

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

SMART'S 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 wearleveling algorithms to provide reliable operation over the product life cycle.



M.2 22110



#### 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
- SEU Mitigation
- Namespace Management (Up to 16 Namespaces)
- 512-Bytes and 4096-Bytes LBA Formats
- SMBus NVMe-MI Support
- SafeDATA<sup>™</sup> 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 3600MB/s Read
M.2 22110 SSD		Up to 2900MB/s Write
EDSFF E1.S		Up to 3500MB/s Read
		Up to 2750MB/s Write

#### Applications

- Al
- Data Center
- HPC
- Networking
- Storage
- Telecommunication

# Specifications

	M.2 2280 SSD	M.2 22110 SSD	
NAND Type	eTLC		
Performance			
Host Interface Rate (maximum)	PCIe Gen4 x4		
Capacities	240GB to 1920GB		
Sequential Read (maximum)	Up to 3600MB/s		
Sequential Write (maximum)	Up to 2900MB/s		
Random Read (maximum)	Up to 410K IOPS		
Random Write (maximum)	Up to 305K IOPS		
Reliability			
MTBF	> 2,000,000 hours		
	1920GB: 5170 TBW		
Endurance	960GB: 2585 TBW		
(JEDEC Enterprise Workload)1	480GB: 1292 TBW		
	240GB: 646 TBW		
DWPD	1.4		
SafeDATA	Optional	Standard	
Error Correction	LDPC		
Data Security			
Encryption	AES-256, TCG OPAL 2.0		
Power			
Input Voltage	VCC: 3.3 V ± 5%		
Environmental			
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		
Physical			
Length	80.0 mm	110.0 mm	
Width	22.0 mm	22.0 mm	
Height	3.73 mm	3.73 mm	

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

# **Ordering Information**

Part Number	Density		
MP3000   PCIe NVMe   M.2 2280 SSE	)		
Commercial Operating Temperature (0°C to +70°C)			
SRMP81920FCN2BC4	1920GB		
SRMP8960GFCN2BC4	960GB		
SRMP8480GFCN2BC4	480GB		
SRMP8240GFCN2BC4	240GB		
MP3000   PCIe NVMe   M.2 2280 SSD			
Industrial Operating Temperature (-40°C to +85°C)			
SRMP81920FIN2BC4	1920GB		
SRMP8960GFIN2BC4	960GB		
SRMP8480GFIN2BC4	480GB		
SRMP8240GFIN2BC4	240GB		
MP3000   PCIe NVMe   M.2 2280 SSD (SafeDATA)			
Commercial Operating Temperature (0°C to +70°C)			
SRMP81920F1N2AC4	1920GB		
SRMP8960GF1N2AC4	960GB		
SRMP8480GF1N2AC4	480GB		
SRMP8240GF1N2AC4	240GB		
MP3000   PCIe NVMe   M.2 2280 SSE	) (SafeDATA)		
Industrial Operating Temperature (-40°C to +85°C)			
SRMP81920F2N2AC4	1920GB		
SRMP8960GF2N2AC4	960GB		
SRMP8480GF2N2AC4	480GB		
SRMP8240GF2N2AC4	240GB		
MP3000   PCIe NVMe   M.2 22110 SSD (SafeDATA)			
Commercial Operating Temperature	(0°C to +70°C)		
SRMP11920F1N2AC4	1920GB		
SRMP1960GF1N2AC4	960GB		
SRMP1480GF1N2AC4	480GB		
SRMP1240GF1N2AC4	240GB		
MP3000   PCIe NVMe   M.2 22110 SSD (SafeDATA)			
Industrial Operating Temperature (-	40°C to +85°C)		
SRMP11920F2N2AC4	1920GB		
SRMP1960GF2N2AC4	960GB		
SRMP1480GF2N2AC4	480GB		
SRMP1240GF2N2AC4	240GB		



For more information, please visit: www.smartm.com

\*Product images are for promotional purposes only. Labels may not be representative of the actual product.

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