



SPECIFICATIONS

Model Name	SPATIUM M450 PCIe 4.0 NVMe M.2 V1	
Capacity	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)	3400	3300
Sequential Write up to (MB/s)	2400	2500
Random Read 4KB up to (IOPS)	500,000	440,000
Random Write 4KB up to (IOPS)	550,000	560,000
Maximum Operating Power (W)	3.7	3.8
Idle Power PS3 (mW)	35	
Low Power L1.2 (mW)	5	
Operating Temperatures	0°C - 70°C	
Storage Temperatures	-40°C - 85°C	
Terabytes Written (TBW)	350	700
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	11 th 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