Laptop Thin HDD

Data Sheet

Slim-Computing Savvy

- The first 7mm, 2.5-inch drive from Seagate now supports up to 1TB of data in a two-disk design.

- Standard 7mm form factor supported by a SATA 6Gb/s interface for easy integration into existing laptops

- Improved design featuring a steel baseplate and top cover for better shock, vibration and magnetic tolerance for convertible and detachable applications[1]

- Security built in: Self-Encrypting Drive (SED) features mitigate data breaches, comply with data protection regulations and preserve brand recognition.[2]

- Self-Encrypting Drives with FIPS 140-2 certification are approved for the U.S. and Canadian governments.[2,3]

Best-Fit Applications

- Traditional laptops

- Convertible and detachable storage

- Slim consumer electronics devices

1 1TB and 750GB models only

2 Refer to specifications table for further information and feature options.

3 See FIPS 140-2 Level 2 Certificate at http://csrc.nist.gov/groups/STM/cmvp/documents/140-1/1401vend.htm

Laptop Thin HDD

Specifications	1TB[1]	750GB[1]	500GB[1]	320GB[1]	250GB[1]
Model Name	Laptop Thin HDD	Laptop Thin HDD	formerly Momentus® Thin	formerly Momentus Thin	formerly Momentus Thin
Self-Encrypting Drive Model	ST1000LM029	ST750LM025	ST500LT025		
Self-Encrypting Drive FIPS 140-2 Validated Model			ST500LT015		
Non-Self-Encrypting Drive Model	ST1000LM033	ST750LM031	ST500LT012	ST320LT012	ST250LT012
Interface	SATA 6Gb/s	SATA 6Gb/s	SATA 6Gb/s	SATA 6Gb/s	SATA 6Gb/s
Cache (MB)	32	32	16	16	16
Performance					
Seek Average (ms)	13	13	12	12	12
Sustained Data Transfer Rate OD, Max (MB/s)	600	600	600	600	600
I/O Data Transfer Rate, Max (MB/s)	100	100	118.5	118.5	118.5
Configuration/Organization					
Bytes per Sector (logical/physical)	512/4096	512/4096	512/4096	512/4096	512/4096
Load/Unload Cycles	>600,000	>600,000	>600,000	>600,000	>600,000
Nonrecoverable Read Errors per Bits Read, Max	1 per 10E14	1 per 10E14	1 per 10E14	1 per 10E14	1 per 10E14
Power Management					
Startup Power, Typical (A)	1.0	1.0	1.0	1.0	1.0
Seek, Typical (W)	1.5	1.5	1.2	1.2	1.2
Idle, Typical (W)	0.66	0.66	0.45	0.45	0.45
Environmental					
Temperature (°C)					
Operating	0 to 60	0 to 60	0 to 60	0 to 60	0 to 60
Nonoperating	−40 to 70	−40 to 70	−40 to 70	−40 to 70	−40 to 70
Shock (Gs)					
Operating: 2ms	400	400	400	400	400
Nonoperating: 1ms	1000	1000	1000	1000	1000
Acoustics (bels)					
Idle, Typical	2.0	2.0	2.0	2.0	2.0
Seek, Typical	2.2	2.2	2.2	2.2	2.2
Physical					
Height (mm/in)	7.0/0.276	7.0/0.276	7.0/0.276	7.0/0.276	7.0/0.276
Width (mm/in)	70.1/2.76	70.1/2.76	70.1/2.76	70.1/2.76	70.1/2.76
Depth (mm/in)	100.55/3.959	100.55/3.959	100.55/3.959	100.55/3.959	100.55/3.959
Weight (g/lb)	115/0.254	115/0.254	95.0/0.209	95.0/0.209	95.0/0.209
Carton Unit Quantity	50	50	50	50	50
Cartons Per Layer	60	60	60	60	60
Cartons Per Pallet	10	10	10	10	10

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

FIPS 140-2 Inside   Seagate Secure®   ADVANCED AF FORMAT

www.seagate.com