

PRIMERGY LTO2HH Ultrium Tape Drive

Issue April 18, 2004

Pages 2

The smallest and quickest tape drive in half height: the LTO2HH Ultrium

The new LTO2HH Ultrium tape drive for more storage capacity, reliable data availability, high quality and outstanding performance is ideal for small and medium-sized business environments.

- The LTO2HH Ultrium tape drive offers capacity, performance and reliability, as well as high transfer rates of up to 48 MB/s, and thus sets new standards for compact (HH = half height) high-end drives.
- It is a cost-effective tape drive for backing up, restoring and archiving data.
- Investment protection thanks to read/write compatibility with the other LTO Ultrium generations.

The new generation of tape drives with LTO (Linear Tape Open) technology has been designed for the small and medium-sized business arena. The new LTO2HH Ultrium is an efficient, innovative tape drive with an excellent price/performance ratio. The LTO2HH Ultrium drive achieves transfer rates such as those otherwise only matched by expensive enterprise level devices, yet takes up only half the space. This product sets new standards with a data transfer rate of 173 GB/h and is currently the fastest and most compact tape drive on the market.

The LTO2HH Ultrium tape drive minimizes backup times thanks to its high transfer rate (48 MB/sec.) with 2:1 data compression and a storage capacity of 400 GB per cassette. Its compact size of just 5.25 inches (half height) enables it to be integrated simply in all servers.

The low power consumption of just 18W during operation dispenses with the need for a loud fan without this resulting in thermal problems. As a result, the operational reliability and MTBF are optimized. Thanks to its variable transfer rate, the LTO2HH Ultrium is able to adapt to the host transfer speed. The drive also offers maximum data throughput thanks to the latest Ultra 320 SCSI interface technology. The patented "Smart Gripper" technology supports secure loading of media. The drive includes integrated media management for

intelligent diagnosis of media statuses. Automatic head cleaning ensures preventive maintenance and so fewer downtimes.

The LTO2HH Ultrium drive is backwards-compatible as regards reading and writing and can be scaled with future LTO generations.

Ultrium tape cassettes

Like the LTO tape drive technology itself, the LTO 200/400 GB tape cassettes also offer backups with high capacity, reliability and manageability.



Main features	Customer benefits
Compact size and high transfer rates of up to 48 MB/s.	Fastest and smallest (half height) LTO drive for integration in all servers.
Low power consumption (18 watts) and unique airflow design.	Low power consumption = greater operational reliability.
Adaptation to the host transfer speed thanks to variable transfer rates.	Ensures uninterrupted operation.

Technical Data

Capacity uncompressed	200 GB	
compressed	400 GB	
Buffer size	64 MB	
Transfer rate maximal	uncompressed/compressed	
variable (depending on System performance or Media type)	24 / 48 MB/s 18 / 36 MB/s, 12 / 24 MB/s	
Record format	Ultrium LTO2	
System interface	Ultra160 SCSI Protocol (U320 Chipset)	
Data transfer rate (burst)	160 MB/s	
Number of tracks	512	
Data cassettes	LTO Ultrium 1 + 2	
File access time	76s	
Backward compatible	Read/write compatible with LTO Ultrium 1 + 2	
Data compression	ALDC	
Tape Alert	yes	
Reliability		
MTBF (hours)	250,000	
Hard Read Error Rate	1 x 10 ⁻¹⁷	
Reed Solomon ECC	yes	
Mean Time to repair	<30 minutes	
Tape motion		
Tape speed	LTO 2	LTO 1
Read/write	166ips	172ips
Wind / Rewind	200ips	
Dimension / weight		
Internal drive	42 x 146 x 210 mm	
Height/Wide/depth	1,4 kg	
Weight		
Electricity consumption		
activity input		
Standby	5V 2,1 A	
in operation	12V 0,6 A	
Electricity consumption	6 W standby 18 W typical at Read/Write	
Temperature		
Operation	10° C up to 35° C	
bearing	-40° C up to 60° C	
Relative humidity operation	20% up to 80% C	
Relative humidity bearing	5% up to 90% C	

Compliance with Norm and standards	
Product safety	
Global	IEC 60950
Europe	EN 60950
USA / Canada	UL 60950 C-UL, C22.2 No. 60950
Electro magnetic compatibility	
Europe	EN 55022 Class B; EN 55024
Taiwan	-
Japan	-
Australian / New Zealand	AS/NZS 3548 Class B
USA / Canada	FCC Part 15 Class B / ICES-003 Class B
Declaration of conformity	
Europe (CE)	CE (LVD + EMC)
North America	FCC
Approvals	
Product safety	
Global	-
Europe	TÜV
Germany	TÜV
USA / Canada	ULc/us
There is general compliance with the safety requirements of all European countries and North America. National approvals required in order to satisfy statutory regulations or for other reasons (e.g. for Canada and USA, East European countries, Norway), can be applied for on request.	