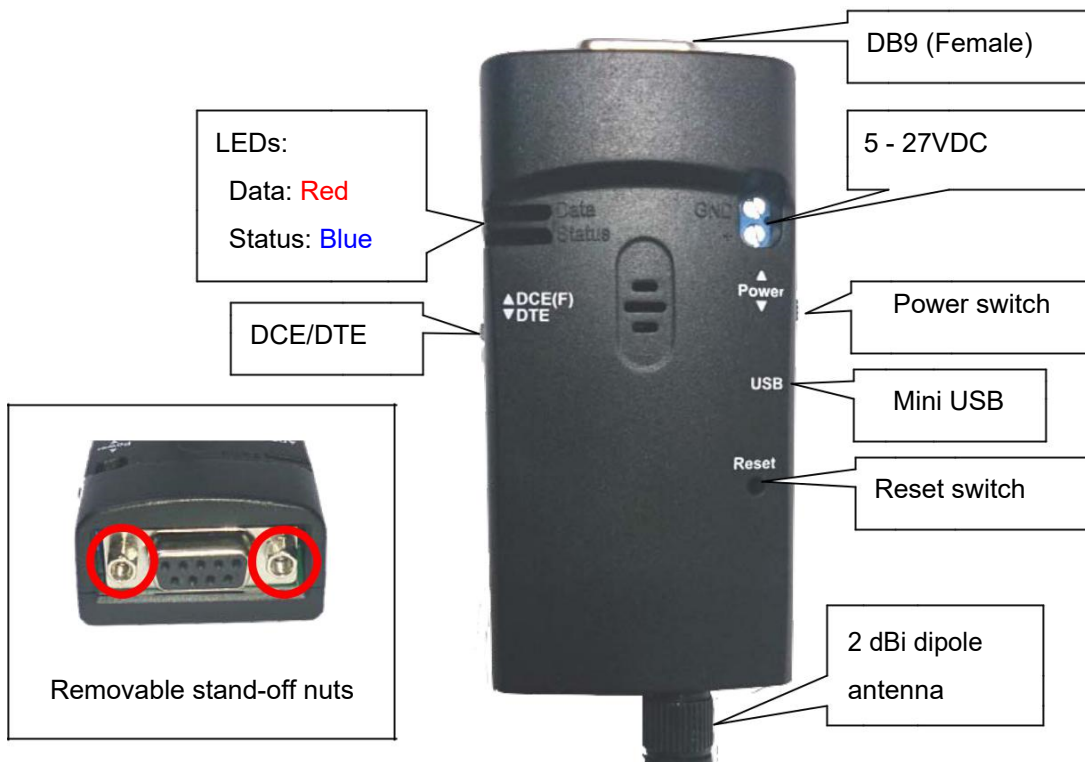


Quick reference sheet for WiFi to RS-232 adapter WA232E



Package Contents:

- WiFi RS-232 adapter x 1
- 2 dBi dipole antenna x 1
- A4 User manual x 1
- DB9 male/male connector x 1
- USB Cable x 1



SPECIFICATIONS	
Part number	WA232E
Processor	ASIX AXM23001 chip with ARM Cortex M3 166Mhz CPU
Operating system	VCOM software for: Windows 10, Windows 8/8.1, Windows 7 (32/64-bit). App available for Android and iOS
Network	IEEE 802.11 b/g/n
Frequency	2.412 - 2.484 GHz
Security	Open, WPA2, AES, PSK
Protocols	TCP, UDP, DHCP, SMTP, Modbus (only RS485 version), SNTP
Network modes	AP / Station
Output power (peak)	802.11b: 16.5 ±1dBm, 802.11g: 14 ± 1dBm 54 Mbps; 15 ± 1dBm @ 48Mbps; 16 ± 1dBm @ 6 ~ 36 Mbps
Receive sensitivity	-88dbm typ.
Power consumption	Max. 350mA
Baud rates	1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200, 921,600 bps
Data bits	7, 8
Parity	None, even, odd
Stop bits	1, 2
Flow control	None, Hardware RTS/CTS
Parameter configuration	- Configuration utility software (included) over WiFi - Web browser over WiFi - Serial RS232 port
Operating distance	Up to 330 feet (100 meters)
DEC/DTE	Manual switch
RS232 Signals	TX, RX, CTS, RTS, GND
Network modes	Server, Client
Max. simultaneous connections	4
Serial port	1-port RS232 female D-sub 9-pin with removable stand-off nuts
Buffer size	4KB
Antenna	External 2dBi di-pole, SMA Female
Power supply	5 to 27.0VDC by screw terminals, DB9 or mini USB
Operating temp.	32°F to 158°F (0°C to 70°C)
External battery option	Yes
Dimensions	80 x 40 x 18 mm
Certifications	CE, FCC, ROHS

Power

The adapter can be powered through the mini USB port, through the screw terminals or through pin 9 in the DB9 connector. 5VDC to 27VDC for all power sources.

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_cd is the last 4 numbers of the MAC address)
- No Security
- IP: 192.168.0.3
- Socket port: 5000
- Channel: 11
- Log in ID: admin
- Log in password: admin

Power switch

Selects input power source

- Switch towards antenna: USB powered.
- Switch towards DB9 connector: powered by screw terminals or pin 9.

Management

The parameters of the adapter can be configured the following ways:

- Web browser over WiFi
- Configuration utility software (free downloadable) over WiFi
- Serial RS232 port

Please refer to the setup guide for details.

Virtual COM port driver

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

Alternative compatible COM port software are:

- PortShare
- USC-VCOM
- Fabulatech COM port redirector

Please refer to the setup guide for details.

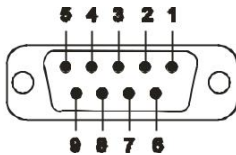
LED indication lights: Red: Power On or Off, Blue: WiFi Status

Adapter mode	WiFi mode	LED light	WiFi state
Working	Station	Off	Disconnected
		Flashing 0.5sec interval	Connected
	AP	Flashing 0.5sec interval	Working
Upgrading FW	Station	Off	Disconnected
		Constant On	Connected
	AP	Flashing 2sec interval	Working

Reset button

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. Alternatively the adapter can be reset by software.

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

Command set

Online help: “help” command (Available for RS-232 setup only)

Usage: ipconfig

Usage: setip <IP address>

Usage: setnetmask <netmask>

Usage: setgateway <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_jbss <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: saveconfig

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) k

ey

<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_ctrl>: 0 = disable, 1 = enable CTS/RTS flow control

Usage: dhcpclient <status>

<status>: 0: disable 1: enable

Usage: setdhcpsrv <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

2: GMT-10.0 Hawaii

3: GMT-9.0 Alaska

4: GMT-8.0 Los Angeles, Tijuana

5: GMT-7.0 Denver Arizona

6: GMT-6.0 Chicago, Mexico City

7: GMT-5.0 New York, Bogota

8: GMT-4.0 Santiago

9: GMT-3.0 Brasilia, Montevideo

10: GMT-2.0 Fernando de Noronha

11: GMT-1.0 Azores

12: GMT+0.0 Lisbon, London

13: GMT+1.0 Berlin, Paris

14: GMT+2.0 Helsinki, Cairo

15: GMT+3.0 Moscow, Nairobi

16: GMT+4.0 Abu Dhabi, Baku

17: GMT+5.0 Karachi, Islamabad

18: GMT+6.0 Almaty, Dhaka

19: GMT+7.0 Bangkok, Jakarta

20: GMT+8.0 Hong Kong, Singapore

21: GMT+9.0 Seoul, Tokyo

22: GMT+10.0 Melbourne, Sydney

23: GMT+11.0 Solomon Is.

24: GMT+12.0 Fiji, Wellington

Usage: rtcts <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(10~65000ms)

<InterFrameDelay>: Interval time of frame sending(10~500ms)

<InterCharDelay>: Inter-Character timeout for frame receiving(10~500ms)

Usage: wifi_simple_config <pinCode>

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