Dell PowerVault LTO Tape Drives

Taking advantage of Linear Tape Open (LTO) technology's high performance and capacity, Dell PowerVault LTO3-060, LTO-3, LTO4-120 and LTO5-140 tape drives deliver reliable, cost-effective backup support for PowerEdge™ servers and PowerVault NAS servers.

High-performance, reliable, cost-effective data protection

Businesses and public organizations create mountains of data each day — information that is compiled, analyzed, moved, shared, stored, and which may have to be archived to comply with organizational, industry, and government regulations. As your organization increasingly relies on data-rich applications to generate revenue and achieve operational efficiency, protecting your data is vital; in fact, it may be the single most important thing you can do to ensure the ongoing success of your business. Tape backup has traditionally been one of the most cost-effective ways of keeping data safe and available.

LTO tape technology: The value of standards

Linear Tape Open™, or LTO, technology was developed by an industry consortium to provide the reliability, scalability, and performance that today's IT environments demand of tape-storage solutions. A single LTO tape can now house up to 1.5TB of data, and transfer data at up to 140MB/sec, making LTO ideal for the high capacity and streaming backup requirements of today's enterprises. The LTO standard features help protect your technology investment with a clear growth path, from the original LTO-1, to the new LTO-5, and with a roadmap to future development of LTO-6. LTO tape's open standard enables tape and drive compatibility among vendors, and has spawned competition that leads to quality products, innovation, and widespread availability at the best prices. Openness means the customer wins.

The Dell PowerVault LTO family

Dell™ PowerVault™ LTO tape drives help provide business continuity and disaster recovery for organizations of all sizes using Dell PowerEdge servers or PowerVault NAS servers. The Dell PowerVault LTO tape drive family offers a range of products that balance affordability and performance.

- The PowerVault LTO-5-140 is based on 5th generation LTO technology and is the largest-capacity and highest transfer rate LTO drive available today. The PowerVault LTO-5-140 features device-level encryption for advanced security with no impact on performance, and is the first LTO drive sold by Dell to offer a 6Gb Serial Attached SCSI (SAS) interface for higher server compatibility and investment protection.
- The PowerVault LTO-4-120 Half Height drive is a more compact version of the LTO-4-120 Full Height with the same native data capacity and performance.
- The PowerVault LTO-3-080 Full Height tape drive is based on 3rd generation LTO technology (LTO-3) and features robust performance and capacity for applications like digital video, archiving, data mining and supply-chain management.
- The PowerVault LTO-3-060 is also based on the 3rd generation LTO technology (LTO-3), however it is offered in a more compact half height form factor version of the LTO-3-080 with the same native data capacity and only slightly lower performance.

LTO half height drives have historically been designed to run at a slightly lower transfer rate, resulting in less energy consumption and operating expenses over time, compared to the full height versions. However, with the introduction of the 4th generation (LTO-4) drives, and now with the 5th generation (LTO5) drives, customers can experience the same performance, capacity and Mean Time Between Failures (MBTF) as the full height version.

The value of security

LTO-3, LTO-4 and LTO5 also offer the user added data protection and security features. For customers with data-compliance requirements, LTO-3, LTO-4 and LTO5 offer write-once-read-many (WORM) technology. Data that is written to an LTO WORM cartridge in WORM format cannot be re-written or altered. Organizations that choose LTO-3, LTO-4 or LTO5 tape for backups will also benefit from being able to use their cost-effective tape solution to meet government and industry requirements for unalterable archives of data. The Dell PowerVault LTO-4-120 and LTO-5-140 tape drives utilize a secret 256-bit key for data encryption, which is performed in the tape device after host data is received and compressed, at full line speed — resulting in no impact on throughput performance and no host-processor MIPS overhead. Device level encryption removes the need for costly and complex encryption software.

Dell services

Dell Global Services provides end-to-end service and support solutions to help you take advantage of your new PowerVault LTO Tape Drive. You can count on award-winning support services to rapidly respond to your needs, and help you reduce the risk and complexity in your IT environment.

Dell PowerVault LTO Tape Drives

Giving people peace of mind through data protection that balances performance with affordability.

Feature	LTO-3-060	LTO-3-080	LTO-4-120 HH	LTO-4-120	LTO-5
Product Name	PowerVault LTO-3-060	PowerVault LTO-3-080 FH	PowerVault LTO-4-120 HH	PowerVault LTO-4-120 FH	PowerVault LTO5-140
Ideal for	Less expensive version of the LTO-3 Full Height drive with the same native data capacity but slightly lower performance.	Provides robust performance and capacity for applications like digital video, archiving, data mining and supply-chain management.	Half-height version of the LTO-4-120 Full Height drive with the same native data capacity and performance.	The enhanced security feature is ideal for any organization or remote office that requires higher levels of data security.	The same enhanced security features as LTO4-120 along with 1.5TB capacity is ideal for any IT organization that requires this level of security or the capacity to ensure a single or multiple cartridge backup.
Capacity (Native)	Up to 400GB	Up to 400GB	Up to 800GB	Up to 800GB	Up to 1.5 TB
Transfer rate (Native)	Up to 60MB/sec	Up to 80MB/sec	Up to 120MB/sec	Up to 120MB/sec	Up to 140MB/sec
Optimized Media	LTO-3, LTO-3 WORM	LTO-3, LTO-3 WORM	LTO-4, LTO-4 WORM	LTO-4, LTO-4 WORM	LTO-5, LTO-5 WORM
Media Compatibility	Reads/Writes LTO-2, LTO-3, LTO-3, WORM tapes, Reads LTO-1 tapes	Reads/Writes LTO-2, LTO-3, LTO-3, WORM tapes, Reads LTO-1 tapes	Reads/Writes LTO-3, LTO-3 WORM, LTO-4 and LTO-4 WORM tapes, Reads LTO-2 tapes	Reads/Writes LTO-3, LTO-3 WORM, LTO-4 and LTO-4 WORM tapes Reads LTO-2 tapes	Reads/Writes LTO-5, LTO-5 WORM, LTO-4 and LTO-4 WORM tapes, Reads LTO-3 tapes
Open Format	Yes	Yes	Yes	Yes	Yes
MTBF	250,000 hours	250,000 hours	250,000 hours	250,000 hours	250,000 hours
Duty cycle	100%	100%	100%	100%	100%
Buffer size	128MB	128MB	256MB	256MB	256MB
Recording Interface	Ultra160 SCSI LVD	Ultra160 SCSI LVD	Serial Attached SCSI (SAS) at 3 Gbit/sec	Serial Attached SCSI (SAS) at 3 Gbit/sec	6Gb Serial Attached SCSI (SAS)
Maintenance	Head cleaning cartridge used when indicated by drive, integrated sweep cleaning brush	Head cleaning cartridge used when indicated by drive, integrated sweep cleaning brush	Head cleaning cartridge used when indicated by drive, integrated sweep cleaning brush	Head cleaning cartridge used when indicated by drive,integrated sweep cleaning brush	Head cleaning cartridge used when indicated by drive, integrated sweep cleaning brush
Dimensions (H x W x D)	Int HH: 1.7" x 5.83" x 8.29" Ext: 2.6" x 8.04" x 10.1"	Int FH: 3.33" x 5.83" x 8.33" Ext: 4.9" x 9.8" x 11.4"	Int FH: 1.69" x 5.83" x 8.29" Ext: 2.48" x 10.2" x 10.91"	Int FH: 3.34" x 5.84" x 8.29" Ext: 4.92" x 9.8" x 11.42"	Int: 1.69" x 5.83" x 8.29" Ext: 2.56" x 8.74" x 12.87"
Weight	Int HH: 3.3 lbs Ext: 6.6 lbs	Int FH: 6.6 lbs Ext: 14.1 lbs	Int FH: 3.5 lbs Ext: 9.2 lbs	Int FH: 6.6 lbs Ext: 14.2 lbs	Int: 3.9 lbs Ext: 9.7 lbs
Alttitude (operational)	10,000 feet maximum	10,000 feet maximum	10,000 feet maximum	10,000 feet maximum	10,000 feet maximum
Temperature (operational)	10° C to 35° C	10° C to 35° C	10° C to 40° C	10° C to 40° C	10° C to 38° C
Humidity	80%	80%	80%	80%	80%
Power supply	23.5W (Operational)	28W (Operational), 10W in idle	29.5W (Operational), 12.5W in idle	29.5W (Operational), 12.5W in idle	24W (Operational), 6.5W in idle

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