

## IBM LTO Ultrium 4 800 GB Data Cartridge



LTO 4 WORM cartridge



LTO 4 rewritable cartridge

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### Highlights

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- **High-capacity, high-reliability tape cartridge for LTO™ Ultrium™ Generation 4 storage environments**
- **Provides 800 GB storage physical capacity (1.6 TB with 2:1 compression)**
- **Available in rewritable and write once, read many cartridge (WORM) models**
- **Data that is encrypted by LTO Ultrium 4 drives can be stored on both rewritable and WORM media to securely maintain data integrity**
- **Designed to help improve read/write reliability by storing IBM's statistical media read/write analysis on every use of the cartridge when using IBM LTO tape drives**
- **Designed to adhere to widely supported Linear Tape-Open™ (LTO) Ultrium 4 design specifications**
- **Higher capacity per volume requires less library cartridge capacity and helps reduce backup windows by requiring less volume mounts**

### High-capacity media for data storage growth

IBM is delivering high-capacity LTO Generation 4 media that helps provide clients the ability to address the demanding growth in data storage.

Increased cartridge capacity helps reduce the amount of equipment, space and human intervention required for daily tape operations. In addition, it helps reduce the number of cartridges and time associated with backup and restore operations, thus helping lower operational costs.

### Features you need

With the IBM LTO Ultrium 4 800 GB Data Cartridge, IBM continues to focus on providing high quality, high-reliability tape technology for your business. Clients can further protect data by using this high capacity cartridge with LTO 4 encryption enabled drives. These

cartridges continue to be part of a long line of IBM data cartridges designed to improve data integrity for organizations around the world.

The cartridges have been optimized and tested extensively for use in IBM LTO tape drives and libraries to help maximize performance, minimize data loss and improve data longevity. They are designed to withstand rigors of normal use in stand-alone and automated environments. Each cartridge is embedded with an LTO Cartridge Memory (LTO-CM) chip, which is designed to enable fast, simultaneous transfer of cartridge-dependent data with IBM tape drives during media load and unload cycles. The green cartridge color helps distinguish it from previous generations of IBM LTO Ultrium Media.

The IBM LTO Ultrium 4 800 GB Data Cartridge can be used in products featuring LTO Generation 4 tape technology. As your storage needs grow, your data cartridge can continue providing value to help maximize your investment.

#### **Write Once Read Many (WORM) model**

IBM LTO Generation 4 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 4 hardware encryption complements WORM media to help maintain data integrity. The 800 GB 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 4 800 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.

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## IBM LTO Ultrium 4 800 GB Data Cartridge at a glance

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<b>Characteristics</b>	Linear serpentine recording half-inch cartridge
Media Type	Metal Particle (MP)

<b>Cartridge physical capacity</b>	800 GB (1.6 TB with 2:1 compression)
Rewritable cartridge	LTO Ultrium 800 GB rewritable Data Cartridge (800/1.6 TB*)
WORM cartridge	LTO Ultrium 800 GB WORM Cartridge (800/1.6 TB*)

<b>Physical and magnetic characteristics</b>	
Substrate	Polyethylene Naphthalate (PEN)
Substrate thickness	0.00020 in (5.0 microns)
Total tape thickness	0.00026 in (6.6 microns)
Tape length	2690 ft (820 m)
Magnetic coercivity	215,700 A/m or 2710 Oe

<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	50-104° F (10-40° C); 20-80% RH; 79° F (26° C) wet bulb max
Storage conditions	61-90° F (16-32° C); 20-80% 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 800 GB Data Cartridge 3589-011 (p/n 95P4436)
	LTO Ultrium 800 GB WORM Cartridge 3589-033 (p/n 95P4450)
	LTO Ultrium Universal Cleaning Cartridge 3589-004 (p/n 35L2086)

<b>Limited lifetime warranty</b>	Free from defects in workmanship and materials for 5 years
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## For more information

Contact your IBM representative or  
IBM Business Partner or visit:

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



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