



LEGIC advant[®] SM-4200

Next reader chip generation for secure contactless solutions

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

The new LEGIC advant SM-4200 reader chip becomes your preferred choice for battery powered and standard applications. The extensive interoperability combined with a ready-to-use encryption package opens unrivalled possibilities for contactless applications. The reader chip meets all major RF standards including ISO 14443A+B, ISO 15693 and others for single or multi-technology designs.



LEGIC advant reader chip SM-4200
size 8x8 mm
(1:1 illustration)

Application examples



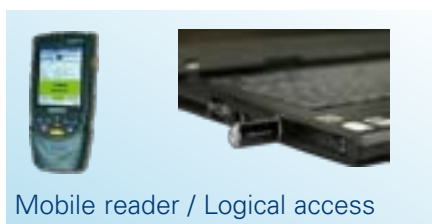
Access control / Time & Attendance



Mechatronics / stand-alone locks



Payment / Vending



Mobile reader / Logical access

Highlights

- Operates with ISO 14443 A+B, ISO 15693, LEGIC RF standard, Sony Felica, Inside Contactless
- Ultra low power consumption
- Small size & easy design-in
- All-in encryption package
- Full end-to-end security
- Firmware upgradable
- Best price-performance ratio

Target markets

- High volume markets (e.g. electronic cylinders, door locks, mobile applications, logical access, government ID projects, fitting locks)
- Multi technology readers
- Where small reader size and battery life is crucial

Full end-to-end security



Host

Host I/F

Reader

RF I/F

Transponder

Your benefit

- One reader for all major RF standards and wide selection of credentials
- Extended battery lifetime
- Advanced ready-to-use, open encryption algorithms
- Straight forward and easy reader development
- Easy integration into existing installations
- Prepared for future requirements

Technical features

Contactless RF standards	<ul style="list-style-type: none"> ■ ISO 14443 A+B, up to 424 kbit/s ■ ISO 15693 ■ ISO 18092 (NFC) * ■ LEGIC RF ■ Sony Felica ■ Inside Contactless
Supported LEGIC transponders	<ul style="list-style-type: none"> ■ LEGIC advant ATC ■ LEGIC card-in-card solution AFS ■ LEGIC prime MIM
Supported third party transponders (selection)	<ul style="list-style-type: none"> ■ All ISO 14443 A+B, part 4 compliant transponders, e.g. <ul style="list-style-type: none"> - NXP Mifare Desfire, Mifare Plus, SmartMX - Infineon SLE66 ■ Selected ISO 15693 compliant transponders, e.g. <ul style="list-style-type: none"> - Texas Instruments Tag-It - EM Microelectronics EM4035 - Infineon my-d ■ Additional transponders <ul style="list-style-type: none"> - NFC Forum Tag 2 / 3 / 4 types - NXP Ultralight - NXP Mifare Classic (UID) - Sony Felica (plain text) - Inside Contactless (UID), HID iClass (UID)
Security elements (selection)	<ul style="list-style-type: none"> ■ LEGIC MasterToken System Control ■ Data encryption selectable (AES128/256, 3DES, DES, LEGIC), using key diversification ■ Mutual authentication according ISO9798-2, using key diversification ■ Host interface authentication and encryption
Operating System LEGIC OS-4000	<ul style="list-style-type: none"> ■ Secure transponder read & write ■ Common API for LEGIC transponders ■ Access on third party transponders with transparent channel ■ Secure field upgradeability (OS update)
Interfaces	<ul style="list-style-type: none"> ■ SPI or UART (RS232 with logic levels) ■ Antenna interface 50 Ohm ■ 4 GPIO (1 configurable for buzzer control)
Power supply	<ul style="list-style-type: none"> ■ Standard reader application <ul style="list-style-type: none"> - RF amplifier: 5 V / 200 mW - Host interface: 3.3 V ■ Battery powered reader application <ul style="list-style-type: none"> - RF amplifier: 3.3 V / 70 mW - Host interface: 2.4 V to 3.2 V - WATCH mode: 20 µA - STOP mode: 5 µA
Operating temperature	<ul style="list-style-type: none"> ■ -25°C to +85°C
Chip package	<ul style="list-style-type: none"> ■ QFN56, 8x8x0.9 mm
Compliance	<ul style="list-style-type: none"> ■ CE, RoHS, GREEN, REACH

* Passive mode, initiator, selected tag types

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