swissbit®

Product Fact Sheet

Industrial CFast Card

F-800 Series
SATA Gen3 - 6.0 Gbit/s, SLC

Commercial and Industrial Temperature Grade

Date: February 12, 2021 Revision: 1.01



Product Fact Sheet F-800 Series



Product Summary

- Capacities: 2 GBytes, 4 GBytes, 8 GBytes, 16 GBytes, 32 GBytes, 64 GBytes
- Form Factor: CFast-Sized Solid State Drive (36.4 mm x 42.8 mm x 3.6 mm)
- Interface: SATA Gen3 6 Gbit/s (Gen2 3 Gbit/s and Gen1 1.5 Gbit/s backward compatible)
- Command Sets: Supports ATA/ATAPI-8 and ACS-4
- CFast 2.0 compliant
- Performance:
 - Burst Transfer Rate: Up to 600 MBytes/s in SATA Gen3 6.0 Gbit/s
 - Read Performance: Sequential Read up to 319 MBytes/s, Random Read 4K up to 10,400 IOPS
 - Write Performance: Sequential Write up to 150 MBytes/s, Random Write 4K up to 6,800 IOPS
- Operating Temperature Range²:
 - o Commercial: o °C to 70 °C
 - o Industrial: -40°C to 85 °C
- Storage Temperature Range: -40 °C to 85 °C
- Operating Voltage: 3.3 V ± 5%
- Power typical @ 64 GByte:
 - Read (Active): 1,250 mWWrite (Active): 990 mW
 - Idle: 195 mWSlumber: 50 mW
 - o DEVSLP: 2.6 mW
- Data Retention: 10 Years @ Life Begin / 1 Year @ Life End
- Endurance in DiskWritesPerDay (DWPD):
 - JEDEC Enterprise Workload: up to 4.5
 - o JEDEC Client Workload: up to 32
- Shock / Vibration: 500 g / 20 g
- High-Performance Dual Core 32-Bit Processor with Integrated, Parallel Flash Interface Engines:
 - o Single-Level Cell (SLC) NAND Flash
 - o Flexible BCH and GCC ECC engines provide superior error correction performance
- High Reliability:
 - Mean Time Between Failure (MTBF): > 2,000,000 hours @ 25°C
 - Data Reliability: < 1 non-recoverable error per 10¹⁶ bits read
 - 30 μinch Gold-Plated Connector

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Revision: 1.01
Template: Doc-3581
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File: F-800_fact_sheet_Rev101
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¹ The verification of host system and storage device compatibility is in customer's responsibility. Swissbit can provide guidance and support on request.

² Adequate airflow is required to ensure the temperature, as reported in the S.M.A.R.T. data, does not exceed 120°C (industrial temperature drive) and 105°C (commercial temperature drive) respectively.