

Embedded Solutions



PCIe M.2 SSDs

MTE530I

Transcend's MTE530I PCIe Gen 4 x4 M.2 2280 solid-state drive (SSD) features BiCS8 218-layer 3D NAND flash and Transcend's SLC Mode technology, delivering high-speed data transfer performance and stability. It is well suited for industrial computers, edge computing, and other data-intensive applications.

The MTE530I features a 30μ" gold finger PCB, Corner Bond technology, and anti-sulfur resistors to reinforce critical components and enhance durability. Supporting a wide operating temperature range of -40°C to 85°C, the MTE530I delivers stable performance amid drastic temperature fluctuations and in demanding industrial environments.

In addition, the MTE530I complies with the TCG Opal 2.0 security standard and supports self-encrypting drive (SED) functionality and AES-256 hardware encryption, providing robust data protection for sensitive information.

Hardware Features

- Compliant with RoHS 2.0 standards
- Compliant with NVMe specification 2.0
- Compliant with PCI Express specification 4.0
- Space-saving M.2 form factor (80mm) – ideal for mobile computing devices
- PCIe Gen 4 x4 interface

Firmware Features

- Supports NVMe command
- Built-in LDPC ECC (Error Correction Code) functionality
- Advanced Garbage Collection
- Advanced Global Wear-Leveling and Block management for reliability
- Dynamic thermal throttling

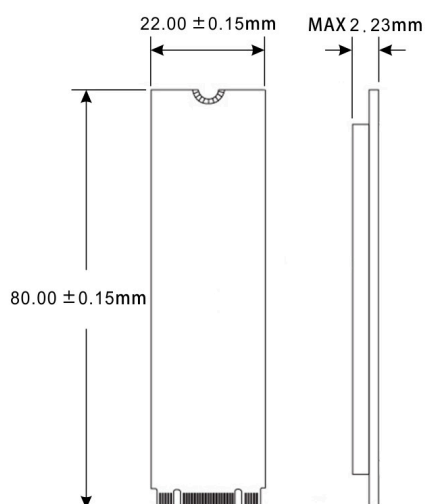
Ordering Information

80GB	TS80GMTE530I
160GB	TS160GMTE530I
320GB	TS320GMTE530I
640GB	TS640GMTE530I

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)
	M.2 Type	2280-S2-M (Single-sided)
	Form Factor	M.2 2280
Interface	Bus Interface	NVMe PCIe Gen4 x4
Storage	Capacity	80 GB / 160 GB / 320 GB / 640 GB
	Flash Type	218-layer 3D NAND flash
Operating Environment	Operating Voltage	3.3V±5%
	Operating Temperature	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)	3.79 watt(s)
	Power Consumption (IDLE)	0.66 watt(s)
Performance	Sequential Read/Write (CrystalDiskMark)	Read: Up to 7,430 MB/s Write: Up to 6,770 MB/s
	4K Random Read/Write (IOmeter)	Read: Up to 1,000,000 IOPS Write: Up to 1,045,000 IOPS
	Mean Time Between Failures (MTBF)	3,000,000 hour(s)
	Terabytes Written (TBW)	Up to 22,720 TBW
	Drive Writes Per Day (DWPD)	32.4 (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.