

RAK473 Use Guidance

Upgrade the Firmware with OTA

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1. Upgrade the Firmware with OTA

1.1 General

In this part, it is introduced how to upgrade the firmware for the module under AP mode through the web page; in STA mode, upgrade the firmware with the firmware upgrade interface.

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 Upgrade of AP mode

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. AP name: RAK473_WEB_MAC, last six bits, 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) \

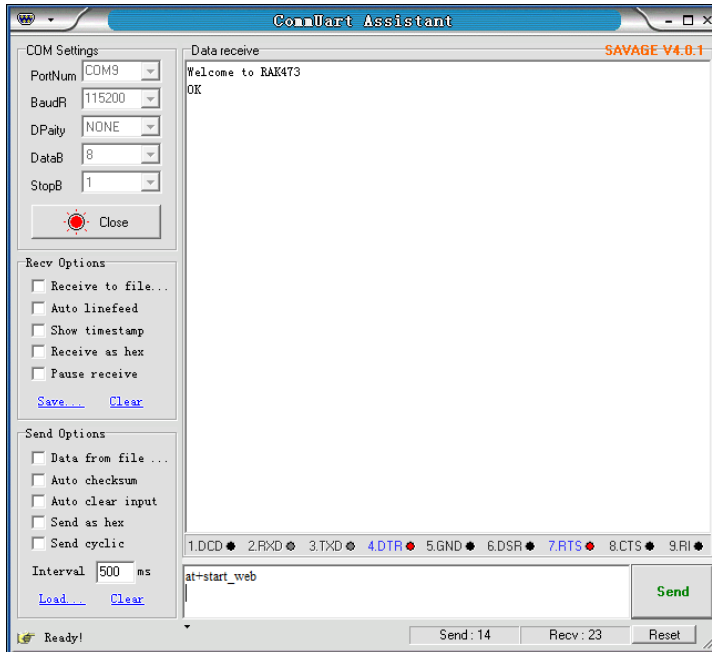


Figure 1-1 Schematic of the serial port to send the command



Figure 1-2 AP connected to the web

3. For AP of 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.

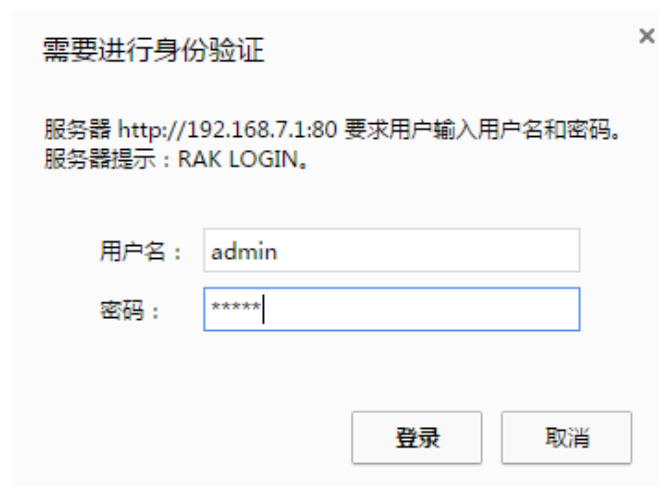


Figure 1-3 Web login page

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



Figure 1-4 Web configuration - upgrade

5. After the upgrade is completed, the module will be restarted. Serial port receives the returned message: Welcome to RAK473.

1.4 Upgrade of STA mode

1. Configure the module to a designated router (For configuration methods, there are one key configuration, WPS configuration, WEB configuration and some other methods, as shown in the relevant parts, and here it will not be repeated).
2. Ensure that, after the PC and the module are connected to the same network, open the browser at the PC terminal, type in `http://IP:1352/update_fw.html` (**IP is the one that the router has assigned to the module**) and go to this page, type in the user name and password on the identification page (**default ones are both admin**), so as to access the web upgrade page.

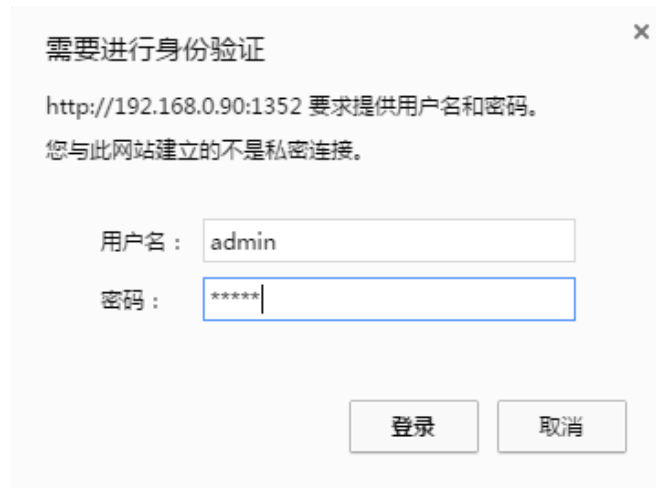


Figure 1- 5 Identification page

3. Operate as per steps shown in Figure 1-6, and the upgrade can be completed. After the success of upgrade, the module will be restarted, and the serial port will receive the returned information: Welcome to RAK473.

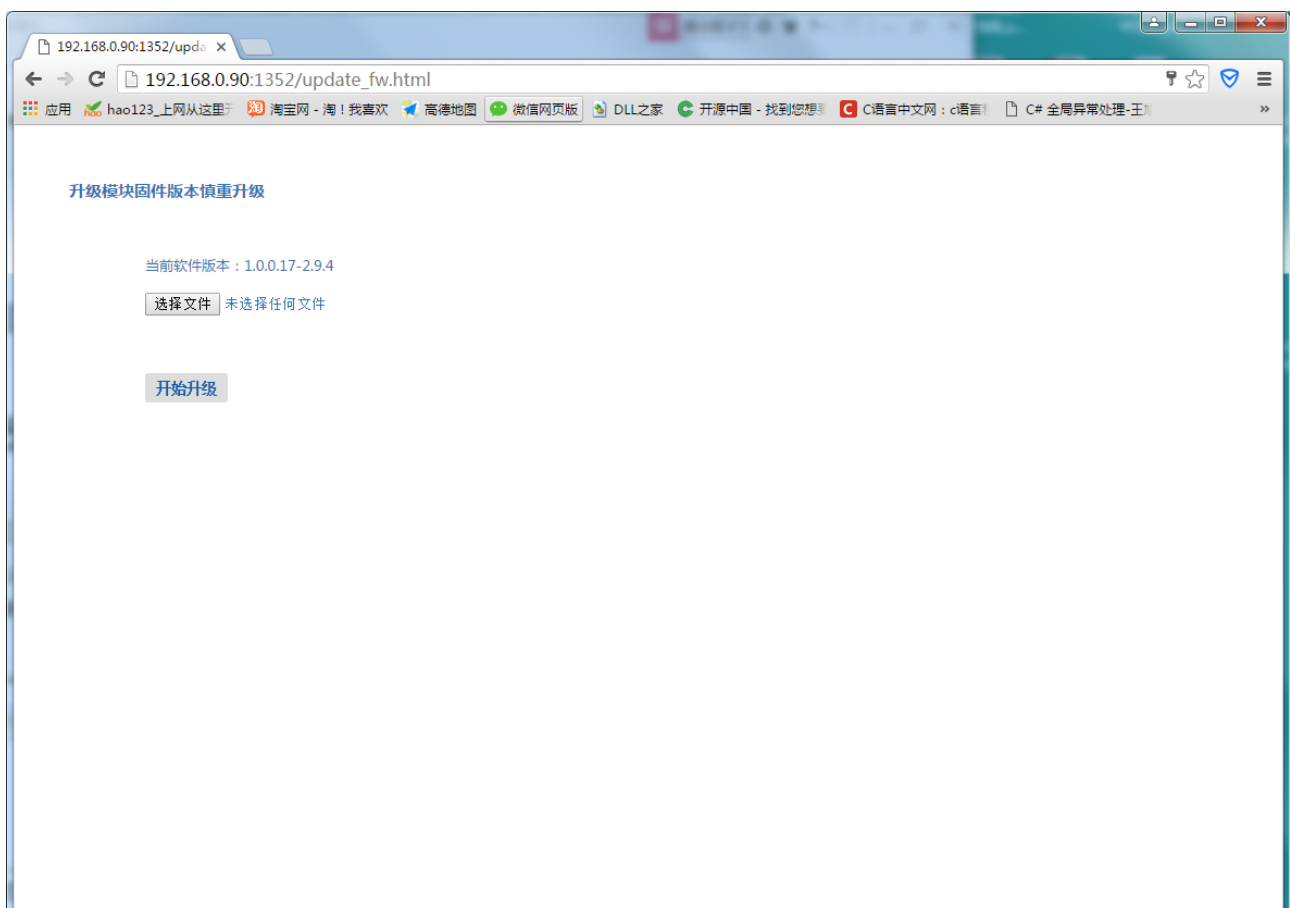


Figure 1-6 WEB upgrade interface

Version

Version	Author	Date	Content modification
V1.0	Lianbo Wang	2016/02/02	Create a document
V1.1	Xiaocheng Cao	2016/10/13	Modify some of the details