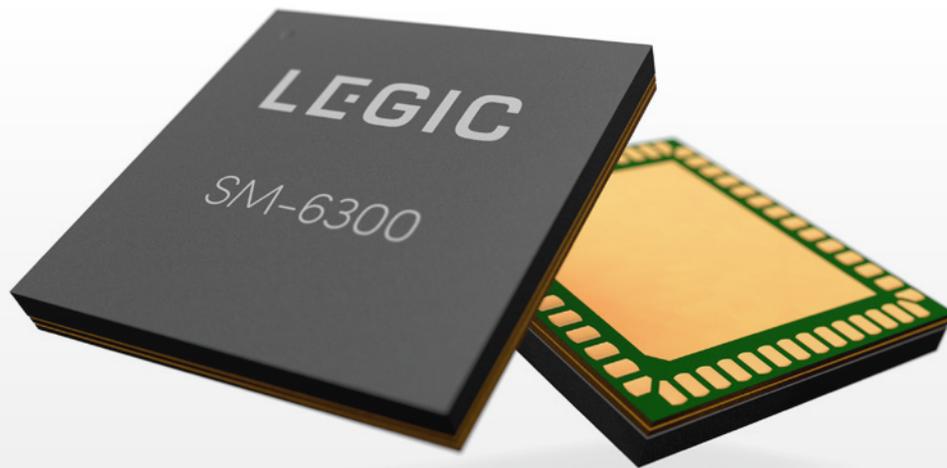


SM-6300 Reader IC

RFID, BLE and secure element in one chip



Makes the world of ID and IoT more secure.

The SM-6300 is LEGIC's latest reader IC to secure ID and Internet of Things applications. Thanks to the certified secure element (SE), the new reader chip generation can be integrated into ID and IoT applications with high security requirements. Another advantage of the SM-6300 is the "System-in-Package" design.

Secure key store

The SM-6300 includes a tamper-proof hardware secure element (SE), where all key material is stored. This enables a wide range of innovative ID and IoT solutions with high security requirements. Encrypted communication with end-to-end security can be established.

System-in-Package

The high-tech design of a "System-in-Package" module with a printed circuit board makes it possible to integrate many electronic components - such as capacitors, resistors,

two crystals and a transistor - along with the main semiconductors (BLE, NFC, SE), thus reducing the assembly costs for customers significantly.

Multi-purpose reader IC

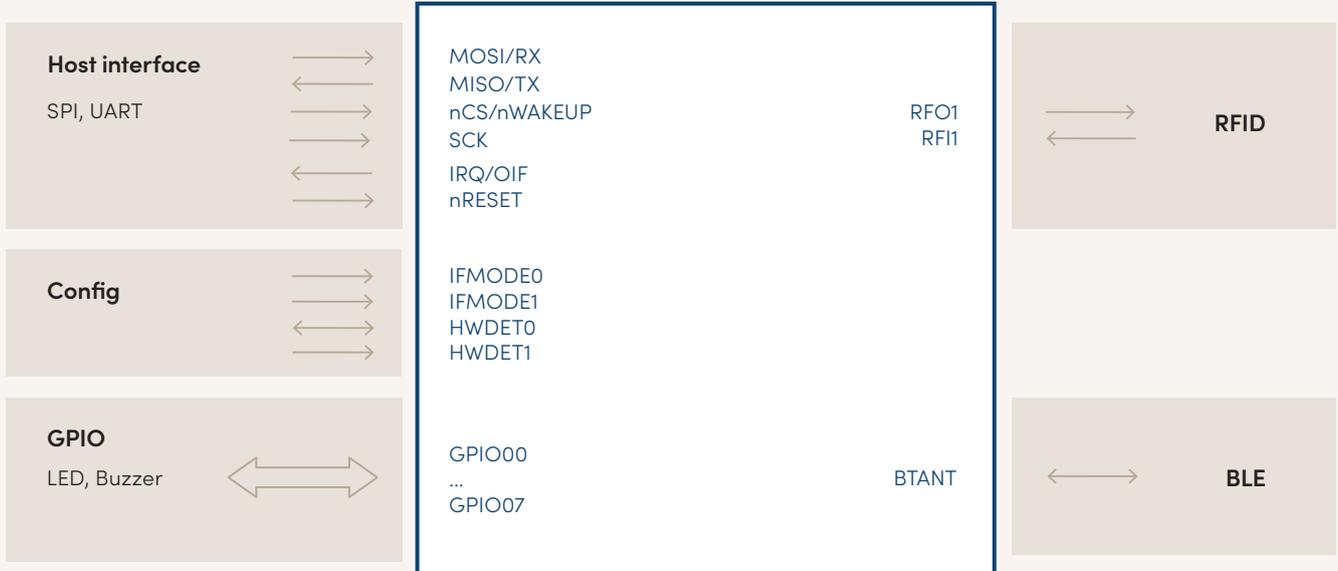
The SM-6300 offers not only RFID functionality, but also BLE (Bluetooth Low Energy) - the perfect choice for secure ID and IoT solutions in hospitality, residential access, car sharing, mobility solutions, smart home applications, corporate ID and vending machines. With the SE as a security anchor, the SM-6300 fulfills the

highest security requirements.

At the heart of LEGIC's technology platform

The SM-6300 fits perfectly into LEGIC's comprehensive platform for ID and IoT solutions. The all-inclusive platform consists of: trusted service LEGIC Connect, Software Development Kits for iOS and Android, secure reader and smartcard ICs, as well as state-of-the-art key and authorization management solutions for BLE and RFID.

Reader IC



Features and benefits

- „System-in-Package“ module
- BLE communication to LEGIC Mobile SDK (Android and iOS) or to third-party BLE devices
- Support of all common smart-card ICs
- Common Criteria EAL5+ certified secure element
- 8 x 8 mm footprint
- Compatible with the Master-Token System-Control
- Similar LEGIC commands for BLE and RFID (high technology abstraction)

Evaluation Kit EK-6300

- Evaluation Board EVB-6300 with SM-6300
- LEGIC Master-Token SAM+ Zone C (Demo)
- LEGIC prime and advant smartcards
- MIFARE smartcards
- Instruction card – how to get started
- USB stick, including:
 - Development Kit
 - Software DKS-6000
 - Documentation
- USB cable

Technical data

SM-6300 with firmware OS50	
Bluetooth Smart	V4.2 BLE (Bluetooth Low Energy)
Access to LEGIC neon files on mobile devices via BLE or NFC-HCE	<ul style="list-style-type: none"> ▪ Mutual authentication ▪ Key diversification ▪ Data encryption with end-to-end security from LEGIC Connect to SM-6300 ▪ AES 128 bit
RFID	<ul style="list-style-type: none"> ▪ ISO 15693, ISO 14443 A + B ▪ LEGIC RF standard ▪ Inside Secure * ▪ Sony Felica ** ▪ ST SR series
RFID security elements	<ul style="list-style-type: none"> ▪ Master-Token System-Control ▪ Mutual authentication ▪ NXP key diversification ▪ AES 128 / 256 bit, 3DES
Energy saving options	<ul style="list-style-type: none"> ▪ Stop mode: typically 0.7 µA (in single supply configuration) ▪ Watch mode with RFID based wake-up: typically 21 µA (in single supply configuration)
Wake-up	RFID based proximity detection of cards and smartphones
Host interface	<ul style="list-style-type: none"> ▪ UART with 38 400 baud, 115 200 baud, 1 Mbaud ▪ SPI slave mode 1 or mode 3 ▪ Authentication and encryption (optional)
Antenna ports	<ul style="list-style-type: none"> ▪ BLE: 50 Ohm HF output ▪ RFID / NFC: max. 345 mW
Temperature range	-40°C to +85°C
Package	PQFN56 8 x 8 x 1.1 mm, 0.50P
Firmware download	Yes

* Reads the unique ID (UID/CSN) of Inside Secure based technology, such as HID iClass

** Encoding is not integrated