WiFi RS-422/485 Serial Adapter

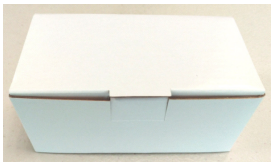
Model: S2W485IV2 (Internal antenna)

Model: S2W485EV2 (External antenna)

1. Package content:

WiFi RS-485 adapter

White Box Dimension: 11 x 6 x 5 (cm)
Total Package Weight: 108 g (Internal antenna); 116 g (External antenna)



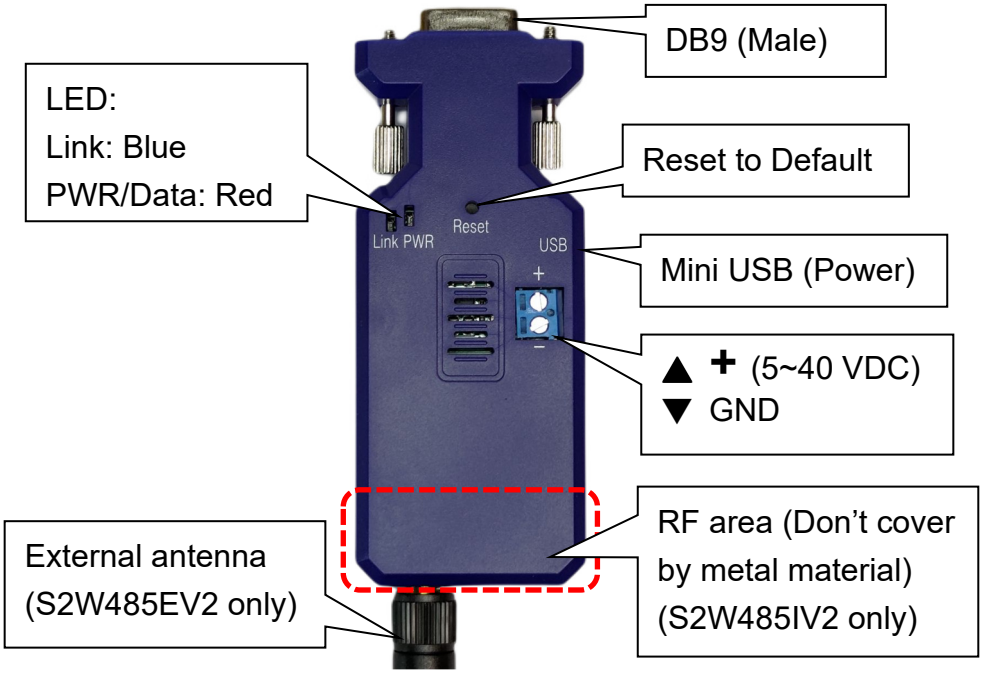
Package Contents:

- WiFi RS-485 adapter x 1
- A4 User manual x 1
- Mini USB Cable x 1
- 6P Terminal block x 1

The antenna is for S2W485EV2 only.

2. Profile:

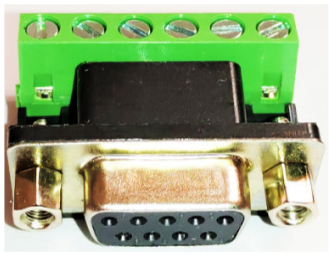
2.1 Top view:



2.2 Rear Side:

Slide switch for RS-485 or RS-422

2.3 DB9 connector (Male) & 6P Terminal block



No.	Function	Remark
1	A (RX+)	D+, A=Y (RS-485)
2	B (RX-)	D-, B=Z (RS-485)
3	Y (TX+)	
4	Z (TX-)	
5	GND	
6	Vin-1	5-40VDC, Vin-1 or Vin-2 choose one
7	N/A	
8	N/A	
9	Vin-2	5-40VDC, Vin-1 or Vin-2 choose one

3. Power supply:

3.1 Voltage: 5~40 VDC, **Don't exceed the limit.**

3.2 There're 3 ways to power the adapter: Mini USB, 2P Terminal Block (Blue) and pin9 of DB9, please choose one. **Don't power the adapter by more than one source.**

3.3 The mini USB to type A cable is inside the standard package.

4. Specifications:

4.1 Default value:

- Baud rate: 9,600 bps
- Data bit: 8
- Parity: none
- Stop bit: 1
- Flow control: none
- SSID: S2W232-abcd (abcd means the last 4 code of the Mac. address)
- Configuration Webpage IP: 192.168.0.3
- Socket: TCP server, Port: 5000
- Log in ID: admin, PWD: admin

4.2 Serial Port:

- Baud Rate: 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200, 230400 bps
- Data bit: 5,6,7,8

- Parity: none, even, odd
- Stop bit: 1,1.5,2
- Flow control: None, RTS, CTS, RTS+CTS

4.3 Support Wi-Fi 2.4 GHz 802.11b/g/n

4.4 Transmit Power:

802.11b: +19dBm(Max.@11Mbps，CCK)

802.11g: +18dBm(Max.@54Mbps，OFDM)

802.11n: +16dBm(Max.@HT20，MCS7)

4.5 Receive Sensitivity:

802.11b: -85 dBm(@11Mbps，CCK)

802.11g: -70 dBm(@54Mbps，OFDM)

802.11n: -68 dBm(@HT20，MCS7)

4.6 Operating Current (work with 3.3V power supply)

AP: 74mA (average), 285mA (peak)

STA: 32mA (average), 196mA (peak)

4.7 Support WPA/WPA2 security mode.

4.8 Socket: TCP Server, TCP Client, UDP Server, UDP Client

4.9 Wireless Network Type: AP, Station, AP+Station

4.10 Security: WPA-PSK/WPA2-PSK

4.11 Encryption: TKIP, AES

4.12 User Configuration: Webpage setting

4.13 Support TCP Server/Client, Http Client, Https Client

4.14 Operation Temperature: –20 ℃ to +85 ℃

4.15 Dimensions: 81.6 mm (L) x 31.75 mm (W) x 17 mm (H), Antenna: 10 cm

4.16 Antenna Gain: max. 2 dB (default)

Remark: All contents are subject to change without notice.

5. Configuration:

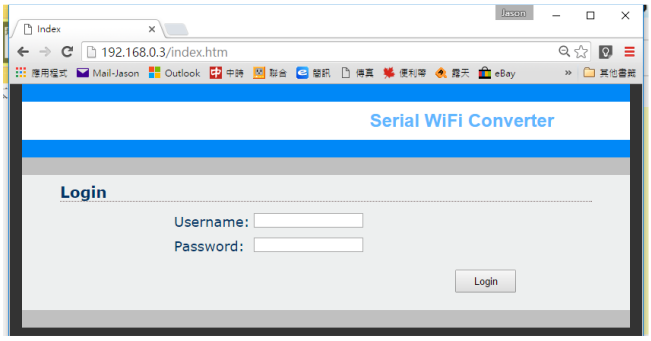
Step1: Connect the SSID of the adapter named “S2W232-abcd”

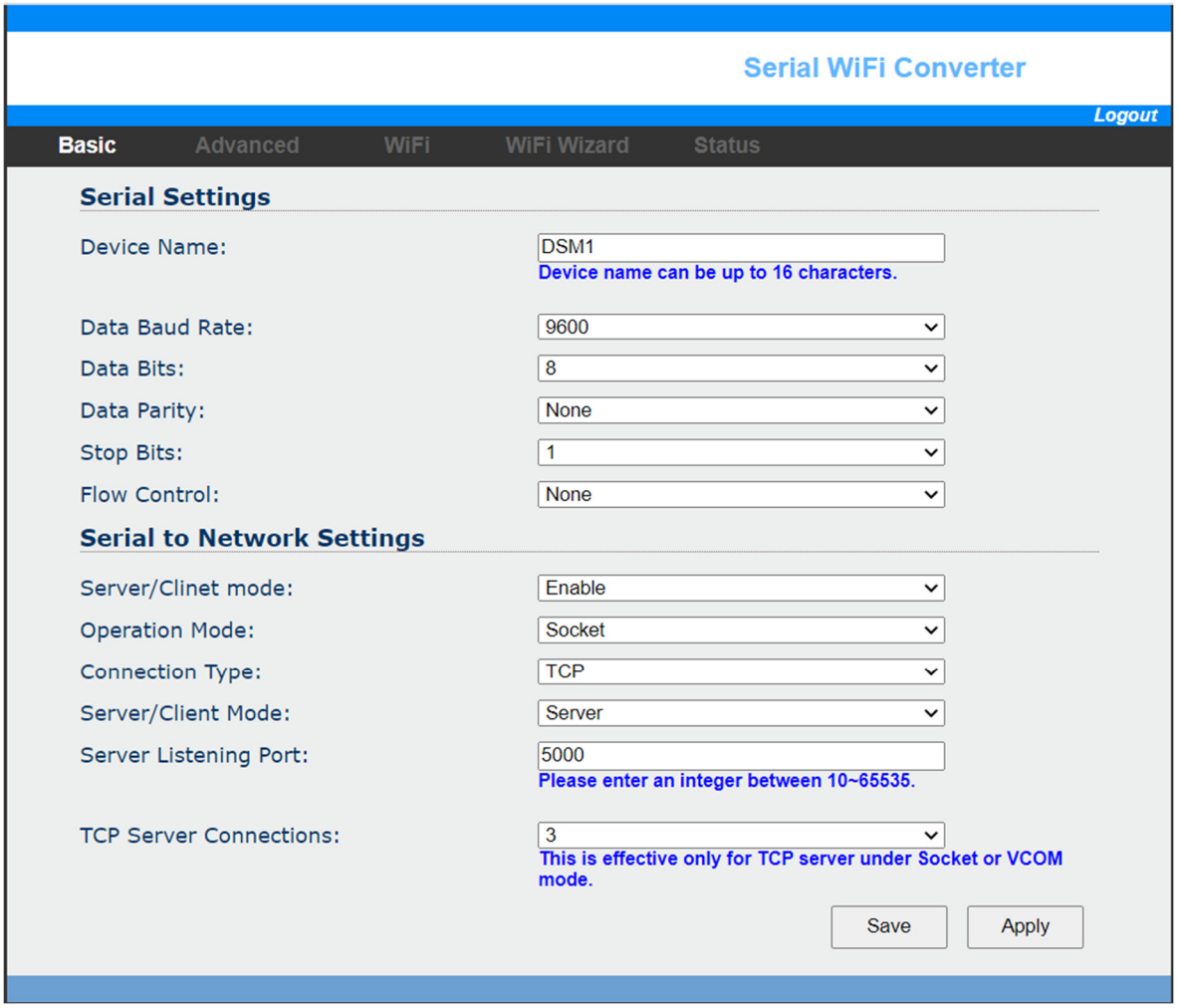
Step2: http://192.168.0.3 on browser

Step3: Log in

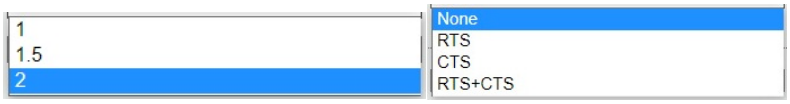
Username: admin

Password: admin

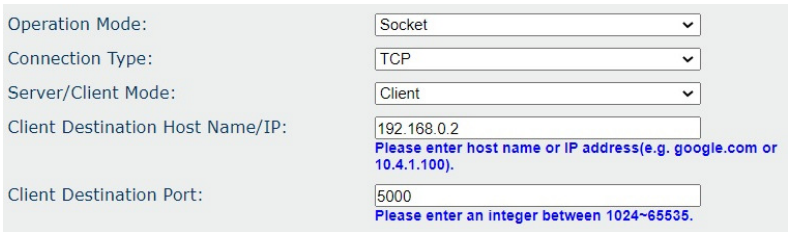


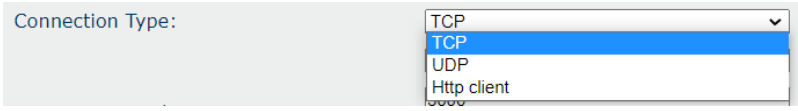


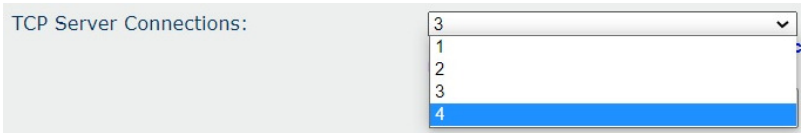
Baud rate Data bits Parity

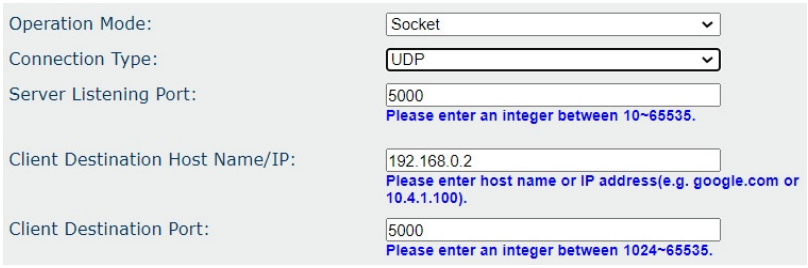


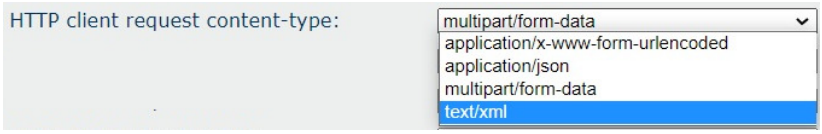
Stop bit Flow control

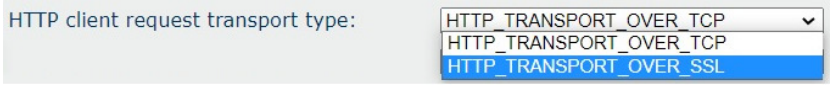




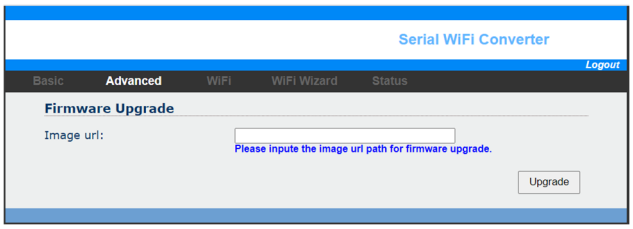




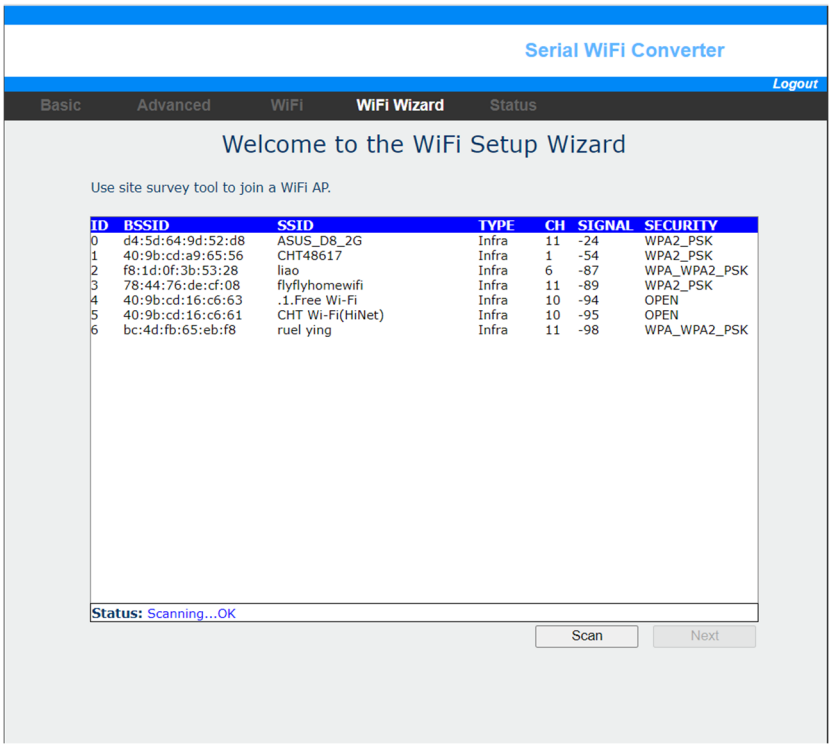




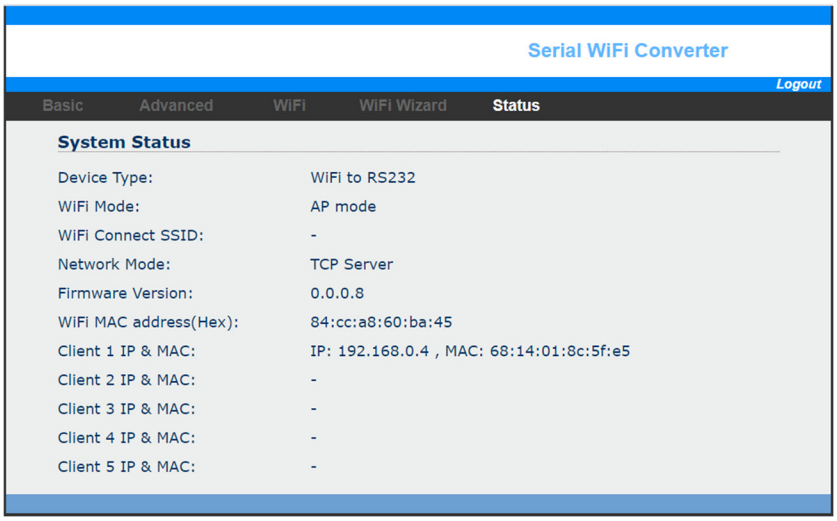
Firmware upgrade:

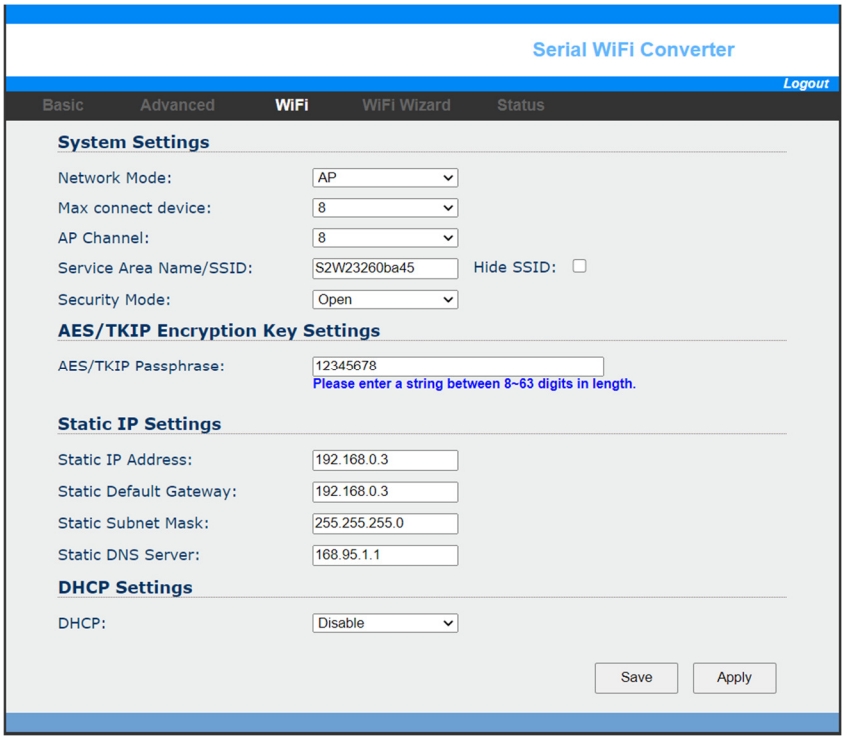


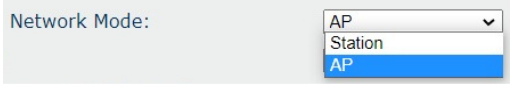
Site survey for station configuration:

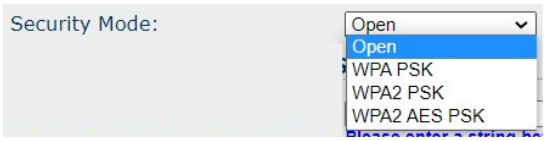


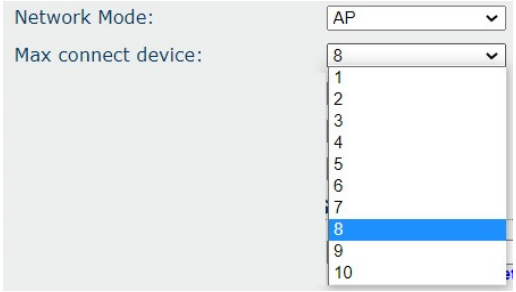
WiFi setting list:

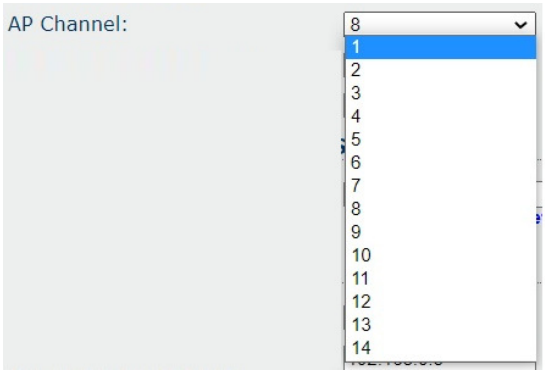






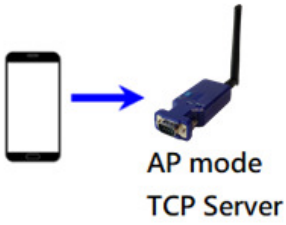






6. Network topology

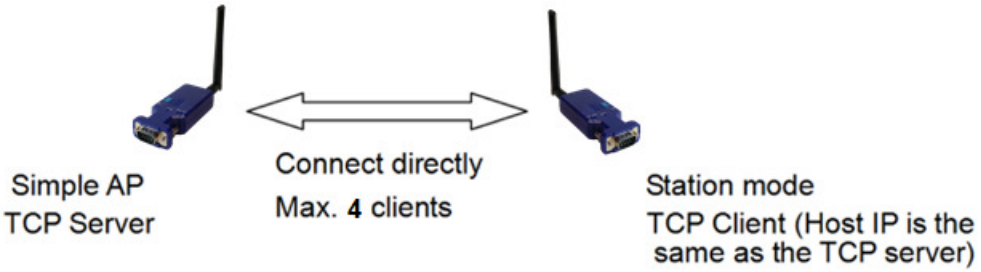
6.1 AP mode (Default)



6.2 Station mode

6.3 TCP Client

6.4 One to up to 4 broadcast



7. 3rd party test software

7.1 Teraterm: TCP client, COM port (ASCII only)

https://ttssh2.osdn.jp/index.html.en

7.2 AccessPort: COM port (Hex, ASCII)

http://www.sudt.com/en/ap/

7.3 Sockettest: TCP server or Client

https://sourceforge.net/projects/sockettest/

7.4 Virtual COM port driver-1

https://www.virtual-serial-port.org/

7.5 Virtual COM port driver-2

http://www.eterlogic.com/Products.VSPE.html

8. Test APP: The APP is used for the configuration and the data transmission test.

Download:

Android APP **iOS APP**

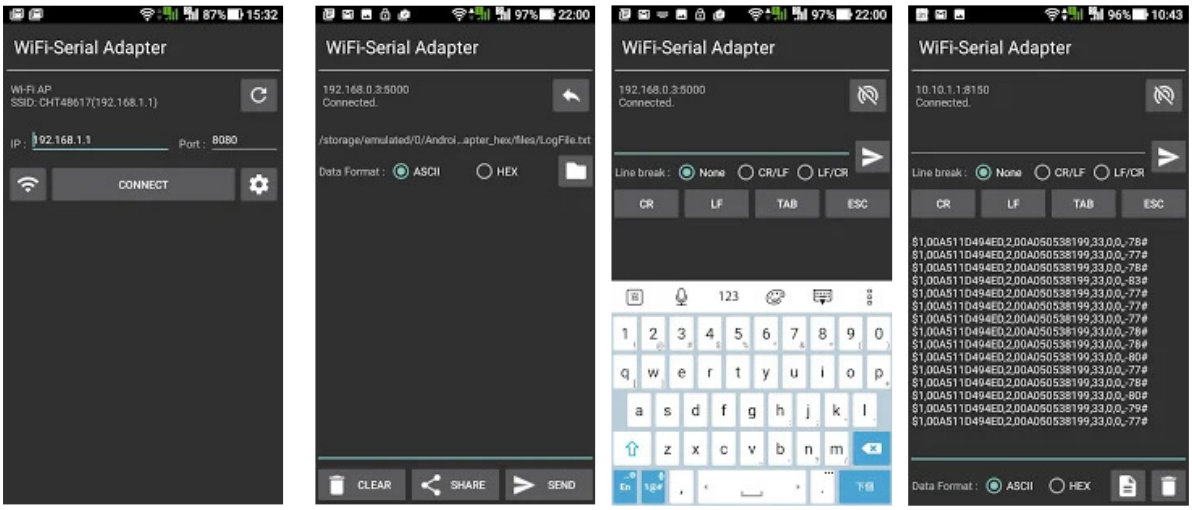
Android:

https://play.google.com/store/apps/details?id=com.ucconnect.uctcpipadapter_hex

iOS:

https://apps.apple.com/us/app/tcp-ip-to-serial-terminal/id1238054234?l=zh&ls=1

Screenshot of the APP:

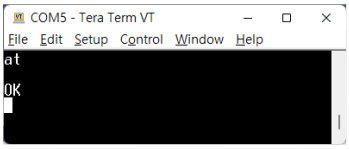


9. AT command mode: There're two kinds, Uconnect & ESP32 version

9. AT command mode: There're two kinds of commands, Uconnect & ESP32 version

9.1 Uconnect: Type "+++" via RS-232 (9,600; 8-N-1) when power on and "hsuart>" display. "help" command will list the command which supports all the functions on the web page.

9.2 ESP32: Power off the adapter → press the reset button → power on the adapter over 5 seconds when two LED solid on→ release the button → Key in “at” or “AT” and reply “OK”. The default setting of ESP32 is 115,200 bps, 8-N-1. The adapter supports all ESP32 original AT command.



Link: https://docs.espressif.com/projects/esp-at/en/latest/esp32/AT_Command_Set/