

DuraFlash™

S1800 | PCIe NVMe | U.2 SSD

SMART's DuraFlash 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

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



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

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	0.3
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

¹Endurance 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



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

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