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LTO Ultrium 5 Format Sony technology innovations deliver greater reliability to LTO Ultrium 5th generation data cartridge.

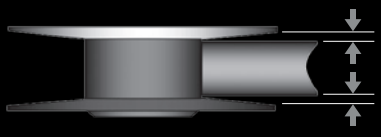
Increased storage breakthrough: 3.0TB* compressed capacity with 280MB/s* transfer speed.

Sony has made breakthrough coating, surface smoothing, and particle innovations in order to reliably deliver on LTO5's impressive 1.5TB native and 3.0TB compressed recording capacity.

Further advancement to a high-performance cartridge.

Sony has developed an innovative reel hub design that maintains an ideal gap between the tape edge and the reel flange to ensure operating stability.

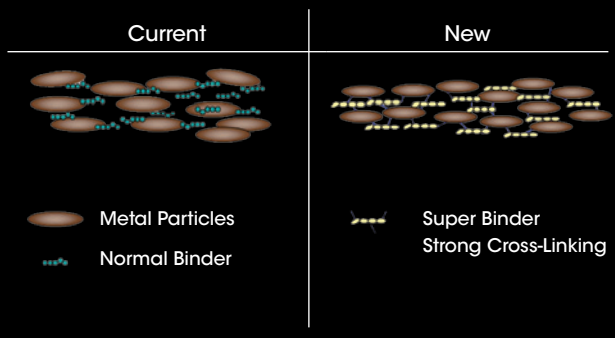
The improvements in coaxiality of the hub and drive rotation axes during operation will give customers peace of mind when using Sony LTO5 cartridges in any LTO5 drive.



*Compression ratio 2:1

New binder system for more stable operation.

With LTO5, Sony has improved on the successful durability and reliability formulation that was engineered for Sony LTO4 cartridges. Adopting a newly developed Strong Binder System with high cross-linking and abrasion-resistant characteristics, this system achieves a remarkable robustness of the magnetic layer, that can withstand more than tens of thousands of passes between the head and the tape. This new binder system also includes a lubrication that helps attain a more stable operation and smooth running under various environments.

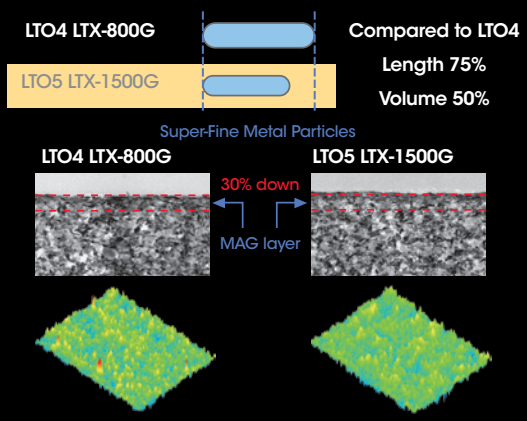


New super-fine metal particles and coating technology.

Each LTO generation requires engineering enhancements in order to reach the higher storage and performance levels. Sony's LTO5 cartridges are adopting newly enhanced super-fine metal particles, which compared to LTO4 cartridges, have been reduced by 75% in length and 50% in volume.

Sony has also developed a new dispersion technology which enables these super-fine metal particles to be evenly homogenized into the magnetic coating material. Together this dispersion and new coating technology deliver an ultra smooth contact surface between the Non-Magnetic and Ultra-Thin Magnetic Layer, allowing for a magnetic layer that is less than 100nm in thickness.

The results are Sony LTO5 cartridges that achieve a +3dB greater signal-to-noise ratio improvement as compared to LTO4 cartridges, for a more stable write/read performance in a variety of drive usage environments.



Sony's eco-friendly LTO.

Sony strives towards developing an environmentally responsible manufacturing process, and Sony LTO manufacturing is no exception. Sony LTO cartridge shells are manufactured with 34% recycled resin made from regenerated polycarbonate materials disposed and collected from Sony group companies. This is helping Sony reduce virgin resin usage by 95* tons per year.

Sony looks at overall environment conservation measures in manufacturing and transportation processes by following the RoHS Directive prohibiting the use of six environment-hazardous substances, viz. Mercury, Cadmium, Lead, Hexavalent-chromium, PBB, and PBDE. (Sony's business establishments** worldwide have obtained ISO14001.)

With the introduction of library packs, Sony further reduced the usage of plastic materials in packaging by 65%†. These form-fitting trays help eliminate the need for individual plastic cases, while reducing shrink-warp waste from individual cartridges. The library packs are ideal for users who require bar coded product and allowing for a quick visual inspection of the content. The space-saving design allows cartridges to be stacked up to 10 tiers high††.

* Based on the actual usage from Jan. to Dec. '09

** Including all of Sony Group's manufacturing and non-manufacturing establishments

† Comparison with the amount of packaging plastics when 20 pieces of a single type of Sony data cartridge are used.

†† Storage condition: 60-95°F (16-35°C), 10 tiered packs with full 20 cartridges.

Future proofing the cartridges for Radio Frequency Identification (RFID) label.

Sony designs LTO5 cartridge with the label area which has enough depth for our customers to attach RFID barcode labels.

Drive/Media Compatibility		Drive Type				
Model	Format	LT01	LT02	LT03	LT04	LT05
LTX100G	LT01	Write/Read	Write/Read	Read	—	—
LTX200G/20LTX200G	LT02	—	Write/Read	Write/Read	Read	—
LTX400G/LTX400W/20LTX400G	LT03	—	—	Write/Read	Write/Read	Read
LTX800G/LTX800W/20LTX800G	LT04	—	—	—	Write/Read	Write/Read
LTX1500G/LTX1500W/20LTX1500G	LT05	—	—	—	—	Write/Read

Mechanical Characteristics LTX1500G/LTX1500W	
Recording Capacity (*Compressed)	1.5TB (3.0TB*)
Maximum Data Transfer Rate (*Compressed)	140MB/s (280MB/s*)
Tape Width (mm)	12.65
Tape Thickness (um)	6.4
Tape Length (m)	846
Magnetic Material	Metal Particle (MP)
Coercivity	230
Electric Resistivity (Magnetic Coating: Ω/sq)	$5x10^5$
Electric Resistivity (Magnetic Coating: Ω/sq)	$1x10^4$
Built-in IC Memory (Byte)	8192
Number of Data Tracks	1280

Dimensions and Weight	
Cartridge Dimensions (mm)	102.0x105.4x21.5
Weight (g)	203 (Cartridge)
Environmental Requirements	
Operation Conditions	(°F(°C);%RH) : 50~113 (10~45); 10~80**
Storage Conditions	(Short term)(°F(°C);%RH) : 60~95 (16~35);20~80
Storage Conditions	(Archive)(°F(°C);%RH) : 60~77 (16~25);20~50
Transportation Conditions	(°F(°C);%RH) : -9~120 (-23~49);5~80**

* Compression ratio 2:1. The actual capacity, compression ratio and data transfer rate may vary depending on equipment, software usage, environments and data. 1TB = 1 trillion bytes

** Maximum wet bulb temperature: No condensation at 79°F(26°C).

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