

# SSDs for Automotive and Industrial Markets



## Thrive in Extreme Conditions Using Solid State Storage

Boost performance and reliability of leading-edge automotive electronics systems and industrial-grade applications with the Micron® M500IT SATA SSD, which extends our proven client SSD portfolio into automotive and industrial domains.

From automotive solutions and heavy robotics to remote communication installations and medical equipment, embedded applications are extremely diverse — often requiring storage solutions that deliver reliable high performance in a variety of difficult and space-constrained conditions.

With an extended temperature range and robust data protection features, M500IT is built to withstand automotive and industrial applications' rigorous demands. Combine that functionality with Micron's long-term product commitment and customer collaboration to create a design that stands apart from the competition.

## Which Applications Are the Best Fit?

With an extended temperature range, robust data security and power-loss protection, the M500IT is a perfect fit for the newest technology developments in the fields of automotive, science, medicine and manufacturing.

- **Automotive** – In-vehicle infotainment, navigation and driver information, adaptive driver assistance program, black box
- **Industrial** – Aerospace solutions, heavy robotics, remote communication equipment, medical equipment
- **Machine to Machine (M2M)** – Smart security, home, retail, energy and transportation solutions

## Key Benefits

1. **Extended Temperature Range**  
Withstand extreme environments via an automotive-grade temperature range of  $-40^{\circ}\text{C}$  to  $85^{\circ}\text{C}$  and adaptive thermal throttling.
2. **Robust Data Security**  
Protect data with industry-leading and on-the-fly hardware-based encryption, secure firmware download and cryptographic erase.
3. **Data Path Protection**  
Help to protect user data as it passes through the SSD.
4. **Power-Loss Protection**  
Protect data at rest, helping to ensure data integrity in unexpected power-loss events.
5. **Responsive Performance**  
Deliver significantly faster boot, file and application load times compared to traditional hard drives.
6. **Low Power Consumption**  
Consume considerably less power than typical hard drives.

# Micron M500IT SATA SSD

## Why Micron for SSDs?

### Broad Portfolio

Choose from an extensive portfolio of IMM-focused solutions for automotive, industrial and commercial-grade categories.

### Extensive Testing

Get predictably reliable, high-quality drives thanks to our rigorous product testing.

### Proven Start-to-Finish Quality

From component design to fabrication to the finished package device, our stringent quality requirements, significant investments in SSD test equipment, and advanced NAND management algorithms mean you get reliability built into every drive.

### Industry Knowledge and Commitment

Secure a trusted partner with more than 35 years of experience, investing and innovating to support your business.

### Roadmap Stability

Take advantage of our extended product lifecycles offered via our [Product Lifecycle Solutions](#).



*Choose the M500IT form factor that meets your application's specific performance, power and space requirements.*

## Key Specifications

Family	Part	Density	Form Factor	Sequential Read/Write Performance	Random Read/Write Performance	Read/Write Latency	Endurance (TBW)	Encryption	Operating Temperature	Mean Time to Failure	Shock Value
M500IT	MTFDDAK064MBD	64GB	2.5-inch	Up to 500/130 MB/s	Up to 55,000/35,000 IOPS	160/40µs	60TB	256-bit AES, Opal 2.0	-40°C to 85°C	3 million hours	20G at 7-2000Hz
	MTFDDAT064MBD		mSATA				120TB				
	MTFDDAK128MBD	128GB	2.5-inch	Up to 500/250 MB/s	240TB						
	MTFDDAT128MBD		mSATA		400TB						
	MTFDDAK256MBD	256GB	2.5-inch	Up to 500/350 MB/s	800TB						
	MTFDDAT256MBD		mSATA		1600TB						
	MTFDDAK032SBD	32GB	2.5-inch	Up to 500/400 MB/s	Up to 65,000/60,000 IOPS						
	MTFDDAT032SBD		mSATA								
	MTFDDAK064SBD	64GB	2.5-inch	Up to 500/400 MB/s	Up to 75,000/60,000 IOPS						
	MTFDDAT064SBD		mSATA								
MTFDDAK128SBD	128GB	2.5-inch	Up to 500/400 MB/s	Up to 75,000/60,000 IOPS							
MTFDDAT128SBD		mSATA									

## Contact Us

Visit [micron.com](http://micron.com) for more details on the M500IT SSD and how it can enhance your next innovative automotive, industrial or M2M solution. Contact your Micron sales representative with questions or for samples and support.

[micron.com](http://micron.com)

Products are warranted only to meet Micron's production data sheet specifications. Products, programs and specifications are subject to change without notice. Dates are estimates only.

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