

## Embedded Solutions



### SATA III M.2 SSDs

## MTS970T & MTS970T-I

Transcend's M.2 SSD MTS970T features the SATA III 6Gb/s interface and the state-of-the-art 3D NAND technology, which allows 112 layers of 3D NAND flash chips to be vertically stacked. Compared to 3D NAND at 96 layers, this density breakthrough greatly improves storage efficiency, and its built-in DRAM cache allows faster access. Applied with 30μ" gold finger PCB and Corner Bond technology, the MTS970T is fully tested in-house to guarantee reliability in mission-critical applications, boasting an endurance rating of 3K Program/Erase cycles and an extended operating temperature ranging from -20°C~75°C.

Transcend also offers the MTS970T-I with wide temperature (-40°C ~ 85°C) capabilities to ensure sustained functionality, enhanced endurance and optimal reliability in mission-critical applications.

### Hardware Features

- Compliant with RoHS 2.0 standards
- Space-saving M.2 form factor (80mm) – ideal for mobile computing devices
- DDR3 DRAM Cache embedded
- Endurance: 3K P/E cycles (Program/Erase cycles) guaranteed
- Key components fortified by default with Corner Bond technology

### Firmware Features

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

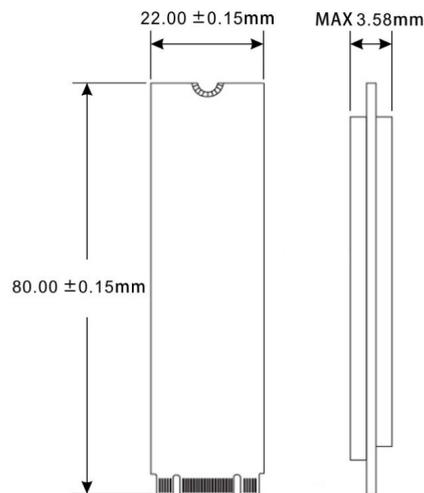
### Ordering Information

128GB	TS128GMTS970T TS128GMTS970T-I
256GB	TS256GMTS970T TS256GMTS970T-I
512GB	TS512GMTS970T TS512GMTS970T-I
1TB	TS1TMTS970T TS1TMTS970T-I
2TB	TS2TMTS970T TS2TMTS970T-I
4TB	TS4TMTS970T TS4TMTS970T-I

## 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)
		Wide Temp. -40°C (-40°F) ~ 85°C (185°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)	4.1 watt(s)
	Power Consumption (Sleep)	2.8 watt(s)
<b>Performance</b>	Sequential Read/Write (CrystalDiskMark)	Read: up to 560 MB/s Write: up to 520 MB/s
	4K Random Read/Write (IOMeter)	Read: up to 90,000 IOPS Write: up to 80,000 IOPS
	Mean Time Between Failures (MTBF)	3,000,000 hour(s)
	Terabytes Written (TBW)	up to 9680 TBW
	Drive Writes Per Day (DWPD)	2.21 (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.