



User Guide

The function of Modbus RTU to TCP

1. Function Introduction

Under the function of Modbus RTU to TCP, the user's serial device can send data to the specified server on the network through the USR-G781. The G781 can also accept data from the server and forward the information to the serial device.

User does not need to pay attention to the data conversion process between the serial port data and the network data packet, and the Modbus RTU<=>Modbus TCP communication between the serial port device and the network server can be realized by simple parameter setting.

2. Configure it by web-page

Enter into the web-page of USR-G781, such as the following photo:

- Transmission Sockets
- Mode Select: MCDBUS

USR IOT Communication Expert of Industrial IoT	Be honest, Do best! AutoRefreeh ON #文∣English
USR-G781 > Status > Services > Network > VPN > Firewall V Transmission Parameter Set Sockets > System	Sockets Setting Set the parameters of sockets Mode Select SOCKET A SOCKET A SOCKET C Socket packet Retransmission Number 6 Type Selec MODBUS • • The number of attempts to resend when a Socket packet fails. number: 1-30 SoveRApply
	Jinan USR IOT Technology Limited http://www.usr.cn

This device supports 4 SOCKET connections, namely SOCKET A, SOCKET B, SOCKET C and SOCKET D, which are independent of each other. SOCKET A supports four modes: TCP Server, TCP Client, UDP Server, and UDP Client, but SOCKET B, SOCKET C, and SOCKET D only support TCP Client, UDP Server, and UDP Client.

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3. Configure it AT command

The relevant AT command are as follows:

1. Set the working mode to Modbus mode:

AT+WKMOD=MODBUS

2. Set socket A to the enabled state:

AT+SOCKAEN=ON

3. Set socket A to TCP Client:

AT+SOCKA=TCPC, test.usr.cn, 2317

4. Restart:

AT+Z

Please check the example:

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noose Work Mod	ie		Operation and Hints	
۲	Transparent Mode 💿 HTTPD Client Mode		Query all parameters	Save current parameters
		a' →	Enter Serial AT command mode	Exit Serial AT command mode
PC	NetWork M2M device	Serial device		•
ansparent Mode	parameters			
Enable Socket A	IP&Port test.usr.cn Link Type TCPC	2317		
Enable Socket B		E		
Enable Socket C				
Enable Socket D				
		-		•
Modem Parameters			Router params	
Carial	Serial BaudRate 11520(- Flow Cont	rol NFC -	AT+WKMOD=MODBUS	
Sella	Parity/Data/Stop NONE - 8 -			

1. Open the setup software of USR-G781. Set the parameters of serial port according to the actual situation and click "Open Serial Port".

2. Click "Enter Configuration Status" and wait for the device to enter the AT command configuration mode.

- 3. Click "Get Current Parameter" and wait for all current parameters to be completed.
- 4. Enter "AT+WKMOD=MODBUS" at the AT command to enter, send, and return "OK completed";
- 5. Set the Address and Port to test.usr.cn and 2317.
- 6. Click on "Set and save all parameters".
- 7. When the save is complete, click the "Software Restart" button



4. Configure it AT command

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