Have feedback on QuickSpecs? We're listening

HPE ProLiant DL20 Gen11 QuickSpecs

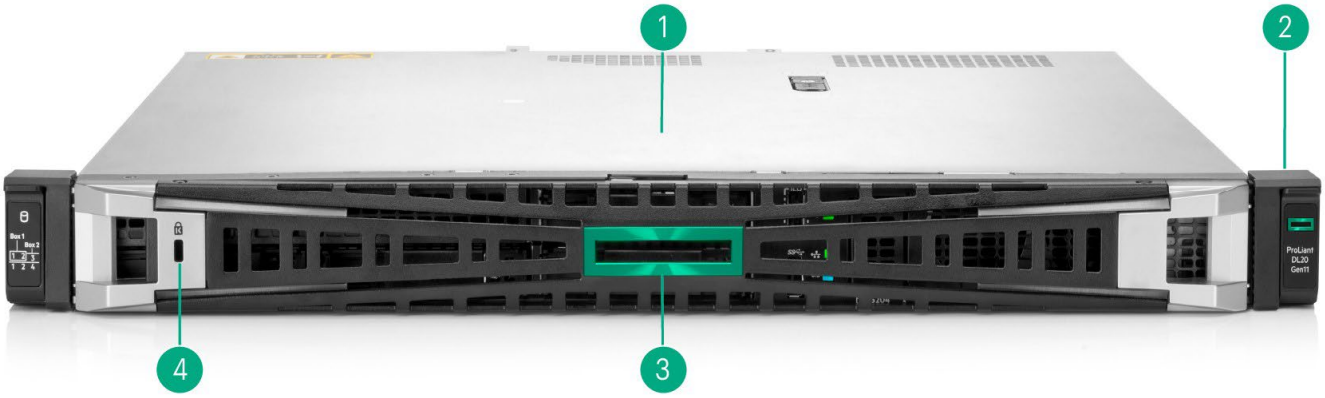
The dense and compact HPE ProLiant DL20 Gen11 server powered by Intel® Xeon® 6300 series, Intel® Xeon® E, and Intel® Pentium® Processors provides a unique blend of enterprise-class capabilities and value.

The HPE ProLiant DL20 Gen11 offers mobility, easy deployment and 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 6.

Overview

HPE ProLiant DL20 Gen11

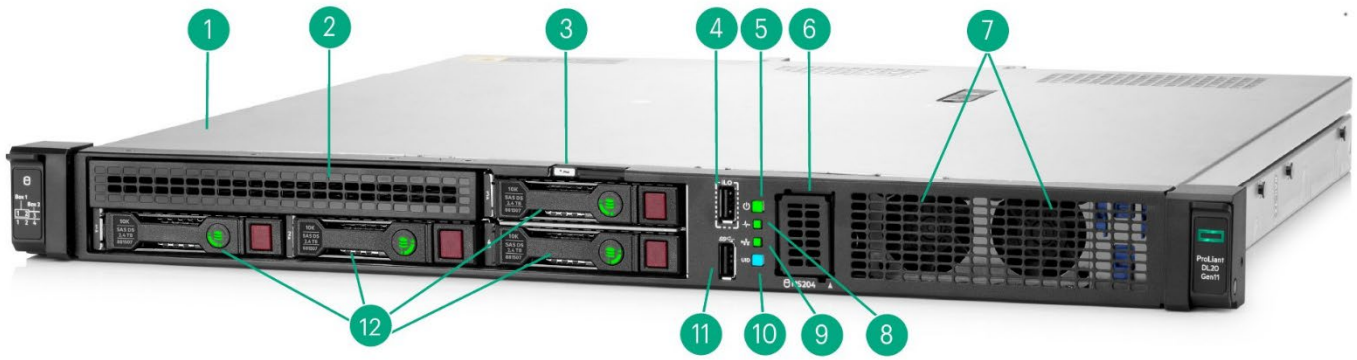
Deploy this dense platform for diverse workloads in space-constrained environments. Maintain it with ease by automating the most essential server lifecycle management tasks using HPE iLO 6.



4 SFF + 2 SFF View Gen11

Item	Description	Item	Description
1.	Access Panel	3.	Bezel
2.	Ear Tab	4.	Kensington Lock

Overview

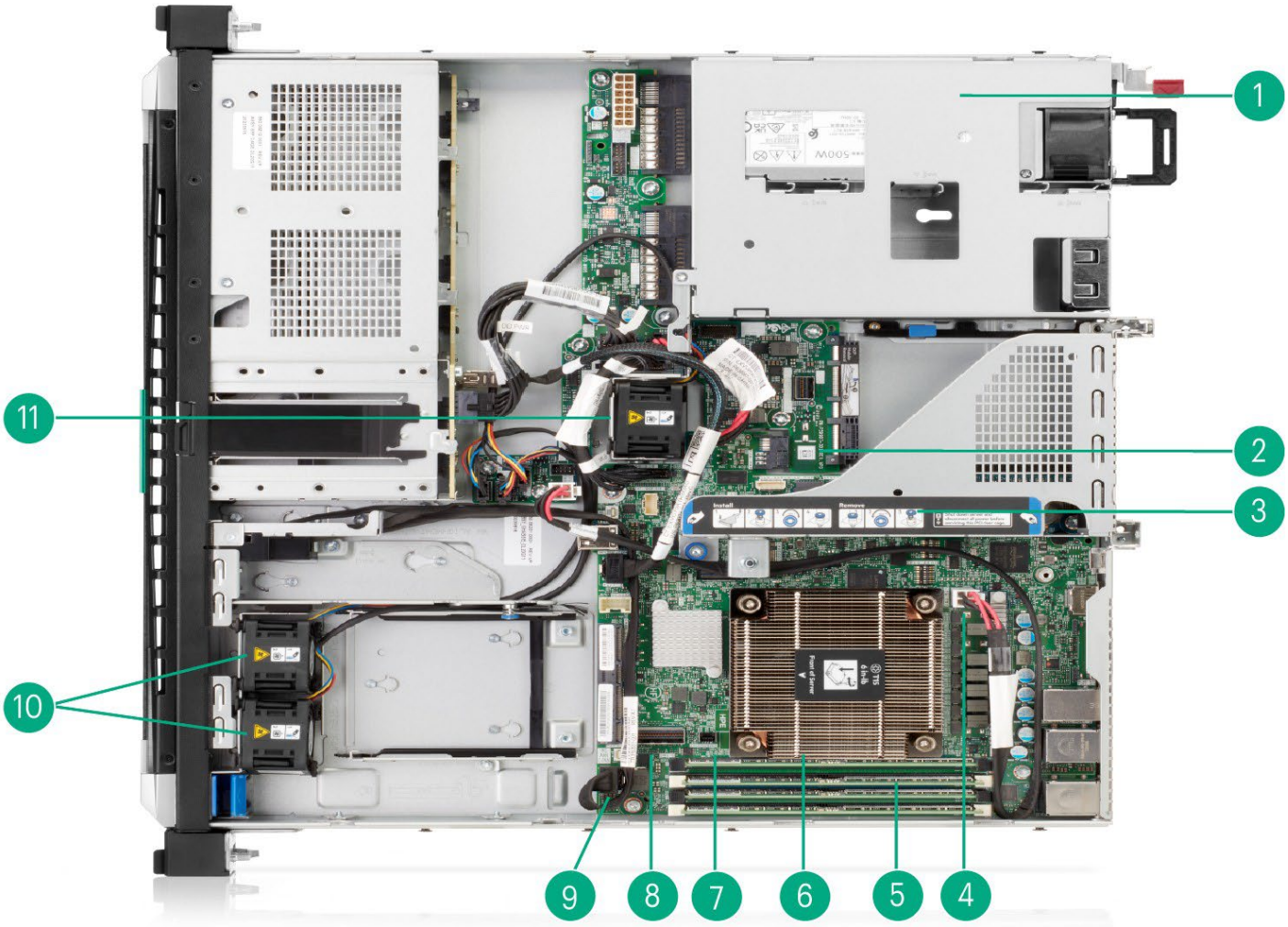


4 SFF Front View Gen11

Item	Description	Item	Description
1.	Access Panel	7.	Front Fan Assembly
2.	Optical drive bay	8.	Health LED
3.	Serial number/iLO information pull tab	9.	NIC Status LED[1]
4.	iLO Service Port (USB)	10.	UID button/LED
5.	System Power button/LED	11.	USB 3.2 Gen 1 Port
6.	NS204i-u device bay (optional)	12.	Four-bay SFF hot-plug drive bays

Notes: [1] Front NIC LED display doesn't support NIC LED ACT/LINK indication from ALOM/PCIE/FLOM NICs.

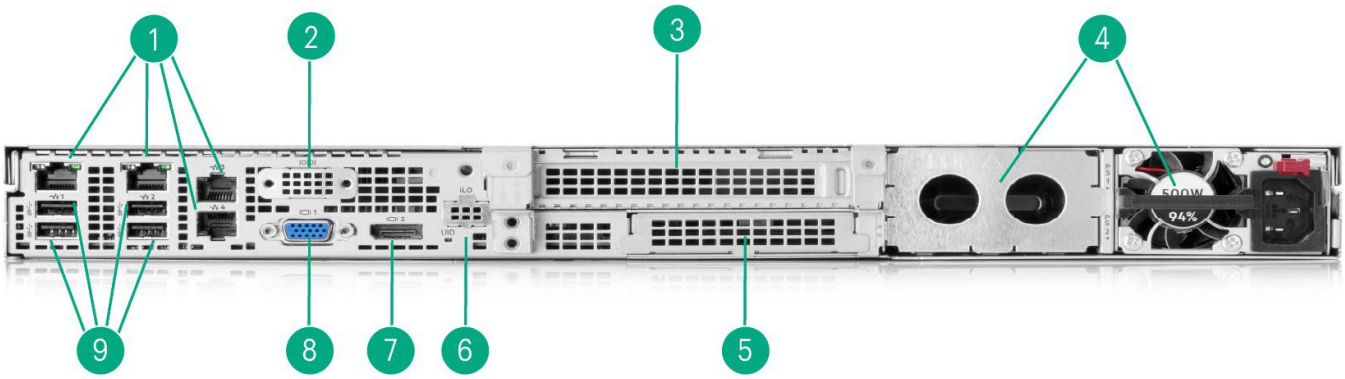
Overview



Internal View - Standard for all 4 SFF DL20 Gen11

Item	Description	Item	Description
1.	Power Supply (1x500W shown)	7.	Chassis intrusion detection switch connector
2.	M.2 Slot (Supports the iLO/M.2 Cable Kit option)	8.	SlimSAS x8 port
3.	PCIe Riser	9.	Front I/O and USB 3.2 Gen 1 and iLO service port connector
4.	4-pin processor power connector	10.	Fan cage shown with 2 fans
5.	4 DDR5 DIMM slots	11.	Central fan assembly (3rd fan)
6.	Processor shown with heatsink		

Overview



Rear View – Standard for all DL20 Gen11

Item	Description	Item	Description
1.	NIC ports (1Gb) NIC port 1 - iLO and production data shared port	6.	iLO dedicated network port (optional)
2.	Serial Port (optional)	7.	DisplayPort
3.	Slot 1 PCIe 5.0	8.	VGA Port
4.	Redundant Power Supplies (2nd power supply not shown)	9.	USB 3.2 Gen1 ports
5.	OCP 3.0 Slot		

What's New

- Supports latest Intel® Xeon® 6300 processors up to 8 cores 95W TDP.
- New HPE Software as a Service (SaaS) management.
- New PCIe 5.0 support.
- New HPE DDR5 Standard Memory (UDIMM), 4800 MT/s maximum speed offering in 16 GB and 32 GB. Max 128 GB memory capacity.
- Embedded 1GbE 4-port NIC with support of PCIe and OCP NICs.
- New HPE Gen11 Storage Controllers.
- New HPE NS204i-u Gen11 NVMe Hot-Plug Boot Optimized Storage Device.
- New HPE Storage SSD and HDD support.
- New HPE iLO 6 support.
- HPE 1000W Flex Slot Titanium Hot Plug Power Supply Kit.

Platform Information

Form Factor

- 1P 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: 2 LFF NHP, 2 LFF HP and 4 SFF HP.

Standard Features

Processors

Intel® Xeon® 6300 and 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, refer to the following https://www.intel.com/xeon

Intel® Models	CPU Base Frequency	Cores	L3 Cache	Power	DDR5
Intel® Xeon® 6377P	3.1 GHz	12	36 MB	95 W	4400 MT/s
Intel® Xeon® 6369P	3.3 GHz	8	24 MB	95 W	4400 MT/s
Intel® Xeon® 6357P	3.0 GHz	8	24 MB	80 W	4400 MT/s
Intel® Xeon® 6353P	2.7 GHz	8	24 MB	65 W	4400 MT/s
Intel® Xeon® 6349P	2.7 GHz	8	24 MB	65 W	4400 MT/s
Intel® Xeon® 6337P	3.5 GHz	6	18 MB	80 W	4400 MT/s
Intel® Xeon® 6333P	3.1 GHz	6	18 MB	65 W	4400 MT/s
Intel® Xeon® 6325P	3.5 GHz	4	12 MB	55 W	4400 MT/s
Intel® Xeon® 6315P	2.8 GHz	4	12 MB	55 W	4400 MT/s
Intel® Xeon® E-2488	3.2 GHz	8	24 MB	95 W	4400 MT/s
Intel® Xeon® E-2478	2.8 GHz	8	24 MB	80 W	4400 MT/s
Intel® Xeon® E-2468	2.6 GHz	8	24 MB	65 W	4400 MT/s
Intel® Xeon® E-2486	3.5 GHz	6	18 MB	95 W	4400 MT/s
Intel® Xeon® E-2456	3.3 GHz	6	18 MB	80 W	4400 MT/s
Intel® Xeon® E-2436	2.9 GHz	6	18 MB	65 W	4400 MT/s
Intel® Xeon® E-2434	3.4 GHz	4	12 MB	55 W	4400 MT/s
Intel® Xeon® E-2414	2.6 GHz	4	12 MB	55 W	4400 MT/s
Intel® Pentium G7400	3.7 GHz	2	6 MB	46 W	4400 MT/s

Notes: Pentium G7400 does not comply with ENERGY STAR® 4.0.

Chipset

Intel® C262 Chipset

Notes: For more information regarding Intel® chipsets, refer to the following URL: https://www.intel.com/products/server/chipsets/.

On System Management Chipset

HPE iLO 6 ASIC

Notes: Read and learn more in the iLO QuickSpecs.

Standard Features

Memory	
Type	HPE DDR5 Standard Memory, Unbuffered (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 32 GB UDIMM @ 4400 MT/s)

Notes:
- The maximum memory speed depends on the processor model.
- The maximum speed capability of the memory system is governed by the combination of the CPU and any other DIMMs installed in the server. If higher speed DIMMs are installed with a CPU that only supports a lower memory speed, the DIMMs will only run at the (lower) memory speed supported by the processor. Likewise, if memory DIMMs are mixed with slower DIMMs within a server, all DIMMs will run at the slower memory speed. For further information please refer to the Memory Population Rules for your specific server.
- The -B21 memory SKUs shown in this document are to be used when ordering stand-alone memory only. For each -B21 SKU, there is a corresponding -F21 SKU which is to be used when configuring servers with integrated memory DIMMs.
- For Server Memory Population Rules for HPE ProLiant Gen11 Servers with Intel® Xeon® 6300 and E-2400 Processors see details here: http://www.hpe.com/docs/server-memory.

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).

Hard Drives
- None ship standard.

Network Controller

Embedded Broadcom BCM5719 Ethernet 1Gb 4-port BASE-T Adapter.

The HPE ProLiant DL20 Gen11 offers the customer a quad-port NIC standard with the option to upgrade with a variety of networking options.

Notes:
- Support document and downloads including firmware and drivers for the Broadcom BCM5719 Ethernet 1Gb 4-port BASE-T LOM Adapter can be downloaded from the supplier's support and services webpage .
- ProLiant DL20 Gen11 system does not support Networking SR-IOV.
- Port 1 is used as shared port for iLO and production data.

Expansion Slots

Expansion Slots #	Technology	Bus Width	Connector Width	Processor	Slot Form Factor
1	PCIe 5.0	x16	x16	CPU 1	Full height half length
2	External OCP 3.0	x4	x4	PCH	OCP 3.0
3	Internal OROC 3.0 (Internal OCP)	x4	x4	PCH	OROC

Notes:
- Bus Width indicates the number of physical electrical lanes running to the connector.
- External OCP 3.0 is for networking (NIC) controller OCP form factor options.
- Internal OROC is for storage controller OCP form factor options.
- Internal OROC and External OCP 3.0 options can be selected together.

Storage Controllers

Hybrid RAID

Intel® VROC SATA Hybrid RAID.

Notes:
- Intel® Virtual RAID on CPU (Intel® VROC) is the SATA Hybrid RAID controller supported in this server.
- All server models support Intel® VROC SATA RAID. Quick Install Guide click here.
- BIOS Default is SATA AHCI. Intel® VROC SATA RAID is disabled by default. Intel® VROC SATA RAID can be enabled in BIOS/Platform Configuration (RBSU) or iLO Redfish API.
- Intel® VROC SATA RAID OS drivers are not included in the HPE Support Pack for ProLiant (SPP) and must be downloaded from support.hpe.com.
- Intel® VROC SATA RAID supports RAID 0, 1, 5, and 10.
- Intel® VROC SATA RAID cannot be factory ordered as Intel® VROC SATA RAID must be enabled in BIOS by the customer.
- Intel® VROC SATA RAID does not support different form factors of drives (e.g., RAID sets cannot span across different types of storage like SFF + M.2 nor span across drive cages)
- Intel® VROC SATA RAID supports Windows Server and Linux but does not support VMware.
- Required to install HPE Agentless Management (AMS) in OS for supporting drives thermal sensor reading for thermal fan control, otherwise may experience acoustic noise impact.
- Both Intel® Xeon® E processors and Intel® Pentium® processors support Intel® VROC SATA RAID.
- See HPE Support Center for additional information regarding installation of Intel® VROC (SATA RAID): Enabling Intel® VROC (SATA RAID) for SATA or SATA on BIOS/Platform configuration (RBSU)
    - Windows Edition
    - Oracle Linux, SAP Linux, or Wind River Linux
- Intel® VROC SATA RAID volumes cannot be created in Intelligent Provisioning. Volumes must be created manually.
- Intel® VROC SATA RAID requires the server boot mode to be set to UEFI Mode.
- Obtain the Intel® VROC downloads (drivers, GUI) specific for your system OS. For direct download links, see the OS-specific VROC guide: https://hpe.com/support/VROC-Gen11-UG

Standard Features

– Intel® VROC supports RAID management through the following tools:
  - Non-OS specific: UEFI System Utilities.
  - Windows: Intel® VROC GUI, Intel® VROC CLI.
  - Linux: mdadm CLI.

Essential RAID Controller

– HPE Smart Array E208e-p SR Gen10 Controller.

Tri-Mode Controllers

– HPE MR216i-p Gen11 SPDM Storage Controller.
– HPE MR216i-o Gen11 SPDM Storage Controller.
– HPE MR408i-o Gen11 SPDM Storage Controller.

Notes: For additional details, please visit:
– HPE Compute MR Gen11 Controllers QuickSpecs
– HPE Compute SR Gen11 Controllers QuickSpecs

Maximum Storage

Drive	Capacity	Configuration
Non-Hot Plug	8 TB	2 x 4 TB
Hot Plug SFF SAS HDD	14.4 TB	4 x 2.4 TB + 2 x 2.4 TB (with optional +2 drive option)
Hot Plug SFF SATA HDD	12 TB	4 x 2.0 TB +2 x 2.0 TB (with optional + 2 drive option)
Hot Plug SFF SAS SSD	92.16 TB	4 x 15.36 TB +2 x 15.36 TB (with optional + 2 drive option)
Hot Plug SFF SATA SSD	46.08 TB	4 x 7.68 TB +2 x 7.68 TB (with optional + 2 drive option)
Hot Plug SFF SAS + NVMe SSD	122.88 TB	4 x 15.36 TB +2 x 30.72 TB (with optional + 2 drive option)
Hot Plug SFF SATA + NVMe SSD	92.16 TB	4 x 7.68 TB +2 x 30.72 TB (with optional + 2 drive option)
Hot Plug LFF SAS HDD	40 TB	2 x 20 TB
Hot Plug LFF SATA HDD	40 TB	2 x 20 TB
Hot Plug LFF SAS SSD	15.36 TB	2 x 7.68 TB
Hot Plug LFF SATA SSD	15.36 TB	2 x 7.68 TB
M.2 NVMe SSD	8 TB	2 x 4 TB

Power Supply

– HPE 290W Non-redundant FIO Power Supplies.
  - **P21649-B21,** HPE DL20 Gen10 Plat 290W FIO Power Supply Kit.
  - **P45476-B21**, HPE ProLiant DL20 Gen10 Plus290W FIO Power Supply Kit.

    Notes:
    – Both 290W Power Supplies support both Pre-Configured Models and Configured Factory Integrated Models
    – P21649-B21, Power efficiency at 92% single output.
    – P65409-B21, HPE DL20 Gen11 ATX PSU FIO Enable Kit required and must be added when using ATX power supplies.

Standard Features

- HPE Redundant Power Supplies.
  - **865408-B21**, HPE 500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit.
    Notes: Power efficiency at 94% single output
  - **865438-B21,** HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit**.**
    Notes: Power efficiency at 96% single output
  - **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% and 96%.
  - **P03178-B21,** HPE 1000W Flex Slot Titanium Hot Plug Power Supply Kit.
    Notes: Power efficiency at 96% single output

HPE Entry-Level Power Supplies provide lower-cost options for customers trying to balance their need for enterprise class efficiency and reliability while maintaining the lowest possible hardware costs. The above-mentioned Entry-Level power supply options have been designed specifically for HPE ProLiant DL20 Gen11.

The HPE 290W Non-Redundant Power Supply is the standard, non-redundant AC power supply and is optimized for the DL20 Gen11 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 Gen11 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 datacenter.

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	1 port - Optional (Rear)
Video	1 Rear - VGA port (standard on all chassis types) 1 Rear - DisplayPort
Network Ports (RJ-45)	4x 1GbE embedded NIC (standard on all chassis types)
iLO Remote Management Port	Network port 1 is shared for production and iLO data. 1 Gb Dedicated NIC (Optional RJ45 Connector, used if dedicated management network port is required)
USB	8 USB ports (standard) Front: 2x USB Type-A ports with 1 xUSB 3.2 Gen1x1 and 1x USB 2.0 (iLO service port) Rear: 4x USB Type-A Ports, 3.2 Gen 1x1 Internal: 2x USB 3.2 Gen 2x1

Operating Systems and Virtualization Software Support for HPE Servers

HPE servers are designed for seamless integration with partner Operating Systems and Virtualization Software. By collaborating closely with our partners, we ensure that their products are optimized, certified, and fully supported within your HPE server environment.
Access the certified and supported servers for each of the OS and Virtualization software: HPE Servers Support and Certification Matrices

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.
- Optional iLO Management Port.
- M.2 NVMe SSDs or NS204i-u for boot.

Graphic

Integrated Matrox G200 video standard

- Video modes up to 1920 x 1200 @ 85 Hz (16 bpp).
- 16 MB Video Memory.

HPE iLO 6 on system management memory

- 32 MB Flash.
- 8 Gbit DDR4.

Industry Standard Compliance

- ACPI 6.3 Compliant.
- PCIe 5.0 Compliant.
- WOL Support.
- Microsoft® Logo certifications.
- PXE Support.
- USB 3.2 Compliant.
- SMBIOS 3.2.
- UEFI 2.9, Class 3 (Unified Extensible Firmware Interface Forum).
- Redfish API.
- IPMI 2.0.
- Secure Digital 4.0.
- TPM 2.0 Gen11 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.
  Notes: For additional technical thermal details regarding ambient temperatures, humidity and features support, please visit: Extended Ambient Temperature Guidelines for HPE Gen11 servers
- ENERGY STAR® 4.0.
  Notes: Pentium G7400 does not comply with ENERGY STAR® 4.0
- European Union (EU) Lot 9.
  Notes: Beginning on January 1st, 2024, units sold into the European Union (EU), European Economic Area (EEA), the United Kingdom, Ireland, Switzerland or Turkey, must include more efficient AC power supplies. The EU's Lot 9 eco-design regulations for servers and storage products will enforce minimum efficiency for AC power supplies: 94% for multi-output and 96% for single output. HPE power supplies that meet Lot 9 requirements are: 865438-B21 (single-output and 96% efficient) and P45476-B21 (multi-output and 94% efficient).
  For more information regarding HPE Lot 9 conformance, please visit:
  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 Gen11 servers have a UEFI Class 3 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.

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

- Secure Boot and Secure Start enabled 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 "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.
- 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.

Standard Features

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

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 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, Gen10, Gen10 plus and Gen11 HPE servers at unmatched speed and scale. Use it 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 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

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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.
- Granular control over iLO interfaces.
- Smart card (PIV/CAC) and Kerberos based 2-factor Authentication.
- Tamper-free updates: all 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.
  Notes: Enabling TPM 2.0 no longer requires TPM module option kit for Gen11. It is an embedded feature yet disabled for shipments to China.
- Bezel Locking Kit.
- 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 Services 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 using 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:
https://www.hpe.com/support/ProLiantServers-Warranties

Server Management

HPE iLO Advanced
HPE iLO Advanced licenses offer smart remote functionality without compromise, for all HPE ProLiant servers. The license includes the fully 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 iLO6 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 Compute Ops Management
Transform compute lifecycle management with a cloud experience that delivers greater simplicity, agility, and speed across your entire server environment, wherever it lives. This software-as-a-service tool provides a dashboard with global visibility and intuitive management of server health, security and compliance status to help you easily identify areas that need immediate attention. Users can update tens to thousands of servers faster through intelligent delta-based firmware downloads and on-demand HPE iLO firmware updates.

HPE Compute Ops Management is cloud-native software that is continually updated with new services, features, patches, and firmware packs. The management application resides in GreenLake cloud (access via https://common.cloud.hpe.com) and leverages the GreenLake architecture, security, and unified operations.
A 3-year subscription to HPE Compute Ops Management is added by default when ordering an HPE ProLiant Gen11 rack, tower, or micro server.

For more information, visit the HPE Compute Ops Management QuickSpecs:
https://www.hpe.com/psnow/doc/a50004263enw

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, Gen10 Plus and Gen11 servers. To learn more visit http://www.hpe.com/info/oneview

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 datacenter with enhanced airflow and thermal management, flexible cable management, and a 10-year Warranty to support higher density computing.

Optional Features

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 of workload. Some UPSs include options for remote management and runtime modules, so your critical dense datacenter 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 datacenter rack up and running.

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

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One Config Simple (SCE)

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

Service and Support

HPE provides a portfolio of support, deployment, and lifecycle management services designed to help customers maximize the value, performance, and availability of their HPE infrastructure. HPE Complete Care Service provides a highly personalized support experience with proactive guidance and expert-led lifecycle management, while HPE Tech Care Service provides fast access to product specialists and flexible response options tailored to operational needs. Both HPE Complete Care Service and HPE Tech Care Service are available with defective media retention, comprehensive defective material retention, and GPU defective material recovery options.

Beyond support, HPE Lifecycle Services help customers deploy and optimize their environments with confidence. From HPE Factory Express services that streamline system configuration and integration before delivery, to Installation and Startup Services that accelerate time to value. For the latest information on HPE Services, please refer to the HPE Services - Supplemental QuickSpecs | HPE, which provides a comprehensive and regularly updated overview of available services.

HPE Smart Choice Purchase Program

The HPE Smart Choice Purchase Program features popular fully configured products that can be quoted in minutes and shipped quickly through HPE Authorized Partners. Products are configured and tested in an HPE factory and stocked at HPE Authorized Distributors and Partners. The products arrive in a single box, making onsite integration easier and more efficient for partners and customers. Additionally, there are aggressively priced HPE Tech Care Services available only through the HPE Smart Choice program when you purchase an HPE Smart Choice product.

For HPE Smart Choice configuration and product details, please visit the Smart Choice Supplemental QuickSpecs: https://www.hpe.com/psnow/doc/a50009219enw

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 not be shipped inside the server.
- Network Choice models do not include embedded LOM.

Base Models	
SKU Number	P65394-AA1
Model Name	HPE ProLiant DL20 Gen11 E-2434 3.4GHz 4-core 1P 16GB-U 2LFF 290W PS Server
Chassis	HPE ProLiant DL20 Gen11 2LFF Hot Plug Configure-to-order Server
Processor	E-2434 (4 core, 3.4 GHz, 55W)
Number of Processors	One
Memory	16 GB (1x16 GB UDIMM, 4800 MT/s)
Network Controller	HPE embedded 1GB 4-port BCM5719 Network Adapter
Storage Controller	Embedded Intel® VROC SATA Hybrid RAID **Notes:** SATA only
Included Hard Drives	None ship standard, 2 LFF supported
Internal Storage	2 LFF HDD Bays (Non-Hot Plug)
Optical Drive	Optional: DVD-ROM, DVD-RW
Expansion Slots	1x PCIe 5.0 slot, 1 Internal OCP Storage Controller slot, 1 External OCP 3.0 Network Controller slot
Power Supply	1x HPE DL20 Gen10 290W Platinum Power Supply Kit
Fans	3x high performance non-hot plug and non-redundant fans
Management	iLO Management (standard), Intelligent Provisioning (standard) iLO Advanced (optional)
Rail Kit	HPE Easy Install Rail 12 Kit
Security	TPM disabled for shipments to China

Pre-configured Models

Form Factor	1U Rack
Warranty	Server warranty includes 3-year parts, 3-year labor, 3-year onsite support with next business day response.

Pre-configured Models

Entry Models	
SKU Number	P65393-AA1
Model Name	HPE ProLiant DL20 Gen11 E-2414 2.6GHz 4-core 1P 16GB-U 2LFF-NHP 290W PS Server
Chassis	HPE ProLiant DL20 Gen11 2LFF Non-hot Plug Configure-to-order Server
Processor	E-2414 (4 core, 2.6 GHz, 55W)
Number of Processors	One
Memory	16 GB (1x16 GB UDIMM, 4800 MT/s)
Network Controller	HPE embedded 1GB 4-port BCM5719 Network Adapter
Storage Controller	Embedded Intel® VROC SATA Hybrid RAID **Notes:** SATA only
Included Hard Drives	None ship standard, 2 LFF supported
Internal Storage	2 LFF HDD Bays (Non-Hot Plug)
Optical Drive	Optional: DVD-ROM, DVD-RW
Expansion Slots	1x PCIe 5.0 slot, 1 Internal OCP Storage Controller slot, 1 External OCP 3.0 Network Controller slot
Power Supply	1x HPE DL20 Gen10 290W Platinum Power Supply Kit
Fans	3x high performance non-hot plug and non-redundant fans
Management	iLO Management (standard), Intelligent Provisioning (standard) iLO Advanced (optional)
Rail Kit	HPE Easy Install Rail 12 Kit
Security	TPM disabled for shipments to China
Form Factor	1U Rack
Warranty	Server warranty includes 3-year parts, 3-year labor, 3-year onsite support with next business day response.

Country Code Key

- -B21 = Worldwide.
- -291 = Japan.
- -421 = Europe, the Middle East and Africa.
- -AA1 = China.

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.
- System maximum memory capacity – up to 64 GB via field upgrade (4 x 16 GB)

Configuration Information

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)

Chassis	HPE ProLiant DL20 Gen11 2LFF NHP CTO Server	HPE ProLiant DL20 Gen11 2LFF Hot Plug CTO Server	HPE ProLiant DL20 Gen11 4SFF Hot Plug CTO Server
SKU Number	P65390-B21	P65391-B21	P65392-B21
Processor	1	1	1
DIMM Slots	4 DIMM slots for UDIMM DDR5 Memory		
Storage Controller	Embedded Intel® VROC SATA Hybrid RAID		
PCIe	1 PCIe 5.0 slot, 1 Internal OCP Storage Controller slot, 1 External OCP 3.0 Network Controller slot		
Drive Cage	2LFF Non-Hot Plug	2LFF Hot Plug	4SFF Hot Plug
Network Controller	HPE embedded 1Gb 4-port BCM5719 network Adapter		
Fans	3 performance single rotor non-hot plug and non-redundant fans		
Management	iLO Management (standard), Intelligent Provisioning (standard)		
USB	8 standard: 2 front (1 optional for iLO Management only), 4 rear, 2 internal		
Ears	HPE Thumbscrew Ears		

Step 2: Choose Required Options

Please select one processor required below.

Notes:

- Only one processor is supported.
- DDR5 speed is the maximum memory speed of the processor. Actual memory speed may depend on the quantity and type of DIMMs installed.
- DL20 Gen11 with new Intel® Xeon® 6300 and E-2400 processors comes with BCM 5719 quad port 4Gb network controller on board and supports 4x 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® 6300 Processors

Intel Xeon 6377P 3.1GHz 12-core 95W FIO Processor for HPE	P93292-B21
Intel Xeon 6369P 3.3GHz 8-core 95W FIO Processor for HPE	P77162-B21
Intel Xeon 6357P 3.0GHz 8-core 80W FIO Processor for HPE	P77163-B21
Intel Xeon 6353P 2.7GHz 8-core 65W FIO Processor for HPE	P77164-B21
Intel Xeon 6349P 3.6GHz 6-core 95W FIO Processor for HPE	P77165-B21

Configuration Information

Intel Xeon 6337P 3.5GHz 6-core 80W FIO Processor for HPE	P77166-B21
Intel Xeon 6333P 3.1GHz 6-core 65W FIO Processor for HPE	P77167-B21
Intel Xeon 6325P 3.5GHz 4-core 55W FIO Processor for HPE	P77168-B21
Intel Xeon 6315P 2.8GHz 4-core 55W FIO Processor for HPE	P77169-B21

Intel® Pentium® Processor G Series

Intel Pentium G7400 3.7GHz 2-core 46W FIO Processor for HPE	P65226-B21

Notes: Pentium G7400 does not comply with ENERGY STAR® 4.0.

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, two slots per channel. Each channel can be populated with one DIMM (1DPC) or two DIMMs (2DPC).
- The quantity of memory DIMMs selected is recommended to be 1, 2 or 4 for balanced performance.
- Symmetric configurations are required within each channel (e.g., 1R/1R, 2R/2R), meaning the same DIMM capacity (16GB or 32GB) is required when populating within each channel.
- The maximum memory speed is a function of the memory type, memory configuration, and processor model.
- The maximum speed capability of the memory system is governed by the combination of the CPU and any other DIMMs installed in the server. If higher speed DIMMs are installed with a CPU that only supports a lower memory speed, the DIMMs will only run at the (lower) memory speed supported by the processor. Likewise, if memory DIMMs are mixed with slower DIMMs within a server, all DIMMs will run at the slower memory speed. For further information please refer to the Memory Population Rules for your specific server.
- For Server Memory Population Rules for HPE ProLiant Gen11 Servers with Intel® Xeon® 6300 and E-2400 Processors see details here: https://www.hpe.com/docs/server-memory.

Unbuffered DIMMs (ECC UDIMMs)

HPE 16GB (1x16GB) Single Rank x8 DDR5-4800 CAS-40-39-39 Unbuffered Standard FIO Memory Kit	P64336-F21
HPE 16GB (1x16GB) Single Rank x8 DDR5-4800 CAS-40-39-39 Unbuffered Standard Memory Kit	P64336-B21
HPE 32GB (1x32GB) Dual Rank x8 DDR5-4800 CAS-40-39-39 Unbuffered Standard FIO Memory Kit	P64339-F21
HPE 32GB (1x32GB) Dual Rank x8 DDR5-4800 CAS-40-39-39 Unbuffered Standard Memory Kit	P64339-B21

Notes:

- The -B21 memory SKUs shown in this document are to be used when ordering stand-alone memory only. For each -B21 SKU, there is a corresponding -F21 SKU which is to be used when configuring servers with integrated memory DIMMs.
- Running at up to 4400 MT/s with Intel® Xeon® processors when two dual-rank DIMMs are installed in different channels.
- HPE Server Memory compatibility for a specific server platform may vary or be limited within a server platform depending upon the specific configuration being requested. Because each server environment and requirements can vary, memory compatibility is based not only upon the server family but may also be affected by the amount and type of additional hardware options installed within a specific server configuration.
  For this reason, some HPE memory DIMMs may be qualified for an HPE server model or family and yet occasionally not be supported with some configurations within that server family.

Configuration Information

Step 2c: Choose Power Supplies

Please select one or two power supplies from below.

Notes:

- Mixing of two different power supplies is NOT allowed.
- Selection of two HPE Flex Slot power supplies provide 1+1 power redundancy.
- 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 ProLiant DL20 Gen10 Plus 290W FIO Power Supply Kit	P45476-B21
(94% efficiency, Platinum)	
HPE DL20 Gen11 290W ATX FIO PS Kit	P65409-B21

Notes:

- These ATX FIO options can only be bought integrated in the server. It cannot be ordered as a standalone option after server purchase.
- It is mandatory to choose the ATX enablement kit to support a non-redundant power supply.
- The 290W Platinum power supplies, 800W and 1000W Power Supplies all meet the EU Lot 9 regulation, which is essential in countries which mandatorily require CE marking, effective. 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 Titanium Hot Plug Low Halogen Power Supply Kit	865438-B21
HPE 1000W Flex Slot Titanium Hot Plug Power Supply Kit	P03178-B21

Notes: If a second power supply is ordered for redundancy, its part number must be the same as the first power supply. Mixing of power supplies is not supported.

Step 3: Choose Additional Options for Factory Integration from Core and Additional Option sections below

HPE Security Options

HPE Server Security Optimized Service for HPE ProLiant (R9S59A) is an optional security upgrade intended for agencies and regulated industries with enhanced security and compliance needs. Applying this option to a DL3XX Gen10/Gen10 Plus CTO server ensures it is hardened by turning on advanced safeguards in place against cyber-exploits throughout the server lifecycle. An iLO Advanced License required for High Security Mode and compatible intrusion detection device option kits are prerequisites for the full optimization service.

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 Security

HPE ProLiant DL20 Gen11 ships with embedded Trusted Platform Module (TPM) 2.0 enabled by default. For servers shipping to China, the TPM is disabled.

Risers

HPE ProLiant DL320 Gen11 x16 FHHL Riser Kit P52753-B21

Notes: Mandatory to select at least one riser.

Part number	Description	Slot Bus width (Gen5 lanes)	
		#1	#2
P52753-B21	HPE DL320 Gen11 x16 FHHL Riser Kit	X16	X8

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 ProLiant DL20 Gen11 4SFF ODD Direct Attach Enablement Kit P65417-B21

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

HPE ProLiant DL20 Gen11 4SFF ODD Controller Enablement Kit P65418-B21

Notes: This option kit can only be selected if internal controller is selected.

HPE ProLiant DL20 Gen11 2LFF ODD Enablement Kit P71917-B21

SFF Drive Option Kit

HPE ProLiant DL20 Gen11 2SFF HDD Enablement Kit P65406-B21

Notes:

- This option is required to upgrade the 4SFF chassis to support additional 2SFF drives.
- 2SFF HDD enable kit and optical drives cannot be selected together.

Enablement and Cable Kits

HPE ProLiant DL20 Gen11 LP Serial Port/iLO/M.2 Enablement Kit P65407-B21

Notes: This option is required to support M.2 SSD drives and/or to enable the optional iLO port. The network port on this option is required if a dedicated iLO management port is required. By default, iLO operates in shared mode with management and production data on the embedded network port 1.

HPE ProLiant DL20 Gen11 External OCP Cable Kit P65411-B21

Notes: This option required to support OCP Networking adaptors.

HPE ProLiant DL20 Gen11 2LFF/4SFF OCP Cable Kit P65412-B21

Notes: This option required to support OROC controllers and is not supported on the 2LFF NHP server model.

HPE ProLiant DL20 Gen11 2LFF/4SFF PCIe Cable Kit P65413-B21

Notes: This option required to support PCIe controllers and is not supported on the 2LFF NHP server model.

HPE ProLiant DL20 Gen11 2SFF PCIe Cable Kit P65414-B21

Notes: This cable is required to support PCIe controller (MR216i-p) with 2SFF drive cage on 4SFF CTO server. Not supported on 2LFF HP and 2LFF NHP server.

HPE ProLiant DL20 Gen11 2SFF OCP Cable Kit P65415-B21

Notes: This cable is required to support OROC controller (MR216i-o) with 2SFF drive cage on 4SFF CTO server. Not supported on 2LFF HP and 2LFF NHP server.

HPE ProLiant DL20 Gen11 4SFF/2SFF x1 OCP Cable Kit P65416-B21

Notes: This cable kit is required to support select OROC controllers with 4SFF CTO server and 2SFF HDD enable kit. It is not allowed with other select controllers.

HPE Hard Disk Drives

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

Mission Critical (Enterprise) - 12G SAS - SFF Basic Carrier Drives

HPE 2.4TB SAS 12G Mission Critical 10K SFF BC 3yr Wty 512e FIPS 140-2 TAA-compliant HDD P28618-B21

HPE 2.4TB SAS 12G Mission Critical 10K SFF BC 3-year Warranty 512e Multi Vendor HDD P28352-B21

HPE 1.8TB SAS 12G Mission Critical 10K SFF BC 3-year Warranty 512e Multi Vendor HDD P53562-B21

HPE 1.2TB SAS 12G Mission Critical 10K SFF BC 3yr Wty FIPS 140-2 TAA-compliant HDD P28622-B21

HPE 1.2TB SAS 12G Mission Critical 10K SFF BC 3-year Warranty Multi Vendor HDD P28586-B21

HPE 600GB SAS 12G Mission Critical 10K SFF BC 3-year Warranty Multi Vendor HDD P53561-B21

HPE 300GB SAS 12G Mission Critical 10K SFF BC 3-year Warranty Multi Vendor HDD P40430-B21

Core Options

Business Critical (Midline) – 12G SAS – LFF Low Profile Carrier Drives	
HPE 20TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e ISE Multi Vendor HDD	P53553-B21
HPE 16TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e ISE Multi Vendor HDD	P23608-B21
HPE 12TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e Multi Vendor HDD	881781-B21
HPE 8TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty 512e Multi Vendor HDD	834031-B21
HPE 4TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Multi Vendor HDD	833928-B21
Business Critical (Midline) - 6G SATA - LFF Low Profile Carrier Drives	
HPE 20TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e ISE Multi Vendor HDD	P53554-B21
HPE 16TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e ISE Multi Vendor HDD	P23449-B21
HPE 12TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e Multi Vendor HDD	881787-B21
HPE 8TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty 512e Multi Vendor HDD	834028-B21
HPE 4TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Multi Vendor HDD	861683-B21
HPE 2TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Multi Vendor HDD	861681-B21
HPE 1TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Multi Vendor HDD	861686-B21
Business Critical (Entry) 6G SATA - LFF NHP/Raw Drives	
HPE 4TB SATA 6G Business Critical 7.2K LFF RW 1-year Warranty Multi Vendor HDD	801888-B21
HPE 1TB SATA 6G Business Critical 7.2K LFF RW 1-year Warranty Multi Vendor HDD	801882-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.

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

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

Mixed Use - 24G SAS - SFF Basic Carrier - Solid State Drives	
HPE 6.4TB SAS 24G Mixed Use SFF BC Multi Vendor SSD	P49057-B21
HPE 3.2TB SAS 24G Mixed Use SFF BC Multi Vendor SSD	P49053-B21
HPE 1.6TB SAS 24G Mixed Use SFF BC Multi Vendor SSD	P49049-B21
HPE 800GB SAS 24G Mixed Use SFF BC Multi Vendor SSD	P49047-B21

Notes: DL20 Gen11 2LFF HP and 2LFF NHP and 4SFF HP models support up to SAS 12G; performance downgrade to 12G is expected once SAS 24G drive is installed in DL20 Gen11 2LFF HP and 2LFF NHP and 4SFF HP models. DL20 Gen11 4SFF + 2SFF HP model can support up to SAS 24G with no performance downgrade on the 2SFF HP drive cage optional drive cage.

Mixed Use - 12G SAS - SFF Basic Carrier - Solid State Drives	
HPE 3.84TB SAS 12G Mixed Use SFF BC Value SAS Multi Vendor SSD	P40512-B21
HPE 1.92TB SAS 12G Mixed Use SFF BC Value SAS Multi Vendor SSD	P40511-B21
HPE 1.6TB SAS Mixed Use SFF BC Self-encrypting FIPS 140-3 PM7 SSD	P83344-B21
HPE 960GB SAS 12G Mixed Use SFF BC Value SAS Multi Vendor SSD	P40510-B21

Core Options

Read Intensive – 24G SAS – SFF Basic Carrier – Solid State Drives	
HPE 15.36TB SAS 24G Read Intensive SFF BC Multi Vendor SSD	P49045-B21
HPE 7.68TB SAS Read Intensive SFF BC Self-encrypting FIPS 140-3 PM7 SSD	P83350-B21
HPE 7.68TB SAS 24G Read Intensive SFF BC Multi Vendor SSD	P49041-B21
HPE 3.84TB SAS Read Intensive SFF BC Self-encrypting FIPS 140-3 PM7 SSD	P83347-B21
HPE 3.84TB SAS 24G Read Intensive SFF BC Multi Vendor SSD	P49035-B21
HPE 1.92TB SAS 24G Read Intensive SFF BC Multi Vendor SSD	P49031-B21
HPE 960GB SAS 24G Read Intensive SFF BC Multi Vendor SSD	P49029-B21

Notes: DL20 Gen11 supports up to SAS 12G, performance downgrade to 12G is expected once SAS 24G drive is installed in DL20 Gen11 system.

Read Intensive – 12G SAS – SFF Basic Carrier – Solid State Drives	
HPE 7.68TB SAS 12G Read Intensive SFF BC Value SAS Multi Vendor SSD	P40509-B21
HPE 3.84TB SAS Read Intensive SFF BC Self-encrypting FIPS 140-3 PM7 SSD	P83347-B21
HPE 3.84TB SAS 12G Read Intensive SFF BC Value SAS Multi Vendor SSD	P40508-B21
HPE 1.92TB SAS 12G Read Intensive SFF BC Value SAS Multi Vendor SSD	P40507-B21
HPE 960GB SAS 12G Read Intensive SFF BC Value SAS Multi Vendor SSD	P40506-B21
Mixed Use – 6G SATA - SFF Basic Carrier - Solid State Drives	
HPE 3.84TB SATA 6G Mixed Use SFF BC Multi Vendor SSD	P40505-B21
HPE 1.92TB SATA 6G Mixed Use SFF BC Multi Vendor SSD	P40504-B21
HPE 960GB SATA 6G Mixed Use SFF BC Self-encrypting 5400M SSD	P58244-B21
HPE 960GB SATA 6G Mixed Use SFF BC Multi Vendor SSD	P40503-B21
HPE 480GB SATA 6G Mixed Use SFF BC Multi Vendor SSD	P40502-B21
Read Intensive – 6G SATA – LFF Low Profile Carrier – Solid State Drive	
HPE 960GB SATA 6G Read Intensive LFF LPC Multi Vendor SSD	P47808-B21
Read Intensive – 6G SATA – SFF Basic Carrier – Solid State Drive	
HPE 7.68TB SATA 6G Read Intensive SFF BC Multi Vendor SSD	P40501-B21
HPE 3.84TB SATA 6G Read Intensive SFF BC Multi Vendor SSD	P40500-B21
HPE 1.92TB SATA 6G Read Intensive SFF BC Multi Vendor SSD	P40499-B21
HPE 960GB SATA 6G Read Intensive SFF BC Multi Vendor SSD	P40498-B21
HPE 480GB SATA 6G Read Intensive SFF BC Self-encrypting 5400P SSD	P58236-B21
HPE 480GB SATA 6G Read Intensive SFF BC Multi Vendor SSD	P40497-B21
Mixed Use – High Performance - NVMe - SFF - Solid State Drives	
HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 Static PM1755 SSD	P78804-B21
HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 Self-encrypting FIPS 140-3 CM7 SSD	P61059-B21
HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PM1735a SSD	P50233-B21
HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PS1030 SSD	P70428-B21
HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 Static PM1755 SSD	P78801-B21
HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 Self-encrypting FIPS 140-3 CM7 SSD	P61051-B21
HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PM1735a SSD	P50230-B21
HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PS1030 SSD	P70426-B21
HPE 1.6TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 Multi Vendor SSD	P91237-B21
HPE 1.6TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 Self-encrypting FIPS 140-3 CM7 SSD	P61043-B21

Core Options

HPE 1.6TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PM1735a SSD	P50227-B21
Mixed Use – Mainstream - NVMe - SFF - Solid State Drives	
HPE 6.4TB NVMe Gen4 Mainstream Performance Mixed Use SFF BC U.3 PQC27 CD9P SSD	P92313-B21
HPE 6.4TB NVMe Gen4 Mainstream Performance Mixed Use SFF BC U.3 Static V2 Multi Vendor SSD	P65023-B21
HPE 3.2TB NVMe Gen4 Mainstream Performance Mixed Use SFF BC U.3 PQC27 CD9P SSD	P92311-B21
HPE 3.2TB NVMe Gen4 Mainstream Performance Mixed Use SFF BC U.3 Static V2 Multi Vendor SSD	P65015-B21
HPE 1.6TB NVMe Gen4 Mainstream Performance Mixed Use SFF BC U.3 PQC27 CD9P SSD	P92309-B21
HPE 1.6TB NVMe Gen4 Mainstream Performance Mixed Use SFF BC U.3 Static V2 Multi Vendor SSD	P65007-B21
HPE 800GB NVMe Gen4 Mainstream Performance Mixed Use SFF BC U.3 Static V2 Multi Vendor SSD	P64999-B21
Read Intensive – High Performance - NVMe - SFF - Solid State Drives	
HPE 15.36TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 Multi Vendor SSD	P91249-B21
HPE 15.36TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 Static PM1753 SSD	P78810-B21
HPE 15.36TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PS1010 SSD	P70436-B21
HPE 7.68TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 Multi Vendor SSD	P91247-B21
HPE 7.68TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 Static PM1753 SSD	P78808-B21
HPE 7.68TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 Self-encrypting FIPS 140-3 CM7 SSD	P61035-B21
HPE 7.68TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PS1010 SSD	P70434-B21
HPE 3.84TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 Multi Vendor SSD	P91245-B21
HPE 3.84TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 Static PM1753 SSD	P78806-B21
HPE 3.84TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 Self-encrypting FIPS 140-3 CM7 SSD	P61027-B21
HPE 1.92TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 Multi Vendor SSD	P91243-B21
HPE 1.92TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 Self-encrypting FIPS 140-3 CM7 SSD	P61019-B21
HPE 1.92TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PM1733a SSD	P50216-B21
Read Intensive – Mainstream - NVMe - SFF - Solid State Drives	
HPE 30.72TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 PQC27 CD9P SSD	P88533-B21
HPE 15.36TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 PQC27 CD9P SSD	P92321-B21
HPE 15.36TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 SPDM 7500b SSD	P84239-B21
HPE 15.36TB NVMe Gen4 Mainstream Performance Read Intensive BC U.3 Static V2 SPDM Multi Vendor SSD	P84236-B21
HPE 7.68TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 PQC27 CD9P SSD	P92319-B21
HPE 7.68TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 SPDM 7500 SSD	P84242-B21
HPE 7.68TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 SPDM 7500 SSD	P84242-B21
HPE 7.68TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 Static V2 Multi Vendor SSD	P64848-B21
HPE 3.84TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 PQC27 CD9P SSD	P92317-B21
HPE 3.84TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 Static V2 Multi Vendor SSD	P64846-B21
HPE 1.92TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 PQC27 CD9P SSD	P92315-B21
HPE 1.92TB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 Static V2 Multi Vendor SSD	P64844-B21
HPE 960GB NVMe Gen4 Mainstream Performance Read Intensive SFF BC U.3 Static V2 Multi Vendor SSD	P64842-B21

Core Options

Notes:

- Maximum of two NVMe U.3 is allowed per configuration.
- NVMe U.3 drives can be selected only if P65406-B21 – HPE ProLiant DL20 Gen11 2SFF HDD Enablement Kit is selected.
- NVMe U.3 drives should be restricted to <25°C/77°F ambient temperature environments only. Fan speed results of these drives in ambient temperature environment more than suggested levels may result in acoustic noise levels unsuitable for any environments outside of Data Center environments.

Core Options

Read Intensive - NVMe - M.2 - Solid State Drives

HPE 1.92TB NVMe Gen4 Mainstream Performance Read Intensive M.2 2280 PE9010 SSD	P80324-B21
HPE 960GB NVMe Gen4 Mainstream Performance Read Intensive M.2 2280 Self-encrypting PE9010 SSD	P80327-B21
HPE 960GB NVMe Gen4 Mainstream Performance Read Intensive M.2 2280 PE9010 SSD	P80321-B21
HPE 480GB NVMe Gen4 Mainstream Performance Read Intensive M.2 2280 PE9010 SSD	P80318-B21

Notes:

- Selection of P65407-B21 - HPE ProLiant DL20 Gen11 Serial Port iLO/M.2 Cable Kit is required to support M.2 SSD Drives.
- M.2s are not supported by HPE Smart Array controllers.
- It is suggested to operate M.2 SSDs at an ambient temperature of 25°C/77°F ambient temperature. At an ambient temperature of 35°C/95°F or higher there may be increased acoustic concern that will need to be taken into consideration.

Hard Drive Blank Kits

HPE Gen9 LFF HDD Spade Blank Kit	807878-B21
HPE Small Form Factor Hard Drive Blank Kit	666987-B21

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

HPE Networking

PCIe Adaptors

25 Gigabit Ethernet adapters

Broadcom BCM57414 Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	P26262-B21
Broadcom BCM57504 Ethernet 10/25Gb 4-port SFP28 Adapter for HPE	P26264-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 MCX631102AS-ADAT Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	P42044-B21

10 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

1 Gigabit Ethernet adapters

Broadcom BCM5719 Ethernet 1Gb 4-port BASE-T Adapter for HPE	P51178-B21

Notes: Max of 1 PCIe Adaptor can be selected.

HPE Computation and Graphics Accelerators

NVIDIA RTX A400 4GB PCIe ATX Bracket Accelerator for HPE	S7K99C

Notes: If RTX A400 GPU is installed, iLO video port is disabled so use the iLO Web GUI.

NVIDIA RTX A1000 8GB PCIe Accelerator for HPE	S5T74C

Notes: If RTX A1000 GPU is installed, iLO video port is disabled so use the iLO Web GUI.

OCP Adaptors

25 Gigabit Ethernet adapters

Intel E810-XXVDA2 Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE	P10106-B21
Broadcom BCM57414 Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE	P10115-B21
Broadcom BCM57504 Ethernet 10/25Gb 4-port SFP28 OCP3 Adapter for HPE	P26269-B21
Mellanox MCX631432AS-ADAI Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE	P42041-B21

10 Gigabit Ethernet adapters

Broadcom BCM57416 Ethernet 10Gb 2-port BASE-T OCP3 Adapter for HPE	P10097-B21
Broadcom BCM57412 Ethernet 10Gb 2-port SFP+ OCP3 Adapter for HPE	P26256-B21

1 Gigabit Ethernet adapters

Broadcom BCM5719 Ethernet 1Gb 4-port BASE-T OCP3 Adapter for HPE	P51181-B21

Notes: Max of 1 OCP Networking Adaptor can be selected.

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 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 AKA Tracking License with 3yr Support on iLO Licensed Features	BD507A
HPE iLO Advanced Electronic License with 1yr Support on iLO Licensed Features	E6U59ABE
HPE iLO Advanced Electronic License with 3yr Support on iLO Licensed Features	E6U64ABE

HPE Converged Infrastructure Management Software

HPE OneView Advanced (with HPE iLO Advanced)

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 FIO LTU	P8B31A
HPE OneView w/o iLO including 3yr 24x7 Support Flexible Quantity E-LTU	P8B26AAE

Notes:

- Licenses ship without media. The HPE OneView Media Kit can be ordered separately or can be downloaded at: https://www.hpe.com/us/en/integrated-systems/software.html.
- Electronic and Flexible-Quantity licenses can be used to purchase multiple licenses with a single activation key.
- Licenses ship without media. The HPE OneView Media Kit can be ordered separately, or can be downloaded at: https://www.hpe.com/us/en/integrated-systems/software.html

Software as a Service Management

HPE Compute Ops Management

HPE Compute Ops Management Standard 3-year SaaS for Smart Choice	S7P76AAE
HPE Compute Ops Management Standard 5-year SaaS for Smart Choice	S7P77AAE
HPE Compute Ops Management Standard 7-year SaaS for Smart Choice	S7P78AAE
HPE Compute Ops Management Advanced 3-year SaaS for Smart Choice	S7P79AAE
HPE Compute Ops Management Advanced 5-year SaaS for Smart Choice	S7P80AAE
HPE Compute Ops Management Advanced 7-year SaaS for Smart Choice	S7P81AAE
HPE Compute Ops Management Advanced Flex with ProLiant Enablement	S6C28AAE
HPE Compute Ops Management Standard 3-year Upfront ProLiant SaaS	R7A11AAE
HPE Compute Ops Management Standard 5-year Upfront ProLiant SaaS	R7A12AAE
HPE Compute Cloud Management Server FIO Enablement	S1A05A
HPE Compute Ops Management Standard with ProLiant Enablement	S2R34AAE
HPE Compute Ops Management Advanced 1-year Upfront ProLiant SaaS	S5E58AAE
HPE Compute Ops Management Advanced 3-year Upfront ProLiant SaaS	S5E59AAE

Additional Options

HPE Compute Ops Management Advanced 5-year Upfront ProLiant SaaS	S5E60AAE
HPE Compute Ops Management Advanced 7-year Upfront ProLiant SaaS	S5E61AAE
HPE Compute Ops Management Standard 7-year Upfront ProLiant SaaS	S2E10AAE

Notes: For more information, visit the HPE Compute Ops Management QuickSpecs: https://www.hpe.com/psnow/doc/a50004263enw

HPE Security

HPE Bezel Lock Kit	875519-B21
HPE ProLiant DL3XX Gen11 Intrusion Cable Kit	P48922-B21
HPE ProLiant Gen11 1U Common Bezel Kit	P50450-B21

Notes: 875519-B21 – HPE Bezel Lock Kit requires the selection of the P50450-B21 - HPE ProLiant Gen11 1U Common Bezel Kit

HPE Storage Controllers

The Gen11 storage controller portfolio has been updated to include new technology like OCP3.0 as well as PCIe adapters. For a more detailed breakout of the available Gen11 controllers visit the storage controllers QuickSpecs site:

HPE Essential RAID Controllers

HPE Smart Array E208e-p SR Gen10 (8 External Lanes/No Cache) 12G SAS PCIe Plug-in Controller	804398-B21

Notes: To be used for external storage only.

HPE Tri-Mode Controllers

HPE MR408i-o Gen11 x8 Lanes 4GB Cache OCP SPDM Storage Controller	P58335-B21
HPE MR216i-p Gen11 x16 Lanes without Cache PCI SPDM Plug-in Storage Controller	P47785-B21
HPE MR216i-o Gen11 x16 Lanes without Cache OCP SPDM Storage Controller	P47789-B21

Notes: Tri-Mode controllers are not supported on the 2LFF NHP Model Server.

Storage Battery

HPE 96W Smart Storage Lithium-ion Battery with 145mm Cable Kit	P01366-B21

Notes:

- Provides backup power for multiple HPE storage controllers or other devices.
- Max storage battery qty to be one per DL20 Gen11 server.

HPE OS Boot Device

HPE NS204i-u Gen11 NVMe Hot Plug Boot Optimized Storage Device	P48183-B21
HPE ProLiant DL20 Gen11 NS204i-u Hot Plug Boot Optimized Storage Device Cable Kit	P65410-B21

Notes:

- The N204i-u Boot device includes 2x 480GB M.2 NVMe SSDs, with preconfigured hardware RAID1. For additional information, refer to the HPE OS Boot Device QuickSpecs.
- Selection of the HPE NS204i-u Gen11 NVMe Hot Plug Boot Optimized Storage Device requires selection of the HPE ProLiant DL20 Gen11 NS204i-u Hot Plug Boot Optimized Storage Device Cable Kit. Both the device and the enablement kit are required to be selected together.
- It is suggested to operate the N204i-u Boot device at an ambient temperature of 25°C/77°F ambient temperature. At an ambient temperature of 35°C/95°F or higher there will be increased acoustic levels that will need to be taken into consideration.

HPE Rack Options

Rail Kits

Notes: HPE rail kits are designed to work with HPE racks in compliance with industry standard EIA-310-E. In the event a customer elects to purchase a third-party rack for use with an HPE rail kit, any such use is at customer's own risk. HPE makes no express or implied warranties with respect to such third-party racks and specifically disclaims any implied warranties of merchantability and fitness for a particular purpose. Furthermore, HPE has no obligation and assumes no liability for the materials, design, specifications, installation, safety, and compatibility of any such third-party racks with any rail kits, including HPE rail kits.

HPE Easy Install Rail 12 Kit P64576-B21

HPE Racks

- Refer to the HPE Advanced Series Racks QuickSpecs for information on additional racks options and rack specifications. HPE G2 Advanced Series Racks
- Refer to the HPE Enterprise Series Racks QuickSpecs for information on additional racks options and rack specifications. HPE G2 Enterprise Series Racks

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HPE Power Distribution Units (PDUs)

- Refer to the HPE Basic Power Distribution Units (PDU) QuickSpecs for information on these products and their specifications.
- Refer to the HPE Metered Power Distribution Units (PDU) QuickSpecs for information on these products and their specifications.
- Refer to the HPE Intelligent Power Distribution Unit (PDU) QuickSpecs for information on these products and their specifications.
- Refer to 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.
- Refer to the HPE DirectFlow Three Phase Uninterruptible Power System QuickSpecs for information on these products and their specifications.
- Refer to the HPE Line Interactive Single Phase UPS QuickSpecs for information on these products and their specifications.

Additional Options

HPE Support Services

Installation and Start-up Services

HPE ProLiant DL/ML Install Service	U4554E
HPE Proliant DL/ML Ons Startup Service	U4555E

Tech Care Services

HPE 5 Year Tech Care Essential DL20 Gen11 HW Service	H42PQE
HPE 5 Year Tech Care Essential wDMR DL20 Gen11 HW Service	H42PRE
HPE 3 Year Tech Care Essential DL20 Gen11 HW Service	H42NKE
HPE 3 Year Tech Care Essential wDMR DL20 Gen11 HW Service	H42NLE
HPE 3 Year Tech Care Basic DL20 Gen11 HW Service	H42NCE
HPE 3 Year Tech Care Basic wDMR DL20 Gen11 HW Service	H42NDE

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

HPE Standard Memory

HPE Standard Memory offers the best combination of pricing, quality, reliability and compatibility for HPE ProLiant servers; designed to help your business achieve powerful results with right-sized affordable solutions. It delivers the ideal value that small businesses require to smoothly run a small network server environment and provides entry-level businesses with affordable server memory that has been optimized for HPE entry-level servers. HPE Standard Memory is outstanding for businesses looking for memory with a low acquisition cost, exceptional performance, optimized compatibility, assured reliability, and comprehensive management.

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 DDR5 UDIMMs operating at up to 4400 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 Gen11 Server.

General Memory Population Rules and Guidelines:

- Only UDIMMs are supported on DL20 Gen11. No support for RDIMMs and LRDIMMs.
- All the channels in a system run at the fastest common frequency.

DIMM Type	Unbuffered with ECC DIMMs (UDIMMs)	
HPE SKU P/N	P64336-B21	P64339-B21
SKU Description	HPE 16GB (1x16GB) Single Rank x8 DDR5-4800 CAS-40-39-39 Unbuffered Standard Memory Kit	HPE 32GB (1x32GB) Dual Rank x8 DDR5-4800 CAS-40-39-39 Unbuffered Standard Memory Kit
DIMM Rank	Single Rank (1R)	Dual Rank (2R)
DIMM Capacity	16GB	32GB
Voltage	Standard Voltage 1.1V VDDQ, 1.8V VPP	Standard Voltage 1.1V VDDQ, 1.8V VPP
CAS Latency	36-36-36	36-36-36
DIMM Native Speed (MT/S)	5600 MT/s	5600 MT/s
Slots That Can Be Populated	4	4
Maximum Capacity (Gb)	64 GB (4 x 16 GB)	128 GB (4 x 32 GB)
HPE Server Memory Speed: Intel® Xeon® 6300 and Intel® Xeon® E processors		
1 DIMM Per Channel	4400 MT/s	4400 MT/s
2 DIMM Per Channel	4000 MT/s	3600 MT/s
HPE Server Memory Speed: Intel® Pentium® G7400 processor		
1 DIMM Per Channel	4400 MT/s	4400 MT/s
2 DIMM Per Channel	4000 MT/s	3600 MT/s

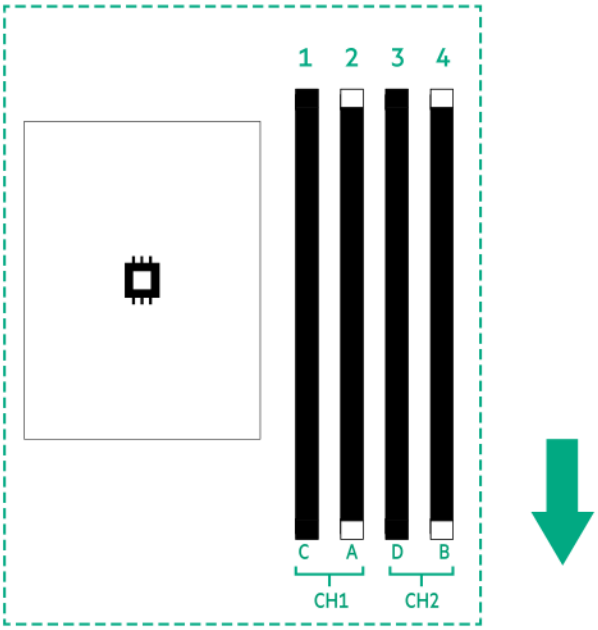
DDR5 memory options part number decoder

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

- 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 DDR5 Standard Memory web site.

DIMM slot and configuration diagram



UDIMM maximum configuration (1 CPU model)

Population order; start with "A" first, "B" second, "C" third, etc.

CPU 1		
	Slot #	**Population order**
Channel 2	4	B
	3	D
Channel 1	2	A
	1	C

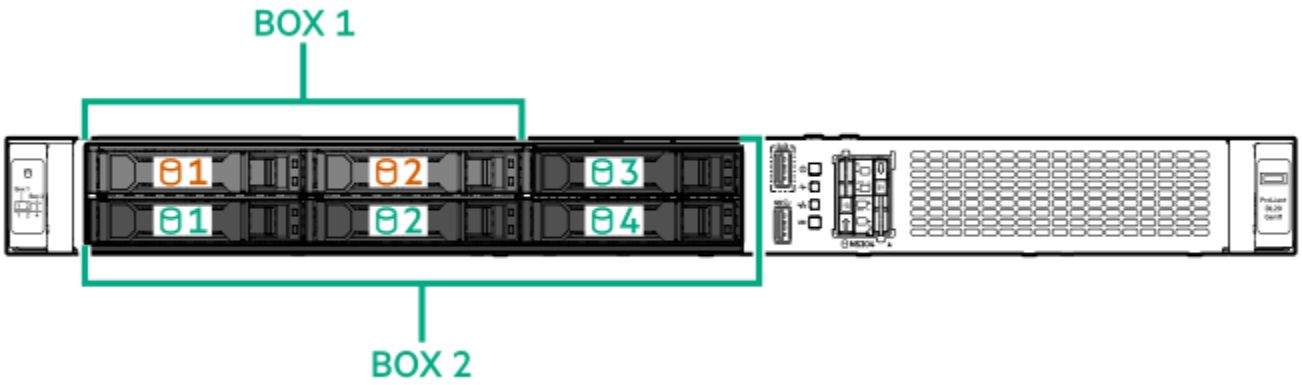
General Memory Population Rules and Guidelines

- 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.
- The maximum speed capability of the memory system is governed by the combination of the CPU and any other DIMMs installed in the server. If higher speed DIMMs are installed with a CPU that only supports a lower memory speed, the DIMMs will only run at the (lower) memory speed supported by the processor. Likewise, if memory DIMMs are mixed with slower DIMMs within a server, all DIMMs will run at the slower memory speed. For further information please refer to the Memory Population Rules for your specific server.
- Only ECC UDIMMs are supported on DL20 Gen11. 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 4400 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.
- Cannot mix memory DIMMs of different capacities in the same channel.
- Mixing memory DIMMs of different capacities in the server is not recommended.
- For Server Memory Population Rules for HPE ProLiant Servers with Intel® Xeon® 6300 and E-2400 Processors see details here: www.hpe.com/docs/server-memory
- For details on the HPE Server Memory Options Population Rules, visit: http://www.hpe.com/docs/memory-population-rules
- To realize the performance memory capabilities listed in this document, HPE DDR5 Smart Memory is required. For additional information, refer to the HPE DDR5 Smart Memory QuickSpecs.

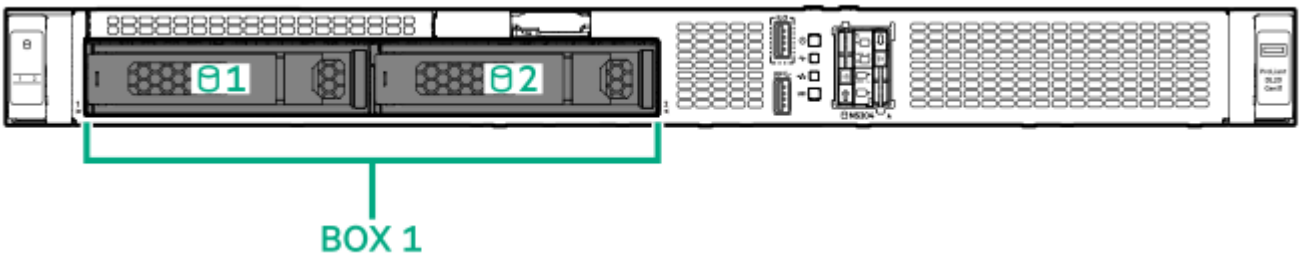
Notes:

- 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/server-memory
- HPE Server Memory compatibility for a specific server platform may vary or be limited within a server platform depending upon the specific configuration being requested. Because each server environment and requirements can vary, memory compatibility is based not only upon the server family but may also be affected by the amount and type of additional hardware options installed within a specific server configuration. For this reason, some HPE memory DIMMs may be qualified for an HPE server model or family and yet occasionally not be supported with some configurations within that server family.

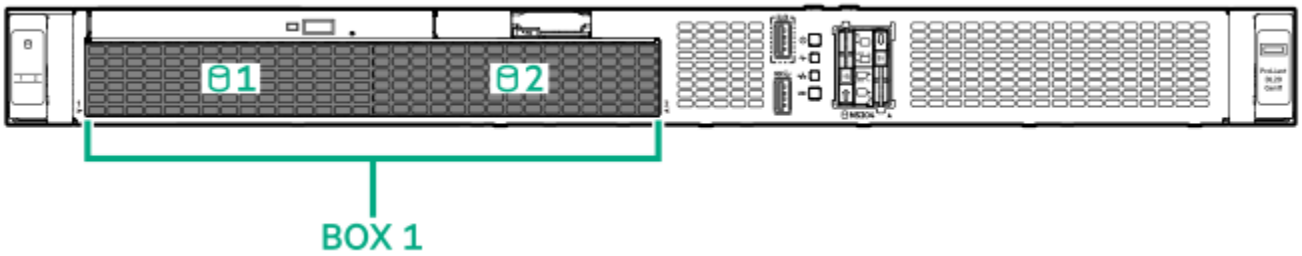
Storage



4 SFF + 2 SFF device bay numbering



2 LFF Hot Plug device bay numbering



2 LFF Non-Hot Plug device bay numbering

System Unit

Dimensions (Height x Width x Depth)

- **SFF Drives**
  4.32 x 43.46 x 37.84 cm.
  1.69 x 17.11 x 15.25in.
- **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).
  Min 9 kg to Max 12 kg (19.84 to 26.46 lb.).
- **Hot Plug 2LFF fully loaded** (one hard drive, power supply, and processor installed).
  Min 9 kg to Max 12 kg (19.84 to 26.46 lb.).
- **Hot Plug 4SFF fully loaded** (two hard drives, power supply, and processor installed).
  Min 9 kg to Max 12 kg (19.84 to 26.46 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:
https://poweradvisorext.it.hpe.com/

Click on the system of interest. Example: DL20 Gen11 - 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.

500W/800W/1000W Redundant Power Supply

Input Requirements (per power supply)

Rated Line Voltage

- 100 to 120 VAC.
- 200 to 240 VAC.

BTU Rating

Maximum

- For 1000W Power Supply: 3753 BTU/hr. (at 100 VAC), 3685 BTU/hr. (at 240 VAC), 3685 BTU/hr. (at 240 VDC) for China Only.
- For 800W Power Supply: 3071BTU/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 1000W Power Supply: 1000W (at 100 VAC), 1000W (at 240 VAC), 1000W (at 240 VDC) input for China only.
- For 800W Power Supply: 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 1000W Power Supply: 1000W (at 100 VAC), 1000W (at 240 VAC), 1000W (at 240 VDC) input for China only.
- For 800W Power Supply: 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° to 35°C (50° to 95°F) at sea level with an altitude derating 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. The 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° 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 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
- **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.

Altitude

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

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

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

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

Acoustic Noise

Listed are the declared mean A-Weighted sound power levels (LWA,m), declared average bystander position A-Weighted sound pressure levels (LpAm) and the statistical adder for verification, Kv, is a quantity to be added to the declared mean A-weighted sound power level, LWA,m 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.

	Entry	Base	Performance	High Performance
Idle				
LWA,m	3.9 B	3.9 B	3.9 B	3.9 B
LpAm	28 dBA	27 dBA	27 dBA	27 dBA
Kv	0.4 B	0.4 B	0.4 B	0.4 B
Operating				
LWA,m	3.9 B	3.9 B	3.9 B	3.9 B
LpAm	28 dBA	27 dBA	27 dBA	27 dBA
Kv	0.4 B	0.4 B	0.4 B	0.4 B

Notes:

- Acoustics levels presented here are generated by the test configurations (Entry, Base, Performance, and High Performance SKUs) only. Acoustics levels will vary depending on system configuration. Values are subject to change without notification and are for reference only. A system with additional configuration components or increased operating functionality may increase the noise emission values.
- The declared mean A-weighted sound power level, LWA,m, is computed as the arithmetic average of the measured.
- A-weighted sound power levels for a randomly selected sample, rounded to the nearest 0,1 B.
- The declared mean A-weighted emission sound pressure level, LpA,m, is computed as the arithmetic average of the measured A-weighted emission sound pressure levels at the bystander positions for a randomly selected sample, rounded to the nearest 1 dB.
- The statistical adder for verification, Kv, is a quantity to be added to the declared mean A-weighted sound power level, LWA,m, such that there will be a 95 % probability of acceptance, when using the verification procedures of ISO 9296, if no more than 6,5 % of the batch of new equipment, has A-weighted sound power levels greater than (LWA,m + Kv).
- The quantity, LWA,c (formerly called LWAd), can be computed from the sum of LWA,m and Kv.
- All measurements made to conform to ISO 7779 / ECMA-74 and declared to conform to ISO 9296 / ECMA-109.
- B, dB, abbreviations for bels and decibels, respectively, where 1 B = 10 dB.

What Happens When iLO Doesn’t Recognize a Component's Temperature Sensor

When HPE iLO cannot detect a temperature sensor from a component—such as a third-party OCP card or optional hardware—it assumes the worst-case scenario to protect the server. In this case, iLO will run the fans at full speed using fallback sensors to avoid overheating. This results in higher acoustic levels, meaning the server will be louder than usual.

About Fallback Sensors

Fallback sensors are backup temperature sensors that activate when the main sensor fails or isn't recognized. They allow iLO to continue managing fan speeds, even if only in a limited or degraded mode.

IMPORTANT
Notes:
HPE does not recommend disabling fallback sensors, as they play a critical role in maintaining safe operating temperatures. However, if you choose to disable them—typically to reduce noise caused by unrecognized components—please refer to the following documentation and use the Redfish method to do so:
Changing iLO Fallback Sensor setting with Redfish

Summary of Changes

Date	Version History	Action	Description of Change
05-Oct-2026	Version 29	Changed	Service and Support and Core Options sections were updated.
		Added	Mixed Use – Mainstream - NVMe - SFF - Solid State Drives and Read Intensive – Mainstream - NVMe - SFF - Solid State Drives.
08-Sep-2026	Version 28	Changed	Configuration Information section was updated.
		Removed	Intel® Xeon®-E Processors obsolete SKUs.
03-Aug-2026	Version 27	Changed	Standard Features and Core Options sections were updated.
		Added	Intel Xeon 6377P Processor.
		Removed	Read Intensive – 6G SATA – SFF Basic Carrier – Solid State Drives, Read Intensive – High Performance - NVMe - SFF - Solid State Drives, and Read Intensive - NVMe - M.2 - Solid State Drives obsolete SKUs.
01-Jun-2026	Version 26	Changed	Pre-Configured Models and Core Options sections were updated.
		Added	Mixed Use – High Performance - NVMe - SFF - Solid State Drives Read Intensive – High Performance - NVMe - SFF - Solid State Drives
		Removed	BTO obsolete SKUs. Intel® Xeon®-E Processors obsolete SKUs. Read Intensive - NVMe - M.2 - Solid State Drives obsolete SKUs.
06-Apr-2026	Version 25	Changed	Service and Support section was updated.
		Added	Updated GreenLake statement.
09-Feb-2026	Version 24	Changed	Pre-Configured Models and Core Options sections were updated.
		Added	HPE Computation and Graphics Accelerators SKUs.
		Removed	Pre-Configured Models, Business Critical (Midline) – 12G SAS – LFF Low Profile Carrier Drives, Business Critical (Midline) - 6G SATA - LFF Low Profile Carrier Drives, and Read Intensive - NVMe - M.2 - Solid State Drives obsolete SKUS.
01-Dec-2025	Version 23	Changed	Core Options and Technical Specifications sections were updated.
		Added	Read Intensive – 12G SAS – SFF Basic Carrier – Solid State Drives, Mixed Use - 12G SAS - SFF Basic Carrier - Solid State Drives SKUs and iLO Temperature Sensor rules.
		Removed	HPE Legacy FIO Mode Setting and Read Intensive – Mainstream - NVMe - SFF - Solid State Drives obsolete SKUs.
03-Nov-2025	Version 22	Changed	Core Options section was updated.
		Added	Read Intensive – Mainstream - NVMe - SFF - Solid State Drives SKUs.
13-Oct-2025	Version 21	Changed	Standard Features section was updated.
		Added	Processors Power Matrix.
02-Sep-2025	Version 20	Changed	Standard Features and Core options sections were updated.
		Added	Quick Install Guide, Read Intensive – Mainstream - NVMe - SFF - Solid State Drives and NVIDIA RTX A1000 8GB PCIe Accelerator for HPE.
07-Jul-2025	Version 19	Changed	Standard Features section was updated. Added: Power Supply rules.

Summary of Changes

Date	Version History	Action	Description of Change
02-Jun-2025	Version 18	Changed	Configuration Information and Core Options sections were updated. Added: Read Intensive - NVMe - M.2 - Solid State Drives SKUs. Removed: OBS HPE ProLiant Gen10 Plus Essential Server Power Supplies - Non-Redundant SKU.
05-May-2025	Version 17	Changed	Additional Options section was updated. Added: European Union ErP Lot 9 Regulation section to include Turkey and Ireland and Software as a Service Management Enablement SKU. Removed: HPE Converged Infrastructure Management Software SKU.
07-Apr-2025	Version 16	Changed	Overview, Standard Features and Memory sections were updated. Processors DDR5 specs were updated. Added: COM Advanced SKUs and QuickSpecs Survey.
24-Feb-2025	Version 15	Changed	Overview, Standard Features and Configuration Information sections were updated.
13-Jan-2025	Version 14	Changed	Overview, Standard Features, Pre-Configured Models, Configuration Information and Core Options sections were updated.
16-Dec-2024	Version 13	Changed	Overview, Standard Features and Core Options sections were updated.
02-Dec-2024	Version 12	Changed	Core Options and Additional Options sections were updated. (Removed OBS SKUs and added NVMe drives)
07-Oct-2024	Version 11	Changed	Additional Options section was updated.
03-Sep-2024	Version 10	Changed	Standard Features (Operating Systems and Virtualization Software Support for HPE Servers), Pre-Configured Models and Additional Options sections were updated.
05-Aug-2024	Version 9	Changed	Overview and Core Options sections were updated.
15-Jul-2024	Version 8	Changed	Pre-Configured Models section was updated.
01-Jul-2024	Version 7	Changed	Pre-Configured Models, Core Options and Additional Options sections were updated.
03-Jun-2024	Version 6	Changed	Standard Features and Additional Options sections were updated.
01-Apr-2024	Version 5	Changed	Standard Features and Core Options sections were updated.
18-Mar-2024	Version 4	Changed	Pre-configured Models section was updated.
04-Mar-2024	Version 3	Changed	Core Options section was updated.
05-Feb-2024	Version 2	Changed	Standard Features and Core Options sections were updated.
14-Dec-2023	Version 1	New	New QuickSpecs.

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a50007009enw - 17119 - Worldwide - V29 - 05-October-2026
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