

UM01518

How to Upgrade RISINGHF Devices

V1.3

Document information

Info	Content
Keywords	<i>RisingHF, UART, Bootloader</i>
Abstract	This document describe how to use UART/USB bootloader

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1. Introduction

RisingHF common Bootloader (the bootloader) supports YMODEM protocol firmware upgrade. RisingHF firmware will be released with suffix ".**ebin.bin**".

Please note, the bootloader supports ".**ebin.bin**" firmware only. A non-risinghf firmware will damage your device and keep it in bootloader mode until you redo upgrade with correct RisingHF official firmware. Customers should only use RisingHF official released firmware to upgrade.

2. Configuration

2.1 UART

- Interface: PA9 (TX) / PA10 (RX)
- Baud Rate: 115200
- Data Bits: 8
- Stop Bits: 1
- Parity: None

2.2 USB CDC

UART baud rate and other configurations are unconcerned.

2.3 Connection

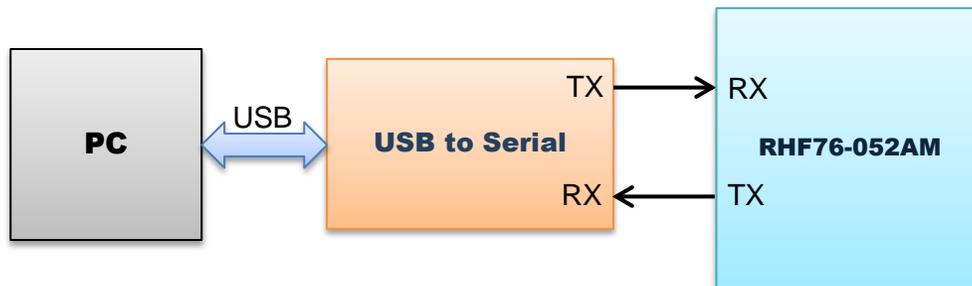


Figure 2-1 UART connection diagram

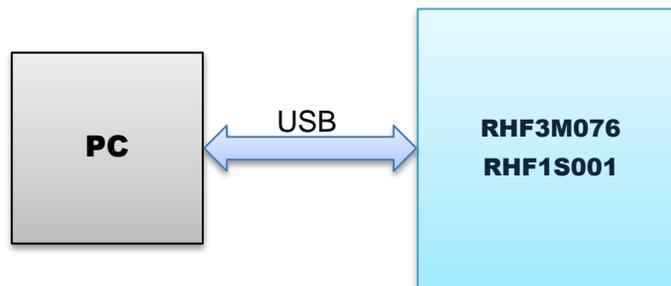


Figure 2-2 USB connection diagram

3. ExtraPuTTY

ExtraPuTTY supports YMODEM protocol file transfer which could use to transfer encrypted firmware to RisingHF device.

Find "ExtraPuTTY-0.30-2015-08-26-installer.exe" in package. Or you could download the tool from ExtraPuTTY official website <http://www.extraputty.com/download.php>

3.1 Install

Install with default configuration, 2 dialog may pop up ask you if you install for all users and the way you save your configuration, choose "Yes" if you don't have special requirement.

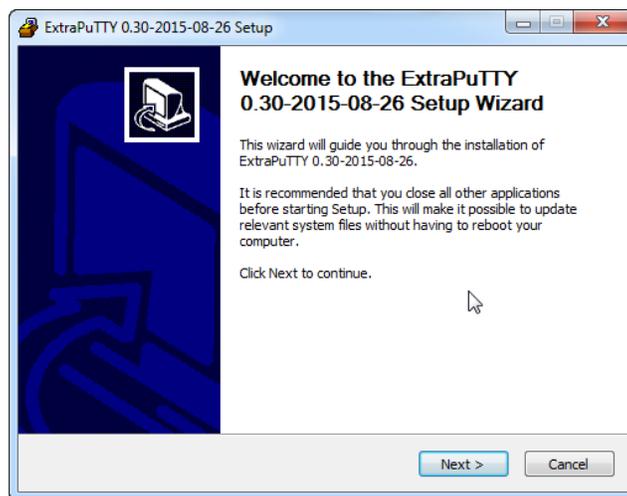


Figure 3-1 Start installation

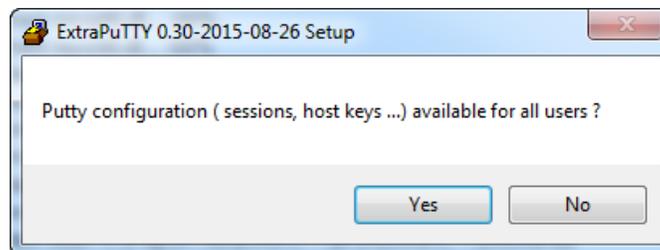


Figure 3-2 Configuration permission

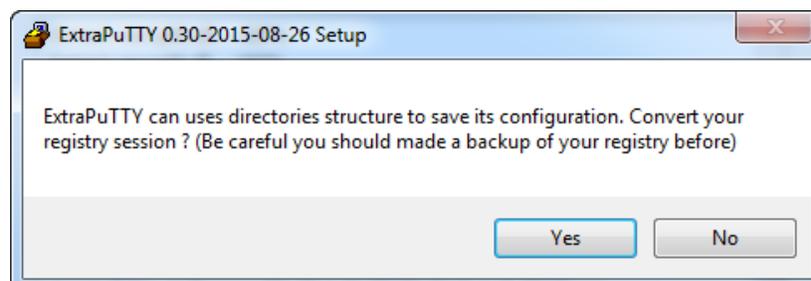


Figure 3-3 How to save configuration

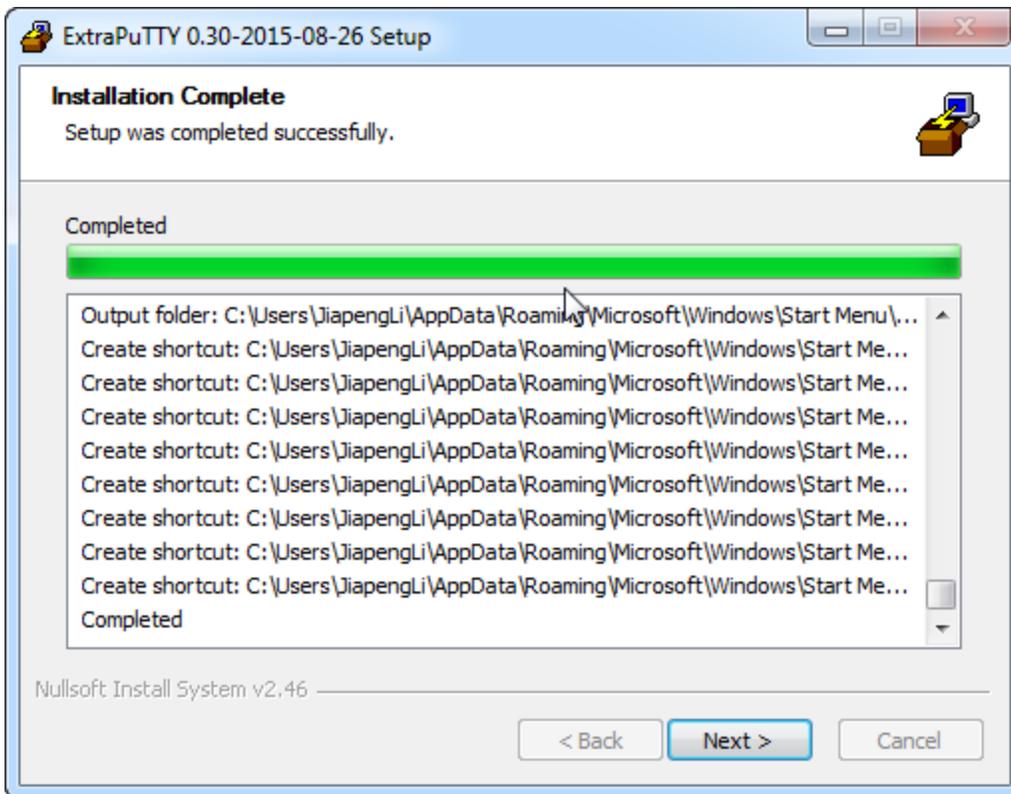


Figure 3-4 Install successfully

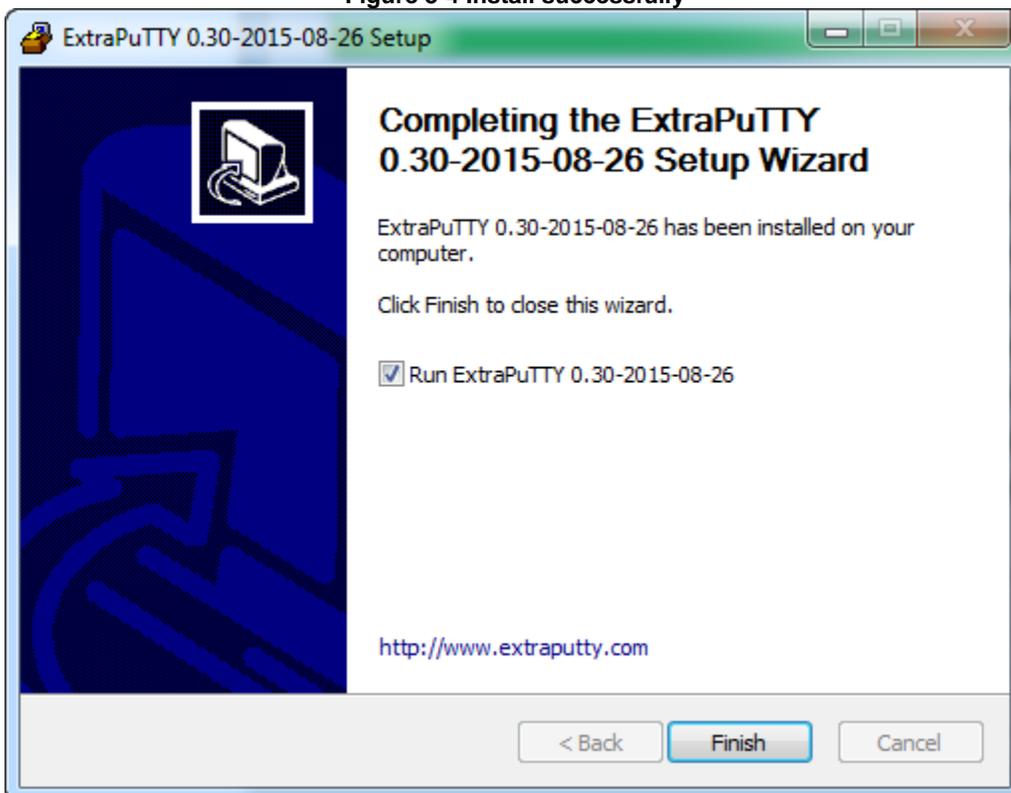


Figure 3-5 Completing ExtarPuTTY setup wizard

4. How To

4.1 Enter Bootloader Mode

Device	Boot Button	DFU Command	Cold boot with USB
RHF1S001	No	No	Yes
RHF76-051AM	Yes	Yes	No
RHF3M076	Yes	Yes	No

4.1.1 Boot Button

Hold boot button and power on the modem device.

4.1.2 DFU command

Send "AT+DFU=ON" command, repower your devie.

4.1.3 Cold boot with USB

To enable bootloader mode of RHF1S001 or similar device, connect the device with PC through USB cable first and then power on it. This sequence will enable RHF1S001 or similar device to enter bootloader mode.

4.2 Start Upgrade

1. Find ExtraPuTTY in Start menu

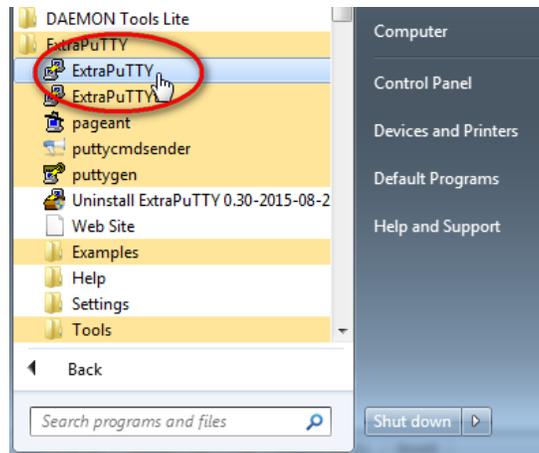


Figure 4-1 Open ExtraPuTTY

2. Choose right COM port, COM15 here for example, fill Speed 115200.

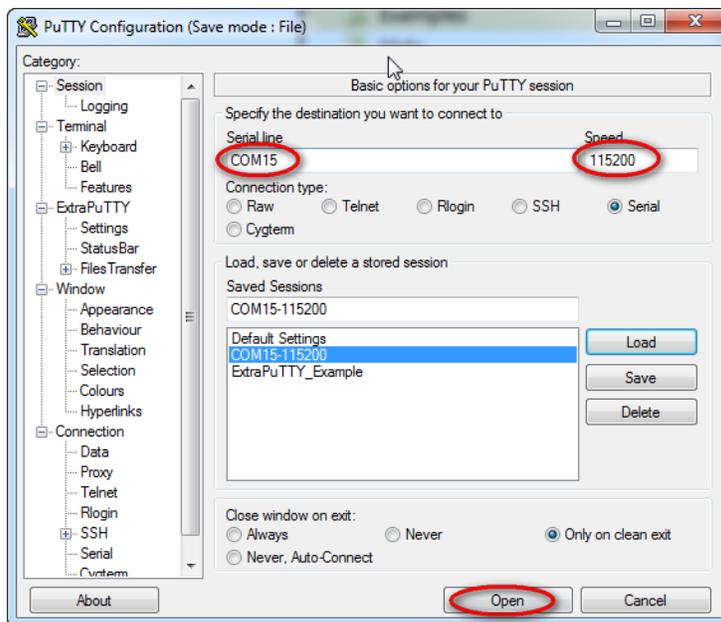


Figure 4-2 Open COM port

3. After device is opened, "C" character will be printed to the terminal periodically.

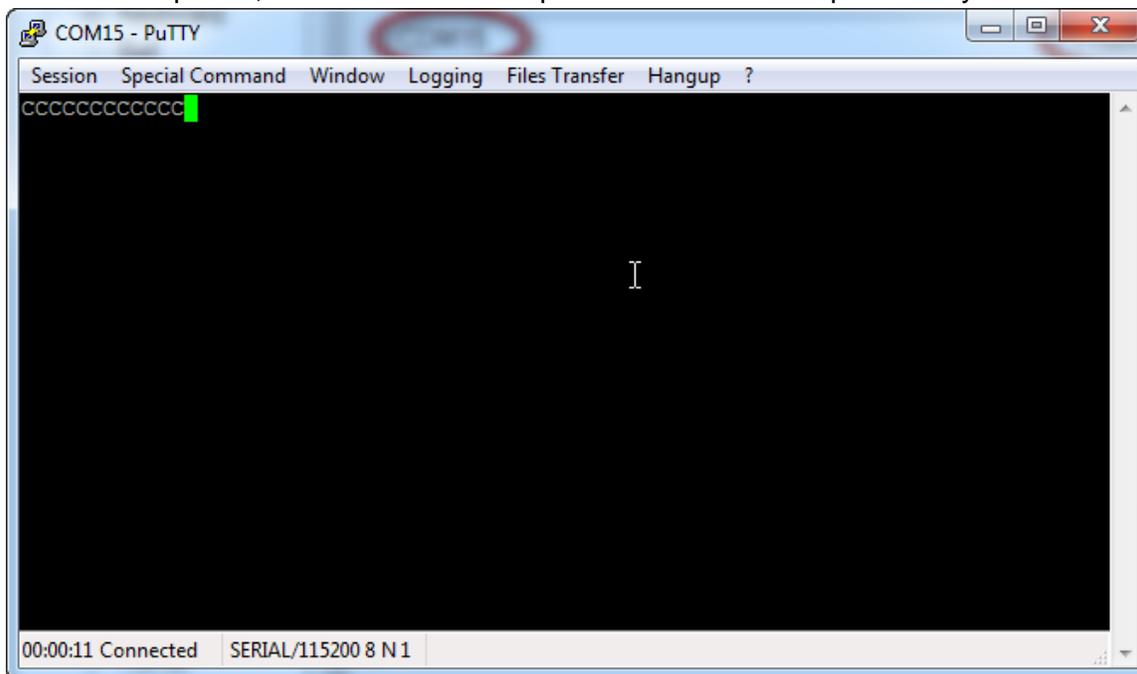


Figure 4-3 COM port opened

4. File Transfer -> Ymodem -> Send to choose *.ebin.bin file.

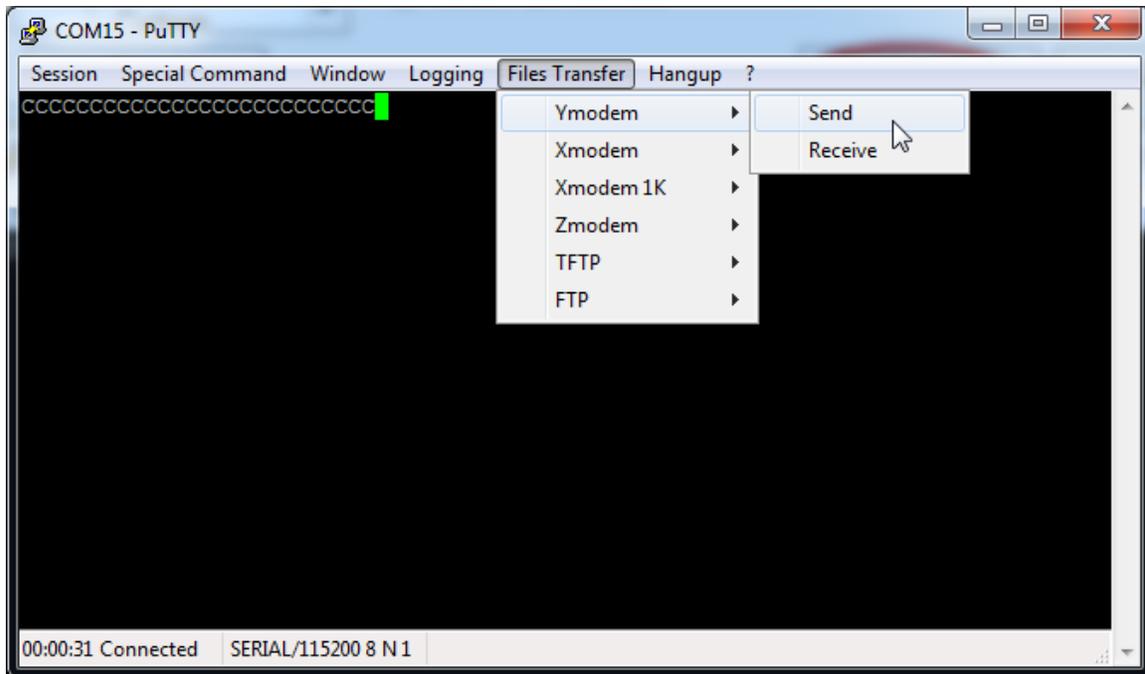


Figure 4-4 File transfer

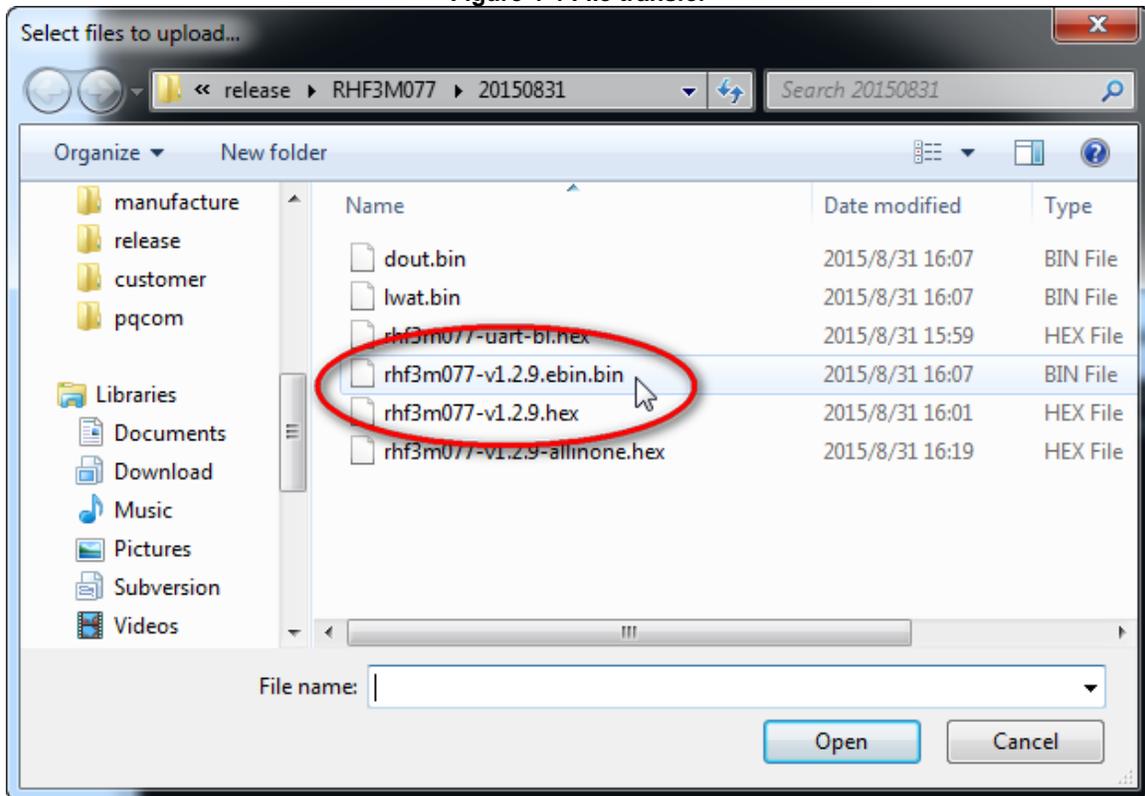


Figure 4-5 Choose ebin.bin firmware

5. After file is opened, firmware upgrading will start automatically.

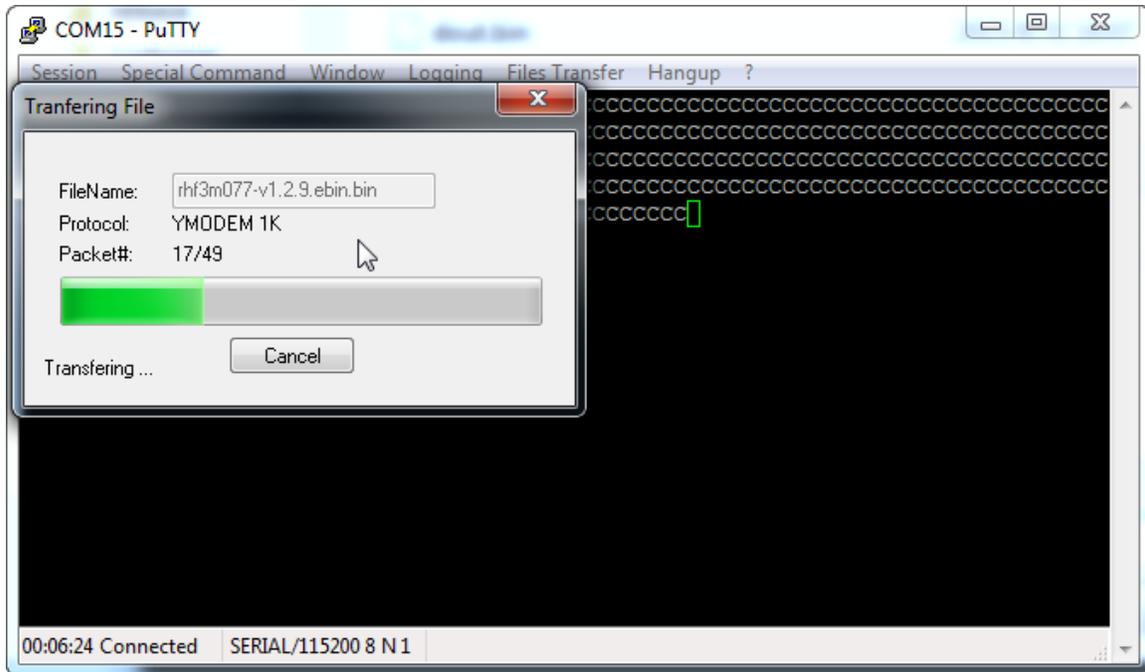


Figure 4-6 Firmware transferring

- When finish, "Transferring File" dialog will close automatically.

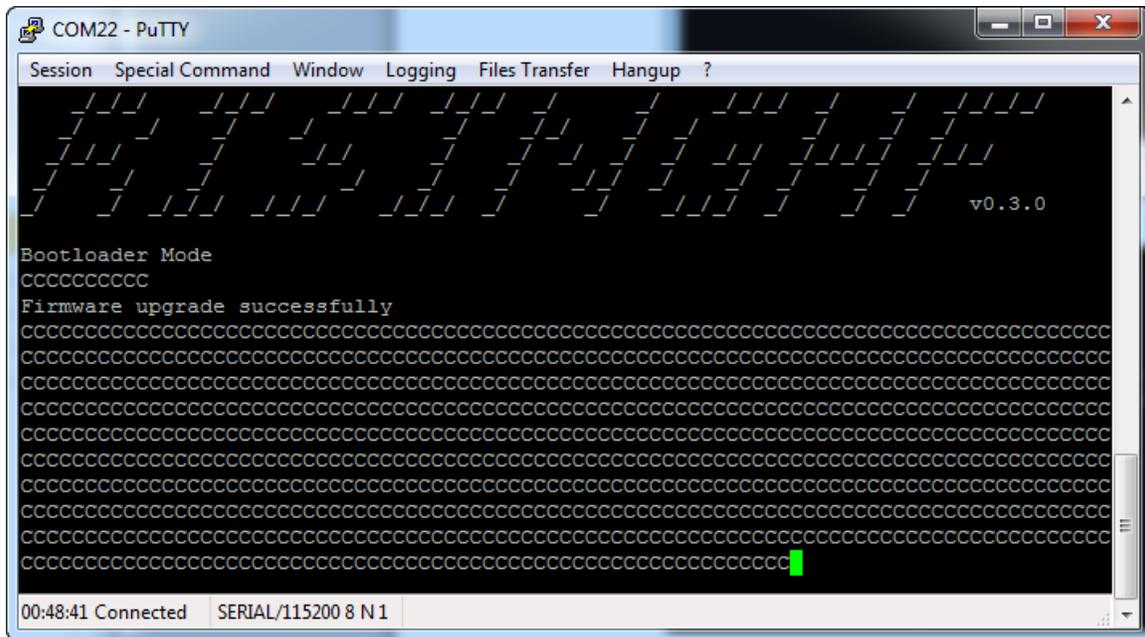


Figure 4-7 Firmware upgrade successfully

5. Troubleshooting

5.1 What to do if "Transferring File" dialog stops going?

For some unknown reason, sometimes ExtraPuTTY stops working with COM port, this will cause upgrade failed. At this time, please power off your modem device, plug out/in your USB to Serial tool and try again. If it still doesn't work, please reboot your PC and try again.

5.2 Why use ExtraPuTTY?

ExtraPuTTY is just a recommended tool, actually user could use any Ymodem tool to do the testing. Even so, RisingHF doesn't promise all ymodem tools will work without any testing.

Revision

V1.3 2016-07-28

+ Update bootloader enable chapter.

V1.2 2015-09-12

+ USB CDC bootloader support.

V1.1 2015-09-03

+ Update diagram, modify typo, change description.

V1.0 2015-08-31

+ Initial

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