

Dual Wiegand-Network Converter

Instructions for use

The converter comes with two Wiegand interfaces and network RJ45 interfaces, which can realize two WG interfaces and networks

Two-way data conversion between; Wiegand WG26 and WG34 formats are supported by default, and various custom developments can be carried out according to user needs.

Basic functions of WG network module:

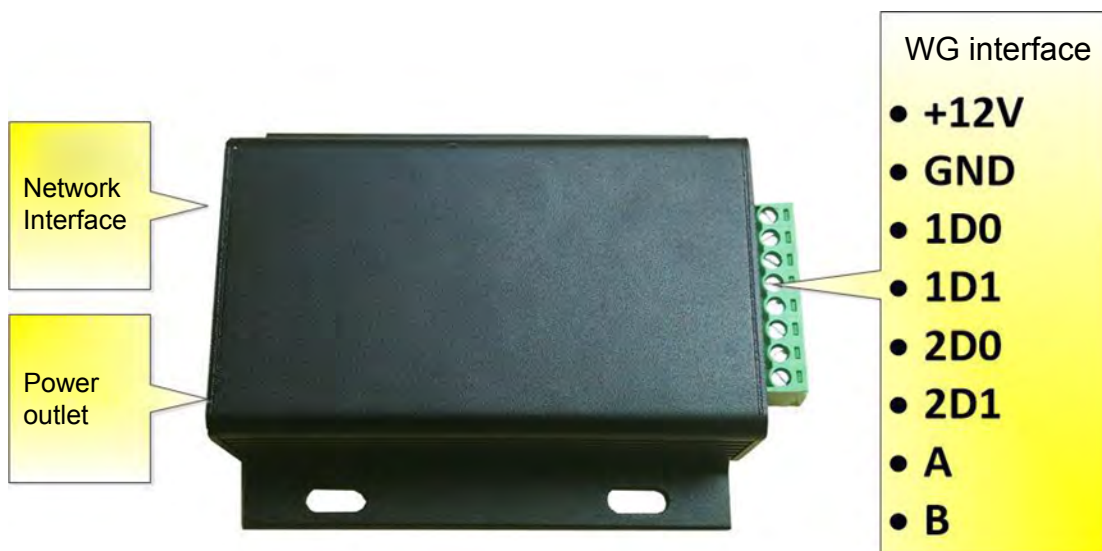
1. The network interface uses mature network modules, 10/100M adaptive;
2. Support DHCP or fixed IP;
3. Support TCP SERVER / CLIENT; UDP SERVER / CLIENT;
4. Support gateway DNS and other settings;
5. Custom MAC address
6. It can run across gateways, switches and routers, adapting to various alternatives, corporate networks, Internet and other network environments;
7. The aluminum alloy shell is used for easy installation and use;
8. Circuit board positive 485



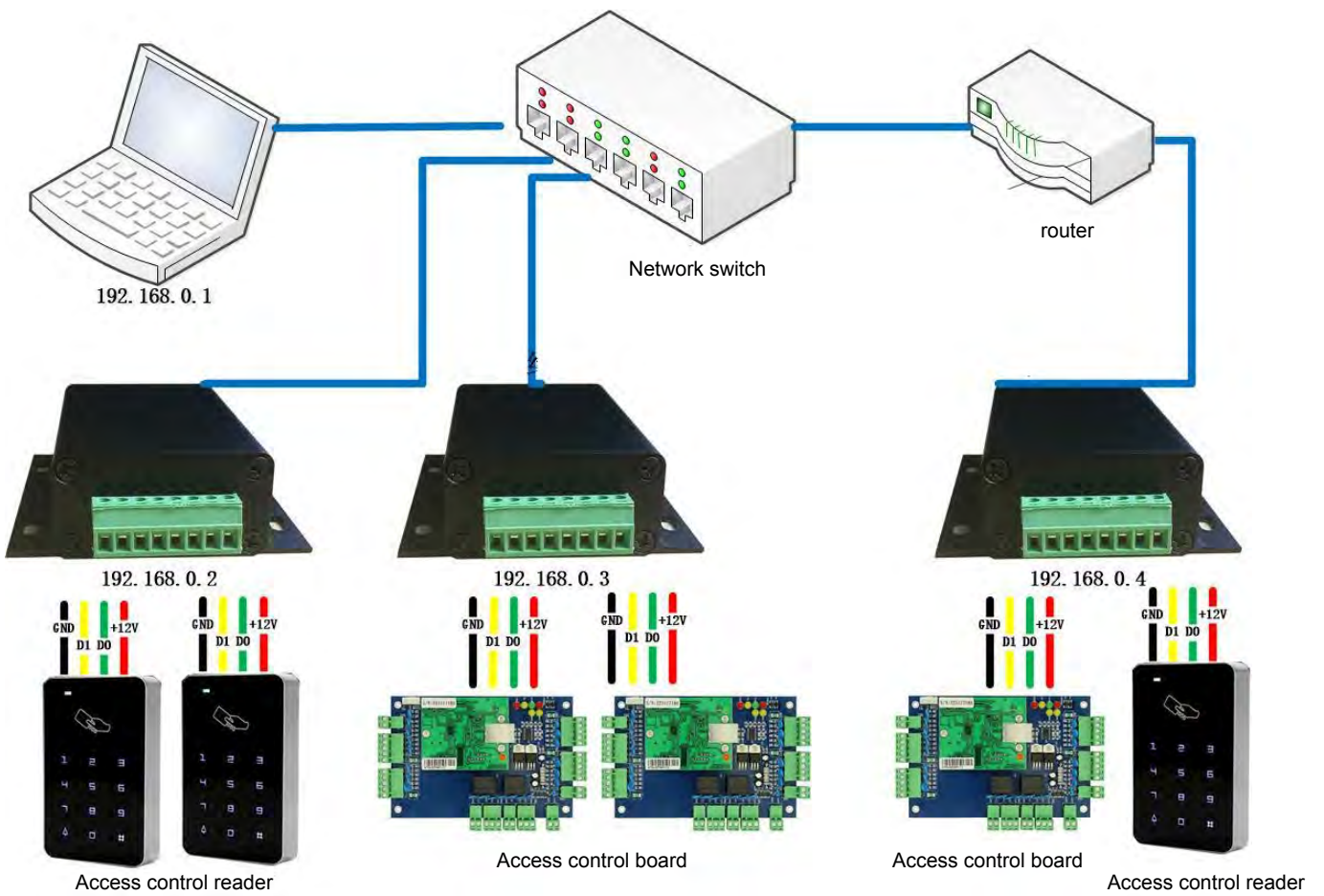
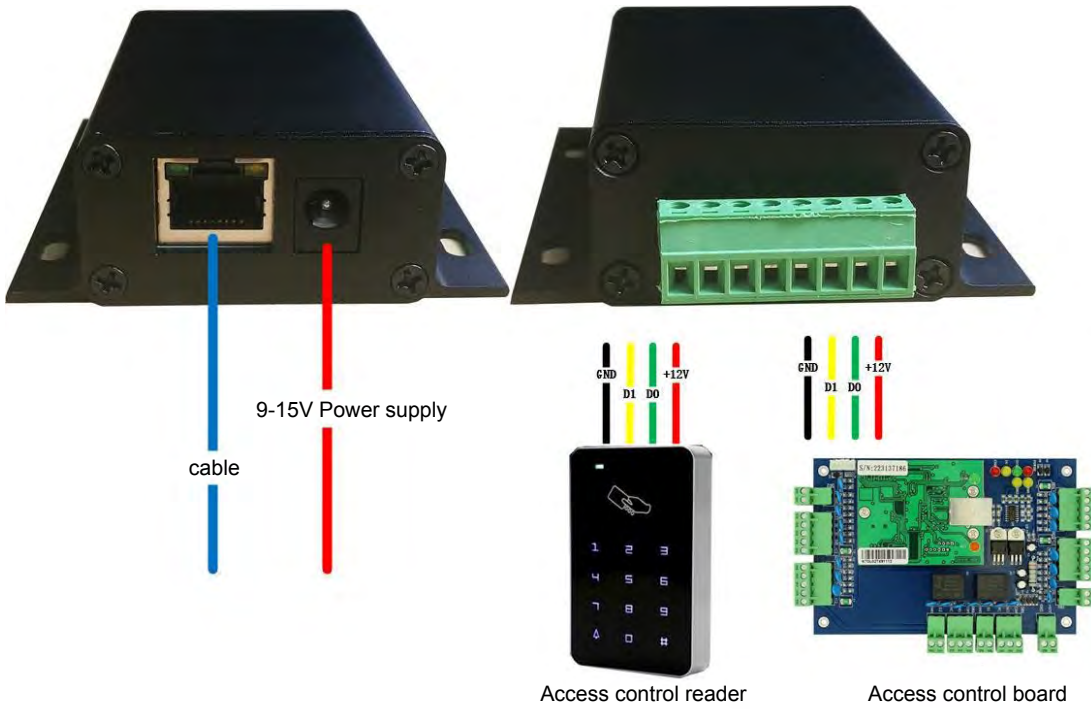
The converter needs a power supply of 9-24V 100mA (when using a 24V power supply, please make sure the card reader power supply voltage matches)



Network module wiring identification



Wiring diagram

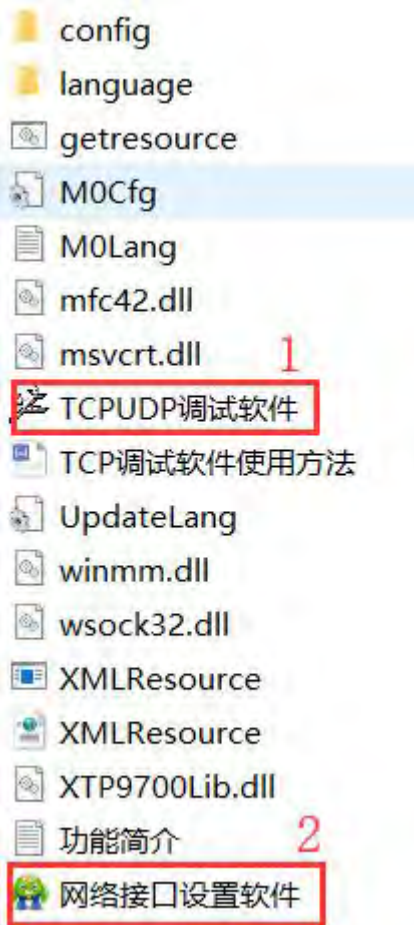


The network module uses UDP SERVER / CLIENT protocol or TCP SERVER / TCP CLIENT protocol, the specific protocol can be negotiated with the software developer;

Default IP address: 192.168.0.7 (can be changed according to actual needs)

Default listening port: 20108 (can be changed)

The following software can be used for setting and debugging during testing, which can be obtained from the technicians.



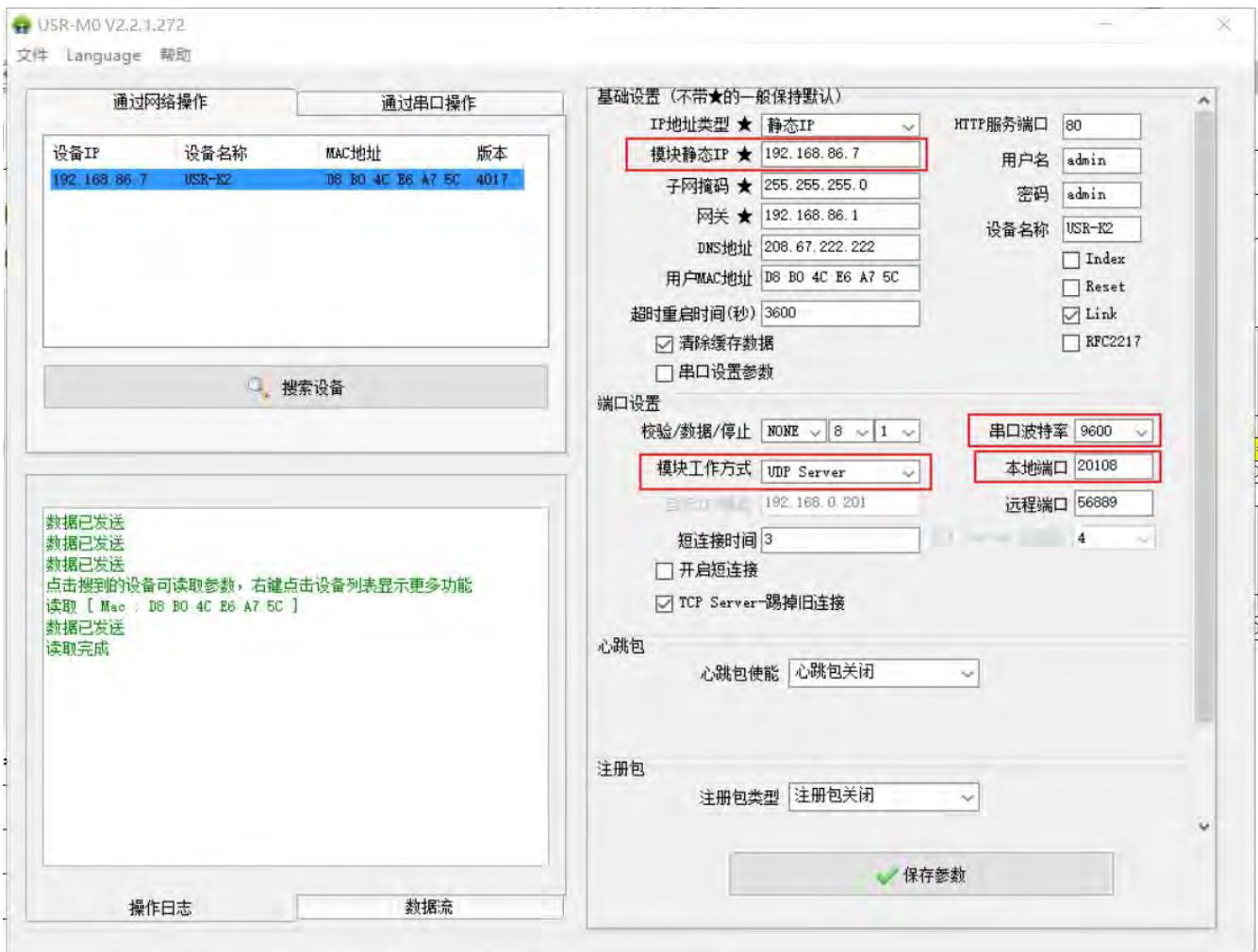
Setting tools follow

1. TCP debugging software

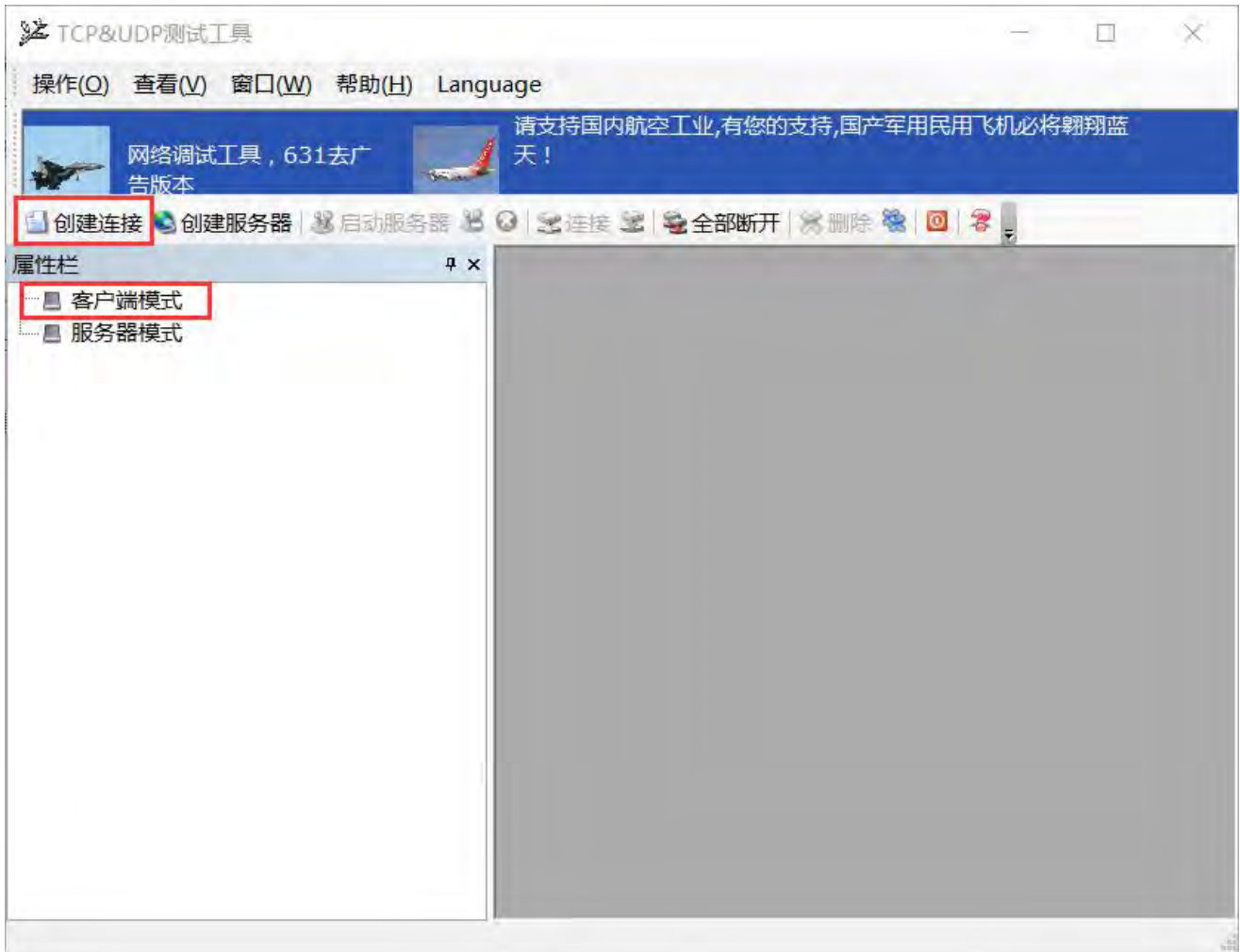
2. Network interface setting software

1. Test steps:

1. The module is powered on and connected to the Internet cable, and the signal light of the network port should flash;
2. Run the network interface setting software, make sure that the computer and the motherboard are on the same network switch, click the "search device" button, click the searched device, you can see the current network settings of the network module;



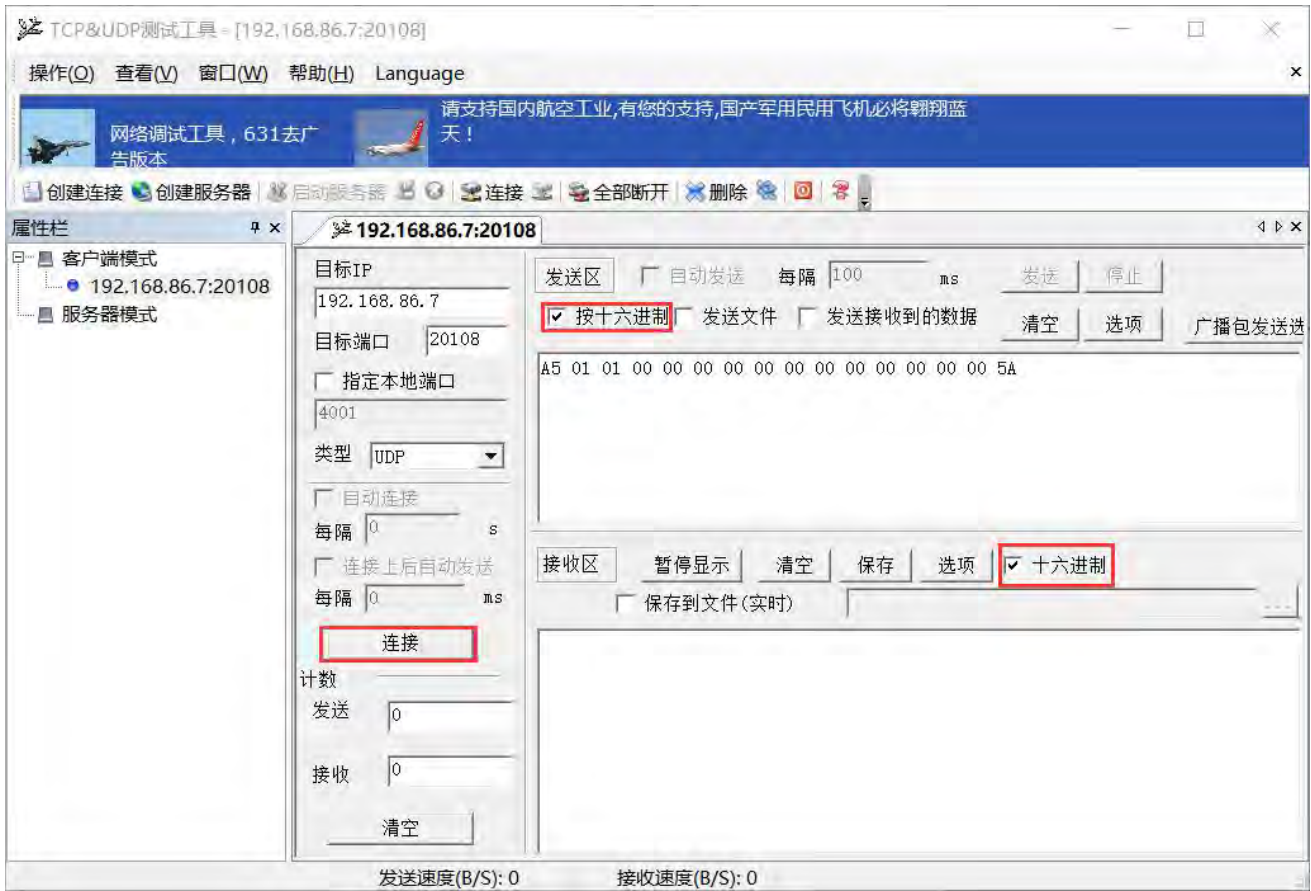
3. Corresponding position module static IP, gateway, serial port baud rate, module working mode, local port;
4. Press the "Save Parameters" button to save the current settings;
5. TCP debugging software;
6. Press "Create Connection"



7. The setting type and IP address, port are consistent with the above setting;



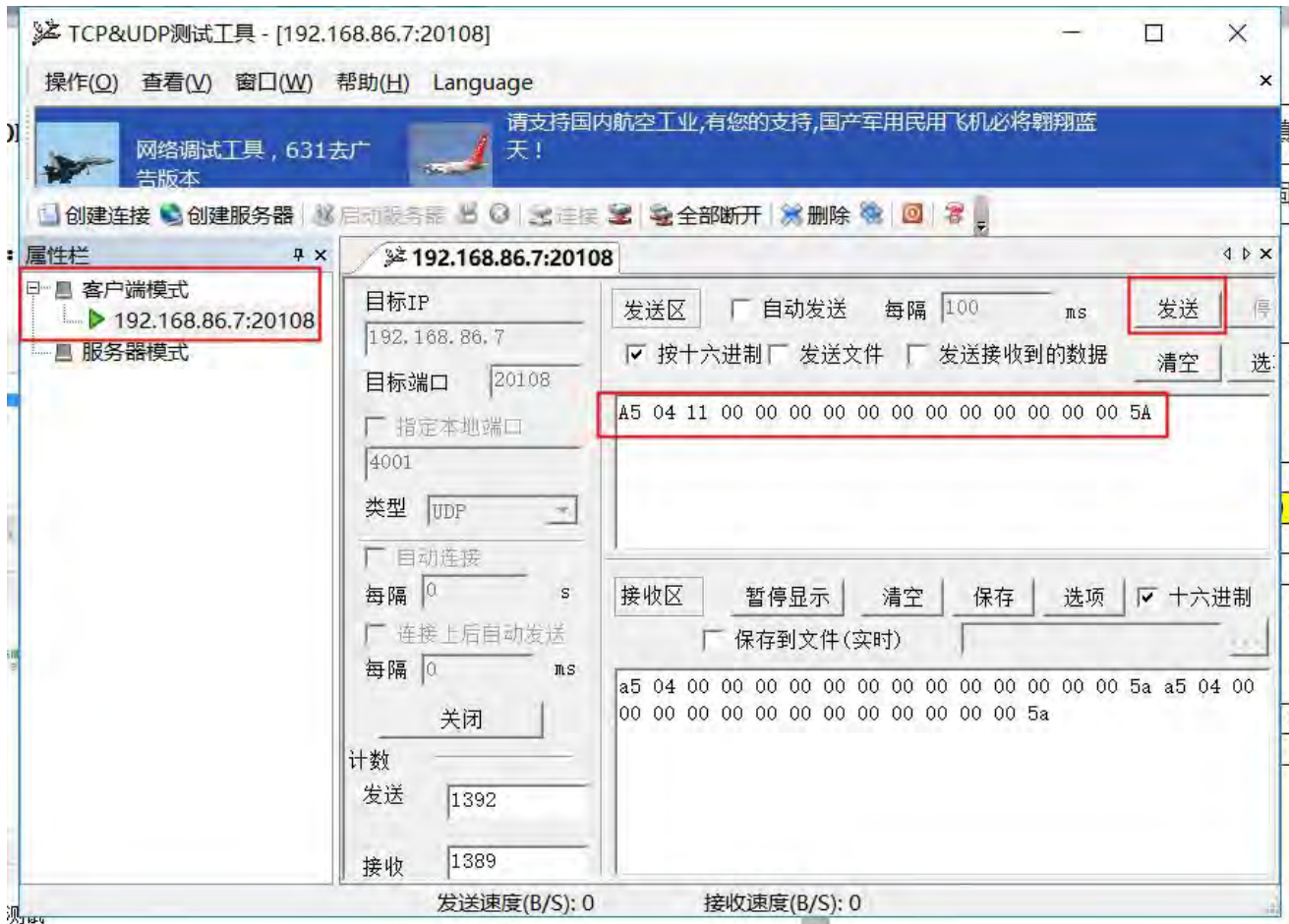
8. After pressing the "Connect" button, use 16 binary mode to send and receive instructions;



9. Send instructions



10. Receive response information



2. Module network instruction description

The total length of the module network command is 16 bytes, and the structure is as follows:

project	Number of bytes	content	Remarks
Baotou	1	Fixed 0xA5	
instruction	1	01=1 WG interface to send and receive signals 02=No. 2 WG interface to send and receive signals	
WG digits	1	1A=WG26, 22=WG34	
Hexadecimal card number	12	12-byte card number, WG26 occupies 3 bytes WG34 occupies 4 bytes.	
Bag tail	1	Fixed 0x5A	

Detailed instructions

1.1WG (No. 1 WG interface) to send and receive Wiegand signals

Network sending	Baotou	instruction	WG digits	card number	Bag tail
	0xA5	0x01	1A/22	01 02 03	0x5A
Description	Send commands through the network, output WG signal from 1WG interface				
Example	A5 01 1A 01 02 03 00 00 00 00 00 00 00 00 5A				

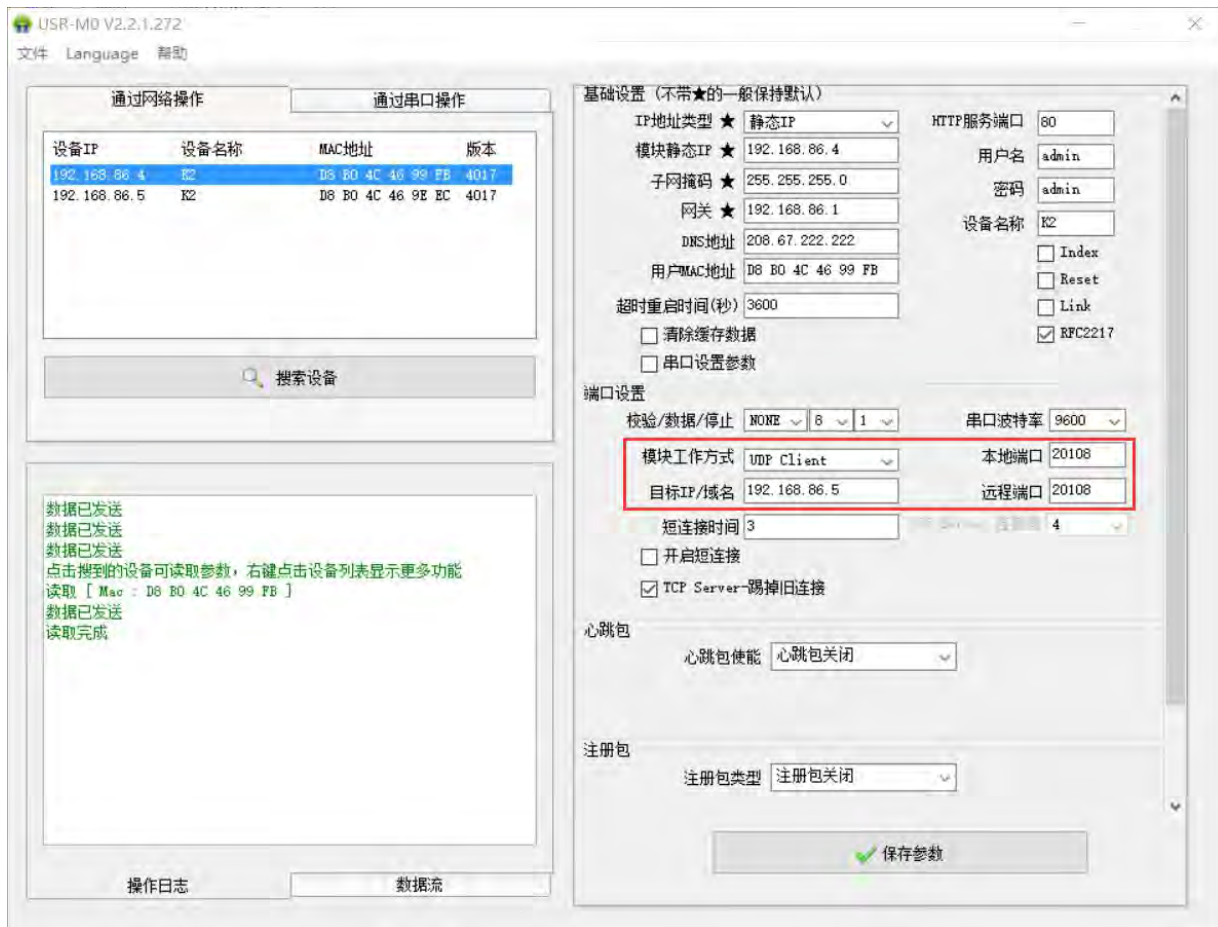
Control panel	Baotou	instruction	Execution status	the remaining	Bag tail
return	0xA5	0x01	Successful return 00 Failure to return FF	00	0x5A
Example	A5 01 00 00 00 00 00 00 00 00 00 00 00 00 5A When the 1WG interface is connected to the card reader to swipe the card, the module automatically uploads the card number through the network				

2.2WG (No. 2 WG interface) to send and receive Wiegand signals

Network sending	Baotou	instruction	WG digits	card number	Bag tail
	0xA5	0x02	1A/22	01 02 03	0x5A
Description	Send commands through the network and output WG signals from the 2WG interface				
Example	A5 01 1A 01 02 03 00 00 00 00 00 00 00 00 5A				

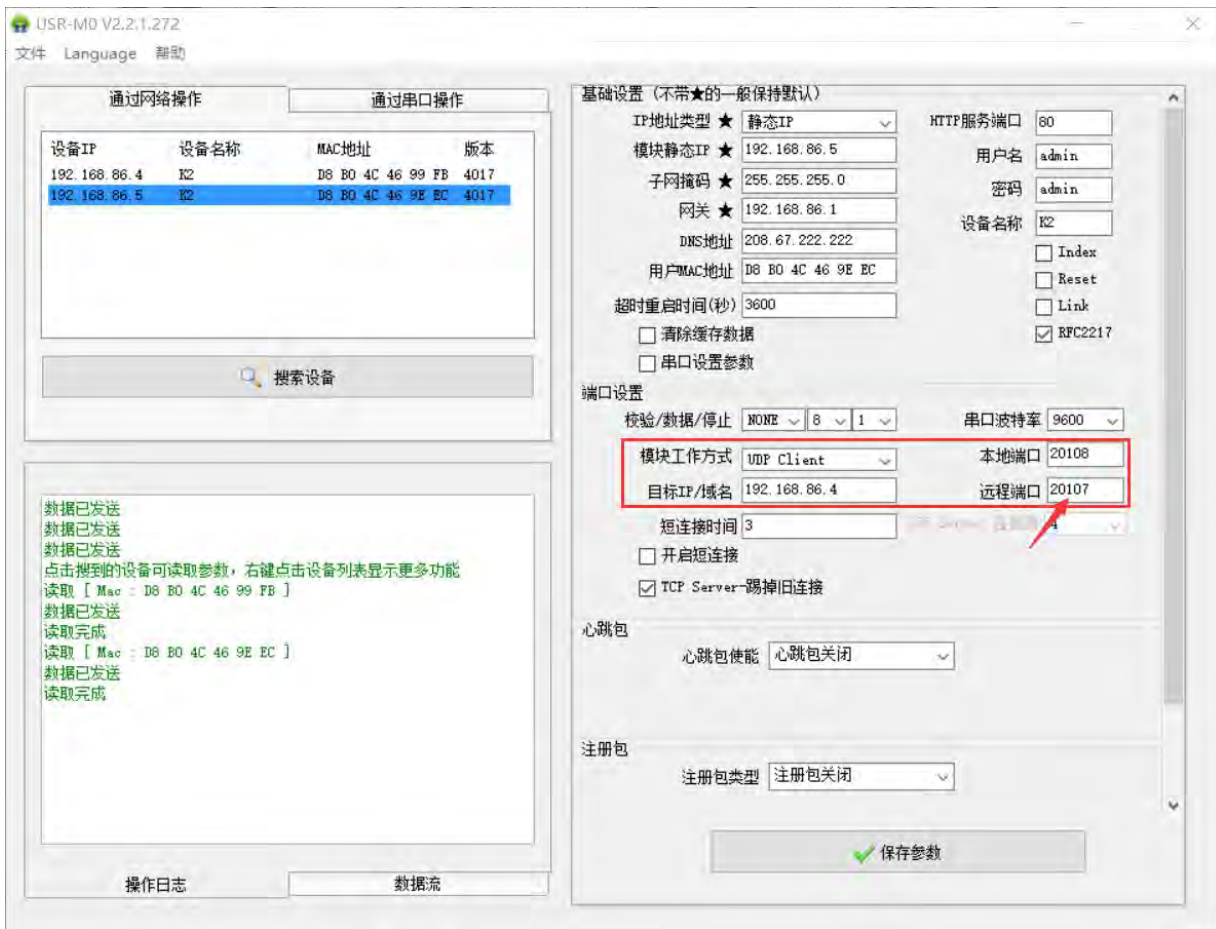
Control panel	Baotou	instruction	Execution status	the remaining	Bag tail
return	0xA5	0x02	Successful return 00 Failure to return FF	00	0x5A
Example	A5 02 00 00 00 00 00 00 00 00 00 00 00 00 5A When the 2WG interface is connected to the card reader to swipe the card, the module automatically uploads the card number through the network				

Use two converters to form a WG signal network extender, parameter setting:
sender (connected to card reader):



The sending end is set to UDP CLIENT mode, and the destination address is the IP address of the receiving end converter

Receiving end (connected to the access control board):



The receiving end should also be set to UDP CLIENT mode, and the destination IP should be set to the sending end address,

