Hardware

list:

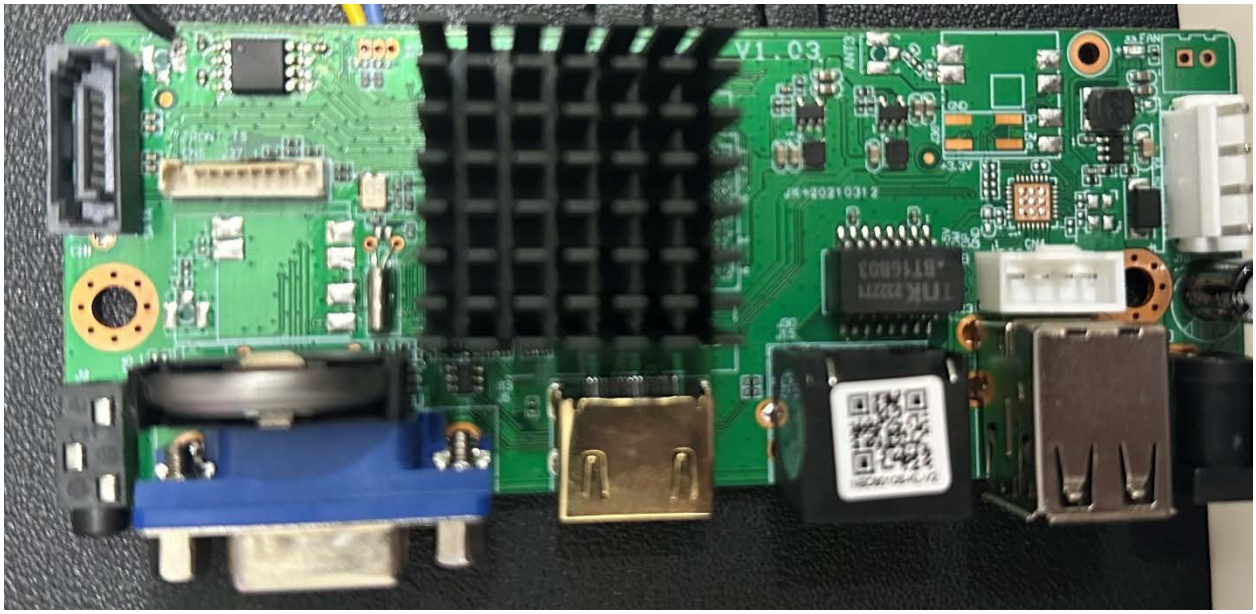
1; USB wifi stick (RTL8812AU chipset)

2;NVR board (Hi3536DV100 chipset)

3;USB-to-UART debugger（CH340 or others)

4；solder Iron （tin wire)

5；3pcs wire （silicone od=0.5mm)

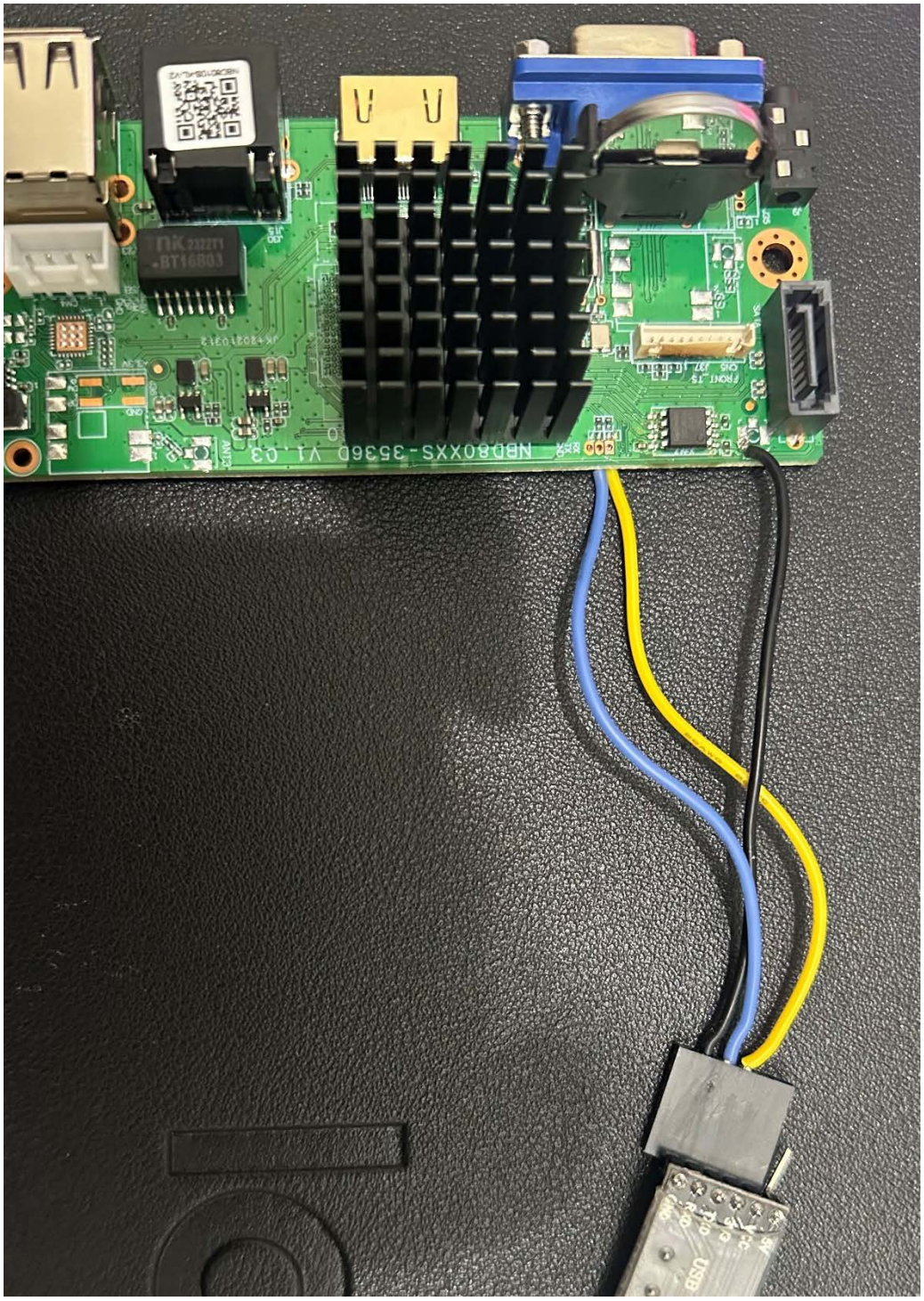


Solder black wire to board ground

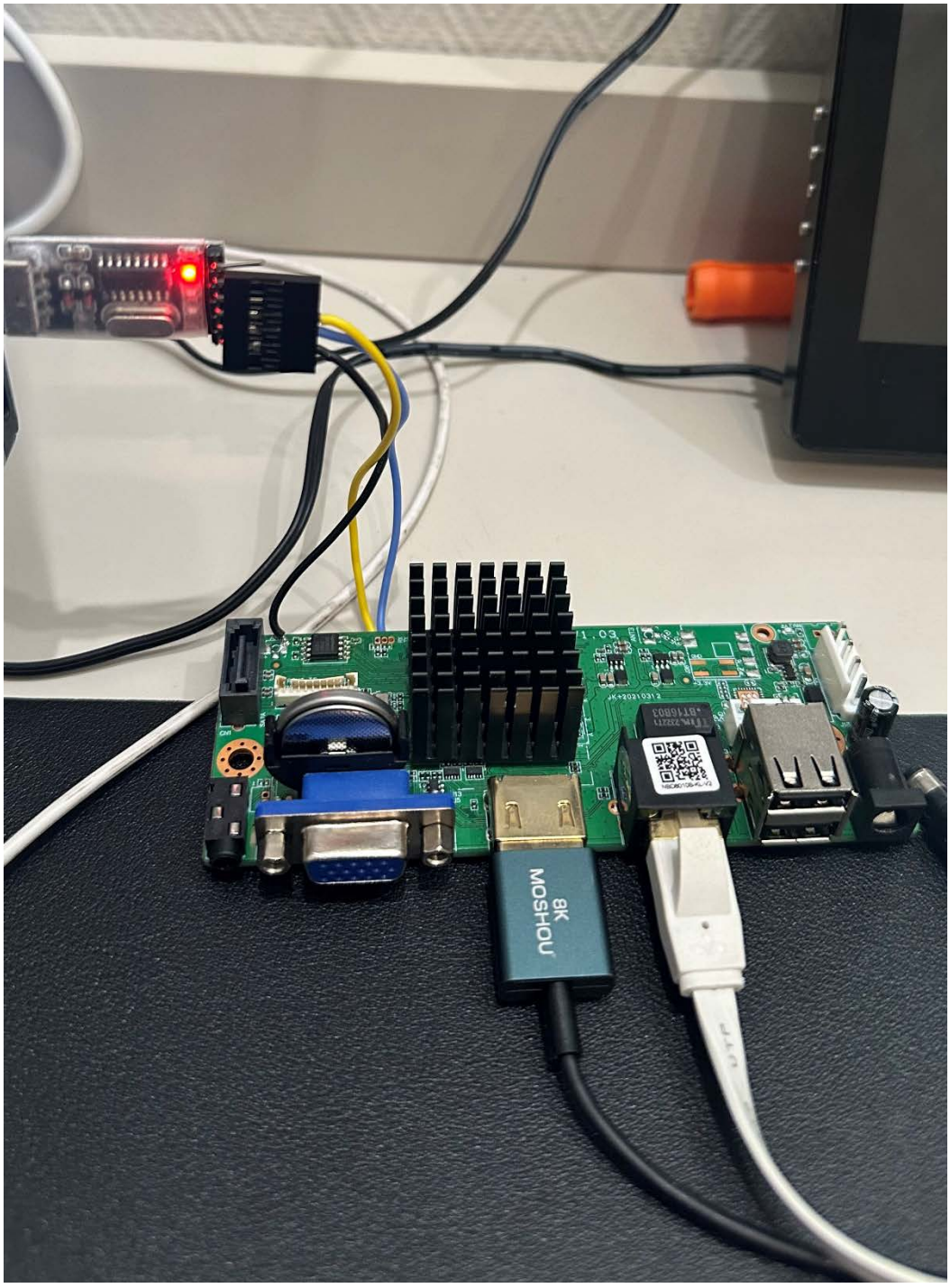
Solder yellow wire to board RX pad， blue wire to TX wire.

Be careful the Rx and Tx pad on NVR board are very close don't let them short!

Connect NVR Rx Yellow wire to USB-TO-UART debugger TX, NVR Tx blue wire to USB-TO-UART debugger Rx. And connect black wire to GND.



Plug USB-TO-UART debugger to your PC usb.
Connect HDMI to your Monitor and LAN wired to your Router(or net switch)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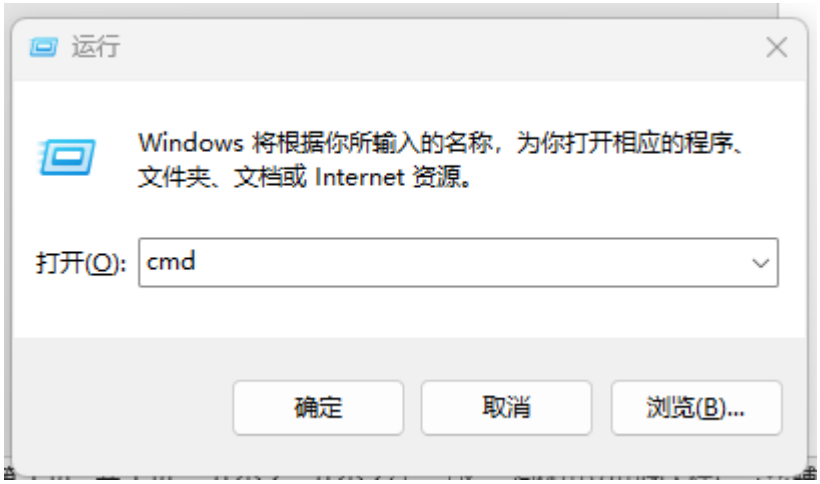
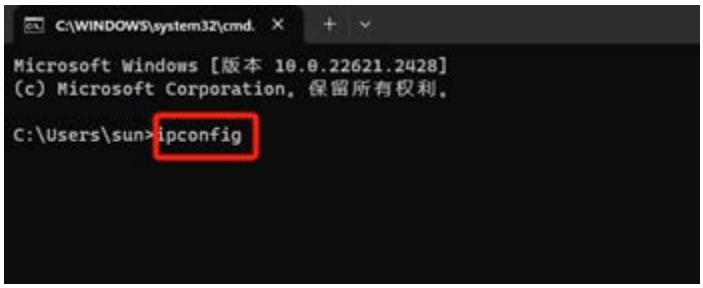
Software

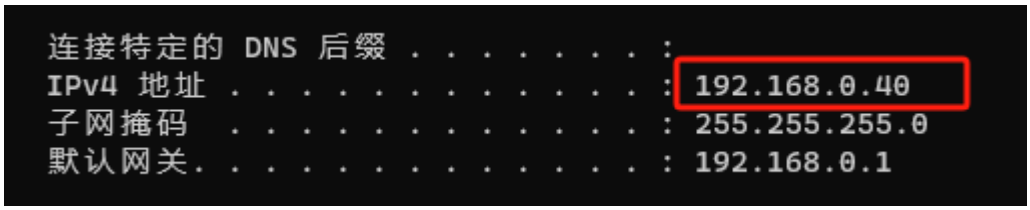
On windows system WIN+R ,
type in cmd, enter



In terminal type in ipconfig enter

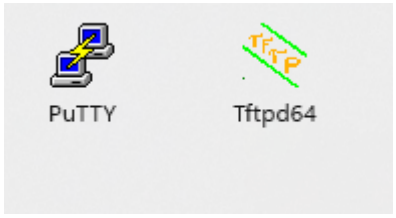


Find your PC ip address



Download tftpd32 (or 64bit) and PUTTY
https://bitbucket.org/phjounin/tftpd64/downloads/Tftpd64-4.64-setup.exe
https://the.earth.li/~sgtatham/putty/latest/w64/putty-64bit-0.79-installer.msi

install tftpd32 and PUTTY on your windows.



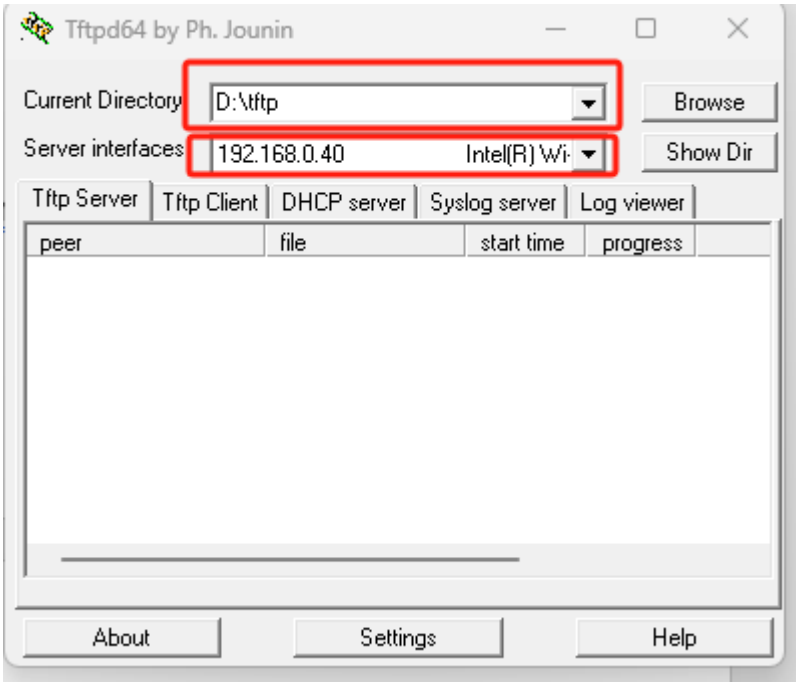
Download NVR burn img file (openipc-hi3536dv100-fpv-16mb.bin)from OpenIPC github

https://openipc.org/cameras/vendors/hisilicon/socs/hi3536dv100/download_full_image?flash_size=16&flash_type=nor&fw_release=fpv

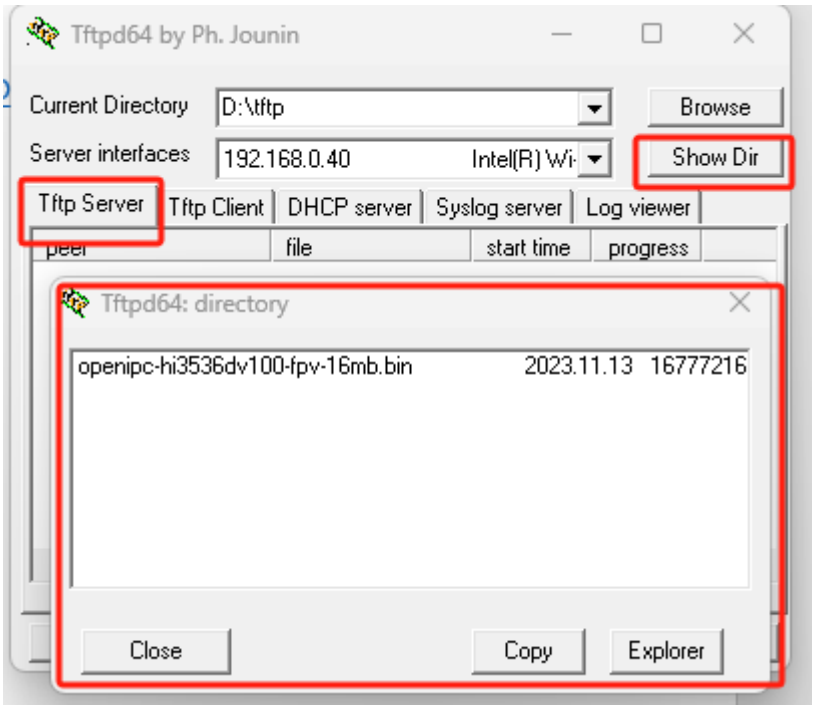
Tftpd64(32) setting

Put openipc-hi3536dv100-fpv-16mb.bin to D:\tftp

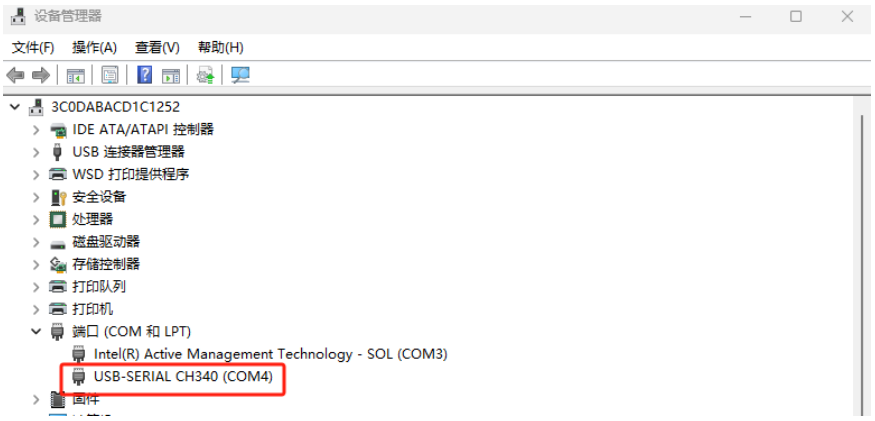
Change server interfaces to your PC ip address.



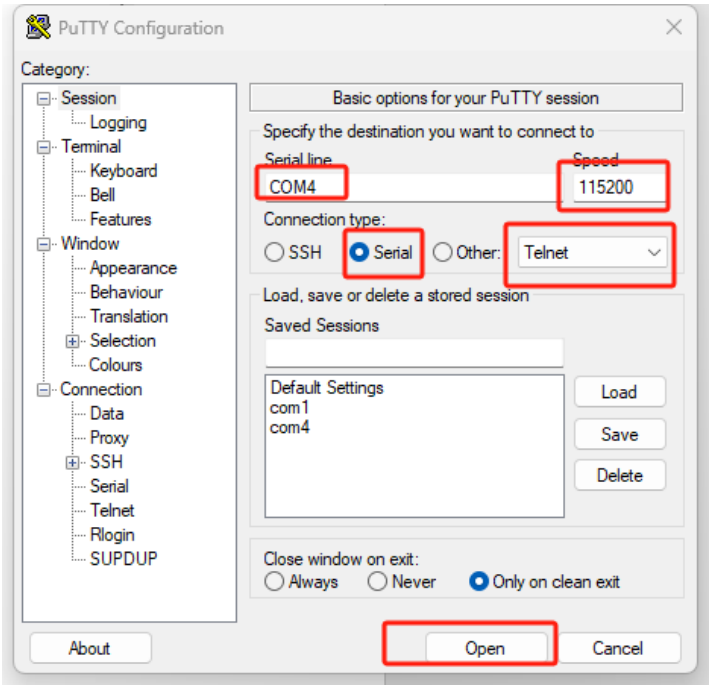
Confirm your setting and file are ok as below:

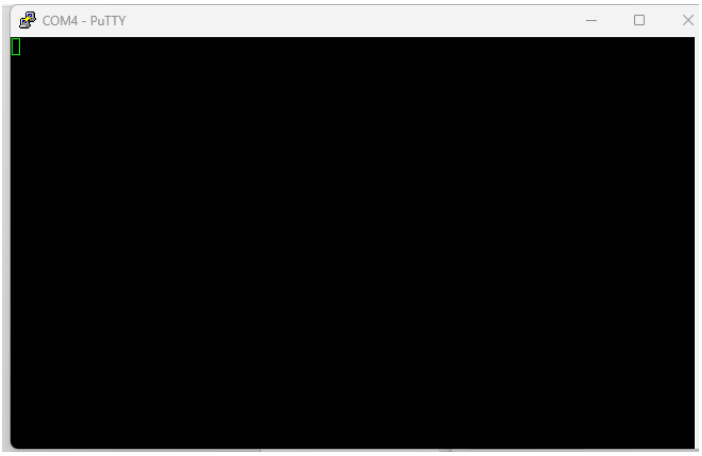


confirm your usb-to-uart debugger com port on your PC



Open putty setting:



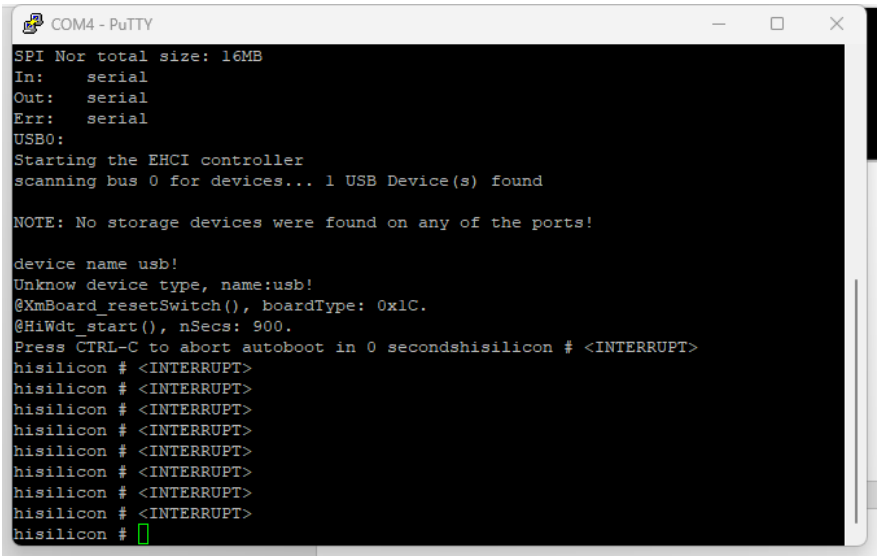


Burn Operation:

Power on NVR board with 12V（DC plug）

Back to PUTTY window, quickly hit ctrl+c

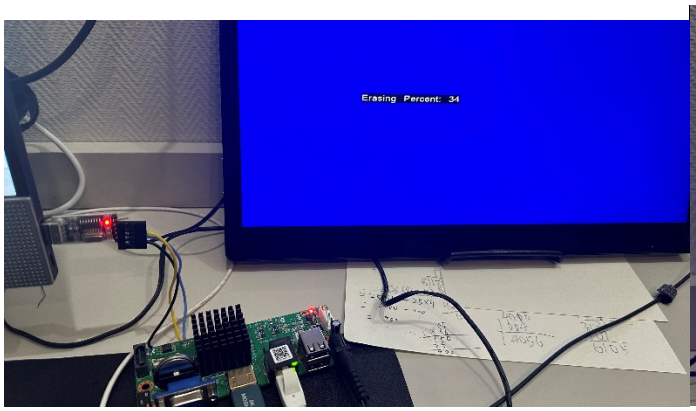
Get into U-boot.

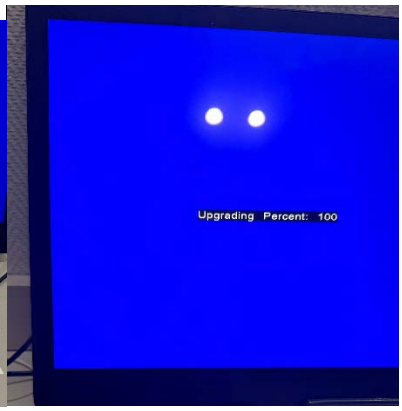



```
setenv ipaddr 192.168.0.111; setenv serverip 192.168.0.40
mw.b 0x82000000 0xff 0x1000000
tftp 0x82000000 openipc-hi3536dv100-fpv-16mb.bin
sf probe 0; sf lock 0;
sf erase 0x0 0x1000000; sf write 0x82000000 0x0 0x1000000
reset
```

COM4 - PuTTY

```
hisilicon # <INTERRUPT>
hisilicon # <INTERRUPT>
hisilicon # <INTERRUPT>
hisilicon # <INTERRUPT>
hisilicon # <INTERRUPT>
hisilicon # <INTERRUPT>
hisilicon # <INTERRUPT>
hisilicon # <INTERRUPT>
hisilicon # <INTERRUPT>
hisilicon # <INTERRUPT>
hisilicon # <INTERRUPT>
hisilicon # setenv ipaddr 192.168.0.111; setenv serverip 192.168.0.40
hisilicon # mw.b 0x82000000 0xff 0x1000000
hisilicon # tftp 0x82000000 openipc-hi3536dv100-fpv-16mb.bin
Hisilicon ETH net controler
MAC:   00-0B-3F-00-00-01
eth0 : phy status change : LINK=DOWN : DUPLEX=FULL : SPEED=100M
eth0 : phy status change : LINK=UP : DUPLEX=FULL : SPEED=100M
TFTP from server 192.168.0.40; our IP address is 192.168.0.111
Download Filename 'openipc-hi3536dv100-fpv-16mb.bin'.
Download to address: 0x82000000
Downloading: #################################################
done
Bytes transferred = 16777216 (1000000 hex)
hisilicon # sf probe 0; sf lock 0;
16384 KiB hi_fmc at 0:0 is now current device
unlock all block.
at XmSpiNor_disableWps() <Enter>.
No WPS Setting: [0, 0].
Current level[0], lock_level_max:7.
unlock all.
hisilicon # sf erase 0x0 0x1000000; sf write 0x82000000 0x0 0x1000000
Erasing at 0x10000 --   0% complete.stMaxRect.u32Width:1024, stMaxRect.u32Height:
768.
DRV_HDMI_ProdCrgAllResetSet udelay(20000).
HDMI_INFO:DispFmt2HdmiTiming[419] ,Non CEA video timing:17
HDMI_INFO:Hdmi_PixelFreqSearch[163] ,u32Fmt17.
Erasing at 0x1000000 -- 100% complete.
Writing at 0x1000000 -- 100% complete.
hisilicon #
```





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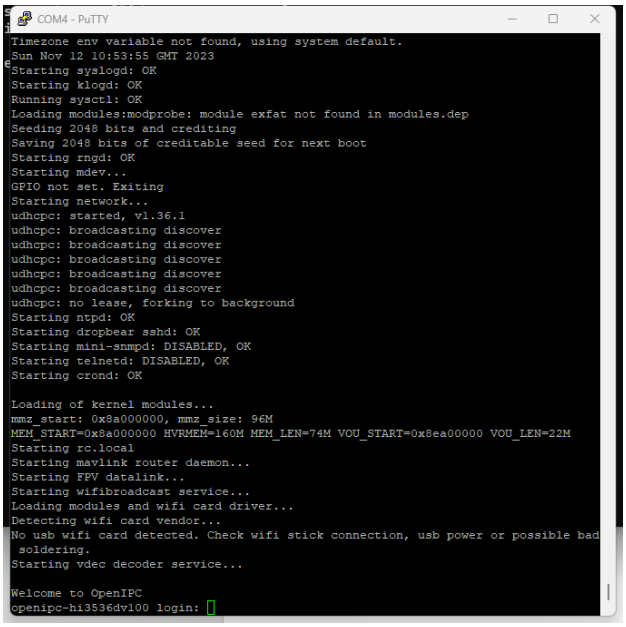
After Reboot

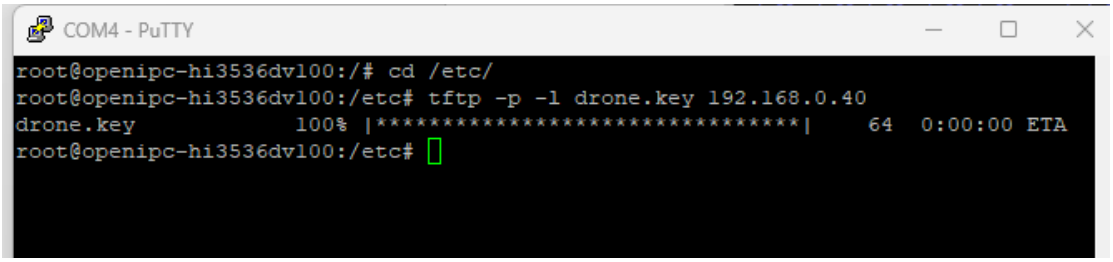


Key file pair Plug USB wifi stick and power on NVR

Login OpenIPC NVR： root password 12345

Type in cd /etc

tftp -p -l /etc/drone.key 192.168.0.40



Now your pair drone.key in your tftp path: