



DuraFlash™

RP4000 | PCIe NVMe | M.2 2280 SSD

SMART Modular’s RP4000 PCIe NVMe SSDs are designed to meet the specific needs of enterprise and industrial OEMs, particularly in server, storage cache/accelerator, networking, and data communications applications that demand reliable embedded SSDs for booting, operating systems, application software, and data storage.



These SSDs implement SMART’s SafeDATA™ power-loss, data-protection technology for graceful handling of power fluctuations and sudden power loss events. They also function as Self-Encrypting Drives (SED) with hardware AES-256 encryption and support TCG Opal 2.0. The RP4000 PCIe NVMe SSDs address the need for enhanced reliability by incorporating advanced LDPC error detection and correction with internal data redundancy coding and end-to-end data path protection.



Features & Benefits

- PCIe Gen4 x4 NVMe 1.4 Compliant
- SafeDATA Power-Loss, Data-Protection Technology
- TCG OPAL 2.0 and AES 256 Encryption
- End-to-End Data Path Protection
- Sanitize Crypto Erase and Block Erase
- NVME-MI
- SECCED (Single Error Correction, Double Error Detection)
- S.M.A.R.T.

Applications

- Data Center
- HPC
- Networking
- Storage Server
- Telecom

Product Family Overview

Form Factor	Capacity	Sequential Performance
M.2 2280 SSD	480GB to 1920GB	Up to 6000MB/s Read Up to 2000MB/s Write

Specifications

RP4000 PCIe NVMe M.2 2280 SSD	
NAND Type	eTLC
Performance	
Host Interface Rate (maximum)	PCIe Gen4 x4
Capacities	480GB to 1920GB
Sequential Read (maximum)	Up to 6000 MB/s
Sequential Write (maximum)	Up to 2000 MB/s
Random Read (maximum)	Up to 800K IOPS
Random Write (maximum)	Up to 60K IOPS
Reliability	
MTBF	> 2,000,000 hours
Endurance (JEDEC Enterprise Workload) ¹	1920GB: 2660 TBW 960GB: 1330 TBW 480GB: 650 TBW
DWPD	0.7
SafeDATA	Standard
Error Correction	LDPC
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
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	4 mm

¹Endurance is directly related to the User Specific Workload.

Ordering Information

Part Number	Density
RP4000 PCIe NVMe M.2 2280 SSD	
Commercial Operating Temperature (0°C to +70°C)	
SVMP81920F1P2AD1	1920GB
SVMP8960GF1P2AD1	960GB
SVMP8480GF1P2AD1	480GB



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

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

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