



SATA III M.2 SSDs

# MTS560T & MTS560T-I

Transcend's industrial M.2 DRAM-less SSD MTS560T features the SATA III 6Gb/s interface and 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. The MTS560T can operate in an extended temperature range from -20°C to 75°C. Its space-saving M.2 form factor is ideal for space-limited devices. It is fully tested in-house to guarantee reliability in mission-critical applications, boasting an endurance rating of 3K Program/Erase cycles.

Transcend also offers the MTS560T-I with wide temperature (- $40^{\circ}$ C ~  $85^{\circ}$ 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 (42mm) ideal for mobile computing devices
- Endurance: 3K P/E cycles (Program/Erase cycles) guaranteed
- · Key components fortified by default with Corner Bond technology
- 30µ" PCB gold finger

#### Firmware Features

- · Built-in LDPC ECC (Error Correction Code) functionality
- 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
- · NCQ command for better performance

## **Ordering Information**

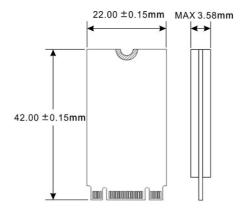
64GB	TS64GMTS560T TS64GMTS560T-I
128GB	TS128GMTS560T TS128GMTS560T-I
256GB	TS256GMTS560T TS256GMTS560T-I
512GB	TS512GMTS560T TS512GMTS560T-I
1TB	TS1TMTS560T TS1TMTS560T-I
2TB	TS2TMTS560T TS2TMTS560T-I



## **Specifications**

Appearance       Dimensions       42 mm x 22 mm x 3.58 mm (1)         Weight       5 g (0.18 oz)         M.2 Type       2242-S2-B-M	1.65" x 0.87" x 0.14")
Appearance	
Form Factor M.2 2242	
Interface Bus Interface SATA III 6Gb/s	
Capacity 64 GB / 128 GB / 256 GB / 5	512 GB / 1 TB / 2 TB
Flash Type 112-layer 3D NAND flash	
Operating Voltage 3.3V±5%	
Extended Temp. -20°C (-4°F) ~ 75°C (167°F)	
Operating Temperature Wide Temp. $-40^{\circ}\text{C }(-40^{\circ}\text{F}) \sim 85^{\circ}\text{C }(185^{\circ}\text{F})$	
Environment Storage Temperature $-55^{\circ}\text{C} (-67^{\circ}\text{F}) \sim 85^{\circ}\text{C} (185^{\circ}\text{F})$	
Humidity 5% ~ 95%	
Shock 1500 G, 0.5 ms, 3 axis	
Vibration (Operating) 20 G (peak-to-peak), 7 Hz ~ 2	2,000 Hz (frequency)
Power Consumption (Operation) 1.4 watt(s)	
Power Consumption (IDLE) 0.3 watt(s)	
Sequential Read/Write (CrystalDiskMark)  Read: Up to 560 MB/s Write: Up to 500 MB/s	
4K Random Read/Write (IOmeter)  Read: Up to 45,000 IOPS Write: Up to 80,000 IOPS	
Mean Time Between Failures (MTBF) 3,000,000 hour(s)	
Terabytes Written (TBW) Up to 2,188 TBW	
Drive Writes Per Day (DWPD) 1.95 (3 yrs)	
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.