

TREEFROG®

Spectra 2000™

ONE OR TWO TAPE DRIVES

15 OR 30 TAPE CARTRIDGES

SCALABLE TECHNOLOGY

SIMPLE RELIABLE DESIGN

LOW COST

RACK MOUNTABLE



SPECTRA LOGIC

*Spectra 2000
tape library
continues our
tradition of
providing scalable,
upgradable
automated tape
libraries*



The side panel of the Spectra 2000 library has been removed to show the location of the drive, picker and slots. Also shown is the picker which performs all required robotic movements with only two motors —key to the Spectra 2000's reliability.

SPECTRA 2000 TAPE LIBRARY

The Spectra 2000 tape library continues the Spectra Logic tradition of offering scalable and upgradable automated tape libraries. Equipped with industry-leading AIT drive technology, the Spectra 2000 tape library provides a low-cost, entry-level backup and storage solution for today's distributed networks and servers.

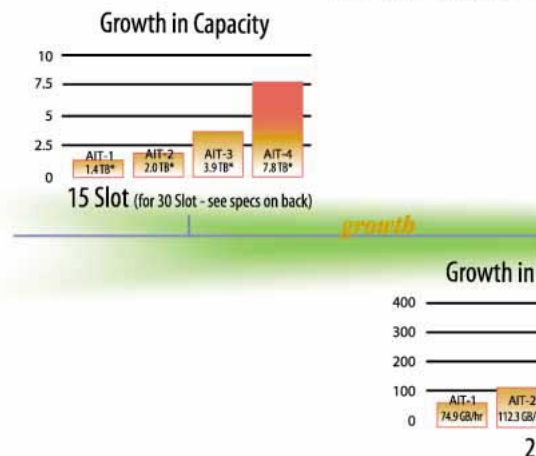
TREEFROG® ARCHITECTURE

The Spectra 2000 tape library uses TreeFrog architecture for robotic tape libraries developed by Spectra Logic. TreeFrog architecture supports SCSI-2 (Single-ended, HVD and LVD), Fibre Channel, 100 BaseT* and Gigabit Ethernet* interfaces. The cornerstones of the TreeFrog architecture are the integrated picker and the uni-body robotic chassis.

SONY AIT TECHNOLOGY

In 1996, Sony Corporation introduced Advanced Intelligent Tape (AIT), the culmination of 40 years of tape technology advancements. AIT provides users with a technological progression that has historically doubled capacity and transfer rates every two years.

At the heart of this technology is a new recording media called Advanced Metal Evaporated (AME) media. AME media enables Sony's AIT technology



to set new standards for cost, performance, reliability and storage density. Spectra Logic is currently shipping Spectra 2000 tape library models with AIT-1 and AIT-2 tape drives. The Spectra 2000 tape library also provides users with an upgradable path to new drive technologies as they become available.

SCALABILITY

The Spectra 2000 library can be configured with 15 or 30 cartridges and one or two AIT drives. To further protect your initial investment, the Spectra 2000 library supports multiple generations of AIT technology, up to AIT-4, which will provide 520 GB per cartridge at 62.4 MB per second¹.

THE ADVANTAGE OF AUTOMATION

The falling costs of servers and networking technology have led to decentralized computer environments, creating new challenges for system administrators. Protecting growing volumes of data on increasing numbers of servers located in different buildings, or even different cities, is of major concern.

Automating the backup process through tape libraries and storage management software can reduce the risk of data loss and minimize or eliminate costly manual interactions — freeing up system administrators for more important tasks.

Most system administrators realize that automation increases productivity and security, but consider

ment Protection—Now & Into the Future

Add media as needed,
all media is certified
and bar-coded

Connectivity upgrades;
start out with SCSI, upgrade to other
interface technologies as needed

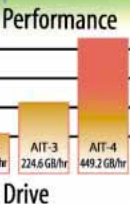
DAS NAS SAN

flexibility

connectivity



Spectra 2000 Tape Library



Upgrade in capacity and performance by adding
additional drives and slots, upgrade drives as
new technologies become available

it unaffordable. Spectra 2000 tape libraries were designed to provide first class backup, at a price comparable to the servers it protects. With standard features such as electronic barcode scanning and removable cartridge packs and drive modules, the Spectra 2000 library provides an affordable automation solution without sacrificing high-end features.

MEDIA AND DRIVES

To simplify media management, a removable cartridge pack with an integrated dust cover protects tapes throughout media rotations. Drives can be replaced by loosening the captive 1/4-turn screws and removing a simple drive carrier.

INTERFACE TECHNOLOGIES

Interface technologies have evolved dramatically over the past ten years. Storage Area Networks and Network Attached Storage are the foundations of today's new computing infrastructures.

Spectra 2000 libraries are available in SCSI-2 models (Single-ended, HVD and LVD), Fibre Channel (supporting private loop, public loop and fabric topologies), 100 BaseT* and Gigabit Ethernet*. As interface technologies evolve, your library can be upgraded, protecting your investment by not limiting your potential to move forward with the industry.

The Spectra 2000 library is available in black (shown) or white/light grey. The library may be ordered as a horizontal or vertical standing unit.

VIRTUAL CONTROL PANEL

Spectra Logic's Virtual Control Panel uses Java and HTML technologies to provide status, diagnostics and remote device management capabilities. Accessible via an Internet browser interface, the Virtual Control Panel allows administrators to initiate robotic and drive diagnostics, move tapes, upgrade a library's firmware or even view Application Notes from Spectra Logic's support website.

SPECTRA LOGIC

Spectra Logic has been designing and manufacturing leading edge storage peripherals for a wide range of computer applications since 1979. Our tape libraries deliver best-of-class performance, reliability, scalability and affordability. Spectra Logic provides data protection for customers worldwide with library products ranging in capacity from hundreds of gigabytes to hundreds of terabytes.





Spectra 2000 tape libraries are available as tower, desktop or rack mount units.



Units may be ordered in black or white/light grey.

Spectra 2000 Specifications

Capacity	AIT-1 ³		AIT-2		AIT-3 [*]		AIT-4 [*]	
	Native	Compressed ¹	Native	Compressed ¹	Native	Compressed ¹	Native	Compressed ¹
Cartridges								
15	525 TB	1.365 TB	.75 TB	1.95 TB	1.5 TB	3.9 TB	3.0 TB	7.8 TB
30	N/A	N/A	1.50 TB	3.90 TB	3.0 TB	7.8 TB	6.0 TB	15.6 TB

Performance	AIT-1 ³			AIT-2			AIT-3 [*]		
	Native	Compressed ¹	Hourly	Native	Compressed ¹	Hourly	Native	Compressed ¹	Hourly
Drives									
1	4.0 MB/sec	10.4 MB/sec	37.4 GB/hr	6.0 MB/sec	15.6 MB/sec	56.2 GB/hr	12.0 MB/sec	31.2 MB/sec	112.3 GB/hr
2	8.0 MB/sec	20.8 MB/sec	74.9 GB/hr	12.0 MB/sec	31.2 MB/sec	112.3 GB/hr	24.0 MB/sec	62.4 MB/sec	224.6 GB/hr

Physical

Unit Dimensions: 8.6" H x 16.9" W x 16.5" D
Weight: 31.4 pounds (fully loaded)

Power Requirements:

Input Voltage: 110/220 VAC, 50/60 Hz
Power Consumption: 100 W maximum (SCSI)
120 W maximum (Fibre)
Average robotic access time: <12.5 seconds

Tape Technology Migration Path

Generation	Drive Technology ¹ *		Spectra 2000 Capacity ¹		Spectra 2000 Backup Rate ¹	
	Capacity	Transfer Rate	15 Cartridge	30 Cartridge	One Drive	Two Drive
AIT-1	65.0 GB	37.4 GB/hr	.975 TB	N/A	37.4 GB/hr	74.9 GB/hr
AIT-1 Ext Length	91.0 GB	37.4 GB/hr	1.365 TB	N/A	37.4 GB/hr	74.9 GB/hr
AIT-2 36 GB	93.6 GB	56.2 GB/hr	1.404 TB	2.808 TB	56.2 GB/hr	112.3 GB/hr
AIT-2	130.0 GB	56.2 GB/hr	2.000 TB	3.900 TB	56.2 GB/hr	112.3 GB/hr
AIT-3 [*]	260.0 GB	112.3 GB/hr	3.900 TB	7.800 TB	112.3 GB/hr	224.6 GB/hr
AIT-4 [*]	520.0 GB	224.6 GB/hr	7.800 TB	15.600 TB	224.6 GB/hr	449.3 GB/hr
AIT-5 [*]	1040.0 GB	449.3 GB/hr	15.600 TB	31.200 TB	449.3 GB/hr	898.6 GB/hr
AIT-6 [*]	2080.0 GB	898.6 GB/hr	31.200 TB	62.400 TB	898.6 GB/hr	1797.1 GB/hr

TreeFrog Architecture Specifications

Interface

SCSI - Single-ended, HVD and LVD (Single-ended requires the use of a 90 ohm, 3 foot SCSI cable for proper operation).
Fibre Channel - copper, single-mode optical², multi-mode optical² with support for private loop, public loop and fabric topologies.

Reliability

Robotics: >1,000,000 MCBF (Mean Cycles Between Failure)

Software Compatibility

Spectra Logic's Spectra 2000 tape library is supported by the industry's leading software packages on a wide variety of platforms. Visit the software partner section of our website for details.

Drive Technology Support

TreeFrog architecture supports Sony AIT drive technology.

Support

Spectra Logic offers many support options for the Spectra 2000 library. Coverage and response time can be structured to maximize your data

center operations and minimize your "total cost of ownership." Please visit our website or call to find out more information about our support options.

Media and Racks



Spectra Logic's Certified Media, Cartridge Packs and PackRacks™

Spectra Logic offers a wide selection of certified media, individually packaged and loaded into Cartridge Packs. Media are bar-coded with uniquely sequenced labels.

Purchasing your media in a Cartridge Pack is the easiest way to have media always available for your data center (no need to unwrap individual cartridges). Spectra Logic Cartridge Packs include a protective dust cover to protect your media from contamination during media rotation. Cartridge Packs are easily stored on a Spectra Logic PackRack which keeps media organized and accessible. A PackRack holds four cartridge packs (60 cartridges maximum) and mounts to your data center wall. PackRacks are cascable. You'll never lose track of your media.



Cartridge Packs easily snap into a PackRack.

SPECTRA LOGIC

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