



# IBM LTO Ultrium 5 1.5 TB Data Cartridge

*High capacity tape media designed for high reliability and long life*

---

## Highlights

- Highest capacity tape cartridge built and tested to stringent LTO™ Ultrium™ Generation 5 specifications
- Provides up to 3 TB (with 2:1 compression) of capacity in a single cartridge
- Available in rewritable and write once, read many cartridge (WORM) models
- Custom as well as blank and RFID-imbedded cartridge labels available
- All models support I/T data encryption standards
- New dual-partition capability designed to enhance the performance of time-encoding applications and support future tape innovations from IBM
- The ideal green storage for data centers, designed for long data retention and archiving with no power required at rest

## Highest capacity LTO cartridge helps optimize your storage requirements

With explosive growth in data, many organizations are struggling to manage, protect, mitigate risk, and maintain rapidly growing information assets while ensuring compliance with industry regulations.

IBM invented the concept of magnetic tape computer storage back in 1952 and continues to lead the industry in tape innovation today. And our latest generation and largest capacity LTO media is designed to help control your massive storage growth and demanding costs requirements associated with backup and archiving.

IBM LTO Ultrium Generation 5 media has been designed to deliver exceptional capacity and reliability at a lower cost per GB than other types of storage medium.

Cartridge capacity of up to 3 TB (at 2:1 compression) helps reduce the number of cartridges and the amount of equipment, space and labor associated with tape-based storage. In addition, it helps reduce the time associated with backup and restore operations by reducing the amount of cartridge handling, further lowering operational costs.

## Features, quality and innovation you demand from IBM

IBM's continuous development of innovative features and reliability assures that IBM LTO cartridges provide not only the highest reliability and data integrity that your business demands, but also support for other critical requirements like data encryption and fast access to data for time-critical applications.





LTO 4 WORM cartridge

The fifth generation of LTO tape media, IBM draws on over 60 years of experience as the inventor and supplier to the world of tape media for computer data storage. The latest generation adds advanced partitioning for specific applications and is the foundation for future innovative tape media capability.

Cartridges have been optimized and tested extensively in IBM LTO tape drives and tape libraries to help maximize performance, data integrity and data longevity. They are designed to withstand the rigors of normal use in both stand-alone and automated environments. Additionally, each cartridge is embedded with an LTO cartridge Memory (LTO-CM) chip, which enables fast, simultaneous transfer of cartridge-dependent data with IBM tape drives during loading and unloading to help further increase reliability. The burgundy cartridge color distinguishes it from previous generations of IBM LTO Ultrium Media in your data center.

IBM LTO Ultrium 5 data cartridges are compatible with LTO Generation 5 tape drives and tape libraries utilizing LTO generation 5 drives from IBM and other LTO generation 5 compliant suppliers.



LTO 4 rewritable cartridge

### Write Once Read Many (WORM) model

IBM LTO Generation 5 tape drives and libraries, which are designed to work with WORM cartridges, store data in a non-erasable, non-rewritable format. This is intended to help support the long-term retention of reference data. LTO Generation 5 hardware encryption complements WORM media to help maintain data integrity. The WORM cartridge is identified by its unique two-tone color and includes advanced security features that are designed to prevent the alteration or deletion of stored data.

### Why IBM LTO?

LTO is an open tape architecture developed by a consortium of three world-class storage producers. Open means availability from multiple vendors. When you purchase your media from IBM, you are purchasing from a time-proven and innovative tape technology leader.

### Sales and support

To locate your nearest source for ordering, support, warranty, or product-related questions regarding the IBM LTO Ultrium 5 1.5 TB GB Data Cartridge, visit [ibm.com/systems/storage/media](http://ibm.com/systems/storage/media). You can obtain custom labeling from the referenced suppliers, as well as a list of country-specific phone numbers.

---

**IBM LTO Ultrium 5 1500 GB Data Cartridge at a glance**

<b>Characteristics</b>	Linear serpentine recording half-inch cartridge
Media Type	Metal Particle (MP)
<b>Cartridge physical capacity</b>	1.5 TB (3 TB with 2:1 compression)
Rewritable cartridge	LTO Ultrium 1.5 TB rewritable Data Cartridge (1500/3 TB*)
WORM cartridge	LTO Ultrium 1.5 TB WORM Cartridge (1500/3 TB*)
<b>Physical and magnetic characteristics</b>	
Substrate	Polyethylene Naphthalate (PEN)
Total tape thickness	0.00025 in (6.4 microns)
Tape length	2776 ft (846 m)
<b>Physical dimensions</b>	
Cartridge size	4.02 in L x 4.15 in W x 0.85 D (102.0 mm x 105.4 mm x 21.5 mm)
Data cartridge weight	0.441 lbs (200 grams)
Cleaning cartridge weight	0.254 lbs (115 grams)
<b>Safety characteristics</b>	Toxicity: Nonhazardous to human health in anticipated use Flammability: Self-extinguishing per UL94
<b>Environmental recommendations</b>	
Operating conditions	50-113° F (10-45° C); 10-80% RH; 79° F (26° C) wet bulb max
Short-term storage conditions	61-95° F (16-35° C); 20-80% RH; 79° F (26° C) wet bulb max
Long-term storage conditions	61-77° F (16-25° C); 20-50% RH; 79° F (26° C) wet bulb max
Shipping conditions	-9 to 120° F (-23 to 49° C); 20-80% RH; 79° F (26° C) wet bulb max
Cartridge disposal	Classified as nonhazardous waste per EPA regulation 40CFR261; can be disposed of as normal office trash
<b>Machine Type, Model (Part numbers)</b>	LTO Ultrium 1.5 TB Data Cartridge 3589-014 (p/n 46X1290) LTO Ultrium 1.5 TB WORM Cartridge 3589-034 (p/n 46X1293) LTO Ultrium Universal Cleaning Cartridge 3589-004 (p/n 35L2086)
<b>Limited lifetime warranty</b>	Free from defects in manufacturing and materials defects for the useful life of the product.

## For more information

To learn more about the IBM LTO Ultrium 5 1.5 TB Data Cartridge, please contact your IBM marketing representative or IBM Business Partner, or visit:

[ibm.com/systems/storage/media](http://ibm.com/systems/storage/media)

Additionally, IBM Global Financing can tailor financing solutions to your specific IT needs. For more information on great rates, flexible payment plans and loans, and asset buy-back and disposal, visit: [ibm.com/financing](http://ibm.com/financing)



---

© Copyright IBM Corporation 2010

IBM Systems and Technology Group  
Route 100  
Somers, NY 10589

Produced in the United States of America  
April 2010  
All Rights Reserved

IBM, the IBM logo, and [ibm.com](http://ibm.com) are trademarks or registered trademarks of International Business Machines Corporation in the United States, other countries or both. If these and other IBM trademarked terms are marked on their first occurrence in this information with a trademark symbol (® or ™), these symbols indicate U.S. registered or common law trademarks owned by IBM at the time this information was published. Such trademarks may also be registered or common law trademarks in other countries. A current list of IBM trademarks is available on the Web at "Copyright and trademark information" at [ibm.com/legal/copytrade.shtml](http://ibm.com/legal/copytrade.shtml).

Linear Tape Open, LTO and Ultrium are trademarks of Hewlett Packard, IBM and Certance in the United States, other countries or both.

Other company, product and service names may be trademarks or service marks of others.

This document could include technical inaccuracies or typographical errors. IBM may make changes, improvements or alterations to the products, programs and services described in this document, including termination of such products, programs and services, at any time and without notice. Any statements regarding IBM's future direction and intent are subject to change or withdrawal without notice, and represent goals and objectives only. The information contained in this document is current as of the initial date of publication only and is subject to change without notice. IBM shall have no responsibility to update such information.

IBM is not responsible for the performance or interoperability of any non-IBM products discussed herein. Performance data for IBM and non-IBM products and services contained in this document was derived under specific operating and environmental conditions. The actual results obtained by any party implementing such products or services will depend on a large number of factors specific to such party's operating environment and may vary significantly. IBM makes no representation that these results can be expected or obtained in any implementation of any such products or services.

\* Assuming 2:1 compressible data



Please Recycle

---