HPE Apollo 2000 Gen10 Plus System - Product Information Reference

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Abstract

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Revision history

Part number	Publication date	Edition	Summary of changes

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Summary

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Product description
What's new

Product description



HPE is bringing the power of supercomputing to datacenters of any size with the Apollo 2000 Gen10 Plus system. The Apollo 2000 Gen10 Plus offers a density optimized, shared infrastructure with a flexible scale-out architecture to support a variety of workloads from remote site systems to large HPC clusters and everything in between. HPE iLO5 provides built-in firmware-level server security with silicon root of trust. It can be deployed cost-effectively starting with a single 2U, shared infrastructure chassis and configured with a variety of storage options to meet the configuration needs of a wide variety of scale-out workloads.

What's new

- New, 24 Small Form Factor (SFF) SAS zoning chassis, n2800, that allows flexible allocation of drives across server nodes. The chassis supports 5 single rotor fans (Upgradeable to 7 fans), includes an integrated RCM and supports up supports up to 3000 W power supplies.
- Enables a robust stack of Intel 3rd generation Xeon Scalable Processors to increase users power density and increase datacenter efficiency. Intel AVX-512 feature increases memory bandwidth, improves frequency management to enable greater performance. Also Speed Select Technology (SST) allows Core count and frequency flexibility.

- The Direct Liquid Cooling (DLC) option for the Apollo 2000 Gen10 Plus System comes ready to plug and play. Choose from either CPU only or CPU plus memory cooling options.
- Enables flexible choices with Intel 3rd Generation Xeon Scalable Processors and AMD 2nd and 3rd generation EPYC Processors.
- New flexible infrastructure offers multiple storage options, 8 memory channels and 3200 MT/s memory, PCIe Gen4 and support for processors over 250 W for improved application performance.
- Complete software portfolio for all user workloads, for node to rack management, including comprehensive integrated cluster management software.
- Secure from the start with firmware anchored into silicon with iLO5 and silicon root of trust for the highest level of system security.

Standard Models

Subtopics

New RoHS compliant part numbers
Standard model

New RoHS compliant part numbers

To find the latest RoHS compliance information, please use the HPE PartSurfer (**Click here to visit HPE PartSurfer website**) and click on one of the linked model numbers. When locating RoHS information in PartSurfer, end user can use the option part number for the components, the sales order number for a system that the component is used in, or the spare part number for a specific part. End user can find the sales order numbers and option part numbers in the Product QuickSpecs.

Standard model

Description	Model Number
HPE Apollo n2600 Gen10 Plus Small Form Factor (SFF) Configure-To-Order (CTO) chassis	P19878-B21 **Click here to obtain parts list for this model .**

HPE Apollo n2400 Gen10 Plus CTO chassis	P30036-B21 **Click here to obtain parts list for this model .**
HPE Apollo n2800 Gen10 Plus SFF CTO chassis	P23142-B21 **Click here to obtain parts list for this model .**
HPE ProLiant XL225n Gen10 Plus 1U node CTO Server	P21163-B21 **Click here to obtain parts list for this model .**
HPE ProLiant XL220n Gen10 Plus 1U node CTO server	P19879-B21 **Click here to obtain parts list for this model .**
HPE ProLiant XL290n Gen10 Plus 2U node CTO server	P19880-B21 **Click here to obtain parts list for this model .**

Product features

Feature	Description
Chassis information	**Form factor:** 2U **There are 3 chassis option with different storage configurations** • **HPE Apollo n2400 Gen10 Plus CTO chassis** - Drive-Less chassis at an entry level price point that provides power and cooling efficiencies ideal for supporting high power processors with air cooling. ◦ 0 Drives • **HPE Apollo n2600 Gen10 Plus CTO chassis** - allocated equally across server nodes ◦ Offers 2 different storage configurations through backplane selection: - 8-SFF SAS/SATA/NVME - 24-SFF SAS/SATA (AMD) - 24-SFF SAS/SATA or NVMe (Intel only) • **HPE Apollo n2800 Gen10 Plus Flexible CTO Chassis (Intel only)**

Feature	Description
	◦ 24-SFF SAS Zoning allows for flexible allocation of drives to server nodes via an e mbedded SAS expander adapter.
	Each HPE Apollo 2000 Chassis is built with the following: • Four server slots (1U node) • Supports up to two (2) power supplies for the chassis (1600 W/1800-2200 W/3000 W). • Five (5) dual-rotor fans standard and an additional Fan kit (2 fans) can be selected for additional cooling. • Optional integrated Rack Consolidation Module (RCM). • Optional support for HPE Advance Power Manager (HPE APM) a rack level manager.
	Server tray blank kit A chassis requires that four (4) server tray slots be populated with an HPE ProLiant XL22 5n Gen10 Plus or an HPE Apollo 2000 Gen10 Plus Server node blank kit.
Server tray	**HPE ProLiant XL220n Gen10 Plus server** • 2P/1U Half width server tray built on Intel 3rd generation Xeon Scalable processors. With choices from 8-40 cores up to 3.5 GHz CPU speed and power ratings up to 270 W (Some CPU's may require DLC) The tray has an 8 memory channels per socket and 3200 MT/s memory, two PCIe Gen4 slots, an OCP3.0 slot and multiple networking opt ions including high speed fabric. • Optional USB Mezz riser kit • Separate NIC and iLO ports • Up to 4 server trays per chassis
	HPE ProLiant XL225n Gen10 Plus server • 2P/1U half width server tray built on the AMD EPYC 7002 processors. With choices f rom 8-64 cores, up to 3.4 GHz CPU speed and power ratings +200 W. • The tray has a 8 memory channels per socket and 3200 MT/s memory, two PCIe Gen4 slots, an OCP3.0 slot and multiple networking options including high speed fabric. • Optional USB Mezz riser kit • Up to 4 server trays are supported per chassis

Feature	Description
	• Supported storage options: 0 to 6-SFF SAS/SATA or 2-SFF SAS/SATA/NVME per node.
	HPE ProLiant XL290n Gen10 Plus server • 2P/2U half width server tray built on Intel 3rd generation Xeon Scalable processors. With choices from 8-40 cores up to 3.5 GHz CPU speed and power ratings up to 270 W (Some CPU's may require DLC). • The tray has an 8 memory channels per socket and 3200 MT/s memory, two PCIe Gen 4 slots, an OCP3.0 slot and multiple networking options including high speed fabric. • Optional USB Mezz riser kit • Separate NIC and iLO ports • Up to two server trays per chassis (XL220n and XL290n can be mixed in a n2600 or n2800 chassis. • Future support for GPU's
Rack airflow requirements	**HPE Apollo 2000 Gen10 Plus System** The increasing power of new high-performance processor technology requires increased cooling efficiency for rack-mounted servers. For maximum cooling, HPE racks are recommended to allow these racks to be fully loaded with servers using the latest processors.
DLC for Apollo 2000 Gen10 Plus	Unlock the entire CPU sku stack, increase the power density and increase datacenter efficiency with HPE's DLC system that comes ready to plug and play into the data center. The DLC system comes pre-filled with liquid and will easily connect to facility water without the need for secondary plumbing to be installed on site. DLC is fully integrated, installed and supported by HPE. DLC System includes: • 42U or 48U HPE standard 800 x 1200 mm rack • Facility water hookup kit (Top or bottom feed available) • Each rack comes with HPE Apollo rack mount CDU and manifolds installed. Minimum of one Apollo 2000 Gen10 Plus chassis with DLC option - comes pre-filled and ready to plug into rack manifold with no other action needed.
Processors [1]	Processors up to 2 of the following depending on the model:

Feature	Description

AMD EPYC Processor	Cores	Base frequency	Max frequency	Max memory	Wattage	Cache	Memory
EPYC 7H12	64	2.9 GHz	3.3 GHz	2TB	280 W	256MB	3200 MT/s
EPYC 7742	64	2.25 GHz	3.4 GHz	2TB	225 W	256MB	3200 MT/s
EPYC 7702	64	2.0 GHz	3.35 GHz	2TB	200 W	256MB	3200 MT/s
EPYC 7662	64	2.0 GHz	3.3 GHz	2TB	225 W	256MB	3200 MT/s
EPYC 7642	48	2.3 GHz	3.3 GHz	2TB	225 W	256MB	3200 MT/s
EPYC 7552	48	2.2 GHz	3.3 GHz	2TB	200 W	192MB	3200 MT/s
EPYC 7542	32	2.9 GHz	3.4 GHz	2TB	225 W	128MB	3200 MT/s
EPYC 7532	32	2.4 GHz	3.3 GHz	2TB	200 W	256MB	3200 MT/s
EPYC 7502	32	2.5 GHz	3.35 GHz	2TB	180 W	128MB	3200 MT/s
EPYC 7452	32	2.35 GHz	3.35 GHz	2TB	155 W	128MB	3200 MT/s
EPYC 7F72	24	3.2 GHz	3.7 GHz	2TB	240 W	192MB	3200 MT/s
EPYC 7402	24	2.8 GHz	3.35 GHz	2TB	180 W	128MB	3200 MT/s
EPYC 7352	24	2.3 GHz	3.2 GHz	2TB	155 W	128MB	3200 MT/s
EPYC 7F52	16	3.5 GHz	3.9 GHz	2TB	240 W	256MB	3200 MT/s

Feature	Description						
	AMD EPYC Processor	**Cores**	**Base frequency**	**Max frequency**	**Max memory**	**Wattage**	**Cache**	**Memory**
	EPYC 7302	16	3.0 GHz	3.3 GHz	2TB	155 W	128MB	3200 MT/s
	EPYC 7282	16	2.8 GHz	3.2 GHz	2TB	120 W	64MB	3200 MT/s
	EPYC 7272	12	2.9 GHz	3.2 GHz	2TB	120 W	64MB	3200 MT/s
	EPYC 7F32	8	3.7 GHz	3.9 GHs	2TB	180 W	128MB	3200 MT/s
	EPYC 7262	8	3.2 GHz	3.4 GHz	2TB	155 W	128MB	3200 MT/s
	EPYC 7252	8	3.1 GHz	3.2 GHz	2TB	120 W	64MB	3200 MT/s
	EPYC 7763	64	2.45 GHz	3.5 GHz	2TB	280 W	256MB	3200 MT/s
	EPYC 7713	64	2.0 GHz	3.675 GHz	2TB	225 W	256MB	3200 MT/s
	EPYC 7663	56	2.0 GHz	3.5 GHz	2TB	240 W	256MB	3200 MT/s
	EPYC 7643	48	2.3 GHz	3.6 GHz	2TB	225 W	256MB	3200 MT/s
	EPYC 7543	32	2.8 GHz	3.7 GHz	2TB	225 W	256MB	3200 MT/s
	EPYC 7513	32	2.6 GHz	3.65 GHz	2TB	200 W	128MB	3200 MT/s
	EPYC 7453	28	2.75 Hz	3.45 Hz	2TB	225 W	64MB	3200 MT/s
	EPYC 7443	24	2.85 GHz	4.0 GHz	2TB	200 W	128MB	3200 MT/s

Feature	Description

AMD EPYC Processor	Cores	Base frequency	Max frequency	Max memory	Wattage	Cache	Memory
EPYC 7413	24	2.65 GHz	3.6 GHz	2TB	180 W	128MB	3200 MT/s
EPYC 7343	16	3.2 GHz	3.9 GHz	2TB	190 W	128MB	3200 MT/s
EPYC 7313	16	3.0 GHz	3.7 GHz	2TB	155 W	128MB	3200 MT/s
EPYC 75F3	32	2.95 GHz	4.0 GHz	2TB	280 W	256MB	3200 MT/s
EPYC 74F3	24	3.2 GHz	4.0 GHz	2TB	240 W	256MB	3200 MT/s
EPYC 73F3	16	3.5 GHz	4.0 GHz	2TB	240 W	256MB	3200 MT/s
EPYC 72F3	8	3.7 GHz	4.1 GHz	2TB	180 W	256MB	3200 MT/s
EPYC 7713P	64	2.0 GHz	3.675 GHz	2TB	225 W	256MB	3200 MT/s
EPYC 7543P	32	2.8 GHz	3.7 GHz	2TB	225 W	256MB	3200 MT/s
EPYC 7443P	24	2.85 GHz	4.0 GHz	2TB	200 W	128MB	3200 MT/s
EPYC 7313P	16	3.0 GHz	3.7 GHz	2TB	155 W	128MB	3200 MT/s

Intel Xeon Processor	Cores	Base frequency	Max Frequency	Max memory	Wattage	Cache 1.5 MB/core	Memory
Xeon 8380	40	2.3 GHz	3.4 GHz	6TB/socket	270 W	60MB	3200 MT/s
Xeon 8368	38	2.4 GHz	3.4 GHz	6TB/socket	270 W	57MB	3200 MT/s

Feature	Description							
	Intel Xeon Processor	Cores	Base frequency	Max Frequency	Max memory	Wattage	Cache 1.5 MB/core	Memory
	Xeon 8360Y	36	2.4 GHz	3.5 GHz	6TB/socket	250 W	54MB	3200 MT/s
	Xeon 8358	32	2.6 GHZ	3.4 GHz	6TB/socket	250 W	48MB	3200 MT/s
	Xeon 8352Y	32	2.2 GHz	3.4 GHz	6TB/socket	205 W	48MB	3200 MT/s
	Xeon 6354	18	3.0 GHz	3.6 GHz	6TB/socket	205 W	39MB	3200 MT/s
	Xeon 6348	28	2.6 GHz	3.5 GHz	6TB/socket	235 W	42MB	3200 MT/s
	Xeon 6346	16	3.1 GHz	3.6 GHz	6TB/socket	205 W	36MB	3200 MT/s
	Xeon 6338	32	2.0 GHz	3.2 GHz	6TB/socket	205 W	48MB	3200 MT/s
	Xeon 6330	28	2.0 GHZ	3.1 GHz	6TB/socket	205 W	42MB	3200 MT/s
	Xeon 6342	24	2.8 GHZ	3.5 GHz	6TB/socket	230 W	36MB	3200 MT/s
	Xeon 4309Y	8	2.8 GHz	3.6 GHz	6TB/socket	105 W	12MB	3200 MT/s
	Xeon 4310	12	2.1 GHz	3.3 GHz	6TB/socket	120 W	18MB	3200 MT/s
	Xeon 4314	16	2.4 GHz	3.4 GHz	6TB/socket	135 W	24MB	3200 MT/s
	Xeon 4316	20	2.3 GHz	3.4 GHz	6TB/socket	150 W	30MB	3200 MT/s
	Xeon 5318Y	24	2.1 GHz	3.4 GHz	6TB/socket	165 W	36MB	3200 MT/s
	Xeon 5320	26	2.2 GHz	3.4 GHz	6TB/socket	185 W	39MB	3200 MT/s

Feature	Description

Intel Xeon Processor	Cores	Base frequency	Max Frequency	Max memory	Wattage	Cache 1.5 MB/core	Memory
Xeon 6336Y	24	2.4 GHz	3.6 GHz	6TB/socket	185 W	36MB	3200 MT/s
Xeon 5115Y	8	3.2 GHz	3.6 GHz	6TB/socket	140 W	12MB	3200 MT/s
Xeon 5317	12	3.0 GHz	3.6 GHZ	6TB/socket	150 W	18MB	3200 MT/s
Xeon 6326	16	2.9 GHz	3.5 GHz	6TB/socket	185 W	24MB	3200 MT/s
Xeon 6334	8	3.6 GHz	3.7 GHz	6TB/socket	165 W	18MB	3200 MT/s

Chipset	No Chipset - System on Chip (SoC) design
On system management chipset	HPE iLO 5 ASIC **Click here to access the HPE Integrated Lights-Out (iLO) QuickSpecs for more information**.
NIC/shared iLO network port	Can choose dedicated NIC or shared NIC interface
Memory [2]	

Type	**HPE DDR4 SmartMemory** **Registered (RDIMM) or Load reduced (LRDIMM)**
DIMM Slots available	16 Slots per server 8 Channels per processor, 1 DIMM per channel
Maximum capacity (LRDIMM)	2TB 16 x 128GB at 3200 MT/s
Maximum capacity (RDIMM)	1TB

Feature	Description	
	Type	**HPE DDR4 SmartMemory** **Registered (RDIMM) or Load reduced (LR DIMM)**
		16 x 64GB at 3200 MT/s

Expansion slots [3]

Table 1. for XL220n Gen10 Plus server

Slots #	Technology	Bus width	Connector width	Slot form factor	Source
Low profile left riser (P20260-B21)					
1	PCIe 4.0	x16	x16	Low profile	CPU1
Low profile CPU1 right riser (P20261-B21)					
2	PCIe 4.0	x16	x16	Low profile	CPU1
Low profile CPU2 right riser (P20264-B21)					
2	PCIe 3.0	x16	x16	Low profile	CPU2
Low profile CPU1 NVMe right riser (P22337-B21)					
2	PCIe 4.0	x16	x16	Low profile	CPU1

Table 2. For XL225n Gen10 Plus server

Slots #	Technology	Bus width	Connector width	Slot form factor	Source
Low profile left riser (P20260-B21)					
1	PCIe 4.0	x16	x16	Low profile	CPU1
Low profile CPU1 right riser (P20261-B21)					
2	PCIe 4.0	x16	x16	Low profile	CPU1
Low profile CPU2 right riser (P20264-B21)					
2	PCIe 3.0	x16	x16	Low profile	CPU2

Feature	Description

Slots #	Technology	Bus width	Connector width	Slot form factor	Source
Low profile CPU1 NVMe right riser (P22337-B21)					
2	PCIe 4.0	x16	x16	Low profile	CPU1

Table 3. For XL290n Gen10 Plus server

Slots #	Technology	Bus width	Connector width	Slot form factor	Source
Low profile left riser (P20260-B21)					
1	PCIe 4.0	x16	x16	Low profile	CPU1
CPU1/2 Right riser (P20266-B21)					
2	PCIe 4.0	x16	x16	Low profile	CPU2
3	PCIe 4.0	x16	x16	Double width /single width full height/up to 10.5 in	CPU1
4	PCIe 4.0	x16	x16	Single width full height/up to 10.5 in	CPU2
5	PCIe 4.0	x16	x16	Double width /single width full height/up to 10.5 in	CPU2
CPU2 Right riser (P20269-B21)					
2	PCIe 4.0	x16	x16	Low profile	CPU2
3	PCIe 4.0	x16	x16	Double width /single width full height/up to 10.5 in	CPU2
4	PCIe 4.0	x16	x16	Single width full height/up to 10.5 in	CPU1

Feature	Description					
	Slots #	**Technology**	**Bus width**	**Connector width**	**Slot form factor**	**Source**
	5	PCIe 4.0	x16	x16	Double width /single width full height/up to 10.5 in	CPU2
	4 x GPU Right riser (P20293-B21)					
	2	PCIe 3.0	x4	x8	Low profile	PCH
	3	PCIe 4.0	x16	x16	Single width full height/up to 10.5 in	CPU2
	4	PCIe 4.0	x16	x16	Single width full height/up to 10.5 in	CPU1
	5	PCIe 4.0	x16	x16	Single width full height/up to 10.5 in	CPU2
	6	PCIe 4.0	x16	x16	Single width full height/up to 10.5 in	CPU2
	CPU1/2 NVMe Right riser (P20268-B21)					
	2	PCIe 4.0	x16	x16	Low Profile	CPU2
	3	PCIe 4.0	x16	x16	Double width /single width full height/up to 10.5 in	CPU1
	5	PCIe 4.0	x16	x16	Double width /single width full height/up to 10.5 in	CPU2
Storage controllers	**Essential RAID controller** • HPE Smart Array E208i-p SR Gen10 Controller					

Feature	Description
	• HPE Smart Array E208e-p SR Gen10 Controller **Performance RAID controller** [4] • HPE Smart Array P408i-p SR Gen10 controller • HPE Smart Array P408e-p SR Gen10 controller
Host Bus Adapter (HBA)	• HPE SN1100Q 16Gb 1p FC HBA • HPE SN1100Q 16Gb 2p FC HBA • HPE SN1600Q 32Gb 2p FC HBA • HPE SN1600E 32Gb 1p FC HBA • HPE SN1600E 32Gb 2p FC HBA • HPE SN1200E 16Gb 1p FC HBA • HPE SN1200E 16Gb 2p FC HBA • HPE SN1610Q 32Gb 1p FC HBA • HPE SN1610Q 32Gb 2p FC HBA
Storage controller cable kits [5]	• HPE XL22xn Gen10+ E208ip/P408ip cable kit • HPE XL225n Gen10+ SR100i SATA cable kit
Maximum internal storage	**Maximum internal storage** / **Capacity** / **Configuration** Hot-Plug SFF SATA SSD / 46TB / 6 x 7.68TB Hot-Plug SFF SAS SSD / 91TB / 6 x 15.3TB Hot-Plug NVMe SSD (AMD) / 30TB / 2 x 15.3TB Hot-Plug NVMe SSD (Intel) / 92TB / 6 x 15.3TB
Internal storage devices	Optional USB mezz riser kit

Feature	Description
HPE Server UEFI /Legacy ROM	**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 > 2.2TB (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:** • Firmware TPM • 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
Server management	• HPE iLO 5 Advanced **Click here to access the HPE Integrated Lights-Out (ILO) website**. • iLO RESTful API **Click here to access iLO RESTful API website**. • HPE Performance Cluster Manager **Click here to access HPE Performance Cluster Manager website**. • Bright Cluster Manager
Software development tools (Programming languages, deb	**HPE Message Passing Interface (MPI)** - An MPI development environment designed by HPE to enable optimization of High Performance Computing (HPC) applications on HPE Apollo 200 Gen10 Plus systems. The HPE Performance Software - MPI leverages a scalable MPI library and boosts performance of existing applications without requiring recompilation.

Feature	Description
uggers, libraries)	Additional 3rd party software developmental tools: • AMD AOCC • Intel parallel studio XE (With Intel MPI) • GNU compiler collection • Rogue wave software totalView • Arm forge professional • Mellanox HPC-X • OpenHPC
Remote visualization	NICE DCV and EnginFrame
Server utilities	• Active health System • Active health system viewer • Smart update • iLO Amplifier pack • HPE iLO Mobile application • RESTful Interface tool • HPE iLO Scale-Out • Scripting tools • HPE Systems Insight Manager (HPE SIM) • HPE iLO Advanced Premium Security Edition
Software licenses	• HPE iLO standard (Embedded in server) • HPE iLO advanced (Requires license) • Intelligent provisioning (Embedded in server) • HPE OneView standard (Requires download) • HPE OneView advanced (Requires license)
Industry standard compliance	• ACPI 6.3 compliant

Feature	Description
	• PCIe 4.0 compliant • WOL support • Microsoft logo certifications • PXE support • USB 3.0 compliant (Internal); USB 2.0 compliant (External ports via SUV) • SMBIOS 3.2 • UEFI 2.8 • Redfish API
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 com promised firmware • Trusted Platform Module (TPM) Gen10 Plus module kit option • Runtime firmware validation – Periodically scan essential firmware for compromised c ode during runtime

NOTE

1.

- All AMD EPYC processors can support up to 2TB of memory each on the Apollo 20 00 Gen10 Plus system.
- Certain limitations may apply to select processors, contact HPE sales representati ve.
- Contact HPE sales representatives for any questions on processor support needed.

Feature	Description

- 7H12 Requires selection of DLC options (L22 or L23).

Click here to view for more information regarding AMD EPYC processors.

2. LRDIMM and RDIMM are distinct memory technologies and cannot be mixed within a s erver. Memory DIMM availability with a server platform is dependent upon completion of certification testing.
3.
   - If choosing DLC for the Apollo 2000 Gen10 plus system slot 1 is not available for u se with a PCIe card.
   - Low Profile CPU1 NVMe Right Riser supports 2 NVMe drives direct CPU2 when ch osen with the 4 SFF U.3 BP Prem FIO BP Kit is chosen.
   - Right riser is required to support SATA drives
   - Requires 2 CPUs if selected with HPE n2600 Gen10 plus 4 SFF U.3 Prem FIO BP ki t.
   - Bus width indicates the number of physical electrical lanes running to the connecto r.
   - When P20264-B21 riser is installed, PCIe Gen4 devices installed in the riser will onl y operate at PCIe Gen3 speeds (8 GT/s).
4. Performance RAID controllers require the HPE Smart storage battery (P01366-B21) w hich is sold separately.
5. AHCI Mode is default settings

Specifications

Subtopics

System specifications
Physical specifications
Environmental specifications

System specifications

Specifications	Description	
Interfaces	KVM	Serial USB Video Port (SUV)
	USB Ports	3 External via SUV (2 regular USB, 1 USB management); 1 USB 3.2 Gen1 Type A Port (External)
	HPE iLO Remote management network port	NIC/Shares iLO network port
	Health LED	1
	Power	1
	UID	1
	Do not remove LED	1

Physical specifications

Table 1. HPE Apollo n2600/n2800 Gen10 Plus Chassis

Specifications	Description
Dimensions (H x W x D):	8.75 x 44 x 92.4 cm (3.44 x 17.32 x 36.38 in)
Shipping dimensions (H x W x D):	31.75 x 60.02 x 100.01 cm (12.5 x 23.63 x 39.37 in)
Chassis weight (Approximate):	13.7 kg (29.03 lb) Empty (No drives, power supplies, RCM, server nodes and server blanks)
Maximum enclosure weight	46.73 kg (103.02 lb) Approximate – 24-SFF drive configuration

Table 2. HPE Proliant XL220n/XL225n Gen10 Plus Server Node

Specifications	Description
Server dimensions (H x W x D):	4.13 x 17.615 x 61.663 cm (1.63 x 6.94 x 24.28 in)
Weight (Approximate):	• **Maximum:** 5.27 kg (11.63 lb) • **Minimum:** 4.61 kg (10.16 lb)

Table 3. HPE Proliant XL290n Gen10 Plus Server Node

Specifications	Description
Server dimensions (H x W x D):	8.3 x 17.615 x 62.035 cm (3.27 x 6.94 x 24.42 in)
Weight (Approximate):	• **Maximum:** 5.26 kg (11.06 lb) • **Minimum:** 8.9 kg (19.62 lb)

Table 4. Apollo 2000 Gen10 Plus system with Direct Liquid Cooling (DLC)

Specifications	Description
Weight (Filled)	• **CDU:** 62.14 kg (137 lb) • **Manifold:** 15.88 kg (35 lb) • **Chassis:** 46.73 kg (103.02 lb) (Approximate)

Environmental specifications

Table 1. HPE Proliant XL225n Gen10 Plus

Specifications	Description
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). ◦ 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). • -30° to 60°C (-22° to 140°F) ◦ 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%

Specifications	Description
	• Relative humidity (Rh), 38.7°C (101.7°F) maximum wet bulb temperature, no n-condensing.
Altitude	**Operating** • 3050 m (10,000 ft) • This value may be limited by the type and number of options installed. Maxim um 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).

Spare Parts

Subtopics

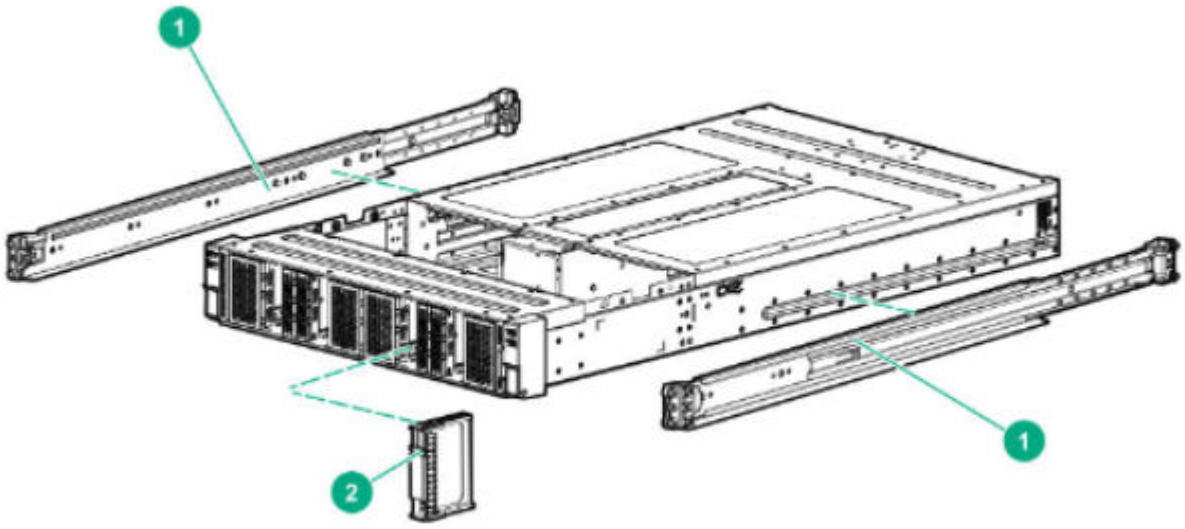
New model specific parts lists
Mechanical components
System components
Chassis options

New model specific parts lists

IMPORTANT: To obtain current part number information for a specific product model, use the Standard Models page for this product family.

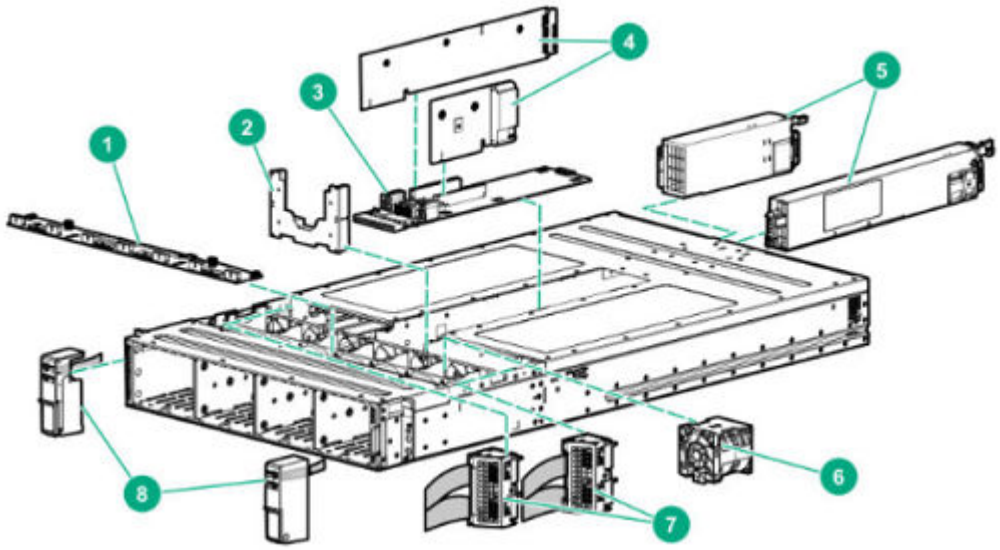
- The product Standard Models page now links the model SKU numbers to the spare parts list for each model found on the HPE PartSurfer web site. (To report missing or incorrect parts information in PartSurfer, please use the "Contact us" and "Missing or incorrect data" links within the PartSurfer web site utility.)
- To look up RoHS-compliant information in PartSurfer, use the component's option part number or the sales order number for a system in which the component is used (Available in the QuickSpecs or Standard Models page).

Mechanical components



Item	Description	Spare Part Number
1	**Rack rail kit**	
	n2x00 G10P 2U shelf mount rail	P25582-001
2	**Small Form Factor (SFF) Drive blank**	
	Hard drive blank (Cover) - To fill empty SFF drive bays - for Gen8 servers	670033-001

System components



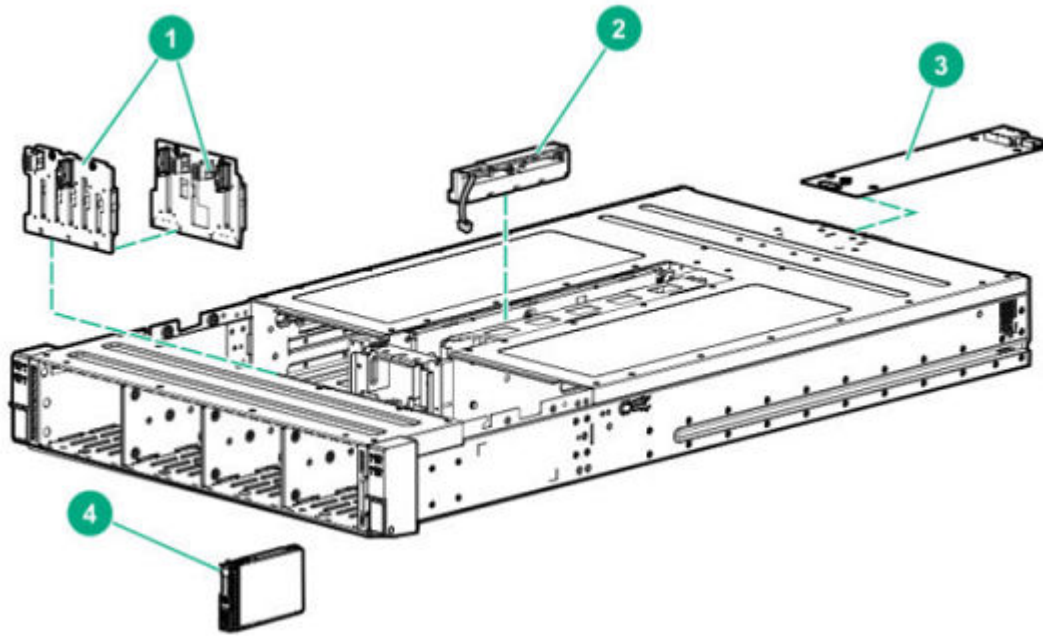
Item	Description	Spare Part Number
1	**Fan board**	
	Fan board Apollo 2000 Gen10 P	P25441-001
2	**Power backplane**	
	Power backplane n2x00 Gen10 Plus	P25432-001
3	**Power Distribution Board (PDB)**	
	PDB, n2x00 Gen10 Plus	P25431-001
4	**Power interface board**	
	HPE n2x00 Gen10 Plus 1600 W power interface board	P25439-001
	HPE n2x00 Gen10 Plus 3000 W power interface board	P25440-001
5	**Power supply**	
	1600 W Flexible slot 'Platinum Plus' hot-plug low Halogen power supply - Supports power discovery services (Blue plug) - 96% efficiency- Mixing of power supplies in the same server is not supported, must be the same spare part number	863373-001
	Flex slot Platinum hot plug power supply kit - Generic 1U 2200 W 12 V	882135-001

Item	Description	Spare Part Number
	12 V 3000 W 200-277 V ac Platinum hot-plug power supply	P25430-001
6	**Fan**	
	Assy, 6056 GNRC fan, n2x00 Gen10 P	P25446-001
7	**System interconnect assembly**	
	Impel cable, A2000 Gen10 Plus	P25454-001
8	**Chassis ear assembly**	
	Assembly, ear, right, n2x00 Gen10 Plus	P25453-001
	Cable kit, drive bay	P25460-001
9	**System cable**	
	Cable kit power	P25459-001

NOTE

Item 9 not shown in the image

Chassis options



Item	Description	Spare Part Number
1	**Drive backplane**	
	4SFF-U3 Prem HDD BP Gen10 P	P25435-001
	6SFF-SAS/SATA BP Gen10 Plus	P25433-001
2	**Energy pack**	
	96 W Smart storage battery - One battery pack provides Flash Back Write Cache (FBWC) for all the drive controlle rs in the server - Connects to the system I/O board, 145 mm (5.7 in) long cable	878643-001
3	**RCM board**	
	RCM board	P25436-001
4	**SFF SATA, SAS or NVMe drive**	

Option Parts

Subtopics

New model specific parts lists
Backplane for n2600 chassis
Zoning options for n2800 chassis
HPE Air cooling
HPE Rail kits
Server trays
Power supplies
Power cords
RCM module
HPE Advanced power manager
HPE Processors
Direct Liquid Cooling (DLC) kit for processor only
DLC kit for CPU plus memory cooling
DLC tube set
Rack manifold
Rack mount Coolant Distribution Unit (CDU)
DLC facility hookup kit
DLC installation kit
HPE Memory
HPE Drives
Host Bus Adapter (HBA) storage controllers
HPE Integrated Light-Out (iLO)
USB flash kit
Trusted Platform Module (TPM)
Transceiver
HPE Smart array SmartCache license
USB and SD options
HPE Tape backup
InfiniBand options
HPE Networking
RAID settings
Controller state
HPE Storage cables
HPE Storage controller
HPE PCIe riser kits
Additional FIO

New model specific parts lists

IMPORTANT: To obtain current part number information for a specific product model, use the Standard Models page for this product family.

- The product Standard Models page now links the model SKU numbers to the spare parts list for each model found on the HPE PartSurfer web site. (To report missing or incorrect parts information in PartSurfer, please use the "Contact us" and "Missing or incorrect data" links within the PartSurfer web site utility.)
- To look up RoHS-compliant information in PartSurfer, use the component's option part number or the sales order number for a system in which the component is used (Available in the QuickSpecs or Standard Models page).

Backplane for n2600 chassis

Description	Option Part Number
HPE n2600 Gen10 Plus 6SFF SAS/SATA HDD/Solid State Drives (SSDs) Factory Integrated Options (FIO) backplane kit	P20285-B21
HPE n2600 Gen10 Plus 4SFF U3 Premium HDD/SSD FIO backplane kit	P20288-B21
HPE n2600 Gen10 Plus 6SFF U3 Premium HDD/SSD FIO backplane kit	P20287-B21
HPE ProLiant XL225n Gen10 Plus 4SFF x4 U.3 Premium FIO backplane kit	P43713-B21
HPE n2610 Gen10 Plus 6SFF SAS/SATA HDD/SSD FIO Backplane Kit with Broadcom	P56318-B21
HPE n2610 Gen10 Plus 4SFF x2 NVMe/SAS FIO Backplane Kit with Broadcom	P56322-B21

NOTE

- Drive backplanes only compatible with n2600 chassis.
- When choosing P20285-B21 (HPE n2600 G10+ 6SFF SAS/SATA FIO BP kit) 4 units must always be selected. This selection results in a total of 24 SFF SAS/SATA drives per chassis or 6 SAS/SATA drives per node.
- When choosing P20288-B21 (HPE n2600 Gen10+ 4SFF U3 Prem FIO BP kit) 2 units must always be selected. This selection results in a total of 8 SFF drives per chassis (2 SAS/SATA or 2 SFF NVMe drives per node).

Zoning options for n2800 chassis

Description	Option Part Number
HPE n2800 Gen10 Plus FIO drive bay zoning 1 node	P30069-B21
HPE n2800 Gen10 Plus FIO drive bay zoning 2 node	P30070-B21
HPE n2800 Gen10 Plus FIO drive bay zoning 3 node	P30071-B21
HPE n2800 Gen10 Plus FIO drive bay zoning 4 node	P30072-B21

HPE Air cooling

Description	Option Part Number
HPE Apollo 2000 Gen10 Plus server node blank kit [1]	P20280-B21
HPE n2x00 Gen10 Plus fan kit [2]	P20279-B21

NOTE

1. Required for any non-populated slots in the chassis for designed thermal performance, including system operation and node servicing.
2.
   - Must select quantity for fan modules: 0 fan kit; 1 fan kit for additional cooling.
   - One fan kit contains 2 fans; chassis comes with default of 5 fans.
   - Fan redundancy available with 5 or 7 dual-rotar fans depends on configuration.

HPE Rail kits

Description	Option Part Number
HPE n2x00 Gen10 Plus 2U shelf mount rail kit	P25006-B21

NOTE

Hewlett Packard Enterprise recommends that a minimum of two people are required for all rack installations. Refer to the installation instructions for proper tools and number of peopl e to use for any installation.

Server trays

Description	Option Part Number
HPE ProLiant XL225n Gen10 Plus 1U node Configure-To-Order (CTO) s erver	P21163-B21
HPE ProLiant XL220n Gen10 Plus 1U node CTO server	P19879-B21
HPE ProLiant XL290n Gen10 Plus 2U node CTO server	P19880-B21

NOTE

Up to 4 single half width server trays (XL25n Gen10 Plus) can be added to the HPE Apollo 2000 Gen10 Plus Chassis.

Power supplies

Description	Option Part Number
HPE 1600 W Flex slot platinum hot plug low halogen Power Supply (PS) kit	830272-B21

Description	Option Part Number
HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	P38997-B21
HPE 1800-2200 W Flex slot platinum hot plug PS kit	876935-B21
HPE 3000 W 200-277 V ac platinum hot plug PS	P24681-B21
HPE 3000W 12V Output 200-277VAC Titanium Hot Plug Power Supply	P47526-B21
HPE n2x00 Gen10 Plus flex slot power interface board	P20283-B21
HPE n2x00 Gen10 Plus 3000 W power interface board	P20284-B21

NOTE

- If choosing the 1600 W PS or the 1800-2200 W PS then P20283-B21 is required.
- If choosing the 3000 W PS then P20284-B21 is required.
- 3000 W PS is 95% power efficiency (Platinum 80 Plus certified).
- Power supplies cannot be mixed - 1800-2200 W PS (876935-B21) requires the selection of one power cord per PS.
- If choosing the 3000 W PS then a power cord must be selected from 3000 W power cord section; one power cord required per PS.

Power cords

Description	Option Part Number
For 3000 W PS	
HPE SDG300 - C20 250 V 16 A Black 0.5 m jumper cord	P24672-B21
HPE SDG300 - C20 250 V 16 A Black 1 m jumper cord	P24675-B21
HPE SDG300 - C20 250 V 16 A Black 2 m jumper cord	P24678-B21
HPE SDG300 - C20 250V 16Amp 2m IN Jumper Cord	P56012-B21

Description	Option Part Number
HPE SDG23A-SDG23B 277 V 0.76 m jumper cord	P9B75A
HPE SDG23A-SDG23B 277 V 2.0 m jumper cord	P9B77A
For 1600 W PS	
HPE C13 - C14 WW 250 V 10 A 2.0 m jumper cord	A0K02A
HPE C13 - C14 WW 250 V 10 A Gray 0.7 m jumper cord	A0K03A
HPE C13-NEMA 6-15P 10 A/250 V 3.6 m black power cord	A0N33A
HPE C13 - Nema 5-15P US/CA 110 V 10 A 1.83 m power cord	AF556A
HPE C13 - GB-1002 CN 250 V 10 A 1.83 m power cord	AF557A
HPE C13 - IRAM -2073 AR 250 V 10 A 2.5 m power cord	AF558A
HPE C13 - Nema 5-15P TH/PH 250 V 10 A 1.83 m power cord	AF559A
HPE C13 - KSC- 8305 KR 250 V 10 A 1.83 m power cord	AF560A
HPE C13 - CNS-690 TW 110 V 13 A 1.83 m power cord	AF561A
HPE C13 - IS-1293 IN 240 V 6 A LV 2.0 m power cord	AF562A
HPE C13 - SI-32 IL 250 V 10 A 1.83 m power cord	AF564A
HPE C13 - SEV 1011 CH 250 V 10 A 1.83 m power cord	AF565A
HPE C13 - DK-2.5A DK 250 V 10 A 1.83 m power cord	AF566A
HPE C13 - SABS-164 ZA 250 V 10 A 2.5 m power cord	AF567A
HPE C13 - CEE-VII EU 250 V 10 A 1.83 m power cord	AF568A
HPE C13 - AS3112-3 AU 250 V 10 A 2.5 m power cord	AF569A
HPE C13 - BS-1363A UK/HK/SG 250 V 10 A 1.83 m power cord	AF570A
HPE C13 - JIS C8303 JP 100 V 12 A 2.0 m power cord	AF572A
HPE C13 - C14 WW 250 V 10 A flint gray 2.0 m jumper cord	AF573A
HPE C13 - NBR-14136 BR 250 V 10 A 1.83 m power cord	AF591A
HPE C13-C14 IN 250 V 10 A 2 m black jumper cord	R1C65A

Description	Option Part Number
HPE C13 - IS-1293 IN 250 V 10 A HV 2.5 m power cord	SG579A
HPE 1.83 m C13-NEMA 6-15P power cord	SK792A
For 1800-2200 W PS	
HPE C15 US 125 V 15 A 2.5 m black power cord	Q7F42A
HPE C15 EU 250 V 10 A 2.5 m black power cord	Q7F45A
HPE C15 UK 250 V 10 A 2.5 m black power cord	Q7F46A
HPE C15 CN 250 V 10 A 2.5 m black power cord	Q7F53A
HPE C15 US 250 V 10 A 2.5 m black jumper cord	Q7F57A
HPE C15 EU 250 V 10 A 2.5 m black jumper cord	Q7F58A
HPE C15 US 250 V 10 A 0.76 m black jumper cord	Q7F59A
HPE C15 EU 250 V 10 A 0.76 m black jumper cord	Q7F60A
HPE C15 US 250 V 10 A 1 m black jumper cord	Q7F61A
HPE C15 EU 250 V 10 A 1 m black jumper cord	Q7F62A
HPE C15-C14 IN 250 V 10 A 2.5 m black jumper cord	R1C67A
HPE C15-C14 IN 250 V 10 A 1 m black jumper cord	R1C68A

NOTE

- 1800-2200 W PS (876935-B21) requires selection of one of above power cords; one power cord required per PS.
- 3000 W PS (P24681-B21) requires selection of one of above power cords; one power c ord required per PS.
- If choosing the 1600 W PS or the 1800-2200 W PS then P20283-B21 is required.
- If choosing the 3000 W PS then P20284-B21 is required.
- 3000 W PS is 95% power efficiency (Platinum 80 Plus certified).
- Power supplies cannot be mixed

RCM module

Description	Option Part Number
HPE n2x00 Gen10 Plus Rack Consolidation Module (RCM) kit [1]	P20290-B21
HPE Apollo 2000 RCM 2.0-1.0 adapter kit [2]	800063-B21

NOTE

1. The RCM module kit which allows iLO aggregation at the chassis level and also has the port for the HPE APM is currently mandatory on all n2600 CTO chassis. The RCM Mod ule consists of 2 iLO ports for redundancy. It can also be daisy chained to connect to a Top of the Rack (TOR) management switch. If using the RCM module iLO port to conne ct to a network, the network must operate at a speed of 1 Gb/s. On-board shared iLO m anagement port could be ran at 10/100/1000 Gb/s network speed.
2. 800063-B21 is required if there is one APM in the rack and more then 10 Apollo 2000 Gen10 plus chassis

Click here to access the HPE Apollo Platform Manager QuickSpecs.

HPE Advanced power manager

Description	Option Part Number
HPE Apollo platform manager kit	741192-B21
HPE Apollo platform manager distribution module ki t	620002-B21

NOTE

Description	Option Part Number

- 741192-B21 is an optional kit. Each HPE APM can connect up to 10 chassis via consoli dated chassis management cable.
- 620002-B21 is required if there is one APM in the rack and more then 10 Apollo 2000 Gen10 plus chassis. Each APMD can connect up to 10 chassis.

Click here to view the HPE APM QuickSpecs for more details.

HPE Processors

Description	Option Part Numb er
AMD Processors – Factory integrated processor kit for XL225n	
AMD EPYC 7713 2.0 GHz 64-core 225 W FIO processor kit for HPE ProLiant XL225n Gen10 Plus	P38730-L21
AMD EPYC 7663 2.10 GHz 56-core 225 W FIO processor kit for HPE ProLiant XL225 n Gen10 Plus	P38729-L21
AMD EPYC 7643 2.3 GHz 48-core 225 W FIO processor kit for HPE ProLiant XL225n Gen10 Plus	P39472-L21
AMD EPYC 7543 2.75 GHz 32-core 225 W FIO processor kit for HPE ProLiant XL225 n Gen10 Plus	P38728-L21
AMD EPYC 7513 2.6 GHz 32-core 200 W FIO processor kit for HPE ProLiant XL225n Gen10 Plus	P38727-L21
AMD EPYC 7453 2.75 GHz 28-core 225 W FIO processor kit for HPE ProLiant XL225 n Gen10 Plus	P38725-L21
AMD EPYC 7443 2.80 GHz 24-core 200 W FIO processor kit for HPE ProLiant XL225 n Gen10 Plus	P38726-L21
AMD EPYC 7413 2.65 GHz 24-core 180 W FIO processor kit for HPE ProLiant XL225 n Gen10 Plus	P38724-L21

Description	Option Part Number
AMD EPYC 7343 3.2 GHz 16-core 190 W FIO processor kit for HPE ProLiant XL225n Gen10 Plus	P38723-L21
AMD EPYC 7313 2.95 GHz 16-core 155 W FIO processor kit for HPE ProLiant XL225n Gen10 Plus	P38722-L21
AMD EPYC 75F3 3.25 GHz 32-core 280 W FIO processor kit for HPE ProLiant XL225n Gen10 Plus	P38735-L21
AMD EPYC 74F3 3.2 GHz 24-core 240 W FIO processor kit for HPE ProLiant XL225n Gen10 Plus	P38734-L21
AMD EPYC 73F3 3.5 GHz 16-core 240 W FIO processor kit for HPE ProLiant XL225n Gen10 Plus	P38733-L21
AMD EPYC 72F3 3.7 GHz 8-core 180 W FIO processor kit for HPE ProLiant XL225n Gen10 Plus	P38732-L21
AMD EPYC 7713P 2.0 GHz 64-core 225 W FIO processor kit for HPE ProLiant XL225n Gen10 Plus	P38739-L21
AMD EPYC 7543 2.8 GHz 32-core 225 W FIO processor kit for HPE ProLiant XL225n Gen10 Plus	P38738-L21
AMD EPYC 7443 2.85 GHz 24-core 200 FIO processor kit for HPE ProLiant XL225n Gen10 Plus	P38737-L21
AMD EPYC 7313 3.0 GHz 16-core 155 W FIO processor kit for HPE ProLiant XL225n Gen10 Plus	P38736-L21
AMD EPYC 7742 (2.2 GHz/64-core/225 W) FIO processor kit for HPE ProLiant XL225n Gen10 Plus	P24256-L21
AMD EPYC 7742 (2.2 GHz/64-core/225 W) processor kit for HPE ProLiant XL225n Gen10 Plus	P24256-B21
AMD EPYC 7702 (2.0 GHz/64-core/200 W) processor kit for HPE ProLiant XL225n Gen10 Plus	P24257-B21
AMD EPYC 7702 (2.0 GHz/64-core/200 W) FIO processor kit for HPE ProLiant XL225n Gen10 Plus	P24257-L21
AMD EPYC 7552 (2.2 GHz/48-core/200 W) FIO processor kit for HPE ProLiant XL225n Gen10 Plus	P24258-L21

Description	Option Part Number
AMD EPYC 7552 (2.2 GHz/48-core/200 W) processor kit for HPE ProLiant XL225n Gen10 Plus	P24258-B21
AMD EPYC 7542 (2.9 GHz/32-core/225 W) FIO processor kit for HPE ProLiant XL225n Gen10 Plus	P24259-L21
AMD EPYC 7542 (2.9 GHz/32-core/225 W) processor kit for HPE ProLiant XL225n Gen10 Plus	P24259-B21
AMD EPYC 7502 (2.5 GHz/32-core/180 W) FIO processor kit for HPE ProLiant XL225n Gen10 Plus	P24260-L21
AMD EPYC 7502 (2.5 GHz/32-core/180 W) processor kit for HPE ProLiant XL225n Gen10 Plus	P24260-B21
AMD EPYC 7452 (2.3 GHz/32-core/155 W) FIO processor kit for HPE ProLiant XL225n Gen10 Plus	P24261-L21
AMD EPYC 7452 (2.3 GHz/32-core/155 W) processor kit for HPE ProLiant XL225n Gen10 Plus	P24261-B21
AMD EPYC 7402 (2.8 GHz/24-core/180 W) FIO processor kit for HPE ProLiant XL225n Gen10 Plus	P24262-L21
AMD EPYC 7402 (2.8 GHz/24-core/180 W) processor kit for HPE ProLiant XL225n Gen10 Plus	P24262-B21
AMD EPYC 7352 (2.3 GHz/24-core/155 W) FIO processor kit for HPE ProLiant XL225n Gen10 Plus	P24263-L21
AMD EPYC 7352 (2.3 GHz/24-core/155 W) processor kit for HPE ProLiant XL225n Gen10 Plus	P24263-B21
AMD EPYC 7302 (3.0 GHz/16-core/155 W) FIO processor kit for HPE ProLiant XL225n Gen10 Plus	P24264-L21
AMD EPYC 7302 (3.0 GHz/16-core/155 W) processor kit for HPE ProLiant XL225n Gen10 Plus	P24264-B21
AMD EPYC 7762 (3.2 GHz/8-core/155 W) FIO processor kit for HPE ProLiant XL225n Gen10 Plus	P24265-L21
AMD EPYC 7762 (3.2 GHz/8-core/155 W) processor kit for HPE ProLiant XL225n Gen10 Plus	P24265-B21

Description	Option Part Number
AMD EPYC 7702P (2.0 GHz/64-core/200 W) FIO processor kit for HPE ProLiant XL225n Gen10 Plus	P24266-L21
AMD EPYC 7502P (2.5 GHz/32-core/180 W) FIO processor kit for HPE ProLiant XL225n Gen10 Plus	P24267-L21
AMD EPYC 7402P (2.8 GHz/24-core/180 W) FIO processor kit for HPE ProLiant XL225n Gen10 Plus	P24268-L21
AMD EPYC 7302P (3.0 GHz/16-core/155 W) FIO processor kit for HPE ProLiant XL225n Gen10 Plus	P24269-L21
AMD EPYC 7662 (2.0 GHz/64-core/225 W) FIO processor kit for HPE ProLiant XL225n Gen10 Plus	P24392-L21
AMD EPYC 7662 (2.0 GHz/64-core/225 W) processor kit for HPE ProLiant XL225n Gen10 Plus	P24392-B21
AMD EPYC 7642 (2.3 GHz/48-core/225 W) FIO processor kit for HPE ProLiant XL225n Gen10 Plus	P24393-L21
AMD EPYC 7642 (2.3 GHz/48-core/225 W) processor kit for HPE ProLiant XL225n Gen10 Plus	P24393-B21
AMD EPYC 7532 (2.4 GHz/32-core/200 W) FIO processor kit for HPE ProLiant XL225n Gen10 Plus	P24394-L21
AMD EPYC 7532 (2.4 GHz/32-core/200 W) processor kit for HPE ProLiant XL225n Gen10 Plus	P24394-B21
AMD EPYC 7282 (2.8 GHz/16-core/120 W) FIO processor kit for HPE ProLiant XL225n Gen10 Plus	P24395-L21
AMD EPYC 7282 (2.8 GHz/16-core/120 W) processor kit for HPE ProLiant XL225n Gen10 Plus	P24395-B21
AMD EPYC 7272 (2.9 GHz/12-core/120 W) processor kit for HPE ProLiant XL225n Gen10 Plus	P24396-B21
AMD EPYC 7272 (2.9 GHz/12-core/120 W) FIO processor kit for HPE ProLiant XL225n Gen10 Plus	P24396-L21
AMD EPYC 7252 (3.1 GHz/8-core/120 W) FIO processor kit for HPE ProLiant XL225n Gen10 Plus	P24397-L21

Description	Option Part Number
AMD EPYC 7252 (3.1 GHz/8-core/120 W) processor kit for HPE ProLiant XL225n Gen10 Plus	P24397-B21
AMD EPYC 7232P (3.1 GHz/8-core/120 W) FIO processor kit for HPE ProLiant XL225n Gen10 Plus	P24398-L21
AMD EPYC 7F32 (3.7GHz/8-core/180 W) FIO processor kit for HPE ProLiant XL225n Gen10 Plus	P26686-L21
AMD EPYC 7F32 (3.7 GHz/8-core/180 W) processor kit for HPE ProLiant XL225n Gen10 Plus	P26686-B21
AMD EPYC 7F52 (3.5 GHz/16-core/240 W) FIO processor kit for HPE ProLiant XL225n Gen10 Plus	P26687-L21
AMD EPYC 7F52 (3.5 GHz/16-core/240 W) processor kit for HPE ProLiant XL225n Gen10 Plus	P26687-B21
AMD EPYC 7F72 (3.2 GHz/24-core/240 W) FIO processor kit for HPE ProLiant XL225n Gen10 Plus	P26688-L21
AMD EPYC 7F72 (3.7 GHz/24-core/240 W) processor kit for HPE ProLiant XL225n Gen10 Plus	P26688-B21
Intel processors – Processor kit for XL220n and XL290n	
Intel Xeon-Platinum 8380 2.3 GHz 40-core 270 W processor kit for HPE ProLiant XL2x0n Gen10 Plus	P36816-B21
Intel Xeon-Platinum 8368 2.4 GHz 38-core 270 W processor kit for HPE ProLiant XL2x0n Gen10 Plus	P36815-B21
Intel Xeon-Platinum 8360Y 2.4 GHz 36-core 250 W processor kit for HPE ProLiant XL2x0n Gen10 Plus	P36814-B21
Intel Xeon-Platinum 8358 2.6 GHz 32-core 250 W processor kit for HPE ProLiant XL2x0n Gen10 Plus	P36813-B21
Intel Xeon-Gold 6348 2.6 GHz 28-core 235 W processor kit for HPE ProLiant XL2x0n Gen10 Plus	P36812-B21
Intel Xeon-Gold 6330 2.0 GHz 28-core 205 W processor kit for HPE ProLiant XL2x0n Gen10 Plus	P36802-B21
Intel Xeon-Gold 6338 2.0 GHz 32-core 205 W processor kit for HPE ProLiant XL2x0n Gen10 Plus	P36803-B21

Description	Option Part Number
Intel Xeon-Platinum 8352Y 2.2 GHz 32-core 205 W processor kit for HPE ProLiant XL 2x0n Gen10 Plus	P36804-B21
Intel Xeon-Gold 6346 3.1 GHz 16-core 205 W processor kit for HPE ProLiant XL2x0n Gen10 Plus	P36809-B21
Intel Xeon-Gold 6354 3.0 GHz 18-core 205 W processor kit for HPE ProLiant XL2x0n Gen10 Plus	P36810-B21
Intel Xeon-Silver 4309Y 2.8 GHz 8-core 105 W processor kit for HPE ProLiant XL2x0n Gen10 Plus	P36795-B21
Intel Xeon-Silver 4310 2.1 GHz 12-core 120 W processor kit for HPE ProLiant XL2x0n Gen10 Plus	P36796-B21
Intel Xeon-Silver 4314 2.4 GHz 16-core 135 W processor kit for HPE ProLiant XL2x0n Gen10 Plus	P36797-B21
Intel Xeon-Silver 4316 2.3 GHz 20-core 150 W processor kit for HPE ProLiant XL2x0n Gen10 Plus	P36798-B21
Intel Xeon-Gold 5318Y 2.1 GHz 24-core 165 W processor kit for HPE ProLiant XL2x0n Gen10 Plus	P36799-B21
Intel Xeon-Gold 5320 2.2 GHz 26-core 185 W processor kit for HPE ProLiant XL2x0n Gen10 Plus	P36800-B21
Intel Xeon-Gold 6336Y 2.4 GHz 24-core 185 W processor kit for HPE ProLiant XL2x0n Gen10 Plus	P36801-B21
Intel Xeon-Gold 5315Y 3.2 GHz 8-core 140 W processor kit for HPE ProLiant XL2x0n Gen10 Plus	P36805-B21
Intel Xeon-Gold 5317 3.0 GHz 12-core 150 W processor kit for HPE ProLiant XL2x0n Gen10 Plus	P36806-B21
Intel Xeon-Gold 6326 2.9 GHz 16-core 185 W processor kit for HPE ProLiant XL2x0n Gen10 Plus	P36807-B21
Intel Xeon-Gold 6334 3.6 GHz 8-core 165 W processor kit for HPE ProLiant XL2x0n Gen10 Plus	P36808-B21
Intel Xeon-Gold 6342 2.8 GHz 24-core 230 W processor kit for HPE ProLiant XL2x0n Gen10 Plus	P36811-B21
Intel Processors – Factory integrated processor kit for XL220n and XL290n	

Description	Option Part Number
Intel Xeon-Platinum 8380 2.3 GHz 40-core 270 W FIO processor kit for HPE ProLiant XL2x0n Gen10 Plus	P36816-L21
Intel Xeon-Platinum 8368 2.4 GHz 38-core 270 W FIO processor kit for HPE ProLiant XL2x0n Gen10 Plus	P36815-L21
Intel Xeon-Platinum 8360Y 2.4 GHz 36-core 250 W FIO processor kit for HPE ProLiant XL2x0n Gen10 Plus	P36814-L21
Intel Xeon-Platinum 8358 2.6 GHz 32-core 250 W FIO processor kit for HPE ProLiant XL2x0n Gen10 Plus	P36813-L21
Intel Xeon-Gold 6348 2.6 GHz 28-core 235 W FIO processor kit for HPE ProLiant XL2x0n Gen10 Plus	P36812-L21
Intel Xeon-Gold 6330 2.0 GHz 28-core 205 W FIO processor kit for HPE ProLiant XL2x0n Gen10 Plus	P36802-L21
Intel Xeon-Gold 6338 2.0 GHz 32-core 205 W FIO processor kit for HPE ProLiant XL2x0n Gen10 Plus	P36803-L21
Intel Xeon-Platinum 8352Y 2.2 GHz 32-core 205 W FIO processor kit for HPE ProLiant XL2x0n Gen10 Plus	P36804-L21
Intel Xeon-Gold 6346 3.1 GHz 16-core 205 W FIO processor kit for HPE ProLiant XL2x0n Gen10 Plus	P36809-L21
Intel Xeon-Gold 6354 3.0 GHz 18-core 205 W FIO processor kit for HPE ProLiant XL2x0n Gen10 Plus	P36810-L21
Intel Xeon-Silver 4309Y 2.8 GHz 8-core 105 W FIO processor kit for HPE ProLiant XL2x0n Gen10 Plus	P36795-L21
Intel Xeon-Silver 4310 2.1 GHz 12-core 120 W FIO processor kit for HPE ProLiant XL2x0n Gen10 Plus	P36796-L21
Intel Xeon-Silver 4314 2.4 GHz 16-core 135 W FIO processor kit for HPE ProLiant XL2x0n Gen10 Plus	P36797-L21
Intel Xeon-Silver 4316 2.3 GHz 20-core 150 W FIO processor kit for HPE ProLiant XL2x0n Gen10 Plus	P36798-L21
Intel Xeon-Gold 5318Y 2.1 GHz 24-core 165 W FIO processor kit for HPE ProLiant XL2x0n Gen10 Plus	P36799-L21

Description	Option Part Number
Intel Xeon-Gold 5320 2.2 GHz 26-core 185 W FIO processor kit for HPE ProLiant XL2x0n Gen10 Plus	P36800-L21
Intel Xeon-Gold 6336Y 2.4 GHz 24-core 185 W FIO processor kit for HPE ProLiant XL2x0n Gen10 Plus	P36801-L21
Intel Xeon-Gold 5315Y 3.2 GHz 8-core 140 W FIO processor kit for HPE ProLiant XL2x0n Gen10 Plus	P36805-L21
Intel Xeon-Gold 5317 3.0 GHz 12-core 150 W FIO processor kit for HPE ProLiant XL2x0n Gen10 Plus	P36806-L21
Intel Xeon-Gold 6326 2.9 GHz 16-core 185 W FIO processor kit for HPE ProLiant XL2x0n Gen10 Plus	P36807-L21
Intel Xeon-Gold 6334 3.6 GHz 8-core 165 W FIO processor kit for HPE ProLiant XL2x0n Gen10 Plus	P36808-L21
Intel Xeon-Gold 6342 2.8 GHz 24-core 230 W FIO processor kit for HPE ProLiant XL2x0n Gen10 Plus	P36811-L21

NOTE

- DDR4 speed is the maximum memory speed of the processor.
- Actual memory speed may depend on the quantity and type of Dual in-line Memory Modules (DIMMs) installed. P type processors are 1P socket count only.
- Cannot be mixed with any other processor.

Direct Liquid Cooling (DLC) kit for processor only

Description	Option Part Number
AMD DLC kit for processor only – XL225n	
AMD EPYC 7H12 (2.6 GHz/64-core/280 W) FIO DLC processor kit	P29035-L22

Description	Option Part Number
AMD EPYC 7742 (2.25 GHz/64-core/225 W) FIO DLC processor kit	P29016-L22
AMD EPYC 7702 (2.0 GHz/64-core/200 W) FIO DLC processor kit	P29017-L22
AMD EPYC 7773X 2.2GHz 64-core 280W FIO DLC Processor Kit for HPE ProLiant XL225n Gen10 Plus	P47074-L22
AMD EPYC 7763 2.45 GHz 64-core 280 W FIO DLC processor kit	P38731-L22
AMD EPYC 7713 2.0 GHz 64-core 225 W FIO DLC processor kit	P38730-L22
AMD EPYC 7663 2.0 GHz 56-core 240 W FIO DLC processor kit	P38729-L22
AMD EPYC 7643 2.3 GHz 48-core 225 W FIO DLC processor kit	P39472-L22
AMD EPYC 7543 2.8 GHz 32-core 225 W FIO DLC processor kit	P38728-L22
AMD EPYC 7513 2.6 GHz 32-core 200 W FIO DLC processor kit	P38727-L22
AMD EPYC 7453 2.75 GHz 28-core 225 W FIO DLC processor kit	P38725-L22
AMD EPYC 7473X 2.8GHz 24-core 240W FIO DLC Processor Kit for HPE ProLiant XL225n Gen10 Plus	P47077-L22
AMD EPYC 7443 2.85 GHz 24-core 200 W FIO DLC processor kit	P38726-L22
AMD EPYC 7413 2.65 GHz 24-core 180 W FIO DLC processor kit	P38724-L22
AMD EPYC 7373X 3.05GHz 16-core 240W FIO DLC Processor Kit for HPE ProLiant XL225n Gen10 Plus	P47078-L22
AMD EPYC 7343 3.2 GHz 16-core 190 W FIO DLC processor kit	P38723-L22
AMD EPYC 7313 3.0 GHz 16-core 155 W FIO DLC processor kit	P38722-L22
AMD EPYC 75F3 2.95 GHz 32-core 280 W FIO DLC processor kit	P38735-L22
AMD EPYC 74F3 3.2 GHz 24-core 240 W FIO DLC processor kit	P38734-L22
AMD EPYC 72F3 3.7 GHz 8-core 180 W FIO DLC processor kit	P38732-L22
AMD EPYC 7H12 (2.6 GHz/64-core/280 W) FIO DLC processor kit	P29035-L22
AMD EPYC 7742 (2.25 GHz/64-core/225 W) FIO DLC processor kit	P29016-L22

Description	Option Part Number
AMD EPYC 7702 (2.0 GHz/64-core/200 W) FIO DLC processor kit	P29017-L22
AMD EPYC 7662 (2.0 GHz/64-core/225 W) FIO DLC processor kit	P29026-L22
AMD EPYC 7642 (2.3 GHz/48-core/225 W) FIO DLC processor kit	P29027-L22
AMD EPYC 7552 (2.2 GHz/48-core/200 W) FIO DLC processor kit	P29018-L22
AMD EPYC 7542 (2.9 GHz/32-core/225 W) FIO DLC processor kit	P29019-L22
AMD EPYC 7532 (2.4 GHz/32-core/200 W) FIO DLC processor kit	P29028-L22
AMD EPYC 7502 (2.5 GHz/32-core/180 W) FIO DLC processor kit	P29020-L22
AMD EPYC 7452 (2.35 GHz/32-core/155 W) FIO DLC processor kit	P29021-L22
AMD EPYC 7F72 (3.2 GHz/24-core/240 W) FIO DLC processor kit	P29034-L22
AMD EPYC 7402 (2.8 GHz/24-core/180 W) FIO DLC processor kit	P29022-L22
AMD EPYC 7352 (2.3 GHz/24-core/155 W) FIO DLC processor kit	P29023-L22
AMD EPYC 7F52 (3.5 GHz/16-core/240 W) FIO DLC processor kit	P29033-L22
AMD EPYC 7302 (3.0 GHz/16-core/155 W) FIO DLC processor kit	P29024-L22
AMD EPYC 7282 (2.8 GHz/16-core/120 W) FIO DLC processor kit	P29029-L22
AMD EPYC 7272 (2.9 GHz/12-core/120 W) FIO DLC processor kit	P29030-L22
AMD EPYC 7F32 (3.7 GHz/8-core/180 W) FIO DLC processor kit	P29032-L22
AMD EPYC 7262 (3.2 GHz/8-core/155 W) FIO DLC processor kit	P29025-L22

Description	Option Part Number
AMD EPYC 7252 (3.1 GHz/8-core/120 W) FIO DLC processor kit	P29031-L22
Intel DLC kit for processor only – XL220n	
Intel Xeon-Platinum 8380 2.3 GHz 40-core 270 W FIO DLC processor	P36816-L22
Intel Xeon-Platinum 8368 2.4 GHz 38-core 270 W FIO DLC processor	P36815-L22
Intel Xeon-Platinum 8360Y 2.4 GHz 36-core 250 W FIO DLC processor	P36814-L22
Intel Xeon-Platinum 8358 2.6 GHz 32-core 250 W FIO DLC processor	P36813-L22
Intel Xeon-Gold 6348 2.6 GHz 28-core 235 W FIO DLC processor kit	P36812-L22
Intel Xeon-Gold 6330 2.0 GHz 28-core 205 W FIO DLC processor kit	P36802-L22
Intel Xeon-Gold 6338 2.0 GHz 32-core 205 W FIO DLC processor kit	P36803-L22
Intel Xeon-Platinum 8352Y 2.2 GHz 32-core 205 W FIO DLC processor	P36804-L22
Intel Xeon-Gold 6346 3.1 GHz 16-core 205 W FIO DLC processor kit	P36809-L22
Intel Xeon-Gold 6354 3.0 GHz 18-core 205 W FIO DLC processor kit	P36810-L22
Intel Xeon-Silver 4309Y 2.8 GHz 8-core 105 W FIO DLC processor kit	P36795-L22
Intel Xeon-Silver 4310 2.1 GHz 12-core 120 W FIO DLC processor kit	P36796-L22
Intel Xeon-Silver 4314 2.4 GHz 16-core 135 W FIO DLC processor kit	P36797-L22
Intel Xeon-Silver 4316 2.3 GHz 20-core 150 W FIO DLC processor kit	P36798-L22

Description	Option Part Number
Intel Xeon-Gold 5318Y 2.1 GHz 24-core 165 W FIO DLC processor kit	P36799-L22
Intel Xeon-Gold 5320 2.2 GHz 26-core 185 W FIO DLC processor kit	P36800-L22
Intel Xeon-Gold 6336Y 2.4 GHz 24-core 185 W FIO DLC processor kit	P36801-L22
Intel Xeon-Gold 5315Y 3.2 GHz 8-core 140 W FIO DLC processor kit	P36805-L22
Intel Xeon-Gold 5317 3.0 GHz 12-core 150 W FIO DLC processor kit	P36806-L22
Intel Xeon-Gold 6326 2.9 GHz 16-core 185 W FIO DLC processor kit	P36807-L22
Intel Xeon-Gold 6334 3.6 GHz 8-core 165 W FIO DLC processor kit	P36808-L22
Intel Xeon-Gold 6342 2.8 GHz 24-core 230 W FIO DLC processor kit	P36811-L22

NOTE

- All DLC processor kits come with 2 processors and 1 node cooling loop for processors.
- Min 2 memory required per DLC processor kit
- If DLC processor kit is chosen slot 1 in the server can no longer be used for the HPE XL 2xxn Gen10 Plus LP Left Riser kit (P20260-B21).

DLC kit for CPU plus memory cooling

Description	Option Part Number
AMD DLC kit for processor plus memory – XL225n	

Description	Option Part Number
AMD EPYC 7773X 2.2GHz 64-core 280W FIO DLC Processor/Memory Kit for HPE ProLiant XL225n Gen10 Plus	P47074-L23
AMD EPYC 7763 2.45 GHz 64-core 280 W FIO DLC processor/memory kit for HPE ProLiant XL225n Gen10 Plus	P38731-L23
AMD EPYC 7713 2.0 GHz 64-core 225 W FIO DLC processor/memory kit for HPE ProLiant XL225n Gen10 Plus	P38730-L23
AMD EPYC 7663 2.0 GHz 56-core 240 W FIO DLC processor/memory kit for HPE ProLiant XL225n Gen10 Plus	P38729-L23
AMD EPYC 7643 2.3 GHz 48-core 225 W FIO DLC processor/memory kit for HPE ProLiant XL225n Gen10 Plus	P39472-L23
AMD EPYC 7573X 2.8GHz 32-core 280W FIO DLC Processor/Memory Kit for HPE ProLiant XL225n Gen10 Plus	P47076-L23
AMD EPYC 7543 2.8 GHz 32-core 225 W FIO DLC processor/memory kit for HPE ProLiant XL225n Gen10 Plus	P38728-L23
AMD EPYC 7513 2.6 GHz 32-core 200 W FIO DLC processor/memory kit for HPE ProLiant XL225n Gen10 Plus	P38727-L23
AMD EPYC 7453 2.75 GHz 28-core 225 W FIO DLC processor/memory kit for HPE ProLiant XL225n Gen10 Plus	P38725-L23
AMD EPYC 7473X 2.8GHz 24-core 240W FIO DLC Processor/Memory Kit for HPE ProLiant XL225n Gen10 Plus	P47077-L23
AMD EPYC 7443 2.85 GHz 24-core 200 W FIO DLC processor/memory kit for HPE ProLiant XL225n Gen10 Plus	P38726-L23
AMD EPYC 7413 2.65 Hz 24-core 180 W FIO DLC processor/memory kit for HPE ProLiant XL225n Gen10 Plus	P38724-L23
AMD EPYC 7373X 3.05GHz 16-core 240W FIO DLC Processor/Memory Kit for HPE ProLiant XL225n Gen10 Plus	P47078-L23
AMD EPYC 7343 3.2 GHz 16-core 190 W FIO DLC processor/memory kit for HPE ProLiant XL225n Gen10 Plus	P38723-L23
AMD EPYC 7313 3.0 GHz 16-core 155 W FIO DLC processor/memory kit for HPE ProLiant XL225n Gen10 Plus	P38722-L23
AMD EPYC 75F3 2.95 GHz 32-core 280 W FIO DLC processor/memory kit for HPE ProLiant XL225n Gen10 Plus	P38735-L23
AMD EPYC 74F3 3.2 GHz 24-core 240 W FIO DLC processor/memory kit for HPE ProLiant XL225n Gen10 Plus	P38734-L23

Description	Option Part Number
AMD EPYC 73F3 3.5 GHz 16-core 240 W FIO DLC processor/memory kit for HPE ProLiant XL225n Gen10 Plus	P38733-L23
AMD EPYC 72F3 3.7 GHz 8-core 180 W FIO DLC processor/memory kit for HPE ProLiant XL225n Gen10 Plus	P38732-L23
AMD EPYC 7H12 (2.6 GHz/64-core/280 W) FIO DLC processor/memory kit for HPE ProLiant XL225n Gen10 Plus	P29035-L23
AMD EPYC 7742 (2.25 GHz/64-core/225 W) FIO DLC processor/memory kit for HPE ProLiant XL225n Gen10 Plus	P29016-L23
AMD EPYC 7702 (2.0 GHz/64-core/200 W) FIO DLC processor/memory kit for HPE ProLiant XL225n Gen10 Plus	P29017-L23
AMD EPYC 7662 (2.0 GHz/64-core/225 W) FIO DLC processor/memory kit for HPE ProLiant XL225n Gen10 Plus	P29026-L23
AMD EPYC 7642 (2.3 GHz/48-core/225 W) FIO DLC processor/memory kit for HPE ProLiant XL225n Gen10 Plus	P29027-L23
AMD EPYC 7552 (2.2 GHz/48-core/200 W) FIO DLC processor/memory kit for HPE ProLiant XL225n Gen10 Plus	P29018-L23
AMD EPYC 7542 (2.9 GHz/32-core/225 W) FIO DLC processor/memory kit for HPE ProLiant XL225n Gen10 Plus	P29019-L23
AMD EPYC 7532 (2.4 GHz/32-core/200 W) FIO DLC processor/memory kit for HPE ProLiant XL225n Gen10 Plus	P29028-L23
AMD EPYC 7502 (2.5 GHz/32-core/180 W) FIO DLC processor/memory kit for HPE ProLiant XL225n Gen10 Plus	P29020-L23
AMD EPYC 7452 (2.35 GHz/32-core/155 W) FIO DLC processor/memory kit for HPE ProLiant XL225n Gen10 Plus	P29021-L23
AMD EPYC 7F72 (3.2 GHz/24-core/240 W) FIO DLC processor/memory kit for HPE ProLiant XL225n Gen10 Plus	P29034-L23
AMD EPYC 7402 (2.8 GHz/24-core/180 W) FIO DLC processor/memory kit for HPE ProLiant XL225n Gen10 Plus	P29022-L23
AMD EPYC 7352 (2.3 GHz/24-core/155 W) FIO DLC processor/memory kit for HPE ProLiant XL225n Gen10 Plus	P29023-L23
AMD EPYC 7F52 (3.5 GHz/16-core/240 W) FIO DLC processor/memory kit for HPE ProLiant XL225n Gen10 Plus	P29033-L23

Description	Option Part Number
AMD EPYC 7302 (3.0 GHz/16-core/155 W) FIO DLC processor/memory kit for HPE ProLiant XL225n Gen10 Plus	P29024-L23
AMD EPYC 7282 (2.8 GHz/16-core/120 W) FIO DLC processor/memory kit for HPE ProLiant XL225n Gen10 Plus	P29029-L23
AMD EPYC 7272 (2.9 GHz/12-core/120 W) FIO DLC processor/memory kit for HPE ProLiant XL225n Gen10 Plus	P29030-L23
AMD EPYC 7F32 (3.7 GHz/8-core/180 W) FIO DLC processor/memory kit for HPE ProLiant XL225n Gen10 Plus	P29032-L23
AMD EPYC 7262 (3.2 GHz/8-core/155 W) FIO DLC processor/memory kit for HPE ProLiant XL225n Gen10 Plus	P29025-L23
AMD EPYC 7252 (3.1 GHz/8-core/120 W) FIO DLC processor/memory kit for HPE ProLiant XL225n Gen10 Plus	P29031-L23
Intel DLC kit for processor plus memory – XL220n	
Intel Xeon-Platinum 8380 2.3 GHz 40-core 270 W FIO DLC CPU/memory for HPE ProLiant XL220n Gen10 Plus	P36816-L23
Intel Xeon-Platinum 8368 2.4 GHz 38-core 270 W FIO DLC CPU/memory for HPE ProLiant XL220n Gen10 Plus	P36815-L23
Intel Xeon-Platinum 8360Y 2.4 GHz 36-core 250 W FIO DLC CPU/memory for HPE ProLiant XL220n Gen10 Plus	P36814-L23
Intel Xeon-Platinum 8358 2.6 GHz 32-core 250 W FIO DLC CPU/memory for HPE ProLiant XL220n Gen10 Plus	P36813-L23
Intel Xeon-Gold 6348 2.6 GHz 28-core 235 W FIO DLC CPU/memory kit fo r HPE ProLiant XL220n Gen10 Plus	P36812-L23
Intel Xeon-Gold 6330 2.0 GHz 28-core 205 W FIO DLC CPU/memory kit fo r HPE ProLiant XL220n Gen10 Plus	P36802-L23
Intel Xeon-Gold 6338 2.0 GHz 32-core 205 W FIO DLC CPU/memory kit fo r HPE ProLiant XL220n Gen10 Plus	P36803-L23
Intel Xeon-Platinum 8352Y 2.2 GHz 32-core 205 W FIO DLC CPU/memory for HPE ProLiant XL220n Gen10 Plus	P36804-L23
Intel Xeon-Gold 6346 3.1 GHz 16-core 205 W FIO DLC CPU/memory kit fo r HPE ProLiant XL220n Gen10 Plus	P36809-L23

Description	Option Part Number
Intel Xeon-Gold 6354 3.0 GHz 18-core 205 W FIO DLC CPU/memory kit for HPE ProLiant XL220n Gen10 Plus	P36810-L23
Intel Xeon-Silver 4309Y 2.8 GHz 8-core 105 W FIO DLC CPU/memory kit for HPE ProLiant XL220n Gen10 Plus	P36795-L23
Intel Xeon-Silver 4310 2.1 GHz 12-core 120 W FIO DLC CPU/memory kit for HPE ProLiant XL220n Gen10 Plus	P36796-L23
Intel Xeon-Silver 4314 2.4 GHz 16-core 135 W FIO DLC CPU/memory kit for HPE ProLiant XL220n Gen10 Plus	P36797-L23
Intel Xeon-Silver 4316 2.3 GHz 20-core 150 W FIO DLC CPU/memory kit for HPE ProLiant XL220n Gen10 Plus	P36798-L23
Intel Xeon-Gold 5318Y 2.1 GHz 24-core 165 W FIO DLC CPU/memory kit for HPE ProLiant XL220n Gen10 Plus	P36799-L23
Intel Xeon-Gold 5320 2.2 GHz 26-core 185 W FIO DLC CPU/memory kit for HPE ProLiant XL220n Gen10 Plus	P36800-L23
Intel Xeon-Gold 6336Y 2.4 GHz 24-core 185 W FIO DLC CPU/memory kit for HPE ProLiant XL220n Gen10 Plus	P36801-L23
Intel Xeon-Gold 5315Y 3.2 GHz 8-core 140 W FIO DLC CPU/memory kit for HPE ProLiant XL220n Gen10 Plus	P36805-L23
Intel Xeon-Gold 5317 3.0 GHz 12-core 150 W FIO DLC CPU/memory kit for HPE ProLiant XL220n Gen10 Plus	P36806-L23
Intel Xeon-Gold 6326 2.9 GHz 16-core 185 W FIO DLC CPU/memory kit for HPE ProLiant XL220n Gen10 Plus	P36807-L23
Intel Xeon-Gold 6334 3.6 GHz 8-core 165 W FIO DLC CPU/memory kit for HPE ProLiant XL220n Gen10 Plus	P36808-L23
Intel Xeon-Gold 6342 2.8 GHz 24-core 230 W FIO DLC CPU/memory kit for HPE ProLiant XL220n Gen10 Plus	P36811-L23

NOTE

- All DLC processor kits come with 2 processors and 1 node cooling loop for processors and memory.
- For L23 skus all memory slots must be populated

Description	Option Part Number

- If DLC processor kit is chosen slot 1 in the server can no longer be used for the HPE XL 2xxn Gen10 Plus LP left riser kit (P20260-B21).

DLC tube set

Description	Option Part Number
HPE Apollo FIO DLC 36 cm tube set	R4W78A
HPE Apollo FIO DLC 56 cm tube set	R4W80A
HPE Apollo FIO DLC 76 cm tube set	R4W81A

NOTE

4 Tube sets must be selected per chassis, default will be qty two R4W80A and two R4W81 A per chassis.

Rack manifold

Description	Option Part Number
HPE Apollo 42U DLC FIO rack manifold	R4W83A
HPE Apollo 48U DLC FIO rack manifold	R4W84A

NOTE

- Manifold selection dependent on type of rack selected 42U or 48U.
- One rack manifold is needed per rack

Rack mount Coolant Distribution Unit (CDU)

Description	Option Part Number
HPE Apollo rack mount FIO CDU	R4W85A

NOTE

- One Apollo rack mount CDU is needed per rack
- Must be mounted at top of rack

DLC facility hookup kit

Description	Option Part Number
HPE Apollo CDU facility 1.5 m hookup kit	R4X53A
HPE Apollo CDU facility 3.5 m hookup kit	R4X54A

NOTE

- Facility hook up kit is required per rack
- 1.5 m Normally used for overhead water connection.
- 3.5 m Normally used for below floor water connection.

DLC installation kit

Description	Option Part Number
HPE Apollo DLC installation tool kit	R6W50A



NOTE

1 installation kit needed per site install

HPE Memory

Description	Option Part Number
Registered Dual in-line Memory Modules (RDIMMs)	
HPE 8GB (1 x 8GB) single rank x8 DDR4-3200 CAS-22-22-22 registered smart memory kit	P07638-H21
HPE 16GB (1 x 16GB) single rank x4 DDR4-3200 CAS-22-22-22 registered smart memory kit	P07640-H21
HPE 16GB (1 x 16GB) dual rank x8 DDR4-3200 CAS-22-22-22 registered smart memory kit	P07642-H21
HPE 32GB (1 x 32GB) dual rank x8 DDR4-3200 CAS-22-22-22 registered smart memory kit	P07644-H21
HPE 32GB (1 x 32GB) dual rank x4 DDR4-3200 CAS-22-22-22 registered smart memory kit	P07646-H21
HPE 64GB (1 x 64GB) dual rank x4 DDR4-3200 CAS-22-22-22 registered smart memory kit	P07650-H21
HPE 16GB (1 x 16GB) dual rank x4 DDR4-3200 CAS-22-22-22 registered smart memory kit	P14398-B21
Load Reduced Dual in-line Memory Modules (LRDIMMs) - DDR4-3200	
HPE 128GB (1 x 128GB) quad rank x4 DDR4-3200 CAS-22-22-22 load reduced smart memory kit	P07652-H21

Description	Option Part Number
HPE 256GB (1 x 256GB) octal rank x4 DDR4-3200 CAS-22-22-22 load reduced smart memory kit	P07654-H21
RDIMMs for Intel platform	
HPE 8GB (1 x 8GB) single rank x8 DDR4-3200 CAS-22-22-22 registered smart memory kit	P07525-H21
HPE 16GB (1 x 16GB) single rank x4 DDR4-3200 CAS-22-22-22 registered smart memory kit	P06029-H21
HPE 16GB (1 x 16GB) dual rank x8 DDR4-3200 CAS-22-22-22 registered smart memory kit	P06031-H21
HPE 32GB (1 x 32GB) single rank x4 DDR4-3200 CAS-22-22-22 registered smart memory kit	P40007-H21
HPE 32GB (1 x 32GB) dual rank x4 DDR4-3200 CAS-22-22-22 registered smart memory kit	P06033-H21
HPE 64GB (1 x 64GB) dual rank x4 DDR4-3200 CAS-22-22-22 registered smart memory kit	P06035-H21
HPE 16GB (1 x 16GB) dual rank x4 DDR4-3200 CAS-22-22-22 registered smart memory kit	P14397-B21
LRDIMMs – DDR4-3200 for Intel platform	
HPE 128GB (1 x 128GB) quad rank x4 DDR4-3200 CAS-22-22-22 load reduced smart memory kit	P06037-H21
HPE 256GB (1 x 256GB) octal rank x4 DDR4-3200 CAS-22-22-22 load reduced smart memory kit	P06039-H21
Persistent memory	
Intel Optane 512GB persistent memory 200 series for HPE	P23538-B21

NOTE

- Minimum 1 DIMMs are required per server; up to 8 DIMMs per processor.
- A maximum of 16 DIMMs are supported per XL225n server tray (Or 8 DIMMs max per processor).
- LRDIMM and RDIMM are distinct memory technologies and cannot be mixed within a server.

Description	Option Part Number

- No mixing of x4 and x8 memory allowed
- To maximize performance in a majority of potential applications it is recommended to b alance the total memory capacity across all installed processors.
- Load the channels similarly whenever possible to enable optimal inter leaving.
- HPE memory from previous generation servers is not compatible with this server.
- HPE SmartMemory is required to realize the memory performance improvements and e nhanced functionality.

Click here to view HPE SmartMemory QuickSpecs for additional information.

Click here to view the HPE Server Memory Configurator.

Click here to view the Server Memory Population Rules.

HPE Drives

Description	Option Part Number
Enterprise - 12G SAS - SFF - Hard Disk Drives (HDD)	
HPE 2.4TB SAS 12G Enterprise 10K SFF (2.5 in) SC 3-year warranty 512e DS firmware HDD	881457-H21
HPE 300GB SAS 12G Enterprise 10K SFF (2.5 in) SC 3-year warranty DS fi rmware HDD	872475-H21
HPE 600GB SAS 12G Enterprise 10K SFF (2.5 in) SC 3-year warranty DS fi rmware HDD	872477-H21
HPE 1.2TB SAS 12G Enterprise 10K SFF (2.5 in) SC 3-year warranty DS fir mware HDD	872479-H21
HPE 1.8TB SAS 12G Enterprise 10K SFF (2.5 in) SC 3-year warranty 512e DS firmware HDD	872481-H21
HPE 300GB SAS 12G Enterprise 15K SFF (2.5 in) SC 3-year warranty DS fi rmware HDD	870753-H21

Description	Option Part Number
HPE 600GB SAS 12G Enterprise 15K SFF (2.5 in) SC 3-year warranty DS firmware HDD	870757-H21
HPE 900GB SAS 12G Enterprise 15K SFF (2.5 in) SC 3-year warranty DS firmware HDD	870759-H21
Midline (MDL) - 12G SAS - SFF - HDD	
HPE 2TB SAS 12G MDL 7.2K SFF (2.5 in) SC 1-year warranty 512e HDD	765466-H21
HPE 1TB SAS 12G MDL 7.2K SFF (2.5 in) SC 1-year warranty DS firmware HDD	832514-H21
MDL - 6G SATA - SFF - HDD	
HPE 2TB SATA 6G MDL 7.2K SFF (2.5 in) SC 1-year warranty 512e DS firmware HDD	765455-H21
HPE 1TB SATA 6G MDL 7.2K SFF (2.5 in) SC 1-year warranty DS firmware HDD	655710-H21
Mixed Use (MU) - 12G SAS - SFF - SSD	
HPE 3.84TB SAS 12G MU SFF (2.5 in) SC 3-year warranty value SAS DS firmware SSD	P10460-H21
HPE 1.92TB SAS 12G MU SFF (2.5 in) SC 3-year warranty value SAS DS firmware SSD	P10454-H21
HPE 960GB SAS 12G MU SC 3-year warranty value SAS DS firmware SSD	P10448-H21
HPE 400GB SAS 12G MU SFF (2.5 in) SC 3-year warranty DS firmware SSD	P04525-H21
HPE 800GB SAS 12G MU SFF (2.5 in) SC 3-year warranty DS firmware SSD	P04527-H21
HPE 1.6TB SAS 12G MU SFF (2.5 in) SC 3-year warranty DS firmware SSD	P04533-H21
HPE 3.2TB SAS 12G MU SFF (2.5 in) SC 3-year warranty DS firmware SSD	P04537-H21
HPE 6.4TB SAS 12G MU SFF (2.5 in) SC 3-year warranty DS firmware SSD	P04539-H21
HPE 800GB SAS 12G MU SFF (2.5 in) SC 3-year warranty DS firmware SSD	P09090-H21
HPE 1.6TB SAS 12G MU SFF (2.5 in) SC 3-year warranty DS firmware SSD	P09092-H21
HPE 3.2TB SAS 12G MU SFF (2.5 in) SC 3-year warranty DS firmware SSD	P09094-H21

Description	Option Part Number
HPE 6.4TB SAS 12G MU SFF (2.5 in) SC 3-year warranty DS firmware SSD	P09096-H21
HPE 800GB SAS 12G MU SFF (2.5 in) SC 3-year warranty SSD	P19913-H21
HPE 6.4TB SAS 12G MU SFF (2.5 in) SC 3-year warranty SSD	P19919-H21
HPE 1.6TB SAS 12G MU SFF (2.5 in) SC 3-year warranty SSD	P19915-H21
HPE 3.2TB SAS 12G MU SFF (2.5 in) SC 3-year warranty SSD	P19917-H21
HPE 960GB SAS 12G MU SFF SC value SAS multi vendor SSD	P37005-H21
HPE 1.6TB SAS Mixed Use SFF BC Self-encrypting FIPS 140-2 PM7 SSD	P63871-B21
HPE 1.92TB SAS 12G MU SFF SC value SAS multi vendor SSD	P37011-H21
HPE 3.84TB SAS 12G MU SFF SC value SAS multi vendor SSD	P37017-H21
HPE 800GB SAS 24G MU SFF SC PM6 SSD	P26290-H21
HPE 1.6TB SAS 24G MU SFF SC PM6 SSD	P26354-H21
HPE 3.2TB SAS 24G MU SFF SC PM6 SSD	P26358-H21
HPE 6.4TB SAS 24G MU SFF SC PM6 SSD	P26362-H21
Write Intensive (WI) - 12G SAS - SFF - SSDs	
HPE 400GB SAS 24G WI SFF SC PM6 SSD	P26295-H21
HPE 800GB SAS 24G WI SFF SC PM6 SSD	P26372-H21
WI - 12G SAS - SFF - SSD	
HPE 400GB SAS 12G WI SFF (2.5 in) SC 3-year warranty DS firmware SSD	P04541-H21
HPE 800GB SAS 12G WI SFF (2.5 in) SC 3-year warranty DS firmware SSD	P04543-H21
HPE 1.6TB SAS 12G WI SFF (2.5 in) SC 3-year warranty DS firmware SSD	P04545-H21
HPE 3.2TB SAS 12G WI SFF (2.5 in) SC 3-year warranty DS firmware SSD	P04547-H21
HPE 400GB SAS 12G WI SFF (2.5 in) SC 3-year warranty DS firmware SSD	P09098-H21
HPE 800GB SAS 12G WI SFF (2.5 in) SC 3-year warranty DS firmware SSD	P09100-H21
HPE 1.6TB SAS 12G WI SFF (2.5 in) SC 3-year warranty DS firmware SSD	P09102-H21

Description	Option Part Number
Read Intensive (RI) - 12G SAS - SFF - SSD	
HPE 7.68TB SAS 12G RI SFF (2.5 in) SC 3-year warranty value SAS DS firmware SSD	P10446-H21
HPE 3.84TB SAS 12G RI SFF (2.5 in) SC 3-year warranty value SAS DS firmware SSD	P10444-H21
HPE 1.92TB SAS 12G RI SFF (2.5 in) SC 3-year warranty value SAS DS firmware SSD	P10442-H21
HPE 960GB SAS 12G RI SFF (2.5 in) SC 3-year warranty value SAS DS firmware SSD	P10440-H21
HPE 960GB SAS 12G RI SFF (2.5 in) SC 3-year warranty DS firmware SSD	P04517-H21
HPE 1.92TB SAS 12G RI SFF (2.5 in) SC 3-year warranty DS firmware SSD	P04519-H21
HPE 3.84TB SAS 12G RI SFF (2.5 in) SC 3-year warranty DS firmware SSD	P04521-H21
HPE 7.68TB SAS 12G RI SFF (2.5 in) SC 3-year warranty DS firmware SSD	P04523-H21
HPE 3.84TB SAS 12G RI SFF (2.5 in) SC 3-year warranty SSD	P19907-H21
HPE 960GB SAS 12G RI SFF (2.5 in) SC 3-year warranty SSD	P19903-H21
HPE 1.92TB SAS 12G RI SFF (2.5 in) SC 3-year warranty SSD	P19905-H21
HPE 15.36TB SAS 12G RI SFF (2.5 in) SC 3-year warranty SSD	P19911-H21
HPE 7.68TB SAS 12G RI SFF (2.5 in) SC 3-year warranty SSD	P19909-H21
HPE 960GB SAS 12G RI SFF SC value SAS multi vendor SSD	P36997-H21
HPE 1.92TB SAS 12G RI SFF SC value SAS multi vendor SSD	P36999-H21
HPE 3.84TB SAS 12G RI SFF SC value SAS multi vendor SSD	P37001-H21
HPE 7.68TB SAS 12G RI SFF SC value SAS multi vendor SSD	P37003-H21
HPE 7.68TB SAS Read Intensive SFF BC Self-encrypting FIPS 140-2 PM7 Private SSD	P63879-B21
HPE 960GB SAS 24G RI SFF SC PM6 SSD	P26285-H21
HPE 1.92TB SAS 24G RI SFF SC PM6 SSD	P26302-H21
HPE 3.84TB SAS 24G RI SFF SC PM6 SSD	P26306-H21

Description	Option Part Number
HPE 7.68TB SAS 24G RI SFF SC PM6 SSD	P26310-H21
HPE 15.3TB SAS 24G RI SFF SC PM6 SSD	P26314-H21
RI - 6G SATA - SFF - SSD	
HPE 3.84TB SATA 6G RI SFF (2.5 in) SC 3-year warranty DS firmware SSD	P05946-H21
HPE 1.92TB SATA 6G RI SFF (2.5 in) SC 3-year warranty DS firmware SSD	P05938-H21
HPE 960GB SATA 6G RI SFF (2.5 in) SC 3-year warranty DS firmware SSD	P05932-H21
HPE 480GB SATA 6G RI SFF (2.5 in) SC 3-year warranty DS firmware SSD	P05928-H21
HPE 240GB SATA 6G RI SFF (2.5 in) SC 3-year warranty DS firmware SSD	P05924-H21
HPE 480GB SATA 6G RI SFF (2.5 in) SC 3-year warranty DS firmware SSD	P04560-H21
HPE 480GB SATA 6G RI SFF (2.5 in) SC 3-year warranty DS firmware SSD	P06194-H21
HPE 960GB SATA 6G RI SFF (2.5 in) SC 3-year warranty DS firmware SSD	P06196-H21
HPE 1.92TB SATA 6G RI SFF (2.5 in) SC 3-year warranty DS firmware SSD	P06198-H21
HPE 3.84TB SATA 6G RI SFF (2.5 in) SC 3-year warranty DS firmware SSD	P06200-H21
HPE 240GB SATA 6G RI SFF (2.5 in) SC 3-year warranty DS firmware SSD	P04556-H21
HPE 960GB SATA 6G RI SFF (2.5 in) SC 3-year warranty DS firmware SSD	P04564-H21
HPE 1.92TB SATA 6G RI SFF (2.5 in) SC 3-year warranty DS firmware SSD	P04566-H21
HPE 3.84TB SATA 6G RI SFF (2.5 in) SC 3-year warranty DS firmware SSD	P04570-H21
HPE 240GB SATA 6G RI SFF (2.5 in) SC 3-year warranty multi-vendor SSD	P18420-H21
HPE 480GB SATA 6G RI SFF (2.5 in) SC 3-year warranty multi-vendor SSD	P18422-H21
HPE 960GB SATA 6G RI SFF (2.5 in) SC 3-year warranty multi-vendor SSD	P18424-H21
HPE 1.92TB SATA 6G RI SFF (2.5 in) SC 3-year warranty multi-vendor SSD	P18426-H21
HPE 3.84TB SATA 6G RI SFF (2.5 in) SC 3-year warranty multi-vendor SSD	P18428-H21
HPE 7.68TB SATA 6G RI SFF (2.5 in) SC 3-year warranty multi-vendor SSD	P18430-H21
HPE 240GB SATA 6G RI SFF (2.5 in) SC 3-year warranty SSD	P19935-H21

Description	Option Part Number
HPE 480GB SATA 6G RI SFF (2.5 in) SC 3-year warranty SSD	P19937-H21
HPE 960GB SATA 6G RI SFF (2.5 in) SC 3-year warranty SSD	P19939-H21
HPE 1.92TB SATA 6G RI SFF (2.5 in) SC 3-year warranty SSD	P19941-H21
HPE 3.84TB SATA 6G RI SFF (2.5 in) SC 3-year warranty SSD	P19943-H21
HPE 7.68TB SATA 6G RI SFF (2.5 in) SC 3-year warranty SSD	P19945-H21
Very Read Optimized (VRO) - 6G SATA - SFF - SSD	
HPE 1.92TB SATA 6G VRO SFF (2.5 in) SC 3-year warranty SSD	P23487-H21
HPE 3.84TB SATA 6G VRO SFF (2.5 in) SC 3-year warranty SSD	P23489-H21
HPE 7.68TB SATA 6G VRO SFF (2.5 in) SC 3-year warranty SSD	P23493-H21
MU - 6G SATA - SFF - SSD	
HPE 3.84TB SATA 6G MU SFF (2.5 in) SC 3-year warranty DS firmware SSD	P05994-H21
HPE 1.92TB SATA 6G MU SFF (2.5 in) SC 3-year warranty DS firmware SSD	P05986-H21
HPE 960GB SATA 6G MU SFF (2.5 in) SC 3-year warranty DS firmware SSD	P05980-H21
HPE 1.92TB SATA 6G MU SFF (2.5 in) SC 3-year warranty DS firmware SSD	P05986-H21
HPE 960GB SATA 6G MU SFF (2.5 in) SC 3-year warranty DS firmware SSD	P05980-H21
HPE 480GB SATA 6G MU SFF (2.5 in) SC 3-year warranty DS firmware SSD	P05976-H21
HPE 480GB SATA 6G MU SFF (2.5 in) SC 3-year warranty DS firmware SSD	P09712-H21
HPE 960GB SATA 6G MU SFF (2.5 in) SC 3-year warranty DS firmware SSD	P09716-H21
HPE 1.92TB SATA 6G MU SFF (2.5 in) SC 3-year warranty DS firmware SSD	P09722-H21
HPE 480GB SATA 6G MU SFF (2.5 in) SC 3-year warranty SSD	P19947-H21
HPE 960GB SATA 6G MU SFF (2.5 in) SC 3-year warranty SSD	P19949-H21
HPE 1.92TB SATA 6G MU SFF (2.5 in) SC 3-year warranty SSD	P19951-H21

Description	Option Part Number
HPE 3.84TB SATA 6G MU SFF (2.5 in) SC 3-year warranty SSD	P19953-H21
HPE 480GB SATA 6G MU SFF (2.5 in) SC 3-year warranty multi-vendor SSD	P18432-H21
HPE 960GB SATA 6G MU SFF (2.5 in) SC 3-year warranty multi-vendor SSD	P18434-H21
HPE 3.84TB SATA 6G MU SFF (2.5 in) SC 3-year warranty multi-vendor SSD	P18438-H21
HPE 1.92TB SATA 6G MU SFF (2.5 in) SC 3-year warranty multi-vendor SSD	P18436-H21
HPE 960GB SATA 6G MU SFF (2.5 in) SC 3-year warranty DS firmware SSD	P13660-H21
HPE 480GB SATA 6G MU SFF (2.5 in) SC 3-year warranty DS firmware SSD	P13658-H21
HPE 3.84TB SATA 6G MU SFF (2.5 in) SC 3-year warranty DS firmware SSD	P13664-H21
HPE 1.92TB SATA 6G MU SFF (2.5 in) SC 3-year warranty DS firmware SSD	P13662-H21
HPE 3.84TB SATA 6G MU SFF (2.5 in) SC 3-year warranty DS firmware SSD	P21517-H21
Mixed Use /RI NVMe SED SSD's	
HPE 1.92TB NVMe RI SC FIPS U.3 CM6 SSD	P44658-H21
HPE 480GB NVMe Gen4 Mainstream Performance Read Intensive M.2 PM9A3 SSD	P69543-H21
RI - NVMe - SFF - SSD	
HPE 960GB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 Static V2 Multi Vendor SSD	P64842-H21
HPE 1.92TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 Static V2 Multi Vendor SSD	P64844-H21
HPE 3.84TB NVMe Gen4 Mainstream Performance Read Intensive SFF SC U.3 Static V2 Multi Vendor SSD	P64845-H21
HPE 3.84TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 Static V2 Multi Vendor SSD	P64846-H21
HPE 7.68TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 Static V2 Multi Vendor SSD	P64848-H21

Description	Option Part Number
HPE 1.92TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 CM 7 SSD	P63829-K21
HPE 3.84TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 CM 7 SSD	P63833-K21
HPE 7.68TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 CM 7 SSD	P63837-K21
HPE 15.36TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 C M7 SSD	P63841-K21
HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PS1030 SSD	P70426-H21
HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PS1030 SSD	P70428-H21
HPE 1.92TB NVMe high performance RI SFF (2.5 in) SC 3-year warranty u niversal connect SSD	P16501-H21
HPE 3.84TB NVMe high performance RI SFF (2.5 in) SC 3-year warranty u niversal connect SSD	P16503-H21
MU - NVMe - SFF - SSD	
HPE 800GB NVMe Gen4 Mainstream Performance Mixed Use SFF BC U.3 Static V2 Multi Vendor SSD	P64999-H21
HPE 1.6TB NVMe Gen4 Mainstream Performance Mixed Use SFF SC U.3 Static V2 Multi Vendor SSD	P65003-H21
HPE 1.6TB NVMe Gen4 Mainstream Performance Mixed Use SFF BC U.3 Static V2 Multi Vendor SSD	P65007-H21
HPE 3.2TB NVMe Gen4 Mainstream Performance Mixed Use SFF SC U.3 Static V2 Multi Vendor SSD	P65011-H21
HPE 3.2TB NVMe Gen4 Mainstream Performance Mixed Use SFF BC U.3 Static V2 Multi Vendor SSD	P65015-H21
HPE 6.4TB NVMe Gen4 Mainstream Performance Mixed Use SFF BC U.3 Static V2 Multi Vendor SSD	P65023-H21
HPE 1.6TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 CM7 SSD	P63845-K21
HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 CM7 SSD	P63849-K21
HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 CM7 SSD	P63853-K21
HPE 1.6TB NVMe high performance MU SFF (2.5 in) SC 3-year warranty u niversal connect SSD	P16497-H21
HPE 3.2TB NVMe high performance MU SFF (2.5 in) SC 3-year warranty u niversal connect SSD	P16499-H21

Host Bus Adapter (HBA) storage controllers

Description	Option Part Number
HPE StoreFabric SN1600E 32Gb single port FC HBA	Q0L11A
HPE StoreFabric SN1600E 32Gb dual port FC HBA	Q0L12A
HPE StoreFabric SN1200E 16Gb single port FC HBA	Q0L13A
HPE StoreFabric SN1200E 16Gb dual port FC HBA	Q0L14A
HPE StoreFabric SN1100Q 16Gb single port FC HBA	P9D93A
HPE StoreFabric SN1100Q 16Gb dual port FC HBA	P9D94A
HPE SN1610Q 32Gb 1-port FC HBA	R2E08A
HPE SN1610Q 32Gb 2-port FC HBA	R2E09A

HPE Integrated Light-Out (iLO)

Description	Option Part Number
HPE iLO Advanced electronic license with 1-year support on iLO licensed features	E6U59ABE
HPE iLO Advanced electronic license with 3-year support on iLO licensed features	E6U64ABE
HPE iLO Advanced 1-server license with 3-year support on iLO licensed features	BD505A
HPE iLO Advanced flexible quantity license with 3-year support on iLO licensed features	BD506A
HPE iLO Advanced AKA tracking license with 3-year support on iLO licensed features	BD507A

Description	Option Part Number
HPE iLO Advanced 1-server license with 1-year support on iLO licensed features	512485-B21
HPE iLO Advanced flexible quantity license with 1-year support on iLO licensed features	512486-B21
HPE iLO Advanced AKA tracking license with 1-year support on iLO licensed features	512487-B21

USB flash kit

Description	Option Part Number
HPE 8GB dual microSD flash USB drive	741279-B21
HPE XL2xxn Gen10 Plus 36-pin serial/USB/VGA cable	P24887-B21

Trusted Platform Module (TPM)

Description	Option Part Number
HPE Gen10 Plus TPM WR module kit	P17413-B21



NOTE

HPE Gen10 Plus TPM WR module kit (P17413-B21) UEFI mode (Default) can support either TPM 1.2 or TPM 2.0. The default mode is the TPM 2.0 mode.

Click here to view HPE TPM 2.0 Gen10 Plus quickSpecs for more information.

Transceiver

Description	Option Part Number
HPE BladeSystem c-Class virtual connect 1G SFP SX transceiver	453151-B21
HPE BladeSystem C-Class virtual connect 1G SFP RJ45 transceiver	453154-B21
HPE BladeSystem c-Class 10Gb SFP+ SR transceiver	455883-B21
HPE BladeSystem c-Class 10Gb SFP+ LR transceiver	455886-B21
HPE 25Gb SFP28 SR 100 m transceiver	845398-B21
HPE 100Gb QSFP28 MPO SR4 100 m transceiver	845966-B21

HPE Smart array SmartCache license

Description	Option Part Number
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

Description	Option Part Number
HPE USB US Keyboard/Mouse kit	631341-B21
HPE USB UK Keyboard/Mouse kit	631344-B21

Description	Option Part Number
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/International Keyboard/Mouse kit	672097-373
HPE USB International 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

HPE Tape backup

Description	Option Part Number
HPE StoreEver LTO-7 Ultrium 15000 external tape drive	BB874A

Description	Option Part Number
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
Bulk packaging	
HPE Apollo 2000 Gen10 Plus 1U/2U server bulk package	P41879-B21

InfiniBand options

Description	Option Part Number
HPE InfiniBand HDR/ethernet 200Gb 1-port QSFP56 MCX653105A-HDAT PCIe 4 x16 adapter	P23664-H21
HPE InfiniBand HDR100/ethernet 100Gb 1-port QSFP56 MCX653105A-ECAT PCIe 4 x16 adapter	P23665-H21
HPE InfiniBand HDR100/ethernet 100Gb 2-port QSFP56 MCX653106A-ECAT PCIe 4 x16 adapter	P23666-H21
HPE InfiniBand HDR/ethernet 200Gb 2-port QSFP56 PCIe4 x16 MCX653106A-HDAT adapter	P31324-H21
HPE InfiniBand HDR/ethernet 200Gb 1-port QSFP56 PCIe4 x16 OCP3 MCX653435A-HDAI adapter	P31323-H21

Description	Option Part Number
HPE InfiniBand HDR/ethernet 200Gb 2-port QSFP56 PCIe4 x16 OCP3 MCX653436A-HDAI adapter	P31348-H21

NOTE

Requires the selection of left or right riser kit. Maximum PCIe card limit is depending on the selection of left and/ or right riser kit.

Click here for additional information on adapters.

HPE Networking

Description	Option Part Number
Marvell QL41132HLRJ Ethernet 10Gb 2-port BASE-T adapter for HPE	P08437-B21
Intel I350-T4 Ethernet 1Gb 4-port BASE-T OCP3 adapter for HPE	P08449-B21
Marvell QL41132HQCU Ethernet 10Gb 2-port SFP+ OCP3 adapter for HPE	P08452-B21
Marvell QL41134HLCU Ethernet 10Gb 4-port SFP+ adapter for HPE	P10094-B21
Marvell QL41132HQRJ Ethernet 10Gb 2-port BASE-T OCP3 adapter for HPE	P10103-B21
Mellanox MCX562A-ACAI Ethernet 10/25Gb 2-port SFP28 OCP3 adapter for HPE	P10112-B21
Marvell QL41232HQCU Ethernet 10/25Gb 2-port SFP28 OCP3 adapter for HPE	P10118-B21
Mellanox MCX512F-ACHT Ethernet 10/25Gb 2-port SFP28 adapter for HPE	P13188-B21
Intel I350-T4 Ethernet 1Gb 4-port BASE-T adapter for HPE	P21106-B21
Xilinx X2522-25G-PLUS Ethernet 10/25Gb 2-port SFP28 adapter for HPE	P21109-B21
HPE Ethernet 100Gb 2-port QSFP28 MCX516A-CCHT adapter	P21927-B21
Marvell QL41132HLCU Ethernet 10Gb 2-port SFP+ adapter for HPE	P21933-B21

Description	Option Part Number
Marvell QL41232HLCU Ethernet 10/25Gb 2-port SFP28 adapter for HPE	P22702-B21
Broadcom BCM57414 Ethernet 10/25Gb 2-port SFP28 OCP3 adapter for HPE	P10115-B21
Broadcom BCM57416 Ethernet 10Gb 2-port BASE-T adapter for HPE	P26253-B21
Broadcom BCM57412 Ethernet 10Gb 2-port SFP+ OCP3 adapter for HPE	P26256-B21
Broadcom BCM57412 Ethernet 10Gb 2-port SFP+ adapter for HPE	P26259-B21
Broadcom BCM57414 Ethernet 10/25Gb 2-port SFP28 adapter for HPE	P26262-B21
Mellanox MCX623106AS-CDAT Ethernet 100Gb 2-port QSFP56 adapter for HPE	P25960-B21
Broadcom BCM57416 Ethernet 10Gb 2-port BASE-T OCP3 adapter for HPE	P10097-B21

NOTE

- For 1U, total slots available for PCIe is 2, total slots available for OCP3.0 is 1. This is a total selection from anything in the following categories: InfiniBand, Networking, Controllers, PCI Accelerator.
- Requires the selection of left or right riser kit

RAID settings

Description	Option Part Number
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 with SP drive 1 FIO setting	339780-B21
HPE RAID FIO advanced data guarding option	339781-B21

Description	Option Part Number
HPE Customer defined RAID setting service	389692-B21

Controller state

Description	Option Part Number
HPE SR100i Gen10 Plus FIO software	P28417-B21

NOTE

- Embedded controller works in either AHCI mode or SR100i mode.
- By default Embedded controller will work in "AHCI Mode"
- If "P28417-B21 - HPE SR100i Gen10+ Software RAID", then embedded controller will work in "SR100i Mode".
- If chosen RAID supportability for SATA is RAID0, 1 and 5
- HPE Smart Array SR100i Gen10 Plus software RAID only supports Windows and does not support Linux or VMware on Gen10 Plus servers.
- P28417-B21 is only supported if P20285-B21 HPE n2600 Gen10 Plus 6SFF SAS/SATA HDD/SSD FIO Backplane kit is chosen.

HPE Storage cables

Description	Option Part Number
HPE XL225n Gen10 Plus SATA cable kit	P24055-B21
HPE XL22xn Gen10 Plus smart array E208ip/P408ip cable	P20271-B21
HPE 96 W smart storage lithium-ion battery with 145 mm cable kit	P01366-B21

HPE Storage controller

Description	Option Part Number
HPE Smart array E208i-p SR Gen10 (8 Internal lanes/no cache) 12G SAS PCIe plug-in controller [1]	804394-B21
HPE Smart array E208e-p SR Gen10 (8 External lanes/no cache) 12G SAS PCIe plug-in controller [2]	804398-B21
HPE Smart array P408e-p SR Gen10 (8 External lanes/4GB cache) 12G SAS PCIe plug-in controller [3]	804405-B21
HPE Smart array P408i-p SR Gen10 (8 Internal lanes/2GB cache) 12G SAS PCIe plug-in controller [4]	830824-B21
HPE SN1610E 32Gb 1-port Fibre Channel Host Bus Adapter	R2J62A
HPE SN1610E 32Gb 2-port Fibre Channel Host Bus Adapte	R2J63A
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 SN1700Q 64Gb 1-port Fibre Channel Host Bus Adapter	R7N86A
HPE SN1700Q 64Gb 2-port Fibre Channel Host Bus Adapter	R7N87A
HPE SN1610Q 32Gb 1-port Fibre Channel Host Bus Adapter	R2E08A
HPE SN1610Q 32Gb 2-port Fibre Channel Host Bus Adapter	R2E09A
HPE SN1700E 64Gb 1-port Fibre Channel Host Bus Adapter	R7N77A
HPE SN1700E 64Gb 2-port Fibre Channel Host Bus Adapter	R7N78A

NOTE

1. Supports up to 6 internal SAS/SATA drives. Requires the selection of a right riser kit and HPE XL22xn Gen10+ E208ip/P408ip cable kit (P20271-B21).
2. Supports 0 internal SAS/SATA drives. Requires the selection of left or right riser kit and this controller may support- SAS tape device (External), SAS storage (External).
3. Supports 0 internal SAS/SATA drives. Requires the selection of left or right riser kit and this controller may support- SAS tape device (External), SAS storage (External). The battery cable kit needs to be selected if the node has the P series controller in the node configuration.

Description	Option Part Number

4. Supports up to 6 internal SAS/SATA drives. Requires the selection of a right riser kit an d HPE XL22xn Gen10+ E208ip/P408ip cable kit (P20271-B21). The battery cable kit needs to be selected if the node has the P series controller in the node configuration.

HPE PCIe riser kits

Description	Option Part Number
HPE XL2xxn Gen10 Plus low profile left riser kit [1]	P20260-B21
HPE XL22xn Gen10 Plus low profile CPU1 right riser kit [2]	P20261-B21
HPE XL225n Gen10 Plus low profile CPU1 direct attach NVMe righ t riser kit [3]	P22337-B21
HPE XL22xn Gen10 Plus low profile CPU2 right riser kit [4]	P20264-B21
HPE XL2xxn Gen10 Plus USB mezzanine riser kit [5]	P20291-B21
HPE NS204i-t Gen10 Plus x2 lanes NVMe PCIe 3 x8 boot controller [6]	P20292-B21
HPE XL220n exclusive	
HPE XL220n Gen10 Plus low profile CPU1 direct attach NVMe righ t riser kit	P20263-B21
HPE XL290n exclusive	
HPE XL290n Gen10 Plus CPU1/2 right riser kit	P20266-B21
HPE XL290n Gen10 Plus CPU1/2 direct attach NVMe right riser kit	P20268-B21
HPE XL290n Gen10 Plus CPU2 right riser kit	P20269-B21
HPE XL290n Gen10 Plus 4x GPU right riser kit	P20293-B21

NOTE

1.

Description	Option Part Number
• o support SATA drives a right riser selection is required • If DLC option is chosen left riser kit cannot be ordered • HPE XL2xxn Gen10 Plus low profile left riser kit total available PCIe slots is one (1x 16). • HPE XL2xxn Gen10 Plus low profile left riser kit and HPE XL22xn G10+ LP CPU1 r ight riser kit P20261-B21 total available PCIe slots is two (2x16). • HPE XL2xxn Gen10 Plus low profile left riser and HPE XL22xn G10+ LP CPU2 rig ht riser kit P20264-B21 total available PCIe slots is two (2x16). When P20264-B2 1 riser is installed, PCIe Gen4 devices installed in this riser will only operate at PCIe Gen3 speeds (8 GT/s). • HPE XL2xxn Gen10 Plus low profile left riser kit and HPE XL225n Gen10+ LP CPU 1 NVMe riser kit P22337-B21 total available PCIe slots is two (2x16). 2. • HPE XL22xn G10+ LP CPU1 right riser kit and HPE XL2xxn Gen10 Plus low profil e left riser kit (P20260-B21) total available PCIe slots is two (2x16). • This riser can support SAS/SATA drives 3. • This riser must be chosen if HPE n2600 Gen10 plus 4 SFF U.3 Prem FIO BP kit is s elected in the chassis and U.3 NVMe drive is selected in this node. Can support two NVMe drives direct CPU2 per node. • Requires 2 CPUs if selected with HPE n2600 Gen10plus 4 SFF U.3 Prem FIO BP kit. • HPE XL225n Gen10+ LP CPU1 NVMe riser kit and HPE XL2xxn Gen10 Plus low pr ofile left riser kit (P20260-B21) total available PCIe slots is two (2x16). 4. • HPE XL22xn G10+ LP CPU2 right riser kit and HPE XL2xxn Gen10 Plus low profil e left riser kit (P20260-B21) total available PCIe slots is two (2x16). • This riser can support SAS/SATA drives • PCIe devices installed in this riser are limited toPCIe Gen3 speeds. 5. • Can choose either P20291-B21 USB Mezz riser or P20292-B21 NVME boot contro ller not both.	

Description	Option Part Number

- Riser does not take up a PCIe slot in the system

6.

- OS Boot controller, comes with 2 x m.2 NVMe drives and RAID1 always. Requires th e selection of 2 x 480GB, 960GB or 1.92TB. Riser does not take up a PCIe slot in th e system.
- Can choose either P20291-B21 USB Mezz riser or P20292-B21 NVME boot contro ller not both.

Additional FIO

Description	Option Part Number
BIOS model	
HPE Legacy FIO mode setting	758959-B22
HPE Security hardware	
HPE Gen10 TPM 1.2 FIO setting	872108-B21

NOTE

1. 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 f rom default UEFI mode to legacy mode.
2.

- This can be selected only when HPE Gen10 Plus TPM WR module kit (P17413-B2 1) is selected.
- HPE Gen10 Plus TPM WR module kit (P17413-B21) UEFI mode (Default) can sup port either TPM 1.2 or TPM 2.0. The default mode is the TPM 2.0 mode.

OS Compatibility

Feature	Description
Operating systems and virtualization software support	• Windows Server 2016 (Most Recent Version) • Windows Server 2019 (Most Recent Version) • VMware ESXi 6.5 U3 • VMware ESXi 6.7 U3 • VMware ESXi 7 (2019) • Red Hat Enterprise Linux (RHEL) (64 bit) • SUSE Linux Enterprise Server (SLES) 12 SP5 (64 bit) • SUSE Linux Enterprise Server (SLES) 15 SP2 (64 bit) • Ubuntu 20.04 LTS (5.4) • Citrix XenServer 8.1CR (AMD Only)
Fabric software	• Mellanox UFM

Useful Links

Description	Direct links
Alerts	**Click here to view " Advisories, Alerts and Bulletins and Notices of HPE Apollo 2000 Gen10 Plus System".**
Drivers and Software	**Click here to view "Drivers and software of HPE Apollo 2000 Gen10 Plus System".**

Knowledge article	**Click here to view" Knowledge articles, Troubleshooting, FAQ, How to , Information document of HPE Apollo 2000 Gen10 Plus System".**
Manuals	**Click here to view "Manuals, Guides,Release notes, Troubleshooting articles and other related document of HPE Apollo 2000 Gen10 Plus System".**
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