Quantum

LTO Ultrium



> DATASHEET

Meeting the Needs of a Broad Market

WHY CHOOSE QUANTUM LTO ULTRIUM MEDIA

- Quantum's LTO Ultrium media is manufactured to the highest industry standards for quality and reliability—ensuring high performance and durability, whether used for primary backup or long-term archive.
- A pioneer of the LTO Consortium, Quantum is committed to the continued development of the LTO platform. Quantum's comprehensive media quality monitoring and extensive interoperability testing ensures cross-platform compatibility, optimal performance, and reliability whether you're using a Quantum tape drive, library, or other LTO-compatible hardware.
- Quantum's LTO Ultrium media is compliant with all media integrity analysis utilities. You can add another level of protection throughout the lifecycle of your data with the Advanced Media Usage Report and Extended Data Life Management (EDLM) features available in Quantum LTO Ultrium media. Media analysis and usage reports provide a view of the media condition for an entire media pool used within a specific tape library, even those in off-site storage. EDLM is a unique Scalar® automation feature designed to ensure the media integrity of cartridges placed in long-term archival or vaulted storage that are no longer used during normal operations. When your critical data is involved, it's important to have a complete health record of your media.
- LTO Ultrium Write Once, Read Many (WORM) media cartridges are available to meet today's stringent regulatory and compliance requirements. Combined with native AES 256-bit encryption on LTO-8, LTO-7, LTO-6, LTO-5, and LTO-4 drives, WORM cartridges physically prevent data from being overwritten or tampered with once it is written to the device—providing a reliable, accurate, and scalable data integrity solution.
- Quantum's LTO media offering supports your comprehensive, "edge-to-core" backup, recovery, and archive strategy. When you use Quantum media and hardware, you get the added assurance of over 30 years of storage experience and service behind the entire solution.

SAVE TIME AND MONEY WITH QUANTUM'S COMPLIMENTARY VALUE-ADDED SERVICES

Quantum is performing additional process and quality tests on its LTO Ultrium data media, demonstrating our continuing commitment to provide the highest quality LTO media. Quantum Certification focuses on five key user metrics: capacity, transfer rate, servo, and green media characteristics, with specific emphasis on testing the durability of the written data.

Have you ever spent hours unpacking, labeling, and loading media into your library? Why waste IT resources unpacking boxes and labeling cartridges? Your time and your data are valuable. We understand that.

- Allow Quantum to pre-label your data cartridges with your requested bar code label sequences and color scheme. They will arrive ready to load into the library.

No need for individual cartridge cases? No problem! We offer "library packaging" to save you time.

- This eco-friendly bulk packaging option protects cartridges during shipment and storage without the individual cartridge cases. This allows quicker access to the cartridges to expedite loading into automation slots/trays—and it results in less waste.

Combine bar code labeling with library packaging and save even more time!

FEATURES & BENEFITS

High Storage Capacity
Up to 12 TB native and up to 30 TB* compressed

Up to 30-Year Archival Life

Compliant with All Media Integrity Analysis Utilities
Adds another level of data protection

Write Once, Read Many (WORM)
Addresses today's tough regulatory and compliance needs

High Performance
A high-durability non-contact IC memory chip up to 16 KB is built in; this contributes to significant improvement in tape library access and health reporting

Bar Code Labeling and Library Packaging
Available to quickly load automation slots/trays

Over 30 Years of Storage Experience
Demonstrated top performance and innovation in hardware and media products

*Based on 2.5:1 compression (LTO-8, LTO-7, and LTO-6), 2:1 compression (other LTO)

QUANTUM CERTIFIED



> LEARN MORE:
www.quantum.com/lto

TECHNICAL SPECIFICATIONS

BASIC GENERATION SPECIFICATIONS

	Ultrium 8 Ultrium 8 WORM	Ultrium 7[3] Ultrium 7 WORM	Ultrium 6 Ultrium 6 WORM	Ultrium 5 Ultrium 5 WORM	Ultrium 4 Ultrium 4 WORM	Ultrium 3 Ultrium 3 WORM	Ultrium Universal Cleaning
Drive Compatibility	LTO-8 LTO-8 WORM	LTO-7 LTO-7 WORM	LTO-6 LTO-6 WORM	LTO-5 LTO-5 WORM	LTO-4 LTO-4 WORM	LTO-3 LTO-3 WORM	All
Cartridge Color	Brick Red Brick Red/Gray	Purple Purple/Gray	Black Black/Gray	Brick Red Brick Red/Gray	Green Green/Gray	Blue Blue/Gray	Black
Capacity (Native/Compressed)	12/30 TB[1]	6/15 TB[1] (12/22.5 TB[3])	2,500/6,250 GB[1]	1,500/3,000 GB[2]	800/1,600 GB[2]	400/800 GB[2]	Maximum 50 cleanings–drive dependent
Tape Length	960 m (3,150 ft)	960 m (3,150 ft)	846 m (2,776 ft)	846 m (2,776 ft)	820 m (2,690 ft)	680 m (2,231 ft)	319 m (1,046.59 ft)

DIMENSIONS

Tape Width	12.65 mm (0.50 in)
Cartridge Dimensions (W x H x L)	21.5 mm x 105.4 mm x102.0 mm (0.85 in x 4.15 in x 4.02 in)

OPERATING ENVIRONMENT

Temperature	10 °C to 45 °C (50 °F to 113 °F)
Humidity	10% to 80% RH

READ/WRITE COMPATIBILITY

An Ultrium drive can read and write data to prior LTO generations:

Drive Type	LTO-8		LTO-7		LTO-6		LTO-5		LTO-4		LTO-3	
Read/Write Compatible Media	LTO-8	R/W	LTO-7	R/W	LTO-6	R/W	LTO-5	R/W	LTO-4	R/W	LTO-3	R/W
	LTO-7 (M8)	R/W	LTO-6	R/W	LTO-5	R/W	LTO-4	R/W	LTO-3	R/W	LTO-2	R/W
	LTO-7	R/W	LTO-5	R Only	LTO-4	R Only	LTO-3	R Only	LTO-2	R Only	LTO-1	R Only

[3]LTO-8 TYPE M FORMATTED LTO-7 MEDIA

LTO-8 drives include a new format feature enabling customers to increase the capacity of new or unused LTO Ultrium 7 cartridges by up to 50 percent to store 9 TB (uncompressed) or 22.5 TB[1] (compressed) of data. To unlock this additional capacity, customers need an LTO-8 drive with a utility or application to up-format new or unused LTO Ultrium 7 cartridges with properly attached "M8" media ID bar code labels.

STORAGE ENVIRONMENT – NON-ARCHIVE

	Ultrium 8, 7, 6, and 5	Ultrium 4, 3, 2, and Cleaning
Temperature	16 °C to 35 °C (61 °F to 95 °F)	16 °C to 32 °C (61 °F to 90 °F)
Humidity	20% to 80% RH	20% to 80% RH

STORAGE ENVIRONMENT – ARCHIVE

Temperature	16 °C to 25 °C (61 °F to 77 °F)
Humidity	20% to 50% RH

(Not applicable for cleaning cartridge)

LTO ULTRIUM MEDIA PRODUCT SERVICE AND SUPPORT

Quantum LTO Ultrium cartridge tapes are free from defects in material and manufacturing at the time of purchase. This limited lifetime warranty extends to the original end-user purchaser of the product and is not assignable or transferable to any subsequent purchaser or end user. Visit www.quantum.com for more information.

[1] Based on 2.5:1 compression
[2] Based on 2:1 compression

Model Numbers and Descriptions

	Standard	WORM	Bar Code Labeled	Bar Code Labeled – WORM	Library Pack	Bar Code Labeled Library Pack
Ultrium 8	MR-L8MQN-01	MR-L8MQN-02	MR-L8MQN-BC	MR-L8WQN-BC	MR-L8MQN-20	MR-L8LQN-BC
Ultrium 7	MR-L7MQN-01	MR-L7MQN-02	MR-L7MQN-BC	MR-L7WQN-BC	MR-L7MQN-20	MR-L7LQN-BC
Ultrium 6	MR-L6MQN-03	MR-L6WQN-04	MR-L6MQN-BL	MR-L6WQN-BL	MR-L6LQN-LP	MR-L6LQN-BL
Ultrium 5	MR-L5MQN-01	MR-L5MQN-02	MR-L5MQN-BC	MR-L5WQN-BC	MR-L5MQN-20	MR-L5LQN-BC
Ultrium 4	MR-L4MQN-01	MR-L4MQN-02	MR-L4MQN-BC	MR-L4WQN-BC	MR-L4MQN-20	MR-L4LQN-BC
Ultrium 3	MR-L3MQN-01	MR-L3MQN-02	MR-L3MQN-BC	MR-L3WQN-BC	MR-L3MQN-20	MR-L3LQN-BC
Ultrium 2	MR-L2MQN-01		MR-L2MQN-BC			
Ultrium Cleaning	MR-LUCQN-01		MR-LUCQN-BC			

ABOUT QUANTUM

Quantum is a leading expert in scale-out tiered storage, archive, and data protection, providing solutions for capturing, sharing, and preserving digital assets over the entire data lifecycle. From small businesses to major enterprises, more than 100,000 customers have trusted Quantum to address their most demanding data workflow challenges. Quantum's end-to-end, tiered storage foundation enables customers to maximize the value of their data by making it accessible whenever and wherever needed, retaining it indefinitely and reducing total cost and complexity. See how at **www.quantum.com/customerstories**.

©2017 Quantum Corporation. All rights reserved. Linear Tape-Open, LTO, the LTO Logo, Ultrium and the Ultrium Logo are registered trademarks of Hewlett Packard Enterprise, IBM and Quantum in the USA and other countries.

Quantum

www.quantum.com
800-677-6268

DS00383A-v07 Nov 2017