

SRK-K531 : OEM 14443-A READER STARTER KIT

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Version : AE

RS232 OPERATIONS

The OEM 14443-A Reader Starter Kit can operate with a RS232 terminal such as HyperTerminal.

RS232 Parameters Transmission Speed : 38400, Parity : none, Data : 8, Stop : 1

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 optionally 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
<i>MSB</i>				<i>LSB</i>			

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

CAUTION: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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 different 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.

SPECIFIC DEVELOPMENTS

A specific firmware for the OEM 14443-A Reader Module is available, giving instant MIFARE® Tag ID reading on the RS232 line.
 For more details ask Pro-Active for the Application Note :
 PMX2010.

REGISTRATION

To obtain 3 months technical support and the source code package, please send us an e-mail to this electronic address : srk@pro-active.fr
 Please, send us your : **company name, name and address, the serial number of your SRK-K531.**

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DATASHEET SRK-K531 : OEM 14443-A READER STARTER KIT

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