

# Tandberg Data LTO Half Height Drive

## Leading Performance and Capacity

### Tandberg Data LTO HH tape drives offer the best performance, reliability and value for small and medium-sized business users.

LTO technology makes it easy for users to standardize on a tape technology that meets today's data capacity requirements and can cope with future demands. LTO Ultrium is the industry standard and market leader. The six-generation roadmap ensures that data written today can be restored in later years.

The Tandberg Data family of LTO tape drives is the first choice for data protection for many small and medium-sized businesses with midrange and network storage environments. Tandberg Data LTO HH tape drives are available with a range of capacities, from 400GB\*, 800GB\*, 1.6TB\* or 3TB\*.

Tandberg Data LTO HH tape drives offer industry leading performance up to 1TB/hr\* (280MB/sec\* or 16.8GB/min\*), reducing backup and restore times to a minimum. Tandberg Data provides a range of LTO HH models including internal, external and rackmount configurations, with either SCSI or SAS connectivity.

Tandberg Data LTO HH drives incorporate dynamic variable tape speed matching, allowing drives to constantly adapt speed to match the host/server data rate. This virtually eliminates "backhitching" or "shoe-shining," improving media life and reliability of backup and restore operations while reducing wear and tear on the tape drive. The advance air cooling design combined with low power consumption reduces IT costs and your carbon footprint.

The Tandberg Data LTO-5 HH drive includes a partitioning feature, which allows the tape drive to operate just like a large hard disk. The partitioning feature will greatly simplify archiving and should be of great interest to the video and broadcasting market.

Tandberg Data's extensive product testing program ensures that LTO drives are fully compatible with a wide range of servers, operating systems and backup software. Protect your business data for tomorrow with a Tandberg Data solution today.



## Key Benefits

- High Capacity**  
 Up to 3TB\* of data on a single cartridge
- Leading Performance**  
 Up to 1TB/hr\* reducing backup and restore times
- Lower Storage Costs**  
 LTO offers the lowest storage cost of any medium
- Archiving**  
 LTO provides safe and secure storage of data for up to 30 years
- Reliability**  
 MTBF of 250,000 hrs at 100% duty cycle
- Security**  
 Protect your data with AES 256-bit Encryption (LTO-4 and 5 only)
- Minimize Downtime**  
 3-year warranty and 3-years Advanced Replacement Service\*\*

\* Assumes a 2:1 compression ratio

\*\* Availability dependent on location



Choose between 4 generations of LTO Half-Height drives for high capacity backup and archiving, with backward compatibility and the lowest power consumption in the industry.

**TANDBERG DATA**  
Securing your Information

## Specifications

	Tandberg Data LTO-2 HH	Tandberg Data LTO-3 HH	Tandberg Data LTO-4 HH	Tandberg Data LTO-5 HH
Capacity (native/compr.)	<b>200GB / 400GB*</b>	<b>400GB / 800GB*</b>	<b>800GB / 1.6TB*</b>	<b>1.5TB / 3.0TB*</b>
Transfer Rate (native/compr.)	<b>24MB/s / 48MB/s*</b>	<b>60MB/s / 120MB/s*</b>	<b>80MB/s / 160MB/s*</b>	<b>140MB/s / 280MB/s*</b>
Dynamic Speed Matching	<b>0–24MB/s / 0–40MB/s*</b>	<b>20–60MB/s / 40–120MB/s*</b>	<b>33–80MB/s / 66–160MB/s*</b>	<b>47–140MB/s / 94–280MB/s*</b>
Memory Buffer Size	<b>64MB</b>	<b>128MB</b>	<b>128MB</b>	<b>256MB</b>
Data Access Speed	<b>64 sec.</b>	<b>70 sec.</b>	<b>70 sec.</b>	<b>70 sec.</b>
Interface Type	<b>Ultra 160 SCSI Wide, Serial Attached SCSI 3Gbps</b>	<b>Ultra 320 SCSI Wide, Serial Attached SCSI 3Gbps</b>	<b>Ultra 320 SCSI Wide, Serial Attached SCSI 3Gbps, 4Gb Fibre Channel</b>	<b>Serial Attached SCSI 6Gbps</b>
Interface Connector SCSI	<b>68-pin HD (internal) 68-pin HD (external)</b>	<b>68-pin HD (internal) 68-pin HD (external)</b>	<b>68-pin HD (internal) 68-pin HD (external)</b>	<b>N/A</b>
Interface Connector SAS	<b>SFF8482 (internal)</b>	<b>SFF8482 (internal)</b>	<b>SFF8482 (internal) SFF8088 (external)</b>	<b>SFF8482 (internal) SFF8088 (external)</b>
Data Compression (Enhanced version of ALDC)	<b>LTO-DC</b>	<b>LTO-DC</b>	<b>LTO-DC</b>	<b>LTO-DC</b>
Recording Format	<b>LTO Ultrium 2, LTO Ultrium 1</b>	<b>LTO Ultrium 3, LTO Ultrium 2, LTO Ultrium 1 (read only)</b>	<b>LTO Ultrium 4, LTO Ultrium 3, LTO Ultrium 2 (read only)</b>	<b>LTO Ultrium 5, LTO Ultrium 4, LTO Ultrium 3 (read only)</b>

## Reliability

MTBF Hours (100% duty cycle)	<b>250,000 hours</b>	<b>250,000 hours</b>	<b>250,000 hours</b>	<b>250,000 hours</b>
Head Life	<b>60,000 tape running hours</b>	<b>60,000 tape running hours</b>	<b>60,000 tape running hours</b>	<b>60,000 tape running hours</b>
Hard Error Rate	<b>1 x 10<sup>(-17)</sup> bits</b>	<b>1 x 10<sup>(-17)</sup> bits</b>	<b>1 x 10<sup>(-17)</sup> bits</b>	<b>1 x 10<sup>(-17)</sup> bits</b>

## Environmental Specifications

Temperature (Operating)	<b>10C to 40C (50F to 95F)</b>	<b>10C to 40C (50F to 95F)</b>	<b>10C to 40C (50F to 95F)</b>	<b>10C to 40C (50F to 95F)</b>
Temperature (Non-operating)	<b>-40C to 66C (-40F to 151F)</b>	<b>-40C to 66C (-40F to 151F)</b>	<b>-40C to 66C (-40F to 151F)</b>	<b>-40C to 66C (-40F to 151F)</b>
Relative Humidity (Operating)	<b>20 to 80% (non-condensing)</b>	<b>20 to 80% (non-condensing)</b>	<b>20 to 80% (non-condensing)</b>	<b>20 to 80% (non-condensing)</b>
Relative Humidity (Non-operating)	<b>10% to 95% (non-condensing)</b>	<b>10% to 95% (non-condensing)</b>	<b>10% to 95% (non-condensing)</b>	<b>10% to 95% (non-condensing)</b>

## Power Requirements

Idle	<b>13 W</b>	<b>13 W</b>	<b>13 W</b>	<b>6.9 W</b>
Typical	<b>20 W</b>	<b>20 W</b>	<b>20 W</b>	<b>20 W</b>
Maximum	<b>33 W</b>	<b>33 W</b>	<b>33 W</b>	<b>33 W</b>
Power Supply/ Required (int)	<b>5V DC, 2.5A, 12V, 0.7A</b>	<b>5V DC, 2.5A, 12V, 0.7A</b>	<b>5V DC, 2.5A, 12V, 0.7A</b>	<b>5V DC, 2.5A, 12V, 0.7A</b>
Certification	<b>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)</b>			
Warranty	<b>3-years Warranty and Advanced Replacement Service**</b>			

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\*\* Availability dependent on location

## About Tandberg Data

Tandberg Data is a leading global supplier of data protection solutions. Tandberg Data offers a wide selection of secondary storage solutions, ranging from disk-based solutions, such as the RDX® QuikStor™ and the Tandberg Data DPS Series, to automated tape solutions like the StorageLoader and StorageLibrary Series. Tandberg Data also offers tape drives, based on the DAT, LTO™, SLR™ and VXA® tape technology platforms, and media. Tandberg Data solutions are supported by robust, easy-to-use software. All solutions are supported through a worldwide service and support network, recognised globally for its outstanding levels of service. Tandberg Data 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.

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