



DuraFlash™

N200v | mSATA (MO-300A)

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 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.



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
mSATA (MO-300A)	
32GB to 1TB	Up to 550MB/s Read; Up to 500MB/s Write

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

Specifications

	N200v mSATA (MO-300A)
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)
	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
	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

¹Endurance is directly related to the User Specific Workload.

Ordering Information

Part Number	Density
mSATA (MO-300A)	
Commercial Operating Temperature (0°C to +70°C)	
SVMST61024NT51	1TB
SVMST6512GNT51	512GB
SVMST6256GNT51	256GB
SVMST6128GNT51	128GB
SVMST6064GNT51	64GB
SVMST6032GNT51	32GB
mSATA (MO-300A)	
Industrial Operating Temperature (-40°C to +85°C)	
SVMST61024NTI51	1TB
SVMST6512GNTI51	512GB
SVMST6256GNTI51	256GB
SVMST6128GNTI51	128GB
SVMST6064GNTI51	64GB
SVMST6032GNTI51	32GB



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