H663 USB

PC/SC RFID AND NFC READER/WRITER MODULE WITH ANTENNA AND USB INTERFACE

CONTACTLESS & RFID

The **H663 USB** supports any T=CL contactless smartcard (ISO 14443), including Calypso transport cards and all families of Mifare cards.

It is able to read/write any NFC Forum Tag as well as virtually any RFID chip in the ISO 15693 or ISO 18000-3 mode 1 standards (ICODE-SLI, TagIt, my-d...).

INNOVATING NFC FEATURES

Its NFC peer-to-peer capability (NFCIP1 - ISO 18092) is the basis of innovative new applications using this exciting new technology

MADE FOR OEM

This is an OEM products family, sold as electronic parts, without housing. This is a ready-to-use product with its own antenna and a USB connection.

SpringCard also designs ready-to-use products based on the H663 core. For any information, please contact us.

ABOUT SPRINGCARD

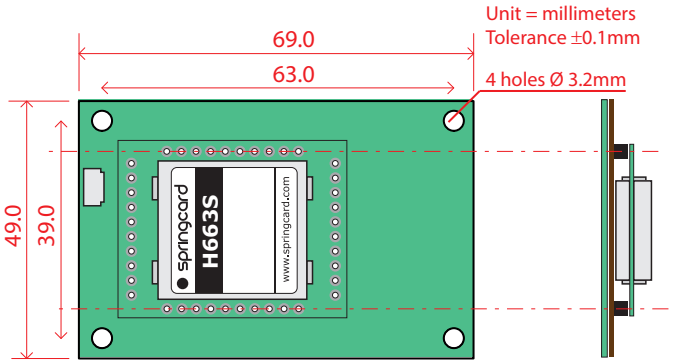
SpringCard products are designed and manufactured in France, and distributed worldwide.

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

A FEW TYPICAL APPLICATIONS

The **H663 USB** has an improved operating range and a fastest communication speed.

- Transport terminals,
- Vending machines, point-of-sales PC,
- Card printers,
- Issuing devices,
- And more...



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TECHNICALSPECIFICATIONS

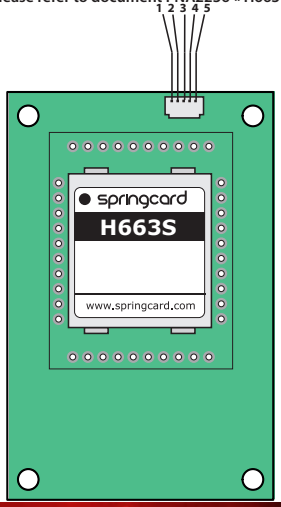
Contactless / NFC interface	
Standards	**ISO/IEC 14443** A and B **ISO/IEC 18092** Initiator (passive mode) T=CL and NFC-DEP protocols on board **ISO/IEC 15693**
RFID carrier	13.56 MHz
Operating distance	Typical 5 cm - up to 10cm Vary with antenna, environment and card
Card baud rate	26, 106, 212, 424 or 848 kbps
NFC Forum Tag read/ write	▪ Type 1 : Innovision Jewel/Topaz ▪ Type 2 : NXP Mifare UltraLight, NTAG 203... ▪ Type 3 : Sony Felica Lite ▪ Type 4 : any T=CL smartcard
Supported contactless smartcards (partial list)	▪ NXP Mifare Classic, Mifare Plus, Desfire, SmartMX... ▪ Calypso (including Innovatron radio protocol) ▪ Infineon SLE66, ST Micro Electronics ST19 ▪ Atmel AT88 and CryptoRF ▪ ST Micro Electronics SR, SRi, SRiX ▪ Any NFC object or mobile phone running in card emulation mode
Supported RFID tags and labels (partial list)	▪ NXP ICODE-SLI, ▪ Texas Intrument TagIT ▪ ST Micro Electronics LRI and MLR

USB PC /SC interface	
Standard	USB 2.0 full speed (12Mbps) Standard USB CCID profile
Power supply	Powered by USB 5V DC +/- 10%, 150mA typ. , 500mA 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	100% PS/SC compliant - Free 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, FCC part 15 pending

PINOUT AND FOOTPRINT

Please refer to document PNA2236 « H663 AND H663USB HARDWARE GUIDE » for reference and details.



Pinout	
1	VCC
2	D-
3	D+
4	GND (FLASH/RESET)
5	GND shield

ORDER CODES

PART #	Description
H663USB	Ready-to-use H663 mounted on 65x45 antenna
CMP3062	1.5m USB cable for H663USB

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. Please contact us if you need any assistance to integrate those devices.

The modules need an external antenna to operate. The antenna must be designed carefully, depending on your own specifications (size constraints, expected operating distance) but with limited flexibility due to the requirements of the ISO standards and the EMC regulations. **SpringCard** has a long experience designing antenna. Please contact us if you need a custom design.

PRO ACTIVE company with a capital of 227 000 €
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A PRO ACTIVE BRAND