

QUALSTAR RLS SERIES TAPE LIBRARY SYSTEM

RACKMOUNT
AUTOMATED
TAPE LIBRARIES



The RLS Series delivers Qualstar's *Simply Reliable* Automated Tape Library technology to users requiring rackmountable solutions. The RLS Series supports AIT, LTO, SuperAIT and SuperDLT cartridge tape formats, giving users technology choices without compromising quality or reliability, in compact 5U-high modules. Offering superior performance and value, the RLS Series Tape Library family includes eight models yielding capacities up to 22 terabytes (native). Using typical data compression ratios, capacity can exceed 57 terabytes. Depending on the tape drive technology chosen, individual models house up to four tape drives. Data transfer rates can exceed 1.1 terabytes per hour. Built-in reliability is only part of the RLS Series story. Hot-pluggable tape drives have been designed in to reduce downtime. Each drive is on a self-connecting mount that eliminates handling cables. Simply slide the drives in or out.

HIGH AVAILABILITY PLUS Q-LINK

RLS high availability options include hot-swappable redundant power supplies, true hot-swappable tape drives, and Q-Link, the web browser-based remote library manager. Q-Link allows any RLS Series Tape Library to be configured, monitored, diagnosed and managed from anywhere in the world. Using Q-Link, companies can deploy enterprise-class data protection without increasing staffs or degrading data security. Even firmware updates can be implemented remotely.

CAPACITY ON DEMAND

The RLS-8204 features capacity on demand (COD), delivering an unbeatable



combination of low entry cost and easy capacity upgrades as needed. Starting with twelve data tape slots, up to four, 8-slot expansion modules can be installed in just a few minutes. A simple software key and a pair of magazines is all it takes for users to add more capacity.

INTERFACE CHOICES

The SANSmart Fibre Channel interface option supports the latest 2-gigabit per second SAN technology. The IPSmart™ iSCSI option offers dual Gigabit Ethernet ports for greater data throughput. Adding a library to an IP SAN just got easier.

INVESTMENT PROTECTION

Featuring IPM (Interface Personality Module) architecture, RLS Series libraries can be reconfigured in seconds for SCSI, Fibre Channel or iSCSI by simply plugging in the appropriate IPM. A field capacity expansion kit is also available to economically upgrade the RLS-4445 to an RLS-4470.

RELIABLE, INTELLIGENT ROBOTICS

The RLS Series unique robotic mechanism is *Simply Reliable* by design. Leadscrew-based robotics using brushless DC motors and closed-loop servo control systems provide precise positioning and flawless media handling for years of dependable operation. All FRUs, options and tape drives are auto-discovering, and all electrical and mechanical adjustments have been completely eliminated by sophisticated, adaptive "smart" logic design.

EASY OPERATION

An intuitive menu-driven control system provides easy-to-use installation, configuration and operational information via the onboard LCD panel. Critical operating functions are displayed and an audible alarm signals conditions requiring immediate action. All of the information, functions and controls built into the front panel display are replicated in Q-Link. Tapes are housed in convenient magazines that simply snap in and out of the library. Removing and organizing tapes for offsite storage has never been easier.

ADVANCED CARTRIDGE MANAGEMENT AND SECURITY

Barcode scanning enhances throughput and controls the media inventory. VIOP, a unique variable I/O port design, allows users to determine how many slots to commit to importing and exporting tapes. Our exclusive Inventory Sentry senses whether the tapes or magazines have actually been removed when the door is opened. If they haven't, operation is resumed without causing a time consuming reinventory.

LOGICAL LIBRARY

Logical Library is built into every RLS Series SCSI library. It allows up to four SCSI-connected servers to share a single library, even if each server is running a separate application. Systems that you couldn't afford to upgrade can now be protected automatically.

QUALSTAR RLS SERIES TAPE LIBRARY SYSTEM

RACKMOUNT AUTOMATED TAPE LIBRARIES



ENGINEERED FOR RELIABILITY

- Auto-connecting hot-pluggable tape drives
- All brushless motors
- Self-calibrating all-digital servo control system
- Auto-aligning, no mechanical or electrical adjustments
- Over 2,000,000 MEBF
- Automated tape drive cleaning

EFFICIENT MEDIA CONTROL

- Barcode scanning of data cartridges
- All tapes are housed in convenient removable magazines
- VIOP, variable I/O port for inserting and removing cartridges or magazines
- Inventory Sentry minimizes offline time

COMPREHENSIVE USER INTERFACE

- Q-Link browser-based remote library management option
- Back-lighted 80 character display
- Control panel menu system for easy installation, configuration, operation and maintenance

VERSATILITY

- Capacity on demand (RLS-8204)
- Hot-swappable tape drive option
- Redundant hot-swappable power supply option
- SANSmart Fibre Channel option
- IPSmart iSCSI option
- Ultra2 IVD SCSI interface
- Multiple SCSI bus connections supported
- Logical Library Partitioning (SCSI only)
- Simultaneous random and multi-sequential operating modes
- Selectable recycling and dual-bin sequential modes

RLS SERIES SPECIFICATIONS

8 MODELS TO CHOOSE FROM	RLS-4221		RLS-4445		RLS-4470		RLS-5244	RLS-6227		RLS-8236		RLS-8244		RLS-8204		
Drive Type	AIT-3	AIT-4	AIT-3	AIT-4	AIT-3	AIT-4	SAIT-1	SDLT 320	SDLT 600	LTO 2	LTO 3	LTO 2	LTO 3	LTO 2	LTO 3	
Number of Drives	1-2		1-4				44		27		36		44		12-44	
Number of Tapes	22		45				70		44		36		44		12-44	
Native Capacity (TB)	2.2	4.4	4.5	9	7	14	22	4.3	8.1	7.2	14.4	8.8	17.6	2.4-8.8	4.8-17.6	
Compressed Capacity (TB)*	5.7	11.4	11.7	23.4	18.2	36.4	57.2	8.6	16.2	14.4	28.8	17.6	35.2	4.8-17.6	4.8-35.2	
Max. Native Data Rate (GB/hr.)	86	172	172	345	172	345	216	115	259	252	576	252	576	252	576	
Max. Comp. Data Rate (GB/hr.)*	224	449	449	898	449	898	561	230	518	504	1.1 TB/hr.	504	1.1 TB/hr.	504	1.1 TB/hr.	
Field Expansion to Model:			RLS-4470												Four, 8-slot modules	
Avg. Exchange Time (seconds)	15		22				18	16		18		18		18		
Time to Scan Barcodes (seconds)	30		62				85	78		62		78		78		
Barcode Reader	Optional															
Variable I/O Port	Standard															
Height (in./cm)	5U: 8.75 / 22.2															
Width (in./cm)	16.6 / 42.2															
Depth (in./cm)	32 / 81.3				36.8 / 93.5		32 / 81.3		36.8 / 93.5		36.8 / 93.5		36.8 / 93.5		36.8 / 93.5	
Net Weight (lb./kg)	65 / 30		87 / 39		92 / 42		150 / 68		97 / 44		104 / 47		147 / 67		147 / 67	
Power Consumption SCSI (watts, avg.)	100								130							
Power Consumption FCI (watts, avg.)	115								145							

* Using typical compression ratios

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Qualstar Corporation does not warrant the MEBF to be representative of any particular unit installed for customer use. Failure rates are derived from a large database of test samples. The individual failure rate will vary from unit to unit.

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Qualstar products are covered by one or more of the following patents: 6,271,982 and 6,560,061. Other patents pending.

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