

swissbit®

Product Fact Sheet

**Secure Industrial
microSDHC / SDXC
Memory Card**

PS-66u PE Series

Premium Edition, UHS-I Interface,
pSLC

Extended Temperature Grade

Date: August 15, 2024
Revision: 1.00



Product Summary

- **Capacities:** 16 GBytes, 32 GBytes, 64 GBytes
- **Form Factor:** Standard microSD Memory card form factor – 15.0mm x 11.0mm x 0.7mm (1.0mm)
- **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 Range¹:**
 - 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-66u PE (longevity)	
Capacity	Part Number
16 GBytes	SFSD016GN1PT1TB-E-5E-D2P-SW2
32 GBytes	SFSD032GN1PT1TB-E-6F-D2P-SW2
64 GBytes	SFSD064GN1PT1TB-E-7G-D2P-SW2

PS-66u PE (high endurance)	
Capacity	Part Number
16 GBytes	SFSD016GN1PT1MT-E-5E-92P-SW2
32 GBytes	SFSD032GN1PT1MT-E-6F-92P-SW2
64 GBytes	SFSD064GN1PT1MT-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.