



E103-W02-DTU Datasheet v1.01

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1.Introduction

1.1 Features



E103-W02-DTU is a UART-WiFi server supporting RS232/RS485 to WiFi two-way transparent transmission, it enables the UART device to immediately have TCP/IP network interface function, which extends the operation range of the device.

E103-W02-DTU is developed based on the TI CC3200, users could select RS232 or RS485 interface to communicate. This UART server is a transparent transmission server for network access through UART by AT command, it is widely used for wearable electronics, home automation, home security, personal care, smart home, accessories & remote controller, automobile, lighting, industrial internet, etc.

E103-W02-DTU supports standard IEEE802.11b/g/n protocol and complete TCP/IP protocol stack, supports STA/AP mode, supports SmartConfig, UART transparent transmission, transparent transmission on power-up, etc. Network connection can be achieved after easy configuration, which saves the efforts and time of the user in developing

Item	Description
Multiple interfaces	It supports both RS232 and RS485
Configuration through webpage	The user can access the server through webpage to read and configure the parameters
Transparent transmission on power-up	The server can automatically connect to WIFI network upon power-up and connect with target server with transport protocol.
Automatic reconnect	In STATION mode, the server will automatically reconnect the lost connection.
SmartConfig	The user can use SmartConfig to connect network and configure the server quickly.
Remote AT command	The module supports remote AT command for easily configuring parameters.

1.2 E103 Series

Model	Interface	IC	Freq. (Hz)	Power (dBm)	Operation range (km)	Size (mm)	Antenna
E103-W02-DTU	232/485	CC3200	2.4G	20	0.3	82*62*25	Screwing/DB9
E103-W02	UART	CC3200	2.4G	20	0.3	27*19	PCB/IPX
E103-W01	UART	ESP8266EX	2.4G	20	0.1	16*24	PCB
E103-W01-IPX	UART	ESP8266EX	2.4G	20	0.1	16*24	PCB/IPX

1.3 Electrical Parameter

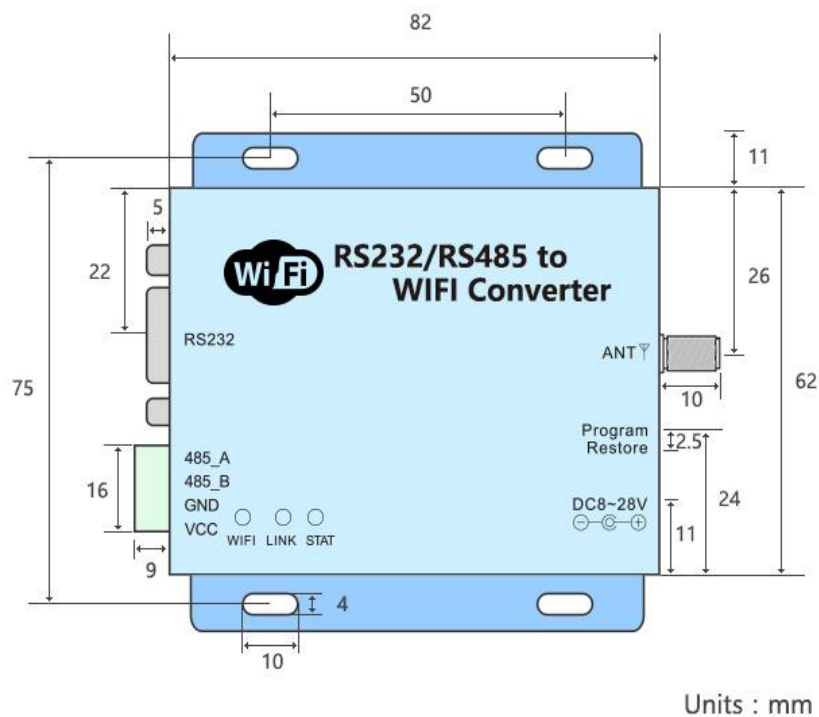
No.	Item	Parameter details	Description
System parameters			
1	RF IC	CC3200	TI
2	RAM	256KB	
3	Flash	8Mbit	Winbond
WiFi parameters			
4	WiFi version	802.11 b/g/n	-
5	Frequency band	2.412~2.484 GHz	-
6	Modulation system	OFDM/DSSS	-
7	Transmitting power	20dBm	100mW
8	Operation range	About 300m	Test condition: clear and open area, antenna gain: 3dBi , height: 2m
9	Working mode	AP/STA	It supports AP and STATION modes
10	Encryption method	WEP/WPA2	-
11	Configuring method	AT/UDP/HTTP	It supports AT command, remote UDP AT command, HTTP webpage to configure the server.
Basic parameters			
12	Housing	Aluminum alloy	Black
13	Connector	RS485: 1*4*3.81mm RS232: DB9	Screwing Standard DB9 hole
14	Antenna type	SMA-K	External thread and internal hole, 50Ω characteristic impedance
15	Interface	RS232/RS485	Both RS232 and RS485
16	UART baud rate	300 ~ 400000 bps	It supports multiple bits, parity bit, stop bit (default: 115200, 8N1)
17	Supply voltage	8 ~ 28V DC	Power adaptor or wire-pressing terminal VCC/GND (optional) Note: the voltage higher than 28V is forbidden
18	Transmitting current	77mA	12V power supply
19	Size	82 * 62 *25mm	Without antenna
20	Average weight	130g	Without antenna
Temperature & humidity			
21	Operating temperature	-40 ~ +85℃	-
22	Operating humidity	10% ~ 90%	Relative humidity, no condensation
23	Storage temperature	-40 ~ +85℃	-

1.4 Usage

No.	Usage method	Description
0	UART-WiFi server communicate with UART-WiFi server	Set UART-WiFi server 1 as AP mode and set up TCP or UDP server, set UART-WiFi server 2 as STATION mode and connect to AP 1, it communicates with UART-WiFi server 1 in TCP or UDP Client method.
1	UART-WiFi server communicate with Server	UART-WiFi server connects to network through wireless router, it communicates the Server on the network (Intranet or Internet) in TCP Client OR UDP method. If it needs to connect to Internet Server, related Port Mapping must be configured for the router.
2	UART-WiFi server communicate with Client	UART-WiFi server connects to network through wireless router, it sets up TCP or UDP Server and monitor the connection signal. The Client communicates with it by connecting to the UART-WiFi server.
Please refer to networking instruction		

2. Functional description

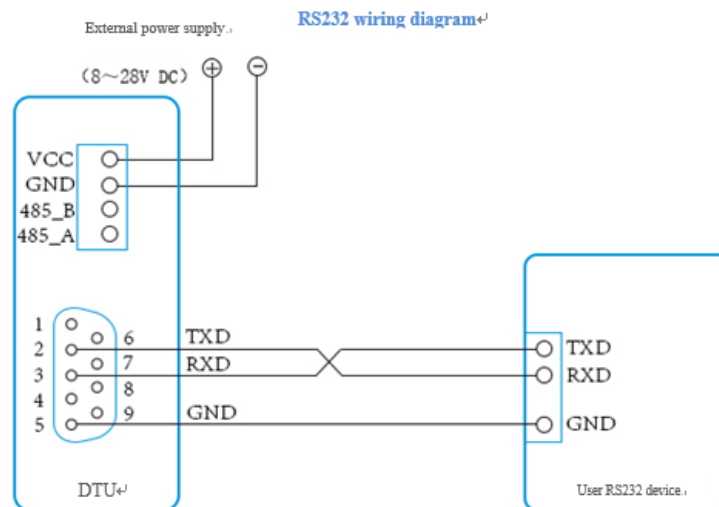
2.1 Pin Definition



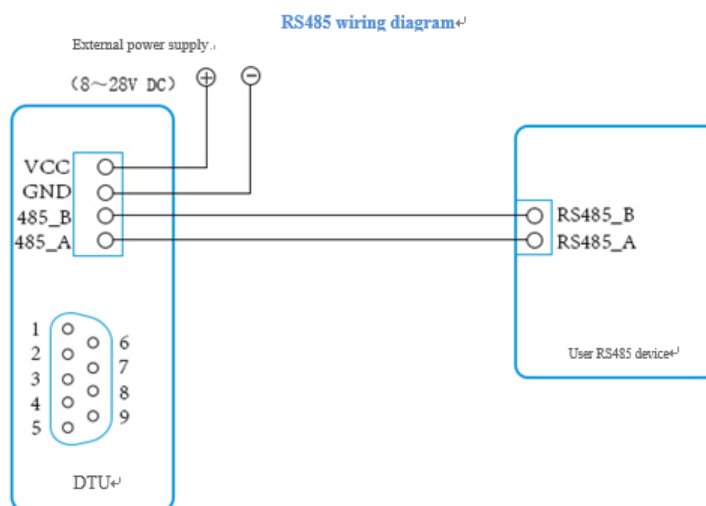
No.	Pin item	Application
1	RS232	Standard DB9 hole
2	485_A	Connecting to the end A of other RS485 device
3	485_B	Connecting to the end B of other RS485 device
4	GND	Ground
5	VCC	Power source, default power supply 8 ~ 28V (5V version customizable) (pin 5 and 6 automatically selects high voltage end)
6	DC8~28V	DC power port (5.5*2.5), connecting with DC8~28V power source, (5V standard version customizable)
7	ANT	Antenna (SMA-K, external thread and internal hole, 50Ω characteristic impedance)
8	WiFi	Indicator light of WiFi connection status, it lights up when connected and dies out while disconnected.
9	LINK	Indicator light of Socket connection status, the LINK indicator lights up when connected and dies out while disconnected.
10	STAT	The STAT indicator lights up when entering SmartConfig mode and flashes three times while factory setting recovered.
11	Program	Burning simulation mode selection, default as high; when it needs to redownload software, please put the switch to low.
12	Restore	Factory setting recovery selection, it is default as high; when it factory setting needs to be recovered, please put the switch to low and then power on, it will be recovered to factory settings after the STAT indicator flashes three times. The module will inspect the pin when starting on, if the module has already been started, recovery will not be implemented by putting the pin as low.

2.2 Connection type

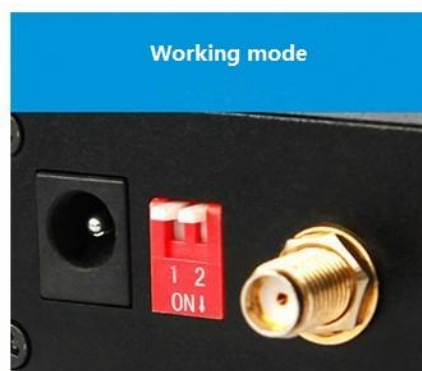
- RS232 Connection



- RS485 Connection

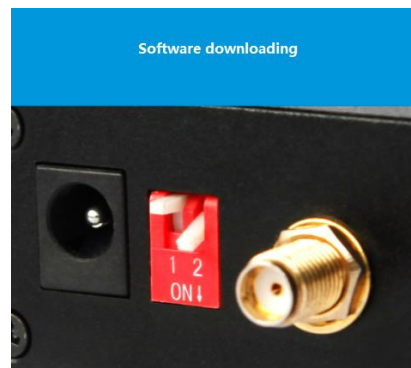
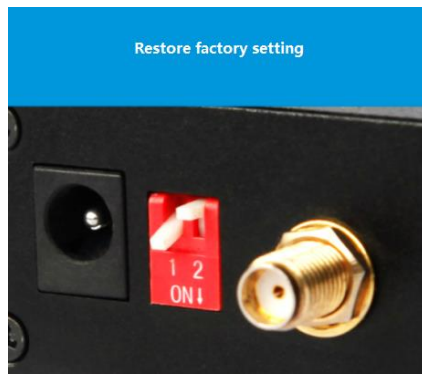


【Note】 : The UART-WiFi server can be powered by power adaptor or wire-pressuring terminal VCC/GND (optional)



Note:

1. Power the unit on, the three indicating lights will not light up (the switches are at high position);
2. Open the cellphone or PC WIFI, search the unencrypted one (EBT_XXXXXX), click to connect, then the wifi connection status indicating light will light up.



Note: 1. When you need to restore factory setting, please put the switch to low position;
 2. Power the unit directly, wait the STAT indicator to flash for 3 times;
 (the unit with factory setting will check the pin when starting up, once it is started up, the pin will not implement the restore command.)

3. Quick start

E103-W02-DTU UART-WiFi server is easy to sue. In order for users to start quickly, tis section will guide users to realize configuration and communication in several modes.

During test, all commands are AT commands, we have developed HTTP webpage for quick configuring.

We used AccessPort to conduct the test, the UART-WiFi server will display the returned commands.

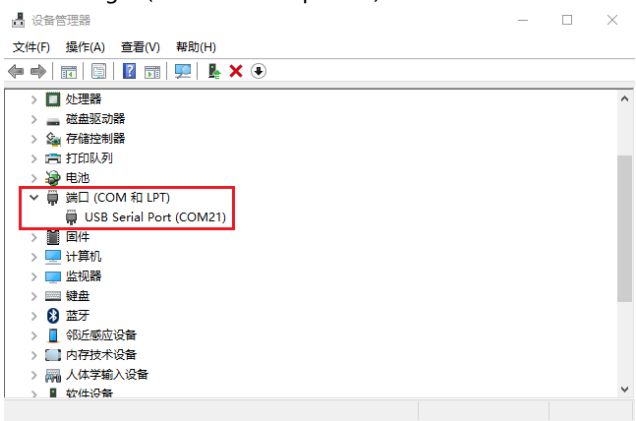
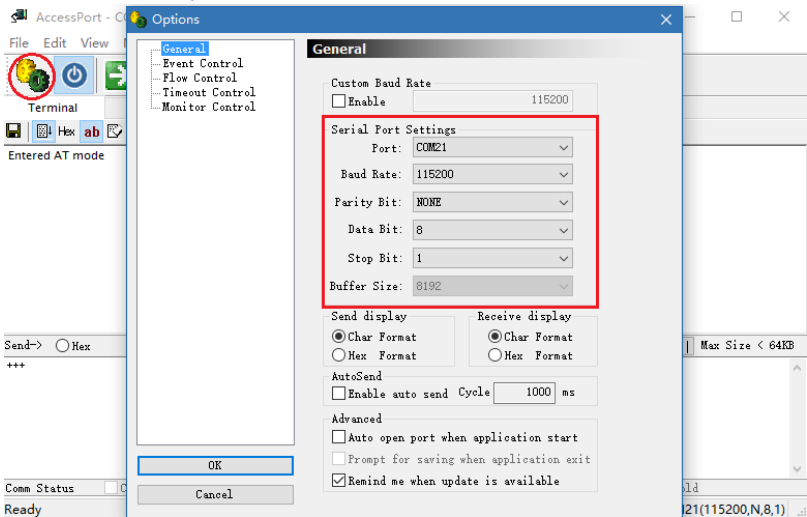
(Notes: Line break must be added behind each command except “+++” command)

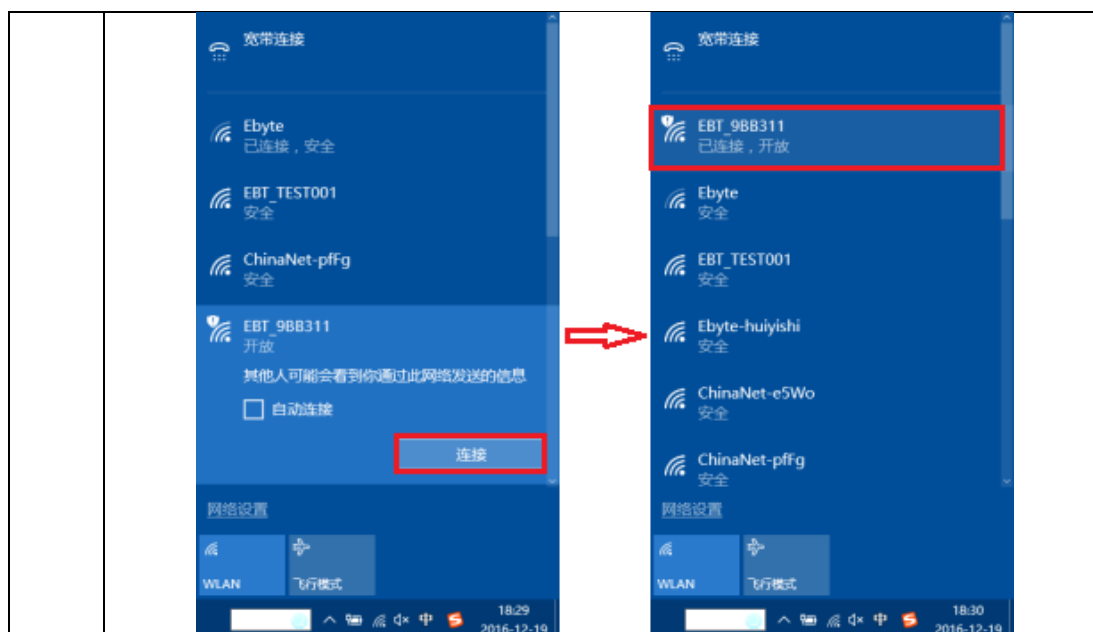
□ In addition, users could use, instead of test board, external MCU to directly connect the UART of the UART-WiFi server to conduct communication and secondary development.

Hardware:	
1	E103-W02-DTU*1
2	PC with Wi-Fi*1
3	Router*1 (or cellphone Wi-Fi hotspot)
Software (download from our website)	
1	AccessPort
2	TCP&UDP test tool
3	SmartConfig (one-key configuration) cellphone app “Wi-Fi Starter”



3.1 Connect to server as AP and wirelessly connect with PC

No.	Notes
1	<p>【Connect with PC as AP】：</p> <p>①. Connect the E103-W02-DTU test board to PC with Micro USB data line.</p> <p>②. Open "AccessPort" and select port number, if you are not clear about the port number, please check in the Device Manager (refer to below picture).</p>  <p>③. Set port configuration parameters (baud rate: 115200bps, data bit: 8bits, parity bit: no, stop bit: 1bit). (refer to below picture)</p>  <p>④. Open wireless network at PC, find the network with SSID starting with "EBT" (i.e. EBT_9BB311), click on the "next" to connect. <The "9BB311" refers to the last 6 characters of the MAC address, the MAC addresses are different in different modules, so the SSID will also be different in different modules.></p>



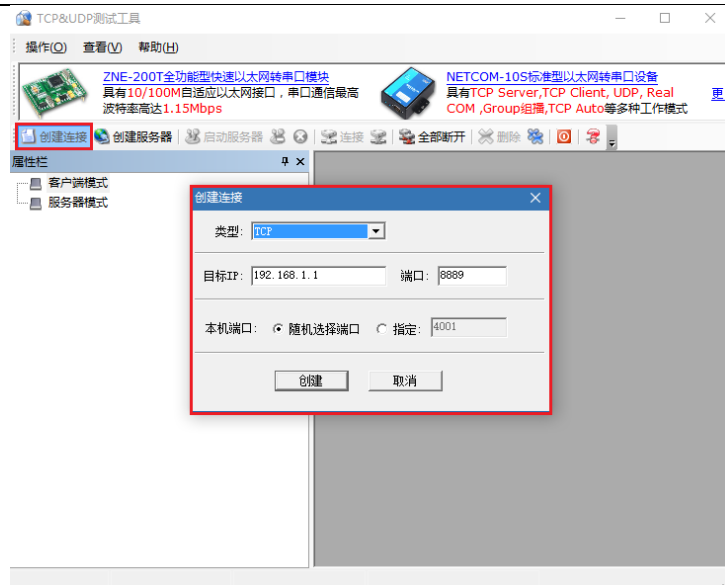
- ⑤. Once connected, the **WiFi connection indicator** on the baseboard will be lit up and the PC indicates connection successful. If not, you need to redo above steps.



2

【Set the module as AP to set up TCP Server and communicate with PC】:

- ①. Open TCP & UDP testing tool, create connection and set parameters (refer to below picture).

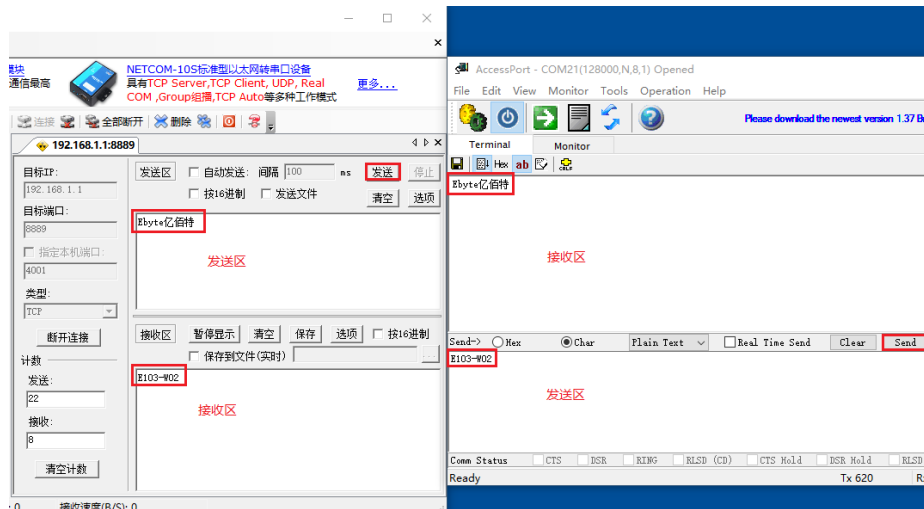


②. Click on the “create” button to complete creation, then click on “connect” button.



③. The **LINK** indicator on the baseboard will be lit up, it means connection is completed, then the PC and the module can communicate with each other mutually (it means TCP & UDP testing tool and AccessPort can communicate with each other mutually), if not, please redo above steps.



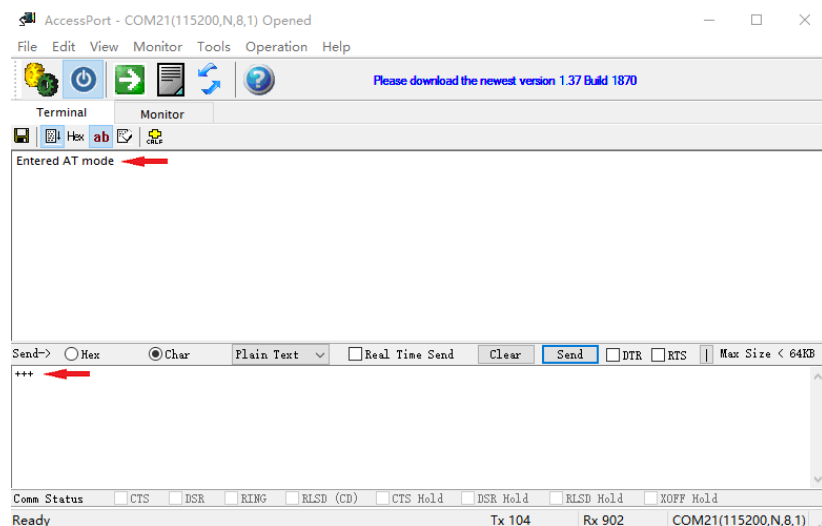


④. It can transmit documents (better in TXT format), just have a try.

【Set as AP to set up UDP Server and communicate with PC】：

- ①. By test 2 as above, we completed the TCP communication, now let's try to set up UDP communication, which needs some simple configuration on the module.
- ②. Please complete the steps in test 1 as above, then we can enter AT commands mode to configure the module. <please complete the steps in test 1> <Since it is sending commands, please turn off the Real Time Send function of the port in order to configure the module, if there is no Real Time Send function in your AccessPort, please ignore this notice>
 - a. Start to configure the port, input command "+++" in the sending textbox (please do not add line break), and click on Send button to start sending command.
 - b. If the port returns "Entered AT mode", it means the module has entered AT command mode, if not, please redo the above steps.

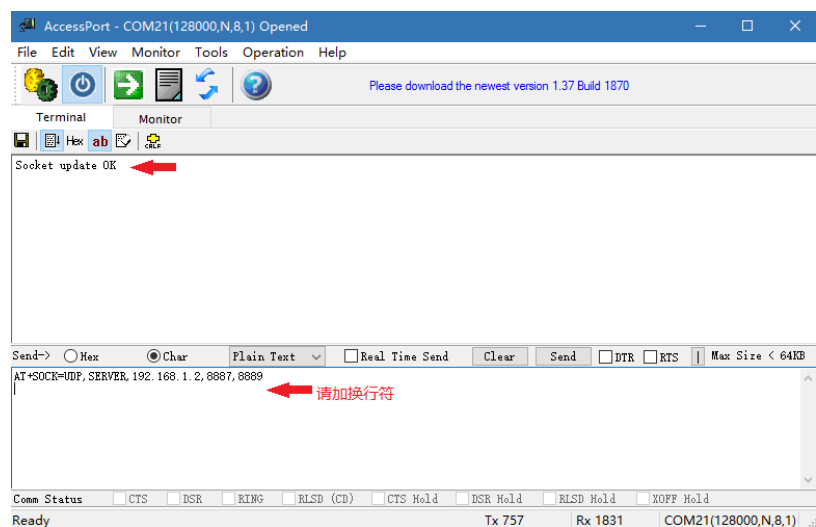
3



③. By step ②, we have entered AT command mode, now let's start to configure Socket protocol.

- a. Input "AT+SOCK=UDP,SERVER,192.168.1.2,8887,8889" in the sending textbox (please add line break, which means to press Enter after "AT+SOCK=UDP,SERVER,192.168.1.2,8887,8889"), click on Send button to start sending.
- b. If the port returns "Socket update OK", it means the command has successfully set

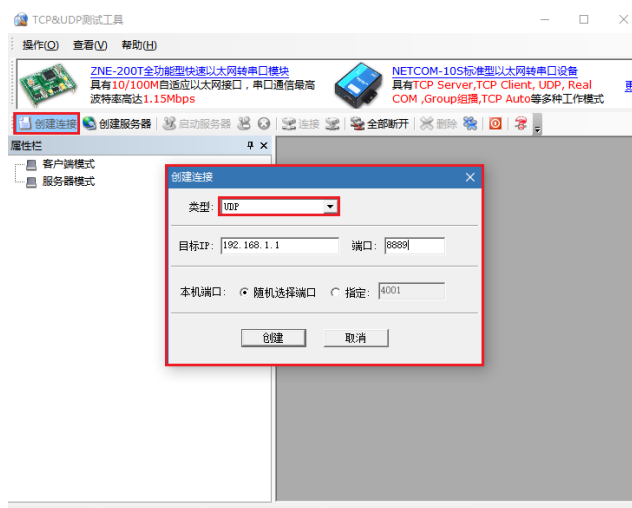
the protocol parameters, if not, please redo the above steps.



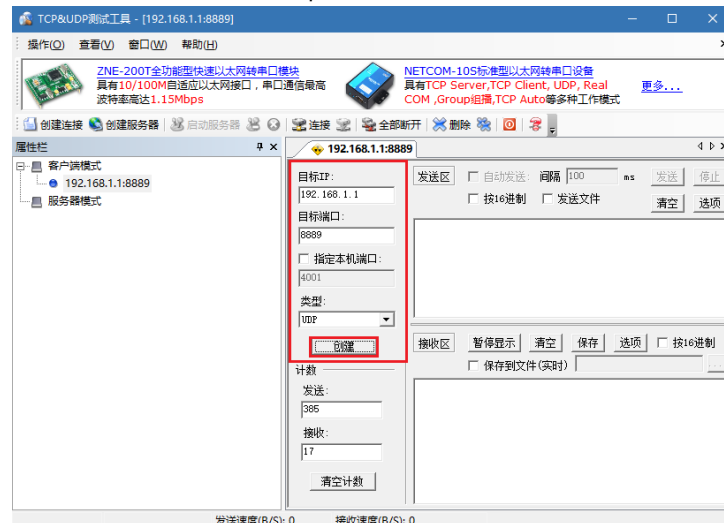
- ④. Reset the module after setting parameters to validate the settings; If there are still other parameters to set, please complete the setting before reset or repower. Because we only configure Socket protocol, so just directly reset or repower, the **WiFi connection indicator will be lit up** on the baseboard, it means the UDP protocol is available.



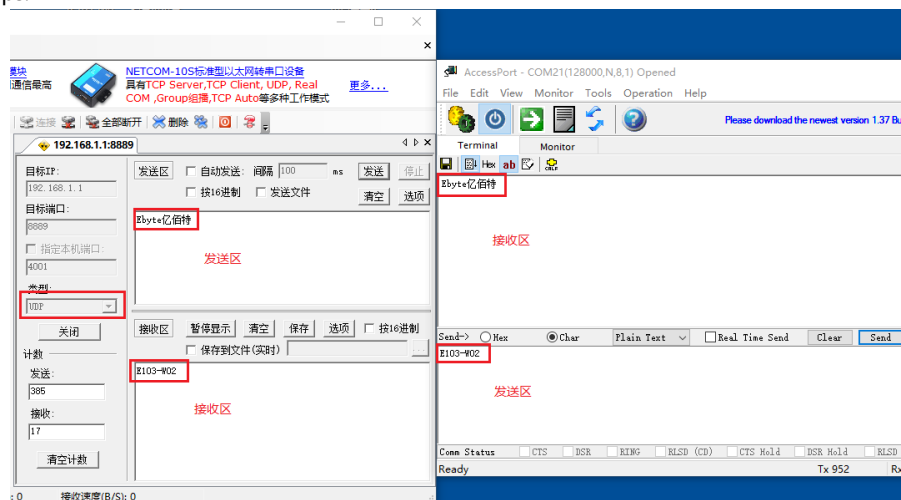
- ⑤. Open the TCP&UDP testing tools, create connection and set parameters (refer to below picture).



⑥. Click on the “Create” button to complete the creation.

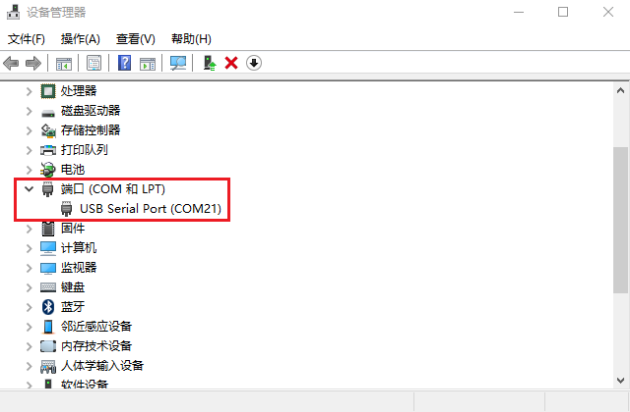
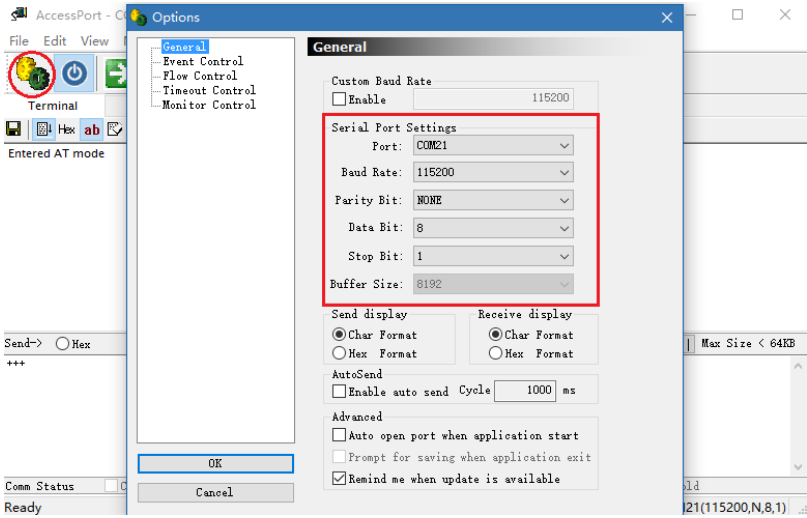


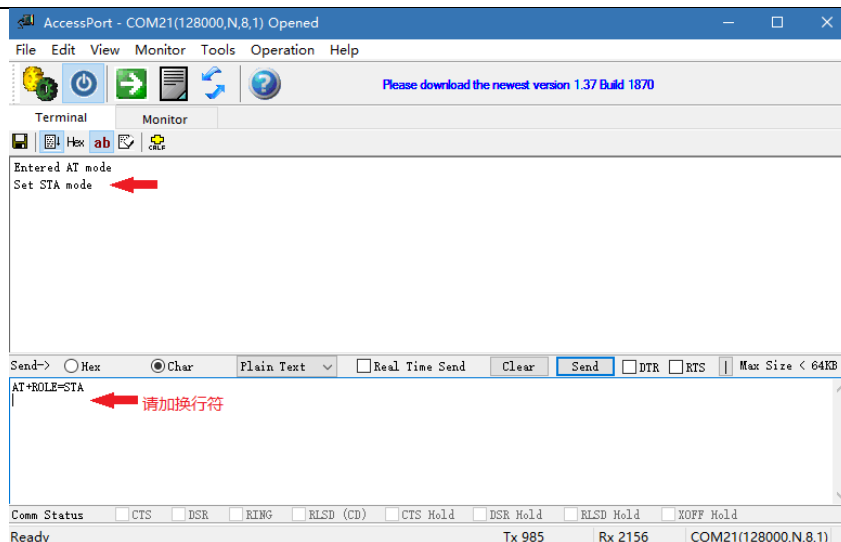
⑦. When creation is completed, it can realize two-way transmission between PC and server (it means transmission between TCP&UDP testing tool and AccessPort), if not, please redo above steps.



⑧. It can transmit document (it is better to be in TXT format), just have a try.

3.2 Set as STA (Station) to connect other Wi-Fi hot spots

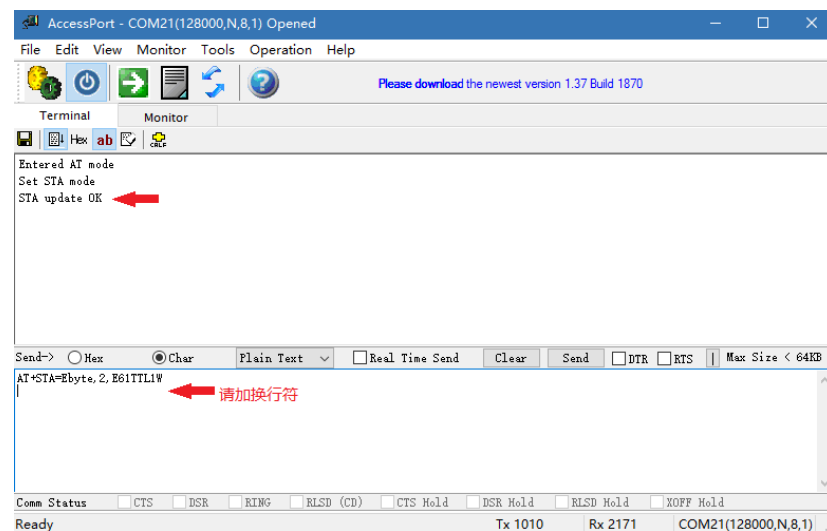
No	Remarks
1	<p>【Connect other Wi-Fi hot spots as STA (Station)】</p> <p>①.Connect the baseboard of E103-W02-DTU and PC with Micro USB data line.</p> <p>②.Open AccessPort, select COM number; If you are not clear about the COM number, please check in your Device Manager (refer to below picture).</p>  <p>③.Set UART parameters (baud rate: 115200bps, databit: 8 bits, parity bit: none, stopbit: 1 bit). (refer to below picture)</p>  <p>④.Simple configuration by AT command.</p> <p><Since we are sending command, in order for better configuration, please turn off the Real Time Send function of the UART; If there is no Real Time Send function in you AccessPort, please ignore this notice></p> <ol style="list-style-type: none"> Start UART configuration, input “+++” in the sending textbox (no line break), click on Send button to send command. If the UART returns “Entered AT mode” , it means the module has entered AT command mode, if not, please reset and redo above steps. <p>⑤.Now our module is connecting other AP as STA, so please set the mode as STA mode.</p> <ol style="list-style-type: none"> Input AT command “AT+ROLE=STA” in the sending textbox (with line break), which means pressing Enter after inputting “AT+ROLE=STA”), and then click on Send button. If the UART returns “Set STA mode” , it means the module has been set as STA mode, if not, please redo above steps.



⑥.Set Wi-Fi hot spot parameters (STA parameters)

a. Input AT command "AT+STA=Ebyte,2,E61TTL1W" in the sending textbox of the AccessPort (with line break, which means pressing Enter after inputting "AT+STA=Ebyte,2,E61TTL1W"), and then click on Send button to send the command. <The parameters must be set according to the user's Wi-Fi hot spot; the "Ebyte" in front of the AT command is the Wi-Fi hot spot SSID (Wi-Fi name), '2' is the encryption method WPA2 (if there is no password, it shall be "0"), "E61TTL1W" is the password of the Wi-Fi (if there is no password, it shall be null)>

b. If the UART returns "STA update OK" , it means the STA parameters are set successfully by command, if not, please redo above steps.



⑦.Reset or repower the server, if the servers are far from each other, please install antennas.

⑧.If the WiFi connection indicator is lit up, it means the module is successfully connected to Wi-Fi hot spot.

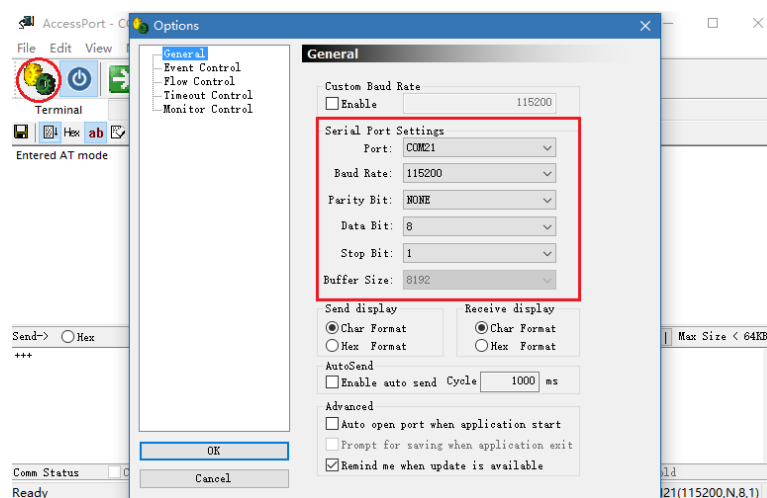


【Connect other Wi-Fi hot spots as STA (Station) through SmartConfig (one-click config.)】 :

- ①.Connect the E103-W02-DTU baseboard and PC with Micro USB data line.
- ②.Open AccessPort, select COM number; if you are not clear about the COM number, please check in your Device Manager (refer to below picture).



- ③.Set UART parameters (baud rate: 115200bps, databit: 8 bits, parity bit: none, stopbit: 1 bit). (refer to below picture)



④. Simple configuration by AT command.

<Since we are sending command, in order for better configuration, please turn off the Real Time Send function of the UART. If there is no Real Time Send function in you AccessPort, please ignore this notice>

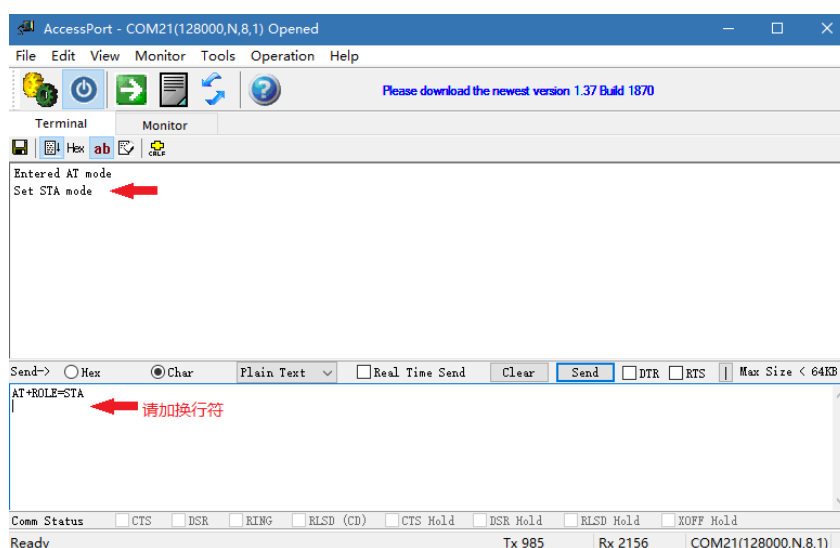
a. Start UART configuration, input "+++" in the sending textbox (no line break), click on Send button to send command.

b. If the UART returns "Entered AT mode", it means the module has entered AT command mode, if not, please reset and redo above steps.

⑤. Please set the server as STA mode first.

a. Input AT command "AT+ROLE=STA" in the sending textbox of the AccessPort (with line break, which means pressing Enter after inputting "AT+ROLE=STA"), and then click on Send button to send command.

b. If the UART returns "Set STA mode", it means the module has entered STA mode successfully, if not, please redo above steps.



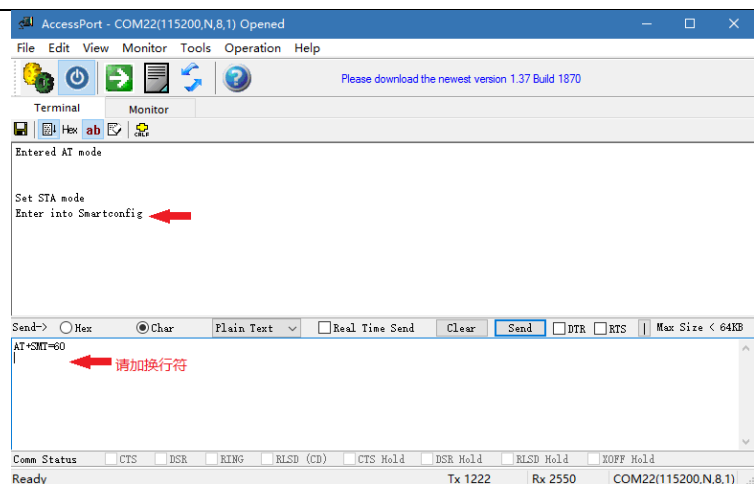
⑥. Rest or repower the module, and repeat the step ④.

⑦. Enter SmartConfig (one-click config) mode.

a. Input AT command "AT+SMT=60" (with line break, which means pressing Enter after inputting

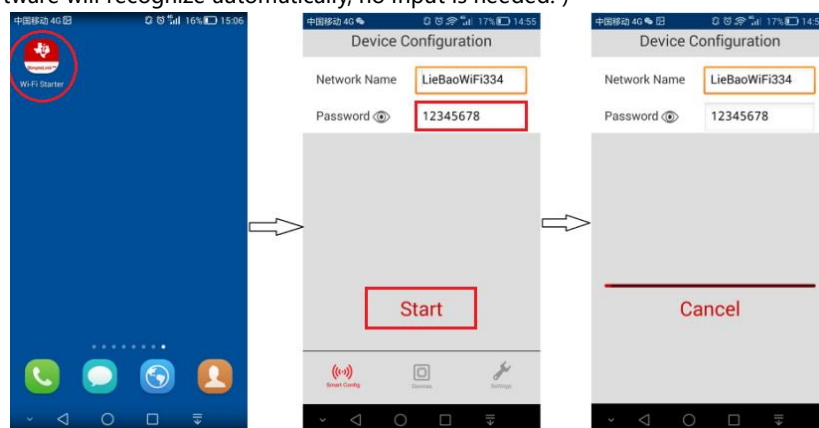
"AT+SMT=60"), and then click Send button to send command. <The 60 in the AT command means the module will exit SmartConfig (one-click config) mode if the module fails to connect the Wi-Fi hot spot after 60s>

b. If the UART returns "Enter into SmartConfig", and STAT indicator is lit up, it means the module has entered SmartConfig (one-click config) mode, if not, please redo above steps.



⑧. Turn on cellphone Wi-Fi and connect to one hot spot.

⑨. Install and open APP "Wi-Fi Starter", input Wi-Fi hot spot passwords, and click on "Start". (Network Name is the name of the Wi-Fi hot spot your cellphone is connecting to, the software will recognize automatically, no input is needed.)

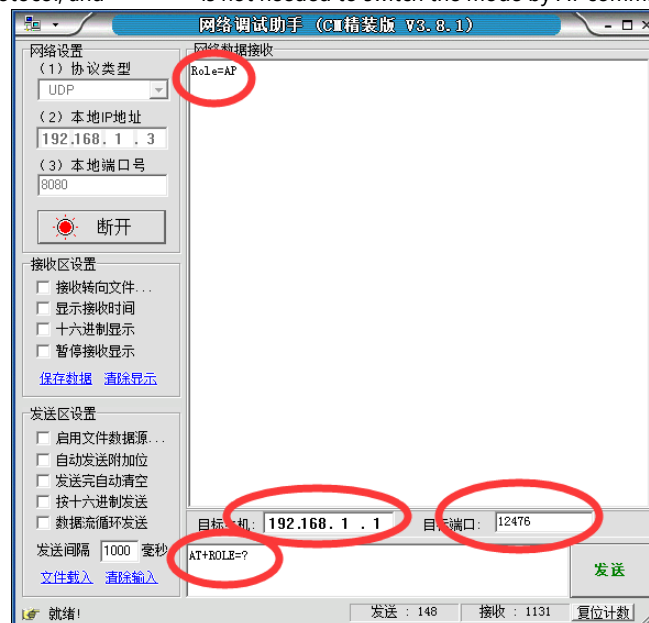


⑩. If the servers are far from each other, please install antennas. If the Wi-Fi connection indicator on baseboard is lit up, it means the module is successfully connected to Wi-Fi hot spot, if not, please redo above steps. <when successfully connected, the module will remember the Wi-Fi hot spot (including passwords), it will automatically connect to it upon reset or repower next time>



3.3 Remote AT command

E103-W02-DTU supports remote AT command, it can send AT commands to the 12476 port of the UART-WiFi server through UDP protocol, and “+++” is not needed to switch the mode by AT command



3.4 Change UART baud rate

No	Remark
1	E103-W02-DTU supports 300-400000bps UART baud rates.
2	By sending AT+UART command, the user can modify the UART parameters. For example: AT+UART=115200, 8, 0, 1
3	Please refer to AT command set for detailed command.
Baud rate	300-400000bps (default: 115200)
Parity bit support	NONE (default)
	EVEN
	ODD
Databit	5 bits
	6 bits
	7 bits
	8 bits
Stopbit	1 bit
	2 bits

3.5 Webpage configuration instruction

Restore the factory setting, connecting the UART-WiFi server with PC or cellphone, open the webpage by inputting 192.168.1.1, below configuration page will be displayed. Please remember to click on the save button after inputting all parameters, and click start button, the parameters will be valid after rebooting

简体中文 | English



系统状态
WiFi设置
UART0设置
恢复重启

串口设置

波特率 (300-3000000 bps)

数据长度

校验位

停止位长度

Socket设置

Socket模式

Socket协议

本地Socket端口号

远端设备IP

远端Socket端口号

成都亿佰特 <http://www.cdebyte.com>

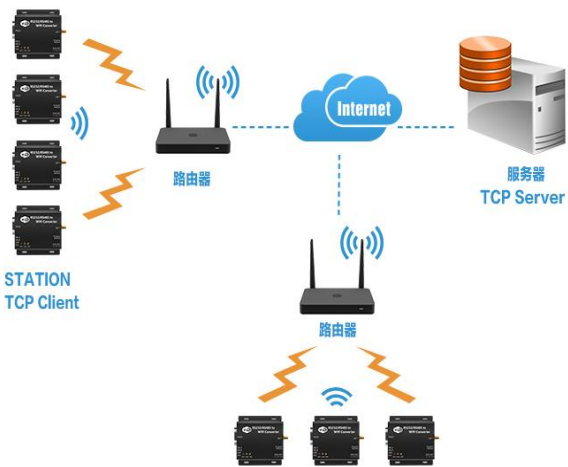

Web Ver:1.0.0

4. Specification for networking

4.1 Wi-Fi role

No	Remark
1	As physical connection, E103-W02-DTU supports AP mode (router) and STATION (Wi-Fi device). At most 1 Wi-Fi device can be supported when module works at AP mode.
2	As Socket, E103-W02-DTU includes TCP Server, TCP Client and UDP. Based on TCP connection mechanism, if long time connection is needed, please use TCP heartbeat bag.

4.2 Networking model

builds TCP Client to connect with remote server when working at STATION mode (classic)	
<p>Can be used for home IoT, meter-reading, real-time monitoring etc.</p> <p>Can communicate with network Server for real-time data.</p> <p>User can operate the UART-WiFi server by real-time communication.</p>	
	
Builds TCP Server to connect with Wi-Fi device when working at STATION mode	
<p>The same as type one, only difference is the server builds TCP Server instead of TCP Client when working at STATION mode.</p> <p>At most 5 remote devices can be connected when the server connects with network.</p>	
	

5. AT command

1	+++ Enter AT command mode	
	+++	Parameter specification: No parameter Response: Entered AT Command mode
	Example: +++	
	Notes: 1. Only by using such command to enter AT command mode, can we use AT command to operate. 2. After entering AT command mode, before we can use such command to enter AT command mode again, we have to exit AT command mode, reset or restart. 3. When writing in the command, the AccessPort must be set as not sending new line; while writing in other command, the AT command must be set as sending new line.	
2	AT+EXIT Exit AT command mode	
	AT+EXIT	Parameter specification: No parameter Response: Exited AT Command mode
	Example: AT+EXIT	
	Notes: 1. All AT commands will be invalid after exiting AT command mode.	
3	AT+RST Reset	
	AT+RST	Parameter specification: No parameter Response: Rebooting
	Example: AT+RST	
	Notes: 1. It is similar to press rest button to exit AT command mode.	
4	T+RESTORE Restore factory settings	
	AT+RESTORE	Parameter specification: No parameter Response: Restore OK
	Example: AT+RESTORE	
	Notes: 1. After using such AT command, please reset or power down to reboot to make the command into effect.	
5	AT+ROLE Setting mode (valid after reboot)	
	AT+ROLE=<mode>	Parameter specification: mode: Set as AP (Access Point), providing wireless access service Set as STA (Station), similar as wireless terminal Response: Set AP mode or Set STA mode
	Example: AT+ROLE=AP	

	Notes: 1. After new mode set, it needs to be reset or repower.	
6	AT+ROLE=? Inquire port parameters	
	AT+ROLE=?	Parameter specification: No parameter Response: Role=AP or Role=STA
	Example: AT+ROLE=?	
7	AT+UART Set port parameters (valid after reboot)	
	AT+UART= <Baud>,<Databit>,<Parbit>,<Stopbit> >	Parameter specification: Baud : baud rate (can be 300-3000000bps) Databit: databit Parbit: parity bit Stopbit: stopbit Response: Uart Update OK
	Example: AT+UART=115200,8,0,1	
	Notes: 1. After new parameters set, it needs to be reset or repower. 2. The databit shall be set as 8 to transmit Chinese character.	
8	AT+UART=? Inquire port parameters	
	AT+UART=?	Parameter specification: No parameter Response: Baud:115200 Databit:8 Parbit:0 Stopbit:1
	Example: AT+UART=?	
9	AT+AP Set AP parameters (valid after reboot)	
	AT+AP= <SSID>,<SecType>,< Password>	Parameter specification: SSID: Service set identifier <1~32Byte> SecType: Encryption type (0: no password, 1: WEP encryption, 2: WPA2 encryption) Password: password <8~63Byte> Response: AP Update OK
	Example: AT+AP=E103-W02,2,12345678	
	Notes: 1. When setting open AP, Sectype is 0, password is null. 2. When setting WEP encryption, password must be 5 or 13 upper/lower characters, or it can be 10 or 26 characters in HEX format. 3. After new mode, it needs to be rest or repower.	
10	AT+AP=? Inquire AP parameters	
	AT+AP=?	Parameter specification: No parameter Response: SSID:E103-W02-DTU SecType:2 Password:12345678
	Example: AT+AP=?	
11	AT+STA Set STATION parameters (valid after reboot)	
	AT+STA= <SSID>,<SecType>,< Password>	Parameter specification: SSID: Service set identifier <1~32Byte> SecType: Encryption type

	Password: password <8~63Byte> Response: STA Update OK	
	Example: AT+STA=Ebyte,2,E61TTL1W	
	Notes: 1. When setting open STA, Sectype is 0, Password is null.	
	AT+STA=? Inquire STATION parameters	
12	AT+STA=?	Parameter specification: No parameter Response: SSID: Ebyte TYPE:2
	Example: AT+STA=?	
	Notes: 1. For security, the password parameters will not be displayed by response.	
	AT+CHAN Set channel parameters (valid after reboot)	
13	AT+CHAN=<Channel>	Parameter specification: Channel: (1~11) Response: AP Channel Update OK
	Example: AT+CHAN=11	
14	AT+CHAN? Inquire channel parameters	
	AT+CHAN=?	Parameter specification: No parameter Response: AP Channel:11
	Example: AT+CHAN?	
15	AT+APIP Set IP parameters under AP mode (valid after reboot)	
	AT+APIP=<APIP>,<Mask>,<Gateway>,<DNS>	Parameter specification: APIP: IP address under AP mode Mask: Subnet mask Gateway: Gateway address DNS : DNS server address Response: APIP Update OK
	Example: AT+APIP=192.168.1.1,255.255.255.0,192.168.1.1,192.168.1.1	
16	AT+APIP= ? Inquire IP parameters under AP mode	
	AT+APIP=?	Parameter specification: No parameter Response: APIP: 192.168.1.1 Mask: 0.0.0.0 Gateway: 0.0.0.0 DNS: 0.0.0.0
	Example: AT+APIP=?	
17	AT+STAIP Set IP parameters under STATION mode (valid after reboot)	
	AT+STAIP=<IPMode>,<STAIP>,<Mask>,<Gateway>,<DNS>	Parameter specification: IPMode : IP mode (DHCP or STATIC) STAIP: IP address under STA mode Mask: Subnet mask Gateway: Gateway address DNS : DNS server address Response: STAIP Update OK

	Example: AT+STAIP=DHCP,192.168.1.1,255.255.255.0,192.168.1.1,192.168.1.1	
18	AT+STAIP ? Inquire IP parameters under STATION mode	
	AT+STAIP=?	Parameter specification: No parameter Response: STAIP: 192.168.1.1 Mask: 0.0.0.0 Gateway:0.0.0.0 DNS: 0.0.0.0 IP Mode: DHCP
	Example: AT+STAIP=?	
	Notes: 1. When IP Mode is set as DHCP, the Mask, Gateway and DNS settings will be invalid, and the values are all: 0.0.0.0	
19	AT+SOCK Set protocol parameters (valid after reboot)	
	AT+SOCK=<Protocol>,<CS>,<RemotelP>,<RemotePort>,< LocalPort >	Parameter specification: Protocol: (TCP or UDP) CS: (CLIENT or SERVER) Remote IP: Remote IP address Remote Port: Remote port number Local Port: Local port number Response: Socket Update OK
	Example: AT+SOCK=TCP,SERVER,192.168.1.2,8889,8887 Reminder: The module cannot proactively detect if the socket is disconnected, which means when the server is disconnected, the module is still in connected status. After the user send any data, the module will detect and change to disconnected status.	
20	AT+SOCK= ? Inquire protocol parameters	
	AT+SOCK=?	Parameter specification: No parameter Response: Protocol: TCP CS:SERVER RemotelP:192.168.1.2 RemotePort:8889 LocalPort:8887
	Example: AT+SOCK=?	
21	AT+SMT Enter SmartConfig mode (one-click config.)	
	AT+SMT=<Timeout>	Parameter specification: Timeout: Timeout and exit such mode (can be 0~255; 0: never exit, 1~255: exit after 1~255 seconds) Response: Enter into SmartConfig
	Example: AT+SMT=20	
	Notes: 1. After entering SmartConfig mode (one-click config.), cellphone APP can be used to configure the module and connect it to network quickly. 2. In order to exit this mode, it needs to wait for timeout and automatically exit, reset or power down to reboot.	
22	AT+STATUS=? Inquire the current status of the module	
	AT+STATUS=?	Parameter specification: No parameter Response: Wi-Fi Status: IP=192.168.1.1, Gateway=0.0.0.0
	Example: AT+STATUS=?	

	AP mode: Print the IP and gateway of itself when not connected, print the IP and gateway of the connected device when connected. STA mode: Print "disconnected" when not connected, print the IP and gateway of itself when connected.	
23	AT+PM Set power consumption parameters (Exit command mode is valid)	
	AT+PM=<Power Mode>,<Delay>	Parameter specification: Power Mode: Power consumption mode: (can be 0, 1, 2, 3) Delay: Wake up or enter low power consumption delay time: (2 ~ 240s) Response: Power mode set OK
	Example: AT+PM=0,5	
	Notes: 1. When Power Mode is set as 0, it will enter normal power consumption mode.	
24	AT+PM=? Inquire power consumption parameters	
	AT+PM=?	Parameter specification: No parameter Response: Power Mode:0 Set Delay:5
	Example: AT+PM=?	
25	AT+HTTP Set if turn on HTTP webpage function (valid after reboot)	
	AT+HTTP=<Switch>	Parameter specification: Switch: 0 (turned off) or 1 (turned on) Response: Http status set OK
	Example: AT+HTTP=1	
26	AT+HTTP=? Inquire if HTTP webpage function is turned on	
	AT+HTTP=?	Parameter specification: No parameter Response: Http Status: 1
	Example: AT+HTTP=?	
27	AT+VER=? Inquire UART-WiFi server version	
	AT+VER=?	Parameter specification: No parameter Response: E103-W02-DTU V1.1
	Example: AT+VER=?	

6. Customization

★Please contact us for customization.

★Ebyte has established profound cooperation with various well-known enterprises.



7. About us



Chengdu Ebyte Electronic Technology Co., Ltd. (Ebyte) is specialized in wireless solutions and products.

- ◆We research and develop various products with diversified firmware;
- ◆Our catalogue covers WiFi, Bluetooth, Zigbee, PKE, wireless data transceivers & etc.;
- ◆With about one hundred staffs, we have won tens of thousands customers and sold millions of products;
- ◆Our products are being applied in over 30 countries and regions globally;
- ◆We have obtained ISO9001 QMS and ISO14001 EMS certifications;
- ◆We have obtained various of patents and software copyrights, and have acquired FCC, CE, RoHs & etc.