

Quantum.

# SCALAR i3



## DATASHEET

### FEATURES & BENEFITS

#### iLayer Intelligent Software

Streamlines system setup and management, saving valuable time.

#### Multi-Factor Authentication (MFA)

Protects library admin account with an additional layer of security via a time-based one-time password.

#### Active Vault

Protects data against ransomware and other cyber threats. Archive tapes inside the library, minimizing costs and cartridge handling while improving security and access to vaulted content.

#### Automated, Hands-Free Tape Management Robot

Manages the movement of tapes from backup partition to Active Vault (AV) partition.

#### Capacity-on-Demand Growth

Simplifies storage provisioning by scaling capacity quickly and easily, without disruption.

#### Best-in-Class Storage Density

Saves valuable data center footprint with the highest tape storage per rack unit.

#### 80 PLUS Certified Power Supplies

High efficiency, green power supplies minimize power and cooling costs.

#### Advanced Reporting

Media, drive, and media security reports help balance system resources, improve security, and improve budget and planning. Automated report scheduling and distribution save time.

#### High-Availability Features

Redundant power supplies and control path failover reduce downtime in the event of failure.

#### Cloud-Based Analytics

Gain insight into your system real-time monitoring and predictive issue resolution analytical tools.

#### Encryption Key Management

FIPS-validated solution with KMIP support makes it easy to manage keys, mitigating risk of lost data. AES 256-bit encryption standard provides the highest levels of security.

### The Easy, Efficient, and Scalable Tape Library

Tape remains a popular storage choice for data backup and DR, long-term data retention, and unstructured data archives. Tape's cost benefit, durability, portability, and off-line protection from ransomware are among the reasons for its sustained popularity. As IT organizations wrestle with rapid unstructured data growth and the increased risk of ransomware attacks, along with the business realities of resource constraints, it's critical for IT solutions to maximize efficiencies beyond just acquisition costs.

#### EASE OF USE

The Scalar® i3 tape library is designed for ease of use from initial setup to ongoing management. The Scalar iLayer™ management software—proven to reduce management time and improve system uptime—has been fully refreshed for even greater efficiencies and a modern, intuitive user experience. Its mobile-first user interface design allows you to manage the library from anywhere with a network connection on virtually any device.

#### RANSOMWARE PROTECTION

Under the constant threat of cyber attacks, keeping an offline copy is fast becoming the standard in a cost-effective secured storage medium. Quantum Scalar libraries come with added security layers compared to other tape libraries. Active Vault in-library vaulting increases security by storing tapes in

a library-managed vault partition that is not accessible to host applications, offering a true air gap to tape. Multi-Factor Authentication provides extra security login protection. Encryption Key Management solutions and support for WORM media further enhance the security of data on tape and help mitigate the risk of data loss, preventing hackers from seeing, changing, deleting, or stealing your data.

#### HIGH EFFICIENCY

With features like best-in-class storage density—providing up to 1.5 PB in just 3U and up to 12 PB in 24U—along with 80 PLUS® certified power supplies, Scalar i3 enables users to reduce their tape footprint and lower their power and cooling costs, ensuring savings on more than just the initial purchase.

#### SCALABILITY

Scalar i3 simplifies growth management with a modular design and Capacity-on-Demand (CoD) scalability. It can scale cartridge slots from 25 slots up to 400—instantly—with CoD software licensing, providing compressed capacities from 750 TB up to 12 PB. And users can add read/write performance as needed, with support for up to 24 tape drives. With the partitioning feature, Scalar i3 can provide data protection and archiving in a single library as a valuable tool to address today's IT challenges.

LEARN MORE:

[www.quantum.com/scalar](http://www.quantum.com/scalar)



# TECHNICAL SPECIFICATIONS

## CAPACITY CONFIGURATIONS

SYSTEM CAPACITY											
No. of Modules	Form Factor	Maximum Slots	Maximum Drives	Max Capacity TB (PB) <sup>1</sup>							
				LTO-6 (L6)		LTO-7 (L7)		LTO-8 (M8) <sup>2</sup>		LTO-8 (L8)	
				TB	PB	TB	PB	TB	PB	TB	PB
1 (1 CM)	3U	50	3	313	0.3	750	0.8	1,125	1.1	1,500	1.5
2 (1 CM + 1 EM)	6U	100	6	625	0.6	1,500	1.5	2,250	2.3	3,000	3.0
3	9U	150	9	938	0.9	2,250	2.3	3,375	3.4	4,500	4.5
4	12U	200	12	1,250	1.3	3,000	3.0	4,500	4.5	6,000	6.0
5	15U	250	15	1,563	1.6	3,750	3.8	5,625	5.6	7,500	7.5
6	18U	300	18	1,875	1.9	4,500	4.5	6,750	6.8	9,000	9.0
7	21U	350	21	2,188	2.2	5,250	5.3	7,875	7.9	10,500	10.5
8	24U	400	24	2,500	2.5	6,000	6.0	9,000	9.0	12,000	12.0

Minimum capacity is 25 slots; additional slots can be activated with a Capacity-on-Demand (CoD) license.

<sup>1</sup>Assumes 2.5:1 compression.

<sup>2</sup>New, unused LTO generation 7 cartridges can be initialized as LTO-8 Type M media (M8).

## OPERATION

<b>User Interface:</b>	Local touch screen; HTML5 remote management GUI with mobile-first design for mobile, tablet, and PC support
<b>Connectivity Options:</b>	8 Gb Fibre Channel and 6 Gb SAS
<b>Inventory Speeds:</b>	Approximately 1 minute for typical configurations
<b>Firmware Updates:</b>	Customers can choose to have automatic checks for firmware updates to ensure use of the latest library and drive code levels.
<b>Configuration:</b>	Auto-discovery and auto-calibration for installed/added components (modules, tapes, drives, magazines, etc.)
<b>Library Partitioning:</b>	Supports up to 24 partitions
<b>Import/Export:</b>	Configurable, up to 240 slots in 5-slot increments

## RELIABILITY

<b>Library MSBF:</b>	Greater than 2 million
<b>Library MTTR:</b>	30 minutes
<b>Power:</b>	Optional 2N power
<b>Diagnostics:</b>	Proactive Diagnostics embedded within the library monitor major subsystems, run self-diagnostic procedures, and send policy-based communications to system administrators
<b>Module Upgrade:</b>	Any module may be added in less than 30 minutes; all components are customer installable.

## PHYSICAL

Module	H x W x D
Control Module	5.2 in x 17.4 in x 36.4 in (13.3 cm x 44.1 cm x 92.45 cm)
Expansion Module	5.2 in x 17.4 in x 36.4 in (13.1 cm x 44.1 cm x 92.45 cm)

## RACK INSTALLATION REQUIREMENTS

- Library must be installed in a standard 19-inch four-post rack enclosure
- Minimum rack depth is 42.13 inches (1,070 mm)

## SOFTWARE AND PLATFORM COMPATIBILITY

For a complete list of software and platforms compatible with Scalar i3, consult the most recent Quantum Software Compatibility Guide at [www.quantum.com/swcompguide.aspx](http://www.quantum.com/swcompguide.aspx).

## COMPLIANCE AND CERTIFICATION

<b>Safety Standards:</b>	IEC-60950 with worldwide country deviations
<b>Emissions Standards:</b>	CNS 13438 Class A, EN 55022:2010 Class A, FCC Part 15 Class A, KN 32, VCCI
<b>Immunity Standards:</b>	EN 55024, KN 35
<b>International Certifications:</b>	CE (Europe), VCCI (Japan) TUV/GS (Germany), FCC (USA), ICES (Canada), cTUVus (USA and Canada), EAC (EurAsian Conformity Mark), KCC (Korea), BSMI (Taiwan)

## ENVIRONMENTAL

Environmental Factor	Allowed <sup>2</sup>	Recommended <sup>1</sup>
Temperature	16 to 35 °C (61 to 95 °F)	16 to 25 °C (61 to 77 °F)
Relative Humidity (non-condensing)	20 to 80%	20 to 50%
Maximum Wet Bulb Temperature	26 °C (79 °F)	26 °C (79 °F)
Maximum Rate of Temperature Change per Hour	5 °C (9 °F)	5 °C (9 °F)
Maximum Rate of Humidity Change per Hour	5%	5%

Definitions of Terms:

1. Recommended: The recommended environmental envelope provides guidance on the environmental range for optimal performance and high reliability.

2. Allowable: The allowable environmental envelope defines the test limits to verify that the equipment will function within the environmental envelope.

Note: For tape cartridge storage or shipping environment requirements outside of the library, please refer to specific LTO tape media specifications provided by the LTO consortium at [www.lto.org](http://www.lto.org) or specifications provided by the media manufacturer.

## ELECTRICAL AND POWER

<b>Electrical:</b>	100 VAC to 240 VAC, 50 Hz to 60 Hz
<b>Power:</b>	80 PLUS certified power supplies

## DRIVE CAPACITY AND PERFORMANCE

Drive Type	Media Type	Cartridge Capacity Native/Compressed <sup>1</sup> (TB)	Drive Throughput Native/Compressed <sup>1</sup> (MB/sec)
LTO-8	LTO-8 (L8)	12 / 30	300 / 750
LTO-8	LTO-7 (M8) <sup>2</sup>	9 / 22.5	300 / 750
LTO-7	LTO-7 (L7)	6.0 / 15.0	300 / 750
LTO-6	LTO-6 (L6)	2.5 / 6.25	160 / 400

LTO tape drives support encryption.

<sup>1</sup>Assumes 2.5:1 compression.

<sup>2</sup>New, unused LTO generation 7 cartridges can be initialized as LTO-8 Type M media (M8).

## ADVANCED FEATURES

<b>Advanced Reporting:</b>	Media Integrity Analysis report, Media Usage report, Drive Utilization report, Media Security report and media removal notifications; report scheduling with automated report creation and delivery to distribution lists
<b>Control Path Failover:</b>	Provides redundant connectivity for robotics control
<b>Active Vault:</b>	Secure in-library and hands-free vaulting saves cost, increases security, and simplifies access to vaulted content

# Quantum

Quantum technology and services help customers capture, create, and share digital content—and preserve and protect it for decades at the lowest cost. Quantum's platforms provide the fastest performance for high-resolution video, images, and industrial IoT, with solutions built for every stage of the data lifecycle, from high-performance ingest to real-time collaboration and analysis and low-cost archiving. Every day the world's leading entertainment companies, sports franchises, research scientists, government agencies, enterprises, and cloud providers are making the world happier, safer, and smarter on Quantum. See how at [www.quantum.com](http://www.quantum.com).