

Ver2.0



This document for all WIFI high performance series products, as a Quick Beginning, we recommend that users to read the manual and follow the instructions to operate, So you will have a good understanding of this product, the user can also choose your interested chapters read as needed for specific details and instructions, please refer to the detailed manuals and application notes or website quiz.

This document applies to USR-WIFI232-A/B/C/D and their derivative products, such as USR-WIFI232-602/604/610.



1. Initial test

To do this initial test, one aim for have better understanding for your module, another to test if the module work normal or not.

Notice: PC should be disable other network cards, only leave one WIF network cards. Below PC COM port is COM 3, when you test it, you should know your PC COM ports. How to check your PC COM port: "My computer -> properties -> device manager -> port"



1.1. Hardware connect

In order to test module serial port to WIFI data communication, module serial port should be connect with PC serial ports, WIFI network also should be establish communication. You also can use USB to RS232 cable to connect PC.





As for serial ports connect, module pin is 3.3v TTL level, it can't connect with PC directly, user should use TTL to RS232 cable, we also suggest user to buy test kits, here USR-WIFI232-B as an example.

After hardware connection, power on the module, waiting for 3-6s, Ready light on, that's mean system completely started, we can go into next step.

1.2. Network connection

Please find this icon on your PC.Search network, as below picture, USR-WIFI232-T is default network name (SSID)



Join into network, select Automatically obtain an IP address, WIFI module support DHCP server and default as open.

General		Network Connection Details:		
Connection		Property	Value	
IPv4 Connectivity: IPv6 Connectivity: Media State: SSID: Duration: Speed: Signal Quality: Details Activity	No Internet access Enabled USR-WIFI232-AP_20A0 00:06:45 72.2 Mbps	Connection-specific DN Description Physical Address DHCP Enabled IPv4 Address IPv4 Subnet Mask Lease Obtained Lease Expires IPv4 Default Gateways IPv4 DHCP Server IPv4 DNS Server IPv4 WINS Server IPv4 WINS Server NetBIOS over Topip En	USR-WIFI232-AP_20A0 Qualcomm Atheros AR9485 Wireless 48-5A-B6-7C-77-4B Yes 10.10.100.100 255.255.255.0 2015年2月5日 10:01:04 2015年2月6日 10:01:04 192.168.1.115 10.10.100.254 10.10.100.254 Yes	
Bytes: 8,492	11,620	Link-local IPv6 Address IPv6 Default Gateway	fe80::6170:989d:bfb1:f327%12	,
Properties Disable	Diagnose		Close	



Now module Link light on

1.3. Related test software

USR-WIFI232-Setup-AT command setup software

http://www.usr.so/Download/31.html

V-COM software

http://www.usr.so/Download/31.html

TCP232-TEST ssoftware

http://www.usr.so/Download/121.html

1.4. Data send/receive test



Open USR-TCP232-Test. exe software select COM 3, baud rate 57600, select open serial ports

Net setting, set as TCP client, server IP as 10.10.100.254, this is module default IP address, server port number 8899, this port for TCP listen port, detail see picture as below:



Serial to network data flow direction: PC serial port->module serial port-> module WIFI->PC WIFI Network to serial port data flow direction: PC WIFI-> module WIFI->module serial port->PC serial port



phone: 4000 255 652



2. common use method

2.1. AP+TCP server

Detail please see first chapter module initial test

2.2. AP+TCP server

2.2.1. Network connection

Detail please see first chapter module initial test

2.2.2. parameter settings

Query computer IP is 10.10.100.000 your browser settings parameters. Enter the IP "10.10.100.254" Network setting : mode: client. Protocol: TCP, port: 8899. Server address : 10.10.100.100 (PC address). After the success restart module



有人在认真做事!	WIFI high performance product	ts Getting Started Manual	phone: 4000 255 652
M2M Web Server	× +		≙ ♈ _ □ ×
く > ぴ ウ☆ http:	//10.10.100.254/home.html 🗧	✓ > ∑	< ব
			中文 English
Quick Configure	Quick Configure		
Mode Selection			
AP Interface Setting	1F WI-FI Setting (Modify)		
STA Interface Setting	2FEthernet Ports Setting <u>Mod</u>	ify	
Application Setting	3FUart Setting Modify		
Ethernet Setting		-	
HTTPD Client Mode	4. F Network Setting Modify		
WEB IO	Network A Setting		
	Mode	Client •	
Advanced 8	Protocol	TCP V	
Device Management	Port	8899	
	Server Address	10.10.100.100	
	MAX TCP Num.(1~32)	32	
	TCP Time out (小于600秒)	0	
		Apply Cancel	

After the success of the Settings, restart the module, then computer connection module SSID.

2.3. Data send/receive test

Open USR-TCP232-Test. exe software , select COM 3, baud rate 57600, select open serial ports

Netsetting, set as TCP server, Local host IP as 10.10.100.100, This is the computer's IP address, local host port number 8899, detail see picture as below:



phone: 4000 255 652



2.4. Module as STA+TCP server

Module as STA to join to router and work as TCP server





Detail operate steps link: http://www.usr.so/Faq/12.html

2.5. STA+TCP client application

Module as STA join to router and work as TCP client, Connect to the server.





服务器。

Detail operate steps link: <u>http://www.usr.so/Faq/60.html</u>

3. WiFi module is connected to the virtual serial port software

3.1. Download and install the software

Download link:<u>http://www.usr.so/Download/31.html</u> Turn off the computer before installing a firewall and anti-virus software.





3.2. Module as AP + TCP Server to VCOM communication

3.2.1. Hardware connect and Network connection

Detail please see first chapter module initial test

3.2.2. Add a virtual serial port

PC connected to the WiFi module SSID in vcom page by clicking on the "search", In the drop-down menu, select "USR - WIFI232 - X".



Revealed Serial Port Server V3.5.2.0	trans teams	STAR OVER 1118		most - man -	
Device(D) Tools(T) Options(O) 中文 Help(H)					
Add COM Del COM Connect Reset Count	Monitor	Smart VCOM			
Remarks COM Name Parameters COM Stat	Net Protoc USR- USR- USR- USR- USR- USR- USR- USR-	TCP232-T24 TCP232-E45 WIFI232-X	ocal Port COM Received	1 Net Received Net State	Reg ID

Click on the "seach device", select the device, click on the "connet virtual com"

Sevice(D) Tools(T)	erial Port Server V3. Dptions(0) 中文	5.2.0 Help(H)	-		- 18		10: 0-0	C 140	L.	
Add COM Del COM	Connect Res	et Count	onitor Se	arch Smart V		Quit				
Remarks COM Nar	ne Parameters	COM State N	let Protocol	Remote IP	Remote Po	ort Local Por	t COM Re	ceived Net Received	Net State	RegID
		USR-WIFI232-X Device IP 10.10100.254	h Device	tual serial port Co Name 220A0 USRAWI 2 3 & Connect Virtu	IFI232-A T	R-WIFI232-Hi	gh Performan Mode Server	ce series		



USR-WIFI232-X	series add virtual ser	ial port Compliant:	JSR-WIFI232-H	igh Performan	ce series
Device IP	MAC	Name	Net Protocol	Mode	Port
10.10.100.254	D8B04CF220A0	USR-WIFI232-A	TCP	Server	8899
	2				
1		3			
Q Search	n Device	onnect Virtual COM	Dpen	Web	📲 Close

Select com1, click "ok"

Virtual COM:	СОМ1 💌
Net Protocol:	TCP Client 💌
Remote IP/add	Ir: 10.10.100.254
Remote Port:	8899
Local Port:	8233
Remarks:	

Net state:connected





3.2.3. PC serial port and

Open the two USR - TCP232 - form the Test software, Com1 connection, Com3 connection. Communication diagrams : com1->Virtual serial->WIFI->module->Module of serial port->RS232 serial port line->COM 3





4. Module Settings

4.1. Built-in webpage

WiFi high-performance modules use web configuration parameters

Module in AP mode, put 10.10.100.254 at browser, come into buit-in webpage, user and password as admin Reference link: <u>http://www.usr.so/Faq/71.html</u>



The server 10. server reports	10.100.254 is asking for your user name and password. The that it is from A11.
Warning: You authenticatio	r user name and password will be sent using basic n on a connection that isn't secure.
	admin
	•••••

▶ 快速配置	快速配置		
▶ 模式选择 ▶ 无线接入点设置	1下无线配置 【修改】		
➡ 无线终端设置	工建措计		
➡ 串口及网络设置	工作模式	AP模式 ▼	
▶ 以太网功能设置	无线接入点参数设置	K	
	网络名称 (SSID)	USR-WIF1232-AP_0000 隐藏 📃	
➡ <u>HTTPD Chent 模式</u>	模块MAC地址	AC:CF:00:00:00	
➡ IO控制	加密模式	Disable 🔸	
▶ 模块管理		确定取消	
	2F以太网功能配置 <u>【修改</u>	1	



Quick Configure	AP Interface Setti	ng	
Mode Selection	AP Interface Setting such as SSI	D, Security	
AP Interface Setting	Wireless Network		1
STA Interface Setting	Network Mode	11b/g/n mixed mode 🗸	
Application Setting	Network Name(SSID)	USR-WIFI232-AP_20A0 Hidden	ĺ
	BSSID	D8:B0:4C:F2:20:A0	ĺ
<u>Ethernet Setting</u>	Frequency (Channel)	AutoSelect 🗸	
HTTPD Client Mode	WDS Configuration		
WEB IO		Apply Cancel	
Advanced	USR-WIFI232-AP_20A0		
N	Security Mode	Disable 🗸	
Device Management		Apply Cancel	
	LAN Setup		[
	IP Address(Default DHCP G	ateway) 10. 10. 100. 254	
	Subnet Mask	255. 255. 255. 0	
	DHCP Туре	Server V]
		Apply Cancel	

4.2. AT command configuration

Send +++, (notice there is no enter or other character), receive a, within 3s respond a, receive +OK, then come into AT command. Send AT+H can obtain help notice, send AT+ENTM return to transparent transmission. More reference link:<u>http://www.usr.so/Faq/57.html</u>



具做事 ! WIFI high performance prod	icts Getting Started Manual	phone: 4000 255
USR-WIFI232-Setup V1.1.0		
건件(F) English(L) 关于(A)		
通用操作区		
AT+H AT+RELD AT+VER AT+Z		+++ a
发送命令方式: 🗾 🔽 串口 🗌 网络	输入波特率 57600	AT+ENTM
AT+WANN 发送命令	WIFI232-I默认115200,其他 默认57600	关闭串口
发送命令	通过网络操作	
发送命令	(?) 搜索 打	<u></u>
发送命令	模块设备IP : MAC : 名称	
发送命令		
操作日志		
发送: AT+H AT+H+ok= AT+: NoNE command, reply "+ok". AT+E: Echo ON/Off, to turn on/off command line echo function. AT+ENTM: Goto Through MOde. AT+NETP: Set/Get the Net Protocol Parameters. AT+UARTF: Enable/disable UART AutoFrame function. AT+UARTF: Set/Get time of VART AutoFrame. AT+UARTFI: Set/Get time length of UART AutoFrame. AT+UARTFI: Set/Get the lata Transfor Mode (Through or	IP: 192.168.0.153	
Agreement)	AT+W AT+Q	

5. How to restore to factory settig with the wifi module

1. Module work mode (Ready light on), pull down reload pin for 3-5s, (short connect GND to reload), after that loosen it, wiating for module reload.

2、Use AT command, AT+RELD

3、Come into module built-in webpage, to selct reload button Reference link:http://www.usr.so/Faq/61.html

6. Hardware circuit design reference

USR-WiFi232 -B Test circuit reference







7. Contact

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8. Disclaimer

Body

9. Update History

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