

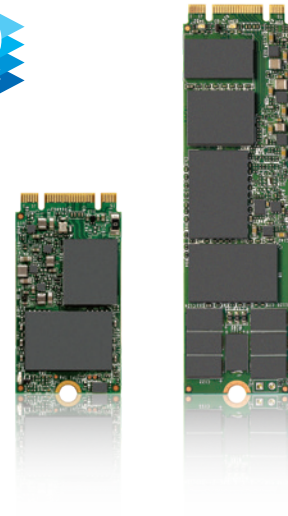


DuraFlash™

ME2 | M.2 2242 & M.2 2280 SATA

SMART's DuraFlash ME2 M.2 2242 & M.2 2280 SATA solid state drives offer two different lengths: 42mm and 80mm with 3D NAND technology, and support both commercial and industrial temperature range. Incorporating SMART's proprietary NVMSentry™ firmware along with a best-in-class SSD controller, the ME2 M.2 modules offer exceptional performance while providing the flexibility and optionality for mission critical applications.

The ME2 M.2 2280 SATA drives with eTLC version are equipped with SafeDATA™ technology, which adds another layer of protection for data. SafeDATA technology is a robust system of hardware and firmware that have SMART SSDs operate safely during any events of unexpected power loss. It guarantees the end-to-end data integrity and prevents drive corruption due to the loss of critical data during the expected shut down.



Features & Benefits

- 1 DWPD Version Available with eTLC NAND
- AES 256 Encryption and ATA Security Features Commands for Data Security and Data Sanitize
- End-to-End Data Path Protection
- 3D NAND Technology with High Endurance
- SafeDATA Technology as a Standard Feature for eTLC Version (SafeDATA safeguards the integrity, functionality and data of the SSD in the event of sudden power loss.)
- Support I-Temp (-40°C to +85°C)

Applications

- Aerospace
- AI
- HPC
- Medical
- Surveillance

Product Family Overview

Capacity	Sequential Performance
M.2 2242 SATA	
240GB to 960GB	Up to 560MB/s Read; Up to 500MB/s Write
M.2 2280 SATA	
240GB to 1920GB	Up to 560MB/s Read; Up to 500MB/s Write

Specifications

	ME2 M.2 2242 SATA	ME2 M.2 2280 SATA	
NAND Type	TLC	TLC	eTLC
Performance			
Host Interface Rate (maximum)	SATA 3.0 6Gb/s		
Capacities	240GB to 960GB	240GB to 1920GB	
Sequential Read (maximum)	Up to 560 MB/s	Up to 560 MB/s	
Sequential Write (maximum)	Up to 500 MB/s	Up to 500 MB/s	
Random Read (maximum)	Up to 60KIOPS	Up to 60KIOPS	
Random Write (maximum)	Up to 75KIOPS	Up to 75KIOPS	
Reliability			
MTBF	> 2,000,000 hours		
Endurance (JEDEC Enterprise Workload) ¹	960GB: 410 TBW	1920GB: 800 TBW	1920GB: 2800 TBW
	480GB: 200 TBW	960GB: 410 TBW	960GB: 1400 TBW
	240GB: 105 TBW	480GB: 200 TBW	480GB: 700 TBW
		240GB: 105 TBW	240GB: 350 TBW
DWPD	0.3	0.3	1
SafaData	-	-	Standard
Error Correction	LDPC		
Data Security			
Encryption	AES-256, ATA Security Features Commands		
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	42 mm	80 mm	
Width	22 mm	22 mm	
Height	3.65 mm	3.65 mm	

¹Endurance is directly related to the User Specific Workload.

Ordering Information

Part Number	Density
M.2 2242 SATA TLC Commercial Operating Temperature (0°C to +70°C)	
SRM24960GTCM2A71	960GB
SRM24480GTCM2A71	480GB
SRM24240GTCM2A71	240GB
M.2 2242 SATA TLC Industrial Operating Temperature (-40°C to +85°C)	
SRM24960GTIM2A71	960GB
SRM24480GTIM2A71	480GB
SRM24240GTIM2A71	240GB
M.2 2280 SATA TLC Commercial Operating Temperature (0°C to +70°C)	
SRM281920TCM2171	1920GB
SRM28960GTCM2171	960GB
SRM28480GTCM2171	480GB
SRM28240GTCM2171	240GB
M.2 2280 SATA TLC Industrial Operating Temperature (-40°C to +85°C)	
SRM281920TIM2171	1920GB
SRM28960GTIM2171	960GB
SRM28480GTIM2171	480GB
SRM28240GTIM2171	240GB
M.2 2280 SATA eTLC (SafeDATA) Commercial Operating Temperature (0°C to +70°C)	
SRM281920F1M2171	1920GB
SRM28960GF1M2171	960GB
SRM28480GF1M2171	480GB
SRM28240GF1M2171	240GB
M.2 2280 SATA eTLC (SafeDATA) Industrial Operating Temperature (-40°C to +85°C)	
SRM281920F2M2171	1920GB
SRM28960GF2M2171	960GB
SRM28480GF2M2171	480GB
SRM28240GF2M2171	240GB



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