# Infineon ID Key S USB – SLC38DUL800A8

## Description

- Combination of a Secure Element and a USB-serial bridge, delivered as a System-in-Package (SiP).
- Optimized for multi-application USB security devices and security tokens.

## Features

**Secure Element**

- SOLID FLASH™ dual-interface, contact-based and contactless security crypto controller
- 32-bit architecture based on the 100MHz clocked Arm® SecurCore® SC300 enhanced by Infineon Technologies' cache and security technology
- Supported interfaces: UART, contactless interface (RFI), NFC, I2C target, NRG™ interface, and GPIO
- 800 kB user SOLID FLASH™ NVM
- 24 kB user RAM
- Certification level: CC EAL 6+ (high)

**USB-serial bridge**

- USB 2.0 Full-Speed Interface with on-chip clock recovery and on-chip USB voltage regulator
- Cortex M0 (48 MHz)
- 32 kB flash memory, 4 kB SRAM
- Supported interfaces: USB 2.0 Full-Speed, I2C controller, CAPSENSE™, and SWD

## Applications

- Authentication
- FIDO security keys for device-bound passkeys
- Digital Signature
- Encryption
- Logical and physical access
- Software protection and management
- Cold wallets / cryptocurrency hardware wallet

## Parameters

| Product name | Infineon ID KEY S USB – SLC38DUL800A8 |
|---|---|
| **Product description** | System-in-package comprising a SOLID FLASH™ 32-bit security crypto controller and a USB-serial bridge in one single package optimized for multi-application USB devices |
| **Interfaces and protocols** | UART, ISO/IEC7816, GPIO, I2C, ISO/IEC 14443, for both type A and/or type B, ISO/IEC 18092 (NFC passive mode), CAPSENSE™, SWD, USB 2.0, NRG™ |
| **Secure Element**<br>CPU<br>Memory<br>Symmetrical cryptography<br>Asymmetrical cryptography | <br>32-bit Arm® SecurCore® SC300 (100 MHz)<br>800 kB SOLID FLASH™ NVM, 24 kB RAM<br>DES, Triple DES, AES up to 256-bit<br>RSA up to 4096-bit, ECC up to 521-bit |
| **USB-serial bridge**<br>CPU<br>Memory | <br>Cortex® M0 (48 MHz)<br>32 kB flash NVM, 4 kB SRAM |
| **Ambient temperature** | -25 to + 85 °C |
| **Contact and dual interface package delivery forms** | SMD package VQFN-28-4 (4x4x0.85 mm) |
| **Typical applications** | multi-application USB security devices and security tokens |
| **Compliance** | CC EAL6+ (high)<br>Hardware prepared for FIPS 140-3 composite certification<br>BSI AIS20/31 RNG (PTG.2, PTG.3, DRG.3, DRG.4) |

For further information on technology, delivery forms and conditions please contact your nearest Infineon Technologies sales representative (www.infineon.com)

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