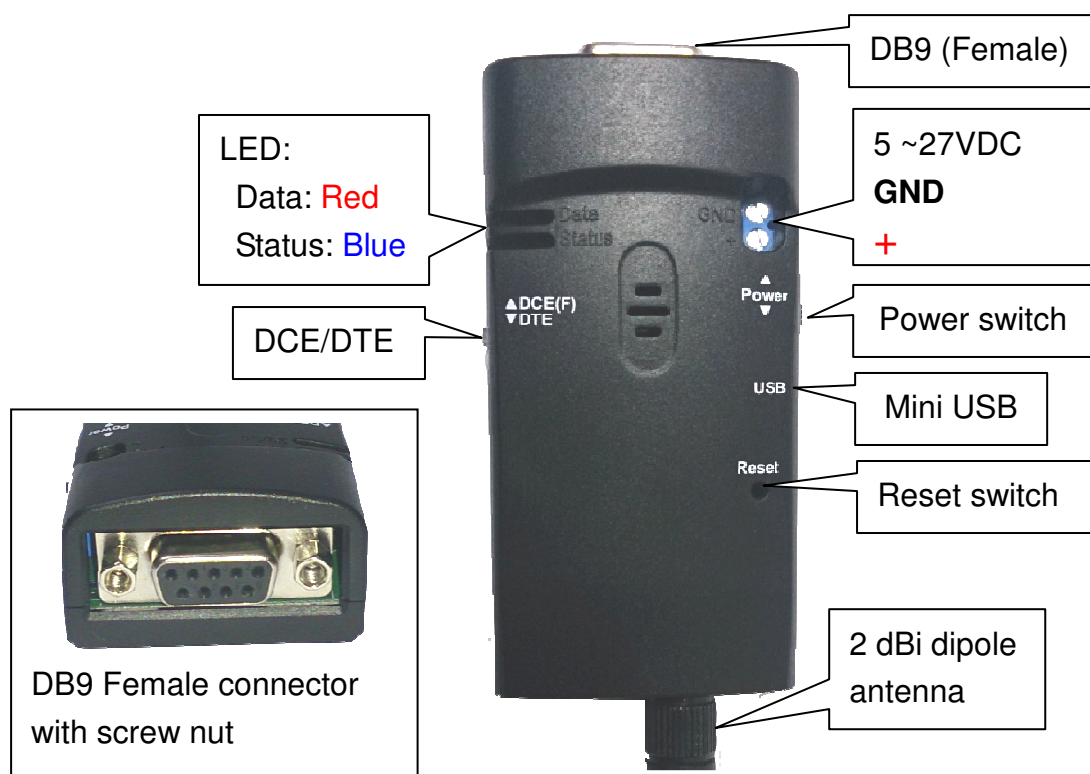


## WiFi to RS-232 adapter user manual

|                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>WiFi to RS-232 adapter</p>  <p>White Box Dimension: 11 x 6 x 5 (cm)<br/>Total Package Weight: 126 g</p> | <p>Package Contents:</p> <ul style="list-style-type: none"> <li>● WiFi RS-232 adapter x 1</li> <li>● 2 dBi dipole antenna x 1</li> <li>● A4 User manual x 1</li> <li>● USB Cable x 1</li> </ul>  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### 1. Product profile: Female DB9 connector with nut (The nut can be removed if necessary.)



### 2. Start to use the adapter

2.1 Please fasten the external antenna to the adapter.

2.2 There're three power inputs, mini USB, pin9 of DB9 or blue 2 ports block terminal. Please select one way to power the adapter. The max. voltage is 27 VDC input for all sources.

2.3 COM port default setting:

- Baud rate: x, 9,600 bps
- Data bit: 8
- Parity: none
- Stop bit: 1
- Flow control: none

## 2.4 Network default setting:

- Simple AP and support DHCP
- SSID: Serial2WiFi\_ab\_cd (ab or cd means the last 4 code of the Mac. address)
- No Security
- IP: 192.168.0.3
- Socket port: 5000
- Channel: 11
- Log in ID: admin
- Log in password: admin

2.5 Power switch: mini USB side by default. The user will switch to the blue 2 ports block terminal side or pin9 of DB9 if the power input comes from other sources.

2.6 DCE/DTE switch: DCE side. The switch will swap TX,RX,CTS,RTS of the COM port. Generally, DCE side for PC or NB setup. The user will test and switch to the correct side for the remote device.

3. Configuration: Please choose one way and download the “TeraTerm” tool for testing.

3.1 Web page: The user will setup the adapter via PC, NB or Smart phone.

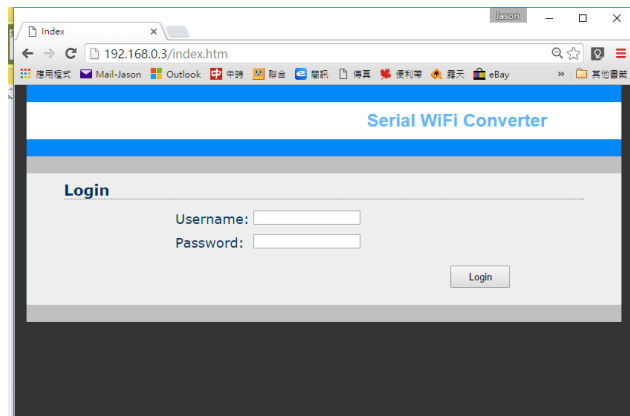
Step1: Connect the simpleAP named  
“Serial2WiFi\_ab\_cd”

Step2: http://192.168.0.3 on browser

Step3: Log in

Username: admin

Password: admin



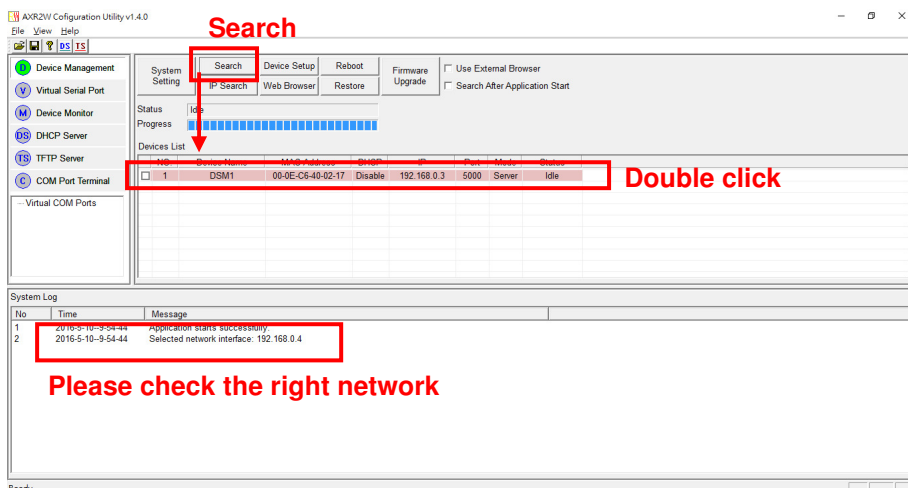
You can configure the WiFi and COM port parameters from the web page. Please press “Apply” when setup and the adapter will reboot.

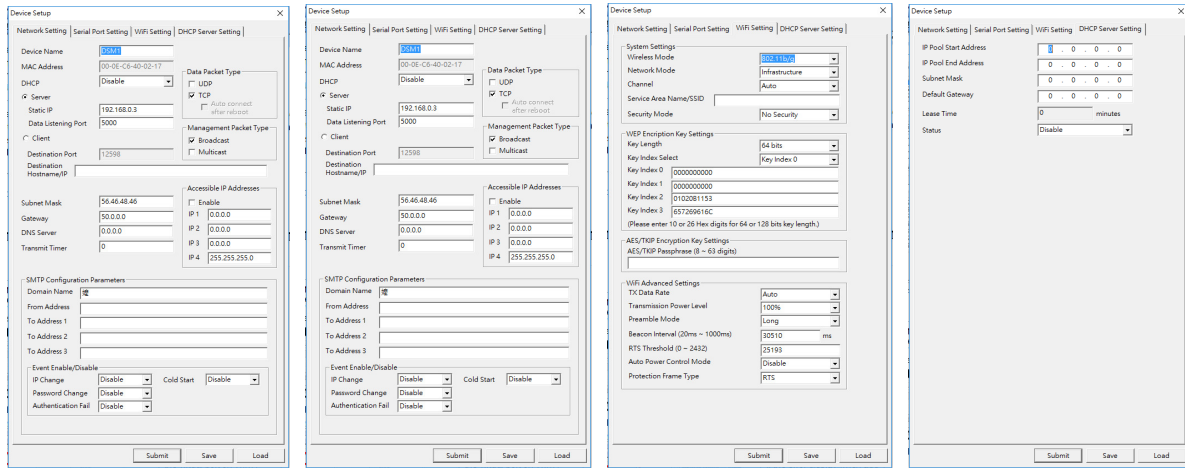
## 3.2 PC software:

Step1: Please connect the simpleAP named “Serial2WiFi\_ab\_cd”

Step2: Execute AXR2W Configuration Utility with the administrator authority.

Step3: Search the WiFi device, double click the item and the setup page display.





Network setting

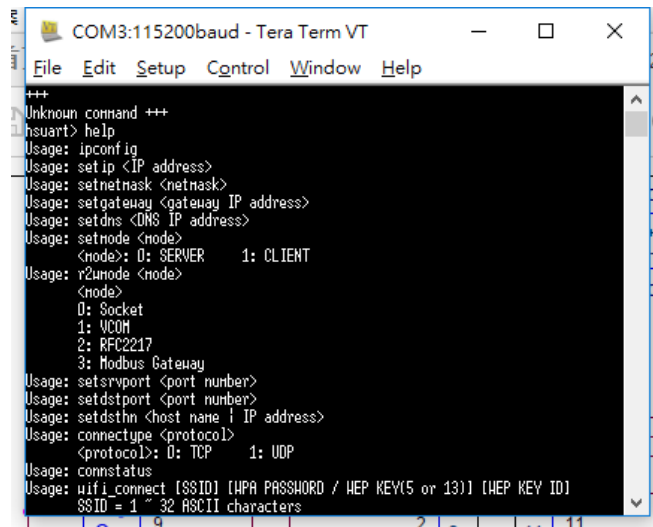
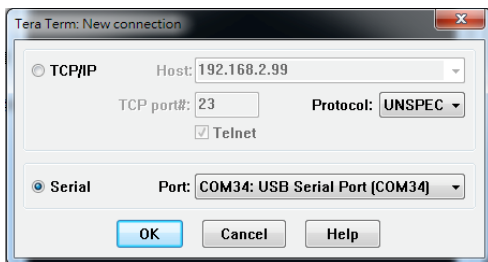
Serial port setting

WiFi setting

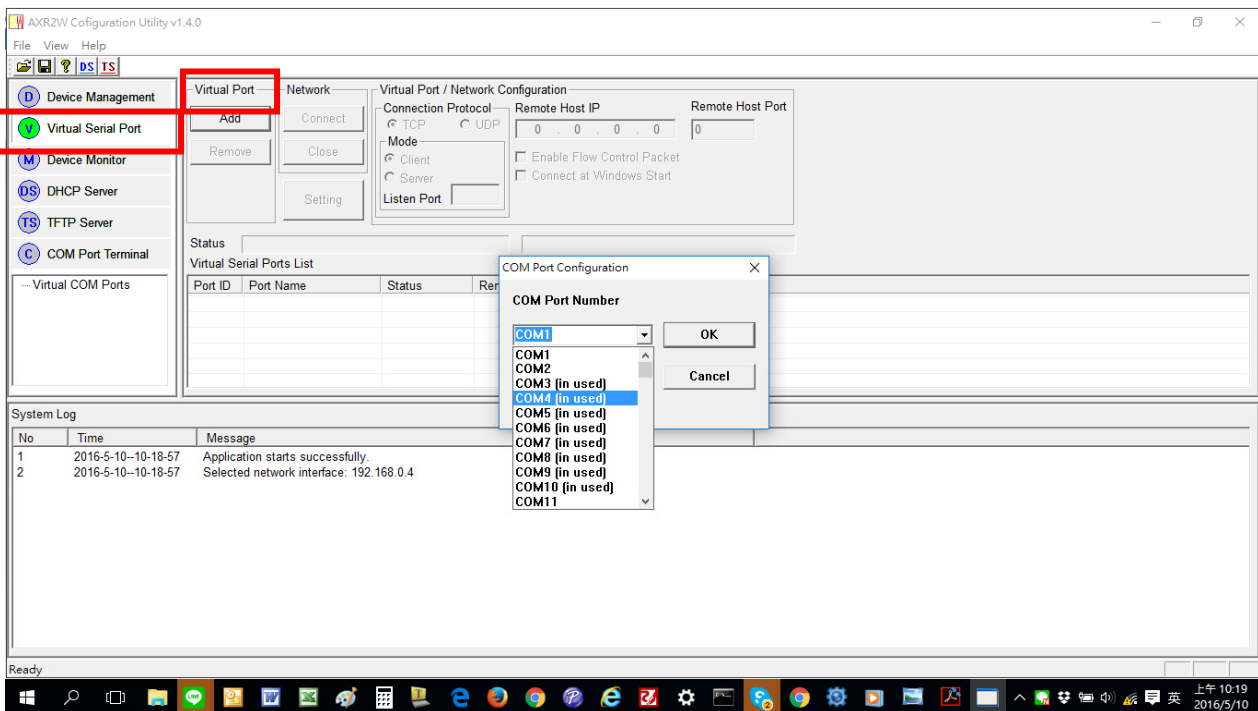
DHCP Server Setting

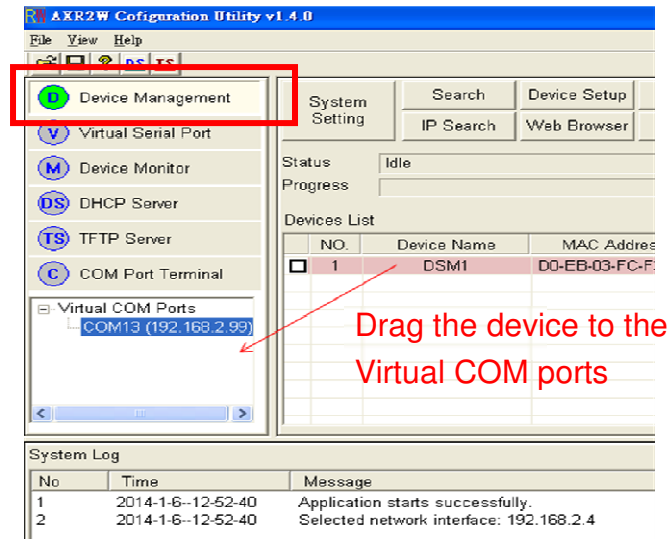
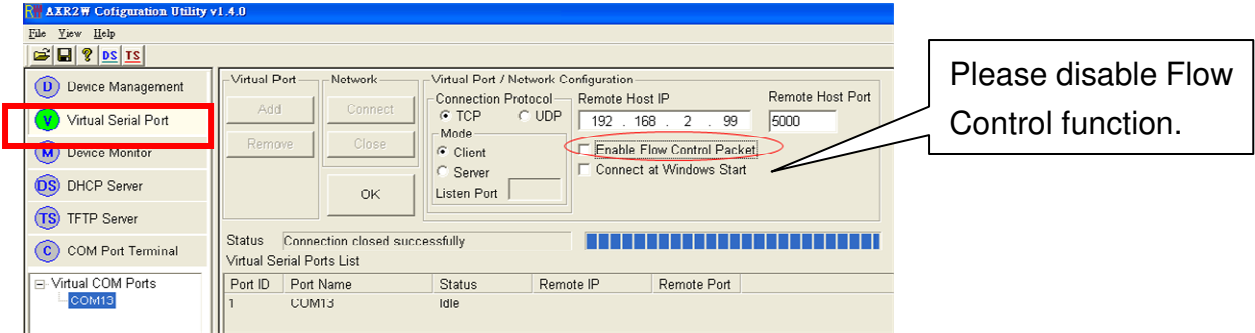
### 3.3 RS-232:

- Step1: Connect the adapter via WiFi and connect the RS-232 connector
- Step2: Execute COM port tool software
- Step3: Set baud rate: 115200 bps
- Step4: Key in "+++" and then Enter
- Step5: Log in the device and setup



### 4. Virtual COM port driver: **Execute the utility by "Administrator" authority.**



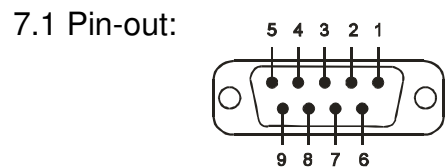


5. LED indication:
- 5.1 Red: Power On or Off
  - 5.2 Blue: Wifi Status

| Running Image | WiFi Mode | Status LED Indicator      | WiFi State    |
|---------------|-----------|---------------------------|---------------|
| Default       | Station   | Off                       | Disconnect    |
|               |           | Blinking by 0.5sec period | BSS connected |
|               | AP        | Blinking by 0.5sec period | Running       |
| Upgrade       | Station   | Off                       | Disconnect    |
|               |           | Always light              | BSS connected |
|               | AP        | Blinking by 2sec period   | Running       |

6. Reset button:
- Press the “Reset” button over 5 seconds, the WiFi adapter will reset to default value. The LEDs will be off for some time and then reboot to the default value. The function is the same ad the software reset.

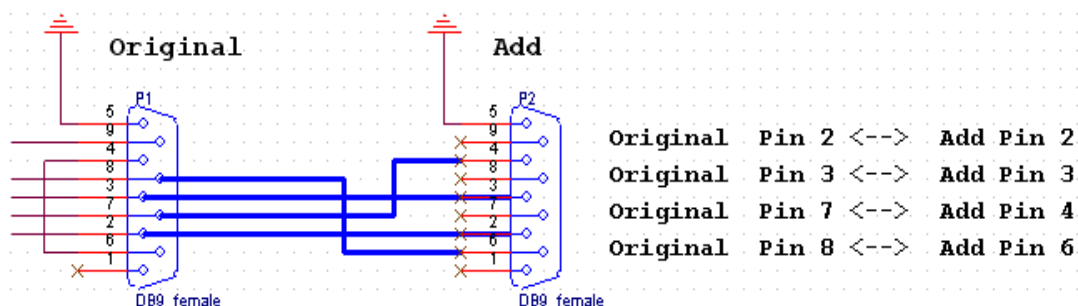
7. RS232 Interface: DB9 Female with Nut



## 7.2 Signals:

| Pin | Signal | DTE Direction | DCE Direction | Description                      |
|-----|--------|---------------|---------------|----------------------------------|
| 1   | CD     | Input         | Output        | Not connected                    |
| 2   | TxD    | Output        | Input         | Transmitted data                 |
| 3   | RxD    | Input         | Output        | Received data                    |
| 4   | DSR    | Input         | Output        | Contact manufacturer to set this |
| 5   | GND    | N/A           | N/A           | Signal ground                    |
| 6   | DTR    | Output        | Input         | Contact manufacturer to set this |
| 7   | CTS    | Input         | Output        | Clear to send                    |
| 8   | RTS    | Output        | Input         | Request to send (Default)        |
| 9   | Vcc    | Input         | Input         | External Power supply            |

Remark: DSR/DTR Connection:



## 8. Command set:

Usage: ipconfig

Usage: setip <IP address>

Usage: setnetmask <netmask>

Usage: setgateway <gateway IP address>

Usage: setdns <DNS IP address>

Usage: setmode <mode>

<mode>: 0: SERVER      1: CLIENT

Usage: r2wmode <mode>

<mode>

0: Socket

1: VCOM

2: RFC2217

3: Modbus Gateway

Usage: setsrvport <port number>

Usage: setdstport <port number>

Usage: setdsthn <host name | IP address>

Usage: connecttype <protocol>

<protocol>: 0: TCP      1: UDP

Usage: connstatus

Usage: wifi\_connect [SSID] [WPA PASSWORD / WEP KEY(5 or 13)] [WEP KEY ID]

SSID = 1 ~ 32 ASCII characters

WPA PASSWORD = 8 ~ 63 ASCII characters

ASCII WEP KEY = 5 (WEP64) or 13 (WEP128) ASCII characters

WEP KEY ID = 0 ~ 3

Usage: wifi\_disconnect

Usage: wifi\_mode [MODE]

MODE = 1(STA), 2(AP)

Usage: wifi\_scan

Usage: wifi\_jbss <INDEX>

INDEX = Index of bss scan table, maximum 24 BSSs supported

Usage: wifi\_on

Usage: wifi\_off

Usage: wifi\_channel <CHANNEL>

CHANNEL = 1 ~ 13

Usage: wifi\_ssid <SSID>

SSID = 1 ~ 32 ASCII characters

Usage: wifi\_enc <ENC\_MODE>

ENC\_MODE = 0(OPEN)

1(WEP)(AP mode not support)

2(WPA2\_AES\_PSK)

Usage: wifi\_keyid <INDEX>

INDEX = 0 ~ 3

Usage: wifi\_wepkey <INDEX> <KEY>

INDEX = 0 ~ 3

KEY = 5 or 13 ASCII characters

Usage: wifi\_wpakey <KEY>

KEY = 8 ~ 63 ASCII characters

Usage: reboot

Usage: urdatamode

Usage: setdef

Usage: saveconfig

Usage: ping <IP address>

Usage: wifi\_info

Usage: wifi\_ap <ssid> <channel> <wep/wpa key> <wep key index>

<ssid>: 1~32 ASCII characters

<channel>: 1~14

<wep/wpa key>: WEP(5/13 ASCII characters) or WPA(8~63 ASCII characters) k

ey

<wep key index>: WEP key index, 0~3

Usage: ur\_config <baud\_rate> <databits> <stop\_bits> <parity> <flow\_ctrl>

<baud\_rate>:

1200 bps

2400 bps

4800 bps

9600 bps

19200 bps

38400 bps

57600 bps

115200 bps

921600 bps

<databits>: 7 or 8 bits

<stop\_bits>: 1 or 2 bit(s)

<parity>: 0 = none, 1 = odd, 2 = even

<flow\_ctrl>: 0 = disable, 1 = enable CTS/RTS flow control

Usage: dhcpclient <status>

<status>: 0: disable      1: enable

Usage: setdhcpsrv <status>

<status>: 0: disable      1: enable

Usage: ntpsrv <time zone> <ntp server1> <ntp server2> <ntp server3>

<time zone>

0: GMT-12.0 Eniwetok, Kwajalein

1: GMT-11.0 Midway Is., Samoa

2: GMT-10.0 Hawaii

3: GMT-9.0 Alaska

- 4: GMT-8.0 Los Angeles, Tijuana
- 5: GMT-7.0 Denver Arizona
- 6: GMT-6.0 Chicago, Mexico City
- 7: GMT-5.0 New York, Bogota
- 8: GMT-4.0 Santiago
- 9: GMT-3.0 Brasilia, Montevideo
- 10: GMT-2.0 Fernando de Noronha
- 11: GMT-1.0 Azores
- 12: GMT+0.0 Lisbon, London
- 13: GMT+1.0 Berlin, Paris
- 14: GMT+2.0 Helsinki, Cairo
- 15: GMT+3.0 Moscow, Nairobi
- 16: GMT+4.0 Abu Dhabi, Baku
- 17: GMT+5.0 Karachi, Islamabad
- 18: GMT+6.0 Almaty, Dhaka
- 19: GMT+7.0 Bangkok, Jakarta
- 20: GMT+8.0 Hong Kong, Singapore
- 21: GMT+9.0 Seoul, Tokyo
- 22: GMT+10.0 Melbourne, Sydney
- 23: GMT+11.0 Solomon Is.
- 24: GMT+12.0 Fiji, Wellington

Usage: rtcts <mode>

<mode>: 0: manual      1: NTP server

Usage: time <hour> <minute> <second>

<hour>: 0~23

<minute>: 0~59

<second>: 0~59

Usage: date <year> <month> <date>

<year>: 2000~2099

<month>: 1~12

<date>: 1~31

Usage: getths

Usage: setems <e-mail server domain name>

Usage: setemf <e-mail address>

Usage: setemt1 <e-mail address>

Usage: setemt2 <e-mail address>

Usage: setemt3 <e-mail address>

Usage: setemsc <SecurityType> <PortNumber>

<SecurityType>:

0=No security

1=SSL

2=TLS

3=Auto

<PortNumber>:

25 or 587 for regular transfer port

465 for SSL port

Usage: setemac <UserName> <PassWord>

Usage: emconfig

Usage: setaw <cold start> <authentication fail> <ip changed> <password changed>

<cold start>:                      0: Disable      1: Enable

<authentication fail>:      0: Disable      1: Enable

<ip changed>:                      0: Disable      1: Enable

<password changed>:              0: Disable      1: Enable

10. One to one connection: The two WiFi adapters will be connected directly without access point.

