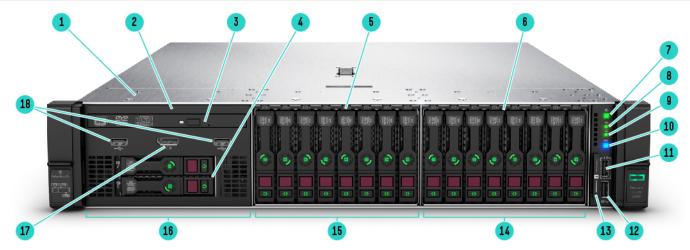
# QuickSpecs

# **Overview**

# HPE ProLiant DL385 Gen10 Server

The HPE ProLiant DL385 Gen10 Server is redefining price/performance with the new math for virtualized compute. This 2P, 2U server has been designed with flexibility while delivering a high maximum core count and large memory footprint. Choose this purposebuilt platform for virtualization.



HPE ProLiant DL385 Gen10 Server - Front View

SFF chassis with optional Universal Media bay with optical and 2 NVME plus 16 NVMe shown

1	Quick removal access panel	10	UID button
2	Drive Bay 1. Optional Universal Media bay. 2 USB 2.0 and Display port standard shown (8 SFF bay or 6 SFF+2NVMe or 8NVMe optional)	11	iLO Front Service Port
3	Optional Optical drive. Requires Universal Media bay	12	USB 3.0
4	Optional 2 SFF HDD, requires optional Universal Media bay	13	Serial label pull tag
5	Drive Bay 2. NVMe shown (8 SFF, 6SFF+2NVMe or 8 NVMe PCle SSD optional)	14	Box 3
6	Drive Bay 3. NVMe shown (8 SFF, 6SFF+2NVMe or 8 NVMe PCle SSD optional)	15	Box 2
7	Power On/Standby button and system power LED button	16	Box 1
8	Health LED	17	Optional front display port (Via Universal Media Bay)
9	NIC status	18	Optional USB 2.0 (via Universal Media Bay)



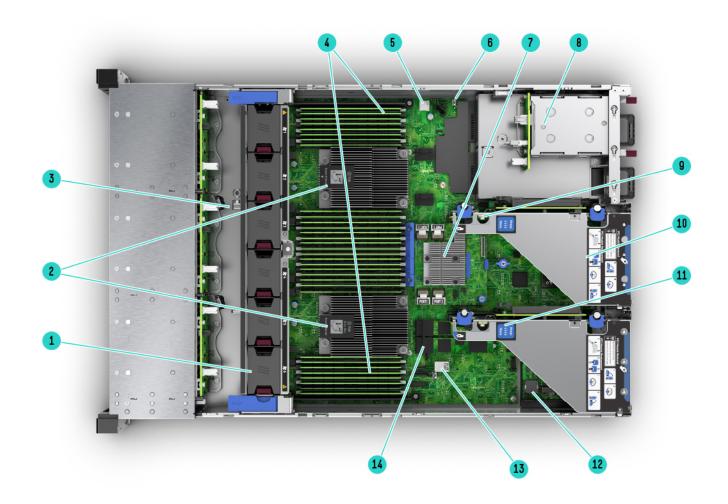


# HPE ProLiant DL385 Gen10 Server - Front View

8LFF chassis with Universal media bay and optional 2SFF and optical drive shown

- 1 Unit ID button
- 2 Health LED
- 3 NIC status
- 4 Power On/Standby button and system power LED button
- 5 Front display port

- 6 iLO Front Service Port
- 7 Serial label pull tag
- 8 Optional optical drive shown (blank as standard)
- 9 Optional 2 SFF Drive bay, 2 NVMe shown

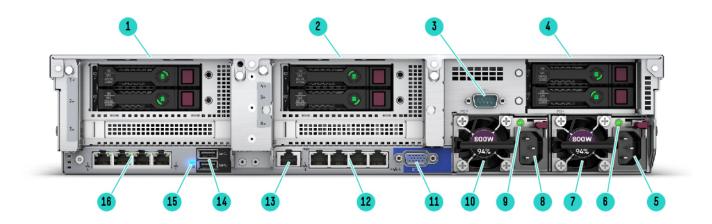


# HPE ProLiant DL385 Gen10 Server - Internal View

8SFF chassis with optional 2<sup>nd</sup> CPU, FlexLOM, Smart array shown

- 1. Fan cage shown with 6 standard Hot-plug fans (High Performance fans optional)
- 2. 2 Processors (heatsinks shown)
- 3 Optional HPE Smart Storage Battery (not shown)
- 4. DDR4 DIMM slots. Shown fully populated in 32 slots (16 per processor)
- 5 MicroSD card slot (Optional Dual Micro-SD option)
- 6 Chassis intrusion detection connector
- 7 Optional HPE Flexible Smart Array Controller (P408i-a shown)

- 8 (Under) Hot Plug redundant HPE Flexible Slot Power supplies
- 9 Connection for second (optional) riser (Requires second CPU)
- 10 Embedded 4x1Gbe NIC
- 11 Primary PCle riser, standard (Optional double wide GPU riser)
- 12 Optional Flexible LOM slot
- 13 Internal USB 3.0 connector
- 14. Embedded M.2 connectors



### HPE ProLiant DL385 Gen10 Server - Rear View

With optional FlexLOM, Rear drives and Serial port shown

- 1 Primary Riser. PCI Slots (Slots 1-3 top to bottom, riser shipped standard, not shown) Optional 2SFF rear drives
- 2 Secondary Riser. PCI Slots (Slots 4-6top to bottom, not shown, requires second riser card, and second processor). Optional 2 SFF rear drives
- 3 Optional serial port
- 4 Tertiary Riser (Slots 7-8 top to bottom, not shown). Optional rear 2 SFF HDD
- 5 Power supply power connection. Bay 1
- 6 Power supply Power LED. Bay1
- 7 HPE Flexible Slot Power Supply. Bay 1
- 8 Power supply Power connection Bay 2

- 9 Power supply Power LED Bay 2
- 10 HPE Flexible Slot Power Supply Bay 2
- 11 VGA connector
- 12 Embedded 4 x 1GbE Network Adapter
- 13 Dedicated iLO management port
- 14 USB connectors 3.0 (2)
- 15 Unit ID LED
- 16 Optional FlexibleLOM ports (Shown: 4 x 1GbE)

# What's New:

- 32 DIMM slots
- AMD® EPYC® 7000 Processor Family
- Two embedded M.2 connectors on the system board
- Highly flexible drive options (SSD, M.2, NVMe)
- Two new SMB Base SKU (BTO) offerings
- New SAS & SATA Solid State Drives
- New NVME Solid State Drives
- Support for two new AMD processors EPYC 7371 and EPYC 7261
- Support for 2 new GPU's HPE NVIDIA Quadro GV100 Graphics Accelerator and HPE NVIDIA Tesla T4 16GB Module
- Added support for VMware vSAN ReadyNode

#### **Platform Information**

#### Form Factor

2U rack

# **Chassis Types**

8 SFF with optional Universal Media Bay, and optional SFF or NVMe drive bay options

24 SFF bay with additional 6SFF rear drive bay option to total 30 SFF drives

8 LFF with Universal Media Bay

12 LFF with optional 4 LFF mid-plane and optional 3LFF + 2 SFF rear drive bay to total 19 LFF drives + 2 SFF drives

NOTE: The 3 LFF rear drive box will consume space for the secondary and tertiary riser.

**NOTE:** The 8 and 12 LFF chassis also supports the 2 SFF rear drive box which allows for the user to attach a secondary or tertiary riser.

NOTE: The 8 NVMe drive option (826689-B21) can only be leveraged in the SFF chassis and replaces Box 1, 2 or 3.

**NOTE:** The Premium cage (826690-B21, 6 SAS/SATA+2 NVMe) can only be leveraged in the SFF chassis and replaces Box 1, 2 or 3.

**NOTE:** The Universal Media Bay (882097-B21) not available with the LFF chassis or the 24 SFF front end, and can only be populated in Box 1.

**NOTE:** The 8 SFF can be upgraded with additional 8SFF drive box to total 16 or 24 SFF drives. For optimal upgrade Box 2 should be populated second, with Box 1 the last to be populated for a field upgrade to 24 SFF. For CTO builds requiring 24 SFF please use the 24 SFF chassis (878613-B21). Note a field upgrade to 24 SFF will require a High Performance fan kit (867810-B21).

**NOTE:** The 8 LFF chassis cannot be upgraded to 12 LFF front in the field; however the 4-LFF Mid plane (882096-B21) is supported, but will also require a performance fan kit (867810-B21).

NOTE: CPU selection is limited 125W or lower with 4LFF midtray selected.

**NOTE:** The 8LFF chassis ships with 6-standard fans.

**NOTE:** All models come with the S100i Smart Array Controller with embedded software RAID support for the 2 embedded M.2 drive connectors on the system board. (S100i Smart Array Controller support will be available only from 1H2019 onwards.)

#### **System Fans**

Standard – fan types included

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

NOTE: The 12 LFF and 24 SFF chassis ship with 6 High performance fans as standard.

NOTE: The 8LFF chassis ships with 6 standard fans as standard.

**NOTE:** High performance fan kit is available to meet ambient temperature environments.

**NOTE:** High performance fan kits are required for rear drives, Graphics (GPU) card, 180w Processors SKUs or NVMe configurations.

#### **Standard Features**

Processors Up to 2 of the following depending on model.

NOTE: For more information regarding AMD EPYC processors, please see the

following: https://www.amd.com/en/products/epyc.

AMD EPYC Processor	Cores	Base Frequency	Max Frequency	Max Memory	Wattage	Cache	Memory
EPYC 7601	32	2.2Ghz	3.2Ghz	2TB	180	64MB	2666MT/S
EPYC 7551	32	2.0Ghz	3.0Ghz	2TB	180	64MB	2666MT/S
EPYC 7501	32	2.0Ghz	3.0Ghz	2TB	155/170	64MB	2666MT/S
EPYC 7451	24	2.3Ghz	3.2Ghz	2TB	180	64MB	2400/2666MT/S
EPYC 7401	24	2.0Ghz	3.0Ghz	2TB	155/170	64MB	2400/2666MT/S
EPYC 7371	16	3.1GHz	3.8GHz	2TB	155/170	64MB	2400/2666MT/S
EPYC 7351	16	2.4Ghz	2.9Ghz	2TB	155/170	64MB	2400/2666MT/S
EPYC 7301	16	2.2Ghz	2.7Ghz	2TB	155/170	64MB	2400/2666MT/S
EPYC 7281	16	2.1Ghz	2.7Ghz	2TB	155/170	32MB	2400/2666MT/S
EPYC 7261	8	2.5GHz	2.9GHz	2TB	155/170	64MB	2400/2666MT/s
EPYC 7251	8	2.1Ghz	2.9Ghz	2TB	120	32MB	2400MT/S

**NOTE:** All AMD EPYC processors can support up to 2TB of memory each.

### Chipset

No chipset – System on Chip (SoC) design.

### **On System Management Chipset**

HPE iLO 5 ASIC

NOTE: Read and learn more in the iLO QuickSpecs.

### **Memory**

One of the following depending on model

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

(LRDIMM)

DIMM Slots Available 32 16 DIMM slots per processor, 8 channels per processor, 2 DIMMs per

channel

Maximum capacity (LRDIMM) 4.0 TB 32 x 128 GB LRDIMM @ 2666 MHz

Maximum capacity (RDIMM) 1.0 TB 32 x 32 GB RDIMM @ 2666 MHz

**NOTE:** The maximum memory speed is limited by the processor selection.

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

#### **Expansion Slots**

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

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

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

NOTE: Tertiary riser (other options available) can be leveraged without secondary riser.

**NOTE:** Bus width indicated the number of physical electrical lanes running to the connector.

# **Storage Controllers**

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

One of the following depending on model

#### Software RAID

HPE Smart Array S100i SR Gen10 SW RAID

NOTE: HPE Smart Array \$100i SR Gen 10 SW RAID will be supported only from 1H2019 onwards

NOTE: HPE Smart Array S100i SR Gen10 SW RAID will operate in UEFI mode only. For legacy support an additional controller will

be needed, and for CTO orders please also select the Legacy mode settings part, 758959-B22. **NOTE:** HPE Smart Array S100i SR Gen10 SW RAID is off by default and must be enabled.

**NOTE:** The S100i supports the 2 M.2 system board connectors. .

### **Essential RAID Controller**

HPE Smart Array E208i-a SR Gen10 Controller

HPE Smart Array E208i-p SR Gen10 Controller

HPE Smart Array E208e-p SR Gen10 Controller

#### **Performance RAID Controller**

HPE Smart Array P408i-a SR Gen10 Controller

HPE Smart Array P408i-p SR Gen10 Controller

HPE Smart Array P408e-p SR Gen10 Controller

HPE Smart Array P816i-a SR Gen10 Controller

HPE Smart Array P824i-p MR Gen10 Controller

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

# **Internal Storage Devices**

One of the following depending on model

#### **Optical Drive**

Ships standard in Performance Models

Optional: DVD-ROM, DVD-RW

#### **Hard Drives**

None ship standard

**Maximum Internal Storage** 

	Capacity	Configuration
Hot Plug SFF SAS	72.0 TB	$24+6 \times 2.4 \text{ TB*}$ (with optional rear SFF drive cage)
Hot Plug SFF SATA	60.0 TB	24+6 x 2 TB (with optional SFF drive cage)
Hot Plug LFF SAS	258.6 TB	$12+4+3 \times 12$ TB + $2 \times 15.3$ TB (with optional mid -tray and rear LFF drive cage, plus 2 SFF SSD rear)
Hot Plug LFF SATA	258.6 TB	$12+4+3 \times 12$ TB + 2 x 15.3 TB (with optional mid -tray and rear LFF drive cage, plus 2 SFF SSD rear)
Hot Plug SFF SAS SSD	459 TB	24+6 x 15.3 TB (with optional rear SFF drive cage)
Hot Plug LFF SATA SSD	67.08 TB	$12+4+3 \times 1.92 \text{ TB} + 2 \times 15.3 \text{ TB}$ (with optional mid –tray and rear LFF drive cage, plus 2 SFF SSD rear)
Hot Plug SFF NVMe PCle SSD	184.32TB NVMe	24 x 7.68 TB NVMe
NOTE: 24 m 2 drives are summerted	d on the country beaut	

**NOTE:** 2x m.2 drives are supported on the system board.

**NOTE:** UFF drives are also supported.

### **Power Supply**

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

NOTE: Available in 94% efficiency.

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

NOTE: Available in 94% and 96% efficiency.

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

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

**NOTE:** Available in 94% efficiency. **NOTE:** 240v power input only.

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

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

To review the power requirements for your selected system, please use the **HPE Power Advisor Tool**. For information on power specifications and technical content visit **HPE Server power supplies**.

Interfaces

**Serial** Optional, rear

**Display Port** 1 (SFF 1 front, optional via Universal Media Bay, 882097-B21), 8 LFF chassis standard

**FlexibleLOM Network Ports** 4 x 1 Gb ports shipping standard with optional FlexibleLOM or stand up card

**HPE iLO Remote Management** 

**Network Port** 

1 Gb Dedicated

Front iLO Service Port 1 standard (Not available on 12 LFF chassis or when SID is ordered, note iLO dongle required,

880123-B21)

Micro SD Slot 1 Micro SD

**NOTE:** The Micro SD slot is not a hot-pluggable device. Customers should not attempt to plug an SD card into the SD slot while

the server is powered.

**USB 3.0** Up to 5 total: 1 front, 2 rear, 2 internal (secure), 2 optional USB 2.0 front via Universal Media Bay,

or standard on 8LFF chassis

SID (Systems Insight Display) Optional

NOTE: Not shipping as standard. Available as a CTO option or as a field upgrade (882099-B21).

# Operating Systems and Virtualization Software Support for ProLiant Servers

Windows Server 2012 R2 (Most Recent Version)

Windows Server 2016 (Most Recent Version)

**VMware ESXi 6.5 U1**, U2, and 6.7

Red Hat Enterprise Linux (RHEL) 7.4

**SUSE Linux Enterprise Server (SLES) 12 SP3** 

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

https://www.hpe.com/us/en/servers/server-operating-systems.html

# **Industry Standard Compliance**

- ACPI 6.1 Compliant
- PCIe 3.0 Compliant
- WOL Support
- Microsoft® Logo certifications
- PXE Support
- VGA/Display Port

NOTE: This support is on the optional Universal Media Bay.

- USB 3.0 Compliant (internal)
- USB 2.0 Compliant (external ports via SUV)

**NOTE:** This support is on the optional Universal Media Bay.

- Energy Star
- SMBIOS 3.1
- UEFI 2.6
- Redfish API
- IPMI 2.0
- Secure Digital 2.0
- Advanced Encryption Standard (AES)
- Triple Data Encrytion Standard (3DES)
- SNMP v3
- TLS 1.2
- DMTF Systems Management Architecture for Server Hardware Command Line Protocol (SMASH CLP)
- Active Directory v1.0
- ASHRAE A3/A4

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

• UEFI (Unified Extensible Firmware Interface Forum)

NOTE: UEFI is the default for the DL385 Gen10. Legacy mode can be selected in the field or as a CTO option (758959-B22).

# **Graphics**

Integrated Video Standard

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

HPE iLO 5 on system management memory

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

#### **HPE Server UEFI/Legacy ROM**

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

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

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

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

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

- TPM 2.0 Support
- NVMe Boot Support
- iSCSI Software Initiator Support.
- HTTP/HTTPs Boot support as a PXE alternative.
- Boot support for option cards that only support a UEFI option ROM

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

# **Embedded Management**

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

Monitor your servers for ongoing management, service alerting, reporting and remote management with HPE iLO. Learn more at <a href="http://www.hpe.com/info/ilo">http://www.hpe.com/info/ilo</a>.

### **UEFI**

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

# **Intelligent Provisioning**

Hassle free server and OS provisioning for 1 or more servers with Intelligent Provisioning. Learn more at <a href="http://www.hpe.com/servers/intelligentprovisioning">http://www.hpe.com/servers/intelligentprovisioning</a>.

### **iLO RESTful API**

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

#### **Server Utilities**

# **Active Health System**

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

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

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

### **Smart Update**

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

### **iLO Amplifier Pack**

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

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

# **HPE iLO Mobile Application**

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

#### **RESTful Interface Tool**

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

#### **Scripting Tools**

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

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

#### **HPE OneView Standard**

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

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

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

#### Security

- UEFI Secure Boot and Secure Start support
- Immutable Silicon Root of Trust
- FIPS 140-2 validation (iLO 5 certification in progress)
- Common Criteria certification (iLO 5 certification in progress)
- Configurable for PCI DSS compliance
- Advanced Encryption Standard (AES) and Triple Data Encryption Standard (3DES) on browser
- Support for Commercial National Security Algorithms (CNSA)
- Tamper-free updates components digitally signed and verified
- Secure Recovery recover critical firmware to known good state on detection of compromised firmware
- Ability to rollback firmware
- Secure erase of NAND/User data
- TPM (Trusted Platform Module) 1.2 option
- TPM (Trusted Platform Module) 2.0 option
- Bezel Locking Kit option
- Chassis Intrusion detection option

#### Warrantv

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

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

http://h17007.www1.hpe.com/us/en/enterprise/servers/warranty/.

# **Optional Features**

# **Server Management**

#### **HPE iLO Advanced**

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

# **HPE iLO Advanced Premium Security Edition**

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

#### **HPE OneView Advanced**

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

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

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

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

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

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

#### **Accelerator and GPGPU Information**

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

## Rack and Power Infrastructure

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

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

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

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

# **Optional Features**

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

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

# One Config Simple (SCE)

SCE is a guided self-service tool to help sales and non-technical people provide customers with initial configurations in 3 to 5 minutes. You may then send the configuration on for configuration help, or use in your existing ordering processes. If you require "custom" rack configuration or configuration for products not available in SCE, please contact Hewlett Packard Enterprise Customer Business Center or an Authorized Partner for assistance. https://h22174.www2.hpe.com/SimplifiedConfig/Welcome#

# Service and Support

# **HPE Pointnext - Service and Support**

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

HPE Pointnext provides a comprehensive portfolio including Advisory and Transformational, Professional, and Operational Services to help accelerate your digital transformation. From the onset of your transformation journey, Advisory and Transformational Services focus on designing the transformation and creating a solution roadmap. Professional Services specializes in creative configurations with flawless and on-time implementation, and on-budget execution. Finally, operational services provides innovative new approaches like Flexible Capacity and Datacenter Care, to keep your business at peak performance. 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.

# Connect your devices:

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

- 1- DC
- 2- HP CSC reports 2014 2015

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

#### **Recommended Services**

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

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

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

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

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

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

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

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

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

# Service and Support

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

#### Other related Services

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

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

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

#### **HPE Installation and Startup Service**

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

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

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

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

# **HPE GreenLake Flex Capacity**

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

# DC for Hyperscale

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

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

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

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

# **HPE Service Credits**

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

# 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 HPE experts, access support resources or collaborate with peers.

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

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.

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

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

# **NOTE:** HPE ProLiant DL385 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**

Hewllett 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 Packard Enterprise due to malfunction.

	Entry Models			
[SKU Number]	878712-xx1	P11747-xx1		
Model Name	HPE ProLiant DL385 Gen10 7251 1P 16GB-R E208i-a 8LFF SATA 500W PS Entry Server	HPE ProLiant DL385 Gen10 7251 2.1GHz 8-core 1P 16GB-R P408i-a 8SFF 500W PS Server		
Processor	7251 (8-Core, 2.1 GHz, 120W)	7251 (8-Core, 2.1 GHz, 120W)		
Number of Processors	One processor	One processor		
Memory	16 GB RDIMM DR 2600 MT/s (1x 16 GB)	16 GB RDIMM DR 2600 MT/s (1x 16 GB)		
Network HPE 1Gb Ethernet 4-Port 331i Adapter plus optional HPE 1Gb Eth HPE FlexibleLOM or stand up card HPE FlexibleL		HPE 1Gb Ethernet 4-Port 331i Adapter plus optional HPE FlexibleLOM or stand up card		
Controller E208i-a		P408i-a NOTE: 8-Port modular Smart Array. NOTE: Smart Storage battery included.		
Hard Drive None ship as standard		None ship as standard		
Internal 8 LFF chassis, with 2 SFF bays optional (upgradeable to Storage 15LFF with 4LFF mid and 3LFF rear + 2SFF rear)		8 SFF Chassis (upgradeable to 24 SFF front + 6SFF rear)		
Optical Drive Bay	Optional via Universal Media Bay (included)	Optional Universal Media Bay (included)		
Optical Drive	None ship as standard	None ship as standard		
PCI-Express Slots	3-slots (x8, x16, x8) as standard	3-slots (x8, x16, x8) as standard		
Power Supply	1x 500W HPE FlexSlot Power Supply	1x 500W HPE FlexSlot Power Supply		
Fans	4-standard fans	4-standard fans		
Management  Default: HPE iLO Standard with Intelligent Provisioning, HPE OneView Standard Optional (require licenses): HPE iLO Advanced, HPE iLO Advanced Prem Advanced		·		
Energy Star	2.1 certified			
Form Factor	2U Rack, Easy Install rails without CMA			
Warranty	3-year parts, 3-year labor, 3-year onsite support with nex	t business day response.		

	Entry Models				
[SKU Number]	878714-AA1	P05887-xx1			
Model Name	HPE ProLiant DL385 Gen10 7251 2.1GHz 8-core 1P 8GB-R E208i-a 8SFF SATA 500W PS Entry CN Server	HPE ProLiant DL385 Gen10 7251 1P 16GB-R P408i- a 8SFF 500W RPS Solution Server			
Processor	7251 (8-Core, 2.1 GHz, 120W)	7251 (8-Core, 2.1 GHz, 120W)			
Number of Processors	One processor	One processor			
Memory8 GB RDIMM DR 2600 MT/s (1x 8 GB)16 GB RDIMM I		16 GB RDIMM DR 2600 MT/s (1x 16 GB)			
Network Controller	etwork HPE 1Gb Ethernet 4-Port 331i Adapter plus optional HPE 1Gb Ethernet 4-Port 331i Adapter p				
Storage Controller	Embedded S100i for 2 x M.2 Connectors E208i-a NOTE: 8-Port modular Smart Array.	P408i-a NOTE: 8-Port modular Smart Array. NOTE: Smart Storage battery included.			
<b>Hard Drive</b> None ship as standard None ship as sta		None ship as standard			
Internal 8 SFF Chassis (upgradeable to 24 SFF front + 6SFF storage rear)		8 SFF chassis, with 2 SFF bays optional (upgradeable to 15LFF with 4LFF mid and 3LFF rear + 2SFF rear)			
Optical Drive Bay	Optional Universal Media Bay (882097-B21)	Optional via Universal Media Bay (included)			
Optical Drive	None ship as standard	None ship as standard			
PCI-Express Slots	3-slots (x8, x16, x8) as standard	3-slots (x8, x16, x8) as standard			
Power Supply	1x 500W HPE FlexSlot Power Supply	2x 500W HPE FlexSlot Power Supply			
Fans	4-standard fans	4-standard fans			
Management	Default: HPE iLO Standard with Intelligent Provisioning, HPE OneView Standard (requires download) Optional (require licenses): HPE iLO Advanced, HPE iLO Advanced Premium Security Edition, HPE OneView Advanced				
Energy Star	2.1 ce	ertified			
Form Factor	2U Rack, Easy Insta	all rails without CMA			
Warranty	3-year parts, 3-year labor, 3-year onsite	support with next business day response.			

	Base Model				
[SKU Number]	878716-xx1	P11809-xx1			
Model Name	HPE ProLiant DL385 Gen10 7251 1P 32GB-R P816i- a 12LFF SATA 800W PS Base Server	HPE ProLiant DL385 Gen10 7301 2.2GHz 16-core 1P 32GB-R P408i-a 8SFF 800W PS Server			
Processor	7251 (8-Core, 2.1 GHz, 85W)	7301 (16-Core, 2.2 GHz, 170W)			
Number of Processors	One processor	One processor			
Memory	32 GB RDIMM DR 2666 MT/s (2x 16 GB)	32 GB RDIMM DR 2600 MT/s (2x 16 GB)			
Network Controller	HPE 1Gb Ethernet 4-Port 331i Adapter plus optional HPE FlexibleLOM or stand up card	HPE 1Gb Ethernet 4-Port 331i Adapter plus optional HPE FlexibleLOM or stand up card			
Storage Controller	P816i-a  NOTE: 16-Port modular Smart Array.  NOTE: Smart Storage battery included.	P408i-a NOTE: 8-Port modular Smart Array. NOTE: Smart Storage battery included.			
Hard Drive None ship as standard		None ship as standard			
Internal Storage	12 LFF chassis (upgradeable to 19LFF with 4LFF mid and 3LFF rear + 2SFF)	8 SFF Chassis (upgradeable to 24 SFF front + 6SFF rear)			
Optical Drive Bay	Optional via Universal Media Bay (included)	Optional Universal Media Bay (882097-B21)			
Optical Drive	None ship as standard	None ship as standard			
PCI-Express Slots	3-slots (x8, x16, x8) as standard	3-slots (x8, x16, x8) as standard			
Power Supply	1x 800W HPE FlexSlot power supply	1x 800W HPE FlexSlot power supply			
Fans	6-High Performance fans	4-standard fans			
Management	Default: HPE iLO Standard with Intelligent Provisioning, HPE OneView Standard (requires download) Optional (require licenses): HPE iLO Advanced, HPE iLO Advanced Premium Security Edition, HPE OneVi				
Energy Star	2.1 ce	ertified			
Form Factor	2U Rack, Easy ins	tall rails with CMA			
Warranty	3-year parts, 3-year labor, 3-year onsite	support with next business day response			

	SMB Base Model	Base Model		
[SKU Number]	P09707-xx1	P09708-xx1		
Model Name	HPE ProLiant DL385 Gen10 7351 1P 32GB-R P408i-a 8SFF SAS 800W PS Base Server	HPE ProLiant DL385 Gen10 7551 1P 32GB-R P408i-a 8SFF SAS 800W PS Perf Server		
Processor	7351 (16-Core, 2.4GHz, 170W)	7551 (32-Core, 2.0 GHz, 180W)		
Number of Processors	One	Processor		
Memory	32 GB RDIMM SR	2666 MT/s (2x 16 GB)		
Network Controller	HPE 1Gb Ethernet 4-Port 331i Adapter p	olus optional HPE FlexibleLOM or stand up card		
Storage Controller	P408i-a  NOTE: 8-Port modular Smart Array.  NOTE: Smart Storage battery included.			
Hard Drive	ive None ship as standard			
Internal Storage	(4)			
Optical Drive Bay	Optional Universal Media Bay (882097-B21)	Universal Media Bay (882097-B21)		
Optical Drive	None sh	ip as standard		
PCI-Express Slots	3-slots (x8, x	16, x8) as standard		
Power Supply	1x 800W HPE	FlexSlot power supply		
Fans	4-Sta	andard fans		
Management	Default: HPE iLO Standard with Intelligent Provisioning, HPE OneView Standard (requires download) Optional (require licenses): HPE iLO Advanced, HPE iLO Advanced Premium Security Edition, HPE OneView Advanced			
Energy Star	2.1	. certified		
Form Factor	2U Rack,	Easy Install rails		
Warranty		3-3-3		

	Base Model	Performance Model	High Performance Model
[SKU Number]	878720-xx1	878722-xx1	878724-xx1
Model Name	HPE ProLiant DL385 Gen10 7401 1P 32GB-R P408i-a 24SFF SAS 800W PS Base Server	HPE ProLiant DL385 Gen10 7451 2P 64GB-R P408i-a 8SFF SAS 2x800W PS Perf Server	HPE ProLiant DL385 Gen10 7451 2P 64GB-R P408i-a 24SFF SAS 2x800W PS Perf Server
Processor	7401 (24-Core, 2.0GHz, 170W)	7451 (24-Core, 2.3 GHz, 180W)	7451 (24-Core, 2.0 GHz, 180W)
Number of Processors	One Processor	Two processors	Two processors
Memory	32 GB RDIMM DR 2600 MT/s (2x 16 GB)	64 GB RDIMM DR 2666 MT/s (2x 32 GB)	64 GB RDIMM DR 2666 MT/s (2x 32 GB)
Network Controller	HPE 1Gb Ethernet 4-Port 331i Adapter plus optional HPE FlexibleLOM or stand up card	HPE 1Gb Ethernet 4-Port 331i Adapter plus HPE Ethernet 10/25 Gb 2-port 640FLR-SFP28 Adapter (817749-B21)	HPE 1Gb Ethernet 4-Port 331i Adapter plus HPE Ethernet 25 Gb 2-port 631FLR Adapter (817709-B21)
Storage Controller	P408i-a w/Expander NOTE: 8-Port modular Smart Array. NOTE: Smart Storage battery included.	P408i-a NOTE: 8-Port modular Smart Array. NOTE: Smart Storage battery included.	P408i-a w/Expander NOTE: 8-Port modular Smart Array. NOTE: Smart Storage battery included.
Hard Drive	None ship as standard	None ship as standard	None ship as standard
Internal Storage	24 SFF Chassis	8 SFF Chassis (upgradeable to 24 SFF front + 6SFF rear)	24 SFF Chassis
Optical Drive Bay	Optional Universal Media Bay (882097-B21)	Universal Media Bay (882097- B21)	Universal Media Bay (882097-B21)
Optical Drive	None ship as standard	DVD-RW	DVD-RW
PCI-Express Slots	3-slots (x8, x16, x8) as standard	8 total: 3-slots (x8, x16, x8) as standard, plus 3 PCle (x8, x16, x8), 2 PCle (x8) Tertiary Riser Kit	8 total: 3-slots (x8, x16, x8) as standard, plus 3 PCIe (x8, x16, x8), 2 PCIe (x8) Tertiary Riser Kit
Power Supply	1x 800W HPE FlexSlot power supply	2x 800W HPE FlexSlot power supply	2x 800W HPE FlexSlot power supply
Fans	6-High Performance fans		
Management	Default: HPE iLO Standard with Intelligent Provisioning, HPE OneView Standard (requires download) Optional (require licenses): HPE iLO Advanced, HPE iLO Advanced Premium Security Edition, HPE OneView Advanced	Standard (requires download) Optional (require licenses): HPE iL0 HPE OneView Advanced	telligent Provisioning, HPE OneView  O Advanced Premium Security Edition,
Energy Star		2.1 certified	
Form Factor		2U Rack, Easy Install rails with CMA	
Warranty		3-3-3	

# **Country Code Key**

xx1 = B21 Worldwide

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

xx1 = 291 Japan

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

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

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

CTO Comicar	HPE ProLiant DL385	HPE ProLiant DL385	HPE ProLiant DL385	HPE ProLiant DL385			
CTO Server							
	Gen10 8 LFF CTO Server	Gen10 12 LFF CTO	Gen10 8 SFF CTO Server	Gen10 24 SFF CTO Server			
		Server					
SKU Number	878615-B21	878614-B21	878612-B21	878613-B21			
TAA SKU	878619-B21	878618-B21	878616-B21	878617-B21			
Processor	Not included as standard	Not included as standard	Not included as standard	Not included as standard			
DIMM Slots	32-DIMM slots	32-DIMM slots	32-DIMM slots	32-DIMM slots			
Storage	Embedded s100i SW RAID for 2 x M.2 SATA support, choice of HPE modular Smart Array and PCIe plug-in						
Controller	controller			·			
PCle	Three standard in p	rimary riser					
Drive Cage -	8 LFF	12 LFF	8 SFF	24 SFF			
included		12 [1]		24 31 1			
Network	HPE 1Gb Ethernet 4-Port 331i Adapter plus optional HPE FlexibleLOM or stand up card						
Controller							
Fans	s 6-Standard 6-High Performance		4-Standard 6-Performance				
Management	HPE iLO with Intelligent Provisioning (standard), iLO Advances and OneView (optional)						
USB	1x 3.0 standard plus iLo	None as standard	1x 3.0 standard plus iLo	1x 3.0 standard plus iLo			
	front service port		front service port	front service port			

**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: TAA chassis are only orderable in North America and Canada.

NOTE: The HPE ProLiant DL385 Gen10 12 LFF CTO Server ships with the cable required for the P816i-a installation.

**NOTE:**The cables that come standard with the 8SFF chassis for BOX3 work for the first 8 drives, and are connected to the E208 or the P408. When the 8SFF drive cage for BOX2 or BOX1 is ordered, the cables come with the drive cage kits.

**NOTE:** All CTO servers are Energy Star 2.1 compliant.

CTO Server	8 SFF CTO Chassis	24 SFF CTO Chassis	8 LFF CTO Chassis	12 LFF CTO Chassis
Included Drive Cage	8 SFF SAS/SATA	3x 8 SFF SAS/SATA	8 LFF + UMB	12 LFF Chassis
Additional drive cages	-	-	-	-
Universal Media Bay	1 Optional	Not available	1 Included	Not available
ODD	1 Optional with UMB	Not available	1 Optional	Not available
8 SFF Drive Cage	Up to 2 Optional	Not available	Not available	Not available
8 NVME/SAS Bay	Up to 3 Optional	Not available	Not available	Not available
8 NVME Cage	Up to 3 Optional	Not available	Not available	Not available
2 SFF SAS/SATA (Front)	1 Optional with UMB	Not available	1 Optional	Not available
2 SFF SAS/SATA (Rear)	1 Optional	1 Optional	1 Optional	1 Optional
2 NVMe (Front)	1 Optional with UMB	Not available	1 Optional	Not available
4 LFF Mid-plane	Not available	Not available	1 Optional	1 Optional
3 LFF Rear	Not available	Not available	1 Optional	1 Optional

**NOTE:** This aplies to CTO configurations, field upgrades may differ depending field configuration.

NOTE: 3x 8 NVMe option on SFF requires the second processor be installed and I/O cards are limited to ALOM options.

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

Please select one -L21 processor required below.

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

For example: first processor, select 874752-L21 then for second processor, select 874752-B21.

**NOTE:** 8SFF CTO 1P models ship with 4 standard fans. The second processor option kit contains 2 additional fans. 12 LFF and 24 SFF CTO Servers ship with 6 High performance fans included; 8LFF CTO Servers ship with 6 Standard fans included. High performance fan kit is available to meet ambient temperature environments are are required for rear drives or NVMe configurations. NVMe is limited to front install only.

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

**NOTE:** DDR4 memory speed will depend on the quantity and type of DIMMs installed.

**NOTE:** Processors with greater than 170W will ship with the High Performance heatsink.

NOTE: Processors with greater than 170W will require the High Performance fan kit.

NOTE: Processors will greater mail 170% will require the High Ferrormance fail kit.	
Processor Option Kits	Required Processor
HPE DL385 Gen10 AMD EPYC - 7601 (2.2GHz/32-core/180W) FIO Processor Kit	881162-L21
NOTE: Ships with Performance Heatsink.	
HPE DL385 Gen10 AMD EPYC - 7551 (2.0GHz/32-core/180W) FIO Processor Kit	881163-L21
NOTE: Ships with Performance Heatsink.	
HPE DL385 Gen10 AMD EPYC - 7501 (2GHz/32-core/155-170W) FIO Processor Kit	881164-L21
NOTE: Ships with Standard Heatsink.	
HPE DL385 Gen10 AMD EPYC - 7451 (2.3GHz/24-core/180W) FIO Processor Kit	881165-L21
NOTE: Ships with Performance Heatsink.	
HPE DL385 Gen10 AMD EPYC - 7401 (2GHz/24-core/155-170W) FIO Processor Kit	881166-L21
NOTE: Ships with Standard Heatsink.	
HPE DL385 Gen10 AMD EPYC 7371 (3.1GHz/16-core/180W) Processor Kit	P11520-B21
NOTE: Ships with Performance Heatsink.	
HPE DL385 Gen10 AMD EPYC - 7351 (2.4GHz/16-core/155-170W) FIO Processor Kit	881169-L21
NOTE: Ships with Standard Heatsink.	
HPE DL385 Gen10 AMD EPYC - 7301 (2.2GHz/16-core/155-170W) FIO Processor Kit	881170-L21
NOTE: Ships with Standard Heatsink.	
HPE DL385 Gen10 AMD EPYC - 7281 (2.1GHz/16-core/155-170W) FIO Processor Kit	P00645-L21

**NOTE:** Ships with Standard Heatsink.

HPE DL385 Gen10 AMD EPYC 7261 (2.5GHz/8-core/155-170W) Processor Kit P06047-B21

NOTE: Ships with Standard Heatsink.

HPE DL385 Gen10 AMD EPYC - 7251 (2.1GHz/8-core/120W) FIO Processor Kit 881171-L21

**NOTE:** Ships with Standard Heatsink.

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

For Gen10 memory speed table, please go to: http://www.hpe.com/docs/amd-speed-tables

NOTE: Memory DIMM availability with a server platform is dependent upon completion of certification testing.

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

### Registered DIMMs (RDIMMs)

HPE 8GB (1x8GB) Single Rank x8 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit	838079-B21
HPE 16GB (1x16GB) Dual Rank x8 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit	838089-B21
HPE 16GB (1x16GB) Single Rank x4 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit	838081-B21
HPE 32GB (1x32GB) Dual Rank x4 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit	838083-B21
HPE 64GB (1x64GB) Dual Rank x4 DDR4-2666 CAS-19-19 Registered Smart Memory Kit	P05592-B21

# Load Reduced DIMMs (LRDIMMs)

HPE 64GB (1x64GB) Quad Rank x4 DDR4-2666 CAS-19-19-19 Load Reduced Smart Memory Kit	838085-B21
HPE 128GB (1x128GB) Octal Rank x4 DDR4-2666 CAS-22-19-19 3DS Load Reduced Smart Memory Kit	838087-B21

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

Select one or two power supplies from below.

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

#### **HPE Flex Slot Power Supplies**

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

**NOTE:** Select one or more power supplies.

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

**NOTE:** Prior to making a power supply selection it is highly recommended that the HPE Power Advisor is run to determine the right size power supply for your server configuration. The HPE Power Advisor is located at:

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

**NOTE:** All power supplies in a server should match. Mixing Power Supplies is not supported.

**NOTE:** HPE ProLiant servers ship with an IEC-IEC power cord used for rack mounting with Power Distribution Units (PDUs). Visit <u>HPE power cords</u> for a full list of optional power cords.

### **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 Unique Options**

**NOTE:** DL385 has support for 4x NMVE drives when the second CPU is selected. NVME cable 871827-B21 is required and supports 2 drives each.

HPE DL38X Gen10 Slot 1/2 x16/x16 FIO Riser Kit

871674-B21

**NOTE:** Slot 1 or 2 in Primary location.

**NOTE:** Supports Full Height and Full length cards.

NOTE: Bus width x16, x16, Connector Width x16, x16.

HPE DL38X Gen10 x16/x16 GPU Slot2/3 FIO Riser Kit

871676-B21

**NOTE:** Primary Riser, Connector in slot 2 & 3 for GPU support.

NOTE: Supports Full Height and Full length cards.

**NOTE:** Bus width x16, x16, Connector Width x16, x16.

**HPE Special Ethernet Adapters** 

878186-B21

HPE DL38X Gen10 x8/x8/x8 1-port 2 NVMe Slim SAS FIO Riser Kit

871673-B21

**NOTE:** Supports 3x 8 and 1-port for NVMe.

NOTE: Supports Full Height and half-length cards.

**NOTE:** Bus width x8, x8, x8 Connector Width x8, x8, x8.

**HPE Special Ethernet Adapters** 

878189-B21

NOTE: This is a factory integrated only option.

NOTE: This will connect 2 SFF cage installed in the front of the chassis to NVMe.

**NOTE:** This supports NMVe only, if desired, to maintain SATA drive compatibility the 3 POS cable kit must also be selected (882100-B21).

**HPE Special Enablement Kits** 

878192-B21

NOTE: This is a factory integrated only option.

NOTE: Indicates the cage will also have an NVMe connection.

**NOTE:** When NVME is selected, the SAS/SATA will no longer function unless the controller selection supports it, or the 3POS cable is selected for S100i connection.

**HPE Special Ethernet Adapters** 

873763-B21

**NOTE:** This is a factory integrated only option.

NOTE: Will remove the Primary 8SFF cage in Box 3 of the 8SFF and replace with a Box blank.

HPE Special Enablement Kits

873766-B21

**NOTE:** This is a factory integrated only option.

NOTE: Will remove the Primary shipping PCIe riser.

HPE Legacy FIO Mode Setting

758959-B22

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

HPE Smart Memory Fast Fault Tolerance FIO Setting

875293-B21

**NOTE:** Fast Fault Tolerance is a new feature in Gen10 server memory that enables the system to boot with full memory performance while monitoring for DRAM device failures.

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

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

#### **HPE Unique Options**

HPE DL38X NVMe 8 Solid State Drive Express Bay Enablement Kit

826689-B21

**NOTE:** This option provides support for up to 8 NVMe drives, and can only be populated in Box 1, Box 2 and Box 3 of the SFF chassis.

NOTE: The HPE DL385 Gen10 High Performance fan kit is required for NVMe support (867810-B21).

NOTE: The HPE DL38X Gen10 4-port 8 NVMe SlimSAS Riser (867807-B21) is required to support this.

**NOTE:** If BOX 1, 2 and 3 are populated for full 24 drive NVMe support this requires 3 risers (1st 867807-B21, 2nd 873732-B21, & 3rd 867808-B21) and the on board NVMe connections with 2x NVMe cable (871827-B21).

**NOTE:** There are limitations on GPU support with the NVMe bay installed.

HPE DL385 Gen10 Universal Media Bay

882097-B21

**NOTE:** The HPE DL385 Gen10 Universal Media bay provides front Display Port and 2xUSB 2.0; plus support for 2x SFF front drives or 2 NVMe front drives (826687-B21 and NVMe riser required see note below) and ODD support (Not included); and can only be located in Box1 in either an 8 SFF or 8+8 SFF model.

**NOTE:** This is a SFF model option only.

**NOTE:** For support of the 2 NVMe drives this will require the addition of the HPE DL38X Gen10 x8/x8/x8 1-port 2 NVMe SlimSAS Riser (867806-B21) for 1P configurations.

**NOTE:** For 2P configurations the HPE DL38X Gen10 2-port 4 NVMe SlimSAS Riser (867808-B21) is needed or the NVMe cable (871827-B21) with the on board NVMe connections may be used.

HPE DL38X Gen10 Premium 6 SFF SAS/SATA + 2 NVMe or 8 SFF SAS/SATA Bay Kit

826690-B21

**NOTE:** This kit can be supported in Box 1, 2 or 3 and provides support for up to 8 SFF SAS/SATA or 6 SAS/SATA + 2 NVMe drives per Box.

**NOTE:** With NVMe drives a specific riser is required for 1P. 2P enables the on board NVMe connection with the NVMe cable 871827-B21 or this can be enabled with NMVe risers.

NOTE: When adding to Box 1 the addition of the High Performance Fan kit (867810-B21) is required.

HPE DL385 Gen10 High Performance Heatsink Kit

882098-B21

NOTE: Required for GPU installations.

**NOTE:** Processor kits above 170W include a High Performance Heatsink.

HPE DL38X Gen10 High Performance Temperature Fan Kit

867810-B21

**NOTE:** This kit is also required to support GPUs configurations.

**NOTE:** This is required for NVMe configurations.

**NOTE:** This kit provides maximum cooling for your Server.

**NOTE:** This kit is required when Box 1, 2 and 3 are populated.

HPE DL38X Gen10 2SFF HDD SAS/SATA Riser Kit

826688-B21

**NOTE:** 2 SFF in the rear is only supported with a 24 SFF model or 12 LFF model.

**NOTE:** In the rear this leaves 1x16 slot accessible.

NOTE: Rear drives require the addition of the High Performance Fan kit (867810-B21).

HPE DL38X Gen10 2SFF Premium HDD Front NVMe or Front/Rear SAS/SATA Kit

826687-B21

HPE DL38X Gen10 High Performance Temperature Fan Kit (867810-B21)

**NOTE:** NVMe drives require the addition of an NVMe capable riser or a 2P configuration and the NVMe cable 871827-B21 for the on board NVMe connections.

NOTE: To maintain SATA compatibility with NVMe connections, the 3 POS cable (882100-B21) must also be used.

NOTE: Drive cage can be used in the rear of the chassis, but will not support NVMe drives rear.

**NOTE:** Supports uFF drives.

NOTE: Supports 2 NVMe in the Universal Media bay (included) on the 8 LFF model.  NOTE: For support of the 2 NVMe drives this will require the addition of the HPE DL38X Gen10 x8/x8/x8 1-port 2 NVMe SlimSAS Riser (867806-B21) for 1P configurations.  NOTE: For 2P configurations the HPE DL38X Gen10 2-port 4 NVMe SlimSAS Riser (867808-B21) is needed or the NVME cable 871827-B21 with the on board NVMe connections may be used.  NOTE: NVMe drives require the addition of the High Performance Fan kit (867810-B21).  HPE DL38X Gen10 12Gb SAS Expander Card Kit with Cables 870549-B21  NOTE: SAS expander to enable 24 SFF field upgrade.  NOTE: Primary population in slot 3 of the primary riser.  HPE DL33X Gen10 Rear Serial Cable and Enablement Kit 873770-B21  HPE Unique Options  HPE DL38X Gen10 8LFF Front 2SFF SAS/SATA HDD Kit 867805-B21  HPE DL38X Gen10 System Insight Display Kit 882099-B21  NOTE: Systems Insight Display no longer ships as standard but is available as a Factory Integrated or field upgrade option.  HPE Processors  Processor Option Kits  HPE DL385 Gen10 AMD EPYC - 7601 (2.2GHz/32-core/180W) Processor Kit 881162-B21  NOTE: Ships with Performance Heatsink.  HPE DL385 Gen10 AMD EPYC - 7551 (2.0GHz/32-core/155-170W) Processor Kit 881164-B21  NOTE: Ships with Performance Heatsink.
NOTE: For 2P configurations the HPE DL38X Gen10 2-port 4 NVMe SlimSAS Riser (867808-B21) is needed or the NVME cable 871827-B21 with the on board NVMe connections may be used.  NOTE: NVMe drives require the addition of the High Performance Fan kit (867810-B21).  HPE DL38X Gen10 12Gb SAS Expander Card Kit with Cables 870549-B21  NOTE: SAS expander to enable 24 SFF field upgrade.  NOTE: Primary population in slot 3 of the primary riser.  HPE DL3XX Gen10 Rear Serial Cable and Enablement Kit 873770-B21  HPE Unique Options  HPE DL38X Gen10 8LFF Front 2SFF SAS/SATA HDD Kit 882099-B21  NOTE: Systems Insight Display Kit 882099-B21  NOTE: Systems Insight Display no longer ships as standard but is available as a Factory Integrated or field upgrade option.  HPE Processors  Processor Option Kits  HPE DL385 Gen10 AMD EPYC - 7601 (2.2GHz/32-core/180W) Processor Kit 881162-B21  NOTE: Ships with Performance Heatsink.  HPE DL385 Gen10 AMD EPYC - 7551 (2.0GHz/32-core/180W) Processor Kit 881163-B21  NOTE: Ships with Performance Heatsink.  HPE DL385 Gen10 AMD EPYC - 7501 (2GHz/32-core/155-170W) Processor Kit 881164-B21
871827-B21 with the on board NVMe connections may be used.  NOTE: NVMe drives require the addition of the High Performance Fan kit (867810-B21).  HPE DL38X Gen10 12Gb SAS Expander Card Kit with Cables  NOTE: SAS expander to enable 24 SFF field upgrade.  NOTE: Primary population in slot 3 of the primary riser.  HPE DL3XX Gen10 Rear Serial Cable and Enablement Kit  HPE Unique Options  HPE DL38S Gen10 8LFF Front 2SFF SAS/SATA HDD Kit  HPE DL385 Gen10 System Insight Display Kit  NOTE: Systems Insight Display no longer ships as standard but is available as a Factory Integrated or field upgrade option.  HPE Processors  Processor Option Kits  HPE DL385 Gen10 AMD EPYC - 7601 (2.2GHz/32-core/180W) Processor Kit  NOTE: Ships with Performance Heatsink.  HPE DL385 Gen10 AMD EPYC - 7551 (2.0GHz/32-core/180W) Processor Kit  881163-B21  NOTE: Ships with Performance Heatsink.  HPE DL385 Gen10 AMD EPYC - 7501 (2GHz/32-core/155-170W) Processor Kit  881164-B21
NOTE: NVMe drives require the addition of the High Performance Fan kit (867810-B21).  HPE DL38X Gen10 12Gb SAS Expander Card Kit with Cables 870549-B21  NOTE: SAS expander to enable 24 SFF field upgrade.  NOTE: Primary population in slot 3 of the primary riser.  HPE DL3XX Gen10 Rear Serial Cable and Enablement Kit 873770-B21  HPE Unique Options  HPE DL38X Gen10 8LFF Front 2SFF SAS/SATA HDD Kit 867805-B21  HPE DL385 Gen10 System Insight Display Kit 882099-B21  NOTE: Systems Insight Display no longer ships as standard but is available as a Factory Integrated or field upgrade option.  HPE Processors  Processor Option Kits  HPE DL385 Gen10 AMD EPYC - 7601 (2.2GHz/32-core/180W) Processor Kit 881162-B21  NOTE: Ships with Performance Heatsink.  HPE DL385 Gen10 AMD EPYC - 7551 (2.0GHz/32-core/180W) Processor Kit 881163-B21  NOTE: Ships with Performance Heatsink.  HPE DL385 Gen10 AMD EPYC - 7501 (2GHz/32-core/155-170W) Processor Kit 881164-B21
NOTE: SAS expander to enable 24 SFF field upgrade. NOTE: Primary population in slot 3 of the primary riser.  HPE DL3XX Gen10 Rear Serial Cable and Enablement Kit 873770-B21  HPE Unique Options  HPE DL38X Gen10 8LFF Front 2SFF SAS/SATA HDD Kit 867805-B21  HPE DL385 Gen10 System Insight Display Kit 882099-B21  NOTE: Systems Insight Display no longer ships as standard but is available as a Factory Integrated or field upgrade option.  HPE Processors  Processor Option Kits  HPE DL385 Gen10 AMD EPYC - 7601 (2.2GHz/32-core/180W) Processor Kit 881162-B21  NOTE: Ships with Performance Heatsink.  HPE DL385 Gen10 AMD EPYC - 7551 (2.0GHz/32-core/180W) Processor Kit 881163-B21  NOTE: Ships with Performance Heatsink.  HPE DL385 Gen10 AMD EPYC - 7501 (2GHz/32-core/155-170W) Processor Kit 881164-B21
NOTE: Primary population in slot 3 of the primary riser.  HPE DL3XX Gen10 Rear Serial Cable and Enablement Kit  HPE Unique Options  HPE DL38X Gen10 8LFF Front 2SFF SAS/SATA HDD Kit  HPE DL385 Gen10 System Insight Display Kit  NOTE: Systems Insight Display no longer ships as standard but is available as a Factory Integrated or field upgrade option.  HPE Processors  Processor Option Kits  HPE DL385 Gen10 AMD EPYC - 7601 (2.2GHz/32-core/180W) Processor Kit  NOTE: Ships with Performance Heatsink.  HPE DL385 Gen10 AMD EPYC - 7551 (2.0GHz/32-core/180W) Processor Kit  NOTE: Ships with Performance Heatsink.  HPE DL385 Gen10 AMD EPYC - 7501 (2GHz/32-core/155-170W) Processor Kit  881164-B21
HPE DL3XX Gen10 Rear Serial Cable and Enablement Kit  HPE Unique Options  HPE DL38X Gen10 8LFF Front 2SFF SAS/SATA HDD Kit  HPE DL385 Gen10 System Insight Display Kit  NOTE: Systems Insight Display no longer ships as standard but is available as a Factory Integrated or field upgrade option.  HPE Processors  Processor Option Kits  HPE DL385 Gen10 AMD EPYC - 7601 (2.2GHz/32-core/180W) Processor Kit  NOTE: Ships with Performance Heatsink.  HPE DL385 Gen10 AMD EPYC - 7551 (2.0GHz/32-core/180W) Processor Kit  NOTE: Ships with Performance Heatsink.  HPE DL385 Gen10 AMD EPYC - 7501 (2GHz/32-core/155-170W) Processor Kit  881164-B21
HPE Unique Options  HPE DL38X Gen10 8LFF Front 2SFF SAS/SATA HDD Kit  HPE DL385 Gen10 System Insight Display Kit  NOTE: Systems Insight Display no longer ships as standard but is available as a Factory Integrated or field upgrade option.  HPE Processors  Processor Option Kits  HPE DL385 Gen10 AMD EPYC - 7601 (2.2GHz/32-core/180W) Processor Kit  NOTE: Ships with Performance Heatsink.  HPE DL385 Gen10 AMD EPYC - 7551 (2.0GHz/32-core/180W) Processor Kit  NOTE: Ships with Performance Heatsink.  HPE DL385 Gen10 AMD EPYC - 7501 (2GHz/32-core/155-170W) Processor Kit  881164-B21  NOTE: Ships with Performance Heatsink.
HPE DL38X Gen10 8LFF Front 2SFF SAS/SATA HDD Kit  HPE DL385 Gen10 System Insight Display Kit  NOTE: Systems Insight Display no longer ships as standard but is available as a Factory Integrated or field upgrade option.  HPE Processors  Processor Option Kits  HPE DL385 Gen10 AMD EPYC - 7601 (2.2GHz/32-core/180W) Processor Kit  NOTE: Ships with Performance Heatsink.  HPE DL385 Gen10 AMD EPYC - 7551 (2.0GHz/32-core/180W) Processor Kit  NOTE: Ships with Performance Heatsink.  HPE DL385 Gen10 AMD EPYC - 7501 (2GHz/32-core/155-170W) Processor Kit  881163-B21  NOTE: Ships with Performance Heatsink.  HPE DL385 Gen10 AMD EPYC - 7501 (2GHz/32-core/155-170W) Processor Kit  881164-B21
HPE DL 385 Gen10 System Insight Display Kit  NOTE: Systems Insight Display no longer ships as standard but is available as a Factory Integrated or field upgrade option.  HPE Processors  Processor Option Kits  HPE DL 385 Gen10 AMD EPYC - 7601 (2.2GHz/32-core/180W) Processor Kit  NOTE: Ships with Performance Heatsink.  HPE DL 385 Gen10 AMD EPYC - 7551 (2.0GHz/32-core/180W) Processor Kit  NOTE: Ships with Performance Heatsink.  HPE DL 385 Gen10 AMD EPYC - 7501 (2GHz/32-core/155-170W) Processor Kit  881164-B21
NOTE: Systems Insight Display no longer ships as standard but is available as a Factory Integrated or field upgrade option.  HPE Processors Processor Option Kits HPE DL385 Gen10 AMD EPYC - 7601 (2.2GHz/32-core/180W) Processor Kit NOTE: Ships with Performance Heatsink. HPE DL385 Gen10 AMD EPYC - 7551 (2.0GHz/32-core/180W) Processor Kit NOTE: Ships with Performance Heatsink. HPE DL385 Gen10 AMD EPYC - 7501 (2GHz/32-core/155-170W) Processor Kit 881164-B21
upgrade option.  HPE Processors  Processor Option Kits  HPE DL385 Gen10 AMD EPYC - 7601 (2.2GHz/32-core/180W) Processor Kit  NOTE: Ships with Performance Heatsink.  HPE DL385 Gen10 AMD EPYC - 7551 (2.0GHz/32-core/180W) Processor Kit  NOTE: Ships with Performance Heatsink.  HPE DL385 Gen10 AMD EPYC - 7501 (2GHz/32-core/155-170W) Processor Kit  881164-B21
Processor Option Kits  HPE DL385 Gen10 AMD EPYC - 7601 (2.2GHz/32-core/180W) Processor Kit  NOTE: Ships with Performance Heatsink.  HPE DL385 Gen10 AMD EPYC - 7551 (2.0GHz/32-core/180W) Processor Kit  NOTE: Ships with Performance Heatsink.  HPE DL385 Gen10 AMD EPYC - 7501 (2GHz/32-core/155-170W) Processor Kit  881164-B21
HPE DL385 Gen10 AMD EPYC - 7601 (2.2GHz/32-core/180W) Processor Kit  NOTE: Ships with Performance Heatsink.  HPE DL385 Gen10 AMD EPYC - 7551 (2.0GHz/32-core/180W) Processor Kit  NOTE: Ships with Performance Heatsink.  HPE DL385 Gen10 AMD EPYC - 7501 (2GHz/32-core/155-170W) Processor Kit  881162-B21  881164-B21
NOTE: Ships with Performance Heatsink.  HPE DL385 Gen10 AMD EPYC - 7551 (2.0GHz/32-core/180W) Processor Kit  NOTE: Ships with Performance Heatsink.  HPE DL385 Gen10 AMD EPYC - 7501 (2GHz/32-core/155-170W) Processor Kit  881164-B21
HPE DL385 Gen10 AMD EPYC - 7551 (2.0GHz/32-core/180W) Processor Kit       881163-B21         NOTE: Ships with Performance Heatsink.         HPE DL385 Gen10 AMD EPYC - 7501 (2GHz/32-core/155-170W) Processor Kit       881164-B21
NOTE: Ships with Performance Heatsink.  HPE DL385 Gen10 AMD EPYC - 7501 (2GHz/32-core/155-170W) Processor Kit  881164-B21
HPE DL385 Gen10 AMD EPYC - 7501 (2GHz/32-core/155-170W) Processor Kit 881164-B21
NOTE: Ships with Standard Heatsink.
HPE DL385 Gen10 AMD EPYC - 7451 (2.3GHz/24-core/180W) Processor Kit 881165-B21
NOTE: Ships with Performance Heatsink.
HPE DL385 Gen10 AMD EPYC - 7401 (2GHz/24-core/155-170W) Processor Kit 881166-B21
NOTE: Ships with Standard Heatsink.
HPE DL385 Gen10 AMD EPYC - 7351 (2.4GHz/16-core/155-170W) Processor Kit 881169-B21
NOTE: Ships with Standard Heatsink.
HPE DL385 Gen10 AMD EPYC - 7301 (2.2GHz/16-core/155-170W) Processor Kit 881170-B21
NOTE: Ships with Standard Heatsink.
HPE DL385 Gen10 AMD EPYC - 7281 (2.1GHz/16-core/155-170W) Processor Kit P00645-B21
NOTE: Ships with Standard Heatsink.
HPE DL385 Gen10 AMD EPYC - 7251 (2.1GHz/8-core/120W) Processor Kit 881171-B21
NOTE: Ships with Standard Heatsink.
HPE DL385 Gen10 AMD EPYC 7371 (3.1GHz/16-core/180W) Processor Kit         P11520-B21
NOTE: Ships with Standard Heatsink.
HPE DL385 Gen10 AMD EPYC 7261 (2.5GHz/8-core/155-170W) Processor Kit P06047-B21
NOTE: Ships with Standard Heatsink.
NOTE: DDR4 memory speed will depend on the quantity and type of DIMMs installed.
<b>NOTE:</b> The xxxxxx-L21 is the first processor shipped, the xxxxxx-B21 is the 2nd processor and ships with 2 additional fans for
factory or field installation. <b>NOTE:</b> Processors above 170W use a High Performance Heatsink and the high performance fan kit (867810-B21).

NOTE: Processors with greater than 170W do not include the fans as the selection of processors above 170W requires the High

Performance fan kit that comes with 6 fans.

#### **Memory Selection**

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

### **HPE Memory**

# Registered DIMMs (RDIMMs)

HPE 8GB (1x8GB) Single Rank x8 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit	838079-B21
HPE 16GB (1x16GB) Dual Rank x8 DDR4-2666 CAS-19-19 Registered Smart Memory Kit	838089-B21
HPE 16GB (1x16GB) Single Rank x4 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit	838081-B21
HPE 32GB (1x32GB) Dual Rank x4 DDR4-2666 CAS-19-19 Registered Smart Memory Kit	838083-B21
HPE 64GB (1x64GB) Dual Rank x4 DDR4-2666 CAS-19-19 Registered Smart Memory Kit	P05592-B21

#### Load Reduced DIMMs (LRDIMMs)

HPE 64GB (1x64GB) Quad Rank x4 DDR4-2666 CAS-19-19-19 Load Reduced Smart Memory Kit	838085-B21
HPE 128GB (1x128GB) Octal Rank x4 DDR4-2666 CAS-22-19-19 3DS Load Reduced Smart Memory Kit	838087-B21

NOTE: Memory DIMM availability with a server platform is dependent upon completion of certification testing. NOTE: The maximum memory speed is a function of the memory type, memory configuration, and processor model.

### **HPE Optical Drives**

HPE 9.5mm SATA DVD-ROM Optical Drive

726536-B21

NOTE: HPE DL385 Gen10 Universal Media Bay Kit (882097-B21) is required for this option on a SFF model. No support in 12 LFF or 24 SFF models.

**NOTE:** Not supported anytime the 3 POS cable (882100-B21) is selected.

HPE 9.5mm SATA DVD-RW Optical Drive

726537-B21

NOTE: HPE DL385 Gen10 Universal Media Bay Kit (882097-B21) is required for this option on a SFF model. No support in 12 LFF or 24 SFF models.

NOTE: Not supported anytime the 3 POS cable (882100-B21) is selected.

HPE Mobile USB DVD-RW Optical Drive

**NOTE:** This is only supported on USB 3.0 ports.

701498-B21

# **HPE Drives**

# **Enterprise - 12G SAS - SFF Drives**

HPE 300GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	870753-B21
HPE 300GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	872475-B21
HPE 600GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	870757-B21
HPE 600GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	872477-B21
HPE 900GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	870759-B21
HPE 900GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty 512e Digitally Signed Firmware HDD	870765-B21
HPE 1.2TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	872479-B21
HPE 1.8TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty 512e Digitally Signed Firmware HDD	872481-B21
HPE 2.4TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty 512e Digitally Signed Firmware HDD	881457-B21
Enterprise - 12G SAS - LFF Drives	
HPE 300GB SAS 12G Enterprise 15K LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware HDD	P04693-B21
HPE 600GB SAS 12G Enterprise 15K LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware HDD	P04695-B21

Midlina	- 12G	CVC-	CEE	Drives

Midline - 12G SAS - SFF Drives	
HPE 1TB SAS 12G Midline 7.2K SFF (2.5in) SC 1yr Wty Digitally Signed Firmware HDD	832514-B21
HPE 1TB SAS 12G Midline 7.2K SFF (2.5in) SC 1yr Wty 512e Digitally Signed Firmware HDD	765464-B21
HPE 2TB SAS 12G Midline 7.2K SFF (2.5in) SC 1yr Wty 512e HDD	765466-B21

Midline - 12G SAS - LFF Drives	
HPE 1TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD	846524-B21
HPE 2TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD	872485-B21
HPE 4TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD	872487-B21
HPE 6TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e HDD	861754-B21
HPE 8TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e Digitally Signed Firmware HDD	819201-B21
HPE 10TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Helium 512e Digitally Signed Firmware HDD	857644-B21
HPE 12TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Helium 512e Digitally Signed Firmware HDD	881779-B21
HPE 14TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Helium 512e Digitally Signed Firmware HDD	P09153-B21
Midline - 6G SATA - SFF Drives	
HPE 1TB SATA 6G Midline 7.2K SFF (2.5in) SC 1yr Wty Digitally Signed Firmware HDD	655710-B21
HPE 2TB SATA 6G Midline 7.2K SFF (2.5in) SC 1yr Wty 512e Digitally Signed Firmware HDD	765455-B21
Midline - 6G SATA - LFF Drives	
HPE 1TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty HDD	861691-B21
HPE 2TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD	872489-B21
HPE 4TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD	872491-B21
HPE 6TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e HDD	861750-B21
HPE 8TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e Digitally Signed Firmware HDD	819203-B21
HPE 10TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty Helium 512e Digitally Signed Firmware HDD	857648-B21
HPE 12TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty Helium 512e Digitally Signed Firmware HDD	881785-B21
HPE 14TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty Helium 512e Digitally Signed Firmware HDD	P09163-B21
SSD Selection	
To streamline the configuration process for HPE ProLiant Gen10 servers and to provide the best product a	vailability, HPE
recommends SSDs from the list located here: <a href="http://www.hpe.com/products/recommend">http://www.hpe.com/products/recommend</a> .	
Read Intensive - 12G SAS - SFF - Solid State Drives	
HPE 960GB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P06584-B21
HPE 960GB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04517-B21
HPE 1.92TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P06586-B21
HPE 1.92TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04519-B21
HPE 3.84TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P06588-B21
HPE 3.84TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04521-B21
HPE 7.68TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P06590-B21
HPE 7.68TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04523-B21
HPE 15.3TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P06592-B21
Mixed Use - 12G SAS - SFF - Solid State Drives	
HPE 400GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	873359-B21
HPE 400GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04525-B21
HPE 400GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P09088-B21
HPE 800GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	873363-B21
HPE 800GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04527-B21
HPE 800GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P09090-B21
HPE 1.6TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	873365-B21
HPE 1.6TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04533-B21
HPE 1.6TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P09092-B21
HPE 3.2TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	873367-B21
HPE 3.2TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	
	P04537-B21
HPE 3.2TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04537-B21 P09094-B21
HPE 3.218 SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD HPE 6.4TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD HPE 6.4TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04537-B21

W. J.	
Write Intensive - 12G SAS - SFF - Solid State Drives	
HPE 400GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	873351-B21
HPE 400GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04541-B21
HPE 400GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P09098-B21
HPE 800GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	873355-B21
HPE 800GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04543-B21
HPE 800GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P09100-B21
HPE 1.6TB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	873357-B21
HPE 1.6TB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P09102-B21
HPE 1.6TB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04545-B21
HPE 3.2TB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04547-B21
Mixed Use - 12G SAS - LFF - Solid State Drives	
HPE 800GB SAS 12G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	P04529-B21
HPE 800GB SAS 12G Mixed Use LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD	P04531-B21
Mixed Use - 6G SATA - SFF - Solid State Drives	
HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P07922-B21
HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P07926-B21
HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P07930-B21
HPE 3.84TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P00896-B21
Mixed Use - 6G SATA - LFF - Solid State Drives	
HPE 480GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	875472-B21
HPE 480GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	P07924-B21
HPE 960GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	875476-B21
HPE 960GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	P07928-B21
HPE 1.92TB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	P07932-B21
Read Intensive - 6G SATA - SFF - Solid State Drives	
HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04556-B21
HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P06194-B21
HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04560-B21
HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04474-B21
HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04564-B21
HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P06196-B21
HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04476-B21
HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04566-B21
HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P06198-B21
HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04478-B21
HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04480-B21
HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04570-B21
HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P06200-B21
HPE 7.68TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P04482-B21
Read Intensive - 6G SATA - SFF - Solid State Drives	
HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	875503-B21
HPE 480GB SATA 6G Read Intensive LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	P09687-B21
HPE 960GB SATA 6G Read Intensive LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	P09689-B21
HPE 1.92TB SATA 6G Read Intensive LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	P09693-B21

the on boards NVMe connection.

Mixed Use - 6G SATA - SFF - Solid State Drives		
HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P09712-B21	
HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P09716-B21	
HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	P09722-B21	
Mixed Use - 6G SATA - LFF - Solid State Drives		
HPE 960GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	P09718-B21	
HPE 1.92TB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	P09724-B21	
Read Intensive - NVMe - SFF - Solid State Drives		
HPE 1.92TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	P10214-B21	
HPE 3.84TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	P10216-B21	
HPE 7.68TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	P10218-B21	
Mixed Use - NVMe - SFF - Solid State Drives		
HPE 1.6TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	P10222-B21	
HPE 3.2TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	P10224-B21	
HPE 6.4TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	P10226-B21	
Write Intensive - NVMe - SFF - Solid State Drives		
HPE 375GB NVMe x4 Lanes Write Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	878014-B21	
Read Intensive - M.2 - Solid State Drives		
HPE Dual 480GB SATA 6G Read Intensive M.2 - UFF to SFF SCM 3yr Wty Digitally Signed Firmware SSD	P06609-B21	
HPE 480GB SATA 6G Read Intensive M.2 2280 3yr Wty Digitally Signed Firmware SSD	875498-B21	
HPE 960GB SATA 6G Read Intensive M.2 2280 3yr Wty Digitally Signed Firmware SSD	875500-B21	
Mixed Use - M.2 - Solid State Drives		
HPE Dual 240GB SATA 6G Mixed Use M.2 - UFF to SFF SCM 3yr Wty Digitally Signed Firmware SSD	P06607-B21	
HPE 240GB SATA 6G Mixed Use M.2 2280 3yr Wty Digitally Signed Firmware SSD	875488-B21	
HPE 480GB SATA 6G Mixed Use M.2 2280 3yr Wty Digitally Signed Firmware SSD	875490-B21	
HPE 960GB SATA 6G Mixed Use M.2 2280 3yr Wty Digitally Signed Firmware SSD	875492-B21	
Hard Drive Blank Kits		
HPE Universal SATA HHHL 3yr Wty M.2 Kit	878783-B21	
NOTE: This is a M.2 enablement standup card.		
HPE Large Form Factor Hard Drive Blank Kit	666986-B21	
HPE Small Form Factor Hard Drive Blank Kit	666987-B21	
Hard Drive Kits		
HPE DL38X Gen10 3LFF Rear SAS/SATA Drive Kit	826685-B21	
NOTE: This is supported in the LFF model only.		
NOTE: 3 LFF rear drives will consume the 2nd riser expansion slot.		
HPE DL385 Gen10 4 Large Form Factor Mid-Plane Hard Drive Carrier	882096-B21	
NOTE: Supported with both the 8 and 12 LFF model.		
<b>NOTE:</b> With this mid-tray only single-wide (8.5-inch cards with connections or less) cards are supported.		
NOTE: This drive does support hot-swap drives.		
NOTE: This requires High Performance Fans (867810-B21).	02//07 524	
HPE DL38X Gen10 2SFF Premium HDD Front NVMe or Front/Rear SAS/SATA Kit	826687-B21	
<b>NOTE:</b> HPE DL38X Gen10 High Performance Temperature Fan Kit (867810-B21). <b>NOTE:</b> NVMe drives require the addition of an NVMe capable riser, or a 2P configuration and the NVMe cable 871827-B21 for		
NOTE: INVINE CITYES require the addition of an invine capable riser, or a 2P configuration and the NVMe cable 87	TQT\-RTT tol	

**NOTE:** To maintain SATA compatibility with NVMe connections, the 3 POS cable (882100-B21) must be used as well.

HPE DL38X Gen10 2SFF HDD SAS/SATA Riser Kit

826688-B21

**NOTE:** Supports 2 SFF rear in Riser1 or 2 location – max 2 supported SFF model.

**NOTE:** Supports 2 SFF rear in Riser1 or 2 location in LFF model. Note is 3 LFF rear option is selected maximum of one in riser 1 location.

**NOTE:** Supports uFF drives.

HPE DL38X NVMe 8 Solid State Drive Express Bay Enablement Kit

826689-B21

NOTE: This option provides support for up to 8NVMe drives, and can be populated in all Boxes in the 8 SFF model.

**NOTE:** A maximum of 24 NVMe drives only are supported.

NOTE: This will require the HPE DL38X Gen10 4-port 8 NVMe SlimSAS Riser (867807-B21).

**NOTE:** For full 24 drive NVMe support this requires 3 risers; 1st (867807-B21), 2nd (873732-B21) & 3rd (867808-B21) and the on board NVMe connections with 2x NVMe cable (871827-B21).

**NOTE:** Supporting 24 NMVe limits I/O support to the ALOM slot.

HPE DL38X Gen10 Premium 6 SFF SAS/SATA + 2 NVMe or 8 SFF SAS/SATA Bay Kit

826690-B21

**NOTE:** This option provides supports for up to 8 SAS/SATA SFF drives or a combination of 6 SATA/SATA and 2 NVMe drives in the same cage, and can be populated in all Boxes in the SFF model.

**NOTE:** For support of the 2 NVMe drives this will require the addition of the HPE DL38X Gen10 x8/x8/x8 1-port 2 NVMe SlimSAS Riser (867806-B21) for 1P configurations.

**NOTE:** For 2P configurations the HPE DL38X Gen10 2-port 4 NVMe SlimSAS Riser (867808-B21) or the NVME cable (871827-B21) with the on board NVMe connections me be used.

NOTE: NVMe drives require the addition of the High Performance Fan kit (867810-B21).

HPE DL38X Gen10 SFF Box1/2 Cage/Backplane Kit

826691-B21

NOTE: Supports 8 SAS/SAFA SFF drives in Box 1 or 2 to a max of 24 SFF SAS/SATA front.

HPE DL38X Gen10 8LFF Front 2NVMe HDD Bay Kit

873781-B21

NOTE: Supports 2 NVMe in the Universal Media bay (included) on the 8 LFF model.

**NOTE:** For support of the 2 NVMe drives this will require the addition of the HPE DL38X Gen10 x8/x8/x8 1-port 2 NVMe SlimSAS Riser (867806-B21) for 1P configurations.

**NOTE:** For 2P configurations the HPE DL38X Gen10 2-port 4 NVMe SlimSAS Riser (867808-B21) is needed or the NVMe cable (871827-B21) with the on board NVMe connections may be used.

**NOTE:** NVMe drives require the addition of the High Performance Fan kit (867810-B21).

#### **Hard Drive Kits**

HPE DL38X Gen10 8LFF Front 2SFF SAS/SATA HDD Kit

867805-B21

NOTE: For 2 SFF SAS/SATA in UMB on 8 LFF model only.

#### Media Bay Kits

HPE DL385 Gen10 Universal Media Bay

882097-B21

**NOTE:** The HPE DL385 Gen10 Universal Media bay provides front Display Port and 2xUSB 2.0; plus support for 2x SFF front drives or 2 NVME front drives (826687-B21 and NVMe riser required see notes below) and ODD support (Not included); and can only be located in Box1 in either an 8 SFF or 8+8 SFF model.

**NOTE:** This is a SFF model option only.

**NOTE:** For support of the 2 NVMe drives this will require the addition of the HPE DL38X Gen10 x8/x8/x8 1-port 2 NVMe SlimSAS Riser (867806-B21) for 1P configurations.

**NOTE:** For 2P configurations the HPE DL38X Gen10 2-port 4 NVMe SlimSAS Riser (867808-B21) is needed or the NVMe cable (871827-B21) with the on board NVMe connections may be used.

HDE Notice of Com-	
HPE Networking	
1 Gigabit Ethernet adapters	//750/ 504
HPE Ethernet 1Gb 4-port 331T Adapter	647594-B21
HPE Ethernet 1Gb 4-port 366T Adapter	811546-B21
HPE Ethernet 1Gb 2-port 332T Adapter	615732-B21
HPE Ethernet 1Gb 2-port 361T Adapter	652497-B21
10 Gigabit Ethernet adapters	
HPE Ethernet 10Gb 2-port 535T Adapter	813661-B21
HPE Ethernet 10Gb 2-port 521T Adapter	867707-B21
HPE Ethernet 10Gb 2-port 562SFP+ Adapter	727055-B21
HPE Ethernet 10Gb 2-port 562T Adapter	817738-B21
HPE Ethernet 10Gb 2-port 562FLR-T Adapter	817745-B21
25 Gigabit Ethernet adapters	
HPE Ethernet 10/25Gb 2-port 631SFP28 Adapter	817718-B21
HPE Ethernet 10/25Gb 2-port 640SFP28 Adapter	817753-B21
HPE Ethernet 10/25Gb 2-port 621SFP28 Adapter	867328-B21
NOTE: The DL385 Gen10 ships with 4x 1 Gb Embedded.	
<b>NOTE:</b> A minimum of two Gigabytes (2 GB) of server memory is required per each adapter.	
NOTE: Direct Attach Cable (DAC) for copper environments or fiber transceivers and cables for f	
purchased separately. Please see the related NIC QuickSpecs for Technical Specifications and ac	dditional information:
http://www.hpe.com/us/en/product-catalog/servers/server-adapters.hits-12.html	
100 Gigabit Ethernet adapters	
HPE Ethernet 100Gb 1-port 842QSFP28 Adapter	874253-B21
FlexibleLOM adapters	
HPE Ethernet 1Gb 4-port 331FLR Adapter	629135-B22
HPE Ethernet 1Gb 4-port 366FLR Adapter	665240-B21
HPE Ethernet 10Gb 2-port 535FLR-T Adapter	817721-B21
HPE FlexFabric 10Gb 4-port 536FLR-T Adapter	764302-B21
HPE Ethernet 10/25Gb 2-port 631FLR-SFP28 Adapter	817709-B21
HPE Ethernet 10/25Gb 2-port 640FLR-SFP28 Adapter	817749-B21
HPE Ethernet 10Gb 2-port 562FLR-SFP+ Adapter	727054-B21
HPE Ethernet 10/25Gb 2-port 622FLR-SFP28 Converged Network Adapter	867334-B21
NOTE: The DL385 Gen10 chassis ships with 4x 1 Gb embedded.	
NOTE: Only one FlexibleLOM can be added to the server. These options are upgradeable and	can be changed from the original
configuration after the server is shipped.	
NOTE: Direct Attach Cable (DAC) for copper environments or fiber transceivers and cables for t	·
purchased separately. Please see the related NIC QuickSpecs for Technical Specifications and account of the second	
NOTE: 622FLR-SFP28 adapters with FCoE used in conjunction with all Red Hat 7.x version C	OS's is not supported at this time
http://www.hpe.com/us/en/product-catalog/servers/server-adapters.hits-12.html	
HPE InfiniBand	
HPE InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+FLR-QSFP Adapter	764285-B21
HPE InfiniBand FDR/Ethernet 40/50Gb 2-port 547FLR-QSFP Adapter	879482-B21
HPE InfiniBand EDR 100Gb 1-port 841QSFP28 Adapter	872725-B21
HPE InfiniBand EDR/Ethernet 100Gb 2-port 841QSFP28 Adapter	872726-B21
HPE InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+QSFP Adapter	764284-B21
HPE InfiniBand EDR/Ethernet 100Gb 1-port 840QSFP28 Adapter	825110-B21
	005444 504

HPE InfiniBand EDR/Ethernet 100Gb 2-port 840QSFP28 Adapter

825111-B21

**HPE I/O Expansion Options** 

NOTE: For additional details on ProLiant DL Gen10 server risers please	
visit: https://www.hpe.com/h20195/v2/Getdocument.aspx?docname=a00043229enw	
<b>NOTE:</b> The Primary Riser shipping default in the chassis is a x8 FH, FL, x16 FH, FL and x8 FH, HL.	
<b>NOTE:</b> For a Secondary/Tertiary riser the second processor is required.	
HPE DL38X Gen10 x16/x16 Riser Kit	826694-B21
NOTE: Slot 1 or 2 in Primary or Secondary location.	
NOTE: Supports Full Height and Full length cards.	
<b>NOTE:</b> Bus width x16, x16, Connector Width x16, x16.	
HPE DL Gen10 x8/x16/x8 Riser Kit	870548-B21
NOTE: No M.2 support on this riser.	
NOTE: Supports Full Height, Half- length cards; Full Height, Full-length cards and Full Height, Half- length cards.	
<b>NOTE:</b> Bus width x8, x16, x8, Connector Width x8, x16, x8.	
HPE DL38X Gen10 4-port 8 NVMe Primary Slim SAS FIO Riser	867807-B21
NOTE: Riser supporting up to 8 NVMe drives in Primary location.	
<b>NOTE:</b> This can be connected to an 8SFF NVMe drive cage in box 3.	
NOTE: To achieve max 24 NVMe support, connect 8 NVMe drives to both the primary and secondary risers, 4 NVMe	VMe drives to
the tertiary riser, and 4 NVMe drives the the on board connectors.	
HPE DL Gen10 x16/x16 GPU Riser Kit	826704-B21
NOTE: Primary or Secondary Riser, Connector in slot 2 & 3 for GPU support.	
NOTE: Supports Full Height and Full length cards.	
<b>NOTE:</b> Bus width x16, x16, Connector Width x16, x16.	
HPE DL38X Gen10 2SFF HDD SAS/SATA Riser Kit	826688-B21
NOTE: Premium bay supporting SFF SAS/SATA .	
NOTE: Available in Primary or Secondary Riser location.	
NOTE: Will leave 1 x16 Connector available in bottom slot.	
HPE DL38X Gen10 x8/x8/x8 1-port 2 NVMe SlimSAS Riser	867806-B21

NOTE: Supports Full Height and half-length cards.

**NOTE:** Bus width x8, x8, x8 Connector Width x8, x8, x8.

**NOTE:** Supports NVMe drives in Primary or Secondary location.

HPE DL38X Gen10 2-port 4 NVMe SlimSAS Riser

867808-B21

**NOTE:** Supports up to 4 NVMe drives in Tertiary location.

HPE DL38X Gen10 4-port 8 NVMe Secondary Slim SAS Riser 873732-B21

**NOTE:** Riser supporting up to 8 NVMe drives in Secondary location.

875780-B21 HPE DL38X Gen10 2 x8 PCle Tertiary Riser Kit

**NOTE:** Supports 2x 8 slots in the Tertiary location.

HPE DL38X Gen10 x16 Tertiary Riser Kit 826700-B21

**NOTE:** Supports 1x 16 slot in the Tertiary location.

NOTE: Supports Full Height and full-length card.

**NOTE:** Bus width x16 Connector Width x16.

NOTE: For additional details on ProLiant DL Gen10 server risers please

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

**NVMe Direct** 

Bus width (Gen3 lanes)

# **Core Options**

Riser Information\* Part number

Description

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

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

									Connect	
		Primary	Secondary	Tertiary	Top slot	Middle Slot	Bottom slot	Ports	Drive count	
n/a	This is the default riser in the chassis	D	N	N	x8	x16	x8			
870548-B21	HPE DL Gen10 x8/x16/x8 Riser Kit	D	0	N	x8	x16	x8			
826704-B21	HPE DL Gen10 x16/x16 GPU Riser Kit	0	0	N	0	x16	x16			
826694-B21	HPE DL38X Gen10 x16/x16 Riser Kit	0	0	N	x16	x16	0			
867807-B21	HPE DL38X Gen10 4-port 8 NVMe Primary SlimSAS Riser	0	N	N	0	0	0	4	8	
867808-B21	HPE DL38X Gen10 2-port 4 NVMe SlimSAS Riser	N	N	0	0	0	0	2	4	
873732-B21	HPE DL38X Gen10 4-port 8 NVMe Secondary SlimSAS Riser	N	0	N	0	0	0	4	8	
867806-B21	HPE DL38X Gen10 x8/x8/x8 1-port 2 NVMe SlimSAS Riser	0	0	N	x8	x8	x8	1	2	
871673-B21	HPE DL38X Gen10 x8/x8/x8 1-port 2 NVMe SlimSAS FIO Riser Kit	0	N	N	x8	x8	x8	1	2	
826688-B21	HPE DL38X Gen10 2SFF HDD SAS/SATA Riser Kit	0	0	N	0	0	x16			
826700-B21	HPE DL38X Gen10 x16 Tertiary Riser Kit	N	N	0	X16	0	0			
875780-B21	HPE DL38X Gen10 2 x8 PCle Tertiary Riser Kit	N	N	0	X8	Х8	0			
871674-B21	HPE DL38X Gen10 Slot 1/2 x16/x16 FIO Riser Kit	0	N	N	x16	x16	0			
871676-B21	HPE DL38X Gen10 x16/x16 GPU Slot2/3 FIO Riser Kit	0	N	N	0	x16	x16			
826685-B21	HPE DL38X Gen10 3LFF SAS/SATA Riser Kit	N	0	N	0	0	0			
= supported; D	= default on Chassis; O = optiona	al; N = not	supported or	slot/conn	ector no	t present				
IPE Power Sup	plies									
	Slot Platinum Hot Plug Low Halog Platinum power supplies support			o 94% and	include a	a standar	d C-14 pov		5408-E	
HPE 800W Flex S	Slot Titanium Hot Plug Low Halog	en Power S	Supply Kit					865	5438-B	
	Titanium power supplies support   Slot Platinum Hot Plug Low Halog			o 96% and	include	a standar	a C-14 pov	-1	onnect 5414-E	
	Platinum power supplies support			o 94% and	include a	a standar	d C-14 pov			
HPE 800W Flex S	Slot -48VDC Hot Plug Low Haloge	en Power S	Supply Kit		_			865	5434-B	
IOTE: Flex Slot	-48VDC power supplies support	power effic	ciency of up t	to 94%.						

Riser position

865428-B21

830272-B21

## **Core Options**

NOTE: Flex Slot universal power supplies support power efficiency of up to 94% and support both 277VAC/380VDC power inputs. NOTE: 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).

NOTE: Prior to making a power supply selection it is highly recommended that the HPE Power Advisor is run to determine the right size power supply for your server configuration. The HPE Power Advisor is located at:

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

NOTE: All power supplies in a server should match. Mixing Power Supplies is not supported.

**NOTE:** Option kits contain the specified power supply and a PDU IEC cable.

**NOTE:** 1600W power supplies only support high line voltage.

NOTE: HPE ProLiant servers ship with an IEC-IEC power cord used for rack mounting with Power Distribution Units (PDUs).

Visit **HPE power cords** for a full list of optional HPE power cords.

## **HPE PCIe Workload Accelerator Options**

HPE 750GB PCIe x4 Lanes Write Intensive HHHL 3yr Wty Digitally Signed Firmware Card

878038-B21

HPE Computation and Graphics Accelerators	
HPE AMD Radeon Pro WX7100 Graphics Accelerator	Q1K37A
HPE AMD Radeon Instinct MI25 Graphics Accelerator	Q1K38A
HPE NVIDIA Tesla V100 PCle 32GB Computational Accelerator	Q9U36A
HPE NVIDIA Tesla V100 PCle 16GB Computational Accelerator	Q2N68A
HPE NVIDIA Tesla P40 24GB Computational Accelerator	Q0V80A
NVIDIA Tesla M10 Quad GPU Module	Q0J62A
HPE NVIDIA Quadro GV100 Graphics Accelerator	Q1K34A
HPE NVIDIA Tesla T4 16GB Computational Accelerator	ROW29A
HPE DL38x Gen10 8-pin Cable Kit	871828-B21
HPE DL38x Gen10 8-pin Keyed Cable Kit	871829-B21
HPE DL38x GPU 6px6p Y-Power Cable Kit	874212-B21
HPE GPU 2x 8-pin Cable Kit	P03849-B21
HPE DL38x Gen10 8x 6-pin Cable Kit	871830-B21

## **HPE Cooling Options**

HPE DL38X Gen10 High Performance Temperature Fan Kit

867810-B21

**NOTE:** This kit is required for specific **Ambient temperature environments**, coming in 2H2017.

NOTE: High Performance fan kit consists of 6 fans, these will need to replace all the standard fans in the unit, and fill all 6 fan cages.

NOTE: The 12 LFF and 24 SFF models (including field upgrades to 24 SFF) will already include 6 High Performance fan kits.

NOTE: The High Performance fan kit is needed to support certain Passive GPGPU (Graphics cards) configurations; or ASHRAE operating environments.

NOTE: For elevated ambient temperature support please see: http://www.hpe.com/servers/ashrae

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

Embedded Management	
HPE iLO Advanced	
HPE iLO Advanced Electronic License with 1yr Support on iLO Licensed Features	E6U59ABE
HPE iLO Advanced 1-server License with 1yr Support on iLO Licensed Features	512485-B21
HPE iLO Advanced Flexible Quantity License with 1yr Support on iLO Licensed Features	512486-B21
HPE iLO Advanced AKA Tracking License with 1yr Support on iLO Licensed Features	512487-B21
HPE iLO Advanced Electronic License with 3yr Support on iLO Licensed Features	E6U64ABE
HPE iLO Advanced 1-server License with 3yr Support on iLO Licensed Features	BD505A
HPE iLO Advanced Flexible Quantity License with 3yr Support on iLO Licensed Features	BD506A
HPE iLO Advanced AKA Tracking License with 3yr Support on iLO Licensed Features	BD507A
HPE iLO Advanced Security	
HPE iLO Advanced Premium Security Upgrade Electronic License with 3yr Support on Licensed Features	Q7E12AAE
HPE iLO Advanced Premium Security Flex Qty License with 1yr Support on Licensed Features	Q7E32A
HPE iLO Advanced Premium Security Edition Electronic License with 1yr Support on Licensed Features	Q7E32AAE
HPE iLO Advanced Premium Security AKA Tracking License with 1yr Support on Licensed Features	Q7E35A
HPE iLO Advanced Premium Security Upgrade Electronic License with 3yr Support on Licensed Features	Q7E12AAE
HPE iLO Advanced Premium Security Flex Qty License with 3yr Support on Licensed Features	Q7E34A
HPE iLO Advanced Premium Security Edition Electronic License with 3yr Support on Licensed Features	Q7E34AAE
HPE iLO Advanced Premium Security AKA Tracking License with 3yr Support on Licensed Features	Q7E36A
HPE Converged Infrastructure Management Software	1
HPE OneView Physical Media Kit LTU	E5Y37A
HPE OneView Standard 1yr 9x5 Support Flexible Quantity E-RTU	K6F98AAE
HPE OneView including 3yr 24x7 Support Physical 1-server LTU	E5Y34A
HPE OneView including 3yr 24x7 Support Track 1-server LTU	E5Y36A
HPE OneView including 3yr 24x7 Support Flexible Quantity E-LTU	E5Y35AAE
HPE OneView Upgrade from Insight Management 3yr 24x7 Support 1-server LTU	F6Q91A
HPE OneView w/o iLO including 3yr 24x7 Support 1-server LTU	P8B24A
HPE OneView w/o iLO including 3yr 24x7 Support Track 1-server LTU	P8B25A
HPE OneView w/o iLO Advance including 3yr 24x7 Support Track 1-server LTU	E5Y40A
HPE OneView for ProLiant DL Server including 3yr 24x7 Support Bundle Track 1-server LTU	E5Y44A
HPE OneView Upgrade from Insight Management including 3yr 24x7 Support Flexible Quantity E-LTU	E5Y45AAE
HPE OneView w/o iLO including 3yr 24x7 Support Flexible Quantity E-LTU	P8B26AAE
<b>NOTE:</b> Licenses ship without media. The HPE OneView Media Kit can be ordered separately, or can be <b>downloaded</b>	•

### **HPE Security**

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

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

HPE Trusted Platform Module 2.0 Gen10 Option

864279-B21

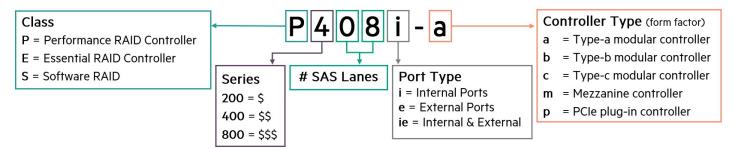
NOTE: HPE Trusted Platform Module 2.0 option works with Gen10 servers with UEFI Mode not Legacy Mode. It is not compatible with HPE ProLiant Gen8 servers or earlier generation variants.

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

NOTE: There is a FIO setting to allow this TPM module to operate in a TPM 1.2 mode (872108-B21).

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

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



## HPE 96W Smart Storage Battery (up to 20 Devices) with 145mm Cable Kit

HPE DL380 Gen9 12LFF Smart HBA H240 SAS Cable Kit

HPE DL38X/560/580/ML350 Gen10 P824i-p Cable Kit

HPE DL385 Gen10 Mini SAS 3POS Cable Kit

NOTE: All performance RAID controllers are supported by the HPE Smart Storage Battery (P01366-B21), which supports multiple

devices and is sold separately.	
HPE Smart Array P824i-p MR Gen10 (24 Internal Lanes/4GB Cache/CacheCade) 12G SAS PCIe Controller	870658-B21
HPE Smart Array P816i-a SR Gen10 (16 Internal Lanes/4GB Cache/SmartCache) 12G SAS Modular Controller	804338-B21
NOTE: Does not occupy a PCIe expansion slot and includes SmartCache license.	
NOTE: The P816i-a cable ships in the 12LFF chassis only.	
HPE Smart Array P408i-a SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS Modular Controller	804331-B21
NOTE: Does not occupy a PCIe expansion slot.	
HPE Smart Array P408i-p SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS PCle Plug-in Controller	830824-B21
HPE Smart Array P408e-p SR Gen10 (8 External Lanes/4GB Cache) 12G SAS PCIe Plug-in Controller	804405-B21
Essential RAID Controllers	
HPE Smart Array E208i-p SR Gen10 (8 Internal Lanes/No Cache) 12G SAS PCIe Plug-in Controller	804394-B21
HPE Smart Array E208e-p SR Gen10 (8 External Lanes/No Cache) 12G SAS PCIe Plug-in Controller	804398-B21
HPE Smart Array E208i-a SR Gen10 (8 Internal Lanes/No Cache) 12G SAS Modular Controller	804326-B21
NOTE: Does not occupy a PCIe expansion slot.	
HPE Cable Options	

786215-B21

P00614-B21

882100-B21

#### **HPE Racks**

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

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

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

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

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

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

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

### **HPE Uninterruptible Power Systems (UPS)**

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

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

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

### **HPE Rack Options**

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

#### Rail Kits

NOTE: Ball bearing and Easy Install rail kits contain telescoping rails which allow for in-rack serviceability.

**NOTE:** 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).

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

HPE 2U Small Form Factor Easy Install Rail Kit	733660-B21
NOTE: Does not include CMA (733664-B21).	
HPE 2U Large Form Factor Easy Install Rail Kit	733662-B21
NOTE: Does not include CMA (733664-B21).	
HPE 2U Cable Management Arm for Easy Install Rail Kit	733664-B21
HPE 2U Small Form Factor Ball Bearing Rail Kit	720863-B21
NOTE: Does not include CMA (720865-B21).	
HPE 2U Large Form Factor Ball Bearing Rail Kit	720864-B21
NOTE: Does not include CMA (720865-B21).	
HPE 2U Cable Management Arm for Ball Bearing Rail Kit	720865-B21
HPE Other Options	
HPE Rack LED Light Kit	BW939A
HPE Kit LCD 1.83m Latch Display Port Cable	G7T29A

## **HPE USB and SD Options**

HPE 8GB Dual microSD Flash USB Drive	741279-B21
HPE 32GB microSD Flash Memory Card	700139-B21
HPE 8GB microSD Flash Memory Card	726116-B21
HPE 8GB microSD Flash USB Drive	737953-B21

## **HPE Support Services**

## **Installation & Startup Services**

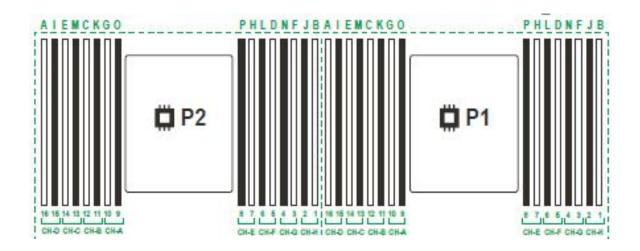
HPE Install ProLiant DL38x(p) Service	U4554E
HPE Installation and Startup DL38x(p) Service	U4555E

### **Proactive Care**

HPE 3 Year Proactive Care 24x7 ProLiant DL385 Gen10 Service	HC2M2E
HPE 3 Year Proactive Care 24x7 with DMR ProLiant DL385 Gen10 Service	HC2M3E
HPE 3 Year Proactive Care 24x7 with CDMR ProLiant DL385 Gen10 Service	HC2M4E
HPE 3 Year Proactive Care Call-To-Repair ProLiant DL385 Gen10 Service	HC2N1E
HPE 3 Year Proactive Care Call-To-Repair 24x7 with DMR ProLiant DL385 Gen10 Service	HC2N2E
HPE 3 Year Proactive Care Call-To-Repair with CDMR ProLiant DL385 Gen10 Service	HC2N3E

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

# Memory



DIMM Type	Register DIMM (RDIMM)				
HPE SKU P/N	838079-B21	838081-B21	838089-B21	838083-B21	
SKU Description	HPE 8GB (1x8GB)	HPE 16GB (1x16GB)	HPE 16GB (1x16GB)	HPE 32GB	
	Single Rank x8 DDR4-	Single Rank x4 DDR4-	Dual Rank x8 DDR4-	(1x32GB) Dual	
	2666 CAS-19-19-19	2666 CAS-19-19-19	2666 CAS-19-19-19	Rank x4 DDR4-	
	Registered Smart	Registered Smart	Registered Smart	2666 CAS-19-19-	
	Memory Kit	Memory Kit	Memory Kit	19 Registered Smart	
				Memory Kit	
DIMM Rank ->	Single Rank (1R)	Single Rank (1R)	Dual Rank (2R)	Dual Rank (2R)	
DIMM Capacity ->	8GB	16GB	16GB	32GB	
Voltage	1.2V	1.2V	1.2V	1.2V	
DRAM depth [bit]	1G	2G	1G	2G	
DRAM Width [bit]	x8	x4	x8	x4	
DRAM Density	8Gb	8Gb	8Gb	8Gb	
CAS Latency	19-19-19	19-19-19	19-19-19	19-19-19	
DIMM Native Speed (MT/s)	2666 MT/s	2666 MT/s	2666 MT/s	2666 MT/s	
AMD EPYC® 7000 Processors Officially Supported Memory Speed (MT/s)					
1 DIMM Per Channel	2666 MT/s	2666 MT/s	2400 MT/s	2400 MT/s	
2 DIMM Per Channel	2133 MT/s	2133 MT/s	2133 MT/s	2133 MT/s	

**NOTE:** The maximum memory speed is a function of the memory type, memory configuration, and processor model. **NOTE:** Model 7251 1 DIMM per channel is 2400 MT/s.

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

# **Memory**

DIMM Type	Load Reduc	Load Reduced (LRDIMM)			
HPE SKU P/N	838085-B21	838087-B21			
SKU Description	HPE 64GB (1x64GB) Quad Rank x4	HPE 128GB (1x128GB) Octal Rank x4			
	DDR4-2666 CAS-19-19-19 Load	DDR4-2666 CAS-22-19-19 3DS Load			
	Reduced Smart Memory Kit	Reduced Smart Memory Kit			
DIMM Rank	Quad Rank (4R)	Octal Rank (8R)			
DIMM Capacity	64GB	128GB			
Voltage	1.2V	1.2V			
DRAM depth [bit]	2G	2G			
DRAM Width [bit]	x4	x4			
DRAM Density	8Gb	8Gb			
CAS Latency	19-19-19	22-19-19			
DIMM Native Speed (MT/s)	2666	2666			
AMD EPYC® 7000 Processors Officia	ally Supported Memory Speed (MT/s)				
1 DIMM Per Channel	2666 MT/s	2666 MT/s			
2 DIMM Per Channel	2133 MT/s	2133 MT/s			
NOTE: The maximum memory speed	is a function of the memory type, memory configu	uration, and processor model.			

**NOTE:** Model 7251 1 DIMM per channel is 2400 MT/s.

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

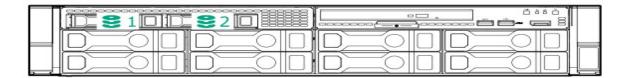
## DDR4 memory options part number decoder

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

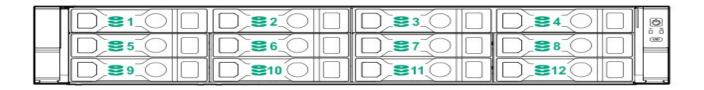
- 8GB = 8,192 MB
- 16GB = 16,384 MB
- 32GB = 32,768 MB
- 64GB = 65,536 MB

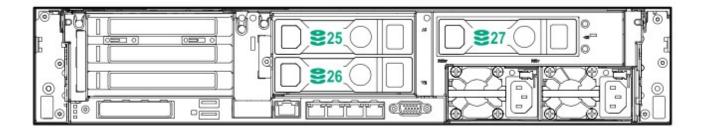
For more information on memory, please see the Memory Quickspecs: **HPE DDR4 SmartMemory** 

# Storage

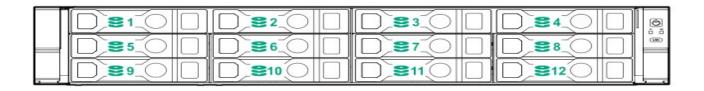


8LFF chassis with Universal media bay and optional 2SFF and optical drive shown





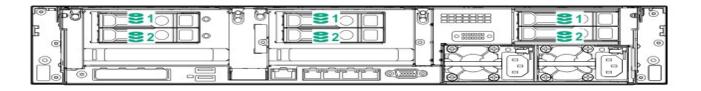
12 LFF + 3 rear LFF drives



# Storage



12 LFF + 2 rear SFF drives



6 rear SFF drives





24 SFF + rear 2 SFF drives

## **Technical Specifications**

### System Unit

#### **Dimensions**

8.73 x 44.55 x 67.94 cm SFF Drives:

3.44 x 17.54 x 26.75 in

8.73 x 44.55 x 73.02 cm LFF Drives:

 $3.44 \times 17.54 \times 28.75$  in

### Weight (approximate)

14.9 kg Minimum: 8 SFF chassis with 1x SFF HDD and 7 HDD blanks, 2x Drive Bay blanks, 1x processor including 32.75 lb standard heatsink, 1x power supply (plus blank), 1x Smart Array, 1x Riser installed, cables for the above)

23.6 kg Maximum: 12 LFF hard drives (no rear drives), 2x processors, 2x power supplies, 1x Smart Array, 2x Risers

51.5 lb installed)

**Input Requirements** (per power supply)

Rated Line Voltage 100 to 120 VAC

200 to 240 VAC

#### **BTU Rating**

Maximum For 800W Power Supply: 3207 BTU/hr (at 100 VAC), 3071 BTU/hr (at 200 VAC), 3112 BTU/hr (at 240

VAC) for China Only

For 500W Power Supply: 1979 BTU/hr (at 100 VAC), 1911 BTU/hr (at 200 VAC), 1965 BTU/hr (at 240

VAC) for China Only

### Power Supply Output (per power supply)

Rated Steady-State Power For 1400W Power Supply: 1400W (at 240 VAC), 1400W (at 240 VAC)

For 800W Power Supply: 800W (at 100 VAC), 800W (at 240 VAC), 800W (at 240 VAC) input for China

only

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

only

Maximum Peak Power For 1400W Power Supply: 1400W (at 200 to 240 1VAC), 1400W (at 240 VAC) input for China only

For 800W Power Supply: 800W (at 100 to 127 VAC), 800W (at 200 to 240 1VAC), 800W (at 240 VAC)

input for China only

For 500W Power Supply: 500W (at 100 to 127 VAC), 500W (at 200 to 240 VAC), 500W (at 240 VAC)

input for China only

## **System Inlet Temperature**

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

number of options installed.

System performance during standard operating support may be reduced if operating with a fan fault or

above 30°C (86°F).

# **Technical Specifications**

### **System Inlet Temperature**

Extended Ambient
Operating Temperature

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

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

For approved hardware configurations, the supported system inlet range is extended to be:  $40^{\circ}$  to  $45^{\circ}$ 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

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

**Relative Humidity** 

Operating 8% to 90% - Relative humidity (Rh), 28°C maximum wet bulb temperature, non-condensing.

(non-condensing) Non-

operating

5 to 95% relative humidity (Rh), 38.7°C (101.7°F) maximum wet bulb temperature, non-condensing.

Altitude

Operating 3050 m (10,000 ft). This value may be limited by the type and number of options installed. Maximum

allowable altitude change rate is 457 m/min (1500 ft/min).

Non-operating 9144 m (30,000 ft). Maximum allowable altitude change rate is 457 m/min (1500 ft/min).

#### **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.

### Idle

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

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

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

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

## **Technical Specifications**

# 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 DL, ML and Apollo Servers</u> please refer to their QuickSpecs. (E208i-a,E208i-p,E208e-p,P408i-a,P408i-p,P408e-p,P816i-a)

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

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

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

# **Summary of Changes**

Date	Version History	Action	Description of Change
04-Mar-2019	Version 12	Changed	Pre-configured Model and Aditional Options sections were updated.
04-Feb-2019	Version 11	Changed	Overview, Standard Features, Pre-configured Models, Configuration Information, Core Options , Aditional Options and Optional Features were updated
10-Dec-2018	Version 10	Changed	SKU 829335-B21 was deleted from Core Options Sectio
15-Oct-2018	Version 9	Changed	Overview, Standard Features, Pre-Configured models, Configuration Information – Factory Integrated Models, Core Options, Additional Options, Memory were revised.
01-Oct-2018	Version 8	Changed	Overview, Standard Features, Pre-Configured models, Configuration Information – Factory Integrated Models, Core Options, Additional Options, Memory were revised.
06-Aug-2018	Version 7	Added	New Memory option and new GPU option were added. Added new Solid State Drives offering.
		Changed	Configuration Information – Factory Integrated Models, Core Options, and Additional Options were revised.
02-Jul-2018	Version 6	Changed	Core Options and Additional Options were revised.
04-Jun-2018	Version 5	Added	Added new SSD offering. New GPU options and Riser information table were added.
		Changed	Core Options, Additional Options, and Memory were revised.
		Removed	Obsolete SKUs were removed from the QuickSpecs.
07-May-2018	Version 4	Added	Added new Entry model to the Pre-Configured models section.
		Changed	Pre-Configured models, Configuration Information – Factory Integrated Models, Core Options, and Additional Options were revised.
02-Apr-2018	Version 3	Changed	SKU descripton were updated.
12-Feb-2018	Version 2	Added	New model was added to the Pre-configured Models section.
		Changed	Overview, Expansion Slots, Maximum Internal Storage, Pre-configured Models, Configuration Information - Factory Integrated Models, Core Options, Additional Options, and Memory were revised.
		Removed	Obsolete SKUs were removed from the QuickSpecs.
04-Dec-2017	Version 1	New	New QuickSpecs.



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

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