swissbit®

Product Fact Sheet

Industrial
2.5" SATA SSD

X-60 Series
SATA III – 6.0 Gbit/s

durabit™

"the better MLC"

made in germany

X-60 Series – Industrial 2.5" SATA Solid State Drive

Product Summary

- **Capacities:** 30 GBytes, 60 GBytes, 120 GBytes, 240 GBytes, 480 GBytes, 960 GBytes
- **Form Factor:** 2.5" SATA Solid State Drive (70 mm x 100 mm x 7 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[*]:**
  - Read Performance: Sequential Read up to 520 MBytes/s, Random Read IOPs up to 75,000
  - Write Performance: Sequential Write up to 450 MBytes/s, Random Write IOPs up to 75,000
- **Operating Temperature Range[†]:**
  - Commercial: 0 °C to 70 °C
  - Industrial: -40 °C to 85 °C
- **Storage Temperature Range:** -40 °C to 85 °C
- **Operating Voltage:** 5 V ± 10% and 3.3 V ± 5%
- **Data Retention:** 10 Years @ Life Begin; 1 Year @ Life End
- **Endurance in TeraBytes Written (TBW) Max Capacity[‡]:** Client > 1825; Embedded > 560; Enterprise > 280
- **Shock/Vibration:** 1,500 g/20 g (MIL-STD810)
- **Hardware BCH Code ECC:** up to 66 bit correction per 1 KByte page
- **Mean Time Between Failure:** > 2,000,000 hours
- **Data Reliability:** < 1 non-recoverable error per 10^{16} bits read

Product Features

- Best-in-Class Performance and Endurance with durabit™ Technology
- 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
- AHCI, TRIM, and NCQ Support
- ATA Security Feature Set Support
- In-Field Firmware Update
- Enterprise-Grade Self-Monitoring, Analysis, and Reporting Technology (S.M.A.R.T.)
- AES256 Encryption (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 addresses 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.

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[*] Performance values are for the 480 GByte device. Values for the 960 GByte device are to be determined.

[†] 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.

[‡] 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.

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Mouser Electronics

Authorized Distributor

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

[Swissbit](#):

[SFSA030GQ1AA1TO-I-LB-216-STD](#) [SFSA120GQ1AA4TO-I-LB-216-STD](#) [SFSA480GQ1AA4TO-I-OC-216-STD](#)

[SFSA960GQ1AA8TO-I-OC-216-STD](#) [SFSA060GQ1AA2TO-I-LB-216-STD](#) [SFSA240GQ1AA4TO-I-HC-216-STD](#)

[SFSA480GQ1AA4TO-C-OC-216-STD](#) [SFSA060GQ1AA2TO-C-LB-216-STD](#) [SFSA030GQ1AA1TO-C-LB-216-STD](#)

[SFSA240GQ1AA4TO-C-HC-216-STD](#) [SFSA960GQ1AA8TO-C-OC-216-STD](#) [SFSA120GQ1AA4TO-C-LB-216-STD](#)