

Quantum®

LTO-6/LTO-5



> DATASHEET

Quantum LTO Tape Drive: Now with DATASTOR Shield Deduplication Software

Quantum's LTO-6 and LTO-5 standalone drives deliver a simple, affordable, all-in-one data protection solution that customers can depend on. Many companies can store all their data on a single cartridge, thanks to the tremendous capacity LTO technology provides. In addition, companies can keep this data secure using AES 256-bit encryption as tapes are transported offsite for disaster recovery or long-term archiving. LTO-6 and LTO-5 drives are WORM capable, allowing companies from healthcare, financial, and other related industries to meet tough regulatory requirements. LTO continues to offer two generations of backward read and one generation of backward write capability, providing an archive tape data recovery solution with newer generation drives.

New functionality allows customers to simply drag and drop files to LTO-6 and LTO-5 as they would a hard drive using Linear Tape File System (LTFS) software. This eliminates the need for backup software and allows the information written to tape to be exchanged easily between different users, operating systems, and software. This is highly beneficial for many applications including media and entertainment, geospatial imaging, other video and imaging applications, long-term archiving, and other applications where removing the dependence on a proprietary format is important. LTFS is compatible with Windows, Linux, and Apple Macintosh.

Quantum tape drives now include DATASTOR Shield™ backup software with deduplication to supercharge your backup. Quantum and DATASTOR have teamed up to provide the first backup with deduplication straight to tape. This technology, which reduces backups significantly (up to 20X), allows you to store more data per tape than competitive models.

FEATURES & BENEFITS

Performance*

LTO-6: Up to 400MB/sec compressed transfer rate

LTO-5: Up to 280MB/sec compressed transfer rate

Capacity*

LTO-6: Up to 6.25TB with standard compression; up to 50TB with DATASTOR Shield

LTO-5: Up to 3.0TB with standard compression; up to 30TB with DATASTOR Shield

Security/Ease of Use

AES 256-bit data encryption security, WORM functionality, and partitioning capability

Compatibility

Investment protection with two generations of backward read and one generation of backward write capability

LTFS Software

Free LTFS software can be downloaded at www.quantum.com

Backup with Deduplication

Includes DATASTOR Shield backup software with deduplication; reduces data by up to 20X

**Reduce Data by 20X
with Included Backup Software!**

*Assumes 2.5:1 compression for LTO-6, 2:1 for other LTO, 20:1 deduplication.



> LEARN MORE:
www.quantum.com/lto

TECHNICAL SPECIFICATIONS

DRIVE CAPACITY AND PERFORMANCE

| Drive Type | Interface | Cartridge Capacity Native/Compressed/Deduplicated* (GB) | Drive Throughput Native/Compressed/Deduplicated* (MB/sec) |
|------------|-------------|---|---|
| LTO-6 | 6Gb/sec SAS | 2,500 / 6,250 / 50,000 | 160 / 400 / 3,200 |
| LTO-5 | 6Gb/sec SAS | 1,500 / 3,000 / 30,000 | 140 / 280 / 28,000 |

Configurations: LTO-6: Internal Bare, Internal Kit, Tabletop Kit, and 1U rackmount
LTO-5: Internal Bare, Internal Kit, Tabletop Kit, and 1U rackmount

Interface Connector Type:
6Gb/s SAS

Burst Transfer Rate (MB/sec):
SAS (max) 600

Data Buffer Size:
LTO-6: 512MB
LTO-5: 256MB

BACKUP SOFTWARE

Included Software: DATASTOR Shield Single Server Backup

Deduplication Rate: 20:1 (typical)

Software Compatibility: Windows Only

Backup Methods: Disk-to-disk-to-tape, disk-to-tape, archive-to-tape in native format

Upgradeable: Yes to multiple servers, SQL, Exchange, SharePoint, Bare Metal, Cloud and other functionality

TAPE/FORMAT COMPATIBILITY

| | Media Read/Write | Media Read Only |
|-------------|--------------------------------------|-------------------|
| LTO-6 Drive | LTO-6, LTO-6 WORM, LTO-5, LTO-5 WORM | LTO-4, LTO-4 WORM |
| LTO-5 Drive | LTO-5, LTO-5 WORM, LTO-4, LTO-4 WORM | LTO-3, LTO-3 WORM |

RELIABILITY

MTBF hours: 250,000 @ 100% duty cycle

MSBF: 100,000 cycles

Load/Unload Life: 180,000 cycles

Non-Recoverable Error Rate: 1 in 1×10^{17} bits (non-media error, clean drive)

PHYSICAL SPECIFICATIONS

| Form Factor | Internal w/o bezel | Internal w/bezel | Tabletop | 1U Rackmount |
|-------------------|--------------------|------------------|-------------|--------------|
| Width (in / mm) | 5.75 / 146 | 5.83 / 148 | 8.4 / 213 | 18.7 / 480 |
| Height (in / mm) | 1.61 / 41 | 1.68 / 42.7 | 2.3 / 58 | 1.7 / 43 |
| Length (in / mm) | 8.07 / 205 | 8.27 / 210 | 13.10 / 332 | 17.6 / 438 |
| Weight (lbs / kg) | 3.55 / 1.61 | 3.57 / 1.62 | 9.4 / 4.3 | 14.2 / 6.4 |

ENVIRONMENTAL

OPERATING

Temperature °F (°C): LTO-6: 50° to 100° (10° to 38°) @ 5 CFM
LTO-5: 50° to 100° (10° to 38°) @ 5 CFM

Humidity: 10% to 80% (non-condensing)

Altitude (maximum): 13,000 ft (4,000 m)

NON-OPERATING

Temperature °F (°C): -40° to 149° (-40° to 66°) excluding media

Humidity: 10% to 95% (non-condensing)

VOLTAGE (V): +5, +12

POWER CONSUMPTION (HALF-HEIGHT)

LTO-6: Idle: 13.2 Watts, Typical: 24.7 Watts, Peak: 69 Watts

LTO-5: Idle: 13.3 Watts, Typical: 23.7 Watts, Peak: 69 Watts

TAPE FORMAT SPECIFICATIONS

Format: LTO Ultrium 6, LTO Ultrium 5

Recording Density: 15.143KB/mm

Encoding Method: 16 Channel 32/33 RLL NPML

Data Compression: LTO-6: 2.5:1
LTO-5: 2:1

COMPATIBILITY

Operating Systems: Microsoft Windows, Sun Solaris, Red Hat Linux, SuSE Linux

Software/Hardware: Go to www.quantum.com for the most up-to-date tested solutions

TAPE SPECIFICATIONS

Cartridge Dimensions (LxWxH): 4" x 4.15" x .85"
(102mm x 105.4mm x 21.5mm)

Archive Storage: 30 years

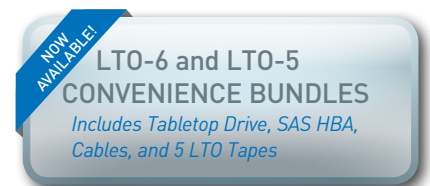
Durability: 20,000 load/unload cycles

WARRANTY

Tape: Limited lifetime

Tape Drive: 3 years limited with Rapid Exchange

*Assumes 2.5:1 compression for LTO-6, 2:1 for other LTO, 20:1 deduplication.



Model Numbers and Descriptions

| | | | |
|----------------------|--|----------------------|--|
| TC-L62AN-BR-C | LTO-6 HH, Internal, 6GB/s SAS, 5.25", black, bare | TC-L52AN-BR-C | LTO-5 HH, Internal, 6GB/s SAS, 5.25", black, bare |
| TC-L62AN-EY-C | LTO-6 HH, Internal, 6GB/s SAS, 5.25", black | TC-L52AN-EY-C | LTO-5 HH, Internal, 6GB/s SAS, 5.25", black |
| TC-L62AN-EZ-C | LTO-6 HH, Internal, SAS HBA Bundle, 6GB/s SAS, 5.25", black | TC-L52AN-EZ-C | LTO-5 HH, Internal, SAS HBA Bundle, 6GB/s SAS, 5.25", black |
| TC-L62BN-AR-C | LTO-6 HH, Tabletop, 6GB/s SAS, black | TC-L52BN-AR-C | LTO-5 HH, Tabletop, 6GB/s SAS, black |
| TC-L62BN-EZ-C | LTO-6 HH, Tabletop, SAS HBA Bundle, 6GB/s SAS, black | TC-L52BN-EZ-C | LTO-5 HH, Tabletop, SAS HBA Bundle, 6GB/s SAS, black |
| TC-L62BN-EM-C | LTO-6 HH, Tabletop, SAS HBA and Media [5pcs] Bundle, 6GB/s SAS, black | TC-L52BN-EM-C | LTO-5 HH, Tabletop, SAS HBA and Media [5pcs] Bundle, 6GB/s SAS, black |
| TC-L63CN-AR-C | LTO-6 HH, Single, 1URackmount, 6GB/s SAS, black | TC-L53CN-AR-C | LTO-5 HH, Single, 1U Rackmount, 6GB/s SAS, black |
| TC-L62GN-BR-C | LTO-6 HH, Internal Drive Option for 1U Rackmount, 6GB/s SAS, black, bare | TC-L52GN-BR-C | LTO-5 HH, Internal Drive Option for 1U Rackmount, 6GB/s SAS, black, bare |

To learn more about Quantum LTO, please visit www.quantum.com/lt0

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