



LTO-5

Quantum's Latest LTO
Tape Drive – Best in Class
Performance and Reliability.

Quantum's LTO-5 standalone tape drives deliver tremendous capacity and performance at an affordable price. LTO-5 tape drives are available in both Full-Height and Half-Height form factors, providing native capacity of up to 1.5TB and native transfer rates of up to 140MB/sec. In addition, they use less power on average than LTO-4 drives, making them a "greener" and more energy efficient solution.

LTO-5 tape drives use the latest industry-standard interface—6 Gb/sec Serial Attached SCSI (SAS)—to allow for easy installation and integration into your data center. Half-Height versions are also available with SAS interface card (HBA) bundle options. Quantum's LTO-5 tape drives also protect your investment by providing backward read and write compatibility with LTO-4 media and backward read compatibility with LTO-3 media.

Quantum's FastSense™ variable speed feature monitors the speed of incoming data and matches the speed at which the drive streams data. The result is that Quantum's LTO-5 tape drives complete backups faster and more efficiently. In addition, Quantum also provides special features like SmartVerify™ to concurrently verify all data written to the tape, virtually eliminating the time consuming verify pass during backup operations.

And with Quantum's LTO-5 tape drives, you can be assured of security with AES 256-bit data encryption. Encryption on LTO-5 drives is hardware based, allowing for the highest level of security without any loss of performance during the encryption process. In addition, LTO-5 is WORM capable when used with LTO WORM data cartridges. And the new partitioning functionality allows tape-aware file searches to address the growing needs of marketplace segments such as Rich Media.

Quantum's LTO-5 FH and HH tape drives are available in server-installable internal, convenient tabletop, or rackmount configurations. Quantum "Backup Ready" certified solutions allow you to go from box-to-backup in minutes with the highly reliable Quantum LTO-5 tape drives, world-class Backup Exec™ QuickStart software and durable Quantum media.

TAPE DRIVE

UP TO 1.5TB NATIVE CAPACITY

UP TO 140MB/SEC NATIVE TRANSFER RATE

AES 256-BIT DATA ENCRYPTION SECURITY AND PARTITIONING

"BACKUP READY" SOLUTION WITH 3-YEAR RAPID EXCHANGE WARRANTY

FEATURES AND BENEFITS

- **Performance** – Up to 140MB/sec native transfer rate
- **Capacity** – Up to 1.5TB native capacity
- **Security/Ease-of-Use** – AES 256-bit data encryption security, WORM functionality, and partitioning capability
- **Compatibility** – Investment protection with backward read/write compatibility to LTO-4 media and backward read compatibility to LTO-3 media
- Quantum offers both Full-Height and Half-Height LTO-5 tape drives to fit all customer requirements.

DRIVE CAPACITY AND PERFORMANCE

Drive Type	Interface	Cartridge Capacity Native/Compressed (GB)	Drive Throughput Native/Compressed (MB/sec)	Average File Access Time (sec)
LTO-5	6 Gb/sec SAS	1500 / 3000	140 / 280	51 (FH), 56 (HH)

Configurations: Internal Bare, Internal Kit, Tabletop Kit, 3U rackmount (full-height) and 1U rackmount (half-height)

Interface Connector Type: 6 Gb/s SAS
SFF8482 w/integrated power (Internal), SFF8088 (Tabletop and Rack)

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

Data Buffer Size 256 MB

TAPE/FORMAT COMPATIBILITY

LTO-5 (read/write): 1500GB native capacity
LTO-5 WORM (read/write): 1500GB native capacity
LTO-4 (read/write): 800GB native capacity
LTO-4 WORM (read/write): 800GB native capacity
LTO-3 (read only): 400GB native capacity
LTO-3 WORM (read only): 400GB native capacity

RELIABILITY

MTBF hours: 250,000 @ 100% duty cycle
MSBF: 100,000 cycles
Load/Unload Life: 120,000 cycles
Non-recoverable Error Rate: 1 in 1×10^{17} bits (non-media error, clean drive)

PHYSICAL SPECIFICATIONS

Full-Height

Form Factor	Internal w/o bezel	Internal w/ bezel	Tabletop
Width (in/mm)	5.75 / 146.1	5.87 / 149.1	8.58 / 218
Height (in/mm)	3.24 / 82.5	3.37 / 85.5	4.72 / 120
Length (in/mm)	8.0 / 203	8.19 / 208	11.69 / 297
Weight (lbs/kg)	4.97 / 2.26	5.06 / 2.3	11.66 / 5.3

Half-Height

Form Factor	Internal w/o bezel	Internal w/ bezel	Tabletop
Width (in/mm)	5.75 / 146.1	5.87 / 149.1	8.82 / 224
Height (in/mm)	1.64 / 41.65	1.75 / 44.65	3.11 / 79
Length (in/mm)	8.11 / 206	8.3 / 211	11.85 / 301
Weight (lbs/kg)	3.11 / 1.41	3.2 / 1.45	8.15 / 3.7

ENVIRONMENTAL

OPERATING

Temperature °F (°C): 50° to 104° (10° to 40°) @ 8 CFM (@ 5 CFM for half-height)
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 (FULL-HEIGHT)

Idle: 6.7 Watts
Typical: 23.1 Watts
Peak: 37.2 Watts

POWER CONSUMPTION (HALF-HEIGHT)

Idle: 6.5 Watts
Typical: 21.4 Watts
Peak: 30.2 Watts

TAPE FORMAT SPECIFICATIONS

Format: LTO Ultrium 5
Recording Density: 15.143 Kb/mm
Encoding Method: 16 Channel 32/33 RLL NPML
Data Compression: ALDC

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 4" x 4.15" x .85"
(LxWxH): (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

Model Numbers and Descriptions

TC-L51AN-BR LTO-5 FH, Internal Bare, 6Gb/s SAS, black bezel
TC-L51BN-AR LTO-5 FH, Tabletop Kit, 6Gb/s SAS, black
TC-L53FN-AR LTO-5 FH, 3U Rackmount, 6Gb/s SAS, black
TC-L52AN-BR LTO-5 HH, Internal, 6Gb/s SAS, 5.25", black, bare
TC-L52AN-EY LTO-5 HH, Internal, 6Gb/s SAS, 5.25", black

TC-L52AN-EZ LTO-5 HH, Internal, SAS HBA Bundle, 6Gb/s SAS, 5.25", black
TC-L52BN-AR LTO-5 HH, Tabletop, 6Gb/s SAS, black
TC-L52BN-EZ LTO-5 HH, Tabletop, SAS HBA Bundle, 6Gb/s SAS, black
TC-L53CN-AR LTO-5 HH, Single, 1U Rackmount, 6Gb/s SAS, black

For contact and product information,
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About Quantum

Quantum Corp. (NYSE:QTM) is the leading global storage company specializing in backup, recovery and archive. Combining focused expertise, customer-driven innovation, and platform independence, Quantum provides a comprehensive range of disk, tape, media and software solutions supported by a world-class sales and service organization. This includes the DXi®-Series, the first disk backup solutions to extend the power of data deduplication and replication across the distributed enterprise. As a long-standing and trusted partner, the company works closely with a broad network of resellers, OEMs and other suppliers to meet customers' evolving data protection needs.