IBM System Storage TS3200 Tape Library Express Model featuring half-high Ultrium technology

Highlights

- **Designed to support the new IBM Linear Tape-Open™ (LTO™) Ultrium™ 4 Half-High (HH) Tape Drive and the IBM LTO Ultrium 3 HH Tape Drive, to help increase capacity and performance with Low Voltage Differential (LVD) SCSI and 3 Gb Serial Attached SCSI (SAS) attachments**

- **Designed to support cost-effective backup, save and restore and archival storage in sequential or random access mode with a standard bar code reader**

- **IBM Ultrium 4 technology is designed to support encryption of data with 3 Gbps SAS and continues to support write-once, read-many (WORM) operations**

- **Designed to offer outstanding capacity, performance and reliability for midrange and net-work tape-storage environ-ments in a 4U form factor with 48 data cartridge slots and a mail slot**

- **Remote library management through a standard Web inter-face supports flexibility and greater administrative control of storage operations**

The IBM System Storage™ TS3200 Tape Library Express Model, featuring half-high technology and its storage management applications are designed to address capacity, performance, data protection, reliability, availability, afford-ability and application requirements. It is designed as a functionally rich, entry tape-storage solution incorporating LTO Ultrium tape technology. The IBM TS3200 Express model is an excellent solution for large-capacity or high-performance tape backup with or without random access. The TS3200 featuring half-high Ultrium technology is also an excellent choice for tape automation for IBM System p™, IBM System i™, IBM System x™ and other open systems.

The IBM TS3200 Tape Library Express featuring half-high Ultrium technology is well-suited for handling backup, save and restore and archival data-storage needs for small to medium-size environ-ments. With the use of up to four LTO Half-High Tape Drives and 48 tape car-tridge capacity, the IBM TS3200 HH

model is designed to use LTO technology to cost-effectively handle growing storage requirements. The TS3200 Tape Library is configured with four removable cartridge magazines, two on the left side (24 data cartridge slots) and two on the right (24 data cartridge slots). Additionally, the lower left magazine includes a three-slot I/O station to help support continuous library operation while importing and exporting media. A bar-code reader is standard in the library, supporting the library's operation in sequential or random access mode. The TS3200 also comes standard with remote management capabilities to allow for remote administration of the tape library through a Web interface.

The IBM Ultrium 4 technology is designed to support encryption of data. The hardware encryption and decryption core and control core resides in the IBM Ultrium 4 tape drive (available to the TS3200 with the 3 Gbps SAS interface). A larger internal data buffer helps improve data access rates and reduce cartridge fill and rewind times along with dynamic channel calibration to help increase data throughput. In addition to reading and writing to LTO Ultrium 4 tape cartridges, the HH LTO 4 tape drive can read and write to LTO Ultrium 3 cartridges and read LTO Ultrium 2 cartridges. The IBM Ultrium 4 HH tape drive is designed to support up to 120 MBps native data-transfer rates and up to 800 GB native physical capacity when using the IBM System Storage Ultrium 800 GB Data Cartridge (1.6 TB with 2:1 compression). The TS3200 featuring Ultrium 4 HH tape drives has a capacity of up to 38.4 TB native (76.8 with 2:1 compression).

The IBM LTO Ultrium 3 Half-High Tape Drives are designed to support up to 60 MBps native data-transfer rates. In addition, with the use of the IBM TotalStorage® LTO Ultrium 400 GB Data Cartridge, the IBM Ultrium 3 Half-High Tape Drive doubles tape-cartridge physical capacity up to 400 GB native physical capacity (800 GB with a 2:1 compression).
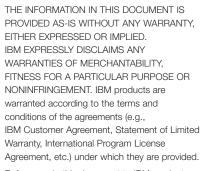
The IBM TS3200 Tape Library Express featuring half-high Ultrium technology features an LVD SCSI or a 3 Gbps SAS interface for HH LTO 3 drives and 3 Gbps SAS interface for HH LTO 4 and can attach to a wide variety of open-system servers. The sequential or random access library comes in a stand-alone or optional rack-mountable configuration. The IBM TS3200 HH also has an LED display and indicators for power, drive and activity, error status and message information.

IBM System Storage TS3200 Tape Library Express Model featuring half-high Ultrium 3 technology at a glance

Drive options	Ultrium 3 Half-High: LVD SCSI (95P4998); 3 Gbps SAS (95P5000) Ultrium 4 Half-High: 3 Gbps SAS (45E2243)
Available models:	3573L34 : TS3200 with LTO-3 HH SCSI tape drive 3573S34 : TS3200 with LTO-3 HH 3 Gbps SAS tape drive 3573S44: TS3200 with LTO-4 HH 3 Gbps SAS tape drive 3573E44: TS3200 with LTO-4 HH 3 Gbps SAS tape drive and rack mount kit (Express Seller)
Optional feature codes	
Rack mount	23R6998
Right-side magazine set	23R6999
Left-side magazine, upper	45E2225
Left-side magazine, lower	45E2231
Tape drive type	IBM LTO Ultrium 3 Half-High; IBM LTO Ultrium 4 Half-High
Number of drives	1-4
Number of tape cartridges	48
Number of mail slots	3
Physical capacity	Up to 1.6 TB per cartridge compressed; 800 GB native Up to 76.8 TB per tape library compressed; 38.4 TB native
Data transfer rate (per drive)	Up to 120 MBps native with LTO Ultrium 4 Half-High Up to 60 MBps native with LTO Ultrium 3 Half-High
Dimensions (W x H x D)	
Stand-alone	17.6 in (447.5 mm) x 7.29 in (185.2 mm) x 31.9 in (810 mm)
Rack-mount	17.6 in (447.5 mm) x 6.89 in (175.2 mm) x 29.13 in (740 mm)
Weight	47 lb (21.3 kg) without rack mount
Operating environment	
Temperature	50 to 113 degrees F, 10 to 45 degrees C
Relative humidity	10% RH to 80% RH (non-condensing)
Electrical power	4.0 amps at 100 V ac, 2.0 amps at 240 V ac 0.1 KVA
Attachment and systems support	The TS3200 Half-High features LVD SCSI and 3 Gb SAS interfaces, attaching to IBM System p, IBM System i, IBM System x, HP-UX, Sun Solaris, UNIX®, Linux® and Windows® servers and non-IBM servers, workstations and personal computers that support the interface specifications.
Operating systems support	Native device-driver support is available for IBM System p, IBM System i, IBM System x, Windows Server® 2003, Sun™ Solaris™, HP-UX, Red Hat and United Linux.

For more information

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