User Manual

Smart Dongle

Model Name:U980

FCC ID:2ATH7U980

Version History

Version/State	Author	Participator	Start&Finish date	Remark
1.0/draft	Canxu.lai		2018/10/08-2018/10/08	Create document
1.0.1/release	Canxu.lai		2018/10/08-2018/10/22	Add operation UI,and update the BT Cmd
1.0.2/release	Canxu.lai		2018/10/23-2018/10/24	Add description about Analog dongle

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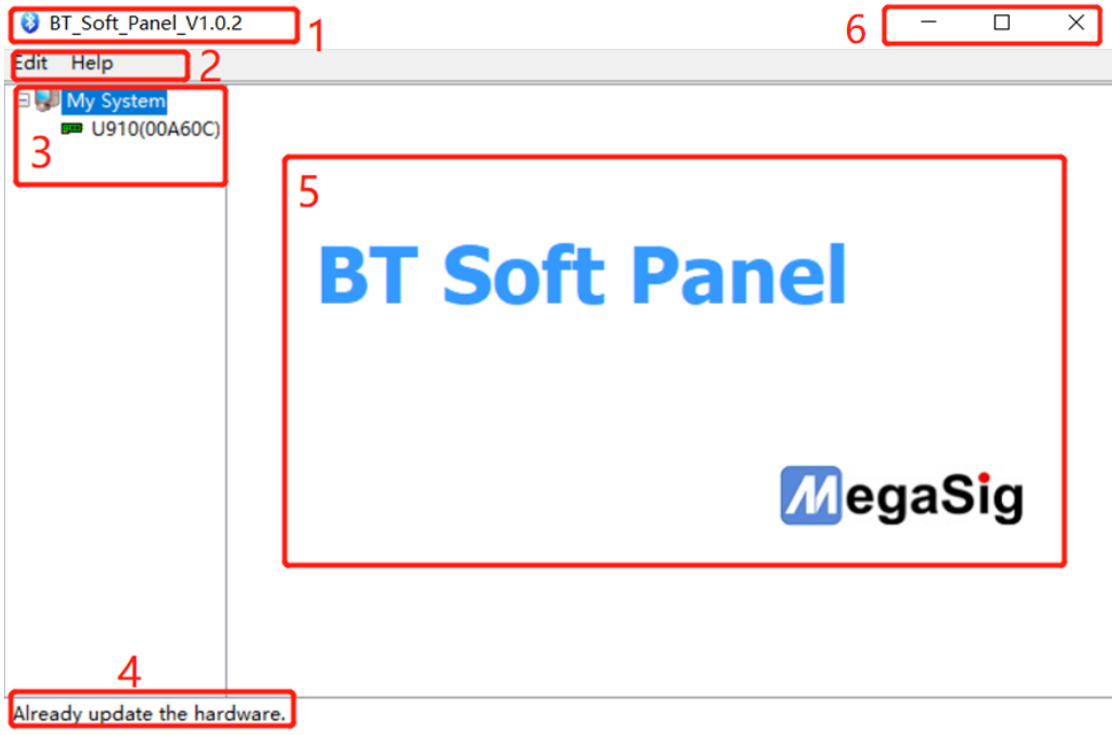
1 Overview

Users can customize the application with serial port tools through cmds of appendix A or use the soft panel from MegaSig.

First, Insert USB cable and the Antenna before the indicator light flashes quickly,and the software can be opened to control the U980 dongle.

The soft panel UI is concise and as show below,



Red box 1:show the name and version of software

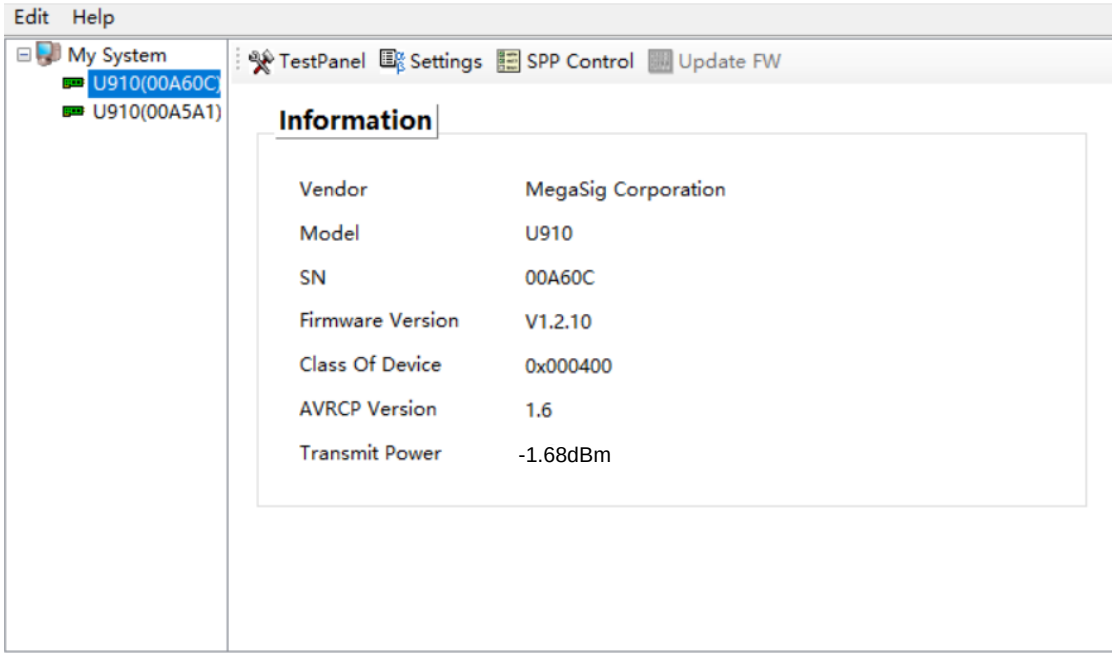
Red box 2:show the menu of edit and help

Red box 3:show all the BT device

Red box 4:show the operation tips

Red box 5:show the main function when the target device is clicked

Red box 6:show the zoom in \zoom out \exit of the software



Click U910(00A60C)

2 Operations

2.1 TestPanel

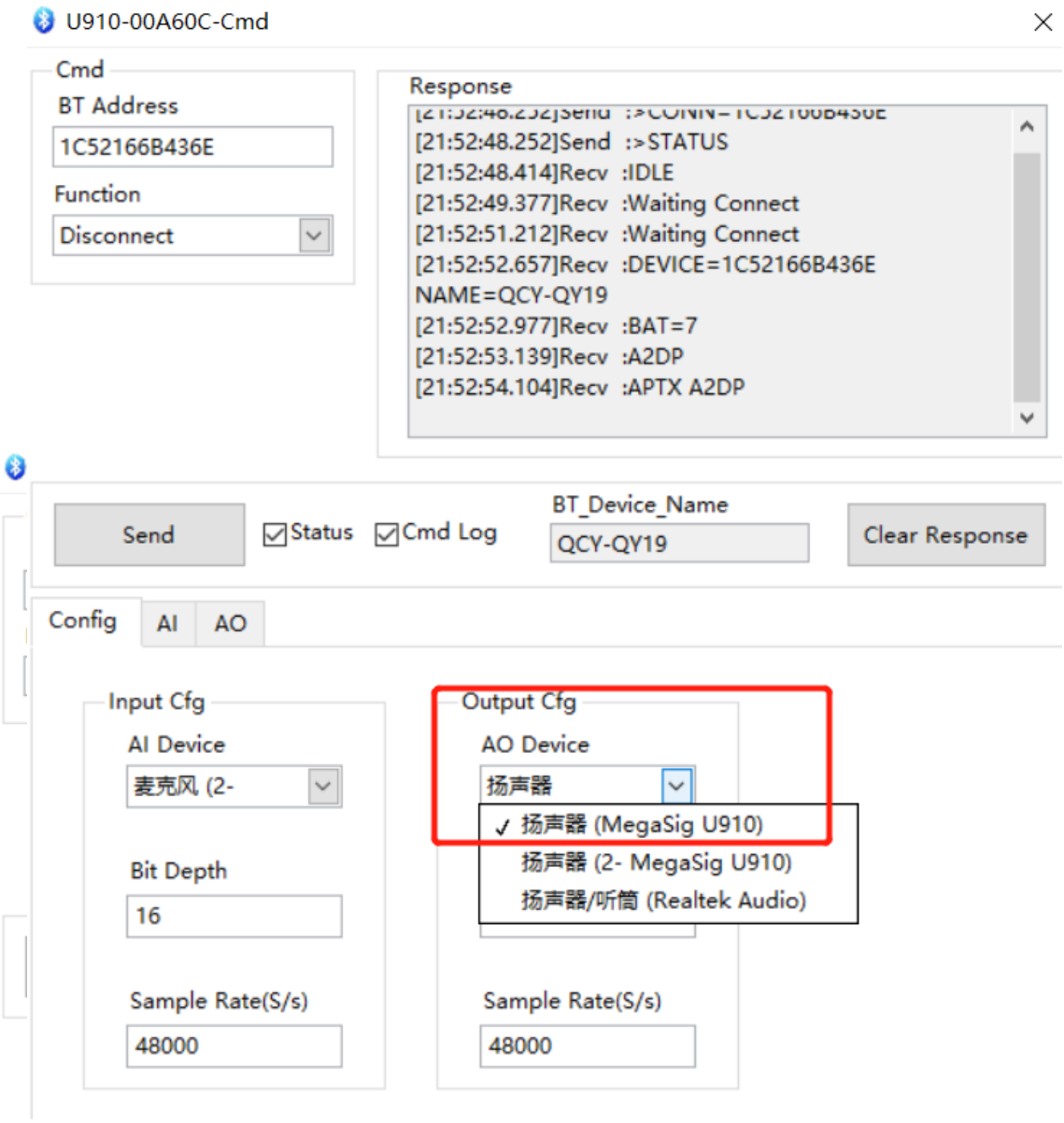
Click the “TestPanel”,and another UI will show as below,

The general method of operation is described below,

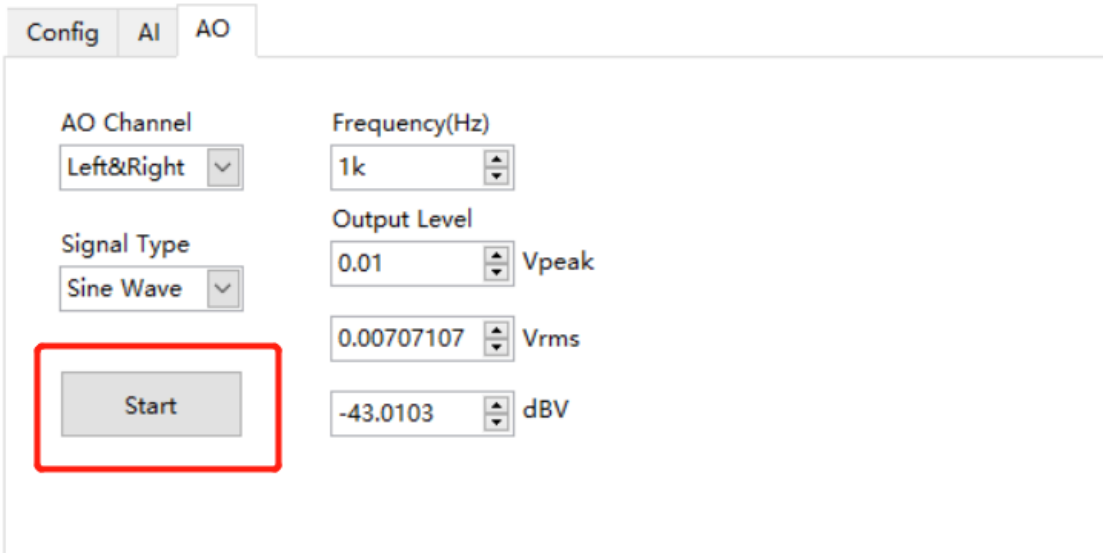
1） Input the “BT Address”,if know it,otherwise,we can select the function of “Search”,and then click “Send”button to scan BT address around;

2） Select the function of “Connect By Address”,and click “Send” button,“Response” control will show the connection information;

3） If the connection is successful,the dongle will set A2DP default mode,and we can use the valid sound card channel to test the speaker of DUT,as well as we can click “Start” button to output target signal to check whether the audio link is normal as shown in the following figure,but if you use MegaSig analog



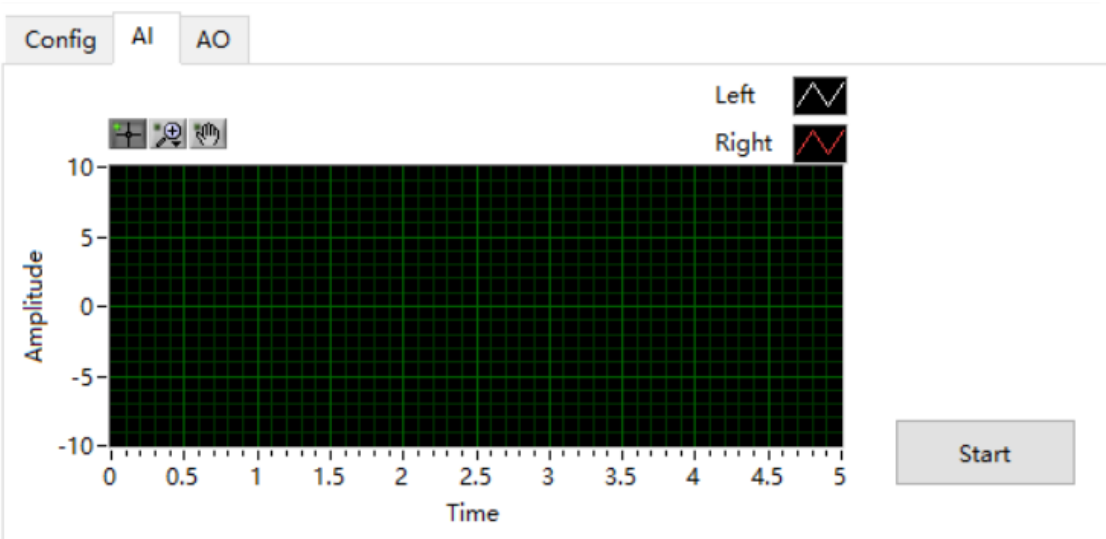
dongle the PC will have no sound card channel for using,that is to say,the following UI will no exist,and you have to use other DAQ Board for testing;



4） If we select the function of “HFP mode”,and click “Send” button,we can test the mic of DUT,and after selecting AI device,we also can get the curve of mic signal as shown in following figure;

Of course,you can design your code to control the acquision channel of sound card in PC;

But if you use MegaSig analog dongle the PC will have no sound card channel for using,that is to say,the following UI will no exist, and you have to use other DAQ Board for testing;

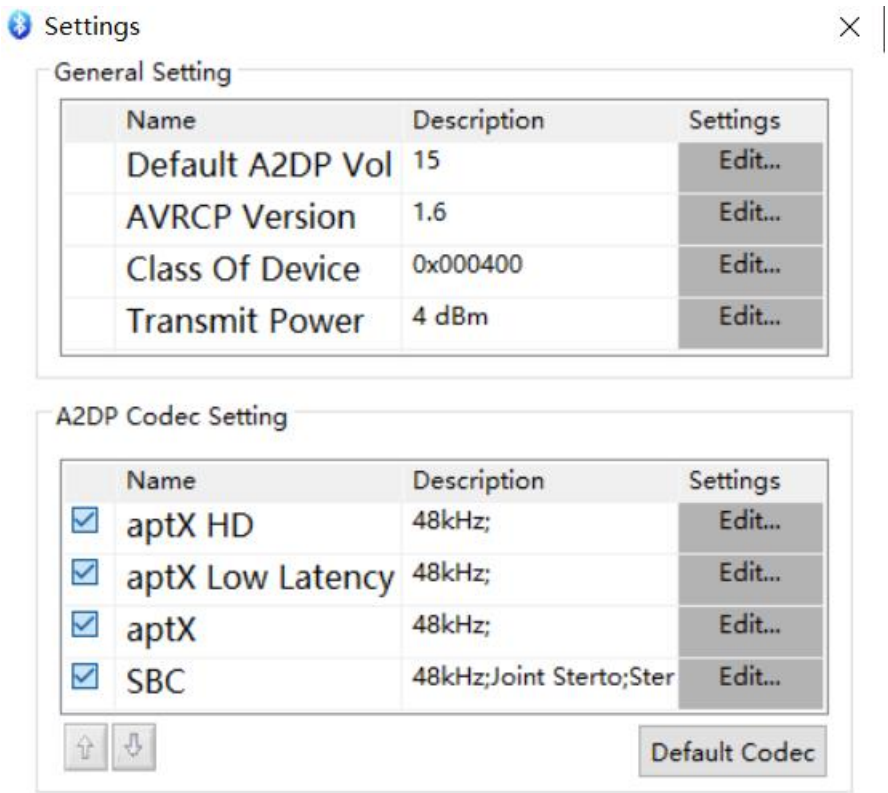


5） At last,we can execute the function of “Disconnect” to end the connection or connect another headset;

Notice:All the cmd will be shown in the appendix A.

2.2 Settings

Click the “Settings”,and another UI will show as below,

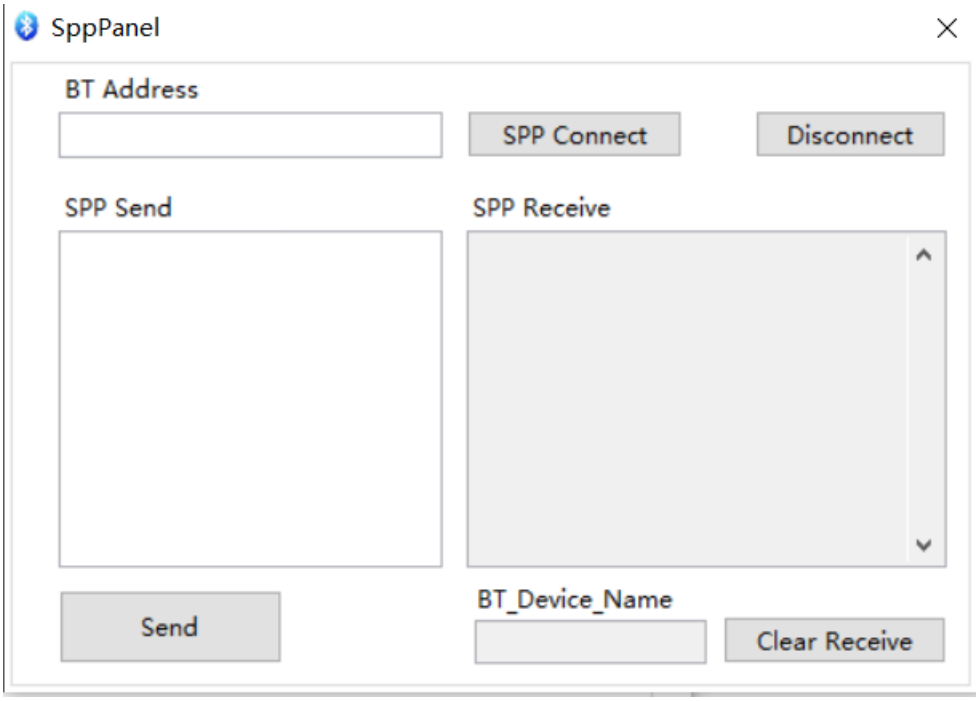


The general method of operation is described below,

1) Just click the “Edit” button to edit the target function,and another UI will show for selecting;
2) We can modify the order of A2DP codec as well as the sample rate;
3) We can click the “Default Codec” for the common setting;

2.3 SPP Control

Click the “SPP Control”,and another UI will show as below,



The general method of operation is described below,

1) We should input the target address,and click “SPP Connect” to wait for successful connection;
2) We can input the custom content,and click “Send” ;
3) If the DUT can return target info,we can get it from “SPP Receive” control;

Appendix A

MegaSig BT Cmd List

Serial Port Parameter:

Baud Rate: 115200
Data Bits: 8
Parity: None
Stop Bits: 1.0
Flow Control: None
Termination Char: \n

Notice:

'\s' means blank, equals to 0x20,
'\r\n' means return and line break, equals to 0x0D0A

Item	Send	Receive	Notice
Connect by BT address	>CONN=28371317B0E4\r\n	Waiting Connect Waiting Connect DEVICE=1C52166B436E NAME= QCY-QY19 A2DP APTX A2DP	1)Address code needs to be capitalized; 2)When the connection is successful, A2DP and the channel of the Speaker will be opened acquiescently.
Open A2DP	>OPEN\sA2DP\r\n	OK PAIREDA2DP	Close HFP mode, the channel of the Speaker will be opened.
Open HFP	>OPEN\sHFP\r\n	OK PAIREDHFP	Close A2DP mode, the channel of the Mic will be opened.
Disconnect	>DISC\r\n	OK IDLE	
Reset the dongle	>RST\r\n	OK IDLE	
Search BT address	>SEARCH=5\r\n	DEVICE=1C52166B436E RSSI=-76	BT address is "1C52166B436E"

		NAME=QCY-QY19	
Stop Search	>SEARCH\sSTOP\r\n	OK	
Query current status	>STATUS\r\n	IDLE Or PAIREDA2DP Or PAIREDHFP	
Start to get RSSI	>START RSSI UPLOAD\r\n	RSSI=-73 RSSI=-73	
Stop to get RSSI	>STOP RSSI UPLOAD\r\n	OK	
Set default volume (vol should be two digits,and the maximum value is 15)	>A2DP_DEFAULT_VOL=15\r\n	OK	After setting the default volume, the device needs to be powered off and restarted or send the Reset cmd
Set the cod during the search	>COD_SET=400\r\n	OK	Changing the value of COD will limit the search range of bluetooth device, and it is not recommended to modify.
Automatically search and connect	>NO_MAC_CON\r\n	Waiting Connect Waiting Connect DEVICE=1C52166B436E NAME= QCY-QY19 A2DP APTX A2DP	Recommend to use shielding box to avoid connecting other DUT by mistake
Simulate calling the headset	>MAKE CALL\r\n	OK	
Connect to the subject via bluetooth address code and start SPP communication	>SPP_CONN=1C52166B436E \r\n	Waiting Connect Waiting Connect DEVICE=1C52166B436E NAME= QCY-QY19 >SPP_CONNECT A2DP	
Send information to the object via SPP	>SPP_SEND=DATA		
Gets the		>SPP_RECV=DATA	The receiving

information sent by the measured object through SPP			process is passive and requires real-time monitoring of data in the serial port
Read hardware attributes	>SYS_INFO_GET=?\r\n	>SYS_INFO_GET=MegaSig U910 FirmwareV1.2.13	
Set Speaker volume after connection	>SET_VOL=05\r\n	OK	Volume should be two digits (00-15)

FCC Caution.

This device complies with part 15 of the 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.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: 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 equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.