



SPECIFICATIONS

| | | | |
|---|---|------------|------------|
| Model Name | SPATIUM M580 PCIe 5.0 NVMe M.2 FROZR | | |
| Capacity | 1TB | 2TB | 4TB |
| Controller | PHISON E26 | | |
| Flash Memory | 3D NAND | | |
| DRAM Cache | 2GB LPDDR4 | 4GB LPDDR4 | 8GB LPDDR4 |
| Form Factor | M.2 2280 | | |
| Interface | PCIe Gen5x4, NVMe 2.0 | | |
| Compatibility | PCIe Gen5 / Gen4 / Gen3 / Gen2 / Gen1 | | |
| Dimensions | 94.80mm (L) x 24.00mm (W) x 71.65mm (H) | | |
| Sequential Read up to (MB/s) | 13,700 | 14,600 | 14,100 |
| Sequential Write up to (MB/s) | 10,300 | 12,700 | 12,600 |
| Maximum Operating Power (W) | 11.5 | | |
| Idle Power PS3 (mW) | 144 | | |
| Low Power L1.2 (mW) | 85 | | |
| Operating Temperatures | 0°C - 70°C | | |
| Storage Temperatures | -40°C - 85°C | | |
| Terabytes Written (TBW) | 700 | 1400 | 3000 |
| Mean Time Between Failure (MTBF) | Up to 1,600,000 Hours | | |
| Limited Warranty | 5 Years, or the coverage for the maximum TBW as stated, whichever comes first. | | |
| Advanced Features | TRIM (Performance Optimization, OS Support required) SMART (Self-Monitoring, Analysis and Reporting Technology) LDPC (Low Density Parity Check) ECC Algorithm End to End Data Path Protection APST (Autonomous Power State Transition) AES256/OPAL 2.0 (Encryption, Data Security) | | |

FEATURES



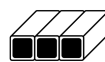
Supercharged with Gen 5

The PCIe Gen 5 controller empowers next-level storage transfer rates faster than previous-gen SSDs by up to 2 times.



Towered FROZR Heatsink

An enthusiast heatsink with well-pathed Core Pipes silently reduces temperatures by up to 20 °C under a stylish cover, sustaining maximum storage performance.



Core Pipe

Precision-machined heatpipes ensure max contact and spread heat along the full length of the heatsink.



3D NAND

3D NAND flash technology brings dense storage in a compact design and allows storage capacities up to 4TB.



Security & Reliability

Built-in data security and error-correction capabilities extend the longevity of the NAND flash storage.



Low Latency Gaming

Enjoy minimal latency in smooth gameplay and loading games with optimized high-performance bandwidth and throughput.



Nonstop Creativity Booster

Keep up nonstop productivity by opening up images, movies, documents, and heavy-duty applications at lightning speeds.



MSI Center

Migrate data with backup & restore functionality, monitor drive health and performance metrics in real-time in MSI Center.



Optimal M.2 SSD

Designed in the M.2 2280 form factor, MSI SSDs are easy to install into desktops.



5 Years Warranty

MSI stands by the quality and reliability of their SSD's with a 5 year limited warranty.

TEST CONFIGURATION

Sequential and random performance, and power consumption were measured with the system configurations listed below. All performance data was tested with the SSD as a secondary drive.

| | |
|-------------------------|---|
| Interface | PCIe Gen5x4 |
| Operating System | Windows 11 Pro 23H2 OS Build 22631.2861 |
| CPU | AMD Ryzen 9 7950X 16-Core Processor @4.50 GHz |
| Memory | Kingston DDR5-4800 16G x2 |
| Chipset | MSI MPG X670E CARBON WIFI |
| Test Program | Crystal Diskmark 8.04 x64, ATTO Disk Benchmark V4.01.0f1, IO Meter v1.1.0 |