

PCIe M.2 SSDs

MTE452T & MTE452T-I

Transcend's MTE452T M.2 SSD features the PCI Express (PCIe) Gen 3 x2 interface and is compatible with NVM Express (NVMe) 1.3 specifications to achieve never-before-seen transfer speeds. The MTE452T 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 MTE452T is built with DRAM cache for fast access, and is fully tested in-house to guarantee reliability in mission-critical applications, boasting an endurance rating of 3K Program/Erase cycles.

Transcend also offers the MTE452T-I with wide temperature (-40° C $\sim 85^{\circ}$ C) capabilities to ensure sustained functionality, enhanced endurance and optimal reliability in mission-critical applications.

Hardware Features

- Endurance: 3K P/E cycles (Program/Erase cycles) guaranteed
- Key components fortified by default with Corner Bond technology
- PCIe Gen 3 x2 interface
- Promised operational reliability in a wide temperature range (from -40°C to 85°C)
- DDR3 DRAM Cache embedded

Firmware Features

- · SLC caching technology
- · Supports NVM command
- · 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
- · Dynamic thermal throttling

Ordering Information

128GB	TS128GMTE452T
	TS128GMTE452T-I
256GB	TS256GMTE452T
	TS256GMTE452T-I
512GB	TS512GMTE452T
	TS512GMTE452T-I



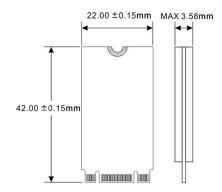


www.transcend-info.com

Specifications

Di	imensions	42 mm x 22 mm x 3.58 mm (1.65" x 0.87" x 0.14")
Appearance	/eight	5 g (0.18 oz)
Fo	orm Factor	M.2
M.	.2 Type	2242-D2-B-M (Double-sided)
Interface Bu	us Interface	NVMe PCle Gen3 x2
Storage	ash Type	3D NAND flash
	apacity	128 GB / 256 GB / 512 GB
Op	perating Voltage	3.3V±5%
0	Operating Temperature	Standard Temp. 0°C (32°F) ~ 70°C (158°F)
Operating		Wide Temp. - 40° C (- 40° F) ~ 85° C (185°F)
Environment St	torage Temperature	-55°C (-67°F) ~ 85°C (185°F)
Hu	umidity	5% ~ 95%
Sh	hock	1500 G, 0.5 ms, 3 axis
Vi	bration (Operating)	20 G (peak-to-peak), 7 Hz ~ 2000 Hz (frequency)
	ower Consumption (Operation)	2.81 watt(s)
Power	ower Consumption (IDLE)	0.63 watt(s)
Se	equential Read/Write (CrystalDiskMark)	Read: up to 1,700 MB/s Write: up to 1,250 MB/s
Performance	K Random Read/Write (IOmeter)	Read: up to 200,000 IOPS Write: up to 250,000 IOPS
	ean Time Between Failures (MTBF)	3,000,000 hour(s)
Te	erabytes Written (TBW)	up to 1,080 TBW
Dr	rive Writes Per Day (DWPD)	2 (3 yrs)
Warranty	ertificate	CE / FCC / BSMI

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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