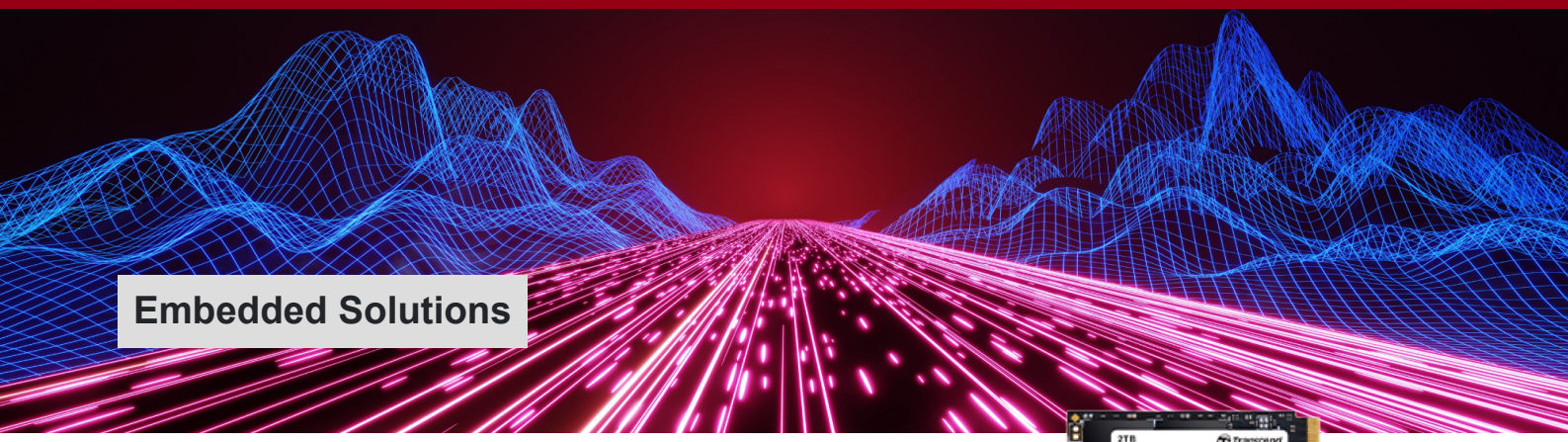




PCIe M.2 SSDs

MTE495A & MTE495A-I

Transcend's MTE495A PCIe Gen4 x4 M.2 SSD features BiCS8 218-layer 3D NAND flash and a DRAM-less architecture that helps reduce power consumption and system costs. It also supports the TCG Opal 2.0 standard for hardware-based data security. Featuring a compact M.2 2242 form factor with a length of just 42 mm, the MTE495A reduces PCB space requirements, making it suitable for space-constrained embedded systems and industrial equipment.

To meet the operating temperature requirements of different devices and applications, the MTE495A operates from -20°C to 75°C, while the wide-temperature version, the MTE495A-I, supports operation from -40°C to 85°C. Both models feature 30µ"-thick gold-plated fingers and Corner Bond technology to enhance connection reliability and structural integrity. Rigorous in-house testing helps ensure durability and stable operation in industrial environments over extended periods of use.

Hardware Features

- Compliant with RoHS 2.0 standards
- Compliant with NVM Express specification 2.0
- Compliant with PCI Express specification 4.0
- Space-saving M.2 form factor (42mm) – ideal for mobile computing devices
- PCIe Gen 4 x4 interface

Firmware Features

- Supports NVM command
- TRIM command for better performance
- Dynamic thermal throttling
- Supports S.M.A.R.T. function to conduct health monitoring, analysis, and reporting for storage devices
- Advanced Global Wear-Leveling and Block management for reliability

Ordering Information

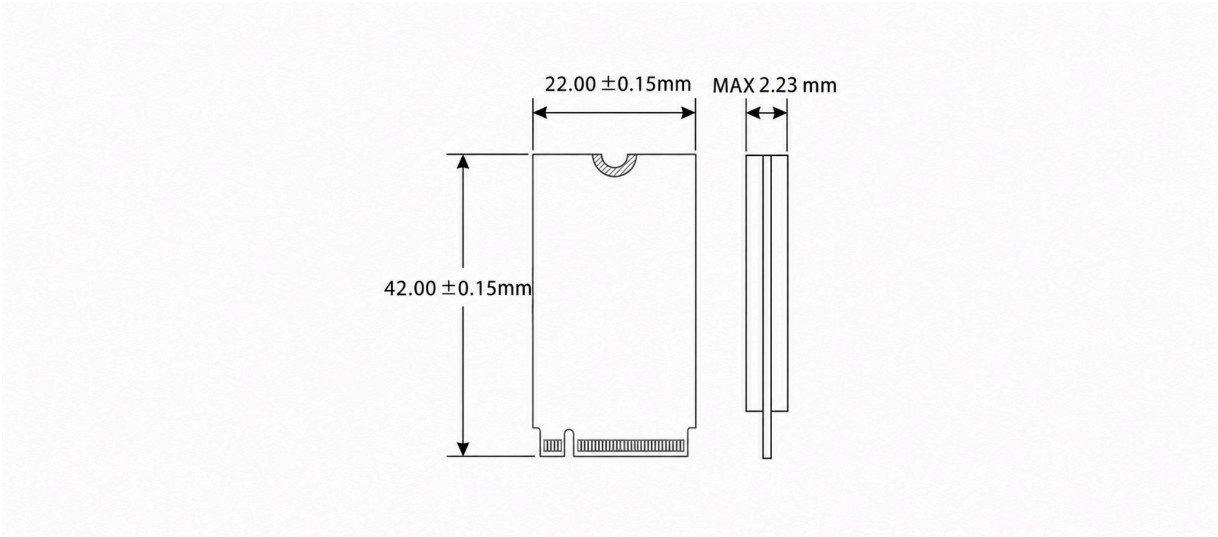
128GB	TS128GMTE495A TS128GMTE495A-I
256GB	TS256GMTE495A TS256GMTE495A-I
512GB	TS512GMTE495A TS512GMTE495A-I
1TB	TS1TMTE495A TS1TMTE495A-I
2TB	TS2TMTE495A TS2TMTE495A-I

© Transcend Information, Inc. All Rights Reserved.

Specifications

Appearance	Dimensions	42 mm x 22 mm x 2.23 mm (1.35" 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 Gen4 x4
Storage	Capacity	128 GB / 256 GB / 512 GB / 1 TB / 2 TB
	Flash Type	218-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)	4.9 watt(s)
	Power Consumption (IDLE)	0.65 watt(s)
Performance	Sequential Read/Write (CrystalDiskMark)	Read: Up to 7,400 MB/s Write: Up to 6,700 MB/s
	4K Random Read/Write (IOmeter)	Read: Up to 1,000,000 IOPS Write: Up to 1,000,000 IOPS
	Mean Time Between Failures (MTBF)	3,000,000 hour(s)
	Terabytes Written (TBW)	Up to 3,400 TBW
	Drive Writes Per Day (DWPD)	2.2 (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.

© Transcend Information, Inc. All Rights Reserved.