

QUALSTAR RLS SERIES LTO RACKMOUNT TAPE LIBRARY SYSTEMS

FEATURING CAPACITY
ON DEMAND



The RLS Series delivers Qualstar's *Simply Reliable* Automated Tape Library technology to LTO users requiring Compact, 5U-high rackmountable solutions. Offering superior performance and value, the RLS Series LTO Tape Library family includes five models yielding capacities up to 35.2 terabytes (native). Using typical data compression ratios, capacity can exceed 70 terabytes. Individual models house up to four tape drives. Data transfer rates can exceed 1.7 terabytes per hour.

CAPACITY ON DEMAND (COD)

The RLS-8204 and 8404H COD models deliver a persuasive combination of low entry cost and easy capacity upgrades. These models support one or two LTO full-height, or up to four half-height tape drives, giving users technology choices in compact 5U-high modules. Starting with twelve data tape slots, up to four, 8-slot expansion kits can be installed in just a few minutes. A simple software key and a pair of magazines is all it takes for users to easily add more capacity.

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.



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 is quick and easy.

DFA DRIVES SUPPORTED

RLS-8236D and RLS-8244D models house LTO 3 or LTO 4 Direct Fibre Attach tape drives. These drives use 4Gb Fibre Channel interfaces to connect directly to ports on switches or to servers where SCSI cable length restrictions inhibit the desired installation. The RLS library control interface can be connected with SCSI, or with Fibre Channel using the FCO option.

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 autodiscovering, and all electrical and mechanical adjustments have been completely eliminated by sophisticated, adaptive "smart" logic design. Built-in reliability is only part of the RLS Series story. Each tape drive is on a self-connecting mount that eliminates handling cables. Simply slide the drives in or out.

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 is easy.

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 re-inventory.

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.



SIMPLY RELIABLE

QUALSTAR RLS SERIES LTO RACKMOUNT TAPE LIBRARY SYSTEMS

FEATURING CAPACITY ON DEMAND



ENGINEERED FOR RELIABILITY

- Auto-connecting user-installable 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: add up to four 8-slot user-installed or factory option expansion kits
- Hot-swappable tape drive option
- Redundant hot-swappable power supply option
- SANSmart Fibre Channel option
- IPSmart iSCSI option
- Ultra2 LVD SCSI interface
- 4Gb DFE drives supported
- 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

5 MODELS TO CHOOSE FROM	RLS-8216H	RLS-8236 / 8236D		RLS-8244 / 8244D		RLS-8204		RLS-8404H
Drive Type	LTO 2 HH	LTO 3	LTO 4	LTO 3	LTO 4	LTO 3	LTO 4	LTO 2 HH
Number of Drives	1 – 2	1 – 2		1 – 2		1 – 2		1 – 4
Number of Tapes	16	36		44		12 – 44		12 – 44
Native Capacity (TB)	3.2	14.4	28.8	17.6	35.2	4.8 – 17.6	9.6 – 35.2	2.4 – 8.8
Compressed Capacity (TB)*	6.4	28.8	57.6	35.2	70.4	9.6 – 35.2	19.2 – 70.4	4.8 – 17.6
Max Native Data Rate (GB/hr)	172	576	864	576	864	576	864	345
Max Compressed Data Rate (GB/hr)*	345	1,152	1,728	1,152	1,728	1,152	1,728	691
Field Expansion						Four, 8-slot increments		Four, 8-slot increments
Average Exchange Time (seconds)	15	16		18		18		18
Time to Scan Barcodes (seconds)	30	62		78		78		78
Barcode Reader	Optional	Optional		Optional		Optional		Optional
Variable I/O Port	Standard	Standard		Standard		Standard		Standard
Height (in/cm)	5U	5U		5U		5U		5U
Width (in/cm)	16.6 / 42.2	16.6 / 42.2		16.6 / 42.2		16.6 / 42.2		16.6 / 42.2
Depth (in/cm)	32.0 / 81.3	32.0 / 81.3		36.8 / 93.5		36.8 / 93.5		36.8 / 93.5
Net Weight (lb/kg)	65 / 30	104 / 47		147 / 67		147 / 67		147 / 67
Power Consumption SCSI (watts, avg)	100	130		130		130		130
Power Consumption FCI (watts, avg)	115	145		145		145		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, 6,560,061 and 7,181,313. Other patents pending.

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SIMPLY RELIABLE