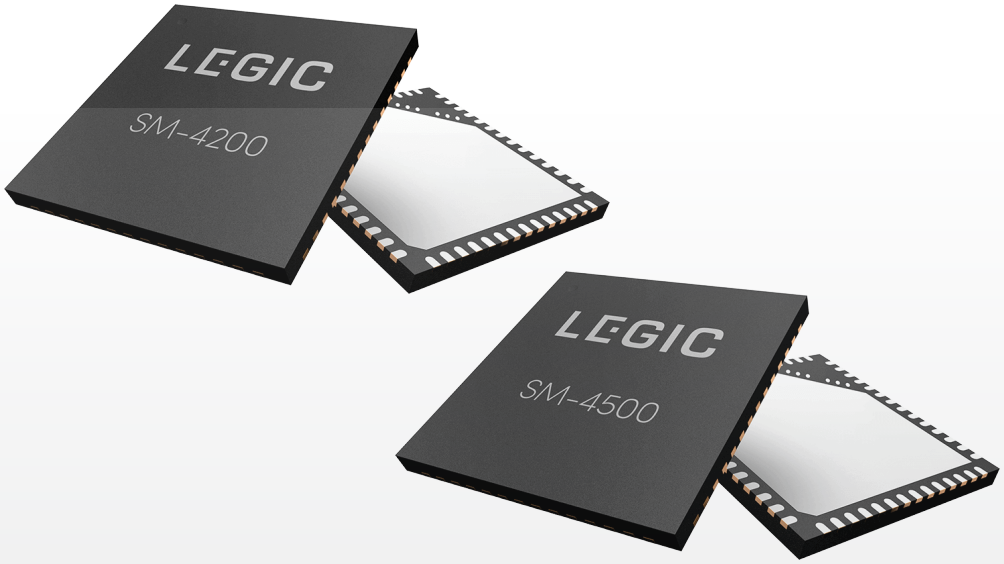
LEGIC

SM-4200 and SM-4500

Compact security modules for secure contactless solutions



- **Compatible with LEGIC advant and prime as well as third-party smartcards**
- **Supports all relevant communication protocols**
- **Suitable for line- and battery-powered readers**
- **LEGIC card initialization and Master-Token generation**
- **NFC communication to Apple Watch, ECP 2.0 support**

The right choice for your RFID solutions

The SM-4200 and SM-4500 security modules support all relevant RFID standards based on 13.56 MHz. Their compact size and patented wake-up circuitry make them the right choice for all kind of applications.

Interoperability with many different smartcards

In addition to LEGIC advant and prime, the SM-4200 and SM-4500 also support many third-party technologies to meet market requirements. All relevant communication protocols are supported, such as ISO 15693, ISO 14443 A + B, Sony Felica, LEGIC RF standard and the communication standard of Inside Secure. The security modules offer RFID functionality, including support for NFC peer-to-peer communications, Apple Watch and LEGIC Connect enabled Android devices.

Advanced functions

The SM-4200 and SM-4500 are fully compatible with the Master-Token System-Control solution. The SM-4500 further supports the initialization of LEGIC cards and the generation of Master-Tokens.

Thanks to the patented wake-up function, the power consumption can be optimized to a minimum. The security modules support standardized NFC communication to the Apple Watch. This functionality is available to all participants of Apple's MFi program with GymKit license.

Endless range of applications

Combine and manage applications according to your needs with the LEGIC security platform. Up to 127 applications can be stored securely on a smartcard. The system is also expandable and can be customized to meet individual needs.

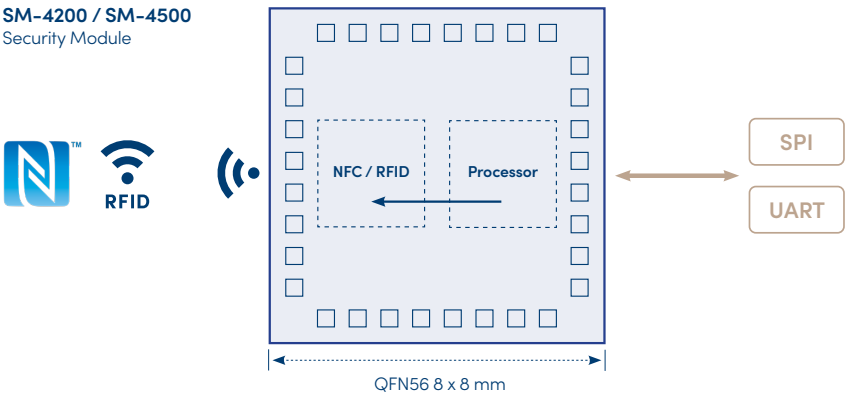
Master-Token System-Control

The patented LEGIC Master-Token System-Control is a worldwide unique security and authorization solution for contactless RFID applications. Instead of securing the administrative rights in an ID system with volatile passwords, security is bound to specific physical smartcards, the Master-Tokens. This gives the owner full control over their installation and preserves its independence.

Evaluation Kit EK-4000

The EK-4000 Evaluation Kit helps you with the quick and cost-efficient design-in of the SM-4200 or SM-4500 reader IC into battery-operated and line-powered readers.

- Evaluation of the performance of the SM-4200 and SM-4500, as well as introduction to their command set
- Design examples of battery-operated and line-powered readers
- Entry into the use of the unique LEGIC Master-Token System-Control
- Use of LEGIC prime and advant smartcards, as well as MIFARE Classic and DESFire



Technical data

SM-4200 and SM-4500	
RFID	▪ ISO 14443 A + B ▪ ISO 15693 ▪ LEGIC RF standard ▪ Inside Secure * ▪ Sony Felica ** ▪ ST SR series
RFID security elements	▪ Master-Token System-Control ▪ Mutual authentication ▪ NXP key diversification ▪ AES 128/256 Bit, 3DES, DES, LEGIC encoding
Energy saving options	▪ Stop mode: typically 3 µA ▪ Watch mode with RFID based wake-up: typically 20 µA
NFC	▪ Peer-to-peer ISO 18092 *** ▪ Communication to Apple Watch ****
Host interface	▪ UART with 38,400 or 115,200 baud (RS232 timing) ▪ SPI slave mode 1 or mode 3 ▪ Authentication and encryption (optional)
Firmware download	Yes

SM-4200	
Advanced functions	▪ NFC-HCE support for LEGIC Connect enabled Android devices ▪ Supports Apple licensees implementing ECP 2.0 ▪ DESFire EV2 secure messaging mode

SM-4500	
Advanced functions	▪ LEGIC card initialization ▪ Master-Token generation ▪ LEGIC cash

* Read / write access to smartcards based on cyphered Inside Secure technology, such as HID iCLASS
** Encoding is not integrated
*** ISO 18092 Passive Peer-to-Peer Mode - Initiator, NFC Tags 2, 3, 4
**** Only for participants of Apple's MFi program with GymKit license
(Apple, MFi, GymKit and Apple Watch are trademarks of Apple, Inc.)

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