

# Laptop SSHD Laptop Thin SSHD

## Data Sheet

### SSD Speed. HDD capacity. A Price that Makes Sense.

- Boots up and performs like an SSD<sup>1</sup>
- SATA 6Gb/s with NCQ for interface speed
- Faster than a traditional HDD<sup>1</sup>
- All-in-one design for simplicity and ease of installation
- Installs and works just like a traditional hard drive in any laptop or PC, and with any OS and application
- Now available in a thinner, 7mm z-height model for ultra-thin, ultra-light laptops
- Backed by a three-year limited warranty

### Best-fit Applications

- Laptops and mobile workstations
- Small form factor all-in-one PCs
- High-performance laptop gaming systems

<sup>1</sup> Performance may vary depending on user's hardware configuration and operating system.  
Testing performed on a Seagate® Laptop SSHD 1TB and Seagate Laptop Thin SSHD 500GB.



# Laptop SSHD Laptop Thin SSHD



| Specifications                                 | 1 TB <sup>1</sup>      | 500 GB <sup>1</sup>    |
|------------------------------------------------|------------------------|------------------------|
| Model Number                                   | ST1000LM014            | ST500LM000             |
| Model Name                                     | Laptop SSHD            | Laptop Thin SSHD       |
| Interface                                      | SATA 6Gb/s NCQ         | SATA 6Gb/s NCQ         |
| <b>Performance</b>                             |                        |                        |
| NAND Type/Size                                 | MLC/8GB                | MLC/8GB                |
| DRAM Cache (MB)                                | 64                     | 64                     |
| SATA Transfer Rates Supported (Gb/s)           | 6.0/3.0/1.5            | 6.0/3.0/1.5            |
| Average Data Throughput (MB/s)                 | 100                    | 100                    |
| PC Mark Vantage Average HDD Score              | 19,838                 | 19,838                 |
| Average Windows 8 Boot Time (sec)              | <10                    | <10                    |
| Seek Average, Read (ms)                        | <12.0                  | <12.0                  |
| Seek Average, Write (ms)                       | <14                    | <14                    |
| <b>Configuration/Organisation</b>              |                        |                        |
| Heads/Disks                                    | 4/2                    | 2/1                    |
| Bytes per Sector                               | 4,096                  | 4,096                  |
| <b>Reliability/Data Integrity</b>              |                        |                        |
| Head-Rest Method                               | QuietStep™ Ramp Load   | QuietStep Ramp Load    |
| Load/Unload Cycles                             | 600,000                | 600,000                |
| Non-recoverable Read Errors per Bits Read, Max | 1 per 10 <sup>14</sup> | 1 per 10 <sup>14</sup> |
| Annualised Failure Rate (AFR)                  | 0.48%                  | 0.48%                  |
| <b>Power Management</b>                        |                        |                        |
| Power (W)                                      |                        |                        |
| Seek, Typical                                  | 2.7                    | 2.5                    |
| Idling, Typical                                | 0.9                    | 0.9                    |
| <b>Environmental</b>                           |                        |                        |
| Temperature (°C)                               |                        |                        |
| Operating                                      | 0 to 60                | 0 to 60                |
| Non-operating                                  | -40 to 70              | -40 to 70              |
| Shock (Gs)                                     |                        |                        |
| Operating: 2ms                                 | 350                    | 350                    |
| Non-operating                                  | 1,000                  | 1,000                  |
| Acoustics (bels — sound power)                 |                        |                        |
| Idling, Typical                                | 2.2                    | 2.0                    |
| Seek, Typical                                  | 2.4                    | 2.2                    |
| <b>Physical</b>                                |                        |                        |
| Height (in/mm)                                 | 0.374/9.5              | 0.276/7.0              |
| Width (in/mm)                                  | 2.75/69.85             | 2.76/70.1              |
| Depth (in/mm)                                  | 3.95/100.35            | 3.95/100.35            |
| Weight (lb/g)                                  | 0.254/115              | 0.209/95.0             |
| Carton Unit Quantity                           | 50                     | 50                     |
| Cartons per Pallet                             | 60                     | 60                     |
| Cartons per Layer                              | 10                     | 10                     |

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

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