



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 wear-leveling algorithms to provide reliable operation over the product life cycle.



M.2 22110



M.2 2280

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

Applications

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

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 |

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 | |
| Endurance (JEDEC Enterprise Workload) ¹ | 1920GB: | 5170 TBW |
| | 960GB: | 2585 TBW |
| | 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 |

¹Endurance is directly related to the User Specific Workload.

Ordering Information

| Part Number | Density |
|--|---------|
| MP3000 PCIe NVMe M.2 2280 SSD | |
| Commercial Operating Temperature (0°C to +70°C) | |
| SRMP81920FCN2BC3 | 1920GB |
| SRMP8960GFCN2BC3 | 960GB |
| SRMP8480GFCN2BC3 | 480GB |
| SRMP8240GFCN2BC3 | 240GB |
| MP3000 PCIe NVMe M.2 2280 SSD | |
| Industrial Operating Temperature (-40°C to +85°C) | |
| SRMP81920FIN2BC3 | 1920GB |
| SRMP8960GFIN2BC3 | 960GB |
| SRMP8480GFIN2BC3 | 480GB |
| SRMP8240GFIN2BC3 | 240GB |
| MP3000 PCIe NVMe M.2 2280 SSD (SafeDATA) | |
| Commercial Operating Temperature (0°C to +70°C) | |
| SRMP81920F1N2AC3 | 1920GB |
| SRMP8960GF1N2AC3 | 960GB |
| SRMP8480GF1N2AC3 | 480GB |
| SRMP8240GF1N2AC3 | 240GB |
| MP3000 PCIe NVMe M.2 2280 SSD (SafeDATA) | |
| Industrial Operating Temperature (-40°C to +85°C) | |
| SRMP81920F2N2AC3 | 1920GB |
| SRMP8960GF2N2AC3 | 960GB |
| SRMP8480GF2N2AC3 | 480GB |
| SRMP8240GF2N2AC3 | 240GB |
| MP3000 PCIe NVMe M.2 22110 SSD (SafeDATA) | |
| Commercial Operating Temperature (0°C to +70°C) | |
| SRMP11920F1N2AC3 | 1920GB |
| SRMP1960GF1N2AC3 | 960GB |
| SRMP1480GF1N2AC3 | 480GB |
| SRMP1240GF1N2AC3 | 240GB |
| MP3000 PCIe NVMe M.2 22110 SSD (SafeDATA) | |
| Industrial Operating Temperature (-40°C to +85°C) | |
| SRMP11920F2N2AC3 | 1920GB |
| SRMP1960GF2N2AC3 | 960GB |
| SRMP1480GF2N2AC3 | 480GB |
| SRMP1240GF2N2AC3 | 240GB |



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

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