

## CRAZYWRITER

### OEM CONTACTLESS SMARTCARD READER + 2 $\mu$ SIM/SAM

SpringCard CrazyWriter is a versatile ISO 14443 (A&B) and Mifare contactless reader/writer. Its two integrated  $\mu$ 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

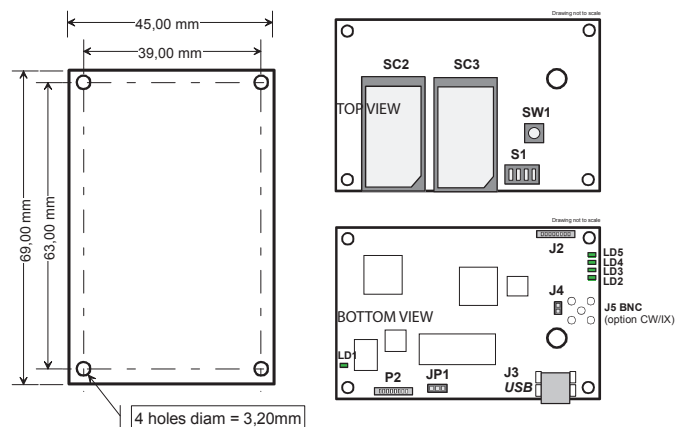
- Card pre-personalization and personalization
- Vending or ticketing machines.

#### 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

#### HEADQUARTERS, EUROPE SPRINGCARD

13 voie la Cardon  
Parc Gutenberg  
91120 Palaiseau  
FRANCE

Phone : +33 (0) 164 53 20 10  
Fax : +33 (0) 164 53 20 18

#### AMERICAS SPRINGCARD

964 Fifth Avenue  
Suite 235  
San Diego, CA 92101  
USA

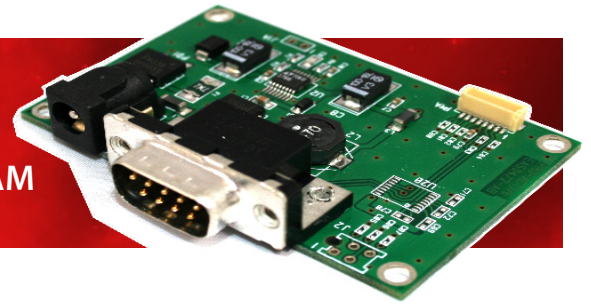
Phone : +1 (619) 544 1450  
Fax : +1 (619) 573 6867

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

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<br>depending on card and on environment |
| Card baud rate   | 106, 212, 424 or 848 kbit/s                        |
| Supported cards (partial list) :<br><ul style="list-style-type: none"> <li>▪ NXP (Philips) MIFARE Classic &amp; UltraLight</li> <li>▪ NXP (Philips) DESFIRE, SmartMX, ProX</li> <li>▪ Infineon SLE66 family</li> <li>▪ ST MicroElectronics SR, SRI, SRIX families</li> <li>▪ ASK CTS256/CTS512</li> <li>▪ Calypso (CD97, CD21, GTML...)<sup>1</sup></li> </ul> And virtually any ISO/IEC 14443 A or B compliant smartcard. |  |

<sup>1</sup> 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   |   |
|---|---|
| <b>N.B. : This is an OEM product, sold as electronic parts, without housing</b> |   |
| Dimensions (LxWxH)  | Each board = 69 x 45 x 1,6 mm                           |
| Max. distance antenna to mother board   | 2-wire twisted cable = 5 cm<br>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)        |
| <b>Default configuration is PC/SC</b> |                                      |

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

| 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<br>API compliant with existing products (SpringProx-CF, CSB4, CSB5, K531,...) |                                       |
| Drivers   | Windows, Linux, ...                   |
| API and SDK   | SpringProx API<br>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                     |
| <b>Mode Legacy only</b>                   |                               |

### ORDER CODES

| PART # | Description   |
|--------|---|
| CW40   | <b>CrazyWriter</b><br>USB cable not provided / Serial cable on demand |
| CWRS   | <b>RS232 interface for CrazyWriter</b><br>Power supply not provided   |

Information in this document is subject to change without notice.

Copyright © PRO ACTIVE SAS 2008, all rights reserved.  
 Reproduction without written permission of PRO ACTIVE is forbidden.  
 SPRINGCARD, PRO ACTIVE, and both logos are registered trademarks of PRO ACTIVE SAS.  
 All other trademarks are property of their respective owners.

PRO ACTIVE company with a capital of 227 000 €  
 R.C.S. EVRY B 429 665 482  
 N.A.F. 722 C  
 VAT # : FR 27 429 665 482  
 France

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

#### 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.