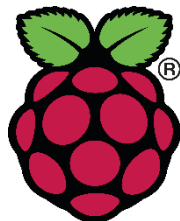# swissbit®

## 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:       July 28, 2021
Revision:   1.02

durabit™
"the better MLC"

SECURED BY swissbit

PU-50n DP
8GB
SFU3008GC1PE2
T0-E-GE-XXX-XXX

Made in Germany

## 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)
- The solution is **protecting** Raspberry Pi **boot loader** (works with Raspberry Pi 2, 3B+, CM3+ and  4)
- **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 presence of a USB authentication device (requires an Swissbit USB PU-50n „Raspberry Edition").
    Note: USB policy is currently supported on Raspberry Pi 2, 3B+ and CM3+.
  - **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 | SFU3008GC1PE2TO-I-GE-020-RP0 | Use as authentication dongle in "USB policy" |
| microSD | PS-45u DP "Raspberry Edition" | 8 GBytes | SFSD8192N3PM1TO-I-GE-020-RP0 | One microSD card (8GB or 32GB) is required |
| microSD | PS-45u DP "Raspberry Edition" | 32 GBytes | SFSD032GN3PM1TO-I-HG-020-RP0 | |

## SDK & documentation

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