UM02518

LTE Cat.1 Module Windows Driver installation and Firmware Upgrade Manual

V0.1

Document information

Info	Content
Keywords	*RisingHF, LTE, Cat.1, GSM, Module, windows driver， Firmware Upgrade*
Abstract	Describe LTE Cat.1 Module Windows Driver installation and Firmware Upgrade Manual

Content

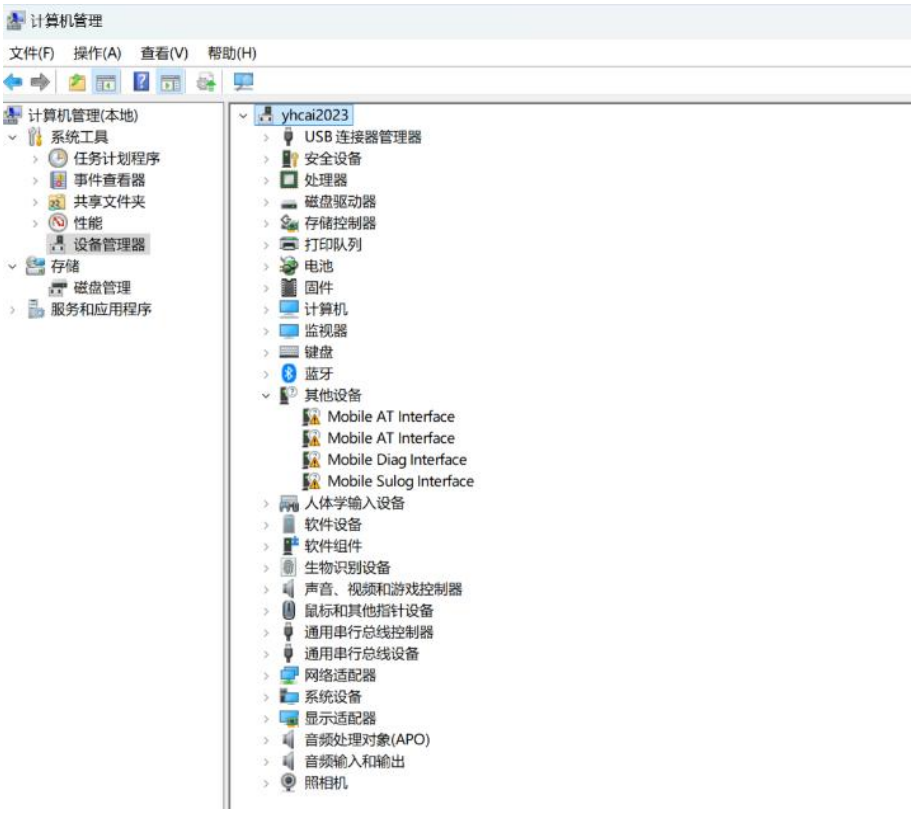
Chapter 1 Windows driver installation

1.1 Hardware preparation

Usually User should use an EVK or others hardware with a USB interface to work in windows system. Connect the USB interface to computer with a USB Cable.

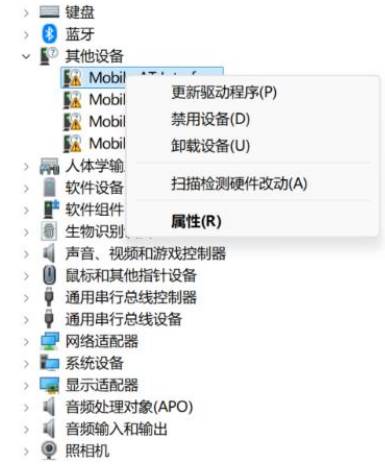
1.2 Device Manager

Right-click on "My Computer", select "Manage", and then select "Device Manager". When no driver is installed, the port display is as follows:

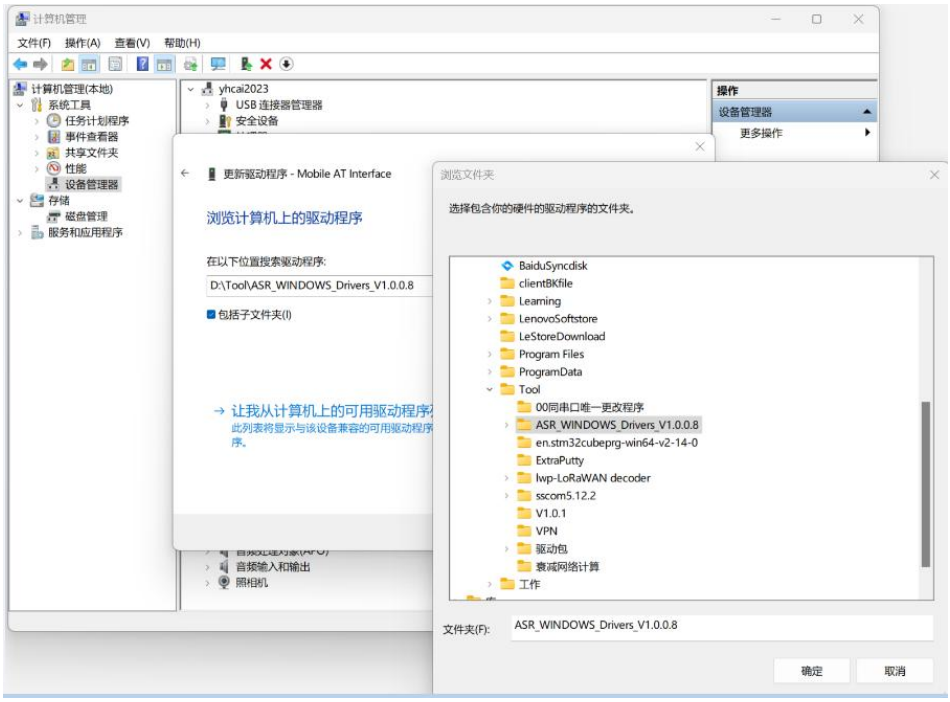


1.3 Update driver

Unzip the driver compression package, *ASR_WINDOWS_Drivers_V1.0.0.8.zip*.
Right-click on the relevant device, and then click "Update Driver" - "Browse My Computer for Driver".

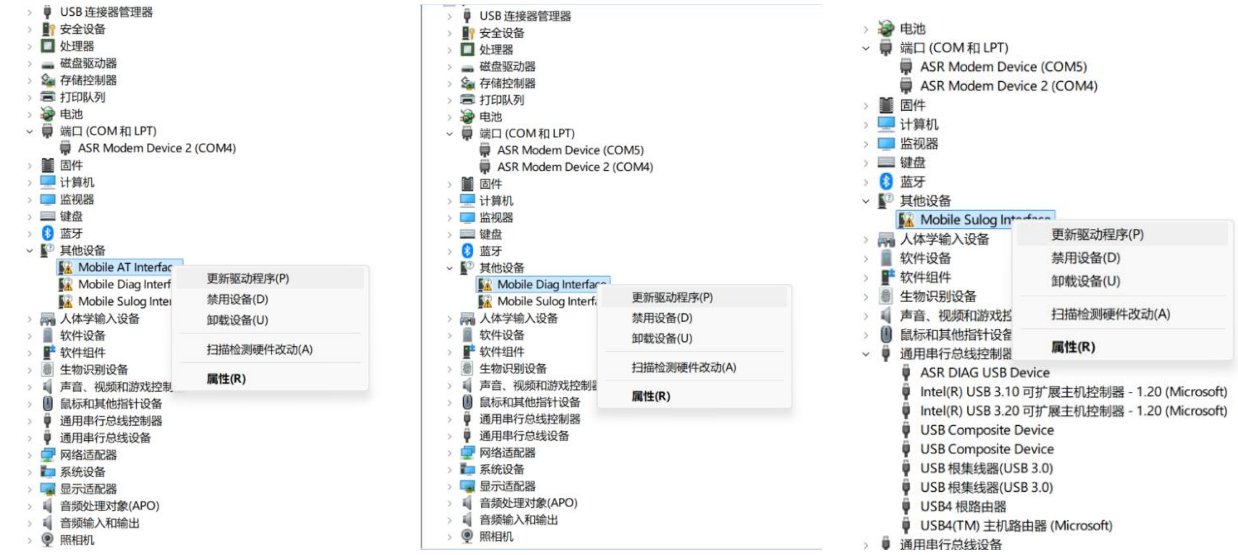


Select the folder where the driver is located, and click "Next" to proceed with the installation.

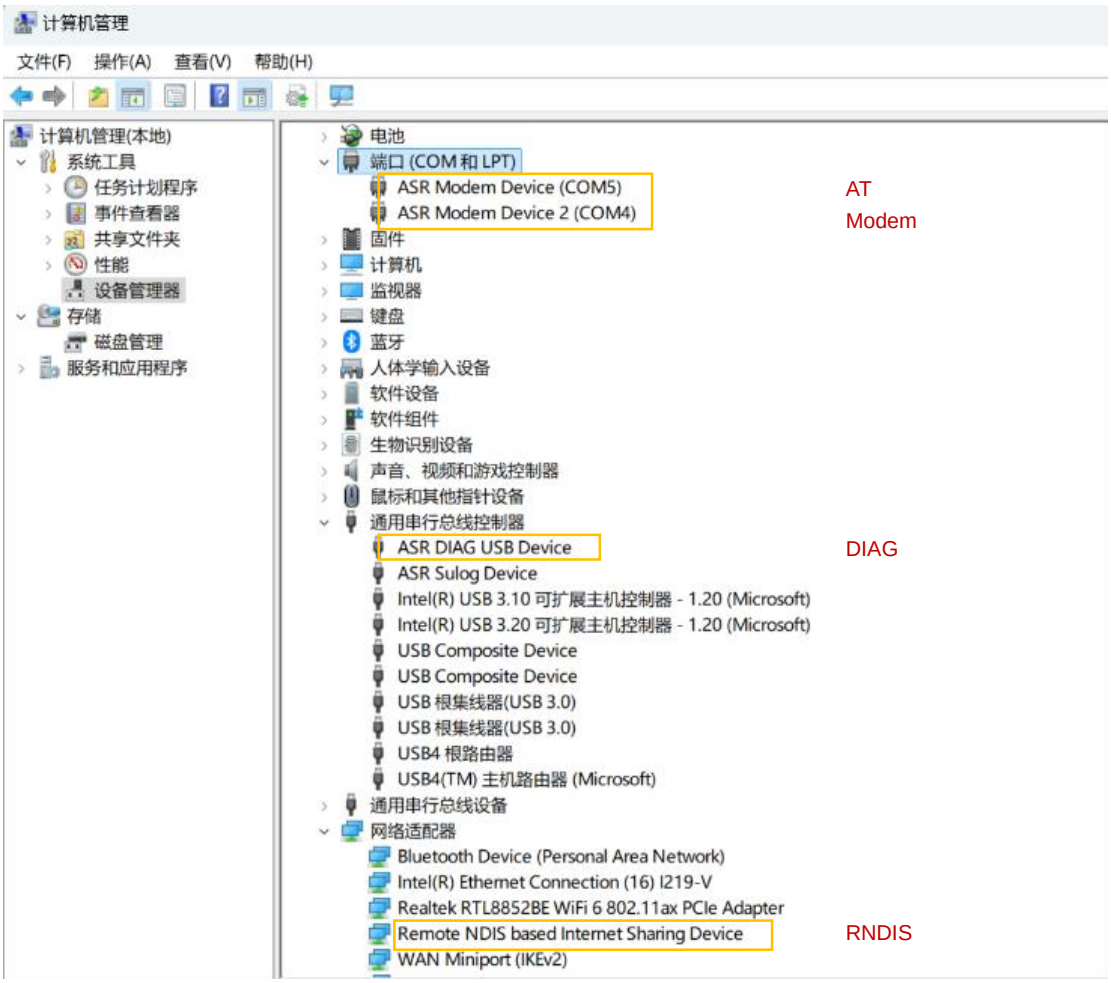


1.4 Install driver for the rest port devices

Repeat the same process to install driver for the rest port devices
Right-click on the relevant device, and then click "Update Driver" - "Browse My Computer for Driver", this is the same as above process.



After the module is properly installed and the driver is updated, four terminal ports will show in “Device Manager".



Four terminal ports function is as follows:

1) AT refers to the AT communication port;

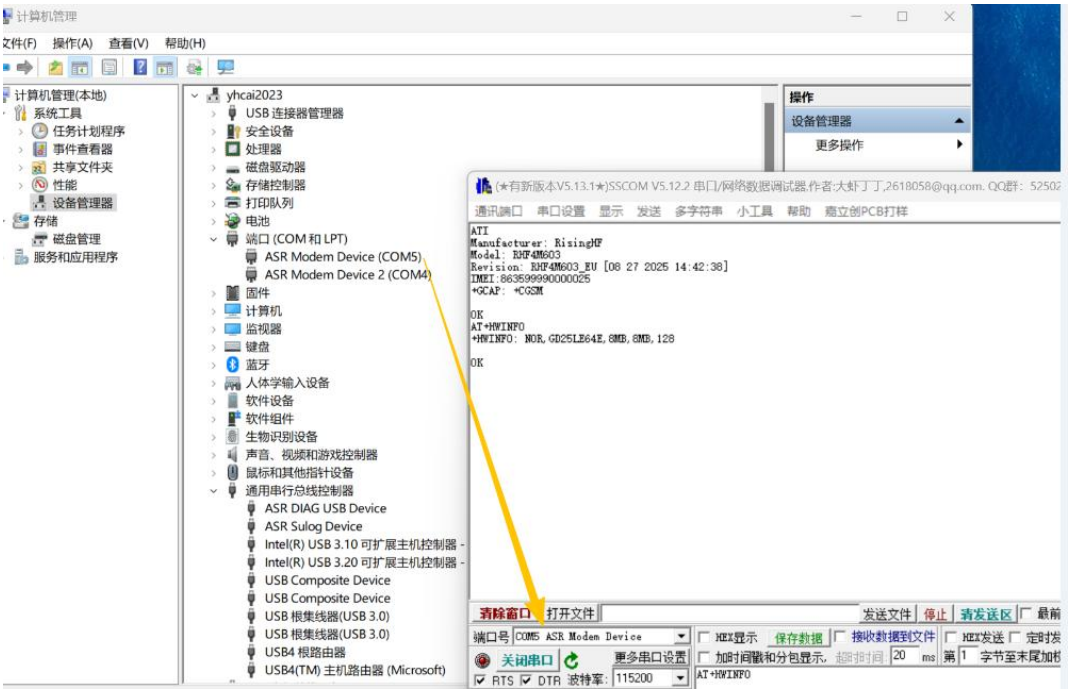
2) The MODEM port is a dial-up port for a modem, and it can also perform AT communication when not in use for dialling;
3) The DIAG port is used for debugging and upgrading;
4) RNDIS is a virtual network card used for RNDIS dial-up. (After the module is powered on, it will automatically dial up the internet through RNDIS by default. The computer will use SIM card data. If you do not need to use the module's network, please disable the network card.)

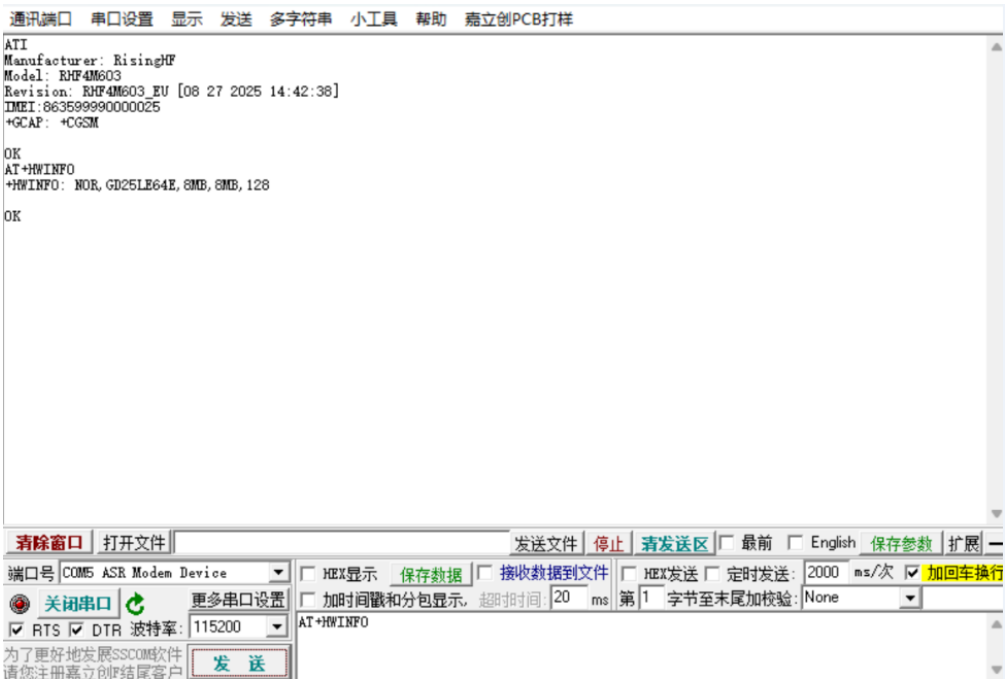
NOTE

- If a yellow exclamation mark is still shown after the driver installation is complete, your computer may be running an older version of Windows 7, and you need to apply a patch. The patch for older versions of Windows 7 is available in the file "patch.zip". Simply double-click patch file to use.

1.5 AT command Operation

After the driver is successfully installed, select the corresponding port through the serial port tool to perform AT operations on the module.
There are numerous serial port tools on the market. Here we use SSCOM as an example.





In the software, select the COM port corresponding to the module's AT port. The baud rate of the module's USB port is adaptive (while UART port baud rate 115200 by default),
Please noted that AT commands use carriage return and new line break as the terminator. Be sure to check "Send New Line" before sending AT command.

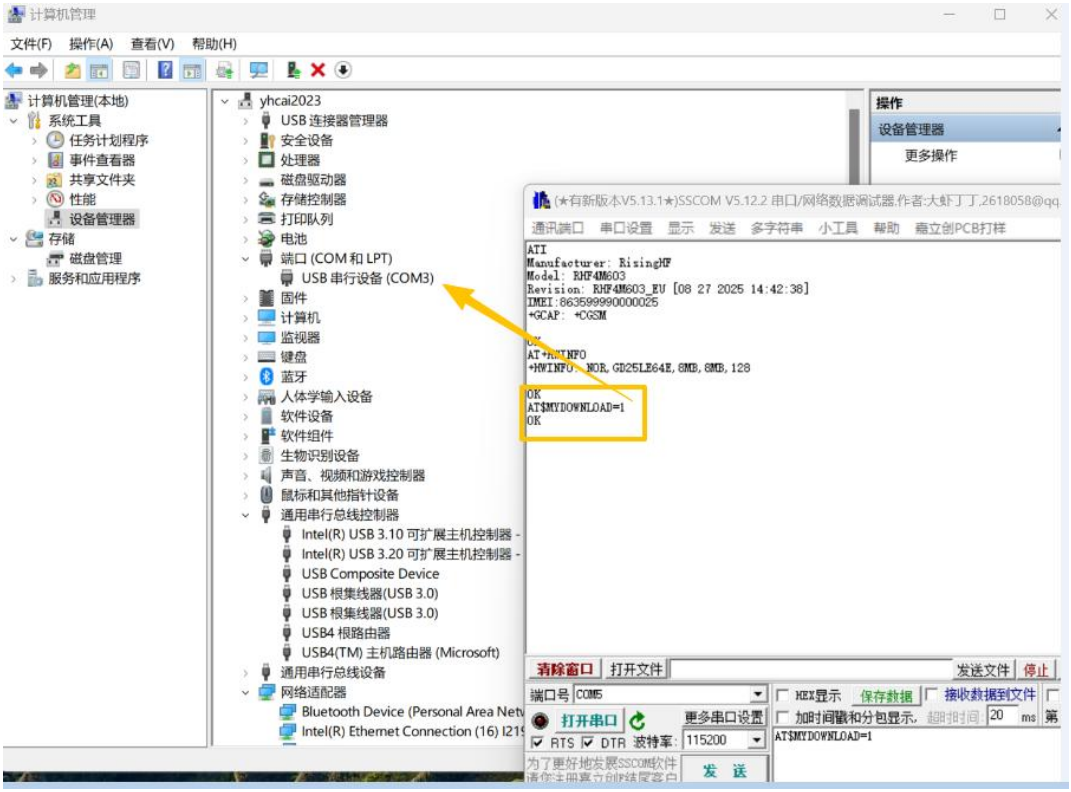
Now you can use the module freely.

Chapter 2 Firmware upgrade on Windows

2.1 Enter download mode

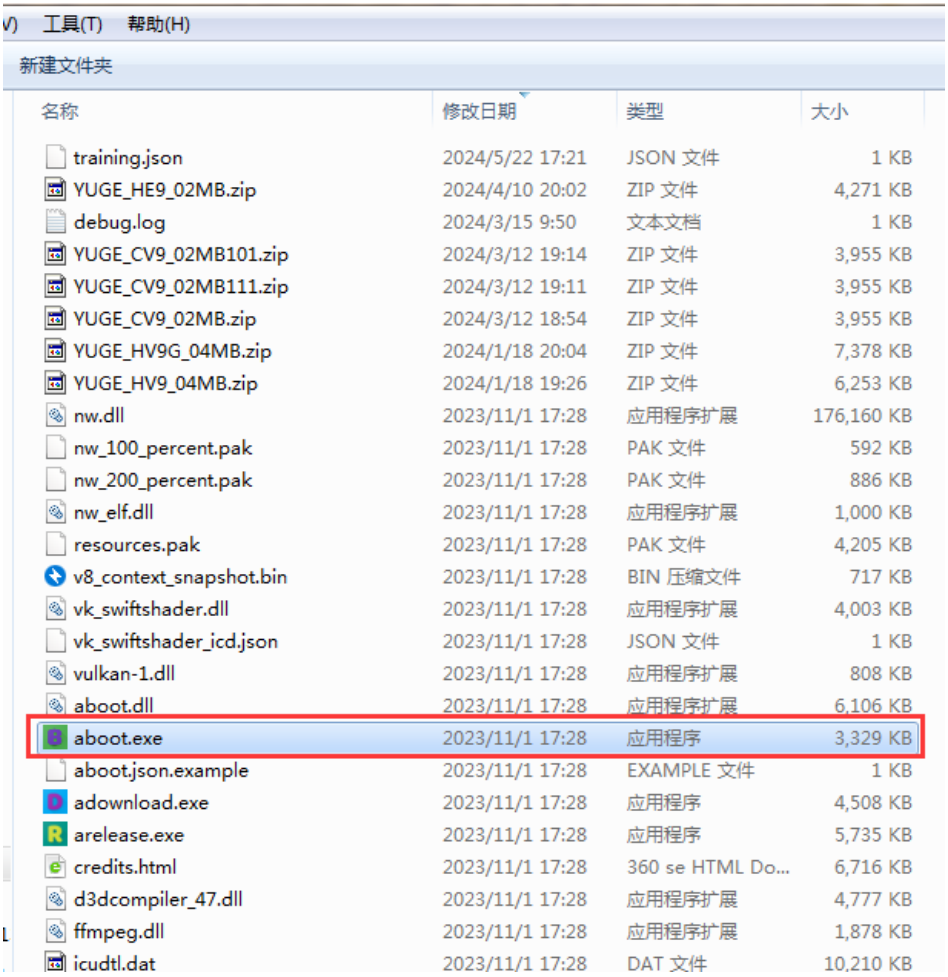
There are two ways to set the module into download mode: ① within a few seconds after the module is powered on; ② by sending the command *AT$MYDOWNLOAD=1* to the module.

After entering download mode, the port of the device manager will change. Normally the driver will installed automatically. If not, please install driver manually, the process is same as the above chapter.



2.2 Firmware upgrade

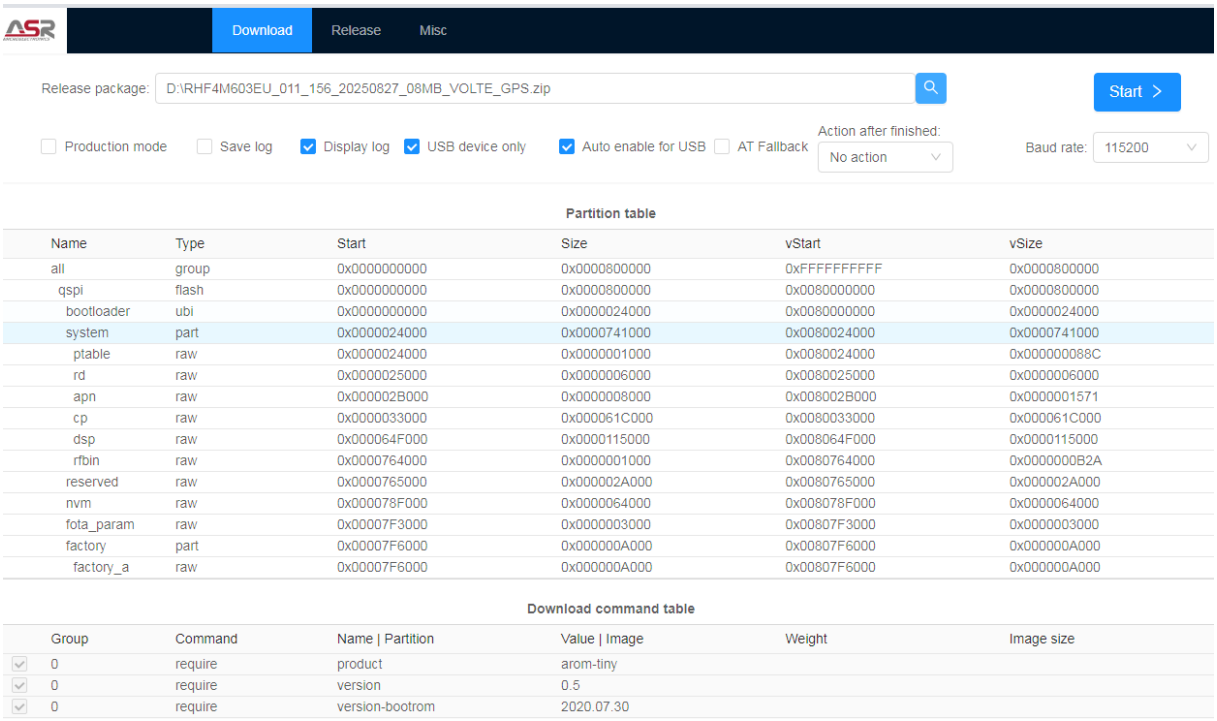
After entering download mode, Open the tool “aboot-tools-2023.08.27-win-x86.7z”, extract it, and then double-click "aboot.exe" in the folder.



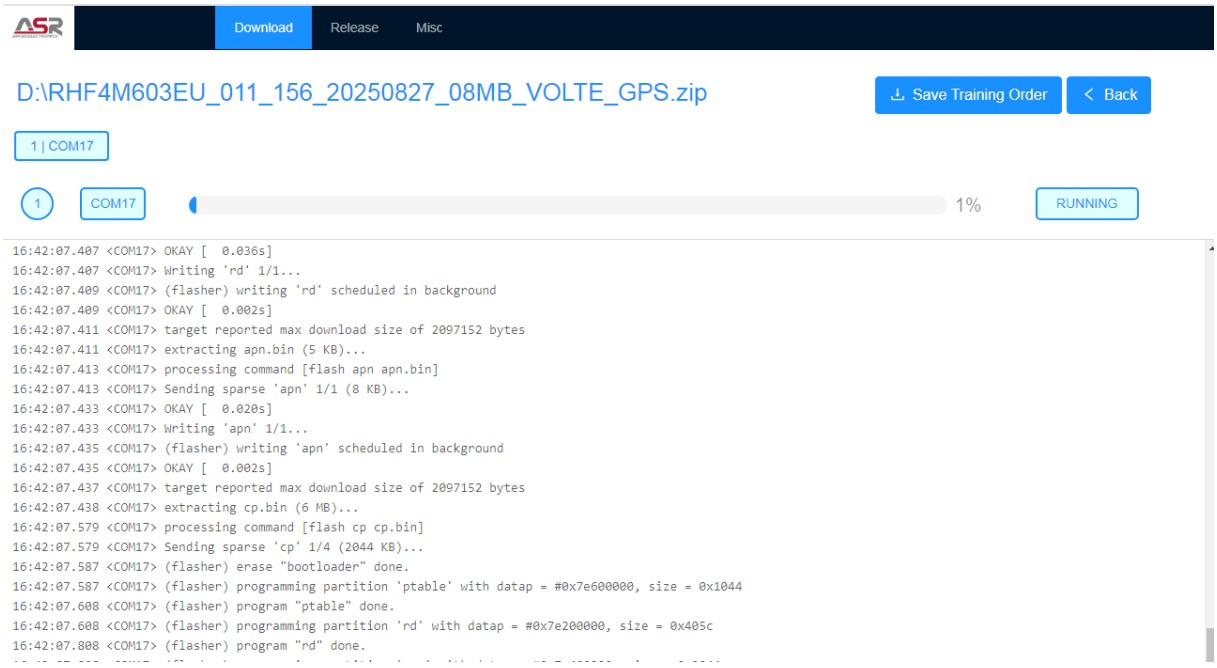
Open the upgrade tool (aboot.exe) , select the correct zip format firmware version file, please note that the firmware upgrade package needs to be selected based on the corresponding model and flash type, user can use AT command *ATI* to check the module model and use AT command *AT+HWINFO* to check the flash type.

```
ATI
Manufacturer: RisingHF
Model: RHF4M603
Revision: RHF4M603_EU [08 27 2025 14:42:38]
IMEI:863599990000025
+GCAP: +CGSM

OK
AT+HWINFO
+HWINFO: NOR,GD25LE64E,8MB,8MB,128

OK
```

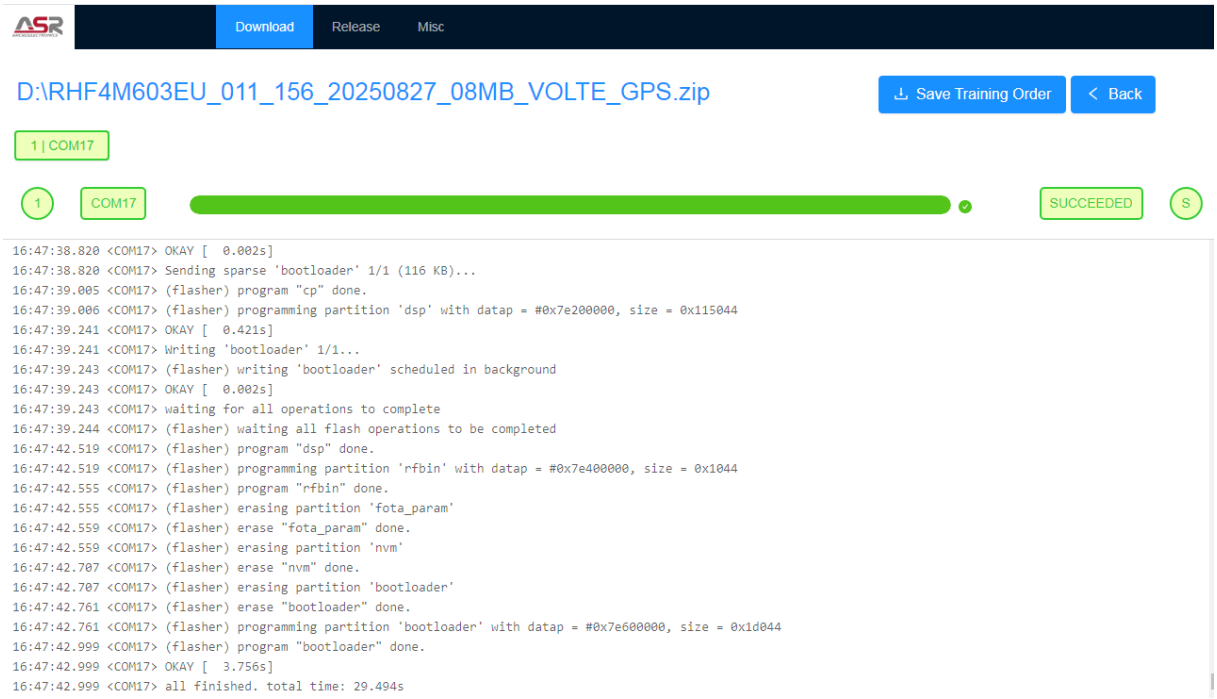
Select the firmware version file in zip format:



After clicking "Start", it will jump to the next page. Restarting the module will initiate the upgrade process or you can enter download mode by sending the command *AT$MYDOWNLOAD=1* via the serial port.
The upgrade progress will show in real time.



The image below shows the download completion interface.



After the upgrade is complete, you need to manually restart the module to make the firmware upgrade effective. Can use AT command *ATI* to check the new firmware version.

2.3 Firmware upgrade to more modules

After the upgrade is complete for one module, if user want to go on upgrade other modules, it will be simple that only disconnect the previous module and connect a new one to the computer when user don’t click "Back" or close the aboot tool, firmware download will start automatically.

NOTE

After the download of all the module is completed, click "Back" or close the aboot tool directly, otherwise the module will restart and attempt to download the version automatically again.

Revision

V0.1 2025-09-04

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