

# Sun StorageTek™ LTO Tape Drives



## Highlights

- **Cost-effective capacity** – Store up to 800 gigabytes of native data on a single cartridge, reducing media costs and tape drive requirements while accommodating data growth
- **Reduced backup windows** – Accelerate backups by processing more information in less time. The LTO 4 tape drive moves data at rates as high as 120 megabytes per second, uncompressed.
- **Exceptional performance** – Enhance tape drive performance and product life with speed matching and dual mode compression capabilities
- **Enhanced data protection** – Protect data integrity and help prevent data loss with powerful correction and verification capabilities
- **WORM-capable media integration** – Secure, manage, and archive critical data records using WORM-capable media and LTO 3 and LTO 4 tape drives
- **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



Today's continuous business environment requires that you back up more data in less time. Sun StorageTek™ LTO tape drives offer an economical, high-performance option for midrange tape automation environments.

LTO drives feature fast data transfer rates and large capacity so you can process more data in less time. The high-speed Fibre Channel interface further speeds data movement to shorten backup windows, reduce downtime, and speed recovery. Combined with Sun StorageTek tape libraries and Sun StorageTek L-Series™ Library Admin Software, you can easily and affordably store, manage, and protect your growing data.

Sun offers LTO tape drives in SCSI or FC interfaces, full- and half-height platforms, and as single drives or within an automation environment. You choose the model that makes the most sense for your operating environment, application, capacity point, and performance. The Fibre Channel interface available in automation products allows connections to new or existing SANs. Sun's scalable tape automation solutions were designed to accommodate whatever drive and interface you choose.

### Protect your investment with a solid upgrade path

LTO drives support two generation backward compatibility so you can make the most of your technology investment. Their open format supports a wide variety of media suppliers and automation systems. And the

LTO Compliance Verification Entity, an independent company, verifies interchange across LTO vendors and product generations.

### Simplify storage management

Sun's LTO drives are compatible with leading backup and management software and hardware platforms, helping you to further your infrastructure investment dollars.

Choose Sun StorageTek LTO Ultrium media to accompany your tape purchase. All of our media is thoroughly tested for inter-compatibility between applicable drives and StorageTek libraries.

### Engage the storage experts

Sun StorageTek service professionals help you address storage challenges by delivering integrated services and solutions that optimize and manage storage performance over the life of your data. Our recognized, world-class service and customer care give you confidence that your technology investment is protected and that your business will be responsive to change. Covering over 125 countries, Sun's dedicated storage service professionals can help you gain and sustain measurable results with the reliability and flexibility that you require.

Make your storage solution decisions even stronger with one of the largest selections of high-performance tape media in the industry today. StorageTek tape media features a comprehensive warranty that puts a world-class service organization behind your entire Sun storage solution. So you can have a single source for both quality tape media and reliable service. For easy ordering or to speak with a Sun media sales representative, call 1-877-STK-TAPE.

### Learn more

To learn more about LTO drives, talk with your Sun representative or visit [sun.com/storageitek](http://sun.com/storageitek).

## LTO Tape Drive Specifications

Performance	LTO 2V half-height	LTO 3 half-height	LTO 3	LTO 4
Tape load and thread to ready	<19 sec	19 sec	19 sec	12 sec
Average file access time (first file)	64 sec	70 sec	72 sec	57 sec
Maximum/average rewind time	121/60 sec	135 sec	98/49 sec	106/54 sec
Unload time	<19 sec		19 sec	15 sec
Data transfer rate, native (uncompressed)	24 MB/sec	60 MB/sec	80 MB/sec	120 MB/sec

Capacity	LTO 2V half-height	LTO 3 half-height	LTO 3	LTO 4
Capacity, native (uncompressed)	200 GB	400 GB	400 GB	800 GB

Availability	LTO 2V half-height	LTO 3 half-height	LTO 3	LTO 4
Mean time between failures (MTBF)				
Power on	250,000 hrs @ 100% duty cycle	250,000 hrs @ 100% duty cycle	250,000 hrs @ 100% duty cycle	250,000 hrs @ 100% duty cycle
Head life	60,000 hrs	60,000 hrs	60,000 hrs	60,000 hrs
Uncorrected bit error rate	$1 \times 10^{-17}$	$1 \times 10^{-17}$	$1 \times 10^{-17}$	$1 \times 10^{-17}$
Undetected bit error rate	$1 \times 10^{-27}$	$1 \times 10^{-27}$	$1 \times 10^{-27}$	$1 \times 10^{-27}$

Compatibility	LTO 2V half-height	LTO 3 half-height	LTO 3	LTO 4
Interface (SCSI)	Ultra 160 SCSI	Ultra 320 SCSI LVD	Ultra 320 SCSI	Ultra 320 SCSI
Burst transfer rate	160 MB/sec	180 MB/sec	320 MB/sec	320 MB/sec
Interface (Fibre Channel – automation only)	N/A	N/A	FC (4Gb)	FC (4Gb)
Read/write compatibility interface	LTO 2, LTO 1 (read/write)	LTO 3, LTO 2 read/write, LTO 1 (read only)	LTO 3, LTO 2 read/write, LTO 1 (read only)	LTO 4, LTO 3 read/write, LTO 2 (read only)
Emulation modes	LTO 2	LTO 3	LTO 3	LTO 4

Mechanical	LTO 2V half-height	LTO 3 half-height	LTO 3	LTO 4
<b>Desktop</b>				
Dimensions (W x H x D)	8.8 x 3.0 x 11.7 (inches), 22.35 x 7.62 x 29.71 (cm)	N/A	8.2 x 4.8 x 11.7 (inches), 20.8 x 12.2 x 29.8 (cm)	N/A*
Weight	10.3 lb, 4.67 kg	N/A	11.7 lb, 5.3 kg	
<b>Rackmount</b>				
Dimensions (W x H x D)	16.88 x 1.7 x 25.25 (inches), 42.87 x 4.31 x 64.13 (cm)	19.0 x 1.75 x 25.25 (inches), 48.3 x 4.44 x 64.1 (cm)	16.75 x 3.45 x 20.5 (inches), 42.54 x 8.76 x 52.07 (cm)	N/A*
Weight	21 lb, 9.52 kg	20 lbs., 9.07 kg	1 drive: 54 lb, 24.94 kg/2 drives: 60 lb, 27.21 kg	
<b>Automation</b>				
Dimensions (W x H x D)	5.7 x 1.6 x 8.1 (inches), 14.47 x 4.06 x 20.57 (cm)	N/A	5.7 x 3.3 x 8.2 (inches), 14.47 x 8.38 x 20.82 (cm)	5.7 x 3.3 x 8.0 (inches), 14.47 x 8.38 x 20.82 (cm)
Weight	3.2 lb, 1.45 kg	N/A	4.94 lb, 2.24 kg	4.94 lb, 2.24 kg

Environmental	LTO 2V half-height	LTO 3 half-height	LTO 3	LTO 4
<b>Temperature</b>				
Operating	+50° to +104° F (+10° to +40° C)		+50° to +104° F (+10° to +40° C)	+50° to +100° F (+10° to +38° C)
Non-operating	-40° to +151° F (-40° to +66° C)		-40° to +151° F (-40° to +66° C)	-40° to +140° F (-40° to +66° C)
<b>Relative humidity</b>				
Operating	20% to 80%		20% to 80%	20% to 80%
Non-operating	10% to 95%		10% to 95%	10% to 95%

Power	LTO 2V half-height	LTO 3 half-height	LTO 3	LTO 4
<b>Desktop</b>				
	100-240 VAC 50/60 Hz 0.7A max. Auto-ranging. Power connection IEC 320		100-240 VAC 50/60 Hz 0.8A max. Auto-ranging. Power connection IEC 320	N/A*
<b>Rackmount</b>				
	100-240 VAC 50/60 Hz 2.4A max. Auto-ranging. Power connection IEC 320		+5V @ 3.5A typical +12V @ 1.0A typical +5V @ 4.5A (max.) +12V @ 2.0A (max.)	N/A*
<b>Automation</b>				
	Varies depending on library configuration		Varies depending on library configuration	

\* LTO desktops and rackmounts will be available at a later date.

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