swissbit®

Product Fact Sheet

Industrial CFexpress Card

G-20 Series

CFexpress v2.0, Type B, 3D TLC

Industrial Temperature Grade

Date: November 18, 2021
Revision: 1.00

Made in Germany

Product Summary

- **Capacities:** 15 GBytes, 30 GBytes, 60 GBytes, 120 GBytes, 240 GBytes, 480 GBytes
- **Form Factor:** CFexpress® Type B card (38.5mm x 29.6mm x 3.8mm)
- **Compliance[1]:** CFexpress v2.00
- **Interface:** PCIe Gen3 x 2 Lanes
- **Command Sets:** Supports NVMe 1.3
- **Performance**:
  - Read Performance: Sequential Read up to 1,615 MBytes/s, Random Read 4K up to 115,000 IOPS
  - Write Performance: Sequential Write up to 827 MBytes/s, Random Write 4K up to 131,000 IOPS
- **Host Memory Buffer (HMB):** Support for increased random performance
- **Operating Temperature Range[2]:**
  - 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
- **High-Performance Processor with Integrated, Parallel Flash Interface Engines:**
  - 3D NAND Flash
  - LDPC Code ECC (up to 120bit corrections per 1KByte 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: >2,000,000 hours
  - Data Reliability: < 1 non-recoverable error per 10^{16} bits read
  - Number of insertion/removal cycles: up to 12,000

[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 drive temperature, as reported in the S.M.A.R.T. data, does not exceed the specified maximum operating temperature.