

Overview

HPE Hard Disk Drives

HPE Hard Disk Drives (HDDs) deliver proven performance at industry leading capacities backed by high quality and reliability, preferred choice for many workloads ranging from small businesses to large enterprise.

HPE hard disk drives are optimized to deliver maximum performance on HPE server platforms, and are proven for applications that demand reliable performance in 24x7 operational environments. HPE HDDs offer customers great value per gigabyte without sacrificing performance. In addition, an industry-leading testing and qualification program ensures that our drives are rugged enough for any need.

HPE HDDs are available for three types of workloads —Entry, Midline and Enterprise, two interfaces—SAS and SATA, and in a variety of capacities—up to 10TB and growing.

HPE HDD portfolio: Proven performance for every workload

Class	Enterprise		Midline	Entry*
Workload	High		Medium	Low
Usage	Mission-critical, high I/O: Email, enterprise resource planning (ERP), customer relationship management (CRM)		High capacity, high availability storage: Backup, archive, reference	Low I/O: Boot and backup
Interface	SAS 12Gb		SAS 12Gb SATA 6Gb	SATA 6Gb
RPM	15000	10000	7200	7200/5900
Form factor	SFF & LFFc	SFF	SFF & LFF	LFF
Capacities	Up to 900GB	Up to 2.4TB	Up to 10TB	Up to 4TB
Warranty	3 years	3 years	1 year	1 year

* Supported on select HPE ProLiant servers only.

What's New

- 881458-B21 HPE 2.4TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty 512e Digitally Signed Firmware HDD
- Firmware Updates:**
- Digitally Signed Firmware – Prevent unauthorized access to your data with the expansion of integrated HPE Digitally Signed Firmware (DS) on new drives; providing the security and assurance that drive firmware comes from a trusted source and protects against malicious attacks.
 - 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 protect data-at-rest on any bulk attached storage. This solution meets stringent compliance regulations such as HIPAA and Sarbanes-Oxley.

Overview

Models

Category	Interface	Form factor	Format	Capacity	HDD Carrier		
					Smart Carrier SKU	Low Profile SKU	Standard carrier SKU
Enterprise (15K rpm)	SAS 6G	SFF	512n	146GB	652605-B21	-	-
	SAS 12G			300GB	759208-B21 870753-B21*	-	785099-B21 872842-B21*
				450GB	759210-B21	-	785101-B21
				600GB	759212-B21 870757-B21*	-	785103-B21 872844-B21*
				900GB	870759-B21	-	872846-B21
			512e	600GB	748387-B21 870763-B21*	-	-
				900GB	870765-B21	-	-
		LFF	512n	300GB	737261-B21	870755-B21*	737390-B21
	450GB			737394-B21	-	-	
	600GB			765424-B21	797283-B21	737396-B21	
	900GB			-	870761-B21	-	
	Enterprise (10K rpm)	SAS 12G	SFF	512n	300GB	785067-B21 872475-B21*	-
600GB					781516-B21 872477-B21*	-	785073-B21 873010-B21*
900GB					785069-B21	-	785075-B21
1.2TB					781518-B21 872479-B21*	-	785079-B21 873012-B21*
512e			1.8TB	791034-B21 872481-B21*	-	-	
			2.4TB	881458-B21	-	-	

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Category	Interface	Form factor	Format	Capacity	HDD Carrier		
					Smart Carrier SKU	Low Profile SKU	Standard carrier SKU
Midline 7.2K rpm	SAS 12G	LFF	512n	1TB	846524-B21	846526-B21	-
				2TB	818365-B21 872485-B21*	833926-B21	826072-B21
				3TB	846528-B21	846530-B21	-
				4TB	818367-B21 872487-B21*	833928-B21	826074-B21
				6TB	846514-B21	846516-B21	-
			512e	4TB	861756-B21*	861748-B21*	-
				6TB	861754-B21*	861746-B21*	-
				8TB	819201-B21 861590-B21He	834031-B21 861592-B21He	858384-B21
				10TB	857644-B21He	857646-B21He	869347-B21He
		SFF	1TB	765464-B21	-	-	
			2TB	765466-B21	-	-	
			512n	1TB	832514-B21	-	-

Overview

Category	Interface	Form factor	Format	Capacity	HDD Carrier		
					Smart Carrier SKU	Low Profile SKU	Standard carrier SKU
Midline 7.2K rpm	SATA 6G	LFF	512n	1TB	861691-B21	861686-B21	-
				2TB	861676-B21 872489-B21*	861681-B21	-
				3TB	861693-B21	861688-B21	-
				4TB	861678-B21 872491-B21*	861683-B21	-
				6TB	846510-B21	846512-B21	-
			512e	4TB	861752-B21*	861744-B21*	-
				6TB	861750-B21*	861742-B21*	-
				8TB	819203-B21 861594-B21He	834028-B21 861596-B21He	
				10TB	857648-B21He	857650-B21He	-
				SFF	1TB	765453-B21	-
		2TB	765455-B21		-	-	
		512n	1TB		655710-B21	-	-

Overview

Category			Format	Capacity	HDD Carrier		
					Smart Carrier SKU	Low Profile SKU	No Carrier SKU (Raw/Non-Hot Plug)
Entry	Interface	Form factor	512n	1TB	-	-	801882-B21
				2TB	-	-	801884-B21
				4TB	-	-	801888-B21
				1TB	858594-B21 [†]	-	-
				2TB	858596-B21 [†]	-	-
			512e	500GB	-	-	843264-B21 [‡]
				1TB	-	-	843266-B21 [‡]
				2TB	-	-	843268-B21 [‡]
				3TB	-	-	843270-B21 [‡]
				4TB	-	-	815635-B21 [‡]

NOTE: * Newer SKU that will replace equivalent older SKUs.

NOTE: † Support Gen9 platforms only.

NOTE: * Also known as “Desktop”, these entry drives have generic firmware.

NOTE: ^{He} Helium Drive.

NOTE: Refer to the appropriate Server QuickSpecs for full compatibility details.

Standard Features

What is HPE Hard disk drive?

Hewlett Packard Enterprise drives are tuned to deliver optimum performance for HPE Servers. They undergo an intense qualification process to eliminate firmware and O/S incompatibilities. HPE drive firmware is designed to maximize both functionality and compatibility with HPE ProLiant Rack and Tower Servers, Apollo family, Blade and Synergy Platforms.

Drive Quality and Performance

While selecting the drives in our Enterprise portfolio, only those drives with a performance level suitable for an enterprise environment are selected through the Hewlett Packard Enterprise qualification process and are labeled "best-in-class." HPE Midline drives undergo a similar qualification process to ensure that you get the economical reliability and performance you need for your low workload (less than 40% I/O) environments.

Pre-Failure Alert

When used in conjunction with a SMART Array Controller and Systems Insight Manager, the SMART capable firmware in HPE hard drives enables extensive fault prediction capabilities. If potential problems develop in one of the drives, the Smart Array Controller, Systems Insight Manager and/or SMART hard disk drive lets you know in advance so you can have the drive replaced, before it fails, under warranty.

NOTE: All drives are protected by a Pre-Failure Alert when used with a HPE Smart Array controller and Systems Insight Manager, allowing hard drives to be replaced before failure under warranty. In addition, all drives are covered by a one or three-year limited on-site warranty period for the system in which they are installed. The drive warranty is automatically uplifted when used in a server or MSA for which a Care Pack is purchased. Please see the Support Services section below for additional services.

Smart Carriers

HPE Hard Drives with smart carriers are designed to provide an interface to communicate critical status and management information. System status LED icons and a spinning activity ring reflecting the data-writing process notify users of the current system status. A blue LED located behind the handle can be activated remotely to guide users to a specific drive tray, while a do-not-remove icon positioned on the tray's eject button lights up to warn users when the removal of the drive would cause data loss.

Helium Drives

Although hard drives are sealed, they have air inside. Air can create turbulence-induced risk vibrations which can limit the storage density of HDDs. Newer helium-filled drives virtually eliminate turbulence because helium is 1/7th as dense as air. This lower density allows the read/write mechanism to spin more easily and precisely, with less drag. Less internal turbulence means the drive platters can be closer together, allowing more platters and increasing the capacity potential in the same space. Less turbulence also means helium drives tend to use less power, and run cooler and quieter.

Support Matrix

Please see the following URL for the latest list of supported servers and enclosures:
<https://www.hpe.com/us/en/servers/server-options.html>

Warranty

Enterprise hard drives have a 3 year limited warranty regardless of the warranty period for the system in which they are installed.
Midline hard drives have a 1 year limited warranty regardless of the warranty period for the system in which they are installed.

Service and Support

Service and Support	NOTE: HPE Hard drives are covered under the HPE Care Pack/Service Contract applied to the HPE ProLiant Server. No separate HPE Care Packs need to be purchased. HPE Technology Services for Industry Standard Servers and Blade System HPE Technology Services delivers confidence, reduces risk and helps customers realize agility and stability. 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 Care Pack Services HPE Care Pack Services enable you to order the right service level, length of coverage and response time as you purchase your new server, giving you full entitlement for the term you select.
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% reduction in down time, near 100% 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.
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, are purchased at the same time or afterward, and are internal to the enclosure.
For more information	To learn more on services for HPE Server Options, please contact your Hewlett Packard Enterprise sales representative or Hewlett Packard Enterprise Authorized Channel Partner. Or visit: https://www.hpe.com/us/en/servers/server-options.html or http://www.hpe.com/services

Technical Specifications

Enterprise (15K rpm)						
Form Factor	SFF (2.5")	Carrier	Smart Carrier (SC)			
Rotational Speed	15000 rpm	Dimensions				
Interface	SAS	Height	0.62 in (15.6 mm)			
Transfer Rate Synchronous (Max)	12Gb/sec	Width	2.98 in (75.7 mm)			
Bytes/Sector	512	Depth	4.67 in (118.7 mm)			
Operating Temperature	50° to 95° F (10° to 35°C)					
SKU Description	SKU	Physical Configuration		Seek time		
		Capacity	Logical Blocks	Single track	Avg	Full Stroke
HPE 146GB SAS 6G Enterprise 15K SFF (2.5in) SC 3yr Wty HDD**	652605-B21	146,815MB	286,749,488	0.4 ms	3.0 ms	7.0 ms
HPE 300GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty HDD	759208-B21	300,000MB	585,937,500	0.24 ms	2.9 ms	6.5 ms
HPE 300GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	870753-B21	300,000MB	585,937,500	0.22 ms	2.72 ms	5.36 ms
HPE 450GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty HDD	759210-B21	450,098MB	879,097,968	0.22 ms	2.9 ms	6.5 ms
HPE 600GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty HDD	759212-B21	600,127MB	1,172,123,568	0.22 ms	2.9 ms	6.5 ms
HPE 600GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	870757-B21	600,127MB	1,172,123,568	0.22 ms	2.72 ms	5.36 ms
HPE 600GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty 512e HDD	748387-B21	600,127MB	1,172,123,568	0.15 ms	2.9 ms	5.9 ms
HPE 600GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty 512e Digitally Signed Firmware HDD	870763-B21	600,127MB	1,172,123,568	0.22 ms	2.72 ms	5.36 ms
HPE 900GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	870759-B21	900,185MB	1,758,174,768	0.22 ms	2.72 ms	5.36 ms
HPE 900GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty 512e Digitally Signed Firmware HDD	870765-B21	900,185MB	1,758,174,768	0.22 ms	2.72 ms	5.36 ms

Technical Specifications

Enterprise (15K rpm)						
Form Factor	SFF (2.5")	Carrier	Standard Carrier (ST)			
Rotational Speed	15000 rpm	Dimensions				
Interface	SAS	Height	0.63 in (16.0 mm)			
Transfer Rate Synchronous (Max)	12Gb/sec	Width	3.10 in (78.7 mm)			
Bytes/Sector	512	Depth	5.45 in (138.4 mm)			
Operating Temperature	50° to 95° F (10° to 35°C)					
SKU Description	SKU	Physical Configuration		Seek time		
		Capacity	Logical Blocks	Single track	Avg	Full Stroke
HPE 300GB SAS 12G Enterprise 15K SFF (2.5in) ST 3yr Wty HDD	785099-B21	300,000MB	585,937,500	0.15 ms	2.9 ms	5.9 ms
HPE 300GB SAS 12G Enterprise 15K SFF (2.5in) ST 3yr Wty Digitally Signed Firmware HDD	872842-B21	300,000MB	585,937,500	0.22 ms	2.72 ms	5.36 ms
HPE 450GB SAS 12G Enterprise 15K SFF (2.5in) ST 3yr Wty HDD	785101-B21	450,098MB	879,097,968	0.15 ms	2.9 ms	5.9 ms
HPE 600GB SAS 12G Enterprise15K SFF (2.5in) ST 3yr Wty HDD	785103-B21	600,127MB	1,172,123,568	0.15 ms	2.9 ms	5.9 ms
HPE 600GB SAS 12G Enterprise 15K SFF (2.5in) ST 3yr Wty Digitally Signed Firmware HDD	872844-B21	600,127MB	1,172,123,568	0.22 ms	2.72 ms	5.36 ms
HPE 900GB SAS 12G Enterprise 15K SFF (2.5in) ST 3yr Wty Digitally Signed Firmware HDD	872846-B21	900,185MB	1,758,174,768	0.22 ms	2.72 ms	5.36 ms

Enterprise (15K rpm)						
Form Factor	LFF (3.5")	Carrier	Smart Carrier Converter			
Rotational Speed	15000 rpm	Dimensions				
Interface	SAS	Height	1.06 in (26.8 mm)			
Transfer Rate Synchronous (Max)	12Gb/sec	Width	4.16 in (105.8 mm)			
Bytes/Sector	512	Depth	6.69 in (170.0 mm)			
Operating Temperature	50° to 95° F (10° to 35°C)					
SKU Description	SKU	Physical Configuration		Seek time		
		Capacity	Logical Blocks	Single track	Avg	Full Stroke
HPE 300GB SAS 12G Enterprise 15K LFF (3.5in) SCC 3yr Wty HDD	737261-B21	300,000MB	585,937,500	0.24 ms	2.9 ms	6.5 ms
HPE 450GB SAS 12G Enterprise 15K LFF (3.5in) SCC 3yr Wty HDD	737394-B21	450,098MB	879,097,968	0.22 ms	2.9 ms	6.5 ms
HPE 600GB SAS 12G Enterprise 15K LFF (3.5in) SCC 3yr Wty HDD	765424-B21	600,127MB	1,172,123,568	0.22 ms	2.9 ms	6.5 ms

Technical Specifications

Enterprise (15K rpm)						
Form Factor	LFF (3.5")		Carrier	Low Profile Converter		
Rotational Speed	15000 rpm		Dimensions			
Interface	SAS		Height	1.028 in (26.1 mm)		
Transfer Rate Synchronous (Max)	12Gb/sec		Width	4.15 in (105.5 mm)		
Bytes/Sector	512		Depth	6.16 in (156.58 mm)		
Operating Temperature	50° to 95° F (10° to 35°C)					
SKU Description	SKU	Physical Configuration		Seek time		
		Capacity	Logical Blocks	Single track	Avg	Full Stroke
HPE 300GB SAS 12G Enterprise 15K LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware HDD	870755-B21	300,000MB	585,937,500	0.22 ms	2.72 ms	5.36 ms
HPE 600GB SAS 12G Enterprise 15K LFF (3.5in) LPC 3yr Wty HDD	797283-B21	600,127MB	1,172,123,568	0.22 ms	2.72 ms	5.36 ms
HPE 900GB SAS 12G Enterprise 15K LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware HDD	870761-B21	900,185MB	1,758,174,768	0.22 ms	2.72 ms	5.36 ms

Enterprise (15K rpm)						
Form Factor	LFF (3.5")		Carrier	Standard Carrier Converter		
Rotational Speed	15000 rpm		Dimensions			
Interface	SAS		Height	1.04 in (26.4 mm)		
Transfer Rate Synchronous (Max)	12Gb/sec		Width	4.36 in (110.7 mm)		
Bytes/Sector	512		Depth	7.43 in (188.7 mm)		
Operating Temperature	50° to 95° F (10° to 35°C)					
SKU Description	SKU	Physical Configuration		Seek time		
		Capacity	Logical Blocks	Single track	Avg	Full Stroke
HPE 300GB SAS 12G Enterprise 15K LFF (3.5in) STC 3yr Wty HDD	737390-B21	300,000MB	585,937,500	0.24 ms	2.85 ms	5.36 ms
HPE 600GB SAS 12G Enterprise 15K LFF (3.5in) STC 3yr Wty HDD	737396-B21	600,127MB	1,172,123,568	0.22 ms	2.72 ms	5.36 ms

Technical Specifications

Enterprise (10K rpm)						
Form Factor	SFF (2.5")	Carrier	Smart Carrier (SC)			
Rotational Speed	10000 rpm	Dimensions				
Interface	SAS	Height	0.62 in (15.6 mm)			
Transfer Rate Synchronous (Max)	12Gb/sec	Width	2.98 in (75.7 mm)			
Bytes/Sector	512	Depth	4.67 in (118.7 mm)			
Operating Temperature	50° to 95° F (10° to 35°C)					
SKU Description	SKU	Physical Configuration		Seek time		
		Capacity	Logical Blocks	Single track	Avg	Full Stroke
HPE 300GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty HDD	785067-B21	300,000MB	585,937,500	0.32 ms	4.15 ms	7.61 ms
HPE 300GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	872475-B21	300,000MB	585,937,500	0.32 ms	4.15 ms	7.61 ms
HPE 600GB SAS 12G Enterprise 10K SFF (2.5in) SC 1yr Wty HDD	781516-B21	600,127MB	1,172,123,568	0.32 ms	3.92 ms	8.33 ms
HPE 600GB SAS 12G Enterprise 10K SFF (2.5in) SC 1yr Wty Digitally Signed Firmware HDD	872477-B21	600,127MB	1,172,123,568	0.33 ms	3.92 ms	8.33 ms
HPE 900GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty HDD	785069-B21	900,185MB	1,758,174,768	0.32 ms	3.83 ms	8.07 ms
HPE 1.2TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty HDD	781518-B21	1,200,243MB	2,344,225,968	0.20 ms	4.12 ms	8.26 ms
HPE 1.2TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	872479-B21	1,200,243MB	2,344,225,968	0.33 ms	4.12 ms	8.26 ms
HPE 1.8TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty 512e HDD	791034-B21	1,800,360MB	3,516,328,368	0.20 ms	4.0 ms	8.5 ms
HPE 1.8TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty 512e Digitally Signed Firmware HDD	872481-B21	1,800,360MB	3,516,328,368	0.23 ms	4.00 ms	8.5 ms
HPE 2.4TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty 512e Digitally Signed Firmware HDD	881458-B21	2,400,476MB	4,688,430,768	0.23 ms	4.04 ms	7.71 ms

Technical Specifications

Enterprise (10K rpm)						
Form Factor	SFF (2.5")	Carrier	Standard Carrier (ST)			
Rotational Speed	10000 rpm	Dimensions				
Interface	SAS	Height	0.63 in (16.0 mm)			
Transfer Rate Synchronous (Max)	12Gb/sec	Width	3.10 in (78.7 mm)			
Bytes/Sector	512	Depth	5.45 in (138.4 mm)			
Operating Temperature	50° to 95° F (10° to 35°C)					
SKU Description	SKU	Physical Configuration		Seek time		
		Capacity	Logical Blocks	Single track	Avg	Full Stroke
HPE 300GB SAS 12G Enterprise 10K SFF (2.5in) ST 3yr Wty HDD	785071-B21	300,000MB	585,937,500	0.32 ms	4.15 ms	7.61 ms
HPE 300GB SAS 12G Enterprise 10K SFF (2.5in) ST 3yr Wty Digitally Signed Firmware HDD	873008-B21	300,000MB	585,937,500	0.32 ms	4.15 ms	7.61 ms
HPE 600GB SAS 12G Enterprise 10K SFF (2.5in) ST 3yr Wty HDD	785073-B21	600,127MB	1,172,123,568	0.32 ms	3.92 ms	8.33 ms
HPE 600GB SAS 12G Enterprise 10K SFF (2.5in) ST 3yr Wty Digitally Signed Firmware HDD	873010-B21	600,127MB	1,172,123,568	0.33 ms	3.92 ms	8.33 ms
HPE 900GB SAS 12G Enterprise 10K SFF (2.5in) ST 3yr Wty HDD	785075-B21	900,185MB	1,758,174,768	0.2 ms	4.12 ms	8.26 ms
HPE 1.2TB SAS 12G Enterprise 10K SFF (2.5in) ST 3yr Wty HDD	785079-B21	1,200,243MB	2,344,225,968	0.20 ms	4.12 ms	8.26 ms
HPE 1.2TB SAS 12G Enterprise 10K SFF (2.5in) ST 3yr Wty Digitally Signed Firmware HDD	873012-B21	1,200,243MB	2,344,225,968	0.33 ms	4.12 ms	8.26 ms

Technical Specifications

Midline (7.2K rpm)						
Form Factor	LFF (3.5")		Carrier	Smart Carrier (SC)		
Rotational Speed	7200 rpm		Dimensions			
Interface	SAS		Height	1.06 in (26.8 mm)		
Transfer Rate Synchronous (Max)	12Gb/sec		Width	4.16 in (105.8 mm)		
Bytes/Sector	512		Depth	6.69 in (170.0 mm)		
Operating Temperature	50° to 95° F (10° to 35°C)					
SKU Description	SKU	Physical Configuration		Seek time		
		Capacity	Logical Blocks	Single track	Avg	Full Stroke
HPE 1TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD	846524-B21	1,000,204MB	1,953,525,168	0.32 ms	7.45 ms	14.2 ms
HPE 2TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty HDD	818365-B21	2,000,398MB	3,907,029,168	0.8 ms	8.5 ms	15.7 ms
HPE 2TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD	872485-B21	2,000,398MB	3,907,029,168	0.8 ms	8.5 ms	15.1 ms
HPE 3TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD	846528-B21	3,000,592MB	5,860,533,168	0.32 ms	7.45 ms	14.2 ms
HPE 4TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty HDD	818367-B21	4,000,787MB	7,814,037,168	0.8 ms	8.5 ms	15.7 ms
HPE 4TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD	872487-B21	4,000,787MB	7,814,037,168	0.8 ms	8.5 ms	15.7 ms
HPE 4TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e Digitally Signed Firmware HDD	861756-B21	4,000,787MB	7,814,037,168	0.80 ms	8.5 ms	15.1 ms
HPE 6TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD	846514-B21	6,001,175MB	11,721,045,168	0.7 ms	8.5 ms	15.7 ms
HPE 6TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e Digitally Signed Firmware HDD	861754-B21	6,001,175MB	11,721,045,168	0.8 ms	8.5 ms	15.1 ms
HPE 8TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e Digitally Signed Firmware HDD	819201-B21	8,001,563MB	15,628,053,168	0.7 ms	8.5 ms	15.7 ms
HPE 8TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Helium 512e Digitally Signed Firmware HDD	861590-B21	8,001,563MB	15,628,053,168	0.22 ms	8.0 ms	16.0 ms
HPE 10TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Helium 512e Digitally Signed Firmware HDD	857644-B21	10,000,831MB	19,532,873,728	0.22 ms	8.0 ms	16.0 ms

Technical Specifications

Midline (7.2K rpm)						
Form Factor	LFF (3.5")	Carrier	Low Profile			
Rotational Speed	7200 rpm	Dimensions				
Interface	SAS	Height	1.028 in (26.1 mm)			
Transfer Rate Synchronous (Max)	12Gb/sec	Width	4.15 in (105.5 mm)			
Bytes/Sector	512	Depth	6.16 in (156.58 mm)			
Operating Temperature	50° to 95° F (10° to 35°C)					
SKU Description	SKU	Physical Configuration		Seek time		
		Capacity	Logical Blocks	Single track	Avg	Full Stroke
HPE 1TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware HDD	846526-B21	1,000,204MB	1,953,525,168	0.32 ms	7.45 ms	14.2 ms
HPE 2TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware HDD	833926-B21	2,000,398MB	3,907,029,168	0.8 ms	8.5 ms	15.7 ms
HPE 3TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware HDD	846530-B21	3,000,592MB	5,860,533,168	0.32 ms	7.45 ms	14.2 ms
HPE 4TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware HDD	833928-B21	4,000,787MB	7,814,037,168	0.8 ms	8.5 ms	15.7 ms
HPE 4TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty 512e Digitally Signed Firmware HDD	861748-B21	4,000,787MB	7,814,037,168	0.32 ms	7.45 ms	14.2 ms
HPE 6TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware HDD	846516-B21	6,001,175MB	11,721,045,168	0.7 ms	8.5 ms	15.7 ms
HPE 6TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty 512e Digitally Signed Firmware HDD	861746-B21	6,001,175MB	11,721,045,168	0.32 ms	7.45 ms	14.2 ms
HPE 8TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty 512e Digitally Signed Firmware HDD	834031-B21	8,001,563MB	15,628,053,168	0.7 ms	8.5 ms	15.7 ms
HPE 8TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty Helium512e Digitally Signed Firmware HDD	861592-B21	8,001,563MB	15,628,053,168	0.22 ms	8.0 ms	16.0 ms
HPE 10TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty Helium 512e Digitally Signed Firmware HDD	857646-B21	10,000,831MB	19,532,873,728	0.22 ms	8.0 ms	16.0 ms

Technical Specifications

Midline (7.2K rpm)						
Form Factor	LFF (3.5")	Carrier	Standard Carrier			
Rotational Speed	7200 rpm	Dimensions				
Interface	SAS	Height	1.04 in (26.4 mm)			
Transfer Rate Synchronous (Max)	12Gb/sec	Width	4.36 in (110.7 mm)			
Bytes/Sector	512	Depth	7.43 in (188.7 mm)			
Operating Temperature	50° to 95° F (10° to 35°C)					
SKU Description	SKU	Physical Configuration		Seek time		
		Capacity	Logical Blocks	Single track	Avg	Full Stroke
HPE 2TB SAS 12G Midline 7.2K LFF (3.5in) ST 1yr Wty HDD	826072-B21	2,000,398MB	3,907,029,168	0.8 ms	8.5 ms	15.7 ms
HPE 4TB SAS 12G Midline 7.2K LFF (3.5in) ST 1yr Wty HDD	826074-B21	4,000,787MB	7,814,037,168	0.8 ms	8.5 ms	15.7 ms
HPE 8TB SAS 12G Midline 7.2K LFF (3.5in) ST 1yr Wty 512e HDD	858384-B21	8,001,563MB	15,628,053,168	.7 ms	8.5 ms	15.7 ms
HPE 10TB SAS 12G Midline 7.2K LFF (3.5in) ST 1yr Wty Helium 512e HDD	869347-B21	10,000,831MB	19,532,873,728	0.22 ms	8.0 ms	16.0 ms

Technical Specifications

Midline (7.2K rpm)						
Form Factor	LFF (3.5")		Carrier	Smart Carrier (SC)		
Rotational Speed	7200 rpm		Dimensions			
Interface	SATA		Height	1.06 in (26.8 mm)		
Transfer Rate Synchronous (Max)	6Gb/sec		Width	4.16 in (105.8 mm)		
Bytes/Sector	512		Depth	6.69 in (170.0 mm)		
Operating Temperature	50° to 95° F (10° to 35°C)					
SKU Description	SKU	Physical Configuration		Seek time		
		Capacity	Logical Blocks	Single track	Avg	Full Stroke
HPE 1TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD	861691-B21	1,000,204MB	1,953,525,168	0.80 ms	8.7 ms	16.5 ms
HPE 2TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty HDD	861676-B21	2,000,398MB	3,907,029,168	0.25 ms	8.7 ms	16.5 ms
HPE 2TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD	872489-B21	2,000,398MB	3,907,029,168	0.8 ms	8.5 ms	15.1 ms
HPE 3TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD	861693-B21	3,000,592MB	5,860,533,168	0.32 ms	7.45 ms	14.2 ms
HPE 4TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty HDD	861678-B21	4,000,787MB	7,814,037,168	0.25 ms	8.5 ms	15.1 ms
HPE 4TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD	872491-B21	4,000,787MB	7,814,037,168	0.8 ms	8.5 ms	15.1 ms
HPE 4TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e Digitally Signed Firmware HDD	861752-B21	4,000,787MB	7,814,037,168	0.32 ms	7.45 ms	14.2 ms
HPE 6TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD	846510-B21	6,001,175MB	11,721,045,168	0.7 ms	8.5 ms	15.7 ms
HPE 6TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e Digitally Signed Firmware HDD	861750-B21	6,001,175MB	11,721,045,168	0.80 ms	8.5 ms	15.1 ms
HPE 8TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e Digitally Signed Firmware HDD	819203-B21	8,001,563MB	15,628,053,168	0.8 ms	8.5 ms	15.7 ms
HPE 8TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty Helium 512e Digitally Signed Firmware HDD	861594-B21	8,001,563MB	15,628,053,168	0.22 ms	8.0 ms	4.16 ms
HPE 10TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty Helium 512e Digitally Signed Firmware HDD	857648-B21	10,000,831MB	19,532,873,728	0.22 ms	8.0 ms	4.16 ms

Technical Specifications

Midline (7.2K rpm)						
Form Factor	LFF (3.5")		Carrier	Low Profile		
Rotational Speed	7200 rpm		Dimensions			
Interface	SATA		Height	1.028 in (26.1 mm)		
Transfer Rate Synchronous (Max)	6Gb/sec		Width	4.15 in (105.5 mm)		
Bytes/Sector	512		Depth	6.16 in (156.58 mm)		
Operating Temperature	50° to 95° F (10° to 35°C)					
SKU Description	SKU	Physical Configuration		Seek time		
		Capacity	Logical Blocks	Single track	Avg	Full Stroke
HPE 1TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware HDD	861686-B21	1,000,204MB	1,953,525,168	0.5 ms	8.7 ms	16 ms
HPE 2TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware HDD	861681-B21	2,000,398MB	3,907,029,168	0.5 ms	8.7 ms	16 ms
HPE 3TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware HDD	861688-B21	3,000,592MB	5,860,533,168	0.32 ms	7.45 ms	14.2 ms
HPE 4TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware HDD	861683-B21	4,000,787MB	7,814,037,168	0.32 ms	7.45 ms	14.2 ms
HPE 4TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty 512e Digitally Signed Firmware HDD	861744-B21	4,000,787MB	7,814,037,168	0.32 ms	7.45 ms	14.2 ms
HPE 6TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware HDD	846512-B21	6,001,175MB	11,721,045,168	0.7 ms	8.5 ms	15.7 ms
HPE 6TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty 512e Digitally Signed Firmware HDD	861742-B21	6,001,175MB	11,721,045,168	0.32 ms	7.45 ms	14.2 ms
HPE 8TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty 512e Digitally Signed Firmware HDD	834028-B21	8,001,563MB	15,628,053,168	0.7 ms	8.5 ms	15.7 ms
HPE 8TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty Helium 512e Digitally Signed Firmware HDD	861596-B21	8,001,563MB	15,628,053,168	0.22 ms	8.0 ms	4.16 ms
HPE 10TB SATA 6G Midline 7.2K LFF (3.5in) LP 1yr Wty Helium 512e Digitally Signed Firmware HDD	857650-B21	10,000,831MB	19,532,873,728	0.22 ms	8.0 ms	4.16 ms

Technical Specifications

Midline (7.2K rpm)						
Form Factor	SFF (2.5")	Carrier	Smart Carrier (SC)			
Rotational Speed	7200 rpm	Dimensions				
Interface	SAS	Height	0.62 in (15.6 mm)			
Transfer Rate Synchronous (Max)	12Gb/sec	Width	2.98 in (75.7 mm)			
Bytes/Sector	512	Depth	4.67 in (118.7 mm)			
Operating Temperature	50° to 95° F (10° to 35°C)					
SKU Description	SKU	Physical Configuration		Seek time		
		Capacity	Logical Blocks	Single track	Avg	Full Stroke
HPE 1TB SAS 12G Midline 7.2K SFF (2.5in) SC 1yr Wty Digitally Signed Firmware HDD	832514-B21	1,000,204MB	1,953,525,168	0.5 ms	6.8 ms	17.0 ms
HPE 1TB SAS 12G Midline 7.2K SFF (2.5in) SC 1yr Wty 512e Digitally Signed Firmware HDD	765464-B21	1,000,204MB	1,953,525,168	0.5 ms	6.8 ms	17.0 ms
HPE 2TB SAS 12G Midline 7.2K SFF (2.5in) SC 1yr Wty 512e Digitally Signed Firmware HDD	765466-B21	2,000,398MB	3,907,029,168	0.5 ms	6.8 ms	17.0 ms

Midline (7.2K rpm)						
Form Factor	SFF (2.5")	Carrier	Smart Carrier (SC)			
Rotational Speed	7200 rpm	Dimensions				
Interface	SATA	Height	0.62 in (15.6 mm)			
Transfer Rate Synchronous (Max)	6Gb/sec	Width	2.98 in (75.7 mm)			
Bytes/Sector	512	Depth	4.67 in (118.7 mm)			
Operating Temperature	50° to 95° F (10° to 35°C)					
SKU Description	SKU	Physical Configuration		Seek time		
		Capacity	Logical Blocks	Single track	Avg	Full Stroke
HPE 1TB SATA 6G Midline 7.2K SFF (2.5in) SC 1yr Wty Digitally Signed Firmware HDD	655710-B21	1,000,204MB	1,953,525,168	0.5 ms	7.2 ms	17 ms
HPE 1TB SATA 6G Midline 7.2K SFF (2.5in) SC 1yr Wty 512e Digitally Signed Firmware HDD	765453-B21	1,000,204MB	1,953,525,168	0.5 ms	7.2 ms	17 ms
HPE 2TB SATA 6G Midline 7.2K SFF (2.5in) SC 1yr Wty 512e Digitally Signed Firmware HDD	765455-B21	2,000,398MB	3,907,029,168	0.5 ms	7.2 ms	17 ms

Technical Specifications

Entry (standard)						
Form Factor	LFF (3.5")	Carrier	Smart Carrier (SC)			
Rotational Speed	7200 rpm	Dimensions				
Interface	SATA	Height	1.06 in (26.8 mm)			
Transfer Rate Synchronous (Max)	6Gb/sec	Width	4.16 in (105.8 mm)			
Bytes/Sector	512	Depth	6.69 in (170.0 mm)			
Operating Temperature	50° to 95° F (10° to 35°C)					
SKU Description	SKU	Physical Configuration		Seek time		
		Capacity	Logical Blocks	Single track	Avg	Full Stroke
HPE 1TB SATA 6G Entry 7.2K LFF (3.5in) SC 1yr Wty HDD	858594-B21	1,000,204MB	1,953,525,168	0.8 ms	8.5 ms	15.7 ms
HPE 2TB SATA 6G Entry 7.2K LFF (3.5in) SC 1yr Wty HDD	858596-B21	2,000,398MB	3,907,029,168	0.8 ms	8.5 ms	15.7 ms

Entry						
Form Factor	LFF (3.5")	Carrier	Non Hot Plug Carrier			
Rotational Speed	7200 rpm	Dimensions				
Interface	SATA	Height	1.028 in (26.1 mm)			
Transfer Rate Synchronous (Max)	6Gb/sec	Width	4.00 in (101.6 mm)			
Bytes/Sector	512	Depth	5.75 in (146.0 mm)			
Operating Temperature	50° to 95° F (10° to 35°C)					
SKU Description	SKU	Physical Configuration		Seek time		
		Capacity	Logical Blocks	Single track	Avg	Full Stroke
HPE 1TB SATA 6G Entry 7.2K LFF (3.5in) RW 1yr Wty HDD	801882-B21	1,000,204MB	1,953,525,168	0.8 ms	<8.5 ms	16.5 ms
HPE 2TB SATA 6G Entry 7.2K LFF (3.5in) RW 1yr Wty HDD	801884-B21	2,000,398MB	3,907,029,168	0.8 ms	<8.5 ms	16.2 ms
HPE 4TB SATA 6G Entry 7.2K LFF (3.5in) RW 1yr Wty HDD	801888-B21	4,000,787MB	7,814,037,168	0.8 ms	<8.5 ms	16.2 ms
HPE 500GB SATA 6G Entry 7.2K LFF 3.5in RW 1yr Wty 512e HDD	843264-B21	500,107MB	976,773,168	1.0 ms	<8.5 ms	18 ms
HPE 1TB SATA 6G Entry 7.2K LFF (3.5in) RW 1yr Wty 512e HDD	843266-B21	1,000,204MB	1,953,525,168	1.0 ms	<8.5 ms	18 ms
HPE 2TB SATA 6G Entry 7.2K LFF (3.5in) RW 1yr Wty 512e HDD	843268-B21	2,000,398MB	3,907,029,167	1.0 ms	<8.5 ms	18 ms
HPE 3TB SATA 6G Entry 7.2K LFF (3.5in) RW 1yr Wty 512e HDD	843270-B21	3,000,593MB	5,860,533,167	1.0 ms	<8.5 ms	18 ms
HPE 4TB SATA 6G Entry 5.9K LFF (3.5in) RW 1Yr Wty 512e HDD	815635-B21	4,000,787MB	7,814,037,168	1.2 ms	<12 ms	25 ms

Technical Specifications

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<http://www.hpe.com/recycle>

Technical Specifications

HDD SKU Description Decoder

Long Name

HPE 10TB SAS 12G Midline 7.2K LFF (3.5in) SC 3yr Wty He 512e Digitally Signed Firmware HDD

Brand	Storage Capacity	Interface Type/ Interface Speed	Workload	Form Factor Type / Form Factor Size	Carriers	Wty	Special Features	Drive Type
HPE	300- 900GB 1-12TB	SATA/SAS 6G/12G	Enterprise 15/10K Midline 7.2K Entry 7.2K/5.9K	SFF (2.5IN) LFF (3.5IN)	SC Smart Carrier SCC Smart Carrier Converter ST Standard STC Standard Converter LP Low Profile LPC Low Profile Converter QR Quick Release RW Raw Drive	3yr <u>Wty</u> , 1yr <u>Wty</u>	Digitally Signed Firmware 512e - No descriptor (512n) Helium - No descriptor (Air) SMR - Shingle Magnetic Recording; No descriptor (PMR) SED - Self Encrypting Drive Special – Special SKUs <i>In priority order, where 1st is closest to drive type</i>	HDD

Short Name

HPE 10TB SAS 7.2K LFF SC He 512e DS HDD

Brand	Storage Capacity	Interface Type	Workload	Form Factor Type	Carriers	Special Features	Drive Type
HPE	300- 900GB 1-12TB	SATA/SAS	15K 10K 7.2K	SFF LFF	SC Smart Carrier 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 512e 512 emulation; No descriptor (512n) He Helium; No descriptor (Air) SMR Shingle Magnetic Recording; No descriptor (PMR) SED Self-encrypting drive SPL Special SKU <i>In priority order, where 1st is closest to drive type</i>	HDD

Summary of Changes

Date	Version History	Action	Description of Change
25-Sep-2017	From Version 3 to 4	Added	Added 881458-B21 HPE 2.4TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty 512e Digitally Signed Firmware HDD
		Changed	Overview, Standard Features, Service and Support, and Technical Specifications were revised.
12-Jun-2017	From Version 2 to 3	Changed	Overview and Technical Specifications were revised.
27-Mar-2017	From Version 1 to 2	Added	Added new HDD offering.
		Changed	Overview and Technical Specifications were revised.
13-Feb-2017	Version 1	Added	Combined SAS and SATA into one single QuickSpecs. Overview, Models, Compatibility, Standard Features, Service and Support, and Technical Specifications sections were updated. New part number descriptions have been added.



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

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