

# RAK473/476 User Guidance Implement One Point to Multipoint Communication of the Module

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## 1. Implement One Point to Multipoint Communication of the Module

#### 1.1 Overview

#### Goals:

- 1.In AP mode, the module creates TCP Sever, to allow up to seven devices accessing.
- 2.In STA mode, the module creates TCP Sever, to allow up to seven devices accessing.

## 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 In AP mode, access the device

- Configure the module 1 into AP mode, and create a TCP Sever. Configuration method is shown in Figure 1-1, and it can also be configured with the command referring to part of "RAK473 (476) Guidance - Using TCP to communicate".
- 2. Configure modules 2 and 3 into STA mode, and create one TCP Client for each, respectively. They are shown in Figure 1-2 and Figure 1-3.
- 3. Modules 2 and 3 communicate with module 1, respectively. They are shown in Figure 1-2 and Figure 1-3.



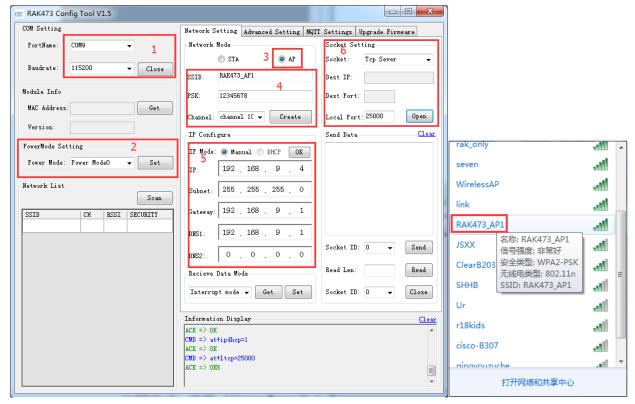


Figure 1-1 Configure the module 1 into TCP Sever in AP mode

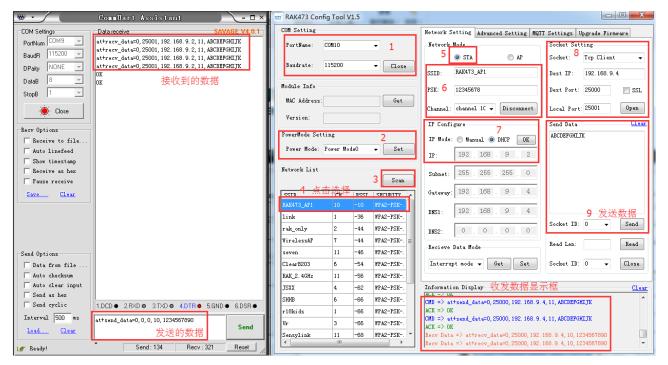


Figure 1-2 Configure the module 2 into TCP Client in STA mode and communicate with the module 1



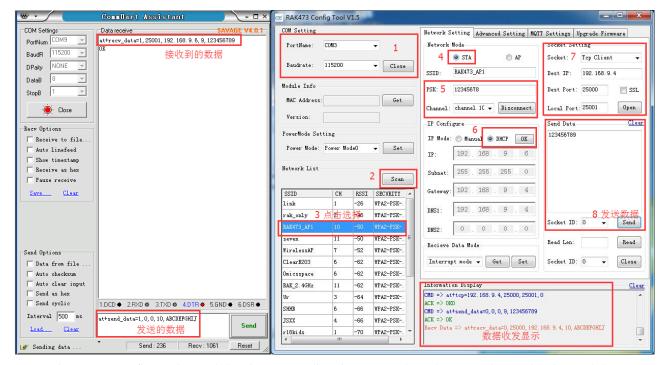


Figure 1-3 Configure the module 3 into TCP Client in STA mode and communicate with the module 1

### 1.4 In STA mode, access the device

- 1. Configure the module 1 into STA mode, and create a TCP Sever. Configuration method is shown in part of "RAK473 (476) Guidance Using TCP to communicate", to configure with the command.
- 2. Configure modules 2 and 3 into STA mode, and create one TCP Client for each, respectively. Figure 1-2 and Figure 1-3 can be referred to.
- 3. Modules 2 and 3 communicate with the module 1, respectively. Figure 1-2 and Figure 1-3 can be referred to.



# Version

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