SMART® Modular Technologies

DuraFlash™

R800 | SATA | M.2 2280 SSD

SMART's DuraFlash R800 SATA M.2 2280 solid state drives bring the advantages of non-volatile memory to embedded computing applications. The R800 are enterprise feature rich and reliable mass storage in a M.2 SATA form factor available in industrial temperature ranges.

SMART's R800 SATA M.2 2280 SSDs are offered with Triple-Level Cell (TLC) 3D NAND. The R800 product lines offer excellent sustained random read/write and sustained sequential read/write performance. The R800 is suitable for applications that cannot tolerate variations in performance.

3D TLC

Features & Benefits

- Advanced Static and Dynamic Wear-Leveling
- Advanced Error Detection/Correction Circuitry for Superior Data Reliability
- Self-Monitoring Analysis and Reporting Technology (S.M.A.R.T.) Support
- Supports for 48bit LBA Addressing with Larger Maximum Transfer Size

Product Family Overview

Form Factor	Capacity	Sequential Performance
2.5" SSD	240GB to 7680GB	Up to 560MB/s Read Up to 530MB/s Write
M.2 2280 SSD	240GB	Up to 560MB/s Read Up to 150MB/s Write

Applications

- ATCA Compute Blades
- Enterprise
- Distributed Scale-Out Cloud Servers
- Industrial Control
- NAS / SAN Storage Systems
- Single-Board Computers for Defense, Gaming and Industrial Control Applications
- Telecom and Networking Routers and Switches
- x86 Server-Storage Appliances

Specifications

	R800 | SATA | M.2 2280 SSD
NAND Type	TLC
Performance	
Host Interface Rate (maximum)	SATA 3.0 6Gb/s
Capacities	240GB
Sequential Read (maximum)	Up to 560 MB/s
Sequential Write (maximum)	Up to 150 MB/s
Random Read (maximum)	Up to 56K IOPS
Random Write (maximum)	Up to 38K IOPS
Reliability	
MTBF	> 1,500,000 hours
Endurance (JEDEC Client Workload)[1]	240GB: 287 TBW
SafeDATA	Optional
Error Correction	LDPC
Data Security	
Encryption	AES-256, TCG OPAL 2.0
Power	
Input Voltage	VCC: 3.3 V ± 5%
Environmental	
Shock	1500 g 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	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	3.5 mm

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

Ordering Information

Part Number	Density
R800 | SATA | M.2 2280 SSD Industrial Operating Temperature (-40°C to +85°C)	
SVM2S86240GRTID1	240GB

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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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