springcard®

TIPROCRAZYWRITER

OEM CONTACTLESS SMARTCARD READER + 3 µSIM/SAM

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

KEY FEATURES

With a compact design and single bus-powered USB interface, TiproCrazyWriter has been specially designed to be integrated in a Tipro keyboard (see harware specifications for reference). But it also fits easily into card printers, vending or ticketing machines, fare gates or validators in transportation networks, and more.

PC/SC SMARTCARD READERS

SpringCard TiproCrazyWriter is PC/SC compliant, and it brings immediate contactless card support to existing PC/SC applications (the whole product is seen as 4 PC/SC readers : 1 contactless, and 3 SIM/SAM).

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

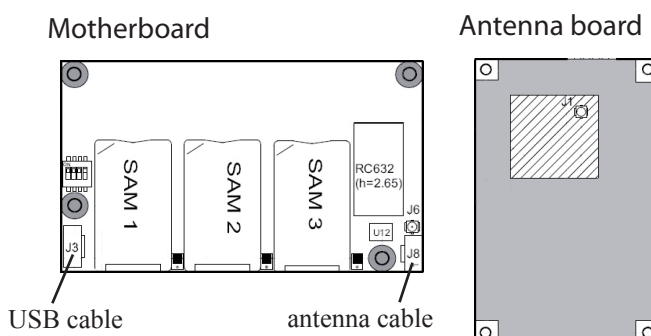## A FEW TYPICAL APPLICATIONS

- 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

Motherboard

Antenna board

USB cable — antenna cable

CAUTION

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, GSM mobile phones…). 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 kinds of device. Do not hesitate to contact us if you need any assistance.

RFID AND HEALTH

For your information, French work and environmental standards agency (AFSSET) has published in January 2009 a report on the impacts of Radio Frequency IDentification on environment and human body.

Visit here if you want to learn more about this report (French version).

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A PRO ACTIVE BRAND

Pro Active

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TECHNICAL SPECIFICATIONS

Contactless smartcard interface	
Standards	ISO/IEC 14443 A and B, T=CL ISO/IEC 15693 and 18000-3
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

[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	3
Standards	ISO/IEC 7816, T=0 & T=1
Smartcard class	A and B (5V or 3.3V cards)
Clock frequency	3,6864 MHz
Card baud rate	Up to 115200 bps

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

PC /CS mode	
Standard USB CCID profile	
Windows driver	2000/XP/Vista
Linux and others	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	SpringProxAPI SDK available for free

Hardware specifications	
N.B. : This is an OEM product, sold as electronic parts, without housing	
Motherboard dimensions (LxWxH)	80 x 48 x 1.6 mm
Antenna board dimensions (LxWxH)	69 x 45 x 1.6 mm
Distance antenna to mother board	50 Ω coaxial cable = 50 cm

Environment and safety	
Operating temperature	-20°C →+50°C
Storage temperature	-40°C →+85°C
Durability	10 000 SIM/SAM insertions
MTBF	500 000 hours
CE mark	EN50082 / EN55022 class B
Other standards	RoHS, FCC pending

ORDER CODES

PART #	Description
TCW	**TiproCrazyWriter**

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