

HPE LTO ULTRIUM CARTRIDGES

Storage Media



WHAT'S NEW

- Massive increase in capacity: 700% improvement versus LTO-5 and 380% capacity versus LTO-6 (assume native data capacity)
- Significant increase in performance possible to store 2.7 TB/hr using LTO-8.
- Built-in AES 256-bit encryption (IEEE1619.1) (LTO-4, LTO-5, LTO-6, LTO-

OVERVIEW

Exhaustively tested, HPE LTO Ultrium cartridges meet all your demands for maximum reliability when restoring data, offering high storage density, ease of management and scalable storage and backup performance. Covering eight generations of capacity - LTO-1 (200 GB), LTO-2 (400 GB), LTO-3 (800 GB), LTO-4 (1.6 TB), LTO-5 (3 TB), LTO-6 (6.25 TB), LTO-7 (15 TB) and LTO-8 (30 TB) – and with transfer speeds of up to 2.7 TB/hr for LTO-8, there is a platform for every need and budget. From LTO-3 onwards, LTO Ultrium WORM cartridges enable the

Data sheet Page 2

7, LTO-8) - granted FIPS140-2 Level 1 certification.

creation of compliant, permanent and tamper-proof archives. From LTO-4 onwards, secure AES-256 encryption provides even higher levels of data security and compliance with the most stringent industry regulations to prevent unauthorized data access. From LTO-5 onwards, HPE LTO Ultrium Linear Tape File System makes using tape as easy, flexible, portable and intuitive as using other removable and shareable media, such as a USB drive.

FEATURES

Highest Capacity and Performance of any Comparable Tape Technology

HPE LTO-8 Ultrium can write or read data at a blistering 2.7 TB/hour, storing, encrypting and protecting up to 30 TB on a single cartridge, making it ideal for large-scale, 24×7 , mission-critical IT environments (assumes 2.5:1 compression).

An 85% increase in the number of tracks and a 8% increase in bit density has permitted an increase in capacity from 15 TB for LTO-7 to 30 TB to LTO-8: from 3,584 tracks for LTO-6 to 6,656 tracks for 8th generation HPE LTO-8 Ultrium 30 TB cartridges (assuming 2.5:1 compression).

HPE LTO Ultrium cartridge memory chip delivers faster access time and enhanced media monitoring.

First time restore ensured with fewer media failures and disrupted backups, regardless of duty cycle or environmental conditions.

Ultra-reliable

Tape is more reliable than Enterprise SATA disk. With a BER of 1×10 to the power of 19 for LTO-8 versus 1×10 to the power of 15 for Enterprise SATA HDD's. That's a difference in reliability of four orders of magnitude – e.g. tape is 10,000 times more reliable than Enterprise SATA HDD.

Estimated data loss over 10 years for 1 Exabyte archive is 1.1 Petabytes for HDD compared to only 7.4 Terabytes for tape.

Superior 'smart grabber' mechanism and mechanical interlock to prevent the leader pin from being pulled inside the tape housing. Sensors detect proper connection and prevent leader loss that would ruin the tape. Simplified tape path to reduce wear, tear & build-up of debris (important in automation)

HPE brand qualification test procedures (load/unload, shoeshine, drop testing and environmental stress testing) go far beyond what is required for the LTO Ultrium logo. This ensures maximum reliability for restoring your data.

HPE warrants LTO Ultrium cartridges for up to 30 years archival life. This ensures businesses can meet the ever-increasing demands of regulation for data retention and archiving.

Data sheet Page 3

Secure

 $\label{thm:work-model} \mbox{Wirte-Once-Read-Many (WORM) version provides tamper-proof, compliant data storage.}$

Data encryption for enhanced data security on HPE LTO-4, LTO-5, LTO-6, LTO-7 and LTO-8 Ultrium. Compliance with FIPS 140-2 level 1 security standards.

Value for money

Standardizing on HPE LTO Ultrium delivers the capacity to meet shrinking backup windows, industry-standard, AES 256-bit encryption (IEEE1619.1), and interchangeable RW or WORM media; without extra space or IT resource overhead.

Open standard technology ensures compatibility across product generations and gives you more choice. Cartridges are available as Custom Labeled, Non-Custom Labeled (both Custom and Non Custom include RFID options for some formats) and non-labeled versions.

Data sheet Page 4

Technical specifications

HPE LTO Ultrium Cartridges

Recording technology	LTO-1 Ultrium, LTO-2 Ultrium, LTO-3 Ultrium, LTO-4 Ultrium, LTO-5 Ultrium, LTO-6 Ultrium, LTO-7 Ultrium, LTO-8 Ultrium
Capacity	30 TB Compressed 2.5:1 Maximum, depending on model
Media format	Re-writable and Write-once media
Media labeling	Write-on Labels in box
Quantity per Package	1
Read speed, media	760 MB/sec Maximum, depending on media type
Bit density	525 kbits/inch Maximum, depending on model
Archival life	30 years
Product color	LTO-1 medium blue LTO-2 red LTO-3 yellow LTO-4 green LTO-5 light blue LTO-6 purple, LTO-7 slate blue LTO-8 green
Tape length	960 m Maximum, depending on model
Tape width	12.65 mm
Tape thickness	5.6 um Minimum, depending on model
Base material	Metal Particle Barium Ferrite Depending on media type
Data tracks	6656 Maximum, depending on model
Magnetic coercivity	2850 Oe Maximum, depending on model
Minimum dimensions (H x W x D)	11.3 × 11.1 × 2.1 cm
Weight	0.28 kg
Warranty	Limited Lifetime Warranty.

For additional technical information, available models and options, please reference the QuickSpecs

> Make the right purchase decision. Contact our presales specialists.

Find a partner



Buy now	
Share now	→
Get updates	



HPE POINTNEXT

<u>HPE Pointnextleverages</u> our breadth and depth of technical expertise and innovation to help to accelerate digital transformation. A comprehensive portfolio that includes—Advisory, Professional, and Operational Services is designed to help you evolve and grow today and into the future.

Operational Services

- HPE Datacenter Careoffers a tailored operational support solution built on core deliverables. It includes hardware and software support, a team of experts to help personalize deliverables and share best practices, as well as optional building blocks to address specific IT and business needs.
- **HPE Proactive Care**is an integrated set of hardware and software support including an enhanced call experience with start to finish case management helping resolve incidents quickly and keeping IT reliable and stable.
- HPE Foundation Carehelps when there is a hardware or software problem
 offering several response levels dependent on IT and business requirements.

Advisory Services includes design, strategy, road map, and other services to help enable the digital transformation journey, tuned to IT and business needs. Advisory Services helps customers on their journey to Hybrid IT, Big Data, and the Intelligent Edge.

Professional Serviceshelps integrate the new solution with project management, installation and startup, relocation services, and more. We help mitigate risk to the business so there is no interruption when new technology is being integrated in the existing IT environment.

HPE GREENLAKE

<u>HPE Greenlake</u> is an as-a-service offering that delivers on-demand capacity and planning, combining the agility and economics of public cloud with the security and performance of on-premises IT.

© Copyright 2020 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