



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
- 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 | 240GB 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 | 240GB 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 |
| 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) | |
| SVM2PHB960GWTD1 | 960GB |
| SVM2PHB240GWTD1 | 240GB |
| 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

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

Headquarters/North America:

T: (+1) 800-956-7627 • T: (+1) 510-623-1231
F: (+1) 510-623-1434 • E: info@smartm.com

Latin America:

T: (+55) 11 4417-7200 • E: sales.br@smartm.com

Asia/Pacific:

T: (+65) 6678-7670 • E: sales.asia@smartm.com

EMEA:

T: (+44) 0 7826-064-745 • E: sales.euro@smartm.com

Customer Service:

T: (+1) 510-623-1231 • E: customers@smartm.com