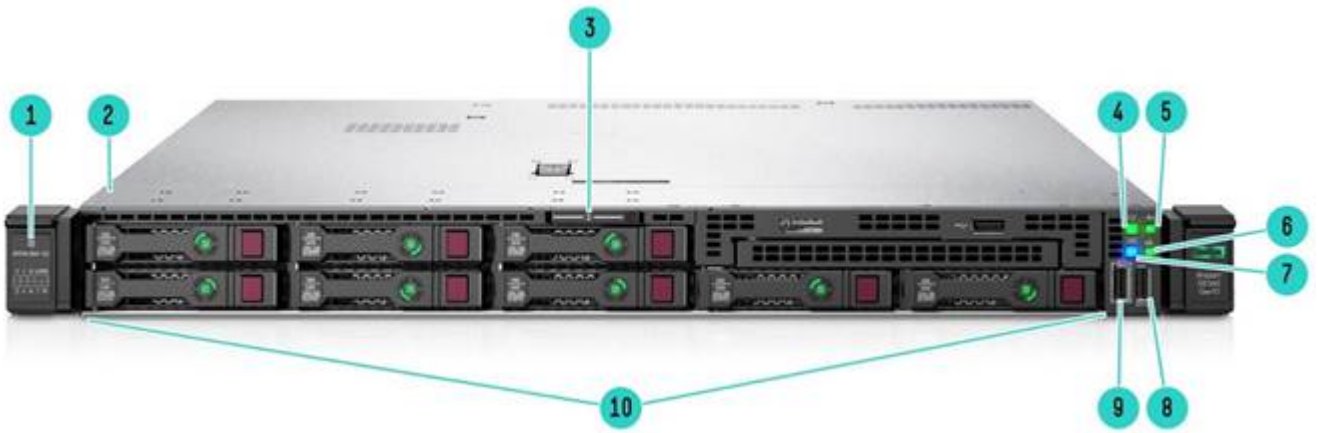
HPE ProLiant DX360 Gen10 server

The HPE ProLiant DX360 Gen10 server along with Nutanix provide a global partnership to deliver hyper-converged solutions in an on premise appliance or through the HPE Greenlake consumption model.. This offering will leverage Nutanix's free AHV hypervisor and Nutanix Enterprise Cloud software to provide customers with a pre-integrated and optimized solution that dramatically lowers total cost of ownership and accelerates operational pro3ductivity.

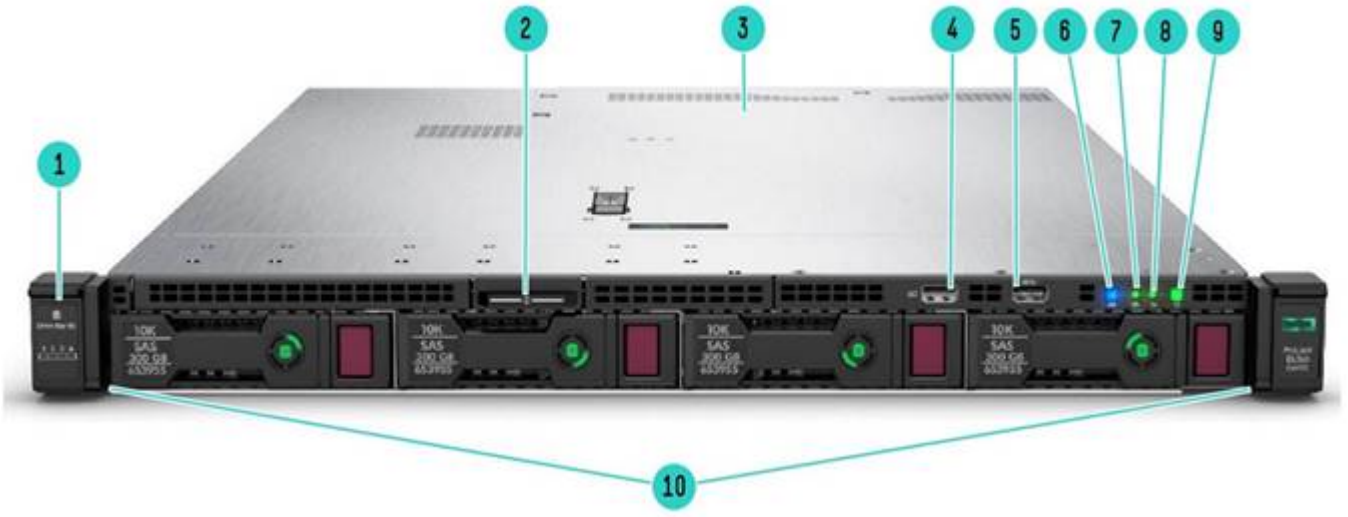
The HPE ProLiant DX360 Gen10 server supports the Intel® Xeon® Scalable Processor Family with up to 28 cores, plus 2933 MT/s HPE DDR4 SmartMemory supporting up to 3.0 TB max. Deploy this dense platform for diverse Nutanix workloads in space constrained environments and maintain it with ease by automating the most essential server lifecycle management tasks with HPE iLO 5.



8 SFF Front View

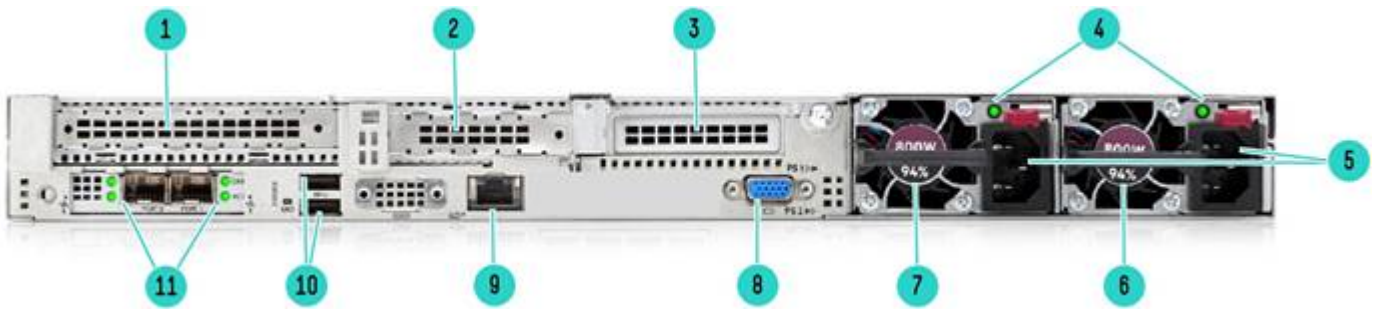
1.	Drive support label	6.	NIC status LED
2.	Quick removal access panel	7.	UID button/LED
3.	Serial no. label pull tab	8.	USB 3.0 port
4.	Power On/Standby button and system power LED	9.	iLO service port
5.	Health LED	10.	Standard 8 SAS/SATA drive bays

Overview



4 LFF Front View

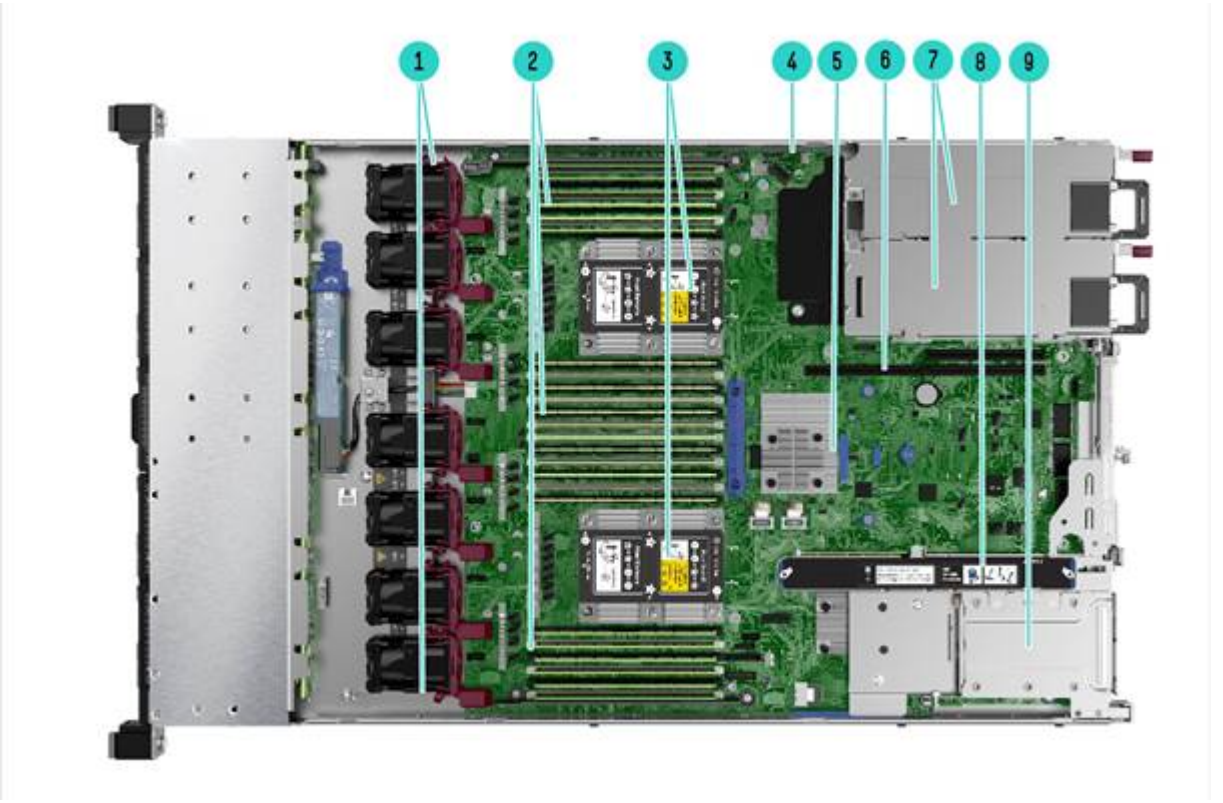
1. Drive support label
2. Serial no. label pull tab
3. Quick removal access panel
4. iLO Service Port
5. USB 3.0 Port
6. UID button/LED
7. Power On/Standby button and system power LED
8. Health LED
9. NIC status LED
10. SAS/SATA drive bays



Rear View - Standard for all DX360 Gen10

1. Slot 1 PCIe 3.0
2. Slot 2 PCIe 3.0
3. Option: Slot 3 PCIe 3.0 (Requires 2nd processor)
4. Power supply LED
5. Power supply connectors
6. Power Supply 1
7. Power Supply 2
8. VGA port
9. iLO Management Port
10. USB 3.0 Ports
11. Option: FlexibleLOM (Shown: 2 x 10GbE)

Overview



Internal View - Standard for all DX360 Gen10

1. Fan cage shown with 7 standard Hot-plug fans (High Performance temperature fans are included)
2. DDR4 DIMM slots. Shown fully populated in 24 slots (12 per processor)
3. Two (2) Processors, heatsink showing
4. Chassis intrusion detection connector
5. HPE Smart Array Controller
6. Connection for second (optional) riser (Requires second CPU)
7. (Under) Hot Plug redundant HPE Flexible Slot Power supplies
8. Primary PCIe riser, standard
9. Optional Flexible LOM slot

Overview

What's New

- HPE DX TPM 2.0 Kit
- New ProLiant DX380 Gen10 Platform
- Qualified platforms / configs recognized by both HPE & Nutanix
- Factory tuned & optimized HW settings for Nutanix environments
- Factory pre-installed Nutanix AHV & AOS

Form Factor

- 1U rack

Chassis Types

- 8 SFF
- 4 LFF

System Fans

The 4 LFF and 8 SFF chassis ship with 7 high performance fans as standard.

NOTE: The DX360 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.

Standard Features

NOTE: This table covers the public Intel offering only.

NOTE: For more information regarding Intel Xeon processors, please see the following **http://www.intel.com/xeon**.

NOTE: All HPE DX360 processors come with the High Performance Heatsink included.

Processor Suffix	Description	Offering
M	Medium memory tier	Up to 2.0 TB addressable memory per socket
N	NFV Optimized	Targeted at Network Function Virtualization (NFV) workloads. Intel® SST-BF improves performance by directing base frequency to high priority/bottleneck cores. Other workloads may see throttling, more details to be provided in upcoming documentation.
S	Search Optimized	Optimized base frequency to address 'search' workloads. Other workloads may see throttling, more details to be provided in upcoming documentation.
V	VM Density Optimized	Fosters enhanced VM density, allowing to support more/larger virtual machines per host.
U	1 Socket Optimized	Focused on single socket (1P) configurations deliver performance at competitive price points. Does not support two socket (2P) arrangements.

NOTE: More than 1.5 TB memory per socket requires memory higher than 128 GB capacity

2nd Generation Intel® Xeon® Scalable Processor Family							
Intel Xeon Models	**CPU Frequency**	**Cores**	**L3 Cache**	**Power**	**UPI**	**DDR4**	**Memory per socket**
Platinum 8280 Processor	2.7 GHz	28	38.50 MB	205W	3 @ 10.4 GT/s	2933 MT/s	1TB
Platinum 8280M Processor	2.7 GHz	28	38.50 MB	205W	3 @ 10.4 GT/s	2933 MT/s	2TB
Platinum 8276 Processor	2.2 GHz	28	38.50 MB	165W	3 @ 10.4 GT/s	2933 MT/s	1TB
Platinum 8276M Processor	2.2 GHz	28	38.50 MB	165W	3 @ 10.4 GT/s	2933 MT/s	2TB
Platinum 8270 Processor	2.7 GHz	26	35.75 MB	205W	3 @ 10.4 GT/s	2933 MT/s	1TB
Platinum 8268 Processor	2.9 GHz	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

Standard Features

Platinum 8260M Processor	2.4 GHz	24	35.75 MB	165W	3 @ 10.4 GT/s	2933 MT/s	2TB
Platinum 8253 Processor	2.2 GHz	16	22.00 MB	125W	3 @ 10.4 GT/s	2933 MT/s	1TB

NOTES:

- 6-Channel DDR4 @ 2933 MT/s. 2TB max RAM per socket on select SKUs
- Support for: Vector Neural Network Instructions (VNNI) for inference acceleration.
- 2 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

2nd Generation Intel® Xeon® Scalable Processor Family

Intel Xeon Models	CPU Frequency	Cores	L3 Cache	Power	UPI	DDR4	Memory per socket
Gold 6262V Processor	1.9 GHz	24	33.00 MB	135W	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 6248 Processor	2.5 GHz	20	27.5 MB	150W	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 6242 Processor	2.8 GHz	16	22 MB	150W	3 @ 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 6240M Processor	2.6 GHz	18	24.75 MB	150W	3 @ 10.4 GT/s	2933 MT/s	2TB
Gold 6238 Processor	2.1 GHz	22	30.25 MB	140W	3 @ 10.4 GT/s	2933 MT/s	1TB
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 6230 Processor	2.1 GHz	20	27.5 MB	125W	3 @ 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

Standard Features

Gold 6209U Processor	2.1 GHz	20	27.50 MB	125W	N/A	2933 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 5218 Processor	2.3 GHz	16	22 MB	125W	2 @ 10.4 GT/s	2666 MT/s	1TB
Gold 5218B Processor [1]	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

NOTES:

- [1] 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).
- 2TB max RAM per socket on select SKUs
- Support for: Vector Neural Network Instructions (VNNI) for inference acceleration.
- 2 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

2nd Generation Intel® Xeon® 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 4215 Processor	2.5 GHz	8	11 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 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.
- Support for: Intel® Vector Neural Network Instructions (VNNI) for inference acceleration.
- 2 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

Standard Features

Chipset
Intel C621 Chipset
NOTE: For more information regarding Intel® chipsets, please see the following URL:
https://www.intel.com/content/www/us/en/products/chipsets/server-chipsets.html

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

Memory
HPE DDR4 SmartMemory

Type
Registered (RDIMM), Load Reduced (LRDIMM)

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

NOTE: Maximum memory per socket is dependent on processor selection. 2nd generation processors supporting 2 TB indicated by the "M" in the processor model names (i.e. 8276M).
NOTE: Mixing of RDIMM and LRDIMM memory is not supported.
NOTE: For General Server 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.
NOTE: For more information see our **Memory RAS feature technical whitepaper**.

Expansion Slots

Primary GPU Riser					
Expansion Slots #	**Technology**	**Bus Width**	**Connector Width**	**Processor**	**Slot Form Factor**
1	PCIe 3.0	x16	x16	CPU1	Full-height, 3/4 length (up to 9.5in)
2	PCIe 3.0	x8	x8	CPU1	Low Profile

Standard Features

Primary SATA M.2 Riser					
Expansion Slots #	**Technology**	**Bus Width**	**Connector Width**	**Processor**	**Slot Form Factor**
1	PCIe 3.0	x16	x16	CPU 1	Full-height; 3/4 length (up to 9.5in)
2	PCIe 3.0	x16	x16	CPU 1	Low Profile

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

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

Storage Controllers

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

NOTE: The appropriate controllers are included with the server models P18229-B21 and P18230-B21. The number of available PCI slots are reduced by 1 for both models.

Internal Storage Devices

Hard Drives

None ship standard

HPE ProLiant DX360 8SFF Hard Drive Configurations

Hybrid SSD/HDD

- SSDs, 2
- HDDs, 4 or 6

All SSD

- SSDs, 4, 6, or 8

Standard Features

HPE ProLiant DX360 4LFF Hard Drive Configurations
Hybrid SSD/HDD

- SSDs, 2
- HDDs, 2

All SSD

- SSDs, 2 or 4

HPE ProLiant DX360 10NVMe Hard Drive Configurations

All SSD

- SSDs, 2, 4, 6, 8, 10

Power Supply

- HPE 500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit
  NOTE: Available in 94% efficiency.
- HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit

  NOTE: Available in 94% and 96% efficiency.

  NOTE: Also available in -48VDC and 227VAC/380VDC power inputs.
- HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit
  NOTE: Available in 94% efficiency.

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

All pre-configured servers ship with a standard 6-foot IEC C-13/C-14 jumper cord (A0K02A). This jumper cord is also included with each standard AC power supply option kit. If a different power cord is required, please check the **ProLiant Power Cables** web page.

To review the power requirements for your selected system, please use the **HPE Power Advisor Tool**.

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

Standard Features

Interfaces	
Video	Rear - VGA port (standard on all chassis types)
Network Ports	1 FlexibleLOM slot available on all chassis types (supporting various NICs adapters)
iLO Remote Mgmt Port	1 Gb Dedicated
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)

Operating Systems and Virtualization Software

- Nutanix Acropolis Operating System (AOS)
  Version 5.10.5 and higher
- Nutanix Acropolis Hypervisor (AHV)
  Version 2017030.279 and higher
- VMware vSphere:
  Version 6.5 U2
  NOTE: The latest version of AOS and AHV are pre-installed in each server at the factory. vSphere must be installed separately.

iLO RESTful API

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

Industry Standard Compliance

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

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

Standard Features

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

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.
NOTE: iLO Advanced license with 3 years support is included with the server models P18229-B21 and P18230-B21

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

Active Health System Viewer
Use the Active Health System Viewer, a web-based portal, to easily read AHS logs and speed problem resolution with HPE self-repair recommendations, to learn more visit:
https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-c05384171&docLocale=en_US.

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
https://www.hpe.com/us/en/servers/smart-update.html.

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

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

Standard Features

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

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

HPE OneView Standard
HPE OneView Standard can be used for inventory, health monitoring, alerting, and reporting without additional fees. It can monitor multiple HPE server generations. The user interface is similar to the HPE OneView Advanced version, but the software-defined functionality is not available. Learn more at **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.
NOTE: Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response. Warranty repairs may be accomplished through the use of Customer Self Repair (CSR) parts. These parts fall into two categories: 1) Mandatory CSR parts are designed for easy replacement. A travel and labor charge will result when customers decline to replace a Mandatory CSR part; 2) Optional CSR parts are also designed for easy replacement but may involve added complexity. Customers may choose to have Hewlett Packard Enterprise replace Optional CSR parts at no charge. Additional information regarding worldwide limited warranty and technical support is available at:
http://h17007.www1.hpe.com/us/en/enterprise/servers/warranty/.

Standard Features

Security

- 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
- Bezel Locking Kit
- Chassis Intrusion detection option

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.
http://www.hpe.com/servers/iloadvanced
NOTE: An HPE iLO Advanced license with 3 years support is included with the server models P18229-B21 and P18230-B21

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

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**.

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

Service and Support

HPE Pointnext - Service and Support

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

Included Service and Support
3-Year, Next Business Day Support is included with every HPE ProLiant DX360 System. This service connects you to HPE during business hours for assistance on resolving issues. It guarantees hardware next business day onsite response as well as iLO Advanced Software support with call back within two hours. Simplify your support experience and make HPE your first call to help resolve hardware or iLO Advanced software problems. Nutanix should be your first call for any issues related to the Nutanix software.

Service and Support Enhancement Options
The following enhanced support services are available tailor your support experience with the needs of your business.

- HPE 3-Year Next Business Day with DMR Hardware Service
- HPE 3-Year 24x7 Hardware Service
- HPE 3-Year 24x7 with DMR Hardware Service
- HPE 5-Year Next Business Day Hardware Service
- HPE 5-Year Next Business Day with DMR Hardware Service
- HPE 5-Year 24x7 Hardware Service
- HPE 5-Year 24x7 with DMR Hardware Service

DMR stands for Defective Media Retention. The defective media retention service allows you to retain defective hard disk or eligible SSD/Flash drive components that you do not want to relinquish due to sensitive data contained within the disk ("Disk or SSD/Flash Drive") covered under this service. All Disk or eligible SSD/Flash Drives on a covered system must participate in the defective media retention.
HPE Foundation Care 24x7 gives you access to HPE 24 hours a day, seven days a week for assistance on resolving issues. This service includes need based Hardware onsite response within four hours.
https://www.hpe.com/h20195/V2/GetDocument.aspx?docname=4AA4-8876ENW&cc=us&lc=en

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Other related Services

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

Service and Support

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

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

Learn more **http://www.hpe.com/support/hpesc**.

The HPE Support Center Mobile App* allows you to resolve issues yourself or quickly connect to an agent for live support. Now, you can get access to personalized IT support anywhere, anytime.
HPE Insight Remote Support and HPE Support Center are available at no additional cost with a HPE warranty, HPE Support Service or HPE contractual support agreement.
**NOTE: ***HPE Support Center Mobile App is subject to local availability.
For more information: **http://www.hpe.com/services**.
NOTE: HPE ProLiant DX360 Gen10 server is covered under the HPE Service Contract applied to the HPE ProLiant Server. No separate HPE support services need to be purchased.

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

Parts and Materials
Hewlett Packard Enterprise will provide HPE-supported replacement parts and materials necessary to maintain the covered hardware product in operating condition, including parts and materials for available and recommended engineering improvements.
Parts and components that have reached their maximum supported lifetime and/or the maximum usage limitations as set forth in the manufacturer's operating manual, product quick-specs, or the technical product data sheet will not be provided, repaired, or replaced as part of these services.
The defective media retention service feature option applies only to Disk or eligible SSD/Flash Drives replaced by Hewlett Packard Enterprise due to malfunction.

Configuration Information

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

1. Factory Integrated Models must start with a CTO Server.
2. All DX360 options are only available as a factory installable option.
3. All Factory Integrated Models will be populated with sufficient hard drive blanks based on the number of initial hard drives ordered with the server.
4. Some options may not be integrated at the factory. Contact your local sales representative for additional information.

Step 1: Base Configuration (choose one of the following configurable models)
Base configuration includes select options as noted below

Step 1: Base Configuration (choose one of the following configurable models)		
CTO Server	4 LFF	8 SFF
SKU Number	P18229-B21	P18230-B21
Processor	Not included as standard	Not included as standard, 2 required
DIMM Slots	24-DIMM slots	
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) Optional: 1 x16 FH or LP
Drive Cage - included	4 LFF - SAS/SATA	8 SFF - SAS/SATA
Network Controller	Optional HPE FlexibleLOM or stand up card	
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)	
Included Options		
Boot Drive	1 x HPE Universal SATA Half Height M.2 Kit 1 x HPE 240GB SATA MU M.2 DS SSD	1 x HPE Universal SATA Half Height M.2 Kit 1 x HPE 240GB SATA MU M.2 DS SSD
Storage Controller	1 x HPE Smart Array E208i-a SR Gen10 Controller	1 x HPE Smart Array E208i-a SR Gen10 Controller
Cooling	7 - High Performance Fans	7 - High Performance Fans
Security	HPE Gen10 1U Security Bezel	HPE Gen10 1U Security Bezel
Management	iLO Advanced with 3 year support	iLO Advanced with 3 year support
Services	Foudation Care Next Business Day 3 year support service	Foudation Care Next Business Day 3 year support service

NOTE: HPE offers multiple Trade Agreement Act (TAA) compliant configurations to meet the needs of US Federal Government customers. These products are either manufactured or substantially transformed in a designated country. TAA compliance is only provided when HPE options are included as part of factory integrated orders (CTO).
NOTE: All CTO servers are Energy Star 2.1 compliant.
NOTE: All HPE DX380 processors come with the High Performance Heatsink included.

Step 2a: Choose Processor Options
Please select one -L21 processor required below.
For second processor, please select the same processor model with -B21 from Core Options - HPE Processors section.
For example: first processor, select P02679-L21 then for second processor, select P02679-B21.
NOTE: Mixing of 2 different processor models is not supported.
NOTE: When 2nd Generation Intel Xeon Scalable Processor is selected, then only DDR4-2933 Memory Kit

Configuration Information

can be selected
NOTE: All HPE DX360 processors come with the High Performance Heatsink included.

Processor Option Kits (Required Processor)	**SKU**
2nd Generation Intel Xeon- Platinum	
HPE DX360 Gen10 Intel Xeon-Platinum 8280 (2.7GHz/28-core/205W) FIO Processor Kit	P18350-L21
HPE DX360 Gen10 Intel Xeon-Platinum 8280M (2.7GHz/28-core/205W) FIO Processor Kit	P18352-L21
HPE DX360 Gen10 Intel Xeon-Platinum 8276 (2.2GHz/28-core/165W) FIO Processor Kit	P18346-L21
HPE DX360 Gen10 Intel Xeon-Platinum 8276M (2.2GHz/28-core/165W) FIO Processor Kit	P18348-L21
HPE DX360 Gen10 Intel Xeon-Platinum 8270 (2.7GHz/26-core/205W) FIO Processor Kit	P18344-L21
HPE DX360 Gen10 Intel Xeon-Platinum 8268 (2.9GHz/24-core/205W) FIO Processor Kit	P18342-L21
HPE DX360 Gen10 Intel Xeon-Platinum 8260 (2.4GHz/24-core/165W) FIO Processor Kit	P18338-L21
HPE DX360 Gen10 Intel Xeon-Platinum 8260M (2.4GHz/24-core/165W) FIO Processor Kit	P18340-L21
HPE DX360 Gen10 Intel Xeon-Platinum 8253 (2.2GHz/16-core/125W) FIO Processor Kit	P18336-L21
HPE DX360 Gen10 Intel Xeon-Gold 6262V (1.9GHz/24-core/135W) FIO Processor Kit	P18334-L21
HPE DX360 Gen10 Intel Xeon-Gold 6254 (3.1GHz/18-core/200W) FIO Processor Kit	P18332-L21
HPE DX360 Gen10 Intel Xeon-Gold 6252 (2.1GHz/24-core/150W) FIO Processor Kit	P18330-L21
HPE DX360 Gen10 Intel Xeon-Gold 6248 (2.5GHz/20-core/150W) FIO Processor Kit	P18328-L21
HPE DX360 Gen10 Intel Xeon-Gold 6248 (2.5GHz/20-core/150W) FIO Processor K	P21957L21
HPE DX360 Gen10 Intel Xeon-Gold 6244 (3.6GHz/8-core/150W) FIO Processor Kit	P18326-L21
HPE DX360 Gen10 Intel Xeon-Gold 6242 (2.8GHz/16-core/150W) FIO Processor Kit	P18324-L21
HPE DX360 Gen10 Intel Xeon-Gold 6240 (2.6GHz/18-core/150W) FIO Processor Kit	P18320-L21
HPE DX360 Gen10 Intel Xeon-Gold 6240M (2.6GHz/18-core/150W) FIO Processor Kit	P18322-L21
HPE DX360 Gen10 Intel Xeon-Gold 6238 (2.1GHz/22-core/140W) FIO Processor Kit	P18316-L21
HPE DX360 Gen10 Intel Xeon-Gold 6238M (2.1GHz/22-core/140W) FIO Processor Kit	P18318-L21
HPE DX360 Gen10 Intel Xeon-Gold 6234 (3.3GHz/8-core/130W) FIO Processor Kit	P18314-L21
HPE DX360 Gen10 Intel Xeon-Gold 6230 (2.1GHz/20-core/125W) FIO Processor Kit	P18312-L21
HPE DX360 Gen10 Intel Xeon-Gold 6226 (2.7GHz/12-core/125W) FIO Processor Kit	P18310-L21
HPE DX360 Gen10 Intel Xeon-Gold 6222V (1.8GHz/20-core/115W) FIO Processor Kit	P18308-L21
HPE DX360 Gen10 Intel Xeon-Gold 5220 (2.2GHz/18-core/125W) FIO Processor Kit	P18298-L21
HPE DX360 Gen10 Intel Xeon-Gold 5220S (2.7GHz/18-core/125W) FIO Processor Kit	P18300-L21
HPE DX360 Gen10 Intel Xeon-Gold 5218 (2.3GHz/16-core/125W) FIO Processor Kit	P18294-L21
HPE DX360 Gen10 Intel Xeon-Gold 5218B (2.3GHz/16-core/125W) FIO Processor Kit	P18296-L21
NOTE: 5218B has consistent features with the 5218 processor but from a different die. Mixing both 5218B & 5218 in a system is not supported	
HPE DX360 Gen10 Intel Xeon-Gold 5217 (3.0GHz/8-core/115W) FIO Processor Kit	P18292-L21
HPE DX360 Gen10 Intel Xeon-Gold 5215 (2.5GHz/10-core/85W) FIO Processor Kit	P18290-L21
HPE DX360 Gen10 Intel Xeon-Silver 4216 (2.1GHz/16-core/100W) FIO Processor Kit	P18288-L21
HPE DX360 Gen10 Intel Xeon-Silver 4215 (2.5GHz/8-core/85W) FIO Processor Kit	P18286-L21
HPE DX360 Gen10 Intel Xeon-Silver 4214 (2.2GHz/12-core/85W) FIO Processor Kit	P18284-L21
HPE DX360 Gen10 Intel Xeon-Silver 4210 (2.2GHz/10-core/85W) FIO Processor Kit	P18282-L21
HPE DX360 Gen10 Intel Xeon-Silver 4208 (2.1GHz/8-core/85W) FIO Processor Kit	P18280-L21

NOTE: All HPE DX360 processors come with the High Performance Heatsink included.

Step 2b: Choose Memory Options

Please select one or more memory from below.

For new Gen10 memory population rule whitepaper and optimal memory performance guidelines, please go to:

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

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

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

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

NOTE: DDR4-2933 Memory Kits are only supported with 2nd Generation Intel Xeon Scalable Series Processors

Registered DIMMs (RDIMMs) for 2nd Generation Intel Xeon Scalable Series

HPE DX 64GB (1x64GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart FIO Memory Kit	P18453-B21
HPE DX 32GB (1x32GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart FIO Memory Kit	P18450-B21
HPE DX 16GB (1x16GB) Dual Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart FIO Memory Kit	P18449-B21
HPE DX 16GB (1x16GB) Single Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart FIO Memory Kit	P18448-B21

Load Reduced DIMMs (LRDIMMs) for 2nd Generation Intel Xeon Scalable Series

HPE DX 128GB (1x128GB) Octal Rank x4 DDR4-2933 CAS-24-21-21 Load Reduced 3DS Smart FIO Memory Kit	P18452-B21
HPE DX 128GB (1x128GB) Quad Rank x4 DDR4-2933 CAS-24-21-21 Load Reduced Smart FIO Memory Kit	P18454-B21
HPE DX 64GB (1x64GB) Quad Rank x4 DDR4-2933 CAS-21-21-21 Load Reduced Smart FIO Memory Kit	P18451-B21

Step 2c: Choose Power Supplies

Please select one or two power supplies from below.

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

HPE Flex Slot Power Supplies

HPE DX 1600W Flex Slot Platinum Hot Plug Low Halogen FIO Power Supply Kit	P18222-B21
HPE DX 800W Flex Slot Platinum Hot Plug Low Halogen FIO Power Supply Kit	P18223-B21
HPE DX 800W Flex Slot Titanium Hot Plug Low Halogen FIO Power Supply Kit	P18224-B21
HPE DX 800W Flex Slot Universal Hot Plug Low Halogen FIO Power Supply Kit	P18225-B21
HPE DX 500W Flex Slot Platinum Hot Plug Low Halogen FIO Power Supply Kit	P18226-B21

NOTE: 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 Security Options

HPE DX360 Gen10 Intrusion FIO Detect Kit	P18357-B21

Configuration Information

HPE DX Trusted Platform Module 2.0 Gen10 FIO Option Kit	P17811-B21
HPE Unique Options Risers	
Risers	
HPE DX360 Gen10 Low Profile FIO Riser Kit	P18356-B21
HPE DX Gen10 x8/x16/x8 FIO Riser Kit	P17803-B21

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

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.
NOTE: Mixing of 2 different processor models is not supported.
NOTE: When 2nd Generation Intel Xeon Scalable Processor is slected, then only DDR4-2933 Memory Kit can be selected
NOTE: All HPE DX360 processors come with the High Performance Heatsink included.

2nd Generation Intel Xeon- Platinum

HPE DX360 Gen10 Intel Xeon-Platinum 8280 (2.7GHz/28-core/205W) FIO2 Processor Kit	P18350-B21
HPE DX360 Gen10 Intel Xeon-Platinum 8280M (2.7GHz/28-core/205W) FIO2 Processor Kit	P18352-B21
HPE DX360 Gen10 Intel Xeon-Platinum 8276 (2.2GHz/28-core/165W) FIO2 Processor Kit	P18346-B21
HPE DX360 Gen10 Intel Xeon-Platinum 8276M (2.2GHz/28-core/165W) FIO2 Processor Kit	P18348-B21
HPE DX360 Gen10 Intel Xeon-Platinum 8270 (2.7GHz/26-core/205W) FIO2 Processor Kit	P18344-B21
HPE DX360 Gen10 Intel Xeon-Platinum 8268 (2.9GHz/24-core/205W) FIO2 Processor Kit	P18342-B21
HPE DX360 Gen10 Intel Xeon-Platinum 8260 (2.4GHz/24-core/165W) FIO2 Processor Kit	P18338-B21
HPE DX360 Gen10 Intel Xeon-Platinum 8260M (2.4GHz/24-core/165W) FIO2 Processor Kit	P18340-B21
HPE DX360 Gen10 Intel Xeon-Platinum 8253 (2.2GHz/16-core/125W) FIO2 Processor Kit	P18336-B21
HPE DX360 Gen10 Intel Xeon-Gold 6262V (1.9GHz/24-core/135W) FIO2 Processor Kit	P18334-B21
HPE DX360 Gen10 Intel Xeon-Gold 6254 (3.1GHz/18-core/200W) FIO2 Processor Kit	P18332-B21
HPE DX360 Gen10 Intel Xeon-Gold 6252 (2.1GHz/24-core/150W) FIO2 Processor Kit	P18330-B21
HPE DX360 Gen10 Intel Xeon-Gold 6248 (2.5GHz/20-core/150W) FIO2 Processor Kit	P18328-B21
HPE DX360 Gen10 Intel Xeon-Gold 6244 (3.6GHz/8-core/150W) FIO2 Processor Kit	P18326-B21
HPE DX360 Gen10 Intel Xeon-Gold 6246 (3.3GHz/12-core/165W) FIO2 Processor Kit	P21957-B21
HPE DX360 Gen10 Intel Xeon-Gold 6242 (2.8GHz/16-core/150W) FIO2 Processor Kit	P18324-B21
HPE DX360 Gen10 Intel Xeon-Gold 6240 (2.6GHz/18-core/150W) FIO2 Processor Kit	P18320-B21
HPE DX360 Gen10 Intel Xeon-Gold 6240M (2.6GHz/18-core/150W) FIO2 Processor Kit	P18322-B21
HPE DX360 Gen10 Intel Xeon-Gold 6238 (2.1GHz/22-core/140W) FIO2 Processor Kit	P18316-B21

Core Options

HPE DX360 Gen10 Intel Xeon-Gold 6238M (2.1GHz/22-core/140W) FIO2 Processor Kit	P18318-B21
HPE DX360 Gen10 Intel Xeon-Gold 6234 (3.3GHz/8-core/130W) FIO2 Processor Kit	P18314-B21
HPE DX360 Gen10 Intel Xeon-Gold 6230 (2.1GHz/20-core/125W) FIO2 Processor Kit	P18312-B21
HPE DX360 Gen10 Intel Xeon-Gold 6226 (2.7GHz/12-core/125W) FIO2 Processor Kit	P18310-B21
HPE DX360 Gen10 Intel Xeon-Gold 6222V (1.8GHz/20-core/115W) FIO2 Processor Kit	P18308-B21
HPE DX360 Gen10 Intel Xeon-Gold 5220 (2.2GHz/18-core/125W) FIO2 Processor Kit	P18298-B21
HPE DX360 Gen10 Intel Xeon-Gold 5220S (2.7GHz/18-core/125W) FIO2 Processor Kit	P18300-B21
HPE DX360 Gen10 Intel Xeon-Gold 5218 (2.3GHz/16-core/125W) FIO2 Processor Kit	P18294-B21
HPE DX360 Gen10 Intel Xeon-Gold 5218B (2.3GHz/16-core/125W) FIO2 Processor Kit **NOTE:** 5218B has consistent features with the 5218 processor but from a different die. Mixing both 5218B & 5218 in a system is not supported	P18296-B21
HPE DX360 Gen10 Intel Xeon-Gold 5217 (3.0GHz/8-core/115W) FIO2 Processor Kit	P18292-B21
HPE DX360 Gen10 Intel Xeon-Gold 5215 (2.5GHz/10-core/85W) FIO2 Processor Kit	P18290-B21
HPE DX360 Gen10 Intel Xeon-Silver 4216 (2.1GHz/16-core/100W) FIO2 Processor Kit	P18288-B21
HPE DX360 Gen10 Intel Xeon-Silver 4215 (2.5GHz/8-core/85W) FIO2 Processor Kit	P18286-B21
HPE DX360 Gen10 Intel Xeon-Silver 4214 (2.2GHz/12-core/85W) FIO2 Processor Kit	P18284-B21
HPE DX360 Gen10 Intel Xeon-Silver 4210 (2.2GHz/10-core/85W) FIO2 Processor Kit	P18282-B21
HPE DX360 Gen10 Intel Xeon-Silver 4208 (2.1GHz/8-core/85W) FIO2 Processor Kit **NOTE:** All HPE DX360 processors come with the High Performance Heatsink included.	P18280-B21

HPE Memory

For new Gen10 memory population rule whitepaper and optimal memory performance guidelines, please go to:
https://www.hpe.com/docs/memory-population-rules
For Gen10 memory speed table, please go to: **https://www.hpe.com/docs/memory-speed-table**
For memory Reliability, Accessibility, Serviceability (RAS) features whitepaper like Gen10 Fast Fault Tolerance and legacy mirrored memory feature etc. please go to: **http://www.hpe.com/docs/memory-ras-feature**

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

NOTE: DDR4-2933 Memory Kits are only supported with 2nd Generation Intel Xeon Scalable Series

Core Options

Processors

HPE DDR4 Memory

Registered DIMMs (RDIMMs) for 2nd Generation Intel Xeon Scalable Series

HPE DX 64GB (1x64GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart FIO Memory Kit — P18453-B21
- Standalone P00930-B21

HPE DX 32GB (1x32GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart FIO Memory Kit — P18450-B21
- Standalone P00924-B21

HPE DX 16GB (1x16GB) Dual Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart FIO Memory Kit — P18449-B21
- Standalone P00922-B21

HPE DX 16GB (1x16GB) Single Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart FIO Memory Kit — P18448-B21
- Standalone P00920-B21

Load Reduced DIMMs (LRDIMMs) for 2nd Generation Intel Xeon Scalable Series

HPE DX 128GB (1x128GB) Octal Rank x4 DDR4-2933 CAS-24-21-21 Load Reduced 3DS Smart FIO Memory Kit — P18452-B21
- Standalone P00928-B21

HPE DX 128GB (1x128GB) Quad Rank x4 DDR4-2933 CAS-24-21-21 Load Reduced Smart FIO Memory Kit — P18454-B21
- Standalone P11040-B21

HPE DX 64GB (1x64GB) Quad Rank x4 DDR4-2933 CAS-21-21-21 Load Reduced Smart FIO Memory Kit — P18451-B21
- Standalone P00926-B21

HPE Drives

Midline - 12G SAS - LFF Drives

HPE DX 12TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Helium 512e Digitally Signed Firmware FIO HD — P17961-B21
- Standalone 881779-B21

HPE DX 8TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e Digitally Signed Firmware FIO HDD — P17960-B21
- Standalone 819201-B21

HPE DX 6TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e FIO HDD — P17959-B21
- Standalone 861754-B21

HPE DX 4TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware FIO HDD — P17958-B21
- Standalone 872487-B21

HPE DX 10TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware FIO HDD — P22552-B21
- Standalone 857644-B21)

Core Options

HPE DX 2TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware FIO HDD P17957-B21

- Standalone 872485-B21

Midline - 12G SAS - SFF Drives

HPE DX 2TB SAS 12G Midline 7.2K SFF (2.5in) SC 1yr Wty 512e FIO HDD P17956-B21

- Standalone 765466-B21

SSD Selection

For SSD selection guidance, please visit **https://ssd.hpe.com/**

Read Intensive - SATA - LFF - Solid State Drives

HPE DX 3.84TB SATA 6G Read Intensive LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware FIO SSD P18571-B21

HPE DX 3.84TB SATA 6G Read Intensive LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware FIO SSD P18573-B21

HPE DX 1.92TB SATA 6G Read Intensive LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware FIO SSD P18737-B21

- Standalone P09693-B21

Read Intensive - SATA - SFF - Solid State Drives

HPE DX 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware FIO SSD P18736-B21

Standalone P09718-B21

HPE DX 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware FIO SSD P19133-B21

HPE DX 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware FIO SSD P17970-B21

- Standalone P04566-B21

Read Intensive - NVMe - Solid State Drives

HPE DX 4TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware FIO SSD P18149-B21

- Standalone P13697-B21

HPE DX 2TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware FIO SSD P18145-B21

- Standalone P13695-B21

Mixed Use - 12G SAS - LFF - Solid State Drives

HPE DX 1.6TB SAS 12G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware FIO SSD P19135-B21

HPE DX 800GB SAS 12G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware FIO SSD P18139-B21

Mixed Use - 12G SAS - SFF - Solid State Drives

HPE DX 1.6TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware FIO SSD P18057-B21

HPE DX 800GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware FIO SSD P18056-B21

Mixed Use - SATA - LFF - Solid State Drives

Core Options

HPE DX 1.92TB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware FIO SSD P19131-B21

HPE DX 1.92TB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware FIO SSD P18063-B21

- Standalone P09724-B21

HPE DX 960GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware FIO SSD P18062-B21

- Standalone P09718-B21

HPE DX 960GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware FIO SSD P19146-B21

Mixed Use - SATA - SFF - Solid State Drives

HPE DX 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware FIO SSD P18054-B21

HPE DX 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware FIO SSD P17969-B21

- Standalone P09722-B21

HPE DX 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware FIO SSD P17973-B21

HPE DX 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware FIO SSD P17968-B21

- Standalone P09716-B21

Mixed Use NVMe - Solid State Drives

HPE DX 3.2TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware FIO SSD P18142-B21

- Standalone P13701-B21

HPE DX 1.6TB SAS 12G Mixed Use LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware FIO SSD P18140-B21

- Standalone P13699-B21

NOTE: (supported on DX360 NVMe model only. 10 drives required)

HPE Networking

25 Gigabit Ethernet adapters

HPE DX Ethernet 10/25Gb 2-port 640SFP28 FIO Adapter P18462-B21

- Standalone: 817753-B21

10 Gigabit Ethernet adapters

HPE DX Ethernet 10Gb 2-port 562SFP+ FIO Adapter P18455-B21

- Standalone: 727055-B21

HPE DX Ethernet 10Gb 2-port 562T FIO Adapter P18456-B21

- Standalone: 817738-B21

1 Gigabit Ethernet adapters

HPE DX Ethernet 1Gb 4-port 366T FIO Adapter P18460-B21

- Standalone: 811546-B21

FlexibleLOM Adapters

HPE DX Ethernet 10/25Gb 2-port 640FLR-SFP28 FIO Adapter P18461-B21

- Standalone: 817749-B21

Core Options

HPE DX Ethernet 10Gb 2-port 562FLR-T FIO Adapter P18458-B21

Standalone: 817745-B21

HPE DX Ethernet 10Gb 2-port 562FLR-SFP+ FIO Adapter P18457-B21

- Standalone: 727054-B21

HPE DX Ethernet 1Gb 4-port 366FLR FIO Adapter P18459-B21

- Standalone: 665240-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.

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

HPE Flex Slot Platinum Hot-plug Power supplies

HPE DX 1600W Flex Slot Platinum Hot Plug Low Halogen FIO Power Supply Kit P18222-B21

HPE DX 800W Flex Slot Platinum Hot Plug Low Halogen FIO Power Supply Kit P18223-B21

HPE DX 800W Flex Slot Titanium Hot Plug Low Halogen FIO Power Supply Kit P18224-B21

HPE DX 800W Flex Slot Universal Hot Plug Low Halogen FIO Power Supply Kit P18225-B21

HPE DX 500W Flex Slot Platinum Hot Plug Low Halogen FIO Power Supply Kit P18226-B21

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

Additional Options

HPE Security

HPE DX380 Gen10 Chassis Intrusion FIO Detection Kit	P17812-B21
NOTE: This provides a physical connection from the chassis board and hood and detects any physical intrusion into the chassis, providing security during the entire supply chain process of shipping, receiving, distribution, and operation.	

HPE Rack Options

Rail Kits

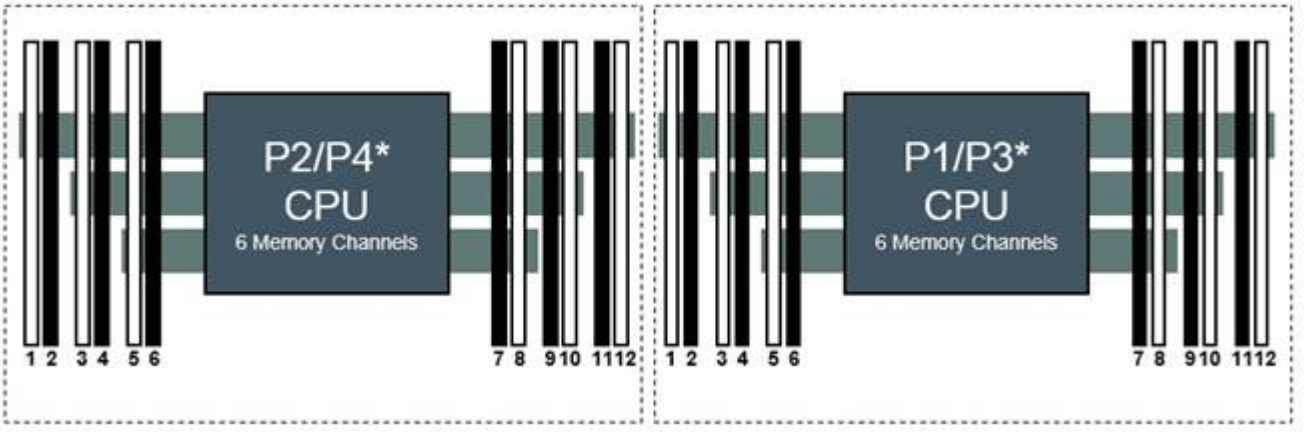
HPE DX 1U CMA Easy Install FIO Rail Kit	P18353-B21
HPE 1U Gen10 SFF Easy Install Rail Kit	874543-B21
NOTE: Does not include CMA (P18353-B21).	
HPE 1U LFF Gen9 Easy Install Rail Kit	789388-B21
NOTE: Does not include CMA (P18353-B21).	
HPE 1U Gen10 SFF Ball Bearing Rail Kit	872252-B21
HPE 1U Gen10 LFF Ball Bearing Rail Kit	879003-B21

HPE Support Services

HPE 3 Year Next Business Day with Defective Media Retention DX360 Gen10 Hardware Service	HN4Y9E
HPE 3 Year 24x7 DX360 Gen10 Hardware Service	HN4Z0E
HPE 3 Year 24x7 with Defective Media Retention DX360 Gen10 Hardware Service	HN4Z1E
HPE 5 Year Next Business Day DX360 Gen10 Hardware Service	HN4Z2E
HPE 5 Year Next Business Day with Defective Media Retention DX360 Gen10 Hardware Service	HN4Z3E
HPE 5 Year 24x7 DX360 Gen10 Hardware Service	HN4Z4E
HPE 5 Year 24x7 with Defective Media Retention DX360 Gen10 Hardware Service	HN4Z5E

Memory

Memory Population Guidelines



HPE Gen10 DX360 / DX380 / DX560

NOTE* Servers Front Server2 Slots per Channel

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

HPE ProLiant Gen10 12 slot per CPU DIMM population order

General Memory Population Rules and Guidelines:

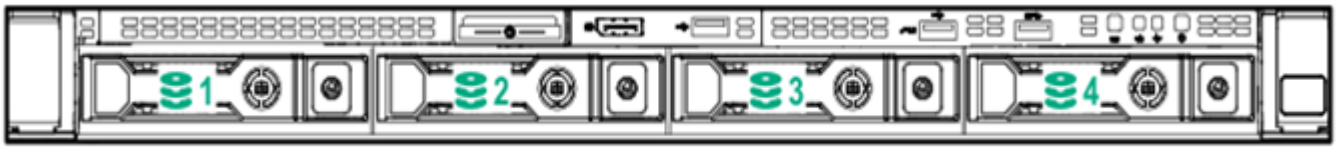
- Install DIMMs only if the corresponding processor is installed.
- If only one processor is installed in a two-processor system, only half of the DIMM slots are available.
- To maximize performance, it is recommended to balance the total memory capacity between all installed processors.
- When two processors are installed, balance the DIMMs across the two processors.
- White DIMM slots denote the first slot to be populated in a channel.
- Mixing of DIMM types (UDIMM, RDIMM, and LRDIMM) is not supported.
- The maximum memory speed is a function of the memory type, memory configuration, and processor model.
- The maximum memory capacity is a function of the number of DIMM slots on the platform, the largest DIMM capacity qualified on the platform, the number and model of installed processors qualified on the platform.
- For details on the HPE Server Memory Options Population Rules, visit:
- **http://www.hpe.com/docs/memory-population-rules**
- To realize the performance memory capabilities listed in this document, HPE DDR4 SmartMemory is required. For additional information, please see the **HPE DDR4 SmartMemory QuickSpecs.**

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

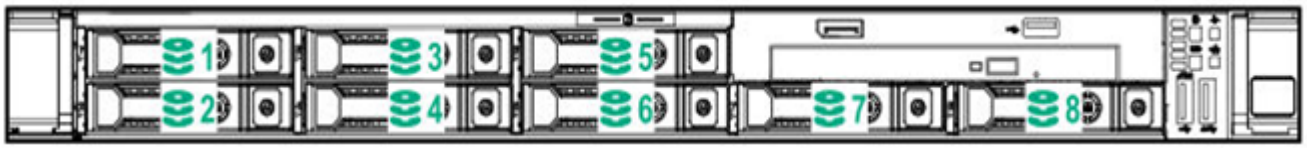
Memory

FFor details on the HPE Server Memory speed, visit: **https://www.hpe.com/docs/memory-speed-table**

Storage



4 LFF device bay numbering



8 SFF device bay numbering

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.

[1]

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)
- For 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
- 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

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

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.

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.

Technical Specifications

Altitude
Operating
3050 m (10,000 ft). This value may be limited by the type and number of options installed. Maximum allowable altitude change rate is 457 m/min (1500 ft/min).
Non-operating
9144 m (30,000 ft). Maximum allowable altitude change rate is 457 m/min (1500 ft/min).

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

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

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

Emissions Classification (EMC)

To view the regulatory information for your product, view the Safety and Compliance Information for Server, Storage, Power, Networking, and Rack Products, available at the Hewlett Packard Enterprise Support Center:

http://www.hpe.com/support/Safety-Compliance-EnterpriseProducts

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

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

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

Summary of Changes

Date	Version History	Action	Description of Change
02-Dec-2019	Version 3	Changed	Overview, Configuration Information, Core Options and Additional Options sections were updated.
07-Oct-2019	Version 2	Changed	Overview, and Configuration Information sections were updated.
30-Jul-2019	Version 1	New	New QuickSpecs

Sign up for updates

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