

# ME Series SATA SSDs

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The new ME1 and ME2 SATA SSDs incorporate SMART Modular's proprietary NVMSentry™ firmware. The combination of NVMSentry firmware, along with a best-in-class SSD controller, offers exceptional performance while providing the flexibility and optionality for customization crucial for mission critical applications in enterprise, networking, data communication and industrial applications.

The ME1 comes in an M.2 2280 SATA form factor with capacities ranging from 240GB to 960GB, while the ME2 comes in both 2.5" and M.2 2280 SATA form factors, ranging from 240GB to 1920GB capacities. The ME1 and ME2 SSD products feature 3D NAND Flash technology with enterprise-class SSD controller features such as end-to-end data path protection, internal SRAM and external DRAM cache ECC (error correcting code) with advanced firmware code recovery mechanism. Versions supporting 0°C to 70°C and -40°C to 85°C operating temperature ranges are offered to meet a wide range of application needs. SMART Modular's proprietary SafeDATA™ advanced power loss data protection is available as an option.

### Features & Benefits

- End-to-end data path protection
- Internal SRAM and external DRAM cache ECC (error correcting code) with advanced firmware code recovery mechanism
- Advanced LDPC Error Detection/Correction circuitry for superior data reliability
- Self-Monitoring Analysis and Reporting Technology (S.M.A.R.T.) support

### Product Family Overview

	Capacity	Performance
<b>ME1</b>		
M.2 2280	240GB to 960GB	Read up to 560MB/s
<b>ME2</b>		
2.5" and M.2 2280	240GB to 1920GB	Read up to 560MB/s



### Applications

- Enterprise servers
- Telecom and networking routers and switches
- Industrial control
- Single board computers for defense, gaming and industrial control applications

## Specifications

	ME1	ME2
<b>Performance</b>		
Host Interface Rate	6Gb/s (Backwards compatible to 3Gb/s & 1.5Gb/s)	
Capacities	240GB to 960GB	240GB to 1920GB
Sequential Read (maximum)	Up to 560MB/s (240GB to 1920GB)	
Sequential Write (maximum)	Up to 520MB/s (480GB to 1920GB) Up to 520MB/s (240GB)	
4K Random Read performance	240GB	74K IOPS
	480GB	75K IOPS
	960GB	75K IOPS
4K Random Write performance	240GB	61K IOPS
	480GB	71K IOPS
	960GB	71K IOPS
<b>Reliability</b>		
Data Reliability	< 1 Non-Recoverable Error in 10 <sup>17</sup> bits read	
Error Correction	LDPC (Equivalent to 130 bits/2KB)	
Endurance (JEDEC Enterprise Workload) <sup>1</sup>	240GB	160 TBW
	480GB	380 TBW
	960GB	686 TBW
<b>Environmental</b>		
Shock - Operating	1500 g half-sine, 0.5 msec, shock along each axis, X,Y,Z in each direction	
Vibration - Operating	20G 80-2000Hz, 1.52mm 20-80Hz, 3 axis	
Operating Temperature	Commercial: 0° to 70°C	
	Industrial: -40° to 85°C	
Storage Temperature	-40°C to 85°C	
Humidity	40°C, Operation: 90% RH, Storage: 93% RH	
<b>Physical</b>		
	<b>M.2 2280</b>	<b>2.5"</b>
Length	80.0 mm	100.00 mm
Width	22.0 mm	69.85 mm
Height	3.65 mm	7.0 mm

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

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