● Media／Drive Compatibility

Drive		G1 Drive	G2 Drive	G3 Drive	G4 Drive	G5 Drive	G6 Drive
Media	G1	○	○	△	×	×	×
	G2	×	○	○	△	×	×
	G3	×	×	○	○	△	×
	G4	×	×	×	○	○	△
	G5	×	×	×	×	○	○
	G6	×	×	×	×	×	○

○: Able to Read / Write　△: Able to Read Only　×: Not Compatible

● FUJIFILM Brand LTO – Media Specification

LTO Generation		LTO G1	LTO G2	LTO G3 / G3 WORM	LTO G4 / G4 WORM
Basic Specifications	Capacity (Native / Compressed)	100GB(200GB)	200GB(400GB)	400GB(800GB)	800GB(1.6TB)
	Transfer Rate (Native / Compressed)	Up to 20MB/sec. (Up to 40MB/sec.)	Up to 40MB/sec. (Up to 80MB/sec.)	Up to 80MB/sec. (Up to 160MB/sec.)	Up to 120MB/sec. (Up to 240MB/sec.)
	Number of Tracks	384	512	704	896
	Servo Method	Timing-based servo			
	Cartridge Memory	32,768 bits(4,096 bytes); Internal EEPROM			65,280bits(8,160bytes); Internal EEPROM
	Encryption function	—			○
Durability	Tape Running (Nominal)	1,000,000 passes			
	Estimated Archival Life	30 years			
Physical Characteristics	Tape Width	12.65mm			
	Tape Thickness	8.9μm		8.0μm	6.6μm
	Tape Length	609m		680m	820m
	Cartridge Dimensions	H. 102.0 × W. 105.4 × D. 21.5mm			
Operating Environmental Conditions	Temperature	10-45℃			
	Humidity	10-80% (No Dew Condensation)			
	Max. Wet Bulb Temperature	26℃			
Storage Environmental Conditions	Temperature (Short Term / Archival)	16-35℃ / 16-25℃			
	Humidity (Short Term / Archival)	20-80% / 20-50% (No Dew Condensation)			
	Max. Wet Bulb Temperature (Short Term / Archival)	26℃			

LTO Generation		LTO G5 / G5 WORM	LTO G6 / G6 WORM	Universal Cleaning Cartridge*
Basic Specifications	Capacity (Native / Compressed)	1.5TB(3.0TB)	2.5TB(6.25TB)	—
	Transfer Rate (Native / Compressed)	Up to 140MB/sec. (Up to 280MB/sec.)	Up to 160MB/sec. (Up to 400MB/sec.)	—
	Number of Tracks	1,280	2,176	—
	Servo Method	Timing-based servo		—
	Cartridge Memory	65,280 bits (8,160 bytes); Internal EEPROM	130,816 bits (16,352 bytes); Internal EEPROM	32,768 bits (4,096 bytes); Internal EEPROM
	Encryption function	○		—
Durability	Tape Running (Nominal)	1,000,000 passes		—
	Estimated Archival Life	30 years		—
Physical Characteristics	Tape Width	12.65mm		
	Tape Thickness	6.4μm	6.1μm	—
	Tape Length	846m		319m
	Cartridge Dimensions	H. 102.0 × W. 105.4 × D. 21.5mm		
Operating Environmental Conditions	Temperature	10-45℃		
	Humidity	10-80% (No Dew Condensation)		
	Max. Wet Bulb Temperature	26℃		
Storage Environmental Conditions	Temperature (Short Term / Archival)	16-35℃ / 16-25℃		
	Humidity (Short Term / Archival)	20-80% / 20-50% (No Dew Condensation)		
	Max. Wet Bulb Temperature (Short Term / Archival)	26℃		

Note: Specifications are subject to change without notice.
*The universal cleaning cartridge is capable of being used in all generation 1/2/3/4/5/6 Ultrium format tape drives.
Specific revisions of firmware may be required for proper operation.

FUJIFILM
RECORDING MEDIA

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LTO Ultrium™ G6

ATOMM TECHNOLOGY

nanocubic

Trust in the Future.
Trust in us.

Barium Ferrite

Trust in the future. Trust in us

The Fujifilm LTO Ultrium™ G6 is the first LTO cartridge in the world to be produced with Barium Ferrite (BaFe) magnetic particles using Fujifilm's core NANOCUBIC™ technology. This unique structure produces a BaFe tape with Higher Capacity, Greater SNR and Recording Stability along with a Longer Archival Life. Fujifilm's NANOCUBIC™ technology coats the BaFe particles in an extremely uniform manner, resulting in a much smoother magnetic surface, significantly enhancing performance.

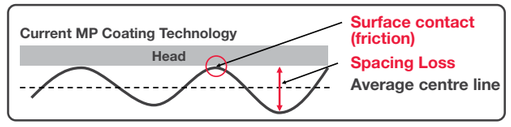
Realising a super high compressed (2.5x) storage capacity of 6.25TB and transfer rates up to 400 MB/s, Fujifilm's LTO G6 cartridges are perfect for meeting the ever increasing demands for long term file storage and data management.

Fujifilm's proprietary technology is already used in enterprise tapes such as StorageTek T10000C and IBM 3592 JC and BaFe is the new technology that will be used in future generations of LTO Ultrium™ tapes. As the largest volume manufacturer in the world, with leading tape technology developed alongside the main drive manufacturers, Fujifilm are perfectly placed to be your storage media partner.

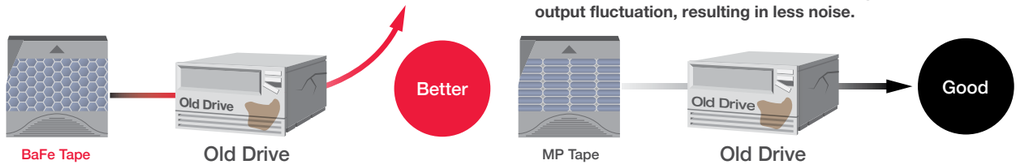
Recording Stability

Barium Ferrite produces a tape with better frequency characteristics and greater SNR. Therefore it is expected that Fujifilm LTO G6 tapes can be written to and read even when the ability of the drive's recording head has been diminished after repeated use.

Fujifilm's thin and uniform magnetic layer (utilising NANO Dispersion technology) further contributes to stable output and therefore achieves longer drive and cartridge life.



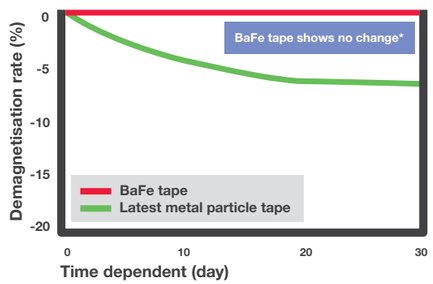
Smaller undulation with small and uniform protrusions reduces output fluctuation, resulting in less noise.



Long Archive Life

Oxidisation is one cause of data deterioration. However, as Barium Ferrite is an oxide, it will not lose its magnetic properties due to oxidisation.

Barium Ferrite has a much longer life compared to Metal Particles (MP). With legal and compliance regulations constantly changing and archive periods becoming longer, archival life is an increasingly critical issue. LTO drive systems are recommended for upgrade every 10 years and although the LTO roadmap is primarily hardware dependent, client needs can be quite different, with longer archive life often being the major priority.

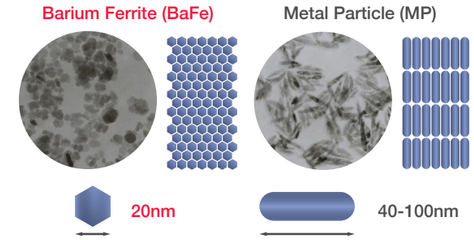


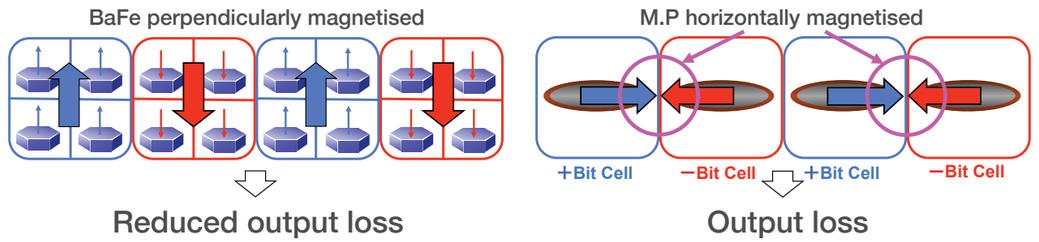
*Fujifilm test results

Higher Capacity and SNR

Fujifilm's unique NANOCUBIC™ BaFe technology enables much smaller and perpendicularly magnetised particles, a key factor in the production of high capacity, reliable and durable tapes. Current Metal Particles are approximately 40-100 nm whereas Barium Ferrite are just 20nm, 50 to 80% smaller.

Barium Ferrite is also perpendicularly magnetised, providing greater signal to noise performance and less output loss compared to Metal Particle.





LTFS, WORM and Encryption

As with LTO G5, the LTO G6 hardware incorporates the Advanced Encryption Standard (AES) and Linear Tape File System (LTFS) dual portioning functionality. When used with the LTFS, the tape can function much like an external disc drive, for example, one partition holds your valuable content another acts as an index. Archiving content to tape in the workflow can be achieved by a simple drag and drop process. This system offers fast and easy file management and interchange with high speed streaming, perfect for video and media management, surveillance, medical imaging and other applications.

Fujifilm LTO G6 is available in WORM - Write Once Read Many, providing protection from accidental overwrite. Extra security is provided by hardware-based data encryption.

The picture shown is a concept image and does not depict the actual size or disposition of the particles.

29.5 Billion Bits per Square Inch

In January 2010, Fujifilm and IBM announced a world record in data density on linear magnetic tape. Barium Ferrite (BaFe) magnetic particles established the world's highest areal density on tape with 29.5 billion bits per square inch. This would result in a 35.0 TB (native) tape cartridge!

Barium Ferrite