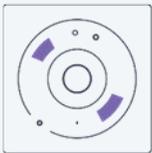# Spectra® T950



## Optimizing Tape Storage Solutions

Spectra® T950 libraries present unparalleled flexibility with minimal management effort. They enable scalability of storage capacity and performance to meet evolving needs. The T950 features a future-proofed architecture, ensuring users' investments are preserved and extended for long-term value. Users can experience streamlined scalability and advanced technology integration for optimal data management.
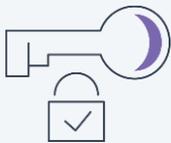
### Efficient Tape Management

- TeraPack containers store 10 LTO tapes vertically, tripling capacity per sq ft vs. other libraries
- Accommodates LTO or IBM® TS11XX tape cartridges for greater economy and savings.

### Investment Protection

- Upgrade the T950 to a TFinity® ExaScale library for increased capacity and performance.
- During an upgrade, retain the original media and components, ensuring seamless application access.

### Built-In Encryption

- Integrates key management and AES 256-bit encryption as standard features.
- Spectra BlueScale® Encryption easily and cost-effectively enhances your backup strategy.
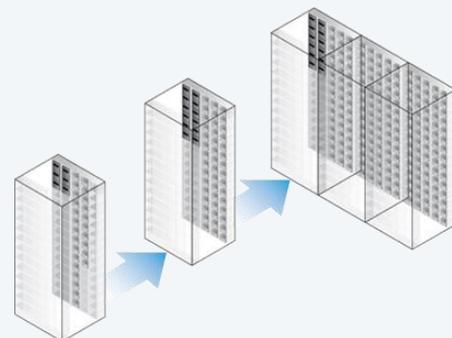
### Adaptive Integration

- Seamlessly adapts to any environment, supporting multiple protocols, applications, and operating systems.
- Data centers can effortlessly partition and transform a single library into multiple libraries.

### Capacity on Demand

Start with a minimal configuration and expand storage capacity as needed. This approach helps reduce upfront costs and optimize investments.

- Adding tape slots via software activation avoids costly hardware changes or downtime.
- Frames can be easily added to a Spectra T950, allowing for effortless scaling without the need for extensive hardware changes.

# Spectra T950 Reliability Features and Specifications

## Reliability Features

Spectra T950 ensures optimal efficiency and reliability with advanced lifecycle management features, rapid data integrity assessments, and exceptional Mean Cycles Between Failures (MCBF), offering a future-proofed investment for streamlined and secure data management.

- **Drive Lifecycle Management (DLM):** Analyzes and reports on tape drive health within the library.
- **Library Lifecycle Management (LLM):** Tracks library utilization with its expected lifespan.
- **Media Lifecycle Management (MLM)**: Monitors health and security of Spectra Certified Media.
  - PreScan: Checks tape writability upon import.
  - QuickScan: Rapidly assesses data integrity by scanning one track.
  - FullScan: Comprehensive check of the entire tape for media errors.
- **Mean Cycles Between Failures (MCBF):** Over 2 million.
- **Mean Time Between Failures (MTBF):** 250,000 power-on hours.
- **Mean Time to Repair (MTTR)**: 3 minutes for hot swap components, 30 minutes average for non-hot swap components.

## Library Specifications

| Library | Spectra T950 (Single frame configuration) | | Spectra T950 (8-frame configuration) | |
|---|---|---|---|---|
| | **LTO-9** | **TS1170** | **LTO-9** | **TS1170** |
| **Max Media/Slot Count** | 920 (LTO) | 592 (TS1170) | 10,020 (LTO) (8-frames) | 7,614 (TS1170) (8-frames) |
| **Max Native Capacity** | 16.5PB | 67.5PB | 180.3PB | 380.7PB |
| **Max Compressed Capacity**[1] | 41.4PB | 89PB | 450.9PB | 1.1EB |
| **Max Drives**[2] | 24 | 24 | 120 | 120 |
| **Max Native Throughput (TB/hr.)** | 34.6 | 34.6 | 172.8 | 172.8 |
| **Max Compressed Throughput (TB/hr.)** | 77.8 | 77.8 | 388.8 | 388.8 |
| **Max SLS Partitions** | 16 | 16 | 16 | 16 |
| **Tape Drive Supported** | LTO | IBM® TS11XX | LTO | IBM® TS11XX |
| **Dual Robotics** | N/A | N/A | N/A | N/A |

# Spectra T950 Specifications and Environments

## Tape Drive Specifications

| LTO-9 Drive Specifications (Full Height Only) | | |
|---|---|---|
| Capacity | 18 TB (Native) | 45 TB (2.5:1 Compression) |
| Performance | 400 MB/s (Native) | 900 MB/s (Compressed) |
| Backward Compatibility | LTO-8 Media (Read / Write) | |
| Speed Matching | 177 MB/S to 400 MB/s | |
| Interface | 8 Gb/s FC and 12 Gb/s SAS | |

| IBM TS1170 Technology Drive Specifications | | |
|---|---|---|
| Capacity | 50 TB (Native) | 45 TB (2.5:1 Compression) |
| Performance | 400 MB/s (Native) | 900 MB/s (Compressed) |
| Backward Compatibility | No backward compatibility with other TSXX technology | |
| Speed Matching | 112 MB/s to 400 MB/s | |
| Interface | 16 Gb/s FC and 12 Gb/s SAS | |

## Tape Drive Environmentals

| All LTO Drives, TS1150, TS1155, and TS1160 | | | | | |
|---|---|---|---|---|---|
| Mode | Dry-bulb Temperature | Maximum Temperature Rate of Change | Relative Humidity (non-condensing) | Maximum Humidity Rate of Change | Altitude (max) |
| **Allowable Environment** | 16°C to 32°C (60°F to 90°F) | 5°C per hour 9°F per hour | 20% to 80% 22°C dew point max | 5% per hour with no condensation | 3,048 m (10,000 ft) |
| **Recommended Environment** | 16°C to 25°C (60°F to 77°F) | 5°C per hour 9°F per hour | 20% to 50% 22°C dew point max | 5% per hour with no condensation | 3,048 m (10,000 ft) |

| TS1170 Drives | | | | | |
|---|---|---|---|---|---|
| Mode | Dry-bulb Temperature | Maximum Temperature Rate of Change | Relative Humidity (non-condensing) | Maximum Humidity Rate of Change | Altitude (max) |
| **Recommended and Allowable Environment** | 16°C to 25°C (60°F to 77°F) | 5°C per hour 9°F per hour | 20% to 50% 22°C dew point max | 5% per hour with no condensation | 3,048 m (10,000 ft) |

1. LTO compression ratio is 2.5:1. TS1170 compression ratio is 3:1.
2. Drive types are full height unless noted.

## About Spectra Logic Corporation

Spectra Logic develops a full range of Attack Hardened™ data management and data storage solutions for a multi-cloud world. Dedicated solely to data storage innovation for more than 40 years, Spectra Logic helps organizations modernize their IT infrastructures and protect and preserve their data with a broad portfolio of solutions that enable them to manage, migrate, store and preserve business data long-term, along with features to make them ransomware resilient, whether on-premises, in a single cloud, across multiple clouds, or in all locations at once.

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