

advant

advanced contactless smart card system



LEGIC advant[®] 4000 Series

- Multi-standard
- Multi-application
- Low power design
- Upgradability



LEGIC advant[®] 4000 Series

Next reader chip generation for secure contactless solutions



Access Control

The leading-edge 13.56 MHz reader chip series with powerful interoperability and all-in-one encryption package.

The LEGIC advant 4000 series reader chips becomes your preferred solution for all types of applications in a contactless smart card environment. The dedicated feature set of the LEGIC advant 4000 supports your application throughout the complete life cycle.

Through its low power consumption, compact design and optimized application interface, the advant 4000 serie is well suited for a broad range of applications from access control to contactless payments.



Mechatronics / Stand-alone locks

Highlights

- Operates with ISO14443 A+B, ISO15693, LEGIC RF standard, Sony Felica and Inside Contactless
- Integrated LEGIC MasterToken System Control including latest enhancements for total control of organisational security
- Ultra low power consumption
- Small size and easy design-in
- Ready to use encryption package
- Full end-to-end security
- Firmware upgradable



Time and attendance

Target markets

- Online components (e.g. wired access control systems)
- Offline components (e.g. door locks, electronic cylinders, furniture locks)
- Time and attendance applications
- Vending applications
- Logical access solutions
- Mobile applications
- Credential management solutions
- Multi-technology reader for worldwide usage



Logical Access Control

Technical features**SM-4200****SM-4500**

RF interface	LEGIC RF standard ISO 15693* ISO 14443 A+B ISO 18092/NFC** Sony Felica***	LEGIC RF standard ISO 15693* ISO 14443 A+B ISO 18092/NFC** Sony Felica***
Host interface and protocols	SPI RS232 (logic levels)	SPI RS232 (logic levels)
Security elements	<ul style="list-style-type: none"> ■ Master Token System Control ■ Selectable data encryption ■ Mutual authentication ■ Host interface authentication and encryption ■ NXP key derivation 	<ul style="list-style-type: none"> ■ Master Token System Control (System authorization) ■ Selectable data encryption ■ Mutual authentication ■ Host interface authentication and encryption ■ NXP key derivation
Encryption, incl. key diversification	AES 128/256 bit, 3DES, DES, LEGIC encryption	AES 128/256 bit, 3DES, DES, LEGIC encryption
Energy saving with card based wake-up/stop mode	Yes typ. 20 µA/3 µA	Yes typ. 20 µA/3 µA
Software download	Yes	Yes
Initialisation function	–	Yes
High-level command library for cash/value handling, e.g. electronic purse	–	Yes
Compatible transponders	LEGIC advent ATC/CTC LEGIC card-in-card-solution AFS LEGIC prime MIM	LEGIC advent ATC/CTC LEGIC card-in-card-solution AFS LEGIC prime MIM
Third party transponder read/write access	Yes MIFARE TXP	Yes MIFARE TXP

*Reads additionally Unique Identification Number (UID / CSN) of transponders based on Inside Secure technology, e.g. HID iClass.

**ISO 18092 passive mode, initiator, selected tag types

***Sony Felica encryption not supported

Your Benefits

- A single reader platform that supports multiple RF standards and a wide range of existing transponders
- Increased battery life time through dedicated low power operation mode
- State-of-the-art encryption algorithms
- Simple and fast design-in for quick time-to-market
- 100% software and hardware compatibility throughout all advanced 4000 reader chips
- Operating system upgradable to benefit from future developments and to protect your investment

Development tools

LEGIC offers a wide variety of tools supporting the design of advant 4000 based readers. These tools enable you to familiarize themselves with the application interface of the readers and allow fastest realization of functional prototypes.

A competitive software suite accompanies the advant 4000 series enabling you to intuitively create, manage and delete segments on a credential. This suite facilitates the use of data encryption with user defined keys and the unique Master Token Zone concept.

Evaluation Kit EK-4000

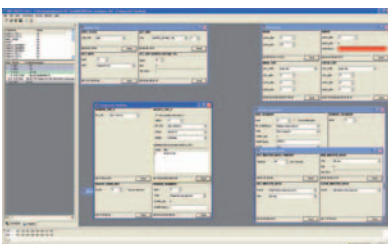
The Evaluation Kit EK-4000 is the simplest entry into the LEGIC advant 4000 series. It supports you in the fast and cost efficient development of battery powered offline and online readers.

The Evaluation Kit EK-4000 supports you with the first steps within the LEGIC unique Master Token System Control (MTSC). The contained material enables you to experience the power of this application management system.

Additionally the contained material demonstrates the simplicity of third party transponder handling with the advant 4000 series.

Development Kit Software DKS-4000

The Development Kit Software DKS-4000 gives you full access to the API command set of the advant 4000 reader series. With this software you can start the development of your application within shortest time.



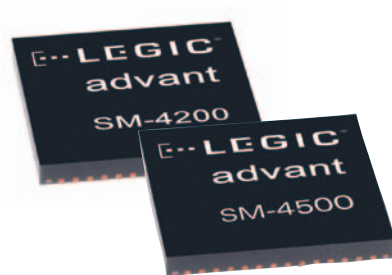


Full control over your applications

The proven MasterToken System Control is embedded in the advant 4000 series. Through this unique control mechanism you gain full control over your application.

Further the MasterToken System Control enables simple co-existence of applications on a credential while maintaining the confidentiality and integrity of each application.

The advanced performance of the advant 4000 series offers you the simplicity and flexibility of true multi-applications support.



advant 4000 – Tailored to your needs

The different devices of the LEGIC advant 4000 series have a dedicated feature set fitting the requirements of different devices.

SM-4200 – Dedicated for standard readers. This device contains the functionality for the essential use case – secure data access.

SM-4500 – Included credential management. This device supports you with management functionality throughout the complete life cycle.



One reader serving various markets

Beside the competitive range of LEGIC transponders the advant 4000 series is able to support a wide selection of 3rd party transponders on all major RF standards, such as ISO 14443 A+B, ISO 15693, ISO 18092.

Through the integrated high level support of MIFARE transponders advant 4000 series based products can co-exist in every existing MIFARE installation.

Typical applications



Offline components

Through its low power consumption the advant 4000 series is well suited for battery powered offline locks. Combined with its small size it is made to be a core element for appealing designs.



Logical access

The compact design and the simple common API of the advant 4000 enables the integration of contactless people identification technology into new applications such as logical access.



Access Control / Payment

advant 4000 components offer a versatile range of security measures protecting your propriety. Through these measures the advant 4000 series fulfills the high security needs of applications such as access control and payment.