



DuraFlash™

SP2800 | PCIe NVMe | U.2 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. They are also a natural fit for enterprise applications, including computing, medical, transportation, video surveillance and other industrial applications.

The SP2800 PCIe NVMe U.2 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 DDPD 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™ 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.)

Applications

- AI
- Data Center
- HPC
- Networking
- Storage
- Telecom

Product Family Overview

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

Specifications

	SP2800 SE	SP2800 HE
NAND Type	TLC	eTLC
Performance		
Host Interface Rate (maximum)	PCIe Gen3 x4	
Capacities	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 300K IOPS	
Reliability		
MTBF	> 2,000,000 hours	
	1920GB: 1200 TBW	1920GB: 4000 TBW
Endurance	960GB: 600 TBW	960GB: 2000 TBW
(JEDEC Enterprise Workload) ¹	480GB: 300 TBW	480GB: 1000 TBW
	240GB: 120 TBW	240GB: 450 TBW
DWPD	0.3	1
SafeDATA	-	Standard
Error Correction	LDPC	
Data Security		
Encryption	AES-256, TCG OPAL 2.0	
Power		
Input Voltage	12 V ± 8%	
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	100 mm	
Width	69.85 mm	
Height	7 mm	

¹Endurance is directly related to the User Specific Workload.

Ordering Information

Part Number	Density
SP2800 SE PCIe NVMe U.2 SSD Commercial Operating Temperature (0°C to +70°C)	
SRU2P1920TCS1A71	1920GB
SRU2P960GTCS1A71	960GB
SRU2P480GTCS1A71	480GB
SRU2P240GTCS1A71	240GB
SP2800 SE PCIe NVMe U.2 SSD Industrial Operating Temperature (-40°C to +85°C)	
SRU2P1920TIS1A71	1920GB
SRU2P960GTIS1A71	960GB
SRU2P480GTIS1A71	480GB
SRU2P240GTIS1A71	240GB
SP2800 HE PCIe NVMe U.2 SSD Commercial Operating Temperature (0°C to +70°C)	
SRU2P1920F1S1B71	1920GB
SRU2P960GF1S1B71	960GB
SRU2P480GF1S1B71	480GB
SRU2P240GF1S1B71	240GB
SP2800 HE PCIe NVMe U.2 SSD Industrial Operating Temperature (-40°C to +85°C)	
SRU2P1920F2S1B71	1920GB
SRU2P960GF2S1B71	960GB
SRU2P480GF2S1B71	480GB
SRU2P240GF2S1B71	240GB

DuraFlash Product Grading System

SE Standard Endurance | TLC

HE High Endurance | eTLC

PE Premium Endurance | eTLC (OP 28%)

UE Ultra Endurance | pSLC



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

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