

Embedded Solutions



PCIe M.2 SSDs

MTE710T & MTE710T-I

Transcend's M.2 SSD MTE710T features the PCI Express (PCIe) Gen 4 x4 interface and is compatible with NVM Express (NVMe) 1.4 specifications to achieve never-before-seen transfer speeds. The MTE710T features state-of-the-art 3D NAND technology, which allows 112 layers of 3D NAND flash chips to be vertically stacked. Compared to 3D NAND at 96 layers, this density breakthrough greatly improves storage efficiency, and its built-in DRAM cache allows faster access. Applied with 30μ" gold finger PCB and Corner Bond technology, the MTE710T is fully tested in-house to guarantee reliability in mission-critical applications, boasting an endurance rating of 3K Program/Erase cycles and an extended operating temperature ranging from -20°C~75°C.

Transcend also offers the MTE710T-I with wide temperature (-40°C ~ 85°C) capabilities to ensure sustained functionality and optimal reliability.

Hardware Features

- PCIe Gen 4 x4 interface
- Compliant with RoHS 2.0 standards
- Compliant with NVM Express specification 1.4
- Space-saving M.2 form factor (80mm) – ideal for mobile computing devices
- DDR4 DRAM Cache embedded

Firmware Features

- Supports NVM command
- SLC caching technology
- Dynamic thermal throttling
- Built-in LDPC ECC (Error Correction Code) functionality
- Advanced Global Wear-Leveling and Block management for reliability

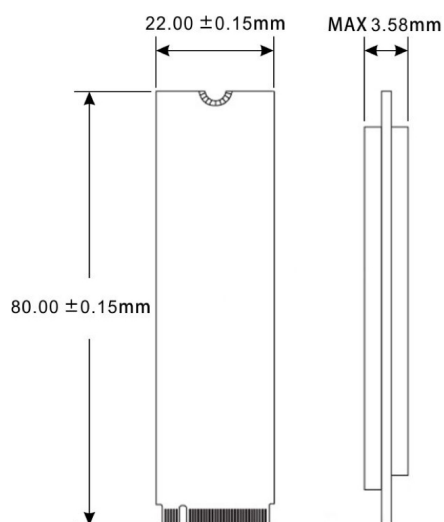
Ordering Information

| | |
|-------|----------------------------------|
| 256GB | TS256GMTE710T TS256GMTE710T-I |
| 512GB | TS512GMTE710T TS512GMTE710T-I |
| 1TB | TS1TMTE710T TS1TMTE710T-I |
| 2TB | TS2TMTE710T TS2TMTE710T-I |

Specifications

| | | |
|------------------------------|---|---|
| Appearance | Dimensions | 80 mm x 22 mm x 3.58 mm (3.15" x 0.87" x 0.14") |
| | Weight | 10 g (0.35 oz) |
| | Form Factor | M.2 |
| | M.2 Type | 2280-D2-M (Double-sided) |
| Interface | Bus Interface | NVMe PCIe Gen4 x4 |
| Storage | Flash Type | 112-layer 3D NAND flash |
| | Capacity | 256 GB / 512 GB / 1 TB / 2 TB |
| Operating Environment | Operating Voltage | 3.3V±5% |
| | Operating Temperature | Extended -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 ~ 2000 Hz (frequency) |
| | | |
| Power | Power Consumption (Operation) | 4.9 watt(s) |
| | Power Consumption (IDLE) | 1.52 watt(s) |
| Performance | Sequential Read/Write (CrystalDiskMark) | Read: up to 3,800 MB/s Write: up to 3,200 MB/s |
| | 4K Random Read/Write (IOmeter) | Read: up to 500,000 IOPS Write: up to 560,000 IOPS |
| | Mean Time Between Failures (MTBF) | 5,500,000 hour(s) |
| | Terabytes Written (TBW) | up to 1,700 TBW |
| | Drive Writes Per Day (DWPD) | 1.55 (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.