Desktop HDD

Data Sheet

The Power of One

- Seagate brings over 30 years of trusted performance and reliability to the new Seagate® Desktop HDDs—now available in capacities up to 4TB.
- Double your capacity and reduce costs with the industry's first 1TB-per-disc hard drive technology.
- SATA 6Gb/s interface optimises burst performance.
- Seagate AcuTrac™ servo technology delivers dependable performance, even with hard drive track widths of only 75 nanometres.
- Seagate OptiCache™ technology boosts overall performance by as much as 45%.
- Free Seagate DiskWizard™ software allows you to install 3TB and 4TB hard drives in Windows, including XP, without UEFI BIOS.

Best-fit Applications

- Desktop or all-in-one PCs
- Home servers
- PC-based gaming systems
- Desktop RAID
- Direct-attached external storage devices (DAS)
- Network-attached storage devices (NAS)



use IP
www.use-ip.co.uk
01304 827609

Desktop HDD

Specifications	4TB[1]	3TB[1]	2TB[1]	1TB[1]	500GB[1]	320GB[1]	250GB[1]
Model Number	ST4000DM000	ST3000DM001	ST2000DM001	ST1000DM003	ST500DM002[2]	ST320DM000[2]	ST250DM000[2]
Model Name	Desktop HDD	formerly Barracuda®	formerly Barracuda	formerly Barracuda	formerly Barracuda	formerly Barracuda	formerly Barracuda
Interface Options	SATA 6Gb/s NCQ	SATA 6Gb/s NCQ	SATA 6Gb/s NCQ	SATA 6Gb/s NCQ	SATA 6Gb/s NCQ	SATA 6Gb/s NCQ	SATA 6Gb/s NCQ
Performance							
Cache, Multi-segmented (MB)	64	64	64	64	16	16	16
SATA Transfer Rates Supported (Gb/s)	6.0/3.0/1.5	6.0/3.0/1.5	6.0/3.0/1.5	6.0/3.0/1.5	6.0/3.0/1.5	6.0/3.0/1.5	6.0/3.0/1.5
Seek Average, Read (ms)	<8.5	<8.5	<8.5	<8.5	<11	<11	<11
Seek Average, Write (ms)	<9.5	<9.5	<9.5	<9.5	<12	<12	<12
Average Data Rate, Read/Write (MB/s)	146	156	156	156	125	125	125
Max Sustained Data Rate, OD Read (MB/s)	180	210	210	210	144	144	144
Configuration/Organisation							
Heads/Discs	8/4	6/3	6/3	2/1	2/1	2/1	1/1
Bytes per Sector	4,096	4,096	4,096	4,096	4,096 or 512[2]	4,096 or 512[2]	4,096 or 512[2]
Voltage							
Voltage Tolerance, Including Noise (5V)	+/–5%	+/–5%	+/–5%	+/–5%	+/–5%	+/–5%	+/–5%
Voltage Tolerance, Including Noise (12V)	+/–10%	+10%/–7.5%	+10%/–7.5%	+10%/–7.5%	+10%/–7.5%	+10%/–7.5%	+10%/–7.5%
Reliability/Data Integrity							
Contact Start/Stop Cycles	—	—	—	—	50,000	50,000	50,000
Load/Unload Cycles	300,000	300,000	300,000	300,000	—	—	—
Non-recoverable Read Errors per Bits Read, Max	1 per 10^{14}	1 per 10^{14}	1 per 10^{14}	1 per 10^{14}	1 per 10^{14}	1 per 10^{14}	1 per 10^{14}
Power-on Hours	2,400	2,400	2,400	2,400	2,400	2,400	2,400
Power Management							
Startup Power (A)	2.0	2.5	2.5	2.0	2.0	2.0	2.0
Operating Mode, Typical (W)	7.5	8.0	8.0	5.90	6.19	6.19	6.19
Idling, Average (W)	5.0	5.8	5.8	4.0	4.60	4.60	4.60
Standby Mode (W)	0.75	0.75	0.75	0.63	0.79	0.79	0.79
Sleep Mode (W)	0.75	0.75	0.75	0.63	0.79	0.79	0.79
Environmental							
Temperature							
Operating (ambient min °C)	0	0	0	0	0	0	0
Operating (drive case max °C)	60	60	60	60	60	60	60
Non-operating (ambient °C)	–40 to 70	–40 to 70	–40 to 70	–40 to 70	–40 to 70	–40 to 70	–40 to 70
Halogen-free	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RoHS compliance	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Physical							
Height (mm/in)	26.11/1.028	26.11/1.028	26.11/1.028	20.17/0.7825	19.98/0.787	19.98/0.787	19.98/0.787
Width (mm/in)	101.6/4.0	101.6/4.0	101.6/4.0	101.6/4.0	101.6/4.0	101.6/4.0	101.6/4.0
Depth (mm/in)	146.99/5.787	146.99/5.787	146.99/5.787	146.99/5.787	146.99/5.787	146.99/5.787	146.99/5.787
Weight (g/lb)	610/1.345	626/1.38	626/1.38	400/0.88	415/0.92	415/0.92	415/0.92
Carton Unit Quantity	20	20	20	25	25	25	25
Cartons per Pallet	40	40	40	40	40	40	40
Cartons per Layer	8	8	8	8	8	8	8
Special Features							
Seagate OptiCache™ Technology	Yes	Yes	Yes	Yes	No	No	No
Seagate AcuTrac™ Technology	Yes	Yes	Yes	Yes	No	No	No

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

[2] Seagate ships this drive in both 4K- and 512-byte sectors. SmartAlign technology is included on 4K sector drives. Both drives are functionally and physically equivalent.

www.seagate.com

AMERICAS Seagate Technology LLC 10200 South De Anza Boulevard, Cupertino, California 95014, United States, +1 408 658 1000
ASIA/PACIFIC Seagate Singapore International Headquarters Pte. Ltd. 7000 Ang Mo Kio Avenue 5, Singapore 569877, +65 6485 3888
EUROPE, MIDDLE EAST AND AFRICA Seagate Technology SAS 16-18 rue du Dôme, 92100 Boulogne-Billancourt, France, +33 1 41 86 10 00

© 2012 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. AcuTrac, Barracuda, DiscWizard, OptiCache and SmartAlign 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 drive capacity, one gigabyte, or GB, equals one billion bytes; and one terabyte, or TB, equals one trillion bytes. Your computer 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. Actual data rates may vary depending on operating environment and other factors. Seagate reserves the right to change, without notice, product offerings or specifications.

DS1770.1-1212GB, December 2012