

Embedded Solutions



mSATA SSDs

SATA III 6Gb/s MSA452T2 & MSA452T2-I mSATA SSD

3K P/E cycles

Featuring the Serial ATA interface and built around a powerful controller, Transcend's SATA III 6Gb/s MSA452T2 mSATA SSD delivers blazing-fast performance. The MSA452T2 features the latest 3D NAND technology for high storage efficiency, 30 μ m PCB gold finger for enhanced durability, built-in DRAM cache for fast access, an extended operating temperature range from -20°C to 75°C, and an endurance rating of 3K Program/Erase cycles for reliable operation. The compact mSATA form factor is just one-eighth the size of a standard 2.5" SSD, making it perfect for use in space-constricted portable devices such as Ultrabooks, tablet PCs, and slim servers.

Transcend also offers the MSA452T2-I with wide temperature (-40°C ~ 85°C) capabilities to ensure sustained functionality, endurance and reliability in mission-critical applications.

Features

- DRAM Cache embedded
- 30 μ m PCB gold finger
- Endurance: 3K P/E cycles (Program/Erase cycles) guaranteed
- Extended Temp. (-20°C ~ 75°C) and Wide Temp. (-40°C ~ 85°C) options available
- Dynamic Thermal Throttling
- Advanced Global Wear-Leveling and Block management for reliability
- Advanced Garbage Collection
- Security Command
- Built-in ECC (Error Correction Code) functionality
- Enhanced S.M.A.R.T. function for durability
- Compliant with RoHS 2.0 standards
- Power-saving DevSleep (Device Sleep) mode (optional)

Ordering Information

Extended (-20°C to 75°C)

64GB	TS64GMSA452T2
------	---------------

128GB	TS128GMSA452T2
-------	----------------

265GB	TS256GMSA452T2
-------	----------------

512GB	TS512GMSA452T2
-------	----------------

1TB	TS1TMSA452T2
-----	--------------

Wide Temp. (-40°C ~ 85°C)

64GB	TS64GMSA452T2-I
------	-----------------

128GB	TS128GMSA452T2-I
-------	------------------

265GB	TS256GMSA452T2-I
-------	------------------

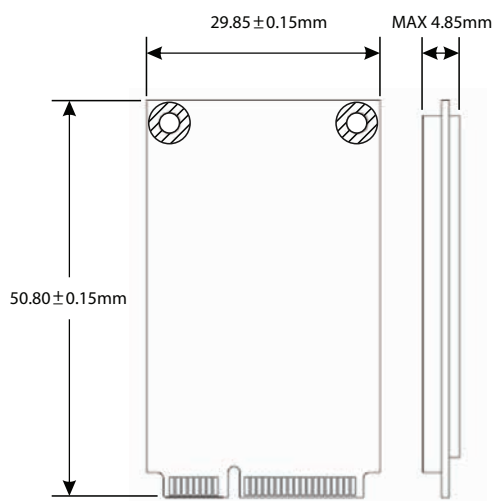
512GB	TS512GMSA452T2-I
-------	------------------

1TB	TS1TMSA452T2-I
-----	----------------

Specifications

Appearance	Dimensions	50.8 mm x 29.85 mm x 4.85 mm (2" x 1.18" x 0.19")
	Weight	8 g (0.28 oz)
	mSATA Type	MO-300
	Pin	52 pin
	Form Factor	mSATA
Interface	Bus Interface	SATA III 6Gb/s
Storage	Flash Type	3D TLC NAND flash
	Capacity	64 GB/128 GB/256 GB/512 GB/1 TB
Operating Environment	Operating Voltage	3.3V±5%
	Operating Temperature	Extended: -20°C (-4°F) ~ 75°C (167°F) Wide Temp.: -40°C (-40°F) ~ 85°C (185°F)
	Storage Temperature	-40°C (-40°F) ~ 85°C (185°F)
	Humidity	5% ~ 95%
	Shock	1500 G, 0.5 ms, 3 axis
Power	Vibration (Operating)	20 G (peak-to-peak), 7 Hz ~ 2000 Hz (frequency)
	Power Consumption (Operation)	2.4 watt(s)
Performance	Power Consumption (Sleep)	0.4 watt(s)
	Sequential Read/Write (CrystalDiskMark)	Read: 560 MB/s; write: 520 MB/s
	4K Random Read/Write (IOMeter)	Read: 95,000 IOPS; write: 85,000 IOPS
	Mean Time Between Failures (MTBF)	3,000,000 hour(s)
	Terabytes Written (TBW)	1,760 TB
Warranty	Drive Writes Per Day (DWPD)	1.61 (3 yrs)
	Certificate	CE/FCC/BSMI
Note	Warranty	Three-year Limited Warranty
	<ul style="list-style-type: none"> Speed may vary due to host hardware, software, usage, and storage capacity. 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. 	

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.



Please feel free to contact us with any special requests you might have.
Tel: +886-2-2792-8000 www.transcend-info.com