

1. Overview

KRF-WXYZ series are powerful, highly qualified & sophisticated access control systems dedicated to all application requiring high level of security providing highly secure access for mainly door access control, time & attendance and parking system

It read and write ISO14443A and ISO14443B card through TCP/IP or RS232C interface

2. Product Package

KRF-WXYZ , LAN-CABLE(Direct) , AC Adapter

3. GENERAL SPECIFICATIONS

- | | |
|---|---|
| 3.1. Power Supply | : AC 100 - 240V(DC output 9V) |
| 3.2. Current Consumption | : Max 400 [mA] |
| 3.3. Reading Distance | : up to 30[mm] |
| 3.4. Communication | : TCP/IP 10/100 Base-T auto detection |
| 3.5. Card Operation Frequency | : 13.56Mhz \pm 5% |
| 3.6. Indicator(LED/Beeper) | : Power / Good / Error |
| 3.7. Environmental Conditions | : Operation -10 ~ 55 , 20 ~ 80% RH
(without dew forming)
: Storage -20 ~ 70 , 0 ~ 95% RH
(without dew forming) |
| 3.8. ANTI-Collision procedure support | |
| 3.9. Authentication algorithm | |
| 3.10. Based on ISO/IEC-14443A (transparent mode and "T=CL") | |

Information to the user

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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

4.Operation

4-1. Program initialize screen

VingCard Client Test PGM

Server Status

Server IP: 192.168.0.10 Port: 5000

Server Connect Server Disconnect

EXIT

UID Mifare UltraLight IP Config

UID Read

Number	CARD	ATQA	UID	SAK
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

4-2. Server-Connect

Input server's IP, Port number (1~65535) and click <Server Connect> before connecting the server.

Server Status		
Server IP	Port	Server Connect
192 . 168 . 0 . 10	5000	Server Disonnect

4-3. Server-Disconnect

Click <Server Disconnect> to disconnect

Server Status		
Server IP	Port	Server Connect
192 . 168 . 0 . 10	5000	Server Disonnect

4-4. UID Read

Click <UID Read>, then the readable card type (M : Mifare , U Ultralight) , ATQA , UID , SAK will be showed and UID will be displayed on UID list.

The screenshot displays the 'VingCard Client Test PGM' window. At the top, the 'Server Status' section includes input fields for 'Server IP' (192.168.0.10) and 'Port' (5000), along with 'Server Connect' and 'Server Disconnect' buttons. An 'EXIT' button is also present. Below this, a tabbed interface shows 'UID' as the selected tab, with other tabs for 'Mifare', 'UltraLight', and 'IP Config'. A 'UID Read' button is located on the left side of the main area. The central part of the window features a table with 5 columns: 'Number', 'CARD', 'ATQA', 'UID', and 'SAK'. The table contains 22 rows. The first two rows are populated with data: Row 1 shows 'M' for CARD, '44 00' for ATQA, '12 CB FD 77 00 00 00 00' for UID, and '08 00' for SAK. Row 2 shows 'U' for CARD, '44 00' for ATQA, '88 04 33 A9 21 1C 00 00' for UID, and '04 00' for SAK. Rows 3 through 22 are empty. At the bottom of the window, a status bar indicates 'UID Reading Success'.

Number	CARD	ATQA	UID	SAK
1	M	44 00	12 CB FD 77 00 00 00 00	08 00
2	U	44 00	88 04 33 A9 21 1C 00 00	04 00
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

UID Reading Success

4-5. Mifare

4-5-1. Mifare full screen

VingCard Client Test PGM

Server Status

Server IP: 192 . 168 . 0 . 10 Port: 5000

Server Connect

Server Disconnect

EXIT

UID Mifare UltraLight IP Config

KEY A/B

KEY A / B

FF FF FF FF FF FF

Mifare UID List

12 CB FD 77 00 00 00 00

Sector Read

Block Address

Block 0 - 3

Sector Read

Mifare (ATQ , UID , SAK)

ATQ UID SAK

Sector Read Data

Block 0

Block 1

Block 2

Block 3

Block Write

Block Address

Block 1

Block Write

Block Write Data

12 34 56 78 90 AB CD EF 01 23 45 67 89 AB CD EF

4-5-2 Mifare Sector Read

In Key A/B, select Key value, Mifare UID List's UID, Block Address and click <Sector Read>. Then, ATQ , UID , SAK , Block0 , Block1 , Block2 , Block3 value will be displayed.

KEY A/B

KEY A / B

FF FF FF FF FF FF

Mifare UID List

12 CB FD 77 00 00 00 00

Sector Read

Block Address

Block 0 - 3

Sector Read

Mifare (ATQ , UID , SAK)

ATQ 04 00

UID 12 CB FD 77

SAK 08

Sector Read Data

Block 012 CB FD 77 53 88 04 00 46 59 26 10 41 10 20 02

Block 101 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01

Block 212 34 56 78 90 AB CD EF 01 23 45 67 89 AB CD EF

Block 300 00 00 00 00 00 00 FF 07 80 69 FF FF FF FF FF FF

4-6. Mifare Block Write

In Key A/B, select Key value, Mifare UID List UID, Block Address and click <Block Write> button after input Block Write Data.

Block Write

Block Address

Block 1

Block Write

Block Write Data

12 34 56 78 90 AB CD EF 01 23 45 67 89 AB CD EF

4-7. Mifare UltraLight

4-7-1 Mifare UltraLight full screen

VingCard Client Test PGM

Server Status

Server IP: 192 . 168 . 0 . 10 Port: 5000

Server Connect

Server Disconnect

EXIT

UID Mifare UltraLight IP Config

UltraLight UID List

88 04 33 A9 21 1C 00 00

Page Read

Page Address: Page 0 - 3

Page Read

UltraLight (ATQ , UID , SAK)

ATQ: UID: SAK:

Page Read Data

Page 0: Page 1: Page 2: Page 3:

Block Write

Block Address: Page 4

Block Write Data: 12 34 56 78

Block Write

4-7-2. Page Read

Select UltraLight UID List's UID, Block Address and click <Pager Read>.

Then, ATQ , UID , SAK , Page0 , Page1 , Page2 , Page3 value will be displayed.

UltraLight UID List

88 04 33 A9 21 1C 00 00

Page Read

Page Address

Page 0 - 3

Page Read

UltraLight (ATQ , UID , SAK)

ATQ UID SAK

Page Read Data

Page 0

Page 1

Page 2

Page 3

4-7-3. Block Write

Select UltraLight UID List's UID, Block Address and click <Block Write> button after input Block Write Data.

Block Write

Block Address

Page 4

Block Write

Block Write Data

12 34 56 78

4-8. Configuration

4-8-1. Configuration full screen

The screenshot displays the 'VingCard Client Test PGM' application window. The 'IP Config' tab is selected, showing various configuration fields and buttons. The 'Server Status' section at the top includes 'Server IP' (192.168.0.10), 'Port' (5000), 'Server Connect', 'Server Disconnect', and an 'EXIT' button. The 'IP Config' section contains fields for 'MAC Address' (11-11-11-11-11-11), 'Source IP' (192.168.0.10), 'Source Port' (700), 'Destination IP' (192.168.0.1), 'Destination Port' (700), 'GateWay' (192.168.0.1), and 'Subnet Mask' (255.255.255.0), each with a 'Write' button. Additionally, there are 'Configuration Read' and 'Configuration Write' buttons on the right side of the IP Config section.

VingCard Client Test PGM

Server Status

Server IP: 192 . 168 . 0 . 10

Port: 5000

Server Connect

Server Disconnect

EXIT

UID | Mifare | UltraLight | IP Config

MAC Address

11 - 11 - 11 - 11 - 11 - 11

Write

Source IP

192 . 168 . 0 . 10

Write

Source Port

700

Write

Configuration Read

Destination IP

192 . 168 . 0 . 1

Write

Configuration Write

Destination Port

700

Write

GateWay

192 . 168 . 0 . 1

Write

Subnet Mask

255 . 255 . 255 . 0

Write

4-8-2. Configuration all Read

Select IP from Client Status and click <Configuration Read> button.

MAC Address , Source IP , Source Port , Destination IP , Destination Port , Gateway , SubnetMask value will be displayed.

The screenshot shows the 'VingCard Client Test PGM' window. At the top, there's a 'Server Status' section with input fields for 'Server IP' (192.168.0.10) and 'Port' (5000), and buttons for 'Server Connect', 'Server Disconnect', and 'EXIT'. Below this is a tabbed interface with 'UID', 'Mifare', 'UltraLight', and 'IP Config' tabs. The 'IP Config' tab is active, displaying several configuration fields: 'MAC Address' (11-11-11-11-11-11) with a 'Write' button; 'Source IP' (192.168.0.10) with a 'Write' button; 'Source Port' (700) with a 'Write' button; 'Destination IP' (192.168.0.1) with a 'Write' button; 'Destination Port' (700) with a 'Write' button; 'GateWay' (192.168.0.1) with a 'Write' button; and 'Subnet Mask' (255.255.255.0) with a 'Write' button. To the right of these fields are two large buttons: 'Configuration Read' and 'Configuration Write'.

4-8-3. Configuration all Write

Select IP from Client Status and change Source IP , Source Port , Destination IP , Destination Port , Gateway , SubnetMask. Then, click <Configuration Write> button.

The screenshot shows the 'VingCard Client Test PGM' window. At the top, there's a 'Server Status' section with input fields for 'Server IP' (192.168.0.10) and 'Port' (5000), and buttons for 'Server Connect', 'Server Disconnect', and 'EXIT'. Below this is a tabbed interface with 'UID', 'Mifare', 'UltraLight', and 'IP Config' tabs. The 'IP Config' tab is active, showing several configuration fields: 'MAC Address' (11-11-11-11-11-11) with a 'Write' button; 'Source IP' (192.168.0.10) with a 'Write' button; 'Source Port' (700) with a 'Write' button; 'Destination IP' (192.168.0.1) with a 'Write' button; 'Destination Port' (700) with a 'Write' button; 'GateWay' (192.168.0.1) with a 'Write' button; and 'Subnet Mask' (255.255.255.0) with a 'Write' button. To the right of these fields are two large buttons: 'Configuration Read' and 'Configuration Write'.

4-8-4 MAC Write

Click <Write> button for the connected server's MAC..

This is a close-up of the 'MAC Address' configuration section. It features a text input field containing '11 - 11 - 11 - 11 - 11 - 11' and a 'Write' button to its right.

4-8-5. Source IP Write

Change Server's Source IP and click <Write> button.

Source IP

192 . 168 . 0 . 10	Write
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4-8-6. Source Port Write

Change Server's Source Port and click <Write> button..

Source Port

5000	Write
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4-8-7. Destination IP Write

Change Server's Destination IP and click <Write> button.

Destination IP

192 . 168 . 0 . 1	Write
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4-8-8. Destination Port Write

Change Server's Destination Port and click <Write>.

Destination Port

700	Write
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4-8-9. Gateway Write

Change Server's Gatrway and click <Write>.

GateWay

192 . 168 . 0 . 1	Write
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4-8-10. SubnetMask Write

Change Server's Subnetmask and click <Write>.

Subnet Mask

255 . 255 . 255 . 0	Write
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