



# S1800 | PCIe NVMe | M.2 2280 SSD

SMART's S1800 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 S1800 products feature a PCIe Gen3 x4 interface and are compliant to NVMe 1.3 specification. The S1800 PCIe NVMe M.2 2280 SSDs support TCG Opal 2.0 as standard, and are easily integrated into a host system without any BIOS modifications or additional drivers. The S1800 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
- TCG Opal 2.0 Compliant
- Advanced Flash Management
- End-to-End Data Path Protection
- LDPC Error Detection and Correction with Internal Data Redundancy Coding
- Supports Power Saving Modes of APST, APSM, and L1.2

## Applications

- Data Communications
- Industrial Control
- Networking
- Other Applications Requiring Internal Storage with a Small Footprint
- Server, Storage Cache/Accelerators
- Single-Board Computers for Medical, and Industrial Control Applications

## Product Family Overview

Form Factor	Capacity	Sequential Performance
M.2 2280 SSD	960GB to 1920GB	Up to 3300MB/s Read Up to 1000MB/s Write
U.2 SSD	960GB	Up to 3300MB/s Read Up to 750MB/s Write

## Specifications

S1800   PCIe NVMe   M.2 2280 SSD	
NAND Type	TLC
<b>Performance</b>	
Host Interface Rate (maximum)	Gen3 x4
Capacities	960GB to 1920GB
Sequential Read (maximum)	Up to 3300MB/s
Sequential Write (maximum)	Up to 1000MB/s
Random Read (maximum)	Up to 140K IOPS
Random Write (maximum)	Up to 220K IOPS
<b>Reliability</b>	
MTBF	> 2,000,000 hours
Endurance (JEDEC Client Workload) <sup>1</sup>	1920GB: 1210 TBW 960GB: 595 TBW
DWPD	0.3
SafeDATA	-
Error Correction	LDPC
<b>Data Security</b>	
Encryption	AES-256, TCG OPAL 2.0
<b>Power</b>	
Input Voltage	VCC: 3.3 V ± 5%
<b>Environmental</b>	
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
Storage Temperature	-40°C to +85°C
Humidity	40°C, Operation: 90% RH, Storage: 93% RH
<b>Physical</b>	
Length	80.0 mm
Width	22.0 mm
Height	3.5 mm

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

## Ordering Information

Part Number	Density
<b>S1800   PCIe NVMe   M.2 2280 SSD</b>	
<b>Commercial Operating Temperature (0°C to +70°C)</b>	
SVM2P8B1920STD1	1920GB
SVM2P8B960GSTD1	960GB



For more information, please visit: [www.smartm.com](http://www.smartm.com)

*\*Product images are for promotional purposes only. Labels may not be representative of the actual product.*

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