

# Spinpoint™ M9T

## Mobile SATA Drive



The Samsung Spinpoint M9T mobile SATA drive delivers high capacity in a thin design to give customers the ideal solution for external and mobile applications. The 2.5-inch drive is just 9.5mm thin and available in capacities of 1.5TB and 2TB.

### FEATURES

- Max. 667GB formatted capacity per disk
- SATA Native Command Queuing feature
- TuMR/PMR head with FOD technology
- SATA 6Gb/s interface support
- Load/unload head technology
- ATA Security Mode feature set
- ATA S.M.A.R.T. feature set
- SilentSeek™
- NoiseGuard™

### DRIVE CONFIGURATION

- Capacity<sup>1</sup>: 1.5TB, 2TB
- Interface: SATA 6Gb/s (3Gb/s, 1.5Gb/s)
- Rotational Speed: 5400-RPM class
- Cache: 32MB

### PERFORMANCE SPECIFICATIONS

- Average Seek Time (typical): 12ms
- Average Latency: 5.6ms
- Drive Ready Time (typical)<sup>2</sup>: 3.5ms
- Data Transfer Rate
  - Media to/from Buffer (max): 169MB/s
  - Buffer to/from Host (max): 600MB/s

### RELIABILITY SPECIFICATIONS

- Nonrecoverable Read Error: 1 sector in 10E14 bits
- Controlled Ramp Load/Unload: >600,000

### ACOUSTICS

- Idle: 2.5 bels
- Performance Seek: 2.7 bels

### POWER REQUIREMENTS

- Voltage: +5V ± 5%
- Spin-up Current (max): 1000 mA
- Read/Write (avg)<sup>3</sup>: 2.3W
- Low Power Idle (avg): 0.7W
- Standby (avg): 0.18W
- Sleep (avg): 0.18W

### ENVIRONMENTAL SPECIFICATIONS

- Temperature
  - Operating: 0 ~ 60°C
  - Nonoperating: -40 ~ 70°C
- Humidity (noncondensing)
  - Operating: 5% to 90%
  - Nonoperating: 5% to 95%
- Linear Shock (1/2-sine pulse)
  - Operating (2ms): 300 Gs
  - Nonoperating (1ms): 900 Gs
- Vibration (10Hz to 500Hz, random)
  - Operating: 1.5 Grms
- Altitude (relative to sea level)
  - Operating: -304.8m to 3,048m
  - Nonoperating: -304.8m to 12,192m

### PHYSICAL DIMENSIONS

- Height: 9.5mm ±0.2mm (0.374in ±0.008in)
- Width: 69.85mm ±0.25mm (2.75in ±0.010in)
- Length: 100.35mm +0.2/-0.25mm (3.951mm +0.008/-0.010in)
- Weight (max): 130g (0.29lb)

### CAPACITIES SUMMARY

| CAPACITY <sup>1</sup> | 1.5TB                                     | 2TB                                       |
|-----------------------|---|---|
| MODEL NUMBERS         | ST1500LM006<br>ST1500LM007<br>ST1500LM010 | ST2000LM003<br>ST2000LM004<br>ST2000LM006 |

<sup>1</sup> 1MB = 1,000,000 bytes, 1GB = 1,000,000,000 bytes; accessible capacity may vary as some OS use binary numbering system for reported capacity.

<sup>2</sup> Power-on to drive ready

<sup>3</sup> Read/write operation at OD for 32 sectors

Seagate Technology LLC  
10200 South De Anza Boulevard, Cupertino, California 95014  
408-658-1000

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