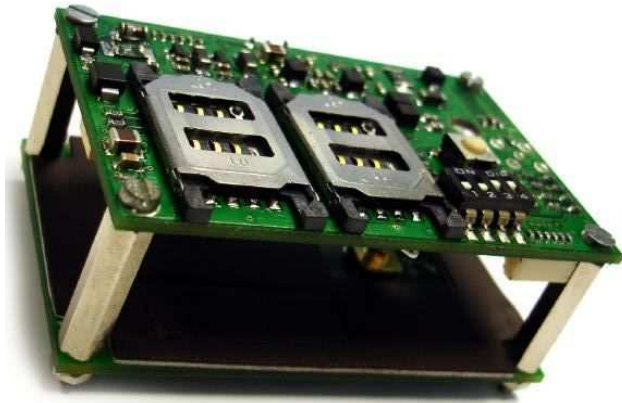


OEM CONTACTLESS SMARTCARD READER + 2 μSIM/SAM

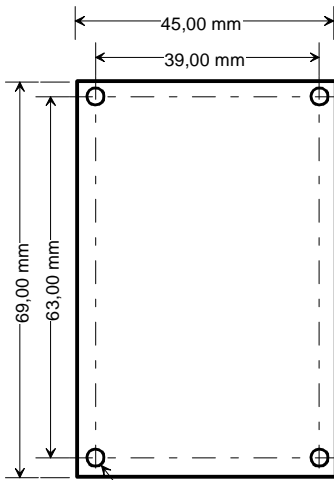
Pro-Active **CrazyWriter** is a versatile OEM contactless reader/writer. Its 2 integrated μSIM/SAM couplers are ready to receive any SAM smartcard for advanced security operations.

With its compact design and bus-powered USB interface, **CrazyWriter** integrates itself easily into card printers, vending or ticketing machines, fare gates or validators in transportation networks, and more.

CrazyWriter USB is compliant with both PC/SC and CCID specifications, thus can be operated from common OSe using default drivers. On the other hand, **CrazyWriter** legacy version is 100% compatible with earlier products from Pro-Active.

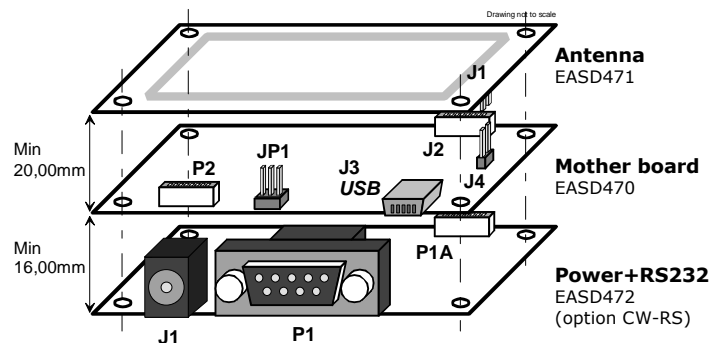
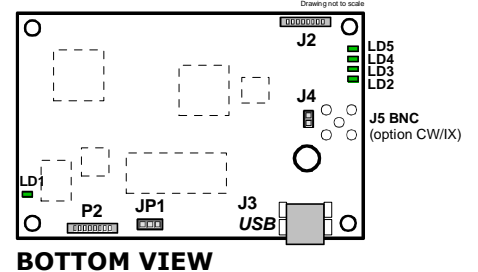
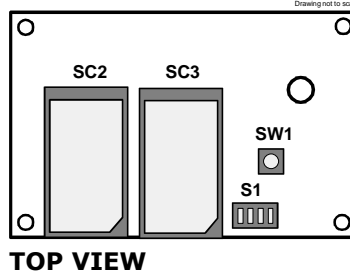


MECHANICAL SPECIFICATIONS



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

Main board



Stack mounting

Please observe minimal distance between boards

ORDER CODES

Part #	Description
CW-30	CrazyWriter USB <ul style="list-style-type: none"> Main board Antenna board Mounting kit (2 boards stacked at a 20mm distance) 50cm 50 Ω coaxial cable <i>USB cable not included</i>
CW-RS	RS232 interface for CrazyWriter <ul style="list-style-type: none"> Power + RS232 board <i>Power supply not provided</i>

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. Pro-Active has a long experience installing contactless couplers in various kind of devices. Do not hesitate to contact us if you need any assistance.

ANTENNA DESIGN INFORMATION

Please refer to NXP's application note "Micore proximity antenna design" to design a 50Ω matched antenna. Note that K531 and CrazyWrite may share a same antenna design. Pro-Active has a long experience in designing antennas. Do not hesitate to contact us if you need any assistance.

TECHNICAL DATASHEET



OEM CONTACTLESS SMARTCARD READER + 2 μ SIM/SAM**TECHNICAL SPECIFICATIONS**

Contactless smartcard interface	
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 or 848 kbit/s
Supported cards :	
<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 ▪ Innovision Jewel tags ▪ Calypso (CD97, CD21, GTML...)¹ 	
And virtually any ISO 14443 A or B compliant card	

¹ Calypso card operation is subject to an extra license fee

SIM/SAM interfaces	
Card format	ID-000 (μ SIM)
Number of slots	2
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

Serial interface (CW-RS option)	
Standard	RS-232 (DB9 female connector)
Power supply	9 to 12V DC - 250mA min.
Baud rate	38400 bps
API and SDK	SpringProx API SDK sold separately

USB interface	
Standard	USB 2.0 full speed (12Mbps)
Power supply	Bus powered (\approx 200mA under 5V)
User-selectable PC/SC or legacy operating mode	


PC/SC mode	
Standard USB CCID profile	
Windows driver	Planned for Q2 2008
Linux driver	Supported by psc-lite CCID driver
API and SDK	Full PC/SC - Free SDK available

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

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

TECHNICAL DATASHEET

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