TANDBERG DATA
Securing your Information

Tandberg LTO Half Height Drive

Leading Performance and Capacity

LTO Ultrium is the only industry standard tape drive technology on the market today. The Ultrium LTO format has quickly become the market leader overtaking other proprietary technologies such as DLT and AIT.

The availability of four generations of LTO tape drives simplifies the decision—it is the only option available for low cost requirements where capacity growth potential matches the data growth rates that businesses are facing today.

Since its introduction, LTO has been known as the enterprise-class technology of choice for medium to large size businesses and in medium and large size libraries. Tandberg Data's half-height (HH) LTO brings enterprise-level performance to small and medium businesses at an affordable price. The Tandberg LTO-4 HH, LTO-3 HH and LTO-2 HH feature a Dynamically variable adaptive tape speed to match host data rate from 33-80MB/sec (native) to match host transfer speeds, as well as a state-of-the art Ultra 320 SCSI interface, providing maximum data throughput and reduced backup and restore times. Tandberg Data's LTO drives are backed by more than 25 years of experience in linear tape technology research, design and manufacturing.

The Tandberg LTO half-height drives offer one of the industry's fastest transfer rates with high capacity to minimize backup times, Its compact size, provides simple and easy integration into all servers and workstation. The LTO technology makes it easy for users to standardize on a tape technology that meets today's data capacity requirements and ensures futures growth potential. LTO's six-generation roadmap, with four generations available today makes it a clear choice for small to medium businesses.

Key Benefits

Performance
LTO drives are the fastest midrange drive in the industry with transfer speeds up to 576GB/hr*

Low Total Cost of Ownership (TCO)
Compatibility with previous generations of LTO media for investment protection and high capacity results in lower TCO

High Capacity
With capacities up to 1.6TB compressed today, the LTO roadmap offers a six-generation roadmap with capacities up to 6.4TB*

Reliability
Rock-solid reliability and data integrity with MTBF of 250,000 hrs at 100% duty cycle

Write Once, Read Many (WORM) and Encryption
WORM allows you to store data in a non-erasable, non-amendable format (LTO-3 and LTO-4 only). Protect your data with AES 256-bit Encryption (LTO-4 HH only)

Minimize Downtime
3-year warranty and 3 years of Advanced Replacement Service**

* Assumes a 2:1 compression ratio
** Availability dependent on location

Choose between 3 generations of LTO Half-Height drives for high capacity backup and archiving, with backward compatibility and lowest power consumption in the industry

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Specifications

	Tandberg LTO-2 HH	Tandberg LTO-3 HH	Tandberg LTO-4 HH
Capacity (native/compr.)	200GB / 400GB*	400GB / 800GB	800GB / 1.6TB
Transfer Rate (native/compr.)	24MB/s / 48MB/s*	60MB/s / 120MB/s	80MB/s / 160MB/s
Burst Transfer Rate	160MB/s (with Ultra 160 wide)	320MB/s (with Ultra 320 SCSI WIde Bus)	320MB/s (with Ultra 320 SCSI WIde Bus)
Data Access Speed	64 sec.	70 sec.	70 sec.
Memory Buffer Size	64MB	128MB	128MB
Data Compression	LTO-DC (enhanced version of ALDC)	LTO-DC (enhanced version of ALDC)	LTO-DC (enhanced version of ALDC)
Interface	Ultra 160 SCSI (Wide ultra 3)	Ultra 320 SCSI Wide (native), Serial Attached SCSI 3Gbps	Ultra 320 SCSI Wide (native), Serial Attached SCSI 3Gbps
Recording Format	LTO Ultrium 2, LTO Ultrium 1	LTO Ultrium 3, LTO Ultrium 2, LTO Ultrium 1 (read only)	LTO Ultrium 4, LTO Ultrium 3, LTO Ultrium2 (read only)
Tape speed	5.0 mps	5.0 mps (rewind speed)	5.0 mps (rewind speed)
Media (compressed)	LTO Ultrium 2	LTO Ultrium 3	LTO Ultrium 4
Reliability			
MTBF Hours	250,000 hours @ 100% duty cycle	250,000 hours @ 100% duty cycle	250,000 hours @ 100% duty cycle
Head Life	60,000 tape running hours	60,000 tape running hours	60,000 tape running hours
Hard Error Rate	$1 \times 10^{(-17)}$ bits	$1 \times 10^{(-17)}$ bits	$1 \times 10^{(-17)}$ bits
Media Loading Mechanism	Powered load with precision eject	Powered load with precision eject	Powered load with precision eject
Environmental Specifications			
Temperature (Operating)	10C to 40C (50F to 95F)	10C to 40C (50F to 95F)	10C to 40C (50F to 95F)
Temperature (Non-operating)	-40C to 66C (-40F to 151F)	-40C to 66C (-40F to 151F)	-40C to 66C (-40F to 151F)
Relative Humidity (Operating)	20 to 80% (non-condensing)	20 to 80% (non-condensing)	20 to 80% (non-condensing)
Relative Humidity (Non-operating)	10% to 95% (non-condensing)	10% to 95% (non-condensing)	10% to 95% (non-condensing)
Power Requirements			
Idle	13 W	13 W	13 W
Typical	20 W	20 W	20 W
Maximum	33 W	33 W	33 W
Power Supply/ Required (int)	5V DC, 2.5A, 12 V, 0.7A	5V DC, 2.5A, 12 V, 0.7A	5V DC, 2.5A, 12 V, 0.7A
Certification	CSA Certification to C22.2, No. 60950 (cCSAus), TUV EN60950 (IEC 60950), CE Declaration of Conformity, FCC 47 CFR Parts 15,NOM, VCCI. C-TICK, RRL, BSMI,GOSH CB Certificate and Report (IEC 60950)		
Warranty	3 years Warranty and Advanced Replacement Service**		

* Assumes a 2:1 compression ratio
** Availability dependent on location

Form Factor

Height:	4.1cm (1.6 in)	4.1cm (1.6 in)	4.1cm (1.6 in)
Width:	14.5cm (5.7 in)	14.5cm (5.7 in)	14.5cm (5.7 in)
Length:	20.6cm (8.1 in)	20.6cm (8.1 in)	20.6cm (8.1 in)
Weight:	1.45kg (3.2 lbs)	1.45kg (3.2 lbs)	1.45kg (3.2 lbs)

About Tandberg Data

Tandberg Data is a leading global supplier of backup and archiving technologies. Tandberg Data offers a complete range of tape libraries, tape autoloaders and tape drives (based on the LTO™, SLR™, VXA® tape technology platforms), storage software, data media and disk-based storage such as the RDX™ QuikStor. These solutions are marketed exclusively through a channel of qualified resellers and distributors. These solutions are underpinned by OEM agreements with major server manufacturers including IBM, Hitachi, Fujitsu, Fujitsu-Siemens, Apple and Dell and supported by all major operating systems and storage software applications to operate in heterogeneous network environments. All solutions are designed to meet the growing storage requirements of small and medium-sized organisations with scalability, reliability and backward compatibility features that ensure cost effective operation and long-term investment protection.

DS-3HH_EMEA_2007

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