

RAK473 Use Guidance

Configure the Router on the Web Page

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1. Configure the Router on the Web Page

1.1 General

In this part, it is introduced how to configure the module to the designated router under AP mode.

1.2 Operating instruction

Tips:

1. When the command control module is sent via MCU, the characters "\r\n" are as the ending characters for the command;
2. When the command control module is sent via the serial port tool, press the Enter key as the ending character for the command;
3. The information returned following the command can be presented in ASCII code for easy viewing. If the information display is not comprehensive or garbled, there may be special characters, Chinese characters and so on in the returned information, so please view in the hexadecimal form.

Please bear in mind the points above, which will not be repeated any more.

1.3 Operation steps

1. Power up the module. Start up and return to Welcome to RAK473. The returned information can also be viewed in hexadecimal system form. (57 65 6C 63 6F 6D 65 20 74 6F 20 52 41 4B 34 37 33 0D 0A) 。
2. Send the command for starting web configuration (Figure 1-1), and the module will create an AP according to web parameters stored internally. AP name: last six bits of RAK473_WEB_MAC, without password.

For example: MAC on the module label is 000658 now, so its web AP name is RAK473_WEB_000658. It is as shown in Figure 1-2.

Send: `at+start_web\r\n`

Return: OK (The hexadecimal system one is 4F 4B 0D 0A)

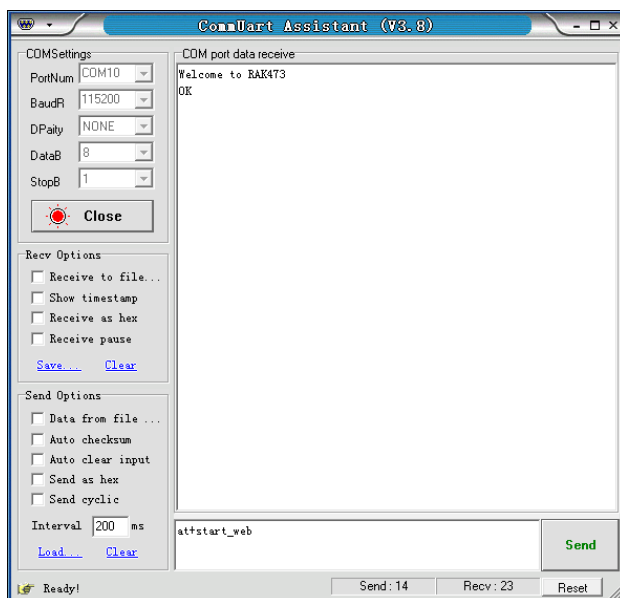


Figure 1-1 Schematic of the serial port to send the command



Figure 1-2 AP connected to the web

1. For AP or PC end connecting to the module web, open a browser, input the website 192.168.7.1 and go to the web page. In the login page, type in the user name admin and user's password admin, and it will automatically jump to the web configuration page.

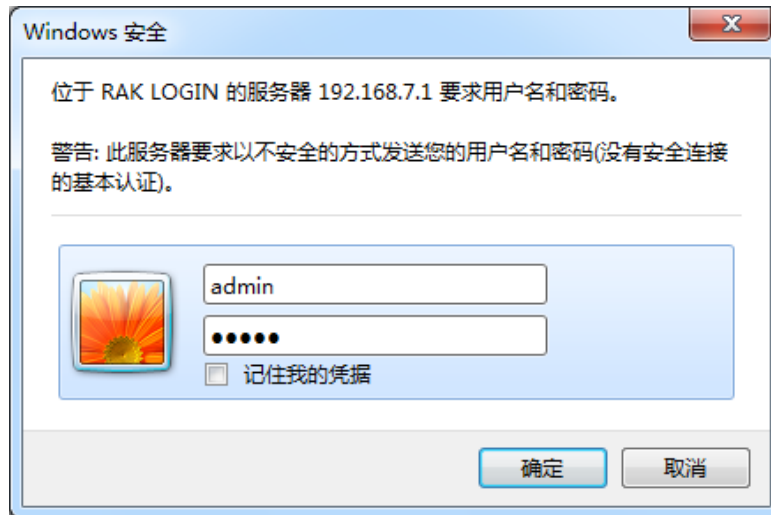


Figure 1-3 Web login page

4. The following setting shall be carried out on web configuration page:

- (1) For Wlan Mode, STA mode is selected (Figure 1-4).
- (2) Click Search to search AP hot points around the module,
- (3) Choose the router AP to be added in the page popped out, for the module connection (Figure 1-5).
- (4) Click "choose" to return to the web configuration page.
- (5) If the router is encrypted, fill in the router password in the PSK box; if the router is not encrypted, to the box empty is OK.
- (6) To choose directly the AUTO mode for the channel is OK; and the channel matching the router can also be manually chosen.
- (7) Whether to set encryption will depend on the router chosen by you.
- (8) For DHCP Mode, DHCP will be chosen; and static IP can also be set, and DHCP is chosen here.
- (9) Click "Save", to jump to the next page.
- (10) Click "Finish" to save the parameters set, and there will be a tip indicating whether the configuration is successful or not on the page. (Figure 1-6)

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Net Config
Advance
FW Update

Network parameters Settings:network,SSID,encryption and IP

Wlan Mode : 1

SSID 2 3

Which Channel 4

Encryption Mode 5

PSK 6 7

DHCP Mode 8

IP Addr

NetMask

Gateway

DNSserver1

DNSserver1

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Figure 1-4 Web configuration 1- setting the mode, channel and other information, etc.

Net Config
Advance
FW Update

Please choose your current wireless networks

	SSID	BSSID	CHAN	RSSI
<input type="radio"/>	wpst	8C:F2:28:8B:11:CA	01	-220
<input type="radio"/>	link	08:57:00:54:E1:6E	01	-220
<input type="radio"/>	rak_only	8C:BE:BE:24:92:A6	02	-216
<input type="radio"/>	seven	1C:FA:68:EB:1F:64	11	-212
<input type="radio"/>	rakwireless	F0:B4:29:1F:75:C1	03	-208
<input type="radio"/>	WirelessAP	78:D3:8D:D2:2F:60	07	-202
<input checked="" type="radio"/>	RAK_2.4GHz	8C:21:0A:D9:EB:7B	06	-200
<input type="radio"/>	RAK-TEST	28:2C:B2:87:A7:24	11	-196
<input type="radio"/>	ClearB203	88:25:93:81:6F:62	06	-194
<input type="radio"/>	Ur	34:BD:F9:4B:CF:D0	03	-192
<input type="radio"/>	Omicsspace	5C:63:BF:77:5D:9A	06	-188
<input type="radio"/>	JSXX	6C:E8:73:A7:F9:FC	04	-188
<input type="radio"/>	JANYUN	D8:15:0D:CF:CA:8C	06	-186
<input type="radio"/>	SHHB	88:25:93:65:AA:88	01	-186
<input type="radio"/>	Sensylink	EC:26:CA:7C:F0:97	06	-182
<input type="radio"/>	ECORTO GUEST	8E:8E:8E:8E:8E:8E	06	-174

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Figure 1-5 Web configuration 2- choose the router



Figure 1-6 Successfully save the configuration parameters

(11) Start the automatic connection to the network, to configure the module to the designated router. (The module is needed to be connected to the computer via the serial port. Then send AT command via a serial port tool to start automatically connecting to the network.)

Send: `at+auto_connect\r\n`

Return: 4F 4B 9C 44 3D 00 06 58 81 01 A8 C0 00 FF FF FF 01 01 A8
C0 01 01 A8 C0 00 00 00 00 0D 0A

Description: There are special characters in the returned information, and there is gibberish behind OK as character viewing, which is because ASCII display function of the module has not been started, for which you can choose to send `at+ascii=1` first to start the ASCII display function, and it can also be viewed in the hexadecimal system form. (Figure 1-7)

For detailed hexadecimal system information, please refer to the corresponding programming manual.

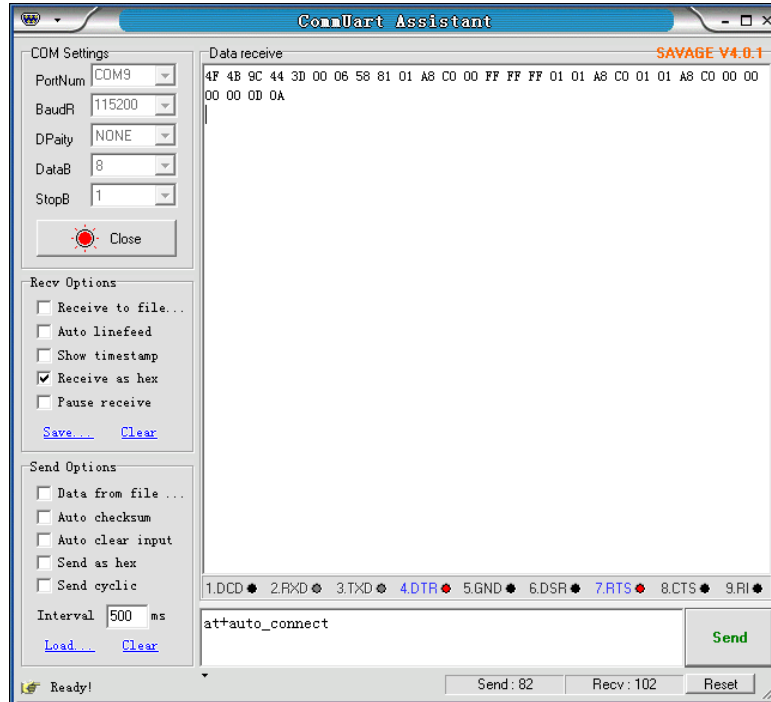


Figure 1-7 Start automatically connecting to the network

(12) After the configuration is completed, data transmit-receive test can be carried out, which will not be repeated any longer here.

Version

Version	Author	Date	Content modification
V1.0	Lianbo Wang	2016/02/01	Create a document
V1.1	Xiaocheng Cao	2016/09/29	Modify some of the details