

LSM1x0A

F/W Download Guide

Rev 1.0

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History

Date	Contents	Version	
2022-04-18	Create	V1.0	

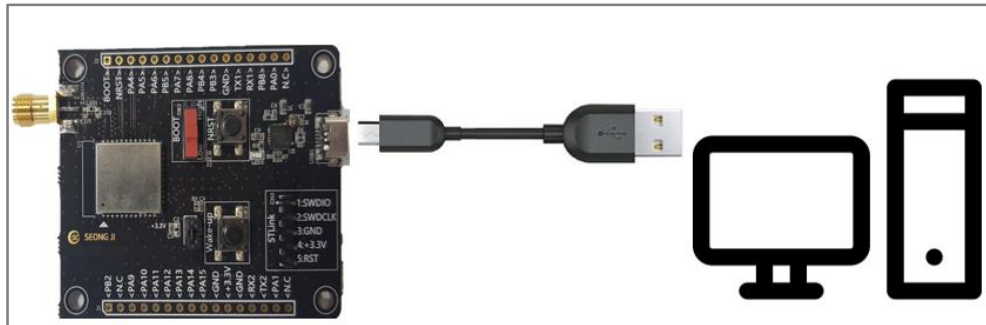
1. F/W Download - IAP

note: F/W downloader using IAP

Run as a Ymodem-enabled program (Extra putty, tera term, etc.)

Connect PC and module

- PC and module connection using micro 5pin cable

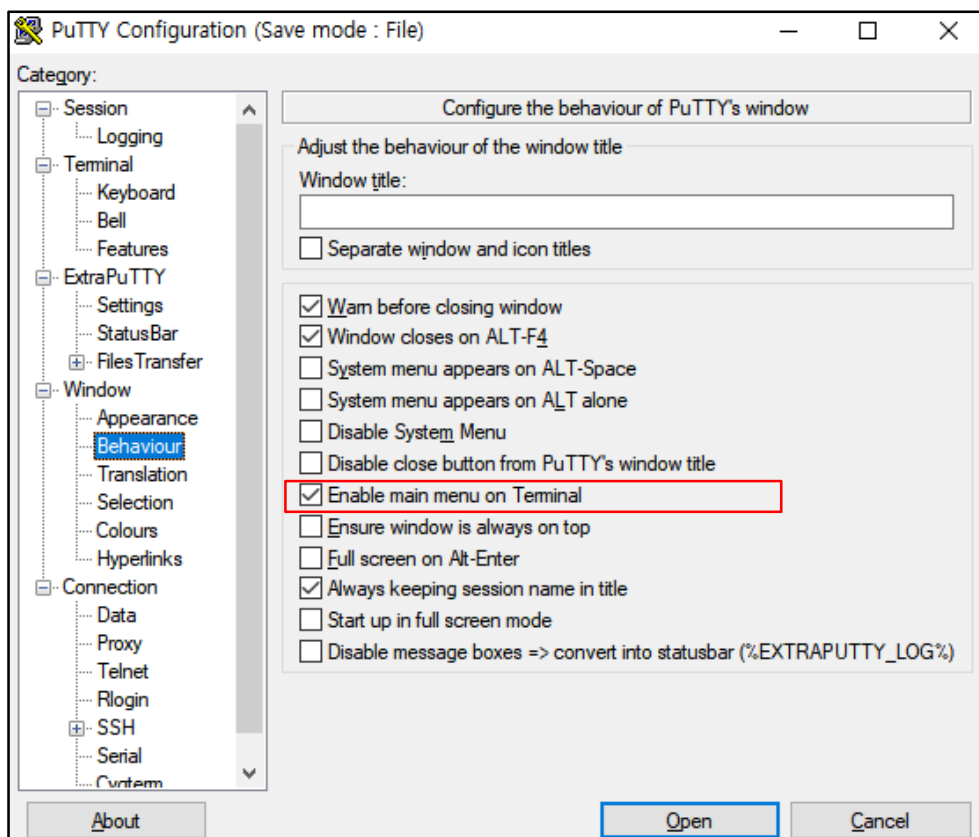


1.1 F/W download using Extra putty

Putty version: [Extra putty 0.30](#)

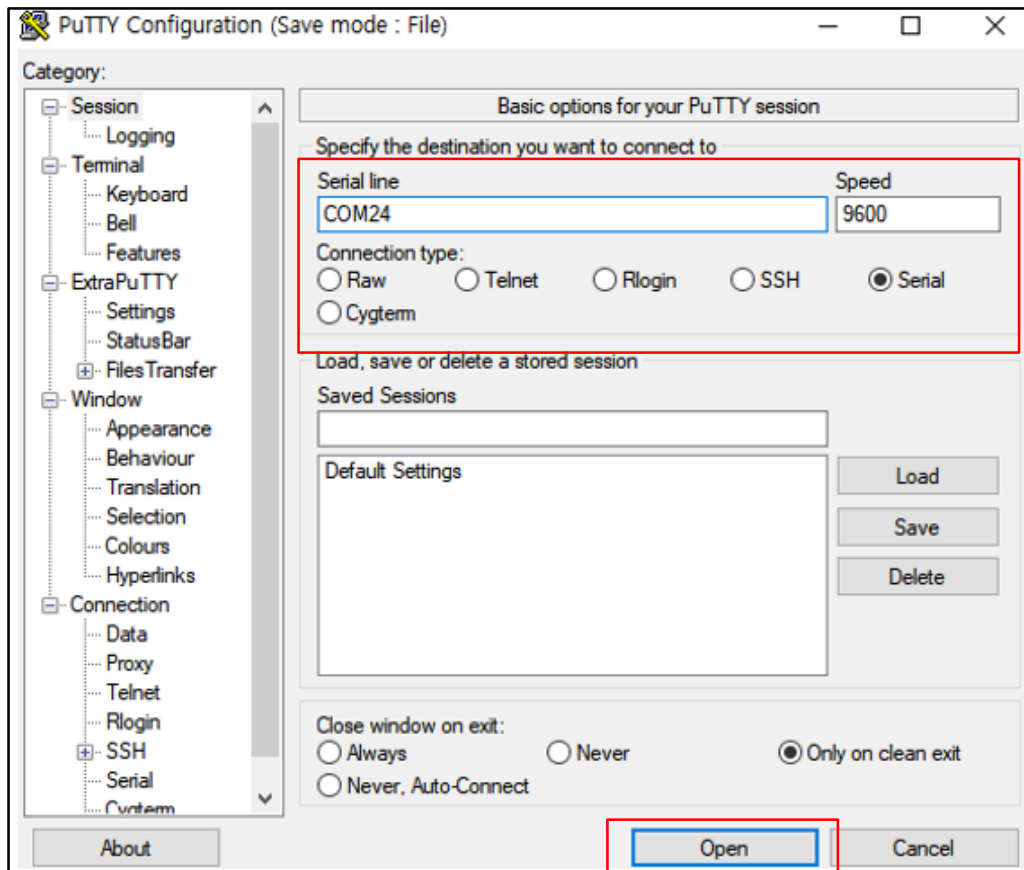
1)Putty standard setting

- Window -> Behaviour -> "Enable menu on Terminal" check



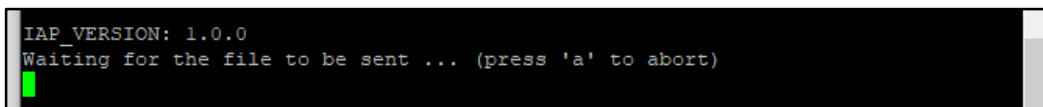
2) Serial connection

- Connection type: Serial
- Serial line: module port number Ex) COM24
- Speed: 9600
- After setting as above, "Open" button click



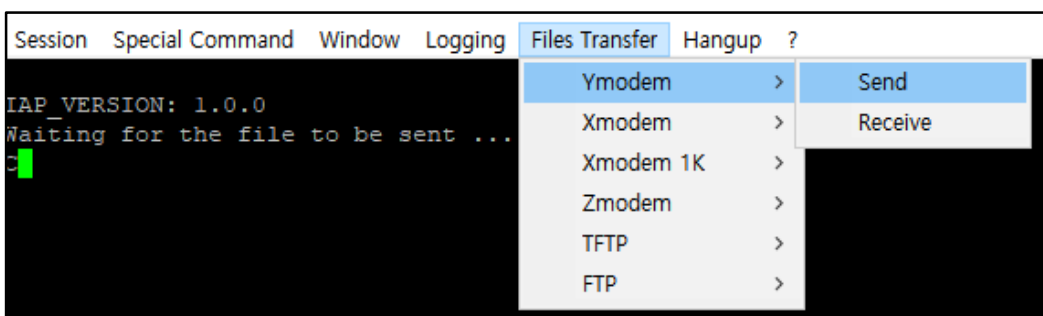
3) Start download mode

- Press reset and enter '1' within 0.5 seconds

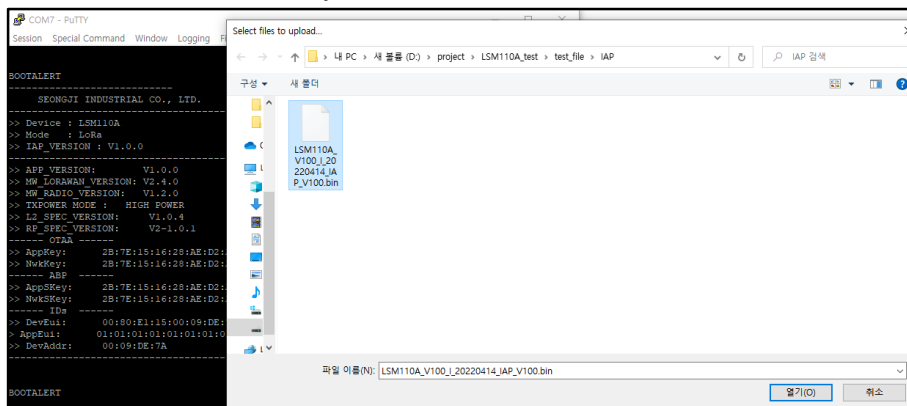


4) In download mode

- Files Transfer -> Ymodem -> Send click

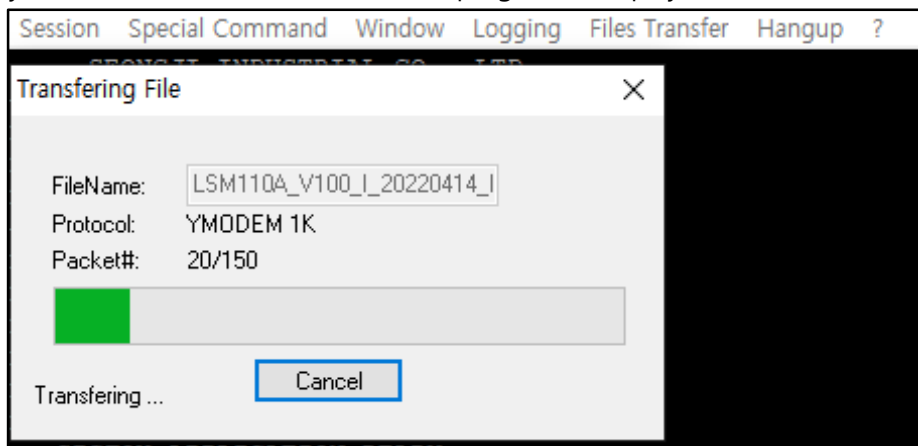


5) Find and select the .bin file you want to install

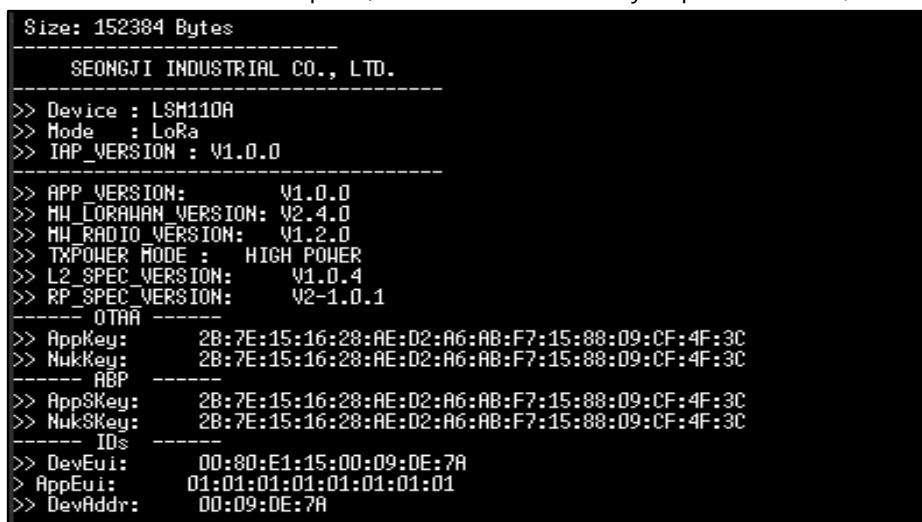


※ Warning: In addition to binary (.bin) files created by building SDKs, you are responsible for any problems that occur when using other binary (.bin) files.

6) If you select a bin file and send it, the progress is displayed as shown in the figure below



7) After the download is complete, the size of the binary is printed and F/W is booted

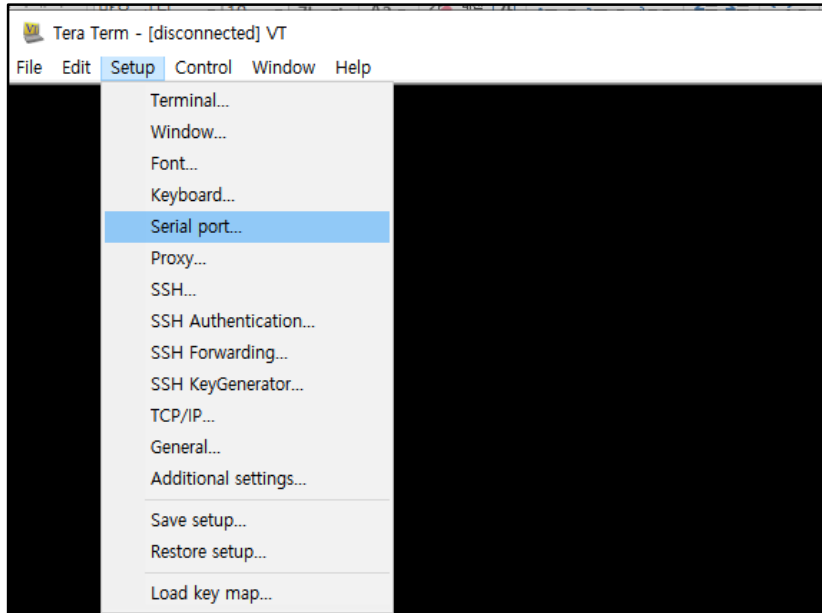


1.2 F/W download using Tera term

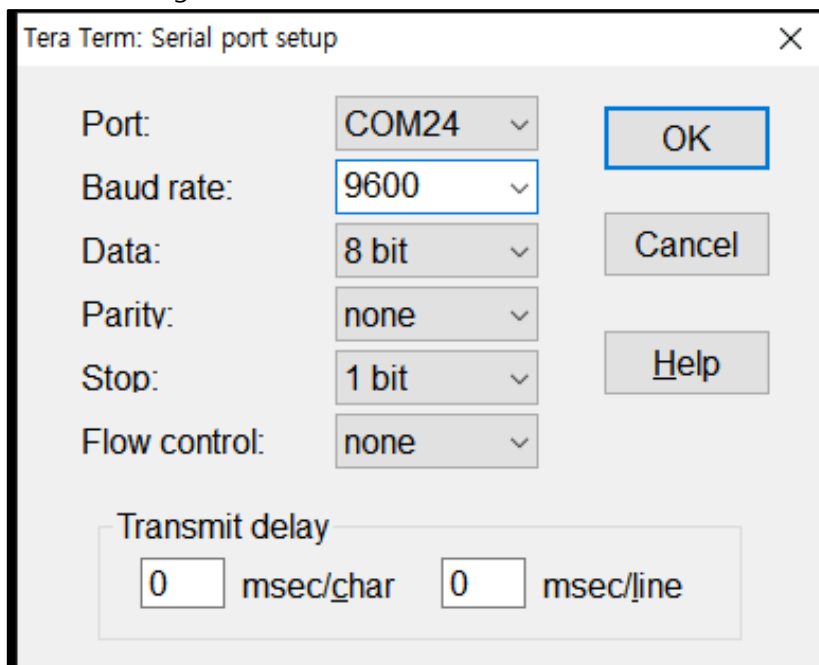
Note: tera term does not work in the latest version(4.106), use version 4.72

1) Serial connection

- Setup -> "Serial port..." click



- Port: module port number Ex) COM24
- Baud rate: 9600
- After setting as above, "OK" button click

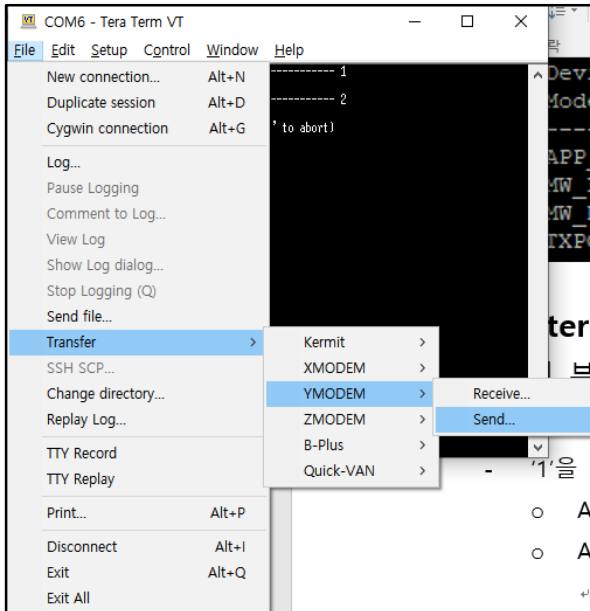


2) Start download mode

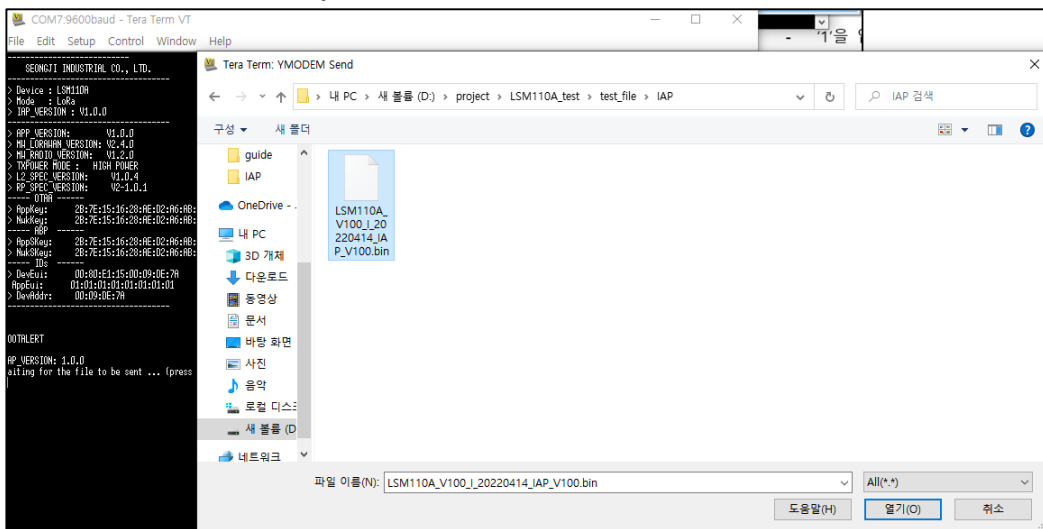
- Press reset and enter '1' within 0.5 seconds

```
IAP VERSION: 1.0.0
Waiting for the file to be sent ... (press 'a' to abort)
```

3) In download mode

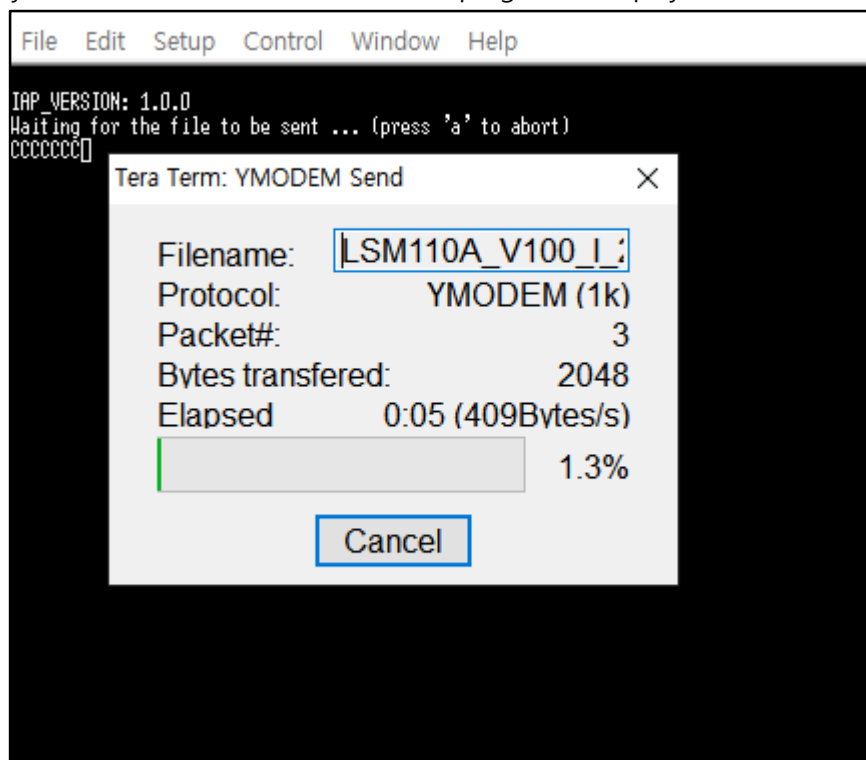


4) Find and select the .bin file you want to install



※ Warning: In addition to binary (.bin) files created by building SDKs, you are responsible for any problems that occur when using other binary (.bin) files.

- 5) If you select a bin file and send it, the progress is displayed as shown in the figure below



- 6) After the download is complete, the size of the binary is printed and F/W is booted

```
Size: 152384 Bytes
-----
SEONGJI INDUSTRIAL CO., LTD.
-----
>> Device : LSM110A
>> Mode   : LoRa
>> IAP_VERSION : V1.0.0
-----
>> APP_VERSION:      V1.0.0
>> MH_LORAWAN_VERSION: V2.4.0
>> MH_RADIO_VERSION:  V1.2.0
>> TXPOWER MODE :    HIGH POWER
>> L2_SPEC_VERSION:   V1.0.4
>> RP_SPEC_VERSION:   V2-1.0.1
----- OTAA -----
>> AppKey:  2B:7E:15:16:28:AE:D2:A6:AB:F7:15:88:09:CF:4F:3C
>> NwkKey:  2B:7E:15:16:28:AE:D2:A6:AB:F7:15:88:09:CF:4F:3C
----- ABP -----
>> AppSKey:  2B:7E:15:16:28:AE:D2:A6:AB:F7:15:88:09:CF:4F:3C
>> NwkSKey:  2B:7E:15:16:28:AE:D2:A6:AB:F7:15:88:09:CF:4F:3C
----- IDs -----
>> DevEui:  00:80:E1:15:00:09:0E:7A
> AppEui:  01:01:01:01:01:01:01:01
>> DevAddr: 00:09:0E:7A
-----
```


2. F/W Download - STlink

2.1 Connect

1) Connect STlink and module

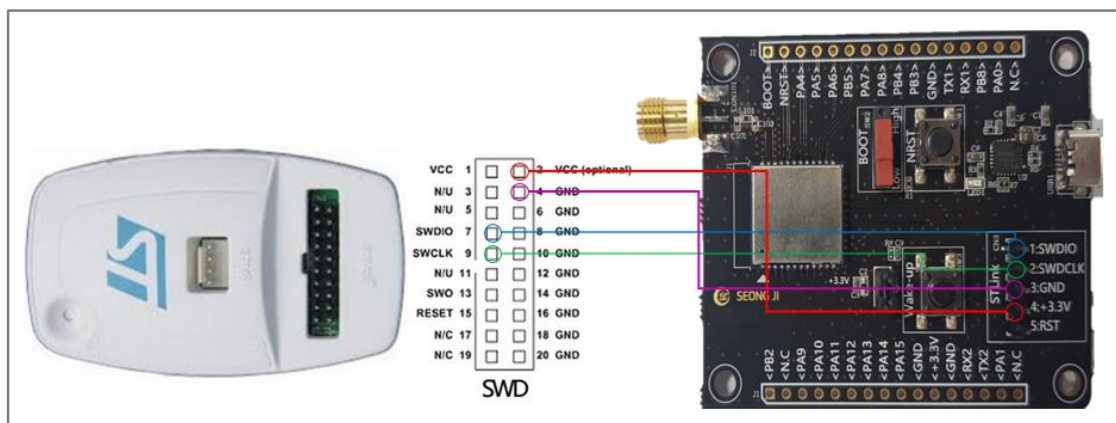
- Connect the circuit as shown in the image below
- PC and STlink connection

Red: VCC

Blue: SWDIO

Green: SWCLK

Purple: GND



2) Connect PC and module

- PC and module connection using micro 5pin cable

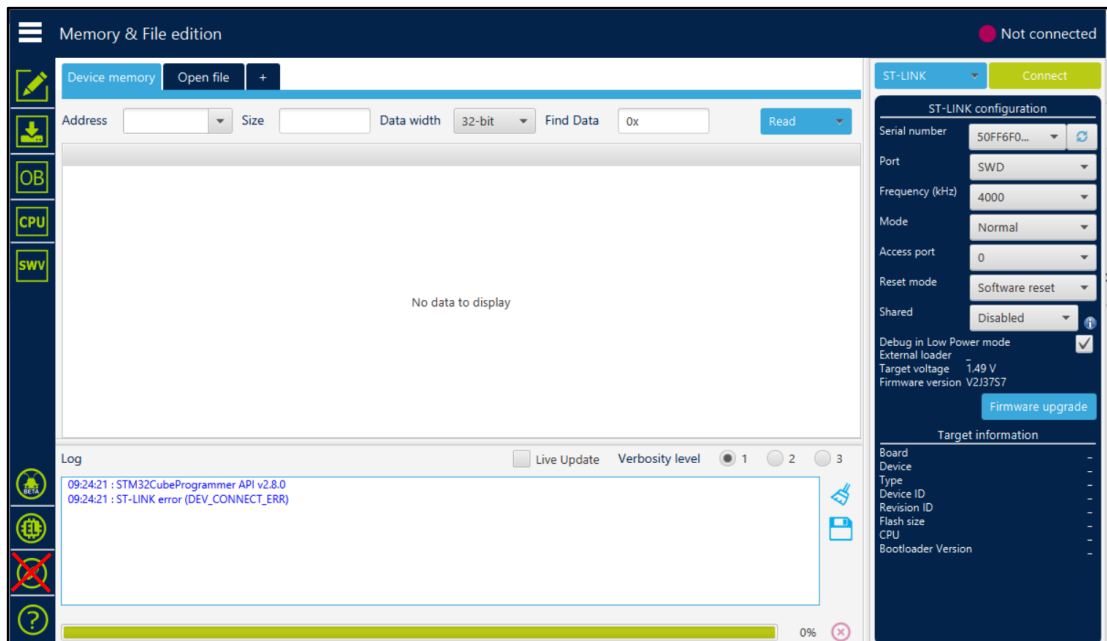


2.2 F/W download using STM32 Cube Programmer

✘ **Warning: Never use the full chip erase of the STM32 tube programmer**

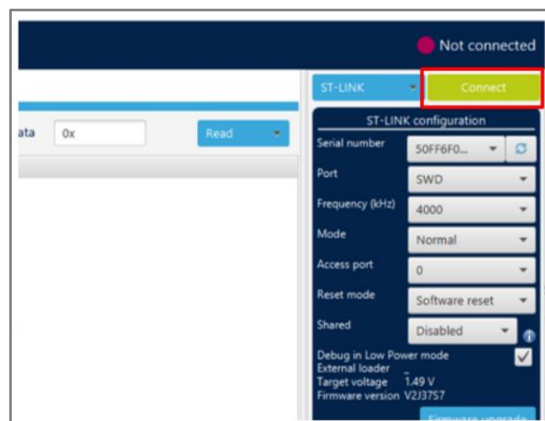
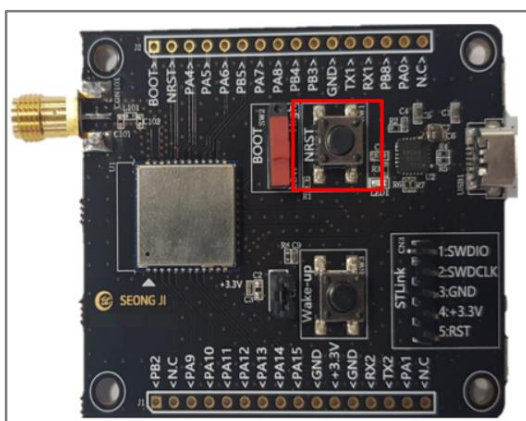
Note: STM32 Cube Programmer can be downloaded from the STMicroelectronics website below
<https://www.st.com/en/development-tools/stm32cubeprog.html>

1) Open the STM32 Cube Programmer



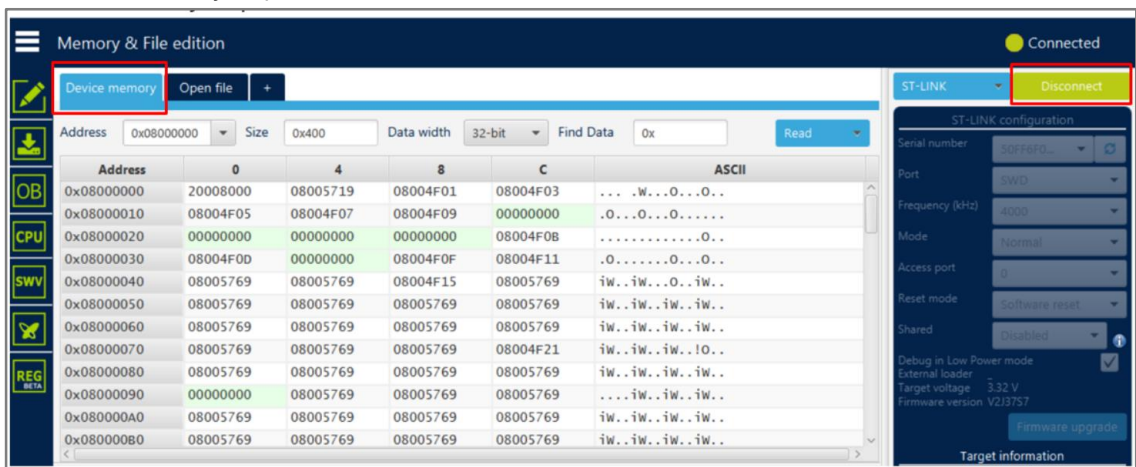
2) Connect the programmer and module

- While holding push the reset button, click connect of programmer and release the reset button



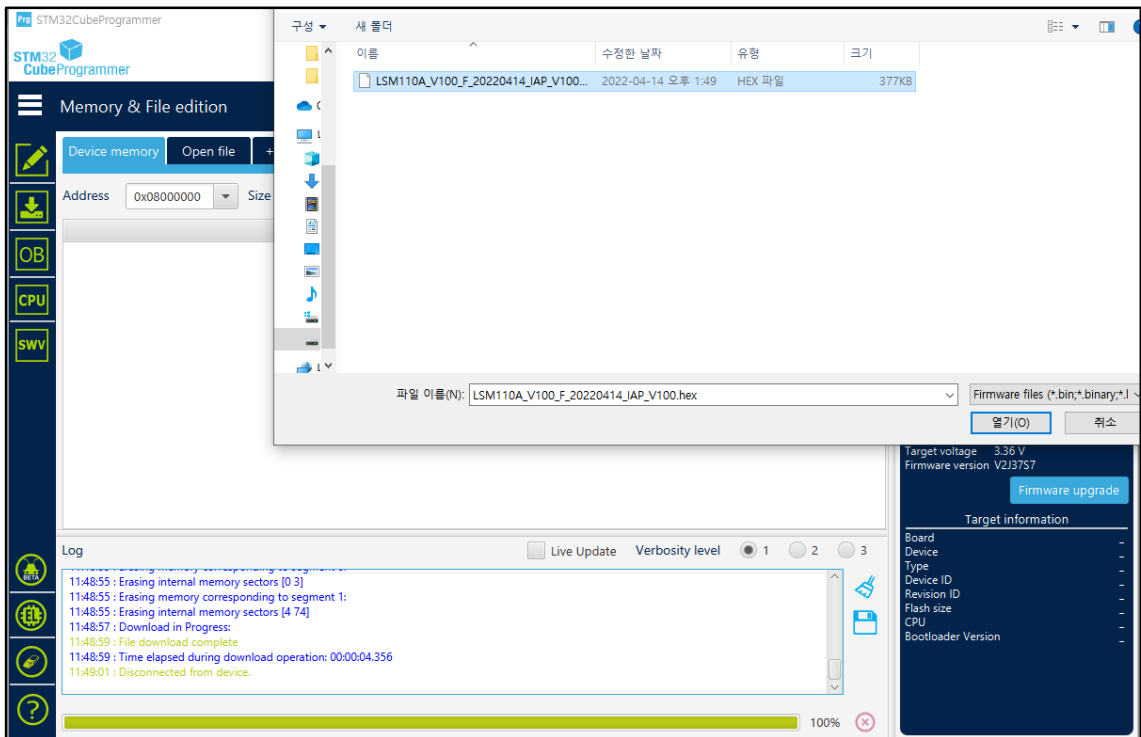
3) Check the connection

- The connect button changes to disconnect
- Device memory is print



4) Hexfile import

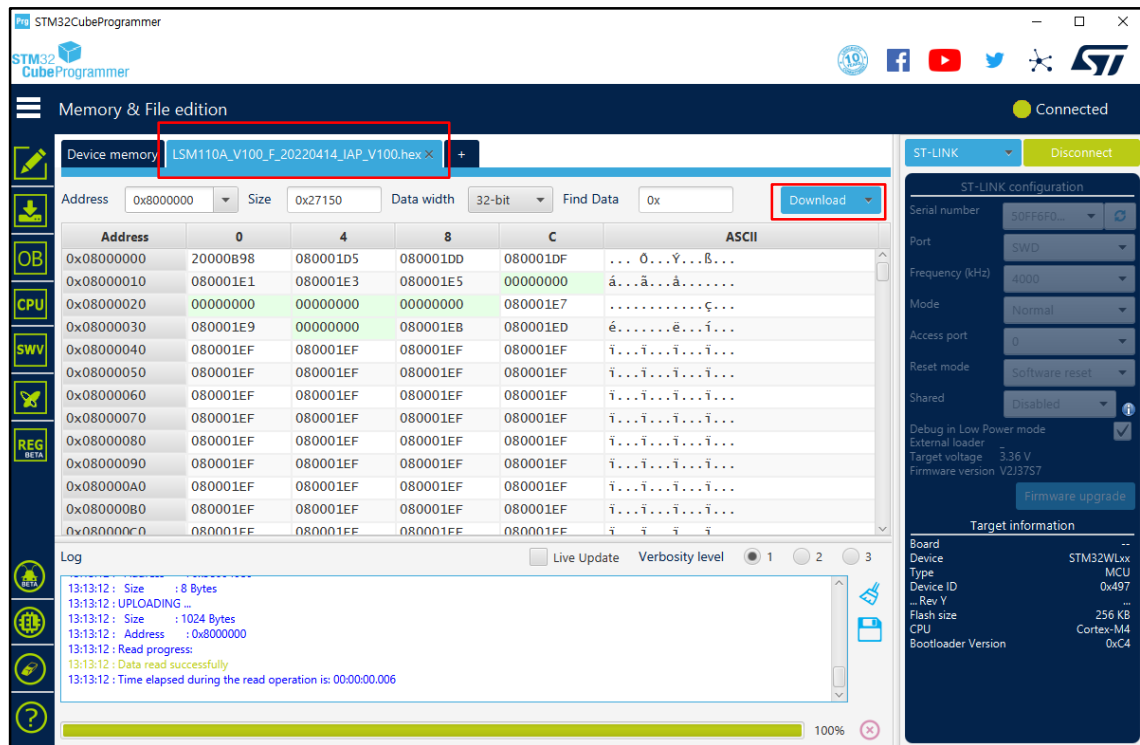
- open file click
- Load the hex file you want to download



※ Warning: Users are responsible for any problems resulting from the use of any hexfile other than the provided hexfile

5) Download

- Click Download in the loaded hex file tab
- After that, check the "File download complete" message



6) Check the booting log

- Check the booting log using serial monitoring program

