



DuraFlash™

R800v | SATA | 2.5" SSD

SMART's DuraFlash R800v SATA 2.5" solid state drives bring the advantages of non-volatile memory to embedded computing applications. The R800v 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 R800v SATA 2.5" SSDs are offered with Triple-Level Cell (TLC) 3D NAND. The R800v product lines offer excellent sustained random read/write and sustained sequential read/write performance. The R800v 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

Capacity	Sequential Performance
R800v SATA 2.5" SSD	
240GB to 7680GB	Up to 550MB/s Read; Up to 530MB/s Write
R800v-S SATA 2.5" SSD	
240GB to 7680GB	Up to 550MB/s Read; Up to 530MB/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

	R800v SATA 2.5" SSD	R800v-S SATA 2.5" SSD
NAND Type	TLC	
Performance		
Host Interface Rate (maximum)	6Gb/s (Backwards compatible to 3Gb/s & 1.5Gb/s)	
Capacities	240GB to 7680GB	
Sequential Read (maximum)	Up to 550MB/s (240GB to 7680GB)	
Sequential Write (maximum)	Up to 530MB/s (480GB to 7680GB) Up to 340MB/s (240GB)	
Reliability		
Data Reliability	< 1 Non-Recoverable Error in 10 ¹⁷ bits read	
Data Retention	10 years >90% life remaining 1 year at the end of life	
Endurance (JEDEC Enterprise Workload) ¹	7680GB:	5810 TBW
	3840GB:	2905 TBW
	1920GB:	1210 TBW
	960GB:	595 TBW
	480GB:	295 TBW
240GB:	140 TBW	
SafaData	-	Standard
Error Correction	LDPC (Equivalent to 130 bits/2KB)	
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	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	
Altitude	24,384 m [80,000 ft]	
Physical		
Length	100 mm	
Width	69.85 mm	
Height	7.0 mm	

¹Endurance is directly related to the User Specific Workload.

Ordering Information

Part Number	Density
R800v SATA 2.5" SSD Commercial Operating Temperature (0°C to +70°C)	
SVSAT67680RT51	7680GB
SVSAT63840RT51	3840GB
SVSAT61920RT51	1920GB
SVSAT6960GRT51	960GB
SVSAT6480GRT51	480GB
SVSAT6240GRT51	240GB
R800v SATA 2.5" SSD Industrial Operating Temperature (-40°C to +85°C)	
SVSAT63840RTI51	3840GB
SVSAT61920RTI51	1920GB
SVSAT6960GRTI51	960GB
SVSAT6480GRTI51	480GB
SVSAT6240GRTI51	240GB
R800v-S SATA 2.5" SSD Commercial Operating Temperature (0°C to +70°C)	
SVSATQ7680RT51	7680GB
SVSATQ3840RT51	3840GB
SVSATQ1920RT51	1920GB
SVSATQ960GRT51	960GB
SVSATQ480GRT51	480GB
SVSATQ240GRT51	240GB
R800v-S SATA 2.5" SSD Industrial Operating Temperature (-40°C to +85°C)	
SVSATQ3840RTI51	3840GB
SVSATQ1920RTI51	1920GB
SVSATQ960GRTI51	960GB
SVSATQ480GRTI51	480GB
SVSATQ240GRTI51	240GB



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