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SATA III M.2 SSDS MTS570T & MTS570T-I

Transcend's M.2 SSD MTS570T features the SATA III 6Gb/s interface and the 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, and its built-in DRAM cache allows faster access. Applied with 30μ " gold finger PCB and Corner Bond technology, the MTS570T is fully tested in-house to guarantee reliability in mission-critical applications, boasting an endurance rating of 3K Program/Erase cycles and an extended operating temperature ranging from - $20^{\circ}C$ - $75^{\circ}C$.

Transcend also offers the MTS570T-I with wide temperature (-40° C ~ 85° 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
- DDR3 DRAM Cache embedded
- Endurance: 3K P/E cycles (Program/Erase cycles) guaranteed
- · Key components fortified by default with Corner Bond technology

Firmware Features

- NCQ command for better performance
- TRIM command for better performance
- 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

Ordering Information

128GB	TS128GMTS570T TS128GMTS570T-I
256GB	TS256GMTS570T TS256GMTS570T-I
512GB	TS512GMTS570T TS512GMTS570T-I
1TB	TS1TMTS570T TS1TMTS570T-I



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Specifications

Form Factor M.2 M.2 Type 2242-D2-B-M (Double-sided) Interface Bus Interface SATA III 6Gb/s Bus Interface Bus Interface SATA III 6Gb/s Storage Flash Type 112-layer 3D NAND flash Capacity 128 GB / 256 GB / 512 GB / 1 TB Operating Voltage 3.3V±5% Operating Temperature 52°C (147°F) ~ 75°C (167°F) Wide Temp. -40°C (40°F) ~ 85°C (185°F) Storage Temperature 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 Consumption (Sleep) 1.1 watt(s) Power Consumption (Sleep) 1.1 watt(s) Read: up to 560 MB/s Write: up to 520 MB/s Write: up to 520 MB/s Write: up to 520 MB/s Write: up to 520 MB/s			
Appearance Image: Form Factor M.2 M.2 Type 2242-D2-B-M (Double-sided) Interface Bus Interface SATA III 6Gb/s Storage Flash Type 112-layer 3D NAND flash Capacity 128 GB / 256 GB / 512 GB / 1 TB Operating Voltage 3.3V±5% Operating Temperature S20°C (4°F) ~ 75°C (167°F) Wide Temp. -20°C (4°F) ~ 85°C (185°F) Storage Temperature Storage Temperature -55°C (167°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 Consumption (Sleep) 1.1 watt(s) Power Consumption (Sleep) 1.1 watt(s) Performance Sequential Read/Write (IOmeter) Read: up to 500 MB/s Write: up to 520 MB/s	Appearance	Dimensions	42.0 mm x 22.0 mm x 3.58 mm (1.65" x 0.87" x 0.14")
Form Factor M.2 M.2 Type 2242-D2-B-M (Double-sided) Interface Bus Interface SATA III 6Gb/s Bus Interface Bus Interface SATA III 6Gb/s Storage Flash Type 112-layer 3D NAND flash Capacity 128 GB / 256 GB / 512 GB / 1 TB Operating Voltage 3.3V±5% Operating Temperature 52°C (147°F) ~ 75°C (167°F) Wide Temp. -40°C (40°F) ~ 85°C (185°F) Storage Temperature 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 Consumption (Sleep) 1.1 watt(s) Power Consumption (Sleep) 1.1 watt(s) Read: up to 560 MB/s Write: up to 520 MB/s Write: up to 520 MB/s Write: up to 520 MB/s Write: up to 520 MB/s		Weight	5 g (0.18 oz)
Interface Bus Interface SATA III 6Gb/s Flash Type 112-layer 3D NAND flash Capacity 128 GB / 256 GB / 512 GB / 1 TB Operating Voltage 3.3V±5% Operating Temperature Second C 4°F) ~ 75°C (167°F) Wide Temp. -20°C (4°F) ~ 75°C (167°F) Storage Temperature -55°C (-67°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) 4.5 watt(s) Power Consumption (Sleep) 1.1 watt(s) Performance Sequential Read/Write (CrystalDiskMark) Read: up to 560 MB/s Write: up to 520 MB/s		Form Factor	M.2
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Storage Capacity 128 GB / 256 GB / 512 GB / 1 TB Capacity Qperating Voltage 3.3V±5% Operating Voltage 3.3V±5% Operating Temperature Extended Temp. -20°C (4°F) ~ 75°C (167°F) 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) 4.5 watt(s) Power Consumption (Sleep) 1.1 watt(s) Sequential Read/Write (CrystalDiskMark) Read: up to 560 MB/s Write: up to 520 MB/s Performance K Random Read/Write (IOmeter) Read: up to 90,000 IOPS Write: up to 85,000 IOPS	Interface	Bus Interface	SATA III 6Gb/s
Capacity128 GB / 256 GB / 512 GB / 1 TBOperating Voltage3.3V±5%Operating TemperatureExtended Temp. -20°C (-4°F) ~ 75°C (167°F) Wide Temp. -40°C (-40°F) ~ 85°C (185°F)Storage Temperature-55°C (-67°F) ~ 85°C (185°F)Humidity5% ~ 95%Shock1500 G, 0.5 ms, 3 axisVibration (Operating)20 G (peak-to-peak), 7 Hz ~ 2,000 Hz (frequency)PowerPower Consumption (Operation)Power Consumption (Operation)4.5 watt(s)Power Consumption (Sleep)1.1 watt(s)PerformanceSequential Read/Write (CrystalDiskMark)Read: up to 560 MB/s Write: up to 520 MB/sPerformanceAt Random Read/Write (IOmeter)Read: up to 90,000 IOPS Write: up to 85,000 IOPS	Storage	Flash Type	112-layer 3D NAND flash
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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) 4.5 watt(s) Power Consumption (Sleep) 1.1 watt(s) Sequential Read/Write (CrystalDiskMark) Read: up to 560 MB/s Write: up to 520 MB/s 4K Random Read/Write (IOmeter) Read: up to 90,000 IOPS Write: up to 85,000 IOPS		Operating Temperature	-20°C (-4°F) ~ 75°C (167°F) Wide Temp.
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Power Power Consumption (Sleep) 1.1 watt(s) Sequential Read/Write (CrystalDiskMark) Read: up to 560 MB/s Write: up to 520 MB/s 4K Random Read/Write (IOmeter) Read: up to 90,000 IOPS Write: up to 85,000 IOPS		Vibration (Operating)	20 G (peak-to-peak), 7 Hz ~ 2,000 Hz (frequency)
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Sequential Read/Write (CrystalDiskMark) Write: up to 520 MB/s 4K Random Read/Write (IOmeter) Read: up to 90,000 IOPS Write: up to 85,000 IOPS		Power Consumption (Sleep)	1.1 watt(s)
Performance Write (IOmeter) Write: up to 85,000 IOPS	Performance	Sequential Read/Write (CrystalDiskMark)	
		4K Random Read/Write (IOmeter)	
Mean Time Between Failures (MTBF) 3,000,000 hour(s)		Mean Time Between Failures (MTBF)	3,000,000 hour(s)
Terabytes Written (TBW) up to 2420 TBW		Terabytes Written (TBW)	up to 2420 TBW
Drive Writes Per Day (DWPD) 2.16 (3 yrs)		Drive Writes Per Day (DWPD)	2.16 (3 yrs)
Certificate CE / FCC / BSMI / UKCA	Warranty	Certificate	CE / FCC / BSMI / UKCA
Warranty Three-year Limited Warranty		Warranty	Three-year Limited Warranty

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.

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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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