QFlash OpenCPU User Guide

Rev. QFlash_OpenCPU_User_Guide_V1.0

Date: 2017-07-21

APPLICATIVE PRODUCT

MODULE TYPE
M10 R3.0
M66
M85 R2.0

About the Document

History

Revision	Date	Author	Description
1.0	2017-07-21	Chunmao Li	Initial

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1 Introduction

1.1. OS and Version

This document mainly introduces how to upgrade firmware with "QFlash" tool. The tool can run without installation. The supported O.S is listed below:

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

1.2. About QFlash Tool

"QFlash" owned by ZF is shown as below.

2 QFlash OpenCPU Upgrade Procedure

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

Step 1: Configure the parameters of serial port.
Step 2: Load firmware files (core f/w, App f/w or both).
Step 3: Upgrade the firmware (core f/w, App f/'w or both).

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

2.1. Configuration Serial Port

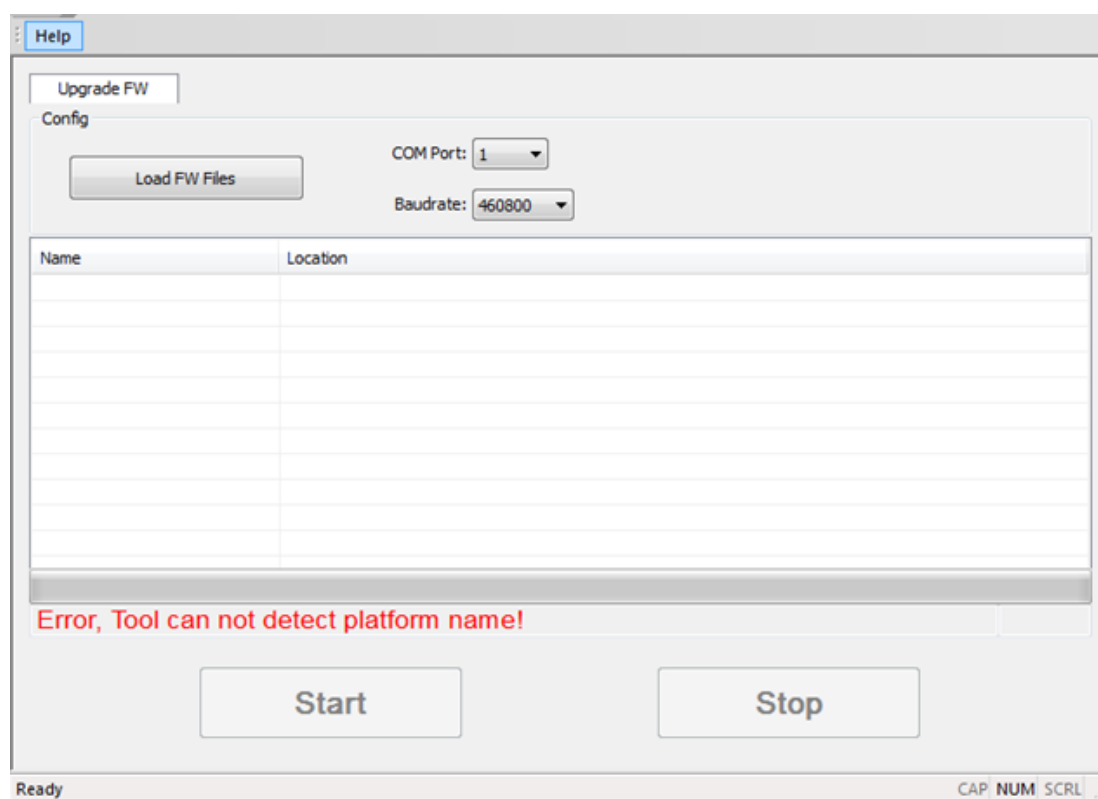When QFlash tool is opened, the main interface is shown as Figure 2.

Figure 2: Main Interface

2.1.1. Serial Port

Click the "**COM Port**" dropdown list to select the serial port for downloading. Please select the serial port that connects to UART port1 of module.
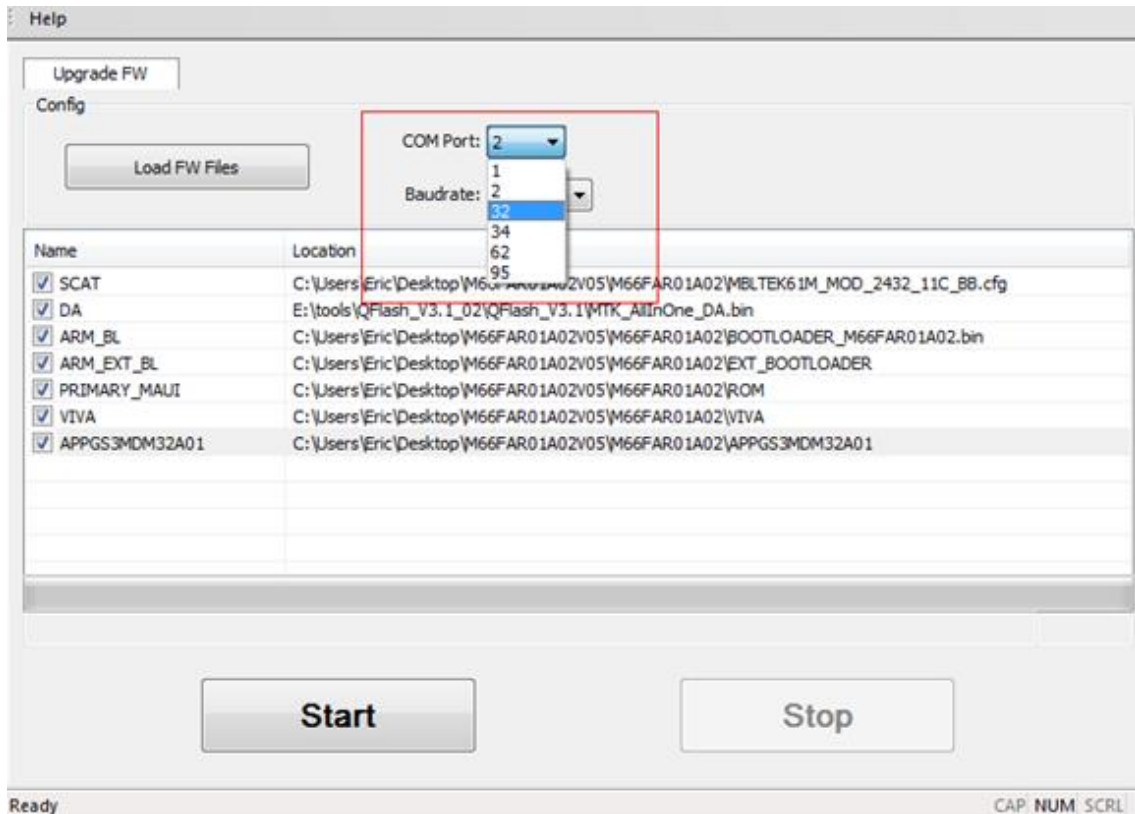

Figure 3: Select the Correct Serial Port

2.1.2. Baudrate

Click the "**Baudrate**" dropdown list and choose an appropriate baudrate.

For ZF EVB, the baudrate can be 460800. For customers' board, the maximum baudrate depends on the serial port chip.
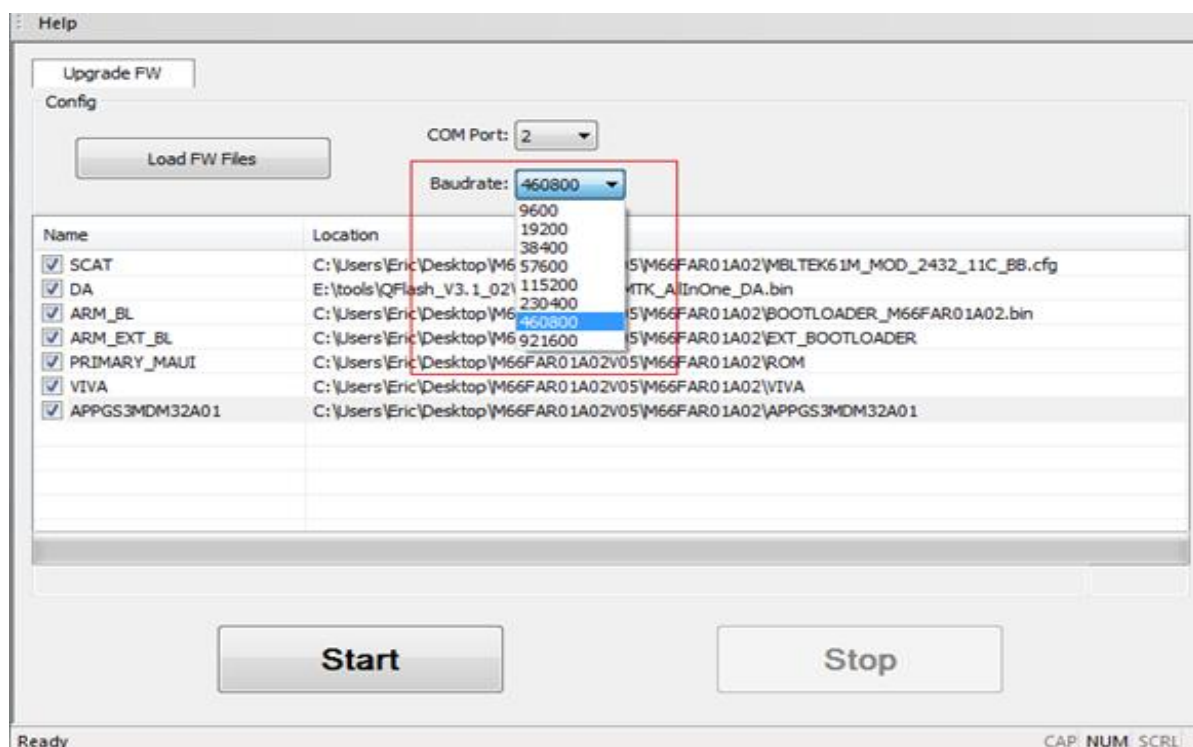
Please refer to Figure 4.

Figure 4: Select the Baudrate

NOTE

Baudrates have many different values, whether it is supported or not depends on the hardware environment. If it is not supported then error message will be returned.

2.2. Load Firmware File

2.2.1. Load App Firmware

Step 1: Click the button "**Load FW Files**", and select the file with "**cfg**" filename extension, which you want to download to module.
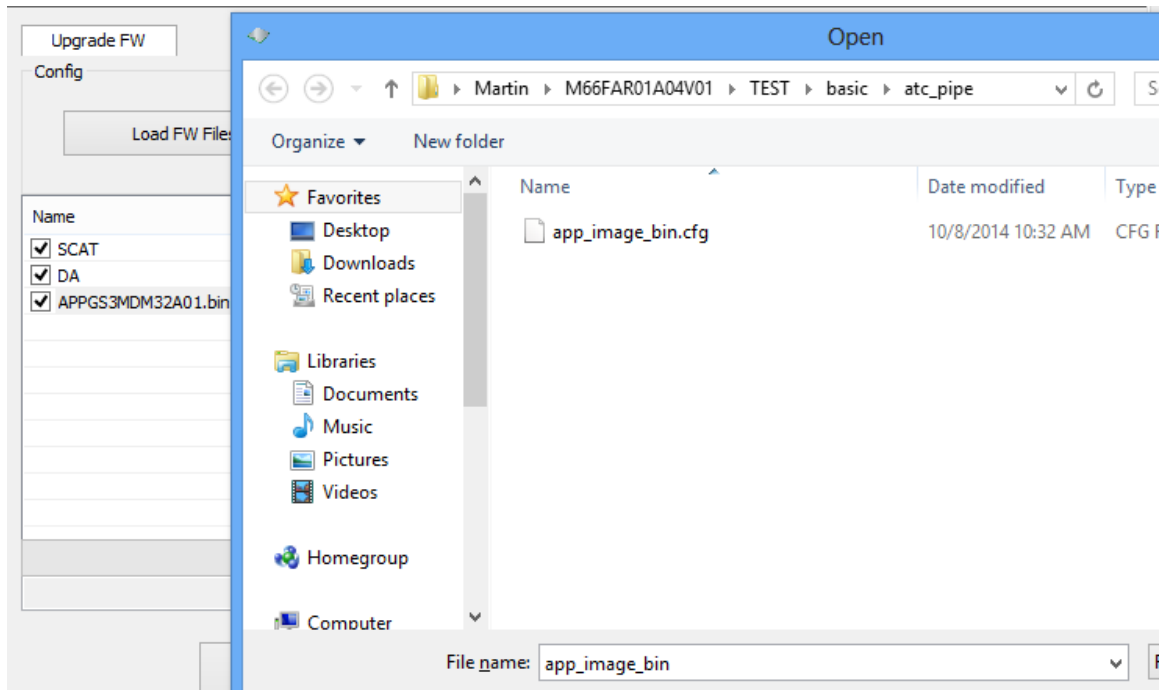
Figure 5: Load App Firmware

Step 2: Click the "**Module Type**" dropdown list and choose an appropriate OpenCPU module type.

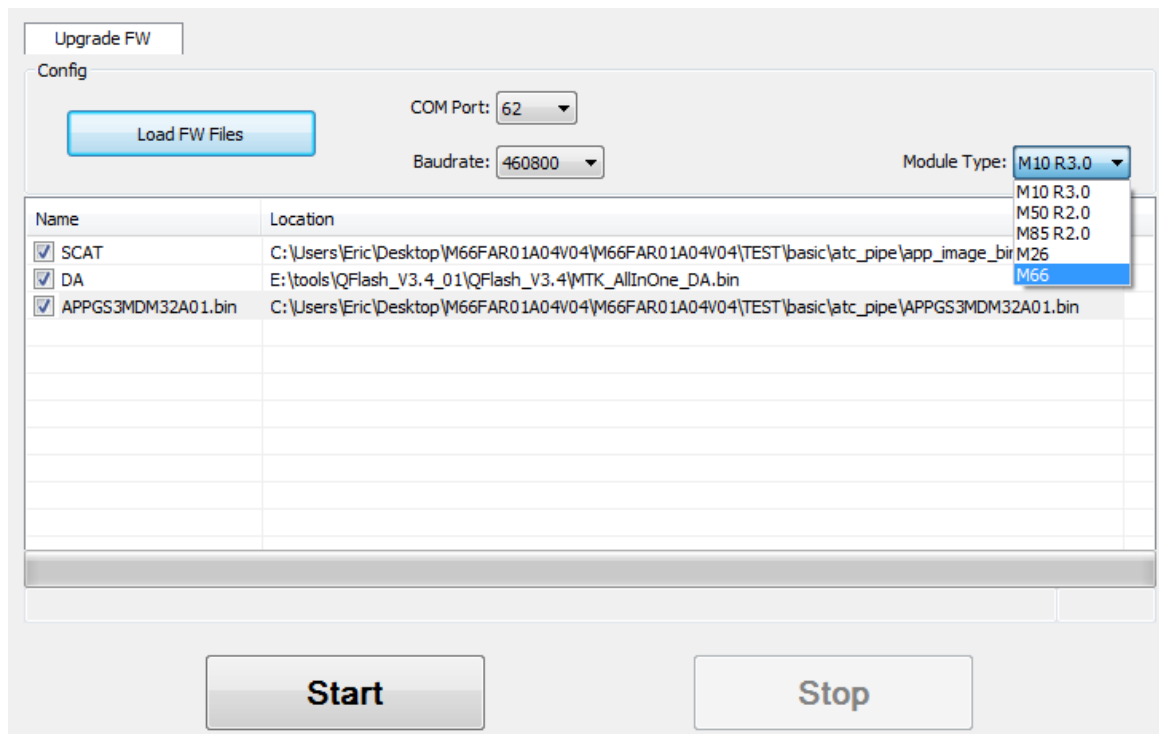**Figure 6: Select Module Type**

1. Please select the "M66" when M66 module is used.
2. Please select the "M10 R3.0" when M10 R3.0 module is used.
3. Please select the "M85 R2.0" when M85 R2.0 module is used.

2.2.2. Load Core Firmware

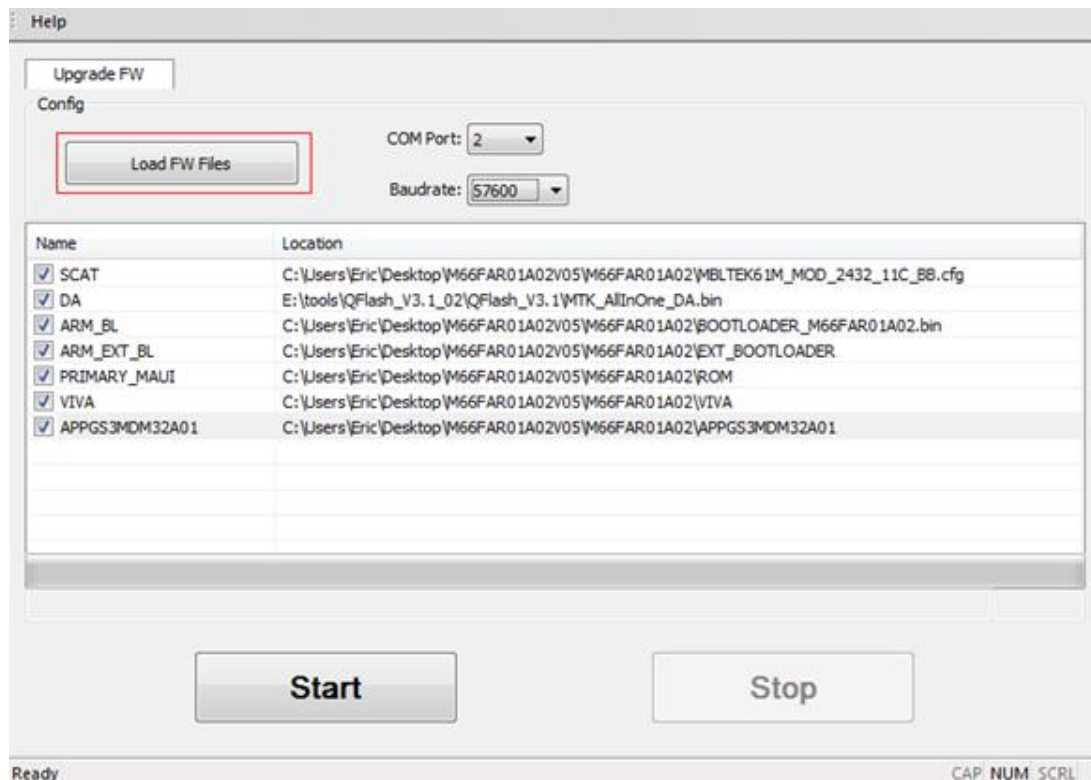**Step 1:** Click the button "**Load FW Files**".

Figure 7: Load Core Files

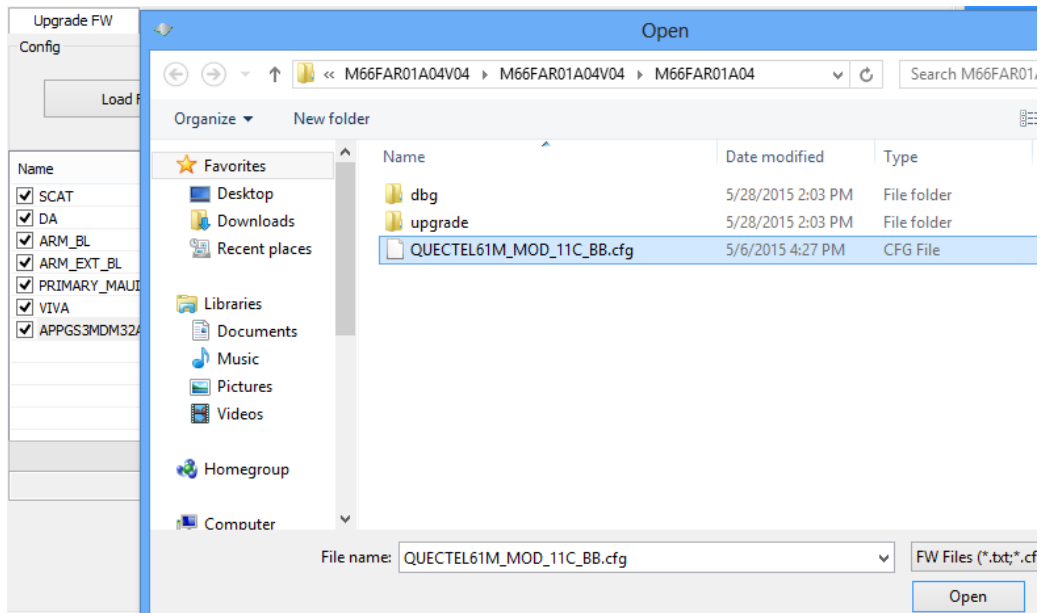**Step 2:** Select the file with "**cfg**" filename extension, which you want to download to module.

Figure 8: Select the Cfg File

2.3. Upgrade Firmware

2.3.1. Upgrade App Firmware

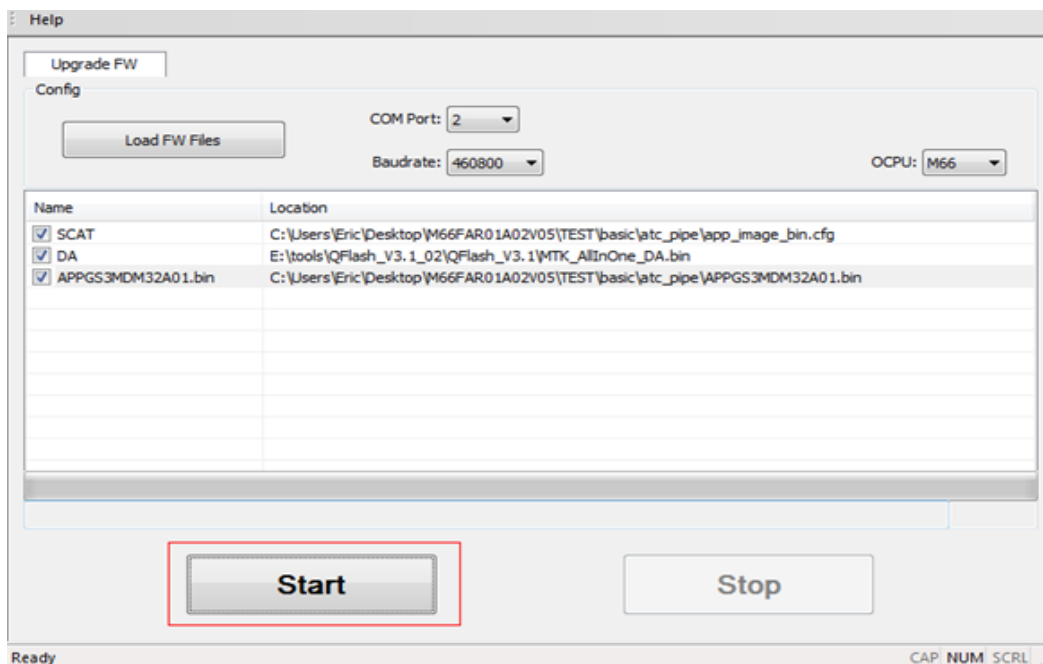**Step 1:** Click the "**Start**" button to upgrade the APP firmware.

Figure 9: Click the Start Button

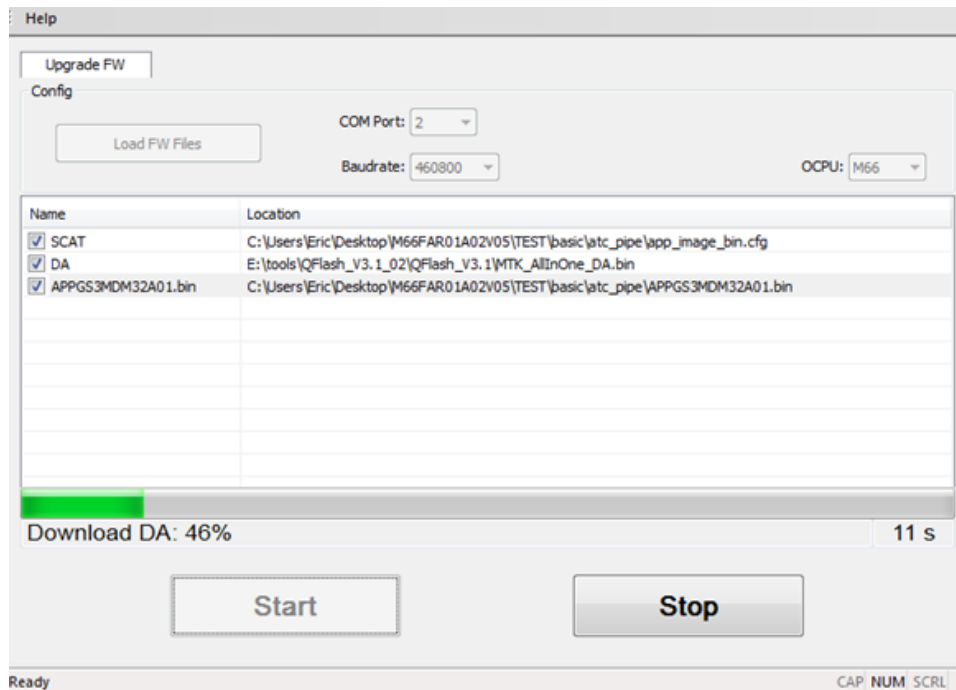**Step 2:** Then restart the module in 30 seconds, it will start to upgrade firmware.

Figure 10: Start to Upgrade after Restarting the Module

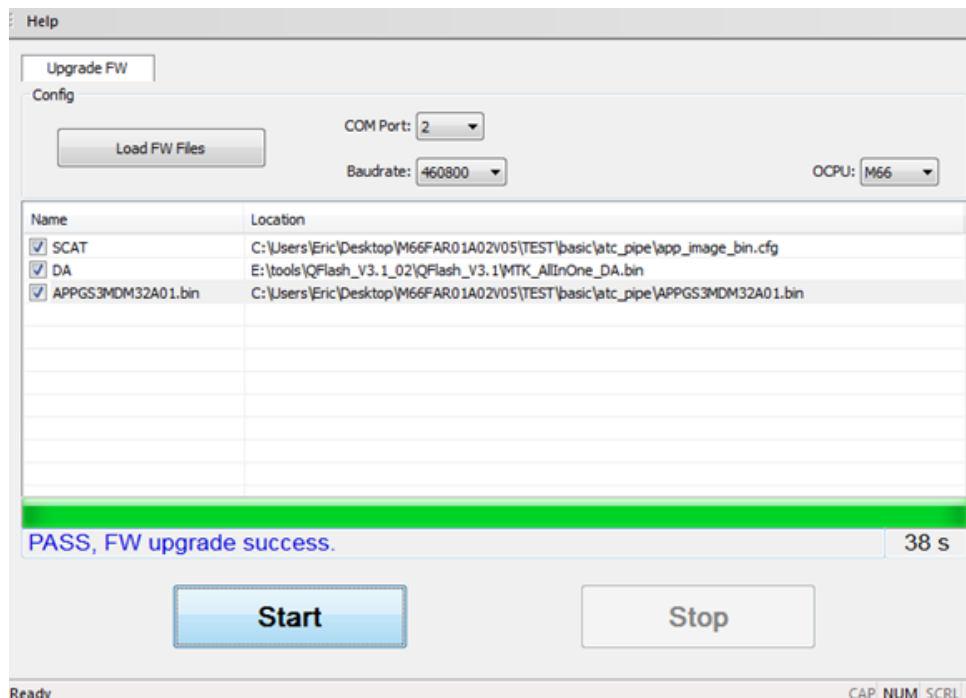**Step 3:** It will display "**FW upgrade success**" when successfully upgrading the module, as shown in Figure 11.

Figure 11: Successful Upgrade

2.3.2. Upgrade Core Firmware

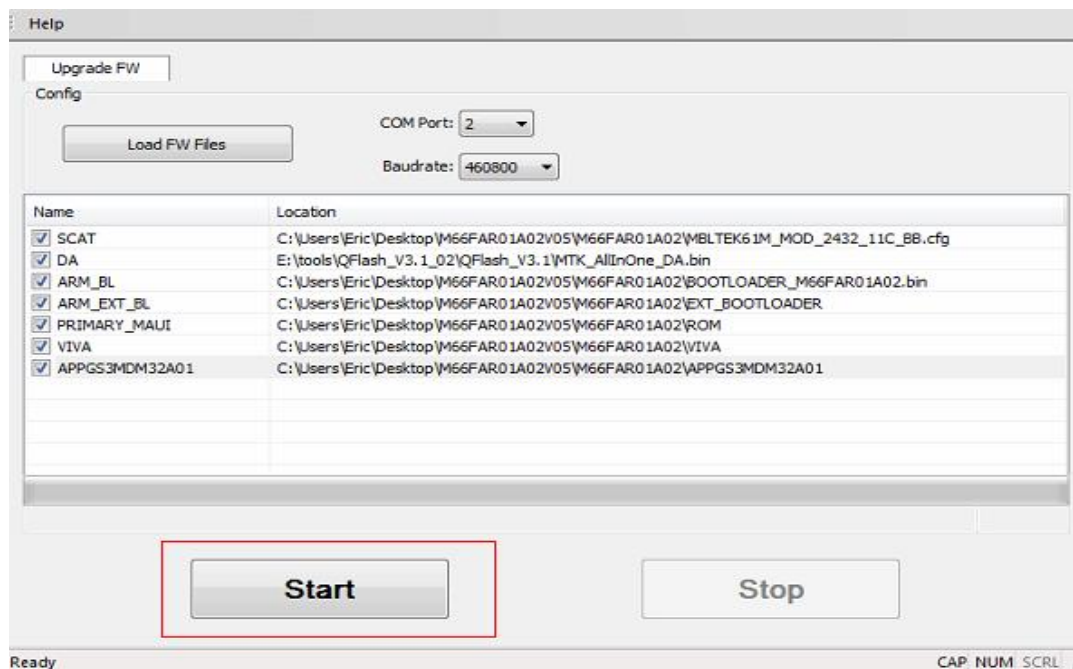**Step 1:** Click the "**Start**" button to upgrade.

Figure 12: Click the Start Button

Step 2: Then restart the module in 30 seconds, it will start to upgrade firmware.
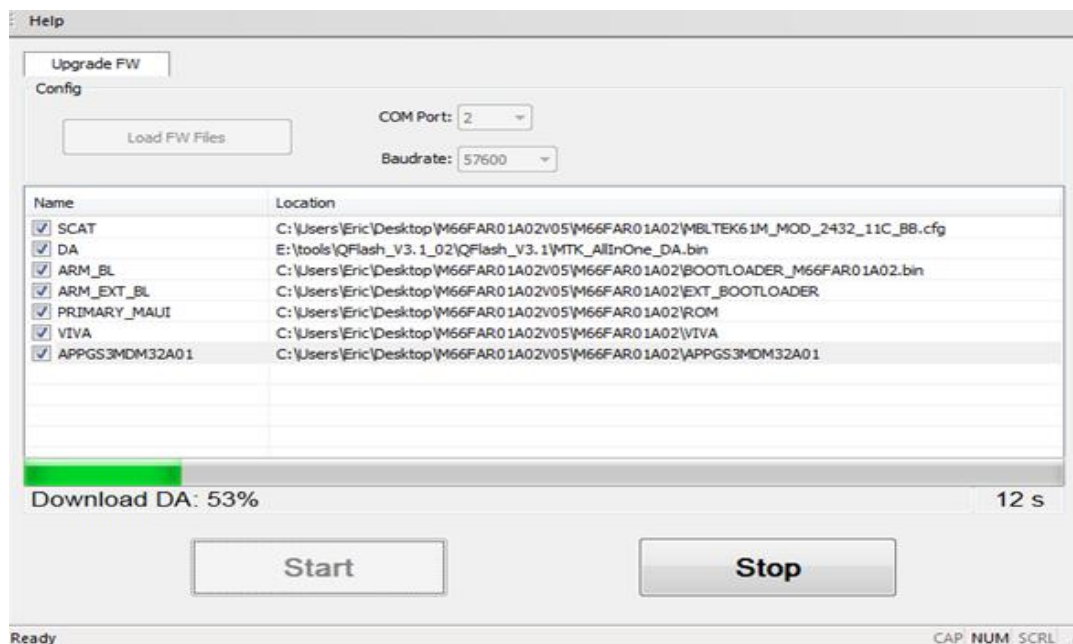

Figure 13: Start to Upgrade after Restarting the Module

Step 3: It will display "**FW upgrade success**" when successfully upgrading the module, shown as Figure 14.
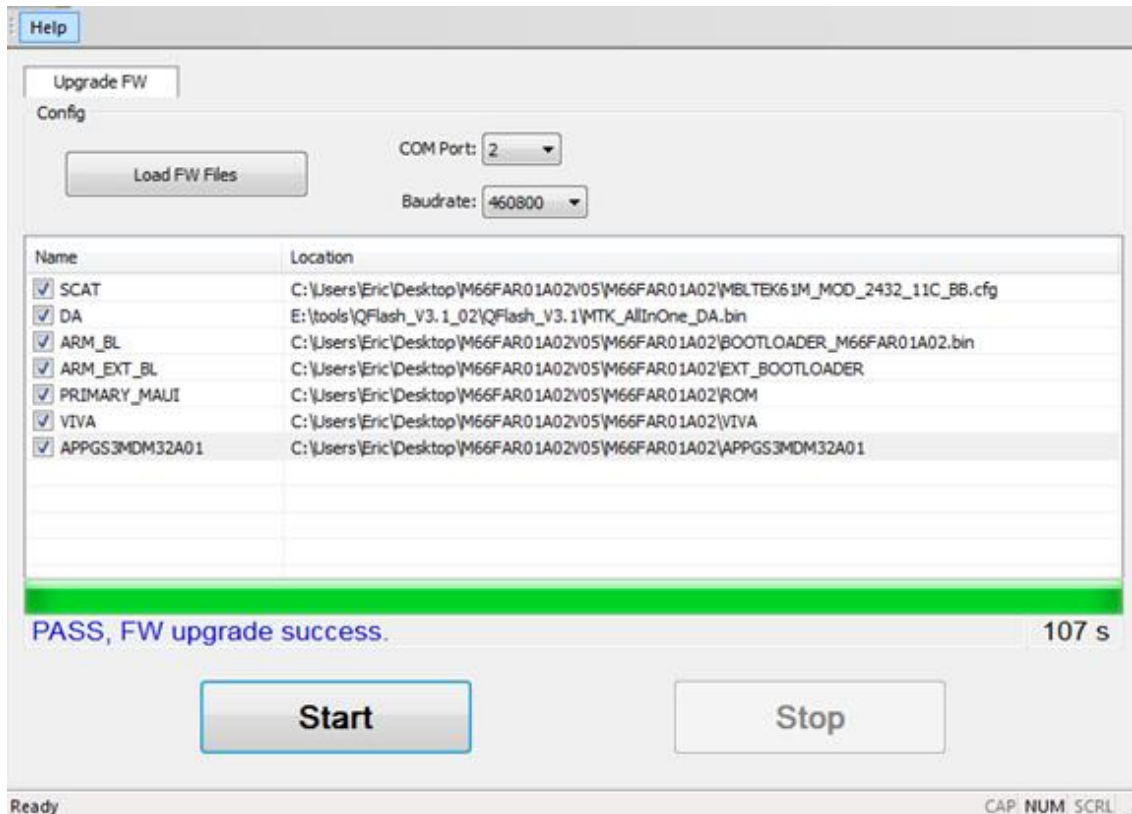

Figure 14: Successful Upgrade

2.4. Exceptions

Exceptions may be caused by incorrect parameter of baud-rate, damaged EVB or invalid files, etc.
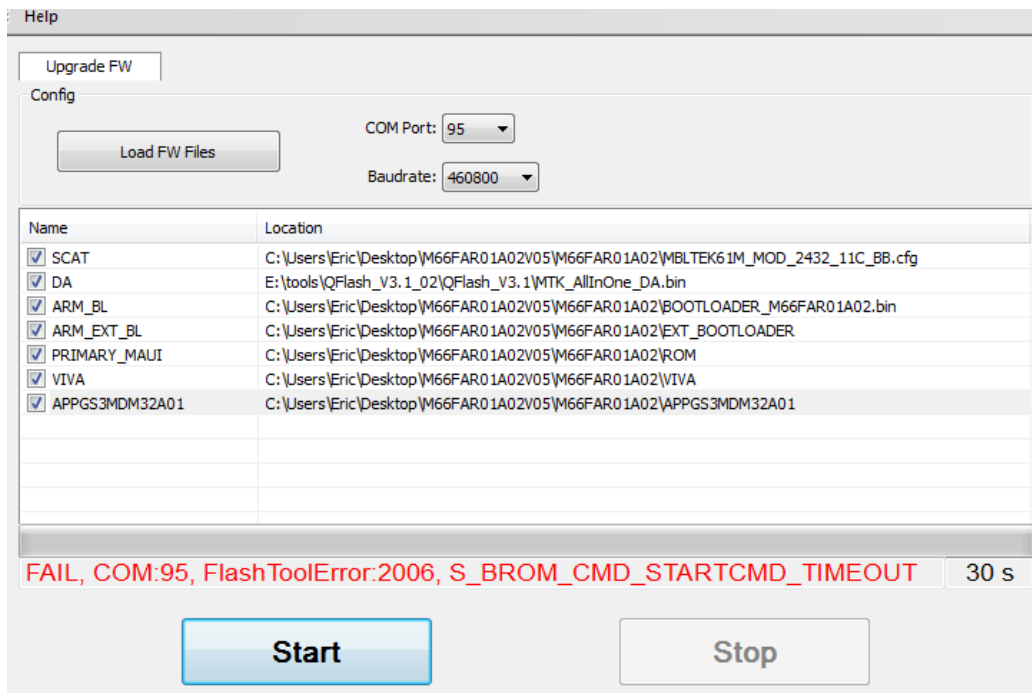
2.4.1. Select Wrong Series Port

Figure 15: Connect with Wrong Serial Port

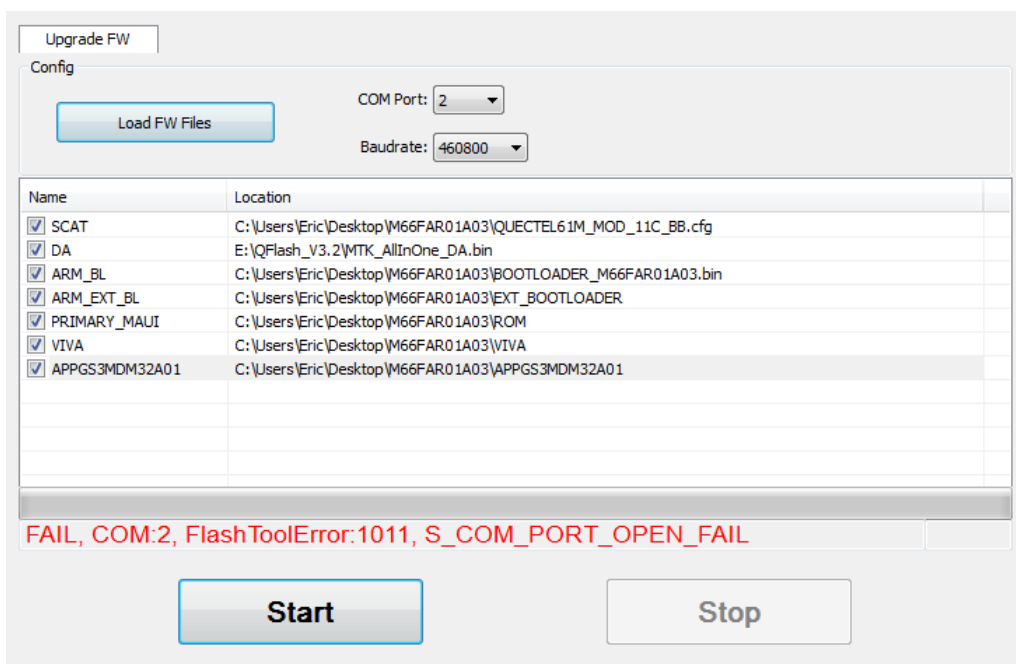## 2.4.2. Connect to an Occupied Serial Port

Figure 16: Connect to an Occupied Serial Port

2.4.3. Select an Unsupported Baudrate

Figure 17: Unsupported Baudrate is Selected

2.4.4. Select an Invalid Load File

Figure 18: Selected an Invalid Load File

2.4.5. Unstable Power Supply or Cable Connection during Downloading
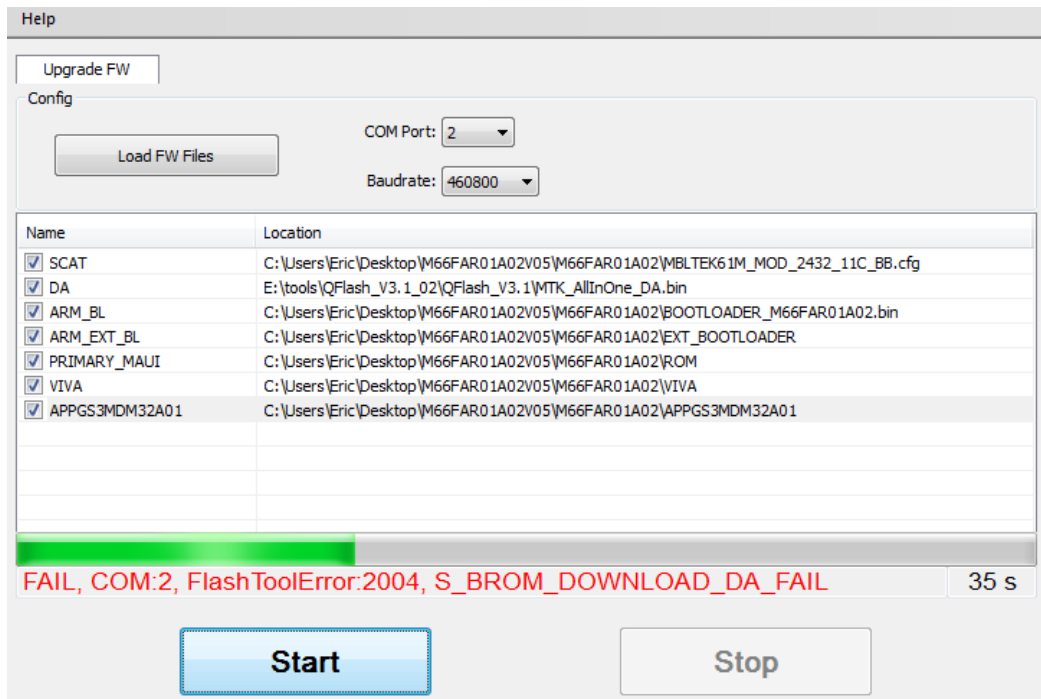

Figure 19: Power Supply or Cable Connection is Abnormal
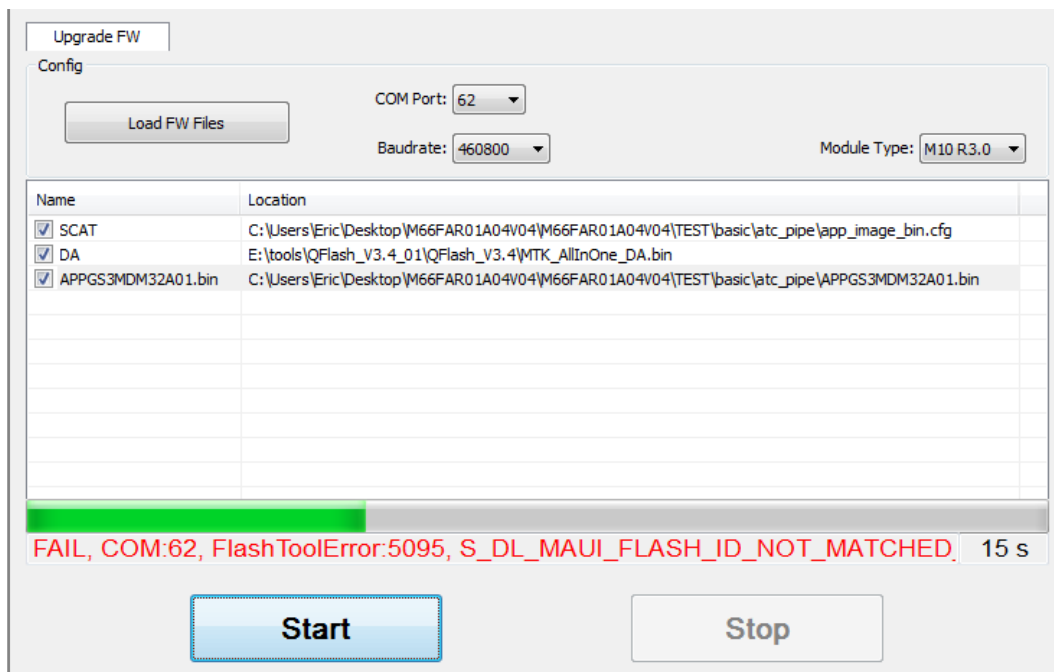
2.4.6. Select an Incorrect Module Type

Figure 20: Select an Incorrect Module Type