Overview

#### **HPE StoreEver 1/8 G2 Tape Autoloader**

The HPE StoreEver 1/8 G2 Tape Autoloader provides a cost-effective and easy-to-manage tape solution. The HPE 1/8 G2 autoloader combines incredible storage density and features into a compact 1U form factor. Capable of up to 240TB of compressed capacity with LTO-8 in only a 1U form factor, the autoloader is well equipped to offer room for data growth. Web-based remote management offers the capability to quickly and easily access, configure, monitor, and troubleshoot the autoloader that will reduce dependencies on local IT staff while allowing multiple sites to be supported centrally. Protect confidential information with native encryption, ensuring that if a tape is lost or stolen your data is protected from unauthorized access. Proactively monitor utilization, operational performance, as well as health information for both the drive and media with TapeAssure Advanced.



#### What's New

- LTO-8 Ultrium 30750 FC and SAS tape drives and tape media are now available.
- The HPE StoreEver 1/8 G2 Tape Autoloader now supports LTO-7 Type M media.

#### **Key Features**

- LTO-8 Ultrium 30750 tape technology delivers 240TB of compressed capacity (2.5:1) in a 1U form factor.
- Easy to install, manage and use integrated solution
- Protect and secure your data with native autoloader encryption
- Predicative and proactive monitoring with Tape Assure Advanced
- Integrated web-based remote management
- Flexible tape technology and interface choices to suit your needs
- Easily serviceable and replaceable components

Family Comparison	1/8 G2 LTO-8 Ultrium 30750 Tape Autoloader	1/8 G2 LTO-7 Ultrium 15000 Tape Autoloader	1/8 G2 LTO-6 Ultrium 6250 Tape Autoloader	1/8 G2 LTO-5 Ultrium 3000 Tape Autoloader
Drive Technology	LTO-8	LTO-7	LTO-6	LTO-5
Capacity (compressed 2.5:1 for LTO-8,7, and 6; 2:1 for LTO-5)	240 TB	120 TB	50 TB	24 TB
Data Transfer (max native)	300 MB/s	300 MB/s	160 MB/s	140 MB/s
Interface	8 Gb/sec FC 6 Gb/sec SAS	8 Gb/sec FC 6 Gb/sec SAS	8 Gb/sec FC 6 Gb/sec SAS	8 Gb/sec FC 6 Gb/sec SAS

#### **Easy Installation**

The 1/8 G2 Tape Autoloader ships as a rack-ready unit. A separate 1/8 G2 Tape Autoloader Rack Kit must be purchased to allow installation in a variety of HPE racks which include the 10000 series, 9000 series, 5000 series and System/E racks.

## HPE StoreOpen Standalone

HPE StoreOpen Standalone is a free downloadable application that extends the LTFS capability to HPE Autoloaders. By simply mounting the tape autoloader as a file system, the intuitive HPE StoreOpen Standalone interface makes it easier to copy, rename, create or move files. When a cartridge folder is selected for use, that tape is automatically moved to the tape drive.

For more information, including user guide, downloads and compatibility, visit: http://www.hpe.com/storage/StoreOpen

**NOTE:** Technical support is not available with this FREE software download. Software is run at your own risk.

#### Manageability

The 1/8 G2 Tape Autoloader allows web-based remote manageability; the unit can be monitored and managed from across the room or across the globe. Functions included in the management tool include:

- . Status information on the drive and system
- System configuration operations and reporting
- System error and status logs
- Library and drive firmware upload capabilities
- Diagnostic tests and information
- Cartridge movement for maintenance and management purposes
- Cleaning cartridge support
- Security and access control
- SNMP support for IP communications

### HPE StoreEver Management Software

HPE StoreEver Management Software provides an easy to use interface for efficiently managing, monitoring and configuring an entire tape library environment. The HPE StoreEver Management Software solution is made up of HPE Command View for Tape Libraries (CVTL), HPE StoreEver TapeAssure Advanced and HPE StoreEver Data Verification. CVTL provides the centralized platform for TapeAssure Advanced reporting and Data Verification analysis, alongside remote management, diagnostics and configuration for all MSL Tape Libraries from across the room or across the globe. HPE StoreEver TapeAssure Advanced provides the analytics element that implements and presents automated and predictive health, performance and utilization related monitoring of all tape drives and cartridges. HPE StoreEver Data Verification Software proactively validates and scans, non-disruptively, the quality of data stored on LTO tape cartridges, which ensures a successful restore is possible when critical business data is needed.

HPE StoreEver TapeAssure Advanced and Data Verification Software can also be trialed for free once the CVTL Software has been installed. Simply download CVTL from <a href="http://www.hpe.com/storage/cvtldownload">http://www.hpe.com/storage/cvtldownload</a> and get a 60 day instant-on period to experience TapeAssure Advanced features, and trial Data Verification for the MSL3040 & MSL6480 Tape Libraries with a 10 cartridge slot license.

For more information on HPE StoreEver Management Software, please visit:

http://www.hpe.com/storage/storeevermanagementsoftware

LTO-7 Type M media The 1/8 G2 Autoloader supports LTO-7 Type M media. This is the ability of an LTO-8 drive to write 9 TB (native) on a brand new LTO-7 cartridge instead of 6 TB (native) as specified by the LTO-7 format. LTO-7 Type M cartridges will be designated by an automation barcode label ending with the last 2 characters "M8". A standard 6TB LTO-7 cartridge is indicated with an automation barcode label ending in "L7". An LTO-8 cartridge has a capacity of 12 TB (native), and is indicated with an automation barcode label ending in "L8".

> Only unused LTO-7 cartridges may be initialized as LTO-7 Type M. Once a cartridge is initialized as Type M, it may not be changed back to a 6TB LTO-7 cartridge. Also, an LTO-7 Type M cartridge can only be written and read in an LTO-8 drive; LTO-7 drives are not capable of reading LTO-7 Type M cartridges.

#### **Proven Reliability**

With a rating of 2,000,000 robot load/unload cycles, the 1/8 G2 Tape Autoloader provides necessary high reliability for today's demanding environment. To improve reliability and longevity, all HPE Ultrium products feature Data Rate Matching (DRM). This allows the tape drive to dynamically adjust the speed of the drive down to one-third the native transfer rate of the tape drive to match the speed of the host. This increases performance, reduces mechanical wear on the tape drive, and extends tape life.

#### Longevity

Organizations need to be confident that their data in archive is still there when they need it. LTO tape media is specified with a 30 year shelf life in normal ambient conditions.

#### **Disaster Recovery** and Security

Removable media also has the advantage that data is held 'offline' which means that archive data on tape has the additional level of protection from the threats to on-line data from viruses, hackers and cyber-attacks. All Ultrium tape drives (since generation 4) include hardware based data encryption to prevent unauthorized access to data at rest and cartridges are available with write-once-read-many (WORM) capability to prevent accidental overwriting of data archived on the tape. Both WORM and hardware data encryption features help organizations to comply with increased data security regulations.

#### **Encryption**

The HPE 1/8 G2 Tape Autoloader offers multiple options for data encryption, depending on the requirements for policy, regulation, compliance, and centralized key management.

HPE 1/8 G2 & MSL Encryption Kit

The HPE 1/8 G2 & MSL Encryption Kit provides a library-enabled encryption solution that greatly enhances data privacy, confidentiality, and integrity of your critical business data while supporting compliance requirements. While there are a wide range of encryption solutions available, the HPE 1/8 G2 & MSL Encryption Kit is intended to be an easy and affordable library-enabled solution for small businesses.

The encryption kit includes two USB key server tokens, product documentation, and firmware support. One encryption kit is needed per autoloader and it must be

physically accessible so that the USB token can be inserted into the automation device. One of the two tokens will plug into the USB port in the autoloader and will generate and maintain encryption keys for the LTO-5 and later generation drives/libraries. The second token will be used as a backup token and will be used if the first token is lost or damaged. The USB key server token uses a hardware random number generator, password authentication, and digital envelopes for strong encryption keys and security operations. The encryption kit provides a self-contained solution for autoloaders with no additional software, PCs, or servers required or involved.

#### KMIP

To meet requirements for larger scale encryption key managers, the HPE 1/8 G2 Tape Autoloader supports KMIP 1.2 compliant key managers. With the purchase of the KMIP Encryption License, the 1/8 G2 Tape Autoloader will be able to request encryption keys from KMIP 1.2 compliant key managers, for data encryption and key management.

For more information on all supported key management servers, please visit: http://www.hpe.com/storage/DAPRcompatibility

#### LTO Ultrium Technology

HPE LTO (Linear Tape Open) Ultrium Tape Drives use best of breed technology. By taking the best features from other tape technologies and combining them into a single new technology, Ultrium tape drives are in a league of their own. The LTO Ultrium specification is an industry standard format; thus data written on HPE Ultrium Tape Drives can be interchanged directly with LTO Ultrium Tape Drives from other vendors.

## Investment protection

HPE LTO tape drives and automation products are founded on the LTO open standard and adhere to the published twelve-generation LTO format roadmap.

The LTO standard for backward compatibility up to generation seven is to write back one generation and read back two generations. Eighth-generation LTO Ultrium drives read and write LTO -7 and LTO-8 media.

As part of the LTO open standard, all HPE tape drives and media offer the same standards of compatibility with tape drives and media manufactured by other LTO vendors.

#### **Data Rate Matching**

Data Rate Matching combines sophisticated buffer management with variable tape drivemotor speeds to match the tape drive transfer rate to the host output. This feature ensures that the tape drive continues to stream data regardless of the environment, and brings three big advantages:

- It optimizes performance and maximizes overall efficiency, allowing the drive to respond immediately to any data speed changes from the host.
- It minimizes rewinding and repositioning of the tape, significantly reducing physical wear and increasing reliability.
- It minimizes the power requirements for the drive by reducing the number of repositions needed.

LTO Ultrium Tape Drive	ATS data transfer rate range (native)
HPE LTO-8 Ultrium 30750	101 to 300 MB/s
HPE LTO-7 Ultrium 15000	101 to 300 MB/s
HPE LTO-6 Ultrium 6250	54 to 160 MB/s
HPE LTO-5 Ultrium 3000	47 to 140 MB/s

#### **HPE Ultrium WORM**

Critical to the success of data retention policies in highly regulated environments is the ability to store and manage data in an unalterable state. Following stringent guidelines set forth by regulatory agencies such as the SEC and HIPPA, IT organizations must now integrate new solutions and policies that can verify the integrity of stored data for periods that can extend well beyond seven years.

Every generation of LTO Ultrium since LTO-3 tape drives feature the ability to archive and store data in a read-only, non-rewriteable format that meets the most stringent regulatory guidelines. Using a combination of integrated fail-safe features in the drive firmware, cartridge memory, and tape formatting, LTO Ultrium provides the ability to archive large amounts of data for periods of up to 30 years in a secure, untampered state. Ultrium tape drives include support for both rewritable and WORM media providing for a secure, long-term archiving solution into any data protection strategy. LTO Ultrium WORM provides the following advantages:

- A single drive to support all backup and archiving needs
- Two distinctive tape cartridges to easily distinguish and manage both rewriteable and WORM data cartridges
- A specially designed WORM data cartridge with multiple integrated fail-safe features to prevent accidental or intentional overwriting of data
- Support from many backup and archiving software vendors, providing the most comprehensive and mainstream support in the industry
- The LTO open standard that offers greater choice and compatibility across all thirdand later-generation LTO Ultrium products

**NOTE:** While all HPE LTO-8, LTO-7, LTO-6 and LTO-5 Ultrium tape drives support LTO Ultrium WORM media, some third, fourth and fifth-generation LTO Ultrium tape drives from other manufacturers may not include read and write support for LTO Ultrium WORM media. For non-HPE third- and fourth-generation LTO Ultrium tape drives, please check the manufacturers' specifications to ensure this support is provided if you are using your WORM media. If WORM support is not provided, the drive will eject the WORM tape cartridge immediately upon insertion into the tape drive.

## HPE Library and Tape Tools

The 1/8 G2 Autoloader is supported with HPE Library and Tape Tools (L&TT). L&TT is a free diagnostic tool for all of HPE's tape storage products. This robust diagnostic tool is designed for both the experienced professional and the untrained administrator, and it allows customers to verify the installation, ensure product reliability, perform diagnostics and achieve faster resolution of tape device issues. L&TT performs firmware upgrades, verification of device operation, failure analysis and a range of utility functions. Performance tools assist in troubleshooting issues and system configuration checks warn of common host issues. It also provides seamless integration with HPE support by generating and e-mailing test results and support tickets. HPE Support will require the use of L&TT to troubleshoot most device issues, so it is recommended that a support ticket is pulled and the device assessment test is run before calling.



HPE Library & Tape Tools can be downloaded from the following location: http://www.hpe.com/storage/downloads/tapetools

For more information on L&TT, please visit: http://www.hpe.com/support/tapetools.

#### **HPE Storage Media**

Hewlett Packard Enterprise branded Linear Tape Open (LTO) Ultrium cartridges are designed, manufactured and tested to provide outstanding reliability for backing up, archiving and restoring your data. We continuously monitor the quality of our branded tapes using what we believe is the industry's most comprehensive and forensic specification for quality and reliability. Using real life conditions and both Hewlett Packard Enterprise and non-HPE drives, we supplement extensive in-process QA parametric testing with ongoing drive based scrutiny, to make sure performance is excellent for any combination of device, duty cycle and environment.

Because HPE is a leading supplier of both LTO tape devices and media, we have the ability to re-create many different scenarios mirroring how customers use their cartridges. And many of HPE's protocols are either unique in nature or scale, such as the HPE 'Green Tape', and HPE 'Environmental Interchange' tests, or far surpass industry standards, for example, HPE's 'Locate/Rewind/Append' test. Since the beginning of 2016, almost 700 million meters of media have been pulled and over 40 million gigabytes of data have been written in HPE's demanding GTT protocol. All of these ongoing tests are intended to ensure HPE LTO Ultrium media is the most reliable you can find. Your best choice for ease of support and maximum dependability is to use HPE-branded Ultrium cartridges at all times.

## **Factory Express** and Storage

HPE Factory Express offers configuration, customization, integration and deployment Portfolio for Servers services for HPE servers and storage products. Customers can choose how their factory solutions are built, tested, integrated, shipped and deployed. Customization must comply with all relevant product specifications and factory supported configurations.

> Factory Express offers service packages for simple configuration, racking, installation, complex configuration and design services as well as individual factory services, such as image loading, asset tagging, and custom packaging. Type of service support varies by platform and product family. For more information on Factory Express services for your specific server model or storage device please contact your sales representative or go to: http://www.hpe.com/info/factoryexpress.

Compatibility

#### Compatibility

The Hewlett Packard Enterprise extensive compatibility testing program assures that your HPE 1/8 G2 Tape Autoloader works with leading servers, operating systems, and backup applications - and not just those sold by HPE. The 1/8 G2 Tape Autoloader works seamlessly in many environments, making them especially suitable if you have a mixed system environment. For the latest list of servers, workstations, operating systems, and backup software that support the 1/8 G2 Tape Autoloader, reference the HPE Data Agile DAPR Compatibility Matrix (Formerly EBS) at:

NOTE: The 1/8 G2 Tape Autoloader requires an HBA with multiple LUN support and should not be used with RAID or Array controllers.

http://www.hpe.com/storage/DAPRcompatibility .

http://www.hpe.com/storage/DAPRcompatibility.

Server Compatibility The 1/8 G2 Tape Autoloader is supported on a wide range of HPE systems. For details of which 1/8 G2 Tape Autoloader works with which systems, including third-party systems, reference the HPE Data Agile DAPR Compatibility Matrix (Formerly EBS) at: http://www.hpe.com/storage/DAPRcompatibility for the latest hardware compatibility information.

#### **OS Support**

Reference the HPE Data Agile DAPR Compatibility Matrix (Formerly EBS) for the most up-to-date OS compatibility information at: http://www.hpe.com/storage/DAPRcompatibility.

#### **Software Support**

Reference the HPE Data Agile DAPR Compatibility Matrix (Formerly EBS) for the most up-to-date software compatibility information at:

Service and Support, HPE Care Pack, and Warranty Information

#### Warranty

The warranty for this product consists of 1-year parts exchange, next business day.

#### For increased uptime, productivity and ROI, HPE Care Pack packaged services for Storage

These days, you need to get the most out of your storage investment-you can't afford not to. When you buy HPE storage products and solutions, it's also a good time to think about what levels of service and support you may need. To help take the worry out of deploying, designing, maintaining, and managing your environment, we've designed a portfolio of service options that are as: flexible, reliable and scalable as your storage. Unlike storage-only vendors, we take a holistic approach to your entire environment, bridging storage, servers, blades, software and network infrastructures with our HPE Care Pack packaged services for Storage.

#### Protect your business beyond the warranty

When it comes to robustness and reliability, standard warranties on today's computing equipment have matured just as the technologies have matured. Good news on some fronts-but also a source of potential problems and subsequent consequences that come from depending on standard warranties alone. Standard warranty protects against product defects and some causes of downtime- but not the business. By using a standard approach to warranty uplifts, such as HPE Pointnext operational services, you can reduce downtime risks and be more certain of operational consistency for both mission-critical and standard business computing. Simply put, HPE Pointnext operational services normalize the warranty of combined products - helping you proactively guard against unplanned downtime.

#### **Extending warranties with HPE Pointnext operational services**

For cost-effective upgrading or extending your standard warranty, HPE Pointnext operational services offer a suite of standard reactive hardware and software support services that are sold separately, or combined as with our Support Plus and Support Plus 24 services. The portfolio also provides a combination of proactive and reactive services, such as Proactive 24 Service and Critical Service. In addition, with HPE Proactive Select we offer an innovative approach to service delivery that gives you the flexibility to acquire the specific proactive services you need today, then add services as your needs evolve. HPE Proactive Select offers a broad set of technical or per-event type service options - including server, storage, and network, SAN device, and software, environment, installation and education services. Services that you can mix and match depending on your specific requirements, from preliminary planning and equipment delivery to installation, configuration, integration, and testing, through every level of ongoing support. Our HPE Care Pack packaged services for Storage assures help when you need it most. And for many products, post-warranty HPE Pointnext operational services are available when your original warranty has expired.

#### HPE Storage Services: Offering reliability, flexibility and value-just like your storage

HPE Storage Services offers a full spectrum of customer care, from technology support to complex migrations to complete completely managed services. HPE Factory Express provides customization, integration and deployment services for turnkey solutions. HPE Education offers flexible, comprehensive training on storage networking, disk storage systems, and storage software to help your IT staff get the most out of your investments. And HPE Financial solutions extend innovative financing and asset management programs to cost-effective buy, manage and eventually retire your older equipment.

HPE Storage Services, the trusted business technology experts who manage your technology in action, because when technology works, business works. <a href="http://www.hpe.com/services/storage">http://www.hpe.com/services/storage</a>

NOTE: Care Pack Services availability may vary by product and country.

HPE Pointnext operational services are sold by Hewlett Packard Enterprise and Hewlett Packard Enterprise Authorized Service Partners:

Service and Support, HPE Care Pack, and Warranty Information

• Services for customers purchasing from Hewlett Packard Enterprise or an enterprise reseller are quoted using Hewlett Packard Enterprise order configuration tools.

# Recommended HPE Pointnext operational services for optimal satisfaction with your HPE product.

## Recommended Services

HPE Foundation Care 24x7 connects you to HPE 24 hours a day, seven days a week for assistance on resolving issues - hardware onsite response within four hours and software call back within two hours after opening your case. Three years' coverage recommended with HPE Care Pack Service.

#### **HPE Install Storage Autoloader/Tape Drive Array Service**

For smooth startup and better business outcomes, HPE Install Storage Autoloader/Tape Drive Array Service- this service provides initial hardware installation into your server technology environment (system configuration is not included). Leverage the full strength of HPE Technology Services - customers can trust the services professionals at Hewlett Packard Enterprise to work collaboratively with them, putting our strategic and technical know-how to work across their entire infrastructure.

- Allows your IT resources to stay focused on their core tasks and priorities
- Reduces implementation time, impact and risk to your storage environment

#### **HPE Proactive Select Service**

Hewlett Packard Enterprise Proactive Select Service improves your IT performance and manageability through the use of cost effective flexible services. Hewlett Packard Enterprise provides technical expertise and best practices to accelerate ROI of your technology investment. Selectable proactive services span a wide range of technology and process services - a flexible way to purchase proactive services that fit your particular environment and situation.

Hewlett Packard Enterprise Proactive Select Service is technology agnostic and purchased in addition to your choice of underlying reactive support.

- Access to a list of flexible and customizable proactive service activities
- Enhance customers' in-house IT team with complementary assistance from Hewlett Packard Enterprise
- Improved time to solution
- Reduce business risk and project costs by accessing HPE specialists
- Simplify IT operational procedures by leveraging HPE best practices

#### **eSupport**

HPE eSupport is a portfolio of technology-based services that assist you with managing your business environment - from the desktop to the data center.

#### Support Portal

The Hewlett Packard Enterprise support portal provides one-stop access to the information, tools and services you need to manage the daily operations of your IT environment.

Service and Support, HPE Care Pack, and Warranty Information

#### Features include:

- Access to self-solve tools (including search technical knowledge base)
- Efficient logging and tracking of support cases
- Collaboration with other business and IT professionals
- Download of patches and drivers
- Access to diagnostic tools
- Proactive notification of relevant information

Access to certain features of the support portal requires a Hewlett Packard Enterprise service agreement. To access the support portal, visit http://www.hpe.com/support

## **Training**

Customer Technical Consider education as an integral part of your strategy to get the best return on investment for your HPE storage solution. Hewlett Packard Enterprise offers a variety of training courses on storage software, networking, archiving and disk storage systems. Our classes are available in many delivery modalities from traditional instructor-led courses at one of our 80 training centers worldwide to on-site training customized to your needs or online

#### **HPE Services Awards**

HPE Services continues to be recognized for service and support excellence by customers, partners, industry organizations and publications around the world. Recent honors and award reflect our services team's dedications, technical expertise, professionalism and uncompromising commitment to customer satisfaction. For a list of all our awards.

#### **Additional Services** Information

For more information about HPE Pointnext operational services for Storage, please visit: http://www.hpe.com/services/storage

If you have specific questions, contact your local Hewlett Packard Enterprise representative. Contact information for a representative in your area can be found at "Contact HPE" http://www.hpe.com

**BL536B** 

**Configuration Information** 

## **Step 1 - Base Configuration**

#### Select one:

Model Name	Model Description	Part Number
	HPE StoreEver 1/8 G2 LTO-8 Ultrium 30750 SAS Tape Autoloader	Q6Q66A
	HPE StoreEver 1/8 G2 LTO-8 Ultrium 30750 FC Tape Autoloader	Q6Q65A
	HPE StoreEver 1/8 G2 LTO-7 Ultrium 15000 SAS Tape Autoloader	N7P35A
	HPE StoreEver 1/8 G2 LTO-7 Ultrium 15000 FC Tape Autoloader	N7P34A
	HPE StoreEver 1/8 G2 LTO-6 Ultrium 6250 SAS Tape Autoloader	C0H18A
	HPE StoreEver 1/8 G2 LTO-6 Ultrium 6250 FC Tape Autoloader	C0H19A

Kit Contents (for each autoloader):

#### SAS models:

-(1) 2.5M PDU Power Cord, C13/C14, 10A

HPE StoreEver 1/8 G2 LTO-5 Ultrium 3000 SAS Tape Autoloader

- (1) HPE SAS MiniHD-Mini 1x-2m Cable Assembly Kit
- -(1) RJ-45 Ethernet cable
- Getting Started Poster
- Flyer for Veritas Backup Exec software\*

#### FC models:

- -(1) 2.5M PDU Power Cord, C13/C14, 10A
- (1) RJ-45 Ethernet cable
- Getting Started Poster
- Flyer for Veritas Backup Exec software\*

**NOTE:** \*Customers can download a fully functional 60-day trial of Backup Exec and receive a 50% discount off Veritas MSRP.

Visit http://www.backupexec.com/hpe for full details of the promotion.

NOTE: These products are TAA (Trade Agreements Act) compliant.

Kit Contents (for each autoloader):

#### SAS models:

- -(1) 2.5M PDU Power Cord, C13/C14, 10A
- (1) HPE SAS MiniHD-Mini 1x-2m Cable Assembly Kit
- (1) RJ-45 Ethernet cable
- Getting Started Poster
- Flyer for Veritas Backup Exec software\*

#### • FC models:

- -(1) 2.5M PDU Power Cord, C13/C14, 10A
- (1) RJ-45 Ethernet cable
- Getting Started Poster
- Flyer for Veritas Backup Exec software\*

**NOTE:** \*Customers can download a fully functional 60-day trial of Backup Exec and receive a 50% discount off Veritas MSRP.

Visit <a href="http://www.backupexec.com/hpe">http://www.backupexec.com/hpe</a> for full details of the promotion.

NOTE: These products are TAA (Trade Agreements Act) compliant.

**Configuration Information** 

#### **Step 2 - Additional Options**

**NOTE:** The HPE StoreEver 1/8 G2 Tape Autoloader comes standard as a one drive, 8-slot unit (includes both a right and left 4-slot magazine) which is shipped rack-ready. A separate 1/8 G2 Tape Autoloader Rack Kit must be purchased to complete the rack installation. The HPE 1/8 G2 Tape Autoloader ships with a PDU power cord (C13/C14, 10A, P/N 142257-002). If an 110V receptacle power cord is needed please order (P/N AF556A). For power cord options, please visit: HPE

#### Select each required option with quantities specified:

	Quantity	Description	Part Number
Power Cord	1 each	HPE C13 - Nema 5-15P US/CA 110V 10Amp 1.83m Power Cord	AF556A
		<b>NOTE:</b> This cord does not ship standard with 1/8 G2 Tape Autoloader.	
	1 each	HPE C13 - C14 WW 250V 10Amp 2.5m Jumper Cord NOTE: This cord ships standard with each 1/8 G2 Tape Autoloader; can be used to connect the rack-mounted device to PDUs with IEC-320 receptacles.	142257-002
	1 each	HPE C13 - CEE-VII EU 250V 10Amp 1.83m Power Cord	AF568A
	1 each	HPE C13 - BS-1363A UK/HK/SG 250V 10Amp 1.83m Power Cord	AF570A
	1 each	HPE C13 - DK-2.5A DK 250V 10Amp 1.83m Power Cord	AF566A
	1 each	HPE C13 - SEV 1011 CH 250V 10Amp 1.83m Power Cord	AF565A
	1 each	HPE C13 - CEI-23-50 IT/CL 250V 10Amp 1.83m Power Cord	AF571A
	1 each	HPE C13 - SABS-164 ZA 250V 10Amp 2.5m Power Cord	AF567A
	1 each	HPE C13 - CNS-690 TW 110V 13Amp 1.83m Power Cord	AF561A
	1 each	HPE C13 - GB-1002 CN 250V 10Amp 1.83m Power Cord	AF557A
	1 each	HPE C13 - JIS C8303 JP 100V 12Amp 2.0m Power Cord	AF572A
	1 each	HPE C13 - AS3112-3 AU 250V 10Amp 2.5m Power Cord	AF569A
	1 each	HPE C13 - IRAM -2073 AR 250V 10A 2.5m Power Cord	AF558A
	1 each	HPE C13 - Nema 5-15P TH/PH 250V 10Amp 1.83m Power Cord	AF559A
	1 each	HPE C13 - KSC- 8305 KR 250V 10Amp 1.83m Power Cord	AF560A
	1 each	HPE C13 - SI-32 IL 250V 10Amp 1.83m Power Cord	AF564A
	1 each	HPE C13 - IS-1293 IN 240V 6Amp LV 2.0m Power Cord	AF562A

**NOTE:** One power cord is required; please select the correct power cord for your geographical location.

**WARNING:** This product can ONLY be used with a Hewlett Packard Enterprise approved power cord for your specific geographic region. Use of a non-HPE approved power cord may result in: 1) not meeting individual country specific safety requirements; 2) insufficient conductor capacity that could result in overheating with potential personal injury and/or property damage; and 3) an unapproved power cord could fracture resulting in the internal contacts being exposed, which potentially could subject the user to a shock hazard. Hewlett Packard Enterprise disclaims all liability in the event a non-Hewlett Packard Enterprise approved power cord is used.



**Configuration Information** 

**AB469A** 

TC468A

TC468AAE

## QuickSpecs

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# Factory Racking Factory integrate the 1/8 G2 Tape Autoloader with other Hewlett Packard #0D1 Enterprise products such as Hewlett Packard Enterprise ProLiant Servers. NOTE: #0D1 will appear after the 1/8 G2 Tape Autoloader part number on the sales order if Hewlett Packard Enterprise factory integration is indicated.

HPE Integrity rx26/2800 Rack Support Shelf Kit

**NOTE**: Required to safely ship the 1/8 G2 Tape Autoloader via the factory integration option (#0D1); shelf can be removed after the rack is received

at the customer site.

Rack Kit HPE StoreEver 1/8 G2 Tape Autoloader Rack Kit AH166A

**NOTE:** Required to install the unit in a standard 19-inch rack; includes rails and rackmount instructions.

Magazine Kit HPE StoreEver 1/8 G2 Right Magazine Kit AH167A

**NOTE:** For use only on the right side of the 1/8 G2 Tape Autoloader; additional 4-slot magazine.

HPE StoreEver 1/8 G2 Tape Autoloader Left Magazine Kit AH862A

**NOTE:** For use only on the left side of the 1/8 G2 Tape Autoloader; additional 4-slot magazine which includes an import/export slot.

Encryption HPE StoreEver 1/8 G2 Tape Autoloader and MSL Tape Library LTO-4 AM495A

**Encryption Kit** 

**NOTE**: Supports LTO-8, LTO-7, LTO-6, and LTO-5 Ultrium Tape Drives in the 1/8 G2 Autoloader, MSL2024, MSL4048, MSL3040 and MSL6480 Tape Libraries.

HPE StoreEver MSL2024/4048/8096 KMIP Encryption LTU

**NOTE**: For use with 1/8 G2 Tape Autoloader and the MSL2024/4048 Tape libraries using LTO-8, LTO-7, LTO-6 or LTO-5 tape drives. The license will enable secure connectivity with supported KMIP 1.2 compliant key management servers.

See the HPE Data Agile DAPR Compatibility Matrix (Formerly EBS) for the list of supported servers.

(http://www.hpe.com/storage/DAPRcompatibility).

**NOTE**: This license will be delivered via hard copy in the mail.

HPE StoreEver MSL2024/4048/8096 KMIP Encryption E-LTU

**NOTE**: For use with 1/8 G2 Tape Autoloader and the MSL2024/4048 Tape libraries using LTO-8, LTO-7, LTO-6 or LTO-5 tape drives. The license will enable secure connectivity with supported KMIP 1.2 compliant key management servers. See the HPE Data Agile DAPR Compatibility Matrix (Formerly EBS) for the list of supported servers.

(http://www.hpe.com/storage/DAPRcompatibility)

**NOTE**: This license will be delivered electronically.

Rack Cabinets The 1/8 G2 Tape Autoloader is supported in a variety of HPE Rack offerings from 22U

**Related Options** 

to 42U high racks, including the HPE Intelligent Series Racks and the HPE 10000 G2 Series Racks. For more information on the HPE rack offerings, please see the following URL: http://www.hpe.com/info/rackandpower

**NOTE:** The 1/8 G2 Tape Autoloader is certified to ship in HPE racks that include a shock pallet. It is mandatory to use a shock pallet in order to ship racks with equipment installed.

#### FC Host Bus Adapters

The 1/8 G2 Tape Autoloader is certified with a number of HPE Fibre Channel Host Bus Adapters. For the most current list of supported FC HBAs, please see the HPE Data Agile DAPR Compatibility Matrix (Formerly EBS) and Design Guide located at: http://www.hpe.com/storage/DAPRcompatibility.

#### SAS Cables

HPE StoreEver Mini-SAS High Density to 4-lane Mini-SAS External Fanout K2R09A

HPE StoreEver Mini-SAS High Density to 4-lane Mini-SAS External Fanout K2R10A 4m Cable

HPE 2.0m External Mini SAS High Density to Mini SAS Cable 716191-B21

NOTE: One cable is required for every tape drive. Use this cable to connect HPE 1/8 G2 Tape Autoloader to the HPE H241 Smart Host Bus

Adapter.

2m Cable

HPE 4.0m External Mini SAS High Density to Mini SAS Cable 716193-B21

**NOTE**: One cable is required for every tape drive. Use this cable to connect HPE 1/8 G2 Tape Autoloader to the HPE H241 Smart Host Bus Adapter.

HPE StoreEver External SAS to Mini-SAS Fanout Cable AH587A

**NOTE:** One cable is required for every four autoloaders. Use this cable to connect HPE 1/8 G2 Tape Autoloader to HPE SAS controllers with Infiniband (SFF8470) connectors.

HPE StoreEver 2m External Mini-SAS to 4x1 Mini-SAS Cable AN975A

**NOTE:** One cable is required for every four autoloaders or every four library drives. Use this cable to connect HPE 1/8 G2 Tape Autoloader to Mini-SAS (SFF8088) ports.

HPE StoreEver 4m External Mini-SAS to 4x1 Mini-SAS Cable AN976A

**NOTE:** One cable is required for every four autoloaders or every four library drives. Use this cable to connect HPE 1/8 G2 Tape Autoloader to Mini-SAS (SFF8088) ports.

HPE SAS Min-Min 1x-2M Cable Assembly Kit AE470A

**NOTE**: One cable per SAS autoloader. Use this cable to connect HPE SAS external tape devices to HPE SAS controllers with external Mini-SAS (SFF8088) connectors.

HPE SAS Min-Min 1x-4m Cable Assembly Kit AE465A

**NOTE**: One cable per SAS autoloader. Use this cable to connect HPE SAS external tape devices to HPE SAS controllers with external Mini-SAS (SFF8088) connectors.

#### Optical cables OM4 LC-LC type cables



**Related Options** 

HPE Premier Flex LC/LC Multi-mode OM4 2 fiber 1m Cable	QK732A
HPE Premier Flex LC/LC Multi-mode OM4 2 fiber 2m Cable	QK733A
HPE Premier Flex LC/LC Multi-mode OM4 2 fiber 5m Cable	QK734A
HPE Premier Flex LC/LC Multi-mode OM4 2 fiber 15m Cable	QK735A
HPE Premier Flex LC/LC Multi-mode OM4 2 fiber 30m Cable	QK736A
HPE Premier Flex LC/LC Multi-mode OM4 2 fiber 50m Cable	QK737A

#### Allowed cable lengths:

Drive type	External Cable	2Gb	4Gb	8Gb
	type			
All	OM2	0.5m - 300m	0.5m - 150m	.5-50m
All except LTO-5	OM3/OM4	0.5m - 500m	0.5m - 380m	0.5m - 150m
Ultrium 3000				
LTO-5 Ultrium	OM3/OM4	0.5m - 300m	0.5m - 150m	0.5m - 50m
3000				

#### **Controller/HBA Recommendation**

The 1/8 G2 Tape Autoloader is certified with a number of HPE SAS Host Bus Adapters. For the most current list of supported SAS HBAs, please see the HPE Data Agile DAPR Compatibility Matrix (Formerly EBS) document and Design Guide located at: <a href="http://www.hpe.com/storage/DAPRcompatibility">http://www.hpe.com/storage/DAPRcompatibility</a>

HBAs and SAS
Controllers

HPE Smart Array P408e-p SR Gen10 (8 External Lanes/4GB Cache) 12G 804405-B21 SAS PCIe Plug-in Controller

**NOTE:** Recommended for ProLiant Gen10 SAS tape automation connect.

HPE Smart Array E208e-p SR Gen10 (8 External Lanes/No Cache) 12G 804398-B21

SAS PCIe Plug-in Controller

**NOTE:** Recommended for ProLiant Gen10 SAS tape automation connect.

HPE H241 12Gb 2-ports Ext Smart Host Bus Adapter 726911-B21

NOTE: Recommended for ProLiant Gen9 SAS tape automation connect.

Media	HPE LTO-8 Ultrium 30TB RW Data Cartridge	Q2078A
	HPE LTO-8 Ultrium 30TB WORM Data Cartridge	Q2078W
	HPE LTO-7 Ultrium 15TB RW Data Cartridge	C7977A
	HPE LTO-7 Ultrium 15TB Eco Case Data Cartridge 20 Pack	C7977AH
	HPE LTO-7 Ultrium WORM Data Cartridge	C7977W
	HPE LTO-6 Ultrium 6.25TB MP RW Data Cartridge	C7976A
	HPE LTO-6 Ultrium 6.25TB BaFe RW Data Cartridge	C7976B
	HPE LTO-5 Ultrium 3TB RW Data Cartridge	C7975A
	HPE LTO-5 Ultrium 3TB WORM Data Cartridge	C7975W
	HPE LTO4 Ultrium 1.6TB Read/Write Data Cartridge	C7974A
	HPE LTO4 Ultrium 1.6TB WORM Data Tape Cartridge	C7974W
	HPE LTO-3 Ultrium 800 GB Re-writable Data Cartridge	C7973A
	HPE LTO-3 Ultrium 800 GB WORM Data Cartridge	C7973W
	HPE LTO2 Ultrium 400GB RW Data Tape	C7972A
	HPE Ultrium Universal Cleaning Cartridge	C7978A



**Related Options** 

Bar Code Labels	
HPE LTO-8 Ultrium RW Bar Code Label Pack	Q2015A
HPE LTO-7 Ultrium Type M RW Bar Code Label Pack	Q2016A
HPE LTO-7 Ultrium RW Bar Code Label Pack	Q2014A
HPE LTO-6 Ultrium RW Bar Code Label Pack	Q2013A
HPE LTO-5 Ultrium WORM Bar Code Label Pack	Q2012A
HPE LTO-5 Ultrium RW Bar Code Label Pack	Q2011A
HPE LTO-5 Ultrium WORM Bar Code Label Pack	Q2012A
HPE LTO-4 Ultrium Read/Write Bar Code Label Pack	Q2009A
HPE LTO-4 Ultrium WORM Bar Code Label Pack	Q2010A
HPE Ultrium 3 RW Bar Code Label Pack	Q2007A
HPE Ultrium 3 WORM Bar Code Label Pack	Q2008A
HPE Ultrium 2 Bar Code Label Pack	Q2002A
Custom labeled Data Cartridges	
<b>NOTE:</b> Custom labeled products allow customers to customize a specific sequence printed on each label.	
HPE LTO-8 Ultrium 30TB RW Custom Labeled Library Pack 20 Data	Q2078AL
Cartridges with Cases	QZOTONE
HPE LTO-8 Ultrium 30TB WORM Custom Labeled Library Pack 20 Data	Q2078WL
Cartridges with Cases	
HPE LTO-8 Ultrium 30TB RW Custom Labeled Library Pack 20 Data	Q2078AC
Cartridges without Cases	
HPE LTO-7 Ultrium Type M 22.5TB RW 20 Data Cartridges Custom Labeled with Cases	Q2078ML
HPE LTO-7 Ultrium Type M 22.5TB RW 20 Data Cartridges Custom Labeled Library Pack without Cases	Q2078MC
HPE LTO-7 Ultrium RFID RW Custom Labeled Data Cartridge 20 Pack	C7977AF
HPE LTO-7 Ultrium RW Custom Labeled Data Cartridge 20 Pack	C7977AL
HPE LTO-7 Ultrium WORM Custom Labeled Data Cartridge 20 Pack	C7977WL
HPE LTO-7 Ultrium RW No Case Custom Labeled Data Cartridge 20 Pack	C7977AC
HPE LTO-6 Ultrium 6.25TB MP RW Custom Labeled Data Cartridge 20	C7976AL
Pack	
HPE LTO-5 RW Custom Labeled Data Cartridge 20 Pack	C7975AL
HPE LTO-5 RW Custom Labeled No Case Data Cartridge 20 Pack	C7975AC
HPE LTO-5 WORM Custom Labeled Cartridge 20 Pack	C7975WL
HPE LTO-4 Ultrium 1.6TB RW Custom Label Data Cartridge 20 Pack	C7974AL
HPE LTO-4 Ultrium 1.6TB WORM Custom Label Data Cartridge 20 Pack	C7974WL
HPE LTO-3 Ultrium 800GB RW Labeled Data Cartridge 20 Pack	C7973AL
HPE LTO-3 Ultrium 800GB WORM Labeled Data Cartridge 20 Pack	C7973WL
HPE LTO-2 Ultrium 400GB Pre-labeled Data Cartridge 20 Pack	C7972AL
Non-Custom Labeled Data Cartridges	

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NOTE: Non-Custom labels will come pre-labeled with a pre-determined

number sequence.



#### **Related Options**

HPE LTO-8 Ultrium 30TB RW Non Custom Labeled Library Pack 20 Data Cartridges with Cases	Q2078AN
HPE LTO-7 Ultrium Type M 22.5TB RW 20 Data Cartridges Non Custom Labeled with Cases	Q2078MN
HPE LTO-7 Ultrium Non Custom Labeled Data Cartridge 20 Pack	C7977AN
HPE LTO-6 Ultrium 6.25TB MP RW Non Custom Labeled Data Cartridge 20 Pack	C7976AN
HPE LTO-6 Ultrium 6.25TB BaFe RW Non Custom Labeled Data Cartridges 20 Pack	C7976BN
HPE LTO-5 Ultrium Non-custom Labeled Data Cartridge 20 Pack	C7975AN
HPE LTO-4 Ultrium 1.6TB Non-custom Label Data Cartridge 20 Pack	C7974AN
HPE Ultrium 800GB Non-custom Label 20 Pack	C7973AN
HPE Ultrium 400GB Non-custom Label 20 Pack	C7972AN
HPE Ultrium 200GB Non-custom Label 20 Pack	C7971AN

## HPE Support Services

#### **Same Day Response**

HP 1 Year 4 hour 13X5 LTO Autoloader Hardware Support	U6364E
HP 1 Year 4 hour 24x7 LTO Autoloader Hardware Support	U6365E
HP 1 Year 6 hour 24x7 Call-to-Repair LTO Autoloader Hardware Support	U6366E
HP 3 Year 4 hour 13X5 LTO Autoloader Hardware Support	H5526E
HP 3 Year 4 hour 24x7 LTO Autoloader Hardware Support	H4624E
HP 3 Year 6 hour 24x7 Call-to-Repair LTO Autoloader Hardware Support	U6367E
HP 5 Year 4 hour 13X5 LTO Autoloader Hardware Support	U9376E
HP 5 Year 4 hour 24x7 LTO Autoloader Hardware Support	U9377E
Next Business Day Response	
HPE 3 Year Next business day Parts Exchange LTO Autoloader Support	H2698E
HPE 3 Year Next Business Day LTO Autoloader Hardware Support	H4619E
Hardware Services	

**NOTE:** In order to maximize ROI and product uptime, and minimize the cost of ownership, Hewlett Packard Enterprise recommends the 3-year, 24 x 7 service options. These offerings will ensure that any product issue can be tackled when they occur (most back up issues will occur outside standard business hours) and that the service coverage regarding period, covers the minimum expected life of the host system.

HPE Install Storage Autoloader or Tape Drive Array Service

U2090E

**Technical Specifications** 

		1/8 G2 LTO-8 Ultrium 30750 Tape	1/8 G2 LTO-7 Ultrium 15000 Tap Autoloader	1/8 G2 LTO-6 Ultrium e 6250 Tape Autoloader	1/8 G2 LTO-5 Ultrium 3000 Ta Autoloader
		Autoloade	r		
Drive Tech	nnology	LTO-8	LTO-7	LTO-6	LTO-5
Number of	Drives	1	1	1	1
Number of	Slots	8	8	8	8
Drive Inter	face	8Gb/sec FC 6Gb/sec SAS	8Gb/sec FC 6Gb/sec SAS	8Gb/sec FC 6Gb/sec SAS	6Gb/sec SAS
Capacity	Native	96TB	48 TB	20 TB	12 TB
	Compressed (2.5:1) Compressed (2:1)		120 TB	50 TB	24TB
Maximum Transfer Rate	Native	300MB/s	300 MB/s	160 MB/s	140 MB/s
Dimension	nsOut-of-Box (HxWxD)		1.7	′ x 19 x 31.9 in (4.4 x 48.2 x	k 80.9 cm)
	Shipping			10 x 23 x 39 in (25 x 58 x	99 cm)

NOTE: The weight of the Autoloader varies a slight amount with the type of LTO drive used.

Reliability MSBF 2 Million robot load/unload cycles

(mean swaps between failures)

Weight

MTBF 100,000 hours (based on 1M MSBF)

(mean time between failures)

(HxWxD)

**Shipping** 

**Out-of-Box** 

Cartridge Swap Time 34 seconds average (drive to slot, slot to drive)

Initialization Time 76 seconds

**Inventory Time** 52 seconds (with bar code labeled cartridges)

**Connectors** Mini-SAS (1/8 G2 SAS models)

LC Short-wave Optical Fibre Channel (1/8 FC models)(1) RJ-45 (located on back of 1/8 G2)

25.4 lb (11.5 kg)

33.7 lb (15.3 kg)

(1) USB port (located on back of 1/8 G2)

**Technical Specifications** 

LED Indicators

(on front panel)

Ready LED (Green): shows ready status information

Clean LED (Amber): shows fault status information

Attention LED (Amber): shows fault status information

Error LED (Amber): shows fault status information

Management Interface 10/100 Mbits/second, auto-configuring interface. RJ-45 connection. Https configurable.

Power 80 Watts (max)

Input Requirements 100 to 240 VAC, 50 to 60 Hz

**Relative Humidity** 10-80%RH Operating (non-condensing) 90% RH Shipping **Temperature Range** 5°C to 40°C Operating (wet bulb) -40°C to 60°C Shipping **Altitude** 15,000 feet Operating 35,000 feet Shipping



**Summary of Changes** 

Date	Version History	Action	Description of Change:
01-Oct-2018	From Version 56 to 57	Changed	Product Highlights updated
04-Jun-2018	From Version 55 to 56	Added	HPE StoreEver 1/8 G2 LTO-5 Ultrium 3000 SAS Tape Autoloader was added.
05-Mar-2018	From Version 54 to 55	Changed Changed	Configuration Information section was revised.  Product Highlights and Related Options were revised.
05-Feb-2018	From Version 53 to 54	Changed	LTO-8 updates.  Overview, Product Highlights, Configuration Information, and Related Options were revised.
04-Dec-2017	From Version 52 to 53	Changed	Overview, Product Highlights, Configuration Information, and Related Options were revised.
04-Sept-2017	From Version 51 to 52	Changed	Changes made throughout all the QuickSpecs.
07-Aug-2017	From Version 50 to 51	Changed	Changes made to the Product Highlights
09-Dec-2016	From Version 49 to 50	Changed	Deleted the HPE StoreEver Archive Manager section.
18-Nov-2016	From Version 48 to 49	Changed	Added the HPE StoreEver Archive Manager in the Product Highlights section
15-Aug-2016	From Version 47 to 48	Changed	Changes made to the Configuration Information Section
31-Mar-2016	From Version 46 to 47	Changed	Updated HPE rebranding, part no corrections and FIPS 140-2 support information for Fusilli launch.
15-Jan-2016	From Version 45 to 46	Changed	Edited for content
01-Dec-2015	From Version 44 to 45	Changed	Multiple Changes incl. LTO-7 SKUs added
20-Mar-2015	From Version 43 to 44	Added	Added the two SAS cables 716191-B21 and 716193-B21. These are used to connect the Autoloader to the HPE H241 Smart Host Bus Adapter.
16-Jan-2015	From Version 42 to 43	Added	Added below under 'Recommended HBA/Controller for tape automation':
			HPE H241 12Gb 2-ports Ext Smart Host Bus Adapter 726911-B21 *Recommended for ProLiant Gen9 SAS tape
			automation connect.
31-Oct-2014	From Version 41 to 42	Changed	Changes made throughout all the QuickSpecs.
15-Sep-2014	From Version 40 to 41	Changed	Edited the Configuration Information section.
04-Jul-2014	From Version 39 to 40	Changed	Product Highlights - Encryption; Configuration Information - removed Note above Step 1 Base Configuration; Configuration Information - Step 1 - Base Configuration - SAS models - removed (1) 2M



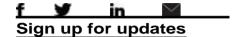
Summary of Change	S	-	
			External Infiniband (SFF8470) to Mini SAS (SFF8088) 1x SAS Cable and changed description for the Min-Min cable assembly; Step 2 - Additional Options - added note at the top of this section; Related Options - Encryption - updated existing NOTE and added 5 more NOTES; Cable Kits (SCSI, SAS, FC) - update Notes for AE470A, Updated Note for AE465A; fix a few minor typos in the Related Options - Media section.
09-May-2014	From Version 38 to 39	Changed	Recommended Services was revised.
18-Mar-2014	From Version 37 to 38	Changed	Media was revised.
22-Feb-2013	From Version 36 to	Changed	Updated the following Sections
	37		Key Features
			Product highlights
			Compatibility
			Configuration Information
			Related Options
		Removed	Technical Specifications Customer Benefits
18-Jan-2013	From Version 35 to 36	Changed	Service Updated Capacity in Technical Specifications.
04-Dec-2012	From Version 34 to 35	Changed	Changes made throughout all the QuickSpecs
05-Oct-2012	From Version 33 to 34	Changed	Change made to URL in Service and Support, HPE Care Pack and Warranty Information section.
24-Sep-2012	From Version 32 to 33	Changed	Changes made throughout the QuickSpecs
07-Sep-2012	From Version 31 to 32	Changed	Changes made in the North America and Canada versions only.
17-Aug-2012	From Version 30 to 31	Changed	Changes made in the Related Options section.
08-Aug-2012	From Version 28 to 30	Changed	Changes made in the North America and Canada versions only.
18-Jun-2012	From Version 28 to 29	Changed	Changes made to the entire document
06-Apr-2012	From Version 27 to 28	Changed	Changes made in the North America and Canada versions only.
16-Mar-2012	From Version 26 to 27	Changed	Changes made in the Related Options section.
10-Feb-2012	From Version 25 to	Changed	Changes made in the Related Options section.

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Summary of Changes			
13-Jan-2012 30-Sep-2011	From Version 24 to 25 From Version 23 to 24	Added Changed	Added HPE Smart Array P711m and HPE Smart Array P712m adapters to the options section.  Drive Interface and Operating Altitude were revised in Technical Specifications
			Linear Tape File System (LTFS) and HPE StoreOpen Automation were added to Product Highlights and Optical Cables was added to Related Options
08-Jul-2011	From Version 22 to 23	Changed	Changes made in the Configuration Information section.
08-Jun-2011	From Version 21 to 22	Removed	StorageWorks was removed.
06-Oct-2010	From Version 20 to 21	Changed	Changes made in Step 1 of the Configuration Information section only.
27-Sep-2010	From Version 19 to 20	Added	Easy and economical upgrade of the included software to Data Protector Express and Data Protector backup and recovery software were added to Product Highlights
			HPE 1/8 G2 LTO-5 Ultrium 3000 FC Tape Autoloader and HPE Data Protector Express Basic backup and recovery software for Windows/Linux/Netware were added to Step 1
		Changed	Upgrade included software to Data Protector Express was added to Media Overview was updated
			Software in the Box was changed to Included backup and recovery software in Product Highlights
			1/8 G2 LTO-2 Ultrium 448 Tape Autoloader was removed
21-Jul-2010	From Version 18 to 19	Added	5642 (42U) Rack Cabinet was removed from Rack Cabinets HPE 1/8 G2 LTO-5 Ultrium 3000 SAS Tape Autoloader / BL536A to the Configuration Information section in the North America and Canada versions.
24-Jun-2010	From Version 17 to 18	Added	HPE 1/8 G2 LTO-5 Ultrium 3000 SAS Tape Autoloader / BL536A to the Configuration Information section.
21-Jun-2010	From Version 16 to 17	Changed	Service and Support, HPE Care Pack, and Warranty Information was completely revised
			LTO-5 Ultrium 3000 Tape Autoloader was added
			Mentions of HPE ProLiant G7 Servers were added to SAS Host Bus Adapters
			Data Privacy was removed from Product Highlights

Summary of Changes			
25-Nov-2009	From Version 15 to 16	Changed	SAS and SCSI Host Bus Adapters and Cable Kits were modified in the Related Options section and Controller/HBA and Cable Recommendation Matrix was added to Related Options.
27-Mar-2009	From Version 14 to 15	Added	HPE U320e SCSI Host Bus Adapter to the Related Options section.
22-Aug-2008	From Version 13 to 14	Changed	ATS data transfer rate range for the LTO Ultrium Tape Drives in the Data Rate Marketing section of the Product Highlights.
15-Aug-2008	From Version 12 to	Changed	Changes were made to the following sections:
	13		Overview:
			Customer Benefits
			Family Comparison
			Product Highlights: Data Rate Matching
			Configuration Information: Step One
16-Jul-2008	From Version 11 to 12	Changed	Technical Specifications Changes affected the North America and Canada versions only. Just the date and version were changed in the Worldwide and EMEA versions.
16-Jun-2008	From Version 10 to 11	Changed	Changes were made throughout the entire QuickSpecs except for the Service and Support section.
22-Feb-2008	From Version 9 to 10	Changed	Changes were made within the Product Highlights, Related Options and Technical Specifications sections.
11-Feb-2008	From Version 8 to 9	Changed	Changes were made throughout the QuickSpecs to reflect the addition of "1/8 G2 LTO-4 Ultrium 1760 Tape Autoloader" option.
25-Jan-2008	From Version 7 to 8	Added	"For tape drives and media, 1 GB = 1 billion bytes.  Actual formatted capacity is less." was added as the last line in the Copy Right information.
24-Aug-2007	From Version 6 to 7	Changed	Changes made within the Product Highlights and Related Options sections.
07-Aug-2007	From Version 5 to 6	Changed	Corrected a formatting error in the PDF only.
19-Jun-2007	From Version 4 to 5	Changed	Changes made within the What's New, Compatibility Information and Related Options sections.
07-Jun-2007	From Version 3 to 4	Added	Added EMEA version.
26-Mar-2007	From Version 2 to 3	Changed	Changes made throughout the QuickSpecs except in the Compatibility and Service and Support sections.
08-Dec-2006	From Version 1 to 2	Changed	Updated the following sections: Step 1 - Base Configuration - cable length

**Summary of Changes** 



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For tape drives and media, 1 GB = 1 billion bytes. Actual formatted capacity is less.



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