

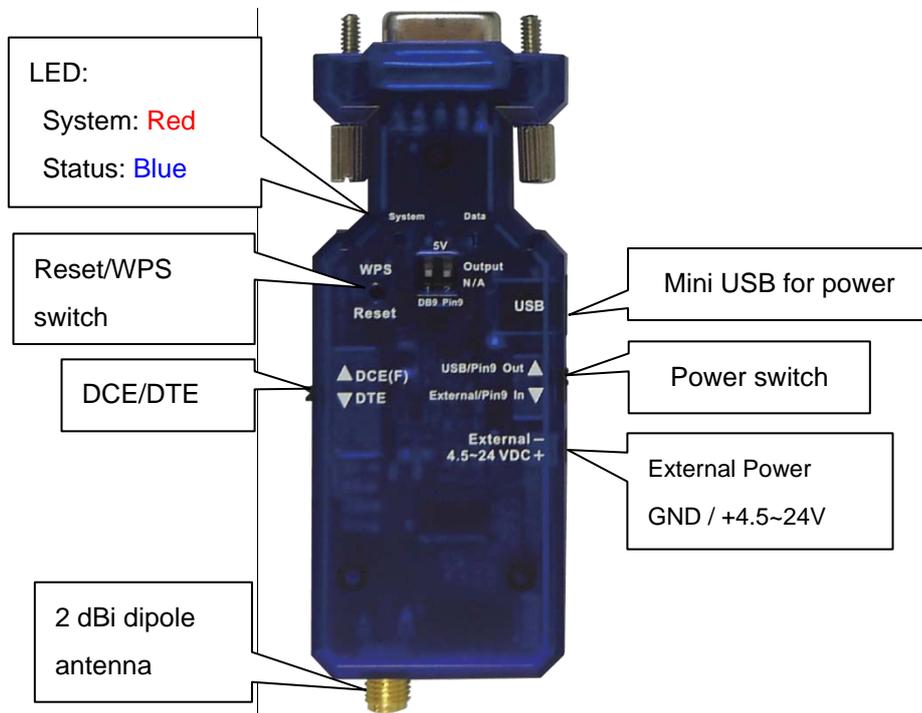


## Quick reference sheet for WiFi to RS-232 adapter UCW232C



### Package Contents:

- WiFi RS-232 adapter x 1
- 2 dBi dipole antenna x 1
- USB Cable x 1





SPECIFICATIONS	
Part number	UCW232C
Processor	Broadcom BCM4390 ARM Cortex-M3 @48MHz, 32-bit CPU + WLAN CORE Memory: 448KB RAM and 2MB flash
Operating system	Windows 7, Vista, XP, 2000 (32/64-bit)
Network	IEEE 802.11 b/g/n
Frequency	2.412 - 2.484 GHz
Security	WPA TKIP, WPA AES, WPA2 TKIP, WPS2 AES
Protocols	ARP, IP, ICMP, UDP, TCP, DHCP, Modbus TCP RTU (RS485)
Network mode	Simple AP, Station, Dual (AP & Station) / Infrastructure, Ad-Hoc
Transmit power	+17dBm @802.11b, +13dBm @802.11g, +11dBm @802.11n
Minimum receiver sensitivity	-80dBm
Power consumption	Max. 360mA peak at 3.3V
Baud rate	9600 to 921,600 bps
Data bits	8
Parity	None, even, odd
Stop bits	1
Parameter configuration	Web browser over WiFi
Operating distance	Up to 330 feet (100 meters)
DEC/DTE	Manual switch
RS232 Signals	TX, RX, CTS, RTS, GND
Flow control	Hardware RTS/CTS
Serial port	1-port RS232 female D-sub 9-pin
Antenna	External 2dBi di-pole, SMA Female
Power supply	<ul style="list-style-type: none"><li>• 5.0VDC by included mini USB cable</li><li>• 5.0 to 24.0VDC by screw terminals</li><li>• External power supply or battery</li></ul>
Operating temp.	0C to +70C
External battery option	Yes
Dimensions	88 x 33 x 16 mm
Certifications	CE, FCC, ROHS



Power

The adapter can be powered either through the mini USB port (max 5.5VDC) or through the screw terminals (max 24VDC).

Default COM port settings

- Baud rate: 9600 bps
- Data bit: 8
- Parity: none
- Stop bit: 1
- Flow control: none

Default network settings

- Adhoc mode (Simple AP), DHCP enabled
- SSID: Serial2WiFi\_ab\_cd (“ab” and “cd” is the last 4 digits of the MAC address)
- Security: WPA2, password: 12345678
- IP: 192.168.10.1
- Socket port: 8080
- Channel: 6
- Log in ID: admin
- Log in password: admin
- Parameter management
- The adapter’s parameters can be configured using a standard web-browser.
- Please refer to the setup guide “How to setup the UCW232C Serial WiFi adapter” for details.

Virtual COM port driver

A virtual COM port can be created with the included software utility.

Alternative compatible COM port software are:

- USB-VCOM
- PortShare
- Fabulatech COM port redirector

Please refer to the setup guide “How to setup the UCW232C Serial WiFi adapter” for details.

LED indication lights:

Mode	LED Status						Remark
Start *	Red (System):	off	on	off	off	on	Red LED solid on when ready
	Blue (Data):	off	on	off	flash ... (not ready)	off	
WPS	Red (System):	flash	go to *				Press and hold more than 1 sec.
	Blue (Data):	off	go to *				
Reset to default	Red (System):	off	go to *				Press and hold more than 5 sec.
	Blue (Data):	off	go to *				
Data	Blue (Data): flash when data input or output via serial port						
Failure	Red (System): off when system fail						
OTA	Red (System):	flash in turn with Blue(Data) LED				F/W upgrade	
	Blue (Data):	flash in turn with Red (System) LED					



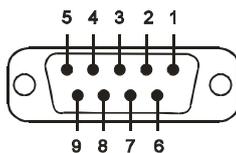
Reset / WPS button

Reset: Press the “Reset” button for more than 5 seconds. The LEDs will turn off for a few seconds and then the adapter will reboot to the default values.

WPS: Press the button for less than 3 seconds to enable WPS.

Firmware upgrade: Power off the adapter and press the reset button, then power on the adapter while holding the reset button. Release the reset button when the two LED lights are flashing; the adapter will then be in OTA mode and ready for the firmware upgrade.

DB9 female pin configuration



RS232 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*)

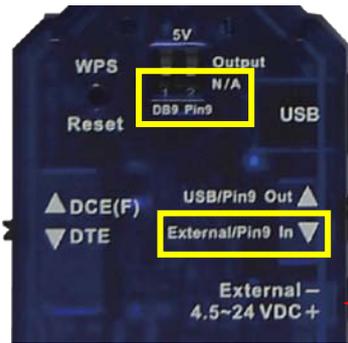
Remarks regarding pin 9:

DB9 Pin 9 can be set as either “external power input” in which case the adapter is powered through pin 9 or the small power connector on the side of the adapter or “external power output” in which case the adapter is powered through the USB port and provides power through pin 9 to a serial device connected to the adapter. This is controlled by the two DIP switches on top of the adapter and the slide switch on the side of the adapter.

DB9 Pin 9 Input Power: If both DIP switches are in position “N/A” (default position) and the slide switch is in position “External/Pin9”, then the adapter can be powered through pin 9 or the small 4.5-24VDC power connector on the side of the adapter. **Warning: do not switch the DIP switches on top of the adapter to the 5V position while the power switch on the side is in “External/Pin9” position; doing so may damage the adapter or the serial device connected to the adapter.** **Notice that if the adapter is powered through the small power connector, the voltage provided on the**



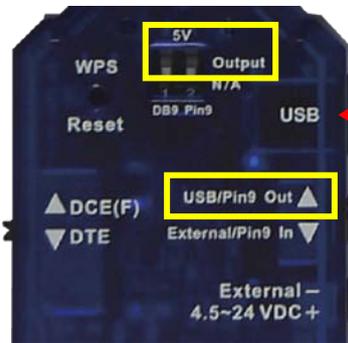
**connector will also be present on pin 9 if the DIP switches are in position "DB9 Pin9".**



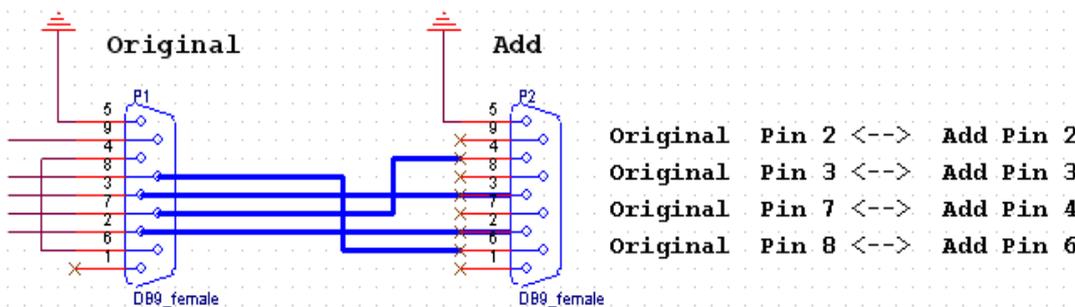
The small power connector on the side of the adapter can be used to power the adapter with a voltage ranging from 4.5 to 24VDC.

DB9 Pin 9 Output Power:

Pin 9 in the DB9 connector can be used to power an external device. Power on pin 9 can be achieved if the adapter is powered by 5VDC via an USB cable. The device powered by pin 9 should not exceed 100 mAh.



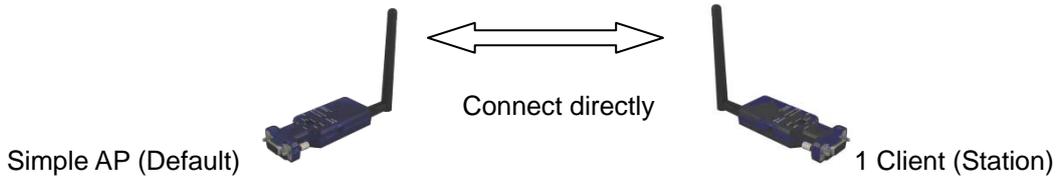
DSR/DTR Connection:



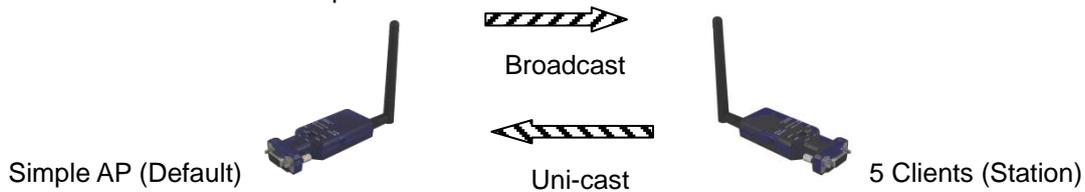


Setup examples.

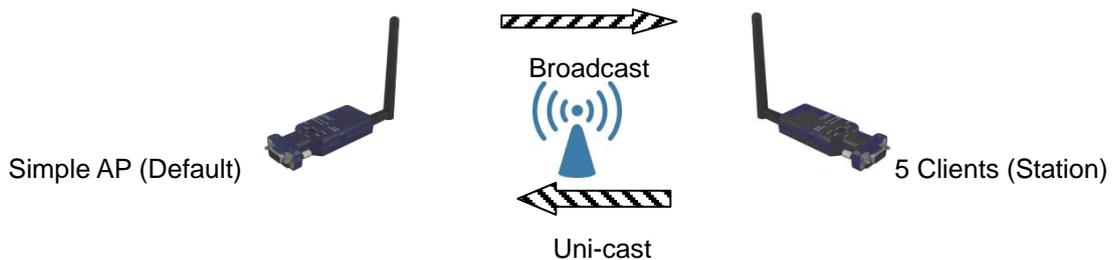
One to one connection: The two WiFi adapters will be connected directly without access point.



One to 5 connection via Simple AP



One to 5 connection via other Access Point:



Federal Communications Commission (FCC) Statement

RADIO FREQUENCY INTERFERENCE STATEMENT

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS.

- (1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE AND
- (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED , INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRE OPERATION.

Tested to comply with FCC standards for home or office use