

## Embedded Solutions



# SATA III M.2 SSDs MTS970A

Transcend's MTS970A M.2 SSD is a self-encrypting drive (SED) that complies with the TCG (Trusted Computing Group) Opal 2.0 standards. Data is protected using hardware-based AES 256-bit encryption and LBA (Logical Block Address) sector-specific permissions.

Transcend's MTS970A M.2 SSD features a SATA III 6Gb/s interface and 112-layer 3D NAND flash, delivering breakthrough density that greatly improves storage efficiency. Its built-in DRAM cache enables fast random read and write speeds, and improves drive endurance. In addition, the 30 $\mu$ " gold finger PCB, Corner Bond technology, and anti-sulfur resistors guarantee its reliability in harsh conditions. Transcend's MTS970A is also 100% chamber tested in-house for extended operating temperatures of -20°C~75°C.

## Hardware Features

- Compliant with RoHS 2.0 standards
- DDR3 DRAM Cache embedded
- Anti-sulfur technology implemented to prevent sulfurization in the environment
- 30 $\mu$ " PCB gold finger
- Key components fortified by default with Corner Bond technology

## Firmware Features

- Supports S.M.A.R.T. function to conduct health monitoring, analysis, and reporting for storage devices
- Advanced Global Wear-Leveling and Block management for reliability
- Built-in LDPC ECC (Error Correction Code) functionality
- Dynamic thermal throttling
- Compliant with TCG Opal specifications and IEEE 1667 standards

## Ordering Information

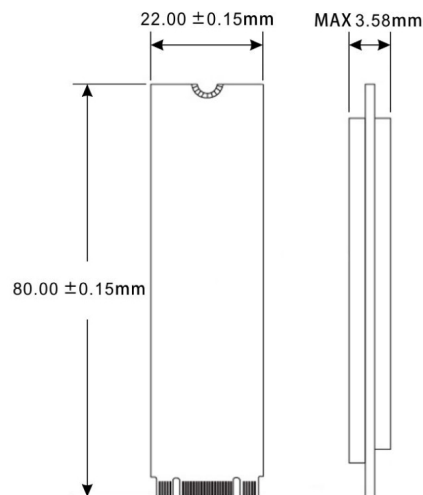
128GB	TS128GMTS970A
256GB	TS256GMTS970A
512GB	TS512GMTS970A
1TB	TS1TMTS970A
2TB	TS2TMTS970A
4TB	TS4TMTS970A

\*Supports Microsoft® eDrive standard

## Specifications

<b>Appearance</b>	Dimensions	80.0 mm x 22.0 mm x 3.58 mm (3.15" x 0.87" x 0.14")
	Weight	9 g (0.32 oz)
	M.2 Type	2280-D2-B-M (Double-sided)
	Form Factor	M.2 2280
<b>Interface</b>	Bus Interface	SATA III 6Gb/s
<b>Storage</b>	Capacity	128 GB / 256 GB / 512 GB / 1 TB / 2 TB / 4 TB
	Flash Type	112-layer 3D NAND flash
<b>Operating Environment</b>	Operating Voltage	3.3V±5%
	Operating Temperature	Extended Temp. -20°C (-4°F) ~ 75°C (167°F)
	Storage Temperature	-55°C (-67°F) ~ 85°C (185°F)
	Humidity	5% ~ 95%
	Shock	1500 G, 0.5 ms, 3 axis
	Vibration (Operating)	20 G (peak-to-peak), 7 Hz ~ 2000 Hz (frequency)
<b>Power</b>	Power Consumption (Operation)	3.1 watt(s)
	Power Consumption (Sleep)	1.1 watt(s)
<b>Performance</b>	Sequential Read/Write (CrystalDiskMark)	Read: up to 560 MB/s Write: up to 475 MB/s
	4K Random Read/Write (IOmeter)	Read: up to 70,000 IOPS Write: up to 83,000 IOPS
	Mean Time Between Failures (MTBF)	3,000,000 hour(s)
	Terabytes Written (TBW)	up to 514 TBW
	Drive Writes Per Day (DWPD)	1.85 (3 yrs)
<b>Warranty</b>	Certificate	CE / FCC / BSMI / UKCA
	Warranty	Three-year Limited Warranty

## Mechanical Dimensions



Product specifications are subject to change without notice. Pictures shown may differ from actual products. Total accessible capacity varies depending on operating environment. Due to the complexity and variety of industrial applications, Transcend cannot guarantee 100% compatibility with all platforms and under all scenarios. For special applications and environments, it is strongly suggested that you contact Transcend beforehand for clarification.