

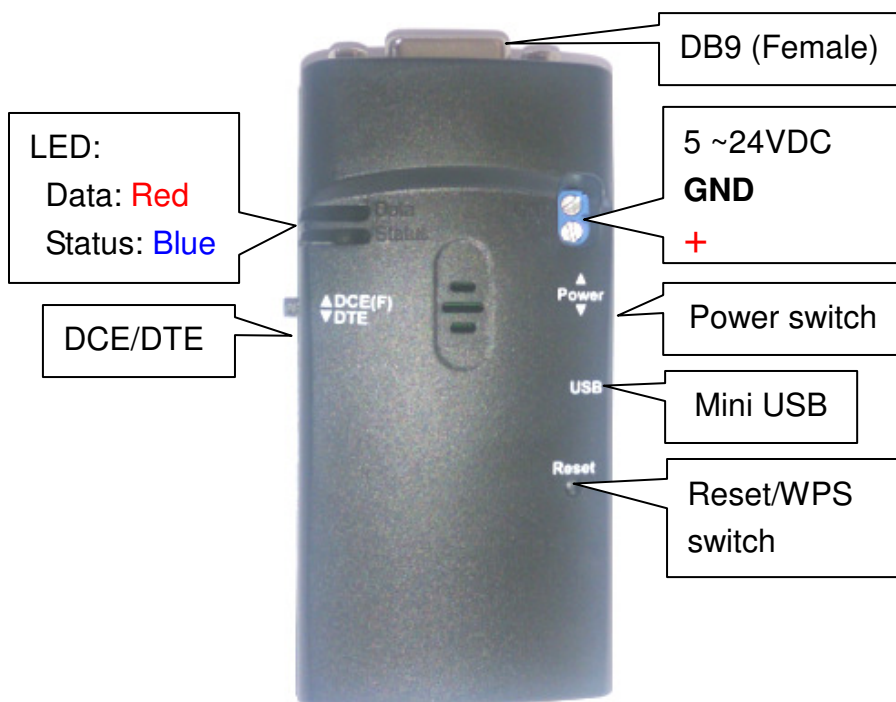


## WiFi to RS-232 adapter user manual

<p>WiFi to RS-232 adapter</p>  <p>White Box Dimension: 11 x 6 x 5 (cm) 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>● A4 User manual x 1</li> <li>● Mini USB Cable x 1</li> </ul> 
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### 1. Product profile: Female DB9 connector with nut.



### 2. Start to use the adapter

2.1 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.

#### 2.2 COM port default setting:

- Baud rate: 115200 bps
- Data bit: 8
- Parity: none
- Stop bit: 1
- Flow control: none

#### 2.3 Network default setting:

- Simple AP (support DHCP server)
- SSID: MXCHIP\_xxxxxx (xx means mac address)
- No Security
- IP: 192.168.1.1
- Socket port: 8080
- Log in ID: admin
- Log in password: admin

2.4 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.

2.5 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. 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: Scan and connect the AP named “MXCHIP\_xxxxxx”

Step2: http://192.168.1.1 on browser

Step3: Log in

Username: admin

Password: admin

You can configure the WiFi and COM port parameters from the web page. Press “Save” when setup ready.

3.1.1 Main function:

#### Basic Advance System

WiFi Mode:	AP Server ▾		
Main AP:	SSID: MXCHIP_200033	NONE ▾	Key: <input type="text"/>
Extra AP 1:	SSID: <input type="text"/>	WEP ▾	Key: <input type="text"/>
Extra AP 2:	SSID: <input type="text"/>	WEP ▾	Key: <input type="text"/>
Extra AP 3:	SSID: <input type="text"/>	WEP ▾	Key: <input type="text"/>
Extra AP 4:	SSID: <input type="text"/>	WEP ▾	Key: <input type="text"/>
AP Server:	SSID: <input type="text"/>	WPA ▾	<input type="text"/>
Socket Mode:	Server ▾		
DHCP Select:	Disable ▾		
Local IP:	<input type="text" value="192.168.1.1"/>		
Netmask:	<input type="text" value="255.255.255.0"/>		
Gateway IP:	<input type="text" value="192.168.1.1"/>		
DNS Server:	<input type="text" value="192.168.1.1"/>		
Remote Server Mode:	IP ▾		
Remote Server:	<input type="text" value="114.91.236.155"/>		
Remote Port Number:	<input type="text" value="8080"/>		
Local Port Number:	<input type="text" value="8080"/>		
TCP/UDP Select:	TCP ▾		
Extra Socket:	Disable ▾		

Extra Remote Address:	<input type="text"/>
Extra Remote Port:	<input type="text" value="0"/>
Extra Local Port:	<input type="text" value="0"/>
UART BuadRate:	<input type="text" value="115200"/>
UART Parity:	<input type="text" value="none"/>
UART Data Length:	<input type="text" value="8 bits"/>
UART Stop Bits Length:	<input type="text" value="1 bit"/>
CTS/RTS Select:	<input type="text" value="Disable"/>
DMA Buffer Size:	<input type="text" value="2"/>
UART Data Tranceiver Mode:	<input type="text" value="Time Stamp Mode: 100ms"/>
IO1 Function:	<input type="text" value="Not used"/>
WiFi PowerSave Mode:	<input type="text" value="Disable"/>
WiFi Sleep Unit:	<input type="text" value="Millisecond"/>
Unicast Timeout:	<input type="text" value="1000"/>
Multicast Timeout:	<input type="text" value="200"/>
TxPower:	<input type="text" value="31"/>
TCP Keepalive Retry Num:	<input type="text" value="4"/>
TCP Keepalive Time(second):	<input type="text" value="120"/>
SOCKS Proxy Type	<input type="text" value="Disable"/>

Proxy Server Addr	<input type="text" value="0.0.0.0"/>
Proxy Server Port	<input type="text" value="0"/>
Proxy Username	<input type="text"/>
Proxy Passwd	<input type="text"/>
Main Socket	<input type="text" value="Don't Use SOCKS Proxy"/>
Extra Socket	<input type="text" value="Don't Use SOCKS Proxy"/>
Web Username:	<input type="text" value="admin"/>
Web Password:	<input type="text" value="admin"/>
Device Name:	<input type="text" value="EMW_3161 (200033)"/>

### 3.1.2 Serial Port setting:

CTS/RTS Select:	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
DMA Buffer Size:	<input type="text"/>
UART Stop Bits Length:	<input checked="" type="radio"/> 1 bit <input type="radio"/> 0.5 bit <input type="radio"/> 2 bits <input type="radio"/> 1.5 bits
CTS/RTS Select:	
DMA Buffer Size:	

UART Data Length:  
UART Stop Bits Length:

✓ 8 bits

9 bits

UART Parity:  
UART Data Length:  
UART Stop Bits Length:

✓ none

even parity

odd parity

Extra Socket:  
Extra Remote Address:  
Extra Remote Port:  
Extra Local Port:  
UART BuadRate:  
UART Parity:  
UART Data Length:  
UART Stop Bits Length:

1200

2400

4800

9600

19200

38400

57600

✓ 115200

230400

460800

921600

1843200

3686400

IO1 Function:  
WiFi PowerSave Mode:

✓ Not used

uart frame control(input)

485 TX control(output)

UART Stop Bits Length:  
CTS/RTS Select:  
DMA Buffer Size:  
UART Data Tranceiver Mode ✓  
IO1 Function:  
WiFi PowerSave Mode:

1 bit

Data Flow Mode

Package Mode

Time Stamp Mode: 20ms

Time Stamp Mode: 50ms

Time Stamp Mode: 100ms

Time Stamp Mode: 150ms

Time Stamp Mode: 200ms

Package Mode2

3.1.3 WiFi setting:

Basic Advance System  
WiFi Mode:  
Main AP:

AP Client

✓ AP Server

Dual Mode

Basic

Advance

System

WiFi Mode:

AP Server

Main AP:

SSID: MXCHIP\_200033

WEP

WPA

☒ NONE

WEP-HEX

AUTO

WPS-PBC

WPS-PIN

Key:

Extra AP 1:

SSID:

Key:

Extra AP 2:

SSID:

Key:

Extra AP 3:

SSID:

WEP

Key:

Extra AP 4:

SSID:

WEP

Key:

AP Server:

SSID:

WPA

Remote Port Number:

8080

Local Port Number:

TCP Server

TCP Client

UDP Unicast

UDP Broadcast

☒ Disable

Main Socket

Extra Socket

☒ Don't Use SOCKS Proxy

Use SOCKS Proxy

SOCKS Proxy Type

Proxy Server Addr

☒ Disable

Version 4

Version 5

WiFi Sleep Unit:

Unicast Timeout:

☒ Millisecond

Beacon

WiFi PowerSave Mode:

WiFi Sleep Unit:

☒ Disable

Enable

TCP/UDP Select:

Extra Socket:

☒ TCP

UDP

DNS Server:

Remote Server Mode:

192.168.1.1

DNS

☒ IP

DHCP Select:

Local IP:

☒ Disable

Enable

3.1.4 Firmware upgrade:

Basic Advance System  
Version: 31610302.001

queue: 0, UART RX: 0Bytes ,head 0, tail 0, count 0

Update firmware:  未選擇檔案

### 3.2 Command Set via WiFi

You can send the command to the adapter from UDP protocol on port 8089 when the adapter is connected to a wireless network. You can send a command to all of the local adapters using a UDP broadcast, and each adapter can return the result by an UDP unicast package.

**Remark: Please check the “RM0001E\_mxchipWNet\_DTU\_V4.pdf” document on Page 26 Section 4. The adapter will not support the command set via serial port.**

### 4. LED indication:

LED	Status	Function Description
Red	On	Firmware initialize successful
	Off	Firmware uninitialized or deep sleep mode
	Flash	Firmware update mode
Blue	On	WiFi connected, DHCP negotiate success
	Off	WiFi disconnected
	Keep Flash	Data transmission/WPS negotiating/EasyLink mode

### 6. WPS/ Reset button:

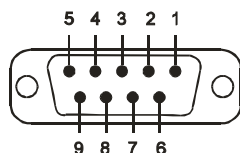
6.1 WPS: Pull down and up to enter WiFi protected setup (WPS)

6.2 EasyLink: Double click to enter one step configuration method.

6.3 Reset to default value: Pull down and keep for 5 seconds to restore all settings to default value.

### 7. RS232 Interface: DB9 Female with Nut

#### 7.1 Pin-out:



#### 7.2 Signals:

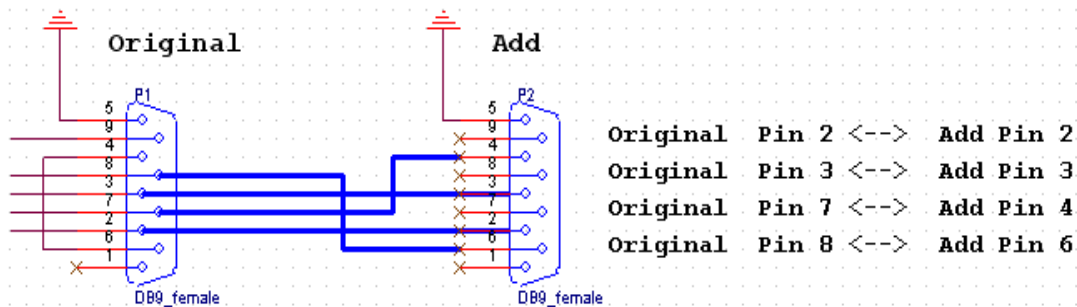
Pin	Signal	DTE Direction	DCE Direction	Description
1	CD	Input	Output	Not connected
2	TxD	Output	Input	Transmitted data
3	RxD	Input	Output	Received data
4	DSR	Input	Output	Contact manufacturer to set this
5	GND	N/A	N/A	Signal ground
6	DTR	Output	Input	Contact manufacturer to set this
7	CTS	Input	Output	Clear to send



8	RTS	Output	Input	Request to send (Default)
9	Vcc	Input	Input	External Power supply (Remark 1)

Remark:

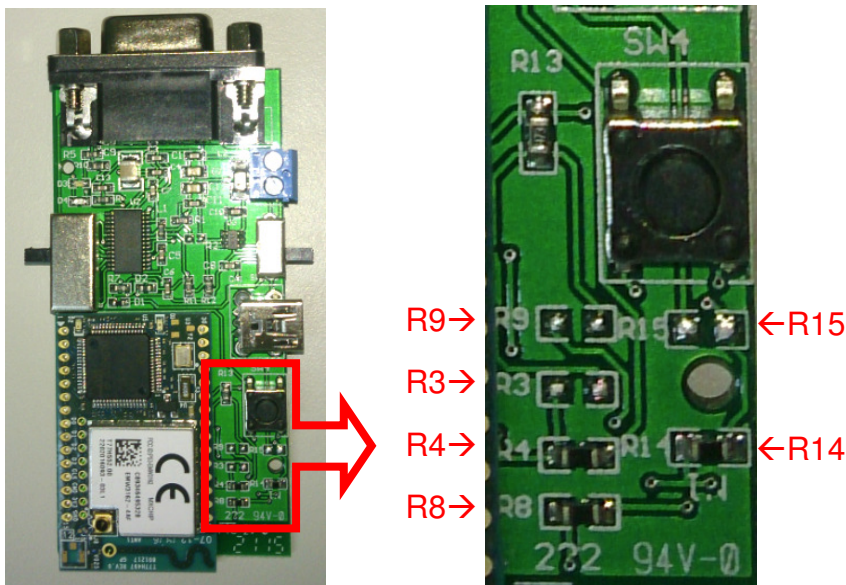
1. The adapter can be powered by the pin 9 of DB9. The default is available.
2. DSR/DTR Connection:



#### 8. RS-232/UART & Pin9 power Input/Output setting:

The adapter supports the RS-232/UART and DB9 pin9 power input/output switching setting by hand welding. The plastic housing will be opened by removing the screw on the rear side.

**Warning: Please power off before change the circuit or check the circuit before power on.**



Pin definition:

	R3	R4	R8	R9	R14	R15
RS-232	Open	Short	Short	Open		
UART(TTL)	Short	Open	Open	Short		
Pin9 of DB9 power input					Short	Open
Pin9 of DB9 power output					Open	Short
Pin9 of DB9					Open	Open

Remark:

1. Short circuit: Weld the 0 ohm resister or wire on the two ends.
2. Open circuit: Remove the 0 ohm resister or wire on the two ends.
3. The warranty will be void if the case is removed. Please confirm the requirements before ship the adapter.