



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 5TB.



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 5TB capacity and both 7mm and 15mm form factors suitable for a variety of compute applications.

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

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

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

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

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

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

¹ Quantitative usage examples for 5TB capacity drive



Specifications	5TB	4TB	3TB	2TB	1TB
Capacity	5TB	4TB	3TB	2TB	1TB
Model Numbers	ST5000LM000	ST4000LM024	ST3000LM024	ST2000LM015	ST1000LM049
Bytes per Sector (logical/physical)	512/4096	512/4096	512/4096	512/4096	512/4096
Performance					
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)	5400	5400	5400	5400	7200
Reliability/Data Integrity					
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
Nonrecoverable Read Errors per Bits Read, Max	1 per 10E14	1 per 10E14	1 per 10E14	1 per 10E14	1 per 10E14
Limited Warranty (years) ¹	2	2	2	2	5
Power Management					
Startup Current (+5V, 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
Environmental					
Temperature, Operating (°C)	0°C – 60°C	0°C – 60°C	0°C – 60°C	0°C – 60°C	0°C – 60°C
Temperature, Nonoperating (°C)	-40°C – 70°C	-40°C – 70°C	-40°C – 70°C	-40°C – 70°C	-40°C – 70°C
Shock, Operating: 2ms (Gs)	300	300	300	400	400
Shock, Nonoperating: 1ms (Gs)	650	650	650	1000	1000
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
Physical					
Height (mm/in)	15.0/0.59	15.0/0.59	15.0/0.59	7.0/0.276	7.0/0.276
Width (mm/in)	69.85mm/2.75in	69.85mm/2.75in	69.85mm/2.75in	69.85mm/2.75in	69.85mm/2.75in
Depth (mm/in)	100.35mm/3.951in	100.35mm/3.951in	100.35mm/3.951in	100.35mm/3.951in	100.35mm/3.951in
Weight (g/lb, max)	190g/0.42lb	190g/0.42lb	190g/0.42lb	90g/0.198lb	85g/0.187lb
Carton Unit Quantity	40	40	40	50	50
Cartons Per Pallet/Layer	60/10	60/10	60/10	60/10	60/10
Special Features					
Multi-Tier Caching Technology™	Yes	Yes	Yes	Yes	Yes
Halogen Free	Yes	Yes	Yes	Yes	Yes
RoHS Compliance	Yes	Yes	Yes	Yes	Yes

¹ Extended warranty products available. Consult your distributor for details.



Specifications	1TB	500GB	500GB
Capacity	1TB	500GB	500GB
Model Numbers	ST1000LM048	ST500LM034	ST500LM030
Bytes per Sector (logical/physical)	512/4096	512/4096	512/1/4096
Performance			
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)	5400	7200	5400
Reliability/Data Integrity			
Load/Unload Cycles	600,000	600,000	600,000
Head-Rest Method	QuietStep Ramp Load	QuietStep Ramp Load	QuietStep Ramp Load
Nonrecoverable Read Errors per Bits Read, Max	1 per 10E14	1 per 10E14	1 per 10E14
Limited Warranty (years) ¹	2	5	2
Power Management			
Startup Current (+5V, 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
Environmental			
Temperature, Operating (°C)	0°C – 60°C	0°C – 60°C	0°C – 60°C
Temperature, Nonoperating (°C)	-40°C – 70°C	-40°C – 70°C	-40°C – 70°C
Shock, Operating: 2ms (Gs)	400	400	400
Shock, Nonoperating: 1ms (Gs)	1000	1000	1000
Acoustics, Idle, Typical (bels—sound power)	2.0	2.2	2.0
Acoustics, Seek, Typical (bels—sound power)	2.2	2.4	2.2
Physical			
Height (mm/in)	7.0/0.276	7.0/0.276	7.0/0.276
Width (mm/in)	69.85mm/2.75in	69.85mm/2.75in	69.85mm/2.75in
Depth (mm/in)	100.35mm/3.951in	100.35mm/3.951in	100.35mm/3.951in
Weight (g/lb, max)	90g/0.198lb	85g/0.187lb	90g/0.198lb
Carton Unit Quantity	50	50	50
Cartons Per Pallet/Layer	60/10	60/10	60/10
Special Features			
Multi-Tier Caching Technology™	Yes	Yes	Yes
Halogen Free	Yes	Yes	Yes
RoHS Compliance	Yes	Yes	Yes

¹ Extended warranty products available. Consult your distributor for details.

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