

NFC'ROLL

VERSATILE PC/SC NFC DESKTOP DEVICE
READER/WRITER, CARD EMULATION, PEER-TO-PEER

NFC'Roll is the first desktop product on the market to be both PC/SC reader/writer - able to communicate in LLCP («NFC peer-to-peer») - and NFC Tag emulator.

The versatility of the product makes NFC'Roll the ideal PC device to implement quickly innovative NFC schemes.

PC/SC NFC DEVICE

NFC'Roll connects to PC through a single USB link and 100% compliant with the PC/SC standard.

NFC'Roll supports any T=CL contactless smartcard (ISO 14443) and is able to read/write any NFC Forum Tag.

EXCLUSIVE NFC FEATURES

Its NFC peer-to-peer capability (ISO 18092), either as Initiator or as Target, is the basis of innovative applications using this exciting new technology.

NFC'Roll implements the card emulation mode into the device itself.



A FEW TYPICAL APPLICATIONS

NFC'Roll has an attractive look and feel and it is robust.

NFC'Roll has 3-color LEDs (red, green and blue) and a beeper signaling card operations or driven by the PC-application.

It is then a product fitting to a variety of situations, and it is perfectly adapted to :

- Event, gaming, ticketing,
- Active advertising,
- Loyalty, couponing
- Social networks, NFC-aware web 2.0,
- Peer-to-peer smartphone applications.

ABOUT SPRINGCARD

SpringCard products are designed and manufactured in France, and distributed worldwide.

With 12 years of expertise in smartcards, contactless, RFID and NFC, SpringCard is the ideal partner to make your project a success.



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TECHNICAL SPECIFICATIONS

Contactless smartcard interface

Standards	ISO/IEC 14443 A and B ISO/IEC 18092 Initiator and Target (passive) T=CL and NFC-DEP protocols on-board
RFID carrier	13.56 MHz
Operating distance	Typical 5 cm - up to 10cm Vary with antenna, environment and card
Card baud rate	106 or 212 kbps
NFC Forum Tag read/write	<ul style="list-style-type: none"> Type 1 : Innovision Jewel/Topaz Type 2 : NXP Mifare UltraLight, NTAG203... Type 3 : Sony Felica Lite Type 4 : any T=CL smartcard
Supported contactless smartcards (partial list)	<ul style="list-style-type: none"> NXP Mifare Classic, Mifare Plus, Desfire, SmartMX... Calypso (including Innovatron radio protocol) Any NFC object or mobile phone running in card emulation mode
Card emulation mode	<ul style="list-style-type: none"> On-board emulation of NFC Forum type 2 Tag and type 4 Tag, 1024kB available for NDEF data Host-based card emulation, with T=CL protocol implemented on-board

Hardware specifications

Status indicator	3 LEDs (red, blue, green) Buzzer (85 dBA approx.)
Color	Blue wheels + black body
Dimensions (LxWxH)	75 x 75 x 25 mm
Housing material	ABS
Weight	≈ 150g
USB cable	≈ 1.80 m

USB PC /SC mode

Standard	USB 2.0 full speed interface (12 Mbps) Standard USB CCID profile
Power supply	Powered by USB 5V DC +/- 10%, 150mA typ. , 200mA max
Windows driver	2000/XP/Vista/Seven
Linux, *nix driver	Supported by PCSC-lite open source stack on Linux and other Unix systems
API and SDK	Compliant with PC/SC version 2 specification Comprehensive SDK available free of charge, including those demo software : <ul style="list-style-type: none"> NFC peer-to-peer: basic implementation of SNEP (« NFC beam » or « NDEF push ») on top of LLCP, in both initiator and target mode NFC Forum type 2 and type 4 Tag emulation (URL, Text, SmartPoster, vCard, MIME...) PC-based card emulation mode (ISO/IEC 7816-4 cardlet running on PC) NFC Forum Tags read/write software, and all other applications from the PC/SC SDK

Environment and safety

Operating temperature	- 20 → + 70°C
Storage temperature	- 40 → + 85°C
MTBF	500 000 hours
CE mark	EN50082 / EN55022 class B
Other standards	RoHS

ORDER CODES

PART #	Description
SC2019	NFC/Roll PC/SC

PRECAUTIONS FOR INSTALLATION

Those devices use inductive coupling (magnetic field) to power the cards and communicate with them. Precaution must be taken to keep them far from any source of perturbation (e.g. other readers, computers...). Installing the device near a metal surface will decrease the operating distance and increase power consumption. SpringCard has a long experience. Please contact us if you need any assistance to integrate those devices.

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PRO ACTIVE COMPANY WITH A CAPITAL OF 227 000 €
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