

Overview

HPE ProLiant MicroServer Gen10 Plus v2

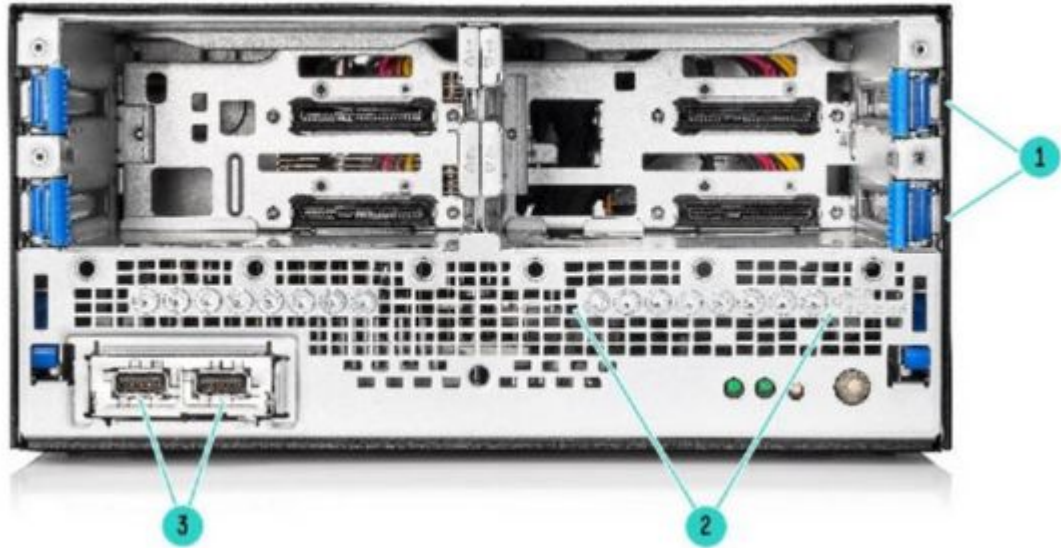
HPE ProLiant MicroServer Gen10 Plus v2 delivers an affordable compact yet powerful entry level server that you can customize for on-premises, hybrid cloud, or even workloads demanding datacenter performance. It has the same design as the previous version and can be placed flat or vertically depending on customer environment. The latest Intel Xeon® E 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 4x 1GbE onboard NICs and USB 3.2 Gen2 Type-A, 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)

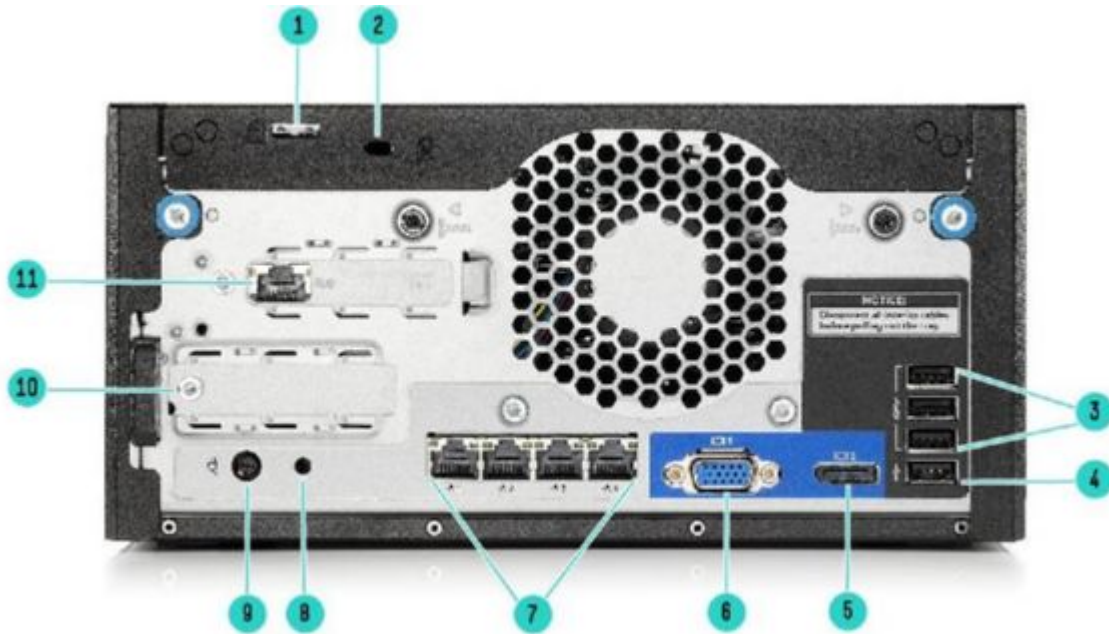
1. USB 3.2 Gen2 Type-A ports
2. Drive activity LED
3. NIC status LED
4. Health LED
5. Power on/Standby button and system power LED

Overview



Front View (Internal)

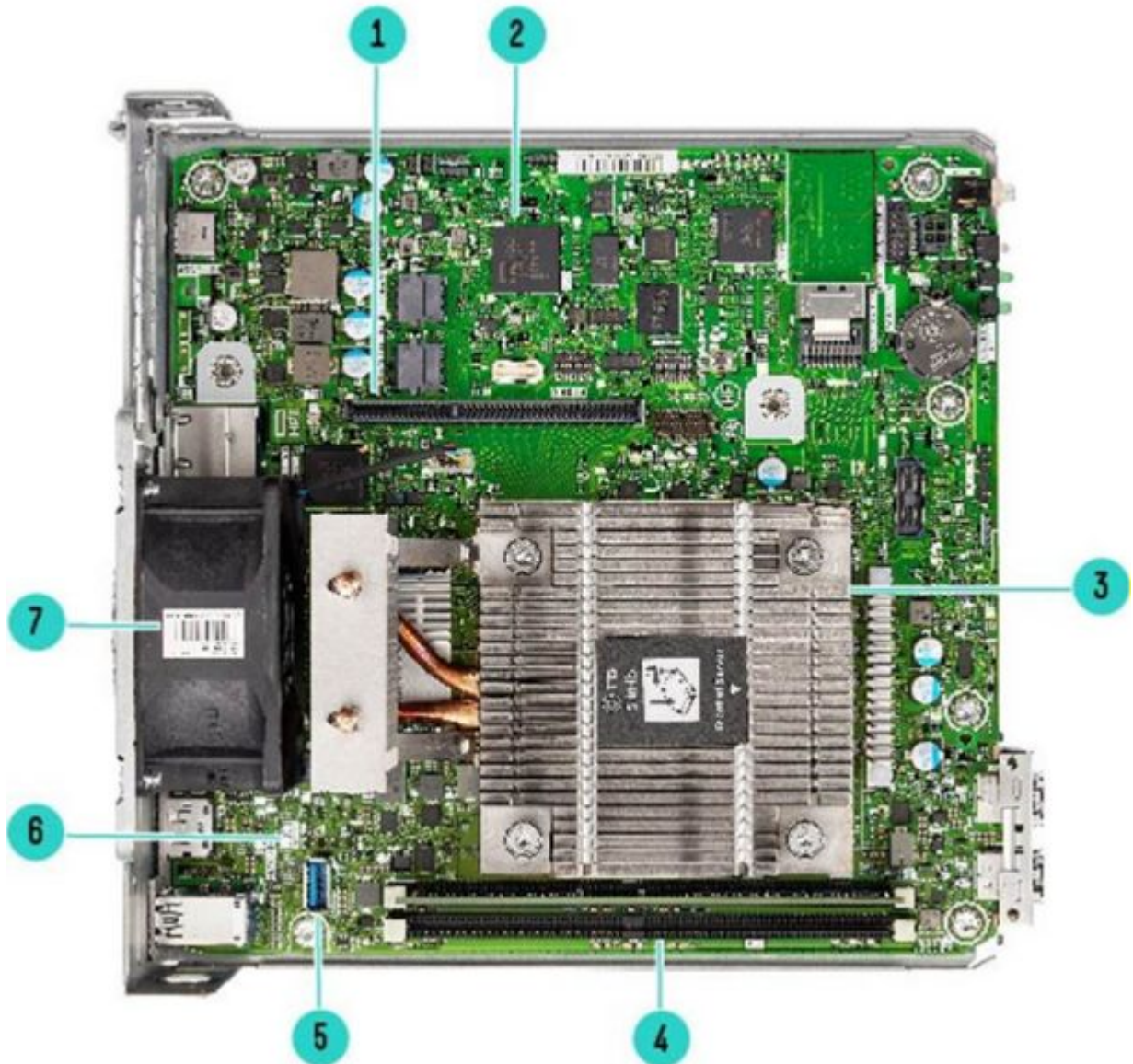
- 1. Four (4) LFF NHP SATA HDD cage
- 2. Hard drive screws
- 3. USB 3.2 Gen2 Type-A ports



Rear View

- 1. Padlock eye
- 2. Kensington security slot
- 3. Three (3) USB 3.2 Gen1 Type-A ports
- 4. One (1) USB 2.0 Type-A ports
- 5. DisplayPort 1.1a
- 6. VGA port
- 7. Four (4) NIC ports (NIC1-4 from left)
- 8. Power clip hole (for the power cord clip to firmly secure the power adapter.)
- 9. Power jack
- 10. PCIe Gen4 low-profile slot (PCIe4 x16)
- 11. iLO Enablement Kit slot (1x iLO Dedicated NIC port)

Overview

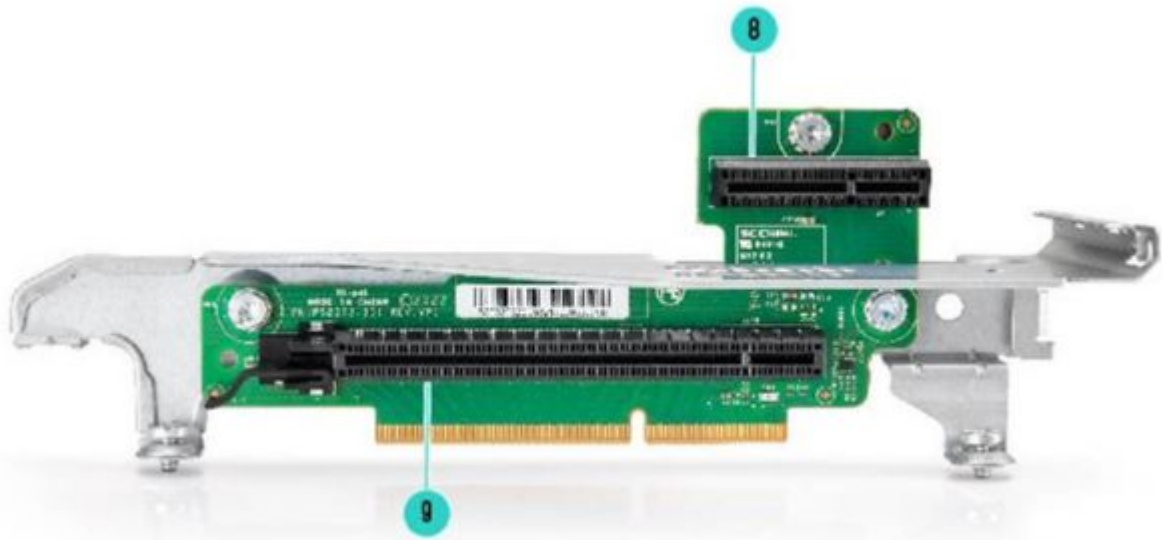


Mainboard

Internal View:

1. Riser board connector
2. iLO 5 chip onboard
3. One (1) processor and heatsink
4. Two (2) DDR4 UDIMM slots
5. One (1) internal USB 3.2 Gen 1 Type-A port
6. Embedded TPM
7. System fan

Overview



Riser Board

- 8. Riser board - iLO Enablement Kit slot
- 9. Riser board - Expansion low-profile slot, PCIe4 x16



iLO Enablement Kit

Standard Features

Processor

Intel® Xeon® E Processor is designed to deliver the best combination of performance, built-in capabilities, and cost-effectiveness. This product also supports Intel® Pentium® processors.

Choose one of the following processors based on the model:

For more information regarding Intel Xeon processors, please see the following

<http://www.intel.com/xeon>.

Intel Xeon E-2300 Series / 10th Gen Pentium G						
Model	CPU Base Frequency	Cores	Smart Cache	Power	DDR4	SGX
Xeon E-2314	2.8 GHz	4	8 MB	65W	3200 MT/s	Yes
Pentium G6405	4.1 GHz	2	4 MB	58W	2666 MT/s	No

Notes: Intel® Xeon E-2314 supports Turbo Boost which can make the CPU frequency to up to 4.5GHz.

Chipset

Intel® C252 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 5 ASIC

Notes:

– MicroServer Gen10 Plus v2 does not support remote management/ out-of-band management by default. The MicroServer Gen10 Plus iLO Enablement Kit (P13788-B21) must be installed to activate remote management. Without the iLO Enablement Kit, the server only supports in-band management features.

o The iLO Enablement Kit supports below features:

- It acts as an activation key for remote management to the server
- An iLO dedicated NIC port comes with the kit
- The iLO 5 Essentials features are activated upon installing the enablement kit:

o Email-Based Alerting

o Integrated Remote Console (IRC/Virtual KVM - Supports text and graphics)

o Virtual Media via Integrated Remote Console

– iLO support will follow same warranty term as the server itself.

– Read and learn more in the [HPE iLO QuickSpecs](#).

Memory

Standard Features

Type	HPE Standard Memory DDR4 Unbuffered (UDIMM)
DIMM Slots Available	2
Maximum Capacity	64GB (2 x 32GB UDIMM @3200 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/docs/memory-speed-table

Memory Protection

- ECC

Network Controller

Embedded Intel i350 AM4 1Gb 4-port network controller

The HPE ProLiant MicroServer Gen10 Plus v2 server offers the customer a 4-port NIC standard with the option to upgrade with a variety of networking options.

Expansion Slots

Expansion Slot #	Technology	Bus Width	Connector Width	Form Factor	Notes
1	PCIe 4.0	x 16	x 16	Low Profile	Supported on the PCIe Riser Board

Storage Controller

Intel VROC SATA Software RAID

Notes: The embedded Intel Virtual RAID on CPU (Intel VROC) is the SATA software 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 SW 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

Standard Features

- 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)

o Windows Edition

o Linux Edition

- Intel VROC SATA RAID cannot be created in Intelligent Provisioning. It must be installed manually.
- 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://www.hpe.com/support/IntelVROC-Gen10Plus-docs>
- Intel VROC supports RAID management through the following tools:

o non-OS specific: UEFI System Utilities

o Windows: Intel VROC GUI, Intel VROC CLI.

Essential RAID Controller
HPE Smart Array E208i-p SR Gen10 Controller

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.

Interfaces

Standard Features

Video	1 Rear VGA port 1 Rear DisplayPort 1.1a
USB 2.0 Type-A Ports	1 total (1 rear)
USB 3.2 Gen 1 Type-A Ports	4 total (1 internal and 3 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 5 chipset does not support dual display or screen extension mode.

Server Power Cords

All pre-configured models ship standard with one or more country-specific 6 ft/1.83m C5 power cords depending on models. If a different power cord is required, please check the [HPE Power Cords and Cables](#) web page.

Power Supply

- One (1) 180 Watts, non-redundant External Power Adapter

Form Factor

- Ultra Micro Tower

System Fans

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

Industry Standard Compliance

- ACPI V6.1 Compliant
- PCIe 4.0 Compliant
- PXE Support
- WOL Support
- EMC Class B
- Microsoft® Logo certifications
- VGA Port
- DP 1.1a
- SMBIOS 3.1
- UEFI 2.6
- Redfish API
- IPMI 2.0
- TPM 2.0 Gen10 Plus support
- Advanced Encryption Standard (AES)

- Triple Data Encryption Standard (3DES)SNMP v3

Standard Features

- TLS 1.2
 - DMTF Systems Management Architecture for Server Hardware Command Line Protocol (SMASH CLP)
 - Active Directory v1.0
 - ASHRAE A2
 - UEFI (Unified Extensible Firmware Interface Forum)
 - USB 2.0 Compliant
 - USB 3.2 Compliant
 - SATA 6Gb/s
-

Operating Systems and Virtualization Software Support for ProLiant Servers

- **Microsoft Windows Server 2019:** Essentials, Standard, Datacenter, Hyper-V
- **Microsoft Windows Server 2022: Essentials, Standard, Datacenter**
- Red Hat Enterprise Linux (RHEL): 8.4 (64 bit, includes KVM)
- VMware vSphere: 7.0 U3

Notes: VMware supported only on MicroServer performance SKUs and not on entry SKUs. No Legacy Mode Support on VMWare. <https://kb.vmware.com/s/article/84233>

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/Legacy ROM

Unified Extensible Firmware Interface (UEFI) is an industry standard that provides better manageability and more secured configuration than the legacy ROM while interacting with your server at boot time. HPE ProLiant Gen10 Plus servers have a UEFI Class 2 implementation and support both UEFI Mode (default) and Legacy BIOS 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 enable for enhanced security
- Operating system specific functionality
- Support for > 2.2 TB (using GPT) boot drives
- USB 3.0 Stack
- Embedded UEFI Shell
- Mass Configuration Deployment Tool using iLO RESTful API that is Redfish API Conformant
- PXE boot support for IPv6 networks
- Workload Profiles for simple performance optimization

UEFI Boot Mode only

- TPM 2.0 Support
- 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.

–Intel VROC SATA for HPE ProLiant Gen10 Plus v2 will operate in UEFI mode only.

Standard Features

- Legacy FIO Setting (758959-B22) can be selected to configure the system in Legacy mode in the factory for your HPE ProLiant Gen10 Plus Server.
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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:

- To activate iLO remote management, the MicroServer Gen10 Plus iLO Enablement Kit (P13788-B21) needs to be installed.
- Without the MicroServer Gen10 Plus iLO Enablement Kit (P13788-B21), the Embedded Management, Server Utilities and iLO 5 Standard features will only be available for on-premise usage.

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>.

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>.

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 is a scripting tool to provision using RESTful API for iLO 4 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 Systems Insight Manager (HPE SIM)

HPE SIM allows you to monitor the health of your HPE ProLiant Servers and HPE Integrity Servers, and also provides you with basic support for non-HPE servers. HPE SIM also integrates with Smart Update Manager to provide quick and seamless firmware updates.

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

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. 3) Non-CSR parts must be serviced by a trained authorized service engineer. Additional information regarding worldwide limited warranty and technical support is available at:

Standard Features

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

Optional Features

Server Management

MicroServer Gen10 Plus iLO Enablement Kit

MicroServer Gen10 Plus v2 does not support remote management/ out-of-band management by default. The MicroServer Gen10 Plus iLO Enablement Kit (P13788-B21) must be installed to activate remote management. Without the iLO Enablement Kit, the server only supports in-band management features.

The iLO Enablement Kit supports below features:

- 1) It acts as an activation key for remote management to the server
 - 2) An iLO dedicated NIC port comes with the kit
 - 3) The iLO 5 Essentials features are activated upon installing the enablement kit:
 - Email-Based Alerting
 - Integrated Remote Console (IRC/Virtual KVM - Supports text and graphics)
 - Virtual Media via Integrated Remote Console
- iLO support will follow same warranty term as the server itself.

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 GreenLake for Compute Ops Management

HPE is intelligently transforming compute management with a completely new as-a-service experience that delivers greater security, simplicity, and efficiency through HPE GreenLake that securely streamlines operations from edge-to-cloud, and automates key lifecycle tasks (onboard, update, manage and monitor HPE servers), bringing the agility and greater efficiencies to wherever compute devices reside via a unified single browser-based interface.

Compute Ops Management is built on a unique cloud-native architecture that abstracts, manages and controls HPE servers regardless of physical location. The management application resides in the HPE GreenLake cloud platform (access via <https://console.greenlake.hpe.com>) and leverages the HPE GreenLake architecture, security, and unified operations.

Standard and Enhanced tier subscription options are available.

For a complete list of SKUs and more information, visit the HPE GreenLake for Compute Ops Management QuickSpecs: <https://www.hpe.com/psnow/doc/a50004263enw>

Supported Servers - Complete list can be found here: <https://www.hpe.com/info/com-supported-servers>

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>

One Config Simple (SCE)

Optional Features

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.

<http://ocs.ext.hpe.com/>.

Service and Support

HPE Pointnext - Service and Support

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

Consume IT on your terms

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

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

Managed services to run your IT operations

HPE GreenLake Management Services provides 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.

Recommended Services

HPE Pointnext Tech Care.

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

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

HPE Pointnext Complete Care

HPE Pointnext Complete Care is a modular, edge-to-cloud IT environment service that provides a holistic approach to optimizing your entire IT environment and achieving agreed upon IT outcomes and business goals through a personalized and customer-centric experience. All delivered by an assigned team of HPE Pointnext Services experts. HPE Pointnext Complete Care 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/complecare>

Service and Support

Other related Services

HPE Server Hardware Installation

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

<https://www.hpe.com/h20195/V2/GetPDF.aspx/5981-9356ENW.pdf>

HPE Installation and Startup Service

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

HPE Service Credits

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

HPE Education Services

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

<http://www.hpe.com/ww/learn>

HPE Support Center

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

<http://www.hpe.com/support/hpesc>.

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

Notes:

– *HPE Support Center Mobile App is subject to local availability. For more information:

<http://www.hpe.com/services>.

– HPE ProLiant MicroServer Gen10 Plus v2 Server is covered under the HPE Service Contract applied to the HPE ProLiant Server. No separate HPE support services need to be purchased.

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

Parts and Materials

Hewlett Packard Enterprise will provide HPE-supported replacement parts and materials necessary to

Service and Support

maintain the covered hardware product in operating condition, including parts and materials for available and recommended engineering improvements.

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

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

Pre-configured Models

Pre-configured models ship with the configurations below. Options can be selected from the Core or Additional options section of this QuickSpecs.

Hewlett Packard Enterprise does not allow factory integration of options into pre-configured models. Any additional options purchased will be shipped separately.

	Entry	Performance 1	Performance 2
SKU Numbers	P54644-001	P54649-001	P54654-001
	P54644-291	P54649-291	P54654-421
	P54644-371	P54649-371	N/A
	P54644-421	P54649-421	N/A
	P54644-AA1	N/A	N/A
Model Name	HPE ProLiant MicroServer Gen10 Plus v2 G6405 2-core 16GB-U VROC 4LFF-NHP 180W External PS Server	HPE ProLiant MicroServer Gen10 Plus v2 E-2314 4-core 16GB-U VROC 4LFF-NHP 180W External PS Server	HPE ProLiant MicroServer Gen10 Plus v2 E-2314 4-core VROC 4LFF-NHP 1TB 180W External PS Server
Processor	Intel® Pentium® G6405	Intel® Xeon® E-2314	Intel® Xeon® E-2314
Memory	16 GB UDIMM DDR4 3200 MT/s (1x 16 GB) Notes: Total of 2 DIMM slots. With G6405 processor, memory speed supports up to 2666 MT/s	16 GB UDIMM DDR4 3200 MT/s (1x 16 GB) Notes: Total of 2 DIMM slots. With E-2314 processor, memory speed supports up to 3200 MT/s	16 GB UDIMM DDR4 3200 MT/s (1x 16 GB) Notes: Total of 2 DIMM slots. With E-2314 processor, memory speed supports up to 3200 MT/s
Network Controller	Embedded 1Gb 4-Port Intel i350-AM4 Controller	Embedded 1Gb 4-Port Intel i350-AM4 Controller	Embedded 1Gb 4-Port Intel i350-AM4 Controller
Storage Controller	Embedded Intel VROC SATA SW RAID	Embedded Intel VROC SATA SW RAID	Embedded Intel VROC SATA SW RAID
Hard Drive	None ship as standard	None ship as standard	(1) 1TB SATA 6G Business Critical 7.2K LFF RW HDD
Internal Storage	4 LFF NHP SATA HDD cage	4 LFF NHP SATA HDD cage	4 LFF NHP SATA HDD cage
Optical Drive Bay	N/A	N/A	N/A
PCI-Express Slots	1 standard (Low Profile) PCIe 4.0	1 standard (Low Profile) PCIe 4.0	1 standard (Low Profile) PCIe 4.0
Power Supply	(1) 180W External Power Adapter, Non-Redundant Power Supply	(1) 180W External Power Adapter, Non-Redundant Power Supply	(1) 180W External Power Adapter, Non-Redundant Power Supply
Fans	(1) A non-redundant system fan ships standard	(1) A non-redundant system fan ships standard	(1) A non-redundant system fan ships standard
Operating System	None ship as standard	None ship as standard	None ship as standard
Form Factor	Ultra Micro Tower	Ultra Micro Tower	Ultra Micro Tower
Warranty	Server Warranty includes 1-Year Parts, 1-Year Labor, 1-Year Onsite support with next business day response	Server Warranty includes 1-Year Parts, 1-Year Labor, 1-Year Onsite support with next business day response	Server Warranty includes 1-Year Parts, 1-Year Labor, 1-Year Onsite support with next business day response

Pre-configured Models

Country Code Key

XXX = 001 AMS

XXX = 421 EMEA

XXX = 371 AP

XXX = 291 Japan

XXX = AA1 PRC

Additional Options

HPE Unique Options

HPE MicroServer Gen10 Plus iLO Enablement Kit P13788-B21

Notes: This kit plugs to the iLO Enablement Kit slot on the riser board. This kit provides several functionalities:

- 1) It acts as an activation key for remote management to the server
- 2) An iLO dedicated NIC port comes with the kit
- 3) The iLO 5 Essentials features are activated upon installing the enablement kit:
 - o Email-Based Alerting
 - o Integrated Remote Console (IRC/Virtual KVM - Supports text and graphics)
 - o Virtual Media via Integrated Remote Console

When the iLO Enablement Kit is integrated, NIC port 1 can be configured as an iLO shared NIC port.

HPE MicroServer Gen10 SFF NHP SATA Converter Kit 870213-B21

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

HPE Memory

Unbuffered with ECC DIMMs (UDIMMs)

HPE 16GB (1x16GB) Single Rank x8 DDR4-3200 CAS-22-22-22 Unbuffered Standard Memory Kit P43019-B21

HPE 32GB (1x32GB) Dual Rank x8 DDR4-3200 CAS-22-22-22 Unbuffered Standard Memory Kit P43022-B21

Notes: Running at 2666 MT/s with Intel Pentium® G families due to processor limitation. Mixing memory DIMMs of different capacities in the server is not recommended.

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

HPE 240GB SATA 6G Read Intensive SFF RW Multi Vendor SSD P47809-B21

HPE 480GB SATA 6G Read Intensive SFF BC Multi Vendor SSD P40497-B21

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

Additional Options

Notes: To accommodate an SSD, HPE MicroServer Gen10 SFF NHP SATA Converter Kit (870213-B21) must be used. If the new SFF drive has its own carrier, remove the carrier before installing it in the convertor kit.

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

Intel X710-DA2 Ethernet 10Gb 2-port SFP+ Adapter for HPE P28787-B21

1 Gigabit Ethernet Adapter

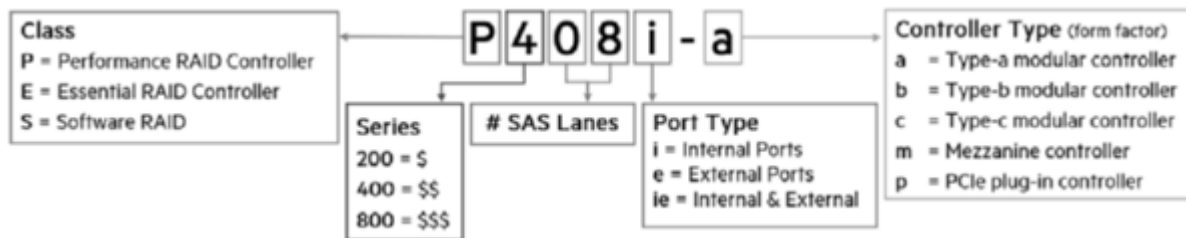
Intel I350-T4 Ethernet 1Gb 4-port BASE-T Adapter for HPE P21106-B21

Notes: If Customer uses the OS RHEL 8.4 on Broadcom adapters (P28787-B21 or P26259-B21) they will need to download the driver from the following links.

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

HPE Smart Array Controllers

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



Essential RAID Controllers

HPE Smart Array E208i-p SR Gen10 (8 Internal Lanes/No Cache) 12G SAS PCIe Plug-in Controller 804394-B21

Embedded Management

HPE iLO Advanced

HPE iLO Advanced 1-server License with 1yr Support on iLO Licensed Features 512485-B21

HPE iLO Advanced Flexible Quantity License with 1yr Support on iLO Licensed Features 512486-B21

HPE iLO Advanced AKA Tracking License with 1yr Support on iLO Licensed Features 512487-B21

HPE iLO Advanced 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 Flexible Quantity License with 3yr Support on iLO Licensed Features BD506A

Additional Options

HPE iLO Advanced AKA Tracking License with 3yr Support on iLO Licensed Features	BD507A
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Software as a Service Management

HPE GreenLake for Compute Ops Management

HPE GreenLake for Compute Ops Management Standard 3-year Upfront ProLiant SaaS	R6Z89AAE
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Additional Options

HPE GreenLake for Compute Ops Management Standard 1-year Upfront ProLiant SaaS	R6Z88AAE
HPE GreenLake for Compute Ops Management Standard 5-year Upfront ProLiant SaaS	R6Z90AAE
HPE GreenLake for Compute Ops Management Standard 1-year Monthly ProLiant SaaS	R6Z91AAE
HPE GreenLake for Compute Ops Management Standard 3-year Monthly ProLiant SaaS	R6Z92AAE
HPE GreenLake for Compute Ops Management Standard 5-year Monthly ProLiant SaaS	R6Z93AAE
HPE GreenLake for Compute Ops Management Enhanced 1-year Upfront ProLiant SaaS	R7A10AAE
HPE GreenLake for Compute Ops Management Enhanced 3-year Upfront ProLiant SaaS	R7A11AAE
HPE GreenLake for Compute Ops Management Enhanced 5-year Upfront ProLiant SaaS	R7A12AAE
HPE GreenLake for Compute Ops Management Enhanced 1-year Monthly ProLiant SaaS	R7A13AAE
HPE GreenLake for Compute Ops Management Enhanced 3-year Monthly ProLiant SaaS	R7A14AAE
HPE GreenLake for Compute Ops Management Enhanced 5-year Monthly ProLiant SaaS	R7A15AAE

Notes: For customers purchasing HPE GreenLake for Compute Ops Management, without a hardware purchase or a BTO purchase, use this base SKU within ASQ order:

HPE GreenLake for Compute Ops Management Base SaaS	R6Z73AAE
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HPE Security

HPE ProLiant MicroServer Gen10 Plus v2 Server ships with embedded Trusted Platform Module (TPM) 2.0 enabled by default.

For servers shipping to China, the TPM is disabled.

HPE Disk Backup

For the complete range of RDX drives and media see:

<https://www.hpe.com/us/en/product-catalog/storage/disk-based-backup-systems.html>.

For hardware and software compatibility of HPE disk backup products see:

<http://www.hpe.com/storage/spock>.

Please see the [HPE RDX Removable Disk Backup System QuickSpecs](#) for additional part numbers, technical specifications, and additional information.

HPE RDX 500GB Removable Disk Cartridge	Q2042A
HPE RDX 1TB Removable Disk Cartridge	Q2044A
HPE RDX 2TB Removable Disk Cartridge	Q2046A
HPE RDX 4TB Removable Disk Cartridge	Q2048A
HPE RDX External Docking Station	C8S07B

HPE USB Options

HPE Enterprise Mainstream Flash Media Kits for Memory Cards

Additional Options

HPE 32GB microSD RAID 1 USB Boot Drive P21868-B21

Notes: In vSphere 7.0, VMware made changes that impact the use of an SD Card/USB media as a standalone boot device and will be removing support for them after version 7.x.

SD Card/USB media can still be used as a standalone boot option through all 7.x releases via published [Customer Advisory Usage of SD Card/USB Devices As Standalone Boot Devices Has Changed Due to System Storage Changes For VMware ESXi 7.0 \(Or Later\)](#).

For any major release beyond VMware ESXi 7.x, VMware will require M.2 or another local persistent device as the standalone boot option.

HPE Optical Drives

HPE Mobile USB DVD-RW Optical Drive 701498-B21

HPE USB Keyboard and Mouse

HPE USB US Keyboard/Mouse Kit 631341-B21

HPE USB JP Keyboard/Mouse Kit 631360-B21

HPE USB AP/INTL Keyboard/Mouse Kit 672097-373

HPE USB INTL Keyboard/Mouse Kit 672097-B33

HPE USB UK Keyboard/Mouse Kit 631344-B21

HPE USB FR Keyboard/Mouse Kit 631346-B21

HPE USB ES Keyboard/Mouse Kit 631348-B21

HPE USB DE Keyboard/Mouse Kit 631358-B21

HPE USB IT Keyboard/Mouse Kit 631362-B21

HPE USB CN Keyboard/Mouse Kit 631364-B21

HPE USB AE Keyboard/Mouse Kit 638212-B21

HPE USB RU Keyboard/Mouse Kit 638214-B21

HPE USB SE Keyboard/Mouse Kit 672097-103

HPE USB CH Keyboard/Mouse Kit 672097-113

HPE USB PT Keyboard/Mouse Kit 672097-133

HPE USB TR Keyboard/Mouse Kit 672097-143

HPE USB CZ Keyboard/Mouse Kit 672097-223

HPE USB FI Keyboard/Mouse Kit 672097-353

HPE USB IN Keyboard/Mouse Kit 672097-D63

HPE USB KR Keyboard/Mouse Kit 672097-KD3

HPE Support Services

HPE Pointnext Tech Care

HPE 3 Year Tech Care Basic Microserver Gen10 Plus Service H39M3E

HPE 3 Year Tech Care Basic wCDMR Microserver Gen10 Plus Service H40E7E

HPE 3 Year Tech Care Basic wDMR Microserver Gen10 Plus Service H40D7E

HPE 3 Year Tech Care Essential Microserver Gen10 Plus Service H40F7E

HPE 3 Year Tech Care Essential wCDMR Microserver Gen10 Plus Service H41Q7E

HPE 3 Year Tech Care Essential wDMR Microserver Gen10 Plus Service H40Y2E

HPE 5 Year Tech Care Basic Microserver Gen10 Plus Service H39P2E

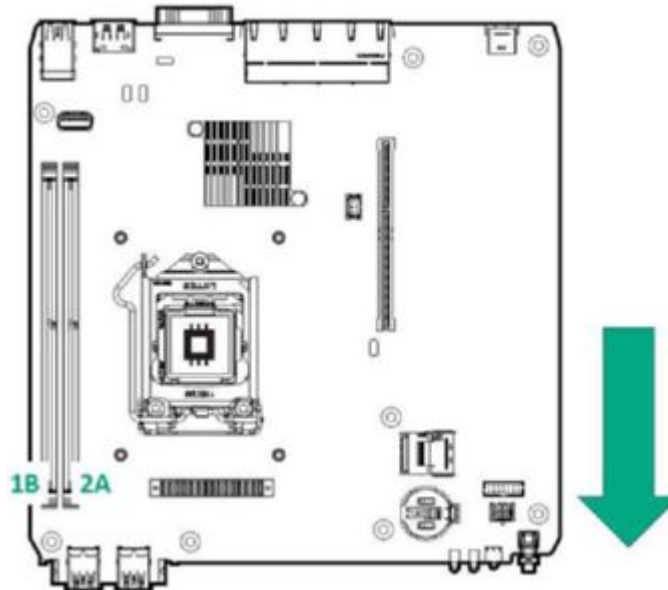
Additional Options

HPE 5 Year Tech Care Basic wCDMR Microserver Gen10 Plus Service	H75J0E
HPE 5 Year Tech Care Basic wDMR Microserver Gen10 Plus Service	H38W6E
HPE 5 Year Tech Care Essential Microserver Gen10 Plus Service	H40H6E
HPE 5 Year Tech Care Essential wCDMR Microserver Gen10 Plus Service	H38K3E
HPE 5 Year Tech Care Essential wDMR Microserver Gen10 Plus Service	H41A1E

Memory

HPE ProLiant MicroServer Generation 10 Plus v2

64GB of maximum memory is available with the installation of 2 x 32 GB UDIMM Memory kits. <Below image is Pinot SB, not Moscato. Moscato system battery is below the SATA port.>



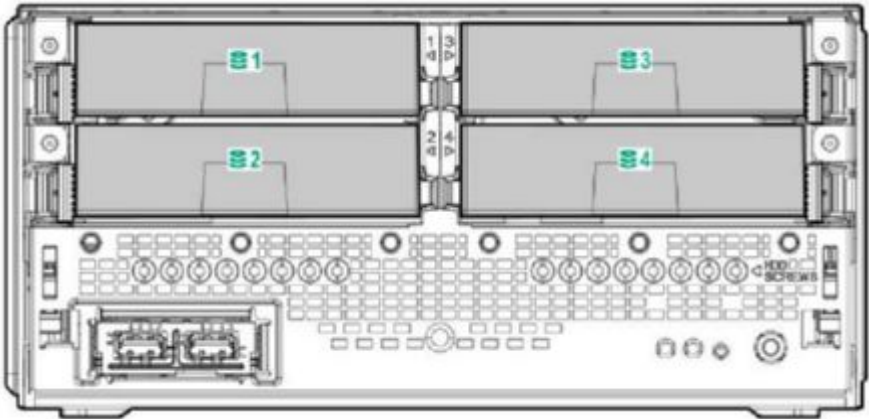
Maximum Memory

Memory Population			
Memory		Slot 2A	Slot 1B
Standard	16 GB	16 GB	Empty
Optional	32 GB	16 GB	16 GB
Maximum	64 GB	32 GB	32 GB

General Memory Population Rules and Guidelines:

- The HPE ProLiant MicroServer Gen10 Plus v2 Server has two memory slots.
- Only ECC UDIMMs are supported on MicroServer Gen10 Plus v2. 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 3200 MT/s ECC UDIMMs (Unbuffered DIMMS).
- The server supports up to 64 GB (2 x 32 GB) UDIMMs.
- The server does not support Non-ECC UDIMMs, RDIMMs, and LRDIMMs
- Populate the DIMM on slots in this sequence: 2-A, 1-B
- Mixing memory DIMMs of different capacities in the server is not recommended.
- Always use HPE qualified DIMMs.

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 or E208i-p SR
NHP SATA HDD	4	1-4	VROC SR or E208i-p SR

Technical Specifications

System Unit

Dimensions

- **(H x W x D)** (with feet)
4.68 x 9.65 x 9.65 in (11.89 x 24.5 x 24.5 cm)

Weight (approximate)

- **Maximum** (Four drives, two DIMMs, expansion board + iLO Enablement Kit)
15.87 lb (7.2 kg)
- **Minimum** (One DIMM installed, no drive, expansion board, iLO Enablement Kit)
9.33 lb (4.23 kg)

Input Requirements (per power supply)

- **Rated Line Voltage**
100 V AC 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

Technical Specifications

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

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 (LWAd) and declared average bystander position A-Weighted sound pressure levels (LpAm) when the product is operating in a 23°C ambient environment. Noise emissions were measured in accordance with ISO 7779 (ECMA 74) and declared in accordance with ISO 9296 (ECMA 109). The listed sound levels apply to standard shipping configurations. Additional options may result in increased sound levels. Please have your HPE representative provide information from the HPE EMESC website for further technical details regarding the configurations listed below.

Idle	
LWAd	3.5 Bels (Entry) 3.5 Bels (Performance 1) 3.7 Bels (Performance 2)
LpAm	24 dBA (Entry) 24 dBA (Performance 1) 24 dBA (Performance 2)
Operating	
LWAd	3.5 Bels (Entry) 3.5 Bels (Performance 1) 3.7 Bels (Performance 2)
LpAm	24 dBA (Entry) 24 dBA (Performance 1) 24 dBA (Performance 2)

Technical Specifications

Notes:

- The listed sound levels apply to listed configurations. Additional options may result in increased sound levels. Please have your HPE Rep. refer to EMESC website for further technical details regarding the configurations listed above.
 - Acoustics levels presented here accounts for test configuration only and acoustics level will vary depending on system configuration
 - Values are subject to change without notification and are for reference only.
-

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.

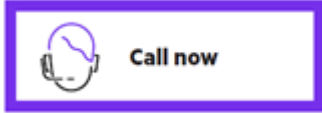
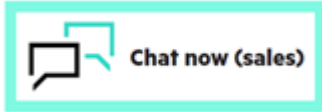
The EU WEEE directive (2012/19/EU) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard Enterprise web site. These instructions may be used by recyclers and other 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
05-Dec-2022	Version 4	Changed	Pre Configured section was updated.
07-Nov-2022	Version 3	Changed	Standard Features, Optional Features and Additionla Options sections were updated.
17-Oct-2022	Version 2	Changed	Standard Features section was updated.
19-Sept-2022	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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