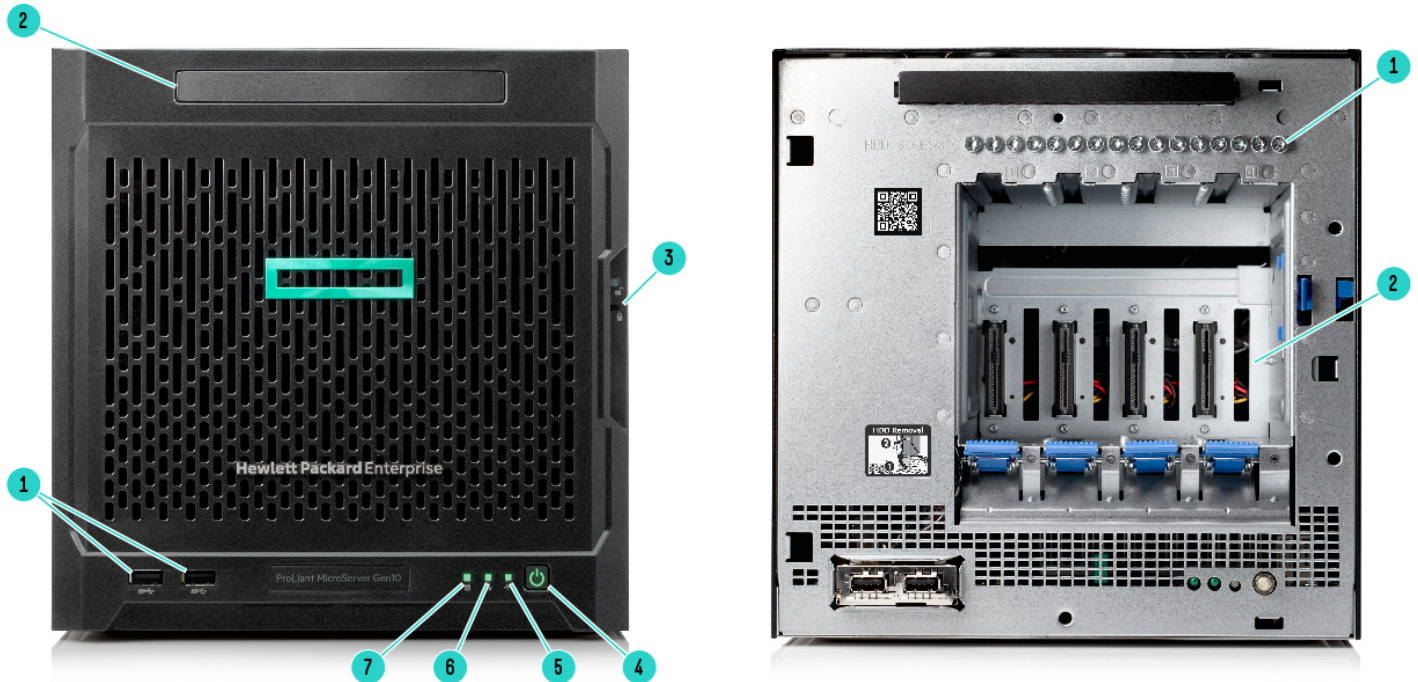


### Overview

#### HPE ProLiant MicroServer Gen10

HPE ProLiant MicroServer Gen10 is a compact and uniquely designed server that is ideal for small and home offices looking to build their first IT server environment with a form factor that is easy to use.

HPE MicroServer Gen10 helps businesses to provide better and easy access to data, more efficiency in operations, while driving down their operating expenses.



#### HPE ProLiant MicroServer Gen10

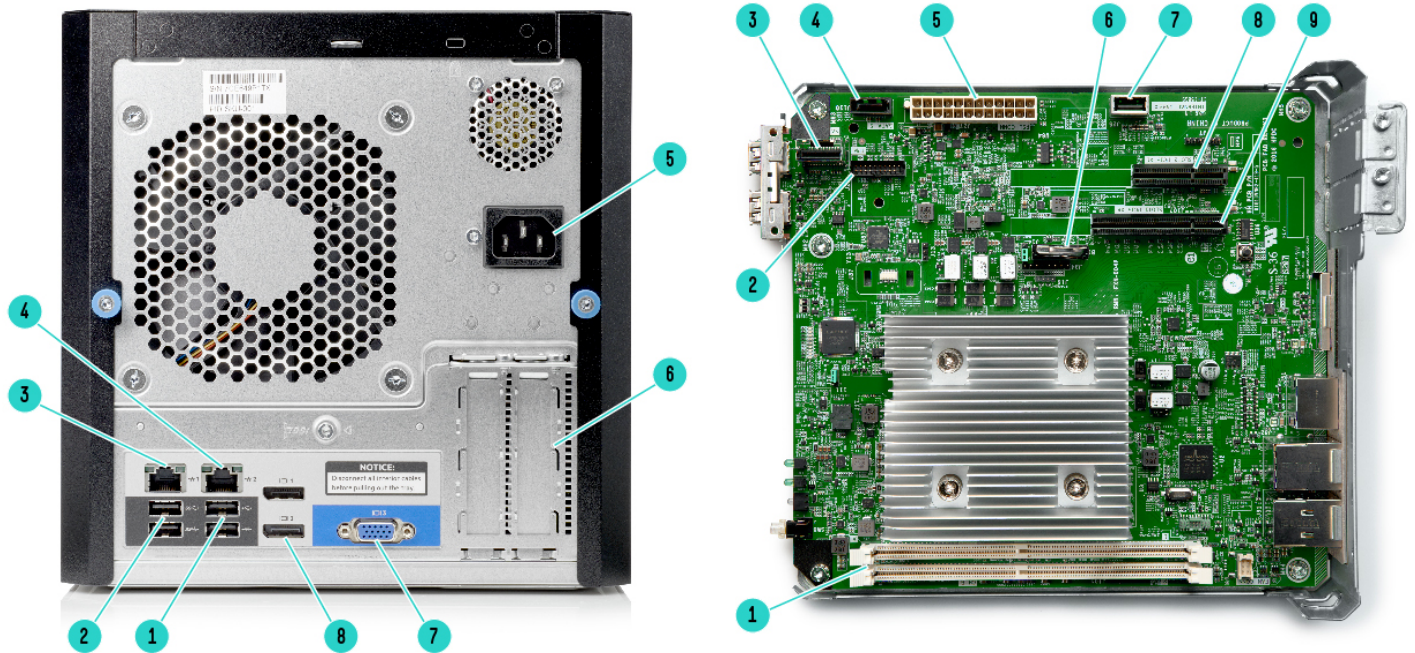
##### Front View (External):

1. (2) USB 3.0 ports
2. Media bay (Optional (1) DVD-RW or (1) SATA SSD)
3. Front bezel lock/unlock indicators
4. Power on/Standby button and system power LED
5. Health LED
6. NIC status LED
7. Drive activity LED

##### Front View (Internal):

1. Hard drive screws
2. Hard drive bays

## Overview



### HPE ProLiant MicroServer Gen10

#### Rear View:

1. (2) USB 2.0 ports
2. (2) USB 3.0 ports
3. NIC 1 port
4. NIC 2 port
5. Power jack
6. PCIe Gen3 slots
7. VGA port
8. (2) Display Ports 1.2

#### Internal View:

1. DIMM slots
2. TPM connector
3. LFF/SFF SATA connector
4. SATA connector
5. System board power connector
6. System battery
7. Internal USB 2.0 port
8. Expansion slot 2, PCIe3 x4 (1)
9. Expansion slot 1, PCIe3 x8 (8, 4, 1)

## What's New

### New SKU Offerings

- Added a new Performance SKU (P07203-xxx) which replaces the previous Performance SKU (P03698-xxx)

## Standard Features

|                    |  |            |             |                 |             |   |
|--------------------|--|------------|-------------|-----------------|-------------|---|
| Processor          | AMD Opteron™ X3216 Processor (1.6-3.0GHz/2 compute cores/4 graphic cores/1MB/12-15W)<br>AMD Opteron™ X3418 Processor (1.8-3.2GHz/4 compute cores/6 graphic cores/2MB/12-35W)<br>AMD Opteron™ X3421 Processor (2.1-3.4GHz/4 compute cores/8 graphic cores/2MB/12-35W)   |            |             |                 |             |   |
| Cache Memory       | 2MB (1 x 2MB) L2 Cache<br><b>NOTE:</b> For X3421 and X3418 processors.<br>1MB (1 x 1MB) L2 Cache<br><b>NOTE:</b> For X3216 processor.  |            |             |                 |             |   |
| Memory Protection  | ECC  |            |             |                 |             |   |
| Memory             | TypeHPE Standard Memory<br>DDR4 Unbuffered (UDIMM)<br><br>DIMM Slots Available2<br>Standard8GB (1 x 8GB) PC4-2400T DDR4 UDIMM<br>Maximum32GB (2 x 16GB) PC4-2400T DDR4 UDIMM<br><b>NOTE:</b> HPE memory from previous generation servers are not fully compatible with the HPE ProLiant MicroServer Gen10.<br><b>NOTE:</b> SKUs with X3421 and X3418 processors support memory speed up to 2400 MT/s.<br><b>NOTE:</b> SKUs with X3216 processor support memory speed up to 1600 MT/s.                                      |            |             |                 |             |   |
| Network Controller | Embedded Broadcom BCM5720 Dual Port Gbe LOM  |            |             |                 |             |   |
| Expansion Slots    | Expansion Slot #   | Technology | Bus Width** | Connector Width | Form Factor | Notes   |
|                    | 1  | PCIe 3.0   | X8          | X8              | Low Profile | Open-end connector to support up to x16 PCIe card |
|                    | 2  | PCIe 3.0   | X1          | X4              | Low Profile | Open-end connector to support up to x16 PCIe card |
| Storage Controller | 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 <b>HPE Smart Array Gen10 Controllers Data Sheet</b> .<br>Embedded Storage ControllerMarvell 88SE9230 PCIe to SATA 6Gb/s Controller<br><b>NOTE:</b> Supports RAID 0/1/10 only. No FBWC support.<br>Essential RAID ControllerHPE Smart Array E208i-p SR Gen10 Controller<br><b>NOTE:</b> Supports RAID 0/1/5/10. No FBWC support. |            |             |                 |             |   |

## Standard Features

|                              |  |   |
|------------------------------|--|---|
| Internal Storage Devices     | Optical Drive  | Optional: SATA DVD-RW drive<br>Optional: SATA SSD |
|                              | Hard Drives  | None ship standard                                |
|                              | Solid State Drives   | None ship standard                                |
| <hr/>                        |  |   |
| Maximum Internal Storage     | Non-hot plug SATA  | 16TB (4 x 4TB) 3.5" SATA                          |
| <hr/>                        |  |   |
| Interfaces                   | Video  | 1 Rear VGA port<br>2 Rear Display ports 1.2       |
|                              | USB 2.0 Ports  | 3 total (2 rear, 1 internal)                      |
|                              | USB 3.0 Ports  | 4 total (2 rear, 2 front)                         |
|                              | Network RJ-45 (Ethernet)   | 2   |
| <hr/>                        |  |   |
| Industry Standard Compliance | ACPI V5.0 Compliant  |   |
|                              | PCIe 3.0 Compliant   |   |
|                              | PXE Support  |   |
|                              | WOL Support  |   |
|                              | EMC Class B  |   |
|                              | USB 2.0  |   |
|                              | USB 3.0  |   |
|                              | SATA 6Gb/s   |   |
| <hr/>                        |  |   |
| Server Power Cords           | All pre-configured models ship standard with one or more country-specific 6 ft/1.83m C-13 power cords depending on models. If a different power cord is required, please check the <b>HPE Power Cords and Cables</b> web page.   |   |
| <hr/>                        |  |   |
| Power Specifications         | To review the power requirements for your selected system, please use the HPE Power Advisor Tool located at <b><a href="http://www.hpe.com/info/hppoweradvisor">http://www.hpe.com/info/hppoweradvisor</a></b> .<br><b>NOTE:</b> See Technical Specifications section at end of QuickSpecs for Power Specifications. |   |
| <hr/>                        |  |   |
| Power Supply                 | One (1) 200 Watts non-hot plug, non-redundant Power Supply   |   |
| <hr/>                        |  |   |
| System Fans                  | One (1) non-redundant system fan shipped standard  |   |

Standard Features

Operating Systems and  
Virtualization Software  
Support for ProLiant  
Servers

- [Microsoft Windows Server 2012 R2](#)
- [Microsoft Windows Server 2016](#)
- [Red Hat Enterprise Linux \(RHEL\) 7.4](#)
- [ClearOS](#)

**NOTE:** ClearOS, an easy to use OS with an application marketplace, allows you to build a fully functional server that is just right for you at no upfront cost. It is available via download.

**NOTE:** HPE ProLiant servers with ClearOS give you a simple, secure, and affordable operating system with an intuitive web based graphical user interface that provides a cloud-like experience on- premise, and an Application Marketplace with over 100 apps and growing. Whether you're starting out or scaling, you decide what applications you need and pay as you grow. To learn more on what you can do, please visit <http://www.hpe.com/servers/clearos>.

**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:

<https://www.hpe.com/us/en/servers/server-operating-systems.html#OperatingSystems> and our driver download page: <http://www.hpe.com/downloads/microservergen10>

Form Factor

Ultra Micro Tower

## Service and Support

### Service and Support

#### HPE Pointnext for Industry Standard Servers

HPE Pointnext delivers confidence, reduces risk and helps customers realize agility and stability. 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 Packaged Support Services

HPE Packaged Support 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 Packaged Support 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. Simplify your support experience and make HPE your first call for hardware or software questions.

<https://www.hpe.com/h20195/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 Packaged Support 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. Simplify your support experience and make HPE your first call for hardware or software questions.

<https://www.hpe.com/h20195/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.

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

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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 and recommended engineering improvements.

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

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

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### For more information

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

<https://www.hpe.com/us/en/services/operational.html>

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## Pre-configured Models

| WW Entry BTO Model        |  |
|---------------------------|--|
| <b>[SKU Number]</b>       | 870208-xxx   |
| <b>Processor</b>          | (1) AMD Opteron™ X3216 (1.6-3.0GHz/2-core/1MB/12-15W) Processor  |
| <b>Memory</b>             | 8GB (1 x 8GB) PC4-2400T DDR4 UDIMM<br><b>NOTE: Total of 2 DIMM slots. With X3216 processor, memory speed supports up to 1600 MT/s.</b>   |
| <b>Network Controller</b> | Embedded Broadcom BCM5720 Dual Port 1Gbe LOM   |
| <b>Storage Controller</b> | Embedded Marvell 88SE9230 SATA controller  |
| <b>Hard Drive</b>         | 1TB (1 x 1TB) LFF NHP SATA HDD   |
| <b>Internal Storage</b>   | 4 LFF NHP SATA HDD cage  |
| <b>Optical Drive Bay</b>  | None ship as standard  |
| <b>PCI-Express Slots</b>  | 2 standard (Low Profile) PCIe 3.0  |
| <b>Power Supply</b>       | (1) 200W Non-Hot Plug, Non-Redundant Power Supply  |
| <b>Fans</b>               | (1) A non-redundant system fan ships standard  |
| <b>Operating System</b>   | ClearOS preloaded<br><b>NOTE: ClearOS, an easy to use OS with an application marketplace, allows you to build a fully functional server that is just right for you at no upfront cost. To learn more on what you can do, please visit: <a href="http://www.hpe.com/servers/clearos">http://www.hpe.com/servers/clearos</a></b> |
| <b>Form Factor</b>        | Ultra Micro Tower  |
| <b>Warranty</b>           | Server Warranty includes 1-Year Parts, 1-Year Labor, 1-Year Onsite support with next business day response   |

Country Code Key      xxx = AA1      China

| Entry Models              |   | Performance Models  |
|---------------------------|---|---|
| <b>[SKU Number]</b>       | 873830-xxx  | P07203-xxx  |
| <b>Processor</b>          | (1) AMD Opteron™ X3216<br>(1.6-3.0GHz/2-core/1MB/12-15W) Processor  | (1) AMD Opteron™ X3418<br>(1.8-3.2GHz/4-core/2MB/12-35W) Processor  |
| <b>Memory</b>             | 8GB (1 x 8GB) PC4-2400T DDR4 UDIMM<br><b>NOTE: Total of 2 DIMM slots.</b><br>With X3216 processor, memory speed supports up to 1600 MT/s. | 8GB (1 x 8GB) PC4-2400T DDR4 UDIMM<br><b>NOTE: Total of 2 DIMM slots.</b><br>With X3418 processor, memory speed supports up to 2400 MT/s. |
| <b>Network Controller</b> | Embedded Broadcom BCM5720<br>Dual Port 1Gbe LOM   | Embedded Broadcom BCM5720<br>Dual Port 1Gbe LOM   |
| <b>Storage Controller</b> | Embedded Marvell 88SE9230 SATA controller   | Embedded Marvell 88SE9230 SATA controller   |
| <b>Hard Drive</b>         | None ship as standard   | None ship as standard   |
| <b>Internal Storage</b>   | 4 LFF NHP SATA HDD cage   | 4 LFF NHP SATA HDD cage   |
| <b>Optical Drive Bay</b>  | None ship as standard   | None ship as standard   |
| <b>PCI-Express Slots</b>  | 2 standard (Low Profile) PCIe 3.0   | 2 standard (Low Profile) PCIe 3.0   |
| <b>Power Supply</b>       | (1) 200W Non-Hot Plug,<br>Non-Redundant Power Supply  | (1) 200W Non-Hot Plug,<br>Non-Redundant Power Supply  |
| <b>Fans</b>               | (1) A non-redundant system fan ships standard   | (1) A non-redundant system fan ships standard   |
| <b>Operating System</b>   | None ship as standard   | None ship as standard   |
| <b>Form Factor</b>        | Ultra Micro Tower   | Ultra Micro Tower   |
| <b>Warranty</b>           | Server Warranty includes 1-Year Parts, 1-Year Labor,<br>1-Year Onsite support with next business day response                             | Server Warranty includes 1-Year Parts, 1-Year Labor,<br>1-Year Onsite support with next business day response                             |

## Pre-configured Models

|                           | Solution Models   |
|---------------------------|---|
| <b>[SKU Number]</b>       | P04923-xxx  |
| <b>Processor</b>          | (1) AMD Opteron™ X3421 (2.1-3.4GHz/4-core/2MB/12-35W) Processor   |
| <b>Memory</b>             | 8GB (1 x 8GB) PC4-2400T DDR4 UDIMM<br><b>NOTE: Total of 2 DIMM slots.</b><br>With X3421 processor, memory speed supports up to 2400 MT/s. |
| <b>Network Controller</b> | Embedded Broadcom BCM5720 Dual Port 1Gbe LOM  |
| <b>Storage Controller</b> | Embedded Marvell 88SE9230 SATA controller   |
| <b>Hard Drive</b>         | None ship as standard   |
| <b>Internal Storage</b>   | 4 LFF NHP SATA HDD cage   |
| <b>Optical Drive Bay</b>  | None ship as standard   |
| <b>PCI-Express Slots</b>  | 2 standard (Low Profile) PCIe 3.0   |
| <b>Power Supply</b>       | (1) 200W Non-Hot Plug, Non-Redundant Power Supply   |
| <b>Fans</b>               | (1) A non-redundant system fan ships standard   |
| <b>Operating System</b>   | None ship as standard   |
| <b>Form Factor</b>        | Ultra Micro Tower   |
| <b>Warranty</b>           | Server Warranty includes 1-Year Parts, 1-Year Labor, 1-Year Onsite support with next business day response                                |
| <b>Others</b>             | Inclusive of an internal 8GB USB Drive which preloads ClearOS and ClearVM   |

|                         |                |          |
|-------------------------|----------------|----------|
| <b>Country Code Key</b> | xxx = S01, 001 | Americas |
|                         | xxx = 291      | Japan    |
|                         | xxx = 375      | AP       |
|                         | xx = 421       | EMEA     |



## Core Options

### HPE Unique Options

HPE MicroServer Gen10 SFF NHP SATA Converter Kit 870213-B21

**NOTE:** This kit works to accommodate your SFF NHP HDD into the LFF NHP drive cage.

HPE MicroServer Gen10 Slim SFF SATA Enablement Kit 870212-B21

**NOTE:** This kit works to accommodate your SFF NHP SSD into the media bay.

MicroServer Gen10 is now qualified with HPE 240GB SATA RI SFF RW DS SSD (875507-B21).

### HPE Memory

#### Unbuffered with ECC DIMMs (UDIMMs)

HPE 8GB (1x8GB) Single Rank x8 DDR4-2400 CAS-17-17-17 Unbuffered Standard Memory Kit 862974-B21

HPE 16GB (1x16GB) Dual Rank x8 DDR4-2400 CAS-17-17-17 Unbuffered Standard Memory Kit 862976-B21

**NOTE:** SKUs with X3421 and X3418 processors support memory speed up to 2400 MT/s.

**NOTE:** SKUs with X3216 processor support memory speed up to 1600 MT/s.

### HPE Optical Drives

HPE 9.5mm SATA DVD-ROM Optical Drive 726536-B21

HPE 9.5mm SATA DVD-RW Optical Drive 726537-B21

### HPE Hard Drives

**NOTE:** 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.

**NOTE:** Hard drives have either a one year or three year warranty; refer to the specific hard drive QuickSpecs for details.

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

HPE 1TB SATA 6G Midline 7.2K LFF (3.5in) RW 1yr Wty HDD 801882-B21

HPE 4TB SATA 6G Midline 7.2K LFF (3.5in) RW 1yr Wty HDD 801888-B21

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

HPE 1TB SATA 6G Entry 7.2K LFF (3.5in) RW 1yr Wty HDD 843266-B21

**NOTE:** Please see the [HPE Hard Drives QuickSpecs](#) for Technical Specifications and additional information.

### HPE Solid State Drives

HPE 240GB SATA 6G Read Intensive SFF (2.5in) RW Digitally Signed Firmware SSD P09685-B21

HPE MicroServer Gen10 Slim SFF SATA Enablement Kit (870212-B21) to accommodate this SFF SSD into the media bay.

### HPE Networking

HPE Ethernet 1Gb 4-port 331T Adapter 647594-B21

HPE Ethernet 1Gb 2-port 332T Adapter 615732-B21

HPE Ethernet 10Gb 2-port 521T Adapter 867707-B21

**NOTE:** The HPE PCIe adapters listed here can only support Server OSes.

### HPE Computation and Graphics Accelerators

HPE AMD Radeon Pro WX2100 Graphics Accelerator Q1P47A

**NOTE:** It adds additional graphics power to the native capability of the server as well as providing additional 2 mini-DisplayPort™ and 1 DisplayPort™ 1.4. For additional information:

<https://pro.radeon.com/en-us/product/wx-series/radeon-pro-wx-2100/>

## Additional Options

### HPE Security

HPE Trusted Platform Module 2.0 Kit

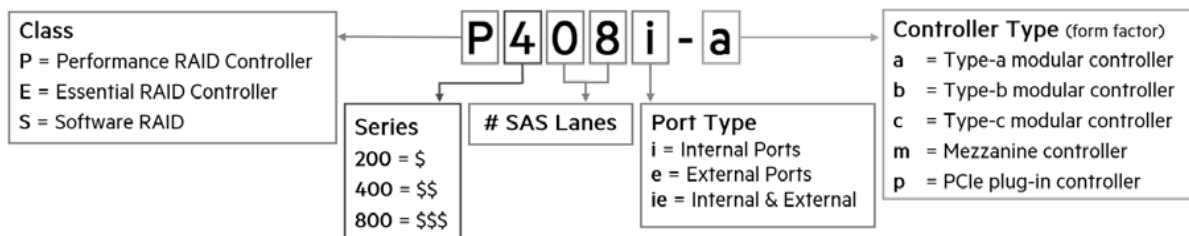
745823-B21

**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.

**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.

### 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

### HPE Disk Backup

**NOTE:** 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>

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

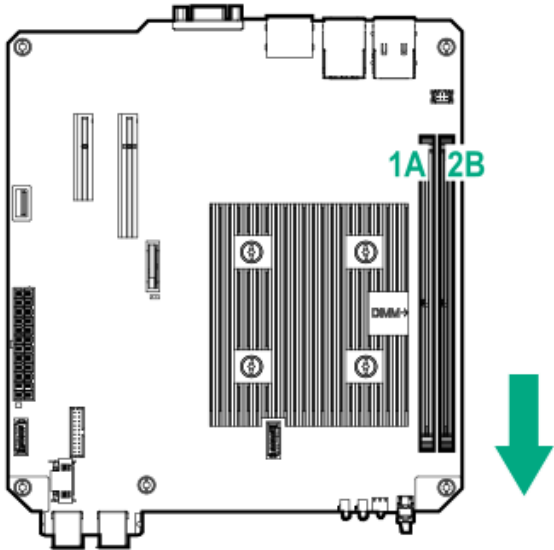
|   |        |
|---|--------|
| HPE RDX 500GB Removable Disk Cartridge  | Q2042A |
| HPE RDX 1TB Removable Disk Cartridge    | Q2044A |
| HPE RDX 2TB Removable Disk Cartridge    | Q2046A |
| HPE RDX 3TB Removable Disk Cartridge    | Q2047A |
| HPE RDX 4TB Removable Disk Cartridge    | Q2048A |
| HPE RDX 1TB External Disk Backup System | B7B69B |
| HPE RDX 2TB External Disk Backup System | E7X53B |
| HPE RDX 3TB External Disk Backup System | P9L72A |
| HPE RDX 4TB External Disk Backup System | Q2R33A |
| HPE RDX External Docking Station        | C8S07B |

### 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 |

Memory

HPE ProLiant MicroServer Generation 10



Maximum Memory

32GB of maximum memory is available with the installation of 2 x 16 GB UDIMM Memory kits.

| Memory   |       | Slot  |       |
|----------|-------|-------|-------|
| Standard | 8 GB  | 1A    | 2B    |
|          | 16 GB | 8 GB  | Empty |
| Optional | 16 GB | 16 GB | Empty |
|          | 32 GB | 8 GB  | 8 GB  |
| Maximum  | 32 GB | 16 GB | 16 GB |
|          | 32 GB | 16 GB | 16 GB |

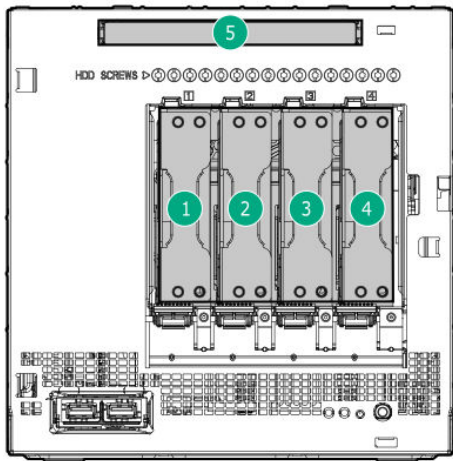
Following are memory options available from HPE:

HPE Memory

Unbuffered with ECC DIMMs (UDIMMs)

|  |            |
|--|------------|
| HPE 8GB (1x8GB) Single Rank x8 DDR4-2400 CAS-17-17-17 Unbuffered Standard Memory Kit | 862974-B21 |
| HPE 16GB (1x16GB) Dual Rank x8 DDR4-2400 CAS-17-17-17 Unbuffered Standard Memory Kit | 862976-B21 |

Storage



1-4 Four (4) non-hot plug drive bays                      5 Media bay for optional (1) optical drive or (1) SATA SSD for boot-drive

| Drive Support   |                    |   |                 |
|-----------------|--------------------|---|-----------------|
| Removable Media | Quantity Supported |   | Controller      |
| DVD-RW Drive    | 1                  | 5 | Integrated SATA |
| SATA SSD        | 1                  | 5 | Integrated SATA |

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

## Technical Specifications

### System Unit

**Dimensions** (H x W x D) 9.25 x 9.06 x 10.00 in (23.5 x 23.0 x 25.4 cm)  
(with feet)

**Weight** (approximate)

|  |                    |
|--|--------------------|
| Maximum  | 21.36 lb (9.70 kg) |
| (Four drives, two DIMMs, optical drive or SSD and two expansion boards installed)    |                    |
| Minimum  | 14.32 lb (6.50 kg) |
| (One hard drive and one DIMM installed, no media drive or expansion board installed) |                    |

**Input Requirements** (per power supply)

|                       |  |
|-----------------------|--|
| Rated Line Voltage    | 100 V AC to 240 V AC                     |
| Rated Input Current   | 3.5 A (at 100 V AC)                      |
| Rated Input Frequency | 50 to 60 Hz                              |
| Rated Input Power     | 200W Power Supply<br>244 W (at 115 V AC) |

**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 | 200 W Power Supply<br>200 W (at 100 VAC),<br>200 W (at 200 VAC) |
| Maximum Peak Power       | 200 W Power Supply<br>200 W (at 100 VAC),<br>200 W (at 200 VAC) |

**System Inlet Temperature** 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.

**NOTE:** System performance during standard operating support may be reduced if operating with a fan fault or above 30°C (86°F).

**Relative Humidity** (non-condensing)

|           |  |
|-----------|--|
| Operating | The unit shall be fully functional from 10% to 90% relative humidity, 28°C maximum wet bulb temperature, (non-condensing) across the operating temperature range of 0°C to 40°C. |
|-----------|--|

|               |   |
|---------------|---|
| Non-operating | 5 to 95% relative humidity (Rh), 38.7°C (101.7°F) maximum wet bulb temperature, non-condensing. |
|---------------|---|

**Altitude**

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

## Technical Specifications

### 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).

| Configuration                                   | Lightly loaded                        | Heavily loaded                        |
|---|---------------------------------------|---------------------------------------|
| <b>CPU type and quantity</b>                    | AMD Opteron™ processor at 15W cTDP x1 | AMD Opteron™ processor at 35W cTDP x1 |
| <b>DIMM type, capacity and quantity</b>         | 8 GB UDIMM 2400MT/s x1                | 8 GB UDIMM 2400MT/s x1                |
| <b>HDD type and quantity</b>                    | 2.5" SFF NHP HDD 500 GB x1            | 3.5" LFF NHP HDD 500 GB x4            |
| <b>Idle Sound Power Level in Bels LWAd</b>      | 3.8 Bels                              | 4.0 Bels                              |
| <b>Operating Sound Power Level in Bels LWAd</b> | 3.8 Bels                              | 4.0 Bels                              |
| <b>Idle Sound Pressure Level LpAm</b>           | 26.0 dBA                              | 30.4 dBA                              |
| <b>Operating Sound Pressure Level LpAm</b>      | 26. dBA                               | 31.0 dBA                              |

**NOTE:** 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.

**NOTE:** Acoustics levels presented here accounts for test configuration only and acoustics level will vary depending on system configuration

**NOTE:** Values are subject to change without notification and are for reference only.

### Emissions Classification (EMC)

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

**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.

### Environment-friendly Products and Approach

#### End-of-life Management and Recycling

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

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

## Summary of Changes

| Date         | Version History | Action  | Description of Change   |
|--------------|-----------------|---------|---|
| 04-Feb-2019  | Version 7       | Changed | Added new HPE Disk Backup offerings<br>Added new Solid State Drives and removed discontinued ones<br>Updated BTO SKU information  |
| 01-Oct-2018  | Version 6       | Changed | Standard Features, Pre-configured Models, and Additional Options sections were updated.<br>SKU descriptions were updated.<br>Obsolete SKUs were removed.  |
| 06-Aug-2018  | Version 5       | Added   | Added a new Performance SKU (P07203-xxx) which replaces the previous Performance SKU (P03698-xxx).  |
|              |                 | Changed | Core Options and Additional Options were revised.   |
| 07-May-2018  | Version 4       | Added   | Added a new Solution model (P04923-xxx) which bundles ClearOS and ClearVM on an internal USB drive.   |
| 05-Feb-2018  | Version 3       | Added   | Added new Entry and Performance Models.   |
| 25-Sept-2017 | Version 2       | Added   | Smart Buy models were added to the NA version.<br>Added a new SSD offering.<br>Added a new networking adaptor offering.<br>Added a new graphics accelerator offering.<br>Added a new smart array controller offering. |
| 05-Jun-2017  | Version 1       | New     | New QuickSpecs.   |



[hpe.com/qref/microservergen10](http://hpe.com/qref/microservergen10)



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

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