



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
Recording Technology	SMR	SMR	SMR	SMR	SMR
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	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
Physical					
Height (mm/in)	15/0.59	15/0.59	15/0.59	7/0.276	7/0.276
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
Recording Technology	SMR	SMR	SMR
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)	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
Physical			
Height (mm/in)	7/0.276	7/0.276	7/0.276
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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