Quectel Cellular Engine

Firmware Upgrade Tool Lite User Guide

FW_Upgrade_Tool_Lite_UGD_V1.00

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0. Revision history

Revision	Date	Author	Description of change
1.00	2009-09-01	Jean HU	Initial

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1. Introduction

The present document describes how to upgrade firmware using “Firmware Upgrade Tool Lite V1.00” which provided by Quectel.

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2. Installations and Upgrade

The tool can run approximately in PC without any installations if the OS of PC is among the ones listed below.

- Windows 95
- Windows 98
- Windows 2000
- Windows ME
- Windows XP

Any upgraded version of the tool will be informed in advance and provided by Quectel.

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3. Firmware

The firmware package which provided by Quectel contains three files:

- .txt file: the scatter file to describe layout of the firmware image on memory.
- Database file: used in the Data Tool.
- .bin file: the firmware image file.

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4. Introduction of the Tool

The tool is used to upgrade firmware which provided by Quectel.

It works as following steps:
Step1: Select the .txt scatter file corresponding to the .bin file.
Step2: Choose the correct serial port and baud rate.
Step3: Click ***Start*** button to start downloading.
Step4: Set the device into download mode (take M10 module as an example: set "D/L" switch on EVB to ON (make sure the "5V_SW" switch is ON))

The following describes the detail of using the upgrade tool.

4.1. Introduction of the UI

The figure 2 shows the main interface of the tool. This tool supports many projects to upgrade firmware, such as M10//M16/M20GT300/GS200/GV100, etc. Please select the correct model name as shown in figure 3.

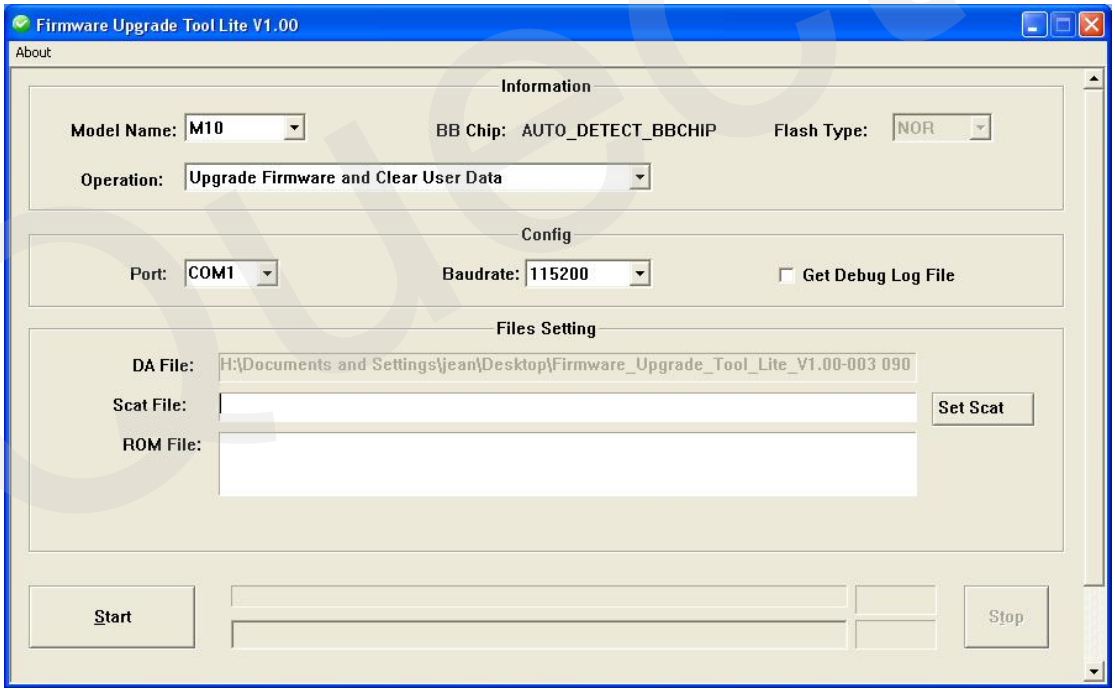

Figure 1: The main interface

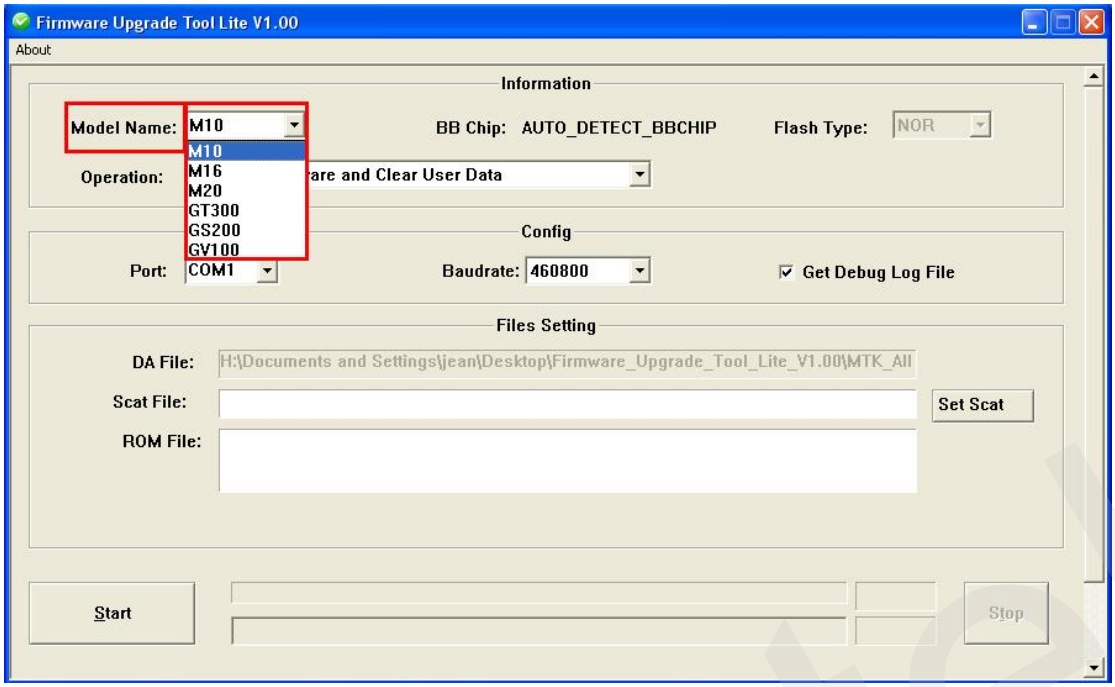

Figure 2: UI of selecting the model name

Note:

There are two choices in the ***Operation***, the one is default named "Upgrade Firmware and Clear User Data" and the other one "Upgrade Firmware Only" is reserved which customer can ignore.

4.1.1. Configuration

A) Port

According to the connection between PC and EVB, select the right serial port as figure 4.

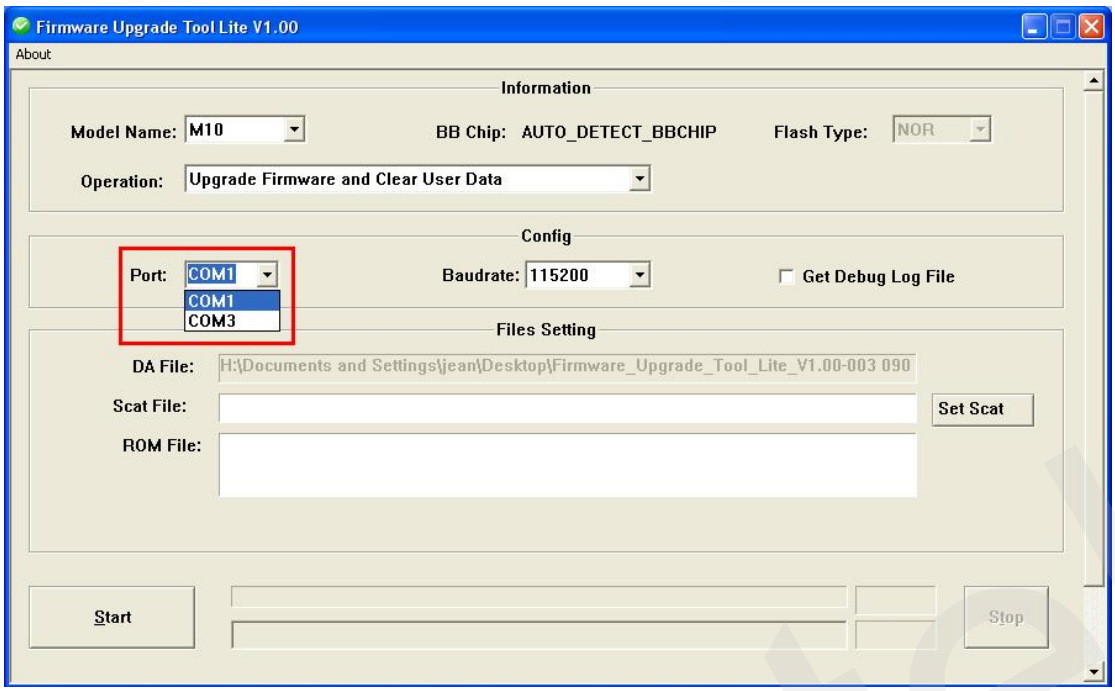

Figure 3: UI of Port

B) Baud rate

Choose an appropriate baud rate. Please refer to figure 5.

Note:

The maximal baud rate of standard serial cable is 115200, and the USB Serial cable is 460800.

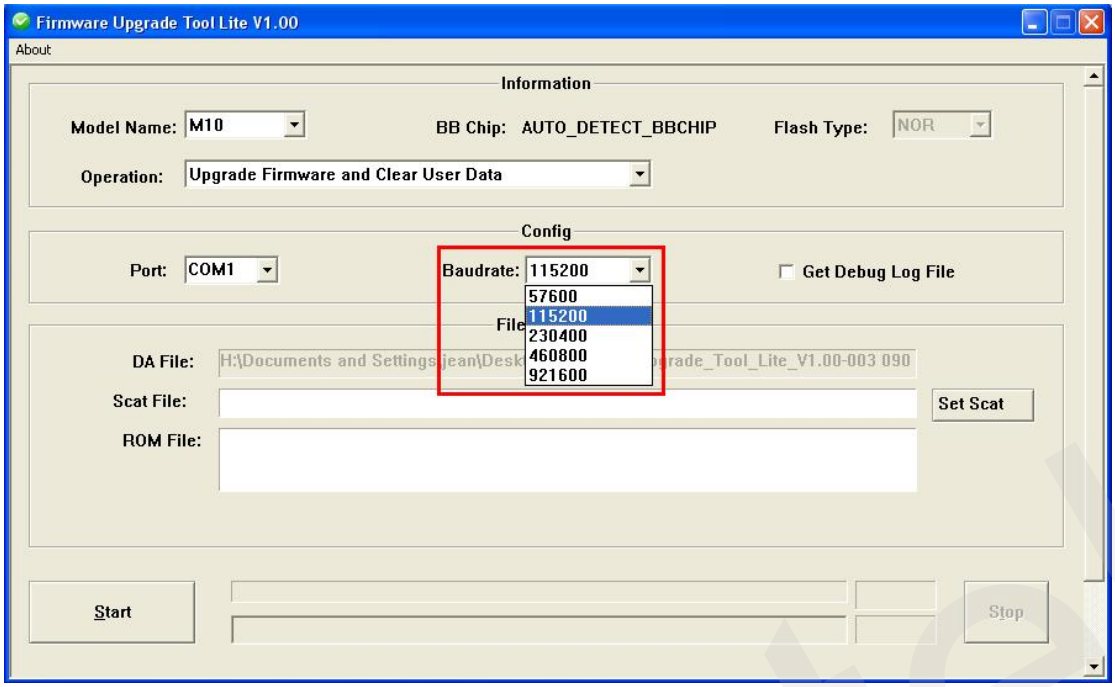

Figure 4: UI of Baud rate

C) Get Debug Log File

This function is used for more information, the customer can ignore it.

4.1.2. Files setting

Click ***Set Scat*** button to select the scatter file. The tool will match the .bin file in the same folder automatically after selected correct scatter file. Dialogue frames are shown in figure 6 and figure 7.

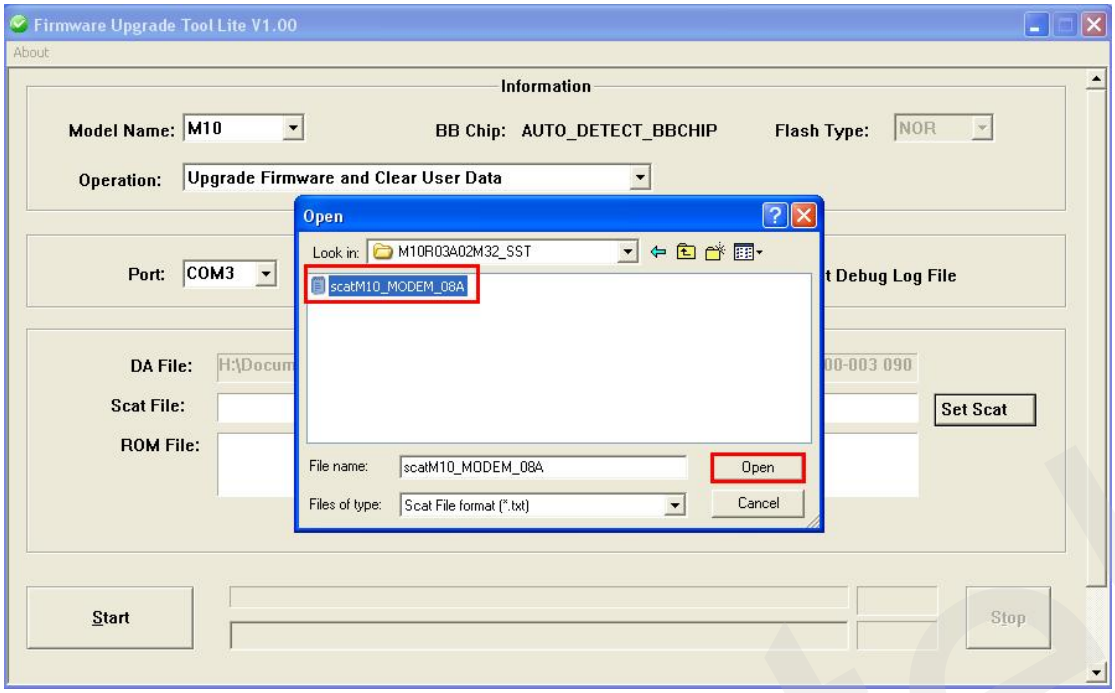

Figure 5: UI of Selecting Scatter File

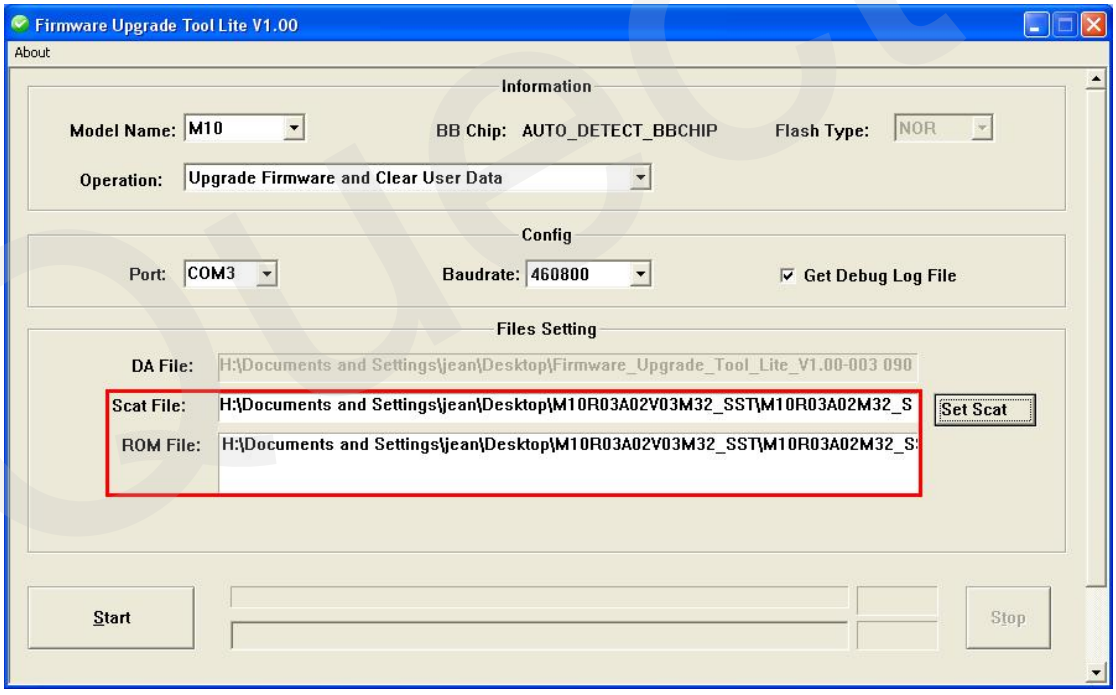

Figure 6: UI of Scatter File Selected

4.1.3. Start

Firstly click the ***Start*** button to upgrade the chosen firmware. Please refer in figure 8.
Secondly, set "D/L" switch to ON to start upgrading process.
Finally, it will indicate "Mission Accomplish. Pass." if successfully as shown in figure 9.

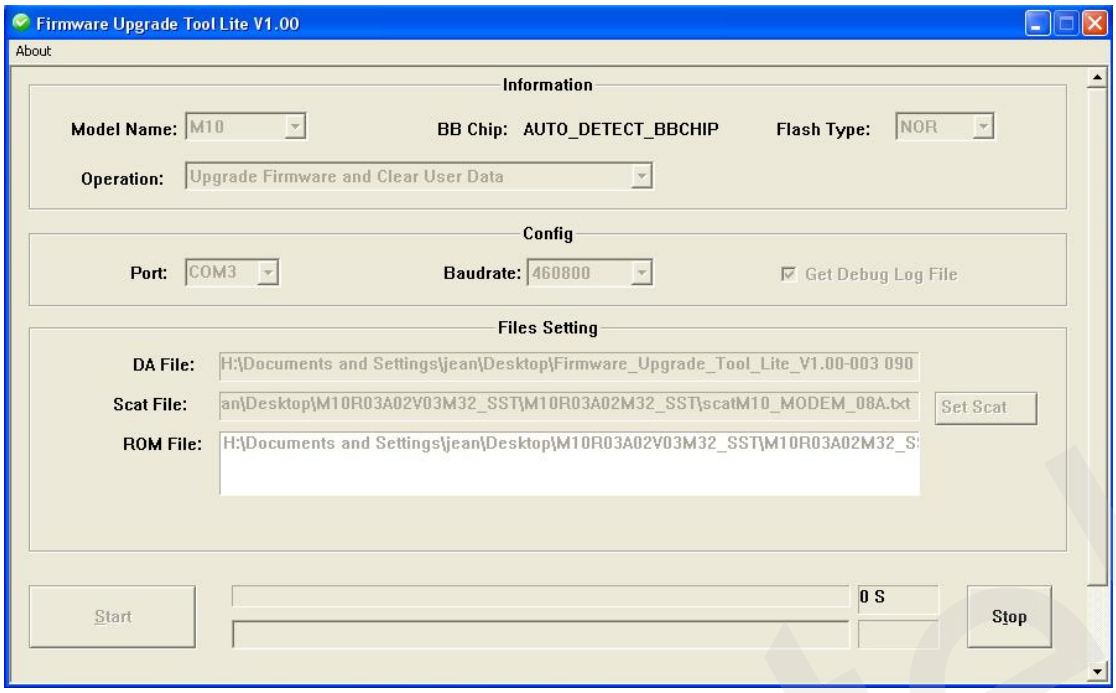

Figure 7: UI of Starting Upgrade

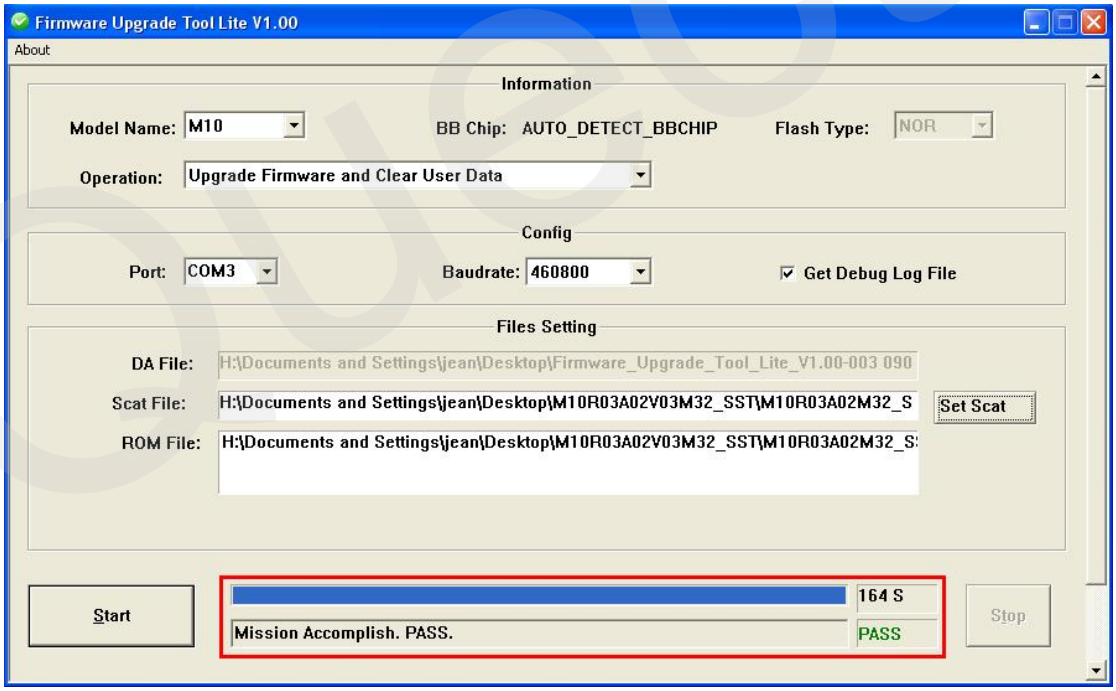

Figure 8: UI of Upgrade OK

The progress bar on the right of ***Start*** button indicates the progress of upgrading firmware and shows the time expire of upgrading. There are several steps in the progress of upgrading firmware.

- ✧ DA Percent
- ✧ Download Percent
- ✧ Clear the flash

Dialogue frames are shown in figure 10, figure 11 and figure 12.

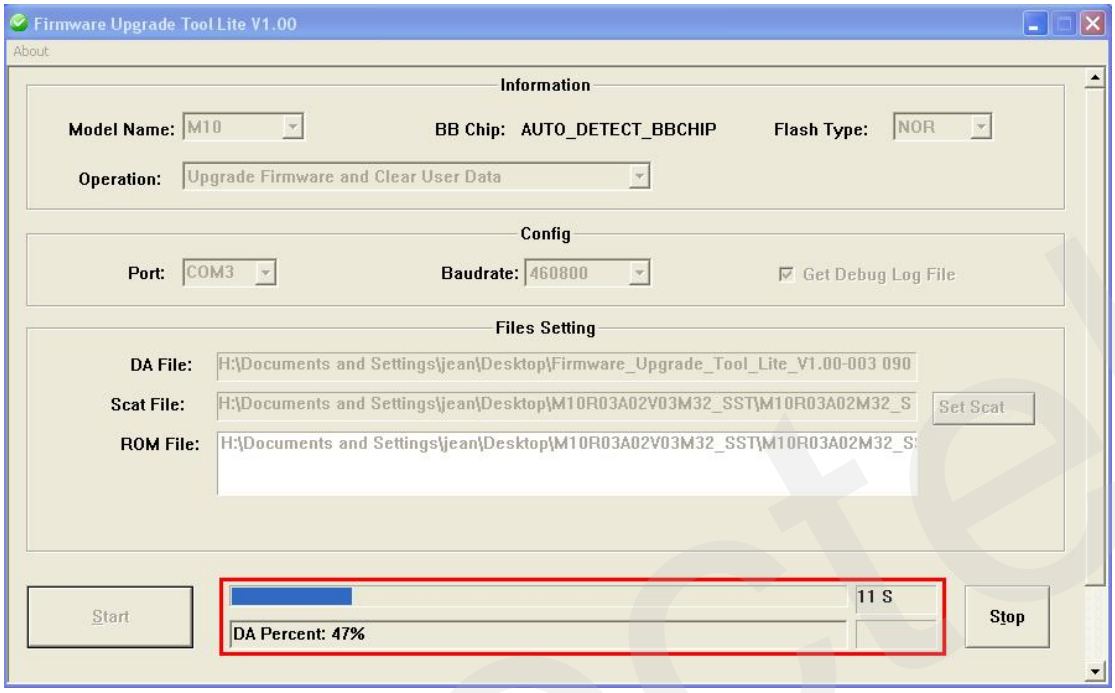

Figure 9: UI of DA Percent

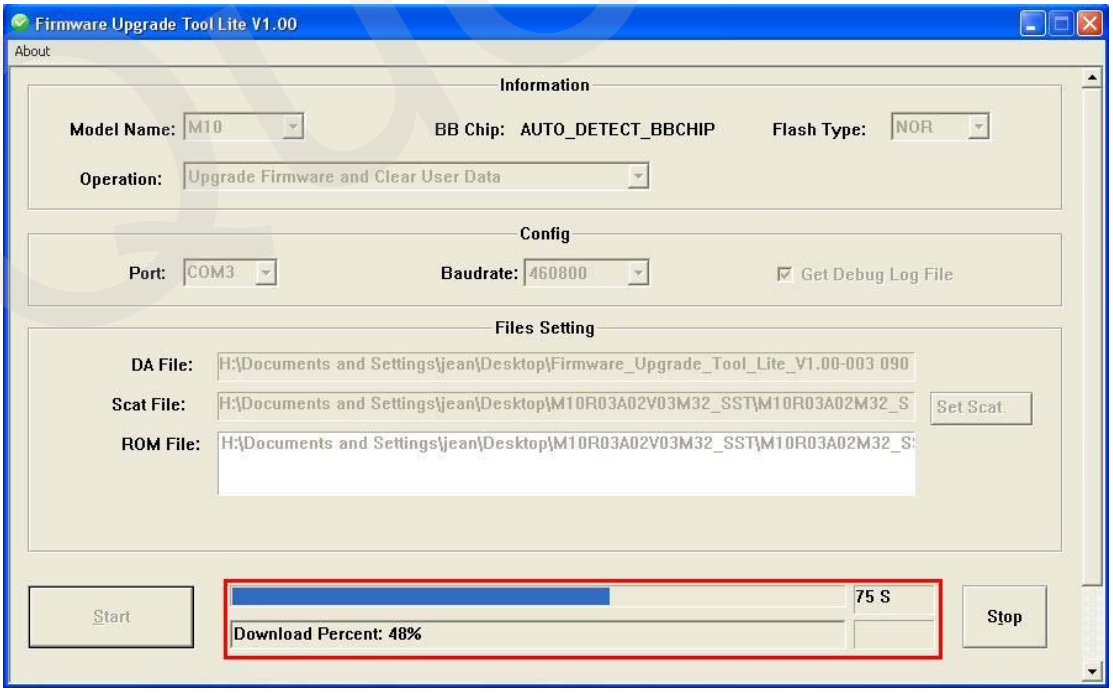

Figure 10: UI of Download Percent

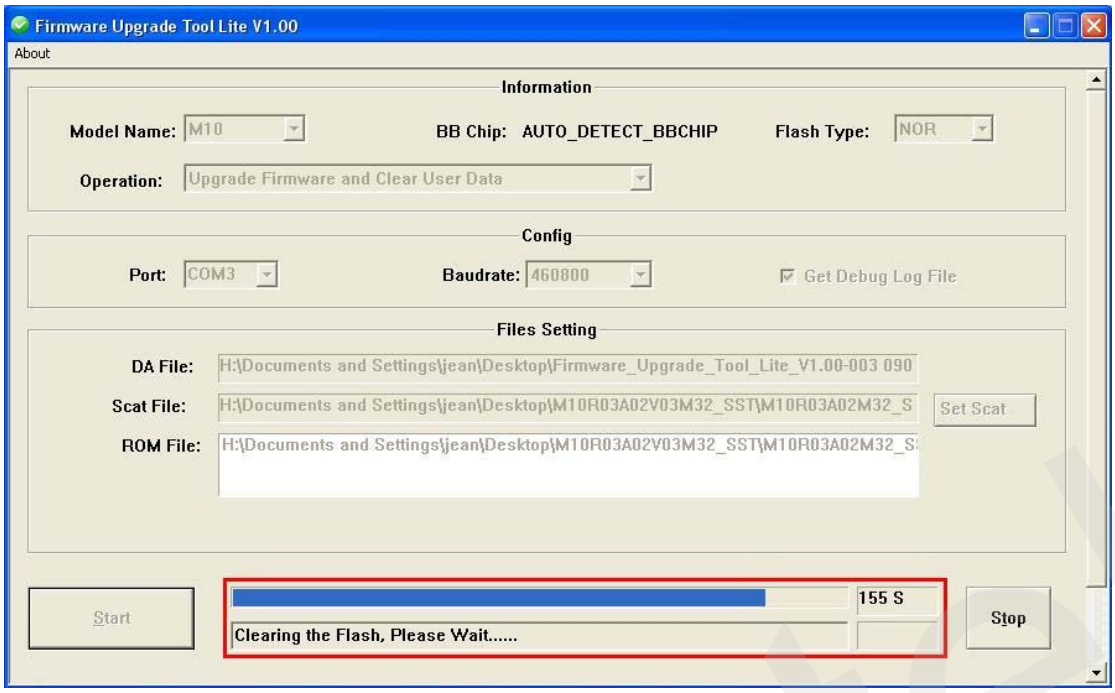

Figure 11: UI of Clear data Percent

***Note*:**

To make sure the tool runs successfully, following preparations must be done in advance:

- Link PC and module correctly
- Choose the correct serial port and baud rate
- Choose the right file to be upgraded

4.1.4. Stop

Click the ***Stop*** button to stop upgrading. The tool will indicate as shown in figure 13.

Warning:

If the upgrade process is interrupted, there would be no valid firmware in the module. So it is strongly recommended never to stop the firmware upgrade process.

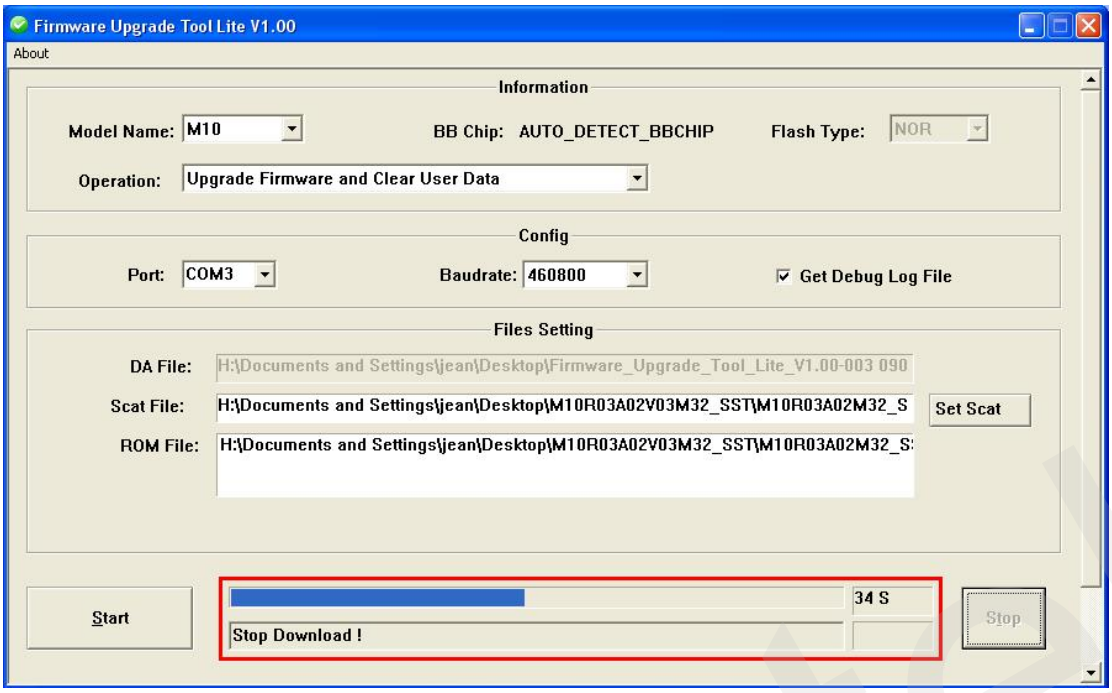

Figure 12: UI of Stop Upgrade

4.2. Abnormalities

The wrong parameter of Port and Baud rate, the damaged EVB and module, the incorrect file, etc. may lead to abnormalities as following.

A) Wrong parameter of Port

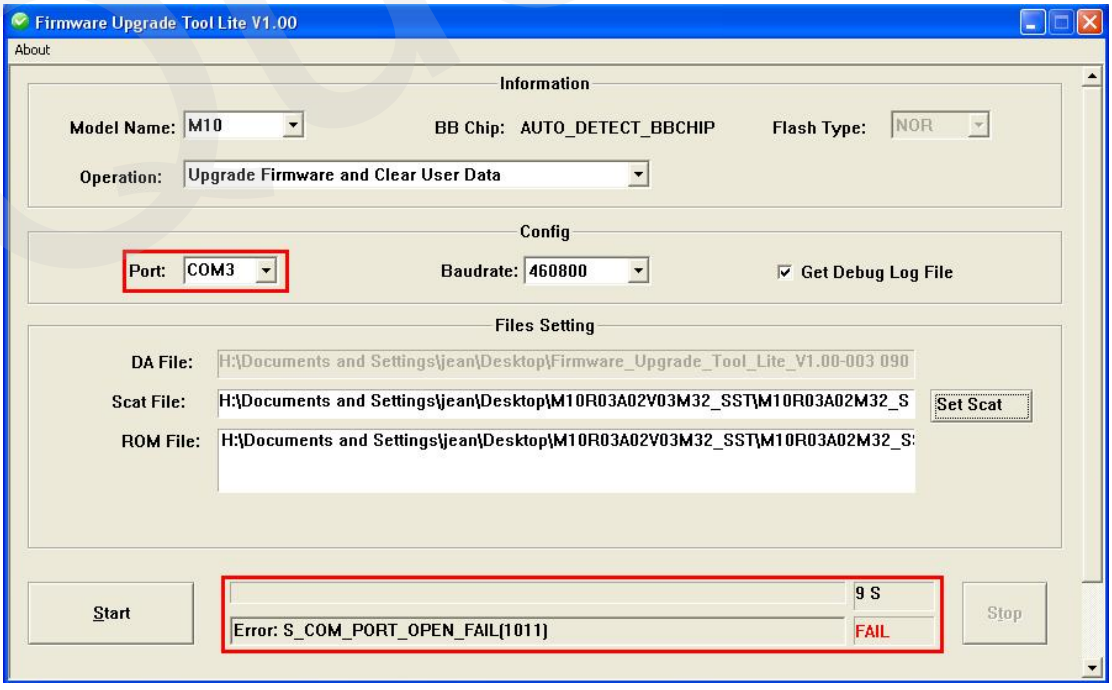

Figure 13: UI of Port ERROR

B) Wrong parameter of Baud rate

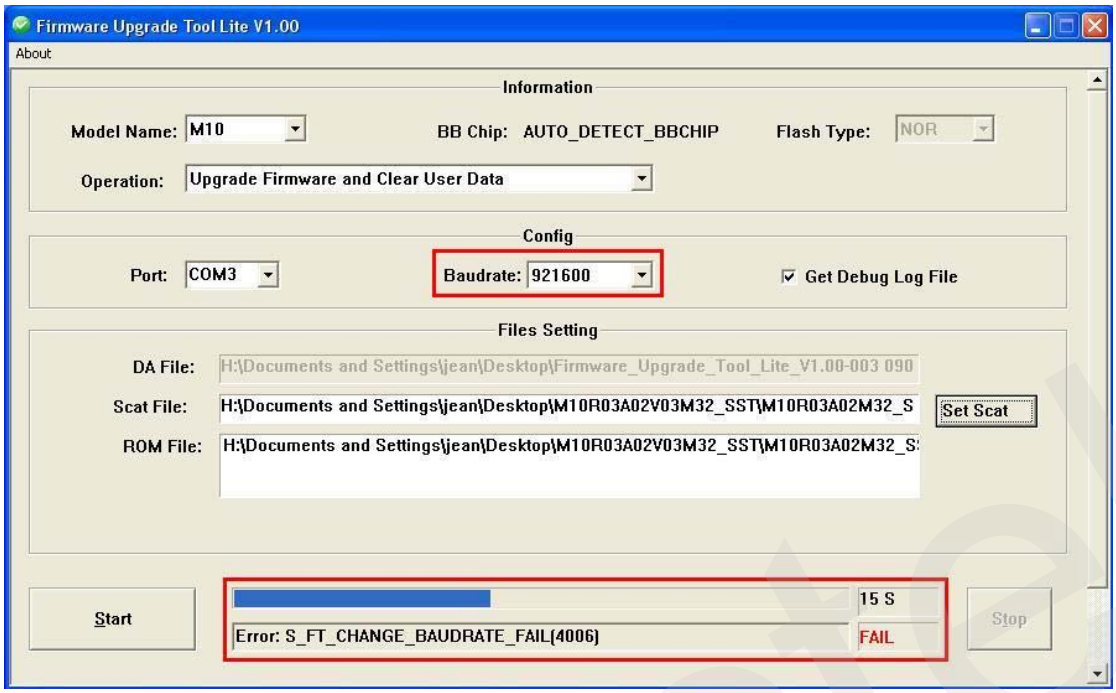

Figure 14: UI of Baud rate ERROR

C) Upgrade with Incorrect File

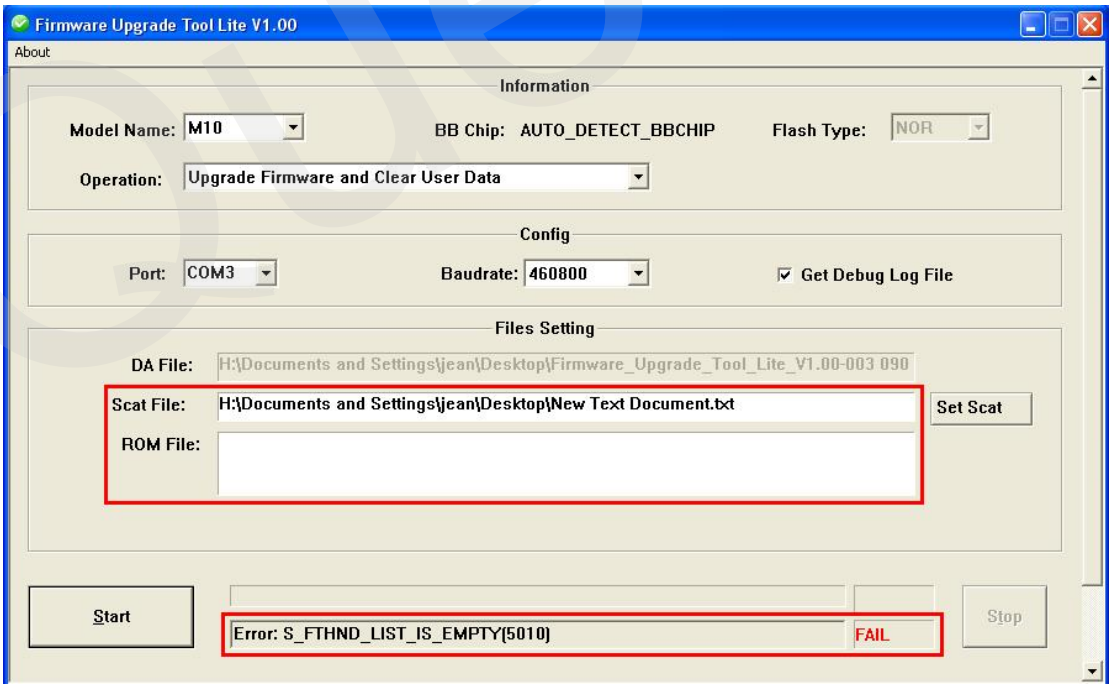

Figure 15: UI of Upgrade with Incorrect Scatter File

D) Power supply or USB Abnormal

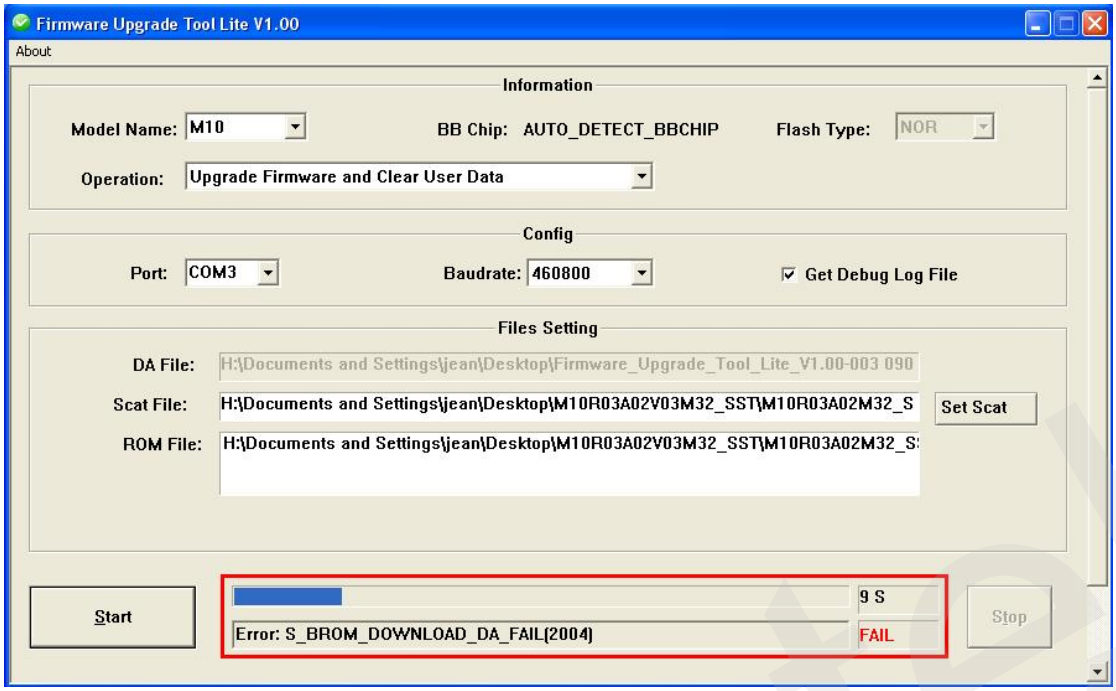

Figure 16: UI of Power supply or USB Abnormal

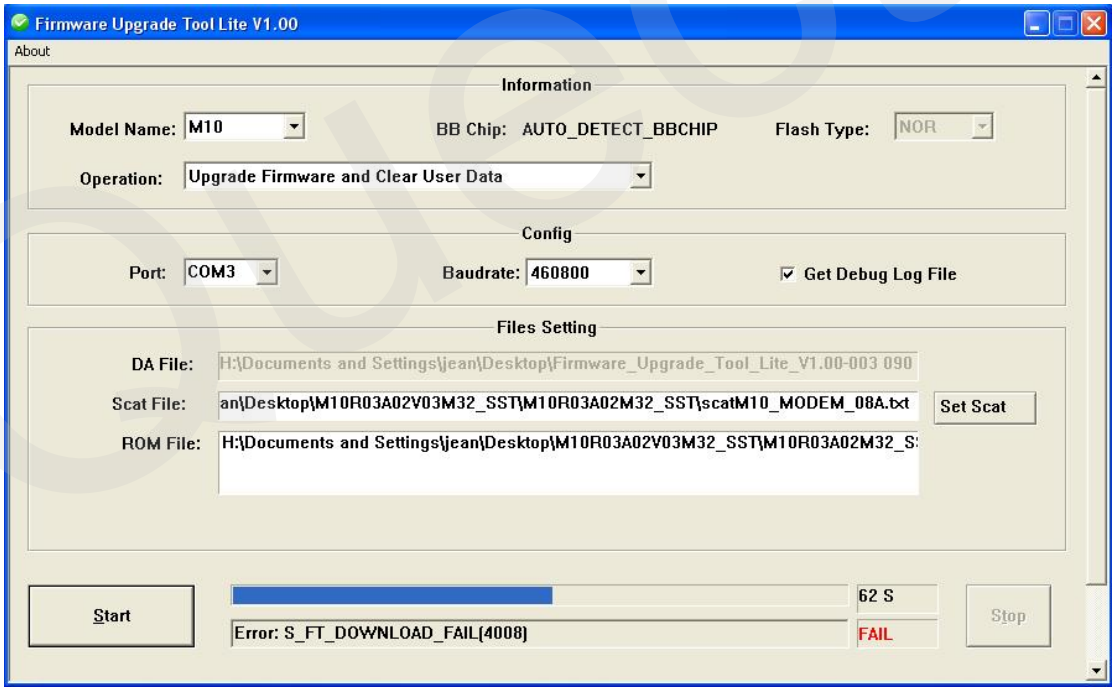

Figure 17: UI of Power supply or USB Abnormal

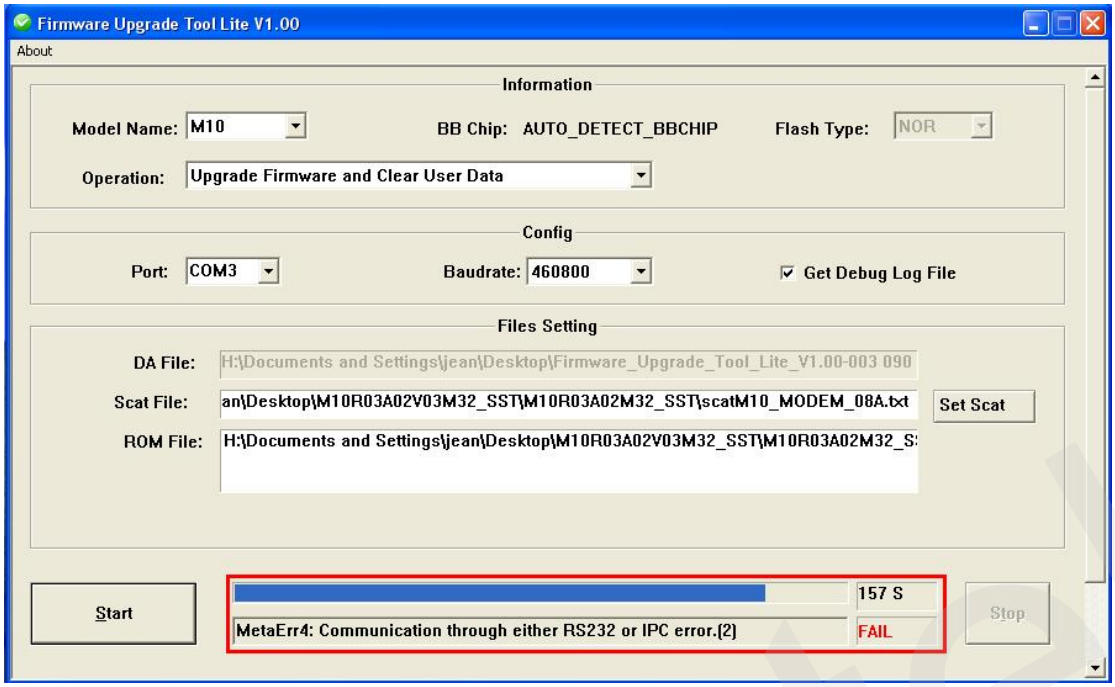

Figure 18: UI of Power supply or USB Abnormal

Shanghai Quectel Wireless Solutions Co., Ltd.

Room 801, Building E, No.1618, Yishan Road, Shanghai, China 201103

Tel: +86 21 5108 2965

Mail: info@quectel.com