# Quantum®

# LTO Ultrium

## Meeting the Needs of a Broad Market

**INDUSTRY LEADING QUALITY AND RELIABILITY**

**COMPATIBLE WITH QUANTUM AND OTHER BRAND LTO DRIVES AND LIBRARIES**

**COMPLIMENTARY VALUE ADDED SERVICES**

**ONE SOURCE FOR ALL YOUR DATA STORAGE AND SERVICE NEEDS**

## 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 utilized 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, including Quantum's iLayer Advanced Reporting and Extended Data Life Management, to provide ongoing trend data to evaluate and protect the integrity of the media pool, helping administrators improve overall backup reliability and reduce costs. When your critical data is involved, it's important have a complete health record of your media.

- LTO Ultrium WORM (Write Once Read Many) media cartridges are available to meet today's stringent regulatory and compliance requirements. Combined with native AES 256-bit encryption on LTO-4 and LTO-5 drives, WORM cartridges physically prevent data from being overwritten or tampered with, 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.

## QUANTUM OFFERS COMPLIMENTARY VALUE-ADDED SERVICES TO SAVE YOU TIME AND MONEY MANAGING YOUR MEDIA:

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'll 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 AND BENEFITS

- **High Storage Capacity –** Up to 1500GB native and up to 3000GB compressed[1]

- **Fast Transfer Rate –** Up to 280MB/sec[1] for quicker backup and improved cost efficiency

- **Up to 30 year archival life**

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

- **High-Performance –** a high-durability non-contact IC memory chip up to 8KB 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 experience –** Demonstrated top performance and innovation in hardware and media products

|  | Ultrium 5<br>Ultrium 5 WORM | Ultrium 4<br>Ultrium 4 WORM | Ultrium 3<br>Ultrium 3 WORM | Ultrium 2 | Ultrium 1 | Ultrium Universal Cleaning |
|---|---|---|---|---|---|---|
| **BASIC SPECIFICATIONS** | | | | | | |
| Drive Compatibility | LTO-5<br>LTO-5 WORM | LTO-4<br>LTO-4 WORM | LTO-3<br>LTO-3 WORM | LTO-2 | LTO-1 | All |
| Cartridge Color | Brick Red<br>Brick Red/Gray | Green<br>Green/Gray | Blue<br>Blue/Gray | Purple | Black | Black |
| Capacity (Native/Compressed) | 1500/3000GB[1] | 800/1600GB[1] | 400/800GB[1] | 200/400GB[1] | 100/200GB[1] | N/A |
| Number of Tracks | 1280 | 896 | 704 | 512 | 384 | N/A |
| Durability | Average 1,000,000+ head passes in office/computer environment | Average 1,000,000+ head passes in office/computer environment | Average 1,000,000+ head passes in office/computer environment | Average 1,000,000+ head passes in office/computer environment | Average 1,000,000+ head passes in office/computer environment | N/A |
| Uses | Up to 260 full tape uses WORM – Write once, read many, append only tape. Up to 260 full tape uses (Writes, appends or reads) | Up to 260 full tape uses WORM – Write once, read many, append only tape. Up to 260 full tape uses (Writes, appends or reads) | Up to 260 full tape uses WORM – Write once, read many, append only tape. Up to 260 full tape uses (Writes, appends or reads) | Up to 260 full tape uses | Up to 260 full tape uses | Maximum 50 cleanings – drive dependent |
| **PHYSICAL CHARACTERISTICS** | | | | | | |
| Tape Width | 12.65mm (0.50") | 12.65mm (0.50") | 12.65mm (0.50") | 12.65mm (0.50") | 12.65mm (0.50") | 12.65mm (0.50") |
| Tape Thickness | $6.4\mu m$ | $6.6\mu m$ | $8.0\mu m$ | $8.9\mu m$ | $8.9\mu m$ | $8.0\mu m$ |
| Tape Length | 846m (2776') | 820m (2,690') | 680m (2,231') | 609m (1,998') | 609m (1,998') | 319m (1,046.59') |
| Cartridge Dimensions | 21.5×105.4×102.0mm (0.85"×4.15"×4.02") [W × H × L] | 21.5×105.4×102.0mm (0.85"×4.15"×4.02") [W × H × L] | 21.5×105.4×102.0mm (0.85"×4.15"×4.02") [W × H × L] | 21.5×105.4×102.0mm (0.85"×4.15"×4.02") [W × H × L] | 21.5×105.4×102.0mm (0.85"×4.15"×4.02") [W × H × L] | 21.5×105.4×102.0mm (0.85"×4.15"×4.02") [W × H × L] |
| **OPERATING ENVIRONMENT** | | | | | | |
| Temperature | 10 – 45°C (50 – 113°F) | 10 – 45°C (50 – 113°F) | 10 – 45°C (50 – 113°F) | 10 – 45°C (50 – 113°F) | 10 – 45°C (50 – 113°F) | 10 – 45°C (50 – 113°F) |
| Humidity | 10 – 80%RH | 10 – 80%RH | 10 – 80%RH | 10 – 80%RH | 10 – 80%RH | 10 – 80%RH |
| **STORAGE ENVIRONMENT – NON-ARCHIVE** | | | | | | |
| Temperature | 16 – 32°C (61 – 90°F) | 16 – 32°C (61 – 90°F) | 16 – 32°C (61 – 90°F) | 16 – 32°C (61 – 90°F) | 16 – 32°C (61 – 90°F) | 16 – 32°C (61 – 90°F) |
| Humidity | 20 – 80%RH | 20 – 80%RH | 20 – 80%RH | 20 – 80%RH | 20 – 80%RH | 20 – 80%RH |
| **STORAGE ENVIRONMENT – ARCHIVE** | | | | | | |
| Temperature | 16 – 25 °C (61 – 77°F) | 16 – 25 °C (61 – 77°F) | 16 – 25 °C (61 – 77°F) | 16 – 25 °C (61 – 77°F) | 16 – 25 °C (61 – 77°F) | N/A |
| Humidity | 20 – 50%RH | 20 – 50%RH | 20 – 50%RH | 20 – 50%RH | 20 – 50%RH | N/A |

[1] 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 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 | | MR-L2MQN-20 | MR-L2LQN-BC |
| Ultrium 1 | MR-L1MQN-01 | | MR-L1MQN-BC | | | |

# For contact and product information, visit quantum.com or call 800-677-6268

# Quantum.

## Preserving the World's Most Important Data. Yours.™

## About Quantum

Quantum Corp. (NYSE:QTM) is the leading global specialist in backup, recovery, and archive. From small businesses to multinational enterprises, more than 50,000 customers trust Quantum to solve their data protection, retention and management challenges. Quantum's best-of-breed, open systems solutions provide significant storage efficiencies and cost savings while minimizing risk and protecting prior investments. They include three market-leading, highly scalable platforms: DXi®-Series disk-based deduplication and replication systems for fast backup and restore, Scalar® tape automation products for disaster recovery and long-term data retention, and StorNext® data management software for high-performance file sharing and archiving. Quantum Corp., 1650 Technology Drive, Suite 800, San Jose, CA 95110, (408) 944-4000, www.quantum.com.