

Apacer

The Most **Reliable**
Storage For Industries



mSATA A1



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Overview

Apacer's mSATA A1 modular SSD is only one-third the size of credit card. With dimensions of 50.8 x 29.8mm and the product thickness being only that of a single PCB panel, it can streamline the space on the motherboard and free itself from the limit of the dimensions of the traditional mechanical hard-disk foot-print. In terms of product performance, the mSATA A1 delivers excellent numbers. It uses high-speed ONFi 2.2 DDR NAND Flash memory and the cache memory of plug-in DDRII, realizing maximum sequential read/write speeds of 470/470 MB/sec and IOPs of up to 70K, providing remarkable performance. In addition, thanks to its high speed, the newly launched product supports Intel® Rapid Start and Intel® Smart Response technologies, especially fit for high-speed Ultrabooks and it is capable of starting-up within seconds, delivering perfect high performance and a smooth operating environment.



Feature

- Mini PCIe form factor(50.8x29.8mm)
- Compliant with JEDEC MO-300 standard
- High IOPs (4K Random Write): Up to 77K
- Global wear-leveling and Block Management
- Built-in ATA Secure Erase and S.M.A.R.T. Functions
- Intelligent Power Failure Recovery
- Intel® Rapid Start and Intel® Smart Response support
- Support Device Sleep (DEVSLP)

Specifications

Model	mSATA A1
Interface	SATA 3.0 (6Gb/s)
Connector	52-pin mSATA
Form Factor	MO-300 (Mini PCIe)
NAND Flash Type	SLC
Capacity	2GB~128GB
External DRAM	Yes
Sustained Read Performance (MB/sec)	Standard Type: Up to 160 High-speed Type: Up to 530
Sustained Write Performance (MB/sec)	Standard Type: Up to 155 High-speed Type: Up to 450
ECC Engine	Built-in 40-bit per 1K bytes BCH ECC
IOPs (4K Random Write)	Up to 77K
Standard Operating Temperature (°C)	0 ~ + 70
Extended Operating Temperature (°C)	-40~ + 85
Storage Temperature (°C)	-40~ +100
Thermal sensor	Optional
Shock	Operation: 50G, 11ms Non-operation: 1500G, 0.5ms
Vibration	Operation: 7.69 Grms, 20~2000 Hz/random (compliant with MIL-STD-810G) Non-operation: 15 G, 70 ~ 2000 Hz/sine
Operating Voltage	3.3V+-5%
Power Consumption	Standard Type: Active mode: 410 mA & Idle mode: 195 mA High-speed Type: Active mode: 890 mA & Idle mode: 160 mA
Dimension (L x W x H)	50.80 x 29.85 x 3.5mm
MTBF (hours)	>2,000,000

