



Memory and Storage solutions for today's world  
Accelerated Memory Production, Inc.



## 50mm mSATA, SATA III SSD SATAQuest Series- Client Class MLC, 3.3V

Accelerated Memory's 50mm mSATA SATA III SSD is a flash based disk drive with SATA 3.0 compliant interface. It provides fast read and write speeds, high reliability and data protection make it an ideal storage solution for the server and mobile environment. It is built with Multi Level Cell (MLC) NAND Flash which is cost effective and provides exceptional reliability and performance. Due to its non mechanical nature, it has higher shock resistance and lower access time than traditional rotating hard disk. Built-in ECC and EDC ensure error-free transactions for the most demanding applications.

### Form Factor

mSATA (51.18 x 31.11 x 3.46max) mm

### Capacity

25GB- 256GB

### Host Interface

SATA 3.0 Compliant, 6 Gb/s, 3Gb/s and 1.5 Gb/s support  
Native Command Queuing (up to 32 commands)  
SMART Command Transport (basic)

### Performance

Sequential Read & Write transfer: Up to 500MB/s (@128K blocks)  
Random Read IOPS: 60,000(@4K blocks)

### Reliability

#### Technology

**DuraClass** technology represents a set of NAND flash management features that work in tandem to deliver world class SSD reliability, performance and power efficiency that differentiate **amp inc's** SSD's from competitive solutions. Of particular importance in the use of processing elements to optimally overcome a number of the inherent issues associated with commodity NAND flash memory. DuraClass features include;

- **DuraWrite**
- **RAISE (Redundant Array of Independent Silicon Elements)**
- **Advanced Wear Leveling and Monitoring,**
- **Advanced Read/Program Disturb Management**
- **Recycler**

### MTBF (Mean Time between Failures)

2M hours (MAX), True MTBF calculations must be based on configuration and usage requirements.

### ECC Recovery

Up to 55 bytes correctable per 512-byte sector. (BCH)

### Unrecoverable Read Errors

Read unrecoverable bit error rate (UBER) 10e-17

### Data Encryption

256-bit AES-compliant  
TCG Enterprise

### Protect Health Monitoring

Self-Monitoring, Analysis and Reporting Technology (SMART)

### Operating System

Windows XP 32-Bit and 64-Bit; Windows Vista 32-Bit & 64Bit; Window 7 32-Bit & 64-Bit; Linux

### Power Requirements

Standard SATA Power Connector 3.3V

### Performance Optimization

TRIM (requires OS support)



### Environmental

**Temperature:** Operating: 0°C -70°C (Commercial)  
-40°C -85°C (Industrial)

**Shock:** Operating: 50G, duration 11ms, Half SineWave  
Non-Operating: 1500G, duration 0.5ms, Half SineWave

**Vibration:** Operating: 16.4G Peak, 10~2000Hz, x3 Axis

### RoHS

RoHS Compliant (Lead Free)