1. Product profile:

Block Terminal Connector:
RX-/B  RX+/A  TX-  TX+

LED:
Data: Red
Status: Blue

Switch:
RS485
RS422

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

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 24 VDC input from the blue block terminal.

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.

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.
3.3 RS-232:

Step 1: Connect the adapter via WiFi and connect the RS-232 connector
Step 2: Execute COM port tool software
Step 3: Set baud rate: 115200 bps
Step 4: Key in "+++" and then Enter
Step 5: 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

<table>
<thead>
<tr>
<th>Running Image</th>
<th>WiFi Mode</th>
<th>Status LED Indicator</th>
<th>WiFi State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default</td>
<td>Station</td>
<td>Off</td>
<td>Disconnect</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Blinking by 0.5sec period</td>
<td>BSS connected</td>
</tr>
<tr>
<td></td>
<td>AP</td>
<td>Blinking by 0.5sec period</td>
<td>Running</td>
</tr>
<tr>
<td>Upgrade</td>
<td>Station</td>
<td>Off</td>
<td>Disconnect</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Always light</td>
<td>BSS connected</td>
</tr>
<tr>
<td></td>
<td>AP</td>
<td>Blinking by 2sec period</td>
<td>Running</td>
</tr>
</tbody>
</table>

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 as the software reset.
7. RS-422/485 Connection: 4 ports of terminal block

7.1 Pin-out:

7.2 RS-485: Half Duplex, 2 Wires, RX+ (A), RX-(B)

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: setgw <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_iidx <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: 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) key
   <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: setdhcppsrv <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
Usage: rcts <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(10~65000 ms)
  <InterFrameDelay>: Interval time of frame sending(10~500ms)
  <InterCharDelay>:  Inter-Character timeout for frame receiving(10~500ms)

Usage: wifi_simple_config <pinCode>


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

11. Test APP Download: If you need the sample code, please contact the supplier.
    iOS
    Android