

Overview

HPE ProLiant DL110 Gen10 Plus Server - 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

- SR-3580, Level 3, NEBS Criteria
 - GR-1089-CORE, EMC & Electrical Safety
 - GR-63-CORE, Physical Protections
- GR-3108, Class 1, Network Equipment in the Outside Plant (OSP)
- 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 to the "ON" position to enable the expanded operating temperature range Select HPE NEBS-compliant FIO Trigger System Setting PN:P40010-B21 for factory integration.



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

Step 1: Base Configuration

CTO Server	HPE ProLiant DL110 Gen10 Plus Front Cabled Telco Configure-to-order Server
SKU Number	P39478-B21
Processor	Not included as standard; 1 supported
Heatsink	Included
DIMM Slots	8-DIMM slots
Storage Controller	Embedded SW RAID with Intel VROC SATA for HPE, choice of Intel VROC NVMe for HPE
PCIe	X16/x16 FHHL riser included
Fans	7- hot plug
Management	HPE iLO with Intelligent Provisioning (standard), iLO Advances and OneView (optional)
USB	iLO Front Service Port
Rail Kit	N/A- Mounting via front ears only

Step 2: Choose Required Options

Please select one processor required below.

Notes: Processors with 185W TDP or higher will require DIMM Blank kit (P43725-B21) to be selected when all DIMM slots are not fully populated

Step 2a: Choose Processors

Processor Option Kits

3rd Generation Intel Xeon-Gold

Notes: All SKUs below ship with processor only. Fans and heatsink are included in the CTO server.

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

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:

<https://www.hpe.com/docs/memory-population-rules>

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

Notes:

- The maximum memory speed and capacity is a function of the memory type, memory configuration, and processor model.
- Quantity of memory DIMMs selected must be 1, 2, 4, 6, or 8
- For additional information, please see the [HPE DDR4 SmartMemory QuickSpecs](#)

Registered DIMMs (RDIMMs)

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

P06031-B21

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

P06029-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



Configuration Information

Step 2c: Choose Power Supplies

Select one or two power supplies from below.

HPE Flex Slot Power Supplies

HPE ProLiant DL110 Gen10 Plus 700W Flex Slot -48VDC Hot Plug Low Halogen Power Supply Kit P43150-B21

Notes: Reverse airflow to support front cabled design of DL110

Step 3: Choose Additional Factory Integratable Options

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

Factory Instructions and Server Settings

HPE NEBS-compliant FIO Trigger System Setting P40010-B21

Notes: Selecting this will enable NEBS expanded operating temperature range by turning ON system maintenance switch #10

HPE Legacy FIO Mode Setting 758959-B22

Notes: Selecting this option will change the default UEFI BIOS setting into Legacy BIOS setting

HPE iLO Common Password FIO Setting P08040-B21

Notes:

- Replaces iLO default randomized password by an HPE defined common password. HPE highly recommends changing this password immediately after the initial onboarding process.
- Customers who want to choose their own custom iLO default password should use the HPE Factory Express Integration Services

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

Risers

HPE ProLiant DL110 Gen10 Plus x16 FHHL PCIe Secondary FIO Riser Kit P41828-B21

Notes: Factory integrated only. Enables slot 3.

HPE ProLiant DL110 Gen10 Plus x16 FHHL PCIe Secondary Riser Kit P41827-B21

Notes: For field upgrade only

DDR4 DIMM Blank

HPE ProLiant DL110 Gen10 Plus DDR4 DIMM FIO Blank Kit P43725-B21

Notes: Required when processor with 185W or greater TDP is selected and all DIMM slots are not fully populated

Memory Selection

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>

Notes:

- The maximum memory speed and capacity is a function of the memory type, memory configuration, and processor model.
- Quantity of memory DIMMs selected must be 1, 2, 4, 6, or 8
- For additional information, please see the [HPE DDR4 SmartMemory QuickSpecs](#)

Registered DIMMs (RDIMMs)

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

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

For SSD selection guidance, please visit <https://ssd.hpe.com/>

Read Intensive - 6G SATA - M.2 - Solid State Media (2280 type)

HPE 240GB SATA 6G Read Intensive M.2 2280 5300B SSD P19888-B21

HPE 480GB SATA 6G Read Intensive M.2 2280 5300P SSD P19890-B21

HPE Networking

Notes: The DL110 Gen10 Plus CTO chassis does not come with embedded networking. A PCIe or OCP networking adapter must be selected.

25 Gigabit Ethernet adapters

Intel E810-XXVDA4 Ethernet 10/25Gb 4-port SFP28 Adapter for HPE P08458-B21

100 Gigabit Ethernet Adapters

Intel E810-CQDA2 Ethernet 100Gb 2-port QSFP28 Adapter for HPE P21112-B21

OCP adapters

Intel E810-XXVDA4 Ethernet 10/25Gb 4-port SFP28 OCP3 Adapter for HPE P41611-B21

HPE Computation and Graphics Accelerators

NVIDIA T4 16GB Computational Accelerator for HPE ROW29C

Notes:

- Max Qty=3 per server System
- Memory Restriction <128TB



Additional Options

HPE Power Supplies

HPE ProLiant DL110 Gen10 Plus 700W Flex Slot -48VDC Hot Plug Low Halogen Power Supply Kit

P43150-B21

Notes: Reverse airflow to support front cabled design of DL110



Summary of Changes

Date	Version History	Action	Description of Change
06-Jul-2021	Version 1	New	New Quick Specs



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

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