



## DuraFlash™

# MP3000 | PCIe NVMe | M.2 2280 & 22110 SSDs

SMART's DuraFlash MP3000 PCIe NVMe M.2 SSDs incorporate the latest generation 3D NAND-technology to deliver high performance with endurance up to one drive writes per day (1 DWPD) for five years. The MP3000 SSDs offer better cost per bit over previous 64-layer and 96-layer NAND generations without sacrificing performance and reliability.

SMART's MP3000 SSDs feature a PCIe Gen4 x4 interface and are compliant to NVMe 1.4 specification. The increased bandwidth offered by PCIe 4.0 improves the efficiency of performing workloads. They support TCG Opal 2.0 as standard, and are easily integrated into a host system without any BIOS modifications or additional drivers. The MP3000 products incorporate on-board error detection and correction, and static wear-leveling algorithms to provide reliable operation over the product life cycle.

### Features & Benefits

- Self-Encrypted Drive (SED) with TCG Opal 2.01 Support
- Quality of Service (QoS) with 3 Nines of Latency Consistency
- Secure Boot with PKI-Based Firmware Authenticity Verification
- The Latest Generation 3D NAND Technology
- PCIe Gen4 x4 NVMe 1.4 Compliant
- 1 DWPD For 5 Years, Enterprise Workload
- Namespace Management (Up to 16 Namespaces)
- 512-Bytes and 4096-Bytes LBA Formats
- SMBus NVMe-MI Support
- SafeDATA™ Power-Loss, Data-Protection Technology
- Redundancy Coding for Enhanced Data Reliability
- End-to-End Data Path Protection with Internal Memory Error Detection and Correction

### Product Family Overview

Form Factor	Capacity	Sequential Performance
M.2 2280 SSD	240GB to 1920GB	Up to 3500MB/s Read
M.2 22110 SSD	240GB to 1920GB	Up to 2000MB/s Write
EDSFF E1.S	240GB to 1920GB	



M.2 22110



M.2 2280

### Applications

- AI
- Data Center
- HPC
- Networking
- Storage
- Telecommunication

## Specifications

	M.2 2280 SSD	M.2 22110 SSD
NAND Type	eTLC	
<b>Performance</b>		
Host Interface Rate (maximum)	PCIe Gen4 x4	
Capacities	240GB to 1920GB	
Sequential Read (maximum)	Up to 3500MB/s	
Sequential Write (maximum)	Up to 2000MB/s	
Random Read (maximum)	Up to 400K IOPS	
Random Write (maximum)	Up to 160K IOPS	
<b>Reliability</b>		
MTBF	> 2,000,000 hours	
Endurance (JEDEC Enterprise Workload) <sup>1</sup>	1920GB:	3500 TBW
	960GB:	1700 TBW
	480GB:	800 TBW
	240GB:	350 TBW
DWPD	1	
SafeDATA	Standard	
Error Correction	LDPC	
<b>Data Security</b>		
Encryption	AES-256, TCG OPAL 2.0	
<b>Power</b>		
Input Voltage	VCC: 3.3 V ± 5%	
<b>Environmental</b>		
Shock	1500 g half-sine, 0.5 msec, 1 shock along each axis, X, Y, Z in each direction	
Vibration	20G 80-2000Hz, 1.52mm 20-80Hz, 3 axis	
Operating Temperature	Commercial: 0°C to +70°C	
	Industrial: -40°C to +85°C	
Storage Temperature	-40°C to +85°C	
Humidity	40°C, Operation: 90% RH, Storage: 93% RH	
<b>Physical</b>		
Length	80.0 mm	110.0 mm
Width	22.0 mm	22.0 mm
Height	3.65 mm	3.65 mm

<sup>1</sup>Endurance is directly related to the User Specific Workload.

## Ordering Information

Part Number	Density
<b>MP3000   PCIe NVMe   M.2 2280 SSD</b>	
<b>Commercial Operating Temperature (0°C to +70°C)</b>	
SRMP81920F1N2AC1	1920GB
SRMP8960GF1N2AC1	960GB
SRMP8480GF1N2AC1	480GB
SRMP8240GF1N2AC1	240GB
<b>MP3000   PCIe NVMe   M.2 2280 SSD</b>	
<b>Industrial Operating Temperature (-40°C to +85°C)</b>	
SRMP81920F2N2AC1	1920GB
SRMP8960GF2N2AC1	960GB
SRMP8480GF2N2AC1	480GB
SRMP8240GF2N2AC1	240GB
<b>MP3000   PCIe NVMe   M.2 22110 SSD</b>	
<b>Commercial Operating Temperature (0°C to +70°C)</b>	
SRMP11920F1N2AC1	1920GB
SRMP1960GF1N2AC1	960GB
SRMP1480GF1N2AC1	480GB
SRMP1240GF1N2AC1	240GB
<b>MP3000   PCIe NVMe   M.2 22110 SSD</b>	
<b>Industrial Operating Temperature (-40°C to +85°C)</b>	
SRMP11920F2N2AC1	1920GB
SRMP1960GF2N2AC1	960GB
SRMP1480GF2N2AC1	480GB
SRMP1240GF2N2AC1	240GB



For more information, please visit: [www.smartm.com](http://www.smartm.com)

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