



# PUCK

**NFC/RFID HF readers family for all uses (ble design, versatile high performance)**

## COUPLERS AND READERS : SPRINGCARD STILL ROCKS

Based on the whole new chipset NXP PN5180 for the NFC/RFID communication at 13.56 MHz and on high speed processor 32bits, the PUCK family is the new reference in terms of performance and use diversity. Compliant with the last generation of contactless cards used for transportation, payment or identification, as well as with the NFC Forum tags and most of the tickets and RFID labels -even when they are based on an owner protocol like MIFARE. The PUCK family is adapted to existing parks and long-lasting sustainable processes. Its compliance with EMV ensures interoperability with other devices.

## NEW MODES FOR NEW USES

A reader which becomes a card for a transaction with a smartphone ? An USB peripheral allowing your laptop to operate in peer-to-peer like a tablet ? That's easy as PUCK ! Every product from the PUCK family can emulate a NFC Forum tag without the intervention of the laptop they are connected to ('tag emulation' mode), emulate a contactless card whose applicative runs on the laptop ('host card emulation mode' or HCE), or initiate a peer-to-peer communication «NFC Beam».

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## ICE HOCKEY BALL OR SAVVY GOBLIN ?

Sportsmen will see the link between the housing refined design of the PUCK family and the Ice hockey ball, called «puck» in english. The theatre enthusiasts will link it with PUCK the goblin from Midsummer Night's Dream from Shakespeare. But the PUCK is also a creature from the celtic folklore, a smart blighter, playful and quite rebellious. A trait of character that fits perfectly with SpringCard spirit !



## USB OR BLUETOOTH LOW ENERGY : YOU CHOOSE

PUCK is a complete family in which each member has its personality.

The PUCK Base brings its 100% plug'n play approach, an absolute compliance with every office operating systems (Windows, Mac OS X, Linux), a total interoperability with its predecessors from the Prox'n Roll family and even with all the smartcard readers of the market for the PC/SC setting.

Products from the PUCK family can read all the NFC/RFID HF tags types.

For the wireless or mobile solutions enthusiasts, PUCK Blue is ideal for applications based on smartphones or tablets.

This functionalities also exist in a PUCK product operating on battery: PUCK Point.

## SECURITY, THE KEY ISSUE FOR TOMORROW'S APPLICATIONS

The PUCK products also embed a coprocessor NXP SAM AV2 to store the applicative keys without compromising with their safety.

PUCK's family products (except PUCK One) include a connector for a smartcard size Mini SIM/SAM, essential to validate transactions with some contactless cards.

## PC/SC, SMART READER OR NCI ?

To the diversity of physical interfaces PUCK family adds the diversity of software interfaces, in order to adapt itself with agility to needs -and know-how- of each developer or solution integrator.

Whatever may be your implementation problematic, in a company environment, in a university, on a trade show or in a small shop, whatever may be your computing environment and your integration constraints, there is always a PUCK to help you !

PRELIMINARY

## PUCK Base

The PUCK Base is an NFC/RFID HF USB reader with an integrated SAM AV2. This reader is compliant with the standard USB CCID

## STANDALONE AND SIMPLE

It could read the serial number or virtually any data from any RFID HF / NFC tag or contactless smartcards in the 13.56Mhz range, including popular NXP MIFARE® products.

Data are transmitted to the computer as if they were entered on the keyboard. Using a RFID chip becomes as easy as using a barcode. You don't need to develop a PC software to collect RFID data or extract information from a contactless smartcard: the reader runs on its own without any external software.

And it works with any desktop operating system (Windows, Mac OS, Android, Linux...). All this is made possible thanks to the keyboard emulation mode, compliant with USB HID specification.

The PUCK Base is:

- Easily configured on the field through a secured master card or SpringCard Companion software
- Able to run 4 recognition templates simultaneously.

The PUCK Base is an efficient and versatile desktop contactless coupler.

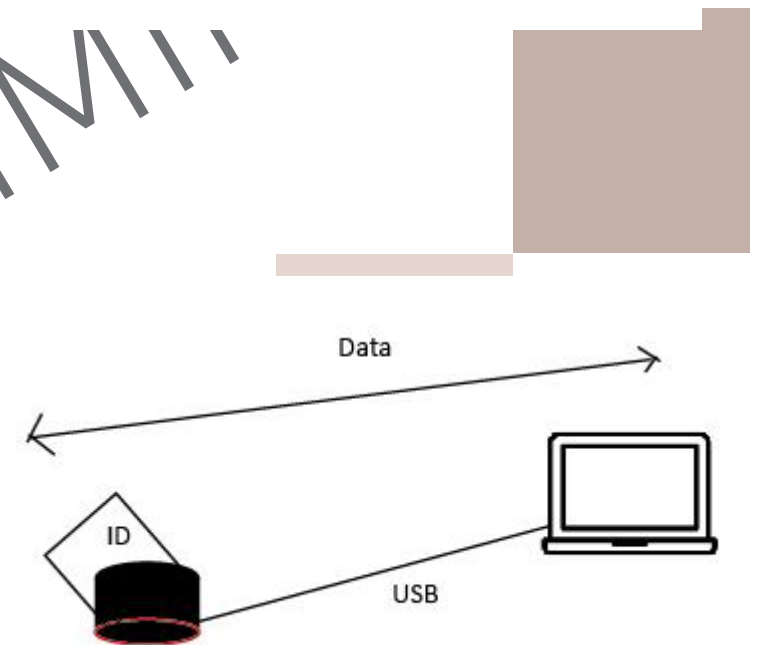
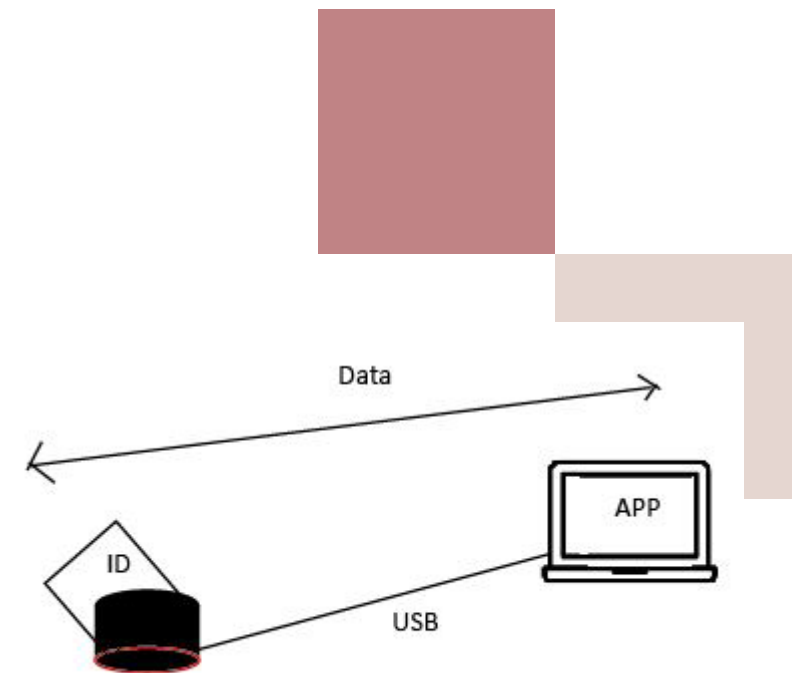
Thanks to its compliance with the PC/SC standard, the PUCK Base hides all technical specificities of contactless token, ensuring a simple and straightforward implementation. A comprehensive SDK allows easy developments, in an open and interoperable scheme. SpringCard provides the PC/SC driver for Windows and uses open source PCSC-Lite stack for other platforms.

## TYPICAL APPLICATIONS

Loyalty programs, Logistics, library, Storage, stocktaking, order preparation, Product traceability, Identification of users or things, E-passports and other e-government documents, Authentication, Control access and security applications

## SPRINGCARD COMPANION

SpringCard Companion is a software allowing you to set up your PUCK in one click. You will be able to use the PUCK on all the supports the same way, the portability is the main advantage of the association of SpringCard Companion and PUCK products.



## PUCK Point

Designed for shows, conferences or other events, examination center. The implementation of PUCK Point consist of several PUCK Point to only one central system.

The users show their badges, their electronic business card of their smartphone (having a compliant application) on the reader.

Thanks to the live wireless communication, the central system can follow the attendance and the place activity, interact with social networks or broadly speaking with management applications.

The PUCK Point reader can report an approval or a rejection through his visual and sound interface. The recording of crossings (with time stamping) is useful to know the history of the badges that showed up on this or this place, without needing a permanent infrastructure.



PRELIMINARY

# Settings types

## PUCK Base, Point Setting

PC/SC Configuration	
USB Protocol Windows Drivers	CCID 1.1 profile PC/SC v2.03 SpringCard UsbPC/SC driver for Windows 7/8/10 (x86,amd64)
Other Drivers	Open source PCSC-Lite driver for Linux & Mac
SDK	SpringCard PC/SC SDK (free)
RFID Scanner Configuration	
USB Protocol Drivers	HID profile Supported as a standard USB keyboard by all current desktop/ laptop OS
USB Setting	
USB Protocol Drivers	

PRELIMINARY



# Common Technical Characteristics

ISO/IEC NFC/RFID standards Carrier frequency RF field level Antenna Operating distance Baudrate	14443 A6B PCD (NFC-A, NFC-B), 15693 (NFC-V), 18000-3M1 & 3M3, 18092 (NFCIP-1), 14443 A PICC (card emulation) 13.56MHz (RFID HF, NFC) Typ: 3A/m at 0cm, 1.5A/m at 5cm Integrated, balanced, diameter 7cm Typ: 0-5cm, up to 10cm 26kbps (15693), 106/212/424/848kbps (14443), 106/212/424kbps (18092)
Host Interface	USB 2.0 full-speed (12Mbps) – compliant with USB 3.0 and 1.1
Non-ISO RF technologies	NFC Forum Tag, types 1, 2, 3, 4 & 5 (R/W), type 4 (emulation) NXP (Philips) MIFARE, BroadComm (Innovision) Jewel & Topaz, ThinField (Kovio) RF Barcode, ST SR & LR, ASK CTS, Atmel CryptoRF, ... Calypso's Innovatron radio protocol FeliCa (NFC-F) : plain mode only HID iClass, Inside PicoTag : serial number only
Light Sound	True R,G,B LEDs with advanced luminosity control 3 LEDs on the back (Battery status, Bluetooth status, Mode) 3-tone buzzer
Battery	Xxx xxxmAh (BAT version only)
Power	Recomendation chargeur
Dimensions Cable/connector	Diameter:8.1cm/Height:3cm/Weight:ca 140g 1.8m cord – USB type C connector
Temperature Humidity	Operation -20/+70°C, storage -40/+85°C 0-90 % non condensING 0-90%
Approvals	Radio: EN 300 330, EMC: EN 301 489, Security: EN 60 950-1, CE mark FCC class B part 15 (pending) RoHS, WEEE
MTBF	500 000 hours
Warranty	2 years avec batterie ?



SpringCard offers a wide range of products to answer the largest possible amount of needs and uses. With 18 years of experience in contactless smartcards, communication technologies and the development of mobile and embedded systems, R&D SpringCard's team is a valued partner to help you create your own solution or product.

### Our locations

Angers - Paris  
San Diego - San Francisco - Sydney



[www.springcard.com](http://www.springcard.com)