WiFi to RS-422/485 adapter user manual

WiFi to RS-422/485 adapter

White Box Dimension: 11 x 6 x 5 (cm)

Total Package Weight: 132 g

Package Contents:

- WiFi RS-422/485 adapter x 1
- 2 dBi dipole antenna x 1
- A4 User manual x 1
- Mini USB Cable x 1

1. Product profile:

Block Terminal Connector:

RX-/B   RX+/A   TX-   TX+

Terminator: 2 pins

Open: Off

Close: On, Please connect the 2 pins with a cable to enable.

LED:
 Data: Red
 Status: Blue

Switch:
 RS485
 RS422

4.5 ~27VDC:
GND (Power & Serial port)
+

Power switch

Mini USB

Reset switch

2 dBi dipole antenna

2. Start to use the adapter

2.1 Please fasten the external antenna to the adapter and switch RS-422 or RS-485 in right side.

2.2 There're two power inputs, mini USB or blue 2 ports block terminal. Please switch to choose one way to power the adapter. The max. voltage is 27 VDC input from the blue block terminal. **Please connect the power cable with the terminal block before power on.**

2.3 COM port default setting:

- Baud rate: 115200 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 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
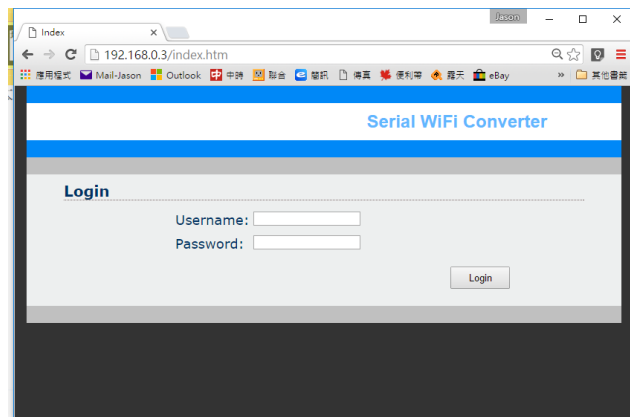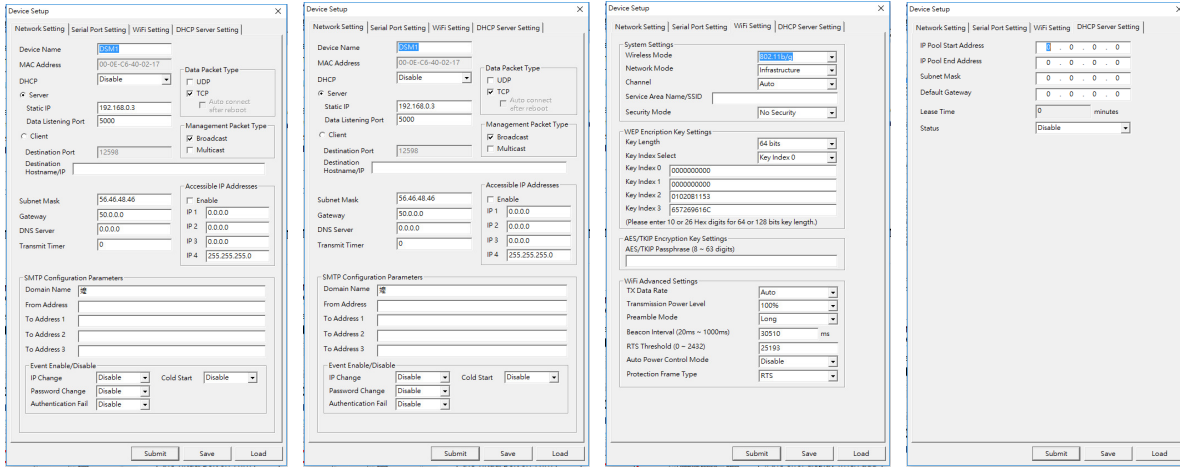

You can configure the WiFi and COM port parameters from the web page. Please press "Apply" when setup and the adapter will reboot.

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.
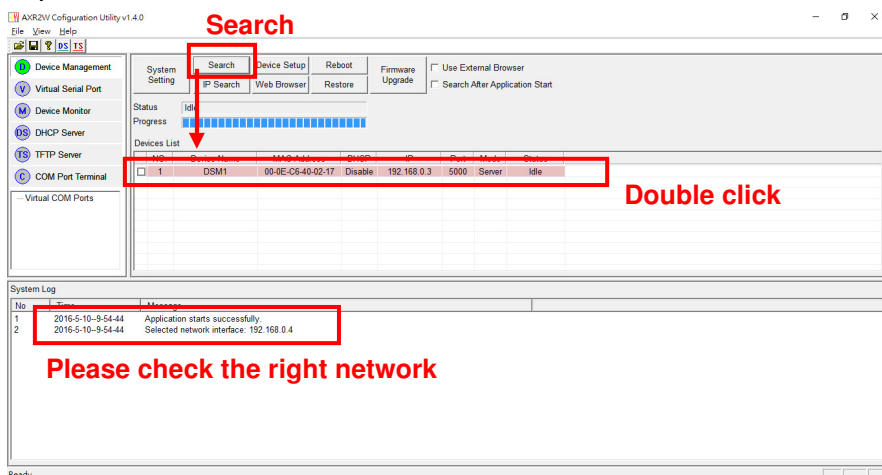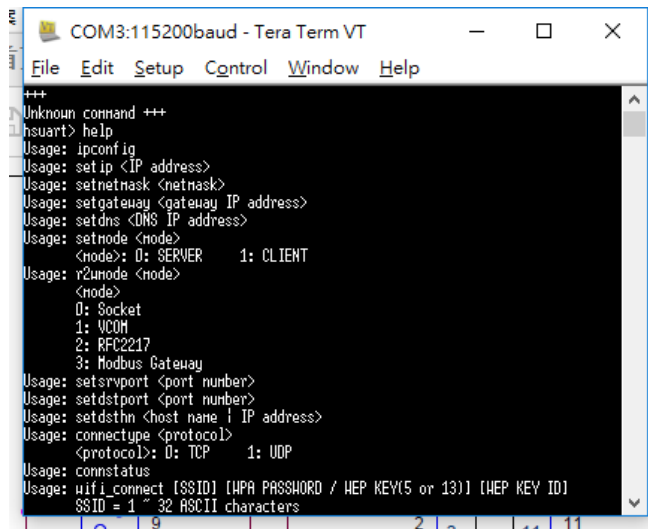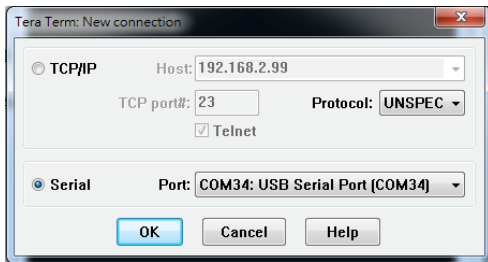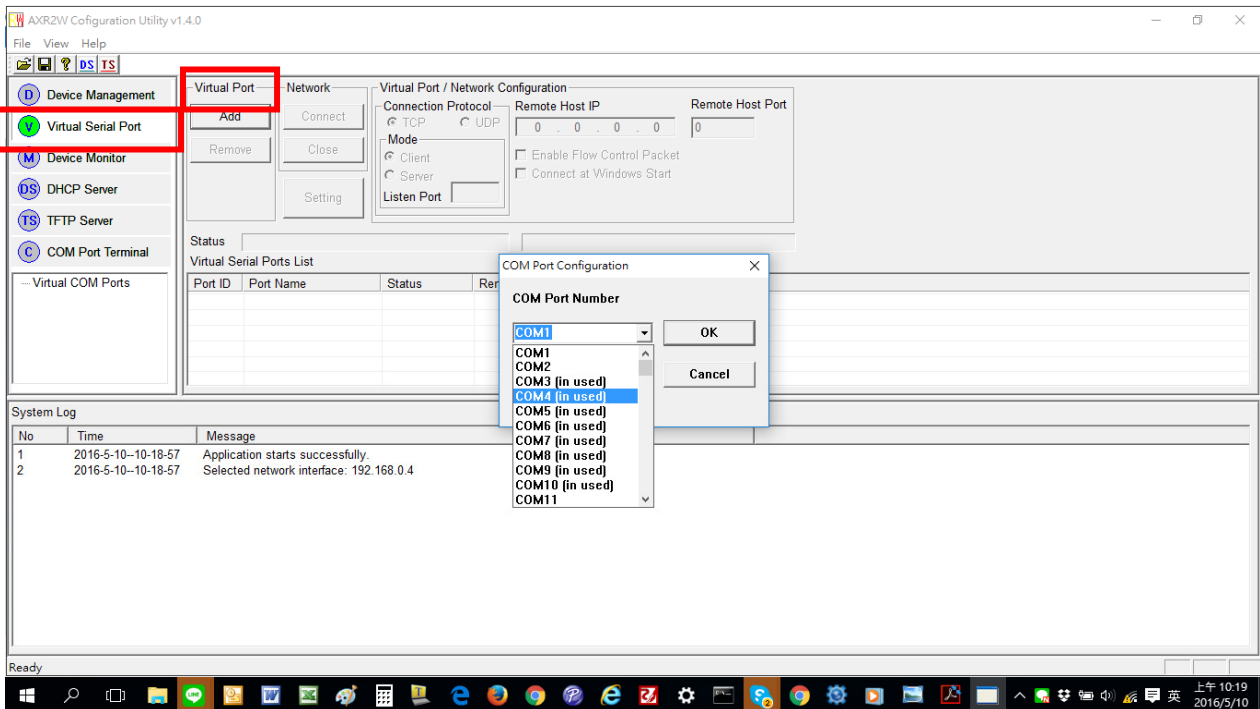
| Network setting | Serial port setting | WiFi setting | DHCP Server Setting |

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.**
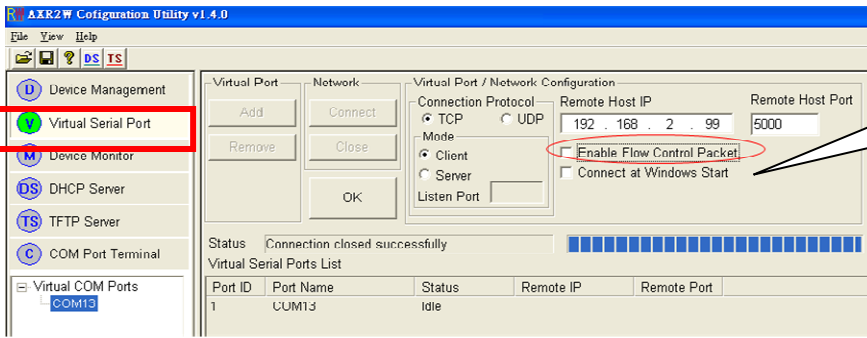
Please disable Flow Control function.
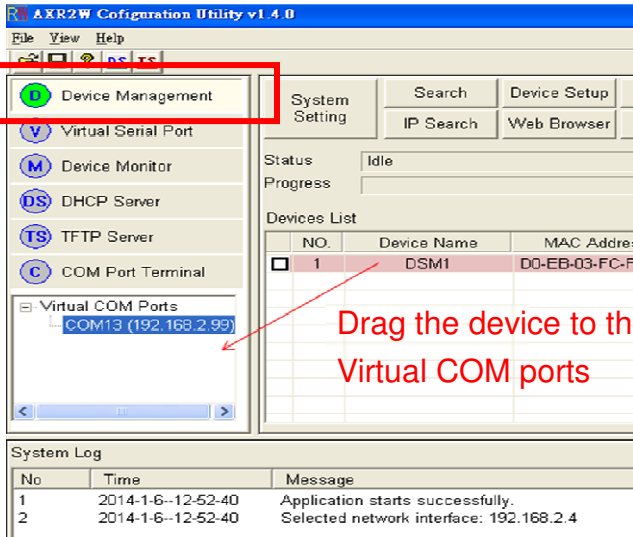
Drag the device to the Virtual COM ports

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. RS-422/485 Connection: 4 ports of terminal block

7.1 Pin-out:

Terminator, only 1 in the loop if necessary.

4

GND (Near the terminal block
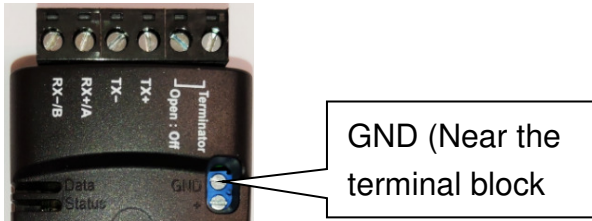
7.2 RS-485: Half Duplex, 2 Wires, RX+ (A), RX-(B)

OR
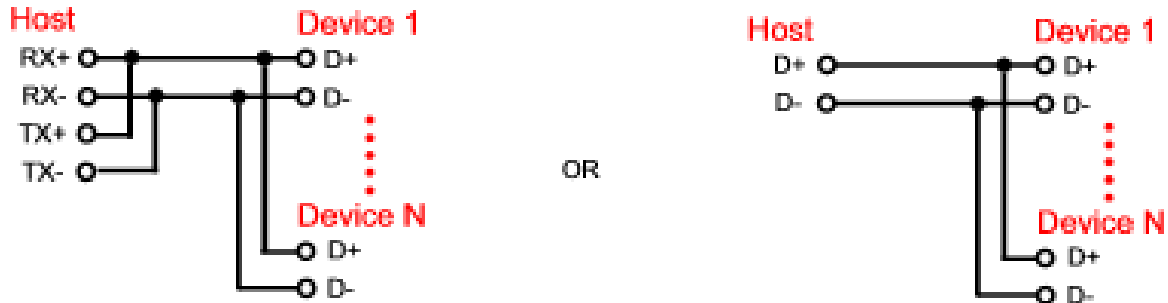
7.3 RS-422: Full Duplex, 4 Wires, RX+ (A), RX-(B), TX+, TX-
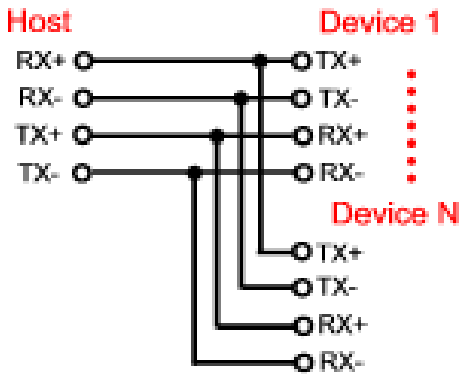
8. Command set:

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: connectype <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_contrl>

      <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_contrl>`: 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

Usage: jtagoff <status>

      <status>: 0: enable   1: disable

Usage: getotaname

Usage: countryid <id>

      <id>:

      0=World wide 13(2G_WORLD: 1~13)

      1=Europe(2G_ETSI1: 1~13)

      2=Japan(2G_MKK1: 1~14)

      20=United States(2G_FCC2: 1~13)

      Otherwise=Unavailable

Usage: dhcpsrv <start addr> <end addr> <lease>

Usage: transmitimer <time>

      <time>: time in ms, available value range is 10~65535 ms

Usage: dhcpstbl

Usage: scpincode <status>

      <status>: 0: disable   1: enable

Usage: cloud <hostname>

Usage: mbtcp <xferMode> <port>

      <xferMode>: 0: MODBUS TCP   1: Transparent TCP

      <port>: TCP server port number, default is 502

Usage: mbst <ResponseTimeOut> <InterFrameDelay> <InterCharDelay>

      <ResponseTimeOut>: Response timeout(10~65000ms)

      <InterFrameDelay>: Interval time of frame sending(10~500ms)

      <InterCharDelay>:   Inter-Character timeout for frame receiving(10~500ms)

Usage: wifi_simple_config <pinCode>

9. Online help: "help" command (Available for RS-232 setup only)

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

Simple AP
TCP Server

Connect directly
Max. 4 clients

Station mode
TCP Client (Host IP is the
same as the TCP server)