T9940B

TAPE DRIVES

Key benefits

Reduced batch and backup windows

With its native data transfer rate of 30 megabytes per second, the T9940B tape drive helps you store more data in less time to meet your shrinking batch and backup windows.

Increased productivity

The high-capacity T9940B tape drives minimize cartridge mounts, require fewer cartridges to manage for disaster recovery and improve automation efficiency.

Lower storage costs

T9940B tape drives do the work of multiple typical midrange drives. This enables you to minimize extra hardware, reduce SAN complexity and simplify management — all helping to reduce your costs. The native FICON interface reduces FICON configuration costs and complexity.

Lower backup costs

The T9940B drive's low dollar-per-gigabyte media helps you cut your total costs. With data compression, it can store as much as 400–800 gigabytes on a single cartridge.

T9940B tape drives

The capacity-centric T9940B tape drives help you gain control of seemingly boundless storage archival requirements. These drives quickly store hundreds of gigabytes of data on a single cartridge, offering the performance and capacity you need to cost effectively deal with rapidly rising data volumes.

T9940B tape drive

Store up to 200 gigabytes of uncompressed data on a single tape cartridge at rates as high as 30 megabytes per second. With its native two-gigabit Fibre Channel and FICON connectivity, the T9940B is the ultimate solution for data-intensive applications and high-speed SAN and mainframe environments. T9940B tape drives, together with Virtual Storage Manager® (VSM®) system and the StreamLine™ SL8500 modular library system, can maximize your archival capacity with efficiency and reliability.

Standard features

9940 tape cartridge

The 9940 tape cartridge was designed with T9940B tape drives to store up to 200 gigabytes of uncompressed data, or up to 400 gigabytes with 2:1 data compression, on a single cartridge. It features a single reel form factor with a leader block designed for high reliability. Its heavy duty shell with reinforcing cartridge ribs delivers excellent physical protection for fewer damaged cartridges and lower replacement and data recovery costs. This ultra-high capacity makes the 9940 cartridge ideal for your high-volume archiving, backup and disaster recovery applications.

VolSafe® secure media technology support

The T9940B drive supports VolSafe® secure media technology cartridges, a high-capacity, write once, read many (WORM) storage solution. VolSafe technology provides a non-erasable, non-rewritable tape media for archiving critical data.

Compatibility

The T9940B tape drive provides backward read compatibility with cartridges written by T9940A tape drives. It can rewrite tape cartridges written by T9940A tape drives with more than three times the data for extended investment protection. And the T9940B drives complement StorageTek's access-centric T9840C tape drives. Both drives can be combined within the same StorageTek® SL8500 and with Virtual Storage Manager® (VSM®) system to shorten response times for active data while reducing long-term storage costs.

Investment protection

StorageTek's enterprise tape drives are designed to protect your tape media investment. The T9940B drive lets you re-use existing T9940A-written media at the higher speed and capacity of the newer technology.

T9940B tape drives are compatible with StorageTek's Enterprise line of automated tape libraries. Easily adopt and mix new technologies, drives and media types. Enjoy the optimum mix of access and capacity to economically meet customer demands and business objectives — for years to come. Additionally, many StorageTek tape libraries offer Any Cartridge Any Slot™ technology enabling you to mix the access and capacity drives within the same library to meet the multiple demands of business needs.

Engage the storage experts

StorageTek provides world-class service and support with a full range of offerings tailored to meet your business needs. Covering over 50 countries, more than 1,900 service professionals deliver solutions that support more than 17,000 customer data centers worldwide. StorageTek Services offerings help you maintain availability, service your customers, manage growth, reduce your management burden and maximize your return on investment. To find out more about Professional Services offerings and other StorageTek solutions, contact your StorageTek representative or visit www.storagetek.com.

T9940B tape drive specifications

Performance

Access time*	See footnote
Tape load and thread to ready	18 sec (formatted)
Average file access time (first file)	41 sec
Average access time	59 sec
Maximum/average rewind time	90/45 sec
Unload time	18 sec
Data transfer rate, native (uncompressed)	30 MB/sec
Data transfer rate, native (compressed)	70 MB/sec

Capacity

Capacity, native (uncompressed)	200 GB

Availability

Mean time between failures (MTBF)	
Power on	290,000 hr @ 100% duty cycle
Tape load	240,000 hr @ 10 loads/day (100,00 loads)
Tape path motion	196,000 hr @ 70% TPM duty cycle
Head life	8.5 yr @ 70% TPM duty cycle
Uncorrected bit error rate	$1x10^{-18}$
Undetected bit error rate	$1x10^{-33}$

Compatibility

Interface	2-Gb Fibre Channel, ESCON, ESCON for VSM, 2-Gb FICON for FICON and FICON express channels
Burst transfer rate	
Channel rate (Fibre Channel)	200 MB/sec (maximum instantaneous)
Interface (Fibre Channel)	N & NL port, FC-PLDA (Hard and soft AL-PA capability), FC-AL-2 FCP-2, FC-TAPE
Read/write compatibility interface	Proprietary format
Emulation modes	Native, T9940A, 3490E, 3590

Mechanical

Height	3.25 (8.25 cm)
Depth	25.0 in (63.5 cm)

Environmental

Temperature	
Operating	+59° to +90° F (+15° to +32° C)
Non-operating	+59° to +90° F (+15° to +32° C)
Relative humidity	
Operating	20%–80%
Non-operating	10%–95%

Power

Voltage	100–240 VAC @ 50–60 Hz
Power consumption/dissipation (operating maximum continuous — not peak)	82 VA/280 BTU/hr

* The actions of the tape drive can be divided into four distinct phases:

Phase 1: Load time — the amount of time required to insert a cartridge in the drive, load the tape and prepare to read, write or search.

Phase 2: Average file access time — the amount of time required to search from the beginning of the tape to the midpoint; does not include load time.

Phase 3: Maximum rewind time — the amount of time required to rewind the tape from the end to the beginning of the tape. The average rewind time is the time to rewind a tape from the midpoint to the beginning, i.e. one-half of the maximum rewind time.

Phase 4: Unload time — the amount of time required to eject the cartridge from the drive.

StorageTek®

ABOUT STORAGETEK®

Storage Technology Corporation (NYSE: STK) is a $2 billion global company that enables businesses, through its information lifecycle management strategy, to align the cost of storage with the value of information. The company's innovative storage solutions manage the complexity and growth of information, lower costs, improve efficiency and protect investments. For more information, visit www.storagetek.com, or call 1.800.275.4785 or 01.303.673.2800.

WORLD HEADQUARTERS

Storage Technology Corporation
One StorageTek Drive
Louisville, Colorado 80028 USA
1.800.877.9220 or 01.303.673.5151

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