## swissbit®

**PRELIMINARY Product Fact Sheet** 

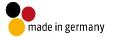
**Industrial** mSATA SSD (M0-300 Full Size)

X-75m Series SATA III - 6.0 Gbit/s, 3D TLC

Commercial and Industrial Temperature Grade

Date: February 26, 2019 Revision: 0.90





# Product Fact Sheet X-75m Series



### **Product Summary**

- Capacities: 30 GBytes, 60 GBytes, 120 GBytes, 240 GBytes, 480 GBytes, 960 GBytes
- Form Factor: JEDEC MO-300 Full Size mSATA SSD (50.8 mm x 29.85 mm x 3.5 mm)
- Compliance: SATA Revision 3.1 6 Gbit/s (3 Gbit/s and 1.5 Gbit/s backward compatible)
- Command Sets: Supports ATA/ATAPI-8 and ACS-2
- Performance:
  - o Read Performance: Sequential Read up to 520 MBytes/s, Random Read IOPS up to 75,100
  - o Write Performance: Sequential Write up to 400 MBytes/s, Random Write IOPS up to 71,600
- Operating Temperature Range\*:
  - Commercial: 0 °C to 70 °CIndustrial: -40 °C to 85 °C
- Storage Temperature Range: -40 °C to 85 °C
- Operating Voltage: 3.3 V ± 5%
- Power (Max Capacity): Read (Active): TBD W; Write (Active): TBD W; Idle: TBD mW; Slumber: TBD mW
- Data Retention: 10 Years @ Life Begin; 1 Year @ Life End
- Endurance in TeraBytes Written (TBW) @ Max Capacity<sup>†</sup>: Client > TBD; Enterprise > TBD
- Shock/Vibration: 1,500 g l 50 g
- LDPC ECC with up to 165 bit correction per 1 KByte page
- NAND Flash Technology: 3D Triple-Level Cell (TLC)
- Mean Time Between Failure: > 2,000,000 hours
- Data Reliability: < 1 non-recoverable error per 10<sup>16</sup> bits read

#### **Product Features**

- Dynamic and Static Wear Leveling
- Active and Passive Data Care Management
- Lifetime Enhancements
  - Dynamic Bad Block Remapping
  - Write Amplification Reduction
- On-Board Power Fail Protection
- TRIM and NCQ Support
- ATA Security Feature Set Support
- DEVSLP Compatible
- In-Field Firmware Update
- Enterprise-Grade Self-Monitoring, Analysis, and Reporting Technology (S.M.A.R.T.)
- 30 µinch Gold-Plated Connector (IPC-6012B Class 2 Compliant)
- End to end data protection
- AES256 Encryption (on request)
- TCG Opal 2.0 compliant (on request)
- Swissbit Life Time Monitoring (SBLTM) Tool and SDK for SBLTM (on request)

#### Why Swissbit?

Swissbit is focused on the design, development, manufacture, and support of leading edge memory and storage solutions for the worldwide OEM/ODM marketplace. As a global supplier, Swissbit recognizes and addressees the higher level of application requirements of today's industrial, Netcom, and automotive customers by providing best-in-class products and services, with uncompromised attention to driving overall value and quality.

<sup>\*</sup> Adequate airflow is required to ensure the drive temperature, as reported in the S.M.A.R.T. data, does not exceed the specified maximum operating temperature.

<sup>&</sup>lt;sup>†</sup> According to JEDEC (JESD47I), the time to write the full TBW is a minimum of 18 months. Higher average daily data volume reduces the specified TBW. The values listed are estimates and are subject to change without notice.

### **Mouser Electronics**

**Authorized Distributor** 

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#### Swissbit:

 SFSA030GU1AK1TO-I-5S-216-STD
 SFSA120GU1AK2TO-C-6B-216-STD
 SFSA480GU1AK2TO-I-8C-216-STD

 SFSA240GU1AK4TO-C-6B-216-STD
 SFSA060GU1AK1TO-I-6B-216-STD
 SFSA060GU1AK1TO-C-6B-216-STD

 SFSA960GU1AK4TO-C-8C-216-STD
 SFSA240GU1AK4TO-I-6B-216-STD
 SFSA120GU1AK2TO-I-6B-216-STD

 SFSA960GU1AK4TO-I-8C-216-STD
 SFSA480GU1AK2TO-C-8C-216-STD
 SFSA030GU1AK1TO-C-5S-216-STD

 SFSA960GU2AK4TO-I-8C-226-STD
 SFSA960GU2AK4TO-I-8C-226-STD