## **HPE LTO Ultrium Storage Supplies**

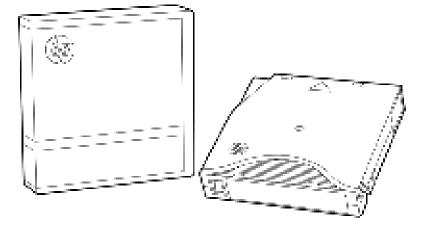
With unbroken market leadership stretching back more than ten years (according to Santa Clara Consulting Group) Hewlett Packard Enterprise is the most popular brand of LTO Ultrium storage supplies in the world. That is because Hewlett Packard Enterprise tapes offer outstanding quality and reliability for every tape drive and every backup and archiving scenario. In a typical year of testing, Hewlett Packard Enterprise engineers pull,over 350,000 miles of tape, covering all aspects of tape usage; from full volume backups and archiving to rigorous environmental interchange tests. Backed by this uncompromising media qualification process, HPE LTO Ultrium data cartridges support all HPE StoreEver and non HPE LTO Ultrium tape devices. The latest seventh generation products minimize interruption to network and SAN backup by being capable of protecting 1.08TB/hour of data at native speeds and storing up to 6 TB native (15 TB assuming 2.5:1 compression) on one piece of media (140% greater capacity than HPE LTO-6 Ultrium tapes and 838% greater than LTO-4).

#### Hewlett Packard Enterprise's Bar Code and RFID Labeled Data Cartridges:

Hewlett Packard Enterprise sells both Labeled and Unlabeled LTO Ultrium data cartridges for automation customers requiring bar code and RFID labeled storage supplies.

Hewlett Packard Enterprise's Custom Bar Code and RFID Labeled Data Cartridges allow customers to place a custom order with Hewlett Packard Enterprise and specifically define the exact barcode sequence printed on each label. Customers should expect a longer lead time for custom order processing. Hewlett Packard Enterprise Custom Labeled Data Cartridges are sold in 20 packs in the USA and Europe.

Hewlett Packard Enterprise's Non-Custom Bar Code and RFID Labeled Data Cartridges allow customers to receive labeled data cartridges fast because no customization process is required. These products are perfect for customers that require labeled media but do not need to define the exact sequence printed on each label. Each Hewlett Packard Enterprise Non-Custom Labeled Data Cartridge will have a unique, pre-defined barcode sequence printed on each label (no duplicate codes). Hewlett Packard Enterprise's Non-Custom Labeled Data Cartridges are sold in 20 packs and are available worldwide.



ModelsE	HP LTO-7 Ultrium 15 TB RW Data Cartridge	C7977A
	HP LTO-7 Ultrium 15 TB No Case Pallet of 960 Tapes	C7977AB
	HP LTO-7 Ultrium 15 TB RW Custom Labeled No Case Library Pack 20 pack	C7977AC



HP LTO-7 Ultrium 15 TB Pallet of 960 Tapes	C7977AD
HP LTO-7 Ultrium 15 TB RW RFID Custom Labeled Data Cartridge 20 pack	C7977AF
HP LTO-7 Ultrium 15 TB Eco Pack 20 pack	С7977АН
HP LTO-7 Ultrium 15 TB RW Custom Labeled Data Cartridge 20 pack	C7977AL
HP LTO-7 Ultrium 15 TB RW Non-Custom Labeled Data Cartridge 20 pack	C7977AN
HP LTO-7 Ultrium 15 TB WORM Data Cartridge	C7977W
HP LTO-7 Ultrium 15 TB WORM Custom Labeled Data Cartridge 20 pack	C7977WL
HP LTO-7 Ultrium RW Bar Code Label Pack	Q2014A
HP LTO-6 Ultrium 6.25TB MP RW Data Cartridge	C7976A
HP LTO-6 Ultrium 6.25TB MP RW Custom Labeled Data Cartridge 20 Pack	C7976AL
HP LTO-6 Ultrium 6.25TB MP RW Non Custom Labeled Data Cartridge 20 Pack	C7976AN
HP LTO-6 Ultrium 6.25TB MP RW 960 Tape Pallet	C7976AD
HP LTO-6 Ultrium 6.25TB BaFe RW Data Cartridge	C7976B
HP LTO-6 Ultrium 6.25TB BaFe RW Non Custom Labeled Data Cartridges 20 Pack	C7976BN
HP LTO-6 Ultrium 6.25TB MP RW Custom Labeled Data Cartridge No Case 20 Pack	C7976AC
HP LTO-6 Ultrium 6.25TB MP RW Eco Case Data Cartridge 20 Pack	C7976AH
HP LTO-6 Ultrium 6.25TB MP WORM Data Cartridge	C7976W
HP LTO-6 Ultrium 6.25TB MP WORM Custom Labeled Data Cartridge 20 Pack	C7976WL
HP LTO-6 Ultrium 6.25TB MP RFID RW Custom Labeled Data Cartridge 20 Pack	C7976AF
HP LTO-6 Ultrium 6.25TB BaFe RW Custom Labeled Data Cartridge 20 Pack	C7976BL
HP LTO-6 Ultrium 6.25TB BaFe RW Eco Case Data Cartridge 20 Pack	C7976BH
HP LTO-6 Ultrium 6.25TB BaFe WORM Data Cartridge	C7976BW
HP LTO-6 Ultrium RW Bar Code Label Pack	Q2013A
HP LTO-5 Ultrium 3TB RW Data Cartridge	C7975A
HP LTO-5 RW Custom Labeled Data Cartridge 20 Pack	C7975AL
HP LTO-5 Ultrium 3TB WORM Data Cartridge	C7975W
HP LTO-5 Ultrium Non-custom Labeled Data Cartridge 20 Pack	C7975AN
HP LTO-5 WORM Custom Labeled Cartridge 20 Pack	C7975WL
HP LTO-5 RW Custom Labeled No Case Data Cartridge 20 Pack	C7975AC
HP LTO-5 Ultrium 3TB RFID RW Custom Labeled Data Cartridge 20 Pack	C7975AF
HP LTO-5 Ultrium 3TB RFID RW Non-custom Labeled Data Cartridge 20 Pack	C7975AJ
HP LTO-5 Ultrium 3TB RFID RW Custom Labeled No Case Data Cartridge 20 Pack	C7975AK
HP LTO4 Ultrium 1.6TB Read/Write Data Cartridge	C7974A
HP LTO-4 Ultrium 1.6TB RW Custom Label Data Cartridge 20 Pack	C7974AL
HP LTO4 Ultrium 1.6TB WORM Data Tape Cartridge	C7974W
HP LTO-4 Ultrium 1.6TB Non-custom Label Data Cartridge 20 Pack	C7974AN
HP LTO-4 Ultrium 1.6TB WORM Custom Label Data Cartridge 20 Pack	C7974WL
HP LTO-4 Ultrium 1.6TB RFID RW Custom Labeled Data Cartridge 20 Pack	C7974AF
HP LTO-4 Ultrium 1.6TB RFID Non-custom Labeled Data Cartridge 20 Pack	C7974AJ
HP LTO-4 Ultrium 1.6TB RFID Custom Label No Case Data Cartridge 20 Pack	C7974AK

# **Product Highlights**

HP LTO-3 Ultrium 800 GB Re-writable Data Cartridge	C7973A				
HP LTO-3 Ultrium 800GB RW Labeled Data Cartridge 20 Pack	C7973AL				
HP Ultrium 800GB Non-custom Label 20 Pack HP LTO-3 Ultrium 800 GB WORM Data Cartridge					
				HP LTO-3 Ultrium 800GB WORM Labeled Data Cartridge 20 Pack	C7973WL
HP LTO-3 Ultrium 800GB RFID RW Custom Labeled Data Cartridge 20 Pack	C7973AF				
HP LTO-3 Ultrium 800GB RFID Non-custom Labeled Data Cartridge 20 Pack	C7973AJ				
HP LTO-3 Ultrium 800GB RFID Custom Label No Case Data Cartridge 20 Pack	C7973AK				
HP LTO2 Ultrium 400GB RW Data Tape	C7972A				
HP LTO-2 Ultrium 400GB Pre-labeled Data Cartridge 20 Pack	C7972AL				
HP Ultrium 400GB Non-custom Label 20 Pack	C7972AN				
HP LTO1 Ultrium 200GB RW Data Tape	C7971A				
HP Ultrium 200 GB pre-label Data Cartridge 20 Pk.	C7971AL				
HP Ultrium 200GB Non-custom Label 20 Pack	C7971AN				
HP Ultrium 1 Bar Code Label Pack					
				HP Ultrium 2 Bar Code Label Pack	
HP Ultrium 3 RW Bar Code Label Pack					
HP Ultrium 3 WORM Bar Code Label Pack HP LTO-4 Ultrium Read/Write Bar Code Label Pack HP LTO-4 Ultrium WORM Bar Code Label Pack					
				HP LTO-5 Ultrium RW Bar Code Label Pack HP LTO-5 Ultrium WORM Bar Code Label Pack	
MP = Metal particle BaFe = Barium Ferrite					
<ul> <li>efits</li> <li>Up to 15 TB compressed capacity on HPE StoreEver and non-HPE LTO-7 devents Supports transfer speeds of 300 MB/s (native), 700 MB/s (2.5:1) with Generat Two different media options: Metal Particle (MP) for LTO-1 through LTO-6 are (BaFe) for LTO-6 and LTO-7. Both Rewritable and WORM formats available.</li> <li>Unique colored cartridges to assist with identification in mixed media environ</li> <li>Superior 'smart grabber' mechanism and mechanical interlock to prevent the being pulled inside the tape housing (a key weakness of DLT media). Sensors connection and prevent leader loss that would ruin the tape.</li> <li>Simplified tape path to reduce wear and tear.</li> <li>Very low media cost per GB.</li> <li>LTO cartridge memory in media to improve access time and provide enhance monitoring.</li> <li>Durable cartridge designed to minimize wear and debris (important in automatical to extremes in Hewlett Packard Enterprise's testing facilities, to a leve</li> </ul>	ion 7 nd Barium Ferrite ments. leader pin from detect proper ed media ation).				
	<ul> <li>HP LTO-3 Ultrium 800GB RW Labeled Data Cartridge 20 Pack</li> <li>HP Ultrium 800GB Non-custom Label 20 Pack</li> <li>HP LTO-3 Ultrium 800GB WORM Labeled Data Cartridge 20 Pack</li> <li>HP LTO-3 Ultrium 800GB RFID RW Custom Labeled Data Cartridge 20 Pack</li> <li>HP LTO-3 Ultrium 800GB RFID Non-custom Labeled Data Cartridge 20 Pack</li> <li>HP LTO-3 Ultrium 800GB RFID Custom Labeled Data Cartridge 20 Pack</li> <li>HP LTO-3 Ultrium 800GB RFID Custom Labeled Data Cartridge 20 Pack</li> <li>HP LTO-2 Ultrium 400GB RPID Custom Label No Case Data Cartridge 20 Pack</li> <li>HP LTO-2 Ultrium 400GB Pre-labeled Data Cartridge 20 Pack</li> <li>HP UTO-2 Ultrium 400GB Non-custom Label 20 Pack</li> <li>HP Ultrium 400GB Non-custom Label 20 Pack</li> <li>HP Ultrium 200G B pre-label Data Cartridge 20 Pack</li> <li>HP Ultrium 200G B Non-custom Label 20 Pack</li> <li>HP Ultrium 1 Bar Code Label Data Cartridge 20 Pack</li> <li>HP Ultrium 1 Bar Code Label Pack</li> <li>HP Ultrium 3 RW Bar Code Label Pack</li> <li>HP Ultrium 3 RW Bar Code Label Pack</li> <li>HP LTO-4 Ultrium Read/Write Bar Code Label Pack</li> <li>HP LTO-5 Ultrium WORM Bar Code Label Pack</li> <li>MP = Metal particle BaFe = Barium Ferrite</li> </ul> effts <ul> <li>Up to 15 TB compressed capacity on HPE StoreEver and non-HPE LTO-7 de</li> <li>Supports transfer speeds of 300 MB/s (native), 700 MB/s (25:0) with Generat</li> <li>Two different media options: Metal Particle (MP) for LTO-1 through LTO-6 and LTO-7. Both Rewritable and WORM formats available.</li> <li>Unique colored cartridges to assist with identification in mixed media environ an (BaFe) for LTO-6 and LTO-7. Both Rewritable and WORM forma</li></ul>				

- HPE LTO-6 and LTO-7 offers data encryption for enhanced data security granted FIPS140-2 Level 1 certification
- Hewlett Packard Enterprise offers both labeled (Custom Labeled and Non-Custom Labeled) and non-labeled Tri Optic and RFID data cartridges.
- Custom labeled offerings allow automation customers the ability to customize their label to their specific needs. This includes the ability to define the barcode label type and to specify an exact label sequence. Custom labels are pre-attached to the tapes before shipment. Available in Europe and the USA. Europe requires a Minimum Order Quantity of 5 units or 100 total data cartridges (5 units X 20 cartridges).
- Hewlett Packard Enterprise Non-Custom Labeled tapes allow automation customers the ability to receive labeled media without having to wait for a custom labeled solution. Barcode sequences are pre-determined by Hewlett Packard Enterprise and are guaranteed to be unique. LTO-1 and LTO-2 products utilize the double barcode format whereas products from LTO-3 onwards utilize the single barcode format. Hewlett Packard Enterprise Non-Custom Labeled media is available worldwide.
- HPE LTO Ultrium RFID Labeled tapes provides a faster, more flexible and secure alternative
  to traditional barcode identification solutions. Rewritable RFID labels enable cartridges to be
  accurately tracked in real time, anywhere in the world. Hewlett Packard Enterprise RFID labels
  are tested to extremes, support worldwide radio frequencies and comply with global data
  security standards.
- All labeled solutions are shipped in 20 packs.

# **Proven Reliability** Hewlett Packard Enterprise ensures the highest level of quality with media specifications that far exceed industry standards.

- It is doubtful if any other storage supplies vendor carries out such exhaustive qualification of the drive and media as they are used in the field. This is because no media supplier is exposed to support of hardware in the field and has a vested interest in reducing media-induced hardware issues.
- In the last 12 months, quality procedures conducted by Hewlett Packard Enterprise have included:
  - Extended LTO-6 'Green Tape Test' to examine interchange between MP and BaFe using 4,000 cartridges (2,000 of each type).
  - LTO-7 BaFe and LTO-6 MP interchange using over 500 tapes of each type.
  - 200,000 miles of LTO-5 tape (both green tape and media that was reused) has been pulled through Hewlett Packard Enterprise tape platforms.
  - 75,000 miles each of new LTO-4 and LTO-5 green tape has been pulled through Hewlett Packard Enterprise and non-Hewlett Packard Enterprise devices.
- Hewlett Packard Enterprise ongoing brand qualification also includes procedures like drop testing, creep append, load/unload, environmental stress tests and archival simulation that are not required to gain the LTO Ultrium logo

LTO Ultrium tape technology uses a "best of breed" technology approach, taking the best features from other tape technologies and combining them into a single new technology without the need for design compromises to accommodate legacy compatibility requirements. Designed for the demanding environment of large-scale libraries, HPE LTO Ultrium media has a 30-year archival storage life.

Hewlett Packa Enterprise LT Media Specific	O Ultrium thou cation des how thes sim and LTC	Hewlett Packard Enterprise believes that its test program for HPE Ultrium storage supplies is the most thorough and comprehensive in the industry. In order to carry the Hewlett Packard Enterprise Brand, designated cartridges must satisfy an exhaustive battery of additional procedures that relate directly to how the product is used in real life situations when real data and real businesses are at stake. Some of these procedures - e.g. "five corner" environmental interchange, load/unload for automation, ageing simulation and drop testing are not found in the standard logo test. These exhaustive tests on media and both Hewlett Packard Enterprise and non-Hewlett Packard Enterprise drives ensure that HPE LTO Ultrium storage supplies will always offer maximum reliability even in the most extreme conditions.					
Hewlett Packa Enterprise LT Ultrium Tape	<b>0-7</b> two	The latest HPE LTO-7 Ultrium tape drive technology uses a linear format of 3,584 tracks, writing thirty two (32) tracks simultaneously. The data is written in a serpentine pattern; the tape reverses direction after each set of thirty two tracks is written.					
Technology	Ultr	LTO Ultrium formats are open standards. This means that data written on any HPE StoreEver LTO Ultrium tape drive for ProLiant servers, autoloaders, MSL, EML or ESL G3 can be interchanged directly with Ultrium tape drives from other vendors.					
<b>Compression</b> LTO-DC is an enhanced version of Advanced Lossless Data Compression (ALDC) hardwa compression. Compression is automatically turned "off" if the compressed data would cause expansion in data size.							
Compatibility	tape	E LTO Ultrium da e products. Becau other non- Hewl	ise HPE LTO Ult	rium media is LT	O Ultrium logo c	ompliant, it may	
Backward		LTO-2 Drive	LTO-3 Drive	LTO-4 Drive	LTO-5 Drive	LTO-6 Drive	LTO-7 Drive
Read	LTO-2 Media	Read/Write	Read/Write	Read Only	Not Compatible	Not Compatible	Not Compatible
Compatible	LTO-3 Media	Not Compatible	Read/Write	Read/Write	Read Only	Not Compatible	Not Compatible
	LTO-4 Media	Not Compatible	Not Compatible	Read/Write	Read/Write	Read Only	Not Compatible
	LTO-5 Media	Not Compatible	Not Compatible	Not Compatible	Read/Write	Read/Write	Read Only
	LTO-6 Media	Not Compatible	Not Compatible	Not Compatible	Not Compatible	Read/Write	Read/Write
	LTO-7 Media	Not Compatible	Not Compatible	Not Compatible	Not Compatible	Not Compatible	Read/Write
Why Buy LTO	,	Matching. • High capaci • High perform • An industry • Investment		o compromise de allenges of data slower hosts r Tape-Open for an eight-genera	esign and innovat deluge mat tion roadmap wit	tive features like th plans to delive	Data Rate

providers as well as toll-free 24 X 7 technical phone support during the warranty period. For full details on warranty and support for pre-labeled media, please go to

http://www.hp.com/products1/storage/products/storagemedia/index.html

## **Related Hardware Options**

### **Related Hardware Options**

#### HPE StoreEver LTO Ultrium Tape Drives

The family of HPE LTO Ultrium tape drives is Hewlett Packard Enterprise's premier line of backup devices. Based on the LTO Ultrium format, an open standard with a well-defined ten-generation roadmap, HPE LTO Ultrium tape drives offer customers the best choice for investment protection. With ultimate reliability and ease of use in mind, even at 100% duty cycles, Hewlett Packard Enterprise's rugged design builds on superior LTO technology and adds advanced features like hardware data encryption to create a new level of data protection. The tape drives employ dynamic data rate matching to adjust to the speed of the host, reducing wear and tear on both drive and media and increasing performance, even on slower hosts. Hewlett Packard Enterprise's hibernate mode automatically shuts down the drive after a period of inactivity, even if a cartridge is loaded, significantly reducing idle power usage. The family of tape drives also features support for HPE TapeAssure that provides a single application for drive management and HPE LTO Ultrium tape drives is the option to download Yosemite Server Backup Basic backup and recovery software providing a backup application to protect a single server. If data is critical to your business, protect it with an HPE LTO Ultrium tape drive.For more information on the HPE Ultrium Tape Drives please see the QuickSpecs:

#### http://h20195.www2.hp.com/v2/GetPDF.aspx/c04123270.pdf

#### HPE MSL2024/MSL4048/MSL8048/MSL8096 Tape Libraries

The HPE MSL Tape Libraries meet demanding storage requirement of businesses needing unattended backup, disaster recovery, or archive capability. The MSL Libraries offer a broad choice of storage capacity and interfaces, including new HPE LTO-7Ultrium tape drives. Web-based remote management makes the MSL Libraries easily managed from across the room or across the globe, eliminating the need for remote office IT staff. Quickly and simply manage the tape media both in and out of the library with the standard bar code reader, configurable mail slots, and multiple 12-slot removable magazines. If a tape were lost or stolen, protect important business data from unauthorized access with the library-based encryption option. Library investment and uncertain data growth are easily managed with MSL accessory kits. Quickly increase capacity and/or performance with tool-free drive upgrades, slot license capacity upgrades, or library expandability. Now with TapeAssure to monitor drive and media utilization, monitor operational performance, report life and health information as well as provide notifications of drive and tape parameters that fall below Hewlett Packard Enterprise recommended standards

For more information on the HPE MSL2024/MSL4048/MSL8048/MSL8096 Tape Libraries please see the QuickSpecs:

#### http://h20195.www2.hp.com/v2/GetPDF.aspx/c04154359.pdf

#### **HPE Ultrium Tape Blades**

The HPE Ultrium Tape Blades are ideal for HPE BladeSystem c-Class customers who need an integrated data protection solution. These half-height tape blades provide direct attach data protection for the adjacent server and network backup protection for all data residing within the enclosure. HPE Ultrium Tape Blades offer a complete data protection, disaster recovery and archiving solution for BladeSystem c-Class customers.

Each HPE Ultrium Tape Blade solution ships standard with the option to download Yosemite Server Backup Basic backup and recovery software.HPE Ultrium Tape Blades are the industry's first tape blades and are developed exclusively for Hewlett Packard Enterprise BladeSystem c-Class enclosures.

## **Related Hardware Options**

For more information on the HPE Ultrium Tape Blades Tape Libraries please see the QuickSpecs:

#### http://h20195.www2.hp.com/v2/GetPDF.aspx/c04123270.pdf

#### **HPE StoreEver ESL G3 Tape Libraries**

Meeting enterprise data growth challenges head-on, HPE ESL G3 Tape Libraries deliver enormous scalability to keep pace with unpredictable data growth. Choose from a range of base configurations and scale up to over 12,006 tape cartridges in increments of 100 slots for capacity on demand. Incorporating between 1 and 192 tape drives you can consolidate and store up to 180 PB (compressed 2.5:1) of enterprise data.

Supporting data growth is only part of the story: the HPE ESL G3 also delivers high availability through dual-robotics capability and redundant power supplies, while host path connectivity failover provides optimal library performance. Management and control of multiple tape libraries is delivered by an intelligent single pane of glass command GUI. Leading library management tools and HPE TapeAssure enables predictive and proactive monitoring of tape drives, media and library health. Hardware data encryption solutions provide added data security.

For more information on the HPE ESL G3 Tape Libraries please see the QuickSpecs:

#### http://h20195.www2.hp.com/v2/GetPDF.aspx/c04111556.pdf

#### HPE 1/8 G2 Tape Autoloader

The HPE 1/8 G2 Tape Autoloader provides a cost-effective, easy-to-install, unattended backup that is ideal for an entry-level or remote office automated backup solution. The HPE 1/8 G2 autoloader combines incredible storage density and tape library features into a compact 1U form factor. 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 business 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 life and health information for both the drive and media with TapeAssure.

For more information on the HPE 1/8 G2 Tape Autoloader please see the QuickSpecs:

#### http://h20195.www2.hp.com/v2/GetPDF.aspx/c04123291.pdf

## <#section>

	LTO-3 Ultrium	LTO-4 Ultrium	LTO-5 Ultrium	LTO-6 Ultrium	LTO-7 Ultrium		
Magnetic Material	Metal Particle	Metal Particle	Metal Particle	LTO-6 Ultrium Metal Particle or Barium Ferrite	LTO-7 Barium Ferrite		
<b>Recording Density</b>	245 kbits/inch	343 kbits/inch	343 kbits/inch	343 kbits/inch	485 kbits/inch		
Number of Data Tracks	704	896	1,280	2,176	3,584		
<b>Recording Capacity</b>	400/800 GB	800GB/1.6 TB	1.5 TB/3.0 TB	2.5/6.25 TB	6/15 TB		
Coercivity	2500 - 2700 Oe	2500 - 2700 Oe	2,500 - 2,700 Oe	2,800 - 2,900 Oe for MP 2200-2300 Oe for Ba Fe			
Tape Width (mm)	12.65	12.65	12.65	12.65	12.65		
Tape Thickness (um)	8.0	6.6	6.4	6.4	5.6		
Tape Length (m)	680	820	846	846	960		
External Dimensions	1.8 x 4.45 x 4.37 in (2.1 x 11.3 x 11.1 cm)	1.8 x 4.45 x 4.37 in (2.1 x 11.3 x 11.1 cm)	1.8 x 4.45 x 4.37 in (2.1 x 11.3 x 11.1 cm)	1.8 x 4.45 x 4.37 in (2.1 x 11.3 x 11.1 cm)	1.8 x 4.45 x 4.37 in (2.1 x 11.3 x 11.1 cm)		
Cartridge Weight	0.63 lb (285.2 g)	0.63 lb (285.2 g)	0.63 lb (285.2 g)	0.63 lb (285.2 g)	0.63 lb (285.2 g)		
Archival Life	30 years	30 years	30 years	30 years	30 years		
Environmental	50° to 113° F (10°	to 45° C)					
Requirements	60° to 90° F (16°	to 32° C)					
(Media should not be	41° to 73° F (5° to 23° C)						
used outside of these parameters)	79° F (26° C)						
F	10 to 80% (Operating) 20 to 60% (Archival)						

# Summary of Changes

Date	Version History	Action	Description of Change
01-Dec-2015	From Version 19 to 20	Changed	Updated throughout with information about new LTO-7
			products
13-May-2013	From Version 18 to 19	Changed	Overview: Completely updated Models and updated Key
			features Benefits section.
04-Dec-2012	From Version 17 to 18	Changed	Changes made to the Introduction of Overview only.
09-Oct-2012	From Version 16 to 17	Changed	Changes were made in the Product Highlights and Technical
			Specifications sections.
09-Jun-2011	From Version 15 to 16	Removed	Mentions of StorageWorks were removed.
18-Mar-2011	From Version 14 to 15	Changed	Models were revised
			Mentions of Bar Code and RFID was added
			Related Hardware Options was added to Product Highlights
27-Sep-2010	From Version 13 to 14	Changed	Options was completely revised and all mentions of HPE RFID
·		0	Labeled Data Cartridges were added.
29-Mar-2010	From Version 12 to 13	Changed	Changes were made throughout the QuickSpecs.
01-Sep-2007	From Version 11 to 12	Changed	Changes made to the Introduction of Overview only.
11-Jun-2007	From Version 10 to 11	Added	Added EMEA version.
01-Jun-2007	From Version 9 to 10	Changed	Changes made throughout the entire QuickSpecs, except for
		5	the Related Options section.
01-May-2006	From Version 8 to 9	Changed	Changes made throughout the entire QuickSpecs, except for
,		5	the Technical Specifications section.
20-Mar-2006	From Version 7 to 8	Changed	Updated the OVERVIEW section.
25-Apr-2005	From Version 6 to 7	Changed	Corrected the North America QS to be a duplicate of the
		_	Worldwide.
01-Apr-2005	From Version 5 to 6	Changed	Moved the "Introduction" paragraph to precede the image.
			Made minor column changes to "Technical Specifications."
		Added	Added four models to "Models" Section.
13-Dec-2004	From Version 4 to 5	Changed	Changes made throughout the entire QuickSpecs, including
			removing "StorageWorks" from the title.
17-Mar-2004	From Version 3 to 4	Changed	This QuickSpecs has been completely rebuilt, including a new
			title.
12-Sep-2003	From Version 2 to 3	Changed	High ReliabilityLTO Ultrium 100/200 GB tape technology uses
			a "best of breed" technology approach, taking the best features
			from other tape technologies and combining them into a single
			new technology without the need for design compromises to
			accommodate legacy compatibility requirements. Designed for
			the demanding environment of large-scale libraries, Ultrium
			400 GB media is certified for 1 million passes or 260 full back
			ups and has a 30 year archival storage life
			Media Durability1,000,000 passes on any area of tape, equates
			to over 20,000 end-to-end passes/260 full tape backups
29-Aug-2003	From Version 1 to 2	Changed	This QuickSpecs has been converted into the new system.

## **Summary of Changes**



© Copyright 2015 Hewlett Packard Enterprise Development LP. The information contained herein is subject to change without notice. The only warranties for Hewlett Packard Enterprise 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. Hewlett Packard Enterprise shall not be liable for technical or editorial errors or omissions contained herein.

The only warranties for Hewlett Packard Enterprise 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. Hewlett Packard Enterprise shall not be liable for technical or editorial errors or omissions contained herein.

C04154430 - 11529 - Worldwide - V20 - 1-December-2015