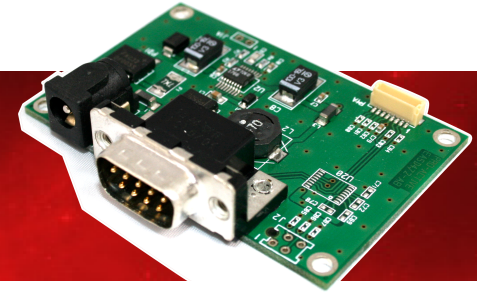


Crazy Writer

oem contactless smartcard
reader + 2 μ SIM/SAM

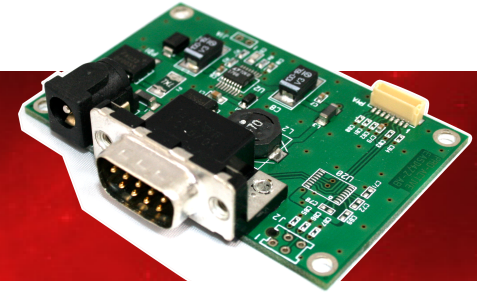


Agenda



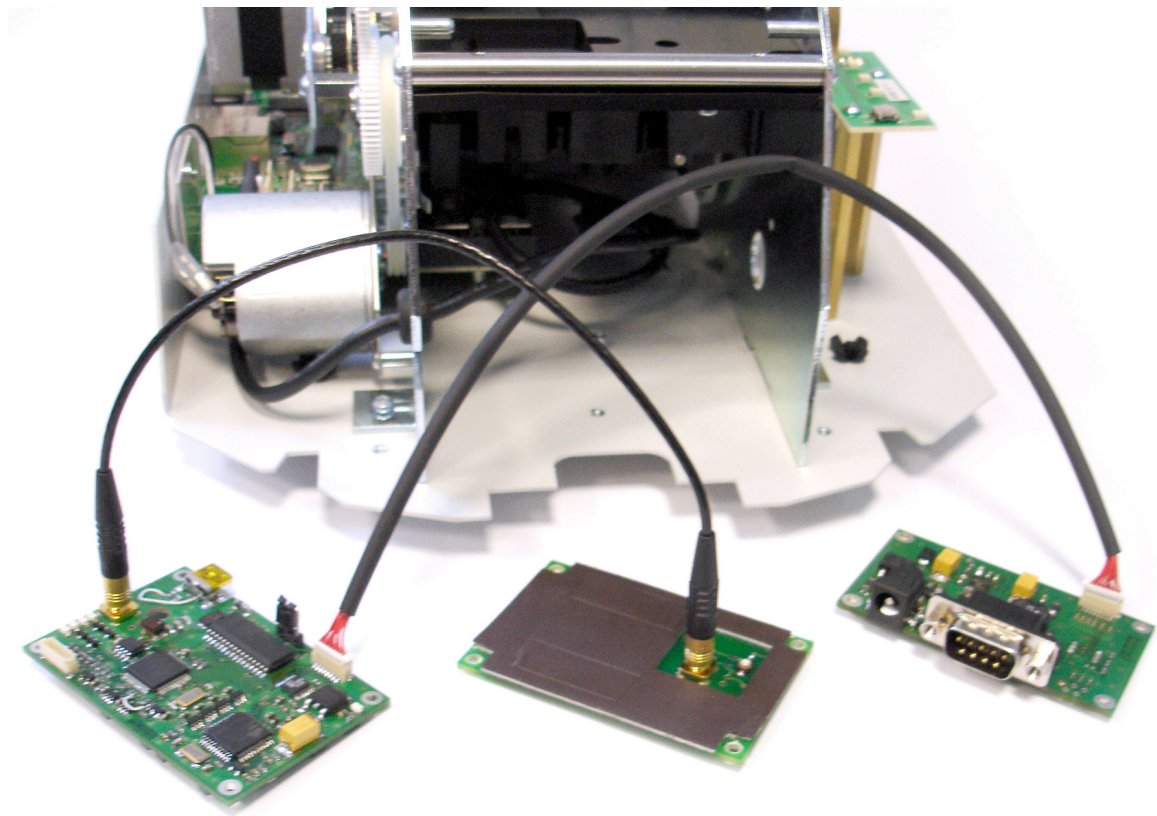
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Crazy Writer

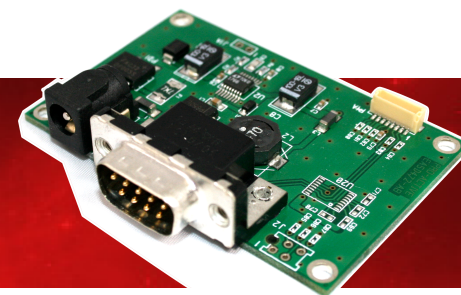


- SpringCard CrazyWriter is a versatile ISO 14443 (A&B) and Mifare contactless reader/writer.
- Its two integrated μ SIM/SAM couplers
- Compact design and single bus-powered USB interface
- Fits easily into card printers, vending or ticketing machines, fare gates or validators in transportation networks, and more.

Software



Contactless smartcard interface



Main characteristics

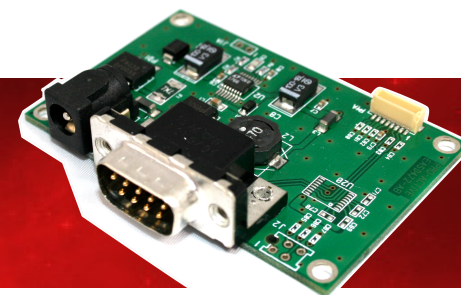
Standards	ISO/IEC 14443 A and B, T=CL
RFID carrier	13,56 MHz
Operating distance	1 to 8 cm Depending on card and environment
Card baud rate	106, 212 424, 848 kbit/s

Supported cards:

- **NXP (Philips) MIFARE classic & Ultralight**
 - **NXP (Philips) DESFIRE, SmartMX, ProX**
 - **Infineon SLE66 family**
 - **ST MicroElectronics RS, SRI, SRIX families**
 - **ASK CTS256/CTS512**
 - **Innovision Jewel tags**
 - **Calypso (CD97, CD21, GTML, etc)**
- And virtually any ISO 14443 A or B compliant card**

- The contactless interface included operated at up to 8 cm.
- It can exchange data up to 848kbit/s.
- The interface supports many card types including Mifare, DESfire and Calypso.

PC/SC mode

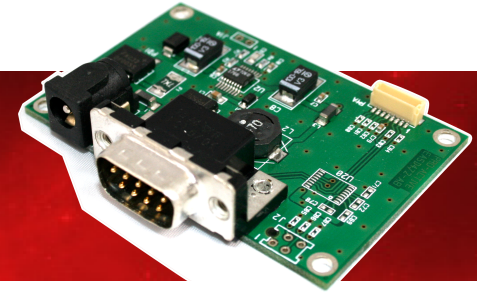


- The whole product is seen as 3 PC/SC readers : 1 contactless, and 2 SIM/SAM

PC/SC mode	
Standard USB CCID profile	
Windows driver	Available on our website
Linux driver	Supported by pcsc-lite CCID driver
API and SDK	Full PC/SC – Free SDK available



Legacy mode

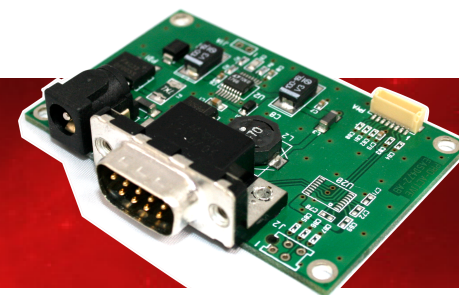


- Mostly fitting for regular customers
(who already know our specifications to communicate with the device and the computer.)

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

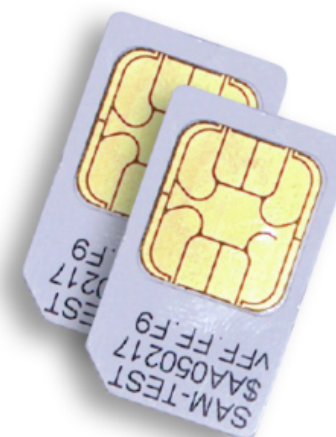


SIM/SAM

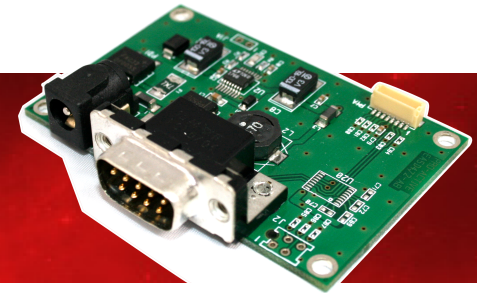


- 2 SIM/SAM slots accepting A and AB smartcards is suitable to secure or authenticate contact or contactless transactions.

SIM/SAM interfaces	
Card format	ID-000 (μSIM)
Number of slots	2 (accessible after opening the device)
Standards	ISO/IEC 7816, T=0 & T=1
Smartcard class	A and AB (3V or 5V cards)
Clock frequency	3,6864 or 7,3728 MHz
Card baud rate	Up to 115200 bps



Examples of applications



- Here are some examples of applications:

Encoding contactless cards

- Card pre-personalization and personalization

Transportation

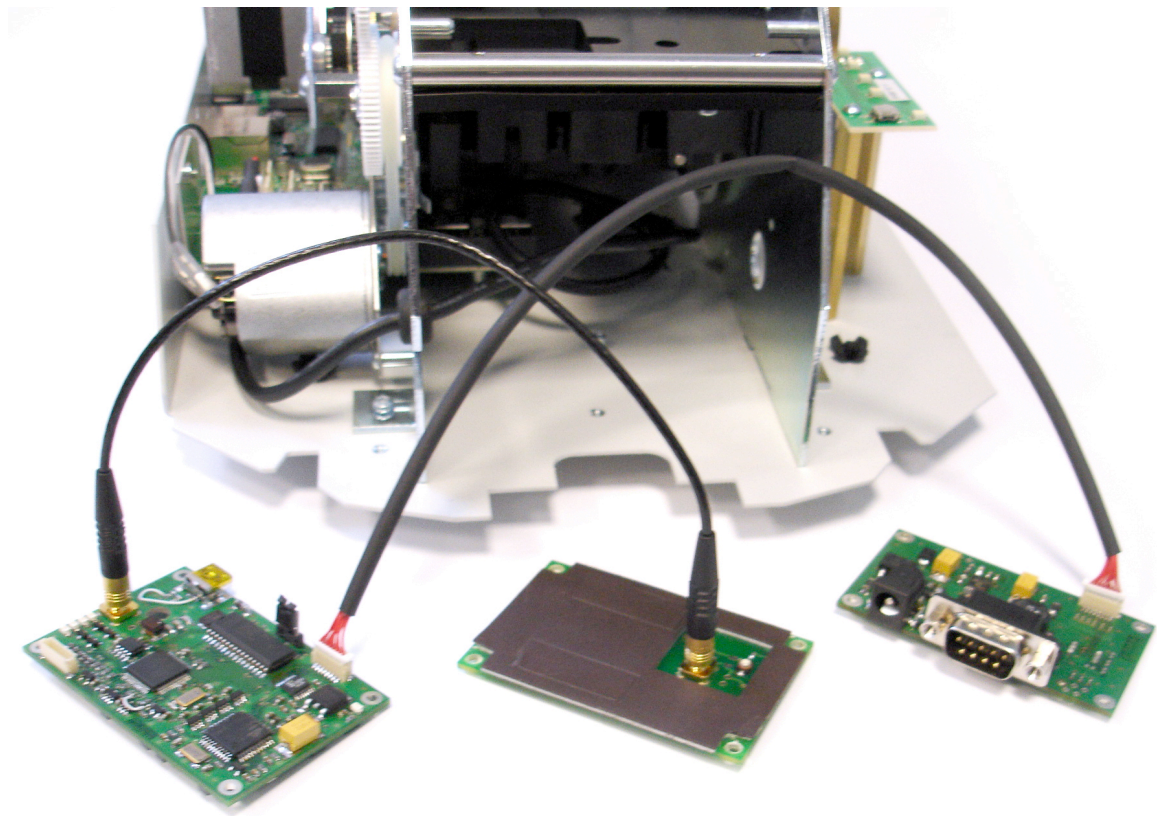
- Vending or ticketing machines

Printer control

- Handle secured identification for printers



Hardware

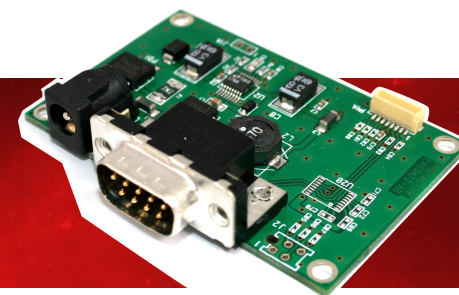


Optional serial Interface (CW-RS) and USB interface

Optional serial Interface (CW-RS)	
Standard	RS- 232 (DB9 female connector)
Power supply	9 to 12V DC – 500mA min.
Card baud rate	38400 bps

USB interface	
Standard	USB 2.0 (12Mbps) – also supports 1.1
Power supply	Bus powered (about 300mA under 5V)
Default configuration is PC/SC	

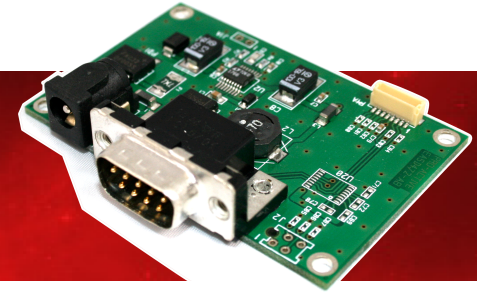
Hardware specifications



Hardware specifications	
This is an OEM product, sold as electronic parts, without housing	
Dimensions (LxWxH)	Each board = 69 x 45 x 1,6 mm
Max distance antenna to mother board	2-wire twisted cable = 5 cm 50Ω coaxial cable = 2m



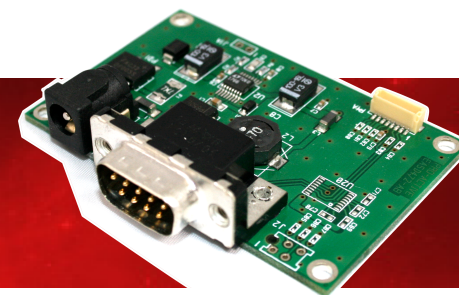
Environment and safety



Environment and safety	
Operating temperature	0 → + 70°C
Storage temperature	-40 → + 85°C
Durability	10 000 SIM/SAM insertions
MTBF <i>(mean time between failures)</i>	500 000 hours
CE mark	EN50082 / EN55022 class B
Other standards	RoHS, FCC pending



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