

LTO Ultrium

TDK Starting LTO Ultrium 6 Data Cartridge Production

- Development of High-Capacity 6.25 TB Data Cartridge Completed

December 12, 2012

TDK Corporation announced today that it completed development of the LTO Ultrium 6, the sixth-generation LTO (Linear Tape-Open) Ultrium format data cartridges and as of November 20th the cartridges passed the verification testing by the LTO Compliance Verification Entity (CVE). TDK has now started production of the LTO Ultrium Generation 6 data tape cartridges.

TDK has long been an expert in the development of recording media and frequently works in close collaboration with various drive manufacturers during the initial tape and cartridge design stages to develop optimal products for each recording format. It was thanks to this extensive track record that the LTO Ultrium 6 passed the strict verification testing by the CVE.

As symbolized by “Big data”, the volume of data handled by data storage systems in large-scale data centers is to expand enormously, and even higher-capacity, faster data systems are needed. The LTO Ultrium 6, the sixth-generation LTO, realizes a cartridge capacity of 2.5 TB (6.25 TB with 2.5:1 compression) and a high-speed data transfer rate of 160 MB/s (400 MB/s with 2.5:1 compression). LTO Ultrium 6 is an optimal data storage system for high-speed, high-capacity servers in today’s era of large data volumes.

To achieve this tremendous data storage capacity, the LTO Ultrium 6 data cartridge uses tape that is 12.65 mm wide and has 2,176 data tracks (compared to 1,280 tracks for LTO Ultrium 5). As a result, the tape must meet even stricter precision, performance and durability standards.

The LTO Ultrium 6 data cartridge, which TDK recently began production, incorporates cutting-edge magnetic material and tape technologies that TDK, a recording media manufacturer, has accumulated through the development of numerous magnetic recording media including DDS, LTO products. The LTO Ultrium 6 format achieves stable read and write signals by using high-output, ultrafine metal particles designed specifically for LTO Ultrium, ultra-thin, dual-layer tape coating technology that controls the thickness of the magnetic layer on the nanometer order, and a special servo-writer used to write high-precision servo signals.

In addition, a high-precision cartridge mechanism that seeks high-performance and high precision in every component including a high-precision leader pin and a reel hub that enhances the straightness of the drum is used to ensure precise drive linkage.

Thanks to these features and technologies, the TDK LTO Ultrium 6 data cartridge is a highly durable and reliable data storage medium that meets today’s most demanding needs for high capacity and high speed storage solutions.

LTO Ultrium 6 Data Cartridge Specifications

Item		Unit	RW (ReWritable)	WORM (Write Once-Read Many)
Basic specifications	Magnetic material	-	Metal particle	
	Recording capacity	GByte	2,500*	
	Data transfer rate	MB/s	~160*	
	Cartridge color	-	black	black & light gray
Dimensions	External cartridge dimensions		mm	102.0 × 105.4 × 21.5
	Tape	Width	mm	12.65
		Thickness	μm	6.4
		Length	m	846
Operating conditions	Temperature		°C	+10 to +45
	Humidity		%RH	10 to 80**
	Max. wet bulb temperature		°C	+26
Short-term storage conditions***	Temperature		°C	+16 to +35
	Humidity		%RH	20 to 80**
	Max. wet bulb temperature		°C	+26
Long-term storage conditions***	Temperature		°C	+16 to +25
	Humidity		%RH	20 to 50**
	Max. wet bulb temperature		°C	+26

* Without data compression. Capacity and transfer rate will be 2.5 times when compressed.

** Without condensation.

*** Short-term conditions refer to storage up to six months; Long-term conditions refer to storage of more than six months.

(Note1) Do not expose to stray magnetic fields greater than 4000 A/m.

(Note2) Dimensions are nominal.

Linear Tape-Open, LTO, the LTO Logo, Ultrium, and the Ultrium logo are trademarks of Hewlett-Packard, IBM and Quantum in the United States and other countries.

About TDK Corporation

TDK Corporation is a leading electronics company based in Tokyo, Japan. It was established in 1935 to commercialize ferrite, a key material in electronic and magnetic products. TDK's portfolio includes electronic components, modules and systems marketed under the product brands TDK and EPCOS, power supplies, magnetic application products as well as energy devices, flash memory application devices, and others. TDK focuses on demanding markets in the areas of information and communication technology and consumer, automotive and industrial electronics. The company has a network of design and manufacturing locations and sales offices in Asia, Europe, and in North and South

America. In fiscal 2012, TDK posted total sales of USD 9.9 billion and employed about 79,000 people worldwide.

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