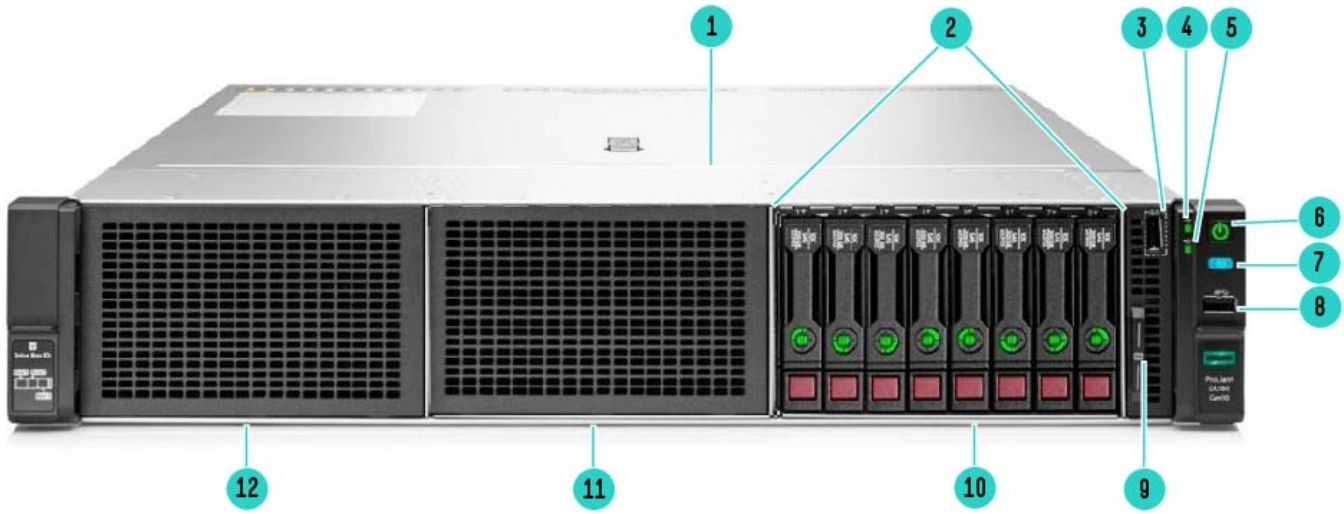
Overview

HPE ProLiant DL180 Gen10 Server

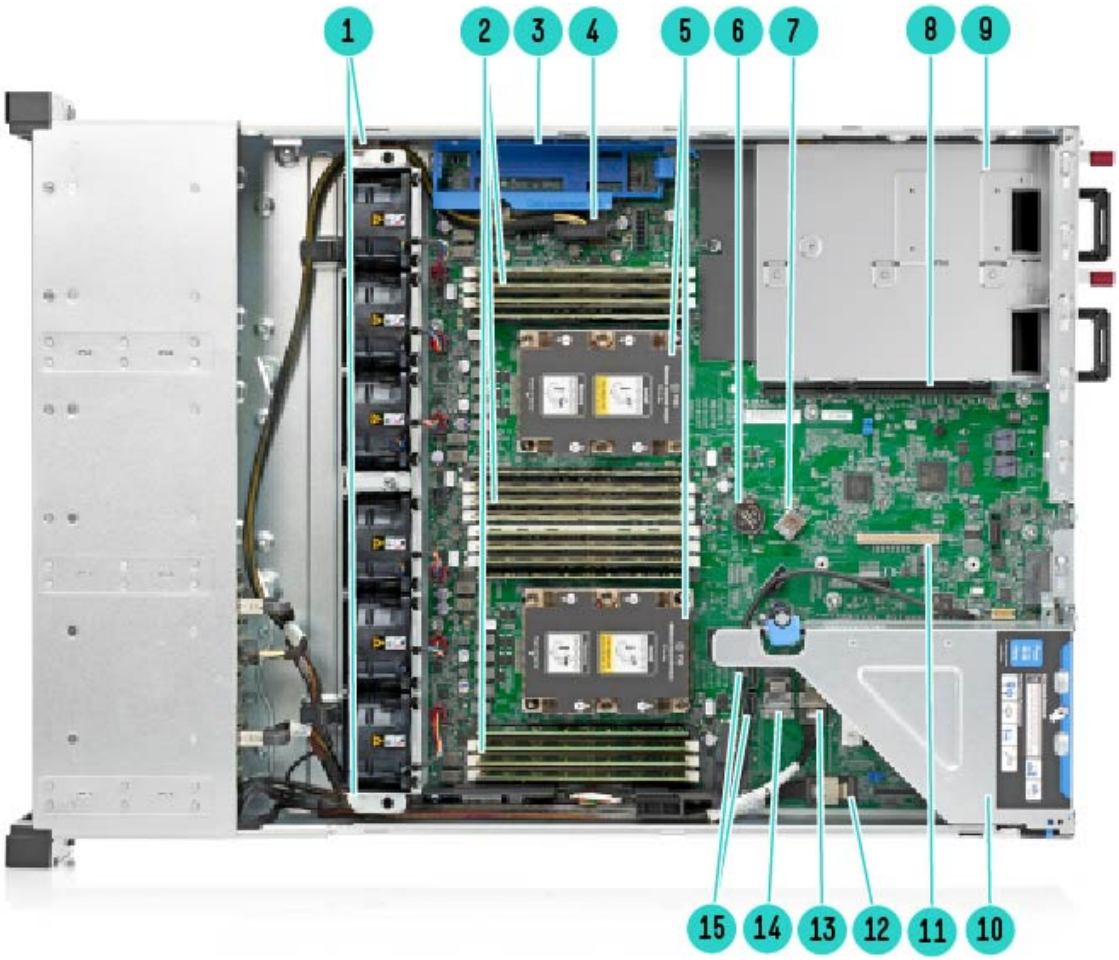
Adaptable for diverse workloads and environments, the secure 2P 2U HPE ProLiant DL180 Gen10 delivers world-class compelling performance with the right balance of expandability and scalability. Designed for supreme versatility and resiliency with the right balance of reliability, manageability and performance, while being backed by a comprehensive warranty make it ideal for multiple environments from Containers to Cloud to Big Data. Standardize on the industry's most trusted compute platform. SMBs and enterprises running application.



8SFF Chassis - Front View

1. Quick removal access panel
2. 8 SFF Drive Cage
3. iLO Front Service Port
4. Health LED
5. NIC status
6. Power On/Standby button and system power LED button
7. UID button
8. USB 3.0
9. Serial label pull tag
10 Box 3
11. Box 2 (Optional SFF)
12 Box 1 (Optional SFF or Universal media bay)

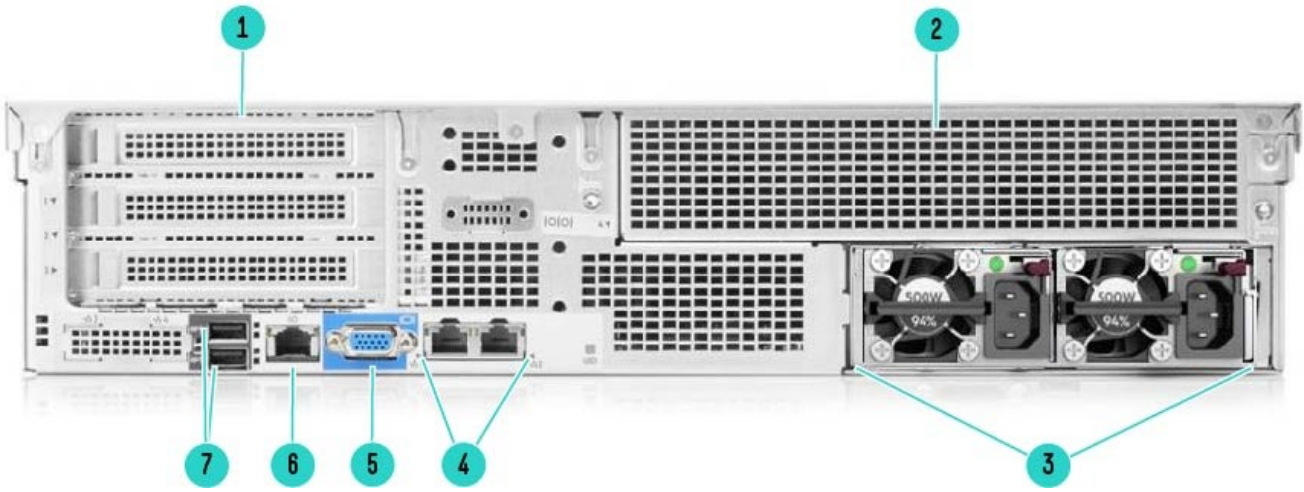
Overview



8SFF Chassis – with optional 2nd CPU - Internal View

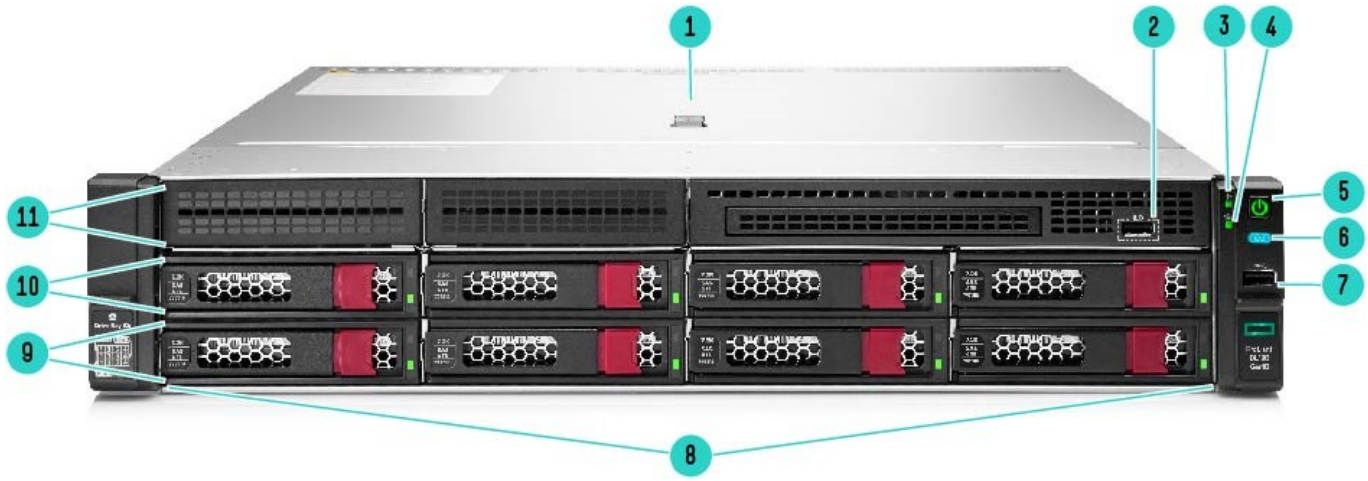
1. Fan cage shown with 6 Hot-swap fans
2. DDR4 DIMM slots. Shown fully populated in 16 slots (8 per processor)
3. Optional HPE Smart Storage Battery (Battery not shown)
4. Drive Backplane Connector
5. 2 Processors, heatsink showing
6. System Battery
7. Internal USB 3.0 port
8. Connection for second (optional) riser (Requires second CPU)
9. Power Supply
10. Primary PCIe riser, standard
11. Flexible Smart Array Connector
12. Mini-SAS port 2
13. Mini-SAS port 1
14. Mini-SAS port 3
15. SATA Ports

Overview



Rear View

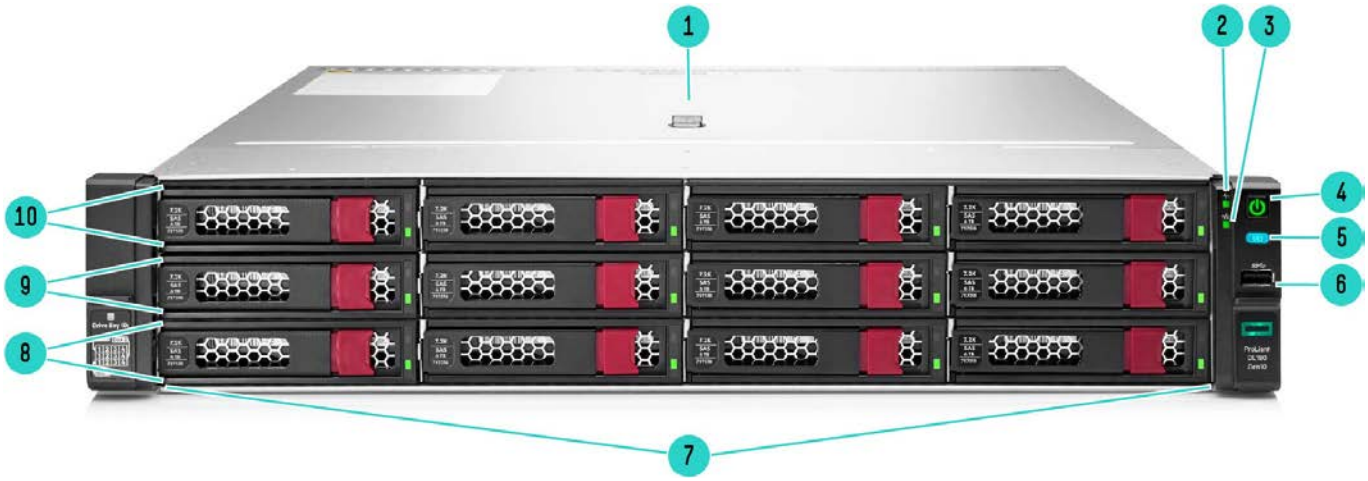
1. Primary Riser. PCI Slots (Slots 1-3 top to bottom, riser shipped standard, not shown)
2. Secondary Riser. PCI Slots (Slots 4-6top, not shown, requires second riser card, and second processor).
3. Power Supply (Redundant Hot plug shown)
4. Embedded 2 x 1GbE Network Adapter
5. VGA Port
6. Dedicated iLO management port
7. USB connectors 3.0 (2)



8LFF Chassis - Front View

1. Quick removal access panel
2. iLO Front Service Port
3. Health LED
4. NIC Status
5. Power On/Standby button and system power LED button
6. UID button
7 USB 3.0
8 LFF Drive cage
9 Box 3
10 Box 2
11 Box 1

Overview



12LFF Chassis - Front View

1. Quick removal access panel
2. Health LED
3. NIC Status
4. Power On/Standby button and system power LED button
5. UID button
6. USB 3.0
7. LFF Drive cage
8. Box 3
9. Box 2

10 Box 1

Overview

What's New

- Introducing the Intel Xeon scalable second generation processors '8200, 6200, 5200,4200, 3200' series
- DDR4 Smart memory RDIMM and LRDIMM with capacities ranging from 8—64GB and speeds 2933 MT/s max.
- HPE Smart Array 'Essential' and 'Performance' RAID Controllers
- Chassis extensions SFF – 8/16/24 HDD/SSD; LFF – 8/12 HDD/SSD – SAS/SATA Configurations
- SATA M.2 options
- NVIDIA 2000 Graphic options
- 1Gb/10Gb/25Gb/40Gb PCIe stand-up network adapaters
- Power and cooling: Range of 500—1600 W PS, upto 94% efficiency (Platinum)
- HPE iLO, HPE OneView, HPE Infosight

Platform Information

Form Factor

2U rack

Chassis Types

- 8 SFF
- 24 (+2) SFF
- 8 LFF
- 12 LFF

NOTE: All models come with the S100i Smart Array Controller with embedded software RAID support for 14 drives. However this needs to be enabled using Enable SW RAID option (784308-B21) while configuring.

System Fans

Standard – fan types

	Non-Redundant	Redundant
1P Model	3 fans (4,5,6)	4 fans (2,4,5,6)
2P Model	5 fans (2,3,4,5,6)	6 fans (1,2,3,4,5,6)

NOTE: Above fan matrix is not applied for "NVMe SFF SSD" or "rear hdd" installed.

Standard Features

Standard Features
Core Options
Processors – Up to 2 of the following depending on model.
NOTE: The 2nd digit of the processor model number "x1xx"? and "x2xx"? is used to denote the processor generation (i.e. 1=1st generation and 2=2nd generation)
NOTE: "U"? processors (i.e. 6212U) only supported in single socket configurations
Second Generation Intel Xeon Scalable Processor Family

Intel Xeon Models	CPU Frequency	Cores	L3 Cache	Power	UPI	DDR4	Memory Per Socket
Platinum Processors							
8253	2.2GHz	16-core	22	125W	3 @ 10.4 GT/s	2933 MT/s	1TB
8256	3.8GHz	4-core	16.5	105W	3 @ 10.4 GT/s	2933 MT/s	1TB
Gold Processors							
6209U	2.1GHz	20-core	27.5	125W	NA	2933 MT/s	1TB
6210U	2.5GHz	20-core	27.5	150W	NA	2933 MT/s	1TB
6252	2.1GHz	24-core	35.75	150W	3 @ 10.4 GT/s	2933 MT/s	1TB
6248	2.5GHz	20-core	27.5	150W	3 @ 10.4 GT/s	2933 MT/s	1TB
6244	3.6GHz	8-core	24.75	150W	3 @ 10.4 GT/s	2933 MT/s	1TB
6242	2.8GHz	16-core	22	150W	3 @ 10.4 GT/s	2933 MT/s	1TB
6240	2.6GHz	18-core	24.75	150W	3 @ 10.4 GT/s	2933 MT/s	1TB
6238	2.1GHz	22-core	30.25	140W	3 @ 10.4 GT/s	2933 MT/s	1TB
6234	3.3GHz	8-core	24.75	130W	3 @ 10.4 GT/s	2933 MT/s	1TB
6230	2.1GHz	20-core	27.5	125W	3 @ 10.4 GT/s	2933 MT/s	1TB
6226	2.7GHz	12-core	19.25	125W	3 @ 10.4 GT/s	2933 MT/s	1TB
5222	3.8GHz	4-core	16.5	105W	2 @ 10.4 GT/s	2666 MT/s	1TB
5220	2.2GHz	18-core	24.75	125W	2 @ 10.4 GT/s	2666 MT/s	1TB
5218	2.3GHz	16-core	22	125W	2 @ 10.4 GT/s	2666 MT/s	1TB
5217	3.0GHz	8-core	11	115W	2 @ 10.4 GT/s	2666 MT/s	1TB
5215	2.5GHz	10-core	13.75	85W	2 @ 10.4 GT/s	2666 MT/s	1TB
Silver Processors							
4216	2.1GHz	16-core	22	100W	2 @ 9.6 GT/s	2400 MT/s	1TB
4215	2.5GHz	8-core	11	85W	2 @ 9.6 GT/s	2400 MT/s	1TB
4214	2.2GHz	12-core	16.5	85W	2 @ 9.6 GT/s	2400 MT/s	1TB
4210	2.2GHz	10-core	10	85W	2 @ 9.6 GT/s	2400 MT/s	1TB
4208	2.1GHz	8-core	11	85W	2 @ 9.6 GT/s	2400 MT/s	1TB
4216	2.1GHz	16-core	22	100W	2 @ 9.6 GT/s	2133 MT/s	1TB
4215	2.5GHz	8-core	11	85W	2 @ 9.6 GT/s	2133 MT/s	1TB
4214	2.2GHz	12-core	16.5	85W	2 @ 9.6 GT/s	2133 MT/s	1TB
4210	2.2GHz	10-core	10	85W	2 @ 9.6 GT/s	2133 MT/s	1TB
4208	2.1GHz	8-core	11	85W	2 @ 9.6 GT/s	2133 MT/s	1TB
Bronze Processors							
3204	1.9GHz	6-core	8.25	85W	2 @ 9.6 GT/s	2133 MT/s	1TB

NOTE: Platinum - 8200 Series - 2 Socket supports supports 6-Channel DDR4 @ 2933 MT/s providing up to 1TB memory capacity per socket.
NOTE: Processors with 130W TDP or higher and the 8256 and 5222 will ship with the High Performance heatsink. All other will processors will ship with the Standard heatsink.
NOTE: For more information regarding Intel Xeon processors, please see the following **http://www.intel.com/xeon**. First Generation Intel Xeon Scalable Processor Family

Standard Features

Intel Xeon Models	CPU Frequency	Cores	L3 Cache	Power	UPI	DDR4	Memory per socket
Silver Processors							
Silver 4110 Processor	2.1 GHz	8	11.00 MB	85W	2 @ 9.6 GT/s	2400 MT/s	768 GB
Bronze Processors							
Bronze 3106 Processor	1.7 GHz	8	11.00 MB	85W	2 @ 9.6 GT/s	2133 MT/s	768 GB

NOTE: Silver – 4100 Series - 2 Socket supports 2UPI @ 9.6 GT/s, 6-Channel DDR4 @ 2400 MHz providing up to 768 GB memory capacity. Intel Turbo Boost Technology, Intel Hyper-Threading Technology, Intel AVX-512(1x 512-bit FMA), 48 lanes PCIe 3.0, standard RAS supported.
NOTE: Bronze – 3100 Series - 2 Socket supports 2UPI @ 9.6 GT/s, supports 6-Channel DDR4 @ 2133 MHz providing up to 768GB memory capacity. Intel AVX-512(1x 512-bit FMA), 48 lanes PCIe 3.0, standard RAS supported.

Chipset
Intel C622 Chipset
NOTE: For more information regarding Intel® chipsets, please see the following URL: **http://www.intel.com/products/server/chipsets/**

On System Management Chipset
HPE iLO 5 ASIC
NOTE: Read and learn more in the **iLO QuickSpecs**.

Memory
One of the following depending on model

Type		HPE DDR4 SmartMemory, Registered (RDIMM) and LRDIMM
DIMM Slots Available	16	8 DIMM slots per processor, 6 channels per processor, 2 channels @ 2 DIMMs per channel, 4 channels @ 1 DIMM per channel
Maximum capacity (RDIMM)	1TB	16 x 64 GB RDIMM @ 2933 MT/s
Maximum capacity (LRDIMM)	1TB	16X64 GB LRDIMM @ 2933 MT/s

Memory Protection
For details on the HPE Server Memory Options RAS feature, visit: **http://www.hpe.com/docs/memory-ras-feature.**
NOTE: Maximum memory per socket is dependent on processor selection.
NOTE: Mixing of RDIMM and LRDIMM memory is not supported.
NOTE: For details on the HPE Server Memory speed, visit: **https://www.hpe.com/docs/memory-speed-table**
NOTE: To realize the performance memory capabilities listed in this document, HPE DDR4 SmartMemory is required. For additional information, please see the HPE DDR4 SmartMemory QuickSpecs.

Expansion Slots
CPU1 x8x8x8 riser

Slots #	Technology	Bus Width	Connector Width	Slot Form Factor	Notes
1	PCIe 3.0	X8	X8	Full-height, full-length slot	Proc 1
2	PCIe 3.0	X8	X8	Full-height, half-length slot	Proc 1
3	PCIe 3.0	X8	X8	Full-height, half-length slot	Proc 1

NOTE: Bus Width Indicates the number of physical electrical lanes running to the connector.

Standard Features

FlexibleLOM

Slots #	Technology	Bus Width	Connector Width	Slot Form Factor	Notes
1	PCIe 3.0	X8	X8	Full-height, full-length slot	Proc 1
2	PCIe 3.0	X8	X8	Full-height, half-length slot	Proc 1
3	PCIe 3.0	X8	X8	FlexibleLOM	Proc 1

NOTE: Bus Width Indicates the number of physical electrical lanes running to the connector.
NOTE: This riser is necessary to install FlexibleLOM adapters

CPU1 x16x8 riser

Slots #	Technology	Bus Width	Connector Width	Slot Form Factor	Notes
1	PCIe 3.0	X16	X16	Full-height, full-length slot	Proc 1
2	PCIe 3.0	X8	X8	Full-height, half-length slot	Proc 1

NOTE: Bus Width Indicates the number of physical electrical lanes running to the connector.

CPU2 x8x8x8 riser

Slots #	Technology	Bus Width	Connector Width	Slot Form Factor	Notes
1	PCIe 3.0	X8	X8	Full-height,full-length slot	Proc 2
2	PCIe 3.0	X8	X8	Full-height,half-length slot	Proc 2
3	PCIe 3.0	X8	X8	Low profile	Proc 2

NOTE: Bus Width Indicates the number of physical electrical lanes running to the connector.
NOTE: When populating the second optional riser slot, the second processor must be installed.

Storage Controllers
The Gen10 controller naming framework has been updated to simplify identification as depicted below. For a more detailed breakout of the available Gen10 Smart Array controllers visit the **HPE Smart Array Gen10 Controllers Data Sheet**. One of the following depending on model

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Software RAID
HPE Smart Array S100i SR Gen10 SW RAID
NOTE: HPE Smart Array S100i SR Gen10 SW RAID will operate in UEFI mode only. For legacy support an additional controller will be needed, and for CTO orders please also select the Legacy mode settings part, 758959-B22.
NOTE: HPE Smart Array S100i SR Gen10 SW RAID is off by default and must be enabled.
NOTE: The S100i uses 14 embedded SATA ports
NOTE: HPE Smart Array S100i SR Gen10 SW RAID only supports Windows and does not support Linux. For Linux users, HPE offers a solution that uses in-distro open-source software to create a two-disk RAID 1 boot volume.
For more information visit: **https://downloads.linux.hpe.com/SDR/project/lsrrb/**

Essential RAID Controller

- HPE Smart Array E208i-p SR Gen10 Controller
- HPE Smart Array E208e-p SR Gen10 Controller
- HPE Smart Array E208i-a SR Gen10 Controller

Performance RAID Controller

- HPE Smart Array P408i-a SR Gen10 Controller

NOTE: Performance RAID Controllers require the HPE Smart Storage Battery (P01366-B21) which is sold separately.

Standard Features

Internal Storage Devices

- One of the following depending on model
- Optical Drive
- Ships standard in performance models
- Optional: DVD-ROM, DVD-RW

Hard Drives

- None ship standard

Maximum Internal Storage		
	Capacity	**Configuration**
Hot Plug SFF SAS HDD	62 TB	26X2.4TB
Hot Plug LFF SAS HDD	144 TB	12X12TB
Hot Plug SFF SATA HDD	52 TB	26X2TB
Hot Plug LFF SATA HDD	144 TB	12X12TB
Hot Plug SFF SAS SSD	100 TB	26X3.84 TB
Hot Plug SFF SATA SSD	100 TB	26X 3.84 TB
Hot Plug LFF SATA SSD	23.04 TB	12X1.92TB

Power Supply

HPE 500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit

NOTE: Available in 94% efficiency.

HPE Flexible Slot (Flex Slot) Power Supplies share a common electrical and physical design that allows for hot plug, tool-less installation into HPE ProLiant Gen10 Performance Servers. Flex Slot power supplies are certified for high-efficiency operation and offer multiple power output options, allowing users to "right-size" a power supply for specific server configurations. This flexibility helps to reduce power waste, lower overall energy costs, and avoid "trapped" power capacity in the data center.

All pre-configured servers ship with a standard 6-foot IEC C-13/C-14 jumper cord (A0K02A). This jumper cord is also included with each standard AC power supply option kit. If a different power cord is required, please check the **ProLiant Power Cables** web page.
To review the power requirements for your selected system, please use the **HPE Power Advisor Tool**.
For information on power specifications and technical content visit **HPE Server power supplies**.

Interfaces	
Video	1 rear – VGA Port (standard)
Network Ports	2 x 1 Gb ports shipping standard with optional Media Module, FlexibleLOM or stand up card
Management Network Port	1 Gb Dedicated
Front iLO Service Port	1 standard
Micro SD Slot	1 Micro SD **NOTE:** The Micro SD slot is not a hot-pluggable device. Customers should not attempt to plug an SD card into the SD slot while the server is powered.
USB 3.0	Up to 4 total: 1 front, 2 rear, 1 internal (secure),

Graphics

Integrated Video Standard

- Video modes up to 1920 x 1200@60Hz (32 bpp)
- 16MB Video Memory

HPE iLO 5 on system management memory

- 32 MB Flash
- 4 Gbit DDR 3 with ECC protection

Standard Features

Operating Systems and Virtualization Software Support for ProLiant Servers

- Windows Server 2019 (Certified)
- **Windows Server 2016**
- VMware vSphere 6.0 U3
- VMware vSphere 6.5 U3
- VMware vSphere 6.7 U3
- **Red Hat Enterprise Linux (RHEL) 7.6 (with Kbase)**
- **Red Hat Enterprise Linux (RHEL) 8.0**
- SUSE Linux Enterprise Server 12 SP4
- SUSE Linux Enterprise Server 15 SP1

Industry Standard Compliance

- ACPI 6.1 Compliant
- PCIe 3.0 Compliant
- WOL Support
- Microsoft® Logo certifications
- PXE Support
- USB 3.0 Compliant (internal)
- SMBIOS 3.1
- UEFI 2.6
- Redfish API
- IPMI 2.0
- Secure Digital 2.0
- Advanced Encryption Standard (AES)
- Triple Data Encrytion Standard (3DES)
- SNMP v3
- TLS 1.2
- DMTF Systems Management Architecture for Server Hardware Command Line Protocol (SMASH CLP)
- Active Directory v1.0
- ASHRAE A3/A4
  NOTE: For additional technical thermal details regarding ambient temperatures, humidity and features support please visit: **http://www.hpe.com/servers/ashrae**.
- UEFI (Unified Extensible Firmware Interface Forum)

HPE Server UEFI/Legacy ROM

Unified Extensible Firmware Interface (UEFI) is an industry standard that provides better manageability and more secured configuration than the legacy ROM while interacting with your server at boot time. HPE ProLiant Gen10 servers have a UEFI Class 2 implementation and support both UEFI Mode (default) and Legacy BIOS Mode.

NOTE: The UEFI System Utilities tool is analogous to the HPE ROM-Based Setup Utility (RBSU) of legacy BIOS. For more information, please visit **http://www.hpe.com/servers/uefi**.

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 > 2.2 TB (using GPT) boot drives
- USB 3.0 Stack
- Embedded UEFI Shell
- Mass Configuration Deployment Tool using iLO RESTful API that is Redfish API Conformant
- PXE boot support for IPv6 networks
- Workload Profiles for simple performance optimization

Standard Features

UEFI Boot Mode only:

- iSCSI Software Initiator Support.
- HTTP/HTTPs Boot support as a PXE alternative.

Boot support for option cards that only support a UEFI option ROM

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

NOTE: UEFI FIO Setting (758959-B22) can be selected to configure the system in Legacy mode in the factory for your HPE ProLiant Gen10 Server.

Embedded Management

HPE Integrated Lights-Out (HPE iLO)

Monitor your servers for ongoing management, service alerting, reporting and remote management with HPE iLO.
Learn more at **http://www.hpe.com/info/ilo**.

UEFI

Configure and boot your servers securely with industry standard Unified Extensible Firmware Interface (UEFI).
Learn more at **http://www.hpe.com/servers/uefi**.

Intelligent Provisioning

Hassle free server and OS provisioning for 1 or more servers with Intelligent Provisioning.
Learn more at**http://www.hpe.com/servers/intelligentprovisioning**.

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iLO RESTful API

iLO RESTful API is Redfish API conformance and offers simplified server management automation such as configuration and maintenance tasks based on modern industry standards. Learn more at **http://www.hpe.com/info/restfulapi**.

Server Utilities

Active Health System

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

Active Health System Viewer

Use the Active Health System Viewer, a web-based portal, to easily read AHS logs and speed problem resolution with HPE self-repair recommendations, to learn more visit: **http://www.hpe.com/servers/ahsv**.

Smart Update

Keep your servers up to date with the HPE Smart Update solution by using Smart Update Manager (SUM) to optimize the firmware and driver updates of the Service Pack for ProLiant (SPP). Learn more at **http://www.hpe.com/info/smartupdate.**

Service Pack for ProLiant

The Service Pack for ProLiant (SPP) is a comprehensive collection of server firmware, drivers, and system software tested as a single solution stack, which is delivered as a single ISO image. Learn more at **http://www.hpe.com/servers/spp**

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iLO Amplifier Pack

Designed for large enterprise and service provider environments with hundreds of HPE servers, the iLO Amplifier Pack is a free, downloadable open virtual application (OVA) that delivers the power to discover, inventory and update Gen8, Gen9 and Gen10 HPE servers at unmatched speed and scale. Use with an iLO Advanced License to unlock full capabilities.
Learn more at **http://www.hpe.com/servers/iLOamplifierpack**.

HPE iLO Mobile Application

Enables the ability to access, deploy, and manage your server anytime from anywhere from select smartphones and mobile devices. For additional information please visit: **http://www.hpe.com/info/ilo/mobileapp**.

Standard Features

RESTful Interface Tool
RESTful Interface tool (iLOREST) is a single scripting tool to provision using iLO RESTful API to discover and deploy servers at scale. Learn more at **http://www.hpe.com/info/resttool**.

Scripting Tools
Provision one to many servers using your own scripts to discover and deploy with Scripting Tool (STK) for Windows and Linux or Scripting Tools for Windows PowerShell. Learn more at **http://www.hpe.com/servers/powershell**.

HPE Systems Insight Manager (HPE SIM)
Ideal for environments already using HPE SIM, it allows you to monitor the health of your HPE ProLiant Servers and HPE Integrity Servers. Also provides you with basic support for non-HPE servers. HPE SIM also integrates with Smart Update Manager to provide quick and seamless firmware updates. Learn more at **http://www.hpe.com/info/hpesim**.

Security

- UEFI Secure Boot and Secure Start support
- Immutable Silicon Root of Trust
- FIPS 140-2 validation (iLO 5 certification in progress)
- Common Criteria certification (iLO 5 certification in progress)
- Configurable for PCI DSS compliance
- Advanced Encryption Standard (AES) and Triple Data Encryption Standard (3DES) on browser
- Support for Commercial National Security Algorithms (CNSA)
- Tamper-free updates – components digitally signed and verified
- Secure Recovery – recover critical firmware to known good state on detection of compromised firmware
- Ability to rollback firmware
- Secure erase of NAND/User data

Warranty
This product is covered by a global limited warranty and supported by HPE Services and a worldwide network of Hewlett Packard Enterprise Authorized Channel Partners resellers. Hardware diagnostic support and repair is available for three years from date of purchase. Support for software and initial setup is available for 90 days from date of purchase. Enhancements to warranty services are available through HPE Pointnext operational services or customized service agreements. Hard drives have either a one year or three year warranty; refer to the specific hard drive QuickSpecs for details.

NOTE: Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response. Warranty repairs may be accomplished through the use of Customer Self Repair (CSR) parts. These parts fall into two categories: 1) Mandatory CSR parts are designed for easy replacement. A travel and labor charge will result when customers decline to replace a Mandatory CSR part; 2) Optional CSR parts are also designed for easy replacement but may involve added complexity. Customers may choose to have Hewlett Packard Enterprise replace Optional CSR parts at no charge. Additional information regarding worldwide limited warranty and technical support is available at:
http://h17007.www1.hpe.com/us/en/enterprise/servers/warranty/.

Optional Features

Server Management

HPE Insight Cluster Management Utility (CMU)

HPE Insight Cluster Management Utility is a HyperScale management framework that includes software for the centralized provisioning, management and monitoring of nodes and infrastructure. Learn more at **http://www.hpe.com/info/cmu**.

Rack and Power Infrastructure

The story may end with servers, but it starts with the foundation that makes compute go – and business grow. We've reinvented our entire portfolio of rack and power products to make IT infrastructure more secure, more practical, and more efficient. In other words, we've created a stronger, smarter, and simpler infrastructure to help you get the most out of your IT equipment. As an industry leader, Hewlett Packard Enterprise is uniquely positioned to address the key concerns of power, cooling, cable management and system access.

HPE G2 Advanced and Enterprise Racks are perfect for the server room or today's modern data center with enhanced airflow and thermal management, flexible cable management, and a 10 year Warranty to support higher density computing.

HPE G2 PDUs offer reliable power in flexible form factors that operate at temperatures up to 60°, include color-coded outlets and load segments and a low-profile design for optimal access to the rack and support for dense rack environments.

HPE Uninterruptible Power Systems are cost-effective power protection for any type workload. Some UPSs include options for remote management and extended runtime modules so you're critical dense data center is covered in power outages.

HPE KVM Solutions include a console and switches designed to work with your server and IT equipment reliably. We've got a cost-effective KVM switch for your first rack and multiple connection IP switches with remote management and security capabilities to keep your data center rack up and running.

Learn more about HPE Racks, KVM, PDUs and UPSs at **HPE Rack and Power Infrastructure**.

Service and Support

HPE Pointnext - Services and Support

Achieve maximum return from your IT investment
Get the expertise you need at every step of the IT journey with HPE Pointnext services. We help you lower your risks and costs using proven best practices, automation and methodologies that have been tested and refined by of Hewlett Packard Enterprise experts through thousands of implementations and deployments globally.

HPE Pointnext Services specializes in flawless and on-time implementation, on-budget execution, and creative configurations that get the most out of software and hardware alike. We collaborate with your IT team from technical design to implementation, build to migration, distribution, and finally to operational consulting and service.

- Integration and performance services provide resources to help you get your systems up and running quickly and augment your IT staff for projects.
- HPE Foundation Care provides fast problem resolution with comprehensive coverage and access to experts.
- HPE Proactive Care provides proactive problem prevention and an enhanced support experience for your systems.

Consume IT services on your terms, getting the specific value that you need for your business. HPE GreenLake enables you to scale easily by adding capacity in minutes, not months. You pay only for what you actually need, creating true pay-per-use outcomes. Simplify your IT planning, capacity forecasting, and cost allocation with HPE GreenLake.
Learn more about **HPE Pointnext** Services for your business.

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

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

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

HPE Support Center
The HPE Support Center is a personalized online support portal with access to information, tools and experts to support HPE business products. Submit support cases online, chat with Hewlett Packard Enterprise experts, access support resources or collaborate with peers. Learn more **http://www.hpe.com/support/hpesc**
The HPE Support Center Mobile App* allows you to resolve issues yourself or quickly connect to an agent for live support. Now, you can get access to personalized IT support anywhere, anytime.

HPE Insight Remote Support and HPE Support Center are available at no additional cost with a HPE warranty, HPE Support Service or HPE contractual support agreement.
NOTE: *HPE Support Center Mobile App is subject to local availability.
For more information: **http://www.hpe.com/services**

Service and Support

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

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

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

Configuration Information

SMB offering - Base Configuration (choose one of the following)

NOTE: These SKUs are not currently available in all countries (except China and Japan). Please contact your local sales representative for additional information

SMB Models - SFF		
SKU Number	879513-B21	879514-B21
Model Name	HPE ProLiant DL180 Gen10 3106 1.7GHz 8-core 1P 16GB-R S100i 8SFF 1x500W PS Server	HPE ProLiant DL180 Gen10 4110 2.1GHz 8-core 1P 16GB-R S100i 8SFF 1x500W PS Server
Chassis	8SFF	
Processor	3106 (1.7GHz/8-core/85W)	4110 (2.1GHz/8-core/85W)
Number of Processors	One processor with Standard heatsink	One processor with Standard heatsink
Memory	HPE 16GB 1Rx4 PC4-2666V-R Smart Kit	HPE 16GB 1Rx4 PC4-2666V-R Smart Kit
Network Controller	Embedded 2-Port 1GbE	Embedded 2-Port 1GbE
Storage Controller	Embedded 14Port S100i **NOTE:** SATA only	Embedded 14Port S100i **NOTE:** SATA only
Hard Drive	None included	None included
Optical Drive	None included	None included
PCIe Slots	3 Standard in Primary Riser	
Power Supply	1X500 Hot Plug	1X500 Hot Plug
Fans	4 Fans	4 Fans
Management	HPE iLO5	HPE iLO5
Rail Kit	SFF Easy Install	SFF Easy Install
Form Factor	2U Rack	
Warranty	3-year parts, 3-year labor, 3-year onsite support with next business day response	

NOTE: UEFI is the standard default for all SMB models

Configuration Information

SMB Model - LFF	
SKU Number	879512-B21
Model Name	HPE ProLiant DL180 Gen10 4110 2.1GHz 8-core 1P 16GB-R S100i 8LFF 1x500W
Chassis	8LFF
Processor	4110 (2.1GHz/8-core/85W)
Number of Processors	One processor with Standard heatsink
Memory	HPE 16GB 1Rx4 PC4-2666V-R Smart Kit
Network Controller	Embedded 2-Port 1GbE
Storage Controller	Embedded 14Port S100i **NOTE:** SATA
Hard Drive	None included
Optical Drive	None included
PCIe Slots	3 Standard in Primary Riser start
Power Supply	1X500 Hot Plug
Fans	4 Fans
Management	HPE iLO5
Rail Kit	SFF Easy Install
Form Factor	2U Rack
Warranty	3-year parts, 3-year labor, 3-year onsite support with next business day response

NOTE: UEFI is the standard default for all SMB models

Powered by 2nd Generation Intel Xeon Processors	
Pre-configured Models – 8LFF	
SKU Number	P19562-B21
Model Name	HPE ProLiant DL180 Gen10 3204 1.9GHz 6-core 1P 16GB-R S100i 8LFF 500W RPS Server
Chassis	8LFF
Processor	3204 (1.9GHz/6-core/85W)
Number of Processors	One processor with Standard heatsink
Memory	HPE 16GB 1Rx4 PC4-2933Y-R Smart Kit
Network Controller	Embedded 2-Port 1GbE
Storage Controller	Embedded 14Port S100i **NOTE:** SATA only
Hard Drive	None included
Optical Drive	Included
PCIe Slots	3 Standard in Primary Riser
Power Supply	1X500 Hot Plug
Fans	4 Fans
Management	HPE iLO5, Infosight
Rail Kit	SFF Easy Install
Form Factor	2U Rack
Warranty	3-year parts, 3-year labor, 3-year onsite support with next business day response

NOTE: UEFI is the standard default for all SMB models

Configuration Information

SMB Model – 12 LFF	
SKU Number	P19563-B21
Model Name	HPE ProLiant DL180 Gen10 4208 2.1GHz 8-core 1P 16GB-R S100i 12LFF 500W RPS Server
Chassis	12LFF
Processor	4208 (2.1GHz/8-core/85W)
Number of Processors	One processor with Standard heatsink
Memory	HPE 16GB 1Rx4 PC4-2933Y-R Smart Kit
Network Controller	Embedded 2-Port 1GbE
Storage Controller	Embedded 14Port S100i **NOTE:** SATA
Hard Drive	None included
Optical Drive	Included – need to change
PCIe Slots	3 Standard in Primary Riser
Power Supply	1X500 Hot Plug
Fans	4 Fans
Management	HPE iLO5, Infosight
Rail Kit	SFF Easy Install
Form Factor	2U Rack
Warranty	3-year parts, 3-year labor, 3-year onsite support with next business day response

NOTE: UEFI is the standard default for all SMB models

SMB Model - 8SFF	
SKU Number	P19564-B21
Model Name	HPE ProLiant DL180 Gen10 4208 2.1GHz 8-core 1P 16GB-R S100i 8SFF 500W RPS Server
Chassis	8SFF
Processor	4208 (2.1GHz/8-core/85W)
Number of Processors	One processor with Standard heatsink
Memory	HPE 16GB 1Rx4 PC4-2933Y-R Smart Kit
Network Controller	Embedded 2-Port 1GbE
Storage Controller	Embedded 14Port S100i **NOTE:** SATA only
Hard Drive	None included
Optical Drive	Included –(866951-B21) HPE DL180 Gen10 SFF Optical Drive Enablement Kit
PCIe Slots	3 Standard in Primary Riser
Power Supply	1X500 Hot Plug
Fans	4 Fans
Management	HPE iLO5, Infosight
Rail Kit	SFF Easy Install
Form Factor	2U Rack
Warranty	3-year parts, 3-year labor, 3-year onsite support with next business day response

NOTE: UEFI is the standard default for all SMB models

Configuration Information

Configuration Information - Factory Integrated Models

This section lists some of the steps required to configure a Factory Integrated Model. To ensure only valid configurations are ordered, Hewlett Packard Enterprise recommends the use of an HPE approved configurator. Contact your local sales representative for information on configurable product offerings and requirements.

1. Factory Integrated Models must start with a CTO Server.
2. FIO indicates that this option is only available as a factory installable option.
3. All Factory Integrated Models will be populated with sufficient hard drive blanks based on the number of initial hard drives ordered with the server.
4. Some options may not be integrated at the factory. Contact your local sales representative for additional information.

Step 1: Base Configuration (choose one of the following configurable models)

CTO Server	**HPE DL180 Gen10 8SFF CTO Server**	**HPE DL180 Gen10 8LFF CTO Server**	**HPE DL180 Gen10 12LFF CTO Server**
SKU Number	879517-B21	879515-B21	879516-B21
Processor	Not included as standard	Not included as standard	Not included as standard
DIMM Slots	16-DIMM Slots	16-DIMM Slots	16-DIMM Slots
Storage Controller	Embedded 14Port S100i	Embedded 14Port S100i	Embedded 14Port S100i
PCIe	Three standard in primary riser	Three standard in primary riser	Three standard in primary riser
Drive Cage – included	8SFF	8LFF	12LFF
Network Controller	HPE Ethernet 1Gb 4-port 331T Adapter	HPE Ethernet 1Gb 4-port 331T Adapter	HPE Ethernet 1Gb 4-port 331T Adapter
Fans	4 Fans	4 Fans	4 Fans
Management	HPE iLO with Intelligent Provisioning (standard), iLO Advanced and OneView		
USB	4 (1 front, 2 rear, 1 internal)	4 (1 front, 2 rear, 1 internal)	4 (1 front, 2 rear, 1 internal)

CTO Server	**HPE DL180 Gen10 8SFF CTO Server**	**HPE DL180 Gen10 8LFF CTO Server**	**HPE DL180 Gen10 12LFF CTO Server**
Included Drive Cage	8 SFF	8LFF	12 LFF
Additional drive cages	16—24 SFF SAS/SATA		8—12 LFF SAS/SATA
Universal Media Bay			
ODD - 2SFF Rear	Optional	Optional	Optional

Step 2a: Choose Required Options - Processors (only one of the following unless otherwise noted)

Please select one -L21 processor required below.

For second processor, please select the same processor model with -B21 from Core Options - HPE Processors section.

For example: first processor, select P12006-L21 then for second processor, select P12006-B21.

NOTE: 8SFF CTO 1P models ship with 4 standard fans. The second processor option kit contains 2 additional fans.

NOTE: Maximum memory capacity per processor is dependent on processor models.

NOTE: Mixing of 2 different processor models are NOT allowed.

NOTE: Processors with 130W or higher will ship with the High Performance heat sink. All other processors will ship with the Standard heat sink.

Processor Option Kits (Required Processor)	**SKU**
2nd Generation Intel Xeon Processor	
HPE DL180 Gen10 Intel Xeon-Platinum 8256 (3.8GHz/4-core/105W) FIO Processor Kit	P12007-L21
HPE DL180 Gen10 Intel Xeon-Platinum 8253 (2.2GHz/16-core/125W) FIO Processor Kit	P12006-L21
HPE DL180 Gen10 Intel Xeon-Gold 6210U (2.5GHz/20-core/150W) FIO Processor Kit	P11163-L21

NOTE: 2-processor configurations NOT supported with this processor; secondary and tertiary risers not supported

Configuration Information

HPE DL180 Gen10 Intel Xeon-Gold 6209U (2.1GHz/20-core/125W) FIO Processor Kit	P11162-L21

NOTE: 2-processor configurations NOT supported with this processor; secondary and tertiary risers not supported

HPE DL180 Gen10 Intel Xeon-Gold 6252 (2.1GHz/24-core/150W) FIO Processor Kit	P11161-L21
HPE DL180 Gen10 Intel Xeon-Gold 6248 (2.5GHz/20-core/150W) FIO Processor Kit	P11160-L21
HPE DL180 Gen10 Intel Xeon-Gold 6244 (3.6GHz/8-core/150W) FIO Processor Kit	P11159-L21

NOTE: Enhanced cooling function to be enabled for Intel xeon Gold 6244 processors

HPE DL180 Gen10 Intel Xeon-Gold 6242 (2.8GHz/16-core/150W) FIO Processor Kit	P11158-L21
HPE DL180 Gen10 Intel Xeon-Gold 6240 (2.6GHz/18-core/150W) FIO Processor Kit	P11157-L21
HPE DL180 Gen10 Intel Xeon-Gold 6238 (2.1GHz/22-core/140W) FIO Processor Kit	P11167-L21
HPE DL180 Gen10 Intel Xeon-Gold 6234 (3.3GHz/8-core/130W) FIO Processor Kit	P11166-L21
HPE DL180 Gen10 Intel Xeon-Gold 6230 (2.1GHz/20-core/125W) FIO Processor Kit	P11156-L21
HPE DL180 Gen10 Intel Xeon-Gold 6226 (2.7GHz/12-core/125W) FIO Processor Kit	P11165-L21
HPE DL180 Gen10 Intel Xeon-Gold 5222 (3.8GHz/4-core/105W) FIO Processor Kit	P11164-L21
HPE DL180 Gen10 Intel Xeon-Gold 5220 (2.2GHz/18-core/125W) FIO Processor Kit	P11155-L21
HPE DL180 Gen10 Intel Xeon-Gold 5218 (2.3GHz/16-core/125W) FIO Processor Kit	P11154-L21
HPE DL180 Gen10 Intel Xeon-Gold 5217 (3.0GHz/8-core/115W) FIO Processor Kit	P11153-L21
HPE DL180 Gen10 Intel Xeon-Gold 5215 (2.5GHz/10-core/85W) FIO Processor Kit	P11152-L21
HPE DL180 Gen10 Intel Xeon-Silver 4216 (2.1GHz/16-core/100W) FIO Processor Kit	P11151-L21
HPE DL180 Gen10 Intel Xeon-Silver 4215 (2.5GHz/8-core/85W) FIO Processor Kit	P11150-L21
HPE DL180 Gen10 Intel Xeon-Silver 4214 (2.2GHz/12-core/85W) FIO Processor Kit	P11149-L21
HPE DL180 Gen10 Intel Xeon-Silver 4210 (2.2GHz/10-core/85W) FIO Processor Kit	P11148-L21
HPE DL180 Gen10 Intel Xeon-Silver 4208 (2.1GHz/8-core/85W) FIO Processor Kit	P11147-L21
HPE DL180 Gen10 Intel Xeon-Bronze 3204 (1.9GHz/6-core/85W) FIO Processor Kit	P11146-L21

Step 2b: Choose Memory Options

Please select one or more memory from below.

For new Gen10 memory population rule whitepaper and optimal memory performance guidelines, please go to: **https://www.hpe.com/docs/memory-population-rules**

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

For memory Reliability, Accessibility, Serviceability (RAS) features whitepaper like Gen10 Fast Fault Tolerance and legacy mirrored memory feature etc. please go to**: http://www.hpe.com/docs/memory-ras-feature**

NOTE: The maximum memory speed and capacity is a function of the memory type, memory configuration, and processor model.

NOTE: DDR4-2933 Memory Kits are only supported with 2nd Generation Intel Xeon Scalable Series Processors and DDR4-2666 Memory Kits are only supported with 1st Generation Intel Xeon Scalable Series Processors.

Registered DIMMs (RDIMMMs)

HPE 8GB (1x8GB) Single Rank x8 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit	815097-B21
HPE 8GB (1x8GB) Single Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P00918-B21
HPE 16GB (1x16GB) Single Rank x4 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit	815098-B21
HPE 16GB (1x16GB) Single Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P00920-B21
HPE 16GB (1x16GB) Dual Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P00922-B21
HPE 32GB (1x32GB) Dual Rank x4 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit	815100-B21
HPE 32GB (1x32GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P00924-B21
HPE 64GB (1x64GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P00930-B21

Configuration Information

Load Reduced DIMMs (LRDIMMs)

HPE 64GB (1x64GB) Quad Rank x4 DDR4-2933 CAS-21-21-21 Load Reduced Smart Memory Kit	P00926-B21

NOTE: Memory DIMM availability with a server platform is dependent upon completion of certification testing. .
NOTE: The maximum memory speed is a function of the memory type, memory configuration, and processor model.
NOTE: Mixing of RDIMM and LRDIMM is not supported

Select one or two power supplies from below.

NOTE: Mixing of 2 different power supplies is NOT allowed.

HPE 500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	865408-B21
HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit	865438-B21
HPE 800W Flex Slot Universal Hot Plug Low Halogen Power Supply Kit	865428-B21
HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	865414-B21
HPE 800W Flex Slot -48VDC Hot Plug Low Halogen Power Supply Kit	865434-B21
HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	830272-B21

NOTE: RPS enablement kit is required (866442-B21) for the Flex slot Power Supplies.

HPE C13 - Nema 5-15P US/CA 110V 10Amp 1.83m Power Cord	AF556A

Step 3: Choose Additional Factory Integratable Options

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

HPE Security Options

HPE Gen10 Chassis Intrusion Detection Kit	867824-B21
HPE Bezel Lock Kit	875519-B21
HPE TPM 2.0 Gen10 Kit	864279-B21
HPE Gen10 2U Bezel Kit	867809-B21

HPE Unique Options Risers

HPE DL180 Gen10 CPU1 x8x8x8 PCIe Riser Kit	878484-B21
HPE DL180 Gen10 CPU2 x8/x8/x8 PCIe Riser Kit	866945-B21
HPE DL180 Gen10 CPU1 FlexibleLOM Riser Kit	866941-B21
HPE DL180 Gen10 CPU1 x16/x8 PCIe Riser Kit	866939-B21
HPE DL160/180 Gen10 Redundant Power Supply Enablement Kit	866442-B21
HPE Rear Serial Port and Enablement Kit	764646-B21
HPE DL180 Gen10 SFF Optical Drive Enablement Kit	866951-B21

HPE Unique Options

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

HPE DL180 Gen10 8 to 16SFF Smart Array S100i/E208i-p/P408i-p FIO Cable Kit	875154-B21

NOTE: This is a factory integrated only option.
NOTE: This will be used to connect Box2 to Smart Array S100i/E208i-p/P408i-p

HPE DL180 Gen10 8 to 16SFF Smart Array E208i-a/P408i-a SAS FIO Cable Kit	875156-B21

NOTE: This is a factory integrated only option.
NOTE: This will be used to connect Box2 to Smart Array E208i-a/P408i-a

HPE DL180 Gen10 16 to 24SFF Smart Array S100i/E208i-p/P408i-p FIO Cable Kit	875160-B21

NOTE: This is a factory integrated only option.
NOTE: This will be used to connect Box1 to Smart Array S100i/E208i-p/P408i-p

Configuration Information

HPE DL180 Gen10 16 to 24SFF Smart Array E208i-a/P408i-a SAS FIO Cable Kit **NOTE:** This is a factory integrated only option. **NOTE:** This will be used to connect Box1 to Smart Array E208i-a/P408i-a	875162-B21
HPE DL180 Gen10 LFF Smart Array S100i/E208i-p/P408i-p FIO Cable Kit **NOTE:** This is a factory integrated only option. **NOTE:** This will be used to connect to Smart Array S100i/E208i-p/P408i-p	875170-B21
HPE DL180 Gen10 LFF Smart Array E208i-a/P408i-a SAS FIO Cable Kit **NOTE:** This is a factory integrated only option. **NOTE:** This will be used to connect to Smart Array E208i-a/P408i-a	875172-B21
HPE DL180 Gen10 Rear 2SFF to Smart Array S100i/E208i-p/P408i-p FIO Cable Kit **NOTE:** This is a factory integrated only option. **NOTE:** This will be used to connect the rear 2SFF to Smart Array E208i-p/P408i-p	879410-B21
HPE DL180 Gen10 Rear 2SFF to Smart Array E208i-a/P408i-a SAS FIO Cable Kit **NOTE:** This is a factory integrated only option. **NOTE:** This will be used to connect the rear 2SFF to Smart Array E208i-a/P408i-a	875181-B21
HPE DL180 Gen10 Rear 2SFF to Smart Array S100i SATA FIO Cable Kit **NOTE:** This is a factory integrated only option. **NOTE:** This will be used to connect the rear 2SFF to Smart Array S100i	875183-B21
HPE DL180 Gen10 SFF Box3 to Smart Array S100i/E208i-p/P408i-p FIO Cable Kit **NOTE:** This is a factory integrated only option. **NOTE:** This will be used to connect the default Box3 in 8SFF Chassis to Smart Array S100i/E208i-p/P408i-p	879752-B21
HPE DL180 Gen10 SFF Box3 to Smart Array E208i-a/P408i-a SAS FIO Cable Kit **NOTE:** This is a factory integrated only option. **NOTE:** This will be used to connect the default Box3 in 8SFF Chassis to Smart Array E208i-a/P408i-a	879754-B21
HPE DL180 Gen10 8 to 16SFF FIO Upgrade Kit **NOTE:** This is a factory integrated only option. **NOTE:** This will be used to upgrade the server from 8SFF to 16SFF	875151-B21
HPE DL180 Gen10 16 to 24SFF FIO Upgrade Kit **NOTE:** This is a factory integrated only option. **NOTE:** This will be used to upgrade the server from 16SFF to 24SFF	875158-B21
HPE DL180 Gen10 Rear 2SFF FIO Enablement Kit **NOTE:** This is a factory integrated only option. **NOTE:** This will be used to enable 2SFF drive in the rear	875176-B21
HPE DL180 Gen10 Rear 2SFF to SAS Expander FIO Cable Kit **NOTE:** This is a factory integrated only option. **NOTE:** This will be used to connect SAS Expander to the rear 2SFF	875179-B21
HPE DL180 Gen10 12Gb SFF SAS Expander Card FIO Kit with Cables **NOTE:** This is a factory integrated only option. **NOTE:** This will be used to connect more than 8 drives to a single controller **NOTE:** This option comes with the necessary cables to connect to the corresponding controller and to the drive backplane **NOTE:** This can be used only on 8SFF CTO model (879517-B21)	875132-B21

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

Core Options

HPE Processors	
HPE DL180 Gen10 8 to 16SFF Upgrade Kit	866957-B21
HPE DL180 Gen10 Rear 2SFF Enablement Kit	866961-B21
HPE DL180 Gen10 SFF Optical Drive Enablement Kit	866951-B21
HPE DL180 Gen10 8 to 12LFF Upgrade Kit	866963-B21
HPE DL180 Gen10 16 to 24SFF Upgrade Kit	875144-B21
HPE Processors	
Second Generation Processor Options Kits	
HPE DL180 Gen10 Intel Xeon-Platinum 8256 (3.8GHz/4-core/105W) Processor Kit	P12007-B21
HPE DL180 Gen10 Intel Xeon-Platinum 8253 (2.2GHz/16-core/125W) Processor Kit	P12006-B21
HPE DL180 Gen10 Intel Xeon-Gold 6252 (2.1GHz/24-core/150W) Processor Kit	P11161-B21
HPE DL180 Gen10 Intel Xeon-Gold 6248 (2.5GHz/20-core/150W) Processor Kit	P11160-B21
HPE DL180 Gen10 Intel Xeon-Gold 6244 (3.6GHz/8-core/150W) Processor Kit	P11159-B21
NOTE: Enhanced cooling function to be enabled for Intel xeon Gold 6244 processors	
HPE DL180 Gen10 Intel Xeon-Gold 6242 (2.8GHz/16-core/150W) Processor Kit	P11158-B21
HPE DL180 Gen10 Intel Xeon-Gold 6240 (2.6GHz/18-core/150W) Processor Kit	P11157-B21
HPE DL180 Gen10 Intel Xeon-Gold 6209U (2.1GHz/20-core/125W) Processor Kit	P11162-B21
NOTE: 2-processor configurations NOT supported with this processor; secondary and tertiary risers not supported	
HPE DL180 Gen10 Intel Xeon-Gold 6210U (2.5GHz/20-core/150W) Processor Kit	P11163-B21
NOTE: 2-processor configurations NOT supported with this processor; secondary and tertiary risers not supported	
HPE DL180 Gen10 Intel Xeon-Gold 6238 (2.1GHz/22-core/140W) Processor Kit	P11167-B21
HPE DL180 Gen10 Intel Xeon-Gold 6234 (3.3GHz/8-core/130W) Processor Kit	P11166-B21
HPE DL180 Gen10 Intel Xeon-Gold 6230 (2.1GHz/20-core/125W) Processor Kit	P11156-B21
HPE DL180 Gen10 Intel Xeon-Gold 6226 (2.7GHz/12-core/125W) Processor Kit	P11165-B21
HPE DL180 Gen10 Intel Xeon-Gold 5222 (3.8GHz/4-core/105W) Processor Kit	P11164-B21
HPE DL180 Gen10 Intel Xeon-Gold 5220 (2.2GHz/18-core/125W) Processor Kit	P11155-B21
HPE DL180 Gen10 Intel Xeon-Gold 5218 (2.3GHz/16-core/125W) Processor Kit	P11154-B21
HPE DL180 Gen10 Intel Xeon-Gold 5217 (3.0GHz/8-core/115W) Processor Kit	P11153-B21
HPE DL180 Gen10 Intel Xeon-Gold 5215 (2.5GHz/10-core/85W) Processor Kit	P11152-B21
HPE DL180 Gen10 Intel Xeon-Silver 4216 (2.1GHz/16-core/100W) Processor Kit	P11151-B21
HPE DL180 Gen10 Intel Xeon-Silver 4215 (2.5GHz/8-core/85W) Processor Kit	P11150-B21
HPE DL180 Gen10 Intel Xeon-Silver 4214 (2.2GHz/12-core/85W) Processor Kit	P11149-B21
HPE DL180 Gen10 Intel Xeon-Silver 4210 (2.2GHz/10-core/85W) Processor Kit	P11148-B21
HPE DL180 Gen10 Intel Xeon-Silver 4208 (2.1GHz/8-core/85W) Processor Kit	P11147-B21
HPE DL180 Gen10 Intel Xeon-Bronze 3204 (1.9GHz/6-core/85W) Processor Kit	P11146-B21
First Generation Processor Option Kits	
HPE DL180 Gen10 Intel Xeon-Silver 4110 (2.1GHz/8-core/85W) Processor Kit	879731-B21
HPE DL180 Gen10 Intel Xeon-Bronze 3106 (1.7GHz/8-core/85W) Processor Kit	879729-B21

NOTE: Up to two processors supported.

NOTE: Turbo2: Intel® Turbo Boost Technology 2.0 provides more computing power when you need it with performance that adapts to spikes in your workload and delivers more performance upside than then previous generation turbo technology.

NOTE: DDR4 speed is the maximum memory speed of the processor. Actual memory speed may depend on the quantity and type of DIMMs installed.

Core Options

Memory Selection

To streamline the configuration process for HPE ProLiant Gen10 servers and to provide the best product availability, HPE recommends memory from the list located here: **http://www.hpe.com/products/recommend**.
Best product availability is limited to US, Canada, and Latin America at this time.

HPE SmartMemory

Registered DIMMs (RDIMMMs)

HPE 8GB (1x8GB) Single Rank x8 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit	815097-B21
HPE 8GB (1x8GB) Single Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P00918-B21
HPE 16GB (1x16GB) Single Rank x4 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit	815098-B21
HPE 16GB (1x16GB) Single Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P00920-B21
HPE 16GB (1x16GB) Dual Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P00922-B21
HPE 32GB (1x32GB) Dual Rank x4 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit	815100-B21
HPE 32GB (1x32GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P00924-B21
HPE 64GB (1x64GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P00930-B21

Load Reduced DIMMs (LRDIMMs)

HPE 64GB (1x64GB) Quad Rank x4 DDR4-2933 CAS-21-21-21 Load Reduced Smart Memory Kit	P00926-B21

NOTE: Memory DIMM availability with a server platform is dependent upon completion of certification testing.
NOTE: The maximum memory speed is a function of the memory type, memory configuration, and processor model.
NOTE: Mixing of RDIMM and LRDIMM is not supported.

HPE Optical Drives

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

NOTE: HPE DL180 Gen10 SFF ODD Enablement Kit (866951-B21) is required for this option on a SFF model.

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

NOTE: HPE DL180 Gen10 SFF ODD Enablement Kit (866951-B21) is required for this option on a SFF model.

HPE Mobile USB DVD-RW Optical Drive	701498-B21

HPE Drives

Enterprise - 12G SAS - SFF Drives

SAS 15K SFF SC HDD

HPE 900GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	870759-B21
HPE 600GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	870757-B21
HPE 300GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	870753-B21

SAS 10K SFF SC HDD

HPE 1.2TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	872479-B21
HPE 600GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	872477-B21
HPE 300GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	872475-B21

SAS ENT SFF SC 512e HDD

HPE 2.4TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty 512e Digitally Signed Firmware HDD	881457-B21
HPE 1.8TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty 512e Digitally Signed Firmware HDD	872481-B21

SAS ML SFF SC 512e HDD

HPE 2TB SAS 12G Midline 7.2K SFF (2.5in) SC 1yr Wty 512e Digitally Signed Firmware HDD	765466-B21

SAS LFF LPC HDD

HPE 900GB SAS 12G Enterprise 15K LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware HDD	870761-B21

SAS SFF SC HDD

HPE 1TB SAS 12G Midline 7.2K SFF (2.5in) SC 1yr Wty Digitally Signed Firmware HDD	832514-B21

Core Options

SAS LFF LP He 512e HDD	
HPE 12TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty Helium 512e Digitally Signed Firmware HDD	881781-B21
SAS LFF LP HDD	
HPE 4TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware HDD	833928-B21
HPE 2TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware HDD	833926-B21
SAS LFF LP 512e HDD	
HPE 8TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty 512e Digitally Signed Firmware HDD	834031-B21
HPE 6TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty 512e Digitally Signed Firmware HDD	861746-B21
SATA SFF SC 512e HDD	
HPE 2TB SATA 6G Midline 7.2K SFF (2.5in) SC 1yr Wty 512e Digitally Signed Firmware HDD	765455-B21
SATA SFF SC HDD	
HPE 1TB SATA 6G Midline 7.2K SFF (2.5in) SC 1yr Wty Digitally Signed Firmware HDD	655710-B21
SATA LFF LP HDD	
HPE 4TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware HDD	861683-B21
HPE 2TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware HDD	861681-B21
HPE 1TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware HDD	861686-B21
SATA LFF LP He 512e HDD	
HPE 12TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty Helium 512e Digitally Signed Firmware HDD	881787-B21
SATA LFF LP 512e HDD	
HPE 8TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty 512e Digitally Signed Firmware HDD	834028-B21
HPE 6TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty 512e Digitally Signed Firmware HDD	861742-B21
HDD Blank Kit	
HPE Small Form Factor Hard Drive Blank Kit	666987-B21
HPE Gen9 LFF HDD Spade Blank Kit	807878-B21
HPE 1.2TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	872479-B21
HPE 600GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	872477-B21
HPE 300GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	872475-B21
Midline – 6G SAS – LFF Drives	
HPE 4TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware HDD	861683-B21
HPE 2TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware HDD	861681-B21
HPE 1TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware HDD	861686-B21
Midline – 6G SATA – LFF Drives	
HPE 4TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware HDD	833928-B21
HPE 2TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware HDD	833926-B21

SSD Selection

To streamline the configuration process for HPE ProLiant Gen10 servers and to provide the best product availability, HPE recommends SSDs from the list located here: **http://www.hpe.com/products/recommend**.

Best product availability is limited to US, Canada, and Latin America at this time.

To further assist with configuration, HPE also offers an SSD Selector Tool located here: **http://ssd.hpe.com**.

SAS - Mixed Use - SFF - Solid State Drives	
HPE 400GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04525-B21
SATA - Mixed Use - SFF - Solid State Drives	
HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P07922-B21
SAS SFF RI SC VS SSD	
HPE 3.84TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Value SAS Digitally Signed Firmware SSD	P10444-B21
HPE 1.92TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Value SAS Digitally Signed Firmware SSD	P10442-B21
HPE 960GB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Value SAS Digitally Signed Firmware SSD	P10440-B21

Core Options

SAS SFF RI SC SSD	
HPE 1.92TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04519-B21
HPE 1.92TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P06586-B21
HPE 960GB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04517-B21
HPE 960GB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P06584-B21
SAS MU SFF SC SSD	
HPE 800GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04527-B21
HPE 400GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04525-B21
SAS SFF WI SC SSD	
HPE 800GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04543-B21
HPE 400GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04541-B21
SAS 12G MU SFF SC SSD	
HPE 800GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P09090-B21
HPE 400GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P09088-B21
SAS 12G MU SFF SC Value SAS SSD	
HPE 3.84TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Value SAS Digitally Signed Firmware SSD	P10460-B21
HPE 1.92TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Value SAS Digitally Signed Firmware SSD	P10454-B21
HPE 960GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Value SAS Digitally Signed Firmware SSD	P10448-B21
SATA MU SFF SC SSD	
HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P07930-B21
HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P09722-B21
HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P05986-B21
HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P09716-B21
HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P05980-B21
HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P05976-B21
HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P09712-B21
SATA RI SFF SC SSD	
HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P05932-B21
HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P05928-B21
HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P05924-B21
SATA MU SFF SC SSD	
HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P07926-B21
HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P07922-B21
SATA RI SFF SC SSD	
HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P05946-B21
HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P05938-B21
HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04560-B21
HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	875503-B21
SATA MU LFF LPC SSD	
HPE 1.92TB SATA 6G Mixed Use LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD	P09726-B21
SATA 6G RI M.2 DS SSD	
HPE 960GB SATA 6G Read Intensive M.2 2280 3yr Wty Digitally Signed Firmware SSD	875500-B21
HPE 480GB SATA 6G Read Intensive M.2 2280 3yr Wty Digitally Signed Firmware SSD	875498-B21

NOTE: HPE Universal SATA HHHL 3yr Wty M.2 Kit- 878783-B21" and "HPE DL180 Gen10 M.2 Cable Kit- 866456-B21" with M.2.

Core Options

SATA 6G MU M.2 DS SSD

HPE 960GB SATA 6G Mixed Use M.2 2280 3yr Wty Digitally Signed Firmware SSD	875492-B21
HPE 480GB SATA 6G Mixed Use M.2 2280 3yr Wty Digitally Signed Firmware SSD	875490-B21
HPE 240GB SATA 6G Mixed Use M.2 2280 3yr Wty Digitally Signed Firmware SSD	875488-B21

NOTE: Must also select "HPE Universal SATA HHHL 3yr Wty M.2 Kit- 878783-B21" and "HPE DL180 Gen10 M.2 Cable Kit-866456-B21" with M.2.

M.2 Enablement Kit and Cables

HPE DL180 Gen10 M.2 SATA Cable Kit	875135-B21

NOTE: This cable kit is required to connect to S100i SATA controller.

SATA M.2 Kit

HPE Universal SATA HHHL 3yr Wty M.2 Kit	878783-B21

NOTE: Each Universal SATA M.2 Kit can accommodate upto two M.2 SSDs. Both M.2 SSDs should be of the same type and capacity. Mixing of M.2 SSDs is not allowed.
NOTE: M.2 drives go in the Universal SATA M.2 Kit and use S100i SATA controller only.
NOTE: M.2 supports Software RAID only.

HPE Networking

1 Gigabit Ethernet adapters

HPE Ethernet 1Gb 4-port 331T Adapter	647594-B21
HPE Ethernet 1Gb 4-port 366T Adapter	811546-B21

NOTE: Max 1 per system. Can only be installed in Slot 1

HPE Ethernet 1Gb 2-port 361T Adapter	652497-B21
HPE Ethernet 1Gb 2-port 332T Adapter	615732-B21

10 Gigabit Ethernet adapters

HPE Ethernet 10Gb 2-port 521T Adapter	867707-B21

NOTE: Max 1 per system

HPE Ethernet 10Gb 2-port 530T Adapter	656596-B21
HPE Ethernet 10Gb 2-port 530SFP Adapter	652503-B21
HPE Ethernet 10Gb 2-port 535T Adapter	813661-B21
HPE Ethernet 10Gb 2-port 562SFP+ Adapter	727055-B21
HPE Ethernet 10Gb 2-port 562T Adapter	817738-B21

25 Gigabit Ethernet adapters

HPE Ethernet 10/25Gb 2-port 621SFP28 Adapter	867328-B21
HPE Ethernet 10/25Gb 2-port 631SFP28 Adapter	817718-B21
HPE Ethernet 10/25Gb 2-port 640SFP28 Adapter	817753-B21

40 Gigabit Ethernet adapters

HPE InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+FLR-QSFP Adapter	764285-B21
HPE InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+QSFP Adapter	764284-B21

NOTE: The DL180 Gen10 ships with 2x 1 Gb Embedded Network controller.
NOTE: A minimum of two Gigabytes (2 GB) of server memory is required per each adapter.
NOTE: Direct Attach Cable (DAC) for copper environments or fiber transceivers and cables for fiber-optic environments must be purchased separately. Please see the related NIC QuickSpecs for Technical Specifications and additional information:
https://www.hpe.com/us/en/product-catalog/servers/adapters/pip.models.hpe-storefabric-converged-network-adapters.4118472.html

FlexibleLOM adapters

HPE Ethernet 1Gb 4-port 366FLR Adapter	665240-B21
HPE Ethernet 1Gb 2-port 368FLR-T Media Module Adapter	866464-B21
HPE FlexFabric 10Gb 2-port 533FLR-T Adapter	700759-B21

Core Options

FlexibleLOM adapters

HPE FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter	700751-B21
HPE Ethernet 10Gb 2-port 535FLR-T Adapter	817721-B21
HPE FlexFabric 10Gb 4-port 536FLR-T Adapter	764302-B21
HPE Ethernet 10Gb 2-port 562FLR-SFP+ Adapter	727054-B21
HPE Ethernet 10Gb 2-port 562FLR-T Adapter	817745-B21
HPE Ethernet 10Gb 2-port 568FLR-SFP+ Media Module Adapter	866467-B21
HPE Ethernet 10Gb 2-port 568FLR-T Media Module Adapter	866470-B21
HPE Ethernet 10/25Gb 2-port 622FLR-SFP28 Converged Network Adapter	867334-B21
HPE Ethernet 10/25Gb 2-port 631FLR-SFP28 Adapter	817709-B21

NOTE: The DL180 Gen10 ships with 2x 1 Gb Embedded Network controller.

NOTE: Only one FlexibleLOM can be added to the server. These options are upgradeable and can be changed from the original configuration after the server is shipped.

NOTE: Direct Attach Cable (DAC) for copper environments or fiber transceivers and cables for fiber-optic environments must be purchased separately. Please see the related NIC QuickSpecs for Technical Specifications and additional information: **https://www.hpe.com/us/en/product-catalog/servers/adapters/pip.models.hpe-storefabric-converged-network-adapters.4118472.html**

FlexibleLOM adapters

HPE Ethernet 10/25Gb 2-port 640FLR-SFP28 Adapter	817749-B21

NOTE: The DL180 Gen10 chassis ships with 2x 1 Gb embedded.

NOTE: Only one FlexibleLOM can be added to the server. These options are upgradeable and can be changed from the original configuration after the server is shipped.

NOTE: FlexibleLOM Enablement Kit (866941-B21) is required to install these adapters

NOTE: Direct Attach Cable (DAC) for copper environments or fiber transceivers and cables for fiber-optic environments must be purchased separately. Please see the related NIC QuickSpecs for Technical Specifications and additional information: **https://www.hpe.com/us/en/product-catalog/servers/adapters/pip.models.hpe-storefabric-converged-network-adapters.4118472.html**

HPE I/O Expansion Options

HPE DL180 Gen10 CPU1 x8x8x8 PCIe Riser Kit	878484-B21
HPE DL180 Gen10 CPU2 x8/x8/x8 PCIe Riser Kit	866945-B21
HPE DL180 Gen10 CPU1 FlexibleLOM Riser Kit	866941-B21
HPE DL180 Gen10 CPU1 x16/x8 PCIe Riser Kit	866939-B21
HPE DL180 Gen10 CPU2 x16/x8 PCIe Riser and GPU Enablement Kit	866943-B21
HPE DL160/180 Gen10 Redundant Power Supply Enablement Kit	866442-B21
HPE DL360 Gen9 Rear Serial Port and Enablement Kit	764646-B21

HPE Cooling Options

HPE DL180 Gen10 6038 Redundant Fan Kit	866947-B21

HPE Power Supplies

HPE 500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	865408-B21
HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit	865438-B21
HPE 800W Flex Slot Universal Hot Plug Low Halogen Power Supply Kit	865428-B21
HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	865414-B21
HPE 800W Flex Slot -48VDC Hot Plug Low Halogen Power Supply Kit	865434-B21
HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	830272-B21
HPE C13 - Nema 5-15P US/CA 110V 10Amp 1.83m Power Cord	AF556A

HPE Computation and Graphics Accelerator

HPE NVIDIA Quadro P2000 Graphics Accelerator	Q0V77A

Additional Options

Embedded Management

HPE iLO Advanced

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

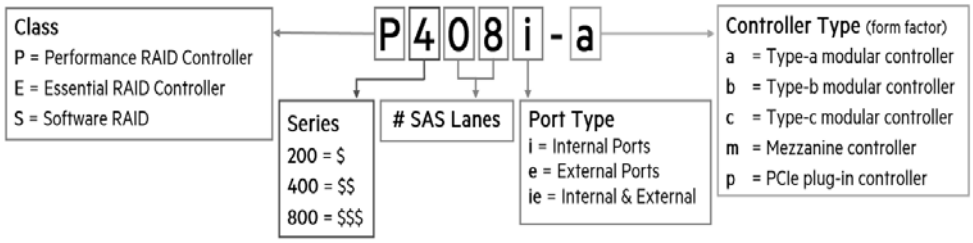
HPE iLO Advanced Security

HPE Security Options

HPE Gen10 Chassis Intrusion Detection Kit	867824-B21
HPE Bezel Lock Kit	875519-B21
HPE TPM 2.0 Gen10 Kit	864279-B21
HPE Gen10 2U Bezel Kit	867809-B21

HPE Smart Array Controllers

The Gen10 controller naming framework has been updated to simplify identification as depicted below. For a more detailed breakout of the available Gen10 Smart Array controllers visit the **HPE Smart Array Gen10 Controllers Data Sheet**.



Essential RAID Controllers

NOTE: E208i-p and E208e-p PCIe plug-in controllers use a PCIe slot.

HPE Smart Array E208i-p SR Gen10 (8 Internal Lanes/No Cache) 12G SAS PCIe Plug-in Controller	804394-B21
HPE Smart Array E208e-p SR Gen10 (8 External Lanes/No Cache) 12G SAS PCIe Plug-in Controller	804398-B21
HPE Smart Array E208i-a SR Gen10 (8 Internal Lanes/No Cache) 12G SAS Modular Controller	804326-B21

NOTE: SFF Box3 to Smart Array E208i-a/P408i-a Cable Kit' (882011-B21) is required for the installation of the controllers E208i-a or P408i-a

Performance RAID Controller

HPE Smart Array P408i-a SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS Modular Controller	804331-B21
HPE Smart Array P408e-p SR Gen10 (8 External Lanes/4GB Cache) 12G SAS PCIe Plug-in Controller	804405-B21
HPE Smart Array P408i-p SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS PCIe Plug-in Controller	830824-B21

NOTE: 'SFF Box3 to Smart Array E208i-a/P408i-a Cable Kit' (882011-B21) is required for the installation of the controllers E208i-a or P408i-a

Additional Options

HPE Cable Options

HPE Smart Storage Hybrid Capacitor with 260mm Cable Kit	P02377-B21
HPE 96W Smart Storage Battery (up to 20 Devices) with 145mm Cable Kit	P01366-B21

NOTE: Provides backup power for multiple HPE Smart Array controllers or other devices. Is required with performance RAID controllers.

HPE 96W Smart Storage Battery (up to 20 Devices) with 145mm Cable Kit	P01366-B21
HPE DL180 Gen10 SFF Box3 to Smart Array E208i-a/P408i-a Cable Kit	882011-B21
HPE DL180 Gen10 LFF to Smart Array E208i-a/P408i-a Cable Kit	882015-B21

NOTE: Provides backup power for multiple HPE Smart Array controllers or other devices.

Graphics Cable Kits

HPE DL180 Gen10 CPU2 GPU Power Cable Kit	875141-B21

Rail Kits

Ball bearing and Easy Install rail kits contain telescoping rails which allow for in-rack serviceability.
To assist in the installation of the server into the rack an optional installation tool is available by contacting your local services representative (695539-001).

NOTE: Hewlett Packard Enterprise recommends that a minimum of two people are required for all Rack Server installations. Please refer to your installation instructions for proper tools and number of people to use for any installation.

HPE 2U Small Form Factor Easy Install Rail Kit	733660-B21

NOTE: This (733660-B21) Rail kit can alos be used for LFF chassis.

HPE 2U Cable Management Arm for Easy Install Rail Kit	733664-B21

HPE Tape Backup

For the complete range of tape drives, autoloaders, libraries and media see:
https://www.hpe.com/us/en/storage/storeever-tape-storage.html
For hardware and software compatibility of Hewlett Packard Enterprise tape backup products
http://www.hpe.com/storage/BURAcompatibility.

HPE Tape Backup

For the complete range of tape drives, autoloaders, libraries and media see:
https://www.hpe.com/us/en/storage/storeever-tape-storage.html
For hardware and software compatibility of Hewlett Packard Enterprise tape backup products
http://www.hpe.com/storage/BURAcompatibility.

HPE Storage Options

Emulex Fibre Channel HBAs

HPE StoreFabric SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter	Q0L13A
HPE StoreFabric SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter	Q0L14A
HPE StoreFabric SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter	Q0L11A
HPE StoreFabric SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter	Q0L12A

QLogic Fibre Channel HBAs

HPE StoreFabric SN1100Q 16Gb Single Port Fibre Channel Host Bus Adapter	P9D93A
HPE StoreFabric SN1100Q 16Gb Dual Port Fibre Channel Host Bus Adapter	P9D94A
HPE StoreFabric SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter	P9M75A
HPE StoreFabric SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter	P9M76A

Additional Options

Converged Network Adapters

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

HPE Racks

Please see the **HPE Advanced Series Racks QuickSpecs** for information on additional racks options and rack specifications.
Please see the **HPE Enterprise Series Racks QuickSpecs** for information on additional racks options and rack specifications.

HPE Power Distribution Units (PDUs)

Please see the **HPE Basic Power Distribution Units (PDU) QuickSpecs** for information on these products and their specifications.
Please see the **HPE Metered Power Distribution Units (PDU) QuickSpecs** for information on these products and their specifications.
Please see the **HPE Intelligent Power Distribution Unit (PDU) QuickSpecs** for information on these products and their specifications.
Please see the **HPE Metered and Switched Power Distribution Units (PDU) QuickSpecs** for information on these products and their specifications.

HPE Uninterruptible Power Systems (UPS)

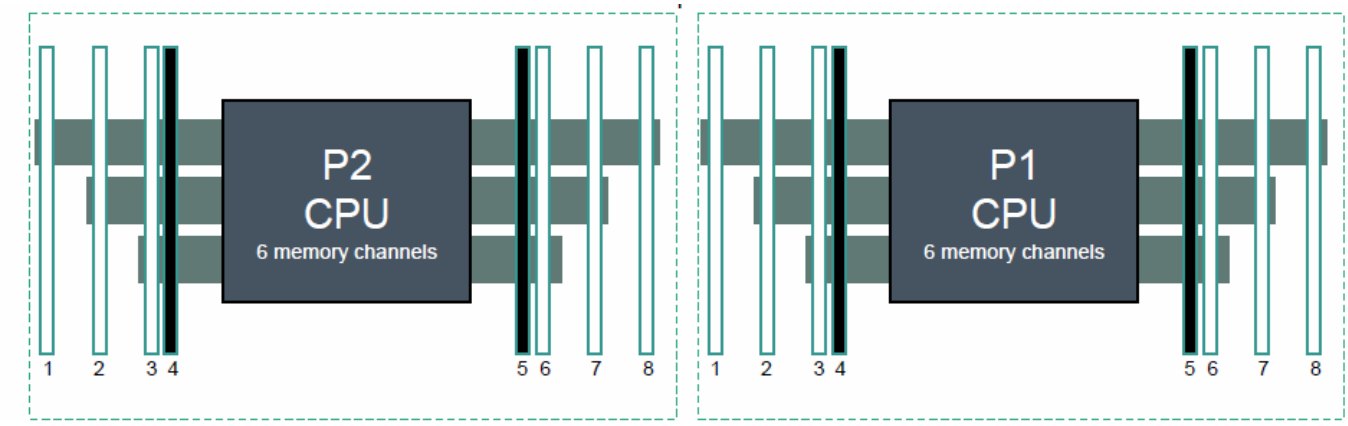
To learn more, please visit the **HPE Uninterruptible Power Systems (UPS) web page**.
Please see the **HPE DirectFlow Three Phase Uninterruptible Power System QuickSpecs** for information on these products and their specifications.
Please see the **HPE Line Interactive Single Phase UPS QuickSpecs** for information on these products and their specifications.

HPE Rack Options

Please see the **HPE KVM Switches web page** for information on these products and their specifications.

Memory

Memory Population guidelines



HPE DL160/DL180 Gen 10 Servers Front Server
(2+1+1 slots per channel)

1 DIMM			3					
2 DIMMs		2	3					
3 DIMMs	1	2	3					
4 DIMMs		2	3			6	7	
5 DIMMs*	1	2	3			6	7	
6 DIMMs	1	2	3			6	7	8
7 DIMMs*	1	2	3	4		6	7	8
8 DIMMs*	1	2	3	4	5	6	7	8

HPE ProLiant Gen10 8 slot per CPU DIMM population order
NOTE: *Unbalanced, not recommended

General Memory Population Rules and Guidelines:

- Install DIMMs only if the corresponding processor is installed.
- If only one processor is installed in a two-processor system, only half of the DIMM slots are available.
- To maximize performance, it is recommended to balance the total memory capacity between all installed processors.
- When two processors are installed, balance the DIMMs across the two processors.
- White DIMM slots denote the first slot to be populated in a channel.
- The maximum memory speed is a function of the memory type, memory configuration, and processor model.
- The maximum memory capacity is a function of the number of DIMM slots on the platform, the largest DIMM capacity qualified on the platform, the number and model of installed processors qualified on the platform.

To realize the performance memory capabilities listed in this document, HPE DDR4 SmartMemory is required. For additional information, please see the **HPE DDR4 SmartMemory QuickSpecs**.

Memory

HPE DDR4 SmartMemory – First Generation		
DIMM Type	**Register DIMM (RDIMM)**	
HPE 16GB (1x16GB) Single Rank x4 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit	815098-B21	815100-B21
SKU Description	HPE 16GB (1x16GB) Single Rank x4 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit	HPE 32GB (1x32GB) Dual Rank x4 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit
DIMM Rank ->	Single Rank (1R)	Dual Rank (2R)
DIMM Capacity ->	16GB	32GB
Voltage	1.2V	1.2 V
DRAM depth [bit]	2G	2G
DRAM Width [bit]	x4	X4
DRAM Density	8Gb	8Gb
CAS Latency	19-19-19	19-19-19
DIMM Native Speed (MT/s)	2666 MT/s	2666 MT/s
Intel Xeon® Silver 41xx/ Processors Officially Supported Memory Speed (MT/s)		
1 DIMM Per Channel	2400 MT/s	2400 MT/s
2 DIMM Per Channel	2400 MT/s	2400 MT/s
Intel Xeon® Bronze 31xx Processors Officially Supported Memory Speed (MT/s)		
1 DIMM Per Channel	2133 MT/s	2133 MT/s
2 DIMM Per Channel	2133 MT/s	2133 MT/s
HPE Server Memory Speed (MT/s): Intel Xeon®Silver 41xx Processors *		
1 DIMM Per Channel	2400 MT/s	2400 MT/s
2 DIMM Per Channel	2400 MT/s	2400 MT/s
HPE Server Memory Speed (MT/s): Intel Xeon®Bronze 31xx Processors *		
1 DIMM Per Channel	2133 MT/s	2133 MT/s
2 DIMM Per Channel	2133 MT/s	2133 MT/s

NOTE: *The maximum memory speed is a function of the memory type, memory configuration, and processor model.

Memory

HPE DDR4 SmartMemory – Second Generation

RDIMM						LRDIMM
HPE SKU	**P00918-B21**	**P00920-B21**	**P00922-B21**	**P00924-B21**	**P00930-B2**	**P00926-B21**
SKU description	HPE 8GB 1Rx8 PC4-2933Y-R Smart Kit	HPE 16GB 1Rx4 PC4-2933Y-R Smart Kit	HPE 16GB 2Rx8 PC4-2933Y-R Smart Kit	HPE 32GB 2Rx4 PC4-2933Y-R Smart Kit	HPE 64GB 2Rx4 PC4-2933Y-R Smart Kit	HPE 64GB 4Rx4 PC4-2933Y-L Smart Kit
DIMM rank DIMM capacity	Single rank (1R) 8 GB	Single rank (1R) 16 GB	Dual rank (2R) 16 GB	Dual rank (2R)32 GB	Dual rank (2R) 64 GB	Quad rank (4R) 64 GB
Voltage	1.2V	1.2V	1.2V	1.2V	1.2V	1.2V
DRAM depth	1 Gb	2 Gb	1 Gb	2 Gb	4 Gb	2 Gb
DRAM width (bit)	x8	x4	x8	x4	x4	x4
DRAM density	8 Gb	8 Gb	8 Gb	8 Gb	16 Gb	8 Gb
CAS latency	21-21-21	21-21-21	21-21-21	21-21-21	21-21-21	21-21-21
DIMM native speed (MT/s)	2933	2933	2933	2933	2933	2933
Maximum capacity (GB)						
16-slot servers	128	256	256	512	1024	1024
HPE Server Memory speed (MT/s): Intel Xeon Platinum/Gold 82xx/62xx processors						
1 DIMM per channel	2933	2933	2933	2933	2933	2933
2 DIMM per channel	2666	2666	2666	2666	2666	2666
HPE Server Memory speed (MT/s): Intel Xeon Gold 52xx processors						
1 DIMM per channel	2666	2666	2666[1]	2666	2666	2666
2 DIMM per channel	2666	2666	2666	2666	2666	2666
HPE Server Memory speed (MT/s): Intel Xeon Silver 42xx processors						
1 DIMM per channel	2400	2400	2400	2400	2400	2400
2 DIMM per channel	2400	2400	2400	2400	2400	2400
HPE Server Memory speed (MT/s): Intel Xeon Bronze 32xx processors						
1 DIMM per channel	2133	2133	2133	2133	2133	2133
2 DIMM per channel	2133	2133	2133	2133	2133	2133

NOTE: [1]Gold Processor 5222 supports 2933 1 DPC DDR4 and 2 512-bit FMA units

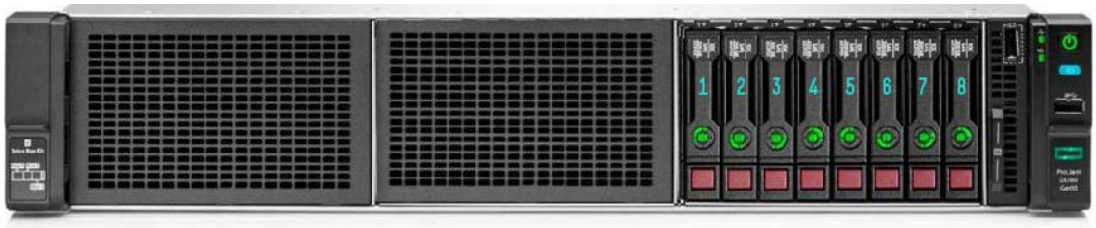
DDR4 memory options part number decoder

NOTE: Capacity references are rounded to the common gigabyte (GB) values.

- 16GB = 16,384 MB

For more information on memory, please see the Memory Quickspecs: **HPE DDR4 SmartMemory**

Storage



8 SFF Drives

8LFF Drives

12LFF Drives

Technical Specifications

System Unit		
Dimensions	8.75 x 44.54 x 63.47 cm 3.44 x 17.54 x 24.99 in (Dimensions for 12LFF)	
Weight (approximate)	13.0 kg--26.0 kg 28.0lb--58.0 lb	Minimum: 8 SFF/LFF chassis with 1x SFF/LFF HDD and 7 HDD blanks, 2x Drive Bay blanks, 1x processor including standard heatsink, 1x power supply (plus blank), 1x Smart Array, 1x Riser installed, cables for the above)
Input Requirements (per power supply)	Rated Line Voltage	100 to 120 VAC 200 to 240 VAC
BTU Rating	Maximum	For 500W Power Supply: 1979 BTU/hr (at 100 VAC), 1911 BTU/hr (at 200 VAC), 1965 BTU/hr (at 240 VAC) for China Only
Power Supply Output (per power supply)	Rated Steady-State Power	For 500W Power Supply: 500W (at 100 VAC), 500W (at 240 VAC), 500W (at 240 VAC) input for China only
System Inlet Temperature	Standard Operating Temperature	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. System performance during standard operating support may be reduced if operating with a fan fault or above 30°C (86°F).
	Extended Ambient Operating Temperature	For approved hardware configurations, the supported system inlet range is extended to be: 5° to 10°C (41° to 50°F) and 35° to 40°C (95° to 104°F) at sea level with an altitude derating of 1.0°C per every 175 m (1.8°F per every 574 ft) above 900 m (2953 ft) to a maximum of 3050 m (10,000 ft). The approved hardware configurations for this system are listed at the URL:**http://www.hpe.com/servers/ashrae** For approved hardware configurations, the supported system inlet range is extended to be: 40° to 45°C (104° to 113°F) at sea level with an altitude derating of 1.0°C per every 125 m (1.8°F per every 410 ft) above 900 m (2953 ft) to a maximum of 3050 m (10,000 ft). The approved hardware configurations for this system are listed at the URL: **http://www.hpe.com/servers/ashrae** System performance may be reduced if operating in the extended ambient operating range or with a fan fault.
	Non-operating	-30° to 60°C (-22° to 140°F). Maximum rate of change is 20°C/hr (36°F/hr).
Relative Humidity	Operating	8% to 90% - Relative humidity (Rh), 28°C maximum wet bulb temperature, non-condensing.
(Non-condensing)	Non-operating	5 to 95% relative humidity (Rh), 38.7°C (101.7°F) maximum wet bulb temperature, non-condensing..
Altitude	Operating	3050 m (10,000 ft). This value may be limited by the type and number of options installed. Maximum allowable altitude change rate is 457 m/min (1500 ft/min).
	Non-operating	9144 m (30,000 ft). Maximum allowable altitude change rate is 457 m/min (1500 ft/min).

Technical Specifications

Acoustic Noise

Listed are the declared A-Weighted sound power levels (L_{WAd}) and declared average bystander position A-Weighted sound pressure levels (L_{pAm}) when the product is operating in a 23°C ambient environment. Noise emissions were measured in accordance with ISO 7779 (ECMA 74) and declared in accordance with ISO 9296 (ECMA 109). The listed sound levels apply to standard shipping configurations. Additional options may result in increased sound levels. Please have your HPE representative provide information from the HPE EMESC website for further technical details regarding the configurations listed below.

Configuration SKU	**Entry(LFF)** **Entry(SFF)**	**Base(LFF)** **Base(SFF)**	**Performance(LFF)** **Performance(SFF)**
Idle			
L_{WAd}	4.2 B	4.3 B	4.7 B
L_{pAm}	26.6 dBA	27.0 dBA	28.5 dBA
Operating			
L_{WAd}	5.2 B	5.4 B	5.7 B
L_{pAm}	35.4 dBA	37.2 dBA	39.7 dBA

NOTE: Acoustics levels presented here are generated by the test configuration only. Acoustics levels will vary depending on system configuration. Values are subject to change without notification and are for reference only.

NOTE: Product conformance to cited product specifications is based on sample (type) testing, evaluation, or assessment. This product or family of products is eligible to bear the appropriate compliance logos and statements.

NOTE: The Listed sound levels apply to standard shipping configurations. Additional options may result in increased sound levels.

Emissions Classification (EMC) – Regulatory Information

To view the regulatory information for your product, view the Safety and Compliance Information for Server, Storage, Power, Networking, and Rack Products, available at the Hewlett Packard Enterprise Support Center:
http://www.hpe.com/support/Safety-Compliance-EnterpriseProducts

HPE Smart Array

For information on the HPE Smart Array E208i-p SR Gen10 Controller please refer to their **QuickSpecs.**

For information on the HPE Smart Array E208e-p SR Gen10 Controller please refer to their **QuickSpecs.**

Environment-friendly Products and Approach - End-of-life Management and Recycling

Hewlett Packard Enterprise offers **end-of-life product return, trade-in, and recycling programs**, in many geographic areas, for our products. Products returned to Hewlett Packard Enterprise will be recycled, recovered or disposed of in a responsible manner.

The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard Enterprise web site. These instructions may be used by recyclers and other WEEE treatment facilities as well as Hewlett Packard Enterprise OEM customers who integrate and re-sell Hewlett Packard Enterprise equipment.

Summary of Changes

Date	Version History	Action	Description of Change
07-Oct-2019	Version 8	Changed	Overview, Standard Features, Pre-configured Models, Core Options, Additional Options, Memory and Technical Specifications sections were updated. Obsolete SKUs were removed.
12-Aug-2019	Version 7	Changed	Overview, Standard Features and Additional Options sections were updated.
30-Jul-2019	Version 6	Changed	Additional Options section was updated.
01-Jul-2019	Version 5	Changed	Overview, Standard Features, Service and Support, Configuration Information and Additional Options sections were updated.
03-Jun-2019	Version 4	Changed	Overview, Standard Features, Service and Support, Configuration Information, Additional Options, Memory, Storage and Technical Specifications sections were updated.
02-Apr-2019	Version 3	Changed	Standard Features and Additional Options sections were updated.
04-Mar-2019	Version 2	Changed	Internal View image has been updated
04-Feb-2019	Version 1	New	New QuickSpecs.

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

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