

Embedded Solutions



PCIe M.2 SSDs

MTE470A & MTE470A-I

Transcend's M.2 SSD MTE470A is a self-encrypting drive (SED) that complies with the TCG Opal 2.0 standards. Data is protected using the hardware-based AES 256-bit encryption and LBA (Logical Block Address) sector-specific permissions.

Transcend's MTE470A M.2 SSD features 112 layers of 3D NAND flash and a PCI Express (PCIe) Gen 3 x4 interface, delivering never-before-seen transfer speeds. In addition, the 30μ" gold finger PCB, Corner Bond technology, and anti-sulfur resistors guarantee its reliability in harsh conditions. Transcend's MTE560I is also 100% chamber tested in-house for extended operating temperatures of -20°C~75°C. Its M.2 2242 form factor is compact and portable, ideal for mobile computing applications. Wide Temperature (-40°C~85°C) is available upon request.

Hardware Features

- PCIe Gen 3 x4 interface
- Anti-sulfur technology implemented to prevent sulfurization in the environment
- 30μ" PCB gold finger
- Key components fortified by default with Corner Bond technology
- Power Shield (PS) to ensure data transfer integrity and minimize data corruption in the drive during an abnormal power outage

Ordering Information

128GB	TS128GMTE470A TS128GMTE470A-I
256GB	TS256GMTE470A TS256GMTE470A-I
512GB	TS512GMTE470A TS512GMTE470A-I
1TB	TS1TMTE470A TS1TMTE470A-I

Firmware Features

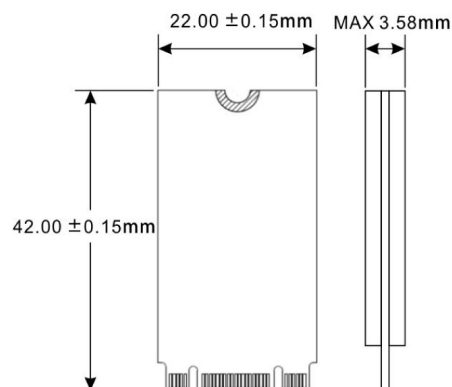
- Supports S.M.A.R.T. function to conduct health monitoring, analysis, and reporting for storage devices
- Dynamic thermal throttling
- Full drive encryption with Advanced Encryption Standard (AES)
- Compliant with TCG Opal specifications and IEEE 1667 standards
- Built-in LDPC ECC (Error Correction Code) functionality

*Supports Microsoft® eDrive standard

Specifications

Appearance	Dimensions	42 mm x 22 mm x 2.23 mm (1.65" x 0.87" x 0.09")
	Weight	5 g (0.18 oz)
	M.2 Type	2242-S2-M
	Form Factor	M.2 2242
Interface	Bus Interface	NVMe PCIe Gen3 x4
Storage	Capacity	128 GB / 256 GB / 512 GB / 1 TB
	Flash Type	112-layer 3D NAND flash
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	-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)	4.1 watt(s)
	Power Consumption (IDLE)	0.53 watt(s)
Performance	Sequential Read/Write (CrystalDiskMark)	Read: up to 2,000 MB/s Write: up to 1,700 MB/s
	4K Random Read/Write (IOMeter)	Read: up to 102,000 IOPS Write: up to 275,000 IOPS
	Mean Time Between Failures (MTBF)	3,000,000 hour(s)
	Terabytes Written (TBW)	up to 900 TBW
	Drive Writes Per Day (DWPD)	0.82 (3 yrs)
Warranty	Certificate	CE / UKCA / 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.