Spectra12000

AIT Gator™

GATOR CONTROL PANEL

General Status

Robotics

Drives

Media

GATOR

Unmatched Storage Density

Shared Library Services™

Multiple Interface Technologies

Extremely Scalable

Color Touchscreen Interface

Rackmountable

High Availability Features

SPECTRA LOGIC

THE GATOR™ FAMILY OF TAPE LIBRARIES REPRESENTS THE ULTIMATE SOLUTION FOR EVER-CHANGING, COMPREHENSIVE DATA MANAGEMENT

SPECTRA LOGIC'S GATOR™ ARCHITECTURE

Spectra Logic's enterprise tape library architecture meets the needs of mid-range to high-end datacenters. If your goal is to centralize backup and restore operations across a heterogeneous enterprise, nothing compares to the Gator family of tape libraries for performance, connectivity, reliability, storage and return on investment.

The entry-level model (Spectra 12000) is scalable up to 120 cartridges and eight tape drives with a minimum configuration of 60 cartridges and two tape drives. The largest model in the family (Spectra 64000) delivers state-of-the-art enterprise data management with up to 640 cartridges and 32 tape drives in a single rack—the industry's highest storage density.

Rugged Picker Design

At the heart of the Gator design is a counter-balanced rack and pinion picker mechanism. This picker can perform more than 600 tape handling operations per hour and has been designed to surpass two million mean cycles between failure (MCBF). In the rare event that the picker needs to be replaced, simply loosen a set of captive screws and slide the entire assembly out through the front panel. In less than ten minutes, the assembly is replaced and you're moving tapes again.

The Gator picker can perform more than 600 tape handling operations in an hour and is field-replaceable—providing efficient, reliable backup and restore, and maximizing library uptime.

High Availability Features

To ensure maximum uptime, the Gator family incorporates a number of high-availability features into the library design, including hot-swappable drive modules, control electronics, host interface electronics and N+1 redundant Power Packs in addition to closed-loop tape drive control and built-in drive diagnostics.

Included in the Gator's list of high-availability features are hot-swappable Drive Modules (above), Power Packs (below, left), Cartridge Packs (near right) capable of holding fifteen cartridges and hot-swappable Quad Interface Processor (QIP) boards (far right).


Size and Storage Density

The Gator family offers the industry's highest storage density, allowing you to manage a massive amount of data without wasting valuable space in your datacenter. The Gator family is scalable up to 640 cartridges and 32 tape drives—all in a standard NEMA 19" rackmount enclosure.
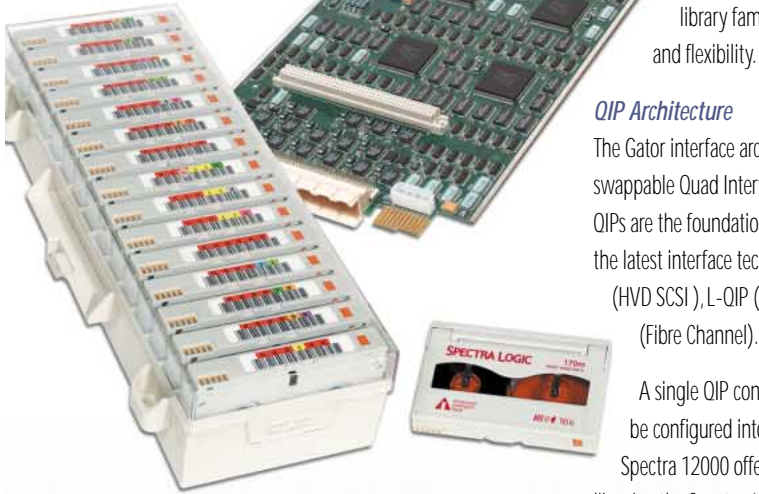
AIT Advantages

Equipped with Sony's Advanced Intelligent Tape (AIT) drive technology, the Spectra Logic Gator represents the industry's most advanced combination of drive and robotic technologies. The latest AIT-2 drives offer best-of-class performance and storage density in a cost-effective and reliable solution. The Gator architecture allows upgrades to newer tape technologies as they become available, protecting your investment well into the future.
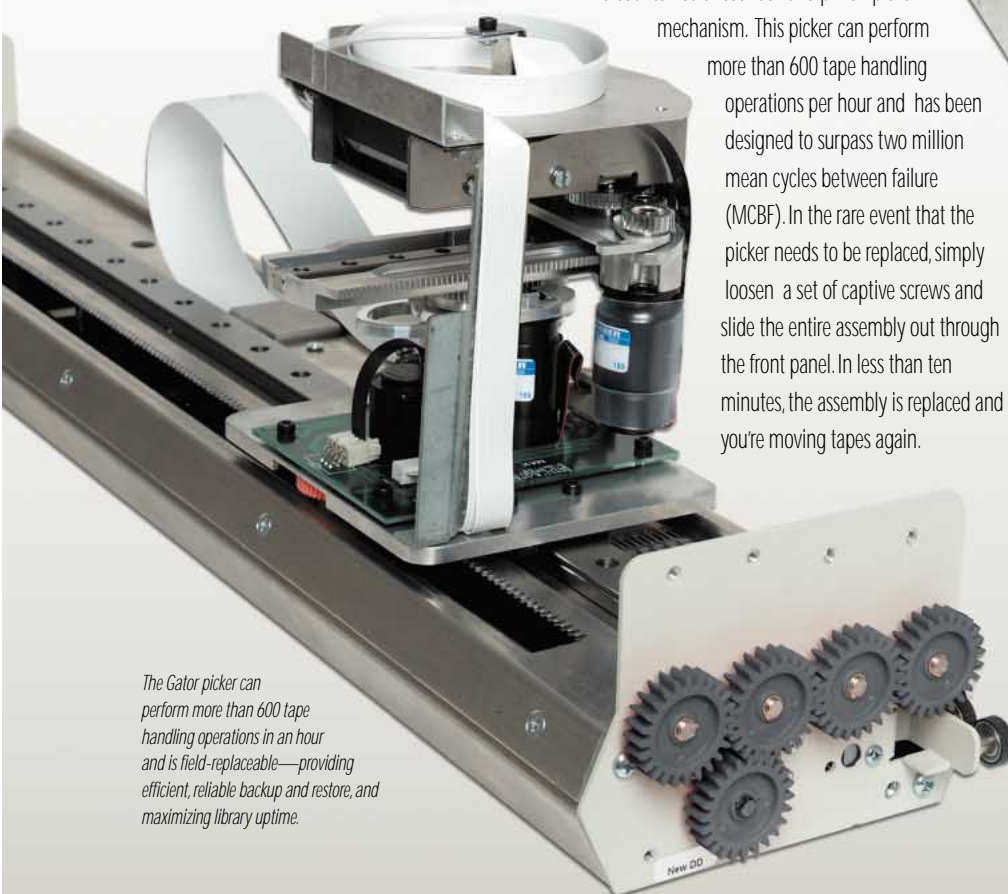
Unparalleled Return on Investment

No tape library in its class delivers a lower total cost of ownership than the Gator automated tape library. Spectra Logic's extensive upgrade program protects your investment for years to come. The Gator's open architecture gives you the flexibility to use the "latest and greatest" tape drive and interface technologies when you need them, and still leverage the most cost-effective technologies wheMre they make sense.

Performance Upgrades

The Gator architecture enables you to increase library throughput—by adding more drives or upgrading to new drive technologies—without requiring library downtime. Gator Drive Sleds are user-installable and hot-swappable, making drive changes painless.

Capacity Upgrades

Tape library capacity can be easily and quickly upgraded via 60-slot segments (7.8 TB per upgrade). The Spectra 12000 is upgradable to 15.6 TB. The Spectra 64000's maximum capacity is over 80 TB.

Connectivity Upgrades

The Gator design allows you to select from multiple interface technologies to best fit your environment. Any combination of SCSI and Fibre Channel can be configured within a single Gator library, offering you the ultimate in flexibility and control as your enterprise infrastructure changes.

Shared Library Services™

A key advantage of the Gator architecture is Shared Library Services™ (SLS). Allowing you to allocate a Gator's resources across your enterprise, SLS provides support for heterogeneous platforms, software applications, tape drives, media and interface technologies—all within the same library. No other tape library family gives you as much control and flexibility.

QIP Architecture

The Gator interface architecture is based on hot-swappable Quad Interface Processor (QIP) boards. QIPs are the foundation for SLS and are available in the latest interface technologies including: S-QIP (HVD SCSI), L-QIP (LVD SCSI) and dual-port F-QIP (Fibre Channel).

A single QIP controls up to four drives and can be configured into two logical libraries. The Spectra 12000 offers a maximum of four logical libraries; the Spectra 64000 offers up to sixteen.

Best-of-Class User Interface

All models in the Spectra Logic Gator family are equipped with a color touchscreen user interface, making day-to-day media rotations a breeze. The graphical user interface provides intuitive access to library configuration, status and diagnostics, as well as front panel access to media and drives.

In addition to the user interface, the Gator includes management capabilities such as SNMP, modem and ethernet connectivity. The Gator can also be maintained via Spectra Logic's Virtual Control Panel using the latest HTML and Java technologies.

Media Management

Cartridges are quickly added or removed via the convenient entry/exit pack. Cartridges can be accessed via Spectra Logic's touchscreen user interface individually or by cartridge pack. The removable entry/exit pack is equipped with an integrated dust cover, protecting your valuable media throughout media rotation cycles. The Spectra 64000 is equipped with dual entry/exit packs. All models include an electronic barcode reader.
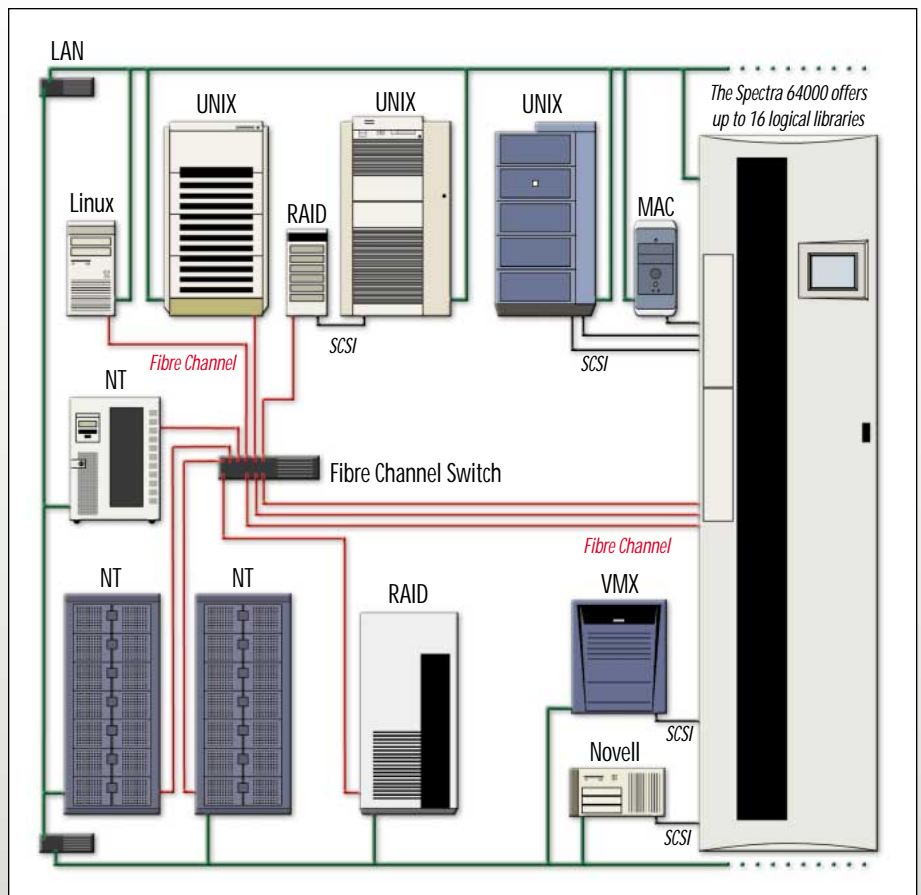
Shared Library Services™ enable users to allocate the Gator 64000's resources from one to sixteen logical libraries (user-defined configurations of cartridges, drives, interfaces, software packages and platforms). The Gator 12000 offers up to four logical libraries.

Software Support

The Gator can be managed by a wide range of software applications on virtually all platforms. SLS™ partitions can be configured to emulate other drives and libraries—including most DLT robots and the Spectra 10000—for instant software compatibility with a variety of backup, HSM and archival products and environments, including Microsoft® RMS.

Serviceability

One of Spectra Logic's primary design objectives was to virtually eliminate downtime. Service and upgrades can be completed without moving the library out of its environment, and in most cases, without requiring library downtime or resets.

Spectra Logic

Since 1979, Spectra Logic has been designing and manufacturing cutting-edge storage peripherals for a wide range of computer applications. Our best-in-class tape libraries deliver performance, reliability, scalability and affordability. With library products ranging in capacity from hundreds of gigabytes to hundreds of terabytes, Spectra Logic is providing data protection for corporate customers worldwide.
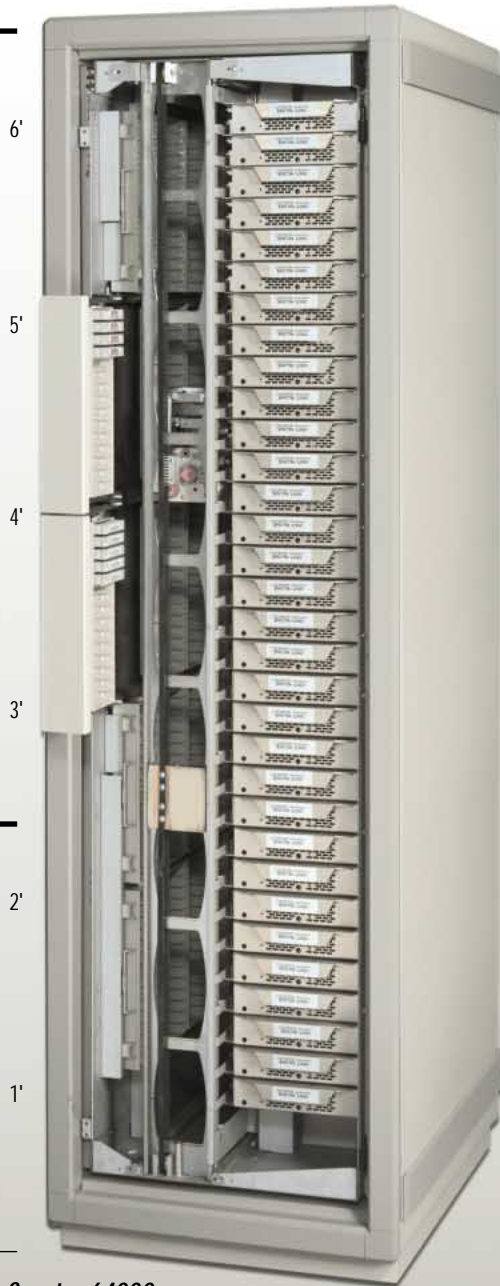
The Spectra 12000 can accommodate up to 120 cartridges and eight tape drives. The Gator's Entry/Exit Pack (shown above) allows up to fifteen cartridges at a time to be added to or removed from the library. The convenient, removable Entry/Exit pack is equipped with an integrated dust cover to protect your data throughout media rotation cycles.

Gator AIT
AUTOMATED TAPE LIBRARY

SPECTRA LOGIC
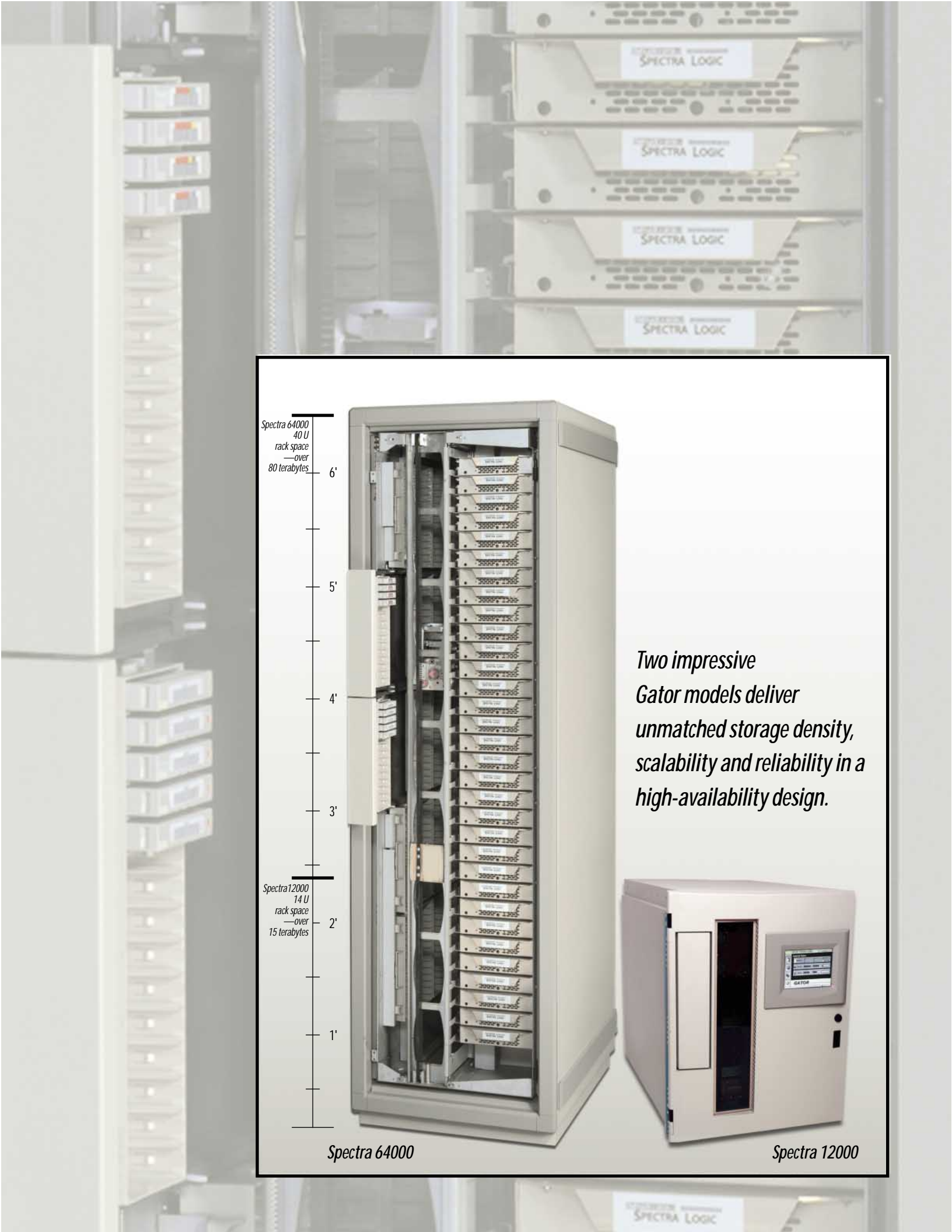
Spectra 64000
40 U
rack space
—over
80 terabytes

6'

5'

4'

3'

Spectra12000
14 U
rack space
—over
15 terabytes

2'

1'

*Two impressive
Gator models deliver
unmatched storage density,
scalability and reliability in a
high-availability design.*

Spectra 64000

Spectra 12000

SPECTRA 12000 SPECIFICATIONS

CAPACITY   AIT-2

Cartridges	Native	Compressed[1]
60	3.0 TB[3]	7.8 TB
120	6.0 TB	15.6 TB

Time to Load Cartridge   <6 seconds

PERFORMANCE   AIT-2

Drives	Native	Compressed[1]	Hourly
2	12.0 MB/sec	31.2 MB/sec	112.32 GB/hr
4	24.0 MB/sec	62.4 MB/sec	224.64 GB/hr
6	36.0 MB/sec	93.6 MB/sec	336.96 GB/hr
8	48.0 MB/sec	124.8 MB/sec	449.28 GB/hr

TAPE TECHNOLOGY MIGRATION PATH

Generation	AIT Technology[1]		Spectra 12000 Capacity[1]		Spectra 12000 Backup Rate[1]			
	Capacity	Transfer Rate	60 Cartridge	120 Cartridge	Two Drive	Four Drive	Six Drive	Eight Drive
AIT-2 36 GB	93.6 GB	56.16 GB/hr	5.616 TB	11.232 TB	112.32 GB/hr	224.64 GB/hr	336.96 GB/hr	449.28 GB/hr
AIT-2	130.0 GB	56.16 GB/hr	7.8 TB	15.6 TB	112.32 GB/hr	224.64 GB/hr	336.96 GB/hr	449.28 GB/hr
AIT-3	260.0 GB	112.32 GB/hr	15.6 TB	31.2 TB	224.64 GB/hr	449.28 GB/hr	673.92 GB/hr	898.56 GB/hr
AIT-4	520.0 GB	224.64 GB/hr	31.2 TB	62.4 TB	449.28 GB/hr	898.56 GB/hr	1347.84 GB/hr	1797.12 GB/hr

PHYSICAL

Rackmount Configuration: 14 U rack space—24.25" H x 17.5"W x 30.5"D
Weight: 185 lbs.

POWER REQUIREMENTS

Input Power: 85/264 VAC, 6.8A typical max at 120V, 47-440 Hz
Power Consumption: 850 W maximum

SPECTRA 64000 SPECIFICATIONS

CAPACITY   AIT-2

Cartridges	Native	Compressed[1]
100	5.0 TB	13.0 TB
160	8.0 TB	20.8 TB
220	11.0 TB	28.6 TB
280	14.0 TB	36.4 TB
340	17.0 TB	44.2 TB
400	20.0 TB	52.0 TB
460	23.0 TB	59.8 TB
520	26.0 TB	67.6 TB
580	29.0 TB	75.4 TB
640	32.0 TB	83.2 TB

PERFORMANCE   AIT-2

Drives	Native	Compressed[1]	Hourly
2	12.0 MB/sec	31.2 MB/sec	112.32 GB/hr
4	24.0 MB/sec	62.4 MB/sec	224.64 GB/hr
6	36.0 MB/sec	93.6 MB/sec	336.96 GB/hr
8	48.0 MB/sec	124.8 MB/sec	449.28 GB/hr
12	72.0 MB/sec	187.2 MB/sec	673.92 GB/hr
20	120.0 MB/sec	312.0 MB/sec	1123.20 GB/hr
28	168.0 MB/sec	436.8 MB/sec	1572.48 GB/hr
32	192.0 MB/sec	499.2 MB/sec	1797.12 GB/hr

Time to Load Cartridge   <6 seconds

TAPE TECHNOLOGY MIGRATION PATH

Generation	AIT Technology[1]		Spectra 64000 Capacity[1]		Spectra 64000 Transfer Rate[1]			
	Capacity	Transfer Rate	320 Cartridge	640 Cartridge	12 Drive	20 Drive	28 Drive	32 Drive
AIT-2 36 GB	93.6 GB	56.16 GB/hour	29.95 TB	59.90 TB	673.92 GB/hour	1123.2 GB/hour	1572.48 GB/hour	1797.12 GB/hour
AIT-2	130.0 GB	56.16 GB/hour	41.60 TB	83.20 TB	673.92 GB/hour	1123.2 GB/hour	1572.48 GB/hour	1797.12 GB/hour
AIT-3	260.0 GB	112.32 GB/hour	83.20 TB	166.40 TB	1347.84 GB/hour	2246.4 GB/hour	3144.96 GB/hour	3594.24 GB/hour
AIT-4	520.0 GB	224.64 GB/hour	166.40 TB	332.80 TB	2695.68 GB/hour	4492.8 GB/hour	6289.92 GB/hour	7188.48 GB/hour

PHYSICAL

Rackmount Configuration: 40 U rack space—70"H x 17.5"W x 30.5"D
Weight: 370 lbs.

POWER REQUIREMENTS

Input Power: 85/264 VAC, 20A typical max at 120V, 47-440 Hz
Power Consumption: 2400 W maximum

GATOR FAMILY SPECIFICATIONS

INTERFACE

SCSI (HVD, LVD) and Dual Port Fibre Channel - copper[4], single-mode optical[4], multi-mode optical[4] with support for private loop, public loop and fabric topologies (Class II and Class III).

RELIABILITY

Robotics: >2,000,000 MCBF (Mean Cycles Between Failure)

SOFTWARE COMPATIBILITY

Spectra Logic's Gator Libraries are supported by the industry's leading software packages on a wide variety of platforms. Visit the software partner section of our web site for details.

MULTIPLE DRIVE TECHNOLOGY SUPPORT

The Gator can support multiple drive technologies, including Sony AIT, Exabyte Mammoth and Ecrix VXA.

Specifications are subject to change without notice. All trademarks are the properties of their respective owners. [1] Compression rates are shown using a ratio of 2.6:1 (with ALDC compression algorithm). Actual compression ratios are data dependent. [2] AIT upgrades dependent on drive availability. [3] 1 terabyte (TB) = 1,000 gigabytes (GB) [4] Through use of GBIC modules.

SPECTRA LOGIC

Unylogix Technologies Inc.

Tel: (514) 253-5200

email: info@unylogix.com

web site: www.unylogixcom