

512GB M.2 SATA III SSD

ZSSM20512



Product Overview

The 512GB M.2 SATA SSD delivers reliable and efficient storage performance for desktops, laptops, and embedded computing systems. Using the SATA III 6 Gb/s interface in a compact M.2 2280 form factor, it offers faster boot times, quicker application loading, and improved overall system responsiveness compared to traditional hard drives.

Key Features

- SATA III 6 Gb/s interface for stable and reliable performance
- M.2 SATA (B+M Key) form factor for broad system compatibility
- Faster boot times and quicker application loading than HDDs
- Supports AHCI protocol for optimized data handling
- High-quality 3D NAND flash for improved durability and efficiency
- LDPC error correction for enhanced data integrity
- TRIM and garbage collection support for sustained performance
- Low power consumption for improved energy efficiency
- Shock- and vibration-resistant design with no moving parts

Product Specifications

Parameter	Specification
Capacity	512GB
Interface	SATA III (6 Gb/s)
Form Factor	M.2 2280
NAND Flash Type	3D NAND
Sequential Read Speed	Up to 550 MB/s
Sequential Write Speed	Up to 500 MB/s
Operating Voltage	3.3 V DC
MTBF	≥ 1.5 million Hours
Endurance (TBW)	250 TB
Operating Temperature	0°C to 70°C
Storage Temperature	-40°C to 85°C

Physical Dimensions

- Form Factor: M.2 SSD
- Interface Connector: B+M Key edge connector
- Dimensions: 22 (W) × 80 (L) × 2.3 (H) mm
- Weight: About 8 gm.

Advanced Storage Management

- SATA AHCI protocol for reliable data transfer
- S.M.A.R.T. monitoring support
- TRIM and garbage collection support for consistent performance
- Advanced error-correction and wear-levelling technologies

Warranty

- 5-Year Warranty