TEAMGROUP MP33 TM8FP6001T0C101

TEAMGROUP MP33 1TB NVMe PCIe Gen3x4 M.2 2280 Internal SSD Instruction Manual

1. Product Overview

The TEAMGROUP MP33 1TB NVMe PCIe Gen3x4 M.2 2280 Internal SSD is a high-performance solid-state drive designed to enhance the speed and responsiveness of your laptop or desktop PC. Utilizing the NVMe 1.3 standard and PCIe Gen3x4 interface, it offers significantly faster data transfer rates compared to traditional SATA III SSDs. Its compact M.2 2280 form factor ensures compatibility with a wide range of modern computing platforms.

Key Features:

- **NVMe PCIe Gen3x4 High-Speed Interface:** Achieves sequential read/write speeds up to 1800/1500 MB/s, reducing operating system and application loading times.
- **Ultra High Performance:** Offers transfer performance up to 5 times higher than SATA III, ideal for demanding tasks like gaming, complex graphics processing, and video editing.
- **M.2 2280 Specification:** Supports next-generation Intel and AMD platforms, suitable for both desktop and notebook computers.
- **SLC Caching Technology:** Enhances computing performance and maintains snappy responsiveness.

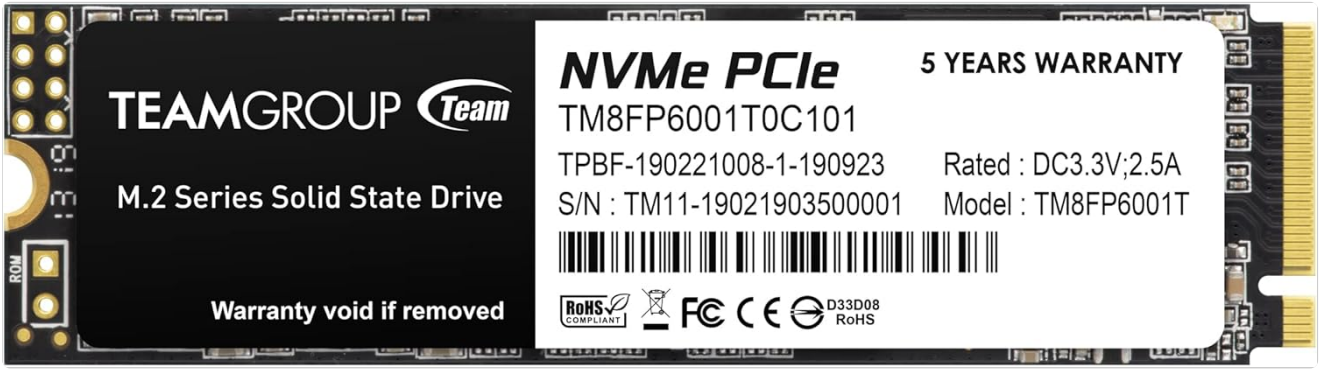


Figure 1: TEAMGROUP MP33 1TB NVMe PCIe Gen3x4 M.2 2280 Internal SSD.

Video 1: Product Overview. This video provides a general overview of the TEAMGROUP MP33 SSD's features and benefits.

2. Setup and Installation

Proper installation is crucial for optimal performance and to prevent damage. Please follow these steps carefully.

Refer to your motherboard's user manual for specific M.2 slot locations and procedures, as designs may vary.

M.2 SSD Installation Steps:

1. **Step 1: Power Off and Unplug:** Before beginning, ensure your computer is completely powered off and unplugged from the power source.
2. **Step 2: Locate M.2 SSD Slot:** Identify the M.2 SSD slot on your motherboard. Consult your motherboard's user manual for the exact location and any specific instructions regarding heat spreaders or screws.
3. **Step 3: Insert M.2 SSD:** Carefully hold the M.2 SSD by its sides, aligning the product connector with the slot notch. Insert the SSD into the M.2 slot at a 20-degree angle. Secure the SSD by screwing it into the mounting holes on the motherboard. Ensure no other components interfere with the installation.
4. **Step 4: Complete Assembly & Start Up:** Before powering on, double-check that no screws, parts, or foreign objects are left on the motherboard. Avoid direct contact with PCB parts during installation to prevent static electricity damage. When screwing, be careful to avoid colliding with IC parts on the motherboard.

Figure 2: TEAMGROUP MP33 SSD installed in an M.2 slot on a motherboard.

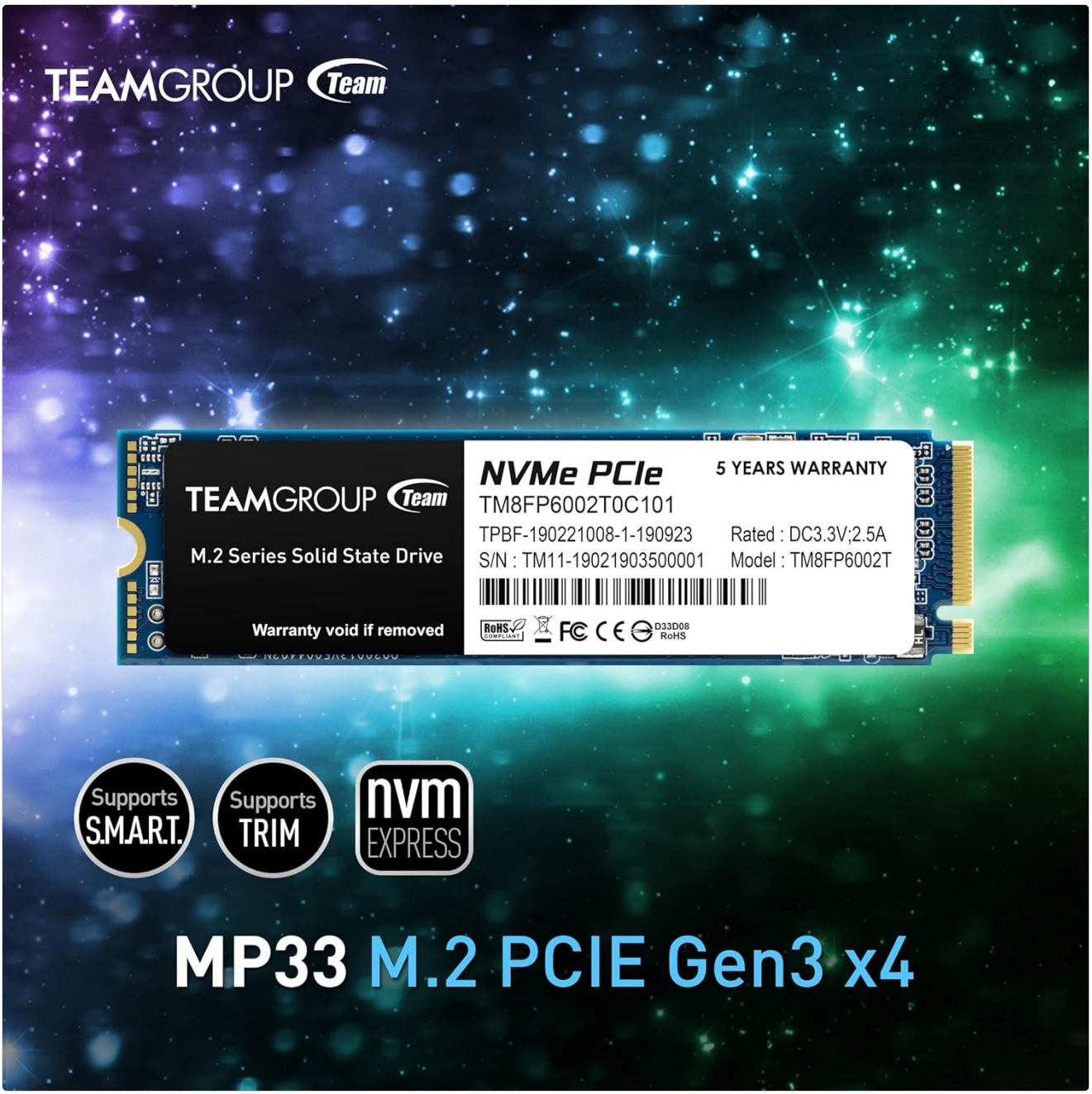


Figure 3: Close-up view of the M.2 SSD being secured with a screw.

Video 2: Easy Setup Guide. This short video demonstrates the installation process of an M.2 SSD.

3. Operating Principles

The TEAMGROUP MP33 SSD leverages advanced technologies to deliver its high performance:

- **NVMe PCIe Gen3x4 Interface:** This interface allows for a direct connection to the CPU, bypassing the slower SATA controller, which significantly reduces latency and increases bandwidth for data transfer.
- **SLC Caching Technology:** The SSD utilizes a portion of its TLC NAND flash memory to operate in Single-Level Cell (SLC) mode. This SLC cache acts as a high-speed buffer, accelerating write operations and improving overall responsiveness, especially during bursts of activity.
- **3D NAND TLC:** The 3D NAND architecture stacks memory cells vertically, allowing for higher storage density and improved endurance compared to planar NAND. TLC (Triple-Level Cell) stores 3 bits per cell, offering a good balance of capacity, cost, and performance.

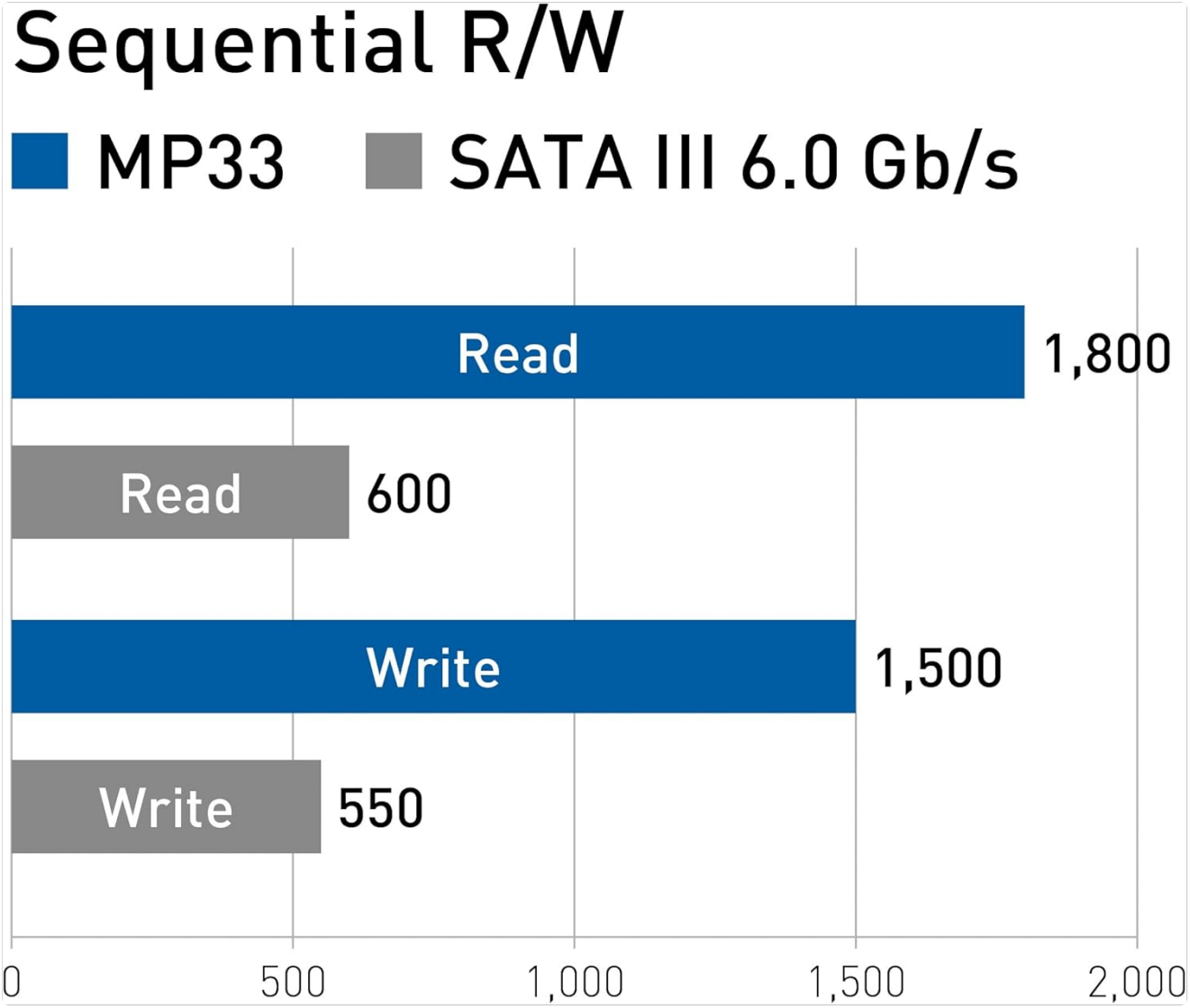


Figure 4: Sequential Read/Write speed comparison between MP33 NVMe SSD and SATA III SSD.

4. Maintenance and Data Integrity

To ensure the longevity and reliability of your TEAMGROUP MP33 SSD, several technologies are integrated:

- **S.M.A.R.T. Monitoring Software:** The SSD supports Self-Monitoring, Analysis, and Reporting Technology (S.M.A.R.T.), allowing users to monitor the drive's health, performance, and reliability attributes. This helps in predicting potential drive failures.
- **TRIM Support:** TRIM command helps the operating system inform the SSD which data blocks are no longer in use and can be wiped. This prevents performance degradation over time and extends the lifespan of the NAND flash memory.
- **Low-Density Parity Check (LDPC):** This advanced error correction code ensures data accuracy during transmission and enhances the reliability of data access, protecting against data corruption.
- **RAID Support:** The SSD supports RAID (Redundant Array of Independent Disks) configurations, which can be used to protect data in case of a drive failure, depending on the RAID level implemented.

Figure 5: TEAMGROUP MP33 SSD with indicators for S.M.A.R.T., TRIM, and NVMe Express.

5. Troubleshooting

- **Driver Installation for Older Operating Systems:**Windows Operating Systems earlier than Windows 8.1 do not natively support NVMe drivers. Users will need to install the appropriate NVMe driver before installing the SSD to ensure proper functionality.
- **Transmission Speed Variations:** Actual transmission speeds may vary according to different hardware and software conditions (e.g., motherboard, CPU, RAM, operating system, drivers, and workload). The advertised speeds are for basic reference under optimal conditions.
- **SSD Not Detected:** Ensure the SSD is correctly seated in the M.2 slot and securely fastened. Check your motherboard's BIOS/UEFI settings to confirm the M.2 slot is enabled and configured correctly (e.g., NVMe mode).

6. Specifications

Feature	Detail
Brand	TEAMGROUP
Series	MP33 M.2 PCIe SSD
Model Number	TM8FP6001T0C101
Digital Storage Capacity	1 TB
Hard Disk Interface	PCIE x 4
Connectivity Technology	NVMe PCIe Gen3x4
Sequential Read Speed	Up to 1800 MB/s
Sequential Write Speed	Up to 1500 MB/s
Form Factor	M.2 2280
NAND Flash Type	3D NAND TLC
SLC Caching	Supported
Item Dimensions (LxWxH)	5.25 x 1.66 x 0.31 inches
Item Weight	0.212 ounces
Compatible Devices	Desktop, Laptop

7. Warranty and Support

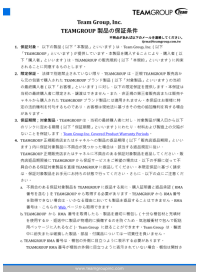
TEAMGROUP provides a limited warranty service for all its 'Team' brand solid-state hard drives. This warranty ensures that if the product is damaged due to natural causes from the day of purchase, customers can receive free maintenance services within the specified warranty period.

- **Warranty Period:** The warranty period is limited and is based on either the duration from the purchase date or the Terabytes Written (TBW) limit, whichever occurs first.
- **TBW Definition:** The definition and conditions of TBW are based on the JEDEC standard.
- **Product Specifications:** If product specifications or TBW limits have different versions, the warranty will follow the version applicable at the time of purchase.
- **Modifications:** TEAMGROUP reserves the right to modify product specifications without prior notice.
- **Reliable Service:** TEAMGROUP is committed to providing trustworthy and reliable service to its customers.

Related Documents - MP33 TM8FP6001T0C101

[TEAMGROUP Warranty Statement]

This document outlines the warranty terms and conditions for TEAMGROUP products, including coverage periods, limitations, and procedures for claims. It details specific warranties for various product lines such as M.2 PCIe SSDs, memory modules, USB flash drives, memory cards, portable hard drives, and mobile accessories.



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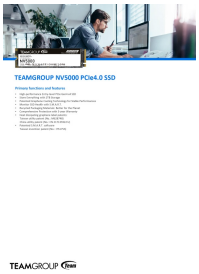

[TEAMGROUP NV5000 PCIe4.0 SSD - High-Performance M.2 NVMe Storage]

Explore the TEAMGROUP NV5000 PCIe4.0 SSD, a high-performance M.2 NVMe drive featuring PCIe Gen4 x4 interface, graphene cooling technology, and up to 2TB capacity. Ideal for demanding applications and gaming.

[Teamgroup EX2 2.5-inch SATA SSD: Features and Specifications]

Explore the Teamgroup EX2 2.5-inch SATA III SSD, detailing its performance, main features, ordering information, and technical specifications. Learn about its 3D NAND technology, TRIM optimization, and 3-year limited warranty.

[TEAMGROUP C212 USB 3.2 Gen 2 Flash Drive | High-Speed Storage]

Discover the TEAMGROUP C212 Extreme Speed USB Drive featuring USB 3.2 Gen 2, up to 600MB/s transfer speeds, and capacities up to 1TB. Ideal for storing and accessing 4K UHD video with a patented push-and-pull design.

[TeamGroup C145 USB 3.2 Gen1 Flash Drive Specifications and Features]

Detailed specifications, features, and ordering information for the TeamGroup C145 USB 3.2 Gen1 Flash Drive, including interface, capacity, dimensions, and warranty.