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## Highlights

- Achieve increased capacity
  - Ensure optimal data security
  - Support IBM® Spectrum Archive™
  - Meet stringent Linear Tape-Open (LTO) Ultrium Generation 7 specifications
  - Choose between rewritable and write-once-read-many (WORM) models
  - Use custom, blank and RFID-embedded cartridge labels
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# IBM LTO Ultrium 7 data cartridge

*High-capacity tape media designed for reliability and longevity*

## Overview

With volumes of data growing exponentially—and no end in sight—the IBM LTO Ultrium 7 data cartridge is designed to help organizations protect and preserve more data for longer periods of time. This latest generation of the IBM solution offers more than double the storage capacity of previous generations for long-term data preservation that provides security as it sustains rapid, reliable access to data and helps ensure business resilience.

## Increased capacity

Rapid data growth compounds the need for increased storage capacity. The seventh generation of LTO Ultrium tape media delivers 6 TB native capacity and up to 15 TB of compressed capacity for significantly greater efficiency and performance. This exceptional capacity helps reduce the number of cartridges and the amount of equipment, space and labor associated with tape-based data storage.



### Optimal data security

To comply with regulatory requirements and preserve stakeholder trust, organizations must protect data from unauthorized access and unintentional loss. Tape cartridge portability facilitates remote, offline data storage for superior protection from natural or manmade threats that can impact online or on-site data storage. IBM LTO Ultrium 7 data cartridges are compatible with LTO Ultrium 7 tape drives, which offer device-level data encryption to ensure data privacy and reduce the risk of data corruption due to virus or sabotage. The WORM cartridge model stores data in a non-erasable, non-rewritable format to prevent overwriting of stored data and reduce the risk of data loss due to human error.

### IBM Spectrum Archive support

LTO Ultrium 7 supports tape partitioning and IBM Spectrum Archive, which features IBM Linear Tape File System™ technology, making tape storage an even more compelling solution for the long-term preservation of data. With IBM Spectrum Archive, the data files are indexed to facilitate search and retrieval using disk-like directory tree structures and drag-and-drop techniques to improve the usability of tape solutions. IBM Spectrum Archive allows users and applications to directly retrieve files from tape rather than rely on proprietary, third-party applications, thereby significantly enhancing data access and potentially reducing software licensing costs and dependencies.

<b>Feature</b>	<b>Benefits</b>
<b>6 TB native cartridge capacity Up to 15 TB capacity with 2.5:1 data compression</b>	<ul style="list-style-type: none"><li>• Reduces the number of cartridges and the amount of equipment, space and labor associated with tape-based data storage</li><li>• Drives storage efficiencies and helps contain infrastructure costs</li></ul>
<b>Tape cartridge portability</b>	<ul style="list-style-type: none"><li>• Facilitates remote, offline data storage for superior protection from natural or man-made threats</li><li>• Reduces risk of data loss or corruption</li></ul>
<b>IBM Spectrum Archive support</b>	<ul style="list-style-type: none"><li>• Enables data file search and retrieval using directory tree structures and drag-and-drop techniques</li><li>• Significantly enhances data access and retrieval</li><li>• Potentially reduces or eliminates software licensing costs and dependencies for data retrieval from tape</li></ul>
<b>Adherence to Linear Tape-Open Ultrium 7 standard</b>	<ul style="list-style-type: none"><li>• Ensures compatibility with LTO Ultrium 7 vendors' tape drive and automation products</li><li>• Reduces data storage investment risk by using open standards-based tape technology</li></ul>

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**IBM LTO Ultrium 7 data cartridge at a glance**

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**General characteristics**

Media type	Linear serpentine recording half-inch cartridge
Data capacity	6 TB native Up to 15 TB with 2.5:1 data compression
Cartridge models	LTO Ultrium 7 6 TB rewritable data cartridge LTO Ultrium 7 6 TB non-erasable, non-rewritable WORM cartridge

**Tape characteristics**

Total tape thickness	5.6 $\mu$ (0.00022 in.)
Tape length	960 m (3,149 ft)

**Cartridge characteristics**

Cartridge size (L x W x D)	102.0 mm x 105.0 mm x 21.0 mm (4.0 in. x 4.1 in. x 0.8 in.)
Data cartridge weight	200 g (0.441 lb)
Cleaning cartridge weight	115 g (0.254 lb)

**Safety characteristics**

Toxicity: nonhazardous to human health in anticipated use  
Flammability: self-extinguishing per UL94

**Environmental recommendations**

Operating conditions	10°C - 45°C (50°F - 113°F); 10% - 80% RH; 26°C (79°F) wet bulb maximum
Short-term storage conditions	16°C - 35°C (61°F - 95°F); 20% - 80% RH; 26°C (79°F) wet bulb maximum
Long-term storage conditions	16°C - 25°C (61°F - 77°F); 20% - 50% RH; 26°C (79°F) wet bulb maximum
Shipping conditions	-23°C - 49°C (-9°F - 120°F); 20% - 80% RH; 26°C (79°F) wet bulb max
Cartridge disposal	Classified as nonhazardous waste per EPA regulation 40CFR261; Can be disposed of as normal office trash

**Machine type, Model (Part numbers)**

LTO Ultrium 7 data cartridge	3589-651 (p/n 38L7302)
LTO Ultrium 7 WORM cartridge	3589-671 (p/n 38L7303)
LTO Ultrium universal cleaning cartridge	3589-004 (p/n 35L2086)

**Limited lifetime warranty**

Free from defects in manufacturing and materials defects for the useful life of the product

## Why IBM?

LTO is an open tape architecture developed by a consortium of world-class storage producers. Compatible LTO tape drives and media are available from multiple vendors. Purchasing LTO Ultrium 7 data cartridges from IBM provides peace of mind in sourcing media from a trusted, time-proven tape technology leader.

## For more information

To learn more about the IBM LTO Ultrium 7 data cartridge, please contact your IBM representative or IBM Business Partner, or visit: [ibm.com/systems/storage/media](http://ibm.com/systems/storage/media). You may also contact 1-888-IBM-MEDIA (1-888-426-6334).

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Actual available storage capacity may be reported for both uncompressed and compressed data and will vary and may be less than stated.



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