

# swissbit®

Product Fact Sheet

## Industrial CFexpress Card

**G2600 Series**  
CFexpress v2.0, Type B, 3D pSLC

Industrial Temperature Grade

Date: February 20, 2024  
Revision: 1.02



## Product Summary

- **Capacities:** 20 GBytes, 40 GBytes, 80 GBytes, 160 GBytes, 320 GBytes
- **Form Factor:** CFexpress™ Type B card (38.5mm x 29.6mm x 3.8mm)
- **Compliance<sup>1</sup>:** CFexpress v2.00
- **Interface:** Gen3 x 2 Lanes
  - Drive operates in x1 mode in x1 CFexpress Type B slots
  - Drive operates in x2 mode in x2 CFexpress Type B slots
- **Command Sets:** Supports NVMe 1.3
- **Performance:**
  - Read Performance: Sequential Read up to 1,610 MBytes/s, Random Read 4K up to 138,000 IOPS
  - Write Performance: Sequential Write up to 924 MBytes/s, Random Write 4K up to 143,000 IOPS
- **Host Memory Buffer (HMB):** Support for increased random performance
- **Operating Temperature Range<sup>2</sup>:**
  - 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 PS0, PS1, PS2, PS3 and PS4
  - Thermal Throttling supported
- **Data Retention:** 10 Years @ Life Begin; 1 Year @ Life End, @40°C
- **High-Performance Processor with Integrated, Parallel Flash Interface Engines:**
  - Triple-Level Cell (TLC) 3D NAND Flash
  - LDPC Code ECC with up to 120 bit correction per 1 KByte page
- **High Reliability:**
  - Designed for Industrial and Automotive market
  - Ideal for applications like automation, embedded computing, gaming, IIoT and NetCom
  - Optimized for long life cycle that requires superior data retention as well as power fail safety
  - Mean Time Between Failure (MTBF): > 3,000,000 hours
  - Data Reliability: < 1 non-recoverable error per 10<sup>16</sup> bits read
  - Number of insertion/removal cycles: up to 12,000

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<sup>1</sup> The verification of host system and storage device compatibility is in customer's responsibility. Swissbit can provide guidance and support on request.

<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 CCTEMP (Critical Composite Temperature Threshold) reported in the "Identify Controller Data Structure"

## 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
  - 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.)
- 30 µinch Gold-Plated Connector (IPC-6012B Class 2 Compliant)
- End-to-End (E2E) Data Protection
- AES256 Encryption
- TCG Opal 2.0
- Optional Hardware Features
  - Hardware-Write-Protect
  - Secure-Erase
  - DASP/DEFACT
- Life Cycle Management, Controlled "Locked" BOM
- RoHS / REACH Compliant
- Swissbit Device Manager (SBDM) Tool and SDK for SBDM (on request)

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

### Order Information for G2600

Density	Part Number	Temp. Range	Flash Technology
20 GBytes	SG2600CE020GI-1TB1-1DB-STD	-40°C to 85°C	3D NAND Flash SLC-mode
40 GBytes	SG2600CE040GI-1TB1-1DB-STD		
80 GBytes	SG2600CE080GI-1TB2-1DB-STD		
160 GBytes	SG2600CE160GI-1TB2-1DB-STD		
320 GBytes	SG2600CE320GI-1TB2-1DB-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 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.