SPECIFICATIONS

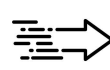| Model Name	SPATIUM M450 PCIe 4.0 NVMe M.2			
Capacity	250GB	500GB	1TB	2TB
Controller	PHISON E19T			
Flash Memory	3D NAND			
Form Factor	M.2 2280			
Interface	PCIe Gen4x4, NVMe 1.4			
Compatibility	PCIe Gen4 / Gen3 / Gen2 / Gen1			
Dimensions	80.00mm (L) x 22.00mm (W) x 2.15mm (H)			
Sequential Read up to (MB/s)	3500	3600	3600	3300
Sequential Write up to (MB/s)	1200	2300	3000	3000
Random Read 4KB up to (IOPS)	150,000	300,000	420,000	380,000
Random Write 4KB up to (IOPS)	300,000	550,000	550,000	540,000
Maximum Operating Power (W)	3.4	3.4	4.0	4.5
Idle Power PS3 (mW)	40			
Low Power L1.2 (mW)	5			
Operating Temperatures	0°C – 70°C			
Storage Temperatures	-40°C – 85°C			
Terabytes Written (TBW)	150	300	600	1200
Mean Time Between Failure (MTBF)	Up to 1,500,000 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) Pyrite (Encryption, Data Security)			

FEATURES

Blazing Speeds

Optimized for the PCIe Gen4 interface.

3D NAND Flash

3D NAND Flash technology brings dense storage in a compact design and allows storage capacities up to 2TB.

Security & Reliability

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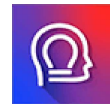
Low Latency Gaming

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 external enclosures, desktops, or laptops.

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 Gen4x4
Operating System	Windows 11 Pro 21H2 OS Build 22000.258
CPU	11th Gen Intel Core i7-11700KF @3.6GHz
Memory	Crucial DDR4-2400 8G x2
Chipset	MSI MPG Z590 GAMING CARBON WIFI
Test Program	Crystal Diskmark 8.01, ATTO Disk Benchmark V4.01.0f1, IO Meter v1.1.0