springcard®

CSB-HSP
ALL-IN-ONE CONTACT +
CONTACTLESS SMARTCARD READER

CSB-HSP is an USB contactless ISO 14443 (A&B) and Mifare reader/writer. CSB6 also features a smartcard coupler (ISO 7816) and 3 internal micro SIM/SAM slots.

KEY FEATURES

SpringCard CSB-HSP is a highly integrated smartcard reader for PC, featuring in a single classy desktop housing as many as

- 1 traditional contact smart card reader/writer,
- 3 µSIM/SAM couplers,
- SpringCard's versatile contactless reader/writer.

PC/SC SMARTCARD READERS

SpringCard CSB-HSP is PC/SC compliant, and brings immediate contactless card support to existing PC/SC applications (the whole product is seen as 5 PC/SC readers : 1 contactless, and 4 contact).

On the other hand, CSB-HSP may be configured for legacy, and is in this case 100% compatible with earlier products from SpringCard (CSB4, K531...). This allows a smooth migration without changing anything in existing software.

A FEW TYPICAL APPLICATIONS

- Card personalisation and issuing
- Secure login or strong authentication
- e-banking & e-commerce

SUPPORTED CONTACTLESS SMARTCARDS

CSB-HSP is compliant with ISO/IEC 15693 and 14443 (A and B) standards. List of supported chips includes :

- NXP (Philips) : ICODE1, ICODE-SLI, Mifare Classic and UltraLight, Desfire, ProX, SmartMX,
- Texas Instrument : TagIT,
- ST MicroElectronics : SR176, SRiX, etc
- ASK CTS256B and CTS512B,
- HID iClass and Inside PicoTag,
- MultOS or JavaCard T=CL cards,
- Calypso transportation cards,
- NFC mobile phones or other NFC-capable objects (tag emulation mode)

SPRINGCARD & PRO ACTIVE

Established in 2000, Pro Active is an innovative provider of smartcard related solutions, and one of the leaders on the contactless-reader market.
SpringCard has been created to distribute Pro Active's contact and contactless products worldwide, under a single brand name.

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TECHNICAL SPECIFICATIONS

Contactless smartcard interface	
Standards	ISO/IEC 15693 & 14443 A and B, T=CL
RFID carrier	13.56 MHz
Operating distance	up to 8 cm depending on card and on environment
Card baud rate	106, 212, 424 or 848 kbit/s

Supported cards (partial list) :
- NXP (Philips) ICODE1, ICODE-SLI, etc
- Texas Instrument TagIT
- NXP (Philips) MIFARE Classic & UltraLight
- NXP (Philips) DESFIRE, SmartMX, ProX
- Infineon SLE66 family
- ST MicroElectronics SR, SRI, SRIX families
- HID iClass, Inside PicoTag
- ASK CTS256/CTS512
- Calypso (CD97, CD21, GTML, etc)[1]

And virtually any ISO/IEC 14443 A or B compliant smartcard, or ISO/IEC 15693 compliant RFID label

Contact smartcard interface	
Card format	ID-1 (full size)
Standards	ISO/IEC 7816, T=0 & T=1
Smartcard power	5V or 3V (class A and AB), max 80mA
Clock frequency	3,6864 or 7,3728 MHz
Card baud rate	Up to 115200 bps
Other features	Card presence detection Short circuit and thermal protection

SIM / SAM interfaces	
Card format	ID-000 (µSIM)
Number of slots	3 (2 inside + 1 accessible without opening the device)
Standards	ISO/IEC 7816, T=0 & T=1 HSP
Smartcard power	5V or 3V (class A and AB)
Clock frequency	3,6864 MHz
Card baud rate	Up to 115200 bps

Hardware specifications[2]	
Status indicator	3 LEDs (red, yellow, green)
Dimensions (LxWxH)	146 x 93 x 22 mm
Housing Material	ABS-94HB (self extinguishing UL94)
Weight	≈ 250g
USB cable	≈ 1,80 m

[2] Note that CSB6 board may be sold without housing, for OEM integration

USB interface	
Standard	USB 2.0 full speed (12Mbps)
Power supply	Bus powered (≈300mA under 5V)
Default configuration is PC/SC	

PC /SC mode	
Standard USB CCID profile	
Windows driver	2000/XP/Vista
Linux driver	Supported by PCSC-lite CCID driver
API and SDK	Full PS/SC - Free SDK available

Legacy mode	
USB virtual serial comm. port API compliant with existing products (SpringProx-CF, CSB4, CSB5, K531,...)	
Drivers	Windows, Linux
API and SDK	SpringProx API SDK sold separately

Environment and safety	
Operating temperature	-20 →+70°C
Storage temperature	-40 →+85°C
Durability	500 000 Card insertions 5 000 SIM/SAM insertions
MTBF	500 000 hours
CE mark	EN50082 / EN55022 class B
Other standards	RoHS, FCC pending

ORDER CODES

PART #	Description
SC0177	**CSB-HSP**

PRECAUTIONS FOR INSTALLATION
This device is a contactless reader; it uses inductive coupling (magnetic field) to power the cards and communicate with them. Precaution must be taken to keep the reader far from any source of perturbation (e.g. other readers, computers…). Installing the reader near a metal surface (aluminium or steel plate…) will lead to shorter operating distance and increased power consumption.
SpringCard has a long experience installing contactless couplers in various kind of devices. Do not hesitate to contact us if you need any assistance.

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