SR20&SX20&SR40&MR04/08/16

User Manual

Table of Contents

1. Information

1.1. Characteristics

☑ Support ISO18000-6C(EPC C1G2) protocol tag;
☑ 860~960MHz frequency band;
☑ Working voltage: +12V power supply;
☑ Working current: < 1A
☑ Reading distance range: model SM02>**2** metre, model SM04>**4** metre
☑ Interface support:

Model SR20/SX20/SR40---RS485 and Wigand
Model SR20U/SX20U/SR40U---USB , TCPIP and Wigand
Model SR20N/SX20N/SR40N---TCPIP and Wigand

Model MR04/08/16---TCPIP, RS485 and Wigand

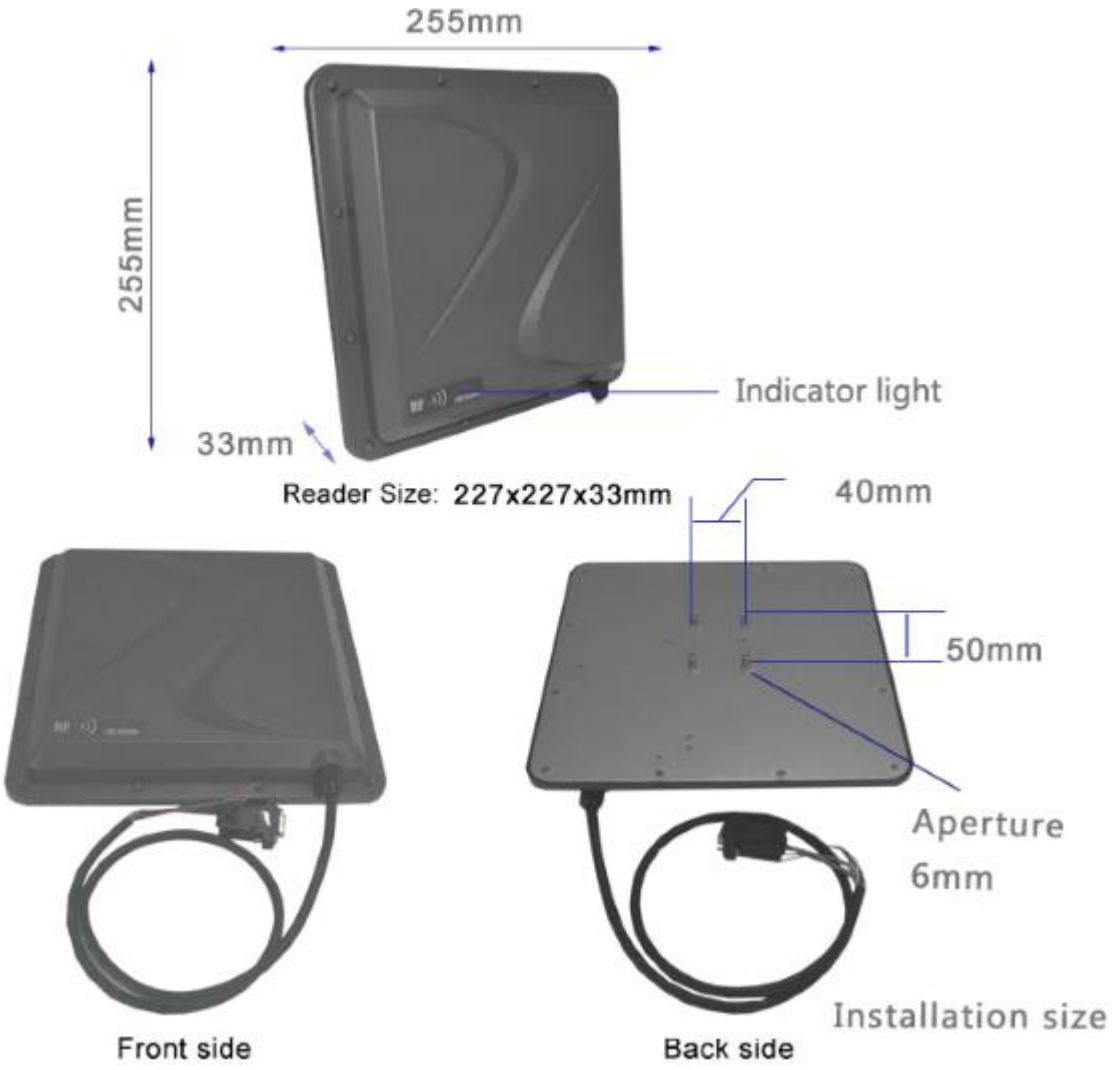
1.2. Applications

☑ Logistics and warehouse management: goods flow, warehouse management and the flowing management of mail, parcels and luggage
☑ Intelligent parking management: parking management and automatic charges
☑ Productive lines management: production process fixed identify
☑ Product counterfeit-proof inspection: using memory’s write-protect functions inside tags and identifying with true-false of products
☑ Other fields: used widely in club management, libraries,students schools, consumption management, time management, dinner management and pool management

2. Specifications

2.1. Model：SR20

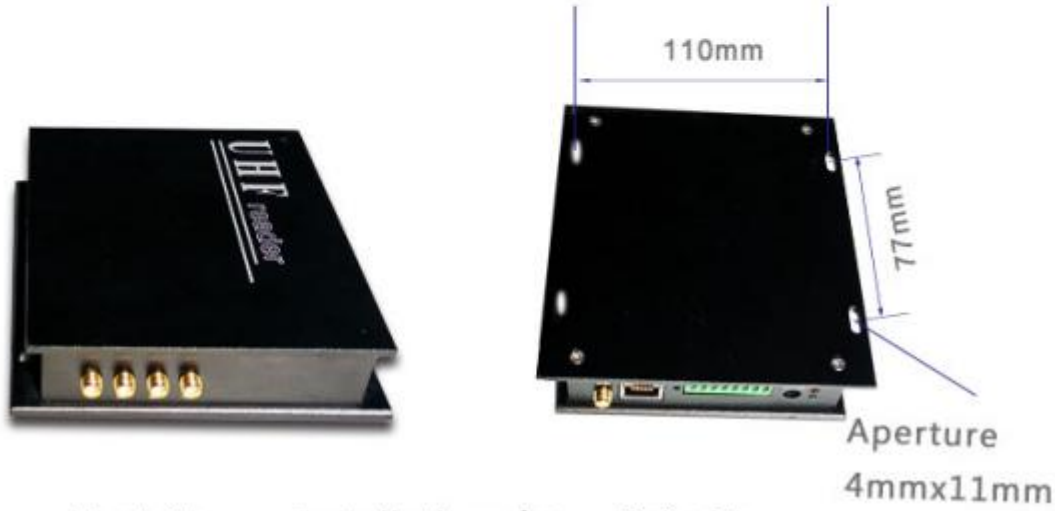
2.2. Model：SX20



2.3. Model：SR40

2.4. Model：MR04/08/16

Reader Size: 130x120x30mm



Front side Installation size Back side

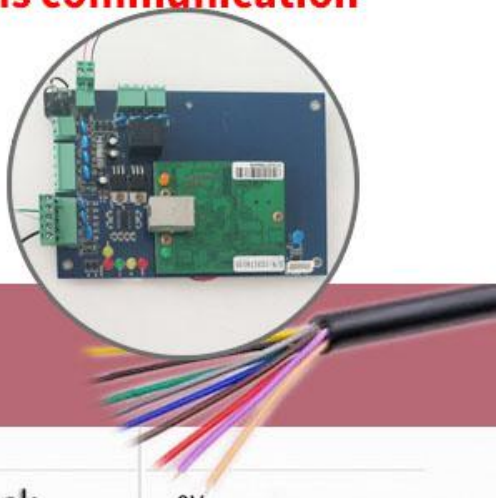
3. connection diagram

1. red	DC+9~16V	2. black	0V
3. brown	TXD (DB9-2pin)	4. yellow	RXD(DB9-3pin)
5. blue	GND (DB9-5pin)	6. gray	TRIGGER
7. white	DATA1	8. green	DATA0
9. orange	RS485R+	10. purple	RS485-

SX06

485communication

Wiggins communication



Wiring diagram

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SR40

485communication

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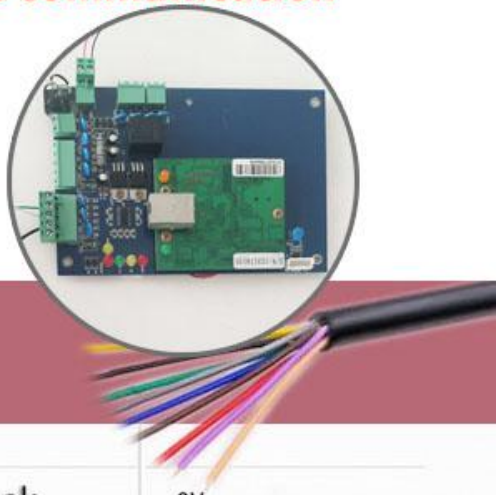

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4. Software operation

4.1. Download address

http://www.uhfsky.com

NOTE:

①At present, the software only supports WINDOWS and Android。

②When setting software parameters, do not place RFID tags within the equipment identification range, otherwise the setting will fail。

③Use keyboard to output rfid tag number type reference: for example

The same number of different forms of expression:

Decimal number (Dec) =123456

Hexadecimal number (Hex)=1E240

Weigand number =001, 57920 (Break the hexadecimal value 1 E240 into decimal numbers 001, 57920)

If the output length is not enough, it can be set by adding 0 in front..

4.2. Operating instructions

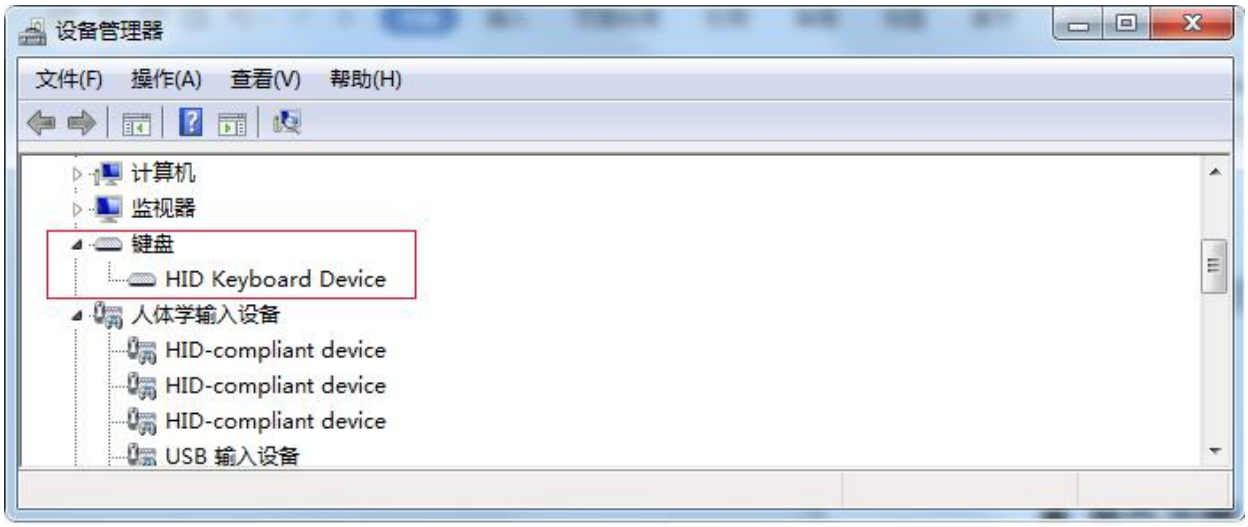
4.2.1. Connecting equipment

There are three ways to connect devices: USB connection-serial port connection-network port connection。

①USB connection

Plug the device into the USB interface of the computer and the following message pops up：

Then open the device manager of the computer, and there will be one more device in the keyboard option. As follows:：



This indicates that the computer has been successfully connected. Now, online operation is started.

②Serial port connection

SM series has RS232 or RS485 serial ports. If the computer has RS485 port or RS232 port, it can be directly connected to this equipment. If not, RS485 port should be converted into RS232 port or USB port, or RS232 port should be converted into USB port. As shown in figure:

When the converter is connected and plugged into the computer, the computer will remind you that you need to install the driver and install the driver according to the instructions. At this time, the computer will have an extra serial port interface, as shown in the figure:

When you unplug the converter, the serial port will disappear.

If the computer has its own serial port, it can be used directly without installing the driver.

③Network port connection

The network interface is divided into wired connection and wireless connection (WIFI connection).

Wired connection is relatively simple, which can be directly connected with the computer by network cable or indirectly connected with the computer by router.

Operation steps of the computer to which the WIFI device is connected:

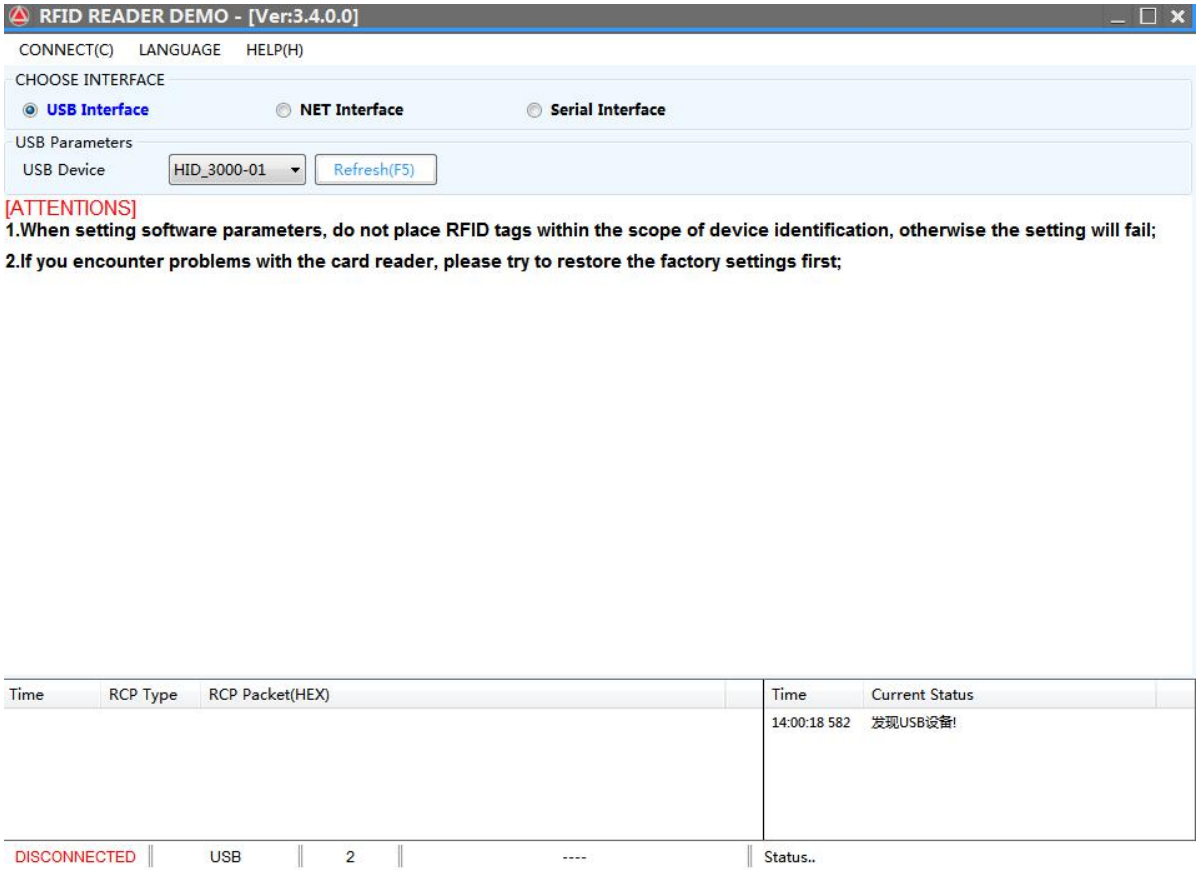
1. prepare a computer with WIFI signal.
2. WIFI devices have a reset button, and press it for 5 seconds. After releasing it, use the computer to search the WIFI network, find the WIFI network name of the device, and click Connect.

4.2.2. Connect computers

After downloading and decompressing the software, 

, Open the file and double-click the software icon 

, The following main interface appears:



There are three communication parameter configurations: USB Interface---serial Interface---net Interface. The parameter configuration of each interface is different, so you can connect to the computer only by choosing the correct configuration.

①USB Interface:

Select USB communication 

after confirming that the USB device is plugged in, As shown in the figure:

If the USB device is empty, please confirm whether the usb cable is plugged in again, and then press the button 

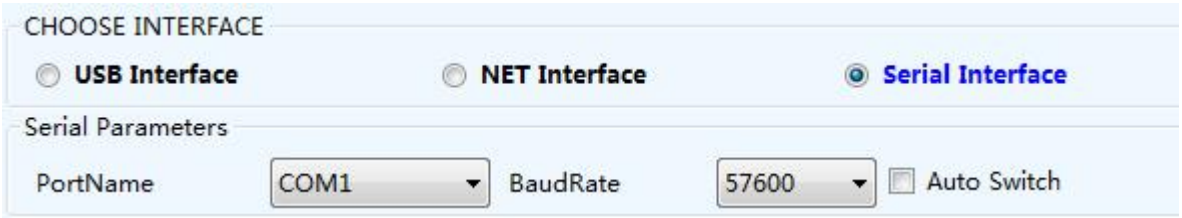
or F5。

Select the USB device and click the "CONNECT" button 。

②Serial Interface:

After confirming that the converter is installed, select the network port for communication 

,As shown in the figure:

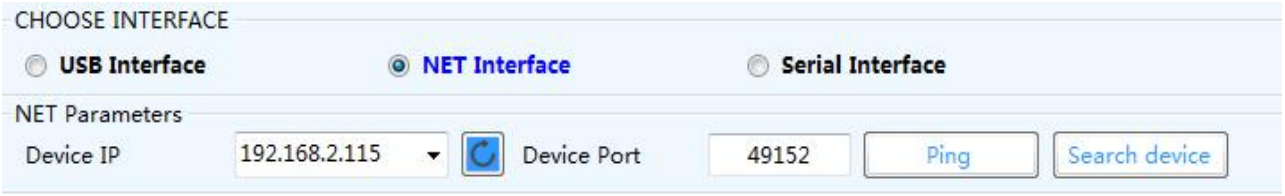


Select the serial port that appeared when the converter was installed before, the baud rate is 57600 by default, and click the "CONNECT" button.

③NET Interface:

After confirming the network connection (including wired network and wireless network), select the network port for communication 

,As shown in the figure:



Here, select the correct remote IP address and remote IP port of the equipment (by default, the computer is the customer service terminal, this equipment is the server, and TCPIP protocol), and click the "Network Diagnosis" button. If the connection is correct, the success sign will be displayed in the status bar, as shown in the figure:

Time	Current Status
14:11:15 148	PING:192.168.2.115 Success

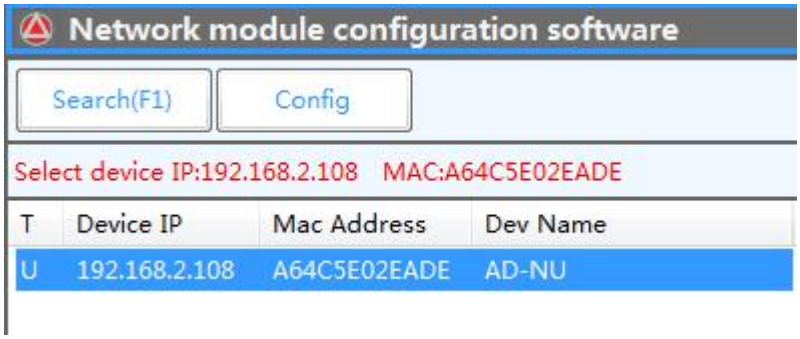
This indicates that the connection has been successful。

Time	Current Status
14:11:31 899	PING:192.168.2.115 TimedOut

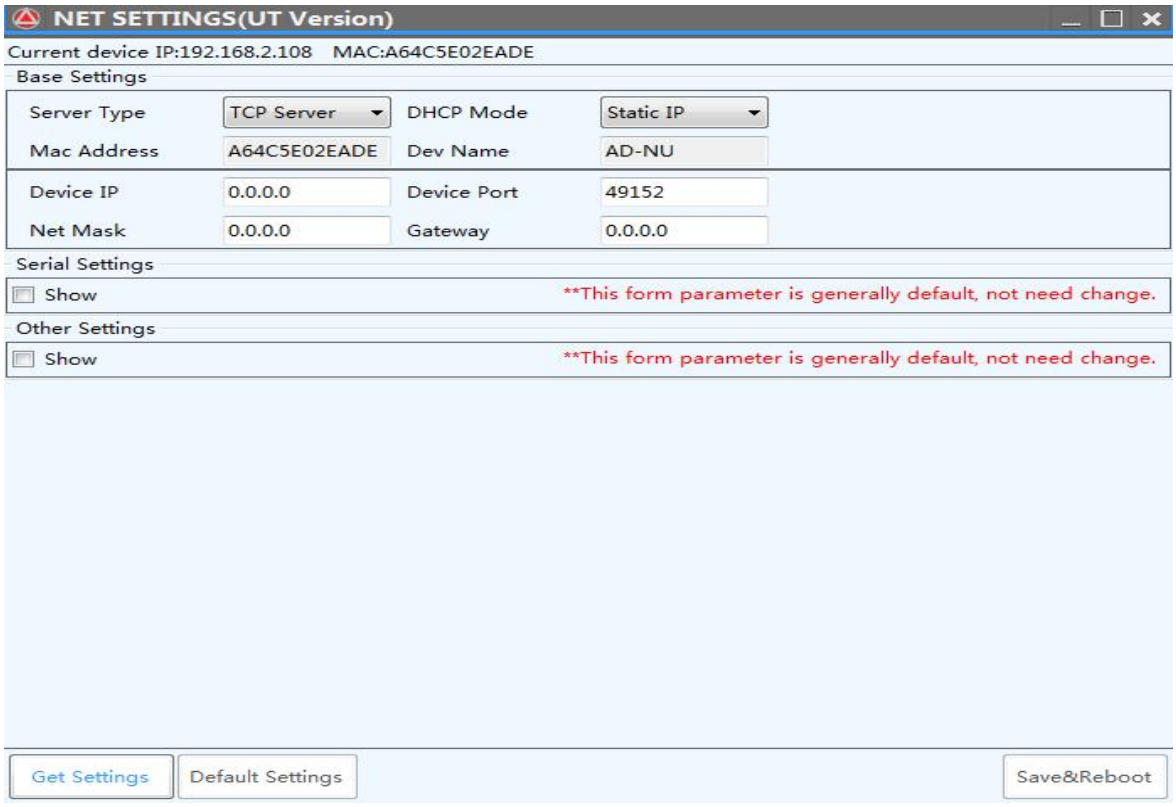
This means that it has timed out and the connection failed。

Reason for connection failure:

1. The network is not connected correctly, so the network cannot be used.
2. If the IP address or port of the device is wrong, click the "Search Device" button to find out the IP address and port of the connected device, or reconfigure the network parameters of the device, such as IP address, TCPIP, UDPIP, gateway, etc. When setting the IP address, make sure that you can't have the same IP address in the same gateway.As shown in figure:



Click the "Search" button to search all online devices. You can select the equipment you want to set it up.

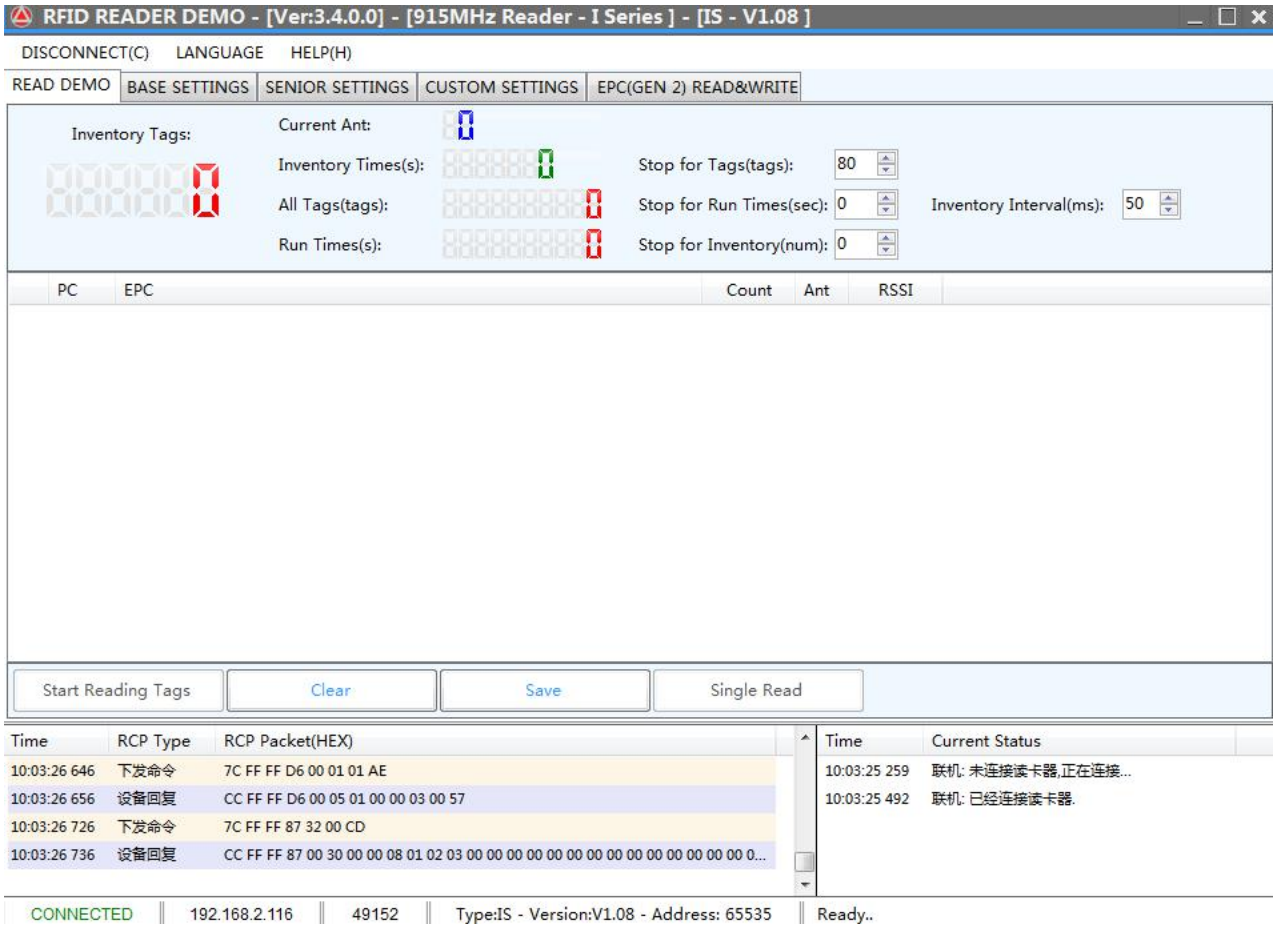


④CONNECT:

After configuring the communication mode, click the "CONNECT" button in the upper left corner, and four sub-function buttons can be operated on the back side after online:

READ DEMO--BASE SETTINGS--SENIOR SETTINGS-- CUSTOM SETTINGS -- EPC READ&WRITE

As shown in the figure:



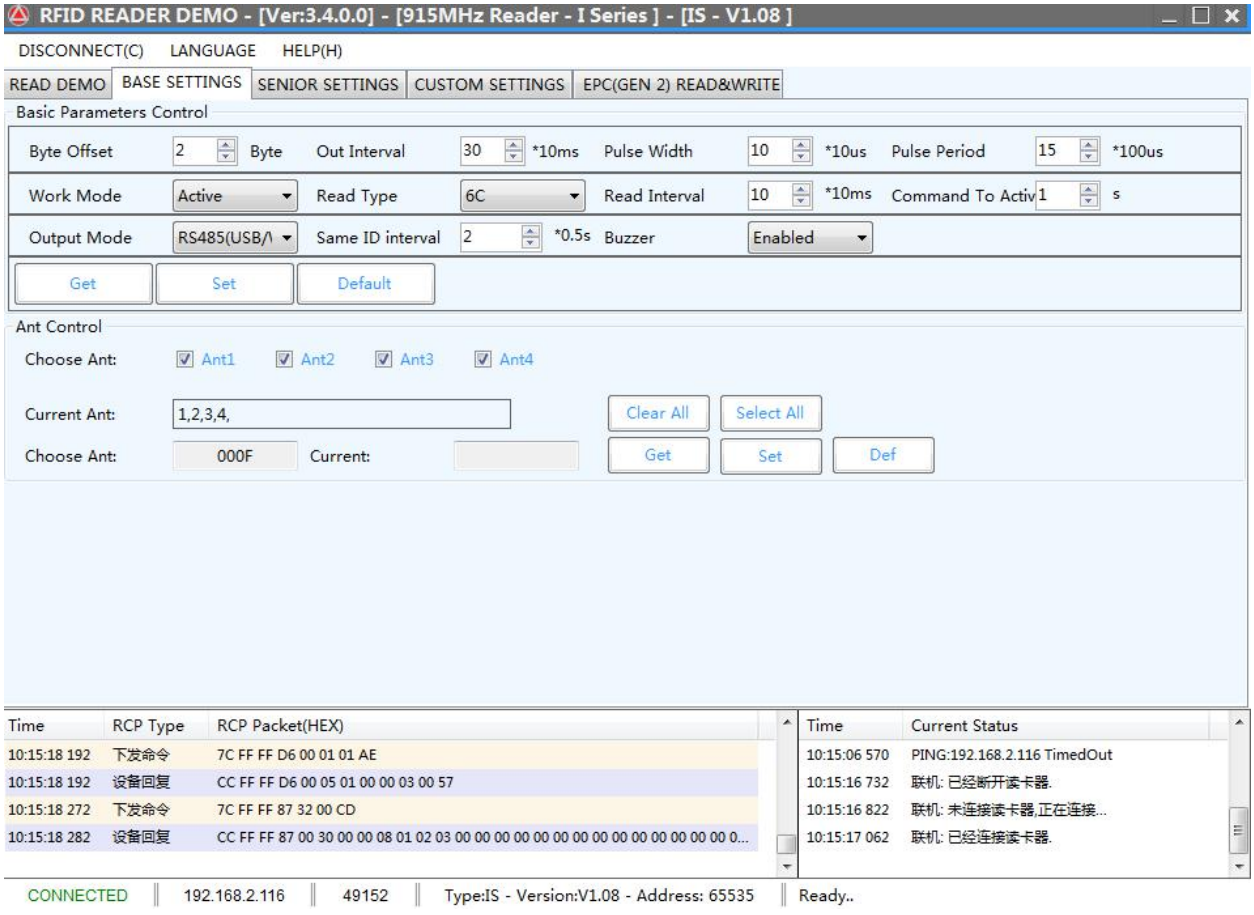
4.2.3. READ DEMO

①After the system is connect, the Inventory Tag interface appears directly, as shown in the above figure:
②Put the RFID tag within the recognizable range of the equipment。
③Click the "**Start Reading Tags**" button, and the label information will be displayed in the text box soon。

4.2.4. BASE SETTINGS

Simple setting is a simple operation for users who have low requirements on data processing or don't know much about software. If there are higher requirements or more professional users, please use "Advanced Settings"。

Click the "BASE SETTINGS" button on the left, as follows:



Byte Offset: related to Wigan output parameters.
Out Interval: related to Wigan output parameters.
Pulse width: related to Wigan output parameter.
Pulse period: related to Wigan output parameters.
Working mode:

Command mode (the equipment can work only when it sends a command without actively reading the card.)

Active mode (the device reads the card actively, works when it is powered on, and sends data to the communication interface)

Passive mode (the device reads the card actively, works when it is powered on, does not send data to the communication interface, and needs to send commands to receive data)

Read type: select the label protocol type you want to identify.
Read Interval: the frequency of identifying tags
Command to active: in active mode, the automatic card reading time is suspended after sending the command
Output mode: the type of output label data, which can be EPC number or TID

number.

Same ID interval: the time interval for uploading the same tag data

Buzzer: it can be turned on or off