

swissbit®

Product Fact Sheet

Industrial SDHC / SDXC Memory Card

S-45 Series

UHS-I Interface, MLC

Extended and Industrial
Temperature Grade

Date: April 10, 2019
Revision: 1.22

durabit™

“the better MLC”



Product Summary

- **Capacities:** 4 GBytes, 8 GBytes, 16 GBytes, 32 GBytes, 64 GBytes, 128 GBytes
- **Form Factor:** Standard SD Memory Card 32.0mm x 24.0mm x 2.1mm and Write Protect slider
- **Compliance:** Fully compliant with SD Memory Card specification 3.0
 - Fully compatible with UHS-I/SDR104 hosts
 - Up to speed class 10 and U1 according SD3.0 specification
 - SD2.0 SDHC backward compliant, default speed and high speed mode
 - FAT32 / exFAT preformatted
- **Performance:** High performance 3.0 specification
 - SD Default speed, SD High speed, SD UHS-I
 - Read Performance: Sequential Read up to 43 MBytes/s, Random Read IOPS up to 1,189
 - Write Performance: Sequential Write up to 21 MBytes/s, Random Write IOPS up to 944
- **Operating Temperature Range¹:**
 - Extended: -25 °C to 85 °C
 - Industrial: -40 °C to 85 °C
- **Storage Temperature Range:**
 - Extended: -25 °C to 100 °C
 - Industrial: -40 °C to 100 °C
- **Operating Voltage:** 2.7 ... 3.6V (Low-power CMOS technology)
- **Data Retention:** 10 Years @ Life Begin / 1 Year @ Life End
- **Humidity:** 85% RH @85°C 1000h
- **Electromagnetic Compatibility Test:** Radiated Emission; Radiated Immunity; Electrostatic Discharge

Product Features

- Optimized FW algorithms especially for random write speed, WAF reduction, high read access and long data retention applications
 - Patented power-off reliability technology, Wear Leveling technology
 - Write Endurance technology, Read Disturb Management
 - Data Care Management, Near miss ECC technology
 - Diagnostic features with Life Time Monitoring tool support
- High reliability
 - Designed for industrial market especially read intensive application like navigation, infotainment, POS/POI, Medical and general boot medium use case
 - The product is optimized for long life cycle and provides excellent data retention in high temperature mission profiles.
 - Number of card insertions/removals 20,000
 - SIP (System In Package) process for extreme dust, water and ESD proof
 - Selected AEC-Q100 qualification
- Manufactured in a TS 16949 certified factory
- Customized options like CID registers, CPRM keys, firmware incl. settings and marking by projects
- In-field firmware update
- AES256 Encryption (on request)
- Swissbit Life Time Monitoring (SBLTM) Tool and SDK for SBLTM (on request)

Why Swissbit?

Swissbit strives to create innovative technologies for future market opportunities utilizing a highly skilled in-house product research and development team. Swissbit maintains a marketing edge by continuing to manufacture world-class high quality memory products and providing customers with both high value and low cost of ownership achieved through efficient processes and procedures.

¹ High temperature storage without operation reduces the data retention, in operation the data will be refreshed, if data error issues were detected.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Swissbit:

<u>SFSD4096L2BM1TO-I-GE-2A1-STD</u>	<u>SFSD016GL2BM1TO-E-GE-2A1-STD</u>	<u>SFSD032GL2BM1TO-E-LF-2A1-STD</u>
<u>SFSD064GL2BM1TO-I-HG-2A1-STD</u>	<u>SFSD064GL2BM1TO-E-HG-2A1-STD</u>	<u>SFSD8192L2BM1TO-E-GE-2A1-STD</u>
<u>SFSD016GL2BM1TO-I-GE-2A1-STD</u>	<u>SFSD032GL2BM1TO-I-LF-2A1-STD</u>	<u>SFSD4096L2BM1TO-E-GE-2A1-STD</u>
<u>SFSD8192L2BM1TO-I-GE-2A1-STD</u>	<u>SFSD064GL3BM1TO-I-HG-2B1-STD</u>	<u>SFSD128GL3BM1TO-I-OG-2B1-STD</u>
<u>SFSD4096L3BM1TO-I-GE-2B1-STD</u>	<u>SFSD032GL3BM1TO-I-LF-2B1-STD</u>	<u>SFSD8192L3BM1TO-I-GE-2B1-STD</u>
<u>SFSD016GL3BM1TO-I-GE-2B1-STD</u>	<u>SFSD064GL3BM1TO-E-HG-2B1-STD</u>	<u>SFSD128GL3BM1TO-E-OG-2B1-STD</u>
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