

Dell PowerVault LTO Tape Drives

Taking advantage of Linear Tape Open (LTO) technology's high performance and capacity, Dell™ PowerVault™ LTO-2-L, LTO-3-080, LTO-3-060 and LTO-4-120 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 800GB of data, and transfer data at up to 120MB/sec., making LTO ideal for the high capacity and streaming backup requirements of today's enterprises.

The LTO standard features a clear growth path, from the original LTO-1, to the new LTO-4, and with a roadmap to future development of LTO-5 and 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-4-120 is the largest-capacity and highest transfer rate LTO drive available today. The PowerVault LTO-4-120 features device-level encryption for advanced security with no impact on performance, and is the first LTO drive sold by Dell to offer a 3Gb Serial Attached SCSI (SAS) interface for higher server compatibility and investment protection.
- The PowerVault LTO-3-080 full-height tape drive is right for robust performance and capacity for applications like digital video, archiving, data mining and supply-chain management
- The PowerVault LTO-3-060 half-height tape drive is a less expensive version of the LTO-3-080 with the same native data capacity but slightly lower performance
- The PowerVault LTO-2-L drive is the right choice for small and medium businesses seeking an affordable backup solution.

Two Form Factors – Performance vs Savings

LTO half-height drives are 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. Because half-height drives follow the same LTO standard as full-height drives, a customer can consider both options when evaluating their storage solutions with current and future LTO products.

The Value of Security

LTO-3 and LTO-4 also offer the user added data protection and security features. For customers with data-compliance requirements, LTO-3 and LTO-4 offers 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 or LTO-4 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 tape drive utilizes 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.



PowerVault LTO-4-120



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DELL ENTERPRISE SERVICES

Dell Infrastructure Services:

Execution without excuses: Dell brings pure execution to IT Services. The planning, implementation and maintenance of your IT infrastructure deserves nothing less. Variability in execution can compromise user productivity, IT resources, and ultimately, your reputation. By leveraging our heritage of process driven excellence, Dell Services can deliver a smarter way. That's Pure Dell.

Gold Enterprise Support:

Provides 7x24 rapid response and resolution of critical issues including escalation management and On-Site.

Silver Enterprise Support:

Silver support provides convenient 7x24 phone access for hardware and core software troubleshooting with 4-hour¹ 7x24 on-site services following completion of phone-based troubleshooting.

Backup and Recovery:

Dell archiving, backup and recovery is an approach to information management and protection that spans the entire life of an organization's data.

- Optimized solutions to help keep your data safe and reduce recovery times
- Reduction of total cost of ownership
- Comprehensive project management
- Simplified operations resulting from proven methodologies

Comprehensive Storage

Training and Certification:

Dell offers comprehensive training and certification programs for Dell hardware and popular software applications:

- Dell Hardware Training and Certifications
- Infrastructure Software Certification
- PC Skills and Professional Development
- Learning Management

Arm your employees with the knowledge and skills they need to be as productive as possible. Dell offers comprehensive training services which include hardware and software training, as well as PC skills and professional development classes. Dell training can help improve system reliability, maximize productivity, and reduce end user requests and downtime

- Backup and Recovery Fundamentals
- Dell Storage Basics Online Training

Services vary by region. Silver, Gold or Platinum support are required for software support not included in the base warranty.

¹Service may be provided by third-party. Technician will be dispatched if necessary following phone-based troubleshooting. Subject to parts availability, geographical restrictions and terms of service contract. Service timing dependent upon time of day call placed to Dell. U.S. only.

For more information on the available services in your area, please visit

www.dell.com.

FEATURES	LTO-2-L	LTO-3-060	LTO-3-080	LTO-4-120
Product Name	PowerVault 110T LTO-2-L	PowerVault LTO-3-060	PowerVault LTO-3-080	PowerVault LTO-4-120
Ideal For	The right choice for small and medium businesses seeking an affordable backup solution.	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.	The enhanced security feature is ideal for any organization or remote office that requires higher levels of data security.
Capacity (Native)	Up to 200GB	Up to 400GB	Up to 400GB	Up to 800GB
Transfer rate (Native)	Up to 24MB/sec	Up to 60MB/sec	Up to 80MB/sec	Up to 120MB/sec
Optimized Media	LTO-2	LTO-3, LTO-3 WORM	LTO-3, LTO-3 WORM	LTO-4, LTO-4 WORM
Media Compatibility	Reads/Writes LTO-1 and LTO-2 tapes	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
Open format	Yes	Yes	Yes	Yes
Form factor	half height	half height	full height	full height
Security Features	None	Write-Once-Read-Many (WORM)	Write-Once-Read-Many (WORM)	Write-Once-Read-Many (WORM) Device level encryption
Format	Internal or External	Internal or External	Internal or External	Internal or External
MTBF	250,000 hours	250,000 hours	250,000 hours	250,000 hours
Duty cycle	100%	100%	100%	100%
Buffer size	64MB	128MB	128MB	256MB
Recording interface	Ultra160 SCSI LVD	Ultra160 SCSI LVD	Ultra160 SCSI LVD	Serial Attached SCSI (SAS) at 3 Gbit/sec
Maintenance	Head cleaning cartridge used when indicated by drive	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: 1.17" x 5.8" x 8.9" Ext: 4.6" x 7.6" x 12.1"	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: 3.34" x 5.84" x 8.29" Ext: 4.92" x 9.8" x 11.42"
Weight	Int HH: 3.3 lbs Ext: 10.4 lbs	Int HH: 3.3 lbs Ext: 6.6 lbs	Int FH: 6.6 lbs Ext: 14.1 lbs	Int FH: 6.6 lbs Ext: 14.2 lbs
Altitude (operational)	10,000 feet maximum	10,000 feet maximum	10,000 feet maximum	10,000 feet maximum
Temperature (operational)	10° C to 40° C	10° C to 35° C	10° C to 35° C	10° C to 40° C
Humidity	80%	80%	80%	80%
Power supply	34W (Operational)	23.5W (Operational)	28W (Operational), 10W in idle	29.5W (Operational), 12.5W in idle

Support Backup Software:

Symantec Backup Exec 11d for Windows 2003
CommVault Galaxy 5.9 and 6.1 for Windows 2003, Red Hat Linux and SUSE
Yosemite Backup 8.1 for Windows 2003, Red Hat Linux and SUSE



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