RAK475/477 Use Guidance How to Enter AT Command Mode Manually

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1. Entering AT Command Mode Manually

1.1 Overview

Because the RAK475/477 module places transparent transmission first and AT commands second, if you want to operate the module via AT commands, you will need to enter AT Command Mode before using relevant AT commands. This section describes how to use the serial assistant to manually enter the AT Command Mode of the RAK475/477 module.

1.2 Operating instructions

Tips:

1. This demo is done on the RAK475 development board.
2. The module in this demo is under factory settings.
3. When sending command to control the module via MCU, enter "\r\n" to complete the command;
4. When sending command to control the module via the serial port tool, press Enter to complete the command;
5. For ease of viewing, the information returned by the send command is presented in ASCII value. Special characters or Chinese characters in the returned information might result in the information being partially displayed or unreadable. In these cases, please view the returned information in hexadecimal form.

Please keep in mind the abovementioned points, for they will not be mentioned later.

1.3 Steps

The module enables the AT Command Mode in Transparent Transmission Mode in a similar way to "handshake". As shown in Figure 1-1.

1. First connect the RAK475/477 development board to the serial port of the computer using a serial cable; then turn on the host computer and send "+++" to request for entry into AT Command Mode. The serial assistant is generally used to send the request. It should be noted here that when sending "+++" using the serial assistant, do not add spaces, line breaks or other illegal characters behind it.

2. Now wait for the module to return a "U" (0x55), if the module did not return a "U" within the specified time, send "+++" again until a "U" (0x55) is successfully returned by the module. Now the module is ready to enter Command Mode, it is waiting for the final confirmation message (wait for 3 seconds).

3. So we need to send the final confirmation message to the module within 3s upon receiving the "U" (0x55). To do this, send a "U" (0x55) from the serial assistant to the module. Once the module receives the "U", it will return an "OK" and enters Command Mode. If the module did not receive the "U" within 3s, it would exit the Ready status and start waiting for another entry request. In this case, repeat steps 1-3 (note: the letter "U" should be in uppercase and do not add spaces, line breaks or other illegal characters behind when sending it).

4. First send "+++" to the module, and the module will return a "U". After receiving the returned "U", immediately send a "U" to the module **within 3s.** If the module returns an "OK", then it has successfully entered Command Mode.
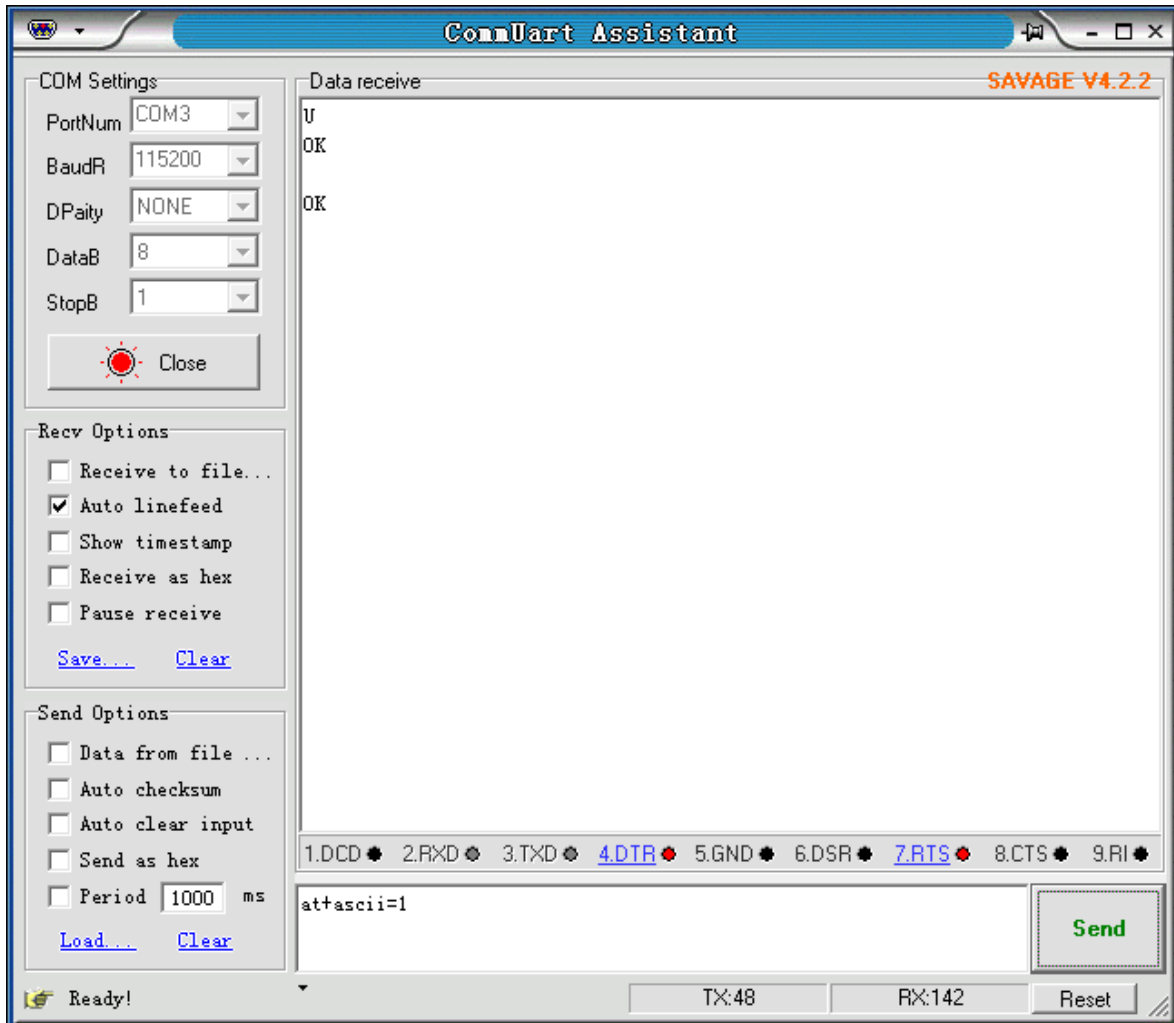
Figure 1-2

Version

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