

Fujifilm DLTtape™ IV Data Sheet

Fujifilm DLTtape™ IV is the answer to the high-capacity storage and archiving needs of mid-range systems, network servers and high-end workstations. Native capacity of up to 40GB on a single tape combined with sustained transfer speeds of up to 6MB/second provide the performance essential to data-intensive applications.

Features



Unsurpassed durability. Low error rates. Long archival life. These attributes are guaranteed when you buy Fujifilm DLTtape™ IV.

DLTtape™ IV features Fujifilm's exclusive ATOMM (Advanced super Thin layer & high-Output Metal Media) technology - a unique dual coating system that provides greater storage capabilities than ever before. DLTtape™ IV provides a storage capacity ranging from 20 GB to 40 GB (native capacity) or from 40 GB to 80 GB (2:1 Compression).

Fujifilm's design ensures read compatibility with future generations of DLT. It also takes advantage of shorter wave length recording schemes. Solid and liquid lubricants reduce tape and head wear. The chemical design resists retention of airborne particles that could also affect read/write head performance. Fujifilm's cartridge shells are shock resistant and provide additional corrosive protection. A tape reel locking mechanism protects the media by preventing tape slack.

ATOMM Technology

ATOMM (Advanced super Thin layer & high-Output Metal Media) technology makes revolutionary tape capacity and reliability possible for the DLTtape™ IV system by simultaneously coating the tape base film with an ultra-thin magnetic layer and a non-magnetic lower layer. ATOMM dual coating technology features a high density ultra-thin upper layer of magnetic material with a highly smooth, glossy finish. This is made possible by the extremely hard, smooth surface created during simultaneous coating of the minute spherical particles in the "titan-fine" lower layer; these particles are roughly one-sixth the size of metal magnetic particles. Lubricants are optimised in both upper and lower layers.

Data Cartridge Durability

Media durability is measured in tape passes. A DLTtape™ IV tape cartridge can be run through a drive unit 1,000,000 times without wearing out! However, tape passes should not be confused with tape uses or mounts. A DLT™ drive lays down data in a series of parallel tracks that run the length of the tape. This continues, back and forth (serpentine), until the tape is fully written or read. As a result, it takes multiple passes to write or read the full capacity (full tape access) of a DLTtape.

The four-channel DLT 8000 drive makes 52 passes to access a full tape. Assuming full tape accesses for each use, dividing 1,000,000 by 52 passes-per-use equals 19,230 uses. Therefore, under this condition the DLTtape™ IV lifetime on a DLT 8000 drive would be 19,230 uses. The two-channel DLT 4000 drive requires 64 passes for a full tape access. Subsequently, the million pass lifetime on a DLT 4000 drive would require 15,625 full tape accesses. Accordingly, a lifetime of at least 15,625 uses is the worst-case scenario for DLTtape™ IV.

In high duty-cycle tape applications, such as HSM, Virtual Tape, Near-online, Primary Storage and/or Temporary Output, the uses do not usually require the maximum number of passes. Consequently, in high duty-cycle applications, a lifetime much greater than 15,625 uses can be anticipated!

On the other hand, backups that require one or more full tapes would use the maximum passes for each use. However, backup is a low duty-cycle application. Even with a short seven-day retention, it would take 300 years to use a tape 15,625 times for backup. Even daily use on an application requiring the maximum passes for full capacity access would require over 40 years to reach 1,000,000 passes.

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Fujifilm DLTtape™ IV Guarantee: 3 Years

DLTtape™ IV Specifications

	4000 drive	7000 drive	8000 drive
Format Capacity	20 GB (40 GB*)	35 GB (70 GB*)	40 GB (80 GB*)
Tape width (mm)		12.65 (nominal)	
Tape thickness (µm)		9 (nominal)	
Tape length (m)		557 (nominal)	
Sustained Transfer Rate	1.5 MB/sec (3 MB/sec*)	5 MB/sec (10 MB/sec*)	6 MB/sec (12 MB/sec*)
Tracks	128 tracks	208 tracks	208 tracks
Cartridge dimension (mm)		105.8 x 105.4 x 25.4	
Max. transportation period		10 days	

Operating environment:

Temperature 10°C - 40°C
Humidity* 20% - 80%

Storage environment:

Temperature 16°C - 32°C
Humidity* 20% - 80%

Transportation environment:

Recorded:	Temperature	5°C - 32°C
	Humidity*	5% - 80%
Unrecorded:	Temperature	-23°C - 48°C
	Humidity*	5% - 100%

* Without Condensation