

## MULTI-TECHNOLOGY OEM MODULE SMARTPHONES & RFID CARDS



### COMPATIBILITY

- STid Mobile ID® (Bluetooth® & NFC)
- MIFARE® credentials
- SECard software
- SSCP v1 & v2 protocols

SECARD



### CERTIFICATIONS



### A HIGH-SECURITY INTEGRATED MODULE

With its integrated antenna, the extremely compact MS2S Blue module simplifies your high-security identification and access control applications.

It can identify smartphones using numerous Prox or hands-free identification modes, in addition to, or as a replacement of, a conventional RFID card.

### WELCOME TO HIGH SECURITY

The module supports the latest contactless MIFARE® and DESFire® EV2 chip technologies, with their new data protection measures:

- **Secure Messaging EV2** : a method that secures transactions by protecting them against interleaving and replay attacks.
- **Proximity Check** : protection against relay attacks.

All public encryption algorithms can be used (3DES, AES, RSA, SHA, etc.), and it uses an EAL5+ crypto processor to improve data protection and privacy.

### INSTINCTIVE IDENTIFICATION

Your smartphone becomes your access key by eliminating the constraints of traditional access control.

Choose your favorite identification mode and make your access options both secure and much more instinctive!



#### Card Mode

Place your smartphone in front of the reader as a standard card.



#### Remote Mode

Activate remote control mode to remotely check your access points.



#### Tap Tap Mode

Tap your smartphone twice in your pocket for close or remote access.



#### Hands-free Mode

Just walk past the reader! There's nothing else to it!

### MIGRATE IN COMPLETE PEACE OF MIND

The MS2S Blue simplifies the management of extensions, upgrades and technological migrations. It combines two identification frequencies: 13.56 MHz (all the MIFARE® chips, including DESFire® EV2, NFC, CSN iCLASS™\*, etc.) and Bluetooth®.

When migrating, or in complex multi-site configurations, it can be used to read different types of badges and to gradually switch to mobile technologies.

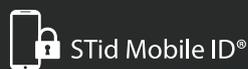
### FLEXIBILITY & SCALABILITY

This new module boasts the high processing power required for quick and easy updates. Updates can be easily managed on site to extend the life cycle of your installations.

### AN OPEN ECOSYSTEM

Our modules are based on open technologies, standards and recognized public encryption algorithms.

This ambition runs counter to proprietary technologies and enables organizations to keep control of their security policy, in compliance with the recommendations of the French State information systems agency (ANSSI).



## SPECIFICATIONS

Operating frequency/Standards	13.56 MHz: ISO14443A types A & B, ISO18092 Bluetooth®
Chip compatibility	MIFARE® Ultralight® & Ultralight® C, MIFARE® Classic & Classic EV1, MIFARE Plus® (S/X) & Plus® EV1, MIFARE® DESFire® 256, EV1 & EV2, CPS3, NFC (HCE), PicoPass® (CSN only), iCLASS™ (CSN only) STid Mobile ID® (NFC & Bluetooth® virtual card), Orange Pack ID
Functions	Read only: CSN or private ID (sector/file) / Secure Protocol (Secure Plus) / Secure Read Write
Antenna	Integrated
Communication interfaces & protocols	TTL protocol Data Clock (ISO2) or Wiegand (ciphered mode S31) Asynchronous RS232 serial output with TTL levels (encrypted option - S31) with secure SSCP v1 and v2 communication protocols
Reading distances**	Up to 5 cm / 1.97" with a MIFARE® DESFire® EV2 or Classic badge Up to 20 m / 65.6 ft with a Bluetooth® smartphone (the distances can be adjusted on each reader)
Data protection	Yes - EAL5+ secure data storage with certified crypto processor
Light indicator	One RGB two-color LED - Indication of the power supply / firmware version / communication / configuration recognition Configurable by card (standard or virtual with the STid Settings application) or by SSCP v1 and v2 controls
Power requirement	190 mA max / 5 VDC
Power supply	4.5 VDC to 9 VDC
Connectors	7-point HE14 male connector
Dimensions (h x w x d)	60 x 35 x 5 mm / 2.4 x 1.4" x 0.2"
Operating temperatures	- 30°C to + 70°C / - 22°F to + 158°F / Humidity: 0 - 95%
Protection / Resistance	IEC F EN 61086-compliant tropicalized electronic PCB - Weatherproof, water and dust resistant (apart from the connectors)
Mounting	5 mm / 0.2" diameter fastening hole
Certifications	CE, FCC & UL
Part numbers	Secure read only - TTL .....MS2S-R31-A/BT1-xx/0 Secure read only - Secure Plus - TTL .....MS2S-S31-A/BT1-xx/0 Secure read only - RS232 - TTL .....MS2S-R31-A/BT1-5AB/0 Secure read only - Secure Plus - RS232 - TTL .....MS2S-S31-A/BT1-5AB/0 Secure read write SSCP - RS232 - TTL .....MS2S-W31-A/BT1-5AA/0 Secure read write SSCP v2 compliant CSPN - RS232 - TTL .....MS2S-W31-A/BT1-5AD/0

## A DESIGNER OF MADE-TO-MEASURE MODULES

STid develops OEM modules adapted to your specific integration projects: support with the specifications, engineering, design, prototyping, standardization and industrial production.



## USER-FRIENDLY MANAGEMENT TOOLS



**SECARD**  
SECard configuration kit and SSCP & SSCP2 protocols



**STid Mobile ID®**  
Online Portal  
Web platform for remote management of your virtual badges

\*Our readers only read the serial number / UID of the iCLASS™ chip. They do not read HID Global iCLASS™ cryptographic protection. \*\*Caution: information on communication distances; they are measured at the center of the antenna, depend on the configuration of the antenna, the installation environment of the reader, the temperature, the supply voltage and the read mode (secure or not). External interference can reduce the reading distances.

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