

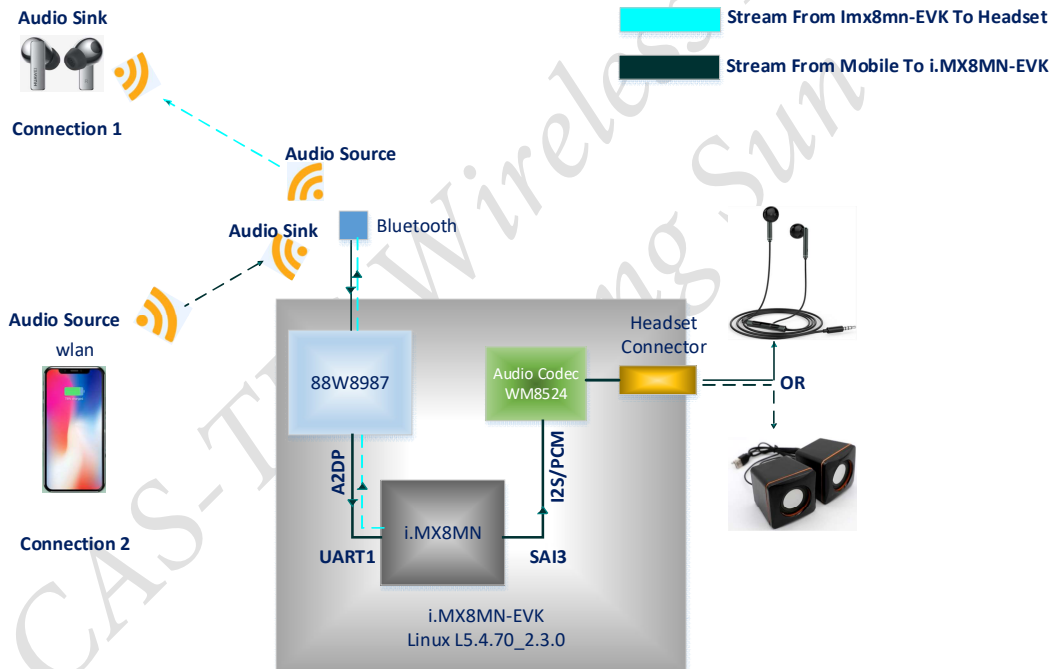
The A2DP Audio Configuration Based On 88W8987 (i.MX8MN-EVK And Linux5.4.70_2.3.0 Platform)

The article will describe how to configure A2DP audio application Based On NXP platform and WIFI/BT chipset step by step. Users can easily make her A2DP audio based on NXP WIFI module work normally by following steps in the article.

1. Environment for the validation

- Hardware Platform
 - i.MX8MN-EVK
- Software
 - Kernel version: L5.4.70_2.3.0
 - rootfs : imx-image-multimedia
- WiFi module
 - AW-CM358SM: NXP 88W8987 chipset

2. Diagram for Connections



[Descriptions]

- **Connection 1**
BT Headset works at sink mode, and 88W8987's Bluetooth works at source mode. Music with wav format will be played on i.MX8MN-EVK, and it will be heard on BT headset side.
- **Connection 2**
Mobile's Bluetooth work at source mode, and 88W8987's bluetooth works at sink mode, Music will be played in mobile, and it will be heard on wired headphone plugged in headset connector on i.MX8MN-EVK board.

[Note]

Arrow :directions of data streaming

3. Preparations

- (1) Downloading demo image for i.mx8mn-evk from nxp official website
https://www.nxp.com/design/software/embedded-software/i-mx-software/embedded-linux-for-i-mx-applications-processors:IMXLINUX?tab=Design_Tools_Tab

Download it : [L5.4.70_2.3.0_MX8MN](#)

- (2) Downloading uuu tool

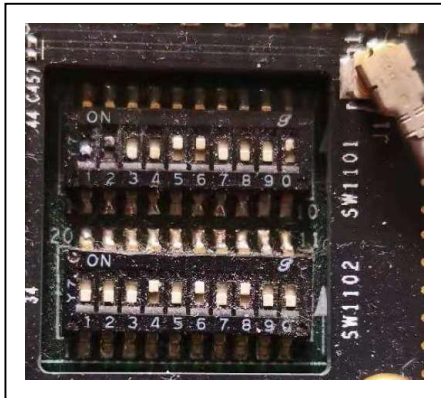
<https://github.com/NXPmicro/mfgtools/releases>

uuu tool supports 2 versions, one is for linux, the other is for windows 10.

We will use uuu for windows.

- (3) Downloading L5.4.70_2.3.0 image to i.MX8MN-EVK board

- Decompressing demo image to a directory.
- Copy uuu.exe to the directory.
- Open windows command line, and enter into the directory by DOS command
- Connecting i.MX8MN-EVK USB Type-C port to PC USB
- Configuring board to be USB download mode



[Note]

1. Normal boot mode

See SW1101, current setting is normal boot mode. PIN1=OFF & PIN2=ON

2. USB download mode

Only need to set PIN1=ON and PIN2=OFF

Board will work in USB download mode.

- Run “uuu uuu.auto-imx8mnevk” command to begin downloading image.
- When it is done, power off board, and set PIN1&PIN2 of SW1101 to normal boot mode.
- Connecting Debug UART to PC USB, and running terminal software on windows. Debug UART on board is a microUSB connector, users should connect it to PC USB via a microUSB to USB TYPE-AM cable. For terminal software, user can select one she likes, like SecureCRT.
- Power On i.MX8MN-EVK board, logs will be showed in terminal software. After booting is done, input “root” to log in board.

4. Configuration Tools

- (1) Bluetoothctl tool
- (2) pluseaudio
- (3) hcitool

Above tools have been included in Linux BSP. We can use them directly.

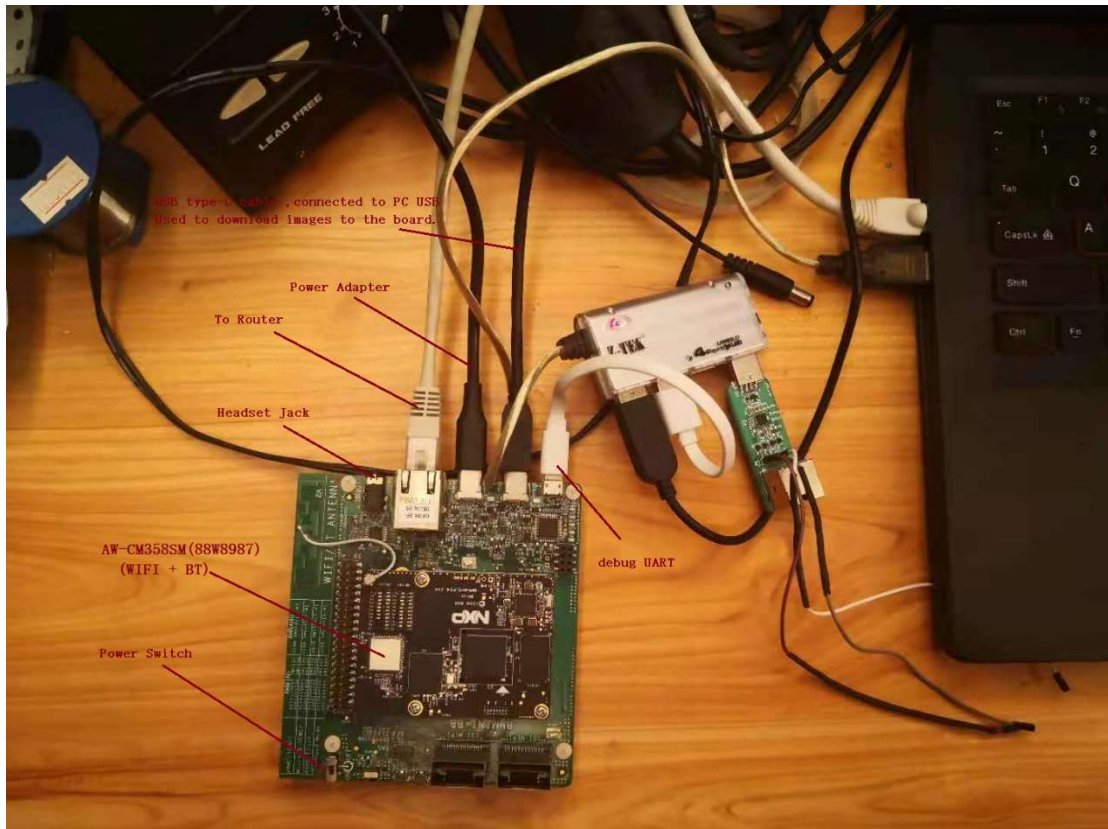
5. Terminal Tools

- (1) SecureCRT or Windows hyper terminal
- (2) MobaXterm

Users can search it on internet and download it, then install it on windows PC.

6. Configurations For The Connection 1

(1) The connections of i.MX8MN-EVK board



(2) Starting SecureCRT(or Windows hyper terminal) and MobaXterm

Terminal software should connect debug UART, on my computer, it is COM6.

(3) Power On i.MX8MN-EVK board

Linux booting logs will be displayed on terminal software, after booting is done, input root to log in the board. Then use ifconfig to get ip address of eth0. According to the ip address, log in the board in **MobaXterm** using SSH protocol.

```
NXP i.MX Release Distro 5.4-zeus imx8mnevk ttyux1
imx8mnevk login: root
Last login: Sat Nov 14 04:40:53 UTC 2020 on tty7
root@imx8mnevk:~#
root@imx8mnevk:~#
root@imx8mnevk:~#
root@imx8mnevk:~#

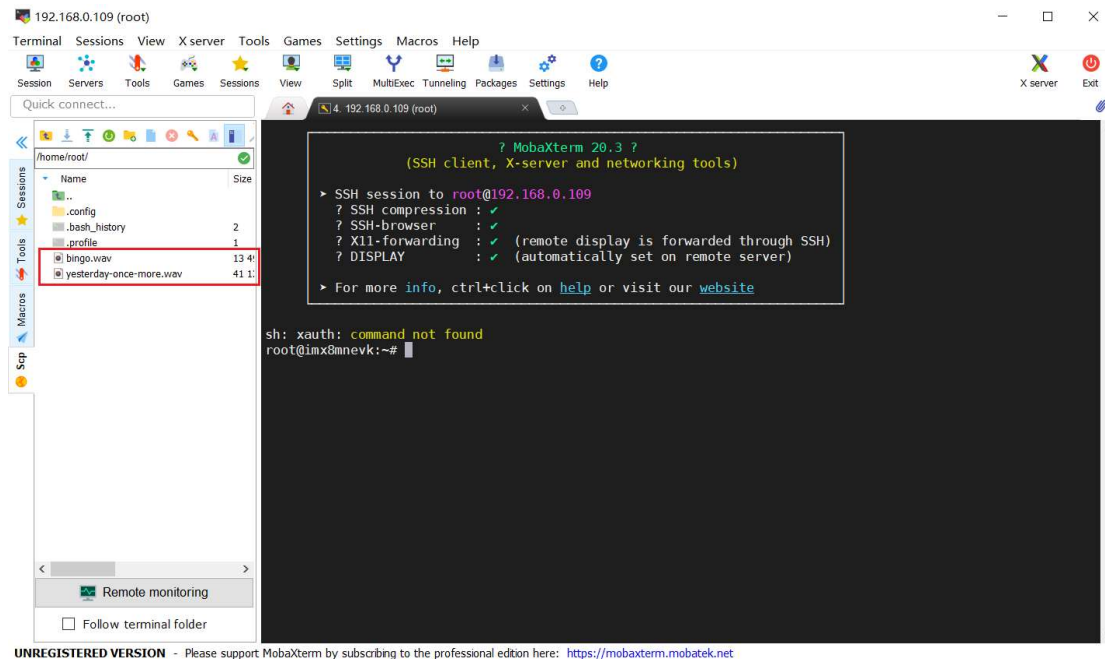
root@imx8mnevk:~#
root@imx8mnevk:~# ifconfig
eth0      Link encap:Ethernet  HWaddr 00:04:9f:06:da:96
          inet addr:192.168.0.109  Bcast:192.168.0.255  Mask:255.255.255.0
          inet6 addr: fe80::204:9fff:fe06:da96/64  Scope:link
          UP BROADCAST RUNNING MULTICAST DYNAMIC MTU:1500 Metric:1
          RX packets:117  errors:0  dropped:0  overruns:0  frame:0
          TX packets:72  errors:0  dropped:0  overruns:0  carrier:0
          collisions:0  txqueue:1000
          RX bytes:15256 (14.8 KiB)  TX bytes:10105 (9.8 KiB)

lo        Link encap:Local Loopback
          inet addr:127.0.0.1  Mask:255.0.0.0
          inet6 addr: ::1/128  Scope:Host
          UP LOOPBACK RUNNING MTU:65536 Metric:1
          RX packets:106  errors:0  dropped:0  overruns:0  frame:0
          TX packets:106  errors:0  dropped:0  overruns:0  carrier:0
          collisions:0  txqueue:1000
          RX bytes:8584 (8.3 KiB)  TX bytes:8584 (8.3 KiB)

root@imx8mnevk:~#
```

Before configurations, we should prepare 1 or 2 music files, and convert it's format to wav, then drag and drop it from windows to i.MX8N-EVK board via MobaXterm.

See red rectangle in the screenshot below, please!



UNREGISTERED VERSION - Please support MobaXterm by subscribing to the professional edition here: <https://mobaxterm.mobatek.net>

(4) Connecting Bluetooth Headset

➤ Loading 88W8987 Linux Driver (On SecureCRT)

```

root@imx8mnev:~# modprobe moal mod_para=nxp/wifi_mod_para.conf
[ 1105.865322] wlan: Loading MWLAN driver
[ 1105.986787] vendor=0x02DF device=0x9149 class=0 function=1
[ 1105.992668] Attach moal handle ops, card interface type: 0x105
[ 1106.000264] SD8987: init module param from usr cfg
[ 1106.005115] card_type: SD8987, config block: 0
[ 1106.009583] cfg80211_wext=0xf
[ 1106.012572] wfd_name=p2p
[ 1106.015113] max_vir_bss=1
[ 1106.017754] cal_data_cfg=none
[ 1106.020740] drv_mode = 7
[ 1106.023278] ps_mode = 2
[ 1106.025740] auto_ds = 2
[ 1106.028198] fw_name=nxp/sdiouart8987_combo_v0.bin
[ 1106.032962] SDIO: max_segs=128 max_seg_size=65535
[ 1106.037693] rx_work=1 cpu_num=4
[ 1106.040891] Attach mlan adapter operations.card_type is 0x105.
[ 1106.047156] wlan: Enable TX SG mode
[ 1106.050676] wlan: Enable RX SG mode
[ 1106.057177] Request firmware: nxp/sdiouart8987_combo_v0.bin
[ 1106.475307] Wlan: FW download over, firmwarelen=527468 downloaded 527468
[ 1107.452928] WLAN FW is active
[ 1107.455905] on_time is 1107455444875
[ 1107.490817] fw_cap_info=0x181c3f03, dev_cap_mask=0xffffffff
[ 1107.496421] max_p2p_conn = 8, max_sta_conn = 8
[ 1107.523462] wlan: version = SD8987---16.92.10.p208-MXM5X16210-GPL-(FP92)
[ 1107.537117] wlan: Driver loaded successfully

root@imx8mnev:~# [ 1107.738385] wlan: mlan0 START SCAN
[ 1111.004250] wlan: SCAN COMPLETED: scanned AP count=11
[ 1113.138397] wlan: SCAN COMPLETED: scanned AP count=11
[ 1113.157721] wlan: p2p0 START SCAN

```

➤ **Starting Bluetooth (On SecureCRT)**

```
root@imx8mnevk:~# hciattach /dev/ttymx0 any 115200 flow
Setting TTY to N_HCI line discipline
Device setup complete
root@imx8mnevk:~#
```

➤ **Enable hci0 interface (On SecureCRT)**

```
root@imx8mnevk:~# hciconfig hci0 up
root@imx8mnevk:~# hciconfig
hci0:  Type: Primary  Bus: UART
      BD Address: 20:4E:F6:20:98:F0  ACL MTU: 1016:5  SCO MTU: 60:12
      UP RUNNING PSCAN
      RX bytes:1431 acl:0 sco:0 events:83 errors:0
      TX bytes:1223 acl:0 sco:0 commands:83 errors:0
root@imx8mnevk:~# hcitool -i hci0 cmd 0x3f 0x0009 0xc0 0xc6 0x2d 0x00
< HCI Command: ogf 0x3f, ocf 0x0009, plen 4
  C0 C6 2D 00
> HCI Event: 0x0e plen 4
  01 09 FC 00
root@imx8mnevk:~# killall hciattach
root@imx8mnevk:~# hciattach /dev/ttymx0 any -s 3000000 3000000 flow
root@imx8mnevk:~# hciconfig hci0 up
```

➤ **Using hcitool to scan Bluetooth headset (On SecureCRT)**

```
root@imx8mnevk:~# hcitool scan
Scanning ...
    41:42:96:8C:33:CF      HBQ-Q32 tws
    E8:9E:B4:1E:E3:44      KD-65X9300E
root@imx8mnevk:~#
```

➤ **Using bluetoothctl tool to connect Bluetooth headset (On SecureCRT)**

```
root@imx8mnevk:~# bluetoothctl
Agent registered
[bluetooth]# power on
Changing power on succeeded
[bluetooth]# agent on
Agent is already registered
[bluetooth]# scan on
.....
[CHG] Device 54:3D:0C:F3:E1:E7 RSSI: -55
[NEW] Device 41:42:96:8C:33:CF HBQ-Q32 tws
[NEW] Device D8:F0:66:07:72:8B Baseus Encok W09
.....
After scanning target Bluetooth headset, stop scanning.
[bluetooth]# scan off
```

```
[bluetooth]# pair 41:42:96:8C:33:CF
Attempting to pair with 41:42:96:8C:33:CF
[CHG] Device 41:42:96:8C:33:CF Connected: yes
[CHG] Device 41:42:96:8C:33:CF UUIDs: 0000110b-0000-1000-8000-00805f9b34fb
[CHG] Device 41:42:96:8C:33:CF UUIDs: 0000110c-0000-1000-8000-00805f9b34fb
[CHG] Device 41:42:96:8C:33:CF UUIDs: 0000110e-0000-1000-8000-00805f9b34fb
[CHG] Device 41:42:96:8C:33:CF UUIDs: 0000111e-0000-1000-8000-00805f9b34fb
[CHG] Device 41:42:96:8C:33:CF ServicesResolved: yes
[CHG] Device 41:42:96:8C:33:CF Paired: yes
Pairing successful
[CHG] Device 41:42:96:8C:33:CF ServicesResolved: no
[CHG] Device 41:42:96:8C:33:CF Connected: no
```

```
[bluetooth]# paired-devices
Device 41:42:96:8C:33:CF HBQ-Q32 tws
[bluetooth]# trust 41:42:96:8C:33:CF
[CHG] Device 41:42:96:8C:33:CF Trusted: yes
Changing 41:42:96:8C:33:CF trust succeeded
[CHG] Device 41:42:96:8C:33:CF Connected: yes
[DEL] Device 64:C3:AA:BE:08:03 64-C3-AA-BE-08-03
[DEL] Device E8:9E:B4:1E:E3:44 KD-65X9300E
[DEL] Device 5E:A9:C7:3D:C7:A2 5E-A9-C7-3D-C7-A2
[CHG] Device 41:42:96:8C:33:CF Connected: no
```

```
[bluetooth]# info 41:42:96:8C:33:CF
Device 41:42:96:8C:33:CF (public)
    Name: HBQ-Q32 tws
    Alias: HBQ-Q32 tws
    Class: 0x00240418
    Icon: audio-card
    Paired: yes
    Trusted: yes
    Blocked: no
    Connected: no
    LegacyPairing: no
    UUID: Audio Sink (0000110b-0000-1000-8000-00805f9b34fb)
    UUID: A/V Remote Control Target (0000110c-0000-1000-8000-00805f9b34fb)
    UUID: A/V Remote Control (0000110e-0000-1000-8000-00805f9b34fb)
    UUID: Handsfree (0000111e-0000-1000-8000-00805f9b34fb)
[bluetooth]#
```


➤ **Starting pulseaudio and connecting Bluetooth headset (On MobaXterm)**

On MobaXterm, run `/usr/bin/pulseaudio --start --log-target=syslog`

```
root@imx8mnevk:~# /usr/bin/pulseaudio --start --log-target=syslog
```

On SecureCRT , connect Bluetooth Headset

```
[bluetooth]# connect 41:42:96:8C:33:CF
Attempting to connect to 41:42:96:8C:33:CF
[CHG] Device 41:42:96:8C:33:CF Connected: yes
Connection successful
[CHG] Device 41:42:96:8C:33:CF ServicesResolved: yes
[HBQ-Q32 tws]#
```

On MobaXterm, list all sound card and sinks

```
root@imx8mnevk:~# pactl list cards
Card #0
  Name: alsa_card.platform-sound-bt-sco
  Driver: module-alsa-card.c
  Owner Module: 6
  .....
Card #1
  Name: alsa_card.platform-sound-micfil
  Driver: module-alsa-card.c
  .....
Card #2
  Name: alsa_card.platform-sound-spdif
  Driver: module-alsa-card.c
  Owner Module: 8
  .....
Card #3
  Name: alsa_card.platform-sound-wm8524
  Driver: module-alsa-card.c
  Owner Module: 9
  .....
Card #5
  Name: bluez_card.41_42_96_8C_33_CF
  Driver: module-bluez5-device.c
  Owner Module: 25
  Properties:
    device.description = "HBQ-Q32 tws"
    device.string = "41:42:96:8C:33:CF"
    device.api = "bluez"
    device.class = "sound"
    device.bus = "bluetooth"
    device.form_factor = "headphone"
    bluez.path = "/org/bluez/hci0/dev_41_42_96_8C_33_CF"
    bluez.class = "0x240418"
    bluez.alias = "HBQ-Q32 tws"
    device.icon_name = "audio-headphones-bluetooth"
  Profiles:
    a2dp_sink: High Fidelity Playback (A2DP Sink) (sinks: 1, sources: 0, priority: 40, available: yes)
    headset_head_unit: Headset Head Unit (HSP/HFP) (sinks: 1, sources: 1, priority: 30, available: no)
      off: Off (sinks: 0, sources: 0, priority: 0, available: yes)
  Active Profile: a2dp_sink
  Ports:
    headphone-output: Headphone (priority: 0, latency offset: 0 usec)
      Part of profile(s): a2dp_sink, headset_head_unit
    headphone-input: Bluetooth Input (priority: 0, latency offset: 0 usec, not available)
      Part of profile(s): headset_head_unit
```

root@imx8mnevk:~# pactl list sinks

MoTTY X11 proxy: Unsupported authorisation protocol

xcb_connection_has_error() returned true

Sink #0

State: SUSPENDED
Name: alsa_output.platform-sound-bt-sco.mono-fallback
Description: Built-in Audio Mono
Driver: module-alsa-card.c
Sample Specification: s16le 1ch 16000Hz

.....

Sink #1

State: SUSPENDED
Name: alsa_output.platform-sound-spdif.stereo-fallback
Description: Built-in Audio Stereo
Driver: module-alsa-card.c
Sample Specification: s16le 2ch 44100Hz
Channel Map: front-left,front-right

.....

Sink #2

State: SUSPENDED
Name: alsa_output.platform-sound-wm8524.stereo-fallback
Description: Built-in Audio Stereo
Driver: module-alsa-card.c
Sample Specification: s16le 2ch 48000Hz
Channel Map: front-left,front-right
Owner Module: 9

.....

Sink #5

State: SUSPENDED
Name: bluez_sink.41_42_96_8C_33_CF.a2dp_sink
Description: HBQ-Q32 tws
Driver: module-bluez5-device.c
Sample Specification: s16le 2ch 48000Hz
Channel Map: front-left,front-right
Owner Module: 26
Mute: no
Volume: front-left: 65536 / 100% / 0.00 dB, front-right: 65536 / 100% / 0.00 dB
balance 0.00
Base Volume: 65536 / 100% / 0.00 dB
Monitor Source: bluez_sink.41_42_96_8C_33_CF.a2dp_sink.monitor
Latency: 0 usec, configured 0 usec
Flags: HARDWARE DECIBEL_VOLUME LATENCY

Properties:

bluetooth.protocol = "a2dp_sink"
device.description = "HBQ-Q32 tws"
device.string = "41:42:96:8C:33:CF"
device.api = "bluez"
device.class = "sound"
device.bus = "bluetooth"
device.form_factor = "headphone"
bluez.path = "/org/bluez/hci0/dev_41_42_96_8C_33_CF"
bluez.class = "0x240418"
bluez.alias = "HBQ-Q32 tws"
device.icon_name = "audio-headphones-bluetooth"

Ports:

headphone-output: Headphone (priority: 0)

Active Port: headphone-output

Formats:

pcm

Set card #5 to be default one.

```
root@imx8mnevk:~# pacmd set-card-profile 5 a2dp_sink
```

Set sink #5 to be default one.

```
root@imx8mnevk:~# pacmd set-default-sink 5
```


Play bingo.wav, then we can hear music from Bluetooth Headset.

On MobaXterm, run “paplay bingo.wav”

```
root@imx8mnevk:~# paplay bingo.wav
```

7. Configurations For The Connection 2

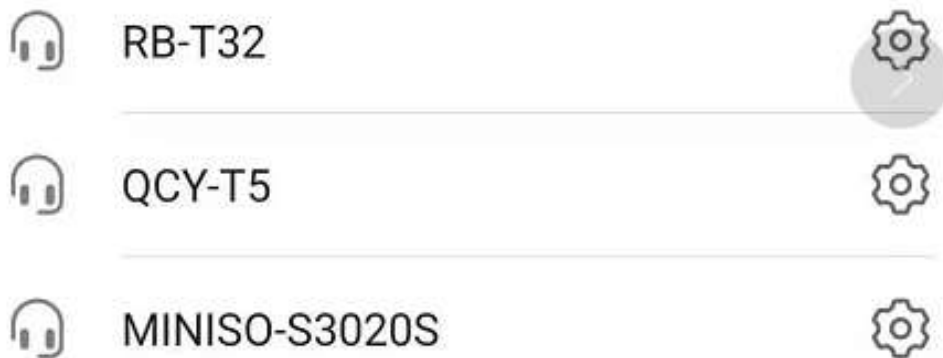
- Disconnect Bluetooth headset.

```
[HBQ-Q32 tws]# disconnect
Attempting to disconnect from 41:42:96:8C:33:CF
[CHG] Device 41:42:96:8C:33:CF ServicesResolved: no
Successful disconnected
[CHG] Device 41:42:96:8C:33:CF Connected: no
[bluetooth]#
```

- Set Bluetooth device of i.MX8MN-EVK to be discoverable.

```
[bluetooth]# discoverable on
Changing discoverable on succeeded
[CHG] Controller 20:4E:F6:20:98:F0 Discoverable: yes
[bluetooth]#
```

- Turn on Bluetooth of mobile and scan devices



可用设备

 imx8mnevk

➤ **Press imx8mnevk on mobile and begin to pair**

Logs on terminal will be like below:

```
[NEW] Device A4:93:3F:1A:50:6A HUAWEI Mate 10
[CHG] Controller 20:4E:F6:20:98:F0 Discoverable: no
[CHG] Device A4:93:3F:1A:50:6A UUIDs: 0000111f-0000-1000-8000-00805f9b34fb
[CHG] Device A4:93:3F:1A:50:6A Modalias: bluetooth:v00E0p107Ed1436
[CHG] Device A4:93:3F:1A:50:6A UUIDs: 0000046a-0000-1000-8000-00805f9b34fb
[CHG] Device A4:93:3F:1A:50:6A UUIDs: 00001105-0000-1000-8000-00805f9b34fb
[CHG] Device A4:93:3F:1A:50:6A UUIDs: 0000110a-0000-1000-8000-00805f9b34fb
[CHG] Device A4:93:3F:1A:50:6A UUIDs: 0000110c-0000-1000-8000-00805f9b34fb
[CHG] Device A4:93:3F:1A:50:6A UUIDs: 00001112-0000-1000-8000-00805f9b34fb
[CHG] Device A4:93:3F:1A:50:6A UUIDs: 00001115-0000-1000-8000-00805f9b34fb
[CHG] Device A4:93:3F:1A:50:6A UUIDs: 00001116-0000-1000-8000-00805f9b34fb
[CHG] Device A4:93:3F:1A:50:6A UUIDs: 0000111f-0000-1000-8000-00805f9b34fb
[CHG] Device A4:93:3F:1A:50:6A UUIDs: 0000112f-0000-1000-8000-00805f9b34fb
[CHG] Device A4:93:3F:1A:50:6A UUIDs: 00001132-0000-1000-8000-00805f9b34fb
[CHG] Device A4:93:3F:1A:50:6A UUIDs: 00001200-0000-1000-8000-00805f9b34fb
[CHG] Device A4:93:3F:1A:50:6A UUIDs: 00001800-0000-1000-8000-00805f9b34fb
[CHG] Device A4:93:3F:1A:50:6A UUIDs: 00001801-0000-1000-8000-00805f9b34fb
[CHG] Device A4:93:3F:1A:50:6A UUIDs: 0000fdd1-0000-1000-8000-00805f9b34fb
[CHG] Device A4:93:3F:1A:50:6A UUIDs: 0000fe35-0000-1000-8000-00805f9b34fb
[CHG] Device A4:93:3F:1A:50:6A ServicesResolved: yes
[CHG] Device A4:93:3F:1A:50:6A Paired: yes
[CHG] Device A4:93:3F:1A:50:6A ServicesResolved: no
[CHG] Device A4:93:3F:1A:50:6A Connected: no
```

On mobile, like below:

已配对的设备 Paired Devices

	imx8mnevk	
	RB-T32	
	QCY-T5	

➤ **Set the mobile to be a trusted device on SecureCRT**

```
[bluetooth]# trust A4:93:3F:1A:50:6A
[CHG] Device A4:93:3F:1A:50:6A Trusted: yes
Changing A4:93:3F:1A:50:6A trust succeeded
```

- Select imx8mnevk on mobile to connect it



- List all sound cards and sinks

On MobaXterm:

```
root@imx8mnevk:~# pactl list cards
.....
Card #5
  Name: bluez_card.A4_93_3F_1A_50_6A
  Driver: module-bluez5-device.c
  Owner Module: 25
  Properties:
    device.description = "HUAWEI Mate 10"
    device.string = "A4:93:3F:1A:50:6A"
    device.api = "bluez"
    device.class = "sound"
    device.bus = "bluetooth"
    device.form_factor = "phone"
    bluez.path = "/org/bluez/hci0/dev_A4_93_3F_1A_50_6A"
    bluez.class = "0x5a020c"
    bluez.alias = "HUAWEI Mate 10"
    device.icon_name = "audio-card-bluetooth"
  Profiles:
    headset_audio_gateway: Headset Audio Gateway (HSP/HFP) (sinks: 1, sources: 1,
priority: 10, available: yes)
    a2dp_source: High Fidelity Capture (A2DP Source) (sinks: 0, sources: 1, priority: 20,
available: yes)
    off: Off (sinks: 0, sources: 0, priority: 0, available: yes)
  Active Profile: a2dp_source
  Ports:
    phone-output: Phone (priority: 0, latency offset: 0 usec)
      Part of profile(s): headset_audio_gateway
    phone-input: Phone (priority: 0, latency offset: 0 usec)
      Part of profile(s): headset_audio_gateway, a2dp_source
```

```
root@imx8mnevk:~# pactl list sinks
```

```
.....
```

```
Sink #2
```

```
State: SUSPENDED
```

```
Name: alsa_output.platform-sound-wm8524.stereo-fallback
```

```
Description: Built-in Audio Stereo
```

```
Driver: module-alsa-card.c
```

```
Sample Specification: s16le 2ch 48000Hz
```

```
Channel Map: front-left,front-right
```

```
Owner Module: 9
```

```
Mute: no
```

```
Volume: front-left: 65536 / 100% / 0.00 dB, front-right: 65536 / 100% / 0.00 dB  
balance 0.00
```

```
Base Volume: 65536 / 100% / 0.00 dB
```

```
Monitor Source: alsa_output.platform-sound-wm8524.stereo-fallback.monitor
```

```
Latency: 0 usec, configured 0 usec
```

```
Flags: HARDWARE DECIBEL_VOLUME LATENCY
```

```
Properties:
```

```
alsa.resolution_bits = "16"
```

```
device.api = "alsa"
```

```
device.class = "sound"
```

```
alsa.class = "generic"
```

```
alsa.subclass = "generic-mix"
```

```
alsa.name = ""
```

```
alsa.id = "HiFi wm8524-hifi-0"
```

```
alsa.subdevice = "0"
```

```
alsa.subdevice_name = "subdevice #0"
```

```
alsa.device = "0"
```

```
alsa.card = "3"
```

```
alsa.card_name = "wm8524-audio"
```

```
alsa.long_card_name = "wm8524-audio"
```

```
device.bus_path = "platform-sound-wm8524"
```

```
sysfs.path = "/devices/platform/sound-wm8524/sound/card3"
```

```
device.form_factor = "internal"
```

```
device.string = "hw:3"
```

```
device.buffering.buffer_size = "19188"
```

```
device.buffering.fragment_size = "6396"
```

```
device.access_mode = "mmap"
```

```
device.profile.name = "stereo-fallback"
```

```
device.profile.description = "Stereo"
```

```
device.description = "Built-in Audio Stereo"
```

```
module-udev-detect.discovered = "1"
```

```
device.icon_name = "audio-card"
```

```
Ports:
```

```
analog-output: Analog Output (priority: 9900)
```

```
Active Port: analog-output
```

```
Formats:
```

```
pcm
```

```
Set card #5 to be default audio source
```

```
root@imx8mnevk:~# pacmd set-card-profile 5 a2dp_source
```

Set sink #2 to be default audio sink
root@imx8mnevkc:~# pacmd set-default-sink 2

➤ **Test for connection 2**

- Connecting the wired headset to the headset connector of the I.MX8MNEVK board.
- select a music file or audio/video file on the mobile, and start playing it.
- users can hear voice from mobile via headset connected on the board.

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