



DuraFlash™

ME2 | SATA | M.2 2280 SSD

SMART's DuraFlash ME2 SATA M.2 2280 SSDs incorporate the latest generation 3D NAND-technology and SMART Modular's proprietary NVMSentry™ firmware to deliver high performance SSD products with endurance up to one drive writes per day (1 DWPD) for five years. The new ME2 SSDs offer better cost per bit over previous 64-layer and 96-layer NAND generations without sacrificing performance and reliability. Further optimization of the NVMSentry firmware also yields enhancements in read and write consistency over wide ranges of application workloads.

SMART's ME2 SATA M.2 2280 SSDs are available in both industrial and commercial temperature grades and have versions that implement SMART's SafeDATA™ power-loss, data-protection technology for graceful handling of power fluctuations and sudden power loss events.



Features & Benefits

- The Latest Generation 3D NAND Technology
- 1 DWPD For Five Years
- SMART's Proprietary NVMSentry Firmware
- SafeDATA Power-Loss, Data-Protection Technology
- TCG OPAL 2.0 and AES 256 Encryption
- End-to-End Data Path Protection
- Support I-Temp (-40°C to +85°C)

Applications

- Aerospace
- AI
- HPC
- Medical
- Surveillance

Product Family Overview

Capacity	Sequential Performance
ME2 SATA 2.5" SSD	
240GB to 1920GB	Up to 540MB/s Read; Up to 450MB/s Write
ME2 SATA M.2 2242 SSD	
240GB to 960GB	Up to 540MB/s Read; Up to 450MB/s Write
ME2 SATA M.2 2280 SSD	
240GB to 1920GB	Up to 540MB/s Read; Up to 450MB/s Write
ME2 SATA mSATA SSD	
240GB to 1920GB	Up to 540MB/s Read; Up to 450MB/s Write
ME2 SATA Slim SATA SSD	
240GB to 1920GB	Up to 540MB/s Read; Up to 450MB/s Write

Specifications

ME2 SATA M.2 2280 SSD	
NAND Type	eTLC
Performance	
Host Interface Rate (maximum)	SATA 3.0 6Gb/s
Capacities	240GB to 1920GB
Sequential Read (maximum)	Up to 540 MB/s
Sequential Write (maximum)	Up to 450 MB/s
Random Read (maximum)	Up to 90K IOPS
Random Write (maximum)	Up to 70K IOPS
Reliability	
MTBF	> 2,000,000 hours
Endurance (JEDEC Enterprise Workload) ¹	1920GB: 3330 TBW 960GB: 1671 TBW 480GB: 902 TBW 240GB: 513 TBW
DWPD	1
SafaData	Optional
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 rms 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 mm
Width	22 mm
Height	3.65 mm

¹Endurance is directly related to the User Specific Workload.

Ordering Information

Part Number	Density
ME2 SATA M.2 2280 SSD	
Commercial Operating Temperature (0°C to +70°C)	
SRM281920FCM2AC1	1920GB
SRM28960GFCM2AC1	960GB
SRM28480GFCM2AC1	480GB
SRM28240GFCM2AC1	240GB
ME2 SATA M.2 2280 SSD	
Industrial Operating Temperature (-40°C to +85°C)	
SRM281920FIM2AC1	1920GB
SRM28960GFIM2AC1	960GB
SRM28480GFIM2AC1	480GB
SRM28240GFIM2AC1	240GB
ME2 SATA M.2 2280 SSD (SafeDATA)	
Commercial Operating Temperature (0°C to +70°C)	
SRM281920F1M2AC1	1920GB
SRM28960GF1M2AC1	960GB
SRM28480GF1M2AC1	480GB
SRM28240GF1M2AC1	240GB
ME2 SATA M.2 2280 SSD (SafeDATA)	
Industrial Operating Temperature (-40°C to +85°C)	
SRM281920F2M2AC1	1920GB
SRM28960GF2M2AC1	960GB
SRM28480GF2M2AC1	480GB
SRM28240GF2M2AC1	240GB



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

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