Seagate Desktop HDD 500GB SATA3 (ST500DM001)

500GB SATA3, 6Gb/s NCQ, 3.5'', 16MB Cache, 7200rpm, RAID, RoHs



Barracuda® hard drives give you what you want.

Count on Barracuda® drives to deliver the storage innovations that drive your costs down and your performance up.

- 7200 RPM performance-from 250GB all the way up to 3TB
- OptiCache technology further exploits big 64MB cache sizes and improved micro processor capabilities
- SATA 6Gb/s technology to further maximize performance

Maximizes hard drive storage densities.

Barracuda 1TB-per-disk technology incorporates 340,000 unique tracks in the width of a single inch. This incredible storage density drives new capacity possibilities and lowers your total storage costs.

Seagate AcuTrac technology enables new storage densities with accurate reading and writing to nano-sized tracks that are only 75 nanometers wide! That's about 500 times smaller than the period at the end of this sentence.

Green where it counts.

Barracuda® 1TB-per-disk hard drives now have advanced power modes to save more energy while in idle states-without sacrificing performance.

Barracuda desktop drives are produced using the most sophisticated manufacturing process in the industry, with a focus on environmental stewardship.

- Barracuda® drives comply with the RoHS directive on hazardous materials and voluntarily restrict halogen compounds.
- 70% or more of the materials used to build Barracuda drives are recyclable.
- Low power consumption

Your no-hassle transition to 4K sectors.

Are you worried about moving to Advanced Format 4K sector technology? You don't have to be with Barracuda drives.

Seagate SmartAlign technology makes this transition a snap:

- No utilities to run
- No extra integration steps to take up your time

Go beyond 2TB with DiscWizard software.

The sure way to get native access to hard drives bigger than 2TB is to adopt the new BIOS standard called UEFI. If you're not there yet, Seagate has an alternative.

Free DiscWizard software from Seagate provides you a means to effectively utilize your 3TB Barracuda® drive, even with Windows XP and using the standard PC BIOS. Get your free copy to go beyond 2TB today!

PERFECT WHEN YOU NEED TO:

- Build desktop or all-in-one PCs
- Create PC-based gaming systems
- Implement a desktop RAID
- Outfit direct attached external storage devices (DAS)
- Build network attached storage devices (NAS)

Main specifications:

Hard drive

Hard drive interface:	Serial ATA III
Hard drive capacity:	500 GB
Hard drive size:	3.5 "
Hard drive speed:	7200 RPM
Drive device, buffer size:	16 MB
Write seek:	9.5 ms
Read seek:	8.5 ms
Average latency:	4.16 ms
Track to track seek time (read/write):	1.2 ms
Bytes per sector:	4096
Hard disk number of heads:	2
Cylinders:	16383
Start/stop cycles:	50000
Certification:	RoHs

Power

Power consumption (typical):	6.19 W
Power consumption (standby):	0.79 W
Power consumption (idle):	4.6 W
Input voltage:	12 V
Start-up current:	2 A

Operational conditions

Operating temperature (T-T):	0 - 60 °C
Storage temperature (T-T):	-40 - 70 °C
Operating relative humidity (H-H):	5 - 95 %
Storage relative humidity (H-H):	5 - 95 %
Operating altitude:	-304.8 - 3048 m
Non-operating altitude:	-304.8 - 12192 m
Operating shock:	70 G
Non-operating shock:	350 G
Operating vibration:	0.5 G
Non-operating vibration:	3 G

Weight & dimensions

Width:	101.6 mm
Height:	19.98 mm
Depth:	146.9 mm
Weight:	415 g

Packaging data

User guide:	Y

Other features

Data transfer rate:	6 Gbit/s
Native Command Queuing (NCQ):	Y

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