

SDK-SPCF : 14443-A COMPACT FLASH READER DEVELOPMENT KIT

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Version : AA

FEATURES

Description Development kit for the SpringProx-CF
ISO14443-A CompactFlash Reader.

Order code **SDK-SPCF**

Chipset RC531 Philips®

ISO compliance ISO14443-A/B

Compliance MIFARE® Classic
MIFARE® UltraLight
MIFARE® Pro / ProX
MIFARE® DESFire

LEDs Controlled by application

Including :

1 x SP-CF02 ISO14443-A CompactFlash reader.

1 x CSB-4.2S ISO14443-A Desktop reader.

2 x TAG-DESFIRE DESFIRE contactless cards

2 x TAG-MIF4K MIFARE® 4K contactless cards

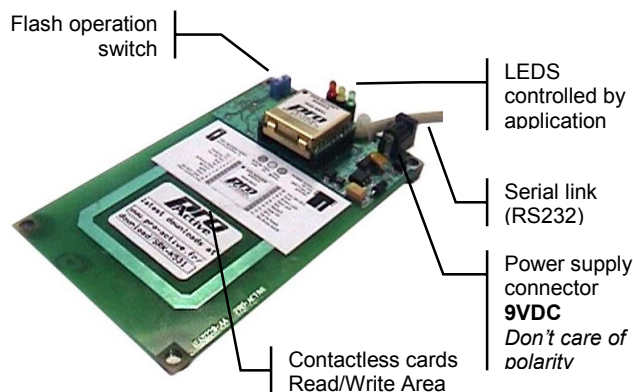
2 x TAG-MIF1K MIFARE® 1K contactless cards

1 x Source code package

12 x months of technical support
(source code and technical support are
available after registration. See
Registration below)

DETAILED VIEWS

CSB-4.2S ISO 14443-A desktop reader



Power supply 9V DC → 12V DC

Consumption 150mA

Reading range 0 cm → 6 cm (MIFARE 4K)

Temperature range 0°C → +45°C

Dimensions L : 140mm, w : 85mm, h : 20mm

Weight 150 g

Connections Power Jack
Serial link cable (1.80m) with female SUB-D
9 points

RS232 Parameters

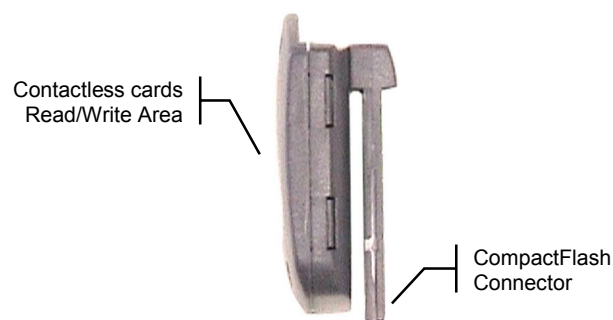
Transmission Speed 38400, 115200

Parity none

Data 8

Stop 1

SP-SD01 ISO 14443-A SDIO reader



Power supply Powered by host

Consumption 250mA

Reading range 0 cm → 2 cm (MIFARE 4K)

Temperature range 0°C → +45°C

Connections CompactFlash

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DATASHEET SDK-SPCF : 14443-A COMPACT FLASH READER DEVELOPMENT KIT 1/2



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CSB-4.2S AVAILABLES COMMANDS

Info Retrieve version and RC chipset ID
poll Poll for 14443-A tags (ESC to quit)
tag Select Mifare or 14443-A tag
read Read Mifare 1k or 4k tag
halt Mifare or 14443-A halt command
reset Reset the module
help Display a list of some availables commands
rf_on Activate the RF field
rf_off De-activate the RF field
rc_on Open access to the RC chipset
rc_off Close access to the RC chipset
rc_reset Reset the RC chipset
rc_config Configure the chipset with startup values
tcl_rats Open a T=CL 14443-A session
tcl_stop Send the T=CL 14443-A « deselect »
tcl_pps Send a T=CL 14443-A PPS request
keys Load default keys to RC RAM
keys_e2 Load default keys to RC EEPROM
keys[A|B]n=(key_data) keys command immediatly followed by key type 'A' or 'B' and index of this key from '0' to 'F'.
 (key_data) can be 12 bytes in hexadecimal, or 6 letters.
regs Display RC register values
led=RG[Y] Control leds outputs, where R, G and optionnaly Y are to be replaced a number between 0 and 3 :
 0 : Off 1 : On 2 : Fast blink
 3 : Slow blink (for MOD-K531_OEM)
 3 : Default action (for MOD-K531_CSB4)

115200 Switch the module to high speed communication.
38400 Switch the module to normal speed communication.
const=(configuration_structure_data)
 Where the structure data is :
Serial configuration BYTE

PBK	PNS	RFU	SBO	SOD	SEO	SNC	SHB
MSB				LSB			

PBK Blink LEDs before any action from host if set to 1
PNS **WARNING ! CURRENT ACTION CAN NOT BE INTERRUPTED IF SET TO 1. ALWAYS SET THIS BIT TO ZERO.**
RFU Reserved for future use.
SBO Use binary protocol in bus mode only if set to 1
SOD Don't use OSI protocol if set to 1
SEO No serial echo if set to 1
SNC Serial speed can't be changed by software if set to 1
SHB Startup in high speed if set to 1

Address to be used in multi-point protocol BYTE

Action to be entered on startup BYTE

RFU BYTE

SEQUENCE EXAMPLES

Read a tag 1 . Present a 14443-A or MIFARE® tag in the antenna area.
 2 . **keys**
 3 . **tag** → You should obtain specific data of your tag (Serial number, ATQ, SAK)
 4 . **read** → You should obtain the content of the differents sectors of the tag.
Store a key To store the key 0xFF 0xFF 0xFF 0xFF 0xFF 0xFF as key B in position 2 :
keysB2=FFFFFFFFFFFF
Configure LEDS To switch on the green LED switch off the yellow LED and make the red LED blinking fast :
led=210
Polling at Startup To ensure a continuous polling of any tag at startup enter the following command then rebooting the module :
const=00004F00
reset
Recover default configuration
 Hit "Enter" key until ">" appears
const=00000000
reset

SOFTWARE OPERATIONS

The starter kit need the "SpringProx.dll" to operate with the samples applications. This DLL and demonstration softwares are availables on our web site at :
<http://www.pro-active.fr/download/csb>

Availables samples applications are :

MIFARE Tool Allow you to select read / write your contactless cards.

Electronic Purse Tool... Demonstration of counter on a MIFARE® 1K contactless card.

DOWNLOADS & REGISTRATION

To obtain 3 months technical support and the source code package, please fill the form at the web address :
<http://www.pro-active.fr/myarea/sdk.php>

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