

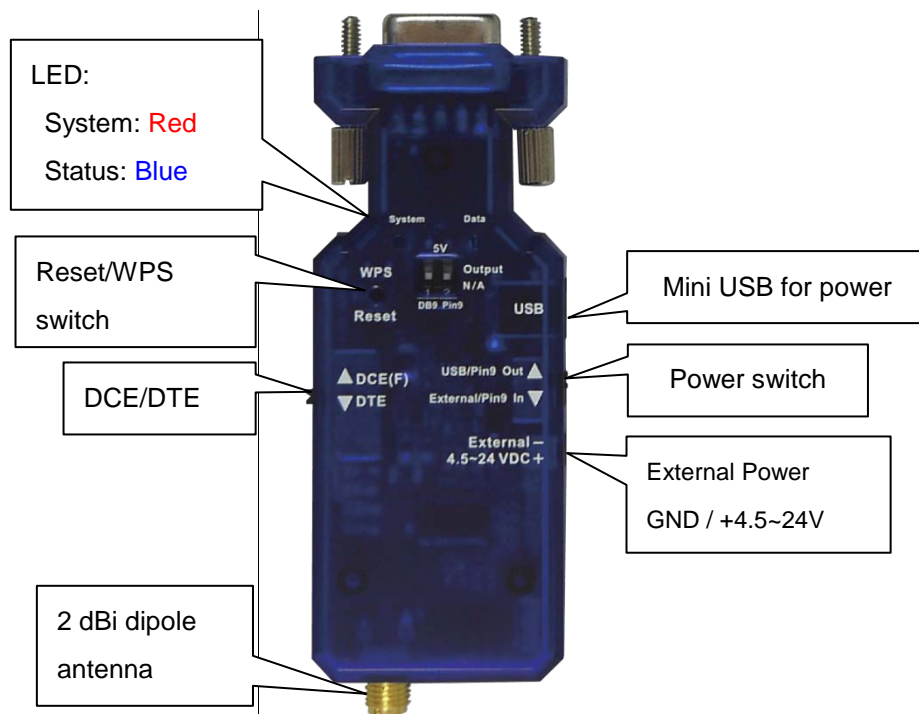


Quick reference sheet for WiFi to RS-232 adapter UCW232C



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">• 5.0VDC by included mini USB cable• 5.0 to 24.0VDC by screw terminals• External power supply or battery |
| 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.

A free terminal emulator APP for iOS is offered from the iTunes store:

<https://itunes.apple.com/WebObjects/MZStore.woa/wa/viewSoftware?id=1063937265&mt=8>

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 | | |

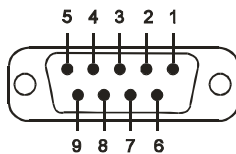
Reset / WPS button

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:

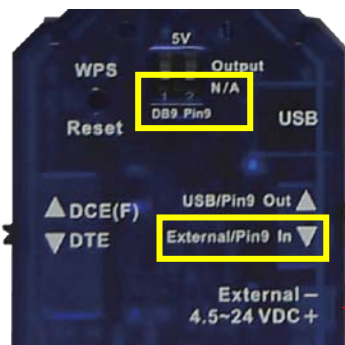
| Pin | Signal | DTE Direction | DCE Direction | Description |
|-----|--------|---------------|---------------|----------------------------------|
| 1 | CD | Input | Output | Not connected |
| 2 | TxD | Output | Input | Transmitted data |
| 3 | RxD | Input | Output | Received data |
| 4 | DSR | Input | 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”.**

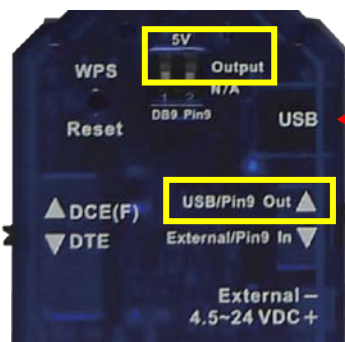


Power input through small connector or DB9 Pin 9

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:

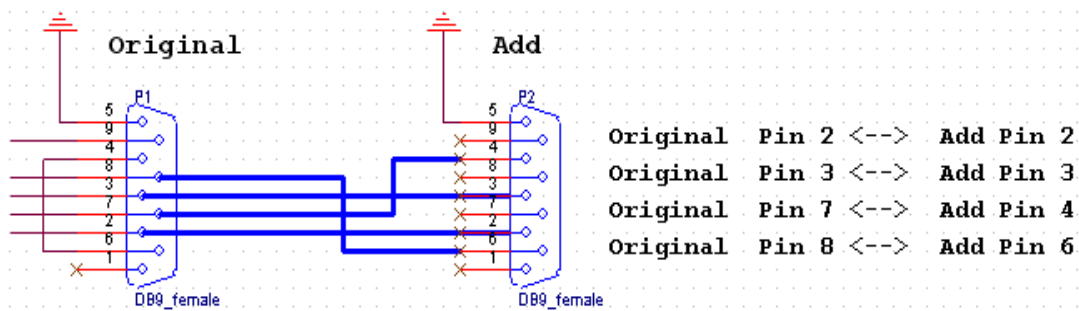
Pin 9 in the DB9 connector can be used to power an external device. Power on pin 9 can be achieved if the adapter is powered by 5VDC via an USB cable. The device powered by pin 9 should not exceed 100 mAh.



Power input by USB

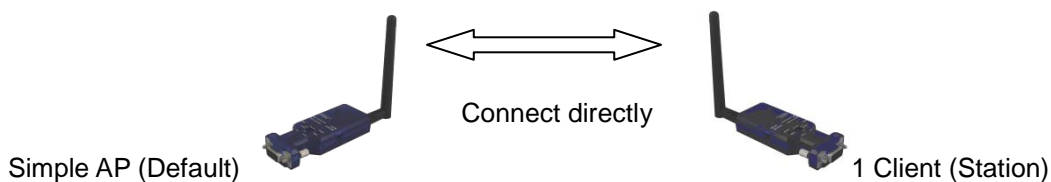


DSR/DTR Connection:

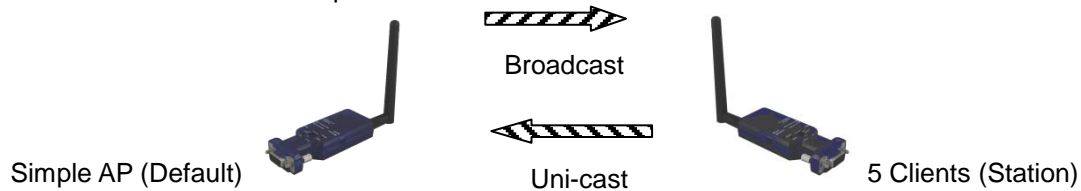


Setup examples.

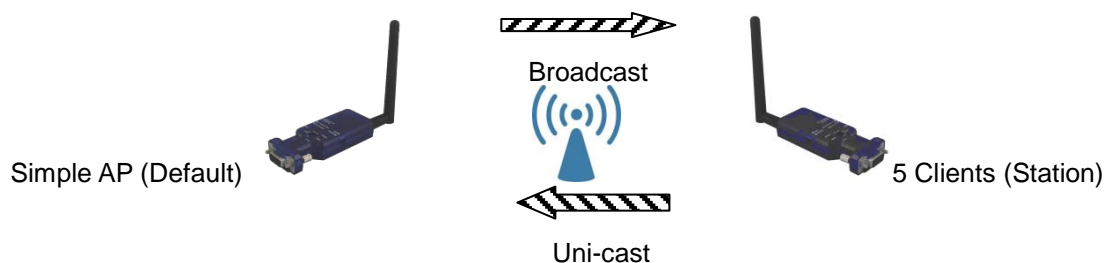
One to one connection: The two WiFi adapters will be connected directly without access point.



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 UNDESIRED OPERATION.

Tested to comply with FCC standards for home or office use

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