



# Dell PowerVault LTO tape drives

Taking advantage of Linear Tape Open (LTO) technology's high performance and capacity, Dell™ PowerVault™ LTO-3, LTO-4, LTO-5 and LTO-6 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 is traditionally one of the most cost-effective ways to keep 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 houses up to 2.5TB of data, and transfers data at up to 160MB/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-6, and with a roadmap to future development of LTO-7 and LTO-8. 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.

LTO-6 delivers the greatest storage capacity in the portfolio at 2.5TB per cartridge—making it ideal for backing up large volumes and consolidating long term archival while reducing IT costs associated with data protection and data preservation.

By virtue of being offline and portable, LTO tape cartridges can easily and securely be moved offsite to mitigate the risk associated with data loss or data corruption due to hardware failure, human error, natural disaster, theft, sabotage or virus.

## The value of security

LTO-3, LTO-4, LTO-5 and LTO-6 also offer the user added data protection and security features. For customers with data-compliance requirements, LTO-3, LTO-4, LTO-5 and LTO-6 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, LTO-5 or LTO-6 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, LTO-5 and LTO-6 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

Enables everyday productivity for everyone in the whole world and IT – all while respecting your budget.

Feature	LTO-3	LTO-4	LTO-5	LTO-6
Product Name	PowerVault LTO-3	PowerVault LTO-4	PowerVault LTO-5	PowerVault LTO-6
Ideal for	Customers needing reliable backup and restore, or archive/long-term retention of less than 500GB.	Customers needing reliable backup and restore, or archive/long-term retention of less than 1TB along with security needs and legal regulation compliance.	Customers needing reliable backup and restore, or archive/long-term retention of less than 2TB along with security needs and legal regulation compliance.	Customers needing reliable backup and restore, or archive/long-term retention of less than 3TB along with security needs and legal regulation compliance.
Capacity (Native)	Up to 400GB	Up to 800GB	Up to 1.5 TB	Up to 2.5 TB
Transfer rate (Native)	Up to 80MB/sec	Up to 120MB/sec	Up to 140MB/sec	Up to 160MB/sec
Optimized Media	LTO-3, LTO-3 WORM	LTO-4, LTO-4 WORM	LTO-5, LTO-5 WORM	LTO-6, LTO-6 WORM
Media Compatibility	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-5, LTO-5 WORM, LTO-4 and LTO-4 WORM tapes, Reads LTO-3 tapes	Reads/Writes LTO-6, LTO-6 WORM, LTO-5 and LTO-5 WORM, Reads LTO-4 and LTO-4 WORM tapes
Open Format	Yes	Yes	Yes	Yes
MTBF	250,000 hours	250,000 hours	250,000 hours	250,000 hours
Duty cycle	100%	100%	100%	100%
Buffer size	128MB	256MB	256MB	512MB
Host Bus Interface	6Gb Serial Attached SCSI (SAS)	6Gb Serial Attached SCSI (SAS)	6Gb Serial Attached SCSI (SAS)	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
Dimensions (H x W x D)	Int: 1.69" x 5.83" x 8.29" Ext: 2.56" x 8.74" x 12.87"	Int: 1.69" x 5.83" x 8.29" Ext: 2.56" x 8.74" x 12.87"	Int: 1.69" x 5.83" x 8.29" Ext: 2.56" x 8.74" x 12.87"	Int: 1.69" x 5.83" x 8.29" Ext: 2.56" x 8.74" x 12.87"
Weight	Int: 3.5 lbs Ext: 9.7 lbs	Int: 3.5 lbs Ext: 9.7 lbs	Int: 3.5 lbs Ext: 9.7 lbs	Int: 3.5 lbs Ext: 9.7 lbs
Altitude (operational)	10,000 feet maximum	10,000 feet maximum	10,000 feet maximum	10,000 feet maximum
Temperature (operational)	10° C to 38° C	10° C to 38° C	10° C to 38° C	10° C to 38° C
Humidity	20% to 80%	20% to 80%	20% to 80%	20% to 80%
Power supply	23.5W (Operational)	26W (Operational), 12.5W in idle	24W (Operational), 6.5W in idle	24W (Operational), 6.5W in idle

Simplify data backup at [Dell.com/storage](http://Dell.com/storage)

