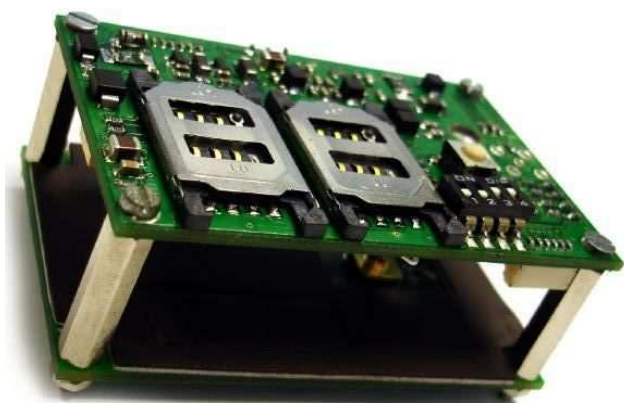


SECURE OEM CONTACTLESS SMARTCARD COUPLER

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

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

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



PRODUCT FAMILY

Order code	Description	Content
CW/1C	CrazyWriter USB/CCID	<ul style="list-style-type: none"> Main board ref. EASD470 + Antenna board ref. EASD471 Mounting kit (stack with a 20mm distance)
CW/1L	CrazyWriter USB/Legacy	ICI UNE PHOTO <i>USB cable not provided</i>
CW/IX	Coaxial kit for CrazyWriter antenna	<ul style="list-style-type: none"> 2 gold-plated mini-BNC connector + 20cm coaxial cable Increase distance between antenna and main board Improve contactless operation in a noisy environment <i>BNC connectors to be manually welded on both boards</i>
CW/IS1	RS232 kit for CW/1L (15cm cable)	<ul style="list-style-type: none"> Power + RS232 board ref. EASD472
CW/IS3	RS232 kit for CW/1L (30cm cable)	<i>Power supply not provided</i> ICI UNE PHOTO

SPECIFICATIONS

Contactless interface			
Standard	ISO/IEC 14443-A/B 1, 2, 3 & 4	Compliant cards	NXP (Philips) MIFARE Classic & UltraLight NXP (Philips) DESFIRE, SmartMX, ProX Infineon SLE66 family ST MicroElectronics SR family ASK CTS256/CTS512 Innovision Jewel tags Calypso (CD97, CD21, GTML...) ¹ Any ISO 14443 A or B card or tag
RFID operating frequency	13.56 MHz		
Operating distance	1 to 5 cm <i>depends on card and environment</i>		
PCD ↔ PICC baudrate	106, 212, 424 or 848 kbit/s		

¹ Working with Calypso cards is subject to extra license fees

Contact interfaces – 2 μ SIM (ID000) sockets			
Standard	ISO/IEC 7816-3	Card clock frequency	3,6864 or 7,3728 MHz
Protocols	T=0 and T=1	Baudrate	Up to 115200 bps
Smartcard class	A and AB (3V or 5V cards)		

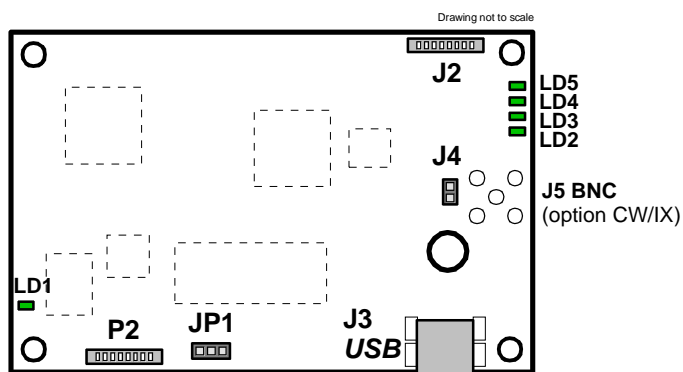
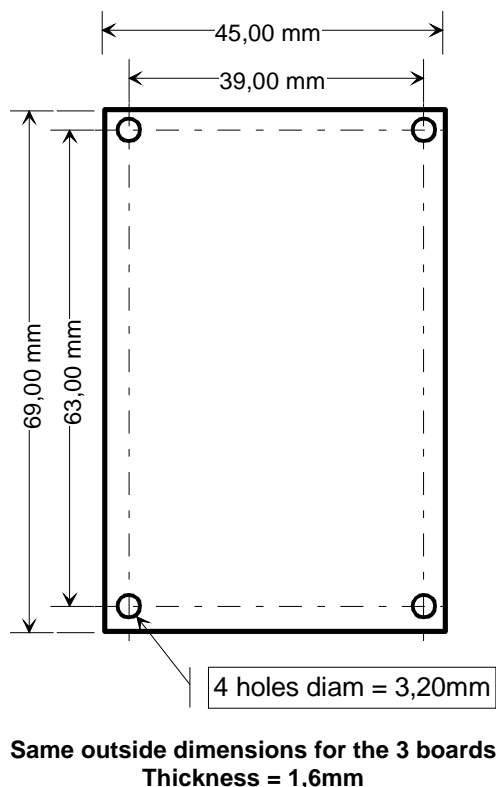
USB host interface		Serial interface (CW/IS1 or CW/IS3 option)	
Standard	USB 2.0 full speed (12Mbps)	Standard	RS-232 (DB9 female)
Power supply	5V via USB – approx. 200mA	Power requirement	9 to 12V DC – 250mA
CW/1C driver and software	CCID – standard PC/SC stack	Baudrate	38400 bps
CW/1L driver and software	Virtual COM port driver SpringProx API provided by SDK	Software	SpringProx API provided by SDK

General data			
Size	Each board = 69,0 x 45,0 x 1,6 mm	Distance between main board and antenna	2 to 5cm using 2-wire twisted cable 20cm to 2m using coaxial cable
Operating temperature	0°C to +70°C	CE mark	EN50082 / EN55022 class B
Storage temperature	-40°C to +85°C	FCC approval	<i>planned</i>

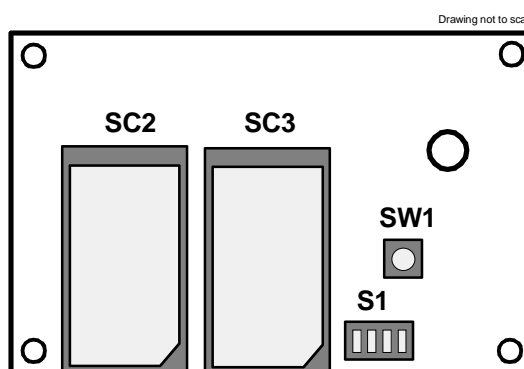
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SECURE OEM CONTACTLESS SMARTCARD COUPLER

MECHANICAL DETAILS

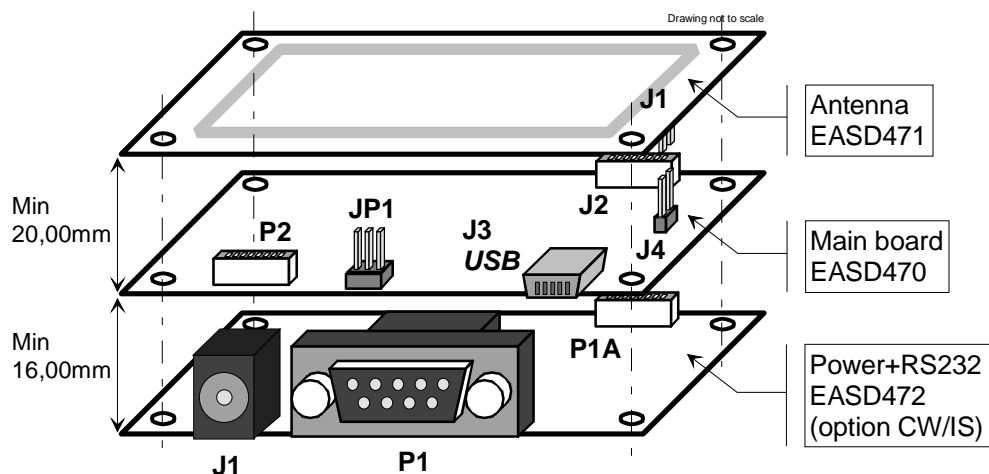


Main board [ref. EASD470] TOP VIEW



Main board [ref. EASD470] BOTTOM VIEW

TYPICAL MOUNTING EXAMPLE



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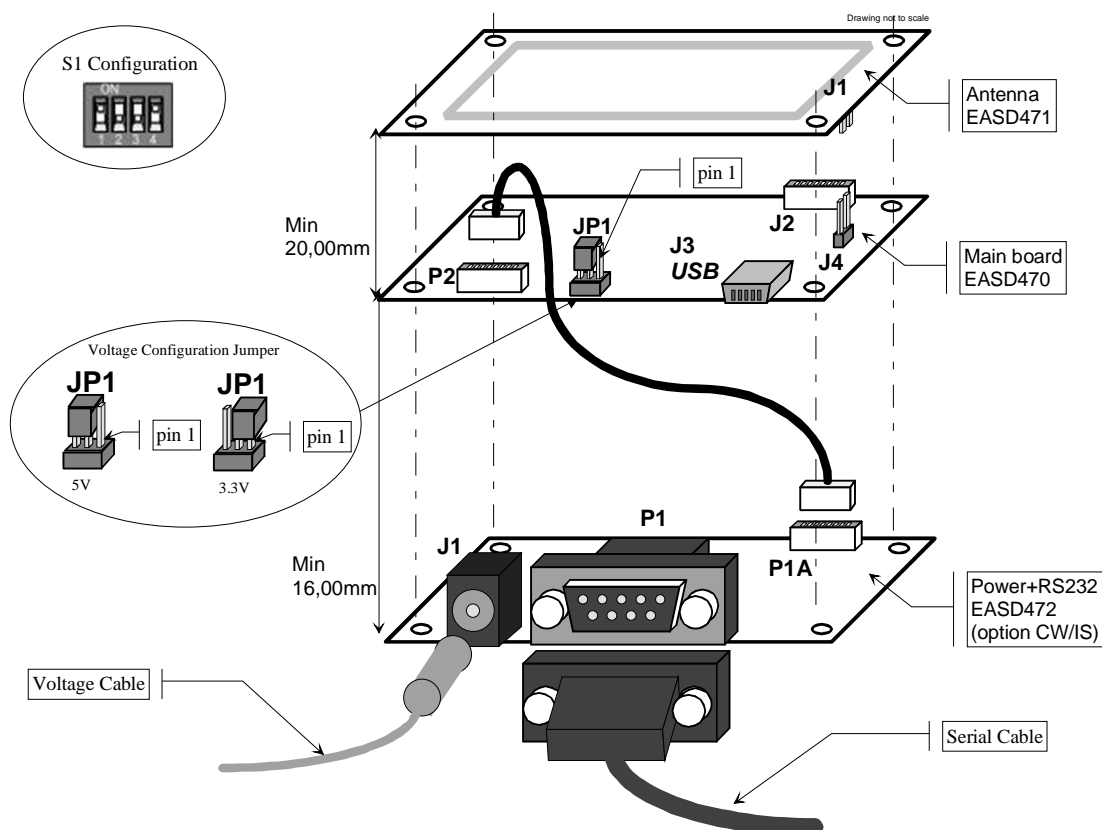
SECURE OEM CONTACTLESS SMARTCARD COUPLER

INSTALLATION PRECAUTIONS

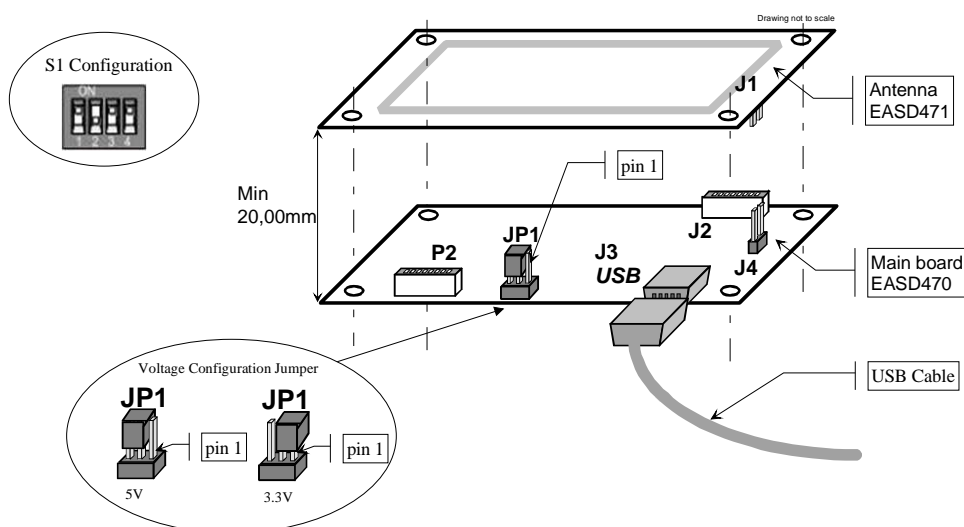
This device is a contactless reader ; it uses inductive coupling (magnetic field) to power the cards and communicate with them. Precaution must be taken to keep the reader far from any source of perturbation (e.g. other readers, computers...). Installing the reader near a metal surface (aluminium or steel table...) 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.

SERIAL CONNECTION



USB CONNECTION



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PRELIMINARY DRAFT
INFORMATIVE ONLY

TECHNICAL DATASHEET

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