

## IBM TS1155 Tape Drive

### Increase cartridge capacity by 50 percent to help reduce the cost of long-term data storage

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#### Highlights

- Deliver high-performance, high-capacity storage with a reliable solution
  - Leverage IBM Spectrum Archive software using LTFS technology
  - Protect, retain and secure critical data with encryption
  - Take advantage of write-once-read-many (WORM) cartridges
  - Obtain storage at a lower cost per bit than disk-based storage
  - Achieve greater capacity with existing cartridge types
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In today's data-hungry world, cost-efficient storage is more important than ever. Business analytics have increased the value of long-term data storage, while end-user demand for data accessibility just keeps escalating, thanks to the growing use of social media and cloud and mobile. Yet storing massive volumes of static, rarely accessed data on expensive storage media can put a huge strain on shrinking IT budgets.

IBM TS1155 Tape Drive gives organizations an easy way to deliver fast access to data, improve security and provide long-term data retention—and at a lower cost than disk-based solutions. TS1155 is designed to support existing JD and JC media formats, but is equipped with an advanced read/write subsystem that enables the use (or re-use) of JD media at 50 percent higher capacity compared to previous-generation drives.

TS1155 offers high-performance, flexible data storage with support for data encryption.

What's more, TS1155 supports the LTFS format in IBM Spectrum Archive, a member of the [IBM Spectrum Storage family](#), for direct, intuitive and graphical access to data.

TS1155 supports IBM TS4500 tape libraries as well as IBM racks that enable stand-alone installation. TS1155 features three options for type D media. The IBM 3592 Advanced data tape cartridge, JD, provides up to 15 TB native capacity, as does the IBM 3592 Advanced WORM cartridge, JZ. A type D 3592 Economy cartridge, JL, can also be up-formatted from its nominal 2 GB capacity, storing 3 TB and providing fast access to data. TS1155 can also read and write previous-generation media—type C (JC, JY and JK)—depending on

media formatting.

## Deliver fast access to dynamic data

TS1155 offers the performance needed to meet today's dynamic data requirements. The drive supports a native data transfer rate of up to 360 MBps to deliver information at the speed demanded by cloud, mobile and social media users. TS1155 also helps simplify big-data management by transferring data at up to 700 MBps with data compression.

## Use encryption to help protect data

Security is an important issue when storing, accessing and managing your data. Encryption can help organizations protect data against theft or accidental loss, particularly data that contains the personal or sensitive information of individual customers.

The built-in data encryption capabilities of TS1155 enable organizations to reduce the need for host-based encryption—and the concurrent drain on performance—or reduce the use of specialized encryption appliances. This capability is intended to protect information if tape cartridges are lost or stolen by supporting the storage of the data in an encrypted form.

Organizations can generate and manage encryption keys for TS1155 tape drives across a distributed environment with IBM Security Key Lifecycle Manager. This solution provides the interface between IBM encrypting tape drives and external keystores.

To further protect mission-critical data, TS1155 delivers state-of-the-art technology—such as advanced, interleaved error-correction codes and factory-written servo tracks on the tape cartridge—to provide precise head positioning. In addition, functions such as a virtual backhitch and a high-resolution directory help improve small file-write performance and improve recall access to data respectively.

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## Help lower costs with IBM Spectrum Archive support

Data retention requirements, particularly in the fields of healthcare, life sciences and financial services, are driving enterprises not just to encrypt data, but to store more data, for longer periods of time. Other data-intensive applications, such as comprehensive media archives and large-scale sensor data collection, also demand high-capacity data storage.

TS1155 can help reduce the costs of long-term data retention by including support for IBM Spectrum Archive with LTFS technology, allowing users and applications direct access to files and directories stored on tape. IBM Spectrum Archive provides an easy-to-use interface that enables organizations to automatically move infrequently accessed data from disk to tape without the need for proprietary tape applications. This allows data centers to add extensive capacity with lower media, floor-space and power costs. And users can access archived data with drag-and-drop simplicity—just as if it were stored on disk.

## Simplify storage management

TS1155 offers support for most open-systems servers. In addition, IBM Spectrum Protect and other compatible software offerings can be used with TS1155 for storage and tape management. Supported software and applications can be obtained separately from IBM, IBM Business Partners or independent software vendors (ISVs).

## Media capacity and cartridge options

The IBM 3592 cartridges used in TS1155 tape drives are available in short and advanced lengths and in rewritable and WORM formats. Cartridges are available in packs of 20 and can be ordered as labeled and initialized, initialized only, or unlabeled and uninitialized. An RFID label option is also available. For more information on media options, contact your IBM representative or IBM Business Partner, or visit: [ibm.com/systems/storage/media](https://ibm.com/systems/storage/media)

IBM TS1155 Tape Drive at a glance

Native capacity (uncompressed)	15 TB or 10 TB (using JD/JZ media), 7 TB or 4 TB (using JC/JY media), 3 TB or 2 TB (using JL media), 900 GB or 500 GB (using JK media) depending on media format	
Native sustained data rate (uncompressed)	360 MBps (type D media)	
	300 MBps (type C media re-formatted)	
Burst data rate	800 MBps	
High-speed search (maximum)	12.4 m/s end-end search rate	
Attachment options	3592-55F: Dual-port 8 GB Fibre Channel	
	3592-55E: 10 Gb Ethernet	
Physical characteristics		
Dimensions	86 mm H x 156 mm W x 374 mm D (3.4 in. H x 6.1 in. W x 14.7 in. D)	
Weight	3.97 kb (8 lb 12 oz)	
Operating environment		
Temperature with media	16°C - 32°C (60.8°F - 89.6°F)	
Relative humidity	20% - 80% non-condensing (limited by media)	
Wet bulb maximum	26°C (78.8°F)	
Maximum continuous operating power dissipation (drive and integrated blower)	3592-55F: 46 Watts	
	3592-55E: 66.5 Watts	
Platform support		
	Platform	Operating system
3592-55F		
IBM	IBM Power Systems	IBM AIX, IBM i, Linux
	IBM System p	AIX and Linux
	IBM System i	IBM i and IBM OS/400
Open systems	Oracle	Solaris
	Servers with Intel or AMD processors	Linux
		Microsoft Windows
3592-55E		
Open systems	Servers with Intel or AMD processors	Microsoft Windows
Encryption support	IBM i, AIX, Solaris, Linux and Windows	
Warranty	One year	

## Why IBM?

Innovative technology, open standards, excellent performance, and a broad portfolio of proven storage software, hardware and solutions offerings—all backed by IBM with its recognized industry leadership—are just a few of the reasons to consider storage solutions from IBM.

## For more information

To learn more about IBM TS1155 Tape Drive, contact your IBM representative or IBM Business Partner, or visit: [ibm.com/us-en/marketplace/ts1155](https://ibm.com/us-en/marketplace/ts1155)

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