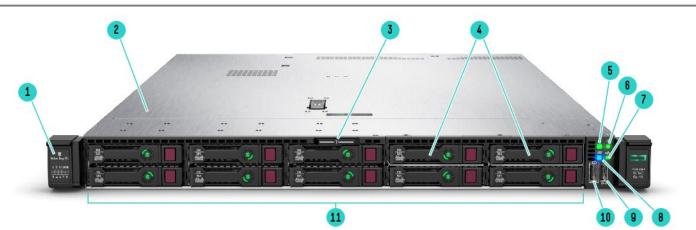
# QuickSpecs

### 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 HPE ProLiant DL360 Gen10 server delivers security, agility and flexibility without compromise.

The HPE ProLiant DL360 Gen10 Server supports the Intel® Xeon® Scalable Processor Family with up to 28 cores, plus 2933 MT/s HPE DDR4 SmartMemory supporting up to 3.0 TB max. With the added performance that HPE Persistent Memory and 10 NVMe bring, 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

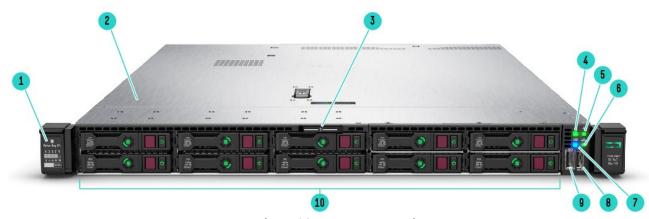
- 1. Drive support label
- 2. Quick removal access panel
- 3. Serial no. label pull tab
- 4. Universal Media Bay: +2 SFF SAS/SATA shown Option: +2 SFF NVMe drives Option: DVD-RW or DVD-ROM + Display port & USB 2.0 port Kit
  Option: +2 Dual uFF (4x M.2 cartridges) Option: Display port + USB 2.0 port Kit + Blank
- 5. Power On/Standby button and system power LED
- 6. Health LED
- 7. NIC status LED
- 8. UID button/LED
- 9. USB 3.0 port
- 10. iLO Service Port
- 11. Standard 8 SAS/SATA drive bays

#### Notes:

- Rear drive option allows for an additional + 1 SFF or +1 Dual uFF (2x M.2 cartridges).
- System Insight Display (SID) module will include #5-9 above (will not include #10 iLO Service Port).



### Overview



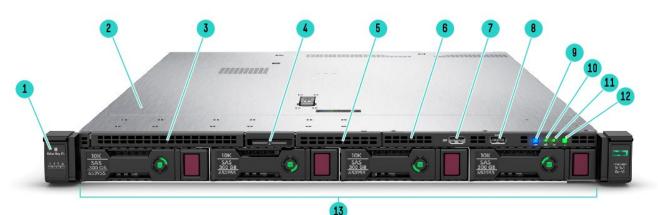
#### Premium 10SFF NVMe Front View

- 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 (PCIe direct attached) or 8 SAS/SATA/NVMe + 2 NVMe

#### Notes:

- Rear drive option allows for an additional + 1 SFF or +1 Dual uFF (2x M.2 cartridges).
- System Insight Display (SID) module will include #4-8 above (will not include #9 iLO Service Port).
- Does not support the Xeon-Gold 6250L or Gold 6250 processors.



#### 4 LFF Front View – Standard 4 LFF shown

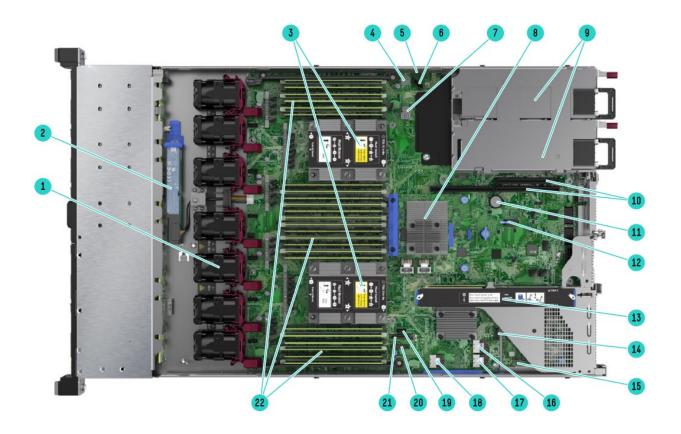
- 1. Drive support label
- 2. Quick removal access panel
- 3. Option: DVD-RW or DVD-ROM (blank shown)
- 4. Serial no. label pull tab
- 5. Option: Display port & USB 2.0 port Kit (blank shown)
- 6. Option: System insight Display (SID) standard shown<sup>6</sup>
- 7. iLO Service Port

#### Notes:

<sup>6</sup> This option will lose #7 iLO Service Port.

- 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 drive bays
- Rear drive option allows for additional + 1 SFF or +1 Dual uFF (2x M.2 cartridges), will lose one FH PCIe slot.

### Overview



#### Internal View - Standard for all DL360 Gen10

- For 8 SFF or 4 LFF Standard single rotor hot plug fans<sup>1</sup>
   1 CPU 5 standard fans
   2 CPUs 7 standard fans
   Option: High Performance fans
- 2. Option: HPE Smart Hybrid Capacitor or HPE Smart Storage 14. Battery
- 3. Up to 2 processors (shown with standard heat sinks)
- 4. MicroSD card slot
- 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) PCIe 3.0 riser Option: Full Height x16 (Lose slot 2 on Primary riser)<sup>10</sup>
- 11. System Battery
- 12. Optional: TPM 2.0

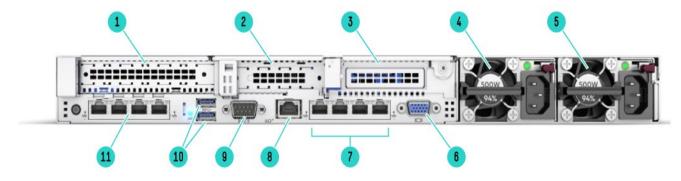
#### Notes:

<sup>1</sup> For 10 NVMe chassis - 7 High Performance fans

- Primary (CPU1) PCle 3.0 riser (Standard: GPU power connector + 1x 16 and 1x 8) Option: 2 SATA M.2 + 2x 16 Option: (8 SFF only): 2x 4 NVMe + 1x 16 and 1x 8
  Option: 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. Front Power USB 3.0 connector
- 21. Optical/SATA port 5
- 22. DDR4 DIMM slots (Fully populated 24 DIMMs shown)
- <sup>10</sup> For 10 NVMe chassis Secondary Riser is not available due to 10 x4 NVMe riser for PCIe direct attached



### Overview



#### Rear View – Standard for all DL360 Gen10

7.

8.

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

#### Notes:

<sup>1</sup>Will lose FH x16 PCIe slot1 with this option.

- Embedded 4x 1GbE Adapter (if equipped)<sup>7</sup> iLO Management Port
- 9. Option: Serial Port
- 10. USB 3.0 Ports
- 11. Option: FlexibleLOM (Shown: 4x 1GbE)<sup>11</sup>
- <sup>7</sup> Network Choice (NC) models do not include embedded LOM. Customer choice of FlexibleLOM for networking capability.
   <sup>11</sup> Supports Various NICs up to 25GbE.

### What's New

- BTO SKUs with Broadcom controller support
- ٠

### **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

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

#### QuickSpecs

### Overview

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

#### Notes:

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

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

Notes:

- The 2nd digit of the processor model number "x1xx" and "x2xx" is used to denote the processor generation (i.e. 1=1st generation and 2=2nd generation)
- Field upgrades from 1<sup>st</sup> generation processors (x1xx) to 2<sup>nd</sup> generation processors (x2xx) not supported.
- "U" processors (i.e. 6212U) only supported in single socket configurations
- This table covers the public Intel offering only.
- For more information regarding Intel Xeon processors, please see the following <u>http://www.intel.com/xeon</u>.

Intel Xeon Proce	essor	Intel Xeon Processor								
<b>Processor Suffix</b>	Description	Offering								
L	Large memory tier	Up to 4.5 TB addressable memory per socket								
М	Medium memory tier	Up to 2.0 TB addressable memory per socket								
Ν	NFV Optimized	Targeted at Network Function Virtualization (NFV) workloads. Intel <sup>®</sup> SST-BF improves performance by directing base frequency to high priority/bottleneck cores, other workloads may see throttling.								
R	Refresh	Improved price/performance over equivalent "non-R" 2 <sup>nd</sup> generation processors								
S	Search Optimized	Optimized base frequency to address 'search' workloads, other workloads may see throttling.								
U	1 Socket Optimized	Focused on single socket (1P) configurations deliver performance at competitive price points. Does not support two socket (2P) arrangements.								
V	VM Density Optimized	Fosters enhanced VM density, allowing to support more/larger virtual machines per host.								
Y	Speed Select	Intel <sup>®</sup> SST-PP increases base frequency when fewer cores are enabled. Allows greater flexibility, deployment options and platform longevity.								

Notes: More than 1.5 TB memory per socket requires HPE Persistent Memory

#### 2<sup>nd</sup> Generation Intel<sup>®</sup> Xeon<sup>®</sup> Scalable Processor Family Intel Xeon Models UPI CPU Cores L3 Cache Power DDR4 Memory per Frequency socket Platinum 8280 Processor 28 38.50 MB 205W 2.7 GHz 3 @ 10.4 GT/s 2933 MT/s 1TB Platinum 8280L Processor 2.7 GHz 28 4.5TB 38.50 MB 205W 3 @ 10.4 GT/s 2933 MT/s Platinum 8280M Processor 2.7 GHz 28 205W 3 @ 10.4 GT/s 2933 MT/s 2TB 38.50 MB Platinum 8276 Processor 2.2 GHz 28 38.50 MB 165W 3 @ 10.4 GT/s 2933 MT/s 1TB Platinum 8276L Processor 2.2 GHz 28 38.50 MB 3 @ 10.4 GT/s 2933 MT/s 4.5TB 165W 2933 MT/s Platinum 8276M Processor 2.2 GHz 28 38.50 MB 165W 3 @ 10.4 GT/s 2TB Platinum 8270 Processor 2.7 GHz 26 35.75 MB 205W 3 @ 10.4 GT/s 2933 MT/s 1TB 2.9 GHz Platinum 8268 Processor 24 35.75 MB 205W 3 @ 10.4 GT/s 2933 MT/s 1TB Platinum 8260 Processor 2.4 GHz 24 35.75 MB 165W 3 @ 10.4 GT/s 2933 MT/s 1TB Platinum 8260L Processor 24 2.4 GHz 35.75 MB 165W 3 @ 10.4 GT/s 2933 MT/s 4.5TB Platinum 8260M Processor 2.4 GHz 24 35.75 MB 165W 3 @ 10.4 GT/s 2933 MT/s 2TB 2.4 GHz 24 Platinum 8260Y Processor 2.5 GHz 20 35.75 MB 165W 3 @ 10.4 GT/s 2933 MT/s 1TB 2.7 GHz 16 Platinum 8256 Processor 3.8 GHz 4 16.50 MB 105W 3 @ 10.4 GT/s 2933 MT/s 1TB

#### Platinum 8253 Processor Notes:

- 6-Channel DDR4 @ 2933 MT/s.
- 6TB max RAM (larger than 2TB memory per socket on select SKUs)

2.2 GHz

- Support for: HPE Persistent Memory, Vector Neural Network Instructions (VNNI) for inference acceleration.

22.00 MB

125W

3 @ 10.4 GT/s

2933 MT/s

1TB

- 2 and 4 socket capable, 2S 2UPI, 2S 3UPI, 4S 3UPI @ 10.4 GT/s.
- Intel Turbo Boost Technology, Intel Hyper-Threading Technology Intel AVX-512 (2x 512-bit FMA).

16

– 48 lanes PCIe 3.0, advanced RAS

1st Generation Intel® Xeo	on® Scalable P	rocesso	r Family	1st Generation Intel® Xeon® Scalable Processor Family										
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							

#### Notes:

- 6-Channel 1DPC DDR4 @ 2666 MT/s.
- 768 GB max memory capacity (1.5 TB on select skus)
- 2 and 4 socket capable, 2S 2UPI, 4S 3UPI, 8S 3UPI @ 10.4 GT/s.
- Intel Turbo Boost Technology, Intel Hyper-Threading Technology Intel AVX-512 (2x 512-bit FMA).
- 48 lanes PCIe 3.0, advanced RAS.

### 2<sup>nd</sup> Generation Intel<sup>®</sup> Xeon<sup>®</sup> Scalable Processor Family

Intel Xeon Models	CPU	Cores	L3 Cache	Power	UPI	DDR4	Memory per
	Frequency						socket
Gold 6262V Processor	1.9 GHz	24	33.00 MB	135W	3 @ 10.4 GT/s	2933 MT/s	1TB
Gold 6258R Processor	2.7 GHz	28	38.50 MB	205W	2 @ 10.4 GT/s	2933 MT/s	1TB
Gold 6256 Processor	3.6 GHz	12	33.00 MB	205W	3 @ 10.4 GT/s	2933 MT/s	1TB
Gold 6254 Processor	3.1 GHz	18	24.75 MB	200W	3 @ 10.4 GT/s	2933 MT/s	1TB
Gold 6252 Processor	2.1 GHz	24	35.75 MB	150W	3 @ 10.4 GT/s	2933 MT/s	1TB
Gold 6252N Processor	2.3 GHz	24	35.75MB	150W	3 @ 10.4 GT/s	2933 MT/s	1TB
Gold 6250L Processor	3.9 GHz	8	35.75MB	185W	3 @ 10.4 GT/s	2933 MT/s	4.5TB
Gold 6250 Processor	3.9 GHz	8	35.75MB	185W	3 @ 10.4 GT/s	2933 MT/s	1TB
Gold 6248R Processor	3.0 GHz	24	35.75 MB	205W	2 @ 10.4 GT/s	2933 MT/s	1TB
Gold 6248 Processor	2.5 GHz	20	27.5 MB	150W	3 @ 10.4 GT/s	2933 MT/s	1TB
Gold 6246R Processor	3.4 GHz	16	35.75 MB	205W	2 @ 10.4 GT/s	2933 MT/s	1TB
Gold 6246 Processor	3.3 GHz	12	24.75 MB	165W	3 @ 10.4 GT/s	2933 MT/s	1TB
Gold 6244 Processor	3.6 GHz	8	24.75 MB	150W	3 @ 10.4 GT/s	2933 MT/s	1TB
Gold 6242R Processor	3.1 GHz	20	35.75 MB	205W	2 @ 10.4 GT/s	2933 MT/s	1TB
Gold 6242 Processor	2.8 GHz	16	22 MB	150W	3 @ 10.4 GT/s	2933 MT/s	1TB
Gold 6240R Processor	2.4 GHz	24	35.75 MB	165W	2 @ 10.4 GT/s	2933 MT/s	1TB
Gold 6240 Processor	2.6 GHz	18	24.75 MB	150W	3 @ 10.4 GT/s	2933 MT/s	1TB
Gold 6240Y Processor	2.6 GHz	18	24.75 MB	150W	3 @ 10.4 GT/s	2933 MT/s	1TB
	2.8 GHz	14					
	3.1 GHz	8					
Gold 6240L Processor	2.6 GHz	18	24.75 MB	150W	3 @ 10.4 GT/s	2933 MT/s	4.5TB
Gold 6240M Processor	2.6 GHz	18	24.75 MB	150W	3 @ 10.4 GT/s	2933 MT/s	2TB
Gold 6238R Processor	2.2 GHz	28	38.50 MB	165W	2 @ 10.4 GT/s	2933 MT/s	1TB
Gold 6238 Processor	2.1 GHz	22	30.25 MB	140W	3 @ 10.4 GT/s	2933 MT/s	1TB
Gold 6238L Processor	2.1 GHz	22	30.25 MB	140W	3 @ 10.4 GT/s	2933 MT/s	4.5TB
Gold 6238M Processor	2.1 GHz	22	30.25 MB	140W	3 @ 10.4 GT/s	2933 MT/s	2TB
Gold 6234 Processor	3.3 GHz	8	24.75 MB	130W	3 @ 10.4 GT/s	2933 MT/s	1TB

Gold 6230R Processor	2.1 GHz	26	35.75 MB	150W	2 @ 10.4 GT/s	2933 MT/s	1TB
Gold 6230 Processor	2.1 GHz	20	27.5 MB	125W	3 @ 10.4 GT/s	2933 MT/s	1TB
Gold 6230N Processor	2.3 GHz	20	27.50 MB	125W	3 @ 10.4 GT/s	2933 MT/s	1TB
Gold 6226R Processor	2.9 GHz	16	22 MB	150W	2 @ 10.4 GT/s	2933 MT/s	1TB
Gold 6226 Processor	2.7 GHz	12	19.25 MB	125W	3 @ 10.4 GT/s	2933 MT/s	1TB
Gold 6222V Processor	1.8 GHz	20	27.50 MB	115W	3 @ 10.4 GT/s	2933 MT/s	1TB
Gold 6212U Processor	2.4 GHz	24	35.75 MB	165W	N/A	2933 MT/s	1TB
Gold 6210U Processor	2.5 GHz	20	27.50 MB	150W	N/A	2933 MT/s	1TB
Gold 6209U Processor	2.1 GHz	20	27.50 MB	125W	N/A	2933 MT/s	1TB
Gold 6208U Processor	2.9 GHz	16	22 MB	150W	N/A	2933 MT/s	1TB
Gold 5222 Processor	3.8 GHz	4	16.5 MB	105W	2 @ 10.4 GT/s	2933 MT/s	1TB
Gold 5220R Processor	2.2 GHz	24	35.75 MB	150W	2 @ 10.4 GT/s	2666 MT/s	1TB
Gold 5220 Processor	2.2 GHz	18	24.75 MB	125W	2 @ 10.4 GT/s	2666 MT/s	1TB
Gold 5220S Processor	2.7 GHz	18	24.75 MB	125W	2 @ 10.4 GT/s	2666 MT/s	1TB
Gold 5218R Processor	2.1 GHz	20	27.50 MB	125W	2 @ 10.4 GT/s	2666 MT/s	1TB
Gold 5218 Processor	2.3 GHz	16	22 MB	125W	2 @ 10.4 GT/s	2666 MT/s	1TB
Gold 5218N Processor *	2.3 GHz	16	22 MB	110W	2 @ 10.4 GT/s	2666 MT/s	1TB
Gold 5218B Processor *	2.3 GHz	16	22 MB	125W	2 @ 10.4 GT/s	2666 MT/s	1TB
Gold 5217 Processor	3.0 GHz	8	11 MB	115W	2 @ 10.4 GT/s	2666 MT/s	1TB
Gold 5215 Processor	2.5 GHz	10	13.75 MB	85W	2 @ 10.4 GT/s	2666 MT/s	1TB
Gold 5215L Processor	2.5 GHz	10	13.75 MB	85W	2 @ 10.4 GT/s	2666 MT/s	4.5TB
Gold 5215M Processor	2.5 GHz	10	13.75 MB	85W	2 @ 10.4 GT/s	2666 MT/s	2TB

#### Notes:

- \* 5218B has consistent features with the 5218 processor but from a different die. Mixing both 5218B & 5218 in a system is not supported
- 6-Channel DDR4 @ 2933 MT/s (Gold 6200 & 5222 skus only), 2666 MT/s on all Gold 5200 skus (except 5222 @ 2933 MT/s).
- 6TB max RAM (larger than 2TB memory per socket on select SKUs)
- Support for: HPE Persistent Memory, Vector Neural Network Instructions (VNNI) for inference acceleration.

-

- 2 and 4 socket capable, 2S 2UPI, 2S 3UPI, 4S 3UPI @ 10.4 GT/s.
- Intel Turbo Boost Technology, Intel Hyper-Threading Technology Intel AVX-512 (2x 512-bit FMA).
- 48 lanes PCIe 3.0, advanced RAS

1<sup>st</sup> Company tion Intol® Voon® Cooleble Dressoon

1 <sup>st</sup> Generation Intel® Xeon® Scalable Processor Family										
Intel Xeon Models	CPU Frequency	Cores	L3 Cache	Power	UPI	DDR4	Memory per socket			
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

#### Notes:

- 6-Channel 1DPC DDR4 @ 2400 MT/s (SKU 5122 supports 2666 MT/s).
- 768 GB max memory capacity (1.5 TB on select skus).
- 2 and 4 socket capable, 2S 2UPI, 4S 3UPI @ 10.4 GT/s.
- 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.

#### 2<sup>nd</sup> Generation Intel<sup>®</sup> Xeon<sup>®</sup> Scalable Processor Family

Intel Xeon Models	CPU Frequency	Cores	L3 Cache	Power	UPI	DDR4	Memory per socket
Silver 4216 Processor	2.1 GHz	16	22 MB	100W	2 @ 9.6 GT/s	2400 MT/s	1TB
Silver 4215R Processor	3.2 GHz	8	11 MB	130W	2 @ 9.6 GT/s	2400 MT/s	1TB
Silver 4215 Processor	2.5 GHz	8	11 MB	85W	2 @ 9.6 GT/s	2400 MT/s	1TB
Silver 4214R Processor	2.4 GHz	12	16.5 MB	100W	2 @ 9.6 GT/s	2400 MT/s	1TB
Silver 4214Y Processor	2.2 GHz 2.3 GHz 2.4 GHz	12 10 8	16.5 MB	85W	2 @ 9.6 GT/s	2400 MT/s	1TB
Silver 4214 Processor	2.2 GHz	12	16.5 MB	85W	2 @ 9.6 GT/s	2400 MT/s	1TB
Silver 4210R Processor	2.4 GHz	10	13.75 MB	100W	2 @ 9.6 GT/s	2400 MT/s	1TB
Silver 4210 Processor	2.2 GHz	10	13.75 MB	85W	2 @ 9.6 GT/s	2400 MT/s	1TB
Silver 4208 Processor	2.1 GHz	8	11 MB	85W	2 @ 9.6 GT/s	2400 MT/s	1TB

#### Notes:

- 6-Channel DDR4 @ 2400 MT/s.
- 2TB max RAM
- Support for: HPE Persistent Memory (Silver 4215 and 4215R only), Intel<sup>®</sup> Vector Neural Network Instructions (VNNI) for inference acceleration.
- 2 and 4 socket capable, 2S 2UPI, 2S 3UPI, 4S 3UPI @ 9.6 GT/s.
- Intel Turbo Boost Technology, Intel Hyper-Threading Technology Intel AVX-512 (2x 512-bit FMA).
- 48 lanes PCIe 3.0, standard RAS

#### 1st Generation Intel<sup>®</sup> Xeon<sup>®</sup> Scalable Processor Family

Intel Xeon Models	CPU Frequency	Cores	L3 Cache	Power	UPI	DDR4	Memory per socket		
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		

#### Notes:

- 6-Channel DDR4 @ 2400 MT/s, 768 GB max memory capacity.
- 2 socket capable, 2S 2UPI @ 9.6 GT/s.
- Intel Turbo Boost Technology, Intel Hyper-Threading Technology, Intel AVX-512 (1x 512-bit FMA).
- 48 lanes PCIe 3.0, standard RAS.



2 <sup>nd</sup> Generation Intel <sup>®</sup> Xeon <sup>®</sup> Scalable Processor Family									
Intel Xeon Models	CPU Freesewart	Cores	L3 Casha	Power	UPI	DDR4	Memory per		
Bronze 3204 Processor	<b>Frequency</b> 1.9 GHz	6	Cache 8.25 MB	85W	2 @ 9.6 GT/s	2133 MT/s	socket 1 TB		
Bronze 3206R Processor	1.9 GHz	8	11 MB	85W	2 @ 9.6 GT/s	2133 MT/s	1 TB		

#### Notes:

- 6-Channel DDR4 @ 2133 MT/s.
- 2TB max RAM
- Support for: Intel<sup>®</sup> Vector Neural Network Instructions (VNNI) for inference acceleration..
- 2 and 4 socket capable, 2S 2UPI, 2S 3UPI, 4S 3UPI @ 9.6 GT/s.
- Intel AVX-512 (2x 512-bit FMA).
- 48 lanes PCIe 3.0, standard RAS

#### 1<sup>st</sup> Generation Intel<sup>®</sup> Xeon<sup>®</sup> Scalable Processor Family

Intel Xeon Models	CPU	Cores	L3 Cache	Power	UPI	DDR4	Memory per		
	Frequency						socket		
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		

#### Notes:

- 6-Channel DDR4 @ 2133 MT/s, 768 GB max memory capacity.
- 2 socket capable, 2S 2UPI @ 9.6 GT/s.
- Intel AVX-512 (1x 512-bit FMA).
- 48 lanes PCIe 3.0, standard RAS.

#### Chipset

Intel C621 Chipset

**Notes:** For more information regarding Intel<sup>®</sup> chipsets, please see the following URL: https://www.intel.com/content/www/us/en/products/chipsets/server-chipsets.html

#### System Management Chipset

HPE iLO 5 ASIC Notes: Read and learn more in the <u>iLO QuickSpecs</u>.

#### Memory

Туре	HPE DDR4 SmartMemory	Registered (RDIMM), Load Reduced (LRDIMM)
DIMM Slots Available	24	12 DIMM slots per processor, 6 channels per processor, 2DIMMs per channel
Maximum capacity (LRDIMM)	3.0 TB	24 x 128 GB LRDIMM @ 2933 MT/s
Maximum capacity (RDIMM)	1.54 TB	24 x 64 GB RDIMM @ 2933 MT/s
Maximum capacity (HPE Persistent Memory)	6.0 TB	12 X 512 GB HPE Persistent Memory Kit @ 2666 MT/s
Maximum capacity (NVDIMM)	192 GB	12 x 16 GB NVDIMM @ 2666 MT/s

#### Notes:

- NVDIMMs can only be mixed with RDIMMs.
- A maximum of 12 NVDIMMs supported with 1<sup>st</sup> generation Intel Xeon Scalable processors.
- HPE Persistent Memory only supported on 2<sup>nd</sup> generation Intel Xeon Scalable Processor series (Platinum 8200, Gold 6200, Gold 5200, Silver 4215 and 4215R)



- Maximum memory per socket is dependent on processor selection. 2<sup>nd</sup> generation processors supporting 2 TB or 4.5 TB per CPU are indicated by the "M" and "L" in the processor model names (i.e. 8276M and 8276L). 1<sup>st</sup> generation processors supporting 1.5 TB per CPU are indicated by the "M" in the processor model names (i.e. 8160M)
- Mixing of RDIMM and LRDIMM memory is not supported.
- For General Server Memory and Persistent Memory Population Rules and Guidelines for Gen10 see details here: 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.

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

#### **Expansion Slots**

Primary GPU Riser										
Expansion Slots #	Technology	Bus Width	<b>Connector Width</b>	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	<b>Connector Width</b>	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	<b>Connector Width</b>	Processor	Slot Form Factor
1	PCle 3.0	x16	x16	CPU 1	Full-height; 3/4 length (up to 9.5")
2	PCle 3.0	x8	x8	CPU 1	Low Profile

Secondary Riser*					
Expansion Slots #	Technology	<b>Bus Width</b>	<b>Connector Width</b>	Processor	Slot Form Factor
3	PCle 3.0	x16	x16	CPU 2	Low Profile or Full-height; 3/4 length (up to 9.5")

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

#### **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

#### **Storage Controllers**

#### **NVMe Boot Device**

HPE NS204i-p NVMe PCle3 OS Boot Device



#### Software RAID

HPE Smart Array S100i SR Gen10 SW RAID

Notes:

- All models come with the S100i Smart Array Controller with embedded software RAID support for up to 12 bays. The S100i uses 14 embedded SATA ports, but only 12 are available for bays as 2 are leveraged to support the M.2 connectors on the optional SATA M.2 capable primary riser (867978-B21).
- 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.
- HPE Smart Array S100i SR Gen10 SW RAID is off by default and must be enabled.
- The S100i supports Microsoft Windows Server only.
- 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: <u>https://downloads.linux.hpe.com/SDR/project/lsrrb/</u>

#### **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

- Broadcom MegaRAID MR416i-a Controller for HPE
- Broadcom MegaRAID MR416i-p Controller for HPE
- Broadcom MegaRAID MR216i-a Controller for HPE
- Broadcom MegaRAID MR216i-p Controller for HPE
- 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

#### Notes:

- If GPGPU is needed then the LH controller (low profile heatsink) should be ordered to allow GPU to fit in the chassis.
- For additional details, please see <u>HPE Smart Array SR Gen10 Controllers for HPE ProLiant DL, ML and Apollo</u> <u>Servers</u>.

#### **Maximum Storage**

Storage	Capacity	Configuration
Hot Plug SFF SAS HDD	26.4 TB	8+2+1 x 2.4 TB (with optional UMB + rear drive option)
Hot Plug SFF SATA HDD	22 TB	8+2+1 x 2.0 TB (with optional UMB + rear drive option)
Hot Plug SFF SAS SSD	168.3 TB	8+2+1 x 15.3 TB (with optional UMB + rear drive option)
Hot Plug SFF SATA SSD	84.48 TB	8+2+1 x 7.68 TB (with optional UMB + rear drive option)
Hot Plug SFF NVMe PCIe SSD	153.6 TB	10 x 15.36 TB NVMe
Hot Plug LFF SAS HDD	72 TB	4 x 18 TB
Hot Plug LFF SATA HDD	72 TB	4 x 18 TB
Hot Plug LFF SAS SSD	7.68 TB	4 x 1.92 TB
Hot Plug LFF SATA SSD	7.68 TB	4 x 1.92 TB

### 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

#### **Power Supply**

- HPE 500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit **Notes:** Available in 94% efficiency.
- HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit
   Notes:
  - Available in 94% and 96% efficiency.
  - Also available in -48VDC and 227VAC/380VDC power inputs.
- HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit Notes:
  - Available in 94% efficiency.
  - 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 (AOK02A). 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 **<u>HPE Power Advisor Tool.</u>** 

For information on power specifications and technical content visit HPE Server power supplies.

#### Interfaces

ntertaces	
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)
	Notes: Both ports are not active simultaneously.
Network Ports	4x 1GbE embedded NIC (if equipped/depending on model)
	1 FlexibleLOM slot available on all chassis types (supporting various NICs adapters)
iLO Remote Mgmt	1 Gb Dedicated
Port	
MicroSD Slot	1 MicroSD slot
	<b>Notes:</b> The MicroSD slot is not hot-pluggable, server must be powered down 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	Optional for all chassis types
Display)	Notes: Will lose iLO Service Port if selecting this option.

### **Operating Systems and Virtualization Software**

#### 2<sup>nd</sup> Generation Intel® Xeon® Scalable Processor Family

- Windows Server 2022: Essentials, Standard, Datacenter
- Windows Server 2019: Essentials, Standard, Datacenter
- Windows Server 2016: Essentials, Standard, Datacenter
- Windows Server 2012 R2: Essentials, Standard, Datacenter
- Microsoft Hyper-V Server: 2012 R2, 2016 & 2019
- VMware vSphere: 6.0 U3, 6.5 U2 through U.3 & 6.7 U1 through U3, 7.0
   Notes: 6.5 U3, 6.7 U3 & 7.0 minimums for Xeon "R", Gold 6256, Gold 6250L & Gold 6250 processors.
- ClearOS: 7.6; ClearVM: 2.0
- Red Hat Enterprise Linux (RHEL): 7.6 w/ Kbase \*\*, 8.0
- SUSE Linux Enterprise Server (SLES): 12 SP3, 15 (includes Xen) \*\*
   Notes: SLES12 SP4 is the minimum for servers featuring Intel<sup>®</sup> Optane<sup>™</sup> DC Persistent Memory.
- Ubuntu: 18.04 LTS (4.15.0)
- Oracle Linux: Oracle Linux 7.6 UEK Release 5 Update 2; Oracle VM 3.4.6 (UEK Release 4 Update 7)
- Citrix: Hypervisor: 8,0, 8.1, 8.2; XenServer 7.1, 7.4, 7.5, 7.6

#### 1<sup>st</sup> Generation Intel<sup>®</sup> Xeon<sup>®</sup> Scalable Processor Family

- Windows Server 2019: Essentials, Standard & Datacenter
- Windows Server 2016: Essentials, Standard & Datacenter
- Windows Server 2012 R2: Essentials, Standard & Datacenter
- Microsoft Hyper-V Server: 2012 R2, 2016 & 2019
- VMware vSphere: 6.0 U3, 6.5 through U.3 & 6.7 through U3, 7.0
- ClearOS: 76; ClearVM: 2.0
- **<u>Red Hat Enterprise Linux (RHEL)</u>**: 6.9 & 7.3\*\*
- SUSE Linux Enterprise Server (SLES): 11 SP4, 12 SP2 & 15 (includes Xen) \*\*
- Ubuntu: 16.04.3 HWE (4.10), 18.04 LTS (4.15.0)
- Oracle Linux: Oracle Linux/UEK 6.9, 7.4; Oracle VM 3.4.4
- Citrix: Hypervisor: 8,0, 8.1, 8.2; XenServer 7.1, 7.4, 7.5, 7.6
- <u>ClearOS</u> Notes: 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 <u>http://www.hpe.com/servers/clearos</u>.
- CentOS

#### Notes:

- 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.
- \*\*64-bit only;includes KVM

#### **Industry Standard Compliance**

- ACPI 6.1 Compliant
- PCIe 3.0 Compliant
- WOL Support
- Microsoft<sup>®</sup> 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
- European Union (EU) eco-design regulations for server and storage products, known as Lot 9, go into effect on March 1st, 2020. Among other requirements, for servers this directive establishes power thresholds for idle state, as well as efficiency and performance in active state which vary among configurations. HPE ProLiant Gen10 servers are compliant with Lot 9 requirements. For more information regarding HPE Lot 9 conformance, please visit:
   https://www.hpe.com/us/en/about/environment/msds-specs-more/erp-lot9-servers.html

**Notes:** For additional technical thermal details regarding ambient temperatures, humidity and features support please visit: <u>http://www.hpe.com/servers/ashrae</u>.

### HPE Server UEFI/Legacy ROM

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

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

#### **UEFI Boot Mode only:**

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

#### Notes:

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

#### **Embedded Management**

#### HPE Integrated Lights-Out (HPE iLO)

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

#### UEFI

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

#### **Intelligent Provisioning**

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

#### **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 <u>http://www.hpe.com/info/restfulapi</u>.

#### **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 <u>http://www.hpe.com/servers/ahs</u>.

#### **Active Health System Viewer**

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

#### Smart Update

Keep your servers up to date with the HPE Smart Update solution by using Smart Update Manager (SUM) to optimize the firmware and driver updates of the Service Pack for ProLiant (SPP). Learn more at <u>https://www.hpe.com/us/en/servers/smart-update.html</u>.

#### **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 <u>http://www.hpe.com/servers/iLOamplifierpack</u>.

#### **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: <u>http://www.hpe.com/info/ilo/mobileapp</u>.

#### **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 <u>http://www.hpe.com/info/resttool</u>.

#### Scripting Tools

Provision one to many servers using your own scripts to discover and deploy with Scripting Tool (STK) for Windows and Linux or Scripting Tools for Windows PowerShell.

Learn more at http://www.hpe.com/servers/powershell.



HPE 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 http://www.hpe.com/info/oneview.

#### HPE Systems Insight Manager (HPE SIM)

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

#### Warranty

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

**Notes:** 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/

#### Security

- HPE Trusted Supply Chain
- UEFI Secure Boot and Secure Start support
- Immutable Silicon Root of Trust
- FIPS 140-2 validation
- Common Criteria certification
- 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
- 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

### **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.

#### **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 <u>http://www.hpe.com/info/oneview</u>.

#### **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 https://www.hpe.com/servers/infosight

#### HPE Insight Cluster Management Utility (CMU)

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

#### 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.

#### **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 costeffective 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.

### **Optional Features**

#### **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**

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

#### Consume IT on your terms

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

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

#### Managed services to run your IT operations

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

### **Recommended Services**

#### HPE Pointnext Tech Care.

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

#### https://www.hpe.com/services/techcare

#### HPE Pointnext Complete Care

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

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

#### https://www.hpe.com/services/completecare

#### **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://h20195.www2.hpe.com/v2/Getdocument.aspx?docname=5981-9356enw

#### **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).

#### DC for Hyperscale

Complete 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. <u>http://www.hpe.com/ww/learn</u>

### 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 HPE experts, access support resources or collaborate with peers. Learn more **http://www.hpe.com/support/hpesc**.

The HPE Support Center Mobile App\* allows you to resolve issues yourself or quickly connect to an agent for live support. Now, you can get access to personalized IT support anywhere, anytime.

HPE Insight Remote Support and HPE Support Center are available at no additional cost with a HPE warranty, HPE Support Service or HPE contractual support agreement.

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

#### For more information: http://www.hpe.com/services.

**Notes:** HPE ProLiant DL385 Gen10 Plus 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 QuickSpecs, or the technical product data sheet will not be provided, repaired, or replaced as part of these services.

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

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

European Union (EU) eco-design regulations for server and storage products, known as Lot 9, go into effect on March 1st, 2020. Among other requirements, for servers this directive establishes power thresholds for idle state, as well as efficiency and performance in active state which vary among configurations. HPE ProLiant Gen10 servers are compliant with Lot 9 requirements. For more information regarding HPE Lot 9 conformance, please visit:

#### https://www.hpe.com/us/en/about/environment/msds-specs-more/erp-lot9-servers.html

#### **Pre-Configured Models**

Network Choice models do not include embedded LOM. Some models include embedded LOM.

Powered by 2 <sup>nd</sup> Ger	neration Intel Xeon Processors		
Models			
SKU Number	P56955-B21 P56955-291	P56956-B21 P56956-291	P56957-B21 P56957-291
Model Name	HPE ProLiant DL360 Gen10 4208 2.10GHz 8-core 1P 32GB-R MR416i-a 8SFF BC 80W PS Server	HPE ProLiant DL360 Gen10 4210R 2.40GHz 10-core 1P 32GB-R MR416i-a 8SFF BC 800W PS Server	HPE ProLiant DL360 Gen10 4215R 3.20GHz 8-core 1P 32GB-R MR416i-a NC 8SFF BC 800W PS Server
Chassis	8SFF	8SFF	8SFF
Processor	4208 (8-Core, 2.1 GHz, 85W)	4210R (10-Core, 2.4 GHz,100W)	4215R (8-Core, 3.2 GHz, 130W)
Number of Processors	One processor with standard heatsink	One processor with standard heatsink	One processor with standard heatsink
Memory	32 GB RDIMM 2R 2933 MT/s (1x 32 GB)	32 GB RDIMM 2R 2933 MT/s (1x 32 GB)	32 GB RDIMM 2R 2933 MT/s (1x 32 GB)
Network Controller	1 Embedded 4 x 1GbE Ethernet Adapter	1 Embedded 4 x 1GbE Ethernet Adapter	HPE Ethernet 10Gb 2-port FLR-T BCM57416 Adapter <b>Notes:</b> No embedded networking
Storage Controller	MR416i-a/4GB with Smart Storage Battery	MR416i-a/4GB with Smart Storage Battery	MR416i-a/4GB with Smart Storage Battery
Hard Drive	None included	None included	None included
Optical Drive	Not included (Optical Drive options available)	Not included (Optical Drive options available)	Not included (Optical Drive options available)
PCIe Slots	2 PCIe: 1 x16 FH, 1 x8 LP	2 PCle: 1 x16 FH, 1 x8 LP	2 PCIe: 1 x16 FH, 1 x8 LP
Power Supply	1x 800W	1x 800W	1x 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 Notes:	Server does not support shelf mou	unted rail kits ("L" brackets).
Energy Star	Energy Star 3.0		
Form Factor	1U Rack		
Warranty	3-year parts, 3-year labor, 3-year	onsite support with next business of	day response.

## **Pre-Configured Models**

Powered by 2 <sup>nd</sup> Ger	neration Intel Xeon Processors		
Models			
SKU Number	P56951-B21 P56951-291	P56952-B21 P56952-291	P56953-B21 P56953-291
Model Name	HPE ProLiant DL360 Gen10 4214R 2.4GHz 12-core 1P 32GB-R MR416i-a 8SFF BC 800W PS Server	HPE ProLiant DL360 Gen10 5218R 2.1GHz 20-core 1P 32GB-R MR416i-a NC 8SFF BC 800W PS Server	HPE ProLiant DL360 Gen10 6226R 2.9GHz 16-core 1P 32GB-R MR416i-a NC 8SFF BC 800W PS Server
Chassis	8SFF	8SFF	8SFF
Processor	4214R (12-Core, 2.4 GHz, 100W)	5218R (20-Core, 2.1 GHz,125W)	6226R (16-Core, 2.9 GHz, 150W
Number of Processors	One processor with standard heatsink	One processor with standard heatsink	One processor with standard heatsink
Memory	32 GB RDIMM 2R 2933 MT/s (1x 32 GB)	32 GB RDIMM 2R 2933 MT/s (1x 32 GB)	32 GB RDIMM 2R 2933 MT/s (1x 32 GB)
Network Controller	1 Embedded 4 x 1GbE Ethernet Adapter	HPE Ethernet 10Gb 2-port FLR-T BCM57416 Adapter <b>Notes:</b> No embedded networking	HPE Ethernet 10Gb 2-port FLR-T BCM57416 Adapter <b>Notes:</b> No embedded networking
Storage Controller	MR416i-a/4GB with Smart Storage Battery	MR416i-a/4GB with Smart Storage Battery	MR416i-a/4GB with Smart Storage Battery
Hard Drive	None included	None included	None included
Optical Drive	Not included (Optical Drive options available)	Not included (Optical Drive options available)	Not included (Optical Drive options available)
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 800W	1x 800W	1x 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 Notes	: Server does not support shelf mou	unted rail kits ("L" brackets).
Energy Star	Energy Star 3.0		
Form Factor	1U Rack		
Warranty	3-year parts, 3-year labor, 3-year	r onsite support with next business o	day response.

Powered by 2 <sup>nd</sup> Ger	neration Intel Xeon Processors	
Models		
SKU Number	P56958-B21 P56958-291	P56954-B21 P56954-291
Model Name	HPE ProLiant DL360 Gen10 5218 2.30GHz 16-core 1P 32GB-R MR416i-a NC 8SFF BC 800W PS Server	HPE ProLiant DL360 Gen10 6248R 3.0GHz 24-core 1P 32GB-R MR416i-a NC 8SFF BC 800W PS Server
Chassis	8SFF	8SFF
Processor	5218 (16-Core, 2.3 GHz, 125W)	6248R (24-Core, 3.0 GHz,205W)
Number of Processors	One processor with standard heatsink	One processor with standard heatsink
Memory	32 GB RDIMM 2R 2933 MT/s (1x 32 GB)	32 GB RDIMM 2R 2933 MT/s (1x 32 GB)
Network Controller	HPE Ethernet 10Gb 2-port FLR-T BCM57416 Adapter <b>Notes:</b> No embedded networking	HPE Ethernet 10Gb 2-port FLR-T BCM57416 Adapter <b>Notes:</b> No embedded networking
Storage Controller	MR416i-a/4GB with Smart Storage Battery	MR416i-a/4GB with Smart Storage Battery
Hard Drive	None included	None included
Optical Drive	Not included (Optical Drive options available)	Not included (Optical Drive options available)
PCIe Slots	2 PCle: 1 x16 FH, 1 x8 LP	2 PCle: 1 x16 FH, 1 x8 LP
Power Supply	1x 800W	1x 800W
Fans	5 - Standard	5 - Standard
Management	HPE iLO 5	HPE iLO 5
Rail Kit	SFF Easy Install w/o CMA Notes:	Server does not support shelf mounted rail kits ("L" brackets).
Energy Star	Energy Star 3.0	
Form Factor	1U Rack	
Warranty	3-year parts, 3-year labor, 3-year	onsite support with next business day response.

**Notes:** UEFI is the standard default for all Pre-configured models.

#### **Country Code Key**

- B21 = Worldwide
- 291 = Japan
- AA1 = PRC

Powered by 2 <sup>nd</sup> Ger	neration Intel Xeon Processors		
Network Choice Mod	els		
SKU Number	P50750-B21 P50750-291	P40637-B21 P40637-291	P23578-B21 P23578-291 P23578-AA1
Model Name	HPE ProLiant DL360 Gen10 4210R 2.4GHz 10-core 1P 32GB-R P408i-a NC 8SFF 800W PS Server	HPE ProLiant DL360 Gen10 4210R 2.4GHz 10-core 1P 32GB-R P408i-a NC 8SFF 800W PS Server	HPE ProLiant DL360 Gen10 4210R 2.4GHz 10-core 1P 16GB-R P408i-a NC 8SFF 500W PS Server
Chassis	8SFF	8SFF	8SFF
Processor	4210R (10-Core, 2.4 GHz, 100W)	4210R (10-Core, 2.4 GHz, 100W)	4210R (10-Core, 2.4 GHz, 100W)
Number of Processors	One processor with standard heatsink	One processor with standard heatsink	One processor with standard heatsink
Memory	32 GB RDIMM 2R 2933 MT/s (1x 32 GB) <b>Notes:</b> Runs at 2400 MT/s due to processor limitation.	32 GB RDIMM 2R 2933 MT/s (1x 32 GB) <b>Notes:</b> Runs at 2400 MT/s due to processor limitation.	16 GB RDIMM 2R 2933 MT/s (1x 16 GB) <b>Notes:</b> Runs at 2400 MT/s due to processor limitation.
Network Controller	P50750-B21 / -291 Embedded 4x1GbE Ethernet	P40637-B21 / -291 HPE Ethernet 1Gb 4-port FLR-T I350-T4V2 (HPE Ethernet 1Gb 4-port 366FLR Adapter) <b>Notes:</b> No embedded networking	P23578-B21 / -291 / -AA1 HPE Ethernet 1Gb 4-port FLR-T I350-T4V2 (HPE Ethernet 1Gb 4-port 366FLR Adapter) <b>Notes:</b> No embedded networking
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	Not included (Optical Drive options available)	Not included (Optical Drive options available)	Not included (Optical Drive options available)
PCIe Slots	2 PCIe: 1 x16 FH, 1 x8 LP	2 PCle: 1 x16 FH, 1 x8 LP	2 PCIe: 1 x16 FH, 1 x8 LP
Power Supply	1x 800W	1x 800W	1x 500W
Fans	5 - Standard	5 - Standard	5 - Standard
Management	HPE iLO 5	HPE ILO 5	HPE iLO 5
Rail Kit		Server does not support shelf mou	unted rail kits ("L" brackets).
Energy Star	Energy Star 3.0		
Form Factor	1U Rack		
Warranty	3-year parts, 3-year labor, 3-year	onsite support with next business of	day response.

Notes: UEFI is the standard default for all Pre-configured models.

### Country Code Key

- B21 = Worldwide
- 291 = Japan
- AA1 = PRC

Powered by 2 <sup>nd</sup> Ger	neration Intel Xeon Processors	S		
Network Choice Mode	els			
SKU Number	P23579-B21 P23579-291 P23579-AA1	P40638-B21 P40638-291	P23577-B21 / P40409-B21 P23577-291 / P40409-291	
Model Name	HPE ProLiant DL360 Gen10 4214R 2.4GHz 12-core 1P 32GB-R P408i-a NC 8SFF 500W PS Server	HPE ProLiant DL360 Gen10 4215R 3.2GHz 8-core 1P 32GB- R P408i-a NC 8SFF 800W PS Server	HPE ProLiant DL360 Gen10 4215R 3.2GHz 8-core 1P 32GB-R S100i NC 8SFF 800W PS Server	
Chassis	8SFF	8SFF	8SFF	
Processor	4214R (12-Core, 2.4 GHz, 100W)	4215R (8-Core, 3.2 GHz, 130W)	4215R (8-Core, 3.2 GHz, 130W)	
Number of Processors	One processor with standard heatsink	One processor with High Performance heatsink	One processor with High Performance heatsink	
Memory	32 GB RDIMM 2R 2933 MT/s (1x 32 GB) <b>Notes:</b> Runs at 2400 MT/s due to processor limitation.	32 GB RDIMM 2R 2933 MT/s (1x 32 GB) <b>Notes:</b> Runs at 2400 MT/s due to processor limitation.	32 GB RDIMM 2R 2933 MT/s (1x 32 GB) <b>Notes:</b> Runs at 2400 MT/s due to processor limitation.	
Network Controller	P23579-B21 / -291 / -AA1 HPE Ethernet 1Gb 4-port FLR- T I350-T4V2 (HPE Ethernet 1Gb 4-port 366FLR Adapter) <b>Notes:</b> No embedded networking P408i-a/2GB with Smart Storage Battery	P40638-B21 / -291 HPE Ethernet 10Gb 2-port FLR- T BCM57416 Adapter <b>Notes:</b> No embedded networking P40409-B21 / -291 HPE Ethernet 10Gb 2-port FLR- T BCM57416 Adapter <b>Notes:</b> No embedded networking	P23577-B21 / -291 HPE Ethernet 10Gb 2-port FLR-T X550-AT2 (HPE Ethernet 10 GbE 2P 562FLR- T) <b>Notes:</b> No embedded networking P40409-B21 / -291 HPE Ethernet 10Gb 2-port FLR-T BCM57416 Adapter <b>Notes:</b> No embedded networking	
Storage Controller	None included	P408i-a/2GB with Smart Storage Battery	Embedded 14-port S100i Notes: SATA only.	
Hard Drive	Not included (Optical Drive options available)	None included	None included	
Optical Drive	2 PCIe: 1 x16 FH, 1 x8 LP	None included	None included	
PCIe Slots	1x 500W	Not included (Optical Drive options available)	Not included (Optical Drive options available)	
Power Supply	5 - Standard	2 PCle: 1 x16 FH, 1 x8 LP	2 PCle: 1 x16 FH, 1 x8 LP	
Fans	HPE iLO 5	1x 800W	1x 800W	
Management	P23579-B21 P23579-291 P23579-AA1	HPE iLO 5	HPE iLO 5	
	SFF Easy Install w/o CMA Notes: Server does not support shelf mounted rail kits ("L" brackets).			
Rail Kit		t shelf mounted rail kits ("L" bracke	ets).	
Rail Kit Energy Star		t shelf mounted rail kits ("L" bracke	ets).	
	Notes: Server does not suppor	t shelf mounted rail kits ("L" bracke	ets).	

Notes: UEFI is the standard default for all Pre-configured models.

#### **Country Code Key**

- B21 = Worldwide
- 291 = Japan
- AA1 = PRC

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

Powered by 2 <sup>nd</sup> Gen	eration Intel Xeon Processors			
Network Choice Mode	els			
SKU Number	P36183-B21 P36183-291	P24740-B21 / P40408-B21 P24740-291 / P40408-291	P24741-B21 / P40407-B21 P24741-291 / P40407-291	
Model Name	HPE ProLiant DL360 Gen10 5218R 2.1GHz 20-core 1P 32GB-R P408i-a NC 8SFF 800W PS Server	HPE ProLiant DL360 Gen10 5218R 2.1GHz 20-core 1P 32GB-R S100i NC 8SFF 800W PS Server	HPE ProLiant DL360 Gen10 5220R 2.2GHz 24-core 1P 32GB-R S100i NC 8SFF 800W PS Server	
Chassis	8SFF	8SFF	8SFF	
Processor	5218R (20-Core, 2.1 GHz, 125W)	5218R (20-Core, 2.1 GHz, 125W)	5220R (24 core, 2.2 GHz, 150W)	
Number of Processors	One processor with standard heatsink	One processor with standard heatsink	One processor with High Performance heatsink	
Memory	32 GB RDIMM 2R 2933 MT/s (1x 32 GB) <b>Notes:</b> Runs at 2666 MT/s due to processor limitation.	32 GB RDIMM 2R 2933 MT/s (1x 32 GB) <b>Notes:</b> Runs at 2666 MT/s due to processor limitation.	32 GB RDIMM 2R 2933 MT/s (1x 32 GB) <b>Notes:</b> Runs at 2666 MT/s due to processor limitation.	
Network Controller	P36183-B21 / -291 HPE Ethernet 10Gb 2-port FLR- T BCM57416 Adapter <b>Notes:</b> No embedded networking	P24740-B21 / -291 HPE Ethernet 10Gb 2-port FLR- T X550-AT2 (HPE Ethernet 10 GbE 2P 562FLR-T) <b>Notes:</b> No embedded networking	P24741-B21 / -291 HPE Ethernet 10Gb 2-port FLR-T X550-AT2 (HPE Ethernet 10 GbE 2P 562FLR- T) <b>Notes:</b> No embedded networking	
		P40408-B21 / -291 HPE Ethernet 10Gb 2-port FLR- T BCM57416 Adapter <b>Notes:</b> No embedded networking	P40407-B21 / -291 HPE Ethernet 10Gb 2-port FLR-T BCM57416 Adapter <b>Notes:</b> No embedded networking	
Storage Controller	P408i-a/2GB with Smart Storage Battery	Embedded 14-port S100i Notes: SATA only.	Embedded 14-port S100i Notes: SATA only.	
Hard Drive	None included	None included	None included	
Optical Drive	None included	Not included (Optical Drive options available)	Not included (Optical Drive options available)	
PCIe Slots	Not included (Optical Drive options available)	2 PCle: 1 x16 FH, 1 x8 LP	2 PCle: 1 x16 FH, 1 x8 LP	
Power Supply	2 PCle: 1 x16 FH, 1 x8 LP	1x 800W	1x 800W	
Fans	1x 800W	5 - Standard	5 - Standard	
Management	HPE iLO 5	HPE ILO 5	HPE iLO 5	
Rail Kit	SFF Easy Install w/o CMA Notes: Server does not support s	helf mounted rail kits ("L" brackets	).	
Energy Star	Energy Star 3.0			
Form Factor	1U Rack			

**Notes:** UEFI is the standard default for all Pre-configured models.

#### **Country Code Key**



- B21 = Worldwide
- 291 = Japan
- AA1 = PRC

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

Network Choice Models	on Intel Xeon Processors			
SKU Number	P24742-B21 / P40406-B21	P24743-B21 / P40405-B21		
	P24742-291 / P40406-291	P24743-291 / P40405-291		
Model Name	HPE ProLiant DL360 Gen10 6226R 2.9GHz	HPE ProLiant DL360 Gen10 6248R 3.0GHz		
	16-core 1P 32GB-R S100i NC 8SFF 800W PS Server	24-core 1P 32GB-R S100i NC 8SFF 800W PS Server		
Chassis	8SFF	8SFF		
Processor	6226R (16-Core, 2.9 GHz, 150W)	6248R (24-Core, 3.0 GHz, 205W)		
Number of Processors	One processor with High Performance	One processor with High Performance		
Number of Processors	heatsink	heatsink		
Memory	32 GB RDIMM 2R 2933 MT/s	32 GB RDIMM 2R 2933 MT/s		
Memory	(1x 32 GB)	(1x 32 GB)		
Network Controller	P24742-B21/-291	P24743-B21 / -291		
Network controller	HPE Ethernet 10Gb 2-port FLR-T X550-	HPE Ethernet 10Gb 2-port FLR-T X550-AT2		
	AT2 (HPE Ethernet 10 GbE 2P 562FLR-T)	(HPE Ethernet 10 GbE 2P 562FLR-T)		
	Notes: No embedded networking	Notes: No embedded networking		
	P40406-B21/-291	P40405-B21/-291		
	HPE Ethernet 10Gb 2-port FLR-T HPE Ethernet 10Gb 2-port FLR			
	BCM57416 Adapter	BCM57416 Adapter		
	Notes: No embedded networking	Notes: No embedded networking		
Storage Controller	Embedded 14-port S100i	Embedded 14-port S100i		
-	Notes: SATA only.	Notes: SATA only.		
Hard Drive	None included	None included		
Optical Drive	Not included (Optical Drive options available)	Not included (Optical Drive options available)		
PCIe Slots	2 PCIe: 1 x16 FH, 1 x8 LP	2 PCle: 1 x16 FH, 1 x8 LP		
Power Supply	1x 800W	1x 800W		
Fans	5 - Standard	5 - Standard		
Management	HPE iLO 5	HPE ILO 5		
Rail Kit	SFF Easy Install w/o CMA	·		
	<b>Notes:</b> Server does not support shelf mounted rail kits ("L" brackets).			
Energy Star	Energy Star 3.0			
Form Factor	1U Rack			
Warranty	3-year parts, 3-year labor, 3-year onsite suppo	rt with next business day response.		

Notes: UEFI is the standard default for all Pre-configured models.

#### **Country Code Key**

- B21 = Worldwide
- 291 = Japan
- AA1 = PRC

Powered by 2 <sup>nd</sup> Gen	eration Intel Xeon Processors		
Network Choice Mode	els		
SKU Number	P40636-B21 P40636-291	P19774-B21 P19774-291 P19774-AA1	P19776-B21 P19776-291
Model Name	HPE ProLiant DL360 Gen10 4208 2.1GHz 8-core 1P 32GB-R P408i-a NC 8SFF 800W PS Server	HPE ProLiant DL360 Gen10 4208 2.1GHz 8-core 1P 16GB-R P408i-a NC 8SFF 500W PS Server	HPE ProLiant DL360 Gen10 4208 2.1GHz 8-core 1P 16GB-R S100i NC 4LFF 500W PS Server
Chassis	8SFF	8SFF	4LFF
Processor	4208 (8 core, 2.1 GHz, 85W)	4208 (8 core, 2.1 GHz, 85W)	4208 (8 core, 2.1 GHz, 85W)
Number of	One processor	One processor	One processor
Processors	With standard heatsink	With standard heatsink	With standard heatsink
Memory	32 GB RDIMM 2R 2933 MT/s (1x 32 GB) <b>Notes:</b> Runs at 2400 MT/s due to processor limitation.	16 GB RDIMM 2R 2933 MT/s (1x 16 GB) <b>Notes:</b> Runs at 2400 MT/s due to processor limitation.	16 GB RDIMM 2R 2933 MT/s (1x 16 GB) <b>Notes:</b> Runs at 2400 MT/s due to processor limitation.
Network Controller	P40636-B21 / -291 HPE Ethernet 1Gb 4-port FLR-T I350-T4V2 (HPE Ethernet 1Gb 4-port 366FLR Adapter) <b>Notes:</b> No embedded networking	P19774-B21 / -291 / -AA1 HPE Ethernet 1Gb 4-port FLR-T I350-T4V2 (HPE Ethernet 1Gb 4-port 366FLR Adapter) <b>Notes:</b> No embedded networking	P19776-B21 / -291 HPE Ethernet 1Gb 4-port FLR-T I350-T4V2 (HPE Ethernet 1Gb 4-port 366FLR Adapter) <b>Notes:</b> No embedded networking
Storage Controller	P408i-a/2GB with Smart Storage Battery	P408i-a/2GB with Smart Storage Battery	Embedded 14-port S100i Notes: SATA only.
Hard Drive	None included		
Optical Drive	Not included (Optical Drive options available)	Not included (Optical Drive options available)	Not included (Optical Drive options available)
PCIe Slots	2 PCle: 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 800W	1x 500W	1x 500W
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 <b>Notes:</b> Server does not support shelf mounted rail kits ("L" brackets).	SFF Easy Install w/o CMA <b>Notes:</b> Server does not support shelf mounted rail kits ("L" brackets).	LFF Easy Install w/o CMA <b>Notes:</b> Server does not support shelf mounted rail kits ("L" brackets).
Energy Star	Energy Star 3.0		
Form Factor	1U Rack		
Warranty		onsite support with next business da	v response
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Notes: UEFI is the standard default for all Pre-configured models.

#### **Country Code Key**

- B21 = Worldwide
- 291 = Japan
- AA1 = PRC

Powered by 2 <sup>nd</sup> Gener	ation Intel Xeon Processors		
Network Choice Models			
SKU Number	P19779-B21 P19779-291 P19779-AA1	P19775-B21 P19775-291 P19775-AA1	P19176-B21 P19176-291
Model Name	HPE ProLiant DL360 Gen10 4210 2.2GHz 10-core 1P 16GB-R P408i-a NC 8SFF 500W PS Server	HPE ProLiant DL360 Gen10 4214 2.2GHz 12-core 1P 16GB-R P408i-a NC 8SFF 500W PS Server	HPE ProLiant DL360 Gen10 5217 3.0GHz 8-core 1P 32GB-R P408i-a NC 8SFF 800W PS Server
Chassis	8SFF	8SFF	8SFF
Processor	4210 (10 core, 2.2 GHz, 85W)	4214 (12 cores, 2.2GHz, 85W)	5217 (8 core, 3.0 GHz, 115W)
Number of Processors	One processor With standard heatsink	One processor With standard heatsink	One processor With standard heatsink
Memory	16 GB RDIMM 2R 2933 MT/s (1x 16 GB) <b>Notes:</b> Runs at 2400 MT/s due to processor limitation.	16GB RDIMM 2R 2933 MT/s (1x 16 GB) <b>Notes:</b> Runs at 2400 MT/s due to processor limitation.	32GB RDIMM 2R 2933 MT/s (1x 32 GB) <b>Notes:</b> Runs at 2666 MT/s due to processor limitation.
Network Controller	P19779-B21 / -291 / -AA1 HPE Ethernet 1Gb 4-port FLR- T I350-T4V2 (HPE Ethernet 1Gb 4-port 366FLR Adapter) <b>Notes:</b> No embedded networking	P19775-B21 / -291 / -AA1 HPE Ethernet 1Gb 4-port FLR-T I350-T4V2 (HPE Ethernet 1Gb 4-port 366FLR Adapter) <b>Notes:</b> No embedded networking	P19176-B21 / -291 HPE Ethernet 1Gb 4-port FLR- T I350-T4V2 (HPE Ethernet 1Gb 4-port 366FLR Adapter) <b>Notes:</b> No embedded networking
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	Not included (Optical Drive options available)	Not included (Optical Drive options available)	Not included (Optical Drive options available)
PCIe Slots	2 PCIe: 1 x16 FH, 1 x8 LP	2 PCle: 1 x16 FH, 1 x8 LP	2 PCIe: 1 x16 FH, 1 x8 LP
Power Supply	1x 500W	1x 500W	1x 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 Notes: Server does not support shelf mounted rail kits ("L" brackets).		
Energy Star	Energy Star 3.0		
Form Factor	1U Rack		
Warranty	3-year parts, 3-year labor, 3-year	onsite support with next business	day response.

Notes: UEFI is the standard default for all Pre-configured models.

#### Country Code Key

- B21 = Worldwide
- 291 = Japan
- AA1 = PRC

Powered by 2 <sup>nd</sup> Genera	ation Intel Xeon Processors			
Network Choice Models				
SKU Number	P19777-B21 P19777-291	P19771-B21 / P40401-B21 P19771-291 / P40401-291 P19771-AA1 / P40401-AA1	P19177-B21 P19177-291	
Model Name	HPE ProLiant DL360 Gen10 5218 2.3GHz 16-core 1P 32GB-R P408i-a NC 8SFF 800W PS Server	HPE ProLiant DL360 Gen10 5220 2.2GHz 18-core 2P 64GB- R P408i-a NC 8SFF 800W RPS Server	HPE ProLiant DL360 Gen10 5220 2.2GHz 18-core 1P 32GB-R P408i-a NC 8SFF 800W PS Server	
Chassis	8SFF	8SFF	8SFF	
Processor	5218 (16 cores, 2.3 GHz, 125W)	5220 (18-Core, 2.2 GHz, 125W)	5220 (18-Core, 2.2 GHz, 125W)	
Number of Processors	One processor With standard heatsink	Two processors with standard heatsink	One processor With standard heatsink	
Memory	32GB RDIMM 2R 2933 MT/s (1x 32 GB) Notes: Runs at 2666 MT/s due to processor limitation.	64 GB RDIMM 2R 2933 MT/s (2x 32 GB) <b>Notes:</b> Runs at 2666 MT/s due to processor limitation.	32GB RDIMM 2R 2933 MT/s (1x 32 GB) <b>Notes:</b> Runs at 2666 MT/s due to processor limitation.	
Network Controller	P19777-B21 / -291 HPE Ethernet 1Gb 4-port FLR-T I350-T4V2 (HPE Ethernet 1Gb 4-port 366FLR Adapter) <b>Notes:</b> No embedded networking	P19771-B21 / -291 / -AA1 HPE Ethernet 10/25Gb 2-port FLR-SFP28 MCX4121A-ACFT (HPE Ethernet 10/25 GbE 2P 640FLR-SFP28) <b>Notes:</b> No embedded networking P40401-B21 / -291 / -AA1 HPE Ethernet 10/25Gb 2-port FLR-SFP28 BCM57414 Adapter <b>Notes:</b> No embedded networking	P19177-B21 / -291 HPE Ethernet 1Gb 4-port FLR-T I350-T4V2 (HPE Ethernet 1Gb 4-port 366FLR Adapter) <b>Notes:</b> No embedded networking	
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	Not included (Optical Drive options available)	Not included (Optical Drive options available)	Not included (Optical Drive options available)	
PCIe Slots	2 PCle: 1 x16 FH, 1 x8 LP	3 PCle: 1 x16 FH / 1 x8 LP + 1 x 16 FH	2 PCle: 1 x16 FH, 1 x8 LP	
Power Supply	1x 800W	2x 800W	1x 800W	
Fans	5 - Standard 7 – Standard 5 - Standard			
Management	HPE iLO 5	HPE iLO Advanced	HPE iLO 5	
Rail Kit	SFF Easy Install w/o CMA Notes: Server does not support shelf mounted rail kits ("L" brackets).			
Energy Star	Energy Star 3.0			
Form Factor	1U Rack			
Warranty	3-year parts, 3-year labor. 3-year	onsite support with next business da	ay response.	

Notes: UEFI is the standard default for all Pre-configured models.

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Powered by 2 <sup>nd</sup> Genera	ation Intel Xeon Processors		
Network Choice Models			
SKU Number	P19178-B21 / P40404-B21 P19178-291 / P40404-291	P19778-B21 P19778-291	P19179-B21 / P40403-B21 P19179-291 / P40403-291
Model Name	HPE ProLiant DL360 Gen10 5222 3.8GHz 4-core 1P 32GB- R P408i-a NC 8SFF 800W PS Server	HPE ProLiant DL360 Gen10 6230 2.1GHz 20-core 1P 32GB-R P408i-a NC 8SFF 800W PS Server	HPE ProLiant DL360 Gen10 6234 3.3GHz 8-core 1P 32GB-R P408i-a NC 8SFF 800W PS Server
Chassis	8SFF .	8SFF	8SFF
Processor	5222 (4-core, 3.8 GHz, 105W)	6230 (20 cores, 2.1 GHz, 125W)	6234 (8-Core, 3.3 GHz, 130W)
Number of Processors	One processor With High Performance heatsink	One processor With standard heatsink	One processor With High Performance heatsink
Memory	32GB RDIMM 2R 2933 MT/s (1x 32 GB)	32GB RDIMM 2R 2933 MT/s (1x 32 GB)	32GB RDIMM 2R 2933 MT/s (1x 32 GB)
Network Controller	P19178-B21 / -291 HPE Ethernet 10/25Gb 2-port FLR-SFP28 MCX4121A-ACFT (HPE Ethernet 10/25 GbE 2P 640FLR-SFP28) <b>Notes:</b> No embedded networking P40404-B21 / -291 HPE Ethernet 10/25Gb 2-port FLR-SFP28 BCM57414 Adapter <b>Notes:</b> No embedded networking	P19778-B21 / -291 HPE Ethernet 1Gb 4-port FLR- T I350-T4V2 (HPE Ethernet 1Gb 4-port 366FLR Adapter) <b>Notes:</b> No embedded networking	P19179-B21 / -291 HPE Ethernet 10/25Gb 2- port FLR-SFP28 MCX4121A- ACFT (HPE Ethernet 10/25 GbE 2P 640FLR-SFP28) <b>Notes:</b> No embedded networking P40403-B21 / -291 HPE Ethernet 10/25Gb 2- port FLR-SFP28 BCM57414 Adapter <b>Notes:</b> No embedded networking
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	Not included (Optical Drive options available)	Not included (Optical Drive options available)	Not included (Optical Drive options available)
PCIe Slots	2 PCle: 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 800W	1x 800W	1x 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 <b>Notes:</b> Server does not support shelf mounted rail kits ("L" brackets).		
Energy Star	Energy Star 3.0		
Form Factor	1U Rack		
Warranty		onsite support with next business	dav response.

Notes: UEFI is the standard default for all Pre-configured models.

### Country Code Key

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Powered by 2 <sup>nd</sup> Genera	ation Intel Xeon Processors		
Network Choice Models			
SKU Number	P19180-B21 / P40402-B21 P19180-291 / P40402-291	P19772-B21 / P40400-B21 P19772-291 / P40400-291 P19772-AA1 / P40400-AA1	P24744-B21 / P40399-B21 P24744-291 / P40399-291
Model Name	HPE ProLiant DL360 Gen10 6242 2.8GHz 16-core 1P 32GB-R P408i-a NC 8SFF 800W PS Server	HPE ProLiant DL360 Gen10 6248 2.5GHz 20-core 2P 64GB-R P408i-a NC 8SFF 800W RPS Server	HPE ProLiant DL360 Gen10 6250 3.9GHz 8-core 1P 32GB- R S100i NC 8SFF 800W PS Server
Chassis	8SFF	8SFF	8SFF
Processor	6242 (16-Core, 2.8 GHz, 150W)	6248 (20-Core, 2.5 GHz, 150W)	6250 (8-core, 3.9GHz, 185W)
Number of Processors	One processor With High Performance heatsink	Two processors with High Performance heatsink	One processor with High Performance heatsink
Memory	32GB RDIMM 2R 2933 MT/s (1x 32 GB)	64 GB RDIMM 2R 2933 MT/s (2x 32 GB)	32GB RDIMM 2R 2933 MT/s (1x 32 GB)
Network Controller	P19180-B21 / -291 HPE Ethernet 10/25Gb 2-port FLR-SFP28 MCX4121A-ACFT (HPE Ethernet 10/25 GbE 2P 640FLR-SFP28) <b>Notes:</b> No embedded	P19772-B21 / -291 / -AA1 HPE Ethernet 10/25Gb 2-port FLR-SFP28 MCX4121A-ACFT (HPE Ethernet 10/25 GbE 2P 640FLR-SFP28) <b>Notes:</b> No embedded	P24744-B21 / -291 HPE Ethernet 10Gb 2-port FLR- T X550-AT2 (HPE Ethernet 10 GbE 2P 562FLR-T) <b>Notes:</b> No embedded networking
	networking P40402-B21 / -291 HPE Ethernet 10/25Gb 2-port FLR-SFP28 BCM57414 Adapter Notes: No embedded networking	networking P40400-B21 / -291 / -AA1 HPE Ethernet 10/25Gb 2-port FLR-SFP28 BCM57414 Adapter Notes: No embedded networking	P40399-B21 / -291 HPE Ethernet 10Gb 2-port FLR- T BCM57416 Adapter <b>Notes:</b> No embedded networking
Storage Controller	P408i-a/2GB with Smart Storage Battery	P408i-a/2GB with Smart Storage Battery	Embedded 14-port S100i Notes: SATA only.
Hard Drive	None included	None included	None included
Optical Drive	Not included (Optical Drive options available)	Not included (Optical Drive options available)	Not included (Optical Drive options available)
PCIe Slots	2 PCIe: 1 x16 FH, 1 x8 LP	3 PCIe: 1 x16 FH / 1 x8 LP + 1 x 16 FH	2 PCle: 1 x16 FH, 1 x8 LP
Power Supply	1x 800W	2x 800W	1x 800W
Fans	5 - Standard	7 - Standard	7 – High Performance
Management	HPE ILO 5	HPE iLO Advanced	HPE ILO 5
Rail Kit	SFF Easy Install w/o CMA Notes: Server does not support shelf mounted rail kits ("L" brackets).		
Energy Star	Energy Star 3.0		
Form Factor	1U Rack		
Warranty		onsite support with next business	dav response.

### Notes: UEFI is the standard default for all Pre-configured models.

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Powered by 2 <sup>nd</sup> Genera	tion Intel Xeon Processors			
China Specific Network C	hoice Models			
SKU Number	P23575-AA1	P23577-AA1		
Model Name	HPE ProLiant DL360 Gen10 3206R 1.9GHz 8- core 1P 16GB-R P408i-a NC 8SFF 500W PS Server	HPE ProLiant DL360 Gen10 4215R 3.2GHz 8- core 1P 32GB-R S100i NC 8SFF 800W PS Server		
Chassis	8SFF	8SFF		
Processor	3206R (8 core, 1.9 GHz, 85W)	4215R (8-Core, 3.2 GHz, 130W)		
Number of Processors	One processor with standard heatsink	One processor with High Performance heatsink		
Memory	16 GB RDIMM 2R 2933 MT/s (1x 16 GB) <b>Notes:</b> Runs at 2133 MT/s due to processor limitation.	32 GB RDIMM 2R 2933 MT/s (1x 32 GB) <b>Notes:</b> Runs at 2400 MT/s due to processor limitation.		
Network Controller	P23575-AA1 HPE Ethernet 1Gb 4-port FLR-T I350-T4V2 (HPE Ethernet 1Gb 4-port 366FLR Adapter) <b>Notes:</b> No embedded networking	P23577-AA1 HPE Ethernet 1Gb 4-port FLR-T I350-T4V2 (HPE Ethernet 1Gb 4-port 366FLR Adapter) <b>Notes:</b> No embedded networking		
Storage Controller	P408i-a/2GB with Smart Storage Battery	Embedded 14-port S100i Notes: SATA only.		
Hard Drive	None included	None included		
Optical Drive	Not included (Optical Drive options available)	Not included (Optical Drive options available)		
PCIe Slots	2 PCIe: 1 x16 FH, 1 x8 LP 2 PCIe: 1 x16 FH, 1 x8 LP			
Power Supply	1x 500W 1x 800W			
Fans	5 - Standard	5 - Standard		
Management	HPE iLO 5	HPE iLO 5		
Rail Kit	SFF Easy Install w/o CMA <b>Notes:</b> Server does not support shelf mounted rail kits ("L" brackets).			
Energy Star	Energy Star 3.0			
Form Factor	1U Rack			
Warranty	3-year parts, 3-year labor, 3-year onsite support with next business day response.			

Notes: UEFI is the standard default for all Pre-configured models.

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### **Configuration Information**

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.

- Factory Integrated Models must start with a CTO Server.
- FIO indicates that this option is only available as a factory installable option.
- Some options may not be integrated at the factory. Contact your local sales representative for additional information

European Union (EU) eco-design regulations for server and storage products, known as Lot 9, go into effect on March 1st, 2020. Among other requirements, for servers this directive establishes power thresholds for idle state, as well as efficiency and performance in active state which vary among configurations. HPE ProLiant Gen10 servers are compliant with Lot 9 requirements. For more information regarding HPE Lot 9 conformance, please visit:

#### https://www.hpe.com/us/en/about/environment/msds-specs-more/erp-lot9-servers.html

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

#### **Network Choice (NC) Models**

Network Choice models do not include embedded LOM. To enable networking capability please select either a FlexibleLOM NIC or a validated alternative from the Core Options section.

CTO Server	HPE DL360 Gen10 4LFF NC CTO Server	HPE DL360 Gen10 8SFF NC CTO Server	HPE DL360 Gen10 Premium 10NVMe NC CTO Svr
SKU Number	P19765-B21	P19766-B21	P19767-B21
TAA SKU*	P19768-B21	P19769-B21	P19770-B21
HPE Trusted Supply Chain FIO Configuration	P36394-B21		
Processor	Not included as standard		
DIMM Slots	24-DIMM slots (12 can be used	for NVDIMMs or 12 can be used 1	or HPE Persistent Memory)
Storage Controller	Embedded SW RAID (S100i) with 14 SATA ports Optional: Choice of HPE modular Smart Array and PCIe plug-in controller		
PCIe	2 PCIe slots (1 x16 FH / 1 x8 LP) Optional: 1 x16 FH or LP		2 PCIe 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	Choice of HPE FlexibleLOM for primary NIC and stand up card for additional NICs. <b>Notes:</b> No embedded networking. Minimum 1 quantity of select Networking (FlexibleLOM or PCIe) cards must be ordered to fulfill base model factory diagnostics. See QuickSpecs for valid options.		
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 Advanced and OneView		
USB	Front: 1 USB 3.0 + iLO service port Rear: 2 USB 3.0 Internal: 2 USB 3.0 Optional: 1 USB 2.0 (lose iLO serv. Port)		Front: 1 USB 3.0 + iLO service port Rear: 2 USB 3.0 Internal: 2 USB 3.0
Rail Kit	Easy Install w/o CMA Notes: Server does not support shelf mounted rail kits ("L" brackets).		
Form Factor	1U Rack		
Warranty	3-year parts, 3-year labor, 3-year onsite support with next business day response.		



CTO Server	HPE DL360 Gen10 8SFF BC NC CTO Server
SKU Number	P56949-B21
HPE Trusted Supply Chain	P36394-B21
FIO Configuration	
Processor	Not included as standard
DIMM Slots	24-DIMM slots (12 can be used for NVDIMMs or 12 can be used for HPE Persistent Memory)
Storage Controller	Embedded SW RAID (S100i) with 14 SATA ports
-	Optional: Choice of Broadcom tri-mode controller
PCIe	2 PCle slots (1 x16 FH / 1 x8 LP)
	Optional: 1 x16 FH or LP
Drive Cage - included	8 SFF - SAS/SATA
	Optional: up to 2 NVMe or 2 Dual uFF (4x M.2 cartridges)
Network Controller	Choice of HPE FlexibleLOM for primary NIC and stand up card for additional NICs.
	Notes: No embedded networking. Minimum 1 quantity of select Networking
	(FlexibleLOM or PCIe) cards must be ordered to fulfill base model factory diagnostics. See
	QuickSpecs for valid options.
Fans	1 CPU – 5 Standard Fans
	2 CPU – 7 Standard Fans
	Optional: High Performance Fans
Management	HPE iLO with Intelligent Provisioning (standard)
	Optional: iLO Advanced and OneView
USB	Front: 1 USB 3.0 + iLO service port
	Rear: 2 USB 3.0
	Internal: 2 USB 3.0
	Optional: 1 USB 2.0 (lose iLO serv. Port)
Rail Kit	Easy Install w/o CMA
	Notes: Server does not support shelf mounted rail kits ("L" brackets).
Form Factor	1U Rack
Warranty	3-year parts, 3-year labor, 3-year onsite support with next business day response.

#### Notes:

– HPE Trusted Supply Chain (P36394-B21) is an optional security upgrade intended for agencies and regulated industries with enhanced security and compliance needs. Applying this option to a DL360 Gen10 CTO server ensures it is built in the USA in a secured facility by vetted HPE personnel assigned to the manufacturing processes. A multitude of checkpoints/inspections for malicious microcode and counterfeit parts are performed throughout the server build, and additional safeguards are put in place against cyber-exploits throughout the server lifecycle. The HPE ProLiant DL360 Gen10 server is re-branded as a HPE ProLiant DL360T Gen10 to denote the HPE Trusted Supply Chain security enhancements. The DL360T Gen10 is currently supported in the USA, exclusively, and is Trade Agreement Act (TAA) compliant. See "HPE Security" section within this document for more detail and learn more at

#### http://www.hpe.com/security.

- \*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. TAA compliance is only provided when HPE options are included as part of factory integrated orders (CTO). For compliance, select a TAA CTO server model from list above.
- HPE Persistent Memory is only supported on 2<sup>nd</sup> generation Intel Xeon Scalable processor series (Platinum 8200, Gold 6200, Gold 5200, Silver 4215 and 4215R).
- SKUs P19767-B21 & P19770-B21 do not support the Xeon-Gold 6250L or Gold 6250 processors.

## CTO Models with embedded LOM

CTO Server	HPE DL360 Gen10 4LFF CTO Server	HPE DL360 Gen10 8SFF CTO Server	HPE DL360 Gen10 8SFF BC CTO System			
SKU Number	867958-B21	867959-B21	P56950-B21			
TAA SKU*	875965-B21	875966-B21	N/A			
HPE Trusted Supply Chain FIO Configuration	P36394-B21					
Processor	Not included as standard					
DIMM Slots	24-DIMM slots (12 can be used	for NVDIMMs or 12 can be used for	HPE Persistent Memory)			
Storage Controller		bedded SW RAID (S100i) with 14 SATA ports ional: Choice of HPE modular Smart Array and PCIe plug-in				
PCIe	2 PCIe slots (1 x16 FH / 1 x8 LP Optional: 1 x16 FH or LP	)				
Drive Cage - included	4 LFF - SAS/SATA 9 SFF - SAS/SATA 0ptional: up to 2 NVMe or 2 D uFF (4x M.2 cartridges)		8 SFF - SAS/SATA al			
Network Controller	HPE 1Gb Ethernet 4-Port 331i A	Adapter plus optional HPE FlexibleL	OM or stand up card			
Fans	1 CPU – 5 Standard Fans 2 CPU – 7 Standard Fans Optional: High Performance Fans	5				
Management	HPE iLO with Intelligent Provisio Optional: iLO Advanced and One	0				
USB	Front: 1 USB 3.0 + iLO service po Rear: 2 USB 3.0 Internal: 2 USB 3.0 Optional: 1 USB 2.0 (lose iLO ser	ort				
Rail Kit	SFF Easy Install w/o CMA	shelf mounted rail kits ("L" bracke	ts).			
Form Factor	1U Rack					
Warranty	3-year parts, 3-year labor, 3-year	r onsite support with next business	day response.			

#### Notes:

HPE Trusted Supply Chain (P36394-B21) is an optional security upgrade intended for agencies and regulated industries with enhanced security and compliance needs. Applying this option to a DL360 Gen10 CTO server ensures it is built in the USA in a secured facility by vetted HPE personnel assigned to the manufacturing processes. A multitude of checkpoints/inspections for malicious microcode and counterfeit parts are performed throughout the server build, and additional safeguards are put in place against cyber-exploits throughout the server lifecycle. The HPE ProLiant DL360 Gen10 server is re-branded as a HPE ProLiant DL360T Gen10 to denote the HPE Trusted Supply Chain security enhancements. The DL360T Gen10 is currently supported in the USA, exclusively, and is Trade Agreement Act (TAA) compliant. See "HPE Security" section within this document for more detail and learn more at

#### http://www.hpe.com/security.

- \*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. TAA compliance is only provided when HPE options are included as part of factory integrated orders (CTO). For compliance, select a TAA CTO server model from list above.
- \*TAA chassis are only orderable in North America and Canada.
- HPE Persistent Memory is only supported on 2<sup>nd</sup> generation Intel Xeon Scalable processor series (Platinum 8200, Gold 6200, Gold 5200, Silver 4215 and 4215R).



# Step 2: Choose 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 P02679-L21 then for second processor, select P02679-B21. **Notes:** 

- Mixing of 2 different processor models is not supported.
- For first processor, -L21 kit will include 5 fans. With the exception of Xeon-Gold 6256, Gold 6250L, Gold 6250, Gold 6212U, Gold 6210U, Gold 6209U & Gold 6208U processors, -B21 kits include 2 fans (for 4 LFF and 8 SFF CTO Server, 10 NVMe CTO Server always includes 7 High Performance fans).
- Processors with 130W or higher will ship with the High Performance heat sink plus SKUs 8256, 5222, 8156, 6128, 5122 as noted below. All other processors will ship with the Standard heat sink.
- When 2<sup>nd</sup> Generation Intel Xeon Scalable Processor is slected, then only DDR4-2933 Memory Kit can be selected; When 1<sup>st</sup>
   Generation Intel Xeon Scalable Processor is selected, then only DDR4-2666 Memory Kit can be selected.

#### Step 2a: Choose Processor Options

2<sup>nd</sup> Generation Intel Xeon- Platinum

**Processor Option Kits** (Required Processor)

SKU

#### Intel Xeon-Platinum 8280 (2.7GHz/28-core/205W) FIO Processor Kit for HPE ProLiant DL360 Gen10 P02679-L21 Notes: Ships with High Performance Heatsink Intel Xeon-Platinum 8280L (2.7GHz/28-core/205W) FIO Processor Kit for HPE ProLiant DL360 Gen10 P02718-L21 Notes: Ships with High Performance Heatsink. Intel Xeon-Platinum 8276 (2.2GHz/28-core/165W) FIO Processor Kit for HPE ProLiant DL360 Gen10 P02676-L21 Notes: Ships with High Performance Heatsink. Intel Xeon-Platinum 8276L (2.2GHz/28-core/165W) FIO Processor Kit for HPE ProLiant DL360 Gen10 P02715-L21 Notes: Ships with High Performance Heatsink. Intel Xeon-Platinum 8270 (2.7GHz/26-core/205W) FIO Processor Kit for HPE ProLiant DL360 Gen10 P02673-L21 Notes: Ships with High Performance Heatsink. P02670-L21 Intel Xeon-Platinum 8268 (2.9GHz/24-core/205W) FIO Processor Kit for HPE ProLiant DL360 Gen10 Notes: Ships with High Performance Heatsink. Intel Xeon-Platinum 8260 (2.4GHz/24-core/165W) FIO Processor Kit for HPE ProLiant DL360 Gen10 P02661-L21 Notes: Ships with High Performance Heatsink. Intel Xeon-Platinum 8260L (2.4GHz/24-core/165W) FIO Processor Kit for HPE ProLiant DL360 Gen10 P02712-L21 Notes: Ships with High Performance Heatsink. Intel Xeon-Platinum 8260Y (2.4GHz/24-core/165W) FIO Processor Kit for HPE ProLiant DL360 Gen10 P02682-L21 Notes: 24/20/16 cores would result in 2.4/2.5/2.7 GHz operating points Ships with High Performance Heatsink. Intel Xeon-Platinum 8256 (3.8GHz/4-core/105W) FIO Processor Kit for HPE ProLiant DL360 Gen10 P02655-L21 Notes: Ships with High Performance Heatsink. Intel Xeon-Platinum 8253 (2.2GHz/16-core/125W) FIO Processor Kit for HPE ProLiant DL360 Gen10 P02652-L21 2<sup>nd</sup> Generation Intel Xeon-Gold Intel Xeon-Gold 6262V (1.9GHz/24-core/135W) FIO Processor Kit for HPE ProLiant DL360 Gen10 P11842-L21 Notes: Ships with High Performance Heatsink. Intel Xeon-Gold 6258R (2.7GHz/28-core/205W) FIO Processor Kit for HPE ProLiant DL360 Gen10 P24488-L21 Notes: Ships with High Performance Heatsink.



Intel Xeon-Gold 6256 (3.6GHz/12-core/205W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P23744-L21
Notes:	
<ul> <li>Ships with High Performance Heatsink.</li> </ul>	
<ul> <li>Ambient temperature support up to 30C.</li> </ul>	
<ul> <li>High performance fans are required.</li> </ul>	
Intel Xeon-Gold 6254 (3.1GHz/18-core/200W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P02649-L21
Notes: Ships with High Performance Heatsink.	
Intel Xeon-Gold 6252 (2.1GHz/24-core/150W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P02646-L21
Notes: Ships with High Performance Heatsink.	
Intel Xeon-Gold 6252N (2.3GHz/24-core/150W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P11851-L21
Notes: Ships with High Performance Heatsink.	
Intel Xeon-Gold 6250L (3.9GHz/8-core/185W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P28257-L21
Notes:	
<ul> <li>Ships with High Performance Heatsink.</li> </ul>	
<ul> <li>NVMe SSDs not supported with this processor.</li> </ul>	
<ul> <li>Not supported on Premium 10SFF NVMe chassis.</li> </ul>	
<ul> <li>Ambient temperature support up to 25C on 4LFF and 8SFF configurations. 2SFF cages not supported.</li> </ul>	
<ul> <li>High performance fans are required.</li> </ul>	
Intel Xeon-Gold 6250 (3.9GHz/8-core/185W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P23741-L21
Notes:	
<ul> <li>Ships with High Performance Heatsink.</li> </ul>	
<ul> <li>NVMe SSDs not supported with this processor.</li> </ul>	
<ul> <li>Not supported on Premium 10SFF NVMe chassis.</li> <li>Ambient temperature support up to 25C on 4LFF and 8SFF configurations. 2SFF cages not supported.</li> </ul>	
<ul> <li>Anibient temperature support up to 250 of 4LFF and 65FF configurations. 25FF cages not supported.</li> <li>High performance fans are required.</li> </ul>	
Intel Xeon-Gold 6248R (3.0GHz/24-core/205W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P24487-L21
<b>Notes:</b> Ships with High Performance Heatsink.	124407 LZI
Intel Xeon-Gold 6248 (2.5GHz/20-core/150W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P02640-L21
Notes: Ships with High Performance Heatsink.	F02040-L21
Intel Xeon-Gold 6246R (3.4GHz/16-core/205W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P24486-L21
Notes: Ships with High Performance Heatsink.	FZ4400-LZI
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Intel Xeon-Gold 6246 (3.3GHz/12-core/165W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P15443-L21
<b>Notes:</b> Ships with High Performance Heatsink.	
Intel Xeon-Gold 6244 (3.6GHz/8-core/150W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P02634-L21
Notes: Ships with High Performance Heatsink.	
Intel Xeon-Gold 6242R (3.1GHz/20-core/205W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P24485-L21
Notes: Ships with High Performance Heatsink.	
Intel Xeon-Gold 6242 (2.8GHz/16-core/150W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P02628-L21
Notes: Ships with High Performance Heatsink.	
Intel Xeon-Gold 6240R (2.4GHz/24-core/165W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P24484-L21
Notes: Ships with High Performance Heatsink.	
Intel Xeon-Gold 6240 (2.6GHz/18-core/150W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P02625-L21
Notes: Ships with High Performance Heatsink.	



# **Configuration Information**

Intel Year Cold 62/07/2260 17/18 1/ 8 coro/1500/2510 Drocessor Kit for LIDE Drol iont DL 760 Con10	
Intel Xeon-Gold 6240Y (2.6GHz/18-14-8-core/150W) FIO Processor Kit for HPE ProLiant DL360 Gen10 Notes:	P02613-L21
<ul> <li>18/14/8 cores would result in 2.6/2.8/3.1 GHz operating points</li> </ul>	
<ul> <li>Ships with High Performance Heatsink.</li> </ul>	
Intel Xeon-Gold 6240L (2.6GHz/18-core/150W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P02643-L21
Notes: Ships with High Performance Heatsink.	
Intel Xeon-Gold 6238R (2.2GHz/28-core/165W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P24483-L21
<b>Notes:</b> Ships with High Performance Heatsink.	
Intel Xeon-Gold 6238 (2.1GHz/22-core/140W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P02637-L21
Notes: Ships with High Performance Heatsink.	
Intel Xeon-Gold 6238L (2.1GHz/22-core/140W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P02658-L21
Notes: Ships with High Performance Heatsink.	
Intel Xeon-Gold 6234 (3.3GHz/8-core/130W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P02604-L21
Notes: Ships with High Performance Heatsink.	
Intel Xeon-Gold 6230R (2.1GHz/26-core/150W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P24482-L21
Notes: Ships with High Performance Heatsink.	
Intel Xeon-Gold 6230 (2.1GHz/20-core/125W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P02607-L21
Intel Xeon-Gold 6230N (2.3GHz/20-core/125W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P11848-L21
Intel Xeon-Gold 6226R (2.9GHz/16-core/150W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P24481-L21
Notes: Ships with High Performance Heatsink.	
Intel Xeon-Gold 6226 (2.7GHz/12-core/125W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P02601-L21
Intel Xeon-Gold 6222V (1.8GHz/20-core/115W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P11839-L21
Intel Xeon-Gold 6212U (2.4GHz/24-core/165W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P02667-L21
Notes: Ships with High Performance Heatsink.	
Intel Xeon-Gold 6210U (2.5GHz/20-core/150W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P02631-L21
Notes:	
<ul> <li>Ships with High Performance Heatsink.</li> </ul>	
<ul> <li>Only supported in single socket configurations</li> </ul>	
Intel Xeon-Gold 6209U (2.1GHz/20-core/125W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P02622-L21
Notes: Only supported in single socket configurations	
Intel Xeon-Gold 6208U (2.9GHz/16-core/150W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P24489-L21
Notes:	
<ul> <li>Ships with High Performance Heatsink.</li> </ul>	
Only supported in single socket configurations	
Intel Xeon-Gold 5222 (3.8GHz/4-core/105W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P02709-L21
Notes: Ships with High Performance Heatsink.	
Intel Xeon-Gold 5220R (2.2GHz/24-core/150W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P15995-L21
Notes: Ships with High Performance Heatsink.	
Intel Xeon-Gold 5220 (2.2GHz/18-core/125W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P02595-L21
Intel Xeon-Gold 5220S (2.7GHz/18-core/125W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P02577-L21
Intel Xeon-Gold 5218R (2.1GHz/20-core/125W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P24480-L21
Intel Xeon-Gold 5218 (2.3GHz/16-core/125W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P02592-L21
Intel Xeon-Gold 5218N (2.3GHz/16-core/110W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P11845-L21
Intel Xeon-Gold 5218B (2.3GHz/16-core/125W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P12516-L21

<b>Notes:</b> Consistent features with the 5218 processor but from a different die. Mixing both 5218B & 5218.	
processors in a system is not supported	
Intel Xeon-Gold 5217 (3.0GHz/8-core/115W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P02589-L21
Intel Xeon-Gold 5215 (2.5GHz/10-core/85W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P02586-L21
Intel Xeon-Gold 5215L (2.5GHz/10-core/85W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P02706-L21
2 <sup>nd</sup> Generation Intel Xeon- Silver	
Intel Xeon-Silver 4216 (2.1GHz/16-core/100W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P02583-L21
Intel Xeon-Silver 4215R (3.2GHz/8-core/130W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P24479-L21
Notes: Ships with Performance Heatsink.	
Intel Xeon-Silver 4215 (2.5GHz/8-core/85W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P02598-L21
Intel Xeon-Silver 4214Y (2.2GHz/12-10-8-core/85W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P02610-L21
Notes: 12/10/8 cores would result in 2.2/2.3/2.4 GHz operating points	
Intel Xeon-Silver 4214R (2.4GHz/12-core/100W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P15977-L21
Intel Xeon-Silver 4214 (2.2GHz/12-core/85W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P02580-L21
Intel Xeon-Silver 4210R (2.4GHz/10-core/100W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P15974-L21
Intel Xeon-Silver 4210 (2.2GHz/10-core/85W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P02574-L21
Intel Xeon-Silver 4208 (2.1GHz/8-core/85W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P02571-L21
2 <sup>nd</sup> Generation Intel Xeon- Bronze	
Intel Xeon-Bronze 3206R (1.9GHz/8-core/85W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P15968-L21
Intel Xeon-Bronze 3204 (1.9GHz/6-core/85W) FIO Processor Kit for HPE ProLiant DL360 Gen10	P02565-L21
1 <sup>st</sup> Generation Intel Xeon:	

1<sup>st</sup> Generation Intel Xeon:

For information on obsolete 1<sup>st</sup> Generation Xeon processors, please visit HPE DL360 Gen10 QuickSpecs version 43

#### 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: <u>https://www.hpe.com/docs/memory-speed-table</u> For memory Reliability, Accessibility, Serviceability (RAS) features whitepaper like Gen10 Fast Fault Tolerance and legacy mirrored memory feature etc. please go to: <u>http://www.hpe.com/docs/memory-ras-feature</u>. Notes:

- Maximum memory capacity and speed per processor is dependent on processor model selection or limitation.

 DDR4-2933 Memory Kits are only supported with 2<sup>nd</sup> Generation Intel Xeon Scalable Series Processors and DDR4-2666 Memory Kits are only supported with 1<sup>st</sup> Generation Intel Xeon Scalable Series Processors.

#### Registered DIMMs (RDIMMs) for 2<sup>nd</sup> Generation Intel Xeon Scalable Series

HPE 64GB (1x64GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P00930-B21
HPE 32GB (1x32GB) Single Rank x4 DDR4-2933 CAS-21-21-21 Registered Memory Kit	P38446-B21
HPE 32GB (1x32GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P00924-B21
HPE 16GB (1x16GB) Dual Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P00922-B21
HPE 16GB (1x16GB) Single Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P00920-B21
HPE 8GB (1x8GB) Single Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P00918-B21
Registered DIMMs (RDIMMs) for 1 <sup>st</sup> Generation Intel Xeon Scalable Series	
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-19-19-19 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
Load Reduced DIMMs (LRDIMMs) for 2 <sup>nd</sup> Generation Intel Xeon Scalable Series	
HPE 128GB (1x128GB) Quad Rank x4 DDR4-2933 CAS-21-21-21 Load Reduced Smart Memory Kit	P11040-B21
HPE Persistent Memory	
Intel Optane 512GB persistent memory 100 Series for HPE	835810-B21
Intel Optane 256GB persistent memory 100 Series for HPE	835807-B21
Intel Optane 128GB persistent memory 100 Series for HPE	835804-B21
Notes:	
<ul> <li>A maximum of 12 HPE Persistent Memory Kits supported on the following 2<sup>nd</sup> Generation Intel Xeon Scalable Processor series (Platinum 8200, Gold 6200, Gold 5200, Silver 4215 and 4215R)</li> </ul>	
<ul> <li>For additional information regarding HPE Persistent Memory Population Rules and Guidelines for Gen10</li> </ul>	
visit:http://www.hpe.com/docs/memory-population-rules	
HPE Persistent Memory (NVDIMM)	
HPE 16GB NVDIMM Single Rank x4 DDR4-2666 Module Kit	845264-B21
Notes:	
Can only be mixed with RDIMMs.	
<ul> <li>A maximum of 12 NVDIMMs supported with 1<sup>st</sup> generation Intel Xeon Scalable processors.</li> </ul>	
<ul> <li>For General Server Memory and NVDIMM Population Rules and Guidelines for Gen10 see details here: <u>http://www.hpe.com/docs/memory-population-rules</u></li> </ul>	
Step 2c: Choose Power Supplies Please select one or two power supplies from below.	
<b>Notes:</b> Mixing of 2 different power supplies is NOT supported.	
HPE Flex Slot Power Supplies	
HPE 500W Elex Slot Platinum Hot Plug Low Halogen Power Supply Kit	865408-B21
HPE 500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit	865408-B21 865438-B21
HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit	865438-B21
HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	865438-B21 865414-B21
HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit HPE 800W Flex Slot -48VDC Hot Plug Low Halogen Power Supply Kit	865438-B21 865414-B21 865434-B21
HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit HPE 800W Flex Slot -48VDC Hot Plug Low Halogen Power Supply Kit HPE 800W Flex Slot Universal Hot Plug Low Halogen Power Supply Kit	865438-B21 865414-B21 865434-B21 865428-B21
HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit HPE 800W Flex Slot -48VDC Hot Plug Low Halogen Power Supply Kit HPE 800W Flex Slot Universal Hot Plug Low Halogen Power Supply Kit HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	865438-B21 865414-B21 865434-B21
HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit HPE 800W Flex Slot -48VDC Hot Plug Low Halogen Power Supply Kit HPE 800W Flex Slot Universal Hot Plug Low Halogen Power Supply Kit	865438-B21 865414-B21 865434-B21 865428-B21
HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit HPE 800W Flex Slot -48VDC Hot Plug Low Halogen Power Supply Kit HPE 800W Flex Slot Universal Hot Plug Low Halogen Power Supply Kit HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit Notes: 1600W Power supplies only support high line voltage (200 VAC to 240 VAC).	865438-B21 865414-B21 865434-B21 865428-B21
HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit HPE 800W Flex Slot -48VDC Hot Plug Low Halogen Power Supply Kit HPE 800W Flex Slot Universal Hot Plug Low Halogen Power Supply Kit HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit Notes: 1600W Power supplies only support high line voltage (200 VAC to 240 VAC). Step 3: Choose Additional (FIO) Factory Integratable Options	865438-B21 865414-B21 865434-B21 865428-B21
HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit HPE 800W Flex Slot -48VDC Hot Plug Low Halogen Power Supply Kit HPE 800W Flex Slot Universal Hot Plug Low Halogen Power Supply Kit HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit Notes: 1600W Power supplies only support high line voltage (200 VAC to 240 VAC). Step 3: Choose Additional (FIO) Factory Integratable Options Each of the following may be selected if desired at time of factory integration	865438-B21 865414-B21 865434-B21 865428-B21 830272-B21
HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit HPE 800W Flex Slot -48VDC Hot Plug Low Halogen Power Supply Kit HPE 800W Flex Slot Universal Hot Plug Low Halogen Power Supply Kit HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit <b>Notes:</b> 1600W Power supplies only support high line voltage (200 VAC to 240 VAC). <b>Step 3: Choose Additional (FIO) Factory Integratable Options</b> Each of the following may be selected if desired at time of factory integration HPE Trusted Platform Module 2.0 Gen10 Option	865438-B21 865414-B21 865434-B21 865428-B21 830272-B21 8664279-B21
HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit HPE 800W Flex Slot -48VDC Hot Plug Low Halogen Power Supply Kit HPE 800W Flex Slot Universal Hot Plug Low Halogen Power Supply Kit HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit Notes: 1600W Power supplies only support high line voltage (200 VAC to 240 VAC). 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 HPE Server Platform LDevID FIO Setting	865438-B21 865414-B21 865434-B21 830272-B21 830272-B21 864279-B21 P49803-B21
<ul> <li>HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit</li> <li>HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit</li> <li>HPE 800W Flex Slot -48VDC Hot Plug Low Halogen Power Supply Kit</li> <li>HPE 800W Flex Slot Universal Hot Plug Low Halogen Power Supply Kit</li> <li>HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit</li> <li>Notes: 1600W Power supplies only support high line voltage (200 VAC to 240 VAC).</li> </ul> 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 HPE Server Platform LDevID FIO Setting HPE Server Identity LDevID FIO Setting	865438-B21 865414-B21 865434-B21 865428-B21 830272-B21 8664279-B21
HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit HPE 800W Flex Slot -48VDC Hot Plug Low Halogen Power Supply Kit HPE 800W Flex Slot Universal Hot Plug Low Halogen Power Supply Kit HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit Notes: 1600W Power supplies only support high line voltage (200 VAC to 240 VAC). 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 HPE Server Platform LDevID FIO Setting HPE Server Identity LDevID FIO Setting Notes:	865438-B21 865414-B21 865434-B21 830272-B21 830272-B21 864279-B21 P49803-B21
HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit HPE 800W Flex Slot -48VDC Hot Plug Low Halogen Power Supply Kit HPE 800W Flex Slot Universal Hot Plug Low Halogen Power Supply Kit HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit Notes: 1600W Power supplies only support high line voltage (200 VAC to 240 VAC). 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 HPE Server Platform LDevID FIO Setting HPE Server Identity LDevID FIO Setting HPE Server Identity LDevID FIO Setting HPE Trusted Platform Module 2.0 option works with Gen10 servers with UEFI Mode not Legacy Mode. It	865438-B21 865414-B21 865434-B21 830272-B21 830272-B21 864279-B21 P49803-B21
HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit HPE 800W Flex Slot -48VDC Hot Plug Low Halogen Power Supply Kit HPE 800W Flex Slot Universal Hot Plug Low Halogen Power Supply Kit HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit Notes: 1600W Power supplies only support high line voltage (200 VAC to 240 VAC). 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 HPE Server Platform LDevID FIO Setting HPE Server Identity LDevID FIO Setting Notes:	865438-B21 865414-B21 865434-B21 830272-B21 830272-B21 864279-B21 P49803-B21
<ul> <li>HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit</li> <li>HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit</li> <li>HPE 800W Flex Slot -48VDC Hot Plug Low Halogen Power Supply Kit</li> <li>HPE 800W Flex Slot Universal Hot Plug Low Halogen Power Supply Kit</li> <li>HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit</li> <li>Notes: 1600W Power supplies only support high line voltage (200 VAC to 240 VAC).</li> </ul> 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 HPE Server Platform LDevID FIO Setting HPE Server Identity LDevID FIO Setting Notes: <ul> <li>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.</li> <li>HPE server systems can have a TPM module (of any type) installed only once. It cannot be replaced with</li> </ul>	865438-B21 865414-B21 865434-B21 830272-B21 830272-B21 864279-B21 P49803-B21
<ul> <li>HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit</li> <li>HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit</li> <li>HPE 800W Flex Slot -48VDC Hot Plug Low Halogen Power Supply Kit</li> <li>HPE 800W Flex Slot Universal Hot Plug Low Halogen Power Supply Kit</li> <li>HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit</li> <li>Notes: 1600W Power supplies only support high line voltage (200 VAC to 240 VAC).</li> </ul> Step 3: Choose Additional (FIO) Factory Integratable Options Each of the following may be selected if desired at time of factory integration HPE Server Platform Module 2.0 Gen10 Option HPE Server Identity LDevID FIO Setting HPE Server Identity LDevID FIO Setting Notes: <ul> <li>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.</li> <li>HPE server systems can have a TPM module (of any type) installed only once. It cannot be replaced with any other TPM module.</li> </ul>	865438-B21 865414-B21 865434-B21 830272-B21 830272-B21 P49803-B21 P49814-B21
<ul> <li>HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit</li> <li>HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit</li> <li>HPE 800W Flex Slot -48VDC Hot Plug Low Halogen Power Supply Kit</li> <li>HPE 800W Flex Slot Universal Hot Plug Low Halogen Power Supply Kit</li> <li>HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit</li> <li>Notes: 1600W Power supplies only support high line voltage (200 VAC to 240 VAC).</li> </ul> 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 HPE Server Platform LDevID FIO Setting HPE Server Identity LDevID FIO Setting Notes: <ul> <li>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.</li> <li>HPE server systems can have a TPM module (of any type) installed only once. It cannot be replaced with any other TPM module.</li> <li>HPE Gen10 TPM 1.2 FIO Setting</li> </ul>	865438-B21 865414-B21 865434-B21 830272-B21 830272-B21 P49803-B21 P49814-B21
<ul> <li>HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit</li> <li>HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit</li> <li>HPE 800W Flex Slot -48VDC Hot Plug Low Halogen Power Supply Kit</li> <li>HPE 800W Flex Slot Universal Hot Plug Low Halogen Power Supply Kit</li> <li>HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit</li> <li>Notes: 1600W Power supplies only support high line voltage (200 VAC to 240 VAC).</li> </ul> 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 HPE Server Platform LDevID FIO Setting Notes: <ul> <li>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.</li> <li>HPE server systems can have a TPM module (of any type) installed only once. It cannot be replaced with any other TPM module.</li> <li>HPE Gen10 TPM 1.2 FIO Setting</li> </ul>	865438-B21 865414-B21 865434-B21 830272-B21 830272-B21 P49803-B21 P49814-B21 872108-B21



#### **HPE Security Options**

HPE Server Security Optimized Service for HPE ProLiant (R9S59A) is an optional security upgrade intended for agencies and regulated industries with enhanced security and compliance needs. Applying this option to a DL3XX Gen10/Gen10 Plus CTO server ensures it is hardened by turning on advanced safeguards in place against cyber-exploits throughout the server lifecycle. An iLO Advanced License required for High Security Mode and compatible intrusion detection device option kits are prerequisites for the full optimization service.

# 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

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

#### **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 FH GPU Enablement v2 Kit	P23271-B21

#### Notes:

 Replaces 867980-B21. Enhanced to support additional GPUs and compatible with all GPUs qualified on DL360 Gen10.

- This kit is not available on the 10 NVMe model.

Riser Information								
Part number Description		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	x1 6	x8	0	N/A	N/A
867978-B21	HPE DL360 Gen10 x16/x16 SATA M.2 2280 Riser Kit	0	Ν	x1 6	x16	0	N/A	N/A
P23271-B21	HPE DL360 Gen10 x16 FH GPU v2 Riser Kit	Ν	0	0	N/A <sup>4</sup>	x16	N/A	N/A
867982-B21	HPE DL360 Gen10 x16 LP Riser Kit	Ν	0	0	0	x16	N/A	N/A
N/A	HPE DL360 Gen10 x16/x8 1-port 2SFF NVMe Riser <sup>1</sup>	0	N	x1 6	x8	0	1	2
N/A	HPE DL360 Gen10 5-port 10SFF NVMe Riser Kit <sup>2</sup>	Ν	D <sup>3</sup>	0	0	0	5	10
867972-B21	HPE DL360 Gen10 1SFF SAS/SATA Rear Backplane Kit	0	Ν	0	x8	0	N/A	N/A

#### Notes:

- D = Default on chassis; O = Optional; N = not supported or slot/connector not present.
- <sup>1</sup>Included on 2SFF NVMe Backplane Kit (871242-B21)
- <sup>2</sup>Included on 10SFF chassis (867960-B21, 875967-B21, P19767-B21 & P19770-B21) or 10SFF Premium backplane kit (867974-B21)
- <sup>3</sup>Included on 10SFF chassis (867960-B21, 875967-B21, P19767-B21 & P19770-B21)
- <sup>4</sup>When secondary full height kit is installed, then primary PCIe Slot #2 cannot be used. Only 2 full height slots are supported.
- \*For additional details on ProLiant DL Gen10 server risers.
   please visit: <a href="https://www.hpe.com/h20195/v2/Getdocument.aspx?docname=a00043229enw">https://www.hpe.com/h20195/v2/Getdocument.aspx?docname=a00043229enw</a>
- \*\*For information on obsolete x16 FH GPU riser please consult HPE DL360 Gen10 QuickSpecs version 37

Performance Cooling Options	
HPE DL360 Gen10 High Performance Heat Sink Kit	871246-B21
HPE DL360 Gen10 High Performance Fan Kit	871244-B21
Tri-mode controller to SAS/SATA Options	
HPE ProLiant DL36x Gen10 Plus 2SFF SAS/SATA Tri-Mode Cable Kit	P55883-B21
Notes:	

- Max = 1

<ul> <li>When 2SFF Basic Carrier Backplane drive cage is selected then 2SFF SAS/SATA tri-mode cable kit must be selected.</li> </ul>	
<ul> <li>This option is supported on 8SFF Basic Carrier CTO Server Model-X only</li> </ul>	
HPE ProLiant DL36x Gen10 Plus 8SFF SAS/SATA PCIe Slot2 Tri-Mode Cable Kit	P55884-B21
Notes:	
- Max = 1	
<ul> <li>This option is supported on 8SFF Basic Carrier CTO Server Model-X only.</li> </ul>	
Universal Media Bay Options	
Notes: <u>http://www.hpe.com/info/CablingMatrixGen10</u> can help to explain the cable routing for each option	listed below
HPE ProLiant DL360 Gen10 Plus 2SFF SAS/SATA 12G BC Drive Cage Kit	P26435-B21
<b>Notes:</b> Not supported on Xeon-Gold 6250L or Gold 6250 processor based configurations. Supported only with 8SFF Basic Carrier CTO Server Model-X	
HPE DL360 Gen10 2SFF SAS/SATA Backplane Kit	867966-B21
Notes: Not supported on Xeon-Gold 6250L or Gold 6250 processor based configurations.	
HPE DL360 Gen10 2SFF NVMe Backplane Kit	871242-B21
Notes: Not supported on Xeon-Gold 6250L or Gold 6250 processor based configurations.	
HPE DL360 Gen10 2SFF SATA UFF Backplane Kit	867970-B21
Notes: Not supported on Xeon-Gold 6250L or Gold 6250 processor based configurations.	
HPE DL360 Gen10 8SFF Display Port/USB/Optical Drive Blank Kit	868000-B21
Notes: This kit is required for Optical Drive option (8SFF model only).	
HPE DL360 Gen10 LFF Display Port and USB Kit	868004-B21
Optical Drive Options	
HPE Mobile USB DVD-RW Optical Drive	701498-B21
Notes: This kit is 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
Notes:	
<ul> <li>This kit is supported on the 8SFF model only.</li> </ul>	
<ul> <li>This kit requires two processors, not supported on single processor configurations.</li> </ul>	
<ul> <li>Requires High Performance Fan Kit (871244-B21).</li> <li><u>http://www.hpe.com/info/CablingMatrixGen10</u> can help to explain the cable routing for each option abore</li> </ul>	ve.

## Security

HPE Trusted Supply Chain FIO Configuration

Notes:

- HPE Trusted Supply Chain (P36394-B21) is an optional security upgrade intended for agencies and regulated industries with enhanced security and compliance needs. Applying this option to a DL360 Gen10 CTO server ensures it is built in the USA in a secured facility by vetted HPE personnel assigned to the manufacturing processes. A multitude of checkpoints/inspections for malicious microcode and counterfeit parts are performed throughout the server build, and additional safeguards are put in place against cyber-exploits throughout the server lifecycle. The HPE ProLiant DL360 Gen10 server is rebranded as a HPE ProLiant DL360T Gen10 to denote the HPE Trusted Supply Chain security enhancements. The DL360T Gen10 is currently supported in the USA, exclusively, and is Trade Agreement Act (TAA) compliant. See "HPE Security" section within this document for more detail and learn more at http://www.hpe.com/security.
- This option requires the selection of HPE Gen10 Intrusion Detection Kit (867984-B21)
- This option requires the selection of either HPE iLO Advanced 1-server License with 3yr Support on iLO Licensed Features (BD505A) or HPE iLO Advanced 1-server License with 1yr Support on iLO Licensed Features (512485-B21)
- This option is limited to stand-alone DL360 Gen10 CTO servers only. The HPE Trusted Supply Chain configuration will not be available if the server is ordered as factory integrated into a rack
- One instance of the following Electronic License to Use is required per order (not per server): R6X85AAE
   HPE Trusted Supply Chain E-LTU
- Logistics delivery speeds and services are available and selectable within Next Gen Quoter.
- This option cannot be selected with TAA CTO Models

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	
Notes: Requires bezel kit (867998-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 P02679-L21 then for second processor, select P02679-B21.

#### Notes:

- Field upgrades from 1<sup>st</sup> generation processors (x1xx) to 2<sup>nd</sup> generation processors (x2xx) not supported.
- Upgrades to two processors must be performed by HPE Pointnext or an approved Service Delivery Partner.
- Mixing of 2 different processor models is not supported.
- For first processor, -L21 kit will include 5 fans. With the exception of Xeon-Gold 6256, Gold 6250L, Gold 6250, Gold 6212U, Gold 6210U, Gold 6209U & Gold 6208U processors, -B21 kits include 2 fans (for 4 LFF and 8 SFF CTO Server, 10 NVMe CTO Server always includes 7 High Performance fans).
- Processors with 130W or higher will ship with the High Performance heat sink plus SKUs 8256, 5222, 8156, 6128, 5122 as noted below. All other processors will ship with the Standard heat sink.
- When 2<sup>nd</sup> Generation Intel Xeon Scalable Processor is slected, then only DDR4-2933 Memory Kit can be selected; When 1<sup>st</sup> Generation Intel Xeon Scalable Processor is selected, then only DDR4-2666 Memory Kit can be selected

#### 2<sup>nd</sup> Generation Intel Xeon-Platinum

Intel Xeon-Platinum 8280 (2.7GHz/28-core/205W) Processor Kit for HPE ProLiant DL360 Gen10	P02679-B21
Notes: Ships with High Performance Heatsink.	
Intel Xeon-Platinum 8280L (2.7GHz/28-core/205W) Processor Kit for HPE ProLiant DL360 Gen10	P02718-B21
Notes: Ships with High Performance Heatsink.	



P36394-B21

#### QuickSpecs

# **Core Options**

Intel Xeon-Platinum 8276 (2.2GHz/28-core/165W) Processor Kit for HPE ProLiant DL360 Gen10	P02676-B21
Notes: Ships with High Performance Heatsink.	
Intel Xeon-Platinum 8276L (2.2GHz/28-core/165W) Processor Kit for HPE ProLiant DL360 Gen10	P02715-B21
Notes: Ships with High Performance Heatsink.	
Intel Xeon-Platinum 8270 (2.7GHz/26-core/205W) Processor Kit for HPE ProLiant DL360 Gen10	P02673-B21
Notes: Ships with High Performance Heatsink.	
Intel Xeon-Platinum 8268 (2.9GHz/24-core/205W) Processor Kit for HPE ProLiant DL360 Gen10	P02670-B21
Notes: Ships with High Performance Heatsink.	
Intel Xeon-Platinum 8260 (2.4GHz/24-core/165W) Processor Kit for HPE ProLiant DL360 Gen10	P02661-B21
Notes: Ships with High Performance Heatsink.	
Intel Xeon-Platinum 8260L (2.4GHz/24-core/165W) Processor Kit for HPE ProLiant DL360 Gen10	P02712-B21
Notes: Ships with High Performance Heatsink.	
Intel Xeon-Platinum 8260Y (2.4GHz/24-core/165W) Processor Kit for HPE ProLiant DL360 Gen10	P02682-B21
Notes:	
<ul> <li>24/20/16 cores would result in 2.4/2.5/2.7 GHz operating points</li> </ul>	
<ul> <li>Ships with High Performance Heatsink.</li> </ul>	
Intel Xeon-Platinum 8256 (3.8GHz/4-core/105W) Processor Kit for HPE ProLiant DL360 Gen10	P02655-B21
Notes: Ships with High Performance Heatsink.	
Intel Xeon-Platinum 8253 (2.2GHz/16-core/125W) Processor Kit for HPE ProLiant DL360 Gen10	P02652-B21
2 <sup>nd</sup> Generation Intel Xeon-Gold	
Intel Xeon-Gold 6262V (1.9GHz/24-core/135W) Processor Kit for HPE ProLiant DL360 Gen10	P11842-B21
Notes: Ships with High Performance Heatsink.	
Intel Xeon-Gold 6258R (2.7GHz/28-core/205W) Processor Kit for HPE ProLiant DL360 Gen10	P24488-B21
Notes: Ships with High Performance Heatsink.	
Intel Xeon-Gold 6256 (3.6GHz/12-core/205W) Processor Kit for HPE ProLiant DL360 Gen10	P23744-B21
Notes:	
<ul> <li>Ships with High Performance Heatsink.</li> </ul>	
<ul> <li>Ambient temperature support up to 30C.</li> <li>High performance fans are required.</li> </ul>	
<ul> <li>High performance fans are required.</li> <li>Intel Xeon-Gold 6254 (3.1GHz/18-core/200W) Processor Kit for HPE ProLiant DL360 Gen10</li> </ul>	P02649-B21
	FUZ049-DZI
<b>Notes:</b> Ships with High Performance Heatsink. Intel Xeon-Gold 6252 (2.1GHz/24-core/150W) Processor Kit for HPE ProLiant DL360 Gen10	D026/6 D21
	P02646-B21
Notes: Ships with High Performance Heatsink.	
Intel Xeon-Gold 6252N (2.3GHz/24-core/150W) Processor Kit for HPE ProLiant DL360 Gen10	P11851-B21
<b>Notes:</b> Ships with High Performance Heatsink.	
Intel Xeon-Gold 6250L (3.9GHz/8-core/185W) Processor Kit for HPE ProLiant DL360 Gen10	P28257-B21
Notes: — Ships with High Performance Heatsink.	
<ul> <li>NVMe SSDs not supported with this processor.</li> </ul>	
<ul> <li>Not supported on Premium 10SFF NVMe chassis.</li> </ul>	
<ul> <li>Ambient temperature support up to 25C on 4LFF and 8SFF configurations. 2SFF cages not supported.</li> </ul>	

- Ambient temperature support up to 25C on 4LFF and 8SFF configurations. 2SFF cages not supported.
- High performance fans are required.

Intel Xeon-Gold 6250 (3.9GHz/8-core/185W) Processor Kit for HPE ProLiant DL360 Gen10	P23741-B21
Notes:	
<ul> <li>Ships with High Performance Heatsink.</li> </ul>	
<ul> <li>NVMe SSDs not supported with this processor.</li> <li>Not supported on Premium 10SFF NVMe chassis.</li> </ul>	
<ul> <li>Not supported on Premium 10SFF NVMe chassis.</li> <li>Ambient temperature support up to 25C on 4LFF and 8SFF configurations. 2SFF cages not supported.</li> </ul>	
<ul> <li>High performance fans are required.</li> </ul>	
Intel Xeon-Gold 6248R (3.0GHz/24-core/205W) Processor Kit for HPE ProLiant DL360 Gen10	P24487-B21
Notes: Ships with High Performance Heatsink.	
Intel Xeon-Gold 6248 (2.5GHz/20-core/150W) Processor Kit for HPE ProLiant DL360 Gen10	P02640-B21
Notes: Ships with High Performance Heatsink.	
Intel Xeon-Gold 6246R (3.4GHz/16-core/205W) Processor Kit for HPE ProLiant DL360 Gen10	P24486-B21
Notes: Ships with High Performance Heatsink.	
Intel Xeon-Gold 6246 (3.3GHz/12-core/165W) Processor Kit for HPE ProLiant DL360 Gen10	P15443-B21
Notes: Ships with High Performance Heatsink.	
Intel Xeon-Gold 6244 (3.6GHz/8-core/150W) Processor Kit for HPE ProLiant DL360 Gen10	P02634-B21
Notes: Ships with High Performance Heatsink.	
Intel Xeon-Gold 6242R (3.1GHz/20-core/205W) Processor Kit for HPE ProLiant DL360 Gen10	P24485-B21
Notes: Ships with High Performance Heatsink.	
Intel Xeon-Gold 6242 (2.8GHz/16-core/150W) Processor Kit for HPE ProLiant DL360 Gen10	P02628-B21
Notes: Ships with High Performance Heatsink.	
Intel Xeon-Gold 6240R (2.4GHz/24-core/165W) Processor Kit for HPE ProLiant DL360 Gen10	P24484-B21
Notes:Ships with High Performance Heatsink.	
Intel Xeon-Gold 6240 (2.6GHz/18-core/150W) Processor Kit for HPE ProLiant DL360 Gen10	P02625-B21
Notes: Ships with High Performance Heatsink.	
Intel Xeon-Gold 6240Y (2.6GHz/18-14-8-core/150W) Processor Kit for HPE ProLiant DL360 Gen10	P02613-B21
Notes:	
<ul> <li>18/14/8 cores would result in 2.6/2.8/3.1 GHz operating points</li> </ul>	
<ul> <li>Ships with High Performance Heatsink.</li> </ul>	
Intel Xeon-Gold 6240L (2.6GHz/18-core/150W) Processor Kit for HPE ProLiant DL360 Gen10	P02643-B21
Notes: Ships with High Performance Heatsink.	
Intel Xeon-Gold 6238R (2.2GHz/28-core/165W) Processor Kit for HPE ProLiant DL360 Gen10	P24483-B21
Notes: Ships with High Performance Heatsink.	
Intel Xeon-Gold 6238 (2.1GHz/22-core/140W) Processor Kit for HPE ProLiant DL360 Gen10	P02637-B21
Notes: Ships with High Performance Heatsink.	
Intel Xeon-Gold 6238L (2.1GHz/22-core/140W) Processor Kit for HPE ProLiant DL360 Gen10	P02658-B21
Notes: Ships with High Performance Heatsink.	
Intel Xeon-Gold 6234 (3.3GHz/8-core/130W) Processor Kit for HPE ProLiant DL360 Gen10	P02604-B21
Notes: Ships with High Performance Heatsink.	
Intel Xeon-Gold 6230R (2.1GHz/26-core/150W) Processor Kit for HPE ProLiant DL360 Gen10	P24482-B21
Notes: Ships with High Performance Heatsink.	
Intel Xeon-Gold 6230 (2.1GHz/20-core/125W) Processor Kit for HPE ProLiant DL360 Gen10	P02607-B21
Intel Xeon-Gold 6230N (2.3GHz/20-core/125W) Processor Kit for HPE ProLiant DL360 Gen10	P11848-B21

Intel Xeon-Gold 6226R (2.9GHz/16-core/150W) Processor Kit for HPE ProLiant DL360 Gen10	P24481-B21
Notes: Ships with High Performance Heatsink.	
Intel Xeon-Gold 6226 (2.7GHz/12-core/125W) Processor Kit for HPE ProLiant DL360 Gen10	P02601-B21
Intel Xeon-Gold 6222V (1.8GHz/20-core/115W) Processor Kit for HPE ProLiant DL360 Gen10	P11839-B21
Intel Xeon-Gold 6212U (2.4GHz/24-core/165W) Processor Kit for HPE ProLiant DL360 Gen10	P02667-B21
Notes:	
<ul> <li>Ships with High Performance Heatsink.</li> </ul>	
<ul> <li>Only supported in single socket configurations.</li> </ul>	
Intel Xeon-Gold 6210U (2.5GHz/20-core/150W) Processor Kit for HPE ProLiant DL360 Gen10	P02631-B21
Notes:	
<ul> <li>Ships with High Performance Heatsink.</li> </ul>	
<ul> <li>Only supported in single socket configurations.</li> </ul>	
Intel Xeon-Gold 6209U (2.1GHz/20-core/125W) Processor Kit for HPE ProLiant DL360 Gen10	P02622-B21
<b>Notes:</b> Only supported in single socket configurations.	
Intel Xeon-Gold 6208U (2.9GHz/16-core/150W) Processor Kit for HPE ProLiant DL360 Gen10	P24489-B21
Notes:	
<ul> <li>Ships with High Performance Heatsink.</li> </ul>	
<ul> <li>Only supported in single socket configurations.</li> </ul>	
Intel Xeon-Gold 5222 (3.8GHz/4-core/105W) Processor Kit for HPE ProLiant DL360 Gen10	P02709-B21
Intel Xeon-Gold 5220R (2.2GHz/24-core/150W) Processor Kit for HPE ProLiant DL360 Gen10	P15995-B21
Notes: Ships with High Performance Heatsink.	
Intel Xeon-Gold 5220 (2.2GHz/18-core/125W) Processor Kit for HPE ProLiant DL360 Gen10	P02595-B21
Intel Xeon-Gold 5220S (2.7GHz/18-core/125W) Processor Kit for HPE ProLiant DL360 Gen10	P02577-B21
Intel Xeon-Gold 5218R (2.1GHz/20-core/125W) Processor Kit for HPE ProLiant DL360 Gen10	P24480-B21
Intel Xeon-Gold 5218 (2.3GHz/16-core/125W) Processor Kit for HPE ProLiant DL360 Gen10	P02592-B21
Intel Xeon-Gold 5218N (2.3GHz/16-core/110W) Processor Kit for HPE ProLiant DL360 Gen10	P11845-B21
Intel Xeon-Gold 5218B (2.3GHz/16-core/125W) Processor Kit for HPE ProLiant DL360 Gen10	P12516-B21
<b>Notes:</b> Consistent features with the 5218 processor but from a different die. Mixing both 5218B & 5218 in a system is not supported	
Intel Xeon-Gold 5217 (3.0GHz/8-core/115W) Processor Kit for HPE ProLiant DL360 Gen10	P02589-B21
Intel Xeon-Gold 5215 (2.5GHz/10-core/85W) Processor Kit for HPE ProLiant DL360 Gen10	P02586-B21
Intel Xeon-Gold 5215L (2.5GHz/10-core/85W) Processor Kit for HPE ProLiant DL360 Gen10	P02706-B21
2 <sup>nd</sup> Generation Intel Xeon-Silver	
Intel Xeon-Silver 4216 (2.1GHz/16-core/100W) Processor Kit for HPE ProLiant DL360 Gen10	P02583-B21
Intel Xeon-Silver 4215R (3.2GHz/8-core/130W) Processor Kit for HPE ProLiant DL360 Gen10	P24479-B21
Notes: Ships with Performance Heatsink.	
Intel Xeon-Silver 4215 (2.5GHz/8-core/85W) Processor Kit for HPE ProLiant DL360 Gen10	P02598-B21
Intel Xeon-Silver 4214Y (2.2GHz/12-10-8-core/85W) Processor Kit for HPE ProLiant DL360 Gen10	P02610-B21
	F02010-D21
Notes: 12/10/8 cores would result in 2.2/2.3/2.4 GHz operating points	
Intel Xeon-Silver 4214R (2.4GHz/12-core/100W) Processor Kit for HPE ProLiant DL360 Gen10	P15977-B21
Intel Xeon-Silver 4214 (2.2GHz/12-core/85W) Processor Kit for HPE ProLiant DL360 Gen10	P02580-B21
Intel Xeon-Silver 4210R (2.4GHz/10-core/100W) Processor Kit for HPE ProLiant DL360 Gen10	P15974-B21
Intel Xeon-Silver 4210 (2.2GHz/10-core/85W) Processor Kit for HPE ProLiant DL360 Gen10	P02574-B21
Intel Xeon-Silver 4208 (2.1GHz/8-core/85W) Processor Kit for HPE ProLiant DL360 Gen10	P02571-B21

## 2<sup>nd</sup> Generation Intel Xeon- Bronze

1 <sup>st</sup> Generation Intel Xeon:		
Intel Xeon-Bronze 3204 (1.9GHz/6-core/85W) Processor Kit for HPE ProLiant DL360 Gen10 P025	565-B21	
Intel Xeon-Bronze 3206R (1.9GHz/8-core/85W) Processor Kit for HPE ProLiant DL360 Gen10 P150	968-B21	

For information on obsolete 1<sup>st</sup> Generation Xeon processors, please visit HPE DL360 Gen10 QuickSpecs version 43

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

- Maximum memory capacity and speed per processor is dependent on processor model selection or limitation.
- DDR4-2933 Memory Kits are only supported with 2nd Generation Intel Xeon Scalable Series Processors and DDR4-2666 Memory Kits are only supported with 1st Generation Intel Xeon Scalable Series Processors.

## **HPE DDR4 Memory**

## Registered DIMMs (RDIMMs) for 2<sup>nd</sup> Generation Intel Xeon Scalable Series

HPE 64GB (1x64GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P00930-B21
HPE 32GB (1x32GB) Single Rank x4 DDR4-2933 CAS-21-21-21 Registered Memory Kit	P38446-B21
HPE 32GB (1x32GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P00924-B21
HPE 16GB (1x16GB) Dual Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P00922-B21
HPE 16GB (1x16GB) Single Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P00920-B21
HPE 8GB (1x8GB) Single Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P00918-B21
Registered DIMMs (RDIMMs) for 1 <sup>st</sup> Generation Intel Xeon Scalable Series	
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-19-19-19 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
Load Reduced DIMMs (LRDIMMs) for 2 <sup>nd</sup> Generation Intel Xeon Scalable Series	
HPE 128GB (1x128GB) Quad Rank x4 DDR4-2933 CAS-21-21-21 Load Reduced Smart Memory Kit	P11040-B21
HPE Persistent Memory	
Intel Optane 512GB persistent memory 100 Series for HPE	835810-B21
Intel Optane 256GB persistent memory 100 Series for HPE	835807-B21
Intel Optane 128GB persistent memory 100 Series for HPE	835804-B21
Notes:	
<ul> <li>A maximum of 12 HPE Persistent Memory Kits supported on the following 2<sup>nd</sup> Generation Intel Xeon</li> </ul>	
Scalable Processor series (Platinum 8200, Gold 6200, Gold 5200, Silver 4215 and 4215R)	
- For additional information regarding HPE Persistent Memory Population Rules and Guidelines for Gen10	
visit: http://www.hpe.com/docs/memory-population-rules	
HPE Persistent Memory (NVDIMM)	
HPE 16GB NVDIMM Single Rank x4 DDR4-2666 Module Kit	845264-B21
Notes:	

Can only be mixed with RDIMMs.



- A maximum of 12 NVDIMMs supported with 1<sup>st</sup> generation Intel Xeon Scalable processors.
- For General Server Memory and NVDIMM Population Rules and Guidelines for Gen10 see details here: <u>http://www.hpe.com/docs/memory-population-rules</u>

## **HPE Boot Controllers**

HPE NS204i-p x2 Lanes NVMe PCle3 x8 OS Boot Device

P12965-B21

#### **HPE Storage Controllers**

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

## HPE Smart Array SR Gen10 Controllers for HPE ProLiant DL, ML and Apollo Servers HPE Flexible Smart Array Controllers

#### Notes: http://www.hpe.com/info/CablingMatrixGen10 can help to explain the cable routing for each option below,

HPE Smart Array P816i-a SR Gen10 (16 Internal Lanes/4GB Cache/SmartCache) 12G SAS Modular Controller	804338-B21
HPE Smart Array P408i-a SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS Modular Controller	804331-B21
HPE Smart Array P816i-a SR Gen10 (16 Int Lanes/4GB Cache/SmartCache) 12G SAS Modular LH Controller	869083-B21
HPE Smart Array P408i-a SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS Modular LH Controller	869081-B21
HPE Smart Array E208i-a SR Gen10 (8 Internal Lanes/No Cache) 12G SAS Modular LH Controller	869079-B21
HPE Smart Array E208i-a SR Gen10 (8 Internal Lanes/No Cache) 12G SAS Modular Controller	804326-B21
Notes: The Low Height (LH) controller is required when a PCIe card that exceeds half-length is used in slots 2	
or 3.	

## **HPE Smart Array Controllers**

#### Notes: <u>http://www.hpe.com/info/CablingMatrixGen10</u> can help to explain the cable routing for each option below.

HPE Smart Array P408e-p SR Gen10 (8 External Lanes/4GB Cache) 12G SAS PCIe Plug-in Controller	804405-B21
HPE Smart Array P408i-p SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS PCIe Plug-in Controller	830824-B21
Notes: Not supported on slot 3.	000024 021
	00/700 001
HPE Smart Array E208e-p SR Gen10 (8 External Lanes/No Cache) 12G SAS PCIe Plug-in Controller	804398-B21
HPE Smart Array E208i-p SR Gen10 (8 Internal Lanes/No Cache) 12G SAS PCIe Plug-in Controller	804394-B21
Notes: Not supported on slot 3.	
HPE 96W Smart Storage Lithium-ion Battery with 145mm Cable Kit	P01366-B21
Notes: Supports up to 6 P-class Smart Array controllers	
HPE Smart Storage Hybrid Capacitor with 145mm Cable Kit	P02377-B21
Notes: Supports up to 3 P-class Smart Array controllers	
HPE Flexible Tri-Mode Array Controllers	
Broadcom MegaRAID MR216i-a x16 Lanes without Cache NVMe/SAS 12G Controller for HPE Gen10 Plus	P26325-B21
Broadcom MegaRAID MR416i-a x16 Lanes 4GB Cache NVMe/SAS 12G Controller for HPE Gen10 Plus	P26279-B21
Broadcom MegaRAID MR216i-p x16 Lanes without Cache NVMe/SAS 12G Controller for HPE Gen10 Plus	P26324-B21
Broadcom MegaRAID MR416i-p x16 Lanes 4GB Cache NVMe/SAS 12G Controller for HPE Gen10 Plus	P06367-B21
Cable Kits	
HPE DL360 Gen10 SFF Internal Cable Kit	867990-B21
HPE DL3XX Gen10 Rear Serial Cable and Enablement Kit	873770-B21
	S.S. / O DEI

P28352-B21

## **Core Options**

#### **HPE Hard Disk Drives**

For HDDs with optimal product availability, HPE advocates HDDs from the list located here:

HPE 2.4TB SAS 12G Mission Critical 10K SFF BC 3-year Warranty 512e Multi Vendor HDD

#### Enterprise - 12G SAS - SFF Basic Carrier Drives

THE 2.4TD SAS IZO MISSION CHICALION SHI DC 5-year Waharing Size Multi Vendor HDD	FZOJJZ-DZI
HPE 2TB SAS 12G Business Critical 7.2K SFF BC 1-year Warranty 512e HDD	P28505-B21
HPE 1.8TB SAS 12G Mission Critical 10K SFF BC 3-year Warranty 512e Multi Vendor HDD	P53562-B21
HPE 1.2TB SAS 12G Mission Critical 10K SFF BC 3-year Warranty Multi Vendor HDD	P28586-B21
HPE 1TB SAS 12G Business Critical 7.2K SFF BC 1-year Warranty HDD	P53563-B21
HPE 900GB SAS 12G Mission Critical 15K SFF BC 3-year Warranty Multi Vendor HDD	P40432-B21
HPE 600GB SAS 12G Mission Critical 15K SFF BC 3-year Warranty Multi Vendor HDD	P53560-B21
HPE 600GB SAS 12G Mission Critical 10K SFF BC 3-year Warranty Multi Vendor HDD	P53561-B21
HPE 300GB SAS 12G Mission Critical 15K SFF BC 3-year Warranty Multi Vendor HDD	P28028-B21
HPE 300GB SAS 12G Mission Critical 10K SFF BC 3-year Warranty Multi Vendor HDD	P40430-B21
Notes: Basic Carrier drives supported only with 8SFF Basic Carrier CTO Server Model-X	
Enterprise - 12G SAS - SFF Drives	
HPE 2.4TB SAS 12G Mission Critical 10K SFF SC 3-year Warranty 512e Multi Vendor HDD	881457-B21
HPE 1.8TB SAS 12G Mission Critical 10K SFF SC 3-year Warranty 512e Multi Vendor HDD	872481-B21
HPE 1.2TB SAS 12G Mission Critical 10K SFF SC 3-year Warranty Multi Vendor HDD	872479-B21
HPE 900GB SAS 12G Mission Critical 15K SFF SC 3-year Warranty Multi Vendor HDD	870759-B21
HPE 600GB SAS 12G Mission Critical 15K SFF SC 3-year Warranty Multi Vendor HDD	870757-B21
HPE 600GB SAS 12G Mission Critical 10K SFF SC 3-year Warranty Multi Vendor HDD	872477-B21
HPE 300GB SAS 12G Mission Critical 15K SFF SC 3-year Warranty Multi Vendor HDD	870753-B21
HPE 300GB SAS 12G Mission Critical 10K SFF SC 3-year Warranty Multi Vendor HDD	872475-B21
Midline - 12G SAS - SFF Drives	
HPE 2TB SAS 12G Business Critical 7.2K SFF SC 1-year Warranty 512e HDD	765466-B21
HPE 1TB SAS 12G Business Critical 7.2K SFF SC 1-year Warranty HDD	832514-B21
Midline 6G SATA - SFF Drives	
HPE 2TB SATA 6G Business Critical 7.2K SFF SC 1-year Warranty 512e HDD	765455-B21
HPE 1TB SATA 6G Business Critical 7.2K SFF SC 1-year Warranty HDD	655710-B21
Midline - 12G SAS - LFF Drives	
HPE 20TB SAS 12G Business Critical 7.2K LFF SC 1-year Warranty Helium 512e ISE Multi Vendor HDD	P53552-B21
HPE 18TB SAS 12G Business Critical 7.2K LFF SC 1-year Warranty Helium 512e ISE Multi Vendor HDD	P37664-B21
HPE 16TB SAS 12G Business Critical 7.2K LFF SC 1-year Warranty Helium 512e ISE Multi Vendor HDD	P23863-B21
HPE 14TB SAS 12G Business Critical 7.2K LFF SC 1-year Warranty Helium 512e Multi Vendor HDD	P09153-B21
HPE 12TB SAS 12G Business Critical 7.2K LFF SC 1-year Warranty Helium 512e Multi Vendor HDD	881779-B21
HPE 10TB SAS 12G Business Critical 7.2K LFF SC 1-year Warranty 512e ISE Multi Vendor HDD	P53558-B21
HPE 10TB SAS 12G Business Critical 7.2K LFF SC 1-year Warranty Helium 512e Multi Vendor HDD	857644-B21
HPE 8TB SAS 12G Business Critical 7.2K LFF SC 1-year Warranty 512e Multi Vendor HDD	819201-B21
HPE 6TB SAS 12G Business Critical 7.2K LFF SC 1-year Warranty 512e Multi Vendor HDD	861754-B21
HPE 4TB SAS 12G Business Critical 7.2K LFF SC 1-year Warranty Multi Vendor HDD	872487-B21
HPE 2TB SAS 12G Business Critical 7.2K LFF SC 1-year Warranty Multi Vendor HDD	872485-B21



HPE 20TB SATA 6G Business Critical 7.2K LFF SC 1-year Warranty Helium 512e ISE Multi Vendor HDD	P53555-B21
HPE 18TB SATA 6G Business Critical 7.2K LFF SC 1-year Warranty Helium 512e ISE Multi Vendor HDD	P37673-B21
HPE 16TB SATA 6G Business Critical 7.2K LFF SC 1-year Warranty Helium 512e ISE Multi Vendor HDD	P23857-B21
HPE 14TB SATA 6G Business Critical 7.2K LFF SC 1-year Warranty Helium 512e Multi Vendor HDD	P09163-B21
HPE 12TB SATA 6G Business Critical 7.2K LFF SC 1-year Warranty Helium 512e Multi Vendor HDD	881785-B21
HPE 10TB SATA 6G Business Critical 7.2K LFF SC 1-year Warranty 512e ISE Multi Vendor HDD	P53559-B21
HPE 10TB SATA 6G Business Critical 7.2K LFF SC 1-year Warranty Helium 512e Multi Vendor HDD	857648-B21
HPE 8TB SATA 6G Business Critical 7.2K LFF SC 1-year Warranty 512e Multi Vendor HDD	819203-B21
HPE 6TB SATA 6G Business Critical 7.2K LFF SC 1-year Warranty 512e Multi Vendor HDD	861750-B21
HPE 4TB SATA 6G Business Critical 7.2K LFF SC 1-year Warranty Multi Vendor HDD	872491-B21
HPE 2TB SATA 6G Business Critical 7.2K LFF SC 1-year Warranty Multi Vendor HDD	872489-B21
HPE 1TB SATA 6G Business Critical 7.2K LFF SC 1-year Warranty Multi Vendor HDD	861691-B21

## **HPE Solid State Drives**

For SSD selection guidance, please visit <u>https://ssd.hpe.com/</u>

For SSDs with optimal product availability, HPE advocates SSDs from the list located here:

Read Intensi	ive - 12G SAS	S - SFF - Solid	State Drives

HPE 15.36TB SAS 12G Read Intensive SFF SC Multi Vendor SSD	P49044-B21
HPE 7.68TB SAS 12G Read Intensive SFF SC Multi Vendor SSD	P49039-B21
HPE 3.84TB SAS 12G Read Intensive SFF SC Multi Vendor SSD	P49034-B21
HPE 1.92TB SAS 12G Read Intensive SFF SC Multi Vendor SSD	P49030-B21
HPE 960GB SAS 12G Read Intensive SFF SC Multi Vendor SSD	P49028-B21
Read Intensive - 12G SAS -LFF - Solid State Drives	
HPE 7.68TB SAS 24G Read Intensive LFF SCC Multi Vendor SSD	P49038-B21
Mixed Use - 12G SAS - SFF – Basic Carrier Solid State Drives	
HPE 3.84TB SAS 12G Read Intensive SFF BC Value SAS Multi Vendor SSD	P40508-B21
HPE 3.84TB SAS 12G Mixed Use SFF BC Value SAS Multi Vendor SSD	P40512-B21
HPE 1.92TB SAS 12G Mixed Use SFF BC Value SAS Multi Vendor SSD	P40511-B21
HPE 1.92TB SAS 12G Read Intensive SFF BC Value SAS Multi Vendor SSD	P40507-B21
HPE 960GB SAS 12G Mixed Use SFF BC Value SAS Multi Vendor SSD	P40510-B21
Notes: Basic Carrier drives supported only with 8SFF Basic Carrier CTO Server Model-X	
Mixed Use - 12G SAS - SFF - Solid State Drives	
HPE 6.4TB SAS 24G Mixed Use SFF BC Multi Vendor SSD	P49057-B21
HPE 3.84TB SATA 6G Mixed Use SFF SC S4620 SSD	P47326-B21
HPE 3.2TB SAS 24G Mixed Use SFF BC Multi Vendor SSD	P49053-B21

HPE 3.2TB SAS 24G Mixed Use SFF BC Multi Vendor SSD HPE 1.92TB SATA 6G Mixed Use SFF SC S4620 SSD HPE 1.6TB SAS 24G Mixed Use SFF BC Multi Vendor SSD

HPE 800GB SAS 24G Mixed Use SFF BC Multi Vendor SSD HPE 480GB SATA 6G Mixed Use SFF SC S4620 SSD

Write Intensive - 12G SAS - SFF - Solid State Drives

HPE 1.6TB SAS 12G Write Intensive SFF SC PM6 SSD HPE 800GB SAS 12G Write Intensive SFF SC PM6 SSD HPE 400GB SAS 12G Write Intensive SFF SC PM6 SSD P47325-B21

P49049-B21

P49047-B21

P47323-B21

P26376-B21

P26372-B21

P26295-B21

#### Read Intensive - 12G Value SAS - SFF - Solid State Drives

'003-B21
035-B21
'001-B21
999-B21
997-B21
017-B21
'011-B21
′005-B21
056-B21
052-B21
048-B21
046-B21
6493-B21
)500-B21
)499-B21
)498-B21
)497-B21
)496-B21
3430-B21
3430-B21 7813-B21
'813-B21
7813-B21 7321-B21
7813-B21 7321-B21 8428-B21
7813-B21 7321-B21 8428-B21 7812-B21
7813-B21 7321-B21 8428-B21 7812-B21 7319-B21
7813-B21 7321-B21 8428-B21 7812-B21 7319-B21 8426-B21
7813-B21 7321-B21 8428-B21 7812-B21 7319-B21 8426-B21 7811-B21
7813-B21 7321-B21 8428-B21 7812-B21 7319-B21 8426-B21 7811-B21 8424-B21
7813-B21 7321-B21 8428-B21 7812-B21 7319-B21 8426-B21 7811-B21 8424-B21 7810-B21
7813-B21 7321-B21 8428-B21 7812-B21 7319-B21 8426-B21 7811-B21 8424-B21 7810-B21 8422-B21
7813-B21 7321-B21 8428-B21 7812-B21 7319-B21 8426-B21 7811-B21 8424-B21 7810-B21 8422-B21
7813-B21 7321-B21 8428-B21 7812-B21 7319-B21 8426-B21 7811-B21 8424-B21 7810-B21 8422-B21 8420-B21
<ul> <li>7813-B21</li> <li>7321-B21</li> <li>7321-B21</li> <li>7812-B21</li> <li>7319-B21</li> <li>7426-B21</li> <li>7811-B21</li> <li>7810-B21</li> <li>7810-B21</li> <li>7810-B21</li> <li>782-B21</li> <li>7820-B21</li> <li>79505-B21</li> </ul>
<ul> <li>7813-B21</li> <li>7321-B21</li> <li>7321-B21</li> <li>7812-B21</li> <li>7319-B21</li> <li>7319-B21</li> <li>7811-B21</li> <li>7810-B21</li> <li>7810-B21</li> <li>7820-B21</li> <li>7505-B21</li> <li>7504-B21</li> </ul>

#### Mixed Use - 6G SATA - SFF - Solid State Drives

HPE 3.84TB SATA 6G Mixed Use SFF SC Multi Vendor SSD	P18438-B21
HPE 1.92TB SATA 6G Mixed Use SFF SC PM897 SSD	P47816-B21
HPE 1.92TB SATA 6G Mixed Use SFF SC Multi Vendor SSD	P18436-B21
HPE 960GB SATA 6G Mixed Use SFF SC PM897 SSD	P47815-B21
HPE 960GB SATA 6G Mixed Use SFF SC Multi Vendor SSD	P18434-B21
HPE 480GB SATA 6G Mixed Use SFF SC PM897 SSD	P47814-B21
HPE 480GB SATA 6G Mixed Use SFF SC Multi Vendor SSD	P18432-B21
Read Intensive - PCIe/NVMe - SFF - Solid State Drives	
HPE 15.36TB NVMe Gen4 High Performance Read Intensive SFF SCN U.3 PM1733 SSD	P22282-B21
HPE 7.68TB NVMe Gen4 High Performance Read Intensive SFF SCN U.2 P5520 SSD	P51456-B21
HPE 7.68TB NVMe Gen4 High Performance Read Intensive SFF SCN U.3 PM1733a SSD	P50220-B21
HPE 7.68TB NVMe Gen4 Mainstream Performance Read Intensive SFF SCN U.2 Multi Vendor SSD	P47825-B21
HPE 7.68TB NVMe Gen4 High Performance Read Intensive SFF SCN U.3 PM1733 SSD	P22280-B21
HPE 4TB NVMe Gen3 High Performance Read Intensive SFF SCN U.2 P4510 SSD	P13697-B21
HPE 3.84TB NVMe Gen4 High Performance Read Intensive SFF SCN U.2 P5520 SSD	P51454-B21
HPE 3.84TB NVMe Gen4 High Performance Read Intensive SFF SCN U.3 PM1733a SSD	P50217-B21
HPE 3.84TB NVMe Gen4 Mainstream Performance Read Intensive SFF SCN U.2 Multi Vendor SSD	P47824-B21
HPE 3.84TB NVMe Gen4 High Performance Read Intensive SFF SCN Self-encrypting FIPS U.3 CM6 SSD	P44580-B21
HPE 3.84TB NVMe Gen4 High Performance Read Intensive SFF SCN U.3 PM1733 SSD	P22278-B21
HPE 2TB NVMe Gen3 High Performance Read Intensive SFF SCN U.2 P4510 SSD	P13695-B21
HPE 1.92TB NVMe Gen4 High Performance Read Intensive SFF SCN U.2 P5520 SSD	P51452-B21
HPE 1.92TB NVMe Gen4 High Performance Read Intensive SFF SCN U.3 PM1733a SSD	P50214-B21
HPE 1.92TB NVMe Gen4 Mainstream Performance Read Intensive SFF SCN U.2 Multi Vendor SSD	P47823-B21
HPE 1.92TB NVMe Gen4 High Performance Read Intensive SFF SCN U.3 PM1733 SSD	P22276-B21
HPE 1.92TB NVMe Gen4 High Performance Read Intensive SFF SCN Self-encrypting FIPS U.3 CM6 SSD	P44572-B21
Mixed Use - PCIe/NVMe - SFF - Solid State Drives	
HPE 12.8TB NVMe Gen4 High Performance Mixed Use SFF SCN U.3 PM1735 SSD	P22274-B21
HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF SCN U.2 P5620 SSD	P51462-B21
HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF SCN U.3 PM1735a SSD	P50231-B21
HPE 6.4TB NVMe Gen4 Mainstream Performance Mixed Use SFF SCN U.2 Multi Vendor SSD	P47822-B21
HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF SCN U.3 CM6 SSD	P20100-B21
HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF SCN U.3 PM1735 SSD	P22272-B21
HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF SCN U.2 P5620 SSD	P51460-B21
HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF SCN U.3 PM1735a SSD	P50228-B21
HPE 3.2TB NVMe Gen4 Mainstream Performance Mixed Use SFF SCN U.2 Multi Vendor SSD	P47821-B21
HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF SCN Self-encrypting FIPS U.3 CM6 SSD	P44596-B21
HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF SCN U.3 PM1735 SSD	P22270-B21
HPE 3.2TB NVMe Gen3 High Performance Mixed Use SFF SCN U.2 P4610 SSD	P13701-B21
HPE 1.6TB NVMe Gen4 High Performance Mixed Use SFF SCN U.2 P5620 SSD	P51458-B21
HPE 1.6TB NVMe Gen4 High Performance Mixed Use SFF SCN U.3 PM1735a SSD	P50225-B21
HPE 1.6TB NVMe Gen4 Mainstream Performance Mixed Use SFF SCN U.2 Multi Vendor SSD	P47820-B21
HPE 1.6TB NVMe Gen4 High Performance Mixed Use SFF SCN Self-encrypting FIPS U.3 CM6 SSD	P44588-B21
HPE 1.6TB NVMe Gen4 High Performance Mixed Use SFF SCN U.3 CM6 SSD	P20096-B21



HPE 1.6TB NVMe Gen4 High Performance Mixed Use SFF SCN U.3 PM1735 SSD	P22268-B21
HPE 1.6TB NVMe Gen3 High Performance Mixed Use SFF SCN U.2 P4610 SSD	P13699-B21
HPE 800GB NVMe Gen4 High Performance Mixed Use SFF SCN U.3 PM1735 SSD	P22329-B21
Write Intensive- PCIe/NVMe - SFF - Solid State Drives	
HPE 750GB NVMe Gen3 High Performance Low Latency Write Intensive SFF SCN U.2 P4800X SSD	P06952-B21
Notes: NVMe SSDs not supported on Xeon-Gold 6250L or Gold 6250 processor based configurations.	
Read Intensive – 6G SATA – M.2 UFF to SFF - Solid State Drives	
HPE Dual 480GB SATA 6G Read Intensive M.2 to SFF SCM Multi Vendor SSD	P47819-B21
Notes: SCM dual drive functionality only supported on HPE DL360 Gen10 1SFF SAS/SATA Rear Backplane	
(867972-B21) or HPE DL360 Gen10 2SFF SATA UFF Backplane Kit (867970-B21). Installation on any other	
bay will only show one M.2 drive per bay.	
Read Intensive – 6G SATA - M.2 - Solid State Media (2280 type)	
HPE 480GB SATA 6G Read Intensive M.2 Multi Vendor SSD	P47818-B21
HPE 240GB SATA 6G Read Intensive M.2 Multi Vendor SSD	P47817-B21
Internal - 6G SATA - Dual M.2 Enabling Kits	
HPE Universal SATA 6G AIC HHHL M.2 SSD Enablement Kit	878783-B21
<b>Notes:</b> The Universal SATA M.2 Kit above will require a PCIe slot and support up to two of the same M.2 media cards.	
HPE DL360 Gen10 SATA M.2 2280 Riser Kit	867978-B21
Notes: The DL360 SATA M.2 Riser Kit above is part of the Primary Riser so it will not take up a PCIe slot and	
will support up to two of the same 2280 M.2 media cards.	
Mixed Use - 12G Value SAS - LFF - Solid State Drives	
HPE 1.92TB SAS 12G Mixed Use LFF SCC Value SAS Multi Vendor SSD	P37013-B21
Mixed Use – 6G SATA - LFF - Solid State Drives	
HPE 960GB SATA 6G Mixed Use LFF SCC Multi Vendor SSD	P47419-B21
HPE 480GB SATA 6G Read Intensive LFF SCC Multi Vendor SSD	P47807-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 Smart IO	
Pensando Distributed Services Card (DSC)	
Pensando Distributed Services Platform DSC-25 Enterprise 10/25Gb 2-port SFP28 Card	P26966-B21
Requirements:	
High Performance Fan Kit (871244-B21) is required.	
<ul> <li>One 3yr/4yr/5yr Silver or 3yr/4yr/5yr Platinum license must be purchased for every DSC-25 card in a server</li> </ul>	
<ul> <li>server.</li> <li>1yr Silver, 1yr Platinum licenses are reserved for renewals only.</li> </ul>	
Notes:	
<ul> <li>DSC card must be installed in slot 1 when used in combination with ALOM Module for iLO Management.</li> </ul>	
<ul> <li>Each card instance requires one RTU license of Silver or Platinum software. In case of more than one</li> </ul>	

 Each card instance requires one RTU license of Silver or Platinum software. In case of more than one adapter, RTU licenses doesn't need to be of the same part number.

Pensando Distributed Services Platform for HPE iLO Sideband Management Adaptive LOM Module



#### de DED Silver Seftware Li п

Pensando DSP Silver Software Licenses	
Pensando Distributed Services Platform Enterprise 1-year Renewal Subscription 24x7 Support E-RTU	R6A06AAE
Pensando Distributed Services Platform Enterprise 3-year Subscription 24x7 Support E-RTU	R6A07AAE
Pensando Distributed Services Platform Enterprise 4-year Subscription 24x7 Support E-RTU	R6F68AAE
Pensando Distributed Services Platform Enterprise 5-year Subscription 24x7 Support E-RTU	R6A08AAE
Pensando DSP Platinum Software Licenses	
Pensando Distributed Services Platform Enterprise Pro 1-year Renewal Subscription 24x7 Support E-RTU	R6A09AAE
Pensando Distributed Services Platform Enterprise Pro 3-year Subscription 24x7 Support E-RTU	R6A10AAE
Pensando Distributed Services Platform Enterprise Pro 4-year Subscription 24x7 Support E-RTU	R6F69AAE
Pensando Distributed Services Platform Enterprise Pro 5-year Subscription 24x7 Support E-RTU	R6A11AAE
HPE Networking	
100 Gigabit Ethernet adapters	
HPE Ethernet 100Gb 1-port QSFP28 MCX515A-CCAT Adapter	874253-B21
25 Gigabit Ethernet adapters	
Mellanox MCX512F-ACHT Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	P13188-B21
Notes: Alternative to FlexLOM requirement on Network Choice (NC) chassis	
HPE Ethernet 10/25Gb 2-port SFP28 MCX4121A-ACUT Adapter	817753-B21
Notes: Alternative to FlexLOM requirement on Network Choice (NC) chassis	
HPE Ethernet 10/25Gb 2-port SFP28 BCM57414 Adapter	817718-B21
Notes:	
<ul> <li>Alternative to FlexLOM requirement on Network Choice (NC) chassis</li> </ul>	
<ul> <li>PXE boot not supported on Legacy Mode</li> </ul>	
<ul> <li>Legacy FIO Mode (758959-B22) not supported with this option on the Network Choice (NC) Configure- to-Order (CTO) chassis. The selection of this networking option and Legacy FIO Mode on an NC chassis requires an additional networking option without the Legacy FIO mode restriction.</li> </ul>	
HPE Ethernet 10/25Gb 2-port SFP28 QL41401-A2G Adapter	867328-B21
Notes: Alternative to FlexLOM requirement on Network Choice (NC) chassis	
Intel E810-XXVDA2 Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	P08443-B21
Notes: Alternative to FlexLOM requirement on Network Choice (NC) chassis	
Intel E810-XXVDA4 Ethernet 10/25Gb 4-port SFP28 Adapter for HPE	P08458-B21
<b>Notes:</b> Alternative to FlexLOM requirement on Network Choice (NC) chassis If quantity 2 is selected then riser P23271-B21 HPE DL360 Gen10 2P FH GPU Enablement v2 Kit must be selected	
10 Gigabit Ethernet adapters	
HPE Ethernet 10Gh 2-port SEP+ BCM57/1/. Adapter	P08/21-B21

HPE Ethernet 10Gb 2-port SFP+ BCM57414 Adapter	P08421-B21
Notes: Alternative to FlexLOM requirement on Network Choice (NC) chassis	
HPE Ethernet 10Gb 2-port BASE-T X550-AT2 Adapter	817738-B21
Notes: Alternative to FlexLOM requirement on Network Choice (NC) chassis	
HPE Ethernet 10Gb 2-port SFP+ X710-DA2 Adapter	727055-B21
Notes: Alternative to FlexLOM requirement on Network Choice (NC) chassis	
HPE Ethernet 10Gb 2-port BASE-T BCM57416 Adapter	813661-B21
Notes:	

Alternative to FlexLOM requirement on Network Choice (NC) chassis \_

<ul> <li>PXE boot not supported on Legacy Mode</li> </ul>	
<ul> <li>Legacy FIO Mode (758959-B22) not supported with this option on the Network Choice (NC) Configure-</li> </ul>	
to-Order (CTO) chassis. The selection of this networking option and Legacy FIO Mode on an NC chassis	
requires an additional networking option without the Legacy FIO mode restriction.	
HPE Ethernet 10Gb 2-port SFP+ 57810S Adapter	652503-B21
Notes: Alternative to FlexLOM requirement on Network Choice (NC) chassis	
HPE Ethernet 10Gb 2-port SFP+ QL41401-A2G Adapter	P08446-B21
Notes:	
<ul> <li>Alternative to FlexLOM requirement on Network Choice (NC) chassis</li> </ul>	
<ul> <li>PXE boot not supported on Legacy Mode</li> </ul>	
<ul> <li>Legacy FIO Mode (758959-B22) not supported with this option on the Network Choice (NC) Configure-</li> <li>to Order (CTO) shares The selection of this activation and Legacy FIO Mode on an NC shares</li> </ul>	
to-Order (CTO) chassis. The selection of this networking option and Legacy FIO Mode on an NC chassis requires an additional networking option without the Legacy FIO mode restriction.	
HPE Ethernet 10Gb 2-port BASE-T 57810S Adapter	656596-B21
Notes: Alternative to FlexLOM requirement on Network Choice (NC) chassis	000070 021
HPE Ethernet 10Gb 2-port BASE-T QL41401-A2G Adapter	867707-B21
<b>Notes:</b> Alternative to FlexLOM requirement on Network Choice (NC) chassis	00,,0, 021
1 Gigabit Ethernet adapters	
HPE Ethernet 1Gb 4-port BASE-T I350-T4V2 Adapter	811546-B21
Notes: Alternative to FlexLOM requirement on Network Choice (NC) chassis	0110 10 021
If quantity 2 is selected then riser P23271-B21 HPE DL360 Gen10 2P FH GPU Enablement v2 Kit must be	
selected	
HPE Ethernet 1Gb 4-port BASE-T BCM5719 Adapter	647594-B21
Notes: Alternative to FlexLOM requirement on Network Choice (NC) chassis	
If quantity 2 is selected then riser P23271-B21 HPE DL360 Gen10 2P FH GPU Enablement v2 Kit must be selected	
	615732-B21
HPE Ethernet 1Gb 2-port BASE-T BCM5720 Adapter <b>Notes:</b> Alternative to FlexLOM requirement on Network Choice (NC) chassis	012/32-821
FlexibleLOM Adapters	0477/0 004
HPE Ethernet 10/25Gb 2-port FLR-SFP28 MCX4121A-ACFT Adapter	817749-B21
Notes: Alternative to FlexLOM requirement on Network Choice (NC) chassis	047700 004
HPE Ethernet 10/25Gb 2-port FLR-SFP28 BCM57414 Adapter	817709-B21
Notes: Alternative to FlexLOM requirement on Network Choice (NC) chassis	0/777/004
HPE Ethernet 10/25Gb 2-port FLR-SFP28 QL41401-A2G Converged Network Adapter	867334-B21
Notes: Alternative to FlexLOM requirement on Network Choice (NC) chassis	
HPE Ethernet 10Gb 2-port FLR-SFP+ BCM57414 Adapter	P08440-B21
Notes: Alternative to FlexLOM requirement on Network Choice (NC) chassis	
HPE Ethernet 10Gb 2-port FLR-SFP+ X710-DA2 Adapter	727054-B21
Notes: Alternative to FlexLOM requirement on Network Choice (NC) chassis	
HPE Ethernet 10Gb 2-port FLR-T X550-AT2 Adapter	817745-B21
Notes: Alternative to FlexLOM requirement on Network Choice (NC) chassis	
HPE FlexFabric 10Gb 4-port FLR-T 57840S Adapter	764302-B21
Notes: Alternative to FlexLOM requirement on Network Choice (NC) chassis	047704 564
HPE Ethernet 10Gb 2-port FLR-T BCM57416 Adapter	817721-B21
Notes: Alternative to FlexLOM requirement on Network Choice (NC) chassis	



HPE FlexFabric 10Gb 2-port FLR-SFP+ 57810S Adapter	700751-B21
Notes: Alternative to FlexLOM requirement on Network Choice (NC) chassis	
HPE FlexFabric 10Gb 2-port FLR-T 57810S Adapter	700759-B21
Notes: Alternative to FlexLOM requirement on Network Choice (NC) chassis	
HPE Ethernet 1Gb 4-port FLR-T BCM5719 Adapter	629135-B22
Notes: Alternative to FlexLOM requirement on Network Choice (NC) chassis	
HPE Ethernet 1Gb 4-port FLR-T I350-T4V2 Adapter	665240-B21
Notes: Alternative to FlexLOM requirement on Network Choice (NC) chassis	
HPE InfiniBand	
HPE InfiniBand HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe3 x16 MCX653105A-HDAT Adapter	P06154-B21
	P06154-B21
HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe3 x16 MCX653105A-HDAT Adapter	P06154-B21 P06154-B23
HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe3 x16 MCX653105A-HDAT Adapter <b>Notes:</b> Must be paired with HPE IB HDR PCIe G3 Aux Card W/ CbI (P06154-B23)	
HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe3 x16 MCX653105A-HDAT Adapter <b>Notes: Must be paired with HPE IB HDR PCIe G3 Aux Card W/ CbI (P06154-B23)</b> HPE InfiniBand HDR PCIe3 Auxiliary Card with 350mm Cable Kit	P06154-B23
HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe3 x16 MCX653105A-HDAT Adapter <b>Notes:</b> Must be paired with HPE IB HDR PCIe G3 Aux Card W/ CbI (P06154-B23) HPE InfiniBand HDR PCIe3 Auxiliary Card with 350mm Cable Kit HPE InfiniBand EDR/Ethernet 100Gb 2-port 841QSFP28 Adapter	P06154-B23 872726-B21
HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCle3 x16 MCX653105A-HDAT Adapter <b>Notes: Must be paired with HPE IB HDR PCle G3 Aux Card W/ Cbl (P06154-B23)</b> HPE InfiniBand HDR PCle3 Auxiliary Card with 350mm Cable Kit HPE InfiniBand EDR/Ethernet 100Gb 2-port 841QSFP28 Adapter HPE InfiniBand HDR100/Ethernet 100Gb 2-port QSFP56 PCle3 x16 MCX653106A-ECAT Adapter	P06154-B23 872726-B21 P06251-B21
HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe3 x16 MCX653105A-HDAT Adapter <b>Notes:</b> Must be paired with HPE IB HDR PCIe G3 Aux Card W/ Cbl (P06154-B23) HPE InfiniBand HDR PCIe3 Auxiliary Card with 350mm Cable Kit HPE InfiniBand EDR/Ethernet 100Gb 2-port 841QSFP28 Adapter HPE InfiniBand HDR100/Ethernet 100Gb 2-port QSFP56 PCIe3 x16 MCX653106A-ECAT Adapter HPE InfiniBand HDR100/Ethernet 100Gb 1-port QSFP56 PCIe3 x16 MCX653105A-ECAT Adapter	P06154-B23 872726-B21 P06251-B21 P06250-B21

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.

Notes: For additional InfiniBand information: https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04154440

All pre-configured servers ship with a standard 6-foot IEC C-13/C-14 jumper cord (AOK02A). 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 <u>HPE Power Advisor Tool</u>. For information on power specifications and technical content visit <u>HPE Server power supplies</u>.

HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit830272	2-B21
Notes: 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	3-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 Kit865428	3-B21
HPE 500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit865408	3-B21

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

HPE Flex Slot Platinum Hot-plug Power supplies

NVIDIA A2 16GB PCIe Non-CEC Accelerator for HPE **Notes:** Requires High Performance Fan kit (871244-B21)



NVIDIA T4 16GB Computational Accelerator for HPE	R0W29C
Notes: Requires High Performance Fan kit (871244-B21)	
HPE DL360 Gen10 GPU CPU1 v2 Cable Kit	P23272-B21
<b>Notes:</b> Replaces 871248-B21. Enhanced to support additional GPUs and compatible with all GPUs qualified on DL360 Gen10.	

## **GPGPU** Information

HPE DL360 Configuration*										
Part number	Card	Qty supp.	Processor supported	PCle	4LFF	8SFF	8+2SFF SAS/ SATA/ Dual M.2 <sup>1</sup>	8+2SFF SAS/ SATA/ Dual M.2 <sup>2</sup>	8+2SFF NVMe <sup>3</sup>	10SFF Premium <sup>4</sup>
Q9B37C	Intel Arria 10GX FPGA Accelerator	2	1 <sup>st</sup> & 2 <sup>nd</sup> Gen	Gen3	35C	35C	<u>&lt;</u> 25C	<u>&lt;</u> 30C	<u>&lt;</u> 30C	<u>&lt;</u> 30C
R2U55C	NVIDIA Quadro P2200 GPU Module	2	2 <sup>nd</sup> Gen	Gen3	35C	35C	35C	35C	35C	35C
R1F95C	NVIDIA Quadro RTX4000 GPU Module	2	2 <sup>nd</sup> Gen	Gen3	35C	35C	25C/30C*	30C/35C*	25C/30C*	35C <sup>5</sup>
R0W29C <sup>4</sup>	NVIDIA Tesla T4 16GB Module	2	1 <sup>st</sup> & 2 <sup>nd</sup> Gen	Gen3	30C	30C	Not Supp.	20C	20C	20C
R9H23C⁴	NVIDIA A2 GPU Accelerator	2	2 <sup>nd</sup> Gen	Gen3	30C	20C (STD fan) 30C (perf. fan)	Not Supp.	25C	25C	30C

#### Notes:

- The 2nd digit of the processor model number "x1xx" and "x2xx" is used to denote the processor generation (i.e. 1=1st generation and 2=2nd generation)
- When NVMe drives are installed you will be limited to Slot 1 only for any Accelerator module.
- Requires increased cooling to be selected in BIOS settings
- <sup>1</sup> With standard system fans
- <sup>2</sup> With High Performance system fans
- <sup>3</sup> Requires high performance fans with 2SFF NVMe configuration.
- <sup>4</sup> Requires high performance fans (Note these ship standard on 10SFF models).
- <sup>5</sup> Limited to 1 GPU
- There is no Energy Star certification with Graphic cards.
- \*For information on obsolete P2000 & P4000 GPUs please visit HPE DL360 Gen10 QuickSpecs version 37



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 3 yr 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 Common Password Setting

HPE iLO Common Password FIO Setting	P08040-B21
Notes:	
<ul> <li>Replaces iLO default randomized password by an HPE defined common password. HPE highly recommends changing this password immediately after the initial onboarding process.</li> <li>Customers who want to choose their own custom iLO default password should use the HPE Factory Express Integration Services</li> </ul>	
HPE Converged Infrastructure Management Software	

## 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
Notes:	

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

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

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

# HPE PCIe Workload Accelerator OptionsP26936-B21HPE 3.2TB NVMe Gen4 x8 High Performance Mixed Use AIC HHHL PM1735 SSDP26936-B21HPE 1.6TB NVMe Gen4 x8 High Performance Mixed Use AIC HHHL PM1735 SSDP26934-B21Notes: Please see the HPE PCIe Workload Accelerators for ProLiant Servers QuickSpecs for TechnicalP26934-B21Specifications and additional information.P26934-B21

## **HPE Security**

HPE Trusted Supply Chain FIO Configuration

- HPE Trusted Supply Chain (P36394-B21) is an optional security upgrade intended for agencies and regulated industries with enhanced security and compliance needs. Applying this option to a DL360 Gen10 CTO server ensures it is built in the USA in a secured facility by vetted HPE personnel assigned to the manufacturing processes. A multitude of checkpoints/inspections for malicious microcode and counterfeit parts are performed throughout the server build, and additional safeguards are put in place against cyber-exploits throughout the server lifecycle. The HPE ProLiant DL360 Gen10 server is rebranded as a HPE ProLiant DL360T Gen10 to denote the HPE Trusted Supply Chain security enhancements. The DL360T Gen10 is currently supported in the USA, exclusively, and is Trade Agreement Act (TAA) compliant. See "HPE Security" section within this document for more detail and learn more at <a href="http://www.hpe.com/security">http://www.hpe.com/security</a>.
- This option requires the selection of HPE Gen10 Intrusion Detection Kit (867984-B21)
- This option requires the selection of either HPE iLO Advanced 1-server License with 3yr Support on iLO Licensed Features (BD505A) or HPE iLO Advanced 1-server License with 1yr Support on iLO Licensed Features (512485-B21)
- This option is limited to stand-alone DL360 Gen10 CTO servers only. The HPE Trusted Supply Chain configuration will not be available if the server is ordered as factory integrated into a rack
- One instance of the following Electronic License to Use is required per order (not per server): R6X85AAE -HPE Trusted Supply Chain E-LTU
- Logistics delivery speeds and services are available and selectable within Next Gen Quoter.
- This option cannot be selected with TAA CTO Models

HPE 1U Gen10 Bezel Kit	867998-B21
HPE Bezel Lock Kit	875519-B21
Notes: Requires bezel kit (867998-B21).	
HPE DL360 Gen10 Chassis Intrusion Detection Kit	867984-B21
<b>Notes:</b> 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
Notes:	
<ul> <li>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.</li> </ul>	
<ul> <li>HPE server systems can have a TPM module (of any type) installed only once. It cannot be replaced with any other TPM module.</li> </ul>	
HPE Gen10 TPM 1.2 FIO Setting	872108-B21
Notes: This is a FIO setting to allows the TPM 2.0 module to operate in a TPM 1.2 mode	

## HPE Storage Options

#### **Emulex Fibre Channel HBAs**

HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter	QOL13A
HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter	QOL14A
HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter	Q0L11A
HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter	Q0L12A
HPE SN1610E 32Gb 1-port Fibre Channel Host Bus Adapter	R2J62A
HPE SN1610E 32Gb 2-port Fibre Channel Host Bus Adapter	R2J63A

HPE ProLiant DL360 Gen10 Server

P36394-B21

## **QLogic Fibre Channel HBAs**

HPE SN1100Q 16Gb Single Port Fibre Channel Host Bus Adapter	P9D93A
HPE SN1100Q 16Gb Dual Port Fibre Channel Host Bus Adapter	P9D94A
HPE SN1610Q 32Gb 1-port Fibre Channel Host Bus Adapter	R2E08A
HPE SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter	P9M75A
HPE SN1610Q 32Gb 2-port Fibre Channel Host Bus Adapter	R2E09A
HPE SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter	P9M76A
Converged Network Adapter	
HPE CN1300R 10/25Gb Dual Port Converged Network Adapter	Q0F09A
HPE CN1200R 10GBASE-T Converged Network Adapter	Q0F26A

## **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
Notes: 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

#### Notes:

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

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

## HPE Power Distribution Units (PDUs)

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

## HPE Uninterruptible Power Systems (UPS)

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



## **HPE USB and SD Options**

**Notes:** In vSphere 7.0, VMware made changes that impacted the usage of USB/SD Cards as standalone boot devices, and will be removing support for them with upcoming versions after 7.x.

SD Cards/USB media can still be used as a standalone boot option through all 7.x releases via published published Customer Advisory <u>Usage of SD Card/USB Devices As Standalone Boot Devices Has Changed Due to System Storage Changes For</u> <u>VMware ESXi 7.0 (Or Later)</u>.

For any major release beyond VMware ESXi 7.x, VMware will require M.2 or another local persistent device as the standalone boot option.

#### HPE Enterprise Mainstream Flash Media Kits for Memory Cards

HPE 32GB microSD RAID 1 USB Boot Drive	P21868-B21
HPE 32GB microSD Flash Memory Card	700139-B21

## **HPE Support Services**

## Installation & Start-up Services HPE Install ProLiant DL3xx Service HPE Installation and Startup DL3xx Service Tech Care HPE 5 Year Tech Care Essential DL360 Gen10 Service HPE 5 Year Tech Care Essential wDMR DL360 Gen10 Service HPE 3 Year Tech Care Essential DL360 Gen10 Service

HPE 3 Year Tech Care Essential wDMR DL360 Gen10 Service Notes: For a full listing of support services available for this server, please visit <u>http://www.hpe.com/services.</u> U4506E

U4507E

HS7U4E

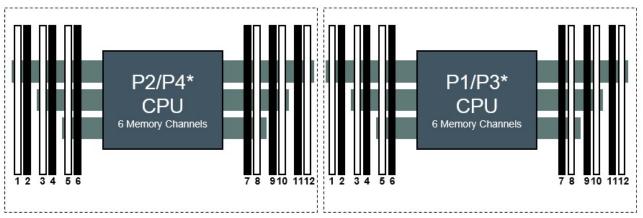
HS7U9E

HS7U2E

HS7U7E

## Memory

## **Memory Population guidelines**



## HPE Gen10 DL360 / DL380 / DL560

#### Notes:\* Servers Front Server2 Slots per Channel

HPE ProLiant Gen	10 12 slot p	er CPU I	DIMM po	pulation	order							
DIMM population	order											
1 DIMM								8				
2 DIMM s								8		10		
3 DIMM s								8		10		12
4 DIMM s			3		5			8		10		
5 DIMM s			3		5			8		10		12
6 DIMM s	1		3		5			8		10		12
7 DIMM s	1		3		5		7	8		10		12
8 DIMM s			3	4	5	6	7	8	9	10		
9 DIMM s	1		3		5		7	8	9	10	11	12
10 DIMM s	1		3	4	5	6	7	8	9	10		12
11 DIMM s	1		3	4	5	6	7	8	9	10	11	12
12 DIMM s	1	2	3	4	5	6	7	8	9	10	11	12

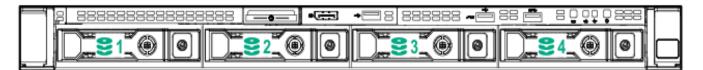
## **General Memory Population Rules and Guidelines**

- 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**.

**Notes:** The maximum memory speed is a function of the memory type, memory configuration, and processor model For details on the HPE Server Memory speed, visit: <u>https://www.hpe.com/docs/memory-speed-table</u>



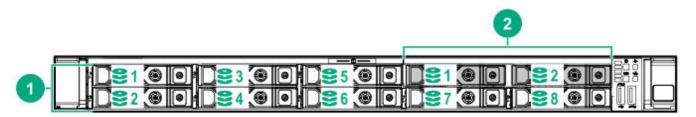
## Storage



4 LFF device bay numbering



8 SFF + ODD device bay numbering



8 SFF + 2 SFF device bay numbering

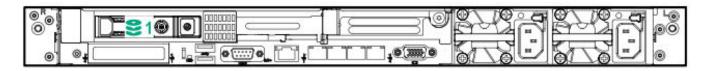
#### Item Description

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



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

**Notes:** 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



#### Notes:

- 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).

Optional rear device bay numbering

- When the Dual uFF is installed, the M.2 drives are recognized as 101 and 102.
- Embedded 1Gb Ethernet 4-Port 331i Adapter shown above is not available on all models



## **Technical Specifications**

## System Unit

**Dimensions** (Height x Width x Depth)

#### SFF Drives

- 4.29 x 43.46 x 70.7 cm
  - 1.69 x 17.11 x 27.83 in

#### LFF Drives

- 4.29 x 43.46 x 74.98 cm
  - 1.69 x 17.11 x 29.5 in

#### 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 (per power supply)

#### **Rated Line Voltage**

- For 1600W (Platinum): 200-240 VAC
- •
- For 800W (Titanium) Power Supply: 200-240 VAC
- For 800W (Platinum): 100-240 VAC
- For 800W (Universal) Power Supply: 200-277 VAC
- For 800W (-48VDC): -40 Vdc to -72 Vdc
- 500W (Platinum) Power Supply: 100-240 VAC

## **BTU Rating**

#### Maximum

- For 1600W Power Supply: 5918 BTU/hr (at 200 VAC), 5888 BTU/hr (at 220 VAC), 5884 BTU/hr (at 240 VAC)
- or 800W (Titanium) Power Supply: 2905 BTU/hr (at 200 VAC), 2899 BTU/hr (at 220 VAC), 2893 BTU/hr (at 240 VAC)
- For 800W (Platium) Power Supply: 3067 BTU/hr (at 100 VAC), 2958 BTU/hr (at 200 VAC), 2949 BTU/hr (at 240 VAC)
- For 800W (Universal) Power Supply: 2964 BTU/hr (at 200 VAC), 2951 BTU/hr (at 230 VAC), 2936 BTU/hr (at 277 VAC)
- For 800W-(48Vdc) Power Supply: 2983 BTU/hr (at -40 Vdc), 2951 BTU/hr (at -48Vdc), 2912 BTU/hr (at -72Vdc)
- For 500W (Platinum) Power Supply: 1902 BTU/hr (at 100 VAC), 1840 BTU/hr (at 200 VAC), 1832 BTU/hr (at 240 VAC)

## **Technical Specifications**

#### 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 (Titanium) Power Supply: 800W (at 200 VAC), 800W (at 240 VAC), 800W (at 240 VDC) for China only
- For 800W (Platinum) Power Supply: 800W (at 100 VAC), 800W (at 240 VAC), 800W (at 240 VDC) input for China only
- For 800W (Universal) Power Supply: 800W (at 200 VAC), 800W (at 277 VAC)
- For 800W (-48VDC) Power Supply: 800W (at -40 Vdc), 800W (at -72Vdc)
- For 500W (Platinum) 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 240 VAC), 1600W (at 240 VDC) for China only
- or 800W (Titanium) Power Supply: 800W (at 200 VAC), 800W (at 240 VAC), 800W (at 240 VDC) for China only
- For 800W (Platinum) Power Supply: 800W (at 100 VAC), 800W (at 240 VAC), 800W (at 240 VDC) input for China only
- For 800W (Universal) Power Supply: 800W (at 200 VAC), 800W (at 277 VAC)
- For 800W (-48VDC) Power Supply: 800W (at -40 Vdc), 800W (at -72Vdc)
- For 500W (Platinum) Power Supply: 500W (at 100 VAC), 500W (at 240 VAC), 500W (at 240 VDC) input for China only

## System Inlet Temperature

#### • Standard Operating Support

10° to 35°C (50° to 95°F) at sea level with an altitude derating of 1.0°C per every 305 m (1.8°F per every 1000 ft) above sea level to a maximum of 3050 m (10,000 ft), no direct sustained sunlight. Maximum rate of change is 20°C/hr (36°F/hr). The upper limit and rate of change may be limited by the type and number of options installed. System performance during standard operating support may be reduced if operating with a fan fault or above 30°C (86°F).

For approved hardware configurations, the supported system inlet range is extended to be: 5° to 10°C (41° to 50°F) and 35° to 40°C (95° to 104°F) at sea level with an altitude derating of 1.0°C per every 175 m (1.8°F per every 574 ft) above 900 m (2953 ft) to a maximum of 3050 m (10,000 ft). The approved hardware configurations for this system are listed at the URL:<u>http://www.hpe.com/servers/ashrae</u>

#### • Extended Ambient Operating Support

For approved hardware configurations, the supported system inlet range is extended to be: 40° to 45°C (104° to 113°F) at sea level with an altitude derating of 1.0°C per every 125 m (1.8°F per every 410 ft) above 900 m (2953 ft) to a maximum of 3050 m (10,000 ft). The approved hardware configurations for this system are listed at the URL:http://www.hpe.com/servers/ashrae

System performance may be reduced if operating in the extended ambient operating range or with a fan fault.

#### • Non-operating

-30° to 60°C (-22° to 140°F). Maximum rate of change is 20°C/hr (36°F/hr).

#### Relative Humidity (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).

## **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: <u>http://www.hpe.com/support/Safety-Compliance-EnterpriseProducts</u>

## **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)

#### **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

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

## 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.

## **TCO Certified**

The HPE DL360 Gen10 has been TCO Certified. All HPE TCO Certified products can be found on TCO Certified Product Finder. More information on TCO Certified can be downloaded here

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



Date	Version History	Action	Description of Change
06-Sep-2022	Version 57	Changed	Overview, Pre-Configured Models, Core Options and Configuration Information sections were updated. Obsolete SKUs were removed.
01-Aug-2022	Version 56	Changed	Overview, Pre-Configured Models, Core Options and Configuration Information sections were updated. Obsolete SKUs were removed.
05-Jul-2022	Version 55	Changed	Standard Features section was updated. Obsolete SKUs were removed.
06-Jun-2022	Version 54	Changed	Configuration Information , Pre-Configured Models and Core Options sections were updated. Obsolete SKUs were removed.
02-May-2022	Version 53	Changed	Core Options section was updated. Obsolete SKUs were removed
07-Feb-2022	Version 52	Changed	Core Options section was updated. Obsolete SKUs were removed
13-Dec-2021	Version 51	Changed	Additional Options section was updated.
06-Dec-2021	Version 50	Changed	Additional Options section was updated. Obsolete SKUs were removed
01-Nov-2021	Version 49	Changed	Configuration Information, Core Options, Service and Support, and Technical Specifications sections were updated. Obsolete SKUs were removed
07-Sep-2021	Version 48	Changed	Core Options section was updated. Obsolete SKUs were removed
02-Aug-2021	Version 47	Changed	Configuration Information, Core Options and Technical Specifications sections were updated.
06-Jul-2021	Version 46	Changed	Overview, re-Configured Models, Configuration Information, Core Options and additional Options sections were updated. Obsolete SKUs were removed.
07-Jun-2021	Version 45	Changed	Configuration Information section was updated. Obsolete SKUs were removed
06-Apr-2021	Version 44	Changed	Overview, Configuration Information, Service and Support, Core Options and additional Options sections were updated. Obsolete SKUs were removed.
01-Mar-2021	Version 43	Changed	Overview, Configuration Information and Core Options sections were updated. Obsolete SKUs were removed. Added HPE Trusted Supply Chain/HPE ProLiant DL360T Gen10.
01-Feb-2021	Version 42	Changed	Overview, Pre-Configured Models, Standard Features and Core Options sections were updated. Obsolete SKUs were removed. Added new Read Intensive, Mixed Use & Write Intensive SAS SSDs Added 18TB SAS & SATA drives

Date	Version History	Action	Description of Change
04-Jan-2021	Version 41	Changed	Overview and Pre-Configured Models sections were updated. Added four new Pre-Configured Models. Obsolete SKUs were removed.
07-Dec-2020	Version 40	Changed	Overview, Pre-Configured Models and Core Options sections were updated. Obsolete SKUs were removed. Added support for 32GB Single Rank x4 DDR4-2933 Registered Smart Memory Added new NVMe RI & MU Value SAS SSD SKUs
02-Nov-2020	Version 39	Changed	Overview, Pre-Configured Models, Core Options and Additional Options sections were updated. New Pre-Configured Models with 10GbE NICs were added. Full Pre-Configured Models SKUs are now listed. Obsolete SKUs were removed.
05-Oct-2020	Version 38	Changed	Overview, Standard Features, Pre-Configured Models, Configuration Information and Core Options sections were updated. Added HPE NS204i-p NVMe PCIe3 OS Boot Device. Added new NVMe RI & MU SCN SSD SKUs Updated 2nd Gen. Intel® Xeon® Scalable Refresh Processors chassis support. Obsolete SKUs were removed.
08-Sep-2020	Version 37	Changed	Overview, Standard Features, Configuration Information and Core Options sections were updated. Updated Operating Systems and Virtualization Software section Obsolete SKUs were removed
03-Aug-2020	Version 36	Changed	Overview, Pre-Configured Models, Core Options and Additional Options sections were updated. Added Pensando DSP for HPE iLO Management ALOM Module Added new NVMe RI & MU SSD SKUs Added SN1610E 32Gb Fibre Channel HBAs Obsolete SKUs were removed from the QuickSpecs.
06-Jul-2020	Version 35	Changed	Standard Features, Additional Options and Core Options sections were updated. Renamed Network Interface Card descriptions to include chipset Corrected UPI link quantity for Gold 6xxx-R refresh processors
15-Jun-2020	Version 34	Changed	Core Options section was updated.
01-Jun-2020	Version 33	Changed	Overview, Configuration Information, Core Options, Standard Features and Additional Options sections were updated. Obolete SKUs were removed
06-Apr-2020	Version 32	Changed	Overview, Standard Features, Pre-Configured Models, Configuration Information, Core Options and Additional Options sections were updated.
16-Mar-2020	Version 31	Changed	Standard Features, Configuration Information and Core Options sections were updated.
24-Feb-2020	Version 30	Changed	Overview, Pre-Configured Models,Service and Support, Configuration Information, Core Options and Additional Options sections were updated. Additional 2nd Generation Intel® Xeon® Scalable Processors and pre- configured models powered by them were added.

Date	Version History	Action	Description of Change
03-Feb-2020	Version 29	Changed	Overview, Standard Features, Core Options, Pre-configured Models and Configuration Information and Additional Options sections were updated. European Union (EU) Lot 9 regulation information was added. Obolete SKUs were removed
02-Dec-2019	Version 28	Changed	Overview, Pre-configured Models, Configuration Information, Core Options, Additional Options and Technical Specifications sections were updated. Obolete SKUs were removed
07-Oct-2019	Version 27	Changed	Overview, Pre-configured Models, Core Options, and Additional Options sections were updated.
03-Sep-2019	Version 26	Changed	Overview, Standard Features, Pre-configured Models, SMB Models, China Specific, Configuration Information - Factory Integrated Models and Core Options sections were updated.
12-Aug-2019	Version 25	Changed	Overview, Standard, Features, Optional Features, SMB Models, Configuration Information-Factory Integrated Models, China Specific, Core Options, Storage sections were updated.
01-Jul-2019	Version 24	Changed	The 5218N wattage has changed from 105 to 110W TDP The U.S. version of QuickSpecs is no longer being updated, please reference the Worldwide QuickSpecs for latest information.
03-Jun-2019	Version 23	Changed	Standard Features, SMB Models, Pre-configured Models, China Specific, Configuration Information, Additional Options and Core Options sections were updated. New SKUs were added and Obolete SKUs were removed.
15-Apr-2019	Version 22	Changed	Overview, Standard Features, SMB Models, Pre-configured Models, China Specific, Configuration Information and Core Options sections were updated.
02-Apr-2019	Version 21	Changed	Overview, Standard Features and Pre-configured Models sections were updated.
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	Changed	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. Pre-Confifured Models, Core Options, and Additional Options were revised. Obsolete SKUs were removed from the QuickSpecs.
11-Jun-2018	Version 14	Changed	Smart Buy Models section for the NA version was revised.



Date	Version History	Action	Description of Change
04-Jun-2018	Version 13	Changed	New SSD offering was added to the HPE Drivers section. Core Options, Additional Options, and Memory were revised. Obsolete SKUs were removed from the QuickSpecs.
07-May-2018	Version 12	Changed	New SMB models offering was added. Riser Information and power supply section were revised. Obsolete SKUs were removed from the QuickSpecs.
02-Apr-2018	Version 11	Changed	Standard Features, Core Options and Additional Options were revised. 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 PCIe accelerator cards.
18-Dec-2017	Version 8	Changed	Network controller under Configuration Information – Factory Integrated Models section was revised.
04-Dec-2017	Version 7	Changed	Added new Entry level WW Model-1 sku. HPE Specific IST Processor offering Gold 6143 and Platinum 8165 bins were added. Added new High capacity 12TB LFF drives and Large capacity 15.3TB SSDs. 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	Changed	128GB Memory was added Riser table was added under Core Options. 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	Changed	New Gold Processors were added.Added new Hard Drive and SSD offering. GPU information table was added. Platform Information, Core Options, Additional Options, and Storage section were revised. 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	Changed	Added new Solid State Drives offering to the HPE Drives section. Added Support Services under Additional Options. 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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