

## SATA III M.2 SSDs











## MTS402M & MTS402I

Transcend's MTS402M with SATA III 6Gb/s interface and ultra compact dimensions make it best suited to address the high-performance needs and strict size limitations of small form factor devices. This means it is perfect for use in today's modern ultrabooks, thin and light notebooks, and tablets. Built with the SATA III 6Gb/s specifications, and with a powerful controller and exceptional transfer speeds, the M.2 SSD easily handles everyday computing tasks as well as demanding multimedia applications.

Transcend also offers the MTS402I with wide temperature (-40°C ~ 85°C) capabilities to ensure sustained functionality, enhanced endurance and optimal reliability in mission-critical applications.

### Technologies

<div></div> <div>30µm PCB Gold Finger</div> <div>(/embedded/technology/30-pcb-gold-finger)</div>	<div></div> <div>Corner Bond</div> <div>(/embedded/technology/corner-bond)</div>
<div></div> <div>Wide Temperature</div> <div>(/embedded/technology/wide-temperature)</div>	<div></div> <div>Thermal Sensor</div> <div>(/embedded/technology/thermal-sensor)</div>
<div></div> <div>Read Disturbance</div> <div>(/embedded/technology/read-disturbance)</div>	<div></div> <div>Anti-Sulfur Technology</div> <div>(/embedded/technology/anti-sulfur-technology)</div>
<div></div> <div>Garbage Collection</div> <div>(/embedded/technology/garbage-collection)</div>	<div></div> <div>Wear Leveling</div> <div>(/embedded/technology/wear-leveling)</div>



TRIM

(/embedded/technology/trim)



Bad Block Management

(/embedded/technology/bad-block-management)



Power Shield (PS)

(/embedded/technology/power-shield-ps)



Early Move

(/embedded/technology/early-move)

## Firmware Features

- Built-in BCH 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
- TRIM command for better performance
- NCQ command for better performance
- Full drive encryption with Advanced Encryption Standard (AES) (optional)
- Power-saving DevSleep (Device Sleep) mode

## Hardware Features

- Compliant with RoHS 2.0 standards
- Space-saving M.2 form factor (42mm) – ideal for mobile computing devices
- DDR3 DRAM Cache embedded
- MLC NAND flash
- Key components fortified by default with Corner Bond technology
- 30μ" PCB gold finger
- 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
- Promised operational reliability in a wide temperature range (from -40°C to 85°C)
- Supports Transcend Scope Pro software

## Software Solutions



(/Embedded/Software/Management)

Management

Control Center

Improve your control by easily managing devices at anytime from edge to cloud.



(/Embedded/Software/Monitor)

Monitor

Scope Pro

Manage / analyze data in real time and capture more of your market.



(/Embedded/Software/Rescue)

Rescue

One Touch Recovery

Rescue your data with a click to create a reliable and robust environment.

Specifications

Appearance		
Dimensions	42.0 mm x 22.0 mm x 3.58 mm (1.65" x 0.87" x 0.14")	
Weight	5 g (0.18 oz)	
M.2 Type	2242-D2-B-M (Double-sided)	
Form Factor	M.2 2242	
Interface		
Bus Interface	SATA III 6Gb/s	
Storage		
Capacity	16 GB / 32 GB / 64 GB / 128 GB / 256 GB / 512 GB	
Flash Type	MLC NAND flash	
Operating Environment		
Operating Voltage	3.3V±5%	
Operating Temperature	Standard	0°C (32°F) ~ 70°C (158°F)
	Temp.	
	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)	2.48 watt(s)	
Power Consumption (IDLE)	0.48 watt(s)	
Performance		
Sequential Read/Write (CrystalDiskMark)	Read: Up to 530 MB/s Write: Up to 470 MB/s	
4K Random Read/Write (IOMeter)	Read: Up to 70,000 IOPS Write: Up to 50,000 IOPS	
Mean Time Between Failures (MTBF)	2,500,000 hour(s)	
Terabytes Written (TBW)	Up to 1,100 TBW	
Drive Writes Per Day (DWPD)	2 (3 yrs)	
Note	<ul style="list-style-type: none"><li>Speed may vary due to host hardware, software, usage, and storage capacity.</li><li>The workload used to rate DWPD may be different from your actual workload, which may vary due to host hardware, software, usage, and storage capacity.</li><li>Terabytes Written (TBW) expresses the endurance under the highest capacity.</li></ul>	
Warranty		
Certificate	CE / UKCA / FCC / BSMI	
Warranty	Three-year Limited Warranty	
Warranty Policy	<ul style="list-style-type: none"><li>Please click <a href="#">here (/Warranty)</a> for more information about the Transcend Warranty Policy.</li><li>Warranty does not apply when Scope Pro software wear-out indicator displays 0% within the warranty coverage.</li><li>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.</li><li>Scope Pro software is required by request. Please contact us for more information.</li></ul>	

Order Information

16GB

TS16GMTS402I

TS16GMTS402M

32GB

TS32GMTS402I

TS32GMTS402M

64GB

TS64GMTS402I

TS64GMTS402M

128GB

TS128GMTS402I

TS128GMTS402M

256GB

TS256GMTS402I

TS256GMTS402M

512GB

TS512GMTS402I

TS512GMTS402M



Product Sheet

([https://CDN.transcend-info.com/products/images/modelpic/1228/Transcend-MTS402M\\_MTS402I\\_202311.pdf](https://CDN.transcend-info.com/products/images/modelpic/1228/Transcend-MTS402M_MTS402I_202311.pdf))

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