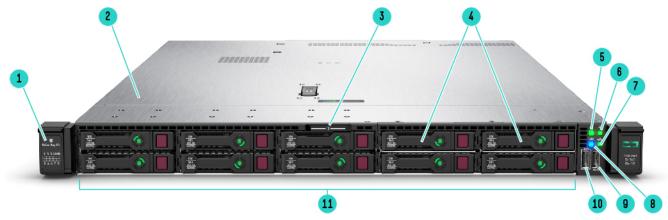
# QuickSpecs

## **Overview**

## HPE ProLiant DL360 Gen10 Server

Does your data center need a secure, performance driven dense server that you can confidently deploy for virtualization, database, or high-performance computing? The powerful 2P HPE ProLiant DL360 Gen10 is redefining dense compute by delivering security, agility and unmatched expandability businesses want all packed in a dense 1U rack design.

The HPE ProLiant DL360 Gen10 Server supports the Intel® Xeon® Processor Scalable Family with up to 28 cores, plus 2666 MT/s HPE DDR4 SmartMemory supporting up to 3.0 TB max. With the added performance that 12 NVDIMMs and 10 NVMe brings, the HPE ProLiant DL360 Gen10 means business. Deploy this dense platform for diverse workloads in space constrained environments and maintain it with ease by automating the most essential server lifecycle management tasks with HPE OneView and HPE iLO 5.



## 8 SFF Front View - 8 SFF + 2 SFF Universal Media Bay option shown

1.	Drive support label	7.	NIC status LED
2.	Quick removal access panel	8.	UID button/LED
3.	Serial no. label pull tab	9.	USB 3.0 port
4.	Universal Media Bay Options*	10.	iLO Service Port
5.	Power On/Standby button and system power LED	11.	Standard 8 SAS/SATA/SSD drive bays

6. Health LED

\*Option shown: +2 SFF SAS/SATA (total 10SFF)

Option: +2 SFF NVMe drives

Option: DVD-RW or DVD-ROM + Display port & USB 2.0 port Kit

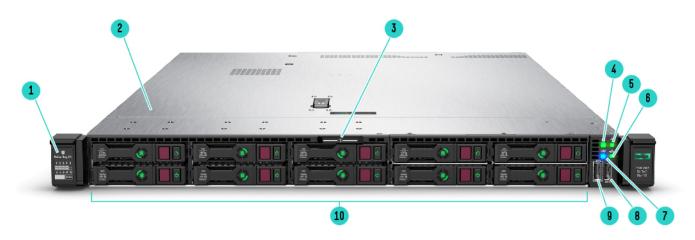
Option: +2 Dual uFF (4x M.2 cartridges)
Option: Display port + USB 2.0 port Kit + Blank

**NOTE:** Other options not shown.

NOTE: New! Rear drive option allows for an additional + 1 SFF or +1 Dual uFF (2x M.2 cartridges).

NOTE: System Insight Display (SID) module will include #5-9 above (will not include #10 - iLO Service Port).

## **Overview**



## **Premium 10SFF NVMe Front View**

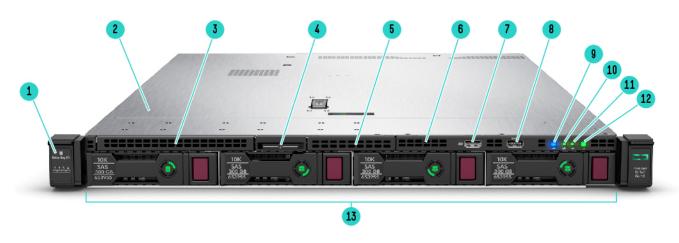
- 1. Drive support label
- 2. Quick removal access panel
- 3. Serial no. label pull tab
- 4. Power On/Standby button and system power LED
- 5. Health LED

- 6. NIC status LED
- 7. UID button/LED
- 8. USB 3.0 port
- 9. iLO Service Port
- 10. Max up to 10 NVMe drives (PCle direct attached) or 8 SAS/SATA + 2 NVMe

**NOTE:** Other options not shown.

NOTE: New! Rear drive option allows for an additional + 1 SFF or +1 Dual uFF (2x M.2 cartridges).

NOTE: System Insight Display (SID) module will include #4-8 above (will not include #9 - iLO Service Port).



## 4 LFF Front View - Standard 4 LFF shown

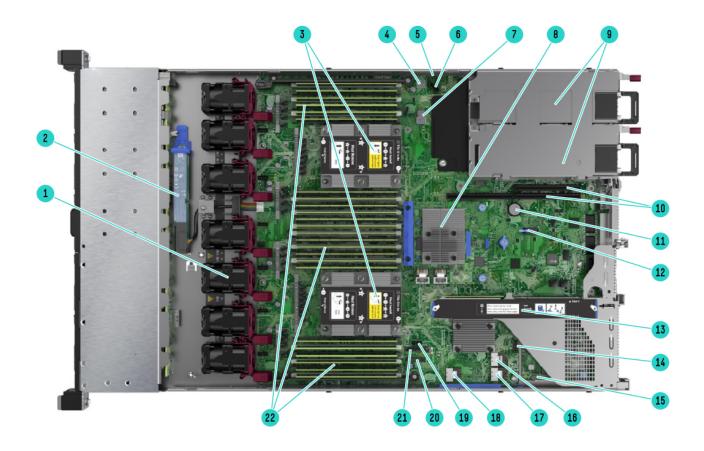
- 1. Drive support label
- 2. Quick removal access panel
- 3. Option: DVD-RW or DVD-ROM (blank shown)
- 4. Serial no. label pull tab
- 5. Option: Display port & USB 2.0 port Kit (blank shown)
- 6. Option: System insight Display (SID)\* standard shown
- 7. iLO Service Port

**NOTE:** \*This option will lose #7 iLO Service Port.

NOTE: New! Rear drive option allows for additional + 1 SFF or +1 Dual uFF (2x M.2 cartridges), will lose one FH PCle slot.

- 8. USB 3.0 Port
- 9. UID button/LED
- 10. Power On/Standby button and system power LED
- 11. Health LED
- 12. NIC status LED
- 13. SAS/SATA/SSD drive bays

## **Overview**



## Internal View - Standard for all DL360 Gen10

- 1. For 8 SFF or 4 LFF Standard single rotor hot plug fans<sup>1</sup>
- 3. Up to 2 processors (shown with standard heat sinks)
- 4. MicroSD card slot (Dual Micro-SD option available)
- 5. Option: Chassis Intrusion Detection
- 6. Hard Drive backplane power connector
- 7. Dual internal USB 3.0 connector
- 8. Smart Array Controller (Type -a shown)
- 9. Up to 2 Power Supplies for redundant power
- 10. Secondary (CPU2) PCle 3.0 riser
- 11. System Battery
- 12. Optional: TPM 2.0
- <sup>1</sup> 1 CPU 5 standard fans
- <sup>1</sup> 2 CPUs 7 standard fans
- <sup>1</sup>Fans will be shipped for 1 or 2 processors.
- <sup>1</sup>\*Option: High Performance fans

NOTE: \*For 10 NVMe chassis - 7 High Performance

<sup>10</sup>Option: Full Height x16(Lose slot 2 on Primary riser)

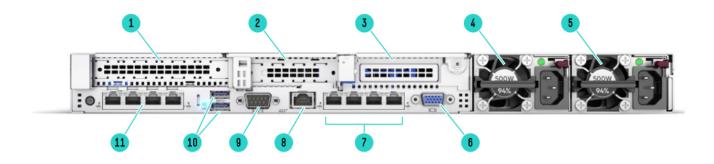
NOTE: \*For 10 NVMe chassis – Secondary Riser is not available due to 10 x4 NVMe riser for PCIe direct attached.

- $^{13}$ Standard: GPU power connector + 1x 16 and 1x 8
- <sup>13</sup>Optional: 2 SATA M.2 + 2x 16
- <sup>13</sup>Optional: 2x 4 NVMe + 1x 16 and 1x 8

NOTE: \*Only available on 8 SFF.

- 13. Primary (CPU1) PCle 3.0 riser
- 14. Optional: Front Display port / USB 2.0
- 15. FlexibleLOM (supports various NICs up to 25GbE)
- 16. x4 SATA port 1
- 17. x4 SATA port 2
- 18. x2 SATA port 3
- 19. x1 SATA port 4
- 20. Optical / SATA port 5
- 21. Front Power USB 3.0 connector
- 22. DDR4 DIMM slots ((Fully populated 24 DIMMs shown)

## **Overview**



## Rear View - Standard for all DL360 Gen10

- 1. Slot 1 PCle 3.0
- 2. Slot 2 PCle 3.0
- 3. Option: Slot 3 PCle 3.0 (Requires 2<sup>nd</sup> processor)
- 4. Power Supply 2
- 5. Power Supply 1
- 6. VGA port
- <sup>1</sup> Option: Rear Drive +1 SFF or 1 uFF SSD (2x M.2 cartridges)

  NOTE: Will lose one FH x16 PCle slot1 with this option.
- <sup>11</sup> **NOTE:** Supports Various NICs up to 25GbE.

- 7. Embedded 4x 1GbE Adapter
- 8. iLO Management Port
- 9. Option: Serial Port
- 10. USB 3.0 Ports
- 11. Option: FlexibleLOM (Shown: 4x 1GbE)

## What's New

- NVIDIA Tesla T4 16GB Computational Accelerator
- SAS 12G 14TB Midline LFF SC DS HDD
- SATA 6G 14TB Midline LFF SC DS HDD

## **Platform Information**

#### **Platform Information**

## Form Factor

1U rack

## **Chassis Types**

8 SFF with options supporting: +2 SFF or 2 NVMe or 2 Dual uFF (4x M.2 cartridges) 10 SFF NVMe Premium

4 LFF

**NOTE:** New Rear drive option available on all DL360 Gen10 chassis types for additional boot/storage: +1SFF or 1 Dual uFF (2x M.2 cartridges).

## **System Fans**

Single rotor hot plug fans will be included

For 4 LFF and 8 SFF chassis:

1 CPU – Includes 5 standard fans

2 CPUs – Includes 7 standard fans

NOTE: Optional High Performance Fan Kit available (includes 7 fans).

**NOTE:** The DL360 Gen10 will support up to 7 fans with fan redundancy built in. One fan rotor failure will place server in degraded mode but fully functional. Two fan rotor failures could provide warning and imminent server shutdown.

For 10 NVMe Premium chassis: 2 CPUs – Includes 7 high performance fans as standard

## **Standard Features**

Processors – Up to 2 of the following depending on model.

NOTE: For more information regarding Intel Xeon processors, please see the following <a href="http://www.intel.com/xeon">http://www.intel.com/xeon</a>.

**NOTE:** This table covers the public Intel offering only.

Intel Xeon Models	CPU Frequency	Cores	L3 Cache	Power	UPI	DDR4	Memory per socket
Platinum 8180M Processor	2.5 GHz	28	38.50 MB	205W	3 @ 10.4 GT/s	2666 MT/s	1.5TB
Platinum 8180 Processor	2.5 GHz	28	38.50 MB	205W	3 @ 10.4 GT/s	2666 MT/s	768GB
Platinum 8176 Processor	2.1 GHz	28	38.50 MB	165W	3 @ 10.4 GT/s	2666 MT/s	768GB
Platinum 8170 Processor	2.1 GHz	26	35.75 MB	165W	3 @ 10.4 GT/s	2666 MT/s	768GB
Platinum 8168 Processor	2.7 GHz	24	33.00 MB	205W	3 @ 10.4 GT/s	2666 MT/s	768GB
Platinum 8165 Processor	2.3 GHz	24	33.00 MB	205W	3 @ 10.4 GT/s	2666 MT/s	768GB
Platinum 8164 Processor	2.0 GHz	26	35.75 MB	150W	3 @ 10.4 GT/s	2666 MT/s	768GB
Platinum 8160M Processor	2.1 GHz	24	33.00 MB	150W	3 @ 10.4 GT/s	2666 MT/s	1.5TB
Platinum 8160 Processor	2.1 GHz	24	33.00 MB	150W	3 @ 10.4 GT/s	2666 MT/s	768GB
Platinum 8158 Processor	3.0 GHz	12	24.75 MB	150W	3 @ 10.4 GT/s	2666 MT/s	768GB
Platinum 8156 Processor	3.6 GHz	4	16.50 MB	105W	3 @ 10.4 GT/s	2666 MT/s	768GB
Platinum 8153 Processor	2.0 GHz	16	22.00 MB	125W	3 @ 10.4 GT/s	2666 MT/s	768GB

**NOTE:** Platinum Processors:

2 and 4 socket capable, 2S - 2UPI, 4S - 3UPI, 8S - 3UPI @ 10.4 GT/s.

6-Channel DDR4 @ 2666 MT/s.

768 GB max memory capacity (1.5 TB on select skus).

Intel Turbo Boost Technology, Intel Hyper-Threading Technology Intel AVX-512 (2x 512-bit FMA).

48 lanes PCle 3.0, advanced RAS.

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Gold 6154 Processor	3.0 GHz	18	24.75 MB	200W	3 @ 10.4 GT/s	2666 MT/s	768GB
Gold 6152 Processor	2.1 GHz	22	30.25 MB	140W	3 @ 10.4 GT/s	2666 MT/s	768GB
Gold 6150 Processor	2.7 GHz	18	24.75 MB	165W	3 @ 10.4 GT/s	2666 MT/s	768GB
Gold 6148 Processor	2.4 GHz	20	27.50 MB	150W	3 @ 10.4 GT/s	2666 MT/s	768GB
Gold 6146 Processor	3.2 GHz	12	24.75 MB	165W	3 @ 10.4 GT/s	2666 MT/s	768GB
Gold 6144 Processor	3.5 GHz	8	24.75 MB	150W	3 @ 10.4 GT/s	2666 MT/s	768GB
Gold 6143 Processor	2.8 GHz	16	22.00 MB	205W	3 @ 10.4 GT/s	2666 MT/s	768GB
Gold 6142 Processor	2.6 GHz	16	22.00 MB	150W	3 @ 10.4 GT/s	2666 MT/s	768GB
Gold 6140 Processor	2.3 GHz	18	24.75 MB	140W	3 @ 10.4 GT/s	2666 MT/s	768GB
Gold 6138 Processor	2.0 GHz	20	27.50 MB	125W	3 @ 10.4 GT/s	2666 MT/s	768GB
Gold 6136 Processor	3.0 GHz	12	24.75 MB	150W	3 @ 10.4 GT/s	2666 MT/s	768GB
Gold 6134M Processor	3.2 GHz	8	24.75 MB	130W	3 @ 10.4 GT/s	2666 MT/s	1.5TB
Gold 6134 Processor	3.2 GHz	8	24.75 MB	130W	3 @ 10.4 GT/s	2666 MT/s	768GB
Gold 6132 Processor	2.6 GHz	14	19.25 MB	140W	3 @ 10.4 GT/s	2666 MT/s	768GB
Gold 6130 Processor	2.1 GHz	16	22.00 MB	125W	3 @ 10.4 GT/s	2666 MT/s	768GB
Gold 6128 Processor	3.4 GHz	6	19.25 MB	115W	3 @ 10.4 GT/s	2666 MT/s	768GB
Gold 6126 Processor	2.6 GHz	12	19.25 MB	125W	3 @ 10.4 GT/s	2666 MT/s	768GB
Gold 5122 Processor	3.6 GHz	4	16.50 MB	105W	2 @ 10.4 GT/s	2666 MT/s	768GB
Gold 5120 Processor	2.2 GHz	14	19.25 MB	105W	2 @ 10.4 GT/s	2400 MT/s	768GB
Gold 5118 Processor	2.3 GHz	12	16.50 MB	105W	2 @ 10.4 GT/s	2400 MT/s	768GB
Gold 5117 processor	2.0GHz	14	19.25 MB	105W	2 @ 10.4 GT/s	2400 MT/s	768GB

Gold 5115 Processor	2.4 GHz	10	13.75 MB	85W	2 @ 10.4 GT/s	2400 MT/s	768GB
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**NOTE:** Gold Processors:

2 and 4 socket capable, 2S - 2UPI, 4S - 3UPI @ 10.4 GT/s.

6-Channel DDR4 @ 2400 MT/s (SKU 5122 - supports 2666 MT/s).

768 GB max memory capacity (1.5 TB on select skus).

Intel Turbo Boost Technology, Intel Hyper-Threading Technology, Intel AVX-512 (1x 512-bit FMA) (SKU 5122 - supports 2x 512 bit FMA).

48 lanes PCIe 3.0, advanced RAS.

Silver 4116 Processor	2.1 GHz	12	16.50 MB	85W	2 @ 9.6 GT/s	2400 MT/s	768GB
Silver 4114 Processor	2.2 GHz	10	13.75 MB	85W	2 @ 9.6 GT/s	2400 MT/s	768GB
Silver 4112 Processor	2.6 GHz	4	8.25 MB	85W	2 @ 9.6 GT/s	2400 MT/s	768GB
Silver 4110 Processor	2.1 GHz	8	11.00 MB	85W	2 @ 9.6 GT/s	2400 MT/s	768GB
Silver 4108 Processor	1.8 GHz	8	11.00 MB	85W	2 @ 9.6 GT/s	2400 MT/s	768GB

**NOTE:** Silver Processors:

2 socket capable, 2S - 2UPI @ 9.6 GT/s.

6-Channel DDR4 @ 2400 MT/s, 768 GB max memory capacity.

Intel Turbo Boost Technology, Intel Hyper-Threading Technology, Intel AVX-512 (1x 512-bit FMA).

48 lanes PCIe 3.0, standard RAS.

Bronze 3106 Processor	1.7 GHz	8	11.00 MB	85W	2 @ 9.6 GT/s	2133 MT/s	768GB
Bronze 3104 Processor	1.7 GHz	6	8.25 MB	85W	2 @ 9.6 GT/s	2133 MT/s	768GB

**NOTE:** Bronze Processors:

2 socket capable, 2S - 2UPI @ 9.6 GT/s.

6-Channel DDR4 @ 2133 MT/s, 768 GB max memory capacity.

Intel AVX-512 (1x 512-bit FMA).

48 lanes PCIe 3.0. standard RAS.

## Chipset

Intel C621 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

Type HPE DDR4 SmartMemory Registered (RDIMM), Load Reduced (LRDIMM)

DIMM Slots Available 24 12 DIMM slots per processor, 6 channels per processor, 2 DIMMs per channel

Maximum capacity (LRDIMM) 3.0 TB 24 x 128 GB LRDIMM @ 2666 MT/s

Maximum capacity (RDIMM) 768 GB 24 x 32 GB RDIMM @ 2666 MT/s

NOTE: NVDIMMs can be mixed with RDIMMs only.

Maximum capacity (NVDIMM)

**NOTE:** Maximum memory per socket is dependent on processor selection. Processors supporting 1.5 TB per CPU is indicated by the "M" in the processor model names (i.e. 8160M).

12 x 16 GB NVDIMM @ 2666 MT/s

**NOTE:** Mixing of RDIMM and LRDIMM memory is not supported.

NOTE: For General Server Memory and NVDIMM Population Rules and Guidelines for Gen10 see details here:

192 GB

http://www.hpe.com/docs/memory-population-rules

## **Memory Protection**

Advanced ECC Advanced ECC uses single device data correction to detect and correct single and all multibit error that

occurs within a single DRAM chip.

Online Spare Memory online spare mode detects a rank that is degrading and switches operation to the spare rank.

NOTE: For more information see our Memory RAS feature technical whitepaper.

Expansion Slots						
Primary GPU Riser	Expansion Slots #	Technology	Bus Width	Connector Width	Processor	Slot Form Factor
	1	PCle 3.0	x16	x16	CPU1	Full-height, 3/4 length (up to 9.5in)
	2	PCIe 3.0	x8	x8	CPU1	Low Profile
Primary SATA M.2 Riser	Expansion Slots #	Technology	Bus Width	Connector Width	Processor	Slot Form Factor
	1	PCle 3.0	x16	x16	CPU 1	Full-height; 3/4 length (up to 9.5in)
	2	PCle 3.0	x16	x16	CPU 1	Low Profile
Primary NVMe Riser	Expansion Slots #	Technology	Bus Width	Connector Width	Processor	Slot Form Factor
	1	PCle 3.0	x16	x16	CPU 1	Full-height; 3/4 length (up to 9.5")
	2	PCIe 3.0	x8	x8	CPU 1	Low Profile
Secondary Riser*	Expansion Slots #	Technology	Bus Width	Connector Width	Processor	Slot Form Factor
	3	PCle 3.0	x16	×16	CPU 2	Low Profile or Full-height; 3/4 length (up to 9.5")

NOTE: If secondary full height kit is installed, then primary PCIe Slot #2 cannot be used. Only 2 full height slots are supported.

#### **Controllers**

#### 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 is a 14-port SATA controller, but only 12 ports are accessible as 2 are leveraged to support the 2 M.2 options on the Primary Riser.

**NOTE:** The S100i supports windows only.

**NOTE:** 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 Controllers**

HPE Smart Array E208i-a SR Gen10 Controller

HPE Smart Array E208i-a SR G10 LH Controller

HPE Smart Array E208i-p SR Gen10 Controller

HPE Smart Array E208e-p SR Gen10 Controller

#### **Performance RAID Controllers**

HPE Smart Array P408i-a SR Gen10 Controller

HPE Smart Array P408i-a SR G10 LH Controller

HPE Smart Array P408i-p SR Gen10 Controller

HPE Smart Array P408e-p SR Gen10 Controller

HPE Smart Array P816i-a SR Gen10 Controller

HPE Smart Array P816i-a SR G10 LH Controller

NOTE: If GPGPU is needed then please order the LH controller (low profile heatsink) to allow GPU to fit in the chassis.

NOTE: For additional details, please see HPE Smart Array Gen10 Controllers Data Sheet.

## **Internal Storage Devices**

Optical Drive Available on 8 SFF and 4 LFF CTO Servers as an option (DVD-ROM or DVD-RW)

Hard Drives None ship standard

#### **Maximum Storage**

Storage	Capacity	Configuration
Hot Plug SFF SAS HDD	26.4 TB	$8+2+1 \times 2.4$ TB (with optional UMB + rear drive option)
Hot Plug SFF SATA HDD	22 TB	$8+2+1 \times 2.0 \text{ TB}$ (with optional UMB + rear drive option)
Hot Plug SFF SAS SSD	168.3 TB	$8+2+1 \times 15.3$ TB (with optional UMB + rear drive option)
Hot Plug SFF SATA SSD	42.24 TB	$8+2+1 \times 3.84$ TB (with optional UMB + rear drive option)
Hot Plug SFF NVMe PCle SSD	76.8 TB	10 x 7.68 TB NVMe
Hot Plug LFF SAS HDD	56 TB	4 x 14 TB
Hot Plug LFF SATA HDD	56 TB	4 x 14 TB
Hot Plug LFF SAS SSD	3.2 TB	4 x 800 GB
Hot Plug LFF SATA SSD	7.68 TB	4 x 1.92 TB

## **Power Supply**

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

NOTE: Available in 94% efficiency.

HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit

NOTE: Available in 94% and 96% efficiency.

NOTE: Also available in -48VDC and 227VAC/380VDC power inputs.

HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit

**NOTE:** Available in 94% efficiency.

NOTE: 1600W Power supplies only support high line voltage (200 VAC to 240 VAC).

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**

Serial 1 port - Optional

Video 1 Front - Display port (optional 8 SFF and 4 LFF only)

1 Rear - VGA port (standard on all chassis types)

NOTE: Both ports are not active simultaneously.

Network Ports 4x 1GbE embedded NIC (standard on all chassis types)

1 FlexibleLOM slot available on all chassis types (supporting various NICs adapters)

iLO Remote Mgmt Port1 Gb DedicatedMicroSD Slot1 MicroSD slot

NOTE: The MicroSD slot is not hot-pluggable, please power down server before removal.

USB 3.0 Up to 5 total: 1 front, 2 rear, 2 internal (standard on all chassis types)

+1 optional USB 2.0 front (on 8 SFF and 4 LFF only)

SID (Systems Insight Display) Optional for all chassis types

**NOTE:** Will lose iLO Service Port if selecting this option.

## Operating Systems and Virtualization Software

Windows Server 2019 (Most Recent Version)

Windows Server 2012 R2 (Most Recent Version)

Windows Server 2016 (Most Recent Version)

VMware ESXi 6.0 U3

VMware ESXi 6.5 and U1 upon release

Red Hat Enterprise Linux (RHEL) 6.9 and 7.3

SUSE Linux Enterprise Server (SLES) 11 SP4 and 12 SP2

## **ClearOS**

**NOTE:** ClearOS allows you to build a fully functional server that is just right for you at no upfront cost. For more information on ClearOS, please visit <a href="http://www.hpe.com/servers/clearos">http://www.hpe.com/servers/clearos</a>.

#### **CentOS**

**NOTE:** For more information on Hewlett Packard Enterprise Certified and Supported ProLiant Servers for OS and Virtualization Software and latest listing of software drivers available for your server.

## http://www.hpe.com/info/ossupport

## **Industry Standard Compliance**

- ACPI 6.1 Compliant
- PCle 3.0 Compliant
- WOL Support
- Microsoft® Logo certifications
- PXE Support
- USB 3.0 Compliant
- USB 2.0 Compliant (only on optional Universal Media Bay)
- SMBIOS 3.1
- UEFI 2.6 (Unified Extensible Firmware Interface Forum)
- Redfish API
- IPMI 2.0
- Secure Digital 4.0
- TPM 1.2 and 2.0 support
- Advanced Encryption Standard (AES)
- Triple Data Encryption Standard (3DES)
- SNMP v3
- TLS 1.2
- DMTF Systems Management Architecture for Server Hardware Command Line (SMASH CLP)
- Active Directory v1.0
- ASHRAE A3/A4
- Energy Star

NOTE: For additional technical thermal details regarding ambient temperatures, humidity and features support please

## visit: http://www.hpe.com/servers/ashrae.

## **Graphics**

Integrated video standard

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

HPE iLO 5 on system management memory

- 32 MB Flash
- 4 Gbit DDR3 with ECC protection

## **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 <a href="http://www.hpe.com/servers/uefi">http://www.hpe.com/servers/uefi</a>.

UEFI enables numerous new capabilities specific to HPE ProLiant servers such as:

- Secure Boot and Secure Start enable for enhanced security
- Operating system specific functionality
- Support for > 2.2 TB (using GPT) boot drives
- USB 3.0 Stack
- Embedded UEFI Shell
- Mass Configuration Deployment Tool using iLO RESTful API that is Redfish API Conformant
- PXE boot support for IPv6 networks
- Workload Profiles for simple performance optimization

**UEFI** Boot Mode only:

- TPM 2.0 Support
- NVMe Boot Support
- Platform Trust Technology (PTT) can be enabled.
- iSCSI Software Initiator Support.
- HTTP/HTTPs Boot support as a PXE alternative.
- Boot support for option cards that only support a UEFI option ROM

**NOTE:** For UEFI Boot Mode, boot environment and OS image installations should be configured properly to support UEFI. **NOTE:** UEFI FIO Setting (758959-B22) can be selected to configure the system in Legacy mode in the factory for your HPE ProLiant 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 <a href="http://www.hpe.com/info/ilo">http://www.hpe.com/info/ilo</a>.

## **UEFI**

Configure and boot your servers securely with industry standard Unified Extensible Firmware Interface (UEFI). Learn more at <a href="http://www.hpe.com/servers/uefi">http://www.hpe.com/servers/uefi</a>.

#### **Intelligent Provisioning**

Hassle free server and OS provisioning for one or more servers with Intelligent Provisioning. Learn more at <a href="http://www.hpe.com/servers/intelligentprovisioning">http://www.hpe.com/servers/intelligentprovisioning</a>.

## 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 <a href="http://www.hpe.com/info/restfulapi">http://www.hpe.com/info/restfulapi</a>.

## **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 <a href="http://www.hpe.com/servers/ahs">http://www.hpe.com/servers/ahs</a>.

## **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: <a href="http://www.hpe.com/servers/ahsv">http://www.hpe.com/servers/ahsv</a>.

## **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.

## **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: <a href="http://www.hpe.com/info/ilo/mobileapp">http://www.hpe.com/info/ilo/mobileapp</a>.

#### **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 <a href="http://www.hpe.com/info/resttool">http://www.hpe.com/info/resttool</a>.

## **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/stk or http://www.hpe.com/servers/powershell.

## **HPE OneView Standard**

HPE OneView Standard can be used for inventory, health monitoring, alerting, and reporting without additional fees. It can monitor multiple HPE server generations. The user interface is similar to the HPE OneView Advanced version, but the software-defined functionality is not available. Learn more at <a href="http://www.hpe.com/info/oneview">http://www.hpe.com/info/oneview</a>.

## **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 <a href="http://www.hpe.com/info/hpesim">http://www.hpe.com/info/hpesim</a>.

#### 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)
- iLO Security Modes including a New iLO Advanced Premium Security License
- Granular control over iLO interfaces
- Smart card (PIV/CAC) and Kerberos based 2-factor Authentication
- Tamper-free updates components digitally signed and verified
- Secure Recovery recover critical firmware to known good state on detection of compromised FW
- Ability to rollback firmware
- Secure erase of NAND
- TPM (Trusted Platform Module) 1.2 option
- TPM (Trusted Platform Module) 2.0 option
- Bezel Locking Kit
- Chassis Intrusion detection option

#### Warranty

This product is covered by a global limited warranty and supported by HPE Services and a worldwide network of HPE 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 iLO Advanced**

HPE iLO Advanced licenses offer smart remote functionality without compromise, for all HPE ProLiant servers. The license includes the full integrated remote console, virtual keyboard, video, and mouse (KVM), multi-user collaboration, console record and replay, and GUI-based and scripted virtual media and virtual folders. You can also activate the enhanced security and power management functionality. Learn more about HPE iLO Advanced at <a href="http://www.hpe.com/servers/iloadvanced">http://www.hpe.com/servers/iloadvanced</a>.

## **HPE iLO Advanced Premium Security Edition**

HPE iLO Advanced Premium Security Edition for iLO 5 includes iLO Advanced License plus high-end security modes, unique security capabilities, like Automatic FW recovery; Runtime FW verification, and Secure erase. Learn more about HPE iLO Advanced Premium Security Edition at: <a href="http://www.hpe.com/servers/ilopremium">http://www.hpe.com/servers/ilopremium</a>.

#### **HPE OneView Advanced**

HPE OneView brings a new level of automation to infrastructure management by taking a template driven approach to provisioning, updating, and integrating compute, storage, and networking infrastructure. It provides full-featured licenses which can be purchased for managing Gen8, Gen9 and Gen10 servers. To learn more visit <a href="http://www.hpe.com/info/oneview">http://www.hpe.com/info/oneview</a>.

#### **HPE InfoSight for Servers**

HPE InfoSight for Servers combines the cloud-based machine learning of InfoSight with the health and performance monitoring of Active Health System (AHS) and iLO to optimize performance and predict and prevent problems. The end result is an intelligent environment that modernizes IT operations and enhances the support experience by predicting and preventing the infrastructure issues that lead to application disruptions, wasted IT staff time and missed business opportunities.

Learn more at <a href="https://www.hpe.com/servers/infosight">https://www.hpe.com/servers/infosight</a>

#### **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 <a href="http://www.hpe.com/info/cmu">http://www.hpe.com/info/cmu</a>.

#### Accelerator and GPGPU Information

Hewlett Packard Enterprise supports various accelerators on select HPE Proliant servers to support different workloads. The accelerators enable seamless integration of GPU computing with HPE ProLiant servers for high-performance computing, large data center graphics, deep learning and virtual desktop deployments. These accelerators deliver all of the standard benefits of GPU computing while enabling maximum reliability and tight integration with system monitoring and management tools such as HPE Insight Cluster Management Utility.

## **Optional Features**

## **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.

## One Config Simple (SCE)

SCE is a guided self-service tool to help sales and non-technical people provide customers with initial configurations in 3 to 5 minutes. You may then send the configuration on for configuration help, or use in your existing ordering processes. If you require "custom" rack configuration or configuration for products not available in SCE, please contact Hewlett Packard Enterprise Customer Business Center or an Authorized Partner for assistance.

https://h22174.www2.hpe.com/SimplifiedConfig/Welcome#

## Service and Support

## **HPE Pointnext - Service and Support**

## Protect your business beyond warranty with HPE Pointnext Operational Service

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

## **Connect your devices:**

Unlock all of the benefits of your technology investment by connecting your products to Hewlett Packard Enterprise. Achieve up to 77%<sup>1</sup> reduction in down time, near 100%2 diagnostic accuracy and a single consolidated view of your environment. By connecting, you will receive 24x7monitoring, pre-failure alerts, automatic call logging, and automatic parts dispatch. HPE Proactive Care Service and HPE Datacenter Care Service customers will also benefit from proactive activities to help prevent issues and increase optimization. All of these benefits are already available to you with your server storage and networking products, securely connected to HPE support.

- 1- IDC
- <sup>2-</sup> HPE CSC reports 2014 2015

Learn more about getting connected at <a href="http://www.hpe.com/services/getconnected">http://www.hpe.com/services/getconnected</a>.

#### **Recommended Services**

## HPE Proactive Care\* with 6 hour call-to-repair commitment, three year Support Service

HPE Proactive Care gives customers an enhanced call experience. When your products are connected to HPE, Proactive Care helps prevent problems and maintains IT stability by utilizing personalized proactive reports with recommendations and advice. This Service combines three years' proactive reporting and advice with our highest level of hardware support - HPE's 24x7, six hour hardware call-to-repair. HPE is the only leading manufacturer who makes this level of coverage available as a standard service offering for your most valuable servers. This service also includes collaborative software support for Independent Software Vendors (ISVs), (Red Hat, VMWare, Microsoft, etc.) running on your HPE servers.

https://www.hpe.com/h20195/v2/GetPDF.aspx/4AA3-8855ENW.pdf

## HPE Proactive Care\* with 24x7 coverage, three year Support Service

HPE Proactive Care gives customers an enhanced call experience. When your products are connected to HPE, Proactive Care helps prevent problems and maintains IT stability by utilizing personalized proactive reports with recommendations and advice This Service combines three years proactive reporting and advice with our 24x7 coverage, four hour hardware response time when there is a problem. This service also includes collaborative software support for Independent Software Vendors (ISVs), (Red Hat, VMWare, Microsoft, etc.) running on your HPE servers.

https://www.hpe.com/h20195/v2/GetPDF.aspx/4AA3-8855ENW.pdf

#### HPE Proactive Care\* - Next Business Day service, three year Support Service

HPE Proactive Care gives customers an enhanced call experience. When your products are connected to HPE, Proactive Care helps prevent problems and maintains IT stability by utilizing personalized proactive reports with recommendations and advice. This service combines three years of Hardware Support where an HPE authorized representative will arrive at the Customer's site during the onsite coverage window to begin hardware maintenance service the next coverage day after the service request has been logged. This service also includes collaborative software support for Independent Software Vendors (ISVs), (Red Hat, VMWare, Microsoft, etc.) running on your HPE servers.

## https://www.hpe.com/h20195/v2/GetPDF.aspx/4AA3-8855ENW.pdf

\*HPE Proactive Care and HPE Proactive Care Advanced require that the customer connect their devices to make the most of these services and receive all the deliverables.

## Service and Support

## Other related Services

#### **HPE Server Hardware Installation**

Provides for the basic hardware installation of HPE branded servers, storage devices and networking options to assist you in bringing your new hardware into operation in a timely and professional manner.

https://www.hpe.com/h20195/V2/GetPDF.aspx/5981-9356EN.pdf

## **HPE Installation and Startup Service**

Provides for the installation of your HPE hardware according to product specifications including options. The HPE service delivery technician will connect the product to a LAN as appropriate and enable remote support to allow for automatic case creation for hardware failures. Installation and start up services also includes the installation of one supported operating system type (Windows® or Linux).

#### **HPE Datacenter Care service**

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

http://www.hpe.com/services/datacentercare

## **HPE GreenLake Flex Capacity**

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

## DC for Hyperscale

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

#### **HPE Factory Express for Servers and storage**

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

Factory Express offers service packages for simple configuration, racking, installation, complex configuration and design services as well as individual factory services, such as image loading, asset tagging, and custom packaging. HPE products supported through Factory Express include a wide array of servers and storage: HPE Integrity, HPE ProLiant, HPE Apollo, HPE ProLiant Server Blades, HPE BladeSystem, HPE 9000 servers as well as the MSAxxxx3PAR suite, XP, rackable tape libraries and configurable network switches.

## **HPE Service Credits**

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

## **HPE Education Services**

Keep your IT staff trained making sure they have the right skills to deliver on your business outcomes. Book on a class today and learn how to get the most from your technology investment.

http://www.hpe.com/ww/learn

## Service and Support

## **HPE Support Center**

The HPE Support Center is a personalized online support portal with access to information, tools and experts to support HPE business products. Submit support cases online, chat with Hewlett Packard Enterprise experts, access support resources or collaborate with peers.

## Learn more <a href="http://www.hpe.com/support/hpesc">http://www.hpe.com/support/hpesc</a>.

HPE's Support Center Mobile App\* allows you to resolve issues yourself or quickly connect to an agent for live support. Now, you can get access to 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.

\*HPE Support Center Mobile App is subject to local availability.

For more information: <a href="http://www.hpe.com/services">http://www.hpe.com/services</a>.

# **NOTE:** HPE ProLiant DL360 Gen10 Server is covered under the HPE Service Contract applied to the HPE ProLiant Server. No separate HPE support services need to be purchased.

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

#### **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.

## **Pre-configured Models**

- 1. Pre-configured models ship with the configurations below. Options can be selected from the Core or Additional options section of this QuickSpecs.
- 2. Hewlett Packard Enterprise does not allow factory integration of options into pre-configured models. Any additional options purchased will be shipped separately.
- 3. If you desire a custom configuration please see "Configuration Information Factory Integrated Models" section of this QuickSpecs.

1.7 GHz 6-core 1P 8GB-R S100i 4LFF 500W PS Base Server		Low Model	Entry Model	Base Model			
1.7GHz 6-core 1P 8GB-R S100i   4LFF 500W PS Base Server	SKU Number	P01880-B21	867961-B21	867962-B21			
Number of Processor	Model Name	1.7GHz 6-core 1P 8GB-R S100i	1.7GHz 8C 85W 1P 16G-2R S100i	HPE ProLiant DL360 Gen10 4114 2.2GHz 10C 85W 1P 16G-2R P408i-a 8SFF 1x500W Base Server			
Number of Processor With standard heatsink  8 GB RDIMM 2R 2666 MT/s (1x 8 GB) NOTE: Runs at 2133 MT/s due to processor limitation.  Network Controller Storage Controller Hard Drive Optional Op	Chassis	4LFF	8SFF	8SFF			
Processors         With standard heatsink         With standard heatsink         With standard heatsink         With standard heatsink           Memory         8 GB RDIMM 2R 2666 MT/s (1x 8 GB) (1x 16 GB) NOTE: Runs at 2133 MT/s due to processor limitation.         16 GB RDIMM 2R 2666 MT/s (1x 16 GB) NOTE: Runs at 2133 MT/s due to processor limitation.         16 GB RDIMM 2R 2666 MT/s (1x 16 GB) NOTE: Runs at 2400 MT/s due to processor limitation.           Network Controller         Embedded 4-port 1GbE         Embedded 4-port 1GbE         Embedded 4-port 1GbE           Storage Controller         Embedded 14-port 5100i NOTE: SATA only.         P408i-a/2GB           Hard Drive None included         None included         None included           Optical Drive Optional         Optional (requires both Drive and UMB)         Optional (requires both Drive and UMB)           PCIes Slots         2 PCIe: 1 x16 FH / 1 x8 LP         2 PCIe: 1 x16 FH / 1 x8 LP         2 PCIe: 1 x16 FH / 1 x8 LP           Power Supply         1x 500W         1x 500W         1x 500W           Fans         5 - Standard         5 - Standard         5 - Standard           Management         HPE iLO 5         HPE iLO 5         HPE iLO 5           Rail Kit         LFF Easy Install w/o CMA         SFF Easy Install w/o CMA         SFF Easy Install w/o CMA	Processor	3104 (6-Core, 1.7 GHz, 85W)	3106 (8-Core, 1.7 GHz, 85W)	4114 (10-Core, 2.2 GHz, 85W)			
Memory         (1x 8 GB) NOTE: Runs at 2133 MT/s due to processor limitation.         (1x 16 GB) NOTE: Runs at 2133 MT/s due to processor limitation.         (1x 16 GB) NOTE: Runs at 2400 MT/s due to processor limitation.           Network Controller         Embedded 4-port 1GbE         Embedded 4-port 1GbE         Embedded 4-port 1GbE           Storage Controller         Embedded 14-port S100i NOTE: SATA only.         Embedded 14-port S100i NOTE: SATA only.         P408i-a/2GB           Hard Drive         None included         None included         None included           Optional (requires both Drive and UMB)         Optional (requires both Drive and UMB)         Optional (requires both Drive and UMB)           PCIe Slots         2 PCIe: 1 x16 FH / 1 x8 LP         2 PCIe: 1 x16 FH / 1 x8 LP         2 PCIe: 1 x16 FH / 1 x8 LP           Power Supply         1x 500W         1x 500W         1x 500W           Fans         5 - Standard         5 - Standard         5 - Standard           Management         HPE iLO 5         HPE iLO 5         HPE iLO 5           Rail Kit         LFF Easy Install w/o CMA         SFF Easy Install w/o CMA         SFF Easy Install w/o CMA           Energy Star         Energy Star 2.1           Form Factor         1U Rack		· ·					
Controller  Embedded 4-porf 1GbE  P408  Formanded  Optional (requires both Drive and UMB)  Optional (requires both Drive and UMB)  1	Memory	(1x 8 GB) NOTE: Runs at 2133 MT/s due to	(1x 16 GB)  NOTE: Runs at 2133 MT/s due to	(1x 16 GB)  NOTE: Runs at 2400 MT/s due to			
Controller         NOTE: SATA only.         NOTE: SATA only.         P408i-a/2GB           Hard Drive         None included         None included         None included           Optical Drive         Optional         Optional (requires both Drive and UMB)         Optional (requires both Drive and UMB)           PCIe Slots         2 PCIe: 1 x16 FH / 1 x8 LP         2 PCIe: 1 x16 FH / 1 x8 LP         2 PCIe: 1 x16 FH / 1 x8 LP           Power Supply         1x 500W         1x 500W         1x 500W           Fans         5 - Standard         5 - Standard         5 - Standard           Management         HPE iLO 5         HPE iLO 5         HPE iLO 5           Rail Kit         LFF Easy Install w/o CMA         SFF Easy Install w/o CMA         SFF Easy Install w/o CMA           Energy Star         Energy Star 2.1         Energy Star 2.1		Embedded 4-port 1GbE	Embedded 4-port 1GbE	Embedded 4-port 1GbE			
Optical DriveOptionalOptional (requires both Drive and UMB)Optional (requires both Drive and UMB)PCIe Slots2 PCIe: 1 x16 FH / 1 x8 LP2 PCIe: 1 x16 FH / 1 x8 LP2 PCIe: 1 x16 FH / 1 x8 LPPower Supply1x 500W1x 500W1x 500WFans5 - Standard5 - Standard5 - StandardManagementHPE iLO 5HPE iLO 5HPE iLO 5Rail KitLFF Easy Install w/o CMASFF Easy Install w/o CMASFF Easy Install w/o CMAEnergy StarEnergy Star 2.1Form Factor1U Rack	_	i ·	·	P408i-a/2GB			
Optional         UMB)         UMB)           PCIe Slots         2 PCIe: 1 x16 FH / 1 x8 LP         2 PCIe: 1 x16 FH / 1 x8 LP           Power Supply         1x 500W         1x 500W           Fans         5 - Standard         5 - Standard           Management         HPE iLO 5         HPE iLO 5           Rail Kit         LFF Easy Install w/o CMA         SFF Easy Install w/o CMA           Energy Star         Energy Star 2.1           Form Factor         1U Rack	Hard Drive	None included	None included	None included			
Power Supply         1x 500W         1x 500W           Fans         5 - Standard         5 - Standard         5 - Standard           Management         HPE iLO 5         HPE iLO 5         HPE iLO 5           Rail Kit         LFF Easy Install w/o CMA         SFF Easy Install w/o CMA         SFF Easy Install w/o CMA           Energy Star         Energy Star 2.1           Form Factor         1U Rack	Optical Drive	Optional	' '	· ·			
Fans 5 - Standard 5 - Standard 5 - Standard 5 - Standard Management HPE iLO 5 HPE iLO 5 HPE iLO 5  Rail Kit LFF Easy Install w/o CMA SFF Easy Install w/o CMA SFF Easy Install w/o CMA  Energy Star Energy Star 2.1  Form Factor 1U Rack	PCIe Slots	2 PCle: 1 x16 FH / 1 x8 LP	2 PCle: 1 x16 FH / 1 x8 LP	2 PCle: 1 x16 FH / 1 x8 LP			
Management     HPE iLO 5     HPE iLO 5       Rail Kit     LFF Easy Install w/o CMA     SFF Easy Install w/o CMA     SFF Easy Install w/o CMA       Energy Star     Energy Star 2.1       Form Factor     1U Rack	Power Supply	1x 500W	1x 500W	1x 500W			
Rail Kit LFF Easy Install w/o CMA SFF Easy Install w/o CMA SFF Easy Install w/o CMA  Energy Star Energy Star 2.1  Form Factor 1U Rack	Fans	5 - Standard	5 - Standard	5 - Standard			
Energy Star Energy Star 2.1 Form Factor 1U Rack	Management	HPE iLO 5	HPE iLO 5	HPE iLO 5			
Form Factor 1U Rack	Rail Kit	LFF Easy Install w/o CMA	SFF Easy Install w/o CMA	SFF Easy Install w/o CMA			
	Energy Star		Energy Star 2.1				
Warranty 3-year parts, 3-year labor, 3-year onsite support with next business day response.	Form Factor		1U Rack				
	Warranty	3-year parts, 3-year labor, 3-year onsite support with next business day response.					

# **Pre-configured Models**

	Performance Model	High Perform	mance Models
SKU Number	867963-B21	867964-B21	879991-B21
Model Name	HPE ProLiant DL360 Gen10 5118 2.3GHz 12C 105W 2P 32G-2R P408i-a 8SFF 2x800W Performance Server	HPE ProLiant DL360 Gen10 6130 2.1GHz 16C 125W 2P 64G-2R P408i-a Premium 10NVMe 2x800W High Perf Svr	HPE ProLiant DL360 Gen10 6130 2.1GHz 16C 125W 2P 64G-2R P408i-a Premium 10NVMe 2x800W High Perf Svr
Chassis	8SFF	Premium 10 SFF NVMe	Premium 10 SFF NVMe
Processor	5118 (12-Core, 2.3 GHz, 105W)	6130 (16-Core, 2.1 GHz, 125W)	6130 (16-Core, 2.1 GHz, 125W)
Number of Processors	Two processors With standard heatsink	Two processors With High Performance heatsink	Two processors With High Performance heatsink
Memory	32 GB RDIMM 2R 2666 MT/s (2x 16 GB)  NOTE: Runs at 2400 MT/s due to processor limitation.	64 GB RDIMM 2R 2666 MT/s (2x 32 GB)	64 GB RDIMM 2R 2666 MT/s (2x 32 GB)
Network Controller	Embedded 4-port 1GbE + 10/25 GbE 2P 640FLR-SFP28	Embedded 4-port 1GbE + 10/25 GbE 2P 640FLR-SFP28	Embedded 4-port 1GbE + 10/25 GbE 2P 631FLR-SFP28
Storage Controller	P408i-a/2GB	P408i-a/2 GB	P408i-a/2 GB
Hard Drive	None included	None included	None included
Optical Drive	Optional (requires both Drive and UMB)	Optional (external USB 701498- B21 only)	Optional (external USB 701498- B21 only)
PCIe Slots	3 PCle: 1 x16 FH / 1 x8 LP + 1 x16 FH	2 PCle: 1 x16 FH / 1 x8 LP	2 PCle: 1 x16 FH / 1 x8 LP
Power Supply	2x 800W	2x 800W	2x 800W
Fans	7 - Standard	7 – High Performance	7 - High Performance
Management	HPE iLO Advanced	HPE iLO Advanced	HPE iLO Advanced
Rail Kit		SFF Easy Install w/o CMA	
Energy Star		Energy Star 2.1	
Form Factor		1U Rack	
Warranty		abor, 3-year onsite support with next b	ousiness day response.
NOTE: UEFI is th	ne standard default for all Pre-configu	red models.	

Countryxx1 = B21WorldwideCode Keyxx1 = 291Japanxx1 = AA1PRC

**NOTE:** The -B21 WW SKU is to be ordered in all countries other than Japan or PRC.

## **SMB Models**

- 1. New SMB focused offers regionally released as "Smart Buy Express" in the U.S. and Canada, "Top Value" in Europe, and "Intelligent Buy" in Asia Pacific and Japan"
- 2. SMB Models ship with the configurations below. Options can be selected from the Core or Additional options section of this QuickSpecs.
- 3. Hewlett Packard Enterprise does not provide factory integration of options into SMB Models. Any additional options purchased will be shipped separately and would need to be field integrated.
- 4. If you desire to custom configure an SMB Model please consult your preferred reseller.

	SMB Models						
SKU Number	P06453-xx1	P06454-xx1	P06455-xx1				
Model Name	HPE ProLiant DL360 Gen10 4110 2.1GHz 8-core 1P 16GB-R P408i-a 8SFF 500W PS Performance Server	HPE ProLiant DL360 Gen10 5118 2.3GHz 12-core 1P 32GB-R P408i- a 8SFF 800W RPS Performance Server	HPE ProLiant DL360 Gen10 6130 2.1GHz 16-core 1P 64GB-R P408i-a 8SFF 800W RPS Performance Server				
Chassis	8SFF	8SFF	8SFF				
Processor	4110 (8 core, 2.1 GHz, 85W)	5118 (12 core, 2.3 GHz, 105W)	6130 (16 core, 2.1 GHz, 125W)				
Number of Processors	One processor With standard heatsink	One processor With standard heatsink	One processor With standard heatsink				
Memory  16 GB RDIMM 2R 2666 MT/s (1x 16 GB)  NOTE: Runs at 2400 MT/s due to processor limitation.		32 GB RDIMM 2R 2666 MT/s (1x 32 GB) NOTE: Runs at 2400 MT/s due to processor limitation.	64 GB RDIMM 2R 2666 MT/s (2x 32 GB) NOTE: Runs at 2666 MT/s				
Network Controller	HPE 1Gb Ethernet 4-Port 331i Adapter	HPE 1Gb Ethernet 4-Port 331i Adapter	HPE 1Gb Ethernet 4-Port 331i Adapter				
Storage Controller	P408i-a/2GB with Smart Storage Battery	P408i-a/2GB with Smart Storage Battery	P408i-a/2GB with Smart Storage Battery				
Hard Drive	None included	None included	None included				
Optical Drive	Optional (requires both Drive and UMB)	Optional (requires both Drive and UMB)	Optional (requires both Drive and UMB)				
PCIe Slots	2 PCle: 1 x16 FH, 1 x8 LP	2 PCle: 1 x16 FH, 1 x8 LP	2 PCle: 1 x16 FH, 1 x8 LP				
Power Supply	1x 500W	2x 800W	2x 800W				
Fans	5 - Standard	5 - Standard	5 - Standard				
Management	HPE iLO 5	HPE iLO 5	HPE iLO 5				
Rail Kit		SFF Easy Install w/o CMA					
Energy Star		Energy Star 2.1					
Form Factor		1U Rack					
Warranty	3-year parts, 3-year labor, 3-year onsite support with next business day response.						
NOTE: UEFI is tl	ne standard default for all SMB model	S.					

## **SMB Models**

	SMB Solution Models
SKU Number	P05520-xx1
Model Name	HPE ProLiant DL360 Gen10 4110 2.1GHz 8-core 1P 16GB-R P408i-a 8SFF 500W RPS Solution Server
Chassis	8SFF
Processor	4110 (8 core, 2.1 GHz, 85W)
Number of Processors	One processor With standard heatsink
Memory	16 GB RDIMM 2R 2666 MT/s (1x 16 GB)  NOTE: Runs at 2400 MT/s due to processor limitation.
Network Controller	HPE 1Gb Ethernet 4-Port 331i Adapter
Storage Controller	P408i-a/2GB with Smart Storage Battery
Hard Drive	None included
Optical Drive	Optional (requires both Drive and UMB)
PCIe Slots	2 PCle: 1 x16 FH, 1 x8 LP
Power Supply	2x 500W
Fans	5 - Standard
Management	HPE iLO 5
Rail Kit	SFF Easy Install w/o CMA
Energy Star	Energy Star 2.1
Form Factor	1U Rack
Operating System	ClearOS/VM Installer (USB)  NOTE: ClearOS, an easy to use OS with an application marketplace, allows you to build a fully functional server that is just right for you at no upfront cost. To learn more on what you can do, please visit <a href="http://www.hpe.com/servers/clearos">http://www.hpe.com/servers/clearos</a> .
Warranty	3-year parts, 3-year labor, 3-year onsite support with next business day response.
-	the standard default for all SMB models.

**NOTE:** UEFI is the standard default for all SMB models.

Country Code	xx1 = B21	Worldwide
Key	xx1 = 291	Japan

NOTE: The -B21 WW SMB SKU is to be ordered in all countries other than Japan or PRC.

This section lists some of the steps required to configure a Factory Integrated Model.

 $To ensure \ valid \ configurations \ are \ ordered, \ Hewlett \ Packard \ Enterprise \ recommends \ the \ use \ of \ an \ HPE \ approved \ configurator.$ 

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 number of drives ordered with 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	4 LFF	8 SFF	Premium 10 NVMe			
SKU Number	867958-B21	867959-B21	867960-B21			
TAA SKU*	875965-B21	875966-B21	875967-B21			
Processor		Not included as standard				
DIMM Slots	24	-DIMM slots (12 can be used for NVD	MMs)			
Storage Controller		oedded SW RAID (S100i) with 14 SAT e of HPE modular Smart Array and PCI	•			
PCIe	2 PCle slots (1 x16 FH / 1 x8 LP) Optional: 1 x16 FH or LP	2 PCle slots (1 x16 FH / 1 x8 LP) Optional: 1 x16 FH or LP	2 PCle slots (1 x16 FH / 1 x8 LP)			
Drive Cage - included	4 LFF - SAS/SATA	8 SFF - SAS/SATA Optional: up to 2 NVMe or 2 Dual uFF (4x M.2 cartridges)	10 NVMe - SAS/SATA/NVME Optional: 1 Dual uFF (2x M.2 cartridges)			
Network Controller	HPE 1Gb Ethernet 4-Port 331i Adapter plus optional HPE FlexibleLOM or stand up card					
Fans	1 CPU – 5 Standard Fans 2 CPU – 7 Standard Fans Optional: High Performance Fans	1 CPU – 5 Standard Fans 2 CPU – 7 Standard Fans Optional: High Performance Fans	2 CPU – 7 High Performance Fans			
Management	HPE iLO with Intelligent Provisioning (standard) Optional: iLO Advance and OneView					
USB	Front: 1 USB 3.0 Rear: 2 Internal: Optional: 1 USB 2.0	Front: 1 USB 3.0 + iLO service port Rear: 2 USB 3.0 Internal: 2 USB 3.0				

**NOTE:** HPE offers multiple Trade Agreement Act (TAA) compliant configurations to meet the needs of US Federal Government customers. These products are either manufactured or substantially transformed in a designated country. **NOTE:** \*TAA chassis are only orderable in North America and Canada.

## **Step 2a: Choose Processor Options**

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 876099-L21 then for second processor, select 876099-B21.

**NOTE:** For first processor, -L21 will include 5 fans, For second processor, -B21 will add 2 additional fans (for 4 LFF and 8 SFF CTO Server). 10 NVMe CTO Server will always get 7 High Performane fans regardless of 1 or 2 processors.

**NOTE:** Maximum memory capacity per processor is dependent on processor models. All processors support up to 768 GB max memory per processor except "M" model processors will support up to 1.5 TB max memory per processor.

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

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

**NOTE:** Processors with 130W or higher will ship with the High Performance heat sink plus SKUs 8156, 6128, 5122 as noted below. All other will processors will ship with the Standard heat sink.

Processor Option Kits	Required Processor
Intel Xeon-Platinum	
HPE DL360 Gen10 Intel Xeon-Platinum 8180M (2.5GHz/28-core/205W) FIO Processor Kit	876099-L21
NOTE: Ships with High Performance Heatsink.	
HPE DL360 Gen10 Intel Xeon-Platinum 8180 (2.5GHz/28-core/205W) FIO Processor Kit	867988-L21
NOTE: Ships with High Performance Heatsink.	
HPE DL360 Gen10 Intel Xeon-Platinum 8176 (2.1GHz/28-core/165W) FIO Processor Kit	870982-L21
NOTE: Ships with High Performance Heatsink.	
HPE DL360 Gen10 Intel Xeon-Platinum 8170 (2.1GHz/26-core/165W) FIO Processor Kit	870980-L21
NOTE: Ships with High Performance Heatsink.	
HPE DL360 Gen10 Intel Xeon-Platinum 8168 (2.7GHz/24-core/205W) FIO Processor Kit	870978-L21
NOTE: Ships with High Performance Heatsink.	
HPE DL360 Gen10 Intel Xeon-Platinum 8165 (2.3GHz/24-core/205W) FIO Processor Kit	879121-L21
NOTE: Ships with Performance Heatsink.	
NOTE: Requires the High Performance Fan Kit (871244-B21)	
NOTE: Supports "Core boosting" Learn more <a href="http://www.hpe.com/info/ist">http://www.hpe.com/info/ist</a> .	
NOTE: To enable this feature an iLO Advanced, or iLO Advanced Premium Security edition License are require	
HPE DL360 Gen10 Intel Xeon-Platinum 8164 (2.0GHz/26-core/150W) FIO Processor Kit	870976-L21
NOTE: Ships with High Performance Heatsink.	
HPE DL360 Gen10 Intel Xeon-Platinum 8160M (2.1GHz/24-core/150W) FIO Processor Kit	876093-L21
NOTE: Ships with High Performance Heatsink.	
HPE DL360 Gen10 Intel Xeon-Platinum 8160 (2.1GHz/24-core/150W) FIO Processor Kit	870974-L21
NOTE: Ships with High Performance Heatsink.	

HPE DL360 Gen10 Intel Xeon-Platinum 8158 (3.0GHz/12-core/150W) FIO Processor Kit	874455-L21
NOTE: Ships with High Performance Heatsink.	
HPE DL360 Gen10 Intel Xeon-Platinum 8156 (3.6GHz/4-core/105W) FIO Processor Kit	874452-L21
NOTE: Ships with High Performance Heatsink.	
HPE DL360 Gen10 Intel Xeon-Platinum 8153 (2.0GHz/16-core/125W) FIO Processor Kit	870972-L21
Intel Xeon-Gold	
HPE DL360 Gen10 Intel Xeon-Gold 6154 (3.0GHz/18-core/200W) FIO Processor Kit	870970-L21
NOTE: Ships with High Performance Heatsink.	
HPE DL360 Gen10 Intel Xeon-Gold 6152 (2.1GHz/22-core/140W) FIO Processor Kit	860677-L21
NOTE: Ships with High Performance Heatsink.	
HPE DL360 Gen10 Intel Xeon-Gold 6150 (2.7GHz/18-core/165W) FIO Processor Kit	860675-L21
NOTE: Ships with High Performance Heatsink.	
HPE DL360 Gen10 Intel Xeon-Gold 6148 (2.4GHz/20-core/150W) FIO Processor Kit	860673-L21
NOTE: Ships with High Performance Heatsink.	
HPE DL360 Gen10 Intel Xeon-Gold 6146 (3.2GHz/12-core/165W) FIO Processor Kit	860671-L21
NOTE: Ships with High Performance Heatsink.	
HPE DL360 Gen10 Intel Xeon-Gold 6144 (3.5GHz/8-core/150W) FIO Processor Kit	870966-L21
NOTE: Ships with High Performance Heatsink.	
HPE DL360 Gen10 Intel Xeon-Gold 6143 (2.8GHz/16-core/205W) FIO Processor Kit	879118-L21
NOTE: Ships with Performance Heatsink.	
NOTE: Requires the High Performance Fan Kit (871244-B21)  NOTE: Supports "Core boosting" Learn more <a href="http://www.hpe.com/info/ist">http://www.hpe.com/info/ist</a> .	
<b>NOTE:</b> To enable this feature an iLO Advanced, or iLO Advanced Premium Security edition License are required.	
NOTE: To enable this feature an iLO Advanced, or iLO Advanced Premium Security edition License are required.  HPE DL360 Gen10 Intel Xeon-Gold 6142 (2.6GHz/16-core/150W) FIO Processor Kit	860669-L21
HPE DL360 Gen10 Intel Xeon-Gold 6142 (2.6GHz/16-core/150W) FIO Processor Kit	860669-L21
HPE DL360 Gen10 Intel Xeon-Gold 6142 (2.6GHz/16-core/150W) FIO Processor Kit NOTE: Ships with High Performance Heatsink.	860669-L21 860667-L21
HPE DL360 Gen10 Intel Xeon-Gold 6142 (2.6GHz/16-core/150W) FIO Processor Kit	
HPE DL360 Gen10 Intel Xeon-Gold 6142 (2.6GHz/16-core/150W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.  HPE DL360 Gen10 Intel Xeon-Gold 6140 (2.3GHz/18-core/140W) FIO Processor Kit	
HPE DL360 Gen10 Intel Xeon-Gold 6142 (2.6GHz/16-core/150W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.  HPE DL360 Gen10 Intel Xeon-Gold 6140 (2.3GHz/18-core/140W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.	860667-L21
HPE DL360 Gen10 Intel Xeon-Gold 6142 (2.6GHz/16-core/150W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.  HPE DL360 Gen10 Intel Xeon-Gold 6140 (2.3GHz/18-core/140W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.  HPE DL360 Gen10 Intel Xeon-Gold 6138 (2.0GHz/20-core/125W) FIO Processor Kit	860667-L21 870968-L21
HPE DL360 Gen10 Intel Xeon-Gold 6142 (2.6GHz/16-core/150W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.  HPE DL360 Gen10 Intel Xeon-Gold 6140 (2.3GHz/18-core/140W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.  HPE DL360 Gen10 Intel Xeon-Gold 6138 (2.0GHz/20-core/125W) FIO Processor Kit  HPE DL360 Gen10 Intel Xeon-Gold 6136 (3.0GHz/12-core/150W) FIO Processor Kit	860667-L21 870968-L21
HPE DL360 Gen10 Intel Xeon-Gold 6142 (2.6GHz/16-core/150W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.  HPE DL360 Gen10 Intel Xeon-Gold 6140 (2.3GHz/18-core/140W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.  HPE DL360 Gen10 Intel Xeon-Gold 6138 (2.0GHz/20-core/125W) FIO Processor Kit  HPE DL360 Gen10 Intel Xeon-Gold 6136 (3.0GHz/12-core/150W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.	860667-L21 870968-L21 860691-L21
HPE DL360 Gen10 Intel Xeon-Gold 6142 (2.6GHz/16-core/150W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.  HPE DL360 Gen10 Intel Xeon-Gold 6140 (2.3GHz/18-core/140W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.  HPE DL360 Gen10 Intel Xeon-Gold 6138 (2.0GHz/20-core/125W) FIO Processor Kit  HPE DL360 Gen10 Intel Xeon-Gold 6136 (3.0GHz/12-core/150W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.  HPE DL360 Gen10 Intel Xeon-Gold 6134M (3.2GHz/8-core/130W) FIO Processor Kit	860667-L21 870968-L21 860691-L21
HPE DL360 Gen10 Intel Xeon-Gold 6142 (2.6GHz/16-core/150W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.  HPE DL360 Gen10 Intel Xeon-Gold 6140 (2.3GHz/18-core/140W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.  HPE DL360 Gen10 Intel Xeon-Gold 6138 (2.0GHz/20-core/125W) FIO Processor Kit  HPE DL360 Gen10 Intel Xeon-Gold 6136 (3.0GHz/12-core/150W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.  HPE DL360 Gen10 Intel Xeon-Gold 6134M (3.2GHz/8-core/130W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.	860667-L21 870968-L21 860691-L21 876087-L21
HPE DL360 Gen10 Intel Xeon-Gold 6142 (2.6GHz/16-core/150W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.  HPE DL360 Gen10 Intel Xeon-Gold 6140 (2.3GHz/18-core/140W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.  HPE DL360 Gen10 Intel Xeon-Gold 6138 (2.0GHz/20-core/125W) FIO Processor Kit  HPE DL360 Gen10 Intel Xeon-Gold 6136 (3.0GHz/12-core/150W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.  HPE DL360 Gen10 Intel Xeon-Gold 6134M (3.2GHz/8-core/130W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.  HPE DL360 Gen10 Intel Xeon-Gold 6134 (3.2GHz/8-core/130W) FIO Processor Kit	860667-L21 870968-L21 860691-L21 876087-L21
HPE DL360 Gen10 Intel Xeon-Gold 6142 (2.6GHz/16-core/150W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.  HPE DL360 Gen10 Intel Xeon-Gold 6140 (2.3GHz/18-core/140W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.  HPE DL360 Gen10 Intel Xeon-Gold 6138 (2.0GHz/20-core/125W) FIO Processor Kit  HPE DL360 Gen10 Intel Xeon-Gold 6136 (3.0GHz/12-core/150W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.  HPE DL360 Gen10 Intel Xeon-Gold 6134M (3.2GHz/8-core/130W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.  HPE DL360 Gen10 Intel Xeon-Gold 6134 (3.2GHz/8-core/130W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.	860667-L21 870968-L21 860691-L21 876087-L21 860689-L21
HPE DL360 Gen10 Intel Xeon-Gold 6142 (2.6GHz/16-core/150W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.  HPE DL360 Gen10 Intel Xeon-Gold 6140 (2.3GHz/18-core/140W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.  HPE DL360 Gen10 Intel Xeon-Gold 6138 (2.0GHz/20-core/125W) FIO Processor Kit  HPE DL360 Gen10 Intel Xeon-Gold 6136 (3.0GHz/12-core/150W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.  HPE DL360 Gen10 Intel Xeon-Gold 6134M (3.2GHz/8-core/130W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.  HPE DL360 Gen10 Intel Xeon-Gold 6134 (3.2GHz/8-core/130W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.  HPE DL360 Gen10 Intel Xeon-Gold 6132 (2.6GHz/14-core/140W) FIO Processor Kit	860667-L21 870968-L21 860691-L21 876087-L21 860689-L21
HPE DL360 Gen10 Intel Xeon-Gold 6142 (2.6GHz/16-core/150W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.  HPE DL360 Gen10 Intel Xeon-Gold 6140 (2.3GHz/18-core/140W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.  HPE DL360 Gen10 Intel Xeon-Gold 6138 (2.0GHz/20-core/125W) FIO Processor Kit  HPE DL360 Gen10 Intel Xeon-Gold 6136 (3.0GHz/12-core/150W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.  HPE DL360 Gen10 Intel Xeon-Gold 6134M (3.2GHz/8-core/130W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.  HPE DL360 Gen10 Intel Xeon-Gold 6134 (3.2GHz/8-core/130W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.  HPE DL360 Gen10 Intel Xeon-Gold 6132 (2.6GHz/14-core/140W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.	860667-L21 870968-L21 860691-L21 876087-L21 860689-L21
HPE DL360 Gen10 Intel Xeon-Gold 6142 (2.6GHz/16-core/150W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.  HPE DL360 Gen10 Intel Xeon-Gold 6140 (2.3GHz/18-core/140W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.  HPE DL360 Gen10 Intel Xeon-Gold 6138 (2.0GHz/20-core/125W) FIO Processor Kit  HPE DL360 Gen10 Intel Xeon-Gold 6136 (3.0GHz/12-core/150W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.  HPE DL360 Gen10 Intel Xeon-Gold 6134M (3.2GHz/8-core/130W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.  HPE DL360 Gen10 Intel Xeon-Gold 6134 (3.2GHz/8-core/130W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.  HPE DL360 Gen10 Intel Xeon-Gold 6132 (2.6GHz/14-core/140W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.  HPE DL360 Gen10 Intel Xeon-Gold 6130 (2.1GHz/16-core/125W) FIO Processor Kit	860667-L21 870968-L21 860691-L21 876087-L21 860689-L21 860681-L21 860687-L21
HPE DL360 Gen10 Intel Xeon-Gold 6142 (2.6GHz/16-core/150W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.  HPE DL360 Gen10 Intel Xeon-Gold 6140 (2.3GHz/18-core/140W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.  HPE DL360 Gen10 Intel Xeon-Gold 6138 (2.0GHz/20-core/125W) FIO Processor Kit  HPE DL360 Gen10 Intel Xeon-Gold 6136 (3.0GHz/12-core/150W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.  HPE DL360 Gen10 Intel Xeon-Gold 6134M (3.2GHz/8-core/130W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.  HPE DL360 Gen10 Intel Xeon-Gold 6134 (3.2GHz/8-core/130W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.  HPE DL360 Gen10 Intel Xeon-Gold 6132 (2.6GHz/14-core/140W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.  HPE DL360 Gen10 Intel Xeon-Gold 6130 (2.1GHz/16-core/125W) FIO Processor Kit  HPE DL360 Gen10 Intel Xeon-Gold 6130 (2.1GHz/16-core/125W) FIO Processor Kit  HPE DL360 Gen10 Intel Xeon-Gold 6128 (3.4GHz/6-core/115W) FIO Processor Kit	860667-L21 870968-L21 860691-L21 876087-L21 860689-L21 860681-L21 860687-L21
HPE DL360 Gen10 Intel Xeon-Gold 6142 (2.6GHz/16-core/150W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.  HPE DL360 Gen10 Intel Xeon-Gold 6140 (2.3GHz/18-core/140W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.  HPE DL360 Gen10 Intel Xeon-Gold 6138 (2.0GHz/20-core/125W) FIO Processor Kit  HPE DL360 Gen10 Intel Xeon-Gold 6136 (3.0GHz/12-core/150W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.  HPE DL360 Gen10 Intel Xeon-Gold 6134M (3.2GHz/8-core/130W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.  HPE DL360 Gen10 Intel Xeon-Gold 6134 (3.2GHz/8-core/130W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.  HPE DL360 Gen10 Intel Xeon-Gold 6132 (2.6GHz/14-core/140W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.  HPE DL360 Gen10 Intel Xeon-Gold 6130 (2.1GHz/16-core/125W) FIO Processor Kit  HPE DL360 Gen10 Intel Xeon-Gold 6128 (3.4GHz/6-core/115W) FIO Processor Kit  HPE DL360 Gen10 Intel Xeon-Gold 6128 (3.4GHz/6-core/115W) FIO Processor Kit  NOTE: Ships with High Performance Heatsink.	860667-L21 870968-L21 860691-L21 876087-L21 860689-L21 860681-L21 860687-L21 860685-L21

HPE DL360 Gen10 Intel Xeon-Gold 5120 (2.2GHz/14-core/105W) FIO Processor Kit	860665-L21
HPE DL360 Gen10 Intel Xeon-Gold 5118 (2.3GHz/12-core/105W) FIO Processor Kit	860663-L21
HPE DL360 Gen10 Xeon-G 5117 FIO Kit	P00793-L21
HPE DL360 Gen10 Intel Xeon-Gold 5115 (2.4GHz/10-core/85W) FIO Processor Kit	860661-L21
Intel Xeon-Silver	
HPE DL360 Gen10 Intel Xeon-Silver 4116 (2.1GHz/12-core/85W) FIO Processor Kit	874449-L21
HPE DL360 Gen10 Intel Xeon-Silver 4114 (2.2GHz/10-core/85W) FIO Processor Kit	860657-L21
HPE DL360 Gen10 Intel Xeon-Silver 4112 (2.6GHz/4-core/85W) FIO Processor Kit	860659-L21
HPE DL360 Gen10 Intel Xeon-Silver 4110 (2.1GHz/8-core/85W) FIO Processor Kit	860653-L21
HPE DL360 Gen10 Intel Xeon-Silver 4108 (1.8GHz/8-core/85W) FIO Processor Kit	860655-L21
Intel Xeon-Bronze	
HPE DL360 Gen10 Intel Xeon-Bronze 3106 (1.7GHz/8-core/85W) FIO Processor Kit	860651-L21
HPE DL360 Gen10 Intel Xeon-Bronze 3104 (1.7GHz/6-core/85W) FIO Processor Kit	860649-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: <a href="http://www.hpe.com/docs/memory-ras-feature">http://www.hpe.com/docs/memory-ras-feature</a>.

NOTE: Maximum memory capacity per processor is dependent on processor model selection or limitation.

**NOTE:** Maximum memory speed is dependent on processor model selection or limitation.

**NOTE:** A maximum of 12 NVDIMMs can be supported.

## Registered DIMMs (RDIMMs)

Registered DIMMs (RDIMMs)	
HPE 32GB (1x32GB) Dual Rank x4 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit	815100-B21
HPE 16GB (1x16GB) Single Rank x4 DDR4-2666 CAS-19-19 Registered Smart Memory Kit	815098-B21
HPE 16GB (1x16GB) Dual Rank x8 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit	835955-B21
HPE 8GB (1x8GB) Single Rank x8 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit	815097-B21
HPE 8GB (1x8GB) Dual Rank x8 DDR4-2666 CAS-19-19 Registered Smart Memory Kit	876181-B21
Load Reduces DIMMs (LRDIMMs)	
HPE 128GB (1x128GB) Octal Rank x4 DDR4-2666 CAS-22-19-19 3DS Load Reduced Memory Kit	815102-B21
HPE 64GB (1x64GB) Quad Rank x4 DDR4-2666 CAS-19-19-19 Load Reduced Smart Memory Kit	815101-B21
HPE Persistent Memory (NVDIMM)	

HPE 16GB NVDIMM Single Rank x4 DDR4-2666 Module Kit

845264-B21

NOTE: A maximum of 12 NVDIMMs supported.

NOTE: Can only be mixed with RDIMMs.

NOTE: For General Server Memory and NVDIMM Population Rules and Guidelines for Gen10 see details here:

## http://www.hpe.com/docs/memory-population-rules

## **Step 2c: Choose Power Supplies**

Please select one or two power supplies from below.

**NOTE:** Mixing of 2 different power supplies are NOT allowed.

864279-B21

## **Configuration Information - Factory Integrated Models**

## **HPE Flex Slot 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 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 800W Flex Slot Universal Hot Plug Low Halogen Power Supply Kit	865428-B21
HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	830272-B21

NOTE: 1600W Power supplies only support high line voltage (200 VAC to 240 VAC).

## **HPE Flex Slot Power Supplies**

## Step 3: Choose Additional (FIO) Factory Integratable Options

Each of the following may be selected if desired at time of factory integration

HPE Trusted Platform Module 2.0 Gen10 Option

NOTE: HPE Trusted Platform Module 2.0 option works with Gen10 servers with UEFI Mode not Legacy Mode. It is not compatible with HPE ProLiant Gen8 servers or earlier generation variants.

NOTE: HPE server systems can have a TPM module (of any type) installed only once. It cannot be replaced with any other TPM module.

HPE Gen10 TPM 1.2 FIO Setting 872108-B21

**NOTE:** TPM 2.0 is set as default, for 1.2 TPM setting instead, please select this option.

HPE Legacy FIO Mode Setting 758959-B22

**NOTE:** UEFI is the default, this FIO part can be used for CTO to enable Legacy mode.

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

HPE OneView for ProLiant DL Server including 3yr 24x7 Support FIO Bundle Physical 1-server LTU	E5Y43A
HPE OneView w/o iLO including 3yr 24x7 Support 1-server FIO LTU	P8B31A

**NOTE:** Some options may not be integrated at the factory. To ensure only valid configurations are ordered, Hewlett Packard Enterprise recommends the use of an Hewlett Packard Enterprise approved configurator. Contact your local sales representative for additional information.

## **HPE Unique Options**

#### Risers

 HPE DL360 Gen10 Low Profile Riser Kit
 867982-B21

 HPE DL360 Gen10 SATA M.2 2280 Riser Kit
 867978-B21

 HPE DL360 Gen10 2P Full Height Riser and GPU Enablement Kit
 867980-B21

**NOTE:** This kit is not available on the 10 NVMe model.

Riser Information*								
Part number	Description	ription Riser position Slot Bus width (Gen3 lanes)			NVMe Direct Connect			
		Primary	Secondary	#1	#2	#3	Connectors	Max SSDs
n/a	HPE DL360 Gen10 x16/x8 Primary GPU Riser	D	N	x16	x8	0		
867978-B21	HPE DL360 Gen10 x16/x16 SATA M.2 2280 Riser Kit	0	N	x16	x16	0		
867980-B21	HPE DL360 Gen10 x16 FH GPU Riser Kit	N	0	0	n/a <sup>4</sup>	x16		
867982-B21	HPE DL360 Gen10 x16 LP Riser Kit	N	0	0	0	x16		
n/a	HPE DL360 Gen10 x16/x8 1-port 2SFF NVMe Riser <sup>1</sup>	0	N	x16	x8	0	1	2
n/a	HPE DL360 Gen10 5-port 10SFF NVMe Riser Kit <sup>2</sup>	N	D <sup>3</sup>	0	0	0	5	10
867972-B21	HPE DL360 Gen10 1SFF SAS/SATA Rear Backplane Kit	0	N	0	x8	0		

**NOTE:** D = Default on chassis; O = Optional; N = not supported or slot/connector not present.

**NOTE:** \*For additional details on ProLiant DL Gen10 server risers

## please visit: https://www.hpe.com/h20195/v2/Getdocument.aspx?docname=a00043229enw

## **Performance Cooling Options**

HPE DL360 Gen10 High Performance Heat Sink Kit	871246-B21
HPE DL360 Gen10 High Performance Fan Kit	871244-B21
Universal Media Bay Options	
HPE DL360 Gen10 2SFF SAS/SATA Backplane Kit	867966-B21
HPE DL360 Gen10 2SFF NVMe Backplane Kit	871242-B21
HPE DL360 Gen10 2SFF SATA UFF Backplane Kit	867970-B21
HPE DL360 Gen10 8SFF Display Port/USB/Optical Drive Blank Kit	868000-B21
NOTE: This kit is required for Optical Drive option (8SFF model only).	
HPE DL360 Gen10 LFF Display Port and USB Kit	868004-B21

<sup>&</sup>lt;sup>1</sup>Included on 2SFF NVMe Backplane Kit (871242-B21)

<sup>&</sup>lt;sup>2</sup>Included on 10SFF chassis (867960-B21 & 875967-B21) or 10SFF Premium backplane kit (867974-B21)

<sup>&</sup>lt;sup>3</sup>Included on 10SFF chassis (867960-B21 & 875967-B21)

<sup>&</sup>lt;sup>4</sup>When secondary full height kit is installed, then primary PCle Slot #2 cannot be used. Only 2 full height slots are supported.

Optical Drive Options	
HPE Mobile USB DVD-RW Optical Drive	701498-B21
NOTE: This kit is only supported on USB 3.0 ports only.	
HPE 9.5mm SATA DVD-ROM Optical Drive	726536-B21
HPE 9.5mm SATA DVD-RW Optical Drive	726537-B21
System Insight Display Options	
HPE DL360 Gen10 SFF System Insight Display Power Module Kit	867996-B21
HPE DL360 Gen10 LFF System Insight Display Power Module Kit	867994-B21
Rear Drive Option Kit	
HPE DL360 Gen10 1SFF Rear SAS/SATA/UFF Backplane Kit	867972-B21
10 NVMe chassis Upgrade Kit	
HPE DL360 Gen10 10SFF Premium Backplane Kit	867974-B21
NOTE: This kit is supported on the 8SFF model only.	
Security	
HPE Trusted Platform Module 2.0 Gen10 Option	864279-B21
HPE DL360 Gen10 Chassis Intrusion Detection Kit	867984-B21
HPE 1U Gen10 Bezel Kit	867998-B21
HPE Bezel Lock Kit	875519-B21
Cable Kits	
HPE DL360 Gen10 SFF Internal Cable Kit	867990-B21
HPE DL3XX Gen10 Rear Serial Cable and Enablement Kit	873770-B21
HPE DL360 Gen10 LFF Internal Cable Kit	873869-B21

## **HPE Processors**

Please select one -L21 processor required above.

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

For example: first processor, select 876099-L21 then for second processor, select 876099-B21.

**NOTE:** For first processor, -L21 will include 5 fans, for second processor, -B21 will add 2 additional fans (for 4 LFF and 8 SFF chassis). 10 NVMe chassis will always get 7 High Performane fans regardless of 1 or 2 processors.

**NOTE:** Maximum memory capacity per processor is dependent on processor models. All processors support up to 768 GB max memory per processor except "M" model processors will support up to 1.5 TB max memory per processor.

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

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

**NOTE:** Processors with 130W or higher will ship with the High Performance heat sink plus SKUs 8156, 6128, 5122 as noted below. All other will processors will ship with the Standard heat sink.

## Intel Xeon-Platinum

HPE DL360 Gen10 Intel Xeon-Platinum 8180M (2.5GHz/28-core/205W) Processor Kit	876099-B21
NOTE: Ships with Performance Heatsink.	
HPE DL360 Gen10 Intel Xeon-Platinum 8180 (2.5GHz/28-core/205W) Processor Kit	867988-B21
NOTE: Ships with Performance Heatsink.	
HPE DL360 Gen10 Intel Xeon-Platinum 8176 (2.1GHz/28-core/165W) Processor Kit	870982-B21
NOTE: Ships with Performance Heatsink.	

HPE DL360 Gen10 Intel Xeon-Platinum 8170 (2.1GHz/26-core/165W) Processor Kit	870980-B21
NOTE: Ships with Performance Heatsink.	070070 D21
HPE DL360 Gen10 Intel Xeon-Platinum 8168 (2.7GHz/24-core/205W) Processor Kit  NOTE: Ships with Performance Heatsink.	870978-B21
HPE DL360 Gen10 Intel Xeon-Platinum 8165 (2.3GHz/24-core/205W) Processor Kit	879121-B21
NOTE: Ships with Performance Heatsink.	0,,121 821
NOTE: Requires the High Performance Fan Kit (871244-B21)	
NOTE: Supports "Core boosting" Learn more <a href="http://www.hpe.com/info/ist">http://www.hpe.com/info/ist</a> .	
<b>NOTE:</b> To enable this feature an iLO Advanced, or iLO Advanced Premium Security edition License are required.	
HPE DL360 Gen10 Intel Xeon-Platinum 8164 (2.0GHz/26-core/150W) Processor Kit	870976-B21
NOTE: Ships with Performance Heatsink.	
NOTE: Ships with Performance Heatsink.	
HPE DL360 Gen10 Intel Xeon-Platinum 8160 (2.1GHz/24-core/150W) Processor Kit	870974-B21
NOTE: Ships with Performance Heatsink.	
HPE DL360 Gen10 Intel Xeon-Platinum 8158 (3.0GHz/12-core/150W) Processor Kit	874455-B21
NOTE: Ships with Performance Heatsink.	
HPE DL360 Gen10 Intel Xeon-Platinum 8156 (3.6GHz/4-core/105W) Processor Kit	874452-B21
NOTE: Ships with Performance Heatsink.	
HPE DL360 Gen10 Intel Xeon-Platinum 8153 (2.0GHz/16-core/125W) Processor Kit	870972-B21
Intel Xeon-Gold	
HPE DL360 Gen10 Intel Xeon-Gold 6154 (3.0GHz/18-core/200W) Processor Kit	870970-B21
NOTE: Ships with Performance Heatsink.	
HPE DL360 Gen10 Intel Xeon-Gold 6152 (2.1GHz/22-core/140W) Processor Kit	860677-B21
NOTE: Ships with Performance Heatsink.	
HPE DL360 Gen10 Intel Xeon-Gold 6150 (2.7GHz/18-core/165W) Processor Kit	860675-B21
NOTE: Ships with Performance Heatsink.	
HPE DL360 Gen10 Intel Xeon-Gold 6148 (2.4GHz/20-core/150W) Processor Kit	860673-B21
NOTE: Ships with Performance Heatsink.	
HPE DL360 Gen10 Intel Xeon-Gold 6146 (3.2GHz/12-core/165W) Processor Kit	860671-B21
NOTE: Ships with High Performance Heatsink.	
HPE DL360 Gen10 Intel Xeon-Gold 6144 (3.5GHz/8-core/150W) Processor Kit	870966-B21
NOTE: Ships with High Performance Heatsink.	
HPE DL360 Gen10 Intel Xeon-Gold 6143 (2.8GHz/16-core/205W) Processor Kit	879118-B21
NOTE: Ships with Performance Heatsink.	
NOTE: Requires the High Performance Fan Kit (871244-B21)  NOTE: Supports "Core boosting" Learn more <a href="http://www.hpe.com/info/ist">http://www.hpe.com/info/ist</a> .	
<b>NOTE:</b> To enable this feature an iLO Advanced, or iLO Advanced Premium Security edition License are required.	
HPE DL360 Gen10 Intel Xeon-Gold 6142 (2.6GHz/16-core/150W) Processor Kit	860669-B21
NOTE: Ships with Performance Heatsink.	
HPE DL360 Gen10 Intel Xeon-Gold 6140 (2.3GHz/18-core/140W) Processor Kit	860667-B21
NOTE: Ships with Performance Heatsink.	
HPE DL360 Gen10 Intel Xeon-Gold 6138 (2.0GHz/20-core/125W) Processor Kit	870968-B21
HPE DL360 Gen10 Intel Xeon-Gold 6136 (3.0GHz/12-core/150W) Processor Kit	860691-B21
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NOTE: Ships with Performance Heatsink.	
HPE DL360 Gen10 Intel Xeon-Gold 6134M (3.2GHz/8-core/130W) Processor Kit	876087-B21
NOTE: Ships with Performance Heatsink.	
HPE DL360 Gen10 Intel Xeon-Gold 6134 (3.2GHz/8-core/130W) Processor Kit	860689-B21
NOTE: Ships with Performance Heatsink.	
HPE DL360 Gen10 Intel Xeon-Gold 6132 (2.6GHz/14-core/140W) Processor Kit	860681-B21
NOTE: Ships with Performance Heatsink.	
HPE DL360 Gen10 Intel Xeon-Gold 6130 (2.1GHz/16-core/125W) Processor Kit	860687-B21
HPE DL360 Gen10 Intel Xeon-Gold 6128 (3.4GHz/6-core/115W) Processor Kit	860685-B21
NOTE: Ships with Performance Heatsink.	
HPE DL360 Gen10 Intel Xeon-Gold 6126 (2.6GHz/12-core/125W) Processor Kit	860683-B21
HPE DL360 Gen10 Intel Xeon-Gold 5122 (3.6GHz/4-core/105W) Processor Kit	860679-B21
NOTE: Ships with Performance Heatsink.	
HPE DL360 Gen10 Intel Xeon-Gold 5120 (2.2GHz/14-core/105W) Processor Kit	860665-B21
HPE DL360 Gen10 Intel Xeon-Gold 5118 (2.3GHz/12-core/105W) Processor Kit	860663-B21
HPE DL360 Gen10 Xeon-G 5117 Kit	P00793-B21
HPE DL360 Gen10 Intel Xeon-Gold 5115 (2.4GHz/10-core/85W) Processor Kit	860661-B21
Intel Xeon-Silver	
HPE DL360 Gen10 Intel Xeon-Silver 4116 (2.1GHz/12-core/85W) Processor Kit	874449-B21
HPE DL360 Gen10 Intel Xeon-Silver 4114 (2.2GHz/10-core/85W) Processor Kit	860657-B21
HPE DL360 Gen10 Intel Xeon-Silver 4112 (2.6GHz/4-core/85W) Processor Kit	860659-B21
HPE DL360 Gen10 Intel Xeon-Silver 4110 (2.1GHz/8-core/85W) Processor Kit	860653-B21
HPE DL360 Gen10 Intel Xeon-Silver 4108 (1.8GHz/8-core/85W) Processor Kit	860655-B21
Intel Xeon-Bronze	
HPE DL360 Gen10 Intel Xeon-Bronze 3106 (1.7GHz/8-core/85W) Processor Kit	860651-B21
HPE DL360 Gen10 Intel Xeon-Bronze 3104 (1.7GHz/6-core/85W) Processor Kit	860649-B21

## **HPE Memory**

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: <a href="https://www.hpe.com/docs/memory-speed-table">https://www.hpe.com/docs/memory-speed-table</a>

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

NOTE: Maximum memory capacity per processor is dependent on processor model selection or limitation.

**NOTE:** Maximum memory speed is dependent on processor model selection or limitation.

NOTE: A maximum of 12 NVDIMMs can be supported.

## **HPE DDR4 Memory**

## Registered DIMMs (RDIMMs)

HPE 32GB (1x32GB) Dual Rank x4 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit	815100-B21
HPE 16GB (1x16GB) Dual Rank x8 DDR4-2666 CAS-19-19 Registered Smart Memory Kit	835955-B21
HPE 16GB (1x16GB) Single Rank x4 DDR4-2666 CAS-19-19 Registered Smart Memory Kit	815098-B21
HPE 8GB (1x8GB) Single Rank x8 DDR4-2666 CAS-19-19 Registered Smart Memory Kit	815097-B21
HPE 8GB (1x8GB) Dual Rank x8 DDR4-2666 CAS-19-19 Registered Smart Memory Kit	876181-B21

Load Reduced DIMMs (LRDIMMs)

HPE 128GB (1x128GB) Octal Rank x4 DDR4-2666 CAS-22-19-19 3DS Load Reduced Memory Kit	815102-B21
HPE 64GB (1x64GB) Quad Rank x4 DDR4-2666 CAS-19-19-19 Load Reduced Smart Memory Kit	815101-B21
HPE Persistent Memory (NVDIMM)	
HPE 16GB NVDIMM Single Rank x4 DDR4-2666 Module Kit	845264-B21
NOTE: A maximum of 12 NVDIMMs supported.	
NOTE: Can only be mixed with RDIMMs.	
NOTE: For General Server Memory and NVDIMM Population Rules and Guidelines for Gen10 see details	
here: http://www.hpe.com/docs/memory-population-rules	
HPE Drives	
Enterprise - 12G SAS - SFF Drives	
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
HPE 1.2TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	872479-B21
HPE 900GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	870759-B21
HPE 900GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty 512e Digitally Signed Firmware HDD	870765-B21
HPE 600GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	872477-B21
HPE 600GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	870757-B21
HPE 300GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	872475-B21
HPE 300GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	870753-B21
Midline - 6G SATA - LFF Drives	
HPE 14TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty Helium 512e Digitally Signed Firmware HDD	P09163-B21
HPE 12TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty Helium 512e Digitally Signed Firmware HDD	881785-B21
HPE 10TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty Helium 512e Digitally Signed Firmware HDD	857648-B21
HPE 8TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e Digitally Signed Firmware HDD	819203-B21
HPE 6TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e HDD	861750-B21
HPE 4TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD	872491-B21
HPE 2TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD	872489-B21
HPE 1TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty HDD	861691-B21
Midline 6G SATA - SFF Drives	
HPE 2TB SATA 6G Midline 7.2K SFF (2.5in) SC 1yr Wty 512e Digitally Signed Firmware HDD	765455-B21
HPE 1TB SATA 6G Midline 7.2K SFF (2.5in) SC 1yr Wty Digitally Signed Firmware HDD	655710-B21
Midline - 12G SAS - LFF Drives	
HPE 14TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Helium 512e Digitally Signed Firmware HDD	P09153-B21
HPE 12TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Helium 512e Digitally Signed Firmware HDD	881779-B21
HPE 10TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Helium 512e Digitally Signed Firmware HDD	857644-B21
HPE 8TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e Digitally Signed Firmware HDD	819201-B21
HPE 6TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD	846514-B21
HPE 6TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e HDD	861754-B21
HPE 4TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD	872487-B21
HPE 2TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD	872485-B21
HPE 1TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD	846524-B21

Midline - 12G SAS - SFF Drives	
HPE 2TB SAS 12G Midline 7.2K SFF (2.5in) SC 1yr Wty 512e HDD	765466-B21
HPE 1TB SAS 12G Midline 7.2K SFF (2.5in) SC 1yr Wty Digitally Signed Firmware HDD	832514-B21
HPE 1TB SAS 12G Midline 7.2K SFF (2.5in) SC 1yr Wty 512e Digitally Signed Firmware HDD	765464-B21
SSD Selection	
To streamline the configuration process for HPE ProLiant Gen10 servers and to provide the best product recommends SSDs from the list located here: <a href="http://www.hpe.com/products/recommend">http://www.hpe.com/products/recommend</a> .	availability, HPE
Read Intensive - 12G SAS - SFF - Solid State Drives	
HPE 7.68TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04523-B21
HPE 3.84TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04521-B21
HPE 1.92TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04519-B21
HPE 960GB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04517-B21
HPE 15.3TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P06592-B21
HPE 7.68TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P06590-B21
HPE 3.84TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P06588-B21
HPE 3.84TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	872394-B21
HPE 1.92TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	872392-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	P06584-B21
HPE 960GB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	872390-B21
Mixed Use - 12G SAS - SFF - Solid State Drives	
HPE 6.4TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04539-B21
HPE 6.4TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P09096-B21
HPE 3.2TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04537-B21
HPE 3.2TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P09094-B21
HPE 1.6TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04533-B21
HPE 1.6TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P09092-B21
HPE 800GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04527-B21
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	P04525-B21
HPE 400GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P09088-B21
HPE 3.2TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	872386-B21
HPE 3.2TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	873367-B21
HPE 1.6TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	872382-B21
HPE 1.6TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	873365-B21
HPE 800GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	872376-B21
HPE 800GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	873363-B21
HPE 400GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	872374-B21
HPE 400GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	873359-B21

West belowing 400 CAC OFF Cultificate Dates	
Write Intensive - 12G SAS - SFF - Solid State Drives	D0/5/7 D04
HPE 3.2TB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04547-B21
HPE 1.6TB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04545-B21
HPE 800GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04543-B21
HPE 1.6TB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	873357-B21
HPE 800GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	873355-B21
HPE 400GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	873351-B21
HPE 400GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04541-B21
Mixed Use - 12G SAS - LFF - Solid State Drives	
HPE 800GB SAS 12G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	P04529-B21
HPE 800GB SAS 12G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	872378-B21
HPE 600GB SAS 12G Enterprise 15K LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware HDD	P04695-B21
HPE 300GB SAS 12G Enterprise 15K LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware HDD	P04693-B21
Read Intensive - PCIe/NVMe - SFF - Solid State Drives	
HPE 7.68TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	P10218-B21
HPE 3.84TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	P10216-B21
HPE 1.92TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	P10214-B21
HPE 2TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	877986-B21
Read Intensive - SATA - SFF - Solid State Drives	
HPE 7.68TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04482-B21
HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04480-B21
HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04478-B21
HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04570-B21
HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P06200-B21
HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P06198-B21
HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	875513-B21
HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04566-B21
HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04476-B21
HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P06196-B21
HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	875511-B21
HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04564-B21
HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04474-B21
HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P06194-B21
HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	875509-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
HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04556-B21
Read Intensive - SATA - LFF - Solid State Drives	
HPE 1.92TB SATA 6G Read Intensive LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	P09693-B21
HPE 960GB SATA 6G Read Intensive LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	P09689-B21
HPE 480GB SATA 6G Read Intensive LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	P09687-B21

Mixed Use - PCle/NVMe - SFF - Solid State Drives	
HPE 6.4TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	P10226-B21
HPE 3.2TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	P10224-B21
HPE 3.2TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	877998-B21
HPE 1.6TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	P10222-B21
HPE 1.6TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	877994-B21
HPE 375GB NVMe x4 Lanes Write Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	878014-B21
Mixed Use - SATA - SFF - Solid State Drives	
HPE 3.84TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P00896-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	P07930-B21
HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	875478-B21
HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	877788-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	P07926-B21
HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	875474-B21
HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P09712-B21
HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P07922-B21
HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	875470-B21
HPE 240GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	875483-B21
Mixed Use - SATA - LFF - Solid State Drives	
HPE 1.92TB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	875480-B21
HPE 1.92TB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	P07932-B21
HPE 1.92TB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	P09724-B21
HPE 960GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	P09718-B21
HPE 960GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	P03691-B21
HPE 960GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	P07928-B21
HPE 480GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	P07924-B21
Dual SATA 6G M.2 – UFF SCM	
HPE Dual 240GB SATA 6G Mixed Use M.2 - UFF to SFF SCM 3yr Wty Digitally Signed Firmware SSD	P06607-B21
HPE Dual 480GB SATA 6G Read Intensive M.2 - UFF to SFF SCM 3yr Wty Digitally Signed Firmware SSD	P06609-B21
Internal Dual M.2 Kit	
HPE Universal SATA HHHL 3yr Wty M.2 Kit	878783-B21
NOTE: The Universal SATA M.2 Kit above will require a PCIe slot and support up to two of the same M.2 card	s below.
HPE DL360 Gen10 SATA M.2 2280 Riser Kit	867978-B21
<b>NOTE:</b> The DL360 SATA M.2 Riser Kit above is part of the Primary Riser so it will not take up a PCIe slot and two of the same M.2 cards below.	I will support up to
Read Intensive - M.2 - Solid State Drives (2280 type)	
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

# **Core Options**

Mixed Use - M.2 - Solid State Drives (2280 type)	
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
Hard Drive Blank Kits	
HPE Large Form Factor Hard Drive Blank Kit	666986-B21
HPE Small Form Factor Hard Drive Blank Kit	666987-B21
HPE Networking	
100 Gigabit Ethernet adapters	
HPE Ethernet 100Gb 1-port 842QSFP28 Adapter	874253-B21
25 Gigabit Ethernet adapters	
HPE Ethernet 10/25Gb 2-port 640SFP28 Adapter	817753-B21
HPE Ethernet 10/25Gb 2-port 631SFP28 Adapter	817718-B21
HPE Ethernet 10/25Gb 2-port 621SFP28 Adapter	867328-B21
10 Gigabit Ethernet adapters	
HPE Ethernet 10Gb 2-port 562T Adapter	817738-B21
HPE Ethernet 10Gb 2-port 562SFP+ Adapter	727055-B21
HPE Ethernet 10Gb 2-port 535T Adapter	813661-B21
HPE Ethernet 10Gb 2-port 530SFP Adapter	652503-B21
HPE Ethernet 10Gb 2-port 530T Adapter	656596-B21
HPE Ethernet 10Gb 2-port 521T Adapter	867707-B21
1 Gigabit Ethernet adapters	
HPE Ethernet 1Gb 4-port 366T Adapter	811546-B21
HPE Ethernet 1Gb 4-port 331T Adapter	647594-B21
HPE Ethernet 1Gb 2-port 361T Adapter	652497-B21
HPE Ethernet 1Gb 2-port 332T Adapter	615732-B21
FlexibleLOM Adapters	
HPE Ethernet 10/25Gb 2-port 640FLR-SFP28 Adapter	817749-B21
HPE Ethernet 10/25Gb 2-port 631FLR-SFP28 Adapter	817709-B21
HPE Ethernet 10/25Gb 2-port 622FLR-SFP28 Converged Network Adapter	867334-B21
HPE Ethernet 10Gb 2-port 562FLR-SFP+ Adapter	727054-B21
HPE Ethernet 10Gb 2-port 562FLR-T Adapter	817745-B21
HPE FlexFabric 10Gb 4-port 536FLR-T Adapter	764302-B21
HPE Ethernet 10Gb 2-port 535FLR-T Adapter	817721-B21
HPE FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter	700751-B21
HPE FlexFabric 10Gb 2-port 533FLR-T Adapter	700759-B21
HPE Ethernet 1Gb 4-port 331FLR Adapter	629135-B22
HPE Ethernet 1Gb 4-port 366FLR Adapter	665240-B21

# **Core Options**

#### **HPE InfiniBand**

HPE InfiniBand EDR/Ethernet 100Gb 2-port 841QSFP28 Adapter	872726-B21
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
HPE InfiniBand FDR/Ethernet 40/50Gb 2-port 547FLR-QSFP Adapter	879482-B21
HPE InfiniBand EDR 100Gb 1-port 841QSFP28 Adapter	872725-B21
HPE InfiniBand EDR/Ethernet 100Gb 1-port 840QSFP28 Adapter	825110-B21
HPE InfiniBand EDR/Ethernet 100Gb 2-port 840QSFP28 Adapter	825111-B21
HPE 100Gb 1-port OP101 QSFP28 x16 PCIe Gen3 with Intel Omni-Path Architecture Adapter	829335-B21

NOTE: For additional InfiniBand information: <a href="https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04154440">https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04154440</a>.

# **HPE Power Supplies**

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**.

## **HPE Flex Slot Platinum Hot-plug Power supplies**

HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	830272-B21
NOTE: 1600W Power supplies only support high line voltage (200 VAC to 240 VAC).	
HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	865414-B21
HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit	865438-B21
HPE 800W Flex Slot -48VDC Hot Plug Low Halogen Power Supply Kit	865434-B21
HPE 800W Flex Slot Universal Hot Plug Low Halogen Power Supply Kit	865428-B21
HPE 500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	865408-B21

# **Core Options**

GPGPU Information										
DL360 configuration				on						
Part number	Card	Qty supp orted	Processor supported	PCle speed	4LFF	8SF F	8+2SFF SAS/SATA/ Dual M.2 <sup>1</sup>	8+2SFF SAS/SATA/D ual M.2 <sup>2</sup>	8+2SFF NVMe <sup>3</sup>	10SFF SAS/SATA/ NVMe <sup>4</sup>
Q9B37A	Intel Arria 10GX FPGA Accelerator	2	All	Gen3	35C	35C	25C	30C	30C	30C
Q0V77A	NVIDIA Quadro P2000 GPU Module	2	All	Gen3	35C	35C	25C	30C	30C	30C
Q0V78A	NVIDIA Quadro P4000 GPU Module	2	All	Gen3	35C	35C	25C	30C	30C	30C
Q0V79A	NVIDIA Tesla P4 8GB Module	2	All	Gen3	35C	35C	25C	30C	30C	30C

**NOTE:** When NVMe drives are installed you will be limited to Slot1 only for any Accelerator module.

- 1 With standard system fans
- 2 With High Performance system fans
- 3 Requires high performance fans with 2SFF NVMe configuration.
- 4 Requires high performance fans (Note these shipped standard on 10SFF models).

NOTE: There is no Energy Star certification with Graphic cards supported.

#### **HPE Computation and Graphics Accelerators**

HPE Intel Arria 10 GX FPGA Accelerator

HPE NVIDIA Tesla T4 16GB Computational Accelerator

HPE NVIDIA Tesla P4 8GB Computational Accelerator

HPE NVIDIA Quadro P4000 Graphics Accelerator

HPE NVIDIA Quadro P2000 Graphics Accelerator

Q0V77A

HPE NVIDIA Quadro P2000 Graphics Accelerator

Q0V77A

**NOTE:** If any of these accelerators intended for slot 3 and configured with an AROC, the latter needs to have a low profile heatsink

HPE DL360 Gen10 GPU CPU1 Cable Kit

871248-B21

Q9B37A

**NOTE:** Some options may not be integrated at the factory. To ensure only valid configurations are ordered, Hewlett Packard Enterprise recommends the use of an HPE approved configurator. Contact your local sales representative for additional information.

#### **Embedded Management**

#### **HPE iLO Advanced**

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 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 Electronic License with 1yr Support on iLO Licensed Features	E6U59ABE
HPE iLO Advanced Electronic License with 3yr Support on iLO Licensed Features	E6U64ABE
HPE iLO Advanced Premium Security Edition License with 1yr Support on Licensed Features	Q7E31A
HPE iLO Advanced Premium Security Flex Qty License with 1yr Support on Licensed Features	Q7E32A
HPE iLO Advanced Premium Security Edition Electronic License with 1yr Support on Licensed Features	Q7E32AAE
HPE iLO Advanced Premium Security Edition License with 3yr Support on Licensed Features	Q7E33A
HPE iLO Advanced Premium Security Flex Qty License with 3yr Support on Licensed Features	Q7E34A
HPE iLO Advanced Premium Security Edition Electronic License with 3yr Support on Licensed Features	Q7E34AAE
HPE iLO Advanced Premium Security Upgrade Electronic License with 3yr Support on Licensed Features	Q7E12AAE
HPE iLO Advanced Premium Security AKA Tracking License with 1yr Support on Licensed Features	Q7E35A
HPE iLO Advanced Premium Security AKA Tracking License with 3yr Support on Licensed Features	Q7E36A

# **HPE Converged Infrastructure Management Software**

#### HPE OneView Advanced (with HPE iLO Advanced)

HPE OneView including 3yr 24x7 Support Physical 1-server LTU	E5Y34A
HPE OneView including 3yr 24x7 Support Flexible Quantity E-LTU	E5Y35AAE

### HPE OneView Advanced (without HPE iLO Advanced)

HPE OneView w/o iLO including 3yr 24x7 Support 1-server LTU	P8B24A
HPE OneView w/o iLO including 3yr 24x7 Support Track 1-server LTU	P8B25A
HPE OneView w/o iLO including 3yr 24x7 Support Flexible Quantity E-LTU	P8B26AAE
HPE OneView Physical Media Kit LTU	E5Y37A

**NOTE:** Licenses ship without media. The HPE OneView Media Kit can be ordered separately, or can be downloaded at: <a href="https://www.hpe.com/us/en/integrated-systems/software.html">https://www.hpe.com/us/en/integrated-systems/software.html</a>.

NOTE: Electronic and Flexible-Quantity licenses can be used to purchase multiple licenses with a single activation key.

NOTE: Licenses ship without media. The HPE OneView Media Kit can be ordered separately, or can be downloaded at:

https://www.hpe.com/us/en/integrated-systems/software.html

## **HPE PCIe Workload Accelerator Options**

HPE 1.6TB PCIe x8 Lanes Mixed Use HHHL 3yr Wty Digitally Signed Firmware Card	877825-B21
HPE 3.2TB PCIe x8 Lanes Mixed Use HHHL 3yr Wty Digitally Signed Firmware Card	877827-B21
HPE 6.4TB PCIe x8 Lanes Mixed Use HHHL 3yr Wty Digitally Signed Firmware Card	877829-B21
HPE 750GB PCIe x4 Lanes Write Intensive HHHL 3yr Wty Digitally Signed Firmware Card	878038-B21

**NOTE:** Please see the **HPE PCIe Workload Accelerators for ProLiant Servers QuickSpecs** for Technical Specifications and additional information.

# **HPE Security**

HPE 1U Gen10 Bezel Kit	867998-B21
HPE Bezel Lock Kit	875519-B21
HPE DL360 Gen10 Chassis Intrusion Detection Kit	867984-B21

**NOTE:** This provides a physical connection from the chassis board and hood and detects any physical intrusion into the chassis, providing security during the entire supply chain process of shipping, receiving, distribution, and operation.

HPE Trusted Platform Module 2.0 Gen10 Option

864279-B21

**NOTE:** HPE Trusted Platform Module 2.0 option works with Gen10 servers with UEFI Mode not Legacy Mode. It is not compatible with HPE ProLiant Gen8 servers or earlier generation variants.

**NOTE:** HPE server systems can have a TPM module (of any type) installed only once. It cannot be replaced with any other TPM module.

HPE Gen10 TPM 1.2 FIO Setting

872108-B21

NOTE: This is a FIO setting to allows the TPM 2.0 module to operate in a TPM 1.2 mode

#### **HPE Storage Controllers**

NOTE: For additional details, please see HPE Smart Array Gen10 Controllers Data Sheet at:

#### https://www.hpe.com/h20195/v2/Getdocument.aspx?docname=a00017196ENW

#### **HPE Flexible Smart Array Controllers**

HPE Smart Array P816i-a SR Gen10 (16 Internal Lanes/4GB Cache/SmartCache)	12G SAS Modular Controller 8	04338-B21
HPE Smart Array P408i-a SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS Mod	ular Controller 8	04331-B21
HPE Smart Array P816i-a SR Gen10 (16 Int Lanes/4GB Cache/SmartCache) 12G	SAS Modular LH Controller 8	69083-B21
HPE Smart Array P408i-a SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS Mod	ular LH Controller 8	69081-B21
HPE Smart Array E208i-a SR Gen10 (8 Internal Lanes/No Cache) 12G SAS Modul	ar LH Controller 8	69079-B21
NOTE: The Low Height (LH) controller is required when a PCIe card that exceed	s half-length is used in slots 2 or 3"	

**NOTE:** The Low Height (LH) controller is required when a PCIe card that exceeds halt-length is used in slots 2 or 3".

HPE Smart Array E208i-a SR Gen10 (8 Internal Lanes/No Cache) 12G SAS Modular Controller 804326-B21

HPE Smart Array Controllers  HPE Smart Array P824i-p MR Gen10 (24 Internal Lanes/4GB Cache/CacheCade) 12G SAS PCIe Controller  NOTE: SFF only, not supported on LFF chassis.	870658-B21
NOTE: Not supported on slot 3.  HPE Smart Array P408e-p SR Gen10 (8 External Lanes/4GB Cache) 12G SAS PCIe Plug-in Controller  HPE Smart Array P408i-p SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS PCIe Plug-in Controller  NOTE: Not supported on slot 3.	804405-B21 830824-B21
HPE Smart Array E208e-p SR Gen10 (8 External Lanes/No Cache) 12G SAS PCIe Plug-in Controller HPE Smart Array E208i-p SR Gen10 (8 Internal Lanes/No Cache) 12G SAS PCIe Plug-in Controller	804398-B21 804394-B21
NOTE: Not supported on slot 3.  HPE 96W Smart Storage Battery (up to 20 Devices) with 145mm Cable Kit	P01366-B21
HPE Cable Options	
HPE DL360 Gen10 SFF Internal Cable Kit	867990-B21
HPE DL3XX Gen10 Rear Serial Cable and Enablement Kit	873770-B21
HPE DL360 Gen10 P824i-p Cable Kit	867992-B21
NOTE: SFF only, not supported on LFF chassis.	
HPE DL360 Gen10 LFF Internal Cable Kit	873869-B21
NOTE: For additional details and cabling matrix, please see: <a href="http://www.hpe.com/info/CablingMatrixGen10">http://www.hpe.com/info/CablingMatrixGen10</a>	
Optional Software	
HPE Smart Array SR Secure Encryption (Data at Rest Encryption/per Server Entitlement) E-LTU	Q2F26AAE
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
<b>NOTE:</b> SmartCache is offered on HPE Smart Array performance RAID controllers and comes standard (no licenthe HPE Smart Array P816i-a SR Gen10 Controller is installed in the server.	sing is required) if
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

#### **Converged Network Adapter**

HPE StoreFabric CN1300R 10/25Gb Dual Port Converged Network Adapter	Q0F09A
HPE StoreFabric CN1200R 10GBASE-T Converged Network Adapter	Q0F26A
HPE StoreFabric CN1100R Dual Port Converged Network Adapter	QW990A
HPE StoreFabric CN1100R 10GBASE-T Dual Port Converged Network Adapter	N3U52A
HPE StoreFabric CN1200E 10Gb Converged Network Adapter	E7Y06A
HPE StoreFabric CN1200E 10GBASE-T Dual Port Converged Network Adapter	N3U51A

#### **HPE Rack Options**

#### Rail Kits

HPE 1U Gen10 SFF Easy Install Rail Kit	874543-B21
HPE 1U LFF Gen9 Easy Install Rail Kit	789388-B21
HPE 1U Cable Management Arm for Rail Kit	734811-B21
NOTE: Supports both the Easy Install and Ball Bearing Rail Kits.	
HPE 1U Gen10 SFF Ball Bearing Rail Kit	872252-B21
HPE 1U Gen10 LFF Ball Bearing Rail Kit	879003-B21

**NOTE:** HPE rail kits contain telescoping rails which allow for in-rack serviceability.

**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 Racks**

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

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

NOTE: Please see the HPE Standard Series Racks QuickSpecs for information on additional racks options and rack specifications.

#### **HPE Power Distribution Units (PDUs)**

**NOTE:** Please see the **HPE Basic Power Distribution Units (PDU) QuickSpecs** for information on these products and their specifications.

**NOTE:** Please see the **HPE Metered Power Distribution Units (PDU) QuickSpecs** for information on these products and their specifications.

**NOTE:** Please see the **HPE Intelligent Power Distribution Unit (PDU) QuickSpecs** for information on these products and their specifications.

**NOTE:** 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)**

NOTE: To learn more, please visit the HPE Uninterruptible Power Systems (UPS) web page.

**NOTE:** Please see the **HPE DirectFlow Three Phase Uninterruptible Power System QuickSpecs** for information on these products and their specifications.

**NOTE:** Please see the **HPE Line Interactive Single Phase UPS QuickSpecs** for information on these products and their specifications.

700139-B21

# **Additional Options**

# HPE USB and SD Options

HPE Enterprise	Mainstream Flash Media Kits for Memory Cards	
HPF 32GR micro	SD Flash Memory Card	

HPE 8GB microSD Flash Memory Card

HPE 8GB microSD Flash USB Drive

726116-B21

737953-B21

HPE 8GB Dual microSD Flash USB Drive

741279-B21

# **HPE Support Services**

# Installation & Start-up Services

HPE Install ProLiant DL3xx Service	U4506E
HPE Installation and Startup DL3xx Service	U4507E

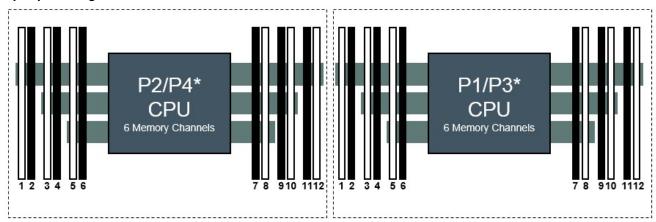
#### **Proactive Care**

HPE 3 Year Proactive Care 24x7 DL360 Gen10 Service	H8QF3E
HPE 3 Year Proactive Care 24x7 with DMR DL360 Gen10 Service	H8QF4E
HPE 3 Year Proactive Care 24x7 with CDMR DL360 Gen10 Service	H8QF5E
HPE 3 Year Proactive Care Call-To-Repair DL360 Gen10 Service	H8QG2E
HPE 3 Year Proactive Care Call-To-Repair 24x7 with DMR DL360 Gen10 Service	H8QG3E
HPE 3 Year Proactive Care Call-To-Repair with CDMR DL360 Gen10 Service	H8QG4E

NOTE: For a full listing of support services available for this server, please visit <a href="https://ssc.hpe.com/">https://ssc.hpe.com/</a>

#### Memory

#### **Memory Population guidelines**



HPE Gen10 DL360 / DL380 / DL560\* Servers Front Server2 Slots per Channel

1 DIMM								8				
2 DIMMs								8		10		
3 DIMMs								8		10		12
4 DIMMs			3		5			8		10		
5 DIMMs			3		5			8		10		12
6 DIMMs	1		3		5			8		10		12
7 DIMMs	1		3		5		7	8		10		12
8 DIMMs			3	4	5	6	7	8	9	10		
9 DIMMs	1		3		5		7	8	9	10	11	12
10 DIMMs	1		3	4	5	6	7	8	9	10		12
11 DIMMs	1		3	4	5	6	7	8	9	10	11	12
12 DIMMs	1	2	3	4	5	6	7	8	9	10	11	12

HPE ProLiant Gen10 12 slot per CPU DIMM population order

#### **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.
- Mixing of DIMM types (UDIMM, RDIMM, and LRDIMM) is not supported.
- 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.
- For details on the HPE Server Memory Options Population Rules, visit:

#### http://www.hpe.com/docs/memory-population-rules

• 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**

DIMM Type		Register DIMI	M (RDIMM)	
HPE SKU P/N	815097-B21	815098-B21	835955-B21	815100-B21
SKU Description	HPE 8GB (1x8GB) Single Rank x8 DDR4- 2666 CAS-19-19-19 Registered Smart Memory Kit	HPE 16GB (1x16GB) Single Rank x4 DDR4- 2666 CAS-19-19-19 Registered Smart Memory Kit	HPE 16GB (1x16GB) Dual Rank x8 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)	Single Rank (1R)	Dual Rank (2R)	Dual Rank (2R)
DIMM Capacity ->	8GB	16GB	16GB	32GB
Voltage	1.2V	1.2V	1.2V	1.2V
DRAM depth [bit]	1G	2G	1G	2G
DRAM Width [bit]	x8	x4	x8	x4
DRAM Density	8Gb	8Gb	8Gb	8Gb
CAS Latency	19-19-19	19-19-19	19-19-19	19-19-19
DIMM Native Speed (MT/s)	2666 MT/s	2666 MT/s	2666 MT/s	2666 MT/s
Intel Xeon®Platinum/Gold 8	1xx/61xx Processors Off	icially Supported Memor	y Speed (MT/s)	
1 DIMM Per Channel	2666 MT/s	2666 MT/s	2666 MT/s	2666 MT/s
2 DIMM Per Channel	2666 MT/s	2666 MT/s	2666 MT/s	2666 MT/s
Intel Xeon®Gold/Silver 51xx	/41xx Processors Officia	lly Supported Memory Sp	peed (MT/s)	
1 DIMM Per Channel	2400 MT/s	2400 MT/s	2400 MT/s	2400 MT/s
2 DIMM Per Channel	2400 MT/s	2400 MT/s	2400 MT/s	2400 MT/s
Intel Xeon®Bronze 31xx Pro	cessors Officially Suppor	ted Memory Speed (MT/s	s)	
1 DIMM Per Channel	2133 MT/s	2133 MT/s	2133 MT/s	2133 MT/s
2 DIMM Per Channel	2133 MT/s	2133 MT/s	2133 MT/s	2133 MT/s
HPE Server Memory Speed	(MT/s): Intel Xeon®Platin	um/Gold 81xx/61xx Prod	cessors *	
1 DIMM Per Channel	2666 MT/s	2666 MT/s	2666 MT/s	2666 MT/s
2 DIMM Per Channel	2666 MT/s	2666 MT/s	2666 MT/s	2666 MT/s
HPE Server Memory Speed	(MT/s): Intel Xeon®Gold/	Silver 51xx/41xx Process	sors *	
1 DIMM Per Channel	2400 MT/s	2400 MT/s	2400 MT/s	2400 MT/s
2 DIMM Per Channel	2400 MT/s	2400 MT/s	2400 MT/s	2400 MT/s
HPE Server Memory Speed (	(MT/s): Intel Xeon®Bronz	e 31xx Processors *		
1 DIMM Per Channel	2133 MT/s	2133 MT/s	2133 MT/s	2133 MT/s
2 DIMM Per Channel	2133 MT/s	2133 MT/s	2133 MT/s	2133 MT/s
NOTE: The maximum memory	speed is a function of the	e memory type, memory co	onfiguration, and process	or model.
For details on the HDF Server N				

For details on the HPE Server Memory speed, visit: <a href="https://www.hpe.com/docs/memory-speed-table">https://www.hpe.com/docs/memory-speed-table</a> Load Reduced (LRDIMM) DIMM Type

HPE SKU P/N	815101-B21	815102-B21
SKU Description	HPE 64GB (1x64GB) Quad Rank x4	HPE 128GB (1x128GB) Octal Rank x4
	DDR4-2666 CAS-19-19-19 Load	DDR4-2666 CAS-22-19-19 3DS Load
	Reduced Smart Memory Kit	Reduced Memory Kit
DIMM Rank ->	Quad Rank (4R)	Octal Rank (8R)
DIMM Capacity ->	64GB	128GB
Voltage	1.2V	1.2V
DRAM depth [bit]	2G	2G
DRAM Width [bit]	x4	x4
DRAM Density	8Gb	8Gb

# Memory

19-19-19	22-19-19
2666 MT/s	2666 MT/s
essors Officially Supported Memory Spe	ed (MT/s)
2666 MT/s	2666 MT/s
2666 MT/s	2666 MT/s
ors Officially Supported Memory Speed	(MT/s)
2400 MT/s	2400 MT/s
2400 MT/s	2400 MT/s
lly Supported Memory Speed (MT/s)	
2133 MT/s	2133 MT/s
2133 MT/s	2133 MT/s
on® Platinum/Gold 81xx/61xx Processo	rs *
2666 MT/s	2666 MT/s
2666 MT/s	2666 MT/s
on® Gold/Silver51xx/41xx Processors *	
2400 MT/s	2400 MT/s
2400 MT/s	2400 MT/s
on® Bronze 31xx Processors *	
2133 MT/s	2133 MT/s
2133 MT/s	2133 MT/s
tion of the memory type, memory configu	ration, and processor model.
	2666 MT/s essors Officially Supported Memory Specifically Supporte

#### Standard and Maximum Memory Capacity (Pre-configured Models)

Pre Configured Models	Standard Memory	Maximum Memory Plus Optional Memory	Standard Memory Replaced with Optional Memory
3106	16 GB (1x16 GB RDIMM DR)	384 GB (24x 16 GB)	3072 GB (24x 128 GB)
4114	32 GB (2x16 GB RDIMM DR)	384 GB (24x 16 GB)	3072 GB (24x 128 GB)
5118	64 GB (2x32 GB RDIMM DR)	768 GB (24x 32 GB)	3072 GB (24x 128 GB)
6130	64 GB (2x32 GB RDIMM DR)	768 GB (24x 32 GB)	3072 GB (24x 128 GB)

#### DDR4 memory options part number decoder

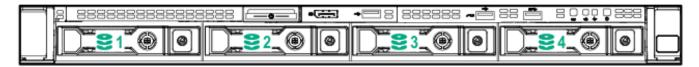
**NOTE:** Capacity references are rounded to the common gigabyte (GB) values.

- 8GB = 8,192 MB
- 16GB = 16,384 MB
- 32GB = 32,768 MB
- 64GB = 65,536 MB

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

For details on the HPE Server Memory speed, visit: <a href="https://www.hpe.com/docs/memory-speed-table">https://www.hpe.com/docs/memory-speed-table</a>

# Storage



## 4 LFF device bay numbering



8 SFF + ODD device bay numbering



8 SFF + 2 SFF device bay numbering

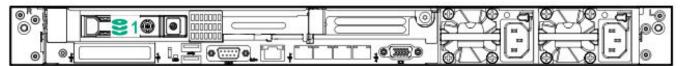
## Item Description

- 1 Bays 1-8
- 2 Bays 1 and 2



#### 10 SFF NVMe/SAS backplane option device bay numbering

**NOTE:** When the 10SFF NVMe/SAS backplane option is installed, bays 9 and 10 ONLY support NVMe Drives. The other bays support a mix of NVMe and SAS drives



#### Optional rear device bay numbering

**NOTE:** The optional rear device bay supports either 1 SFF drive or 1 Dual uFF (2x M.2 drives) in an HPE SmartCarrier M.2 (SCM). When the Dual uFF is installed, the M.2 drives are recognized as 101 and 102.

System Unit

# **Technical Specifications**

**System Inlet Temperature** 

System Onn		
<b>Dimensions</b> (Height x Width x Depth)	$4.29 \times 43.46 \times 70.7$ cm $1.69 \times 17.11 \times 27.83$ in	SFF Drives
	4.29 x 43.46 x 74.98 cm 1.69 x 17.11 x 29.5 in	LFF Drives
Weight (approximate)	13.04 kg 28.74 lb	SFF minimum: One drive, one processor, one power supply, two heatsinks, one Smart Array controller, and five fans.
	16.27 kg 35.86 lb	SFF maximum: 10 drives, two processors, two power supplies, two heatsinks, one Smart Array controller and seven fans.
	13.77 kg 30.36 lb	LFF minimum: one drive, one processor, one power supply, two heatsinks, one Smart Array controller and five fans.
	16.78 kg 37 lb	LFF maximum: Four drives, two processors, two power supplies, two heatsinks, one Smart Array controller and seven fans.

Input Requirements	Rated Line Voltage	100 to 120 VAC
(per power supply)		200 to 240 VAC

3		(at 200 VAC), 3112 BTU/hr (at 240 VDC) for China Only
BTU Rating	Maximum	For 800W Power Supply: 3207 BTU/hr (at 100 VAC), 3071 BTU/hr

For 500W Power Supply: 1979 BTU/hr (at 100 VAC), 1911 BTU/hr

(at 200 VAC), 1965 BTU/hr (at 240 VDC) for China Only

Power Supply Output (per power supply)	Rated Steady-State Power	For 1600W Power Supply: 1600W (at 240 VAC), 1600W (at 240 VDC) for China only
		For 800W Power Supply: 800W (at 100 VAC), 800W (at 240 VAC), 800W (at 240 VDC) input for China only

For 500W Power Supply: 500W (at 100 VAC), 500W (at 240 VAC),

500W (at 240 VDC) input for China only

Maximum Peak Power For 1600W Power Supply: 1600W (at 200 to 240 1VAC), 1600W (at

240 VDC) input for China only

240 VDC) ilipui foi Cillia olliy

Standard Operating

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).

For approved hardware configurations, the supported system inlet range is extended to be:  $5^{\circ}$  to  $10^{\circ}$ C ( $41^{\circ}$  to  $50^{\circ}$ F) and  $35^{\circ}$  to  $40^{\circ}$ C ( $95^{\circ}$  to  $104^{\circ}$ F) at sea level with an altitude derating of  $1.0^{\circ}$ C per every 175 m ( $1.8^{\circ}$ 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

# **Technical Specifications**

Extended Ambient	For approved hardware configurations, the supported system inlet
Operating Support	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)

e: 40° to 45°C (104° to 113°F) at sea level with LO°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.

## **Relative Humidity** (non-condensing)

Operating

8% to 90% - Relative humidity (Rh), 28°C maximum wet bulb

temperature, non-condensing.

Non-operating

5 to 95% relative humidity (Rh), 38.7°C (101.7°F) maximum wet bulb

temperature, non-condensing.

#### **Altitude**

Operating

3050 m (10,000 ft). This value may be limited by the type and number of options installed. Maximum allowable altitude change rate is 457

m/min (1500 ft/min).

Non-operating

9144 m (30,000 ft). Maximum allowable altitude change rate is 457

m/min (1500 ft/min).

#### **Acoustic Noise**

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

Configuration SKU	Entry	Base	Performance
Idle			
LWAd	5.1 B	5.1 B	5.2 B
LpAm	35 dBA	35 dBA	36 dBA
Operating			
LWAd	5.3 B	5.2 B	5.9 B
LpAm	36 dBA	38 dBA	45 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.

#### **Emissions Classification (EMC)**

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

# **Technical Specifications**

#### **HPE Smart Array**

For latest information on <u>HPE Smart Array Gen10 Controllers for HPE ProLiant DL, ML and Apollo Servers</u> please refer to their QuickSpecs. (E208i-a,E208i-p,E208e-p,P408i-a,P408i-p,P408e-p,P816i-a)

## 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	
04-Feb-2019	Version 20	Changed	Overview, Standard Features, Configuration Information, Core Options and Optional Features sections were updated.	
03-Dec-2018	Version 19	Changed	Overview, Standard Features, Pre-configured Models, Core Options and Storage sections were Updated.	
15-Oct-2'018	Version 18	Changed	SKUs descriptions were updated in Core Options section Obsolete SKUs were removed from Core Options section,	
01-Oct-2018	Version 17	Changed	Overview, Standard Features, Configuration Information, Core Options Additional Options, and Memory sections were updated.  SKU descriptions were updated.	
13-Aug-2018	Version 16	Changed	Maximum Storage and Additional Options were revised.	
06-Aug-2018	Version 15	Added	Added new AMD and NVIDIA Graphics card options.  Added new Smart Array P824i-p MR Gen10 (24 Internal Lanes/4GB Cache/CacheCade) 12G SAS PCIe Controller.  Added new Solid State Drives offering.	
		Changed	Pre-Confifured Models, Core Options, and Additional Options were revised.	
		Removed	Obsolete SKUs were removed from the QuickSpecs.	
11-Jun-2018	Version 14	Changed	Smart Buy Models section for the NA version was revised.	
04-Jun-2018	Version 13	Added	New SSD offering was added to the HPE Drivers section.	
		Changed	Core Options, Additional Options, and Memory were revised.	
		Removed	Obsolete SKUs were removed from the QuickSpecs.	
07-May-2018	Version 12	Added	New SMB models offering was added.	
		Changed	Riser Information and power supply section were revised.	
		Removed	Obsolete SKUs were removed from the QuickSpecs.	
02-Apr-2018	Version 11	Changed	Standard Features, Core Options and Additional Options were revised.	
		Removed	Obsolete SKUs were removed from the QuickSpecs.	
05-Mar-2018	Version 10	Removed	Obsolete SKUs were removed from the QuickSpecs.	
05-Feb-2018	Version 9	Added	Added new SATA SSDs, NVMe drives and PCle accelerator cards.	
18-Dec-2017	Version 8	Changed	Network controller under Configuration Information – Factory Integrated Models section was revised.	
04-Dec-2017	Version 7	Added	Added new Entry level WW Model-1 sku. HPE Sepcific IST Processor offering Gold 6143 and Platinum 8165 bins were added. Added new High capacity 12TB LFF drives and Large capacity 15.3TB SSDs.	
		Changed	Standard Features, Pre-configured Models, Core Options, Additional Options, Memory, and Acoustic Noise were revised.	
23-Oct-2017	Version 6	Changed	Memory speed table was updated to display the 61XX processors running at 2666MT/s.	
16-Oct-2017	Version 5	Added	128GB Memory was added Riser table was added under Core Options.	
		Changed	Platform Information, Processors table under Standard Features, FlexibleLOM Adapters, GPU table under Core Options, HPE Storage Controllers, and Rail Kits were revised.	
25-Sep-2017	Version 4	Added	New Gold Processors were added. Added new Hard Drive and SSD offering. GPU information table was added.	
		Changed	Platform Information, Core Options, Additional Options, and Storage section were revised.	

# **Summary of Changes**

		Removed	Obsolete SKUs were removed from the QuickSpecs.
14-Aug-2017	Version 3	Changed	Smart Buy Models section was revised (NA version only).
07-Aug-2017	Version 2	Added	Added new Solid State Drives offering to the HPE Drives section. Added Support Services under Additional Options.
		Changed	Platform Information, Optional Features, Core Options, Additional Options, Memory, and Storage section were revised.
11-Jul-2017	Version 1	New	New QuickSpecs.



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

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