

Data Sheet

Savvio 10K.2

2.5-inch enterprise hard drive

146 and 73 GB • 10K RPM • 3-Gbit/sec Serial Attached SCSI (SAS)

Key Advantages

- The Seagate® Savvio® family is fast becoming the drive of choice for enterprise systems. Savvio drives enable cooler, faster and much more reliable systems than 3.5-inch enterprise drives.
- The 2.5-inch enterprise drive is 70 percent smaller than 3.5-inch drives, using less power, requiring less cooling and enabling more airflow to cool processors.
- The Savvio drive's smaller size enables faster seek times and more drives per system, increasing performance per U. It also allows room for more memory cards in the system to match faster processors.
- The Savvio 10K.2 drive sets a new record for the highest reliability rating and also has the best nonrecoverable error rate, improved by a factor of 10, to rigorously safeguard data.
- The Savvio 10K.2 drive enables more drives per system, allowing RAID 5, or mirroring with hot spares, in 1U servers. The Savvio 10K.2 drives brings enterprise-class reliability to blade servers.

Best-Fit Applications

- Email/collaboration
- File and print
- Database
- Transaction processing
- Rack and tower servers
- Blade servers
- Storage arrays
- Space-constrained specialty applications



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2.5-inch enterprise hard drive



The Savvio 10K.2 drive delivers higher reliability and greater performance density in a cooler-running system.

Cooler

- The 2.5-inch enterprise drive is 70 percent smaller than 3.5-inch drives, enabling more airflow to cool processors.
- The smaller size enables the Savvio 10K.2 drive to consume at least 20 percent less power than any 3.5-inch 10K drive, reducing power costs.
- The Savvio 10K.2 creates less heat, lowering system temperatures and reducing cooling costs.

Faster

- The Savvio 10K.2 drive's 70 percent smaller size enables integration of more drives into smaller, more space-efficient systems to deliver higher performance per U than classic 3.5-inch systems.
- Seek times over 10 percent faster than all other 10K 3.5-inch drives enable exceptional random I/O performance.
- The Savvio 10K.2 drive has over 40 percent faster sequential performance than the last-generation Savvio drive.

More Reliable

- The Savvio 10K.2 drive sets a new record for the highest reliability rating in the world and is offered by a trusted partner.
- The Savvio 10K.2 drive uses perpendicular recording to comfortably deliver 146-GB capacity and has the best nonrecoverable error rate, improved by a factor of 10, to rigorously safeguard data.
- The Savvio 10K.2 drive enables more drives per system, allowing RAID 5 in 1U servers or allowing mirroring with hot spares in 1U servers. The Savvio 10K.2 drive brings enterprise-class performance and reliability to blade servers.

Seagate Service Centres—Worldwide Support

- Presales and technical support at 00-800-6890-8282
- Free technical support for the life of the product
- Expert email support and complete historical web content available online
- Certified, experienced support staff
- Rated "Above Average to Excellent" by 95 percent of our customers
- Seagate Design Service Centres (DSC) help companies transform innovative ideas into viable products.

Specifications	146 GB ¹	73 GB ¹
Model Number	ST9146802SS	ST973402SS
Capacity		
Formatted 512 Kbytes/Sector (GB)	146.8	73.4
Interface	3-Gb/s SAS	3-Gb/s SAS
External Transfer Rate (MB/s)	300	300
Performance		
Spindle Speed (RPM)	10K	10K
Average Latency (msec)	3.0	3.0
Seek Time		
Average Read/Write (msec)	3.8/4.4	3.8/4.4
Track-to-track Read/Write (msec)	0.2/0.4	0.2/0.4
Sustained Transfer Rate, Outer to Inner Diameter (MB/s)	89 to 55	89 to 55
Cache, Multisegmented (MB)	16	16
Configuration/Reliability		
Discs	2	1
Heads	4	2
Non-recoverable Read Errors per Bits Read	1 sector per 10E16	1 sector per 10E16
Annualised Failure Rate (AFR):	0.55%	0.55%
Power Management		
Typical Op (amps) +12V/+5V	0.39/0.79	0.34/0.81
Power Idle (watts)	5.2	5.1
Environmental		
Temperature, Operating (°C)	5 to 55	5 to 55
Temperature, Non-operating (°C)	-40 to 70	-40 to 70
Shock, Operating: 2 msec (Gs)	60	60
Shock, Non-operating: 2 msec (Gs)	300	300
Acoustics Idle (bels—sound power)	3.1	3.1
Vibration, Operating: <400 Hz (Gs)	0.5	0.5
Vibration, Non-operating: <500 Hz (Gs)	1.2	1.2
Physical		
Height (in/mm)	0.583/14.8	0.583/14.8
Width (in/mm)	2.76/70.1	2.76/70.1
Depth (in/mm)	3.945/100.2	3.945/100.2
Weight (lb/g)	0.5/0.21	0.5/0.21
Warranty		
Limited Warranty (years)	5	5

¹ One gigabyte, or GB, equals one billion bytes when referring to hard drive capacity.

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