

## Embedded Solutions



mSATA SSDs

# SATA III 6Gb/s MSA450T

Supporting the Serial ATA interface and built around a powerful controller, Transcend's SATA III 6Gb/s MSA450T mSATA SSD, using 64-layer 3D TLC NAND flash memory, delivers blazing-fast performance, long-term reliability, and high cost-effectiveness. 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.

## Features

- 3D TLC NAND flash memory for high cost-effectiveness
- Advanced Global Wear-leveling and Block management for reliability
- Built-in ECC (Error Correction Code) functionality
- DDR3 DRAM cache embedded
- Supports Advanced Garbage Collection, Enhanced S.M.A.R.T. function, and Security Command
- RoHS compliant

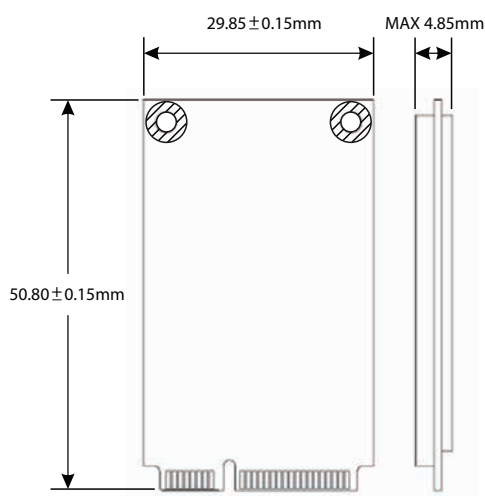
## Ordering Information

32GB	TS32GMSA450T
64GB	TS64GMSA450T
128GB	TS128GMSA450T
265GB	TS256GMSA450T
512GB	TS512GMSA450T

## 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	32 GB/64 GB/128 GB/256 GB/512 GB
Operating Environment	Operating Voltage	3.3V±5%
	Operating Temperature	0°C (32°F) ~ 70°C (158°F)
	Storage Temperature	-40°C (-40°F) ~ 85°C (185°F)
	Humidity	5% ~ 95%
	Shock	1500 G, 0.5 ms, 3 axis
	Vibration (Operating)	3 G (peak-to-peak), 5 Hz ~ 800 Hz (frequency)
Power	Vibration (Non-operating)	5 G (peak-to-peak), 5 Hz ~ 800 Hz (frequency)
	Power Consumption (Operation)	2.1 watt(s)
Performance	Power Consumption (Sleep)	0.4 watt(s)
	Sequential Read/Write (ATTO, max.)	Read: 560 MB/s; write: 500 MB/s
	Sequential Read/Write (CrystalDiskMark, max.)	Read: 560 MB/s; write: 500 MB/s
	4K Random Read/Write (IOMeter, max.)	Read: 80,000 IOPS; write: 85,000 IOPS
	Mean Time Between Failures (MTBF)	1,000,000 hour(s)
	Terabytes Written (Max.)	320 TBW
Warranty	Drive Writes Per Day (DWPD)	0.58 (3 yrs)
	Certificate	CE/FCC/BSMI
Note	Warranty	Three-year Limited Warranty
	<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> </ul>	

## 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.  
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