Transcend TS64GMTS800

Transcend MTS800 M.2 SATA III SSD (TS64GMTS800) User Manual

1. Product Overview

The Transcend MTS800 M.2 6Gb/s Solid State Drive (SSD) is designed for ultrabooks, tablets, and other compact computing devices. It features an 80mm M.2 form factor and utilizes MLC NAND chips for reliable performance. This SSD connects via a SATA III 6Gb/s interface, offering data transfer speeds suitable for enhancing system responsiveness and application loading times.

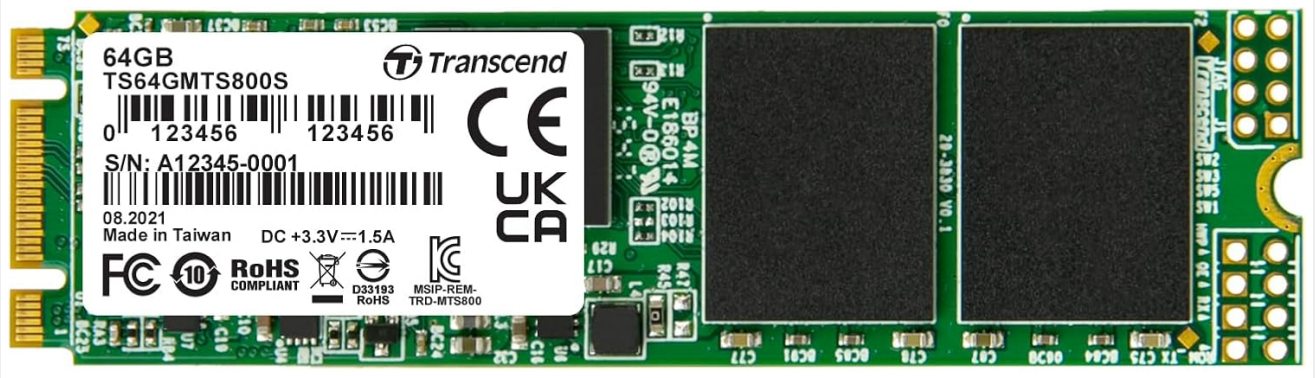

Image 1.1: Transcend MTS800 M.2 Solid State Drive. This image displays the compact form factor of the SSD.

Key Features:

- **M.2 Form Factor (80mm):** Space-saving design ideal for mobile computing devices.
- **SATA III 6Gb/s Interface:** Provides high-speed data transfer.
- **MLC NAND Flash Memory:** Ensures stability and endurance.
- **DDR3 DRAM Cache:** Improves access times and overall performance.
- **Power Shield:** Protects data integrity during sudden power outages.
- **Dev Sleep Mode:** Conserves battery life by allowing the SATA interface to shut down completely when not in use.
- **S.M.A.R.T., TRIM, and NCQ Support:** Enhances drive health monitoring, performance, and efficiency.
- **Error Correcting Code (ECC):** Detects and corrects data transfer errors.
- **Garbage Collection & Wear-leveling:** Optimizes drive lifespan and performance.

2. Installation

Installing the Transcend MTS800 M.2 SSD requires opening your computer or laptop. It is recommended to consult your device's specific service manual for detailed instructions on accessing and installing M.2 storage devices. Ensure your system has a compatible M.2 slot that supports SATA III (not PCIe-based M.2).

Compatibility Check:

- Verify your device has an M.2 slot.
- Confirm the M.2 slot supports SATA III 6Gb/s SSDs. This SSD is not compatible with PCIe-based M.2 slots.
- Ensure the M.2 slot supports the 80mm form factor (Type 2280).

Installation Steps (General Guidance):

1. **Power Off and Disconnect:** Completely shut down your computer and disconnect all power sources and peripherals.
2. **Open Device Casing:** Carefully open your laptop or desktop casing to access the motherboard. Refer to your device's manual for proper procedure.
3. **Locate M.2 Slot:** Identify the M.2 slot on the motherboard. It typically has a screw stand-off at the end.
4. **Insert SSD:** Gently insert the Transcend MTS800 SSD into the M.2 slot at a slight angle (approximately 30 degrees).
5. **Secure SSD:** Push the SSD down until it is parallel with the motherboard and secure it with the provided screw (usually included with your device or motherboard).
6. **Close Casing:** Reassemble your computer's casing.
7. **Power On:** Reconnect power and boot your system.

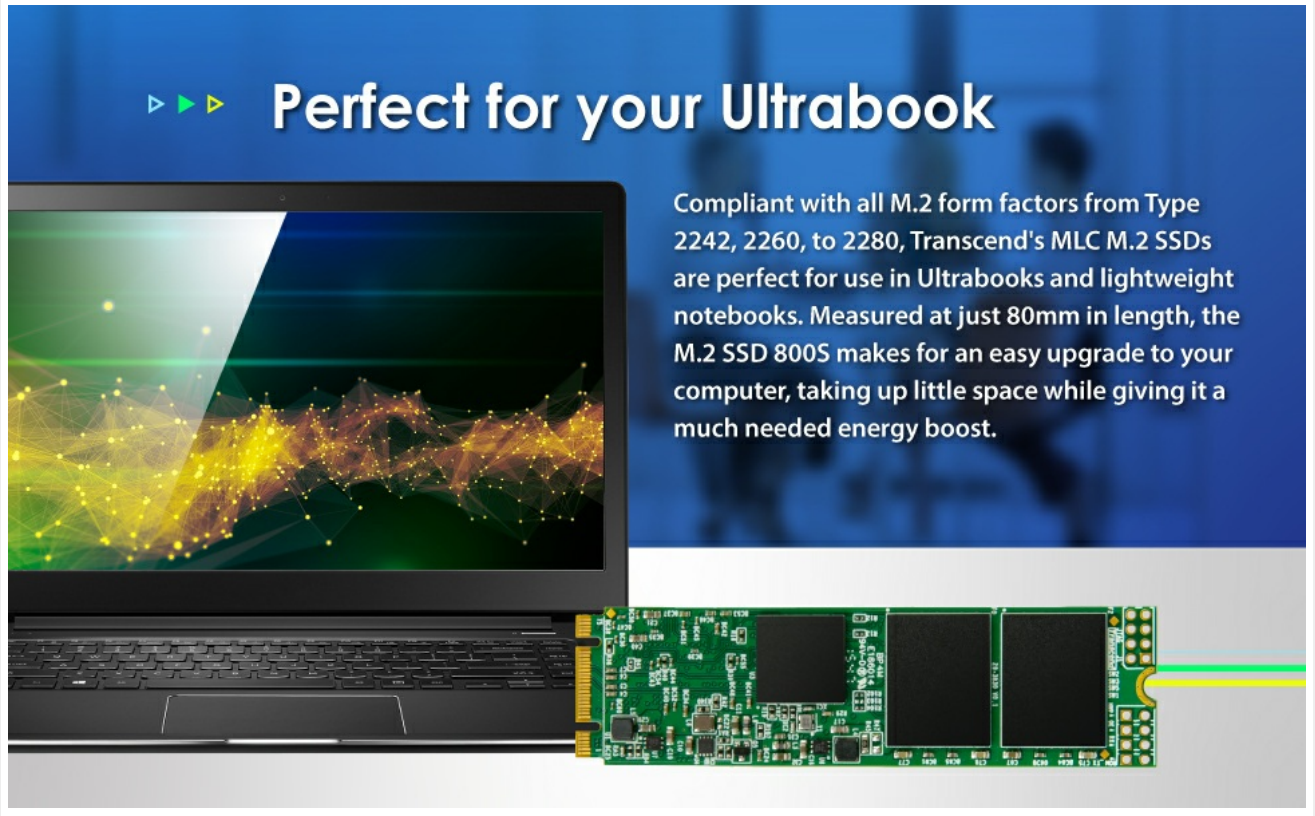

Image 2.1: The Transcend MTS800 M.2 SSD is designed for easy integration into ultrabooks and lightweight notebooks, providing a compact upgrade solution.

After physical installation, you may need to initialize and format the SSD through your operating system's disk management tools before it can be used for storage.

3. Operating System and Data Management

The Transcend MTS800 SSD is compatible with Windows XP/Vista/7/8 or Linux Kernel 2.6.31, or later. Once installed and recognized by your system, it functions as a standard storage device.

Initial Setup:

- **New Installation:** If installing a new operating system, boot from your OS installation media and follow the on-screen prompts to install the OS onto the MTS800 SSD.
- **Cloning Existing OS:** To migrate an existing operating system, use disk cloning software. Ensure the target SSD has sufficient capacity.
- **Data Drive:** If used as a secondary data drive, initialize and format the SSD via your operating system's Disk Management (Windows) or Disk Utility (Linux) tools.

Performance Features:

- **TRIM Command:** Supported by modern operating systems, TRIM helps maintain the SSD's performance over time by actively managing data blocks.
- **NCQ (Native Command Queuing):** Optimizes the order of read/write commands, improving efficiency and performance.
- **Dev Sleep Mode:** This feature allows the SSD to enter an ultra-low power state, significantly reducing power consumption and extending battery life in portable devices.

Image 3.1: The MTS800 SSD incorporates advanced features such as Error Correcting Code (ECC), Garbage Collection, Wear-leveling, DevSleep, and DDR3 DRAM cache to enhance performance and reliability.

4. Maintenance

Solid State Drives generally require less maintenance than traditional hard drives. However, proper care ensures optimal performance and longevity.

Recommended Practices:

- **Enable TRIM:** Ensure your operating system has TRIM enabled. This command helps the SSD manage its storage space efficiently, preventing performance degradation over time.
- **Avoid Full Capacity:** Try to keep some free space on the SSD (e.g., 10-15%). This allows the drive's wear-leveling and garbage collection algorithms to function optimally.

- **Firmware Updates:** Periodically check the Transcend website for firmware updates for your MTS800 SSD. Firmware updates can improve performance, stability, and compatibility. Follow Transcend's instructions carefully when performing updates.
- **S.M.A.R.T. Monitoring:** Utilize S.M.A.R.T. (Self-Monitoring, Analysis, and Reporting Technology) tools to monitor the health and status of your SSD. Many operating systems and third-party utilities offer this functionality.
- **Power Shield:** The integrated Power Shield feature helps prevent data loss during unexpected power interruptions. Ensure your system's power supply is stable.

Image 4.1: The MTS800 SSD is built with reliable MLC NAND flash memory, contributing to its stability and endurance.

5. Troubleshooting

If you encounter issues with your Transcend MTS800 SSD, refer to the following common troubleshooting steps:

Common Issues and Solutions:

- **SSD Not Detected:**
  - Ensure the SSD is correctly seated in the M.2 slot.
  - Check BIOS/UEFI settings to confirm the M.2 slot is enabled and configured for SATA mode (not PCIe).
  - Verify power connections (if applicable, though M.2 draws power from the slot).
  - Test the SSD in another compatible system if possible.
- **Slow Performance:**
  - Confirm TRIM is enabled in your operating system.
  - Ensure the SSD is not nearly full.
  - Check for background processes consuming resources.
  - Update SSD firmware to the latest version.
- **Operating System Errors/Crashes:**
  - Run a disk check utility (e.g., CHKDSK on Windows).

- Ensure your operating system is up to date.
- Check for driver conflicts.

- **Data Corruption:**
  - The SSD features ECC to prevent data corruption. If issues persist, perform a thorough diagnostic.
  - Ensure stable power supply to prevent sudden power loss.

If these steps do not resolve the issue, please contact Transcend customer support or refer to their official website for further assistance.

6. Specifications

The following table details the technical specifications for the Transcend MTS800 M.2 SATA III SSD (TS64GMTS800).

Feature	Specification
Model Number	TS64GMTS800
Capacity	64 GB
Form Factor	M.2 80mm (Type 2280)
Interface	SATA III 6Gb/s
NAND Flash Type	MLC NAND Flash
Dimensions (LxWxH)	80.0 mm x 22.0 mm x 3.58 mm (3.15" x 0.87" x 0.14")
Weight	9 g (0.32 oz)
Operating Voltage	3.3V ± 5%
Operating Temperature	0°C (32°F) ~ 70°C (158°F)
Sequential Read Speed (Max)	Up to 500 MB/s
Sequential Write Speed (Max)	Up to 450 MB/s
Mean Time Between Failures (MTBF)	1,500,000 hours
Supported OS	Windows XP/Vista/7/8, Linux Kernel 2.6.31 or later
Features	S.M.A.R.T., TRIM, NCQ, Dev Sleep, Power Shield, ECC, Garbage Collection, Wear-leveling
Certifications	CE, FCC, UKCA, BSMI, KC, RCM

Note: Speed may vary due to host hardware, software, usage, and storage capacity.

7. Warranty and Support

Warranty Information:

The Transcend MTS800 M.2 SSD (TS64GMTS800) is covered by a **Three-year Limited Warranty**. This warranty covers defects in materials and workmanship under normal use. Please retain your proof of purchase for warranty claims.
Note: Warranty does not apply if SSD Scope's wear-out indicator displays 0% within the warranty coverage period,

indicating the drive has reached its endurance limit.

Customer Support:

For technical support, product registration, or further inquiries, please visit the official Transcend website. The website provides access to drivers, firmware updates, FAQs, and contact information for customer service.
Transcend Official Website: www.transcend-info.com