



IBM Ultrium 6 Tape Cartridge features

Table of contents

1	Overview	3	Product number
1	Key prerequisites	4	Technical information
1	Planned availability date	5	Terms and conditions
2	Description	5	Pricing

At a glance

New media feature (feature number 8605) with a 5-pack of IBM® Ultrium™ 6 tape cartridges and five unattached loose labels.

Overview

The IBM Ultrium 6 tape cartridge has a physical capacity of up to 6.25 TB with 2.5:1 compression (up to 2.5 TB native capacity). These cartridges can be used in IBM System Storage® Ultrium 6 tape drives, the sixth generation LTO™ Ultrium tape drive in the IBM System Storage LTO Ultrium family of products.

Features of the IBM Ultrium 6 data cartridge include:

- Up to 2.5 TB native capacity in a single compact cartridge
- Up to 16320 bytes cartridge memory built into every data cartridge for enhanced functionality and media reliability by storing access history and media performance information for use by the tape drive every time the cartridge is accessed
- Media feature (feature #8605) with a 5-pack of IBM Ultrium 6 tape cartridges and five unattached loose labels

Note: For optimum reliability, use IBM Ultrium 6 tape cartridges which conform to IBM specifications.

Additional product information and deliverables can be found on the IBM TotalStorage Storage Media website

<http://www.ibm.com/servers/storage/media>

Key prerequisites

IBM Ultrium 6 tape cartridges must be used with Ultrium 6 LTO tape drives, or later.

Refer to the [Technical information](#) section for details.

Planned availability date

December 7, 2012

Description

The IBM Ultrium 6 tape cartridge has a physical capacity of up to 6.25 TB with 2.5:1 compression (up to 2.5 TB native capacity) and can be used in the sixth generation IBM System Storage Ultrium 6 tape drive.

These cartridges have been designed to provide several enhancements over previous tape technologies. They are designed to work with tape drives with increased tape speeds and high-density data recording. The case is specially designed for use in automated libraries and in environments with repeated, unattended handling. The tape itself is a Barium ferrite particle tape developed for durability and capacity.

Features of the IBM Ultrium 6 data cartridge include:

- Up to 2.5 TB native capacity in a single compact cartridge
- Up to 16320 bytes cartridge memory built into every data cartridge for enhanced functionality and media reliability by storing access history and media performance information for use by the tape drive every time the cartridge is accessed
- Media feature (feature #8605) with a 5-pack of IBM Ultrium 6 tape cartridges and five unattached loose labels

Note: For optimum reliability, use IBM Ultrium 6 tape cartridges which conform to IBM specifications.

Additional product information and deliverables can be found on the IBM TotalStorage Storage Media website

<http://www.ibm.com/servers/storage/media>

The IBM System Storage LTO Ultrium 6 tape drive can read and write Ultrium 6 and 5 cartridges.

Ultrium 6 2.5 TB WORM tape cartridges are best for applications such as archiving and data retention, as well as those applications requiring an audit trail, and can be ordered separately as IBM 3589 Ultrium 6 tape cartridges.

Additional Ultrium 6 2.5 TB data cartridges can be ordered separately as IBM 3589 Ultrium 6 tape cartridges with unique bulk and labeling requirements such as:

- Model 550 - IBM Ultrium 6 2.5 TB data cartridge, labeled with starting volume serial information and optionally packed in individual jewel cases
- Model 650 - IBM Ultrium 6 2.5 TB data cartridge, packed in individual jewel cases with two non-attached blank labels
- Model 570 - IBM Ultrium 6 2.5 TB data cartridge, labeled with starting volume serial information and optionally packed in jewel cases, are designed to provide WORM storage on a 2.5 TB capacity cartridge
- Model 670 - IBM Ultrium 6 2.5 TB data cartridge, packed in jewel cases with two non-attached blank labels, are also designed to provide WORM storage on a 2.5 TB capacity cartridge

IBM Ultrium 6 tape cartridges support Linear Tape File System™ (LTFS) partitioning. The principal function of media partitioning is to allow for faster data access by splitting the cartridge into two media partitions. WORM media cannot be partitioned.

IBM LTFS software leverages LTO6 tape partitioning. It is designed to enable a self-describing tape file format, and to deliver an easy tape storage and distribution solution without the use of additional database applications. Customers of IBM LTFS software are those who require a standard tape cartridge format at a low cost and will use stand-alone IBM LTO6 tape drives. IBM LTFS is the perfect solution for those in the media and entertainment industry, and other fields that need massive data storage on tape for long retention periods, such as banking, scientific research, and

government sectors. For further information and list of supported operating systems, refer to the following website

<http://www.ibm.com/tape/ltfs>

IBM maintains the latest levels of System Storage tape drive and library device drivers and documentation on the Internet. Utilize the Fix Central download portal by accessing the following website

<http://www.ibm.com/support/fixcentral>

There are a few pull down menus to navigate to the correct download as follows:

1. In the first pull down menu labeled "Product Group", select "Storage Systems".
 2. In the next pull down menu that appears which is labeled "Product Family", select "Tape Systems".
 3. With the next pull down menu, "Product Type", select "Tape Drivers and Software".
 4. This will bring up the "Product" menu, which provides selections for "Platform drivers, Tools, or Software".
 5. Under "Platform drivers", in order to download your driver, select the correct operating system.
 6. Two more pull down menus will appear with information. Click "Continue".
 7. The next screen can be used to narrow the search, however just click "Continue" to view what is available.
- **LTO Data Compression (LTO-DC):** The Ultrium 6, Ultrium 5, and Ultrium 4 use LTO-DC, which is an implementation of a Lempel-Ziv class 1 (LZ-1) data compression algorithm. LTO-DC is an extension of Adaptive Lossless Data Compression (ALDC) and an improvement over previous IBM lossless compression algorithms. IBM-patented "Scheme-Swapping" compression is designed to look ahead at incoming data and determine the most efficient storage method (either ALDC or pass-thru mode) to help provide optimal data compression and increase data throughput. Compression ratio for LTO Ultrium 6 is 2.5 to 1.
 - **LTO Cartridge Memory (LTO-CM):** Contained within the LTO Ultrium data cartridge is the LTO-CM, which is a passive, contactless silicon storage device that is physically a part of the cartridge. The LTO-CM is designed to hold information about that specific cartridge, the media in the cartridge, and the data on the media. The storage capacity of the Generation 6 LTO-CM is 16320 bytes, double the capacity of Generation 5 and 4 LTO-CM 8160 bytes. Communication between the drive and the LTO-CM is via a low-level radio frequency field transmitted by the drive to the cartridge.

Product number

Description	Machine		
	type	Model	Feature
Ultrium 6 Data Cartridge (5-Pack)	3573	L2U, L4U	8605

Business Partner information

If you are a Direct Reseller - System Reseller acquiring products from IBM, you may link directly to Business Partner information for this announcement. A PartnerWorld ID and password are required (use IBM ID).

<https://www.ibm.com/partnerworld/mem/sla.jsp?num=112-215>

Services

Global Technology Services

IBM services include business consulting, outsourcing, hosting services, applications, and other technology management.

These services help you learn about, plan, install, manage, or optimize your IT infrastructure to be an On Demand Business. They can help you integrate your high-speed networks, storage systems, application servers, wireless protocols, and an array of platforms, middleware, and communications software for IBM and many non-IBM offerings. IBM is your one-stop shop for IT support needs.

For details on available services, contact your IBM representative or visit

<http://www.ibm.com/services/>

For details on available IBM Business Continuity and Recovery Services, contact your IBM representative or visit

<http://www.ibm.com/services/continuity>

For details on education offerings related to specific products, visit

<http://www.ibm.com/services/learning/index.html>

Select your country, and then select the product as the category.

Technical information

Specified operating environment

Compatibility

The IBM Ultrium 6 tape drive can read and write IBM LTO 6 and 5 data cartridges, and read IBM LTO Ultrium 4 data cartridges.

The IBM Ultrium 6 tape cartridges supports the LTO Consortium specification for LTO Generation 6 media.

Planning information

You are responsible for downloading or obtaining from IBM , and installing designated Machine Code (microcode, basic input/output system code (called BIOS), utility programs, device drivers, and diagnostics delivered with an IBM machine) and other software updates in a timely manner from an IBM Internet website or from other electronic media, and following the instructions that IBM provides. You may request IBM to install Machine Code changes; however, you may be charged for that service.

Cable orders

No cables required.

Security, auditability, and control

The customer is responsible for evaluation, selection, and implementation of security features, administrative procedures, and appropriate controls in application systems and communications facilities.

Terms and conditions

MES discount applicable

Equal to the volume commitment discount

Field installable feature

No

Warranty period

This media product is provided with a limited lifetime warranty. It is warranted against manufacturing and materials defects for the useful life of the product.

No extended warranty services are available for this offering.

Customer setup

Yes

Machine code

Same license terms and conditions as base machine

Pricing

Description	Machine type	Model	Feature number
Ultrium 6 Data Cartridge (5-Pack)	3573	L2U,L4U	8605

Feature number	Field install only	Plant install only	MES removal	Cables required
8605	N	Y	N	N

Pricing terms

Prices in the following PDF prices link are suggested list prices on day of announcement for the U.S. only. They are provided for your information only. Dealer prices may vary, and prices may also vary by country. IBM list price does not include tax or shipping and is subject to change without notice.

[ENUS-112-215-LIST_PRICES_2012_12_04.PDF](#)

Trademarks

Linear Tape File System is a trademark of IBM Corporation in the United States, other countries, or both.

IBM and System Storage are registered trademarks of IBM Corporation in the United States, other countries, or both.

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

Terms of use

IBM products and services which are announced and available in your country can be ordered under the applicable standard agreements, terms, conditions, and prices in effect at the time. IBM reserves the right to modify or withdraw this

announcement at any time without notice. This announcement is provided for your information only. Additional terms of use are located at:

<http://www.ibm.com/legal/us/en/>

For the most current information regarding IBM products, consult your IBM representative or reseller, or visit the IBM worldwide contacts page

<http://www.ibm.com/planetwide/us/>