PCIe M.2 SSDs

MTE670T & MTE670T-I

Transcend's M.2 SSD MTE670T features 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. The MTE670T features the PCI Express (PCIe) Gen 3 x4 interface and is compatible with NVM Express (NVMe) 1.3 specifications to achieve never-before-seen transfer speeds. Applied with the 30µ" gold finger PCB and Corner Bond technology, the MTE670T 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℃~75℃.

Transcend also offers the MTE670T-I with wide temperature (-40℃ ~ 85℃) capabilities to ensure sustained functionality, enhanced endurance and optimal reliability in mission-critical applications.

Hardware Features

- Compliant with RoHS 2.0 standards
- Compliant with NVM Express specification 1.3
- Compliant with PCI Express specification 3.1
- Space-saving M.2 form factor (80mm) – ideal for mobile computing devices
- PCIe Gen 3 x4 interface

Ordering Information

256GB	TS256GMTE670T TS256GMTE670T-I
512GB	TS512GMTE670T TS512GMTE670T-I
1TB	TS1TMTE670T

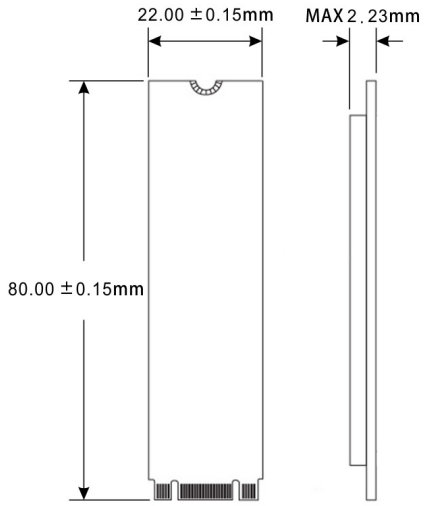
Firmware Features

- SLC caching technology
- Built-in LDPC ECC (Error Correction Code) functionality
- 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

Specifications

Appearance	Dimensions	80 mm x 22 mm x 2.23 mm (3.15" x 0.87" x 0.08")
	Weight	9 g (0.32 oz)
	Form Factor	M.2
	M.2 Type	2280-S2-M (Single-sided)
Interface	Bus Interface	NVMe PCIe Gen3 x4
Storage	Flash Type	112-layer 3D NAND flash
	Capacity	256 GB / 512 GB / 1 TB
Operating Environment	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	-40°C (-40°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)	3.1 watt(s)
	Power Consumption (IDLE)	0.4 watt(s)
Performance	Sequential Read/Write (CrystalDiskMark)	Read: up to 2,100 MB/s Write: up to 1,600 MB/s
	4K Random Read/Write (IOmeter)	Read: up to 150,000 IOPS Write: up to 280,000 IOPS
	Mean Time Between Failures (MTBF)	3,000,000 hour(s)
	Terabytes Written (TBW)	up to 960 TBW
	Drive Writes Per Day (DWPD)	0.88 (3 yrs)
Warranty	Certificate	CE / FCC / BSMI / UKCA
	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.