



LTO-6/LTO-5

Quantum LTO Tape Drive:
Best-in-Class Performance and Reliability

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 (up to 6.25TB*) 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.

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

FEATURES AND 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 compressed capacity
LTO-5: Up to 3.0TB compressed capacity
- **Lower Power Consumption**
Ultra low idle power <4W, results in lower power consumption vs. spinning disk
- **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

TECHNICAL SPECIFICATIONS

DRIVE CAPACITY AND PERFORMANCE

Drive Type	Interface	Cartridge Capacity Native/Compressed (GB)	Drive Throughput Native/Compressed (MB/sec)	Average File Access Time (sec)
LTO-6	6Gb/sec SAS	2500 / 6250	160 / 400	50
LTO-5	6Gb/sec SAS	1500 / 3000	140 / 280	50

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
SFF8482 w/integrated power (Internal), SFF8088 (Tabletop and Rack)

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

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

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: 100,000 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 / 146.1	5.87 / 149.1	8.82 / 224	19 / 483
Height (in/mm)	1.64 / 41.65	1.69 / 42.85	3.11 / 79	1.7 / 43
Length (in/mm)	8.11 / 206	8.3 / 211	11.85 / 301	25.3 / 643
Weight (lbs/kg)	3.11 / 1.41	3.2 / 1.45	8.15 / 3.7	20 / 9

ENVIRONMENTAL

OPERATING

Temperature °F (°C): LTO-6: 50° to 104° (10° to 40°) @ 6 CFM, 50° to 95° (10° to 35°) @ 4 CFM
LTO-5: 50° to 104° (10° to 40°) @ 5 CFM
Humidity: 20% 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: 3.8 Watts, Typical: 23.8 Watts, Peak: 31.5 Watts
LTO-5: Idle: 6.5 Watts, Typical: 21.4 Watts, Peak: 30.2 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

NOW AVAILABLE!

LTO-6 and LTO-5 CONVENIENCE BUNDLES
Includes Tabletop Drive, SAS HBA, Cables, and 5 LTO Tapes

Model Numbers and Descriptions

TC-L62AN-BR	LTO-6 HH, Internal, 6GB/s SAS, 5.25", black, bare	TC-L52AN-BR	LTO-5 HH, Internal, 6GB/s SAS, 5.25", black, bare
TC-L62AN-EY	LTO-6 HH, Internal, 6GB/s SAS, 5.25", black	TC-L52AN-EY	LTO-5 HH, Internal, 6GB/s SAS, 5.25", black
TC-L62AN-EZ	LTO-6 HH, Internal, SAS HBA Bundle, 6GB/s SAS, 5.25", black	TC-L52AN-EZ	LTO-5 HH, Internal, SAS HBA Bundle, 6GB/s SAS, 5.25", black
TC-L62BN-AR	LTO-6 HH, Tabletop, 6GB/s SAS, black	TC-L52BN-AR	LTO-5 HH, Tabletop, 6GB/s SAS, black
TC-L62BN-EZ	LTO-6 HH, Tabletop, SAS HBA Bundle, 6GB/s SAS, black	TC-L52BN-EZ	LTO-5 HH, Tabletop, SAS HBA Bundle, 6GB/s SAS, black
TC-L62BN-EM	LTO-6 HH, Tabletop, SAS HBA and Media (5pcs) Bundle, 6GB/s SAS, black	TC-L52BN-EM	LTO-5 HH, Tabletop, SAS HBA and Media (5pcs) Bundle, 6GB/s SAS, black
TC-L63CN-AR	LTO-6 HH, Single, 1URackmount, 6GB/s SAS, black	TC-L53CN-AR	LTO-5 HH, Single, 1U Rackmount, 6GB/s SAS, black

ABOUT QUANTUM

Quantum is a proven global expert in Data Protection and Big Data management, providing specialized storage solutions for physical, virtual and cloud environments. From small businesses to major enterprises, more than 100,000 customers have trusted Quantum to help maximize the value of their data by protecting and preserving it over its entire lifecycle. With Quantum, customers can Be Certain they're able to adapt in a changing world – keeping more data longer, bridging from today to tomorrow, and reducing costs. See how at www.quantum.com/BeCertain.

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