

WM_W60X_Firmware Update Guide

V1.2

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Document History

Version	Complete Date	Revisions Record	Author	Auditor
V1.0	2018-10-23	Initial Release	Zhangwl	
V1.1	2018-11-02	Add V3.1 SECBOOT supports update through UART1	Cuiych	
V1.2	2018-12-15	Modify W600 to W60X	Cuiych	

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1 Introduction

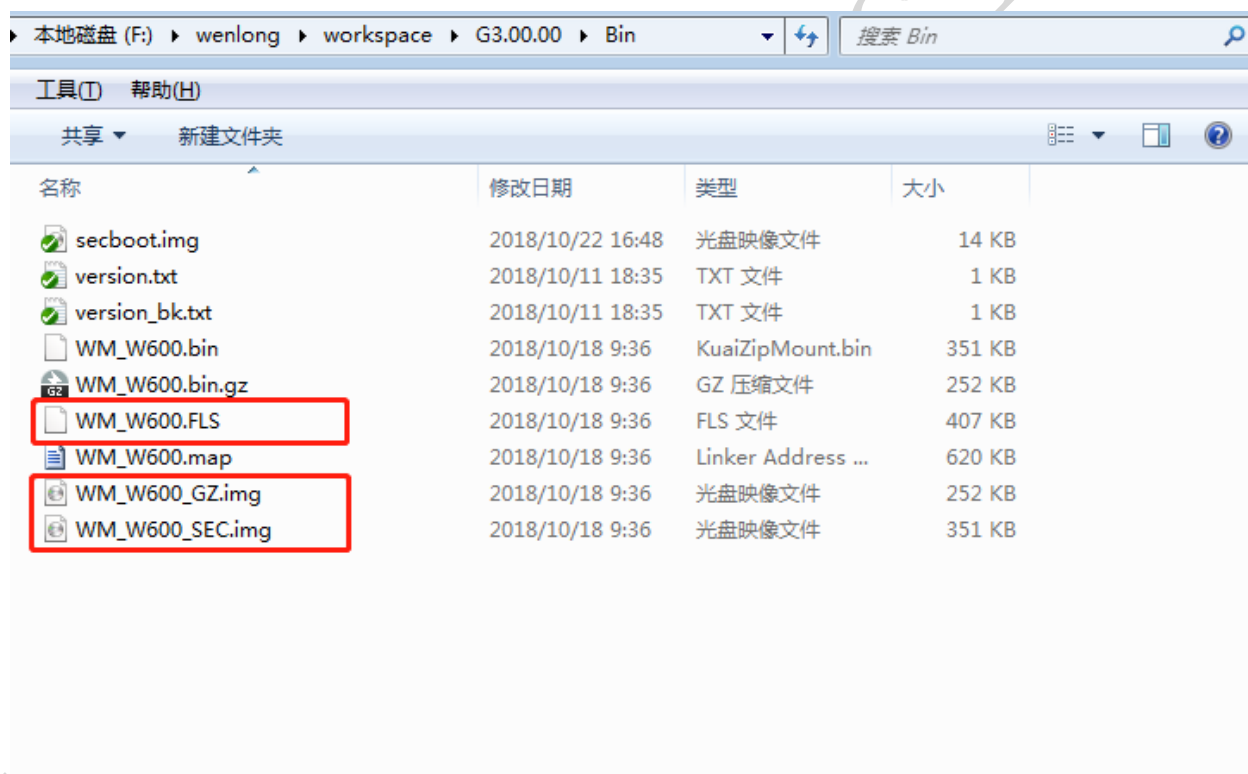
3 types of firmware can be generated after W60X SDK is compiled:

- (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.

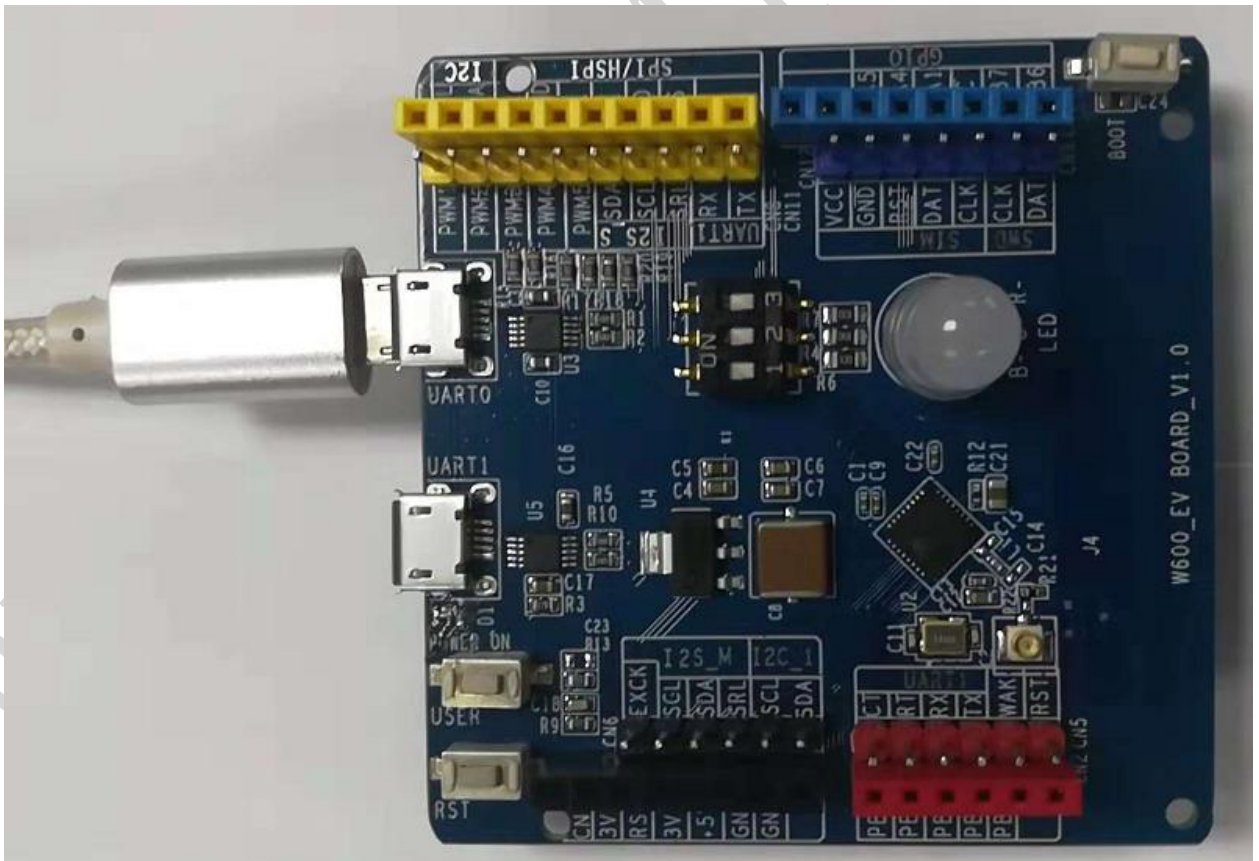


Figure 2-1

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

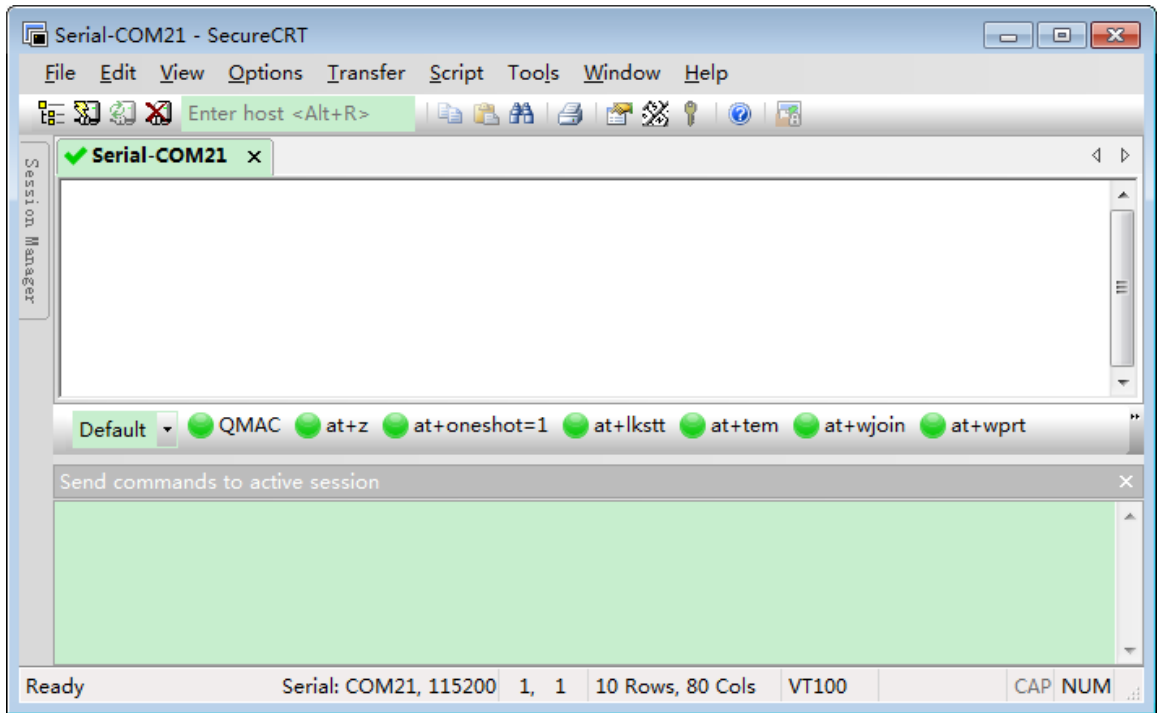


Figure 2-2

(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.

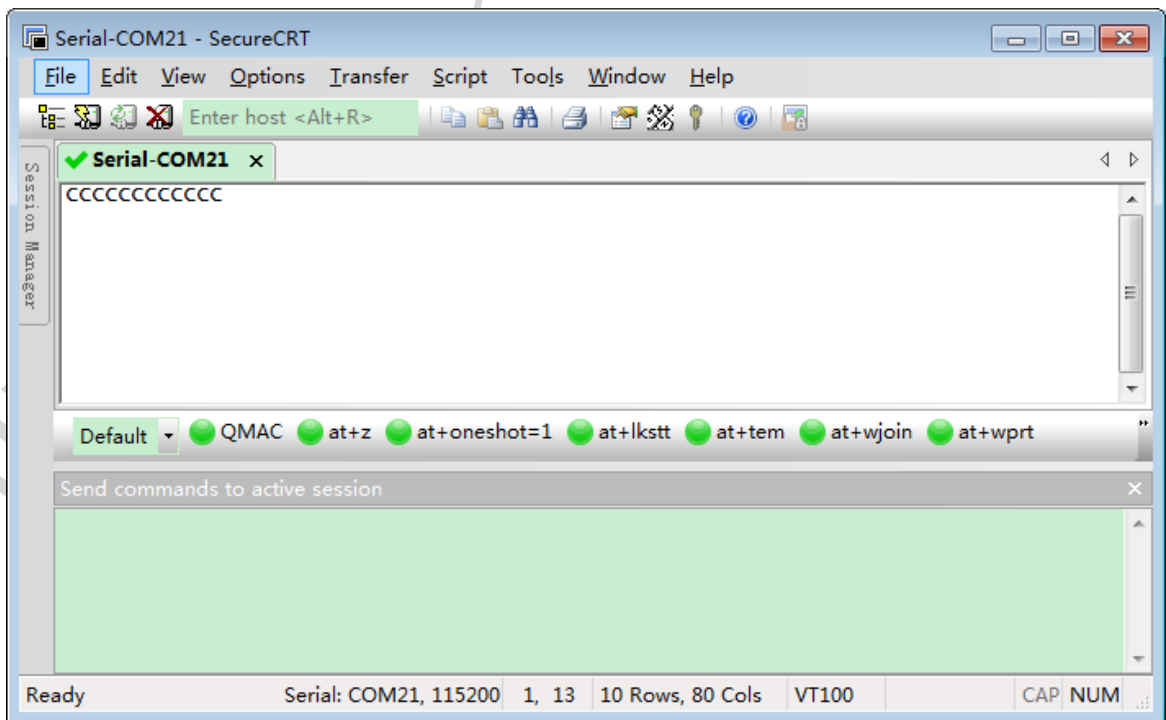


Figure 2-3

(5) Drag WM_W600.FLS to the dialog box, see Figure 2-4:

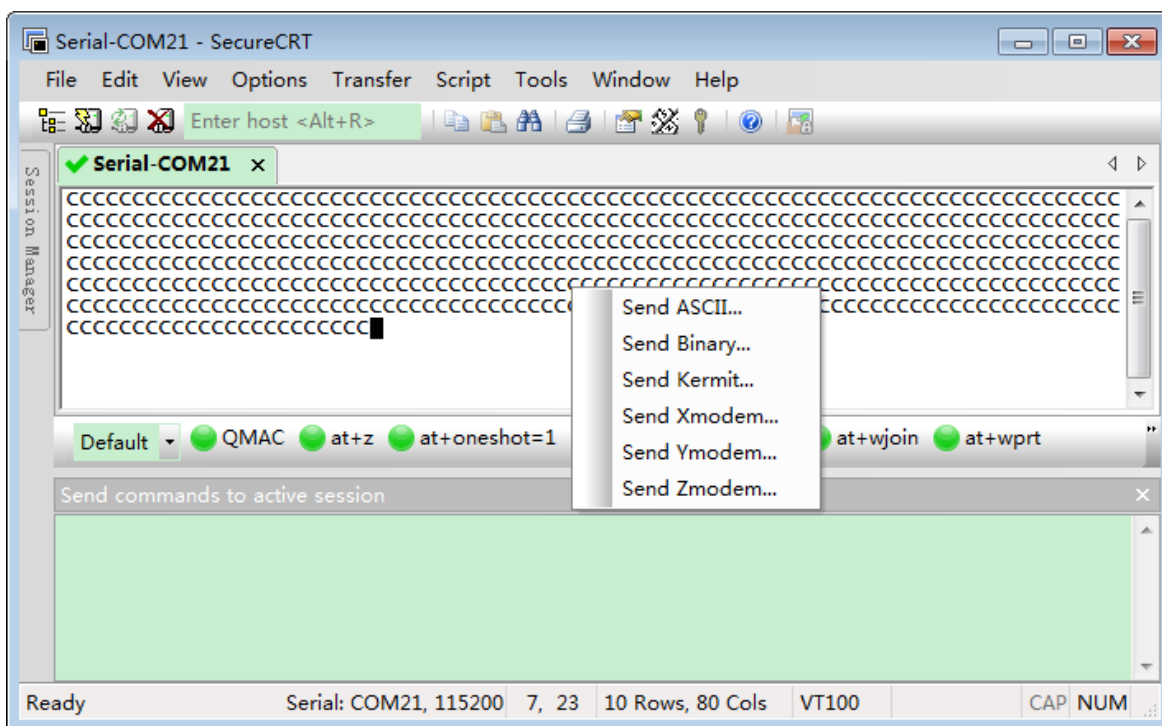


Figure 2-4

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

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

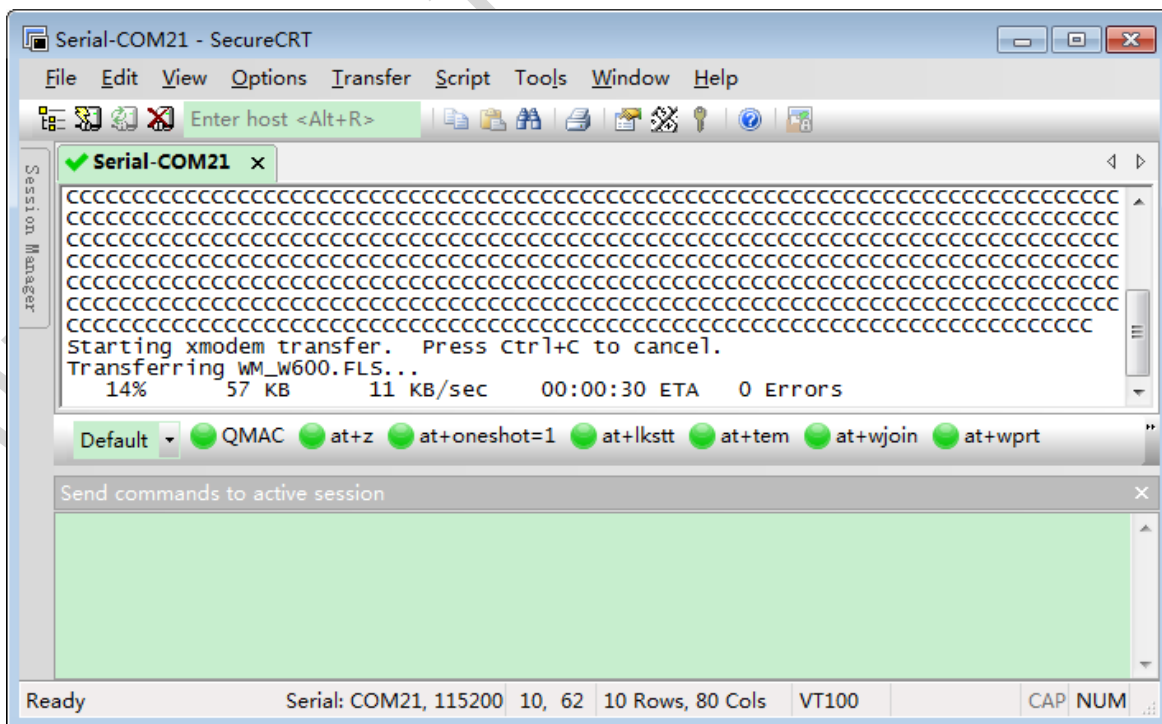


Figure 2-5

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

after manual reset.

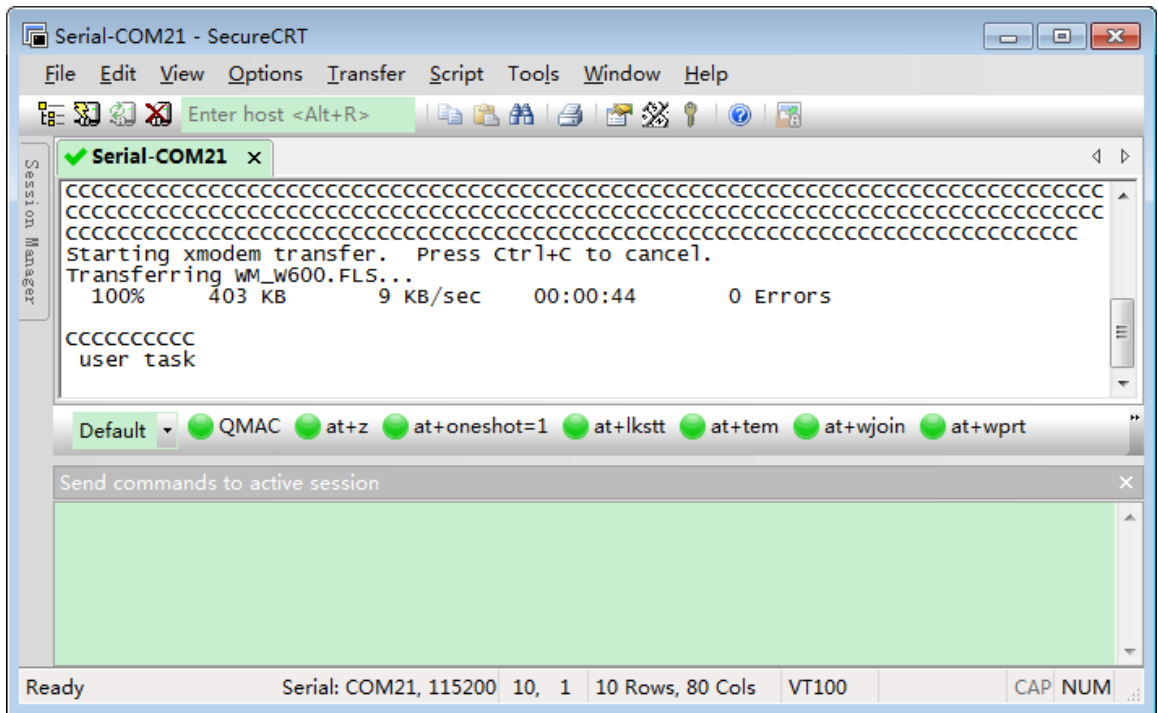


Figure 2-6

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.

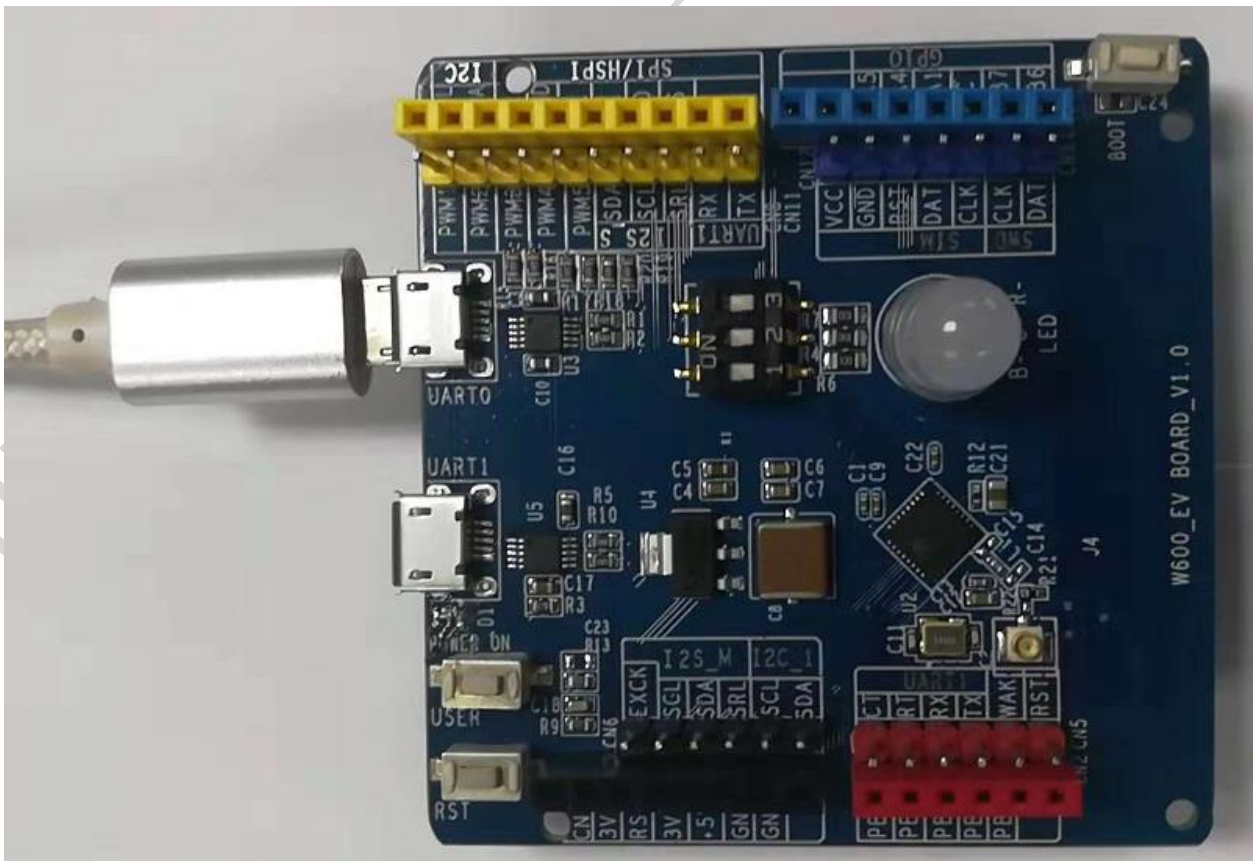


Figure 3-1

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

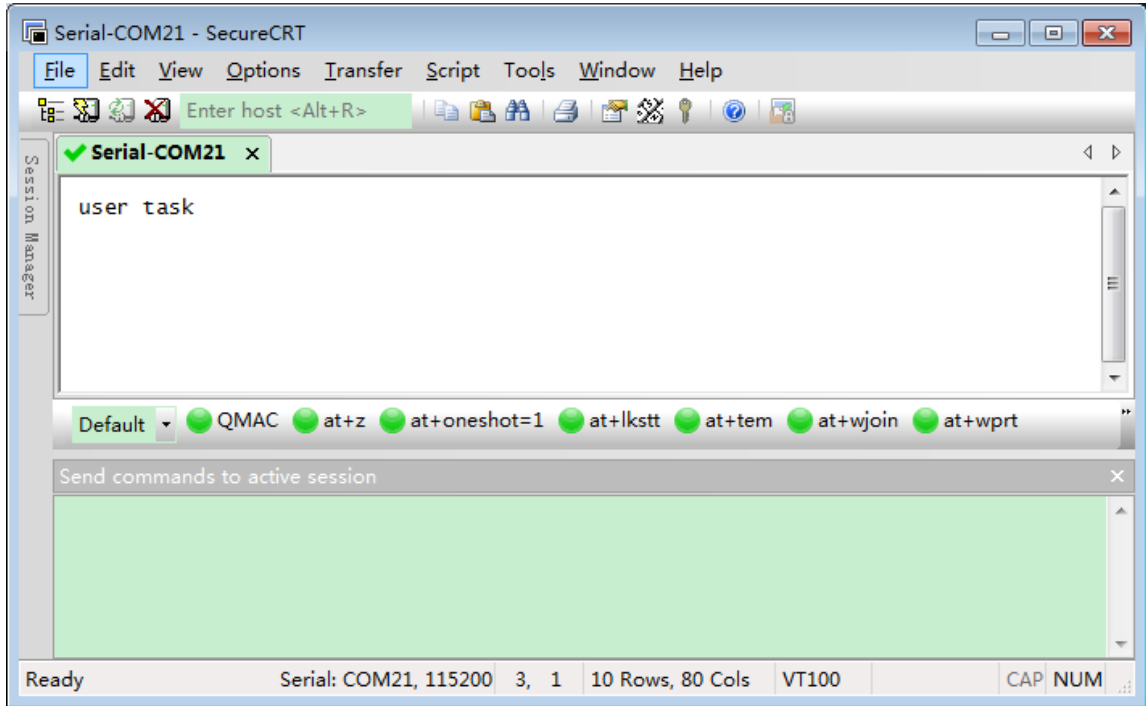


Figure 3-2

(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.

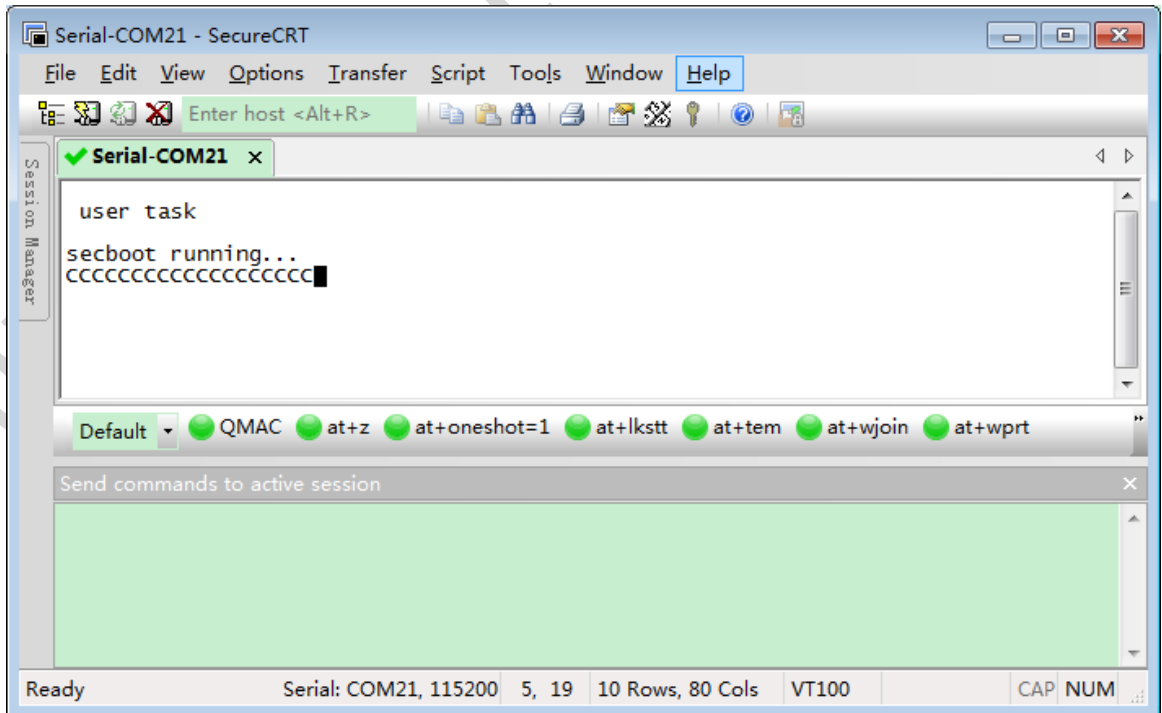


Figure 3-3

(4) Drag WM_W600_GZ.img to the dialog box, see Figure 3-4:

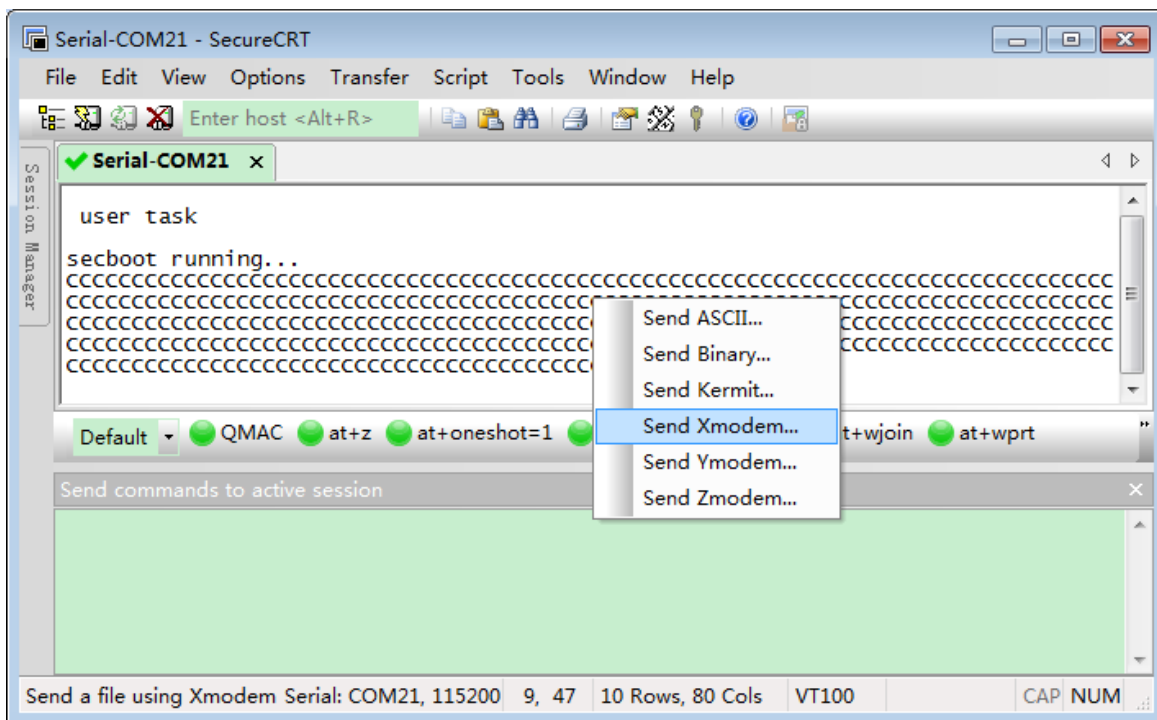


图 3-4

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

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

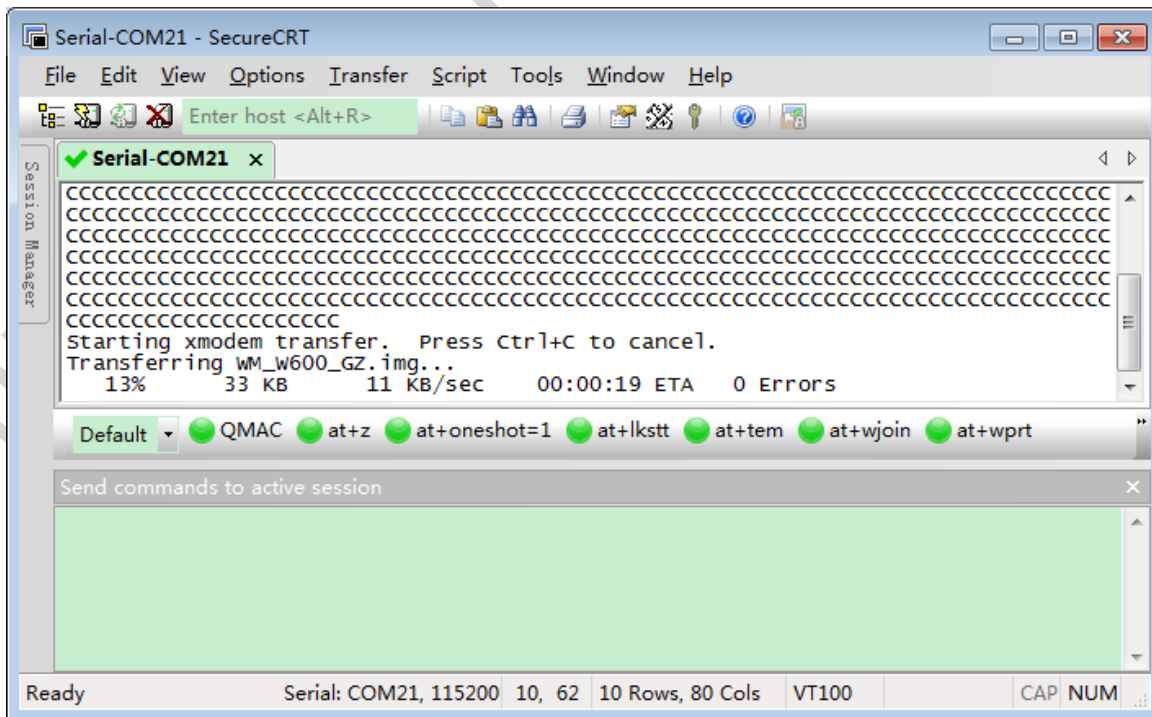


图 3-5

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

start running automatically.

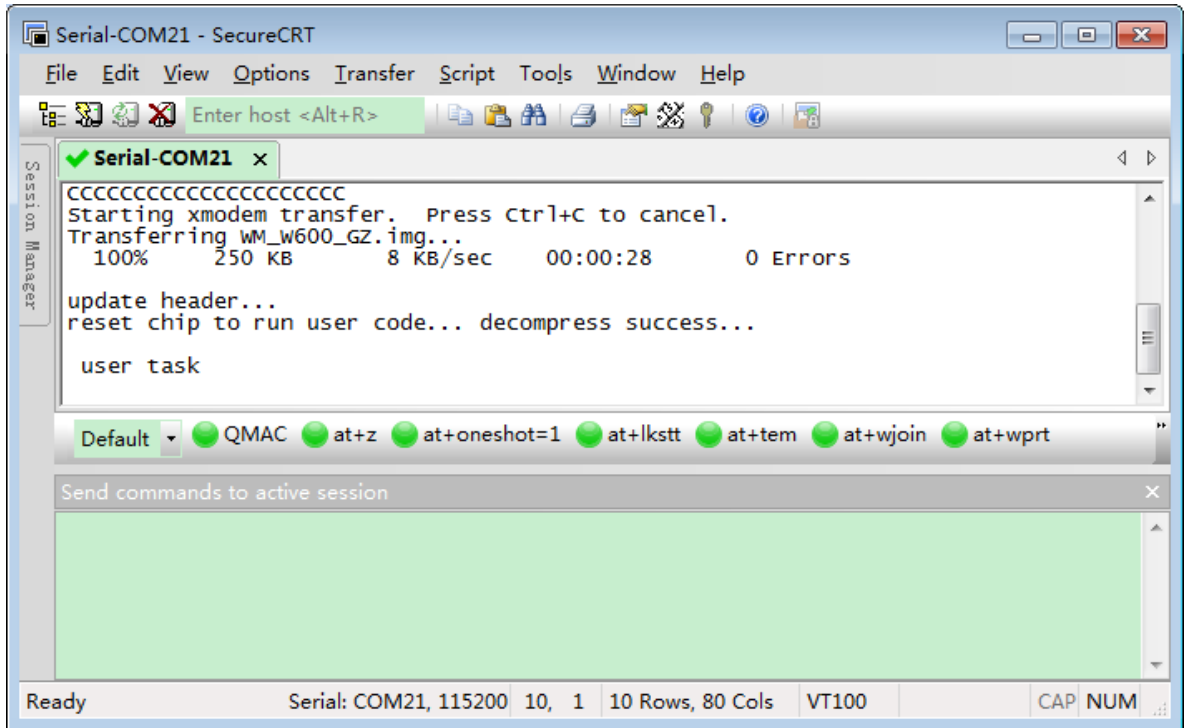


图 3-6