

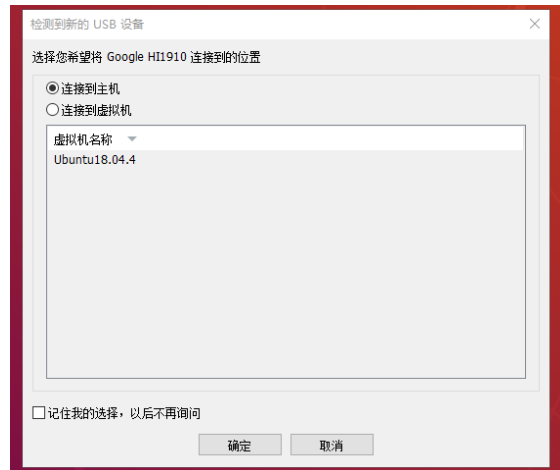
一、完成拨码和制卡步骤后，按照如下图片给 QA500DK-Atlas200 上电，并用网线连接 PC 端



二、使用操作系统：Ubuntu 启动开发板

(1) USB 测试

首先通过 USB 连接电脑与开发板，当连接电脑系统为虚拟环境时，设备连接后，会自动弹出如下界面：



选择连接到虚拟机，点击 ubuntu18.04.4 后 点击确定，在 ubuntu 操作系统桌面，右键点击 Opne Terminal 开启任务窗口，先进行 PING 192.168.1.2 的测试。ping 通则第一步进行登录操作，ping 不通，则先进行重设 IP 操作，如下所示：

1) 命令行输入 ifconfig 回车

重设 IP： 复制并黏贴进命令行

```
sudo ifconfig ens33 192.168.0.223 netmask 255.255.255.0 up
```

输入用户密码

输入命令行： ssh p

再次输入用户密码并 回车

2) 登录操作

```
ssh HwHiAiUser@192.168.1.2
```

输入用户密码后，成功登录

输入 npu-smi info，查看设备信息。

(2) 网口测试

首先进行 ping 192.168.0.2 操作。如 ping 的通则进行登录操作，如 ping 不通，则先进行重设 ip 操作。

1) 命令行输入 ifconfig 回车

例如 ens33，界面如下：

```

HwHiAiUser@ubuntu:~$ PING 192.168.1.2
PING: command not found
HwHiAiUser@ubuntu:~$ ifconfig
ens33: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.0.223 netmask 255.255.255.0 broadcast 192.168.0.255
    ether 00:0c:29:16:4f:1f txqueuelen 1000 (Ethernet)
    RX packets 1254 bytes 104985 (104.9 KB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 194 bytes 27179 (27.1 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

ens38: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.253.128 netmask 255.255.255.0 broadcast 192.168.253.255
    inet6 fe80::a564:c1c1:1890:b0b9 prefixlen 64 scopeid 0x20<link>
    ether 00:0c:29:16:4f:29 txqueuelen 1000 (Ethernet)
    RX packets 3117 bytes 919173 (919.1 KB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 1300 bytes 147882 (147.8 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

ens160u2: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.1.223 netmask 255.255.255.0 broadcast 192.168.1.255
    inet6 fe80::b0f8:1bff:fedd:33ed prefixlen 64 scopeid 0x20<link>
    ether b2:f8:1b:dd:33:ed txqueuelen 1000 (Ethernet)
    RX packets 0 bytes 0 (0.0 B)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 65 bytes 9477 (9.4 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0x10<host>
    loop txqueuelen 1000 (Local Loopback)
    RX packets 616 bytes 48508 (48.5 KB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 616 bytes 48508 (48.5 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

```

重设 IP: 复制并黏贴进命令行

sudo ifconfig ens33 192.168.0.223 netmask 255.255.255.0 up

密码: 输入用户密码

2) 登录

ssh [HwHiAiUser@192.168.0.2](ssh://HwHiAiUser@192.168.0.2)

密码: 输入密码 (默认 Mind@123)

问题一: 出现以下界面时, 复制粘贴命令

ssh-keygen -f "/home/HwHiAiUser/.ssh/known_hosts" -R "192.168.0.2"

```

HwHiAiUser@ubuntu:~$ ssh HwHiAiUser@192.168.1.2
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
@    WARNING: REMOTE HOST IDENTIFICATION HAS CHANGED!     @
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
IT IS POSSIBLE THAT SOMEONE IS DOING SOMETHING NASTY!
Someone could be eavesdropping on you right now (man-in-the-middle attack)!
It is also possible that a host key has just been changed.
The fingerprint for the ECDSA key sent by the remote host is
SHA256:Z7jlln2g35LSkwj3JKTzCS96GN1a19c7/Ax0P4/Bz1s.
Please contact your system administrator.
Add correct host key in /home/HwHiAiUser/.ssh/known_hosts to get rid of this mes
sage.
Offending ECDSA key in /home/HwHiAiUser/.ssh/known_hosts:3
  remove with:
    ssh-keygen -f "/home/HwHiAiUser/.ssh/known_hosts" -R "192.168.1.2"
ECDSA host key for 192.168.1.2 has changed and you have requested strict checkin
g.
Host key verification failed.
HwHiAiUser@ubuntu:~$ ssh-keygen -f "/home/HwHiAiUser/.ssh/known_hosts" -R "192
.168.1.2"
# Host 192.168.1.2 found: line 3
/home/HwHiAiUser/.ssh/known_hosts updated.
Original contents retained as /home/HwHiAiUser/.ssh/known_hosts.old

```

输入: bash configure_usb_ethernet.sh -s ens160u1 192.168.1.223

```

HwHiAiUser@ubuntu:~$ bash configure_usb_ethernet.sh -s ens160u1 192.168.1.2
23
bash: configure_usb_ethernet.sh: No such file or directory
HwHiAiUser@ubuntu:~$ ssh HwHiAiUser@192.168.1.2
The authenticity of host '192.168.1.2 (192.168.1.2)' can't be established.
ECDSA key fingerprint is SHA256:r6U03KJL6qJviGJFFqj4wHQ9Q3t41ngmQAEzr8IsnSM
.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added '192.168.1.2' (ECDSA) to the list of known hosts
.
HwHiAiUser@192.168.1.2's password:
Welcome to Ubuntu 18.04.4 LTS (GNU/Linux 4.19.95+ aarch64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

Last login: Sun Jan 28 16:11:20 2018 from 192.168.1.223
HwHiAiUser@davinci-mini:~$

```

问题二：出现如下界面时，输入 YES 并回车后，再次输入
ssh HwHiAiUser@192.168.0.2

```

HwHiAiUser@ubuntu:~$ ssh HwHiAiUser@192.168.1.2
The authenticity of host '192.168.1.2 (192.168.1.2)' can't be established.
ECDSA key fingerprint is SHA256:Z7jllm2g35LSkwj3JKTzC596GN1a19c7/Ax0P4/Bz1s.
Are you sure you want to continue connecting (yes/no)? yes

```

登录成功后验证

输入：npu-smi info

界面如下，则说明测试成功：

```

HwHiAiUser@davinci-mini:~$ npu-smi info
=====
| npu-smi 20.3.0 | Version: 20.2.0 | | | |
|---|---|---|---|---|
| NPU | Name | Health | Power(W) | Temp(C) |
| Chip | Device | Bus-Id | AICore(%) | Memory-Usage(MB) |
|-----|-----|
| 0 | 310 | OK | 12.8 | 44 |
| 0 | 0 | 0000:00:00.0 | 0 | 655 / 8192 |
=====

```