**Overview**

**HPE ProLiant DL20 Gen10 Plus server**

The dense and compact HPE ProLiant DL20 Gen10 Plus server powered by Intel® Xeon® E and Pentium® Processors provides a unique blend of enterprise class capabilities & value. It offers outstanding configuration flexibility to cater to a wide variety of business requirements at an affordable price point. Deploy this dense platform for diverse workloads in space constrained environments and maintain it with ease by automating the most essential server lifecycle management tasks with HPE iLO 5.

2 LFF Front View Gen10 Plus

1. Access Panel
2. Optical drive bay
3. Serial number/iLO information pull tab
4. Front Fan Assembly
5. System Power LED
6. UID LED
7. Health LED
8. NIC Status LED
9. USB 3.2 Gen1 Port
10. iLO Service Port (USB)
11. Two-bay LFF hot-plug drive bays
Overview

1. Access Panel
2. 2 SFF hot-plug drive bays (optional)
3. Serial number/iLO information pull tab
4. Front Fan Assembly
5. System Power LED
6. UID LED

7. Health LED
8. NIC Status LED
9. USB 3.2 Gen1 Port
10. iLO Service Port (USB)
11. Four-bay SFF hot-plug drive bays

4 (+2) SFF Front View Gen10 Plus
QuickSpecs

HPE ProLiant DL20 Gen10 Plus server

Overview

Internal View - Standard for all 2LFF DL20 Gen10 Plus

1. Fan cage shown with 2 fans
2. Processor shown with heat sink
3. Four DDR4 DIMM Slots
4. System Battery
5. Central fan assembly (3rd fan)
6. Power Supply (1x290W shown)
7. Not shown: Optional Smart Storage Battery
8. Modular Smart Array connector
9. TPM 2.0 Gen10
10. PCIe Riser
11. Not shown: Dedicated iLO/M.2 LP Enablement Kit
**Internal View - Standard for all 4SFF DL20 Gen10 Plus**

1. Fan cage shown with 2 fans
2. Processor shown with heat sink
3. Four DDR4 DIMM Slots
4. System Battery
5. Central fan assembly (3rd fan)
6. Power Supply (1x290W shown)
7. Not shown: Optional Smart Storage Battery
8. Modular Smart Array connector
9. TPM 2.0 Gen10
10. PCIe Riser
11. Not shown: Dedicated iLO/M.2 LP Enablement Kit
Overview

Rear View – Standard for all DL20 Gen10 Plus

1. Slot 1 PCIe 4.0
2. Slot 2 PCIe 4.0
3. Option: Serial Port
4. 290W Non hotplug Power Supply
5. UID LED
6. Two USB 3.2 Gen1 Ports
7. NIC Port (1Gb)
8. NIC port (1Gb) /iLo port
9. VGA port
10. Dedicated iLO Management Port

What’s New

- Supports latest Intel® Xeon® E-2300 and Pentium® processors up to 8 cores and 3200MT/s UDIMM with support for Intel® Software Guard Extensions. Intel® SGX is an architecture extension designed to increase the security of application code and data.
- Dedicated iLO Management Port & serial port option kit for faster and more secure data transmission
- 3200 MT/s HPE DDR4 Standard Memory UDIMM offering 8GB, 16GB, and 32GB. Max 128GB memory capacity.
- Support for onboard M.2 NVMe/SATA SSD.

Platform Information

Form Factor
- 1U rack

Chassis Types
- 4 SFF with options supporting: +2 SFF
- 2 LFF Hot Plug
- 2 LFF Non Hot Plug

System Fans
- Includes 3 performance single rotor non-hot plug and non-redundant fans

Notes: This applies for all three chassis: 2LFF NHP, 2LFF HP and 4SFF HP
Standard Features

Processors
Intel® Xeon® E Processors are designed to deliver the best combination of performance, built-in capabilities, and cost-effectiveness. Choose one of the following processors based on the model.

Notes:
- For more information regarding Intel Xeon processors, please see the following [http://www.intel.com/xeon](http://www.intel.com/xeon)
- This table covers the public offering only
- Models indicated by “G” are limited to local display. Intel processor graphic full features are not supported on Intel Xeon E-2300 server platforms.

### Intel Xeon E-2300 Family

<table>
<thead>
<tr>
<th>Intel Models</th>
<th>CPU Frequency</th>
<th>Cores</th>
<th>L3 Cache</th>
<th>Power</th>
<th>DDR4</th>
<th>Intel® SGX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xeon E-2388G</td>
<td>3.2 GHz</td>
<td>8</td>
<td>16 MB</td>
<td>95W</td>
<td>3200 MT/s</td>
<td>Yes</td>
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<tr>
<td>Xeon E-2378G</td>
<td>2.8 GHz</td>
<td>8</td>
<td>16 MB</td>
<td>80W</td>
<td>3200 MT/s</td>
<td>Yes</td>
</tr>
<tr>
<td>Xeon E-2378</td>
<td>2.6 GHz</td>
<td>8</td>
<td>16 MB</td>
<td>65W</td>
<td>3200 MT/s</td>
<td>Yes</td>
</tr>
<tr>
<td>Xeon E-2366G</td>
<td>3.5 GHz</td>
<td>6</td>
<td>12 MB</td>
<td>95W</td>
<td>3200 MT/s</td>
<td>Yes</td>
</tr>
<tr>
<td>Xeon E-2356G</td>
<td>3.2 GHz</td>
<td>6</td>
<td>12 MB</td>
<td>80W</td>
<td>3200 MT/s</td>
<td>Yes</td>
</tr>
<tr>
<td>Xeon E-2336</td>
<td>2.9 GHz</td>
<td>6</td>
<td>12 MB</td>
<td>65W</td>
<td>3200 MT/s</td>
<td>Yes</td>
</tr>
<tr>
<td>Xeon E-2374G</td>
<td>3.7 GHz</td>
<td>4</td>
<td>8 MB</td>
<td>80W</td>
<td>3200 MT/s</td>
<td>Yes</td>
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<tr>
<td>Xeon E-2334</td>
<td>3.4 GHz</td>
<td>4</td>
<td>8 MB</td>
<td>65W</td>
<td>3200 MT/s</td>
<td>Yes</td>
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<tr>
<td>Xeon E-2324G</td>
<td>3.1 GHz</td>
<td>4</td>
<td>8 MB</td>
<td>65W</td>
<td>3200 MT/s</td>
<td>Yes</td>
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<td>Xeon E-2314</td>
<td>2.8 GHz</td>
<td>4</td>
<td>8 MB</td>
<td>65W</td>
<td>3200 MT/s</td>
<td>Yes</td>
</tr>
<tr>
<td>Pentium G6405</td>
<td>4.1 GHz</td>
<td>2</td>
<td>4 MB</td>
<td>58W</td>
<td>2,666 MT/s</td>
<td>No</td>
</tr>
</tbody>
</table>

Chipset
Intel® C256 Chipset

Notes: For more information regarding Intel® chipsets, please see the following URL: [http://www.intel.com/products/server/chipsets/](http://www.intel.com/products/server/chipsets/).

On System Management Chipset
HPE iLO 5 ASIC

Notes: Read and learn more in the iLO QuickSpecs.

Memory
- **Type**
  HPE DDR4 Unbuffered Memory (UDIMM)
- **DIMM Slots Available**
  4 (4 DIMM slots per processor, 2 channels per processor, 2 DIMMs per channel)
- **Maximum capacity (UDIMM)**
  128 GB (4 x 32GB UDIMM @ 2933 MT/s)

Notes:
- The maximum memory speed depends on processor model.

Memory Protection
- **ECC**

Internal Storage Devices

Optical Drive
- Available on 4 SFF and 2 LFF CTO Servers as an option (DVD-ROM or DVD-RW)
Standard Features

Hard Drives
- None ship standard

Network Controller

The HPE ProLiant DL20 Gen10 Plus server offers the customer a dual-port NIC standard with the option to upgrade with a variety of networking options.

Notes:
- ProLiant DL20 Gen10 with Intel Xeon E-2300 processors comes with Intel i225 (LOM) on board.
- ProLiant DL20 Gen10 system do not support Networking SR-IOV.

Expansion Slots

<table>
<thead>
<tr>
<th>Expansion Slots #</th>
<th>Technology</th>
<th>Bus Width</th>
<th>Connector Width</th>
<th>Processor</th>
<th>Slot Form Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PCIe 4.0</td>
<td>X8</td>
<td>X8</td>
<td>CPU1</td>
<td>Low profile</td>
</tr>
<tr>
<td>2</td>
<td>PCIe 4.0</td>
<td>X8</td>
<td>X16</td>
<td>CPU1</td>
<td>Full height half length</td>
</tr>
</tbody>
</table>

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

Storage Controllers

For a more detailed breakout of the available Smart Array controllers visit the HPE Smart Array Gen10 Controllers Data Sheet

Software RAID
- Intel VROC SATA SW RAID

Notes:
- All models feature an embedded storage controller Intel VROC SATA.
- Intel VROC SATA is disabled by default in the system in all models. Intel VROC SATA for HPE ProLiant Gen10 Plus will operate in UEFI mode only.
- For Linux users, HPE offers a solution that uses in-distro open-source software to create a two-disk RAID 1 boot volume. For more information visit https://downloads.linux.hpe.com/SDR/project/lsrb/
- RAID support – 0/1/5/10.
- Intel VROC SATA does not support RAID volume creation with different form factors of drives (e.g., SFF + M.2)
- Intel VROC SATA RAID supports Windows Server and Linux, but does not support VMware.
- Intel VROC SATA will operate in UEFI mode only.
- Required to install AMS tools in OS for supporting drives thermal sensor reading for thermal fan control, otherwise may experience acoustic noise impact.
- BIOS Default is SATA AHCI. Embedded Intel SATA VROC is disabled by default. Embedded Intel SATA VROC can be enabled in BIOS/Platform Configuration (RBSU) for SW RAID features.

Essential RAID Controllers
- HPE Smart Array E208i-a SR G10 LH Controller
- HPE Smart Array E208e-p SR Gen10 Controller

Performance RAID Controllers
- HPE Smart Array P408i-a SR G10 LH Controller
- HPE Smart Array P408e-p SR Gen10 Controller

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

HPE ProLiant DL20 Gen10 Plus server

Standard Features

Maximum Storage

<table>
<thead>
<tr>
<th>Drive</th>
<th>Capacity</th>
<th>Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non Hot Plug</td>
<td>8TB</td>
<td>2 x 4 TB</td>
</tr>
<tr>
<td>Hot Plug SFF SAS HDD</td>
<td>14.4 TB</td>
<td>4 x 2.4 TB + 2 x 2.4 TB (with optional +2 drive option)</td>
</tr>
<tr>
<td>Hot Plug SFF SATA HDD</td>
<td>12 TB</td>
<td>4 x 2.0 TB + 2 x 2.0 TB (with optional + 2 drive option)</td>
</tr>
<tr>
<td>Hot Plug SFF SAS SSD</td>
<td>91.28 TB</td>
<td>4 x 15.36 TB + 2 x 15.36 TB (with optional + 2 drive option)</td>
</tr>
<tr>
<td>Hot Plug SFF SATA SSD</td>
<td>46.08 TB</td>
<td>4 x 7.68 TB + 2 x 7.68 TB (with optional + 2 drive option)</td>
</tr>
<tr>
<td>Hot Plug LFF SAS HDD</td>
<td>36 TB</td>
<td>2 x 18 TB</td>
</tr>
<tr>
<td>Hot Plug LFF SATA HDD</td>
<td>36 TB</td>
<td>2 x 18 TB</td>
</tr>
<tr>
<td>Hot Plug LFF SAS SSD</td>
<td>3.20 TB</td>
<td>2 x 1.6 TB</td>
</tr>
<tr>
<td>Hot Plug LFF SATA SSD</td>
<td>1.92 TB</td>
<td>2 x 960 TB</td>
</tr>
<tr>
<td>M.2 SATA SSD</td>
<td>1.92 TB</td>
<td>2 x 960 GB</td>
</tr>
<tr>
<td>M.2 NVMe SSD</td>
<td>7.68TB</td>
<td>2 x 480 GB</td>
</tr>
</tbody>
</table>

Power Supply

As of 01 March 2020 European Union (EU) eco-design regulations for server and storage product known as EU Lot 9 regulation is in effect. Complying with Lot 9 is a necessary part of acquiring the CE Mark (Conformité Européenne Mark), the symbol that must be affixed to many products before they can be sold on the European market. Among other requirements, for servers this directive establishes power thresholds for idle state, as well as efficiency and performance in active state which vary among configurations. HPE ProLiant Gen10 servers are compliant with Lot 9 requirements.

For more information regarding EU Lot 9, please visit HPE ERP Lot9 Declaration and HPE Lot 9 conformance https://www.hpe.com/us/en/about/environment/msds-specs-more.html

- HPE 290W non-redundant FIO Power Supply P21649-B21, 290W 92% efficiency Platinum power supply, WW, compliant with EU Lot 9, and supports both Pre-Configured Models and Configured Factory Integrated Models (CTO/FIO). For rest of the globe, ONLY in Configured Factory Integrated Models (CTO/FIO). These models would be compliant with EU Lot 9 regulation.

- HPE Redundant Power Supplies
  - 865408-B21, HPE 500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit
    Notes: Available in 94% efficiency.
  - 865434-B21, HPE 800W Flex Slot -48VDC Platinum Hot Plug Low Halogen Power Supply Kit
    Notes: Flex Slot -48VDC power supplies support power efficiency of up to 94%.
  - P45948-B21, HPE DL20 Gen10 Plus RPS FIO Enable Kit
    Notes: RPS Kit required and must be added when using redundant power supplies

HPE Entry-Level Power Supplies provide lower-cost options for customers trying to balance their need for enterprise class efficiency and reliability while maintaining lowest possible hardware costs. The above mentioned Entry-Level power supply options have been designed specifically for HPE ProLiant DL20 Gen10 Plus server.

The HPE 290W Non-redundant Power Supply is the standard, non-redundant AC power supply with 80Plus Silver Certification, which feature with 94% power efficiency and the other is Platinum 94% efficiency (EU Lot 9 compliant). Both are optimized for the DL20 Gen10 Plus rack server.

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 and Gen10 Plus 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.
Standard Features

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

Interfaces

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serial</td>
<td>1 port - Optional</td>
</tr>
<tr>
<td>Video</td>
<td>1 Rear - VGA port (standard on all chassis types)</td>
</tr>
<tr>
<td>Network Ports</td>
<td>2x 1GbE embedded NIC (standard on all chassis types)</td>
</tr>
<tr>
<td>iLO Remote Mgmt Port</td>
<td>1 Gb Dedicated</td>
</tr>
<tr>
<td>USB 3.0</td>
<td>5 USB ports (standard)</td>
</tr>
<tr>
<td></td>
<td>Front: 1xUSB 3.2, 1xUSB iLO Service Port</td>
</tr>
<tr>
<td></td>
<td>Rear: 2xUSB 3.2</td>
</tr>
<tr>
<td></td>
<td>Internal: 1x USB 3.2</td>
</tr>
</tbody>
</table>

Operating Systems and Virtualization Software

- Microsoft Windows Server 2019: Essentials, Standard, Datacenter, Hyper-V
- Microsoft Windows Server 2022: Essentials, Standard, Datacenter
- Red Hat Enterprise Linux (RHEL): 8.4 (64 bit, includes KVM)
- SUSE Linux Enterprise Server (SLES): 12 SP5, 15 SP3 (64 bit, includes KVM & Xen)
- VMware ESXi: 7.0 U3
- Notes: VMware supported only with Intel® Xeon® E processors, not supported with Intel® Pentium® processors. No Legacy Mode Support on VMWare [https://kb.vmware.com/s/article/84233](https://kb.vmware.com/s/article/84233)


Upgradeability

One of the following depending on model

- Up to 4 DIMM slots available for higher memory capacity
- Up to 4SFF (+2SFF optional) Drive bays or 2LFF Drive bays
- HPE Smart Array or Smart HBA Controller
- Redundant Power Supply
- Dedicated iLO Management Port
- M.2 NVMe SSDs for boot

Graphic

Integrated Matrox G200 video standard

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

HPE iLO 5 on system management memory

- 32 MB Flash
- 4 Gbit DDR4 with ECC protection
Standard Features

Industry Standard Compliance

- ACPI 6.3 Compliant
- PCIe 4.0 Compliant
- WOL Support
- Microsoft® Logo certifications
- PXE Support
- USB 3.2 Compliant
- SMBIOS 3.2
- UEFI 2.6 (Unified Extensible Firmware Interface Forum)
- Redfish API
- IPMI 2.0
- Secure Digital 4.0
- TPM 2.0 Gen10 support
- Advanced Encryption Standard (AES)
- Triple Data Encryption Standard (3DES)
- SNMP v3
- TLS 1.2
- DMTF Systems Management Architecture for Server Hardware Command Line (SMASH CLP)
- Active Directory v1.0
- ASHRAE A3/A4
- Energy Star

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

- European Union (EU) Lot 9

Notes: Effective 01 March 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 and Gen10 Plus servers are compliant with Lot 9 requirements. For more information regarding HPE Lot 9 conformance, please visit: [https://www.hpe.com/us/en/about/environment/msds-specs-more.html](https://www.hpe.com/us/en/about/environment/msds-specs-more.html)

HPE Server UEFI/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 Plus servers have a UEFI Class 2 implementation and support UEFI Mode (default).

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

HPE ProLiant DL20 Gen10 Plus server

Standard Features

UEFI Boot Mode only:
- TPM 2.0 Support
- iSCSI Software Initiator Support.
- HTTP/HTTPS Boot support as a PXE alternative.
- Boot support for option cards that only support an UEFI option ROM

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

Embedded Management

HPE Integrated Lights-Out (HPE iLO)
Monitor your servers for ongoing management, service alerting, reporting and remote management with HPE iLO. Learn more at http://www.hpe.com/info/ilo.

UEFI

Intelligent Provisioning
Hassle free server and OS provisioning for one 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 http://www.hpe.com/info/restfulapi.

Server Utilities

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

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

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

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

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

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

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

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

**Security**
- UEFI Secure Boot and Secure Start support
- Immutable Silicon Root of Trust
- FIPS 140-2 validation
- Common Criteria certification
- Configurable for PCI DSS compliance
- Advanced Encryption Standard (AES) and Triple Data Encryption Standard (3DES) on browser
- Support for Commercial National Security Algorithms (CNSA)
- iLO Security Modes including a New iLO Advanced Premium Security License
- Granular control over iLO interfaces
- Smart card (PIV/CAC) and Kerberos based 2-factor Authentication
- Tamper-free updates – components digitally signed and verified
- Secure Recovery – recover critical firmware to known good state on detection of compromised FW
- Ability to rollback firmware
- Secure erase of NAND
- TPM (Trusted Platform Module) 2.0 Gen10
- Bezel Locking Kit
- Chassis Intrusion detection option
- Intel® Software Guard Extensions (Intel® SGX)

**Notes:** Intel® SGX is supported in selective processors. Please refer to the Standard Features – Processor section.
Standard Features

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

Notes:
− Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response. Warranty repairs may be accomplished through the use of Customer Self Repair (CSR) parts. These parts fall into two categories: 1) Mandatory CSR parts are designed for easy replacement. A travel and labor charge will result when customers decline to replace a Mandatory CSR part; 2) Optional CSR parts are also designed for easy replacement but may involve added complexity. Customers may choose to have Hewlett Packard Enterprise replace Optional CSR parts at no charge. Additional information regarding worldwide limited warranty and technical support is available at:
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 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, Gen10 and Gen10 Plus servers. To learn more visit http://www.hpe.com/info/oneview

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

Rack and Power Infrastructure

The story may end with servers, but it starts with the foundation that makes compute go – and business grow. We've reinvented our entire portfolio of rack and power products to make IT infrastructure more secure, more practical, and more efficient. In other words, we’ve created a stronger, smarter, and simpler infrastructure to help you get the most out of your IT equipment. As an industry leader, Hewlett Packard Enterprise is uniquely positioned to address the key concerns of power, cooling, cable management and system access.
HPE G2 Advanced and Enterprise Racks are perfect for the server room or today's modern data center with enhanced airflow and thermal management, flexible cable management, and a 10 year Warranty to support higher density computing.
HPE G2 PDUs offer reliable power in flexible form factors that operate at temperatures up to 60°, include color-coded outlets and load segments and a low-profile design for optimal access to the rack and support for dense rack environments.
HPE Uninterruptible Power Systems are cost-effective power protection for any type workload. Some UPSs include options for remote management and 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

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#
HPE Pointnext - Service and Support

Get the most from your HPE Products. Get the expertise you need at every step of your IT journey with HPE Pointnext Services. We help you lower your risks and overall costs using automation and methodologies that have been tested and refined by HPE experts through thousands of deployments globally. HPE Pointnext Advisory Services focus on your business outcomes and goals, partnering with you to design your transformation and build a roadmap tuned to your unique challenges. Our Professional and Operational 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

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

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

Recommended Services

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

QuickSpecs

HPE ProLiant DL20 Gen10 Plus server

Service and Support

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.


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

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

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

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

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

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
Service and Support

HPE Support Center
The HPE Support Center is a personalized online support portal with access to information, tools and experts to support HPE business products. Submit support cases online, chat with HPE experts, access support resources or collaborate with peers. Learn more http://www.hpe.com/support/hpesc.

The HPE Support Center Mobile App* allows you to resolve issues yourself or quickly connect to an agent for live support. Now, you can get access to personalized IT support anywhere, anytime. HPE Insight Remote Support and HPE Support Center are available at no additional cost with a HPE warranty, HPE Support Service or HPE contractual support agreement.

Notes: *HPE Support Center Mobile App is subject to local availability.
For more information: http://www.hpe.com/services.

Notes: HPE ProLiant DL20 Gen10 Plus Server is covered under the HPE Service Contract applied to the HPE ProLiant Server. No separate HPE support services need to be purchased.

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

Parts and Materials
Hewlett Packard Enterprise will provide HPE-supported replacement parts and materials necessary to maintain the covered hardware product in operating condition, including parts and materials for available and recommended engineering improvements.

Parts and components that have reached their maximum supported lifetime and/or the maximum usage limitations as set forth in the manufacturer's operating manual, product QuickSpecs, or the technical product data sheet will not be provided, repaired, or replaced as part of these services.

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

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

<table>
<thead>
<tr>
<th>Entry</th>
<th>Base</th>
<th>Performance</th>
<th>High Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>SKU Numbers</td>
<td>P44112-B21</td>
<td>P44113-B21</td>
<td>P44114-B21</td>
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<tr>
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<td>P44112-421</td>
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<td>P44112-AA1</td>
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<tr>
<td>Processor</td>
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<td>Intel® Xeon® E-2314</td>
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<tr>
<td>Number of Processors</td>
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<td>One (1)</td>
<td>One (1)</td>
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<tr>
<td>Memory</td>
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<td>16GB (1x16GB UDIMM, 3200 MT/s)</td>
<td>16GB (1x16GB UDIMM, 3200MT/s)</td>
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<tr>
<td>Network Controller</td>
<td>HPE embedded 1Gb 2-port BCM5720 network Adapter</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Storage Controller</td>
<td>Embedded Intel VROC SATA SW RAID</td>
<td></td>
<td></td>
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<tr>
<td>Hard Drive</td>
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<td>None ship standard; includes 1 LFF hard drive blank</td>
<td>None ship standard; includes 3 SFF hard drive blanks</td>
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<tr>
<td>Internal Storage</td>
<td>2 LFF HDD Bays (Non Hot Plug)</td>
<td>2 LFF HDD Bays (Hot Plug)</td>
<td>4 SFF HDD Bays (Hot Plug)</td>
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<td>Optical Drive Bay</td>
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<tr>
<td>Optical Drive</td>
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<tr>
<td>PCI-Express Slots</td>
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<tr>
<td>Power Supply</td>
<td>(1) 290W Non-redundant Power Supply</td>
<td>(1) HPE 500W Redundant Power Supply</td>
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<td>Fans</td>
<td>3 non hot plug, non-redundant</td>
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<td>Management</td>
<td>iLO Management (standard), Intelligent Provisioning (standard), iLO Advanced (optional)</td>
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<td>Form Factor</td>
<td>Rack (1U), HPE Short Friction Rail Kit</td>
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<tr>
<td>Warranty</td>
<td>Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response</td>
<td></td>
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</tr>
</tbody>
</table>

**Country Code Key**

XXX = B21 AMS, and APAC
XXX = 421 EMEA
XXX = 291 Japan
XXX = AA1 PRC

**Notes:** The -B21 WW SKU is to be ordered in all countries other than EMEA, Japan or PRC. Not all models are available in all regions. Check with your local country Hewlett Packard Enterprise offices for availability.
This section lists some of the steps required to configure a Factory Integrated Model. To ensure valid configurations are ordered, Hewlett Packard Enterprise recommends the use of an HPE approved configurator. Contact your local sales representative for information on configurable product offerings and requirements.

- Factory Integrated Models must start with a CTO Server.
- FIO indicates that this option is only available as a factory installable option.
- All Factory Integrated Models will be populated with sufficient hard drive blanks based on number of drives ordered with 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)

<table>
<thead>
<tr>
<th>Chassis</th>
<th>SKU Number</th>
<th>Processor Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPE ProLiant DL20 Gen10 Plus 2LFF Non-hot Plug Configure-to-order Server</td>
<td>P44109-B21</td>
<td>Intel Xeon E-2388G 3.2GHz 8-core 95W FIO Processor for HPE</td>
</tr>
<tr>
<td>HPE ProLiant DL20 Gen10 Plus 2LFF Configure-to-order Server</td>
<td>P44110-B21</td>
<td>Intel Xeon E-2378G 2.6GHz 8-core 65W FIO Processor for HPE</td>
</tr>
<tr>
<td>HPE ProLiant DL20 Gen10 Plus 4SFF Configure-to-order Server</td>
<td>P44111-B21</td>
<td>Intel Xeon E-2314 2.8GHz 4-core 65W FIO Processor for HPE</td>
</tr>
</tbody>
</table>

**Notes:**
- Only one processor supported.
- DDR4 speed is the maximum memory speed of the processor. Actual memory speed may depend on the quantity and type of DIMMs installed.
- DL20 Gen10 Plus with new Intel Xeon E-2300 processors comes with BCM 5720 dual port 1Gb network controller on board and supports 2x 1Gb Ethernet ports.
- An additional CPU baffle will be integrated in server if 95W processor is selected.

**Step 2: Choose Required Options**

Please select one processor required below.

**Notes:**
- Only one processor supported.
- DDR4 speed is the maximum memory speed of the processor. Actual memory speed may depend on the quantity and type of DIMMs installed.
- DL20 Gen10 Plus with new Intel Xeon E-2300 processors comes with BCM 5720 dual port 1Gb network controller on board and supports 2x 1Gb Ethernet ports.
- An additional CPU baffle will be integrated in server if 95W processor is selected.

**Step 2a: Choose Processor Options**

**Processor Option Kits**

- Intel Xeon-E Processors
  - Intel Xeon E-2388G 3.2GHz 8-core 95W FIO Processor for HPE P45266-B21
  - Intel Xeon E-2386G 3.5GHz 6-core 95W FIO Processor for HPE P45264-B21
  - Intel Xeon E-2378G 2.8GHz 8-core 80W FIO Processor for HPE P45262-B21
  - Intel Xeon E-2356G 3.2GHz 6-core 80W FIO Processor for HPE P45256-B21
  - Intel Xeon E-2374G 3.7GHz 4-core 80W FIO Processor for HPE P45258-B21
  - Intel Xeon E-2378 2.6GHz 8-core 65W FIO Processor for HPE P45260-B21
  - Intel Xeon E-2336 2.9GHz 6-core 65W FIO Processor for HPE P45254-B21
  - Intel Xeon E-2334 3.4GHz 4-core 65W FIO Processor for HPE P45252-B21
  - Intel Xeon E-2324G 3.1GHz 4-core 65W FIO Processor for HPE P45250-B21
  - Intel Xeon E-2314 2.8GHz 4-core 65W FIO Processor for HPE P45248-B21
QuickSpecs

HPE ProLiant DL20 Gen10 Plus server

Configuration Information

Intel® Pentium® Processor G Series
Intel Pentium G6405 4.1GHz 2-core 58W FIO Processor for HPE

Notes: HPE NS204i-p x2 Lanes NVMe PCIe3 x8 OS Boot Device (P12965-B21) is not supported with Intel Pentium® Processors

Step 2b: Choose Memory Options
Please select one or more memory from below.

Notes:
− HPE memory from previous generation servers is not qualified or warranted with this HPE ProLiant Server.
− HPE Standard Memory (UDIMM) is required to realize the memory performance improvements and enhanced functionality listed in this document for this HPE ProLiant Server.
− With one processor installed, four DIMMs slots are available.
− Quantity of memory DIMMS selected is recommended to be 1, 2 or 4 for balanced performance.
− The maximum memory speed is a function of the memory type, memory configuration, and processor model.
− For Server Memory Population Rules for HPE ProLiant Gen10 Plus Servers with Intel® Xeon® E-2300 Processors see details here: www.hpe.com/docs/server-memory

Unbuffered DIMMs (ECC UDIMMs) – 3200 MT/s
HPE 8GB (1x8GB) Single Rank x8 DDR4-3200 CAS-22-22-22 Unbuffered Standard Memory Kit P43016-B21
HPE 16GB (1x16GB) Single Rank x8 DDR4-3200 CAS-22-22-22 Unbuffered Standard Memory Kit P43019-B21
HPE 32GB (1x32GB) Dual Rank x8 DDR4-3200 CAS-22-22-22 Unbuffered Standard Memory Kit P43022-B21

Notes: Running at up to 2933 MT/s with Intel® Xeon® processors when two dual-rank DIMMS are installed in the same channel.

Step 2c: Choose Power Supplies
Please select one or two power supplies from below.

Notes:
− Mixing of 2 different power supplies are NOT allowed.
− To review the power requirements for your selected configuration, please use the HPE Power Advisor Tool

HPE ProLiant Gen10 Plus Essential Server Power Supplies - Non-Redundant
HPE DL20 Gen10 290W Platinum Power Supply Kit P21649-B21

○ (92% efficiency, Platinum)

Notes:
− This FIO option can only be bought integrated in the server. It cannot be ordered as a standalone option after server purchase.
− The 290W Platinum power supply (P21649-B21), 500W and 800W Power Supply all meet the EU Lot 9 regulation, which is essential in countries which mandatorily require CE marking, effective from 01 March 2020.
− For more information regarding EU Lot 9, please visit HPE Lot 9 conformance https://www.hpe.com/us/en/about/environment/msds-specs-more.html

HPE Flex Slot Power Supplies -
HPE 500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit 865408-B21
HPE 800W Flex Slot -48VDC Hot Plug Low Halogen Power Supply Kit 865434-B21
HPE DL20 Gen10 RPS Enablement FIO Kit P06722-B21

Notes:
− It is mandatory to choose the RPS enablement kit to support a redundant power supply.
− This RPS FIO option can only be bought integrated in the server. It cannot be ordered as a standalone option after server purchase.
Step 3: Choose Additional Options for Factory Integration from Core and Additional Option sections below
Core Options

Some options may only be integrated at the factory. To ensure only valid configurations are ordered, Hewlett Packard Enterprise recommends the use of an Hewlett Packard Enterprise approved configurator. Contact your local sales representative for additional information.

HPE Unique Options

HPE iLO Common Password

HPE iLO Common Password FIO Setting P08040-B21

Notes:
- Replaces iLO default randomized password by an HPE defined common password. HPE highly recommends changing this password immediately after the initial onboarding process.
- Customers who want to choose their own custom iLO default password should use the HPE Factory Express Integration Services.

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 Security

HPE ProLiant DL20 Gen10 Plus Server ships with embedded Trusted Platform Module (TPM) 2.0 enabled by default. For servers shipping to China, the TPM is disabled.

Risers

HPE ProLiant DL20 Gen10 Plus x16/x4 GPU Riser Kit P45433-B21
HPE ProLiant DL20 Gen10 Plus x8/x8 LP FIO Riser Kit P46114-B21

Notes: Mandatory to select at least one riser from list above.

<table>
<thead>
<tr>
<th>Part number</th>
<th>Description</th>
<th>Riser</th>
<th>Slot Bus width (Gen4 lanes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P45433-B21</td>
<td>HPE ProLiant DL20 Gen10 Plus x16/x4 GPU Riser Kit</td>
<td>Optional</td>
<td>#1: X16 #2: X16</td>
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<tr>
<td>P46114-B21</td>
<td>HPE DL20 Gen10 Plus 2x8 LP FIO Riser Kit</td>
<td>Optional</td>
<td>#1: X8 #2: X8</td>
</tr>
</tbody>
</table>

Optical Drive Options

HPE Mobile USB DVD-RW Optical Drive 701498-B21

Notes: This kit is only supported on USB 3.0 ports only.

HPE 9.5mm SATA DVD-ROM Optical Drive 726536-B21
HPE 9.5mm SATA DVD-RW Optical Drive 726537-B21
HPE DL20 Gen10 LFF ODD Cable Kit P06681-B21

Notes: This option kit is required to support Optical Drive option (LFF model only).

HPE DL20 Gen10 SFF ODD Enablement Kit P06677-B21

Notes: This option kit is required to support ODD on SFF chassis.

SFF Drive Option Kit

HPE ProLiant DL20 Gen10 Plus 2SFF HDD Enablement Kit P45450-B21

Notes: This option is required to upgrade 4SFF chassis to support additional 2SFF drives.
Notes: 500W power supply is required with selection of this 2SFF enablement kit.
Core Options

Dedicated iLO Port / M.2 NVMe SSD / COM Port Upgrade Kit
HPE ProLiant DL20 Gen10 Plus Serial Port Cable Kit

**Notes:**
- This option is required to support M.2 NVMe drives, Dedicated iLO Port or Serial/COM Port.
- This kit includes one dedicated iLO module and one serial port cable, with one M.2 slot on the module for M.2 SSD installation.
- When installing NVMe x4 M.2 SSD module, an additional NVMe M.2 Drives baffle will be integrated in server.

Cable Kits
HPE ProLiant DL20 Gen10 Plus M.2 LP Enablement Kit

**Notes:** This option does not consume a PCIe slot.

HPE ProLiant DL20 Gen10 Plus SATA M.2 Cable Kit

**Notes:** This cable kit option must be selected when HPE Universal SATA AIC HHHL M.2 SSD Kit (878783-B21) is in the configuration.

HPE Hard Disk Drives

**Notes:** For the most up to date HDD & SSDs options available Hewlett Packard Enterprise recommends the use of an Hewlett Packard Enterprise approved configurator.

**Mission Critical (Enterprise) - 12G SAS - LFF Low Profile Carrier Drives**
HPE 600GB SAS 12G Mission Critical 15K LFF LPC 3-year Warranty Multi Vendor HDD

**Mission Critical (Enterprise) - 12G SAS - SFF Basic Carrier Drives**
HPE 2.4TB SAS 12G Mission Critical 10K SFF BC 3-year Warranty 512e Multi Vendor HDD
HPE 1.2TB SAS 12G Mission Critical 10K SFF BC 3-year Warranty Multi Vendor HDD
HPE 900GB SAS 12G Mission Critical 15K SFF BC 3-year Warranty Multi Vendor HDD
HPE 300GB SAS 12G Mission Critical 10K SFF BC 3-year Warranty Multi Vendor HDD
HPE 300GB SAS 12G Mission Critical 15K SFF BC 3-year Warranty Multi Vendor HDD

**Business Critical (Midline) - 12G SAS - LFF Low Profile Carrier Drives**
HPE 18TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e ISE Multi Vendor HDD
HPE 16TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e ISE Multi Vendor HDD
HPE 14TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e Multi Vendor HDD
HPE 12TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e Multi Vendor HDD
HPE 10TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e Multi Vendor HDD
HPE 8TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty 512e Multi Vendor HDD
HPE 6TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty 512e Multi Vendor HDD
HPE 4TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Multi Vendor HDD
HPE 2TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Multi Vendor HDD

**Business Critical (Midline) - 12G SAS - SFF Basic Carrier Drives**
HPE 2TB SAS 12G Business Critical 7.2K SFF BC 1-year Warranty 512e HDD
HPE 1TB SAS 12G Business Critical 7.2K SFF SC 1-year Warranty HDD

**Business Critical (Midline) - 6G SATA - LFF Low Profile Carrier Drives**
HPE 18TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e ISE Multi Vendor HDD
HPE 16TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e ISE Multi Vendor HDD
HPE 14TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e Multi Vendor HDD
### Core Options

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<tr>
<th>Product Description</th>
<th>Part Number</th>
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<tr>
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<td>881787-B21</td>
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<td>HPE 10TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e Multi Vendor HDD</td>
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<td>HPE 6TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e Multi Vendor HDD</td>
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<td>HPE 1TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Multi Vendor HDD</td>
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### Business Critical (Midline) 6G SATA - SFF Basic Carrier Drives

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<tr>
<td>HPE 2TB SATA 6G Business Critical 7.2K SFF BC 1-year Warranty 512e HDD</td>
<td>P28500-B21</td>
</tr>
<tr>
<td>HPE 1TB SATA 6G Business Critical 7.2K SFF BC 1-year Warranty 512e HDD</td>
<td>P28610-B21</td>
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### Business Critical (Entry) 6G SATA - LFF NHP/Raw Drives

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<th>Product Description</th>
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<tr>
<td>HPE 4TB SATA 6G Business Critical 7.2K LFF RW 1-year Warranty Multi Vendor HDD</td>
<td>801888-B21</td>
</tr>
<tr>
<td>HPE 1TB SATA 6G Business Critical 7.2K LFF RW 1-year Warranty Multi Vendor HDD</td>
<td>801882-B21</td>
</tr>
<tr>
<td>HPE 1TB SATA 6G Entry 7.2K LFF RW 1-year Warranty Multi Vendor HDD</td>
<td>843266-B21</td>
</tr>
</tbody>
</table>

### 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](http://www.hpe.com/products/recommend)

For SSD selection guidance, please visit [https://ssd.hpe.com/](https://ssd.hpe.com/).

**Notes:** For the most up to date HDD & SSDs options available Hewlett Packard Enterprise recommends the use of an Hewlett Packard Enterprise approved configurator.

#### Mixed Use - 24G SAS - SFF Basic Carrier - Solid State Drives

<table>
<thead>
<tr>
<th>Product Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPE 6.4TB SAS 24G Mixed Use SFF BC Multi Vendor SSD</td>
<td>P49057-B21</td>
</tr>
<tr>
<td>HPE 3.2TB SAS 24G Mixed Use SFF BC Multi Vendor SSD</td>
<td>P49053-B21</td>
</tr>
<tr>
<td>HPE 1.6TB SAS 24G Mixed Use SFF BC Multi Vendor SSD</td>
<td>P49049-B21</td>
</tr>
<tr>
<td>HPE 800GB SAS 24G Mixed Use SFF BC Multi Vendor SSD</td>
<td>P49047-B21</td>
</tr>
</tbody>
</table>

**Notes:** DL20 Gen10 Plus supports up to SAS 12G, performance downgrade to 12G is expected once SAS 24G drive is installed in DL20 Gen10 Plus system

#### Mixed Use - 12G SAS - LFF Low Profile Carrier - Solid State Drives

<table>
<thead>
<tr>
<th>Product Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPE 960GB SAS 12G Mixed Use LFF LPC Value SAS Multi Vendor SSD</td>
<td>P37009-B21</td>
</tr>
</tbody>
</table>

#### Mixed Use - 12G SAS - SFF Basic Carrier - Solid State Drives

<table>
<thead>
<tr>
<th>Product Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPE 3.84TB SAS 12G Mixed Use SFF BC Value SAS Multi Vendor SSD</td>
<td>P40512-B21</td>
</tr>
<tr>
<td>HPE 1.92TB SAS 12G Mixed Use SFF BC Value SAS Multi Vendor SSD</td>
<td>P40511-B21</td>
</tr>
<tr>
<td>HPE 960GB SAS 12G Mixed Use SFF BC Value SAS Multi Vendor SSD</td>
<td>P40510-B21</td>
</tr>
</tbody>
</table>

#### Read Intensive – 24G SAS – LFF Low Profile Carrier – Solid State Drives

<table>
<thead>
<tr>
<th>Product Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPE 7.68TB SAS 24G Read Intensive LFF LPC Multi Vendor SSD</td>
<td>P49040-B21</td>
</tr>
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</table>

#### Read Intensive – 24G SAS – SFF Basic Carrier – Solid State Drives

<table>
<thead>
<tr>
<th>Product Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPE 15.36TB SAS 24G Read Intensive SFF BC Multi Vendor SSD</td>
<td>P49045-B21</td>
</tr>
<tr>
<td>HPE 7.68TB SAS 24G Read Intensive SFF BC Multi Vendor SSD</td>
<td>P49041-B21</td>
</tr>
<tr>
<td>HPE 3.84TB SAS 24G Read Intensive SFF BC Multi Vendor SSD</td>
<td>P49035-B21</td>
</tr>
<tr>
<td>HPE 1.92TB SAS 24G Read Intensive SFF BC Multi Vendor SSD</td>
<td>P49031-B21</td>
</tr>
<tr>
<td>HPE 960GB SAS 24G Read Intensive SFF BC Multi Vendor SSD</td>
<td>P49029-B21</td>
</tr>
</tbody>
</table>

**Notes:** DL20 Gen10 Plus supports up to SAS 12G, performance downgrade to 12G is expected once SAS 24G drive is installed in DL20 Gen10 Plus system
### Core Options

**Read Intensive – 12G SAS – SFF Basic Carrier – Solid State Drives**
- HPE 7.68TB SAS 12G Read Intensive SFF BC Value SAS Multi Vendor SSD
- HPE 3.84TB SAS 12G Read Intensive SFF BC Value SAS Multi Vendor SSD
- HPE 1.92TB SAS 12G Read Intensive SFF BC Value SAS Multi Vendor SSD
- HPE 960GB SAS 12G Read Intensive SFF BC Value Multi Vendor SSD

**Write Intensive - 12G SAS - SFF Basic Carrier - Solid State Drives**
- HPE 1.6TB SAS 24G Write Intensive SFF BC PM6 SSD
- HPE 800GB SAS 24G Write Intensive SFF BC PM6 SSD
- HPE 400GB SAS 24G Write Intensive SFF BC PM6 SSD

**Mixed Use – 6G SATA – LFF Low Profile Carrier – Solid State Drive**
- HPE 960GB SATA 6G Mixed Use LFF LPC 5300M SSD

**Mixed Use – 6G SATA - SFF Basic Carrier - Solid State Drives**
- HPE 3.84TB SATA 6G Mixed Use SFF BC S4610 SSD
- HPE 3.84TB SATA 6G Mixed Use SFF BC S4620 SSD
- HPE 1.92TB SATA 6G Mixed Use SFF BC Multi Vendor SSD
- HPE 1.92TB SATA 6G Mixed Use SFF BC PM897 SSD
- HPE 960GB SATA 6G Mixed Use SFF BC Multi Vendor SSD
- HPE 960GB SATA 6G Mixed Use SFF BC PM897 SSD
- HPE 480GB SATA 6G Mixed Use SFF BC S4620 SSD
- HPE 480GB SATA 6G Mixed Use SFF BC S4610 SSD
- HPE 480GB SATA 6G Mixed Use SFF BC Multi Vendor SSD
- HPE 480GB SATA 6G Mixed Use SFF BC PM897 SSD

**Read Intensive – 6G SATA – LFF Low Profile Carrier – Solid State Drive**
- HPE 960GB SATA 6G Read Intensive LFF LPC PM883 SSD
- HPE 960GB SATA 6G Read Intensive LFF LPC Multi Vendor SSD
- HPE 480GB SATA 6G Read Intensive LFF LPC 5300P SSD

**Read Intensive – 6G SATA – SFF Basic Carrier – Solid State Drive**
- HPE 7.68TB SATA 6G Read Intensive SFF BC Multi Vendor SSD
- HPE 240GB SATA 6G Read Intensive M.2 Multi Vendor SSD
- HPE 3.84TB SATA 6G Read Intensive SFF BC PM893 SSD
- HPE 3.84TB SATA 6G Read Intensive SFF BC S4520 SSD
- HPE 3.84TB SATA 6G Read Intensive SFF BC S4510 SSD
- HPE 3.84TB SATA 6G Read Intensive SFF BC Multi Vendor SSD
- HPE 1.92TB SATA 6G Read Intensive SFF BC PM893 SSD
- HPE 1.92TB SATA 6G Read Intensive SFF BC S4520 SSD
- HPE 1.92TB SATA 6G Read Intensive SFF BC S4510 SSD
- HPE 1.92TB SATA 6G Read Intensive SFF BC Multi Vendor SSD
- HPE 960GB SATA 6G Read Intensive SFF BC PM893 SSD
- HPE 960GB SATA 6G Read Intensive SFF BC Multi Vendor SSD
- HPE 480GB SATA 6G Read Intensive SFF BC Multi Vendor SSD
- HPE 240GB SATA 6G Read Intensive SFF BC Multi Vendor SSD
## Core Options

### Very Read Optimized – 6G SATA – SFF Basic Carrier – Solid State Drives
- HPE 7.68TB SATA 6G Very Read Optimized SFF BC 5210 SSD  
  P40555-B21
- HPE 1.92TB SATA 6G Very Read Optimized SFF BC 5210 SSD  
  P40554-B21

### Mixed Use – High Performance - NVMe - SFF - Solid State Drives
- HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PM1735 SSD  
  P40572-B21
- HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PM1735 SSD  
  P40571-B21
- HPE 1.6TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PM1735 SSD  
  P40570-B21
- HPE 800GB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PM1735 SSD  
  P40569-B21

### Mixed Use – Mainstream - NVMe - SFF - Solid State Drives
- HPE 6.4TB NVMe Gen3 Mainstream Performance Mixed Use SFF BC U.3 Static Multi Vendor SSD  
  P47840-B21
- HPE 3.2TB NVMe Gen3 Mainstream Performance Mixed Use SFF BC U.3 Static Multi Vendor SSD  
  P47839-B21
- HPE 1.6TB NVMe Gen3 Mainstream Performance Mixed Use SFF BC U.3 Static Multi Vendor SSD  
  P47838-B21
- HPE 800GB NVMe Gen3 Mainstream Performance Mixed Use SFF BC U.3 Static Multi Vendor SSD  
  P47837-B21

### Read Intensive – High Performance - NVMe - SFF - Solid State Drives
- HPE 15.36TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PM1733 SSD  
  P40568-B21
- HPE 7.68TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PM1733 SSD  
  P40567-B21
- HPE 3.84TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PM1733 SSD  
  P40566-B21
- HPE 1.92TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PM1733 SSD  
  P40565-B21

### Read Intensive – Mainstream - NVMe - SFF - Solid State Drives
- HPE 7.68TB NVMe Gen3 Mainstream Performance Read Intensive SFF BC U.3 Static Multi Vendor SSD  
  P47847-B21
- HPE 1.9TB NVMe Gen3 Mainstream Performance Read Intensive SFF BC U.3 Static Multi Vendor SSD  
  P47845-B21
- HPE 3.84TB NVMe Gen3 Mainstream Performance Read Intensive SFF BC U.3 Static Multi Vendor SSD  
  P47846-B21
- HPE 960GB NVMe Gen3 Mainstream Performance Read Intensive SFF BC U.3 Static Multi Vendor SSD  
  P47844-B21

### Read Intensive - NVMe - M.2 - Solid State Drives
- HPE 1.92TB NVMe Gen3 Mainstream Performance Read Intensive M.2 Multi Vendor SSD  
  P40515-B21
- HPE 960GB NVMe Gen3 Mainstream Performance Read Intensive M.2 Multi Vendor SSD  
  P40514-B21
- HPE 480GB NVMe Gen3 Mainstream Performance Read Intensive M.2 Multi Vendor SSD  
  P40513-B21

**Notes:**
- Running at PCIe 3.0 x2 speed on DL20 Gen10 Plus.
- Not supported by HPE Smart Array controllers.

### Read Intensive – M.2.- Solid State Drives (2280 type)
- HPE 480GB SATA 6G Read Intensive M.2 Multi Vendor SSD  
  P47818-B21
- HPE 240GB SATA 6G Read Intensive M.2 Multi Vendor SSD  
  P47817-B21

### Internal Dual M.2 Kit
- HPE Universal SATA 6G AIC HHHL M.2 SSD Enablement Kit  
  878783-B21

**Notes:**
- The Universal SATA M.2 Kit above will require a PCIe slot and support up to two of the same M.2 cards.
- M.2 SATA Cable kit (45468-B21) is required to support this option.

### PCIe Accelerators
- HPE 750GB NVMe Gen3 x4 High Performance Low Latency Write Intensive AIC HHHL P4800X SSD  
  878038-B21

### Hard Drive Blank Kits
- HPE Gen9 LFF HDD Spade Blank Kit  
  807878-B21
## Core Options

**HPE Small Form Factor Hard Drive Blank Kit**

666987-B21

**Notes:** For the most up to date HDD & SSDs options available Hewlett Packard Enterprise recommends the use of an Hewlett Packard Enterprise approved configurator. Contact your local sales representative for additional information and HDD and SSD Quickspecs.

## HPE Networking

### 25 Gigabit Ethernet adapters

- Broadcom BCM57416 Ethernet 10Gb 2-port BASE-T Adapter for HPE P26253-B21
- Broadcom BCM57412 Ethernet 10Gb 2-port SFP+ Adapter for HPE P26259-B21

### 10 Gigabit Ethernet adapters

- Broadcom BCM57414 Ethernet 10/25Gb 2-port SFP28 Adapter for HPE P26262-B21
- Intel E810-XXVDA2 Ethernet 10/25Gb 2-port SFP28 Adapter for HPE P08443-B21
- Intel E810-XXVDA4 Ethernet 10/25Gb 4-port SFP28 Adapter for HPE P08458-B21
- Mellanox MCX512F-ACHT Ethernet 10/25Gb 2-port SFP28 Adapter for HPE P13188-B21
- Intel X710-DA2 Ethernet 10Gb 2-port SFP+ Adapter for HPE P28787-B21

**Notes:** Due to design limitation of the Butterfly Riser it is not possible to populate a 4-port RJ45 PCIe card into slot1 of DL20 Gen10 Plus as it will cause an interference between the 4-port RJ45 and the FH bkt of slot2. Therefore, a 4-port RJ45 PCIe card can only be accommodated in slot2 of DL20 Gen10 Plus with a FH bracket.

### 1 Gigabit Ethernet adapters

- Intel I350-T4 Ethernet 1Gb 4-port BASE-T Adapter for HPE P21106-B21

**Notes:** Max of 1, HPE Ethernet 1Gb 4-port 366T Adapter can be selected. Information: HPE Ethernet 1Gb 4-port 366T Adapter can only be populated in Slot2, consider this restriction towards total PCIe cards selection in the server. Due to design limitation of the Butterfly Riser it is not possible to populate a 4-port RJ45 PCIe card into slot1 of DL20 Gen10 Plus as it will cause an interference between the 4-port RJ45 and the FH bkt of slot2. Therefore, a 4-port RJ45 PCIe card can only be accommodated in slot2 of DL20 Gen10 Plus with a FH bracket.
## 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 1-server License with 1yr Support on iLO Licensed Features 512485-B21
- HPE iLO Advanced Flexible Quantity License with 1yr Support on iLO Licensed Features 512486-B21
- HPE iLO Advanced AKA Tracking License with 1yr Support on iLO Licensed Features 512487-B21
- HPE iLO Advanced 1-server License with 3yr Support on iLO Licensed Features BD505A
- HPE iLO Advanced Flexible Quantity License with 3yr Support on iLO Licensed Features BD506A
- HPE iLO Advanced AKA Tracking License with 3yr Support on iLO Licensed Features BD507A

**HPE iLO Advanced Electronic License with 1yr Support on iLO Licensed Features**

- BD508A
- BD509A

**HPE iLO Advanced Electronic License with 3yr Support on iLO Licensed Features**

- BD510A
- BD511A

### HPE Converged Infrastructure Management Software

**HPE OneView Advanced (with HPE iLO Advanced)**

- HPE OneView including 3yr 24x7 Support Physical 1-server LTU E5Y34A
- HPE OneView including 3yr 24x7 Support Flexible Quantity E-LTU E5Y35AAE

**HPE OneView Advanced (without HPE iLO Advanced)**

- HPE OneView w/o iLO including 3yr 24x7 Support 1-server LTU P8B24A
- HPE OneView w/o iLO including 3yr 24x7 Support Track 1-server LTU P8B25A
- HPE OneView w/o iLO including 3yr 24x7 Support Flexible Quantity E-LTU P8B26AAE

**Notes:**

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

### HPE Security

**HPE 1U Gen10 Bezel Kit**

- 867998-B21

**HPE Bezel Lock Kit**

- 875519-B21

**HPE DL20 Latch Ear FIO Kit**

- P06716-B21

**Notes:** HPE DL20 Latch Ear FIO Kit (P06716-B21) is required to support both the Bezel Kits above. This FIO Kit can only be bought integrated in the server. It cannot be order as a standalone option after server purchase. This Latch Ear Option is required of both Bezel kits above.

**HPE 1U Gen10 Chassis Intrusion Detection Kit**

- 866473-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.
### Additional Options

#### HPE Storage Controllers

For additional details, please see HPE Smart Array Controllers Data Sheet at: https://www.hpe.com/h20195/v2/Getdocument.aspx?docname=a00017196ENW

#### HPE Flexible Smart Array Controllers

- **HPE Smart Array P408i-a SR Gen10 (8 Internal Lanes/2GB Cache)** 12G SAS Modular LH Controller 869081-B21
- **HPE Smart Array E208i-a SR Gen10 (8 Internal Lanes/No Cache)** 12G SAS Modular LH Controller 869079-B21

**Notes:**
- To connect 869081-B21 or 869079-B21 to the 4SFF HDD backplane, leverage the 4SFF BP MiniSAS cable shipped within DL20 Gen10 Plus 4SFF system. (HPE internal cable p/n P06078-001: 4SFF BP MinisAS to AROC)
- To connect 869081-B21 or 869079-B21 to the 4+2SFF HDD backplane, leverage the 4FF BP MiniSAS cable shipped within DL20 Gen10 4SFF system, and the 2SFF BP MiniSAS to AROC cable is bundled with HPE DL20 Gen10 Plus 2SFF HDD Enablement Kit (P45471-B21). (HPE internal cable p/n P06078-001: 4SFF BP MiniSAS to AROC; HPE cable p/n P06069-B21: 2SFF BP MiniSAS to AROC)

#### HPE Smart Array Controllers

- **HPE Smart Array P408e-p SR Gen10 (8 External Lanes/4GB Cache)** 12G SAS PCIe Plug-in Controller 804405-B21
- **HPE Smart Array E208e-p SR Gen10 (8 External Lanes/No Cache)** 12G SAS PCIe Plug-in Controller 804398-B21
- **HPE 12W Smart Storage Lithium-Ion Battery** 782961-B21

**NOTES:**
- If P408e-p or P408i-a controller is selected then HPE 12W Smart Storage Battery (782961-B21) must be selected. (Max storage battery q'ty to be one per DL20 Gen10 Plus server)

#### HPE Tri-Mode Controllers

- **Broadcom MegaRAID MR216i-a x16 Lanes without Cache NVMe/SAS 12G Controller for HPE Gen10 Plus** P26325-B21
- **Broadcom MegaRAID MR216i-p x16 Lanes without Cache NVMe/SAS 12G Controller for HPE Gen10 Plus** P26324-B21
- **Broadcom MegaRAID MR416i-a x16 Lanes 4GB Cache NVMe/SAS 12G Controller for HPE Gen10 Plus** P26279-B21
- **Broadcom MegaRAID MR416i-p x16 Lanes 4GB Cache NVMe/SAS 12G Controller for HPE Gen10 Plus** P06367-B21
- **Microchip SmartRAID SR416i-a x16 Lanes 4GB Cache NVMe/SAS 24G Controller for HPE Gen10 Plus** P12688-B21

#### HPE Boot Controllers

- **HPE NS204i-p x2 Lanes NVMe PCIe3 x8 OS Boot Device** P12965-B21

**Notes:** This option, P12965-B21 can not be selected if Pentium FIO CPU for HPE (P45390-B21) is in the configuration

#### Optional Software

- **HPE Smart Array SR Secure Encryption (Data at Rest Encryption/per Server Entitlement) E-LTU** Q2F26AAE
- **HPE Smart Array SR SmartCache (Single Key/Single Server) LTU** D7S26A
- **HPE Smart Array SR SmartCache (Single Key/Multiple Servers) LTU** D7S27A
- **HPE Smart Array SR SmartCache (Single Key/Multiple Servers) E-LTU** D7S27AAE

**Notes:** SmartCache is offered on HPE Smart Array performance RAID controllers.
Additional Options

HPE Storage Options

**Emulex Fibre Channel HBAs**
- HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter (QOL13A)
- HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter (QOL14A)

**QLogic Fibre Channel HBAs**
- HPE SN1100Q 16Gb Single Port Fibre Channel Host Bus Adapter (P9D93A)
- HPE SN1100Q 16Gb Dual Port Fibre Channel Host Bus Adapter (P9D94A)
- HPE SN1610E 32Gb 1-port Fibre Channel Host Bus Adapter (R2J62A)
- HPE SN1610E 32Gb 2-port Fibre Channel Host Bus Adapter (R2J63A)
- HPE SN16100 32Gb 1-port Fibre Channel Host Bus Adapter (R2E08A)
- HPE SN16100 32Gb 2-port Fibre Channel Host Bus Adapter (R2E09A)

**HPE Rack Options**

**Rail Kits**
- HPE 1U Short Friction Rail Kit (775612-B21)

**HPE Racks**
- Please see the [HPE Advanced Series Racks QuickSpecs](#) 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 [HPE Standard Series Racks QuickSpecs](#) for information on additional racks options and rack specifications.

**HPE Power Distribution Units (PDUs)**
- Please see the [HPE Basic Power Distribution Units (PDU) QuickSpecs](#) for information on these products and their specifications.
- Please see the [HPE Metered Power Distribution Units (PDU) QuickSpecs](#) for information on these products and their specifications.
- Please see the [HPE Intelligent Power Distribution Unit (PDU) QuickSpecs](#) for information on these products and their specifications.
- Please see the [HPE Metered and Switched Power Distribution Units (PDU) QuickSpecs](#) for information on these products and their specifications.

**HPE Uninterruptible Power Systems (UPS)**
- To learn more, please visit the [HPE Uninterruptible Power Systems (UPS) web page](#).
- Please see the [HPE DirectFlow Three Phase Uninterruptible Power System QuickSpecs](#) 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.
Additional Options

HPE USB and SD Options

HPE Enterprise Mainstream Flash Media Kits for Memory Cards
HPE 32GB microSD RAID 1 USB Boot Drive  
Notes: In vSphere 7.0, VMware made changes that impacted the usage of USB/SD Cards as standalone boot devices, and will be removing support for them with upcoming versions after 7.x.  
SD Card/USB media can still be used as a standalone boot option through all 7.x releases via published Customer Advisory https://support.hpe.com/hpesc/public/docDisplay?docid=emr_na-a00118986en_us  
For any major release beyond VMware ESXi 7.x, VMware will require M.2 or another local persistent device as the standalone boot option.

HPE Support Services

Installation & Start-up Services
HPE Installation ML/DL Series 10 Service  U7WZ5E
HPE Startup ML/DL Series 10 Service  U7WZ7E

HPE Pointnext Tech Care
HPE 3 Year Tech Care Basic DL20 Gen10 Plus HW Service  H32YRE
HPE 3 Year Tech Care Basic wDMR DL20 Gen10 Plus HW Service  H32YSE
HPE 3 Year Tech Care Basic wCDMR DL20 Gen10 Plus HW Service  H32YTE
HPE 3 Year Tech Care Essential DL20 Gen10 Plus HW Service  H32YYE
HPE 3 Year Tech Care Essential wDMR DL20 Gen10 Plus HW Service  H32YZE
HPE 3 Year Tech Care Essential wCDMR DL20 Gen10 Plus HW Service  H32ZBE
HPE 5 Year Tech Care Basic DL20 Gen10 Plus HW Service  H32ZWE
HPE 5 Year Tech Care Basic wDMR DL20 Gen10 Plus HW Service  H32ZXE
HPE 5 Year Tech Care Basic wCDMR DL20 Gen10 Plus HW Service  H32ZYE
HPE 5 Year Tech Care Essential DL20 Gen10 Plus HW Service  H33BDE
HPE 5 Year Tech Care Essential wDMR DL20 Gen10 Plus HW Service  H33BFE
HPE 5 Year Tech Care Essential wCDMR DL20 Gen10 Plus HW Service  H33BGE

Notes: For a full list of packaged support services, please visit  http://www.hpe.com/services/ssc
Memory

HPE Standard Memory

HPE Standard Memory UDIMMs has passed the rigorous Hewlett Packard Enterprise qualification and testing processes. The memory subsystem in this server supports UDIMMs. The server supports single-rank and dual-rank DDR4 UDIMMs operating at up to 3200 MT/s DIMM speeds.

Memory Population guidelines

• The server supports two channels per processor with two DIMMs per channel for a total of four DIMMs per DL20 Gen10 Plus Server.

General Memory Population Rules and Guidelines:

• Only UDIMMs are supported on DL20 Gen10 Plus. No support for RDIMMs and LRDIMMs.
• All the channels in a system run at the fastest common frequency.
• Both single DIM per channel and dual DIMMs per channel are supported at 3200MT/s.

Supported Memory for HPE ProLiant DL20 Gen10 Plus

<table>
<thead>
<tr>
<th>DIMM Type</th>
<th>Unbuffered with ECC DIMMs (UDIMMs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPE SKU P/N</td>
<td>P43016-B21</td>
</tr>
<tr>
<td>SKU Description</td>
<td>HPE 8GB (1x8GB) Single Rank x8 DDR4-3200 CAS-22-22-22 Unbuffered Standard Memory Kit</td>
</tr>
<tr>
<td>DIMM Rank</td>
<td>Single Rank (1R)</td>
</tr>
<tr>
<td>DIMM Capacity</td>
<td>8GB</td>
</tr>
<tr>
<td>Voltage</td>
<td>Std Voltage 1.2V</td>
</tr>
<tr>
<td>CAS Latency</td>
<td>22-22-22</td>
</tr>
<tr>
<td>DIMM Native Speed (MT/S)</td>
<td>3200</td>
</tr>
<tr>
<td>Maximum Capacity (Gb)</td>
<td>32 GB (4 x 8 GB)</td>
</tr>
<tr>
<td>Slots That Can Be Populated</td>
<td>4</td>
</tr>
</tbody>
</table>

HPE Server Memory Speed: Intel® Xeon® E processors

1 DIMM Per Channel 3200 MT/s 3200 MT/s 3200 MT/s
2 DIMM Per Channel 3200 MT/s 3200 MT/s 2933 MT/s

HPE Server Memory Speed: Intel® Pentium® G6405 processor

1 DIMM Per Channel 2666MT/s 2666 MT/s 2666 MT/s
2 DIMM Per Channel 2666 MT/s 2666 MT/s 2666 MT/s

DDR4 memory options part number decoder

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

• 8GB = 8,192 MB
• 16GB = 16,384 MB
• 32GB = 32,768 MB
• 64GB = 65,536 MB
• 128GB = 131,072 MB

For more information on memory, please visit the HPE DDR4 Standard Memory web site.
### General Memory Population Rules and Guidelines

- 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.
- Only ECC UDIMMs are supported on DL20 Gen10 Plus. No support for non-ECC UDIMMs.
- There are two channels per processor with two DIMM slots per channel.
- Memory channel 1 consists of the two DIMMs that are closest to the processor.
- Memory channel 2 consists of the two DIMMs that are farthest from the processor.
- A white DIMM slot indicates the first slot of a channel (3-A, 1-B).
- The server supports up to 3200 MT/s ECC UDIMMs (Unbuffered DIMMs).
- The server supports up to 128 GB (4 x 32 GB) UDIMMs.
- The server does not support non-ECC UDIMMs, RDIMMs, and LRDIMMs.
- Populate the DIMM on slots in this sequence: 3-A, 1-B, 4-C, 2-D.
- Always use HPE qualified DIMMs.
- For details on the HPE Server Memory Options Population Rules, visit: [http://www.hpe.com/docs/memory-population-rules](http://www.hpe.com/docs/memory-population-rules)
- To realize the performance memory capabilities listed in this document, HPE DDR4 SmartMemory is required. For additional information, please see the HPE DDR4 SmartMemory QuickSpecs.

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

4 SFF device bay numbering

4 SFF + 2SFF device bay numbering

2LFF Hot Plug device bay numbering

2LFF Non Hot Plug device bay numbering
Technical Specifications

System Unit

Dimensions (Height x Width x Depth)
- **SFF Drives**
  - 4.32 x 43.46 x 38.22 cm
  - 1.70 x 17.11 x 15.05 in
- **LFF Drives**
  - 4.32 x 43.46 x 38.22 cm
  - 1.70 x 17.11 x 15.05 in

Weight (approximate)
- **Non hot Plug 2 LFF fully loaded** (all hard drives, power supplies, and processors installed)
  - 6.00 kg
  - 13.23 lb
- **Hot Plug 2LFF fully loaded** (one hard drive, power supply, and processor installed)
- **Hot Plug 4SFF fully loaded** (two hard drives, power supply, and processor installed)
  - 10 kg
  - 22.05 lb

290W Non-hot Plug Power Supply

Input Requirements
- **Rated Line Voltage**
  - 100 to 120 VAC
  - 200 to 240 VAC
- **Rated Input Current**
  - 5.5 A max (at 100 VAC)
- **Rated Input Frequency**
  - 50 to 60 Hz
- **Rated Input Power**
  - 550 W (at 100 VAC)

BTU Rating
- **Maximum**
  - 1130 BTU per hr (at 115 VAC)
  - 1126 BTU per hr (at 230 VAC)

Power Specifications
To review typical system power ratings use the Power Advisor which is available via the online tool located at:
[http://www.hpe.com/info/hppoweradvisor](http://www.hpe.com/info/hppoweradvisor)
Click on the system of interest. Example: DL20 Gen10 Plus - Follow the instructions of the next screens.

Power Supply Output (per power supply)
- **Rated Steady-State Power**
  - 290 W Max
- **Maximum Peak Power**
  - 366 W within 10 seconds
Technical Specifications

500W/800W Redundant Power Supply

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

Power Supply Output (per power supply)

Rated Steady-State Power
- For 800W Power Supply: 800W (at 100 VAC), 800W (at 240 VAC), 800W (at 240 VDC) input for China only
- For 500W Power Supply: 500W (at 100 VAC), 500W (at 240 VAC), 500W (at 240 VDC) input for China only

Maximum Peak Power
- For 800W Power Supply: 800W (at 100 VAC), 800W (at 240 VAC), 800W (at 240 VDC) input for China only
- For 500W Power Supply: 500W (at 100 VAC), 500W (at 240 VAC), 500W (at 240 VDC) input for China only

System Inlet Temperature

- Standard Operating Support
  10°C to 35°C (50°F 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 above 30°C (86°F).

- Extended Ambient Operating Support
  For approved hardware configurations, the supported system inlet range is to be: 5°C to 10°C (41°F to 50°F) and 35°C to 40°C (95°F 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](http://www.hpe.com/servers/ashrae)

  For approved hardware configurations, the supported system inlet range is to be: 40°C to 45°C (104°F 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](http://www.hpe.com/servers/ashrae)

- Non-operating
  -30°C to 60°C (-22°F 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.
Technical Specifications

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

Emissions Classification (EMC)
To view the regulatory information for your product, view the Safety and Compliance Information for Server, Storage, Power, Networking, and Rack Products, available at the Hewlett Packard Enterprise Support Center:
http://www.hpe.com/support/Safety-Compliance-EnterpriseProducts
For information on the HPE Smart Array Controller please refer to their QuickSpecs

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

The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the [Hewlett Packard Enterprise web site](http://www.hpe.com/support/Safety-Compliance-EnterpriseProducts) for information on the HPE Smart Array Controller please refer to their QuickSpecs.

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.

<table>
<thead>
<tr>
<th>Configuration SKU</th>
<th>P44112-B21</th>
<th>P44113-B21</th>
<th>P44114-B21</th>
<th>P44115-B21</th>
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<tbody>
<tr>
<td>LWAd</td>
<td>4.3 B</td>
<td>4.3 B</td>
<td>4.3 B</td>
<td>4.3 B</td>
</tr>
<tr>
<td>LpAm</td>
<td>29 dBA</td>
<td>29 dBA</td>
<td>30 dBA</td>
<td>30 dBA</td>
</tr>
<tr>
<td><strong>Operating</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LWAd</td>
<td>4.3 B</td>
<td>4.4 B</td>
<td>4.3 B</td>
<td>4.4 B</td>
</tr>
<tr>
<td>LpAm</td>
<td>29 dBA</td>
<td>26 dBA</td>
<td>30 dBA</td>
<td>29 dBA</td>
</tr>
</tbody>
</table>

**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.
## Summary of Changes

<table>
<thead>
<tr>
<th>Date</th>
<th>Version History</th>
<th>Action</th>
<th>Description of Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>04-Apr-2022</td>
<td>Version 2</td>
<td>Changed</td>
<td>Overview, Standard Features, Core Options, Additional Options and Memory sections were updated.</td>
</tr>
</tbody>
</table>
QuickSpecs

HPE ProLiant DL20 Gen10 Plus server

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