

QUALSTAR AIT TAPE LIBRARY SYSTEM

AUTOMATED TAPE LIBRARIES
FEATURING AIT TECHNOLOGY



The Qualstar TLS-4000 Series is the most comprehensive tape library family available for enterprise class backup and near-online data storage. Incorporating AIT™ technology tape drives, they are true *automated* tape libraries that allow users to store, archive and retrieve data without operator intervention, around the clock.



SEAMLESS, TRANSPARENT INTEGRATION

Concurrent data transfer combining up to 12 drives provides the high throughput necessary to backup large networks. Simultaneous reading and writing means procedures can be scheduled anytime, independent of any operator and with no interference with other operations. SANSmart technology and multiple SCSI busses increase throughput to meet narrowing backup windows. The TLS-4000 family is supported by all leading data protection, archive and storage management applications for easy integration and very low cost per terabyte.

THE RIGHT SYSTEM FOR YOU NOW...

Offering unbeatable reliability, performance and value, our TLS-4000 AIT Tape Library family includes 10 models spanning capacities from 1.2 terabytes to over 312 terabytes. Individual models house two, four, six, or up to twelve drives, delivering data transfer rates exceeding 2 terabytes per hour.

...AND THE EXPANDABLE SYSTEM FOR YOUR FUTURE

Field upgrade kits are available for several models that double the number of tapes, and additional drives are readily installed to increase throughput. Tape drives can be user-installed in less than one minute. Capacity expansion kits take less than an hour to install.

RELIABLE, INTELLIGENT ROBOTICS

Our unique robotic mechanism is simply better, by design. Leadscrew-based robotics using brushless motors and closed-loop servo control systems provide precise positioning and flawless media handling for years of dependable operation. All electrical and mechanical adjustments have been completely eliminated by sophisticated, adaptive "smart" logic design. Filtered positive air pressure within each unit eliminates airborne contamination for extended tape and head life.

POWERFUL USER INTERFACE

An intuitive menu-driven control system provides easy-to-use installation, configuration, and operational information via the large LCD panel. Critical operating messages are displayed, and an audible alarm signals conditions requiring immediate action.

Q-Link, our web browser-based remote library manager, is optional on all models. Q-Link allows any TLS-4000 Series Tape Library to be configured, monitored and managed from anywhere in the world. Using Q-Link, companies can deploy enterprise-class data protection without increasing staff or degrading data security. Even firmware updates can be installed remotely.

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 moved when the door is opened. If they haven't, operation is resumed without causing a time consuming reinventory.

SANSMART AND LOGICAL LIBRARY

The SANSmart Fibre Channel Options support the latest SAN and serverless-backup applications.

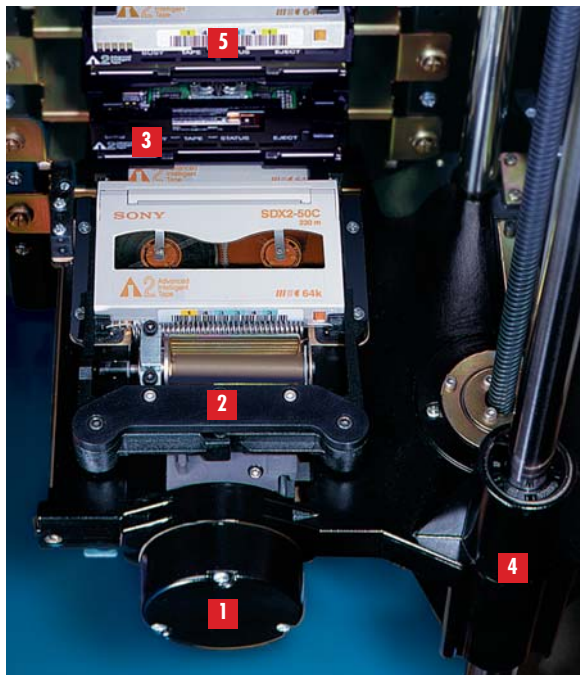
Logical Library is built into all TLS-4000 SCSI models and allows up to four SCSI-connected servers to share a library, even if each server is running a separate application. Systems that you couldn't afford to upgrade can now be protected automatically.

QUALSTAR: SIMPLY RELIABLE

Installation and support are provided by leading VARs and Integrators. Qualstar's *Simply Reliable* Tape Libraries are the preferred choice of IT professionals worldwide.

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ENGINEERED FOR RELIABILITY

- All brushless motors, no belts or pulleys **1**
- Self-calibrating, all-digital servo control system **2**
- Pre-wired tape drive mounting slots **3**
- Auto-aligning, no mechanical or electrical adjustments **4**
- Pressurized, filtered, forced air cooling with redundant fans
- Over 2,000,000 MEBF
- Automated tape drive cleaning

EFFICIENT MEDIA CONTROL

- Barcode scanning of data cartridges **5**
- All tapes are housed in convenient removable magazines
- Key locked door with a large window
- 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 manager option
- Back-lighted 80 character display
- Control panel menu system for easy installation, configuration, operation and maintenance

VERSATILITY

- LVD SCSI interface
- Multiple SCSI bus connections supported
- 2 Gb SANSmart Fibre Channel option
- Logical Library dynamic partitioning
- Simultaneous random and multi-sequential operating modes
- Selectable recycling and dual-bin sequential modes
- Rackmount kit options

THE RIGHT SYSTEM FOR YOU NOW...AND THE EXPANDABLE SYSTEM FOR YOUR FUTURE

10 MODELS TO CHOOSE FROM	4212	4222	4440	4480	4660	46120	412180	412360	412300	412600
Maximum Number of Drives	2	2	4	4	6	6	12	12	12	12
Number of Tapes*	14 / 13	24 / 22	42	84	63	126	180	360	300	600
Native Capacity (TB)*	AIT-4 2.8 / 2.6	4.8 / 4.4	8.4	16.8	12.6	25.2	36	72	60	120
	AIT-3 1.4 / 1.3	2.4 / 2.2	4.2	8.4	6.3	12.6	18	36	30	60
Capacity w/Compression (TB)	AIT-4 7.2 / 6.6	12.4 / 11.4	21.8	43.6	32.6	65.4	93.6	187.2	156	312
	AIT-3 3.6 / 3.3	6.2 / 5.7	10.9	21.8	16.3	32.7	46.8	93.6	78	156
Native Data Rate (GB/hr.)	AIT-4 172	172	345	345	518	518	1 TB/hr.	1 TB/hr.	1 TB/hr.	1 TB/hr.
	AIT-3 86	86	172	172	259	259	518	518	518	518
Compressed Data Rate (GB/hr.)	AIT-4 449	449	898	898	1.3 TB/hr.	1.3 TB/hr.	2.6 TB/hr.	2.6 TB/hr.	2.6 TB/hr.	2.6 TB/hr.
	AIT-3 224	224	449	449	673	673	1.3 TB/hr.	1.3 TB/hr.	1.3 TB/hr.	1.3 TB/hr.
Barcode Reader	Opt.	Opt.	Std.	Std.	Std.	Std.	Std.	Std.	Std.	Std.
Scan Barcodes (seconds)	13	20	35	70	65	99	115	115	140	140
I/O Port	Opt.	Opt.	Std.	Std.	Std.	Std.	Std.	Std.	Std.	Std.
Field Expansion To Model	4222		4480		46120		412360		412600	
Height (in./cm)	22.8 / 57.9		38 / 96.5		41.5 / 105.4		51.8 / 131.6		69.2 / 175.8	
Width (in./cm)	13 / 33		13.7 / 34.8		15.1 / 38.4		29.6 / 75.1		29.6 / 75.1	
Depth (in./cm)	21.3 / 54.1		22.3 / 56.6		25.3 / 64.3		25.4 / 64.5		25.4 / 64.5	
Net Weight (lb./kg)	60 / 27.2		89 / 40.4		104 / 47.2		228 / 103		320 / 145	
Power Consumption (average)	215 watts		255 watts		300 watts		315 watts		365 watts	

* I/O Port option subtracts 1 tape slot in TLS-4212 and 2 slots in TLS-4222

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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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SIMPLY RELIABLE