RAK473 Use Guidance

How to Realize the Local and Remote Control Simultaneously

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1.How to Realize the Local and Remote Control Simultaneously

1.1 General

Realize simultaneously the communication of local control and remote control. On the whole, there are the following steps:

1.Set the module as STA mode, and configure to the router.

2.Two Sockets are created for the module. Create one TCP Sever first, to make other devices as the TCP Client accessing module to carry out local communication with it; and then create another TCP Client to connect to Extranet server for remote communication.

Description: For configuring the module to the router, there are web page configuration, command configuration, easyconfig configuration and some other methods, of which the premise is to ensure that the router of connection can get access to the Internet. Creating TCP communication has been also detailed in the part of "RAK473 (476) Guidance - Using TCP to Communicate", and these methods can also be used for configuring and communication, which will not be repeated any longer here.

In this part, it is mainly introduced how to use the PC configuration tool to realize simultaneously the communication controlled locally and remotely.

1.2 Create two ways of Sockets through PC tools and implement the communication

1.Start the software "RAK473 Config Tool.exe", to set parameters of the serial port.

2.Set power consumption mode, and click the "Set" button to set.

3.Click "Scan" button, to search for the surrounding wireless network.

4.Select a wireless network to be added.

5.Fill in the password of the wireless network to be added. Default tool is STA mode, and here it does not need to be set.

6.Click "connect" button, to configure the module to the router.

7.Set it as "DHCP" mode to assign IP address.

8.You can see the IP address assigned under DHCP mode; remember it, which will be used in communication.

9.Create one TCP Sever first, and set the local port number as 25000. Create another TCP Client, and set the local port number as 25001. The destination port and IP address are the server port and IP address to be connected (At this time, the simulation server port and IP on the PC are 9000 and 192.168.1.108 respectively).

Create: After each parameter is chosen or filled in within the Socket Setting item, click "Open" button.

10.Simulate the corresponding TCP Client and TCP Sever with TCP/UDP test tool. After the success of the simulation, the information box of PC configuration tool will receive the returned information similar to “Recv Data => at+recv_data=open, 1,55306,192.168.1.108”, and the second part "1" of the returned data is the Socket ID that shall be filled in at the mark number 10; and then input directly the data to be sent in the message box of "send data".

11.Click on "send" button to send data, and the data received by the module can be displayed in the information box with the mark number 12.

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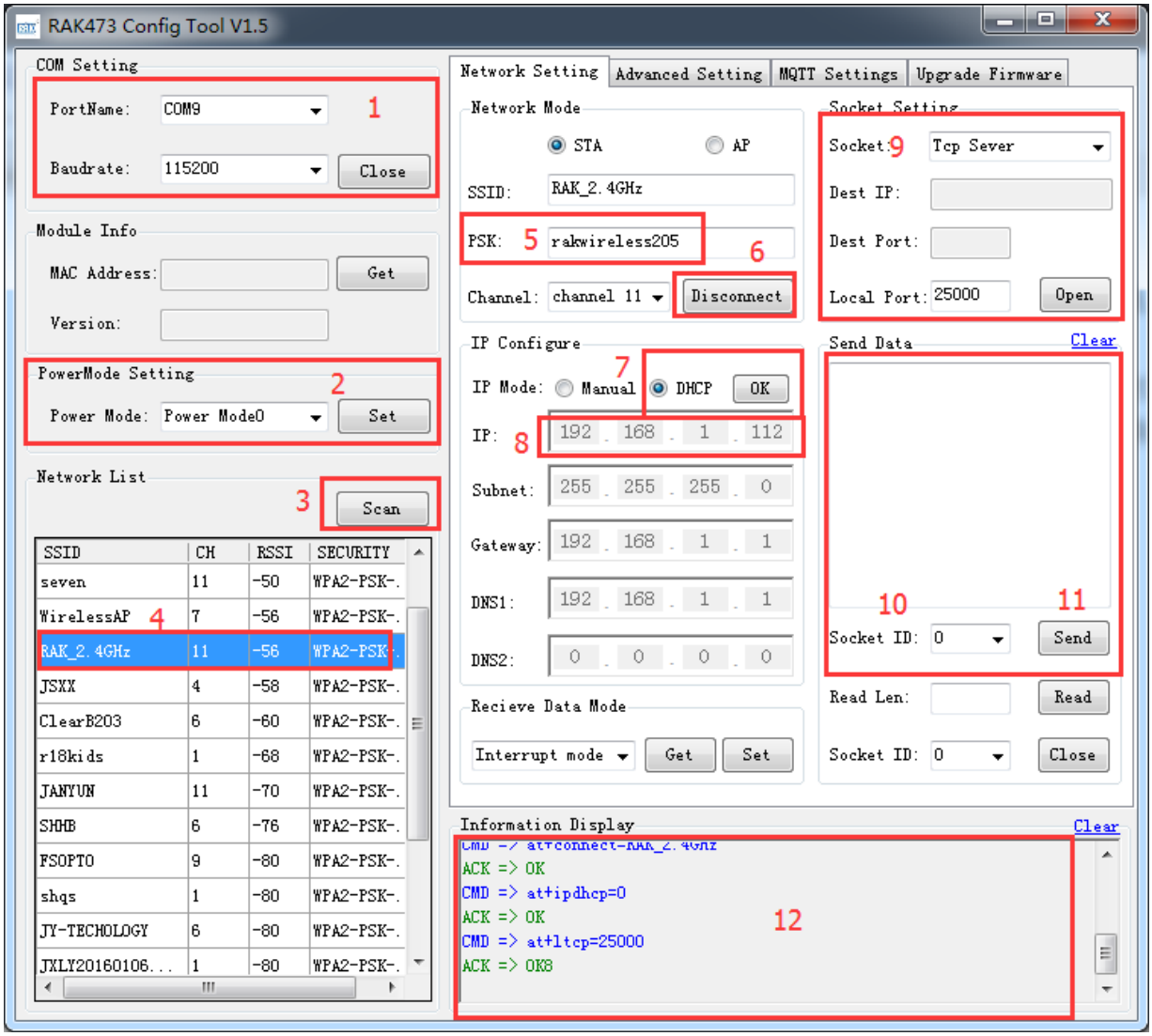

Figure 1-1 PC tool configuration page

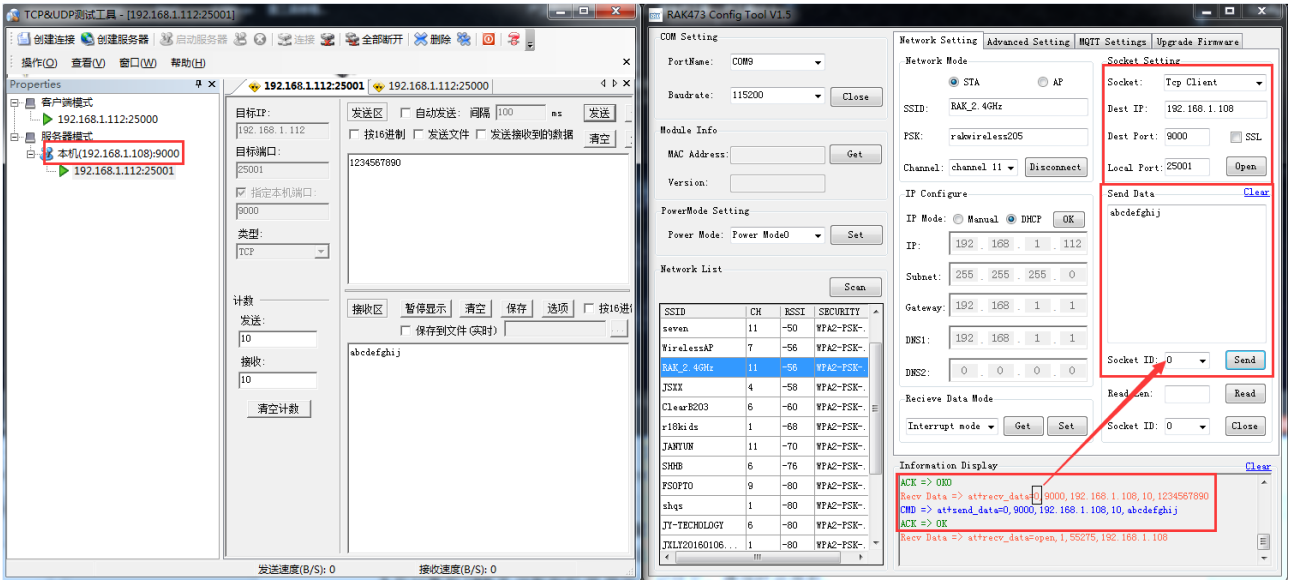

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Figure 1-2 Remote communication of simulation server

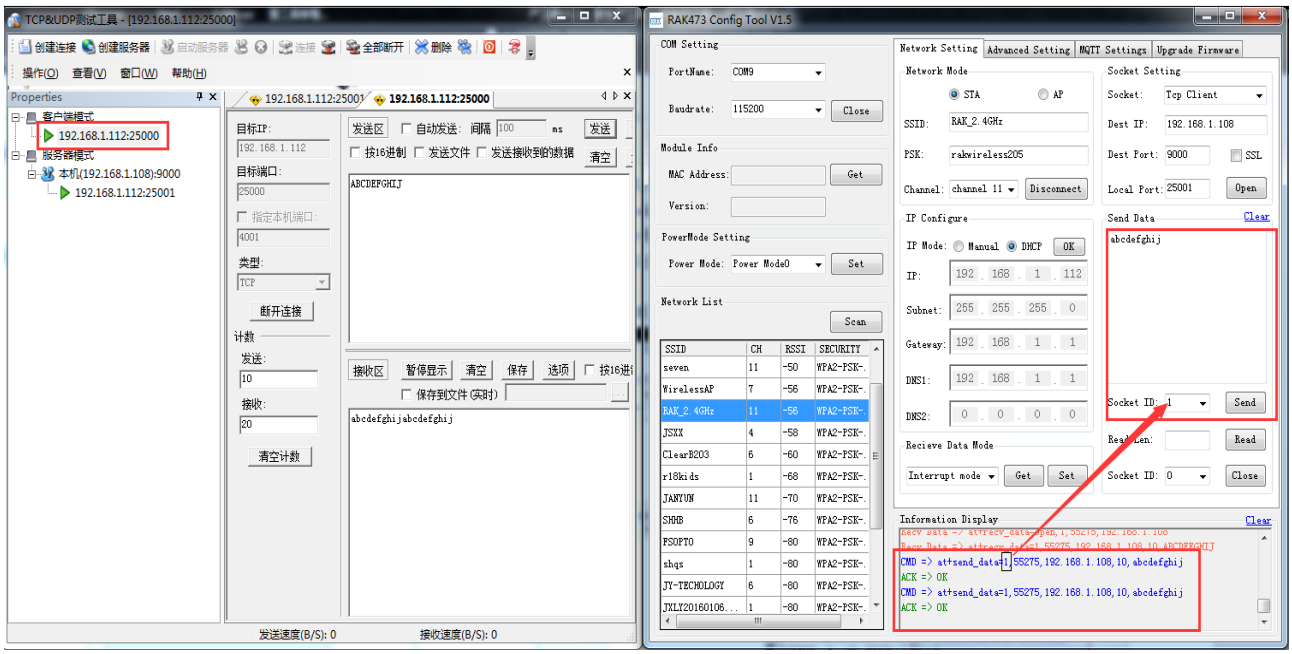

Figure 1-3 Local communication Simulation

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Version

Version	Author	Date	Content modification
V1.0	Lianbo Wang	2016/02/02	Create a document
V1.1	Xiaocheng Cao	2016/11/16	Modify some of the details

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