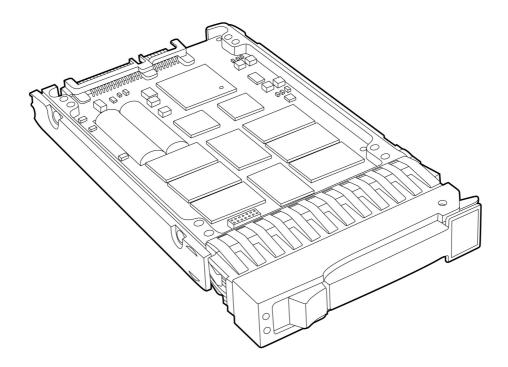
Overview

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 technology 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.



#### Models

#### HP Solid State Drives for Gen8 Servers only

NOTE: These drives are only supported by Gen8 servers.

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	
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
HP Solid State Drive	
NOTE. These drives are not supported by Gang servers	

**NOTE:** These drives are not supported by Gen8 servers.

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



#### Overview

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
NOTE: Non-hot plug SKU's are compatible with Gen8, G7 and G6 servers.	
3G SATA MLC Hot Plug LFF (35inch) 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 Performance 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



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	data moving to the se consolidation. In this e significantly defining b intense qualification p specific to our drives o	terprise is seeing larger, more complex appli erver, increasing demand for transaction proc environment, storage has become a critical o poth the systems reliability and performance. process that eliminates firmware and O/S inc and is designed to maximize both functionali and tuned for optimum performance in the h	cessing and critical server component of the information system, This is why HP drives undergo an compatibilities. All drive firmware is ty and compatibility. All our drives are	
Integration	another supplier, there ProLiant servers and s rob your system of per designed and tested fo	rs have with third party drives are "simple" into e is no guarantee that a drive has been correctorage systems. These incompatibilities can a rformance, or at their worst, can cause you t or flawless operation in your HP equipment. ssociated components are right for your ProL	ectly set for proper operation with create problems in configuration, can o lose data. HP drives are specifically The integration of hard drives in HP	
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 those servers that can accept a 15mm device			
Maximum Usage Limitations		se semiconductor technology that has a finite the Maximum Usage Limit, commonly called		
Limitations		te endurance is measured while running 100		
limitations	entire SSD		% random 4KiB writes across the	
Imitations		Write endurance specification	% random 4KiB writes across the ns for 6G SAS SSD Devices	
Imitations	entire SSD Drive	Write endurance specification	% random 4KiB writes across the ns for 6G SAS SSD Devices Estimated Life	
Imitations	entire SSD Drive 200GB MLC	Write endurance specification Lifetime Writes Up to 517TB	% random 4KiB writes across the ns for 6G SAS SSD Devices Estimated Life 7.5 months	
Imitations	entire SSD Drive	Write endurance specification	% random 4KiB writes across the ns for 6G SAS SSD Devices Estimated Life	
Imitations	entire SSD Drive 200GB MLC 400GB MLC	Write endurance specification         Lifetime Writes         Up to 517TB         Up to 1PB	% random 4KiB writes across the ns for 6G SAS SSD Devices Estimated Life 7.5 months 1 year	
Imitations	entire SSD Drive 200GB MLC 400GB MLC 800GB MLC	Write endurance specification         Lifetime Writes         Up to 517TB         Up to 1PB         Up to 2PB	% random 4KiB writes across the ns for 6G SAS SSD Devices Estimated Life 7.5 months 1 year 1.9 years	
Imitations	entire SSD Drive 200GB MLC 400GB MLC 800GB MLC 200GB SLC	Write endurance specification         Lifetime Writes         Up to 517TB         Up to 1PB         Up to 2PB         Up to 4.5PB	% random 4KiB writes across the ns for 6G SAS SSD Devices Estimated Life 7.5 months 1 year 1.9 years 2.7 years 5.7 years	
Imitations	entire SSD Drive 200GB MLC 400GB MLC 800GB MLC 200GB SLC 400GB SLC	Write endurance specification         Lifetime Writes         Up to 517TB         Up to 1PB         Up to 2PB         Up to 4.5PB         Up to 8.9PB	% random 4KiB writes across the ns for 6G SAS SSD Devices Estimated Life 7.5 months 1 year 1.9 years 2.7 years 5.7 years	
Imitations	entire SSD Drive 200GB MLC 400GB MLC 800GB MLC 200GB SLC 400GB SLC	Write endurance specification         Lifetime Writes         Up to 517TB         Up to 1PB         Up to 2PB         Up to 4.5PB         Up to 8.9PB         Write endurance specification	% random 4KiB writes across the ns for 6G SAS SSD Devices Estimated Life 7.5 months 1 year 1.9 years 2.7 years 5.7 years s for 3G SATA SSD Devices	
Limitations	entire SSD Drive 200GB MLC 400GB MLC 800GB MLC 200GB SLC 400GB SLC Drive	Write endurance specification         Lifetime Writes         Up to 517TB         Up to 1PB         Up to 2PB         Up to 4.5PB         Up to 8.9PB         Write endurance specification         Lifetime Writes	% random 4KiB writes across the ns for 6G SAS SSD Devices Estimated Life 7.5 months 1 year 1.9 years 2.7 years 5.7 years s for 3G SATA SSD Devices Estimated Life	



HP Solid State Drives are equipped with tools that can report the amount of lifetime remaining.

#### Standard Features

Introducing HP SMARTSSD Wear Gauge<sup>™</sup>. In order to take advantage of SMARTSSD Wear Gauge<sup>™</sup>, 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<sup>™</sup> requires a controller listed below (for pre-Gen8 servers) or a Gen8 Smart Array controller for 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 the period in years set to equal the warranty for the device. Maximum usage limit -This 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. 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. 3/0/0 warranty; Customer Self Repair (CSR) Subject to maximum usage limitations (Note 1 under Warranty Additional Services Information)



#### HP Solid State Drive (SSD)

#### Service and Support

# Service and Support HP Technology Services HP Technology Services offers you consultants and support experts 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 care and support expertise with committed response choices designed to meet your IT and business need.

### Recommended HP Care Pack Services for optimal satisfaction with your HP product

Recommended Services

#### led Services 3-Year HP 24x7 4 hour Response, Hardware Support Onsite Service

Provides you with rapid remote support and if required an HP authorized representative who will arrive on site any time and 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

#### HP ProLiant Server Hardware Installation

Provides for the basic hardware installation of HP branded servers, storage devices and networking options to assist you in bringing your new hardware into operation in a timely and professional manner http://h20195.www2.hp.com/V2/GetPDF.aspx/5981-9356EN.pdf

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

Related Services	3-Year HP 6 hour Hardware Support Onsite Call-to-Repair Service Provides an IT manager with a team of support specialists who will quickly begin troubleshooting the system to help return the hardware to operating condition within 6 hours of the initial service request to the HP Global Solution Center http://h20195.www2.hp.com/V2/GetPDF.aspx/5982-6547EN.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	Delivers secure remote monitoring and support for HP servers and storage, 24x7 at no additional cost. Available as part of HP Warranty, Care Pack and Service Contract offers.
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.



#### Service and Support

#### 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, these QuickSpecs or the technical data sheet are not eligible for the defective media retention service feature option. 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 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 Height Length x Width Interface Transfer Rate Synchronous (Maximum) Performance	800GB 15mm Standard SFF SAS 6Gbs Rotational Speed Random Reads Random Writes (Write Cache Off)	N/A 40,000 IOP/s 8,000 IOP/s
			Sequential Reads Sequential Writes (Write Cache off)	400MiB/s 130MiB/s
		Physical Configuration Power Operating Temperature	Logical Blocks 9W 0-60°C	512 bytes
HP 400GB 6G SAS MLC SFF (2.5-inch) SC Enterprise Mainstream 3yr Warranty Solid State Drive	653105-B21	Capacity Height Length x Width Interface Transfer Rate Synchronous (Maximum) Performance Physical Configuration Power Operating Temperature	400GB 15mm Standard SFF SAS 6Gbs Rotational Speed Random Reads Random Writes (Write Cache Off) Sequential Reads Sequential Writes (Write Cache off) Logical Blocks 9W 0-60°C	N/A 40,000 IOP/s 8,000 IOP/s 300MiB/s 110MiB/s 512 bytes



Technical Specifications				
HP 200GB 6G SAS MLC	658478-B21	Capacity	200GB	
SFF (2.5-inch) SC		Height	15mm	
Enterprise Mainstream 3yr Warranty Solid State Drive		Length x Width	Standard SFF	
Waltality Jolia Jiale Drive		Interface	SAS	
		<b>Transfer Rate</b> <b>Synchronous</b> (Maximum)	6Gbs	
		Performance	Rotational Speed	N/A
			Random Reads	40,000 IOP/s
				Random Writes (Write Cache Off)
			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	

### 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 Height Length x Width Interface	400GB 15mm Standard SFF SATA	
		<b>Transfer Rate</b> <b>Synchronous</b> (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** 

ΗP	Solid	State	Drive	(SSD)
----	-------	-------	-------	-------

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

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

HP 400GB 3G SATA MLC 653120-B21 400GB Capacity SFF (2.5-inch) SC Height 15mm Enterprise Mainstream 3yr Standard SFF Length x Width Warranty Solid State Drive SAS Interface **Transfer Rate** 6Gbs Synchronous (Maximum) 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** 512 bytes Logical Blocks Power 7W **Operating Temperature** 0-60°C



Technical Specifications				
HP 200GB 3G SATA MLC	653118-B21	Capacity	200GB	
SFF (2.5-inch) SC		Height	15mm	
Enterprise Mainstream 3yr		Length x Width	Standard SFF	
Warranty Solid State Drive		Interface	SAS	
		<b>Transfer Rate</b> <b>Synchronous</b> (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 100GB 3G SATA MLC	653112-B21	Capacity	100GB	
SFF (2.5-inch) SC		, Height	15mm	
Enterprise Mainstream 3yr		Length x Width	Standard SFF	
Warranty Solid State Drive		Interface	SATA	
		<b>Transfer Rate</b> <b>Synchronous</b> (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** 

### 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	636597-B21	, Capacity	400GB	
SFF (2.5-inch) Enterprise Mainstream 3yr Warranty Solid State Drive		Height	15mm	
		Length x Width	Standard SFF	
Solid Sidle Drive		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	636595-B21	Capacity	200GB	
SFF (2.5-inch) Enterprise		Height	15mm	
Mainstream 3yr Warranty Solid State Drive		Length x Width	Standard SFF	
Solia State Drive		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) Enterprise Mainstream 3yr Warranty Solid State Drive	636593-B21	Capacity Height Length x Width Interface Transfer Rate Synchronous (Maximum)	100GB 15mm Standard SFF SATA 3Gbs	
		Performance	Rotational Speed Random Reads Random Writes Sequential Reads Sequential Writes	N/A 32,000 IOP/s 6,000 IOP/s 257MiB/s 129MiB/s
		Physical Configuration Power Operating Temperature	Logical Blocks 7W 0-60°C	512 bytes

### 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	3Gbs	
Synchronous (Maximum)		
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	636601-B21	Capacity	200GB	
SFF (2.5-inch) Non-hot		Height	15mm	
plug Enterprise		Length x Width	Standard SFF	
Mainstream 3yr Wty Solid State Drive		Interface	SATA	
		<b>Transfer Rate</b> <b>Synchronous</b> (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	636599-B21	Capacity	100GB	
SFF (2.5-inch) Non-hot		Height	15mm	
plug Enterprise Mainstream 3yr Wty Solid State Drive		Length x Width	Standard SFF	
		Interface	SATA	
		<b>Transfer Rate</b> <b>Synchronous</b> (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

HP 400GB 3G SATA MLC	636611-B21	Capacity	400GB	
LFF (3.5-inch) Enterprise Mainstream 3yr Warranty Solid State Drive	000011 021	Height	15mm	
		Length x Width	Standard SFF	
		Interface	SATA	
		<b>Transfer Rate</b> 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	636609-B21	Capacity	200GB	
LFF (3.5-inch) Enterprise		Height	15mm	
Mainstream 3yr Warranty Solid State Drive		Length x Width	Standard SFF	
		Interface	SATA	
		<b>Transfer Rate</b> <b>Synchronous</b> (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 Height Length x Width Interface Transfer Rate Synchronous (Maximum)	100GB 15mm Standard SFF SATA 3Gbs	
		Performance	Rotational Speed Random Reads Random Writes Sequential Reads Sequential Writes	N/A 32,000 IOP/s 6,000 IOP/s 257MiB/s 129MiB/s
		Physical Configuration Power Operating Temperature	Logical Blocks 7W 0-60°C	512 bytes

### 6G SAS SLC Hot Plug Enterprise Performance Solid State Drives

HP 400GB 6G SAS SLC SFF (2.5-inch) Enterprise	632494-B21	Capacity	400GB	
		Height	15mm	
Performance 3yr Warranty Solid State Drive		Length x Width	Standard SFF	
Solid Sidle Drive		Interface	SAS	
		<b>Transfer Rate</b> <b>Synchronous</b> (Maximum)	6Gbs	
		Performance	Rotational Speed	N/A
			Random Reads	40,000 IOP/s
			Random Reads 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	15mm Standard SFF SAS 6Gbs Rotational Speed N/A Random Reads 40,000 IOP/s Random Writes (Write 14.5K IOP/s Cache Off) Sequential Reads 415MiB/s Sequential Writes (Write 180MiB/s Cache off) Logical Blocks 512 bytes	
		Operating Temperature	O-60°C	



Technical Specifications				
HP 200GB 6G SAS SLC	632492-B21	Capacity	200GB	
SFF (2.5-inch) Enterprise		Height	15mm	
Performance 3yr Warranty Solid State Drive		Length x Width	Standard SFF	
		Interface	SAS	
		<b>Transfer Rate</b> <b>Synchronous</b> (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	O-60°C	

### 6G SAS MLC Hot Plug Enterprise Performance Solid State Drives

HP 800GB 6G SAS MLC 632 SFF (2.5-inch) Enterprise Mainstream 3yr Warranty Solid State Drive	632506-B21	Capacity	800GB	
		Height	15mm	
		Length x Width	Standard SFF	
		Interface	SAS	
		<b>Transfer Rate</b> <b>Synchronous</b> (Maximum)	6Gbs	
		Performance Rotational Speed	N/A	
			Random Reads	40,000 IOP/s
		Cache Off) Sequential Re	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	O-60°C	



Technical Specifications		·		
HP 400GB 6G SAS MLC SFF (2.5-inch) Enterprise	632504-B21	Capacity	400GB	
		Height	15mm	
Mainstream 3yr Warranty Solid State Drive		Length x Width	Standard SFF	
		Interface	SAS	
		<b>Transfer Rate</b> <b>Synchronous</b> (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	O-60°C	
HP 200GB 6G SAS MLC	632502-B21	Capacity	200GB	
SFF (2.5-inch) Enterprise		Height	15mm	
Mainstream 3yr Warranty Solid State Drive		Length x Width Standard SFF	Standard SFF	
Solid Sidle Drive		Interface	SAS	
		<b>Transfer Rate</b> <b>Synchronous</b> (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.

© Copyright 2012 Hewlett-Packard Development Company, L.P.

The information contained herein is subject to change without notice.

Microsoft and Windows NT are US registered trademarks of Microsoft Corporation. Intel is a US registered trademark of Intel Corporation.

The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

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

