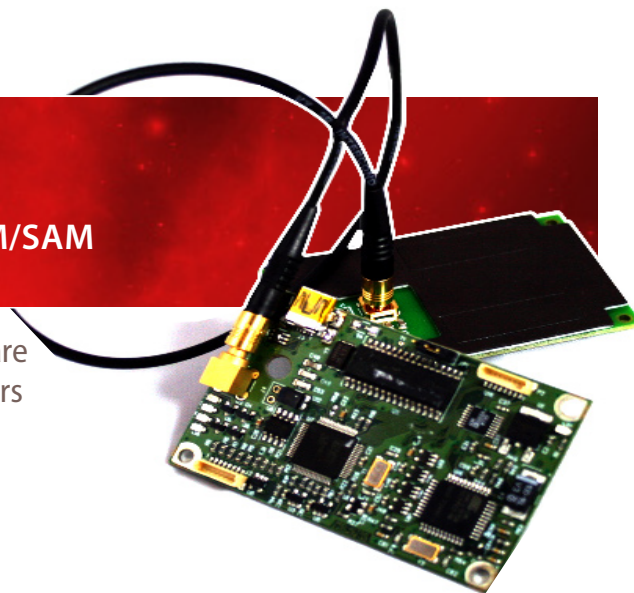


CRAZYWRITER

OEM CONTACTLESS SMARTCARD READER + 2 μ SIM/SAM

SpringCard CrazyWriter is a versatile ISO 14443 (A&B) and Mifare contactless reader/writer. Its two integrated μ SIM/SAM couplers are ready to receive any SAM smartcard for advanced security.



KEY FEATURES

With a compact design and single bus-powered USB interface, CrazyWriter fits easily into card printers, vending or ticketing machines, fare gates or validators in transportation networks, and more.

PC/SC SMARTCARD READERS

SpringCard CrazyWriter is PC/SC compliant, and it brings immediate contactless card support to existing PC/SC applications (the whole product is seen as 3 PC/SC readers : 1 contactless, and 2 SIM/SAM).

On the other hand, CrazyWriter may be configured for legacy, and is in this case 100% compatible with earlier products from SpringCard (CSB4, K531...).

A FEW TYPICAL APPLICATIONS

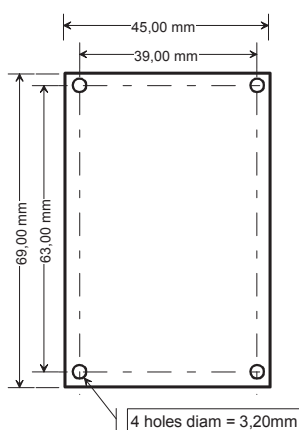
- Card pre-personalization and personalization
- Vending or ticketing machines.

SPRINGCARD & PRO ACTIVE

Established in 2000, Pro Active is an innovative provider of smartcard-related solutions, and one of the leaders in the contactless-reader market.

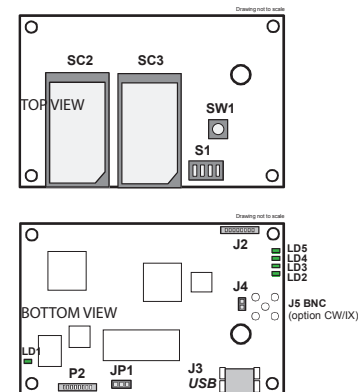
SpringCard distributes Pro Active's contact and contactless products worldwide, under a single brand name.

MECHANICAL SPECIFICATIONS



Same outside dimensions for the 3 boards
thickness = 1,6 mm - global tolerance = $\pm 0,1$ mm

Main board



HEADQUARTERS, EUROPE SPRINGCARD

13 voie la Cardon
Parc Gutenberg
91120 Palaiseau
FRANCE

Phone : +33 (0) 164 53 20 10
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AMERICAS SPRINGCARD

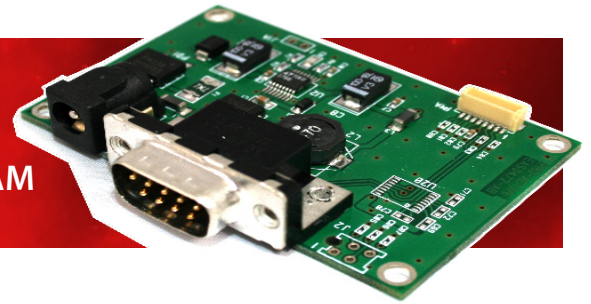
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A PRO ACTIVE BRAND
Pro Active

CRAZYWRITER OEM CONTACTLESS SMARTCARD READER + 2 μSIM/SAM



TECHNICAL SPECIFICATIONS

Contactless smartcard interface

Standards	ISO/IEC 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) :	<ul style="list-style-type: none"> ▪ NXP (Philips) MIFARE Classic & UltraLight ▪ NXP (Philips) DESFIRE, SmartMX, ProX ▪ Infineon SLE66 family ▪ ST MicroElectronics SR, SRI, SRIX families ▪ ASK CTS256/CTS512 ▪ Calypso (CD97, CD21, GTML...)¹
And virtually any ISO/IEC 14443 A or B compliant smartcard.	

¹ Calypso card operation is subject to an extra license fee. Contact us for information.

SIM / SAM interfaces

Card format	ID-000 (μSIM)
Number of slots	2
Standards	ISO/IEC 7816, T=0 & T=1
Smartcard class	A and B (3V or 5V cards)
Clock frequency	3,6864 MHz
Card baud rate	Up to 115200 bps

Hardware specifications

N.B. : 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 50 Ω coaxial cable = 2 m

Environment and safety

Operating temperature	0 → +70°C
Storage temperature	-40 → +85°C
Durability	10 000 SIM/SAM insertions
MTBF	500 000 hours
CE mark	EN50082 / EN55022 class B
Other standards	RoHS, FCC pending

USB interface

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

Serial Interface

Connector	JST: BM08B-SRSS-TB(LF)(SN)
Power supply	5V +/- 10%.
Baud rate	38400 bps
Mode Legacy only	

PC /CS mode

Standard USB CCID profile	
Windows driver	2000/XP/Vista
Linux and others	Supported by psc-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

Optional board - serial Interface (CW-RS)

Standard	RS-232 (DB9 female connector)
Power supply	9 to 12V DC - 500mA min.
Baud rate	38400 bps
Mode Legacy only	

ORDER CODES

PART #	Description
CW40	CrazyWriter USB cable not provided / Serial cable on demand
CWRS	RS232 interface for CrazyWriter Power supply not provided

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PRO ACTIVE company with a capital of 227 000 €
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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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Active**