

### Overview

i>®

## HPE ProLiant DL380 Gen10 Plus - Carrier Grade Supplement

### 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
- GR-3108-CORE Outside Plant
- 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, the system maintenance switch #10 must be turned to the "ON" position to enable the expanded operating temperature range and hardware from the following kits MUST be installed:
  - o HPE ProLiant DL380 Gen10 Plus High Performance Heat Sink Kit - P27095-B21
  - o HPE DL38X Gen10 Plus Maximum Performance Fan Kit - P14608-B21
  - o HPE DL38X Gen10 Plus Primary NEBS-compliant Riser Kit - P14575-B21
  - o HPE DL38X Gen10 Plus Tertiary NEBS-compliant Riser Kit - P14577-B21

Please refer to the HPE DL365 Gen10 Plus Carrier Grade Conversion documentation on the HPE web site:

<http://www.hpe.com/services/hpsc>

Configuration Information

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

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

**Step 1: Base Configuration** (choose one (1) of the following four (4) configurable server models from the tables below)

The below (4) CTO server models denoted with "NC" in the SKU description, provide flexibility in the networking choice and require a network adapter from the "HPE Networking" section be selected.

Networking Choice CTO Server Models	HPE ProLiant DL380 Gen10 Plus 8SFF NC CTO Server
SKU Number	P05172-B21
TAA SKU*	P05172-B21#GTA
HPE Trusted Supply Chain	P36394-B21 - Optional
Processor	Not included as standard
DIMM Slots	32-DIMM slots
Storage Controller	Embedded SW RAID with 14 SATA ports (12-ports accessible), choice of HPE modular Smart Array and PCIe plug-in controller
PCIe	Three standard in primary riser
Drive Cage - included	8 SFF
Network Controller	Choice of either OCP 3.0 or select stand-up network adapters for primary networking selection plus additional/optional stand-up network adapters <b>Notes: No embedded networking</b>
Fans	
Management	
USB	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).
  - All CTO servers are Energy Star 3.0 compliant.

CTO Server	8 SFF CTO Chassis
Included Drive Cage	8 SFF SAS/SATA

**Notes:** This applies to CTO configurations; field upgrades may differ depending on field configuration.

**Step 2: Choose Required Options**

Please select up to two processors required below.

- Notes:**
- Maximum memory capacity per processor is dependent on processor models. All processors support up to

## Configuration Information

- 6 TBmax memory per processor.
- Mixing of 2 different processor models are NOT allowed.

**Step 2a: Choose Processors****Processor Option Kits** (Required Processor)**3<sup>rd</sup> Generation Intel Xeon-Platinum**

**Notes:** Field upgrades from 1<sup>st</sup> generation processors (x1xx) or 2<sup>nd</sup> generation processors (x2xx) to 3<sup>rd</sup> generation processors (x3xx) not supported.

Intel Xeon-Platinum 8352Y 2.2GHz 32-core 205W Processor for HPE P36929-B21

Intel Xeon-Platinum 8352V 2.1GHz 36-core 195W Processor for HPE P37599-B21

Intel Xeon-Platinum 8351N 2.4GHz 36-core 225W Processor for HPE P37602-B21

**Notes:** 8351N is single socket capable even though not being a "U" processor. No dual socket support.

Intel Xeon-Platinum 8352S 2.2GHz 32-core 205W Processor for HPE P37613-B21

**3<sup>rd</sup> Generation Intel Xeon-Gold**

**Notes:** Field upgrades from 1<sup>st</sup> generation processors (x1xx) or 2<sup>nd</sup> generation processors (x2xx) to 3<sup>rd</sup> generation processors (x3xx) not supported.

Intel Xeon-Gold 6330 2.0GHz 28-core 205W Processor for HPE P36927-B21

Intel Xeon-Gold 6338 2.0GHz 32-core 205W Processor for HPE P36928-B21

Intel Xeon-Gold 6338N 2.2GHz 32-core 185W Processor for HPE P37603-B21

Intel Xeon-Gold 6330N 2.2GHz 28-core 165W Processor for HPE P37604-B21

Intel Xeon-Gold 6336Y 2.4GHz 24-core 185W Processor for HPE P36926-B21

Intel Xeon-Gold 6334 3.6GHz 8-core 165W Processor for HPE P36933-B21

Intel Xeon-Gold 6314U 2.3GHz 32-core 205W Processor for HPE P37610-B21

Intel Xeon-Gold 6312U 2.4GHz 24-core 185W Processor for HPE P37611-B21

Intel Xeon-Gold 5320 2.2GHz 26-core 185W Processor for HPE P36925-B21

Intel Xeon-Gold 5318Y 2.1GHz 24-core 165W Processor for HPE P36924-B21

Intel Xeon-Gold 5318S 2.1GHz 24-core 165W Processor for HPE P37612-B21

Intel Xeon-Gold 5318N 2.1GHz 24-core 150W Processor for HPE P37605-B21

**3<sup>rd</sup> Generation Intel Xeon-Silver**

Intel Xeon-Silver 4316 2.3GHz 20-core 150W Processor for HPE P36923-B21

Intel Xeon-Silver 4314 2.4GHz 16-core 135W Processor for HPE P36922-B21

Intel Xeon-Silver 4310 2.1GHz 12-core 120W Processor for HPE P36921-B21

Intel Xeon-Silver 4309Y 2.8GHz 8-core 105W Processor for HPE P36920-B21

**Step 2b: Choose Memory Options**

Please select one or more memory from below.

For new Gen10 Plus memory population rule whitepaper and optimal memory performance guidelines, please go to:

**HPE Memory Population Rules**

For details on the HPE Server Memory Options Population Rules, please go to:

**<https://www.hpe.com/docs/intel-population-rules-Gen10plus>**

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

**Notes:** Please consult with the HPE server Quickspecs or your HPE representative if you have any

## Configuration Information

questions regarding memory compatibility with a specific HPE server configuration.

**Registered DIMMs (RDIMMs)**

HPE 16GB (1x16GB) Single Rank x4 DDR4-3200 CAS-22-22-22 Registered Smart Memory Kit P06029-B21

HPE 16GB (1x16GB) Dual Rank x8 DDR4-3200 CAS-22-22-22 Registered Smart Memory Kit P06031-B21

HPE 32GB (1x32GB) Dual Rank x4 DDR4-3200 CAS-22-22-22 Registered Smart Memory Kit P06033-B21

HPE 64GB (1x64GB) Dual Rank x4 DDR4-3200 CAS-22-22-22 Registered Smart Memory Kit P06035-B21

HPE 8GB (1x8GB) Single Rank x8 DDR4-3200 CAS-22-22-22 Registered Smart Memory Kit P07525-B21

HPE 32GB (1x32GB) Single Rank x4 DDR4-3200 CAS-22-22-22 Registered Smart Memory Kit P40007-B21

**Memory Blank Kit**

HPE DDR4 DIMM Blank Kit P07818-B21

**Step 2c: Choose Power Supplies**

Select one or two power supplies from below.

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

**HPE Flex Slot Power Supplies**

HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit P38997-B21

HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit 865438-B21

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

HPE 1600W -48VDC Power Cable Lug Kit P36877-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 P38995-B21

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

HPE 48VDC 2.85m Power Cable Q0H80A

**Notes:**

- Select a minimum (1), maximum (2) power supplies.
- 1600W Power supplies only support high line voltage (200VAC to 240VAC).
- P36877-B21 is to be used with HPE 1600W Flex Slot -48VDC Power Supply Kit
- Only 1 power lug kit needs to be selected with the 1600W Flex Slot -48VDC Power Supply. Prior to making a power supply selection it is highly recommended that the HPE Power Advisor is run to determine the right size power supply for your server configuration. The HPE Power Advisor is located at:  
<http://www.hpe.com/info/hppoweradvisor>.
- All power supplies in a server should match. Mixing Power Supplies is not supported.
- HPE ProLiant servers ship with an IEC-IEC power cord used for rack mounting with Power Distribution Units (PDUs). Visit [HPE power cords](#) for a full list of optional power cords.

Configuration Information

**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 Plus Black Rivets Kit	P13771-B21
---	------------

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

### Core Options

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

#### HPE Unique Options

HPE DL38X Gen10 Plus Maximum Performance Fan Kit	P14608-B21
HPE ProLiant DL38x Gen10 Plus 8SFF SAS/SATA to Tri-Mode Controller Backplane Kit	P55516-B21

#### Notes:

- 8SFF Front Drive Cage
- Drive Cage Capacity - MAX=8 SFF SAS/SATA drives
- Can only be selected with 8SFF Model-X
- Max = 1
- Requires selection of tri-mode controller.

HPE ProLiant DL380 Gen10 Plus High Performance Heat Sink Kit	P27095-B21
HPE DL38X Gen10 Plus Maximum Performance Fan Kit	P14608-B21
HPE DL38X Gen10 Plus Rear Serial Cable Kit	P14606-B21
HPE ProLiant DL380 Gen10 Plus SFF Systems Insight Display Kit	P27096-B21

### HPE Processors

#### Processor Option Kits

##### 3<sup>rd</sup> Generation Intel Xeon-Platinum

#### Notes:

- Field upgrades from 1<sup>st</sup> generation processors (x1xx) to 2<sup>nd</sup> generation processors (x2xx) not supported.
- All SKUs below ship with processor only. Adequate fans and heatsinks must be selected.

Intel Xeon-Platinum 8352Y 2.2GHz 32-core 205W Processor for HPE	P36929-B21
Intel Xeon-Platinum 8352V 2.1GHz 36-core 195W Processor for HPE	P37599-B21
Intel Xeon-Platinum 8351N 2.4GHz 36-core 225W Processor for HPE	P37602-B21

**Notes:** 8351N is single socket capable even though not being a "U" processor. No dual socket support.

Intel Xeon-Platinum 8352S 2.2GHz 32-core 205W Processor for HPE	P37613-B21
Intel Xeon-Platinum 8362 2.8GHz 32-core 265W Processor for HPE	P45418-B21

##### 3<sup>rd</sup> Generation Intel Xeon-Gold

#### Notes:

- Field upgrades from 1<sup>st</sup> generation processors (x1xx) and 2<sup>nd</sup> generation processors (x2xx) to 3<sup>rd</sup> generation processors (x3xx) not supported.
- All SKUs below ship with processor only. Adequate fans and heatsinks must be selected.

Intel Xeon-Gold 6330 2.0GHz 28-core 205W Processor for HPE	P36927-B21
Intel Xeon-Gold 6338 2.0GHz 32-core 205W Processor for HPE	P36928-B21
Intel Xeon-Gold 6338N 2.2GHz 32-core 185W Processor for HPE	P37603-B21
Intel Xeon-Gold 6330N 2.2GHz 28-core 165W Processor for HPE	P37604-B21
Intel Xeon-Gold 6314U 2.3GHz 32-core 205W Processor for HPE	P37610-B21

**Notes:** Single socket capable, no dual socket support.

## Core Options

**3<sup>rd</sup> Generation Intel Xeon-Silver****Notes:**

- Field upgrades from 1st generation processors (x1xx) and 2nd generation processors (x2xx) to 3rd generation processors (x3xx) not supported.
- All SKUs below ship with processor only. Adequate fans and heatsinks must be selected.

Intel Xeon-Silver 4316 2.3GHz 20-core 150W Processor for HPE	P36923-B21
Intel Xeon-Silver 4314 2.4GHz 16-core 135W Processor for HPE	P36922-B21
Intel Xeon-Silver 4310 2.1GHz 12-core 120W Processor for HPE	P36921-B21
Intel Xeon-Silver 4309Y 2.8GHz 8-core 105W Processor for HPE	P36920-B21

**Memory Selection**

To streamline the configuration process for HPE ProLiant Gen10 Plus 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.

**Notes:** Maximum memory capacity and speed per processor is dependent on processor model selection or limitation.

**HPE DDR4 Memory****Registered DIMMs (RDIMMs)**

HPE 16GB (1x16GB) Single Rank x4 DDR4-3200 CAS-22-22-22 Registered Smart Memory Kit	P06029-B21
HPE 16GB (1x16GB) Dual Rank x8 DDR4-3200 CAS-22-22-22 Registered Smart Memory Kit	P06031-B21
HPE 32GB (1x32GB) Dual Rank x4 DDR4-3200 CAS-22-22-22 Registered Smart Memory Kit	P06033-B21
HPE 64GB (1x64GB) Dual Rank x4 DDR4-3200 CAS-22-22-22 Registered Smart Memory Kit	P06035-B21
HPE 8GB (1x8GB) Single Rank x8 DDR4-3200 CAS-22-22-22 Registered Smart Memory Kit	P07525-B21
HPE 32GB (1x32GB) Single Rank x4 DDR4-3200 CAS-22-22-22 Registered Smart Memory Kit	P40007-B21

**HPE DDR-4 Blank Kit**

HPE DDR4 DIMM Blank Kit	P07818-B21
-------------------------	------------

**HPE Hard Disk Drives****Enterprise - 12G SAS - SFF Drives**

HPE 2.4TB SAS 12G Mission Critical 10K SFF BC 3-year Warranty 512e Multi Vendor HDD	P28352-B21
HPE 1.2TB SAS 12G Mission Critical 10K SFF BC 3-year Warranty Multi Vendor HDD	P28586-B21
HPE 300GB SAS 12G Mission Critical 15K SFF BC 3-year Warranty Multi Vendor HDD	P28028-B21
HPE 300GB SAS 12G Mission Critical 10K SFF BC 3-year Warranty Multi Vendor HDD	P40430-B21

**Midline - 12G SAS - SFF Drives**

HPE 900GB SAS 12G Mission Critical 15K SFF BC 3-year Warranty Multi Vendor HDD	P40432-B21
--	------------

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

HPE 960GB SAS 12G Read Intensive SFF BC Value SAS Multi Vendor SSD	P40506-B21
--	------------

**Mixed Use - 12G SAS - SFF - Solid State Drives**

HPE 3.84TB SAS 12G Mixed Use SFF BC Value SAS Multi Vendor SSD	P40512-B21
--	------------

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

HPE 3.84TB SATA 6G Read Intensive SFF BC Multi Vendor SSD	P40500-B21
HPE 1.92TB SATA 6G Read Intensive SFF BC Multi Vendor SSD	P40499-B21
HPE 480GB SATA 6G Read Intensive SFF BC Multi Vendor SSD	P40497-B21
HPE 960GB SATA 6G Read Intensive SFF BC Multi Vendor SSD	P40498-B21



## Core Options

HPE 240GB SATA 6G Read Intensive SFF BC Multi Vendor SSD	P40496-B21
--	------------

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

HPE 3.84TB SATA 6G Mixed Use SFF BC Multi Vendor SSD	P40505-B21
HPE 1.92TB SATA 6G Mixed Use SFF BC Multi Vendor SSD	P40504-B21
HPE 960GB SATA 6G Mixed Use SFF BC Multi Vendor SSD	P40503-B21
HPE 480GB SATA 6G Mixed Use SFF BC Multi Vendor SSD	P40502-B21

**Hard Drive Blank Kits**

HPE Small Form Factor Hard Drive Blank Kit	666987-B21
--	------------

## HPE Networking

**1 Gigabit Ethernet adapters**

Intel I350-T4 Ethernet 1Gb 4-port BASE-T Adapter for HPE	P21106-B21
--	------------

**10 Gigabit Ethernet adapters**

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

Broadcom BCM57416 Ethernet 10Gb 2-port BASE-T Adapter for HPE	P26253-B21
Broadcom BCM57412 Ethernet 10Gb 2-port SFP+ Adapter for HPE	P26259-B21
Intel X710-DA2 Ethernet 10Gb 2-port SFP+ Adapter for HPE	P28787-B21

**25 Gigabit Ethernet adapters**

Broadcom BCM57414 Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	P26262-B21
Intel E810-XXVDA2 Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	P08443-B21
Mellanox MCX512F-ACHT Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	P13188-B21

**100 Gigabit Ethernet Adapters**

Mellanox MCX623106AS-CDAT Ethernet 100Gb 2-port QSFP56 Adapter for HPE	P25960-B21
--	------------

**200 Gigabit Ethernet Adapters**

Mellanox MCX623105AS-VDAT Ethernet 200Gb 1-port QSFP56 Adapter for HPE	P10180-B21
--	------------

**OCP 3.0 Adapters**

Intel I350-T4 Ethernet 1Gb 4-port BASE-T OCP3 Adapter for HPE	P08449-B21
Broadcom BCM57416 Ethernet 10Gb 2-port BASE-T OCP3 Adapter for HPE	P10097-B21
Intel X710-DA2 Ethernet 10Gb 2-port SFP+ OCP3 Adapter for HPE	P28778-B21
Marvell QL41132HVCU Ethernet 10Gb 2-port SFP+ OCP3 Adapter for HPE	P08452-B21
Mellanox MCX562A-ACAI Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE	P10112-B21

**Notes:** Adapter operates in either x8 or x16 mode. If x16 is desired, must select the HPE ProLiant DL300 Gen10 Plus OCP x16 Enablement Kit (P36661-B21)

**OCP 3.0 Enablement**

HPE ProLiant DL300 Gen10 Plus OCP x16 Enablement Kit	P36661-B21
--	------------

**HPE InfiniBand**

HPE InfiniBand HDR/Ethernet 200Gb 2-port QSFP56 PCIe4 x16 MCX653106A-HDAT Adapter	P31324-B21
---	------------



---

## Core Options

HPE InfiniBand HDR100/Ethernet 100Gb 1-port QSFP56 PCIe4 x16 MCX653105A-ECAT Adapter	P23665-B21
HPE InfiniBand HDR100/Ethernet 100Gb 2-port QSFP56 PCIe4 x16 MCX653106A-ECAT Adapter	P23666-B21

---

## HPE I/O Expansion Options

HPE DL38X Gen10 Plus Primary NEBS-compliant Riser Kit	P14575-B21
<b>Notes:</b> Requires selection of HPE DL38X Gen10 Plus Tertiary NEBS-compliant Riser Kit (P14577-B21)	
HPE DL38X Gen10 Plus Tertiary NEBS-compliant Riser Kit	P14577-B21
<b>Notes:</b> Requires selection of a 2nd processor	

---

## HPE Power Supplies

HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit	865438-B21
HPE 800W Flex Slot -48VDC Hot Plug Low Halogen Power Supply Kit	865434-B21
HPE 800W Flex Slot Universal Hot Plug Low Halogen Power Supply Kit	865428-B21
HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	P38995-B21
HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	P38997-B21
HPE 1600W Flex Slot -48VDC Hot Plug Power Supply Kit	P17023-B21
HPE 1600W -48VDC Power Cable Lug Kit	P36877-B21

---

## HPE Cooling Options

HPE DL38X Gen10 Plus Maximum Performance Fan Kit	P14608-B21
HPE ProLiant DL380 Gen10 Plus High Performance Heat Sink Kit	P27095-B21

---

## HPE Computation and Graphics Accelerators

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

---

## Additional Options

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

---

**Embedded Management**

HPE Trusted Platform Module 2.0 Gen10 Plus Black Rivets Kit	P13771-B21
---	------------

**HPE Boot Controllers**

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

**Notes:** This adapter requires UEFI boot mode be enabled.

---

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

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

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

**HPE Flexible Smart Array Essential Controllers**

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

**Performance RAID Controllers**

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

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

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

**Essential RAID Controllers**

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

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

---

**HPE Cable Options**

HPE DL38X Gen10 Plus Rear Serial Cable Kit	P14606-B21
--	------------

---

**Optional Upgrades**

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

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

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

---

**HPE Storage Options**

Additional Options

QLogic Fibre Channel HBAs

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

Easy Install Rail Kits

Easy Install rail kits contain telescoping rails which allow for in-rack serviceability.

To assist in the installation of the server into the rack an optional installation tool is available by contacting your local services representative.

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

HPE DL38X Gen10 Plus 2U SFF Easy Install Rail Kit	P22018-B21
---	------------

**Notes:** Does not include CMA (P22020-B21).

HPE DL38X Gen10 Plus 2U Cable Management Arm for Rail Kit	P22020-B21
---	------------

HPE USB and SD Options

HPE Enterprise Mainstream Flash Media Kits for Memory Cards

HPE 32GB microSD RAID 1 USB Boot Drive	P21868-B21
--	------------

### Technical Specifications

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

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

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

---

Summary of Changes

Date	Version History	Action	Description of Change
18-Mar-2024	Version 2	Changed	Additional Options section was updated.
03-Oct-2022	Version 1	New	New QuickSpecs

Copyright

Make the right purchase decision. Contact our presales specialists.

 Chat now (sales)

 Call now

 Get updates



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

Intel® and Xeon® are registered trademarks of Intel Corporation in the U.S. and other countries.

Microsoft®, Windows®, and Windows Server® are U.S. registered trademarks of the Microsoft group of companies.

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

a50004314enw - 16918 - Worldwide - V2 - 18-March-2024