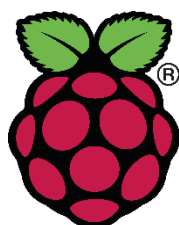durabit™

swissbit®

Product Fact Sheet

**USB Flash Drive**
for Secure Boot on
Raspberry Pi

**PU–50n DP Series
"Raspberry Edition"**
8GB
USB 3.1 SuperSpeed, MLC

Date:        May 25, 2020
Revision:    01

SECURED BY
swissbit

swissbit®

PU–50n DP
8GB
SFU3008GC1PE2
TO–E–GE–XXX–XXX

made in germany

swissbit®

# Product Summary

- **Capacities**: 8 GBytes
- **Form Factor:** 24.0 mm x 12.1 mm x 4.5 mm
- **Compliance:** USB 3.1 Gen 1 SuperSpeed specification compatible (backward compliance with USB 2.0/1.1)
- **Performance**:
  - Read performance: sequential read up to 100 MBytes/s, random read IOPS up to 2,200
  - Write performance: sequential write up to 25 MBytes/s, random write IOPS up to 600
- **Operating Temperature Range:**
  - Industrial: -40 °C to 85 °C
- **Storage Temperature Range**: -40 °C to 85 °C
- **Operating Voltage**: 5.0 V ± 10%
- **Data Retention:** 10 years @ life begin; 1 year @ life end

# Product Features

- This **USB nano stick** can be used as an **authentication device** for the Swissbit Secure Boot on Raspberry Pi solution (requires also one microSD card PS-45u DP Raspberry Edition)
- **Protecting** Raspberry Pi **boot loader** (works with Rasperry Pi 2 and 3B+)
- **Authentication** is performed during the Swissbit customized **pre-boot** phase to unlock access
- **Encrypting user data and boot code** with AES 256bit to protect licenses, know-how and IP
- The **boot image can be set as read-only** to prevent unauthorized modification
- Restricting the access to data on the card by various configurable security policies
  - PIN – check a PIN entered via keyboard
  - **USB – check presense of a USB authentication device (requires an Swissbit USB PU-50n „Raspberry Edition")**
  - NET policy – check presence of an authentication server in the network (requires an additional RaspberryPi as a server)

# Ordering Information

| Product Type | Product Series | Capacity | Part Number | Usage |
|---|---|---|---|---|
| USB nano | PU-50n DP "Raspberry Edition" | 8 GBytes | SFU3008GC1PE2T0-I-GE-020-RP0 | Use as authentication dongle in "USB policy" |
| microSD | PS-45u DP "Raspberry Edition" | 8 GBytes | SFSD8192N3PM1T0-I-GE-020-RP0 | One microSD card (8GB or 32GB) is required |
| microSD | PS-45u DP "Raspberry Edition" | 32 GBytes | SFSD032GN3PM1T0-I-HG-020-RP0 | |

# SDK & documentation

The SDK and user documentation is available for download under www.swissbit.com/secure-boot-rpi.

**Why Swissbit?**
Swissbit strives to create innovative technologies for future market opportunities utilizing a highly skilled in-house research and development team. Swissbit maintains a marketing edge by continuing to manufacture world-class high quality memory and security products and providing customers with both high value and low cost of ownership achieved through efficient processes and procedures.

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Revision: 01

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