

Wireless Modem User Manual



【RS485 ≑ WiFi】 NA611 / NA611A

All rights to interpret and modify this manual belong to Chengdu Ebyte Electronic Technology Co., Ltd.

Disclaimer	1
1 Introduction	1
2 QuickStart	2
2.1 Preparation for use	2
2.2 Equipment wiring	2
2.2.1 Power supply wiring	2
2.2.2 Communications wiring RS485	3
2.2.3 Overall schematic diagram	3
2.3 Software configuration	4
2.3.1 Device connection	4
(6) Restart the device.	5
2.3.2 Device testing	5
3 Product overview	2
3.1 Product specifications	2
3.2 Technical specification	2
3.3 Port specification	3
3.4 Dimension figure	3
3.5 Installation methods	4
4 Product function	5
4.1 Job role	5
4.1.1 AP model (Access Point)	5
4.1.2 STA model (Station)	5
4.1.3 P2P model (WiFi Direct)	5
4.2 Transmission mode	5
4.2.1Transparent transmission	5
4.2.2 Protocol transmission	6
(1) Designated sending	6
(2) Broadcast transmission	6
(3) receiving protocol	6
4.3 Service mode	7
4.3.1 TCP Server	7
4.3.2 TCP Client	7
4.3.3 UDP	7
4.3.4 MQTT	7
(1) Alibaba Cloud	7
(2) Baidu Cloud	7
(3) OneNet	8
4.3.5 HTTP Client	8
4.3.6 WebSocket	8
4.4 Parameter configuration	8
4.4.1 Serial port AT configuration	8
4.4.2 UDP remote configuration	8
4.4.3 Web page configuration	9

4.5 Status indication	9
4.6 Low power consumption	9
4.7 High speed continuous transmission(3M)	9
4.8 HeartBeat, Registration packet	
4.9 Modbus protocol	
4.10 Stastic IP	
4.11 Default parameters	
5 Instructions	
5.1 Data transmission TCP/UDP	
5.1.1 PC communication	
5.1.2 Communication between the roles STA and TCP Server	14
5.1.3 Communication between the roles STA and UDP	16
5.1.4 TCP communication between AP-STA devices	
5.1.5 UDP communication between devices	21
(1) Configure AP equipment:	
(2) Configure STA equipment:	
5.1.6 Set up the P2P communication of WiFi Direct	23
5.2 Network communication	
5.2.1 MQTT	
(1) Alibaba Cloud	25
(1) Baidu Cloud	
(1) OneNet	
5.2.2 HTTP Client	
5.2.3 WebSocket	
5.3 Parameter configuration	
5.3.1 Serial port AT instruction configuration	
5.3.2 UDP remote communications	
5.3.3 Web page configuration	
5.3.4 Modbus use	
Revision history	
About us	



Disclaimer

EBYTE reserves all rights to this document and the information contained herein. Products, names, logos and designs described herein may in whole or in part be subject to intellectual property rights. Reproduction, use, modification or disclosure to third parties of this document or any part thereof without the express permission of EBYTE is strictly prohibited.

The information contained herein is provided "as is" and EBYTE assumes no liability for the use of the information. No warranty, either express or implied, is given, including but not limited, with respect to the accuracy, correctness, reliability and fitness for a particular purpose of the information. This document may be revised by EBYTE at any time. For most recent documents, visit www.ebyte.com.

1 Introduction

NA611/NA611A is a high-performance, highly reliable dual-band WiFi serial server (RS485 \Rightarrow WiFi). Realize RS485 data through WiFi to realize device networking data interaction, and support IEEE802.11 a/b/g/n standards.

Features

- Support IEEE802.11 a/b/g/n standard;
- Support dual frequency (2.4G/5G);
- Support AP, STA, WIFI Direct working mode;
- Support WEP/WPA/WPA2 multiple WIFI security authentication methods;
- Support TCP/UDP/HTTP/MQTT multiple network communication protocols;
- Support TSL/SSL secure transmission mode;
- Support 4-way Socket connection;
- Support 4-way STA device connection (AP access point);
- Support DNS, DNS-SD, DHCP network service package;
- Support AT command, WeB web page parameter configuration;
- Support NTP network time acquisition (under the premise of internet access);
- Support automatic reconnection after disconnection;
- Support high-speed continuous transmission;
- Support Alibaba Cloud, Baidu Cloud, OneNet and other platforms that support the MQTT protocol;
- Support custom registration package, custom heartbeat package function;
- Support remote command configuration;
- Support transparent multi-channel protocol transmission and broadcast transmission;
- Support Modbus protocol conversion (RTU and TCP);
- Flexible power supply (DC/AC optional);



2 QuickStart

If there is a problem during use, click on the official website link: <u>https://www.ebyte.com/product-class.aspx</u>_____

2.1 Preparation for use

Before using the dual-band WiFi serial server (hereinafter referred to as the "device"), you need to prepare a computer, converter, power supply, screwdriver and other related auxiliary materials. details as follows::



No.	Device	Quantity
1	Equipment	1
2	USB to serial converter	1
3	Computer	1
4	Power Adapter (12V/1A)	1
5	WiFi antenna	1
6	Screwdriver (Slot SL 2)	1

	Table	2-1-1	Preparation	list
--	-------	-------	-------------	------

-

2.2 Equipment wiring

2.2.1 Power supply wiring

Power supply, using DC 8~28V power supply, also can use DC 12V or 24V power supply.



Figure 2-2-1 Power connection diagram

Chengdu Ebyte Electronic Technology Co.,Ltd.

2.2.2 Communications wiring RS485



Figure 2-2-2 Communication RS485 wiring diagram

2.2.3 Overall schematic diagram



Figure 2-2-3 Schematic diagram of the whole machine

2.3 Software configuration

2.3.1 Device connection

XCOM V2.6						<u>936</u> 9		×
enter AT mode AT+SSTD=0 R103-W06-V1 1 2 12345678						串口选择		
AT +MODE=1, 1, 1						COM19:US	B-SERIAL (CH34 🗸
AT+SVRPORTIP=4001, 10. 145. 45. 1								
						波特率	115200	~
						停止位	1	~
						数据位	8	~
						校验位	None	~
						串口操作	💓 ži	羽串口
						保存窗[1 清除	接收
							ᇣᆕᄗᅖ	p
								n ===/07=
								4川木1子
						[] 时间集	1000	ms
单条发送 多条发送 协议传输 帮助								
AT +MODE?	50					55 [] 发送新行	Ī
AT +SVRPORTIP?	51					56 [] 16进制发	送送
	52					57 [] 关联数字	□键盘
	53					58 [7 自动循环	吃发送
	54					59	周期 1000	D ms
页码 6/6 移除此页 添加页码 首引	٦ ٤	上一页	下一页	尾页	页码 1	跳转	导入导出统	条目

Figure 2-3-1 XCOM query connection parameters

Steps:

(1) Open the serial port, find the corresponding device port number, the baud rate defaults to 115200-8N1, click "open serial port".

(2) Send the "+++" command, and the serial port returns to "enter AT mode", indicating that the AT command has been entered.

(3) Send the "AT+SSID?" command, and the serial port will return "AT+SSID=0,E103-W06-V1.1,2,12345678" to get the WIFI name and address required by the computer to connect to the device later.

(4) Send the "AT+MODE?" command, the serial port returns "AT+MODE=1,1,1", if the serial port return parameters are inconsistent with this, you need to send the "AT+MODE=1,1,1" command to modify the device Working mode.

(5) Send the "AT+SVRPORTP?" command to query the IP address and port number of the next computer to

connect to the device server.

(6) Restart the device.

°77.	E103-W06-V1.1
°77.	Ebyte_2G_1
₽ <i>(</i> (,	TXSYB-PD



Use the WIFI name and password queried by XCOM to connect to the device. After the connection is successful, the LINKA on the device will light up.

2.3.2 Device testing

Next, we use the network debugging assistant "NetAssist" to test the connection.

Steps:

(1) Select the network card where the WIFI is located and modify the configuration parameters of IPV4. The network segment where the computer is located must be consistent with the device, as shown in Figure 2-3-4.

(2) Open the network debugging assistant "NetAssist", select the TCP Client mode, the remote host address is "10.145.45.1", the port number is "4001", click connect, as shown in Figure 2-3-5.

(3) The LINKB light of the device will light up after the connection is successful.

Internet 协议版本 4 (TCP/IPv4) 属性		×
常规		
如果网络支持此功能,则可以获取自动推 络系统管理员处获得适当的 IP 设置。	諭飯的 IP 设置。否则,你需要从	M
● 地址(I):	10 . 145 . 45 . 20	
子网掩码(U):	255 . 255 . 255 . 0	
默认网关(D):	· · ·	
○自动获得 DNS 服务器地址(B)		
● 使用下面的 DNS 服务器地址(E):		
首选 DNS 服务器(P):		
备用 DNS 服务器(A):	• • •	
□ 退出时验证设置(L)	高级(V)	
	确定	取消

Figure 2-3-4 Computer parameter configuration









Figure 2-3-6 Actual test results

Send "EBYTE-TEST" to observe the result of data communication.

3 Product overview

3.1 Product specifications

Product number	WiFi version	Operating Voltage	Working frequency	Communicatio n port	Operating temperature
NA611		Direct current $8 \sim 28 V$	2 412011	RS485	
NA611A	802.11 a/b/g/n	Alternating current 85~265V	$\begin{array}{l} 2.412 \text{GHz} \ \sim \ 2.472 \text{GHz} \\ 5.180 \text{GHz} \ \sim \ 5.825 \text{GHz} \end{array}$	RS485	-40°C ~ +85°C

Table 3-1-1 Product Specifications

3.2 Technical specification

Table 3-2-1	Technical	parameters
		F

Project	Parameter
Operating	Direct current 8~28V / Alternating current 85~265V
Voltage	
Communication	RS485
Interface	
Working	$2.412 \mathrm{GHz} \sim 2.472 \mathrm{GHz}$
frequency	5.180GHz \sim 5.825GHz
Maximum	16 dBm ~ 18.5 dBm @testing 2.412GHz
transmit power	16 dBm ~ 18.5 dBm @testing 5.18GHz
	85mA @12V Instantaneous power consumption (2.412GHz), DSSS
Emission automat	1Mbps
Emission current	60mA @12V Instantaneous power consumption (5.18GHz), OFDM
	6Mbps
Dessive sument	28mA @12V Received average power consumption (2.412GHz)
Receive current	32mA @12V Received average power consumption (5.18GHz)
Sleep current	6uA @12V Low power deep sleep (LPDS)
WiFi version	802.11 a/b/g/n
Operating	$-40^{\circ}\mathrm{C} \sim +85^{\circ}\mathrm{C}$
temperature	
Product Size	92 * 66 * 30 mm (Length*width*height)
product weight	$95 \text{ g} \pm 5 \text{g}$

3.3 Port specification



Figure 3-3-1 Interface diagram

Table	3-3-1	Port	functio	n table	

No.	Name	Function	Description		
1	Restore	Restart settings button	When powering on (within 3 seconds), press the button for about 3 seconds, and the device will be factory reset and restarted		
2	ANT	RF interface	SMA-K, External thread inner hole, characteristic impedance 50Ω		
3	DC	Power connector	DC power input port, pressure line port		
4	RS485	RS485 communication port	Standard RS485 interface		
5	PWR	Power Indicator	Lights up when the power is on		
6	STATE	Fault indicator	Steady on: equipment failure		
7	DATA	Data transceiver indicator	Always off: No data is sent or received Green light: WIFI received data Red light: The serial port receives data		
8	LINKA	WIFI connection indicator	Steady on: WIFI connection is successful Always off: Not connected to WIFI		
9	LINKB	Data link indicator	Steady on: The device is successfully connected to the data processing server Off: The device is not successfully connected to the data processing server		

3.4 Dimension figure



Figure 3-4-1 Dimensional drawing

3.5 Installation methods

The equipment adopts the guide rail installation method.



Figure 3-5-1 Rail installation

4 Product function

4.1 Job role

4.1.1 AP model (Access Point)

Access Point is abbreviated as AP mode, similar to a router, allowing wireless devices to connect and establishing TCP/IP-based server, client, and UDP communications. In this mode, 4 stations are supported, and a maximum of 4 Tcp socket transmissions are supported. The command AT+MODE=1,x,x sets the first digit to: 1, to configure the device to work in the AP role.

4.1.2 STA model (Station)

Station mode is abbreviated as STA. In this role, the device does not provide connections and can only connect to Access Point or routers. This device supports TCP server, TCP client, and UDP in the Station role, and supports up to 4 sockets. Also supports MQTT, WebSocket, HTTP clinet. The command AT+MODE=2,x,x sets the first digit to: 2, to configure the device to work in the STA role.

4.1.3 P2P model (WiFi Direct)

WiFi Direct mode is a way to establish a point-to-point connection directly without routing. It is also called P2P, which is similar to Bluetooth but the transmission rate is significantly higher than Bluetooth. Command AT+MODE=3,x,x set the first digit to: 3 to configure the device to work in WiFi Direct mode.

There are two roles in P2P mode: Client; GroupOwner.

4.2 Transmission mode

The transmission mode refers to the number of sockets supported by the device under the TCP/IP protocol. When only one socket is supported, we define it as single-mode transmission, and when multiple channels are supported, we define it as protocol transmission.

It should be noted that the transmission mode parameter does not take effect for WiFi-Direct.

4.2.1Transparent transmission

Transparent transmission means that when only one socket is supported, the data from the serial port or the network is sent directly without any format.

Command AT+MODE=x.1,x set the second bit to 1 to configure the device to work in transparent transmission mode.

4.2.2 Protocol transmission

When supporting multiple sockets, in order to distinguish the source and destination of data, we define it as protocol transmission, which includes designated sending and broadcast sending.

(1) Designated sending

Designated sending means that the data packet input to the serial port contains a unique socks ID label, and the device transmits the data to the corresponding socket connection according to this ID number.

Fixed head	Socket ID	Data
3 Byte	1 Byte	N Byte

Fixed head: 0xAA 0xFE 0x55

Socket ID	Description
0x00	Socket 0 link
0x01	Socket 1 link
0x02	Socket2 link
0x03	Socket 3 link

Data: Application Payload

(2) Broadcast transmission

When the Socket ID is 0xff, it means broadcast. If a 4-way connection is established, the data will be sent to the 4-way socket at the same time, otherwise the data will be sent to the established connection.

(3) receiving protocol

Fixed head	Socket ID	Length	Data
3 Byte	1Byte	2Byte	N Byte

Fixed head:

```
0xAA 0xFE 0x55
```

Socket ID:

0x00, which means Socket 0 link is found

0x01, which means Socket 1 link is found

0x02, which means Socket 2 link is found

0x03, which means Socket 3 link is found

Length:

The actual length of the application data, range: 0~1000

Data:

Application Payload

For example: AA FE 55 00 00 03 11 22 33 In protocol mode, the 3 bytes of data received from Socket0, the content is: 0x11 0x22 0x33

Use the command AT+MODE=x.2,x to set the second bit to configure the device to work in protocol transmission mode.

4.3 Service mode

The service mode refers to the network protocol supported by the device and the role of the device under the network protocol, which is often referred to as server (server) and client (client). Here, UDP, MQTT, HTTP client, WebSocket, etc. are all included To this mode. It should be noted that the service mode has no effect on the role of WiFi-Direct (P2P). The service model includes the following.

4.3.1 TCP Server

Let the device work as a TCP server. Use command: AT+MODE=x,x,1 Set the third bit to configure the device to work in TCP server mode.

4.3.2 TCP Client

Let the device work as a TCP client. Use command: AT+MODE=x,x,2 Set the third bit to configure the device to work in TCP client mode.

4.3.3 UDP

There is no distinction between server and client in UDP mode. Use the command: AT+MODE=x,x,3 to set the third bit to configure the device to work in UDP mode. In addition, there is no concept of connection in UDP mode, so the S_LINK pin will not be operated in the status indication.

4.3.4 MQTT

In the MQTT mode, the device supports Alibaba Cloud, Baidu Cloud, OneNet and other IoT platforms. Enter the service parameters created on the platform into the device to communicate.

(1) Alibaba Cloud

Based on the network communication of Alibaba Cloud platform, you need to log in to Alibaba Cloud to obtain relevant parameters, which mainly include product secret key, device name, client ID and other information. For details, please refer to Chapter 7 Alibaba Cloud Configuration Tutorial.

(2) Baidu Cloud

For network communication based on Baidu Cloud Platform, you need to log in to Baidu Cloud to obtain relevant parameters, which mainly include information such as device name, user name, and password. For details, please refer to Chapter 7 Baidu Cloud Configuration Tutorial.

(3) OneNet

For network communication based on the OneNet cloud platform, you need to log in to OneNet to obtain relevant parameters, including device ID, product ID, authentication information, etc. For details, please refer to Chapter 7 OneNet Configuration Tutorial.

4.3.5 HTTP Client

When using this function, you only need to configure the corresponding server resource symbol URL, and start a trigger request to get the resource responded by the server without worrying about the complicated HTTP protocol layer. For details, see Chapter 7 HTTP Client Configuration Tutorial.

4.3.6 WebSocket

The traditional HTTP transmission protocol is based on access and response. In this way, the server is always passive and cannot be used for applications that frequently interact between web clients and web servers. The application of WebSocket function allows E103-W06 devices to pass through the serial port. Real-time interaction with the web page saves the GET and POST request process initiated by the HTTP client during multiple interactions, improves the response speed, and the device can actively push data to the web page. See Chapter 7 WebSocket Configuration Tutorial for details.

4.4 Parameter configuration

There are 3 ways of parameter configuration: AT command configuration based on serial port, remote AT configuration based on UDP, and web page configuration based on browser. For detailed operation, please refer to Chapter 6 AT Command Description and Chapter 7 Tutorial.

4.4.1 Serial port AT configuration

When you need to use the serial port AT command to configure the parameters, first send "+++" to enter the AT mode, and then operate according to the AT command in Chapter 6. After the configuration is completed, some commands will take effect immediately, and some commands will take effect after restarting, according to the description of the AT command chapter Prevail. To exit the AT mode, send the command: AT+EXAT. Sending "+++" command at any time will enter AT mode. But AT+EXAT can only be used in AT mode, otherwise it is used as data transmission.

4.4.2 UDP remote configuration

UDP remote configuration is the parameter configuration performed using network debugging tools under the same network, which can also be called air configuration. There are two ways to enter the remote configuration: when the device is in AP mode, the PC is connected to the device; when the device is in STA mode, the PC and the device are connected to the same router. The device will always listen to a fixed UDP port 8009. When the device and the terminal

are on the same network, you can configure the parameters by setting the corresponding IP and port. The remote configuration must be in AP mode or STA mode, and the network connection has been established before it can be performed. P2P mode does not support this function.

4.4.3 Web page configuration

The web configuration must ensure that the PC and the device are in the same local area network. There are two ways to enter the web configuration: the device is connected to the device in AP mode; the device is in STA mode, and the PC and device are connected to a router together. The PC accesses the IP address of the device through a browser, and accesses the static web page for parameter configuration.

4.5 Status indication

The status indication is to display the working status of the device through serial port printing or pin output level status.

Serial port instructions: print "enter AT mode" when entering AT command, print "break AT mode" when exiting AT command, print "ERR=x" for AT command error, and return the set value if the AT command is correct.

The pin indication includes WiFi connection status indication, socket connection status indication and device abnormality indication. When the WiFi connection is established, the W LINK pin outputs a high level, and if the connection is disconnected, the W_LINK outputs a low level. When the socket connection is established, S_LINK outputs a high level, and if the connection is disconnected, S LINK outputs a low level.

The INDICATE pin remains low under normal working conditions. If the INDICATE pin of the device outputs a high level abnormally, the device needs to be restarted at this time.

4.6 Low power consumption

The low power consumption of the device enables the device to enter the dormant state through command operation. After entering dormancy, it can be awakened by a pin. The wake-up method is to recommend WAKEUP (ie GPIO 13) with a rising edge greater than 200ms.

4.7 High speed continuous transmission(3M)

Regarding high-speed continuous transmission, the following issues need to be paid attention to:

(1) The serial port chip must be a model that can support the 3M baud rate. The company's test board uses the CP2102 series

(2) The serial port assistant software must be able to support the 3M baud rate, the company's test software is XCOM2.6

(3) Try not to connect the device to the PC through a USB converter, and connect it directly to the USB3.0 port of the PC, otherwise packet loss will easily occur.

4.8 HeartBeat, Registration packet

The heartbeat packet registration package is a function only available in the TCP client mode. This device supports custom heartbeat packet data and registration packet data content.

4.9 Modbus protocol

This device supports Modbus protocol and can realize free conversion between RTU and TCP. When in use, you only need to transfer data from the serial port, and the device will automatically recognize and convert it into Modbus-compliant data, and upload it to the network. Or convert the received network-side data into data conforming to the Modbus specification and output it from the serial port.

requires attention:

1. The Modbus supported by this device is only for data conversion and does not support actual function operations. If you need to use this part of the function, please cooperate with the actual PLC device.

2. If the Modbus function is turned on, the protocol transmission is invalid, that is, the protocol transmission is no longer data with a fixed format, and it will be converted to data that conforms to the modbus protocol standard.

3. Only TCP server, TCP client, UDP, MQTT, WebSocket and P2P modes support Modbus protocol. HTTP client does not support it. The reason is because HTTP client is a short-connection communication method, and the server cannot actively initiate data exchange.

4.10 Stastic IP

In STA mode, it can support the setting of static IP, which is convenient for realizing fixed IP communication. It should be noted that the static IP address must be in the same network segment as the target router or target AP, otherwise it will not be able to assign IP and not work normally. For example, the target AP address is 10.123.45.1, then the static IP address must be set to 10.123.45.x. Otherwise, the IP address cannot be assigned normally and the device cannot work.

4.11 Default parameters

Parameter	parameter name	Parameter value	Related instructions	
category				
	Baud rate	115200		
	digit	8		
	Stop bit	1	AT+UART	
Social port	Parity check	none		
Senar port	Serial port timeout 40 (ms)			
	Serial port frame length	1000		
	working frequency	2.4G		



	channel		1	AT+RADIO		
RF parameters	Transmit p	ower level	0			
RF parameters AP role SSID parameters Operating mode Network IP address P2P connection parameters P2P socket STAConnection parameters local Socket parameter AP role Stace Parameters	CountryCo	ode	CN			
	SSID		E103-W06-V1.1	AT+SSID		
	Whether to hide the		0 (no)			
AP role	SSID					
SSID parameters	Encryption	n type	2 (WPA2)			
RF parameters AP role SSID parameters Operating mode Network IP address P2P connection parameters P2P socket STAConnection parameters Iocal Socket parameter AP role Socket parameter	password	• 1	12345678			
	Job role		1	AT+MODE		
	Transmissi	on mode	1			
Operating mode	Service model		1			
	IP address		10.145.45.1	AT+NETIP		
	Subnet ma	sk	255.255.255.0			
Network IP address	Gateway a	ddress	10.145.45.1			
address	server add	ress	10.145.45.1			
	P2P Scan g	gap	20	AT+P2PDEVINFO		
	P2P role		0 (client)			
P2P connection	P2P Local name		E103-W06WiFiDirectClient			
parameters	P2P Target name		E103-W06WiFiDirectGo			
	P2P port		4001	AT+P2PSOCKET		
P2P socket	P2P address		10.145.45.1			
	target SSID		E103-W06	AT+STACON		
STAConnection	Encryption type		2			
parameters	password		ebytew06			
	Connection Type		1	AT+CONTYPE		
local	Local port		4001	AT+SVRPORTIP		
Socket parameter	Local IP		10.145.45.1			
	G 1 (1	port	4001	AT+SOCKET		
	Sockett	IP	10.145.45.2			
D	Se altat?	port	4002			
Seelect	Socketz	IP	10.145.45.2			
Darameter	Socket?	port	4003			
parameter	SUCKEIS	IP	10.145.45.2			
	Seelect4	port	4004			
	SUCKEL4	IP	10.145.45.2			
		Heartbeat	0 (shut down)	AT+HEARTBT		
		type				
Heartheat	4 sockets	Heartbeat	5 (Unit: second)			
narameters	are the	timeout				
Parameters	same	Heartbeat	1 (String)			
		data type				
		Heartbeat	CDEBYTE-E103-W06-STRHT			



		data		
		Register	0 (shut down)	AT+REGISTER
		package		
		type		
Registration	4 sockets	Register	1 (String)	
package	are the	package		
parameter	same	data type		
		Register	CDEBYTE-REGISTER-PACK-STR	
		package		
		data		
NTP time	NTP Time	zone offset	480 (Unit: minutes) Beijing time	AT+NTPTIME
Modbus	Modbus Er	nable	0 (shut down Modbus)	AT+MODBUS
	IP address		10.145.45.1	AT+IPSTATIC
Static IP	Subnet mask		255.255.255.0	
	Gateway a	ddress	10.145.45.1	
	server addr	ess	10.145.45.1	

5 Instructions

5.1 Data transmission TCP/UDP

5.1.1 PC communication

Refer to this example (TCP server, UDP) for the other two communications in TCP mode, and set different modes through AT+MODE command.

(1) Set device role: AP, transmission mode: transparent transmission, service mode: TCP server; AT+MODE=1,1,1

(2) Configure SSID related parameters (SSID commonly known as WiFi name): AT+SSID=0, E103-W06-TEST, 2, 12345678.

(3) Set working frequency: AT+RADIO=1,36,0,0,CN

(4) Set IP address: AT+NETIP=192.168.1.111,255.255.255.0,192.168.1.31,192.168.1.31

(5) Set the port number: AT+SVRPORTIP=4001



XCOM V2.0			<u></u>	D X
enter AT mode AT+MODE=1,1,1		~	串口选择	
AT+SSID=0, E103-W06-TEST, 2, 12345678 AT+RADIO=6, 36, 0, 0, CN			COM3 : USB	-SERIAL V
AT+NETIP=192.168.1.111,255.255.255.0,192.1 AT+SVRPORTIP=4001	68.1.31,19	2. 168. 1. 31	波特率	921600 ~
			停止位	1 ~
			数据位	8 ~
			奇偶校验	无 ~
			串口操作	💓 关闭串口
			保存窗口] 清除接收
			□ 16进制 □ RTS	显示 白底黑字
单条发送 多条发送 协议传输 超助		~		(以换行回车断帧
AT+HDCONTO=E103-W06nccom, 2, 12345678	20	AT+STACON=E880-IR01-6, 2, JSZXE880	25	」发送新行
AT+NETIP=192.168.1.111,255.255.255.C	21	AT+STACON=E103-W06LX, 2, 12345678	26	
AT+SMARTCFG	22	AT+SVRPORTIP=4001, 10. 145. 45. 1	27] 关联数字键盘
AT+NETIP?	23	AT+SVRPORTIP=4001	28] 自动循环发送
AT+SOCKET=0, 4001, 192. 168. 0. 195	24] AT+VERSION	29 质	副期: 100 ms
首页上一	-页 下	一页 尾页		导入导出条目
	R:1	71 CTS=0 DSR=0 DCD=0	当前时间 17:	48:13

(6) After configuring the parameters, restart the device, find the SSID (WiFi hotspot name) set in the second step on the PC side, and enter the Secret connection.

<i>備</i> ^{E103-W06-TEST 安全}	
▶ 自动连接	
	连接

(7) After the connection is successful, query the local IP and local port: AT+SVRPORTIP. The return is as follows: AT+SVRPORTIP=4001,192.168.1.111

XCOM V2.0				-		×
enter AT mode AT+SVRPORTIP=4001, 192, 168, 1, 111			~	串口选择		
				COM3: USB	-SERIAL	~
				波特军	921600	~
				停止位	1	~
				****	0	
				57141V	0	~
				奇偶校验	无	~
				串口操作) (美)	日串口
				保存窗口	コー清除	接收
				□ 16进制	退示[] 白川	底黑字
				RTS	🗌 DTI	R
			~	日时间翻	(以换行回:	车断帧)
单条发送 多条发送 协议传输 帮助						
AT+HDCONTO=E103-W06nocon, 2, 12345678	20		AT+STACON=E880-IR01-6, 2, JSZXE880	25] 发送新行	
AT+NETIP=192.168.1.111,255.255.255.C	21		AT+STACON=E103-W06LX, 2, 12345678	26] 16进制发	送
AT +SMARICFG	22		AT+SVRPORTIP=4001, 10. 145. 45. 1	27	□ 关联数字	键盘
AT *NETIP?	23		AT+SVRPORTIP?	28	つ 白动循环	发送
AT+SOCKET=0, 4001, 192. 168. 0. 195	24		AT +VERSION	29 J	副期: 100	ms
首页 上-	-页	下-	-页 尾页	[导入导出统	利用
		R:48	CTS=0 DSR=0 DCD=0	当前时间 17	:50:29	

(8) Open the TCP debugging assistant, because the device is a server, so create a client here, and enter the

corresponding IP and port information in step 7, as shown in the figure:

😭 TCP&UDP测试工具	- 🗆 X	👔 TCP&UDP測試工具 - [192.168.1	.111:4001] – 🗆 X
无法找到该网 创建建建 《创建服务器 》 操作(2) 查看(2) 举韵(1) 管性栏 甲×		武法找到该网 无法找到该网 武法找到该网 武作(□) 查看小 意日心 朝 属性性 4 × 平 × 日 名 合用的 和 ×	五 12000日5月 28 ④ 【愛 注理 28 金金部所开 ※ 動物 28 ◎ 28 mm 助田 ◆ 192168.1.1114.001
	英型: TTF 目标TT: [192.168.1.11]		192:160.1.111 「 掠(a)通制 「 发送文件 「 发送播快到的操播 <u>清空 」 遠函</u> 目标欄口: 1001 1001 「 指空本机)米口: 1001 資型: 127 速播 计数 「 存存到文件 (采引) 「 存存到文件 (采引) 激松: 0 適空计数
			发送速度(B/S): 0 接收速度(B/S): 0

(9) Before communication, it should be noted that if the device is in AT mode, you need to exit the AT command,

AT+EXAT

🚵 TCP&UDP测试工具 - [192:168:1	.111:4001]	-		SCOM V2.0	-			
无法找到该网	页			123456789123456789		/	串口选择 COMC3: USB-	-SERIAL ~
🔄 创建连接 🔕 创建服务器 🛛 🕴	动服务器 😕 😡 😒	连接 🕱 🗟 全部断开 💥 删除 🎇 🔟 寒 💂					波特率	921600 ~
操作(<u>O</u>) 查看(<u>V</u>) 窗口(<u>W</u>) 帮	助(<u>H</u>)	-	×				停止位	1 ~
属性栏 # ×	🔶 192.168.1.111:4	4001	4 Þ 🗙				数据位	8 ~
日- 圖 客户读模式 ▶ 192.168.1.111:4001 _ 圖 服务器模式	日标IP: 192.168.1.111 日标浦口: 4001 「 指定本机湖口: 4001 英型: TCP ▼ 断开连接	发送区 「自动发送: 商膳 100 es 」 「按16进制」「发送文件」「发送操收到 謝請損 123456789123456789 接收区 暫停显示 資空」 保存	<u>发送</u> 停止 清空 选项 技16进制				 奇偶校验 串口操作 保存窗口 16进制; RTS 时间截 	 无 く 茶(初本口) 清除接收 夏示□白原黒字 □ DTR (以換行回车断帧)
	计载 发送: [18 	Г 保存到文件(英祖) QWERTYUIOPASDFOUTKL		单系发送 多系发送 协议传输 群助 QWEXTYLIOP ASDFOUTIL □ 定时发送 周期: 600 ms □ 占进制发送 □ 发送新行	1.022	打开文件 0% 开源电子	发送文件 闷: www.o	》 发送 清除发送 停止发送 penedv. com
	发送速度	E(B/S): 0 接收速度(B/S): 0			R:18	CTS=0 DSR=0 DCD=0	当前时间 17:5	55:37

So far, the data transmission based on the AP mode is completed. Other transmission modes and service modes are set by themselves based on this.

5.1.2 Communication between the roles STA and TCP Server

(1) To realize communication with PC under the role of STA, the device needs to ensure that the PC and MO block are in the same local area network. Here we take the way of mobile phone hotspot as a tutorial, and router can also be used. The other two TCP servers and UDP of STA also refer to this process, and set different modes through AT+MODE command.

1. *Turn on the mobile phone hotspot, connect the PC to the hotspot, and find the IP address assigned by the hotspot to the PC. This step is very important. If the IP address is incorrect, communication will not be possible. (You can also connect to the router)



192.168.43.64

(2) Open the TCP debugging assistant, create a TCP Server server, enter the port number set in the second step, and start the server:

🚵 TCP&UDP测试工具 — 🗆	
· 操作(Q) 查看(V) 帮助(H)	
	Africo 重要心 解物(1) T.5.5.1代到该网页 ① 创建注意 ● 创建级务者 ● 自动服务者 ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●

(3) Set the communication port and IP address (this step is very important, if the IP address is incorrect, communication will not be possible), refer to the instruction: configure and read the SOCKET port, IP address: AT+SOCKET=0,4001,192.168.43.64

(4) Set device role: STA, transmission mode: transparent transmission, service mode: client AT+MODE=2,1,2

(5) Set the connection target parameters. The parameters here are the hotspot name, password and encryption method set in the first step: AT+STACON=ebytew06,2,12345678

(6) Set the connection method (connections are divided into manual, automatic, and smartconfig), here select automatic connection:

XCOM V2.0					
AT +SOCKET=0, 4001, 192. 168. 43. 64 AT +MODE=2, 1, 2			0	串口选择	
AT +STACON=ebytew06, 2, 12345678 AT +CONTYPE=1				COM3 : USE	-SERIAL V
				波特室	921600 🗸
				停止位	1 ~
				数据位	8 ~
				奇偶称哈	Ŧ
					/u *
				串口操作	() 关闭串口
				保存窗	コ 清除接收
				🗌 16进制	显示□ 白底黑字
				🗌 RTS	🗌 DTR
				🗌 时间翟	(以换行回车断帧)
			6.4		
单条发送 多条发送 协议传输 帮助			×	1	
AT+P2PSOCKET=4003	30		AT +REGISTER?0	35 [] 发送新行
AT+HEARTBT=0, 1, 1, 1, CDEBYTE-E103-W06-	31		AT+REGISTER=0, 2, 1, 13123	36 [16进制发送
AT+HEARTBT?0	32		AT +NTPTIME?	37 [] 关联数字键盘
AT +MAC?	33		AT+NTPTIME=-480	38 [] 自动循环发送
AT +CONTYPE=1	34		AT +DISCON	39	周期: 100 ms
首页上	一页	下-	-页 尾页		导入导出条目
🧿 👻 www.openedv.com S:84		R:92	CTS=0 DSR=0 DCD=0	当前时间 17	:59:00

(7) Restart the device, and wait for the device to connect to the hotspot and Tcp Server for data transmission



CON ACCIVITY 220	- u /	1 (H 12
1234567890	▲ 串口选择 COM3:USB-SERIAL 波特率 1382400	 <	助田	×
	停止位 1	✓ 1 1 创建连接 S 创建服务器 33 < C 属性栏 4 ×	自动服务器 送 🕢 😒 连接	22 全全部断开 ※ 動除 絵 図 考 。 4 4 ↓ × ×
單奈发送 多条发送 协议传输 帮助 GWZERTUIOP		 □ 書 案户時模式 □ 書 案段器模式 □ 書 案段器模式 □ ● 数器構成: □ ● 1 案段器模式 □ ● 192.168.43,90:58614 □ ● 192.168.43,90:58614 □ ● 192.168.43,90:58614 	日标IF: 日标IF: 日标调口: 「56614 「指定本机端口: 「4001 类型: TCP 「 「 「 」 」 」 」 」 」 」 」 」 」 」 」 」	送送区 「自助发送: 间隔 [00] ex 发送 停止 按16进制 「发送文件」「发送橡胶到的编辑 清空 送页 234567890 創收区 暫停豆示」 清空 保存 送页 「保存到文件(突討)
□ 定时发送 周期: [10] ms [17天文件] 16进制发送 □ 发送新行 0% 开源也行 • www.openedv.com S:10 R:10 CTS=0 DSR=0 DCD=0	麦送文件 停止发送 发送文件 停止发送 一門: www. openedv. cor 当前时间 11:39:51		发送: Q 10 接收: 10 第空计数	ertynop

At this point, communication with the PC under the STA role has been established. Note: Some mobile phones may not have data forwarding function due to their own technology, so you need to pay attention.

5.1.3 Communication between the roles STA and UDP

This example will demonstrate protocol transmission in AP mode.

- (1) Setting role: AP, transmission mode: protocol transmission, service type: UDP AT+MODE=1,2,3
- (2) Set the local port number AT+ SVRPORTIP=4001
- (3) Set the UDP communication list. This step is to distinguish the source of UDP data. 4 groups can be set.
- AT+SOCKET=0.4001,10.145.45.2

AT+SOCKET=1.4002,10.145.45.2

AT+SOCKET=2.4003,10.145.45.2

AT+SOCKET=3.4004,10.145.45.2

This is just for demonstration, and the actual value is set according to your needs.

XCOM V2.0			_	
AT+SOCKET=0, 4001, 10, 145, 45, 2 AT+SOCKET=1, 4002, 10, 145, 45, 2		^	串口选择	
AT+SOCKET=2, 4003, 10. 145. 45. 2 AT+SOCKET=3, 4004, 10. 145. 45. 2			COM3: USB-	SERIAL 🗸
			波特率	921600 ~
			停止位	1 ~
			数据位	8 ~
			奇偶校验	无 ~
			串口操作	● 关闭串口
			保存窗口	清除接收
			□ 16进制	显示 白底黒字
			RTS	DTR
·····································		~		以换行回车断帧
■ ### ###	0] AT+PMTEST	5]发送新行
AAFE550036373839	1	AT+IOTEST=1, 1	6]16进制发送
AT+SOCKET=3, 4004, 10. 145. 45. 2	2	AT+P2PDEVINFO?] 关联数字键盘
AT+UART?	3	AT+RESTORE] 自动循环发送
AT+UART=921600, 8, 1, 0, 20, 500	4	AT+SOCKET?0	9 周	期: 100 ms
首页上	.一页 下	一页 尾页	1	导入导出条目
	R:1	20 CTS=0 DSR=0 DCD=0	当前时间 18:5	53:03

(4) Restart the device and use the PC to connect to the device.

(5) Open the UDP assistant to establish UDP communication.





(6) Communication, because it is a protocol transmission, it is necessary to input data according to the protocol transmission format when sending data on the device side. For details, see Protocol Transmission. The PC side does not need to add a format, but the device will print out the data according to the protocol format after receiving the data from the PC side.



Device sent:

	🚺 SSCOM V5.13.1 車口/网络数据调试器(作者:大述下丁了,2618058@qq.co 🛛 🗙	♣ SSCOM V5.13.1 年口/网络数据演试器(作者:大虾丁丁.2618058@qq.co □ ×
# XCOM V2.0 X	通讯顾口 串口设置 显示 发送 多字符串 小工具 補助 联系作者 PCB打样	透讯跳口 申口设置 显示 发送 多字符串 小工具 報助 联系作者 PCB打样
0 mm + 2	31 31 31 31	32 32 32 32
· 南山选择		1
COM3: USB-SERIAL ~		
波特率 \$21600 ~		
傳計的 1 2		
WILL .		
約据[1] 8 ~		
奇偶校验 无 ~		
ялья жаял		
《存在窗口》等徐娘时		
单东发送 多条发送 协议传输 帮助	×	×
□ +++ 0 □ AFE5500 31313131 5 □ 发送新行	清除實口 打开文件 +colo\Desktop\连传测试放措(1)\1% hex 发送文件 停止 清发送区 □ 最有 □ Empl:	
□ AAF25500 36373839 1 □ AAF25501 32323232 6 ☑ 16进制发送	端口号 UDP - FEX 显示 任存 放振 「 後 牧 教 指 到 文 「 HEX 支 注 」 定时 支 送 3000 ms.	近程 10.145.45.1 4001 注意 「加封闲歌和分包显示 送付付用 20 ms 第1 字节 単来5 → 加校知 Sone
□ AT*SOCIZT=3, 4004, 10.145.45.2 2 □ AAF25502 33333333 7 □ 关联数字键盘	10:143:43:1 4001 日田 1001 日日 1001 日田 1001 日日 1001 日 1001 日日 1001 日 1001 日 1001 日 100	本地 10.145.45.2 • 4002 新开 AT+VERSION?256165516
□ AI+9AK19 3 □ AAF25503 34343434 8 □ 自动循环发送	な了高記製芯用escou駅! 文 素	为了至分地发展50000款1 发 差 清您注册基本创作结局每人 发 差
AT*50CEETY0	【升级到SSCON5.13.1】 ★基立创PCB打样SMT能片服务. ★RT-Thread中国人的开源免费操作系统 ★SKM这把	【升级到SSCOM5.13.1】 ★基立创PCB打样SMT站片标告。 ★RT-Thread中国人的开想免费操作系统 ★SKM运货
首页 上一页 下一页 尾页 导出条目	www.daxie.cor_S:0 R:4 UDP【•已开始】本地(LAPTOP-BSIOJUQR)IP10.145.45.2:41 //	www.daxia.cor S:0 R:4 UDP [•Ertte] #38(LAPTOP-BSIOJUQR)IP10.145.45.2:4
◎ ▼ www.openedv.com Si58 R:0 CTS=0 DSR=0 DCD=0 当前时间 19:07:09	🔥 SSCOM V5.13.1 車口/网络数据询试家 In good ST 2618058@qq.com 🛛 🗙	♣ SSCOM V5.13.1 串口/网络数据清试器,作者:大虾丁丁,2618058@qq □ ×
	▲R調口 串口设置 显示 发送 多字符串 小工具 帮助 联系作者 PCB扫描	通讯端口 申口设置 显示 发送 多字符串 小工具 帮助 联系作者 PCB打样
	33 33 33 33	→ 34 34 34 34 ×
and the second		
		×
	清除客口 (町平文社)(aco)o)(Daskton)(法体別(初提(1)))(M hav 分中文社) あよ) ●会学校() ●前 [Sng)) は	清除實口 打开文件 vecolo/Desktop/運作別試気操(1)/18. hex 愛送文件 停止 清安建区 柔和 Eng
	端口号UDP · ▼ ##X显示 保存教授 授仪教授到文(HEX发出) 定时发送 3000 ma	18 1 7 1 UP (11 1 4 5 . 1 4001 日本) 「加利用型 法行政法」 (13 X X X X X X X X X X X X X X X X X X X
	3 2 2 2 2 3 2 3 3 4001 注意 □ 加时间数和分包显示器的时间 20 mm 第1 字节 图末5 • 加权相None	本地 10.145.45.2 • 4004 <u>新开</u> AT+VERSION7256165516
	平地 10.145.45.2 ▼ 4003 ●开 AT-VERSION7256185518	为了更好地觉是450000001 发送
	清您注册幕型创印建写客; 发 激	【升级到SSCOM5.13.1】★基立创PCB打样SMT能片服务。★RT-Thread中国人的开源免费操作系统 ★SKM
	【升級制/83C005.13.1】 ★亜立住PCB打样30/135片版券. ★87-Thread中国人的开源免费操作系统 ★830/2521	www.daxia.cor/S:0 R:4 UDP【•已开始】本地(LAPTOP-BSIOJUQR)IP10.145.45. 。

Device receiving:

		🏠 SSCOM V5.13.1 車口/网络数磁滴试器,作者:大虾丁丁,2618058@qq.co 🛛 🗙	▲ SSCOM V5.13.1 申□/网络数据调试器,作者:大虾丁丁,2618058@qq.co □ ×
20 XCOM V2.0	- 🗆 ×	透讯跳口 串口设置 显示 发送 多字符串 小工具 帮助 联系作者 PCB打样	通讯跳口 串口设置 显示 发送 多字符串 小工具 帮助 联系作者 PCB打样
第 XCOM V20	× × × ×	Constant All All All All All All All All All Al	
0 AAFE5500 31313131	5 发送新行	【开線到SSCON5.13.1】 ★基本(IPCS打样SNT版片版長、★RT-Thread中国人的开想免费操作系统 ★SKNICE New dayla cor S:11 R:4 UDD 「●戸开始】本地(IAPTOD_RSIO)UOR)(D10.145.45.2:4)	www.daxia.cor S:8 R:4 UDP [•已开始] 本地(LAPTOP-BSIOJUQR)IP10.145.45.2:4
1 AF72501 3232222	6 2 16进制发送		▲ SSCOM VS 13.1 本日/図络教探察式器 作表:1857丁 2618058@co
AT 19602 10 10 10 10 10 2 2 AATENDE 3033333	(□ 大联刻子雑篇	R SSCUM V5.13.1 申山/With的国际部内1者:大学「J」2018058回7q.com ー ロ ×	
AT 10401 AT	0 目初億外友法 0 回期: 100 ==	通出調山 華山设置 型示 发送 多子符串 小上具 帮助 联系作者 PCB打样 23.32.32.33	2011-0月山 中山改重 亚示 改送 参子付中 小山昌 報知 IR条(FA PCD)(4 34 34 34 34
	5 AM. 100 HS		
	*#/~#slaftin		
		1985日11月二大工型(wools/basings/Fight)(1)日本(1)(1)日本(1)(1)(1)(1)(1)(1)(1)(1)(1)(1)(1)(1)(1)((月前日) 10,200 年7 (10) (10) 10,200 円 (10) 10,200 \Pi (10
	- ARTA	*# [15:64:45:2](200 世世) 17:55:04:45:2](200 世世) 17:55:04:45:2](200 世世) 17:55:04:45:2]) またいの注意 17:55:04:45:2])またたいの方形のため、またいの注意 17:55:04:04:45:2] 17:55:04:04:04:04:04:04:04:04:04:04:04:04:04:	

At this point, the communication between the device and the PC is complete. Both the AP and STA roles support TCP server, TCP Client, and UDP. The specific combination can be used in conjunction with these three tutorials.

It should be noted that if the source address and port of the received data are not in the parameters set in the third step, the serial port number is 0xff, which means that the data source is not recognized.



ATT XCOM V2.0	- 🗆 🗙	🔥 SSCOM V5.13.1 申口/网络数据调试器,作者:大虾丁丁,2618058@qq.com. QQ群: 5250244 — 🛛 🗙
AA FE 55 FF 08 00 11 11 11 11 11 0D 0A	串口选择	通讯端口 串口设置 显示 发送 多字符串 小工具 報助 联系作者 PCB打样
FF表示未识别的数据源	COM3: USB-SERIAL 🗸 🗸	31 31 31 31
	波特率 921600 ~	
	停止位 1 🗸	
	数据位 8 ✓	
	奈伊拉松 王 ····	
	串口操作 🕑 关闭串口	
	保存窗口 清除接收	
	☑ 16进制显示□ 白底黑字	
	RTS DTR	
	时间戳(以换行回车断帧)	
→ → → → → → → → → → → → → →		4008端口不在设置的参数中
単形反因 ジボルム (が以て後期) 報知) □ ++++ 0 □ AAFE5500 31313131 5	□ 发送新行	
AAFE5500 36373839 1 AAFE5501 32323232 6	☑ 16进制发送	[清漆賞口] <u>打开文件</u> (************************************
AT+SOCKET=3, 4004, 10. 145. 45. 2 2 AAFE5502 33333333 7	□ 关联数字键盘	這種 10.145.45.1 4001 连接 加时间歇和分包显示 照时时间 20 ms 第1 字节 到末5 ↓ 加校湖None ↓
AAFE5503 34343434 8	□ 自动循环发送	7型10.143.45.2 ▼ 4008
AT+VART=921600, 8, 1, 0, 20, 500 4 AT+SOCKET?0 9	周期: 100 ms	请您注册基立创F结尾客月 【升级到SSCON5.13.1】 ★基立创FCB打样SMT贴片服务. ★RT-Thread中国人的开源免费操作系统 ★BKM远距离wiFi可自编网 /
首页 上一页 下一页 尾页	导入导出条目	www.daxia.cor [S:19 R:4 [UDP [•日开始] 本地(LAPTOP-BSIOJUQR)IP10.145.45.2:4008<->远程IP10.
Q ▼ www.openedv.com S:0 R:14 CTS=0 DSR=0 DCD=0 当前时	间 19:16:41	

5.1.4 TCP communication between AP-STA devices

(1) Set the working mode, set device A to AP role, and device B to STA role. It is particularly important to note that in TCP mode, the service mode of the device cannot be set to the same, that is to say, one of the two devices is a TCP Server and the other must be a TCP Client, otherwise the connection and communication cannot be established normally. Regarding the channel and frequency settings, because the devices are dual-frequency 2.4G and 5.8G, it is also necessary to ensure that the frequencies of the two devices are the same.

AP configuration:

Mode: AT+MODE=1,1,1

SSID: AT+SSID=0,E103-W06,2,12345678

Get the local IP: AT+SVRPORTIP? (This operation must be performed here, and then pass the parameters into the STA, otherwise communication will not be possible), the return value is shown in the figure.

XCOM V2.0		-	
AT +MODE=1, 1, 1 AT +SSID=0, E103-W06, 2, 12345678	(A)	串口选择	
AT+SVRPORTIP=4001, 10. 145. 45. 1		COM3 : USB-	-SERIAL \sim
		波特率	921600 ~
		停止位	1 ~
		数据位	8 ~
		奇偶检验	无 v
		串口操作	·····································
		保存窗口	1 清除接收
		🗌 16进制	显示 白底黑字
		RTS	DTR
	(a)	□ 时间戳	(以换行回车断帧)
单条发送 多条发送 协议传输 帮助	×	1	
AT +HDCONTO=E103-W06nocom, 2, 12345678	AT+STACON=E880-IR01-6, 2, JSZXE880	25	一发送新行
AT+NETIP=192.168.1.111,255.255.255.0	AT+STACON=E103-W06nocom, 2, 12345678	26	- 16进制发送
AT+SMARTCFG 2	AT+SVRPORTIP=4001	27] 关联数字键盘
AT+NETIP?	AT+SVRPORTIP?	28	自动循环发送
AT+SOCKET=0, 4001, 192. 168. 0. 195	AT+VERSION	29 月	期: 100 ms
首页上一引	下一页 尾页		导入导出条目
	R:77 CTS=0 DSR=0 DCD=0	当前时间 19:	31:00 .::

STA configuration:

Mode: AT+MODE=2,1,2

Target: AT+STACON=E103-W06,2,12345678

Set the remote IP and port. Here, the local IP obtained in the AP configuration is passed in as the remote IP of the

STA:

AT+SOCKET=0,4001,101.145.45.1

After the configuration is complete, restart the device, wait for the connection to be completed, and then send data.

Special attention is needed: Before starting the STA, the IP address of the AP connected to it must be passed in. Otherwise, a normal network connection cannot be established.

If the AP starts the protocol transmission mode at this time, it can support the connection of 4 STAs, and the configuration of the remaining STAs is the same.

For STA-STA communication, two devices need to be connected to the same router. Here, the SSID of the target AP is E103-W06 for demonstration.

STA1 configuration process Mode: AT+MODE=2,1,1 Target: AT+STACON=E103-W06,2,12345678 Configure the local port: AT+SVRPORTIP=4001 Get IP address: AT+SVRPORTIP? Get back: AT+SVRPORTIP=4001,192.168.0.189

STA2 configuration process Mode: AT+MODE=2,1,2 Target: AT+STACON=E103-W06,2,12345678 Set the remote IP and port, here the IP and port obtained by STA1 are passed in: AT+SOCKET=0,4001, 192.168.0.189 Restart the device and wait for the connection to complete before communicating.

5.1.5 UDP communication between devices

UDP is a communication that does not establish a connection, and the core is the IP address and port. In this way, one serves as AP and the other serves as STA.

(1) Configure AP equipment: Setting mode: AT+MODE=1,1,3

Set SSID: AT+SSID=0,E103-W06,2,12345678

Set the local port: AT+SVRPORTIP=4001

Get the local IP of the local port: AT+SVRPORTIP?. Get back: AT+SVRPORTIP=4001,10.145.45.1

Set remote port Set remote IP: AT+SOCKET=0,4002,10.145.45.2



XCOM V2.0				-		×
AT +MODE=1, 1, 3 AT +SSID=0, E103-W06, 2, 12345678				串口选择		
AT+SVRPORTIP=4001 AT+SVRPORTIP=4001, 10, 145, 45, 1				COM3 : USE	-SERIAL	~
AI +SUCKEI=U, 4002, 10. 145. 45. 2				波特室	921600	~
				停止位	1	~
				数据位	8	~
				奇偶校验	无	~
				串口操作	i关 🕘	羽串口
				保存窗	7 清除	協助
				16讲制	- 「月」 「月」 「月」	底里字
				T RTS		R
					(以换行回	车断帧
· · · · · · · · · · · · · · · · · · ·				~		
	20		AT +STACON=E880-IR01-6, 2, JSZXE880	25 [口发送新行	F
AT+NETIP=192.168.1.111,255.255.255.C	21		AT+STACON=ebytew06, 2, 12345678	26	16进制发	:送
AT+SMARTCFG	22		AT+SVRPORTIP=4001	27	_ □ 关联数字	键盘
AT+NETIP?	23		AT+SVRPORTIP?	28	白动循环	发送
AT+SOCKET=0, 4002, 10. 145. 45. 2	24		AT +VERSION	29	副期: 100	ms
 首页 上·	-页	<u>下</u> -	-页 尾页		导入导出统	条目
🧿 👻 www.openedv.com S:100		R:12	6 CTS=0 DSR=0 DCD=0	当前时间 18	:54:16	

(2) Configure STA equipment:

Setting mode: AT+MODE=2,1,3

Set the target SSID: AT+STACON=E103-W06,2,12345678

Set connection method: AT+CONTYPE=1

Set the local port: AT+SVRPORTIP=4002 (note that the local port here is the remote port from the previous step) Set the remote port remote IP: AT+SOCKET=0,4001,10.145.45.1 (the remote port IP here is the local port IP in the previous step)

XCOM V2.0						×
AT+MODE=2, 1, 3 AT+STACON=E103-W06, 2, 12345678			~	串口选择		
AT+CONTYPE=1 AT+SVRPORTIP=4002				COM10:US	SB-SERIAL	~
AT+SOCKET=0, 4001, 10. 145. 45. 1				波特率	921600	~
				停止位	1	~
				数据位	8	~
				英俚 扶心		
				PJ (P1)(7)(7)(7)	75	~
				串口操作	· ● 关闭	日串口
				保存窗	口 清除	接收
				16进制	□显示□ 白」	底黑字
				🗌 RTS	🗌 DTH	2
				🗌 时间瞿	收(以换行回3	车断帧
单条发送 多条发送 协议传输 帮助				_		
AT+HDCONTO=E103-W06nocom, 2, 12345678	20		AT+STACON=E880-IR01-6, 2, JSZXE880	25	🗌 发送新行	
AT+NETIP=192. 168. 1. 111, 255. 255. 255. C	21		AT+STACON=E103-W06, 2, 12345678	26	16进制发	送
AT +SMARTCFG	22		AT+SVRPORTIP=4002	27	🗌 关联数字	键盘
AT+NETIP?	23		AT+SVRPORTIP?	28	自动循环	发送
AT+SOCKET=0, 4001, 10. 145. 45. 1	24		AT+VERSION	29	周期: 100	ms
首页上	一页	下-	-页 尾页	· manifold	导入导出统	系目
O - www.openedv.com S:99		R-10	9 CTS=0 DSR=0 DCD=0	当前时间 10	08-24	

(3) Restart the device, wait for connection, and communicate.

XCOM V2.0	- 0	×	XCOM V2.0	– 🗆 ×
123456769012345678	▲□法経 CONG: USB~SERIAL 波特案 第21600 停止位 1 動類位 8 奇偶校验 无 単口操作 ● 关始 保存審口 斎除 16进身显示 自 ■ ITS 0 077 日前戳(以执行回)	ママママママママママママママママママママママママママママママママママママ		田边結择 COMIO-USB-SELIAL ✓
毕余友法 多条发法 协议传输 帮助			十元仪区 多元反広 协议预制 帮助	
IQWERTYULOP ASDYGATIKL	 发送 清除約 	送 友送	123400 (001123400 10	☆ 发送 満除发送
「完財发送 周期: 500 mg 打开文件	: 发送文件 値止り	发送	□ 定时发送 周期: 500 ms 打开文件	发送文件 停止发送
□ 16进制发送 ☑ 发送新行 08 开源电	子网: www.openedv.	com	□ 16进制发送 □ 发送新行 0% 开源电子	网: www.openedv.com
◎ ▼ www.openedv.com S:21 R:20 CTS=0 DSR=0 DCD=	0 当前时间 19:09:42		☑ www.openedv.com S:20 R:21 CTS=0 DSR=0 DCD=0	当前时间 19:09:42

5.1.6 Set up the P2P communication of WiFi Direct

WiFi-Direct is a point-to-point connection, and the configuration process when in use is as follows.

(1) First configure to P2P mode, and both devices send AT commands at the same time: AT+MODE=3,1,1

(2) Then select one of the devices to configure as GroupOwner, and send instructions to set connection parameters (see configuration and read WiFi-Direct (P2P) connection parameters for instructions):

AT+P2PDEVINFO=20,1,E103-W06WiFiDirectGo,E103-W06WiFiDirectClient

(3) Query the local port and IP address of the socket (or): AT+P2PSOCKET?

XCOM V2.0							X
AT+MODE=3, 1, 1 AT+P2PDEVINF0=20, 1, E103-W06WiFiDirectGo, E	103-#06	SWiFiD	ireotClient	串口逆	择		
AT+P2PSOCKET=4001				COM3 :	USB-SI	ERIAL	~
				波特率	<u>د</u> [921600	~
				停止位	ε [1	~
				数据位	ι [8	~
				奇偶杉	- 19金	无	~
				串口城	HE)。 (例) 关注	記念口
				4-6			
				保存	窗口	清除	接收
				16	进制显 -	示日白	底黑 字
				KT: □ B寸i	s 同戰(V	山町	(在俳finhh)
单条发送 多条发送 协议传输 帮助			v		-3894.05		
	0		AT +PMTEST	5		发送新行	
AAFE550036373839	1		AT+IOTEST=1, 1	6		16进制发	:送
AT+SOCKET=0, 4001, 10. 145. 45. 1	2		AT +P2PDEVINFO?	7		关联数字	(雑盘
AT +VART?	3		AT +RESTORE	8		自动循环	泼送
AT+VART=921600, 8, 1, 0, 20, 500	4		AT +P2PS0CKET=4001	9	周期	月: 100	ms
首页上	一页	下-	-页 尾页		Ę	入导出线	科目
		R:10	0 CTS=0 DSR=0 DCD=0	当前时间	17:29	9:38	

(4) Finally, configure another device as Client, and send instructions to set connection parameters: AT+P2PDEVINFO=30,0,E103-W06WiFiDirectClient,E103-W06WiFiDirectGo

(5) Configure the remote port and address, set the IP address and port of the GroupOwner queried in the previous



step to the Client (the IP address and port of this part must be obtained after querying the GroupOwner, otherwise communication cannot be established)

AT+SVRPORTIP=4001,10.145.45.1

XCOM V2.0					<u></u>		×
enter AT mode AT+MODE=3, 1, 1			A	串口泸	选择		
AT+P2PDEVINF0=20,0,E103-W06WiFiDirectClie AT+P2PSOCKET=4001,10.145.45.1	ent, E103	3-#06#:	iFiDirectGo	COM1	O:USB-	SERIAL	~
				波特率	F	921600	~
				停止(ż	1	~
				数据	λ ù	8	~
				奇偶	— 亦哈	Ŧ	
					x.502	20	
				串口	操作	·• 关i	那日
				保存	窗口	清除	接收
				10	进制显	示[] 白	底黑字
				🗌 R1	s	DTI	R
			×	B3	间戳((以换行回:	车断帧
单条发送 多条发送 协议传输 帮助	(_		1 100000	_		
	0		AT +PMTEST	5		发送新行	ŕ
AAFE550036373839	1		AT+IOTEST=1, 1	6		16进制发	送
AT+SOCKET=0, 4001, 10. 145. 45. 1	2		AT +P2PDEVINFO?	7		关联数字	键盘
AT +UART?	3		AT +RESTORE	8		自动循环	发送
AT+UART=921600, 8, 1, 0, 20, 500	4		AT+P2PS0CKET=4001, 10. 145. 45. 1	9	周期	明: 100	ms
首页	一页	下	-页 尾页		Ę	∮入 导出 夠	計画
Ø ▼ www.openedv.com S:109		R:12	7 CTS=0 DSR=0 DCD=0	当前时间	17:3	5:49	

(6) Restart and wait for the connection to be established to communicate

XCOM V2.0	- 🗆 X		
QWERT VUIOF AS DFGH JKL	串口选择	123455755012345578 合正法择	
	COM10:USB-SERIAL V	COM3: USB-	SERIAL \sim
and the second se	波特率 921600 ~	GroupOwner 波特军	921600 ~
Client	停止位 1 ~	停止位	1 ~
	数据位 8 🗸 🗸	数据 位	8 ~
	奇偶校验 无 🗸	奇偶校验	无~
	串口操作 🔶 关闭串口	串口操作	● 关闭串口
	保存窗口 清除接收	保存窗口	清除接收
	□ 16进制显示□ 白底黑字	□ 16进制3	記示 白底黒字
	RES DTR		DTR DTR
×	□ 时间戳(以换行回车断帧)		以換行回车断帧)
单条发送 多条发送 协议传输 帮助		单条发送 多条发送 协议传输 帮助	
123456789012345678	へ 发送	QWERTVUIOPASDFGHJKL	发送
	100 MPRO42124		調査を告注
	~ 有际友达		消防及应
□ 定时发送 周期: 500 ms 打开文件	发送文件 停止发送	□ 定时发送 周期: 500 ms 打开文件 发送文件	停止发送
□ 16进制发送 ☑ 发送新行 0% 开源电子 P	: www.openedv.com	□ 16进制发送 ☑ 发送新行 0% 开源 电子 网: www. op	enedv.com
O ▼ www.openedv.com S:60 R:21 CTS=0 DSR=0 DCD=0 ≥	当前时间 17:38:40 .::	vww.openedv.com S:21 R:20 CTS=0 DSR=0 DCD=0 当前时间 17:3	8: <mark>4</mark> 0

5.2 Network communication

Network communication is based on the STA role and communication with various cloud platforms, including Alibaba Cloud, Baidu Cloud, OneNet based on MQTT; HTTP servery and WebSocket.

5.2.1 MQTT

Three types of transmission are supported under MQTT, Alibaba Cloud, Baidu Cloud, and OneNet. The configuration process is as follows, according to the platform you use, go to register to obtain the relevant parameters, and finally add them in the web window, or you can use AT commands for configuration.

Special note: For users of self-built mqtt server, use this device to access, you can choose Baidu cloud or onenet, and fill in the corresponding parameters.

When the self-built mqtt server uses Baidu Cloud, the device name is the Client ID and the user name and password correspond. When using onenet, the device ID is the Client ID, the product ID is the user name, and the authentication information is the password.

(1) Alibaba Cloud

- Log in to the web page, in the mode setting menu, select the work role as Station and the service mode as MQTT, and save the settings.
- In the parameter setting menu, select Alibaba Cloud.
- Product key: In the console of the Alibaba Cloud IoT platform, create a product and device to obtain a
 product key. Such as: A1Ve0iJW6z1
- Device name: The device name entered when adding a device. Note: Only numeric English can be input, and the input length cannot exceed 10 bytes.
- Client ID: User-defined input. Note: Only numeric English can be input, and the input length cannot exceed 12 bytes.
- Device key: In the console of Alibaba Cloud Internet of Things platform, create a product and device to obtain a device key. Such as: AHImNjuaMCGJ1bFOjC4EZMZmHSUhzSEQ
- Address: The domain name of Alibaba Internet of Things.
 Such as: A1Ve0iJW6z1.iot-as-mqtt.cn-shanghai.aliyuncs.com
- Port: Alibaba Internet of Things port. Such as: 1883
- Subscribe topics: such as: /A1Ve0iJW6z1/MQTT_TEST/user/get
- Publish the subject: such as: /A1Ve0iJW6z1/MQTT_TEST/user/update
- Subscribe to publish message levels: Qos:0, Qos:1, Qos:2



(1) Baidu Cloud

Copyright ©2012-2021, Chengdu Ebyte Electronic Technology Co., Ltd.

- Log in to the web page, in the mode setting menu, select the work role as Station and the service mode as MQTT, and save the settings.
- In the parameter setting menu, select Baidu Cloud.
- Equipment name: the name entered when creating a shadow of an object. Note: Only numeric English can be input, and the input length cannot exceed 15 bytes
- User name: The name in the configuration of the shadow connection. Such as: Un2d6cs/E810MQTT
- Key: The key in the configuration of the object shadow connection. Such as: s9mMzByp4Mpryphq
- Address: Access to the domain name of Baidu Internet of Things.
- Port: Baidu Internet of Things port. Such as: 1883
- Subscribe to topics: such as: \$baidu/iot/general/get
- Release topic: such as: \$baidu/iot/general/update
- Subscribe to publish message levels: Qos:0, Qos:1, Qos:2



(1) OneNet

- Log in to the web page, in the mode setting menu, select the work role as Station and the service mode as MQTT, and save the settings.
- Log in to the web page again, and select ONENET in the parameter setting menu. Note: Onenet creates products to choose multi-protocol access.
- Device ID: such as: 511986588
- Product ID: such as: 286258
- Authorization information: custom input when creating a device. Such as: ebyte
- Address: Access to the domain name of ONENET Internet of Things. Such as: mqtt.heclouds.com
- Port: ONENET Internet of Things port. Such as: 6002
- Subscribe to topics: such as: iot/general/get
- Release topic: such as: iot/general/update
- Subscribe to publish message levels: Qos:0, Qos:1, Qos:2

	C佰特物联网		物联网应用专家		亿佰特物联网 -www.ebyte.com-			物联	网应用专家
当時状态 優式公費 参数公理 優快告謝	1 工作最高 及等概式 目标550 目标45 本礼IP 风关助社 DHS 服务器		 #問題示 ・ 本肌P熱は: なられ自己の意味であった。 より、同笑地は、 から相互を読み不過 要必要 ・ 阿氏地域:	当時北点 様式の当 ●気気通 様光哲理	数 2 間 3 4 5 7 8 元 7 9 巻 10 数柄	停止位: 単口超时: 定意材长度: Socket 酸阿可干台: (没留打0: 产品ID: だ望信息: 地址: 近可可Topic: 時周電學校: 发布Topic: 時周零學校: (保不) (保不)	1 ▼ bit 40 (1~65535)ms 1000 (20~1000) 参 0NENET ● 66166612 286258 ● ebyte a1Ve91.WK99 lot-as-mqt cn-shanghal a 1883 (005.0 ♥) (ebyteE810/user/update 005.0 ♥) 万保存完设置 不保存完设置		地理 1967年10 第967年3日 単数有次 単数有次
Copyright © Cher	ngdu Ebyte Electronic Technolo	ogy Co., Ltd. All Right Reserved	官网: <u>www.ebyte.com</u>	Copyright © Cher	ngdu Ebyte Electronic Techn	nology Co.,	Ltd. All Right Reserved		官网: <u>www.ebyte.com</u>

5.2.2 HTTP Client

Log in to the web page, in the mode setting menu, select the work role as Station and the service mode as HTTP Clinet, and save the settings.

(1) Log in to the web page again, and fill in the HTTP server address in the parameter setting menu.

- (2) Fill in the HTTP server port number.
- (3) The request method can be post or get.

(4) All output is selected as the output mode, the content of the server's reply is all output through the serial port, and the valid output is selected, and the serial port only outputs valid data.

(5) Enter the URL path of the header.

(6) User-defined input protocol header, if multiple entries need to be added directly/r/ndo not add the last one.

-						
	亿佰特物联网 -www.ebyte.com-	物	联网应用专家		乙佰特物联网 -www.ebyte.com-	物联网应用专家
当前状态 模式设置 参数设置 模块管理	1 工作策率	◆数 : Station ▼] : 2.46 ▼ [備置: 1 ▼ 发射功惠: 0dBm . HTTP Clent ▼] : test (1~32) 连接方式: 目动 ▼ : 170-168.1.194 : 192-168.1.1 : 192-168.1.1 保存设置 不保存设置	 春助提示 本机1P地址: 在5tation截式 下,本机1P,网 关地址P,网5相 关参数不需要设置 网关地址: 访问外网的必经 之路 	当前状态 模式设置 参数设置 模块容理	法符率: 115200 ▼ bps 数据位: 8 ▼ bit 校設位: 1 ▼ bit 申口部1: 40 (1~65535)ms 数据軟长葉: 1000 (20~1000) Socket 参数 2 HTTP服务器地址: 192.168.1.166 3 第口 8880 4 4. 请求方式: 6 区 5 輸出方式: 有效輸出▼ 5 新出方式: 有效輸出▼ 5 7 自定义协议集: Connection: keep-alive 保存设置 不保存设置	帮助提示 本地論口 服务板式在TCP Server下,只有 本地論口这个参 教 远程编口 服务模式在TCP Client下,远程 读口参数有效
Copyright © C	hengdu Ebyte Electronic	Technology Co., Ltd. All Right Reserved	官网: <u>www.ebyte.com</u>	Copyright © Ch	engdu Ebyte Electronic Technology Co., Ltd. All Right Reserved	官网: <u>www.ebyte.com</u>

If the user passes parameters via GET, the following explains how to use GET in detail. as follows:

GET /request/login.do?name=test&userpwd=123456 HTTP/1.1

Host: 192.168.4.10:8080

Among them, /request/login.do? is the content set in the header path URL (note that you need to add? After the



URL), and name=test&userpwd=123456 is the data received by the device serial port. 192.168.4.10:8080 is the HTTP server address and port.

Custom protocol header: The default is Connection: keep-alive, which can be modified by the user. If more than one is needed, add \r\n between the commands, and not add the last one.

If the user passes parameters through POST, the following describes how to use POST. as follows:

POST /request/login.do HTTP/1.1

Host: 192.168.4.10:8080

(The place is a blank line and cannot be deleted. The content of the parentheses in the final release must be deleted, and the blank line is reserved)

username=test&userpwd=123456

Among them, /request/login.do is the content set in the header path URL, and name=test&userpwd=123456 is the data received by the device serial port. 192.168.4.10:8080 is the HTTP server address and port.

Custom protocol header: The default is Connection: keep-alive, which can be modified by the user. If more than one is needed, add \r\n between the commands, and not add the last one.

5.2.3 WebSocket

(1) Log in to the web page, in the mode setting menu, select the work role as Station, select websocket as the service mode, and save the settings





5.3 Parameter configuration

5.3.1 Serial port AT instruction configuration

Serial AT command configuration, directly open the serial debugging assistant, set the corresponding baud rate, data bit, etc.



					×
nter AT mode T+RADIO=1, 36, 0, 0, CN		~	串口选择		
T+SSID=0, TEST-E103-W06-ECO, 2, 12345678 T+MODE=1, 1, 1			COM3: USE	-SERIAL	~
			波特率	921600	~
			停止位	1	
			数据位	8	
			奇偶校验	无	
			串口操作	(美)	串口
			保存窗目	」 清除	協收
			16进制	退示[] 白	京里:1
					WANCE 3
			🗌 RTS	🗌 DTI	l
7. E. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.		Ý	□ RTS □ 时间瞿	□ DTI 【(以换行回:	。 注 至断中
单条发送 多条发送 协议传输 帮助	10	AT +MODE=1, 1, 1	□ RTS □ 时间輩	□ DTI \$(以换行回: □ 发送新行	L 年度所中
单条发送 多条发送 协议传输 帮助 ↓+++ ↓ AT+RADIO=1, 36, 1, 0, US	10	AT-MODE=1, 1, 1 AT-MODE=1, 1, 1 AT-P2PDEVINF0=30, 1, E103-WOGWIFiDirec	□ RTS □ 时间置 15 [16 [□ DTI \$(以换行回: □ 发送新行 □ 16进制发	1. 年町中 送
●条发送 多条发送 协议传输 帮助 ++++ A1*#AIIO=1, 38, 1, 0, US A1*#AIIO=7	10 11 12	X1#00DE=1, 1, 1 A1#P2PDEVINF0=30, 1, E103=#06#iFiDirec A1#P22PDEVINF0=30, 1, 1234567, gvertynic	□ RTS □ 时间置 15 [16 [17]	 【(以換行回: 	1 年町中 送 鎌盘
单条发送 多条发送 协议传输 帮助 + +++ AT+SADIO=1, 36, 1, 0, US AT+SADIO=0, E103-H06LX, 2, 12345678	10 11 12 13	AT-MODE=1, 1, 1 AT-P22PDEVINF0=30, 1, E103-M06WiFiDirec AT+P22PDEVINF0=30, 1, 1234567, qvertyuic AT+MODE7	□ RTS □ 时间置 15 [16 [17 [18 [DTI 以执行回: 发送新行 16进制发 关联数字 自动循环 	に 生 断 种 送 盤 送
 単条发送 多条发送 协议传输 帮助 +++ AT+ADIO=1, 36, 1, 0, US AT+RADIO AT+SDIO AT+SDIO AT+SSID² AT+SSID² 	10 11 12 13 14	AT-MODE=1, 1, 1 AT-F22PDEVINF0=30, 1, E103-M06WiFiDirec AT+F22PDEVINF0=30, 1, 1234567, quertyuic AT+MODE7 AT+EXAT	□ RTS □ 时间置 15 [16 [17 [18 [19]	 DTI 以(以換行回:) 发送新行] 16进制发] 关联数字] 自动循列 周期: 10 	注 注 新 新 新 新 新 新 新 新 新 新 新 新 新

To configure according to the AT command in Chapter 6, note that the command must follow the specification.

5.3.2 UDP remote communications

During remote configuration, it is necessary to ensure that the device and PC are in the same LAN. For the configuration method, see the communication with the PC (either make the device in AP mode and the PC connects to the device, or make the device in STA mode and the PC connect to the same router) to obtain the IP After the address, directly enter the IP address and UDP port number 8009 (this port number is a fixed value and does not support changing). The remote configuration is essentially an AT command operation. For specific commands, see AT commands. The following figure shows the remote configuration based on AP mode and STA mode.



5.3.3 Web page configuration

When configuring the web page, you also need to ensure that the device and the PC are in the same LAN, find the IP address corresponding to the device, and enter this IP address in the browser. Here 10.145.45.1 is just the IP address used for demonstration, the specific IP address Please use the command: AT+SVRPORTIP? to query and enter the correct IP to enter the configuration interface. The IP address is set according to the feedback result of the device, and other parameters are set according to your own needs.

□ □ 亿佰特物联网 ×	+ ~					
← → ♡ ⋒ (0 10.145.4	15.1/			□ ☆	t l~	ie
	(((;))) EBYTE 亿佰特物职 -www.ebyte.ck	€∭ om-	物联网应用专家			
		工作角色: Access Piont ∨ 工作資源: 240 √ 信道: 1 ∨ 发射辺楽: 0dBm 传輸講: 通信 ∨ 家50: TEST-E103(1~32)寺市 時 家: 否 ∨ 密码: 12345678 (1~32)寺市 加速笑型: WPA2 ∨ 本和印: 10.145.45.1 子列時間: 255.255.05 同关地址: 10.145.45.1 DNS 服务器: 10.145.45.1 保存设置 不保存设置	 ✓ 本明19後は: 空気にもの幅示下、 本別10、同気対応、 のN5把注意販売書 要位置 ・ 開入地位、 のN5把注意販売書 要位置 ・ 開入地位、 のN5把注意販売書 要位置 			
	Copyright 🕲 Chengdu Ebyte Electronic T	echnology Co., Ltd, All Right Reserved	¶i <u>vravuskate.com</u>			

5.3.4 Modbus use

After setting the working parameters according to the above chapters, enter the AT command and turn on the modbus protocol: AT+MODBUS=1. Communicate after establishing a connection



Chengdu Ebyte Electronic Technology Co.,Ltd.



The MODBUS function of this device only supports protocol conversion between MODBUS RTU and MODBUS TCP. If necessary, please use it in combination with actual use.

The final interpretation right belongs to Chengdu Ebyte Electronic Technology Co., Ltd.

Revision history

Version	Date	Description	Issued by
1.0	2021-03-16	Initial version	ken
1.1	2023-10-20	Content modifications	XXN



About us

Technical support: support@cdebyte.com Documents and RF Setting download link: www.cdebyte.com Thank you for using Ebyte products! Please contact us with any questions or suggestions: info@cdebyte.com

Phone: +86 028-61399028 Web: www.ebyte.com Address: B5 Mould Park, 199# Xiqu Ave, High-tech District, Sichuan, China

(((•))) ® EBYTE Chengdu Ebyte Electronic Technology Co.,Ltd.