

# QuickSpecs

## HPE Solid State Disk Drives

### Overview

#### HPE Solid State Disk Drives

(SSD, AICs, M.2s and M.2 EKits)

HPE Solid State Drives (SSDs), Add-In-Cards, M.2s and M.2 Enablement Kits (EKits) are based upon industry leading NAND Flash technology, which delivers exceptional performance and endurance to support a growing broad spectrum of demanding applications with varying workload performance requirements.

These storage devices offer better I/O latency & more power efficient solutions when compared with traditional rotating (HDD) media, while also fitting seamlessly into existing HPE server & storage infrastructures, and are available in a number of form factors including: Small Form Factor (SFF), Large Form Factor (LFF), M.2, and PCIe/NVME Add-In-Cards (AIC).



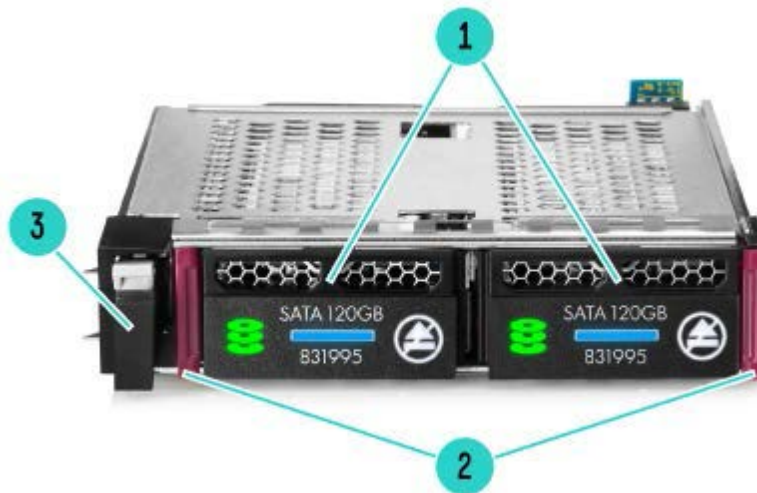
## Standard Features

### HPE M.2 Enablement Kits

#### M.2 Enablement Kit with Small Form Factor Flash Adapter with Dual uFF SSDs

The HPE M.2 Enablement Kit is a Small Form Factor (SFF) Flash Adapter that packages two 6G SATA M.2 Micro Form Factor (uFF) Sleds in a Dual Domain SFF Smart Drive bay which enables customers to install twice as many drives in an HPE server module when compared to standard SFF Smart Drive bays.

The HPE M.2 Enablement Kit with Small Form Factor Flash Adapter with Dual uFF SSDs increases flexibility, availability and serviceability for storage resources inside the server. The M.2 Enablement Kit with Small Form Factor Flash Adapter with Dual uFF SSDs option increases the composability of the server by enabling configurations that support a broader range of applications and workloads by providing up to 2 drives (2 x HPE SFF Dual uFF SSD options) within 1 drive bay, for example for higher drive performance, or when an on-line spare drive is needed. When higher application availability is required, customers can separate RAID1 mirror boot drives from the application. DATA availability is increased by being able to configure a RAID5 set, which also means more usable capacity.



#### Item Description

- 1) uFF SATA Drive Modules (hot pluggable)
- 2) uFF Drive Ejection Latches
- 3) Adapter Ejection Release Latch

## Standard Features

### What's New?

New Solid State Drives & Drive Option Kit(s):

- P
  - 13658-B21 HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD
  - P13660-B21 HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD
  - P13662-B21 HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD
  - P13664-B21 HPE 3.84TB SATA 6G Mixed Use SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD
  - P13668-B21 HPE 800GB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD
  - P13670-B21 HPE 1.6TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD
  - P13672-B21 HPE 3.2TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD
  - P13674-B21 HPE 6.4TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD
  - P13676-B21 HPE 960GB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD
  - P13678-B21 HPE 1.92TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD
  - P13680-B21 HPE 3.84TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD
  - P13682-B21 HPE 7.68TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD
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## Standard Features

**HPE Solid State Drive Selector Tool** – a web-based tool that dramatically reduces the time and complexity of selecting the right SSD for your demanding workloads. <http://ssd.hpe.com>.

Dramatically reduces the time to select the right SSD for your HPE Server

- Recommends the most appropriate SSDs for specific customer workloads
- Reduces selection time and eliminates complexity; sort by server model, price, & performance
- Ideal for customers, HPE Sales, and HPE channel partners
- Simple, web-based tool; user-friendly interface

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### Firmware Updates:

- HPE Digitally Signed Firmware Prevents unauthorized access to your data by providing the security and assurance that drive firmware comes from a trusted source and protects against malicious attacks. Digitally Signed Firmware is indicated by “DS” in the SKU description of older SKUs. All SDDs in the HPE main portfolio of SKU have digitally signed firmware unless otherwise noted, particularly in newer released SKU (even if DS does not appear in the description) Digitally Signed Firmware can be confirmed in the capacity/workload tables by SKU number.
- For advanced data protection and encryption, customers should consider HPE Smart Array Controllers with HPE Smart Array Secure SR Encryption. It is a controller-based data encryption solution for HPE servers that protects data-at-rest on all SAS and SATA drives connected directly to the controller. This solution meets stringent compliance regulations such as HIPAA, FIPS, and Sarbanes-Oxley.

### Minimally Supported Operating Systems for all SATA and SAS SSDs:

- Windows Server 2019
- Microsoft Windows Server 2008 (x86 and x64) SP2 and R2 w/SP1
  - Standard Edition
  - Datacenter
  - Enterprise Edition
  - Web Server
  - Embedded
- Microsoft Windows 2012 Server (x64) R2
- Microsoft Windows 2016 (RTM)
- Red Hat Enterprise Linux 6 (EM64T/AMD64)
- Red Hat Enterprise Linux 7 (EM64T/AMD64)
- SLES 11 (EM64T/AMD64) (includes XEN)
- SLES 12 (EM64T/AMD64) (includes XEN)
- VMware ESXi 5.5
- VMware ESXi 6.0

## Standard Features

# HPE Storage Options – SSD Portfolio Alignment

- NVMe – High Performance Low Latency**
  - Best Latency
  - Best Mixed Workloads Performance
  - Highest Endurance

- NVMe – High Performance**
  - Better Performance than NVMe Mainstream
  - Best Read Performance
  - Larger Capacities

- NVMe – Mainstream (Low Power)**
  - Better Performance than SAS/SATA but less than NVMe High Performance
  - Will displace SATA long-term
  - Smaller Capacities available

- SAS**
  - Best Behind Expanders
  - Good balance of Workload and Performance for the Price
  - Largest Capacities

- Value SAS**
  - Twice the interface speed of SATA
  - Lower cost than Traditional SAS SSDs
  - Enterprise focused alternative to Mainstream NVMe SSDs

- SATA**
  - Lowest Price / For Read Intensive Workloads
  - Good Price / For Mixed Workloads

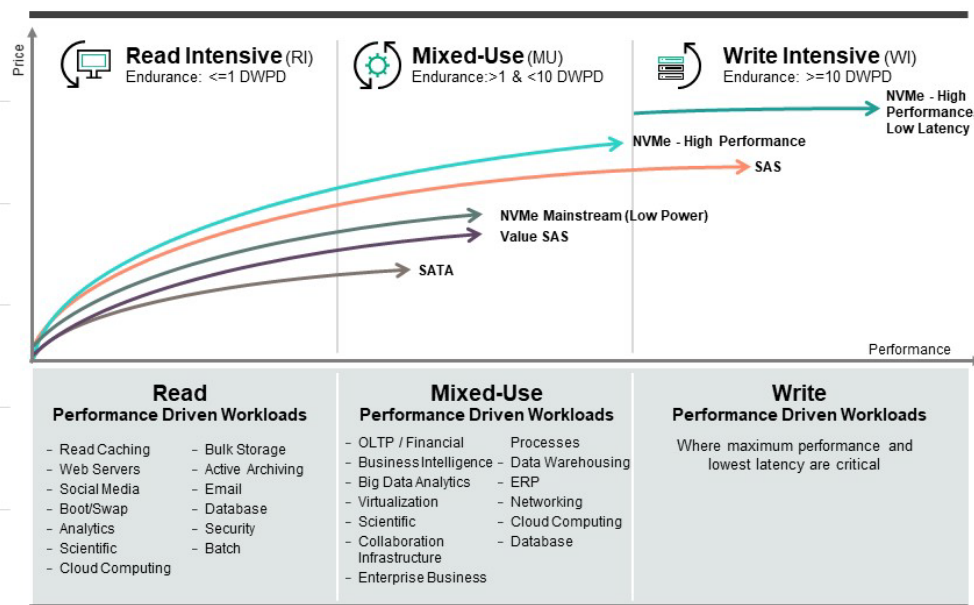


Figure 1 – SSD Portfolio Alignment

## Standard Features

### Our Solid State product categories include Solid State Drives, or SSDs.

We define enterprise-class as products that include full data path error detection and surprise power loss protection. In addition, our SSDs have HPE SmartSSD Wear Gauge support, which provides diagnostic information and reports on the health of any given drive.

HPE Enterprise SSDs are available in three categories based on the customer's application and workload level: Read Intensive (RI), Mixed Use (MU), and Write Intensive (WI). These categories indicate the number of drive writes per day (DWPD) that you can expect from the drive. (DWPD is the maximum number of 4K host writes to the entire drive capacity of the SSD per day over a five-year period).

Workloads such as Read caching, Web Servers, Social Media, and Boot are more Read Performance driven. Workloads such as Business Intelligence, Big Data Analytics, Virtualization tend to be more Write Performance driven.

Our Read Intensive SSDs are typically focused on Read Performance with an Endurance less than or equal to 1 full drive write per day. Our Write Intensive SSDs are focused on Write Performance with an Endurance of  $\geq 10$  full drive writes per day (DWPD).

As an example, if we have an 800GB Write Intensive SSD with an endurance of 10 Drive Writes per Day, it means that customers can write to the entire 800GB capacity of that SSD 10 times per day, and the drive will last for 5 years. Positioned in-between RI and WI, we have products with Balanced Read and Write Performance that we call Mixed Use (MU), with an Endurance of typically  $\sim 3$  DWPD.

HPE SATA SSDs deliver enterprise features at an affordable price in HPE servers. Entry-level pricing is fueling the rapid adoption of SSDs for read-intensive workloads, with the cost per IOPS comparing favorably to HDDs.

For best access to SATA SSDs, HPE has enhanced its extensive SSD portfolio with a multi-vendor offering that allows for shorter lead times to immediately available supply and extended SKU lifecycles on preferably priced HPE certified SATA SSDs, ensuring the SSDs included in the multi-vendor options deliver the minimum performance published or better.

HPE's multi-vendor SSD offering helps customers simplify their purchasing decisions by providing immediate availability, preferable pricing and SKU longevity on HPE certified SSDs.

HPE multi-vendor portfolio utilizes specific vendor SSDs which are HPE qualified and released as single sourced SATA SSD SKUs and are bundled into a multi-sourced SKU per capacity. Identified by Multi Vendor (MV) in the SKU description, these multi-vendor SKUs provide the shortest lead time of SATA SSDs, preferable pricing to single sourced SKUs and are assured to meet or exceed the minimum performance specifications and power requirements published in this HPE QuickSpecs document per capacity SKU number. For customers looking to step up from SATA SSDs, HPE single-port Value SAS SSDs offer a significant performance boost over SATA SSDs with roughly twice the IOPS, and are typically lower in cost than traditional SAS SSD drives.

HPE full-performance SAS SSDs allow greater I/O bandwidth for superior performance over Value SAS SSDs, providing high write performance and endurance. They are best suited for mission-critical enterprise environments with workloads high in read and writes.

For customers looking for even more performance, High Performance Low Latency NVMe SSDs are a category of drives that offers a combination of high throughput, low latency, and ultra-high endurance. The first HPE SSDs using 3D XPoint technology\*, these SSDs are optimized to break through data access bottlenecks by providing a new data storage tier. High Performance Low Latency NVMe SSDs accelerate applications for fast caching and fast storage to increase scale per server and reduce transaction costs for latency sensitive workloads.

Using the above information along with our **HPE SSD Selector Tool** at <http://ssd.hpe.com> you can quickly determine what SSD solution might best meet your needs. You can also compare specific capacity, performance attributes, and server compatibility.

## Standard Features

### What is a SSD?

An enduring data storage device utilizing NAND (negative-AND) semiconductor technology to store and access data which is volatile without the aid of an auxiliary power source.

### SSD Quality

Today's businesses are seeing larger, more complex applications, coupled with an increasing amount of mission-critical and transaction processing data demand. In this environment, storage has become a critical component, significantly defining requirements for both systems reliability and performance. This is why HPE drives undergo a rigorous qualification process to ensure functionality and eliminate firmware and OS incompatibilities.

### Integration

Many issues customers have with third party drives are "simple" integration issues. When buying from another supplier, there is no guarantee that a drive has been correctly set for proper operation with ProLiant servers and storage systems. These incompatibilities can create problems in configuration, can rob your system of performance, or at their worst, can cause you to lose data. HPE drives are specifically designed and tested for flawless operation in your HPE equipment. The integration of solid state drives in HPE systems means that associated components are right for your ProLiant server.

### Support Matrix

Please see the following URL for the latest list of supported servers and enclosures:

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

### Product Category

HPE Enterprise SSDs are available in three categories based on workload level: Read Intensive (RI), Mixed Use (MU), and Write Intensive (WI). These categories indicate the number of drive writes per day (DWPD) that you can expect from the drive. (DWPD is the maximum number of 4K host writes to the entire drive capacity of the SSD per day over a five-year period).

### Maximum Usage Limitations

NAND Flash devices use semiconductor technology that has a finite number of data that can be written to the device, defined as the Maximum Usage Limit, commonly called "Write Endurance". Write Endurance - is measured while running 100% random 4KiB writes across the entire SSD.

Drive Writes Per Day (DWPD) - Workload environment is based on 100% random 4KiB writes for five (5) years, which is the maximum amount of data that can be written to the device before reaching the device's write endurance limit.

HPE Solid State Drives (SSDs) are equipped with tools that can report the amount of lifetime remaining. Introducing HPE SMARTSSD Wear Gauge™. To take advantage of SMARTSSD Wear Gauge™, Smart Array Firmware version 5.0 or greater is required and HPE Array Configuration Utility (ACU) or HPE Diagnostic Utility (ADU) must be running.

Simple Network Management Protocol (SNMP) Storage Agents for both Microsoft® Windows® and Linux provide status and condition updates through traps, OS event logs and the HPE System **Management**

**Homepage:** <https://www.hpe.com/us/en/product-catalog/detail/pip.hp-system-management-homepage-software.344313.html>

The HPE SMARTSSD Wear Gauge™ requires a Smart Array or Smart HBA controller listed below.

### Standard Features

- HPE Smart Array PX1X Controller Series or newer
- HPE Smart HBA PX4X Controller Series
- HPE Dynamic Smart Array BX2Xi Controller Series or newer
- HPE Dynamic Smart Array B320i Controller

**NOTE:** HPE Direct Connect to the HPE Smart Array B110i SATA RAID Controller is not currently supported by the above noted tool.

## Standard Features

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### Data Retention

Data Retention is the period of time for retaining the data in the NAND once the maximum rated endurance level has occurred. These SSD's are rated for 3 months if no power is applied once the SSD has reached maximum rated write endurance.

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### Warranty

SSD & AIC Standard 3/0/0 warranty; Customer Self Repair (CSR) subject to maximum usage limitations. Maximum usage limit: This is the maximum amount of data that can be written to the drive. Drives that have reached this limit will not be eligible for warranty coverage.

**NOTE:** In cases where an M.2 SSD is used in conjunction with a Server Cartridge the Warranty includes 3-Year Parts, 3-Year Labor, 3-Year (3/3/3) Onsite support for that option only.

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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 powered by a rich portfolio of consulting and support services designed to add value to our core products and solutions connect to Hewlett Packard Enterprise 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 Support Services

HPE support services offer complete care and support expertise with committed response choices that are designed to meet your IT and business needs.

**NOTE:** HPE Solid State Drives are supported as a part of the HPE Server Infrastructure. No separate Support Services are needed to be purchased.

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### Connect your devices to HPE

Unlock all of the benefits of your technology investment by connecting your products to Hewlett Packard Enterprise. Achieve up to 77%<sup>1</sup> reduction in down time, near 100%<sup>2</sup> 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.

1. IDC Whitepaper
2. HPE CSC Reports 2014-2015

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### HPE Support Center

Personalized online support portal with access to information, tools and experts to support HPE business products. Submit support cases online, chat with Hewlett Packard Enterprise experts, access support resources or collaborate with peers. Learn more [\*\*HPE Support Center\*\*](#)

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 Hewlett Packard Enterprise warranty, HPE Support Services or HPE contractual support agreement.

**NOTE:** HPE Support Center Mobile App above is subject to local availability.

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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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## Service and Support

### Warranty / Service Coverage

For ProLiant servers and storage systems, the service on the main product covers HPE-branded hardware options not designated by Hewlett Packard Enterprise as requiring separate coverage, that are qualified for the server, purchased at the same time or afterward and internal to the enclosure. These items will be covered at the same service level and for the same coverage period as the server unless the maximum supported lifetime and/or the maximum usage limitation has been reached.

The defective media retention service feature option applies only to Disk or eligible SSD/Flash Drives replaced by Hewlett Packard Enterprise due to malfunction. It does not apply Disk or SSD/Flash Drives that have not failed. SSD/Flash Drives that are specified by Hewlett Packard Enterprise as consumable parts and/or that have reached maximum supported lifetime and/or the maximum usage limits as set forth in the manufacturer's operating manual, the product QuickSpecs, or the technical data sheet are not eligible for the defective media retention service feature option.

Subject to: Maximum supported lifetime: This is a period in years set to equal the warranty for the specific drive. After this period no further service coverage will be available for the drive. Maximum usage limit: This is the maximum amount of data that can be written to the drive. Drives that have reached this limit will not be eligible for services coverage.

### Additional Notes Regarding Usage and Wear:

- DWPD (Drive-Writes-Per Day) ->Full drive writes per day for 5 years. Based on 100% Random Writes (KiB).
- HPE Enterprise SSDs deliver: Full data path error detection, surprise power loss protection and Smart SSD Wear Gauge support.

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### For more information

To learn more on services for HPE ESSN Options, please contact your Hewlett Packard Enterprise sales representative or Hewlett Packard Enterprise Authorized Channel Partner. Or visit:

<https://www.hpe.com/us/en/product-catalog/servers/proliant-servers.html> or

<https://www.hpe.com/us/en/integrated-systems/bladesystem.html>

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### Supporting Helpful Links

<http://www.hpe.com/info/rackandpower>

<http://www.hpe.com/info/poweradvisor>

<https://www.hpe.com/us/en/storage/entry-level.html>

### Also:

Take control of your data - A guide to understanding storage technologies.

<http://www.hpe.com/h20195/V2/getpdf.aspx/4AA4-7667ENW.pdf?ver=1.0>

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## QuickSpecs

## HPE Solid State Disk Drives

### Technical Specifications

| SATA Interface– (Capacity, Workload, Carrier...) |                                                                                   |          |               |                |             |           |              |                                |            |        |                                         |
|--------------------------------------------------|-----------------------------------------------------------------------------------|----------|---------------|----------------|-------------|-----------|--------------|--------------------------------|------------|--------|-----------------------------------------|
| HPE Option Kit SKU                               | Long Description                                                                  | Capacity | Workload Type | Interface Type | Form Factor | Plug Type | Carrier Type | Digitally Signed Firmware (DS) | Flash Type | Port   | Server Gen Supported (Select Platforms) |
| <b>Mixed Use SATA Drives</b>                     |                                                                                   |          |               |                |             |           |              |                                |            |        |                                         |
| 872344-B21                                       | HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 480      | MU            | SATA           | SFF         | Hot Plug  | SC           | Yes                            | MLC        | Single | Gen9 & 10                               |
| 872346-B21                                       | HPE 480GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD | 480      | MU            | SATA           | LFF         | Hot Plug  | SCC          | Yes                            | MLC        | Single | Gen9 & 10                               |
| 875470-B21                                       | HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 480      | MU            | SATA           | SFF         | Hot Plug  | SC           | Yes                            | TLC        | Single | Gen9 & 10                               |
| 875474-B21                                       | HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 960      | MU            | SATA           | SFF         | Hot Plug  | SC           | Yes                            | TLC        | Single | Gen9 & 10                               |
| 875483-B21                                       | HPE 240GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 240      | MU            | SATA           | SFF         | Hot Plug  | SC           | Yes                            | TLC        | Single | Gen9 & 10                               |
| 875488-B21                                       | HPE 240GB SATA 6G Mixed Use M.2 2280 3yr Wty Digitally Signed Firmware SSD        | 240      | MU            | SATA           | M.2         | #N/A      | #N/A         | Yes                            | TLC        | Single | Gen9 & 10                               |
| 875490-B21                                       | HPE 480GB SATA 6G Mixed Use M.2 2280 3yr Wty Digitally Signed Firmware SSD        | 480      | MU            | SATA           | M.2         | #N/A      | #N/A         | Yes                            | TLC        | Single | Gen9 & 10                               |
| 875492-B21                                       | HPE 960GB SATA 6G Mixed Use M.2 2280 3yr Wty Digitally Signed Firmware SSD        | 960      | MU            | SATA           | M.2         | #N/A      | #N/A         | Yes                            | TLC        | Single | Gen9 & 10                               |
| P00896-B21                                       | HPE 3.84TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 3,840    | MU            | SATA           | SFF         | Hot Plug  | SC           | Yes                            | TLC        | Single | Gen9 & 10                               |
| P05976-B21                                       | HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 480      | MU            | SATA           | SFF         | Hot Plug  | SC           | Yes                            | MLC        | Single | Gen10                                   |
| P05980-B21                                       | HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 960      | MU            | SATA           | SFF         | Hot Plug  | SC           | Yes                            | MLC        | Single | Gen10                                   |

## Technical Specifications

| SATA Interface– (Capacity, Workload, Carrier...) |                                                                                             |          |               |                |             |              |              |                                |            |        |                                         |
|--------------------------------------------------|---------------------------------------------------------------------------------------------|----------|---------------|----------------|-------------|--------------|--------------|--------------------------------|------------|--------|-----------------------------------------|
| HPE Option Kit SKU                               | Long Description                                                                            | Capacity | Workload Type | Interface Type | Form Factor | Plug Type    | Carrier Type | Digitally Signed Firmware (DS) | Flash Type | Port   | Server Gen Supported (Select Platforms) |
| P05986-B21                                       | HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD           | 1,920    | MU            | SATA           | SFF         | Hot Plug     | SC           | Yes                            | MLC        | Single | Gen10                                   |
| P05994-B21                                       | HPE 3.84TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD           | 3,840    | MU            | SATA           | SFF         | Hot Plug     | SC           | Yes                            | MLC        | Single | Gen10                                   |
| P06607-B21                                       | HPE Dual 240GB SATA 6G Mixed Use M.2 - UFF to SFF SCM 3yr Wty Digitally Signed Firmware SSD | 480      | MU            | SATA           | SFF         | Hot Plug     | SCM          | Yes                            | MLC        | Single | Gen9 & 10                               |
| P07922-B21                                       | HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD            | 480      | MU            | SATA           | SFF         | Hot Plug     | SC           | Yes                            | TLC        | Single | Gen9 & 10                               |
| P07924-B21                                       | HPE 480GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD           | 480      | MU            | SATA           | LFF         | Hot Plug     | SCC          | Yes                            | TLC        | Single | Gen9 & 10                               |
| P07926-B21                                       | HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD            | 960      | MU            | SATA           | SFF         | Hot Plug     | SC           | Yes                            | TLC        | Single | Gen9 & 10                               |
| P07928-B21                                       | HPE 960GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD           | 960      | MU            | SATA           | LFF         | Hot Plug     | SCC          | Yes                            | TLC        | Single | Gen9 & 10                               |
| P07930-B21                                       | HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD           | 1,920    | MU            | SATA           | SFF         | Hot Plug     | SC           | Yes                            | TLC        | Single | Gen9 & 10                               |
| P07932-B21                                       | HPE 1.92TB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD          | 1,920    | MU            | SATA           | LFF         | Hot Plug     | SCC          | Yes                            | TLC        | Single | Gen9 & 10                               |
| P07934-B21                                       | HPE 1.92TB SATA 6G Mixed Use LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD          | 1,920    | MU            | SATA           | LFF         | Hot Plug     | LPC          | Yes                            | TLC        | Single | Gen9 & 10                               |
| P07936-B21                                       | HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD           | 1,920    | MU            | SATA           | SFF         | Non-Hot Plug | RW           | Yes                            | TLC        | Single | Gen9 & 10                               |

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## HPE Solid State Disk Drives

### Technical Specifications

| SATA Interface– (Capacity, Workload, Carrier...) |                                                                                    |          |               |                |             |           |              |                                |            |        |                                         |
|--------------------------------------------------|------------------------------------------------------------------------------------|----------|---------------|----------------|-------------|-----------|--------------|--------------------------------|------------|--------|-----------------------------------------|
| HPE Option Kit SKU                               | Long Description                                                                   | Capacity | Workload Type | Interface Type | Form Factor | Plug Type | Carrier Type | Digitally Signed Firmware (DS) | Flash Type | Port   | Server Gen Supported (Select Platforms) |
| P09712-B21                                       | HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD   | 480      | MU            | SATA           | SFF         | Hot Plug  | SC           | Yes                            | MLC        | Single | Gen9, 10                                |
| P09716-B21                                       | HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD   | 960      | MU            | SATA           | SFF         | Hot Plug  | SC           | Yes                            | MLC        | Single | Gen9, 10                                |
| P09718-B21                                       | HPE 960GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD  | 960      | MU            | SATA           | LFF         | Hot Plug  | SCC          | Yes                            | MLC        | Single | Gen9, 10                                |
| P09722-B21                                       | HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 1,920    | MU            | SATA           | SFF         | Hot Plug  | SC           | Yes                            | MLC        | Single | Gen9, 10                                |
| P09724-B21                                       | HPE 1.92TB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD | 1,920    | MU            | SATA           | LFF         | Hot Plug  | SCC          | Yes                            | MLC        | Single | Gen9, 10                                |
| P09726-B21                                       | HPE 1.92TB SATA 6G Mixed Use LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD | 1,960    | MU            | SATA           | LFF         | Hot Plug  | LPC          | Yes                            | MLC        | Single | Gen9, 10                                |
| <b>P13658-B21</b>                                | HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD   | 480      | MU            | SATA           | SFF         | Hot Plug  | SC           | Yes                            | TLC        | Single | Gen9,10                                 |
| <b>P13660-B21</b>                                | HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD   | 960      | MU            | SATA           | SFF         | Hot Plug  | SC           | Yes                            | TLC        | Single | Gen9,10                                 |
| <b>P13662-B21</b>                                | HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 1,920    | MU            | SATA           | SFF         | Hot Plug  | SC           | Yes                            | TLC        | Single | Gen9,10                                 |
| <b>P13664-B21</b>                                | HPE 3.84TB SATA 6G Mixed Use SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD  | 3,840    | MU            | SATA           | SFF         | Hot Plug  | SC           | Yes                            | TLC        | Single | Gen9,10                                 |

## QuickSpecs

## HPE Solid State Disk Drives

### Technical Specifications

| Read Intensive SATA Drives                       |                                                                                        |          |               |                |             |           |              |                                |            |        |                                         |  |
|--------------------------------------------------|----------------------------------------------------------------------------------------|----------|---------------|----------------|-------------|-----------|--------------|--------------------------------|------------|--------|-----------------------------------------|--|
| SATA Interface– (Capacity, Workload, Carrier...) |                                                                                        |          |               |                |             |           |              |                                |            |        |                                         |  |
| HPE Option Kit SKU                               | Long Description                                                                       | Capacity | Workload Type | Interface Type | Form Factor | Plug Type | Carrier Type | Digitally Signed Firmware (DS) | Flash Type | Port   | Server Gen Supported (Select Platforms) |  |
| 868822-B21                                       | HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 960      | RI            | SATA           | SFF         | Hot Plug  | SC           | Yes                            | MLC        | Single | Gen9 & 10                               |  |
| 868826-B21                                       | HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 1,920    | RI            | SATA           | SFF         | Hot Plug  | SC           | Yes                            | MLC        | Single | Gen9 & 10                               |  |
| 875498-B21                                       | HPE 480GB SATA 6G Read Intensive M.2 2280 3yr Wty Digitally Signed Firmware SSD        | 480      | RI            | SATA           | M.2         | #N/A      | #N/A         | Yes                            | TLC        | Single | Gen9 & 10                               |  |
| 875500-B21                                       | HPE 960GB SATA 6G Read Intensive M.2 2280 3yr Wty Digitally Signed Firmware SSD        | 960      | RI            | SATA           | M.2         | #N/A      | #N/A         | Yes                            | TLC        | Single | Gen9 & 10                               |  |
| 875503-B21                                       | HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 240      | RI            | SATA           | SFF         | Hot Plug  | SC           | Yes                            | TLC        | Single | Gen9 & 10                               |  |
| 875509-B21                                       | HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 480      | RI            | SATA           | SFF         | Hot Plug  | SC           | Yes                            | TLC        | Single | Gen9 & 10                               |  |
| 875511-B21                                       | HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 960      | RI            | SATA           | SFF         | Hot Plug  | SC           | Yes                            | TLC        | Single | Gen9 & 10                               |  |
| 875513-B21                                       | HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 1,920    | RI            | SATA           | SFF         | Hot Plug  | SC           | Yes                            | TLC        | Single | Gen9 & 10                               |  |

## Technical Specifications

| SATA Interface– (Capacity, Workload, Carrier...) |                                                                                       |          |               |                |             |           |              |                                |            |        |                                         |
|--------------------------------------------------|---------------------------------------------------------------------------------------|----------|---------------|----------------|-------------|-----------|--------------|--------------------------------|------------|--------|-----------------------------------------|
| HPE Option Kit SKU                               | Long Description                                                                      | Capacity | Workload Type | Interface Type | Form Factor | Plug Type | Carrier Type | Digitally Signed Firmware (DS) | Flash Type | Port   | Server Gen Supported (Select Platforms) |
| P04474-B21                                       | HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 480      | RI            | SATA           | SFF         | Hot Plug  | SC           | Yes                            | TLC        | Single | Gen9 & 10                               |
| P04476-B21                                       | HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 960      | RI            | SATA           | SFF         | Hot Plug  | SC           | Yes                            | TLC        | Single | Gen9 & 10                               |

## QuickSpecs

## HPE Solid State Disk Drives

### Technical Specifications

| SATA Interface– (Capacity, Workload, Carrier...) |                                                                                         |          |               |                |             |           |              |                                |            |        |                                         |
|--------------------------------------------------|-----------------------------------------------------------------------------------------|----------|---------------|----------------|-------------|-----------|--------------|--------------------------------|------------|--------|-----------------------------------------|
| HPE Option Kit SKU                               | Long Description                                                                        | Capacity | Workload Type | Interface Type | Form Factor | Plug Type | Carrier Type | Digitally Signed Firmware (DS) | Flash Type | Port   | Server Gen Supported (Select Platforms) |
| P04478-B21                                       | HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 1,920    | RI            | SATA           | SFF         | Hot Plug  | SC           | Yes                            | TLC        | Single | Gen9 & 10                               |
| P04480-B21                                       | HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 3,840    | RI            | SATA           | SFF         | Hot Plug  | SC           | Yes                            | TLC        | Single | Gen9 & 10                               |
| P04482-B21                                       | HPE 7.68TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 7,680    | RI            | SATA           | SFF         | Hot Plug  | SC           | Yes                            | TLC        | Single | Gen9 & 10                               |
| P04499-B21                                       | HPE 480GB SATA 6G Read Intensive LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD  | 480      | RI            | SATA           | LFF         | Hot Plug  | LPC          | Yes                            | TLC        | Single | Gen9 & 10                               |
| P04501-B21                                       | HPE 1.92TB SATA 6G Read Intensive LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD | 1,920    | RI            | SATA           | LFF         | Hot Plug  | LPC          | Yes                            | TLC        | Single | Gen9 & 10                               |
| P04556-B21                                       | HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD   | 240      | RI            | SATA           | SFF         | Hot Plug  | SC           | Yes                            | MLC        | Single | Gen10                                   |
| P04560-B21                                       | HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD   | 480      | RI            | SATA           | SFF         | Hot Plug  | SC           | Yes                            | MLC        | Single | Gen10                                   |
| P04564-B21                                       | HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD   | 960      | RI            | SATA           | SFF         | Hot Plug  | SC           | Yes                            | MLC        | Single | Gen10                                   |
| P04566-B21                                       | HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 1,920    | RI            | SATA           | SFF         | Hot Plug  | SC           | Yes                            | MLC        | Single | Gen10                                   |



## Technical Specifications

| SATA Interface– (Capacity, Workload, Carrier...) |                                                                                        |          |               |                |             |           |              |                                |            |        |                                         |
|--------------------------------------------------|----------------------------------------------------------------------------------------|----------|---------------|----------------|-------------|-----------|--------------|--------------------------------|------------|--------|-----------------------------------------|
| HPE Option Kit SKU                               | Long Description                                                                       | Capacity | Workload Type | Interface Type | Form Factor | Plug Type | Carrier Type | Digitally Signed Firmware (DS) | Flash Type | Port   | Server Gen Supported (Select Platforms) |
| P04570-B21                                       | HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 3,840    | RI            | SATA           | SFF         | Hot Plug  | SC           | Yes                            | MLC        | Single | Gen10                                   |
| P05924-B21                                       | HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 240      | RI            | SATA           | SFF         | Hot Plug  | SC           | Yes                            | MLC        | Single | Gen10                                   |

## Technical Specifications

| SATA Interface– (Capacity, Workload, Carrier...) |                                                                                                  |          |               |                |             |           |              |                                |            |        |                                         |  |
|--------------------------------------------------|--------------------------------------------------------------------------------------------------|----------|---------------|----------------|-------------|-----------|--------------|--------------------------------|------------|--------|-----------------------------------------|--|
| HPE Option Kit SKU                               | Long Description                                                                                 | Capacity | Workload Type | Interface Type | Form Factor | Plug Type | Carrier Type | Digitally Signed Firmware (DS) | Flash Type | Port   | Server Gen Supported (Select Platforms) |  |
| P05928-B21                                       | HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD            | 480      | RI            | SATA           | SFF         | Hot Plug  | SC           | Yes                            | MLC        | Single | Gen10                                   |  |
| P05932-B21                                       | HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD            | 960      | RI            | SATA           | SFF         | Hot Plug  | SC           | Yes                            | MLC        | Single | Gen10                                   |  |
| P05938-B21                                       | HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD           | 1,920    | RI            | SATA           | SFF         | Hot Plug  | SC           | Yes                            | MLC        | Single | Gen10                                   |  |
| P05946-B21                                       | HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD           | 3,840    | RI            | SATA           | SFF         | Hot Plug  | SC           | Yes                            | MLC        | Single | Gen10                                   |  |
| P06194-B21                                       | HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD            | 480      | RI            | SATA           | SFF         | Hot Plug  | SC           | Yes                            | TLC        | Single | Gen9 & 10                               |  |
| P06196-B21                                       | HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD            | 960      | RI            | SATA           | SFF         | Hot Plug  | SC           | Yes                            | TLC        | Single | Gen9 & 10                               |  |
| P06198-B21                                       | HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD           | 1,920    | RI            | SATA           | SFF         | Hot Plug  | SC           | Yes                            | TLC        | Single | Gen9 & 10                               |  |
| P06200-B21                                       | HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD           | 3,840    | RI            | SATA           | SFF         | Hot Plug  | SC           | Yes                            | TLC        | Single | Gen9 & 10                               |  |
| P06609-B21                                       | HPE Dual 480GB SATA 6G Read Intensive M.2 - UFF to SFF SCM 3yr Wty Digitally Signed Firmware SSD | 960      | RI            | SATA           | SFF         | Hot Plug  | SCM          | Yes                            | MLC        | Single | Gen9 & 10                               |  |

## Technical Specifications

| SATA Interface– (Capacity, Workload, Carrier...) |                                                                                        |          |               |                |             |              |              |                                |            |        |                                         |
|--------------------------------------------------|----------------------------------------------------------------------------------------|----------|---------------|----------------|-------------|--------------|--------------|--------------------------------|------------|--------|-----------------------------------------|
| HPE Option Kit SKU                               | Long Description                                                                       | Capacity | Workload Type | Interface Type | Form Factor | Plug Type    | Carrier Type | Digitally Signed Firmware (DS) | Flash Type | Port   | Server Gen Supported (Select Platforms) |
| P09685-B21                                       | HPE 240GB SATA 6G Read Intensive SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD  | 240      | RI            | SATA           | SFF         | Non-Hot Plug | RW           | Yes                            | MLC        | Single | Gen9, 10                                |
| P09687-B21                                       | HPE 480GB SATA 6G Read Intensive LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD | 480      | RI            | SATA           | LFF         | Hot Plug     | SCC          | Yes                            | MLC        | Single | Gen9, 10                                |

## Technical Specifications

| SATA Interface– (Capacity, Workload, Carrier...)                                                                                   |                                                                                         |          |               |                |             |              |              |                                |            |        |                                         |
|------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|----------|---------------|----------------|-------------|--------------|--------------|--------------------------------|------------|--------|-----------------------------------------|
| HPE Option Kit SKU                                                                                                                 | Long Description                                                                        | Capacity | Workload Type | Interface Type | Form Factor | Plug Type    | Carrier Type | Digitally Signed Firmware (DS) | Flash Type | Port   | Server Gen Supported (Select Platforms) |
| P09689-B21                                                                                                                         | HPE 960GB SATA 6G Read Intensive LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD  | 960      | RI            | SATA           | LFF         | Hot Plug     | SCC          | Yes                            | MLC        | Single | Gen9, 10                                |
| P09691-B21                                                                                                                         | HPE 960GB SATA 6G Read Intensive LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD  | 960      | RI            | SATA           | LFF         | Hot Plug     | LPC          | Yes                            | MLC        | Single | Gen9, 10                                |
| P09693-B21                                                                                                                         | HPE 1.92TB SATA 6G Read Intensive LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD | 1,920    | RI            | SATA           | LFF         | Hot Plug     | SCC          | Yes                            | MLC        | Single | Gen9, 10                                |
| P09697-B21                                                                                                                         | HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD  | 3,840    | RI            | SATA           | SFF         | Non-Hot Plug | RW           | Yes                            | MLC        | Single | Gen9, 10                                |
| Universal SATA M.2 Enablement Kit                                                                                                  |                                                                                         |          |               |                |             |              |              |                                |            |        |                                         |
| 878783-B21                                                                                                                         | HPE Universal SATA HHHHL 3yr Wty M.2 Kit                                                | NA       | NA            | SATA           | M.2 e       | Non-Hot Plug | AIC          | Yes                            | #N/A       |        | Gen9 & 10                               |
| <b>NOTE:</b> Please use HPE Selector Tool <a href="http://ssd.hpe.com/">http://ssd.hpe.com/</a> to determine server compatibility. |                                                                                         |          |               |                |             |              |              |                                |            |        |                                         |

## QuickSpecs

## HPE Solid State Disk Drives

### Technical Specifications

| SATA Interface – (Speeds & Feeds) |                                                                                             |                      |                |                                                   |                                                             |                                               |                                                |
|-----------------------------------|---------------------------------------------------------------------------------------------|----------------------|----------------|---------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------|------------------------------------------------|
| HPE Option Kit SKU                | Long Description                                                                            | Lifetime Writes (TB) | Endurance DWPD | MAX Seq Reads / Max Seq Writes Throughput (MiB/s) | Random Read Avg. / Random Write Avg. Latency uSec (4KiB,Q1) | Random Read / Random Writes IOPS (4KiB, Q=16) | MAX Random Read / MAX Random Write IOPS (4KiB) |
| <b>Mixed Use SATA Drives</b>      |                                                                                             |                      |                |                                                   |                                                             |                                               |                                                |
| 872344-B21                        | HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD            | 3,364                | 3.5            | 510 / 475                                         | 110 / 50                                                    | 63,000 / 20,000                               | 69,000@Q32 / 20,000@Q4                         |
| 872346-B21                        | HPE 480GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD           | 3,364                | 3.5            | 510 / 475                                         | 110 / 50                                                    | 63,000 / 20,000                               | 69,000@Q32 / 20,000@Q4                         |
| 875470-B21                        | HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD            | 4,400                | 5.0            | 510 / 455                                         | 125 / 40                                                    | 62,000 / 52,500                               | 68,500@Q32 / 52,500@Q16                        |
| 875474-B21                        | HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD            | 8,800                | 5.0            | 510 / 480                                         | 130 / 40                                                    | 60,000 / 52,500                               | 67,500@Q32 / 52,500@Q16                        |
| 875483-B21                        | HPE 240GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD            | 2,200                | 5.0            | 510 / 320                                         | 125 / 40                                                    | 62,000 / 52,500                               | 70,000@Q32 / 52,500@Q16                        |
| 875488-B21                        | HPE 240GB SATA 6G Mixed Use M.2 2280 3yr Wty Digitally Signed Firmware SSD                  | 650                  | 1.5            | 500 / 260                                         | 135 / 40                                                    | 60,000 / 34,000                               | 66,000@Q32 / 34,000@Q4                         |
| 875490-B21                        | HPE 480GB SATA 6G Mixed Use M.2 2280 3yr Wty Digitally Signed Firmware SSD                  | 1,300                | 1.5            | 500 / 400                                         | 130 / 40                                                    | 60,000 / 34,000                               | 68,000@Q32 / 34,000@Q4                         |
| 875492-B21                        | HPE 960GB SATA 6G Mixed Use M.2 2280 3yr Wty Digitally Signed Firmware SSD                  | 4,400                | 2.6            | 500 / 465                                         | 130 / 40                                                    | 60,000 / 30,000                               | 68,000@Q32 / 30,000@Q4                         |
| P00896-B21                        | HPE 3.84TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD           | 17,600               | 2.6            | 510 / 490                                         | 125 / 40                                                    | 56,000 / 28,000                               | 60,000@Q32 / 28,000@Q4                         |
| P05976-B21                        | HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD            | 3,000                | 3.5            | 530 / 480                                         | 110 / 52                                                    | 68,000 / 40,000                               | 76,000@Q32 / 42,000@Q32                        |
| P05980-B21                        | HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD            | 6,000                | 3.4            | 530 / 480                                         | 110 / 50                                                    | 68,000 / 41,000                               | 76,000@Q32 / 43,000@Q32                        |
| P05986-B21                        | HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD           | 10,000               | 3.1            | 525 / 480                                         | 110 / 52                                                    | 69,000 / 38,000                               | 76,000@Q32 / 41,000@Q32                        |
| P05994-B21                        | HPE 3.84TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD           | 22,000               | 3.1            | 525 / 480                                         | 110 / 55                                                    | 69,000 / 36,000                               | 76,000@Q32 / 38,000@Q32                        |
| P06607-B21                        | HPE Dual 240GB SATA 6G Mixed Use M.2 - UFF to SFF SCM 3yr Wty Digitally Signed Firmware SSD | N/A                  | N/A            | N/A / N/A                                         | N/A / N/A                                                   | N/A / N/A                                     | N/A / N/A                                      |

## QuickSpecs

## HPE Solid State Disk Drives

### Technical Specifications

| SATA Interface – (Speeds & Feeds) |                                                                                    |                      |                |                                                   |                                                             |                                               |                                                |
|-----------------------------------|------------------------------------------------------------------------------------|----------------------|----------------|---------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------|------------------------------------------------|
| HPE Option Kit SKU                | Long Description                                                                   | Lifetime Writes (TB) | Endurance DWPD | MAX Seq Reads / Max Seq Writes Throughput (MiB/s) | Random Read Avg. / Random Write Avg. Latency uSec (4KiB,Q1) | Random Read / Random Writes IOPS (4KiB, Q=16) | MAX Random Read / MAX Random Write IOPS (4KiB) |
| P07922-B21                        | HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD   | 4,380                | 5.0            | 520 / 445                                         | 125 / 36                                                    | 66,000 / 52,500                               | 73,500@Q32 / 52,500@Q16                        |
| P07924-B21                        | HPE 480GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD  | 4,380                | 5.0            | 520 / 445                                         | 125 / 36                                                    | 66,000 / 52,500                               | 73,500@Q32 / 52,500@Q16                        |
| P07926-B21                        | HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD   | 8,760                | 5.0            | 520 / 495                                         | 126 / 36                                                    | 63,000 / 52,500                               | 64,500@Q32 / 52,500@Q16                        |
| P07928-B21                        | HPE 960GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD  | 8,760                | 5.0            | 520 / 495                                         | 125 / 36                                                    | 63,000 / 52,500                               | 64,500@Q32 / 52,500@Q16                        |
| P07930-B21                        | HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 17,500               | 5.0            | 520 / 495                                         | 125 / 36                                                    | 59,000 / 52,500                               | 62,000@Q32 / 52,500@Q16                        |
| P07932-B21                        | HPE 1.92TB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD | 17,500               | 5.0            | 520 / 495                                         | 125 / 36                                                    | 59,000 / 52,500                               | 62,000@Q32 / 52,500@Q16                        |
| P07934-B21                        | HPE 1.92TB SATA 6G Mixed Use LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD | 17,500               | 5.0            | 520 / 495                                         | 125 / 26                                                    | 59,000 / 52,500                               | 62,000@Q32 / 52,500@Q16                        |
| P07936-B21                        | HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD  | 17,500               | 5.0            | 520 / 495                                         | 125 / 36                                                    | 59,000 / 52,500                               | 62,000@Q32 / 52,500@Q16                        |
| P09712-B21                        | HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD   | 3,000                | 3.5            | 535 / 495                                         | 91 / 36                                                     | 70,000 / 29,000                               | 80,000@Q32 / 29,000@Q4                         |
| P09716-B21                        | HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD   | 6,000                | 3.5            | 535 / 495                                         | 91 / 36                                                     | 70,000 / 31,000                               | 80,000@Q32 / 31,000@Q4                         |
| P09718-B21                        | HPE 960GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD  | 6,000                | 3.5            | 535 / 495                                         | 91 / 36                                                     | 70,000 / 31,000                               | 80,000@Q32 / 31,000@Q4                         |
| P09722-B21                        | HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 12,100               | 3.5            | 535 / 495                                         | 91 / 36                                                     | 70,000 / 31,000                               | 80,000@Q32 / 31,000@Q4                         |
| P09724-B21                        | HPE 1.92TB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD | 12,100               | 3.5            | 535 / 495                                         | 91 / 36                                                     | 70,000 / 31,000                               | 80,000@Q32 / 31,000@Q4                         |
| P09726-B21                        | HPE 1.92TB SATA 6G Mixed Use LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD | 12,100               | 3.5            | 535 / 495                                         | 91 / 36                                                     | 70,000 / 31,000                               | 80,000@Q32 / 31,000@Q4                         |
| P13658-B21                        | HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD   | 6,480                | 7.40           | 510 / 430                                         | 120 / 38                                                    | 62,000 / 50,000                               | "72000@Q32                                     |

## QuickSpecs

## HPE Solid State Disk Drives

### Technical Specifications

|                                   |                                                                                        |       |      |           |          |                    |            |
|-----------------------------------|----------------------------------------------------------------------------------------|-------|------|-----------|----------|--------------------|------------|
| 50000@Q4"                         |                                                                                        |       |      |           |          |                    |            |
| P13660-B21                        | HPE 960GB SATA 6G Mixed<br>Use SFF (2.5in) SC 3yr Wty<br>Digitally Signed Firmware SSD | 7,000 | 4.00 | 530 / 500 | 120 / 38 | 61,000 /<br>53,000 | "72000@Q32 |
| 53000@Q4"                         |                                                                                        |       |      |           |          |                    |            |
|                                   |                                                                                        |       |      |           |          |                    |            |
| <b>Read Intensive SATA Drives</b> |                                                                                        |       |      |           |          |                    |            |

## Technical Specifications

| SATA Interface – (Speeds & Feeds) |                                                                                        |                      |                |                                                   |                                                             |                                               |                                                |
|-----------------------------------|----------------------------------------------------------------------------------------|----------------------|----------------|---------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------|------------------------------------------------|
| HPE Option Kit SKU                | Long Description                                                                       | Lifetime Writes (TB) | Endurance DWPD | MAX Seq Reads / Max Seq Writes Throughput (MiB/s) | Random Read Avg. / Random Write Avg. Latency uSec (4KiB,Q1) | Random Read / Random Writes IOPS (4KiB, Q=16) | MAX Random Read / MAX Random Write IOPS (4KiB) |
| 868822-B21                        | HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 1,489                | 0.8            | 530 / 490                                         | 120 / 41                                                    | 64,000 / 24,500                               | 75,500@Q32 / 24,500@Q4                         |
| 868826-B21                        | HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 2,979                | 0.8            | 530 / 490                                         | 120 / 38                                                    | 61,500 / 26,000                               | 73,500@Q32 / 26,000@Q1                         |
| 875498-B21                        | HPE 480GB SATA 6G Read Intensive M.2 2280 3yr Wty Digitally Signed Firmware SSD        | 450                  | 0.5            | 500 / 425                                         | 130 / 40                                                    | 61,000 / 46,000                               | 67,000@Q32 / 46,000@Q64                        |
| 875500-B21                        | HPE 960GB SATA 6G Read Intensive M.2 2280 3yr Wty Digitally Signed Firmware SSD        | 900                  | 0.5            | 500 / 465                                         | 130 / 40                                                    | 61,000 / 41,000                               | 67,000@Q32 / 41,000@Q4                         |
| 875503-B21                        | HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 650                  | 1.5            | 505 / 260                                         | 125 / 40                                                    | 62,500 / 33,000                               | 69,500@Q32 / 33,000@Q4                         |
| 875509-B21                        | HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 450                  | 0.5            | 505 / 380                                         | 125 / 40                                                    | 61,000 / 34,000                               | 67,000@Q32 / 34,000@Q4                         |
| 875511-B21                        | HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 900                  | 0.5            | 505 / 475                                         | 125 / 40                                                    | 61,000 / 31,000                               | 67,000@Q32 / 31,000@Q4                         |
| 875513-B21                        | HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 3,200                | 0.9            | 505 / 475                                         | 130 / 40                                                    | 59,000 / 27,000                               | 67,000@Q32 / 27,000@Q4                         |
| P04474-B21                        | HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 870                  | 0.5            | 520 / 370                                         | 125 / 37                                                    | 65,000 / 34,000                               | 76,000@Q32 / 35,000@Q32                        |
| P04476-B21                        | HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 1,750                | 1.0            | 520 / 490                                         | 125 / 40                                                    | 65,000 / 29,000                               | 69,000@Q32 / 32,000@Q32                        |



## QuickSpecs

## HPE Solid State Disk Drives

### Technical Specifications

| SATA Interface – (Speeds & Feeds) |                                                                                         |                      |                |                                                   |                                                             |                                               |                                                |
|-----------------------------------|-----------------------------------------------------------------------------------------|----------------------|----------------|---------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------|------------------------------------------------|
| HPE Option Kit SKU                | Long Description                                                                        | Lifetime Writes (TB) | Endurance DWPD | MAX Seq Reads / Max Seq Writes Throughput (MiB/s) | Random Read Avg. / Random Write Avg. Latency uSec (4KiB,Q1) | Random Read / Random Writes IOPS (4KiB, Q=16) | MAX Random Read / MAX Random Write IOPS (4KiB) |
| P04478-B21                        | HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 3,500                | 1.0            | 520 / 495                                         | 125 / 41                                                    | 60,000 / 24,000                               | 62,000@Q32 / 25,000@Q32                        |
| P04480-B21                        | HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 7,700                | 1.1            | 520 / 495                                         | 125 / 45                                                    | 55,000 / 21,000                               | 58,000@Q32 / 22,000@Q4                         |
| P04482-B21                        | HPE 7.68TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 8,400                | 0.6            | 520 / 495                                         | 125 / 100                                                   | 54,000 / 10,000                               | 57,000@Q32 / 10,000@Q1                         |
| P04499-B21                        | HPE 480GB SATA 6G Read Intensive LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD  | 870                  | 0.5            | 520 / 370                                         | 125 / 37                                                    | 65,000 / 34,000                               | 76,000@Q32 / 35,000@Q32                        |
| P04501-B21                        | HPE 1.92TB SATA 6G Read Intensive LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD | 3,500                | 1.0            | 520 / 495                                         | 125 / 41                                                    | 60,000 / 24,000                               | 62,000@Q32 / 25,000@Q32                        |
| P04556-B21                        | HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD   | 350                  | 0.8            | 535 / 315                                         | 105 / 70                                                    | 70,000 / 14,000                               | 79,000@Q32 / 14,000@Q1                         |
| P04560-B21                        | HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD   | 700                  | 0.8            | 535 / 495                                         | 105 / 40                                                    | 68,000 / 25,000                               | 77,000@Q32 / 25,000@Q1                         |
| P04564-B21                        | HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD   | 1,400                | 0.8            | 535 / 495                                         | 105 / 36                                                    | 65,000 / 29,000                               | 76,000@Q32 / 29,000@Q4                         |
| P04566-B21                        | HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 2,800                | 0.8            | 535 / 495                                         | 120 / 36                                                    | 64,000 / 30,000                               | 73,000@Q32 / 30,000@Q4                         |
| P04570-B21                        | HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 5,600                | 0.8            | 535 / 495                                         | 120 / 36                                                    | 63,000 / 30,000                               | 72,000@Q32 / 30,000@Q4                         |
| P05924-B21                        | HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD   | 900                  | 1.9            | 530 / 255                                         | 110 / 65                                                    | 66,000 / 16,000                               | 76,000@Q32 / 16,500@Q4                         |

## QuickSpecs

## HPE Solid State Disk Drives

### Technical Specifications

| SATA Interface – (Speeds & Feeds) |                                                                                                  |                      |                |                                                   |                                                             |                                               |                                                |
|-----------------------------------|--------------------------------------------------------------------------------------------------|----------------------|----------------|---------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------|------------------------------------------------|
| HPE Option Kit SKU                | Long Description                                                                                 | Lifetime Writes (TB) | Endurance DWPD | MAX Seq Reads / Max Seq Writes Throughput (MiB/s) | Random Read Avg. / Random Write Avg. Latency uSec (4KiB,Q1) | Random Read / Random Writes IOPS (4KiB, Q=16) | MAX Random Read / MAX Random Write IOPS (4KiB) |
| P05928-B21                        | HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD            | 1,200                | 1.3            | 530 / 465                                         | 110 / 75                                                    | 68,000 / 17,500                               | 76,000@Q32 / 19,000@Q4                         |
| P05932-B21                        | HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD            | 3,400                | 1.9            | 525 / 480                                         | 110 / 60                                                    | 68,000 / 33,000                               | 76,000@Q32 / 35,000@Q32                        |
| P05938-B21                        | HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD           | 7,100                | 2.0            | 530 / 480                                         | 110 / 60                                                    | 69,000 / 33,000                               | 76,000@Q32 / 34,000@Q32                        |
| P05946-B21                        | HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD           | 13,100               | 1.9            | 525 / 480                                         | 110 / 65                                                    | 69,000 / 28,000                               | 76,000@Q32 / 30,500@Q32                        |
| P06194-B21                        | HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD            | 430                  | 0.5            | 530 / 300                                         | 120 / 65                                                    | 65,000 / 15,000                               | 65,500@Q32 / 15,400@Q1                         |
| P06196-B21                        | HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD            | 1,710                | 1.0            | 530 / 480                                         | 120 / 42                                                    | 58,500 / 36,500                               | 58,500@Q32 / 38,200@Q16                        |
| P06198-B21                        | HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD           | 3,100                | 0.9            | 530 / 470                                         | 120 / 42                                                    | 55,500 / 31,000                               | 56,000@Q32 / 32,500@Q4                         |
| P06200-B21                        | HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD           | 3,400                | 0.5            | 530 / 480                                         | 120 / 42                                                    | 54,000 / 26,000                               | 56,000@Q32 / 25,000@Q4                         |
| P06609-B21                        | HPE Dual 480GB SATA 6G Read Intensive M.2 - UFF to SFF SCM 3yr Wty Digitally Signed Firmware SSD | N/A                  | N/A            | N/A / N/A                                         | N/A / N/A                                                   | N/A / N/A                                     | N/A / N/A                                      |
| P09685-B21                        | HPE 240GB SATA 6G Read Intensive SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD            | 250                  | 0.8            | 535 / 315                                         | 105 / 70                                                    | 70,000 / 14,000                               | 79,000@Q32 / 14,000@Q1                         |
| P09687-B21                        | HPE 480GB SATA 6G Read Intensive LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD           | 700                  | 0.8            | 535 / 495                                         | 105 / 40                                                    | 68,000 / 25,000                               | 77,000@Q32 / 25,000@Q1                         |

## QuickSpecs

## HPE Solid State Disk Drives

### Technical Specifications

| SATA Interface – (Speeds & Feeds)                                                                                                 |                                                                                         |                      |                |                                                   |                                                             |                                               |                                                |
|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|----------------------|----------------|---------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------|------------------------------------------------|
| HPE Option Kit SKU                                                                                                                | Long Description                                                                        | Lifetime Writes (TB) | Endurance DWPD | MAX Seq Reads / Max Seq Writes Throughput (MiB/s) | Random Read Avg. / Random Write Avg. Latency uSec (4KiB,Q1) | Random Read / Random Writes IOPS (4KiB, Q=16) | MAX Random Read / MAX Random Write IOPS (4KiB) |
| P09689-B21                                                                                                                        | HPE 960GB SATA 6G Read Intensive LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD  | 1,400                | 0.8            | 535 / 495                                         | 105 / 36                                                    | 65,000 / 29,000                               | 76,000@Q32 / 29,000@Q4                         |
| P09691-B21                                                                                                                        | HPE 960GB SATA 6G Read Intensive LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD  | 1,400                | 0.8            | 535 / 495                                         | 105 / 36                                                    | 65,000 / 29,000                               | 76,000@Q32 / 29,000@Q4                         |
| P09693-B21                                                                                                                        | HPE 1.92TB SATA 6G Read Intensive LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD | 2,400                | 0.8            | 535 / 495                                         | 120 / 36                                                    | 64,000 / 30,000                               | 73,000@Q32 / 30,000@Q4                         |
| P09697-B21                                                                                                                        | HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD  | 5,600                | 0.8            | 535 / 495                                         | 120 / 36                                                    | 63,000 / 30,000                               | 72,000@Q32 / 30,000@Q4                         |
| Universal SATA M.2 Enablement Kit                                                                                                 |                                                                                         |                      |                |                                                   |                                                             |                                               |                                                |
| 878783-B21                                                                                                                        | HPE Universal SATA HHHL 3yr Wty M.2 Kit                                                 | NA                   | NA             | NA / NA                                           | NA / NA                                                     | NA / NA                                       | NA / NA                                        |
| <b>NOTE:</b> Please use HPE Selector Tool <a href="http://ssd.hpe.com/">http://ssd.hpe.com/</a> to determine server compatibility |                                                                                         |                      |                |                                                   |                                                             |                                               |                                                |

## QuickSpecs

## HPE Solid State Disk Drives

### Technical Specifications

| SATA Interface – (Power & Height) |                                                                                             |                         |                           |                            |                               |                                |                          |                   |           |
|-----------------------------------|---------------------------------------------------------------------------------------------|-------------------------|---------------------------|----------------------------|-------------------------------|--------------------------------|--------------------------|-------------------|-----------|
| HPE Option Kit SKU                | Long Description                                                                            | Power Idle Time (Watts) | Power Random Read (Watts) | Power Random Write (Watts) | Power Sequential Read (Watts) | Power Sequential Write (Watts) | Power Random R/W (Watts) | Power MAX (Watts) | z- Height |
| Mixed Use SATA Drives             |                                                                                             |                         |                           |                            |                               |                                |                          |                   |           |
| 872344-B21                        | HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD            | 1.23                    | 2.51                      | 2.51                       | 2.59                          | 2.83                           | 2.51                     | 3.00              | 7mm       |
| 872346-B21                        | HPE 480GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD           | 1.23                    | 2.51                      | 2.51                       | 2.59                          | 2.83                           | 2.51                     | 3.00              | 7mm       |
| 875470-B21                        | HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD            | 3.22                    | 3.43                      | 7.85                       | 5.70                          | 7.71                           | 5.88                     | 8.00              | 7mm       |
| 875474-B21                        | HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD            | 3.22                    | 5.31                      | 11.56                      | 5.22                          | 11.04                          | 6.53                     | 12.00             | 7mm       |
| 875483-B21                        | HPE 240GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD            | 1.07                    | 3.00                      | 3.00                       | 3.21                          | 3.90                           | 2.95                     | 4.00              | 7mm       |
| 875488-B21                        | HPE 240GB SATA 6G Mixed Use M.2 2280 3yr Wty Digitally Signed Firmware SSD                  | 1.07                    | 3.00                      | 3.00                       | 3.21                          | 3.90                           | 2.95                     | 4.00              | 2280 M.2  |
| 875490-B21                        | HPE 480GB SATA 6G Mixed Use M.2 2280 3yr Wty Digitally Signed Firmware SSD                  | 1.07                    | 3.02                      | 3.02                       | 3.42                          | 4.03                           | 3.00                     | 5.00              | 2280 M.2  |
| 875492-B21                        | HPE 960GB SATA 6G Mixed Use M.2 2280 3yr Wty Digitally Signed Firmware SSD                  | 1.07                    | 3.17                      | 3.17                       | 3.82                          | 5.62                           | 3.10                     | 6.00              | 2280 M.2  |
| P00896-B21                        | HPE 3.84TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD           | 0.50                    | 3.07                      | 3.07                       | 1.23                          | 3.92                           | 3.07                     | 4.00              | 7mm       |
| P05976-B21                        | HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD            | 1.31                    | 2.94                      | 2.94                       | 2.32                          | 3.33                           | 2.94                     | 4.00              | 7mm       |
| P05980-B21                        | HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD            | 1.37                    | 2.79                      | 2.79                       | 2.36                          | 3.23                           | 2.79                     | 4.00              | 7mm       |
| P05986-B21                        | HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD           | 1.37                    | 3.04                      | 3.04                       | 2.32                          | 3.30                           | 3.04                     | 4.00              | 7mm       |
| P05994-B21                        | HPE 3.84TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD           | 1.36                    | 3.11                      | 3.11                       | 2.36                          | 3.74                           | 3.11                     | 4.00              | 7mm       |
| P06607-B21                        | HPE Dual 240GB SATA 6G Mixed Use M.2 - UFF to SFF SCM 3yr Wty Digitally Signed Firmware SSD | 2.00                    | 2.84                      | 2.84                       | 3.90                          | 5.74                           | 2.84                     | 6.00              | 7mm       |
| SATA Interface – (Power & Height) |                                                                                             |                         |                           |                            |                               |                                |                          |                   |           |

## QuickSpecs

## HPE Solid State Disk Drives

### Technical Specifications

| HPE Option Kit SKU | Long Description                                                                   | Power Idle Time (Watts) | Power Random Read (Watts) | Power Random Write (Watts) | Power Sequential Read (Watts) | Power Sequential Write (Watts) | Power Random R/W (Watts) | Power MAX (Watts) | z- Height |
|--------------------|------------------------------------------------------------------------------------|-------------------------|---------------------------|----------------------------|-------------------------------|--------------------------------|--------------------------|-------------------|-----------|
| P07922-B21         | HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD   | 1.50                    | 2.00                      | 2.00                       | 4.00                          | 6.00                           | 2.00                     | 6.00              | 7mm       |
| P07924-B21         | HPE 480GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD  | 1.50                    | 2.00                      | 2.00                       | 4.00                          | 6.00                           | 2.00                     | 6.00              | 7mm       |
| P07926-B21         | HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD   | 1.50                    | 2.30                      | 2.30                       | 4.20                          | 6.30                           | 2.30                     | 6.30              | 7mm       |
| P07928-B21         | HPE 960GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD  | 1.50                    | 2.30                      | 2.30                       | 4.20                          | 6.30                           | 2.30                     | 6.30              | 7mm       |
| P07930-B21         | HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 1.50                    | 3.10                      | 3.10                       | 5.40                          | 6.80                           | 3.10                     | 6.80              | 7mm       |
| P07932-B21         | HPE 1.92TB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD | 1.50                    | 3.10                      | 3.10                       | 5.40                          | 6.80                           | 3.10                     | 6.80              | 7mm       |
| P07934-B21         | HPE 1.92TB SATA 6G Mixed Use LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD | 1.50                    | 3.10                      | 3.10                       | 5.40                          | 6.80                           | 3.10                     | 6.80              | 7mm       |
| P07936-B21         | HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD  | 1.50                    | 3.10                      | 3.10                       | 5.40                          | 6.80                           | 3.10                     | 6.80              | 7mm       |
| P09712-B21         | HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD   | 1.12                    | 2.55                      | 2.55                       | 1.86                          | 2.16                           | 2.55                     | 2.16              | 7mm       |
| P09716-B21         | HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD   | 1.12                    | 2.57                      | 2.57                       | 1.86                          | 2.18                           | 2.57                     | 2.18              | 7mm       |
| P09718-B21         | HPE 960GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD  | 1.12                    | 2.57                      | 2.57                       | 1.86                          | 2.18                           | 2.57                     | 2.18              | 7mm       |
| P09722-B21         | HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 1.12                    | 2.60                      | 2.60                       | 1.89                          | 2.22                           | 2.60                     | 1.89              | 7mm       |
| P09724-B21         | HPE 1.92TB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD | 1.12                    | 2.60                      | 2.60                       | 1.89                          | 2.22                           | 2.60                     | 1.89              | 7mm       |
| P09726-B21         | HPE 1.92TB SATA 6G Mixed Use LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD | 1.12                    | 2.60                      | 2.60                       | 1.89                          | 2.22                           | 2.60                     | 1.89              | 7mm       |
| P13658-B21         | HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD   | 1.14                    | 2.34                      | 2.34                       | 3.56                          | 3.44                           | 2.34                     | 3.56              | 7mm       |

## QuickSpecs

## HPE Solid State Disk Drives

### Technical Specifications

| HPE Option Kit SKU | Long Description                                                                  | Power Idle Time (Watts) | Power Random Read (Watts) | Power Random Write (Watts) | Power Sequential Read (Watts) | Power Sequential Write (Watts) | Power Random R/W (Watts) | Power MAX (Watts) | z- Height |
|--------------------|-----------------------------------------------------------------------------------|-------------------------|---------------------------|----------------------------|-------------------------------|--------------------------------|--------------------------|-------------------|-----------|
| P13660-B21         | HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 1.15                    | 2.81                      | 2.81                       | 3.09                          | 3.93                           | 2.81                     | 3.93              | 7mm       |
| P13662-B21         | HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 1.20                    | 2.91                      | 2.91                       | 3.20                          | 4.10                           | 2.91                     | 4.10              | 7mm       |
| P13664-B21         | HPE 3.84TB SATA 6G Mixed Use SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD | 1.26                    | 3.17                      | 3.17                       | 3.66                          | 4.39                           | 3.17                     | 4.39              | 7mm       |
|                    |                                                                                   |                         |                           |                            |                               |                                |                          |                   |           |

#### Read Intensive SATA Drives

## QuickSpecs

## HPE Solid State Disk Drives

### Technical Specifications

| SATA Interface – (Power & Height) |                                                                                        |                         |                           |                            |                               |                                |                          |                   |           |
|-----------------------------------|----------------------------------------------------------------------------------------|-------------------------|---------------------------|----------------------------|-------------------------------|--------------------------------|--------------------------|-------------------|-----------|
| HPE Option Kit SKU                | Long Description                                                                       | Power Idle Time (Watts) | Power Random Read (Watts) | Power Random Write (Watts) | Power Sequential Read (Watts) | Power Sequential Write (Watts) | Power Random R/W (Watts) | Power MAX (Watts) | z- Height |
| <b>Read Intensive SATA Drives</b> |                                                                                        |                         |                           |                            |                               |                                |                          |                   |           |
| 868822-B21                        | HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 1.28                    | 2.80                      | 2.80                       | 2.82                          | 3.64                           | 2.80                     | 4.00              | 7mm       |
| 868826-B21                        | HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 1.29                    | 2.87                      | 2.87                       | 3.10                          | 3.98                           | 2.87                     | 4.00              | 7mm       |
| 875498-B21                        | HPE 480GB SATA 6G Read Intensive M.2 2280 3yr Wty Digitally Signed Firmware SSD        | 1.07                    | 3.02                      | 3.02                       | 3.42                          | 4.03                           | 3.00                     | 5.00              | 2280 M.2  |
| 875500-B21                        | HPE 960GB SATA 6G Read Intensive M.2 2280 3yr Wty Digitally Signed Firmware SSD        | 1.07                    | 3.17                      | 3.17                       | 3.82                          | 5.62                           | 3.10                     | 6.00              | 2280 M.2  |
| 875503-B21                        | HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 1.07                    | 3.00                      | 3.00                       | 3.21                          | 3.90                           | 2.95                     | 4.00              | 7mm       |
| 875509-B21                        | HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 1.07                    | 3.17                      | 3.17                       | 3.82                          | 5.62                           | 3.10                     | 6.00              | 7mm       |
| 875511-B21                        | HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 1.07                    | 3.17                      | 3.17                       | 3.82                          | 5.62                           | 3.10                     | 6.00              | 7mm       |
| 875513-B21                        | HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 1.07                    | 3.51                      | 3.51                       | 4.52                          | 6.12                           | 3.40                     | 7.00              | 7mm       |
| P04474-B21                        | HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 1.50                    | 2.00                      | 2.00                       | 4.00                          | 6.00                           | 2.00                     | 6.00              | 7mm       |
| P04476-B21                        | HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 1.50                    | 2.00                      | 2.00                       | 4.00                          | 6.00                           | 2.00                     | 6.00              | 7mm       |

## QuickSpecs

## HPE Solid State Disk Drives

### Technical Specifications

| SATA Interface – (Power & Height) |                                                                                         |                         |                           |                            |                               |                                |                          |                   |           |
|-----------------------------------|-----------------------------------------------------------------------------------------|-------------------------|---------------------------|----------------------------|-------------------------------|--------------------------------|--------------------------|-------------------|-----------|
| HPE Option Kit SKU                | Long Description                                                                        | Power Idle Time (Watts) | Power Random Read (Watts) | Power Random Write (Watts) | Power Sequential Read (Watts) | Power Sequential Write (Watts) | Power Random R/W (Watts) | Power MAX (Watts) | z- Height |
| P04478-B21                        | HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 1.50                    | 2.30                      | 2.30                       | 4.20                          | 6.30                           | 2.30                     | 6.30              | 7mm       |
| P04480-B21                        | HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 1.50                    | 2.30                      | 2.30                       | 4.20                          | 6.30                           | 2.30                     | 6.30              | 7mm       |
| P04482-B21                        | HPE 7.68TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 1.38                    | 2.19                      | 2.19                       | 2.63                          | 3.21                           | 2.19                     | 6.80              | 7mm       |
| P04499-B21                        | HPE 480GB SATA 6G Read Intensive LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD  | 1.50                    | 3.10                      | 3.10                       | 5.40                          | 6.80                           | 3.10                     | 6.80              | 7mm       |
| P04501-B21                        | HPE 1.92TB SATA 6G Read Intensive LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD | 1.50                    | 3.10                      | 3.10                       | 5.40                          | 6.80                           | 3.10                     | 6.80              | 7mm       |
| P04556-B21                        | HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD   | 1.12                    | 2.11                      | 2.11                       | 1.84                          | 1.84                           | 2.11                     | 3.00              | 7mm       |
| P04560-B21                        | HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD   | 1.12                    | 2.29                      | 2.29                       | 1.89                          | 2.50                           | 2.29                     | 3.00              | 7mm       |
| P04564-B21                        | HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD   | 1.12                    | 2.33                      | 2.33                       | 1.93                          | 2.63                           | 2.33                     | 3.00              | 7mm       |
| P04566-B21                        | HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 1.12                    | 2.35                      | 2.35                       | 1.78                          | 2.65                           | 2.35                     | 3.00              | 7mm       |
| P04570-B21                        | HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 1.12                    | 2.21                      | 2.21                       | 1.78                          | 2.65                           | 2.21                     | 3.00              | 7mm       |
| P05924-B21                        | HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD   | 1.23                    | 2.48                      | 2.48                       | 2.21                          | 2.44                           | 2.48                     | 3.00              | 7mm       |



## QuickSpecs

## HPE Solid State Disk Drives

### Technical Specifications

| SATA Interface – (Power & Height) |                                                                                                  |                 |                           |                            |                               |                                |                          |                   |           |
|-----------------------------------|--------------------------------------------------------------------------------------------------|-----------------|---------------------------|----------------------------|-------------------------------|--------------------------------|--------------------------|-------------------|-----------|
| HPE Option Kit SKU                | Long Description                                                                                 | Power Idle Time | Power Random Read (Watts) | Power Random Write (Watts) | Power Sequential Read (Watts) | Power Sequential Write (Watts) | Power Random R/W (Watts) | Power MAX (Watts) | z- Height |
| P05928-B21                        | HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD            | 1.27            | 2.92                      | 2.92                       | 2.26                          | 3.15                           | 2.92                     | 4.00              | 7mm       |
| P05932-B21                        | HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD            | 1.35            | 3.02                      | 3.02                       | 2.30                          | 3.18                           | 3.02                     | 4.00              | 7mm       |
| P05938-B21                        | HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD           | 1.35            | 3.15                      | 3.15                       | 2.36                          | 3.31                           | 3.15                     | 4.00              | 7mm       |
| P05946-B21                        | HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD           | 1.11            | 3.46                      | 3.46                       | 2.47                          | 3.88                           | 3.46                     | 4.00              | 7mm       |
| P06194-B21                        | HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD            | 0.78            | 1.61                      | 1.61                       | 1.68                          | 1.90                           | 1.61                     | 2.00              | 7mm       |
| P06196-B21                        | HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD            | 0.78            | 1.61                      | 1.61                       | 1.69                          | 2.35                           | 1.61                     | 3.00              | 7mm       |
| P06198-B21                        | HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD           | 0.81            | 1.67                      | 1.67                       | 1.77                          | 2.41                           | 1.67                     | 3.00              | 7mm       |
| P06200-B21                        | HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD           | 0.90            | 1.87                      | 1.87                       | 2.08                          | 2.68                           | 1.87                     | 3.00              | 7mm       |
| P06609-B21                        | HPE Dual 480GB SATA 6G Read Intensive M.2 - UFF to SFF SCM 3yr Wty Digitally Signed Firmware SSD | 2.00            | 2.84                      | 2.84                       | 3.90                          | 5.74                           | 2.84                     | 6.00              | 7mm       |
| P09685-B21                        | HPE 240GB SATA 6G Read Intensive SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD            | 1.23            | 2.11                      | 2.11                       | 1.84                          | 2.23                           | 2.11                     | 2.23              | 7mm       |
| P09687-B21                        | HPE 480GB SATA 6G Read Intensive LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD           | 1.23            | 2.29                      | 2.29                       | 1.89                          | 2.50                           | 2.29                     | 2.50              | 7mm       |

## QuickSpecs

## HPE Solid State Disk Drives

### Technical Specifications

| SATA Interface – (Power & Height)                                                                                                 |                                                                                         |                 |                           |                            |                               |                                |                          |                   |                         |
|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|-----------------|---------------------------|----------------------------|-------------------------------|--------------------------------|--------------------------|-------------------|-------------------------|
| HPE Option Kit SKU                                                                                                                | Long Description                                                                        | Power Idle Time | Power Random Read (Watts) | Power Random Write (Watts) | Power Sequential Read (Watts) | Power Sequential Write (Watts) | Power Random R/W (Watts) | Power MAX (Watts) | z- Height               |
| P09689-B21                                                                                                                        | HPE 960GB SATA 6G Read Intensive LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD  | 1.23            | 2.33                      | 2.33                       | 1.93                          | 2.63                           | 2.33                     | 2.63              | 7mm                     |
| P09691-B21                                                                                                                        | HPE 960GB SATA 6G Read Intensive LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD  | 1.23            | 2.33                      | 2.33                       | 1.93                          | 2.63                           | 2.33                     | 2.63              | 7mm                     |
| P09693-B21                                                                                                                        | HPE 1.92TB SATA 6G Read Intensive LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD | 1.23            | 2.22                      | 2.22                       | 1.78                          | 2.65                           | 2.22                     | 2.65              | 7mm                     |
| P09697-B21                                                                                                                        | HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD  | 1.23            | 2.21                      | 2.21                       | 1.78                          | 2.65                           | 2.21                     | 2.65              | 7mm                     |
| Universal SATA M.2 Enablement Kit                                                                                                 |                                                                                         |                 |                           |                            |                               |                                |                          |                   |                         |
| 878783-B21                                                                                                                        | HPE Universal SATA HHHL 3yr Wty M.2 Kit                                                 | NA              | NA                        | NA                         | NA                            | NA                             | NA                       | 0.00              | Half Height/Half Length |
| <b>NOTE:</b> Please use HPE Selector Tool <a href="http://ssd.hpe.com/">http://ssd.hpe.com/</a> to determine server compatibility |                                                                                         |                 |                           |                            |                               |                                |                          |                   |                         |

## Technical Specifications

| SATA Interface – (Certifications) |                                                                                   |                                         |                                             |                                                              |                                             |                                             |
|-----------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------|---------------------------------------------|--------------------------------------------------------------|---------------------------------------------|---------------------------------------------|
| HPE Option Kit SKU                | Long Description                                                                  | VMware / vSAN HCL Certification (Watts) | Microsoft Windows Server 2016 Certification | Software Defined Data Center (SDDC) Premium AQ Certification | Microsoft Windows Server 2019 Certification | WS 2019 Software Defined Data Center (SDDC) |
| <b>Mixed Use SATA Drives</b>      |                                                                                   |                                         |                                             |                                                              |                                             |                                             |
| 872344-B21                        | HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | Certified                               | N/A                                         | N/A                                                          | N/A                                         | N/A                                         |
| 872346-B21                        | HPE 480GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD | Certified                               | N/A                                         | N/A                                                          | N/A                                         | N/A                                         |
| 875470-B21                        | HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| 875474-B21                        | HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| 875483-B21                        | HPE 240GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| 875488-B21                        | HPE 240GB SATA 6G Mixed Use M.2 2280 3yr Wty Digitally Signed Firmware SSD        | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| 875490-B21                        | HPE 480GB SATA 6G Mixed Use M.2 2280 3yr Wty Digitally Signed Firmware SSD        | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| 875492-B21                        | HPE 960GB SATA 6G Mixed Use M.2 2280 3yr Wty Digitally Signed Firmware SSD        | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P00896-B21                        | HPE 3.84TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P05976-B21                        | HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P05980-B21                        | HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P05986-B21                        | HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P05994-B21                        | HPE 3.84TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |

## Technical Specifications

| SATA Interface – (Certifications) |                                                                                             |                                         |                                             |                                                              |                                             |                                             |
|-----------------------------------|---------------------------------------------------------------------------------------------|-----------------------------------------|---------------------------------------------|--------------------------------------------------------------|---------------------------------------------|---------------------------------------------|
| HPE Option Kit SKU                | Long Description                                                                            | VMWare / vSAN HCL Certification (Watts) | Microsoft Windows Server 2016 Certification | Software Defined Data Center (SDDC) Premium AQ Certification | Microsoft Windows Server 2019 Certification | WS 2019 Software Defined Data Center (SDDC) |
| P06607-B21                        | HPE Dual 240GB SATA 6G Mixed Use M.2 - UFF to SFF SCM 3yr Wty Digitally Signed Firmware SSD | N/A                                     | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P07922-B21                        | HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD            | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P07924-B21                        | HPE 480GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD           | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Pending                                     |
| P07926-B21                        | HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD            | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P07928-B21                        | HPE 960GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD           | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Pending                                     |
| P07930-B21                        | HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD           | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P07932-B21                        | HPE 1.92TB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD          | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Pending                                     |
| P07934-B21                        | HPE 1.92TB SATA 6G Mixed Use LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD          | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Pending                                     |
| P07936-B21                        | HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD           | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Pending                                     |
| P09712-B21                        | HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD            | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P09716-B21                        | HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD            | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P09718-B21                        | HPE 960GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD           | Certified                               | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| P09722-B21                        | HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD           | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P09724-B21                        | HPE 1.92TB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD          | Certified                               | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |

## Technical Specifications

| SATA Interface – (Certifications) |                                                                                    |                                         |                                             |                                                              |                                             |                                             |
|-----------------------------------|------------------------------------------------------------------------------------|-----------------------------------------|---------------------------------------------|--------------------------------------------------------------|---------------------------------------------|---------------------------------------------|
| HPE Option Kit SKU                | Long Description                                                                   | VMWare / vSAN HCL Certification (Watts) | Microsoft Windows Server 2016 Certification | Software Defined Data Center (SDDC) Premium AQ Certification | Microsoft Windows Server 2019 Certification | WS 2019 Software Defined Data Center (SDDC) |
| P09726-B21                        | HPE 1.92TB SATA 6G Mixed Use LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| P13658-B21                        | HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD   | N/A                                     | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P13660-B21                        | HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD   | N/A                                     | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P13662-B21                        | HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | N/A                                     | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P13664-B21                        | HPE 3.84TB SATA 6G Mixed Use SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD  | N/A                                     | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |

## Technical Specifications

| SATA Interface – (Certifications) |                                                                                        |                                         |                                             |                                                              |                                             |                                             |
|-----------------------------------|----------------------------------------------------------------------------------------|-----------------------------------------|---------------------------------------------|--------------------------------------------------------------|---------------------------------------------|---------------------------------------------|
| HPE Option Kit SKU                | Long Description                                                                       | VMware / vSAN HCL Certification (Watts) | Microsoft Windows Server 2016 Certification | Software Defined Data Center (SDDC) Premium AQ Certification | Microsoft Windows Server 2019 Certification | WS 2019 Software Defined Data Center (SDDC) |
| <b>Read Intensive SATA Drives</b> |                                                                                        |                                         |                                             |                                                              |                                             |                                             |
| 868822-B21                        | HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | Certified                               | N/A                                         | N/A                                                          | N/A                                         | N/A                                         |
| 868826-B21                        | HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | Certified                               | N/A                                         | N/A                                                          | N/A                                         | N/A                                         |
| 875498-B21                        | HPE 480GB SATA 6G Read Intensive M.2 2280 3yr Wty Digitally Signed Firmware SSD        | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| 875500-B21                        | HPE 960GB SATA 6G Read Intensive M.2 2280 3yr Wty Digitally Signed Firmware SSD        | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| 875503-B21                        | HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| 875509-B21                        | HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| 875511-B21                        | HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| 875513-B21                        | HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P04474-B21                        | HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |

## Technical Specifications

| SATA Interface – (Certifications) |                                                                                         |                                         |                                             |                                                              |                                             |                                             |
|-----------------------------------|-----------------------------------------------------------------------------------------|-----------------------------------------|---------------------------------------------|--------------------------------------------------------------|---------------------------------------------|---------------------------------------------|
| HPE Option Kit SKU                | Long Description                                                                        | VMWare / vSAN HCL Certification (Watts) | Microsoft Windows Server 2016 Certification | Software Defined Data Center (SDDC) Premium AQ Certification | Microsoft Windows Server 2019 Certification | WS 2019 Software Defined Data Center (SDDC) |
| P04476-B21                        | HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD   | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P04478-B21                        | HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P04480-B21                        | HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P04482-B21                        | HPE 7.68TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P04499-B21                        | HPE 480GB SATA 6G Read Intensive LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD  | Certified                               | Certified                                   | Certified                                                    | N/A                                         | N/A                                         |
| P04501-B21                        | HPE 1.92TB SATA 6G Read Intensive LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD | Certified                               | certified                                   | Certified                                                    | N/A                                         | N/A                                         |
| P04556-B21                        | HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD   | Pending                                 | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| P04560-B21                        | HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD   | Certified                               | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| P04564-B21                        | HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD   | Certified                               | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| P04566-B21                        | HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | Certified                               | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| P04570-B21                        | HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | Certified                               | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |

## Technical Specifications

| SATA Interface – (Certifications) |                                                                                                  |                                         |                                             |                                                              |                                             |                                             |
|-----------------------------------|--------------------------------------------------------------------------------------------------|-----------------------------------------|---------------------------------------------|--------------------------------------------------------------|---------------------------------------------|---------------------------------------------|
| HPE Option Kit SKU                | Long Description                                                                                 | VMWare / vSAN HCL Certification (Watts) | Microsoft Windows Server 2016 Certification | Software Defined Data Center (SDDC) Premium AQ Certification | Microsoft Windows Server 2019 Certification | WS 2019 Software Defined Data Center (SDDC) |
| P05924-B21                        | HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD            | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P05928-B21                        | HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD            | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P05932-B21                        | HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD            | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P05938-B21                        | HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD           | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Pending                                     |
| P05946-B21                        | HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD           | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P06194-B21                        | HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD            | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P06196-B21                        | HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD            | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P06198-B21                        | HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD           | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P06200-B21                        | HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD           | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P06609-B21                        | HPE Dual 480GB SATA 6G Read Intensive M.2 - UFF to SFF SCM 3yr Wty Digitally Signed Firmware SSD | N/A                                     | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |



## Technical Specifications

| SATA Interface – (Certifications)                                                                                                  |                                                                                         |                                         |                                             |                                                              |                                             |                                             |
|------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|-----------------------------------------|---------------------------------------------|--------------------------------------------------------------|---------------------------------------------|---------------------------------------------|
| HPE Option Kit SKU                                                                                                                 | Long Description                                                                        | VMWare / vSAN HCL Certification (Watts) | Microsoft Windows Server 2016 Certification | Software Defined Data Center (SDDC) Premium AQ Certification | Microsoft Windows Server 2019 Certification | WS 2019 Software Defined Data Center (SDDC) |
| P09685-B21                                                                                                                         | HPE 240GB SATA 6G Read Intensive SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD   | N/A                                     | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| P09687-B21                                                                                                                         | HPE 480GB SATA 6G Read Intensive LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD  | Certified                               | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| P09689-B21                                                                                                                         | HPE 960GB SATA 6G Read Intensive LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD  | Certified                               | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| P09691-B21                                                                                                                         | HPE 960GB SATA 6G Read Intensive LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD  | Certified                               | certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| P09693-B21                                                                                                                         | HPE 1.92TB SATA 6G Read Intensive LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| P09697-B21                                                                                                                         | HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD  | N/A                                     | N/A                                         | N/A                                                          | N/A                                         | N/A                                         |
| Universal SATA M.2 Enablement Kit                                                                                                  |                                                                                         |                                         |                                             |                                                              |                                             |                                             |
| 878783-B21                                                                                                                         | HPE Universal SATA HHHL 3yr Wty M.2 Kit                                                 | NA                                      | NA                                          | NA                                                           | NA                                          | NA                                          |
| <b>NOTE:</b> Please use HPE Selector Tool <a href="http://ssd.hpe.com/">http://ssd.hpe.com/</a> to determine server compatibility. |                                                                                         |                                         |                                             |                                                              |                                             |                                             |

## Technical Specifications

| SATA Interface– (Capacity, Workload, Carrier...) MULTI VENDOR |                                                                           |          |               |                |             |           |              |                                |            |        |                                         |
|---------------------------------------------------------------|---------------------------------------------------------------------------|----------|---------------|----------------|-------------|-----------|--------------|--------------------------------|------------|--------|-----------------------------------------|
| HPE Option Kit SKU                                            | Long Description                                                          | Capacity | Workload Type | Interface Type | Form Factor | Plug Type | Carrier Type | Digitally Signed Firmware (DS) | Flash Type | Port   | Server Gen Supported (Select Platforms) |
| <b>*Mixed Use Multi Vendor SATA Drives</b>                    |                                                                           |          |               |                |             |           |              |                                |            |        |                                         |
| P18436-B21                                                    | HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Multi Vendor SSD      | 1,920    | MU            | SATA           | SFF         | Hot Plug  | SC           | Yes                            | MLC        | Single | Gen9, 10                                |
| P18438-B21                                                    | HPE 3.84TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Multi Vendor SSD      | 3,840    | MU            | SATA           | SFF         | Hot Plug  | SC           | Yes                            | MLC        | Single | Gen9, 10                                |
| P18432-B21                                                    | HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Multi Vendor SSD       | 480      | MU            | SATA           | SFF         | Hot Plug  | SC           | Yes                            | MLC        | Single | Gen9, 10                                |
| P18434-B21                                                    | HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Multi Vendor SSD       | 960      | MU            | SATA           | SFF         | Hot Plug  | SC           | Yes                            | MLC        | Single | Gen9, 10                                |
| <b>*Read Intensive Multi Vendor SATA Drives</b>               |                                                                           |          |               |                |             |           |              |                                |            |        |                                         |
| P18420-B21                                                    | HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor SSD  | 240      | RI            | SATA           | SFF         | Hot Plug  | SC           | Yes                            | MLC        | Single | Gen9, 10                                |
| P18422-B21                                                    | HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor SSD  | 480      | RI            | SATA           | SFF         | Hot Plug  | SC           | Yes                            | MLC        | Single | Gen9, 10                                |
| P18424-B21                                                    | HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor SSD  | 960      | RI            | SATA           | SFF         | Hot Plug  | SC           | Yes                            | TLC        | Single | Gen9, 10                                |
| P18426-B21                                                    | HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor SSD | 1,920    | RI            | SATA           | SFF         | Hot Plug  | SC           | Yes                            | TLC        | Single | Gen9, 10                                |
| P18428-B21                                                    | HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor SSD | 3,840    | RI            | SATA           | SFF         | Hot Plug  | SC           | Yes                            | TLC        | Single | Gen9, 10                                |
| P18430-B21                                                    | HPE 7.68TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor SSD | 7,680    | RI            | SATA           | SFF         | Hot Plug  | SC           | Yes                            | TLC        | Single | Gen9, 10                                |

## Technical Specifications

| SATA Interface – (Speeds & Feeds) MULTI VENDOR  |                                                                           |                      |                |                                                   |                                                             |                                               |                                                |
|-------------------------------------------------|---------------------------------------------------------------------------|----------------------|----------------|---------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------|------------------------------------------------|
| HPE Option Kit SKU                              | Long Description                                                          | Lifetime Writes (TB) | Endurance DWPD | MAX Seq Reads / Max Seq Writes Throughput (MiB/s) | Random Read Avg. / Random Write Avg. Latency uSec (4KiB,Q1) | Random Read / Random Writes IOPS (4KiB, Q=16) | MAX Random Read / MAX Random Write IOPS (4KiB) |
| <b>*Mixed Use Multi Vendor SATA Drives</b>      |                                                                           |                      |                |                                                   |                                                             |                                               |                                                |
| P18436-B21                                      | HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Multi Vendor SSD      | 10,000               | 3.1            | 520 / 480                                         | 125 / 52                                                    | 59000 / 31000                                 | 62,000@Q32 / 31,000@Q4                         |
| P18438-B21                                      | HPE 3.84TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Multi Vendor SSD      | 17,600               | 2.6            | 510 / 480                                         | 125 / 55                                                    | 56000 / 28000                                 | 60,000@Q32 / 28,000@Q4                         |
| P18432-B21                                      | HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Multi Vendor SSD       | 3,000                | 3.5            | 520 / 445                                         | 125 / 52                                                    | 66000 / 29000                                 | 73,500@Q32 / 29,000@Q4                         |
| P18434-B21                                      | HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Multi Vendor SSD       | 6,000                | 3.4            | 520 / 480                                         | 125 / 100                                                   | 54000 / 10000                                 | 57,000@Q32 / 10,000@Q1                         |
| <b>*Read Intensive Multi Vendor SATA Drives</b> |                                                                           |                      |                |                                                   |                                                             |                                               |                                                |
| P18420-B21                                      | HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor SSD  | 350                  | 0.8            | 505 / 255                                         | 125 / 70                                                    | 62500 / 14000                                 | 69,500@Q32 / 14,000@Q1                         |
| P18422-B21                                      | HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor SSD  | 430                  | 0.5            | 520 / 300                                         | 125 / 75                                                    | 65000 / 15000                                 | 65,500@Q32 / 15,400@Q1                         |
| P18424-B21                                      | HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor SSD  | 1,400                | 0.8            | 520 / 480                                         | 125 / 60                                                    | 58500 / 29000                                 | 58,500@Q32 / 29,000@Q4                         |
| P18426-B21                                      | HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor SSD | 2,800                | 0.8            | 520 / 470                                         | 125 / 60                                                    | 55500 / 24000                                 | 56,000@Q32 / 25,000@Q32                        |
| P18428-B21                                      | HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor SSD | 3,400                | 0.5            | 520 / 480                                         | 125 / 65                                                    | 54000 / 21000                                 | 56,000@Q32 / 22,000@Q4                         |
| P18430-B21                                      | HPE 7.68TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor SSD | 8,400                | 0.6            | 520 / 495                                         | 125 / 100                                                   | 54,000 / 10,000                               | "57,000@Q32                                    |

**\*NOTE:** Multi-vendor SKUs are composed of numerous vendor manufactured SSDs within a given SATA capacity SKU. When ordering a particular SKU-B21 number the customer will receive a homogenous set of vendor manufactured SSDs in that capacity that has met or exceeds the HPE qualification standards published above.

## Technical Specifications

| SATA Interface – (Power & Height) MULTI VENDOR                                                                                                                                                                                                                                                                                 |                                                                           |                         |                           |                            |                               |                                |                          |                   |           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|-------------------------|---------------------------|----------------------------|-------------------------------|--------------------------------|--------------------------|-------------------|-----------|
| HPE Option Kit SKU                                                                                                                                                                                                                                                                                                             | Long Description                                                          | Power Idle Time (Watts) | Power Random Read (Watts) | Power Random Write (Watts) | Power Sequential Read (Watts) | Power Sequential Write (Watts) | Power Random R/W (Watts) | Power MAX (Watts) | z- Height |
| <b>*Mixed Use Multi Vendor SATA Drives</b>                                                                                                                                                                                                                                                                                     |                                                                           |                         |                           |                            |                               |                                |                          |                   |           |
| P18436-B21                                                                                                                                                                                                                                                                                                                     | HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Multi Vendor SSD      | 1.50                    | 3.10                      | 3.10                       | 5.40                          | 6.80                           | 3.10                     | 6.80              | 7mm       |
| P18438-B21                                                                                                                                                                                                                                                                                                                     | HPE 3.84TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Multi Vendor SSD      | 1.36                    | 3.11                      | 3.11                       | 2.36                          | 3.92                           | 3.11                     | 4.00              | 7mm       |
| P18432-B21                                                                                                                                                                                                                                                                                                                     | HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Multi Vendor SSD       | 1.50                    | 2.94                      | 2.94                       | 4.00                          | 6.00                           | 2.94                     | 6.00              | 7mm       |
| P18434-B21                                                                                                                                                                                                                                                                                                                     | HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Multi Vendor SSD       | 1.37                    | 2.79                      | 2.79                       | 2.36                          | 3.23                           | 2.79                     | 6.30              | 7mm       |
|                                                                                                                                                                                                                                                                                                                                |                                                                           |                         |                           |                            |                               |                                |                          |                   |           |
| <b>*Read Intensive Multi Vendor SATA Drives</b>                                                                                                                                                                                                                                                                                |                                                                           |                         |                           |                            |                               |                                |                          |                   |           |
| P18420-B21                                                                                                                                                                                                                                                                                                                     | HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor SSD  | 1.23                    | 3.00                      | 3.00                       | 3.21                          | 3.90                           | 2.95                     | 4.00              | 7mm       |
| P18422-B21                                                                                                                                                                                                                                                                                                                     | HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor SSD  | 1.50                    | 2.92                      | 2.92                       | 4.00                          | 6.00                           | 2.92                     | 6.00              | 7mm       |
| P18424-B21                                                                                                                                                                                                                                                                                                                     | HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor SSD  | 1.50                    | 3.02                      | 3.02                       | 4.00                          | 6.00                           | 3.02                     | 6.00              | 7mm       |
| P18426-B21                                                                                                                                                                                                                                                                                                                     | HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor SSD | 1.50                    | 3.15                      | 3.15                       | 4.20                          | 6.30                           | 3.15                     | 6.30              | 7mm       |
| P18428-B21                                                                                                                                                                                                                                                                                                                     | HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor SSD | 1.50                    | 3.46                      | 3.46                       | 4.20                          | 6.30                           | 3.46                     | 6.30              | 7mm       |
| P18430-B21                                                                                                                                                                                                                                                                                                                     | HPE 7.68TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor SSD | 1.50                    | 3.10                      | 3.10                       | 5.40                          | 6.80                           | 3.10                     | 6.80              | 7mm       |
| <b>*NOTE:</b> Multi-vendor SKUs are composed of numerous vendor manufactured SSDs within a given SATA capacity SKU. When ordering a particular SKU-B21 number the customer will receive a homogenous set of vendor manufactured SSDs in that capacity that has met or exceeds the HPE qualification standards published above. |                                                                           |                         |                           |                            |                               |                                |                          |                   |           |

## Technical Specifications

| SATA Interface – (Certifications) MULTI VENDOR                                                                                                                                                                                                                                                                                 |                                                                           |                                         |                                             |                                                              |                                             |                                             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|-----------------------------------------|---------------------------------------------|--------------------------------------------------------------|---------------------------------------------|---------------------------------------------|
| HPE Option Kit SKU                                                                                                                                                                                                                                                                                                             | Long Description                                                          | VMWare / vSAN HCL Certification (Watts) | Microsoft Windows Server 2016 Certification | Software Defined Data Center (SDDC) Premium AQ Certification | Microsoft Windows Server 2019 Certification | WS 2019 Software Defined Data Center (SDDC) |
| <b>*Mixed Use Multi Vendor SATA Drives</b>                                                                                                                                                                                                                                                                                     |                                                                           |                                         |                                             |                                                              |                                             |                                             |
| P18436-B21                                                                                                                                                                                                                                                                                                                     | HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Multi Vendor SSD      | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P18438-B21                                                                                                                                                                                                                                                                                                                     | HPE 3.84TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Multi Vendor SSD      | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P18432-B21                                                                                                                                                                                                                                                                                                                     | HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Multi Vendor SSD       | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P18434-B21                                                                                                                                                                                                                                                                                                                     | HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Multi Vendor SSD       | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
|                                                                                                                                                                                                                                                                                                                                |                                                                           |                                         |                                             |                                                              |                                             |                                             |
| <b>*Read Intensive Multi Vendor SATA Drives</b>                                                                                                                                                                                                                                                                                |                                                                           |                                         |                                             |                                                              |                                             |                                             |
| P18420-B21                                                                                                                                                                                                                                                                                                                     | HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor SSD  | Pending                                 | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| P18422-B21                                                                                                                                                                                                                                                                                                                     | HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor SSD  | Certified                               | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| P18424-B21                                                                                                                                                                                                                                                                                                                     | HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor SSD  | Certified                               | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| P18426-B21                                                                                                                                                                                                                                                                                                                     | HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor SSD | Certified                               | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| P18428-B21                                                                                                                                                                                                                                                                                                                     | HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor SSD | Certified                               | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| P18430-B21                                                                                                                                                                                                                                                                                                                     | HPE 7.68TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor SSD | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| <b>*NOTE:</b> Multi-vendor SKUs are composed of numerous vendor manufactured SSDs within a given SATA capacity SKU. When ordering a particular SKU-B21 number the customer will receive a homogenous set of vendor manufactured SSDs in that capacity that has met or exceeds the HPE qualification standards published above. |                                                                           |                                         |                                             |                                                              |                                             |                                             |

## QuickSpecs

## HPE Solid State Disk Drives

### Technical Specifications

| SAS Interface – (Capacity, Workload, Carrier...) |                                                                                        |          |               |                |             |           |              |                  |            |      |                                         |
|--------------------------------------------------|----------------------------------------------------------------------------------------|----------|---------------|----------------|-------------|-----------|--------------|------------------|------------|------|-----------------------------------------|
| HPE Option Kit SKU                               | Long Description                                                                       | Capacity | Workload Type | Interface Type | Form Factor | Plug Type | Carrier Type | Digitally Signed | Flash Type | Port | Server Gen Supported (Select Platforms) |
| <b>Write Intensive SAS Drives</b>                |                                                                                        |          |               |                |             |           |              |                  |            |      |                                         |
| 873351-B21                                       | HPE 400GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 400      | WI            | SAS            | SFF         | Hot Plug  | SC           | Yes              | MLC        | Dual | Gen9 & 10                               |
| 873355-B21                                       | HPE 800GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 800      | WI            | SAS            | SFF         | Hot Plug  | SC           | Yes              | MLC        | Dual | Gen9 & 10                               |
| 873460-B21                                       | HPE 800GB SAS 12G Write Intensive SFF (2.5in) ST 3yr Wty Digitally Signed Firmware SSD | 800      | WI            | SAS            | SFF         | Hot Plug  | STD          | Yes              | MLC        | Dual | Gen9 & 10                               |
| P04541-B21                                       | HPE 400GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 400      | WI            | SAS            | SFF         | Hot Plug  | SC           | Yes              | MLC        | Dual | Gen9, 10                                |
| P04543-B21                                       | HPE 800GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 800      | WI            | SAS            | SFF         | Hot Plug  | SC           | Yes              | MLC        | Dual | Gen9, 10                                |
| P04545-B21                                       | HPE 1.6TB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 1,600    | WI            | SAS            | SFF         | Hot Plug  | SC           | Yes              | MLC        | Dual | Gen9, 10                                |
| P04547-B21                                       | HPE 3.2TB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 3,200    | WI            | SAS            | SFF         | Hot Plug  | SC           | Yes              | MLC        | Dual | Gen9, 10                                |
| P04558-B21                                       | HPE 400GB SAS 12G Write Intensive SFF (2.5in) ST 3yr Wty Digitally Signed Firmware SSD | 400      | WI            | SAS            | SFF         | Hot Plug  | ST           | Yes              | MLC        | Dual | Gen9, 10                                |
| P04562-B21                                       | HPE 800GB SAS 12G Write Intensive SFF (2.5in) ST 3yr Wty Digitally Signed Firmware SSD | 800      | WI            | SAS            | SFF         | Hot Plug  | ST           | Yes              | MLC        | Dual | Gen9, 10                                |
| P09098-B21                                       | HPE 400GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 400      | WI            | SAS            | SFF         | Hot Plug  | SC           | Yes              | MLC        | Dual | Gen9, 10                                |
| P09100-B21                                       | HPE 800GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 800      | WI            | SAS            | SFF         | Hot Plug  | SC           | Yes              | MLC        | Dual | Gen9, 10                                |

## Technical Specifications

| SAS Interface – (Capacity, Workload, Carrier...) |                                                                                        |          |               |                |             |           |              |                  |            |      |                              |
|--------------------------------------------------|----------------------------------------------------------------------------------------|----------|---------------|----------------|-------------|-----------|--------------|------------------|------------|------|------------------------------|
| HPE Option Kit SKU                               | Long Description                                                                       | Capacity | Workload Type | Interface Type | Form Factor | Plug Type | Carrier Type | Digitally Signed | Flash Type | Port | Server Gen Supported (Select |
| P09102-B21                                       | HPE 1.6TB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 1,600    | WI            | SAS            | SFF         | Hot Plug  | SC           | Yes              | MLC        | Dual | Gen9, 10                     |

## QuickSpecs

## HPE Solid State Disk Drives

### Technical Specifications

| SAS Interface – (Capacity, Workload, Carrier...) |                                                                                   |          |               |                |             |           |              |                                |            |      |                              |
|--------------------------------------------------|-----------------------------------------------------------------------------------|----------|---------------|----------------|-------------|-----------|--------------|--------------------------------|------------|------|------------------------------|
| Mixed Use SAS Drives                             |                                                                                   |          |               |                |             |           |              |                                |            |      |                              |
| HPE Option Kit SKU                               | Long Description                                                                  | Capacity | Workload Type | Interface Type | Form Factor | Plug Type | Carrier Type | Digitally Signed Firmware (DS) | Flash Type | Port | Server Gen Supported (Select |
| 873365-B21                                       | HPE 1.6TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 1,600    | MU            | SAS            | SFF         | Hot Plug  | SC           | Yes                            | MLC        | Dual | Gen9 & 10                    |
| P04525-B21                                       | HPE 400GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 400      | MU            | SAS            | SFF         | Hot Plug  | SC           | Yes                            | MLC        | Dual | Gen9, 10                     |
| P04527-B21                                       | HPE 800GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 800      | MU            | SAS            | SFF         | Hot Plug  | SC           | Yes                            | MLC        | Dual | Gen9, 10                     |
| P04529-B21                                       | HPE 800GB SAS 12G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD | 800      | MU            | SAS            | LFF         | Hot Plug  | SCC          | Yes                            | MLC        | Dual | Gen9, 10                     |
| P04531-B21                                       | HPE 800GB SAS 12G Mixed Use LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD | 800      | MU            | SAS            | LFF         | Hot Plug  | LPC          | Yes                            | MLC        | Dual | Gen9, 10                     |
| P04533-B21                                       | HPE 1.6TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 1,600    | MU            | SAS            | SFF         | Hot Plug  | SC           | Yes                            | MLC        | Dual | Gen9, 10                     |
| P04535-B21                                       | HPE 1.6TB SAS 12G Mixed Use LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD | 1,600    | MU            | SAS            | LFF         | Hot Plug  | LPC          | Yes                            | MLC        | Dual | Gen9, 10                     |



## Technical Specifications

| SAS Interface – (Capacity, Workload, Carrier...) |                                                                                  |          |               |                |             |           |              |                                    |            |      |                               |
|--------------------------------------------------|----------------------------------------------------------------------------------|----------|---------------|----------------|-------------|-----------|--------------|------------------------------------|------------|------|-------------------------------|
| Mixed Use SAS Drives                             |                                                                                  |          |               |                |             |           |              |                                    |            |      |                               |
| HPE Option Kit SKU                               | Long Description                                                                 | Capacity | Workload Type | Interface Type | Form Factor | Plug Type | Carrier Type | Digitally Signed Firmware (Yes/No) | Flash Type | Port | Server Gen Supported (Select) |
| P04537-B21                                       | HPE 3.2TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 3,200    | MU            | SAS            | SFF         | Hot Plug  | SC           | Yes                                | MLC        | Dual | Gen9, 10                      |
| P04539-B21                                       | HPE 6.4TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 6,400    | MU            | SAS            | SFF         | Hot Plug  | SC           | Yes                                | MLC        | Dual | Gen9, 10                      |
| P09088-B21                                       | HPE 400GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 440      | MU            | SAS            | SFF         | Hot Plug  | SC           | Yes                                | MLC        | Dual | Gen9, 10                      |
| P09090-B21                                       | HPE 800GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 800      | MU            | SAS            | SFF         | Hot Plug  | SC           | Yes                                | MLC        | Dual | Gen9, 10                      |
| P09092-B21                                       | HPE 1.6TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 1,600    | MU            | SAS            | SFF         | Hot Plug  | SC           | Yes                                | MLC        | Dual | Gen9, 10                      |
| P09094-B21                                       | HPE 3.2TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 3,200    | MU            | SAS            | SFF         | Hot Plug  | SC           | Yes                                | MLC        | Dual | Gen9, 10                      |
| P09096-B21                                       | HPE 6.4TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 6,400    | MU            | SAS            | SFF         | Hot Plug  | SC           | Yes                                | MLC        | Dual | Gen9, 10                      |

## QuickSpecs

## HPE Solid State Disk Drives

### Technical Specifications

| SAS Interface – (Capacity, Workload, Carrier...) |                                                                                        |          |               |                |             |           |              |                                |            |      |                                         |
|--------------------------------------------------|----------------------------------------------------------------------------------------|----------|---------------|----------------|-------------|-----------|--------------|--------------------------------|------------|------|-----------------------------------------|
| Read Intensive SAS Drives                        |                                                                                        |          |               |                |             |           |              |                                |            |      |                                         |
| HPE Option Kit SKU                               | Long Description                                                                       | Capacity | Workload Type | Interface Type | Form Factor | Plug Type | Carrier Type | Digitally Signed Firmware (DS) | Flash Type | Port | Server Gen Supported (Select Platforms) |
| 870144-B21                                       | HPE 7.68TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 7,680    | RI            | SAS            | SFF         | Hot Plug  | SC           | Yes                            | TLC        | Dual | Gen9 & 10                               |
| 870148-B21                                       | HPE 15.3TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 15,300   | RI            | SAS            | SFF         | Hot Plug  | SC           | Yes                            | MLC        | Dual | Gen9 & 10                               |
| 872390-B21                                       | HPE 960GB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 960      | RI            | SAS            | SFF         | Hot Plug  | SC           | Yes                            | MLC        | Dual | Gen9 & 10                               |
| 872392-B21                                       | HPE 1.92TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 1,920    | RI            | SAS            | SFF         | Hot Plug  | SC           | Yes                            | MLC        | Dual | Gen9 & 10                               |
| 872394-B21                                       | HPE 3.84TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 3,840    | RI            | SAS            | SFF         | Hot Plug  | SC           | Yes                            | MLC        | Dual | Gen9 & 10                               |
| 875330-B21                                       | HPE 3.84TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 3,840    | RI            | SAS            | SFF         | Hot Plug  | SC           | Yes                            | TLC        | Dual | Gen9 & 10                               |
| P04517-B21                                       | HPE 960GB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 960      | RI            | SAS            | SFF         | Hot Plug  | SC           | Yes                            | MLC        | Dual | Gen9, 10                                |
| P04519-B21                                       | HPE 1.92TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 1,920    | RI            | SAS            | SFF         | Hot Plug  | SC           | Yes                            | MLC        | Dual | Gen9, 10                                |
| P04521-B21                                       | HPE 3.84TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 3,840    | RI            | SAS            | SFF         | Hot Plug  | SC           | Yes                            | MLC        | Dual | Gen9, 10                                |
| P04523-B21                                       | HPE 7.68TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 7,680    | RI            | SAS            | SFF         | Hot Plug  | SC           | Yes                            | MLC        | Dual | Gen9, 10                                |

## Technical Specifications

| SAS Interface – (Capacity, Workload, Carrier...) |                                                                                        |          |               |                |             |           |              |                                |            |      |                                         |
|--------------------------------------------------|----------------------------------------------------------------------------------------|----------|---------------|----------------|-------------|-----------|--------------|--------------------------------|------------|------|-----------------------------------------|
| Read Intensive SAS Drives                        |                                                                                        |          |               |                |             |           |              |                                |            |      |                                         |
| HPE Option Kit SKU                               | Long Description                                                                       | Capacity | Workload Type | Interface Type | Form Factor | Plug Type | Carrier Type | Digitally Signed Firmware (DS) | Flash Type | Port | Server Gen Supported (Select Platforms) |
| P06584-B21                                       | HPE 960GB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 960      | RI            | SAS            | SFF         | Hot Plug  | SC           | Yes                            | TLC        | Dual | Gen9 & 10                               |
| P06586-B21                                       | HPE 1.92TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 1,920    | RI            | SAS            | SFF         | Hot Plug  | SC           | Yes                            | TLC        | Dual | Gen9 & 10                               |
| P06588-B21                                       | HPE 3.84TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 3,840    | RI            | SAS            | SFF         | Hot Plug  | SC           | Yes                            | TLC        | Dual | Gen9 & 10                               |
| P06590-B21                                       | HPE 7.68TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 7,680    | RI            | SAS            | SFF         | Hot Plug  | SC           | Yes                            | TLC        | Dual | Gen9 & 10                               |
| P06592-B21                                       | HPE 15.3TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 15,300   | RI            | SAS            | SFF         | Hot Plug  | SC           | Yes                            | TLC        | Dual | Gen9 & 10                               |

## Technical Specifications

| SAS Interface – (Speeds & Feeds)  |                                                                                        |                      |                |                                           |                                                   |                                               |                                                |
|-----------------------------------|----------------------------------------------------------------------------------------|----------------------|----------------|-------------------------------------------|---------------------------------------------------|-----------------------------------------------|------------------------------------------------|
| HPE Option Kit SKU                | Long Description                                                                       | Lifetime Writes (TB) | Endurance DWPD | MAX Seq Reads / Max Seq Writes Throughput | Random Read Avg. / Random Write Avg. Latency uSec | Random Read / Random Writes IOPS (4KiB, Q=16) | MAX Random Read / MAX Random Write IOPS (4KiB) |
| <b>Write Intensive SAS Drives</b> |                                                                                        |                      |                |                                           |                                                   |                                               |                                                |
| 873351-B21                        | HPE 400GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 7,000                | 10.0           | 1,050 / 1,005                             | 110 / 45                                          | 100,000 / 100,000                             | 170,000@Q64 / 100,000@Q16                      |
| 873355-B21                        | HPE 800GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 1,500                | 10.0           | 1,050 / 1,005                             | 105 / 35                                          | 120,000 / 100,000                             | 170,000@Q64 / 100,000@Q16                      |
| 873460-B21                        | HPE 800GB SAS 12G Write Intensive SFF (2.5in) ST 3yr Wty Digitally Signed Firmware SSD | 1,500                | 10.0           | 1,050 / 1,005                             | 105 / 35                                          | 120,000 / 100,000                             | 170,000@Q64 / 100,000@Q16                      |
| P04541-B21                        | HPE 400GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 7,300                | 10.0           | 1,075 / 1,030                             | 135 / 35                                          | 104,000 / 115,000                             | 165,000@Q32 / 115,000@Q16                      |
| P04543-B21                        | HPE 800GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 14,600               | 10.0           | 1,075 / 1,030                             | 135 / 35                                          | 109,000 / 120,000                             | 165,000@Q32 / 120,000@Q16                      |
| P04545-B21                        | HPE 1.6TB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 29,200               | 10.0           | 1,075 / 1,030                             | 135 / 35                                          | 110,000 / 120,000                             | 165,000@Q32 / 120,000@Q16                      |
| P04547-B21                        | HPE 3.2TB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 58,400               | 10.0           | 1,075 / 1,030                             | 135 / 35                                          | 110,000 / 120,000                             | 165,000@Q32 / 120,000@Q16                      |
| P04558-B21                        | HPE 400GB SAS 12G Write Intensive SFF (2.5in) ST 3yr Wty Digitally Signed Firmware SSD | 7,300                | 10.0           | 1,075 / 1,030                             | 135 / 35                                          | 104,000 / 115,000                             | 165,000@Q32 / 115,000@Q16                      |
| P04562-B21                        | HPE 800GB SAS 12G Write Intensive SFF (2.5in) ST 3yr Wty Digitally Signed Firmware SSD | 14,600               | 10.0           | 1,075 / 1,030                             | 135 / 35                                          | 109,000 / 120,000                             | 165,000@Q32 / 120,000@Q16                      |
| P09098-B21                        | HPE 400GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 7,000                | 10.0           | 1,095 / 1,015                             | 100 / 33                                          | 140,000 / 120,000                             | 210,000@Q32 / 120,000@Q16                      |

## QuickSpecs

## HPE Solid State Disk Drives

### Technical Specifications

| SAS Interface – (Speeds & Feeds) |                                                                                        |                      |                |                                           |                                                   |                                               |                                                |
|----------------------------------|----------------------------------------------------------------------------------------|----------------------|----------------|-------------------------------------------|---------------------------------------------------|-----------------------------------------------|------------------------------------------------|
| HPE Option Kit SKU               | Long Description                                                                       | Lifetime Writes (TB) | Endurance DWPD | MAX Seq Reads / Max Seq Writes Throughput | Random Read Avg. / Random Write Avg. Latency uSec | Random Read / Random Writes IOPS (4KiB, Q=16) | MAX Random Read / MAX Random Write IOPS (4KiB) |
| P09100-B21                       | HPE 800GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 15,000               | 10.0           | 1,095 / 1,045                             | 100 / 33                                          | 130,000 / 120,000                             | 210,000@Q32 / 120,000@Q16                      |
| P09102-B21                       | HPE 1.6TB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 29,000               | 10.0           | 1,095 / 1,045                             | 100 / 33                                          | 130,000 / 120,000                             | 210,000@Q32 / 125,000@Q16                      |

## QuickSpecs

## HPE Solid State Disk Drives

### Technical Specifications

| SAS Interface – (Speeds & Feeds) |                                                                                   |                      |                |                                           |                                                   |                                               |                                                |
|----------------------------------|-----------------------------------------------------------------------------------|----------------------|----------------|-------------------------------------------|---------------------------------------------------|-----------------------------------------------|------------------------------------------------|
| Mixed Use SAS Drives             |                                                                                   |                      |                |                                           |                                                   |                                               |                                                |
| HPE Option Kit SKU               | Long Description                                                                  | Lifetime Writes (TB) | Endurance DWPD | MAX Seq Reads / Max Seq Writes Throughput | Random Read Avg. / Random Write Avg. Latency uSec | Random Read / Random Writes IOPS (4KiB, Q=16) | MAX Random Read / MAX Random Write IOPS (4KiB) |
| 873365-B21                       | HPE 1.6TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 8,500                | 3.0            | 1,050 / 1,010                             | 105 / 35                                          | 125,000 / 100,000                             | 170,000@Q64 / 100,000@Q16                      |
| P04525-B21                       | HPE 400GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 2,190                | 3.0            | 1,070 / 670                               | 135 / 35                                          | 95,000 / 70,000                               | 165,000@Q64 / 70,000@Q4                        |
| P04527-B21                       | HPE 800GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 4,380                | 3.0            | 1,075 / 1,030                             | 135 / 35                                          | 104,000 / 85,000                              | 165,000@Q32 / 85,000@Q16                       |
| P04529-B21                       | HPE 800GB SAS 12G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD | 4,380                | 3.0            | 1,075 / 1,030                             | 135 / 35                                          | 104,000 / 85,000                              | 165,000@Q32 / 85,000@Q16                       |
| P04531-B21                       | HPE 800GB SAS 12G Mixed Use LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD | 4,380                | 3.0            | 1,075 / 1,030                             | 135 / 35                                          | 104,000 / 85,000                              | 165,000@Q32 / 85,000@Q16                       |
| P04533-B21                       | HPE 1.6TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 8,760                | 3.0            | 1,075 / 1,030                             | 135 / 35                                          | 109,000 / 105,000                             | 165,000@Q32 / 105,000@Q16                      |
| P04535-B21                       | HPE 1.6TB SAS 12G Mixed Use LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD | 8,760                | 3.0            | 1,075 / 1,030                             | 135 / 35                                          | 109,000 / 105,000                             | 165,000@Q32 / 105,000@Q16                      |
| P04537-B21                       | HPE 3.2TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 17,520               | 3.0            | 1,075 / 1,030                             | 135 / 35                                          | 110,000 / 110,000                             | 165,000@Q32 / 110,000@Q16                      |
| P04539-B21                       | HPE 6.4TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 35,040               | 3.0            | 1,075 / 1,030                             | 135 / 35                                          | 113,000 / 105,000                             | 165,000@Q32 / 108,000@Q16                      |
| P09088-B21                       | HPE 400GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 2,000                | 3.0            | 1,095 / 620                               | 100 / 33                                          | 125,000 / 100,000                             | 210,000@Q64 / 104,000@Q16                      |

## QuickSpecs

## HPE Solid State Disk Drives

### Technical Specifications

| SAS Interface – (Speeds & Feeds) |                                                                                        |                      |                |                                           |                                                   |                                               |                                                |
|----------------------------------|----------------------------------------------------------------------------------------|----------------------|----------------|-------------------------------------------|---------------------------------------------------|-----------------------------------------------|------------------------------------------------|
| HPE Option Kit SKU               | Long Description                                                                       | Lifetime Writes (TB) | Endurance DDPD | MAX Seq Reads / Max Seq Writes Throughput | Random Read Avg. / Random Write Avg. Latency uSec | Random Read / Random Writes IOPS (4KiB, Q=16) | MAX Random Read / MAX Random Write IOPS (4KiB) |
| P09090-B21                       | HPE 800GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD       | 4,500                | 3.0            | 1,095 / 1,010                             | 100 / 34                                          | 130,000 / 123,000                             | 210,000@Q32 / 124,000@Q16                      |
| P09092-B21                       | HPE 1.6TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD       | 8,500                | 3.0            | 1,095 / 1,045                             | 100 / 33                                          | 130,000 / 123,000                             | 210,000@Q32 / 124,000@Q16                      |
| P09094-B21                       | HPE 3.2TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD       | 17,500               | 3.0            | 1,095 / 1,045                             | 100 / 34                                          | 140,000 / 123,000                             | 210,000@Q32 / 124,000@Q16                      |
| P09096-B21                       | HPE 6.4TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD       | 35,000               | 3.0            | 1,095 / 1,045                             | 100 / 34                                          | 140,000 / 123,000                             | 210,000@Q32 / 124,000@Q16                      |
|                                  |                                                                                        |                      |                |                                           |                                                   |                                               |                                                |
| Read Intensive SAS Drives        |                                                                                        |                      |                |                                           |                                                   |                                               |                                                |
| 870144-B21                       | HPE 7.68TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 14,016               | 1.0            | 940 / 1,000                               | 150 / 40                                          | 93,000 / 34,000                               | 148,000@Q64 / 34,000@Q4                        |
| 870148-B21                       | HPE 15.3TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 28,032               | 1.0            | 940 / 1,000                               | 150 / 41                                          | 93,000 / 37,000                               | 165,000@Q128 / 37,000@Q4                       |
| 872390-B21                       | HPE 960GB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 1,752                | 1.0            | 1,070 / 1,025                             | 120 / 50                                          | 120,000 / 29,000                              | 185,000@Q32 / 29,000@Q4                        |
| 872392-B21                       | HPE 1.92TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 3,504                | 1.0            | 1,070 / 1,025                             | 120 / 50                                          | 125,000 / 34,000                              | 185,000@Q32 / 34,000@Q4                        |
| 872394-B21                       | HPE 3.84TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 7,008                | 1.0            | 1,070 / 1,025                             | 120 / 50                                          | 125,000 / 34,000                              | 185,000@Q32 / 34,000@Q4                        |
| 875330-B21                       | HPE 3.84TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 7,008                | 1.0            | 940 / 1,020                               | 115 / 40                                          | 110,000 / 26,000                              | 170,000@Q128 / 26,000@Q4                       |

## QuickSpecs

## HPE Solid State Disk Drives

### Technical Specifications

| SAS Interface – (Speeds & Feeds)                                                                                                   |                                                                                        |                      |                |                                           |                                                   |                                               |                                                |
|------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|----------------------|----------------|-------------------------------------------|---------------------------------------------------|-----------------------------------------------|------------------------------------------------|
| HPE Option Kit SKU                                                                                                                 | Long Description                                                                       | Lifetime Writes (TB) | Endurance DDPD | MAX Seq Reads / Max Seq Writes Throughput | Random Read Avg. / Random Write Avg. Latency uSec | Random Read / Random Writes IOPS (4KiB, Q=16) | MAX Random Read / MAX Random Write IOPS (4KiB) |
| P04517-B21                                                                                                                         | HPE 960GB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 1,752                | 1.0            | 1,075 / 1,030                             | 135 / 35                                          | 104,000 / 47,000                              | 165,000@Q32 / 47,000@Q4                        |
| P04519-B21                                                                                                                         | HPE 1.92TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 3,504                | 1.0            | 1,075 / 1,030                             | 135 / 35                                          | 109,000 / 54,000                              | 165,000@Q32 / 54,000@Q4                        |
| P04521-B21                                                                                                                         | HPE 3.84TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 7,008                | 1.0            | 1,075 / 1,030                             | 135 / 35                                          | 110,000 / 54,000                              | 165,000@Q32 / 54,000@Q4                        |
| P04523-B21                                                                                                                         | HPE 7.68TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 14,016               | 1.0            | 1,075 / 1,030                             | 135 / 35                                          | 110,000 / 48,000                              | 165,000@Q32 / 48,000@Q4                        |
| P06584-B21                                                                                                                         | HPE 960GB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 1,752                | 1.0            | 1,080 / 1,030                             | 105 / 34                                          | 120,000 / 32,000                              | 180,000@Q64 / 32,000@Q4                        |
| P06586-B21                                                                                                                         | HPE 1.92TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 3,504                | 1.0            | 1,080 / 1,030                             | 105 / 34                                          | 120,000 / 48,000                              | 180,000@Q64 / 48,000@Q4                        |
| P06588-B21                                                                                                                         | HPE 3.84TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 7,008                | 1.0            | 1,080 / 1,030                             | 105 / 34                                          | 115,000 / 55,000                              | 180,000@Q64 / 55,000@Q4                        |
| P06590-B21                                                                                                                         | HPE 7.68TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 14,016               | 1.0            | 1,080 / 1,030                             | 120 / 34                                          | 113,000 / 67,000                              | 180,000@Q64 / 67,000@Q4                        |
| P06592-B21                                                                                                                         | HPE 15.3TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 28,032               | 1.0            | 1,080 / 1,030                             | 120 / 35                                          | 110,000 / 58,000                              | 178,000@Q64 / 58,000@Q16                       |
| <b>NOTE:</b> Please use HPE Selector Tool <a href="http://ssd.hpe.com/">http://ssd.hpe.com/</a> to determine server compatibility. |                                                                                        |                      |                |                                           |                                                   |                                               |                                                |



## QuickSpecs

## HPE Solid State Disk Drives

### Technical Specifications

| SAS Interface – (Power & Height) |                                                                                        |                         |                           |                            |                               |                                |                          |                   |           |
|----------------------------------|----------------------------------------------------------------------------------------|-------------------------|---------------------------|----------------------------|-------------------------------|--------------------------------|--------------------------|-------------------|-----------|
| HPE Option Kit SKU               | Long Description                                                                       | Power Idle Time (Watts) | Power Random Read (Watts) | Power Random Write (Watts) | Power Sequential Read (Watts) | Power Sequential Write (Watts) | Power Random R/W (Watts) | Power MAX (Watts) | z- Height |
| Write Intensive SAS Drives       |                                                                                        |                         |                           |                            |                               |                                |                          |                   |           |
| 873351-B21                       | HPE 400GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 3.46                    | 5.86                      | 5.86                       | 5.65                          | 8.08                           | 5.86                     | 9.00              | 15mm      |
| 873355-B21                       | HPE 800GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 3.61                    | 6.19                      | 6.19                       | 6.63                          | 10.65                          | 6.19                     | 11.00             | 15mm      |
| 873460-B21                       | HPE 800GB SAS 12G Write Intensive SFF (2.5in) ST 3yr Wty Digitally Signed Firmware SSD | 3.61                    | 6.19                      | 6.19                       | 6.63                          | 10.65                          | 6.19                     | 11.00             | 15mm      |
| P04541-B21                       | HPE 400GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 4.20                    | 4.82                      | 4.82                       | 6.21                          | 5.75                           | 4.82                     | 6.21              | 15mm      |
| P04543-B21                       | HPE 800GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 4.26                    | 4.97                      | 4.97                       | 6.71                          | 6.95                           | 4.97                     | 6.71              | 15mm      |
| P04545-B21                       | HPE 1.6TB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 5.00                    | 6.00                      | 6.00                       | 6.98                          | 6.98                           | 5.43                     | 8.98              | 15mm      |
| P04547-B21                       | HPE 3.2TB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 5.00                    | 6.17                      | 6.17                       | 8.56                          | 8.56                           | 5.90                     | 8.56              | 15mm      |
| P04558-B21                       | HPE 400GB SAS 12G Write Intensive SFF (2.5in) ST 3yr Wty Digitally Signed Firmware SSD | 4.20                    | 4.82                      | 4.82                       | 6.21                          | 5.75                           | 4.82                     | 6.21              | 15mm      |
| P04562-B21                       | HPE 800GB SAS 12G Write Intensive SFF (2.5in) ST 3yr Wty Digitally Signed Firmware SSD | 4.26                    | 4.97                      | 4.97                       | 6.71                          | 6.95                           | 4.97                     | 6.71              | 15mm      |
| P09098-B21                       | HPE 400GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 3.00                    | 5.22                      | 5.22                       | 4.07                          | 5.74                           | 5.22                     | 5.74              | 15mm      |

## QuickSpecs

## HPE Solid State Disk Drives

### Technical Specifications

| SAS Interface – (Power & Height) |                                                                                        |                         |                           |                            |                               |                                |                          |                   |           |
|----------------------------------|----------------------------------------------------------------------------------------|-------------------------|---------------------------|----------------------------|-------------------------------|--------------------------------|--------------------------|-------------------|-----------|
| HPE Option Kit SKU               | Long Description                                                                       | Power Idle Time (Watts) | Power Random Read (Watts) | Power Random Write (Watts) | Power Sequential Read (Watts) | Power Sequential Write (Watts) | Power Random R/W (Watts) | Power MAX (Watts) | z- Height |
| P09100-B21                       | HPE 800GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 3.00                    | 5.55                      | 5.55                       | 4.52                          | 6.92                           | 5.55                     | 6.92              | 15mm      |
| P09102-B21                       | HPE 1.6TB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 3.00                    | 5.77                      | 5.77                       | 5.37                          | 8.88                           | 5.77                     | 8.88              | 15mm      |
|                                  |                                                                                        |                         |                           |                            |                               |                                |                          |                   |           |

## QuickSpecs

## HPE Solid State Disk Drives

### Technical Specifications

| Mixed Use SAS Drives             |                                                                                   |                         |                           |                            |                               |                                |                          |                   |           |
|----------------------------------|-----------------------------------------------------------------------------------|-------------------------|---------------------------|----------------------------|-------------------------------|--------------------------------|--------------------------|-------------------|-----------|
| SAS Interface – (Power & Height) |                                                                                   |                         |                           |                            |                               |                                |                          |                   |           |
| HPE Option Kit SKU               | Long Description                                                                  | Power Idle Time (Watts) | Power Random Read (Watts) | Power Random Write (Watts) | Power Sequential Read (Watts) | Power Sequential Write (Watts) | Power Random R/W (Watts) | Power MAX (Watts) | z- Height |
| 873365-B21                       | HPE 1.6TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 3.56                    | 6.45                      | 6.45                       | 6.39                          | 10.18                          | 6.45                     | 11.00             | 15mm      |
| P04525-B21                       | HPE 400GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 4.20                    | 4.82                      | 4.82                       | 6.21                          | 5.75                           | 4.82                     | 6.21              | 15mm      |
| P04527-B21                       | HPE 800GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 4.26                    | 4.97                      | 4.97                       | 6.71                          | 6.95                           | 4.97                     | 6.71              | 15mm      |
| P04529-B21                       | HPE 800GB SAS 12G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD | 4.26                    | 4.97                      | 4.97                       | 6.71                          | 6.95                           | 4.97                     | 6.71              | 15mm      |
| P04531-B21                       | HPE 800GB SAS 12G Mixed Use LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD | 4.26                    | 4.97                      | 4.97                       | 6.71                          | 6.95                           | 4.97                     | 6.71              | 15mm      |
| P04533-B21                       | HPE 1.6TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 5.00                    | 6.00                      | 6.00                       | 6.98                          | 6.98                           | 5.43                     | 8.98              | 15mm      |
| P04535-B21                       | HPE 1.6TB SAS 12G Mixed Use LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD | 5.00                    | 6.00                      | 6.00                       | 6.98                          | 6.98                           | 5.43                     | 8.98              | 15mm      |
| P04537-B21                       | HPE 3.2TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 5.00                    | 6.17                      | 6.17                       | 8.56                          | 8.56                           | 5.90                     | 8.56              | 15mm      |
| P04539-B21                       | HPE 6.4TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 5.00                    | 6.20                      | 6.20                       | 8.56                          | 8.56                           | 5.90                     | 8.56              | 15mm      |
| P09088-B21                       | HPE 400GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 3.00                    | 5.46                      | 5.46                       | 4.59                          | 7.19                           | 5.46                     | 7.19              | 15mm      |
| P09090-B21                       | HPE 800GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 3.00                    | 5.78                      | 5.78                       | 5.26                          | 8.76                           | 5.78                     | 8.76              | 15mm      |

## QuickSpecs

## HPE Solid State Disk Drives

### Technical Specifications

| SAS Interface – (Power & Height) |                                                                                        |                         |                           |                            |                               |                                |                          |                   |           |
|----------------------------------|----------------------------------------------------------------------------------------|-------------------------|---------------------------|----------------------------|-------------------------------|--------------------------------|--------------------------|-------------------|-----------|
| HPE Option Kit SKU               | Long Description                                                                       | Power Idle Time (Watts) | Power Random Read (Watts) | Power Random Write (Watts) | Power Sequential Read (Watts) | Power Sequential Write (Watts) | Power Random R/W (Watts) | Power MAX (Watts) | z- Height |
| P09092-B21                       | HPE 1.6TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD       | 3.00                    | 6.30                      | 6.30                       | 5.39                          | 9.24                           | 6.30                     | 9.24              | 15mm      |
| P09094-B21                       | HPE 3.2TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD       | 3.20                    | 6.11                      | 6.11                       | 5.45                          | 9.31                           | 6.11                     | 9.31              | 15mm      |
| P09096-B21                       | HPE 6.4TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD       | 3.50                    | 6.69                      | 6.69                       | 6.07                          | 9.68                           | 6.69                     | 9.68              | 15mm      |
|                                  |                                                                                        |                         |                           |                            |                               |                                |                          |                   |           |
| Read Intensive SAS Drives        |                                                                                        |                         |                           |                            |                               |                                |                          |                   |           |
| 870144-B21                       | HPE 7.68TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 6.13                    | 6.91                      | 6.91                       | 8.44                          | 8.73                           | 6.91                     | 9.00              | 15mm      |
| 870148-B21                       | HPE 15.3TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 6.49                    | 7.13                      | 7.13                       | 8.66                          | 8.83                           | 7.13                     | 9.00              | 15mm      |
| 872390-B21                       | HPE 960GB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 3.06                    | 4.07                      | 4.07                       | 6.28                          | 8.22                           | 4.07                     | 9.00              | 15mm      |
| 872392-B21                       | HPE 1.92TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 3.64                    | 4.16                      | 4.16                       | 6.95                          | 8.67                           | 4.16                     | 9.00              | 15mm      |
| 872394-B21                       | HPE 3.84TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 4.22                    | 4.74                      | 4.74                       | 7.75                          | 9.50                           | 4.74                     | 10.00             | 15mm      |
| 875330-B21                       | HPE 3.84TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 4.38                    | 4.69                      | 4.69                       | 4.96                          | 6.60                           | 4.69                     | 7.00              | 15mm      |
| P04517-B21                       | HPE 960GB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 5.00                    | 6.00                      | 6.00                       | 6.98                          | 6.98                           | 5.43                     | 8.98              | 15mm      |

## Technical Specifications

| SAS Interface – (Power & Height) |                                                                                        |                         |                           |                            |                               |                                |                          |                   |           |
|----------------------------------|----------------------------------------------------------------------------------------|-------------------------|---------------------------|----------------------------|-------------------------------|--------------------------------|--------------------------|-------------------|-----------|
| HPE Option Kit SKU               | Long Description                                                                       | Power Idle Time (Watts) | Power Random Read (Watts) | Power Random Write (Watts) | Power Sequential Read (Watts) | Power Sequential Write (Watts) | Power Random R/W (Watts) | Power MAX (Watts) | z- Height |
| P04519-B21                       | HPE 1.92TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 5.00                    | 6.00                      | 6.00                       | 6.98                          | 6.98                           | 5.43                     | 8.98              | 15mm      |
| P04521-B21                       | HPE 3.84TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 5.00                    | 6.17                      | 6.17                       | 8.56                          | 8.56                           | 5.90                     | 8.56              | 15mm      |
| P04523-B21                       | HPE 7.68TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 5.00                    | 6.20                      | 6.20                       | 8.56                          | 8.56                           | 5.90                     | 8.56              | 15mm      |
| P06584-B21                       | HPE 960GB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | 1.50                    | 3.10                      | 3.10                       | 5.40                          | 6.80                           | 3.10                     | 6.80              | 7mm       |
| P06586-B21                       | HPE 1.92TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 3.50                    | 8.62                      | 8.62                       | 7.39                          | 10.17                          | 8.62                     | 10.17             | 15mm      |
| P06588-B21                       | HPE 3.84TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 3.50                    | 9.42                      | 9.42                       | 7.76                          | 10.62                          | 9.42                     | 10.62             | 15mm      |
| P06590-B21                       | HPE 7.68TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 3.64                    | 9.97                      | 9.97                       | 7.27                          | 10.49                          | 9.97                     | 10.49             | 15mm      |
| P06592-B21                       | HPE 15.3TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | 4.14                    | 10.05                     | 10.05                      | 7.91                          | 10.48                          | 10.05                    | 10.48             | 15mm      |

## Technical Specifications

| SAS Interface – (Certifications)  |                                                                                        |                                         |                                             |                                                              |                                             |                                             |
|-----------------------------------|----------------------------------------------------------------------------------------|-----------------------------------------|---------------------------------------------|--------------------------------------------------------------|---------------------------------------------|---------------------------------------------|
| HPE Option Kit SKU                | Long Description                                                                       | VMware / vSAN HCL Certification (Watts) | Microsoft Windows Server 2016 Certification | Software Defined Data Center (SDDC) Premium AQ Certification | Microsoft Windows Server 2019 Certification | WS 2019 Software Defined Data Center (SDDC) |
| <b>Write Intensive SAS Drives</b> |                                                                                        |                                         |                                             |                                                              |                                             |                                             |
| 873351-B21                        | HPE 400GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | N/A                                         | N/A                                         |
| 873355-B21                        | HPE 800GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| 873460-B21                        | HPE 800GB SAS 12G Write Intensive SFF (2.5in) ST 3yr Wty Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | N/A                                         | N/A                                         |
| P04541-B21                        | HPE 400GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| P04543-B21                        | HPE 800GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| P04545-B21                        | HPE 1.6TB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| P04547-B21                        | HPE 3.2TB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| P04558-B21                        | HPE 400GB SAS 12G Write Intensive SFF (2.5in) ST 3yr Wty Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| P04562-B21                        | HPE 800GB SAS 12G Write Intensive SFF (2.5in) ST 3yr Wty Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| P09098-B21                        | HPE 400GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |

## Technical Specifications

| SAS Interface – (Certifications) |                                                                                        |                                         |                                             |                                                              |                                             |                                             |
|----------------------------------|----------------------------------------------------------------------------------------|-----------------------------------------|---------------------------------------------|--------------------------------------------------------------|---------------------------------------------|---------------------------------------------|
| HPE Option Kit SKU               | Long Description                                                                       | VMware / vSAN HCL Certification (Watts) | Microsoft Windows Server 2016 Certification | Software Defined Data Center (SDDC) Premium AQ Certification | Microsoft Windows Server 2019 Certification | WS 2019 Software Defined Data Center (SDDC) |
| P09100-B21                       | HPE 800GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P09102-B21                       | HPE 1.6TB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
|                                  |                                                                                        |                                         |                                             |                                                              |                                             |                                             |

## Technical Specifications

| Mixed Use SAS Drives             |                                                                                   |                                         |                                             |                                                              |                                             |                                             |
|----------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------|---------------------------------------------|--------------------------------------------------------------|---------------------------------------------|---------------------------------------------|
| SAS Interface – (Certifications) |                                                                                   |                                         |                                             |                                                              |                                             |                                             |
| HPE Option Kit SKU               | Long Description                                                                  | VMware / vSAN HCL Certification (Watts) | Microsoft Windows Server 2016 Certification | Software Defined Data Center (SDDC) Premium AQ Certification | Microsoft Windows Server 2019 Certification | WS 2019 Software Defined Data Center (SDDC) |
| 873365-B21                       | HPE 1.6TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P04525-B21                       | HPE 400GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | Certified                               | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| P04527-B21                       | HPE 800GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | Certified                               | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| P04529-B21                       | HPE 800GB SAS 12G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| P04531-B21                       | HPE 800GB SAS 12G Mixed Use LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| P04533-B21                       | HPE 1.6TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | Certified                               | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| P04535-B21                       | HPE 1.6TB SAS 12G Mixed Use LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| P04537-B21                       | HPE 3.2TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | Certified                               | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| P04539-B21                       | HPE 6.4TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | Certified                               | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| P09088-B21                       | HPE 400GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |



## QuickSpecs

## HPE Solid State Disk Drives

### Technical Specifications

| Mixed Use SAS Drives             |                                                                                  |                                         |                                             |                                                              |                                             |                                             |
|----------------------------------|----------------------------------------------------------------------------------|-----------------------------------------|---------------------------------------------|--------------------------------------------------------------|---------------------------------------------|---------------------------------------------|
| SAS Interface – (Certifications) |                                                                                  |                                         |                                             |                                                              |                                             |                                             |
| HPE Option Kit SKU               | Long Description                                                                 | VMware / vSAN HCL Certification (Watts) | Microsoft Windows Server 2016 Certification | Software Defined Data Center (SDDC) Premium AQ Certification | Microsoft Windows Server 2019 Certification | WS 2019 Software Defined Data Center (SDDC) |
| P09090-B21                       | HPE 800GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |

## Technical Specifications

| SAS Interface – (Certifications) |                                                                                        |                                         |                                             |                                                              |                                             |                                             |
|----------------------------------|----------------------------------------------------------------------------------------|-----------------------------------------|---------------------------------------------|--------------------------------------------------------------|---------------------------------------------|---------------------------------------------|
| HPE Option Kit SKU               | Long Description                                                                       | VMware / vSAN HCL Certification (Watts) | Microsoft Windows Server 2016 Certification | Software Defined Data Center (SDDC) Premium AQ Certification | Microsoft Windows Server 2019 Certification | WS 2019 Software Defined Data Center (SDDC) |
| P09092-B21                       | HPE 1.6TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD       | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P09094-B21                       | HPE 3.2TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD       | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P09096-B21                       | HPE 6.4TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD       | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
|                                  |                                                                                        |                                         |                                             |                                                              |                                             |                                             |
| Read Intensive SAS Drives        |                                                                                        |                                         |                                             |                                                              |                                             |                                             |
| 870144-B21                       | HPE 7.68TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| 870148-B21                       | HPE 15.3TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| 872390-B21                       | HPE 960GB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | Certified                               | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| 872392-B21                       | HPE 1.92TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| 872394-B21                       | HPE 3.84TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| 875330-B21                       | HPE 3.84TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| P04517-B21                       | HPE 960GB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | Certified                               | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |

## Technical Specifications

| SAS Interface – (Certifications) |                                                                                        |                                         |                                             |                                                              |                                             |                                             |
|----------------------------------|----------------------------------------------------------------------------------------|-----------------------------------------|---------------------------------------------|--------------------------------------------------------------|---------------------------------------------|---------------------------------------------|
| HPE Option Kit SKU               | Long Description                                                                       | VMware / vSAN HCL Certification (Watts) | Microsoft Windows Server 2016 Certification | Software Defined Data Center (SDDC) Premium AQ Certification | Microsoft Windows Server 2019 Certification | WS 2019 Software Defined Data Center (SDDC) |
| P04519-B21                       | HPE 1.92TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| P04521-B21                       | HPE 3.84TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| P04523-B21                       | HPE 7.68TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| P06584-B21                       | HPE 960GB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD  | Certified                               | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| P06586-B21                       | HPE 1.92TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| P06588-B21                       | HPE 3.84TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| P06590-B21                       | HPE 7.68TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| P06592-B21                       | HPE 15.3TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |

## QuickSpecs

## HPE Solid State Disk Drives

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| Value SAS Interface – (Capacity, Workload, Carrier...) |                                                                                                  |          |               |                |             |           |              |                                |            |        |                               |
|--------------------------------------------------------|--------------------------------------------------------------------------------------------------|----------|---------------|----------------|-------------|-----------|--------------|--------------------------------|------------|--------|-------------------------------|
| HPE Option Kit SKU                                     | Long Description                                                                                 | Capacity | Workload Type | Interface Type | Form Factor | Plug Type | Carrier Type | Digitally Signed Firmware (DS) | Flash Type | Port   | Server Gen Supported (Select) |
| <b>Mixed Use Value SAS Drives</b>                      |                                                                                                  |          |               |                |             |           |              |                                |            |        |                               |
| P10448-B21                                             | HPE 960GB SAS 12G Mixed Use SC 3yr Wty Value SAS Digitally Signed Firmware SSD                   | 960      | MU            | SAS            | SFF         | Hot Plug  | SC           | Yes                            | TLC        | Single | Gen9, 10                      |
| P10450-B21                                             | HPE 960GB SAS 12G Mixed Use LFF (3.5in) SCC 3yr Wty Value SAS Digitally Signed Firmware SSD      | 960      | MU            | SAS            | LFF         | Hot Plug  | SCC          | Yes                            | TLC        | Single | Gen9, 10                      |
| P10452-B21                                             | HPE 960GB SAS 12G Mixed Use LFF (3.5in) LPC 3yr Wty Value SAS Digitally Signed Firmware SSD      | 960      | MU            | SAS            | LFF         | Hot Plug  | LPC          | Yes                            | TLC        | Single | Gen9, 10                      |
| P10454-B21                                             | HPE 1.92TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Value SAS Digitally Signed Firmware SSD      | 1,920    | MU            | SAS            | SFF         | Hot Plug  | SC           | Yes                            | TLC        | Single | Gen9, 10                      |
| P10456-B21                                             | HPE 1.92TB SAS 12G Mixed Use LFF (3.5in) SCC 3yr Wty Value SAS Digitally Signed Firmware SSD     | 1,920    | MU            | SAS            | LFF         | Hot Plug  | SCC          | Yes                            | TLC        | Single | Gen9, 10                      |
| P10458-B21                                             | HPE 1.92TB SAS 12G Mixed Use LFF (3.5in) LPC 3yr Wty Value SAS Digitally Signed Firmware SSD     | 1,920    | MU            | SAS            | LFF         | Hot Plug  | LPC          | Yes                            | TLC        | Single | Gen9, 10                      |
| P10460-B21                                             | HPE 3.84TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Value SAS Digitally Signed Firmware SSD      | 3,840    | MU            | SAS            | SFF         | Hot Plug  | SC           | Yes                            | TLC        | Single | Gen9, 10                      |
| P10462-B21                                             | HPE 3.84TB SAS 12G Mixed Use LFF (3.5in) LPC 3yr Wty Value SAS Digitally Signed Firmware SSD     | 3,840    | MU            | SAS            | LFF         | Hot Plug  | LPC          | Yes                            | TLC        | Single | Gen9, 10                      |
|                                                        |                                                                                                  |          |               |                |             |           |              |                                |            |        |                               |
| <b>Read Intensive Value SAS Drives</b>                 |                                                                                                  |          |               |                |             |           |              |                                |            |        |                               |
| P10440-B21                                             | HPE 960GB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Value SAS Digitally Signed Firmware SSD  | 960      | RI            | SAS            | SFF         | Hot Plug  | SC           | Yes                            | TLC        | Single | Gen9 & 10                     |
| P10442-B21                                             | HPE 1.92TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Value SAS Digitally Signed Firmware SSD | 1,920    | RI            | SAS            | SFF         | Hot Plug  | SC           | Yes                            | TLC        | Single | Gen9 & 10                     |

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## HPE Solid State Disk Drives

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| Value SAS Interface – (Capacity, Workload, Carrier...)                                                                                                                                            |                                                                                                  |          |               |                |             |           |              |                                |            |        |                              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|----------|---------------|----------------|-------------|-----------|--------------|--------------------------------|------------|--------|------------------------------|
| HPE Option Kit SKU                                                                                                                                                                                | Long Description                                                                                 | Capacity | Workload Type | Interface Type | Form Factor | Plug Type | Carrier Type | Digitally Signed Firmware (DS) | Flash Type | Port   | Server Gen Supported (Select |
| P10444-B21                                                                                                                                                                                        | HPE 3.84TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Value SAS Digitally Signed Firmware SSD | 3,840    | RI            | SAS            | SFF         | Hot Plug  | SC           | Yes                            | TLC        | Single | Gen9 & 10                    |
| P10446-B21                                                                                                                                                                                        | HPE 7.68TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Value SAS Digitally Signed Firmware SSD | 7,680    | RI            | SAS            | SFF         | Hot Plug  | SC           | Yes                            | TLC        | Single | Gen9, 10                     |
| Value SAS Drives are single-port SAS SSDs. They offer a significant performance boost over SATA SSDs with roughly twice the IOPS, and are typically lower in cost than traditional SAS SSD drives |                                                                                                  |          |               |                |             |           |              |                                |            |        |                              |
| <b>NOTE:</b> Please use HPE Selector Tool <a href="http://ssd.hpe.com/">http://ssd.hpe.com/</a> to determine server compatibility.                                                                |                                                                                                  |          |               |                |             |           |              |                                |            |        |                              |

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| Value SAS Interface – (Speeds & Feeds) |                                                                                                  |                      |                |                                           |                                                   |                                               |                                                |
|----------------------------------------|--------------------------------------------------------------------------------------------------|----------------------|----------------|-------------------------------------------|---------------------------------------------------|-----------------------------------------------|------------------------------------------------|
| HPE Option Kit SKU                     | Long Description                                                                                 | Lifetime Writes (TB) | Endurance DWPD | MAX Seq Reads / Max Seq Writes Throughput | Random Read Avg. / Random Write Avg. Latency uSec | Random Read / Random Writes IOPS (4KiB, Q=16) | MAX Random Read / MAX Random Write IOPS (4KiB) |
| <b>Mixed Use Value SAS Drives</b>      |                                                                                                  |                      |                |                                           |                                                   |                                               |                                                |
| P10448-B21                             | HPE 960GB SAS 12G Mixed Use SC 3yr Wty Value SAS Digitally Signed Firmware SSD                   | 5,250                | 3.0            | 790 / 635                                 | 130 / 35                                          | 108,000 / 47,000                              | 155,000@Q32 / 48,000@Q4                        |
| P10450-B21                             | HPE 960GB SAS 12G Mixed Use LFF (3.5in) SCC 3yr Wty Value SAS Digitally Signed Firmware SSD      | 5,250                | 3.0            | 790 / 635                                 | 130 / 35                                          | 108,000 / 47,000                              | 155,000@Q32 / 48,000@Q4                        |
| P10452-B21                             | HPE 960GB SAS 12G Mixed Use LFF (3.5in) LPC 3yr Wty Value SAS Digitally Signed Firmware SSD      | 5,250                | 3.0            | 790 / 635                                 | 130 / 35                                          | 108,000 / 47,000                              | 155,000@Q32 / 48,000@Q4                        |
| P10454-B21                             | HPE 1.92TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Value SAS Digitally Signed Firmware SSD      | 10,500               | 3.0            | 810 / 635                                 | 140 / 35                                          | 98,000 / 52,000                               | 155,000@Q32 \ 52,000@Q4                        |
| P10456-B21                             | HPE 1.92TB SAS 12G Mixed Use LFF (3.5in) SCC 3yr Wty Value SAS Digitally Signed Firmware SSD     | 10,500               | 3.0            | 810 / 635                                 | 140 / 35                                          | 98,000 / 52,000                               | 155,000@Q32 \ 52,000@Q4                        |
| P10458-B21                             | HPE 1.92TB SAS 12G Mixed Use LFF (3.5in) LPC 3yr Wty Value SAS Digitally Signed Firmware SSD     | 10,500               | 3.0            | 810 / 635                                 | 140 / 35                                          | 98,000 / 52,000                               | 155,000@Q32 \ 52,000@Q4                        |
| P10460-B21                             | HPE 3.84TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Value SAS Digitally Signed Firmware SSD      | 21,000               | 3.0            | 810 / 635                                 | 140 / 35                                          | 103,000 / 52,000                              | 155,000@Q32 \ 52,000@Q4                        |
| P10462-B21                             | HPE 3.84TB SAS 12G Mixed Use LFF (3.5in) LPC 3yr Wty Value SAS Digitally Signed Firmware SSD     | 21,000               | 3.0            | 810 / 635                                 | 140 / 35                                          | 103,000 / 52,000                              | 155,000@Q32 \ 52,000@Q4                        |
|                                        |                                                                                                  |                      |                |                                           |                                                   |                                               |                                                |
| <b>Read Intensive Value SAS Drives</b> |                                                                                                  |                      |                |                                           |                                                   |                                               |                                                |
| P10440-B21                             | HPE 960GB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Value SAS Digitally Signed Firmware SSD  | 1,750                | 1              | 810 / 635                                 | 130 / 35                                          | 108,000 / 32,000                              | 155,000@Q32 / 32,000@Q4                        |
| P10442-B21                             | HPE 1.92TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Value SAS Digitally Signed Firmware SSD | 3,500                | 1              | 810 / 635                                 | 140 / 35                                          | 97,000 / 36,000                               | 155,000@Q32 / 36,000@Q4                        |

## Technical Specifications

| Value SAS Interface – (Speeds & Feeds) |                                                                                                  |                      |                |                                           |                                                   |                                               |                                                |
|----------------------------------------|--------------------------------------------------------------------------------------------------|----------------------|----------------|-------------------------------------------|---------------------------------------------------|-----------------------------------------------|------------------------------------------------|
| HPE Option Kit SKU                     | Long Description                                                                                 | Lifetime Writes (TB) | Endurance DWPD | MAX Seq Reads / Max Seq Writes Throughput | Random Read Avg. / Random Write Avg. Latency uSec | Random Read / Random Writes IOPS (4KiB, Q=16) | MAX Random Read / MAX Random Write IOPS (4KiB) |
| P10444-B21                             | HPE 3.84TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Value SAS Digitally Signed Firmware SSD | 7,000                | 1              | 810 / 635                                 | 140 / 35                                          | 102,000 / 37,000                              | 155,000@Q32 / 37,000@Q4                        |
| P10446-B21                             | HPE 7.68TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Value SAS Digitally Signed Firmware SSD | 14,000               | 1              | 810 / 635                                 | 140 / 35                                          | 105,000 / 36,000                              | 155,000@Q32 / 37,000@Q4                        |

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## HPE Solid State Disk Drives

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| Value SAS Interface – (Power & Height) |                                                                                              |                         |                           |                            |                               |                                |                          |                   |           |
|----------------------------------------|----------------------------------------------------------------------------------------------|-------------------------|---------------------------|----------------------------|-------------------------------|--------------------------------|--------------------------|-------------------|-----------|
| HPE Option Kit SKU                     | Long Description                                                                             | Power Idle Time (Watts) | Power Random Read (Watts) | Power Random Write (Watts) | Power Sequential Read (Watts) | Power Sequential Write (Watts) | Power Random R/W (Watts) | Power MAX (Watts) | z- Height |
| Mixed Use Value SAS Drives             |                                                                                              |                         |                           |                            |                               |                                |                          |                   |           |
| P10448-B21                             | HPE 960GB SAS 12G Mixed Use SC 3yr Wty Value SAS Digitally Signed Firmware SSD               | 4.26                    | 4.97                      | 4.97                       | 6.71                          | 6.95                           | 6.95                     | 9.65              | 15mm      |
| P10450-B21                             | HPE 960GB SAS 12G Mixed Use LFF (3.5in) SCC 3yr Wty Value SAS Digitally Signed Firmware SSD  | 4.26                    | 4.97                      | 4.97                       | 6.71                          | 6.95                           | 6.95                     | 9.65              | 15mm      |
| P10452-B21                             | HPE 960GB SAS 12G Mixed Use LFF (3.5in) LPC 3yr Wty Value SAS Digitally Signed Firmware SSD  | 4.26                    | 4.97                      | 4.97                       | 6.71                          | 6.95                           | 6.95                     | 9.65              | 15mm      |
| P10454-B21                             | HPE 1.92TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Value SAS Digitally Signed Firmware SSD  | 4.34                    | 5.05                      | 5.05                       | 6.98                          | 7.26                           | 7.26                     | 7.26              | 15mm      |
| P10456-B21                             | HPE 1.92TB SAS 12G Mixed Use LFF (3.5in) SCC 3yr Wty Value SAS Digitally Signed Firmware SSD | 4.34                    | 5.05                      | 5.05                       | 6.98                          | 7.26                           | 7.26                     | 7.26              | 15mm      |
| P10458-B21                             | HPE 1.92TB SAS 12G Mixed Use LFF (3.5in) LPC 3yr Wty Value SAS Digitally Signed Firmware SSD | 4.34                    | 5.05                      | 5.05                       | 6.98                          | 7.26                           | 7.26                     | 7.26              | 15mm      |
| P10460-B21                             | HPE 3.84TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Value SAS Digitally Signed Firmware SSD  | 4.47                    | 5.40                      | 5.40                       | 7.93                          | 7.56                           | 7.96                     | 7.96              | 15mm      |
| P10462-B21                             | HPE 3.84TB SAS 12G Mixed Use LFF (3.5in) LPC 3yr Wty Value SAS Digitally Signed Firmware SSD | 4.47                    | 5.40                      | 5.40                       | 7.93                          | 7.56                           | 7.96                     | 7.96              | 15mm      |
|                                        |                                                                                              |                         |                           |                            |                               |                                |                          |                   |           |



## Technical Specifications

| Read Intensive Value SAS Drives                                                                                                    |                                                                                                  |                         |                           |                            |                               |                                |                          |                   |           |
|------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|-------------------------|---------------------------|----------------------------|-------------------------------|--------------------------------|--------------------------|-------------------|-----------|
| Value SAS Interface – (Power & Height)                                                                                             |                                                                                                  |                         |                           |                            |                               |                                |                          |                   |           |
| HPE Option Kit SKU                                                                                                                 | Long Description                                                                                 | Power Idle Time (Watts) | Power Random Read (Watts) | Power Random Write (Watts) | Power Sequential Read (Watts) | Power Sequential Write (Watts) | Power Random R/W (Watts) | Power MAX (Watts) | z- Height |
| P10440-B21                                                                                                                         | HPE 960GB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Value SAS Digitally Signed Firmware SSD  | 4.26                    | 4.97                      | 4.97                       | 6.71                          | 6.95                           | 6.95                     | 9.65              | 15mm      |
| P10442-B21                                                                                                                         | HPE 1.92TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Value SAS Digitally Signed Firmware SSD | 4.34                    | 5.05                      | 5.05                       | 6.98                          | 7.26                           | 7.26                     | 7.26              | 15mm      |
| P10444-B21                                                                                                                         | HPE 3.84TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Value SAS Digitally Signed Firmware SSD | 4.47                    | 5.40                      | 5.40                       | 7.93                          | 7.56                           | 7.96                     | 7.96              | 15mm      |
| P10446-B21                                                                                                                         | HPE 7.68TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Value SAS Digitally Signed Firmware SSD | 4.80                    | 5.90                      | 5.90                       | 8.56                          | 8.18                           | 8.56                     | 8.56              | 15mm      |
| <b>NOTE:</b> Please use HPE Selector Tool <a href="http://ssd.hpe.com/">http://ssd.hpe.com/</a> to determine server compatibility. |                                                                                                  |                         |                           |                            |                               |                                |                          |                   |           |

## Technical Specifications

| Value SAS Interface – (Certifications) |                                                                                                 |                                         |                                             |                                                              |                                             |                                             |
|----------------------------------------|-------------------------------------------------------------------------------------------------|-----------------------------------------|---------------------------------------------|--------------------------------------------------------------|---------------------------------------------|---------------------------------------------|
| HPE Option Kit SKU                     | Long Description                                                                                | VMware / vSAN HCL Certification (Watts) | Microsoft Windows Server 2016 Certification | Software Defined Data Center (SDDC) Premium AQ Certification | Microsoft Windows Server 2019 Certification | WS 2019 Software Defined Data Center (SDDC) |
| Mixed Use Value SAS Drives             |                                                                                                 |                                         |                                             |                                                              |                                             |                                             |
| P10448-B21                             | HPE 960GB SAS 12G Mixed Use SC 3yr Wty Value SAS Digitally Signed Firmware SSD                  | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P10450-B21                             | HPE 960GB SAS 12G Mixed Use LFF (3.5in) SCC 3yr Wty Value SAS Digitally Signed Firmware SSD     | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P10452-B21                             | HPE 960GB SAS 12G Mixed Use LFF (3.5in) LPC 3yr Wty Value SAS Digitally Signed Firmware SSD     | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P10454-B21                             | HPE 1.92TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Value SAS Digitally Signed Firmware SSD     | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P10456-B21                             | HPE 1.92TB SAS 12G Mixed Use LFF (3.5in) SCC 3yr Wty Value SAS Digitally Signed Firmware SSD    | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P10458-B21                             | HPE 1.92TB SAS 12G Mixed Use LFF (3.5in) LPC 3yr Wty Value SAS Digitally Signed Firmware SSD    | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P10460-B21                             | HPE 3.84TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Value SAS Digitally Signed Firmware SSD     | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P10462-B21                             | HPE 3.84TB SAS 12G Mixed Use LFF (3.5in) LPC 3yr Wty Value SAS Digitally Signed Firmware SSD    | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
|                                        |                                                                                                 |                                         |                                             |                                                              |                                             |                                             |
| Read Intensive Value SAS Drives        |                                                                                                 |                                         |                                             |                                                              |                                             |                                             |
| P10440-B21                             | HPE 960GB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Value SAS Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |

## Technical Specifications

| Value SAS Interface – (Certifications)                                                                                            |                                                                                                  |                                         |                                             |                                                              |                                             |                                             |
|-----------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|-----------------------------------------|---------------------------------------------|--------------------------------------------------------------|---------------------------------------------|---------------------------------------------|
| HPE Option Kit SKU                                                                                                                | Long Description                                                                                 | VMWare / vSAN HCL Certification (Watts) | Microsoft Windows Server 2016 Certification | Software Defined Data Center (SDDC) Premium AQ Certification | Microsoft Windows Server 2019 Certification | WS 2019 Software Defined Data Center (SDDC) |
| P10442-B21                                                                                                                        | HPE 1.92TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Value SAS Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P10444-B21                                                                                                                        | HPE 3.84TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Value SAS Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P10446-B21                                                                                                                        | HPE 7.68TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Value SAS Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| <b>NOTE:</b> Please use HPE Selector Tool <a href="http://ssd.hpe.com/">http://ssd.hpe.com/</a> to determine server compatibility |                                                                                                  |                                         |                                             |                                                              |                                             |                                             |

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| HPE Option Kit SKU                                                           | PCIe/NVMe Interface – SKUs (Capacity, Workload, Carrier...)                                   |          |               |                |             |              |              |                                |            |        |                                         |
|------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|----------|---------------|----------------|-------------|--------------|--------------|--------------------------------|------------|--------|-----------------------------------------|
|                                                                              | Long Description                                                                              | Capacity | Workload Type | Interface Type | Form Factor | Plug Type    | Carrier Type | Digitally Signed Firmware (DS) | Flash Type | Port   | Server Gen Supported (Select Platforms) |
| <b>NVMe High Performance Low Latency SSDs</b><br><b>Write Intensive SSDs</b> |                                                                                               |          |               |                |             |              |              |                                |            |        |                                         |
| 878014-B21                                                                   | HPE 375GB NVMe x4 Lanes Write Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 375      | WI            | NVMe           | SFF         | Hot Plug     | SCN          | Yes                            | SLC        | Single | Gen9 & 10                               |
| 878038-B21                                                                   | HPE 750GB PCIe x4 Lanes Write Intensive HHHHL 3yr Wty Digitally Signed Firmware Card          | 750      | WI            | NVMe           | AIC         | Non-Hot Plug | AIC          | Yes                            | SLC        | Single | Gen9 & 10                               |
| P06952-B21                                                                   | HPE 750GB NVMe x4 Lanes Write Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 750      | WI            | NVMe           | SFF         | Hot Plug     | SCN          | Yes                            | SLC        | Single | Gen9 & 10                               |
|                                                                              |                                                                                               |          |               |                |             |              |              |                                |            |        |                                         |
| <b>NVMe High Performance Mixed Use Drives</b>                                |                                                                                               |          |               |                |             |              |              |                                |            |        |                                         |
| 875583-B21                                                                   | HPE 400GB NVMe x4 Lanes Mixed Use M.2 22110 3yr Wty Digitally Signed Firmware SSD             | 400      | MU            | NVMe           | M.2         | #N/A         | #N/A         | Yes                            | MLC        | Single | Gen9 & 10                               |
| 875585-B21                                                                   | HPE 800GB NVMe x4 Lanes Mixed Use M.2 22110 3yr Wty Digitally Signed Firmware SSD             | 800      | MU            | NVMe           | M.2         | #N/A         | #N/A         | Yes                            | MLC        | Single | Gen9 & 10                               |
| 877825-B21                                                                   | HPE 1.6TB PCIe x8 Lanes Mixed Use HHHHL 3yr Wty Digitally Signed Firmware Card                | 1,600    | MU            | NVMe           | AIC         | Non-Hot Plug | AIC          | Yes                            | MLC        | Single | Gen9 & 10                               |

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|                    | PCIe/NVMe Interface – SKUs (Capacity, Workload, Carrier...)                             |          |               |                |             |              |              |                                |            |        |                                         |
|--------------------|-----------------------------------------------------------------------------------------|----------|---------------|----------------|-------------|--------------|--------------|--------------------------------|------------|--------|-----------------------------------------|
| HPE Option Kit SKU | Long Description                                                                        | Capacity | Workload Type | Interface Type | Form Factor | Plug Type    | Carrier Type | Digitally Signed Firmware (DS) | Flash Type | Port   | Server Gen Supported (Select Platforms) |
| 877827-B21         | HPE 3.2TB PCIe x8 Lanes Mixed Use HHHHL 3yr Wty Digitally Signed Firmware Card          | 3,200    | MU            | NVMe           | AIC         | Non-Hot Plug | AIC          | Yes                            | MLC        | Single | Gen9 & 10                               |
| 877998-B21         | HPE 3.2TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 3,200    | MU            | NVMe           | SFF         | Hot Plug     | SCN          | Yes                            | MLC        | Single | Gen9 & 10                               |
| P03614-B21         | HPE 3.2TB NVMe x4 Mixed Use SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD        | 3,200    | MU            | NVMe           | SFF         | Hot Plug     | RW           | Yes                            | MLC        | Single | Gen10                                   |
| P07179-B21         | HPE 800GB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 800      | MU            | NVMe           | SFF         | Hot Plug     | SCN          | Yes                            | TLC        | Single | Gen10                                   |
| P07181-B21         | HPE 1.6TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 1,600    | MU            | NVMe           | SFF         | Hot Plug     | SCN          | Yes                            | TLC        | Single | Gen10                                   |
| P07183-B21         | HPE 3.2TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 3,200    | MU            | NVMe           | SFF         | Hot Plug     | SCN          | Yes                            | TLC        | Single | Gen10                                   |

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| PCIe/NVMe Interface – SKUs (Capacity, Workload, Carrier...) |                                                                                         |          |               |                |             |           |              |                                |            |        |                                         |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------------|----------|---------------|----------------|-------------|-----------|--------------|--------------------------------|------------|--------|-----------------------------------------|
| HPE Option Kit SKU                                          | Long Description                                                                        | Capacity | Workload Type | Interface Type | Form Factor | Plug Type | Carrier Type | Digitally Signed Firmware (DS) | Flash Type | Port   | Server Gen Supported (Select Platforms) |
| P07185-B21                                                  | HPE 6.4TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 6,400    | MU            | NVMe           | SFF         | Hot Plug  | SCN          | Yes                            | TLC        | Single | Gen10                                   |

## Technical Specifications

| PCIe/NVMe Interface – SKUs (Capacity, Workload, Carrier...) |                                                                                         |          |               |                |             |              |              |                                |            |        |                                         |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------------|----------|---------------|----------------|-------------|--------------|--------------|--------------------------------|------------|--------|-----------------------------------------|
| HPE Option Kit SKU                                          | Long Description                                                                        | Capacity | Workload Type | Interface Type | Form Factor | Plug Type    | Carrier Type | Digitally Signed Firmware (DS) | Flash Type | Port   | Server Gen Supported (Select Platforms) |
| P10222-B21                                                  | HPE 1.6TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 1,600    | MU            | NVMe           | SFF         | Hot Plug     | SCN          | Yes                            | MLC        | Single | Gen9, 10                                |
| P10224-B21                                                  | HPE 3.2TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 3,200    | MU            | NVMe           | SFF         | Hot Plug     | SCN          | Yes                            | MLC        | Single | Gen9, 10                                |
| P10226-B21                                                  | HPE 6.4TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 6,400    | MU            | NVMe           | SFF         | Hot Plug     | SCN          | Yes                            | MLC        | Single | Gen9, 10                                |
| P10264-B21                                                  | HPE 1.6TB NVMe x8 Lanes Mixed Use HHHL 3yr Wty Digitally Signed Firmware Card           | 1,600    | MU            | NVMe           | AIC         | Non-Hot Plug | AIC          | Yes                            | TLC        | Single | Gen 9,10                                |
| P10266-B21                                                  | HPE 3.2TB NVMe x8 Lanes Mixed Use HHHL 3yr Wty Digitally Signed Firmware Card           | 3,200    | MU            | NVMe           | AIC         | Non-Hot Plug | AIC          | Yes                            | TLC        | Single | Gen 9,10                                |
| P10268-B21                                                  | HPE 6.4TB NVMe x8 Lanes Mixed Use HHHL 3yr Wty Digitally Signed Firmware Card           | 6,400    | MU            | NVMe           | AIC         | Non-Hot Plug | AIC          | Yes                            | TLC        | Single | Gen 9,10                                |

## QuickSpecs

## HPE Solid State Disk Drives

### Technical Specifications

| PCIe/NVMe Interface – SKUs (Capacity, Workload, Carrier...) |                                                                                        |          |               |                |             |              |              |                                |            |        |                                         |
|-------------------------------------------------------------|----------------------------------------------------------------------------------------|----------|---------------|----------------|-------------|--------------|--------------|--------------------------------|------------|--------|-----------------------------------------|
| HPE Option Kit SKU                                          | Long Description                                                                       | Capacity | Workload Type | Interface Type | Form Factor | Plug Type    | Carrier Type | Digitally Signed Firmware (DS) | Flash Type | Port   | Server Gen Supported (Select Platforms) |
| P12114-B21                                                  | HPE 1.6TB NVMe x4 Lanes Mixed Use SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD | 1,600    | MU            | NVMe           | SFF         | Non-Hot Plug | RW           | Yes                            | TLC        | Single | Gen9, 10                                |



## QuickSpecs

## HPE Solid State Disk Drives

### Technical Specifications

| PCIe/NVMe Interface – SKUs (Capacity, Workload, Carrier...) |                                                                                         |          |               |                |             |           |              |                                |            |        |                                         |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------------|----------|---------------|----------------|-------------|-----------|--------------|--------------------------------|------------|--------|-----------------------------------------|
| HPE Option Kit SKU                                          | Long Description                                                                        | Capacity | Workload Type | Interface Type | Form Factor | Plug Type | Carrier Type | Digitally Signed Firmware (DS) | Flash Type | Port   | Server Gen Supported (Select Platforms) |
| P13668-B21                                                  | HPE 800GB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 800      | MU            | NVMe           | SFF         | Hot Plug  | SCN          | Yes                            | TLC        | Single | Gen9,10                                 |
| P13670-B21                                                  | HPE 1.6TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 1,600    | MU            | NVMe           | SFF         | Hot Plug  | SCN          | Yes                            | TLC        | Single | Gen9,10                                 |
| P13672-B21                                                  | HPE 3.2TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 3,200    | MU            | NVMe           | SFF         | Hot Plug  | SCN          | Yes                            | TLC        | Single | Gen9,10                                 |
| P13674-B21                                                  | HPE 6.4TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 6,400    | MU            | NVMe           | SFF         | Hot Plug  | SCN          | Yes                            | TLC        | Single | Gen9,10                                 |
| P13699-B21                                                  | HPE 1.6TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 1,600    | MU            | NVMe           | SFF         | Hot Plug  | SCN          | Yes                            | TLC        | Single | Gen9, 10                                |
| P13701-B21                                                  | HPE 3.2TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 3,200    | MU            | NVMe           | SFF         | Hot Plug  | SCN          | Yes                            | TLC        | Single | Gen9, 10                                |

## QuickSpecs

## HPE Solid State Disk Drives

### Technical Specifications

| PCIe/NVMe Interface – SKUs (Capacity, Workload, Carrier...) |                                                                                         |          |               |                |             |           |              |                                |            |        |                                         |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------------|----------|---------------|----------------|-------------|-----------|--------------|--------------------------------|------------|--------|-----------------------------------------|
| HPE Option Kit SKU                                          | Long Description                                                                        | Capacity | Workload Type | Interface Type | Form Factor | Plug Type | Carrier Type | Digitally Signed Firmware (DS) | Flash Type | Port   | Server Gen Supported (Select Platforms) |
| P13703-B21                                                  | HPE 6.4TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 6,400    | MU            | NVMe           | SFF         | Hot Plug  | SCN          | Yes                            | TLC        | Single | Gen9, 10                                |
|                                                             |                                                                                         |          |               |                |             |           |              |                                |            |        |                                         |

## Technical Specifications

|                                                    | PCIe/NVMe Interface – SKUs (Capacity, Workload, Carrier...)                                    |          |               |                |             |           |              |                                |            |        |                                         |
|----------------------------------------------------|------------------------------------------------------------------------------------------------|----------|---------------|----------------|-------------|-----------|--------------|--------------------------------|------------|--------|-----------------------------------------|
| HPE Option Kit SKU                                 | Long Description                                                                               | Capacity | Workload Type | Interface Type | Form Factor | Plug Type | Carrier Type | Digitally Signed Firmware (DS) | Flash Type | Port   | Server Gen Supported (Select Platforms) |
| <b>NVMe High Performance Read Intensive Drives</b> |                                                                                                |          |               |                |             |           |              |                                |            |        |                                         |
| 875579-B21                                         | HPE 480GB NVMe x4 Lanes Read Intensive M.2 22110 3yr Wty Digitally Signed Firmware SSD         | 480      | RI            | NVMe           | M.2         | #N/A      | #N/A         | Yes                            | MLC        | Single | Gen9 & 10                               |
| 875581-B21                                         | HPE 960GB NVMe x4 Lanes Read Intensive M.2 22110 3yr Wty Digitally Signed Firmware SSD         | 960      | RI            | NVMe           | M.2         | #N/A      | #N/A         | Yes                            | MLC        | Single | Gen9 & 10                               |
| 877986-B21                                         | HPE 2TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD     | 2,000    | RI            | NVMe           | SFF         | Hot Plug  | SC N         | Yes                            | MLC        | Single | Gen9 & 10                               |
| P07190-B21                                         | HPE 960GB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD   | 960      | RI            | NVMe           | SFF         | Hot Plug  | SC N         | Yes                            | TLC        | Single | Gen10                                   |
| P07192-B21                                         | HPE 1.92TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD  | 1,920    | RI            | NVMe           | SFF         | Hot Plug  | SC N         | Yes                            | TLC        | Single | Gen10                                   |
| P07194-B21                                         | HPE 3.84TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD  | 3,840    | RI            | NVMe           | SFF         | Hot Plug  | SC N         | Yes                            | TLC        | Single | Gen10                                   |
| P07196-B21                                         | HPE 7.68TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD  | 7,680    | RI            | NVMe           | SFF         | Hot Plug  | SC N         | Yes                            | TLC        | Single | Gen10                                   |
| P07198-B21                                         | HPE 15.36TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 15,360   | RI            | NVMe           | SFF         | Hot Plug  | SC N         | Yes                            | TLC        | Single | Gen10                                   |

## Technical Specifications

| PCIe/NVMe Interface – SKUs (Capacity, Workload, Carrier...) |                                                                                               |          |               |                |             |           |              |                                |            |        |                                         |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------|----------|---------------|----------------|-------------|-----------|--------------|--------------------------------|------------|--------|-----------------------------------------|
| HPE Option Kit SKU                                          | Long Description                                                                              | Capacity | Workload Type | Interface Type | Form Factor | Plug Type | Carrier Type | Digitally Signed Firmware (DS) | Flash Type | Port   | Server Gen Supported (Select Platforms) |
| P10208-B21                                                  | HPE 960GB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD  | 960      | RI            | NVMe           | SFF         | Hot Plug  | SC N         | Yes                            | TLC        | Single | Gen9, 10                                |
| P10210-B21                                                  | HPE 1.92TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 1,920    | RI            | NVMe           | SFF         | Hot Plug  | SC N         | Yes                            | TLC        | Single | Gen9, 10                                |
| P10212-B21                                                  | HPE 3.84TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 3,840    | RI            | NVMe           | SFF         | Hot Plug  | SC N         | Yes                            | TLC        | Single | Gen9, 10                                |
| P10214-B21                                                  | HPE 1.92TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 1,920    | RI            | NVMe           | SFF         | Hot Plug  | SC N         | Yes                            | MLC        | Single | Gen9, 10                                |
| P10216-B21                                                  | HPE 3.84TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 3,840    | RI            | NVMe           | SFF         | Hot Plug  | SC N         | Yes                            | MLC        | Single | Gen9, 10                                |
| P10218-B21                                                  | HPE 7.68TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 7,680    | RI            | NVMe           | SFF         | Hot Plug  | SC N         | Yes                            | MLC        | Single | Gen9, 10                                |
| P13695-B21                                                  | HPE 2TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD    | 2,000    | RI            | NVMe           | SFF         | Hot Plug  | SC N         | Yes                            | TLC        | Single | Gen9, 10                                |

## Technical Specifications

| PCIe/NVMe Interface – SKUs (Capacity, Workload, Carrier...) |                                                                                              |          |               |                |             |           |              |                                |            |        |                                         |
|-------------------------------------------------------------|----------------------------------------------------------------------------------------------|----------|---------------|----------------|-------------|-----------|--------------|--------------------------------|------------|--------|-----------------------------------------|
| HPE Option Kit SKU                                          | Long Description                                                                             | Capacity | Workload Type | Interface Type | Form Factor | Plug Type | Carrier Type | Digitally Signed Firmware (DS) | Flash Type | Port   | Server Gen Supported (Select Platforms) |
| P13697-B21                                                  | HPE 4TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD   | 4,000    | RI            | NVMe           | SFF         | Hot Plug  | SC N         | Yes                            | TLC        | Single | Gen9, 10                                |
| P12112-B21                                                  | HPE 3.84TB NVMe x4 Lanes Read Intensive SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD | 3,840    | RI            | NVMe           | SFF         | Hot Plug  | RW           | Yes                            | TLC        | Single | Gen9, 10                                |

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| PCIe/NVMe Interface – SKUs (Capacity, Workload, Carrier...)                                                                        |                                                                                               |          |               |                |             |           |              |                                |            |        |                                         |
|------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|----------|---------------|----------------|-------------|-----------|--------------|--------------------------------|------------|--------|-----------------------------------------|
| HPE Option Kit SKU                                                                                                                 | Long Description                                                                              | Capacity | Workload Type | Interface Type | Form Factor | Plug Type | Carrier Type | Digitally Signed Firmware (DS) | Flash Type | Port   | Server Gen Supported (Select Platforms) |
| P13676-B21                                                                                                                         | HPE 960GB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD  | 960      | RI            | NVMe           | SFF         | Hot Plug  | SC N         | Yes                            | TLC        | Single | Gen9,10                                 |
| P13678-B21                                                                                                                         | HPE 1.92TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 1,920    | RI            | NVMe           | SFF         | Hot Plug  | SC N         | Yes                            | TLC        | Single | Gen9,10                                 |
| P13680-B21                                                                                                                         | HPE 3.84TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 3,840    | RI            | NVMe           | SFF         | Hot Plug  | SC N         | Yes                            | TLC        | Single | Gen9,10                                 |
| P13682-B21                                                                                                                         | HPE 7.68TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 7,680    | RI            | NVMe           | SFF         | Hot Plug  | SC N         | Yes                            | TLC        | Single | Gen9,10                                 |
| <b>NOTE:</b> Please use HPE Selector Tool <a href="http://ssd.hpe.com/">http://ssd.hpe.com/</a> to determine server compatibility. |                                                                                               |          |               |                |             |           |              |                                |            |        |                                         |

## Technical Specifications

| PCIe/NVMe Interface – SKUs (Speeds and Feeds) |                                                                                               |                      |                |                                           |                                                             |                                               |                                                |
|-----------------------------------------------|-----------------------------------------------------------------------------------------------|----------------------|----------------|-------------------------------------------|-------------------------------------------------------------|-----------------------------------------------|------------------------------------------------|
| HPE Option Kit SKU                            | Long Description                                                                              | Lifetime Writes (TB) | Endurance DWPD | MAX Seq Reads / Max Seq Writes Throughput | Random Read Avg. / Random Write Avg. Latency uSec (4KiB,Q1) | Random Read / Random Writes IOPS (4KiB, Q=16) | MAX Random Read / MAX Random Write IOPS (4KiB) |
| <b>NVMe High Performance Low Latency SSDs</b> |                                                                                               |                      |                |                                           |                                                             |                                               |                                                |
| <b>Write Intensive SSDs</b>                   |                                                                                               |                      |                |                                           |                                                             |                                               |                                                |
| 878014-B21                                    | HPE 375GB NVMe x4 Lanes Write Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 20,500               | 30.0           | 2,550 / 2,150                             | 17 / 17                                                     | 585,000 / 550,000                             | 585,000@Q16 / 550,000@Q16                      |
| 878038-B21                                    | HPE 750GB PCIe x4 Lanes Write Intensive HHHHL 3yr Wty Digitally Signed Firmware Card          | 41,000               | 30.0           | 2,550 / 2,300                             | 17 / 18                                                     | 575,000 / 580,000                             | 575,000@Q16 / 580,000@Q16                      |
| P06952-B21                                    | HPE 750GB NVMe x4 Lanes Write Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 41,000               | 30.0           | 2,500 / 2,300                             | 17 / 17                                                     | 575,000 / 585,000                             | 575,000@Q16 / 585,000@Q16                      |
|                                               |                                                                                               |                      |                |                                           |                                                             |                                               |                                                |
| <b>NVMe High Performance Mixed Use Drives</b> |                                                                                               |                      |                |                                           |                                                             |                                               |                                                |
| 875583-B21                                    | HPE 400GB NVMe x4 Lanes Mixed Use M.2 22110 3yr Wty Digitally Signed Firmware SSD             | 2,475                | 3.0            | 2,300 / 490                               | 100 / 40                                                    | 122,500 / 24,500                              | 215,000@Q64 / 24,500@Q1                        |
| 875585-B21                                    | HPE 800GB NVMe x4 Lanes Mixed Use M.2 22110 3yr Wty Digitally Signed Firmware SSD             | 4,950                | 3.0            | 2,300 / 575                               | 100 / 31                                                    | 132,500 / 32,000                              | 240,000@Q64 / 32,000@Q16                       |
| 877825-B21                                    | HPE 1.6TB PCIe x8 Lanes Mixed Use HHHHL 3yr Wty Digitally Signed Firmware Card                | 8,700                | 5.0            | 5,700 / 2,145                             | 80 / 22                                                     | 180,000 / 130,000                             | 900,000@Q256 / 135,000@Q32                     |
| 877827-B21                                    | HPE 3.2TB PCIe x8 Lanes Mixed Use HHHHL 3yr Wty Digitally Signed Firmware Card                | 17,500               | 5.0            | 6,400 / 2,800                             | 80 / 22                                                     | 180,000 / 160,000                             | 900,000@Q256 / 175,000@Q32                     |
| 877998-B21                                    | HPE 3.2TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD       | 17,050               | 2.9            | 3,200 / 2,000                             | 86 / 17                                                     | 165,000 / 240,000                             | 675,000@Q256 / 240,000@Q16                     |
| P03614-B21                                    | HPE 3.2TB NVMe x4 Mixed Use SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD              | 17,050               | 2.9            | 3,200 / 2,000                             | 86 / 17                                                     | 165,000 / 240,000                             | 675,000@Q256 / 240,000@Q16                     |
| P07179-B21                                    | HPE 800GB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD       | 4,380                | 3.00           | 3,150 / 1,250                             | 125 / 21                                                    | 118,000 / 110,000                             | 370,000@Q256 / 110,000@Q16                     |

## QuickSpecs

## HPE Solid State Disk Drives

### Technical Specifications

| PCIe/NVMe Interface – SKUs (Speeds and Feeds) |                                                                                         |                      |                |                                           |                                                             |                                               |                                                |
|-----------------------------------------------|-----------------------------------------------------------------------------------------|----------------------|----------------|-------------------------------------------|-------------------------------------------------------------|-----------------------------------------------|------------------------------------------------|
| HPE Option Kit SKU                            | Long Description                                                                        | Lifetime Writes (TB) | Endurance DWPD | MAX Seq Reads / Max Seq Writes Throughput | Random Read Avg. / Random Write Avg. Latency uSec (4KiB,Q1) | Random Read / Random Writes IOPS (4KiB, Q=16) | MAX Random Read / MAX Random Write IOPS (4KiB) |
| P07181-B21                                    | HPE 1.6TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 8,760                | 3.00           | 3,150 / 2,500                             | 125 / 21                                                    | 125,000 / 160,000                             | 655,000@Q256 / 160,000@Q16                     |
| P07183-B21                                    | HPE 3.2TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 17,520               | 3.00           | 3,200 / 3,050                             | 125 / 21                                                    | 129,000 / 170,000                             | 785,000@Q256 / 170,000@Q16                     |
| P07185-B21                                    | HPE 6.4TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 35,040               | 3.00           | 3,200 / 3,050                             | 125 / 21                                                    | 129,000 / 165,000                             | 785,000@Q256 / 165,000@Q16                     |
| P10222-B21                                    | HPE 1.6TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 14,600               | 5              | 3,400 / 1,900                             | 86 / 24                                                     | 160,000 / 135,000                             | 720,000@Q256 / 145,000@Q16                     |
| P10224-B21                                    | HPE 3.2TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 29,200               | 5              | 3,400 / 2,900                             | 86 / 26                                                     | 165,000 / 145,000                             | 780,000@Q256 / 195,000@Q64                     |
| P10226-B21                                    | HPE 6.4TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 58,400               | 5              | 3,400 / 2,800                             | 100 / 25                                                    | 149,000 / 155,000                             | 780,000@Q256 / 200,000@Q32                     |
| P10264-B21                                    | HPE 1.6TB NVMe x8 Lanes Mixed Use HHHL 3yr Wty Digitally Signed Firmware Card           | 14,600               | 5              | 5,200 / 1,900                             | 175 / 115                                                   | 130,000 / 135,000                             | 750,000@Q256 / 145,000@Q256                    |
| P10266-B21                                    | HPE 3.2TB NVMe x8 Lanes Mixed Use HHHL 3yr Wty Digitally Signed Firmware Card           | 29,200               | 5              | 6,200 / 2,900                             | 85 / 25                                                     | 175,000 / 150,000                             | 880,000@Q256 / 200,000@Q256                    |
| P10268-B21                                    | HPE 6.4TB NVMe x8 Lanes Mixed Use HHHL 3yr Wty Digitally Signed Firmware Card           | 58,400               | 5              | 6,100 / 2,900                             | 96 / 25                                                     | 150,000 / 155,000                             | 930,000@Q256 / 210,000@Q256                    |
| P12114-B21                                    | HPE 1.6TB NVMe x4 Lanes Mixed Use SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD  | 14,600               | 5              | 3,400 / 1,900                             | 86 / 24                                                     | 160,000 / 135,000                             | 720,000@Q256 / 145,000@Q16                     |
| P13668-B21                                    | HPE 800GB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 5,037                | 3.45           | 3,300 / 650                               | 100 / 27                                                    | 126,000 / 67,000                              | "230000@Q256                                   |



## QuickSpecs

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### Technical Specifications

| PCIe/NVMe Interface – SKUs (Speeds and Feeds) |                                                                                         |                      |                |                                           |                                                             |                                               |                                                |
|-----------------------------------------------|-----------------------------------------------------------------------------------------|----------------------|----------------|-------------------------------------------|-------------------------------------------------------------|-----------------------------------------------|------------------------------------------------|
| HPE Option Kit SKU                            | Long Description                                                                        | Lifetime Writes (TB) | Endurance DWPD | MAX Seq Reads / Max Seq Writes Throughput | Random Read Avg. / Random Write Avg. Latency uSec (4KiB,Q1) | Random Read / Random Writes IOPS (4KiB, Q=16) | MAX Random Read / MAX Random Write IOPS (4KiB) |
| P13670-B21                                    | HPE 1.6TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 10,162               | 3.48           | 3,300 / 1,250                             | 100 / 25                                                    | 147,000 / 125,000                             | "425000@Q256                                   |
| P13672-B21                                    | HPE 3.2TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 20,440               | 3.50           | 3,300 / 2,400                             | 100 / 25                                                    | 157,000 / 169,000                             | "650000@Q256                                   |
| P13674-B21                                    | HPE 6.4TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 40,997               | 3.51           | 3,100 / 2,550                             | 100 / 25                                                    | 155,000 / 165,000                             | "635000@Q256                                   |
| P13699-B21                                    | HPE 1.6TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 12,250               | 4.10           | 3,200 / 1,950                             | 83 / 18                                                     | 165,000 / 200,000                             | 660,000@Q256 / 205,000@Q32                     |
| P13701-B21                                    | HPE 3.2TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 21,850               | 3.70           | 3,200 / 2,900                             | 83 / 18                                                     | 165,000 / 215,000                             | 660,000@Q256 / 230,000@Q32                     |
| P13703-B21                                    | HPE 6.4TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 36,540               | 3.10           | 3,200 / 3,100                             | 83 / 18                                                     | 170,000 / 205,000                             | 680,000@Q256 / 225,000@Q32                     |
| PCIe/NVMe Interface – SKUs (Speeds and Feeds) |                                                                                         |                      |                |                                           |                                                             |                                               |                                                |

## Technical Specifications

| HPE Option Kit SKU                                 | Long Description                                                                               | Lifetime Writes (TB) | Endurance DWPD | MAX Seq Reads / Max Seq Writes Throughput | Random Read Avg. / Random Write Avg. Latency uSec (4KiB,Q1) | Random Read / Random Writes IOPS (4KiB, Q=16) | MAX Random Read / MAX Random Write IOPS (4KiB) |
|----------------------------------------------------|------------------------------------------------------------------------------------------------|----------------------|----------------|-------------------------------------------|-------------------------------------------------------------|-----------------------------------------------|------------------------------------------------|
| <b>NVMe High Performance Read Intensive Drives</b> |                                                                                                |                      |                |                                           |                                                             |                                               |                                                |
| 875579-B21                                         | HPE 480GB NVMe x4 Lanes Read Intensive M.2 22110 3yr Wty Digitally Signed Firmware SSD         | 775                  | 0.3            | 2,375 / 485                               | 100 / 105                                                   | 120,000 / 9,500                               | 215,000@Q64 / 9,500@Q1                         |
| 875581-B21                                         | HPE 960GB NVMe x4 Lanes Read Intensive M.2 22110 3yr Wty Digitally Signed Firmware SSD         | 1,550                | 0.3            | 2,375 / 515                               | 100 / 80                                                    | 130,000 / 12,400                              | 240,000@Q64 / 12,400@Q1                        |
| 877986-B21                                         | HPE 2TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD     | 1,790                | 0.5            | 3,200 / 1,100                             | 87 / 25                                                     | 150,000 / 41,000                              | 510,000@Q256 / 41,000@Q4                       |
| P07190-B21                                         | HPE 960GB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD   | 1,750                | 1.00           | 3,150 / 1,250                             | 125 / 21                                                    | 118,000 / 59,000                              | 370,000@Q256 / 59,000@Q16                      |
| P07192-B21                                         | HPE 1.92TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD  | 3,500                | 1.00           | 3,150 / 2,500                             | 135 / 22                                                    | 125,000 / 91,000                              | 570,000@Q256 / 91,000@Q16                      |
| P07194-B21                                         | HPE 3.84TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD  | 7,000                | 1.00           | 3,200 / 3,050                             | 125 / 25                                                    | 129,000 / 97,000                              | 780,000@Q256 / 97,000@Q16                      |
| P07196-B21                                         | HPE 7.68TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD  | 14,000               | 1.00           | 3,200 / 3,050                             | 125 / 25                                                    | 130,000 / 97,000                              | 780,000@Q256 / 97,000@Q16                      |
| P07198-B21                                         | HPE 15.36TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 28,000               | 1.00           | 3,200 / 2,950                             | 165 / 27                                                    | 97,000 / 43,000                               | 480,000@Q128 / 43,000@Q4                       |
| P10208-B21                                         | HPE 960GB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD   | 876                  | 0.50           | 3,000 / 860                               | 125 / 46                                                    | 115,000 / 21,500                              | 340,000@Q256 / 21,500@Q1                       |
| P10210-B21                                         | HPE 1.92TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD  | 1,750                | 0.50           | 3,000 / 780                               | 135 / 46                                                    | 105,000 / 21,500                              | 305,000@Q256 / 21,500@Q1                       |
| P10212-B21                                         | HPE 3.84TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD  | 4,480                | 0.60           | 3,000 / 1,500                             | 130 / 25                                                    | 115,000 / 41,500                              | 560,000@Q256 / 41,500@Q1                       |

## QuickSpecs

## HPE Solid State Disk Drives

### Technical Specifications

| HPE Option Kit SKU | Long Description                                                                              | Lifetime Writes (TB) | Endurance DWPD | MAX Seq Reads / Max Seq Writes Throughput | Random Read Avg. / Random Write Avg. Latency uSec (4KiB,Q1) | Random Read / Random Writes IOPS (4KiB, Q=16) | MAX Random Read / MAX Random Write IOPS (4KiB) |
|--------------------|-----------------------------------------------------------------------------------------------|----------------------|----------------|-------------------------------------------|-------------------------------------------------------------|-----------------------------------------------|------------------------------------------------|
| P10214-B21         | HPE 1.92TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 3,500                | 1              | 3,400 / 1,900                             | 86 / 29                                                     | 160,000 / 52,000                              | 720,000@Q256 / 52,000@Q4                       |
| P10216-B21         | HPE 3.84TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 7,000                | 1              | 3,400 / 2,900                             | 87 / 31                                                     | 165,000 / 74,000                              | 780,000@Q256 / 75,000@Q16                      |
| P10218-B21         | HPE 7.68TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 14,000               | 1              | 3,400 / 2,800                             | 100 / 30                                                    | 149,000 / 94,000                              | 780,000@Q256 / 94,000@Q16                      |
| P13695-B21         | HPE 2TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD    | 2,600                | 0.70           | 3,100 / 1,900                             | 80 / 22                                                     | 170,000 / 83,000                              | 670,000@Q256 / 83,000@Q16                      |
| P13697-B21         | HPE 4TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD    | 6,300                | 0.80           | 2,900 / 2,800                             | 80 / 21                                                     | 170,000 / 120,000                             | 670,000@Q256 / 120,000@Q16                     |
| P12112-B21         | HPE 3.84TB NVMe x4 Lanes Read Intensive SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD  | 7,000                | 1.00           | 3,200 / 3,050                             | 125 / 25                                                    | 129,000 / 97,000                              | 780,000@Q256 / 97,000@Q16                      |
| P13676-B21         | HPE 960GB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD  | 2,312                | 1.32           | 3,300 / 650                               | 100 / 32                                                    | 125,000 / 30,000                              | "230000@Q256                                   |
| P13678-B21         | HPE 1.92TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 4,695                | 1.34           | 3,300 / 1,250                             | 100 / 27                                                    | 147,000 / 55,000                              | "425000@Q256                                   |
| P13680-B21         | HPE 3.84TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 9,461                | 1.35           | 3,300 / 2,350                             | 100 / 28                                                    | 155,000 / 72,000                              | "650000@Q256                                   |
| P13682-B21         | HPE 7.68TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 19,062               | 1.36           | 3,100 / 2,550                             | 105 / 31                                                    | 154,000 / 73,000                              | "635000@Q256                                   |

**NOTE:** Please use HPE Selector Tool <http://ssd.hpe.com/> to determine server compatibility.

## QuickSpecs

## HPE Solid State Disk Drives

### Technical Specifications

| PCIe/NVMe Interface – (Power & Height)                            |                                                                                               |                         |                           |                            |                               |                                |                          |                   |                         |
|-------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-------------------------|---------------------------|----------------------------|-------------------------------|--------------------------------|--------------------------|-------------------|-------------------------|
| HPE Option Kit SKU                                                | Long Description                                                                              | Power Idle Time (Watts) | Power Random Read (Watts) | Power Random Write (Watts) | Power Sequential Read (Watts) | Power Sequential Write (Watts) | Power Random R/W (Watts) | Power MAX (Watts) | z- Height               |
| <b>NVMe High Performance Low Latency SSDsWrite Intensive SSDs</b> |                                                                                               |                         |                           |                            |                               |                                |                          |                   |                         |
| 878014-B21                                                        | HPE 375GB NVMe x4 Lanes Write Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 4.00                    | 5.16                      | 5.16                       | 8.50                          | 12.20                          | 5.16                     | 13.00             | 15mm                    |
| 878038-B21                                                        | HPE 750GB PCIe x4 Lanes Write Intensive HHHL 3yr Wty Digitally Signed Firmware Card           | 4.70                    | 9,8                       | 9.80                       | 9.50                          | 13.90                          | 9.80                     | 14.00             | Half Height/Half Length |
| P06952-B21                                                        | HPE 750GB NVMe x4 Lanes Write Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 4.50                    | 9.74                      | 9.74                       | 9.74                          | 9.12                           | 14.04                    | 14.04             | 15mm                    |
|                                                                   |                                                                                               |                         |                           |                            |                               |                                |                          |                   |                         |
| <b>NVMe High PerformanceMixed Use Drives</b>                      |                                                                                               |                         |                           |                            |                               |                                |                          |                   |                         |
| 875583-B21                                                        | HPE 400GB NVMe x4 Lanes Mixed Use M.2 22110 3yr Wty Digitally Signed Firmware SSD             | 2.60                    | 4.50                      | 5.50                       | 6.50                          | 7.50                           | 5.00                     | 8.00              | 22110 M.2               |
| 875585-B21                                                        | HPE 800GB NVMe x4 Lanes Mixed Use M.2 22110 3yr Wty Digitally Signed Firmware SSD             | 2.60                    | 4.50                      | 5.50                       | 6.50                          | 7.50                           | 5.00                     | 8.00              | 22110 M.2               |
| 877825-B21                                                        | HPE 1.6TB PCIe x8 Lanes Mixed Use HHHL 3yr Wty Digitally Signed Firmware Card                 | 8.00                    | 20.0                      | 18.00                      | 21.00                         | 21.00                          | 19.0                     | 21.00             | Half Height/Half length |
| 877827-B21                                                        | HPE 3.2TB PCIe x8 Lanes Mixed Use HHHL 3yr Wty Digitally Signed Firmware Card                 | 8.00                    | 20.0                      | 18.00                      | 23.00                         | 22.00                          | 19.0                     | 23.00             | Half Height/Half length |

QuickSpecs

HPE Solid State Disk Drives

Technical Specifications

| PCIe/NVMe Interface – (Power & Height) |                                                                                         |                         |                           |                            |                               |                                |                          |                   |           |
|----------------------------------------|-----------------------------------------------------------------------------------------|-------------------------|---------------------------|----------------------------|-------------------------------|--------------------------------|--------------------------|-------------------|-----------|
| HPE Option Kit SKU                     | Long Description                                                                        | Power Idle Time (Watts) | Power Random Read (Watts) | Power Random Write (Watts) | Power Sequential Read (Watts) | Power Sequential Write (Watts) | Power Random R/W (Watts) | Power MAX (Watts) | z- Height |
| 877998-B21                             | HPE 3.2TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | <5.00                   | 13.80                     | 17.20                      | 10.00                         | 21.00                          | 17.00                    | 19.00             | 15mm      |
| P03614-B21                             | HPE 3.2TB NVMe x4 Mixed Use SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD        | <5.00                   | 13.80                     | 17.20                      | 10.00                         | 21.00                          | 17.00                    | 21.00             | 15mm      |
| P07179-B21                             | HPE 800GB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 4.84                    | 6.13                      | 6.13                       | 6.13                          | 9.02                           | 7.66                     | 9.02              | 15mm      |
| P07181-B21                             | HPE 1.6TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 4.89                    | 6.30                      | 6.30                       | 6.30                          | 9.41                           | 10.71                    | 10.71             | 15mm      |
| P07183-B21                             | HPE 3.2TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 5.09                    | 6.74                      | 6.74                       | 6.74                          | 10.63                          | 12.22                    | 12.22             | 15mm      |
| P07185-B21                             | HPE 6.4TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 5.48                    | 7.24                      | 7.24                       | 7.24                          | 11.48                          | 13.13                    | 13.13             | 15mm      |
| P10222-B21                             | HPE 1.6TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 6.20                    | 10.00                     | 10.00                      | 13.70                         | 14.90                          | 10.00                    | 14.90             | 15mm      |
| P10224-B21                             | HPE 3.2TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 7.20                    | 10.80                     | 10.80                      | 14.40                         | 18.00                          | 10.80                    | 18.00             | 15mm      |
| P10226-B21                             | HPE 6.4TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 8.66                    | 13.62                     | 13.62                      | 14.40                         | 18.00                          | 13.62                    | 18.00             | 15mm      |

## Technical Specifications

| PCIe/NVMe Interface – (Power & Height) |                                                                                         |                         |                           |                            |                               |                                |                          |                   |                         |
|----------------------------------------|-----------------------------------------------------------------------------------------|-------------------------|---------------------------|----------------------------|-------------------------------|--------------------------------|--------------------------|-------------------|-------------------------|
| HPE Option Kit SKU                     | Long Description                                                                        | Power Idle Time (Watts) | Power Random Read (Watts) | Power Random Write (Watts) | Power Sequential Read (Watts) | Power Sequential Write (Watts) | Power Random R/W (Watts) | Power MAX (Watts) | z- Height               |
| P10264-B21                             | HPE 1.6TB NVMe x8 Lanes Mixed Use HHHHL 3yr Wty Digitally Signed Firmware Card          | 7.18                    | 12.22                     | 12.22                      | 17.49                         | 15.24                          | 12.22                    | 18.00             | Half Height/Half length |
| P10266-B21                             | HPE 3.2TB NVMe x8 Lanes Mixed Use HHHHL 3yr Wty Digitally Signed Firmware Card          | 7.30                    | 13.24                     | 13.24                      | 17.97                         | 18.85                          | 13.24                    | 19.00             | Half Height/Half length |
| P10268-B21                             | HPE 6.4TB NVMe x8 Lanes Mixed Use HHHHL 3yr Wty Digitally Signed Firmware Card          | 7.42                    | 13.72                     | 13.72                      | 18.51                         | 21.44                          | 13.72                    | 22.00             | Half Height/Half length |
| P12114-B21                             | HPE 1.6TB NVMe x4 Lanes Mixed Use SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD  | 6.20                    | 10.00                     | 10.00                      | 13.70                         | 14.90                          | 10.00                    | 15.00             | 15mm                    |
| P13668-B21                             | HPE 800GB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 3.30                    | 5.38                      | 5.38                       | 7.66                          | 5.39                           | 5.38                     | 7.66              | 15mm                    |
| P13670-B21                             | HPE 1.6TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 3.25                    | 7.00                      | 7.00                       | 7.94                          | 7.41                           | 7.00                     | 7.94              | 15mm                    |
| P13672-B21                             | HPE 3.2TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 3.35                    | 8.64                      | 8.64                       | 8.18                          | 11.41                          | 8.64                     | 11.41             | 15mm                    |
| P13674-B21                             | HPE 6.4TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 3.49                    | 10.65                     | 10.65                      | 9.12                          | 13.81                          | 10.65                    | 13.81             | 15mm                    |

## QuickSpecs

## HPE Solid State Disk Drives

### Technical Specifications

| PCIe/NVMe Interface – (Power & Height) |                                                                                         |                         |                           |                            |                               |                                |                          |                   |           |
|----------------------------------------|-----------------------------------------------------------------------------------------|-------------------------|---------------------------|----------------------------|-------------------------------|--------------------------------|--------------------------|-------------------|-----------|
| HPE Option Kit SKU                     | Long Description                                                                        | Power Idle Time (Watts) | Power Random Read (Watts) | Power Random Write (Watts) | Power Sequential Read (Watts) | Power Sequential Write (Watts) | Power Random R/W (Watts) | Power MAX (Watts) | z- Height |
| P13699-B21                             | HPE 1.6TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 4.38                    | 10.49                     | 10.49                      | 10.49                         | 8.90                           | 11.83                    | 11.83             | 15mm      |
| P13701-B21                             | HPE 3.2TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 4.36                    | 10.56                     | 10.56                      | 10.56                         | 8.43                           | 13.37                    | 13.37             | 15mm      |
| P13703-B21                             | HPE 6.4TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 4.97                    | 12.13                     | 12.13                      | 12.13                         | 8.84                           | 14.48                    | 14.48             | 15mm      |

## Technical Specifications

| PCIe/NVMe Interface – (Power & Height)             |                                                                                                |                         |                           |                            |                               |                                |                          |                   |           |
|----------------------------------------------------|------------------------------------------------------------------------------------------------|-------------------------|---------------------------|----------------------------|-------------------------------|--------------------------------|--------------------------|-------------------|-----------|
| HPE Option Kit SKU                                 | Long Description                                                                               | Power Idle Time (Watts) | Power Random Read (Watts) | Power Random Write (Watts) | Power Sequential Read (Watts) | Power Sequential Write (Watts) | Power Random R/W (Watts) | Power MAX (Watts) | z- Height |
| <b>NVMe High Performance Read Intensive Drives</b> |                                                                                                |                         |                           |                            |                               |                                |                          |                   |           |
| 875579-B21                                         | HPE 480GB NVMe x4 Lanes Read Intensive M.2 22110 3yr Wty Digitally Signed Firmware SSD         | 2.60                    | 4.50                      | 5.50                       | 6.50                          | 7.50                           | 5.00                     | 8.00              | 22110 M.2 |
| 875581-B21                                         | HPE 960GB NVMe x4 Lanes Read Intensive M.2 22110 3yr Wty Digitally Signed Firmware SSD         | 2.60                    | 4.50                      | 5.50                       | 6.50                          | 7.50                           | 5.00                     | 8.00              | 22110 M.2 |
| 877986-B21                                         | HPE 2TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD     | <5.00                   | 11.35                     | 12.90                      | 9.62                          | 13.45                          | 12.00                    | 14.00             | 15mm      |
| P07190-B21                                         | HPE 960GB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD   | 4.74                    | 5.91                      | 5.91                       | 5.91                          | 8.72                           | 6.77                     | 8.72              | 15mm      |
| P07192-B21                                         | HPE 1.92TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD  | 4.84                    | 6.26                      | 6.26                       | 6.26                          | 9.47                           | 10.65                    | 10.65             | 15mm      |
| P07194-B21                                         | HPE 3.84TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD  | 5.10                    | 6.71                      | 6.71                       | 6.71                          | 10.56                          | 12.26                    | 12.26             | 15mm      |
| P07196-B21                                         | HPE 7.68TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD  | 5.44                    | 7.23                      | 7.23                       | 7.23                          | 11.45                          | 13.15                    | 13.15             | 15mm      |
| P07198-B21                                         | HPE 15.36TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 5.55                    | 7.59                      | 7.59                       | 7.59                          | 11.82                          | 15.06                    | 15.06             | 15mm      |



## Technical Specifications

| PCIe/NVMe Interface – (Power & Height) |                                                                                               |                         |                           |                            |                               |                                |                          |                   |           |
|----------------------------------------|-----------------------------------------------------------------------------------------------|-------------------------|---------------------------|----------------------------|-------------------------------|--------------------------------|--------------------------|-------------------|-----------|
| HPE Option Kit SKU                     | Long Description                                                                              | Power Idle Time (Watts) | Power Random Read (Watts) | Power Random Write (Watts) | Power Sequential Read (Watts) | Power Sequential Write (Watts) | Power Random R/W (Watts) | Power MAX (Watts) | z- Height |
| P10208-B21                             | HPE 960GB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD  | 4.74                    | 5.91                      | 5.91                       | 5.91                          | 8.72                           | 6.77                     | 8.72              | 15mm      |
| P10210-B21                             | HPE 1.92TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 4.83                    | 6.19                      | 6.19                       | 6.19                          | 8.97                           | 7.20                     | 8.97              | 15mm      |
| P10212-B21                             | HPE 3.84TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 5.06                    | 6.70                      | 6.70                       | 6.70                          | 9.51                           | 9.71                     | 9.71              | 15mm      |
| P10214-B21                             | HPE 1.92TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 6.20                    | 10.00                     | 10.00                      | 13.70                         | 14.90                          | 10.00                    | 14.90             | 15mm      |
| P10216-B21                             | HPE 3.84TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 7.20                    | 10.00                     | 10.00                      | 14.60                         | 18.10                          | 10.00                    | 18.10             | 15mm      |
| P10218-B21                             | HPE 7.68TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 8.64                    | 10.50                     | 10.50                      | 14.69                         | 18.72                          | 10.50                    | 18.72             | 15mm      |
| P13695-B21                             | HPE 2TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD    | 4.53                    | 10.71                     | 10.71                      | 10.71                         | 9.47                           | 11.76                    | 11.76             | 15mm      |
| P13697-B21                             | HPE 4TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD    | 4.54                    | 10.47                     | 10.47                      | 10.47                         | 8.88                           | 12.56                    | 12.56             | 15mm      |

## QuickSpecs

## HPE Solid State Disk Drives

### Technical Specifications

| PCIe/NVMe Interface – (Power & Height)                                                                                             |                                                                                               |                         |                           |                            |                               |                                |                          |                   |           |
|------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-------------------------|---------------------------|----------------------------|-------------------------------|--------------------------------|--------------------------|-------------------|-----------|
| HPE Option Kit SKU                                                                                                                 | Long Description                                                                              | Power Idle Time (Watts) | Power Random Read (Watts) | Power Random Write (Watts) | Power Sequential Read (Watts) | Power Sequential Write (Watts) | Power Random R/W (Watts) | Power MAX (Watts) | z- Height |
| P12112-B21                                                                                                                         | HPE 3.84TB NVMe x4 Lanes Read Intensive SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD  | 5.10                    | 6.71                      | 6.71                       | 6.71                          | 10.56                          | 12.26                    | 12.26             | 15mm      |
| P13676-B21                                                                                                                         | HPE 960GB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD  | 3.30                    | 5.38                      | 5.38                       | 7.66                          | 5.39                           | 5.38                     | 7.66              | 15mm      |
| P13678-B21                                                                                                                         | HPE 1.92TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 3.25                    | 7.00                      | 7.00                       | 7.94                          | 7.41                           | 7.00                     | 7.94              | 15mm      |
| P13680-B21                                                                                                                         | HPE 3.84TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 3.35                    | 8.64                      | 8.64                       | 8.18                          | 11.41                          | 8.64                     | 11.41             | 15mm      |
| P13682-B21                                                                                                                         | HPE 7.68TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | 3.49                    | 10.65                     | 10.65                      | 9.12                          | 13.81                          | 10.65                    | 13.81             | 15mm      |
| <b>NOTE:</b> Please use HPE Selector Tool <a href="http://ssd.hpe.com/">http://ssd.hpe.com/</a> to determine server compatibility. |                                                                                               |                         |                           |                            |                               |                                |                          |                   |           |

## Technical Specifications

### Inbox NVMe Drivers

Inbox NVMe drivers for the minimally supported operating systems listed below have been tested on HPE NVMe SSDs and Add-in Cards. Check the specifications for the HPE server of interest to determine if it supports one of these Operating Systems.

- Windows Server 2019
- Windows Server 2016
- Windows Server 2012R2
- Red Hat Enterprise Linux Server 6.5
- Red Hat Enterprise Linux Server 7.0
- SUSE Linux Enterprise Server 12
- Ubuntu 14.04 VMWare vSphere 6.1

| NVMe Interface – (Certifications)                              |                                                                                               |                                         |                                             |                                                              |                                             |                                             |
|----------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-----------------------------------------|---------------------------------------------|--------------------------------------------------------------|---------------------------------------------|---------------------------------------------|
| HPE Option Kit SKU                                             | Long Description                                                                              | VMWare / vSAN HCL Certification (Watts) | Microsoft Windows Server 2016 Certification | Software Defined Data Center (SDDC) Premium AQ Certification | Microsoft Windows Server 2019 Certification | WS 2019 Software Defined Data Center (SDDC) |
| NVMe High Performance Low Latency SSDs<br>Write Intensive SSDs |                                                                                               |                                         |                                             |                                                              |                                             |                                             |
| 878014-B21                                                     | HPE 375GB NVMe x4 Lanes Write Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| 878038-B21                                                     | HPE 750GB PCIe x4 Lanes Write Intensive HHHH 3yr Wty Digitally Signed Firmware Card           | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P06952-B21                                                     | HPE 750GB NVMe x4 Lanes Write Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | Pending                                 | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| NVMe High PerformanceMixed Use Drives                          |                                                                                               |                                         |                                             |                                                              |                                             |                                             |

## Technical Specifications

| NVMe Interface – (Certifications) |                                                                                         |                                         |                                             |                                                              |                                             |                                             |
|-----------------------------------|-----------------------------------------------------------------------------------------|-----------------------------------------|---------------------------------------------|--------------------------------------------------------------|---------------------------------------------|---------------------------------------------|
| HPE Option Kit SKU                | Long Description                                                                        | VMware / vSAN HCL Certification (Watts) | Microsoft Windows Server 2016 Certification | Software Defined Data Center (SDDC) Premium AQ Certification | Microsoft Windows Server 2019 Certification | WS 2019 Software Defined Data Center (SDDC) |
| 875583-B21                        | HPE 400GB NVMe x4 Lanes Mixed Use M.2 22110 3yr Wty Digitally Signed Firmware SSD       | Certified                               | Certified                                   | Certified                                                    | N/A                                         | N/A                                         |
| 875585-B21                        | HPE 800GB NVMe x4 Lanes Mixed Use M.2 22110 3yr Wty Digitally Signed Firmware SSD       | Certified                               | Certified                                   | Certified                                                    | N/A                                         | N/A                                         |
| 877825-B21                        | HPE 1.6TB PCIe x8 Lanes Mixed Use HHHL 3yr Wty Digitally Signed Firmware Card           | Certified                               | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| 877827-B21                        | HPE 3.2TB PCIe x8 Lanes Mixed Use HHHL 3yr Wty Digitally Signed Firmware Card           | Certified                               | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| 877998-B21                        | HPE 3.2TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| P03614-B21                        | HPE 3.2TB NVMe x4 Mixed Use SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD        | Certified                               | Certified                                   | N/A                                                          | N/A                                         | N/A                                         |
| P07179-B21                        | HPE 800GB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | Pending                                 | Certified                                   | Pending                                                      | Pending                                     | Pending                                     |
| P07181-B21                        | HPE 1.6TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | Pending                                 | Certified                                   | Pending                                                      | Pending                                     | Pending                                     |
| P07183-B21                        | HPE 3.2TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | Pending                                 | Certified                                   | Pending                                                      | Pending                                     | Pending                                     |
| P07185-B21                        | HPE 6.4TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | Pending                                 | Certified                                   | Pending                                                      | Pending                                     | Pending                                     |
| P10222-B21                        | HPE 1.6TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |

## Technical Specifications

| NVMe Interface – (Certifications) |                                                                                         |                                         |                                             |                                                              |                                             |                                             |
|-----------------------------------|-----------------------------------------------------------------------------------------|-----------------------------------------|---------------------------------------------|--------------------------------------------------------------|---------------------------------------------|---------------------------------------------|
| HPE Option Kit SKU                | Long Description                                                                        | VMware / vSAN HCL Certification (Watts) | Microsoft Windows Server 2016 Certification | Software Defined Data Center (SDDC) Premium AQ Certification | Microsoft Windows Server 2019 Certification | WS 2019 Software Defined Data Center (SDDC) |
| P10224-B21                        | HPE 3.2TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| P10226-B21                        | HPE 6.4TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| P10264-B21                        | HPE 1.6TB NVMe x8 Lanes Mixed Use HHHL 3yr Wty Digitally Signed Firmware Card           | Pending                                 | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| P10266-B21                        | HPE 3.2TB NVMe x8 Lanes Mixed Use HHHL 3yr Wty Digitally Signed Firmware Card           | Pending                                 | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| P10268-B21                        | HPE 6.4TB NVMe x8 Lanes Mixed Use HHHL 3yr Wty Digitally Signed Firmware Card           | Pending                                 | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| P12114-B21                        | HPE 1.6TB NVMe x4 Lanes Mixed Use SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD  | Pending                                 | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| P13668-B21                        | HPE 800GB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P13670-B21                        | HPE 1.6TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P13672-B21                        | HPE 3.2TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P13674-B21                        | HPE 6.4TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |

## QuickSpecs

## HPE Solid State Disk Drives

### Technical Specifications

| NVMe Interface – (Certifications)          |                                                                                         |                                         |                                             |                                                              |                                             |                                             |
|--------------------------------------------|-----------------------------------------------------------------------------------------|-----------------------------------------|---------------------------------------------|--------------------------------------------------------------|---------------------------------------------|---------------------------------------------|
| HPE Option Kit SKU                         | Long Description                                                                        | VMware / vSAN HCL Certification (Watts) | Microsoft Windows Server 2016 Certification | Software Defined Data Center (SDDC) Premium AQ Certification | Microsoft Windows Server 2019 Certification | WS 2019 Software Defined Data Center (SDDC) |
| P13699-B21                                 | HPE 1.6TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | Pending                                 | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P13701-B21                                 | HPE 3.2TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | Pending                                 | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P13703-B21                                 | HPE 6.4TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | Pending                                 | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| NVMe High PerformanceRead Intensive Drives |                                                                                         |                                         |                                             |                                                              |                                             |                                             |
| 875579-B21                                 | HPE 480GB NVMe x4 Lanes Read Intensive M.2 22110 3yr Wty Digitally Signed Firmware SSD  | Certified                               | Certified                                   | Certified                                                    | N/A                                         | N/A                                         |

## Technical Specifications

| NVMe Interface – (Certifications) |                                                                                                |                                         |                                             |                                                              |                                             |                                             |
|-----------------------------------|------------------------------------------------------------------------------------------------|-----------------------------------------|---------------------------------------------|--------------------------------------------------------------|---------------------------------------------|---------------------------------------------|
| HPE Option Kit SKU                | Long Description                                                                               | VMware / vSAN HCL Certification (Watts) | Microsoft Windows Server 2016 Certification | Software Defined Data Center (SDDC) Premium AQ Certification | Microsoft Windows Server 2019 Certification | WS 2019 Software Defined Data Center (SDDC) |
| 875581-B21                        | HPE 960GB NVMe x4 Lanes Read Intensive M.2 22110 3yr Wty Digitally Signed Firmware SSD         | Certified                               | Certified                                   | Certified                                                    | N/A                                         | N/A                                         |
| 877986-B21                        | HPE 2TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD     | Certified                               | Certified                                   | Certified                                                    | Pending                                     | Pending                                     |
| P07190-B21                        | HPE 960GB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD   | Pending                                 | Certified                                   | Pending                                                      | Pending                                     | Pending                                     |
| P07192-B21                        | HPE 1.92TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD  | Pending                                 | Certified                                   | Pending                                                      | Pending                                     | Pending                                     |
| P07194-B21                        | HPE 3.84TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD  | Pending                                 | Certified                                   | Pending                                                      | Pending                                     | Pending                                     |
| P07196-B21                        | HPE 7.68TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD  | Pending                                 | Certified                                   | Pending                                                      | Pending                                     | Pending                                     |
| P07198-B21                        | HPE 15.36TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | Pending                                 | Certified                                   | Pending                                                      | Pending                                     | Pending                                     |
| P10208-B21                        | HPE 960GB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD   | Pending                                 | Pending                                     | Pending                                                      | Pending                                     | Pending                                     |
| P10210-B21                        | HPE 1.92TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD  | Pending                                 | Pending                                     | Pending                                                      | Pending                                     | Pending                                     |

## Technical Specifications

| NVMe Interface – (Certifications) |                                                                                               |                                         |                                             |                                                              |                                             |                                             |
|-----------------------------------|-----------------------------------------------------------------------------------------------|-----------------------------------------|---------------------------------------------|--------------------------------------------------------------|---------------------------------------------|---------------------------------------------|
| HPE Option Kit SKU                | Long Description                                                                              | VMware / vSAN HCL Certification (Watts) | Microsoft Windows Server 2016 Certification | Software Defined Data Center (SDDC) Premium AQ Certification | Microsoft Windows Server 2019 Certification | WS 2019 Software Defined Data Center (SDDC) |
| P10212-B21                        | HPE 3.84TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | Pending                                 | Pending                                     | Pending                                                      | Pending                                     | Pending                                     |
| P10214-B21                        | HPE 1.92TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | Pending                                 | Pending                                     | Pending                                                      | Pending                                     | Pending                                     |
| P10216-B21                        | HPE 3.84TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | Pending                                 | Pending                                     | Pending                                                      | Pending                                     | Pending                                     |
| P10218-B21                        | HPE 7.68TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | Pending                                 | Pending                                     | Pending                                                      | Pending                                     | Pending                                     |
| P13695-B21                        | HPE 2TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD    | Pending                                 | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P13697-B21                        | HPE 4TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD    | Pending                                 | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P12112-B21                        | HPE 3.84TB NVMe x4 Lanes Read Intensive SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD  | Pending                                 | Certified                                   | Pending                                                      | Pending                                     | Pending                                     |
| P13676-B21                        | HPE 960GB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD  | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |



## Technical Specifications

| NVMe Interface – (Certifications)                                                                                                  |                                                                                               |                                         |                                             |                                                              |                                             |                                             |
|------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-----------------------------------------|---------------------------------------------|--------------------------------------------------------------|---------------------------------------------|---------------------------------------------|
| HPE Option Kit SKU                                                                                                                 | Long Description                                                                              | VMware / vSAN HCL Certification (Watts) | Microsoft Windows Server 2016 Certification | Software Defined Data Center (SDDC) Premium AQ Certification | Microsoft Windows Server 2019 Certification | WS 2019 Software Defined Data Center (SDDC) |
| P13678-B21                                                                                                                         | HPE 1.92TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P13680-B21                                                                                                                         | HPE 3.84TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| P13682-B21                                                                                                                         | HPE 7.68TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| <b>NOTE:</b> Please use HPE Selector Tool <a href="http://ssd.hpe.com/">http://ssd.hpe.com/</a> to determine server compatibility. |                                                                                               |                                         |                                             |                                                              |                                             |                                             |

## Technical Specifications

| M.2 Enablement Kits – (Capacity, Workload, Carrier...)                                                                                                                                                                                                                                                                                                                                         |                                                                                                  |          |               |                |             |              |              |                                |            |                                         |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|----------|---------------|----------------|-------------|--------------|--------------|--------------------------------|------------|-----------------------------------------|
| HPE Option KIT SKU                                                                                                                                                                                                                                                                                                                                                                             | Long Description                                                                                 | Capacity | Workload Type | Interface Type | Form Factor | Plug Type    | Carrier Type | Digitally Signed Firmware (DS) | Flash Type | Server Gen Supported (Select Platforms) |
| 878783-B21*                                                                                                                                                                                                                                                                                                                                                                                    | HPE Universal SATA HHHL 3yr Wty M.2 Kit                                                          | N/A      | N/A           | SATA           | M.2e        | Non-Hot Plug | AIC          | Yes                            | N/A        | Gen9 & 10                               |
| P06607-B21**                                                                                                                                                                                                                                                                                                                                                                                   | HPE Dual 240GB SATA 6G Mixed Use M.2 - UFF to SFF SCM 3yr Wty Digitally Signed Firmware SSD      | 240      | MU            | SATA           | SFF         | Hot Plug     | SCM          | Yes                            | MLC        | Gen10                                   |
| P06609-B21**                                                                                                                                                                                                                                                                                                                                                                                   | HPE Dual 480GB SATA 6G Read Intensive M.2 - UFF to SFF SCM 3yr Wty Digitally Signed Firmware SSD | 480      | RI            | SATA           | SFF         | Hot Plug     | SCM          | Yes                            | MLC        | Gen10                                   |
| <b>NOTE:</b> *878783-B21 enablement Kit is an Add-In-Card, for installation inside of the server, that can be configured to be either Single or Dual with choice of any SATA 2280 M.2 in the HPE M.2 portfolio. See SATA M.2s in Tables above.<br>**Speeds and Feeds information should be taken from the M.2 drives used within the enablement kits. See SATA M.2s in tables above and below. |                                                                                                  |          |               |                |             |              |              |                                |            |                                         |

## Technical Specifications

### M.2 Enablement Kits – (Speeds & Feeds)

\*\*Speeds and Feeds information should be taken from the M.2 drives used within the enablement kits. See SATA M.2s in tables above and below.

| M.2 Enablement Kits – (Power & Height)                                                                                                                                                                                                                   |                                                                                                  |                         |                           |                            |                               |                                |                          |                   |                          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|-------------------------|---------------------------|----------------------------|-------------------------------|--------------------------------|--------------------------|-------------------|--------------------------|
| HPE Option Kit SKU                                                                                                                                                                                                                                       | Long Description                                                                                 | Power Idle Time (Watts) | Power Random Read (Watts) | Power Random Write (Watts) | Power Sequential Read (Watts) | Power Sequential Write (Watts) | Power Random R/W (Watts) | Power MAX (Watts) | z- Height                |
| 878783-B21*                                                                                                                                                                                                                                              | HPE Universal SATA HHHL 3yr Wty M.2 Kit                                                          | NA                      | NA                        | NA                         | NA                            | NA                             | NA                       | NA                | Half Height/ Half Length |
| P06607-B21**                                                                                                                                                                                                                                             | HPE Dual 240GB SATA 6G Mixed Use M.2 - UFF to SFF SCM 3yr Wty Digitally Signed Firmware SSD      | 2.00                    | 2.84                      | 2.84                       | 3.90                          | 5.74                           | 2.84                     | 6.00              | 7mm                      |
| P06609-B21**                                                                                                                                                                                                                                             | HPE Dual 480GB SATA 6G Read Intensive M.2 - UFF to SFF SCM 3yr Wty Digitally Signed Firmware SSD | 2.00                    | 2.84                      | 2.84                       | 3.90                          | 5.74                           | 2.84                     | 6.00              | 7mm                      |
| <b>NOTE:</b> Power information should be taken from the M.2 drives used within the enablement kits. See SATA M.2s in tables above and below.                                                                                                             |                                                                                                  |                         |                           |                            |                               |                                |                          |                   |                          |
| <b>NOTE:</b> *878783-B21 enablement Kit is an Add-In-Card, for installation inside of the server, that can be configured to be either Single or Dual with choice of any SATA 2280 M.2 in the HPE M.2 portfolio. See SATA M.2s in Tables above and below. |                                                                                                  |                         |                           |                            |                               |                                |                          |                   |                          |
| <b>**Speeds and Feeds information should be taken from the M.2 drives used within the enablement kits. See SATA M.2s in tables above and below.</b>                                                                                                      |                                                                                                  |                         |                           |                            |                               |                                |                          |                   |                          |
| <b>NOTE:</b> Please use HPE Selector Tool <a href="http://ssd.hpe.com/">http://ssd.hpe.com/</a> to determine server compatibility                                                                                                                        |                                                                                                  |                         |                           |                            |                               |                                |                          |                   |                          |

## Technical Specifications

| M.2 Enablement Kits – (Certifications)                                                                                             |                                                                                                  |                                         |                                             |                                                              |                                             |                                             |
|------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|-----------------------------------------|---------------------------------------------|--------------------------------------------------------------|---------------------------------------------|---------------------------------------------|
| HPE Option Kit SKU                                                                                                                 | Long Description                                                                                 | VMware / vSAN HCL Certification (Watts) | Microsoft Windows Server 2016 Certification | Software Defined Data Center (SDDC) Premium AQ Certification | Microsoft Windows Server 2019 Certification | WS 2019 Software Defined Data Center (SDDC) |
| 878783-B21*                                                                                                                        | HPE Universal SATA HHHL 3yr Wty M.2 Kit                                                          | NA                                      | NA                                          | NA                                                           | NA                                          | NA                                          |
| P06607-B21**                                                                                                                       | HPE Dual 240GB SATA 6G Mixed Use M.2 - UFF to SFF SCM 3yr Wty Digitally Signed Firmware SSD      | NA                                      | Certified                                   | NA                                                           | Certified                                   | Certified                                   |
| P06609-B21**                                                                                                                       | HPE Dual 480GB SATA 6G Read Intensive M.2 - UFF to SFF SCM 3yr Wty Digitally Signed Firmware SSD | NA                                      | Certified                                   | NA                                                           | Certified                                   | Certified                                   |
| <b>NOTE:</b> Please use HPE Selector Tool <a href="http://ssd.hpe.com/">http://ssd.hpe.com/</a> to determine server compatibility. |                                                                                                  |                                         |                                             |                                                              |                                             |                                             |

## Technical Specifications

| M.2s– (Capacity, Workload, Carrier...)                                                                                             |                                                                                        |          |               |                |             |           |              |                                |            |                                         |
|------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|----------|---------------|----------------|-------------|-----------|--------------|--------------------------------|------------|-----------------------------------------|
| HPE Option Kit SKU                                                                                                                 | Long Description                                                                       | Capacity | Workload Type | Interface Type | Form Factor | Plug Type | Carrier Type | Digitally Signed Firmware (DS) | Flash Type | Server Gen Supported (Select Platforms) |
| <b>Mixed Use SATA M.2s</b>                                                                                                         |                                                                                        |          |               |                |             |           |              |                                |            |                                         |
| 875488-B21                                                                                                                         | HPE 240GB SATA 6G Mixed Use M.2 2280 3yr Wty Digitally Signed Firmware SSD             | 240      | MU            | SATA           | M.2         | #N/A      | #N/A         | Yes                            | TLC        | Gen9 & 10                               |
| 875490-B21                                                                                                                         | HPE 480GB SATA 6G Mixed Use M.2 2280 3yr Wty Digitally Signed Firmware SSD             | 480      | MU            | SATA           | M.2         | #N/A      | #N/A         | Yes                            | TLC        | Gen9 & 10                               |
| 875492-B21                                                                                                                         | HPE 960GB SATA 6G Mixed Use M.2 2280 3yr Wty Digitally Signed Firmware SSD             | 960      | MU            | SATA           | M.2         | #N/A      | #N/A         | Yes                            | TLC        | Gen9 & 10                               |
|                                                                                                                                    |                                                                                        |          |               |                |             |           |              |                                |            |                                         |
| <b>Read Intensive SATA M.2s</b>                                                                                                    |                                                                                        |          |               |                |             |           |              |                                |            |                                         |
| 875498-B21                                                                                                                         | HPE 480GB SATA 6G Read Intensive M.2 2280 3yr Wty Digitally Signed Firmware SSD        | 480      | RI            | SATA           | M.2         | #N/A      | #N/A         | Yes                            | TLC        | Gen9 & 10                               |
| 875500-B21                                                                                                                         | HPE 960GB SATA 6G Read Intensive M.2 2280 3yr Wty Digitally Signed Firmware SSD        | 960      | RI            | SATA           | M.2         | #N/A      | #N/A         | Yes                            | TLC        | Gen9 & 10                               |
|                                                                                                                                    |                                                                                        |          |               |                |             |           |              |                                |            |                                         |
| <b>Mixed Use NVMe M.2s</b>                                                                                                         |                                                                                        |          |               |                |             |           |              |                                |            |                                         |
| 875583-B21                                                                                                                         | HPE 400GB NVMe x4 Lanes Mixed Use M.2 22110 3yr Wty Digitally Signed Firmware SSD      | 400      | MU            | NVMe           | M.2         | #N/A      | #N/A         | Yes                            | MLC        | Gen9 & 10                               |
| 875585-B21                                                                                                                         | HPE 800GB NVMe x4 Lanes Mixed Use M.2 22110 3yr Wty Digitally Signed Firmware SSD      | 800      | MU            | NVMe           | M.2         | #N/A      | #N/A         | Yes                            | MLC        | Gen9 & 10                               |
|                                                                                                                                    |                                                                                        |          |               |                |             |           |              |                                |            |                                         |
| <b>Read Intensive NVMe M.2s</b>                                                                                                    |                                                                                        |          |               |                |             |           |              |                                |            |                                         |
| 875579-B21                                                                                                                         | HPE 480GB NVMe x4 Lanes Read Intensive M.2 22110 3yr Wty Digitally Signed Firmware SSD | 480      | RI            | NVMe           | M.2         | #N/A      | #N/A         | Yes                            | MLC        | Gen9 & 10                               |
| 875581-B21                                                                                                                         | HPE 960GB NVMe x4 Lanes Read Intensive M.2 22110 3yr Wty Digitally Signed Firmware SSD | 960      | RI            | NVMe           | M.2         | #N/A      | #N/A         | Yes                            | MLC        | Gen9 & 10                               |
| <b>NOTE: Please use HPE Selector Tool <a href="http://ssd.hpe.com/">http://ssd.hpe.com/</a> to determine server compatibility.</b> |                                                                                        |          |               |                |             |           |              |                                |            |                                         |

## QuickSpecs

## HPE Solid State Disk Drives

### Technical Specifications

| M.2s– (Speeds & Feeds)                                                                                                             |                                                                                        |                      |                |                                                   |                                                             |                                               |                                                |
|------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|----------------------|----------------|---------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------|------------------------------------------------|
| HPE Option Kit SKU                                                                                                                 | Long Description                                                                       | Lifetime Writes (TB) | Endurance DWPD | MAX Seq Reads / Max Seq Writes Throughput (MiB/s) | Random Read Avg. / Random Write Avg. Latency uSec (4KiB,Q1) | Random Read / Random Writes IOPS (4KiB, Q=16) | MAX Random Read / MAX Random Write IOPS (4KiB) |
| Mixed Use SATA M.2s                                                                                                                |                                                                                        |                      |                |                                                   |                                                             |                                               |                                                |
| 875488-B21                                                                                                                         | HPE 240GB SATA 6G Mixed Use M.2 2280 3yr Wty Digitally Signed Firmware SSD             | 650                  | 1.5            | 500 / 260                                         | 135 / 40                                                    | 60,000 / 34,000                               | 66,000@Q32<br>34,000@Q4                        |
| 875490-B21                                                                                                                         | HPE 480GB SATA 6G Mixed Use M.2 2280 3yr Wty Digitally Signed Firmware SSD             | 1,300                | 1.5            | 500 / 400                                         | 130 / 40                                                    | 60,000 / 34,000                               | 68,000@Q32<br>34,000@Q4                        |
| 875492-B21                                                                                                                         | HPE 960GB SATA 6G Mixed Use M.2 2280 3yr Wty Digitally Signed Firmware SSD             | 4,400                | 2.6            | 500 / 465                                         | 130 / 40                                                    | 60,000 / 30,000                               | 68,000@Q32<br>30,000@Q4                        |
| Read Intensive SATA M.2s                                                                                                           |                                                                                        |                      |                |                                                   |                                                             |                                               |                                                |
| 875498-B21                                                                                                                         | HPE 480GB SATA 6G Read Intensive M.2 2280 3yr Wty Digitally Signed Firmware SSD        | 450                  | 0.5            | 500 / 425                                         | 130 / 40                                                    | 61,000 / 46,000                               | 67,000@Q32<br>46,000@Q64                       |
| 875500-B21                                                                                                                         | HPE 960GB SATA 6G Read Intensive M.2 2280 3yr Wty Digitally Signed Firmware SSD        | 900                  | 0.5            | 500 / 465                                         | 130 / 40                                                    | 61,000 / 41,000                               | 67,000@Q32<br>41,000@Q4                        |
| Mixed Use NVMe M.2s                                                                                                                |                                                                                        |                      |                |                                                   |                                                             |                                               |                                                |
| 875583-B21                                                                                                                         | HPE 400GB NVMe x4 Lanes Mixed Use M.2 22110 3yr Wty Digitally Signed Firmware SSD      | 2,475                | 3.0            | 2,300 / 490                                       | 100 / 40                                                    | 122,500 / 24,500                              | 215,000@Q64<br>/ 24,500@Q1                     |
| 875585-B21                                                                                                                         | HPE 800GB NVMe x4 Lanes Mixed Use M.2 22110 3yr Wty Digitally Signed Firmware SSD      | 4,950                | 3.0            | 2,300 / 575                                       | 100 / 31                                                    | 132,500 / 32,000                              | 240,000@Q64<br>/ 32,000@Q16                    |
| Read Intensive NVMe M.2s                                                                                                           |                                                                                        |                      |                |                                                   |                                                             |                                               |                                                |
| 875579-B21                                                                                                                         | HPE 480GB NVMe x4 Lanes Read Intensive M.2 22110 3yr Wty Digitally Signed Firmware SSD | 775                  | 0.3            | 2,375 / 485                                       | 100 / 105                                                   | 120,000 / 9,500                               | 215,000@Q64<br>9,500@Q1                        |
| 875581-B21                                                                                                                         | HPE 960GB NVMe x4 Lanes Read Intensive M.2 22110 3yr Wty Digitally Signed Firmware SSD | 1,550                | 0.3            | 2,375 / 515                                       | 100 / 80                                                    | 130,000 / 12,400                              | 240,000@Q64<br>12,400@Q1                       |
| <b>NOTE:</b> Please use HPE Selector Tool <a href="http://ssd.hpe.com/">http://ssd.hpe.com/</a> to determine server compatibility. |                                                                                        |                      |                |                                                   |                                                             |                                               |                                                |

## QuickSpecs

## HPE Solid State Disk Drives

### Technical Specifications

| M.2s– (Power & Height)          |                                                                                   |                         |                           |                            |                               |                                |                          |                   |           |
|---------------------------------|-----------------------------------------------------------------------------------|-------------------------|---------------------------|----------------------------|-------------------------------|--------------------------------|--------------------------|-------------------|-----------|
| HPE Option Kit SKU              | Long Description                                                                  | Power Idle Time (Watts) | Power Random Read (Watts) | Power Random Write (Watts) | Power Sequential Read (Watts) | Power Sequential Write (Watts) | Power Random R/W (Watts) | Power MAX (Watts) | z- Height |
| <b>Mixed Use SATA M.2s</b>      |                                                                                   |                         |                           |                            |                               |                                |                          |                   |           |
| 875488-B21                      | HPE 240GB SATA 6G Mixed Use M.2 2280 3yr Wty Digitally Signed Firmware SSD        | 1.07                    | 3.00                      | 3.00                       | 3.21                          | 3.90                           | 2.95                     | 4.00              | 2280 M.2  |
| 875490-B21                      | HPE 480GB SATA 6G Mixed Use M.2 2280 3yr Wty Digitally Signed Firmware SSD        | 1.07                    | 3.02                      | 3.02                       | 3.42                          | 4.03                           | 3.00                     | 5.00              | 2280 M.2  |
| 875492-B21                      | HPE 960GB SATA 6G Mixed Use M.2 2280 3yr Wty Digitally Signed Firmware SSD        | 1.07                    | 3.17                      | 3.17                       | 3.82                          | 5.62                           | 3.10                     | 6.00              | 2280 M.2  |
|                                 |                                                                                   |                         |                           |                            |                               |                                |                          |                   |           |
| <b>Read Intensive SATA M.2s</b> |                                                                                   |                         |                           |                            |                               |                                |                          |                   |           |
| 875498-B21                      | HPE 480GB SATA 6G Read Intensive M.2 2280 3yr Wty Digitally Signed Firmware SSD   | 1.07                    | 3.02                      | 3.02                       | 3.42                          | 4.03                           | 3.00                     | 5.00              | 2280 M.2  |
| 875500-B21                      | HPE 960GB SATA 6G Read Intensive M.2 2280 3yr Wty Digitally Signed Firmware SSD   | 1.07                    | 3.17                      | 3.17                       | 3.82                          | 5.62                           | 3.10                     | 6.00              | 2280 M.2  |
|                                 |                                                                                   |                         |                           |                            |                               |                                |                          |                   |           |
| <b>Mixed Use NVMe M.2s</b>      |                                                                                   |                         |                           |                            |                               |                                |                          |                   |           |
| 875583-B21                      | HPE 400GB NVMe x4 Lanes Mixed Use M.2 22110 3yr Wty Digitally Signed Firmware SSD | 2.60                    | 4.50                      | 5.50                       | 6.50                          | 7.50                           | 5.00                     | 8.00              | 22110 M.2 |

## QuickSpecs

## HPE Solid State Disk Drives

### Technical Specifications

| M.2s– (Power & Height)                                                                                                             |                                                                                        |                         |                           |                            |                               |                                |                          |                   |           |
|------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------|---------------------------|----------------------------|-------------------------------|--------------------------------|--------------------------|-------------------|-----------|
| HPE Option Kit SKU                                                                                                                 | Long Description                                                                       | Power Idle Time (Watts) | Power Random Read (Watts) | Power Random Write (Watts) | Power Sequential Read (Watts) | Power Sequential Write (Watts) | Power Random R/W (Watts) | Power MAX (Watts) | z- Height |
| 875585-B21                                                                                                                         | HPE 800GB NVMe x4 Lanes Mixed Use M.2 22110 3yr Wty Digitally Signed Firmware SSD      | 2.60                    | 4.50                      | 5.50                       | 6.50                          | 7.50                           | 5.00                     | 8.00              | 22110 M.2 |
|                                                                                                                                    |                                                                                        |                         |                           |                            |                               |                                |                          |                   |           |
| Read Intensive NVMe M.2s                                                                                                           |                                                                                        |                         |                           |                            |                               |                                |                          |                   |           |
| 875579-B21                                                                                                                         | HPE 480GB NVMe x4 Lanes Read Intensive M.2 22110 3yr Wty Digitally Signed Firmware SSD | 2.60                    | 4.50                      | 5.50                       | 6.50                          | 7.50                           | 5.00                     | 8.00              | 22110 M.2 |
| 875581-B21                                                                                                                         | HPE 960GB NVMe x4 Lanes Read Intensive M.2 22110 3yr Wty Digitally Signed Firmware SSD | 2.60                    | 4.50                      | 5.50                       | 6.50                          | 7.50                           | 5.00                     | 8.00              | 22110 M.2 |
| <b>NOTE:</b> Please use HPE Selector Tool <a href="http://ssd.hpe.com/">http://ssd.hpe.com/</a> to determine server compatibility. |                                                                                        |                         |                           |                            |                               |                                |                          |                   |           |



## Technical Specifications

| M.2 Enablement Kits – (Certifications) |                                                                                        |                                         |                                             |                                                              |                                             |                                             |
|----------------------------------------|----------------------------------------------------------------------------------------|-----------------------------------------|---------------------------------------------|--------------------------------------------------------------|---------------------------------------------|---------------------------------------------|
| HPE Option Kit SKU                     | Long Description                                                                       | VMWare / vSAN HCL Certification (Watts) | Microsoft Windows Server 2016 Certification | Software Defined Data Center (SDDC) Premium AQ Certification | Microsoft Windows Server 2019 Certification | WS 2019 Software Defined Data Center (SDDC) |
| <b>Mixed Use SATA M.2s</b>             |                                                                                        |                                         |                                             |                                                              |                                             |                                             |
| 875488-B21                             | HPE 240GB SATA 6G Mixed Use M.2 2280 3yr Wty Digitally Signed Firmware SSD             | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| 875490-B21                             | HPE 480GB SATA 6G Mixed Use M.2 2280 3yr Wty Digitally Signed Firmware SSD             | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| 875492-B21                             | HPE 960GB SATA 6G Mixed Use M.2 2280 3yr Wty Digitally Signed Firmware SSD             | Certified                               | Certified                                   | Certified                                                    | Certified                                   |                                             |
|                                        |                                                                                        |                                         |                                             |                                                              |                                             |                                             |
| <b>Read Intensive SATA M.2s</b>        |                                                                                        |                                         |                                             |                                                              |                                             |                                             |
| 875498-B21                             | HPE 480GB SATA 6G Read Intensive M.2 2280 3yr Wty Digitally Signed Firmware SSD        | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
| 875500-B21                             | HPE 960GB SATA 6G Read Intensive M.2 2280 3yr Wty Digitally Signed Firmware SSD        | Certified                               | Certified                                   | Certified                                                    | Certified                                   | Certified                                   |
|                                        |                                                                                        |                                         |                                             |                                                              |                                             |                                             |
| <b>Mixed Use NVMe M.2s</b>             |                                                                                        |                                         |                                             |                                                              |                                             |                                             |
| 875583-B21                             | HPE 400GB NVMe x4 Lanes Mixed Use M.2 22110 3yr Wty Digitally Signed Firmware SSD      | Certified                               | Certified                                   | Certified                                                    | NA                                          | NA                                          |
| 875585-B21                             | HPE 800GB NVMe x4 Lanes Mixed Use M.2 22110 3yr Wty Digitally Signed Firmware SSD      | Certified                               | Certified                                   | Certified                                                    | NA                                          | NA                                          |
|                                        |                                                                                        |                                         |                                             |                                                              |                                             |                                             |
| <b>Read Intensive SATA M.2s</b>        |                                                                                        |                                         |                                             |                                                              |                                             |                                             |
| 875579-B21                             | HPE 480GB NVMe x4 Lanes Read Intensive M.2 22110 3yr Wty Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | NA                                          | NA                                          |

## QuickSpecs

## HPE Solid State Disk Drives

### Technical Specifications

| M.2 Enablement Kits – (Certifications)                                                                                             |                                                                                        |                                         |                                             |                                                              |                                             |                                             |
|------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-----------------------------------------|---------------------------------------------|--------------------------------------------------------------|---------------------------------------------|---------------------------------------------|
| HPE Option Kit SKU                                                                                                                 | Long Description                                                                       | VMWare / vSAN HCL Certification (Watts) | Microsoft Windows Server 2016 Certification | Software Defined Data Center (SDDC) Premium AQ Certification | Microsoft Windows Server 2019 Certification | WS 2019 Software Defined Data Center (SDDC) |
| 875581-B21                                                                                                                         | HPE 960GB NVMe x4 Lanes Read Intensive M.2 22110 3yr Wty Digitally Signed Firmware SSD | Certified                               | Certified                                   | Certified                                                    | NA                                          | NA                                          |
| <b>NOTE:</b> Please use HPE Selector Tool <a href="http://ssd.hpe.com/">http://ssd.hpe.com/</a> to determine server compatibility. |                                                                                        |                                         |                                             |                                                              |                                             |                                             |

## Technical Specifications

### Previous To Current Workload Naming Conversion

Please use the table below for comparing older SSD models to the newer workload descriptions.

| Previous Workload         | Current Workload Alignment      |
|---------------------------|---------------------------------|
| (HE) High Endurance       | (WI) Write Intensive (>25 DWPD) |
| (ME) Mainstream Endurance | (WI) Write Intensive (>25 DWPD) |
| (LE) Light Endurance      | (MU) Mixed Use (>1 & <10 DWPD)  |
| (VE) Value Endurance      | (RI) Read Intensive (<=1 DWPD)  |

### Carrier Key Decoder

HPE Solid State Drives (SSDs) utilize a wide variety of carriers, which houses the SSD and also enables a specific chassis fit to support a broad range of HPE server and storage products.

The table below summarizes the various form factors, plug types, and carrier attributes.

| Carriers    |                             |                 |                               |         |
|-------------|-----------------------------|-----------------|-------------------------------|---------|
| Form Factor | HP/NHP                      | Smart/Non-Smart | Carrier Name (Abbreviation)   | SFF/LFF |
| SFF Carrier | Hot Plug                    | Smart           | Smart Carrier (SC)            | SFF     |
|             |                             |                 | Smart Carrier NVMe (SCN)      | SFF     |
|             |                             |                 | Smart Carrier M.2 (SCM)       | SFF     |
|             | Non-Hot Plug                | Non-Smart       | Standard (ST)                 | SFF     |
|             |                             |                 | Quick Release (QR)            | SFF     |
| LFF Carrier | Hot Plug                    | Smart           | Smart Carrier (SC)            | LFF     |
|             |                             |                 | Smart Carrier Converter (SCC) | LFF     |
|             |                             | Non-Smart       | Low Profile (LP)              | LFF     |
|             | Low Profile Converter (LPC) |                 | LFF                           |         |
|             | Standard (ST)               |                 | LFF                           |         |
|             | Non-Hot Plug                |                 | Quick Release (QR)            | LFF     |
| No Carrier  |                             | Non-Smart       | Raw SFF HDD/SSD (RW)          | SFF     |
|             | Raw LFF HDD (RW)            |                 | LFF                           |         |
|             | M.2                         |                 | N/A                           |         |
|             | PCIe AIC Card               |                 | N/A                           |         |

## QuickSpecs

## HPE Solid State Disk Drives

### Technical Specifications

The following charts are provided to assist in decoding the SSD short & long product descriptions; additional details can also be found within the Carrier Key Decoder & the Previous To Current Workload Naming Conversion tables within this document.

#### SAS and SATA SSD SKU Decoders

##### SSD SKU Decoder

##### Long Name

**HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD**

| Brand | Storage Capacity        | Interface Type/<br>Interface Speed | Workload                                       | Form Factor Type /<br>Form Factor Size | Carriers                                                                                                                                                                                                             | Wty                | Special Features                                                                                                                                                     | Drive Type |
|-------|-------------------------|------------------------------------|------------------------------------------------|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| HPE   | 120-960GB<br>1.6-12.8TB | SATA/SAS<br>6G/12G                 | Write Intensive<br>Mixed Use<br>Read Intensive | SFF (2.5IN)<br>LFF (3.5IN)             | SC Smart Carrier<br>SCN Smart Carrier NVMe<br>SCM Smart Carrier M.2<br>SCC Smart Carrier<br>ST Standard<br>STC Standard Converter<br>LP Low Profile<br>LPC Low Profile Converter<br>QR Quick Release<br>RW Raw Drive | 3yr Wty<br>1yr Wty | Digitally Signed Firmware<br>SED Self Encrypting Drive<br>Value SAS<br>Special – Special SKUs<br><br><i>In priority order where 1st is<br/>closest to Drive Type</i> | SSD        |

##### SSD SKU Decoder

##### Short Name

**HPE 3.84TB SATA RI SFF SC DS SSD**

| Brand | Storage Capacity        | Interface Type | Workload       | Form Factor Type | Carriers                                                                                                                                                                                                             | Special Features                                                                                                                                                       | Drive Type |
|-------|-------------------------|----------------|----------------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| HPE   | 120-960GB<br>1.6-12.8TB | SATA/SAS       | WI<br>MU<br>RI | SFF<br>LFF       | SC Smart Carrier<br>SCN Smart Carrier NVMe<br>SCM Smart Carrier M.2<br>SCC Smart Carrier<br>ST Standard<br>STC Standard Converter<br>LP Low Profile<br>LPC Low Profile Converter<br>QR Quick Release<br>RW Raw Drive | DS Digitally Signed<br>Firmware<br>SED Self Encrypting Drive<br>VS Value SAS<br>SPL Special SKU<br><br><i>In priority order where 1st is<br/>closest to drive type</i> | SSD        |

##### NVMe SSDs SKU Decoder

##### Long Name

**HPE 1TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD**

| Brand | Storage Capacity   | Interface Type/<br>Interface Speed | Workload                                       | Form Factor Type /<br>Form Factor Size | Carriers               | Wty                | Special Features                                                                                 | Drive Type |
|-------|--------------------|------------------------------------|------------------------------------------------|----------------------------------------|------------------------|--------------------|--------------------------------------------------------------------------------------------------|------------|
| HPE   | 400-960GB<br>1-8TB | NVMe/<br>x4 Lanes                  | Write Intensive<br>Mixed Use<br>Read Intensive | SFF (2.5IN)<br>HHHL/FHHL               | SCN Smart Carrier NVMe | 3yr Wty<br>1yr Wty | Digitally Signed Firmware<br><br><i>In priority order where 1st is<br/>closest to Drive Type</i> | SSD        |

## QuickSpecs

## HPE Solid State Disk Drives

### Technical Specifications

#### NVMe SSDs SKU Decoder

##### Short Name

HPE 1TB NVMe x4 RI SFF SCN DS SSD

| Brand | Storage Capacity        | Interface Type | Workload       | Form Factor Type | Carriers               | Special Features                                                                                           | Drive Type |
|-------|-------------------------|----------------|----------------|------------------|------------------------|------------------------------------------------------------------------------------------------------------|------------|
| HPE   | 120-960GB<br>1.6-12.8TB | NVMe x4        | WI<br>MU<br>RI | SFF<br>HH<br>FH  | SCN Smart Carrier NVMe | DS Digitally Signed Firmware<br><br><i>In priority order where 1<sup>st</sup> is closest to Drive Type</i> | SSD        |

#### M.2 SSDs SKU Decoder

##### Long Name

HPE 960GB NVMe x4 Lanes Read Intensive M.2 2280 3yr Wty Digitally Signed Firmware SSD

| Brand | Storage Capacity   | Interface Type / Interface Speed | Workload                                       | Form Factor Type / Form Factor Size | Wty                | Special Features          | Drive Type |
|-------|--------------------|----------------------------------|------------------------------------------------|-------------------------------------|--------------------|---------------------------|------------|
| HPE   | 400-960GB<br>1-8TB | NVMe x4 Lanes / SATA 6Gb         | Write Intensive<br>Mixed Use<br>Read Intensive | M.2 / 2280/22110                    | 3yr Wty<br>1yr Wty | Digitally Signed Firmware | SSD        |

#### M.2 SSDs SKU Decoder

##### Short Name

HPE 960GB NVMe x4 Lanes RI M.2 2280 DS SSD

| Brand | Storage Capacity   | Interface Type / Interface Speed | Workload       | Form Factor Type / Form Factor Size | Special Features             | Drive Type |
|-------|--------------------|----------------------------------|----------------|-------------------------------------|------------------------------|------------|
| HPE   | 400-960GB<br>1-8TB | NVMe x4 / SATA 6Gb               | WI<br>MU<br>RI | M.2 / 2280/22110                    | DS Digitally Signed Firmware | SSD        |

#### M.2 eKits SKU Decoder

##### Long Name

HPE 340GB SATA Read Intensive HHHL 3yr Wty Dual M.2 Kit

| Brand | Storage Capacity    | Interface Type / Interface Speed | Workload                                       | Form Factor Type / Form Factor Size | Wty                | Special Features             | Drive Type |
|-------|---------------------|----------------------------------|------------------------------------------------|-------------------------------------|--------------------|------------------------------|------------|
| HPE   | 150-960GB<br>1.92TB | SATA / NVMe                      | Write Intensive<br>Mixed Use<br>Read Intensive | HHHL<br>FHHL<br>UFF                 | 3yr Wty<br>1yr Wty | Dual<br>Quad<br>Blank=Single | M.2 Kit    |

## QuickSpecs

## HPE Solid State Disk Drives

### Technical Specifications

#### M.2 eKits SKU Decoder

##### Short Name

**HPE** **340GB** **SATA** **RI** **HH** **Dual** **M.2 Kit**

| Brand | Storage Capacity    | Interface Type/ Interface Speed | Workload       | Form Factor Type / Form Factor Size | Special Features             | Drive Type |
|-------|---------------------|---------------------------------|----------------|-------------------------------------|------------------------------|------------|
| HPE   | 150-960GB<br>1.92TB | SATA/<br>NVMe                   | WI<br>MU<br>RI | HH<br>FH<br>UFF                     | Dual<br>Quad<br>Blank=Single | M.2 Kit    |

#### Add-In Card SKU Decoder

##### Long Name

**HPE** **1.6TB** **PCIe x4 Lanes** **Read Intensive** **HHHL** **3yr Wty** **Digitally Signed Firmware** **Card**

| Brand | Storage Capacity   | Interface Type/ Interface Speed | Workload                                       | Form Factor Type / Form Factor Size | Wty                | Special Features          | Drive Type |
|-------|--------------------|---------------------------------|------------------------------------------------|-------------------------------------|--------------------|---------------------------|------------|
| HPE   | 400-960GB<br>1-8TB | PCIe<br>x4 Lanes                | Write Intensive<br>Mixed Use<br>Read Intensive | HHHL<br>FHHL<br>Mezz                | 3yr Wty<br>1yr Wty | Digitally Signed Firmware | Card       |

#### AIC SKU Decoder

##### Short Name

**HPE** **1.6TB** **PCIe x4** **RI** **HH** **DS** **Card**

| Brand | Storage Capacity   | Interface Type/ Interface Speed | Workload       | Form Factor Type / Form Factor Size | Special Features                  | Drive Type |
|-------|--------------------|---------------------------------|----------------|-------------------------------------|-----------------------------------|------------|
| HPE   | 400-960GB<br>1-8TB | PCIe x4                         | WI<br>MU<br>RI | FH/HH<br>Mezz                       | DS<br>(Digitally Signed Firmware) | Card       |

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

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## Summary of Changes

| Date        | Version History | Action  | Description of Change                                                                                               |
|-------------|-----------------|---------|---------------------------------------------------------------------------------------------------------------------|
| 07-Oct-2019 | Version 28      | Changed | New drive models added. Technical Specifications revised and updated.                                               |
| 05-Aug-2019 | Version 27      | Changed | Technical Specifications section was updated                                                                        |
| 01-Jul-2019 | Version 26      | Changed | Technical Specifications section was updated                                                                        |
| 03-Jun-2019 | Version 25      | Changed | New drive models added. Technical Specifications revised and updated.                                               |
| 02-Apr-2019 | Version 24      | Changed | New drive models added. Technical Specifications revised and updated.                                               |
| 07-Jan-2019 | Version 23      | Changed | Technical Specifications section was updated.                                                                       |
| 03-Dec-2018 | Version 22      | Changed | New drive models added. Technical Specifications revised and updated.                                               |
| 15-Oct-2018 | Version 21      | Changed | Technical Specifications Section was updated                                                                        |
| 01-Oct-2018 | Version 20      | Changed | New drive models added. Technical Specifications revised and updated.                                               |
| 06-Aug-2018 | Version 19      | Changed | New drive models added. Technical Specifications revised and updated.                                               |
| 02-Jul-2018 | Version 18      | Changed | Overview and SKU description were updated.                                                                          |
| 04-Jun-2018 | Version 17      | Changed | New drive models added. Technical Specifications revised and updated.                                               |
| 02-Apr-2018 | Version 16      | Changed | New drive models added, Technical Specifications revised and updated.                                               |
| 05-Mar-2018 | Version 15      | Changed | Technical Specifications revised and updated, images revised                                                        |
| 05-Feb-2018 | Version 14      | Changed | Format Revised                                                                                                      |
|             |                 | Added   | New drive models added                                                                                              |
| 04-Dec-2017 | Version 13      | Added   | New drive model was added.                                                                                          |
|             |                 | Changed | Technical Specifications were revised.                                                                              |
| 02-Oct-2017 | Version 12      | Changed | Technical Specifications were revised.                                                                              |
| 25-Sep-2017 | Version 11      | Added   | New drive models were added.                                                                                        |
|             |                 | Changed | Technical Specifications were revised<br>The title was changed to HPE Solid State Disk Drives (SSD & Add-In Cards). |
| 14-Aug-2017 | Version 10      | Changed | Technical Specifications were revised                                                                               |
| 07-Aug-2017 | Version 9       | Changed | Technical Specifications were revised                                                                               |
| 17-Jul-2017 | Version 8       | Changed | Technical Specifications were revised                                                                               |
| 28-Jun-2017 | Version 7       | Changed | Technical Specifications were revised.                                                                              |
| 12-Jun-2017 | Version 6       | Changed | Technical Specifications were revised.                                                                              |
| 06-Jun-2017 | Version 5       | Changed | Technical Specifications were revised.                                                                              |
| 17-Mar-2017 | Version 4       | Changed | SSD Selection verbiage was revised.                                                                                 |
| 10-Mar-2017 | Version 3       | Changed | Edits to tables and various verbiage.                                                                               |
| 17-Feb-2017 | Version 2       | Changed | Technical Specifications were revised.                                                                              |
| 13-Feb-2017 | 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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