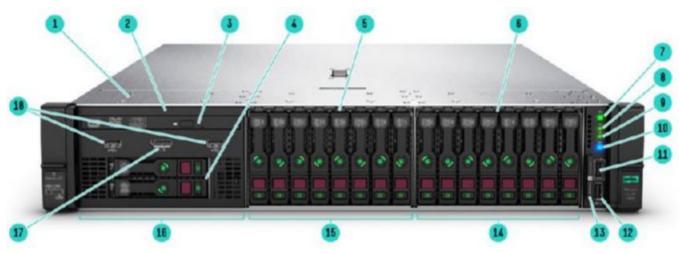


**Overview** 

#### **HPE ProLiant DL385 Gen10 Server**

The HPE ProLiant DL385 Gen10 Server is redefining price/performance with the new math for virtualized compute. Powered by the latest AMD® EPYC® 7xx2 Series Processors, the HPE ProLiant DL385 Gen10 Server offers greater processing power and faster memory speeds upto 2933 MT/s. This 2P, 2U server has been designed with flexibility while delivering a high maximum core count and large memory footprint. Choose this purpose-built 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<br>USB 2.0 and Display port standard shown (8<br>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 PCIe SSD optional)   | 14 | Box 3   |
| 6 | Drive Bay 3. NVMe shown (8 SFF, 6SFF+2NVMe or 8 NVMe PCIe 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)            |

Overview

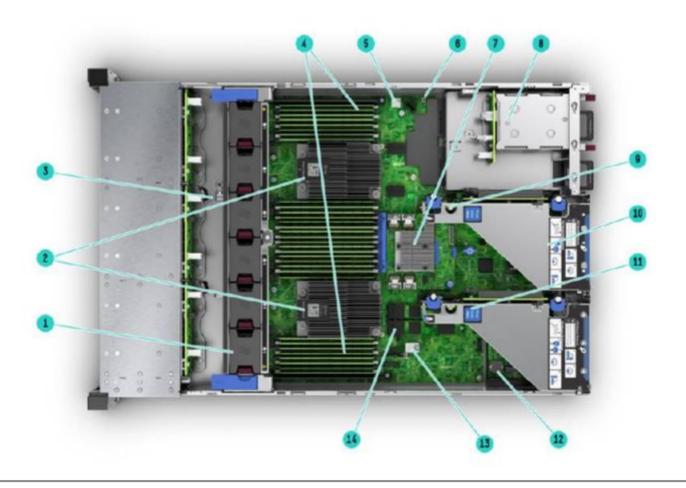


HPE ProLiant DL385 Gen10 Server - Front View

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



(Under) Hot Plug redundant HPE Flexible Slot

Fan cage shown with 6 standard Hot-plug

Primary Riser. PCI Slots (Slots 1-3 top to

**Overview** 

1.

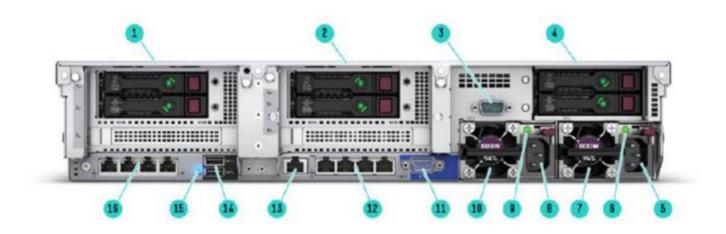
#### HPE ProLiant DL385 Gen10 Server - Internal View

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

8

Power supplies (High Performance fans optional) 2. 2 Processors (heatsinks shown) 9 Connection for second (optional) riser (Requires second CPU) Optional HPE Smart Storage Battery (not \*\*Embedded 4x1Gbe NIC (if equipped) 3 10 shown) 4. DDR4 DIMM slots. Shown fully populated in 11 Primary PCIe riser, standard (Optional double wide 32 slots GPU riser) (16 per processor) MicroSD card slot (Optional Dual Micro-SD 5 12 Optional Flexible LOM slot option) Chassis intrusion detection connector 13 Internal USB 3.0 connector 6 Optional HPE Flexible Smart Array Controller 14. Embedded M.2 connectors 7 (P408i-a shown)

Notes: \*\*Embedded 4x 1GbE Adapter is not equipped on new boards for 7xx2 series processors



#### HPE ProLiant DL385 Gen10 Server - Rear View

Power supply Power LED Bay 2

With optional FlexLOM, Rear drives and Serial port shown

9

|   | 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 | 10 | HPE Flexible Slot Power Supply Bay 2              |
| 3 | Optional serial port   | 11 | VGA connector                                     |
| 4 | Tertiary Riser (Slots 7-8 top to bottom, not shown). Optional rear 2 SFF HDD   | 12 | **Embedded 4 x 1GbE Network Adapter( if equipped) |
| 5 | Power supply power connection. Bay 1   | 13 | Dedicated iLO management port                     |
| 6 | Power supply Power LED. Bay1   | 14 | USB connectors 3.0 (2)                            |
|   |  |    |   |

#### **Overview**

7 HPE Flexible Slot Power Supply. Bay 1 15 Unit ID LED

8 Power supply Power connection Bay 2 16 Optional FlexibleLOM ports (Shown: 4 x 1GbE)

Notes: \*\*Embedded 4x 1GbE Adapter is not equipped on new boards for 7xx2 series processors

#### What's New:

- New 2933 Memory DIMMs with capacity upto 128 GB
- New Disk Cartridge Options
- Supports the next generation AMD EPYC 7xx2 Series processor with double the core density compared to the previous generation and memory speeds up to 2933 MT/s.
- Embedded 4x 1GbE LOM is not supported with 7xx2 series processors
- Two new SMB Base SKU (BTO) offerings
- New SAS & SATA Solid State Drives
- New NVME Solid State Drives
- European Union (EU) Lot 9 regulation, please visit:

https://www.hpe.com/us/en/about/environment/msds-specs-more.html for more information

#### **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

#### **Notes**:

- The 3 LFF rear drive box will consume space for the secondary and tertiary riser.
- 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.
- -The 8 NVMe drive option (826689-B21) can only be leveraged in the SFF chassis and replaces Box 1, 2 or 3.
- -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
- -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.
- -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).
- -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).
- -CPU selection is limited 125W or lower with 4LFF midtray selected.
- The 8LFF chassis ships with 6-standard fans.
- 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.

#### **System Fans**

#### **Overview**

• Standard - fan types included

#### **Notes:**

- 1P models ship with 4 standard fans. The second processor option kit contains 2 additional fans.
- -The 12 LFF and 24 SFF chassis ship with 6 High performance fans as standard.
- -The 8LFF chassis ships with 6 standard fans as standard.
- High performance fan kit is available to meet ambient temperature environments.
- 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.

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

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

| AMD® EPYC® 7xx2 Series Processor Family |       |           |           |        |         |       |          |
|---|-------|-----------|-----------|--------|---------|-------|----------|
| AMD EPYC                                | Cores | Base      | Max       | Max    | Wattage | Cache | Memory   |
| Processor                               |       | Frequency | Frequency | Memory |         |       | -        |
| EPYC 7702                               | 64    | 2.0Ghz    | 3.35Ghz   | 2TB    | 200     | 256MB | 2933MT/S |
| EPYC 7552                               | 48    | 2.2GHz    | 3.3GHz    | 2TB    | 200     | 192MB | 2933MT/s |
| EPYC 7532                               | 32    | 2.3GHz    | 3.2GHz    | 4TB    | 200     | 256MB | 3200MT/s |
| EPYC 7502                               | 32    | 2.5Ghz    | 3.35Ghz   | 2TB    | 180     | 128MB | 2933MT/S |
| EPYC 7452                               | 32    | 2.35Ghz   | 3.35Ghz   | 2TB    | 155     | 128MB | 2933MT/S |
| EPYC 7402                               | 24    | 2.8Ghz    | 3.35Ghz   | 2TB    | 180     | 128MB | 2933MT/S |
| EPYC 7352                               | 24    | 2.3GHz    | 3.2GHz    | 2TB    | 155     | 128MB | 2933MT/s |
| EPYC 7302                               | 16    | 3.0Ghz    | 3.3Ghz    | 2TB    | 155     | 128MB | 2933MT/S |
| EPYC 7282                               | 16    | 2.8GHz    | 3.2GHz    | 4TB    | 120     | 64MB  | 3200MT/s |
| EPYC 7272                               | 12    | 2.9GHz    | 3.2GHz    | 4TB    | 120     | 64MB  | 3200MT/s |
| EPYC 7252                               | 8     | 3.1GHz    | 3.2GHz    | 4TB    | 120     | 64MB  | 3200MT/s |
| EPYC 7262                               | 8     | 3.2GHz    | 3.4GHz    | 2TB    | 155     | 128MB | 2933MT/S |

| AMD® EPYC | AMD® EPYC® 7xx1 Series Processor Family |           |                              |        |         |      |               |  |  |  |
|-----------|---|-----------|------------------------------|--------|---------|------|---------------|--|--|--|
| AMD EPYC  | Cores                                   | Base      | Max Max Wattage Cache Memory |        |         |      |               |  |  |  |
| Processor |   | Frequency | Frequency                    | 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      |  |  |  |

Notes: 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

Notes: Read and learn more in the iLO QuickSpecs.

### **Memory**

One of the following depending on model

### **Standard Features**

| Туре                        | HPE DDR4 SmartMemory,  |
|-----------------------------|--|
|                             | Registered (RDIMM), Load Reduced (LRDIMM)                                  |
| <b>DIMM Slots Available</b> | 32   |
|                             |  |
|                             | 16 DIMM slots per processor, 8 channels per processor, 2 DIMMs per channel |

| With AMD® EPYC® 7xx1 Series Processor Family |        |                               |  |  |  |  |
|--|--------|-------------------------------|--|--|--|--|
| Maximum capacity (LRDIMM)                    | 4.0 TB | 32 x 128 GB LRDIMM @ 2666 MHz |  |  |  |  |
| Maximum capacity (RDIMM)                     | 2.0 TB | 32 x 64 GB RDIMM @ 2666 MHz   |  |  |  |  |

#### Notes:

- -The maximum memory speed is limited by the processor selection.
- Mixing of RDIMM and LRDIMM memory is not supported.
- When 2DIMMs are populated per channel, memory speed drops to 2133MT/S

| With AMD® EPYC® 7xx2 Series Processor Family |        |  |  |  |  |  |
|--|--------|--|--|--|--|--|
| Maximum capacity (RDIMM)                     | 2.0 TB | 32 x 64 GB RDIMM @ 2933 MHz<br>@1 DPC  |  |  |  |  |
| Maximum capacity (LRDIMM)                    | 4.0 TB | 32 x 128 GB RDIMM @ 2933 MHz<br>@1 DPC |  |  |  |  |

#### Notes:

- -The maximum memory speed is limited by the processor selection.
- Mixing of RDIMM and LRDIMM memory is not supported.
- When 2DIMMs are populated per channel, memory speed drops to 2666 MT/S

# **Expansion Slots**

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

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

| Slots # | Technology | Bus<br>Width | Connector<br>Width | 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-<br>length slot | Proc 2 |
| Slots # | Technology | Bus<br>Width | Connector<br>Width | 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 |



#### Standard Features

#### Notes:

- -Tertiary riser (other options available) can be leveraged without secondary riser.
- -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 <a href="https://example.com/HPE Smart Array Gen10 Controllers Data Sheet">HPE Smart Array Gen10 Controllers Data Sheet</a>. One of the following depending on model

#### Software RAID

• HPE Smart Array S100i SR Gen10 SW RAID

#### Notes:

- HPE Smart Array S100i SR Gen10 SW RAID will operate in UEFI mode only. For legacy support an additional controller will be needed, and for CTO orders please also select the Legacy mode settings part, 758959-B22.
- HPE Smart Array S100i SR Gen10 SW RAID is off by default and must be enabled.
- -The S100i supports 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

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

#### **Standard Features**

## **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 x 2.4 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              | 296.6 TB      | 12+4+3 x 14 TB + 2 x 15.3 TB (with optional mid -tray and rear LFF drive cage, plus 2 SFF SSD rear)   |  |  |  |
| Hot Plug LFF SATA             | 296.6 TB      | 12+4+3 x 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<br>SSD       | 459 TB        | 24+6 x 15.3 TB (with optional rear SFF drive cage)  |  |  |  |
| Hot Plug LFF SATA<br>SSD      | 67.08 TB      | 12+4+3 x 1.92 TB + 2 x 15.3 TB (with optional mid -tray and rear LFF drive cage, plus 2 SFF SSD rear) |  |  |  |
| Hot Plug SFF SATA<br>SSD      | 230.4 TB      | 24+6 x 7.68 TB (with optional 2SFF drive cage)  |  |  |  |
| Hot Plug SFF NVMe<br>PCIe SSD | 368.64TB NVMe | 24 x 15.36TB NVMe   |  |  |  |

#### Notes:

- -2x m.2 drives are supported on the system board.
- UFF drives are also supported.

# **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

# **Power Supply**

#### Standard Features

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

Notes: Available in 94% efficiency.

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

#### Notes:

- Available in 94% and 96% efficiency.
- Also available in -48VDC and 227VAC/380VDC power inputs.

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

- Available in 94% efficiency.
- -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           | 4 x 1 Gb ports shipping standard (if equipped), with optional FlexibleLOM or stand up       |
| Ports                         | card  |
|                               |   |
|                               | Notes: 4 x 1 Gb ports are not equppied on new boards for 7xx2 series processors             |
| HPE iLO Remote                | 1 Gb Dedicated  |
| Management Network Port       |   |
| 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  |
|                               |   |
|                               | Notes: 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  |
|                               |   |
|                               | Notes: 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

#### Standard Features

### AMD® EPYC® 7xx2 Series Processor Family

- Windows Server 2016 (Most Recent Version)
- Windows Server 2019 (Most Recent Version)
- VMware ESXi 6.5 U3
- VMware ESXi 6.7 U3
- Red Hat Enterprise Linux (RHEL) 7.6
- SUSE Linux Enterprise Server (SLES) 12 SP4
- SUSE Linux Enterprise Server (SLES) 15 SP1
- Citrix XenServer

#### AMD® EPYC® 7xx1 Series Processor Family

- Windows Server 2012 R2 (Most Recent Version)
- Windows Server 2016 (Most Recent Version)
- Windows Server 2019 (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

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

#### 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

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

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

Notes: 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

#### **Standard Features**

- European Union (EU) eco-design regulations for server and storage products, known as Lot 9, go into effect on March 1st, 2020. Among other requirements, for servers this directive establishes power thresholds for idle state, as well as efficiency and performance in active state which vary among configurations. HPE ProLiant Gen10 servers are compliant with Lot9 requirements. For more information regarding HPE Lot 9 conformance, please visit:
- https://www.hpe.com/us/en/about/environment/msds-specs-more.html
- ASHRAE A3/A4

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

• UEFI (Unified Extensible Firmware Interface Forum)

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

## **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.

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

#### 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

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

- 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

#### Notes:

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

#### **Embedded Management**



#### Standard Features

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

Monitor your servers for ongoing management, service alerting, reporting and remote management with HPE iLO.

Learn more at http://www.hpe.com/info/ilo.

#### UEFI

Configure and boot your servers securely with industry standard Unified Extensible Firmware Interface (UEFI).

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

### **Intelligent Provisioning**

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

#### **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: http://www.hpe.com/servers/ahsv.

### **Smart Update**

Keep your servers up to date with the HPE Smart Update solution by using Smart Update Manager (SUM) to optimize the firmware and driver updates of the Service Pack for ProLiant (SPP). Learn more at <a href="https://buy.hpe.com/b2c/us/en/enterprise-software/infrastructure-management-software/system-server-management-software/system-server-software-management-software/smart-update-manager-%28sum%29/p/5182020.</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.

#### Standard Features

#### **HPE iLO Mobile Application**

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

#### **RESTful Interface Tool**

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

#### **Scripting Tools**

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

#### **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 http://www.hpe.com/info/hpesim.

### 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

#### Warranty

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

#### Standard Features

three year warranty; refer to the specific hard drive QuickSpecs for details.

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

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



**Optional Features** 

# Server Management HPE iLO Advanced

HPE iLO Advanced licenses offer smart remote functionality without compromise, for all HPE ProLiant servers. The license includes the full integrated remote console, virtual keyboard, video, and mouse (KVM), multi-user collaboration, console record and replay, and GUI-based and scripted virtual media and virtual folders. You can also activate the enhanced security and power management functionality.

#### **HPE 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: http://www.hpe.com/servers/ilopremium.

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

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

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

#### **Accelerator and GPU 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.

### 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#



**Optional Features** 

#### **Rack and Power Infrastructure**

The story may end with servers, but it starts with the foundation that makes compute go - and business grow. We've reinvented our entire portfolio of rack and power products to make IT infrastructure more secure, more practical, and more efficient. In other words, we 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.

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.



Service and Support

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

#### Achieve maximum return from your IT investment

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

### Consume IT on your terms

<u>HPE GreenLake Flex Capacity</u> combines the simplicity, agility, and economics of public cloud with the security and performance benefits of on-premises IT. You determine your own "Right Mix" of Hybrid IT and workload placement without having to use. With its agile pay-per-use service, HPE GreenLake Flex Capacity can help your IT organization:

- Avoid IT expenses stemming from overprovisioning
- Improve time to market by maintaining a safe buffer of capacity, ready for use when you need it
- Keep capacity ahead of demand with regular monitoring-and a simple change order to replenish
- Pay for only the capacity used, not the capacity deployed
- Reduce IT risk with tailored support

#### Connect your devices

Unlock all of the benefits of your technology investment by connecting your products to Hewlett Packard Enterprise. Reduce down time, increase diagnostic accuracy and have 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. Learn more about getting connected at http://www.hpe.com/services/getconnected

#### Recommended Services

#### **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. HPE Proactive Care is available in 3, 4 and 5 year terms with a choice of response levels: Next Business day (NBD), 24x7 with a 4 hour response, and 24x7 with 6 hour call to repair (CTR). This Service combines both reactive support when there is a problem with an enhanced call experience and start to finish case management with proactive reporting and advice. This service also includes collaborative software support for Independent Software Vendors (ISVs), (Red Hat, VMWare, Microsoft, etc.).

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

#### **HPE Proactive Care Advanced**

Incorporates all the deliverables of HPE Proactive Care plus includes personalized support from a local, assigned Account Support Manager who will share best practice advice and personalized recommendations designed to help improve availability and performance to help increase stability and reduce unplanned downtime. Leverage your system's ability to connect to HPE for pre-failure alerts, automatic call logging and parts dispatch. For business critical incidents, Proactive Care Advanced offers

#### Service and Support

critical event management to help reduce mean time to resolution. HPE Service Credits are included to redeem for technical and operational services. HPE Proactive Care Advanced is offered in 3, 4, and 5 year terms with a choice of response levels: Next Business day (NBD), 24x7 with a 4 hour response, and 24x7 with 6 hour call to repair (CTR).

#### https://www.hpe.com/h20195/v2/getdocument.aspx?docname=4AA5-3259ENW

**Notes:**\*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/5981-9356ENW.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**

<u>HPE Datacenter Care</u> helps customers to address the pressing needs of IT today and smoothly transform to a more agile cloud-like IT operations model. We help run and monitor your IT by offloading the day to day routine tasks, helping customers be more predictive and proactive, and saving time with one place to call with for all of their IT. Datacenter Care is available as both tailored statement of work and as a packaged service for 3, 4, and 5 year terms.

Partner with an assigned account team backed by local and global experts, access HPE enhanced call experience with priority access, use specialized support for complex, technologies, choose hardware and software support for your devices, implement proactive monitoring to stay ahead of issues, and access HPE IT best practices and IP. HPE Datacenter Care advantage options are available to add to your agreement to give you specialized expertise for performance, security, back up analysis, and much more. https://www.hpe.com/us/en/services/datacenter-hybrid-services.html

#### 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.

### Service and Support

#### **HPE Service Credits**

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

#### **HPE Education Services**

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

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

# **HPE Support Center**

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

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

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

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

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

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

**Notes:** HPE ProLiant DL385 Gen10 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.



### **Pre-configured Models**

European Union (EU) eco-design regulations for server and storage products, known as Lot 9, go into effect on March 1st, 2020. Among other requirements, for servers this directive establishes power thresholds for idle state, as well as efficiency and performance in active state which vary among configurations. HPE ProLiant Gen10 servers are compliant with Lot9 requirements. For more information regarding HPE Lot 9 conformance, please visit:

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

| SKU Number         P16690-xx1         P16692-xx1         P16694-xx1         P16693-xx1           Model Name         HPE ProLiant DL385 Gen10 7262 3.2GHz 8- core 1P 16GB-R 12LFF 800W RPS Server         DL385 Gen10 7262 3.2GHz 8- core 1P 16GB-R 8SFF 800W RPS 8SFF 800W RPS Server         CORE 1P 16GB-R 8SFF 800W RPS 8SF 800W RPS  |             |
|--|-------------|
| DL385 Gen10   7262 3.2GHz 8-   7262 3.2GHz 8-   Core 1P 16GB-R   Core 1P 16GB-R   12LFF 800W RPS   Server   S   |             |
| 7262 3.2GHz 8-   core 1P 16GB-R   core 1P 16GB-R   core 1P 16GB-R     12LFF 800W RPS   Server   Server   Server  |             |
| core 1P 16GB-R<br>12LFF 800W RPS<br>Server         core 1P 16GB-R<br>8SFF 800W RPS<br>Server         core 1P 16GB-R<br>Server         core 1P 16GB-R<br>8SFF 800W RPS<br>Server         core 1P 16GB-R<br>8SFF 800W RPS<br>Server         core 1P 16GB-R<br>8SFF 800W RPS<br>Server         core 1P 16GB-R<br>Server         24SF 800W RPS<br>Server         24SF 800W RPS<br>Server<   |             |
| 12LFF 800W RPS   8SFF 800W RPS   Server   Serv   | -           |
| Server   Server   Server   Server   Server   | ≀           |
| Processor         7262 (8-Core, 3.2 GHz, 155W)         7262 (8-Core, 3.2 GHz, 155W)         7302 (16-Core, 3.0 GHz, 155W)         7452 (32-Core, 2.2 GHz, 155W)           Number of Processors         One processor         One processor         One processor         One processor         One processor           Memory         16 GB RDIMM DR 2933 MT/s (1x 16 GB)         16 GB RDIMM DR 293   | PS          |
| Number of Processor   One pr   |             |
| Number of<br>ProcessorsOne processorOne processorOne processorOne processorMemory16 GB RDIMM DR<br>2933 MT/s (1x 16<br>GB)16 GB RDIMM DR<br>2933 MT/s (1x 16<br>GB)Network<br>ControllerHPE 1Gb Ethernet<br>4-Port 336FLR<br>Adapter plus<br>optional HPE<br>FlexibleLOM orHPE 1Gb Ethernet<br>4-Port 336FLR<br>Adapter plus<br>optional HPE<br>FlexibleLOM orHPE 1Gb Ethernet<br>4-Port 336FLR<br>Adapter plus<br>optional HPE<br>FlexibleLOM orHPE 1Gb Ethernet<br>4-Port 336FLR<br>Adapter plus<br>optional HPE<br>FlexibleLOM or  |             |
| ProcessorsMemory16 GB RDIMM DR<br>2933 MT/s (1x 16<br>GB)16 GB RDIMM DR<br>2933 MT/s (1x 16<br>GB)16 GB RDIMM DR<br>2933 MT/s (1x 16<br>GB)16 GB RDIMM DR<br>2933 MT/s (1x 16<br>GB)Network<br>ControllerHPE 1Gb Ethernet<br>4-Port 336FLR<br>Adapter plus<br>optional HPE<br>FlexibleLOM orHPE 1Gb Ethernet<br>4-Port 336FLR<br>Adapter plus<br>optional HPE<br>FlexibleLOM orHPE 1Gb Ethernet<br>4-Port 336FLR<br>Adapter plus<br>optional HPE<br>FlexibleLOM orHPE 1Gb Ethernet<br>4-Port 336FLR<br>Adapter plus<br>optional HPE<br>FlexibleLOM or  |             |
| Memory16 GB RDIMM DR<br>2933 MT/s (1x 16<br>GB)16 GB RDIMM DR<br>2933 MT/s (1x 16<br>GB)Network<br>ControllerHPE 1Gb Ethernet<br>4-Port 336FLR<br>Adapter plus<br>optional HPE<br>FlexibleLOM orHPE 1Gb Ethernet<br>4-Port 336FLR<br>Adapter plus<br>optional HPE<br>FlexibleLOM orHPE 1Gb Ethernet<br>4-Port 336FLR<br>Adapter plus<br>optional HPE<br>FlexibleLOM orHPE 1Gb Ethernet<br>4-Port 336FLR<br>Adapter plus<br>optional HPE<br>FlexibleLOM or   |             |
| 2933 MT/s (1x 16 GB)  Network Controller  Poptional HPE FlexibleLOM or  Poptional HPE ABBORN  2933 MT/s (1x 16 GB)  Controller  2933 MT/s (1x 16 GB)  Controller  2933 MT/s (1x 16 GB)  Controller  4-Port 336FLR 4-Port 336FLR 4-Port 336FLR Adapter plus Optional HPE FlexibleLOM or  2933 MT/s (1x 16 GB)  HPE 1Gb Ethernet 4-Port 336FLR 4-Port 336FLR Adapter plus Optional HPE FlexibleLOM or FlexibleLOM or  2933 MT/s (1x 16 GB)  Controller  HPE 1Gb Ethernet 4-Port 336FLR Adapter plus Optional HPE FlexibleLOM or FlexibleLOM or FlexibleLOM or  |             |
| GB   GB   GB   GB     Network   HPE 1Gb Ethernet    | )R          |
| NetworkHPE 1Gb EthernetHPE 1Gb EthernetHPE 1Gb EthernetHPE 1Gb EthernetController4-Port 336FLR4-Port 336FLR4-Port 336FLRAdapter plus<br>optional HPE<br>FlexibleLOM orAdapter plus<br>optional HPE<br>FlexibleLOM orAdapter plus<br>optional HPE<br>FlexibleLOM orAdapter plus<br>optional HPE<br>FlexibleLOM orAdapter plus<br>optional HPE<br>FlexibleLOM or   | 6           |
| Controller4-Port 336FLR<br>Adapter plus<br>optional HPE<br>FlexibleLOM or4-Port 336FLR<br>Adapter plus<br>optional HPE<br>FlexibleLOM or4-Port 336FLR<br>Adapter plus<br>optional HPE<br>FlexibleLOM or4-Port 336FLR<br>Adapter plus<br>optional HPE<br>FlexibleLOM or   |             |
| Adapter plus optional HPE optional HPE optional HPE optional HPE FlexibleLOM or FlexibleLOM or FlexibleLOM or FlexibleLOM or   | net         |
| optional HPE optional HPE optional HPE flexibleLOM or FlexibleLOM or FlexibleLOM or  |             |
| FlexibleLOM or FlexibleLOM or FlexibleLOM or   |             |
|  |             |
|  |             |
| stand up card stand up card stand up card stand up card  |             |
| Storage Controller   P816i-a   P408i-a   P408i-a   P408i-a   |             |
| Notes: Notes: Notes: Notes:  |             |
| -16-Port modular -8-Port modular -8-Port modular -8-Port modular   |             |
| Smart Array. Smart Array. Smart Array. Smart Array.  |             |
| - Smart Storage - Smart Storage - Smart Storage  |             |
| Hard Drive   battery included.   battery inclu | <u>}a.</u>  |
|  |             |
| standardstandardstandardstandardInternal Storage12 LFF chassis8 SFF Chassis8 SFF Chassis24 SFF Chassis   | -           |
|  |             |
| Optical Drive BayOptional via<br>Universal MediaOptional Universal Media BayOptional Universal Media BayOptional Universal Media Bay   | ial         |
|  |             |
| Bay (included)(included)(included)(included)Optical DriveNone ship asNone ship asNone ship asNone ship as  |             |
| standard standard standard standard  |             |
| PCI-Express Slots         3-slots (x8, x16,  |             |
| x8) as standard  |             |
| Power Supply 1x 800W HPE   | $\neg \neg$ |
| FlexSlot Power FlexSlot Power FlexSlot Power FlexSlot Power  |             |
| Supply Supply Supply Supply  |             |
| Fans 6-High 4-standard fans 4-standard fans 6-High   |             |
| Performance fans Performance fa  |             |

| 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 without CMA  |
| Warranty    | 3-year parts, 3-year labor, 3-year onsite support with next business day response.   |

| Entry Models             |  |   |  |
|--------------------------|--|---|--|
| SKU Number               | 878712-xx1   | P11747-xx1  |  |
| Model Name               | HPE ProLiant DL385 Gen10 7251 1P<br>16GB-R E208i-a 8LFF SATA 500W PS<br>Entry Server   | HPE ProLiant DL385 Gen10 7251<br>2.1GHz 8-core 1P 16GB-R P408i-a<br>8SFF 500W PS Server |  |
| Processor                | 7251 (8-Core, 2.1 GHz, 120W)   | 7251 (8-Core, 2.1 GHz, 120W)  |  |
| Number of<br>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 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       | Embedded S100i for 2 x M.2 Connectors E208i-a  Notes: 8-Port modular Smart Array.  | P408i-a Notes:  -8-Port modular Smart Array.  -Smart Storage battery included.          |  |
| Hard Drive               | None ship as standard  | None ship as standard   |  |
| Internal Storage         | 8 LFF chassis, with 2 SFF bays optional (upgradeable to 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   |  |
| <b>PCI-Express Slots</b> | 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 (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 without CMA  |   |  |
| Warranty                 | 3-year parts, 3-year labor, 3-year onsite support with next business day response.   |   |  |

| Entry Models       |  |  |  |  |
|--------------------|--|--|--|--|
| SKU Number         | 878714-AA1   |  |  |  |
| Model Name         | HPE ProLiant DL385 Gen10 7251 2.1GHz 8-core 1P 8GB-R E208i-a 8SFF SATA 500W PS Entry CN Server |  |  |  |
| Processor          | 7251 (8-Core, 2.1 GHz, 120W)   |  |  |  |
| Number of          | One processor  |  |  |  |
| Processors         |  |  |  |  |
| Memory             | 8 GB RDIMM DR 2600 MT/s (1x 8 GB)  |  |  |  |
| Network Controller | HPE 1Gb Ethernet 4-Port 331i Adapter plus optional HPE FlexibleLOM or stand up                 |  |  |  |
|                    | card   |  |  |  |
| Storage Controller | Embedded S100i for 2 x M.2 Connectors  |  |  |  |
|                    | E208i-a  |  |  |  |
|                    | Notes: 8-Port modular Smart Array.   |  |  |  |
| Hard Drive         | None ship as standard  |  |  |  |
| Internal Storage   | 8 SFF Chassis (upgradeable to 24 SFF front + 6SFF rear)  |  |  |  |
| Optical Drive Bay  | Optional Universal Media Bay (882097-B21)  |  |  |  |
| Optical Drive      | None ship as standard  |  |  |  |
| PCI-Express Slots  | 3-slots (x8, x16, x8) as standard  |  |  |  |
| Power Supply       | 1x 500W HPE FlexSlot Power Supply  |  |  |  |
| 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 certified  |  |  |  |
| Form Factor        | 2U Rack, Easy Install 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<br>32GB-R P816i-a 12LFF SATA 800W PS<br>Base Server | HPE ProLiant DL385 Gen10 7301<br>2.2GHz 16-core 1P 32GB-R P408i-a<br>8SFF 800W PS Server |  |
| Processor                | 7251 (8-Core, 2.1 GHz, 185W)   | 7301 (16-Core, 2.2 GHz, 170W)  |  |
| Number of<br>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 Notes: -16-Port modular Smart ArraySmart Storage battery included.           | P408i-a Notes:  -8-Port modular Smart Array.  -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-<br>B21)  |  |
| Optical Drive            | None ship as standard  | None ship as standard  |  |
| <b>PCI-Express Slots</b> | 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  | (requires download)   | Optional (require licenses): HPE iLO Advanced, HPE iLO Advanced Premium |  |  |
| Energy Star | 2.1 certified   |   |  |  |
| Form Factor | 2U Rack, Easy install 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  | HPE ProLiant DL385 Gen10 7551 1P       |  |  |
|                    | 32GB-R P408i-a 8SFF SAS 800W PS   | 32GB-R P408i-a 8SFF SAS 800W PS        |  |  |
|                    | Base Server Perf Server   |  |  |  |
| Processor          | 7351 (16-Core, 2.4GHz, 170W)  | 7551 (32-Core, 2.0 GHz, 180W)          |  |  |
| Number of          | One Processor   |  |  |  |
| Processors         |   |  |  |  |
| Memory             | 32 GB RDIMM SR 2666 MT/s (2x 16 GB)                                     |  |  |  |
| Network            | HPE 1Gb Ethernet 4-Port 331i Adapter plus                               | s optional HPE FlexibleLOM or stand up |  |  |
| Controller         | card  |  |  |  |
| Storage Controller | P408i-a   |  |  |  |
|                    | Notes:  |  |  |  |
|                    | -8-Port modular Smart Array.  |  |  |  |
|                    | - Smart Storage battery included.                                       |  |  |  |
| Hard Drive         | None ship as standard   |  |  |  |
| Internal Storage   | 8 SFF Chassis (upgradeable to 24 SFF fro                                | •                                      |  |  |
| Optical Drive Bay  | Optional Universal Media Bay (882097- Universal Media Bay (882097-B21)  |  |  |  |
|                    | B21)  |  |  |  |
| Optical Drive      | None ship as standard   |  |  |  |
| PCI-Express Slots  | 3-slots (x8, x16, x8) as standard                                       |  |  |  |
| Power Supply       | 1x 800W HPE FlexSlot power supply                                       |  |  |  |
| Fans               | 4-Standard fans   |  |  |  |
| Management         | Default: HPE iLO Standard with Intelligent I                            | Provisioning, HPE OneView Standard     |  |  |
|                    | (requires download)   |  |  |  |
|                    | Optional (require licenses): HPE iLO Advanced, HPE iLO Advanced Premium |  |  |  |
| Francis Ctor       | 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<br>Model   |  |
|----------------------|--|---|---|--|
| SKU Number           | 878720-xx1   | 878722-xx1  | 878724-xx1  |  |
| Model Name           | HPE ProLiant DL385   | HPE ProLiant DL385  | HPE ProLiant DL385  |  |
|                      | Gen10 7401 1P 32GB-R   | Gen10 7451 2P 64GB-R  | Gen10 7451 2P 64GB-R  |  |
|                      | P408i-a 24SFF SAS  | P408i-a 8SFF SAS  | P408i-a 24SFF SAS   |  |
|                      | 800W PS Base Server  | 2x800W PS Perf Server   | 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  | 64 GB RDIMM DR 2666   | 64 GB RDIMM DR 2666   |  |
| •                    | MT/s (2x 16 GB)  | MT/s (2x 32 GB)   | MT/s (2x 32 GB)   |  |
| Network Controller   | HPE 1Gb Ethernet 4-Port  | HPE 1Gb Ethernet 4-Port   | HPE 1Gb Ethernet 4-Port   |  |
|                      | 331i Adapter plus optional   | 331i Adapter plus HPE   | 331i Adapter plus HPE   |  |
|                      | HPE FlexibleLOM or   | Ethernet 10/25 Gb 2-port  | Ethernet 25 Gb 2-port   |  |
|                      | stand up card  | 640FLR-SFP28 Adapter  | 631FLR Adapter  |  |
|                      | •  | (817749-B21)  | (817709-B21)  |  |
| Storage Controller   | P408i-a w/Expander   | P408i-a   | P408i-a w/Expander  |  |
| •                    | Notes:   | Notes:  | Notes:  |  |
|                      | -8-Port modular Smart  | -8-Port modular Smart Array.  | -8-Port modular Smart   |  |
|                      | Array.   | -Smart Storage battery  | Array.  |  |
|                      | <ul><li>Smart Storage battery included.</li></ul>  | included.   | <ul><li>Smart Storage battery included.</li></ul>   |  |
| Hard Drive           | None ship as standard  | None ship as standard   | None ship as standard   |  |
| Internal Storage     | 24 SFF Chassis   | 8 SFF Chassis<br>(upgradeable to 24 SFF<br>front + 6SFF rear)   | 24 SFF Chassis  |  |
| Optical Drive Bay    | Optional Universal Media<br>Bay (882097-B21)   | Universal Media Bay<br>(882097-B21)   | Universal Media Bay<br>(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 PCIe (x8, x16, x8), 2 PCIe (x8) Tertiary Riser Kit | 8 total: 3-slots (x8, x16, x8) as standard, plus 3 PCle (x8, x16, x8), 2 PCle (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  | - pomor outpry  | pomor ouppry  |  |
| 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 |   | Default: HPE iLO Advanced with Intelligent Provisioning, HPE OneView Standard (requires download) Optional (require licenses): HPE iLO Advanced Premium |  |
| F.,                  | Security Edition, HPE OneView Advanced   |   |   |  |
| Energy Star          | 2.1 certified  | -dul- ONAA  |   |  |
| Form Factor          | 2U Rack, Easy Install rails with CMA   |   |   |  |
| Warranty             | 3-3-3  |   |   |  |

| Entry Model        |  |  |  |  |
|--------------------|--|--|--|--|
| SKU Number         | P26897-xx1   |  |  |  |
| Model Name         | HPE ProLiant DL385 Gen10 7252 3.1GHz 8-core 1P 16GB-R 8SFF 500W PS                 |  |  |  |
|                    | Server   |  |  |  |
| Processor          | 7252 (8-Core, 3.1 GHz, 500W)   |  |  |  |
| Number of          | One processor  |  |  |  |
| Processors         |  |  |  |  |
| Memory             | 16 GB RDIMM DR 2933 MT/s (1x 8 GB)   |  |  |  |
| Network Controller | HPE 1Gb Ethernet 4-Port 336FLR Adapter plus optional HPE FlexibleLOM or stand      |  |  |  |
|                    | up card  |  |  |  |
| Storage Controller | P408i-a  |  |  |  |
|                    | Notes:   |  |  |  |
|                    | -8-Port modular Smart Array.   |  |  |  |
|                    | - Smart Storage battery included.  |  |  |  |
| Hard Drive         | None ship as standard  |  |  |  |
| Internal Storage   | 8 SFF Chassis  |  |  |  |
| Optical Drive Bay  | Optional Universal Media Bay (882097-B21)  |  |  |  |
| Optical Drive      | None ship as standard  |  |  |  |
| PCI-Express Slots  | 3-slots (x8, x16, x8) as standard  |  |  |  |
| Power Supply       | 1x 500W HPE FlexSlot Power Supply  |  |  |  |
| 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 certified  |  |  |  |
| Form Factor        | 2U Rack, Easy Install rails without CMA  |  |  |  |
| Warranty           | 3-year parts, 3-year labor, 3-year onsite support with next business day response. |  |  |  |

| Performance Model         |   |  |  |
|---------------------------|---|--|--|
| SKU Number                | P26898-xx1  |  |  |
| Model Name                | HPE ProLiant DL385 Gen10 7282 2.8GHz 16-core 1P 32GB-R 8SFF 800W PS     |  |  |
|                           | Server  |  |  |
| Processor                 | 7282 (16-Core, 2.8GHz, 800W)  |  |  |
| Number of                 | One processor   |  |  |
| Processors                |   |  |  |
| Memory                    | 32 GB RDIMM DR 2933 MT/s (1x 8 GB)                                      |  |  |
| <b>Network Controller</b> | HPE 1Gb Ethernet 4-Port 336FLR Adapter plus optional HPE FlexibleLOM or |  |  |
|                           | stand up card   |  |  |
| Storage Controller        | P408i-a   |  |  |
|                           | Notes:  |  |  |
|                           | -8-Port modular Smart Array.  |  |  |
|                           | - Smart Storage battery included.                                       |  |  |
| Hard Drive                | None ship as standard   |  |  |
| Internal Storage          | 8 SFF Chassis (upgradeable to 24 SFF front + 6SFF rear)                 |  |  |
| Optical Drive Bay         | Optional Universal Media Bay (882097-B21)                               |  |  |
| Optical Drive             | None ship as standard   |  |  |
| PCI-Express Slots         | 3-slots (x8, x16, x8) as standard                                       |  |  |
| Power Supply              | 1x 800W HPE FlexSlot Power Supply                                       |  |  |
| Fans                      | 4-standard fans   |  |  |

# **Pre-configured Models**

| 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 without CMA  |
| Warranty    | 3-year parts, 3-year labor, 3-year onsite support with next business day response.   |

# **Country Code Key**

xx1 = B21 Worldwide

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

xx1 = 291 Japan



#### **Configuration Information**

European Union (EU) eco-design regulations for server and storage products, known as Lot 9, go into effect on March 1st, 2020. Among other requirements, for servers this directive establishes power thresholds for idle state, as well as efficiency and performance in active state which vary among configurations. HPE ProLiant Gen10 servers are compliant with Lot9 requirements. For more information regarding HPE Lot 9 conformance, please visit:

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

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

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

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

| CTO Server              | HPE ProLiant DL385 Gen10 8 LFF CTO Server   | HPE ProLiant DL385 Gen10 12 LFF CTO Server  | HPE ProLiant DL385 Gen10 8 SFF CTO Server   | HPE ProLiant<br>DL385<br>Gen10 24 SFF<br>CTO<br>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 Controller PCIe | Smart Array and PC  | Embedded s100i SW RAID for 2 x M.2 SATA support, choice of HPE modular Smart Array and PCIe plug-in controller  Three standard in primary riser |   |  |  |
| Drive Cage - included   | 8 LFF   | 12 LFF  | 8 SFF                                       | 24 SFF   |  |
| Network<br>Controller   |   | HPE 1Gb Ethernet 4-Port 331i Adapter (if equipped) plus optional HPE FlexibleLOM or stand up card   |   |  |  |
| Fans                    | 6-Standard  | 6-High<br>Performance   | 4-Standard                                  | 6-Performance  |  |
| Management              | HPE iLO with Intelligent Provisioning (standard), iLO Advances and OneView (optional) |   |   |  |  |
| USB                     | 1x 3.0 standard plus iLo front service port   | None as standard  | 1x 3.0 standard plus iLo front service port | 1x 3.0 standard plus iLo front service port            |  |

#### **Notes:**

- HPE offers multiple Trade Agreement Act (TAA) compliant configurations to meet the needs of US Federal Government customers. These products are either manufactured or substantially transformed in a designated country. TAA compliance is only provided when HPE options are included as part of factory integrated orders (CTO).
- -TAA chassis are only orderable in North America and Canada.
- The HPE ProLiant DL385 Gen10 12 LFF CTO Server ships with the cable required for the P816i-a installation.
- -The cables that come standard with the 8SFF chassis for BOX3 work for the first 8 drives, and are connected to the E208



### **Configuration Information**

or the P408. When the 8SFF drive cage for BOX2 or BOX1 is ordered, the cables come with the drive cage kits.

- All CTO servers are Energy Star 2.1 compliant.
- -4x 1 embedded LOM is not equipped on new boards for 7xx2 series processor

| CTO Server                | 8 SFF CTO<br>Chassis | 24 SFF CTO<br>Chassis | 8 LFF CTO<br>Chassis | 12 LFF CTO<br>Chassis |
|---------------------------|----------------------|-----------------------|----------------------|-----------------------|
| Included Drive<br>Cage    | 8 SFF SAS/SATA       | 3x 8 SFF<br>SAS/SATA  | 8 LFF + UMB          | 12 LFF Chassis        |
| Additional drive cages    | -                    | -                     | -                    | -                     |
| Universal Media<br>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<br>(Front) | 1 Optional with UMB  | Not available         | 1 Optional           | Not available         |
| 2 SFF SAS/SATA<br>(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            |

#### Notes:

- This aplies to CTO configurations, field upgrades may differ depending field configuration.
- -3x 8 NVMe option on SFF requires the second processor be installed and I/O cards are limited to ALOM options.

#### **Step 2: Choose Required Options**

Please select one -L21 processor required below.

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

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

- -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.
- Mixing of 2 different processor models are NOT allowed.
- -DDR4 memory speed will depend on the quantity and type of DIMMs installed.
- -Processors with greater than 180W will ship with the High Performance heatsink.
- -Processors with greater than 180W will require the High Performance fan kit.

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

# **Processor Option Kits**

SKU

#### AMD® EPYC® 7xx2 Generation Processor Family

AMD EPYC 7702 (2.0GHz/64-core/200W) FIO Processor Kit for HPE ProLiant DL385 Gen10

P16636-L21

**Notes:** Ships with High Performance Heatsink.

| Configuration Information  |              |
|--|--------------|
| AMD EPYC 7552 (2.2GHz/48-core/165-200W) FIO Processor Kit for HPE ProLiant DL385 Gen10                                       | P21862-L21   |
| Notes: Ships with High Performance Heatsink.   |              |
| AMD EPYC 7502 (2.5GHz/32-core/180-200W) FIO Processor Kit for HPE ProLiant DL385 Gen10                                       | P16638-L21   |
| Notes: Ships with High Performance Heatsink.   |              |
| AMD EPYC 7402 (2.8GHz/24-core/180-200W) FIO Processor Kit for HPE ProLiant DL385 Gen10                                       | P16640-L21   |
| Notes: Ships with High Performance Heatsink.   |              |
| AMD EPYC 7352 (2.3GHz/24-core/155W) FIO Processor Kit for HPE ProLiant DL385 Gen10   | P21422-L21   |
| Notes: Ships with Standard Heatsink  |              |
| AMD EPYC 7452 (2.35GHz/32-core/155W) FIO Processor Kit for HPE ProLiant DL385 Gen10  | P16642-L21   |
| Notes: Ships with Standard Heatsink.   |              |
| AMD EPYC 7302 (3.0GHz/16-core/155W) FIO Processor Kit for HPE ProLiant DL385 Gen10   | P16643-L21   |
| Notes: Ships with Standard Heatsink.   |              |
| AMD EPYC 7262 (3.2GHz/8-core/155-180W) FIO Processor Kit for HPE ProLiant DL385 Gen10  | P16645-L21   |
| Notes: Ships with Standard Heatsink.   |              |
| AMD EPYC 7702 (2.0GHz/64-core/200W) Processor Kit for HPE ProLiant DL385 Gen10  Notes: Ships with High Performance Heatsink. | P16636-B21   |
| AMD EPYC 7552 (2.2GHz/48-core/165-200W) Processor Kit for HPE ProLiant DL385 Gen10   | P21862-B21   |
| Notes: Ships with High Performance Heatsink.   |              |
| AMD EPYC 7532 (2.4GHz/32-core/200W) FIO Processor Kit for HPE ProLiant DL385 Gen10   | P25769-L21   |
| Notes: Ships with High Performance Heatsink.   |              |
| AMD EPYC 7502 (2.5GHz/32-core/180-200W) Processor Kit for HPE ProLiant DL385 Gen10   | P16638-B21   |
| Notes: Ships with High Performance Heatsink.   |              |
| AMD EPYC 7402 (2.8GHz/24-core/180-200W) Processor Kit for HPE ProLiant DL385 Gen10   | P16640-B21   |
| Notes: Ships with High Performance Heatsink.   |              |
| AMD EPYC 7352 (2.3GHz/24-core/155W) Processor Kit for HPE ProLiant DL385 Gen10  Notes: Ships with Standard Heatsink          | P21422-B21   |
| AMD EPYC 7452 (2.35GHz/32-core/155W) Processor Kit for HPE ProLiant DL385 Gen10  | P16642-B21   |
| Notes: Ships with Standard Heatsink.   | 1 100 12 521 |
| AMD EPYC 7302 (3.0GHz/16-core/155W) Processor Kit for HPE ProLiant DL385 Gen10   | P16643-B21   |
| Notes: Ships with Standard Heatsink.   |              |
| AMD EPYC 7282 (2.8GHz/16-core/120W) FIO Processor Kit for HPE ProLiant DL325 Gen10 Plus                                      | P19631-L21   |
| Notes: Ships with High Performance Heatsink.   |              |

| Configuration Information  |            |
|--|------------|
| AMD EPYC 7272 (2.9GHz/12-core/120W) FIO Processor Kit for HPE ProLiant DL325 Gen10 | P25852-L21 |
| Notes: Ships with High Performance Heatsink.                                       |            |
| AMD EPYC 7252 (3.1GHz/8-core/120W) FIO Processor Kit for HPE ProLiant DL385 Gen10  | P25772-L21 |
| Notes: Ships with High Performance Heatsink.                                       |            |
| AMD EPYC 7262 (3.2GHz/8-core/155-180W) Processor Kit for HPE ProLiant DL385 Gen10  | P16645-B21 |
| Notes: Ships with Standard Heatsink  |            |
| AMD® EPYC® 7xx1 Generation Processor Family  |            |
| AMD EPYC 7371 (3.1GHz/16-core/180W) Processor Kit for HPE ProLiant DL385 Gen10     | P11520-B21 |
| Notes: Ships with Performance Heatsink.  |            |
| AMD EPYC 7261 (2.5GHz/8-core/155-170W) Processor Kit for HPE ProLiant DL385 Gen10  | P06047-B21 |
| Notes: 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: <a href="http://www.hpe.com/docs/amd-speed-tables">http://www.hpe.com/docs/amd-speed-tables</a>
<a href="Notes">Notes</a>:</a>

- Memory DIMM availability with a server platform is dependent upon completion of certification testing.
- 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-19-19-19 Registered Smart Memory Kit          | P05592-B21 |
| HPE 8GB (1x8GB) Single Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit          | P19040-B21 |
| HPE 16GB (1x16GB) Dual Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit          | P19042-B21 |
| HPE 16GB (1x16GB) Single Rank x4 DDR4-2933 CAS-21-21 Registered Smart                      | P19041-B21 |
| HPE 32GB (1x32GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart                     | P19043-B21 |
| HPE 64GB (1x64GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit          | P19045-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 |
| HPE 64GB (1x64GB) Quad Rank x4 DDR4-2933 CAS-21-21-21 Load Reduced Smart Memory Kit        | P19044-B21 |

### **Configuration Information**

HPE 128GB (1x128GB) Quad Rank x4 DDR4-2933 CAS-21-21-21 Load Reduced Smart Memory Kit

P19047-B21

#### Notes:

- Mixing of x4 & x8 memory is not allowed
- -2933 MT/s DIMMs are only supported with AMD® EPYC® 7xx2 Series Processor Family
- -2666 MT/s DIMMs are only supported with AMD® EPYC® 7xx1 Series Processor Family.
- -2933 MT/s memory SKUs offer a transfer rate of 2933 MT/s at 1 DIMM per channel and 2666 MT/s at 2 DIMMs per channel

#### **Memory Blank Kit**

HPE DDR4 DIMM Blank Kit

P07818-B21

Notes: This kit is required for processors above 126W and when 4LFF MID-Plane Carrier

kit (882096-B21) is selected

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

Select one or two power supplies from below.

**Notes:** 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 |

#### Notes:

- Select one or more power supplies.
- -1600W Power supplies only support high line voltage (200VAC to 240VAC).
- 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.

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

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

**Description** SKU

HPE DL38X Gen10 Slot 1/2 x16/x16 FIO Riser Kit 871674-B21

#### Notes:

- -Slot 1 or 2 in Primary location.
- -Supports Full Height and Full length cards.
- -Bus width x16, x16, Connector Width x16, x16.

HPE DL38X Gen10 x16/x16 GPU Slot2/3 FIO Riser Kit 871676-B21

#### **Notes:**

- -Primary Riser, Connector in slot 2 & 3 for GPU support.
- -Supports Full Height and Full length cards.
- -Bus width x16, x16, Connector Width x16, x16.

 HPE DL38X Gen10 4 NVMe Box 1 FIO Option
 878186-B21

 HPE DL38X Gen10 x8/x8/x8 1-port 2 NVMe Slim SAS FIO Riser Kit
 871673-B21

#### **Configuration Information**

#### Notes:

- Supports 3x 8 and 1-port for NVMe.
- Supports Full Height and half-length cards.
- -Bus width x8, x8, x8 Connector Width x8, x8, x8.

#### HPE DL38X Gen10 2 NVMe FIO Option

878189-B21

#### Notes:

- -This is a factory integrated only option.
- This will connect 2 SFF cage installed in the front of the chassis to NVMe.
- -This supports NMVe only, if desired, to maintain SATA drive compatibility the 3 POS cable kit must also be selected (882100-B21).

#### HPE DL380X/Apollo 6500 Gen10 6+2 NVMe FIO Option

878192-B21

#### Notes:

- -This is a factory integrated only option.
- Indicates the cage will also have an NVMe connection.
- 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 DL38X Gen10 8 SFF Front Cage Removal FIO Option

873763-B21

#### **Notes:**

- This is a factory integrated only option.
- Will remove the Primary 8SFF cage in Box 3 of the 8SFF and replace with a Box blank.

# HPE DL38X Gen10 Primary Riser Removal FIO Option

873766-B21

#### Notes:

- This is a factory integrated only option.
- -Will remove the Primary shipping PCle riser.

HPE Legacy FIO Mode Setting 758959-B22

Notes: 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

**Notes:** 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.

HPE DL38X Gen10 x16/x16/x16 Secondary GPU FIO Riser Kit

P14373-B21

HPE DL38X Gen10 x16/x16/x16 Primary GPU FIO Riser Kit

P14374-B21

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

### **Core Options**

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

- -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.
- -The HPE DL385 Gen10 High Performance fan kit is required for NVMe support (867810-B21).
- -The HPE DL38X Gen10 4-port 8 NVMe SlimSAS Riser (867807-B21) is required to support this.
- 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).
- There are limitations on GPU support with the NVMe bay installed.

#### HPE DL385 Gen10 Universal Media Bay

882097-B21

- 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.
- -This is a SFF model option only.
- 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.
- 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 Notes:

826690-B21

- -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.
- -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.
- -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

#### Notes:

- Required for GPU installations.
- Processor kits above 180W include a High Performance Heatsink.

#### HPE DL385 Gen10 1U High Performance Heat Sink Kit

P19368-B21

Notes: This kit is required for processors above 126W and when 4LFF mid-plane carrier kit (882096-B21) is selected

Notes: Both Heatsink kits - 882098-B21 & P19368-B21 cannot be selected together

# HPE DL38X Gen10 High Performance Temperature Fan Kit

867810-B21

#### Notes:

- -This kit is also required to support GPUs configurations.
- This is required for NVMe configurations.
- -This kit provides maximum cooling for your Server.
- -This kit is required when Box 1, 2 and 3 are populated.

#### HPE DL38X Gen10 2SFF HDD SAS/SATA Riser Kit

826688-B21

#### Notes:

- -2 SFF in the rear is only supported with a 24 SFF model or 12 LFF model.
- In the rear this leaves 1x16 slot accessible.
- -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

#### Notes:

#### **Core Options**

- HPE DL38X Gen10 High Performance Temperature Fan Kit (867810-B21)
- -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.
- -To maintain SATA compatibility with NVMe connections, the 3 POS cable (882100-B21) must also be used.
- Drive cage can be used in the rear of the chassis, but will not support NVMe drives rear.
- Supports uFF drives.

# HPE DL38X Gen10 8LFF Front 2NVMe HDD Bay Kit

873781-B21

#### Notes:

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

#### Notes:

- -SAS expander to enable 24 SFF field upgrade.
- Primary population in slot 3 of the primary riser.

| HPE DL3XX Gen10 Rear Serial Cable and Enablement Kit | 873770-B21 |
|--|------------|
| HPE DL38X Gen10 8LFF Front 2SFF SAS/SATA HDD Kit     | 867805-B21 |
| HPE DL385 Gen10 System Insight Display Kit           | 882099-B21 |

**Notes:** Systems Insight Display no longer ships as standard but is available as a Factory Integrated or field upgrade option.

| HPE Processors | SKU |
|----------------|-----|
|                |     |

### **Processor Option Kits**

# AMD® EPYC® 7xx2 Generation Processor Family

| AMD EPYC 7702 (2.0GHZ/64-core/200W) Processor Kit for HPE ProLiant DL385 Gen10 | P16636-B21 |
|--|------------|
| Notes: Ships with High Performance Heatsink.                                   |            |

| AMD EPYC 7552 (2.2GHz/48-core/165-200W) FIO Processor Kit for HPE ProLiant DL385 | P21862-L21 |
|--|------------|
| Gen10  |            |

**Notes:** Ships with High Performance Heatsink.

| AMD EPYC 7502 (2.5GHz/32-core/180-200W) Processor Kit for HPE ProLiant DL385 Gen10 | P16638-B21 |
|--|------------|
| Notes: Ships with High Performance Heatsink.                                       |            |

AMD EPYC 7402 (2.8GHz/24-core/180-200W) Processor Kit for HPE ProLiant DL385 Gen10 P16640-B21

Notes: Ships with High Performance Heatsink.

AMD EPYC 7352 (2.3GHz/24-core/155W) Processor Kit for HPE ProLiant DL385 Gen10 P21422-B21 Notes: Ships with Standard Heatsink

AMD EPYC 7452 (2.35GHz/32-core/155W) Processor Kit for HPE ProLiant DL385 Gen10 P16642-B21

Notes: Ships with Standard Heatsink.

AMD EPYC 7302 (3.0GHz/16-core/155W) Processor Kit for HPE ProLiant DL385 Gen10 P16643-B21

**Notes:** Ships with Standard Heatsink.

AMD EPYC 7262 (3.2GHz/8-core/155-180W) Processor Kit for HPE ProLiant DL385 Gen10 P16645-B21 Notes: Ships with Standard Heatsink

#### AMD® EPYC® 7xx1 Generation Processor Family

| AMD EPYC 7601 (2.2GHz/32-core/180W) Processor Kit for HPE ProLiant DL385 Gen10 | 881162-B21 |
|--|------------|
| Notes: Ships with Performance Heatsink.  |            |

AMD EPYC 7551 (2.0GHz/32-core/180W) Processor Kit for HPE ProLiant DL385 Gen10 881163-B21 Notes: Ships with Performance Heatsink.

AMD EPYC 7501 (2GHz/32-core/155-170W) Processor Kit for HPE ProLiant DL385 Gen10 881164-B21

#### **Core Options**

| Notes: Ships with Standard Heatsink.   |            |
|--|------------|
| AMD EPYC 7451 (2.3GHz/24-core/180W) Processor Kit for HPE ProLiant DL385 Gen10     | 881165-B21 |
| Notes: Ships with Performance Heatsink.  |            |
| AMD EPYC 7401 (2GHz/24-core/155-170W) Processor Kit for HPE ProLiant DL385 Gen10   | 881166-B21 |
| Notes: Ships with Standard Heatsink.   |            |
| AMD EPYC 7351 (2.4GHz/16-core/155-170W) Processor Kit for HPE ProLiant DL385 Gen10 | 881169-B21 |
| Notes: Ships with Standard Heatsink.   |            |
| AMD EPYC 7301 (2.2GHz/16-core/155-170W) Processor Kit for HPE ProLiant DL385 Gen10 | 881170-B21 |
| Notes: Ships with Standard Heatsink.   |            |
| AMD EPYC 7281 (2.1GHz/16-core/155-170W) Processor Kit for HPE ProLiant DL385 Gen10 | P00645-B21 |
| Notes: Ships with Standard Heatsink.   |            |
| AMD EPYC 7251 (2.1GHz/8-core/120W) Processor Kit for HPE ProLiant DL385 Gen10      | 881171-B21 |
| Notes: Ships with Standard Heatsink.   |            |
| AMD EPYC 7371 (3.1GHz/16-core/180W) Processor Kit for HPE ProLiant DL385 Gen10     | P11520-B21 |
| Notes: Ships with Standard Heatsink.   |            |
| AMD EPYC 7261 (2.5GHz/8-core/155-170W) Processor Kit for HPE ProLiant DL385 Gen10  | P06047-B21 |
| Notes:   |            |

- -Ships with Standard Heatsink.
- -DDR4 memory speed will depend on the quantity and type of DIMMs installed.
- -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.
- -Processors above 180W use a High Performance Heatsink and the high performance fan kit (867810-B21).
- Processors with greater than 180W do not include the fans as the selection of processors above 180W 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:

http:hpe.com/products/recommend.

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

#### Notes:

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

## **Core Options**

| HPE C | ptical | <b>Drives</b> |
|-------|--------|---------------|
|-------|--------|---------------|

HPE 9.5mm SATA DVD-ROM Optical Drive 726536-B21

#### **Notes:**

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

HPE 9.5mm SATA DVD-RW Optical Drive 726537-B21

#### Notes:

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

HPE Mobile USB DVD-RW Optical Drive 701498-B21

Notes: This is only supported on USB 3.0 ports.

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

#### **HPE Drives**

| HPE 300GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty | Digitally Signed              | 870753-B21 |
|---|-------------------------------|------------|
|   | - ·g. · · · · · · · · · · · · | 0.0.00 ==. |
| Firmware HDD  |                               |            |

HPE 300GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed 872475-B21

Firmware HDD

HPE 600GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty Digitally Signed 870757-B21

Firmware HDD

HPE 600GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed 872477-B21
Firmware HDD

HPE 900GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty Digitally Signed 870759-B21 Firmware HDD

HPE 1.2TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed 872479-B21 Firmware HDD

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 881457-B21 Signed Firmware HDD

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

HPE 300GB SAS 12G Enterprise 15K LFF (3.5in) SCC 3yr Wty Digitally Signed P04693-B21 Firmware HDD

HPE 600GB SAS 12G Enterprise 15K LFF (3.5in) SCC 3yr Wty Digitally Signed P04695-B21 Firmware HDD

#### Midline - 12G SAS - SFF Drives

| HPE 1TB SAS 12G Midline 7.2K SFF (2.5in) SC 1yr Wty Digitally Signed | 832514-B21 |
|--|------------|
| Firmware HDD   |            |

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

#### Midline - 12G SAS - LFF Drives

HPE 2TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed 872485-B21 Firmware HDD

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HPE 4TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed 872487-B21

Firmware HDD

HPE 6TB SAS 12G Midline 7.2K LFF (3.5in) SC 1vr Wtv 512e HDD 861754-B21

| Core Options   |            |
|--|------------|
| 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 16TB SAS 12G Business Critical 7.2K LFF (3.5in) SC 1yr Wty 512e ISE HDD                    | P23863-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 |
| HPE 16TB SATA 6G Business Critical 7.2K LFF (3.5in) SC 1yr Wty 512e ISE HDD                    | P23857-B21 |

## **SSD Selection**

To streamline the configuration process for HPE ProLiant Gen10 servers and to provide the best product availability, HPE recommends SSDs from the list located here:

# http://www.hpe.com/products/recommend.

| Read Intensive - 12G SAS - SFF - Solid State Drives                       |            |
|---|------------|
| HPE 960GB SAS 12G Read Intensive SFF SC PM5 SSD                           | P04517-B21 |
| HPE 960GB SAS 12G Read Intensive SFF SC PM1643a SSD                       | P19903-B21 |
| HPE 1.92TB SAS 12G Read Intensive SFF SC PM5 SSD                          | P04519-B21 |
| HPE 1.92TB SAS 12G Read Intensive SFF SC PM1643a SSD                      | P19905-B21 |
| HPE 3.84TB SAS 12G Read Intensive SFF SC PM1643a SSD                      | P19907-B21 |
| HPE 3.84TB SAS 12G Read Intensive SFF SC PM5 SSD                          | P04521-B21 |
| Read Intensive - 12G SAS - SFF - Solid State Drives                       |            |
| HPE 7.68TB SAS 12G Read Intensive SFF SC PM5 SSD                          | P04523-B21 |
| HPE 7.68TB SAS 12G Read Intensive SFF SC PM1643a SSD                      | P19909-B21 |
| HPE 15.3TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed | P06592-B21 |
| Firmware SSD  |            |

| Core Options   |            |
|--|------------|
| HPE 15.36TB SAS 12G Read Intensive SFF SC PM1643a SSD                                  | P19911-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       | P04525-B21 |
| HPE 800GB SAS 12G Mixed Use SFF SC PM5 SSD   | P04527-B21 |
| HPE 800GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD       | P09090-B21 |
| HPE 800GB SAS 12G Mixed Use SFF SC PM1645a SSD   | P19913-B21 |
| HPE 1.6TB SAS 12G Mixed Use SFF SC PM5 SSD   | P04533-B21 |
| HPE 1.6TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD       | P09092-B21 |
| HPE 1.6TB SAS 12G Mixed Use SFF SC PM1645a SSD   | P19915-B21 |
| HPE 3.2TB SAS 12G Mixed Use SFF SC PM5 SSD   | P04537-B21 |
| HPE 3.2TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD       | P09094-B21 |
| HPE 3.2TB SAS 12G Mixed Use SFF SC PM1645a SSD   | P19917-B21 |
| HPE 6.4TB SAS 12G Mixed Use SFF SC PM5 SSD   | P04539-B21 |
| HPE 6.4TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD       | P09096-B21 |
| HPE 6.4TB SAS 12G Mixed Use SFF SC PM1645a SSD   | P19919-B21 |
| Write Intensive - 12G SAS - SFF - Solid State Drives                                   |            |
| HPE 400GB SAS 12G Write Intensive SFF SC PM5 SSD                                       | P04541-B21 |
| HPE 400GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | P09098-B21 |
| HPE 400GB SAS 12G Write Intensive SFF SC SS540 SSD                                     | P21125-B21 |
| HPE 800GB SAS 12G Write Intensive SFF SC PM5 SSD                                       | P04543-B21 |
| HPE 800GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | P09100-B21 |
| HPE 800GB SAS 12G Write Intensive SFF SC SS540 SSD                                     | P21127-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 SC PM5 SSD                                       | P04545-B21 |
| HPE 1.6TB SAS 12G Write Intensive SFF SC SS540 SSD                                     | P21129-B21 |
| HPE 3.2TB SAS 12G Write Intensive SFF SC PM5 SSD                                       | P04547-B21 |
| Mixed Use - 12G Value SAS - SFF - Solid State Drives                                   |            |
| HPE 800GB SAS 12G Mixed Use SFF SC SS540 SSD   | P21131-B21 |
| HPE 960GB SAS 12G Mixed Use SFF SC Value SAS RM5 SSD                                   | P10448-B21 |
| HPE 1.6TB SAS 12G Mixed Use SFF SC SS540 SSD   | P21133-B21 |
| HPE 1.92TB SAS 12G Mixed Use SFF SC Value SAS RM5 SSD                                  | P10454-B21 |
| HPE 3.2TB SAS 12G Mixed Use SFF SC SS540 SSD   | P21135-B21 |
| HPE 3.84TB SAS 12G Mixed Use SFF SC Value SAS RM5 SSD                                  | P10460-B21 |
| HPE 6.4TB SAS 12G Mixed Use SFF SC SS540 SSD   | P21137-B21 |
| Read Intensive - 12G Value SAS - SFF - Solid State Drives                              |            |
| HPE 960GB SAS 12G Read Intensive SFF SC Value SAS RM5 SSD                              | P10440-B21 |
| HPE 1.92TB SAS 12G Read Intensive SFF SC Value SAS RM5 SSD                             | P10442-B21 |
| HPE 3.84TB SAS 12G Read Intensive SFF SC Value SAS RM5 SSD                             | P10444-B21 |
| HPE 7.68TB SAS 12G Read Intensive SFF SC Value SAS RM5 SSD                             | P10446-B21 |
| HPE 960GB SAS 12G Read Intensive SFF SC SS540 SSD                                      | P21139-B21 |
|  |            |

| Core Options  |              |
|---|--------------|
| HPE 1.92TB SAS 12G Read Intensive SFF SC SS540 SSD                                | P21141-B21   |
| HPE 3.84TB SAS 12G Read Intensive SFF SC SS540 SSD                                | P21143-B21   |
| HPE 7.68TB SAS 12G Read Intensive SFF SC SS540 SSD                                | P21145-B21   |
| HPE 15.3TB SAS 12G Read Intensive SFF SC SS540 SSD                                | P21147-B21   |
| Mixed Use - 12G SAS - LFF - Solid State Drives                                    |              |
| HPE 800GB SAS 12G Mixed Use LFF SCC PM5 SSD                                       | P04529-B21   |
| HPE 800GB SAS 12G Mixed Use LFF LPC PM5 SSD                                       | P04531-B21   |
| Mixed Use - 12G Value SAS - LFF - Solid State Drives                              | . 0.00. ==.  |
| HPE 960GB SAS 12G Mixed Use LFF SCC Value SAS RM5 SSD                             | P10450-B21   |
| HPE 1.92TB SAS 12G Mixed Use LFF SCC Value SAS RM5 SSD                            | P10456-B21   |
| Mixed Use - 6G SATA - SFF - Solid State Drives                                    | 1 10100 B21  |
| HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed               | P07922-B21   |
| Firmware SSD  | 1 07 322 021 |
| HPE 480GB SATA 6G Mixed Use SFF SC S4610 SSD                                      | P05976-B21   |
| HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Multi Vendor SSD               | P18432-B21   |
| HPE 960GB SATA 6G Mixed Use SFF SC S4610 SSD                                      | P05980-B21   |
| HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Multi Vendor SSD               | P18434-B21   |
| HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | P07930-B21   |
| Mixed Use - 6G SATA - SFF - Solid State Drives                                    |              |
| HPE 1.92TB SATA 6G Mixed Use SFF SC S4610 SSD                                     | P05986-B21   |
| HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Multi Vendor SSD              | P18436-B21   |
| HPE 3.84TB SATA 6G Mixed Use SFF SC S4610 SSD                                     | P05994-B21   |
| HPE 3.84TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Multi Vendor SSD              | P18438-B21   |
| HPE 3.84TB SATA 6G Mixed Use SFF SC SM883 SSD                                     | P21517-B21   |
| HPE 480GB SATA 6G Mixed Use SFF SC 5300M SSD                                      | P19947-B21   |
| HPE 960GB SATA 6G Mixed Use SFF SC 5300M SSD                                      | P19949-B21   |
| HPE 1.92TB SATA 6G Mixed Use SFF SC 5300M SSD                                     | P19951-B21   |
| HPE 3.84TB SATA 6G Mixed Use SFF SC 5300M SSD                                     | P19953-B21   |
| Mixed Use - 6G SATA - LFF - Solid State Drives                                    | 1 10000 B21  |
| HPE 480GB SATA 6G Mixed Use LFF SCC 5300M SSD                                     | P19978-B21   |
| HPE 480GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed              | P07924-B21   |
| Firmware SSD  | 1 07 324-021 |
| HPE 1.92TB SATA 6G Mixed Use LFF SCC 5300M SSD                                    | P19982-B21   |
| Read Intensive - 6G SATA - SFF - Solid State Drives                               |              |
| HPE 240GB SATA 6G Read Intensive SFF SC PM883 SSD                                 | P04556-B21   |
| HPE 240GB SATA 6G Read Intensive SFF SC S4510 SSD                                 | P05924-B21   |
| HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor SSD          | P18420-B21   |
| HPE 480GB SATA 6G Read Intensive SFF SC SE4011 SSD                                | P06194-B21   |
| HPE 480GB SATA 6G Read Intensive SFF SC S4510 SSD                                 | P05928-B21   |
| HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor SSD          | P18422-B21   |
| HPE 480GB SATA 6G Read Intensive SFF SC PM883 SSD                                 | P04560-B21   |
| HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed          | P04474-B21   |
| Firmware SSD  |              |
| HPE 960GB SATA 6G Read Intensive SFF SC PM883 SSD                                 | P04564-B21   |
| HPE 960GB SATA 6G Read Intensive SFF SC SE4011 SSD                                | P06196-B21   |
| HPE 240GB SATA 6G Read Intensive SFF SC 5300P SSD                                 | P19935-B21   |
|   |              |

| Core Options   |            |
|--|------------|
| HPE 480GB SATA 6G Read Intensive SFF SC 5300P SSD  | P19937-B21 |
| HPE 960GB SATA 6G Read Intensive SFF SC 5300P SSD  | P19939-B21 |
| HPE 1.92TB SATA 6G Read Intensive SFF SC 5300P SSD   | P19941-B21 |
| HPE 3.84TB SATA 6G Read Intensive SFF SC 5300P SSD   | P19943-B21 |
| HPE 7.68TB SATA 6G Read Intensive SFF SC 5300P SSD   | P19945-B21 |
| Read Intensive - 6G SATA - SFF - Solid State Drives  |            |
| HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed                     | P04476-B21 |
| Firmware SSD   |            |
| HPE 960GB SATA 6G Read Intensive SFF SC S4510 SSD  | P05932-B21 |
| HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor SSD                     | P18424-B21 |
| HPE 1.92TB SATA 6G Read Intensive SFF SC PM883 SSD   | P04566-B21 |
| HPE 1.92TB SATA 6G Read Intensive SFF SC SE4011 SSD  | P06198-B21 |
| HPE 1.92TB SATA 6G Read Intensive SFF SC S4510 SSD   | P05938-B21 |
| HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor SSD                    | P18426-B21 |
| HPE 3.84TB SATA 6G Read Intensive SFF SC PM883 SSD   | P04570-B21 |
| HPE 3.84TB SATA 6G Read Intensive SFF SC SE4011 SSD  | P06200-B21 |
| HPE 3.84TB SATA 6G Read Intensive SFF SC S4510 SSD   | P05946-B21 |
| HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor SSD                    | P18428-B21 |
| HPE 7.68TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor                        | P18430-B21 |
| Read Intensive - 6G SATA - SFF - Solid State Drives  |            |
| HPE 480GB SATA 6G Read Intensive LFF SCC PM883 SSD   | P09687-B21 |
| HPE 960GB SATA 6G Read Intensive LFF SCC PM883 SSD   | P09689-B21 |
| HPE 1.92TB SATA 6G Read Intensive LFF SCC PM883 SSD  | P09693-B21 |
| Mixed Use - 6G SATA - SFF - Solid State Drives   |            |
| HPE 480GB SATA 6G Mixed Use SFF SC SM883 SSD   | P09712-B21 |
| HPE 480GB SATA 6G Mixed Use SFF SC SE5031 SSD  | P13658-B21 |
| HPE 960GB SATA 6G Mixed Use SFF SC SM883 SSD   | P09716-B21 |
| HPE 960GB SATA 6G Mixed Use SFF SC SE5031 SSD  | P13660-B21 |
| HPE 1.92TB SATA 6G Mixed Use SFF SC SM883 SSD  | P09722-B21 |
| HPE 1.92TB SATA 6G Mixed Use SFF SC SE5031 SSD   | P13662-B21 |
| HPE 3.84TB SATA 6G Mixed Use SFF RW SE5031 SSD   | P13664-B21 |
| Mixed Use - 6G SATA - LFF - Solid State Drives   |            |
| HPE 960GB SATA 6G Mixed Use LFF SCC SM883 SSD  | P09718-B21 |
| HPE 1.92TB SATA 6G Mixed Use LFF SCC SM883 SSD   | P09724-B21 |
| VRO - 6G SATA - SFF - Solid State Drives   |            |
| HPE 1.92TB SATA 6G Very Read Optimized SFF SC 5210 SSD                                       | P23487-B21 |
| HPE 3.84TB SATA 6G Very Read Optimized SFF SC 5210 SSD                                       | P23489-B21 |
| HPE 7.68TB SATA 6G Very Read Optimized SFF SC 5210 SSD                                       | P23493-B21 |
| Read Intensive - NVMe - SFF - Solid State Drives   |            |
| HPE 960GB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | P10208-B21 |
| HPE 960GB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | P07190-B21 |
| HPE 960GB NVMe Gen3 Mainstream Performance Read Intensive SFF SCN U.2 PE6011 SSD             | P13676-B21 |

| Core Options  |            |
|---|------------|
| HPE 960GB NVMe Gen4 High Performance Read Intensive SFF SCN U.3 CM6 SSD                       | P20015-B21 |
| HPE 960GB NVMe Gen4 Mainstream Performance Read Intensive SFF SCN U.3 CD6 SSD                 | P25944-B21 |
| HPE 960GB NVMe Gen4 Mainstream Performance Read Intensive SFF SC U.3 PE8010 SSD               | P19807-B21 |
| HPE 960GB NVMe Gen4 Mainstream Performance Read Intensive SFF SCN U.3 PE8010 SSD              | P19809-B21 |
| HPE 1.92TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | P10214-B21 |
| HPE 1.92TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | P10210-B21 |
| HPE 1.92TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | P07192-B21 |
| HPE 1.92TB NVMe Gen3 Mainstream Performance Read Intensive SFF SCN U.2 PE6011 SSD             | P13678-B21 |
| HPE 1.92TB NVMe Gen4 High Performance Read Intensive SFF SCN U.3 CM6 SSD                      | P20017-B21 |
| HPE 1.92TB NVMe Gen4 Mainstream Performance Read Intensive SFF SCN U.3 CD6 SSD                | P20139-B21 |
| HPE 1.92TB NVMe Gen4 Mainstream Performance Read Intensive SFF SC U.3 PE8010 SSD              | P19811-B21 |
| HPE 1.92TB NVMe Gen4 Mainstream Performance Read Intensive SFF SCN U.3 PE8010 SSD             | P19813-B21 |
| HPE 2TB NVMe Gen3 High Performance Read Intensive SFF SCN U.2 P4510 SSD                       | P13695-B21 |
| HPE 3.84TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | P10216-B21 |
| HPE 3.84TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | P10212-B21 |
| HPE 3.84TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | P07194-B21 |
| HPE 3.84TB NVMe Gen3 Mainstream Performance Read Intensive SFF SCN U.2 PE6011 SSD             | P13680-B21 |
| HPE 3.84TB NVMe Gen4 High Performance Read Intensive SFF SCN U.3 CM6 SSD                      | P20019-B21 |
| HPE 3.84TB NVMe Gen4 Mainstream Performance Read Intensive SFF SCN U.3 CD6 SSD                | P20141-B21 |
| HPE 3.84TB NVMe Gen4 Mainstream Performance Read Intensive SFF SC U.3 PE8010 SSD              | P19815-B21 |
| HPE 3.84TB NVMe Gen4 Mainstream Performance Read Intensive SFF SCN U.3 PE8010 SSD             | P19817-B21 |
| HPE 4TB NVMe Gen3 High Performance Read Intensive SFF SCN U.2 P4510 SSD                       | P13697-B21 |
| HPE 7.68TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | P10218-B21 |
| HPE 7.68TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | P07196-B21 |
| HPE 7.68TB NVMe Gen3 Mainstream Performance Read Intensive SFF SCN U.2 PE6011 SSD             | P13682-B21 |
|   |            |

| Core Options  |                          |
|---|--------------------------|
| HPE 7.68TB NVMe Gen4 High Performance Read Intensive SFF SCN U.3 CM6 SSD  | P20021-B21               |
| HPE 7.68TB NVMe Gen4 Mainstream Performance Read Intensive SFF SCN U.3 CD6 SSD  | P20143-B21               |
| HPE 7.68TB NVMe Gen4 Mainstream Performance Read Intensive SFF SC U.3 PE8010 SSD  | P19819-B21               |
| HPE 7.68TB NVMe Gen4 Mainstream Performance Read Intensive SFF SCN U.3 PE8010 SSD   | P19821-B21               |
| HPE 15.36TB NVMe Gen3 High Performance Read Intensive SFF SCN U.2 CM5 SSD   | P07198-B21               |
| HPE 15.36TB NVMe Gen4 Mainstream Performance Read Intensive SFF SCN U.3 CD6 SSD   | P20145-B21               |
| Mixed Use - NVMe - SFF - Solid State Drives   |                          |
| HPE 800GB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD   | P07179-B21               |
| HPE 800GB NVMe Gen3 Mainstream Performance Mixed Use SFF SCN U.2 PE6031 SSD   | P13668-B21               |
| HPE 800GB NVMe Gen4 High Performance Mixed Use SFF SCN U.3 CM6 SSD  | P20094-B21               |
| HPE 800GB NVMe Gen4 Mainstream Performance Mixed Use SFF SCN U.3 CD6 SSD  | P25953-B21               |
| HPE 800GB NVMe Gen4 Mainstream Performance Mixed Use SFF SC U.3 PE8030 SSD  | P19823-B21               |
| HPE 800GB NVMe Gen4 Mainstream Performance Mixed Use SFF SCN U.3 PE8030 SSD   | P19825-B21               |
| HPE 1.6TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD   | P10222-B21               |
| HPE 1.6TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD   | P07181-B21               |
| HPE 1.6TB NVMe Gen3 High Performance Mixed Use SFF SCN U.2 P4610 SSD  | P13699-B21               |
| HPE 1.6TB NVMe Gen3 Mainstream Performance Mixed Use SFF SCN U.2 PE6031 SSD   | P13670-B21               |
| HPE 1.6TB NVMe Gen4 High Performance Mixed Use SFF SCN U.3 CM6 SSD  | P20096-B21               |
| HPE 1.6TB NVMe Gen4 Mainstream Performance Mixed Use SFF SCN U.3 CD6 SSD  | P20203-B21               |
| HPE 1.6TB NVMe Gen4 Mainstream Performance Mixed Use SFF SC U.3 PE8030 SSD  | P19827-B21               |
| HPE 1.6TB NVMe Gen4 Mainstream Performance Mixed Use SFF SCN U.3 PE8030 SSD   | P19829-B21               |
| HPE 3.2TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD   | P10224-B21               |
| HPE 3.2TB NVMe Gen3 Mainstream Performance Mixed Use SFF SCN U.2 PE6031 SSD   | P13672-B21               |
| HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF SCN U.3 CM6 SSD HPE 3.2TB NVMe Gen4 Mainstream Performance Mixed Use SFF SCN U.3 CD6 SSD | P20098-B21<br>P20205-B21 |
| HPE 3.2TB NVMe Gen4 Mainstream Performance Mixed Use SFF SCN U.3 PE8030 SSD   | P19831-B21               |
| HPE 3.2TB NVMe Gen4 Mainstream Performance Mixed Use SFF SCN U.3 PE8030 SSD   | P19833-B21               |

- This drive does support hot-swap drives.

- This requires High Performance Fans (867810-B21).

| Core Options  |                          |
|---|--------------------------|
| HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF SCN U.3 CM6 SSD HPE 6.4TB NVMe Gen4 Mainstream Performance Mixed Use SFF SCN U.3 CD6 SSD                   | P20100-B21<br>P20207-B21 |
| HPE 6.4TB NVMe Gen4 Mainstream Performance Mixed Use SFF SC U.3 PE8030 SSD  | P19835-B21               |
| HPE 6.4TB NVMe Gen4 Mainstream Performance Mixed Use SFF SCN U.3 PE8030 SSD   | P19837-B21               |
| HPE 12.8TB NVMe Gen4 Mainstream Performance Mixed Use SFF SCN U.3 CD6 SSD   | P20209-B21               |
| HPE 3.2TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD   | P07183-B21               |
| HPE 3.2TB NVMe Gen3 High Performance Mixed Use SFF SCN U.2 P4610 SSD  | P13701-B21               |
| HPE 6.4TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD   | P10226-B21               |
| HPE 6.4TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD   | P07185-B21               |
| HPE 6.4TB NVMe Gen3 High Performance Mixed Use SFF SCN U.2 P4610 SSD  | P13703-B21               |
| HPE 6.4TB NVMe Gen3 Mainstream Performance Mixed Use SFF SCN U.2 PE6031 SSD   | P13674-B21               |
| Write Intensive - NVMe - SFF - Solid State Drives   |                          |
| HPE 375GB NVMe Gen3 High Performance Low Latency Write Intensive SFF SCN U.2 P4800X SSD   | 878014-B21               |
| HPE 750GB NVMe Gen3 High Performance Low Latency Write Intensive SFF SCN U.2 P4800X SSD   | P06952-B21               |
| Read Intensive - M.2 - Solid State Drives   |                          |
| HPE 240GB SATA 6G Read Intensive M.2 2280 5300B SSD   | P19888-B21               |
| HPE 480GB SATA 6G Read Intensive M.2 2280 5300P SSD   | P19890-B21               |
| HPE 960GB SATA 6G Read Intensive M.2 2280 5300P SSD   | P19892-B21               |
| HPE Dual 240GB SATA 6G Read Intensive M.2 to SFF SCM 5300B SSD Kit  | P19894-B21               |
| HPE Dual 480GB SATA 6G Read Intensive M.2 to SFF SCM 5300P SSD Kit  | P19896-B21               |
| Hard Drive Blank Kits   |                          |
| HPE Universal SATA 6G AIC HHHL M.2 SSD Enablement Kit   | 878783-B21               |
| Notes: 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               |
| Notes:  |                          |
| -This is supported in the LFF model only.   |                          |
| -3 LFF rear drives will consume the 2nd riser expansion slot.   | 000000 504               |
| HPE DL385 Gen10 4 Large Form Factor Mid-Plane Hard Drive Carrier  | 882096-B21               |
| Notes:  |                          |
| <ul><li>Supported with both the 8 and 12 LFF model.</li><li>With this mid-tray only single-wide (8.5-inch cards with connections or less) cards are</li></ul> |                          |
| supported.  |                          |
| This drive does a consent but according to  |                          |

#### **Core Options**

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

826687-B21

#### Notes:

- HPE DL38X Gen10 High Performance Temperature Fan Kit (867810-B21).
- NVMe drives require the addition of an NVMe capable riser, or a 2P configuration and the NVMe cable 871827-B21 for the on boards NVMe connection.
- 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

#### Notes:

- -Supports 2 SFF rear in Riser1 or 2 location max 2 supported SFF model.
- 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.
- -Supports uFF drives.

## HPE DL38X NVMe 8 Solid State Drive Express Bay Enablement Kit

826689-B21

#### **Notes**

- This option provides support for up to 8NVMe drives, and can be populated in all Boxes in the 8 SFF model.
- A maximum of 24 NVMe drives only are supported.
- This will require the HPE DL38X Gen10 4-port 8 NVMe SlimSAS Riser (867807-B21).
- 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).
- -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

#### **Notes:**

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

## HPE DL38X Gen10 SFF Box1/2 Cage/Backplane Kit

826691-B21

Notes: 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

#### **Notes:**

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

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

#### **Media Bay Kits**

HPE DL385 Gen10 Universal Media Bay

882097-B21

#### Notes:

-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.

## **Core Options**

- -This is a SFF model option only.
- -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.
- -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 Smart IO**

| Pensando Distributed Services Card (DSC)  |            |
|---|------------|
| Pensando Distributed Services Platform DSC-25 10/25Gb 2-port SFP28 Card                                     | P26966-B21 |
| Notes: Each card instance requires one RTU license of Silver or Platinum software. In case of more than one |            |
| adapter, RTU licenses doesn't need to be of the same part number.   |            |
| Pensando DSP Silver Software Licenses   |            |
| Pensando Distributed Services Platform Silver 1yr Subscription 24x7<br>Support E-RTU                        | R6A06AAE   |
| Pensando Distributed Services Platform Silver 3yr Subscription 24x7<br>Support E-RTU                        | R6A07AAE   |
| Pensando Distributed Services Platform Silver 4yr Subscription 24x7<br>Support E-RTU                        | R6F68AAE   |
| Pensando Distributed Services Platform Silver 5yr Subscription 24x7<br>Support E-RTU                        | R6A08AAE   |
| Pensando DSP Platinum Software Licenses   |            |
| Pensando Distributed Services Platform Platinum 1yr Renewal Subscription 24x7 Support E-RTU                 | R6A09AAE   |
| Pensando Distributed Services Platform Platinum 3yr Subscription 24x7<br>Support E-RTU                      | R6A10AAE   |
| Pensando Distributed Services Platform Platinum 4yr Subscription 24x7<br>Support E-RTU                      | R6F69AAE   |
| Pensando Distributed Services Platform Platinum 5yr Subscription 24x7 Support E-RTU                         | R6A11AAE   |
| Pensando iLO Management Module  |            |
| Pensando Distributed Services Platform for HPE iLO Sideband   | D00000 D01 |
| Management Adaptive LOM Module  | P26969-B21 |

# **HPE Networking**

| 1 Gigabit Ethernet adapters                    |
|--|
| HPE Ethernet 1Gb 4-port BASE-T BCM5719 Adapter |

| HPE Ethernet 1Gb 4-port BASE-T I350-T4V2 Adapter    | 811546-B21 |
|---|------------|
| HPE Ethernet 1Gb 2-port BASE-T BCM5720 Adapter      | 615732-B21 |
| HPE Ethernet 1Gb 2-port BASE-T I350-T2V2 Adapter    | 652497-B21 |
| 10 Gigabit Ethernet adapters                        |            |
| HPE Ethernet 10Gb 2-port BASE-T BCM57416 Adapter    | 813661-B21 |
| HPE Ethernet 10Gb 2-port BASE-T QL41401-A2G Adapter | 867707-B21 |
| HPE Ethernet 10Gb 2-port SFP+ QL41401-A2G Adapter   | P08446-B21 |
| HPE Ethernet 10Gb 2-port 548SFP+ Adapter            | P11338-B21 |

647594-B21

867328-B21

# QuickSpecs

#### **Core Options**

| HPE Ethernet 10Gb 2-port SFP+ X710-DA2 Adapter          | 727055-B21 |
|---|------------|
| HPE Ethernet 10Gb 2-port BASE-T X550-AT2 Adapter        | 817738-B21 |
| HPE Ethernet 10Gb 2-port FLR-T X550-AT2 Adapter         | 817745-B21 |
| 25 Gigabit Ethernet adapters                            |            |
| HPE Ethernet 10/25Gb 2-port SFP28 BCM57414 Adapter      | 817718-B21 |
| HPE Ethernet 10/25Gb 2-port SFP28 MCX4121A-ACUT Adapter | 817753-B21 |

#### Notes:

- The DL385 Gen10 ships with 4x 1 Gb Embedded (if equipped). It is not supported on new boards for 7xx2 series processors
- A minimum of two Gigabytes (2 GB) of server memory is required per each adapter.

HPE Ethernet 10/25Gb 2-port SFP28 QL41401-A2G Adapter

- Direct Attach Cable (DAC) for copper environments or fiber transceivers and cables for fiber-optic environments must be purchased separately. Please see the related NIC QuickSpecs for Technical Specifications and additional information:

 $\frac{https://www.hpe.com/us/en/product-catalog/servers/adapters/pip.models.hpe-storefabric-converged-network-adapters.4118472.html$ 

#### 100 Gigabit Ethernet adapters

HPE Ethernet 100Gb 1-port QSFP28 MCX515A-CCAT Adapter 874253-B21

#### 200 Gigabit Ethernet adapters

HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCle3 x16 MCX653105A-P06154-B21 HDAT Adapter

## FlexibleLOM adapters

| HPE Ethernet 1Gb 4-port FLR-T BCM5719 Adapter                               | 629135-B22 |
|---|------------|
| HPE Ethernet 1Gb 4-port FLR-T I350-T4V2 Adapter                             | 665240-B21 |
| HPE Ethernet 10Gb 2-port FLR-T BCM57416 Adapter                             | 817721-B21 |
| HPE FlexFabric 10Gb 4-port FLR-T 57840S Adapter                             | 764302-B21 |
| HPE Ethernet 10/25Gb 2-port FLR-SFP28 BCM57414 Adapter                      | 817709-B21 |
| HPE Ethernet 10/25Gb 2-port FLR-SFP28 MCX4121A-ACFT Adapter                 | 817749-B21 |
| HPE Ethernet 10Gb 2-port FLR-SFP+ X710-DA2 Adapter                          | 727054-B21 |
| HPE Ethernet 10/25Gb 2-port FLR-SFP28 QL41401-A2G Converged Network Adapter | 867334-B21 |

#### **Notes:**

- -The DL385 Gen10 chassis ships with 4x 1 Gb embedded.( if equipped). It is not supported on new boards for 7xx2 series processors
- -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.
- Direct Attach Cable (DAC) for copper environments or fiber transceivers and cables for fiber-optic environments must be purchased separately. Please see the related NIC QuickSpecs for Technical Specifications and additional information:
- -622FLR-SFP28 adapters with FCoE used in conjunction with all Red Hat 7.x version OS's is not supported at this time

## **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 2-port 840QSFP28 Adapter        | 825111-B21 |

| P06154-B21 |
|------------|
| P06154-B23 |
| P06250-B21 |
| P06251-B21 |
|            |
|            |
| 826694-B21 |
| 020094-D21 |
|            |
|            |
| 870548-B21 |
| 070340-D21 |
|            |
|            |
|            |
|            |
| 867807-B21 |
|            |
|            |
|            |
|            |
| 826704-B21 |
|            |
|            |
|            |
| 826688-B21 |
|            |
|            |
| 867806-B21 |
| 007000-021 |
|            |
| 867808-B21 |
|            |
| 873732-B21 |
|            |
| 875780-B21 |
|            |

## **Core Options**

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

HPE DL38X Gen10 x16 Tertiary Riser Kit

826700-B21

#### **Notes:**

- -Supports 1x 16 slot in the Tertiary location.
- Supports Full Height and full-length card.
- -Bus width x16 Connector Width x16.
- -For additional details on ProLiant DL Gen10 server risers please visit:

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

| Riser Inf      | ormation*  |                |           |          |                        |                |                |                        |             |
|----------------|--|----------------|-----------|----------|------------------------|----------------|----------------|------------------------|-------------|
| Part number    | Description  | Riser position |           |          | Bus width (Gen3 lanes) |                |                | NVMe Direct<br>Connect |             |
|                |  | Primary        | Secondary | Tertiary | Top<br>slot            | Middle<br>Slot | Bottom<br>slot | Ports                  | Drive count |
| n/a            | This is the default riser in the chassis                             | D              | N         | N        | x8                     | x16            | x8             | -                      | -           |
| 870548-<br>B21 | HPE DL<br>Gen10<br>x8/x16/x8<br>Riser Kit                            | D              | 0         | N        | x8                     | x16            | x8             | -                      | -           |
| 826704-<br>B21 | HPE DL<br>Gen10<br>x16/x16 GPU<br>Riser Kit                          | 0              | 0         | N        | 0                      | x16            | x16            | -                      | -           |
| 826694-<br>B21 | HPE DL38X<br>Gen10<br>x16/x16 Riser<br>Kit                           | 0              | 0         | N        | x16                    | x16            | 0              | -                      | -           |
| 867807-<br>B21 | HPE DL38X<br>Gen10 4-port<br>8 NVMe<br>Primary<br>SlimSAS<br>Riser   | 0              | N         | N        | 0                      | 0              | 0              | 4                      | 8           |
| 867808-<br>B21 | HPE DL38X<br>Gen10 2-port<br>4 NVMe<br>SlimSAS<br>Riser              | N              | N         | 0        | 0                      | 0              | 0              | 2                      | 4           |
| 873732-<br>B21 | HPE DL38X Gen10 4-port 8 NVMe Secondary SlimSAS Riser                | N              | 0         | N        | 0                      | 0              | 0              | 4                      | 8           |
| 867806-<br>B21 | HPE DL38X<br>Gen10<br>x8/x8/x8 1-<br>port 2 NVMe<br>SlimSAS<br>Riser | 0              | 0         | N        | x8                     | x8             | x8             | 1                      | 2           |

# **Core Options**

| 871673-<br>B21 | HPE DL38X<br>Gen10<br>x8/x8/x8 1-<br>port 2 NVMe<br>SlimSAS FIO<br>Riser Kit | О | N | N | x8  | x8  | x8  | 1 | 2 |
|----------------|--|---|---|---|-----|-----|-----|---|---|
| 826688-<br>B21 | HPE DL38X<br>Gen10 2SFF<br>HDD<br>SAS/SATA<br>Riser Kit                      | 0 | О | N | 0   | 0   | x16 | - | - |
| 826700-<br>B21 | HPE DL38X<br>Gen10 x16<br>Tertiary Riser<br>Kit                              | N | N | 0 | X16 | 0   | 0   | - | - |
| 875780-<br>B21 | HPE DL38X<br>Gen10 2 x8<br>PCIe Tertiary<br>Riser Kit                        | N | N | О | X8  | X8  | 0   | - | - |
| 871674-<br>B21 | HPE DL38X<br>Gen10 Slot<br>1/2 x16/x16<br>FIO Riser Kit                      | 0 | N | N | x16 | x16 | 0   | - | - |
| 871676-<br>B21 | HPE DL38X<br>Gen10<br>x16/x16 GPU<br>Slot2/3 FIO<br>Riser Kit                | 0 | N | N | 0   | x16 | x16 | - | - |
| 826685-<br>B21 | HPE DL38X<br>Gen10 3LFF<br>SAS/SATA<br>Riser Kit                             | N | 0 | N | 0   | 0   | 0   | - | - |

Notes:Y = supported; D = default on Chassis; O = optional; N = not supported or slot/connector not present.

| HPE Power Supplies   |            |
|--|------------|
| HPE 500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit          | 865408-B21 |
| Notes: Flex Slot Platinum power supplies support power efficiency of up    |            |
| to 94% and include a standard C-14 power inlet connector.                  |            |
| HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit          | 865438-B21 |
| Notes: Flex Slot Titanium power supplies support power efficiency of up to |            |
| 96% and include a standard C-14 power inlet connector.                     |            |
| HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit          | 865414-B21 |
| Notes: Flex Slot Platinum power supplies support power efficiency of up    |            |
| to 94% and include a standard C-14 power inlet connector.                  |            |
| HPE 800W Flex Slot -48VDC Hot Plug Low Halogen Power Supply Kit            | 865434-B21 |
| Notes: Flex Slot -48VDC power supplies support power efficiency of up to   |            |
| 94%.   |            |
| 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 |
| Notes:   |            |

## **Core Options**

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

- All power supplies in a server should match. Mixing Power Supplies is not supported.
- -Option kits contain the specified power supply and a PDU IEC cable.
- -1600W power supplies only support high line voltage.
- 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 NVMe Gen3 x4 High Performance Low Latency Write Intensive AIC HHHL P4800X SSD | 878038-B21 |
| HPE 1.6TB NVMe Gen4 x8 High Performance Mixed Use AIC HHHL                              |            |
| PM1735 SSD  | P26934-B21 |
| HPE 1.6TB NVMe x8 Lanes Mixed Use HHHL 3yr Wty Digitally Signed Firmware Card           | P10264-B21 |
| HPE 3.2TB NVMe Gen4 x8 High Performance Mixed Use AIC HHHL                              |            |
| PM1735 SSD  | P26936-B21 |
| HPE 3.2TB NVMe x8 Lanes Mixed Use HHHL 3yr Wty Digitally Signed Firmware Card           | P10266-B21 |
| HPE 6.4TB NVMe Gen4 x8 High Performance Mixed Use AIC HHHL                              |            |
| PM1735 SSD  | P26938-B21 |
| HPE 6.4TB NVMe x8 Lanes Mixed Use HHHL 3yr Wty Digitally Signed                         | P10268-B21 |

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

NVIDIA Quadro RTX 6000 Graphics Accelerator for HPE

R0Z45C

#### **Notes:**

Firmware Card

- -Max Qty=1 Doublewide GPU is allowed per riser
- This option requires High Performance Fan Kit (867810-B21) and High Performance Heat sink (882098-B21)
- -This option IS NOT supported with 166W or higher Processors
- -System memory restriction < 128 TB
- This GPU requires Pwr Cable Kit (871830-B21) to be selected
- -Not supported on 12 LFF chassis

## **Core Options**

#### NVIDIA Quadro RTX 8000 Graphics Accelerator for HPE

**R1F97C** 

#### Notes:

- -Max Qty=1 Doublewide GPU is allowed per riser
- -This option requires High Performance Fan Kit (867810-B21) and High Performance Heat sink (882098-B21)
- This option IS NOT supported with 166W or higher Processors
- -System memory restriction < 128 TB
- -This GPU requires Pwr Cable Kit (871830-B21) to be selected
- -Not supported on 12 LFF chassis

#### NVIDIA V100 PCIe 32GB Computational Accelerator for HPE

Q9U36C

#### Notes:

- -Only supported on 7xx1 series processors currently
- -Max Qty=1 Doublewide GPU is allowed per riser
- This option requires High Performance Fan Kit (867810-B21) and High Performance Heat sink (882098-B21)
- This option IS NOT supported with 166W or higher Processors
- -System memory restriction < 128 TB
- This GPU requires Pwr Cable Kit (871829-B21) to be selected
- Not supported on 12 LFF chassis

#### NVIDIA P40 24GB Computational Accelerator for HPE

Q0V80C

#### Notes:

- -Max Qty=1 Doublewide GPU is allowed per riser
- This option requires High Performance Fan Kit (867810-B21) and High Performance Heat sink (882098-B21)
- This option IS NOT supported with 166W or higher Processors
- -System memory restriction < 128 TB
- This GPU requires Pwr Cable Kit (871829-B21) to be selected
- Not supported on 12 LFF chassis

## NVIDIA M10 Quad GPU Module for HPE

Q0J62C

#### Notes:

- This option requires the High Performance Fan Kit (867810-B21) and High Performance Heat sink (882098-B21)
- -This option IS NOT supported with 166W or higher Processors
- -System memory restriction < 1 TB
- Not supported on 12 LFF chassis
- -This option requires Power Cable Kit (871828-B21)
- Max Qty=1 Doublewide GPU is allowed per riser
- Max Qty=2 of this GPU is allowed per server

#### NVIDIA T4 16GB Computational Accelerator for HPE

R0W29C

#### Notes:

- This option requires the High Performance Fan Kit (867810-B21) and High Performance Heat sink (882098-B21)
- -System memory restriction < 128 TB
- This option IS NOT supported on the 8LFF or 12LFF Model-Xs

**Core Options** 

# **HPE Cooling Options**

HPE DL38X Gen10 High Performance Temperature Fan Kit

867810-B21

#### Notes:

- -This kit is required for specific Ambient temperature environments, coming in 2H2017.
- 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.
- -The 12 LFF and 24 SFF models (including field upgrades to 24 SFF) will already include 6 High Performance fan kits.
- The High Performance fan kit is needed to support certain Passive GPGPU (Graphics cards) configurations; or ASHRAE operating environments.
- -For elevated ambient temperature support please see: http://www.hpe.com/servers/ashrae.



## **Additional Options**

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 OneView Standard 1vr 9x5 Support Flexible Quantity E-RTU

HPE OneView w/o iLO including 3yr 24x7 Support Flexible Quantity E-LTU

| The 2 one view standard Tyr one support Florible addring 2 Tris                                |          |
|--|----------|
| 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 |

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

## **HPE Security**

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

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

HPE Trusted Platform Module 2.0 Gen10 Option

864279-B21

K6F98AAF

P8B26AAE

#### **Notes:**

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



#### **Additional Options**

module.

- 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 <a href="https://example.com/HPE Smart Array Gen10">HPE Smart Array Gen10</a> Controllers Data Sheet



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

HPE Smart Array P824i-p MR Gen10 (24 Internal Lanes/4GB

**Notes:** All performance RAID controllers are supported by the HPE Smart Storage Battery (P01366-B21), which supports multiple devices and is sold separately.

| Cache/CacheCade) 12G SAS PCIe Controller  |            |
|---|------------|
| HPE Smart Array P816i-a SR Gen10 (16 Internal Lanes/4GB Cache/SmartCache) 12G SAS Modular Controller  | 804338-B21 |
| Notes:  |            |
| <ul><li>Does not occupy a PCIe expansion slot and includes SmartCache license.</li><li>The P816i-a cable ships in the 12LFF chassis only.</li></ul> |            |
| HPE Smart Array P408i-a SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS Modular Controller  | 804331-B21 |
| Notes: Does not occupy a PCIe expansion slot.   |            |
| HPE Smart Array P408i-p SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS PCIe 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 |

Notes: Does not occupy a PCIe expansion slot.

# **HPE Cable Options**

870658-B21

874212-B21

# QuickSpecs

# Additional Options HPE DL38X/560/580/ML350 Gen10 P824i-p Cable Kit P00614-B21 HPE DL385 Gen10 Mini SAS 3POS Cable Kit 882100-B21 HPE DL38x Gen10 8-pin Cable Kit 871828-B21 HPE DL38x Gen10 8-pin Keyed Cable Kit 871829-B21

HPE GPU 2x 8-pin Cable Kit

P03849-B21

HPE DL38x Gen10 8x 6-pin Cable Kit

871830-B21

# **HPE Disk-Based Backup**

HPE DL38x GPU 6px6p Y-Power Cable Kit

| HPE RDX 1TB External Disk Backup System | B7B69B |
|---|--------|
| HPE RDX External Docking Station        | C8S07B |
| HPE RDX 2TB External Disk Backup System | E7X53B |
| HPE RDX 500GB Removable Disk Cartridge  | Q2042A |
| HPE RDX 1TB Removable Disk Cartridge    | Q2044A |
| HPE RDX 2TB Removable Disk Cartridge    | Q2046A |
| HPE RDX 4TB Removable Disk Cartridge    | Q2048A |

#### **HPE Racks**

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

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

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

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

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

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

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

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

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

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

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

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

#### **HPE Rack Options**

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

## **Additional Options**

#### **Rail Kits**

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

To assist in the installation of the server into the rack an optional installation tool is available by contacting your local services representative (695539-001).

Notes: 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 |
|---|------------|
| Notes: Does not include CMA (733664-B21).             |            |
| HPE 2U Large Form Factor Easy Install Rail Kit        | 733662-B21 |
| Notes: Does not include CMA (733664-B21).             |            |
| HPE 2U Cable Management Arm for Easy Install Rail Kit | 733664-B21 |
| HPE 2U Small Form Factor Ball Bearing Rail Kit        | 720863-B21 |
| Notes: Does not include CMA (720865-B21).             |            |
| HPE 2U Large Form Factor Ball Bearing Rail Kit        | 720864-B21 |
| Notes: 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 Enterprise Mainstream Flash Media Kits for Memory Cards**

| HPE 8GB Dual microSD Flash USB Drive   | 741279-B21 |
|--|------------|
| HPE 8GB microSD Flash Memory Card      | 726116-B21 |
| HPE 32GB microSD RAID 1 USB Boot Drive | P21868-B21 |
| HPE 32GB microSD Flash Memory Card     | 700139-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 |

## **Additional Options**

HPE 3 Year Proactive Care Call-To-Repair ProLiant DL385 Gen10 Service

HPE 3 Year Proactive Care Call-To-Repair 24x7 with DMR ProLiant DL385

HC2N2E

Gen10 Service

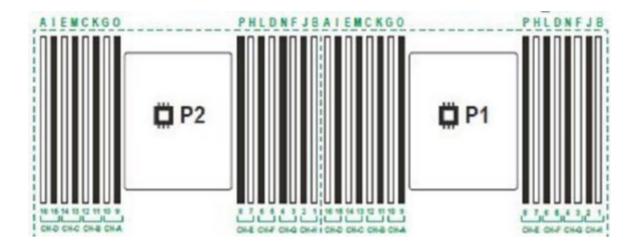
HPE 3 Year Proactive Care Call-To-Repair with CDMR ProLiant DL385 HC2N3E

Gen10 Service

Notes: For a full listing of Support Services available for this server, please

visit https://ssc.hpe.com/

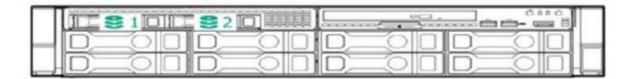
#### Memory



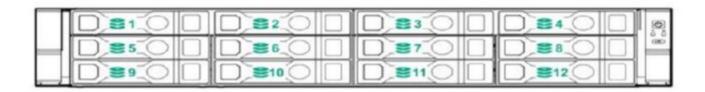
# **General Memory Population Rules and Guidelines:**

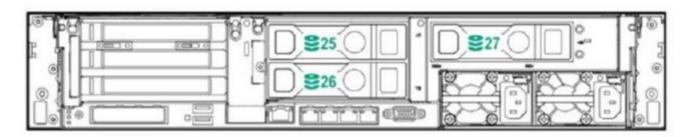
- Install DIMMs only if the corresponding processor is installed.
- If only one processor is installed in a two-processor system, only half of the DIMM slots are available.
- To maximize performance, it is recommended to balance the total memory capacity between all installed processors.
- When two processors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

Storage

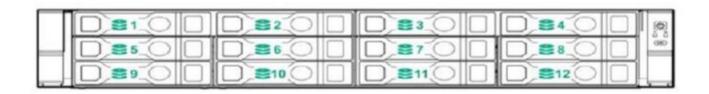


8LFF chassis with Universal media bay and optional 2SFF and optical drive shown





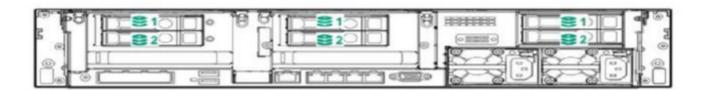
12 LFF + 3 rear LFF drives





12 LFF + 2 rear SFF drives

Storage



6 rear SFF drives





24 SFF + rear 2 SFF drives

## **Technical Specifications**

# **System Unit**

#### Dimensions

-SFF Drives

8.73 x 44.55 x 67.94 cm 3.44 x 17.54 x 26.75 in

- LFF Drives

8.73 x 44.55 x 73.02 cm 3.44 x 17.54 x 28.75 in

#### • Weight (approximate)

#### - Minimum

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

14.9 kg 32.75 lb

#### - Maximum

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

23.6 kg 51.5 lb

## 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

#### **Technical Specifications**

## **System Inlet Temperature**

## **Standard Operating Temperature**

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

#### • Extended Ambient Operating Temperature

- For approved hardware configurations, the supported system inlet range is extended to be: 5° to 10°C (41° to 50°F) and 35° to 40°C (95° to 104°F) at sea level with an altitude derating of 1.0°C per every 175 m (1.8°F per every 574 ft) above 900 m (2953 ft) to a maximum of 3050 m (10,000 ft). The approved hardware configurations for this system are listed at the
  - URL:http://www.hpe.com/servers/ashrae
- For approved hardware configurations, the supported system inlet range is extended to be: 40° to 45°C (104° to 113°F) at sea level with an altitude derating of 1.0°C per every 125 m (1.8°F per every 410 ft) above 900 m (2953 ft) to a maximum of 3050 m (10,000 ft). The approved hardware configurations for this system are listed at the URL:http://www.hpe.com/servers/ashrae
- System performance may be reduced if operating in the extended ambient operating range or with a fan fault.
- Non-operating
- -30° to 60°C (-22° to 140°F). Maximum rate of change is 20°C/hr (36°F/hr).

## Relative Humidity(non-condensing)

Operating

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

Non-operating

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

#### **Altitude**

Operating

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

Non-operating

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

#### RTC Accuracy

• 50 ppm

#### **Technical Specifications**

#### **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.

| Acoustic Noise |  |  |
|----------------|--|--|
| Idle           |  |  |
| LWAd           | 4.8 B Entry 4.4 B Base 4.6 B Perf          |  |
| LpAm           | 37 dBA Entry<br>31 dBA Base<br>31 dBA Perf |  |
| Operating      |  |  |
| LWAd           | 4.8 B Entry 4.4 B Base 4.6 B Perf          |  |
| LpAm           | 37 dBA Entry<br>31 dBA Base<br>31 dBA Perf |  |

#### Notes:

- Acoustics levels presented here are generated by the test configuration only. Acoustics levels will vary depending on system configuration. Values are subject to change without notification and are for reference only.
- Product conformance to cited product specifications is based on sample (type) testing, evaluation, or assessment. This
  product or family of products is eligible to bear the appropriate compliance logos and statements.
- The Listed sound levels apply to standard shipping configurations. Additional options may result in increased sound levels.

# **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</u> **Servers** 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 <a href="end-of-life product return">end-of-life product return</a>, 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.



**Technical Specifications** 

# **Summary of Changes**

| Date        | Version<br>History | Action  | Description of Change   |
|-------------|--------------------|---------|---|
| 05-Oct-2020 | Version 26         | Changed | Core Options section was updated. Obsolete SKUs were removed.   |
| 08-Sep-2020 | Version 25         | Changed | Standard Features section was updated. Obsolete SKUs were removed.  |
| 03-Aug-2020 | Version 24         | Changed | Core Options section was updated. Obsolete SKUs were removed.   |
| 01-Jun-2020 | Version 23         | Changed | Pre-configured Models and Core Options sections were updated.   |
| 06-Apr-2020 | Version 22         | Changed | Standard Features, Configuration Information and Core Options sections were updated.  |
| 17-Feb-2020 | Version 21         | Changed | Overview, Configuration Information, Pre-configured Models and Standard Features sections were updated.   |
| 02-Dec-2019 | Version 20         | Changed | Standard Features, Configuration Information, Core Options and Additional Options sections were updated.  |
| 07-Oct-2019 | Version 19         | Changed | Overview, Standard Features, Pre-configured Models, Configuration Information, Core Options and Additional Options sections were updated.  Obsolete SKU was removed.  |
| 03-Sep-2019 | Version 18         | Changed | Overview ,Standard Features, Pre-configuredModels,<br>Configuration Information, Core Options, and Additional<br>Options sections were updated.<br>Obsolete SKU was removed.  |
| 26-Aug-2019 | Version 17         | Changed | Overview, Standard Features, Optional Features, Pre-configured Models, Core Options, Additional Options and Memory sections were updated.  Obsolete SKUs were removed from the QuickSpecs.  |
| 05-Aug-2019 | Version 16         | Changed | Configuration Information - Factory Integrated Models and Core Options sections were updated. Obsolete SKU was removed.   |
| 03-Jun-2019 | Version 15         | Changed | Overview, Core Options, Additional Options, Pre-configured Models and Memory sections were updated.  The U.S. version of QuickSpecs is no longer being updated, please reference the Worldwide QuickSpecs for latest information. |
| 15-Apr-2019 | Version 14         | Changed | SKUs were updated.  |
| 02-Apr-2019 | Version 13         | Changed | Overview, Core Options, Aditional Options and Standard Features sections were updated   |
| 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,<br>Configuration Information, Core Options, Aditional Options and<br>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,<br>Configuration Information - Factory Integrated Models, Core<br>Options, Additional Options, Memory were revised.   |

| Summary | of C | hanges |
|---------|------|--------|
|         |      |        |

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|-------------|--------------------|---------|--|
| 06-Aug-2018 | Version 7          | Changed | New Memory option and new GPU option were added. Added new Solid State Drives offering. 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.  |
| Date        | Version<br>History | Action  | Description of Change  |
| 04-Jun-2018 | Version 5          | Changed | Added new SSD offering.  New GPU options and Riser information table were added.  Core Options, Additional Options, and Memory were revised.  Obsolete SKUs were removed from the QuickSpecs.  |
| 07-May-2018 | Version 4          | Changed | Added new Entry model to the Pre-Configured models section. 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          | Changed | New model was added to the Pre-configured Models section. Overview, Expansion Slots, Maximum Internal Storage, Pre- configured Models, Configuration Information - Factory Integrated Models, Core Options, Additional Options, and Memory were revised. 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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