

Data Sheet

Cheetah® 15K.6

Highest capacity and reliability
in mission-critical storage

**450, 300 and 146 GB • 15K RPM • 3-Gb/s Serial
Attached SCSI (SAS) and 4-Gb/s FC**

Key Advantages

- Second-generation perpendicular recording delivers up to 450-GB capacity.
- Unprecedented performance with a 30 percent increase in sustained data rate of up to 171 MB/s
- Industry's highest 3.5-inch drive reliability at 1.6-million-hours MTBF.
- Seagate proprietary PowerTrim™ technology provides a 62 percent improvement in GBs/watt at idle.
- Advanced read/write technology delivers nonrecoverable error rate of 1x10E16
- Available in FC or SAS interfaces



Best-Fit Applications

All mainstream enterprise applications, such as:

- Email
- Business processing
- Transaction processing
- Decision support
- Storage area networks
- Networked attached storage
- Internet and e-commerce

Cheetah® 15K.6

Highest capacity and reliability in mission-critical storage



Lowest Cost of Ownership

- Sixth-generation Seagate® Cheetah 15K drive is the fastest, highest capacity and most reliable ever.
- Cheetah 15K.5 drive performance and reliability enable lower TCO for enterprise applications.
- Lower watts/GB ratio helps achieve reduced power and cooling costs while optimizing capacity requirements.
- Higher performance with fewer drives—reducing support infrastructure, physical space requirements and storage management costs
- The highest reliability of any 3.5-inch drive, with increased system reliability due to the need for fewer drives

MTBF Improvement

- Seagate continues to focus on reliability and data protection. MTBF is increased to 1.6 million hours.
- Seagate-exclusive enhanced Error Correction Code better maintains performance throughout the life of the drive and reduces the probability of lost data.
- The second generation of Seagate-exclusive Background Media Scan proactively scans the media for potential defects during drive idle time. It enables incipient errors to be corrected before data is lost.
- Our new Quick and Robust Download feature loads new firmware in less than 2 seconds and built-in protection ensures no corruption in the event of a power failure during firmware switch.

Seagate Global Customer Support

- Get presales and technical support at support.seagate.com.
- Visit our knowledge base for answers to common support questions.
- Find documentation for current and legacy drives.
- Utilize our online troubleshooting and diagnostic tools.

Specifications	450 GB ¹	300 GB ¹	146 GB ¹
Model Number	ST3450856SS/FC	ST3300656SS/FC	ST3146356SS/FC
Capacity			
Formatted 512 Kbytes/Sector (GB)	450	300	146.3
External Transfer Rate (MB/s)			
Fibre Channel	400	400	400
3-Gb/s Serial Attached SCSI	300	300	300
Performance			
Spindle Speed (RPM)	15K	15K	15K
Average Latency (ms)	2.0	2.0	2.0
Seek Time			
Average Read/Write (ms)	3.4/3.9	3.4/3.9	3.4/3.9
Track-to-Track Read/Write (ms)	0.2/0.4	0.2/0.4	0.2/0.4
Transfer Rate			
Internal (Mb/s)	1051 to 2225	1051 to 2225	1051 to 2225
Sustained (MB/s, 1000 x 1000)	171 to 110	171 to 110	171 to 110
Cache, Multisegmented (MB/s)	16	16	16
Configuration/Organization			
Discs	4	3	2
Heads	8	6	3
Nonrecoverable Read Errors per Bits Read	1 sector per 10E16	1 sector per 10E16	1 sector per 10E16
Reliability Rating at Full 24x7 Operation (AFR)	0.55%	0.55%	0.55%
Power Management			
Typical (W)			
Fibre Channel	17.0	16.1	15.0
SAS	17.3	15.8	14.4
Power Idle (W)			
Fibre Channel	12.0	11.2	9.7
SAS	12.4	11.1	9.6
Environmental			
Temperature, Operating (°C)	5 to 55	5 to 55	5 to 55
Temperature, Nonoperating (°C)	–40 to 70	–40 to 70	–40 to 70
Shock, Operating: 2 ms (Gs)	60	60	60
Shock, Nonoperating: 2 ms (Gs)	250	250	250
Acoustics Idle (bels—sound power)	3.6	3.6	3.6
Vibration, Operating: <400 Hz (Gs)	1.0	1.0	1.0
Vibration, Nonoperating: <400 Hz (Gs)	2.0	2.0	2.0
Physical			
Height (in/mm)	1.0/25.4	1.0/25.4	1.0/25.4
Width (in/mm)	4.0/101.6	4.0/101.6	4.0/101.6
Depth (in/mm)	5.75/146.05	5.75/146.05	5.75/146.05
Weight (lb/kg)	1.56/0.709	1.53/0.694	1.49/0.674
Warranty			
Limited Warranty (years)	5	5	5

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

www.seagate.com

1-800-SEAGATE (1-800-732-4283)

AMERICAS Seagate Technology LLC 920 Disc Drive, Scotts Valley, California 95066, United States, 831-438-6550
ASIA/PACIFIC Seagate Technology International Ltd. 7000 Ang Mo Kio Avenue 5, Singapore 569877, 65-6485-3888
EUROPE, MIDDLE EAST AND AFRICA Seagate Technology SAS 130-136, rue de Silly, 92773, Boulogne-Billancourt Cedex, France 33 1-4186 10 00

Copyright © 2008 Seagate Technology LLC. All rights reserved. Printed in USA. Seagate, Seagate Technology and the Wave logo are registered trademarks of Seagate Technology LLC in the United States and/or other countries. Cheetah and PowerTrim are either trademarks or registered trademarks of Seagate Technology LLC or one of its affiliated companies in the United States and/or other countries. All other trademarks or registered trademarks are the property of their respective owners. When referring to hard drive capacity, one gigabyte, or GB, equals one billion bytes and one terabyte, or TB, equals one trillion bytes. Your computer's operating system may use a different standard of measurement and report a lower capacity. In addition, some of the listed capacity is used for formatting and other functions, and thus will not be available for data storage. Seagate reserves the right to change, without notice, product offerings or specifications. DS1645.2-0806US, June 2008