

swissbit®

Product Fact Sheet

Secure Data Protection microSDHC / SDXC Memory Card

PS-66u DP Series

UHS-I Interface, pSLC

Industrial Temperature Grade

Date: March 21, 2024
Revision: 1.01



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:**
 - Industrial: –40 °C to 85 °C
- **Storage Temperature Range:**
 - Industrial: –40 °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

- 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 20,000
- **AES 256 bit flash memory encryption**
- **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**
- **Fast crypto wipe**
- **CD-ROM Emulation**
- **Private Partition**
- **Hidden Storage**
- **CmReady – Prepared for out-of-the-box use with Wibu-Systems CodeMeter (software protection & license management)**
- **Officially tested and approved for Raspberry Pi²**
- **Swissbit Life Time Monitoring (SBLTM) Tool and SDK for SBLTM (on request)**

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

² Raspberry Pi Ltd has successfully tested and approved the PS-66u 16GB and 64GB (high endurance) microSD cards. The PS-66u (high endurance) 32GB microSD card uses identical controller and memory components and identical firmware & configuration.

Ordering Information

PS-66u DP (longevity)			
Product Type	Product Series	Capacity	Part Number
microSD	PS-66u DP	16 GBytes	SFSD016GN1PT1TB-I-5E-02P-SW4
microSD	PS-66u DP	32 GBytes	SFSD032GN1PT1TB-I-6F-02P-SW4
microSD	PS-66u DP	64 GBytes	SFSD064GN1PT1TB-I-7G-02P-SW4

PS-66u DP (high endurance)			
Product Type	Product Series	Capacity	Part Number
microSD	PS-66u DP	16 GBytes	SFSD016GN1PT1MT-I-5E-02P-SW4
microSD	PS-66u DP	32 GBytes	SFSD032GN1PT1MT-I-6F-02P-SW4
microSD	PS-66u DP	64 GBytes	SFSD064GN1PT1MT-I-7G-02P-SW4

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.