

Spinpoint™ M8

Mobile SATA



The Samsung Spinpoint M8 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 up to 1TB.

FEATURES

- Max. 500GB 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

- Capacity¹: 320GB, 500GB, 750GB, 1TB
- Interface: SATA 6Gb/s (3.0Gb/s, 1.5Gb/s)
- Rotational Speed: 5400-RPM class

PERFORMANCE SPECIFICATIONS

- Average Seek Time (typical): 12ms
- Average Latency: 5.6ms
- Drive Ready Time (typical)²: 3 sec
- Data Transfer Rate
 - Media to/from Buffer (max.): 145MB/s
 - Buffer to/from Host (max.): 600MB/s

RELIABILITY SPECIFICATIONS

- Nonrecoverable Read Error: 1 sector in 10¹⁴ bits
- Controlled Ramp Load/Unload: 600,000

ACOUSTICS

- Idle: 2.3 Bel
- Performance Seek: 2.5 Bel

POWER REQUIREMENTS

- Voltage: + 5V ± 5%
- Spin-up Current (max.): 1000 mA
- Seek (avg.)³: 2W
- Read/Write (avg.)⁴: 2.3W
- Low Power Idle (avg.): 0.7W
- Standby (avg.): 0.2W
- Sleep (avg.): 0.2W

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): 350 Gs
 - Nonoperating (2ms): 850 Gs
- Vibration (10Hz to 500Hz, random)
 - Operating: 1.5 Grms
- Altitude (relative to sea level)
 - Operating: -300m to 3,000m
 - Nonoperating: -400m to 15,000m

PHYSICAL DIMENSIONS

- Height: 9.5mm ± 0.2mm (0.374in ± 0.008in)
- Width: 69.75mm ± 0.25mm (2.75in ± 0.01in)
- Length: 100.3mm ± 0.4mm (3.95mm ± 0.016in)
- Weight (max.): 117g (0.26lb)

CAPACITIES SUMMARY

CAPACITY	320GB	500GB	750GB	1TB
PART NUMBER	HN-M320MBB	HN-M500MBB	HN-M750MBB	HN-M101MBB
MODEL NUMBERS	ST320LM001	ST500LM012	ST750LM022	ST1000LM024

*Note: Design and specifications are subject to change without prior notice.

1. 1MB = 1,000,000 Bytes, 1GB = 1,000,000,000 Bytes

Accessible capacity may vary, as some OSs use binary numbering system for reported capacity

2. Power-on to drive ready

3. 30% duty cycle, random seek

4. Read/Write operation at OD for 32 sectors.

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