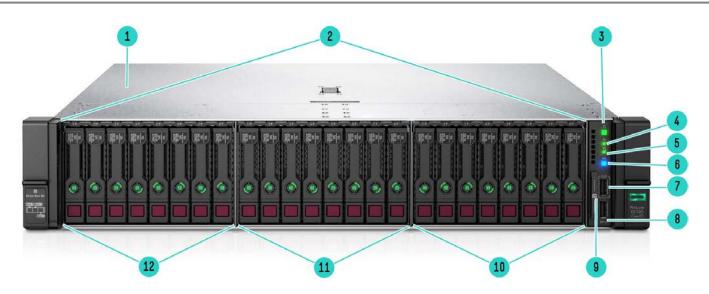
# QuickSpecs

# Overview

# HPE ProLiant DX380 Gen10 server

The HPE ProLiant DX380 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 productivity.

Adaptable for diverse workloads and environments, the secure 2P 2U HPE ProLiant DX380 Gen10 delivers world-class performance with the right balance of expandability and scalability. Designed for supreme versatility and resiliency while being backed by a comprehensive warranty make it ideal for Nutanxix environments on the industry's most trusted compute platform.



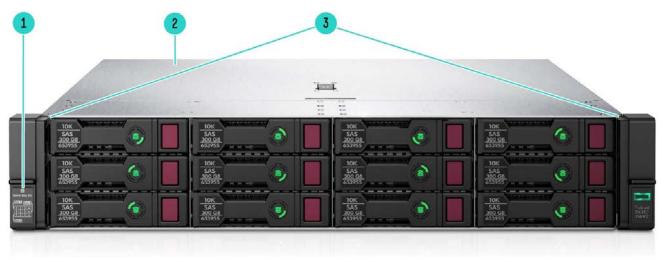
## DX380 24SFF chassis – Front View

- 1. Quick removal access panel
- 2. Standard 24SFF SATA/SAS drive bays in 3 8 drive cage boxes
- 3. Power On/Standby button and system power LED button
- 4. Health LED
- 5. NIC status
- 6. UID button

- 7. iLO Front Service Port
- 8. USB 3.0
- 9. Serial label pull tag
- 10 Box 3
- 11 Box 2
- 12 Box 1

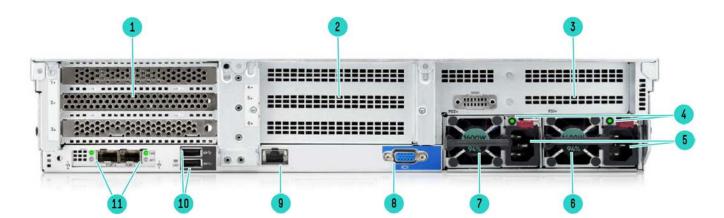


# Overview



DX380 12LFF chassis - Front View

- 1. Drive support label
- 3. Standard 12 LFF SATA/SAS drive bays
- 2. Quick removal access panel



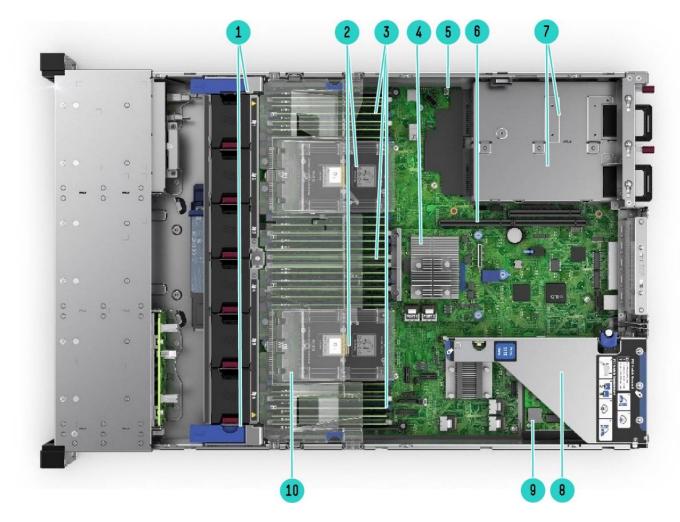


- 1. Primary Riser. PCI Slots (Slots 1-3 top to bottom, riser shipped standard)
- 2. Secondary Riser. PCI Slots (Slots 4-6top to bottom, requires second riser card, and second processor)
- 3. Tertiary Riser (Slots 7-8)
- 4. Power supply Power LED
- 5. Power supply Power connection
- 6. HPE Flexible Slot Power Supply bay 1 (800W shown)

- 7. HPE Flexible Slot Power Supply bay 2 (800W shown)
- 8. VGA connector
- 9. Dedicated iLO management port
- 10. USB connectors 3.0 (2)
- 11. Optional FlexibleLOM ports (Shown: 2 x 10GbE)



# Overview



Internal View – with 2<sup>nd</sup> CPU and FlexLOM shown

- 1. Fan cage shown with 6 standard Hot-plug fans (High Performance temperature fans are includedI)
- 2. 2 Processors, heatsink showing
- 3. DDR4 DIMM slots. Shown fully populated in 24 slots (12 per processor)
- 4. HPE Smart Array clear air baffle
- 5. Chassis intrusion detection connector

- 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
- 10. Clear air baffle

# Overview

## What's New:

- Newadditional processors in the second generation Intel Xeon family that provide an improved price performance
- New ProLiant DX380 8SFF Server
- Support for up to 4 single wide GPUs on DX380 SFF Server only
- 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

# **Platform Information**

## **Form Factor**

• 2U rack

## **Chassis Types**

- 24 SFF
- 12 LFF
- 8SFF

## System Fans

• The 12 LFF, 8SFF and 24 SFF chassis ship with 6 High performance fans as standard.

#### Processors

2 pocessors required

#### Notes:

- For more information regarding Intel Xeon processors, please see the following http://www.intel.com/xeon.
- This table covers the public Intel offering only.

#### – All HPE DX380 processors come with the High Performance Heatsink included.

<b>Processor Suffix</b>	Description	Offering
Μ	Medium memory tier	Up to 2.0 TB addressable memory per socket
Ν	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 Optimized	Fosters enhanced VM density, allowing to support more/larger virtual machines per host.

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

Intel Xeon Models	CPU Frequency	Cores	L3 Cache (MB)	Power	UPI	DDR4	Memor y per
							socket
Platinum 8280M Processor	2.7GHz	28	38.5	205W	3@10.4 GT/s	2933 MT/s	2TB
Platinum 8280 Processor	2.7GHz	28	38.5	205W	3@10.4 GT/s	2933 MT/s	1TB
Platinum 8276M Processor	2.2GHz	28	38.5	165W	3@10.4 GT/s	2933 MT/s	2TB
Platinum 8276 Processor	2.2GHz	28	38.5	165W	3@10.4 GT/s	2933 MT/s	1TB
Platinum 8270 Processor	2.7GHz	26	35.75	205W	3@10.4 GT/s	2933 MT/s	1TB
Platinum 8268 Processor	2.9GHz	24	35.75	205W	3 @ 10.4 GT/s	2933 MT/s	1TB
Platinum 8260M Processor	2.4GHz	24	35.75	165W	3 @ 10.4 GT/s	2933 MT/s	2TB
Platinum 8260 Processor	2.4GHz	24	35.75	165W	3@10.4 GT/s	2933 MT/s	1TB
Platinum 8253 Processor	2.2GHz	16	22	125W	3@10.4 GT/s	2933 MT/s	1TB
Gold 6262V Processor	1.9GHz	24	33	135W	3 @ 10.4 GT/s	2933MT/s	1TB
Gold 6254 Processor	3.1GHz	18	24.75	200W	3 @ 10.4 GT/s	2933MT/s	1TB
Gold 6252 Processor	2.1GHz	24	35.75	150W	3 @ 10.4 GT/s	2933MT/s	1TB
Gold 6248 Processor	2.5GHz	20	27.5	150W	3 @ 10.4 GT/s	2933MT/s	1TB
Gold 6244 Processor	3.6GHz	8	24.75	150W	3 @ 10.4 GT/s	2933MT/s	1TB
Gold 6242 Processor	2.8GHz	16	22	150W	3 @ 10.4 GT/s	2933MT/s	1TB
Gold 6240M Processor	2.6GHz	18	24.75	150W	3 @ 10.4 GT/s	2933MT/s	2TB
Gold 6240 Processor	2.6GHz	18	24.75	150W	3 @ 10.4 GT/s	2933MT/s	1TB
Gold 6238M Processor	2.1GHz	22	30.25	140W	3 @ 10.4 GT/s	2933MT/s	2TB
Gold 6238 Processor	2.1GHz	22	30.25	140W	3 @ 10.4 GT/s	2933MT/s	1TB
Gold 6234 Processor	3.3GHz	8	24.75	130W	3 @ 10.4 GT/s	2933MT/s	1TB
Gold 6230 Processor	2.1GHz	20	27.5	125W	3 @ 10.4 GT/s	2933MT/s	1TB
Gold 6226 Processor	2.7GHz	12	19.25	125W	3 @ 10.4 GT/s	2933MT/s	1TB
Gold 6222V Processor	1.8GHz	20	27.5	115W	3 @ 10.4 GT/s	2933MT/s	1TB
Gold 5220S Processor	2.7GHz	18	24.75	125W	2 @ 10.4 GT/s	2666MT/s	1TB
Gold 5220 Processor	2.2GHz	18	24.75	125W	2 @ 10.4 GT/s	2666MT/s	1TB
Gold 5218B Processor <sup>1</sup>	2.3GHz	16	22	125W	2 @ 10.4 GT/s	2666MT/s	1TB
Gold 5218 Processor	2.3GHz	16	22	125W	2 @ 10.4 GT/s	2666MT/s	1TB
Gold 5217 Processor	3.0GHz	8	11	115W	2 @ 10.4 GT/s	2666MT/s	1TB
Gold 5215 Processor	2.5GHz	10	13.75	85W	2 @ 10.4 GT/s	2666MT/s	1TB
Silver 4216 Processor	2.1GHz	16	22	100W	2 @ 9.6 GT/s	2400 MT/s	1TB
Silver 4215 Processor	2.5GHz	8	11	85W	2 @ 9.6 GT/s	2400 MT/s	1TB
Silver 4214 Processor	2.2GHz	12	16.5	85W	2 @ 9.6 GT/s	2400 MT/s	1TB
Silver 4210 Processor	2.2GHz	10	10	85W	2 @ 9.6 GT/s	2400 MT/s	1TB
Silver 4208 Processor	2.1GHz	8	11	85W	2 @ 9.6 GT/s	2400 MT/s	1TB

#### Notes:

 Platinum – 8200 Series – Supports 6-Channel DDR4 @ 2933 MT/s providing up to 1TB memory capacity per socket (up to 2TB/socket on M series), Vector Neural Network Instructions (VNNI) for inference acceleration, Intel Turbo Boost Technology Intel Hyper-Threading Technology Intel AVX-512 (2x 512-bit FMA), 48 lanes PCIe 3.0, and advanced RAS.

- Gold 6200 & 5200 Series Supports 6-Channel DDR4 @ 2933 MT/s (6200 & 5222 skus only) or 2666 MT/s (all Gold 5200 skus except 5222 @ 2933 MT/s); providing up to 1TB memory capacity per socket (up to 2TB/socket on M series Vector Neural Network Instructions (VNNI) for inference acceleration, Intel Turbo Boost Technology, Intel Hyper-Threading Technology Intel AVX-512 (2x 512-bit FMA), 48 lanes PCIe 3.0, and advanced RAS.
- <sup>1</sup>Gold Processor 5218B has consistent features with the 5218 processor but is from a different die. Mixing both 5218B & 5218 in a system is not supported
- Silver 4200 Series Supports 6-Channel DDR4 @ 2400 MT/s, providing up to 1TB memory capacity per socket; Support for: Intel® Vector Neural Network Instructions (VNNI) for inference acceleration; Intel Turbo Boost Technology, Intel Hyper-Threading Technology Intel AVX-512 (2x 512-bit FMA), 48 lanes PCIe 3.0, and standard RAS.
- All HPE DX380 processors come with the High Performance Heatsink included.

# Chipset

Intel C621 Chipset **Notes:** For more information regarding Intel<sup>®</sup> chipsets, please see the following URL: <u>http://www.intel.com/products/server/chipsets/</u>

## On System Management Chipset

HPE iLO 5 ASIC Notes: Read and learn more in the **iLO QuickSpecs**.

## Memory

One of the following depending on model

One of the following depend	ing on model	
Туре:	HPE DDR4	Registered (RDIMM), Load Reduced (LRDIMM)
	SmartMemory,	
<b>DIMM Slots Available</b>	24	12 DIMM slots per processor, 6 channels per processor, 2 DIMMs per channel
Maximum capacity	3.0 TB	24 x 128 GB LRDIMM @ 2933 MT/s
(LRDIMM)		
Maximum capacity	1.54 TB	24 x 64 GB RDIMM @ 2933 MT/s
(RDIMM)		

#### Notes:

 Maximum memory per socket is dependent on processor selection. 2<sup>nd</sup> generation processors supporting 2 TB indicated by the "M" in the processor model names (i.e. 8276M).

- Mixing of RDIMM and LRDIMM memory is not supported.
- For General Server Memory Population Rules and Guidelines for Gen10 see details here: <u>http://www.hpe.com/docs/memory-population-rules</u>
- For details on the HPE Server Memory speed, visit: <u>https://www.hpe.com/docs/memory-speed-table</u>
- To realize the performance memory capabilities listed in this document, HPE DDR4 SmartMemory is required. For additional information, please see the <u>HPE DDR4 SmartMemory QuickSpecs</u>.

## **Memory Protection**

For details on the HPE Server Memory Options RAS feature, visit: http://www.hpe.com/docs/memory-ras-feature.

## **Expansion Slots**

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

#### Notes:

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

This riser also supports dual m.2 cards.

Slots #	Technology	Bus Width	<b>Connector Width</b>	Slot Form Factor	Notes
1	PCle 3.0	X8	X8	Full-height, full-length slot	Proc 2
2	PCle 3.0	X16	X16	Full-height, full-length slot	Proc 2
3	PCle 3.0	X8	X8	Full-height, half-length slot	Proc 2

## Storage Controllers

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

**Notes:** The appropriate controllers are included with the server models P17641-B21 and P17642-B21. The number of available PCI slots are reduced by 1 on the P17641-B21 and reduced by 2 on the P17642-B21.



## **Internal Storage Devices**

**Hard Drives** 

None ship standard

## HPE ProLiant DX380 24SFF Hard Drive Configurations

Hybrid SSD/HDD				
SSDs	HDDs			
4	8, 10, 12, 14, 16, 18, or 20			
6	12, 14, 16, or 18			
8	16			

#### All SSD

8, 10, 12, 14, 16, 18, 20, 22, or 24

#### HPE ProLiant DX380 12LFF Hard Drive Configurations

Hybrid SSD/HD	
SSDs	HDDs
2	4, 6, 8, or 10
4	8
All SSD	
SSDs	
4, 6, 8, 10, or 12	

**Notes:** SAS and SATA SSDs can not be mixed.

#### **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.

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

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

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

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

# Interfaces

FlexibleLOM Network Ports	2 or 4 with choice of FlexibleLOM card
HPE iLO Remote	1 Gb Dedicated
Management Network Port	
Front iLO Service Port	1 standard (Not available on 12 LFF chassis)
USB 3.0	Up to 5 total: 1 front, 2 rear, 2 internal (secure)

## **Operating Systems and Virtualization Software Support for ProLiant Servers**

- 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, 6.5 U3, 6.7 U3
   Notes: The latest version of AOS and AHV are pre-installed in each server at the factory. vSphere must be installed separately.

## **Industry Standard Compliance**

industry standard son	
ACPI 6.1 Compliant	Microsoft <sup>®</sup> Logo certifications
PCIe 3.0 Compliant	PXE Support
WOL Support	VGA/Display Port
Energy Star	Triple Data Encrytion Standard (3DES)
SMBIOS 3.1	SNMP v3
UEFI 2.6	TLS 1.2
Redfish API	DMTF Systems Management Architecture for Server Hardware Command Line Protocol (SMASH CLP)
IPMI 2.0	Active Directory v1.0
Secure Digital 2.0	ASHRAE A3/A4
Advanced Encryption Standard (AES)	Triple Data Encrytion Standard (3DES)

#### Notes:

- For additional technical thermal details regarding ambient temperatures, humidity and features support please visit: <u>http://www.hpe.com/servers/ashrae</u>.
- Legacy mode is the default for the DX380 Gen10.

## Graphics

- Article I Integrated Video StandardVideo modes up to 1920 x 1200@60Hz (32 bpp)
- Article II 16MB Video Memory
- Article III HPE iLO 5 on system management memory
- Article IV 32 MB Flash
- Article V 4 Gbit DDR 3 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 **<u>http://www.hpe.com/info/ilo</u>**.

Notes: iLO Advanced license with 3 year support is included with the server models P17641-B21 and P17642-B21

## 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).

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

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

## 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

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

# **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.

Notes: An HPE iLO Advanced license with 3 years support is included with the server models P17641-B21 and P17642-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 <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 <u>http://www.hpe.com/info/cmu</u>.

#### **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#

## **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. Hewlett Packard Enterprise 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 DX380 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

## 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.

## **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 at <u>http://www.hpe.com/support/hpesc</u>.

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 DX380 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 <u>here</u>.

#### **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.

# **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.

- Factory Integrated Models must start with a CTO Server.
- All DX380 options are only available as a factory installable option.
- All Factory Integrated Models will be populated with sufficient hard drive blanks based on the number of initial hard drives ordered with the server.
- 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

CTO Server	HPE ProLiant DX380 Gen10 12 LFF CTO Server	HPE ProLiant DX380 Gen10 24 SFF CTO Server	HPE ProLiant DX380 Gen10 8 SFF CTO Server
SKU Number	P17641-B21	P17642-B21	P17640-B21
Processor	Not included as standard, 2 required	Not included as standard, 2 required	Not included as standard, 2 required
DIMM Slots	24-DIMM slots	24-DIMM slots	24-DIMM slots
PCle	Three standard in primary riser	(with dual M.2 support)	
Drive Cage - included	12 LFF	24 SFF	8 SFF
Network Controller	optional HPE FlexibleLOM or sta	and up card	
Fans	6-High Performance	6-High Performance	6-High Performance
USB	None as standard	1x 3.0 standard plus iLo front service port	1x 3.0 standard plus iLo front service port
Included Options		· •	
Boot Drive	1 x HPE 240GB SATA MU M.2 DS SSD	1 x HPE 240GB SATA MU M.2 DS SSD	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-p SR Gen10 Controller	1 x HPE Smart Array E208i-a SR Gen10 Controller 2 x HPE Smart Array E208i-p SR Gen10 Controller	1 x HPE Smart Array E208i-a SR Gen10 Controller
Security	HPE Gen10 2U Security Bezel	HPE Gen10 2U Security Bezel	HPE Gen10 2U Security Bezel
Management	iLO Advanced with 3 year support	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	Foudation Care Next Business Day 3 year support service

#### Notes:

- 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).
- All CTO servers are Energy Star 2.1 compliant.
- All HPE DX380 processors come with the High Performance Heatsink included.
- Only HPE ProLiant DX380 Gen10 8SFF CTO Server supports 4 single-wide GPU configuration.

# **Configuration Information**

## **Step 2: Choose Required 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 874752-L21 then for second processor, select 874752-B21. **Notes:** 

- 12 LFF and 24 SFF CTO Servers ship with 6 High performance fans included;
- Maximum memory capacity per processor is dependent on processor models. All processors support up to 768 GB max memory per processor except "M" model processors will support up to 1.5 TB max memory per processor.
- Mixing of 2 different processor models are NOT allowed.
- DDR4 speed is the maximum memory speed of the processor. Actual memory speed may depend on the quantity and type of DIMMs installed.
- All HPE DX380 processors come with the High Performance Heatsink included.

## Step 2a: Choose Processors

Processor Option Kits (Required Processor)

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

#### Description

	••
Intel Xeon-Platinum 8280M (2.7GHz/28-core/205W) FIO Processor Kit for HPE ProLiant DX380 Gen10.	P17792-L21
Intel Xeon-Platinum 8280 (2.7GHz/28-core/205W) FIO Processor Kit for HPE ProLiant DX380 Gen10.	P17790-L21
Intel Xeon-Platinum 8276M (2.2GHz/28-core/165W) FIO Processor Kit for HPE ProLiant DX380 Gen10.	P17788-L21
Intel Xeon-Platinum 8276 (2.2GHz/28-core/165W) FIO Processor Kit for HPE ProLiant DX380 Gen10.	P17786-L21
Intel Xeon-Platinum 8270 (2.7GHz/26-core/205W) FIO Processor Kit for HPE ProLiant DX380 Gen10.	P17784-L21
Intel Xeon-Platinum 8268 (2.9GHz/24-core/205W) FIO Processor Kit for HPE ProLiant DX380 Gen10.	P17782-L21
Intel Xeon-Platinum 8260M (2.4GHz/24-core/165W) FIO Processor Kit for HPE ProLiant DX380 Gen10.	P17780-L21
Intel Xeon-Platinum 8260 (2.4GHz/24-core/165W) FIO Processor Kit for HPE ProLiant DX380 Gen10.	P17778-L21
Intel Xeon-Platinum 8253 (2.2GHz/16-core/125W) FIO Processor Kit for HPE ProLiant DX380 Gen10.	P17776-L21
Intel Xeon-Gold 6262V (1.9GHz/24-core/135W) FIO Processor Kit for HPE ProLiant DX380 Gen10.	P17774-L21
Intel Xeon-Gold 6258R (2.7GHz/28-core/205W) FIO Processor Kit for HPE ProLiant DX380 Gen10	P24461-L21
Intel Xeon-Gold 6256 (3.6GHz/12-core/205W) FIO Processor Kit for HPE ProLiant DX560 Gen10	P24738-L21
Intel Xeon-Gold 6254 (3.1GHz/18-core/200W) FIO Processor Kit for HPE ProLiant DX380 Gen10.	P17772-L21
Intel Xeon-Gold 6252 (2.1GHz/24-core/150W) FIO Processor Kit for HPE ProLiant DX380 Gen10	P17770-L21
Intel Xeon-Gold 6248R (3.0GHz/24-core/205W) FIO Processor Kit for HPE ProLiant DX380 Gen10	P24460-L21
HPE DX380 Gen10 Intel Xeon-Gold 6248 (2.5GHz/20-core/150W) FIO Processor Kit	P17768-L21
Intel Xeon-Gold 6246R (3.4GHz/16-core/205W) FIO Processor Kit for HPE ProLiant DX380 Gen10	P24459-L21
Intel Xeon-Gold 6244 (3.6GHz/8-core/150W) FIO Processor Kit for HPE ProLiant DX380 Gen10.	P17766-L21
Intel Xeon-Gold 6242R (3.1GHz/20-core/205W) FIO Processor Kit for HPE ProLiant DX380 Gen10	P24458-L21
Intel Xeon-Gold 6242 (2.8GHz/16-core/150W) FIO Processor Kit for HPE ProLiant DX380 Gen10	P17764-L21
Intel Xeon-Gold 6240R (2.4GHz/24-core/165W) FIO Processor Kit for HPE ProLiant DX380 Gen10	P24457-L21
Intel Xeon-Gold 6240M (2.6GHz/18-core/150W) FIO Processor Kit for HPE ProLiant DX380 Gen10.	P17762-L21
Intel Xeon-Gold 6240 (2.6GHz/18-core/150W) FIO Processor Kit for HPE ProLiant DX380 Gen10	P17760-L21
Intel Xeon-Gold 6238R (2.2GHz/28-core/165W) FIO Processor Kit for HPE ProLiant DX380 Gen10	P24456-L21
Intel Xeon-Gold 6238M (2.1GHz/22-core/140W) FIO Processor Kit for HPE ProLiant DX380 Gen10.	P17758-L21
Intel Xeon-Gold 6238 (2.1GHz/22-core/140W) FIO Processor Kit for HPE ProLiant DX380 Gen10	P17756-L21
Intel Xeon-Gold 6234 (3.3GHz/8-core/130W) FIO Processor Kit for HPE ProLiant DX380 Gen10	P17754-L21
Intel Xeon-Gold 6230R (2.1GHz/26-core/150W) FIO Processor Kit for HPE ProLiant DX380 Gen10	P24455-L21
Intel Xeon-Gold 6230 (2.1GHz/20-core/125W) FIO Processor Kit for HPE ProLiant DX380 Gen10.	P17752-L21
Intel Xeon-Gold 6226R (2.9GHz/16-core/150W) FIO Processor Kit for HPE ProLiant DX380 Gen10	P24454-L21

SKU

# **Configuration Information**

Intel Xeon-Gold 6226 (2.7GHz/12-core/125W) FIO Processor Kit for HPE ProLiant DX380 Gen10	P17750-L21
Intel Xeon-Gold 6222V (1.8GHz/20-core/115W) FIO Processor Kit for HPE ProLiant DX380 Gen10.	P17748-L21
Intel Xeon-Gold 5220S (2.7GHz/18-core/125W) FIO Processor Kit for HPE ProLiant DX380 Gen10.	P17740-L21
Intel Xeon-Gold 5220R (2.2GHz/24-core/150W) FIO Processor Kit for HPE ProLiant DX380 Gen10	P24765-L21
Intel Xeon-Gold 5220 (2.2GHz/18-core/125W) FIO Processor Kit for HPE ProLiant DX380 Gen10	P17738-L21
Intel Xeon-Gold 5218B (2.3GHz/16-core/125W) FIO Processor Kit for HPE ProLiant DX380 Gen10.	P17736-L21
Notes: 5218B has consistent features with the 5218 processor but from a different die. Mixing both 5218B	
and 5218 in a system is not supported.	
Intel Xeon-Gold 5218R (2.1GHz/20-core/125W) FIO Processor Kit for HPE ProLiant DX380 Gen10	P24453-L21
Intel Xeon-Gold 5218 (2.3GHz/16-core/125W) FIO Processor Kit for HPE ProLiant DX380 Gen10	P17734-L21
Intel Xeon-Gold 5217 (3.0GHz/8-core/115W) FIO Processor Kit for HPE ProLiant DX380 Gen10	P17732-L21
Intel Xeon-Gold 5215 (2.5GHz/10-core/85W) FIO Processor Kit for HPE ProLiant DX380 Gen10	P17730-L21
Intel Xeon-Silver 4216 (2.1GHz/16-core/100W) FIO Processor Kit for HPE ProLiant DX380 Gen10.	P17728-L21
Intel Xeon-Silver 4215R (3.2GHz/8-core/130W) FIO Processor Kit for HPE ProLiant DX380 Gen10	P36361-L21
Intel Xeon-Silver 4215 (2.5GHz/8-core/85W) FIO Processor Kit for HPE ProLiant DX380 Gen10.	P17726-L21
Intel Xeon-Silver 4214R (2.4GHz/12-core/100W) FIO Processor Kit for HPE ProLiant DX380 Gen10	P24767-L21
Intel Xeon-Silver 4214 (2.2GHz/12-core/85W) FIO Processor Kit for HPE ProLiant DX380 Gen10.	P17724-L21
Intel Xeon-Silver 4210R (2.4GHz/10-core/100W) FIO Processor Kit for HPE ProLiant DX380 Gen10	P24768-L21
Intel Xeon-Silver 4210 (2.2GHz/10-core/85W) FIO Processor Kit for HPE ProLiant DX380 Gen10.	P17722-L21
Intel Xeon-Silver 4208 (2.1GHz/8-core/85W) FIO Processor Kit for HPE ProLiant DX380 Gen10.	P17720-L21
Notes: All HPE DX380 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: <u>https://www.hpe.com/docs/memory-population-rules</u>

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: <u>http://www.hpe.com/docs/memory-ras-feature</u> Notes:

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

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

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

HPE DX 16GB (1x16GB) Single Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart FIO Memory Kit	P18448-B21
HPE DX 16GB (1x16GB) Dual Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart FIO Memory Kit	P18449-B21
HPE DX 32GB (1x32GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart FIO Memory Kit	P18450-B21
HPE DX 64GB (1x64GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart FIO Memory Kit	P18453-B21
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
For General Server Memory Population Rules and Guidelines for Gen10 see details here:	
http://www.hpe.com/docs/memory-population-rules	

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

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.** 



# **Configuration Information**

<b>Step 2c: Choose Power Supplies</b> Select one or two power supplies from below.						
Notes: Mixing of 2 different power supplies is NOT allowed.						
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 500W Flex Slot Platinum Hot Plug Low Halogen FIO Power Supply Kit	P18226-B21					
Notes: 1600W Power supplies only support high line voltage (200 VAC to 240 VAC).						
Step 3: Choose Additional Factory Integratable Options						
One of the following from each list may be selected if desired at time of factory integration						
HPE Security Options						
HPE DX Gen10 Chassis Intrusion FIO Detection Kit	P17812-B21					
HPE Unique Options Risers						
HPE Special Riser Kit	P17809-B21					
Notes: Supports 2x 8 slots in the Tertiary location.						
HPE DX Gen10 x8/x16/x8 FIO Riser Kit	P17803-B21					
Notes:						
<ul> <li>No M.2 support on this riser.</li> </ul>						
- Supports Full Height, Half- length cards; Full Height, Full-length cards and Full Height, Half- length cards.						
<ul> <li>Bus width x8, x16, x8, Connector Width x8, x16, x8.</li> </ul>						

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

SKU

## **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:

- Mixing of 2 different processor models is not supported.
- When 2<sup>nd</sup> Generation Intel Xeon Scalable Processor is slected, then only DDR4-2933 Memory Kit can be selected.
- All HPE DX380 processors come with the High Performance Heatsink included.

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

#### Description

Intel Xeon-Platinum 8280M (2.7GHz/28-core/205W) FIO2 Processor Kit for HPE ProLiant DX380 Gen10. P17792-B21 Intel Xeon-Platinum 8280 (2.7GHz/28-core/205W) FIO2 Processor Kit for HPE ProLiant DX380 Gen10. P17790-B21 Intel Xeon-Platinum 8276M (2.2GHz/28-core/165W) FIO2 Processor Kit for HPE ProLiant DX380 Gen10. P17788-B21 Intel Xeon-Platinum 8276 (2.2GHz/28-core/165W) FIO2 Processor Kit for HPE ProLiant DX380 Gen10. P17786-B21 Intel Xeon-Platinum 8270 (2.7GHz/26-core/205W) FIO2 Processor Kit for HPE ProLiant DX380 Gen10. P17784-B21 Intel Xeon-Platinum 8268 (2.9GHz/24-core/205W) FIO2 Processor Kit for HPE ProLiant DX380 Gen10. P17782-B21 Intel Xeon-Platinum 8260M (2.4GHz/24-core/165W) FIO2 Processor Kit for HPE ProLiant DX380 Gen10. P17780-B21 Intel Xeon-Platinum 8260 (2.4GHz/24-core/165W) FIO2 Processor Kit for HPE ProLiant DX380 Gen10. P17778-B21 Intel Xeon-Platinum 8253 (2.2GHz/16-core/125W) FIO2 Processor Kit for HPE ProLiant DX380 Gen10. P17776-B21 Intel Xeon-Gold 6262V (1.9GHz/24-core/135W) FIO2 Processor Kit for HPE ProLiant DX380 Gen10. P17774-B21 Intel Xeon-Gold 6258R (2.7GHz/28-core/205W) FIO2 Processor Kit for HPE ProLiant DX380 Gen10 P24461-B21 Intel Xeon-Gold 6256 (3.6GHz/12-core/205W) FIO2 Processor Kit for HPE ProLiant DX380 Gen10 P24463-B21 Intel Xeon-Gold 6254 (3.1GHz/18-core/200W) FIO2 Processor Kit for HPE ProLiant DX380 Gen10. P17772-B21 Intel Xeon-Gold 6252 (2.1GHz/24-core/150W) FIO2 Processor Kit for HPE ProLiant DX380 Gen10 P17770-B21 Intel Xeon-Gold 6250 (3.9GHz/8-core/185W) FIO2 Processor Kit for HPE ProLiant DX380 Gen10 P24462-B21 Intel Xeon-Gold 6248R (3.0GHz/24-core/205W) FIO2 Processor Kit for HPE ProLiant DX380 Gen10 P24460-B21 HPE DX380 Gen10 Intel Xeon-Gold 6248 (2.5GHz/20-core/150W) FIO2 Processor Kit P17768-B21 Intel Xeon-Gold 6246R (3.4GHz/16-core/205W) FIO2 Processor Kit for HPE ProLiant DX380 Gen10 P24459-B21 Intel Xeon-Gold 6244 (3.6GHz/8-core/150W) FIO2 Processor Kit for HPE ProLiant DX380 Gen10. P17766-B21 Intel Xeon-Gold 6242R (3.1GHz/20-core/205W) FIO2 Processor Kit for HPE ProLiant DX380 Gen10 P24458-B21 Intel Xeon-Gold 6242 (2.8GHz/16-core/150W) FIO2 Processor Kit for HPE ProLiant DX380 Gen10 P17764-B21 Intel Xeon-Gold 6240R (2.4GHz/24-core/165W) FIO2 Processor Kit for HPE ProLiant DX380 Gen10 P24457-B21 Intel Xeon-Gold 6240M (2.6GHz/18-core/150W) FIO2 Processor Kit for HPE ProLiant DX380 Gen10. P17762-B21 Intel Xeon-Gold 6240 (2.6GHz/18-core/150W) FIO2 Processor Kit for HPE ProLiant DX380 Gen10 P17760-B21 Intel Xeon-Gold 6238R (2.2GHz/28-core/165W) FIO2 Processor Kit for HPE ProLiant DX380 Gen10 P24456-B21 Intel Xeon-Gold 6238M (2.1GHz/22-core/140W) FIO2 Processor Kit for HPE ProLiant DX380 Gen10. P17758-B21 Intel Xeon-Gold 6238 (2.1GHz/22-core/140W) FIO2 Processor Kit for HPE ProLiant DX380 Gen10 P17756-B21 Intel Xeon-Gold 6234 (3.3GHz/8-core/130W) FIO2 Processor Kit for HPE ProLiant DX380 Gen10 P17754-B21 Intel Xeon-Gold 6230R (2.1GHz/26-core/150W) FIO2 Processor Kit for HPE ProLiant DX380 Gen10 P24455-B21 Intel Xeon-Gold 6230 (2.1GHz/20-core/125W) FIO2 Processor Kit for HPE ProLiant DX380 Gen10 P17752-B21 Intel Xeon-Gold 6226R (2.9GHz/16-core/150W) FIO2 Processor Kit for HPE ProLiant DX380 Gen10 P24454-B21 Intel Xeon-Gold 6226 (2.7GHz/12-core/125W) FIO2 Processor Kit for HPE ProLiant DX380 Gen10 P17750-B21 Intel Xeon-Gold 6222V (1.8GHz/20-core/115W) FIO2 Processor Kit for HPE ProLiant DX380 Gen10. P17748-B21 Intel Xeon-Gold 5220S (2.7GHz/18-core/125W) FIO2 Processor Kit for HPE ProLiant DX380 Gen10. P17740-B21 Intel Xeon-Gold 5220R (2.2GHz/24-core/150W) FIO2 Processor Kit for HPE ProLiant DX380 Gen10 P24765-B21

Intel Xeon-Gold 5220 (2.2GHz/18-core/125W) FIO2 Processor Kit for HPE ProLiant DX380 Gen10	P17738-B21
Intel Xeon-Gold 5218R (2.1GHz/20-core/125W) FIO2 Processor Kit for HPE ProLiant DX380 Gen10	P24453-B21
Intel Xeon-Gold 5218B (2.3GHz/16-core/125W) FIO2 Processor Kit for HPE ProLiant DX380 Gen10.	P17736-B21
Notes: 5218B has consistent features with the 5218 processor but from a different die. Mixing both 5218B $\&$	
5218 in a system is not supported.	
Intel Xeon-Gold 5218 (2.3GHz/16-core/125W) FIO2 Processor Kit for HPE ProLiant DX380 Gen10	P17734-B21
Intel Xeon-Gold 5217 (3.0GHz/8-core/115W) FIO2 Processor Kit for HPE ProLiant DX380 Gen10	P17732-B21
Intel Xeon-Gold 5215 (2.5GHz/10-core/85W) FIO2 Processor Kit for HPE ProLiant DX380 Gen10	P17730-B21
Intel Xeon-Silver 4216 (2.1GHz/16-core/100W) FIO2 Processor Kit for HPE ProLiant DX380 Gen10.	P17728-B21
Intel Xeon-Silver 4215R (3.2GHz/8-core/130W) FIO2 Processor Kit for HPE ProLiant DX380 Gen10	P36361-B21
Intel Xeon-Silver 4215 (2.5GHz/8-core/85W) FIO2 Processor Kit for HPE ProLiant DX380 Gen10.	P17726-B21
Intel Xeon-Silver 4214R (2.4GHz/12-core/100W) FIO2 Processor Kit for HPE ProLiant DX380 Gen10	P24767-B21
Intel Xeon-Silver 4214 (2.2GHz/12-core/85W) FIO2 Processor Kit for HPE ProLiant DX380 Gen10.	P17724-B21
Intel Xeon-Silver 4210R (2.4GHz/10-core/100W) FIO2 Processor Kit for HPE ProLiant DX380 Gen10	P24768-B21
Intel Xeon-Silver 4210 (2.2GHz/10-core/85W) FIO2 Processor Kit for HPE ProLiant DX380 Gen10.	P17722-B21
2 <sup>nd</sup> Generation Intel Xeon	
Intel Xeon-Silver 4208 (2.1GHz/8-core/85W) FIO2 Processor Kit for HPE ProLiant DX380 Gen10. Notes:	P17720-B21
– DDR4 speed is the maximum memory speed of the processor. Actual memory speed may depend on the	
quantity and type of DIMMs installed.	
<ul> <li>Maximum memory per socket depends on the processor selected.</li> </ul>	
<ul> <li>All HPE DX380 processors come with the High Performance Heatsink included.</li> </ul>	
<b>Memory Selection</b> To streamline the configuration process for HPE ProLiant Gen10 servers and to provide the best product availability,	
<ul> <li>recommends memory from the list located here: <u>http://www.hpe.com/products/recommend</u>.</li> <li>Best product availability is limited to US, Canada, and Latin America at this time.</li> <li>Notes:         <ul> <li>Maximum memory capacity and speed per processor is dependent on processor model selection or limitation.</li> <li>DDR4-2933 Memory Kits are only supported with 2nd Generation Intel Xeon Scalable Series Processors.</li> </ul> </li> <li>HPE DDR4 Memory</li> </ul>	HPE
<ul> <li>Best product availability is limited to US, Canada, and Latin America at this time.</li> <li>Notes: <ul> <li>Maximum memory capacity and speed per processor is dependent on processor model selection or limitation.</li> <li>DDR4-2933 Memory Kits are only supported with 2nd Generation Intel Xeon Scalable Series Processors.</li> </ul> </li> <li>HPE DDR4 Memory <ul> <li>Registered DIMMs (RDIMMs) for 2<sup>nd</sup> Generation Intel Xeon Scalable Series</li> </ul> </li> </ul>	
<ul> <li>Best product availability is limited to US, Canada, and Latin America at this time.</li> <li>Notes:         <ul> <li>Maximum memory capacity and speed per processor is dependent on processor model selection or limitation.</li> <li>DDR4-2933 Memory Kits are only supported with 2nd Generation Intel Xeon Scalable Series Processors.</li> </ul> </li> <li>HPE DDR4 Memory         <ul> <li>Registered DIMMs (RDIMMs) for 2<sup>nd</sup> Generation Intel Xeon Scalable Series</li> <li>Description</li> </ul> </li> </ul>	SKU
<ul> <li>Best product availability is limited to US, Canada, and Latin America at this time.</li> <li>Notes: <ul> <li>Maximum memory capacity and speed per processor is dependent on processor model selection or limitation.</li> <li>DDR4-2933 Memory Kits are only supported with 2nd Generation Intel Xeon Scalable Series Processors.</li> </ul> </li> <li>HPE DDR4 Memory <ul> <li>Registered DIMMs (RDIMMs) for 2<sup>nd</sup> Generation Intel Xeon Scalable Series</li> <li>Description</li> <li>HPE DX 64GB (1x64GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart FIO Memory Kit</li> </ul> </li> </ul>	
<ul> <li>Best product availability is limited to US, Canada, and Latin America at this time.</li> <li>Notes: <ul> <li>Maximum memory capacity and speed per processor is dependent on processor model selection or limitation.</li> <li>DDR4-2933 Memory Kits are only supported with 2nd Generation Intel Xeon Scalable Series Processors.</li> </ul> </li> <li>HPE DDR4 Memory <ul> <li>Registered DIMMs (RDIMMs) for 2<sup>nd</sup> Generation Intel Xeon Scalable Series</li> <li>Description</li> </ul> </li> <li>HPE DX 64GB (1x64GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart FIO Memory Kit <ul> <li>Standalone: P00930-B21</li> </ul> </li> </ul>	<b>SKU</b> P18453-B21
<ul> <li>Best product availability is limited to US, Canada, and Latin America at this time.</li> <li>Notes: <ul> <li>Maximum memory capacity and speed per processor is dependent on processor model selection or limitation.</li> <li>DDR4-2933 Memory Kits are only supported with 2nd Generation Intel Xeon Scalable Series Processors.</li> </ul> </li> <li>HPE DDR4 Memory <ul> <li>Registered DIMMs (RDIMMs) for 2<sup>nd</sup> Generation Intel Xeon Scalable Series</li> </ul> </li> <li>Description <ul> <li>HPE DX 64GB (1x64GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart FIO Memory Kit</li> <li>Standalone: P00930-B21</li> <li>HPE DX 32GB (1x32GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart FIO Memory Kit</li> </ul> </li> </ul>	SKU
<ul> <li>Best product availability is limited to US, Canada, and Latin America at this time.</li> <li>Notes: <ul> <li>Maximum memory capacity and speed per processor is dependent on processor model selection or limitation.</li> <li>DDR4-2933 Memory Kits are only supported with 2nd Generation Intel Xeon Scalable Series Processors.</li> </ul> </li> <li>HPE DDR4 Memory <ul> <li>Registered DIMMs (RDIMMs) for 2<sup>nd</sup> Generation Intel Xeon Scalable Series</li> </ul> </li> <li>Description <ul> <li>HPE DX 64GB (1x64GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart FIO Memory Kit</li> <li>Standalone: P00930-B21</li> </ul> </li> <li>HPE DX 32GB (1x32GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart FIO Memory Kit</li> <li>Standalone: P00924-B21</li> </ul>	<b>SKU</b> P18453-B21 P18450-B21
<ul> <li>Best product availability is limited to US, Canada, and Latin America at this time.</li> <li>Notes: <ul> <li>Maximum memory capacity and speed per processor is dependent on processor model selection or limitation.</li> <li>DDR4-2933 Memory Kits are only supported with 2nd Generation Intel Xeon Scalable Series Processors.</li> </ul> </li> <li>HPE DDR4 Memory <ul> <li>Registered DIMMs (RDIMMs) for 2<sup>nd</sup> Generation Intel Xeon Scalable Series</li> </ul> </li> <li>Description <ul> <li>HPE DX 64GB (1x64GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart FIO Memory Kit</li> <li>Standalone: P00930-B21</li> </ul> </li> <li>HPE DX 32GB (1x32GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart FIO Memory Kit</li> <li>Standalone: P00924-B21</li> <li>HPE DX 16GB (1x16GB) Dual Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart FIO Memory Kit</li> </ul>	<b>SKU</b> P18453-B21
<ul> <li>Best product availability is limited to US, Canada, and Latin America at this time.</li> <li>Notes: <ul> <li>Maximum memory capacity and speed per processor is dependent on processor model selection or limitation.</li> <li>DDR4-2933 Memory Kits are only supported with 2nd Generation Intel Xeon Scalable Series Processors.</li> </ul> </li> <li>HPE DDR4 Memory <ul> <li>Registered DIMMs (RDIMMs) for 2<sup>nd</sup> Generation Intel Xeon Scalable Series</li> </ul> </li> <li>Description <ul> <li>HPE DX 64GB (1x64GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart FIO Memory Kit</li> <li>Standalone: P00930-B21</li> </ul> </li> <li>HPE DX 32GB (1x32GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart FIO Memory Kit</li> <li>Standalone: P00924-B21</li> </ul>	<b>SKU</b> P18453-B21 P18450-B21
<ul> <li>Best product availability is limited to US, Canada, and Latin America at this time.</li> <li>Notes: <ul> <li>Maximum memory capacity and speed per processor is dependent on processor model selection or limitation.</li> <li>DDR4-2933 Memory Kits are only supported with 2nd Generation Intel Xeon Scalable Series Processors.</li> </ul> </li> <li>HPE DDR4 Memory <ul> <li>Registered DIMMs (RDIMMs) for 2<sup>nd</sup> Generation Intel Xeon Scalable Series</li> </ul> </li> <li>Description <ul> <li>HPE DX 64GB (1x64GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart FIO Memory Kit</li> <li>Standalone: P00930-B21</li> </ul> </li> <li>HPE DX 32GB (1x32GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart FIO Memory Kit</li> <li>Standalone: P00924-B21</li> <li>HPE DX 16GB (1x16GB) Dual Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart FIO Memory Kit</li> </ul>	<b>SKU</b> P18453-B21 P18450-B21
<ul> <li>Best product availability is limited to US, Canada, and Latin America at this time.</li> <li>Notes: <ul> <li>Maximum memory capacity and speed per processor is dependent on processor model selection or limitation.</li> <li>DDR4-2933 Memory Kits are only supported with 2nd Generation Intel Xeon Scalable Series Processors.</li> </ul> </li> <li>HPE DDR4 Memory <ul> <li>Registered DIMMs (RDIMMs) for 2<sup>nd</sup> Generation Intel Xeon Scalable Series</li> </ul> </li> <li>Description <ul> <li>HPE DX 64GB (1x64GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart FIO Memory Kit</li> <li>Standalone: P00930-B21</li> </ul> </li> <li>HPE DX 32GB (1x32GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart FIO Memory Kit</li> <li>Standalone: P00924-B21</li> <li>HPE DX 16GB (1x16GB) Dual Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart FIO Memory Kit</li> <li>Standalone: P00924-B21</li> </ul>	<b>SKU</b> P18453-B21 P18450-B21 P18449-B21
<ul> <li>Best product availability is limited to US, Canada, and Latin America at this time.</li> <li>Notes: <ul> <li>Maximum memory capacity and speed per processor is dependent on processor model selection or limitation.</li> <li>DDR4-2933 Memory Kits are only supported with 2nd Generation Intel Xeon Scalable Series Processors.</li> </ul> </li> <li>HPE DDR4 Memory <ul> <li>Registered DIMMs (RDIMMs) for 2<sup>nd</sup> Generation Intel Xeon Scalable Series</li> <li>Description</li> </ul> </li> <li>HPE DX 64GB (1x64GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart FIO Memory Kit <ul> <li>Standalone: P00930-B21</li> </ul> </li> <li>HPE DX 32GB (1x32GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart FIO Memory Kit <ul> <li>Standalone: P00924-B21</li> </ul> </li> <li>HPE DX 16GB (1x16GB) Dual Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart FIO Memory Kit <ul> <li>Standalone: P00922-B21</li> </ul> </li> <li>HPE DX 16GB (1x16GB) Single Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart FIO Memory Kit</li> </ul>	<b>SKU</b> P18453-B21 P18450-B21 P18449-B21
<ul> <li>Best product availability is limited to US, Canada, and Latin America at this time.</li> <li>Notes: <ul> <li>Maximum memory capacity and speed per processor is dependent on processor model selection or limitation.</li> <li>DDR4-2933 Memory Kits are only supported with 2nd Generation Intel Xeon Scalable Series Processors.</li> </ul> </li> <li>HPE DDR4 Memory <ul> <li>Registered DIMMs (RDIMMs) for 2<sup>nd</sup> Generation Intel Xeon Scalable Series</li> </ul> </li> <li>Description <ul> <li>HPE DX 64GB (1x64GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart FIO Memory Kit</li> <li>Standalone: P00930-B21</li> </ul> </li> <li>HPE DX 32GB (1x32GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart FIO Memory Kit</li> <li>Standalone: P00924-B21</li> <li>HPE DX 16GB (1x16GB) Dual Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart FIO Memory Kit</li> <li>Standalone: P00922-B21</li> </ul> <li>HPE DX 16GB (1x16GB) Single Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart FIO Memory Kit</li> <li>Standalone: P00922-B21</li>	<b>SKU</b> P18453-B21 P18450-B21 P18449-B21

• Standalone: P00928-B21

<ul> <li>HPE DX 128GB (1x128GB) Quad Rank x4 DDR4-2933 CAS-24-21-21 Load Reduced Smart FIO Memory Kit</li> <li>Standalone: P11040-B21</li> </ul>	P18454-B21
<ul> <li>Standalone: P11040-B21</li> <li>HPE DX 64GB (1x64GB) Quad Rank x4 DDR4-2933 CAS-21-21-21 Load Reduced Smart FIO Memory Kit</li> <li>Standalone: P00926-B21</li> </ul>	P18451-B21
<b>Notes:</b> For configurations exceeding 1TB/socket, the "M" series (2TB/socket) are required.	
HPE Drives	
For HDDs with optimal product availability, HPE advocates HDDs from the list located here: Midline - 12G SAS - LFF Drives	
Description	SKU
<ul> <li>HPE DX 12TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Helium 512e Digitally Signed Firmware FIO HD</li> <li>Standalone: 881779-B21</li> </ul>	P17961-B21
<ul> <li>HPE DX 8TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e Digitally Signed Firmware FIO HDD</li> <li>Standalone: 819201-B21</li> </ul>	P17960-B21
<ul> <li>HPE DX 6TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e FIO HDD</li> <li>Standalone: 861754-B21</li> </ul>	P17959-B21
<ul> <li>HPE DX 4TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware FIO HDD</li> <li>Standalone: 872487-B21</li> </ul>	P17958-B21
<ul> <li>HPE DX 2TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware FIO HDD</li> <li>Standalone: 872485-B21</li> </ul>	P17957-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/	
For SSDs with optimal product availability, HPE advocates SSDs from the list located here:	
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
<ul> <li>HPE DX 1.92TB SATA 6G Read Intensive LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware FIO SSD</li> <li>Standalone: P09693-B21</li> </ul>	P18737-B21
Read Intensive - SATA - SFF - Solid State Drives	
<ul> <li>HPE DX 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware FIO SSD</li> <li>Standalone: P04570-B21</li> </ul>	P18736-B21
<ul> <li>HPE DX 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware FIO SSD</li> <li>Standalone: P05946-B21</li> </ul>	P19133-B21
<ul> <li>HPE DX 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware FIO SSD</li> <li>Standalone: P04566-B21</li> </ul>	P17970-B21
Mixed Use - 12G SAS - LFF - Solid State Drives	
<ul> <li>HPE DX 1.6TB SAS 12G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware FIO SSD</li> <li>Standalone: P04535-B21</li> </ul>	P19135-B21

P18460-B21

# **Core Options**

HPE DX 800GB SAS 12G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware FIO SSD	P18139-B21
Standalone: P04529-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
• Standalone: P04533-B21	
HPE DX 800GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware FIO SSD	P18056-B21
Standalone: P04527-B21	
Mixed Use - SATA - LFF - Solid State Drives	
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	
<ul> <li>HPE DX 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware FIO SSD</li> <li>Standalone: P05986-B21</li> </ul>	P18054-B21
<ul> <li>HPE DX 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware FIO SSD</li> <li>Standalone: P09722-B21</li> </ul>	P17969-B21
<ul> <li>Standalone: P09722-B21</li> <li>HPE DX 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware FIO SSD</li> </ul>	P17973-B21
Standalone: P05980-B21	F 17 47 3-DZ1
HPE DX 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware FIO SSD	P17968-B21
• Standalone: P09716-B21	
HPE Networking	
25 Gigabit Ethernet adapters	
Description	SKU
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 562T FIO Adapter	P18456-B21
Standalone: 817738-B21	
HPE DX Ethernet 10Gb 2-port 562SFP+ FIO Adapter	P18455-B21

• Standalone: 727055-B21

# 1 Gigabit Ethernet adapters

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

• Standalone: 811546-B21

## Notes:

- A minimum of two Gigabytes (2 GB) of server memory is required per each adapter.

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

# **FlexibleLOM adapters**

HPE DX Gen10 8-pin Keyed FIO Cable Kit	P17818-B21
HPE DX Gen10 8-pin FIO Cable Kit	P17817-B21
Standalone: ROW29C	
NVIDIA Tesla T4 16GB FIO Computational Accelerator for HPE DX	P17819-B21
Standalone: Q0V80C	
HPE DX NVIDIA Tesla P40 24GB FIO Computational Accelerator	P17815-B21
Standalone: Q9U36C	
HPE DX NVIDIA Tesla V100 PCIe 32GB FIO Computational Accelerator	P17814-B21
Standalone: Q0J62C	0 011
NVIDIA Tesla M10 Quad GPU FIO Computational Accelerator for HPE DX	P17813-B21
HPE Graphic Options	
adapters.4118472.html	<u>converged herwork</u>
purchased separately. Please see the related NIC QuickSpecs for Technical Specifications and a https://www.hpe.com/us/en/product-catalog/servers/adapters/pip.models.hpe-storefabric-	
<ul> <li>Direct Attach Cable (DAC) for copper environments or fiber transceivers and cables for fiber-op</li> </ul>	
configuration after the server is shipped.	
– Only one FlexibleLOM can be added to the server. These options are upgradeable and can be cl	hanged from the original
Notes:	
• Standalone: 727054-B21	
HPE DX Ethernet 10Gb 2-port 562FLR-SFP+ FIO Adapter	P18457-B21
Standalone: 665240-B21	1 10 107 021
HPE DX Ethernet 1Gb 4-port 366FLR FIO Adapter	P18459-B21
(Standalone: 817745-B21	1 10+30 021
HPE DX Ethernet 10Gb 2-port 562FLR-T FIO Adapter	P18458-B21
<ul> <li>HPE DX Ethernet 10/25Gb 2-port 640FLR-SFP28 FIO Adapter</li> <li>Standalone: 817749-B21</li> </ul>	F10401-D21
Description	P18461-B21
Description	SKU

## **HPE I/O Expansion Options**

Riser Information*							
Part number	rt number Description Riser position			Bus width (Gen3 lanes)			
		Primary	Secondary	Tertiary	Top slot	Middle Slot	Bottom slot
P17803-B21	HPE DX Gen10 x8/x16/x8 Riser Kit	0	0	Ν	x8	x16	x8
P17809-B21	HPE DX38X Gen10 2 x8 PCIe Tertiary Riser Kit	Ν	Ν	0	X8	X8	0

**Notes:** \*For additional details on ProLiant DX Gen10 server risers please visit: https://www.hpe.com/h20195/v2/Getdocument.aspx?docname=a00043229enw

## **HPE Power Supplies**

## Description

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

• Standalone: 830272-B21

**Notes:** Flex Slot Platinum Plus power supplies support power efficiency of up to 94% and include a C-14 power inlet connector that can support HPE Power Discovery Services (blue connector).



P18222-B21

#### QuickSpecs

# **Core Options**

P18223-B21
P18224-B21
P18226-B21

# **HPE Security**

 HPE DX Gen10 Chassis Intrusion FIO Detection Kit
 P17812-B21

 Notes: 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.

# **Rail Kits**

#### Notes:

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

contacting your local services representative (045554-001).	
<ul> <li>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.</li> </ul>	or -
HPE DX 2U Cable Management Arm for Easy Install FIO Rail Kit	P17793-B21
HPE 2U Cable Management Arm for Ball Bearing Rail Kit	720865-B21
HPE 2U Small Form Factor Easy Install Rail Kit	733660-B21
Notes: Does not include CMA (733664-B21).	
HPE 2U Large Form Factor Easy Install Rail Kit	733662-B21
Notes: Does not include CMA (733664-B21)	
HPE 2U Small Form Factor Ball Bearing Rail Kit	720863-B21
HPE 2U Large Form Factor Ball Bearing Rail Kit	720864-B21

# **HPE Support Services**

HPE 3 Year Next Business Day with Defective Media Retention DX380 Gen10 Hardware Service	HN4Z6E
HPE 3 Year 24x7 DX380 Gen10 Hardware Service	HN4Z7E
HPE 3 Year 24x7 with Defective Media Retention DX380 Gen10 Hardware Service	HN4Z8E
HPE 5 Year Next Business Day DX380 Gen10 Hardware Service	HN4Z9E
HPE 5 Year Next Business Day with Defective Media Retention DX380 Gen10 Hardware Service	HN5A0E
HPE 5 Year 24x7 DX380 Gen10 Hardware Service	HN5A1E
HPE 5 Year 24x7 with Defective Media Retention DX380 Gen10 Hardware Service	HN5A2E



# **Additional Options**

**Notes:** Customers requiring additional options after original HPE DX server configuration and shipment will be required to purchase the HPE standard option sku. Reference chart for corresponding HPE DX option to HPE option for ordering.

HPE Hard Drives				
HPE DX SKU	HPE DX Description	HPE SKU	HPE Description	
P17956-B21	HPE DX 2TB SAS 12G Midline 7.2K SFF (2.5in)	765466-B21	HPE 2TB SAS 12G Midline 7.2K SFF (2.5in)	
	SC 1yr Wty 512e FIO HDD		SC 1yr Wty 512e HDD	
P17957-B21	HPE DX 2TB SAS 12G Midline 7.2K LFF (3.5in)	872485-B21	HPE 2TB SAS 12G Midline 7.2K LFF (3.5in)	
	SC 1yr Wty Digitally Signed Firmware FIO HDD		SC 1yr Wty Digitally Signed Firmware HDD	
P17958-B21	HPE DX 4TB SAS 12G Midline 7.2K LFF (3.5in)	872487-B21	HPE 4TB SAS 12G Midline 7.2K LFF (3.5in)	
	SC 1yr Wty Digitally Signed Firmware FIO HDD		SC 1yr Wty Digitally Signed Firmware HDD	
P17959-B21	HPE DX 6TB SAS 12G Midline 7.2K LFF (3.5in)	861754-B21	HPE 6TB SAS 12G Midline 7.2K LFF (3.5in)	
	SC 1yr Wty 512e FIO HDD		SC 1yr Wty 512e HDD	
P17960-B21	HPE DX 8TB SAS 12G Midline 7.2K LFF (3.5in)	819201-B21	HPE 8TB SAS 12G Midline 7.2K LFF (3.5in)	
	SC 1yr Wty 512e Digitally Signed Firmware FIO		SC 1yr Wty 512e Digitally Signed Firmware	
	HDD		HDD	
P17961-B21	HPE DX 12TB SAS 12G Midline 7.2K LFF	881779-B21	HPE 12TB SAS 12G Midline 7.2K LFF (3.5in)	
	(3.5in) SC 1yr Wty Helium 512e Digitally		SC 1yr Wty Helium 512e Digitally Signed	
	Signed Firmware FIO HD		Firmware HDD	

HPE Solid Sta			
HPE DX SKU	HPE DX Description	HPE SKU	HPE Description
P17968-B21	HPE DX 960GB SATA 6G Mixed Use SFF (2.5in)	P09716-B21	HPE 960GB SATA 6G Mixed Use SFF SC
	SC 3yr Wty Digitally Signed Firmware FIO SSD		SM883 SSD
P18062-B21	HPE DX 960GB SATA 6G Mixed Use LFF (3.5in)	P09718-B21	HPE 960GB SATA 6G Mixed Use LFF SCC SM883 SSD
D17040 D21	SCC 3yr Wty Digitally Signed Firmware FIO SSD HPE DX 1.92TB SATA 6G Mixed Use SFF		HPE 1.92TB SATA 6G Mixed Use SFF SC
P17969-B21	(2.5in) SC 3yr Wty Digitally Signed Firmware FIO SSD	P09722-B21	SM883 SSD
P18063-B21	HPE DX 1.92TB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware FIO SSD	P09724-B21	HPE 1.92TB SATA 6G Mixed Use LFF SCC SM883 SSD
P17970-B21	HPE DX 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware FIO SSD	P04566-B21	HPE 1.92TB SATA 6G Read Intensive SFF SC PM883 SSD
P18737-B21	HPE DX 1.92TB SATA 6G Read Intensive LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware FIO SSD	P09693-B21	HPE 1.92TB SATA 6G Read Intensive LFF SCC PM883 SSD
P18736-B21	HPE DX 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware FIO SSD	P04570-B21	HPE 3.84TB SATA 6G Read Intensive SFF SC PM883 SSD
P18571-B21 HPE DX 3.84TB SATA 6G Read Intensive LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware FIO SSD		N/A	N/A
P17973-B21	HPE DX 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware FIO SSD	P05980-B21	HPE 960GB SATA 6G Mixed Use SFF SC S4610 SSD
P19146-B21	HPE DX 960GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware FIO SSD	N/A	N/A
P18054-B21	HPE DX 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware FIO SSD	P05986-B21	HPE 1.92TB SATA 6G Mixed Use SFF SC S4610 SSD
P19131-B21	HPE DX 1.92TB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware FIO SSD	N/A	N/A



# **Additional Options**

P19133-B21	HPE DX 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware FIO SSD	P05946-B21	HPE 3.84TB SATA 6G Read Intensive SFF SC S4510 SSD
P18573-B21	HPE DX 3.84TB SATA 6G Read Intensive LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware FIO SSD	N/A	N/A
P18056-B21	HPE DX 800GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware FIO SSD	P04527-B21	HPE 800GB SAS 12G Mixed Use SFF SC PM5 SSD
P18139-B21	HPE DX 800GB SAS 12G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware FIO SSD	P04529-B21	HPE 800GB SAS 12G Mixed Use LFF SCC PM5 SSD
P18057-B21	HPE DX 1.6TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware FIO SSD	P04533-B21	HPE 1.6TB SAS 12G Mixed Use SFF SC PM5 SSD
P19135-B21	HPE DX 1.6TB SAS 12G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware FIO SSD	N/A	N/A
P18135-B21	HPE DX 1.6TB SAS 12G Mixed Use LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware FIO SSD	P04535-B21	HPE 1.6TB SAS 12G Mixed Use LFF LPC PM5 SSD
HPE Memory			
HPE DX SKU	HPE DX Description	HPE SKU	HPE Description
P18444-B21	HPE DX 16GB (1x16GB) Dual Rank x8 DDR4-	835955-B21	HPE 16GB (1x16GB) Dual Rank x8 DDR4-
	2666 CAS-19-19-19 Registered Smart FIO Memory Kit		2666 CAS-19-19-19 Registered Smart Memory Kit
P18445-B21	HPE DX 32GB (1x32GB) Dual Rank x4 DDR4- 2666 CAS-19-19-19 Registered Smart FIO Memory Kit	815100-B21	HPE 32GB (1x32GB) Dual Rank x4 DDR4- 2666 CAS-19-19-19 Registered Smart Memory Kit
P18446-B21	HPE DX 64GB (1x64GB) Quad Rank x4 DDR4- 2666 CAS-19-19-19 Load Reduced Smart FIO Memory Kit	815101-B21	HPE 64GB (1x64GB) Quad Rank x4 DDR4- 2666 CAS-19-19-19 Load Reduced Smart Memory Kit
P18447-B21	HPE DX 128GB (1x128GB) Octal Rank x4 DDR4-2666 CAS-22-19-19 3DS Load Reduced FIO Memory Kit	815102-B21	HPE 128GB (1x128GB) Octal Rank x4 DDR4-2666 CAS-22-19-19 3DS Load Reduced Memory Kit
P18448-B21	HPE DX 16GB (1x16GB) Single Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart FIO Memory Kit	P00920-B21	HPE 16GB (1x16GB) Single Rank x4 DDR4- 2933 CAS-21-21-21 Registered Smart Memory Kit
P18449-B21	HPE DX 16GB (1x16GB) Dual Rank x8 DDR4- 2933 CAS-21-21-21 Registered Smart FIO Memory Kit	P00922-B21	HPE 16GB (1x16GB) Dual Rank x8 DDR4- 2933 CAS-21-21-21 Registered Smart Memory Kit
P18450-B21	HPE DX 32GB (1x32GB) Dual Rank x4 DDR4- 2933 CAS-21-21-21 Registered Smart FIO Memory Kit	P00924-B21	HPE 32GB (1x32GB) Dual Rank x4 DDR4- 2933 CAS-21-21-21 Registered Smart Memory Kit
P18451-B21	HPE DX 64GB (1x64GB) Quad Rank x4 DDR4- 2933 CAS-21-21-21 Load Reduced Smart FIO Memory Kit	P00926-B21	HPE 64GB (1x64GB) Quad Rank x4 DDR4- 2933 CAS-21-21-21 Load Reduced Smart Memory Kit
P18452-B21	HPE DX 128GB (1x128GB) Octal Rank x4 DDR4-2933 CAS-24-21-21 Load Reduced 3DS Smart FIO Memory Kit	P00928-B21	HPE 128GB (1x128GB) Octal Rank x4 DDR4-2933 CAS-24-21-21 Load Reduced 3DS Smart Memory Kit
P18453-B21	HPE DX 64GB (1x64GB) Dual Rank x4 DDR4- 2933 CAS-21-21-21 Registered Smart FIO Memory Kit	P00930-B21	HPE 64GB (1x64GB) Dual Rank x4 DDR4- 2933 CAS-21-21-21 Registered Smart Memory Kit
P18454-B21	HPE DX 128GB (1x128GB) Quad Rank x4 DDR4-2933 CAS-24-21-21 Load Reduced Smart FIO Memory Kit	P11040-B21	HPE 128GB (1x128GB) Quad Rank x4 DDR4-2933 CAS-21-21-21 Load Reduced Smart Memory Kit

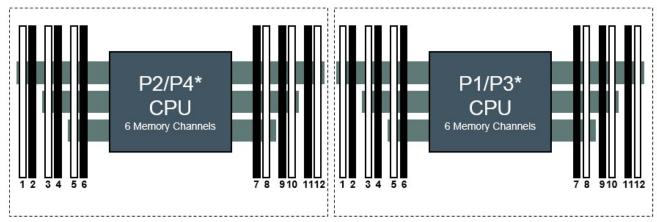


# **Additional Options**

HPE Network	king						
HPE DX SKU	HPE DX Description	HPE SKU	HPE Description				
P18455-B21	HPE DX Ethernet 10Gb 2-port 562SFP+ FIO Adapter	727055-B21	HPE Ethernet 10Gb 2-port SFP+ X710-DA2 Adapter				
P18456-B21	HPE DX Ethernet 10Gb 2-port 562T FIO Adapter	817738-B21	HPE Ethernet 10Gb 2-port BASE-T X550- AT2 Adapter				
P18457-B21	HPE DX Ethernet 10Gb 2-port 562FLR-SFP+ FIO Adapter	727054-B21	HPE Ethernet 10Gb 2-port FLR-SFP+ X710- DA2 Adapter				
P18458-B21	HPE DX Ethernet 10Gb 2-port 562FLR-T FIO Adapter	817745-B21	HPE Ethernet 10Gb 2-port FLR-T X550-AT2 Adapter				
P18459-B21	HPE DX Ethernet 1Gb 4-port 366FLR FIO Adapter	665240-B21	HPE Ethernet 1Gb 4-port FLR-T I350-T4V2 Adapter				
P18460-B21	HPE DX Ethernet 1Gb 4-port 366T FIO Adapter	811546-B21	HPE Ethernet 1Gb 4-port BASE-T I350- T4V2 Adapter				
P18461-B21	HPE DX Ethernet 10/25Gb 2-port 640FLR- SFP28 FIO Adapter	817749-B21	HPE Ethernet 10/25Gb 2-port FLR-SFP28 MCX4121A-ACFT Adapter				
P18462-B21	HPE DX Ethernet 10/25Gb 2-port 640SFP28 FIO Adapter	817753-B21	HPE Ethernet 10/25Gb 2-port SFP28 MCX4121A-ACUT Adapter				
Common Con	figurable Options - Power Supplies						
HPE DX SKU	HPE DX Description	HPE SKU	HPE Description				
P18222-B21	HPE DX 1600W Flex Slot Platinum Hot Plug Low Halogen FIO Power Supply Kit	830272-B21	HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit				
P18223-B21	HPE DX 800W Flex Slot Platinum Hot Plug Low Halogen FIO Power Supply Kit	865414-B21	HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit				
P18224-B21	HPE DX 800W Flex Slot Titanium Hot Plug Low Halogen FIO Power Supply Kit	865438-B21	HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit				
P18225-B21	HPE DX 800W Flex Slot Universal Hot Plug Low Halogen FIO Power Supply Kit	865428-B21	HPE 800W Flex Slot Universal Hot Plug Low Halogen Power Supply Kit				
P18226-B21	HPE DX 500W Flex Slot Platinum Hot Plug Low Halogen FIO Power Supply Kit	865408-B21	HPE 500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit				
Common Con	figurable Options - Transceivers						
HPE DX SKU	HPE DX Description	HPE SKU	HPE Description				
P18412-B21	HPE DX 10Gb SFP+ SR FIO Transceiver	455883-B21	HPE BladeSystem c-Class 10Gb SFP+ SR Transceiver				
P18413-B21	HPE DX 25Gb SFP28 SR 100m FIO Transceiver	845398-B21	HPE 25Gb SFP28 SR 100m Transceiver				
P18414-B21	HPE DX 100Gb QSFP28 MPO SR4 100m FIO Transceiver	845966-B21	HPE 100Gb QSFP28 MPO SR4 100m Transceiver				
P18415-B21	HPE DX Virtual Connect 1G SFP SX FIO Transceiver	453151-B21	HPE BladeSystem c-Class Virtual Connect 1G SFP SX Transceiver				
P18417-B21	HPE DX 10Gb SFP+ LR FIO Transceiver	455886-B21	HPE BladeSystem c-Class 10Gb SFP+ LR Transceiver				

# Memory

# **Memory Population guidelines**



## HPE Gen10 DX360 / DX380 / DX560 Notes:\*Servers Front Server2 Slots per Channel

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

## HPE ProLiant Gen10 12 slot per CPU DIMM population order

Notes:\*Unbalanced, not recommended

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

- Install DIMMs only if the corresponding processor is installed.
- If only one processor is installed in a two-processor system, only half of the DIMM slots are available.
- To maximize performance, it is recommended to balance the total memory capacity between all installed processors.
- When two processors are installed, balance the DIMMs across the two processors.
- White DIMM slots denote the first slot to be populated in a channel.
- 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, and 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 <u>HPE DDR4 SmartMemory QuickSpecs</u>.



# Storage

12 LFF drives

						<b>0))</b> 5 🖲	))) ()) ())		<b>○ (()</b>	00 (() 0	9)10	0)10	12		0140		○)) (0)		18	19	20	21	22	23	24	• 1 000000 () 01 040 04	
	•	ļ	2	0	•	•	0	0	•		ŀ	Þ	0	•	0	0	•	•	0	0	•	0	0	•	۲	UÕ.	

24 SFF drives

# **Technical Specifications**

## System Unit

#### **Dimensions**

- SFF Drives:
  - 8.73 x 44.54 x 67.94 cm / 3.44 x 17.54 x 26.75 in
- LFF Drives: 8.73 x 44.54 x 73.02 cm / 3.44 x 17.54 x 28.75 in

Weight (approximate)

- Maximum:
  - 19.5 kg / 43.00 lbs
- Minimum: 14.9 kg / 32.75 lbs
  - Minimum:

8 SFF chassis with 1x SFF HDD and 7 HDD blanks, 2x Drive Bay blanks, 1x processor including standard heatsink, 1x power supply (plus blank), 1x Smart Array, 1x Riser installed, cables for the above)

- Maximum:
  - 24.5 kg / 54 lbs
- Minimum:

17.1 kg / 37.75 lbs

– Maximum:

12 LFF hard drives (no rear drives), 2x processors, 2x power supplies, 1x Smart Array, 2x Risers installed

#### 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)

## 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



# **Technical Specifications**

## 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

## System Inlet Temperature

## **Standard Operating Temperature**

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

System performance during standard operating support may be reduced if operating with a fan fault or above 30°C (86°F).

## **Extended Ambient Operating Temperature**

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

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

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

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

## **HPE Smart Array**

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



# **Technical Specifications**

# **Acoustic Noise**

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

#### LWAd

- 4.8 B Entry
- 4.4 B Base
- 4.6 B Perf

#### LpAm

- 37 dBA Entry
- 31 dBA Base
- 31 dBA Perf

## Operating

#### LWAd

- 4.8 B Entry
- 4.4 B Base
- 4.6 B Perf

#### LpAm

- 37 dBA Entry
- 31 dBA Base
- 31 dBA Perf

#### 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.
- Product conformance to cited product specifications is based on sample (type) testing, evaluation, or assessment. This
  product or family of products is eligible to bear the appropriate compliance logos and statements.
- The Listed sound levels apply to standard shipping configurations. Additional options may result in increased sound levels.

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

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

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

# Summary of Changes

Date	Version History	Action	Description of Change
03-Aug-2020	Version 6	Changed	Overview and Core Options sections were updated.
16-Mar-2020	Version 5	Changed	Standard Features section was updated.
24-Feb-2020	Version 4	Changed	Overview, Configuration Information and Core Options sections were updated. Obsolete SKUs were removed
02-Dec-2019	Version 3	Changed	Additional Options and Core Options section were updated
07-Oct-2019	Version 2	Changed	Overview and Additional Options sections were updated.
30-Jul-2019	Version 1	New	New QuickSpecs

# Copyright

Make the right purchase decision. Contact our presales specialists.



Get updates

**Hewlett Packard** 

Enterprise

© Copyright 2020 Hewlett Packard Enterprise Development LP. The information contained herein is subject to change without notice. The only warranties for Hewlett Packard Enterprise products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. Hewlett Packard Enterprise shall not be liable for technical or editorial errors or omissions contained herein.

Intel® and Xeon® are registered trademarks of Intel Corporation in the U.S. and other countries. Microsoft®, Windows®, and Windows Server® are U.S. registered trademarks of the Microsoft group of companies.

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

a00073754enw - 16523 - Worldwide - V6 - 03-August-2020