

User Manual and Test Guide

HF2111

Operation Guide

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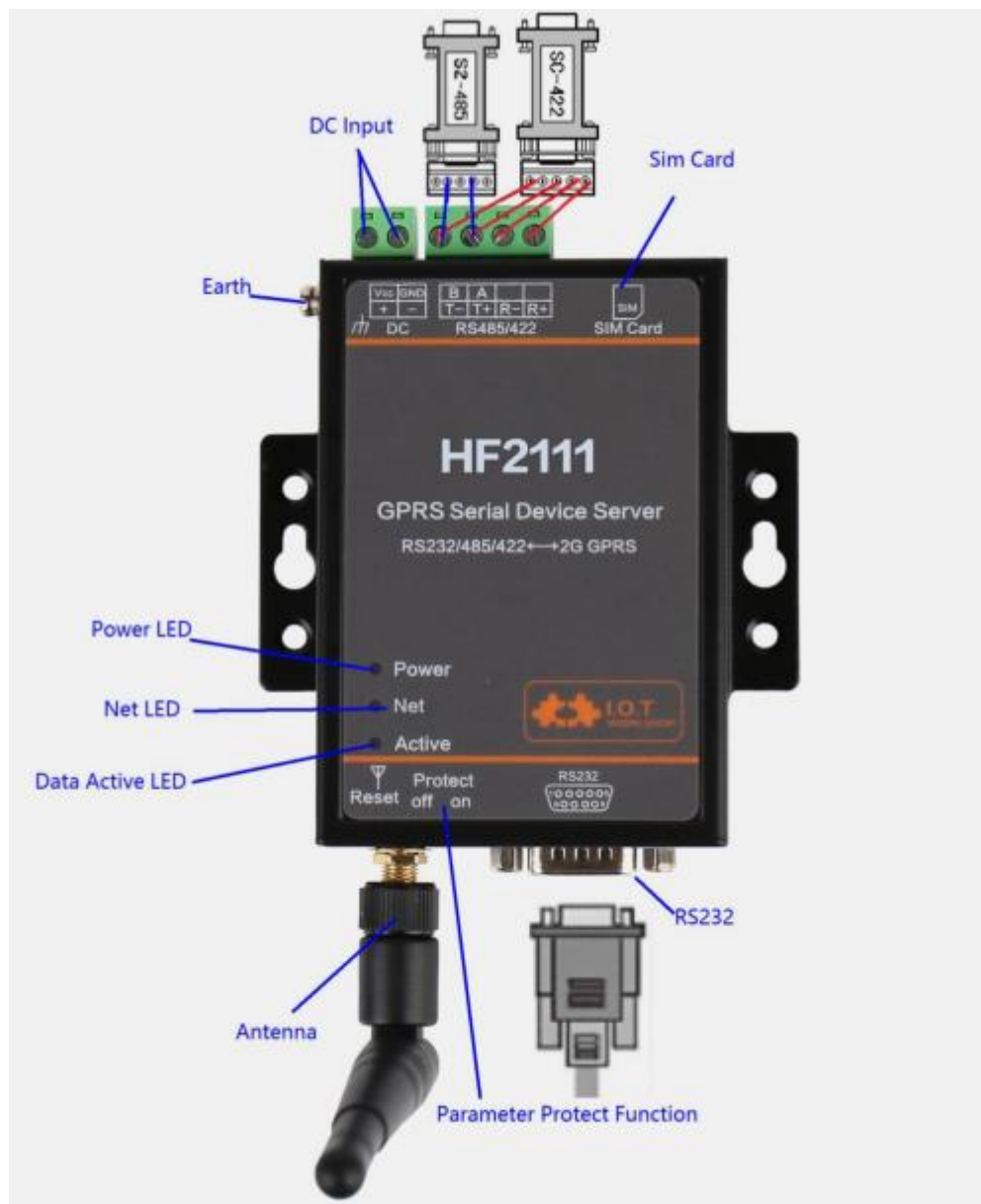
Version List:

2017-10-20 First Draft

1. SERIAL SERVER CONNECTION

1.1 HF2111 Connection

When users acquire our device and use recommended 9v power adapter to connect product. Otherwise, it will contribute to abnormal function. HF2111 supports China Unicom/China Mobile 2/3/4G standard sim card, not for China Telecom. After HF2111 is powered on and connect to network successfully, it needs about 30s to wait light Net turn to be green. If any data transmit to server by HF2111, light Active will blink.



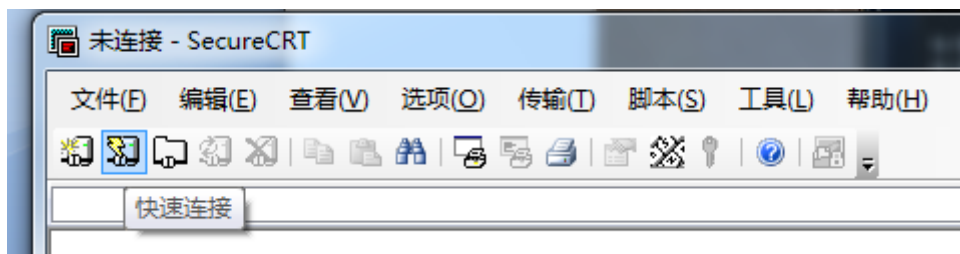
2. SERIAL CONFIGURATION

2.1. Serial Tool SecureCRT

下载地址： http://gb.hi-flying.com/download_detail_dc/downloadsId=22.html

解压文件夹，打开找到 SecureCRT 可执行程序， SecureCRT Application
VanDyke Software, Inc.，点击打开。

点击快速连接按钮，创建连接。



2.2. Configure Serial Parameter

Protocol : Serial

Port: Actual connection port(search by "My PC" -> "Device

Manager" -> "Port(COM and LPT)" . As figure:

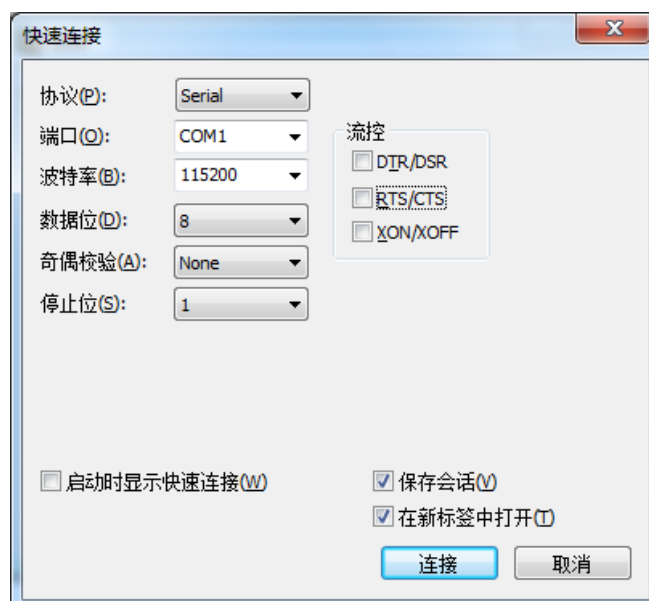
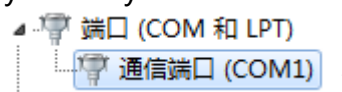
Baud Rate : 115200

Data Bits : 8

Parity Check Bit : None

Stop Bit : 1

Flow Control : None (Please tick off "√" before RTS/CTS)



Notes: HF2111 the default serial data is as above and user can modify device working parameter by IOTService.

3. CREATE NETWORK CONNECTION BY IOTSERIALTOOL

3.1. IOTSerialTool Introduction

IOTSerialTool download address:

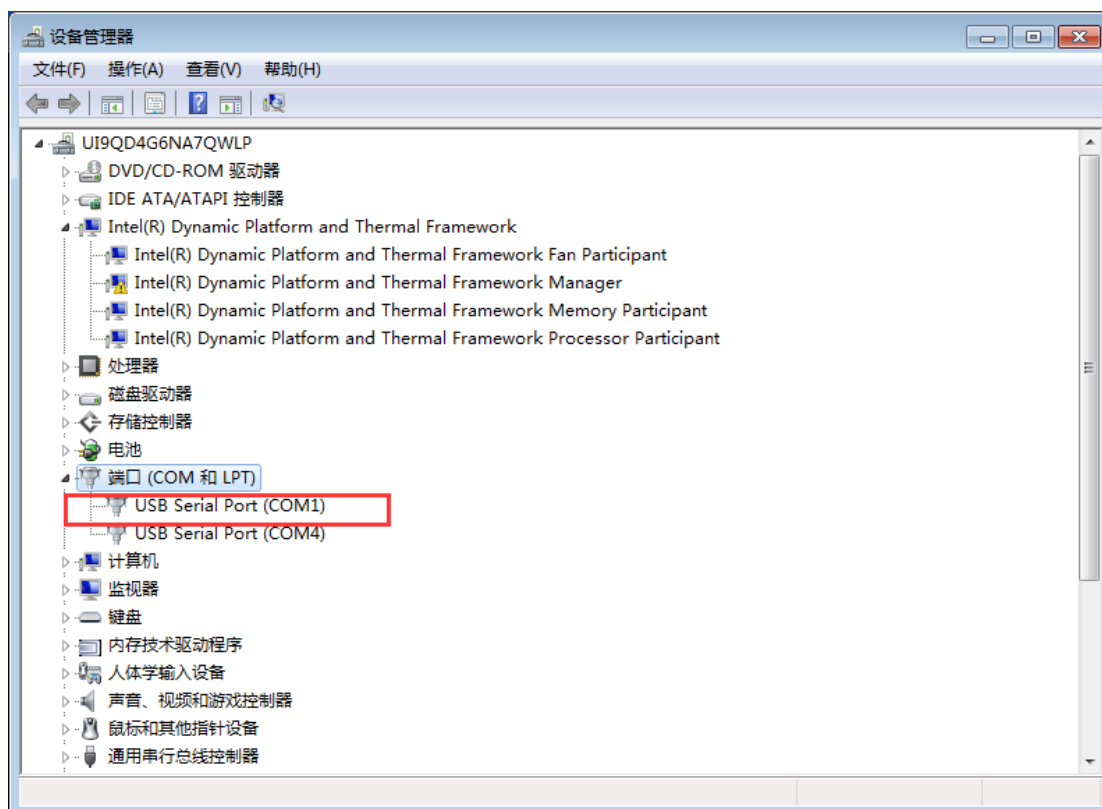
http://gb.hi-flying.com/download_detail/downloadsId=107.html



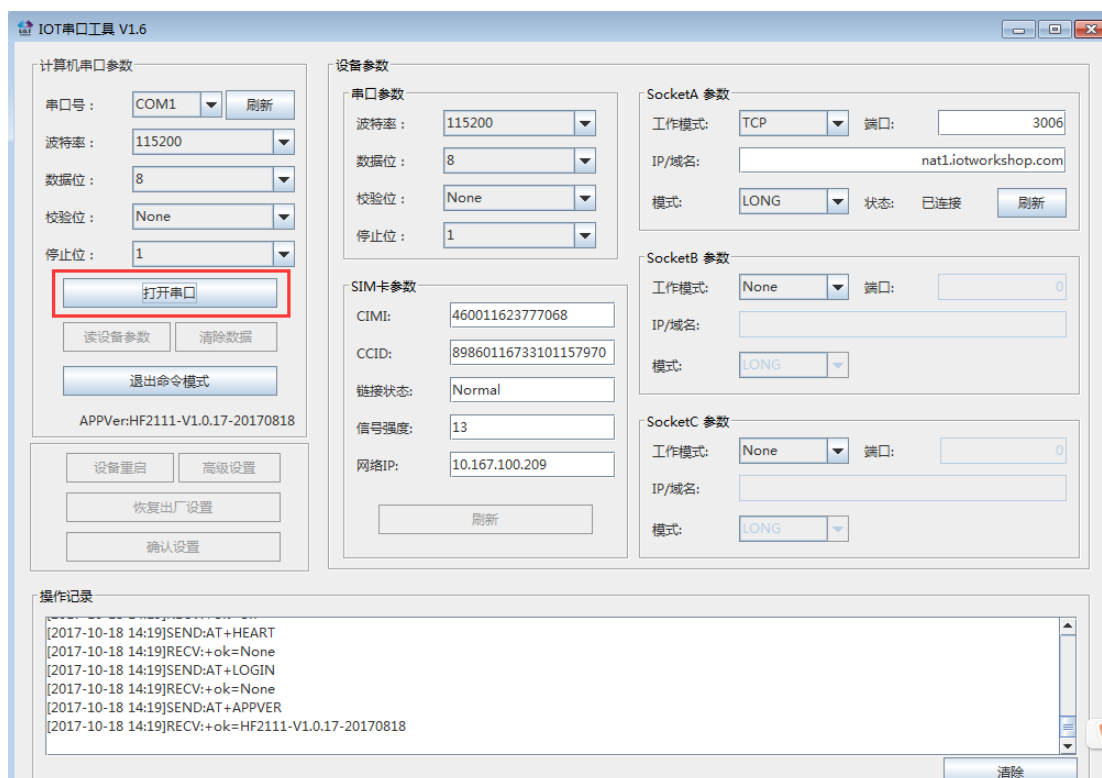
IOTSerialTool is a visual software based on HF2111 serial optimization and it is developed for convenient network connection. When using this software, other serial tool can not be opened at the same time(because port will be occupied). Users can rapidly configure socket and heartbeat function by IOTSerialTool. Specific explanation can refer to chapter 3 in HF2111 user manual.

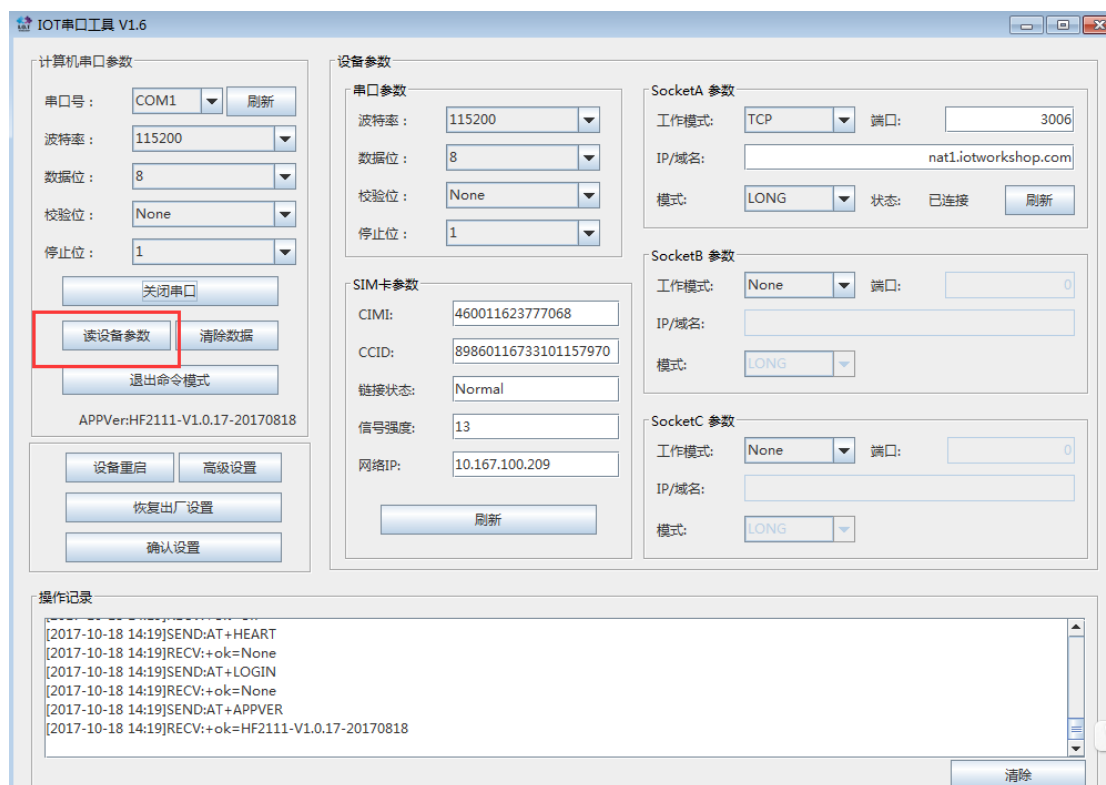
3.2. Test One: Configure Network by IOTSerialTool

Step1 : Product uses RS232/485/422 cross serial cable connected with PC. Open device manager to search connected com number.



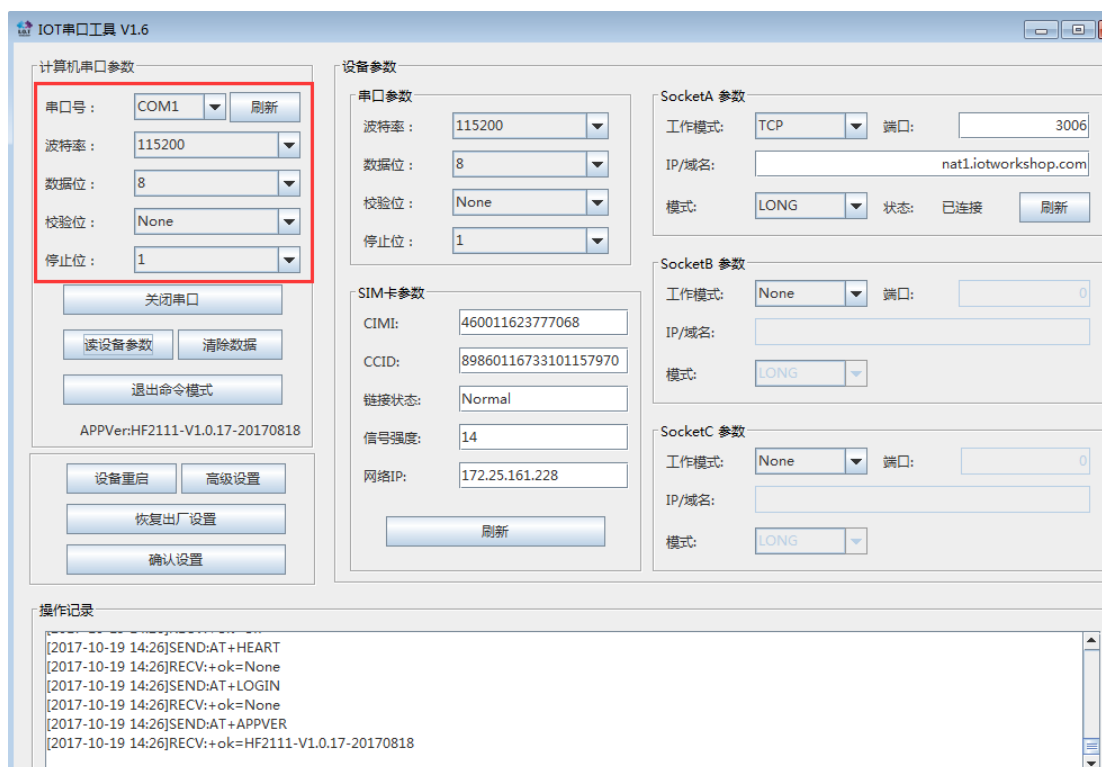
Step 2 : Open IOTSerialTool and click serial port->read device parameter(sim card information)





Note: Why reading data fails?

1. Check if sim card is successfully used(only for Unicom and Mobile card)
2. Check if serial cable is successfully connected(please use cross serial line)
3. It needs about 30s to generate network connection(led Net lights on). It cannot read information of sim card before device boots up.
4. Check if serial parameter has been successfully set, factory default parameter is 115200,8,N,1



计算机串口参数

串口号: COM1 刷新

波特率: 115200

数据位: 8

校验位: None

停止位: 1

关闭串口

读设备参数 清除数据

退出命令模式

APPVer:HF2111-V1.0.17-20170818

设备重启 高级设置

恢复出厂设置

确认设置

设备参数

串口参数

波特率: 115200

数据位: 8

校验位: None

停止位: 1

SIM卡参数

CIMI: 460011623777068

CCID: 89860116733101157970

链接状态: Normal

信号强度: 14

网络IP: 172.25.161.228

刷新

SocketA 参数

工作模式: TCP 端口: 3006

IP/域名: nat1.iotworkshop.com

模式: LONG 状态: 已连接 刷新

SocketB 参数

工作模式: None 端口: 0

IP/域名:

模式: LONG

SocketC 参数

工作模式: None 端口: 0

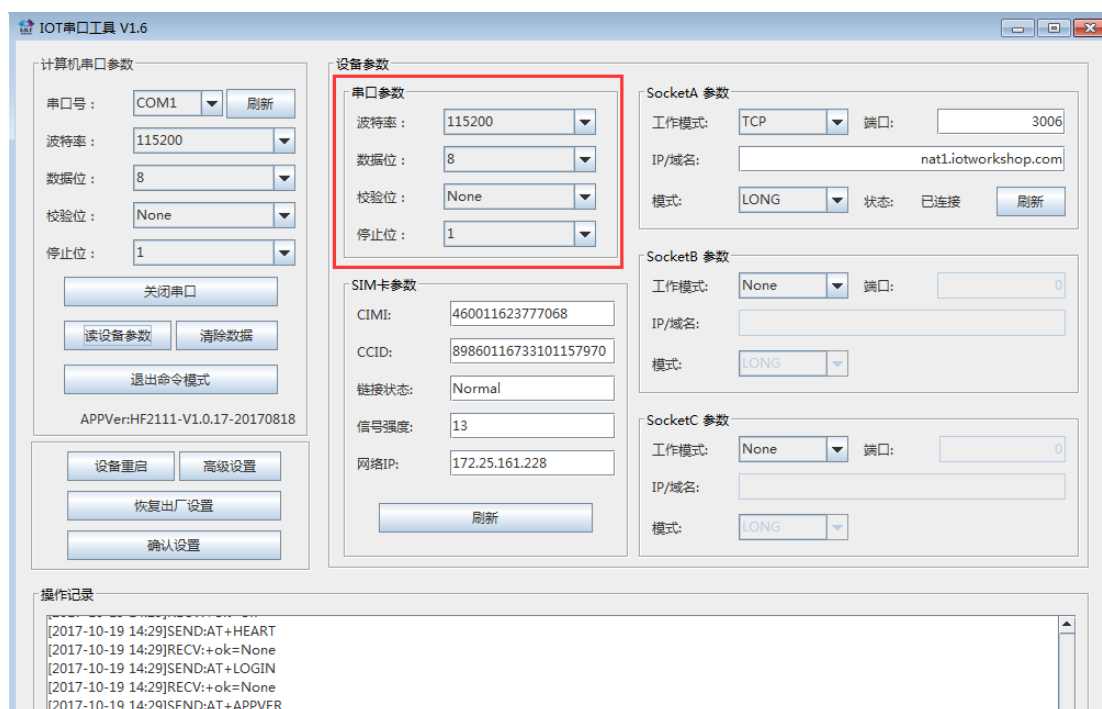
IP/域名:

模式: LONG

操作记录

```
[2017-10-19 14:26]SEND:AT+HEART
[2017-10-19 14:26]RECV:+ok=None
[2017-10-19 14:26]SEND:AT+LOGIN
[2017-10-19 14:26]RECV:+ok=None
[2017-10-19 14:26]SEND:AT+APPVER
[2017-10-19 14:26]RECV:+ok=HF2111-V1.0.17-20170818
```

Step 3 : Configure relative serial parameter according to user lower-layer device.



计算机串口参数

串口号: COM1 刷新

波特率: 115200

数据位: 8

校验位: None

停止位: 1

关闭串口

读设备参数 清除数据

退出命令模式

APPVer:HF2111-V1.0.17-20170818

设备重启 高级设置

恢复出厂设置

确认设置

设备参数

串口参数

波特率: 115200

数据位: 8

校验位: None

停止位: 1

SIM卡参数

CIMI: 460011623777068

CCID: 89860116733101157970

链接状态: Normal

信号强度: 13

网络IP: 172.25.161.228

刷新

SocketA 参数

工作模式: TCP 端口: 3006

IP/域名: nat1.iotworkshop.com

模式: LONG 状态: 已连接 刷新

SocketB 参数

工作模式: None 端口: 0

IP/域名:

模式: LONG

SocketC 参数

工作模式: None 端口: 0

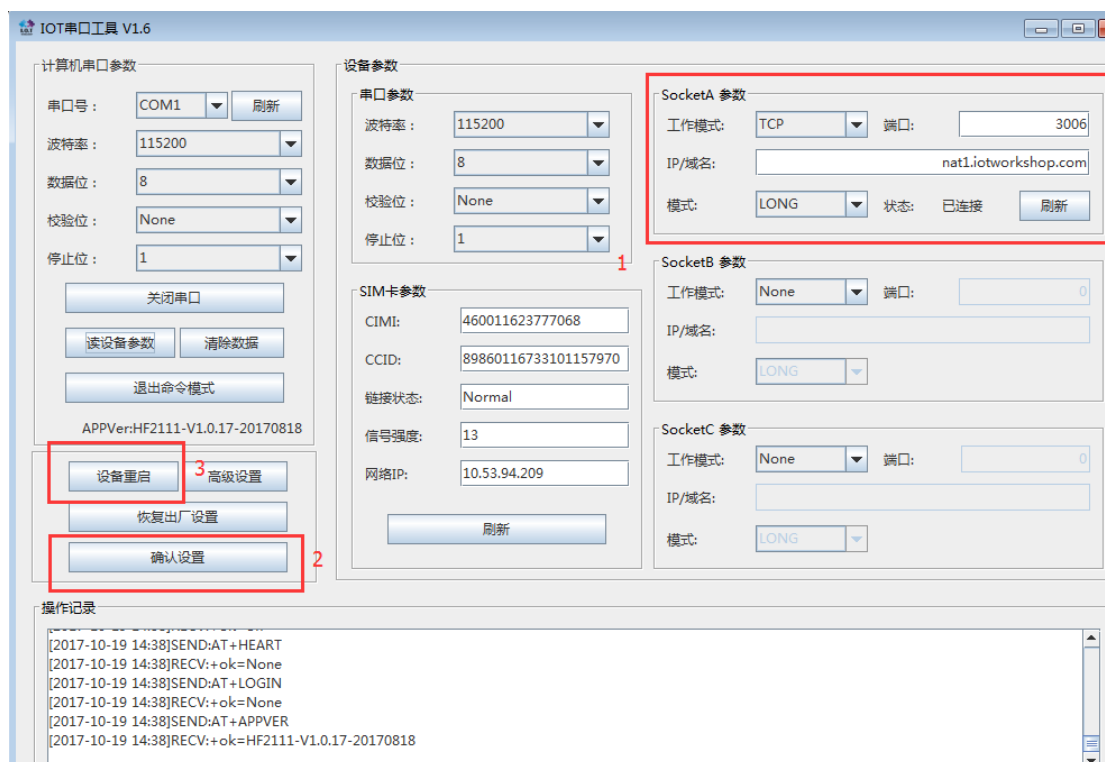
IP/域名:

模式: LONG

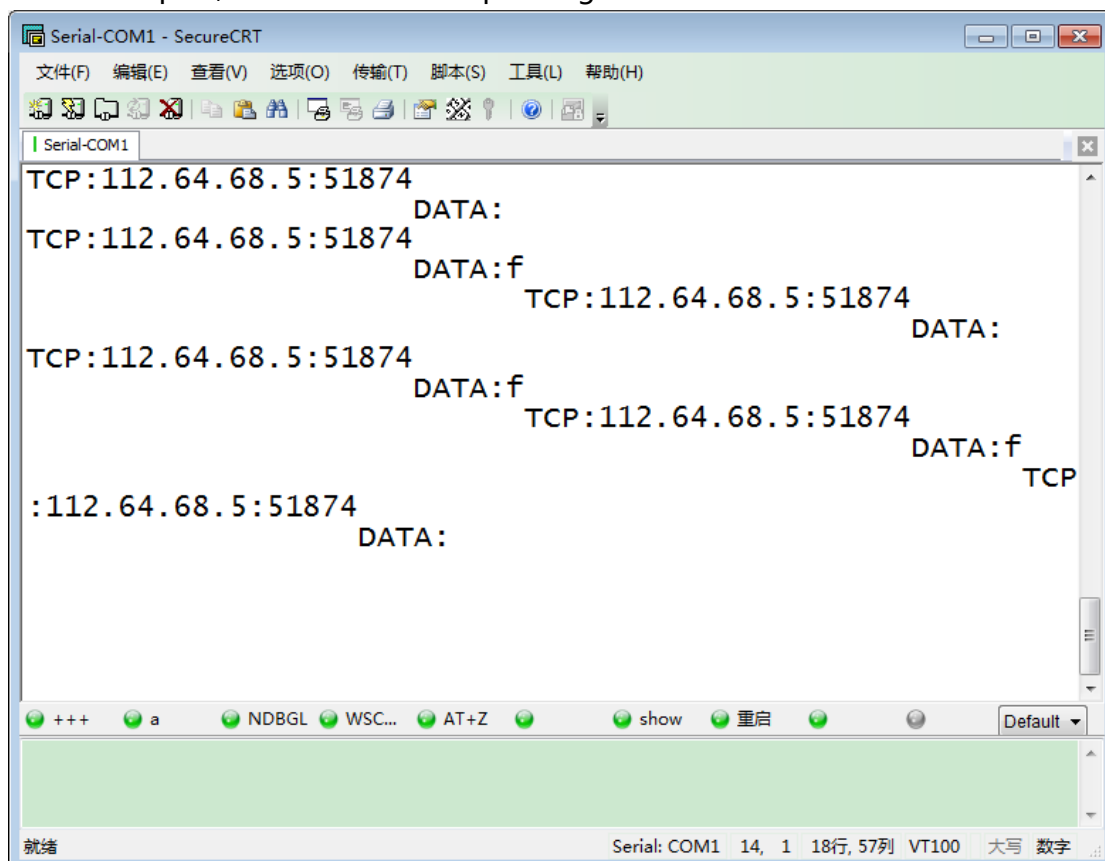
操作记录

```
[2017-10-19 14:29]SEND:AT+HEART
[2017-10-19 14:29]RECV:+ok=None
[2017-10-19 14:29]SEND:AT+LOGIN
[2017-10-19 14:29]RECV:+ok=None
[2017-10-19 14:29]SEND:AT+APPVER
```

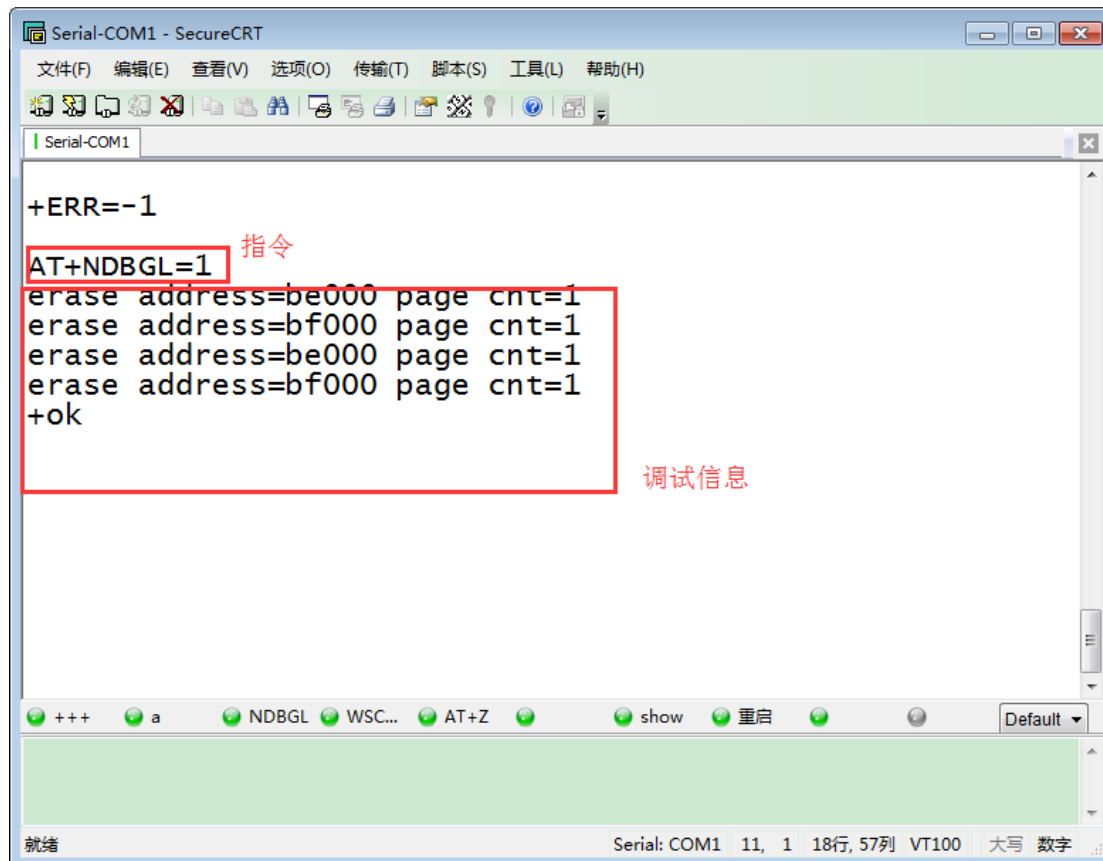
Step 4 : Configure socket to generate network connection. Confirm and restart product.



Step 5 : Parameter of socketa from upper figure is IP address and port number of our test server. User can configure and check if HF2111 is working normally. After configure successfully and close IOTSerialTool, open SecureCRT. After sending data from serial port, it can show the responding data.



Step 6 : If product cannot build generation with server, please type the following command. Output log information from SecureCRT and discuss solution with Hi-flying.



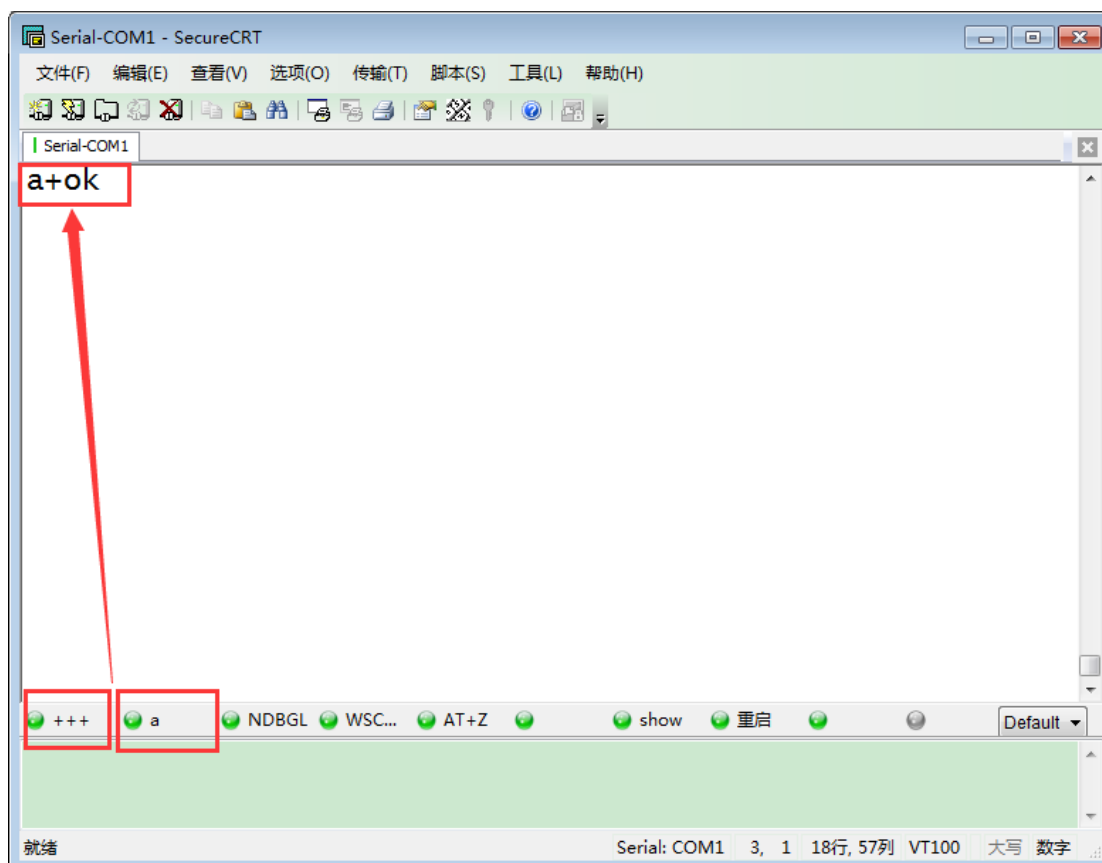
The screenshot shows a SecureCRT terminal window titled 'Serial-COM1 - SecureCRT'. The menu bar includes '文件(F)', '编辑(E)', '查看(V)', '选项(O)', '传输(T)', '脚本(S)', '工具(L)', and '帮助(H)'. The toolbar contains various icons for file operations and terminal control. The terminal text shows the following sequence:

```
+ERR=-1
AT+NDBGGL=1
erase address=be000 page cnt=1
erase address=bf000 page cnt=1
erase address=be000 page cnt=1
erase address=bf000 page cnt=1
+ok
```

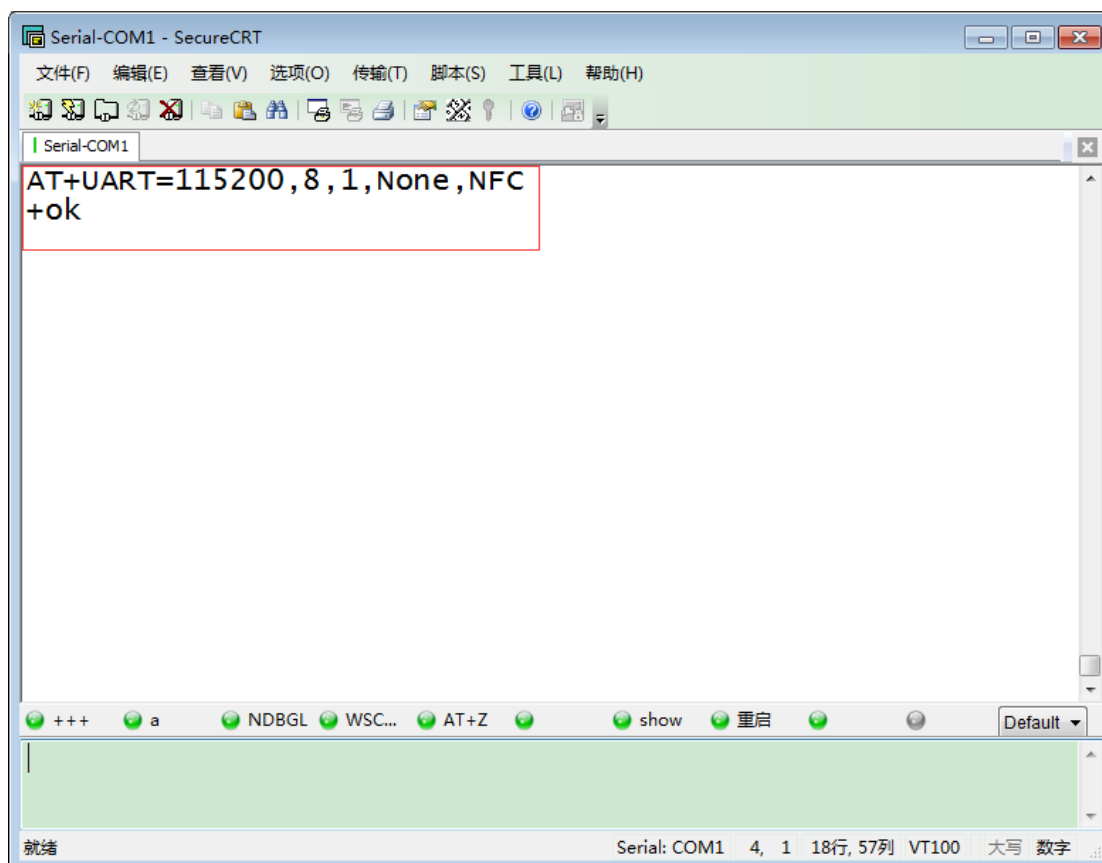
Annotations in the image include a red box around the command 'AT+NDBGGL=1' with the label '指令' (Command) in red, and another red box around the erase commands with the label '调试信息' (Debug Information) in red. The status bar at the bottom indicates 'Serial: COM1 11, 1 18行, 57列 VT100 大写 数字'.

3.3. Test Case Two: Congifure by Network

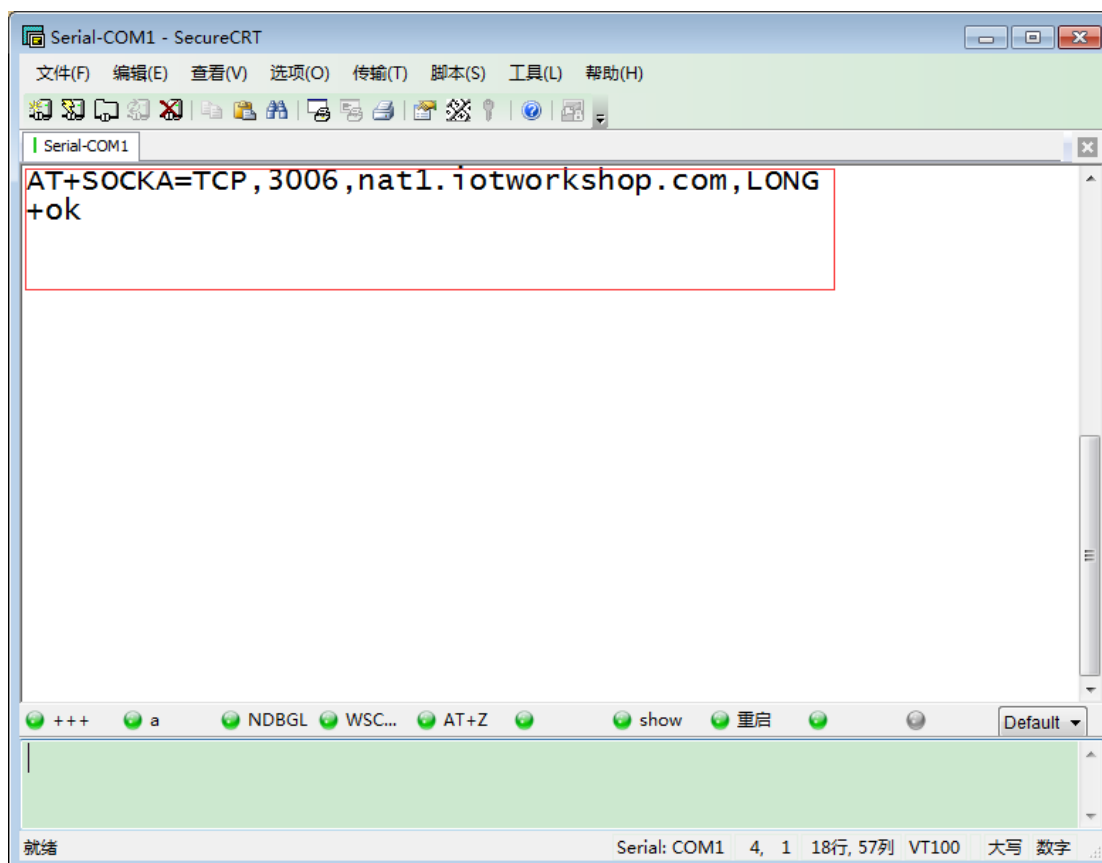
Step 1 : Open SecureCRT and input command +++ and a to enter into command mode.



Step 2 : Input AT+UART to search and configure serial parameter. Specific situation can refer to chapter 4 in HF2111 user manual.



Step 3 : Input command " AT+SOCKA=TCP,3006,nat1.iotworkshop.com,LONG " to set socket. And type AT+Z to restart HF2111.



Step 4 : By sending data from serial port, it can show responding data from server.(Default mode is transparent). If not, please type " AT+ENTM " to enter in.

