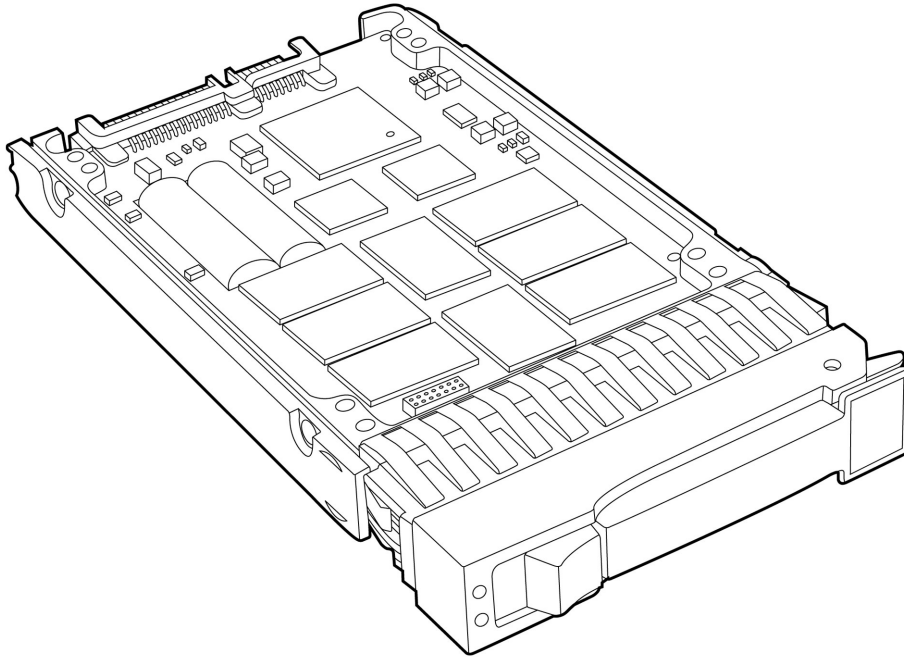## Overview

HP offers a full portfolio of solid state storage solutions in both 3G SATA and 6G SAS interface. The products, based on Single Level Cell (SLC) and Multi Level Cell (MLC) NAND flash and related technologies are available as SFF hot plug, LFF hot plug and SFF non-hot plug to adapt to the different ProLiant server and server storage environments. The new Gen8 ProLiant servers introduce a completely redesigned hot plug carrier exclusively for the Gen8 family of servers. Solid State Drives deliver higher performance, lower latency and lower power solutions when compared with traditional rotating media and fit seamlessly into the existing HP server infrastructure

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What's New

- HP 6G SAS Mainstream Endurance SFF 2.5 Inch Hot Plug Solid State Drives for Gen8 Servers and previous generation servers (G6 and G7)

Models

HP Solid State Drives for Gen8 Servers only
NOTE: These drives are only supported by Gen8 servers.

6G SAS ME Hot Plug SFF (2.5-inch) Enterprise Mainstream Solid State Drives

HP 800GB 6G SAS Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Warranty Solid State Drive	690829-B21
HP 400GB 6G SAS Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Warranty Solid State Drive	690827-B21
HP 200GB 6G SAS Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Warranty Solid State Drive	690825-B21

6G SAS MLC Hot Plug SFF (2.5-inch) Enterprise Mainstream Solid State Drives

HP 800GB 6G SAS MLC SFF (2.5-inch) SC Enterprise Mainstream 3yr Warranty Solid State Drive	653109-B21
HP 400GB 6G SAS MLC SFF (2.5-inch) SC Enterprise Mainstream 3yr Warranty Solid State Drive	653105-B21
HP 200GB 6G SAS MLC SFF (2.5-inch) SC Enterprise Mainstream 3yr Warranty Solid State Drive	658478-B21

6G SAS SLC Hot Plug SFF (2.5-inch) Enterprise Performance Solid State Drives

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Overview

HP 400GB 6G SAS SLC SFF (2.5-inch) SC Enterprise Performance 3yr Warranty Solid State Drive	653082-B21
HP 200GB 6G SAS SLC SFF (2.5-inch) SC Enterprise Performance 3yr Warranty Solid State Drive	653078-B21

3G SATA MLC Hot Plug SFF (2.5-inch) Enterprise Mainstream Solid State Drives

HP 400GB 3G SATA MLC SFF (2.5-inch) SC Enterprise Mainstream 3yr Warranty Solid State Drive	653120-B21
HP 200GB 3G SATA MLC SFF (2.5-inch) SC Enterprise Mainstream 3yr Warranty Solid State Drive	653118-B21
HP 100GB 3G SATA MLC SFF (2.5-inch) SC Enterprise Mainstream 3yr Warranty Solid State Drive	653112-B21

3G SATA MLC Hot Plug LFF (3.5-inch) Enterprise Mainstream Solid State Drives

HP 400GB 3G SATA MLC LFF (3.5-inch) SC Enterprise Mainstream 3yr Warranty Solid State Drive	653126-B21
HP 200GB 3G SATA MLC LFF (3.5-inch) SC Enterprise Mainstream 3yr Warranty Solid State Drive	653124-B21
HP 100GB 3G SATA MLC LFF (3.5-inch) SC Enterprise Mainstream 3yr Warranty Solid State Drive	653122-B21

HP Solid State Drive

NOTE: These drives are not supported by Gen8 servers.

6G SAS ME Hot Plug SFF (2.5-inch) Enterprise Mainstream Solid State Drives

HP 800GB 6G SAS Mainstream Endurance SFF 2.5-in Enterprise Mainstream 3yr Warranty Solid State Drive	690823-B21
HP 400GB 6G SAS Mainstream Endurance SFF 2.5-in Enterprise Mainstream 3yr Warranty Solid State Drive	690821-B21
HP 200GB 6G SAS Mainstream Endurance SFF 2.5-in Enterprise Mainstream 3yr Warranty Solid State Drive	690819-B21

3G SATA MLC Hot Plug SFF (2.5-inch) Enterprise Mainstream Solid State Drives

HP 400GB 3G SATA MLC SFF (2.5-inch) Enterprise Mainstream 3yr Warranty Solid State Drive	636597-B21
HP 200GB 3G SATA MLC SFF (2.5-inch) Enterprise Mainstream 3yr Warranty Solid State Drive	636595-B21
HP 100GB 3G SATA MLC SFF (2.5-inch) Enterprise Mainstream 3yr Warranty Solid State Drive	636593-B21

3G SATA MLC Non-hot Plug SFF (2.5-inch) Enterprise Mainstream Solid State Drives

HP 400GB 3G SATA MLC SFF (2.5-inch) Non-hot plug Enterprise Mainstream 3yr Wty Solid State Drive	636605-B21
HP 200GB 3G SATA MLC SFF (2.5-inch) Non-hot plug Enterprise Mainstream 3yr Wty Solid State Drive	636601-B21
HP 100GB 3G SATA MLC SFF (2.5-inch) Non-hot plug Enterprise Mainstream 3yr Wty Solid State Drive	636599-B21

3G SATA MLC Quick Release SFF (2.5-inch) Enterprise Mainstream Solid State Drives

HP 100GB 3G SATA MLC SFF (2.5-inch) Quick-release Enterprise Mainstream 3yr Wty Solid State Drive	636621-B21
HP 200GB 3G SATA MLC SFF (2.5-inch) Quick-release Enterprise Mainstream 3yr Wty Solid State Drive	636623-B21
HP 400GB 3G SATA MLC SFF (2.5-inch) Quick-release Enterprise Mainstream 3yr Wty Solid State Drive	636625-B21

NOTE: Quick Release SKU's are compatible with Gen8, G7 and G6 servers.

3G SATA MLC Hot Plug LFF (3.-5inch) Enterprise Mainstream Solid State Drives

HP 400GB 3G SATA MLC LFF (3.5-inch) Enterprise Mainstream 3yr Warranty Solid State Drive	636611-B21
HP 200GB 3G SATA MLC LFF (3.5-inch) Enterprise Mainstream 3yr Warranty Solid State Drive	636609-B21
HP 100GB 3G SATA MLC LFF (3.5-inch) Enterprise Mainstream 3yr Warranty Solid State Drive	636607-B21

6G SAS SLC Hot Plug Enterprise Performance Solid State Drives

HP 400GB 6G SAS SLC SFF (2.5-inch) Enterprise Performance 3yr Warranty Solid State Drive	632494-B21
HP 200GB 6G SAS SLC SFF (2.5-inch) Enterprise Performance 3yr Warranty Solid State Drive	632492-B21

6G SAS MLC Hot Plug Enterprise Mainstream Solid State Drives

HP 800GB 6G SAS MLC SFF (2.5-inch) Enterprise Mainstream 3yr Warranty Solid State Drive	632506-B21
HP 400GB 6G SAS MLC SFF (2.5-inch) Enterprise Mainstream 3yr Warranty Solid State Drive	632504-B21
HP 200GB 6G SAS MLC SFF (2.5-inch) Enterprise Mainstream 3yr Warranty Solid State Drive	632502-B21

Standard Features

What is SSD?	An enduring data storage device using semiconductor technology to store and access data which is non-volatile without the aid of an auxiliary power source.
Drive Quality	Today's distributed enterprise is seeing larger, more complex applications, an increase of mission-critical data moving to the server, increasing demand for transaction processing and critical server consolidation. In this environment, storage has become a critical component of the information system, significantly defining both the systems reliability and performance. This is why HP drives undergo an intense qualification process that eliminates firmware and O/S incompatibilities. All drive firmware is specific to our drives and is designed to maximize both functionality and compatibility. All of our drives are proven to be reliable and tuned for optimum performance in the HP equipment for which they were designed.
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. HP drives are specifically designed and tested for flawless operation in your HP equipment. The integration of solid state drives in HP systems means that associated components are right for your ProLiant server.
Support Matrix	Please see the following URL for the latest list of supported servers and enclosures: http://h18004.www1.hp.com/products/servers/proliantstorage/drives-enclosures/docs/index.html **NOTE:** Non-hot plug devices are 15mm Z-height which restricts them to those servers that can accept a 15mm device
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 - Write endurance is measured while running 100% random 4KiB writes across the entire SSD Drive Writes Per Day - Workload environment is based on 100% random 4KiB writes for five (5) years

QuickSpecs

Standard Features

Drive	Write endurance specifications for 6G SAS SSD Devices	
	Lifetime Writes	Drive Writes Per Day for Five (5) Years
ME Enterprise Mainstream 200GB	Up to 1.5PB	4.4
ME Enterprise Mainstream 400GB	Up to 3.3PB	4.4
ME Enterprise Mainstream 800GB	Up to 6.5PB	4.4
200GB MLC	Up to 550TB	1.5
400GB MLC	Up to 1PB	1.5
800GB MLC	Up to 2PB	1.5
200GB SLC	Up to 4.5PB	14
400GB SLC	Up to 8.9PB	14
Drive	Write endurance specifications for 3G SATA SSD Devices	
	Lifetime Writes	Drive Writes Per Day for Five (5) Years
100GB MLC	Up to 981TB	5.5
200GB MLC	Up to 1.9PB	5.5
400GB MLC	Up to 3.9PB	5.5

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

SNMP Storage Agents for both Microsoft® Windows® and Linux provide status and condition updates through traps, OS event logs and the HP System Management Homepage (http://h18013.www1.hp.com/products/servers/management/agents/index.html).

The HP SMARTSSD Wear Gauge™ requires a controller listed below (for pre-Gen8 servers) or a Gen8 Smart Array controller for HP ProLiant Gen8 servers.

- HP Smart Array P212 Controller
- HP Smart Array P410 Controller
- HP Smart Array P411 Controller
- HP Smart Array P711m Controller
- HP Smart Array P712m Controller
- HP Smart Array P812 Controller

NOTE: Subject to maximum usage/maximum supported lifetime limitations. Maximum Supported Lifetime is the period in years set to equal the warranty for the device. Maximum usage limit is the maximum amount of data that can be written to the device before reaching the device's write endurance limit.

HP Direct Connect to the HP Smart Array B110i SATA RAID Controller is not supported in this tool.

QuickSpecs

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.

Warranty   3/0/0 warranty; Customer Self Repair (CSR) subject to maximum usage limitations. (Note 1 under Additional Services Information)

Service and Support

Service and Support	**HP Technology Services** HP Technology Services offers you technical consultants and support expertise to solve your most complex infrastructure problems. We help keep your business running, boost availability, and avoid downtime. **Protect your business beyond warranty with HP Care Pack Services** When you buy HP Options, it's also a good time to think about what level of service you may need. HP Care Pack services provide total technical support and expertise with committed response choices designed to meet your specific IT and business need. HP Foundation Care services deliver scalable reactive support-packages for HP industry-standard servers and software. You can choose the type and level of service that is most suitable for your business needs. New to this portfolio is HP Collaborative Support. If you are running business critical environments, HP offers Proactive Care or Critical Advantage. These services help you deliver high levels of application availability through a single point of contact, proactive service management, and advanced technical response. Here is the support service recommendation from the Foundation Care and Proactive Care portfolio. For customized support service solution, HP can work with you to tailor a service solution for your unique support requirements using broader services portfolio of Foundation Care and Proactive Care.
Recommended Services	**Recommended HP Care Pack Services for optimal satisfaction with your HP product** **3-Year HP 24x7 4 hour Response, Proactive Care** Helps optimize your systems and delivers high levels of application availability through proactive service management and advanced technical response. You will work with a single point of contact, aTechnical Manager who will own your logged call and issue from end to end until resolved, accessing the resources that you need to resolve all issues and help minimize downtime. **OR** **3-Year HP 24x7 4 hour Response, HP Collaborative Support** Saving you time with HP as the single point of contact for HW and SW problems. Collaborative Support provides problem resolution support across the stack of HW, firmware, and HP and 3rd party SW. In case the issue is with 3rd party SW, HP will work with known issue resolution. If HP cannot solve the issue, it will contact the third-party vendor and create a problem incident on your behalf - saving you time with only one call to make, that is to HP. http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA3-8232ENW.pdf **HP Installation of ProLiant Add On Options Service** This easy-to-buy, easy-to-use HP Care Pack service helps ensure that your new HP hardware or software is installed smoothly, efficiently, and with minimal disruption of your IT and business operations.

Service and Support

Related Services	**Related HP Care Pack Services to enhance your HP product experience**

3-Year HP 24x7 4 hour Response, Critical Advantage
Helps optimize your systems and delivers high levels of application availability through proactive service management and advanced technical response. A Technical Account Manager will be assigned to you and work all problems from end to end until resolved, plus work with you to help minimize downtime and mitigate risk.

OR

3-Year HP 24x7 4 hour Response, Hardware Support Onsite Service
Provides you with rapid remote support and if required an HP technical representative will be on site 24X7 any day of the year to begin hardware maintenance service within 4 hours of the service request being logged
http://h20195.www2.hp.com/V2/GetPDF.aspx/5982-6547EEE.pdf

3-Year HP 6-hour Onsite Call-to-Repair, HP Collaborative Support
Offers customers a single point of contact for server problem diagnosis, hardware problem resolution to return the hardware in operating condition within 6 hours of the initial service request to the HP Global Solution Center, and basic software problem diagnosis, fault isolation, and resolution if available to HP.
http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA3-8232ENW.pdf

HP Proactive Select Service
Provides a flexible way to purchase HP best-in-class consultancy and technical services. You can buy Proactive Select Service Credits when you purchase your hardware and then use the credits over the next 12 months.
http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA2-3842ENN.pdf

Insight Remote Support	Provides 24 X 7 remote monitoring, proactive notifications, and problem resolution. Learn more http://www.hp.com/go/insightremotesupport

HP Support Center	Personalized online support portal with access to information, tools and experts to support HP business products. Submit support cases online, chat with HP experts, access support resources or collaborate with peers. Learn more http://www.hp.com/go/hpsc

HP's 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.
HP Insight Remote Support and HP Support Center are available at no additional cost with a HP warranty, HP Care Pack or HP contractual support agreement.

*HP' Support Center Mobile App is subject to local availability

Service and Support

Parts and materials	HP will provide HP-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. Supplies and consumable parts will not be provided as part of this service; standard warranty terms and conditions apply. Parts and components that have exceeded their maximum supported lifetime and/or the maximum usage limitations as set forth in the manufacturer's operating manual, these QuickSpecs or the technical product data sheet will not be provided, repaired or replaced as part of this service.

Warranty / Service Coverage	For ProLiant servers and storage systems, this service covers HP-branded hardware options qualified for the server, purchased at the same time or afterward, internal to the enclosure, as well as external monitors up to 22" and tower UPS products; 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 exceeded. Coverage of the UPS battery is not included; standard warranty terms and conditions apply.

The defective media retention service feature option applies only to Disk or eligible SSD/Flash Drives replaced by HP due to malfunction. It does not apply to any exchange of Disk or SSD/Flash Drives that have not failed. SSD/Flash Drives that are specified by HP as consumable parts and/or that have exceeded maximum supported lifetime and/or the maximum usage limit as set forth in the manufacturer's operating manual 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 |

For more information	To learn more on services for HP ESSN Options, please contact your HP sales representative or HP Authorized Channel Partner. Or visit: http://www.hp.com/services/proliant or www.hp.com/services/bladesystem

Technical Specifications

HP Solid State Drives for Gen8 Servers only

Application Information   Solid State Drives offer high performance, low latency, low power solutions that fit seamlessly into the HP server infrastructure using HP's universal hot plug drive carrier
NOTE: Any drive with SC in the product description is for Gen8 hot plug server bays servers only. They cannot be used in any other server generation.

6G SAS ME Hot Plug SFF (2.5-inch) Enterprise Mainstream Solid State Drives

HP 800GB 6G SAS Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Warranty Solid State Drive   690829-B21

Capacity	800GB	
Height	15mm	
Length x Width	Standard SFF	
Interface	SAS	
Transfer Rate Synchronous (Maximum)	6Gbs	
Performance	Rotational Speed	N/A
	Random Reads	51,700 IOP/s
	Random Writes (Write Cache Off)	13,000 IOP/s
	Sequential Reads	422MiB/s
	Sequential Writes (Write Cache off)	175MiB/s
Physical Configuration	Logical Blocks	512 bytes
Power	9W	
Operating Temperature	0-60°C	

6G SAS ME Hot Plug SFF (2.5-inch) Enterprise Mainstream Solid State Drives

HP 400GB 6G SAS Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Warranty Solid State Drive   690827-B21

Capacity	400GB	
Height	15mm	
Length x Width	Standard SFF	
Interface	SAS	
Transfer Rate Synchronous (Maximum)	6Gbs	
Performance	Rotational Speed	N/A
	Random Reads	46,200 IOP/s
	Random Writes (Write Cache Off)	9,800 IOP/s
	Sequential Reads	370MiB/s
	Sequential Writes (Write Cache off)	150MiB/s
Physical Configuration	Logical Blocks	512 bytes

Technical Specifications

Power	9W	
Operating Temperature	0-60°C	

6G SAS ME Hot Plug SFF (2.5-inch) Enterprise Mainstream Solid State Drives

HP 200GB 6G SAS Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Warranty Solid State Drive   690825-B21

Capacity	200GB	
Height	15mm	
Length x Width	Standard SFF	
Interface	SAS	
Transfer Rate Synchronous (Maximum)	6Gbs	
Performance	Rotational Speed	N/A
	Random Reads	46,200 IOP/s
	Random Writes (Write Cache Off)	9,800 IOP/s
	Sequential Reads	370MiB/s
	Sequential Writes (Write Cache off)	150MiB/s
Physical Configuration	Logical Blocks	512 bytes
Power	9W	
Operating Temperature	0-60°C	

6G SAS MLC Hot Plug SFF (2.5-inch) Enterprise Mainstream Solid State Drives

HP 800GB 6G SAS MLC SFF (2.5-inch) SC Enterprise Mainstream 3yr Warranty Solid State Drive   653109-B21

Capacity	800GB	
Height	15mm	
Length x Width	Standard SFF	
Interface	SAS	
Transfer Rate Synchronous (Maximum)	6Gbs	
Performance	Rotational Speed	N/A
	Random Reads	40,000 IOP/s
	Random Writes (Write Cache Off)	8,000 IOP/s
	Sequential Reads	400MiB/s
	Sequential Writes (Write Cache off)	130MiB/s
Physical Configuration	Logical Blocks	512 bytes
Power	9W	
Operating Temperature	0-60°C	

Technical Specifications

HP 400GB 6G SAS MLC SFF (2.5-inch) SC Enterprise Mainstream 3yr Warranty Solid State Drive	653105-B21			
		Capacity	400GB	
		Height	15mm	
		Length x Width	Standard SFF	
		Interface	SAS	
		Transfer Rate Synchronous (Maximum)	6Gbs	
		Performance	Rotational Speed	N/A
			Random Reads	40,000 IOP/s
			Random Writes (Write Cache Off)	8,000 IOP/s
			Sequential Reads	300MiB/s
			Sequential Writes (Write Cache off)	110MiB/s
		Physical Configuration	Logical Blocks	512 bytes
		Power	9W	
		Operating Temperature	0-60°C	

HP 200GB 6G SAS MLC SFF (2.5-inch) SC Enterprise Mainstream 3yr Warranty Solid State Drive	658478-B21			
		Capacity	200GB	
		Height	15mm	
		Length x Width	Standard SFF	
		Interface	SAS	
		Transfer Rate Synchronous (Maximum)	6Gbs	
		Performance	Rotational Speed	N/A
			Random Reads	40,000 IOP/s
			Random Writes (Write Cache Off)	5,600 IOPS
			Sequential Reads	320 MiB/s
			Sequential Writes (Write Cache off)	100 MiB/s
		Physical Configuration	Logical Blocks	512 bytes
		Power	9W	
		Operating Temperature	5-60°C	

Technical Specifications

6G SAS SLC Hot Plug SFF (2.5-inch) Enterprise Performance Solid State Drives

HP 400GB 6G SAS SLC SFF (2.5-inch) SC Enterprise Performance 3yr Warranty Solid State Drive	653082-B21	**Capacity**	400GB	
		Height	15mm	
		Length x Width	Standard SFF	
		Interface	SATA	
		Transfer Rate Synchronous (Maximum)	6Gbs	
		Performance	Rotational Speed	N/A
			Random Reads	40,000 IOP/s
			Random Writes	14.5K IOP/s
			Sequential Reads	415MiB/s
			Sequential Writes	180MiB/s
		Physical Configuration	Logical Blocks	512 bytes
		Power	9W	
		Operating Temperature	0-60°C	

HP 200GB 6G SAS SLC SFF (2.5-inch) SC Enterprise Performance 3yr Warranty Solid State Drive	653078-B21	**Capacity**	200GB	
		Height	15mm	
		Length x Width	Standard SFF	
		Interface	SATA	
		Transfer Rate Synchronous (Maximum)	6Gbs	
		Performance	Rotational Speed	N/A
			Random Reads	40,000 IOP/s
			Random Writes	14.5K IOP/s
			Sequential Reads	415MiB/s
			Sequential Writes	180MiB/s
		Physical Configuration	Logical Blocks	512 bytes
		Power	9W	
		Operating Temperature	0-60°C	

Technical Specifications

3G SATA MLC Hot Plug SFF (2.5-inch) Enterprise Mainstream Solid State Drives

HP 400GB 3G SATA MLC SFF (2.5-inch) SC Enterprise Mainstream 3yr Warranty Solid State Drive	653120-B21	**Capacity**	400GB	
		Height	15mm	
		Length x Width	Standard SFF	
		Interface	SAS	
		Transfer Rate Synchronous (Maximum)	6Gbs	
		Performance	Rotational Speed	N/A
			Random Reads	32,000 IOP/s
			Random Writes	10,000 IOP/s
			Sequential Reads	257MiB/s
			Sequential Writes	235MiB/s
		Physical Configuration	Logical Blocks	512 bytes
		Power	7W	
		Operating Temperature	0-60°C	

HP 200GB 3G SATA MLC SFF (2.5-inch) SC Enterprise Mainstream 3yr Warranty Solid State Drive	653118-B21	**Capacity**	200GB	
		Height	15mm	
		Length x Width	Standard SFF	
		Interface	SAS	
		Transfer Rate Synchronous (Maximum)	6Gbs	
		Performance	Rotational Speed	N/A
			Random Reads	32,000 IOP/s
			Random Writes	10,000 IOP/s
			Sequential Reads	257MiB/s
			Sequential Writes	235MiB/s
		Physical Configuration	Logical Blocks	512 bytes
		Power	7W	
		Operating Temperature	0-60°C	

Technical Specifications

HP 100GB 3G SATA MLC SFF (2.5-inch) SC Enterprise Mainstream 3yr Warranty Solid State Drive	653112-B21		
		Capacity	100GB
		Height	15mm
		Length x Width	Standard SFF
		Interface	SATA
		Transfer Rate Synchronous (Maximum)	3Gbs
		Performance	Rotational Speed	N/A
			Random Reads	32,000 IOP/s
			Random Writes	6,000 IOP/s
			Sequential Reads	257MiB/s
			Sequential Writes	129MiB/s
		Physical Configuration	Logical Blocks	512 bytes
		Power	7W
		Operating Temperature	0-60°C

3G SATA MLC Hot Plug LFF (3.5-inch) Enterprise Mainstream Solid State Drives

HP 400GB 3G SATA MLC LFF (3.5-inch) SC Enterprise Mainstream 3yr Warranty Solid State Drive	653126-B21		
		Capacity	400GB
		Height	15mm
		Length x Width	Standard SFF
		Interface	SATA
		Transfer Rate Synchronous (Maximum)	3Gbs
		Performance	Rotational Speed	N/A
			Random Reads	32,000 IOP/s
			Random Writes	10,000 IOP/s
			Sequential Reads	257MiB/s
			Sequential Writes	235MiB/s
		Physical Configuration	Logical Blocks	512 bytes
		Power	7W
		Operating Temperature	0-60°C

Technical Specifications

HP 200GB 3G SATA MLC LFF (3.5-inch) SC Enterprise Mainstream 3yr Warranty Solid State Drive	653124-B21			
		Capacity	200GB	
		Height	15mm	
		Length x Width	Standard SFF	
		Interface	SATA	
		Transfer Rate Synchronous (Maximum)	3Gbs	
		Performance	Rotational Speed	N/A
			Random Reads	32,000 IOP/s
			Random Writes	10,000 IOP/s
			Sequential Reads	257MiB/s
			Sequential Writes	235MiB/s
		Physical Configuration	Logical Blocks	512 bytes
		Power	7W	
		Operating Temperature	0-60°C	

HP 100GB 3G SATA MLC LFF (3.5-inch) SC Enterprise Mainstream 3yr Warranty Solid State Drive	653122-B21			
		Capacity	100GB	
		Height	15mm	
		Length x Width	Standard SFF	
		Interface	SATA	
		Transfer Rate Synchronous (Maximum)	3Gbs	
		Performance	Rotational Speed	N/A
			Random Reads	32,000 IOP/s
			Random Writes	6,000 IOP/s
			Sequential Reads	257MiB/s
			Sequential Writes	129MiB/s
		Physical Configuration	Logical Blocks	512 bytes
		Power	7W	
		Operating Temperature	0-60°C	

HP Solid State Drive

NOTE: These drives are not supported by Gen8 servers.

Technical Specifications

HP 800GB 6G SAS Mainstream Endurance SFF 2.5-in Enterprise Mainstream 3yr Warranty Solid State Drive	690823-B21	**Capacity**	800GB	
		Height	15mm	
		Length x Width	Standard SFF	
		Interface	SAS	
		Transfer Rate Synchronous (Maximum)	6Gbs	
		Performance	Rotational Speed	N/A
			Random Reads	51,700 IOP/s
			Random Writes	13,000 IOP/s
			Sequential Reads	422MiB/s
			Sequential Writes	175MiB/s
		Physical Configuration	Logical Blocks	512 bytes
		Power	9W	
		Operating Temperature	0-60°C	

HP 400GB 6G SAS Mainstream Endurance SFF 2.5-in Enterprise Mainstream 3yr Warranty Solid State Drive	690821-B21	**Capacity**	400GB	
		Height	15mm	
		Length x Width	Standard SFF	
		Interface	SATA	
		Transfer Rate Synchronous (Maximum)	6Gbs	
		Performance	Rotational Speed	N/A
			Random Reads	46,200 IOP/s
			Random Writes	9,800 IOP/s
			Sequential Reads	370MiB/s
			Sequential Writes	150MiB/s
		Physical Configuration	Logical Blocks	512 bytes
		Power	9W	
		Operating Temperature	0-60°C	

Technical Specifications

HP 200GB 6G SAS
Mainstream Endurance
SFF 2.5-in Enterprise
Mainstream 3yr Warranty
Solid State Drive

690819-B21

Capacity	200GB	
Height	15mm	
Length x Width	Standard SFF	
Interface	SATA	
Transfer Rate Synchronous (Maximum)	6Gbs	
Performance	Rotational Speed	N/A
	Random Reads	46,200 IOP/s
	Random Writes	9,800 IOP/s
	Sequential Reads	370MiB/s
	Sequential Writes	150MiB/s
Physical Configuration	Logical Blocks	512 bytes
Power	9W	
Operating Temperature	0-60°C	

HP Solid State Drive

NOTE: These drives are not supported by Gen8 servers.

3G SATA MLC Hot Plug SFF (2.5-inch) Enterprise Mainstream Solid State Drives

HP 400GB 3G SATA MLC
SFF (2.5-inch) Enterprise
Mainstream 3yr Warranty
Solid State Drive

636597-B21

Capacity	400GB	
Height	15mm	
Length x Width	Standard SFF	
Interface	SATA	
Transfer Rate Synchronous (Maximum)	3Gbs	
Performance	Rotational Speed	N/A
	Random Reads	32,000 IOP/s
	Random Writes	10,000 IOP/s
	Sequential Reads	257MiB/s
	Sequential Writes	235MiB/s
Physical Configuration	Logical Blocks	512 bytes
Power	7W	
Operating Temperature	0-60°C	

Technical Specifications

HP 200GB 3G SATA MLC SFF (2.5-inch) Enterprise Mainstream 3yr Warranty Solid State Drive	**636595-B21**	**Capacity**	200GB	
		Height	15mm	
		Length x Width	Standard SFF	
		Interface	SATA	
		Transfer Rate Synchronous (Maximum)	3Gbs	
		Performance	Rotational Speed	N/A
			Random Reads	32,000 IOP/s
			Random Writes	10,000 IOP/s
			Sequential Reads	257MiB/s
			Sequential Writes	235MiB/s
		Physical Configuration	Logical Blocks	512 bytes
		Power	7W	
		Operating Temperature	0-60°C	

HP 100GB 3G SATA MLC SFF (2.5-inch) Enterprise Mainstream 3yr Warranty Solid State Drive	**636593-B21**	**Capacity**	100GB	
		Height	15mm	
		Length x Width	Standard SFF	
		Interface	SATA	
		Transfer Rate Synchronous (Maximum)	3Gbs	
		Performance	Rotational Speed	N/A
			Random Reads	32,000 IOP/s
			Random Writes	6,000 IOP/s
			Sequential Reads	257MiB/s
			Sequential Writes	129MiB/s
		Physical Configuration	Logical Blocks	512 bytes
		Power	7W	
		Operating Temperature	0-60°C	

Technical Specifications

3G SATA MLC Non-hot Plug SFF (2.5-inch) Enterprise Mainstream Solid State Drives

HP 400GB 3G SATA MLC SFF (2.5-inch) Non-hot plug Enterprise Mainstream 3yr Wty Solid State Drive

636605-B21

Capacity	400GB	
Height	15mm	
Length x Width	Standard SFF	
Interface	SATA	
Transfer Rate Synchronous (Maximum)	3Gbs	
Performance	Rotational Speed	N/A
	Random Reads	32,000 IOP/s
	Random Writes	10,000 IOP/s
	Sequential Reads	257MiB/s
	Sequential Writes	235MiB/s
Physical Configuration	Logical Blocks	512 bytes
Power	7W	
Operating Temperature	0-60°C	

HP 200GB 3G SATA MLC SFF (2.5-inch) Non-hot plug Enterprise Mainstream 3yr Wty Solid State Drive

636601-B21

Capacity	200GB	
Height	15mm	
Length x Width	Standard SFF	
Interface	SATA	
Transfer Rate Synchronous (Maximum)	3Gbs	
Performance	Rotational Speed	N/A
	Random Reads	32,000 IOP/s
	Random Writes	10,000 IOP/s
	Sequential Reads	257MiB/s
	Sequential Writes	235MiB/s
Physical Configuration	Logical Blocks	512 bytes
Power	7W	
Operating Temperature	0-60°C	

Technical Specifications

HP 100GB 3G SATA MLC SFF (2.5-inch) Non-hot plug Enterprise Mainstream 3yr Wty Solid State Drive	636599-B21			
		Capacity	100GB	
		Height	15mm	
		Length x Width	Standard SFF	
		Interface	SATA	
		Transfer Rate Synchronous (Maximum)	3Gbs	
		Performance	Rotational Speed	N/A
			Random Reads	32,000 IOP/s
			Random Writes	6,000 IOP/s
			Sequential Reads	257MiB/s
			Sequential Writes	129MiB/s
		Physical Configuration	Logical Blocks	512 bytes
		Power	7W	
		Operating Temperature	0-60°C	

3G SATA MLC Quick Release SFF (2.5-inch) Enterprise Mainstream Solid State Drives

NOTE: Quick Release SKU's are compatible with Gen8, G7 and G6 servers.

HP 400GB 3G SATA MLC SFF (2.5-inch) Quick Release Enterprise Mainstream 3yr Wty Solid State Drive	636625-B21			
		Capacity	400GB	
		Height	15mm	
		Length x Width	Standard SFF	
		Interface	SATA	
		Transfer Rate Synchronous (Maximum)	3Gbs	
		Performance	Rotational Speed	N/A
			Random Reads	32,000 IOP/s
			Random Writes	10,000 IOP/s
			Sequential Reads	257MiB/s
			Sequential Writes	235MiB/s
		Physical Configuration	Logical Blocks	512 bytes
		Power	7W	
		Operating Temperature	0-60°C	

Technical Specifications

HP 200GB 3G SATA MLC SFF (2.5-inch) Quick Release Enterprise Mainstream 3yr Wty Solid State Drive	**636623-B21**	**Capacity**	200GB	
		Height	15mm	
		Length x Width	Standard SFF	
		Interface	SATA	
		Transfer Rate Synchronous (Maximum)	3Gbs	
		Performance	Rotational Speed	N/A
			Random Reads	32,000 IOP/s
			Random Writes	10,000 IOP/s
			Sequential Reads	257MiB/s
			Sequential Writes	235MiB/s
		Physical Configuration	Logical Blocks	512 bytes
		Power	7W	
		Operating Temperature	0-60°C	

HP 100GB 3G SATA MLC SFF (2.5-inch) Quick Release Enterprise Mainstream 3yr Wty Solid State Drive	**636621-B21**	**Capacity**	100GB	
		Height	15mm	
		Length x Width	Standard SFF	
		Interface	SATA	
		Transfer Rate Synchronous (Maximum)	3Gbs	
		Performance	Rotational Speed	N/A
			Random Reads	32,000 IOP/s
			Random Writes	6,000 IOP/s
			Sequential Reads	257MiB/s
			Sequential Writes	129MiB/s
		Physical Configuration	Logical Blocks	512 bytes
		Power	7W	
		Operating Temperature	0-60°C	

Technical Specifications

3G SATA MLC Hot Plug LFF (3.-5inch) Enterprise Mainstream Solid State Drives

HP 400GB 3G SATA MLC LFF (3.5-inch) Enterprise Mainstream 3yr Warranty Solid State Drive 636611-B21

Capacity	400GB	
Height	15mm	
Length x Width	Standard SFF	
Interface	SATA	
Transfer Rate Synchronous (Maximum)	3Gbs	
Performance	Rotational Speed	N/A
	Random Reads	32,000 IOP/s
	Random Writes	10,000 IOP/s
	Sequential Reads	257MiB/s
	Sequential Writes	235MiB/s
Physical Configuration	Logical Blocks	512 bytes
Power	7W	
Operating Temperature	0-60°C	

HP 200GB 3G SATA MLC LFF (3.5-inch) Enterprise Mainstream 3yr Warranty Solid State Drive 636609-B21

Capacity	200GB	
Height	15mm	
Length x Width	Standard SFF	
Interface	SATA	
Transfer Rate Synchronous (Maximum)	3Gbs	
Performance	Rotational Speed	N/A
	Random Reads	32,000 IOP/s
	Random Writes	10,000 IOP/s
	Sequential Reads	257MiB/s
	Sequential Writes	235MiB/s
Physical Configuration	Logical Blocks	512 bytes
Power	7W	
Operating Temperature	0-60°C	

Technical Specifications

HP 100GB 3G SATA MLC LFF (3.5-inch) Enterprise Mainstream 3yr Warranty Solid State Drive — 636607-B21

Capacity	100GB	
Height	15mm	
Length x Width	Standard SFF	
Interface	SATA	
Transfer Rate Synchronous (Maximum)	3Gbs	
Performance	Rotational Speed	N/A
	Random Reads	32,000 IOP/s
	Random Writes	6,000 IOP/s
	Sequential Reads	257MiB/s
	Sequential Writes	129MiB/s
Physical Configuration	Logical Blocks	512 bytes
Power	7W	
Operating Temperature	0-60°C	

6G SAS SLC Hot Plug Enterprise Performance Solid State Drives

HP 400GB 6G SAS SLC SFF (2.5-inch) Enterprise Performance 3yr Warranty Solid State Drive — 632494-B21

Capacity	400GB	
Height	15mm	
Length x Width	Standard SFF	
Interface	SAS	
Transfer Rate Synchronous (Maximum)	6Gbs	
Performance	Rotational Speed	N/A
	Random Reads	40,000 IOP/s
	Random Writes (Write Cache Off)	14.5K IOP/s
	Sequential Reads	415MiB/s
	Sequential Writes (Write Cache off)	180MiB/s
Physical Configuration	Logical Blocks	512 bytes
Power	9W	
Operating Temperature	0-60°C	

Technical Specifications

HP 200GB 6G SAS SLC SFF (2.5-inch) Enterprise Performance 3yr Warranty Solid State Drive	632492-B21			
		Capacity	200GB	
		Height	15mm	
		Length x Width	Standard SFF	
		Interface	SAS	
		Transfer Rate Synchronous (Maximum)	6Gbs	
		Performance	Rotational Speed	N/A
			Random Reads	40,000 IOP/s
			Random Writes (Write Cache Off)	13,000 IOP/s
			Sequential Reads	350MiB/s
			Sequential Writes (Write Cache off)	160MiB/s
		Physical Configuration	Logical Blocks	512 bytes
		Power	9W	
		Operating Temperature	0-60°C	

6G SAS MLC Hot Plug Enterprise Performance Solid State Drives

HP 800GB 6G SAS MLC SFF (2.5-inch) Enterprise Mainstream 3yr Warranty Solid State Drive	632506-B21			
		Capacity	800GB	
		Height	15mm	
		Length x Width	Standard SFF	
		Interface	SAS	
		Transfer Rate Synchronous (Maximum)	6Gbs	
		Performance	Rotational Speed	N/A
			Random Reads	40,000 IOP/s
			Random Writes (Write Cache Off)	8,000 IOP/s
			Sequential Reads	400MiB/s
			Sequential Writes (Write Cache off)	130MiB/s
		Physical Configuration	Logical Blocks	512 bytes
		Power	9W	
		Operating Temperature	0-60°C	

Technical Specifications

HP 400GB 6G SAS MLC SFF (2.5-inch) Enterprise Mainstream 3yr Warranty Solid State Drive	632504-B21			
		Capacity	400GB	
		Height	15mm	
		Length x Width	Standard SFF	
		Interface	SAS	
		Transfer Rate Synchronous (Maximum)	6Gbs	
		Performance	Rotational Speed	N/A
			Random Reads	40,000 IOP/s
			Random Writes (Write Cache Off)	8,000 IOP/s
			Sequential Reads	300MiB/s
			Sequential Writes (Write Cache off)	110MiB/s
		Physical Configuration	Logical Blocks	512 bytes
		Power	9W	
		Operating Temperature	0-60°C	

HP 200GB 6G SAS MLC SFF (2.5-inch) Enterprise Mainstream 3yr Warranty Solid State Drive	632502-B21			
		Capacity	200GB	
		Height	15mm	
		Length x Width	Standard SFF	
		Interface	SAS	
		Transfer Rate Synchronous (Maximum)	6Gbs	
		Performance	Rotational Speed	N/A
			Random Reads	40,000 IOPS
			Random Writes (Write Cache Off)	5,600 IOPS
			Sequential Reads	320 MiB/s
			Sequential Writes (Write Cache off)	100 MiB/s
		Physical Configuration	Logical Blocks	512 bytes
		Power	9W	
		Operating Temperature	5-60°C	

Technical Specifications

Environment-friendly Products and Approach	**End-of-life Management and Recycling**	Hewlett-Packard offers end-of-life HP product return, trade-in, and recycling programs in many geographic areas. For trade-in information, please go to: http://www.hp.com/go/green. To recycle your product, please go to: http://www.hp.com/go/green or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner.
		The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: http://www.hp.com/go/green. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.