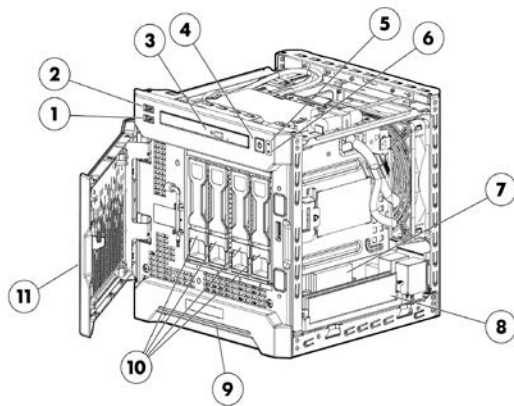


### Overview

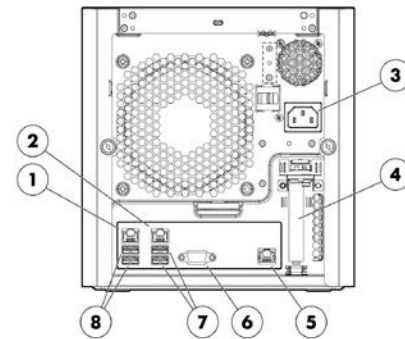
### HPE ProLiant MicroServer Generation 8 (Gen8)

HPE ProLiant MicroServer Gen8 is a small, quiet, and stylishly designed server that is ideal for micro and small businesses looking to build their first IT server environment. With a form factor that is easy to use and service, HPE MicroServer Gen8 helps businesses get to a server that provides better and secured access to data, more efficiency in operations, while driving down their operating expenses.



#### Front View:

1. USB 2.0 connector
2. USB 2.0 connector
3. DVD-RW (optional)
4. Power On/Standby button and system power LED button
5. NIC status LED
6. Hard Drive status LED
7. Intel® Processor
8. 2 DIMM slots: DDR3 Unbuffered (UDIMM) memory
9. Health LED
10. Hard Drive Bays
11. Front bezel



#### Rear View:

1. NIC 2 connector
2. NIC 1 connector / Shared iLO connector
3. Power cord connector
4. PCIe 2.0 x16 slot
5. iLO 4 connector
6. Video connector
7. USB 3.0 connectors
8. USB 2.0 connectors

### What's New

- New SKUs with 4GB UDIMM
- Xeon E3-1220Lv2 SKU
- Core i3-3240 SKU
- Higher maximum storage of 16TB with support for 4TB SATA LFF HDD
- Support for new low-priced SATA NHP LFF Standard Drives
- Support for new HPE PS110 Wireless 802.11n VPN Router

## Standard Features

<b>Processor</b>	Intel® Celeron® G1610T (2.3Hz/2-core/2MB/35W) Processor
	Intel® Pentium® G2020T (2.5GHz/2-core/3MB/35W) Processor
	<b>NOTE: Intel® Celeron® G1610T and Intel® Pentium® G2020T support up to 1333MHz DDR3 memory speed.</b>
	Intel® Core™ i3-3240 (3.4GHz/2-core/3MB/65W) Processor
	<b>NOTE: Intel® Core® i3-3240 support up to 1600MHz DDR3 memory speed.</b>
	Intel® Xeon® E3-1220Lv2 (2.3GHz/2-core/3MB/17W) Processor
	<b>NOTE: Intel® Xeon® E3-1220Lv2 supports up to 1600MHz DDR3 memory speed.</b>

<b>Cache Memory</b>	3MB (1 x 3MB) L3 Cache
	<b>NOTE: For Dual-core Pentium and Xeon processors.</b>
	2MB (1 x 2MB) L3 Cache
	<b>NOTE: For Dual-core Celeron processor.</b>
	<b>NOTE: All processor models above list the L3 Cache associated with that particular processor.</b>

<b>Chipset</b>	Intel® C204 Chipset
	<b>NOTE: For more information regarding Intel® chipsets, please see the following URL: <a href="http://www.intel.com/products/server/chipsets/">http://www.intel.com/products/server/chipsets/</a>.</b>

<b>On System Management Processor</b>	HPE iLO (Firmware: HPE iLO 4)
	<b>NOTE: For more information, visit: <a href="http://www.hp.com/go/ilo">http://www.hp.com/go/ilo</a>.</b>

<b>Memory Protection</b>	ECC
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<b>Memory</b>	Type	HPE SmartMemory DDR3 Unbuffered (UDIMM)
	DIMM Slots Available	2
	Standard	4GB (1 x 4GB) PC3L-12800E DDR3 UDIMM
	Maximum	16GB (2 x 8GB) PC3-12800E DDR3 UDIMM
	<b>NOTE: HPE memory from previous generation servers are not fully compatible with the HPE ProLiant MicroServer Gen8.</b>	

<b>Network Controller</b>	HPE Ethernet 1Gb 2-port 332i Adapter
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Expansion Slots	Expansion Slot #	Technology	Bus Width**	Connector Width	Form Factor	Notes
	1	PCIe 3.0/2.0*	x16	x16	Low Profile	
	<b>NOTE: * Processor dependent. Xeon is PCIe 3.0. Celeron and Pentium are PCIe 2.0.</b>					
	<b>NOTE: ** Indicates the number of physical electrical lanes running to a PCI-e connector.</b>					

<b>HPE Server ROM</b>	HPE ROM (Read Only Memory) is now digitally signed using The Hewlett Packard Enterprise Corporate Signing Service. This signature is verified before the flash process starts, reducing accidental programming and preventing malicious efforts to corrupt system ROM.
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## Standard Features

HPE ROM provides for essential initialization and validation of hardware components before control is passed to the customer-installed operating system. The ROM also provides the capability of booting from various fixed media (HDD, CD-ROM) and removable media (USB), to continue operation to the operating system.

HPE ROM performs very early configuration of the video controller, to allow monitoring of initialization progress via an attached monitor. If configuration or hardware errors are discovered during this early phase of hardware initialization, suitable messages are now displayed on the connected monitor. Additionally, these configuration or hardware errors are logged to the Integrated Management Log (IML) to assist in diagnosis.

The Hewlett Packard Enterprise ProLiant ROM is used to configure the following:

Processor and chipset status registers

System memory, memory map, and memory initialization

System hardware configuration (Integrated PCI devices and optional PCIe cards).

Customer-specific BIOS configuration (using the HPE ROM-Based Setup Utility (RBSU)).

**NOTE:** For further information, please refer to The Hewlett Packard Enterprise RBSU (ROM based setup utility) user guide: <http://www.hp.com/support/rbsu>.

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### Storage Controller

HPE Dynamic Smart Array B120i Controller

**NOTE:** HDD bays 1 and 2 support 6.0Gb/s SATA. HDD bays 3 and 4 support 3.0Gb/s SATA.

**NOTE:** Supports RAID 0/1/10 only. No FBWC support. For FBWC, a standup Smart Array Controller card must be configured.

**NOTE:** For more information about the controller and its features, see the HPE Dynamic Smart Array RAID Controller User Guide on the HPE website: ([http://www.hp.com/support/DSA\\_RAID\\_UG\\_en](http://www.hp.com/support/DSA_RAID_UG_en)).

**NOTE:** To configure arrays, see the Configuring Arrays on HPE Smart Array Controllers Reference Guide on the HPE website ([http://www.hp.com/support/CASAC\\_RG\\_en](http://www.hp.com/support/CASAC_RG_en)).

**NOTE:** For general information about HPE Smart Array B120i SATA RAID Controller, please go to: <http://h18004.www1.hp.com/products/servers/proliantstorage/arraycontrollers/dynamicsmartarray/index.html>

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### Internal Storage Devices

Optical Drive	Optional: SATA DVD-RW drive
Hard Drives	None ship standard

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### Maximum Internal Storage

Non-Hot Plug SATA	16TB (4 x 4TB) 3.5" SATA
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### Interfaces

Video	1 Rear standard video
HPE iLO Remote Management Network Port	1Gb Dedicated (default iLO4 configuration)
Micro SD slot	1 Internal <b>NOTE:</b> The MicroSD slot is not a hot-pluggable device. Customers should not attempt to plug a MicroSD card into the MicroSD slot while the server is powered.
USB 2.0 Ports	5 total (2 front, 2 rear, 1 internal)

## Standard Features

USB 3.0 Ports 2 total (2 rear)

**NOTE: Functional after OS boot.**

Network RJ-45 (Ethernet) 2 (Port 1 shared for HPE iLO4 as optional configuration)

### Industry Standard Compliance

ACPI V2.0b Compliant

PCIe 2.0 Compliant

PXE Support

WOL Support

USB 2.0

USB 3.0

SATA Gen 2

SATA Gen 3

### Server Power Cords

The MicroServer models ship standard with a 6' country specific NEMA power cord. If customers require an alternative local power cord, they can check the power cord matrix for the appropriate country specific sku. Please see the following power cord matrix:

<http://www.hp.com/go/powercordmatrix>.

### Power Specifications

To review typical system power ratings use the HPE Power Advisor which is available via the online tool located at URL: <http://www.hp.com/go/proliant-energy-efficient> or

<http://www.hp.com/go/hppoweradvisor>.

**NOTE: See Technical Specifications section at end of QuickSpecs for Power Specifications.**

### Power Supply

One (1) 150 Watts Non-Hot Plug, Non redundant Power Supply

### System Fans

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

### Operating Systems and Virtualization Software Support for ProLiant Servers

**Microsoft Windows Server**

**Red Hat Enterprise Linux (RHEL)**

**SUSE Linux Enterprise Server (SLES)**

**VMware**

**NOTE:** For more information on The Hewlett Packard Enterprise Certified and Supported ProLiant Servers for OS and Virtualization Software and latest listing of software drivers available for your server, please visit our Support Matrix at: <http://www.hp.com/go/ossupport> and our driver download page: <http://www.hp.com/support/MicroServerGen8>

### Graphics

Integrated Matrox G200 video standard

- 1280 x 1024 (32 bpp)
- 1920 x 1200 (16 bpp)

HPE iLO 4 On System Management Memory

- 16 MB Flash
- 256 MB DDR 3 with ECC (112 MB after ECC and video)

## Standard Features

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**Form Factor** Ultra Micro Tower

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**On System Management** HPE iLO Management Engine

HPE iLO Management Engine is a comprehensive set of embedded management features supporting the complete lifecycle of the server, from initial deployment, through ongoing management, to service alerting and remote support. HPE iLO Management Engine comes standard on all HPE ProLiant Gen8 servers. The HPE iLO Management Engine portfolio includes:

- **HPE iLO:** The HPE iLO (Integrated Lights-Out) management processor is the core foundation for the HPE iLO Management Engine
- **HPE Agentless Management:** Provides built in server health monitoring and alerting capability without OS agents, that starts working the moment a power cord and an Ethernet cable are connected.
- **HPE Active Health System:** Always on, continuous monitoring for increased stability and shorter downtimes; 100% configuration history; Health and service alerts and easy export and upload to Service and Support.
- **HPE Intelligent Provisioning:** Lets customers provision and configure a single server without any separate media. No more SmartStart CDs or Smart Update Firmware DVD are needed.
  - To start Intelligent Provisioning:
    - Press the F10 key during the ProLiant Gen8 server boot process (also known as power on self-test or POST).
    - Please go to the Intelligent Provisioning website at <http://www.hp.com/go/intelligentprovisioning> for additional information and to view usage videos.
    - Use the Service Pack for ProLiant (SPP) at <http://www.hp.com/go/spp> to get firmware and software updates.
- **HPE iLO Mobile App:** 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.hp.com/go/ilo/mobileapp>

**NOTE:** For more information, visit: <http://www.hp.com/go/ilo> or HPE iLO Management Engine technologies whitepaper

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**HPE Insight Management** HPE Service Pack for ProLiant (SPP)

HPE Service Pack for ProLiant (SPP) and HPE Smart Update Manager (HPE SUM) version 5 provide a new, comprehensive approach to firmware and system software maintenance. Together they provide better operating stability and ensure maximum uptime. The SPP will be updated at a predictable cadence, typically coinciding with new HPE server hardware launches. By enabling all firmware to be updated online and integrating

## Standard Features

firmware and system software updates in one operation HPE SUM and the SPP offer faster updates of individual servers and dramatically faster updates of entire BladeSystem enclosures. Further improving system uptime and stability is the fact that Hewlett Packard Enterprise provides 12 months of support on each Service Pack for ProLiant.

The user experience around HPE SUM and the SPP has been improved in several ways, starting with the web download. A single web page provides access to a single download containing both the latest version of HPE SUM version 5 and the latest SPP. Optional smaller subsets with only specific types of servers or specific operating systems are offered to save on download time. The HPE SUM application has been re-written to provide a more straightforward, intuitive user interface that guides the user through the steps of discovery, analyses and update, providing comprehensive information on available updates, criticality and interdependencies. This information is also available in reports. By providing the option of multiple local or shared repositories which can be easily updated from hp.com, HPE SUM provides the tools to optimize stability and consistency throughout the company. While HPE SUM and the SPP will recommend the combinations of firmware and system software that Hewlett Packard Enterprise has found to be the best practice, the application gives customers the flexibility to set their own specific baseline.

The Service Pack for ProLiant has been rigorously tested with specific attention for interaction between firmware, drivers and agents both within the server as well as in interaction with the BladeSystem enclosure components (Onboard Administrator and Virtual Connect). This testing ensures the highest quality as well as providing the input for HPE SUM to deploy updates taking into account all interdependencies, when determining the correct updates and order of update deployment.

**NOTE: The Service Pack for ProLiant (which includes HPE SUM 5) can be downloaded from <http://www.hp.com/go/spp/download>. More information can be found: <http://www.hp.com/go/spp> and <http://www.hp.com/go/hpsum>**

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### Security

Setup password

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### 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. 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 Care Pack 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.

**NOTE: Server Warranty includes 1 year Next Day Parts replacement, 0-Years Labor, 0-Years Onsite support. Additional information regarding worldwide limited warranty and technical support is available at:**

**<http://h18004.www1.hp.com/products/servers/platforms/warranty/index.html>.**

## Optional Features

### HPE Insight management software

HPE Insight Control

HPE Insight Control, a product option, delivers essential infrastructure management that can help save time and money by making it easy to deploy, migrate, monitor, remote control, and optimize your IT infrastructure through a single, simple management console. HPE Insight Control also supports Location and Power Discovery Services to automate many configuration, asset tracking, and power management tasks to speed implementation and prevent downtime. For more information, see <http://www.hp.com/go/insightcontrol>.

HPE Insight Control includes one year of 24 x 7 HPE Software Technical Support and Update Service ensuring rapid access to Hewlett Packard Enterprise support staff and proactive delivery of software updates. For more information about this service, see:

<http://www.hp.com/services/insight>

HPE iLO Essentials

HPE iLO Essentials license ideal for small and medium business customers. The specially created HPE iLO Essentials (a subset of iLO Advanced functionality) saves SMB customers time and money, by ease of remote server set up through the interactive virtual media, lowering operational costs with remote access via the Integrated Remote Console, and faster time to resolution with email-based proactive notifications. With this newly designed HPE iLO Essentials license SMB customers now have the option of a server management package solely design and priced just right for their IT environments. HPE iLO Essentials is available on all HPE ProLiant Gen8 e-series making this an ideal solution for small business owners. For more information, see: <http://www.hp.com/go/iLO/essentials>

HPE iLO Advanced

HPE Integrated Lights-Out Advanced License a product option, providing smart remote server management without compromise. iLO Advanced unlocks the full set of remote administration functionality for all HPE ProLiant servers by activating the full Virtual Keyboard Video and Mouse remote console, multi-user collaboration, console record and replay, GUI-based and scripted virtual media and virtual folders, and enhanced security and power management functionality. For more information, see:

<http://www.hp.com/go/iloadvanced>

### HPE Insight Online

HPE Insight Online is a new addition to the HPE Support Center for one stop, secure access to product and HPE support information personalized to your IT environment. Insight Online can automatically display devices remotely monitored by HPE Insight Remote Support. With Insight Online's easy navigation you can efficiently track your IT support contracts and device status from anywhere and at any time. <http://www.hp.com/go/insightonline>

### Factory Express Portfolio for Servers and Storage

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

### HPE Simple Configurator

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

## Optional Features

products not available in SCE, please contact The Hewlett Packard Enterprise Customer Business Center or an Authorized Partner for assistance. <http://www.hp.com/products/configurator>



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## Service and Support

### Service and Support **HPE Technology Services for Industry Standard Servers**

HPE Technology Services delivers confidence, reduces risk and helps customers realize agility and stability. Connect to HPE to help prevent problems and solve issues faster. Our support technology lets you to tap into the knowledge of millions of devices and thousands of experts to stay informed and in control, anywhere, any time.

#### **Protect your business beyond warranty with HPE Care Pack Services**

HPE Care Pack Services enable you to order the right service level, length of coverage and response time as you purchase your new server, giving you full entitlement for the term you select.

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### Optimized Care **Supports maintaining servers at optimum performance availability**

#### **Foundation Care 24x7, three-year Care Pack Service**

HPE Foundation Care 24x7 connects you to HPE 24 hours a day, seven days a week for assistance on resolving issues. Hardware onsite response within four hours if needed; collaborative software included in this Care Pack service provides troubleshooting assistance on industry leading software running on your HPE server. Simplify your support experience and make HPE your first call for hardware or software questions.

<http://h20195.www2.hp.com/V2/GetDocument.aspx?docname=4AA4-8876ENW&cc=us&lc=en>

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### Standard Care **Supports maintaining high level of server availability**

#### **Foundation Care NBD, three-year Care Pack Service**

HPE Foundation Care Next Business Day connects you to HPE during business hours for assistance on resolving issues – features next business day hardware onsite response if needed and software call back within two hours. Collaborative software support is included and provides troubleshooting assistance on industry leading software running on your server. Simplify your support experience and make HPE your first call for hardware or software questions.

<http://h20195.www2.hp.com/V2/GetDocument.aspx?docname=4AA4-8876ENW&cc=us&lc=en>

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### Related Services **HPE ProLiant Server Hardware Installation**

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

<http://h20195.www2.hp.com/V2/GetPDF.aspx/5981-9356EN.pdf>

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**Connect your devices to HPE** Unlock all of the benefits of your technology investment by connecting your products to HPE. Achieve up to 77% reduction in down time, near 100% diagnostic accuracy and a single consolidated view of your environment. By connecting, you will receive 24x7 monitoring, pre-failure alerts, automatic call logging, and automatic parts dispatch. HPE Proactive Care Service and HPE Datacenter Care Service customers will also benefit from proactive activities to help prevent issues and increase optimization. All of these benefits are already available to you with your server storage and networking products, securely connected to HPE support.

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

## Service and Support

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 HPE due to malfunction.

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### For more information

To learn more on HPE ProLiant servers, please contact your Hewlett Packard Enterprise sales representative or Hewlett Packard Enterprise Authorized Channel Partner. Or visit:

**<http://www.hp.com/services/proliant>**

## Pre-configured Models

### Entry Model

<b>HP ProLiant MicroServer Gen8 G1610T 1P 4GB-U B120i Non-hot Plug SATA Server</b> 819185-001	<b>Processor</b>	(1) Intel® Celeron® G1610T (2.3GHz/2-core/2MB/35W) Processor
	<b>Cache Memory</b>	2MB (1 x 2MB) L3 cache
	<b>Memory</b>	4GB (1 x 4GB) PC3L-12800E DDR3 UDIMM <b>NOTE: Total of 2 DIMM slots.</b>
	<b>Network Controller</b>	HPE Ethernet 1Gb 2-port 332i Adapter
	<b>Storage Controller</b>	HPE Dynamic Smart Array B120i Controller
	<b>Hard Drive</b>	None ship standard
	<b>Internal Storage</b>	4 LFF NHP SATA HDD cage; includes 4 LFF hard drive carriers
	<b>Optical Drive Bay</b>	None ship standard
	<b>PCI Slots</b>	1 standard (1-Low Profile) PCIe 2.0
	<b>Power Supply</b>	150W Non-Hot Plug, Non-Redundant Power Supply
	<b>Fans</b>	One (1) Non-redundant system fan ships standard
	<b>Management</b>	HPE iLO Management Engine Optional: iLO Essentials; iLO Advanced
	<b>Operating System</b>	None
	<b>Form Factor</b>	Ultra Micro Tower
<b>Warranty</b>	Server Warranty includes 1-Year Parts, 0-Year Labor, 0-Year Onsite support with next business day response	

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<b>HP ProLiant MicroServer Gen8 G1610T 1P 2GB-U B120i NHP SATA Server</b> 712317-001	<b>Processor</b>	(1) Intel® Celeron® G1610T (2.3GHz/2-core/2MB/35W) Processor
	<b>Cache Memory</b>	2MB (1 x 2MB) L3 cache
	<b>Memory</b>	2GB (1 x 2GB) PC3-12800E DDR3 UDIMM <b>NOTE: Total of 2 DIMM slots.</b>
	<b>Network Controller</b>	HPE Ethernet 1Gb 2-port 332i Adapter
	<b>Storage Controller</b>	HPE Dynamic Smart Array B120i Controller
	<b>Hard Drive</b>	None ship standard
	<b>Internal Storage</b>	4 LFF NHP SATA HDD cage; includes 4 LFF hard drive carriers
	<b>Optical Drive Bay</b>	None ship standard
	<b>PCI Slots</b>	1 standard (1-Low Profile) PCIe 2.0
	<b>Power Supply</b>	150W Non-Hot Plug, Non-Redundant Power Supply
	<b>Fans</b>	One (1) Non-redundant system fan ships standard
	<b>Management</b>	HPE iLO Management Engine Optional: iLO Essentials; iLO Advanced
	<b>Operating System</b>	None
	<b>Form Factor</b>	Ultra Micro Tower
<b>Warranty</b>	Server Warranty includes 1-Year Parts, 0-Year Labor, 0-Year Onsite support with next business day response	

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## Pre-configured Models

### Base Model

<b>HP ProLiant MicroServer Gen8 G2020T 1P 2GB-U B120i NHP SATA Server</b> 712318-001	<b>Processor</b> <b>Cache Memory</b> <b>Memory</b> <b>Network Controller</b> <b>Storage Controller</b> <b>Hard Drive</b> <b>Internal Storage</b> <b>Optical Drive Bay</b> <b>PCI-Express Slots</b> <b>Power Supply</b> <b>Fans</b> <b>Management</b>  <b>Operating System</b> <b>Form Factor</b> <b>Warranty</b>	(1) Intel® Pentium® G2020T (2.5GHz/2-core/3MB/35W) Processor 3MB (1 x 3MB) L3 cache 2GB (1 x 2GB) PC3-12800E DDR3 UDIMM <b>NOTE: Total of 2 DIMM slots.</b> HPE Ethernet 1Gb 2-port 332i Adapter HPE Dynamic Smart Array B120i Controller None ship standard 4 LFF NHP SATA HDD cage; includes 4 LFF hard drive carriers None ship standard 1 standard (1-Low Profile) PCIe 2.0 150W Non-Hot Plug, Non-Redundant Power Supply One (1) Non-redundant system fan ships standard HPE iLO Management Engine Optional: iLO Essentials; iLO Advanced None Ultra Micro Tower Server Warranty includes 1-Year Parts, 0-Year Labor, 0-Year Onsite support with next business day response
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<b>HP ProLiant MicroServer Gen8 i3-3240 1P 4GB-U B120i Non-hot Plug SATA Server</b> 819186-001	<b>Processor</b> <b>Cache Memory</b> <b>Memory</b> <b>Network Controller</b> <b>Storage Controller</b> <b>Hard Drive</b> <b>Internal Storage</b> <b>Optical Drive Bay</b> <b>PCI-Express Slots</b> <b>Power Supply</b> <b>Fans</b> <b>Management</b>  <b>Operating System</b> <b>Form Factor</b> <b>Warranty</b>	(1) Intel® Core i3-3240™ i3-3240 (3.4GHz/2-core/3MB/55W) Processor 3MB (1 x 3MB) L3 cache 4GB (1 x 4GB) PC3-12800E DDR3 UDIMM <b>NOTE: Total of 2 DIMM slots.</b> HPE Ethernet 1Gb 2-port 332i Adapter HPE Dynamic Smart Array B120i Controller None ship standard 4 LFF NHP SATA HDD cage; includes 4 LFF hard drive carriers None ship standard 1 standard (1-Low Profile) PCIe 2.0 150W Non-Hot Plug, Non-Redundant Power Supply One (1) Non-redundant system fan ships standard HPE iLO Management Engine Optional: iLO Essentials; iLO Advanced None Ultra Micro Tower Server Warranty includes 1-Year Parts, 0-Year Labor, 0-Year Onsite support with next business day response
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## Pre-configured Models

### Performance Model

<b>HP ProLiant MicroServer</b>	<b>Processor</b>	(1) Intel® Xeon® E3-1220Lv2 (2.3GHz/2-core/3MB/17W) Processor
<b>Gen8 E3-1220Lv2 1P</b>	<b>Cache Memory</b>	3MB (1 x 3MB) L3 cache
<b>4GB-U B120i Non-hot</b>	<b>Memory</b>	4GB (1 x 4GB) PC3L-12800E DDR3 UDIMM
<b>Plug SATA Server</b>		<b>NOTE: Total of 2 DIMM slots.</b>
819187-001	<b>Network Controller</b>	HPE Ethernet 1Gb 2-port 332i Adapter
	<b>Storage Controller</b>	HPE Dynamic Smart Array B120i Controller
	<b>Hard Drive</b>	None ship standard
	<b>Internal Storage</b>	4 LFF NHP SATA HDD cage; includes 4 LFF hard drive carriers
	<b>Optical Drive Bay</b>	None ship standard
	<b>PCI-Express Slots</b>	1 standard (1-Low Profile) PCIe 2.0
	<b>Power Supply</b>	150W Non-Hot Plug, Non-Redundant Power Supply
	<b>Fans</b>	One (1) Non-redundant system fan ships standard
	<b>Management</b>	HPE iLO Management Engine Optional: iLO Essentials; iLO Advanced
	<b>Operating System</b>	None
	<b>Form Factor</b>	Ultra Micro Tower
	<b>Warranty</b>	Server Warranty includes 1-Year Parts, 0-Year Labor, 0-Year Onsite support with next business day response

## Smart Buy Models

[SKU Number]	775590-S01	783958-S01	783959-S01
<b>Model Name</b>	HP MicroServer Gen8 E3-1220Lv2 US Server/S-Buy	HP MicroServer Gen8 E3-1220Lv2 2x1TB US Svr/S-Buy	HP MicroServer Gen8 E3-1220Lv2 4x1TB US Svr/S-Buy
<b>Processor</b>	Intel® Xeon® E3-1220Lv2		
<b>Number of Processors</b>	One		
<b>Memory</b>	8GB (1x8GB DDR3 Unbuffered UDIMM)	4GB (1x4GB DDR3 Unbuffered UDIMM)	8GB (1x8GB DDR3 Unbuffered UDIMM)
<b>Network Controller</b>	HPE Ethernet 1Gb 2-port 332i Adapter		
<b>Storage Controller</b>	HPE Dynamic Smart Array B120i		
<b>Hard Drive</b>	None ship standard	2x1TB Entry-Level LFF SATA	4x1TB Entry-Level LFF SATA
<b>Internal Storage</b>	4 LFF NHP SATA HDD cage; includes 4 LFF hard drive carriers		
<b>Optical Drive</b>	None ship standard		
<b>PCI-Express Slots</b>	1 standard (1-Low Profile) PCIe 2.0		
<b>Power Supply</b>	150W Non-Hot Plug, Non-Redundant Power Supply		
<b>Fans</b>	One (1) Non-redundant system fan ships standard		
<b>Management</b>	Standard: HPE iLO Management Engine Optional: iLO Essentials; iLO Advanced		
<b>Operating System</b>	None ship standard		
<b>Form Factor</b>	Ultra Micro Tower		
<b>Warranty</b>	Server Warranty includes 1-Year Parts, 0-Year Labor, 0-Year Onsite support with next business day response		

## Core Options

<b>HPE Unique Options</b>	HP MicroServer Gen8 Front Bezel Faceplate Kit <b>NOTE:</b> This kit includes all three Front Bezel Faceplate colors (Blue, Red and Black).	722320-B21
<b>HPE Memory</b>	<p><b>Unbuffered with ECC DIMMs (UDIMMs)</b></p> <p>HP 2GB (1x2GB) Single Rank x8 PC3-12800E (DDR3-1600) Unbuffered CAS-11 Memory Kit 669320-B21</p> <p>HP 2GB (1x2GB) Single Rank x8 PC3L-10600E (DDR3-1333) Unbuffered CAS-9 Low Voltage Memory Kit 647905-B21</p> <p>HP 4GB (1x4GB) Single Rank x4 PC3-12800E (DDR3-1600) Unbuffered CAS-11 Memory Kit 820077-B21</p> <p>HP 4GB (1x4GB) Dual Rank x8 PC3-12800E (DDR3-1600) Unbuffered CAS-11 Memory Kit 669322-B21</p> <p>HP 4GB (1x4GB) Dual Rank x8 PC3L-10600E (DDR3-1333) Unbuffered CAS-9 Low Voltage Memory Kit 647907-B21</p> <p>HP 8GB (1x8GB) Dual Rank x8 PC3-12800E (DDR3-1600) Unbuffered CAS-11 Memory Kit 669324-B21</p> <p>HP 8GB (1x8GB) Dual Rank x8 PC3L-10600E (DDR3-1333) Unbuffered CAS-9 Low Voltage Memory Kit 647909-B21</p> <p><b>NOTE:</b> All DDR3 memory option kits consist of one DIMM per kit. For detailed memory configuration rules and guidelines, please use the Online DDR3 Memory Configuration Tool: <a href="http://www.hp.com/go/ddr3memory-configurator">http://www.hp.com/go/ddr3memory-configurator</a>.</p> <p><b>NOTE:</b> Depending on the memory configuration and processor model, 1600MHz and 1333MHz memory may operate at a lower speed. Please see the "Memory" section later in this document and the Online Memory Configuration Tool for details at <a href="http://www.hp.com/go/ddr3memory-configurator">http://www.hp.com/go/ddr3memory-configurator</a>.</p> <p><b>NOTE:</b> For additional memory rules and guidelines, see the "Memory" section later in this document.</p> <p><b>NOTE:</b> For more information on ProLiant Energy Efficient Features, see: <a href="http://www.hp.com/go/proliant-energy-efficient">http://www.hp.com/go/proliant-energy-efficient</a></p> <p><b>NOTE:</b> PC3L is a low voltage memory.</p>	
<b>HPE Optical Drives</b>	HP 9.5mm SATA DVD-RW JackBlack Optical Drive	652241-B21
<b>HPE Hard Drives</b>	<p><b>NOTE:</b> The components of a storage subsystem (e.g. the drive, the HBA/controller, firmware, and the server backplane) should operate at the same data transfer rate or the system bandwidth will be negotiated down to an acceptable level for all components.</p> <p><b>NOTE:</b> Hard drives have either a one year or three year warranty; refer to the specific hard drive QuickSpecs for details.</p> <p><b>6G SATA Non-Hot Plug LFF (3.5-inch) Midline (MDL) Drives</b></p> <p>HP 3TB 6G SATA 7.2K rpm LFF (3.5-inch) Non-hot plug Midline 1yr Warranty Hard Drive 628065-B21</p> <p>HP 2TB 6G SATA 7.2K rpm LFF (3.5-inch) Non-hot plug Midline 1yr Warranty Hard Drive 659339-B21</p>	

## Core Options

### Drive

HP 1TB 6G SATA 7.2K rpm LFF (3.5-inch) Non-hot plug Midline 1yr Warranty Hard Drive 659337-B21

HP 500GB 6G SATA 7.2K rpm LFF (3.5-inch) Non-hot plug Midline 1yr Warranty Hard Drive 659341-B21

### **6G SATA Non-Hot Plug LFF (3.5-inch) Standard (STND) Drives**

HP 4TB 6G SATA 7.2K rpm LFF (3.5in) Non-hot Plug Standard 1yr Warranty Hard Drive 801888-B21

HP 3TB 6G SATA 7.2K rpm LFF (3.5in) Non-hot Plug Standard 1yr Warranty Hard Drive 801886-B21

HP 2TB 6G SATA 7.2K rpm LFF (3.5in) Non-hot Plug Standard 1yr Warranty Hard Drive 801884-B21

HP 1TB 6G SATA 7.2K rpm LFF (3.5in) Non-hot Plug Standard 1yr Warranty Hard Drive 801882-B21

### **6G SATA Non-Hot Plug LFF (3.5-inch) ETY HDD**

HP 4TB 6G SATA 5.9K rpm LFF (3.5in) Non-hot Plug Entry 512e 1yr Warranty Hard Drive 815635-B21

HP 3TB 6G SATA 7.2K rpm LFF (3.5in) Non-hot Plug Entry 512e 1yr Warranty Hard Drive 815633-B21

HP 2TB 6G SATA 7.2K rpm LFF (3.5in) Non-hot Plug Entry 512e 1yr Warranty Hard Drive 815631-B21

HP 1TB 6G SATA 7.2K rpm LFF (3.5in) Non-hot Plug Entry 512e 1yr Warranty Hard Drive 815614-B21

### **6G SATA Non-Hot Plug LFF (3.5-inch) STY HDD**

HPE 3TB 6G SATA 7.2K rpm LFF (3.5in) Non-hot Plug Entry 512e 1yr Warranty Hard Drive 843270-B21

### **6G SATA Non-Hot Plug LFF (3.5-inch) ETY HDD**

HPE 2TB 6G SATA 7.2K rpm LFF (3.5in) Non-hot Plug Entry 512e 1yr Warranty Hard Drive 843268-B21

HPE 1TB 6G SATA 7.2K rpm LFF (3.5in) Non-hot Plug Entry 512e 1yr Warranty Hard Drive 843266-B21

HPE 500GB 6G SATA 7.2K rpm LFF (3.5in) Non-hot Plug Entry 512e 1yr Warranty Hard Drive 843264-B21

**NOTE:** Please see the QuickSpecs for Technical Specifications and additional information:

**[http://h18000.www1.hp.com/products/QuickSpecs/13021\\_na/13021\\_na.html](http://h18000.www1.hp.com/products/QuickSpecs/13021_na/13021_na.html)**

## HPE Networking

HP NC365T 4-port Ethernet Server Adapter 593722-B21

**NOTE:** Please see the QuickSpecs for Technical Specifications and additional information: **<http://www.hp.com/go/ProLiantNICs>**

HP PS110 Wireless 802.11n VPN AM Router JL065A

HP PS110 Wireless 802.11n VPN WW Router JL066A

**NOTE:** HPE PS110 Wireless VPN Router Series, custom designed to physically stack on top of the HPE ProLiant MicroServer Gen8, deliver high-performance internet access and wired/wireless connectivity for offices and remote/mobile



## Core Options

employees.

**NOTE:** Please see the QuickSpecs for Technical Specifications and additional information:

**<http://www8.hp.com/h20195/v2/GetHtml.aspx?docname=c04519011>**

HP PS1810-8G Switch

J9833A

HP PS1810-24G Switch

J9834A

**NOTE:** HPE PS1810 Series Switches have been custom designed to work with the HPE ProLiant MicroServer Gen8. These are layer 2 web-managed gigabit switches with two offerings - 8 port and 24 port models. PS1810 Switches have built-in technology that will enable automatic discovery of ProLiant Gen8 Servers. In addition the 8 port switch had a unique chassis design that enables physical stacking on the MicroServer.

**NOTE:** Please see the QuickSpecs for Technical Specifications and additional information:

**[http://h18004.www1.hp.com/products/QuickSpecs/14586\\_na/14586\\_na.html](http://h18004.www1.hp.com/products/QuickSpecs/14586_na/14586_na.html)**

## Additional Options

<b>HPE Insight Software</b>	<b>HPE Insight Control</b>	
	HP Insight Control including 1yr 24x7 Technical Support and Updates Single Server License	C6N27A
	HP Insight Control including 1yr 24x7 Technical Support and Updates Electronic License	C6N28ABE
	HP Insight Control Server Provisioning Media Kit	BD883A
	HP Insight Management Media Kit	C6N31A
	<p><b>NOTE: Electronic and Flexible-Quantity licenses can be used to purchase multiple licenses with a single activation key.</b></p> <p><b>NOTE: Customer will receive a license entitlement certificate. The license entitlement certificate must be redeemed online or via fax in order to obtain the license activation key(s). Includes one year of 24 x 7 HPE Software Technical Support and Update Service.</b></p> <p><b>NOTE: Licenses ship without media. The HPE Insight Control Media Kit can be ordered separately, or can be downloaded at:</b>  <a href="http://www.hp.com/go/insightupdates">http://www.hp.com/go/insightupdates</a></p> <p><b>NOTE: For additional license options please see the QuickSpecs at:</b>  <a href="http://h18000.www1.hp.com/products/QuickSpecs/12631_na/12631_na.html">http://h18000.www1.hp.com/products/QuickSpecs/12631_na/12631_na.html</a>.</p>	
	<b>HPE Integrated Lights-Out (iLO)</b>	
	<b>HPE Integrated Lights-Out (iLO) Advanced for ProLiant</b>	
	HP Integrated Lights-Out Essentials including 1yr 24x7 Technical Support and Updates E-LTU	E6U62ABE
	HP Integrated Lights-Out Essentials including 3yr 24x7 Technical Support and Updates E-LTU	E6U61ABE
	HP iLO Advanced including 3yr 24x7 Technical Support and Updates E-LTU	E6U64ABE
	HP iLO Advanced including 1yr 24x7 Technical Support and Updates E-LTU	E6U59ABE
	<p><b>NOTE: For additional license options please see the QuickSpecs at:</b>  <a href="http://h18004.www1.hp.com/products/QuickSpecs/14276_na/14276_na.html">http://h18004.www1.hp.com/products/QuickSpecs/14276_na/14276_na.html</a></p> <p><b>NOTE: For more information, visit: <a href="http://www.hp.com/go/ilo">http://www.hp.com/go/ilo</a>.</b></p>	
<hr/>		
<b>HPE Security</b>	HP MicroServer Gen8 Front Bezel Faceplate Kit	722320-B21
	HP Trusted Platform Module Option	488069-B21
	<p><b>NOTE: The TPM (Trusted Platform Module) is a microcontroller chip that can securely store artifacts used to authenticate the server platform. These artifacts can include passwords, certificates and encryption keys. Windows® BitLocker™ Drive Encryption (BitLocker) is a data protection feature available in Windows Server® 2008. BitLocker leverages the enhanced security capabilities of a Trusted Platform Module (TPM) version 1.2. The TPM works with BitLocker to help protect user data and to ensure that a server running Windows Server 2008 has not been tampered with while the system was offline. For more information about TPM, including a white paper, go to:</b>  <a href="http://www.hp.com/go/TPM">http://www.hp.com/go/TPM</a>.</p> <p><b>NOTE: The TPM key is unique to every TPM deployed server and must be retained. Misplacing or losing the key could result in data loss.</b></p>	

## Additional Options

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### HPE Storage Controllers SAS Controllers

#### Smart Array P222 Controller

HP Smart Array P222/512 FBWC 6Gb 1-port Int/1-port Ext SAS Controller

631667-B21

**NOTE:** HPE Smart Array P22/512 FBWC qualified for RAID support only for HPE ProLiant MicroServer Gen8.

**NOTE:** Please see the QuickSpecs for Technical Specifications and additional information:

[http://h18000.www1.hp.com/products/QuickSpecs/14227\\_na/14227\\_na.html](http://h18000.www1.hp.com/products/QuickSpecs/14227_na/14227_na.html)  
(Smart Array P222 Controller)

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### HPE Uninterruptible Power Systems

#### HPE DirectFlow Three Phase UPS

##### Power Unit (1U UPS)

**NOTE:** #0D1 will appear after the part number on the sales order if HPE factory integration is indicated.

HP R12000 DirectFlow - 1U Rackmount Uninterruptible Power System

G9Y75A

HP R12000 DirectFlow - POD 1U Rackmount Uninterruptible Power System

AF478A

##### Input/Output Module Options for 1U UPS

**NOTE:** Choose one I/O Module per UPS.

HP 30A 400-415 Volt Three Phase NA R10000 DirectFlow UPS IEC309 Input/Output Module

AF489A

HP 30A 480 Volt Three Phase NA R12000 DirectFlow UPS L22-30 Input/Output Module

AF491A

HP 30A 480 Volt Three Phase NA R12000 DirectFlow UPS IEC309 Input/Output Module

AF492A

HP 30A 400-415 Volt Three Phase NA R12000 DirectFlow UPS IEC309 Input/Output Module

G9Y76A

**NOTE:** All Input/Output Modules support dual output outlets except the AF484A.

#### HPE Tower UPS

##### HPE T750 G4 UPS Models

HP T750 G4 NA/JP Uninterruptible Power System

J2P85A

##### HPE T1000 G4 UPS Models

HP T1000 G4 NA/JP Uninterruptible Power System

J2P86A

##### HPE T1500 G4 UPS Models

HP T1500 G4 NA/JP Uninterruptible Power System

J2P87A

#### HPE Rack/Tower UPS

##### HPE R/T2200 G4 UPS Models

HP R/T2200 G4 NA/JP Uninterruptible Power System

J2R00A

##### HPE R/T3000 G4 UPS Models

HP R/T3000 G4 Low Voltage NA/JP Uninterruptible Power System

J2R01A

HP R/T3000 G4 High Voltage NA/JP Uninterruptible Power System

J2R02A

##### HPE R1500 G4 Uninterruptible Power Supply (UPS)

HP R1500 G4 NA Uninterruptible Power System

J2Q99A

## Additional Options

**NOTE:** For additional information please go to:

<http://www.hp.com/go/rackandpower> (Worldwide)

**NOTE:** Please see QuickSpecs for Technical Specifications and additional information:

[http://h18004.www1.hp.com/products/QuickSpecs/13160\\_na/13160\\_na.html](http://h18004.www1.hp.com/products/QuickSpecs/13160_na/13160_na.html)

### HPE Rack Options

#### HPE LCD8500 1U Rackmount Console Kit Models

HP LCD8500 1U US Rackmount Console Kit AF630A

HP LCD8500 1U US TAA Rackmount Console Kit AF645A

#### HPE LCD8500 1U Rackmount Console Kit Options

HP Kit LCD 1.83m Latch Display Port Cable G7T29A

HP Location Discovery Services LCD8500 Kit TL052A

HP Rack LED Light Kit BW939A

#### HPE Server Console Switches

HP 0x1x8 G3 KVM Console Switch AF651A

HP 0x2x16 G3 KVM Console Switch AF652A

HP TAA 0x2x16 G3 KVM Console Switch AF653A

HP USB Remote Access Key for G3 KVM Console Switches AF650A

#### HPE USB Keyboard and Mouse

HP USB BFR with PVC Free US Keyboard/Mouse Kit 631341-B21

**NOTE:** Please see the QuickSpecs for Technical Specifications and additional information:

[http://h18000.www1.hp.com/products/QuickSpecs/13972\\_na/13972\\_na.html](http://h18000.www1.hp.com/products/QuickSpecs/13972_na/13972_na.html)

### HPE USB and SD Options HPE Flash Media Kits for USB Drives

**NOTE:** HPE qualified blank USB key for use with HPE ProLiant servers that support the VMware virtualization environment and other HPE value-add software. Hewlett Packard Enterprise recommends this industry standard USB flash device for use with VMware ESXi. USB device must be installed in the internal slot of the ProLiant server for use with VMware ESXi. Refer to HPE VMware Getting Started Guide for installation instructions.

HP 8GB USB Enterprise Mainstream Flash Media Drive Key Kit 737953-B21

#### HPE Enterprise Mainstream Flash Media Kits for Memory Cards

HP 8GB microSD Enterprise Mainstream Flash Media Kit 726116-B21

HP 32GB microSD Enterprise Mainstream Flash Media Kit 700139-B21

**NOTE:** Blank SD media device is supported for use with VMware. SD media must be installed in the internal slot of the ProLiant server. SD Media used must be HPE qualified. Learn more at: <http://www.hp.com/go/proliantvirtualization>.

**NOTE:** Please see the QuickSpecs for Technical Specifications and additional information:

[http://h18000.www1.hp.com/products/QuickSpecs/13971\\_na/13971\\_na.html](http://h18000.www1.hp.com/products/QuickSpecs/13971_na/13971_na.html)

### HPE Care Pack Services Foundation Care

HPE 3 year Foundation Care Next business day Microserver Service U2EF7E

HPE 3 year Foundation Care Next business day with DMR Microserver Service U2EF8E

## Additional Options

HPE 3 year Foundation Care Next business day with CDMR Microserver Service	U2EF9E
HPE 3 year Foundation Care 24x7 Microserver Service	U2EG0E
HPE 3 year Foundation Care 24x7 wDMR Microserver Service	U2EG1E
HPE 3 year Foundation Care 24x7 wCDMR Microserver Service	U2EG2E
HPE 3 year Foundation Care Call to Repair Microserver Service	U2EG3E
HPE 3 year Foundation Care Call to Repair wDMR Microserver Service	U2EG4E
HPE 3 year Foundation Care Call to Repair wCDMR Microserver Service	U2EG5E
HPE 4 year Foundation Care Next business day Microserver Service	U2EG6E
HPE 4 year Foundation Care Next business day with DMR Microserver Service	U2EG7E
HPE 4 year Foundation Care Next business day with CDMR Microserver Service	U2EG8E
HPE 4 year Foundation Care 24x7 Microserver Service	U2EG9E
HPE 3 year Foundation Care 24x7 wDMR Microserver Service	U2EH0E
HPE 4 year Foundation Care 24x7 wCDMR Microserver Service	U2EH1E
HPE 5 year Foundation Care Next business day Microserver Service	U2EH2E
HPE 5 year Foundation Care Next business day with DMR Microserver Service	U2EH3E
HPE 5 year Foundation Care Next business day with CDMR Microserver Service	U2EH4E
HPE 5 year Foundation Care 24x7 Microserver Service	U2EH5E
HPE 3 year Foundation Care 24x7 wDMR Microserver Service	U2EH6E
HPE 5 year Foundation Care 24x7 wCDMR Microserver Service	U2EH7E

### Installation Services

**NOTE:** Reduce the time required to get your system up and running and help minimize disruptions to your business.

HP Install ProLiant MicroServer Service	UR508E
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**NOTE:** For more information, customer/resellers can contact:

**<http://www.hp.com/services/carepack>**.

## Memory

### HPE ProLiant Micro Server Generation 8

#### Standard Memory

2GB (1x2GB) PC3-12800E DDR3 UDIMM Memory kit installed (712317-001 and 712318-001)

4GB (1x4GB) PC3L-12800E DDR3 UDIMM Memory kit installed (819185-001 and 819187-001)

#### Maximum Memory

16GB of maximum memory is available with the installation of 2 x 8 GB UDIMM Memory kits.

Memory		Slot	
		1A	2B
<b>Standard</b>	<b>2 GB</b>	<b>2 GB</b>	<b>Empty</b>
	<b>4 GB</b>	<b>4 GB</b>	<b>Empty</b>
<b>Optional</b>	<b>4 GB</b>	<b>2 GB</b>	<b>2 GB</b>
	<b>8 GB</b>	<b>4 GB</b>	<b>4 GB</b>
<b>Maximum</b>	<b>16 GB</b>	<b>8 GB</b>	<b>8 GB</b>

Following are memory options available from HPE:

#### HPE Memory

##### Unbuffered with ECC DIMMs (UDIMMs)

HP 2GB (1x2GB) Single Rank x8 PC3-12800E (DDR3-1600) Unbuffered CAS-11 Memory Kit	669320-B21
HP 2GB (1x2GB) Single Rank x8 PC3L-10600E (DDR3-1333) Unbuffered CAS-9 Low Voltage Memory Kit	647905-B21
HP 4GB (1x4GB) Single Rank x4 PC3-12800E (DDR3-1600) Unbuffered CAS-11 Memory Kit	820077-B21
HP 4GB (1x4GB) Dual Rank x8 PC3-12800E (DDR3-1600) Unbuffered CAS-11 Memory Kit	669322-B21
HP 4GB (1x4GB) Dual Rank x8 PC3L-10600E (DDR3-1333) Unbuffered CAS-9 Low Voltage Memory Kit	647907-B21
HP 8GB (1x8GB) Dual Rank x8 PC3-12800E (DDR3-1600) Unbuffered CAS-11 Memory Kit	669324-B21
HP 8GB (1x8GB) Dual Rank x8 PC3L-10600E (DDR3-1333) Unbuffered CAS-9 Low Voltage Memory Kit	647909-B21

**NOTE:** All DDR3 memory option kits consist of one DIMM per kit. For detailed memory configuration rules and guidelines, please use the Online DDR3 Memory Configuration Tool: <http://www.hp.com/go/ddr3memory-configurator>.

**NOTE:** Depending on the memory configuration and processor model, 1600MHz and 1333MHz memory may operate at a lower speed. Please see the "Memory" section later in this document and the Online Memory Configuration Tool for details at <http://www.hp.com/go/ddr3memory-configurator>.

**NOTE:** For additional memory rules and guidelines, see the "Memory" section later in this document.

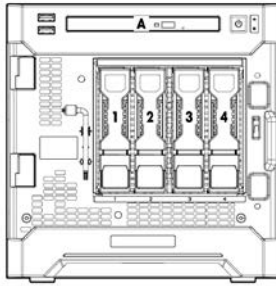
**NOTE:** For more information on ProLiant Energy Efficient Features, see:

## Memory

<http://www.hp.com/go/proliant-energy-efficient>

**NOTE:** PC3L is a low voltage memory. Low voltage memory operates at standard voltage in the MicroServer Gen8.

**Storage**



- A Optical Drive Bay
- 1, 2, 3, 4 Four (4) Non-Hot Plug Drive Bays

**Drive Support**

Removable Media	Quantity Supported	Position Supported	Controller
DVD-RW Drive	1	A	Integrated SATA

Maximum Storage Capacity		
Internal	SATA	16.0TB (4 x 4TB)



## Technical Specifications

<b>System Unit</b>	<b>Dimensions</b> (H x W x D) (with feet)	9.15 x 9.06 x 9.65 in (23.24x 23 x 24.5 cm)		
	<b>Weight</b> (approximate)	Maximum	21.60 lb (9.8 kg)	
		(all hard drives, power supply and processor installed)		
		Minimum	15.13 lb (6.8 kg)	
		(one hard drive, power supply, and processor installed)		
	<b>Input Requirements</b> (per power supply)	Rated Line Voltage	100 -- 127 VAC, 200 - 240 VAC	
		Rated Input Current	3.5 A (at 110 VAC), 2 A (at 200 VAC)	
		Rated Input Frequency	50 to 60 Hz	
		Rated Input Power	For 150W Power Supply 192 W (at 100 VAC), 185 W (at 200 VAC) For 200W Power Supply 243 W (at 100 VAC), 237 W (at 200 VAC)	
	<b>BTU Rating</b>	Maximum	For 150 W Power Supply 682 BTU/hr (at 100 VAC), 665 BTU/hr (at 200 VAC) For 200 W Power Supply 838.86 BTU/hr (at 100 VAC), 825.22 BTU/hr (at 200 VAC)	
<b>Power Specifications</b>	To review typical system power ratings use the Power Advisor which is available via the online tool located at URL: <b><a href="http://www.hp.com/go/hppoweradvisor">http://www.hp.com/go/hppoweradvisor</a></b>			
<b>Power Supply Output</b> (per power supply)	Rated Steady-State Power	For 150 W Power Supply 150 W (at 100 VAC), 150 W (at 200 VAC) For 200 W Power Supply 200 W (at 100 VAC), 200 W (at 200 VAC)		
	Maximum Peak Power	For 150 W Power Supply 150 W (at 100 VAC), 150 W (at 200 VAC) For 200 W Power Supply 200 W (at 100 VAC), 200 W (at 200 VAC)		
<b>System Inlet Temperature</b>	Operating	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		

## Technical Specifications

				change is 10°C/hr (18°F/hr). The upper limit may be limited by the type and number of options installed.
				System performance may be reduced if operating with a fan fault or above 30°C (86°F).
<b>Relative Humidity</b> (non-condensing)	Non-operating			-30° to 60°C (-22° to 140°F). Maximum rate of change is 20°C/r (36°F/hr)
	Operating			10 to 90% relative humidity (Rh), 28°C (82.4°F) 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.
<b>Altitude</b>	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).
<b>Acoustic Noise</b> (Fully Loaded)	<b>Idle</b>	150W PSU	LWAd	3.9 BELS
			LpAm	21.0 dBA
	200W PSU	LWAd	3.4 BELS	
		LpAm	18.0 dBA	
	<b>Operating</b>	150W PSU	LWAd	3.9 BELS
			LpAm	21.0 dBA
	200W PSU	LWAd	3.5 BELS	
		LpAm	18.0 dBA	
<b>Acoustic Noise</b> (Lightly Loaded)	<b>Idle</b>	150W PSU	LWAd	3.4 BELS
			LpAm	18.0 dBA
	200W PSU	LWAd	3.3 BELS	
		LpAm	18.0 dBA	
	<b>Operating</b>	150W PSU	LWAd	3.5 BELS
			LpAm	18.0 dBA
	200W PSU	LWAd	3.4 BELS	
		LpAm	18.0 dBA	
<b>Emissions Classification</b> (EMC)	FCC Rating			Class B
	Normative Standards			CISPR 22; EN55022; EN55024; FCC CFR 47, Pt 15; ICES-003; CNS13438; GB9254; K22;K24; EN 61000-3-2; EN 61000-3-3; EN

## Technical Specifications

60950-1; IEC 60950-1

**NOTE:** 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.

<b>HPE Dynamic Smart Array B120i Controller</b>	<b>Dimensions</b>	Embedded		
	<b>Disk Drive Interface - Transfer rate</b>	Up to 6Gb/s SATA (Serial ATA)		
	<b>SATA Connectors</b>	5 internal connectors with non-hot-plug support		
	<b>Server Interface</b>	PCIe 3.0/2.0		
	<b>SATA Speed</b>	x2 6Gb/s SATA physical links (compatible with 3Gb/s SATA ) None		
	<b>Logical Drives Supported</b>	<b>NOTE:</b> On SATA models with embedded RAID, setup instructions are located in the MicroServer User Guide		
	<b>Host Memory Addressing</b>	64-bit, supporting greater than 4GB server memory space		
	<b>Hot Plug Support</b>	No		
	<b>RAID Support</b>	RAID 0 (Striping), RAID 1 (Mirroring)		
		RAID 1+0 (Striping & Mirroring)		
<b>HPE Ethernet 1Gb 2-port NC332i Adapter</b>	<b>Network Interface</b>	10Base-T/100Base-TX/1000Base-TX		
	<b>Compatibility</b>	IEEE 802.3 10Base-T		
		IEEE 802.3ab 1000Base-T		
		IEEE 802.3u 100Base-TX		
	Energy Efficient Ethernet (EEE) compliant with IEEE Std 802.3az (default is disabled)			
	<b>Data Transfer Method</b>	Single lane (x1), 100MHz PCI Express Reference Clock		
	<b>Controller</b>	BCM5720		
	<b>Network Transfer Rate</b>	10Base-T (Half-Duplex)	10 Mb/s	
		10Base-T (Full-Duplex)	20 Mb/s	
		100Base-TX (Half-Duplex)	100 Mb/s	
100Base-TX (Full-Duplex)		200 Mb/s		
1000Base-TX (Half and Full-Duplex)		2000Mb/s		
<b>Connector</b>	RJ-45 connector			
<b>Cable Support</b>	10Base-T	Categories 3, 4 or 5 UTP; up to 328 ft (100 m)		
	10/100/1000Base-TX	Category 5 UTP; up to 328 ft (100 m)		
<b>Environment-friendly Products and Approach</b>	<b>End-of-life Management and Recycling</b>	Hewlett Packard Enterprise offers end-of-life Hewlett Packard Enterprise product return, trade-in, and recycling programs in many geographic areas. For trade-in information, please go to: <a href="http://www.hp.com/go/green">http://www.hp.com/go/green</a> . To recycle your product, please go to: <a href="http://www.hp.com/go/green">http://www.hp.com/go/green</a> or contact your nearest Hewlett Packard Enterprise sales office. Products returned to Hewlett Packard Enterprise will be recycled, recovered or		

## Technical Specifications

disposed of in a responsible manner.

The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard Enterprise web site at: <http://www.hp.com/go/green>. 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
17-Dec-2015	From Version 23 to 24	Added	Smart Buy models were added to the NA version.
01-Dec-2015	From Version 22 to 23	Added	New Hard Drives offering was added to HPE Hard Drives section.  Added new NIC card to HPE Networking.
		Changed	What's New was updated.
		Removed	Obsolete SKUs were removed from the QuickSpecs.
28-Sep-2015	From Version 21 to 22	Added	Added HPE ProLiant MicroServer Gen8 i3-3240 1P 2GB-U B120i NHP SATA Server to Pre-Configured Models.
		Changed	What's New, Processor, and HPE USB and SD Options were revised.
17-Aug-2015	From Version 20 to 21	Added	New BTO SKUs with 4GB UDIMM and Xeon E3-1220Lv2 BTO SKU were added to Pre-configured Models.
		Changed	Memory was updated.  Service and Support was revised.
01-Jun-2015	From Version 19 to 20	Removed	Obsolete SKUs were removed from Additional Options.
30-Mar-2015	From Version 18 to 19	Added	New Hard Drives were added to Core Options.  Added new HPE Care Pack Services.
		Changed	Standard Features, Memory, Storage, and Technical Specifications were revised.
09-Feb-2015	From Version 17 to 18	Added	New Hard Drives, DirectFlow UPS, Rack and Tower G4 Models, LCD8500 1U Rackmount Models and Options were added to the Additional Options section.  Added support for new HPE PS110 Wireless 82.11n VPN Router
		Changed	HPE Uninterruptible Power Systems, HPE Rack Options, and HPE Care Pack Services in Additional Options section were revised.
01-Dec-2014	From Version 16 to 17	Removed	Support services were removed from HPE Care Pack Services.
01-Nov-2014	From Version 15 to 16	Changed	Service and Support section was revised.
25-Aug-2014	From Version 14 to 15	Changed	Columns aligned. Matching NA version since changes was done in Smart buy section.
18-Jul-2014	From Version 13 to 14	Changed	Power Specifications was revised.
11-Jul-2014	From Version 12 to 13	Changed	Power Supplies and Memory were revised.
27-Jun-2014	From Version 11 to 12	Changed	Changes were made in North America and Canada only.
18-Apr-2014	From Version 10 to 11	Changed	Service and Support, Memory, and HPE Care Pack Services were revised.
31-Mar-2014	From Version 9 to 10	Changed	HPE Insight Control server deployment was removed from HPE Insight Software HPE 8GB USB Enterprise Mainstream Flash Media Drive Key Kit was added and HPE 2GB USB Flash Media Drive Key Kit was removed from HPE USB and SD Options
25-Feb-2014	From Version 8 to 9	Added	Added Image.
18-Feb-2014	From Version 7 to 8	Changed	Processors, Memory, Operating Systems and Virtualization Software Support for ProLiant Servers, HPE Disk Backup, and

## Summary of Changes

			HPE USB and SD Options were revised.
20-Dec-2013	From Version 6 to 7	Added	Note was added for HPE MicroServer Gen8 Front Bezel Faceplate Kit in HPE Unique Options.
11-Oct-2013	From Version 5 to 6	Changed	HPE Proactive Insight experience was removed from Optional Features Service and Support and Memory and Disk Backup descriptions were revised Networking Switches was added to Core Options HPE 8GB SD Enterprise Mainstream Flash Media Kit was added to HPE USB and SD Options
19-Aug-2013	From Version 4 to 5	Changed	HPE Disk Backup and HPE USB and SD Options were revised in Additional Options HPE MicroServer Gen8 Front Bezel Faceplate Kit was added to HPE Unique Options and HPE Security HPE PS1810-24G Switch was added to HPE Networking
26-Jul-2013	From Version 3 to 4	Changed	Updated the Base Model section
21-Jun-2013	From Version 2 to 3	Added	HPE Security was added to Additional Options.
11-Jun-2013	From Version 1 to 2	Changed	Corrected Overview image issue.



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

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