# Quantum.



# LTO-4 HH

High Performance. Half the Size. Incredible Value.

Quantum's LTO-4 HH tape drive is a half-height tape drive that offers high capacity, 1.6TB (2:1 compressed) and performance, 576GB/hr (2:1 compressed), all in a space saving and energy efficient half-height format. Quantum's LTO-4HH tape drive also provides native AES 256-bit hardware data encryption, providing easy-to-enable security to protect the most sensitive data and prevent unauthorized access of tape cartridges. By using LTO-4 encryption, not only is data fully capable of being compressed therefore maximizing capacity, encrypted backups are completed without a loss in performance.

Quantum's LTO-4 HH tape drives protect your investment by providing backward read and write compatibility with LTO-3 media and backward read compatibility with LTO-2 media. With ultimate reliability and ease of use in mind, even at a 100% duty cycle, Quantum's rugged design builds on superior LTO technology and adds advanced features to create a new level of data protection. Quantum's LTO-4 HH tape drives employ dynamic data rate matching to adjust to the speed of the host, reducing wear and tear on both drive and media and increasing performance, even on slower hosts. The drive also features a ultra-durable soft-load feature that automatically positions the data cartridge, and the highly reliable leader-capture mechanism virtually eliminates lost leaders, increasing the success of your backup and restore operations.

Quantum's LTO-4 HH is available in a server-installable internal, convenient tabletop or space-efficient rackmount configuration.

Quantum "Backup Ready" certified solutions allow you to go from box-to-backup in minutes with the highly reliable Quantum LTO-4 HH tape drive, world-class Backup Exec™ QuickStart software and durable Quantum media.

# TAPE DRIVE

UP TO 1.6TB CAPACITY (2:1 COMPRESSION)

UP TO 576GB/HR TRANSFER RATE (2:1)

AES 256-BIT DATA ENCRYPTION SECURITY FEATURE

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

# FEATURES AND BENEFITS

- **Performance** Transfer rates of 576GB/hr
- Capacity Capacity of 1.6TB 2X LTO-3 HH and the same as the full height LTO-4
- Value Cost-effective half-height design allows for more attractive price point versus full-height drives
- Format/Security Space-saving half-height format, AES 256-bit native encryption, WORM capability
- Compatibility Investment protection with backward read/write compatibility to LTO-3 media and backward read compatibility to LTO-2 media





#### **DRIVE CAPACITY AND PERFORMANCE**

Drive Type	Interface	Cartridge Capacity Native/Compressed (GB)	Drive Throughput Native/Compressed (MB/sec)	Average File Access Time (sec)
LTO-4 HH	3 Gb/sec SAS	800 / 1600	80 / 160	80
LTO-4 HH	Ultra 320 SCSI	800 / 1600	80 / 160	80

Configurations: Interface Connector Type Internal Bare, Internal Kit, Tabletop Kit and 1U Rackmount

3 Gh/s SAS

SFF8482 (Internal), SFF8088 (Tabletop and Rack)

Ultra 320 SCSI: HD68 LVDS

Burst Transfer Rate (MB/sec)
SAS (max): 30

SCSI (max): 320

Data Rate Matching Range: 33 to 80 MB/sec native

Data Buffer Size 128 MI

# **TAPE/FORMAT COMPATIBILITY**

LTO-4 (read/write): 800GB native capacity
LTO-4 WORM (read/write): 800GB native capacity
LTO-3 (read/write): 400GB native capacity
LTO-2 (read/write): 200GB native capacity
LTO-2 (read/write): 200GB native capacity

# **RELIABILITY**

MTBF (hours): 250,000 @ 100% duty cycle

Load/Unload Life: 50,000 cycles

Non-recoverable Error Rate: 1 × 10<sup>17</sup> 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	5.88 / 149.3	8.8 / 223	19.0 / 483
Height (in/mm)	1.63 / 41.7	1.69 / 42.9	3.0 / 77.0	1.75 / 44.4
Length (in/mm)	8.11 / 206	8.3 / 211	11.7 / 295	25.25 / 641
Weight (lbs/kg)	3.0 / 1.36	3.09 / 1.4	10.3 / 4.65	20.0 / 9.1

#### **ENVIRONMENTAL**

**OPERATING** 

 Temperature °F (°C):
 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 150° (-40° to 66°) excluding media

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

**VOLTAGE (V)**: +5VDC, +12VDC (internal); 100-240 VAC 50/60 Hz (external)

POWER CONSUMPTION

Idle:8 WattsTypical:20 WattsPeak:33 Watts

# **TAPE FORMAT SPECIFICATIONS**

Recording Format: LTO Ultrium 4
Recording Density: 13.52 Kb/mm
Encoding Method: 16 Channel PRML

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  $4" \times 4.15" \times .85"$ 

(L×W×H): (102mm × 105.4mm × 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-L42AX-BR-B LTO-4 HH, Internal Bare, SCSI, black bezel
TC-L42AX-EY-B LTO-4 HH, Internal Kit, SCSI, black bezel
TC-L42BX-EY-B LTO-4 HH, Tabletop Kit, SCSI, black
TC-L43CX-EY-B LTO-4 HH, 1U Rackmount, SCSI, black
TC-L42AN-BR-B LTO-4 HH, Internal Bare, SAS, black bezel

TC-L42AN-EY-B LTO-4 HH, Internal Kit, SAS, black bezel
TC-L42AN-EZ-B LTO-4 HH, Internal Kit, SAS with HBA, black bezel

TC-L42BN-EY-B LTO-4 HH, Tabletop Kit, SAS, black
TC-L42BN-EZ-B LTO-4 HH, Tabletop Kit, SAS with HBA, black
TC-L43CN-EY-B LTO-4 HH, 1U Rackmount, SAS, black

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

# **Quantum**

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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.