

# WM\_W60X\_Firmware Update Guide

## V1.1

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### Document History

Version	Complete Date	Revitsion Record	Author	Auditor
V1.0	2018-10-23	Initial Release	Zhangwl	
V1.1	2018-11-02	Add V3.1 SECBOOT supports update trough UART1	Cuiych	

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## 1 Introduction

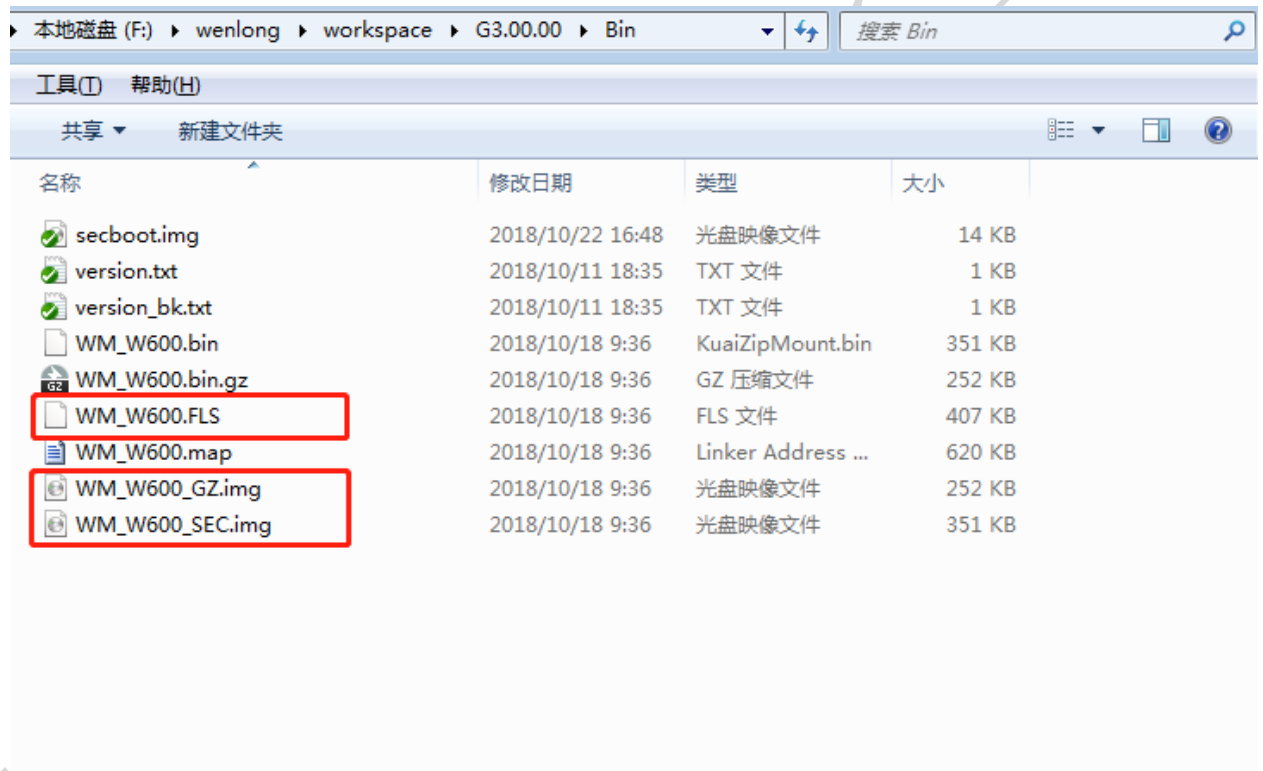
3 types of firmware can be generated after W60X SDK is compiled:

- (1) WM\_W600.FLS
- (2) WM\_W600\_GZ.img
- (3) WM\_W600\_SEC.img

For detailed description about these 3 firmwares, see <WM\_W60X\_Firmware Generation Guide>.

This document introduces how to update W60X firmware by secureCRT tools.

Such 3 firmwares have been displayed in red box.



## 2 Update Firmware by ROM

### 2.1 How to entry ROM code to start updating

There are two ways to entry ROM code

- (1) There is no valid SECBOOT code in W60X (no firmware in W60X or the SECBOOT is destroyed).
- (2) Pull low the BOOTMODE pin of W60X, then power on.

### 2.2 Which firmwares can be updated by ROM

Only WM\_W600.FLS can be updated by ROM.

### 2.3 The steps to update firmware by ROM

- (1) W60X powers on, connected the UART port with PC's COM port.

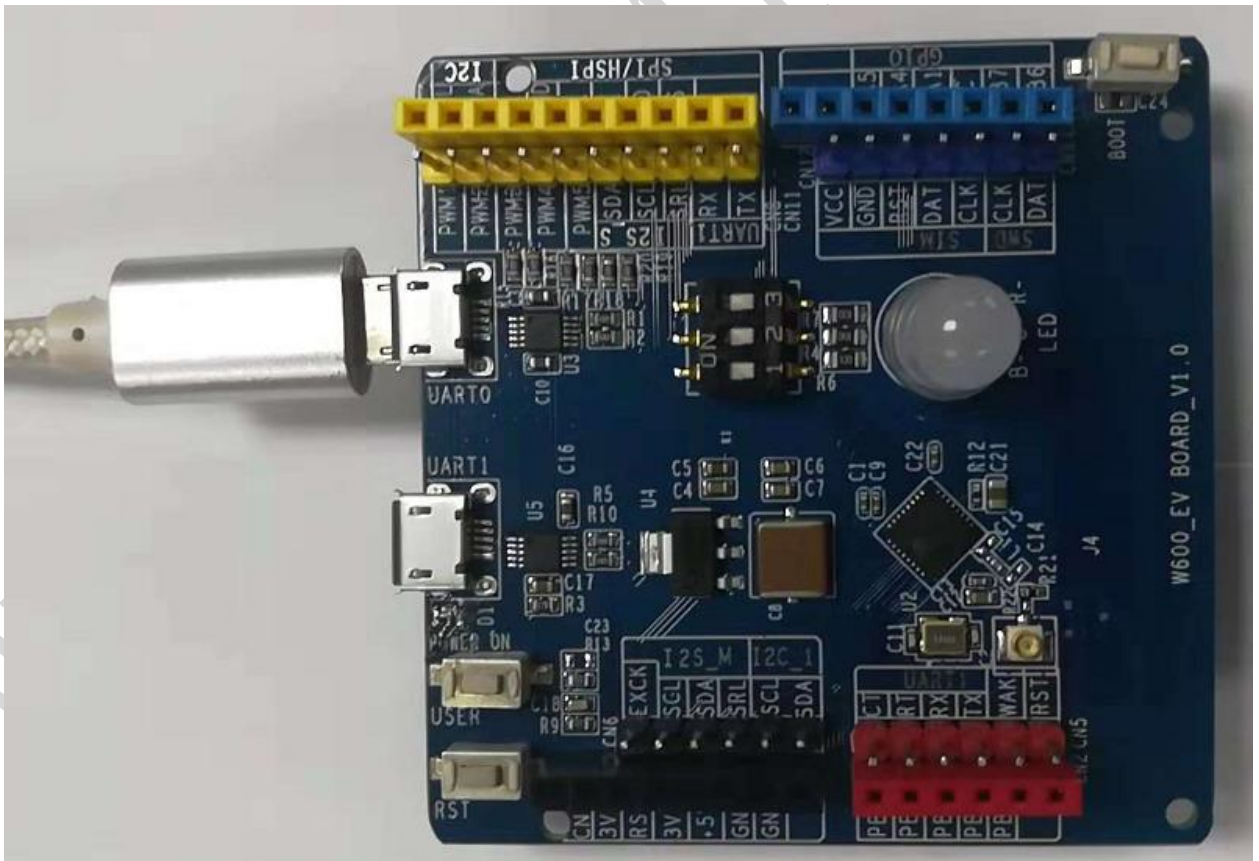


Figure 2-1

- (2) Open secureCRT tools, choose the correct port which connect with W60X.

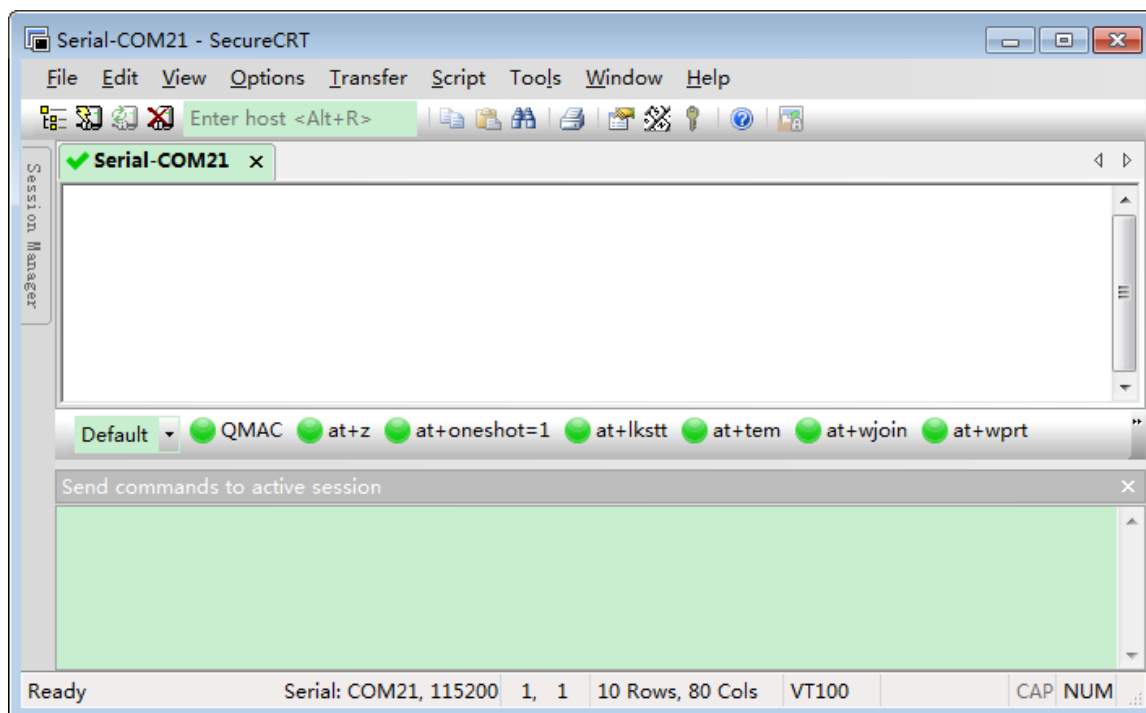


Figure 2-2

(3) Pull low BOOTMODE pin (PA0 connects to GND).

(4) Push reset pin of W60X, continuous CCC should be printed in dialog box of secureCRT.

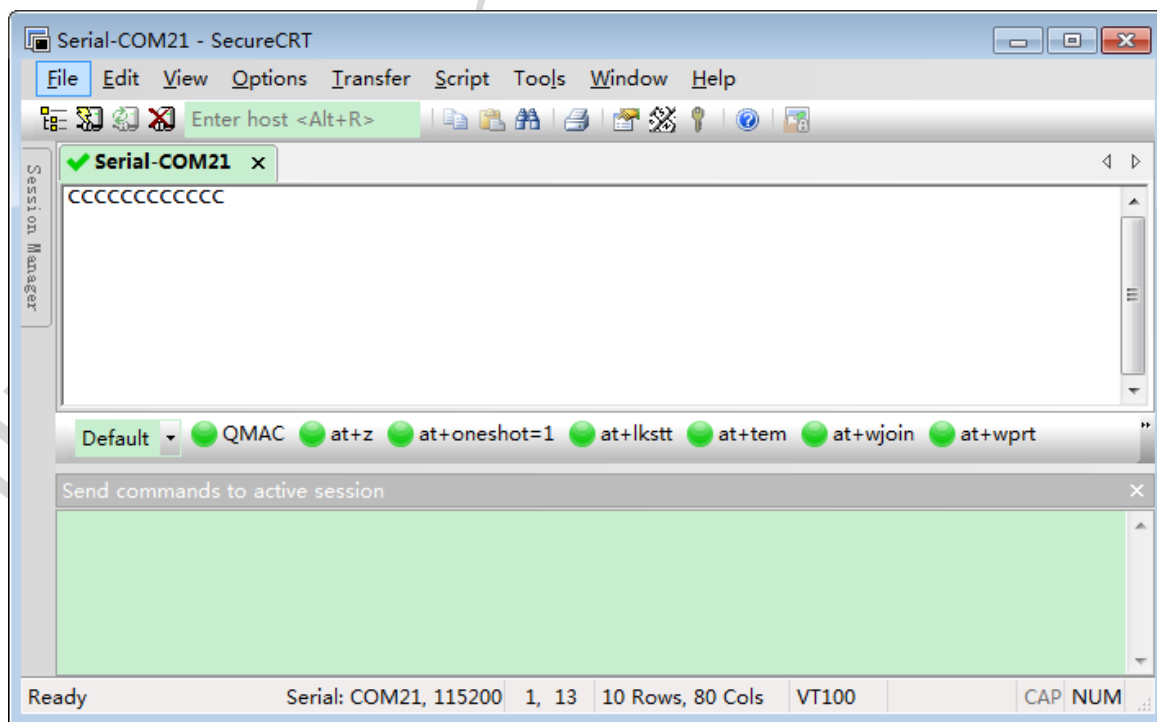


Figure 2-3

(5) Drag WM\_W600.FLS to the dialog box, see Figure 2-4:

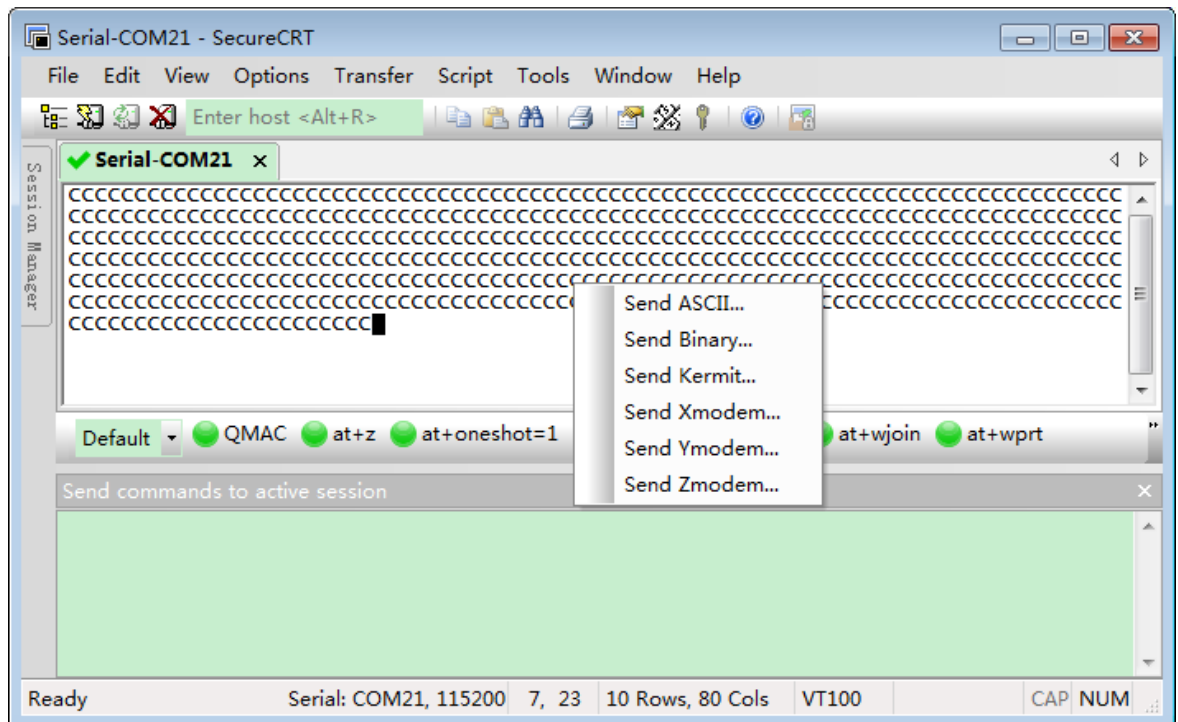


Figure 2-4

(6) Choose “Send Xmodem...” and click it.

(7) The updating should be started, and the progress will be displayed during updating process.

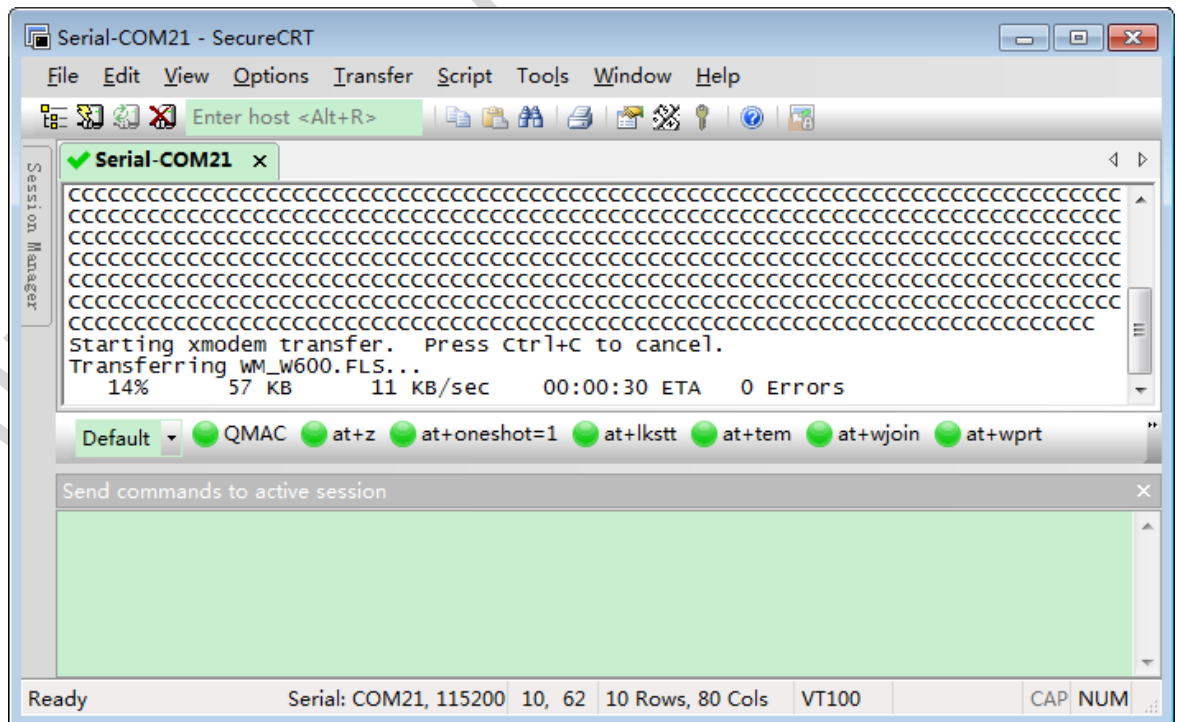


Figure 2-5

(8) After updating succeed, the CCC will still be printed. The new firmware can be executed

The screenshot shows the 'Serial-COM21 - SecureCRT' window. The menu bar includes File, Edit, View, Options, Transfer, Script, Tools, Window, and Help. The toolbar contains icons for host connection, file operations, and session management. The 'Session Manager' sidebar on the left shows a single session named 'Serial-COM21'. The main window displays the output of the transfer:

```

Starting xmodem transfer. Press Ctrl+C to cancel.
Transferring WM_W600.FLS...
  100%    403 KB    9 KB/sec    00:00:44    0 Errors

CCCCCCCC
user task
  
```

Below the output, a status bar shows the transfer settings: Default, QMAC, at+z, at+oneshot=1, at+lkstt, at+tem, at+wjoin, and at+wprrt. The 'Send commands to active session' area is empty. The bottom status bar indicates the session is 'Ready' on 'Serial: COM21, 115200' with '10, 1' rows and columns, using 'VT100' terminal emulation and 'CAP NUM' encoding.

Figure 2-6



### 3 Update Firmware by SECBOOT

#### 3.1 How to enter SECBOOT code to start firmware updating

Following operation should be done for entering SECBOOT code:

- (1) Connect W60X's UART0 or UART1 to PC, open secureCRT tools.
- (2) When cursor is in the output box of secureCRT, press ESC key of PC's keyboard, then press reset key of W60X. When "secboot running" is printed, release ESC key.

#### 3.2 Which firmwares can be updated by SECBOOT

WM\_W600\_GZ.img and WM\_W600\_SEC.img can be updated by SECBOOT.

- (1) WM\_W600\_GZ.img is the compressed firmware which is the first choice for SECBOOT update.
- (2) WM\_W600\_SEC.img is uncompressed firmware which should be used carefully. If the size of firmware is too large, it will destroy the user space.

#### 3.3 The steps to update firmware by SECBOOT

- (1) W60X powers on, connected the UART port with PC's COM port.

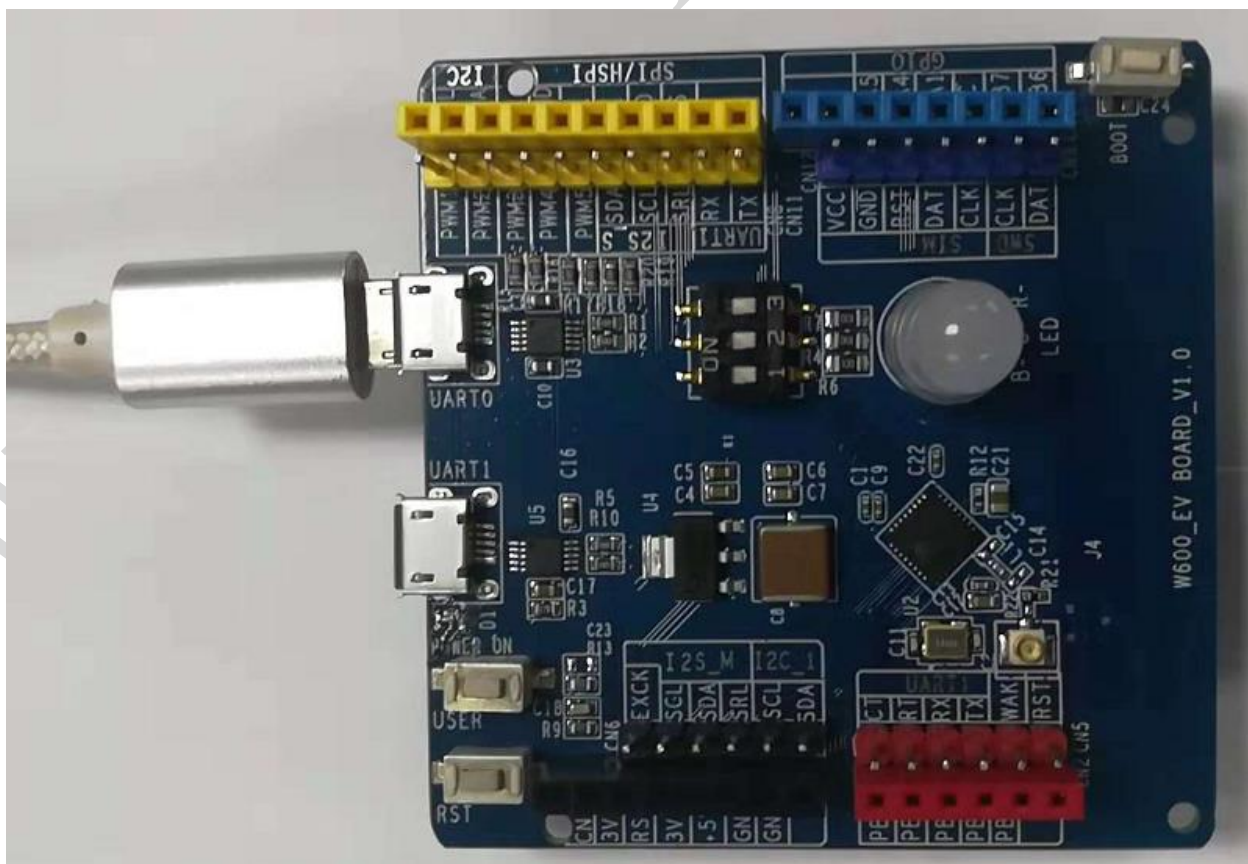


Figure 3-1

(2) Open secureCRT tools, choose the correct port which connect with W60X.

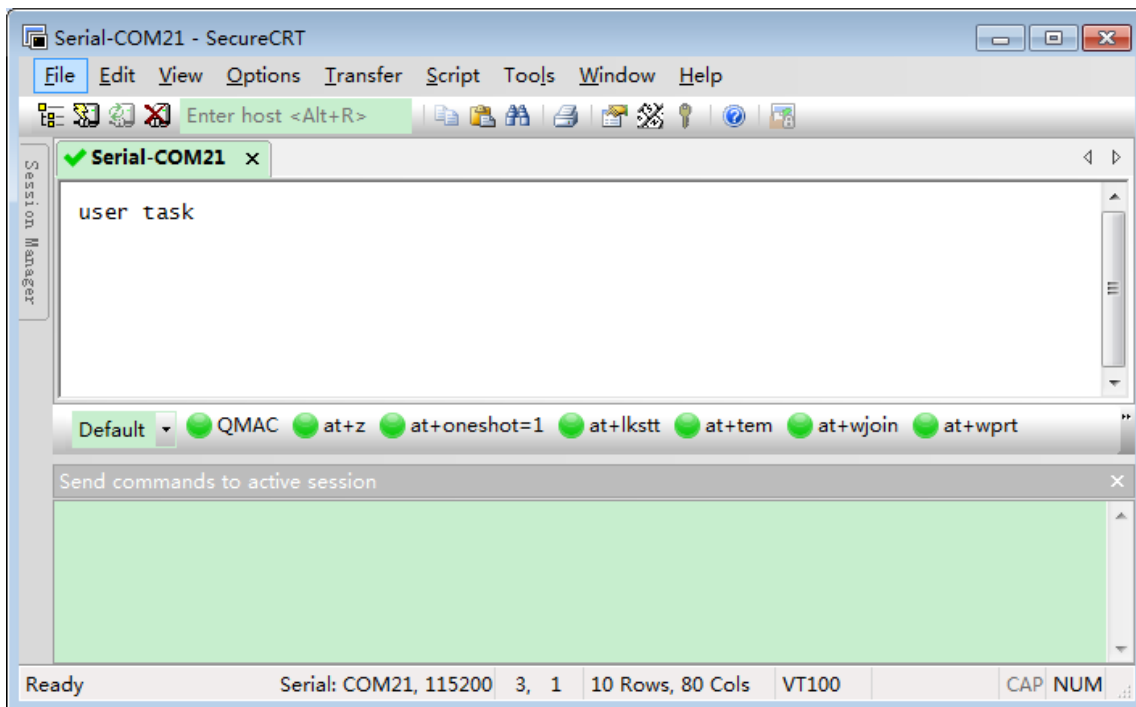


Figure 3-2

(3) Click output dialog box (the print area in the upper half of following figure) by mouse. Then press the ESC key of PC's keyboard, then press reset key of W60X. After W60X is reset, the "CCC....." should be printed in dialog box.

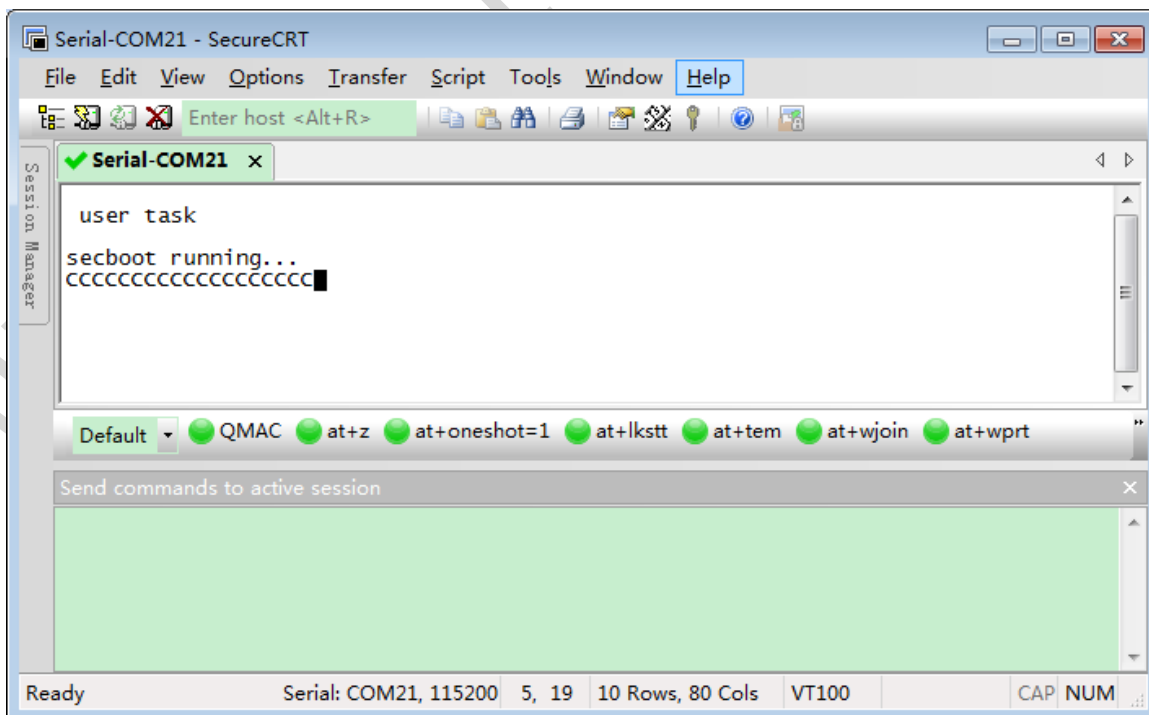


Figure 3-3

(4) Drag WM\_W600\_GZ.img to the dialog box, see Figure 3-4:

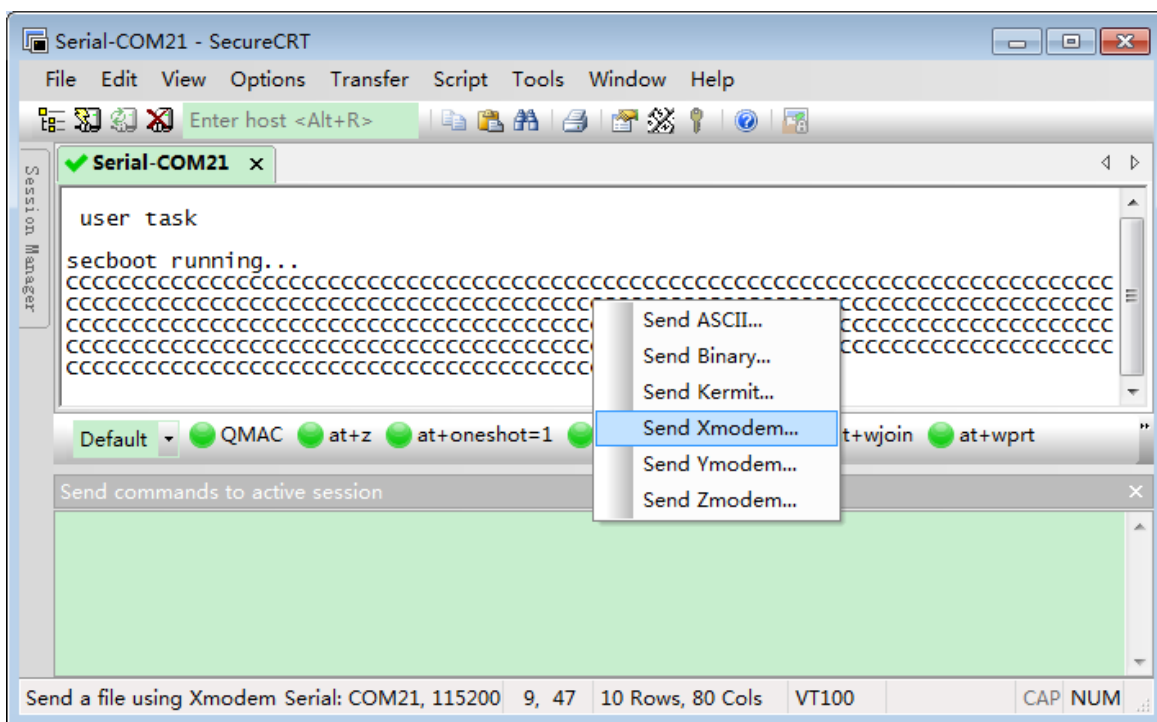


图 3-4

(5) Select “Send Xmodem...” and click it.

(6) The updating should be started, and the progress will be displayed during updating process.

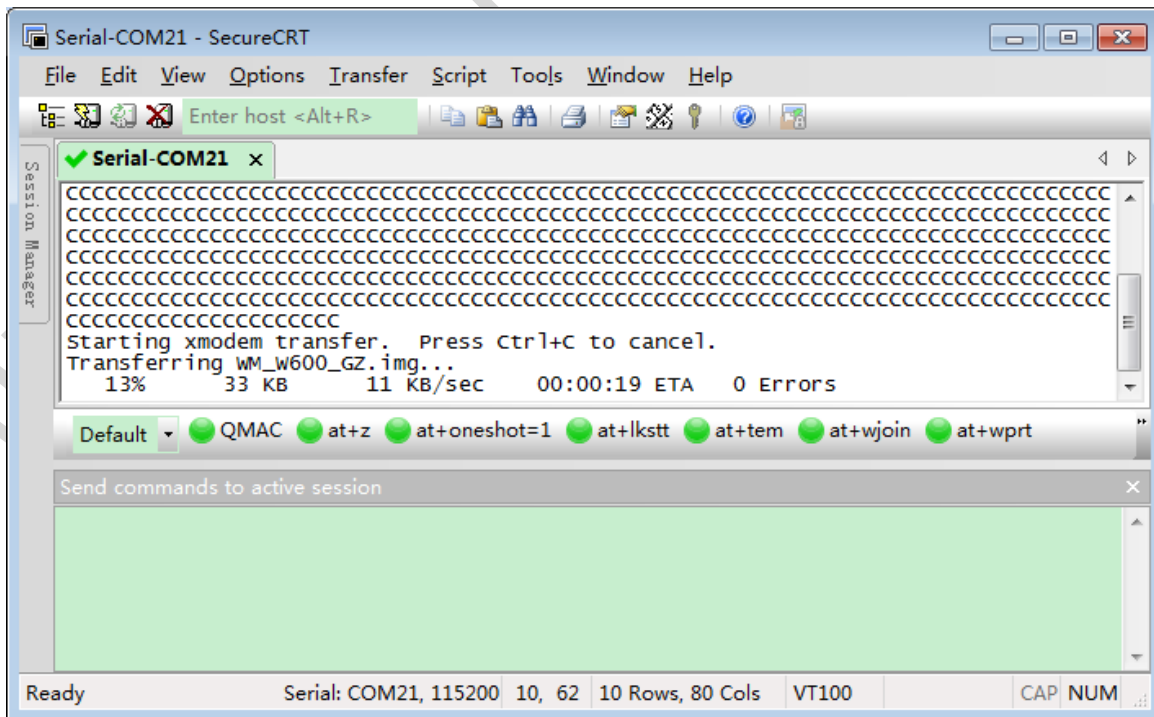


图 3-5

(7) After the updating succeed, the firmware will be decompressed and the new firmware will

start running automatically.

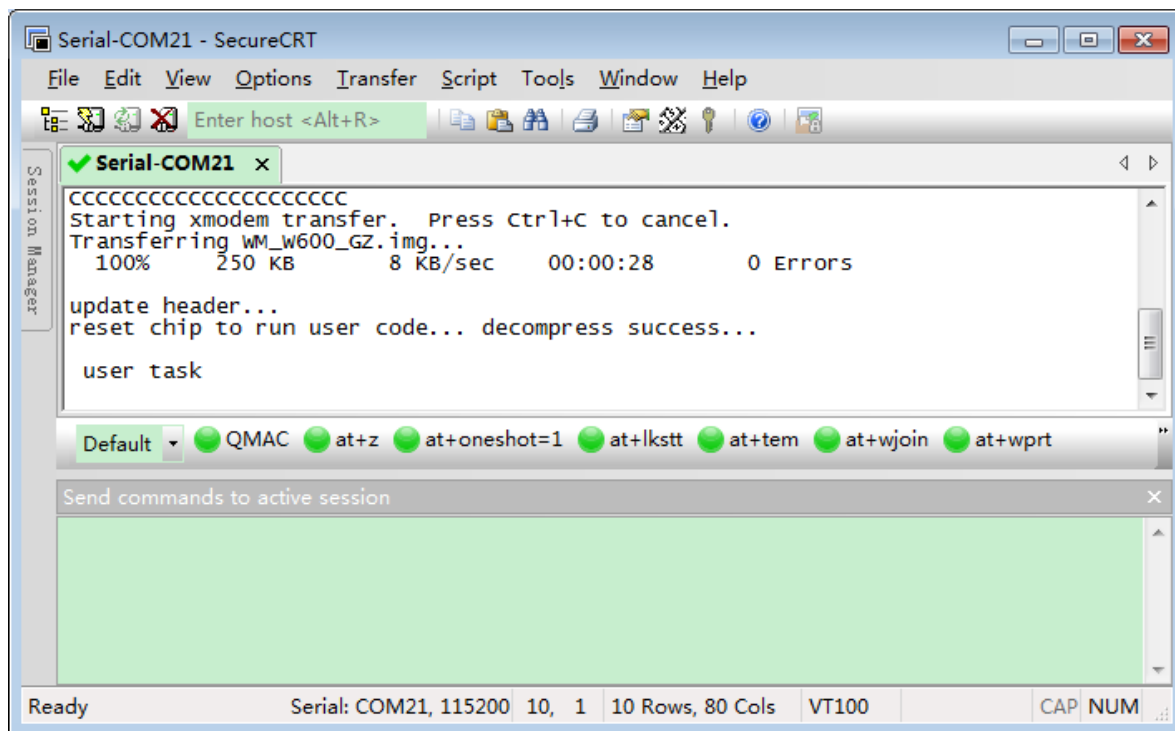


图 3-6