### IEM

#### Highlights

- · Investment protection
- · Increased capacity and flexibility
- · Enhanced data security
- · Maximum Reliability

# **IBM 3592 Advanced Data Cartridge**

High-capacity tape media engineered for the enterprise

#### **Overview**

Today's enterprise data centers face unprecedented data protection challenges. They must satisfy increasing demands for data retention, security and availability while contending with reduced budgets. The IBM 3592 Advanced Data Cartridge was developed to help enterprise data centers address these challenges.

#### Investment protection

With enterprise tape libraries holding thousands of cartridges, the affordability of keeping the technology current can be significantly impacted by the cost of upgrading the tape media. The IBM 3592 Advanced Data Cartridge helps enterprise users mitigate the impact of a tape subsystem upgrade by enabling the drive to reformat prior generation media cartridges to the current generation tape drive. This capability, called Media Reuse, enables the IBM 3592 Tape Drive to reformat the cartridge so that it takes on both the performance and capacity characteristics of the latest generation tape technology. This enables enterprise customers to increase existing tape library capacity by up to 60 percent without purchasing any new media.

#### Increased capacity and flexibility

Each successive generation of the TS1100 Tape Drive has provided greater read/write speeds and higher storage capacities. The new 3592 Advanced Data Cartridge enables enterprise data center administrators to increase tape library capacities by up to 1200 percent depending on the generation of tape drive and media they currently utilize. These increased capacities can help users defer new hardware purchases, reduce storage management requirements, and expand their data archive by simply upgrading their tape drives and/or media. For administrators who require rapid data access or who are looking to lower media costs, IBM offers two different sizes of 3592 tape cartridges. The IBM Economy Cartridges offer the same quality and benefits as our standard length cartridges but in shorter lengths. These shorter length cartridges are less expensive and enable faster seek times.



#### **Enhanced data security**

Data enables innovation, it enables growth and it helps gain competitive advantage. Failure to safeguard data can lead to business disruption, lost productivity, negative customer satisfaction, and penalties from regulatory violations. The IBM 3592 Advanced Data Cartridge is designed to protect your data with features such as WORM cartridges, encryption and the ability—in conjunction with the tape drive—to monitor cartridge life. These capabilities work together to help ensure that stored data is secure from loss or corruption.

#### Maximum reliability

To meet the rigorous standards of enterprise data centers, the IBM 3592 Advanced Data Cartridge features a memory chip that stores performance and usage records. These records are used to proactively determine whether the tape needs to be replaced. The cartridge utilizes thick plastics, ultrasonic welding techniques and tamper-proof screws to provide protection against accidental damage. And the media uses a uniform, ultrasmooth magnetic layer with a refined coating to improve media reliability, increase performance and minimize tape head wear.



#### Ordering options

IBM 3592 Advanced Data Cartridges are available in packs of 20, and cleaning cartridges come in packs of five. Data cartridges can be purchased with or without EBCDIC initialization and both IBM 3592 Advanced Data Cartridges and cleaning cartridges can be purchased with or without labels required for use in an IBM tape library.

Feature	Benefits							
Media reuse and up-formatting	<ul> <li>Eliminates the need to change media when upgrading your tape drives</li> <li>Increases capacity without changing media or increasing library size</li> <li>Offers investment protection</li> </ul>							
Reinforced cartridge	Safeguards against accidental drops     Helps protect your data							
Partitioning/IBM Linear Tape File System™ <sup>†</sup>	<ul> <li>Can eliminate middleware and reduce tape management costs</li> <li>Improves usability by displaying the data stored on the tape in a file tree structure</li> <li>Opens new opportunities for leveraging tape technology in entertainment, manufacturing and medical environments</li> </ul>							
Virtual backhitch support*	Improves performance for small file reads/writes     Helps reduce media wear							
Industry standard encryption*	<ul> <li>Enables users to address security concerns by writing encrypted data to tape</li> <li>Is compatible across all TS1120 and newer tape drives</li> </ul>							
High resolution tape directory <sup>†</sup>	<ul><li> Allows high speed search</li><li> Increases system performance by retrieving data faster</li></ul>							
Statistical Analysis and Reporting System (SARS)*	<ul> <li>Tape drive monitors cartridge life and usage</li> <li>Helps eliminate data loss due to cartridge failure</li> <li>Provides increased data protection</li> </ul>							
Scaled media	Provides the ability use a standard tape in a rapid access mode							
Economy cartridges	Provides faster access to data by reducing the length of the media     Reduces cost of ownership through a lower cost per cartridge							
Data safe mode	Provides WORM-like protection using a standard 3592 cartridge							

## **IBM Systems and Technology** Data Sheet

Characteristics								
Weight	239 g (8.4 oz)	Toxicity	Nonhazardous to human health in anticipated use					
Estimated archive life	Up to 30 years	Flammability	Self-extinguishing per UL94					
Load/unload	20,000 load, unload and initialization cycles	Temperature	16°C - 32°C (60°F - 90°F)					
Dimensions	24.5 mm H × 109 mm W × 125 mm D (0.97 in × 4.3 in × 4.9 in)	Wet bulb maximum	23°C (73.4°F)					
Warranty	Limited lifetime: Free from manufac- turing and material defects useful life of product	Relative humidity	20% - 80%					
Tape length	JK: 479 ft nominal (146 m)	JJ/JR: 807 ft nominal (246 m)	JB/JX: 2706 ft nominal (825 m)					
	JC/JY: 2887 ft nominal (880 m)	JA/JW: 2001 ft nominal (610 m)						

Cartridge Capac	cities												
Drive Type	3592 J1	IA	TS1120		TS1130		TS1140						
Cartridge Type	JJ/JR	JA/JW	JJ/JR	JA/JW	JB/JX	JJ/JR	JA/JW	JB/JX	JJ/JR	JA/JW	JB/JX	JC/JY	JK
Native Capacity	(GB)		•	•				•					
Gen 1 Mode	60	300	60	300		60	300		60**	300**			
Gen 2 Mode			100	500	700	100	500	70	100**	500**	700**		
Gen 3 Mode						128	640	1,000	128**	640**	1,000		
Gen 4 Mode											1,600	4,000	500
Open System Ca	apacity 2:1	compres	ssion (G	B)									
Gen 1 Mode	120	600	120	600		120	600						
Gen 2 Mode			200	1,000	1,400	200	1,000	1,400			1,400		
Gen 3 Mode						256	1,280	2,000			2,000		
Gen 4 Mode											3,200	8,000	1,000
System z Capac	ity 3:1 com	pression	n (GB)										
Gen 1 Mode	180	900	180	900		180	900						
Gen 2 Mode			300	1,500	2,100	300	1,500	2,100			2,100		
Gen 3 Mode						384	1,920	3,000			3,000		
Gen 4 Mode											4,800	12,000	1,500

#### For more information

To learn more about IBM 3592 Advanced Data Cartridge, please contact your IBM representative or IBM Business Partner, or visit <a href="https://ibm.com/systems/storage/media">ibm.com/systems/storage/media</a>

You may also contact 1-888-IBM-MEDIA (1-888-426-6334).



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Actual available storage capacity may be reported for both uncompressed and compressed data and will vary and may be less than stated.

- \* When used on TS1120 and newer tape drives
- † When used on TS1140 and newer tape drives
- \*\* Read only



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