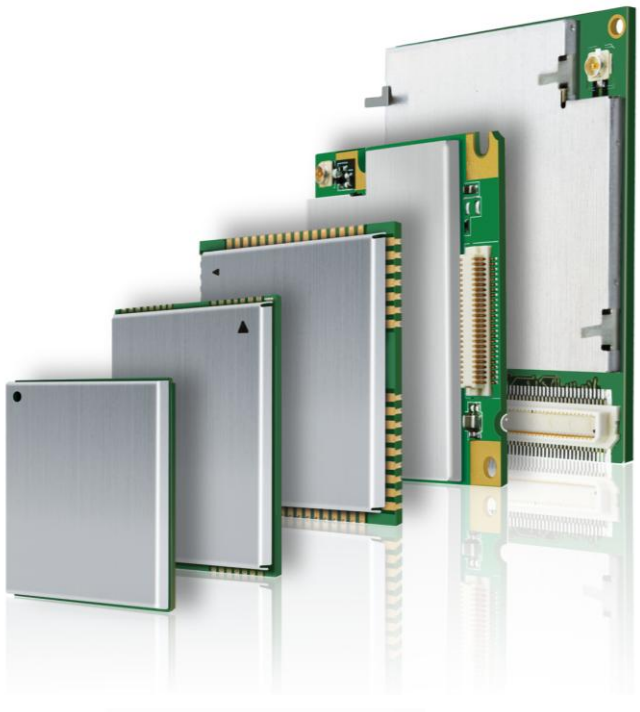
Quectel Cellular Engine

Firmware Upgrade Tool Lite User Guide

Firmware_Upgrade_Tool_Lite_GS2_UGD_V1.0



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0. Revision history

Revision	Date	Author	Description of change
V1.0	2011-12-22	Vivian WANG	Initial

1. Installation and upgrade

This document describes how to upgrade firmware using “Firmware Upgrade Tool Lite GS2” supplied by Quectel. The tool can run approximately in PC without any installation if the OS of PC is among the ones as listed below.

- Windows 95
- Windows 98
- Windows 2000
- Windows ME
- Windows XP
- Windows 7 32bit

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

2. Firmware

The firmware package contains three files:

(a). .txt file: the scatter files describe the layout of the firmware image on memory.

(b). database file: used in the Data Tool.

(c). .bin file: the firmware image file.

Firmware Upgrade Tool Lite GS2 owned by Quectel is shown as below, please refer to Figure 1.

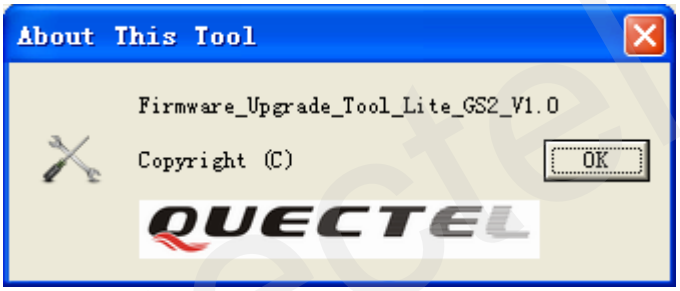

Figure 1: FW Upgrade Tool Lite GS2

3. Introduction to the tool

The tool is used to upgrade firmware. It works as the 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: Re-start the module.

The following describes the details of using the upgrade tool.

3.1. Introduction to the UI

Figure 2 shows the main interface of the tool, which supports many projects to upgrade firmware.

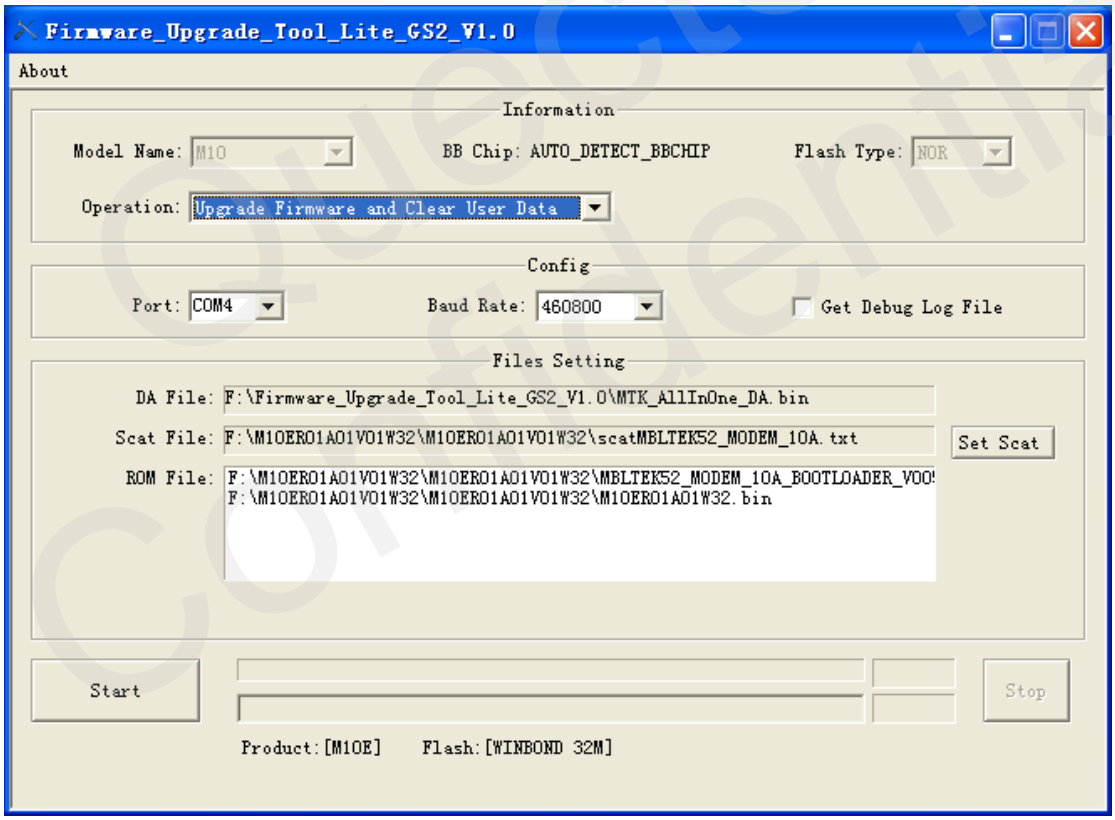

Figure 2: Main interface

Note: There are two choices in the Operation. The one is "Upgrade Firmware and Clear User Data" by default and the other is "Upgrade Firmware Only" reserved for customer which can be ignored.

3.1.1. Configuration

A) Port

According to the connection between PC and Module, select the right serial port as Figure 3.

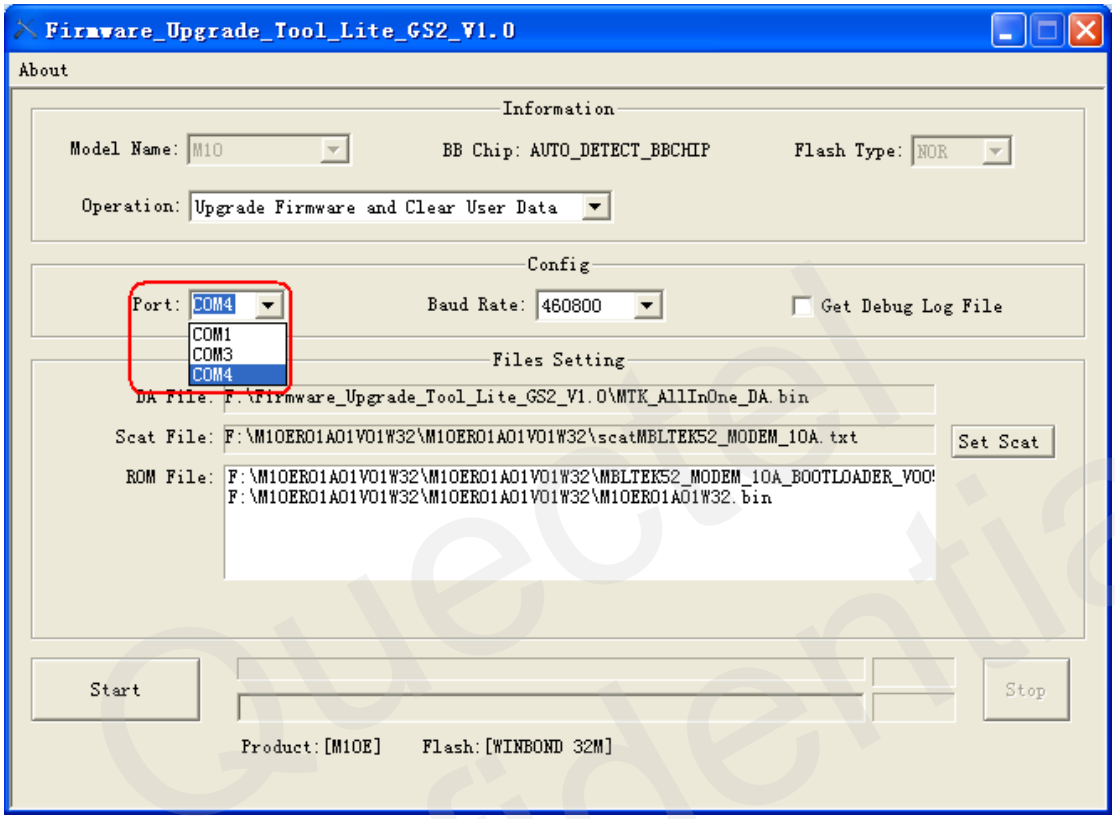

Figure 3: UI of Port

B) Baud Rate

Choose an appropriate baud rate. Please refer to Figure 4.

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

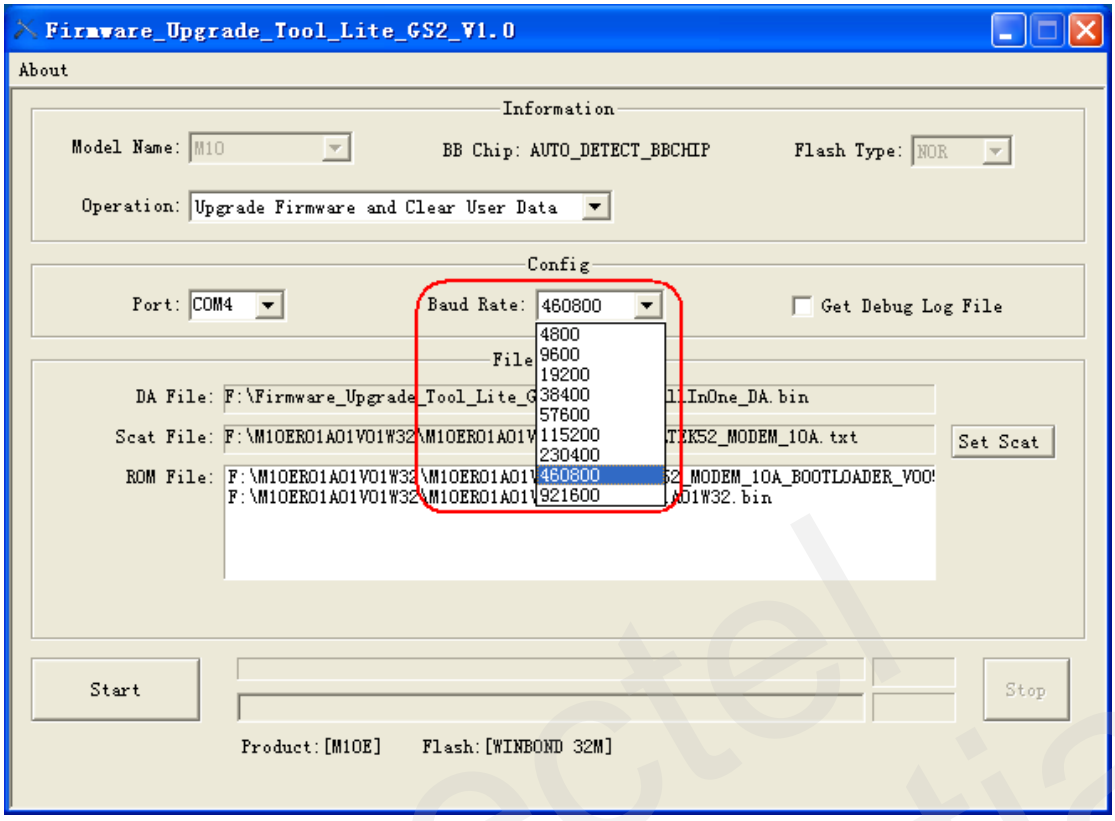

Figure 4: UI of Baud Rate

C) Get Debug Log File

The customer can ignore this function.

3.1.2. Files setting

Click ***Set Scat*** button to select the scatter file. The tool will match the .bin file in same folder automatically after selecting correct scatter file. Dialogue frames are shown in Figure 5 & 6.

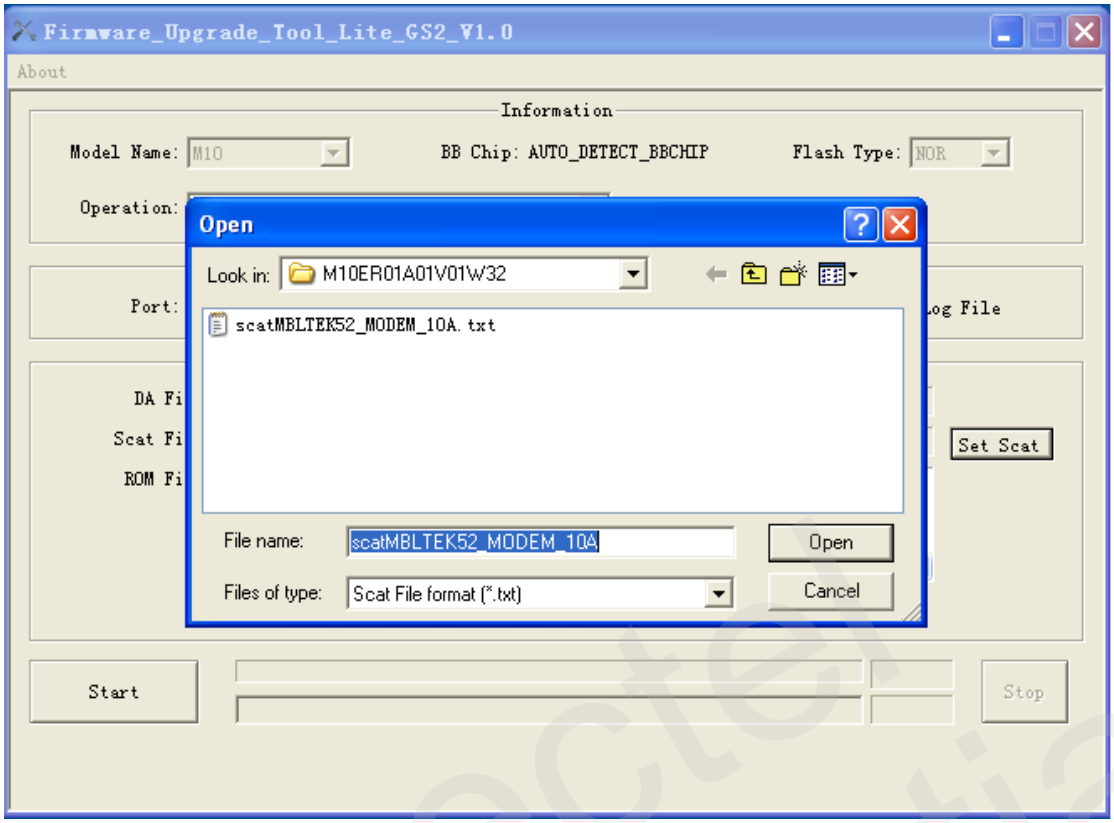

Figure 5: UI of Scatter File Window Opened

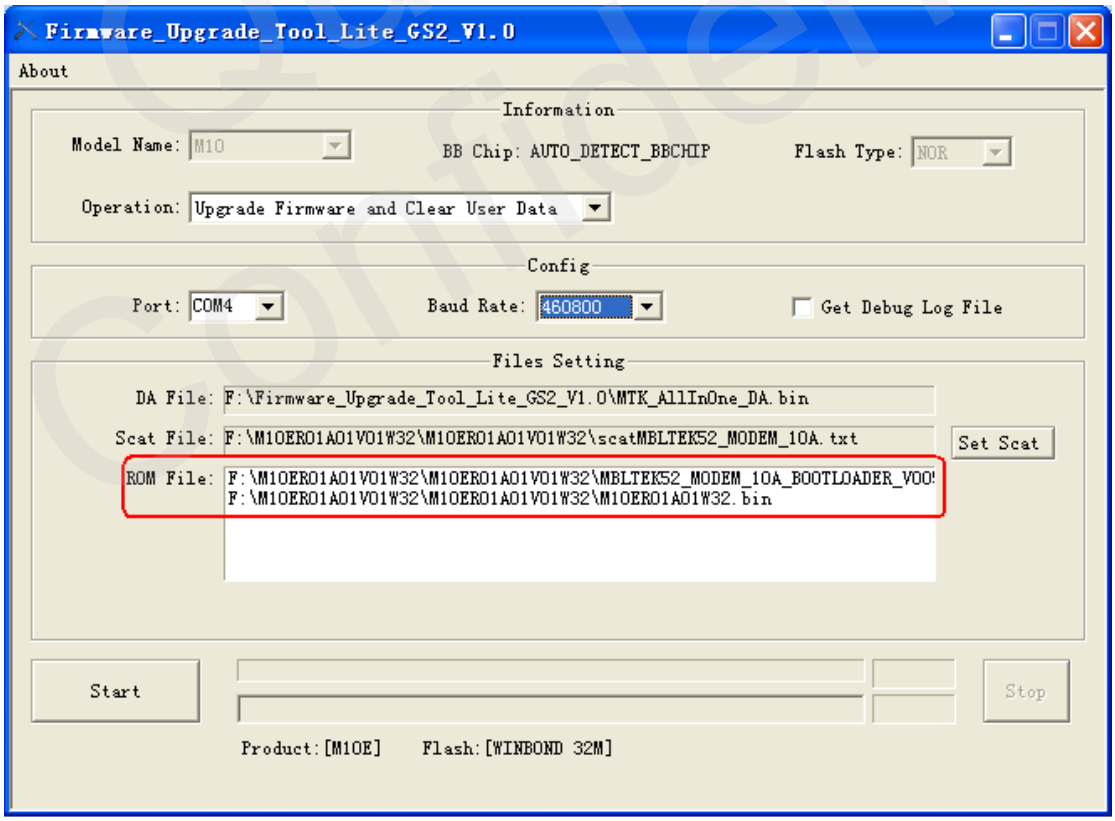

Figure 6: UI of Scatter File Selected

3.1.3. Start

Firstly, click the ***Start*** button to upgrade the chosen firmware. Please refer to Figure 7.
Secondly, re-start the module.
Finally, it will indicate "Mission Accomplish. Pass" if successfully operated as shown in Figure 8.

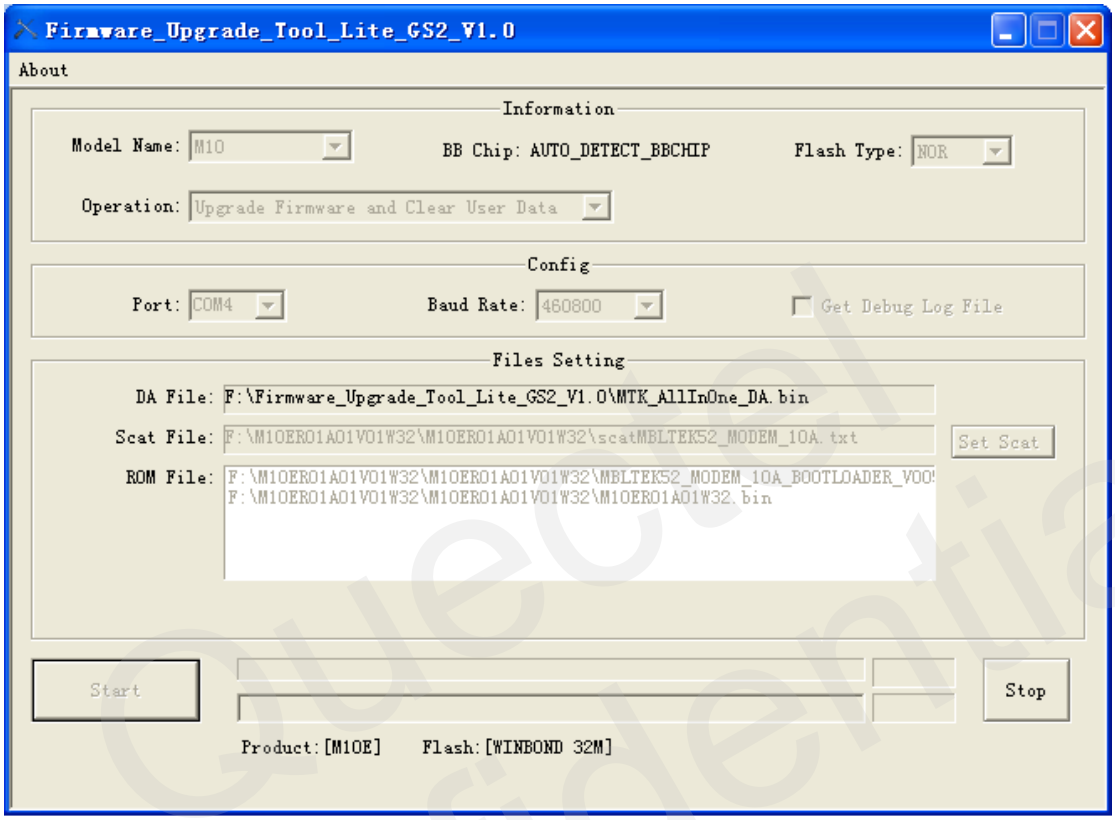

Figure 7: UI of Starting Upgrade

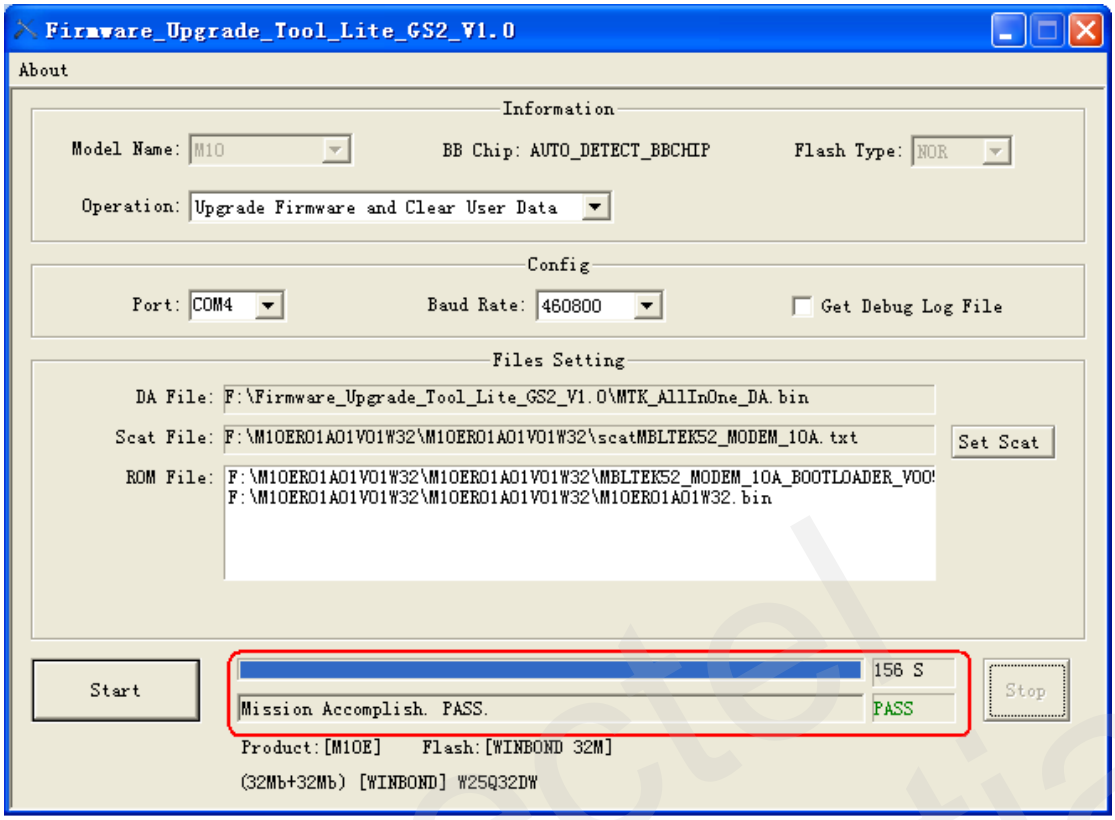

Figure 8: UI of Upgrade OK

The progress bar on the right of ***Start*** button indicates the progress of upgrading firmware and shows the expiration time 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 9, Figure 10 and Figure 11.

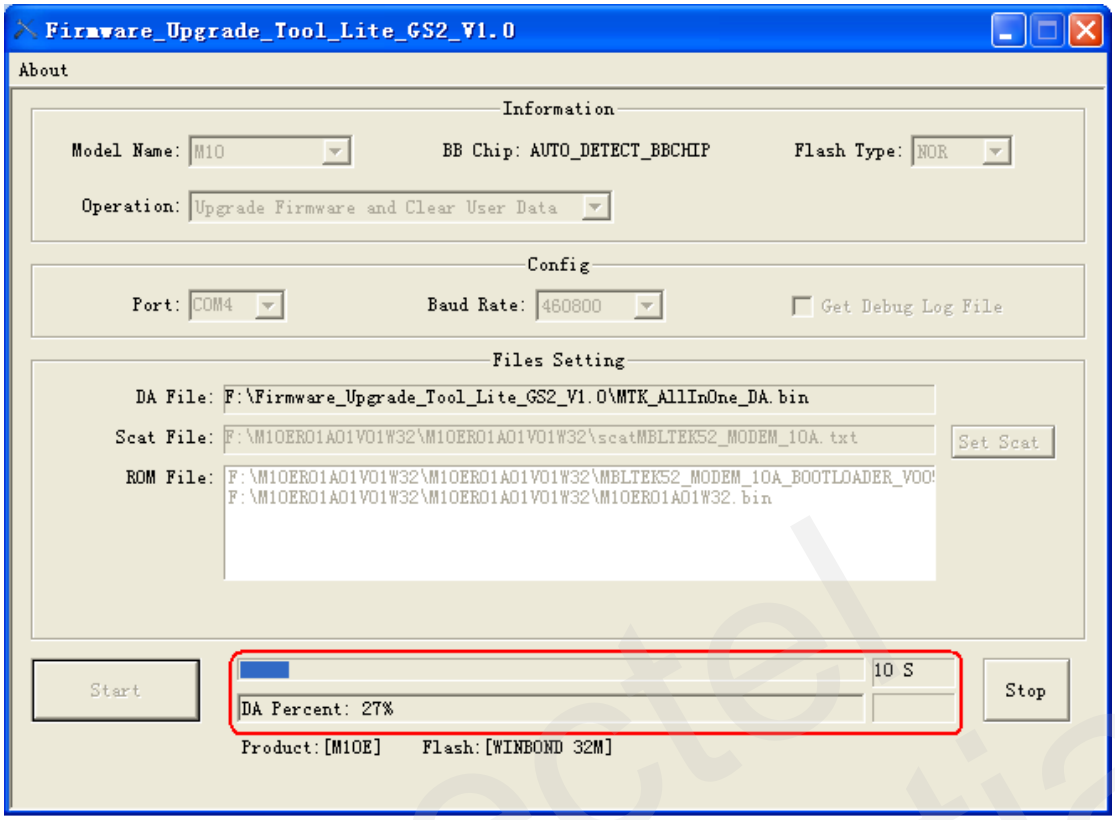

Figure 9: UI of DA Percent

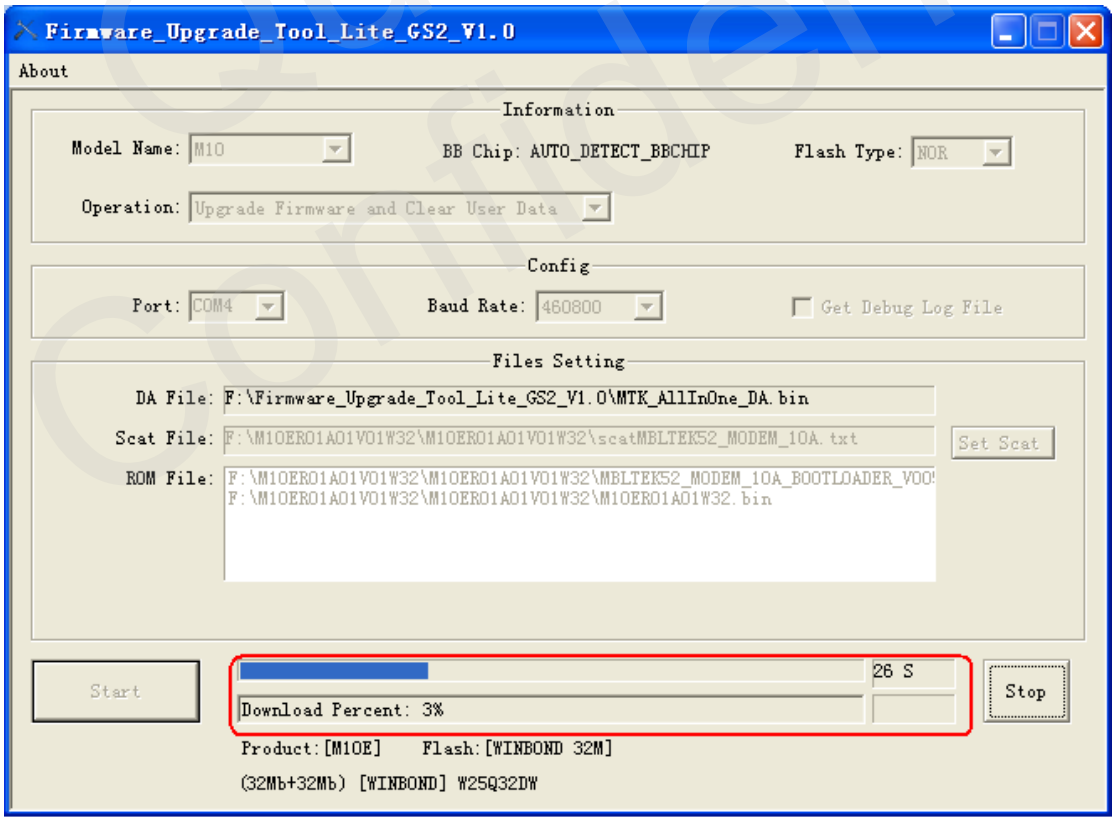

Figure 10: UI of Download Percent

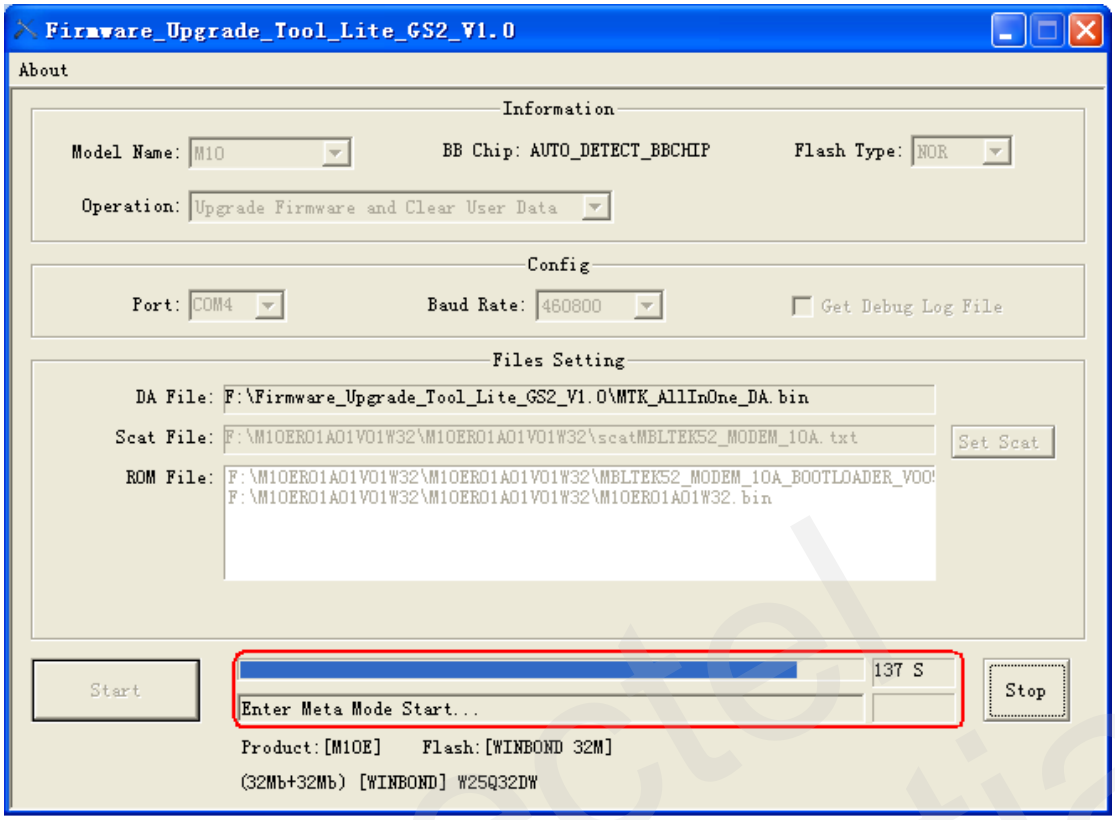

Figure 11: UI of Clear DATA Percent

Note*: *To make sure the tool runs successfully, the 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

3.1.4. Stop

Click the ***Stop*** button to stop upgrading as shown in Figure 12.

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.

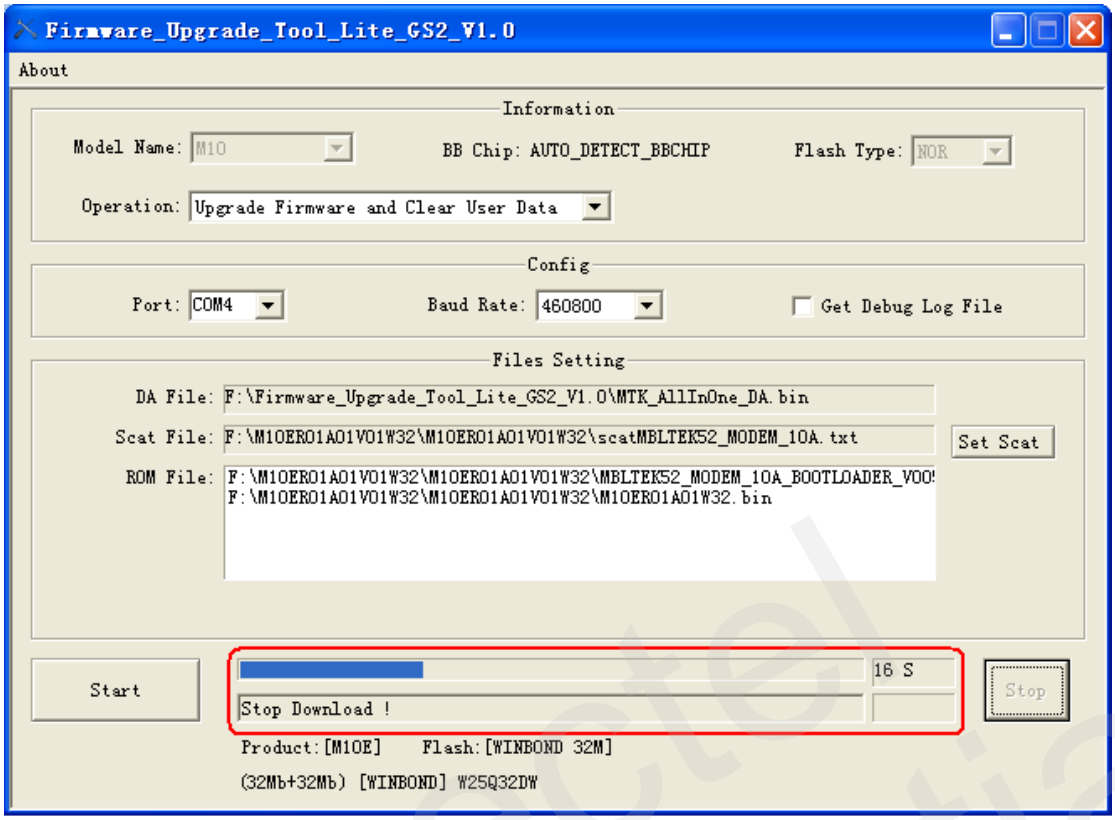

Figure 12: UI of Stop Upgrade

3.2. 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

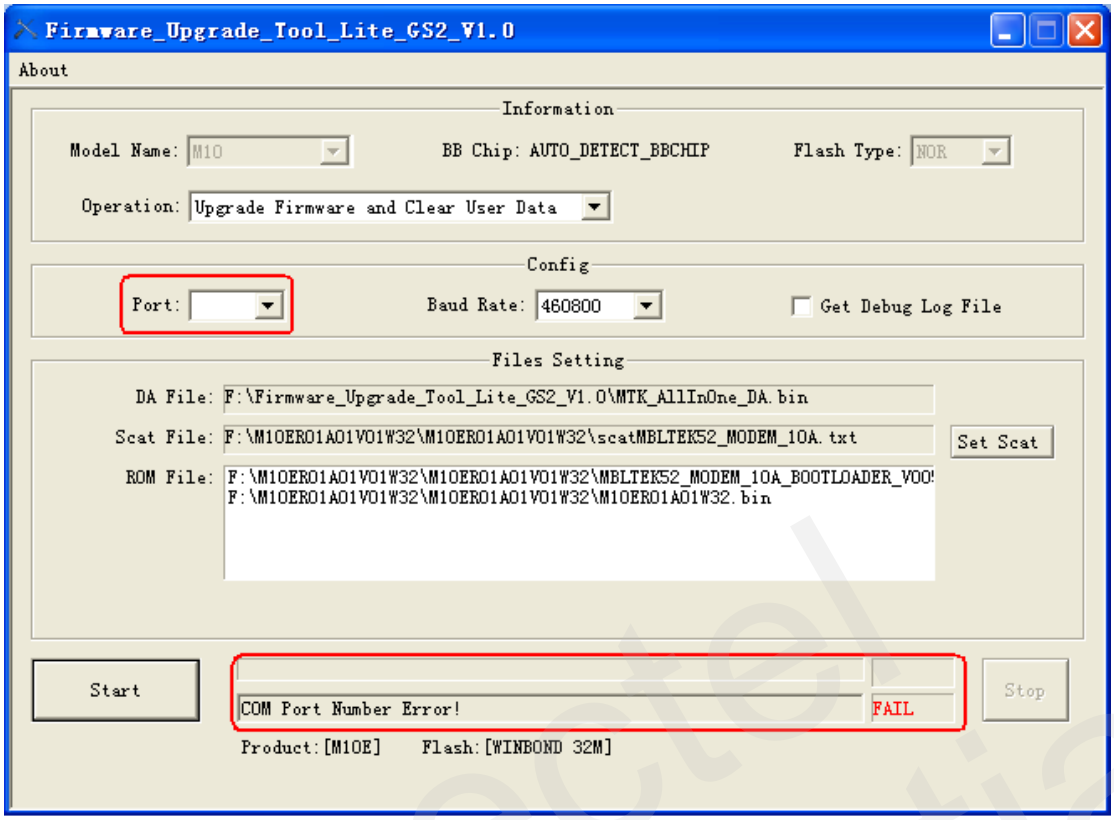

Figure 13: UI of Blank Port ERROR

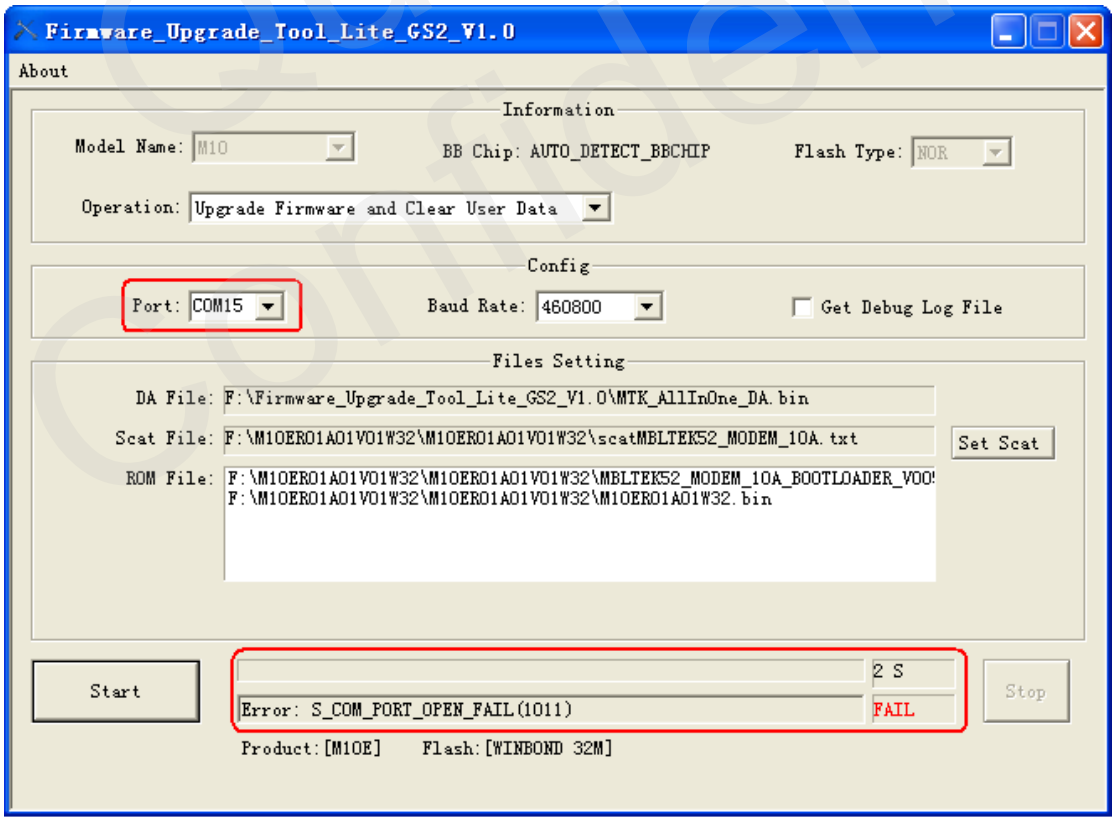

Figure 14: UI of Unconnected Port ERROR

B) Wrong parameter of Baud Rate

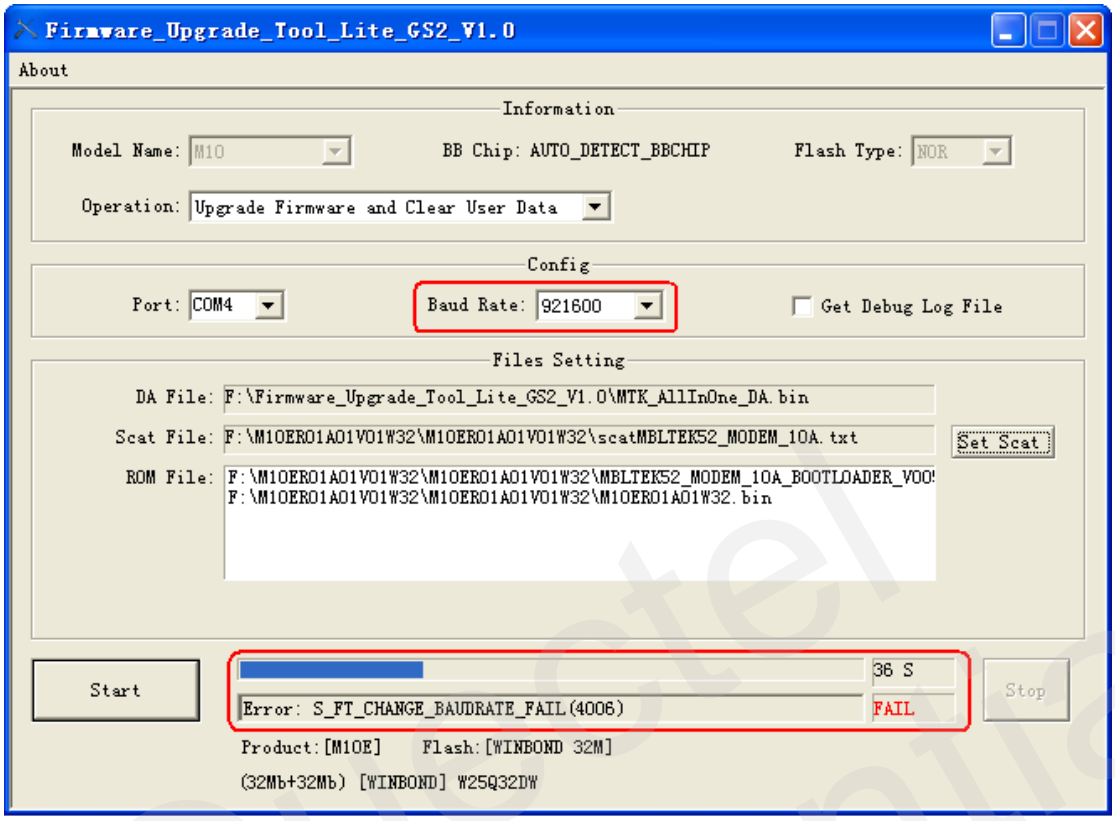

Figure 15: UI of Baud Rate ERROR

C) Upgrade with Incorrect File

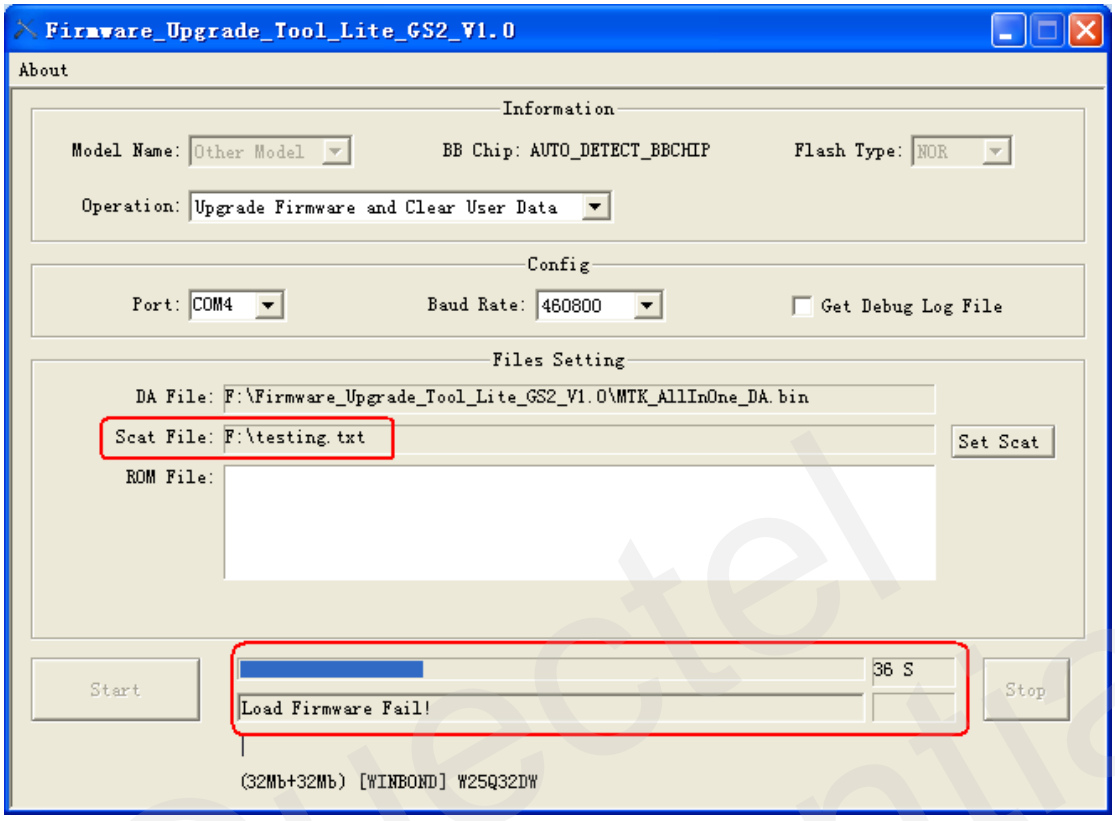

Figure 16: UI of Upgrade with Incorrect Scatter File

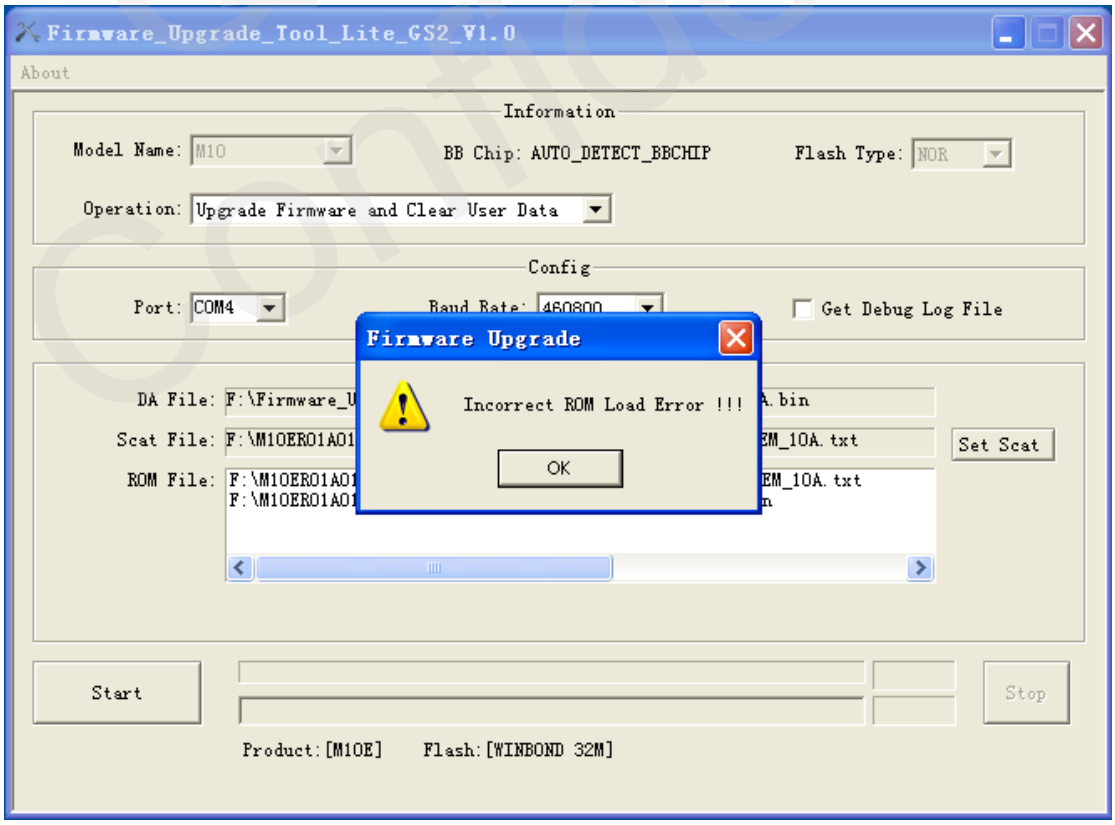

Figure 17: UI of Load Incorrect ROM File ERROR

D) Power supply or USB abnormal

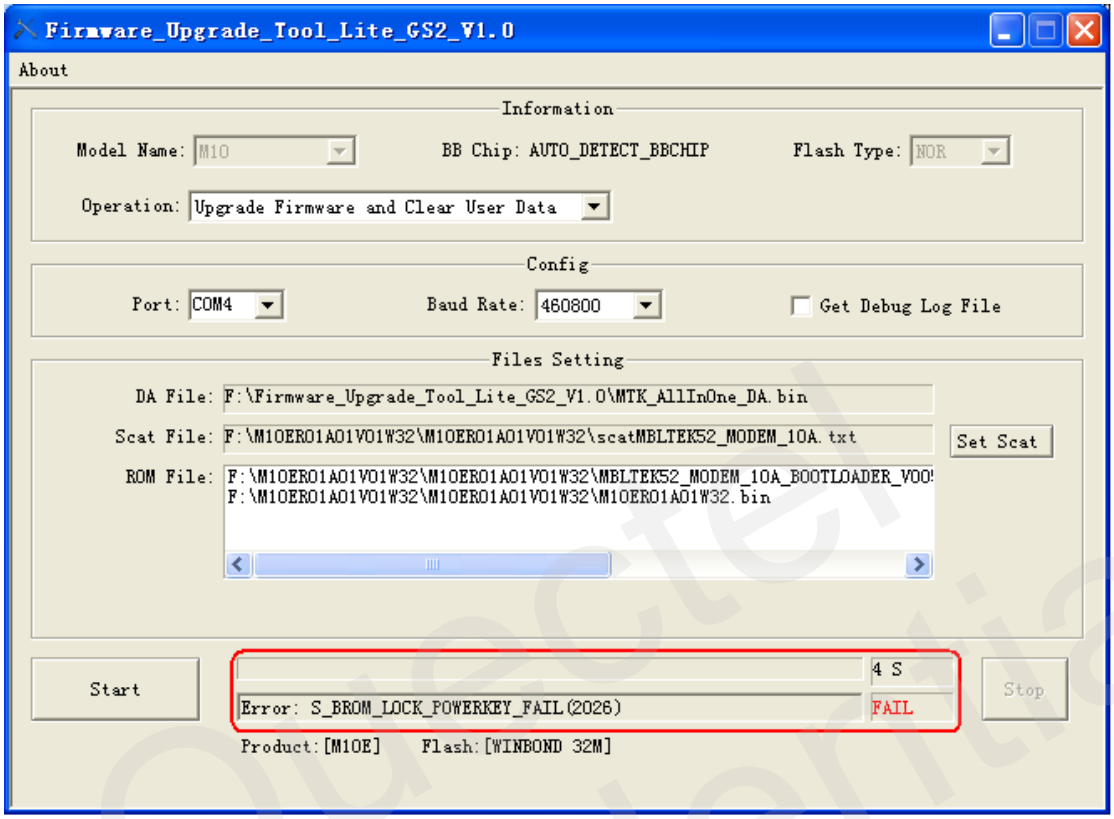

Figure 18: UI of Click Start ERROR when Power Supply Abnormal

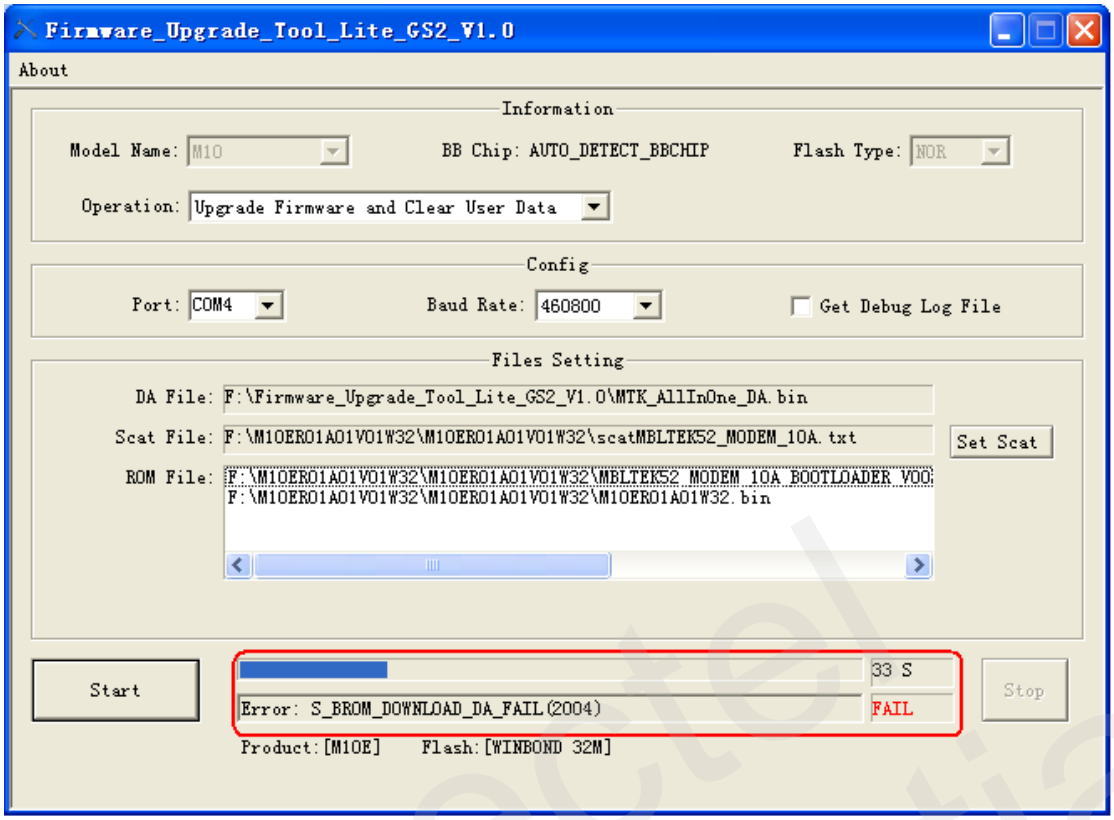

Figure 19: UI of Power Supply or USB Abnormal in DA Process

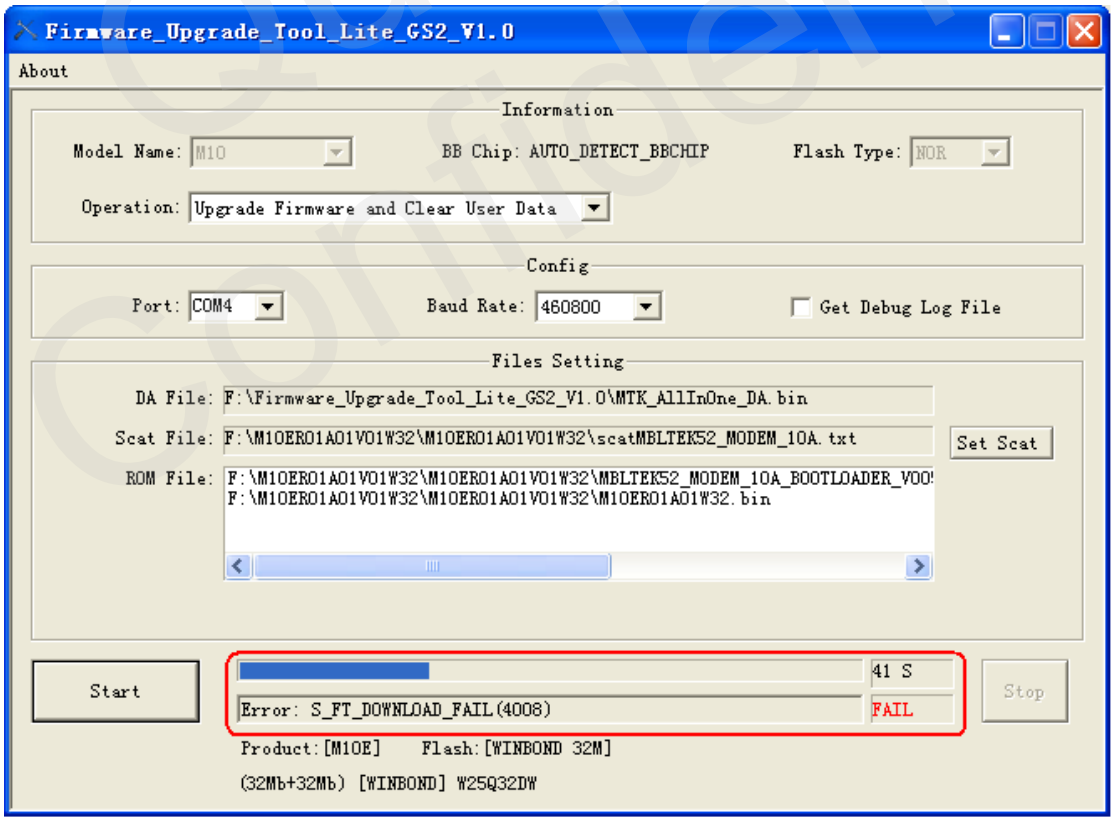

Figure 20: UI of Power Supply or USB Abnormal in Download Process

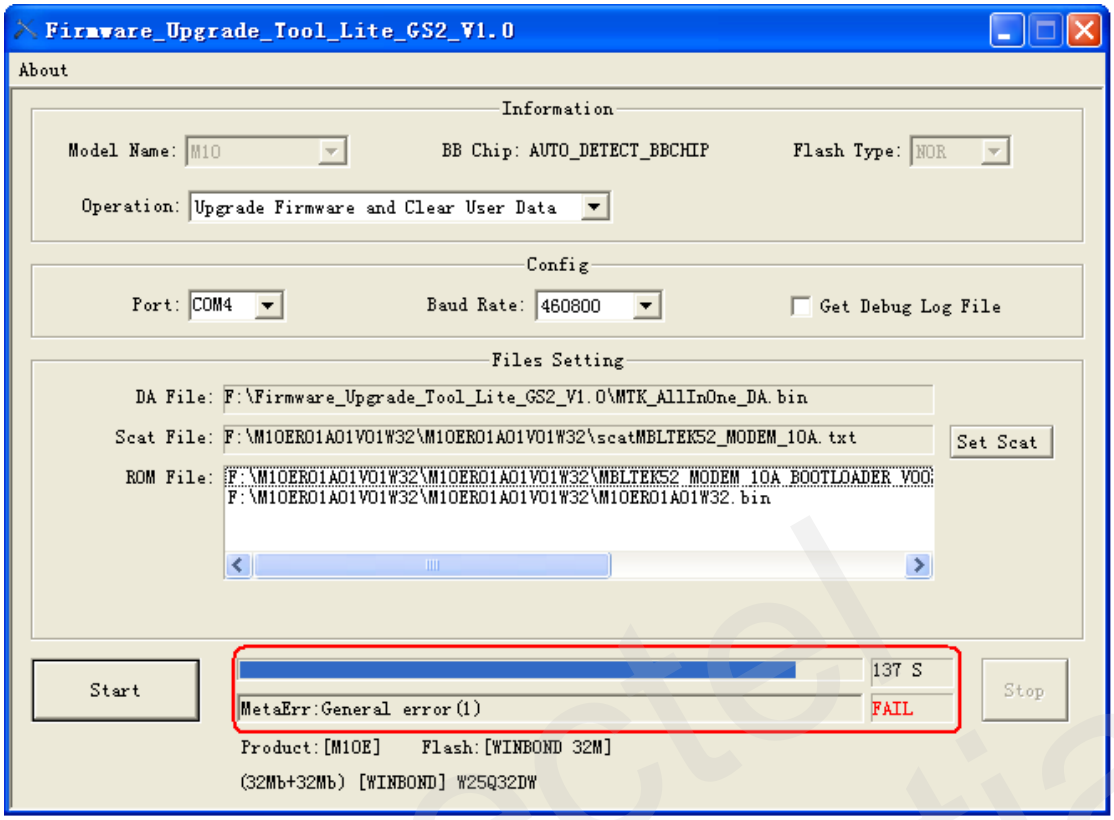

Figure 21: UI of Power Supply or USB Abnormal in Enter Meta Mode Start Process

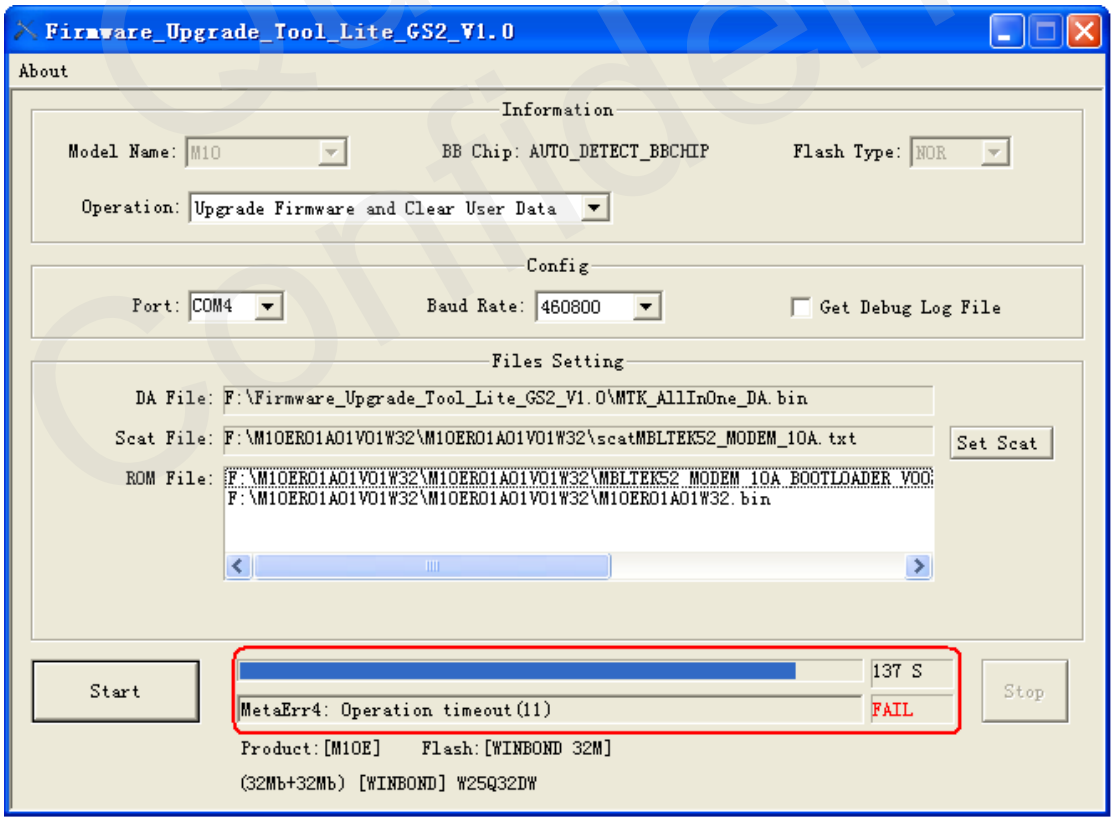

Figure 22: UI of Power Supply Abnormal in Clear Flash Process

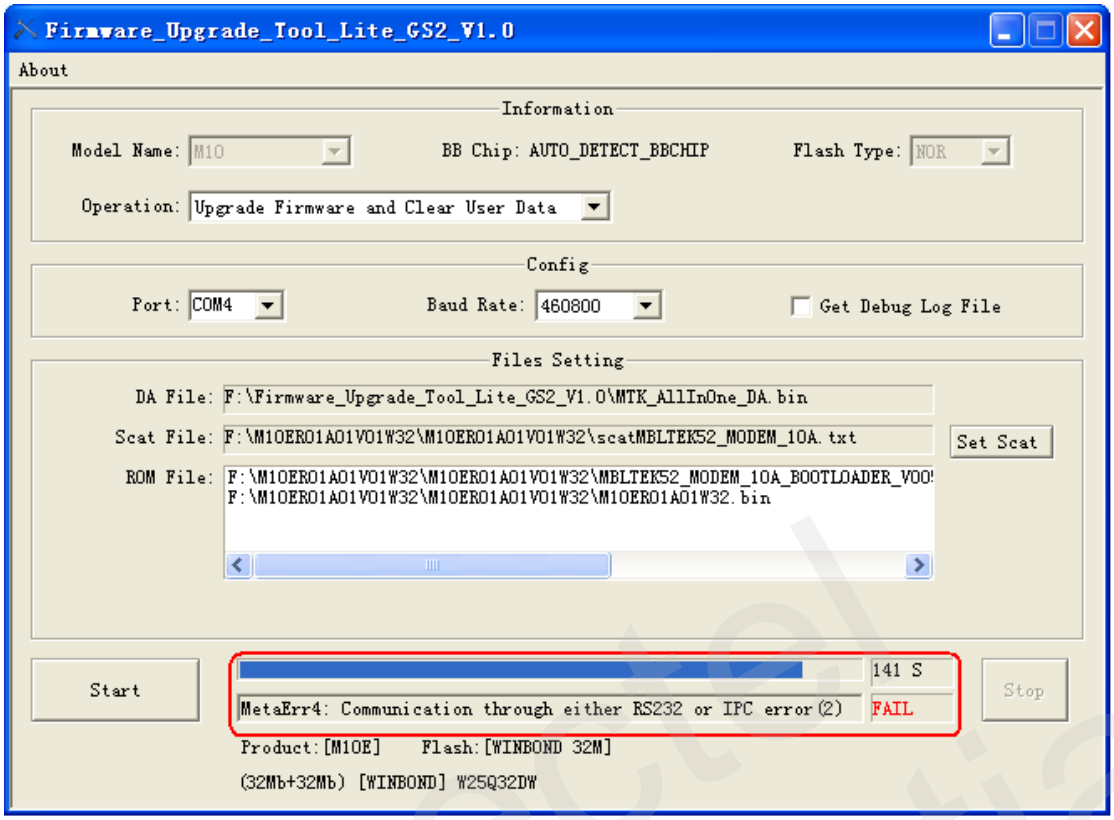

Figure 23: UI of USB Abnormal in Flash Operation Process

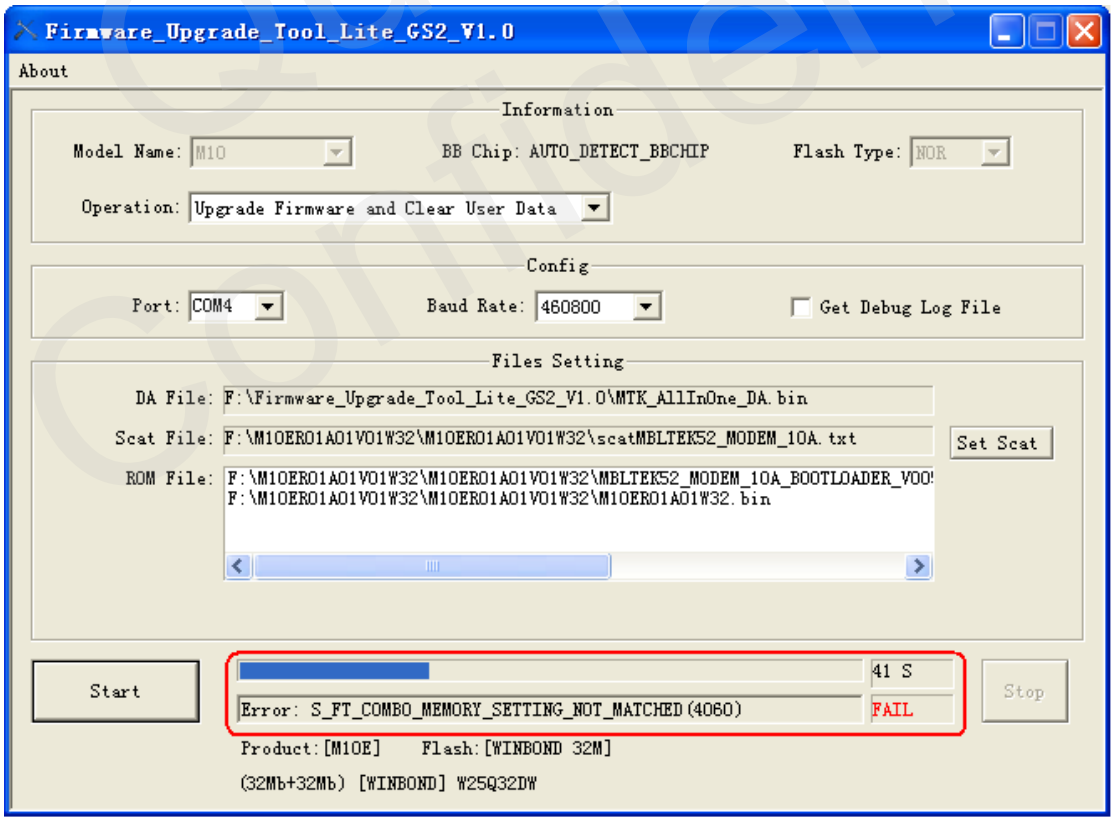

Figure 24: UI of Power Supply in Flash Operation Process

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