M302 树莓派套件 使用手册

V1 0 0

修改日志:

版本号	修改日期	修改描述
V1.0.0	2020/04/23	初稿

1. 硬件连接说明



- ① 网口,连接网线
- ② USB 电源口,连接电源
- ③ LoRa 接收天线
- ④ LoRa 发送天线
- 2. 获取树莓派 IP 地址

完成硬件连接后, 打开如下图软件:



打开后会弹出如下界面:

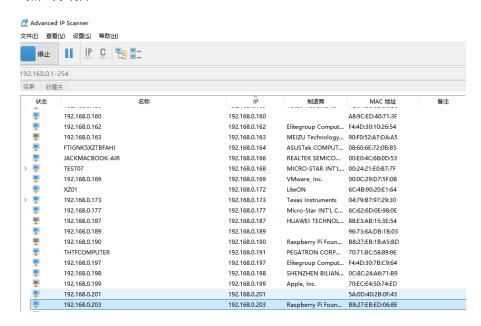


选择运行,点击运行。



配置需要扫描的 IP 地址范围,一般从本地路由器地址开始扫描。配置完成后,

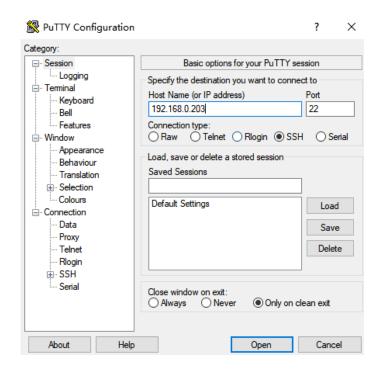
点击扫描。



制造厂商为 Raspberry 开头的即为树莓派 IP 地址,且状态显示为彩色。

3. 使用 putty 登录树莓派后台

打开 PUTTY 软件,如下图:



输入树莓派 IP 地址,选择 ssh,点击 open 后,弹出如下内容,选择"是"选项。



连接成功后输入树莓派用户名和密码。

用户名: rlwl

密码: 123456

如下图所示:

进入 M302 目录

```
rlwl@raspberrypi: ~/M302 — X

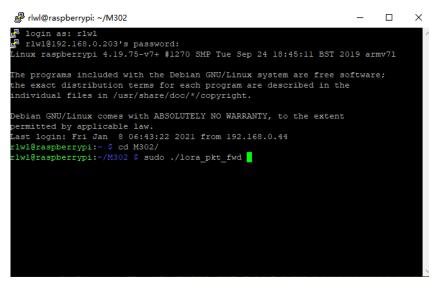
login as: rlwl
rlwl@192.168.0.203's password:
Linux raspberrypi 4.19.75-v7+ #1270 SMP Tue Sep 24 18:45:11 BST 2019 armv71

The programs included with the Debian GNU/Linux system are free software; the exact distribution terms for each program are described in the individual files in /usr/share/doc/*/copyright.

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent permitted by applicable law.
Last login: Fri Jan 8 06:43:22 2021 from 192.168.0.44

rlwl@raspberrypi:~ $ cd M302/
rlwl@raspberrypi:~/M302 $
```

运行程序



运行成功时会打印如下内容:

```
rlwl@raspberrypi: ~/M302
                                                                                              ×
INFO: Reference longitude is configured to 0.000000 deg
INFO: Reference altitude is configured to 0 meters
INFO: Beaconing period is configured to 0 seconds
INFO: Beaconing signal will be emitted at 869525000 Hz
INFO: Beaconing datarate is set to SF9
INFO: Beaconing modulation bandwidth is set to 125000Hz
INFO: Beaconing TX power is set to 14dBm
INFO: Beaconing information descriptor is set to 0
NFO: global_conf.json does contain a JSON object named debug_conf, parsing debu
 NFO: got 2 debug reference payload
INFO: reference payload ID 0 is 0xCAFE1234
INFO: reference payload ID 1 is 0xCAFE2345
INFO: setting debug log file name to loragw_hal.log
WARNING: [main] impossible to open /dev/tty50 for GPS sync (check permissions)
CoreCell reset through GPI023...
 CoreCell power enable through GPI018...
INFO: Configuring SX1250_0 in single input mode
INFO: Configuring SX1250_1 in single input mode
INFO: [main] concentrator started, packet can now be received
INFO: concentrator EUI: 0x0016c001ff10322d
INFO: [down] PULL ACK received in 43 ms
```

此时 M302 即可接收终端数据,接收到数据时如下:

```
INFO: Received pkt from mote: 7252218A (fcnt=4667)

JSON up: {"rxpk":[{"jver":1,"tmst":23888655,"chan":7,"rfch":1,"freq":471.700000,
"mid": 0,"stat":1,"modu":"LORA","datr":"SF12BW125","codr":"4/5","rssis":-90,"lsn
r":8.2,"foff":-703,"rssi":-90,"size":20,"data":"gIohUnIAOxIMddBySoU0/ttqRdU="}]}
INFO: [up] PUSH_ACK received in 41 ms

INFO: Received pkt from mote: 7252218A (fcnt=4667)

JSON up: {"rxpk":[{"jver":1,"tmst":28916314,"chan":5,"rfch":1,"freq":471.300000,
"mid": 0,"stat":1,"modu":"LORA","datr":"SF12BW125","codr":"4/5","rssis":-90,"lsn
r":7.2,"foff":-90,"rssi":-90,"size":20,"data":"gIohUnIAOxIMddBySoU0/ttqRdU="}]}
INFO: [up] PUSH_ACK received in 39 ms
```

关于如何配置 M302 接收频率等内容请参考 Sx1302LinuxDriver 目录下的 readme.md 。