Overview

Shape the Future of QuickSpecs – Your Input Matters

HPE ProLiant MicroServer Gen11

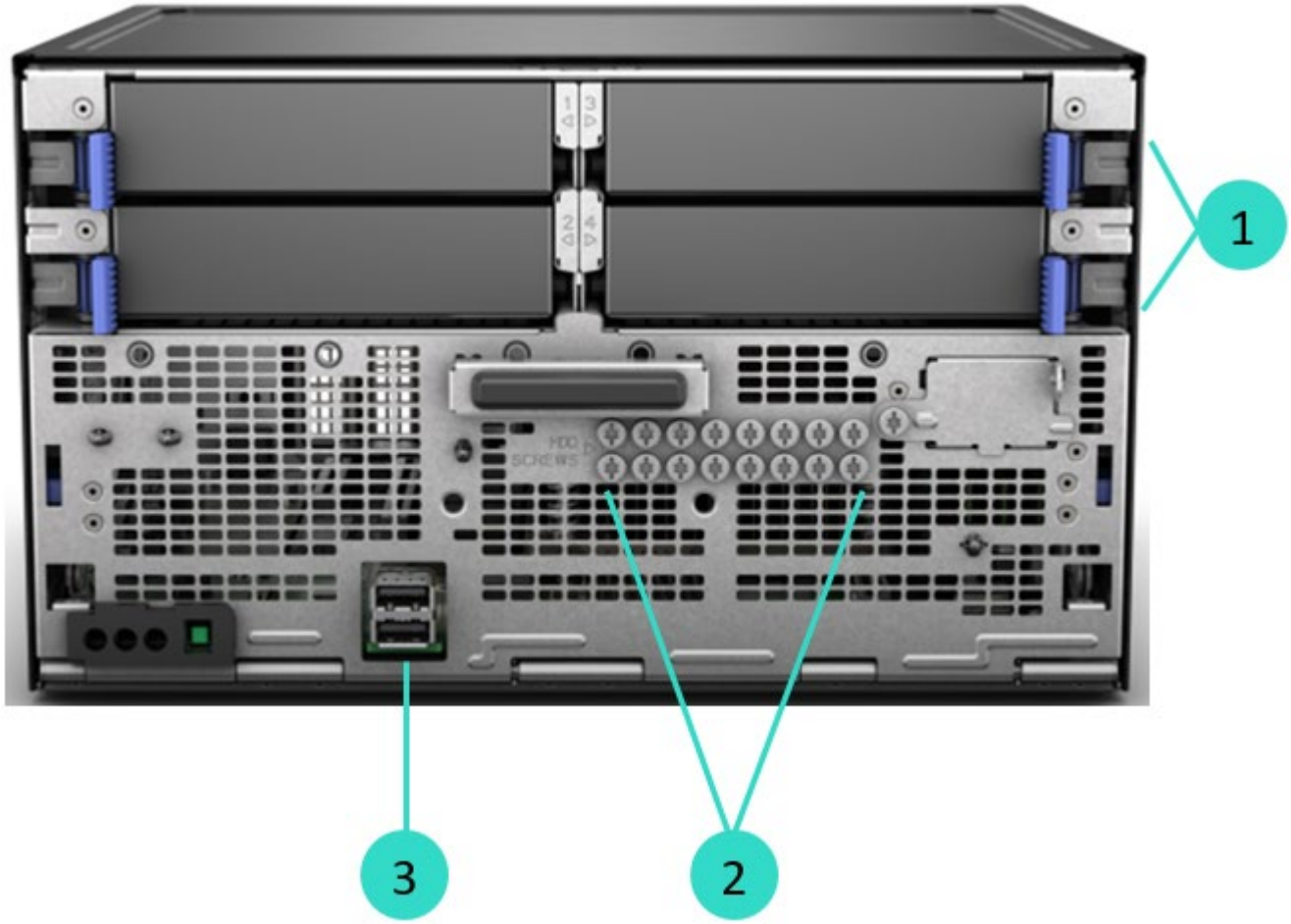
HPE ProLiant MicroServer Gen11 delivers an affordable compact yet powerful entry level server that you can customize for on-premises, edge, hybrid cloud, or even workloads demanding datacenter performance. It has the ultra mini tower form factor and can be placed flat or vertically or wall-mounted depending on the customer environment. The latest Intel® Xeon® 6300-series Processors, Intel® Xeon® E-2400 and Pentium® supported processors deliver compute performance as well as security and remote management into the server with HPE iLO silicon root of trust. Along with other enhancements such as 4 DIMM slots for DDR5 memory and 2 PCIe slots, whether you want a general-purpose server, NAS or even a virtualization server, you will be surprised at how much you can get out of this small and affordable server.

Front View (External)

1. Drive activity LED
2. NIC status LED[1]
3. Health LED
4. Power on/ Standby button and system power LED
5. USB 3.2 Gen2 Type-A ports

Notes: [1] Front NIC LED display doesn't support NIC LED ACT/LINK indication from the optional PCIe networking add-on cards.

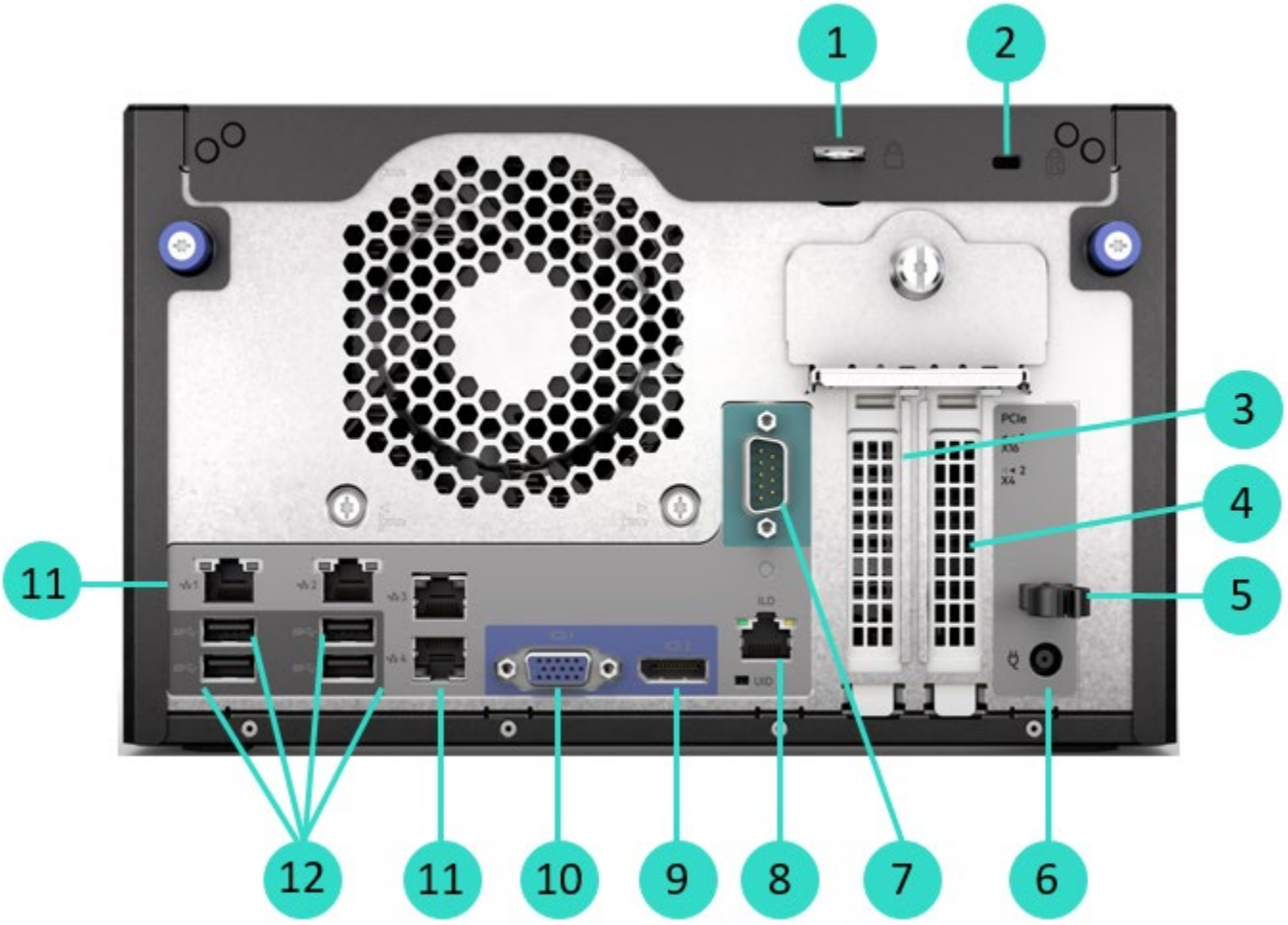
Overview



Front View (Internal) – without front bezel

1. Four (4) LFF NHP SATA HDD cage
2. Hard drive screws
3. USB 3.2 Gen2 Type-A ports

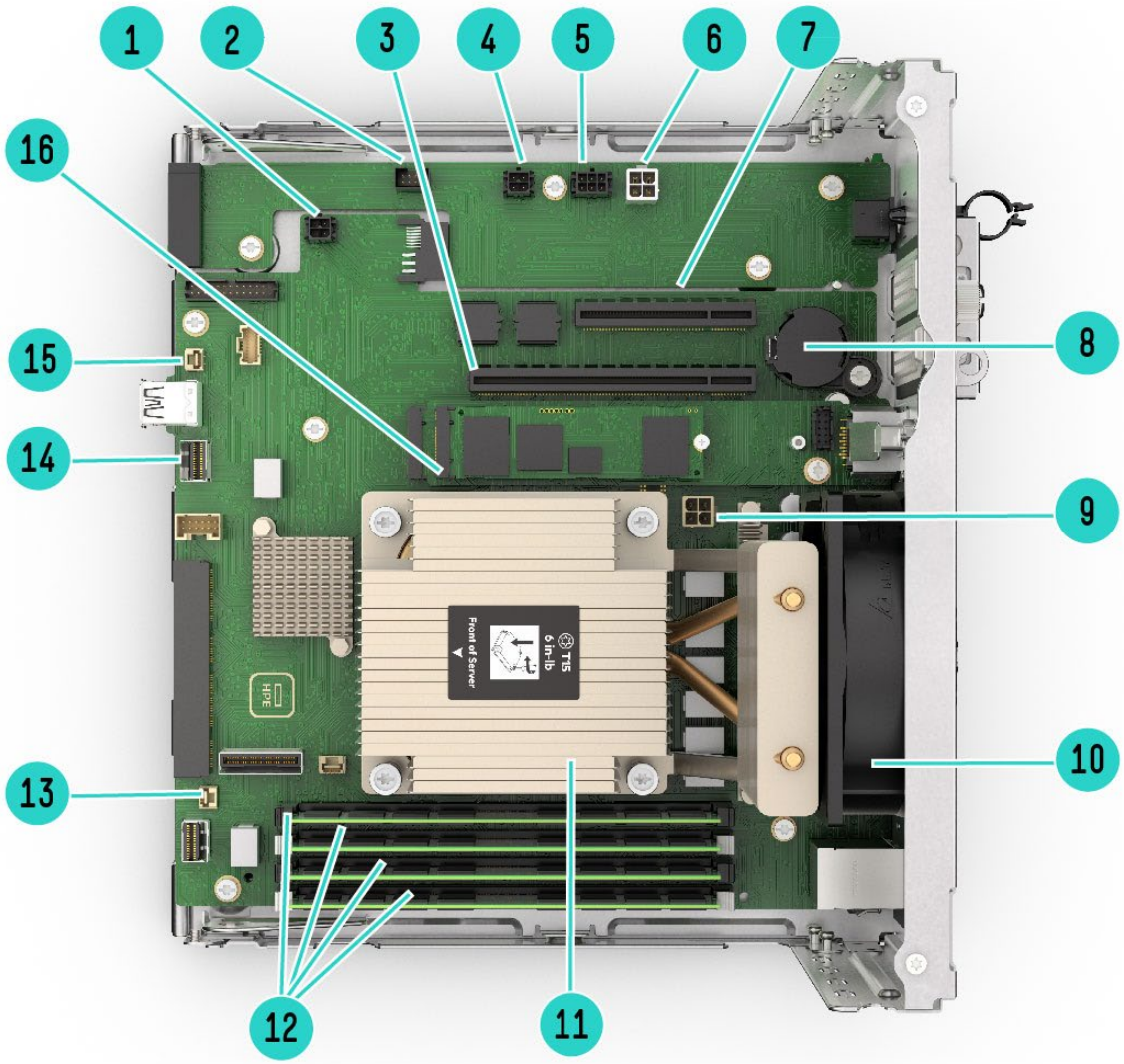
Overview



Rear View

1. Padlock eye
2. Kensington security slot
3. (1) PCIe Gen5 low-profile slot (PCIe5 x16)
4. (1) PCIe Gen4 low-profile slot (PCIe4 x8)
5. Power clip hole (for the power cord clip to firmly secure the power adapter cord)
6. Power jack
7. Serial port (optional, enabled by the dedicated iLO/M.2/serial port kit)
8. iLO dedicated NIC port (optional, enabled by the dedicated iLO/M.2/serial port kit)
9. Display Port 1.1a
10. VGA Port
11. Four (4) NIC ports (NIC1-4 from left, where NIC port #1 supports shared iLO port)
12. Four (4) USB 3.2 Gen1 Type-A ports

Overview



Mainboard View (Internal)

1. System board: System power connector
2. Fan connector
3. Slot 1 PCIe5 x16
4. PDB: System power connector
5. Drive power connector
6. PDB: 4-pin processor power connector
7. Slot 2 PCIe4 x8
8. Coin battery
9. System board: 4-pin processor power connector
10. System fan
11. One (1) processor and heatsink
12. Four (4) DDR5 UDIMM slots
13. Ambient temperature sensor connector
14. SlimSAS x4 port
15. Storage controller backup power connector
16 M.2 slot (optional, enabled by the dedicated iLO/M.2/serial port kit)

Overview

What's New

- Supports the latest Intel® Xeon® 6300-series Processors – now up to 8-core/95W, Intel® Xeon® E-2400 and Pentium® processors
- Supports 4 DIMM slots for the New HPE DDR5 Standard Memory (UDIMM), 4400 MT/s maximum speed offering in 16GB and 32GB. Max 128GB system memory capacity (4 x 32 GB)
- Two PCIe expansion slots including one that supports PCIe 5.0
- HPE iLO 6 support
- Embedded TPM 2.0 support
- Supports one internal M.2 slot and one serial port enabled by the optional Gen11 dedicated iLO/M.2/serial port kit
- Supports CTO capability
- Supports Wall Mount kit
- The HPE iLO remote server management support is now enabled through the shared iLO port default on-board. Customers can access HPE iLO from their browser, or command line, or API without the need of the additional module/or activation key. For more information, please contact HPE local customer support.

Standard Features

Processor

Intel® Xeon® 6300-series and Xeon® E Processor is designed to deliver the best combination of performance, built-in capabilities, and cost-effectiveness. This server also supports Intel® Pentium® processor.
Choose one of the following processors based on the model:

Intel Xeon 6300 Series						
Model	**CPU Base Frequency**	**Cores**	**Threads**	**Smart Cache**	**Power**	**DDR5**
Xeon 6369P	3.3 GHz	8	16	24 MB	95W	4400 MT/s
Xeon 6357P	3,0 GHz	8	16	24 MB	80W	4400 MT/s
Xeon 6353P	2.7 GHz	8	16	24 MB	65W	4400 MT/s
Xeon 6349P	3.6 GHz	6	12	18 MB	95W	4400 MT/s
Xeon 6337P	3.5 GHz	6	12	18 MB	80W	4400 MT/s
Xeon 6333P	3.1 GHz	6	12	18 MB	65W	4400 MT/s
Xeon 6325P	3.5 GHz	4	8	12 MB	55W	4400 MT/s
Xeon 6315P	2.8 GHz	4	8	12 MB	55W	4400 MT/s
Intel Xeon E-2400 Series / Pentium Gold						
Model	**CPU Base Frequency**	**Cores**	**Threads**	**Smart Cache**	**Power**	**DDR5**
Xeon E-2434	3.4 GHz	4	8	12 MB	55W	4400 MT/s
Xeon E-2414	2.6 GHz	4	4	12 MB	55W	4400 MT/s
Pentium G7400	3.7 GHz	2	4	6 MB	46W	4400 MT/s

Notes:
- Pentium G7400 does not comply with Energy Star 4.0
- For more information regarding Intel Xeon processors, please see the following **http://www.intel.com/xeon**

Chipset

Intel® C262 Chipset
For more information regarding Intel® chipsets, please see the following URL: **http://www.intel.com/products/server/chipsets/**

On System Management Chipset

HPE iLO 6 ASIC
Notes:
The HPE iLO remote server management support is now enabled through the shared iLO port default on-board. Customers can access HPE iLO from their browser, or command line, or API without the need of the additional module/or activation key. For more information, please contact HPE local customer support. Read and learn more in the **HPE iLO QuickSpecs**.

Memory

Type	HPE Standard Memory DDR5 Unbuffered (UDIMM)
DIMM Slots Available	4
Maximum Capacity	128GB (4 x 32GB UDIMM @4400 MT/s) **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/psnow/doc/a50010188enw**

Memory Protection

- ECC

Standard Features

Network Controller

Embedded Broadcom BCM5719 Ethernet 1GbE 4-port BASE-T Adapter for HPE

The HPE ProLiant MicroServer Gen11 server offers the customer a 4-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 1GbE 4-port BASE-T LOM Adapter can be downloaded from the **supplier's support and services webpage**.

Expansion Slots

Expansion Slot #	Technology	Bus Width	Connector Width	Form Factor	Notes
1	PCIe 5.0	x16	x16	Low Profile	
2	PCIe 4.0	x4	x8	Low Profile	

Storage Controller

Intel VROC SATA Hybrid RAID

Notes: The embedded Intel Virtual RAID on CPU (Intel VROC) is the SATA Hybrid RAID controller supported in this server.

- All models feature an embedded storage controller Intel VROC SATA.
- 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 Hybrid RAID features.
- 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/lsrrb/**
- RAID support – 0/1/5/10.
- Intel VROC SATA does not support RAID volume creation with different form factors of drives
- Intel VROC SATA RAID supports Windows Server and Linux but does not support VMware.
- Intel VROC SATA will operate in UEFI mode, Windows OS environment, and Linux OS environment.
- Required to install AMS tools in OS for supporting drives thermal sensor reading for thermal fan control, otherwise may experience acoustic noise impact. Download AMS from the following link. **https://support.hpe.com/hpesc/public/docDisplay?docId=sd00002007en_us&page=GUID-268BA5BF-9524-4D6E-85A5-A7A058A46342.html**
- 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**
  - **Linux Edition**
- Intel VROC 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://support.hpe.com/connect/s/product?language=en_US&cep=on&kmpmoid=1013158021&tab=manuals**
- Intel VROC supports RAID management though the following tools:
  - non-OS specific: UEFI System Utilities
  - Windows: Intel VROC GUI, Intel VROC CLI.

Essential RAID Controller

HPE Smart Array E208e-p SR Gen10 Controller

Standard Features

Performance RAID Controller

HPE MR408i-p Gen11 SPDM Storage Controller
HPE MR216i-p Gen11 SPDM Storage Controller
Notes: For additional details, please visit:

- HPE Compute **MR Gen11 Controllers QuickSpecs**
- HPE Compute **SR Gen11 Controllers QuickSpecs**

Notes: MicroServer Gen11 supports NHP (non-hot-plug) operations only and hence some of the storage controller functionality may not be supported.

Internal Storage Devices

- **Hard Drives**
  None ship standard
- **Solid State Drives**
  None ship standard

Maximum Internal Storage

- **Non-hot plug SATA**
  16TB (4 x 4TB) 3.5" SATA HDD
  3.84TB (4x 960GB) 2.5" SATA SSD

Notes: The maximum storage indicated is aligned with the current HDD & SSD option list supported. Maximum internal storage supported would change with the server's option support plan.

Graphics

Integrated Video Standard
1) Video modes up to 1920 x 1200 @85Hz (16 bpp)
2) 16MB Video Memory

HPE iLO 6 On System Management Memory
3) 32 MB Flash
4) 8 Gbit DDR 4

Interfaces

Video	1 Rear VGA port 1 Rear DisplayPort 1.1a
USB 3.2 Gen 1 Type-A Ports	4 total (4 rear)
USB 3.2 Gen 2 Type-A Ports	2 total (2 front)
Network RJ-45 (Ethernet)	4

Notes: If you connect two display devices to the VGA port and DisplayPort, the same image is shown on both devices-screen mirroring mode. The embedded video controller in the iLO 6 chipset does not support dual display or screen extension mode.

Power Supply

One (1) 180 Watts, non-redundant External Power Adapter; or one (1) 330 Watts, non-redundant External Power Adapter

Standard Features

Server Power Cords

All pre-configured or CTO server models ship standard with one or more country-specific 6 ft./1.83m C5 (supported with the 180W external power adapter) or C13 (supported with the 330W external power adapter) power cords depending on models. If a different power cord is required, please check the **HPE Power Cords and Cables**[1] web page or contact HPE local customer support.

Notes: [1]C5 power cords are not included in the standard HPE Power Cords and Cables specs.

Form Factor

- Ultra Micro Tower

System Fans

- One (1) non-redundant system fan shipped standard

Industry Standard Compliance

- ACPI V6.3 Compliant
- PCIe 5.0 and 4.0 Compliant
- PXE Support
- WOL Support
- EMC Class B
- Microsoft® Logo certifications
- VGA Port
- DP 1.1a
- SMBIOS 3.2
- UEFI 2.9
- Redfish API
- IPMI 2.0
- TPM 2.0 Gen11 support
  Notes: Enabling TPM 2.0 no longer requires TPM module option kit for Gen11. It is an embedded feature.
- Advanced Encryption Standard (AES)
- Triple Data Encryption Standard (3DES) SNMP v3
- TLS 1.2
- DMTF Systems Management Architecture for Server Hardware Command Line Protocol (SMASH CLP)
- Active Directory v1.0
- ASHRAE A3/A4
  Notes: For additional technical, thermal details regarding ambient temperature, humidity, and feature support, please visit **MicroServer Gen11 Extended Ambient Temperature Guidelines**
- UEFI (Unified Extensible Firmware Interface Forum)
- USB 3.2 Compliant
- SATA 6Gb/s

Notes: For additional technical thermal details regarding ambient temperatures, humidity and features support please visit URL: **http://www.hpe.com/servers/ashrae** for ASHRAE A3/A4 feature.

Standard Features

Operating Systems and Virtualization Software Support for ProLiant Servers

- **Microsoft Windows Server**
- **VMware ESXi**
  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**
- **Red Hat Enterprise Linux (RHEL)**
- **Canonical Ubuntu**
- **XenServer**

Notes: For more information on Hewlett Packard Enterprise Certified and Supported ProLiant Servers for OS and Virtualization Software and latest listing of software drivers available for your server.
https://www.hpe.com/us/en/servers/server-operating-systems.html

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

UEFI Boot Mode only

- TPM 2.0 Support

  Notes: Enabling TPM 2.0 no longer requires TPM module option kit for Gen11. It is an embedded feature.
- iSCSI Software Initiator Support.
- HTTP/HTTPs Boot support as a PXE alternative.
- Boot support for option cards that only support a UEFI option ROM

  Notes: For UEFI Boot Mode, boot environment and OS image installations should be configured properly to support UEFI.

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**
Notes:
The HPE iLO remote server management support is now enabled through the shared iLO port default on-board. Customers can access HPE iLO from their browser, or command line, or API without the need of the additional module/or activation key. For more information, please contact HPE local customer support.

UEFI

Configure and boot your servers securely with industry standard Unified Extensible Firmware Interface (UEFI).
Learn more at **http://www.hpe.com/servers/uefi.**.

Intelligent Provisioning

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

Standard Features

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**.

RESTful Interface Tool
RESTful Interface tool is a scripting tool to provision using RESTful API for iLO 6 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 is an on premises, multi-generational server monitoring and management solution. HPE OneView Standard can be used for inventory, health monitoring, alerting, and reporting without additional fees. Customers can upgrade their management experience with an HPE OneView Advanced license, all provided by the same tool. Learn more at **http://www.hpe.com/info/oneview**.

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 HPE GreenLake cloud (access via **https://common.cloud.hpe.com**) and leverages the HPE 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

Standard Features

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
- Ability to rollback firmware
- Secure erase of NAND/User data
- TPM (Trusted Platform Module) 2.0 Gen 11
  Notes: Enabling TPM 2.0 no longer requires TPM module option kit for Gen11. It is an embedded feature.
- Front bezel lock feature, standard
- Padlock slot, standard
- Kensington Lock slot, standard
- Power cord clip, standard

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 one year 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: MicroServer Gen11 Server Warranty includes 1-Year Parts, 1-Year Labor, 1-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. Non-CSR parts must be serviced by a trained authorized service engineer. Additional information regarding worldwide limited warranty and technical support is available at: **https://www.hpe.com/support/ProLiantServers-Warranties**

Optional Features

Server Management

Notes: The HPE iLO remote server management support is now enabled through the shared iLO port default on-board (NIC port#1). Customers can access HPE iLO from their browser, or command line, or API without the need of the additional module/or activation key. This is made standard across HPE ProLiant Gen11 Xeon-E servers. The HPE ML30 Gen11 iLO/NIC/M.2/COM Port Kit (P65741-B21) is now only needed when customers require a dedicated iLO port or if there is the need for additional M.2 slot or the serial port. For more information, please contact HPE local customer support.

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 OneView Advanced

HPE OneView Advanced offers a sophisticated level of automation to infrastructure management by taking a template driven approach to provisioning, updating, and integrating compute, storage, and networking infrastructure. It builds upon the base features of HPE OpenView Standard, provides full-featured licenses which can be purchased for managing multiple HPE server generations. To learn more visit **https://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**

HPE Insight Cluster Management Utility (CMU)

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

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 Services

No matter where you are in your digital transformation journey, you can count on HPE Services to deliver the expertise you need when, where, and how you need it. From planning to deployment, ongoing operations and beyond, our experts can help you realize your digital ambitions.

https://www.hpe.com/services

Consulting Services

No matter where you are in your journey to hybrid cloud, experts can help you map out your next steps. From determining what workloads should live where, to handling governance and compliance, to managing costs, our experts can help you optimize your operations.

https://www.hpe.com/services/consulting

HPE Managed Services

HPE runs your IT operations, providing services that monitor, operate, and optimize your infrastructure and applications, delivered consistently and globally to give you unified control and let you focus on innovation.

HPE Managed Services | HPE

Operational services

Optimize your entire IT environment and drive innovation. Manage day-to-day IT operational tasks while freeing up valuable time and resources. Meet service-level targets and business objectives with features designed to drive better business outcomes.

https://www.hpe.com/services/operational

HPE Complete Care Service

HPE Complete Care Service is a modular, edge-to-cloud IT environment service designed to help optimize your entire IT environment and achieve agreed upon IT outcomes and business goals through a personalized experience. All delivered by an assigned team of HPE Services experts. HPE Complete Care Service provides:

- A complete coverage approach -- edge to cloud
- An assigned HPE team
- Modular and fully personalized engagement
- Enhanced Incident Management experience with priority access
- Digitally enabled and AI driven customer experience

https://www.hpe.com/services/completecare

HPE Tech Care Service

HPE Tech Care Service is the operational support service experience for HPE products. The service 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 Tech Care Service delivers a customer-centric, AI driven, and digitally enabled customer experience to move your business forward. HPE Tech Care Service 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.

https://www.hpe.com/services/techcare

Service and Support

HPE Lifecycle Services

HPE Lifecycle Services provide a variety of options to help maintain your HPE systems and solutions at all stages of the product lifecycle. A few popular examples include:

- Lifecycle Install and Startup Services: Various levels for physical installation and power on, remote access setup, installation and startup, and enhanced installation services with the operating system.
- HPE Firmware Update Analysis Service: Recommendations for firmware revision levels for selected HPE products, taking into account the relevant revision dependencies within your IT environment.
- HPE Firmware Update Implementation Service: Implementation of firmware updates for selected HPE server, storage, and solution products, taking into account the relevant revision dependencies within your IT environment.
- Implementation assistance services: Highly trained technical service specialists to assist you with a variety of activities, ranging from design, implementation, and platform deployment to consolidation, migration, project management, and onsite technical forums.
- HPE Service Credits: Access to prepaid services for flexibility to choose from a variety of specialized service activities, including assessments, performance maintenance reviews, firmware management, professional services, and operational best practices.

Notes: To review the list of Lifecycle Services available for your product go to:
https://www.hpe.com/services/lifecycle

For a list of the most frequently purchased services using service credits, see the **HPE Service Credits Menu**

Other Related Services from HPE Services:

HPE Education Services

Training and certification designed for IT and business professionals across all industries. Broad catalogue of course offerings to expand skills and proficiencies in topics ranging from cloud and cybersecurity to AI and DevOps. Create learning paths to expand proficiency in a specific subject. Schedule training in a way that works best for your business with flexible continuous learning options.
https://www.hpe.com/services/training

Defective Media Retention

An option available with HPE Complete Care Service and HPE Tech Care Service and applies only to Disk or eligible SSD/Flash Drives replaced by HPE due to malfunction.

Consult your HPE Sales Representative or Authorized Channel Partner of choice for any additional questions and services options.

Parts and Materials

HPE 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 quick-specs, or the technical product data sheet will not be provided, repaired, or replaced as part of these services.

How to Purchase Services

Services are sold by Hewlett Packard Enterprise and Hewlett Packard Enterprise Authorized Service Partners:

- Services for customers purchasing from HPE or an enterprise reseller are quoted using HPE order configuration tools.
- Customers purchasing from a commercial reseller can find services at **https://ssc.hpe.com/portal/site/ssc/**

Service and Support

AI Powered and Digitally Enabled Support Experience

Achieve faster time to resolution with access to product-specific resources and expertise through a digital and data driven customer experience

Sign into the HPE Support Center experience, featuring streamlined self-serve case creation and management capabilities with inline knowledge recommendations. You will also find personalized task alerts and powerful troubleshooting support through an intelligent virtual agent with seamless transition when needed to a live support agent.
https://support.hpe.com/hpesc/public/home/signin

Consume IT On Your Terms

HPE GreenLake edge-to-cloud platform 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 edge-to-cloud platform 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

To learn more about HPE Services, please contact your Hewlett Packard Enterprise sales representative or Hewlett Packard Enterprise Authorized Channel Partner. Contact information for a representative in your area can be found at "Contact HPE"
https://www.hpe.com/us/en/contact-hpe.html

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

Pre-Configured Models

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.

- 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.

Pre-Configured Models

Entry Models	
SKU Number	P68819-001 (AMS) P68819-291 (Japan) P68819-371 (APAC) P68819-421 (EMEA) P68819-AA1 (PRC)
Model Name	HPE ProLiant MicroServer Gen11 G7400 2-core VROC 4LFF-NHP 180W External PS Compute Module Server
Processor	G7400 (2 core, 3.7 GHz, 46W)
Number of Processors	One
Memory	16 GB (1x 16 GB, 4400 MT/s)
Network Controller	4x1 GbE embedded
Storage Controller	Embedded Intel VROC SATA Hybrid RAID **Notes:** Required to install AMS tools in OS for supporting drives thermal sensor reading for thermal fan control, otherwise may experience acoustic noise impact. Download AMS from the following link. **https://support.hpe.com/hpesc/public/docDisplay?docId=sd00002007en_us&page=GUID-268BA5BF-9524-4D6E-85A5-A7A058A46342.html**
Included Hard Drives	None shipped standard
Internal Storage	Up to 4 LFF NHP HDD or 4 SFF NHP SSD (requiring the optional LFF-to-SFF converter kit, 870213-B21 to be installed. One kit per one drive.)
Optical Drive Bay	Optional ODD Bay Kit, none included
Optical Drive	Optional ODD Bay Kit, none included
Expansion Slots	(1) PCIe 5.0 slot, (1) PCIe 4.0 slot
Power Supply	1x 180W External Power Adapter, Non-Redundant Power Supply
Fans	1x non-redundant system fan ships standard
Management	HPE iLO 6 **Notes:** The HPE iLO remote server management support is now enabled through the shared iLO port default on-board (NIC port#1). Customers can access HPE iLO from their browser, or command line, or API without the need of the additional module/or activation key. The HPE ML30 Gen11 iLO/NIC/M.2/COM Port Kit (P65741-B21) shared between ML30 and MicroServer is now only needed when customers require a dedicated iLO port or if there is the need for additional M.2 slot or the serial port. For more information, please contact HPE local customer support.
Security	Embedded TPM (Trusted Platform Module) 2.0 support
Form Factor	Ultra Micro Tower
Warranty	Server warranty includes 1-year parts, 1-year labor, and 1-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

Pre-Configured Models

	charge. 3) A trained, authorized service engineer must service non-CSR parts. For more information, visit **https://www.hpe.com/support**.

Country Code Key

- -001 = Americas
- -291 = Japan
- -371 = Asia Pacific
- -421 = Europe, the Middle East and Africa
- -AA1 = China

Pre-Configured Models

Performance Model			
	Performance 1	**Performance 2**	
SKU Number	P68820-001 (AMS) P68820-291 (Japan) P68820-371 (APAC) P68820-421 (EMEA)	P68821-001 (AMS) P68821-421 (EMEA)	P68822-001 (Argentina only)
Model Name	HPE ProLiant MicroServer Gen11 E-2414 2.6GHz 4-core 1P 16GB-U VROC 4LFF-NHP 180W External PS Server	HPE ProLiant MicroServer Gen11 E-2434 4-core 1P 16GB-U VROC 4LFF-NHP 1TB 180W External PS Server	
Processor	E-2414 (4 core, 2.8 GHz, 55W)	E-2434 (4 core, 3.4 GHz, 55W)	
Number of Processors	One		
Memory	16 GB (1x 16 GB, 4400 MT/s)		
Network Controller	4x1GbE embedded		
Storage Controller	Embedded Intel VROC SATA Hybrid RAID **Notes:** Required to install AMS tools in OS for supporting drives thermal sensor reading for thermal fan control, otherwise may experience acoustic noise impact. Download AMS from the following link. **https://support.hpe.com/hpesc/public/docDisplay?docId=sd00002007en_us&page=GUID-268BA5BF-9524-4D6E-85A5-A7A058A46342.html**		
Included Hard Drives	None shipped standard	1x 1 TB SATA 6G Business Critical 7.2K LFF RW HDD	
Internal Storage	Up to 4 LFF NHP HDD or 4 SFF NHP SSD (requiring the optional LFF-to-SFF converter kit, 870213-B21 to be installed. One kit per one drive.)	1TB SATA HDD default, upgradeable up to 4TB when additional 1TB HDDs (HPE 1TB SATA 7.2K LFF RW MV HDD, 801882-B21) are added.	
Optical Drive Bay	Optional ODD Bay Kit, none included		
Optical Drive	Optional ODD Bay Kit, none included		
Expansion Slots	(1) PCIe 5.0 slot, (1) PCIe 4.0 slot		
Power Supply	1x 180W External Power Adapter, Non-Redundant Power Supply		
Fans	1x non-redundant system fan ships standard		
Management	HPE iLO 6 **Notes:** The HPE iLO remote server management support is now enabled through the shared iLO port default on-board (NIC port#1). Customers can access HPE iLO from their browser, or command line, or API without the need of the additional module/or activation key. The HPE ML30 Gen11 iLO/NIC/M.2/COM Port Kit (P65741-B21) shared between ML30 and MicroServer is now only needed when customers require a dedicated iLO port or if there is the need for additional M.2 slot or the serial port. For more information, please contact HPE local customer support.		
Security	Embedded TPM (Trusted Platform Module) 2.0 support		
Form Factor	Ultra Micro Tower		

Pre-Configured Models

Warranty	Server warranty includes 1-year parts, 1-year labor, and 1-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. 3) A trained, authorized service engineer must service non-CSR parts. For more information, visit **https://www.hpe.com/support**

Country Code Key

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- -AA1 = China

Configuration Information

Configuration Information

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

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

Step 1: Base Configuration

CTO Server	HPE ProLiant MicroServer Gen11 4LFF Non-hot Plug Configure-to-order Server
SKU Number	P71850-B21
TAA compatible	Yes
Processor Socket	1
DIMM Slots	4
Storage Controller	Embedded Intel® VROC SATA Hybrid RAID; choice of optional PCIe storage controllers.
PCIe expansion slots	2 slots standard: (1) PCIe 5.0 slot, (1) PCIe 4.0 slot
Drive Cage	4 LFF NHP HDD default, choice of optional SFF converter kits to accommodate SFF NHP SSD in LFF drive bays.
Network Controller	HPE embedded 1GbE 4-port BCM5719 network adapter, choice of optional PCIe standup cards
Fan	1 non-hot plug, non-redundant system fan
Management	iLO 6 **Notes:** The HPE iLO remote server management support is now enabled through the shared iLO port default on-board (NIC port#1). Customers can access HPE iLO from their browser, or command line, or API without the need of the additional module/or activation key. The HPE ML30 Gen11 iLO/NIC/M.2/COM Port Kit (P65741-B21) shared between ML30 and MicroServer is now only needed when customers require a dedicated iLO port or if there is the need for additional M.2 slot or the serial port. For more information, please contact HPE local customer support.
USB	6 standard: (2) front (4) rear
Security	Embedded TPM 2.0

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.

Step 2a: Choose Processors

Intel® Xeon® 6300 Series

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
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

Configuration Information

Intel® Xeon® E-2400 Series

Intel Xeon E-2434 3.4GHz 4-core 55W FIO Processor for HPE	P65224-B21
Intel Xeon E-2414 2.6GHz 4-core 55W FIO Processor for HPE	P65225-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
- For processors above 65W, the HPE MicroServer Gen11 330W External Power Adapter (P77924-B21) must be selected.

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.
- 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.
- 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.
- For Server Memory Population Rules for HPE ProLiant Gen11 Servers with Intel® Xeon® 6300-series Processors or Intel® Xeon® E-2400 Processors see details here: **http://www.hpe.com/docs/server-memory**

Memory

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 Memory Kit	P64339-B21

Notes:

- 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.

Step 2c: Choose Power Supplies

Select one power adapter from below.

Notes: To review the power requirements for your selected configuration, please use the **HPE Power Advisor Tool** at **https://poweradvisorext.it.hpe.com/?Page=Index**

HPE MicroServer Gen11 180W External Power Adapter	P74395-B21
HPE MicroServer Gen11 330W External Power Adapter	P77924-B21

Notes: This larger watt power adapter is designed to support configurations which contain higher power options, for example, processors above 65W.

Configuration Information

Step 3: Choose additional options for Factory Integration from Additional Options sections below.

Notes: 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.

Additional Options

HPE Unique Options

HPE ProLiant ML30 Gen11 iLO/NIC/M.2/COM Port Kit P65741-B21

Notes: Install the multifunction dedicated iLO-M.2-serial module shared between ML30 Gen11 and MicroServer Gen11 servers to get the following:

- Dedicated iLO port
- M.2 Slot for M.2 SSD support.
- Serial Port

Notes: This kit does not contain the M.2 SSD. It must be ordered separately

HPE ProLiant MicroServer Gen11 Controller Cable Kit P68413-B21

Notes: This kit works with HPE internal storage controller. It must be selected if MR216i-p or MR408i-p is in the configuration.

HPE MicroServer Gen10 SFF-NHP Converter Kit 870213-B21

Notes: This kit works to accommodate the SFF NHP SSD into the LFF NHP drive bay.

HPE MicroServer Gen11 Wall Mount Kit P69315-B21

Notes: This kit works to mount the server on a brick/concrete wall or wooden wall. The option kit does not support mounting on a dry wall. Also, the mounting surface MUST support at least five times the combined weight of the server and the wall mounting hardware. *IMPORTANT: DO NOT install the wall mount where this weight cannot be supported. Make sure you read the usage information to find out more if this kit works in your environment. For more detail, refer to **HPE Service Center (HPESC)** at **https://support.hpe.com/hpesc/public/home/signin** or **UG (User Guide)** at **https://support.hpe.com/hpesc/public/docDisplay?docId=sd00003930en_us&page=GUID-ECB17AD0-D417-4423-8953-388D17BBFB94.html&docLocale=en_US.**
To select this kit on OCA, please add the part number via Ad Hoc when configuring a CTO server.

HPE Hard Disk Drives

Business Critical (Entry) 6G SATA - LFF NHP/Raw Drives

HPE 1TB SATA 6G Business Critical 7.2K LFF RW 1-year Warranty Multi Vendor HDD 801882-B21

HPE 4TB SATA 6G Business Critical 7.2K LFF RW 1-year Warranty Multi Vendor HDD 801888-B21

Notes: Please see the **HPE Hard Drives QuickSpecs** for Technical Specifications and additional information.

HPE Solid State Drives

Notes: To accommodate an SSD, HPE MicroServer Gen10 NHP SFF Converter Kit (870213-B21) must be selected.

HPE 480GB SATA 6G Read Intensive SFF RW Multi Vendor SSD P65272-B21

HPE 240GB SATA 6G Read Intensive SFF BC Multi Vendor SSD P40496-B21

HPE 960GB SATA 6G Read Intensive SFF BC Multi Vendor SSD P40498-B21

Notes: To accommodate an SSD, HPE MicroServer Gen10 NHP SFF Converter Kit (870213-B21) must be used/selected. If the new SFF drive has its own carrier (for instance, in P40496-B21 and P40498-B21 where HPE Basic Carrier, shown as “BC” in the product description, is included), remove the carrier before installing it in the converter kit.
Notes: P40496-B21 and P40498-B21 are supported as customer upgradeable options in MicroServer Gen11. They are NOT to be selected in a CTO configuration.

HPE M.2 Drives

HPE 480GB NVMe Gen4 Mainstream Performance Read Intensive M.2 PM9A3 SSD P69543-B21

Notes: To support this low power NVMe M.2 drive, the HPE ML30 Gen11 iLO/NIC/M.2/COM Port Kit (P65741-B21) must be installed.

Additional Options

HPE Networking

10 Gigabit Ethernet Adapter

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 Adapter

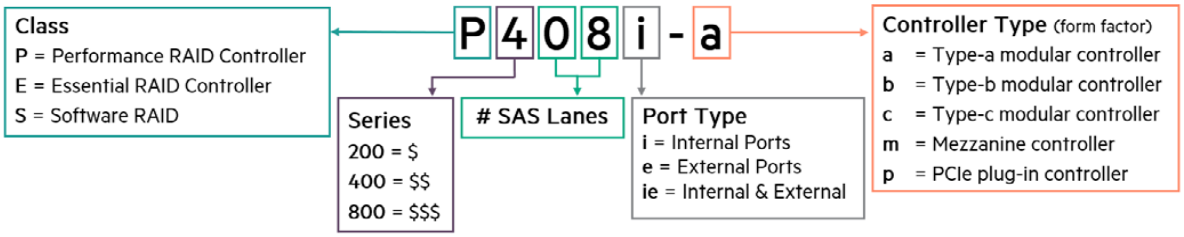
Broadcom BCM5719 Ethernet 1Gb 4-port BASE-T Adapter for HPE	P51178-B21
Intel I350-T4 Ethernet 1Gb 4-port BASE-T Adapter for HPE	P21106-B21

Notes: If Customer uses the OS RHEL 8.4 on Broadcom adapter (P26259-B21) they will need to download the driver from the following links.

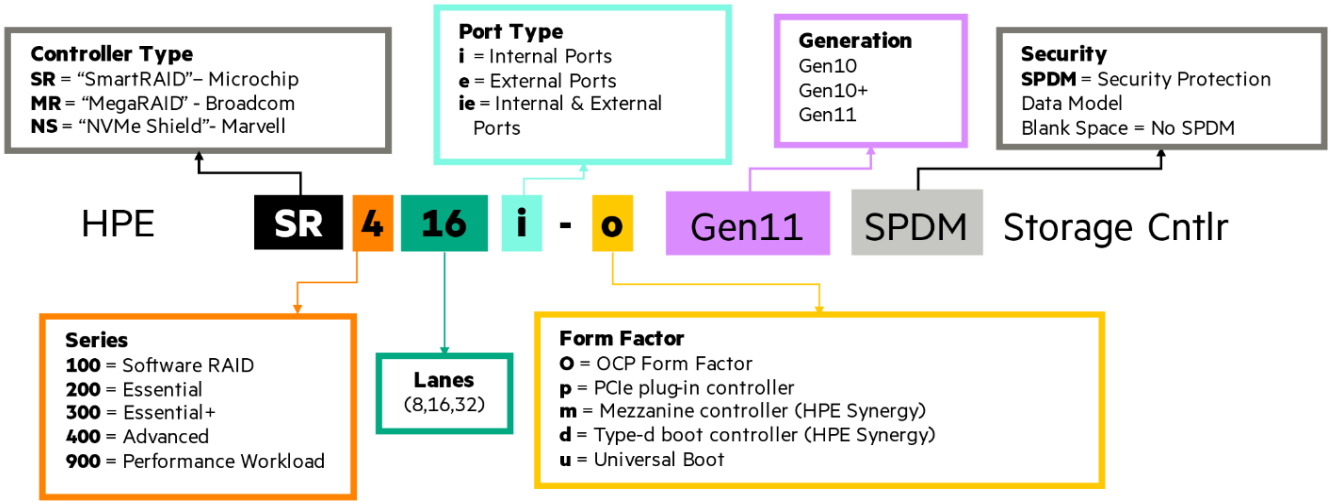
- **https://support.hpe.com/connect/s/softwaredetails?language=en_US&softwareId=MTX_91bef687f7694f3aa51a5e6277**
- **https://support.hpe.com/connect/s/softwaredetails?language=en_US&softwareId=MTX_579d5cde4cef4d108f24a326ff**

HPE Storage Controllers

The HPE Gen10 and Gen11 storage controller naming framework is shown as depicted below:



Gen10 storage controller naming framework



Gen11 storage controller naming framework

The Gen11 storage controller portfolio has been updated to include new technology. For a more detailed breakout of the available Gen11 controllers visit the storage controllers QuickSpecs sites:

- HPE Compute **MR Gen11 Controllers QuickSpecs**

Additional Options

- HPE Compute **SR Gen11 Controllers QuickSpecs**

Notes: MicroServer Gen11 supports NHP (non-hot-plug) operations only and hence some of the storage controller functionality may not be supported.

Essential RAID Controllers

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

HPE Tri-Mode Controllers

HPE MR216i-p Gen11 x16 Lanes without Cache PCI SPDM Plug-in Storage Controller	P47785-B21

Notes: When this storage controller is in the configuration, HPE MicroServer Gen11 Controller Cable Kit (P68413-B21) must be selected.

HPE MR408i-p Gen11 SPDM Storage Controller	P74775-B21

Notes:

- When this storage controller is in the configuration, HPE MicroServer Gen11 Controller Cable Kit (P68413-B21) must be selected.
- When MR408i-p controller is selected, then either HPE 96W Smart Storage Battery 260mm Cable (P01367-B21) or HPE Smart Hybrid Capacitor w/ 260mm Cable (P02381-B21) must be selected.

HPE Energy Packs

HPE 96W Smart Storage Lithium-ion Battery with 260mm Cable Kit	P01367-B21
HPE Smart Storage Hybrid Capacitor with 260mm Cable Kit	P02381-B21

Notes:

- Provides backup power for HPE Smart Array controllers. Required when MR408i-p is selected, which is a performance RAID controller.
- As max storage battery qty to be one per MicroServer Gen11 server, either HPE 96W Smart Storage Battery 260mm Cable (P01367-B21) or HPE Smart Hybrid Capacitor w/ 260mm Cable (P02381-B21) must be selected. They cannot be selected together.

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 Electronic License with 1yr Support on iLO Licensed Features	E6U59ABE
HPE iLO Advanced Electronic License with 3yr Support on iLO Licensed Features	E6U64ABE
HPE iLO Advanced 1-server License with 3yr Support on iLO Licensed Features	BD505A
HPE iLO Advanced AKA Tracking License with 3yr Support on iLO Licensed Features	BD507A

Additional Options

Software as a Service Management

HPE Compute Ops Management

HPE Compute Ops Management Advanced 1-year Upfront ProLiant SaaS	S5E58AAE
HPE Compute Ops Management Advanced 3-year Upfront ProLiant SaaS	S5E59AAE
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
HPE Compute Ops Management Advanced Flex with ProLiant Enablement	S6C28AAE

HPE Security

HPE ProLiant MicroServer Gen11 Server ships with embedded Trusted Platform Module (TPM) 2.0 enabled by default.

HPE USB Options

HPE Optical Drives

HPE Mobile USB DVD-RW Optical Drive	701498-B21

Memory

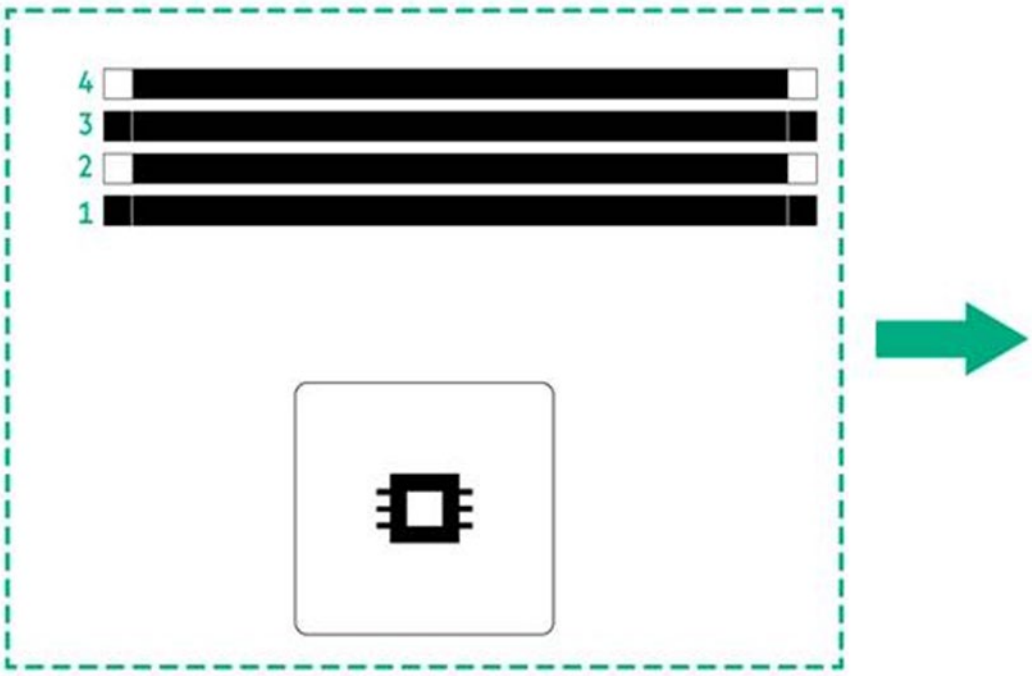
HPE Standard Memory

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 while being affordable.

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 MicroServer Gen11 Server.



CPU 1		
	Slot #	**Population Order**
Chnl 2	4 3	B D
Chnl 1	2 1	A C

General Memory Population Rules and Guidelines:

- The HPE ProLiant MicroServer Gen11 Server has four memory slots.
- Only ECC UDIMMs are supported on MicroServer Gen11. No support for non-ECC UDIMMs.
- Memory speed support depends on the type of processor installed. For more information, see the technical specification of the installed processor.
- The server supports up to 4400 MT/s ECC UDIMMs (Unbuffered DIMMS).
- The server supports up to 128GB (4 x 32 GB) UDIMMs.
- Population order; start with "A" first, "B" second, "C" third, etc.
- The server does not support Non-ECC UDIMMs, RDIMMs, and LRDIMMs
- Mixing memory DIMMs of different capacities in the server is not recommended.
- Always use HPE qualified DIMMs.

Memory

- For Server Memory Population Rules for HPE ProLiant Servers with Intel® Xeon® 6300-series Processors or Intel® Xeon® E-2400 Processors see details here: **http://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, please see 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.

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	Std Voltage 1.1V VDDQ, 1.8V VPP	Std 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® 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

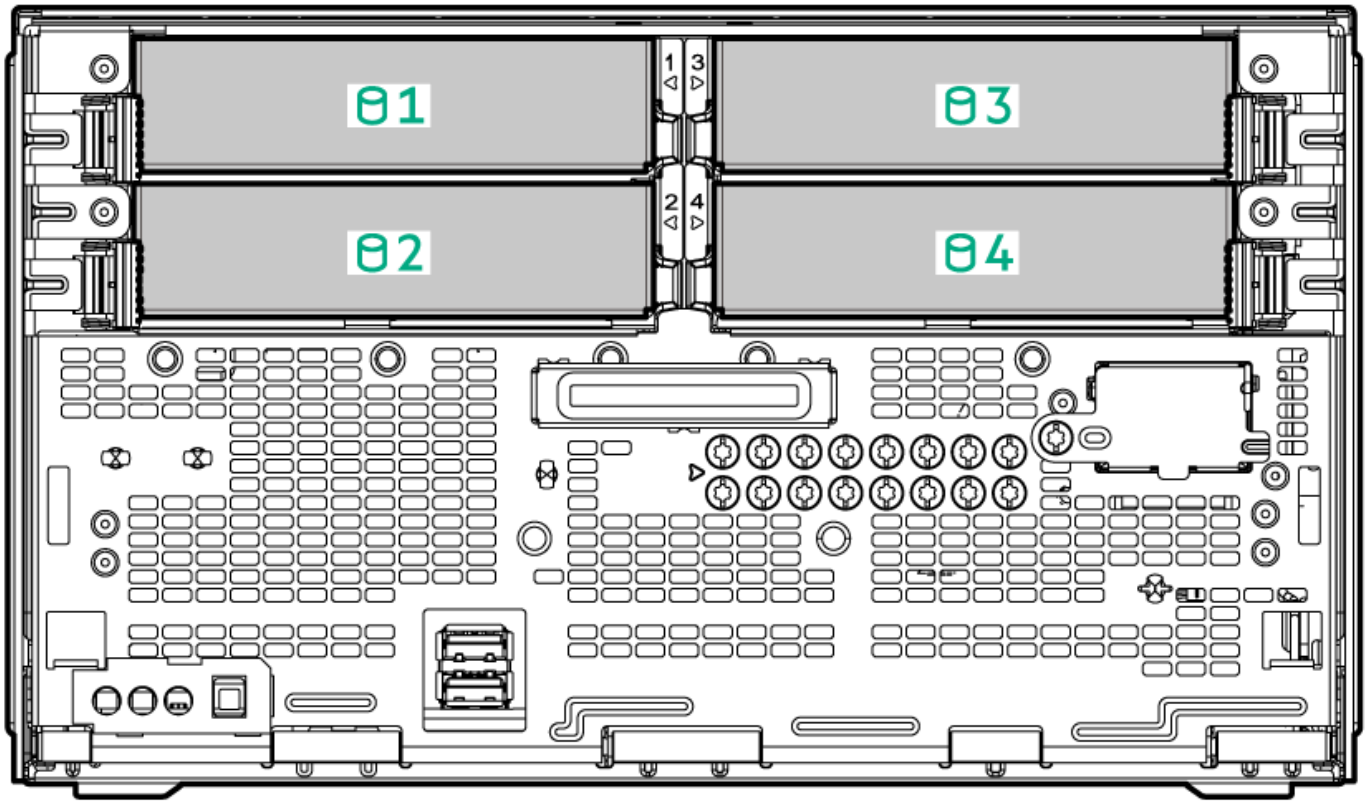
DDR5 memory options part number decoder

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.**

Storage



1-4 Four (4) non-hot plug drive bays

Drive Support			
Drive	**Quantity Supported**	**Position Supported**	**Controller**
NHP SATA SSD	4	1-4	VROC SR
NHP SATA HDD	4	1-4	VROC SR

Technical Specifications

System Unit

Dimensions

- **(H x W x D)** (with feet)
  6.06 x 10.28 x 9.82 in (15.4 x 26.1 x 24.9 cm)

Weight (approximate)

- **Maximum** (Four drives, four DIMMs, expansion board + iLO Enablement Kit)
  19.07 lb. (8.65 kg)
- **Minimum** (One DIMM installed, one drive, expansion board, iLO Enablement Kit)
  18.78 lb. (8.52 kg)

Input Requirements (per power supply)

- **Rated Line Voltage**
  100 VAC to 240 VAC
- **Rated Input Current**
  2.5 A (at 90 VAC)
- **Rated Input Frequency**
  50 to 60 Hz
- **Rated Input Power**
  180W Power Supply

Power Specifications

To review typical system power ratings, use the Power Advisor which is available via the online tool located at URL:
https://www.hpe.com/us/en/integrated-systems/rack-power-cooling.html

Power Supply Output (per power supply)

- **Rated Steady-State Power**
  180 W Power Supply
  180 W (at 100 VAC)
  180 W (at 200 VAC)
- **Maximum Peak Power**
  180 W Power Supply
  180 W (at 100 VAC)
  180 W (at 200 VAC)

Relative Humidity (non-condensing)

- **Operating**
  8% to 90% <In the UG, this is 8% to 90%. Please confirm with EPM.> - 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).

Technical Specifications

System Inlet Temperature

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

  System performance may be reduced if operating in the ambient operating range.
- **Non-operating**
  -30°C to 60°C (-22°F to 140°F) Maximum rate of change is 20°C/hr. (36°F/hr.).

Acoustic Noise

Listed are the declared 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.

Idle	
LWAd	3.4 Bels (Entry) 3.4 Bels (Performance 1) 3.4 Bels (Performance 2)
LpAm	24 dBA (Entry) 24 dBA (Performance 1) 24 dBA (Performance 2)
Kv	0.4 Bels (Entry) 0.4 Bels (Performance 1) 0.4 Bels (Performance 2)
Operating	
LWAd	3.4 Bels (Entry) 3.4 Bels (Performance 1) 3.4 Bels (Performance 2)
LpAm	24 dBA (Entry) 24 dBA (Performance 1) 24 dBA (Performance 2)
Kv	0.4 Bels (Entry) 0.4 Bels (Performance 1) 0.4 Bels (Performance 2)

Notes:

- 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.

Technical Specifications

- 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.
- The results in this declaration apply only to the model numbers listed above when operating and tested according to the indicated modes and standards. A system with additional configuration components or increased operating functionality may increase the noise emission values.
- The listed sound levels apply to standard shipping configurations defined as per the legacy WW BTO model plan. Additional options may result in increased sound levels, for example, higher power processors (>65W), additional graphic processing units (GPU), SSDs or NVMe M.2.
- For more information, please refer to Acoustics Guidelines for HPE ProLiant MicroServer Gen11 Server or at https://support.hpe.com/hpesc/docDisplay?docId=dp00005840en_us

Emissions Classification (EMC)

- **FCC Rating**
  Class B
- **Normative Standards**
  CISPR32, EN55032, EN55024
  FCC CFR 47, Pt15; ICES-003; CNS13438; GB9254
  K32; K24; EN61000-3-2;
  EN61000-3-3;

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

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 (2012/19/EU) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard Enterprise web site. These instructions may be used by recyclers and other WEEE treatment facilities as well as Hewlett Packard Enterprise OEM customers who integrate and re-sell Hewlett Packard Enterprise equipment.

Summary of Changes

Date	Version History	Action	Description of Change
28-Jul-2025	**Version 11**	Changed	Update survey link.
05-May-2025	**Version 10**	Changed	Overview, Standard Features, Configuration Information, Additional Options and Technical Specifications sections were updated. Added: Software as a Service Management Enablement SKU (COM Option), Power Cord, Storage Controller and System Acoustics Specs.
07-Apr-2025	**Version 9**	Changed	Overview, Standard Features, Configuration Information and Additional Options sections were updated. Added: Storage Controller SKU, Power Adapter SKU, COM Advanced SKUs and QuickSpecs Survey. Removed: HPE RDX SKUs.
24-Feb-2025	**Version 8**	Changed	Overview, Standard Features, Configuration Information and Additional Options sections were updated. (Intel Xeon 6300 processors added, service/warranty updated to one-year, Intel VROC Software RAID naming changed to Hybrid RAID)
10-Dec-2024	**Version 7**	Changed	Overview, Standard Features, Optional Features, Pre-Configured Models, Configuration Information, and Technical Specifications sections were updated. (iLO support updated – remote sever mgmt. is now enabled thru the on-board shared iLO port without the need of the additional module. Operating Systems matrix updated)
02-Dec-2024	**Version 6**	Changed	Overview, Pre-Configured Models and Additional Options sections were updated. (New storage controller added, BTO SKU list revised. KB/M section removed)
21-Oct-2024	**Version 5**	Changed	Additional Options section was updated. (Revised the remark to BC SSDs and the wall mount kit.)
16-Sep-2024	**Version 4**	Changed	Overview, Pre-Configured Models and Configuration Information Sections were updated.
03-Sep-2024	**Version 3**	Changed	Overview, Standard Features (Operating Systems and Virtualization Software Support for HPE Servers), Pre-Configured Models (TPM and Smart Choice) and Configuration Information sections were updated.
05-Aug-2024	**Version 2**	Changed	Pre-Configured Models section was updated. (TPM China).
3-Jun-2024	**Version 1**	New	New QuickSpecs.

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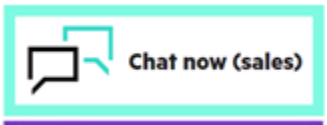

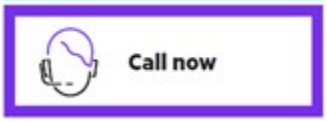

For hard drives, 1GB = 1 billion bytes. Actual formatted capacity is less.

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