## 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
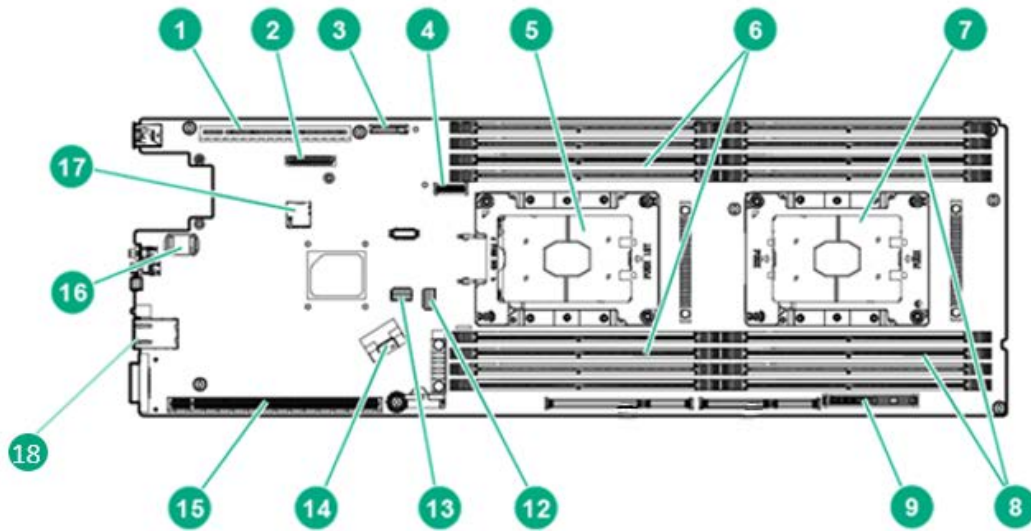

Front View

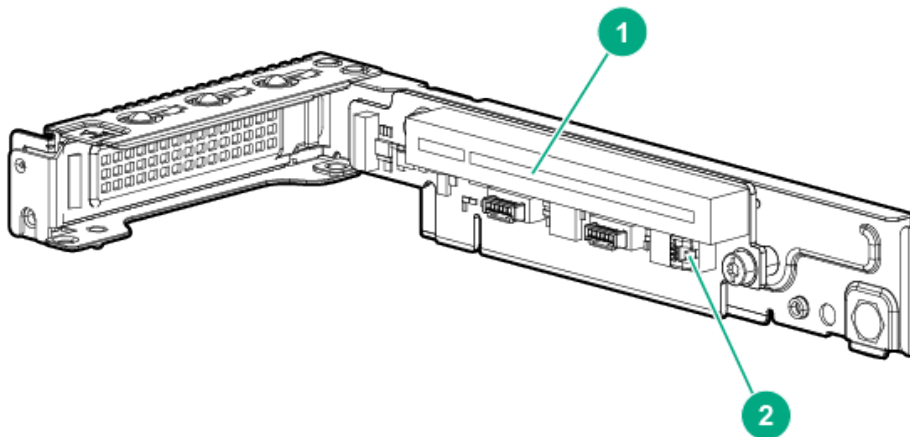| Item	Description	Item	Description
1	Primary riser slot 1	9	Bayonet board slot
2	mLOM connector	12	Slimline connector (SATA x4)
3	System battery	13	System maintenance switch
4	M.2 SSD riser connector	14	Slimline connector (SATA x8)
5	Processor 1	15	Secondary riser slot 2
6	DIMMs for processor 1	16	TPM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

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

Overview
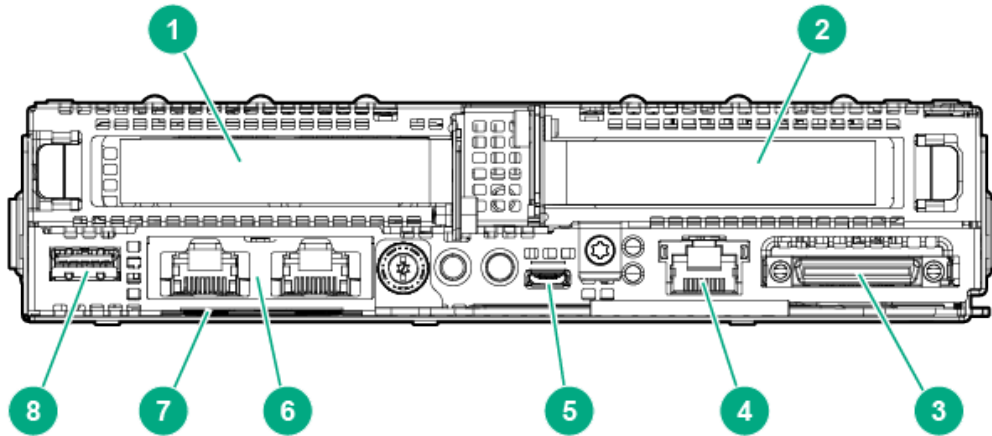
Rear View

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)

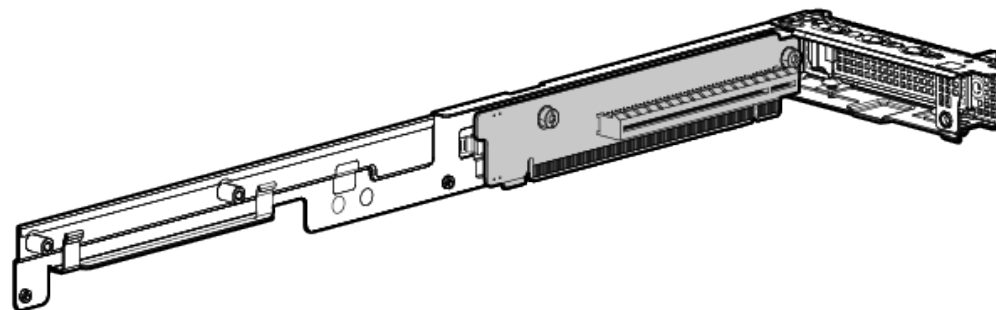| Item	Form factor	Slot number	Slot description
1	Storage controller or low-profile PCIe	1	PCIe3 x16 (16, 8, 4, 1) for Processor 1
2	N/A	N/A	Storage backup power connector

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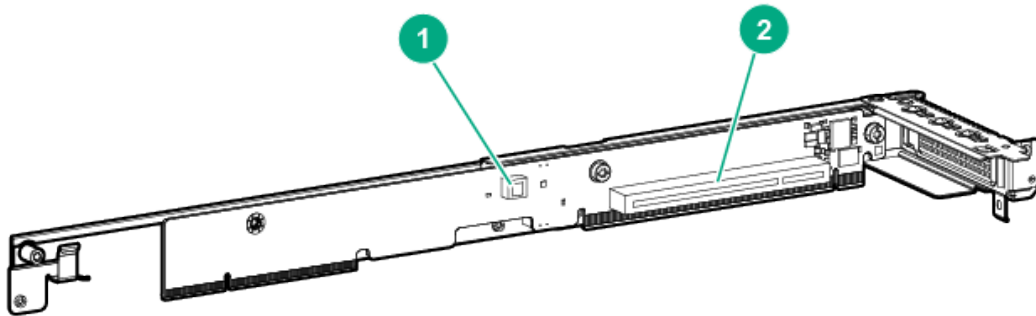
**Single-slot 1U node right PCI Riser Cage Assembly
(874300-B21)**

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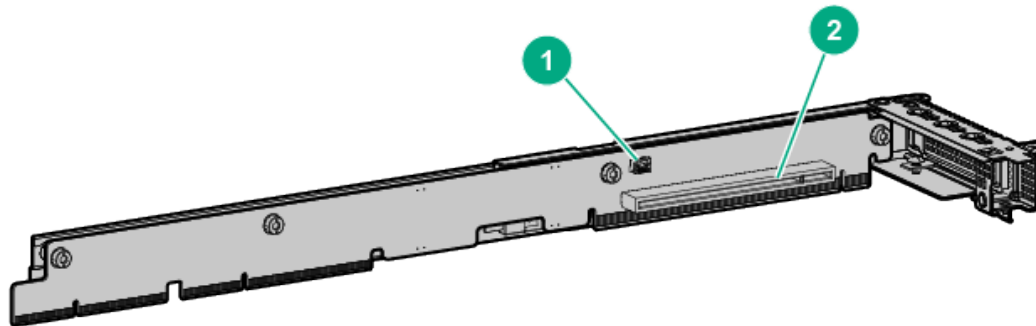
**Single-slot 1U node right PCI Riser Cage Assembly
(874302-B21)**

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

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

Form factor	Slot number	Slot description
FlexibleLOM	FlexibleLOM slot	PCIe3 x16 for Processor 1

Standard Features

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

Standard Features

2nd 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
NOTE: 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 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
NOTE: 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
NOTE: 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

Standard Features

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

NOTE: 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.
NOTE: 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

NOTE: HPE memory from previous generation servers are not fully compatible with the HPE ProLiant Xl170r Gen10 Server.
NOTE: To realize the performance memory capabilities listed in this document, HPE SmartMemory is required.
NOTE: LRDIMM and RDIMM are distinct memory technologies and cannot be mixed within a server.
NOTE: 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.
NOTE: For information regarding HPE Persistent Memory visit: **http://www.hpe.com/info/persistentmemory**
NOTE: 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
NOTE: 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

NOTE: *Indicates the number of physical electrical lanes running to the connector.
NOTE: Expansion slot 1 requires ordering HPE XL1x0r Gen10 Left LP Riser Kit (874296-B21)
NOTE: FlexibleLOM require ordering HPE XL170r Gen10 FLOM Riser Kit (874298-B21)
NOTE: 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

NOTE: 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	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

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

NOTE: 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

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

NOTE: 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.hpe.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.hpe.com/servers/powersupplies

NOTE: Power Specification and Technical Content for supported power supplies can be found at: **https://www.hpe.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

Part Number	Expansion Slot #	Technology	Bus Width*	Connector Width	Form Factor	Note
874296-B21	1	PCLe3.0	X16	X16	Low Profile	CPU1
874298-B21	FlexibleLOM	PCLe3.0	X16	X16	FlexibleLOM	CPU1
874300-B21	2	PCLe3.0	X16	X16	Low Profile	CPU1
874302-B21	2	PCLe3.0	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.
NOTE: 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

NOTE: For UEFI Boot Mode, boot environment and OS image installations should be configured properly to support UEFI.
NOTE: 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**

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**

Standard Features

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**

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

Standard Features

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**

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

Standard Features

HPE Pointnext Service and Support
The support of HPE XL170r tray covers the tray and all included options. It is recommended to have the same attached support level for the Server tray as the chassis

HPE Technology Services for Apollo Systems
Protect your business beyond warranty with HPE Support Services
HPE Pointnext provides a comprehensive portfolio including Advisory and Transformational, Professional, and Operational Services to help accelerate your digital transformation. From the onset of your transformation journey, Advisory and Transformational Services focus on designing the transformation and creating a solution roadmap. Professional Services specializes in creative configurations with flawless and on-time implementation, and on-budget execution. Finally, operational services provides innovative new approaches like Flexible Capacity and Datacenter Care, to keep your business at peak performance. HPE is ready to bring together all the pieces of the puzzle for you, with an eye on the future, and make the complex simple.

Get connected to Hewlett Packard Enterprise to improve your support experience
Connect your devices:
Unlock all of the benefits of your technology investment by connecting your products to Hewlett Packard Enterprise. Reduce down time and improve diagnostic accuracy with a single consolidated view of your environment. By connecting, you will receive 24x7monitoring, pre-failure alerts, automatic call logging, and automatic parts dispatch. HPE Proactive Care Service and HPE Datacenter Care Service customers will also benefit from proactive activities to help prevent issues and increase optimization. All of these benefits are already available to you with your server storage and networking products, securely connected to HPE support. Learn more about getting connected at **http://www.hpe.com/services/getconnected**

HPE Proactive Care gives customers an enhanced call experience. When your products are connected to HPE, Proactive Care helps prevent problems and maintains IT stability by utilizing personalized proactive reports with recommendations and advice This Service combines three years proactive reporting and advice with our 24x7 coverage, four hour hardware response time when there is a problem. This service also includes collaborative software support for Independent Software Vendors (ISVs), (Red Hat, VMWare, Microsoft, etc.) running on your HPE servers. **https://www.hpe.com/h20195/v2/GetPDF.aspx/4AA3-8855ENW.pdf**
NOTE: HPE Proactive Care and HPE Proactive Care Advanced require that the customer connect their devices to make the most of these services and receive all the deliverables.

Standard recommendation: HPE Foundation Care 24x7, three-year Support Service
HPE Foundation Care 24x7 gives you access to HPE 24 hours a day, seven days a week for assistance on resolving issues. Tis service includes need based Hardware onsite response within four hours. In addition, collaborative software support is included in this service that provides troubleshooting assistance on industry leading software running on your HPE server. Simplify your support experience and make HPE your first call to help resolve hardware or software problems.
https://www.hpe.com/h20195/V2/GetDocument.aspx?docname=4AA4-8876ENW&cc=us&lc=en

Basic recommendation: HPE Foundation Care NBD, three-year Support Service
HPE Foundation Care Next Business Day connects you to HPE during business hours for assistance on resolving issues – This service features need based next business day hardware onsite response and software call back within two hours. In addition, Collaborative software support and provides troubleshooting assistance on industry leading software running on your HPE server. Simplify your support experience and make HPE your first call to help resolve hardware or software problems.
https://www.hpe.com/h20195/V2/GetDocument.aspx?docname=4AA4-8876ENW&cc=us&lc=e

Service and Support

Other Related Services
HPE Server Hardware Installation
Provides for the basic hardware installation of HPE branded servers, storage devices and networking options to assist you in bringing your new hardware into operation in a timely and professional manner.
https://www.hpe.com/h20195/V2/GetPDF.aspx/5981-9356EN.pdf

HPE Installation and Startup Service
Provides for the installation of your HPE hardware according to product specifications including options as well as installation of the operating system. The HPE service delivery technician will connect the product to a LAN as appropriate and enable remote support to allow for automatic case creation for hardware failures.

HPE Datacenter Care service
HPE Datacenter Care helps improve IT stability and security, increase the value of IT, and enable agility and innovation. It is a structured framework of repeatable, tested, and globally available services "building blocks." You can deploy, operate, and evolve your datacenter wherever you are on your IT journey. With HPE Datacenter Care, you benefit from a personalized relationship with HPE via a single point of accountability for HPE and others' products. For more information, visit:
http://www.hpe.com/services/datacentercare

HPE Flexible Capacity
With Flexible Capacity, you get the speed, scalability, and economics of the public cloud in the privacy of your data center. Gain the advantages of the public cloud—consumption-based payment, rapid scalability without worrying about capacity constraints. Reduce the "heavy lifting" needed to operate a data center. And retain the advantages that IT provides the business (i.e., control, security). Deliver the right user experience, choose the right technology for the business, manage privacy and compliance, and manage the cost of IT. And, you have the option to use the public cloud when needed.

DC for Hyperscale
Datacenter Care for Hyperscale is available for Service Providers and HPC customers who use a scale out approach to computing with a high volume homogenous infrastructure and resilient architecture can take advantage of this environment support tailored to their operating model.

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.
NOTE: *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 quick-specs, 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

NOTE: 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.
NOTE: FIO indicates that this option is only available as a factory installable option.
NOTE: 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 ProLiant XL170r Gen10 Server for BlueData Software	R0Q98A

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

HPE Processors

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

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

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

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

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

HPE XL1x0r Gen10 Intel Xeon-Gold 6152 (2.1GHz/22-core/140W) FIO Processor Kit	874293-L21
HPE XL1x0r Gen10 Intel Xeon-Gold 6148 (2.4GHz/20-core/150W) FIO Processor Kit	874292-L21
HPE XL1x0r Gen10 Intel Xeon-Gold 6144 (3.5GHz/8-core/150W) FIO Processor Kit	880671-L21
HPE XL1x0r Gen10 Intel Xeon-Gold 6142 (2.6GHz/16-core/150W) FIO Processor Kit	874287-L21
HPE XL1x0r Gen10 Intel Xeon-Gold 6140 (2.3GHz/18-core/140W) FIO Processor Kit	874289-L21
HPE XL1x0r Gen10 Intel Xeon-Gold 6138 (2.0 GHz/20-core/125W) FIO Processor Kit	874291-L21
HPE XL1x0r Gen10 Intel Xeon-Gold 6136 (3.0GHz/12-core/150W) FIO Processor Kit	874288-L21
HPE XL1x0r Gen10 Intel Xeon-Gold 6134 (3.2GHz/8-core/130W) FIO Processor Kit	874290-L21
HPE XL1x0r Gen10 Intel Xeon-Gold 6132 (2.6GHz/14-core/140W) FIO Processor Kit	880669-L21
HPE XL1x0r Gen10 Intel Xeon-Gold 6130 (2.1GHz/16-core/125W) FIO Processor Kit	874286-L21
HPE XL1x0r Gen10 Intel Xeon-Gold 6128 (3.4GHz/6-core/115W) FIO Processor Kit	880667-L21
HPE XL1x0r Gen10 Intel Xeon-Gold 6126 (2.6GHz/12-core/125W) FIO Processor Kit	874283-L21
HPE XL1x0r Gen10 Intel Xeon-Gold 5122 (3.6GHz/4-core/105W) FIO Processor Kit	874282-L21
HPE XL1x0r Gen10 Intel Xeon-Gold 5120 (2.2GHz/14-core/105W) FIO Processor Kit	879583-L21
Intel Xeon-Gold Special Processor Kits	882040-L21
HPE XL1x0r Gen10 Intel Xeon-Gold 5118 (2.3GHz/12-core/105W) FIO Processor Kit	879581-L21
HPE XL1x0r Gen10 Intel Xeon-Gold 5115 (2.4GHz/10-core/85W) FIO Processor Kit	879579-L21

Configuration Information

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

HPE XL1x0r Gen10 Intel Xeon-Gold 6252 (2.1GHz/24-core/150W) FIO Processor Kit	P10329-L21
HPE XL1x0r Gen10 Intel Xeon-Gold 6248 (2.5GHz/20-core/150W) FIO Processor Kit	P10328-L21
HPE XL1x0r Gen10 Intel Xeon-Gold 6244 (3.6GHz/8-core/150W) FIO Processor Kit	P10327-L21
HPE XL1x0r Gen10 Intel Xeon-Gold 6242 (2.8GHz/16-core/150W) FIO Processor Kit	P10326-L21
HPE XL1x0r Gen10 Intel Xeon-Gold 6240 (2.6GHz/18-core/150W) FIO Processor Kit	P10325-L21
HPE XL1x0r Gen10 Intel Xeon-Gold 6238 (2.1GHz/22-core/140W) FIO Processor Kit	P12326-L21
HPE XL1x0r Gen10 Intel Xeon-Gold 6234 (3.3GHz/8-core/130W) FIO Processor Kit	P12325-L21
HPE XL1x0r Gen10 Intel Xeon-Gold 6230 (2.1GHz/20-core/125W) FIO Processor Kit	P10324-L21
HPE XL1x0r Gen10 Intel Xeon-Gold 6226 (2.7GHz/12-core/125W) FIO Processor Kit	P12324-L21
HPE XL1x0r Gen10 Intel Xeon-Gold 5222 (3.8GHz/4-core/105W) FIO Processor Kit	P11834-L21
HPE XL1x0r Gen10 Intel Xeon-Gold 5220 (2.2GHz/18-core/125W) FIO Processor Kit	P10323-L21
HPE XL1x0r Gen10 Intel Xeon-Gold 5218 (2.3GHz/16-core/125W) FIO Processor Kit	P10322-L21
HPE XL1x0r Gen10 Intel Xeon-Gold 5217 (3.0GHz/8-core/115W) FIO Processor Kit	P10321-L21
HPE XL1x0r Gen10 Intel Xeon-Gold 5215M (2.5GHz/10-core/85W) FIO Processor Kit	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 HPE XL1x0r	P25126-L21

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

HPE XL1x0r Gen10 Intel Xeon-Silver 4116 (2.1GHz/12-core/85W) FIO Processor Kit	879577-L21
HPE XL1x0r Gen10 Intel Xeon-Silver 4112 (2.6GHz/4-core/85W) FIO Processor Kit	879597-L21
HPE XL1x0r Gen10 Intel Xeon-Silver 4110 (2.1GHz/8-core/85W) FIO Processor Kit	879595-L21
HPE XL1x0r Gen10 Intel Xeon-Silver 4109T (2.0GHz/8-core/70W) FIO Processor Kit	879593-L21
HPE XL1x0r Gen10 Intel Xeon-Silver 4108 (1.8GHz/8-core/85W) FIO Processor Kit	879591-L21

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

HPE XL1x0r Gen10 Intel Xeon-Silver 4216 (2.1GHz/16-core/100W) FIO Processor Kit	P10319-L21
HPE XL1x0r Gen10 Intel Xeon-Silver 4215 (2.5GHz/8-core/85W) FIO Processor Kit	P10318-L21
HPE XL1x0r Gen10 Intel Xeon-Silver 4214 (2.2GHz/12-core/85W) FIO Processor Kit	P10317-L21
HPE XL1x0r Gen10 Intel Xeon-Silver 4210 (2.2GHz/10-core/85W) FIO Processor Kit	P10316-L21
HPE XL1x0r Gen10 Intel Xeon-Silver 4208 (2.1GHz/8-core/85W) FIO Processor Kit	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 (1ˢᵗ Generation Intel® Xeon® Scalable Processor Family)

HPE XL1x0r Gen10 Intel Xeon-Bronze 3104 (1.7GHz/6-core/85W) FIO Processor Kit	879587-L21

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

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

NOTE: 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.
NOTE: 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.

Configuration Information

HPE Memory

NOTE: Minimum 2 DIMMs are required per server; 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 128GB (1x128GB) Octal Rank x4 DDR4-2933 CAS-24-21-21 Load Reduced 3DS Smart Memory Kit	P00928-H21

HPE Persistent Memory (Intel Optane)

HPE 128GB 2666 Persistent Memory Kit featuring Intel Optane DC Persistent Memory	835804-B21
HPE 256GB 2666 Persistent Memory Kit featuring Intel Optane DC Persistent Memory	835807-B21
HPE 512GB 2666 Persistent Memory Kit featuring Intel Optane DC Persistent Memory	835810-B21

NOTE: 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.
NOTE: For information regarding HPE Persistent Memory visit: **http://www.hpe.com/info/persistentmemory**
NOTE: Minimum 2 DIMMs are required per server; up to 8 DIMMs per processor.
NOTE: If Fabric CPU is installed, minimum of 32GB is required
NOTE: A maximum of 16 DIMMs are supported per XL170r server tray (or 8 DIMMs max per processor).
NOTE: LRDIMM and RDIMM are distinct memory technologies and cannot be mixed within a server.
NOTE: 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**
NOTE: 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

NOTE: 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

Configuration Information

HPE XL1x0r Gen10 Left Riser FIO Blank Kit	874805-B21

NOTE: 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

NOTE: 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.
NOTE: 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.
NOTE: 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.
NOTE: 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

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

HPE XL170r Gen10 P1 Low Profile Riser Kit	874300-B21

NOTE: 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

NOTE: 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

NOTE: 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

NOTE: 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.

HPE Storage Controller

NOTE: 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

NOTE: 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

NOTE: 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 Storage Cables

HPE XL170r Gen10 S100i SATA Cable Kit	874305-B21

NOTE: Required to be selected when S100i is the primary controller; supports to connect to SATA drives; select 1cable kit per node
NOTE: 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

NOTE: 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

Configuration Information

HPE XL170r Right E208ip/P408ip Cable Kit	874855-B21

NOTE: 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 Battery (up to 20 Devices) with 145mm Cable Kit	P01366-B21

NOTE: 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

NOTE: 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

NOTE: 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

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

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

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

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

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

HPE XL1x0r Gen10 Intel Xeon-Gold 6152 (2.1GHz/22-core/140W) Processor Kit	874293-B21
HPE XL1x0r Gen10 Intel Xeon-Gold 6148 (2.4GHz/20-core/150W) Processor Kit	874292-B21
HPE XL1x0r Gen10 Intel Xeon-Gold 6144 (3.5GHz/8-core/150W) Processor Kit	880671-B21
HPE XL1x0r Gen10 Intel Xeon-Gold 6142 (2.6GHz/16-core/150W) Processor Kit	874287-B21
HPE XL1x0r Gen10 Intel Xeon-Gold 6140 (2.3GHz/18-core/140W) Processor Kit	874289-B21
HPE XL1x0r Gen10 Intel Xeon-Gold 6138 (2.0 GHz/20-core/125W) Processor Kit	874291-B21
HPE XL1x0r Gen10 Intel Xeon-Gold 6136 (3.0GHz/12-core/150W) Processor Kit	874288-B21
HPE XL1x0r Gen10 Intel Xeon-Gold 6134 (3.2GHz/8-core/130W) Processor Kit	874290-B21
HPE XL1x0r Gen10 Intel Xeon-Gold 6132 (2.6GHz/14-core/140W) Processor Kit	880669-B21
HPE XL1x0r Gen10 Intel Xeon-Gold 6130 (2.1GHz/16-core/125W) Processor Kit	874286-B21
HPE XL1x0r Gen10 Intel Xeon-Gold 6128 (3.4GHz/6-core/115W) Processor Kit	880667-B21
HPE XL1x0r Gen10 Intel Xeon-Gold 6126 (2.6GHz/12-core/125W) Processor Kit	874283-B21
HPE XL1x0r Gen10 Intel Xeon-Gold 5122 (3.6GHz/4-core/105W) Processor Kit	874282-B21
HPE XL1x0r Gen10 Intel Xeon-Gold 5120 (2.2GHz/14-core/105W) Processor Kit	879583-B21
HPE XL1x0r Gen10 Intel Xeon-Gold 5119T (1.9GHz/14-core/85W) Processor Kit	882040-B21
HPE XL1x0r Gen10 Intel Xeon-Gold 5118 (2.3GHz/12-core/105W) Processor Kit	879581-B21
HPE XL1x0r Gen10 Intel Xeon-Gold 5115 (2.4GHz/10-core/85W) Processor Kit	879579-B21

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

HPE XL1x0r Gen10 Intel Xeon-Gold 6252 (2.1GHz/24-core/150W) Processor Kit	P10329-B21
HPE XL1x0r Gen10 Intel Xeon-Gold 6248 (2.5GHz/20-core/150W) Processor Kit	P10328-B21
HPE XL1x0r Gen10 Intel Xeon-Gold 6244 (3.6GHz/8-core/150W) Processor Kit	P10327-B21
HPE XL1x0r Gen10 Intel Xeon-Gold 6242 (2.8GHz/16-core/150W) Processor Kit	P10326-B21
HPE XL1x0r Gen10 Intel Xeon-Gold 6240 (2.6GHz/18-core/150W) Processor Kit	P10325-B21
HPE XL1x0r Gen10 Intel Xeon-Gold 6238 (2.1GHz/22-core/140W) Processor Kit	P12326-B21
HPE XL1x0r Gen10 Intel Xeon-Gold 6234 (3.3GHz/8-core/130W) Processor Kit	P12325-B21
HPE XL1x0r Gen10 Intel Xeon-Gold 6230 (2.1GHz/20-core/125W) Processor Kit	P10324-B21
HPE XL1x0r Gen10 Intel Xeon-Gold 6226 (2.7GHz/12-core/125W) Processor Kit	P12324-B21
HPE XL1x0r Gen10 Intel Xeon-Gold 5222 (3.8GHz/4-core/105W) Processor Kit	P11834-B21
HPE XL1x0r Gen10 Intel Xeon-Gold 5220 (2.2GHz/18-core/125W) Processor Kit	P10323-B21
HPE XL1x0r Gen10 Intel Xeon-Gold 5218 (2.3GHz/16-core/125W) Processor Kit	P10322-B21
HPE XL1x0r Gen10 Intel Xeon-Gold 5217 (3.0GHz/8-core/115W) Processor Kit	P10321-B21
HPE XL1x0r Gen10 Intel Xeon-Gold 5215 (2.5GHz/10-core/85W) Processor Kit	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

Core Options

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

HPE XL1x0r Gen10 Intel Xeon-Silver 4116 (2.1GHz/12-core/85W) Processor Kit   879577-B21
HPE XL1x0r Gen10 Intel Xeon-Silver 4112 (2.6GHz/4-core/85W) Processor Kit   879597-B21
HPE XL1x0r Gen10 Intel Xeon-Silver 4110 (2.1GHz/8-core/85W) Processor Kit   879595-B21
HPE XL1x0r Gen10 Intel Xeon-Silver 4108 (1.8GHz/8-core/85W) Processor Kit   879591-B21
HPE XL1x0r Gen10 Intel Xeon-Silver 4109T (2.0GHz/8-core/70W) Processor Kit   879593-B21

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

HPE XL1x0r Gen10 Intel Xeon-Silver 4216 (2.1GHz/16-core/100W) Processor Kit   P10319-B21
HPE XL1x0r Gen10 Intel Xeon-Silver 4215 (2.5GHz/8-core/85W) Processor Kit   P10318-B21
HPE XL1x0r Gen10 Intel Xeon-Silver 4214 (2.2GHz/12-core/85W) Processor Kit   P10317-B21
HPE XL1x0r Gen10 Intel Xeon-Silver 4210 (2.2GHz/10-core/85W) Processor Kit   P10316-B21
HPE XL1x0r Gen10 Intel Xeon-Silver 4208 (2.1GHz/8-core/85W) Processor Kit   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

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

HPE XL1x0r Gen10 Intel Xeon-Bronze 3104 (1.7GHz/6-core/85W) Processor Kit   879587-B21

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

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

NOTE: 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.

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)

HPE 128GB 2666 Persistent Memory Kit featuring Intel Optane DC Persistent Memory   835804-B21
HPE 256GB 2666 Persistent Memory Kit featuring Intel Optane DC Persistent Memory   835807-B21

Core Options

HPE 512GB 2666 Persistent Memory Kit featuring Intel Optane DC Persistent Memory   835810-B21

NOTE: 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.
NOTE: For information regarding HPE Persistent Memory visit: **http://www.hpe.com/info/persistentmemory**
NOTE: CLX-SP processors require 2933 MT/s DIMMS
NOTE: Minimum 1 DIMMs are required per processor; up to 8 DIMMs per processor.
NOTE: 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
NOTE: LRDIMM and RDIMM are distinct memory technologies and cannot be mixed within a server.
NOTE: 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

HPE Networking

Ethernet Options

HPE XL1x0r Ethernet 10Gb 2-port 568FLR-MMT Adapter	868227-B21
HPE Ethernet 10Gb 2-port 530SFP Adapter	652503-B21
HPE Ethernet 10Gb 2-port 530T Adapter	656596-B21
HPE Ethernet 10/25Gb 2-port 631SFP28 Adapter	817718-B21
HPE Ethernet 10Gb 2-port 535T Adapter	813661-B21
HPE Ethernet 1Gb 4-port 366T Adapter	811546-B21
HPE Ethernet 1Gb 2-port 368FLR-T Media Module Adapter	866464-B21
HPE Ethernet 10Gb 2-port 568FLR-SFP+ Media Module Adapter	866467-B21
HPE Ethernet 10/25Gb 2-port 640FLR-SFP28 Adapter	817749-B21
HPE Ethernet 10/25Gb 2-port 640SFP28 Adapter	817753-B21
HPE Ethernet 1Gb 4-port 331T Adapter	647594-B21
HPE Ethernet 10Gb 2-port 562T Adapter	817738-B21
HPE Ethernet 10/25Gb 2-port 621SFP28 Adapter	867328-B21
HPE Ethernet 10Gb 2-port 521T Adapter	867707-B21
HPE Ethernet 1Gb 2-port 332T Adapter	615732-B21
HPE Ethernet 100Gb 1-port 842QSFP28 Adapter	874253-B21

NOTE: 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 331FLR Adapter	629135-B22
HPE Ethernet 10/25Gb 2-port 631FLR-SFP28 Adapter	817709-B21
HPE Ethernet 10Gb 2-port 535FLR-T Adapter	817721-B21
HPE Ethernet 1Gb 4-port 366FLR Adapter	665240-B21
HPE FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter	700751-B21
HPE FlexFabric 10Gb 2-port 533FLR-T Adapter	700759-B21
HPE FlexFabric 10Gb 4-port 536FLR-T Adapter	764302-B21
HPE Ethernet 10Gb 2-port 562FLR-T Adapter	817745-B21

Core Options

HPE Ethernet 10/25Gb 2-port 622FLR-SFP28 Converged Network Adapter	867334-B21

Converged Network Adapters

HPE StoreFabric CN1200E 10GBASE-T Dual Port Converged Network Adapter	N3U51A
HPE StoreFabric CN1100R 10GBASE-T Dual Port Converged Network Adapter	N3U52A
HPE StoreFabric CN1100R Dual Port Converged Network Adapter	QW990A
HPE StoreFabric CN1200E 10Gb Converged Network Adapter	E7Y06A

InfiniBand and Omni-Path Options

HPE InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+FLR-QSFP Adapter	764285-B21
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 FDR/Ethernet 10Gb/40Gb 2-port 544+QSFP Adapter	764284-B21
HPE InfiniBand EDR/Ethernet 100Gb 1-port 840QSFP28 Adapter	825110-H21
HPE InfiniBand EDR/Ethernet 100Gb 2-port 840QSFP28 Adapter	825111-H21
HPE InfiniBand HDR/Ethernet 200Gb 1-port 940QSFP56 Adapter	P06154-H21
HPE InfiniBand HDR100/Ethernet 100Gb 1-port 940QSFP56 Adapter	P06250-H21
HPE InfiniBand HDR100/Ethernet 100Gb 2-port 940QSFP56 Adapter	P06251-H21

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

HPE Drives

Enterprise 12G SAS - SFF Drives

HPE 300GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	870753-H21
HPE 300GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	872475-H21
HPE 600GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	872477-H21
HPE 900GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	870759-H21
HPE 1.2TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	872479-H21
HPE 1.8TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty 512e Digitally Signed Firmware HDD	872481-H21
HPE 2.4TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty 512e Digitally Signed Firmware HDD	881457-H21

Enterprise 12G SAS - LFF Drives

HPE 900GB SAS 12G Enterprise 15K LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware HDD	870761-H21

Midline 12G SAS - SFF Drives

HPE 1TB SAS 12G Midline 7.2K SFF (2.5in) SC 1yr Wty Digitally Signed Firmware HDD	832514-H21
HPE 2TB SAS 12G Midline 7.2K SFF (2.5in) SC 1yr Wty 512e HDD	765466-H21

Midline 12G SAS - LFF Drives

HPE 8TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty 512e Digitally Signed Firmware HDD	834031-H21
HPE 2TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware HDD	833926-H21
HPE 4TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware HDD	833928-H21
HPE 6TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty 512e HDD	861746-H21
HPE 10TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty He 512e DS 6-pack FIO HDD	P09799-B21
HPE 10TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty Helium 512e Digitally Signed Firmware HDD	P09149-H21

Core Options

HPE 12TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty Helium 512e Digitally Signed Firmware HDD	881781-H21

Midline 6G SATA SFF Drives

HPE 2TB SATA 6G Midline 7.2K SFF (2.5in) SC 1yr Wty 512e Digitally Signed Firmware HDD	765455-H21
HPE 1TB SATA 6G Midline 7.2K SFF (2.5in) SC 1yr Wty Digitally Signed Firmware HDD	655710-H21

Midline 6G SATA - LFF Drives

HPE 4TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware HDD	861683-H21
HPE 1TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware HDD	861686-H21
HPE 8TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty 512e Digitally Signed Firmware HDD	834028-H21
HPE 6TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty 512e HDD	861742-H21
HPE 2TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware HDD	861681-H21
HPE 10TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty Helium 512e Digitally Signed Firmware HDD	P09161-H21
HPE 10TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty He 512e DS 6-pack FIO HDD	P09797-B21
HPE 12TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty Helium 512e Digitally Signed Firmware HDD	881787-H21

SSD Selection

Read Intensive 12G SAS - SFF Solid State Drives

HPE 960GB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P06584-H21
HPE 1.92TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P06586-H21
HPE 3.84TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P06588-H21
HPE 7.68TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P06590-H21
HPE 15.3TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P06592-H21
HPE 960GB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04517-H21
HPE 1.92TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04519-H21
HPE 3.84TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04521-H21
HPE 7.68TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04523-H21
HPE 960GB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Value SAS Digitally Signed Firmware SSD	P10440-H21
HPE 1.92TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Value SAS Digitally Signed Firmware SSD	P10442-H21
HPE 3.84TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Value SAS Digitally Signed Firmware SSD	P10444-H21
HPE 7.68TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Value SAS Digitally Signed Firmware SSD	P10446-H21
HPE 960GB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty SSD	P19903-H21
HPE 1.92TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty SSD	P19905-H21
HPE 3.84TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty SSD	P19907-H21
HPE 7.68TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty SSD	P19909-H21

Mixed Use 6G SATA - M.2 – Solid State Drive

HPE 240GB SATA 6G Mixed Use M.2 2280 3yr Wty Digitally Signed Firmware SSD	875488-H21
HPE 480GB SATA 6G Mixed Use M.2 2280 3yr Wty Digitally Signed Firmware SSD	875490-H21
HPE 960GB SATA 6G Mixed Use M.2 2280 3yr Wty Digitally Signed Firmware SSD	875492-H21

Read Intensive 6G SATA – M.2 – Solid State Drive

HPE 480GB SATA 6G Read Intensive M.2 2280 3yr Wty Digitally Signed Firmware SSD	875498-H21
HPE 960GB SATA 6G Read Intensive M.2 2280 3yr Wty Digitally Signed Firmware SSD	875500-H21

Core Options

Read Intensive 6G SATA - SFF - Solid State Drives

HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04474-H21
HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04476-H21
HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04478-H21
HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04480-H21
HPE 7.68TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04482-H21
HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04556-H21
HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04560-H21
HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04564-H21
HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04566-H21
HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04570-H21
HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P06194-H21
HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P06196-H21
HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P06198-H21
HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P06200-H21
HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor SSD	P18426-H21
HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor SSD	P18420-H21
HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor SSD	P18428-H21
HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor SSD	P18422-H21
HPE 7.68TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor SSD	P18430-H21
HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor SSD	P18424-H21

Read Intensive 6G SATA - LFF - Solid State Drives

HPE 480GB SATA 6G Read Intensive LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD	P04499-H21
HPE 1.92TB SATA 6G Read Intensive LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD	P04501-H21
HPE 960GB SATA 6G Read Intensive LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD	P09691-H21

Read Intensive 6G SATA – SFF - Solid State Drives

HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P05924-H21
HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P05928-H21
HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P05932-H21
HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P05938-H21
HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P05946-H21

Write Intensive 12G SAS – SFF – Solid State Drive

HPE 400GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P09098-H21
HPE 800GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P09100-H21
HPE 1.6TB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P09102-H21
HPE 400GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04541-H21
HPE 800GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04543-H21
HPE 1.6TB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04545-H21
HPE 3.2TB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04547-H21

Core Options

Mixed Use 12G SAS – SFF Solid State Drives

HPE 400GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04525-H21
HPE 800GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04527-H21
HPE 1.6TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04533-H21
HPE 3.2TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04537-H21
HPE 6.4TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04539-H21
HPE 3.84TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Value SAS Digitally Signed Firmware SSD	P10460-H21
HPE 1.92TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Value SAS Digitally Signed Firmware SSD	P10454-H21
HPE 960GB SAS 12G Mixed Use SC 3yr Wty Value SAS Digitally Signed Firmware SSD	P10448-H21
HPE 800GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty SSD	P19913-H21
HPE 1.6TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty SSD	P19915-H21
HPE 3.2TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty SSD	P19917-H21
HPE 6.4TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty SSD	P19919-H21

Mixed Use 12G SAS - LFF Solid State Drives

HPE 1.6TB SAS 12G Mixed Use LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD	P04535-H21
HPE 800GB SAS 12G Mixed Use LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD	P04531-H21
HPE 3.84TB SAS 12G Mixed Use LFF (3.5in) LPC 3yr Wty Value SAS Digitally Signed Firmware SSD	P10462-H21
HPE 1.92TB SAS 12G Mixed Use LFF (3.5in) LPC 3yr Wty Value SAS Digitally Signed Firmware SSD	P10458-H21
HPE 960GB SAS 12G Mixed Use LFF (3.5in) LPC 3yr Wty Value SAS Digitally Signed Firmware SSD	P10452-H21

Mixed Use 6G SATA - LFF Solid State Drives

HPE 1.92TB SATA 6G Mixed Use LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD	P07934-H21
HPE 1.92TB SATA 6G Mixed Use LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD	P09726-H21

Mixed Use 6G SATA - SFF - Solid State Drives

HPE 3.84TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P00896-H21
HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P07922-H21
HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P07926-H21
HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P07930-H21
HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P09712-H21
HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P09716-H21
HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P09722-H21
HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P05976-H21
HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P05980-H21
HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P05986-H21
HPE 3.84TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P05994-H21
HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Multi Vendor SSD	P18436-H21
HPE 3.84TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Multi Vendor SSD	P18438-H21
HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Multi Vendor SSD	P18432-H21
HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Multi Vendor SSD	P18434-H21
HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P13660-H21
HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P13662-H21
HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P13658-H21
HPE 3.84TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P13664-H21
HPE 3.84TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P21517-H21

Core Options

Write Intensive NVMe - SFF - Solid State Drives

HPE 375GB NVMe x4 Lanes Write Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	878014-H21

Read Intensive NVMe - SFF - Solid State Drives

HPE 15.36TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	P07198-H21
HPE 3.84TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	P13680-H21
HPE 1.92TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	P13678-H21
HPE 960GB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	P13676-H21
HPE 7.68TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	P13682-H21

HPE Server Solid State Drives

Mixed Use NVMe - SFF - Solid State Drives

HPE 1.6TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	P10222-H21
HPE 3.2TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	P10224-H21
HPE 6.4TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	P10226-H21
HPE 6.4TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	P13674-H21
HPE 800GB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	P13668-H21
HPE 1.6TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	P13670-H21
HPE 3.2TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	P13672-H21

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

NOTE: This controller supports 0 Internal SAS/SATA devices

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

NOTE: 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

NOTE: 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

NOTE: This controller supports 8 Internal SAS/SATA devices

Core Options

HBA Storage Controllers

HPE StoreFabric SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter	P9M75A
HPE StoreFabric SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter	P9M76A
HPE StoreFabric SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter	Q0L11A
HPE StoreFabric SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter	Q0L12A
HPE StoreFabric SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter	Q0L13A
HPE StoreFabric SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter	Q0L14A
HPE StoreFabric SN1100Q 16Gb Single Port Fibre Channel Host Bus Adapter	P9D93A
HPE StoreFabric 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

Additional Options

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 Physical Media Kit LTU	E5Y37A
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

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

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

USB Flash Kit

HPE 32GB microSD Flash Memory Card	700139-B21
HPE 8GB microSD Flash Memory Card	726116-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
HPE Smart Array SR Secure Encryption (Data at Rest Encryption/per Server Entitlement) E-LTU	Q2F26AAE

Additional Options

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
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

NOTE: 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
NOTE: 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	C0H27A
HPE StoreEver MSL LTO-6 Ultrium 6250 Fibre Channel Drive Upgrade Kit	C0H28A
HPE StoreEver MSL LTO-5 Ultrium 3000 SAS Drive Upgrade Kit	BL540B

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**
		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.
	-30° o 60°C (-22° to 140°F).	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.

NOTE: 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

NOTE: 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

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.

Summary of Changes

Date	Version History	Action	Description of Change
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
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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