



SATA III M.2 SSDs

MTS980T & MTS980T-I

Transcend's MTS980T industrial-grade SATA III M.2 2280 DRAM-less SSD features BiCS8 218-layer 3D NAND flash memory. Its DRAM-less architecture helps reduce power consumption and system costs, while the M.2 2280 form factor makes it suitable for space-constrained embedded systems and industrial equipment.

To meet the temperature requirements of different devices and applications, the MTS980T supports an extended operating temperature range of -20°C to 75°C. The MTS980T-I is also available with an wide temperature range of -40°C to 85°C. The entire series features 30μ" gold-plated contacts and Corner Bond technology. In-house testing helps ensure durability and stability for long-term use in industrial environments.

Hardware Features

- Compliant with RoHS 2.0 standards
- Endurance: 3K P/E cycles (Program/Erase cycles) guaranteed
- Anti-sulfur technology implemented to prevent sulfurization in the environment
- Power Shield (PS) to ensure data transfer integrity and minimize data corruption in the drive during an abnormal power outage
- Space-saving M.2 form factor (80mm) – ideal for mobile computing devices

Firmware Features

- Built-in LDPC ECC (Error Correction Code) functionality
- Advanced Garbage Collection
- Advanced Global Wear-Leveling and Block management for reliability
- Dynamic thermal throttling
- NCQ command for better performance

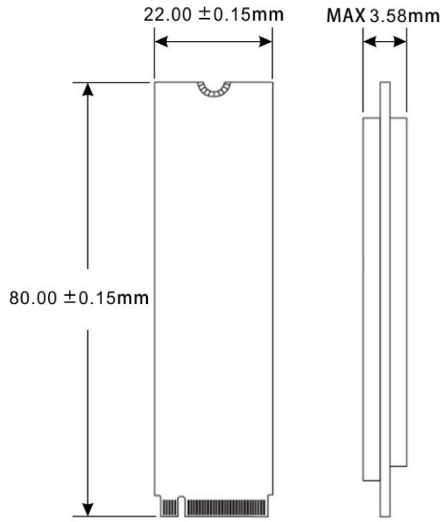
Ordering Information

128GB	TS128GMTS980T TS128GMTS980T-I
256GB	TS256GMTS980T TS256GMTS980T-I
512GB	TS512GMTS980T TS512GMTS980T-I
1TB	TS1TMTS980T TS1TMTS980T-I
2TB	TS2TMTS980T TS2TMTS980T-I

Specifications

Appearance	Dimensions	80 mm x 22 mm x 3.58 mm (3.15" x 0.87" x 0.14")
	Weight	8 g (0.28 oz)
	M.2 Type	2280-S2-B-M (Single-sided)
	Form Factor	M.2 2280
Interface	Bus Interface	SATA III 6Gb/s
Storage	Capacity	128 GB / 256 GB / 512 GB / 1 TB / 2 TB
	Flash Type	218-layer 3D NAND flash
Operating Environment	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 ~ 2,000 Hz (frequency)
Power	Power Consumption (Operation)	0.62 watt(s)
	Power Consumption (IDLE)	0.3 watt(s)
Performance	Sequential Read/Write (CrystalDiskMark)	Read: Up to 560 MB/s Write: Up to 520 MB/s
	4K Random Read/Write (IOmeter)	Read: Up to 70,000 IOPS Write: Up to 85,000 IOPS
	Mean Time Between Failures (MTBF)	3,000,000 hour(s)
	Terabytes Written (TBW)	Up to 5,400 TBW
	Drive Writes Per Day (DWPD)	2.46 (3 yrs)
Warranty	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.