

RP1700 | PCIe NVMe | M.2 2280 SSD

SMART's RP1700 PCIe NVMe M.2 2280 embedded SSDs target servers, storage cache/accelerators, networking, and data communications applications requiring reliable internal storage with a small footprint. They are also an ideal fit for mobile and embedded computing, medical, automotive, and industrial applications.

The RP1700 products feature a PCIe Gen3 x4 interface and are compliant to NVMe 1.3 specification. The RP1700 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. They incorporate on-board error detection and correction, and static wear-leveling algorithms to provide reliable operation over the product life cycle.



Features & Benefits

- The Latest Generation 3D NAND Technology
- PCIe Gen3 x4 NVMe 1.3 Compliant
- DRAM-less Design
- TCG OPAL 2.0 and AES 256 Encryption
- End-to-End Data Path Protection
- Thermal Throttling
- Support HMB
- M.2 Single Sided Design

Applications

- Data Communications
- Industrial, Embedded Applications
- Networking
- Single-Board Computers

Product Family Overview

Form Factor	Capacity	Sequential Performance
M.2 2242 SSD	120GB to 960GB	Up to 2450MB/s Read
M.2 2280 SSD	120GB to 1920GB	Up to 1900MB/s Write

Specifications

RP1700 PCIe NVMe M.2 2280 SSD	
NAND Type	TLC
Performance	
Host Interface Rate (maximum)	PCIe Gen3 x4
Capacities	120GB to 1920GB
Sequential Read (maximum)	Up to 2450 MB/s
Sequential Write (maximum)	Up to 1900 MB/s
Random Read (maximum)	Up to 270K IOPS
Random Write (maximum)	Up to 420K IOPS
Reliability	
MTBF	> 2,000,000 hours
Endurance (JEDEC Client Workload) ¹	1920GB: 2400 TBW
	960GB: 1120 TBW
	240GB: 240 TBW
	120GB: 110 TBW
SafeDATA	-
Error Correction	LDPC
Data Security	
Encryption	AES-256, TCG OPAL 2.0 (Optional)
Power	
Input Voltage	VCC: 3.3 V ± 5%
Power	
Shock	1500G half-sine, 0.5 msec, 1 shock along each axis, X, Y, Z in each direction
Vibration	20G 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	80.0 mm
Width	22.0 mm
Height	2.15 mm

¹Endurance is directly related to the User Specific Workload.

Ordering Information

Part Number	Density
RP1700 PCIe NVMe M.2 2280 SSD Commercial Operating Temperature (0°C to +70°C)	
SVM2P8B960GWTD2	960GB
SVM2P8B240GWTD2	240GB
SVM2P4B120GWTD2	120GB
RP1700 PCIe NVMe M.2 2280 SSD Industrial Operating Temperature (-40°C to +85°C)	
SVM2PHB1920WTID1	1920GB
SVM2PHB240GWTID1	240GB



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

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