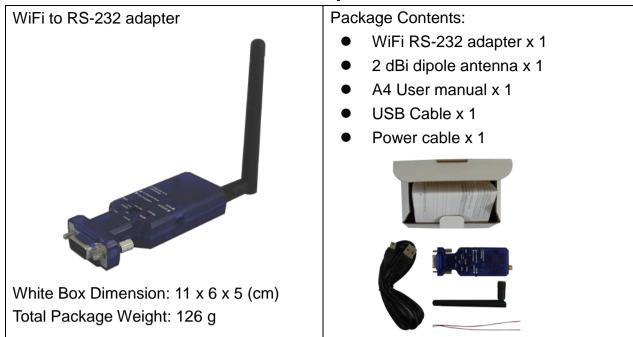
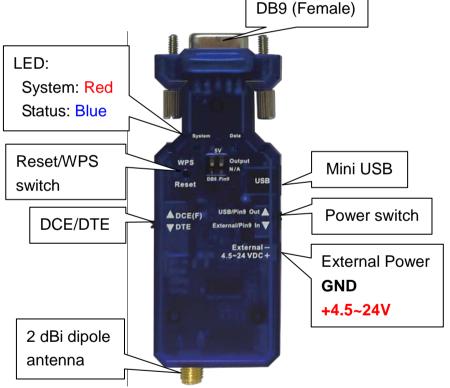
# WiFi to RS-232 adapter user manual



1. Product profile:



- 2. Start to use the adapter
- 2.1 Please fasten the external antenna to the adapter.
- 2.2 Power input: Mini USB cable (5VDC) or DB9 connector Pin 9 (5VDC) or <u>external power</u> supply (4.8~24VDC, 1.0 A Max.), please choose 1 source.
- 2.3 COM port default setting:
  - Baud rate: 115,200 bps
  - Data bit: 8
  - Parity: none
  - Stop bit: 1
  - Flow control: none

2.4 Network default setting:

- Simple AP with DHCP server
- SSID: Serial2WiFi\_ab\_cd ("ab" and "cd" is the last 4 code of Mac address)
- Security(WPA2): 12345678
- IP: 192.168.10.1
- Socket port: 8080
- Channel: 6
- Log in ID: admin
- Log in password: admin

2.5 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.

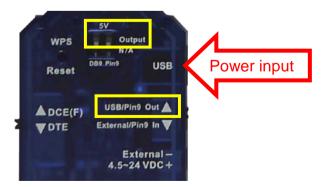
- 3. DB9 Pin9 Power Input or Output:
- 3.1 External Power input or DB9 Pin 9 Power input: The two DIP switches toward N/A side by default. Please do not switch any DIP switch toward the 5V side when the power switch is in the "External/Pin9 In" side.



Remark: The power cable is used for the external power input which support larger range of voltage, 4.5~24VDC.

## 3.2 DB9 Pin 9 Power output:

The DB9 Pin9 will power the external device by 5VDC via DB9 Pin9 when the power input comes from USB only. Please choose the USB adapter which will power larger than 1000mAh and do not power the external device which will consume exceed 100 mAh.



3.3 The RS-232 temperature/humidity sensor, active RFID reader or other sensors will be powered by the DB9 pin9 directly without extra power supply. If you need the options, please contact the suppliers.

- 4. Configuration:
- 4.1 Log in:
  - Connect with the WiFi RS-232 adapter by PC,NB or Mobile terminal
  - SSID: Serial2WiFi\_ab\_cd (abcd: Last 4 code of the Mac address)
  - Security code: 12345678
  - Execute browser, type IP address: 192.168.10.1
  - ID: admin
  - Password: admin

## 4.2 Serial setting:

- Baud Rate: 9600~921600 bps
- Data Bits: 8 only
- Parity: None, Odd, Even
- Stop Bits: 1 only

● ● ● ● │ <u>192.168.10.1/index.html#</u> ×	● ● ● ● ☐ 192.168.10.1/index.html# ×		
← → C ⋒ 🗋 192.168.10.1/index.html#/serial	← → C ☆ 192.168.10.1/index.html#/serial		
SERIAL-WIFI Serial Wi-Fi Network Applications System Reboot	SERIAL-WIFI Serial Wi-Fi Network Applications System Reboot		
R\$232	RS232		
Data Baud Rate       ✓ 9600       Custom Baud (9600 bps at least         Data Bits       19200         Data Parity       57600         Data Stop Bits       230400         Flow Control       460800         \$7600       921600	) Data Baud Rate 9600 Custom Baud (9600 bps at least ) Data Bits 8 C Data Parity None Data Stop Bits Even Flow Control None Cancel		
● ○ ○ ☐ 192.168.10.1/index.html# ×	● ● ● ●   192.168.10.1/index.html# ×		
← → C ☆ □ 192.168.10.1/index.html#/serial	← → C ⋒ 192.168.10.1/index.html#/serial		
SERIAL-WIFI Seriar WI-Fi Network Applications System Reboot	SERIAL-WIFI Serial Wi-Fi Network Applications System Reboot		
R\$232	R\$232		
Data Baud Rate 9600 + Custom Baud (9600 bps at least ) Data Bits 8 +	Data Baud Rate 500000 Custom Baud (9600 bps at least ) Data Bits 8 🛊		
Data Stop Bits 1 +	Data Parity None Data Stop Bits 1 Data Stop Bits 1		
Flow Control Vone Hardware	Data Stop Bits 1 + Flow Control None + Save Cancel Please type the none-standard baud rate here		

4.3 WiFi setting:

Mode: Simple AP, Station, Dual (AP & Station) Encryption: Open, WPA TKIP, WPA AES, WPA2 TKIP, WPS2 AES Channel: auto,1~11, 6 (default)

#### Date: 2015.01.05

User Manual V1	0.1
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● ● ● ●	● ● ● ● │ 192.168.10.1/index.html# ×
← → C f 192.168.10.1/index.html#/wifi	← → C f [] 192.168.10.1/index.html#/wifi
SERIAL-WIFI Serial Wi-Fi Network Applications System Reboot	SERIAL-WIFI Serial WI-FI Network Applications System Reboot
Wi-Fi Mode Self SSID Self SSID Self Key Type WPA2 AES Self Key 12345678 Self Channel 6	Wi-Fi Mode Open WPA TKIP WPA AES WPA2 TKIP Self Key Type VWPA2 AES Self Key 12345678 Self Channel 6 \$
Save Cancel	Save Cancel ● ● ● ● □ 192.168.10.1/index.html# × ← → C ☆ □ 192.168.10.1/index.html#/wifi
← → C Ă 🗋 192.168.10.1/index.html#/wifi	<
SERIAL-WIFI Serial Wi-Fi Network Applications System Reboot	SERIAL-WIFI Seria Wi-Fi Network Applications System Reboot
Wi-Fi Mode Simple AP 🔹	Wi-Fi Mode Station
Self SSID 1 2WIFI_96_8E	Site Survey Scan Scanning .
Self Key Type 2 3 AES \$	
Self Key 4 678	Target Key Type WPA2 MIXED \$
Self Channel 🗸 6	Target Key
7 8 9 10 11	Save Cancel

# 4.4 Network setting:

● ● ● ● □ 192.168.10.1/index.html# ×		
← → C f 192.168.10.1/index.html#/network		
SERIAL-WIFI Serial Wi-F	Network Applications System Reboot	
DHCP Client	Disable 🗲	
Static IP	192.168.0.100	
Static Netmask	255.255.255.0	
Static Default Gateway	192.168.0.255	
Static DNS Server	8.8.8	
•	Save Cancel	
	<ul> <li>← → C A □ 192.</li> <li>SERIAL-WIFI Serial WI-F</li> <li>DHCP Client</li> <li>Static IP</li> <li>Static Netmask</li> <li>Static Default</li> <li>Gateway</li> <li>Static DNS Server</li> </ul>	

- 4.5 Applications:
- 4.5.1 M2M: TCP Server and TCP Client
- 4.5.2 HTTP Client: GET and POST

		● ● ● ● │ 192.168.10.1/index.html# ×	
← → C ⋒ 🗋 192.168.10.1/index.html#/applications		← → C ☆ 192.168.10.1/index.html#/applications	
SERIAL-WIFI Serial Wi-Fi Network Applica	tions System Reboot	SERIAL-WIFI Serial Wi-Fi Network Applications ystem Reboot	
Application Connection Type Server Port 8080		Application Connection Type Server Por	
Modbus RTU CRC Padding	The function is	Modbus RTU CRC Padding	
Save Cancel	available on	Save Cancel	
	RS-485 adapter		
● ○ ○ ☐ 192.168.10.1/index.html# ×		● ● ● ● □ 192.168.10.1/index.html# ×	
← → C ⋒ 🗋 192.168.10.1/index.htm	#/applications	← → C ♠ 🗋 192.168.10.1/index.html#/applications	
SERIAL-WIFI Serial Wi-Fi Network Applic	ations System Reboot	SERIAL-WIFI Serial Wi-Fi Networ Applications System Reboot	
		Application (HTTP Client +	
Application M2M		HTTP Host/IP api.example.com	
Connection Type TCP Client \$		HTTP Port 80	
Host/IP		HTTP Query String //user.prog?data=	
Client Destination Port 8080		HTTP Method ✓ GET	
Save Cancel		POST	
	•	Save Cancel	
		-	
System:			
	ex.html#/system	_	
● ● ● ● ☐ 192.168.10.1/index.html# ×	System Report	√ version and	
● ○ ○       □ 192.168.10.1/index.html# ×         ← → C ☆       □ 192.168.10.1/index         SERIAL-WIFI Serial Wi-Fi Network Applications	System Reboot F/W	√ version and	
● ● ●       □ 192.168.10.1/index.html# ×         ← → C ☆       □ 192.168.10.1/index	System Reboot F/W	V version and ac address	
O O ☐ 192.168.10.1/index.html# ×     ← → C ☆ ☐ 192.168.10.1/inde     SERIAL-WIFI Serial Wi-Fi Network Applications     Firmware Revision: IWM021-v1.0.17	System Reboot F/W		
O O □ 192.168.10.1/index.html# ×     ← → C ☆ □ 192.168.10.1/index     SERIAL-WIFI Serial Wi-Fi Network Applications     Firmware Revision: IWM021-v1.0.17     MAC: B0:38:29:15:96:8E	System Reboot F/W Mac address will	ac address	
O O □ 192.168.10.1/index.html# ×     ← → C ☆ □ 192.168.10.1/index     SERIAL-WIFI Serial Wi-Fi Network Applications     Firmware Revision: IWM021-v1.0.17     MAC: B0:38:29:15:96:8E     Print MAC	System Reboot F/W	ac address	
O O □ 192.168.10.1/index.html# ×      ← → C ↑ □ 192.168.10.1/index  SERIAL-WIFI Serial Wi-Fi Network Applications  Firmware Revision: IWM021-v1.0.17 MAC: 80:38:29:15:96:8E  Print MAC  Station IP: 0.0.0	System Reboot F/W Mac address will	ort The I/O function is not	
● ● ● ● ● ● 192.168.10.1/index.html# ×         ← → C ↑ ● 192.168.10.1/index         SERIAL-WIFI Serial Wi-Fi Network Applications         Firmware Revision: IWM021-v1.0.17         MAC: B0:38:29:15:96:8E         Print MAC         Station IP: 0.0.00         GPO 0:       Off         Off       On         GPO 1:       Off	System Reboot F/M Mac address will output to serial po	ort The I/O function is not available for serial adapter	
O O □ 192.168.10.1/index.html# ×     ← → C ☆ □ 192.168.10.1/index     SERIAL-WIFI Serial Wi-Fi Network Applications     Firmware Revision: IWM021-v1.0.17     MAC: B0:38:29:15:96:8E     Print MAC     Station IP: 0.0.00     GPO 0: Off On	System Reboot F/M Mac address will output to serial po	ort The I/O function is not available for serial adapter P Setting	
●       ●       ●       □       192.168.10.1/index.html# ×         ←       →       C*       ▲       □       192.168.10.1/index.html# ×         ←       →       C*       ▲       □       192.168.10.1/index.html# ×         SERIAL-WIFI Serial Wi-Fi Network Applications         Firmware Revision: IWM021-v1.0.17         MAC: B0:38:29:15:96:8E         Print MAC         Station IP: 0.0.0.0         GPO 0:       Off         Off       On         GPO 1:       Off	System Reboot F/M Mac address will output to serial po	ort The I/O function is not available for serial adapter	
O O □ 192.168.10.1/index.html# ×     ← → C ☆ □ 192.168.10.1/index     SERIAL-WIFI Serial Wi-Fi Network Applications     Firmware Revision: IWM021-v1.0.17     MAC: B0:38:29:15:96:8E     Print MAC     Station IP: 0.0.00     GPO 0: Off On     GPO 1: Off On     GPO 1: Off On     Change Password	System Reboot F/M Mac address will output to serial po	ort The I/O function is not available for serial adapter	
	System Reboot F/M Mac address will output to serial po	ac address ort The I/O function is not available for serial adapter P Setting Enable NTP Enable Time Server pool.ntp.org Time Zone GMT	
	System Reboot F/M Mac address will output to serial po	ort The I/O function is not available for serial adapter P Setting Enable NTP Enable \$ Time Server pool.ntp.org	
O O I 192.168.10.1/index.html ×     ← → C ↑ I I 192.168.10.1/index     SERIAL-WIFI Serial Wi-Fi Network Applications     Firmware Revision: IWM021-v1.0.17     MAC: B0:38:29:15:96:8E     Print MAC     Station IP: 0.0.0     GPO 0: Off On     GPO 1: Off On     GPO 1: Off On     Change Password     New Password     New Password     Change Password	System Reboot F/M Mac address will output to serial po	ac address  The I/O function is not available for serial adapter  P Setting  Enable NTP Enable \$  Time Server pool.ntp.org  Time Zone GMT \$  Update Period \$	
O O I 192.168.10.1/index.html# ×     ← → C A I 192.168.10.1/index     SERIAL-WIFI Serial Wi-Fi Network Applications     Firmware Revision: IWM021-v1.0.17     MAC: B0:38:29:15:96:8E     Print MAC     Station IP: 0.0.0     GPO 0: Off On     GPO 1: Off On     GPO 1: Off On     Change Password     Change Password     New Password     New Password     New Password     New Password     New Password     Interference Password     New Password     Interference Password     Change Password     Interference Pass	System Reboot F/M Mac Mac address will output to serial po	ac address  The I/O function is not available for serial adapter  P Setting  Enable NTP Enable  Time Server pool.ntp.org Time Zone GMT	
← → C ↑       □ 192.168.10.1/index         SERIAL-WIFI Serial Wi-Fi Network Applications         Firmware Revision: IWM021-v1.0.17         MAC: B0:38:29:15:96:8E         Print MAC         Station IP: 0.0.00         GPO 0:       Off         Off       On         GPO 1:       Off         Off       On         Change Password	System Reboot F/M Mac Mac address will output to serial po NT Enable	ac address  The I/O function is not available for serial adapter  P Setting  Enable NTP Enable \$  Time Server pool.ntp.org  Time Zone GMT \$  Update Period \$	

Change Password			
	GMT-12:00		
Current Password	GMT-11:00		
	GMT-10:00		
New Password	GMT-9:00		
	GMT-8:00	N	NTP Setting
	GMT-7:00		Enable NTP (Enable 🛊)
	GMT-6:00		
NTP Setting	GMT-5:00		Time Server pool.ntp.org
	GMT-4:00		poolinip.org
Enable NTP	GMT-3:00		Time Zone GMT
Time Server	GMT-2:00		
	GMT-1:00		Update Period 🖌
Time Zone			10 mins
Update Period	GMT+1:00		30 mins ing Cancel
	GMT+2:00		1 hour
	GMT+3:00	Cancel	
	GMT+3:30		3 hours
	GMT+4:00		5 hours
	GMT+4:30		1 day
	GMT+5:00		3 days
	GMT+5:30		
	GMT+6:00		5 days
	•		

Remark: The NTP data will be bundled with the sensor data for the application of IOT, Internet of Things. If you need the function, the F/W will be modified.

5. LED indication:

LED	Status	
Red	Indicates system ready	
Blue	Solid On: WiFi connected	
	Flash: data is transmitted through WiFi	

- 6. WPS/Reset button: Please put the paperclip or small pin into the hole for pressing the button.
- 6.1 WPS: Press the button in short time which is not longer than 3 seconds.
- 6.2 Reset to default setting: Press the 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.
- 7. RS232 Interface: DB9 Female with Nut
- 7.1 Pin-out:
- 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 1)

## 7.3 DSR/DTR Connection:

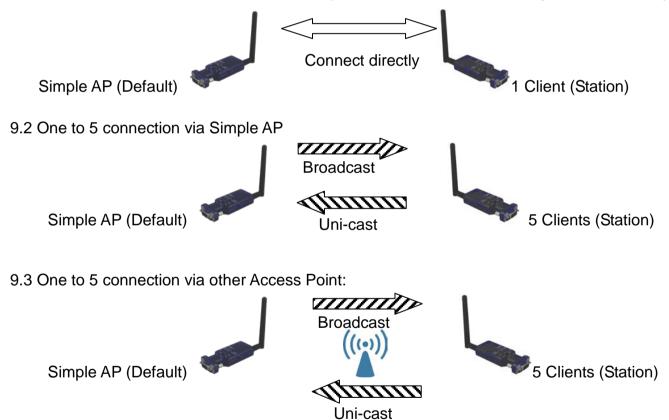
≟ Original	Add
5 P1	5 P2
	9     0       4     0       0
	7     ◇       8     >       7     ◇       8     >       8     >       8     >       8     >       9     ◇       9     ◇       9     ◇       9     ◇       9     ◇       9     ◇       9     ◇       9     ◇       9     ◇       9     ◇       9     ◇       9     ◇       9     ◇       9     ◇       9     ◇       9     ◇       9     ◇       9     ◇       9 </th
DB9_female	DB9_female

### 8. Command set: Not Available

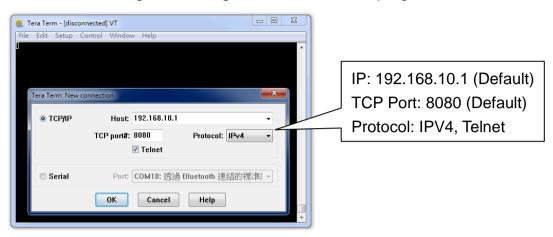
ITEM	FUNCATION	COMMAND
1	Inquire the setting of the adapter	
2	Set the COM port parameters	

## 9. Network:

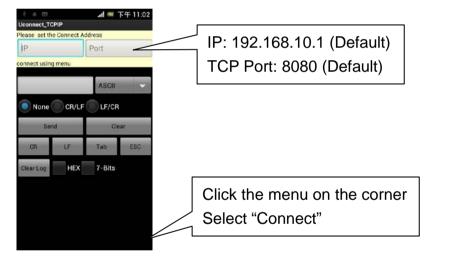
9.1 One to one connection: The two WiFi adapters will be connected directly without access point.



- 10. Virtual COM port
- 10.1 Factory Mac bundled Virtual Serial Port (VSP) Driver (Will be available soon)
- 10.2 Reference Driver: www.eterlogic.com
- 11. Test software:
- 11.1 Teraterm: ASCII code terminal emulator for TCP/IP socket and COM Port. Please search "teraterm" on Google searching and install the main program.



11.2 Android APP: Android terminal emulator of TCP/IP socket. Support ASCII or Binary format. Please search "uconnect" on Google Play site choose the TCP/IP type.





- 12. Options: Please contact the vendors.
- 12.1 RS-232 Temperature and Humidity Sensor
- 12.2 RS-232 Bluetooth BLE Active RFID Reader
- 12.3 RS-232 Gas, CO, CO2, Smoke Sensor
- 12.4 IR Temperature Sensor
- 12.5 IR Remote controller
- 12.6 Power Plug Remote controller
- 12.7 LED Light DAC Remote controller
- 12.8 Home Gateway
- 12.9 Indoor Real Time Location System (RTLS)

Remark: All contents are subject to change without notice.