

# Firmware Update Procedure for NL-SW-1xRTT-V

NimbeLink Corp

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# 1. Introduction

As cellular carriers and chipset providers update the network and products that support it, new features get added that may be desirable to enable in NimbeLink modems. The modem part numbers are not locked to any one given version of firmware, therefore, this document provides instructions on how to upgrade and downgrade Skywire modems with firmware versions that have been released by Telit and have also gone through the Maintenance Release approval process with Verizon for use on NimbeLink Skywire modem products.

## 2. Firmware Update Procedure

### 2.1 Install USB device drivers on a Windows PC

Installation files are available on the web here:

[http://nimbelink.com/wp-content/uploads/2014/08/Telit\\_USB\\_Driver\\_Win\\_Desktop\\_UF.00.01.zip](http://nimbelink.com/wp-content/uploads/2014/08/Telit_USB_Driver_Win_Desktop_UF.00.01.zip)

We have found this to work well on Windows 7 and Windows 8 PCs.

### 2.2 Plug Modem into Development kit

There are two development kits that are capable of providing the required USB connection to the modem to perform the firmware update:

- 1) Skywire Development kit: Part number: NL-SWDK
- 2) BeagleBoneBlack Cape: Part number: NL-AB-BBCC

### 2.3 Connect USB cable from Kit to PC

If using the NL-SWDK, connect the USB cable to USB connector J5 and the PC.

If using the NL-AB-BBCC, connect the USB cable to USB connector J3 and the PC.

### 2.4 Apply Power

If using the NL-SWDK, plug power supply into connector/barrel jack J3 and turn on the modem by pressing the ON\_BTN for 1+ seconds.

If using the NL-AB-BBCC, plug the cape into a BeagleBoneBlack baseboard, and plug power into the BeagleBoneBlack.

## 2.5 Recognize Modem

After applying power, the modem takes about 3-4 seconds before the USB ports are initialized and recognized by the operating system.

## 2.6 Run Update Application

The released firmware update package is available for download here:

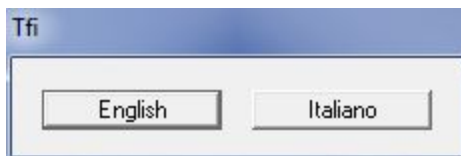
<https://drive.google.com/file/d/0BxjOCV4A3NUBbC1ZT0ptOGxQWmM/view?usp=sharing>

Extract the files in the .ZIP package to a local directory on your PC.

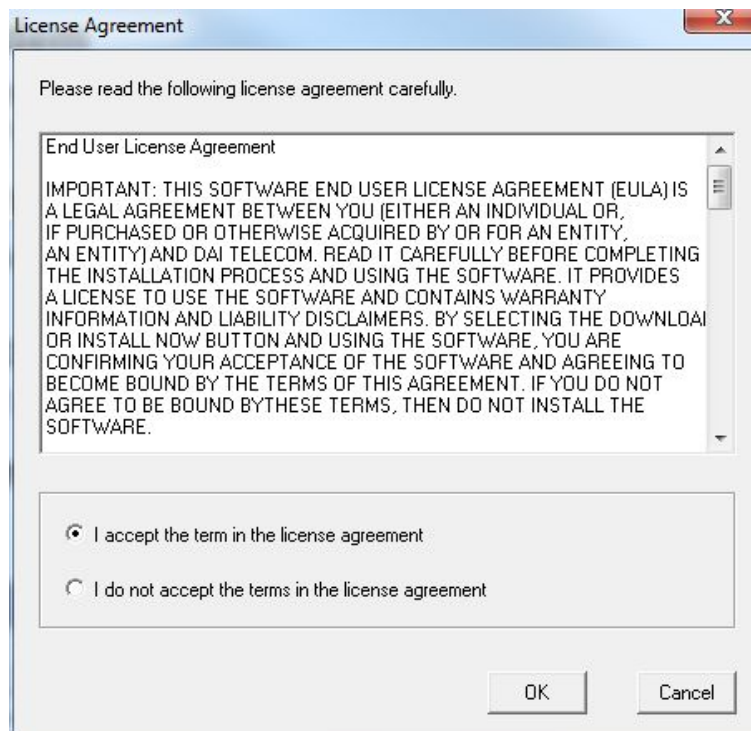
Run the CE910-DUAL\_18.02.022\_TFI.exe file.

## 2.7 Select Program default settings

Click 'English'



Review and Accept the license agreement, then click 'OK'



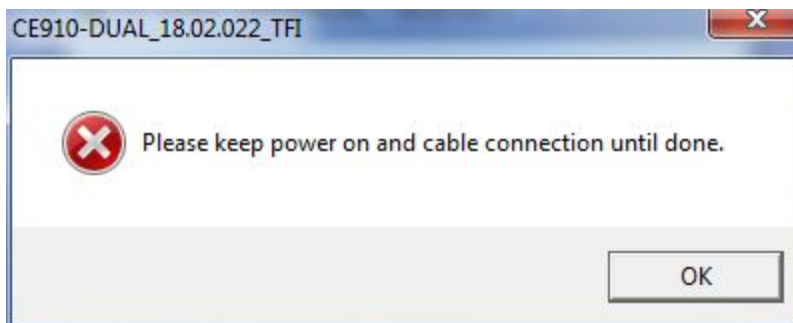
Review information regarding power and click 'OK'



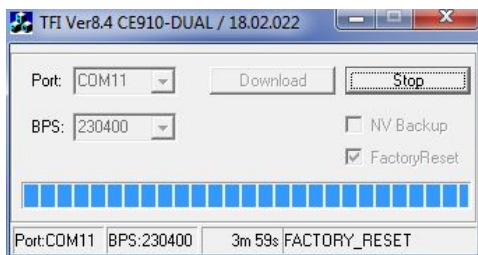
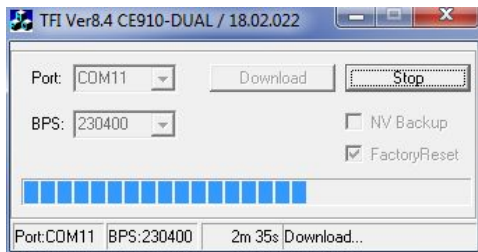
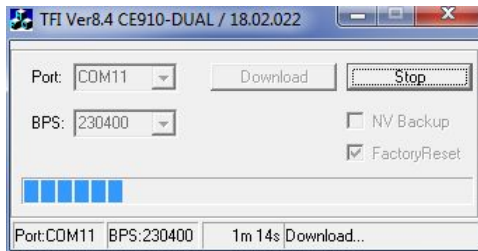
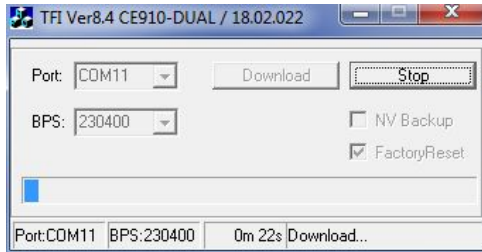
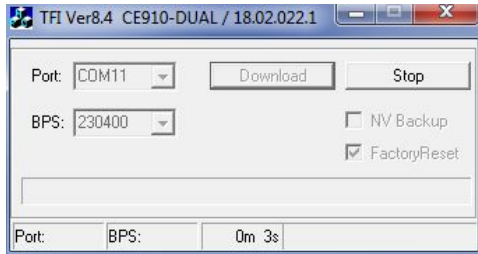
The application will search for the modem and when it finds it, it will set the Port to the modem's COM port number. Click the 'Download' button.



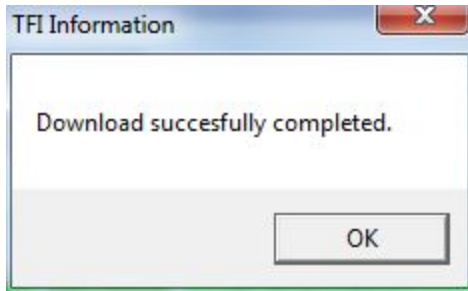
Click the 'OK' button. The application will begin downloading the new firmware.



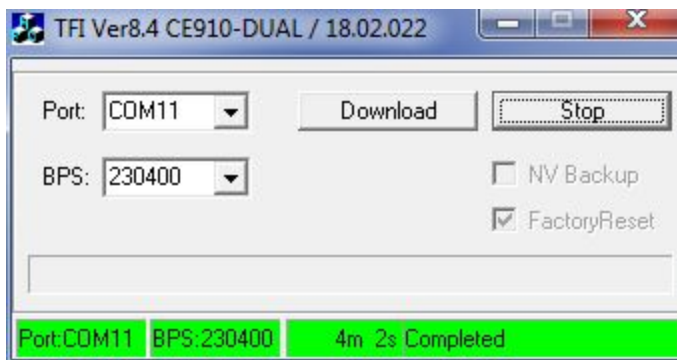
During this time, the USB COM ports will disconnect and reconnect a few times. Below are a series of images of a live update that occur during the process.



When the process completes, the notification below will be displayed. Click 'OK' to get to the main application screen.



Click the 'X' in the upper right hand corner to close the application.



## 2.8 Remove USB cable

## 2.9 Remove Power

## 2.10 Remove Modem

The modem can be installed back into custom hardware or a NimbeLink development kit.

## 2.11 Check New Firmware Version

If you want to confirm the new firmware version is running on the device, you can issue the command:

**AT+CGMR**

Response:

**18.02.022**

**OK**