SLC39B

Description

- High-performance, powerful 32-bit Arm® SecurCore® SC300 dual-interface security cryptocontroller enhanced by Infineon's cache and security technology
- SOLID FLASH™ NVM technology with strong IP protection and EEPROM emulation support
- Digital Security concept. High speed coprocessor for symmetric and asymmetric cryptography with certified symmetric library (AES and 3DES) and certified asymmetric library (RSA and ECC) and also SM4
- Hybrid random number generator according to AIS.31 with physical noise source and built-in cryptographic post-processing (supporting the functionality classes DRG.2, DRG.3, DRG.4, PTG.2 and PTG.3)
- Memory Protection Unit, which controls access permissions to blocks of memory
- Supported interfaces: UART, contactless interface (RFI), NRG™ interface, I2C slave, I2C master, SPI master, Power Source, GPIO
- Without external power source, SLC39B is fully capable to power supply and communicate with an off-chip fingerprint sensor for biometric card applications and other external components, such as MCUs, LEDs and displays
- Full coverage of CL protocols: compliant with ISO/IEC 14443 Type A and B, interoperable with ISO/IEC 18092 passive mode for Type F and NFC and also supporting CIPURSE™ and optionally NRG™ (ISO/IEC 14443-3 Type A with CRYPTO1)

Features

- Up to 1 MByte SOLID FLASH™ NVM
- Up to 96 KByte RAM
- GPIO pins supplied by different power supply domains enabling the communication with an off-chip fingerprint sensor for biometric card applications and other external components such as LEDs, pushbuttons, displays, sensors
- Cryptographic support: RNG, RSA, ECC, AES, 3DES, SM4
- Operating temperature (ambient): -25°C to +85°C
- Targeting certification level: EMVCo, CC EAL 6+

Applications

- Biometric fingerprint card
- EMV CDA / DDA / SDA (online)
- Global Platform / Java Card / Native

Parametrics

Product name	SLC39B
Product description	Dual-interface and contactless security cryptocontroller
Interfaces	ISO/IEC 14443 A/B, ISO/IEC 18092 passive mode, ISO/IEC 7816, optional NRG™ (ISO/IEC 14443-3 type A with CRYPTO1), UART, Contactless interface (RFI), optional I2C slave, optional I2C master, optional SPI master, Power Source, GPIO
Memory	Up to 1 MByte SOLID FLASH™ NVM Up to 96 KByte RAM
CPU	32-bit Arm® SecurCore® SC300
Symmetrical cryptography	AES up to 256-bit, DES, 3DES
Asymmetrical cryptography	RSA up to 4096-bit, ECC up to 521-bit
Ambient temperature	-25°C to +85°C
Delivery forms	SMD package X2QFN-24-1, wafer sawn
Typical applications	Biometric card applications
Certification level	EMVCo and CC EAL6+

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

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