

Data Sheet

Savvio® 15K.2

Highest-performing, greenest drive
for enterprise storage systems

**2.5-inch form factor • 15K RPM •
146 GB and 73 GB • 6-Gb/s Serial Attached SCSI**

Key Advantages

- 115% improvement in system-level performance over 3.5-inch 15K drives
- Seagate® PowerTrim™ technology dynamically reduces power by up to 70% over comparable 3.5-inch 15K drives
- IOPS/W are 2.5 times better than comparable 3.5-inch Tier-1 drives
- 70% smaller size than 3.5-inch drives reduces overall system cooling costs
- Second-generation 2.5-inch 15K enterprise drive with field-proven reliability
- Supports 6-Gb/s transfer rates and SAS 2.0 feature set
- Self-Encrypting Drive (SED) option cuts IT drive retirement expenses while protecting data securely and is one of the easiest, most cost-effective security measures you can implement*
- Enables economical, high-performance storage system solutions
- Delivers on Seagate unified storage architecture strategy to converge best-in-class technologies (SAS, small form factor and SED security*) to enable powerful, yet simple, external storage and internal server storage solutions that strengthen business efficiencies while cutting TCO and boosting ROI



Best-fit Applications

- High-performance enterprise servers and storage arrays
- Transaction-intensive OLTP and database applications
- Blade, rack and tower servers
- Embedded enterprise applications (e.g. medical, industrial and military)
- Power-constrained and/or space-constrained data centres
- Government-grade, data-at-rest security (when drives leave your control)*
- Drive retirement cost reduction and drive life extension strategies*

*Requires TCG-compliant host or controller support

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The Innovative Market Enabler

The Savvio 15K.2 drive enables OEMs and system designers to increase revenue by building more compelling solutions. It provides the highest performance for Tier-1, mission-critical storage solutions:

- 115 per cent improvement in system-level performance over 3.5-inch 15K drives
- 10 per cent faster than 3.5-inch 15K drives
- 30 per cent faster than 2.5-inch 10K drives

The Savvio 15K.2 drive is the innovative market enabler for high-performance, low-power (green) solutions. Its 2.5-inch form factor enables OEMs and system designers to sell more systems — especially into space-constrained IT environments.

Enabling More Powerful Solutions

The drive's implementation of 6-Gb/s SAS improves scalability, which makes it ideally suited for use in high-end network storage solutions. The SAS 2.0 feature set supports more robust topologies that can communicate over broader distances with high signal integrity to enable more powerful storage solutions.

The Savvio 15K.2 drive is the industry's only 2.5-inch 15K Self-Encrypting Drive (SED) to provide government-grade data security.*

The Savvio line has the industry's highest field-proven reliability.

Unified Storage Architecture

By using SFF drives, a common SAS interface and SED security* capabilities, Seagate unified storage architecture delivers a best-in-class foundation for powerful, yet simple, storage solutions for the data centre. Moreover, the unified storage architecture:

- Enables superior multi-drive servers and storage solutions that reduce costs and design complexity for OEMs and other system builders
- Lowers TCO while improving ROI by providing large enterprises and SMBs with lower-cost multi-drive servers and storage
- Reduces storage complexity and provides peace of mind for the IT manager

*Requires TCG-compliant host or controller support

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Specifications	146 GB ¹	73 GB ¹
Model Number	ST9146852SS ST9146752SS ²	ST973452SS ST973352SS ²
Capacity		
Formatted 512 Kbytes/Sector (GB)	146.8	73.4
External Transfer Rate (MB/s)		
3-Gb/s Serial Attached SCSI	300	300
6-Gb/s Serial Attached SCSI	600	600
Performance		
Spindle Speed (RPM)	15K	15K
Average Latency (ms)	2.0	2.0
Seek Time		
Average Read/Write (ms)	2.9/3.3	2.9/3.3
Track-to-Track Read/Write (ms)	0.2/0.4	0.2/0.4
Sustained Transfer Rate, Outer to Inner Diameter (MB/s)	160 to 122	160 to 122
Cache, Multi-segmented (MB)	16	16
Configuration/Reliability		
Discs	2	1
Heads	4	2
Non-recoverable Read Errors per Bits Read	1 sector per 10 ¹⁶	1 sector per 10 ¹⁶
Annualised Failure Rate (AFR)	0.55%	0.55%
Power Management		
Typical Op (amps) +12V/+5V	0.40/0.43	0.34/0.42
Power Idle (W)	4.1	3.7
Environmental		
Temperature, Operating (°C)	5 to 55	5 to 55
Temperature, Non-operating (°C)	-40 to 70	-40 to 70
Shock, Operating: 2 ms (Gs)	60	60
Shock, Non-operating, 2 ms (Gs)	300	300
Acoustics Idle (bels — sound power)	3.3	3.3
Vibration, Operating: <400 Hz (Gs)	0.5	0.5
Vibration, Non-operating: <500 Hz (Gs)	2.4	2.4
Physical		
Height (in/mm)	0.583/14.8	0.583/14.8
Width (in/mm)	2.76/70	2.76/70
Depth (in/mm)	3.957/100.5	3.957/100.5
Weight (lb/kg)	0.44/0.201	0.43/0.195

¹ One gigabyte, or GB, equals one billion bytes; and one terabyte, or TB, equals one trillion bytes when referring to hard drive capacity.

² Self-Encrypting Drive model; requires TCG-compliant host or controller support.

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