

Overview

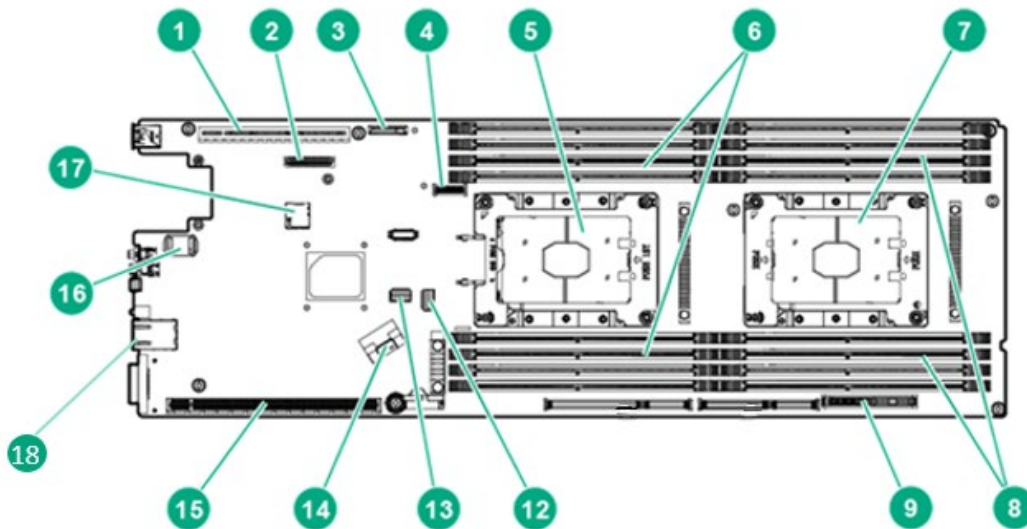
HPE ProLiant XL170r Gen10 Server

The ProLiant XL170r Gen10 Server is a 1U half-width, 2P server with configuration options for:

- Performance and efficient CPUs -- Intel Xeon Scalable Family series processor options ranging from Bronze to Platinum with choices from 4-24 Cores, 1.7GHz – 3.8GHz CPU speed, and power ratings between 85-150 Watts
- 16 memory DIMM slots, DDR4 2933 MT/s HPE SmartMemory.
- 2 I/O slots for a choice of networking and clustering options including : 1Gb, 10Gb, 100Gb Ethernet, 100 Gb/s EDR InfiniBand, 100Gv/s Omni-Path, FibreChannel and options for either 1 PCIe (x16) slot plus a FlexibleLOM or 2 PCIe (x16) slots

The Apollo r2000 series chassis accommodates 4 independently serviceable ProLiant XL170r Gen10 servers with up to 80 servers in a 42U rack with 1 to 4 servers per chassis.

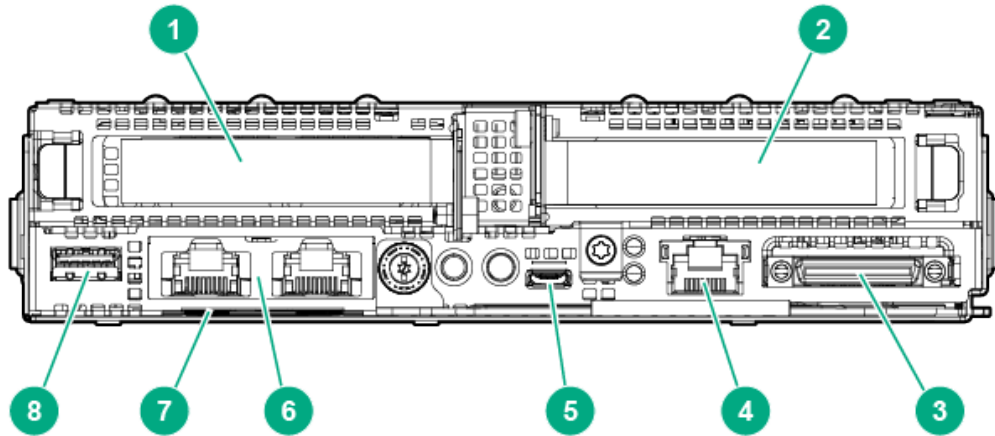
Rack scale power efficiency is easy with HPE Apollo Platform Manager for rack, chassis, server and component level management



Front View

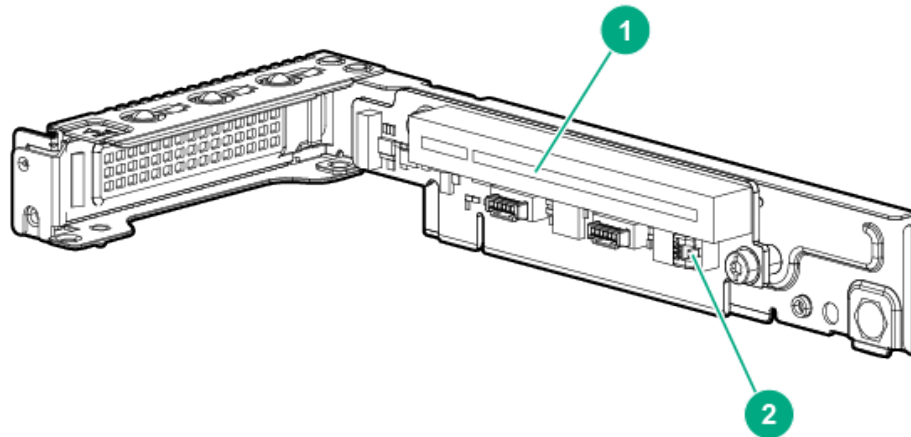
| Item | Description | Item | Description |
|------|-------------------------|------|------------------------------|
| 1 | Primary riser slot 1 | 9 | Bayonet board slot |
| 2 | mLOM connector | 12 | Slimline connector (SATA x4) |
| 3 | System battery | 13 | System maintenance switch |
| 4 | M.2 SSD riser connector | 14 | Slimline connector (SATA x8) |
| 5 | Processor 1 | 15 | Secondary riser slot 2 |
| 6 | DIMMs for processor 1 | 16 | TPM connector |
| 7 | Processor 2 | 17 | microSD slot |
| 8 | DIMMs for processor 2 | 18 | iLO dedicated port |

Overview



Rear View

| Item | Description | Item | Description |
|------|-------------------------|------|---|
| 1 | Primary riser (slot1) | 5 | iLO service port with micro USB connector |
| 2 | Secondary riser (slot2) | 6 | Media module |
| 3 | SUV connector | 7 | Node serial number and iLO label pull tab |
| 4 | ILO Management Port | 8 | USB 3.0 connector |

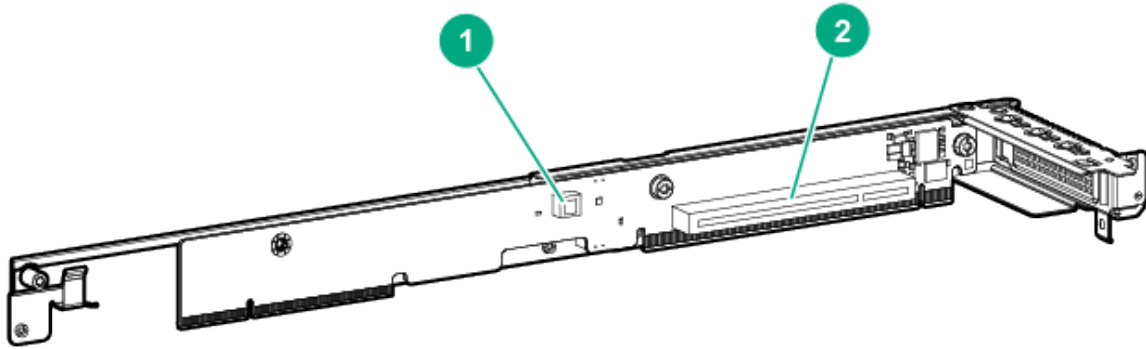


Single-slot left PCI Riser Cage Assembly
(874296-B21)

| Item | Form factor | Slot number | Slot description |
|------|--|-------------|---|
| 1 | Storage controller or low-profile PCIe | 1 | PCIe3 x16 (16, 8, 4, 1) for Processor 1 |
| 2 | N/A | N/A | Storage backup power connector |

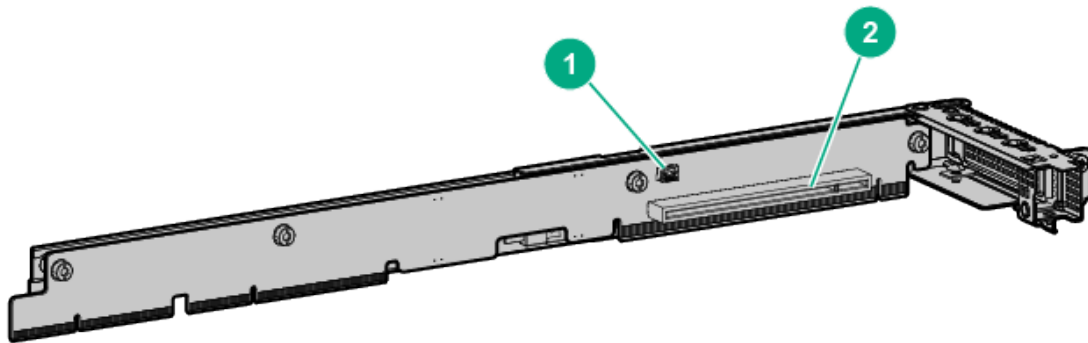


Overview



Single-slot 1U node right PCI Riser Cage Assembly (874300-B21)

| Item | Form factor | Slot number | Slot description |
|------|-----------------------|-------------|---|
| 1 | N/A | N/A | Storage backup power connector |
| 2 | Low-profile PCIe card | 2 | PCIe3 x16 (16, 8, 4, 1) for Processor 1 |

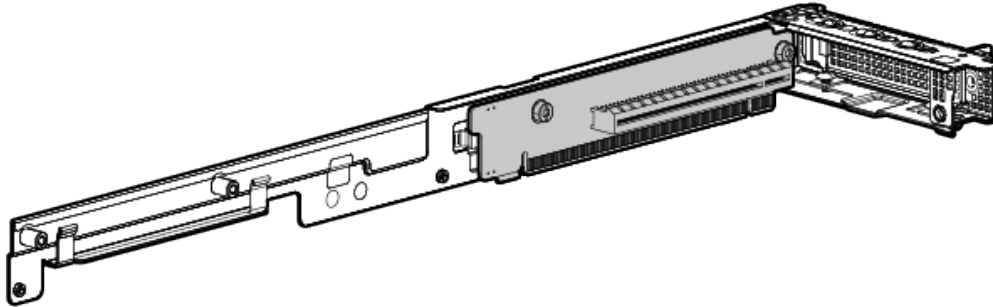


Single-slot 1U node right PCI Riser Cage Assembly (874302-B21)

| Item | Form factor | Slot number | Slot description |
|------|-----------------------|-------------|---|
| 1 | N/A | N/A | Storage backup power connector |
| 2 | Low-profile PCIe card | 2 | PCIe3 x16 (16, 8, 4, 1) for Processor 2 |



Overview



**FlexibleLOM 1U node Riser Cage Assembly
(874298-B21)**

Form factor
FlexibleLOM

Slot number
FlexibleLOM slot

Slot description
PCIe3 x16 for Processor 1

Whats New

New HPE Persistent Memory 128GB/256GB/512GB 2666 featuring Intel® Optane™ DC persistent memory



Standard Features

Processors

Notes: For the Standard Features shipped in the Factory Integrated Models, please see the "Configuration Information Factory Integrated Models" section.

| 1st Generation Intel® Xeon® Scalable Processor Family | | | | | | | |
|---|--------------------------|--------------|-----------------|--------------|---------------|-------------------|----------------------------------|
| Processors Intel Xeon Models | CPU Frequency | Cores | L3 Cache | Power | QPI | DDR4/ MT/s | Memory per socket |
| Platinum Processors | | | | | | | |
| Platinum 8160 Processor | 2.1 GHz | 24 | 33.00 MB | 150W | 3 @ 10.4 GT/s | 2666 MT/s | 768 GB |
| Gold Processors | | | | | | | |
| Gold 6152 Processor | 2.1 GHz | 22 | 30.25 MB | 140W | 3 @ 10.4 GT/s | 2666 MT/s | 768 GB |
| Gold 6148 Processor | 2.4 GHz | 20 | 27.50 MB | 150W | 3 @ 10.4 GT/s | 2666 MT/s | 768 GB |
| Gold 6144 Processor | 3.5 GHz | 8 | 24.75 MB | 150W | 3 @ 10.4 GT/s | 2666 MT/s | 768 GB |
| Gold 6142 Processor | 2.6 GHz | 16 | 22.00 MB | 150W | 3 @ 10.4 GT/s | 2666 MT/s | 768 GB |
| Gold 6140 Processor | 2.3 GHz | 18 | 24.75 MB | 140W | 3 @ 10.4 GT/s | 2666 MT/s | 768 GB |
| Gold 6138 Processor | 2.0 GHz | 20 | 27.50 MB | 125W | 3 @ 10.4 GT/s | 2666 MT/s | 768 GB |
| Gold 6136 Processor | 3.0 GHz | 12 | 24.75 MB | 150W | 3 @ 10.4 GT/s | 2666 MT/s | 768 GB |
| Gold 6134 Processor | 3.2 GHz | 8 | 24.75 MB | 130W | 3 @ 10.4 GT/s | 2666 MT/s | 768 GB |
| Gold 6132 Processor | 2.6 GHz | 14 | 19.25 MB | 140W | 3 @ 10.4 GT/s | 2666 MT/s | 768 GB |
| Gold 6130 Processor | 2.1 GHz | 16 | 22.00 MB | 125W | 3 @ 10.4 GT/s | 2666 MT/s | 768 GB |
| Gold 6128 Processor | 3.4 GHz | 6 | 19.25 MB | 115W | 3 @ 10.4 GT/s | 2666 MT/s | 768 GB |
| Gold 6126 Processor | 2.6 GHz | 12 | 19.25 MB | 125W | 3 @ 10.4 GT/s | 2666 MT/s | 768 GB |
| Gold 5122 Processor | 3.6 GHz | 4 | 16.50 MB | 105W | 2 @ 10.4 GT/s | 2400 MT/s | 768 GB |
| Gold 5120 Processor | 2.2 GHz | 14 | 19.25 MB | 105W | 2 @ 10.4 GT/s | 2400 MT/s | 768 GB |
| Gold 5119T Processor | 1.9 GHz | 14 | 19.25 MB | 85W | 2 @ 10.4 GT/s | 2400 MT/s | 768 GB |
| Gold 5118 Processor | 2.3 GHz | 12 | 16.50 MB | 105W | 2 @ 10.4 GT/s | 2400 MT/s | 768 GB |
| Gold 5115 Processor | 2.4 GHz | 10 | 13.75 MB | 85W | 2 @ 10.4 GT/s | 2400 MT/s | 768 GB |
| Silver Processors | | | | | | | |
| Silver 4116 Processor | 2.1 GHz | 12 | 16.50 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 4109T Processor | 2.0 GHz | 8 | 11.00 MB | 70W | 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 3104 Processor | 1.7 GHz | 6 | 8.25 MB | 85W | 2 @ 9.6 GT/s | 2133 MT/s | 768 GB |

Notes: Bronze Processors not supported in EMEA



Standard Features

| 2 nd Generation Intel® Xeon® Scalable Processor Family | | | | | | | |
|---|------------------|-------|----------|-------|---------------|---------------|----------------------|
| Processors Intel Xeon Models | CPU Frequency | Cores | L3 Cache | Power | QPI | DDR4/ MT/s | Memory per socket |
| Platinum Processors | | | | | | | |
| Platinum 8253 Processor | 2.2 GHz | 16 | 22 MB | 125W | 3 @ 10.4 GT/s | 2933 MT/s | 1 TB |
| Notes: Support for HPE Persistent Memory featuring Intel® Optane™ DC persistent memory | | | | | | | |
| Gold Processors | | | | | | | |
| Gold 6252 Processor | 2.1 GHz | 24 | 35.75 MB | 150W | 3 @ 10.4 GT/s | 2933 MT/s | 1 TB |
| Gold 6248 Processor | 2.5 GHz | 20 | 27.50 MB | 150W | 3 @ 10.4 GT/s | 2933 MT/s | 1 TB |
| Gold 6244 Processor | 3.6GHz | 8 | 24.75 MB | 150W | 3 @ 10.4 GT/s | 2933 MT/s | 1 TB |
| Gold 6242 Processor | 2.8 GHz | 16 | 22.00 MB | 150W | 3 @ 10.4 GT/s | 2933 MT/s | 1 TB |
| Gold 6240 Processor | 2.6 GHz | 18 | 24.75 MB | 150W | 3 @ 10.4 GT/s | 2933 MT/s | 1 TB |
| Gold 6238 Processor | 2.1 GHz | 22 | 30.25 MB | 140W | 3 @ 10.4 GT/s | 2933 MT/s | 1 TB |
| Gold 6234 Processor | 3.3 GHz | 8 | 24.75 MB | 130W | 3 @ 10.4 GT/s | 2933 MT/s | 1 TB |
| Gold 6230 Processor | 2.1 GHz | 20 | 27.50 MB | 125W | 3 @ 10.4 GT/s | 2933 MT/s | 1 TB |
| Gold 6226 Processor | 2.7 GHz | 12 | 19.25 MB | 125W | 3 @ 10.4 GT/s | 2933 MT/s | 1 TB |
| Gold 5222 Processor | 3.8 GHz | 4 | 16.50 MB | 105W | 2 @ 10.4 GT/s | 2933 MT/s | 1 TB |
| Gold 5220 Processor | 2.2 GHz | 18 | 24.75 MB | 125W | 2 @ 10.4 GT/s | 2666 MT/s | 1 TB |
| Gold 5218 Processor | 2.3 GHz | 16 | 22 MB | 125W | 2 @ 10.4 GT/s | 2666 MT/s | 1 TB |
| Gold 5217 Processor | 3.0 GHz | 8 | 11 MB | 115W | 2 @ 10.4 GT/s | 2666 MT/s | 1 TB |
| Gold 5215 Processor | 2.5 GHz | 10 | 11 MB | 85W | 2 @ 10.4 GT/s | 2666 MT/s | 1 TB |
| Gold 6230R Processor | 2.1 GHz | 26 | 35.75 MB | 150W | 2 @ 10.4 GT/s | 2933 MT/s | 1 TB |
| Gold 6226R Processor | 2.9 GHz | 16 | 22MB | 150W | 2 @ 10.4 GT/s | 2933 MT/s | 1 TB |
| Gold 5220R Processor | 2.2 GHz | 24 | 35.75 MB | 150W | 2 @ 10.4 GT/s | 2667 MT/s | 1 TB |
| Gold 5218R Processor | 2.1 GHz | 20 | 27.5 MB | 125W | 2 @ 10.4 GT/s | 2667 MT/s | 1 TB |
| Notes: Support for HPE Persistent Memory featuring Intel® Optane™ DC persistent memory | | | | | | | |
| Silver Processors | | | | | | | |
| Silver 4216 Processor | 2.1 GHz | 16 | 22 MB | 100W | 2 @ 10.4 GT/s | 2400 MT/s | 1 TB |
| Silver 4215 Processor | 2.5 GHz | 8 | 11 MB | 85W | 2 @ 10.4 GT/s | 2400 MT/s | 1 TB |
| Silver 4214 Processor | 2.2 GHz | 12 | 16.5 MB | 85W | 2 @ 10.4 GT/s | 2400 MT/s | 1 TB |
| Silver 4210 Processor | 2.2 GHz | 10 | 13.75 MB | 85W | 2 @ 10.4 GT/s | 2400 MT/s | 1 TB |
| Silver 4208 Processor | 2.1 GHz | 8 | 11 MB | 85W | 2 @ 10.4 GT/s | 2400 MT/s | 1 TB |
| Silver 4215R Processor | 3.2 GHz | 8 | 11 MB | 130W | 2 @ 9.6 GT/s | 2400 MT/s | 1TB |
| Silver 4214R Processor | 2.4 GHz | 12 | 16.5 MB | 100W | 2 @ 9.6 GT/s | 2400 MT/s | 1 TB |
| Silver 4210R Processor | 2.4 GHz | 10 | 13.75 MB | 100W | 2 @ 9.6 GT/s | 2400 MT/s | 1 TB |
| Notes: 4215 supports HPE Persistent Memory featuring Intel® Optane™ DC persistent memory | | | | | | | |
| Bronze Processors | | | | | | | |
| Bronze 3204 Processor | 1.9 GHz | 6 | 8.25 MB | 85W | 2 @ 9.6 GT/s | 2133 MT/s | 1 TB |
| Bronze 3206R Processor | 1.9 GHz | 8 | 11 MB | 85W | 2 @ 9.6 GT/s | 2133 MT/s | 1 TB |
| Notes: Bronze Processors not supported in EMEA | | | | | | | |

Standard Features

Chipset

- HPE iLO 5 ASIC.
- Intel® C622 Chipset (Intel EY82C622 PCH)

Notes: For more information regarding Intel® chipsets, please see the following URL:

<http://www.intel.com/products/server/chipsets/>

On System Management Processor

HPE iLO 5 ASIC.

Notes: Read and learn more in the [iLO QuickSpecs](#)

Memory

| | |
|---|--|
| Type | HPE SmartMemory DDR4 Load Reduced (LRDIMM), or Registered (RDIMM) |
| DIMM Slots Available | 16 DIMM Slots available |
| Maximum (LRDIMM) (per server tray) | 1.5TB (Skylake) and 2TB (Cascade Lake) |
| HPE Persistent Memory | 1024GB Max per processor/socket |

Notes:

- HPE memory from previous generation servers are not fully compatible with the HPE ProLiant XL170r Gen10 Server.
- To realize the performance memory capabilities listed in this document, HPE SmartMemory is required.
- LRDIMM and RDIMM are distinct memory technologies and cannot be mixed within a server.
- HPE Persistent Memory featuring Intel® Optane™ DC persistent memory only supported with select 2nd generation Intel Xeon Scalable Series Processors ONLY ((82xx/62xx/52xx/4215) and can only be mixed with either RDIMMs or LRDIMMs.
- For information regarding HPE Persistent Memory visit: <http://www.hpe.com/info/persistentmemory>
- The maximum memory speed is a function of the memory type, memory configuration, and processor model. Please see Memory Population Table or the Online Memory Configuration Tool at: <http://www.hpe.com/servers/servermemoryconfigurator>
- Memory DIMM availability with a server platform is dependent upon completion of certification testing.

Memory Protection

For details on the HPE Server Memory Options RAS feature, visit:

<http://www.hpe.com/docs/memory-ras-feature>.

Expansion Slots (EE)

| Expansion Slot # | Technology | Bus Width* | Source | Connector Width | Form Factor |
|------------------|------------|------------|--------|-----------------|-------------|
| 1 | PCIe 3.0 | x16 | CPU1 | x16 | Low profile |
| FlexibleLOM | PCIe 3.0 | x16 | CPU1 | x16 | FlexibleLOM |
| 2 | PCIe 3.0 | x16* | CPU1 | x16 | Low profile |
| 2 | PCIe 3.0 | x16 | CPU2 | X16 | Low profile |

Notes:

- *Indicates the number of physical electrical lanes running to the connector.
- Expansion slot 1 requires ordering HPE XL1x0r Gen10 Left LP Riser Kit (874296-B21)
- FlexibleLOM require ordering HPE XL170r Gen10 FLOM Riser Kit (874298-B21)
- Expansion slot 2 requires ordering HPE XL170r Gen10 P1 LP Riser Kit (874300-B21) or HPE XL170r Gen10 P2 LP Riser Kit (874302-B21) or HPE XL170r 16NVMe Gen10 P2 LP Riser Kit (874304-B21)



Standard Features

Storage Controllers

Converged Network Adapters

- HPE StoreFabric CN1200E 10Gb CNA
- HPE StoreFabric CN1200E-T 10Gb CNA
- HPE CN1100R 2P Converged Network Adapter
- HPE StoreFabric CN1100R-T 10Gb CNA

Smart Array Controller

- HPE Smart Array E208i-p SR Gen10 Controller
- HPE Smart Array E208e-p SR Gen10 Controller
- HPE Smart Array P408e-p SR Gen10 Controller
- HPE Smart Array P408i-p SR Gen10 Controller

Host Bus Adapter

- HPE SN1600Q 32Gb 1p FC HBA
- HPE SN1600E 32Gb 1p FC HBA
- HPE SN1600E 32Gb 2p FC HBA
- HPE SN1200E 16Gb 2p FC HBA
- HPE SN1100Q 16Gb 1p FC HBA

Storage Controller Cable Kits

- HPE 96W Smart Storage Battery 145mm Cbl
- HPE XL170r Gen10 S100i SATA Cbl Kit
- HPE XL170r Left E208ip/P408ip Cbl Kit
- HPE XL170r Right E208ip/P408ip Cbl Kit

Notes: AHCI mode is default settings and to convert to S100i mode, HPE FIO Enable Smart Array SW RAID needs to be selected.

| Maximum Internal Storage | | |
|---------------------------|----------|---------------|
| Drive | Capacity | Configuration |
| Hot Plug LFF SAS 7.2k | 30TB | 3 x 10TB |
| Hot Plug LFF SAS 15k | 2.7TB | 3 x 900GB |
| Hot Plug LFF SATA | 30TB | 3x 10TB |
| Hot Plug LFF SATA SSD | 11.52TB | 3x 3.84TB |
| Hot Plug LFF SAS SSD | 4.8TB | 3x 1.6TB |
| Hot Plug SFF SAS 7.2k | 12TB | 6x 2TB |
| Hot Plug SFF SAS 10k | 14.4TB | 6 x 2.4TB |
| Hot Plug SFF SAS 15k | 5.4TB | 6x 900GB |
| Hot Plug SFF SATA | 12TB | 6x 2TB |
| Hot Plug SFF SATA SSD | 23.04TB | 6x 3.84TB |
| Hot Plug SFF SAS SSD | 23.04TB | 6x 3.84TB |
| NVMe x4 MU SFF SCN DS SSD | 8TB | 2 x 4TB |

Internal Storage Devices

Internal MicroSD slot



Standard Features

| Interfaces | |
|---|---|
| FlexibleLOM | HPE ProLiant Gen10 servers offer a new networking technology-Flexible Network Technology. The HPE ProLiant Gen10 server offers the customer the choice of 1Gigabit, 10Gigabit, 25 Gigabit, InfiniBand or FlexibleLOM solutions depending on workload. For further details on the choices, see FlexibleLOM in the Networking Section of this document. |
| KVM | Serial USB Video Port (SUV) |
| MicroSD | 1 (internal) |
| USB Ports | 2 (external via SUV); 1 USB 3.0 (external); |
| HPE iLO Remote Management Network Port | Aggregated via HPE Apollo 2000 Chassis; Dedicated NIC onboard |
| Health LED | 1 |
| Power | 1 |
| UID | 1 |
| Do not remove LED | 1 |

Operating Systems and Virtualization Software Support for ProLiant Servers

- Windows Server 2012 R2 (Most Recent Version)
- Windows Server 2016 (Most Recent Version)
- Windows Server 2019 (Most Recent Version)
- VMware ESXi 6.0 U3
- VMware ESXi 6.5 U2
- VMware ESXi 6.7 U1
- Red Hat Enterprise Linux (RHEL) 7.6
- SUSE Linux Enterprise Server (SLES) 12 SP4
- SUSE Linux Enterprise Server (SLES) 15 SP1
- CentOS

Notes:

- CentOS not directly supported / Community Supported (Based on RHEL so RHEL testing and enablement applicable to CentOS) CentOS 7.6
- 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.

https://techlibrary.hpe.com/us/en/enterprise/servers/supportmatrix/certification.aspx?var=XL170r_Gen10

Industry Standard Compliance

- ACPI 6.2 Compliant
- PCIe 3.0 Compliant
- WOL Support
- Microsoft® Logo certifications
- PXE Support
- USB 3.0 Compliant (internal); USB 2.0 Compliant (external ports via SUV)
- SMBIOS 3.1
- UEFI 2.6
- Redfish API



Standard Features

Operating Systems and Virtualization Software Support for ProLiant Servers

- Windows Server 2012 R2 (Most Recent Version)
- Windows Server 2016 (Most Recent Version)
- Windows Server 2019 (Most Recent Version)
- VMware ESXi 6.0 U3
- VMware ESXi 6.5 U2
- VMware ESXi 6.7 U1
- Red Hat Enterprise Linux (RHEL) 7.6
- SUSE Linux Enterprise Server (SLES) 12 SP4
- SUSE Linux Enterprise Server (SLES) 15 SP1
- CentOS

Notes:

- CentOS not directly supported / Community Supported (Based on RHEL so RHEL testing and enablement applicable to CentOS) CentOS 7.6
- 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.
<http://h20566.www2.hp.com/portal/site/hpsc/public/psi/home?sp4ts.oid=1010026818>.

Power Specifications

To review typical system power ratings use the HPE Power Advisor which is available via the online tool located at URL:

<http://www.hp.com/servers/powersupplies>

Notes: Power Specification and Technical Content for supported power supplies can be found at:

<https://www.hp.com/info/qs>

Graphics

Integrated Matrix G200 video standard

- 1280 x 1024 (32 bpp)
- 1920 x 1200 (16 bpp)
- HPE iLO 5 On System Management Memory
- 32 MB Flash
- 512 MB DDR 3 with ECC (112 MB after ECC and video)

Expansion Slots (EE)

| Part Number | Expansion Slot # | Technology | Bus Width | Connector Width | Form Factor | Note |
|-------------|------------------|------------|-----------|-----------------|-------------|------|
| 874296-B21 | 1 | PCIe3.0 | X16 | X16 | Low Profile | CPU1 |
| 874298-B21 | FlexibleLOM | PCIe3.0 | X16 | X16 | FlexibleLOM | CPU1 |
| 874300-B21 | 2 | PCIe3.0 | X16 | X16 | Low Profile | CPU1 |
| 874302-B21 | 2 | PCIe3.0 | X16 | X16 | Low Profile | CPU2 |



Standard Features

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.

Notes: The UEFI System Utilities tool is analogous to the HPE ROM-Based Setup Utility (RBSU) of legacy BIOS.

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

Notes:

- For UEFI Boot Mode, boot environment and OS image installations should be configured properly to support UEFI.
- UEFI FIO Setting (758959-B22) can be selected to configure the system in Legacy mode in the factory for your HPE ProLiant XL170r Gen10 Server.

Form Factor

The ProLiant XL170r Gen10 Server is a half width tray for the HPE Apollo 2000 Chassis

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

Configure and boot your servers securely with industry standard Unified Extensible Firmware Interface (UEFI).

Learn more at: <http://www.hpe.com/servers/uefi>

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>



Standard Features

Server Utilities

Active Health System

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

Smart Update

Keep your servers up to date with HPE's Smart Update solution by using Smart Update Manager (SUM) to optimize the firmware and driver updates of the Service Pack for ProLiant (SPP)

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.

<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.

<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. <http://www.hpe.com/info/resttool>

Scripting tools

Provision 1 to many servers using your own scripts to discover and deploy with Scripting Toolkit (STK) for Windows and Linux or Scripting Tools for Windows PowerShell. <http://www.hpe.com/servers/powershell>

HPE OneView Standard

HPE OneView Standard can be used for inventory, health monitoring, alerting, and reporting without additional fees. It can monitor multiple HPE Servers generations. The user interface is similar to the HPE OneView Advanced version, but the software-defined functionality is not available. <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. www.hpe.com/info/hpesim



Standard Features

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.

HPE iLO Advanced Premium Security Edition

HPE iLO Advanced Premium Security Edition for iLO 5 includes iLO Advanced License plus high-end security modes, unique security capabilities, like Automatic FW recovery; Runtime FW verification, and Secure erase

<http://www.hpe.com/servers/ilopremium>

HPE iLO Scale-Out

HPE iLO Scale-Out is the preferred license built for web hosting, cloud service providers, and high performance computing data centers, managing massive scale out environments. This license offers sophisticated scripting tools that provides remote access through Text Console via SSH, Dynamic power capping, Email-based Alerting and proactive notifications.

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 Gen9 and Gen10 servers. <http://www.hpe.com/info/oneview>

HPE Performance Cluster Management (HPCM)

HPE Performance Cluster Manager is a fully integrated system management solution offering all the functionalities you need to manage your Linux®-based high performance computing (HPC) clusters. The software provides system setup, hardware monitoring and management, image management and software updates as well as power management for systems of any scale - up to 100,000 nodes. <http://www.hpe.com/software/hpcm>

HPE Performance Software—Message Passing Interface

The HPE Performance Software—**Message Passing Interface (MPI)** is an MPI development environment designed to enable the development and optimization of high performance computing (HPC) applications. The HPE Performance Software—MPI leverages a scalable MPI library and boosts performance of existing applications without requiring recompilation.

Software Licenses

- HPE iLO Standard (embedded in server)
- HPE iLO Advanced (requires license)
- HPE iLO Advanced Premium Security Edition (requires license)
- Intelligent Provisioning (embedded in server)
- HPE OneView Standard (requires download)
- HPE OneView Advanced (requires license)

For more information on Server Management – <http://www.hpe.com/info/servermanagement>

For more information on HPE iLO Licensing

https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-c04951959&docLocale=en_US

For more information on HPE OneView – <http://www.hpe.com/info/hpeoneview>



Standard Features

Security

- UEFI Secure Boot and Secure Start support
 - Immutable Silicon Root of Trust
 - Support for Commercial National Security Algorithms (CNSA)
 - iLO Advanced Premium Security Edition
 - Granular control over iLO interfaces
 - Common Access Card (CAC) 2-factor Authentication
 - Tamper-free updates – components digitally signed and verified
 - Secure Recovery – recover critical firmware to known good state on detection of compromised firmware
 - TPM (Trusted Platform Module) 1.2 option
 - TPM (Trusted Platform Module) 2.0 option Bezel Locking Kit
 - Intrusion Security Kit option
 - Runtime Firmware Validation – Periodically scan essential firmware for compromised code during runtime
-



Service and Support

HPE Pointnext - Service and Support

Get the most from your HPE Products. Get the expertise you need at every step of your IT journey with **HPE Pointnext Services**. We help you lower your risks and overall costs using automation and methodologies that have been tested and refined by HPE experts through thousands of deployments globally. HPE Pointnext **Advisory Services** focus on your business outcomes and goals, partnering with you to design your transformation and build a roadmap tuned to your unique challenges. Our **Professional** and **Operational Services** can be leveraged to speed up time-to-production, boost performance and accelerate your business. HPE Pointnext specializes in flawless and on-time implementation, on-budget execution, and creative configurations that get the most out of software and hardware alike.

Consume IT on your terms

HPE GreenLake brings the cloud experience directly to your apps and data wherever they are—the edge, colocations, or your data center. It delivers cloud services for on-premises IT infrastructure specifically tailored to your most demanding workloads. With a pay-per-use, scalable, point-and-click self-service experience that is managed for you, HPE GreenLake accelerates digital transformation in a distributed, edge-to-cloud world.

- Get faster time to market
- Save on TCO, align costs to business
- Scale quickly, meet unpredictable demand
- Simplify IT operations across your data centers and clouds

Managed services to run your IT operations

HPE GreenLake Management Services provides services that monitor, operate, and optimize your infrastructure and applications, delivered consistently and globally to give you unified control and let you focus on innovation.

Recommended Services

HPE Pointnext Tech Care.

HPE Pointnext Tech Care is the new operational service experience for HPE products. Tech Care goes beyond traditional support by providing access to product specific experts, an AI driven digital experience, and general technical guidance to not only reduce risk but constantly search for ways to do things better. HPE Pointnext Tech Care has been reimagined from the ground up to support a customer-centric, AI driven, and digitally enabled customer experience to move your business forward. HPE Pointnext Tech Care is available in three response levels. Basic, which provides 9x5 business hour availability and a 2 hour response time. Essential which provides a 15 minute response time 24x7 for most enterprise level customers, and Critical which includes a 6 hour repair commitment where available and outage management response for severity 1 incidents.

<https://www.hpe.com/services/techcare>

HPE Pointnext Complete Care

HPE Pointnext Complete Care is a modular, edge-to-cloud IT environment service that provides a holistic approach to optimizing your entire IT environment and achieving agreed upon IT outcomes and business goals through a personalized and customer-centric experience. All delivered by an assigned team of HPE Pointnext Services experts. HPE Pointnext Complete Care provides:

- A complete coverage approach -- edge to cloud
- An assigned HPE team
- Modular and fully personalized engagement
- Enhanced Incident Management experience with priority access
- Digitally enabled and AI driven customer experience

<https://www.hpe.com/services/complecare>



Service and Support

Warranty

This product is covered by a global limited warranty and supported by Hewlett Packard Enterprise Services and a worldwide network of Hewlett Packard Enterprise Authorized Channel Partners (may vary by region). 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 Pointnext operational services or customized service agreements. Hard drives have either a one year or three year warranty.

Notes: Server Warranty includes 3 year Parts, 3 year Labor, 3-year on-site 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:

<http://www.hpe.com/support/ProLiantServers-warranties>

Warranty and Services - Options

Notes: HPE ProLiant XL170r Gen10 Servers are covered under the HPE Service Contract applied to the HPE ProLiant Server. No separate HPE support services need to be purchased.

Warranty and Support Services will extend to include HPE options configured with your server or storage device. The price of support service is not impacted by configuration details. HPE sourced options that are compatible with your product will be covered under your server support at the same level of coverage allowing you to upgrade freely. Installation for HPE options is available as needed. To keep support costs low for everyone, some high value options will require additional support. Additional support is only required on select high value workload accelerators, fibre switches, InfiniBand and UPS batteries over 12KVA. See the specific high value options that require additional support: <http://www.hpe.com/h20195/V2/GetPDF.aspx/4AA4-8876ENW.pdf>

HPE Factory Express for Servers and storage

HPE Factory Express offers configuration, customization, integration and deployment services for HPE servers and storage products. Customers can choose how their factory solutions are built, tested, integrated, shipped and deployed.

Factory Express offers service packages for simple configuration, racking, installation, complex configuration and design services as well as individual factory services, such as image loading, asset tagging, and custom packaging. HPE products supported through Factory Express include a wide array of servers and storage: HPE Integrity, HPE ProLiant, HPE Apollo, HPE ProLiant Server Blades, HPE BladeSystem, HPE 9000 servers, as well as the HPE MSAxxxx, HPE 3PAR suite, HPE XP, rackable tape libraries and configurable network switches.

HPE Technology Services Support Credits

Offer flexible services and technical skills to meet your changing IT demands. With a menu of service that is tailored to suit your needs, you get additional resources and specialist skills to help you maintain peak performance of your IT. Offered as annual credits, you can plan your budgets while proactively responding to your dynamic business.

HPE Education Services

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



Service and Support

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 Hewlett Packard Enterprise experts, access support resources or collaborate with peers. Learn more at <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 personalize 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.

Notes: *HPE Support Center Mobile App is subject to local availability

For more information visit <http://www.hpe.com/services>

Parts and Materials

Hewlett Packard Enterprise will provide HPE-supported replacement parts and materials necessary to maintain the covered hardware product in operating condition, including parts and materials for available and recommended engineering improvements.

Parts and components that have reached their maximum supported lifetime and/or the maximum usage limitations as set forth in the manufacturer's operating manual, product QuickSpecs, or the technical product data sheet will not be provided, repaired, or replaced as part of these services.

The defective media retention service feature option applies only to Disk or eligible SSD/Flash Drives replaced by Hewlett Packard Enterprise due to malfunction.



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 a Hewlett Packard Enterprise approved configurator. Contact your local sales representative for information on configurable product offerings and requirements.

FIO indicates that this option is only available as a factory installable option.

The HPE Apollo 2000 Chassis is required to support the server. Refer to HPE Apollo 2000 Chassis QuickSpecs for additional information.

Step 1: Base Configuration (Choose one of the CTO Models below)

HPE CTO Model

HPE ProLiant XL170r Gen10 1U Node Configure-to-order Server 867055-B21

HPE BTO Model

HPE XL170r Gen10 Server for Ezmeral Container Platform ROQ98A

Step 2: Choose Required Options (only one from each category unless otherwise noted)

HPE Processors

Platinum Processors (1st Generation Intel® Xeon® Scalable Processor Family)

Intel Xeon-Platinum 8160 (2.1GHz/24-core/150W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10 874294-L21

Platinum Processors (2nd Generation Intel® Xeon® Scalable Processor Family)

Intel Xeon-Platinum 8253 (2.2GHz/16-core/125W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10. P11835-L21

Gold Processors (1st Generation Intel® Xeon® Scalable Processor Family)

Intel Xeon-Gold 6144 (3.5GHz/8-core/150W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10. 880671-L21

Intel Xeon-Gold 6134 (3.2GHz/8-core/130W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10 874290-L21

Intel Xeon-Gold 6126 (2.6GHz/12-core/125W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10 874283-L21

Intel Xeon-Gold 5122 (3.6GHz/4-core/105W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10 874282-L21

Intel Xeon-Gold 5119T (1.9GHz/14-core/85W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10 882040-L21

Intel Xeon-Gold 5118 (2.3GHz/12-core/105W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10 879581-L21

Gold Processors (2nd Generation Intel® Xeon® Scalable Processor Family)

Intel Xeon-Gold 6252 (2.1GHz/24-core/150W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10. P10329-L21

Intel Xeon-Gold 6248 (2.5GHz/20-core/150W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10. P10328-L21

Intel Xeon-Gold 6244 (3.6GHz/8-core/150W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10. P10327-L21

Intel Xeon-Gold 6242 (2.8GHz/16-core/150W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10. P10326-L21

Intel Xeon-Gold 6240 (2.6GHz/18-core/150W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10 P10325-L21

Intel Xeon-Gold 6238 (2.1GHz/22-core/140W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10. P12326-L21

Intel Xeon-Gold 6234 (3.3GHz/8-core/130W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10. P12325-L21

Intel Xeon-Gold 6230 (2.1GHz/20-core/125W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10 P10324-L21

Intel Xeon-Gold 6226 (2.7GHz/12-core/125W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10 P12324-L21

Intel Xeon-Gold 5222 (3.8GHz/4-core/105W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10 P11834-L21

Intel Xeon-Gold 5220 (2.2GHz/18-core/125W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10 P10323-L21

Intel Xeon-Gold 5218 (2.3GHz/16-core/125W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10 P10322-L21

Intel Xeon-Gold 5217 (3.0GHz/8-core/115W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10. P10321-L21

Intel Xeon-Gold 5215M (2.5GHz/10-core/85W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10. P10320-L21

Intel Xeon-Gold 5218R (2.1GHz/20-core/125W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10 P19269-L21

Intel Xeon-Gold 5220R (2.2GHz/24-core/150W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10 P19270-L21

Intel Xeon-Gold 6226R (2.9GHz/16-core/150W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10 P25126-L21

Intel Xeon-Gold 6230R (2.1GHz/26-core/150W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10 P25127-L21

Configuration Information

Silver Processors (1st Generation Intel® Xeon® Scalable Processor Family)

| | |
|---|------------|
| Intel Xeon-Silver 4112 (2.6GHz/4-core/85W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10. | 879597-L21 |
| Intel Xeon-Silver 4110 (2.1GHz/8-core/85W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10 | 879595-L21 |
| Intel Xeon-Silver 4108 (1.8GHz/8-core/85W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10 | 879591-L21 |

Silver Processors (2nd Generation Intel® Xeon® Scalable Processor Family)

| | |
|---|------------|
| Intel Xeon-Silver 4216 (2.1GHz/16-core/100W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10. | P10319-L21 |
| Intel Xeon-Silver 4215 (2.5GHz/8-core/85W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10 | P10318-L21 |
| Intel Xeon-Silver 4214 (2.2GHz/12-core/85W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10 | P10317-L21 |
| Intel Xeon-Silver 4210 (2.2GHz/10-core/85W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10 | P10316-L21 |
| Intel Xeon-Silver 4208 (2.1GHz/8-core/85W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10 | P10315-L21 |
| Intel Xeon-Silver 4210R (2.4GHz/10-core/100W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10 | P19265-L21 |
| Intel Xeon-Silver 4214R (2.4GHz/12-core/100W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10 | P19266-L21 |
| Intel Xeon-Silver 4215R (3.2GHz/8-core/130W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10 | P25128-L21 |

Bronze Processors (2nd Generation Intel® Xeon® Scalable Processor Family)

| | |
|---|------------|
| Intel Xeon-Bronze 3204 (1.9GHz/6-core/85W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10 | P10314-L21 |
| Intel Xeon-Bronze 3206R (1.9GHz/8-core/85W) FIO Processor Kit for HPE ProLiant XL1x0r Gen10 | P19263-L21 |

Notes:

- Must select one xxxxxx-L21 processor. If one processor is desired, select one xxxxxx-L21. If two processors are desired, select one corresponding xxxxxx-B21. Mixing of processor speeds and types is not supported.
- DDR4 speed is the maximum memory speed of the processor. Actual memory speed may depend on the quantity and type of DIMMs installed. For the maximum supported memory speeds for each processor listed above, please reference the 'Memory Speed by Processor Model' table in the Memory section of the QuickSpecs.
- Bronze Processors not supported in EMEA

HPE Memory

Notes: Minimum 1 DIMMs are required per processor; up to 8 DIMMs per processor.

Registered DIMMs (RDIMMs) – DDR4-2666

| | |
|---|------------|
| HPE 8GB (1x8GB) Single Rank x8 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit | 815097-H21 |
| HPE 16GB (1x16GB) Single Rank x4 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit | 815098-H21 |
| HPE 32GB (1x32GB) Dual Rank x4 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit | 815100-H21 |
| HPE 16GB (1x16GB) Dual Rank x8 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit | 835955-H21 |

Registered DIMMs (RDIMMs) – DDR4-2933

| | |
|---|------------|
| HPE 8GB (1x8GB) Single Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit | P00918-H21 |
| HPE 16GB (1x16GB) Single Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit | P00920-H21 |
| HPE 16GB (1x16GB) Dual Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit | P00922-H21 |
| HPE 32GB (1x32GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit | P00924-H21 |
| HPE 64GB (1x64GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit | P00930-H21 |

Load Reduced DIMMs (LRDIMMs) – DDR4-2666

| | |
|---|------------|
| HPE 64GB (1x64GB) Quad Rank x4 DDR4-2666 CAS-19-19-19 Load Reduced Smart Memory Kit | 815101-H21 |
|---|------------|

Load Reduced DIMMs (LRDIMMs) – DDR4-2933

| | |
|---|------------|
| HPE 64GB (1x64GB) Quad Rank x4 DDR4-2933 CAS-21-21-21 Load Reduced Smart Memory Kit | P00926-H21 |
|---|------------|

HPE Persistent Memory (Intel Optane)

| | |
|---|------------|
| Intel Optane 128GB persistent memory 100 Series for HPE | 835804-B21 |
| Intel Optane 256GB persistent memory 100 Series for HPE | 835807-B21 |



Configuration Information

Intel Optane 512GB persistent memory 100 Series for HPE

835810-B21

Notes:

- A max of 2 HPE Persistent Memory DIMMs per processor supported with select 2nd Generation Intel Xeon Scalable Series Processors ONLY (82xx/62xx/52xx/4215) and require either RDIMMs or LRDIMMs to be configured.
- For information regarding HPE Persistent Memory visit: <http://www.hpe.com/info/persistentmemory>
- Minimum 1 DIMMs are required per processor; up to 8 DIMMs per processor.
- If Fabric CPU is installed, minimum of 32GB is required
- A maximum of 16 DIMMs are supported per XL170r server tray (or 8 DIMMs max per processor).
- LRDIMM and RDIMM are distinct memory technologies and cannot be mixed within a server.
- HPE memory from previous generation servers is not compatible with this server. HPE SmartMemory is required to realize the memory performance improvements and enhanced functionality listed in this document for Gen10. For additional information, please see the HPE SmartMemory QuickSpecs at: <https://www.hpe.com/h20195/v2/GetPDF.aspx/c04355083.pdf>
- Depending on the memory configuration and processor model, the memory speed may run at 2666MHz, 2400MHz, and 2133MHz. Please see Memory Population Table or the Online Memory Configuration Tool at: <http://h22195.www2.hpe.com/MemoryTool/Home/Legal>

HPE PCIe riser kits

HPE XL170r Gen10 Right Riser FIO Blank Kit

874802-B21

Notes: Must be selected if none of the following are selected: HPE XL1x0r Gen10 P1 LP Riser Kit 874300-B21; HPE XL1x0r Gen10 P2 LP Riser Kit 874302-B21; or HPE XL170r 16NVMe P2 LP Riser Kit 874304-B21
HPE XL1x0r Gen10 FLOM Riser Kit 874298-B21

HPE XL1x0r Gen10 Left Riser FIO Blank Kit

874805-B21

Notes: Must be selected if HPE XL170r Gen10 Left LP Kit 874296-B21 is not selected.

HPE XL1x0r Gen10 Left Low Profile Riser Kit

874296-B21

Notes:

- HPE XL1x0r Gen10 Left Low Profile Riser Kit & HPE XL170r Gen10 Right Riser FIO Blank Kit 874802-B21 total available PCIe slots is one (1x16) total available FlexibleLOM slots is 0.
- HPE XL1x0r Gen10 Left Low Profile Riser Kit & HPE XL170r Gen10 P1 LP Kit 874300-B21 total available PCIe slots is two (2x16) total available FlexibleLOM slots is 0.
- HPE XL1x0r Gen10 Left Low Profile Riser Kit & HPE XL170r Gen10 P2 LP Kit 874302-B21 total available PCIe slots is two (2x16) total available FlexibleLOM slots is 0.
- HPE XL1x0r Gen10 Left Low Profile Riser Kit & HPE XL170r Gen10 16NVMe P2 LP Kit 874304-B21 total available PCIe slots is two (2x16) total available FlexibleLOM slots is 0.

HPE XL170r Gen10 FlexibleLOM Riser Kit

874298-B21

Notes: Must be selected if a FlexibleLOM option is ordered.

HPE XL170r Gen10 P1 Low Profile Riser Kit

874300-B21

Notes: HPE XL1x0r Gen10 P1 Low Profile Riser Kit & HPE XL170r Gen10 Left Riser FIO Blank Kit 874805-B21 total available PCIe slots is one (1x16) total available FlexibleLOM slots is 0.

HPE XL170r Gen10 P2 Low Profile Riser Kit

874302-B21

Notes: HPE XL1x0r Gen10 P2 Low Profile Riser Kit & HPE XL170r Gen10 Left Riser FIO Blank Kit 874805-B21 total available PCIe slots is one (1x16) total available FlexibleLOM slots is 0.

HPE XL1x0r Gen10 M2 (NGFF) Riser Kit

874853-B21

Notes: Must be selected if M.2 SSDs are ordered. Can support two M.2 SSD. Does not consume the PCIe slot.

HPE XL170r Gen10 16NVMe P2 Low Profile Riser Kit

874304-B21

Notes: HPE XL1x0r Gen10 16NVMe P2 Low Profile Riser Kit & HPE XL170r Gen10 Left Riser FIO Blank Kit 874805-B21 total available PCIe slots is one (1x16) total available FlexibleLOM slots is 0.



Configuration Information

HPE Storage Controller

Notes: Required to select one of the following when SAS Drives are installed on the server

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

Notes: Supports up to 8 internal SAS/SATA Drives. HPE XL170r Left E208ip/P408ip Cable Kit 874785-B21 or HPE XL170r Right E208i/P408i Cable Kit 874855-B21 must be ordered to support P-series controllers.

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

Notes: Supports up to 8 internal SAS/SATA Drives. HPE XL170r Left E208ip/P408ip Cable Kit 874785-B21 or HPE XL170r Right E208i/P408i Cable Kit 874855-B21 must be ordered to support P-series controllers.

HPE XL170r Gen10 S100i SATA Cable Kit 874305-B21

Notes:

- Required to be selected when S100i is the primary controller; supports to connect to SATA drives; select 1 cable kit per node
- R2200 + 1U node – supports max of 3 SATA hard drive per node; R2600 + 1U node – supports 6 SATA hard drives per node

HPE XL170r Left E208ip/P408ip Cable Kit 874785-B21

Notes: Required to be selected when E208i or P408i is selected in the configuration along with HPE XL1x0r Gen10 Left LP Riser Kit excluding Fabric CPU enablement kit in the configuration

HPE XL170r Right E208ip/P408ip Cable Kit 874855-B21

Notes:

- Required to be selected when E208i or 408i is selected along with one the below mentioned Riser including the Fabric CPU enablement kit in the configuration:
- HPE XL170r Gen10 FLOM Riser Kit, HPE XL170r Gen10 P2 LP Riser Kit, HPE XL170r 16NVM3 Gen10 P2 LP Riser Kit

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

Notes: The battery cable kit needs to be selected if the node has the P series controller in the node configuration

Step 3: Choose Additional Factory Integrated Options (only one from each category unless otherwise noted)

BIOS Mode

HPE Legacy FIO Mode Setting 758959-B22

Notes:

- The system BIOS provides two different Boot Modes: UEFI (Standard) and Legacy BIOS (optional) 758959-B22
- When this option is selected, then BIOS need to be switched from default UEFI Mode to Legacy Mode

HPE Security Hardware

HPE Gen10 TPM 1.2 FIO Setting 872108-B21

Notes: This can be selected only when TPM 2.0 Gen10 Kit 864279-B21 is selected in the configuration

Raid Settings

HPE RAID 0 Drive 1 FIO Setting 339777-B21

HPE RAID 1 Drive 1 FIO Setting 339778-B21

HPE RAID 5 Drive 1 FIO Setting 339779-B21

HPE Raid 5 w/SP Drive 1 FIO Setting 339780-B21

HPE RAID FIO Advanced Data Guarding Option 339781-B21

HPE Customer Defined RAID Setting Service 389692-B21



Configuration Information

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

Notes: 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.



Core Options

HPE Processors

Platinum Processors (1st Generation Intel® Xeon® Scalable Processor Family)

Intel Xeon-Platinum 8160 (2.1GHz/24-core/150W) Processor Kit for HPE ProLiant XL1x0r Gen10 874294-B21

Platinum Processors (2nd Generation Intel® Xeon® Scalable Processor Family)

Intel Xeon-Platinum 8253 (2.2GHz/16-core/125W) Processor Kit for HPE ProLiant XL1x0r Gen10 P11835-B21

Gold Processors (1st Generation Intel® Xeon® Scalable Processor Family)

Intel Xeon-Gold 6144 (3.5GHz/8-core/150W) Processor Kit for HPE ProLiant XL1x0r Gen10 880671-B21

Intel Xeon-Gold 6134 (3.2GHz/8-core/130W) Processor Kit for HPE ProLiant XL1x0r Gen10 874290-B21

Intel Xeon-Gold 6126 (2.6GHz/12-core/125W) Processor Kit for HPE ProLiant XL1x0r Gen10 874283-B21

Intel Xeon-Gold 5122 (3.6GHz/4-core/105W) Processor Kit for HPE ProLiant XL1x0r Gen10 874282-B21

Intel Xeon-Gold 5118 (2.3GHz/12-core/105W) Processor Kit for HPE ProLiant XL1x0r Gen10 879581-B21

Gold Processors (2nd Generation Intel® Xeon® Scalable Processor Family)

Intel Xeon-Gold 6252 (2.1GHz/24-core/150W) Processor Kit for HPE ProLiant XL1x0r Gen10 P10329-B21

Intel Xeon-Gold 6248 (2.5GHz/20-core/150W) Processor Kit for HPE ProLiant XL1x0r Gen10 P10328-B21

Intel Xeon-Gold 6244 (3.6GHz/8-core/150W) Processor Kit for HPE ProLiant XL1x0r Gen10 P10327-B21

Intel Xeon-Gold 6242 (2.8GHz/16-core/150W) Processor Kit for HPE ProLiant XL1x0r Gen10 P10326-B21

Intel Xeon-Gold 6240 (2.6GHz/18-core/150W) Processor Kit for HPE ProLiant XL1x0r Gen10 P10325-B21

Intel Xeon-Gold 6238 (2.1GHz/22-core/140W) Processor Kit for HPE ProLiant XL1x0r Gen10 P12326-B21

Intel Xeon-Gold 6234 (3.3GHz/8-core/130W) Processor Kit for HPE ProLiant XL1x0r Gen10 P12325-B21

Intel Xeon-Gold 6230 (2.1GHz/20-core/125W) Processor Kit for HPE ProLiant XL1x0r Gen10 P10324-B21

Intel Xeon-Gold 6226 (2.7GHz/12-core/125W) Processor Kit for HPE ProLiant XL1x0r Gen10 P12324-B21

Intel Xeon-Gold 5222 (3.8GHz/4-core/105W) Processor Kit for HPE ProLiant XL1x0r Gen10 P11834-B21

Intel Xeon-Gold 5220 (2.2GHz/18-core/125W) Processor Kit for HPE ProLiant XL1x0r Gen10 P10323-B21

Intel Xeon-Gold 5218 (2.3GHz/16-core/125W) Processor Kit for HPE ProLiant XL1x0r Gen10 P10322-B21

Intel Xeon-Gold 5217 (3.0GHz/8-core/115W) Processor Kit for HPE ProLiant XL1x0r Gen10 P10321-B21

Intel Xeon-Gold 5215 (2.5GHz/10-core/85W) Processor Kit for HPE ProLiant XL1x0r Gen10 P10320-B21

Intel Xeon-Gold 5218R (2.1GHz/20-core/125W) Processor Kit for HPE ProLiant XL1x0r Gen10 P19269-B21

Intel Xeon-Gold 5220R (2.2GHz/24-core/150W) Processor Kit for HPE ProLiant XL1x0r Gen10 P19270-B21

Intel Xeon-Gold 6226R (2.9GHz/16-core/150W) Processor Kit for HPE ProLiant XL1x0r Gen10 P25126-B21

Intel Xeon-Gold 6230R (2.1GHz/26-core/150W) Processor Kit for HPE ProLiant XL1x0r Gen10 P25127-B21

Silver Processors (1st Generation Intel® Xeon® Scalable Processor Family)

Intel Xeon-Silver 4112 (2.6GHz/4-core/85W) Processor Kit for HPE ProLiant XL1x0r Gen10 879597-B21

Intel Xeon-Silver 4110 (2.1GHz/8-core/85W) Processor Kit for HPE ProLiant XL1x0r Gen10 879595-B21

Intel Xeon-Silver 4108 (1.8GHz/8-core/85W) Processor Kit for HPE ProLiant XL1x0r Gen10 879591-B21

Silver Processors (2nd Generation Intel® Xeon® Scalable Processor Family)

Intel Xeon-Silver 4216 (2.1GHz/16-core/100W) Processor Kit for HPE ProLiant XL1x0r Gen10 P10319-B21

Intel Xeon-Silver 4215 (2.5GHz/8-core/85W) Processor Kit for HPE ProLiant XL1x0r Gen10 P10318-B21

Intel Xeon-Silver 4214 (2.2GHz/12-core/85W) Processor Kit for HPE ProLiant XL1x0r Gen10 P10317-B21

Intel Xeon-Silver 4210 (2.2GHz/10-core/85W) Processor Kit for HPE ProLiant XL1x0r Gen10 P10316-B21

Intel Xeon-Silver 4208 (2.1GHz/8-core/85W) Processor Kit for HPE ProLiant XL1x0r Gen10 P10315-B21

Intel Xeon-Silver 4210R (2.4GHz/10-core/100W) Processor Kit for HPE ProLiant XL1x0r Gen10 P19265-B21

Intel Xeon-Silver 4214R (2.4GHz/12-core/100W) Processor Kit for HPE ProLiant XL1x0r Gen10 P19266-B21

Intel Xeon-Silver 4215R (3.2GHz/8-core/130W) Processor Kit for HPE ProLiant XL1x0r Gen10 P25128-B21

Core Options

Bronze Processors (2nd Generation Intel® Xeon® Scalable Processor Family)

| | |
|---|------------|
| Intel Xeon-Bronze 3204 (1.9GHz/6-core/85W) Processor Kit for HPE ProLiant XL1x0r Gen10 | P10314-B21 |
| Intel Xeon-Bronze 3206R (1.9GHz/8-core/85W) Processor Kit for HPE ProLiant XL1x0r Gen10 | P19263-B21 |

Notes:

- DDR4 speed is the maximum memory speed of the processor. Actual memory speed may depend on the quantity and type of DIMMs installed. For the maximum supported memory speeds for each processor listed above, please reference the 'Memory Speed by Processor Model' table in the Memory section of the QuickSpecs.
- Bronze Processors not supported in EMEA

HPE Memory

Registered DIMMs (RDIMMs) – DDR4-2666

| | |
|---|------------|
| HPE 16GB (1x16GB) Single Rank x4 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit | 815098-H21 |
| HPE 32GB (1x32GB) Dual Rank x4 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit | 815100-H21 |
| HPE 16GB (1x16GB) Dual Rank x8 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit | 835955-H21 |
| HPE 8GB (1x8GB) Single Rank x8 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit | 815097-H21 |

Registered DIMMs (RDIMMs) – DDR4-2933

| | |
|---|------------|
| HPE 8GB (1x8GB) Single Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit | P00918-H21 |
| HPE 16GB (1x16GB) Single Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit | P00920-H21 |
| HPE 16GB (1x16GB) Dual Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit | P00922-H21 |
| HPE 32GB (1x32GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit | P00924-H21 |
| HPE 64GB (1x64GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit | P00930-H21 |

Load Reduced DIMMs (LRDIMMs) – DDR4-2666

| | |
|---|------------|
| HPE 64GB (1x64GB) Quad Rank x4 DDR4-2666 CAS-19-19-19 Load Reduced Smart Memory Kit | 815101-H21 |
|---|------------|

Load Reduced DIMMs (LRDIMMs) – DDR4-2933

| | |
|---|------------|
| HPE 64GB (1x64GB) Quad Rank x4 DDR4-2933 CAS-21-21-21 Load Reduced Smart Memory Kit | P00926-H21 |
|---|------------|

HPE Persistent Memory (Intel Optane)

| | |
|---|------------|
| Intel Optane 128GB persistent memory 100 Series for HPE | 835804-B21 |
| Intel Optane 256GB persistent memory 100 Series for HPE | 835807-B21 |
| Intel Optane 512GB persistent memory 100 Series for HPE | 835810-B21 |

Notes:

- A max of 2 HPE Persistent Memory DIMMs per processor supported with select 2nd Generation Intel Xeon Scalable Series Processors ONLY (82xx/62xx/52xx/4215) and require either RDIMMs or LRDIMMs to be configured.
- For information regarding HPE Persistent Memory visit: <http://www.hpe.com/info/persistentmemory>
- CLX-SP processors require 2933 MT/s DIMMS
- Minimum 1 DIMMs are required per processor; up to 8 DIMMs per processor.
- HPE memory from previous generation servers (DDR3) is not compatible with this server. HPE DDR4 SmartMemory is required to realize the memory performance improvements and enhanced functionality listed in this document for Gen10. For additional information, please see the HPE DDR4 SmartMemory QuickSpecs at:
 - <http://www8.hpe.com/h20195/v2/GetHTML.aspx?docname=c04380279>
- LRDIMM and RDIMM are distinct memory technologies and cannot be mixed within a server.
- Depending on the memory configuration and processor model, the memory speed may run at 2666MHz, 2400MHz, 2133MHz. Please see Memory Population Table or the Online Memory Configuration Tool at:
 - <http://h22195.www2.hpe.com/MemoryTool/Home/Legal>



Core Options

HPE Networking

Ethernet Options

| | |
|---|------------|
| HPE XL1x0r Ethernet 10Gb 2-port 568FLR-MMT Adapter | 868227-B21 |
| HPE Ethernet 10Gb 2-port SFP+ 57810S Adapter | 652503-B21 |
| HPE Ethernet 10Gb 2-port BASE-T 57810S Adapter | 656596-B21 |
| HPE Ethernet 10/25Gb 2-port SFP28 BCM57414 Adapter | 817718-B21 |
| HPE Ethernet 10Gb 2-port BASE-T BCM57416 Adapter | 813661-B21 |
| HPE Ethernet 1Gb 4-port BASE-T I350-T4V2 Adapter | 811546-B21 |
| HPE Ethernet 1Gb 2-port 368T Media Module Adapter | 866464-B21 |
| HPE Ethernet 10Gb 2-port 568SFP+ Media Module Adapter | 866467-B21 |
| HPE Ethernet 10/25Gb 2-port FLR-SFP28 MCX4121A-ACFT Adapter | 817749-B21 |
| HPE Ethernet 10/25Gb 2-port SFP28 MCX4121A-ACUT Adapter | 817753-B21 |
| HPE Ethernet 1Gb 4-port BASE-T BCM5719 Adapter | 647594-B21 |
| HPE Ethernet 10Gb 2-port BASE-T X550-AT2 Adapter | 817738-B21 |
| HPE Ethernet 10/25Gb 2-port SFP28 QL41401-A2G Adapter | 867328-B21 |
| HPE Ethernet 10Gb 2-port BASE-T QL41401-A2G Adapter | 867707-B21 |
| HPE Ethernet 1Gb 2-port BASE-T BCM5720 Adapter | 615732-B21 |
| HPE Ethernet 100Gb 1-port QSFP28 MCX515A-CCAT Adapter | 874253-B21 |

Notes: For 1U, total Slots available for PCIe is 2, total Slots available for FlexLOM is 1. This is a total selection from anything in the following categories: InfiniBand, Networking, Controllers.

FlexibleLOM Adapters

| | |
|---|------------|
| HPE Ethernet 1Gb 4-port FLR-T BCM5719 Adapter | 629135-B22 |
| HPE Ethernet 10/25Gb 2-port FLR-SFP28 BCM57414 Adapter | 817709-B21 |
| HPE Ethernet 10Gb 2-port FLR-T BCM57416 Adapter | 817721-B21 |
| HPE Ethernet 1Gb 4-port FLR-T I350-T4V2 Adapter | 665240-B21 |
| HPE FlexFabric 10Gb 2-port FLR-SFP+ 57810S Adapter | 700751-B21 |
| HPE FlexFabric 10Gb 2-port FLR-T 57810S Adapter | 700759-B21 |
| HPE FlexFabric 10Gb 4-port FLR-T 57840S Adapter | 764302-B21 |
| HPE Ethernet 10Gb 2-port FLR-T X550-AT2 Adapter | 817745-B21 |
| HPE Ethernet 10/25Gb 2-port FLR-SFP28 QL41401-A2G Converged Network Adapter | 867334-B21 |

Converged Network Adapters

InfiniBand and Omni-Path Options

| | |
|---|------------|
| HPE InfiniBand EDR 100Gb 1-port 841QSFP28 Adapter | 872725-H21 |
| HPE InfiniBand EDR/Ethernet 100Gb 2-port 841QSFP28 Adapter | 872726-H21 |
| HPE InfiniBand FDR/Ethernet 40/50Gb 2-port 547FLR-QSFP Adapter | 879482-B21 |
| HPE 100Gb 1-port OP101 QSFP28 x16 PCIe Gen3 with Intel Omni-Path Architecture Adapter | 829335-B21 |
| HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe3 x16 MCX653105A-HDAT Adapter | P06154-H21 |
| HPE InfiniBand HDR100/Ethernet 100Gb 1-port QSFP56 PCIe3 x16 MCX653105A-ECAT Adapter | P06250-H21 |
| HPE InfiniBand HDR100/Ethernet 100Gb 2-port QSFP56 PCIe3 x16 MCX653106A-ECAT Adapter | P06251-H21 |

Notes: Please see the QuickSpecs for Technical Specifications and additional information:
<https://www.hpe.com/us/en/product-catalog/servers/server-adapters.hits-12.html>



Core Options

HPE Drives

Enterprise 12G SAS - SFF Drives

| | |
|---|------------|
| HPE 300GB SAS 12G Mission Critical 15K SFF SC 3-year Warranty Multi Vendor HDD | 870753-H21 |
| HPE 300GB SAS 12G Mission Critical 10K SFF SC 3-year Warranty Multi Vendor HDD | 872475-H21 |
| HPE 600GB SAS 12G Mission Critical 10K SFF SC 3-year Warranty Multi Vendor HDD | 872477-H21 |
| HPE 900GB SAS 12G Mission Critical 15K SFF SC 3-year Warranty Multi Vendor HDD | 870759-H21 |
| HPE 1.2TB SAS 12G Mission Critical 10K SFF SC 3-year Warranty Multi Vendor HDD | 872479-H21 |
| HPE 1.8TB SAS 12G Mission Critical 10K SFF SC 3-year Warranty 512e Multi Vendor HDD | 872481-H21 |
| HPE 2.4TB SAS 12G Mission Critical 10K SFF SC 3-year Warranty 512e Multi Vendor HDD | 881457-H21 |

Midline 12G SAS - SFF Drives

| | |
|--|------------|
| HPE 1TB SAS 12G Business Critical 7.2K SFF SC 1-year Warranty HDD | 832514-H21 |
| HPE 2TB SAS 12G Business Critical 7.2K SFF SC 1-year Warranty 512e HDD | 765466-H21 |

Midline 12G SAS - LFF Drives

| | |
|---|------------|
| HPE 8TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty 512e Multi Vendor HDD | 834031-H21 |
| HPE 2TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Multi Vendor HDD | 833926-H21 |
| HPE 4TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Multi Vendor HDD | 833928-H21 |
| HPE 6TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty 512e Multi Vendor HDD | 861746-H21 |
| HPE 10TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e 6-pack FIO HDD | P09799-B21 |
| HPE 10TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e Multi Vendor HDD | P09149-H21 |
| HPE 12TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e Multi Vendor HDD | 881781-H21 |
| HPE 18TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e ISE Multi Vendor HDD | P37669-H21 |
| HPE 18TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e ISE Multi Vendor HDD | P37678-H21 |

Midline 6G SATA SFF Drives

| | |
|--|------------|
| HPE 2TB SATA 6G Business Critical 7.2K SFF SC 1-year Warranty 512e HDD | 765455-H21 |
| HPE 1TB SATA 6G Business Critical 7.2K SFF SC 1-year Warranty HDD | 655710-H21 |

Midline 6G SATA - LFF Drives

| | |
|---|------------|
| HPE 4TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Multi Vendor HDD | 861683-H21 |
| HPE 1TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Multi Vendor HDD | 861686-H21 |
| HPE 8TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty 512e Multi Vendor HDD | 834028-H21 |
| HPE 6TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty 512e Multi Vendor HDD | 861742-H21 |
| HPE 2TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Multi Vendor HDD | 861681-H21 |
| HPE 10TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e Multi Vendor HDD | P09161-H21 |
| HPE 10TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e 6-pack FIO HDD | P09797-B21 |
| HPE 12TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e Multi Vendor HDD | 881787-H21 |

SSD Selection

Read Intensive 12G SAS - SFF Solid State Drives

| | |
|--|------------|
| HPE 960GB SAS 12G Read Intensive SFF SC PM1643a SSD | P19903-H21 |
| HPE 1.92TB SAS 12G Read Intensive SFF SC PM1643a SSD | P19905-H21 |
| HPE 3.84TB SAS 12G Read Intensive SFF SC PM1643a SSD | P19907-H21 |
| HPE 7.68TB SAS 12G Read Intensive SFF SC PM1643a SSD | P19909-H21 |
| HPE 960GB SAS 12G Read Intensive SFF SC SS540 SSD | P21139-H21 |



Core Options

| | |
|---|------------|
| HPE 1.92TB SAS 12G Read Intensive SFF SC SS540 SSD | P21141-H21 |
| HPE 960GB SAS 12G Read Intensive SFF SC Value SAS Multi Vendor SSD | P36997-H21 |
| HPE 1.92TB SAS 12G Read Intensive SFF SC Value SAS Multi Vendor SSD | P36999-H21 |
| HPE 3.84TB SAS 12G Read Intensive SFF SC Value SAS Multi Vendor SSD | P37001-H21 |
| HPE 7.68TB SAS 12G Read Intensive SFF SC Value SAS Multi Vendor SSD | P37003-H21 |
| HPE 960GB SAS 12G Read Intensive SFF SC PM6 SSD | P26285-H21 |
| HPE 1.92TB SAS 12G Read Intensive SFF SC PM6 SSD | P26302-H21 |
| HPE 3.84TB SAS 12G Read Intensive SFF SC PM6 SSD | P26306-H21 |
| HPE 7.68TB SAS 12G Read Intensive SFF SC PM6 SSD | P26310-H21 |
| HPE 15.3TB SAS 12G Read Intensive SFF SC PM6 SSD | P26314-H21 |
| HPE 960GB SAS 12G Read Intensive SFF SC Multi Vendor SSD | P49028-H21 |
| HPE 1.92TB SAS 12G Read Intensive SFF SC Multi Vendor SSD | P49030-H21 |
| HPE 3.84TB SAS 12G Read Intensive SFF SC Multi Vendor SSD | P49034-H21 |
| HPE 7.68TB SAS 12G Read Intensive SFF SC Multi Vendor SSD | P49039-H21 |
| HPE 15.36TB SAS 12G Read Intensive SFF SC Multi Vendor SSD | P49044-H21 |

Read Intensive 6G SATA - SFF - Solid State Drives

| | |
|---|------------|
| HPE 240GB SATA 6G Read Intensive SFF SC PM883 SSD | P04556-H21 |
| HPE 480GB SATA 6G Read Intensive SFF SC PM883 SSD | P04560-H21 |
| HPE 960GB SATA 6G Read Intensive SFF SC PM883 SSD | P04564-H21 |
| HPE 1.92TB SATA 6G Read Intensive SFF SC PM883 SSD | P04566-H21 |
| HPE 3.84TB SATA 6G Read Intensive SFF SC PM883 SSD | P04570-H21 |
| HPE 1.92TB SATA 6G Read Intensive SFF SC Multi Vendor SSD | P18426-H21 |
| HPE 240GB SATA 6G Read Intensive SFF SC Multi Vendor SSD | P18420-H21 |
| HPE 3.84TB SATA 6G Read Intensive SFF SC Multi Vendor SSD | P18428-H21 |
| HPE 480GB SATA 6G Read Intensive SFF SC Multi Vendor SSD | P18422-H21 |
| HPE 7.68TB SATA 6G Read Intensive SFF SC Multi Vendor SSD | P18430-H21 |
| HPE 960GB SATA 6G Read Intensive SFF SC Multi Vendor SSD | P18424-H21 |
| HPE 1.92TB SATA 6G Read Intensive SFF SC S4520 SSD | P47319-H21 |
| HPE 3.84TB SATA 6G Read Intensive SFF SC S4520 SSD | P47321-H21 |
| HPE 240GB SATA 6G Read Intensive M.2 Multi Vendor SSD | P47817-H21 |
| HPE 480GB SATA 6G Read Intensive M.2 Multi Vendor SSD | P47818-H21 |

Read Intensive 6G SATA - LFF - Solid State Drives

| | |
|--|------------|
| HPE 960GB SATA 6G Read Intensive LFF LPC PM883 SSD | P09691-H21 |
|--|------------|

Read Intensive 6G SATA - SFF - Solid State Drives

| | |
|--|------------|
| HPE 240GB SATA 6G Read Intensive SFF SC S4510 SSD | P05924-H21 |
| HPE 480GB SATA 6G Read Intensive SFF SC S4510 SSD | P05928-H21 |
| HPE 960GB SATA 6G Read Intensive SFF SC S4510 SSD | P05932-H21 |
| HPE 1.92TB SATA 6G Read Intensive SFF SC S4510 SSD | P05938-H21 |
| HPE 3.84TB SATA 6G Read Intensive SFF SC S4510 SSD | P05946-H21 |
| HPE 480GB SATA 6G Read Intensive SFF SC PM893 SSD | P47810-H21 |
| HPE 960GB SATA 6G Read Intensive SFF SC PM893 SSD | P47811-H21 |
| HPE 1.9TB SATA 6G Read Intensive SFF SC PM893 SSD | P47812-H21 |
| HPE 3.84TB SATA 6G Read Intensive SFF SC PM893 SSD | P47813-H21 |



Core Options

Write Intensive 12G SAS – SFF – Solid State Drive

| | |
|--|------------|
| HPE 400GB SAS 12G Write Intensive SFF SC PM6 SSD | P26295-H21 |
| HPE 800GB SAS 12G Write Intensive SFF SC PM6 SSD | P26372-H21 |
| HPE 1.6TB SAS 12G Write Intensive SFF SC PM6 SSD | P26376-H21 |

Mixed Use 12G SAS – SFF Solid State Drives

| | |
|--|------------|
| HPE 800GB SAS 12G Mixed Use SFF SC PM1645a SSD | P19913-H21 |
| HPE 1.6TB SAS 12G Mixed Use SFF SC PM1645a SSD | P19915-H21 |
| HPE 3.2TB SAS 12G Mixed Use SFF SC PM1645a SSD | P19917-H21 |
| HPE 6.4TB SAS 12G Mixed Use SFF SC PM1645a SSD | P19919-H21 |
| HPE 800GB SAS 12G Mixed Use SFF SC SS540 SSD | P21131-H21 |
| HPE 1.6TB SAS 12G Mixed Use SFF SC SS540 SSD | P21133-H21 |
| HPE 3.2TB SAS 12G Mixed Use SFF SC SS540 SSD | P21135-H21 |
| HPE 6.4TB SAS 12G Mixed Use SFF SC SS540 SSD | P21137-H21 |
| HPE 960GB SAS 12G Mixed Use SFF SC Value SAS Multi Vendor SSD | P37005-H21 |
| HPE 1.92TB SAS 12G Mixed Use SFF SC Value SAS Multi Vendor SSD | P37011-H21 |
| HPE 3.84TB SAS 12G Mixed Use SFF SC Value SAS Multi Vendor SSD | P37017-H21 |
| HPE 800GB SAS 12G Mixed Use SFF SC PM6 SSD | P26290-H21 |
| HPE 1.6TB SAS 12G Mixed Use SFF SC PM6 SSD | P26354-H21 |
| HPE 3.2TB SAS 12G Mixed Use SFF SC PM6 SSD | P26358-H21 |
| HPE 6.4TB SAS 12G Mixed Use SFF SC PM6 SSD | P26362-H21 |
| HPE 800GB SAS 12G Mixed Use SFF SC Multi Vendor SSD | P49046-H21 |
| HPE 1.6TB SAS 12G Mixed Use SFF SC Multi Vendor SSD | P49048-H21 |
| HPE 3.2TB SAS 12G Mixed Use SFF SC Multi Vendor SSD | P49052-H21 |
| HPE 6.4TB SAS 12G Mixed Use SFF SC Multi Vendor SSD | P49056-H21 |

Mixed Use 12G SAS - LFF Solid State Drives

| | |
|--|------------|
| HPE 960GB SAS 12G Mixed Use LFF LPC Value SAS Multi Vendor SSD | P37009-H21 |
| HPE 800GB SAS 12G Mixed Use SFF SC PM6 SSD | P26290-H21 |

Mixed Use 6G SATA - SFF - Solid State Drives

| | |
|--|------------|
| HPE 480GB SATA 6G Mixed Use SFF SC SM883 SSD | P09712-H21 |
| HPE 960GB SATA 6G Mixed Use SFF SC SM883 SSD | P09716-H21 |
| HPE 1.92TB SATA 6G Mixed Use SFF SC SM883 SSD | P09722-H21 |
| HPE 480GB SATA 6G Mixed Use SFF SC S4610 SSD | P05976-H21 |
| HPE 960GB SATA 6G Mixed Use SFF SC S4610 SSD | P05980-H21 |
| HPE 1.92TB SATA 6G Mixed Use SFF SC S4610 SSD | P05986-H21 |
| HPE 3.84TB SATA 6G Mixed Use SFF SC S4610 SSD | P05994-H21 |
| HPE 1.92TB SATA 6G Mixed Use SFF SC Multi Vendor SSD | P18436-H21 |
| HPE 3.84TB SATA 6G Mixed Use SFF SC Multi Vendor SSD | P18438-H21 |
| HPE 480GB SATA 6G Mixed Use SFF SC Multi Vendor SSD | P18432-H21 |
| HPE 960GB SATA 6G Mixed Use SFF SC Multi Vendor SSD | P18434-H21 |
| HPE 3.84TB SATA 6G Mixed Use SFF SC SM883 SSD | P21517-H21 |
| HPE 480GB SATA 6G Mixed Use SFF SC S4620 SSD | P47323-H21 |
| HPE 1.92TB SATA 6G Mixed Use SFF SC S4620 SSD | P47325-H21 |
| HPE 3.84TB SATA 6G Mixed Use SFF SC S4620 SSD | P47326-H21 |



Core Options

| | |
|---|------------|
| HPE 480GB SATA 6G Mixed Use SFF SC PM897 SSD | P47814-H21 |
| HPE 960GB SATA 6G Mixed Use SFF SC PM897 SSD | P47815-H21 |
| HPE 1.92TB SATA 6G Mixed Use SFF SC PM897 SSD | P47816-H21 |

Write Intensive NVMe - SFF - Solid State Drives

| | |
|---|------------|
| HPE 375GB NVMe Gen3 High Performance Low Latency Write Intensive SFF SCN U.2 P4800X SSD | 878014-H21 |
|---|------------|

Read Intensive NVMe - SFF - Solid State Drives

| | |
|---|------------|
| HPE 1.92TB NVMe Gen4 High Performance Read Intensive SFF SCN U.3 PM1733 SSD | P22276-H21 |
| HPE 3.84TB NVMe Gen4 High Performance Read Intensive SFF SCN U.3 PM1733 SSD | P22278-H21 |
| HPE 7.68TB NVMe Gen4 High Performance Read Intensive SFF SCN U.3 PM1733 SSD | P22280-H21 |
| HPE 15.36TB NVMe Gen4 High Performance Read Intensive SFF SCN U.3 PM1733 SSD | P22282-H21 |
| HPE 960GB NVMe Gen4 High Performance Read Intensive SFF SCN U.3 PM1733 SSD | P22331-H21 |
| HPE 1.92TB NVMe Gen4 Mainstream Performance Read Intensive SFF SCN U.3 CD6 SSD | P20139-H21 |
| HPE 1.92TB NVMe Gen4 Mainstream Performance Read Intensive SFF SCN U.3 CD6 SSD | P20139-H21 |
| HPE 3.84TB NVMe Gen4 Mainstream Performance Read Intensive SFF SCN U.3 CD6 SSD | P20141-H21 |
| HPE 7.68TB NVMe Gen4 Mainstream Performance Read Intensive SFF SCN U.3 CD6 SSD | P20143-H21 |
| HPE 1.92TB NVMe Gen4 Mainstream Performance Read Intensive SFF SCN U.3 PE8010 SSD | P19813-H21 |
| HPE 3.84TB NVMe Gen4 Mainstream Performance Read Intensive SFF SCN U.3 PE8010 SSD | P19817-H21 |
| HPE 7.68TB NVMe Gen4 Mainstream Performance Read Intensive SFF SCN U.3 PE8010 SSD | P19821-H21 |
| HPE 1.92TB NVMe Gen4 High Performance Read Intensive SFF SCN Self-encrypting FIPS U.3 CM6 SSD | P44572-H21 |
| HPE 3.84TB NVMe Gen4 High Performance Read Intensive SFF SCN Self-encrypting FIPS U.3 CM6 SSD | P44580-H21 |
| HPE 1.92TB NVMe Gen4 High Performance Read Intensive SFF SCN Self-encrypting FIPS U.3 CM6 SSD | P44572-H21 |
| HPE 3.84TB NVMe Gen4 High Performance Read Intensive SFF SCN Self-encrypting FIPS U.3 CM6 SSD | P44580-H21 |
| HPE 1.92TB NVMe Gen3 Mainstream Performance Read Intensive SFF SCN U.2 Multi Vendor SSD | P47823-H21 |
| HPE 3.84TB NVMe Gen3 Mainstream Performance Read Intensive SFF SCN U.2 Multi Vendor SSD | P47824-H21 |
| HPE 7.68TB NVMe Gen3 Mainstream Performance Read Intensive SFF SCN U.2 Multi Vendor SSD | P47825-H21 |

HPE Server Solid State Drives

Mixed Use NVMe - SFF - Solid State Drives

| | |
|---|------------|
| HPE 1.6TB NVMe Gen4 High Performance Mixed Use SFF SCN U.3 PM1735 SSD | P22268-H21 |
| HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF SCN U.3 PM1735 SSD | P22270-H21 |
| HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF SCN U.3 PM1735 SSD | P22272-H21 |
| HPE 12.8TB NVMe Gen4 High Performance Mixed Use SFF SCN U.3 PM1735 SSD | P22274-H21 |
| HPE 800GB NVMe Gen4 High Performance Mixed Use SFF SCN U.3 PM1735 SSD | P22329-H21 |
| HPE 1.6TB NVMe Gen4 Mainstream Performance Mixed Use SFF SCN U.3 CD6 SSD | P20203-H21 |
| HPE 800GB NVMe Gen4 High Performance Mixed Use SFF SCN U.3 CM6 SSD | P20094-H21 |
| HPE 1.6TB NVMe Gen4 High Performance Mixed Use SFF SCN U.3 CM6 SSD | P20096-H21 |
| HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF SCN U.3 CM6 SSD | P20098-H21 |
| HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF SCN U.3 CM6 SSD | P20100-H21 |
| HPE 1.6TB NVMe Gen4 Mainstream Performance Mixed Use SFF SCN U.3 CD6 SSD | P20203-H21 |
| HPE 3.2TB NVMe Gen4 Mainstream Performance Mixed Use SFF SCN U.3 CD6 SSD | P20205-H21 |
| HPE 6.4TB NVMe Gen4 Mainstream Performance Mixed Use SFF SCN U.3 CD6 SSD | P20207-H21 |
| HPE 1.6TB NVMe Gen4 Mainstream Performance Mixed Use SFF SCN U.3 PE8030 SSD | P19829-H21 |
| HPE 3.2TB NVMe Gen4 Mainstream Performance Mixed Use SFF SC U.3 PE8030 SSD | P19833-H21 |



Core Options

| | |
|---|------------|
| HPE 6.4TB NVMe Gen4 Mainstream Performance Mixed Use SFF SCN U.3 PE8030 SSD | P19837-H21 |
| HPE 1.6TB NVMe Gen4 High Performance Mixed Use SFF SCN Self-encrypting FIPS U.3 CM6 SSD | P44588-H21 |
| HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF SCN Self-encrypting FIPS U.3 CM6 SSD | P44596-H21 |
| HPE 1.6TB NVMe Gen4 High Performance Mixed Use SFF SCN Self-encrypting FIPS U.3 CM6 SSD | P44588-H21 |
| HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF SCN Self-encrypting FIPS U.3 CM6 SSD | P44596-H21 |
| HPE 1.6TB NVMe Gen3 Mainstream Performance Mixed Use SFF SCN U.2 Multi Vendor SSD | P47820-H21 |
| HPE 3.2TB NVMe Gen3 Mainstream Performance Mixed Use SFF SCN U.2 Multi Vendor SSD | P47821-H21 |
| HPE 6.4TB NVMe Gen3 Mainstream Performance Mixed Use SFF SCN U.2 Multi Vendor SSD | P47822-H21 |

Notes:

- [Requirements for Direct Attach SED support](#)
 - [TPM is required for direct attach SED when using “Local Key Management” TPM is not required for direct attach SED Remote Key Management](#)
 - [For “Remote Key Management,” iLO Advanced license is required for remote key manager \(for example, ESKM\) support](#)
-



Additional Options

Bezel Kits

| | |
|--|------------|
| HPE Apollo 2000 SFF Bezel Enhanced Kit | 874793-B21 |
| HPE Apollo 2000 LFF Bezel Kit | 838518-B21 |

HPE Smart Array Storage Controllers

| | |
|---|------------|
| HPE Smart Array E208i-p SR Gen10 (8 Internal Lanes/No Cache) 12G SAS PCIe Plug-in Controller | 804394-B21 |
| Notes: This controller supports 8 Internal SAS/SATA devices | |
| HPE Smart Array E208e-p SR Gen10 (8 External Lanes/No Cache) 12G SAS PCIe Plug-in Controller | 804398-B21 |
| Notes: This controller can support up to 0 internal SAS/SATA devices. This controller may be selected to support: SAS Tape Device (External), SAS Storage (External) | |
| HPE Smart Array P408e-p SR Gen10 (8 External Lanes/4GB Cache) 12G SAS PCIe Plug-in Controller | 804405-B21 |
| Notes: This controller can support up to 0 internal SAS/SATA devices. This controller may be selected to support: SAS Tape Device (External), SAS Storage (External) | |
| HPE Smart Array P408i-p SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS PCIe Plug-in Controller | 830824-B21 |
| Notes: This controller supports 8 Internal SAS/SATA devices | |

HBA Storage Controllers

| | |
|---|--------|
| HPE SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter | P9M75A |
| HPE SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter | P9M76A |
| HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter | Q0L11A |
| HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter | Q0L12A |
| HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter | Q0L13A |
| HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter | Q0L14A |
| HPE SN1100Q 16Gb Single Port Fibre Channel Host Bus Adapter | P9D93A |
| HPE SN1100Q 16Gb Dual Port Fibre Channel Host Bus Adapter | P9D94A |
| HPE SN1610Q 32Gb 1-port Fibre Channel Host Bus Adapter | R2E08A |
| HPE SN1610Q 32Gb 2-port Fibre Channel Host Bus Adapter | R2E09A |
| HPE SN1610E 32Gb 1-port Fibre Channel Host Bus Adapter | R2J62A |
| HPE SN1610E 32Gb 2-port Fibre Channel Host Bus Adapter | R2J63A |

Converged Infrastructure Management

| | |
|--|------------|
| 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 including 3yr 24x7 Support Flexible Quantity E-LTU | P8B26AAE |
| HPE OneView w/o iLO including 3yr 24x7 Support 1-server FIO LTU | P8B31A |
| HPE OneView including 3yr 24x7 Support Flexible Quantity E-LTU | E5Y35AAE |
| HPE OneView including 3yr 24x7 Support Physical 1-server LTU | E5Y34A |
| HPE OneView for ProLiant DL Server including 3yr 24x7 Support FIO Bundle Physical 1-server LTU | E5Y43A |
| HPE iLO Common Password FIO Setting | P08040-B21 |



Additional Options

HPE Integrated Light-Out (iLO)

| | |
|--|------------|
| HPE iLO Advanced Electronic License with 1yr Support on iLO Licensed Features | E6U59ABE |
| HPE iLO Advanced Electronic License with 3yr Support on iLO Licensed Features | E6U64ABE |
| HPE iLO Advanced 1-server License with 3yr Support on iLO Licensed Features | BD505A |
| HPE iLO Advanced Flexible Quantity License with 3yr Support on iLO Licensed Features | BD506A |
| HPE iLO Advanced AKA Tracking License with 3yr Support on iLO Licensed Features | BD507A |
| HPE iLO Advanced 1-server License with 1yr Support on iLO Licensed Features | 512485-B21 |
| HPE iLO Advanced Flexible Quantity License with 1yr Support on iLO Licensed Features | 512486-B21 |
| HPE iLO Advanced AKA Tracking License with 1yr Support on iLO Licensed Features | 512487-B21 |

Notes:

- For additional license options please see the QuickSpecs at:
<http://www.hpe.com/h20195/v2/gethtml.aspx?docname=c04154343>
- For more information, visit: <http://www.hpe.com/info/ilo>

USB Flash Kit

| | |
|------------------------------------|------------|
| HPE 32GB microSD Flash Memory Card | 700139-B21 |
|------------------------------------|------------|

Security Hardware

Trusted Platform Module

| | |
|--|------------|
| HPE Trusted Platform Module 2.0 Gen10 Option | 864279-B21 |
|--|------------|

HPE Smart Array SmartCache License

| | |
|---|----------|
| 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 |

USB and SD Options

| | |
|------------------------------------|------------|
| HPE USB US Keyboard/Mouse Kit | 631341-B21 |
| HPE USB UK Keyboard/Mouse Kit | 631344-B21 |
| HPE USB FR Keyboard/Mouse Kit | 631346-B21 |
| HPE USB ES Keyboard/Mouse Kit | 631348-B21 |
| HPE USB DE Keyboard/Mouse Kit | 631358-B21 |
| HPE USB JP Keyboard/Mouse Kit | 631360-B21 |
| HPE USB IT Keyboard/Mouse Kit | 631362-B21 |
| HPE USB CN Keyboard/Mouse Kit | 631364-B21 |
| HPE USB AE Keyboard/Mouse Kit | 638212-B21 |
| HPE USB RU Keyboard/Mouse Kit | 638214-B21 |
| HPE USB IN Keyboard/Mouse Kit | 672097-D63 |
| HPE USB AP/INTL Keyboard/Mouse Kit | 672097-373 |

Additional Options

| | |
|---------------------------------|------------|
| HPE USB INTL Keyboard/Mouse Kit | 672097-B33 |
| HPE USB PT Keyboard/Mouse Kit | 672097-133 |
| HPE USB TR Keyboard/Mouse Kit | 672097-143 |
| HPE USB CZ Keyboard/Mouse Kit | 672097-223 |
| HPE USB FI Keyboard/Mouse Kit | 672097-353 |
| HPE USB SE Keyboard/Mouse Kit | 672097-103 |
| HPE USB CH Keyboard/Mouse Kit | 672097-113 |
| HPE USB KR Keyboard/Mouse Kit | 672097-KD3 |

Notes: Please see the QuickSpecs for Technical Specifications and additional information:

<https://h20195.www2.hpe.com/v2/getdocument.aspx?docname=c04168349>

| | |
|--|------------|
| HPE 36pin Serial/USB/VGA Dongle Cord Kit | 676277-B21 |
|--|------------|

HPE Tape Backup

Notes: For the complete range of tape drives, autoloaders, libraries and media see: <http://www.hpe.com/storage/storeever>
For hardware and software compatibility of Hewlett Packard Enterprise tape backup products

<http://www.hpe.com/storage/BURACompatibility>

| | |
|--|--------|
| HPE StoreEver LTO-7 Ultrium 15000 External Tape Drive | BB874A |
| HPE StoreEver LTO-6 Ultrium 6250 External Tape Drive | EH970A |
| HPE StoreEver LTO-5 Ultrium 3000 SAS External Tape Drive | EH958B |
| HPE StoreEver MSL6480 Scalable Base Module | QU625A |
| HPE StoreEver MSL2024 0-drive Tape Library | AK379A |
| HPE StoreEver MSL LTO-7 Ultrium 15000 SAS Drive Upgrade Kit | N7P37A |
| HPE StoreEver MSL LTO-7 Ultrium 15000 FC Drive Upgrade Kit | N7P36A |
| HPE StoreEver MSL LTO-6 Ultrium 6250 SAS Drive Upgrade Kit | COH27A |
| HPE StoreEver MSL LTO-6 Ultrium 6250 Fibre Channel Drive Upgrade Kit | COH28A |



Technical Specifications

| System Unit Specifications | | |
|--|---|--|
| Server Dimensions (L x W x D) | 1.63 x 7.27 x 25.91 in (4.13 x 18.45 x 65.80 cm) | |
| Weight (approximate) | Maximum | 15.23lb (6.91 kg) |
| System Inlet Temperature Standard Operating Support | 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 Support | 10° to 5°C (50° to 41°F) and 35° to 40°C (95° to 104°F) | 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 |
| | -30° to 60°C (-22° to 140°F). | 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 System performance may be reduced if operating in the extended ambient operating range or with a fan fault. Maximum rate of change is 20°C/hr (36°F/hr). |
| Relative Humidity (non-condensing) Operating | 8% to 90% | Relative humidity (Rh), 28°C 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. |
| Altitude Operating | 3050 m (10,000 ft). | This value may be limited by the type and number of options installed. Maximum allowable altitude change rate is 457 m/min (1500 ft/min). |
| Non-operating | 9144 m (30,000 ft). | Maximum allowable altitude change rate is 457 m/min (1500 ft/min). |

Acoustic Noise

Listed are the declared A-Weighted sound power levels (LWAd) and declared average bystander position A-Weighted sound pressure levels (LpAm) 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.

Notes: Please have your HPE representative provide information from the HPE EMESC website for further technical details regarding the configurations listed below.
r2200 Chassis.



Technical Specifications

| r2200 Chassis | | | |
|--------------------------|--------------|-------------|--------------------|
| Configuration SKU | Entry | Base | Performance |
| Idle | | | |
| LWAd | 6.7 B | 7.8 B | 8.4 B |
| LpAm | 52 dBA | 62 dBA | 70 dBA |
| Operating | | | |
| LWAd | 6.9 B | 8.2 B | 8.9 B |
| LpAm | 53 dBA | 66 dBA | 74 dBA |

| r2600 Chassis | | | |
|--------------------------|--------------|-------------|--------------------|
| Configuration SKU | Entry | Base | Performance |
| Idle | | | |
| LWAd | 6.7 B | 7.7 B | 7.9 B |
| LpAm | 52 dBA | 64 dBA | 68 dBA |
| Operating | | | |
| LWAd | 6.9 B | 8.0 B | 8.7 B |
| LpAm | 54 dBA | 66 dBA | 70 dBA |

| r2800 Chassis | | | |
|--------------------------|--------------|-------------|--------------------|
| Configuration SKU | Entry | Base | Performance |
| Idle | | | |
| LWAd | 6.7 B | 7.7 B | 7.9 B |
| LpAm | 52 dBA | 64 dBA | 68 dBA |
| Operating | | | |
| LWAd | 8.6 B | 8.6 B | 8.7 B |
| LpAm | 69 dBA | 70 dBA | 70 dBA |

Notes: 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.

Thermal limitations

For a full list of thermal limitations please see the HPE ProLiant XL170r Gen 10 Server User Guide.

https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-a00027945en_us&docLocale=en_US



TCO Certified

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 (2012/19/EU) 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.

TCO Certified

The HPE ProLiant XL170r Gen10 server has been TCO Certified. All HPE TCO Certified products can be found on TCO Certified Product Finder. More information on TCO Certified can be downloaded here :

<https://www.hpe.com/us/en/about/environment/eco-labels.html>



Summary of Changes

| Date | Version History | Action | Description of Change |
|-------------|-----------------|---------|--|
| 06-Dec-2021 | Version 27 | Changed | Core Options section was updated. Obsolete SKUs were removed |
| 01-Nov-2021 | Version 26 | Changed | Core Options section was updated. Obsolete SKUs were removed |
| 07-Sep-2021 | Version 25 | Changed | Core Options section was updated. Obsolete SKUs were removed |
| 02-Aug-2021 | Version 24 | Changed | Service and Support and Core Options sections were updated. Obsolete SKUs were removed. |
| 19-Apr-2021 | Version 23 | Changed | TCO Certified section was added. Obsolete SKUs were removed. |
| 01-Feb-2021 | Version 22 | Changed | Core Options section was updated. Obsolete SKUs were removed |
| 07-Dec-2020 | Version 21 | Changed | Core Options section was updated. Obsolete SKUs were removed |
| 05-Oct-2020 | Version 20 | Changed | Core Options section was updated. Obsolete SKUs were removed |
| 03-Aug-2020 | Version 19 | Changed | Additional Options and Core Options sections were updated. Obsolete SKU was removed |
| 01-Jun-2020 | Version 18 | Changed | Configuration Information and Core Options were updated. Obsolete SKU was removed |
| 06-Apr-2020 | Version 17 | Changed | Standard Features, Service and Support, Configuration Information and Core Options were updated. Obsolete SKUs were removed. |
| 24-Feb-2020 | Version 16 | Changed | Standard Features, Configuration Information and Core Option sections were updated. Obsolete SKUs were removed. |
| 02-Dec-2019 | Version 15 | Changed | SKUs were updated in Configuration Information and Core Options sections. Obsolete SKUs were removed. |
| 07-Oct-2019 | Version 14 | Changed | Overview, Standard Features and Core Options sections were updated. |
| 05-Aug-2019 | Version 13 | Changed | Overview, Standard Features and Configuration Information sections were updated. SKUs were added.. |
| 01-Jul-2019 | Version 12 | Changed | Standard Features section was updated. Obsolete SKUs were removed |
| 03-Jun-2019 | Version 11 | Changed | Standard Features, Configuration Information, Core Options sections were updated Obsolete SKUs were removed |
| 06-May-2019 | Version 10 | Changed | Configuration Information section was updated. |
| 18-Apr-2019 | Version 9 | Changed | Obsolete SKUs were removed SKUs were updated. |
| 02-Apr-2019 | Version 8 | Changed | Overview, Standard Features, Core Options, Memory and Technical Specifications sections were updated Obsolete SKUs were removed |
| 04-Feb-2019 | Version 7 | Changed | SKUs were added and Obsolete SKUs were removed in Core Options section |
| 03-Dec-2018 | Version 6 | Changed | Configuration Information and Core Options sections were updated. Obsolete SKUs were removed |
| 01-Oct-2018 | Version 5 | Changed | SKUs descriptions in Standard Features, Configuration information and Core Options Sections were updated |



Summary of Changes

| Date | Version History | Action | Description of Change |
|-------------|------------------------|---------------|--|
| 13-Aug-2018 | Version 4 | Changed | Configuration information and SKUs descriptions were updated, incorporated Recommended and Extended Options. |
| 02-Apr-2018 | Version 3 | Changed | Add the following section Mixed Use - 6G SATA - LFF Solid State Drives |
| 09-Oct-2017 | Version 2 | Changed | Update SKUs descriptions |
| 25-Sep-2017 | 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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