HPE StoreEver LTO Ultrium Tape Drives

Meet data protection and storage challenges head-on

What if your storage gave you improved performance, smoother manageability, and better data security? With seven generations of Linear Tape-Open (LTO) technology backing, storing up to 15 TB per cartridge (compressed), HPE StoreEver LTO Ultrium Tape Drives are just what you need. Integrated with HPE TapeAssure for manageability, hardware data encryption, and HPE StoreOpen with Linear Tape File System (LTFS) for ease of use, HPE StoreEver LTO Ultrium Tape Drives enable better data security and faster tape performance, so you get centralized management, easier administrative control, and cost-effective data protection, every day.

HPE StoreEver LTO Ultrium Tape Drives are essential for a good disaster recovery plan and as key media for archiving. The portability of tape allows it to be easily and safely stored offsite. Tape provides the last line of defense against virus, fire, floods, hackers, human error, software bugs, and replicated errors that could otherwise put data at risk.

As Businesses understand that storing, securing, and repurposing data assets are fundamental to their success, the position of tape as the ideal low-cost data archiving solution is being strengthened. Tape media is financially viable, and its long shelf life makes it the smarter medium for long-term storage that helps meet regulatory compliance. The adoption of LTO with LTFS is increasing rapidly in the media and entertainment industry, healthcare and medical imaging, video surveillance, and high-performance computing environments.

HPE-branded LTO Ultrium media enhances performance reliably. Our cartridges pass exhaustive laboratory tests that go beyond the requirements of industry standard logo specifications. Our goal is to provide greater quality for backup and archiving operations and, for restoring your data when you need it most.

Key features and benefits

Designed for long-term, durable data protection, and including a number of unique HPE reliability features, HPE StoreEver LTO Ultrium Tape Drives offer:

Outstanding capacity and performance with monitoring and management capabilities and hardware encryption by:
- Providing up to 15 TB of compressed capacity on a single cartridge

- Offering up to 300 MB/sec native data transfer rate to enable smoother performance for even the tightest backup window

- Providing users with the ability to use standard file operations on tape media for accessing, managing, and sharing files with an interface that behaves just like a hard disk because HPE StoreOpen with LTFS makes tape self-describing, file-based, and easy to use

- Allowing the switch from reactive to proactive management with HPE TapeAssure that monitors drive and media utilization operational performance, and life/health information for drive and media

- Providing highest level of security with hardware data encryption to secure confidential information and addresses compliance quickly, with fewer cartridges

Premium technology for enhanced reliability with:
- Improved uncorrected error rate with LTO-7 to less than 1 error in 10^{19} bits transferred

- Energy efficiency with the LTO-7 hibernate mode

- Data rate matching for enhanced performance

- Leading Mean-Time-Between-Failure (MTBF) of 250,000 hours at 100 percent duty cycle[1]

Connectivity and compatibility
- A wide choice of models including internal, external, and rack mount, all with SAS interface, and wide connectivity to server platform including vendors such as Dell, IBM, and Sun Software compatibility includes an extensive list of supported backup and archiving software applications from HPE, CA, VERITAS

Complete solution straight out-of-the-box
- Provides a complete solution to protect your data with HPE LTO media, cleaning cartridges (with full height drives), and the option to download a free copy of Yosemite Server Backup Basic software with support for hardware data encryption, cables, and documentation

- Offers a secure method for archiving records with WORM data protection capability to help meet industry compliance regulations

[1]HPE internal testing, November 2012

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
Media labeling	Write-on labels in box
Media format	Rewritable and Write-once media
Quantity per package	1 Maximum, depending on model
Capacity	15 TB Compressed 2.5:1 Maximum, depending on model
Read speed	up to 300 MB/sec native Maximum, depending on media type
Product color	LTO-1 medium blue; LTO-2 red; LTO-3 yellow; LTO-4 green; LTO-5 light blue; LTO-7 grey
Tape length	960 m Maximum, depending on model
Tape width (metric)	12.65 mm
Tape thickness	5.6 mm Minimum, depending on model
Base film type	Metal particle or Barium ferrite
Bit density	485.6 Kb/in. Maximum, depending on model
Number of data tracks	3.584 Maximum, depending on model
Magnetic layer coercivity	2500 - 2700 Oe Maximum, depending on model
Archival storage life	30 years
Drive compatibility	Storage Media Compatibility Matrix: hptapecompat.com
Warranty standard statement	Limited lifetime

Technical specifications

HPE StoreEver LTO Ultrium Tape Drives

Recording technology	LTO-2, LTO-3, LTO-4, LTO-5, LTO-6, and LTO-7
Capacity	Up to 15 TB compressed 2.5:1
Transfer rate	Up to 300 MB/sec native
Buffer size	Up to 1024 MB
Host interface	6 Gb/s SAS, 3 Gb/s SAS, (depending on the model)
LTFS Support	LTO-5, LTO-6 and LTO-7
Encryption capability	Yes (LTO-4, and higher generations)
WORM capability	Yes (LTO-3, and higher generations)
Form factor	5.25 inch, full height or half height (depending on the model)
Warranty	3-year, next-day, product exchange, limited warranty, plus 9x5 phone support

The total package—Solution value statements

HPE ProLiant Server and HPE LTO Ultrium Tape Drives
LTO Ultrium Tape Drives are ideal for use with HPE ProLiant servers, providing reliable, affordable data protection for your ProLiant system. With up to 15 TB stored on a single LTO-7 cartridge, these drives provide a balance of price and capacity for medium and enterprise business environments.

HPE Technology Services
HPE Technology Services are the trusted business technology experts who manage your technology in action, because when technology works, business works.

Partner with HPE to boost availability and avoid costly downtime by mitigating technology-related business risks. To help take the worry out of deploying, supporting, and managing your HPE LTO Ultrium Tape Drives storage solution, we've designed a portfolio of service options that are as flexible, scalable, and affordable as our storage.

Better technology, better management

HPE Technology Services helps take the worry out of deploying, supporting, and managing your HPE StoreEver LTO Ultrium storage solution—trust the services professionals at HPE to boost availability and avoid costly downtime.

We recommend
- **3-Year HPE Support Plus 24 Service:** For a higher return on your storage technology, this three-year combined reactive support option delivers integrated onsite hardware/software support services available 24x7

- **HPE Installation Service:** For smooth startup and better business outcomes, this service provides initial hardware installation of your product into your technology environment (system configuration is not included)

The total package—Software

Yosemite Server Backup

Yosemite Server Backup basic backup and recovery software is an easy-to-use application that can be installed in minutes and includes all the features needed to protect a single server. It also includes predefined and customizable media rotation schemes. Up to four parallel data streams keep the Ultrium tape drives streaming. Data encryption can be configured using the easy-to-manage interface. To know more, visit barracudaware.com/ysbbasic

Service and support

HPE Factory Express

HPE Factory Express provides customization and deployment services along with your storage and server purchases. You can customize hardware to your exact specifications in the factory—helping speed deployment. For more information, visit hp.com/go/factoryexpress

Customer technical training

We offer 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 online and/or onsite training. For more information, visit hp.com/learn/storage
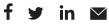
HPE Financial Services

HPE Financial Services provides innovative financing and financial asset management programs to help you acquire, manage, and ultimately retire your HPE solutions. For more information, visit hp.com/go/hpfinancialservices

For more information

If your storage needs reliability, security, scalability, and a roadmap for long-term future capacity, HPE StoreEver LTO Ultrium Tape Drives can take the guess work out of meeting your storage demands. To begin your journey towards smarter, proactive storage, visit hp.com/go/tape.

Hewlett Packard Enterprise