Spinpoint™ D8X

Mobile SATA

The Samsung D8X SATA 7200 rpm 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
- Serial ATA 6.0 Gb/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[1]: 500GB, 1TB
- Interface: SATA 6.0 Gb/s (3.0, 1.5 Gb/s)
- Rotational Speed: 7200 RPM class

PERFORMANCE SPECIFICATIONS

- Average Seek Time (typical): 11 ms
- Average Latency: 4.2 ms
- Drive Ready Time (typical)[2]: 4 sec
- Data Transfer Rate
  - Media to/from Buffer (max.): 214 MB/s
  - Buffer to/from Host (max.): 600 MB/s

RELIABILITY SPECIFICATIONS

- Non-recoverable Read Error: 1 sector in 10^{14} bits
- Controlled Ramp Load/Unload: 600,000

ACOUSTICS

- Idle (max.): 2.8 Bel
- Performance Seek (max.): 3.0 Bel

POWER REQUIREMENTS

- Voltage: + 5V ± 5%
- Spin-up Current (max.): 1000 mA
- Seek (AVG)[3]: 2.0 W
- Read/Write (AVG)[4]: 3.5 W
- Low Power Idle (AVG): 0.85 W
- Standby (AVG): 0.18 W
- Sleep (AVG): 0.18 W

ENVIRONMENTAL SPECIFICATIONS

- Temperature
  - Operating: 0 ~ 60°C
  - Nonoperating: -40 ~ 70°C
- Humidity (noncondensing)
  - Operating: 5-90%
  - Nonoperating: 5-95%
- Linear Shock (1/2 sine pulse)
  - Operating (2 ms): 300 G
  - Nonoperating (2 ms): 600 G
- Vibration (10-500 Hz, random)
  - Operating: 1.5 Grms
- Altitude (relative to sea level)
  - Operating: -300 to 3,000 m
  - Nonoperating: -400 to 15,000 m

PHYSICAL DIMENSIONS

- Height: 9.5 ± 0.2 mm (0.374 ± 0.008 in)
- Width: 69.85 ± 0.25 mm (2.75 ± 0.01 in)
- Length: 100.3 ± 0.4 mm (3.95 ± 0.016 in)
- Weight (max.): 119 g (0.263 lb), 125 g (0.276 lb)

CAPACITIES SUMMARY

CAPACITY	500GB	1TB
Model	ST500LM027	ST1000LM044

* 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 a 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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SpinPoint™ SAMSUNG