

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

PFTC1C0.doc
22/02/2006
Version : AA

FEATURES

Description.....Development kit for the SpringProx-CFUP
ISO14443 CompactFlash type II Reader.

Order code**SDK-SPCFUP**

Chipset.....RC531 Philips®

ISO complianceISO14443-A/B

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

LEDs.....Controlled by application

Including :

1 x SP-CFUP ISO14443 CompactFlash type II reader.

1 x CSB-4.3S ISO14443 Desktop reader.

2 x TAG-DESFIRE DESFIRE contactless cards

2 x TAG-MIF4K MIFARE® 4K contactless cards

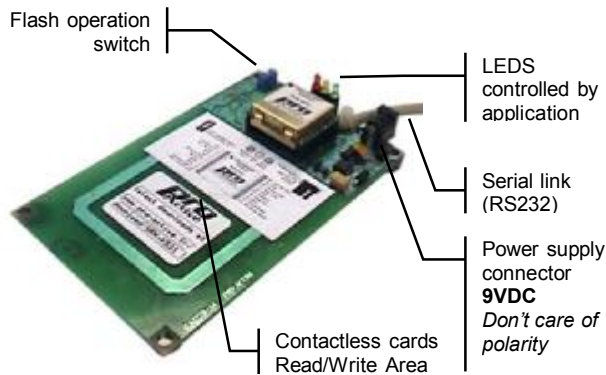
2 x TAG-MIF1K MIFARE® 1K contactless cards

2 x TAG-SR176 STM-SR176

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

INTERNAL DETAILED VIEW

CSB-4.3SISO 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

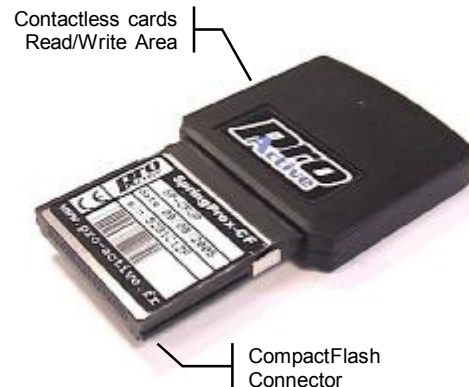
Weight.....150 g

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-CFUPISO 14443-A SDIO reader



Power supply.....Powered by the CF slot (3.3 V)

Consumption.....In idle mode: 10mA
During RF operation : ≤ 190mA
(depends of the card)

Reading range.....0cm to 4cm (depends of the cards)

Temperature range.....0°C → +45°C

Connection.....CompactFlash type II

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



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CSB-4.3S 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 immediately 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/>

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