

SAIT-1

**BUSINESS CHALLENGE:**

The explosive growth of digital content together with more data being generated electronically by businesses of all sizes, has led to a tremendous increase in demands for storage. Businesses working with large databases, video production, broadcast applications, medical imaging, and e-commerce transaction processing need storage solutions that offer high capacity and performance and low cost of ownership. High-capacity, high-performance requirements are driving the way companies look at data production and data protection.

BUSINESS SOLUTION:

Sony's SAIT technology represents a leap in capability, compared to competing tape technologies, and effectively addresses the expected convergence in the cost per gigabyte of tape versus low-cost, high-capacity disk products. SAIT offers significant advantages in backup, restoration and archival of critical corporate data, saving time and money.

- SAIT is currently the highest capacity tape drive in the tape storage industry, storing up to 500 GB native on a single tape cartridge
- SAIT leverages Sony's scalable and reliable AIT architecture, within a 5.25-inch extended drive form-factor and using a single-reel, half-inch cartridge
- SAIT offers high data transfer rates of up to 30 MB/s native



**SAIT - SETTING NEW STANDARDS FOR CAPACITY, PERFORMANCE, AND RELIABILITY.
TAPE TECHNOLOGY FOR THE 21ST CENTURY**



SAIT-1

- SAIT, a new tape-based data storage technology platform, has been developed to address the ever-increasing storage needs of data intensive network environments.
- Utilizing the advanced features of AIT, such as helical-scan recording technology, Advanced Metal Evaporated (AME) media, and Remote-Sensing Memory in Cassette (R-MIC), SAIT has achieved a massive 500 GB native storage capacity, or 1.3 TB max. compressed¹, within a half-inch, single-reel tape cartridge.
- An incredible sustained data transfer rate of 30 MB/s native and 78 MB/s compressed¹ provides extraordinary performance for high-end enterprise solutions.
- Remote-Sensing Memory-In-Cassette (R-MIC) provides sophisticated data access capabilities, such as high-speed file search and access.
- The half-inch tape cartridge is an industry-standard size, reducing cost and complexity when integrating SAIT into many existing automation solutions.
- Innovative features, such as the automatic head cleaning system, AME media, the effective "leader block" tape threading system, sealed deck design, and a simplified tape load path, result in improved reliability.



SAIT-1 Tape Drive

TECHNOLOGY	DRIVE TYPE	5.25" full-height tape drive
	MODEL NUMBER	SCSI: SDZ-100Z, Fibre: SDZ-130
	INTERFACE	Ultra 160 Wide SCSI/Fibre Channel
	RECORDING METHOD	Helical Scan
	DATA COMPRESSION	Adaptive Lossless Data Compression (ALDC)
CAPACITY AND PERFORMANCE	MEMORY-IN-CASSETTE	64-kbit Remote-Sensing MIC (R-MIC)
	CAPACITY	500 GB (native), 1.3 TB (compressed) ¹
	SUSTAINED TRANSFER RATE	30 MB/s (native), 78 MB/s (compressed) ¹
	BURST TRANSFER RATE	SCSI: 160 MB/s (max), Fibre Channel: 2 GB/s
	LINEAR RECORDING DENSITY	155,000 BPI
	RECORDING BLOCK LENGTH	Variable or Fixed
	AVERAGE MEDIA LOAD TIME	23 seconds
	AVERAGE ACCESS TIME	70 seconds
	SEARCH SPEED	394 inches/s (max)
	REWIND SPEED	551 inches/s (max)
MEDIA	DRUM ROTATIONAL SPEED	5,000 RPM
	BUFFER SIZE	72 MB
	PHYSICAL CHARACTERISTICS	600m half-inch single-reel
	MEDIA TYPE	Advanced Metal Evaporated (AME)
RELIABILITY	MODEL NUMBER	Media: SAIT1-500, Cleaning Cartridge: SAIT1-CL
	ERROR RATE	Less than 10 ⁻¹⁷ bits
	MTBF ²	> 300,000 hours at 100% duty cycle
	R/W HEAD LIFE ²	50,000 tape contact hours
ENVIRONMENT	MEDIA USES ²	30,000 end-to-end passes
	VIBRATION (OPERATING)	0.25 G peak swept sine wave of 5 to 500 Hz
	ALTITUDE	Up to 10,000 feet
	OPERATING TEMPERATURE	41°F to 104°F [5°C to 40°C]
	STORAGE TEMPERATURE	-40°F to 158°F [-40°C to 70°C]
	OPERATING HUMIDITY	20% to 80% (non-condensing)
	POWER REQUIREMENTS	DC 5 V +/-5%, DC 12 V +/-10% (internal)
	POWER CONSUMPTION	25 watts (average), 50 watts (max., internal)
	DIMENSIONS (WxHxD)	5.75 x 3.25 x 11.82 inches (internal)
	WEIGHT	6 lbs, 10 oz (internal)
LIMITED WARRANTY	3 year limited warranty	



1. Assumes 2.6:1 compression with ALDC.

2. MTBF, head life and media use specifications are averages based on normal office environmental conditions. Actual experience may vary.

©2003 Sony Electronics Inc.
The information regarding the SAIT Tape Drive on this data sheet is subject to change. Reproduction in part or in whole without prior written permission is prohibited. All rights reserved. Sony, Advanced Intelligent Tape and its logo, the SAIT logo, and Storage by Sony are trademarks of Sony. All other trademarks are property of their respective owners. Non-metric weights and measurements are approximate. Features and specifications are subject to change without notice.

Printed USA 05/03

OEM-SAIT-DS-05/03

SONY

Sony Electronics Inc.
Business Solutions and Systems Company
3300 Zanker Road
San Jose, California 95134
1-866-335-SONY (7669)

www.saittape.com

Storage by Sony™