

## Embedded Solutions



## SATA III M.2 SSDs MTS970P

Transcend's M.2 SSD MTS970P is a Power Loss Protection (PLP) SSD. During unexpected power outages, the built-in tantalum capacitor provides power to the controller and DRAM cache, ensuring data integrity and storage reliability.

Transcend's MTS970P features a 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 30 $\mu$ m gold finger PCB, Corner Bond technology, and anti-sulfur resistor, the MTS970P is fully tested in-house to guarantee reliability in mission-critical applications, boasting an endurance rating of 3K Program/Erase cycles and wide temperature capabilities ranging from -40°C~85°C.

### Hardware Features

- DDR3 DRAM Cache embedded
- Anti-sulfur technology implemented to prevent sulfurization in the environment
- 30 $\mu$ m PCB gold finger
- Key components fortified by default with Corner Bond technology
- Power Loss Protection (PLP) to prevent data loss in the event of sudden power outage

### Firmware Features

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

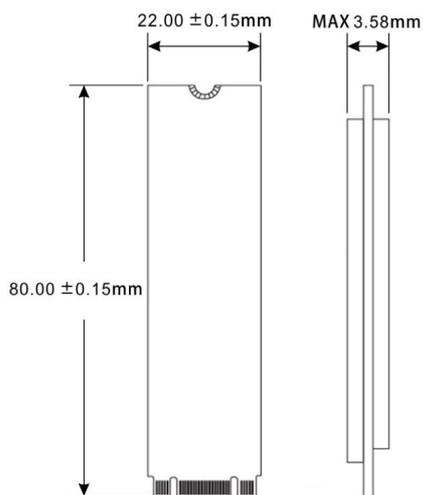
### Ordering Information

128GB	TS128GMTS970P
256GB	TS256GMTS970P
512GB	TS512GMTS970P
1TB	TS1TMTS970P

## Specifications

<b>Appearance</b>	Dimensions	80 mm x 22 mm x 3.58 mm (3.15" x 0.87" x 0.14")
	Weight	7 g (0.25 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
	Flash Type	112-layer 3D NAND flash
<b>Operating Environment</b>	Operating Voltage	3.3V±5%
	Operating Temperature	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)	5 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 2400 TBW
	Drive Writes Per Day (DWPD)	2.14 (3 yrs)
<b>Warranty</b>	Certificate	CE / UKCA / FCC / BSMI
	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.