



## DuraFlash™

# R800 | SATA | 2.5" SSD

SMART's DuraFlash R800 SATA 2.5" 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 2.5" SATA form factor available in both commercial and industrial temperature ranges.

SMART's R800 SATA 2.5" 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.



### 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   2.5" SSD	
NAND Type	TLC
<b>Performance</b>	
Host Interface Rate (maximum)	SATA 3.0 6Gb/s
Capacities	240GB to 7680GB
Sequential Read (maximum)	Up to 560 MB/s
Sequential Write (maximum)	Up to 530 MB/s
Random Read (maximum)	Up to 98K IOPS
Random Write (maximum)	Up to 88K IOPS
<b>Reliability</b>	
MTBF	> 1,500,000 hours
	7680GB: 14000 TBW
	3840GB: 7000 TBW
Endurance	1920GB: 3200 TBW
(JEDEC Client Workload) <sup>1</sup>	960GB: 1600 TBW
	240GB: 285 TBW
SafaDATA	Optional
Error Correction	LDPC
<b>Data Security</b>	
Encryption	AES-256, TCG OPAL 2.0
<b>Power</b>	
Input Voltage	VCC: 5 V ± 10%
<b>Environmental</b>	
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	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
<b>Physical</b>	
Length	100 mm
Width	69.85 mm
Height	7.0 mm

<sup>1</sup>Endurance is directly related to the User Specific Workload.

## Ordering Information

Part Number	Density
<b>R800   SATA   2.5" SSD</b>	
<b>Commercial Operating Temperature (0°C to +70°C)</b>	
SVSAT67680RTD1	7680GB
SVSAT63840RTD1	3480GB
SVSAT6960GRTD1	960GB
<b>R800   SATA   2.5" SSD</b>	
<b>Industrial Operating Temperature (-40°C to +85°C)</b>	
SVSAT67680RTID1	7680GB
SVSAT63840RTID1	3840GB
SVSAT61920RTID1	1920GB
SVSAT6960GRTID1	960GB
<b>R800   SATA   2.5" SSD (SafeDATA)</b>	
<b>Commercial Operating Temperature (0°C to +70°C)</b>	
SVSATQ240GRTD1	240GB



For more information, please visit: [www.smartm.com](http://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](mailto:info@smartm.com)

### Latin America:

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

### Asia/Pacific:

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

### EMEA:

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

### Customer Service:

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