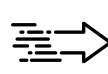




FEATURES



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 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

Monitor SSD health status and key performance metrics in real time via MSI Center for stable and reliable system performance.



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.

SPECIFICATIONS

Model Name	SPATIUM M461 PCIe 4.0 NVMe M.2			
Capacity	500GB	1TB	2TB	4TB
Controller	PHISON E21T			
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)	4700	5000	5000	5000
Sequential Write up to (MB/s)	1700	3200	4200	4200
Random Read 4KB up to (IOPS)	320,000	630,000	680,000	600,000
Random Write 4KB up to (IOPS)	400,000	750,000	880,000	850,000
Maximum Operating Power (W)	3.7	4.1	4.4	5.1
Idle Power PS3 (mW)	50			
Low Power L1.2 (mW)	5			
Operating Temperatures	0°C - 70°C			
Storage Temperatures	-40°C - 85°C			
Terabytes Written (TBW)	110	250	450	900
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)			

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 22H2 OS Build 22621.963
CPU	13 th Gen Intel Core i9-13900F @2.00GHz
Memory	Kingston DDR5-4800 16G x2
Chipset	MSI MPG Z790 CARBON WIFI
Test Program	Crystal Diskmark 8.04, ATTO Disk Benchmark V4.01.0f1, IO Meter v1.1.0