

Ultrium® tape technology with autoloading capabilities for backup, restore and archival solutions



IBM TotalStorage Ultrium Tape 2U Autoloader 3581 featuring LTO Ultrium 2 drives



Highlights

- **Designed to offer leading capacity, performance, and reliability for midrange and network tape storage environments in a new 2U form factor**
- **Designed to provide autoloading capabilities with IBM LTO® Ultrium 2 tape drives, including 2 Gb Fibre Channel and LVD Ultra 160 SCSI**
- **Supports cost-effective backup, save/restore, and archival storage**
- **Designed to provide continuous, easy-to-understand drive information with an LCD status display**
- **Adheres to widely supported Linear Tape-Open® (LTO) design specifications**

IBM TotalStorage Ultrium Tape 2U Autoloader 3581

Today, all types of businesses rely on data as a key corporate asset. You need to access data quickly and reliably, archive large databases and retrieve them when needed, and complete these tasks economically—whether you are using a high-performance network server or an individual workstation.

The IBM® TotalStorage® Ultrium Tape 2U Autoloader 3581 and storage management applications are designed to address capacity, performance, data protection, reliability, availability, affordability, and application requirements. It is designed as a functionally rich entry tape storage solution incorporating LTO Ultrium tape technology. The IBM 3581 is an excellent solution for large-capacity or high-performance tape backup with or without random access. The 3581 models are also an excellent choice for tape automation for IBM @server® pSeries®, RS/6000®, IBM @server iSeries™, AS/400®, IBM @server xSeries® and other open systems.

The IBM TotalStorage Ultrium Tape 2U Autoloader 3581 is well suited for handling backup, save/restore, and archival data storage needs for small-to-medium size environments. With its single Ultrium 2 tape drive and eight tape cartridges, the IBM 3581 is designed to leverage Linear Tape-Open (LTO) technology to cost effectively handle growing storage requirements.

IBM TotalStorage Ultrium 2 Tape Drives has more than double the tape drive performance of the first generation LTO Ultrium Tape Drive and are designed to support up to 35MB/sec native data transfer rates (70MB/sec with 2:1 compression). In addition, with the use of the IBM TotalStorage LTO Ultrium 200GB Data Cartridge, the IBM TotalStorage Ultrium 2 Tape Drive doubles tape cartridge capacity up to 200GB native capacity (400GB with 2:1 compression), providing a 3581 autoloader capacity of up to 3.2TB with 2:1 compression or 1.6TB native. IBM Ultrium 2 Tape Drives are designed to read and write first generation LTO Ultrium Data Cartridges at original capacities and with improved performance. As your needs grow, you can

build on this storage investment by moving to higher capacity and performance automated libraries employing the new IBM Ultrium 2 tape drive technology.

Advanced features

The IBM TotalStorage Ultrium Tape 2U Autoloader 3581, features Low Voltage Differential (LVD) Ultra160 SCSI (Model L28) or native switched 2Gb Fibre Channel (Model F28) drive interfaces and can attach to a wide variety of open system servers.

The Model L28 can also attach to High Volume Differential (HVD) interfaces with an optional HVD converter kit (Feature Code 3104).

The sequential or random access autoloader comes in a standalone base configuration. Additional optional features include rack-mount installation kit, bar code reader and remote management unit. The 3581 also has an LCD display and indicators for power, drive and autoloader activity, error status, and message information.

Software support

You can increase the power of the IBM TotalStorage Ultrium Tape Autoloader 3581 by managing it with tape management solutions such as Tivoli® Storage Manager or other third party storage software.

Why IBM LTO?

LTO is an open tape architecture developed by a consortium of three world-class storage producers. IBM LTO Ultrium drives share best-of-breed technology.

Advanced multi-track recording capabilities, state-of-the-art magneto-resistive (MR) heads, and a sophisticated track following servo system work together to produce extremely high recording densities. New Ultrium 2 drive enhancements include digital speed matching, power management, channel calibration and 512 data tracks. Error correction code (ECC) function helps support data integrity.

IBM and IBM authorized products also provide service and technical support when you invest in an IBM LTO Ultrium solution—including a complete array of servers, software, printers, and storage devices.

IBM TotalStorage Ultrium Tape 2U Autoloader 3581 at a glance

Model numbers	L28-LVD attach; F28-Fibre Channel attach
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Rack-mount feature code	7003
Bar code reader feature code	7004
Remote management unit feature code	1660
HVD converter kit feature code	3104

Characteristics

Tape drive type	IBM LTO Ultrium 2
Number of drives	1
Number of tape cartridges	8
Capacity per cartridge ¹	Up to 400GB per cartridge compressed; 200GB native Up to 3.2TB per autoloader compressed; 1.6TB native
Sustained data transfer rate ¹	Up to 70MB/sec compressed; 35MB/sec native
Aggregate sustained data rate ¹	Up to 247GB/hour compressed
Media type	IBM LTO Ultrium 2
Data cartridge	IBM TotalStorage LTO Ultrium 200GB Data Cartridge (PN 08L9870) IBM TotalStorage LTO Ultrium 200GB Data Cartridge 5-Pack (Feature code 8101)
Cleaning cartridge	IBM TotalStorage LTO Ultrium Cleaning Cartridge (Feature code 8002 or PN 35L2086)
Dimensions	3.4"H x 16.6"W x 26.2"D (86 mm x 321 mm x 665 mm) table top 3.5"H x 19"W x 34"D (89 mm x 483 mm x 864 mm) rack-mount
Weight	12.5 lb (5.7kg)
Warranty	3-year warranty, Customer Replacement Unit (CRU) in most countries ²

Operating environment

Temperature	12° to 35° C (54° to 95° F)
Relative humidity	20% to 80% (non-condensing)
Electrical power	0.7-1.3 amps at 100-240 VAC, 50/60 Hz

Attachment and systems support²

The IBM 3581 features LVD Ultra160 SCSI and 2Gb Fibre Channel interfaces, attaching to IBM @server pSeries, IBM @server iSeries, IBM @server xSeries, RS/6000, RS/6000 SP, AS/400, and IBM Netfinity® systems, and non-IBM servers, workstations, and personal computers.

Operating systems support²

- Native device driver support is available for AIX®, OS/400®, Microsoft® Windows NT®, Windows® 2000, Windows Server 2003, Sun Solaris, HP-UX, Red Hat and United Linux®.
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Media

You can order media for the IBM TotalStorage Ultrium Tape 2U Autoloader 3581 at the time of purchase or from IBM Media, Supplies Distribution, and authorized dealers. Call 1-888-IBM-Media (1-888-426-6334) toll-free in the United States and Canada.

For more information

For more information, contact your IBM representative or IBM Business Partner. For updated attachment, supported operating system, media product, and storage management software information, visit:

ibm.com/storage/lt0

MB, GB and TB equal 1,000,000, 1,000,000,000 and 1,000,000,000,000 bytes, respectively, where referring to storage capacity. Actual storage capacity will vary based upon many factors and may be less than stated. Some numbers given for storage capacities give capacity in native mode followed by capacity using data compression technology.

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¹ Based on 2:1 compression

² One year IBM on-site service in Asia Pacific countries; contact your IBM representative for additional information



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