# swissbit®

**Product Fact Sheet** 

**Industrial CFexpress Card** 

G-26 Series CFexpress v2.0, Type B, 3D pSLC

Industrial Temperature Grade

Date: November 18, 2021 Revision: 1.00



# Product Fact Sheet G-26 Series



## **Product Summary**

- Capacities: 5 GBytes, 10 GBytes, 20 GBytes, 40 GBytes, 80 GBytes, 160 GBytes
- Form Factor: CFexpress® Type B card (38.5mm x 29.6mm x 3.8mm)
- Compliance¹: CFexpress v2.00
   Interface: PCIe Gen3 x 2 Lanes
   Command Sets: Supports NVMe 1.3
- Performance:
  - o Read Performance: Sequential Read up to 1,620 MBytes/s, Random Read 4K up to 128,000 IOPS
  - Write Performance: Sequential Write up to 700 MBytes/s, Random Write 4K up to 121,000 IOPS
- Host Memory Buffer (HMB): Support for increased random performance
- Operating Temperature Range<sup>2</sup>:
  - o Industrial: -40 °C to 85 °C
- Storage Temperature Range: -40°C to 85°C
- Operating Voltage: 3.3V supply voltage
- Low Power Consumption
- Power:
  - Power States PSo, PS1, PS2, PS3 and PS4
  - Thermal Throttling supported
- Data Retention: 10 Years @ Life Begin; 1 Year @ Life End
- High-Performance Processor with Integrated, Parallel Flash Interface Engines:
  - o 3D NAND Flash
  - LDPC Code ECC (up to 120bit corrections per 1KByte page)
- High Reliability
  - Designed for Industrial and Automotive market
  - o Ideal for applications like automation, embedded computing, gaming, IIoT and NetCom
  - o Optimized for long life cycle that requires superior data retention as well as power fail safety
  - Mean Time Between Failure: >2,000,000 hours
  - o Data Reliability: < 1 non-recoverable error per 10<sup>16</sup> bits read
  - Number of insertion/removal cycles: up to 12,000

<sup>&</sup>lt;sup>2</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.



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The verification of host system and storage device compatibility is in customer's responsibility. Swissbit can provide guidance and support on request.

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### **Product Features**

- Dynamic and Static Wear Leveling
- Subpage Mode Flash Translation Layer (FTL)
- Data Care Management
  - Active: Adaptive Read Refresh
  - Passive: Background Media Scan
- Lifetime Enhancements
  - o Dynamic Bad Block Remapping
  - Write Amplification Reduction
- Power Fail Data Loss Protection
- Data set management support (TRIM)
- Active State Power Management (ASPM) Support
- In-Field Firmware Update<sup>3</sup>
- Enterprise-Grade Self-Monitoring, Analysis, and Reporting Technology (S.M.A.R.T.)
- Gold-Plated Connector (IPC-6012B Class 2 Compliant)
- End-to-End (E2E) Data Protection
- AES256 Encryption (on request)
- Life Cycle Management, Controlled "Locked" BOM
- RoHS / REACH compliant
- Swissbit Life Time Monitoring (SBLTM) Tool and SDK for SBLTM (on request)























#### Order Information for G-26

Density	Part Number	Temp. Range	Flash Technology
5GB	SFCE005GW1EC1TO-I-5E-111-STD	-40°C to 85°C	3D NAND Flash SLC-mode
10GB	SFCE010GW1EC1T0-I-5E-111-STD		
20GB	SFCE020GW1EC2T0-I-5E-111-STD		
40GB	SFCE040GW1EC4T0-I-5E-111-STD		
80GB	SFCE080GW1EC4T0-I-6F-111-STD		
160GB	SFCE160GW1EC4WD-I-6F-111-STD		

### 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 uncsompromised attention to driving overall value and quality.

<sup>&</sup>lt;sup>3</sup> The support of In-Field FW update capabilities on host systems is recommended.

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