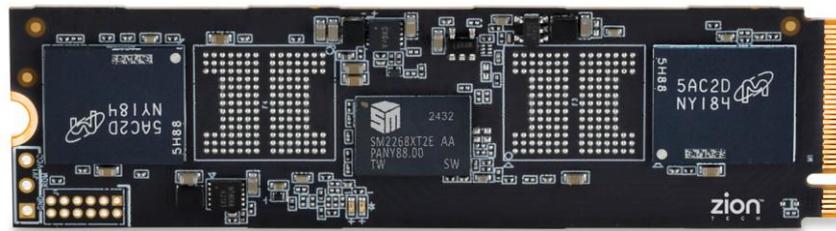


## 512GB PCIe Gen.4 NVMe SSD

### ZSNM2G40512



#### Product Overview

The 512GB PCIe Gen4 NVMe SSD delivers ultra-fast, next-generation storage performance for desktops, laptops, and high-performance computing systems. Powered by the PCIe 4.0×4 interface and NVMe protocol, it offers significantly higher bandwidth than Gen3 SSDs, enabling faster boot times, rapid application loading, and smooth handling of intensive workloads such as gaming, content creation, and data processing.

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#### Key Features

- PCIe Gen4×4 interface with NVMe protocol supporting up to 16 Gbps per lane
- Supports NVMe 1.4 for improved command efficiency and lower latency
- Advanced wear-levelling technology to extend drive lifespan
- LDPC error correction for enhanced data integrity and reliability
- Dynamic SLC caching to accelerate write performance
- Thermal throttling protection to maintain stability under heavy workloads
- Low power consumption with advanced power management states
- Shock- and vibration-resistant design with no moving parts
- Compact M.2 2280 form factor for wide system compatibility

## Product Specifications

Parameter	Specification
Capacity	512GB
Interface	PCIe Gen4.0×4, NVMe 1.4
Form Factor	M.2 2280
NAND Flash Type	3D NAND
Sequential Read Speed	Up to 5100 MB/s
Sequential Write Speed	Up to 4500 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

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## Physical Dimensions

- Form Factor: M.2 SSD
  - Interface Connector: M key edge connector
  - Dimensions: 22 (W) × 80 (L) × 2.3 (H) mm
  - Weight: About 8 gm.
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## Advanced Storage Management

- NVMe protocol for low latency and high throughput
  - S.M.A.R.T monitoring support
  - TRIM & garbage collection support for sustained performance
  - Advanced caching and error-correction features (LDPC / SLC cache)
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## Warranty

- 5-Year Warranty