

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



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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.
- 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 ¹	750 GB ¹	500 GB ¹	320 GB ¹	160 GB ¹
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
Performance					
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
Configuration/Organization					
Bytes per Sector	512	512	512	512	512
Reliability/Data Integrity					
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
Power Management					
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
Environmental					
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
Physical					
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

¹ 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

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

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