# QuickSpecs

#### Overview

## HPE ProLiant DL360 Gen11 - 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. Select HPE NEBS-compliant FIO Trigger System Setting (P40010-B21) for factory integration. Hardware from the following kits MUST be installed:
  - o HPE ProLiant DL3XX/560 Gen11 High Performance Heat Sink Kit (P48905-B21)
  - o HPE ProLiant DL3X0 Gen11 1U High Performance Fan Kit (P48908-B21)

Please refer to the HPE DL360 Gen11 Carrier Grade Conversion documentation on the HPE web site:

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

Hewlett Packard Enterprise

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# **Configuration Information**

This section lists some of the steps required to configure a Factory Integrated Model.

To ensure 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.
- Some options may not be integrated at the factory. Contact your local sales representative for additional information

## **Step 1: Base Configuration**

CTO Server models do not include embedded LOM. To enable networking capability please select a validated alternative NIC - OCP or PCIe- from the Core Options section.

CTO Server	HPE DL360 Gen11 8SFF NC CTO Server
SKU Number	P52499-B21
TAA SKU*	P52499-B21#GTA
HPE Trusted Supply Chain	Optional: HPE Trusted Supply Chain for HPE ProLiant (P36394-B21)
Processor	Not included as standard.
DIMM Slots	32-DIMM slots
DIMM Blanks	DIMM Blanks are required, embedded and shipped as default in all CTO Servers
Storage Controller	Choice of Intel® VROC Software RAID capable Choice of HPE ProLiant external hardware controller Choice of HPE ProLiant Gen11 MR and SR PCle and OCP plug-in Controller
PCIe Slots	Up to 3 Slots PCle 5.0 (Slot 1, 2 &3) One standard primary/butterfly riser: 2 slots as Slot 1 & Slot 2 (1 x16 FH / 1 x16 LP) and 4 x8 front NVMe connectors Optional: Slot 3 in 1 x16 FH or LP slot All PCle Slots are in design with up to 9.5" length
OCP3.0 Slots	PCIe 5.0: 2 slots (1x16/ 1x16)
Drive Cage – included	8SFF TriMode supported, must be selected if internal drives needed. Basic carrier (BC) support. (PCle4.0 storage)
Network Controller	"BCM 5719 1Gb 4p BASE-T OCP Adptr" to be defaulted in the configurator at OCP Slot 21. Customer is allowed to remove and select other cards (PCIe of OCP) from Networking, InfiniBand, Smart IO (HW) or Storage Offload category.
	Choice of OCP3.0 or stand-up cards for primary networking selection plus additional/optional stand-up networking adapters.
Fans	<ul> <li>Choice of</li> <li>5 Standard Fans for one processor below 185W TDP</li> <li>Additional 2 Standard Fans for 2nd Processor below 185W TDP</li> <li>7 High Performance Fan for processors 186W – 270W TDP</li> </ul>
Management	HPE iLO with Intelligent Provisioning (standard) HPE GreenLake for Compute Ops Management (a 3-year subscription included) Optional: iLO Advanced and OneView
Video Output	Rear: 1 VGA Optional:  • 1 Front Display Port (standalone in 8SFF)  • 1 Rear Serial Port

# **Configuration Information**

USB	Front: 1 USB 3.2 Gen1 + iLO service port Rear: 2 USB 3.2 Gen1 Internal: 1 USB 3.2 Gen1 + 1 USB2.0 Optional: 1 Front USB 2.0
Security	Trusted Platform Module (TPM) 2.0.
Rail Kit	<ul> <li>Optional Easy Install rails and CMA</li> <li>HPE Easy Install Rail 3 Kit (P52341-B21) is available for 8SFF CTO Server if Rack is selected.</li> <li>DL300 Gen10 Plus 1U CMA (P26489-B21) as optional. (If CMA is selected, then Rail Kit must be selected)</li> </ul>
Form Factor	1U Rack
Warranty	3-year parts, 3-year labor, 3-year onsite support with next business day response.

#### Notes:

- All DL360 Gen11 CTO Server models require the selection of Processor, Memory and Power Supply. Backplane to be further selected in 8SFF CTO Server.
- HPE Trusted Supply Chain (P36394-B21) is an optional security upgrade intended for agencies and regulated industries needing enhanced security and compliance needs. Applying this option to a DL360 Gen11 CTO server ensures it is built in the USA in a secured facility by vetted HPE personnel assigned to the manufacturing processes. A multitude of checkpoints/inspections for malicious microcode and counterfeit parts are performed throughout the server build, and additional safeguards are put in place against cyber-exploits throughout the server lifecycle. The HPE ProLiant DL360 Gen11 Carrier Grade Supplement is re-branded as a HPE ProLiant DL360T Gen11 to denote the HPE Trusted Supply Chain security enhancements. The DL360T is Trade Agreement Act (TAA) compliant. See "HPE Security" section within this document for more detail and learn more at <a href="http://www.hpe.com/security">http://www.hpe.com/security</a>
- \*HPE offers multiple Trade Agreement Act (TAA) compliant configurations to meet the needs of US Federal Government
  customers. These products are either manufactured or substantially transformed in a designated country. TAA compliance
  is only provided when HPE options are included as part of factory integrated orders (CTO).
- All CTO servers are Energy Star 3.0 compliant, excluding configuration with GPU.
- Supported Rail kit to be defaulted for CTO Model in the configurator. But customer can deselect the Rail kit if the CTO Model is selected without Rack (Standalone server).
- 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.

#### **Step 2: Choose Core Options**

- Mixing of 2 different processor models is not supported.
- CTO server will populate necessary heatsink and fan kits per system thermal requirements and processor models.
- DIMM Blanks are pre-selected as default, minimum Q'ty 1 of memory need to be selected in 1 Processor configuration, and minimum Q'ty 2 of memory need to be selected in 2 Processor configuration.
- Choice of hardware storage controllers
- Choice of ODD drive and storage device
- Factory Configuration Settings
- Choice of riser card for PCle5.0 slots enablement
- Choice of Networking solution
- Choice of Power and Cooling solution
- Choice of Security Options

# **Configuration Information**

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

- Choice of Accessories
- Choice of Intel® Virtual RAID on CPU Premium & Standard FIO Software for HPE
- Choice of Embedded Management
- Choice of Racks
- Choice of USB and SD Options (if available)
- Choice of Enterprise Mainstream Flash Media Kits for Memory Cards

## **Choose Core Options**

- Mixing of 2 different processor models is not supported.
- CTO server will populate necessary fan kits per system thermal requirements and processor models.

#### **Processor**

Please select one or two matching processors.

## 4th Generation Intel Xeon-Gold 6

Intel Xeon-Gold 6454S 2.2GHz 32-core 270W Processor for HPE	P49654-B21
Intel Xeon-Gold 6448Y 2.1GHz 32-core 225W Processor for HPE	P49600-B21
Intel Xeon-Gold 6448H 2.4GHz 32-core 250W Processor for HPE	P49622-B21
Intel Xeon-Gold 6442Y 2.6GHz 24-core 225W Processor for HPE	P49599-B21
Intel Xeon-Gold 6438Y+ 2.0GHz 32-core 205W Processor for HPE	P49615-B21
Intel Xeon-Gold 6438N 2.0GHz 32-core 205W Processor for HPE	P49638-B21
Intel Xeon-Gold 6430 2.1GHz 32-core 270W Processor for HPE	P49614-B21
Intel Xeon-Gold 6426Y 2.5GHz 16-core 185W Processor for HPE	P49598-B21
Intel Xeon-Gold 6421N 1.8GHz 32-core 185W Processor for HPE	P49641-B21
Notes: Max 1	
Intel Xeon-Gold 6418H 2.1GHz 24-core 185W Processor for HPE	P49621-B21
Intel Xeon-Gold 6416H 2.2GHz 18-core 165W Processor for HPE	P49620-B21
Intel Xeon-Gold 6414U 2.0GHz 32-core 250W Processor for HPE	P49619-B21
Notes: Max 1	

## 4th Generation Intel Xeon-Gold 5

Intel Xeon-Gold 5420+ 2.0GHz 28-core 205W Processor for HPE	P49613-B21
Intel Xeon-Gold 5418Y 2.0GHz 24-core 185W Processor for HPE	P49612-B21
Intel Xeon-Gold 5418N 1.8GHz 24-core 165W Processor for HPE	P49640-B21
Intel Xeon-Gold 5416S 2.0GHz 16-core 150W Processor for HPE	P49653-B21
Intel Xeon-Gold 5411N 1.9GHz 24-core 165W Processor for HPE	P49639-B21
Notes: Max 1	

## 4<sup>th</sup> Generation Intel Xeon-Silver

th Comment on Intel Year Donner	
Intel Xeon-Silver 4410Y 2.0GHz 12-core 150W Processor for HPE	P49610-B21
Intel Xeon-Silver 4416+ 2.0GHz 20-core 165W Processor for HPE	P49611-B21

## 4<sup>th</sup> Generation Intel Xeon-Bronze

Intel Xeon-Bronze 3408U 1.8GHz 8-core 125W Processor for HPE P49617-B21

Notes: Max 1

## Heatsinks

For more details, please refer to the support matrix in Power and Cooling solutions (Additional Option section)	
HPE ProLiant DL3XX/560 Gen11 High Performance Heat Sink Kit	P48905-B21



## Memory

Please select one or more memory DIMMs from below.

For new Gen11 memory population rule whitepaper and optimal memory performance guidelines, please go to:

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

Server memory population rules for HPE Gen11 servers with 4th Gen Intel Xeon Scalable processors

For more information, please see the **HPE DDR5 Smart Memory QuickSpecs** 

#### **Notes:**

- The maximum memory speed and capacity is a function of the memory type, memory configuration, and processor model.
- Quantity of memory DIMMs selected per socket must be 1, 2, 4, 6, 8, 12 or 16.
- x8 and x4 cannot be mixed.
- Mixing of different Rank Memory is not allowed if less than 16 quantity of Memory is selected for 1 Processor configuration.
- Mixing of different Rank Memory is not allowed if less than 32 quantity of Memory is selected for 2 Processor configuration.
- If different Rank Memory are mixed, then quantity of each Memory part number must be same.

## Registered DIMMs DDR5 (RDIMMs)

HPE 16GB (1x16GB) Single Rank x8 DDR5-4800 CAS-40-39-39 EC8 Registered Smart Memory Kit	P43322-B21
HPE 32GB (1x32GB) Dual Rank x8 DDR5-4800 CAS-40-39-39 EC8 Registered Smart Memory Kit	P43328-B21
HPE 64GB (1x64GB) Dual Rank x4 DDR5-4800 CAS-40-39-39 EC8 Registered Smart Memory Kit	P43331-B21
HPE DIMM blanks	
HPE DDR4 DIMM Blank Kit	P07818-B21
Notes: Embedded and shipped as default in all DL360 Gen11 CTO Servers, to enhance thermal condition.	

## **Storage Devices**

#### **Hardware Storage Controller**

HPE SR932i-p Gen11 x32 Lanes 8GB Wide Cache PCI SPDM Plug-in Storage Controller	P47184-B21
HPE MR216i-p Gen11 x16 Lanes without Cache PCI SPDM Plug-in Storage Controller	P47785-B21
HPE MR416i-p Gen11 x16 Lanes 8GB Cache PCI SPDM Plug-in Storage Controller	P47777-B21
HPE Smart Array E208e-p SR Gen10 (8 External Lanes/No Cache) 12G SAS PCIe Plug-in Controller	804398-B21

## **Storage Battery**

HPE 96W Smart Storage Lithium-ion Battery with 145mm Cable Kit	P01366-B21
HPE Smart Storage Hybrid Capacitor with 145mm Cable Kit	P02377-B21
HPE ProLiant DL360 Gen11 Storage Controller Enablement Cable Kit	P48918-B21

## **Internal Storage Controller Cables**

HPE ProLiant DL360 Gen11 8SFF PCle Controller Cable Kit P48909-B21

#### **RAID Settings**

## Drive cage and backplane (8 SFF CTO server only)

Leverage the same DIMM blanks from DL360 Gen10 Plus.

User Selection: Min 0 // Max 2. If front drives are needed in the 8 SFF server, please select one backplane from list below. HPE DL360 Gen11 Basic Carrier (BC) drive cages and drive backplanes

#### Notes: For all backplanes below:

Supports Basic Carrier Drives.



#### Includes cabling.

HPE ProLiant DL360 Gen11 8SFF x1 U.3 Tri-Mode Backplane Kit

P48895-B21

#### **Notes:**

- Supports SATA, SAS and NVMe Basic Carrier (BC) drives.
- NVMe SSDs must be U.3. If 8SFF x1 drive cage is connected to Direct Attach (without internal controller and 8SFF cable), then only SATA drive can be selected in this drive cage.
- No NVMe Direct Attach support.
- Not supported with SR932i-p Tri-Mode controller.
- Supports HPE Gen11 SAS/SATA controller if only SAS/SATA drives are installed.

HPE ProLiant DL3X0 Gen11 1U 8SFF Display Port/USB/Optical Drive Blank Kit

P48926-B21

## **Optical Drive**

HPE 9.5mm SATA DVD-ROM Optical Drive	726536-B21
HPE 9.5mm SATA DVD-RW Optical Drive	726537-B21

#### Storage

- Maximum limit for SAS/ SATA/ NVMe will vary depending upon the selected drive cage, controller and cable combination.
- Direct Attach supports only SATA or NVMe drives. If SAS drive is selected, then Internal controller must be selected.
- If 8SFFx1 drive cage is connected to Direct Attach (without internal controller and 8SFF cable), then only SATA drive can be selected in this drive cage.

For SSD selection guidance, please visit: <a href="http://ssd.hpe.com/">http://ssd.hpe.com/</a>

HPE 960GB SATA 6G Read Intensive SFF BC Multi Vendor SSD

#### NVMe Gen4 - SSD and AIC - Read Intensive & Mixed Used

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

P40498-B21

HPE 240GB SATA 6G Read Intensive SFF BC Multi Vendor SSD	P40496-B21
SSD – Mixed Use	
Mixed Use - 12G/24G SAS - SFF - Solid State Drives	
HPE 3.84TB SAS 12G Mixed Use SFF BC Value SAS Multi Vendor SSD	P40512-B21
HPE 3.2TB SAS 24G Mixed Use SFF BC Multi Vendor SSD	P49053-B21
HPE 1.92TB SAS 12G Mixed Use SFF BC Value SAS Multi Vendor SSD	P40511-B21 P49049-B21 P40510-B21
HPE 1.6TB SAS 24G Mixed Use SFF BC Multi Vendor SSD	
HPE 960GB SAS 12G Mixed Use SFF BC Value SAS Multi Vendor SSD	
HPE 800GB SAS 24G Mixed Use SFF BC Multi Vendor SSD	P49047-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
HDD- Enterprise 15K/10K -SFF	
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 1.8TB SAS 12G Mission Critical 10K SFF BC 3-year Warranty 512e Multi Vendor HDD	P53562-B21
HPE 1.2TB SAS 12G Mission Critical 10K SFF BC 3-year Warranty Multi Vendor HDD	P28586-B21
HPE 900GB SAS 12G Mission Critical 15K SFF BC 3-year Warranty Multi Vendor HDD	P40432-B21
HPE 600GB SAS 12G Mission Critical 15K SFF BC 3-year Warranty Multi Vendor HDD	P53560-B21
HPE 600GB SAS 12G Mission Critical 10K SFF BC 3-year Warranty Multi Vendor HDD	P53561-B21
HPE 300GB SAS 12G Mission Critical 15K SFF BC 3-year Warranty Multi Vendor HDD	P28028-B21
HPE 300GB SAS 12G Mission Critical 10K SFF BC 3-year Warranty Multi Vendor HDD	P40430-B21
HDD - Midline - 7.2K - SFF (max 10)	
Midline - 12G SAS - SFF Drives	D20505 D21
HPE 2TB SAS 12G Business Critical 7.2K SFF BC 1-year Warranty 512e HDD  HPE 1TB SAS 12G Business Critical 7.2K SFF BC 1-year Warranty HDD	P28505-B21 P53563-B21
Midline - 6G SATA - SFF Drives	F33303-B21
HPE 1TB SATA 6G Business Critical 7.2K SFF BC 1-year Warranty HDD	P28610-B21
<u> </u>	
Factory Configuration Settings	
HPE NEBS-compliant FIO Trigger System Setting	P40010-B21
<b>Notes:</b> Selecting this will enable NEBS expanded operating temperature range by turning ON system maintenance switch #10	

## **Riser Cards**

Standard Primary (Butterfly) Riser: (embedded in all CTO and BTO Server)

- Slot 1 1x PCle 5.0 x16 Full-height, up to 9.5" length (or Half-length card)
- Slot 2 1x PCle 5.0 x16 Low-profile, up to 9.5" length (or Half-length card)

HPE ProLiant DL360 Gen11 x16 LP Riser Kit

P48903-B21

#### **Notes:**

- Referred as Secondary Low Profile (LP) riser.
- 2<sup>nd</sup> Processor is required.
- Slot 3: 1xPCle5.0 x 16 Low-profile, up to 9.5" length (or Half-length card)



Broadcom BCM57416 Ethernet 10Gb 2-port BASE-T OCP3 Adapter for HPE Intel E810-XXVDA2 Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE Mellanox MCX631432AS-ADAI Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE OCP 3.0 Enablement	P10097-B21 P10106-B21 P42041-B21
HPE ProLiant DL360 Gen11 CPU1 to OCP2 x8 Enablement Kit HPE ProLiant DL3XX Gen11 OCP1 x16 Enablement Kit HPE ProLiant DL3XX Gen11 CPU2 to OCP2 x8 Enablement Kit	P51911-B21 P48827-B21 P48830-B21
HPE InfiniBand  HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe4 x16 MCX653105A-HDAT Adapter  HPE InfiniBand HDR/Ethernet 200Gb 2-port QSFP56 PCIe4 x16 MCX653106A-HDAT Adapter  HPE InfiniBand HDR100/Ethernet 100Gb 1-port QSFP56 PCIe4 x16 MCX653105A-ECAT Adapter  HPE InfiniBand HDR100/Ethernet 100Gb 2-port QSFP56 PCIe4 x16 MCX653106A-ECAT Adapter	P23664-B21 P31324-B21 P23665-B21 P23666-B21
Networking	
InfiniBand PCIe	
HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe4 x16 MCX653105A-HDAT Adapter	P23664-B21
HPE InfiniBand HDR/Ethernet 200Gb 2-port QSFP56 PCIe4 x16 MCX653106A-HDAT Adapter	P31324-B21
HPE InfiniBand HDR100/Ethernet 100Gb 1-port QSFP56 PCle4 x16 MCX653105A-ECAT Adapter	P23665-B21
HPE InfiniBand HDR100/Ethernet 100Gb 2-port QSFP56 PCle4 x16 MCX653106A-ECAT Adapter <b>Ethernet PCle</b>	P23666-B21
Intel E810-XXVDA2 Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	P08443-B21
Intel E810-XXVDA2 Enternet 10/25Gb 2-port SFP28 Adapter for HPE	P08458-B21
Mellanox MCX623105AS-VDAT Ethernet 200Gb 1-port QSFP56 Adapter for HPE	P10180-B21
Mellanox MCX623106AS-CDAT Ethernet 100Gb 2-port QSFP56 Adapter for HPE	P25960-B21
Intel I350-T4 Ethernet 1Gb 4-port BASE-T Adapter for HPE	P21106-B21
Intel E810-CQDA2 Ethernet 100Gb 2-port QSFP28 Adapter for HPE	P21112-B21
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
Broadcom BCM57414 Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	P26262-B21
Broadcom BCM57504 Ethernet 10/25Gb 4-port SFP28 Adapter for HPE	P26264-B21
Mellanox MCX631102AS-ADAT Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	P42044-B21
Broadcom BCM5719 Ethernet 1Gb 4-port BASE-T Adapter for HPE	P51178-B21
Ethernet OCP	
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 E810-XXVDA2 Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE	P10106-B21
Intel E810-CQDA2 Ethernet 100Gb 2-port QSFP28 OCP3 Adapter for HPE	P22767-B21
Mellanox MCX631432AS-ADAI Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE	P42041-B21
Broadcom BCM5719 Ethernet 1Gb 4-port BASE-T OCP3 Adapter for HPE	P51181-B21
Transceiver	
HPE BladeSystem c-Class Virtual Connect 1G SFP SX Transceiver	453151-B21
HPE BladeSystem CClass Virtual Connect 1G SFP RJ45 Transceiver	453154-B21
HPE BladeSystem c-Class 10Gb SFP+ SR Transceiver	455883-B21



HPE BladeSystem c-Class 10Gb SFP+ LR Transceiver	455886-B21
HPE 25Gb SFP28 SR 100m Transceiver	845398-B21
HPE 100Gb QSFP28 MPO SR4 100m Transceiver	845966-B21
HPE 100GbE QSFP28 to QSFP28 5m Active Optical Cable	Q9S71A
OCP3.0 Enablement Kit	
HPE ProLiant DL3XX Gen11 OCP1 x16 Enablement Kit	P48827-B21
HPE ProLiant DL3XX Gen11 OCP1 x16 Enablement Kit HPE ProLiant DL3XX Gen11 CPU2 to OCP2 x8 Enablement Kit	P48827-B21 P48830-B21

## **Power and Cooling**

#### **Power Supplies**

HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit				
HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit	865438-B21			
HPE 1000W Flex Slot Titanium Hot Plug Power Supply Kit	P03178-B21			
HPE 1600W Flex Slot -48VDC Hot Plug Power Supply Kit	P17023-B21			
Notes: If 1600W DC Power supply is selected, then either "HPE 1600W DC PSU Power Cable Kit" or "HPE				
1600W DC PSU Power Lug Option Kit" must be selected and quantity must match. vice versa				
HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	P38997-B21			

#### Accessory

HPE 1600W -48VDC Power Cable Lug Kit

**Notes:** Both "HPE 1600W DC PSU Power Lug Option Kit" and "HPE 1600W DC PSU Power Cable Kit" cannot be selected together.

#### **Power Cords**

HPE 1600W -48VDC 600V 3.5m Power Cable Kit

Notes: Only supports high line voltage (200 VAC to 240 VAC).

P22173-B21

P36877-B21

**Notes:** Both "HPE 1600W DC PSU Power Lug Option Kit" and "HPE 1600W DC PSU Power Cable Kit" cannot be selected together.

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 Gen11 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.

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: **HPE Power Advisor** 

HPE ProLiant servers ship with an IEC-IEC power cord used for rack mounting with Power Distribution Units (PDUs). Visit <u>HPE power cords and cables</u> for a full list of optional power cords. The standard 6-foot IEC C-13/C-14 jumper cord (A0K02A) is included with each standard AC power supply option kit.

For information on power specifications and technical content visit **HPE Flexible Slot power supplies** 

## **Power Cooling Options**

## Heatsinks

HPE ProLiant DL3XX/560 Gen11 High Performance Heat Sink Kit P48905-B21

#### Fan Kits

HPE ProLiant DL3X0 Gen11 1U High Performance Fan Kit
P48908-B21



# **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 a Hewlett Packard Enterprise approved configurator. Contact your local sales representative for additional information.

## **Choose Additional Options**

## **Accessories**

#### **Management Hardware**

Maximum 1 of each can be selected.

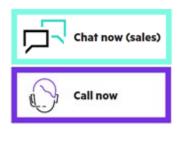
HPE ProLiant DL36X Gen11 Rear Serial Port Cable Kit	P48921-B21			
HPE ProLiant DL360 Gen11 SFF System Insight Display Power Module Kit				
Rack Options				
HPE ProLiant DL3XX Gen11 Easy Install Rail 3 Kit	P52341-B21			
HPE ProLiant DL300 Gen10 Plus 1U Cable Management Arm for Rail Kit	P26489-B21			

# **Summary of Changes**

Date	<b>Version History</b>	Action	Description of Change
17-Jun-2024	Version 4	Changed	Overview and Core Options sections were updated
06-May-2024	Version 3	Changed	Core Options section was updated
04-Mar-2024	Version 2	Changed	Core Options section was updated
06-Nov-2023	Version 1	New	New QuickSpecs

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

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