

### 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).



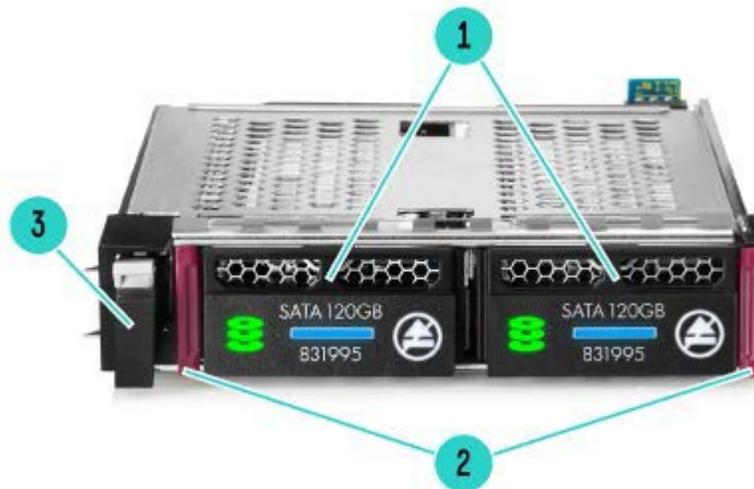
## Overview

### 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

#### What's New?

New Solid State Drives & Drive Kit(s):

#### New Option KIT SKUs

- P06200-B21 HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD
- P06198-B21 HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD
- P06196-B21 HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD
- P06194-B21 HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD
- P06607-B21 HPE Dual 240GB SATA 6G Mixed Use M.2 - UFF to SFF SCM 3yr Wty Digitally Signed Firmware SSD
- P06609-B21 HPE Dual 480GB SATA 6G Read Intensive M.2 - UFF to SFF SCM 3yr Wty Digitally Signed Firmware SSD

## Overview

**HPE Recommended Options** have the best performance, value and availability.

**Recommended Options** have been selected by Hewlett Packard Enterprise experts to provide the right technology for a range of workloads and market segments. Fully integrated into the ProLiant management and security experience, Recommended Options provide the best fit with timely availability. **[View the list for your region.](#)**

**Extended Options** provide an extended catalog of products tailored for customers in specific markets or with specific workloads, requiring the utmost in performance or value. Fully integrated into the ProLiant management and security experience, Extended Options represent great value and performance but typically have a longer lead-time.

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**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.
- 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 SSDs:

- 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

Overview

# HPE Storage Options – SSD Portfolio Alignment

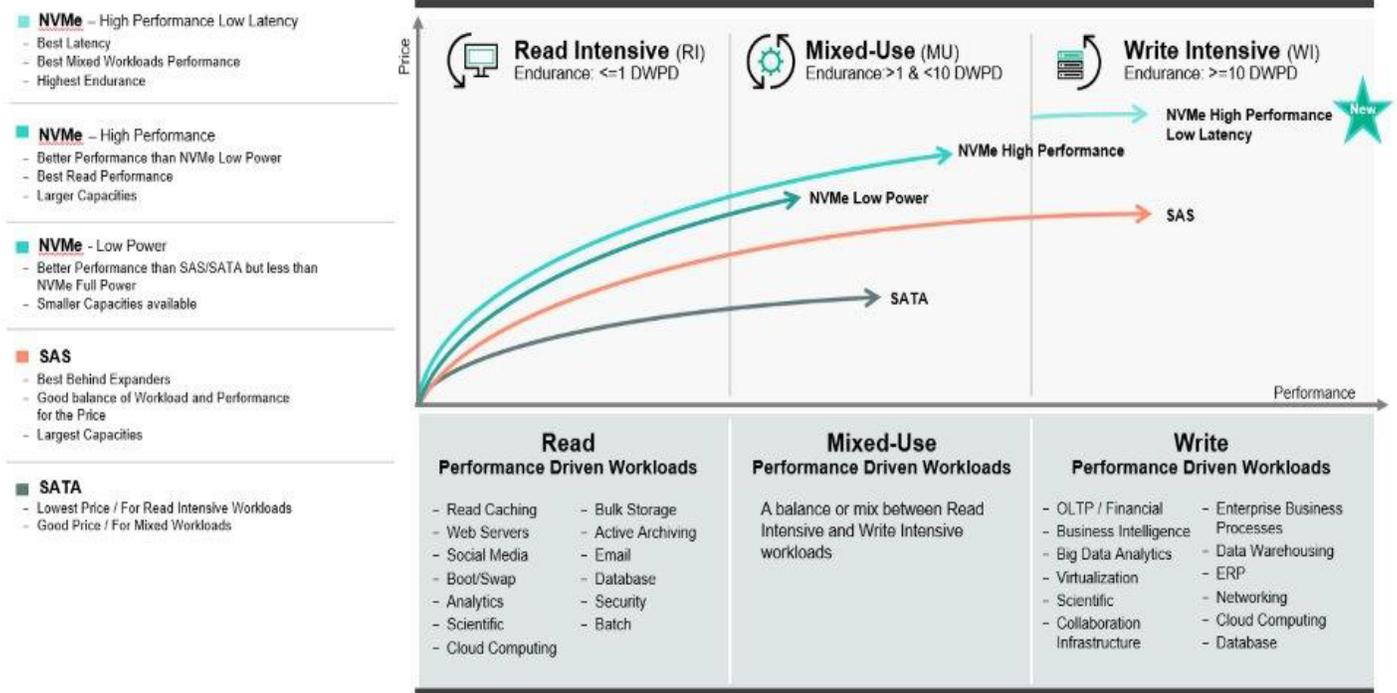


Figure 1 – SSD Portfolio Alignment

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## Overview

### **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 (DWPD1) 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.

All of our Solid State products have performance that can be 80x or more when compared to rotating hard disk drives. Today's NVMe SSDs connect directly on the PCIe bus with the processor and memory. They are used in applications that require the highest performance, such as Online Transaction Processing in the financial industry. Low Latency NVMe SSDs are positioned in the Write Intensive category and are uniquely positioned for workloads that require the lowest latency, best QOS, and high performance.

Using the above figures along with our [\*\*HPE SSD Selector Tool\*\*](#) you can quickly determine what SSD/AIC solution might best meet your needs. You can also compare specific capacity, performance attributes, and server compatibility.

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## 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.

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### 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.

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### 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.

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### Support Matrix

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

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

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### 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 (DWPDI) that you can expect from the drive. (DWPDI is the maximum number of 4K host writes to the entire drive capacity of the SSD per day over a five-year period).

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### 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 (DWPDI) - 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.

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## Standard Features

### 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/bladestystem.html>

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### Supporting Helpful Links

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

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

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

<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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## Technical Specifications

SATA Interface– Recommended (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)
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	Gen9 & 10
872348-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	Gen9 & 10
872350-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	Gen9 & 10
872352-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	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	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	Gen9 & 10
875478-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	Gen9 & 10
875480-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	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	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	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	MLC	Gen9 & 10
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	Gen10
878783-B21	HPE Universal SATA HHHL 3yr Wty M.2 Kit	NA	NA	SATA	M.2e	Non-Hot Plug	AIC	Yes	#N/A	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	Gen9 & 10

## Technical Specifications

SATA Interface– Recommended (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)
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	Gen9 & 10
875507-B21	HPE 240GB SATA 6G Read Intensive SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD	240	RI	SATA	SFF	Hot Plug	RW	Yes	TLC	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	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	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	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	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	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	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	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	MLC	Gen10
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	MLC	Gen10

## Technical Specifications

SATA Interface– Recommended (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)
06198-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	Gen10
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	Gen10

SATA Interface – Recommended (Speeds & Feeds)							
HPE Option Kit SKU	Long Description	Lifetime Writes (TB)	Endurance DDPD	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)
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
872348-B21	HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	6,727	3.5	510 / 475	110 / 40	62,000 / 26,500	69,000@Q32 26,500@Q4
872350-B21	HPE 960GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	6,727	3.5	510 / 475	110 / 40	62,000 / 26,500	69,000@Q32 26,500@Q4
872352-B21	HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	13,400	3.5	500 / 475	110 / 38	61,500 / 28,500	69,000@Q32 28,500@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
875478-B21	HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	17,600	5.0	500 / 480	190 / 40	54,000 / 53,000	61,500@Q32 53,000@Q4
875480-B21	HPE 1.92TB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	17,600	5.0	500 / 480	190 / 40	54,000 / 53,000	61,500@Q32 53,000@Q4
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

## Technical Specifications

SATA Interface – Recommended (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)
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
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
P06607-B21	HPE Dual 240GB SATA 6G Mixed Use M.2 - UFF to SFF SCM 3yr Wty Digitally Signed Firmware SSD	NA	NA	NA / NA	NA / NA	NA / NA	NA NA
878783-B21	HPE Universal SATA HHHL 3yr Wty M.2 Kit	NA	NA	NA / NA	NA / NA	NA / NA	NA NA
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
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
875507-B21	HPE 240GB SATA 6G Read Intensive SFF (2.5in) RW 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
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

## Technical Specifications

SATA Interface – Recommended (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)
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
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
P06609-B21	HPE Dual 480GB SATA 6G Read Intensive M.2 - UFF to SFF SCM 3yr Wty Digitally Signed Firmware SSD	NA	NA	NA / NA	NA / NA	NA / NA	NA NA

**NOTE:** Reference column VI-1 when comparing RI SSDs, & column VI-2 for comparing MU & WI SSDs.

## Technical Specifications

SATA Interface – Recommended (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
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
872348-B21	HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	1.23	2.66	2.66	2.69	2.84	2.66	3.00	7mm
872350-B21	HPE 960GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	1.23	2.66	2.66	2.69	2.84	2.66	3.00	7mm
872352-B21	HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	1.23	2.59	2.59	2.71	2.84	2.59	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	4.00	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	4.00	7mm
875478-B21	HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	3.22	3.63	12.07	4.52	12.07	6.52	13.00	7mm
875480-B21	HPE 1.92TB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	1.07	3.51	3.51	4.52	6.12	3.40	7.00	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
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
P06607-B21	HPE Dual 240GB SATA 6G Mixed Use M.2 - UFF to SFF SCM 3yr Wty Digitally Signed Firmware SSD	NA	NA	NA	NA	NA	NA	0.00	NA
878783-B21	HPE Universal SATA HHHL 3yr Wty M.2 Kit	NA	NA	NA	NA	NA	NA	0.00	Half Height/ Half Length
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

## Technical Specifications

SATA Interface – Recommended (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
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
875507-B21	HPE 240GB SATA 6G Read Intensive SFF (2.5in) RW 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
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
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	2.43	7mm

## Technical Specifications

SATA Interface – Recommended (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
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	2.46	7mm
P06609-B21	HPE Dual 480GB SATA 6G Read Intensive M.2 - UFF to SFF SCM 3yr Wty Digitally Signed Firmware SSD	NA	NA	NA	NA	NA	NA	0.00	NA

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

SAS Interface – Recommended (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)
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	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	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	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	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	Gen9 & 10
875311-B21	HPE 480GB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	480	RI	SAS	SFF	Hot Plug	SC	Yes	MLC	Gen9 & 10

## Technical Specifications

SAS Interface – Recommended (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)
875313-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	Gen9 & 10
875326-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	Gen9 & 10
872374-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	Gen9 & 10
872376-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	Gen9 & 10
872380-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	Gen9 & 10
872382-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	Gen9 & 10
872384-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	Gen9 & 10
873359-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	Gen9 & 10
873363-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	Gen9 & 10
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	Gen9 & 10
873367-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	Gen9 & 10

## Technical Specifications

SAS Interface - Recommended (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)
873351-B21	HPE 400GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	7	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	15	10.0	1,050 / 1,005	105 / 35	120,000 / 100,000	170,000@Q64 / 100,000@Q16
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
875311-B21	HPE 480GB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	876	1.0	940 / 615	115 / 47	110,000 / 21,000	170,000@Q128 / 21,000@Q1
875313-B21	HPE 960GB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	1,752	1.0	940 / 1,015	115 / 42	110,000 / 32,000	170,000@Q128 / 32,000@Q4
875326-B21	HPE 1.92TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	3,504	1.0	940 / 1,020	115 / 42	110,000 / 37,000	170,000@Q128 / 37,000@Q4
872374-B21	HPE 400GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	2,190	3.0	1,075 / 1,025	120 / 48	120,000 / 80,000	185,000@Q32 / 80,000@Q16
872376-B21	HPE 800GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	4,380	3.0	1,075 / 1,025	126 / 57	120,000 / 90,000	185,000@Q32 / 90,000@Q16
872380-B21	HPE 800GB SAS 12G Mixed Use LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD	4,380	3.0	1,075 / 1,025	126 / 57	120,000 / 90,000	185,000@Q32 / 90,000@Q16

## Technical Specifications

SAS Interface - Recommended (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)
872382-B21	HPE 1.6TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	8,760	3.0	1,075 / 1,025	120 / 48	125,000 / 93,000	185,000@Q32 / 93,000@Q16
872384-B21	HPE 1.6TB SAS 12G Mixed Use LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD	8,760	3.0	1,075 / 1,025	120 / 48	125,000 / 93,000	185,000@Q32 / 93,000@Q16
873359-B21	HPE 400GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	2	3.0	1,050 / 820	105 / 35	115,000 / 100,000	170,000@Q64 / 100,000@Q16
873363-B21	HPE 800GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	5	3.0	1,050 / 1,010	105 / 35	120,000 / 100,000	170,000@Q64 / 100,000@Q16
873365-B21	HPE 1.6TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	9	3.0	1,050 / 1,010	105 / 35	125,000 / 100,000	170,000@Q64 / 100,000@Q16
873367-B21	HPE 3.2TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	18	3.0	1,050 / 1,010	105 / 35	130,000 / 100,000	170,000@Q64 / 100,000@Q16

**NOTE:** Reference column VI-1 when comparing RI SSDs, & column VI-2 for comparing MU & WI SSDs.

## Technical Specifications

SAS Interface - Recommended (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)	z- Height
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	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	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	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	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	15mm
875311-B21	HPE 480GB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	4.33	4.67	4.67	4.89	6.76	4.67	15mm
875313-B21	HPE 960GB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	4.37	4.73	4.73	4.97	6.79	4.73	15mm
875326-B21	HPE 1.92TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	4.45	4.83	4.83	4.97	6.83	4.83	15mm
872374-B21	HPE 400GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	3.82	4.33	4.33	6.41	8.42	4.33	15mm
872376-B21	HPE 800GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	3.06	4.07	4.07	6.28	8.22	4.07	15mm
872380-B21	HPE 800GB SAS 12G Mixed Use LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD	3.06	4.07	4.07	6.28	8.22	4.07	15mm

## Technical Specifications

SAS Interface - Recommended (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)	z- Height
872382-B21	HPE 1.6TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	3.64	4.16	4.16	6.95	8.67	4.16	15mm
872384-B21	HPE 1.6TB SAS 12G Mixed Use LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD	3.64	4.16	4.16	6.95	8.67	4.16	15mm
873359-B21	HPE 400GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	3.64	5.39	5.39	5.60	7.29	5.39	15mm
873363-B21	HPE 800GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	3.58	5.99	5.99	6.47	9.84	5.99	15mm
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	15mm
873367-B21	HPE 3.2TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	4.24	8.74	8.74	6.51	9.93	8.74	15mm

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

## Technical Specifications

PCIe/NVMe Interface – Recommended 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	Server Gen Supported (Select Platforms)
877986-B21	HPE 2TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	2,000	RI	PCIe / PCIe NVMe	SFF	Hot Plug	SCN	Yes	MLC	Gen9 & 10
875593-B21	HPE 400GB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	400	MU	PCIe / PCIe NVMe	SFF	Hot Plug	SCN	Yes	MLC	Gen9 & 10
875595-B21	HPE 800GB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	800	MU	PCIe / PCIe NVMe	SFF	Hot Plug	SCN	Yes	MLC	Gen9 & 10
877994-B21	HPE 1.6TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	1,600	MU	PCIe / PCIe NVMe	SFF	Hot Plug	SCN	Yes	MLC	Gen9 & 10

PCIe/NVMe Interface – Recommended SKUs (Speeds and Feeds)							
HPE Option Kit SKU	Long Description	Lifetime Writes (TB)	Endurance DDPD	MAX Seq Reads / Max Seq Writes Throughput (MB/s)	Random Read Avg. / Random Write Avg. Latency $\mu$ Sec (4KiB,Q1)	Random Read / Random Writes IOPS (4KiB, Q=16)	MAX Random Read / MAX Random Write IOPS (4KiB)
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
875593-B21	HPE 400GB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	2,475	3.0	2,040 / 490	100 / 40	125,000 / 24,500	220,000@Q64 / 24,500@Q16
875595-B21	HPE 800GB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	4,950	3.0	2,400 / 840	100 / 32	135,000 / 32,000	245,000@Q64 / 32,000@Q16
877994-B21	HPE 1.6TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	8,520	2.9	3,200 / 1,400	86 / 17	155,000 / 185,000	585,000@Q256 / 185,000@Q16

**NOTE:** Reference column VI-1 when comparing RI SSDs, & column VI-2 for comparing MU & WI SSDs.

## Technical Specifications

PCIe/NVMe Interface – Recommended SKUs (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)	z- Height
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	15mm
875593-B21	HPE 400GB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	3.22	3.46	7.68	6.40	7.51	5.51	7mm
875595-B21	HPE 800GB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	3.22	6.40	10.70	6.72	6.85	6.89	7mm
877994-B21	HPE 1.6TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	<5.00	9.00	15.60	9.41	19.00	12.00	15mm

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

### Inbox NVMe Drivers

Inbox NVMe drivers for the 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 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

## Technical Specifications

M.2 Enablement Kits – Recommended (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 (Recommended)	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	480	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	960	RI	SATA	SFF	Hot Plug	SCM	Yes	MLC	Gen10

**NOTE:** \*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 Recommended and Extended Tables above.

### M.2 Enablement Kits – Recommended (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

M.2 Enablement Kits – Recommended (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)	z-Height
878783-B21*	HPE Universal SATA HHHL 3yr Wty M.2 Kit (Recommended)	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	NA	NA	NA	NA	NA	NA	15 mm
P06609-B21	HPE Dual 480GB SATA 6G Read Intensive M.2 - UFF to SFF SCM 3yr Wty Digitally Signed Firmware SSD	NA	NA	NA	NA	NA	NA	15 mm

Power information should be taken from the M.2 drives used within the enablement kits. See SATA M.2s in tables below.

**NOTE:** \*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 Recommended and Extended Tables above.

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

## Technical Specifications

M.2s– Recommended (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)
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
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

M.2s– Recommended (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)
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
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

M.2s– Recommended (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)	z- Height
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	2280 M.2
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	2280 M.2

## Technical Specifications

SATA – Extended (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)
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	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
877776-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	Gen9 & 10
877782-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	Gen9 & 10
877784-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	Gen9 & 10
877788-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	Gen9 & 10
877790-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	Gen9 & 10
880295-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	MLC	Gen9 & 10
P03594-B21	HPE 240GB SATA 6G Mixed Use SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD	240	MU	SATA	SFF	Hot Plug	RW	Yes	MLC	Gen10
P03596-B21	HPE 480GB SATA 6G Mixed Use SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD	480	MU	SATA	SFF	Hot Plug	RW	Yes	MLC	Gen10
P03598-B21	HPE 960GB SATA 6G Mixed Use SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD	960	MU	SATA	SFF	Hot Plug	RW	Yes	MLC	Gen10
P03600-B21	HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD	1,920	MU	SATA	SFF	Hot Plug	RW	Yes	MLC	Gen10
P03606-B21	HPE 240GB SATA 6G Mixed Use SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD	240	MU	SATA	SFF	Hot Plug	RW	Yes	MLC	Gen10

## Technical Specifications

SATA – Extended (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)
P03608-B21	HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD	1,920	MU	SATA	SFF	Hot Plug	RW	Yes	MLC	Gen10
P03610-B21	HPE 1.92TB SATA 6G Mixed Use LPC (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	1,920	MU	SATA	LFF	Hot Plug	LPC	Yes	MLC	Gen10
P03689-B1	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	MLC	Gen10
P03691-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	Gen10
868814-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	Gen9 & 10
868818-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	Gen9 & 10
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	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	Gen9 & 10
868830-B21	HPE 3.8TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	3,840	RI	SATA	SFF	Hot Plug	SC	Yes	MLC	Gen9 & 10
869056-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	MLC	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
877740-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	Gen9 & 10

## Technical Specifications

SATA – Extended (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)
877746-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	Gen9 & 10
877748-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	TLC	Gen9 & 10
877752-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	Gen9 & 10
877754-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	TLC	Gen9 & 10
877756-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	TLC	Gen9 & 10
877758-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	Gen9 & 10
877760-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	TLC	Gen9 & 10
877762-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	Gen9 & 10
877764-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	Gen9 & 10
P03602-B21	HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD	1,920	RI	SATA	SFF	Hot Plug	RW	Yes	MLC	Gen10
P03604-B21	HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD	3,840	RI	SATA	SFF	Hot Plug	RW	Yes	MLC	Gen10

## Technical Specifications

SATA – Extended (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)
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	Gen10
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	MLC	Gen10

SATA Interface – Extended (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)
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
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
877776-B21	HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	2,950	3.0	500 / 455	120 / 48	60,000 / 46,000	65,000@Q32 / 47,500@Q32
877782-B21	HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	5,250	3.0	500 / 455	120 / 48	60,000 / 45,000	65,000@Q32 / 47,500@Q32
877784-B21	HPE 960GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	5,250	3.0	500 / 455	120 / 48	60,000 / 45,000	65,000@Q32 / 47,500@Q32
877788-B21	HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	10,840	3.0	500 / 435	120 / 48	60,000 / 45,000	65,000@Q32 / 47,500@Q32
877790-B21	HPE 1.92TB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	10,870	3.0	500 / 435	120 / 48	60,000 / 45,000	65,000@Q32 / 47,500@Q32
880295-B21	HPE 240GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	1,400	3.0	500 / 240	120 / 48	59,000 / 37,000	65,000@Q32 / 37,000@Q4

## Technical Specifications

SATA Interface – Extended (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)
P03594-B21	HPE 240GB SATA 6G Mixed Use SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD	1,400	3.0	500 / 240	120 / 48	59,000 / 37,000	65,000@Q32 / 37,000@Q4
P03596-B21	HPE 480GB SATA 6G Mixed Use SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD	2,950	3.0	500 / 455	120 / 48	60,000 / 46,000	65,000@Q32 / 47,500@Q32
P03598-B21	HPE 960GB SATA 6G Mixed Use SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD	5,250	3.0	500 / 455	120 / 48	60,000 / 45,000	65,000@Q32 / 47,500@Q32
P03600-B21	HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD	10,840	3.0	500 / 435	120 / 48	60,000 / 45,000	65,000@Q32 / 47,500@Q32
P03606-B21	HPE 240GB SATA 6G Mixed Use SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD	2,200	5.0	510 / 320	125 / 40	62,000 / 52,500	70,000@Q32 / 52,500@Q16
P03608-B21	HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD	17,600	5.0	500 / 480	190 / 40	54,000 / 53,000	61,500@Q32 / 53,000@Q4
P03610-B21	HPE 1.92TB SATA 6G Mixed Use LPC (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	17,600	5.0	500 / 480	190 / 40	54,000 / 53,000	61,500@Q32 / 53,000@Q4
P03689-B21	HPE 1.92TB SATA 6G Mixed Use LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD	10,840	3.0	500 / 435	120 / 48	60,000 / 45,000	65,000@Q32 / 47,500@Q32
P03691-B21	HPE 960GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	8,800	5.0	510 / 480	130 / 40	60,000 / 52,500	67,500@Q32 / 52,500@Q16
868814-B21	HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	372	0.8	370 / 300	120 / 105	66,000 / 9,800	73,000@Q32 / 9,800@Q4
868818-B21	HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	754	0.8	530 / 490	120 / 58	66,000 / 17,000	75,500@Q32 / 17,000@Q1
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

## Technical Specifications

SATA Interface – Extended (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 $\mu$ Sec (4KiB,Q1)	Random Read / Random Writes IOPS (4KiB, Q=16)	MAX Random Read / MAX Random Write IOPS (4KiB)
868830-B21	HPE 3.8TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	6,512	0.8	530 / 490	120 / 36	63,500 / 27,500	75,500@Q32 / 27,500@Q1
869056-B21	HPE 480GB SATA 6G Read Intensive LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD	754	0.8	530 / 490	120 / 58	66,000 / 17,000	75,500@Q32 / 17,000@Q1
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
877740-B21	HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	620	1.4	500 / 185	120 / 60	56,000 / 17,000	64,000@Q32 / 17,000@Q1
877746-B21	HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	900	1.0	500 / 330	120 / 60	60,000 / 20,000	64,000@Q32 / 20,000@Q4
877748-B21	HPE 480GB SATA 6G Read Intensive LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	900	1.0	500 / 330	120 / 60	60,000 / 20,000	64,000@Q32 / 20,000@Q4
877752-B21	HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	1,860	1.0	500 / 465	120 / 60	60,000 / 30,000	64,000@Q32 / 30,000@Q16
877754-B21	HPE 960GB SATA 6G Read Intensive LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	1,860	1.0	500 / 465	120 / 60	60,000 / 30,000	64,000@Q32 / 30,000@Q16
877756-B21	HPE 960GB SATA 6G Read Intensive LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD	1,860	1.0	500 / 465	120 / 60	60,000 / 30,000	64,000@Q32 / 30,000@Q16
877758-B21	HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	3,270	1.0	500 / 445	120 / 60	57,000 / 31,000	64,000@Q32 / 31,000@Q16
877760-B21	HPE 1.92TB SATA 6G Read Intensive LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	3,270	1.0	500 / 445	120 / 60	57,000 / 31,000	64,000@Q32 / 31,000@Q16

## Technical Specifications

SATA Interface – Extended (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)
877762-B21	HPE 1.92TB SATA 6G Read Intensive LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD	3,270	1.0	500 / 445	120 / 60	57,000 / 31,000	64,000@Q32 / 31,000@Q16
877764-B21	HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	7,640	1.0	500 / 445	120 / 60	59,000 / 30,000	63,000@Q32 / 30,000@Q16
P03602-B21	HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD	3,270	1.0	500 / 445	120 / 60	57,000 / 31,000	64,000@Q32 / 31,000@Q16
P03604-B21	HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD	7,640	1.0	500 / 445	120 / 60	59,000 / 30,000	63,000@Q32 / 30,000@Q16
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
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

## Technical Specifications

SATA Interface – Extended (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
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
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
877776-B21	HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	1.25	2.42	4.25	2.19	4.44	3.06	5.00	7mm
877782-B21	HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	1.31	2.64	4.90	2.28	4.74	3.41	5.00	7mm
877784-B21	HPE 960GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	1.32	2.64	4.90	2.28	4.74	3.42	5.00	7mm
877788-B21	HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	1.31	2.87	5.48	2.35	4.86	3.74	6.00	7mm
877790-B21	HPE 1.92TB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	1.32	2.87	5.48	2.35	4.86	3.74	6.00	7mm
880295-B21	HPE 240GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	1.25	2.45	3.40	2.37	3.40	2.91	4.00	7mm
P03594-B21	HPE 240GB SATA 6G Mixed Use SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD	1.25	2.45	3.40	2.37	3.40	2.91	4.00	7mm
P03596-B21	HPE 480GB SATA 6G Mixed Use SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD	1.25	2.42	4.25	2.19	4.44	3.06	5.00	7mm

## Technical Specifications

SATA Interface – Extended (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
P03598-B21	HPE 960GB SATA 6G Mixed Use SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD	1.31	2.64	4.90	2.28	4.74	3.41	5.00	7mm
P03600-B21	HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD	1.31	2.87	5.48	2.35	4.86	3.74	6.00	7mm
P03606-B21	HPE 240GB SATA 6G Mixed Use SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD	1.07	3.00	3.00	3.21	3.90	2.95	4.00	7mm
P03608-B21	HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD	3.22	3.63	12.07	4.52	12.07	6.52	13.00	7mm
P03610-B21	HPE 1.92TB SATA 6G Mixed Use LPC (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	1.07	3.51	3.51	4.52	6.12	3.40	7.00	7mm
P03689-B21	HPE 1.92TB SATA 6G Mixed Use LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD	1.31	2.87	5.48	2.35	4.86	3.74	6.00	7mm
P03691-B21	HPE 960GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	3.22	5.31	11.56	5.22	11.04	6.53	4.00	7mm
868814-B21	HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	1.24	2.34	2.34	2.68	2.71	2.34	3.00	7mm
868818-B21	HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	1.26	2.79	2.79	2.70	3.52	2.79	4.00	7mm
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

## Technical Specifications

SATA Interface – Extended (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
868830-B21	HPE 3.8TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	1.41	3.05	3.05	3.29	4.24	3.05	5.00	7mm
869056-B21	HPE 480GB SATA 6G Read Intensive LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD	1.26	2.79	2.79	2.70	3.52	2.79	4.00	7mm
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
877740-B21	HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	1.24	2.64	2.84	2.20	2.83	2.64	3.00	7mm
877746-B21	HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	1.25	2.40	3.60	2.17	3.52	3.08	4.00	7mm
877748-B21	HPE 480GB SATA 6G Read Intensive LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	1.20	2.40	3.60	2.17	3.52	3.08	4.00	7mm
877752-B21	HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	1.31	2.69	4.60	2.31	4.70	3.76	5.00	7mm
877754-B21	HPE 960GB SATA 6G Read Intensive LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	1.31	2.69	4.60	2.31	4.70	3.76	5.00	7mm
877756-B21	HPE 960GB SATA 6G Read Intensive LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD	1.29	2.69	4.60	2.31	4.70	3.76	5.00	7mm
877758-B21	HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	1.29	2.77	5.23	2.35	4.89	4.10	6.00	7mm
877760-B21	HPE 1.92TB SATA 6G Read Intensive LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	1.29	2.77	5.23	2.35	4.86	4.10	6.00	7mm

## Technical Specifications

SATA Interface – Extended (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
877762-B21	HPE 1.92TB SATA 6G Read Intensive LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD	1.29	2.77	5.23	2.35	4.86	4.10	6.00	7mm
877764-B21	HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	1.35	3.00	5.44	2.50	5.28	4.28	6.00	7mm
P03602-B21	HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD	1.29	2.77	5.23	2.35	4.89	4.10	6.00	7mm
P03604-B21	HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD	1.35	3.00	5.44	2.50	5.28	4.28	6.00	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
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	2.75	7mm

## Technical Specifications

SAS Interface – Extended (Capacity, Workload, Carrier...)										
HPE Option Kit SKU	Long Description	Capacity	Workload Type	Interface Type	Form Factor	Plug Type	Carrier Type	Digitally Signed Firmware	Flash Type	Server Gen Supported (Select Platforms)
873349-B21	HPE 400GB SAS 12G Write Intensive SFF (2.5in) ST 3yr Wty Digitally Signed Firmware SSD	400	WI	SAS	SFF	Hot Plug	STD	Yes	MLC	Gen9 & 10
873357-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	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	Gen9 & 10
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	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	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	Gen9 & 10
872378-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	Gen9 & 10
872386-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	Gen9 & 10

## Technical Specifications

SAS Interface - Extended (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)
873349-B21	HPE 400GB SAS 12G Write Intensive SFF (2.5in) ST 3yr Wty Digitally Signed Firmware SSD	7	10.0	1,050 / 1,005	110 / 45	100,000 / 100,000	170,000@Q64 / 100,000@Q16
873357-B21	HPE 1.6TB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	2,900	10.0	1,050 / 1,005	105 / 35	125,000 / 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	15	10.0	1,050 / 1,005	105 / 35	120,000 / 100,000	170,000@Q64 / 100,000@Q16
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
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
872378-B21	HPE 800GB SAS 12G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	4,380	3.0	1,075 / 1,025	126 / 57	120,000 / 90,000	185,000@Q32 / 90,000@Q16
872386-B21	HPE 3.2TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	17,520	3.0	1,075 / 1,025	120 / 50	125,000 / 93,000	185,000@Q32 / 93,000@Q16

**NOTE:** Reference column VI-1 when comparing RI SSDs, & column VI-2 for comparing MU & WI SSDs.

## Technical Specifications

SAS Interface - Extended (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
873349-B21	HPE 400GB SAS 12G Write Intensive SFF (2.5in) ST 3yr Wty Digitally Signed Firmware SSD	3.46	5.86	5.86	5.65	8.08	5.86	9.00	15mm
873357-B21	HPE 1.6TB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	3.22	6.66	6.66	6.07	9.89	6.66	10.00	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
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
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
872378-B21	HPE 800GB SAS 12G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	3.06	4.07	4.07	6.28	8.22	4.07	9.00	15mm
872386-B21	HPE 3.2TB SAS 12G Mixed Use 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

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

## Technical Specifications

PCIe/NVMe Interface – Extended 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	Server Gen Supported (Select Platforms)
878014-B21	HPE 375GB NVMe x4 Lanes Write Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	375	WI	PCIe / PCIe NVMe	SFF	Hot Plug	SCN	Yes	MLC	Gen9 & 10
878038-B21	HPE 750GB PCIe x4 Lanes Write Intensive HHHL 3yr Wty Digitally Signed Firmware Card	750	WI	PCIe / PCIe NVMe	AIC	Non-Hot Plug	AIC	Yes	MLC	Gen9 & 10
875579-B21	HPE 480GB NVMe x4 Lanes Read Intensive M.2 22110 3yr Wty Digitally Signed Firmware SSD	480	RI	PCIe / PCIe 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	PCIe / PCIe NVMe	M.2	#N/A	#N/A	Yes	MLC	Gen9 & 10
875587-B21	HPE 480GB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	480	RI	PCIe / PCIe NVMe	SFF	Hot Plug	SCN	Yes	MLC	Gen9 & 10
875589-B21	HPE 960GB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	960	RI	PCIe / PCIe NVMe	SFF	Hot Plug	SCN	Yes	MLC	Gen9 & 10
875591-B21	HPE 1.92TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	1,920	RI	PCIe / PCIe NVMe	SFF	Hot Plug	SCN	Yes	MLC	Gen9 & 10
877831-B21	HPE 4TB PCIe x4 Lanes Read Intensive HHHL 3yr Wty Digitally Signed Firmware Card	4,000	RI	PCIe / PCIe NVMe	AIC	Non-Hot Plug	AIC	Yes	MLC	Gen9 & 10
877984-B21	HPE 1TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	1,000	RI	PCIe / PCIe NVMe	SFF	Hot Plug	SCN	Yes	MLC	Gen9 & 10
877988-B21	HPE 4TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	4,000	RI	PCIe / PCIe NVMe	SFF	Hot Plug	SCN	Yes	MLC	Gen9 & 10
P03616-B21	HPE 1TB NVMe x4 Read Intensive SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD	1,000	RI	NVMe	SFF	Hot Plug	RW	Yes	MLC	Gen10

## Technical Specifications

PCIe/NVMe Interface – Extended 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	Server Gen Supported (Select Platforms)
P03618-B21	HPE 2TB NVMe x4 Read Intensive SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD	2,000	RI	NVMe	SFF	Hot Plug	RW	Yes	MLC	Gen10
875583-B21	HPE 400GB NVMe x4 Lanes Mixed Use M.2 22110 3yr Wty Digitally Signed Firmware SSD	400	MU	PCIe / PCIe 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	PCIe / PCIe NVMe	M.2	#N/A	#N/A	Yes	MLC	Gen9 & 10
875597-B21	HPE 1.6TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	1,600	MU	PCIe / PCIe NVMe	SFF	Hot Plug	SCN	Yes	MLC	Gen9 & 10
877825-B21	HPE 1.6TB PCIe x8 Lanes Mixed Use HHHL 3yr Wty Digitally Signed Firmware Card	1,600	MU	PCIe / PCIe NVMe	AIC	Non-Hot Plug	AIC	Yes	MLC	Gen9 & 10
877827-B21	HPE 3.2TB PCIe x8 Lanes Mixed Use HHHL 3yr Wty Digitally Signed Firmware Card	3,200	MU	PCIe / PCIe NVMe	AIC	Non-Hot Plug	AIC	Yes	MLC	Gen9 & 10
877829-B21	HPE 6.4TB PCIe x8 Lanes Mixed Use HHHL 3yr Wty Digitally Signed Firmware Card	6,400	MU	PCIe / PCIe NVMe	AIC	Non-Hot Plug	AIC	Yes	MLC	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	PCIe / PCIe NVMe	SFF	Hot Plug	SCN	Yes	MLC	Gen9 & 10
P03612-B21	HPE 1.6TB NVMe x4 Mixed Use SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD	1,600	MU	NVMe	SFF	Hot Plug	RW	Yes	MLC	Gen10
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	Gen10

## Technical Specifications

PCIe/NVMe Interface – Extended SKUs (Speeds and 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)
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 HHHL 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
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
875587-B21	HPE 480GB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	775	0.3	2,400 / 485	100 / 105	125,000 / 9,500	220,000@Q64 / 9,500@Q1
875589-B21	HPE 960GB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	1,550	0.3	2,400 / 835	100 / 75	135,000 / 13,500	240,000@Q64 / 13,500@Q1
875591-B21	HPE 1.92TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	3,150	0.3	2,390 / 850	100 / 62	140,000 / 16,500	240,000@Q64 / 16,500@Q1
877831-B21	HPE 4TB PCIe x4 Lanes Read Intensive HHHL 3yr Wty Digitally Signed Firmware Card	4,600	0.6	3,200 / 1900	85 / 23	160,000 / 62,000	680,000@Q256 / 62,000@Q4
877984-B21	HPE 1TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	1,330	0.7	3,200 / 1,900	87 / 26	135,000 / 38,000	295,000@Q256 / 38,000@Q1
877988-B21	HPE 4TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	4,600	0.6	3,200 / 1,900	85 / 23	160,000 / 62,000	680,000@Q256 / 62,000@Q4
P03616-B21	HPE 1TB NVMe x4 Read Intensive SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD	1,330	0.7	3,200 / 1,900	87 / 26	135,000 / 38,000	295,000@Q256 / 38,000@Q1

## Technical Specifications

PCIe/NVMe Interface – Extended 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)
P03618-B21	HPE 2TB NVMe x4 Read Intensive SFF (2.5in) RW 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
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
875597-B21	HPE 1.6TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	9,900	3.0	2,400 / 840	100 / 32	140,000 / 40,000	245,000@Q64 / 40,000@Q16
877825-B21	HPE 1.6TB PCIe x8 Lanes Mixed Use HHHH 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 HHHH 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
877829-B21	HPE 6.4TB PCIe x8 Lanes Mixed Use HHHH 3yr Wty Digitally Signed Firmware Card	35,000	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	8,520	2.9	3,200 / 2,000	86 / 17	165,000 / 240,000	675,000@Q256 / 240,000@Q16
P03612-B21	HPE 1.6TB NVMe x4 Mixed Use SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD	8,520	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 / 1,400	86 / 17	155,000 / 185,000	585,000@Q256 / 185,000@Q16

**NOTE:** Reference column VI-1 when comparing RI SSDs, & column VI-2 for comparing MU & WI SSDs.

## Technical Specifications

PCIe/NVMe Interface – Extended SKUs (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)	z- Height
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	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	Half Height/ Half Length
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	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	22110 M.2
875587-B21	HPE 480GB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	3.22	3.43	7.85	5.70	7.71	5.88	7mm
875589-B21	HPE 960GB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	3.22	5.31	11.56	5.22	11.04	6.53	7mm
875591-B21	HPE 1.92TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	3.22	3.63	12.07	4.52	12.07	6.52	7mm
877831-B21	HPE 4TB PCIe x4 Lanes Read Intensive HHHL 3yr Wty Digitally Signed Firmware Card	<5.00	14.80	17.70	10.70	20.50	16.10	Half Height/ Half length
877984-B21	HPE 1TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	<5.00	10.10	11.65	10.90	10.70	10.80	15mm
877988-B21	HPE 4TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	<5.00	12.50	14.80	9.50	18.30	13.50	15mm
P03616-B21	HPE 1TB NVMe x4 Read Intensive SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD	<5.00	10.10	11.65	10.90	10.70	10.80	15mm

## Technical Specifications

PCIe/NVMe Interface – Extended SKUs (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)	z- Height
P03618-B21	HPE 2TB NVMe x4 Read Intensive SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD	<5.00	11.35	12.90	9.62	13.45	12.00	15mm
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	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	22110 M.2
875597-B21	HPE 1.6TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	3.22	7.58	11.58	7.01	7.79	7.81	7mm
877825-B21	HPE 1.6TB PCIe x8 Lanes Mixed Use HHHH 3yr Wty Digitally Signed Firmware Card	8.00	20.0	18.00	21.00	21.00	19.0	Half Height/ Half length
877827-B21	HPE 3.2TB PCIe x8 Lanes Mixed Use HHHH 3yr Wty Digitally Signed Firmware Card	8.00	20.0	18.00	23.00	22.00	19.0	Half Height/ Half length
877829-B21	HPE 6.4TB PCIe x8 Lanes Mixed Use HHHH 3yr Wty Digitally Signed Firmware Card	8.00	20.0	18.00	23.00	22.00	19.0	Half Height/ Half length
877998-B21	HPE 3.2TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	<5.00	10.60	13.10	8.70	13.40	11.70	15mm
P03612-B21	HPE 1.6TB NVMe x4 Mixed Use SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD	<5.00	10.60	13.10	8.70	13.40	11.70	15mm
P03614-B21	HPE 3.2TB NVMe x4 Mixed Use SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD	<5.00	9.00	15.60	9.41	19.00	12.00	15mm

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

## Technical Specifications

### Inbox NVMe Drivers

Inbox NVMe drivers for the 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 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

M.2s- Extended (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)
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
875579-B21	HPE 480GB NVMe x4 Lanes Read Intensive M.2 22110 3yr Wty Digitally Signed Firmware SSD	480	RI	PCIe / PCIe 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	PCIe / PCIe NVMe	M.2	#N/A	#N/A	Yes	MLC	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
875583-B21	HPE 400GB NVMe x4 Lanes Mixed Use M.2 22110 3yr Wty Digitally Signed Firmware SSD	400	MU	PCIe / PCIe 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	PCIe / PCIe NVMe	M.2	#N/A	#N/A	Yes	MLC	Gen9 & 10

## Technical Specifications

M.2s- Extended (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)
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
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
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
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

## Technical Specifications

M.2s- Extended (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)	z- Height
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	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	2280 M.2
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	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	22110 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	2280 M.2
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	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	22110 M.2

## Technical Specifications

HPE SSD Portfolio by SKU Number		
HPE Option Kit SKU	Long Description	Recommended / Extended (Q418)
868814-B21	HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Extended
868818-B21	HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Extended
868822-B21	HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Extended
868826-B21	HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Extended
868830-B21	HPE 3.8TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Extended
869056-B21	HPE 480GB SATA 6G Read Intensive LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD	Extended
870144-B21	HPE 7.68TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Extended
870148-B21	HPE 15.3TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Extended
872344-B21	HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Recommended
872346-B21	HPE 480GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	Extended
872348-B21	HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Recommended
872350-B21	HPE 960GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	Recommended
872352-B21	HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Recommended
872374-B21	HPE 400GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Recommended
872376-B21	HPE 800GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Recommended
872378-B21	HPE 800GB SAS 12G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	Extended
872380-B21	HPE 800GB SAS 12G Mixed Use LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD	Recommended
872382-B21	HPE 1.6TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Recommended
872384-B21	HPE 1.6TB SAS 12G Mixed Use LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD	Recommended
872386-B21	HPE 3.2TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Extended
872390-B21	HPE 960GB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Recommended
872392-B21	HPE 1.92TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Recommended
872394-B21	HPE 3.84TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Recommended
873349-B21	HPE 400GB SAS 12G Write Intensive SFF (2.5in) ST 3yr Wty Digitally Signed Firmware SSD	Extended
873351-B21	HPE 400GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Recommended
873355-B21	HPE 800GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Recommended
873357-B21	HPE 1.6TB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Extended
873359-B21	HPE 400GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Recommended
873363-B21	HPE 800GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Recommended
873365-B21	HPE 1.6TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Recommended
873367-B21	HPE 3.2TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Recommended
873460-B21	HPE 800GB SAS 12G Write Intensive SFF (2.5in) ST 3yr Wty Digitally Signed Firmware SSD	Extended
875311-B21	HPE 480GB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Recommended
875313-B21	HPE 960GB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Recommended
875326-B21	HPE 1.92TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Recommended
875330-B21	HPE 3.84TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Extended
875470-B21	HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Recommended
875474-B21	HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Recommended
875478-B21	HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Recommended
875480-B21	HPE 1.92TB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	Recommended
875483-B21	HPE 240GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Recommended
875488-B21	HPE 240GB SATA 6G Mixed Use M.2 2280 3yr Wty Digitally Signed Firmware SSD	Recommended
875490-B21	HPE 480GB SATA 6G Mixed Use M.2 2280 3yr Wty Digitally Signed Firmware SSD	Extended
875492-B21	HPE 960GB SATA 6G Mixed Use M.2 2280 3yr Wty Digitally Signed Firmware SSD	Extended
875498-B21	HPE 480GB SATA 6G Read Intensive M.2 2280 3yr Wty Digitally Signed Firmware SSD	Recommended
875500-B21	HPE 960GB SATA 6G Read Intensive M.2 2280 3yr Wty Digitally Signed Firmware SSD	Extended

## Technical Specifications

HPE SSD Portfolio by SKU Number		
HPE Option Kit SKU	Long Description	Recommended / Extended (Q418)
875503-B21	HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Recommended
875507-B21	HPE 240GB SATA 6G Read Intensive SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD	Recommended
875509-B21	HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Recommended
875511-B21	HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Recommended
875513-B21	HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Recommended
875579-B21	HPE 480GB NVMe x4 Lanes Read Intensive M.2 22110 3yr Wty Digitally Signed Firmware SSD	Extended
875581-B21	HPE 960GB NVMe x4 Lanes Read Intensive M.2 22110 3yr Wty Digitally Signed Firmware SSD	Extended
875583-B21	HPE 400GB NVMe x4 Lanes Mixed Use M.2 22110 3yr Wty Digitally Signed Firmware SSD	Extended
875585-B21	HPE 800GB NVMe x4 Lanes Mixed Use M.2 22110 3yr Wty Digitally Signed Firmware SSD	Extended
875587-B21	HPE 480GB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	Extended
875589-B21	HPE 960GB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	Extended
875591-B21	HPE 1.92TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	Extended
875593-B21	HPE 400GB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	Recommended
875595-B21	HPE 800GB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	Recommended
875597-B21	HPE 1.6TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	Extended
877740-B21	HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Extended
877746-B21	HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Extended
877748-B21	HPE 480GB SATA 6G Read Intensive LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	Extended
877752-B21	HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Extended
877754-B21	HPE 960GB SATA 6G Read Intensive LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	Extended
877756-B21	HPE 960GB SATA 6G Read Intensive LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD	Extended
877758-B21	HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Extended
877760-B21	HPE 1.92TB SATA 6G Read Intensive LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	Extended
877762-B21	HPE 1.92TB SATA 6G Read Intensive LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD	Extended
877764-B21	HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Extended
877776-B21	HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Extended
877782-B21	HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Extended
877784-B21	HPE 960GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	Extended
877788-B21	HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Extended
877790-B21	HPE 1.92TB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	Extended
877825-B21	HPE 1.6TB PCIe x8 Lanes Mixed Use HHHL 3yr Wty Digitally Signed Firmware Card	Extended
877827-B21	HPE 3.2TB PCIe x8 Lanes Mixed Use HHHL 3yr Wty Digitally Signed Firmware Card	Extended
877829-B21	HPE 6.4TB PCIe x8 Lanes Mixed Use HHHL 3yr Wty Digitally Signed Firmware Card	Extended
877831-B21	HPE 4TB PCIe x4 Lanes Read Intensive HHHL 3yr Wty Digitally Signed Firmware Card	Extended

## Technical Specifications

HPE SSD Portfolio by SKU Number		
HPE Option Kit SKU	Long Description	Recommended / Extended (Q418)
877984-B21	HPE 1TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	Extended
877986-B21	HPE 2TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	Recommended
877988-B21	HPE 4TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	Extended
877994-B21	HPE 1.6TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	Recommended
877998-B21	HPE 3.2TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	Extended
878014-B21	HPE 375GB NVMe x4 Lanes Write Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	Extended
878038-B21	HPE 750GB PCIe x4 Lanes Write Intensive HHHL 3yr Wty Digitally Signed Firmware Card	Extended
878783-B21	HPE Universal SATA HHHL 3yr Wty M.2 Kit	Recommended
880295-B21	HPE 240GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Extended
P00896-B21	HPE 3.84TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Recommended
P03594-B21	HPE 240GB SATA 6G Mixed Use SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD	Extended
P03596-B21	HPE 480GB SATA 6G Mixed Use SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD	Extended
P03598-B21	HPE 960GB SATA 6G Mixed Use SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD	Extended
P03600-B21	HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD	Extended
P03602-B21	HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD	Extended
P03604-B21	HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD	Extended
P03606-B21	HPE 240GB SATA 6G Mixed Use SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD	Extended
P03608-B21	HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD	Extended
P03610-B21	HPE 1.92TB SATA 6G Mixed Use LPC (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	Extended
P03612-B21	HPE 1.6TB NVMe x4 Mixed Use SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD	Extended
P03614-B21	HPE 3.2TB NVMe x4 Mixed Use SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD	Extended
P03616-B21	HPE 1TB NVMe x4 Read Intensive SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD	Extended
P03618-B21	HPE 2TB NVMe x4 Read Intensive SFF (2.5in) RW 3yr Wty Digitally Signed Firmware SSD	Extended
P03689-B21	HPE 1.92TB SATA 6G Mixed Use LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD	Extended
P03691-B21	HPE 960GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	Extended
P04556-B21	HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Recommended
P04560-B21	HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Recommended
P04564-B21	HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Recommended
P04566-B21	HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Recommended
P04570-B21	HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Extended
P06194-B21	HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Recommended
P06196-B21	HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Recommended
P06198-B21	HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Recommended
P06200-B21	HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	Extended
P06607-B21	HPE Dual 240GB SATA 6G Mixed Use M.2 - UFF to SFF SCM 3yr Wty Digitally Signed Firmware SSD	Recommended
P06609-B21	HPE Dual 480GB SATA 6G Read Intensive M.2 - UFF to SFF SCM 3yr Wty Digitally Signed Firmware SSD	Recommended

## 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) Mixed-Use (>10 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
			Low Profile (LP)	LFF
	Non-Hot Plug	Non-Smart	Low Profile Converter (LPC)	LFF
			Standard (ST)	LFF
			Quick Release (QR)	LFF
No Carrier	Non-Hot Plug	Non-Smart	Raw SFF HDD/SSD (RW)	SFF
			Raw LFF HDD (RW)	LFF
			M.2	N/A
			PCIe AIC Card	N/A

## 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/ Interface Speed	Workload	Form Factor Type / Form Factor Size	Carriers	Wty	Special Features	Drive Type
HPE	120-960GB 1.6-12.8TB	SATA/SAS 6G/12G	Write Intensive Mixed Use Read Intensive	SFF (2.5IN) LFF (3.5IN)	SC Smart Carrier SCN Smart Carrier NVMe SCM Smart Carrier M.2 SCC Smart Carrier Converter ST Standard STC Standard Converter LP Low Profile LPC Low Profile Converter QR Quick Release RW Raw Drive	3yr Wty 1yr Wty	Digitally Signed Firmware SED Self Encrypting Drive  <i>In priority order where 1<sup>st</sup> is 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 1.6-12.8TB	SATA/SAS	WI MU RI	SFF LFF	SC Smart Carrier SCN Smart Carrier NVMe SCM Smart Carrier M.2 SCC Smart Carrier Converter ST Standard STC Standard Converter LP Low Profile LPC Low Profile Converter QR Quick Release RW Raw Drive	DS Digitally Signed Firmware SED Self Encrypting Drive  <i>In priority order where 1<sup>st</sup> is 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/ Interface Speed	Workload	Form Factor Type / Form Factor Size	Carriers	Wty	Special Features	Drive Type
HPE	400-960GB 1-8TB	NVMe/ x4 Lanes	Write Intensive Mixed Use Read Intensive	SFF (2.5IN) HHHL/FHHL	SCN Smart Carrier NVMe	3yr Wty 1yr Wty	Digitally Signed Firmware  <i>In priority order where 1<sup>st</sup> is closest to Drive Type</i>	SSD

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 1.6-12.8TB	NVMe x4	WI MU RI	SFF HH FH	SCN Smart Carrier NVMe	DS Digitally Signed Firmware  <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 1-8TB	NVMe x4 Lanes/ SATA 6Gb	Write Intensive Mixed Use Read Intensive	M.2/ 2280/22110	3yr Wty 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 1-8TB	NVMe x4 / SATA 6Gb	WI MU 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 1.92TB	SATA/ NVMe	Write Intensive Mixed Use Read Intensive	HHHL FHHL UFF	3yr Wty 1yr Wty	Dual Quad Blank=Single	M.2 Kit

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 1.92TB	SATA/ NVMe	WI MU RI	HH FH UFF	Dual Quad 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 1-8TB	PCIe x4 Lanes	Write Intensive Mixed Use Read Intensive	HHHL FHHL Mezz	3yr Wty 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 1-8TB	PCIe x4	WI MU RI	FH/HH Mezz	DS (Digitally Signed Firmware)	Card

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## Summary of Changes

Date	Version History	Action	Description of Change
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 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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