

Embedded Solutions



PCIe M.2 SSDs

MTE470A

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 M.2 SSD MTE470A is built by 112 layers of 3D NAND flash and the PCI Express (PCIe) Gen 3 x4 interface, delivering never-before-seen transfer speeds. Applied with the 30μ" gold finger PCB, Corner Bond technology, and anti-sulfur resistor, the MTE470A is fortified to withstand demanding industrial applications. The MTE470A is fully tested in-house and is able to operate in extended operating temperatures ranging from -20°C~75°C. Its M.2 2242 form factor is compact and portable, ideal for mobile computing applications.

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
256GB	TS256GMTE470A
512GB	TS512GMTE470A
1TB	TS1TMTE470A

Firmware Features

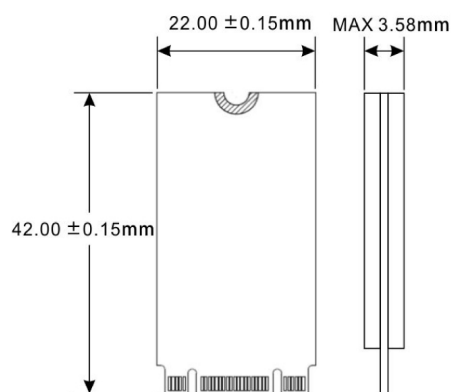
- Supports S.M.A.R.T. function to conduct health monitoring, analysis, and reporting for storage devices
- Dynamic thermal throttling
- Full drive encryption with Advanced Encryption Standard (AES)
- Compliant with TCG Opal specifications and IEEE 1667 standards
- Built-in LDPC ECC (Error Correction 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)
	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)	3.5 watt(s)
	Power Consumption (IDLE)	0.33 watt(s)
Performance	Sequential Read/Write (CrystalDiskMark)	Read: up to 2,000 MB/s Write: up to 1,000 MB/s
	4K Random Read/Write (IOMeter)	Read: up to 60,000 IOPS Write: up to 240,000 IOPS
	Mean Time Between Failures (MTBF)	3,000,000 hour(s)
	Terabytes Written (TBW)	up to 406 TBW
	Drive Writes Per Day (DWPD)	0.86 (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.