

TerraMaster D1 SSD

Triple-Protection SSD Enclosure

Datasheet



D1 SSD is built with a unibody aerospace aluminum alloy armor for ultimate ruggedness. It offers IP67-rated protection against water, dust, and spills. Capable of withstanding 1.2 tons of pressure and daily drops, it keeps your vital data secure in any harsh environment.

Protocol-Based, Steadfast Speed

D1 SSD delivers blazing performance via the advanced USB 3.2 Gen2 standard. Its efficient 128b/132b encoding boosts effective bandwidth by over 20% compared to older 8b/10b encoding, achieving sustained read/write speeds up to 1020MB/s. To fully unleash this potential, the device supports two key technologies:

UASP (USB Attached SCSI Protocol): Optimizes multi-queue commands to significantly reduce CPU load and transmission latency, especially enhancing speed during concurrent transfers.

TRIM: Allows the OS to notify the SSD upon file deletion, enabling proactive garbage collection to prevent long-term performance degradation and maintain sustained high-speed operation.

All-Metal Armor, Cool Under Pressure

Built with an innovative full-coverage aluminum alloy heatsink, it offers 2.5x the surface area for efficient passive cooling. It rapidly draws heat away from the core, keeping the surface cool even during prolonged full-load operation. This effectively prevents thermal throttling, ensuring consistent high performance.

Silence Redefined, Focus Unleashed

Built with a fanless, all-metal passive cooling design, the chassis itself serves as the heatsink, eliminating noise at the source. Even under high load, it maintains library-level quietness, allowing you to think, create, and work deeply, free from all distractions.

Full Protocol Support, Storage Unbounded

Widely compatible with mainstream M.2 NVMe SSDs and supports PCIe 3.0/4.0/5.0 protocols. Automatically recognizes and adapts to 2280 SSDs from various brands and models. Supports single-drive capacity of up to 8TB, it easily accommodates everything from everyday expansion to large-scale project storage needs.

Wide Compatibility, True Plug and Play

D1 SSD offers plug-and-play convenience—no driver installation required. It delivers excellent cross-platform compatibility, supporting Windows, macOS, Linux, Android, and iOS. Its USB Type-C interface connects seamlessly to laptops, desktops, tablets, smartphones, and smart TVs for high-speed transfers.

Note: OTG required for phones; some high-capacity Samsung M.2 SSDs may not be supported.

A Safe Home for Your Precious Memories

Every photo and video on your phone is a unique moment in time. Paired with the official TDAS App (fully compatible with iOS and Android), it acts as your personal data manager.

With an intuitive and simple operation, it easily and securely backs up your scattered photos, videos, and other important files from your phone to your private drive. Take control of your data, move beyond limited cloud space and privacy concerns, and give your memories a safe home.

Note: Fully compatible with iOS 15.6+ and Android 11+.

Triple-Shield Protection, Precise Defense

D1 SSD features a dedicated protection chip, establishing end-to-end safeguards from power input to the interface. It continuously monitors circuit status and responds within milliseconds to sudden shorts, voltage surges, or electrostatic interference—effectively preventing drive damage and ensuring stable, uninterrupted data transfer.

Compact & Ready, Your All-in-One Partner

With its compact design, it fits easily into your pocket or bag for effortless portability. Whether you're a business professional on the go or an outdoor creator capturing inspiration, it serves as a reliable productivity partner—supporting you powerfully wherever you work and travel.

Your On-the-Go Studio, Built for the Field

More than just high-speed external storage, it's a versatile workstation on the go. Easily expand your Mac mini, serve as an emergency boot drive, or act as an efficient data hub for cross-device collaboration. With a rugged, shock-resistant and waterproof design, it is tailored for outdoor professionals, ready for use straight out of the box at construction sites, in the field, or in challenging environments, ensuring both data security and seamless workflow.

Specifications:

Storage	
Ingress Protection Rating	IP67
Disk Slot Number	1
Compatible Disk Types	PCIe3.0/4.0/5.0 NVMe M.2 2280 SSD
File System	NTFS, APFS, Mac OS, FAT32, EXT4, exFAT
Maximum Internal Raw Capacity	8 TB (8TB SSD * 1)
USB	10Gbps
Reading Speed (max.)	1020 MB/s (Samsung 990 Pro 4TB M.2 SSD*1)
Writing Speed (max.)	1010 MB/s (Samsung 990 Pro 4TB M.2 SSD*1)
Appearance	
Size (H*W*D)	113.6 x 45.0 x 21.0 mm
Packaging Size (H*W*D)	149.0 x 102.5 x 43.0 mm
Weight	net weight: 146 g , Gross Weight: 330 g
Others	
System fan	N/A
Fan mode	/
Noise Level	Noiseless
Power Consumption	3.2 W (Built-in Samsung 990 Pro 4TB M.2 SSD in read/write state)
	0.2 W (Built-in Samsung 990 Pro 4TB M.2 SSD in hibernation)
Working Temperature	0°C ~ 40°C (32°F ~ 104°F)
Storage Temperature	-20°C ~ 60°C (-5°F ~ 140°F)
Relative Humidity	5% ~ 95% RH
Supported OS	Mac OS、 Windows 11(24H2 or later version)
Warranty	2 years
Certificate	CE, FCC, CCC, KC
Environment	RoHS compliance
Package Contents:	Host unit (x1)
	USB 10Gbps Cable C to C 0.5m (x1)
	Quick Installation Guide (x1)
	Power adapter (x1)
	Case x1
	Limited Warranty Note (x1)

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