



2.5 HDD DATA SHEET

Amazing Versatility.  
Unmatched Dependability.



Seagate brings over 20 years of trusted performance and reliability to the Seagate® BarraCuda® 2.5-inch HDDs — now available in capacities up to 5 TB.



### Best-Fit Applications

- Laptops
- Mobile storage
- External storage systems
- All-in-one PCs
- Ultra-slim desktop PCs

## Key Advantages

**Broadest 2.5-inch hard drive portfolio** with up to 5 TB capacity and both 7 mm and 15 mm form factors suitable for a variety of compute applications.

**Thinnest and lightest 2.5-inch hard drive** with up to 2 TB storage in a 7 mm z-height, providing seamless upgrades of thin and light laptops and smaller form factor systems.

**Fast data rates of up to 140 MB/s** enables superior PC end-user experience and snappier file transfers.

2.5-inch, 15 mm z-height hard drives provide 3 TB to 5 TB in capacity, offering **the highest-capacity 2.5-inch hard drives** available for external or all-in-one storage.

**15 mm z-height enables slimmer all-in-one desktop PC drives** while helping reduce system heat generation and vibration.

**Low startup current** configurations for 3 TB to 5 TB drives enable **use in legacy low-current systems** like USB-2 external boxes, while simultaneously lowering power consumption.

5 TB drives can store more than **1.25 million songs and 600 hours of HD video.**<sup>1</sup>

<sup>1</sup> Quantitative usage examples for 5 TB capacity drive



Specifications	5 TB	4 TB	3 TB	2 TB	1 TB
Capacity	5 TB	4 TB	3 TB	2 TB	1 TB
Model Numbers	ST5000LM000	ST4000LM024	ST3000LM024	ST2000LM015	ST1000LM049
Bytes per Sector (logical/physical)	512/4,096	512/4,096	512/4,096	512/4,096	512/4,096
<b>Performance</b>					
Interface	SATA 6Gb/s	SATA 6Gb/s	SATA 6Gb/s	SATA 6Gb/s	SATA 6Gb/s
Data Transfer Rate (MB/s)	Up to 140	Up to 140	Up to 140	Up to 140	Up to 160
Cache (MB)	128	128	128	128	128
Spindle Speed (RPM)	5,400	5,400	5,400	5,400	7,200
<b>Reliability/Data Integrity</b>					
Load/Unload Cycles	600,000	600,000	600,000	600,000	600,000
Head-Rest Method	QuietStep™ Ramp Load	QuietStep Ramp Load	QuietStep Ramp Load	QuietStep Ramp Load	QuietStep Ramp Load
Non-recoverable Read Errors per Bits Read, Max	1 per 10E14	1 per 10E14	1 per 10E14	1 per 10E14	1 per 10E14
Limited Warranty (years) <sup>1</sup>	2	2	2	2	5
<b>Power Management</b>					
Startup Current (+5 V, A)	1.2	1.2	1.2	1.0	1.0
Read/Write Power, Average (W)	1.9/2.1	1.9/2.1	1.9/2.1	1.7/1.8	1.9/1.7
Idle Power, Average (W)	1.1	1.1	1.1	0.5	0.7
<b>Environmental</b>					
Temperature, Operating (°C)	0°C – 60°C	0°C – 60°C	0°C – 60°C	0°C – 60°C	0°C – 60°C
Temperature, Non-operating (°C)	-40°C – 70°C	-40°C – 70°C	-40°C – 70°C	-40°C – 70°C	-40°C – 70°C
Shock, Operating: 2 ms (Gs)	300	300	300	400	400
Shock, Non-operating: 1 ms (Gs)	650	650	650	1,000	1,000
Acoustics, Idle, Typical (bels—sound power)	2.6	2.6	2.6	2.2	2.2
Acoustics, Seek, Typical (bels—sound power)	2.7	2.7	2.7	2.4	2.4
<b>Physical</b>					
Height (mm/in)	15/0.59	15/0.59	15/0.59	7/0.276	7/0.276
Width (mm/in)	69.85 mm/2.75 in	69.85 mm/2.75 in	69.85 mm/2.75 in	69.85 mm/2.75 in	69.85 mm/2.75 in
Depth (mm/in)	100.35 mm/3.951 in	100.35 mm/3.951 in	100.35 mm/3.951 in	100.35 mm/3.951 in	100.35 mm/3.951 in
Weight (g/lb, max)	190 g/0.42 lb	190 g/0.42 lb	190 g/0.42 lb	90 g/0.198 lb	85 g/0.187 lb
Carton Unit Quantity	40	40	40	50	50
Cartons Per Pallet/Layer	60/10	60/10	60/10	60/10	60/10
<b>Special Features</b>					
Multi-Tier Caching Technology™	Yes	Yes	Yes	Yes	Yes
Halogen-free	Yes	Yes	Yes	Yes	Yes
RoHS compliance	Yes	Yes	Yes	Yes	Yes

<sup>1</sup> Extended warranty products available. Consult your distributor for details.



Specifications	1TB	500 GB	500 GB
Capacity	1 TB	500GB	500GB
Model Numbers	ST1000LM048	ST500LM034	ST500LM030
Bytes per Sector (logical/physical)	512/4,096	512/4,096	512/1/4096
<b>Performance</b>			
Interface	SATA 6Gb/s	SATA 6Gb/s	SATA 6Gb/s
Data Transfer Rate (MB/s)	Up to 140	Up to 160	Up to 140
Cache (MB)	128	128	128
Spindle Speed (RPM)	5,400	7,200	5,400
<b>Reliability/Data Integrity</b>			
Load/Unload Cycles	600,000	600,000	600,000
Head-Rest Method	QuietStep Ramp Load	QuietStep Ramp Load	QuietStep Ramp Load
Non-recoverable Read Errors per Bits Read, Max	1 per 10E14	1 per 10E14	1 per 10E14
Limited Warranty (years) <sup>1</sup>	2	5	2
<b>Power Management</b>			
Startup Current (+5 V, A)	1.0	1.0	1.0
Read/Write Power, Average (W)	1.6/1.7	1.9/1.7	1.6/1.7
Idle Power, Average (W)	0.45	0.7	0.45
<b>Environmental</b>			
Temperature, Operating (°C)	0°C – 60°C	0°C – 60°C	0°C – 60°C
Temperature, Non-operating (°C)	-40°C – 70°C	-40°C – 70°C	-40°C – 70°C
Shock, Operating: 2 ms (Gs)	400	400	400
Shock, Non-operating: 1 ms (Gs)	1,000	1,000	1,000
Acoustics, Idle, Typical (bels—sound power)	2	2.2	2
Acoustics, Seek, Typical (bels—sound power)	2.2	2.4	2.2
<b>Physical</b>			
Height (mm/in)	7/0.276	7/0.276	7/0.276
Width (mm/in)	69.85 mm/2.75 in	69.85 mm/2.75 in	69.85 mm/2.75 in
Depth (mm/in)	100.35 mm/3.951 in	100.35 mm/3.951 in	100.35 mm/3.951 in
Weight (g/lb, max)	90 g/0.198 lb	85 g/0.187 lb	90 g/0.198 lb
Carton Unit Quantity	50	50	50
Cartons Per Pallet/Layer	60/10	60/10	60/10
<b>Special Features</b>			
Multi-Tier Caching Technology™	Yes	Yes	Yes
Halogen-free	Yes	Yes	Yes
RoHS compliance	Yes	Yes	Yes

<sup>1</sup> Extended warranty products available. Consult your distributor for details.

[seagate.com](http://seagate.com)

 SEAGATE

© 2019 Seagate Technology LLC. All rights reserved. Seagate, Seagate Technology and the Spiral logo are registered trademarks of Seagate Technology LLC in the United States and/or other countries. BarraCuda, Multi-Tier Caching Technology and QuietStep 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'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. Quantitative usage examples for various applications are for illustrative purposes. Actual quantities will vary based on various factors, including file size, file format, features and application software. Actual data rates may vary depending on operating environment and other factors. Seagate reserves the right to change, without notice, product offerings or specifications. DS1907.2-1907US July 2019