

## Data Sheet

# DiamondMax® 22

Capacity, reliability and value for mainstream applications

**1 TB and 750, 500, 320 and 160 GB • 7200 RPM •  
SATA 3Gb/s with NCQ**

### Key Advantages

Maxtor® DiamondMax 22 hard drives follow the Maxtor tradition of delivering well-engineered, reliable storage solutions with available capacities from 160 GB to 1 TB. These drives provide a value solution for applications needing high-capacity storage.

DiamondMax 22 hard drives utilize proven Seagate second-generation perpendicular magnetic recording technology to deliver 1-TB and 750-, 500-, 320- and 160-GB drives with features and value that can go head-to-head with any competitor.

DiamondMax 22 drives use the SATA 3Gb/s interface with Native Command Queuing.

### Designed for

- Home desktop PCs
- Office and business PCs
- General, non-PC, SATA storage applications



# DiamondMax® 22

Capacity, reliability and value for mainstream applications



Leveraging Seagate technology and a proven design approach, DiamondMax 22 drives are available with 1-TB and 750-, 500-, 320- and 160-GB capacities.

The drives are equipped with the industry's fastest available interface, SATA 3Gb/s, to match the performance of the drive. Native Command Queuing, in which the drive intelligently executes commands in the most efficient order, and a 32-MB cache on 1 TB, 750 GB and 500 GB to enhance this performance.

A sustained data rate of 105 MB/s ensures the drives deliver impressive performance.

Combining capacity and performance, DiamondMax 22 drives offer Maxtor value with Seagate quality and reliability.

## Seagate Global Customer Support

- Get presales and technical support at [support.seagate.com](http://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.
- Download DiscWizard™ to help migrate data from an older drive.
- Seagate® also offers multi-lingual phone, email and chat support.
- Seagate Design Service Centers (DSC) help companies transform innovative ideas into viable products.

Specifications	1 TB <sup>1</sup>	750 GB <sup>1</sup>	500 GB <sup>1</sup>	320 GB <sup>1</sup>	160 GB <sup>1</sup>
Model Number	STM31000334AS STM31000340AS	STM3750330AS	STM3500320AS	STM3320614AS	STM3160813AS
Interface	SATA 3Gb/s	SATA 3Gb/s	SATA 3Gb/s	SATA 3Gb/s or 1.5Gb/s NCQ	SATA 3Gb/s or 1.5Gb/s NCQ
<b>Performance</b>					
Transfer Rate (MB/s)	300	300	300	300/150	150/300
Sustained Data Rate OD (MB/s)	105	105	105	105	105
Cache, Multisegmented (MB)	32	32	32	16	8
Average Latency (ms)	4.17	4.17	4.17	4.17	4.17
Spin Speed	7200	7200	7200	7200	7200
<b>Configuration/Organization</b>					
Bytes per Sector	512	512	512	512	512
<b>Reliability/Data Integrity</b>					
Contact Start-Stops	50,000	50,000	50,000	50,000	50,000
Nonrecoverable Read Errors per Bits Read	1 per 10E14	1 per 10E14	1 per 10E14	1 per 10E14	1 per 10E14
Annualized Failure Rate (AFR)	0.34%	0.34%	0.34%	0.34%	0.34%
Limited Warranty (years)	3	3	3	3	3
<b>Power Management</b>					
Startup Current +12V Peak (A, ±10%)	2.8	2.8	2.8	2.8	2.8
Seek, Average (W)	11.6	11.6	10.6	9.0	9.0
Operating, Average (W)	12	12	11.0	8.3	8.5
Idle, Average (W)	8.0	8.0	8.0	5.3	5.3
<b>Environmental</b>					
Temperature Operating (°C)	0 to 60	0 to 60	0 to 60	0 to 60	0 to 60
Nonoperating (°C)	-40 to 70	-40 to 70	-40 to 70	-40 to 70	-40 to 70
Shock Operating, 2 ms (Gs)	70	70	70	63	63
Nonoperating, 2 ms (Gs)	300	300	300	300	300
Acoustics (bels—sound power) Idle	2.7	2.7	2.5	2.5	2.7
Seek	2.9	2.9	2.8	2.8	2.9
<b>Physical</b>					
Height (in/mm)	1.028/26.1	1.028/26.1	1.028/26.1	0.787/20.00	0.787/20.00
Width (in/mm)	4.00/101.6	4.00/101.6	1.028/26.1	4.00/101.6	4.00/101.6
Depth (in/mm)	5.787/146.99	5.787/146.99	5.787/146.99	5.787/146.99	5.87/146.99
Weight (lb/kg)	1.4/0.64	1.4/0.64	1.2/0.54	0.838/0.380	0.838/0.380

\* One 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](http://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. DiamondMax, DiscWizard, Maxtor and the Maxtor logo 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. DS1641.4-0809US, September 2008