Firmware Upgrade

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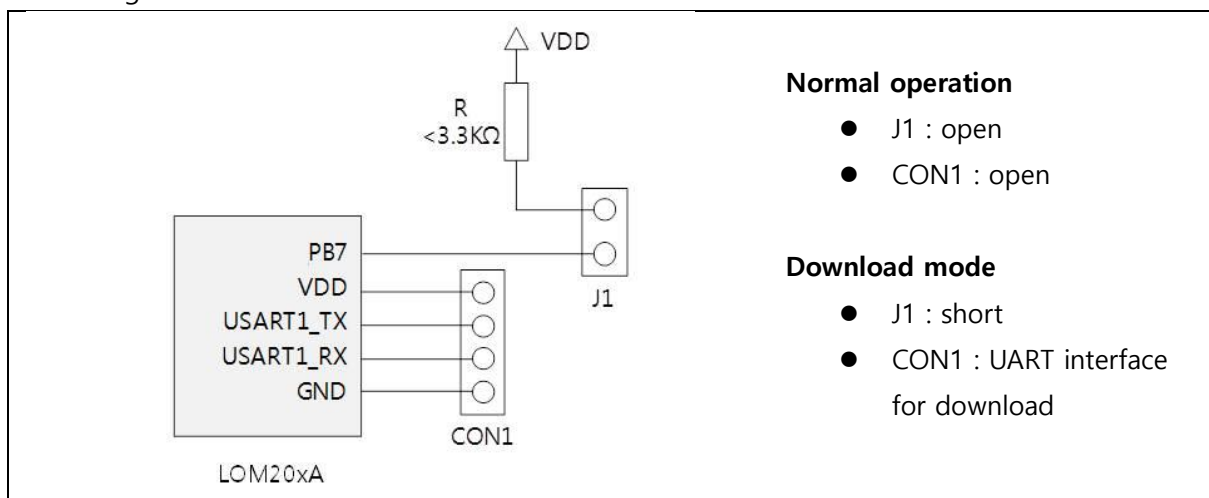
Contents

Firmware Upgrade

Hardware configuration

The LOM20xA module can download and upgrade firmware via UART communication on the USART1 port. To download the firmware, you need to set the pins as shown below.

Pin name	Pin number	Description
USART1_RX	7	Connect to PC with UART RX pin for firmware download
USART1_TX	6	Connect to PC with UART TX pin for firmware download
PB7	2	Pull-up to VDD level (After downloading the firmware, connect to GND or N.C)

[table. Download pin]

The circuit configuration for firmware downloading can be configured as shown in the following circuit diagram

Serial port setup

To download firmware through UART, connect UART interface of PC and module and set serial port as below.

- Baud rate : 115200
- Data : 8bit
- Parity : none
- Stop : 1bit
- Flow control : none

Tera Term

To download the firmware, use a terminal program that supports serial communication and file transfer. This application note takes the example of a Tera Term supporting this function
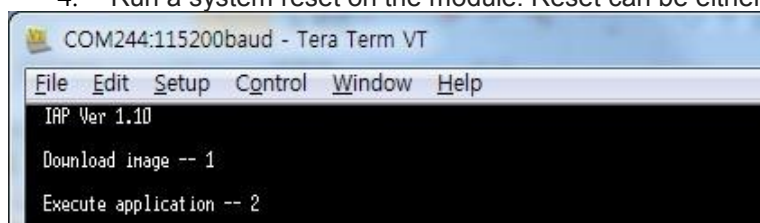
Tera Term can be downloaded from https://en.osdn.jp/projects/ttssh2/releases/ using open source software.
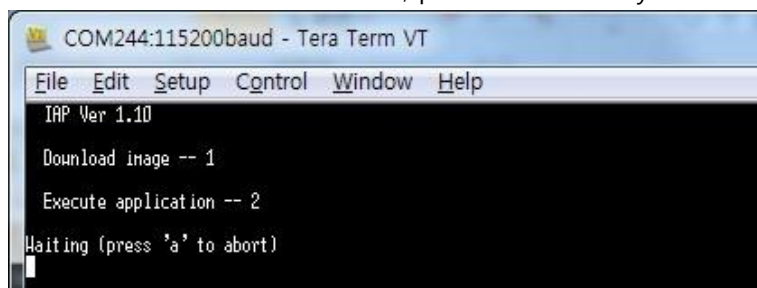

Firmware download

The procedure for downloading the firmware is as follows.

1. Set the PB7 pin to Logic High
2. Connect the UART pin of the module to the download PC as in the example circuit above.
3. Execute Tera Term and execute serial port setting (115200/8/n/1) and connection.
4. Run a system reset on the module. Reset can be either Power-on reset or NRST reset.
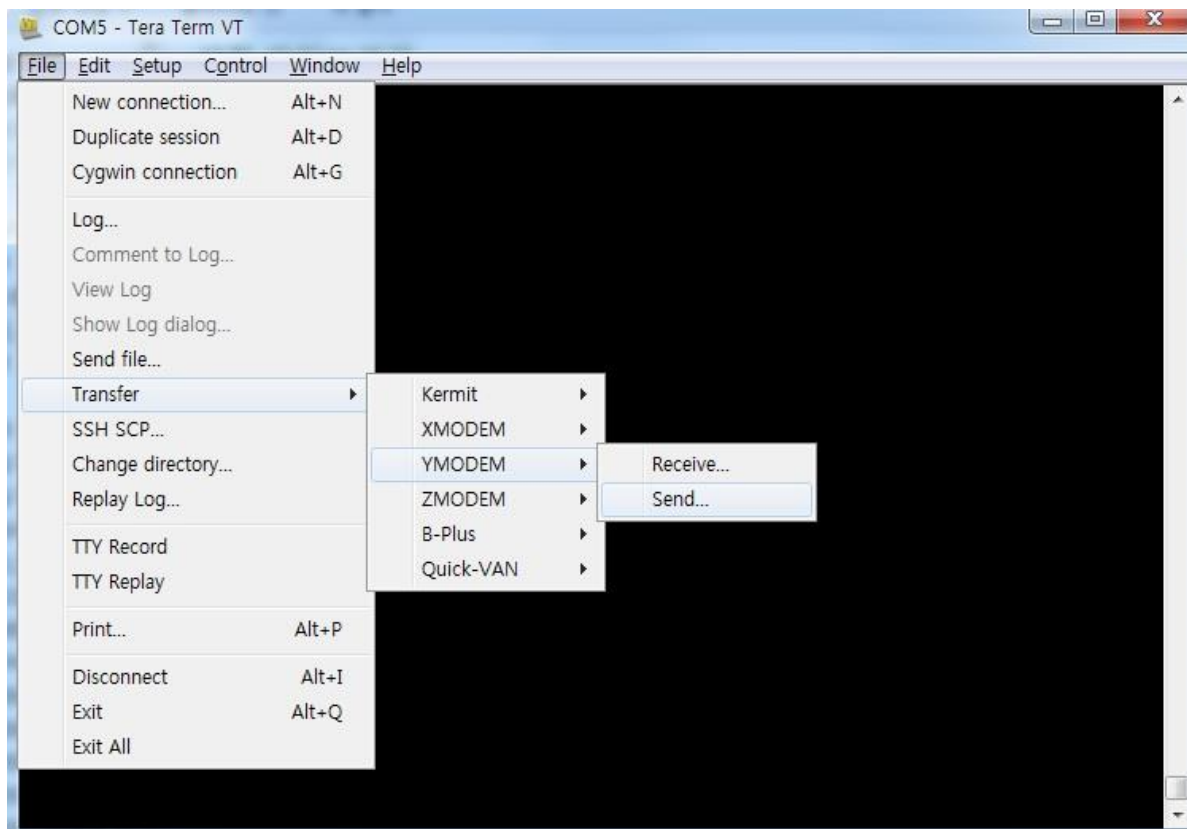

[after reset, Tera Term screenshot]
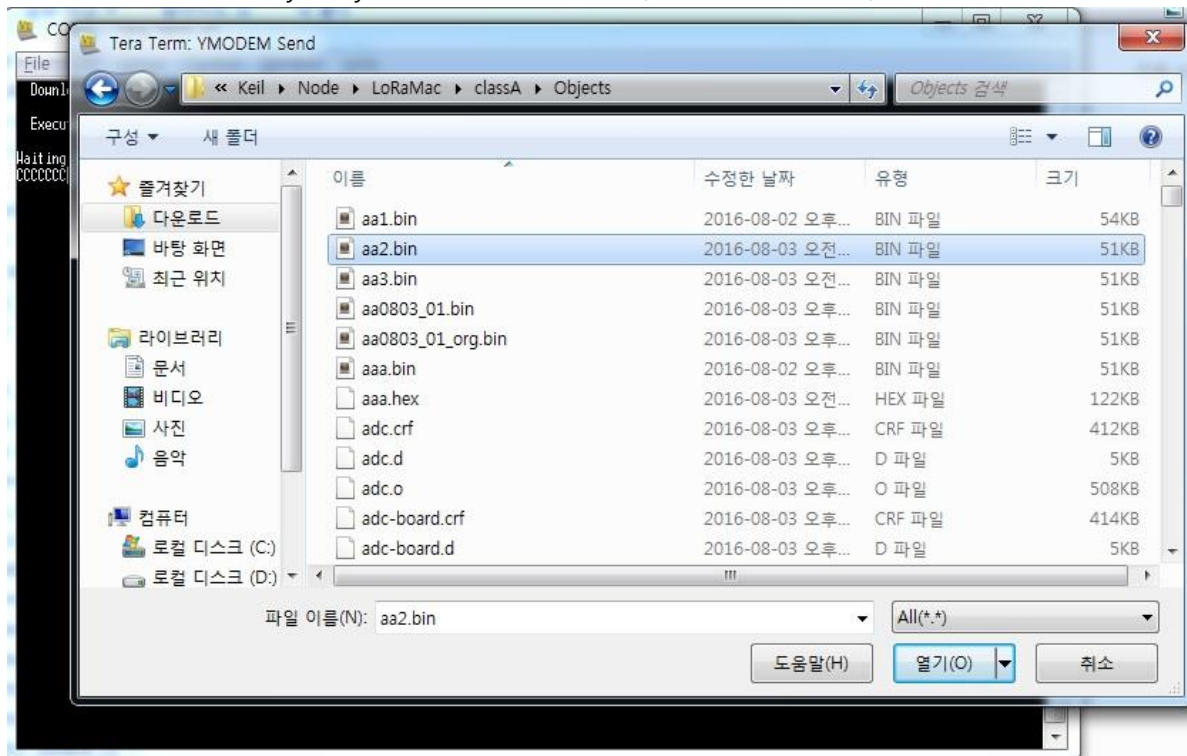
5. After enter the number 1, press the Enter key

[after enter the number 1 and press the Enter key, Tera Term screenshot]

6. Run Tera term. **File** -> **Transfer** -> **YMODEM** -> click **Send**
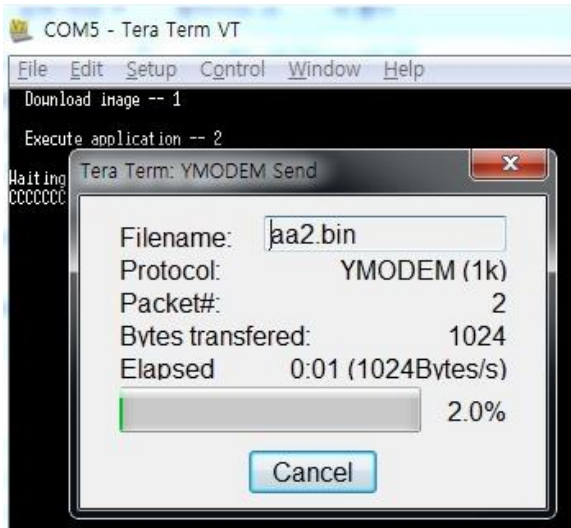

[Tera Term : File→Transfer→YMODEM→Send]

7. Select the binary file you want to download (file extension : bin)
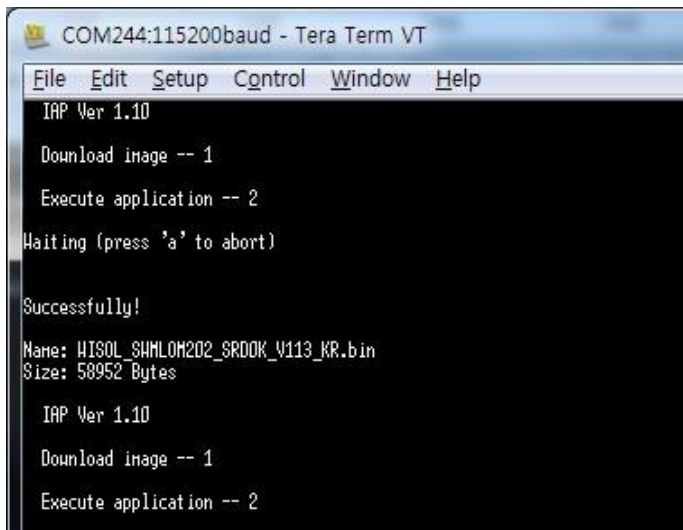

[Binary file selection screenshot]

8. Select the binary file and click "**Open**" to execute the firmware download.

[Firmware download progress screenshot]

9. When the firmware download is complete, the message "Successfully!" Appears on the screen.
   - If the download progress is not 100%, or the message "Successfully!" is not displayed, start from step 1

[Firmware download complete screenshot]