XPI-3566 Software User Manual

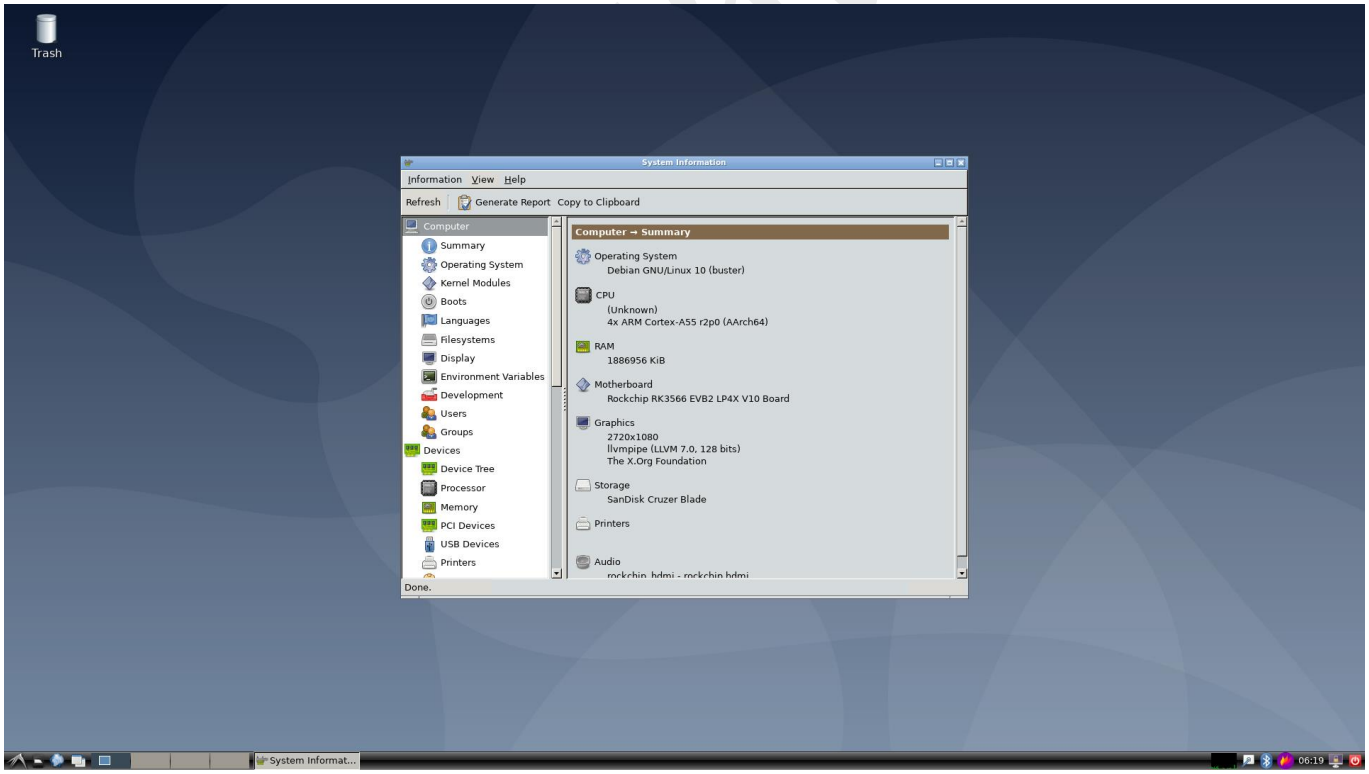
V1.0

REVISION HISTORY

Time	Version	Purpose	Author	Comment
2023/01/09	1.0	Initial	Whx	

1. XPI3566 Debian10 OS

Support OS：Debian GNU/Linux10\n\

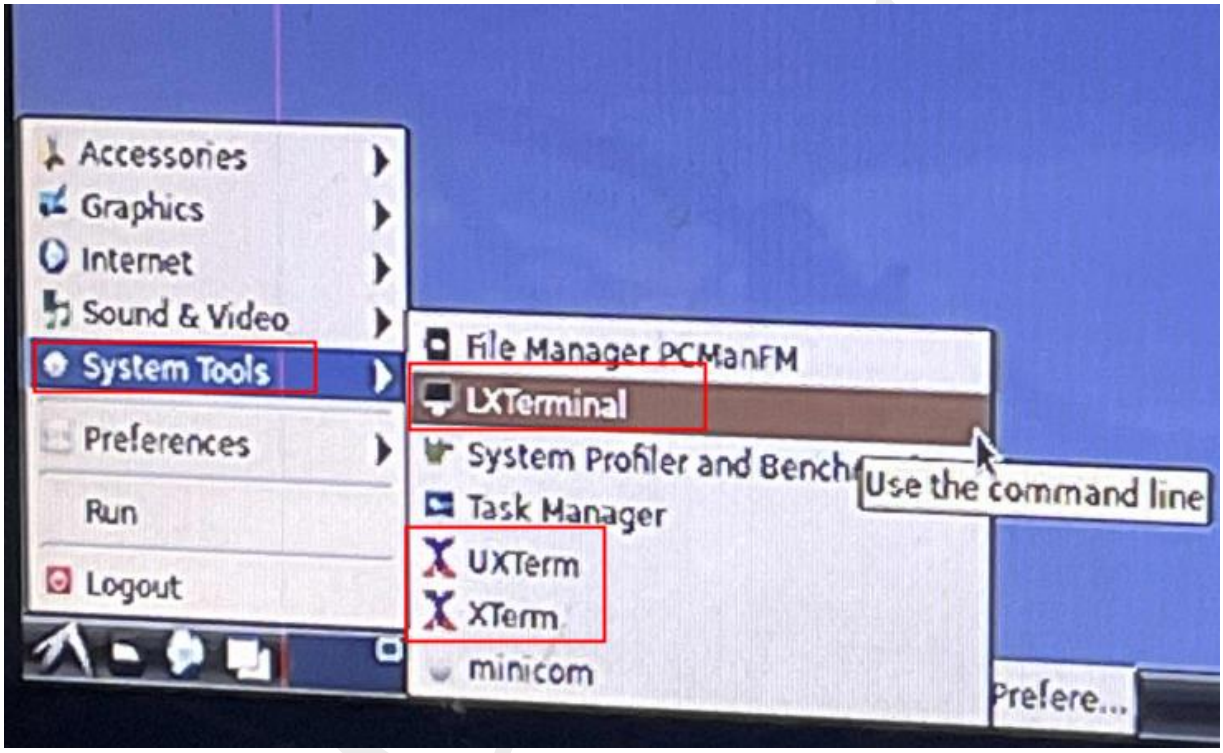


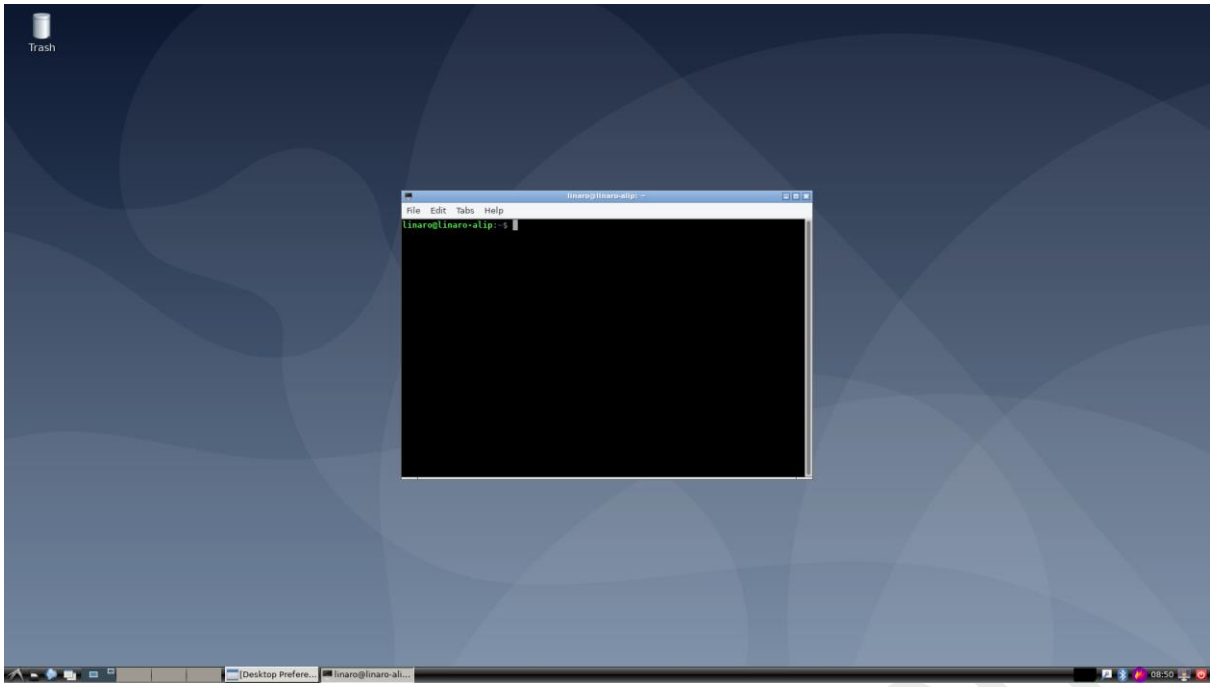
2. Function Description

2.1 How to access the OS

2.1.1 HDMI display

XPI3566 support HDMI OUT display，default resolution 1080P；It can be connected to the monitor and wait for the system startup, connecting the keyboard, open a terminal via the main menu -> “System Tools”-> “LXTerminal”/“UXTerm”/“XTerm”.





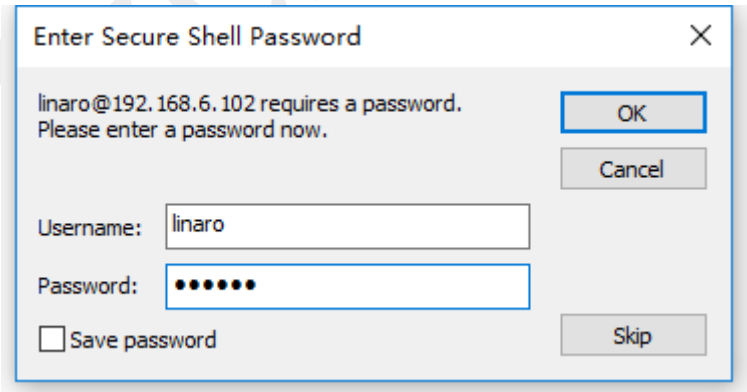
2.1.2 Remote Connection

Connect the PC and XPI3566 in a local area network，get the IP address and connect via the serial tool (SecureCRT/Tera Term) using SSH。

Protocol：SSH2

User name：linaro

Password：linaro

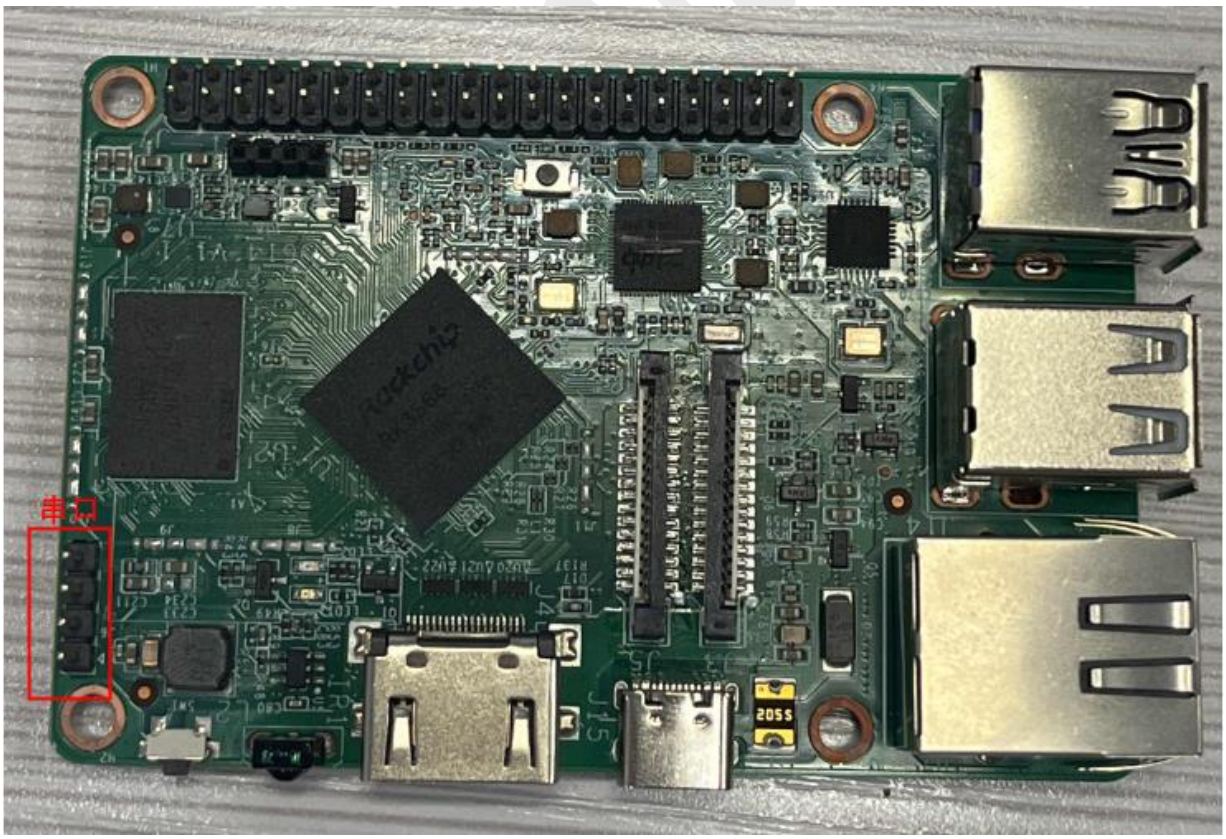


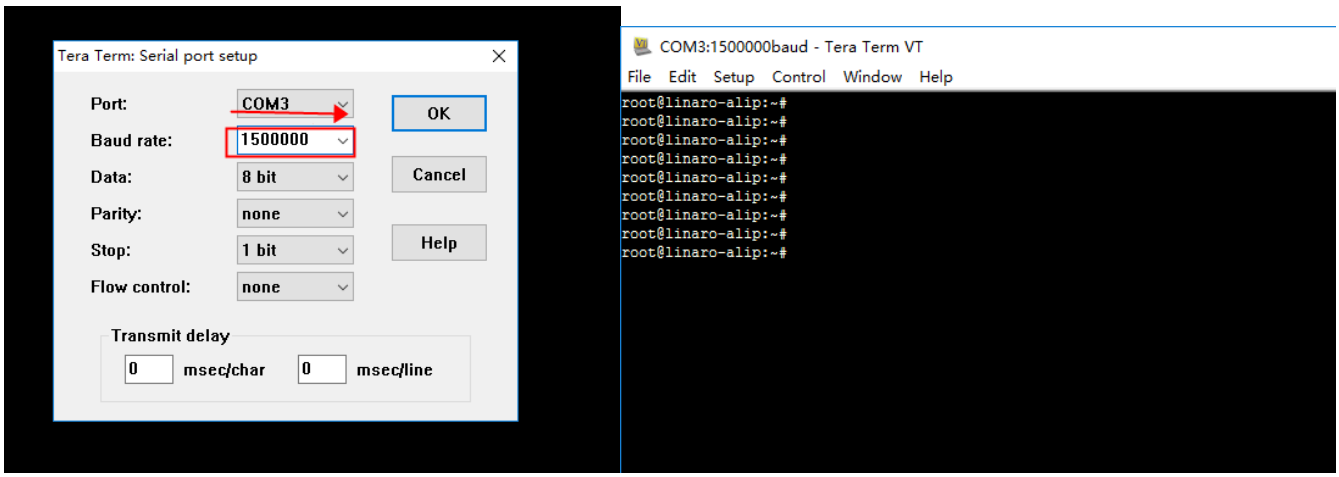
192.168.6.102

```
Linux linaro-alip 4.19.172 #29 SMP Mon Dec 26 15:20:27 CST 2022 aarch64

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: Mon Jan  9 08:51:54 2023 from 192.168.6.104
linaro@linaro-alip:~$
linaro@linaro-alip:~$
linaro@linaro-alip:~$
linaro@linaro-alip:~$ sudo ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
        inet 192.168.6.102  netmask 255.255.255.0  broadcast 192.168.6.255
        inet6 fe80::b77:7655:11e9:3b6c  prefixlen 64  scopeid 0x20<link>
        ether 3a:4e:da:8c:52:90  txqueuelen 1000  (Ethernet)
        RX packets 2499  bytes 579665 (566.0 KiB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 1283  bytes 79042 (77.1 KiB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0
        device interrupt 42

lo: flags=73<UP,LOOPBACK,RUNNING>  mtu 65536
```

2.1.3 Debug TTL access

Use the serial port board, connect the USB port to the computer, the other end is connected to the UART debugging on the board, open the serial port tool (Putty/ttermpro, etc.), set the baud rate to 1500000





2.2 Network Function

2.2.1 Wired Network

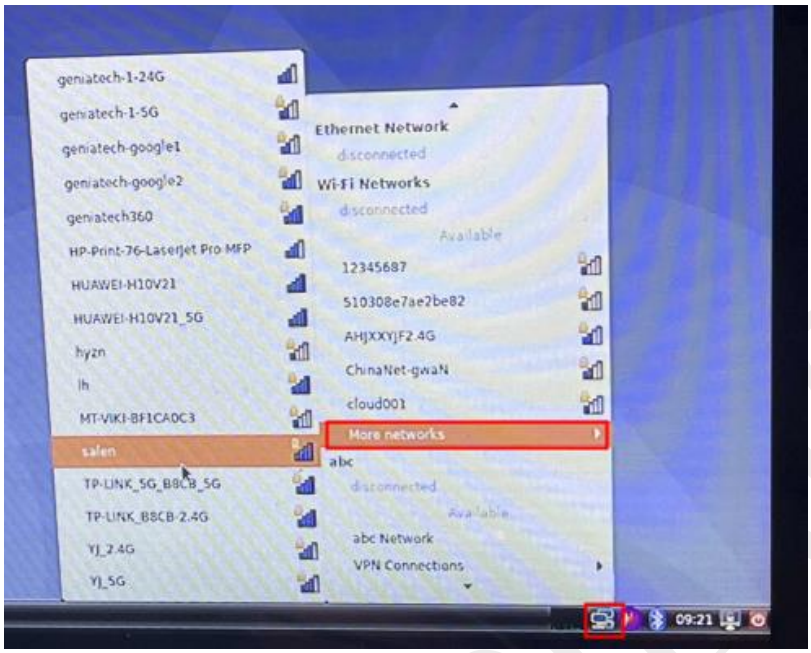
Execute the command to view the IP address. Interface by entering the browser, the network function is normal.

Ifconfig //View IP address

```
root@linaro-alip:~# ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
        inet 192.168.6.102  netmask 255.255.255.0  broadcast 192.168.6.255
        inet6 fe80::b77:7655:11e9:3b6c  prefixlen 64  scopeid 0x20<link>
        ether 3a:4e:da:8c:52:90  txqueuelen 1000  (Ethernet)
        RX packets 2702  bytes 597469 (583.4 KiB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 1387  bytes 86418 (84.3 KiB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0
        device interrupt 42

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 16  bytes 1044 (1.0 KiB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 16  bytes 1044 (1.0 KiB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

wlx00504302fe01: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
        inet 10.42.0.1  netmask 255.255.255.0  broadcast 10.42.0.255
        inet6 fe80::3518:9273:1322:471d  prefixlen 64  scopeid 0x20<link>
        ether 00:50:43:02:fe:01  txqueuelen 1000  (Ethernet)
        RX packets 0  bytes 0 (0.0 B)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 0  bytes 0 (0.0 B)
        TX errors 18  dropped 0 overruns 0  carrier 0  collisions 0

root@linaro-alip:~#
```

2.2.2 WIFI（WiFi module is required）

WiFi interface connection: click "Network status" in the upper right corner -> click "More networks"() -> select search WiFi-> Enter password/direct connection; Execute instructions, check the obtained IP address, ping through Baidu or through the browser, verify the normal network.

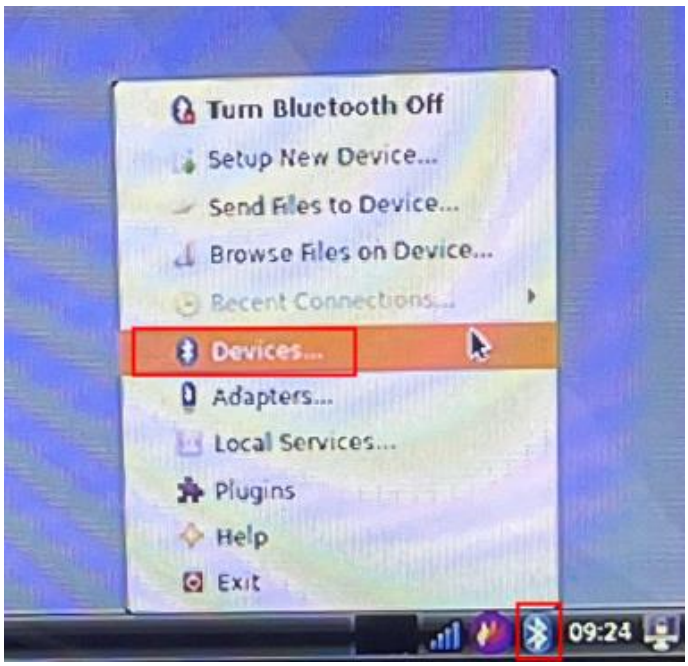


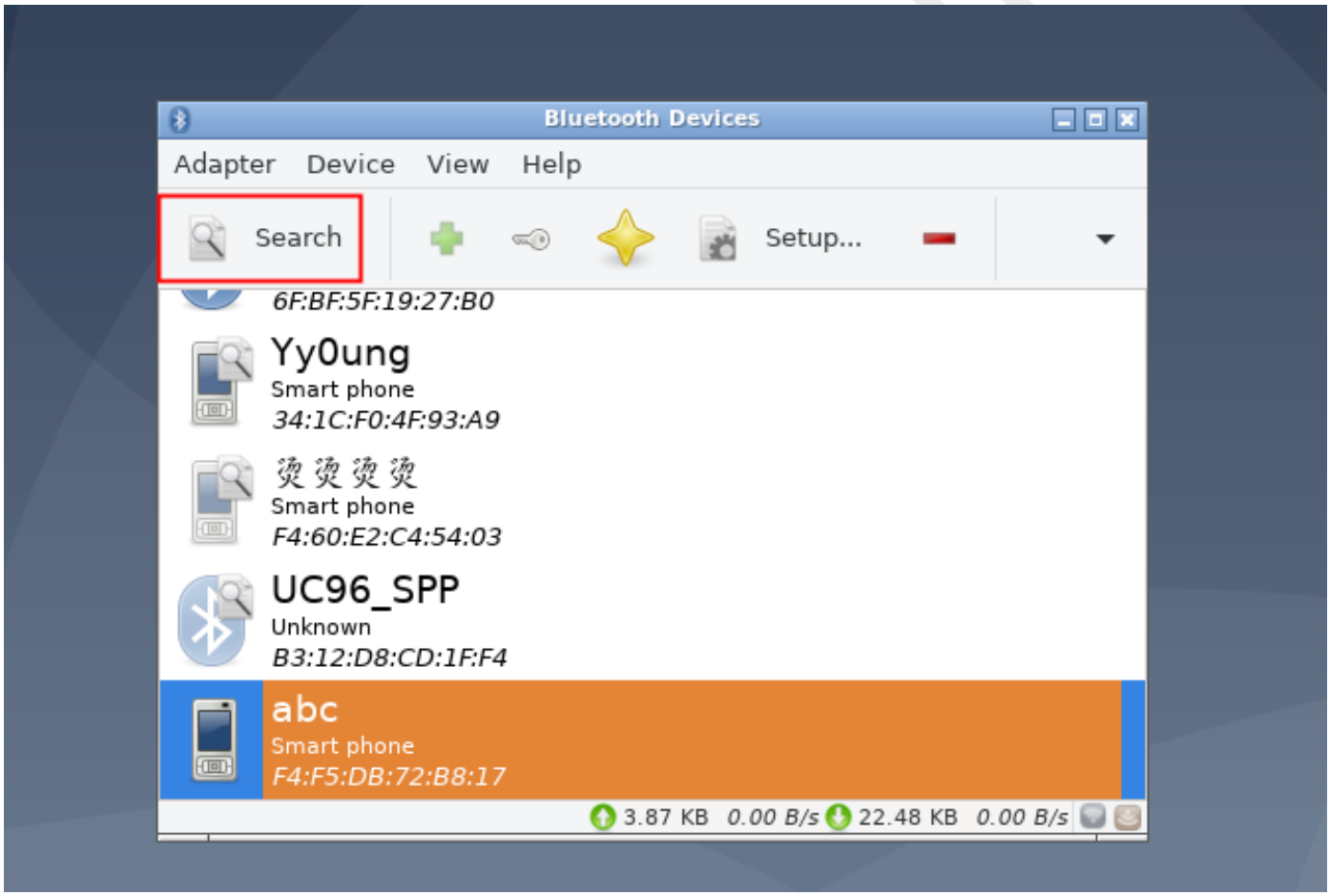
Ifconfig // View IP address

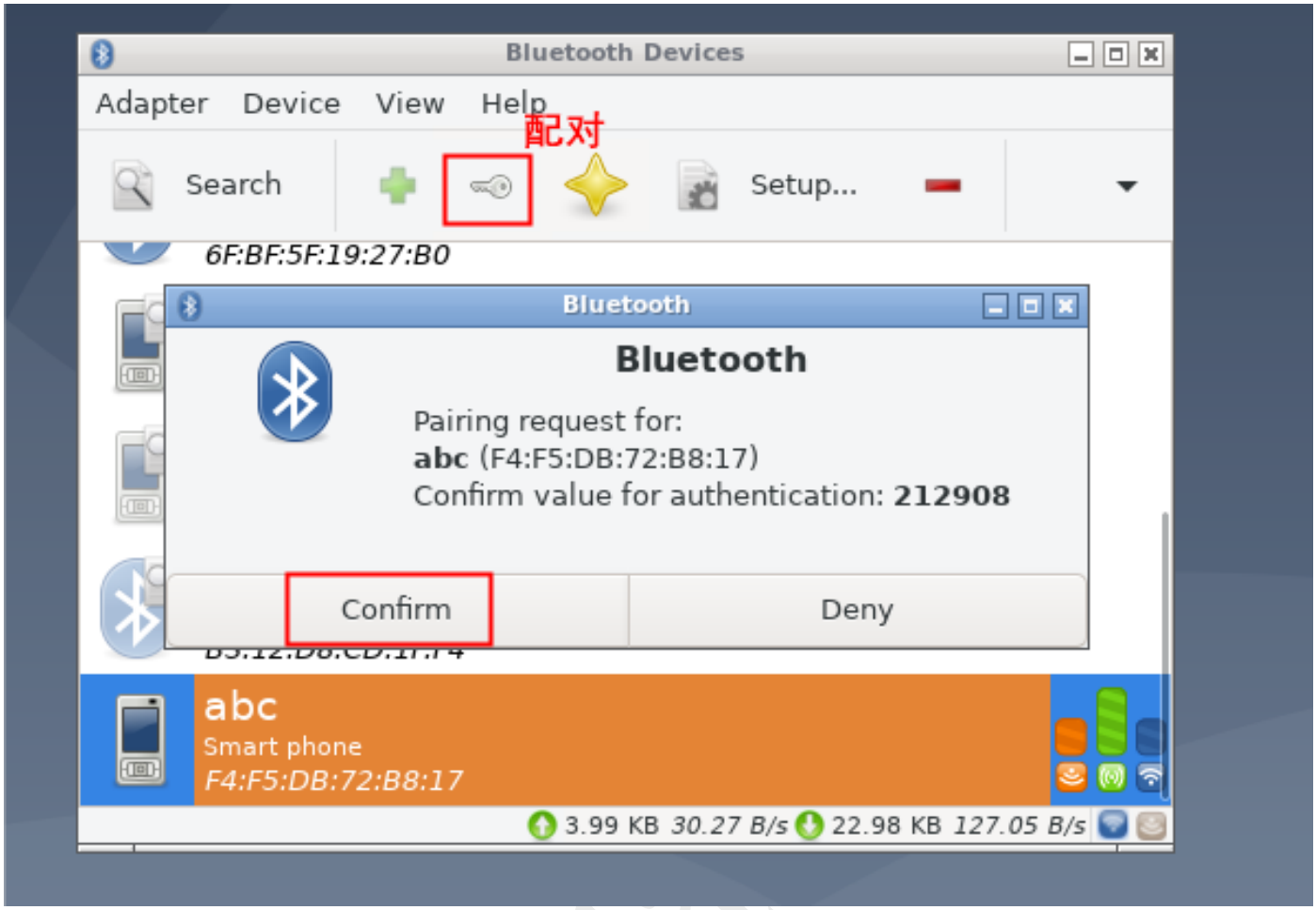
```
root@linaro-alip:~# ifconfig
eth0: flags=4099<UP,BROADCAST,MULTICAST>  mtu 1500
        ether 3a:4e:da:8c:52:90  txqueuelen 1000  (Ethernet)
        RX packets 2850  bytes 610406 (596.0 KiB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 1456  bytes 89508 (87.4 KiB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0
        device interrupt 42

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 22  bytes 1446 (1.4 KiB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 22  bytes 1446 (1.4 KiB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

wlx00504302fe01: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
        inet 192.168.6.101  netmask 255.255.255.0  broadcast 192.168.6.255
        inet6 fe80::b6aa:5cca:ced5:5551  prefixlen 64  scopeid 0x20<link>
        ether 00:50:43:02:fe:01  txqueuelen 1000  (Ethernet)
        RX packets 22  bytes 2395 (2.3 KiB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 25  bytes 2600 (2.5 KiB)
        TX errors 7  dropped 0 overruns 0  carrier 0  collisions 0

root@linaro-alip:~# ping baidu.com
PING baidu.com (39.156.66.10) 56(84) bytes of data.
64 bytes from 39.156.66.10 (39.156.66.10): icmp_seq=1 ttl=50 time=24.6 ms
64 bytes from 39.156.66.10 (39.156.66.10): icmp_seq=2 ttl=50 time=24.5 ms
64 bytes from 39.156.66.10 (39.156.66.10): icmp_seq=3 ttl=50 time=32.2 ms
64 bytes from 39.156.66.10 (39.156.66.10): icmp_seq=4 ttl=50 time=87.6 ms
64 bytes from 39.156.66.10 (39.156.66.10): icmp_seq=5 ttl=50 time=26.3 ms
64 bytes from 39.156.66.10 (39.156.66.10): icmp_seq=6 ttl=50 time=337 ms
```

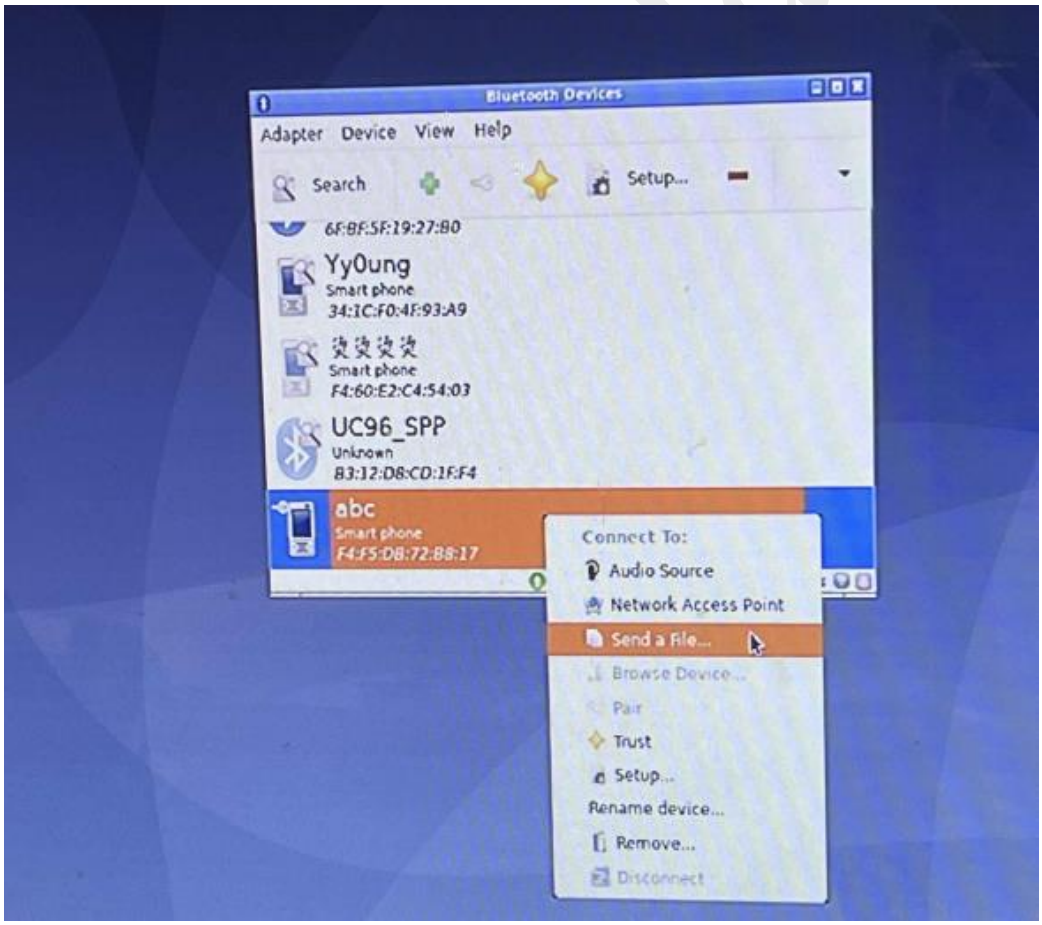
2.2.3 Bluetooth

Bluetooth interface connection: Click the desktop Bluetooth icon () -> "Devices" -> "Search" -> Select the Bluetooth device to be paired -> Click the pairing icon ( ) -> Confirm the pairing and then the pairing is successful. Select the paired Bluetooth device, right click to transfer files;


Turn Bluetooth Off
Setup New Device...
Send Files to Device...
Browse Files on Device...
Recent Connections...
Devices...
Adapters...
Local Services...
Plugins
Help
Exit
09:24


Bluetooth Devices
Adapter
Device
View
Help
Search
Setup...
6F:BF:5F:19:27:B0
Yy0ung
Smart phone
34:1C:F0:4F:93:A9
燙燙燙燙
Smart phone
F4:60:E2:C4:54:03
UC96_SPP
Unknown
B3:12:D8:CD:1F:F4
abc
Smart phone
F4:F5:DB:72:B8:17
3.87 KB 0.00 B/s 22.48 KB 0.00 B/s


Bluetooth Devices
Adapter Device View Help
配对
Search
Setup...
6F:BF:5F:19:27:B0
Bluetooth
Bluetooth
Pairing request for:
abc (F4:F5:DB:72:B8:17)
Confirm value for authentication: 212908
Confirm
Deny
abc
Smart phone
F4:F5:DB:72:B8:17
3.99 KB 30.27 B/s 22.98 KB 127.05 B/s


Bluetooth Devices
Adapter Device View Help
Search
Setup...
6F:BF:5F:19:27:B0
Yy0ung
Smart phone
34:1C:F0:4F:93:A9
Smart phone
F4:60:E2:C4:54:03
UC96_SPP
Unknown
B3:12:D8:CD:1F:F4
abc
Smart phone
F4:F5:DB:72:B8:17
Connect To:
Audio Source
Network Access Point
Send a File...
Browse Device...
Pair
Trust
Setup...
Rename device...
Remove...
Disconnect

2.3 IR Remote Control

Execute the command: evtest, select: 0; Short press all kinds of keys in the infrared remote control, the serial port has the corresponding key value print output; As shown below:

```
root@linaro-alip:~# evtest
No device specified, trying to scan all of /dev/input/event*
Available devices:
/dev/input/event0:      fdd70030.pwm
/dev/input/event1:      rk805 pwrkey
/dev/input/event2:      DKTEK 2.4G RX
/dev/input/event3:      SIGMACHIP USB Keyboard
/dev/input/event4:      DKTEK 2.4G RX Mouse
/dev/input/event5:      DKTEK 2.4G RX System Control
/dev/input/event6:      DKTEK 2.4G RX Consumer Control
/dev/input/event7:      SIGMACHIP USB Keyboard Consumer Control
/dev/input/event8:      SIGMACHIP USB Keyboard System Control
/dev/input/event9:      DKTEK 2.4G RX
/dev/input/event10:     adc-keys
Select the device event number [0-10]: 0
Input driver version is 1.0.1
Input device ID: bus 0x19 vendor 0x524b product 0x6 version 0x100
Input device name: "fdd70030.pwm"
Supported events:
Properties:
Testing ... (interrupt to exit)
Event: time 1673256799.834253, type 1 (EV_KEY), code 108 (KEY_DOWN), value 1
Event: time 1673256799.834253, -------------- SYN_REPORT ------------
Event: time 1673256800.017255, type 1 (EV_KEY), code 108 (KEY_DOWN), value 0
Event: time 1673256800.017255, -------------- SYN_REPORT ------------
Event: time 1673256802.167676, type 1 (EV_KEY), code 103 (KEY_UP), value 1
Event: time 1673256802.167676, -------------- SYN_REPORT ------------
Event: time 1673256802.460678, type 1 (EV_KEY), code 103 (KEY_UP), value 0
Event: time 1673256802.460678, -------------- SYN_REPORT ------------
Event: time 1673256803.283221, type 1 (EV_KEY), code 106 (KEY_RIGHT), value 1
Event: time 1673256803.283221, -------------- SYN_REPORT ------------
Event: time 1673256803.467351, type 1 (EV_KEY), code 106 (KEY_RIGHT), value 0
Event: time 1673256803.467351, -------------- SYN_REPORT ------------
Event: time 1673256804.885950, type 1 (EV_KEY), code 2 (KEY_1), value 1
Event: time 1673256804.885950, -------------- SYN_REPORT ------------
Event: time 1673256805.070677, type 1 (EV_KEY), code 2 (KEY_1), value 0
Event: time 1673256805.070677, -------------- SYN_REPORT ------------
Event: time 1673256805.736314, type 1 (EV_KEY), code 28 (KEY_ENTER), value 1
Event: time 1673256805.736314, -------------- SYN_REPORT ------------
Event: time 1673256805.920662, type 1 (EV_KEY), code 28 (KEY_ENTER), value 0
Event: time 1673256805.920662, -------------- SYN_REPORT ------------
```

打印信息

2.4 Camera

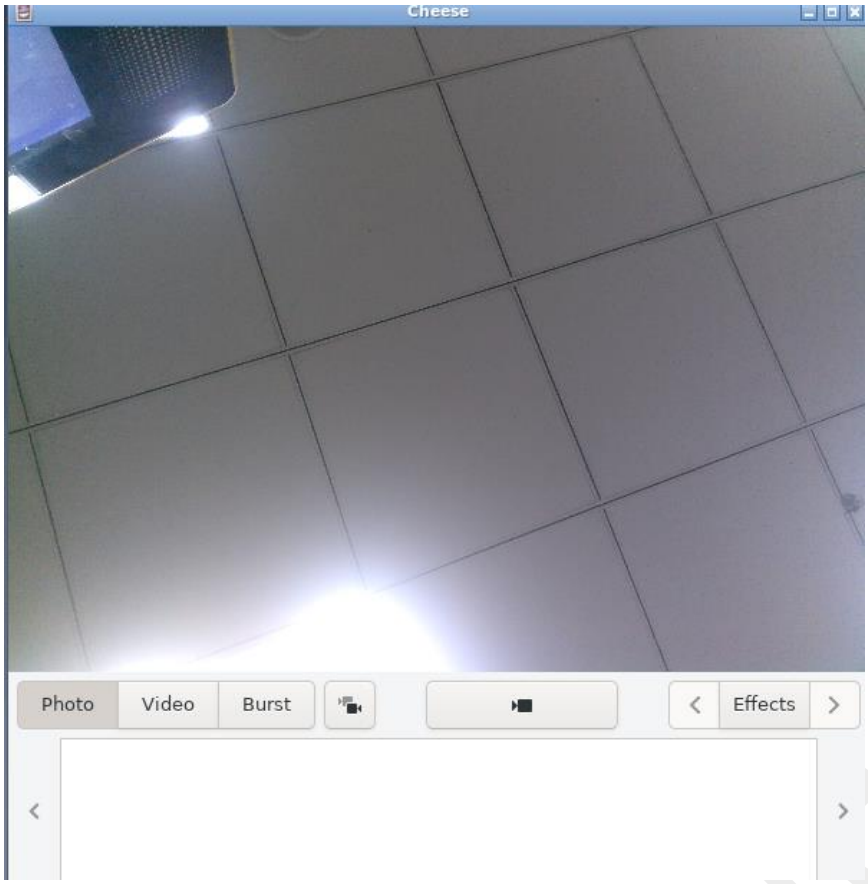
2.4.1 Hardware prepare：

Connect Camera（J3），As shown below:

2.4.2 Test Step：

Enter the main menu () -> select "sound&video" -> click "Cheese";

Camera images can be collected.



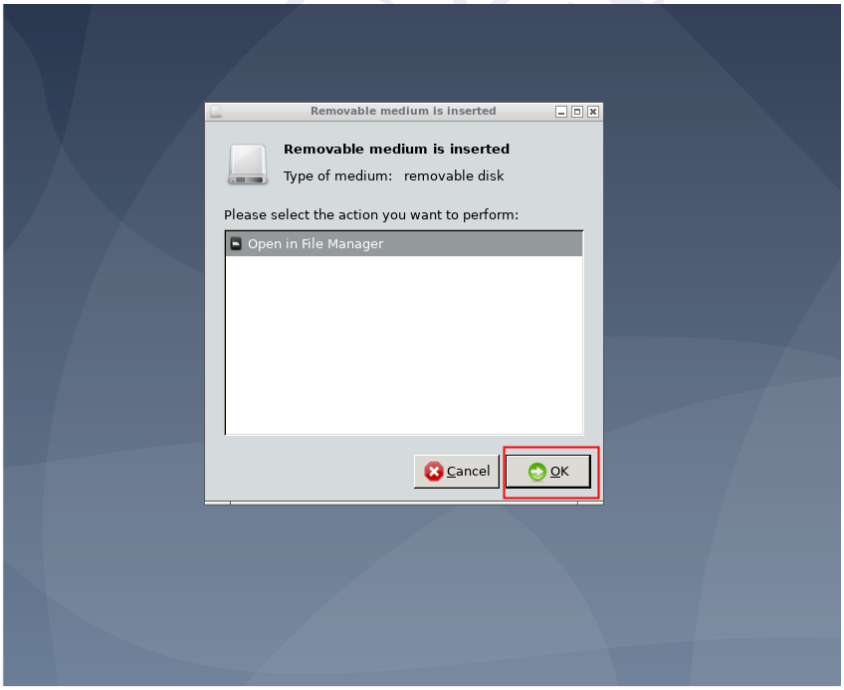
2.5 MIPI Screen（4.3inch）

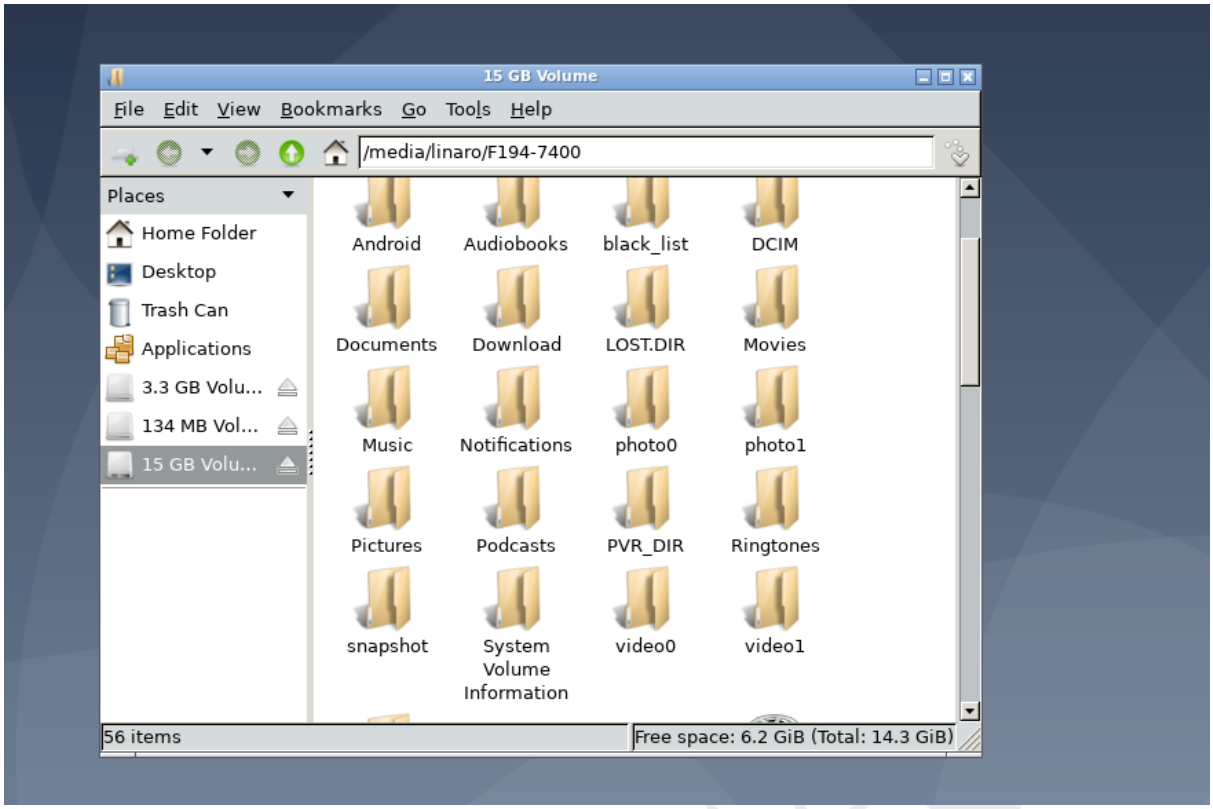
Connect MIPI screen（J5），without HDMI；The interface output is displayed in MIPI and the TP functions normally.

2.6 Identify external storage devices

2.6.1 USB disk

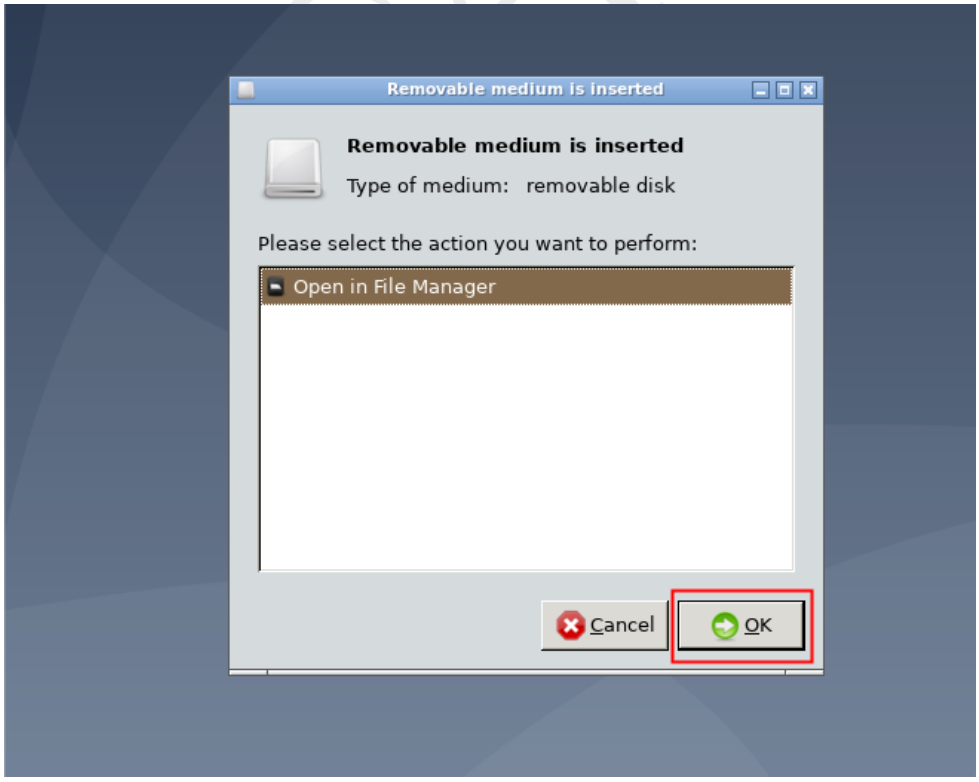
After connecting the USB flash drive, a prompt box will pop up in the HDMI OUT interface and click "OK"; Enter the U disk corresponding to the file path. As shown below:

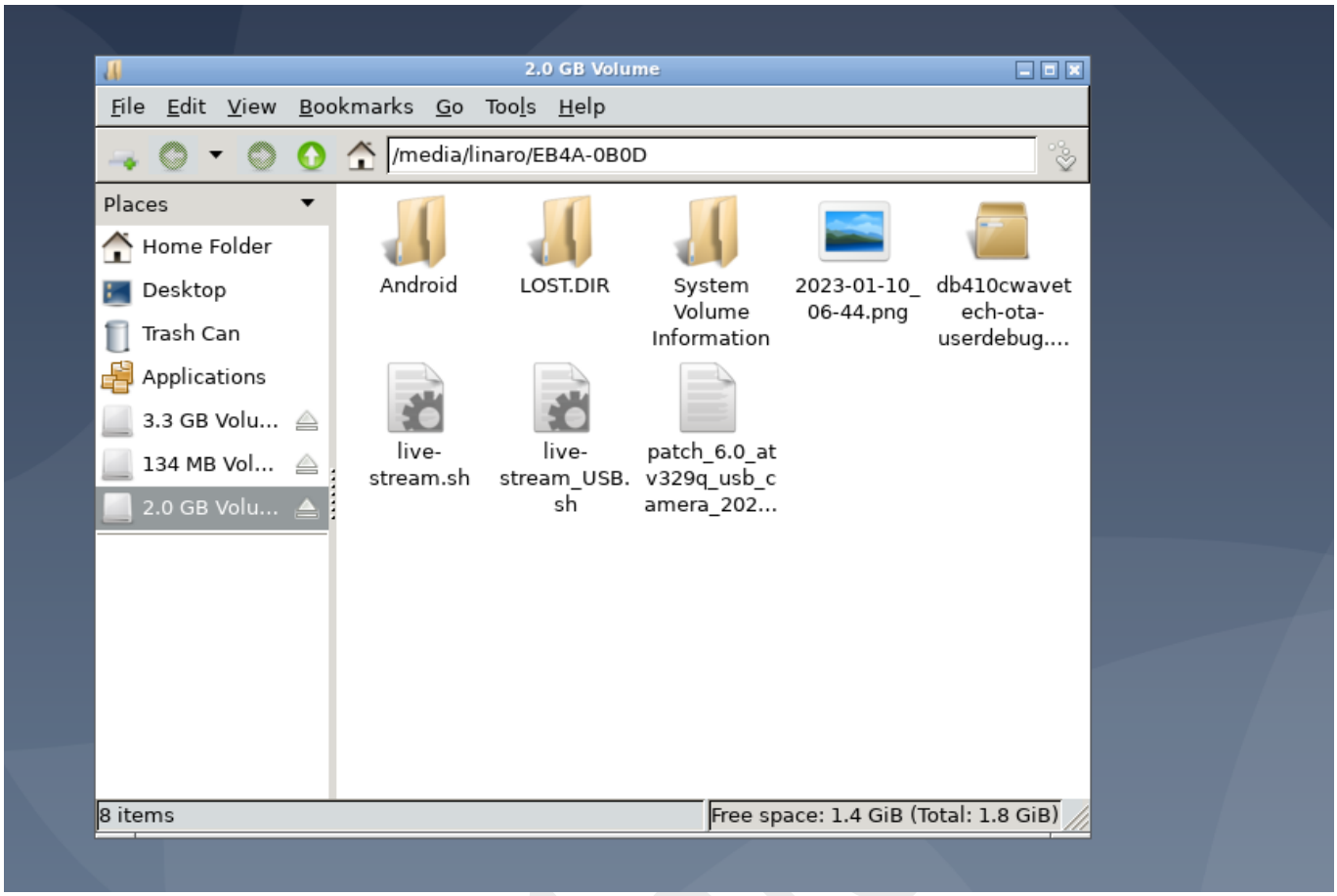




2.6.2 TF card

After inserting the TF card, a prompt box will pop up in the HDMI OUT interface and click "OK"; Enter the file path corresponding to the TF card. This is shown in the figure below:




2.0 GB Volume
File Edit View Bookmarks Go Tools Help
/media/linaro/EB4A-0B0D
Places
Home Folder
Desktop
Trash Can
Applications
3.3 GB Volu...
134 MB Vol...
2.0 GB Volu...
Android
LOST.DIR
System Volume Information
2023-01-10_06-44.png
db410cwavetech-ota-userdebug....
live-stream.sh
live-stream_USB.sh
patch_6.0_atv329q_usb_camera_202...
8 items
Free space: 1.4 GiB (Total: 1.8 GiB)