QFlash User Guide

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Our aim is to provide customers with timely and comprehensive service. For any assistance, please contact our company headquarters:

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About the Document

History

Revision	Date	Author	Description
1.0	2012-10-30	Yolanda YAO	Initial
1.1	2012-12-02	Yolanda YAO	Updated QFlash Version to 1.1
1.2	2013-02-25	Karen REN	Updated QFlash Version to 1.4
1.3	2013-05-20	Apple SONG/ Karen REN	Added USB port to upgrade firmware for U10 and UC20 module.
1.4	2013-10-10	James CAI	1. Added the ways to upgrade GCXX module. 2. Updated QFlash Version to 2.1.
1.5	2013-11-05	Lucky DOU	Updated QFlash Version to 2.2.
1.6	2013-12-07	James CAI	Updated QFlash Version to 2.3.
1.7	2013-12-12	Lucky DOU	Updated QFlash Version for UC15.
1.8	2014-02-11	James CAI	Updated QFlash Version to 2.4.
1.9	2014-02-26	Steed NING	Updated QFlash Version to 2.5.
1.10	2014-03-18	James CAI	Updated QFlash Version to 2.6.
1.11	2014-04-24	Anny ZHANG	Updated QFlash Version to 2.7.
1.12	2014-06-25	James CAI	Updated QFlash Version to 2.8.
1.13	2014-08-13	Martin LI/ Roddick SUN	Updated QFlash Version to 2.9.
1.14	2014-10-08	Martin LI	Updated QFlash Version to 3.0.
1.15	2014-12-10	Mario XU	Updated QFlash Version to 3.1.
1.16	2015-03-07	Jesse ZHANG	Updated QFlash Version to 3.3.
1.17	2015-06-04	James CAI	Updated QFlash Version to 3.4.

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1 Introduction

1.1. OS and Version

This document mainly introduces how to upgrade firmware with “QFlash” upgrade tool supplied by Quectel. The tool can run approximately in PC without any installations if the OS is among the ones listed below:

- Windows 98
- Windows 2000
- Windows XP
- Windows 7
- Windows 8

Any newer version of the tool will be informed and provided in advance.

1.2. About QFlash Tool

“QFlash” owned by Quectel is shown as below, please refer to Figure 1.

Figure 1: About This Tool

2 QFlash Upgrade Procedure

The tool is used to upgrade firmware. It works as the following steps:

Step 1: Configuration
Step 2: File setting
Step 3: Upgrade

The following part describes the details of using the upgrade tool.

2.1. Normal Configuration

When QFlash tool is opened, the main interface is shown as Figure 2.

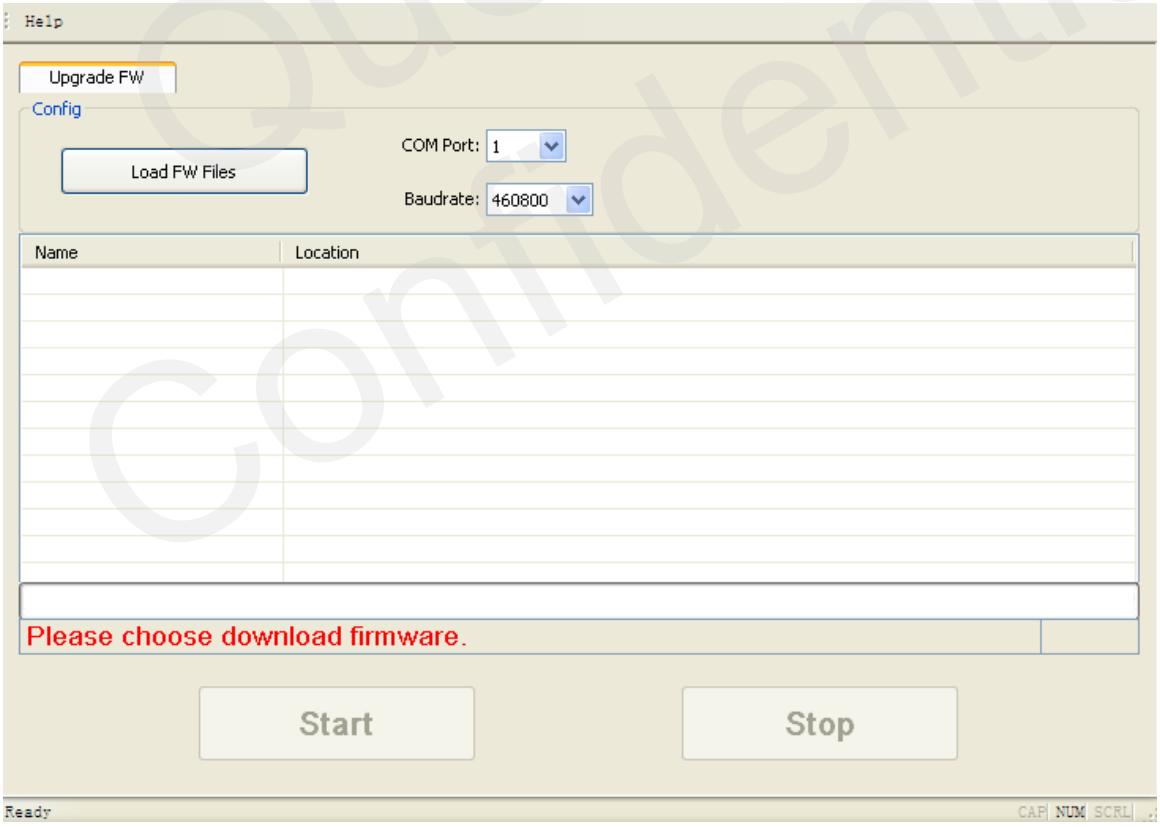

Figure 2: Main Interface

2.1.1. Serial Port

Click the "**COM Port**" dropdown list to select the COM port which is used to upgrade the firmware. For GSM/GPRS modules, it is the Main UART which is connected with the module. Refer to Figure 3.

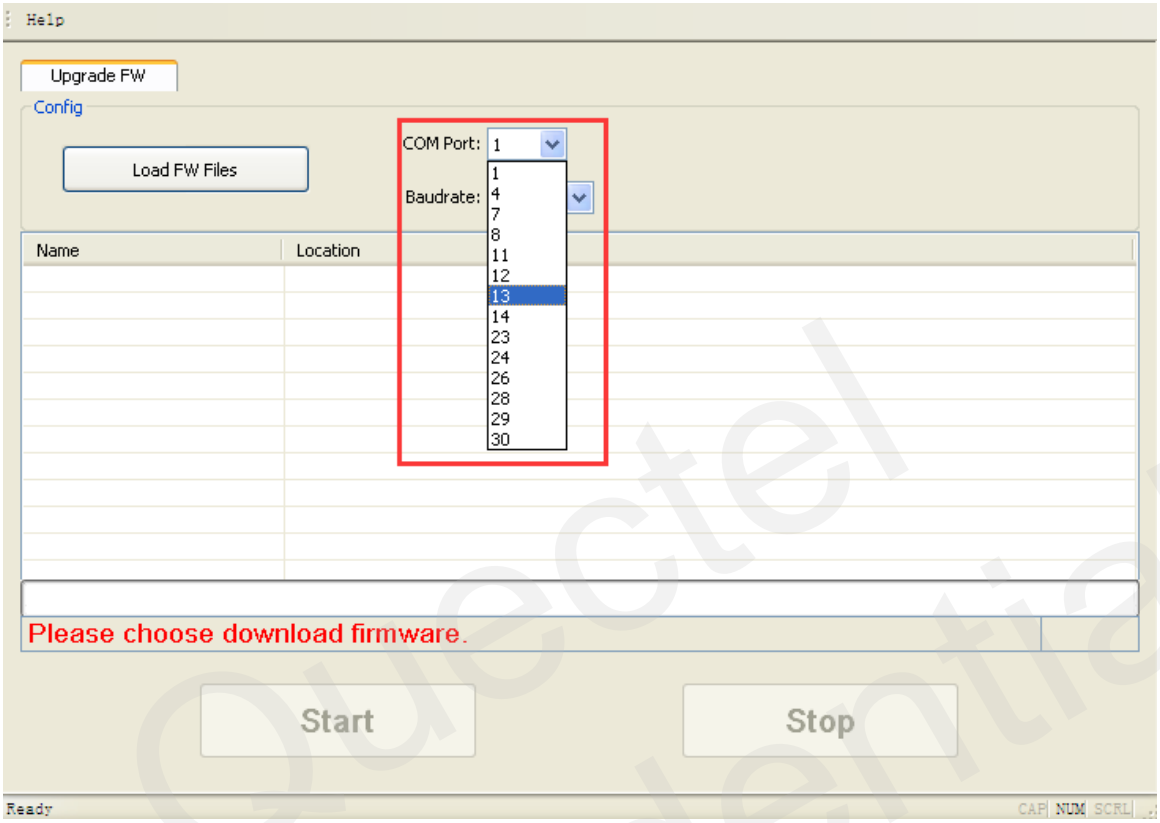

Figure 3: Select the Correct Serial Port

For UG95/UG96 module, USB port is used for upgrade and it can be selected automatically. While file setting is finished, the "**COM Port**" dropdown list will display "**USB**" in gray. After the module is restarted and ready to upgrade, the tool can recognize the USB port. Refer to Figure 4.

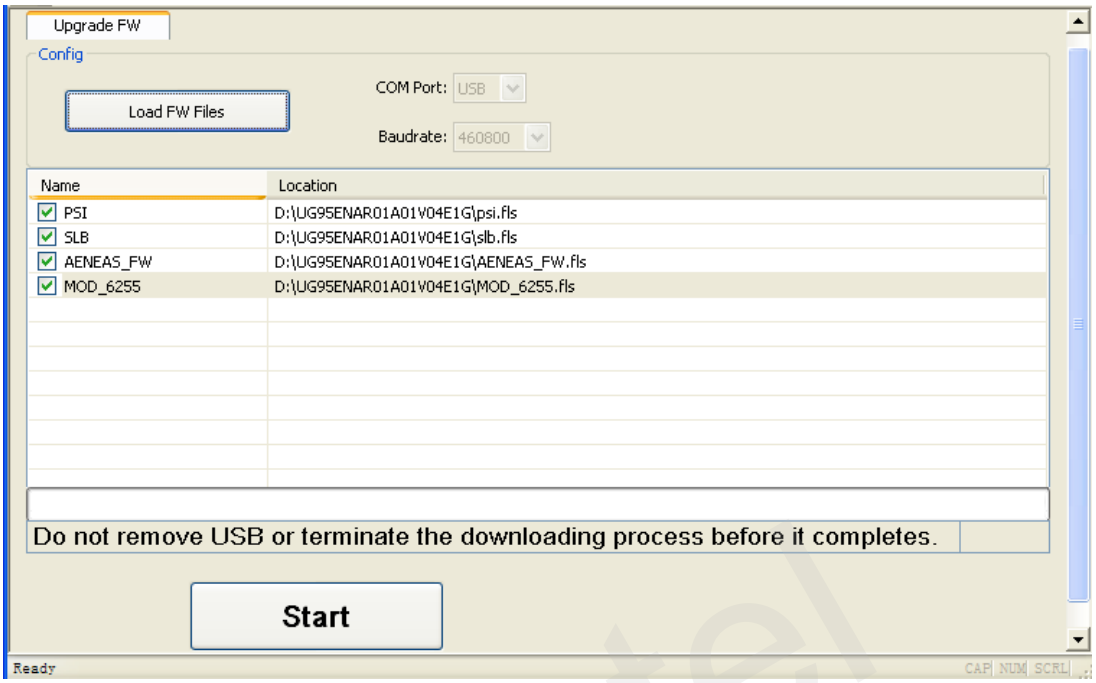

Figure 4: No Need to Select COM Port for UG95/UG96 Module

For UC20 module, USB DM port can be used to upgrade. Click the "**COM Port**" dropdown list and select the USB DM port for upgrade. Refer to Figure 5.

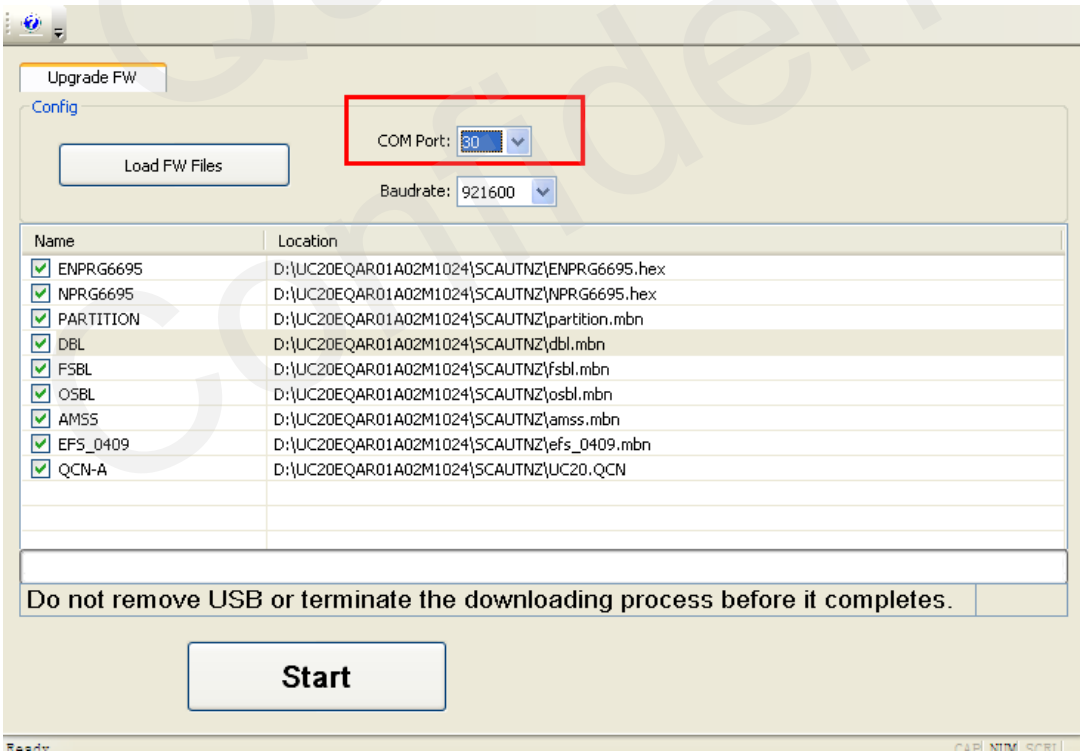

Figure 5: Select the USB DM Port for UC20 Module

For UC15 module, USB DM port can be used to upgrade. Click the "**COM Port**" dropdown list and select the USB DM port for upgrade. Refer to Figure 6.

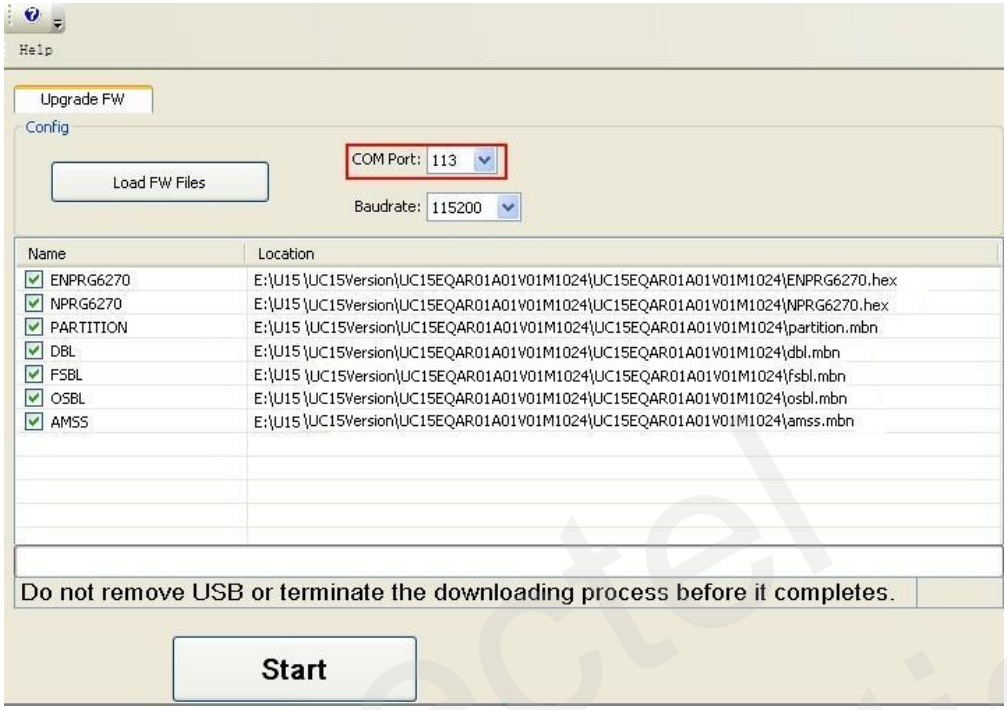

Figure 6: Select the USB DM Port for UC15 Module

2.1.2. Baudrate

Click the "**Baudrate**" dropdown list and choose an appropriate baudrate. It is recommended to select 460800 for Quectel's module. Please refer to Figure 7.

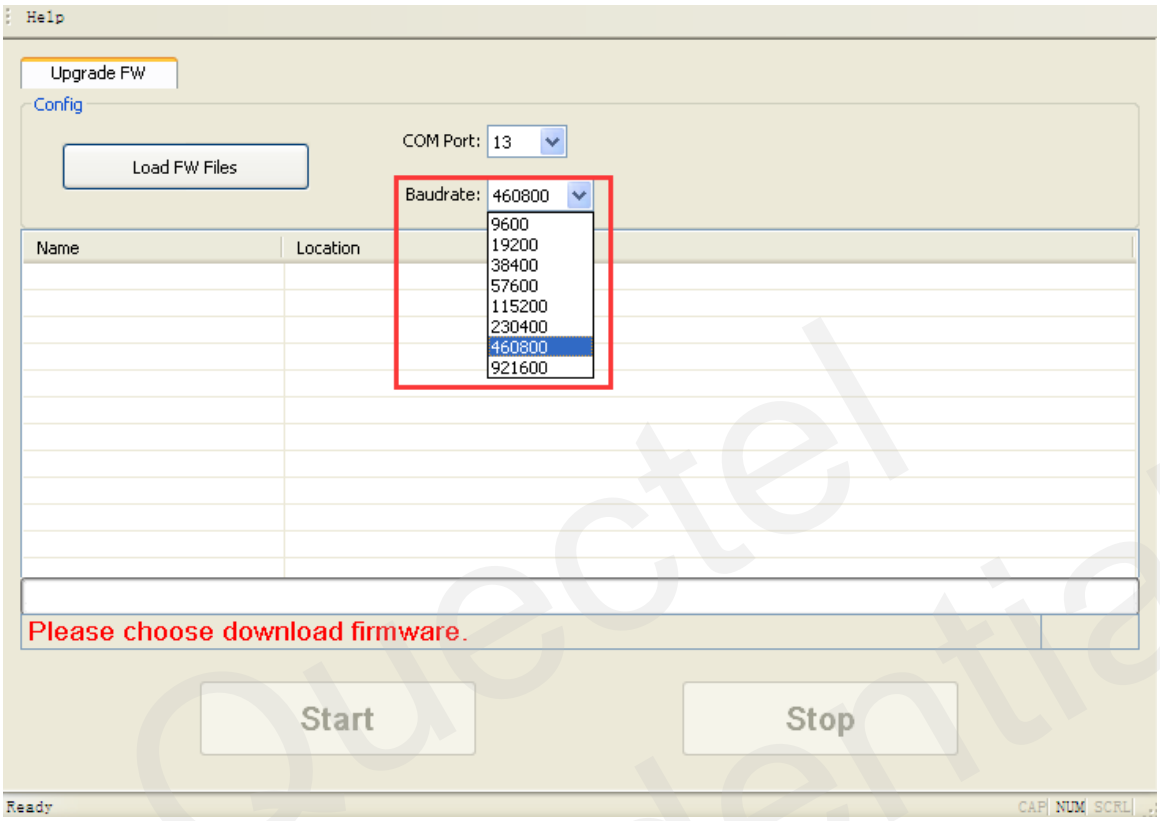

Figure 7: Select the Baudrate

NOTES

1. Baud rates have many different values, whether it is supported or not depends on the hardware environment. If it is not supported, error message will be returned.
2. Baud rate setting is unnecessary for USB virtual port.

2.1.3. File Setting

Step 1: Click the button "**Load FW Files**".

Step 2: Select the "txt/cfg/mbn/lod/fls" file which you want to download to module.

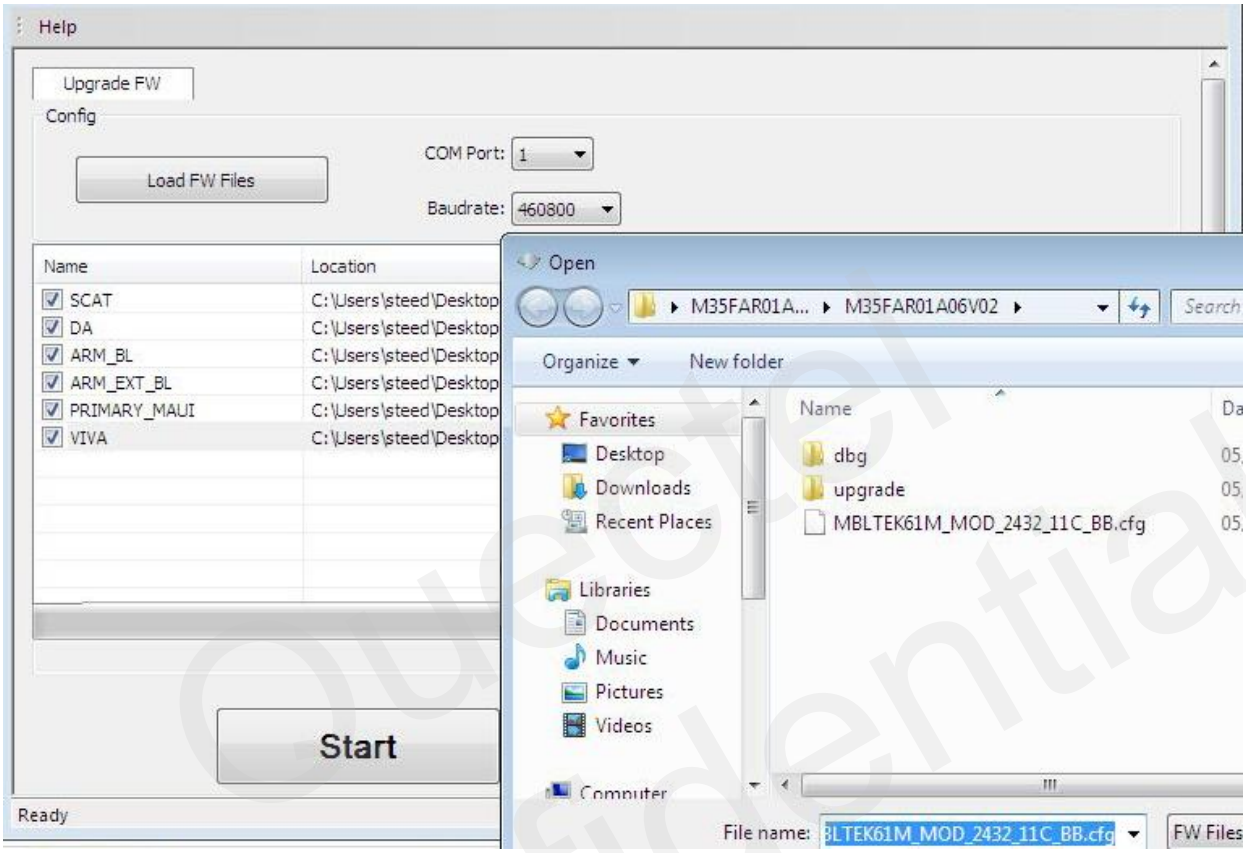

Figure 8: Select the Bin File

2.1.4. Upgrade

Step 1: Click the "**Start**" button to upgrade the firmware. Please refer to Figure 9.

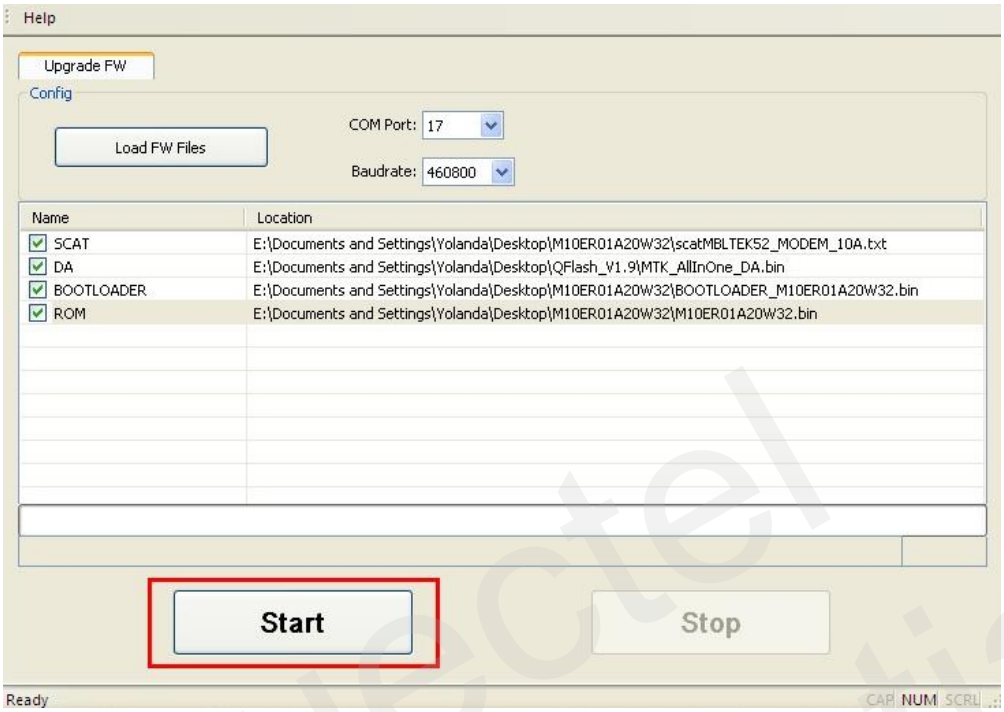

Figure 9: Click the Start Button

There is no "**Stop**" button (Refer to Figure 10) in upgrading UC15/UC20/GCXX module firmware.

NOTE

Please do select 921600 baud-rate when upgrading GCXX module. Other baud-rates may lead to upgrading operation failure.

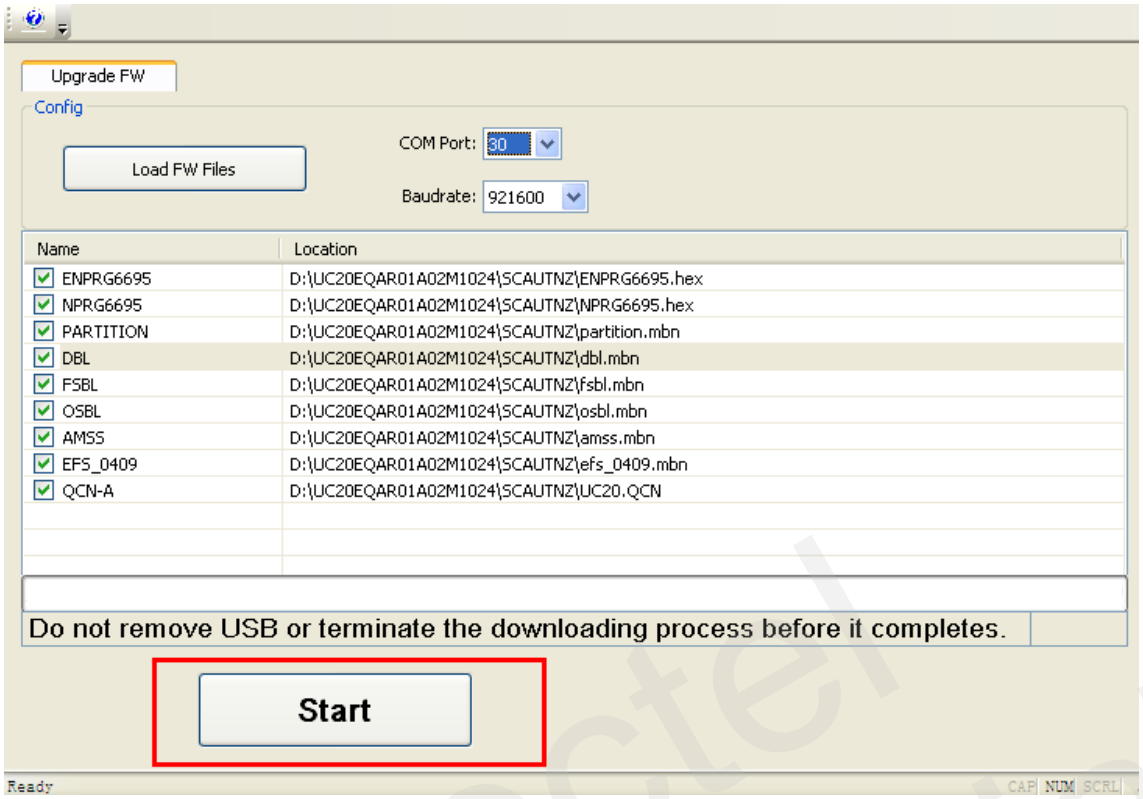

Figure 10: Click the Start Button (UC15/UC20/GCXX Module)

NOTE

Please note that it is not permitted to stop the upgrading, and please do not remove USB or terminate the downloading process when upgrading is not completed.

Step 2: Then restart the module by switching the D/L to “ON” after clicking “**Start**” button in 30 seconds. It will start to upgrade the firmware as shown in Figure 11.

If you upgrade the UC15/UC20/GCXX module firmware, please ignore this step. It will restart the module automatically, refer to Figure12.

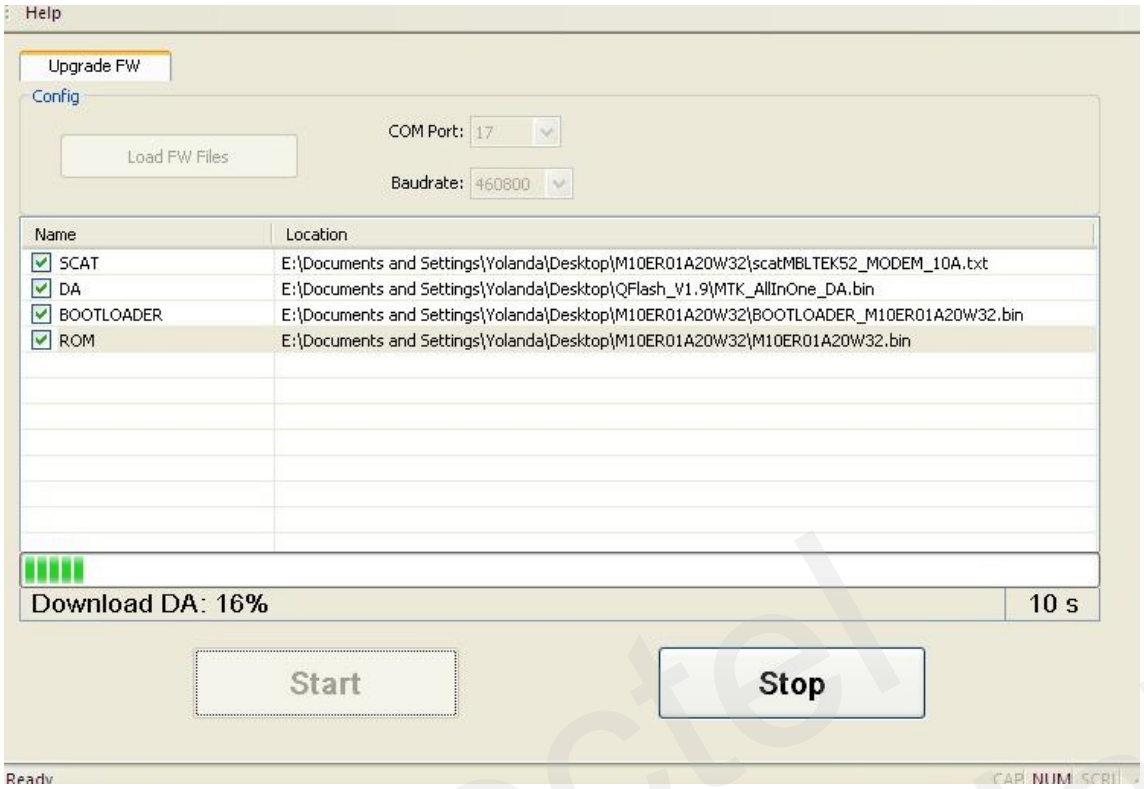

Figure 11: Start to Upgrade after Restarting the Module

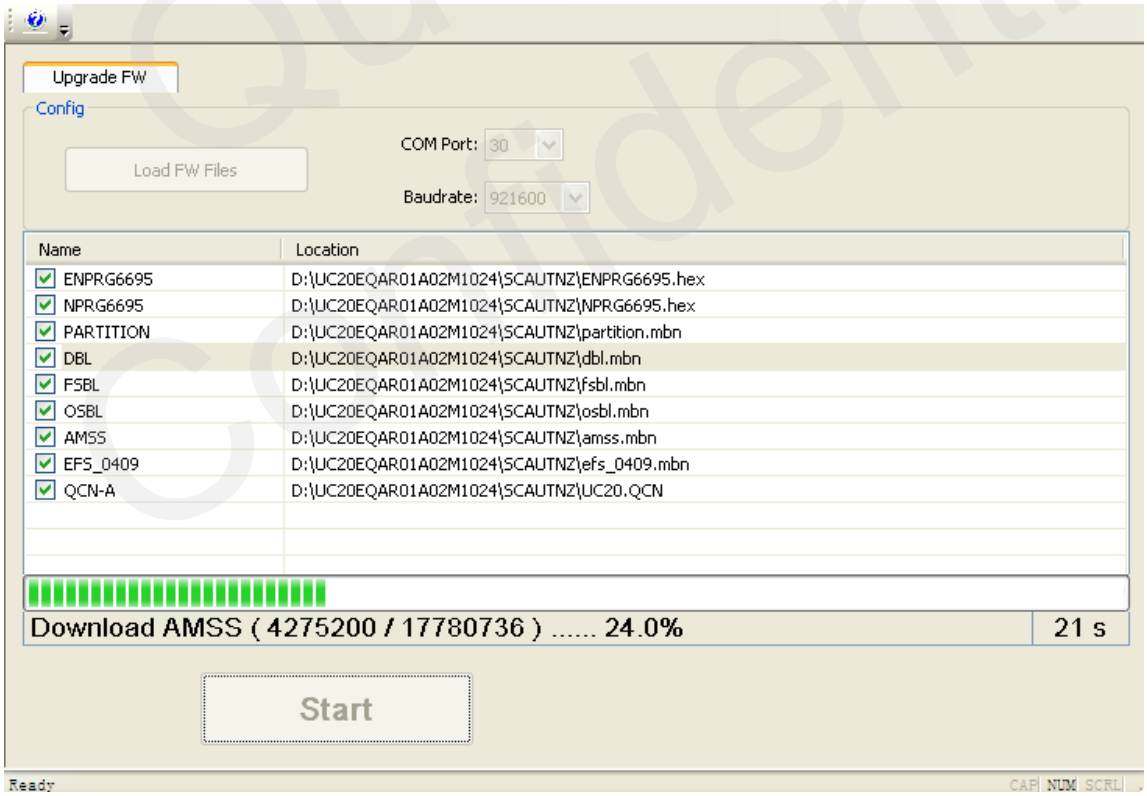

Figure 12: Start to Upgrade Firmware

NOTES

1. Please make sure the 5V_SW switch is ON when restarting the module by switching the D/L to “ON” on EVB.
2. If there is no EVB for module firmware upgrading, please drive the PWRKEY pin to a low level voltage after clicking the “**Start**” button in 30 seconds.

Step 3: It will display “**FW upgrade success**” when successfully upgrading the module, shown as Figure 13.

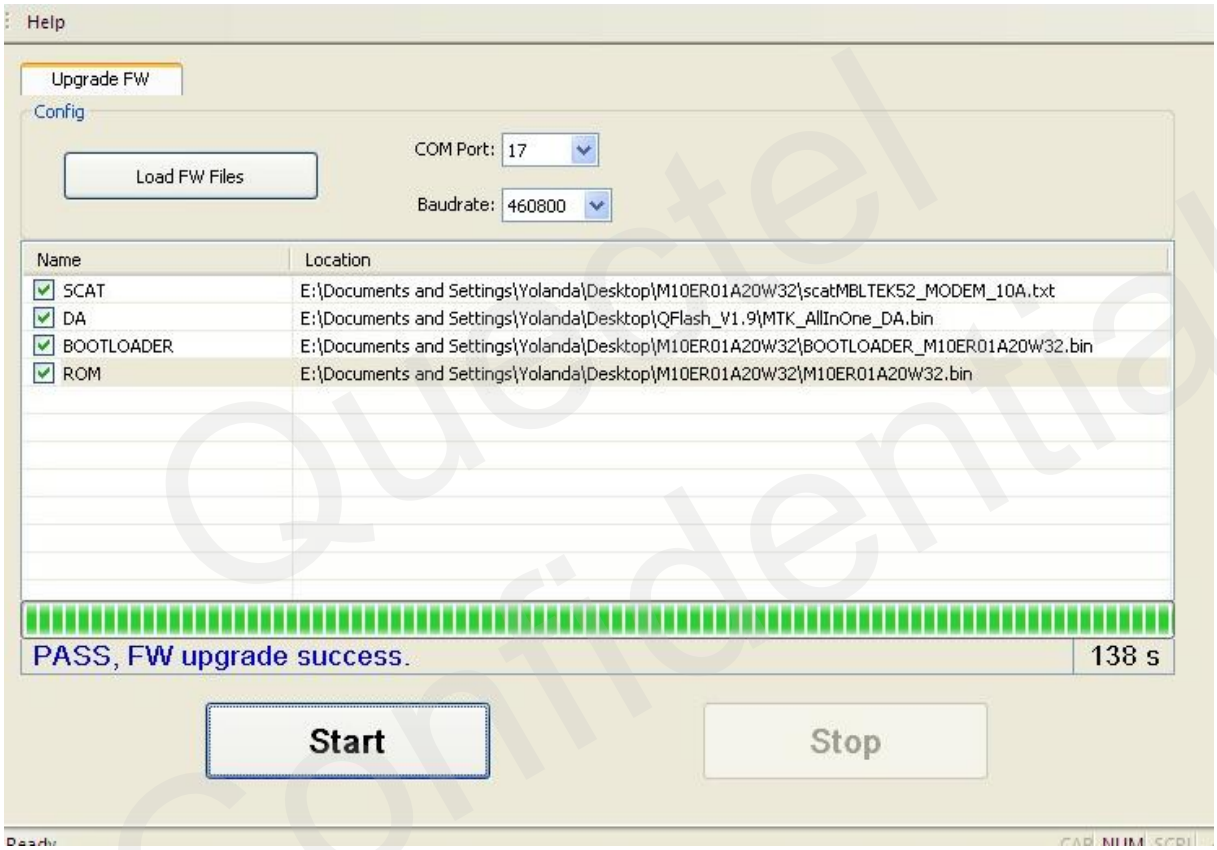

Figure 13: Successful Upgrade

2.2. Abnormalities

Abnormalities may be caused by incorrect parameter of baud-rate, damaged EVB or invalid files, etc.

2.2.1. Select Wrong Series Port

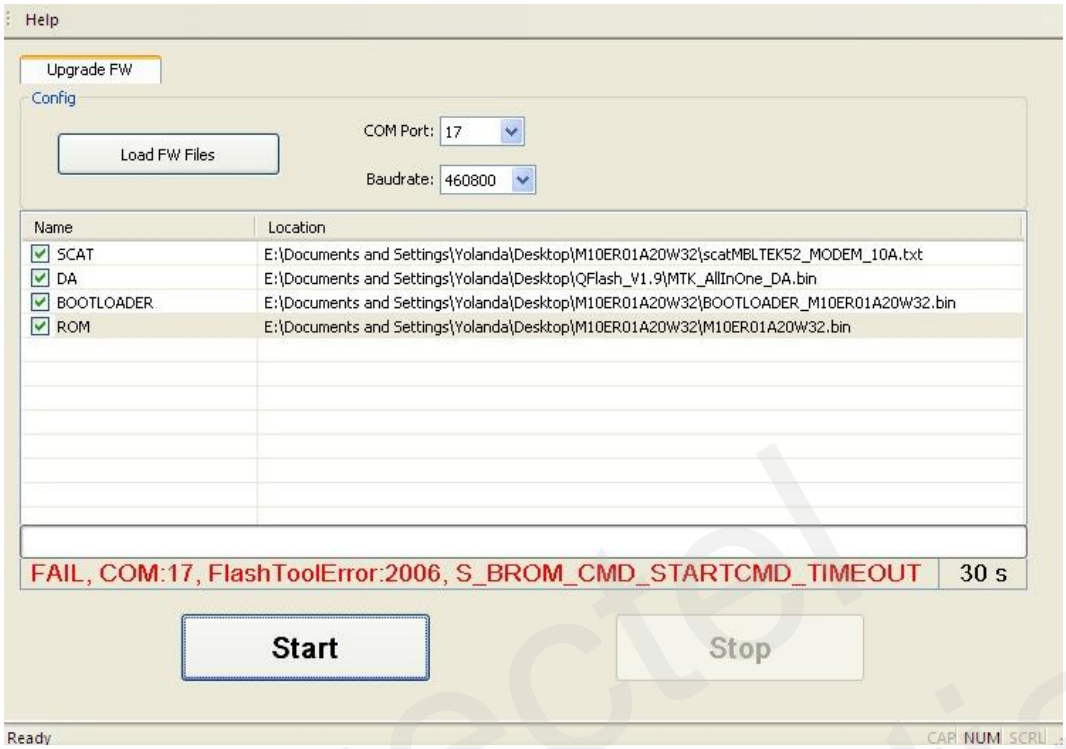

Figure 14: Connect with Wrong Serial Port

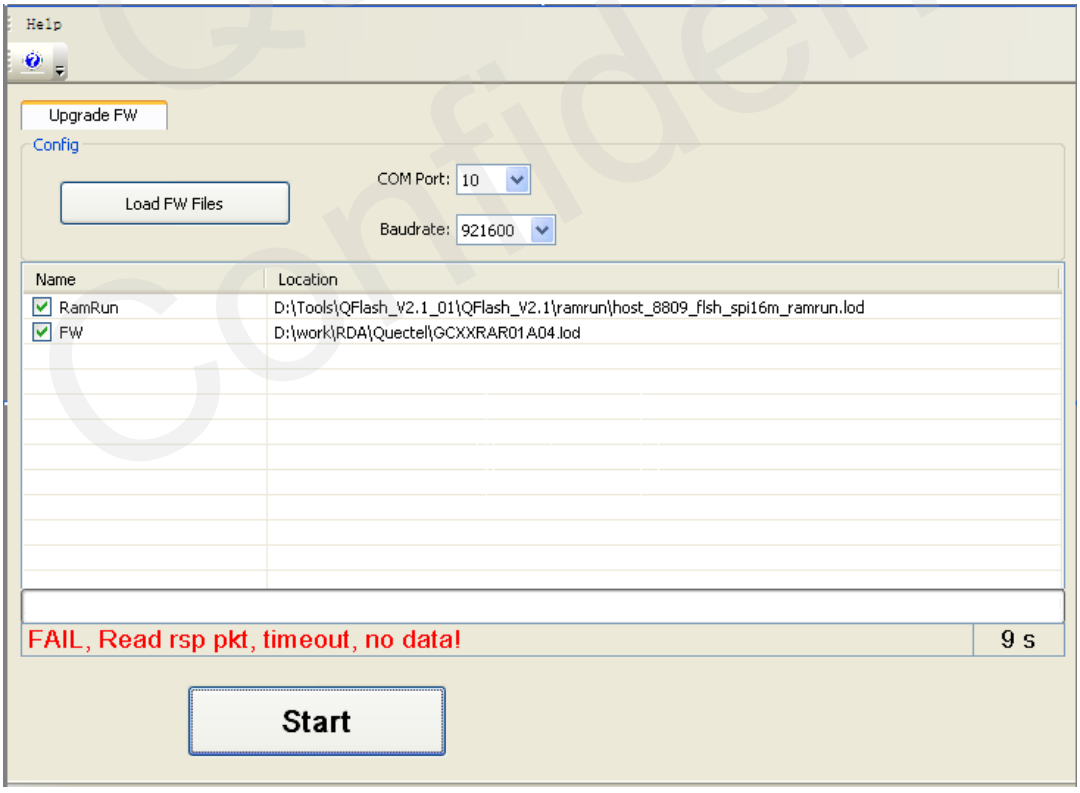

Figure 15: Connect with Wrong Serial Port (GCXX Module)

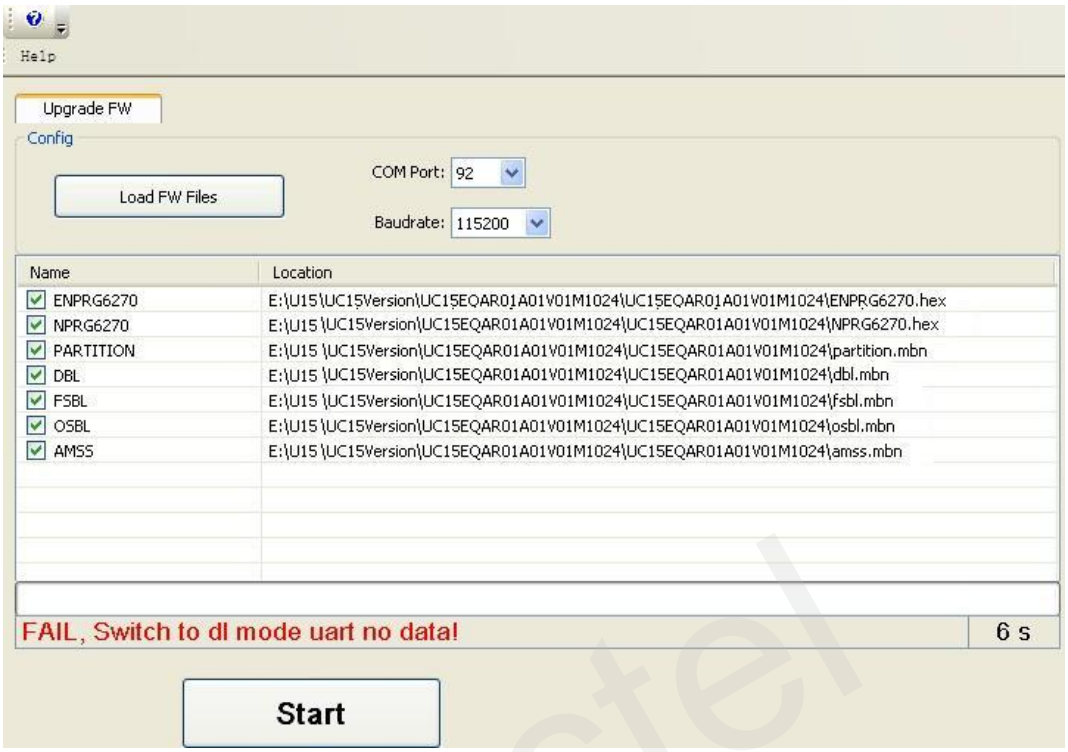

Figure 16: Connect with Wrong Serial Port (UC15/UC20 Module)

2.2.2. Connect to an Occupied Serial Port

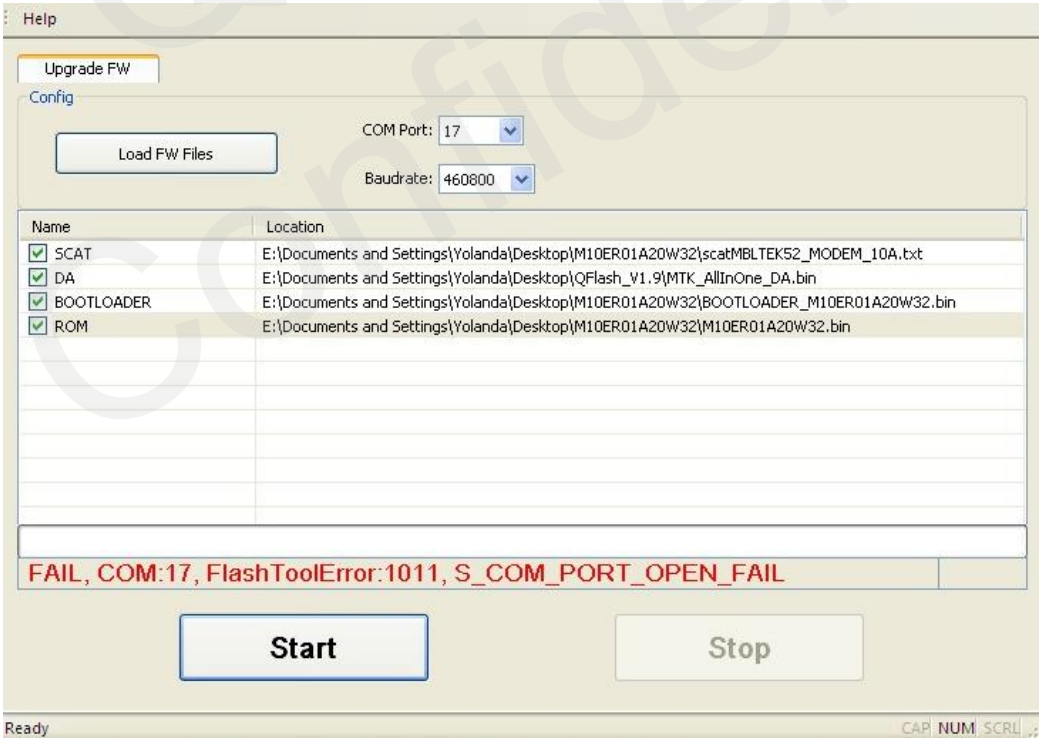

Figure 17: Connect to an Occupied Serial Port

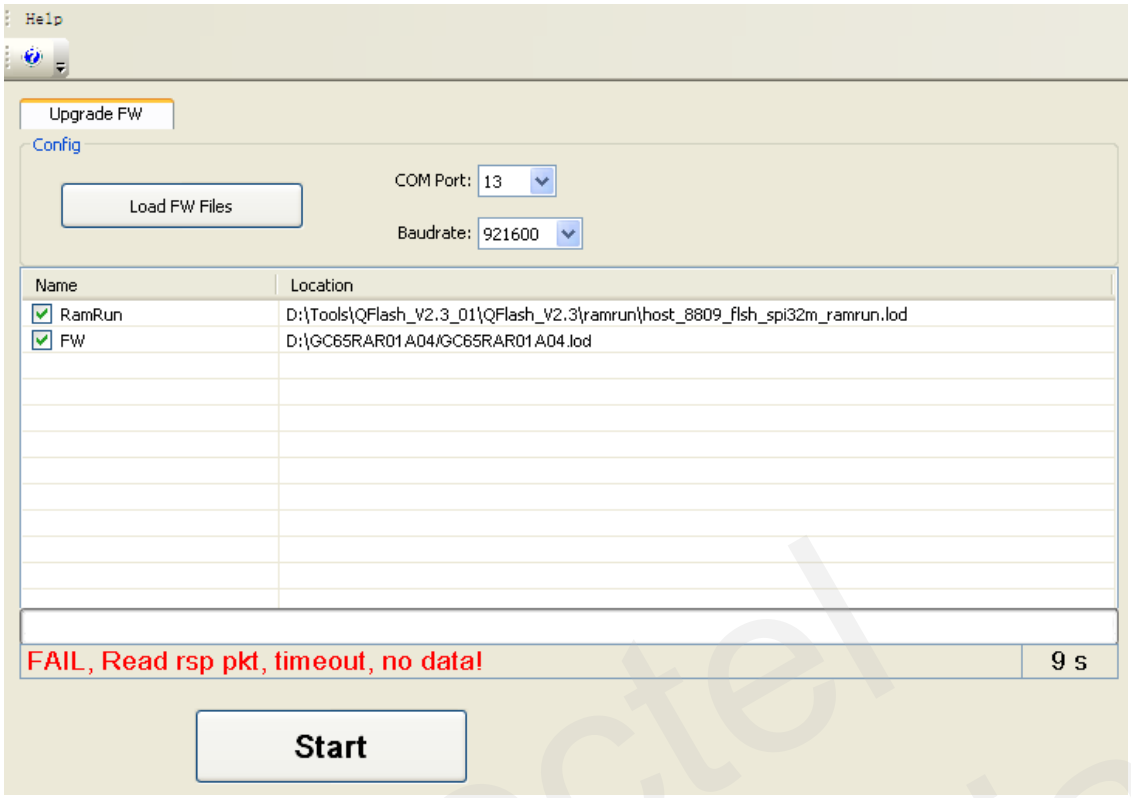

Figure 18: Connect to an Occupied Serial Port (GCXX Module)

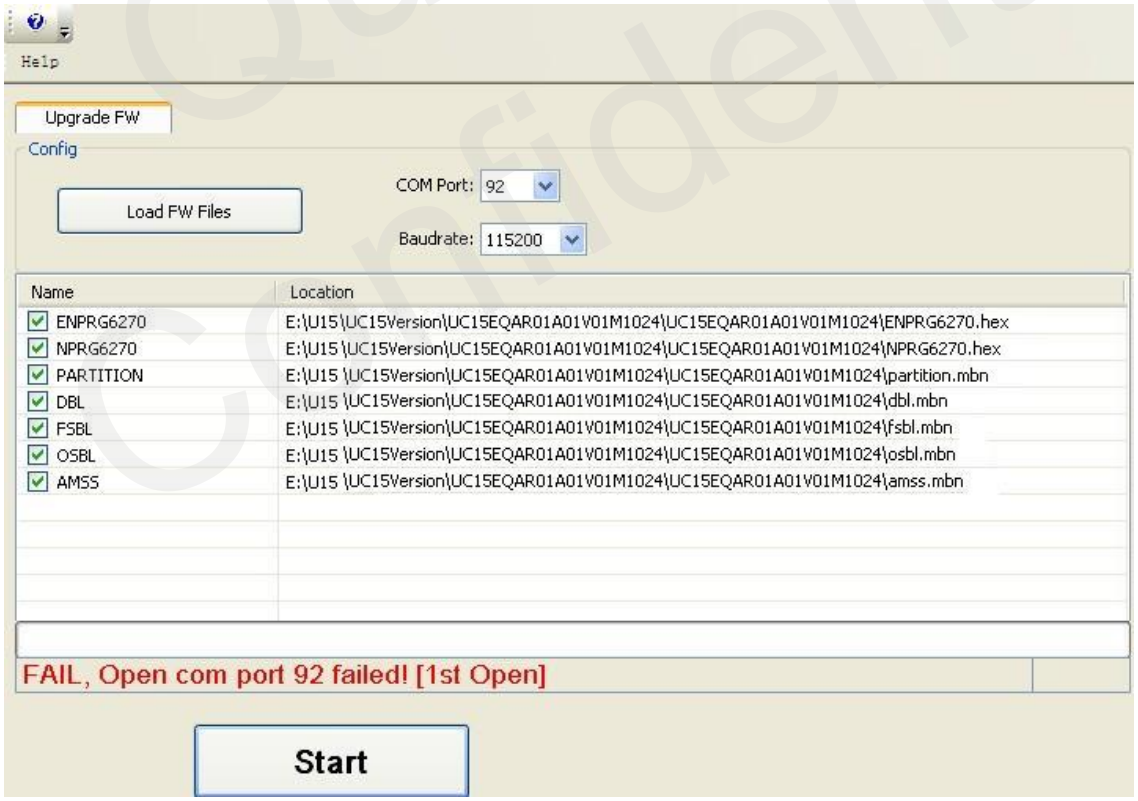

Figure 19: Connect to an Occupied Serial Port (UC15/UC20 Module)

2.2.3. Select an Unsupported Baudrate

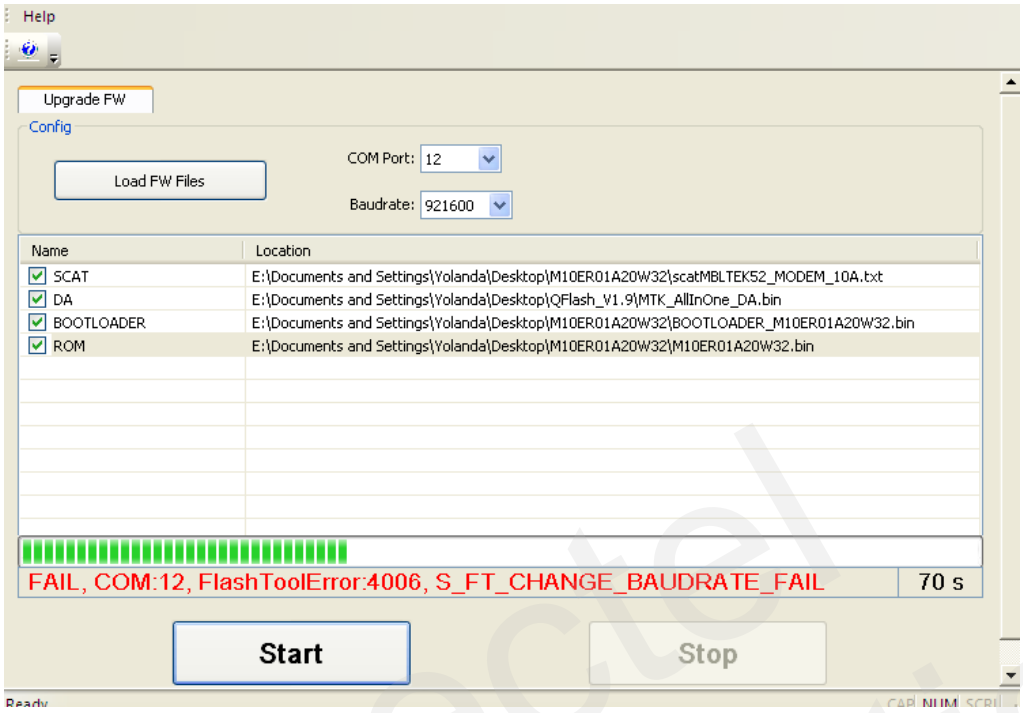

Figure 20: Unsupported Baudrate is Selected

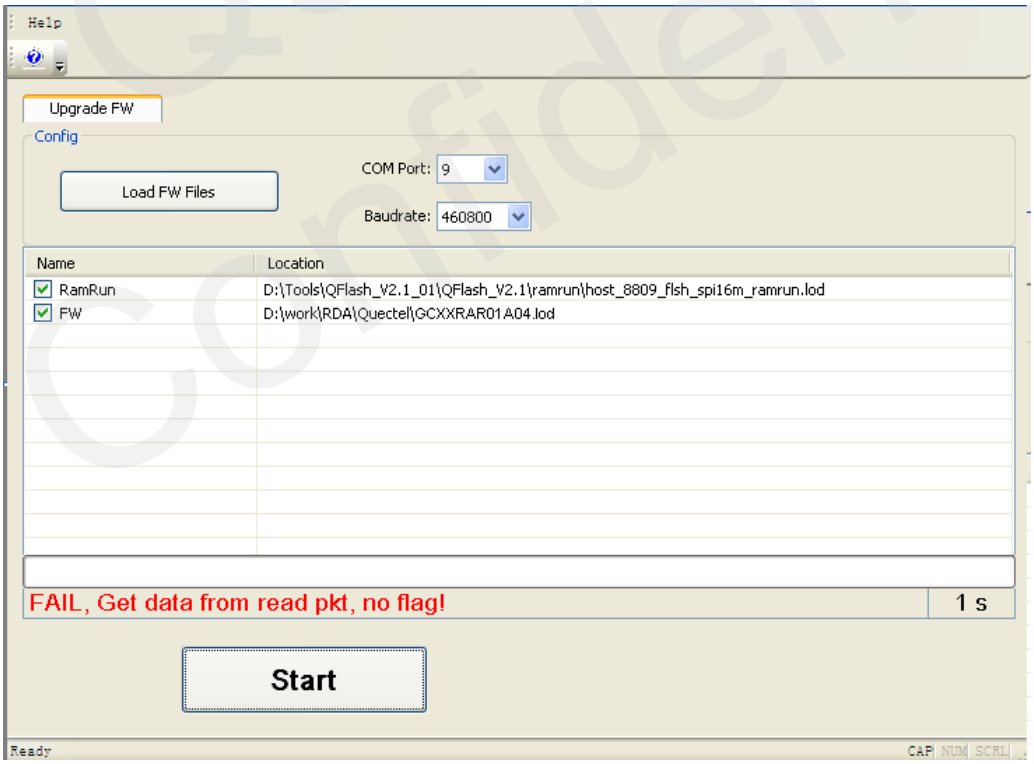

Figure 21: Unsupported Baudrate is Selected (GCXX Module)

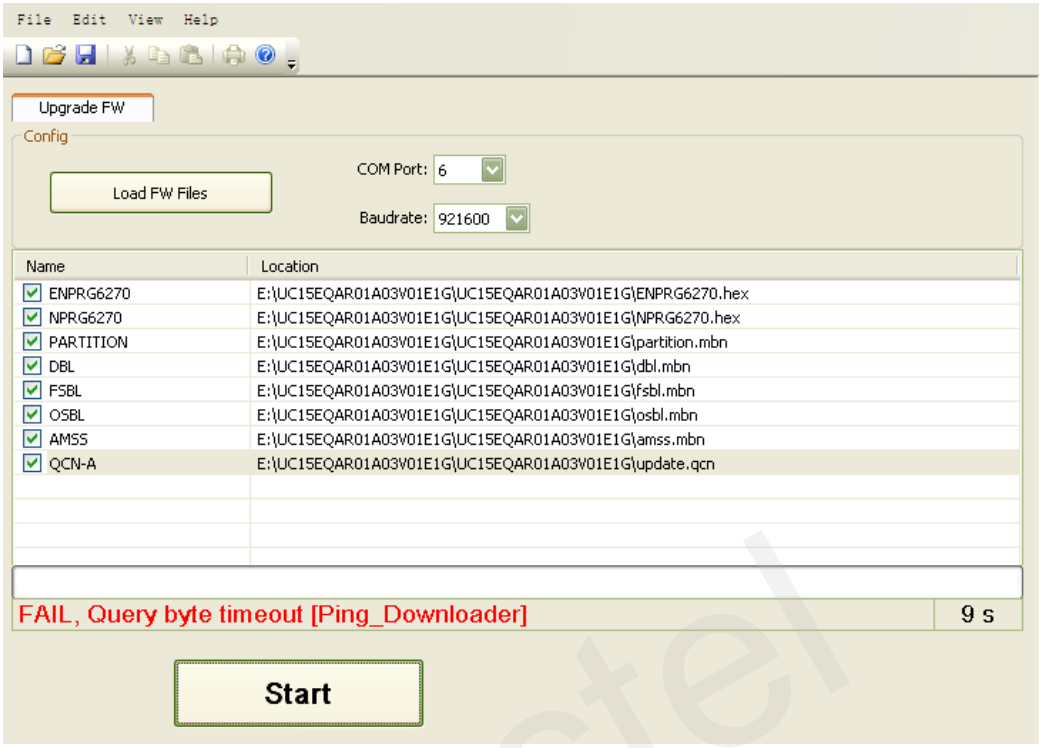

Figure 22: Unsupported Baudrate is Selected (UC15/UC20 Module)

2.2.4. Select the Invalid Scatter File

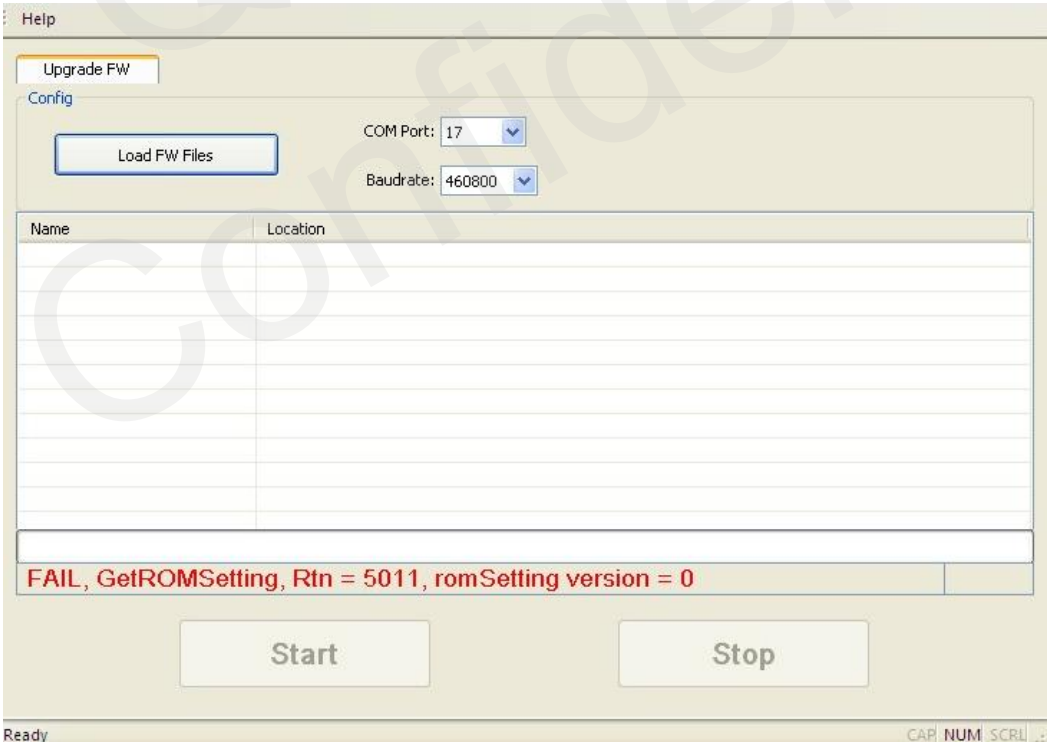

Figure 23: Selected the Invalid Scatter File

2.2.5. Select the Invalid Lod File (GCXX Module)

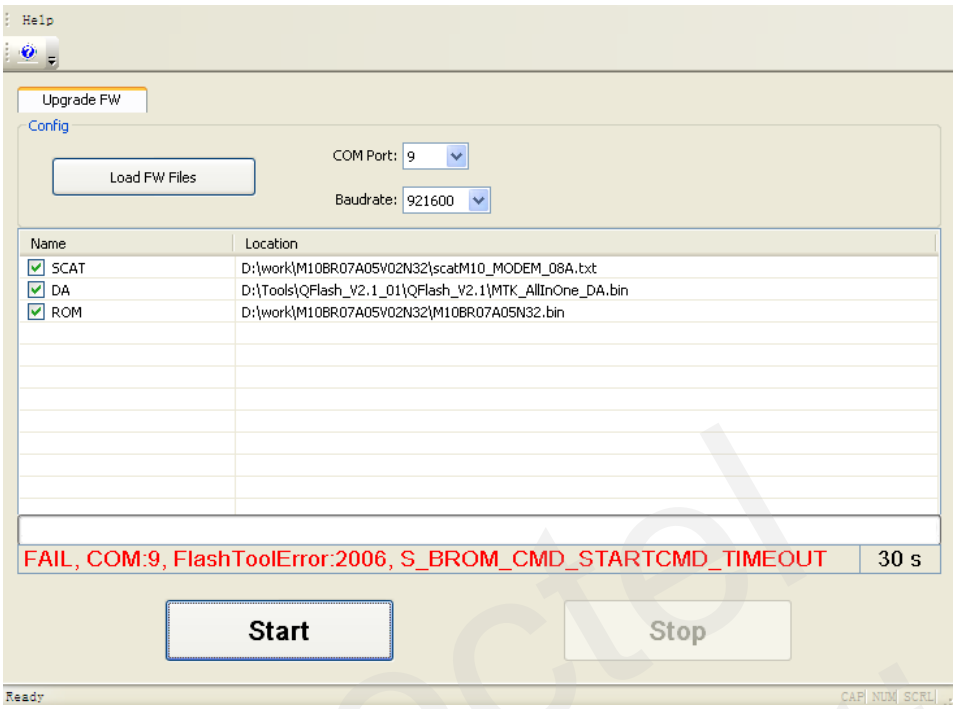

Figure 24: Select the Invalid Lod File (GCXX Module)

2.2.6. Power Supply is Abnormal

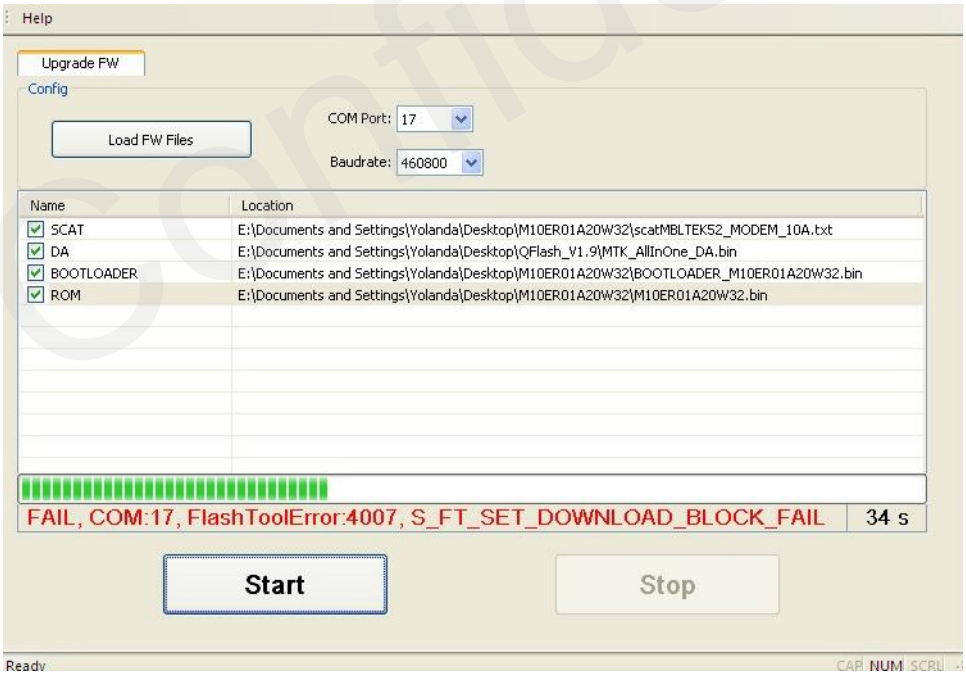

Figure 25: Power Supply is Abnormal (GCXX Module)

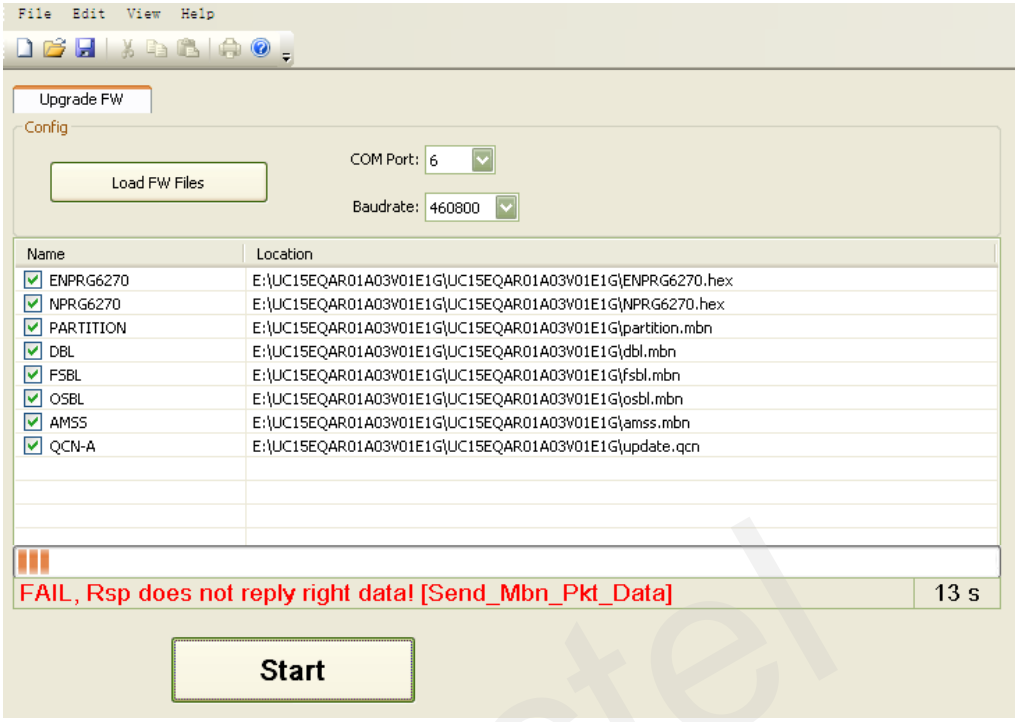

Figure 26: Power Supply is Abnormal (UC15/UC20 Module)

2.2.7. USB to Serial Cable is Abnormal

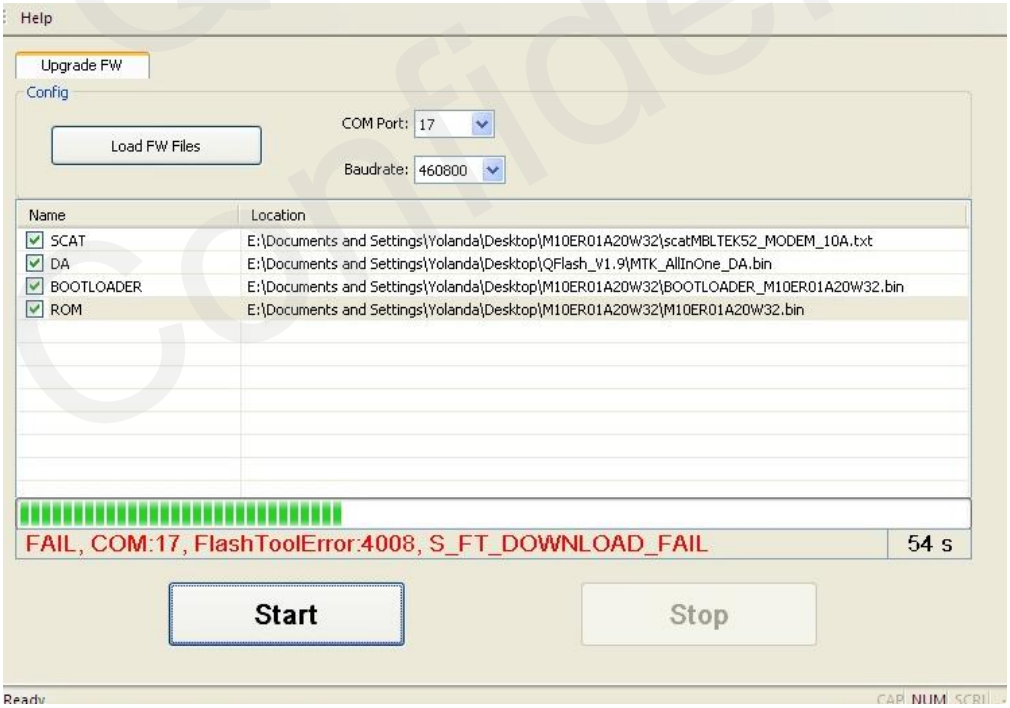

Figure 27: USB to Serial Cable is Abnormal