

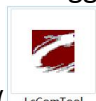
# **FD-6100 Upgrade Steps**

## Catalogue

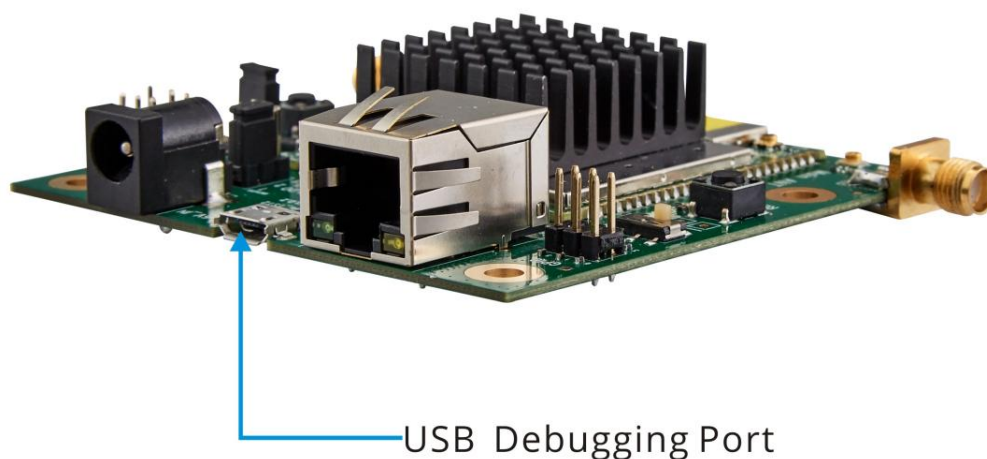
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## 1. Preparation Before Upgrading

The OTA upgrade needs to use the USB debugging port of FD-6100, the computer needs to install the



driver, and then use the serial port tool(LcComTool) to open the Com port.

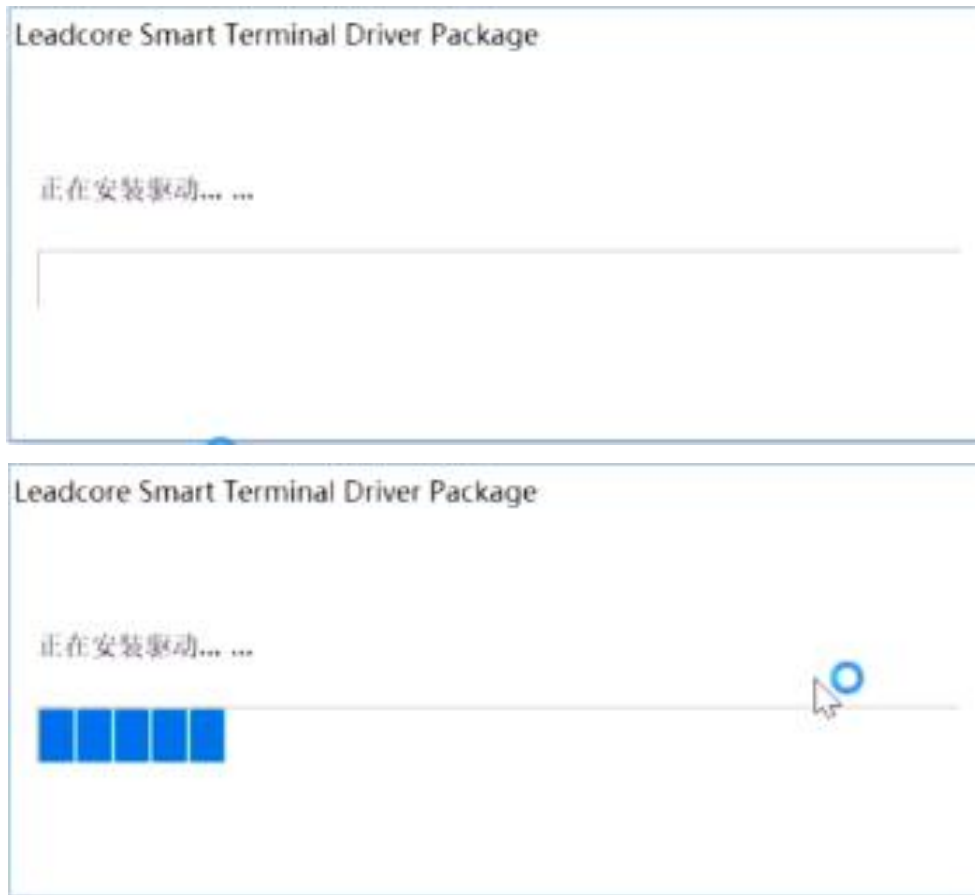


### 1.1. Install Driver

Extract the folder "Driver.rar" as follows and then select X86 or X64 according to your operating system to execute the driver installation program.

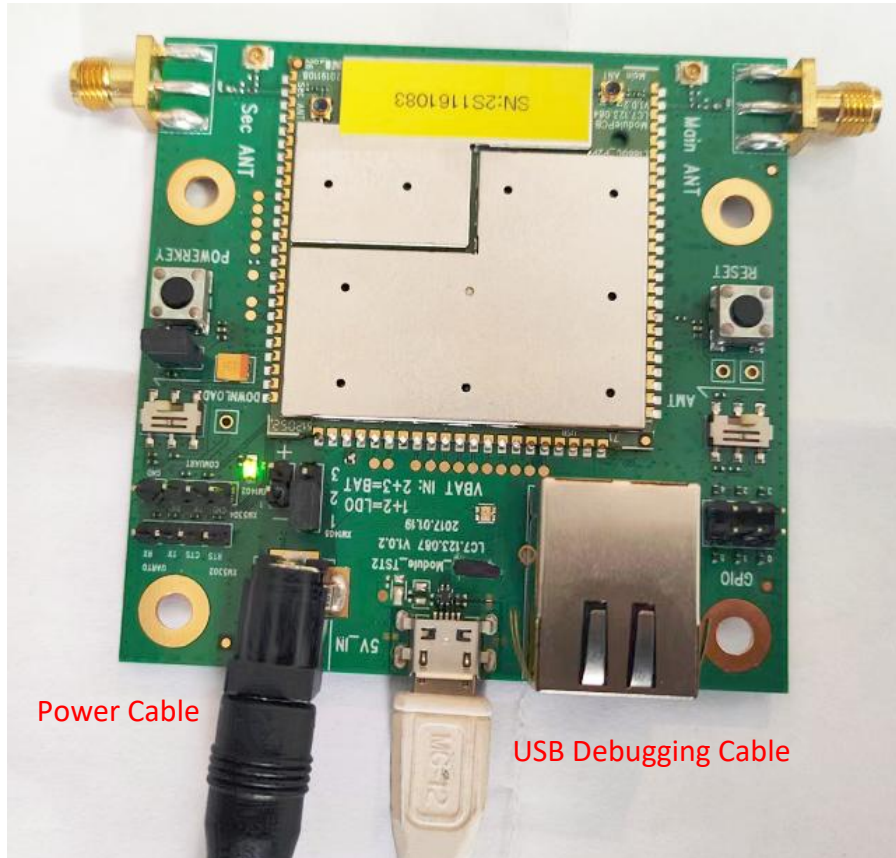
名称	修改日期	类型	大小
x64	2022/4/23 20:19	文件夹	
x86	2022/4/23 20:19	文件夹	
Setup.ico	2009/8/22 8:21	图标	1 KB
setup.ini	2015/3/2 11:33	配置设置	5 KB
SetupX64.exe	2015/3/3 15:56	应用程序	245 KB
SetupX86.exe	2015/3/3 15:56	应用程序	220 KB

Installed by default and wait patiently for the installation to complete.



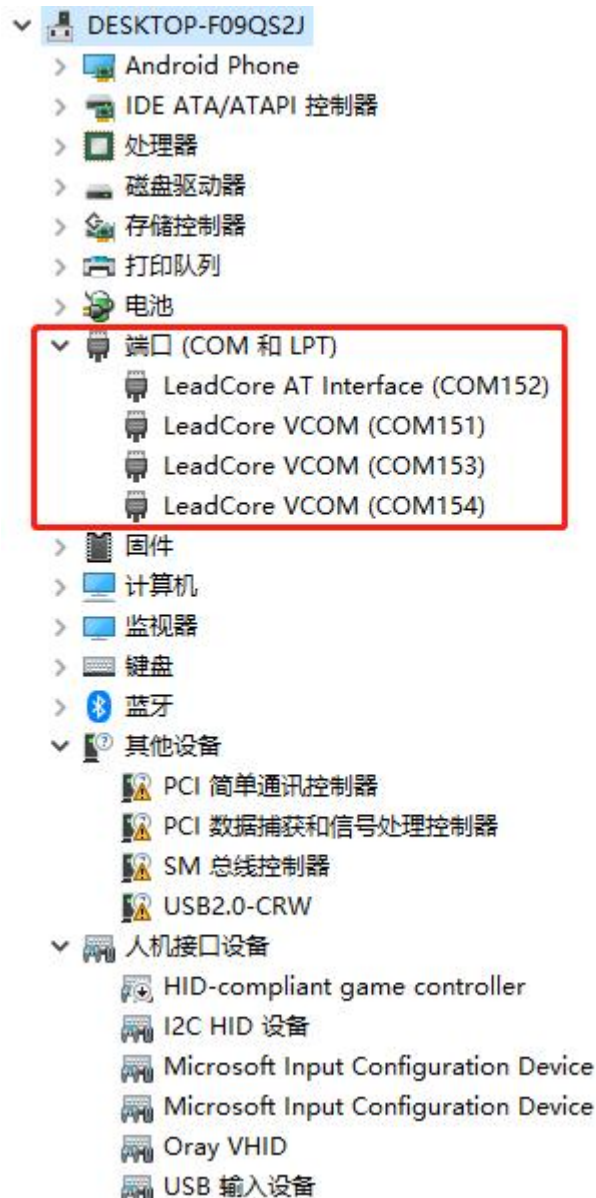
## 1.2. Device Connection

The FD-6100 is connected as follows:



### 1.3. Query Port Number

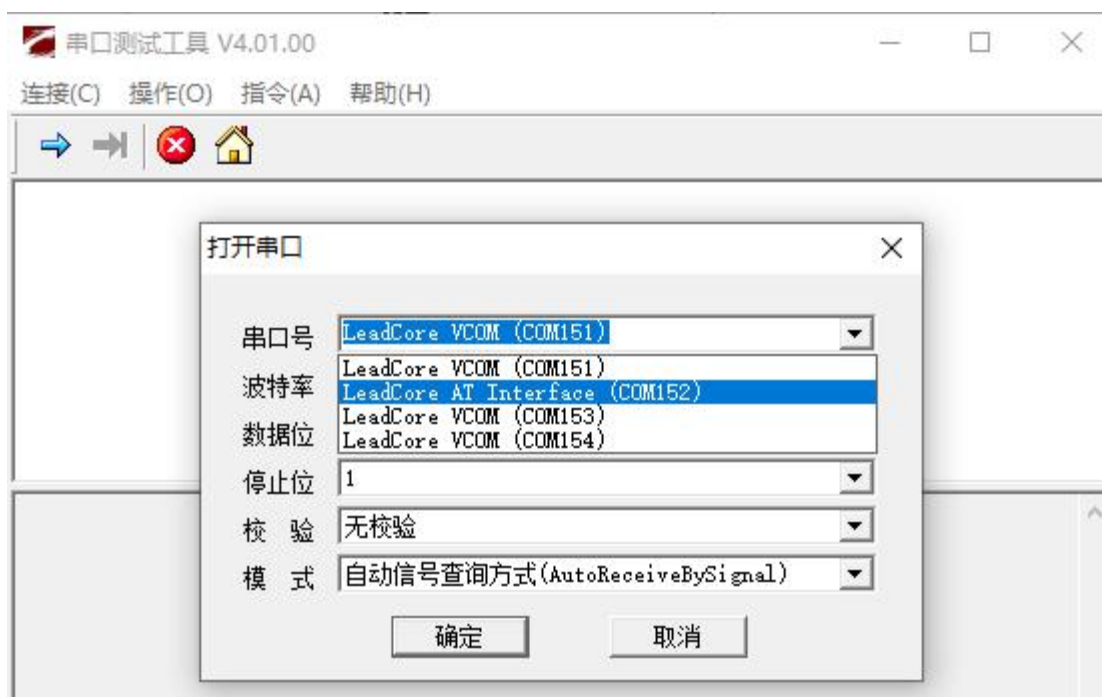
After connecting the USB cable correctly, you can check the COM port of the FD-6100 in the computer device manager.



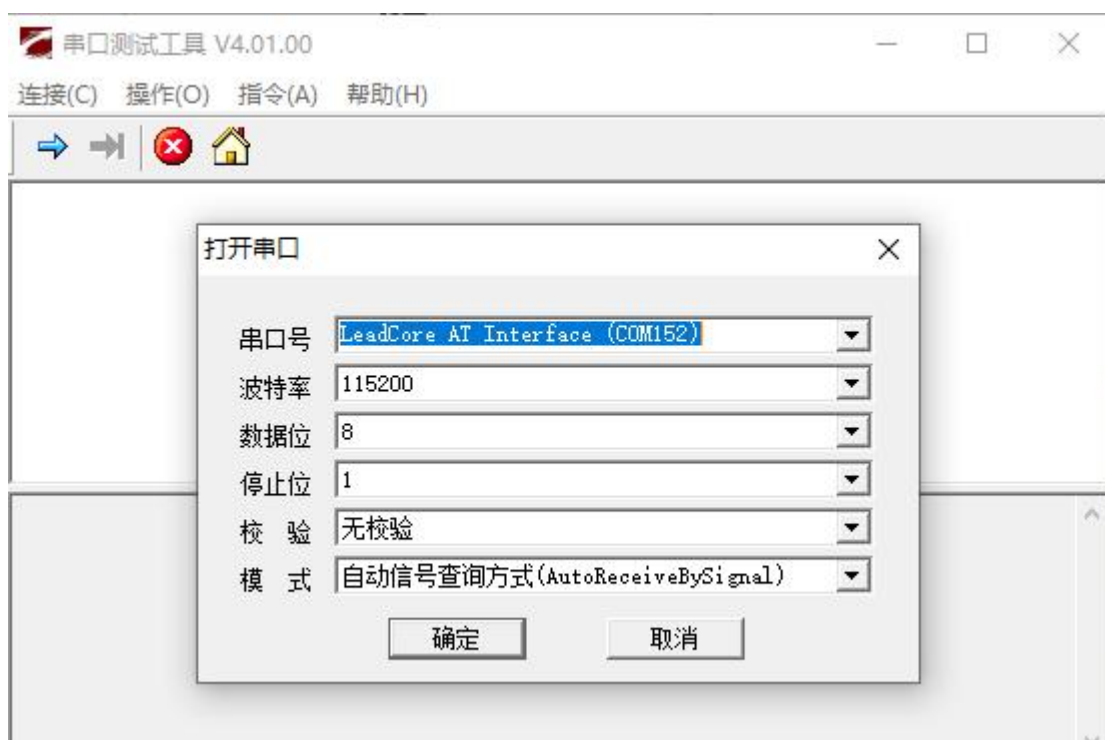
#### 1.4. Connect COM Port

As shown above, you can see 1 AT Interface and 3 COM ports. The COM port enumeration number may change each time the system is powered on. And only the AT Interface can be used to input AT commands.

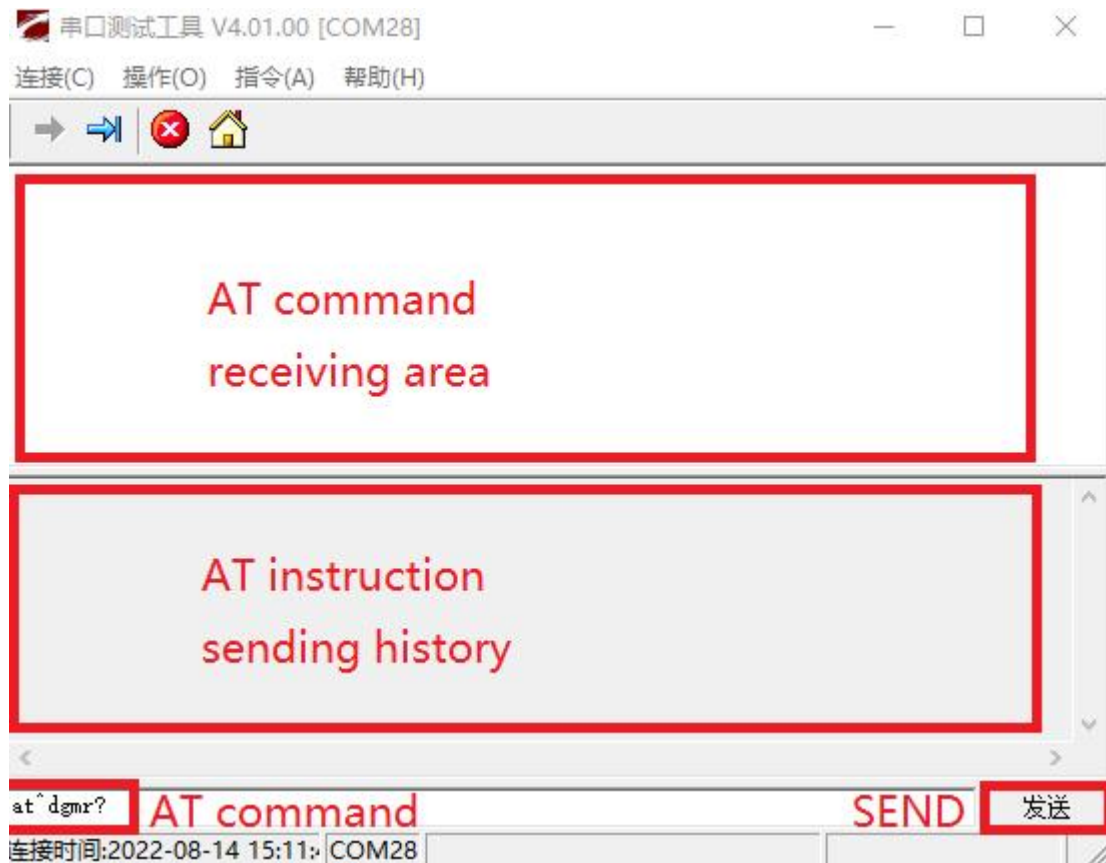
Use the software(LcComTool) to open the serial port and enter the AT commands:



Use the default settings, no changes are required.



After opening the serial port, you can enter the AT command:



## 2. OTA Upgrade Steps

**Note: Each step cannot be skipped and must be performed according to the description. Otherwise, the OTA upgrade will fail.**

### 2.1. Query version number: at^dgmr?



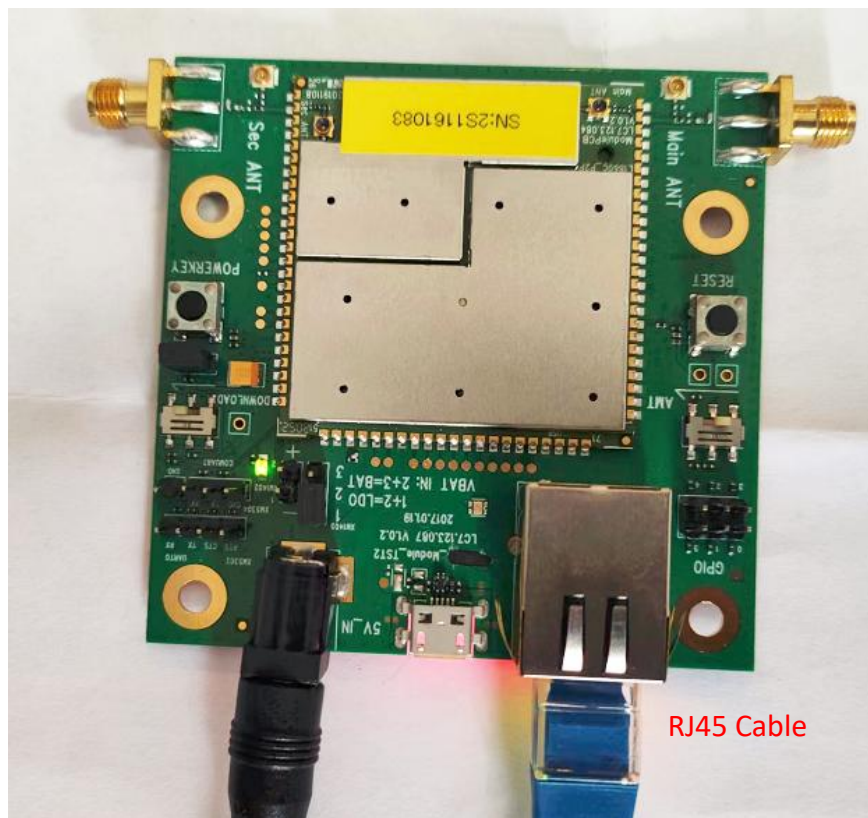


The current version number is ^DGMR:"CX6702M\_1.00.01.R05\_20200401".

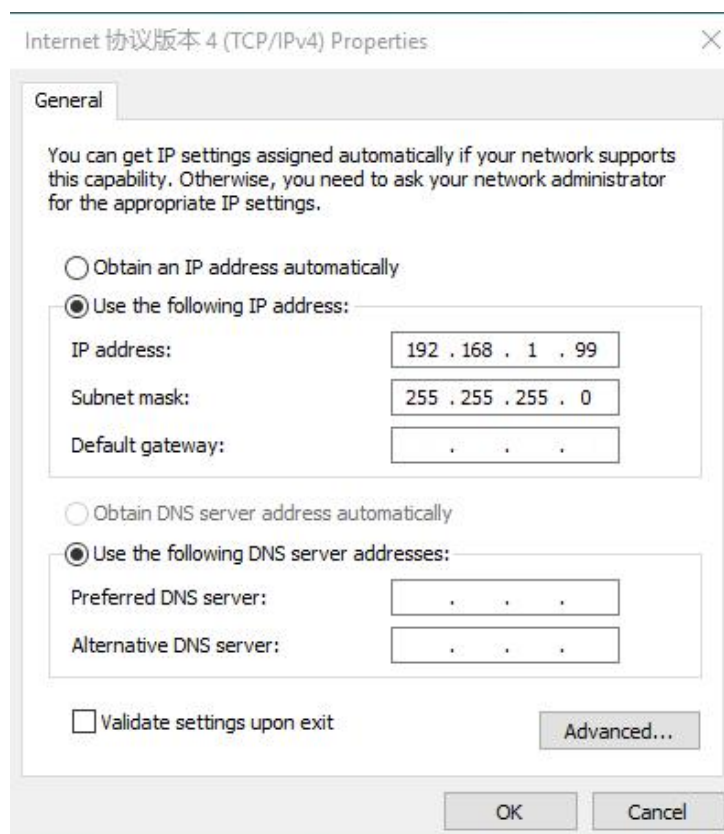
## 2.2. Query IP Address: AT^NETIFCFG?



### 2.3. Unplug the USB cable and insert the RJ45 network cable



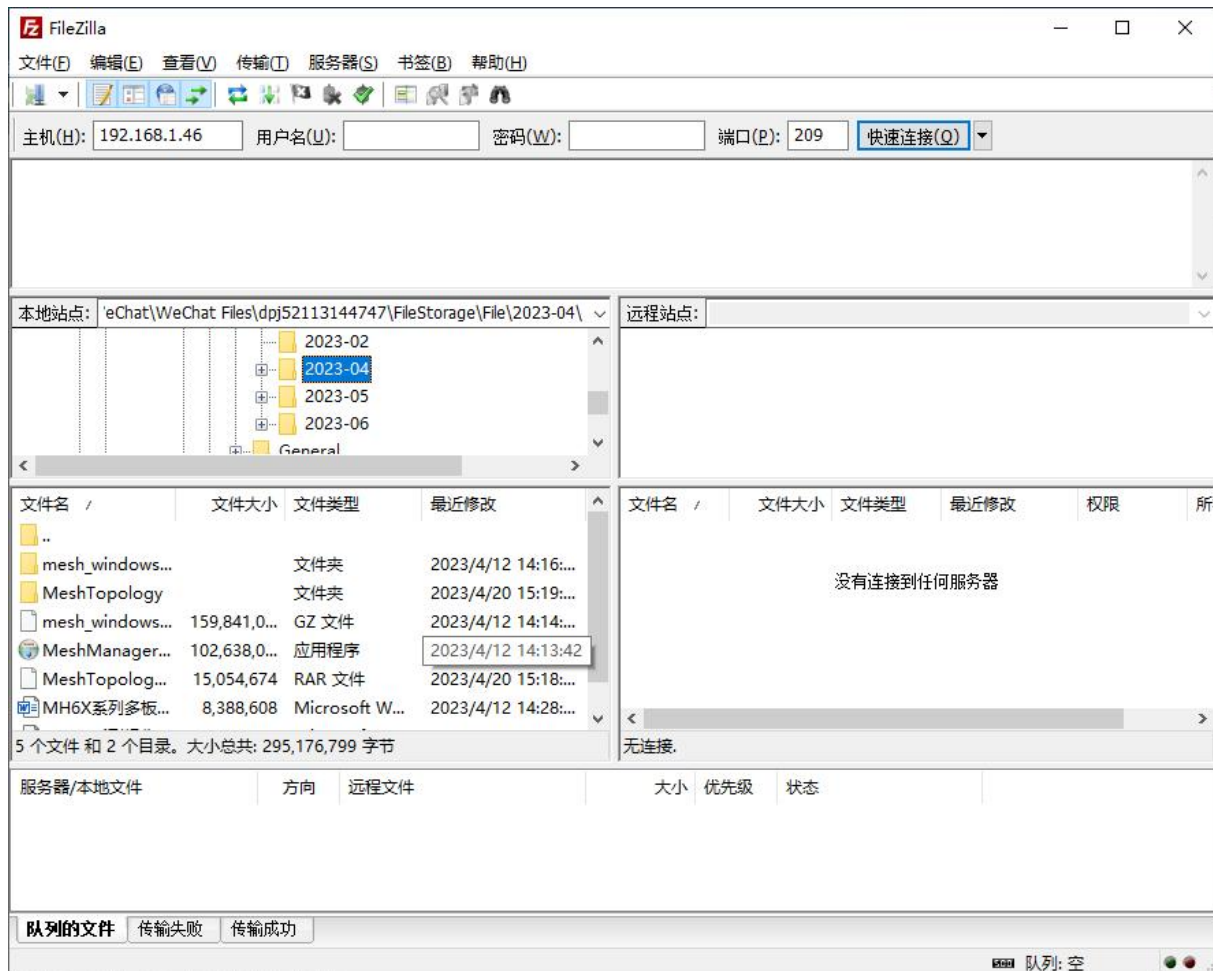
### 2.4. Configure PC with Same IP Network Segment As FD-6100 Module



## 2.5. Open the FTP software

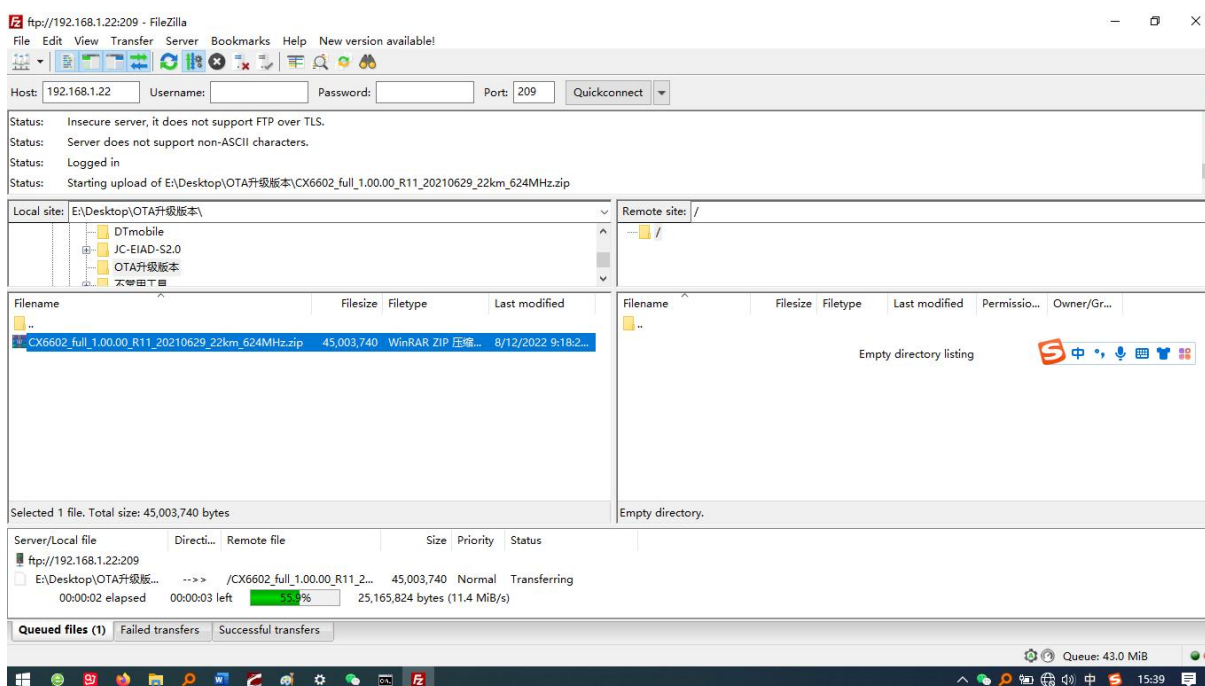
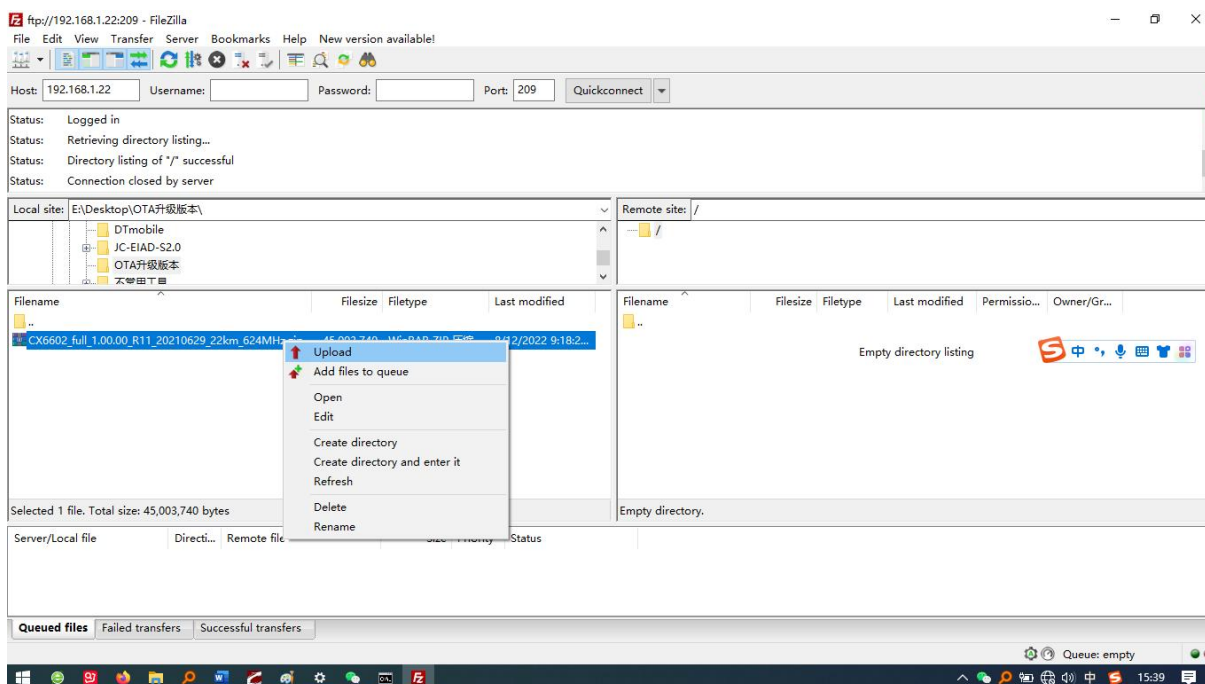
- ✧ Open the FTP Software
- ✧ the destination address is the IP of FD-6100
- ✧ the port is 209
- ✧ keep the username and password blank

You can use other FTP software with the same settings and title.

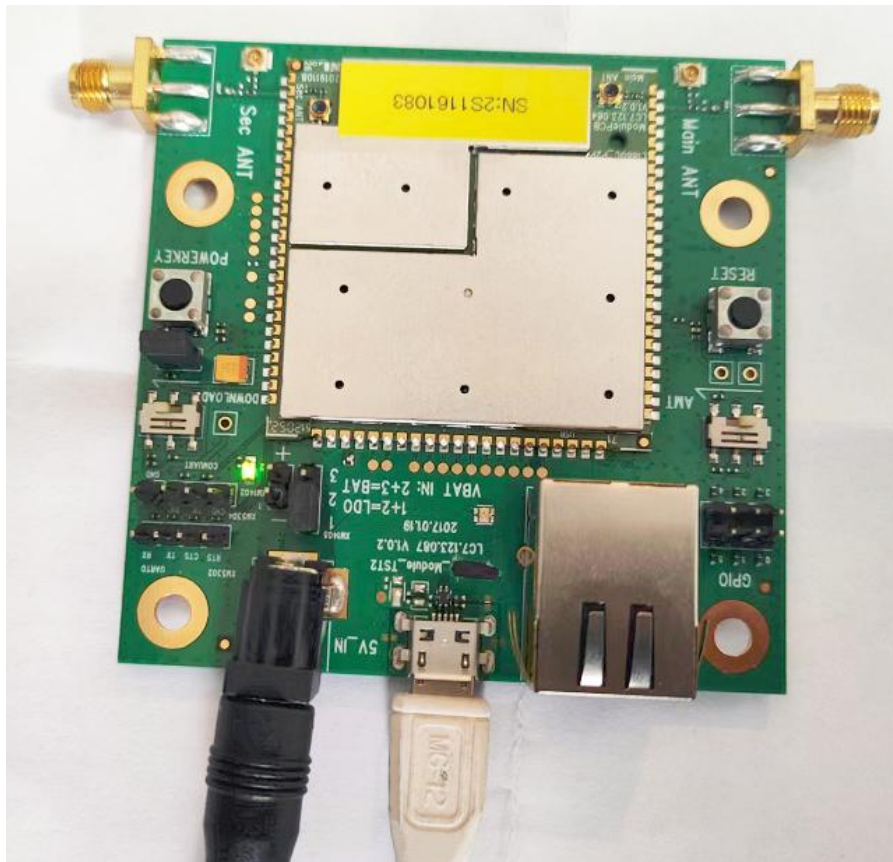


## 2.6. Upload the version to the root directory of ftp.

Note that the OTA upgrade version cannot be renamed or decompressed

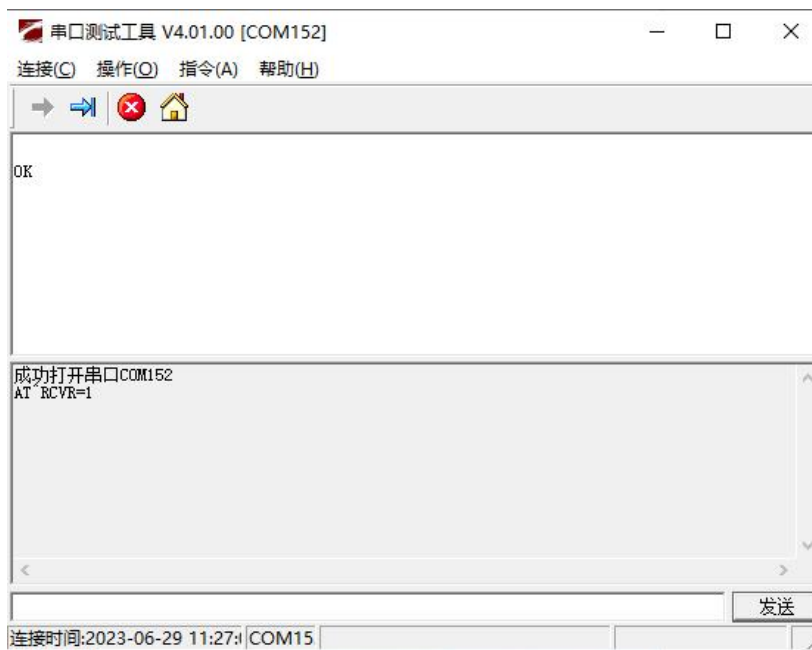


## 2.7. Exit the ftp software, unplug the network cable and insert the USB cable



## 2.8. Power on and off the module once

## 2.9. Open the AT port and send the OTA upgrade command AT^RCVR=1



## 2.10. Special Note:

Wait patiently for the FD-6100 module to upgrade and restart. Do not power off during this process, otherwise the module will be damaged and cannot be turned on.

## 2.11. After the upgrade is complete, the device list will regain the information of each port



## 2.12. Query Version Number at^dgmr?

Use at^dgmr? to query the version number.



After the upgradation is complete and successful, the new version number is displayed:

^DGMR:"CX6702M\_V3.00.01.R01\_20230616".



### 3. AT^DSO NRATS: Supports SNR path selection

#### 3.1. Command Description

Using the DSONRATS command, you can select the optimal path whether to enable the SNR mode. After this function is enabled, you can select a path based on the configured proportion. To solve the SNR problem.

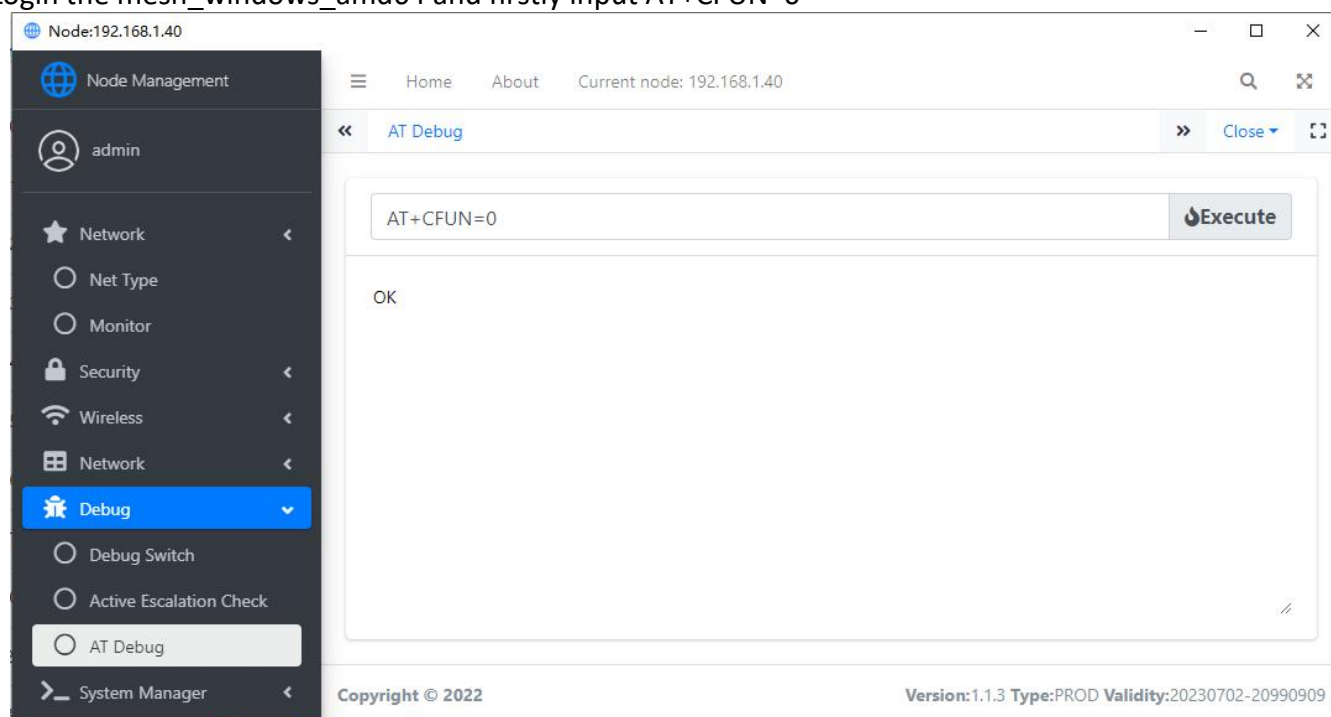
Command Format:

AT^DSO NRATS=1,20 //1 indicates that the strongest SNR routing algorithm is started, and the new path will switch when the signal is 20% higher than the old path.

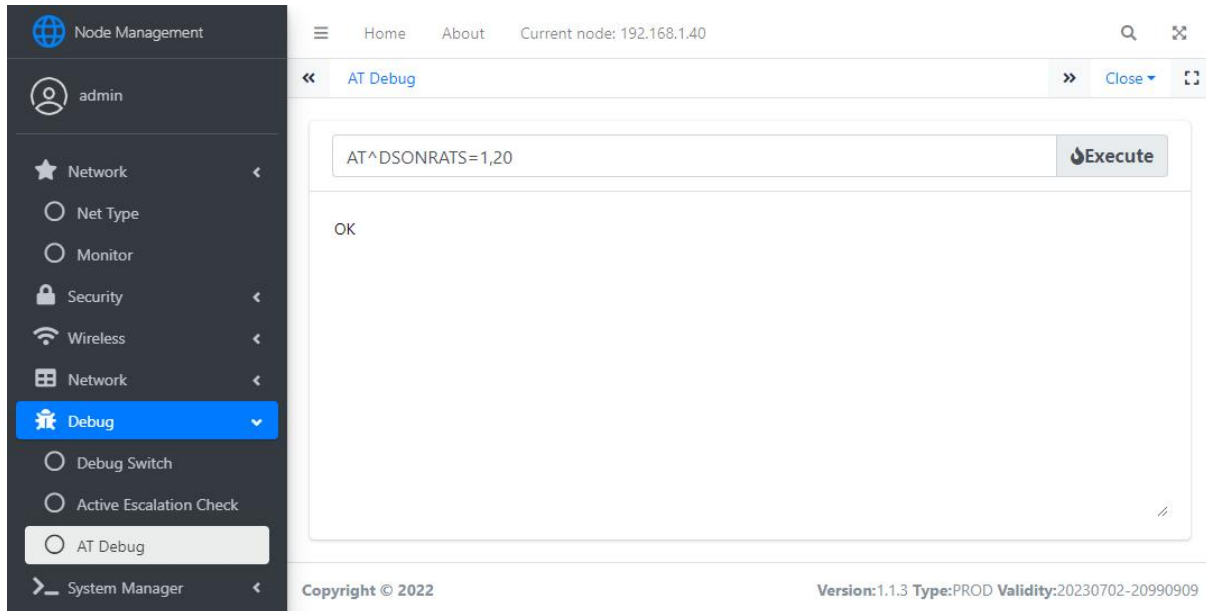
// The preceding command 20 can be adjusted according to the actual application. Currently recommended configuration for 20, flexible configuration parameters such as (/ 40/50/60/70/80/90).

#### 3.2 How to use the AT^DSO NRATS

Login the mesh\_windows\_amd64 and firstly input AT+CFUN=0

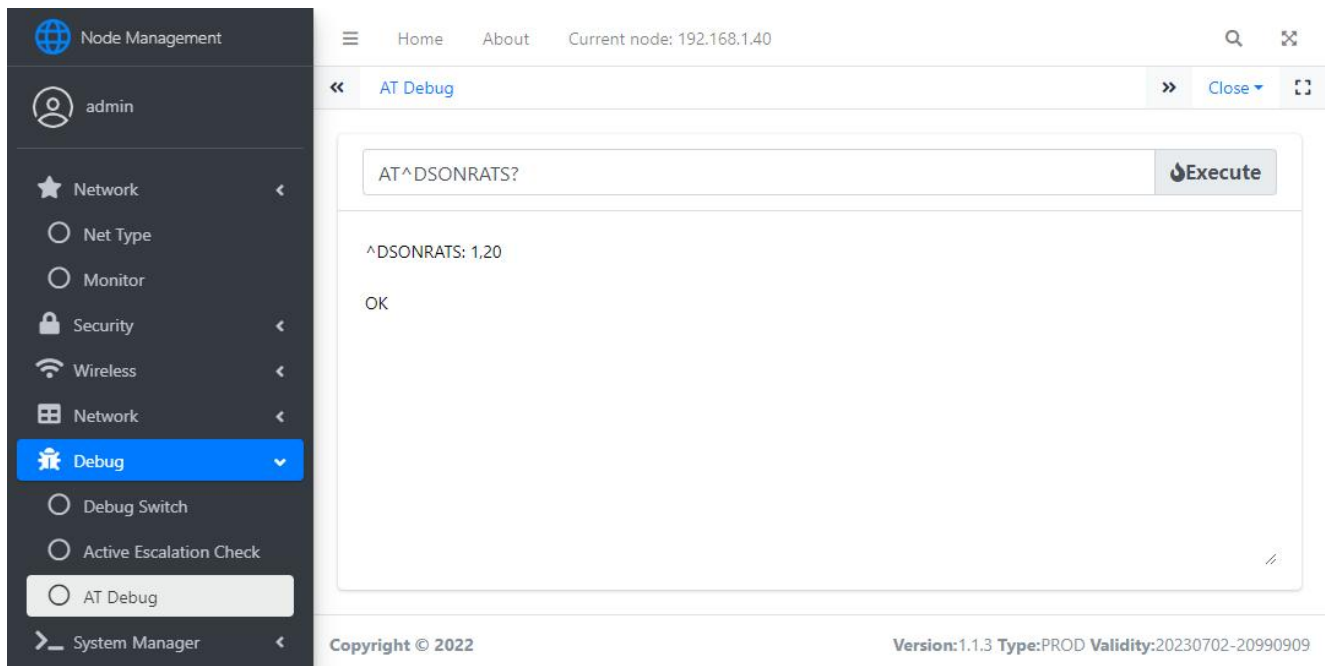


Then input AT^DSNRATS=1,20



The screenshot shows the IWave Node Management interface. On the left is a dark sidebar with a menu. The 'Debug' option is highlighted in blue. Below it, 'AT Debug' is selected. The main area is titled 'AT Debug' and contains a text input field with the command 'AT^DSNRATS=1,20'. To the right of the input field is an 'Execute' button. Below the input field, the output 'OK' is displayed. At the bottom of the interface, there is a footer with 'Copyright © 2022' and 'Version:1.1.3 Type:PROD Validity:20230702-20990909'.

AT^DSNRATS? Query result



This screenshot shows the same IWave Node Management interface, but the command entered in the 'AT Debug' window is 'AT^DSNRATS?'. After clicking the 'Execute' button, the output area displays the query result: '^DSNRATS: 1,20' followed by 'OK' on a new line. The sidebar and footer remain the same as in the previous screenshot.



Restart takes effect. This AT command should be entered for each FD-6100 module to update them.