



## DuraFlash

# SP2800 | PCIe NVMe | M.2 2280 SSD

SMART's DuraFlash SP2800 products are best in-class PCIe NVMe SSDs with the functionality, performance and reliability for mission-critical applications. These drives target server, storage cache/accelerators, networking, and data communications applications requiring reliable internal storage with a small footprint. They are also a natural fit for enterprise applications, including computing, medical, transportation, video surveillance and other industrial applications.

The SP2800 PCIe NVMe M.2 2280 SSDs feature a PCIe Gen3 x4 interface and are compliant to NVMe 1.3 specification. They support TCG Opal 2.0 as standard, and are easily integrated into a host system without any BIOS modifications or additional drivers. The SP2800 products incorporate on-board error detection and correction, and static wear-leveling algorithms to provide reliable operation over the product life cycle.

## Features & Benefits

- PCIe Gen3 x4 NVMe 1.3 Compliant
- 1 DWPD Version Available with SP2800 HE
- TCG OPAL 2.0 and AES 256 Encryption for Data Security and Data Sanitize
- End-to-End Data Path Protection
- 3D NAND Technology with High Endurance
- SafeDATA<sup>™</sup> Technology as a Standard Feature for SP2800 HE (SafeDATA safeguards the integrity, functionality and data of the SSD in the event of sudden power loss.)

## **Product Family Overview**

Capacity	Sequential Performance
SP2800 SE   PCIe NVMe   M.2 2280 SSD	
240GB to 1920GB	Up to 3300MB/s Read; Up to 2600MB/s Write
SP2800 HE   PCIe NVMe   M.2 2280 SSD	
240GB to 1920GB	Up to 3300MB/s Read; Up to 2600MB/s Write





## Applications

- Data Center
- Networking
- Storage Server
- Telecom

## Specifications

	SP2800 SE	SP2800 HE	
NAND Type	TLC	eTLC	
Performance			
Host Interface Rate (maximum)	PCIe Gen3 x4		
Capacities	240GB to	240GB to 1920GB	
Sequential Read (maximum)	Up to 3300 MB/s		
Sequential Write (maximum)	Up to 2600 MB/s		
Random Read (maximum)	Up to 300K IOPS		
Random Write (maximum)	Up to 30	0K IOPS	
Reliability			
MTBF	> 2,000,0	> 2,000,000 hours	
	1920GB: 1200 TBW	1920GB: 4000 TBW	
Endurance	960GB: 600 TBW	960GB: 2000 TBW	
(JEDEC Enterprise Workload) <sup>1</sup>	480GB: 300 TBW	480GB: 1000 TBW	
	240GB: 120 TBW	240GB: 450 TBW	
DWPD	0.3	1	
SafaDATA	-	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,		
SHOCK	X, Y, Z in each direction		
Vibration	20G 80-2000Hz, 1.52mm 20-80Hz, 3 axis		
Operating Temperature	Commercial: 0°C to +70°C		
Operating Temperature	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		
Width	22.0 mm		
Height	3.65 mm		

## **Ordering Information**

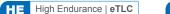
Part Number	Density	
SP2800 SE   PCIe NVMe   M.2 2280 SSD		
Commercial Operating Temperature (0°C to +70°C)		
SRMP81920TCS1B71	1920GB	
SRMP8960GTCS1B71	960GB	
SRMP8480GTCS1B71	480GB	
SRMP8240GTCS1B71	240GB	
SP2800 SE   PCIe NVMe   M.2 2280 SSD		
Industrial Operating Temperature (-	40°C to +85°C)	
SRMP81920TIS1B71	1920GB	
SRMP8960GTIS1B71	960GB	
SRMP8480GTIS1B71	480GB	
SRMP8240GTIS1B71	240GB	
SP2800 HE   PCIe NVMe   M.2 2280 SSD		
Commercial Operating Temperature (0°C to +70°C)		
SRMP81920F1S1B71	1920GB	
SRMP8960GF1S1B71	960GB	
SRMP8480GF1S1B71	480GB	
SRMP8240GF1S1B71	240GB	
SP2800 HE   PCIe NVMe   M.2 2280 SSD		
Industrial Operating Temperature (-40°C to +85°C)		
SRMP81920F2S1B71	1920GB	
SRMP8960GF2S1B71	960GB	
SRMP8480GF2S1B71	480GB	
SRMP8240GF2S1B71	240GB	

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

#### DuraFlash Product Grading System

SE Standard Endurance | TLC





PE Premium Endurance | eTLC (OP 28%)





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