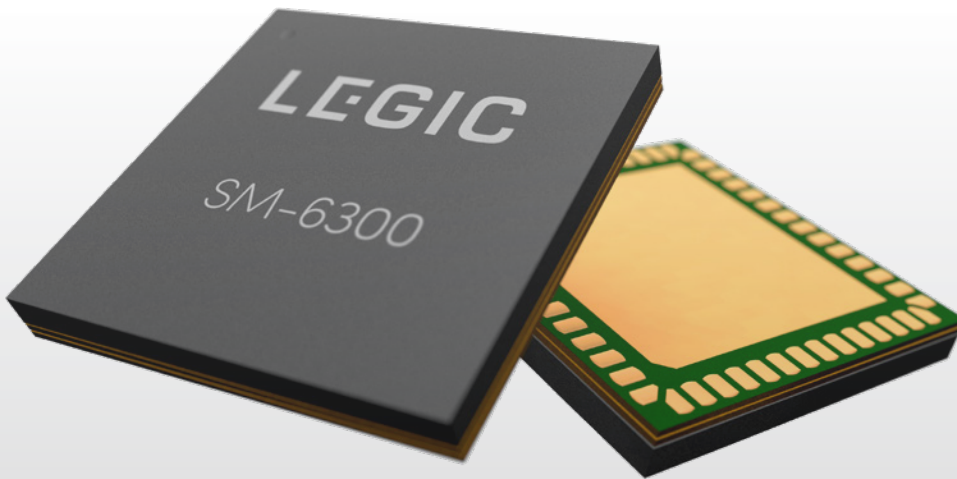


## SM-6300 Reader IC

# RFID, BLE and Secure Element in one chip



- ✓ Reads all globally relevant RFID standards
- ✓ Compatible with LEGIC prime, advant and neon as well as MTSC and LEGIC Orbit
- ✓ Fulfills the highest security requirements due to the secure element

## Makes the world of ID and IoT more secure

Thanks to the embedded certified secure element (SE), the SM-6300 is ideal for applications with the highest security requirements. The reader chip supports all globally relevant smartcard populations such as LEGIC prime and advant, all NXP MIFARE technologies and now also HID iCLASS®. Another advantage of the SM-6300 is the very compact "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 the implementation 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 supports not only all global relevant smartcard ICs, but also BLE (Bluetooth Low Energy). With the certified SE as a security anchor, the reader chip fulfills the highest security requirements. And for LEGIC Orbit there is already a secure transport key programmed.

### The perfect choice

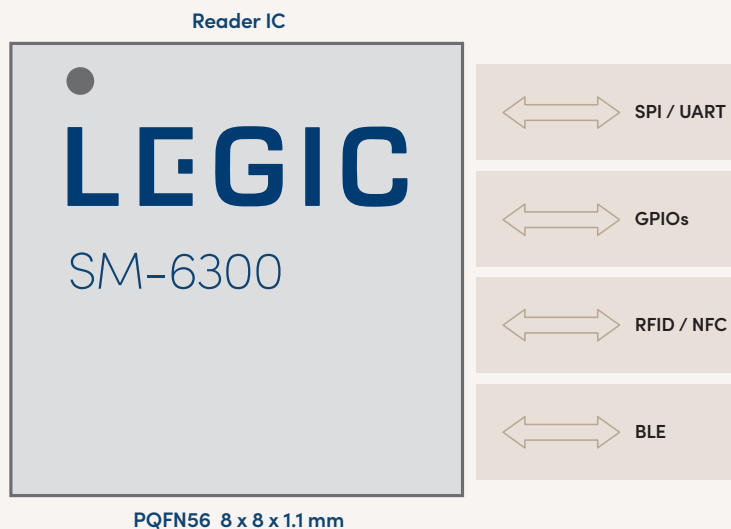
This makes the SM-6300 the perfect choice for secure applications in access control, hospitality, car sharing, public transport, payment, smart office and many others.

### The LEGIC technology platform

The platform includes perfectly coordinated reader and smartcard ICs, key and authorization management tools as well as the software service LEGIC Connect consisting of the trusted service and the SDK for mobile apps.

## Benefits and features

- „System-in-Package“ module with 8 x 8 x 1.1 mm footprint
- BLE communication to LEGIC Mobile SDK (Android and iOS) or to third-party BLE devices
- Support of all global relevant smartcard ICs
- Common Criteria EAL5+ certified secure element
- Compatible with LEGIC's Master-Token System-Control solution (MTSC)
- Supports the key and authorization management solution LEGIC Orbit
- Usage of customer-specific application keys
- Similar LEGIC commands for mobile ID and RFID (with high technology abstraction)



PQFN56 8 x 8 x 1.1 mm



## Evaluation Kit EK-6300

The EK-6300 Evaluation Kit supports you in the efficient design of BLE and contactless smartcard applications.

- Evaluation of the SM-6300 performance as well as introduction to the OS50 command set
- Development Kit Software DKS-6000 including application examples
- Design example of a reader with schematic, bill of materials and layout
- Entry into the use of the LEGIC Orbit solution
- Entry into the use of the unique LEGIC MTSC solution (SAM+ Zone C Demo)
- Use of LEGIC prime and advant smartcards, as well as MIFARE Classic and DESFire
- Access to HID iCLASS smartcards

## Technical data

SM-6300 with firmware OS50	
Bluetooth Smart	<ul style="list-style-type: none"> <li>▪ V4.2 BLE (Bluetooth Low Energy)</li> <li>▪ Communication to mobile apps based on LEGIC Mobile SDK or to third-party BLE devices</li> </ul>
RFID	<ul style="list-style-type: none"> <li>▪ ISO 14443 A + B</li> <li>▪ ISO 15693</li> <li>▪ LEGIC RF standard</li> <li>▪ Inside Secure *</li> <li>▪ Sony Felica **</li> <li>▪ ST SR series</li> </ul>
RFID security elements	<ul style="list-style-type: none"> <li>▪ Master-Token System-Control</li> <li>▪ Mutual authentication</li> <li>▪ NXP key diversification</li> <li>▪ AES 128/256 Bit, 3DES</li> </ul>
Energy saving options ***	<ul style="list-style-type: none"> <li>▪ Stop mode: typically 0.6 µA</li> <li>▪ Watch mode with RFID based wake-up: typically 21 µA</li> </ul>
Wake-up	RFID based proximity detection (< 10 cm) of smartcards or smartphones
Access to LEGIC neon files via BLE or NFC-HCE	<ul style="list-style-type: none"> <li>▪ Mutual authentication</li> <li>▪ Key diversification</li> <li>▪ Data encryption with end-to-end security from LEGIC Trusted Service to SM-6300</li> <li>▪ Application-specific AES 128 Bit keys</li> </ul>
Host interface	<ul style="list-style-type: none"> <li>▪ UART with 38,400 or 115,200 baud or 1 Mbaud</li> <li>▪ SPI slave mode 1 or mode 3</li> <li>▪ Authentication and encryption (optional)</li> </ul>
Certified secure element	<ul style="list-style-type: none"> <li>▪ Common Criteria EAL5+</li> <li>▪ Secure transport key for LEGIC Orbit</li> </ul>
Temperature range	-40°C to +85°C

\* Read / write access to smartcards based on cyphered Inside Secure technology, such as HID iCLASS

\*\* Encoding is not integrated

\*\*\* In „single supply“ configuration