Embedded Solutions

PCIe M.2 SSDs
MTE632T
3K P/E cycles

Transcend's industrial M.2 SSD MTE632T 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. The MTE632T features state-of-the-art 3D NAND technology, which allows 96 layers of 3D NAND flash chips to be vertically stacked. Compared to 3D NAND at 64 layers, this density breakthrough greatly improves storage efficiency. The MTE632T comes with space-saving M.2 form factor, which is ideal for space-limited devices. It is fully tested in-house to guarantee reliability in mission-critical applications, boasting an endurance rating of 3K Program/Erase cycles.

Firmware Features

- Supports NVM command
- SLC caching technology
- Dynamic thermal throttling
- Built-in LDPC ECC (Error Correction Code) functionality
- Advanced Global Wear-Leveling and Block management for reliability
- Static Data Refresh
- Enhanced S.M.A.R.T. function for durability

Ordering Information

128GB	TS128GMTE632T
256GB	TS256GMTE632T
512GB	TS512GMTE632T

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
- Endurance: 3K P/E cycles (Program/Erase cycles) guaranteed
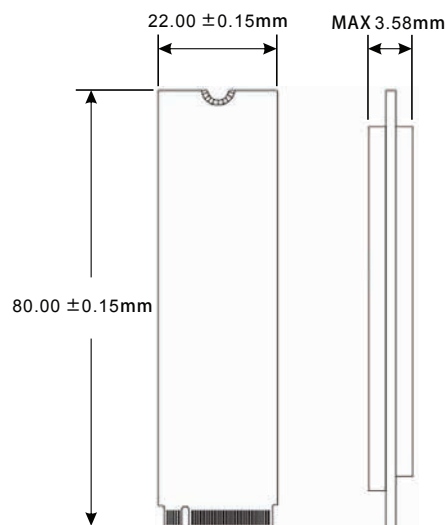- Supports Transcend Scope Pro software

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	3D NAND flash
	Capacity	128 GB/256 GB/512GB
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	0% ~ 95%
	Shock	1500 G, 0.5 ms, 3 axis
	Vibration (Operating)	20 G (peak-to-peak), 7 Hz ~ 2000 Hz (frequency)
Power	Power Consumption (Operation)	4.2 watt(s)
	Power Consumption (IDLE)	0,56 watt(s)
Performance	Sequential Read/Write (CrystalDiskMark, max.)	Read: 1,700 MB/s; write: 900 MB/s
	4K Random Read/Write (IOmeter, max.)	Read: 130,000 IOPS; write: 200,000 IOPS
	Mean Time Between Failures (MTBF)	3,000,000 hour(s)
	Terabytes Written (Max.)	400 TBW
	Drive Writes Per Day (DWPD)	0.73 (3 yrs)
	Certificate	CE/FCC/BSMI
Warranty	Warranty	Three-year Limited Warranty
Note		• 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

22.00 ±0.15mm   MAX 3.58mm   80.00 ±0.15mm

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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