## Micron<sup>®</sup> Automotive and Industrial SSDs

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<sup>®</sup> M500IT and 2100AI/AT SSDs, which extend our proven client SSD portfolio into automotive and industrial domains.

- Extended Temperature Ranges Withstand extreme environments via an industrial temperature range (M500IT: -40°C to 85°C, 2100AI: -40°C to 95°C), an automotive temperature range (2100AT: -40°C to 105°C), and adaptive thermal throttling.
- **Robust Data Security** Protect data with industry leading and on-the-fly hardware-based encryption, secure firmware download, and cryptographic erase.
- Data Path Protection Help protect user data as it passes through the SSD (2100AI/AT).
- **Power-Loss Protection**—Protect data at rest, helping to ensure data integrity in unexpected power-loss events.
- **Responsive Performance**—Deliver significantly faster boot, file and application load times compared to traditional hard drives.
- Low Power Consumption—Consume considerably less power than typical hard drives.



Quality Roadmap Stability High Reliability Ruggedized

### Spotlight: Micron's IT SSDs Withstand the Toughest Tests of the Global Defense Industry

Industrial-grade devices are a must-have for the global defense industry. Working with DRS Technologies, a leading supplier of integrated products, services and support for military forces, Micron's M500IT SSD became the product of choice for one of their largest customers: the U.S. Army.

DRS develops, manufactures and supports a broad range of systems for mission-critical military sustainment requirements, ruggedizing costeffective, commercial technologies for combat.

DRS was challenged with consumer-grade products not designed for the rugged and unforgiving environment of modern warfighters. Additionally, available "ruggedized" storage designed for this environment was cost-prohibitive.

Micron developed the M500IT SSD to meet the needs of the automotive and embedded industries. The automotive industry's rigorous requirements match well with those of the defense industry.

Supporting DRS with early access to engineering sample drives and analysis testing, our products and roadmaps evolved together, resulting in our M500IT being fully qualified for use in DRS' most popular tactical computer platform.



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# Which Applications are the Best Fit?

- Automotive In-vehicle infotainment, navigation and driver information, adaptive driver assistance program, black box.
- **Industrial** Factory automation, robotics, transportation, medical, defense, retail, industrial networking, video surveillance.

#### **Choose the Form Factor that Meets Your Requirements**



| Family | Part Number             | Density                                | Form<br>Factor | Sequential<br>Read/Write<br>Performance | Endurance<br>(TBW) | Encryption               | Operating<br>Temperature  | Mean<br>Time to<br>Failure | Uncorrect-<br>able Bit<br>Error Rate<br>(UBER) | Vibration<br>Value |
|--------|-------------------------|--|----------------|---|--------------------|--------------------------|---------------------------|----------------------------|--|--------------------|
| M500IT | MTFDDAK128MBD-2AK12ITYY | 128GB                                  | 2.5-inch       | Up to 500/<br>130 MB/s                  | 120TB              | 256-bit AES,<br>Opal 2.0 | –40°C to 85°C             | 3 million<br>hours         | 1E-16  | 20G at<br>7–2000Hz |
|        | MTFDDAT128MBD-1AK12ITYY |  | mSATA          |   |                    |                          |                           |                            |  |                    |
|        | MTFDDAK256MBD-2AK12ITYY | 256GB                                  | 2.5-inch       | Up to 500/<br>250 MB/s                  | 240TB              |                          |                           |                            |  |                    |
|        | MTFDDAT256MBD-1AK12ITYY |  | mSATA          |   |                    |                          |                           |                            |  |                    |
| 2100AI | MTFDHBL128TDP-1AT12AIYY | 128GB                                  | BGA            | Up to 1100/<br>420 MB/                  | 60TB               | 256-bit AES,<br>Opal 2.0 | Tcase = -40°C<br>to 95°C  | 3 million<br>hours         | 1E-16  | N/A                |
|        | MTFDHBL256TDP-1AT12AIYY | 256GB                                  | BGA            | Up to 2000/<br>850 MB/s                 | 120TB              |                          |                           |                            |  | N/A                |
|        | MTFDHBK256TDP-1AT12AIYY |  | M.2 2230       |   |                    |                          |                           |                            |  | 20G at<br>7–2000Hz |
|        | MTFDHBL512TDP-1AT12AIYY | 512GB                                  | BGA            | Up to 2000/<br>1550 MB/s                | 240TB              |                          |                           |                            |  | N/A                |
|        | MTFDHBK512TDP-1AT12AIYY |  | M.2 2230       |   |                    |                          |                           |                            |  | 20G at<br>7–2000Hz |
|        | MTFDHBM1T0TDP-1AT12AIYY | 1TB                                    | BGA            | Up to 2000/<br>1750 MB/s                | 480TB              |                          |                           |                            |  | N/A                |
|        | MTFDHBK1T0TDP-1AT12AIYY |  | M.2 2230       |   |                    |                          |                           |                            |  | 20G at<br>7–2000Hz |
| 2100AT | MTFDHBL064TDQ-1AT12ATYY | 64GB<br>128GB<br>256GB<br>512GB<br>1TB |                | Up to 550/<br>200 MB/s                  | 30TB               | 256-bit AES,<br>Opal 2.0 | Tcase = −40°C<br>to 105°C | 3 million<br>hours         | 1E-16  |                    |
|        | MTFDHBL128TDQ-1AT12ATYY |  |                | Up to 1100/<br>420 MB/s                 | 60TB               |                          |                           |                            |  | N/A                |
|        | MTFDHBL256TDQ-1AT12ATYY |  | BGA            | Up to 2000/<br>850 MB/s                 | 120TB              |                          |                           |                            |  |                    |
|        | MTFDHBL512TDQ-1AT12ATYY |  | ]              | Up to 2000/<br>1550 MB/s                | 240TB              |                          |                           |                            |  |                    |
|        | MTFDHBM1T0TDQ-1AT12ATYY |  |                | Up to 2000/<br>1750 MB/s                | 480TB              |                          |                           |                            |  |                    |

### **Contact Us**

Visit micron.com for more details on the M500IT and 2100AI/AT SSDs and how they can enhance your next automotive or industrial solution. Contact your Micron sales representative with questions or for samples and support.

### micron.com

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