



MSA510 & MSA510I

Supporting the next-generation Serial ATA interface and built around a powerful controller, Transcend's SATA III 6Gb/s MSA510 mSATA SSDs deliver blazing-fast performance and long-term reliability. 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 MSA510I with wide temperature ( $-40^{\circ}$ C  $\sim 85^{\circ}$ C) capabilities to ensure sustained functionality, enhanced endurance and optimal reliability in mission-critical applications.

#### Hardware Features

- · Compliant with RoHS standards
- Promised operational reliability in a wide temperature range (from -40°C to 85°C)
- DDR3 DRAM Cache embedded
- · Supports Transcend Scope Pro software
- High-quality MLC NAND flash and SLC mode (also called SuperMLC) for exceptional endurance and reliability

#### Firmware Features

- Built-in ECC (Error Correction Code) functionality
- Advanced Garbage Collection
- · Power-saving partial and slumber modes
- · Security Command
- Power-saving DevSleep (Device Sleep) mode

#### **Ordering Information**

TS16GMSA510
TS32GMSA510 TS32GMSA510I
TS64GMSA510
TS128GMSA510



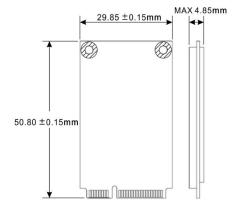


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# **Specifications**

Appearance         Dimensions         50.8 mm x 29.85 mm x 4.85 mm (2" x 1.18" x 0.19")           Weight         9 g (0.32 oz)           Pin Count         52 pin           Form Factor         mSATA (MO-300A)	
Appearance Pin Count 52 pin	
Pin Count 52 pin	
Form Factor mSATA (MO-300A)	
Interface Bus Interface SATA III 6Gb/s	
Flash Type MLC NAND flash (SLC mode) Storage	
Capacity 16 GB / 32 GB / 64 GB / 128 GB	
Operating Voltage 3.3V±5%	
Standard Temp.  0°C (32°F) ~ 70°C (158°F)  Wide Temp.  -40°C (-40°F) ~ 85°C (185°F)	
Operating Environment  Storage Temperature  -40°C (-40°F) ~ 85°C (185°F)	
Humidity 0% ~ 95%	
Shock 1500 G, 0.5 ms, 3 axis	
Vibration (Operating) 20 G (peak-to-peak), 5 Hz ~ 800 Hz (frequency)	
Vibration (Non-operating) 5 G (peak-to-peak), 5 Hz ~ 800 Hz (frequency)	
Power Consumption (Operation) 2.87 watt(s)	
Power Consumption (Sleep) 0.33 watt(s)	
Sequential Read/Write (ATTO, max.)  Read: up to 570 MB/s Write: up to 470 MB/s	
Sequential Read/Write (CrystalDiskMark)  Read: up to 530 MB/s  Write: up to 450 MB/s	
Performance  4K Random Read/Write (IOmeter)  Read: up to 75,000 IOPS Write: up to 75,000 IOPS	
Mean Time Between Failures (MTBF) 1,500,000 hour(s)	
Terabytes Written (TBW) up to 2,840 TBW	
Drive Writes Per Day (DWPD) 15.2 (3 yrs)	
Certificate CE / 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.



# **Assured Systems**

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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