S1800 | PCIe NVMe | U.2 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 U.2 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 | U.2 SSD
NAND Type	TLC
Performance	
Host Interface Rate (maximum)	Gen3 x4
Capacities	960GB
Sequential Read (maximum)	Up to 3300MB/s
Sequential Write (maximum)	Up to 750MB/s
Random Read (maximum)	Up to 200K IOPS
Random Write (maximum)	Up to 160K IOPS
Reliability	
MTBF	> 2,000,000 hours
Endurance (JEDEC Client Workload)[1]	960GB: 1500 TBW
DWPD	0.8
SafeDATA	-
Error Correction	LDPC
Data Security	
Encryption	AES-256, TCG OPAL 2.0
Power	
Input Voltage	VCC: 5 V ± 10%
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
Storage Temperature	-40°C to +85°C
Humidity	10% to 90%, non-condensing, relative humidity
Physical	
Length	100.0 mm
Width	69.8 mm
Height	7.0 mm

[1]Endurance is directly related to the User Specific Workload.

Ordering Information

Part Number	Density
S1800 | PCIe NVMe | U.2 SSD **Commercial Operating Temperature (0°C to +70°C)**	
SVU2PB960GSTD1	960GB

SMART Modular Technologies
A PENGUIN SOLUTIONS™ BRAND

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

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