3, Transportation
- ETSI EN 300 019-2-3, Class 3.1 & 3.1E, Stationary Use at Weather protected locations
- ETSI 300 132, Power Supply Interface to Telecom Equipment, -48VDC
- ETSI ETS 300 753, Acoustic Noise

To ensure only valid configurations are ordered, Hewlett Packard Enterprise recommends the use of an HPE approved configurator. Contact your local sales representative for information on configurable product offerings and requirements.

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

#### Notes:

- To yield a carrier grade server that is compliant with all the required technical criteria, the product content is limited to what is listed in this document. In addition to this, system maintenance switch #10 must be turned on to enable the expanded operating temperature range and the hardware from the following kits must be installed:
  1. HPE DL38X Gen10 High Performance Temperature Fan Kit- 867810-B21
  2. All installed PCI risers must be NEBS certified versions:
    - HPE DL38X Gen10 x8/16/8 NEBS Riser Kit - 873209-B21
    - HPE DL38XGen10 x8/16/8 M.2 NEBS Riser Kit - 826701-B21
    - HPE DL38X Gen10 x16 Tertiary NEBS Riser Kit - 826702-B21
- M.2 Riser is only supported in the primary PCI riser location.

Please refer to the HPE DL380 Gen10 Carrier Grade Conversion documentation on the HPE web site:  
<http://www.hpe.com/services/hpsc>

## Configuration Information

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

<b>CTO Server</b>	HPE ProLiant DL380 Gen10 8 SFF CTO Server
<b>SKU Number</b>	868703-B21
<b>TAA SKU</b>	875782-B21
<b>Processor</b>	Not included as standard
<b>DIMM Slots</b>	24-DIMM slots
<b>Storage Controller</b>	Embedded SW RAID with 14 SATA ports (12-ports accessible), choice of HPE modular Smart Array and PCIe plug-in controller
<b>PCIe</b>	Three standard in primary riser (with dual M.2 support)
<b>Drive Cage - included</b>	8 SFF
<b>Network Controller</b>	HPE 1Gb Ethernet 4-Port 331i Adapter plus optional HPE FlexibleLOM or stand up card
<b>Fans</b>	4-Standard
<b>Management</b>	HPE iLO with Intelligent Provisioning (standard), iLO Advances and OneView (optional)
<b>USB</b>	1x 3.0 standard plus iLo front service port

#### Notes:

- 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).
- TAA chassis are only orderable in North America and Canada.
- All CTO servers are Energy Star 2.1 compliant.

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

Please select one –L21 processor required below.

For second processor, please select the same processor model with –B21 from Core Options – HPE Processors section.

For example: first processor, select 874752-L21 then for second processor, select 874752-B21.

#### Notes:

- 8SFF CTO 1P models ship with 4 standard fans. The second processor option kit contains 2 additional fans.
- Maximum memory capacity per processor is dependent on processor models. All processors support up to 768 GB max memory per processor except “M” model processors will support up to 1.5 TB max memory per processor.
- Mixing of 2 different processor models are NOT allowed.
- DDR4 speed is the maximum memory speed of the processor. Actual memory speed may depend on the quantity and type of DIMMs installed.

### Step 2a: Choose Processors

#### Processor Option Kits (Required Processor)

**Notes:** Field upgrades from 1st generation processors (x1xx) to 2nd generation processors (x2xx) not supported.

#### 2nd Generation Intel Xeon-Platinum

Intel Xeon-Platinum 8260 (2.4GHz/24-core/165W) FIO Processor Kit for HPE ProLiant DL380 Gen10 P02521-L21

Intel Xeon-Platinum 8253 (2.2GHz/16-core/125W) FIO Processor Kit for HPE ProLiant DL380 Gen10 P02518-L21

**Notes:** Does not ship with High Performance Heatsink

#### 2nd Generation Intel Xeon-Gold

Intel Xeon-Gold 6252N (2.3GHz/24-core/150W) FIO Processor Kit for HPE ProLiant DL380 Gen10 P11829-L21

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

Intel Xeon-Gold 6230 (2.1GHz/20-core/125W) FIO Processor Kit for HPE ProLiant DL380 Gen10 P02502-L21

**Notes:** Does not ship with High Performance Heatsink

Intel Xeon-Gold 6212U (2.4GHz/24-core/165W) FIO Processor Kit for HPE ProLiant DL380 Gen10 P11825-L21

**Notes:** 2-processor configurations NOT supported with this processor; NEBS Secondary and Tertiary Risers NOT supported.



## Configuration Information

Intel Xeon-Gold 5220 (2.2GHz/18-core/125W) FIO Processor Kit for HPE ProLiant DL380 Gen10 P02499-L21

**Notes:** Does not ship with High Performance Heatsink

Intel Xeon-Gold 5218B (2.3GHz/16-core/125W) FIO Processor Kit for HPE ProLiant DL380 Gen10 P12513-L21

**Notes:**

- 5218B has consistent features with the 5218 processor but from a different die. Mixing both 5218B & 5218 in a system is NOT supported.
- Does not ship with High Performance Heatsink

Intel Xeon-Gold 5218N (2.3GHz/16-core/110W) FIO Processor Kit for HPE ProLiant DL380 Gen10 P11831-L21

**Notes:** Does not ship with High Performance Heatsink

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

**Notes:** Does not ship with High Performance Heatsink

### 2nd Generation Intel Xeon-Silver

**Notes:**

- Field upgrades from 1<sup>st</sup> generation processors (x1xx) to 2<sup>nd</sup> generation processors (x2xx) is NOT supported.
- All of the Xeon-Silver models listed below do NOT ship with Performance Heatsink option

Intel Xeon-Silver 4216 (2.1GHz/16-core/100W) FIO Processor Kit for HPE ProLiant DL380 Gen10 P02495-L21

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

Intel Xeon-Silver 4214 (2.2GHz/12-core/85W) FIO Processor Kit for HPE ProLiant DL380 Gen10 P02493-L21

Intel Xeon-Silver 4210 (2.2GHz/10-core/85W) FIO Processor Kit for HPE ProLiant DL380 Gen10 P02492-L21

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

### 2nd Generation Intel Xeon-Bronze

**Notes:**

- Field upgrades from 1<sup>st</sup> generation processors (x1xx) to 2<sup>nd</sup> generation processors (x2xx) is NOT supported.
- All of the Xeon-Bronze models listed below do NOT ship with Performance Heatsink option

Intel Xeon-Bronze 3204 (1.9GHz/6-core/85W) FIO Processor Kit for HPE ProLiant DL380 Gen10 P02489-L21

### 1st Generation Intel Xeon-Gold/Silver/Bronze

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

**Notes:** Ships with Performance Heatsink.

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

**Notes:** Ships with Performance Heatsink.

Intel Xeon-Gold 6140 (2.3GHz/18-core/140W) FIO Processor Kit for HPE ProLiant DL380 Gen10 826878-L21

**Notes:** Ships with Performance Heatsink.

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

Intel Xeon-Gold 6130 (2.1GHz/16-core/120W) FIO Processor Kit for HPE ProLiant DL380 Gen10 826866-L21

Intel Xeon-Gold 5120 (2.2GHz/14-core/105W) FIO Processor Kit for HPE ProLiant DL380 Gen10 826856-L21

Intel Xeon-Gold 5118 (2.3GHz/12-core/105W) FIO Processor Kit for HPE ProLiant DL380 Gen10 826854-L21

Intel Xeon-Silver 4116 (2.1GHz/12-core/85W) FIO Processor Kit for HPE ProLiant DL380 Gen10 826852-L21

Intel Xeon-Silver 4114 (2.2GHz/10-core/85W) FIO Processor Kit for HPE ProLiant DL380 Gen10 826850-L21

Intel Xeon-Silver 4110 (2.1GHz/8-core/85W) FIO Processor Kit for HPE ProLiant DL380 Gen10 826846-L21

Intel Xeon-Silver 4108 (1.8GHz/8-core/85W) FIO Processor Kit for HPE ProLiant DL380 Gen10 826848-L21

Intel Xeon-Bronze 3104 (1.7GHz/6-core/85W) FIO Processor Kit for HPE ProLiant DL380 Gen10 873641-L21

**Notes:** Processors above 130W use a High Performance Heatsink



## Configuration Information

### Step 2b: Choose Memory Options

Please select one or more memory from below.

For new Gen10 memory population rule whitepaper and optimal memory performance guidelines, please go to: <https://www.hpe.com/docs/memory-population-rules>

For Gen10 memory speed table, please go to: <https://www.hpe.com/docs/memory-speed-table>

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

#### Notes:

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

#### Registered DIMMs (RDIMMs)

HPE 8GB (1x8GB) Single Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P00918-B21
HPE 16GB (1x16GB) Single Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P00920-B21
HPE 16GB (1x16GB) Dual Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P00922-B21
HPE 32GB (1x32GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P00924-B21
HPE 64GB (1x64GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P00930-B21
HPE 8GB (1x8GB) Single Rank x8 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit	815097-B21
HPE 16GB (1x16GB) Single Rank x4 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit	815098-B21
HPE 16GB (1x16GB) Dual Rank x8 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit	835955-B21
HPE 32GB (1x32GB) Dual Rank x4 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit	815100-B21

#### Load Reduced DIMMs (LRDIMMs)

HPE 64GB (1x64GB) Quad Rank x4 DDR4-2933 CAS-21-21-21 Load Reduced Smart Memory Kit	P00926-B21
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### Step 2c: Choose Power Supplies

Select one or two power supplies from below.

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

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

### Step 3: Choose Additional Factory Integratable Options

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

#### HPE Security Options

HPE Trusted Platform Module 2.0 Gen10 Option	864279-B21
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#### Notes:

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

HPE Gen10 TPM 1.2 FIO Setting	872108-B21
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**Notes:** TPM 2.0 is set as default, for 1.2 TPM setting instead, please select this option.

#### HPE Unique Options

HPE DL380 Gen10 x8/x16/x8 M.2 NEBS Riser Kit	826701-B21
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#### Notes:

- Primary Riser Slot 1.
- Supports Full Height and Full length cards.
- Bus width x16, x16, Connector Width x16, x16.



## Configuration Information

HPE DL38X Gen10 x8/x16/x8 PCIe NEBS Riser Kit 873209-B21

### Notes:

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

HPE DL380 Gen10 x16 Tertiary NEBS Riser 826702-B21

### Notes:

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

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

### Notes:

- HPE DL38X Gen10 Universal Media Bay Kit (826708-B21).
- Drive cage can only be used in the front of the chassis for NEBS Compliance.

### Hard Drive Kits

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

**Notes:** Supports 8 SAS/ SATA SFF drives in Box 1 or 2

HPE Small Form Factor Hard Drive Blank Kit 666987-B21

### Media Bay Kits

HPE DL38X Gen10 Universal Media Bay Kit 826708-B21

### Notes:

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

### HPE Optical Drives

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

**Notes:** The Universal Media Bay (826708-B21) is required for this option on a SFF model.

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

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## Core Options

Some options may not be integrated at the factory. To ensure only valid configurations are ordered, Hewlett Packard Enterprise recommends the use of an HPE approved configurator. Contact your local sales representative for additional information. Note the <http://www.hpe.com/info/CablingMatrixGen10> can help to explain the cable routing for each option:

### HPE Unique Options

HPE DL38X Gen10 Universal Media Bay Kit 826708-B21

#### Notes:

- The HPE DL380 Gen10 Universal Media bay provides front Display Port and 2xUSB 2.0; can only be located in Box1 in either an 8 SFF model.
- This is a SFF model option only.

HPE DL380 Gen10 High Performance Heat Sink Kit 826706-B21

**Notes:** This kit contains 2 High Performance Heatsinks.

HPE DL38X Gen10 High Performance Temperature Fan Kit 867810-B21

#### Notes:

- This kit is required for specific **Ambient temperature environments**, coming in 2H2017.
- This kit provides maximum cooling for your Server.

HPE DL380 Gen10 SFF Systems Insight Display Kit 826703-B21

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

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

## HPE Processors

### Processor Option Kits

#### 2nd Generation Intel Xeon-Platinum

Intel Xeon-Platinum 8253 (2.2GHz/16-core/125W) Processor Kit for HPE ProLiant DL380 Gen10 P02518-B21

**Notes:** Does not ship with High Performance Heatsink

#### 2nd Generation Intel Xeon-Gold

Intel Xeon-Gold 6252N (2.3GHz/24-core/150W) Processor Kit for HPE ProLiant DL380 Gen10 P11829-B21

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

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

**Notes:** Does not ship with High Performance Heatsink

Intel Xeon-Gold 6212U (2.4GHz/24-core/165W) Processor Kit for HPE ProLiant DL380 Gen10 P11825-B21

**Notes:** 2-processor configurations NOT supported with this processor; NEBS Secondary and Tertiary Risers NOT supported.

Intel Xeon-Gold 5220 (2.2GHz/18-core/125W) Processor Kit for HPE ProLiant DL380 Gen10 P02499-B21

**Notes:** Does not ship with High Performance Heatsink

Intel Xeon-Gold 5218B (2.3GHz/16-core/125W) Processor Kit for HPE ProLiant DL380 Gen10 P12513-B21

#### Notes:

- 5218B has consistent features with the 5218 processor but from a different die. Mixing both 5218B & 5218 in a system is NOT supported.
- Does not ship with High Performance Heatsink

Intel Xeon-Gold 5218N (2.3GHz/16-core/110W) Processor Kit for HPE ProLiant DL380 Gen10 P11831-B21

**Notes:** Does not ship with High Performance Heatsink

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

**Notes:** Does not ship with High Performance Heatsink



## Core Options

### 2nd Generation Intel Xeon-Silver

#### Notes:

- Field upgrades from 1<sup>st</sup> generation processors (x1xx) to 2<sup>nd</sup> generation processors (x2xx) is NOT supported.
- All of the Xeon-Silver models listed below do NOT ship with Performance Heatsink option

Intel Xeon-Silver 4216 (2.1GHz/16-core/100W) Processor Kit for HPE ProLiant DL380 Gen10	P02495-B21
Intel Xeon-Silver 4214Y (2.2GHz/12-10-8-core/85W) Processor Kit for HPE ProLiant DL380 Gen10	P02506-B21
Intel Xeon-Silver 4214 (2.2GHz/12-core/85W) Processor Kit for HPE ProLiant DL380 Gen10	P02493-B21
Intel Xeon-Silver 4210 (2.2GHz/10-core/85W) Processor Kit for HPE ProLiant DL380 Gen10	P02492-B21
Intel Xeon-Silver 4208 (2.1GHz/8-core/85W) Processor Kit for HPE ProLiant DL380 Gen10	P02491-B21

### 2nd Generation Intel Xeon-Bronze

#### Notes:

- Field upgrades from 1<sup>st</sup> generation processors (x1xx) to 2<sup>nd</sup> generation processors (x2xx) is NOT supported.
- All of the Xeon-Bronze models listed below do NOT ship with Performance Heatsink option

Intel Xeon-Bronze 3204 (1.9GHz/6-core/85W) Processor Kit for HPE ProLiant DL380 Gen10	P02489-B21
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### 1st Generation Intel Xeon-Gold/Silver/Bronze

Intel Xeon-Gold 6152 (2.1GHz/22-core/140W) Processor Kit for HPE ProLiant DL380 Gen10	826886-B21
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#### Notes: Ships with Performance Heatsink.

Intel Xeon-Gold 6148 (2.4GHz/20-core/150W) Processor Kit for HPE ProLiant DL380 Gen10	826882-B21
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#### Notes: Ships with Performance Heatsink

Intel Xeon-Gold 6140 (2.3GHz/18-core/140W) Processor Kit for HPE ProLiant DL380 Gen10	826878-B21
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#### Notes: Ships with Performance Heatsink.

Intel Xeon-Gold 6138 (2.0GHz/20-core/125W) Processor Kit for HPE ProLiant DL380 Gen10	826876-B21
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Intel Xeon-Gold 6130 (2.1GHz/16-core/120W) Processor Kit for HPE ProLiant DL380 Gen10	826866-B21
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Intel Xeon-Gold 5120 (2.2GHz/14-core/105W) Processor Kit for HPE ProLiant DL380 Gen10	826856-B21
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Intel Xeon-Gold 5118 (2.3GHz/12-core/105W) Processor Kit for HPE ProLiant DL380 Gen10	826854-B21
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Intel Xeon-Silver 4116 (2.1GHz/12-core/85W) Processor Kit for HPE ProLiant DL380 Gen10	826852-B21
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Intel Xeon-Silver 4114 (2.2GHz/10-core/85W) Processor Kit for HPE ProLiant DL380 Gen10	826850-B21
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Intel Xeon-Silver 4110 (2.1GHz/8-core/85W) Processor Kit for HPE ProLiant DL380 Gen10	826846-B21
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Intel Xeon-Silver 4108 (1.8GHz/8-core/85W) Processor Kit for HPE ProLiant DL380 Gen10	826848-B21
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Intel Xeon-Bronze 3104 (1.7GHz/6-core/85W) Processor Kit for HPE ProLiant DL380 Gen10	873641-B21
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#### Notes:

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



## Core Options

### HPE Drives

#### Enterprise - 12G SAS - SFF Drives

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

#### Midline - 12G SAS - SFF Drives

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

To streamline the configuration process for HPE ProLiant Gen10 servers and to provide the best product availability,

HPE recommends SSDs from the list located here: <http://www.hpe.com/products/recommend>

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

HPE 960GB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Value SAS Digitally Signed Firmware SSD	P10440-B21
HPE 3.84TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Value SAS Digitally Signed Firmware SSD	P10444-B21

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

HPE 960GB SAS 12G Mixed Use SC 3yr Wty Value SAS Digitally Signed Firmware SSD	P10448-B21
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#### Mixed Use - 12G SAS - SFF - Solid State Drives

HPE 400GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P09088-B21
HPE 400GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04525-B21

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

HPE 1.92TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	P10214-B21
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#### Mixed Use - 6G SATA - SFF - Solid State Drives

HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P05976-B21
HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P05980-B21
HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P05986-B21

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

HPE 1.92TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Value SAS Digitally Signed Firmware SSD	P10454-B21
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#### Read Intensive X Temp – NVMe PCIe Drive

HPE 1TB NVMe x4 Lanes Read Intensive M.2 2280 1yr Wty Extended Temperature SSD	880266-B21
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#### Hard Drive Blank Kits

HPE Universal SATA HHHL 3yr Wty M.2 Kit	878783-B21
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**Notes:** This is a M.2 enablement standup card.





## Core Options

### HPE Networking

#### 1 Gigabit Ethernet adapters

HPE Ethernet 1Gb 4-port BASE-T BCM5719 Adapter	647594-B21
HPE Ethernet 1Gb 2-port BASE-T BCM5720 Adapter	615732-B21
HPE Ethernet 1Gb 2-port BASE-T I350-T2V2 Adapter	652497-B21
HPE Ethernet 1Gb 4-port BASE-T I350-T4V2 Adapter	811546-B21

#### 10 Gigabit Ethernet adapters

HPE Ethernet 10Gb 2-port BASE-T QL41401-A2G Adapter	867707-B21
HPE Ethernet 10Gb 2-port BASE-T 57810S Adapter	656596-B21
HPE Ethernet 10Gb 2-port SFP+ 57810S Adapter	652503-B21
HPE Ethernet 10Gb 2-port BASE-T BCM957416 Adapter	813661-B21
HPE Ethernet 10Gb 2-port 548SFP+ Adapter	P11338-B21
HPE Ethernet 10Gb 2-port SFP+ X710-DA2 Adapter	727055-B21
HPE Ethernet 10Gb 2-port BASE-T X550-AT2 Adapter	817738-B21
HPE Ethernet 10Gb 4-port SFP+ X710-DA4 Adapter	869585-B21

#### 25 Gigabit Ethernet adapters

HPE Ethernet 10/25Gb 2-port SFP28 QL41401-A2G Adapter	867328-B21
HPE Ethernet 10/25Gb 2-port SFP28 BCM957414 Adapter	817718-B21
HPE Ethernet 10/25Gb 2-port SFP28 XXV710-DA2 Adapter	870825-B21

#### Notes:

- The DL380 Gen10 ships with 4x 1 Gb Embedded.
- A minimum of two Gigabytes (2 GB) of server memory is required per each adapter.

#### FlexibleLOM adapters

HPE Ethernet 1Gb 4-port FLR-SFP+ BCM5719 Adapter	629135-B22
HPE Ethernet 1Gb 4-port FLR-T I350-T4V2 Adapter	665240-B21
HPE FlexFabric 10Gb 2-port FLR-T 57810S Adapter	700759-B21
HPE FlexFabric 10Gb 2-port FLR-SFP+ 57810S Adapter	700751-B21
HPE Ethernet 10Gb 2-port FLR-SFP+ X710-DA2 Adapter	727054-B21
HPE Ethernet 10/25Gb 2-port FLR-SFP28 BCM957414 Adapter	817709-B21
HPE Ethernet 10/25Gb 2-port FLR-SFP28 CX4 Adapter	817749-B21

#### HPE InfiniBand

HPE InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+QSFP Adapter	764284-B21
HPE InfiniBand EDR/Ethernet 100Gb 2-port 840QSFP28 Adapter	825111-B21
HPE InfiniBand EDR/Ethernet 100Gb 2-port 841QSFP28 Adapter	872726-B21



## Core Options

Riser Information								
NEBS Compliant Part number	Description	Commercial Part number	Riser position			Bus width (Gen3 lanes)		
			Primary	Secondary	Tertiary	Top slot	Middle Slot	Bottom slot
826701-B21	HPE DL380 Gen10 x8 x16 x8 M.2 NEBS Riser	826694-B21	O	N	N	X16	X16	X8
873209-B21	HPE DL38X Gen10 x8 x16 x8 NEBS Riser	870548-B21	O	O	N	X8	X16	X8
826702-B21	HPE DL380 Gen10 x16 Tertiary NEBS Riser	826700-B21	N	N	O	X16	0	0

### HPE Power Supplies

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

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

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

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

HPE 48VDC 2.85m Power Cable Q0H80A

### HPE Cooling Options

HPE DL38X Gen10 High Performance Temperature Fan Kit 867810-B21

**Notes:**

- This kit is required for specific **Ambient temperature environments**, coming in 2H2017.
- 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.
- For elevated ambient temperature support please see: <http://www.hpe.com/servers/ashrae>.



## Additional Options

### HPE Security

HPE 2U Bezel Air Filter NEBs	P05420-B1
HPE Gen10 2U Bezel Kit	867809-B21
HPE Trusted Platform Module 2.0 Gen10 Option	864279-B21

#### Notes:

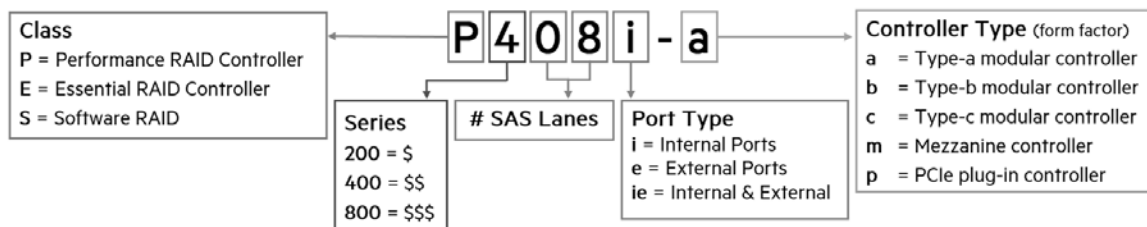
- HPE Trusted Platform Module 2.0 option works with Gen10 servers with UEFI Mode not Legacy Mode. It is not compatible with HPE ProLiant Gen8 servers or earlier generation variants.
- HPE server systems can have a TPM module (of any type) installed only once. It cannot be replaced with any other TPM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

HPE Gen10 TPM 1.2 FIO Setting	872108-B21
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**Notes:** This is a FIO setting to allows the TPM 2.0 module to operate in a TPM 1.2 mode.

### HPE Smart Array Controllers

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



### HPE Flexible Smart Array Controllers

#### Notes:

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

HPE Smart Array P816i-a SR Gen10 (16 Internal Lanes/4GB Cache/SmartCache) 12G SAS Modular Controller	804338-B21
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**Notes:** Does not occupy a PCIe expansion slot and includes SmartCache license.

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

**Notes:** All performance RAID controllers are supported by the HPE Smart Storage Battery (P01366-B21) or HPE Smart Storage Hybrid Capacitor with 145mm Cable Kit (P02377-B21), which supports multiple devices and is sold separately.

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

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

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

### Optional Upgrades

HPE Smart Storage Hybrid Capacitor with 145mm Cable Kit P02377-B21

HPE 96W Smart Storage Lithium-ion Battery with 145mm Cable Kit P01366-B21

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

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### HPE Storage Options

#### QLogic Fibre Channel HBAs

HPE SN1100Q 16Gb Dual Port Fibre Channel Host Bus Adapter P9D94A

#### Converged Network Adapters

HPE CN1100R Dual Port Converged Network Adapter QW990A

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### HPE Rack Options

#### Rail Kits

**Notes:**

- Ball bearing rail kits contain telescoping rails which allow for in-rack serviceability.
- Hewlett Packard Enterprise recommends that a minimum of two people are required for all Rack Server installations. Please refer to your installation instructions for proper tools and number of people to use for any installation.

HPE 2U Small Form Factor Ball Bearing Rail Kit 720863-B21

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

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



## Summary of Changes

<b>Date</b>	<b>Version History</b>	<b>Action</b>	<b>Description of Change</b>
03-Aug-2020	Version 6	Changed	Core options section was updated. Obsolete SKUs were removed
17-Feb-2020	Version 5	Changed	Configuration Information and Core Options sections were updated.
06-Jan-2020	Version 4	Changed	Overview, Configuration Information, Core Option and Additional Options sections were updated. Obsolete SKUs were removed
04-Feb-2019	Version 3	Changed	Core Options and Storage sections were updated.
15-Oct-2018	Version 2	Changed	Configuration Information - Factory Integrated Models, Core Options, Additional Options were updated.
14-May-2018	Version 1	New	Content created.



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

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