Quantum

SCALAR i6000

FEATURES & BENEFITS

iLayer Intelligent Software: Intelligent software automates administrative tasks, reducing administrative time up to 75% compared to other tape library products.

Active/Active Dual Robots: Adds a second robot to the library for high availability and faster performance. Operations continue in the event of a robot failure. Robot service is non-disruptive to the application.

Extended Data Life Management (EDLM): Exclusive iLayer feature to ensure availability of your data placed in long-term storage, archive, or DR. Integrates with StorNext® Storage Manager to automate protection of archived data.

Active Vault: Archive tapes inside the library minimize costs and cartridge handling while improving security and access to vaulted content.

High-Density Expansion Module: Can store up to 23.4 PB* in a single 19-inch rack without compromising cartridge access performance. Provides non-disruptive bulk loading and fast independent cartridge scan/inventory.

Advanced Reporting: Media, drive, and security reports improve understanding of library utilization and performance. Automated report scheduling and distribution save time.

Path Failover: Control path and data path failover features ensure library system stays operational and accessible even with a SAN fabric failure.

RESTful Web Services: Saves administrative time by easily automating repetitive tasks.

Scalar Key Manager Support: FIPS-validated solution makes it easy to manage keys, mitigating risk of lost data.

Assumes 2.5:1 compression.

LEARN MORE:

www.quantum.com/scalar

The Intelligent Tape Library for Enterprise Archive, Disaster Recovery, and Long-Term Data Retention

Protecting and retaining your data can be challenging. Keeping pace with fast, unpredictable data growth in a cost- and time-efficient manner pushes IT staff to their limits. Ensuring that data is secure and available over long periods of time adds to these challenges. The Scalar® i6000 tape library was designed to solve these problems and simplify your environment.

Scalar i6000 scales up to 360 PB* of data, supporting large enterprise storage environments. Capacity-on-Demand (CoD) offers fast, flexible, and non-disruptive growth, easing the difficulties of managing dynamic storage requirements. Quantum customers experience significant time management savings due to the intelligent and proactive features in iLayer™ management software, up to 75% savings compared to other libraries. High-availability features like Dual Robot and Path Failover allow the library to continue to operate despite failures of library components—or even failures within the SAN fabric. The Extended Data Life Management (EDLM) feature ensures your archived media is trouble free, so the data is available when you need it. Security features like FIPS-compliant encryption key management safeguard your data while in the library and after export.

Scalar i6000 features ultra high density and a 19-inch rack form factor, and scales from 100 to 12,006 cartridges.

CAPACITY CONFIGURATIONS

TOTAL DRIVE, CARTRIDGE, AND CAPACITY RANGES				
Drive Type	Media Type	Drives	Cartridges	Capacity (TB)[1]
LTO-8	LTO-8 (L8)	1 to 192	100 to 12,006	360,180
LTO-8	LTO-7 (M8)[2]	1 to 192	100 to 12,006	270,135
LTO-7	LTO-7 (L7)	1 to 192	100 to 12,006	180,090
LTO-6	LTO-6 (L6)	1 to 192	100 to 12,006	75,038

Please see www.quantum.com for more drive specifications.
[1] Assumes 2.5:1 compression.
[2] New, unused LTO generation 7 cartridges can be initialized as LTO-8 Type M media (M8).

CAPACITY-ON-DEMAND

Cartridge Slot Starting Points: 100, 200, 400, 700, 1,500, 3,000, 5,000, 7,000, 9,000, and 11,000

OPERATION

Drive Interface: 8 Gb Fibre Channel, 8 Gb native Fibre Channel
Library Interface: 8 Gb Fibre Channel bridged through the drive for data; 1 GbE with remote GUI and RESTful Web Services for library management.
Inventory Speed: For most modules, 1 minute 12 seconds; four modules <5 minutes.
Configuration: Auto-discovery and auto-calibration for installed/added components (modules, tapes, drives, magazines, etc.)

IMPORT/EXPORT OPTIONS*

Control Module: One I/E station with 24 slots
Expansion Modules: Option for 0, 24, or 72 slot I/E stations per expansion module
Maximum I/E Station Slots: 1,104 slots
Extended Import/Export: Allows licensed storage slots to be used as import/export elements
Bulk Load/Unload: Up to 540 slots per High-Density Expansion Module (HDEM) without interrupting library operations
Auto-import: Library automatically imports cartridges to multiple partitions based on user policies without needing cartridges placed in specific I/E slots
Export Redirect: Automatically redirects cartridge exports to bulk unload areas or to an Active Vault based on user policies

*Up to 240 import/export elements supported per logical partition

ENVIRONMENTAL

Environmental Factor	Operational Storage[1]	Archival Storage[2]
Temperature	16 to 35 ºC (61 to 95 ºF)	16 to 25 ºC (61 to 77 ºF)
Relative Humidity (non-condensing)	20 to 80%	20 to 50%
Maximum Wet Bulb Temperature	26 ºC (79 ºF)	26 ºC (79 ºF)
Maximum Rate of Temperature Change per Hour	2 ºC	2 ºC
Maximum Rate of Humidity Change per Hour	5%	5%

[1] Operational Storage refers to tape cartridges housed within the library for less than 6 months.
[2] Archival Storage refers to tape cartridges housed within the library for more than 6 months.
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 or specifications provided by the media manufacturer.

ELECTRICAL AND POWER

Electrical: 100-240 VAC, 2-24 kVA
-48 VDC, <1 kVA per module
Power: 80 PLUS® certified power supplies

RELIABILITY

Library MSBF: Greater than 3 million
Library MTTR: 20 minutes, 10 minutes for Dual Robot replacement
Power: Optional 2N power
Diagnostics: Proactive Diagnostics embedded within the library monitor major subsystems, run self-diagnostic procedures, and send policy-based communications to system administrators

SOFTWARE AND PLATFORM COMPATIBILITY

For a complete list of software and platforms compatible with Scalar i6000, consult the most recent Software Compatibility Guide on https://www.quantum.com/swcompguide.aspx.

COMPLIANCE AND CERTIFICATION

Safety Standards: TUV IEC-60950-1:2006 CB Scheme, EN 60950-1 2nd Edition
Emissions Standards: Class A: FCC CFR-47 Part 15, CISPR 22, EN 55022, KN22, ICES-003
Immunity Standards: EN 55024, KN24
International Certifications: CE, cTUVus, KCC (MIC), GOST, VCCI, C-Tick

PHYSICAL

Module Type	H × W × D
Control Module (H × W × D):	77.4 in × 24.3 in × 38.3 in (196.6 cm × 61.7 cm × 97.4 cm)
Expansion Module (H × W × D):	77.4 in × 23.6 in × 38.3 in (196.6 cm × 59.9 cm × 97.4 cm)
Parking Module (H × W × D):	77.4 in × 23.6 in × 38.3 in (196.6 cm × 59.9 cm × 97.4 cm)

DRIVE CAPACITY AND PERFORMANCE

Drive Type	Media Type	Cartridge Capacity Native/Compressed[1] (TB)	Drive Throughput Native/Compressed[1] (MB/sec)
LTO-8	LTO-8 (L8)	12 / 30	360 / 900
LTO-8	LTO-7 (M8)[2]	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

Please see www.quantum.com for more drive specifications.
[1] Assumes 2.5:1 compression.
[2] New, unused LTO generation 7 cartridges can be initialized as LTO-8 Type M media (M8).

ADVANCED FEATURES

Advanced Reporting: Media Integrity Analysis report, Media Usage report, Drive Utilization report, Security report and media removal notifications; report scheduling with automated report creation and delivery to distribution lists

Firmware Auto-leveling: Maintains consistent firmware levels across all tape drives in the library

Active Vault: Vault archive tapes inside the library
Reduces software and hardware costs
Reduces management time
Included policy-based tape exports
Improves data security

Extended Data Life Management: Media health reports of cartridges stored for long-term archive and DR, information is collected outside of normal operations:
-Automated scheduling for scanning tapes
-Notifications on test results
-Policy-based data migration to new cartridges (only available with StorNext Storage Manager)

Dual Robot: Adds a second, redundant robot to the library for high availability

Path Failover: Control Path Failover
Data Path Failover, including support for path failure within the SAN fabric

Library Partitioning: Supports up to 16 partitions for tape consolidation

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**.

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