

StorageTek LTO Tape Drives

Overview and Frequently Asked Questions

Overview

Today's continuous business environment requires that you back up more data in less time. Oracle's StorageTek LTO tape drives offer an economical, high-performance option for digital archiving and data protection environments.

Designed with performance and scalability in mind

StorageTek LTO tape drives feature fast data transfer rates and large capacity so you can process more data in less time. The high-speed 8 Gb fibre channel interface further improves data movement, shortens backup windows, reduces downtime, and speeds recovery. Combined with Oracle's StorageTek tape libraries, you can easily and affordably store, manage, and protect your growing data.

Oracle offers StorageTek LTO tape drives in SAS or FC interfaces, full- and half-height platforms, and as single drives or as incremental drives for your automation environment. You choose the model that makes the most sense for your operating environment, application, capacity, and performance.

The StorageTek LTO offering spans the Oracle tape portfolio, from the rack-mount configuration to enterprise automation. Whether your tiered storage solution only requires a few terabytes of tape capacity or 1.2 exabytes uncompressed within a single library, StorageTek LTO8 coupled with StorageTek automation is the complete solution that offers scalability and availability coupled with superior storage management.

Customer Benefits

The LTO tape drive is the industry standard tape drive for digital archiving and data protection. Through superior specifications and an eighth generation release, LTO has become the most widely adopted tape drive in the world.

Receive Value Where It Counts

- **Cost-effective Capacity:** Store up to 12 terabytes of native data (30 TB compressed) on a single cartridge, reducing media costs while accommodating data growth.
- **Reduced Backup Windows:** Accelerate backups by processing more information in less time. The StorageTek LTO8 tape drive moves data at rates as high as 360 MB/s, uncompressed (700 MB/s compressed with FC).
- **Enhanced Data Protection:** Protect data integrity and help prevent data loss with powerful correction and verification capabilities.
- **Encryption Capability:** Encrypt data on the tape cartridge via the drive's built-in data encryption capability and, in the event of tape cartridge loss, data is still protected.

Protect Your Investment with a Solid Upgrade Path

Oracle's StorageTek LTO tape drives support two generations of media backward compatibility so you can make the most of your media investment.

Simplify Storage Management

Oracle's StorageTek LTO tape drives are compatible with leading backup applications and hardware platforms, helping you to stretch your infrastructure investment.

Frequently Asked Questions

For additional resources on Oracle's StorageTek LTO tape drives portfolio, please visit www.oracle.com/goto/tape

Which StorageTek tape libraries support StorageTek LTO tape drives?

StorageTek LTO tape drives are currently available for the following StorageTek tape library platforms:

- StorageTek SL8500 modular library system (StorageTek LTO6, StorageTek LTO7, StorageTek LTO8)
- StorageTek SL3000 and SL4000 modular library systems (StorageTek LTO6, StorageTek LTO7, StorageTek LTO8)
- StorageTek SL150 modular library system (StorageTek LTO6, StorageTek LTO7, StorageTek LTO8)

StorageTek LTO tape drives are also available in rack-mount configurations.

What interface options are available for StorageTek LTO tape drives?

Oracle's StorageTek LTO tape drives are available with the following interface options:

- StorageTek LTO6: 6 Gb SAS, 8 Gb FC
- StorageTek LTO7: 6 Gb SAS, 8 Gb FC
- StorageTek LTO8: 6 Gb SAS, 8 Gb FC

Keep in mind, not all interface options are available across all library platforms. Please consult the StorageTek LTO tape drive product data sheet at www.oracle.com/goto/tape

What media does my LTO drive support?

All LTO tape drives are backward compatible with prior media generations. LTO6 and LTO7 tape drives can read three generations and write to two generations of media. LTO7 tape drives can read LTO5/6/7 media and write to LTO6/7 media. LTO6 tape drives can read LTO4/5/6 media and write to LTO5/6 media. LTO8 tape drives can read LTO7/8 media and write to LTO7/8 media.

What are the differences between full-height (FH) and half-height (HH) drives?

Full-height drives are twice the height (2U) of the half-height drives (1U). There is no difference in capacity or native throughput between half-height and full-height LTO tape drives for LTO6 and LTO7. LTO8 full-height tape drives have a higher maximum transfer rate than half-height drives. However, there are slight differences in average load, seek, rewind, and unload times.

What are the differences between midrange tape drives (LTO) and enterprise tape drives (Oracle's StorageTek T10000 tape drives)?

StorageTek T10000 tape drives are uniquely designed to handle the high availability and enhanced reliability requirements of demanding enterprise archive and backup environments. For more information on enterprise tape drives please visit www.oracle.com/goto/tape.

Can I mix drive generations in my library?

Yes. StorageTek tape libraries support multigenerational drive environments. StorageTek LTO3, StorageTek LTO4, StorageTek LTO5, StorageTek LTO6, and StorageTek LTO7 tape drives can sit side by side in your StorageTek libraries.

Can I mix enterprise drives and LTO drives in my library?

Yes. StorageTek tape libraries support both enterprise StorageTek tape drives and StorageTek LTO tape drives. Oracle's enterprise tape libraries, the StorageTek SL3000 modular tape library and StorageTek SL8500 modular tape library, also support mixing LTO and enterprise tape drive technology.

Do LTO drives support encryption?

Yes. StorageTek LTO6, StorageTek LTO7, and StorageTek LTO8 tape drives are encryption ready. Application-based key management may be used for any of these tape drives, which uses the data path for exchanging encryption keys with the tape drive. Encryption keys may be managed with the Oracle Key Manager (OKM) appliance, which exchanges keys with the tape drive outside the data path for maximum security, if the drive is configured with OKM support (currently available for LTO6 and LTO7 drives).

What is the minimum code level required by StorageTek Automated Cartridge System Library Software (ACSL) to support StorageTek LTO8?

For StorageTek Automated Cartridge System Library Software customers looking to upgrade their drive environments to StorageTek LTO7, the minimum code levels are as follows:

- StorageTek Automated Cartridge System Library Software 8.4: Minimum Code Level – 8.4.0.3

What is the minimum code level required by StorageTek Automated Cartridge System Library Software (ACSL) to support StorageTek LTO7?

For StorageTek Automated Cartridge System Library Software customers looking to upgrade their drive environments to StorageTek LTO7, the minimum code levels are as follows:

- StorageTek Automated Cartridge System Library Software 8.4: Minimum Code Level – 8.4.0

What is the minimum code level required by StorageTek Automated Cartridge System Library Software (ACSL) to support StorageTek LTO6?

For StorageTek Automated Cartridge System Library Software customers looking to upgrade their drive environments to StorageTek LTO6, the minimum code levels are as follows:

- StorageTek Automated Cartridge System Library Software 8.2: Minimum Code Level – 8.2.0

What is the minimum code level required by StorageTek Tape Libraries to support StorageTek LTO8?

For StorageTek Library customers looking to upgrade their drive environments to StorageTek LTO8, the minimum code levels are as follows:

- SL8500: Minimum Code Level for LDI Mode– 8.6x
- SL8500: Minimum Code Level for ADI Mode– 8.6x
- SL4000: Minimum Code Level for LDI Mode– 1.0x
- SL4000: Minimum Code Level for ADI Mode– 1.0x
- SL3000: Minimum Code Level for LDI Mode– 4.5x
- SL3000: Minimum Code Level for ADI Mode– 4.5x

- SL150: Minimum Code Level for LDI Mode– 3.2x

- SL150: Minimum Code Level for ADI Mode– 3.2x

What is the minimum code level required by StorageTek Tape Libraries to support StorageTek LTO7?

For StorageTek Library customers looking to upgrade their drive environments to StorageTek LTO7, the minimum code levels are as follows:

- SL8500: Minimum Code Level for LDI Mode– 8.5x
- SL8500: Minimum Code Level for ADI Mode– 8.5x
- SL4000: Minimum Code Level for LDI Mode– 1.0x
- SL4000: Minimum Code Level for ADI Mode– 1.0x
- SL3000: Minimum Code Level for LDI Mode– 4.32
- SL3000: Minimum Code Level for ADI Mode– 4.32

What is the minimum code level required by StorageTek Tape Libraries to support StorageTek LTO6?

For StorageTek Library customers looking to upgrade their drive environments to StorageTek LTO6, the minimum code levels are as follows:

- SL8500: Minimum Code Level for LDI Mode– 7.70
- SL8500: Minimum Code Level for ADI Mode– 8.02
- SL4000: Minimum Code Level for LDI Mode– 1.0x
- SL4000: Minimum Code Level for ADI Mode– 1.0x
- SL3000: Minimum Code Level for LDI Mode– 3.61
- SL3000: Minimum Code Level for ADI Mode– 4.00

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