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## Embedded Solutions



PCIe M.2 SSDs

# MTE652T2

Transcend's MTE652T2 M.2 SSD features the PCI Express (PCIe) Gen 3 x4 interface and is compatible with NVM Express (NVMe) 1.3 specifications, delivering unparalleled transfer speeds. The MTE652T2 features the latest 3D NAND technology for higher storage efficiency, 30μ" PCB gold finger and Corner Bond technology for enhanced durability, built-in DRAM cache for fast access, an extended operating temperature range from -20°C to 75°C, and an endurance rating of 3K Program/Erase cycles for reliable operation.

## Hardware Features

- DDR3 DRAM Cache embedded
- Endurance: 3K P/E cycles (Program/Erase cycles) guaranteed
- 30μ" PCB gold finger
- Promised operational reliability in an extended temperature range (from -20°C to 75°C)
- Key components fortified by default with Corner Bond technology

## Ordering Information

|       |                |
|-------|----------------|
| 64GB  | TS64GMTE652T2  |
| 128GB | TS128GMTE652T2 |
| 256GB | TS256GMTE652T2 |
| 512GB | TS512GMTE652T2 |

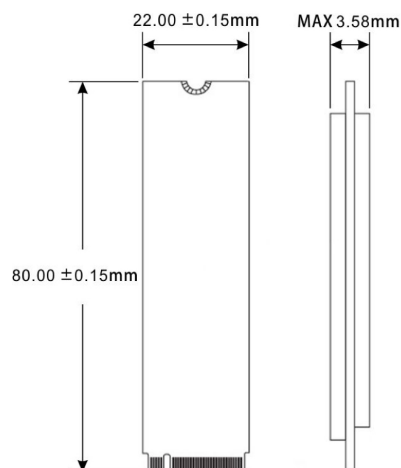
## Firmware Features

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

## Specifications

|                              |                                         |                                                       |
|------------------------------|-----------------------------------------|-------------------------------------------------------|
| <b>Appearance</b>            | Dimensions                              | 80 mm x 22 mm x 3.58 mm (3.15" x 0.87" x 0.14")       |
|                              | Weight                                  | 9 g (0.32 oz)                                         |
|                              | Form Factor                             | M.2                                                   |
|                              | M.2 Type                                | 2280-D2-M (Double-sided)                              |
| <b>Interface</b>             | Bus Interface                           | NVMe PCIe Gen3 x4                                     |
| <b>Storage</b>               | Flash Type                              | 3D NAND flash                                         |
|                              | Capacity                                | 64 GB / 128 GB / 256 GB / 512 GB                      |
| <b>Operating Environment</b> | Operating Voltage                       | 3.3V±5%                                               |
|                              | Operating Temperature                   | Extended<br>-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 (Non-operating)               | 20 G (peak-to-peak), 7 Hz ~ 2000 Hz (frequency)       |
| <b>Power</b>                 | Power Consumption (Operation)           | 3.3 watt(s)                                           |
|                              | Power Consumption (IDLE)                | 0.6 watt(s)                                           |
| <b>Performance</b>           | Sequential Read/Write (CrystalDiskMark) | Read: up to 2,100 MB/s<br>Write: up to 1,000 MB/s     |
|                              | 4K Random Read/Write (IOMeter)          | Read: up to 190,000 IOPS<br>Write: up to 290,000 IOPS |
|                              | Mean Time Between Failures (MTBF)       | 3,000,000 hour(s)                                     |
|                              | Terabytes Written (TBW)                 | up to 1,080 TBW                                       |
|                              | Drive Writes Per Day (DWPD)             | 2 (3 yrs)                                             |
| <b>Warranty</b>              | Certificate                             | CE / 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.

## Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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