



# LTO-4 HH

Full Performance. Half The Size.  
Incredible Value.

Quantum's LTO-4 HH tape drive is a half-height tape drive that offers the same performance and reliability as competitors' full-height LTO-4 tape drives, providing a native transfer rate of 432GB/hr and native capacity of up to 800GB. Its simple space saving half-height form factor uses the latest industry standard interface -- Serial Attached SCSI (SAS)-- to allow for easy installation and integration into your datacenter, while providing the same performance as competitors' full-height LTO-4 drives. Quantum's LTO-4 HH tape drives also protect your investment by providing backward read and write compatibility with LTO-3 media and backward read compatibility with LTO-2 media.

Quantum's exclusive FastSense™ variable speed feature has been improved for LTO-4 HH tape drives. The FastSense feature monitors the speed of incoming data and matches the speed at which the drive streams data more effectively than the competitors' LTO drives. The result is that Quantum's LTO-4 HH tape drives complete backups faster, using less power than any other LTO-4 drives available. In addition, Quantum also provides exclusive 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-4 HH drives, security is now at its highest level as drives feature AES 256-bit data encryption. Encryption on LTO-4HH tape drives is hardware based, allowing for the highest level of security without any loss of performance during the encryption process. In addition, LTO-4 HH is WORM capable when used with LTO WORM data cartridges.

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.

UP TO 800GB NATIVE CAPACITY

UP TO 432GB/HR TRANSFER RATE

AES 256-BIT DATA ENCRYPTION  
SECURITY FEATURE

"BACKUP READY" SOLUTION WITH  
3 YEAR RAPID EXCHANGE WARRANTY

## FEATURES AND BENEFITS

- Performance** - Native transfer rates of 432GB/hr – same as competitors' full height LTO-4 drives
- Capacity** - Native capacity of 800GB – 2X LTO-3 HH and the same as other 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		Average File Access Time (sec)
		Native/Compressed <sup>1</sup> (GB)	Drive Throughput Native/Compressed* (MB/sec)	
LTO-4HH	3Gb/s SAS	800 / 1600	120 / 240	55

Configurations: Internal Bare, Internal Kit, Tabletop Kit and 1U Rackmount

Interface Connector Type:

SAS: SFF8088 (Tabletop and 1U Rack), 7-Pin 1X SATA Style (Internal Bare and Internal Kit)

Burst Transfer Rate (MB/sec)

SAS (max): 300

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

**RELIABILITY**

MTBF (hours):	250,000 @ 100% duty cycle
MCBF:	100,000 Load/Thread/Unload
Non-recoverable Error Rate:	1 x 10 <sup>17</sup> bits (non-media error, clean drive)

**PHYSICAL SPECIFICATIONS**

Form Factor	Internal w/o bezel	Internal w/ bezel	Tabletop
Width (in/mm)	5.76 / 146.3	5.87 / 149.1	8.35 / 212.1
Height (in/mm)	1.63 / 41.3	1.7 / 43.1	2.6 / 66.2
Length (in/mm)	8.56 / 217.5	8.76 / 222.57	10.73 / 272.49
Weight (lbs/kg)	3.66 / 1.66	3.72 / 1.69	8.0 / 3.63

**ENVIRONMENTAL**

<b>Operating</b>	
Temperature °F (°C):	50° to 104° (10° to 40°)
Humidity:	80% (non-condensing)
Altitude (ft. maximum):	10,000 feet MSL (at 25°C)
<b>Non-Operating</b>	
Temperature °F (°C):	-40° to 149° (-40° to 66°) excluding media
Humidity (%):	10 to 95 (non-condensing)
Voltage (V):	+5, +12
Power Consumption (W):	Less than 32 W Maximum Peak, Less than 28 W Typical

**TAPE FORMAT SPECIFICATIONS**

Recording Format:	LTO Ultrium 4
Recording Density:	5,120 RLL-encoded ONEs per mm
Encoding Method:	0.13/11 RLL
Data Compression:	ALDZ-2

**COMPATIBILITY**

Operating Systems:	Windows Desktop, Windows Server, Novell NetWare, UNIX, Linux, Mac OS
Software/Hardware:	Go to <a href="http://www.quantum.com">www.quantum.com</a> for the most up-to-date tested solutions

**TAPE SPECIFICATIONS**

Cartridge Dimensions:	4.1" x 4.1" x 1.0" (104.1mmx104.1mmx25.4mm)
Archive Storage:	30 years
Durability:	20,000 load/unload cycles

**WARRANTY**

Tape:	Limited lifetime
Tape Drive:	3 year limited with Rapid Exchange

<sup>1</sup> Based on 2:1 compression

**Model Numbers and Descriptions**

TC-L42AN-BR	LTO-4 HH, Internal Bare, 3Gb/s SAS, black bezel	TC-L42AN-EZ	LTO-4 HH internal SAS HBA Bundle, 3Gb/s SAS, black bezel
TC-L42AN-EY	LTO-4 HH, Internal Kit, 3Gb/s SAS, black bezel	TC-L42BN-EZ	LTO-4 HH Tabletop SAS HBA Bundle, 3Gb/s SAS, black bezel
TC-L42BT-EY	LTO-4 HH, Tabletop Kit, 3Gb/s SAS, black bezel		
TC-L43CT-EY	LTO-4 HH, 1U Rackmount, 3Gb/s SAS, black bezel		

 For contact and product information, visit [quantum.com](http://quantum.com) or call 800-677-6268

**Quantum**<sup>®</sup>

Backup. Recovery. Archive. It's What We Do.

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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. 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.