



Realtek Bluetooth MP UI User Guide





A. Electrical Characteristics	
Working Frequency	2.4GHz~2.5GHz 4.9GHz~5.85GHz
S.W.R.	2.4GHz~2.5GHz <2.0 4.9GHz~5.85GHz <2.0
Antenna Gain	Main port:2dBi Aux port:2dBi
Antenna Type	PCB
Efficiency	2.4GHz~2.5GHz >70% 4.9GHz~5.85GHz >75%
Impedance	50 Ohm
Polarization / Azimuth	Linear / Omni-directional
B. Mechanical Dimension	
Cable Length Of Main Ant	L:340mm(BLACK)
Cable Length Of Aux Ant	
C. Material	
Stamping Metal	Copper antenna
Coaxial Cable	50 Ohm / O.D.1.13mm
Mini Coaxial Connector	IPEX PLUG
D. Environmental	
Operation Temperature	-40℃~ +85℃
Storage Temperature	-40℃~ +85℃

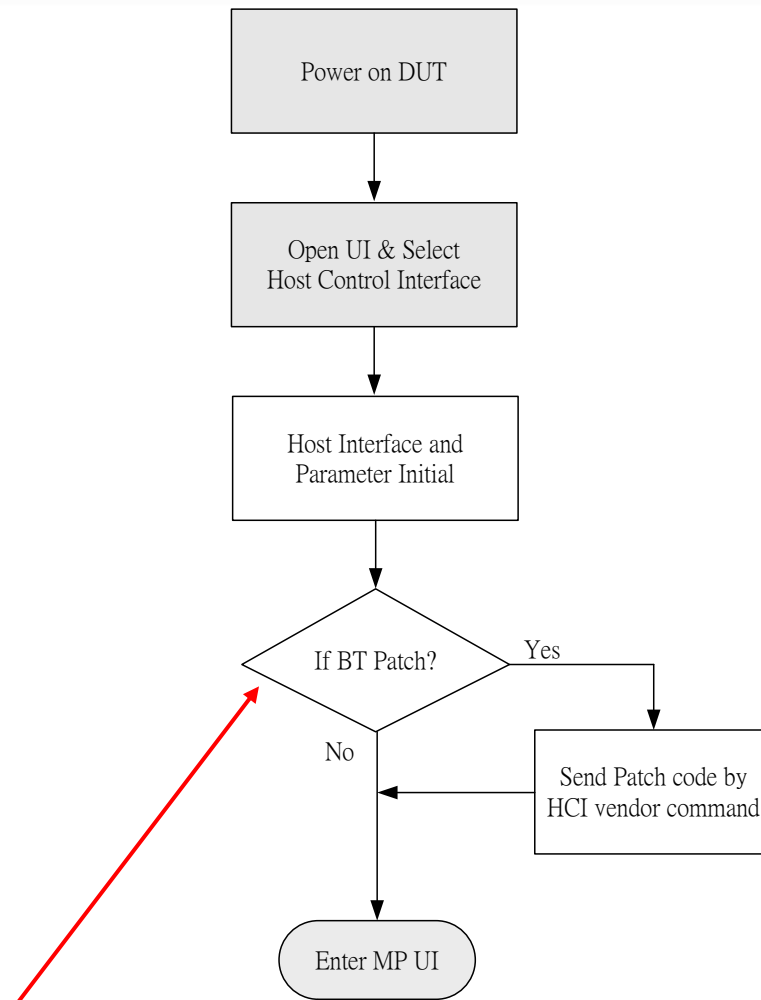


Bluetooth MP Operation Flow





Host Interface: BT USB/UART/PCIe

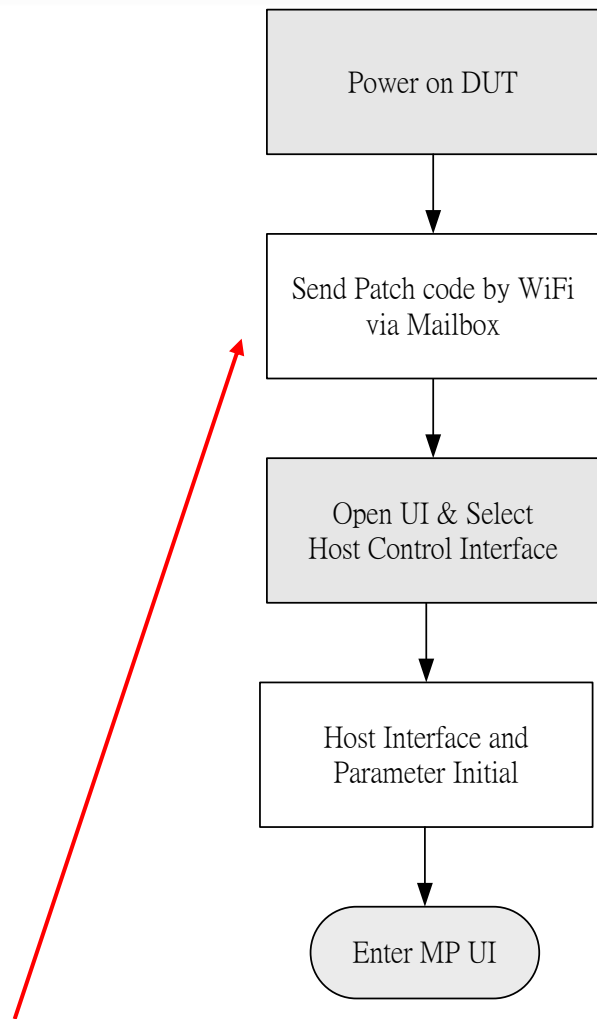


Set "IsFirmwarePatchAtInit" in the HCISetup.ini, 0→Skip Patch, 1→Patch
The patch file is "patch.bin" (located the same directory with RTK_BT_MP.exe)





Host Interface: WiFi USB/UART/PCIe (Windows Platform)



The WiFi driver must download BT patch while DUT power on.





Host Interface: Linux Platform

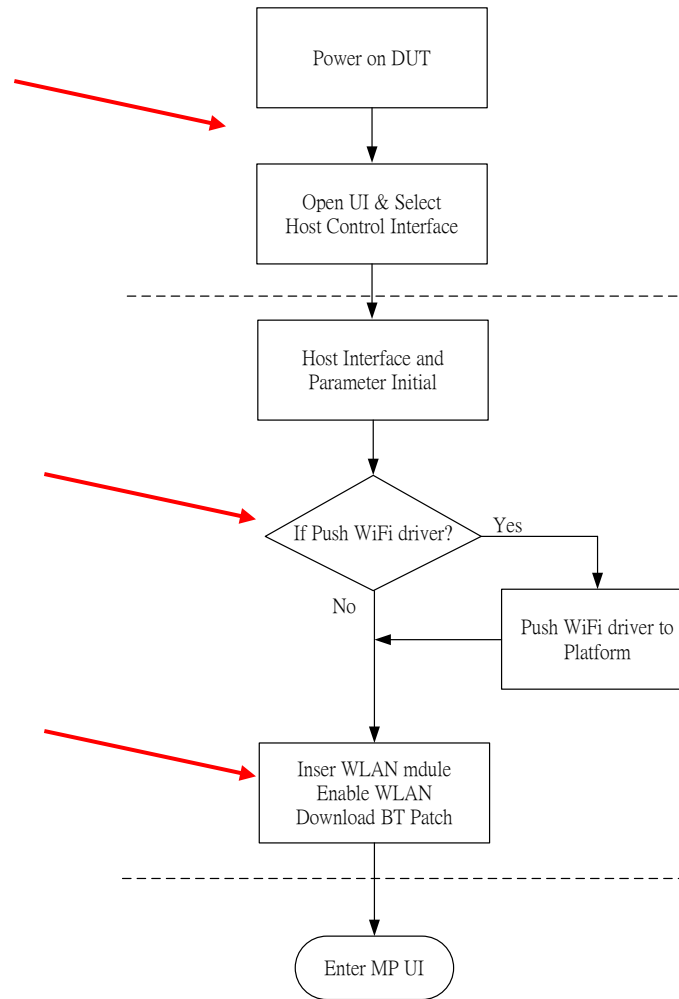
The WiFi in the DUT UI must be turned off after Power on. (no WLAN module exit in the system)

“IsPushMPDriver” in the HCISetup.ini defines: 0→ skip push, 1→push.

The MP driver filename is specified in the “ADBMPDriverFilename” of the HCISetup.ini. It must place in the same directory with RTK_BT_MP.exe.

The push destination is defined in the “ADBMPDriverRoute” of the HCISetup.ini .

The insert WiFi module is specified by the “ADBMPDriverRoute” + “ADBMPDriverFilename” in the HCISetup.ini .



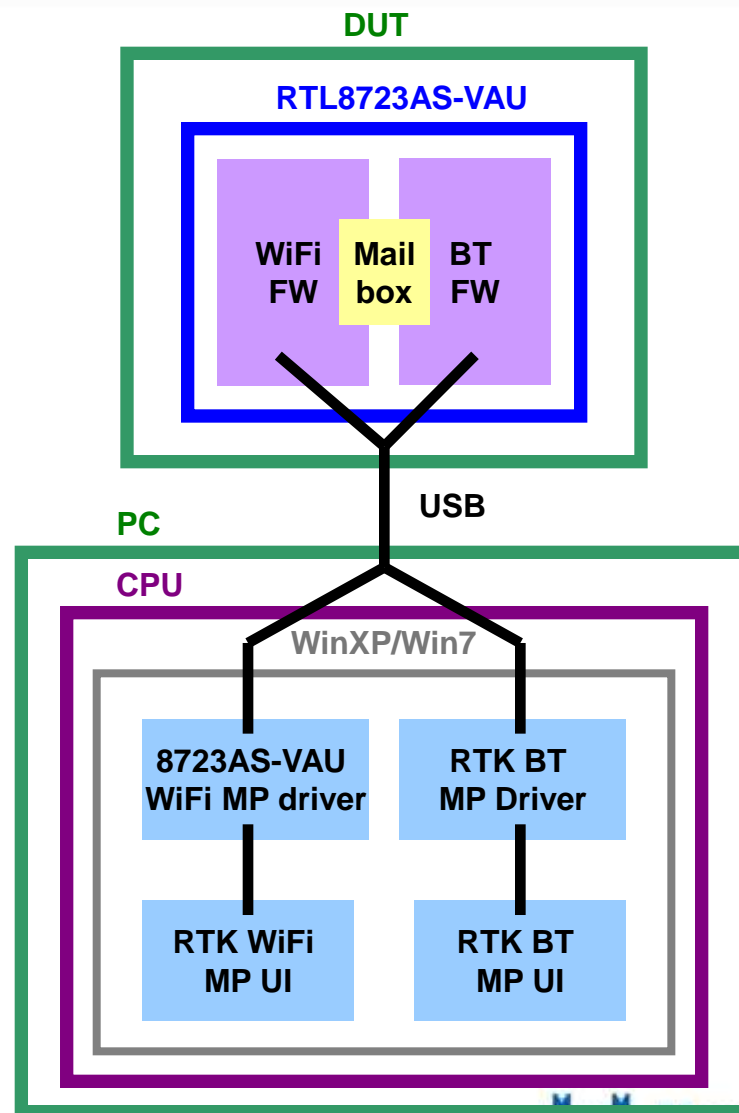
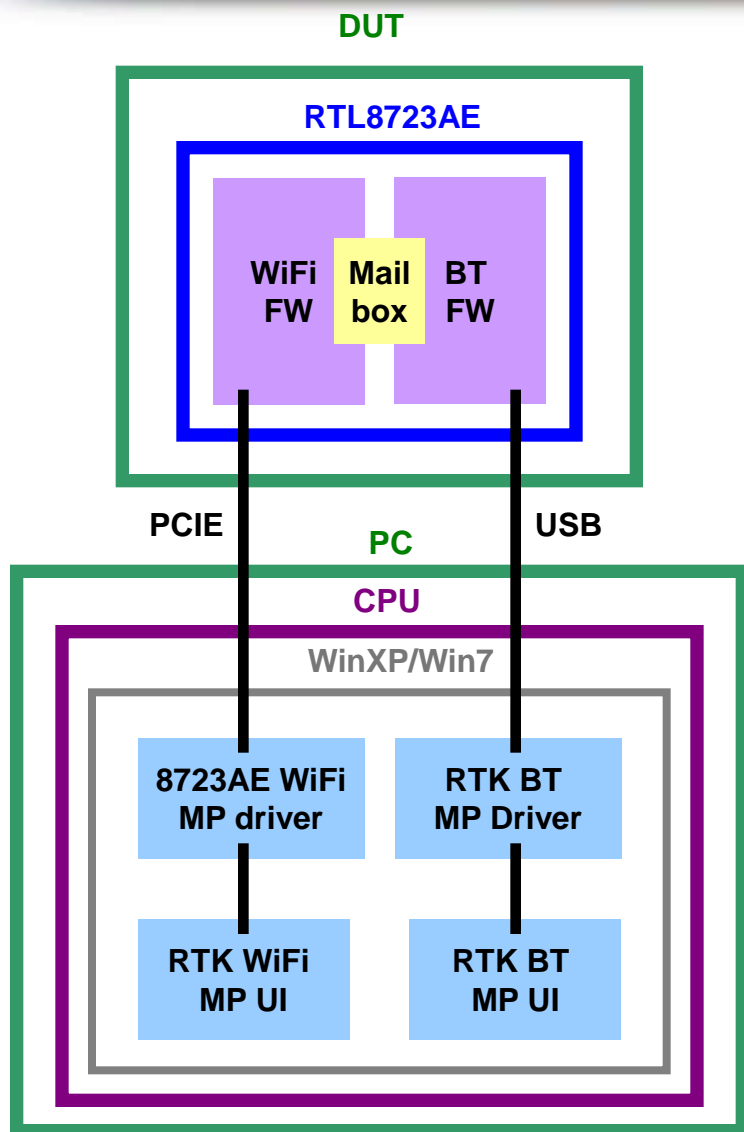


Bluetooth MP UI Initial



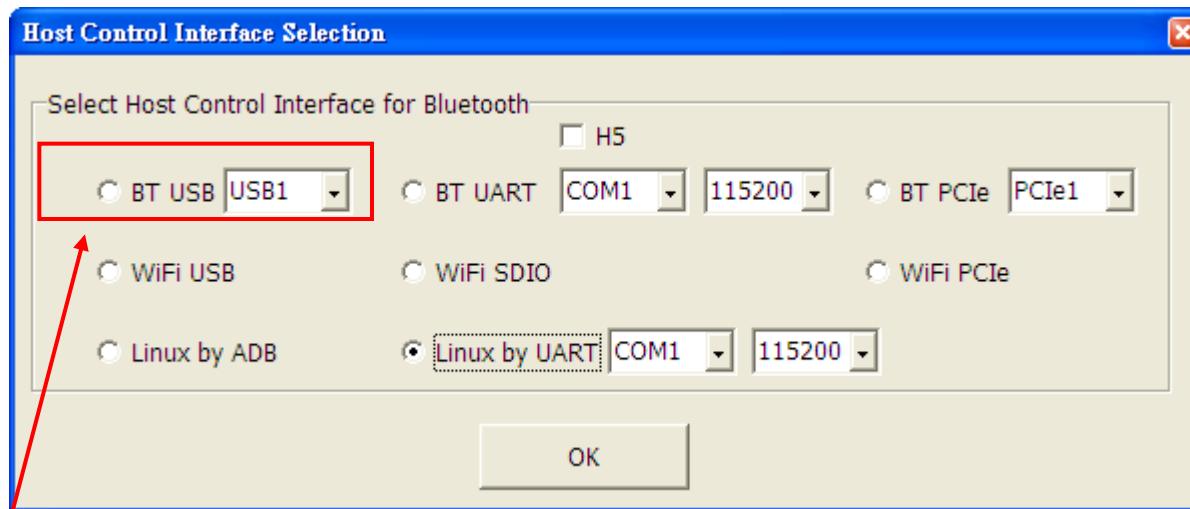


Host Interface: BT USB Port (8723AE,8723AE-VAU)





Host Interface: BT USB Port (8723AE,8723AE-VAU)



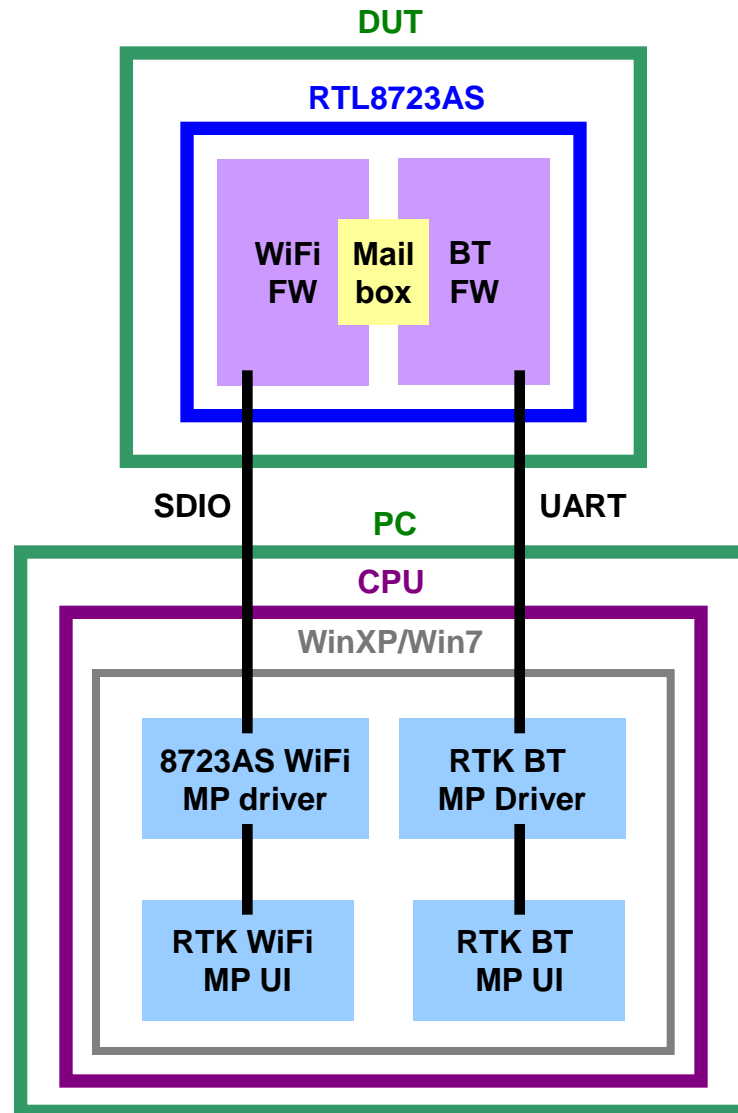
The image shows a Windows-style dialog box titled "Host Control Interface Selection". Inside, there's a section "Select Host Control Interface for Bluetooth". It contains several radio button options: "BT USB" (selected and highlighted with a red box), "BT UART", "BT PCIe", "WiFi USB", "WiFi SDIO", "WiFi PCIe", "Linux by ADB", and "Linux by UART". Each option has associated dropdown menus for port selection (e.g., "USB1", "COM1", "PCIe1") and a baud rate field (e.g., "115200"). An "OK" button is at the bottom. A red arrow points from the text below to the "BT USB" option.

Select "BT USB" , Choose USB port number, and Press "OK" button to start the MP.



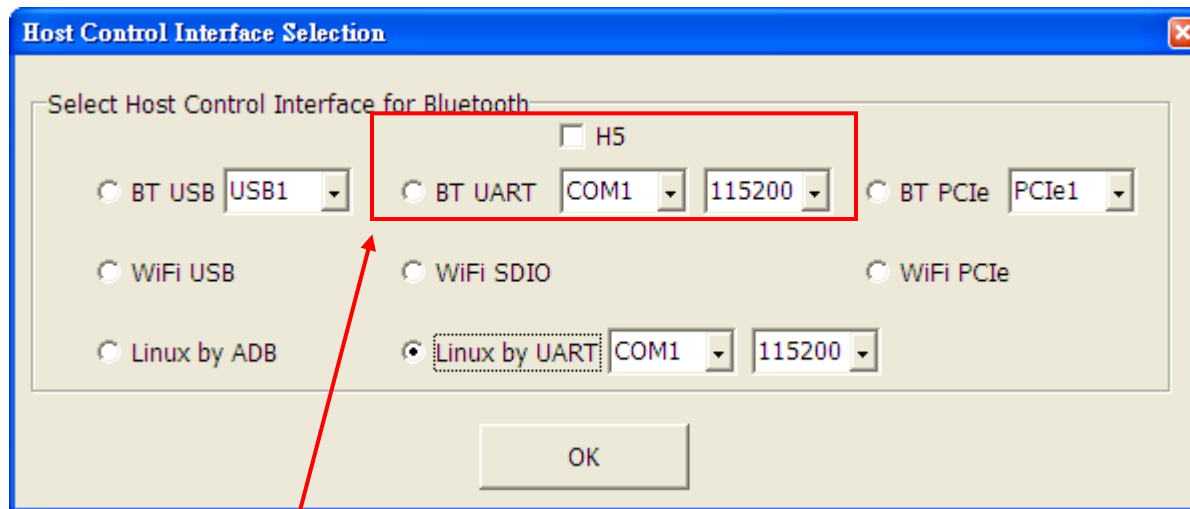


Host Interface: BT UART Port (8723AS)





Host Interface: BT UART Port (8723AS)



The dialog box titled "Host Control Interface Selection" contains the following options:

- ☐ BT USB (USB1)
- ☐ BT UART (COM1, 115200) - This option is highlighted with a red box and a red arrow points to it from below.
- ☐ BT PCIe (PCIe1)
- ☐ WiFi USB
- ☐ WiFi SDIO
- ☐ WiFi PCIe
- ☐ Linux by ADB
- ☒ Linux by UART (COM1, 115200)

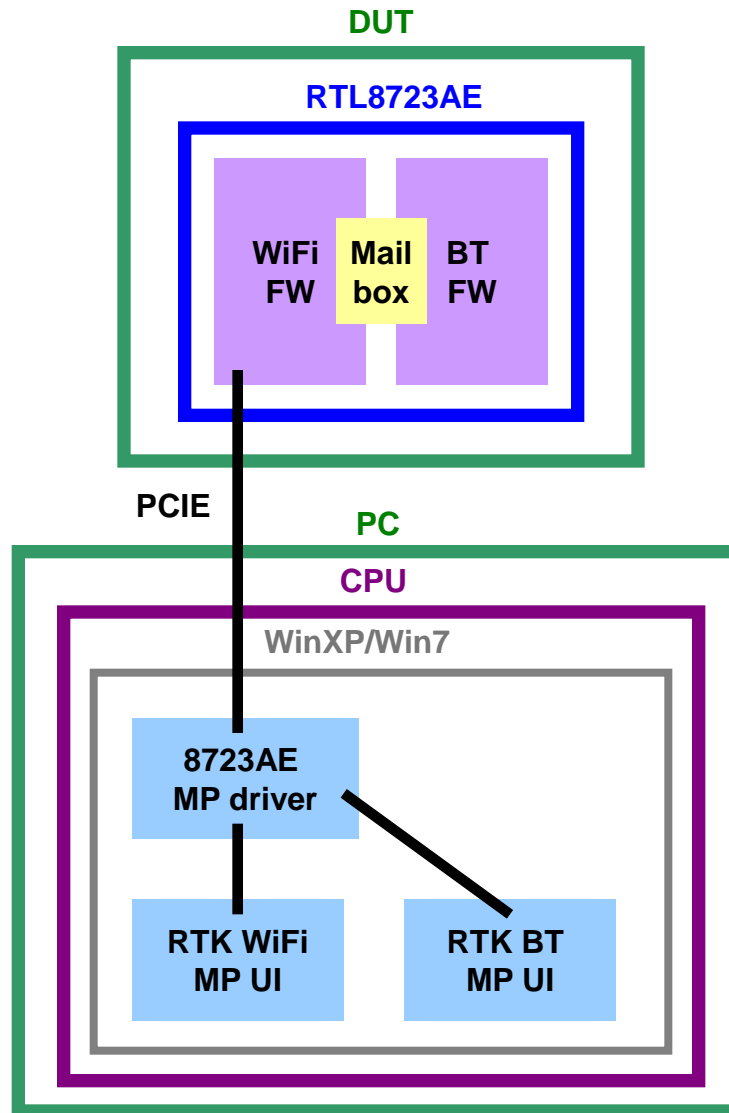
At the bottom of the dialog box is an "OK" button.

Select "BT UART" , Choose COM port number and baud rate (default: 115200), and Press "OK" button to start the MP.





Host Interface: WiFi PCIe Port (8723AE)





Host Interface: WiFi PCIe Port (8723AE)

Host Control Interface Selection

Select Host Control Interface for Bluetooth

☐ H5

☐ BT USB ☐ BT UART ☐ BT PCIe

☐ WiFi USB ☐ WiFi SDIO ☐ WiFi PCIe

☐ Linux by ADB ☒ Linux by UART

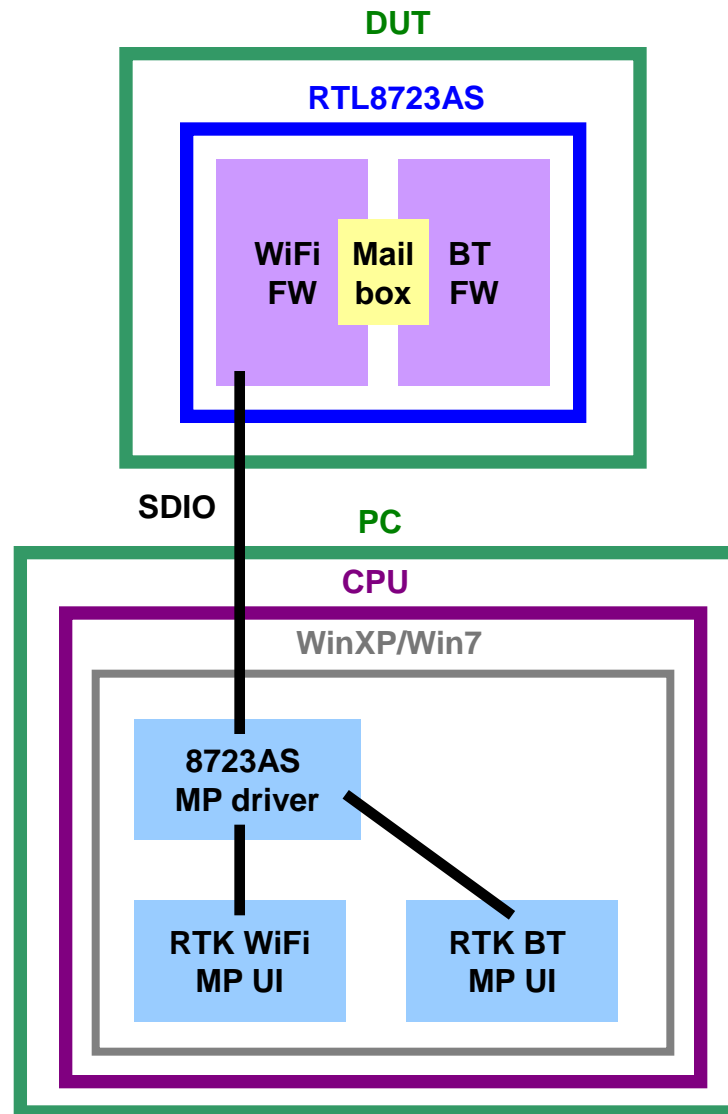
OK

Select "WiFi PCIe" , and Press "OK" button to start the MP.



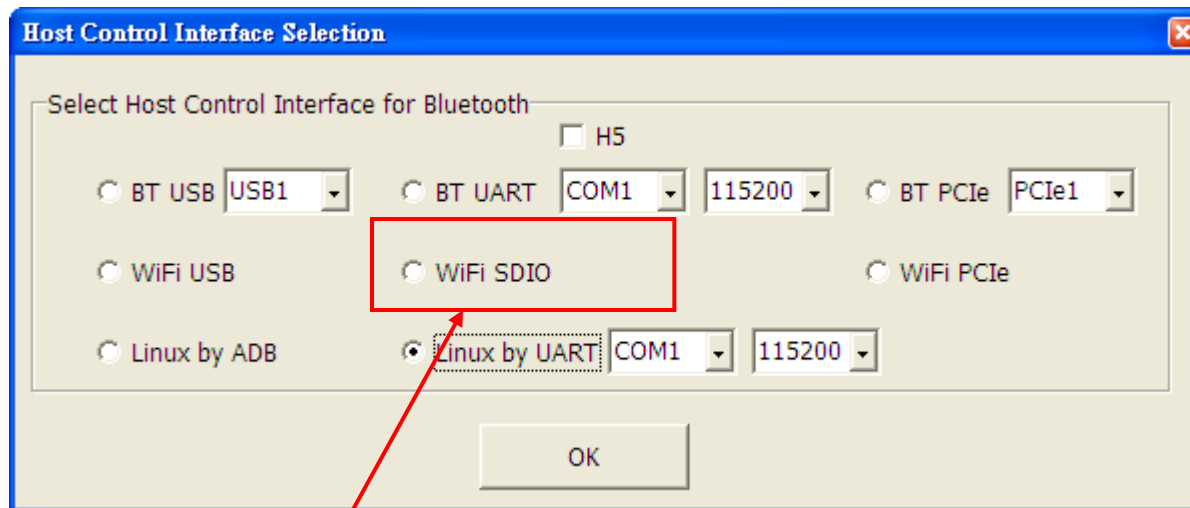


Host Interface: WiFi SDIO Port (8723AS)





Host Interface: WiFi SDIO Port (8723AS)

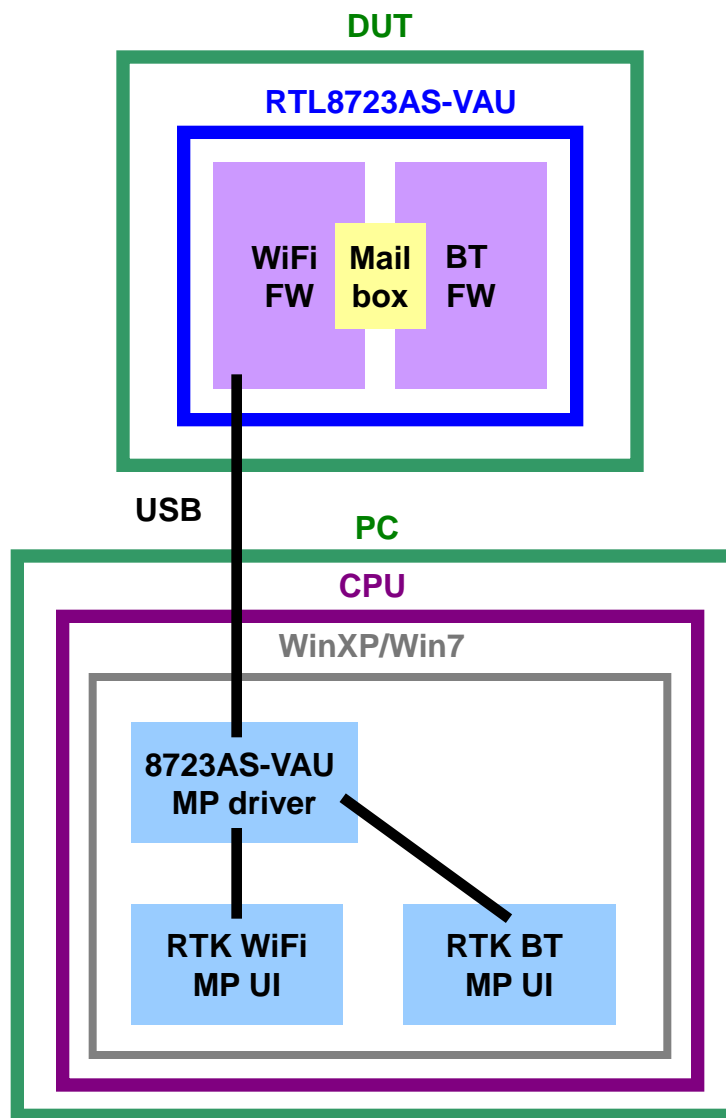


Select "WiFi SDIO" , and Press "OK" button to start the MP.



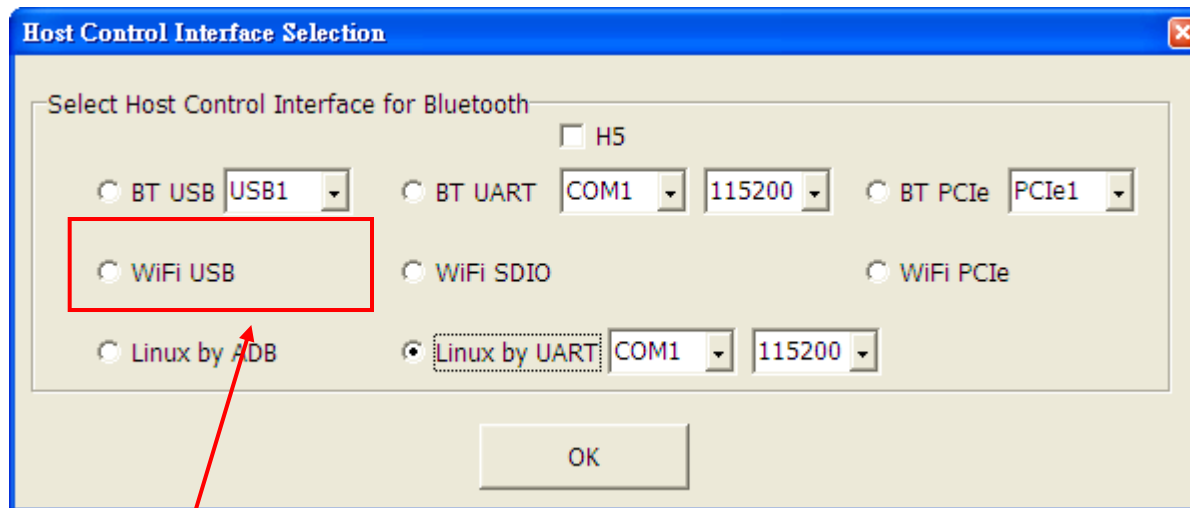


Host Interface: WiFi USB Port (8723AS-VAU)





Host Interface: WiFi USB Port (8723AS-VAU)



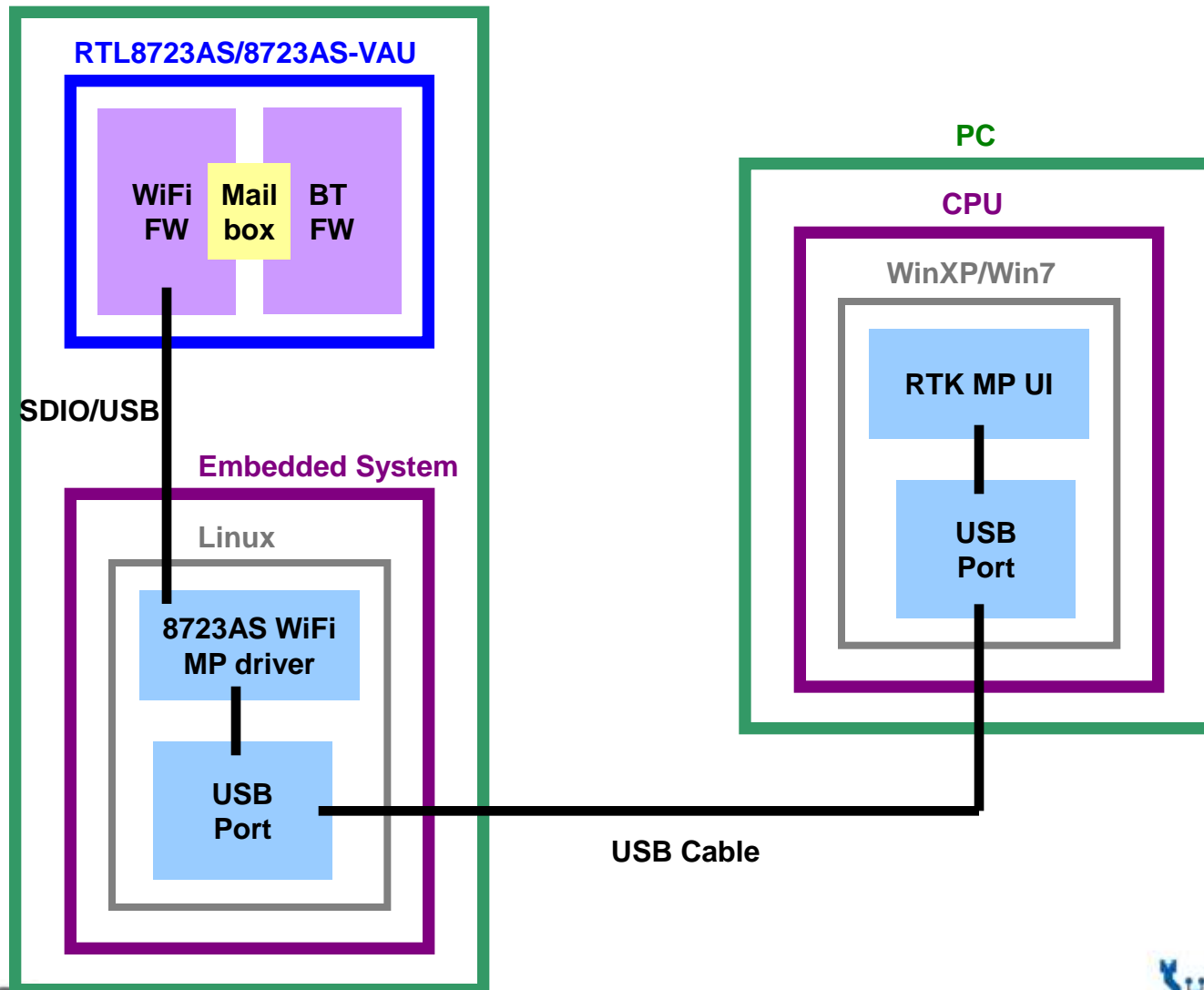
The image shows a Windows-style dialog box titled "Host Control Interface Selection". Inside the dialog, there is a section titled "Select Host Control Interface for Bluetooth". Below this title, there are several radio button options and dropdown menus. The options are: "BT USB" (with a dropdown menu showing "USB1"), "BT UART" (with dropdown menus for "COM1" and "115200"), "BT PCIe" (with a dropdown menu showing "PCIe1"), "WiFi USB" (highlighted with a red box and a red arrow pointing to it), "WiFi SDIO", "WiFi PCIe", "Linux by ADB", and "Linux by UART" (with dropdown menus for "COM1" and "115200"). There is also an unchecked checkbox labeled "H5". At the bottom of the dialog is an "OK" button.

Select "WiFi USB" , and Press "OK" button to start the MP.



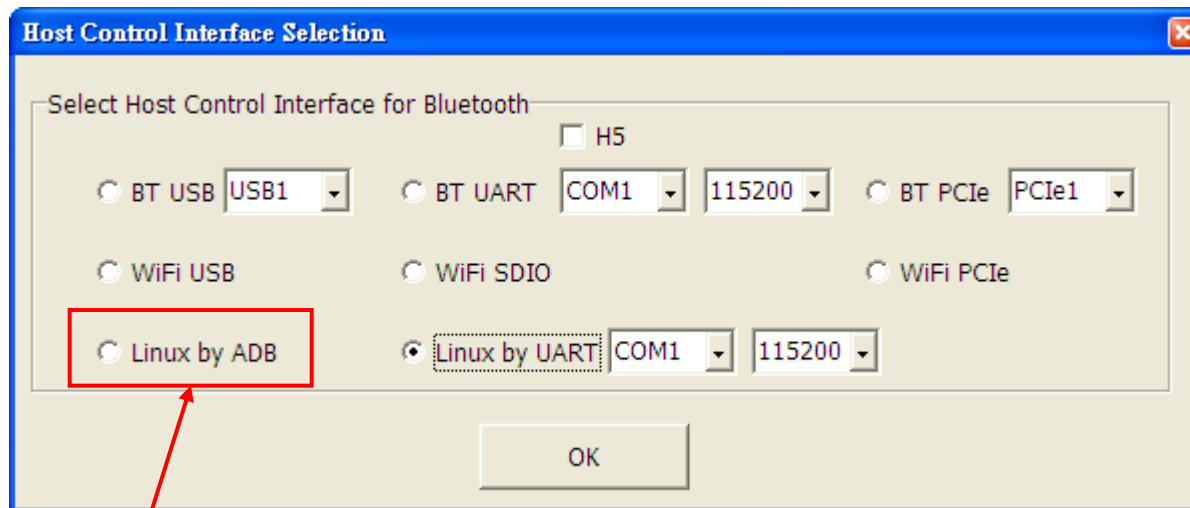


Host Interface: Linux USB Port (8723AS,8723AS-VAU)





Host Interface: Linux USB Port (8723AS,8723AS-VAU)



The dialog box titled "Host Control Interface Selection" contains the following options:

- ☐ H5
- ☐ BT USB (dropdown: USB1)
- ☐ BT UART (dropdown: COM1, dropdown: 115200)
- ☐ BT PCIe (dropdown: PCIe1)
- ☐ WiFi USB
- ☐ WiFi SDIO
- ☐ WiFi PCIe
- ☐ Linux by ADB (highlighted with a red box and a red arrow pointing to it)
- ☒ Linux by UART (dropdown: COM1, dropdown: 115200)

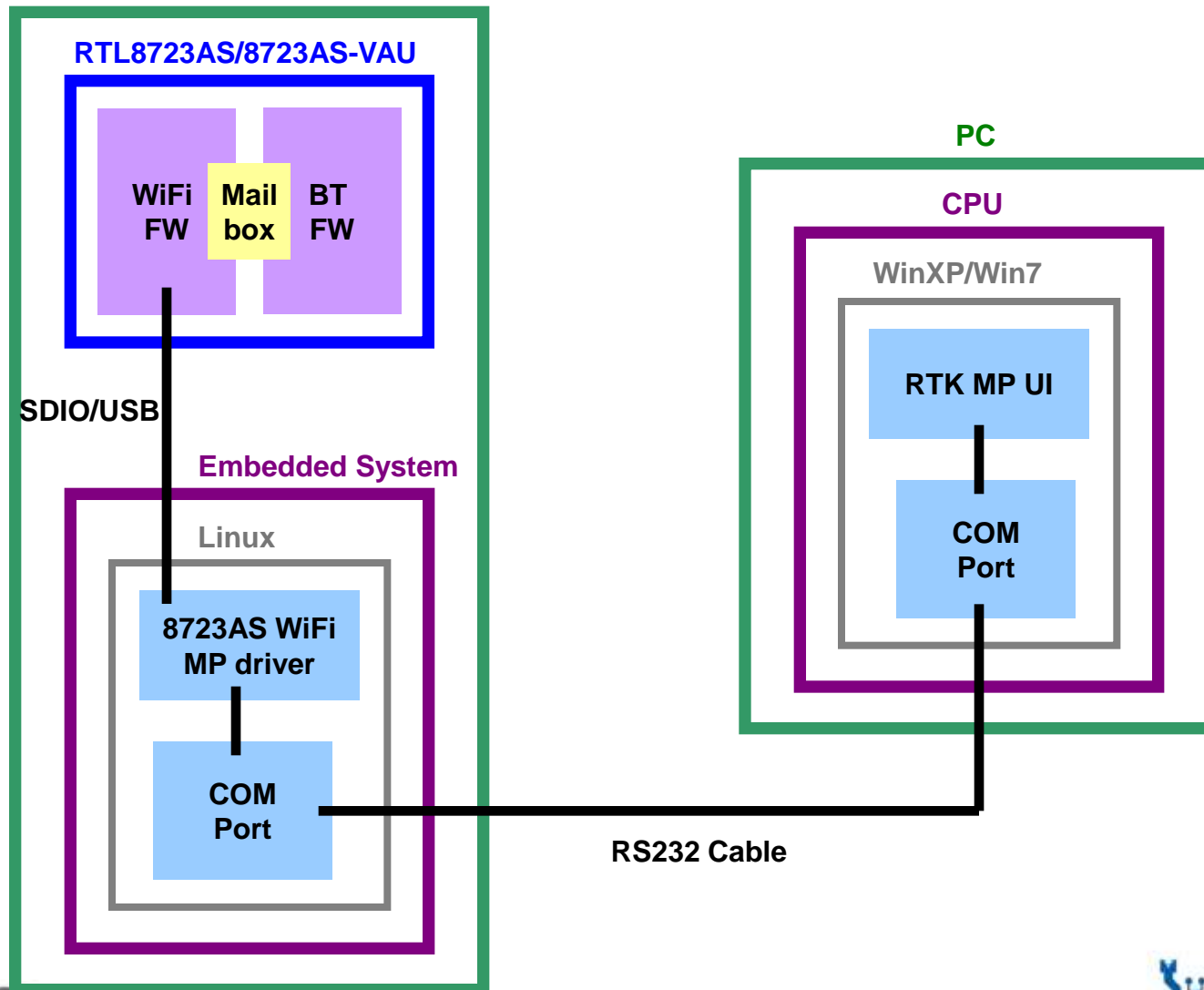
An "OK" button is located at the bottom right of the dialog box.

Select "Linux by ADB" , and Press "OK" button to start the MP.



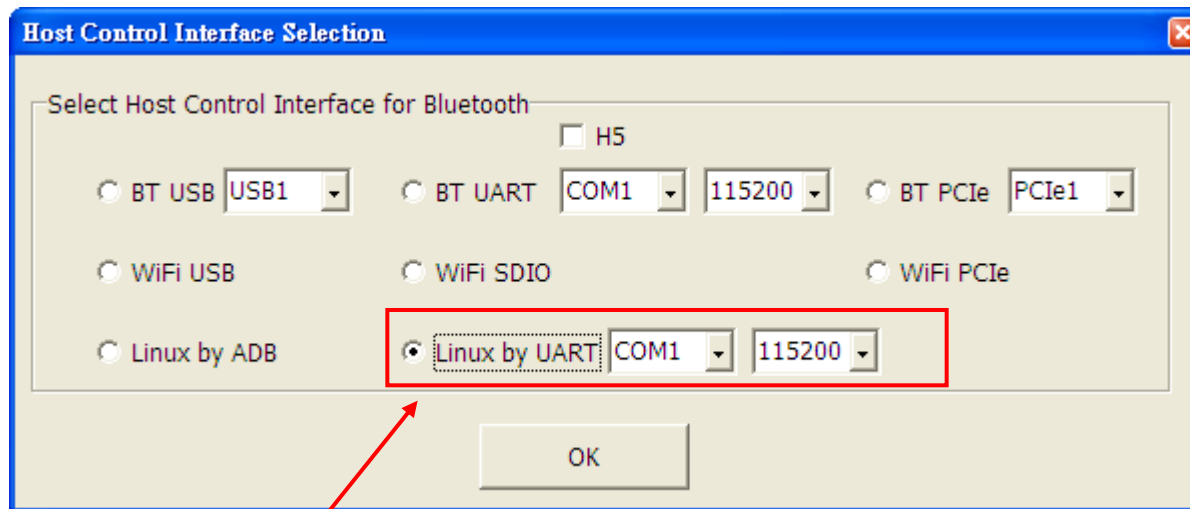


Host Interface: Linux COM Port (8723AS,8723AS-VAU)





Select Host Control Interface



The dialog box titled "Host Control Interface Selection" contains the following options:

- ☐ H5
- ☐ BT USB (USB1)
- ☐ BT UART (COM1, 115200)
- ☐ BT PCIe (PCIe1)
- ☐ WiFi USB
- ☐ WiFi SDIO
- ☐ WiFi PCIe
- ☐ Linux by ADB
- ☒ Linux by UART (COM1, 115200)

The "Linux by UART" option is selected and highlighted with a red box. A red arrow points to the "OK" button at the bottom right.

Select "Linux by UART" , Choose COM port number and baud rate (default: 115200), and Press "OK" button to start the MP.

Note: It is recommended to press the "OK" button after the system boot completely.





The Main UI (BT Host type)

Realtek Bluetooth MP v2.81 --- RTL8723a (BD Address = 0x00E04C887232)

Action Item:

Rx Packets: Error Bits: BER (%):

Test Setup

Data Rate: Payload Type: Test Mode:

RF Channel: Payload bits: Hit Target:

Tx Gain Index: Packet Header: ☐ LE connect

Tx Packet Count: ☒ Whitening Coeff: Tx DAC Current:

2012/12/6 03:25:37

```
USB Initialize successful!!
=====
Bluetooth Device Address: 0x00E04C887232
Bluetooth Device Name: RTK_BT_4.0
HCI_Version: 0x06
HCI_Revision: 0x801f
LMP_Version: 0x06
Manufacturer_Name: Realtek Semiconductor Corporation
LMP_Subversion: 0x9b79
Supported Feature(0~7): 0xFF 0xFB 0xFF 0xFE 0xDB 0xFF 0x7B 0x87
=====
```

If initial ok, memo show as below





The Main UI (WiFi Host type)

Realtek Bluetooth MP v2.7 --- RTL8723a (Control by Linux Console)

Action Item:

Tx Packets: Error Bits: BER (%):

Test Setup

Data Rate: Payload Type: Test Mode:

RF Channel: Payload bits: Hit Target:

Tx Gain Index: Packet Header: ☐ LE connect

Tx Packet Count: ☒ Whitening Coeff: Tx DAC Current:

2012/11/29 02:16:43

```
Start Linux Console ok!!
Driver already exists!!
Enable WLAN Adapter ok!!
Enter MP mode ok!!
Download BT firmware ok!!
BT is controlled by WiFi now!!
=====
BT is ready!!
BT Firmware version: 0x9a4d
BT Firmware logic version: 0x9a
BT BD Address: 0x00e04c842713
=====
```

If initial ok, memo show as below

If initial fail, Check those:

- RS232/USB cable
- UART setup /USB port
- BT Module
- BT MP driver

Note: If initial fail (ex: enable WLAN adapter fail), it may result from the boot is not completed during MP UI start. You can press "Host Re-Init" button or reopen the MP UI.





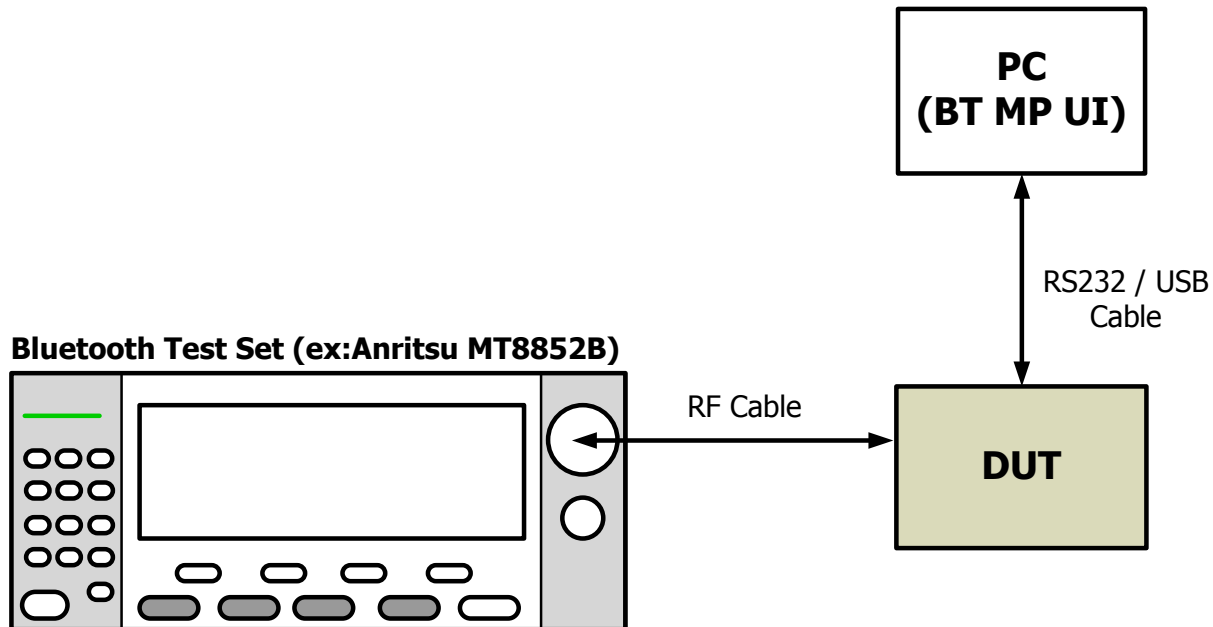
Bluetooth DUT Test Mode Setup & Test Procedure





BT DUT Test Mode Test Topology

The BT MP sends BT HCI command to DUT. The DUT enable Inqrr/Page scan and enter DUT test mode. The Bluetooth tester established a link with the DUT over the RF channel using the normal Bluetooth protocol.





UI Setup Step-1: Enter DUT Test Mode

Realtek Bluetooth MP v2.7 --- RTL8723a (Control by Linux Console)

Action Item:

Tx Packets: Error Bits: BER (%):

Test Setup

Data Rate: Payload Type: Test Mode:

RF Channel: Payload bits: Hit Target:

Tx Gain Index: Packet Header: ☐ LE connect

Tx Packet Count: ☒ Whitening Coeff: Tx DAC Current:

Enter MP mode ok!!
Download BT firmware ok!!
BT is controlled by WiFi now!!

BT is ready!!
BT Firmware version: 0x9a4d
BT Firmware logic version: 0x9a
BT BD Address: 0x00e04c842713

>> HCI Reset successful!!
>> Enter DUT Test mode ok!!

Press "Test Mode" button
To enter BT DUT test mode.





After UI Setup Step-1

After Bluetooth test set creates a connection with DUT, the BT MP UI will show message as below. The RF test can kick off.

```
>> [HCI Para] -> Connection_Handle = 0x002B
>> [HCI Para] -> BD_ADDR = 0x000272D199C1
>> [HCI Para] -> Link_Type = ACL
>> [HCI Para] -> Encryption = disabled

>> Write Link Policy to 0xF (All On) OK!!

>> Write_Automatic_Flush_Timeout (value = 0x3FF) command succeeded!!

>> Connect results listing....
```

ID	BD_ADDR	Handle	Link_Type	Encryption	Mode
1	0x000272D199C1	0x002B	ACL	Disable	Active





UI Setup Step-2: Exit DUT Test Mode (if required)

The connection can be disconnected by either BT test set or DUT. For DUT end, the connection will lost because of supervision timeout after HCI reset is executed.

Press "HCI Reset" button
To exit BT DUT test mode.





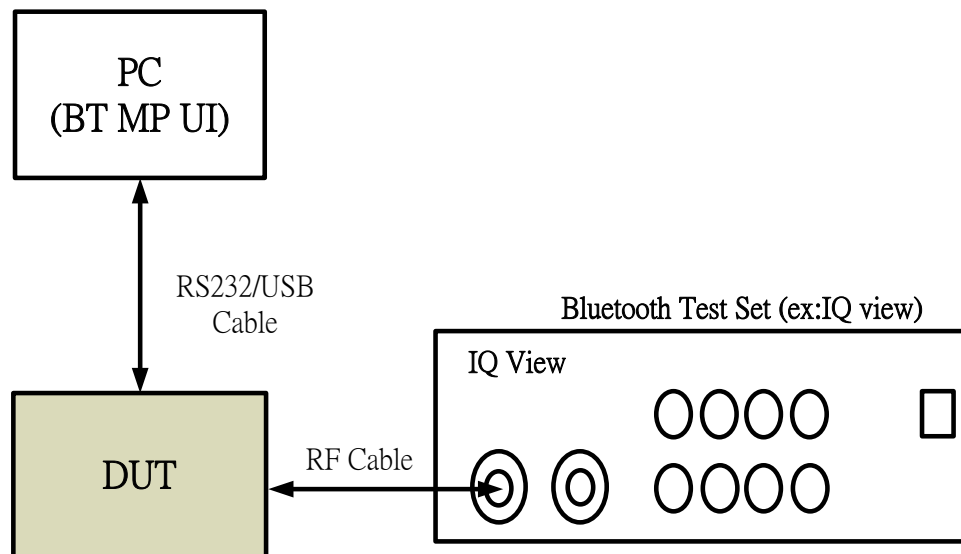
Bluetooth Non-Link Mode Setup & Test Procedure





Non-Link Mode Test Topology

For non-link mode test, the tester communicates with DUT over a cable via HCI with the DUT in a special test. The tester doesn't have to establish a protocol link with the DUT. The non-link mode of the 8723 series chip support "Packet-Tx", "Continue-Tx", and "Packet-Rx" for various RF performance test.





Packet-Tx Setup

Press "Start" button

Select "Packet-Tx"

Select "Data Rate", "RF Channel", "Tx Gain Index", "Payload Type", "Payload bits", "Whitening Coeff"

Realtek Bluetooth MP v2.81 --- RTL8723a (Control by Linux Console)

Action Item: Packet Tx Start Pause Clear

Tx Packets: 0 Error Bits: 0 BER (%): 0.0000

Test Setup

Data Rate: 1M Payload Type: Normal Test Mode: Normal Test

RF Channel: 0 Payload bits: 8168 Hit Target: 0x00004c123456

Tx Gain Index: 7 Packet Header: 0x3ffff LE connect: Initiator

Tx Packet Count: 0 Whitening Coeff: 0x7f Tx DAC Current: 5

HCI Reset Test Mode Reg RW Host Re-Init

Select Slot Length

DH1 DH3 DH5

OK

Clear Log

>> BT Status: RF Tx
>> Stop Test ok !!
>> BT Status: RF Tx
>> Enter TxRx Test
>> TxPacket Count =
>> Write TxRx Conf
>> Start Packet-Tx
>> BT Status: RF TxRx Test Mode + under Packet Tx test
>> Stop Test ok !!
>> BT Status: RF TxRx Test Mode + idle





Packet-Tx Run

Realtek Bluetooth MP v2.81 --- RTL8723a (Control by Linux Console)

Action Item: Packet Tx Start Pause Clear

Tx Packets: 0 Error Bits: 0 BER (%): 0.0000

Test Setup

Data Rate: 1M Payload Type: Normal Test Mode: Normal Test

RF Channel: 0 Payload bits: 2712 Hit Target: 0x00004c123456

Tx Gain Index: 7 Packet Header: 0x3fff ☐ LE connect Initiator

Tx Packet Count: 0 ☐ Whitening Coeff: 0x7f Tx DAC Current: 5

HCI Reset

Test Mode

Reg RW

Host Re-Init

```
>> TxPacket Count = 0 --> Continue Packet Tx mode...
>> Write TxRx Configuration ok!!
>> Start Packet-Tx Transmitting...
>> BT Status: RF TxRx Test Mode + under Packet Tx test

>> Stop Test ok ??
>> BT Status: RF TxRx Test Mode + idle

>> Enter TxRx Test mode ok!!
>> TxPacket Count = 0 --> Continue Packet Tx mode...
>> Write TxRx Configuration ok!!
>> Start Packet-Tx Transmitting...
>> BT Status: RF TxRx Test Mode + under Packet Tx test
```

Clear Log

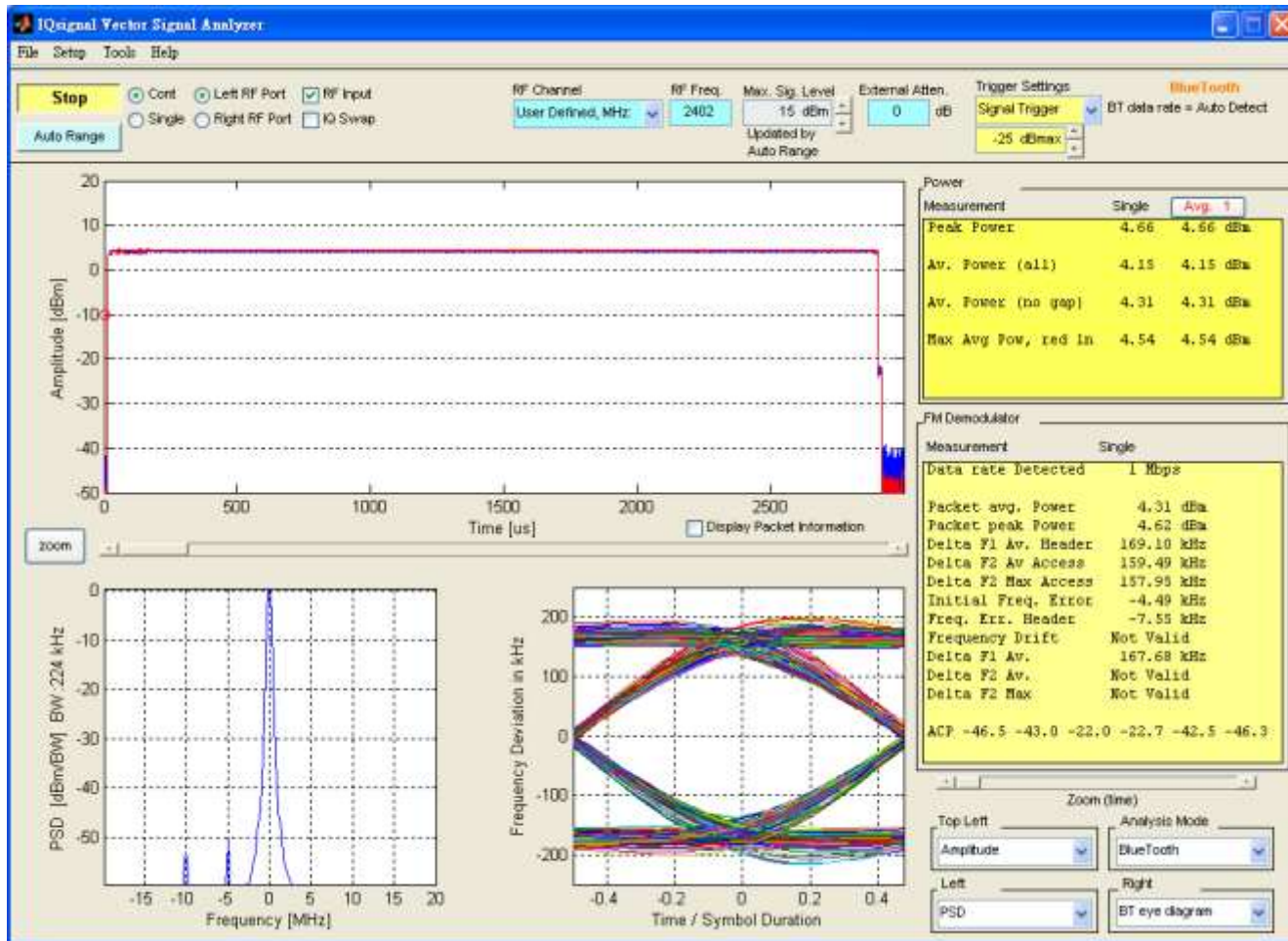
if "Packet-Tx" ok, the message is shown as memo
"Packet-Tx" will stop after press "Pause" button





Packet-Tx Measurement form IQ view

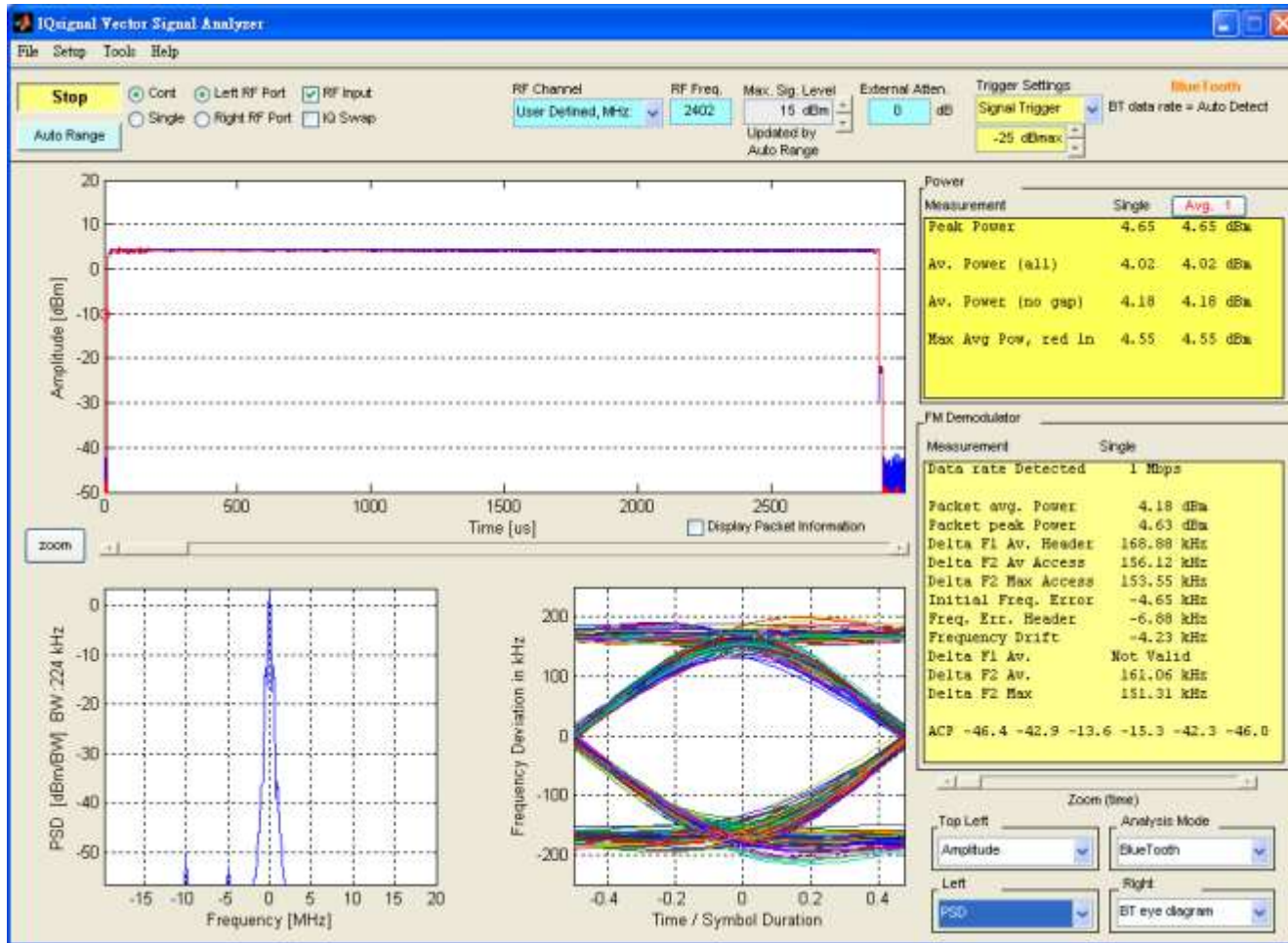
Date Rate: 1M/DH5, RF Channel: 0, Payload Length: 2712 bits, Payload Type: 11110000, Whitening: Off





Packet-Tx Measurement form IQ view

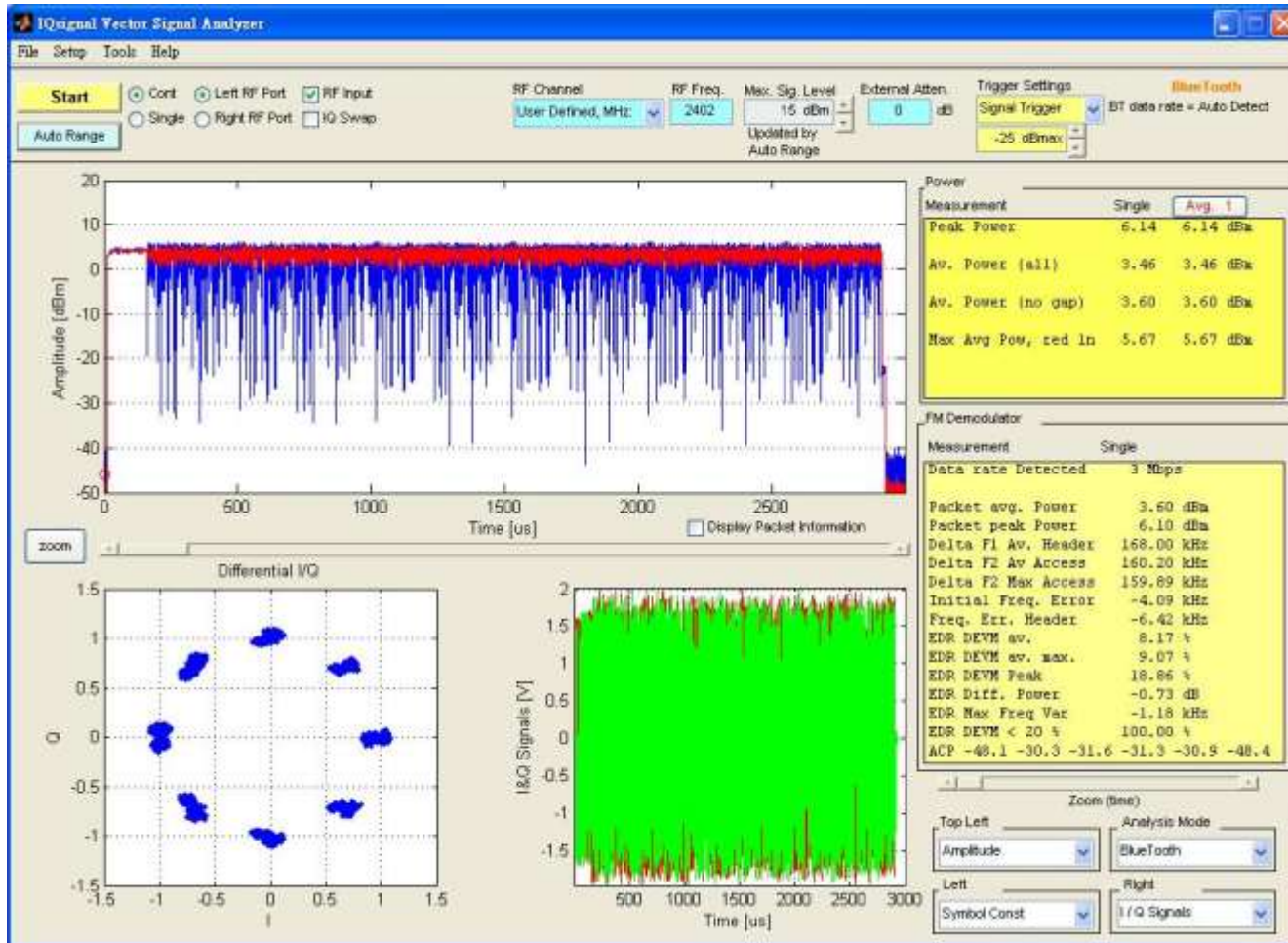
Date Rate: 1M/DH5, RF Channel: 0, Payload Length: 2712 bits, Payload Type: 10101010, Whitening: Off





Packet-Tx Measurement form IQ view

Date Rate: 3M/3DH5, RF Channel: 0, Payload Length: 8168 bits, Payload Type: Normal, Whitening: On





Continue-Tx Setup

Press "Start" button

Select "Continue-Tx"

Select "Data Rate", "RF Channel", "Tx Gain Index", "Payload Type"

Realtek Bluetooth MP v2.81 --- RTL8723a (Control by Linux Console)

Action Item: **Start** **Pause** **Clear**

Tx Packets: Error Bits: BER (%):

Test Setup

Data Rate: Payload Type: Test Mode:

RF Channel: Payload bits: Hit Target:

Tx Gain Index: Packet Header: ☐ LE connect

Tx Packet Count: ☐ Whitening Coeff: Tx DAC Current:

HCI Reset
Test Mode
Reg RW
Host Re-Init

>> Start Packet-Tx Transmitting...
>> BT Status: RF TxRx Test Mode + under Packet Tx test

>> Stop Test ok !!
>> BT Status: RF TxRx Test Mode + idle

>> Enter TxRx Test mode ok!!
>> Write TxRx Configuration ok!!
>> Start Continue-Tx Transmitting...
>> BT Status: RF TxRx Test Mode + under Continue Tx test

>> Stop Test ok !!
>> BT Status: RF TxRx Test Mode + idle

Clear Log.





Continue-Tx Run

Realtek Bluetooth MP v2.81 --- RTL8723a (Control by Linux Console)

Action Item:

Tx Packets: Error Bits: BER (%):

Test Setup

Data Rate: Payload Type: Test Mode:

RF Channel: Payload bits: Hit Target:

Tx Gain Index: Packet Header: ☐ LE connect

Tx Packet Count: ☐ Whitening Coeff: Tx DAC Current:

HCI Reset

Test Mode

Reg RW

Host Re-Init

Clear Log

```
>> Enter TxRx Test mode ok!!
>> Write TxRx Configuration ok!!
>> Start Continue-Tx Transmitting...
>> BT Status: RF TxRx Test Mode + under Continue Tx test

>> Stop Test ok ??
>> BT Status: RF TxRx Test Mode + idle

>> Enter TxRx Test mode ok!!
>> Write TxRx Configuration ok!!
>> Start Continue-Tx Transmitting...
>> BT Status: RF TxRx Test Mode + under Continue Tx test
```

if "Continue-Tx" ok, the message is shown as memo

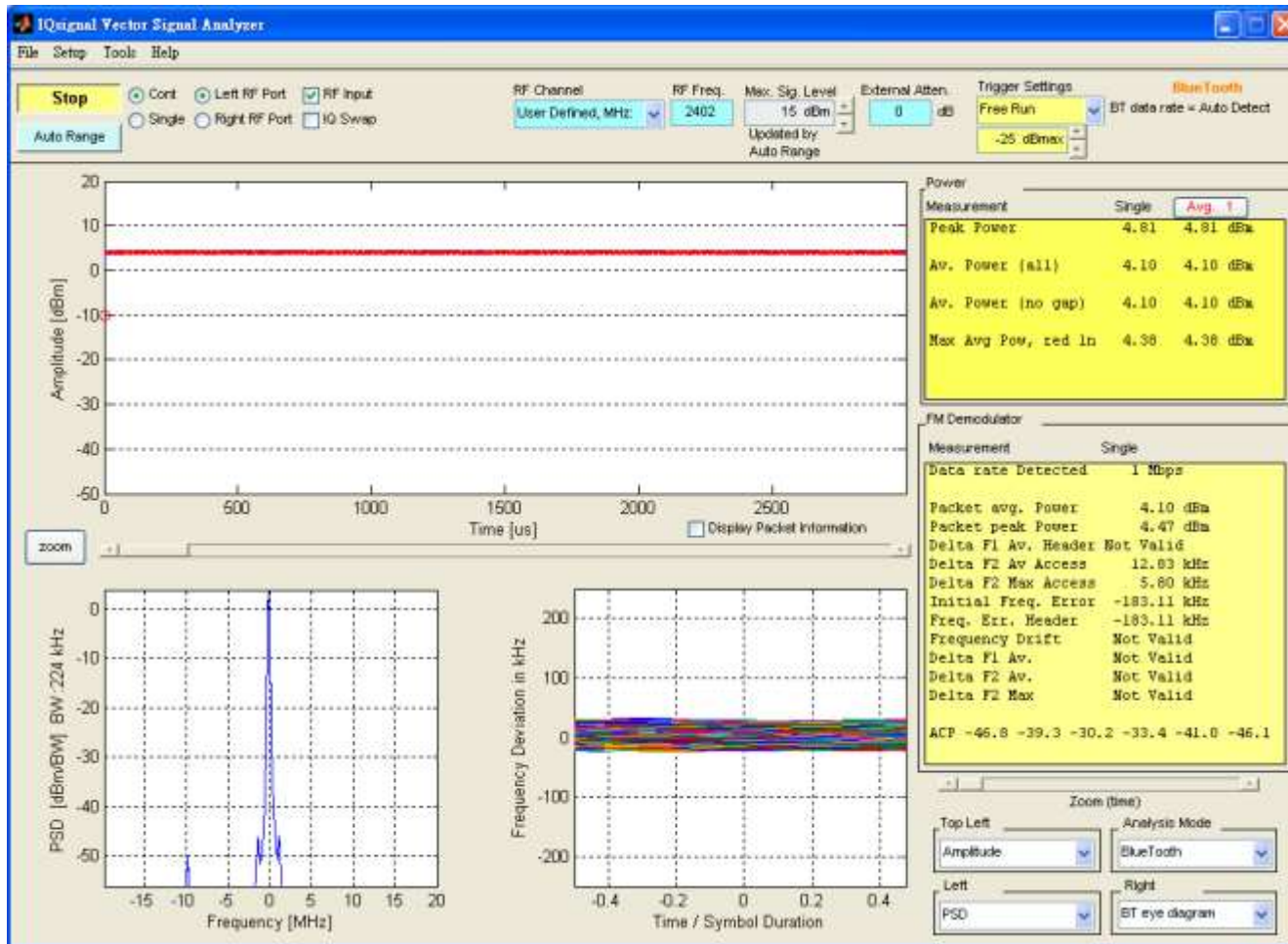
"Continue-Tx" will stop after press "Pause" button





Continue-Tx Measurement form IQ view

“Continue-Tx” is used for Tx power measurement.





Packet-Rx Setup

Press "Start" button

Select "Packet-Rx"

Select "Data Rate", "RF Channel", "Tx Gain Index", "Payload Type", "Payload bits", "Whitening Coeff", "Hit Target"

"Hit Target" is BD address that the BT tester used it to generate the access code of the test pattern.

These parameters must meet with the BT tester's pattern.

Realtek Bluetooth MP v2.81 --- RTL8723a (Control by Linux Console)

Action Item: **Start** **Pause** **Clear**

Rx Bits: Error Bits: BER (%):

Test Setup

Data Rate: Payload Type: Test Mode:

RF Channel: Payload bits: Hit Target:

Tx Gain Index: Packet Header: ☐ LE connect

Tx Packet Count: ☐ Whitening Coeff: Tx DAC Current:

Select Slot Length

☐ 3DH1 ☐ 3DH3 ☒ 3DH5

OK

BT is ready!!
BT Firmware version:
BT Firmware logic ver:
BT BD Address: 0x00e6
=====

>> HCI Reset successf

>> Translate BD Address: 00004c123456 to Access Code
>> Write Modem 0x1c AccessCode[52:67] as 0x120d
>> Write Modem 0x1e AccessCode[36:51] as 0x5a8b
>> Write Modem 0x20 AccessCode[20:35] as 0x61a6
>> Write Modem 0x22 AccessCode[4:19] as 0x03e4

Clear Log.





Packet-Rx Run

"Packet-Rx" test result

Realtek Bluetooth MP v2.81 --- RTL8723a (Control by Linux Console)

Action Item:

Rx Bits: Error Bits: BER (%):

Test Setup

Data Rate: Payload Type: Test Mode:

RF Channel: Payload bits: Hit Target:

Tx Gain Index: Packet Header: ☐ LE connect

Tx Packet Count: ☐ Whittening Coeff: Tx DAC Current:

```
>> HCI Reset successful!!  
  
>> Translate BD Address: 00004c123456 to Access Code  
>> Write Modem 0x1c AccessCode[52:67] as 0x120d  
>> Write Modem 0x1e AccessCode[36:51] as 0x5a8b  
>> Write Modem 0x20 AccessCode[20:35] as 0x61a6  
>> Write Modem 0x22 AccessCode[4:19] as 0x03e4  
  
>> Enter TxRx Test mode ok!!  
>> Write TxRx Configuration ok!!  
>> Start Packet-Rx Receiving...  
>> BT Status: RF TxRx Test Mode + under Rx test
```

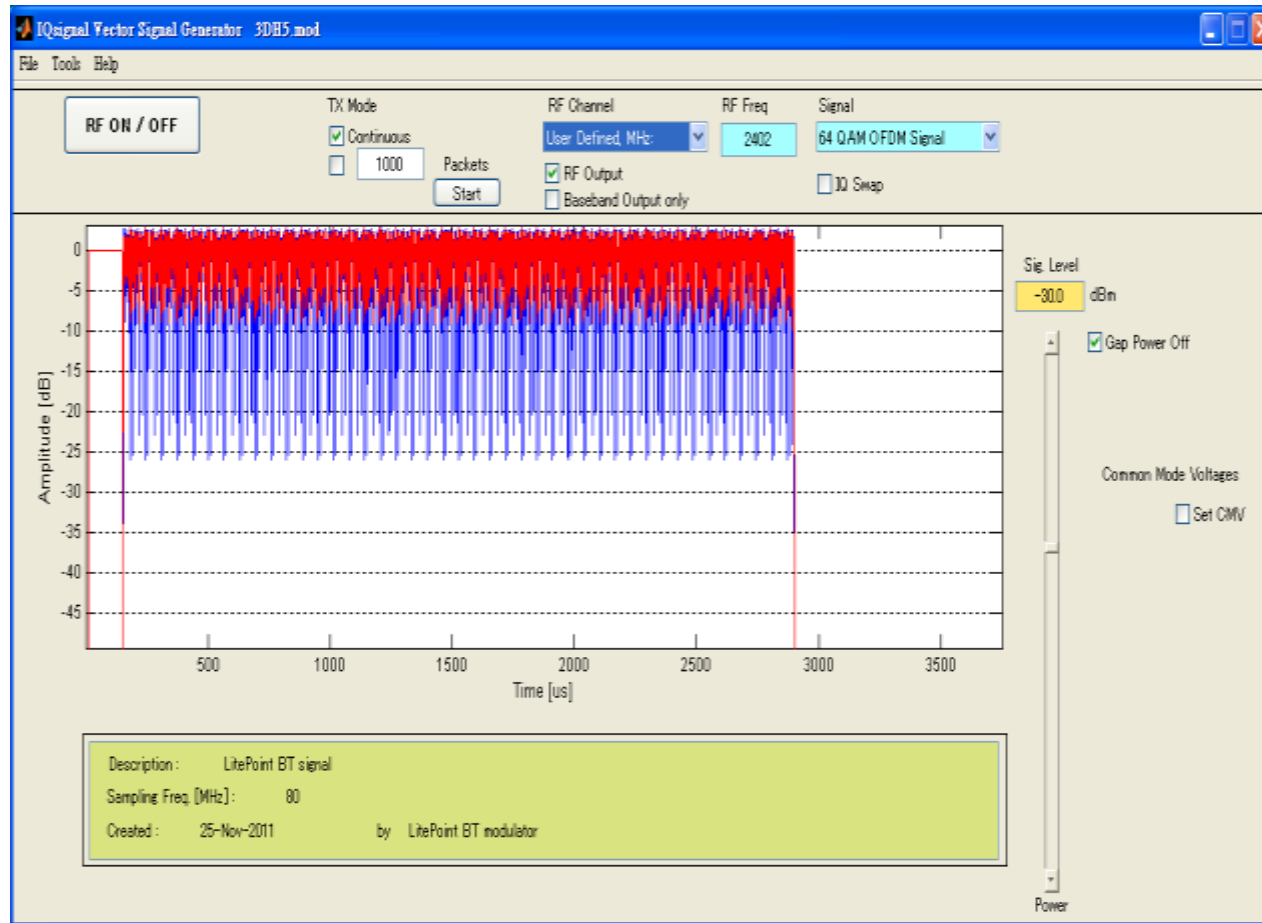
if "Packet-Rx" ok, the message is shown as memo
"Packet-Rx" will stop after press "Pause" button





IQ view Vector Signal Generator

Used the IQ view Vector Signal Generator to generate test pattern (*.mod)





Bluetooth BT 4.0 LE

Direct Test Mode Setup

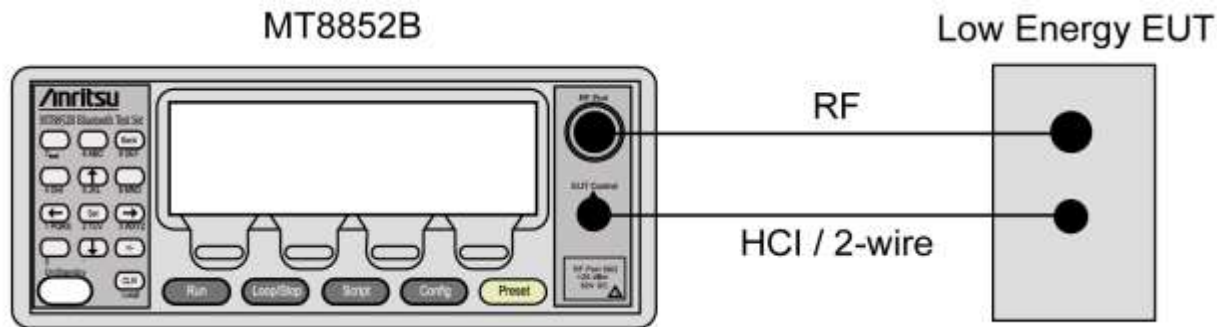
For RF/PHY Testing





Most BT testers support host control port (USB,UART) that can be as a "upper tester" defined in the direct test mode of BT specifications. The diagram shown as below is the MT8852B test configuration for LE RF/PHY test.

The BT MP also supports Tx and Rx test when the BT tester can not be a "upper tester" (no host control port, ex: IQ view).





Tx Test Setup:

Press "Start" to start Tx and BT tester can start measurement.

Press "Stop" to stop Tx.

Select "Packet-Tx"

Select "Data Rate", "RF Channel", "Tx Gain Index", "Payload Type", "Payload bytes"

"Data Rate" = [LE]

Realtek Bluetooth MP v2.81 --- RTL8723a (BD Address = 0x00E04C887232)

Action Item: Packet Tx

Start Pause Clear

Tx Packets: 0 Error Bits: 0 BER (%): 0 Update Rep

Test Setup

Data Rate: LE Payload Type: PRBS9 Test Mode: Normal Test

RF Channel: 0 Payload bytes: 37 Hit Target: 0x0000009e8b33

Tx Gain Index: 7 Packet Header: 0x3fff LE connect Initiator

Tx Packet Count: 0 Whittening Coeff: 0x7f Tx DAC Current: 4

Bluetooth Device Name: RTK_BT_4.0

HCI_Version: 0x06

HCI_Revision: 0x801f

LMP_Version: 0x06

Manufacturer_Name: Realtek Semiconductor Corporation

LMP_Subversion: 0x9b79

Supported Feature(0~7): 0xFF 0xFB 0xFF 0xFE 0xDB 0xFF 0x7B 0x87

=====

>> HCI Reset successful!!

>> Start Transmitting...

>> Stop Transmitting!!

Clear Log



Rx Test Setup:

Press "Start" to start Rx and BT tester can start sending packet.

Press "Stop" to stop Rx.

Select "Packet-Rx"

Select "Data Rate", "RF Channel", "Payload Type", "Payload bytes"

"Data Rate" = [LE]

Realtek Bluetooth MP v2.81 --- RTL8723a (BD Address = 0x00E04C887232)

Action Item: Packet Rx

Rx Bits: 0 Error Bits: 0 BER (%): 0

Update Rep

Test Setup

Data Rate: LE Payload Type: PRBS9 Test Mode: Normal Test

RF Channel: 0 Payload bytes: 37 Hit Target: 0x0000009e8b33

Tx Gain Index: 7 Packet Header: 0x031803

Tx Packet Count: 0 Tx DAC Current: 4

Whitening Coeff: 0x75

HCI Reset

Test Mode

Reg RW

Host Re-Init

Clear Log

Log:

```
>> HCI Reset successful!!
>> Pseudo_Outter/BER/Report Count Enable

>> Translate BD Address: 0000009e8b33 to Access Code
>> Write Modem 0x1c AccessCode[52:67] as 0x5e72
>> Write Modem 0x1e AccessCode[36:51] as 0x7334
>> Write Modem 0x20 AccessCode[20:35] as 0x58cc
>> Write Modem 0x22 AccessCode[4:19] as 0x475c

>> Start Receiving...
>> Stop Receiving!!
>> 0 packets received
```





BT 4.0 LE Setup For FCC AFH Measurement





Step 1: Create LE connection (Initiator)

1. Checked [LE connect] and select "Initiator".
2. Key in the Target BD Address in the [Hit Target] and press "Enter" key
3. In the Action Items, select "Page + Create ACL connection"
4. press [Start] button

The screenshot shows the Realtek Bluetooth MP v2.82 software interface. The title bar reads "Realtek Bluetooth MP v2.82 --- RTL8723a (Control by WiFi PCIe Host)".

Action Items: A dropdown menu is set to "Page + Create ACL Connection" (labeled 3). A "Start" button is highlighted with a red box (labeled 4). Buttons for "Pause" and "Clear" are also visible.

Test Setup:

- Data Rate: 1M
- Payload Type: 010101
- Test Mode: Normal Test
- RF Channel: 0
- Connect Handle: 2712
- Hit Target: 0x00e04c335588 (labeled 1)
- Tx Gain Index: 7
- Packet Header: 0x3fff
- ☒ LE connect Initiator (labeled 2)
- Tx Packet Count: 0
- ☒ Whitening Coeff: 0x7f
- Tx DAC Current: 5

Buttons: HCI Reset, Test Mode, Reg RW, Host Re-Init, and Clear Log.

Log Window:

```
>> Write Modem 0x20 AccessCode[20:35] as 0x58cc
>> Write Modem 0x22 AccessCode[4:19] as 0x475c

>> Translate BD Address: 00e04c335588 to Access Code
>> Write Modem 0x1c AccessCode[52:67] as 0xb30d
>> Write Modem 0x1e AccessCode[36:51] as 0x046a
>> Write Modem 0x20 AccessCode[20:35] as 0xdee1
>> Write Modem 0x22 AccessCode[4:19] as 0x199c

>> Enter Connect Test mode ok!!
>> Set Connet Target ok!!
>> Start LE Connect Test (initiator, target = 0x00e04c335588) ok!!
>> BT Status: Connect Test Mode + under waiting connection
```




Step 2: Create LE connection (Advertiser)

1. Checked [LE connect] and select "Advertiser".
2. In the Action Items, select "Page + Create ACL connection"
3. press [Start] button

Realtek Bluetooth MP v2.82 --- RTL8723a (Control by WiFi PCIe Host)

2. Action Item: **Page + Create ACL Connection** 3. **Start** **Pause** **Clear**

Rx Bits: Error Bits: BER (%): ☐ Inverse Ant SW

Test Setup

Data Rate: Payload Type: Test Mode:

RF Channel: Connect Handle: Hit Target:

Tx Gain Index: Packet Header: 1. ☒ LE connect: **Advertiser**

Tx Packet Count: ☒ Whitening Coeff: Tx DAC Current:

HCI Reset
Test Mode
Reg RW
Host Re-Init

BT is ready!!
BT Firmware version: 0x9b79
BT Firmware logic version: 0x00
BT BD Address: 0x446d5731c5ff

>> HCI Reset successful!!
>> Enter Connect Test mode ok!!
>> Set Connet Target ok!!
>> Start LE Connect Test (advertiser) ok...
>> BT Status: Connect Test Mode + under waiting connection

Clear Log.



Step 3: Create LE connection

Initiator will create LE connection with Advertiser and AFH start running.

```
>> Set LE Event Mask OK!!

>> Set LE Adv Parameters OK!!

>> Set LE Adv Enable OK!!

>> [HCI Event] -> LE Connection Complete
>> [HCI Para] -> LE Connection completed successfully
>> [HCI Para] -> LE Connection_Handle = 0x0010
>> [HCI Para] -> BD_ADDR = 0x00E04C232218

>> HCI Reset successful!!
```





Setup Antenna Switch (support after v2.82)

Realtek Bluetooth MP v2.82 --- RTL8723a (Control by Linux Console)

Action Item:

Tx Packets: Error Bits: BER (%): ☐ Inverse Ant SW

Test Setup

Data Rate: Payload Type: Test Mode:

RF Channel: Payload bits: Hit Target:

Tx Gain Index: Packet Header: ☐ LE connect

Tx Packet Count: ☒ Whitening Coeff: Tx DAC Current:

2013/1/2 10:57:18

Start Linux Console ok!!
No MP driver exists!!
Insert MP driver ok!!
Enable WLAN Adapter ok!!
Enter MP mode ok!!
Download BT firmware ok!!
BT is controlled by WiFi now!!
=====

BT is ready!!
BT Firmware version: 0x9a4d
BT Firmware logic version: 0x9a
BT BD Address: 0x00e04c842713

If Checked: Main → WiFi
else Main → BT





FCC Warning Statement

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: - Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This module is intended for OEM integrator. The OEM integrator is still responsible for the FCC compliance requirement of the end product which integrates this module.

The final end product must be labeled in a visible area with the following "Contains TX FCC ID: 2AC23-WT4XR1210".

The FCC part 15.19 statement below has to also be available on the label: This device complies with Part 15 of FCC rules.

Operation is subject to the following two conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

The end user has to be informed that the FCC radio-frequency exposure guidelines for an uncontrolled environment can be satisfied. The end user has to also be informed that any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this equipment.

