



## **Fujifilm LTO™ Ultrium 1 Data Cartridge Durability**

LTO Ultrium™ media durability is measured in tape-passes. A Fujifilm LTO Ultrium 1 data cartridge tape can be run through a drive unit more than 1,200,000 times without wearing out! The LTO Ultrium 1 drives lay down data in a series of eight parallel tracks that run the length of the tape. This continues, back and forth (serpentine), until the tape is fully written or read. Thus, it takes multiple passes to write or read the full 384 tracks (100/200\* GB capacity) of a full tape access.

The eight-channel LTO Ultrium 1 drives make 48 passes to access a full tape. Assuming full tape accesses for each use, dividing 1,200,000 by 48 passes-per-use, equals 25,000 uses. This is not the end-of-life for LTO Ultrium 1 cartridges; our testing shows that our cartridges continue to perform as good as new after 1,200,000 head passes.

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, it can be anticipated that it will take many more than 25,000 uses to reach 1,200,000 head passes.

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 480 years to use a tape 25,000 times for backup. Even twice daily use on an application requiring the maximum passes for full capacity access, would require 34 years to reach 25,000 uses. Even then, you can expect that the Fujifilm LTO Ultrium 1 Data Cartridge will continue performing flawlessly.

In summary, unlike some other tape drive technologies, you do not need to worry about the possibility of wearing out LTO Ultrium 1 data cartridges. It is not necessary for users to count uses for LTO Ultrium 1 data cartridges.

Fujifilm LTO Ultrium 1 media benefits from our ATOMM (Advanced super Thin-layer and high-Output Metal Media) Technology that produces magnetic media having greater durability. A super-thin upper magnetic layer allows for superior high-density recording while the simultaneously coated lower “titan-fine” layer provides exceptional durability.

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\*The 200 GB capacity for LTO Ultrium 1 data cartridges assumes 2:1 data compression.

For more information about Fujifilm LTO Ultrium 1 Data Cartridges and the advantages of Fujifilm ATOMM Technology, visit the Technical Center at the Fujifilm Computer Products Division website – [www.fujifilmmediasource.com](http://www.fujifilmmediasource.com).