swissbit®

Product Fact Sheet

Secure Industrial SDHC / SDXC Memory Card

PS-66 PE Series

Premium Edition, UHS-I Interface, pSLC

Extended Temperature Grade

Date: August 15, 2024
Revision: 1.00

Made in Germany

Product Summary

- **Capacities:** 16 GBytes, 32 GBytes, 64 GBytes
- **Form Factor:** Standard SD Memory card form factor – 32.0mm x 24.0mm x 2.1mm
- **Compliance:** Fully compliant with SD Memory Card specification 6.10
  - SDHC default/high speed mode and UHS supported
  - Speed class 10/U3/V30/A1 according SD6.10 specification
  - 16-32GB / FAT32 and 64GB / exFAT
- **Performance:**
  - SD Default speed, SD High speed, SD UHS-I
  - Read Performance: Sequential Read up to 90 MBytes/s, Random Read IOPS up to 1500
  - Write Performance: Sequential Write up to 75 MBytes/s, Random Write IOPS up to 1600
- **Operating Temperature Range[1]:**
  - Extended: -25 °C to 85 °C
- **Storage Temperature Range:**
  - Extended: -25 °C to 100 °C
- **Operating Voltage:** 2.7...3.6V normal operating voltage (Low-power CMOS technology)
- **Data Retention:** 10 Years @ Life Begin / 1 Year @ Life End
- **Humidity:** 85% RH @85°C 1000h
- **Electromagnetic Compatibility Test:** Radiated Emission; Radiated Immunity; Electrostatic Discharge

Product Features

- **High reliability industrial memory card** with optimized FW algorithms especially for high read access and long data retention applications
  - Patented power-off reliability technology, Wear Leveling technology
  - Write Endurance technology, Read Disturb Management
  - Data Care Management, Near miss ECC technology
  - Diagnostic features with Life Time Monitoring tool support
  - Number of card insertions/removals 10,000

- **Advanced Hardware Security**
  - **Smart Card Controller** (JavaCard & GlobalPlatform; TRNG, RSA, SHA2, ECC; CC up to EAL 6+)
  - **AES 256 bit flash memory encryption**; fast crypto wipe option
  - Encrypted security activation
  - User PIN and administrator login
  - Implicit and replay safe secure authentication against password theft
  - Configurable retry counter
  - Unique ID
  - Counterfeit protection by authenticity and integrity check
  - CD-ROM Emulation
  - Private Partition
  - Hidden Storage

[1] High Temperature storage without operation reduces the data retention, in operation the data will be refreshed, if data error issues were detected

Ordering Information

PS-66 PE (longevity)	
Capacity	**Part Number**
16 GBytes	SFSD016GL1PT1TB-E-5E-D2P-SW2
32 GBytes	SFSD032GL1PT1TB-E-6F-D2P-SW2
64 GBytes	SFSD064GL1PT1TB-E-7G-D2P-SW2

PS-66 PE (high endurance)	
Capacity	**Part Number**
16 GBytes	SFSD016GL1PT1MT-E-5E-92P-SW2
32 GBytes	SFSD032GL1PT1MT-E-6F-92P-SW2
64 GBytes	SFSD064GL1PT1MT-E-7G-92P-SW2

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.