![SMART Modular Technologies logo]

DuraFlash™

N200v | SATA | mSATA SSD

SMART's DuraFlash N200v mSATA solid state drives provide economic yet highly reliable mass storage in an mSATA form factor which is available in both commercial and industrial temperature ranges. The N200v product line is a SATA III solid state storage solution that offers excellent sequential read/write performance. It is suitable for embedded applications that require lower drive capacity and utilize the drive for boot up code and OS code storage.

SMART's mSATA SSDs are offered with Triple-Level Cell (TLC) 3D NAND. They provide enhanced reliability by incorporating on-board error detection and correction, and static and dynamic wear-leveling algorithms to provide reliable operation over the product life.

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

Applications

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

Product Family Overview

Capacity	Sequential Performance
**N200v	SATA	mSATA SSD**	
32GB to 1TB	Up to 550MB/s Read; Up to 500MB/s Write

3.2

Specifications

	N200v | SATA | mSATA SSD	
NAND Type	TLC	
Performance		
Host Interface Rate (maximum)	6Gb/s (Backwards compatible to 3Gb/s & 1.5Gb/s)	
Capacities	32GB to 1TB	
Sequential Read (maximum)	Up to 550MB/s (64GB to 1TB) **3.2**	
	Up to 300MB/s (32GB)	
Sequential Write (maximum)	Up to 500MB/s (1TB)	
	Up to 490MB/s (256GB to 512GB)	
	Up to 450MB/s (128GB)	
	Up to 255MB/s (64GB)	
	Up to 125MB/s (32GB)	
Reliability		
Data Reliability	< 1 Non-Recoverable Error in 10^{16} bits read	
Data Retention	10 years >90% life remaining 1 year at the end of life	
Endurance (JEDEC Client Workload)[1]	1TB: 835 TBW	
	512GB: 425 TBW	
	256GB: 180 TBW	
	128GB: 75 TBW **3.2**	
	64GB: 42 TBW	
	32GB: 17 TBW	
Error Correction	LDPC (Equivalent to 200 bits/4KB)	
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	50.8 mm	
Width	29.85 mm	
Height	4.0 mm	

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

Ordering Information

Part Number	Density
N200v | SATA | mSATA SSD **Commercial Operating Temperature (0°C to +70°C)**	
SVMST61024NT51	1TB
SVMST6512GNT51	512GB
SVMST6256GNT51	256GB
SVMST6128GNT51	128GB
SVMST6064GNT51	64GB
SVMST6032GNT51	32GB
N200v | SATA | mSATA SSD **Industrial Operating Temperature (-40°C to +85°C)**	
SVMST61024NTI51	1TB
SVMST6512GNTI51	512GB
SVMST6256GNTI51	256GB
SVMST6128GNTI51	128GB
SVMST6064GNTI51	64GB
SVMST6032GNTI51	32GB

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