TERRAMASTER F4 SSD

TERRAMASTER F4 SSD NAS Storage User Manual

Model: F4 SSD

1. Introduction

The TERRAMASTER F4 SSD is a high-performance 4-bay Network Attached Storage (NAS) server designed for both small businesses and home users. It features an Intel N95 4-core CPU, 8GB DDR5 RAM, and a 5GbE Ethernet port, providing efficient data storage and management capabilities. This manual provides essential instructions for setting up, operating, maintaining, and troubleshooting your F4 SSD NAS.

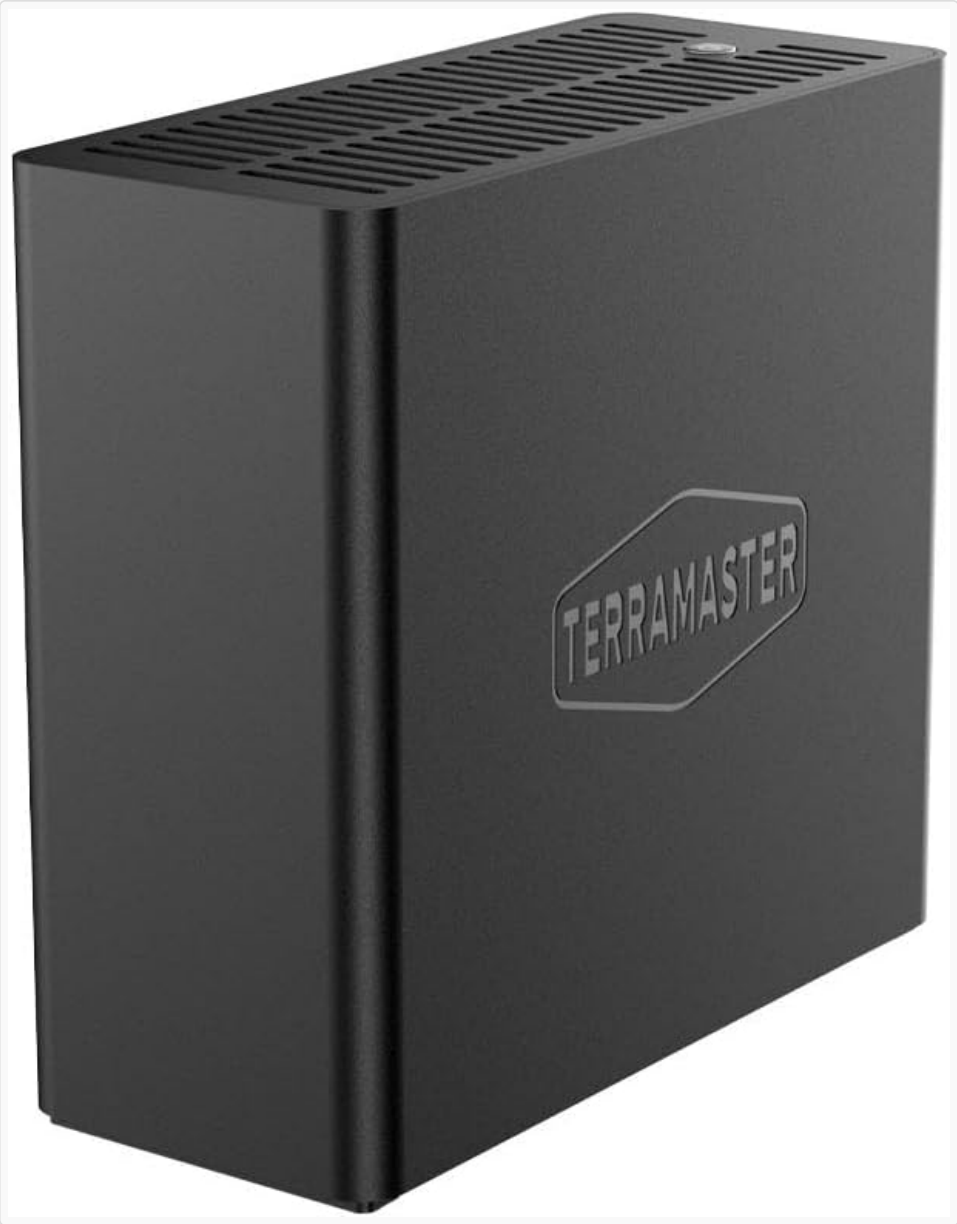

Image: The TERRAMASTER F4 SSD NAS Storage unit.

Image: Overview of the F4 SSD's core specifications: Intel N95 4-core CPU, 16 execution units GPU, 8GB DDR5 RAM, 5GbE port, 4 M.2 interfaces, and 4K hardware decoding.

2. Physical Overview

The F4 SSD NAS is designed to be compact and lightweight, making it suitable for various environments. It features multiple ports for connectivity and indicators for status monitoring.

2.1 Dimensions and Weight

- **Product Dimensions:** 2.36 x 5.51 x 5.43 inches (60 x 140 x 138 mm)
- **Item Weight:** 1.32 pounds (0.6 kg)

Image: The F4 SSD NAS demonstrating its palm-sized, compact design.

2.2 Rear Panel Ports

The rear panel provides essential connectivity options:

- **5GbE Ethernet Port:** For high-speed network connectivity.
- **USB 3.2 Ports:** For connecting external devices.
- **HDMI Port:** For video output.
- **Power Input:** For connecting the power adapter.

Image: Detailed view of the rear panel, highlighting the 5GbE LAN port for faster data transmission.

3. Hardware Installation

The F4 SSD NAS features a tool-free design for easy installation and expansion of M.2 NVMe SSDs and RAM.

3.1 SSD Installation

The device supports up to four M.2 2280 NVMe SSDs, with a total capacity of 32TB (8TB per SSD). Follow these steps to install SSDs:

1. Ensure the device is powered off and disconnected from the power source.
2. Locate the SSD slots.
3. Gently insert each M.2 NVMe SSD into its designated slot.
4. Secure the SSDs as per the device's mechanism (tool-free clips or screws).

3.2 RAM Expansion

The F4 SSD comes with 8GB DDR5-4800MHz memory. If expansion is desired, follow these steps:

1. Ensure the device is powered off and disconnected from the power source.
2. Locate the RAM slot.

3. Carefully insert the new DDR5 RAM module into the slot until it clicks into place.

Image: Visual guide for tool-less SSD and RAM installation, demonstrating the ease of setup.

4. Initial Setup and Operating System (TOS)

After hardware installation, connect your F4 SSD NAS to your network and power it on. The device runs on TerraMaster Operating System (TOS), which provides a user-friendly interface for managing your storage.

4.1 Network Connection

1. Connect the F4 SSD NAS to your router or switch using an Ethernet cable.
2. Connect the power adapter and power on the device.

4.2 Accessing TOS

Refer to the quick installation guide provided with your device or the official TerraMaster website for detailed instructions on initial TOS setup, including finding the device on your network and creating your administrator account.

5. Data Management and Backup

The F4 SSD NAS offers a comprehensive suite of backup and data management tools through the TerraMaster Business Backup Suite (BBS).

5.1 Business Backup Suite (BBS)

BBS is an enterprise-grade solution designed for robust data protection and recovery. Key features include:

- **Centralized Backup:** Consolidate data from various sources to your NAS.
- **TerraSync:** Synchronize data between your NAS, servers, and PCs.
- **Duple Backup:** Create off-site backups for disaster recovery.
- **CloudSync:** Integrate with cloud storage services for cloud recovery.
- **Snapshot:** Protect against ransomware and accidental data deletion with point-in-time recovery.

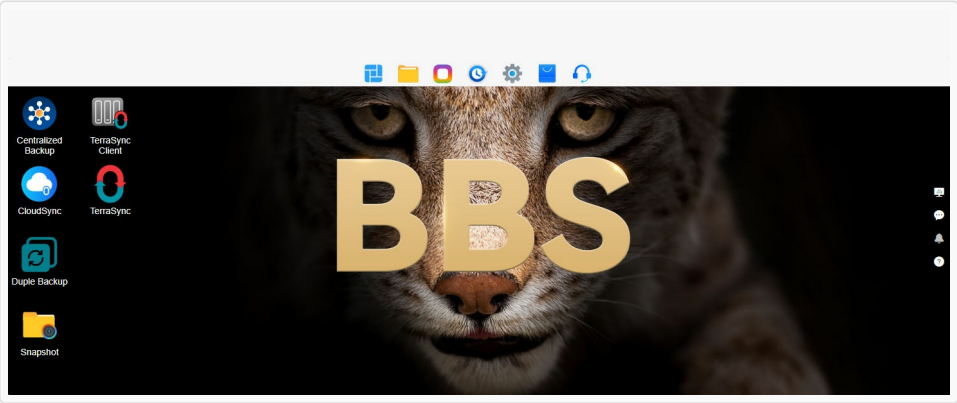

Image: An overview of the Business Backup Suite (BBS) interface and its various backup and synchronization tools.

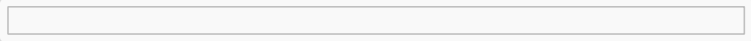

Image: Diagram showing how Centralized Backup works, consolidating data from various sources to the NAS.

Image: Diagram illustrating TerraSync, enabling data synchronization across various devices and platforms.

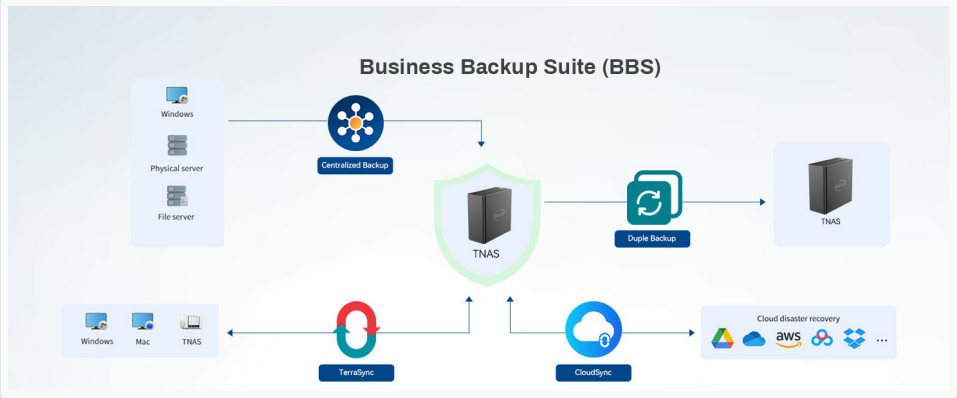

Image: Diagram showing Duple Backup, a disaster recovery solution for creating redundant backups.

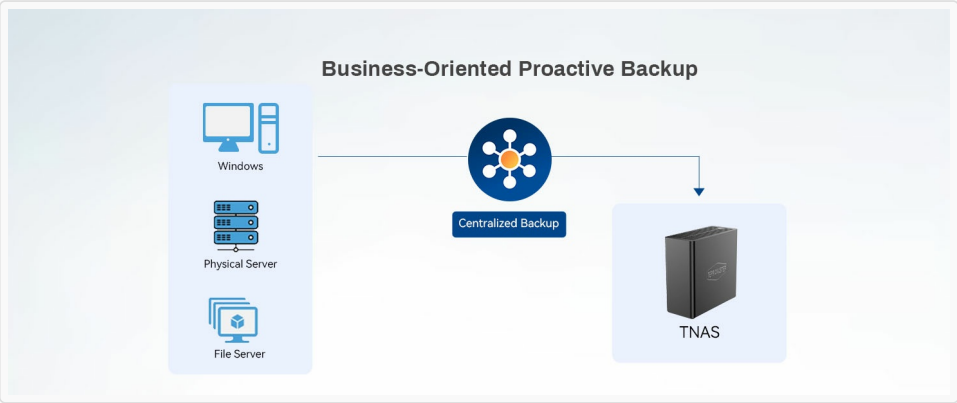

Image: Diagram illustrating CloudSync, a feature for synchronizing data with various cloud storage providers.

6. Multimedia Features

The F4 SSD NAS supports various multimedia applications, making it a central hub for your digital content.

6.1 4K Video Decoding

The device supports 4K hardware decoding, allowing for smooth playback of high-resolution video content. It is compatible with popular media servers such as Plex, Emby, and Jellyfin.

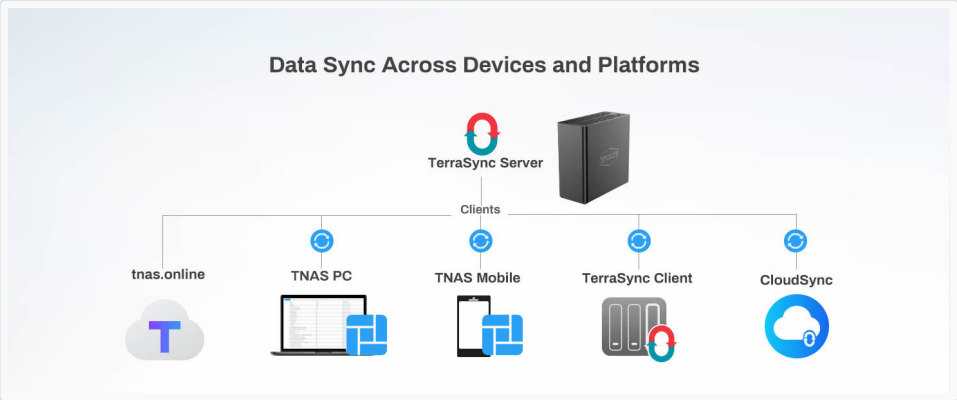

Image: The F4 SSD NAS supports 4K video decoding, compatible with media platforms like Plex, Emby, and Jellyfin.

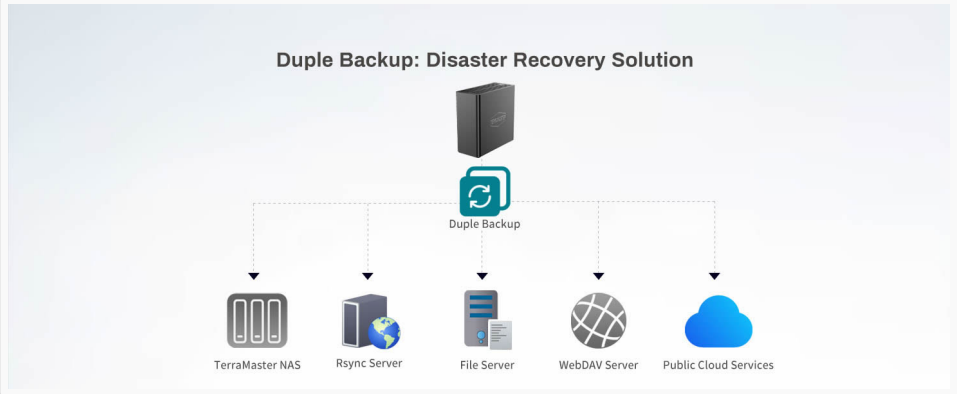

Image: The NAS efficiently manages multimedia content, supporting Plex and Emby.

6.2 Terra Photos

Terra Photos provides intelligent photo management, allowing you to organize, browse, and share your photo collections easily.

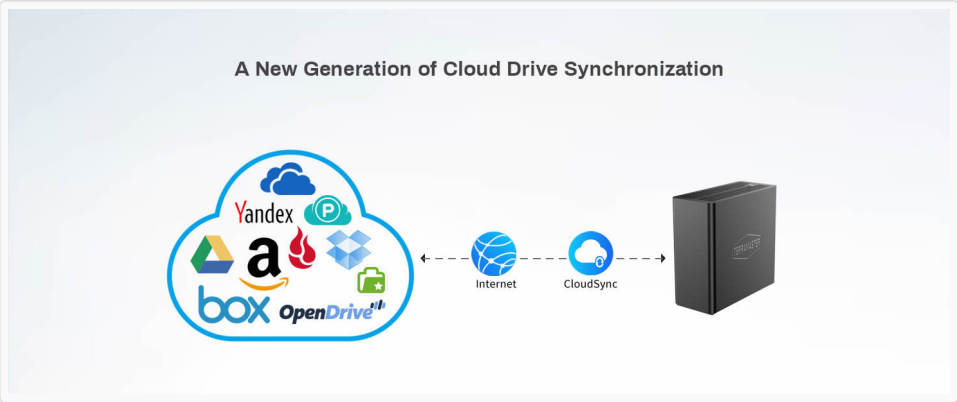

Image: Terra Photos offers intelligent photo management features.

6.3 TNAS Mobile

Access and manage your NAS content on the go with the TNAS Mobile application, available for smartphones and tablets.

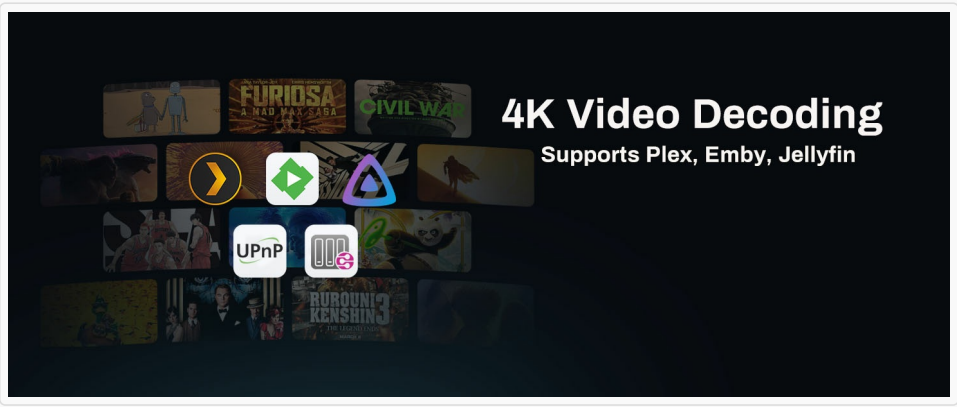

Image: The TNAS Mobile application allows remote access and management of your NAS.

7. Surveillance

The F4 SSD NAS can function as a surveillance solution with its Surveillance Manager application.

7.1 Surveillance Manager

Effortlessly connect and manage IP cameras, view live feeds, record, and review historical videos through the Surveillance Manager.

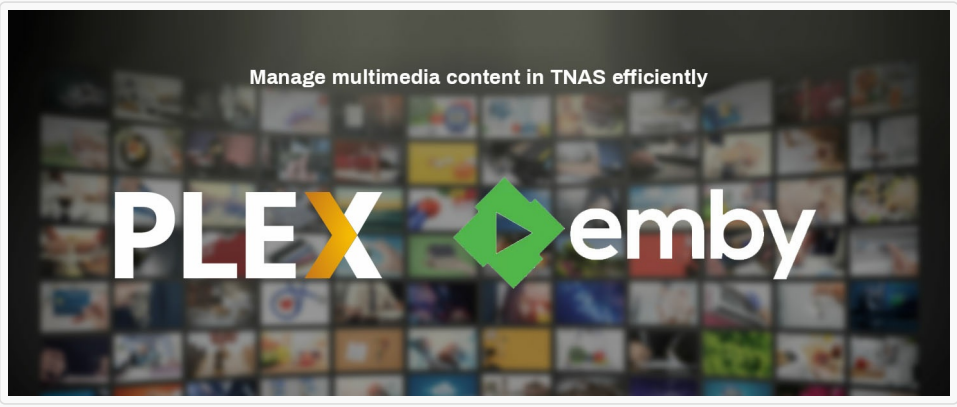

Image: The Surveillance Manager provides tools for live viewing, recording, and managing connected cameras.

8. Maintenance and Cooling

The F4 SSD NAS is designed for quiet operation and efficient heat dissipation to ensure stable performance and longevity.

8.1 Innovative Cooling System

The device incorporates an advanced cooling system with a convection design for each SSD and silent, auto-adjusting smart fans. This design keeps internal temperatures low, even under heavy workloads, contributing to its whisper-quiet performance (below 19dB in standby).

Image: Illustration of the innovative cooling system with airflow for optimal heat dissipation.

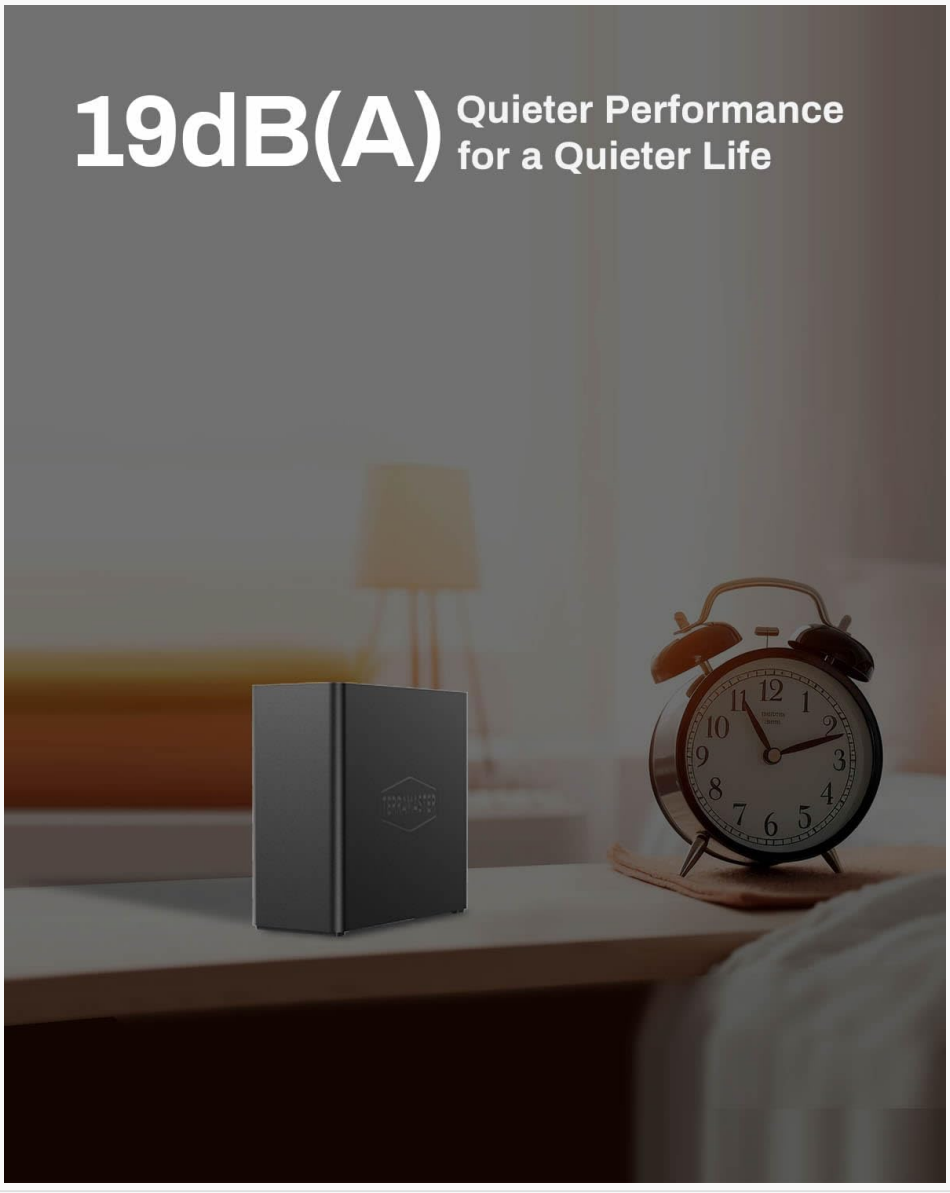

Image: The F4 SSD NAS operates with minimal noise, ensuring a quiet environment.

9. Specifications

Feature	Specification
Model	F4 SSD
Processor	Intel N95 Quad-Core (up to 3.4GHz)
RAM	8GB DDR5-4800MHz
GPU	UHD Graphics (16 Execution Units)
Ethernet Port	1 x 5GbE
M.2 NVMe Slots	4 (M.2 2280)
Max. Storage Capacity	32TB (4 x 8TB SSDs)
USB Ports	3 x USB 3.2 (10Gbps)
Video Output	HDMI (4K hardware decoding)

Feature	Specification
Dimensions (H x W x D)	2.36 x 5.51 x 5.43 inches (60 x 140 x 138 mm)
Weight	1.32 pounds (0.6 kg)
Material	Plastic
Color	Black

Image: The F4 SSD supports up to 32TB of storage using four M.2 2280 NVMe SSDs.

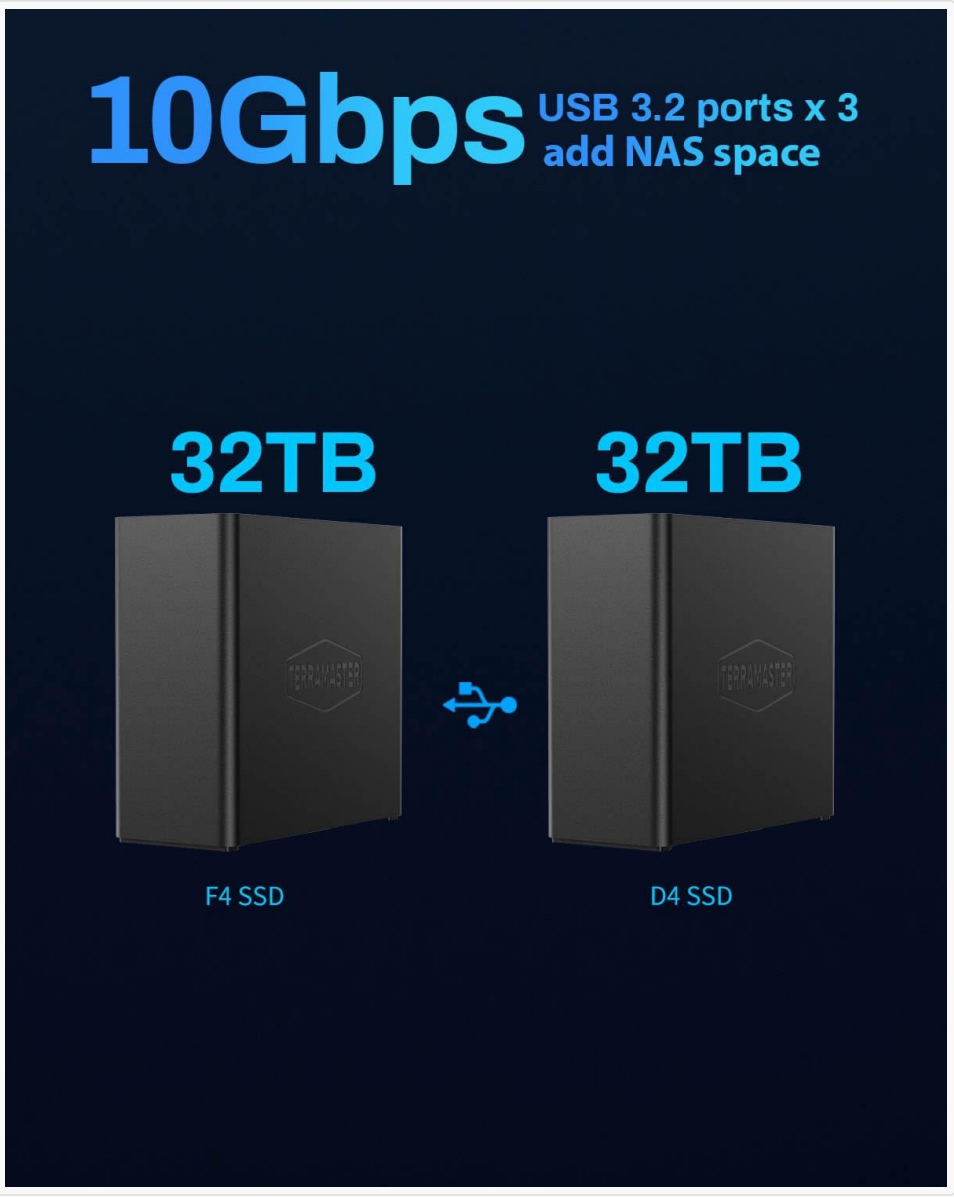

Image: The device features 10Gbps USB 3.2 ports for connecting external storage and expanding NAS capacity.

10. Troubleshooting

This section provides general guidance for common issues. For specific problems or advanced troubleshooting, please refer to the official TERRAMASTER support resources.

10.1 Common Issues

- **Device Not Powering On:** Ensure the power adapter is securely connected to both the device and a working power outlet.
- **Cannot Access NAS on Network:** Verify that the Ethernet cable is properly connected and that your network settings (IP address, subnet mask) are correctly configured. Try restarting your router and the NAS.
- **SSD Not Recognized:** Ensure SSDs are correctly seated in their slots. Check the official compatibility list for supported M.2 NVMe SSDs.
- **Slow Performance:** Check network cable quality, ensure 5GbE connection is active, and monitor CPU/RAM usage through the TOS interface.

10.2 Seeking Further Assistance

If you encounter issues not covered here, or require more in-depth technical support, please visit the official

TERRAMASTER support website or contact their customer service.

11. Warranty and Support

TERRAMASTER products are designed for reliability and performance. For detailed information regarding your product's warranty coverage, terms, and conditions, please refer to the warranty card included with your purchase or visit the official TERRAMASTER website.

11.1 Technical Support

For technical assistance, software updates, and additional resources, please visit the official TERRAMASTER support portal:

- **TERRAMASTER Official Website:** www.terramaster.com
- **TERRAMASTER Store on Amazon:** Amazon.com/TERRAMASTER

© 2025 TERRAMASTER. All rights reserved.