



**HS-100B/CM108B/CM119B/CM118B
EEPROM Configuration Tool
User Manual**

Rev. 1.1
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1. Introduction

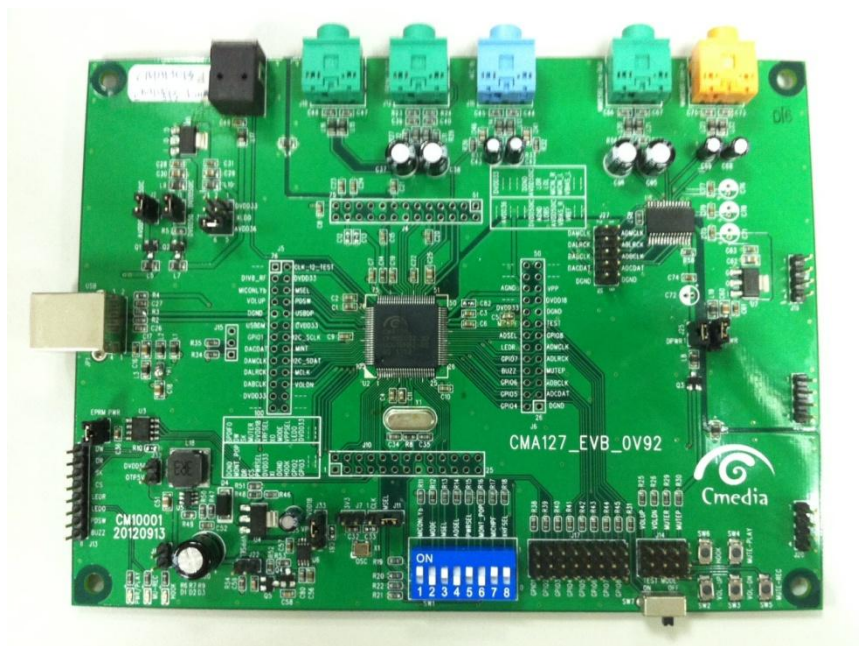
C-Media provides an EEPROM tool for manufacturer to set the EEPROM setting of HS-100B/CM108B/CM119B/CM118B series IC.

2. Device Requirement

- 1) PC (Personal Computer) with Windows Win7/Win8 (32 or 64bit)
- 2) USB Cable (Type A-Type B)

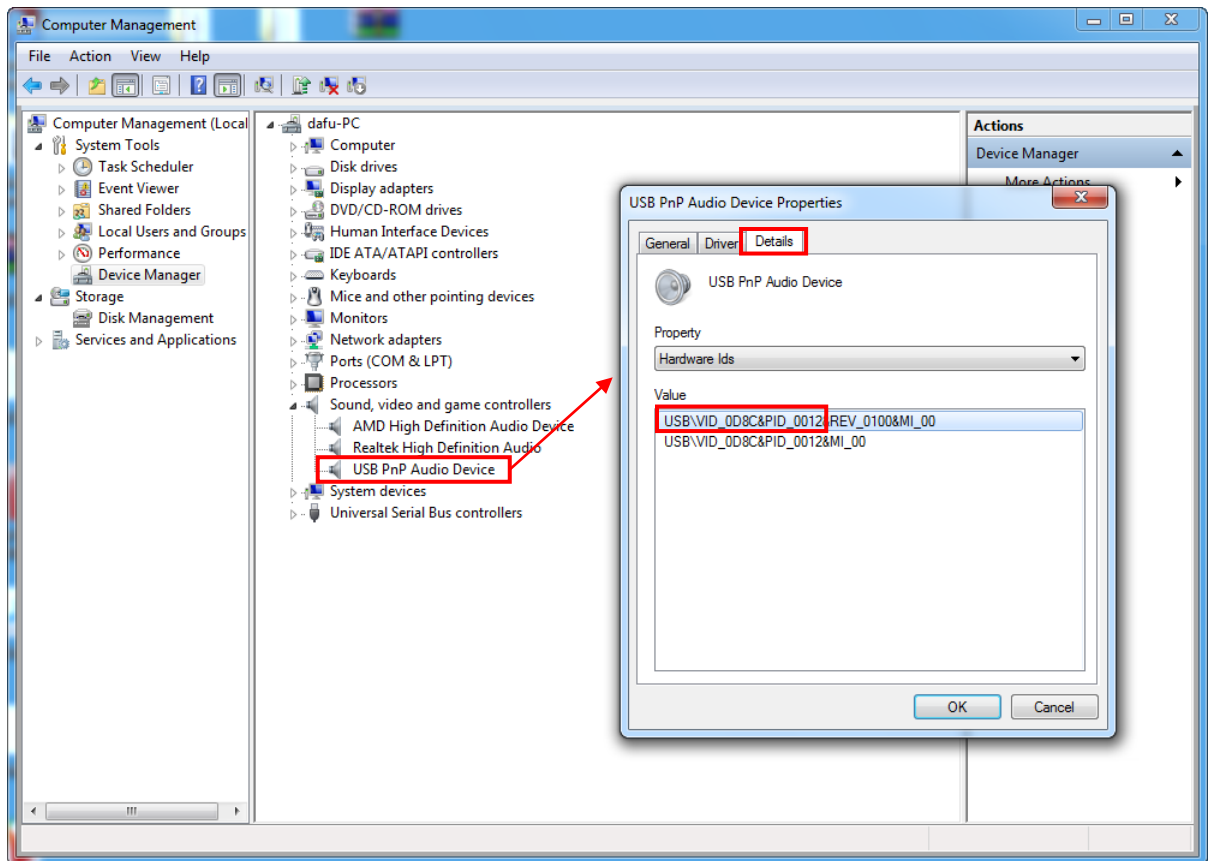


- 3) HS-100B/CM108B/CM119B/CM118B Hardware device



3. Basic Connection and Setting

- 1) Use a USB cable (Type A-Type B) to connect the HS-100B/CM108B/CM119B/CM118B HW Device to your PC.
- 2) Open the Windows **Control Panel** → **Device Manager** → double click mouse left button on the “**USB Audio Device**” item to open the **USB Audio Device Properties** dialog box.
- 3) In the “Detailed” tab, get the HS-100B/CM108B/CM119B/CM118B device’s **VID/PID**.



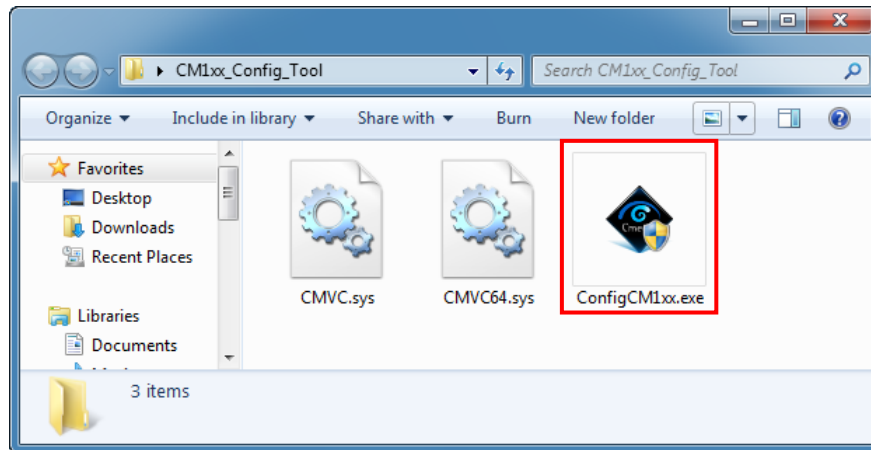
Device VID/PID List:

	VID	PID
CM108B	0D8C	0012
CM119B	0D8C	0013
HS-100B	0D8C	0014
CM118B	0D8C	0016

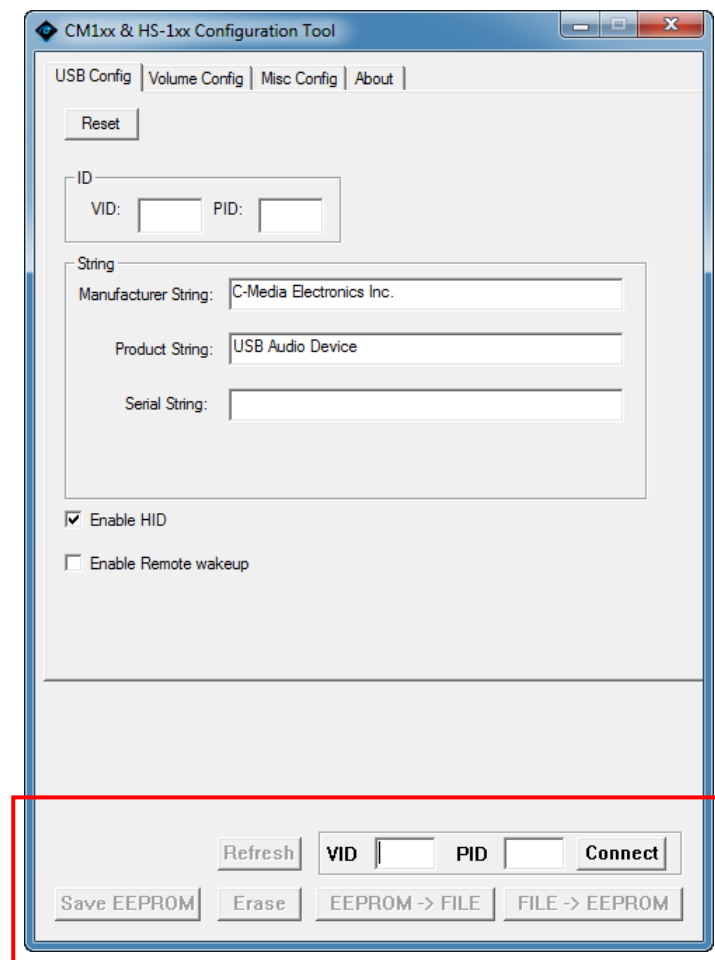
4. Start Using the Configuration Tool

4.1 Connect

- 1) Double click mouse left button on the Configuration tool
“ConfigCM1xx.exe” file.

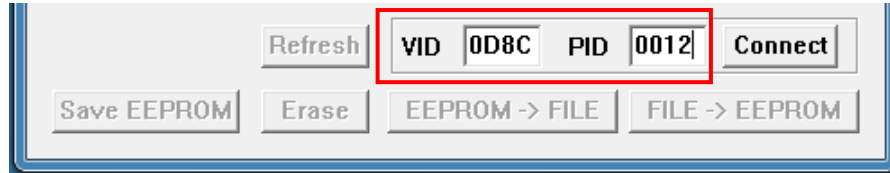


- 2) You can see the configuration tool dialog box as below.



3) Fill-in the HW device's VID/PID

Step1: Fill-in the HW device's VID/PID (0D8C/0012).



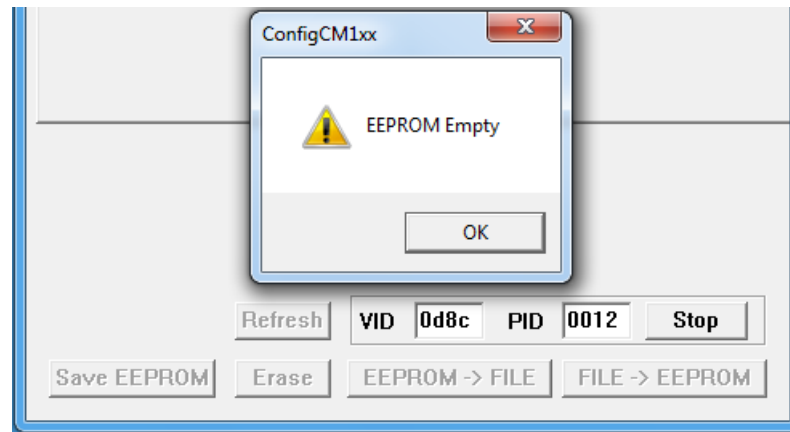
Step2: Click [Connect] button.



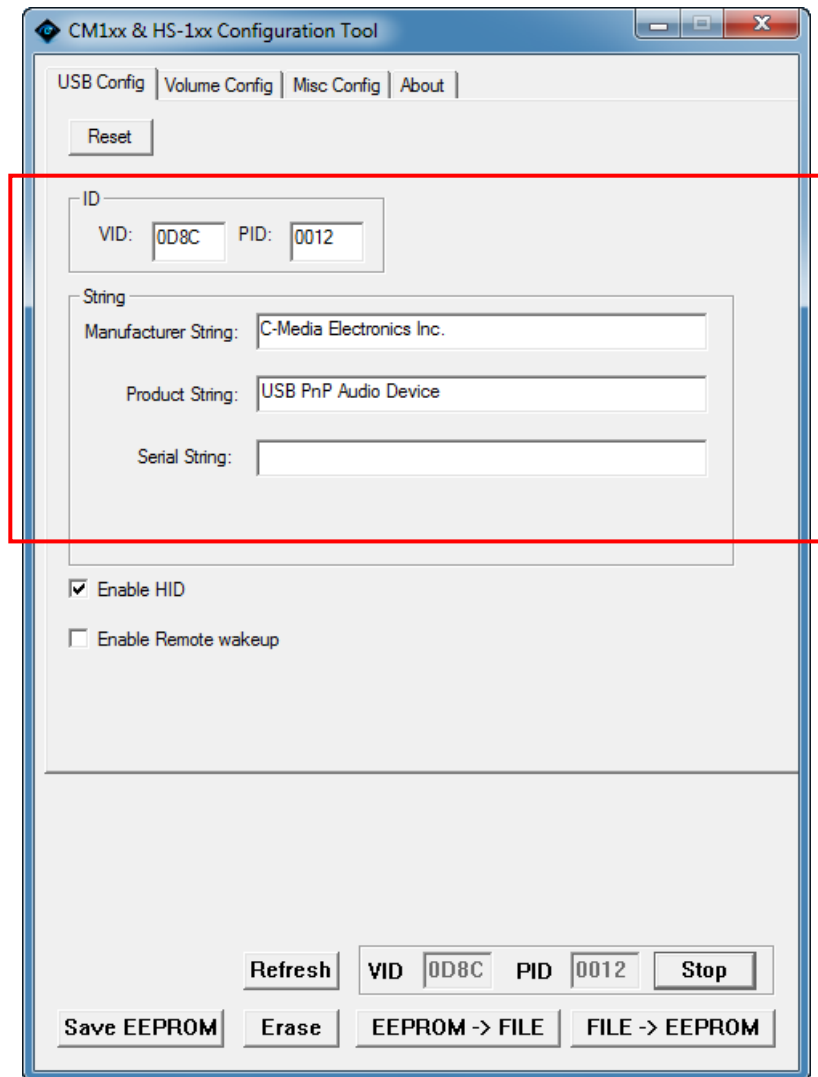
Step3: Check the connection status.

◆ Successful connections

If the connection is successful but the EEPROM data is empty, you can see a dialog box as below.

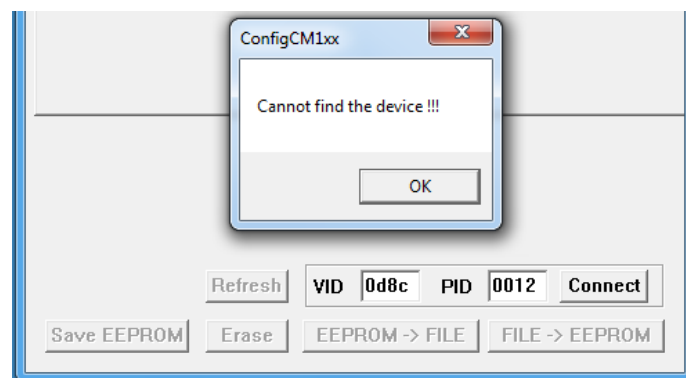


If the connection is successful, you will see a dialog box with default data as below.



◆ Failed connection

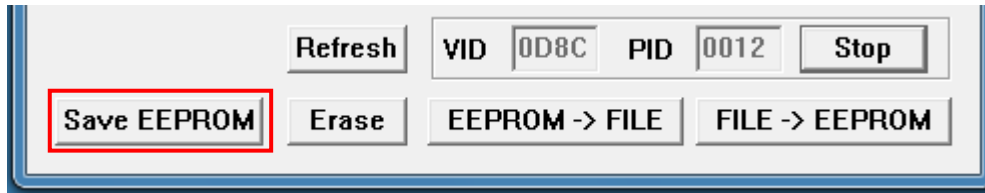
If the connection is failed (Hardware is not exist.), you will see a dialog box as below.



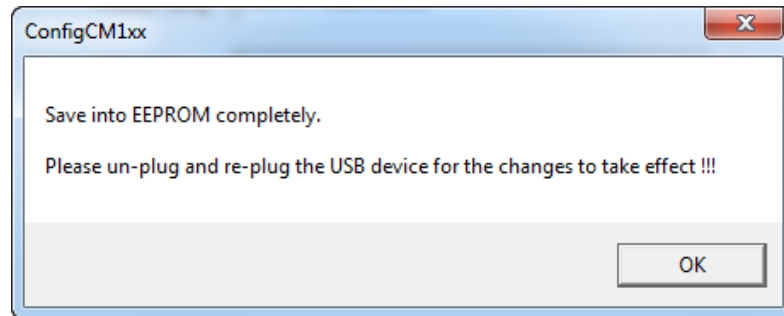
4.2 Saving EEPROM

This function can write data to the EEPROM, whenever the EEPROM settings are changed, the hardware device needs to **re-plug** to make the settings take effect.

When all settings have set, click on the [Save EEPROM] button to start writing data into EEPROM.



When the saving is completely you will see below dialog box.

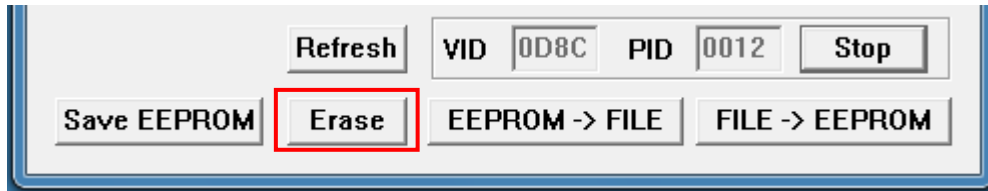


4.3 Erase EEPROM

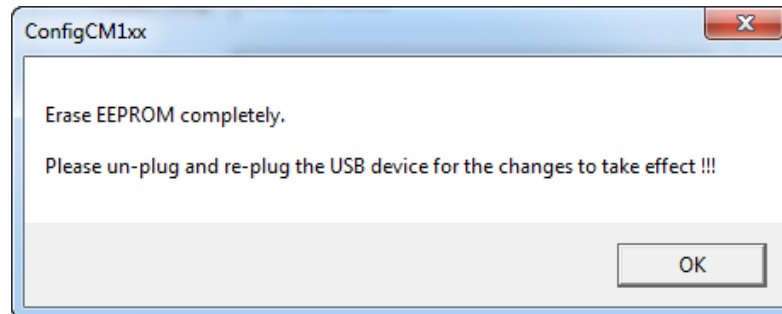
This function can erase all data of EEPROM.

ERASE

Click on [Erase] button to erase the all EEPROM data.



After EEPROM erasing, you can see a message as below dialog box.

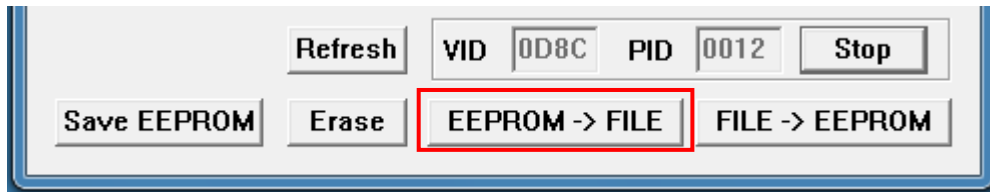


4.4 EEPROM → File

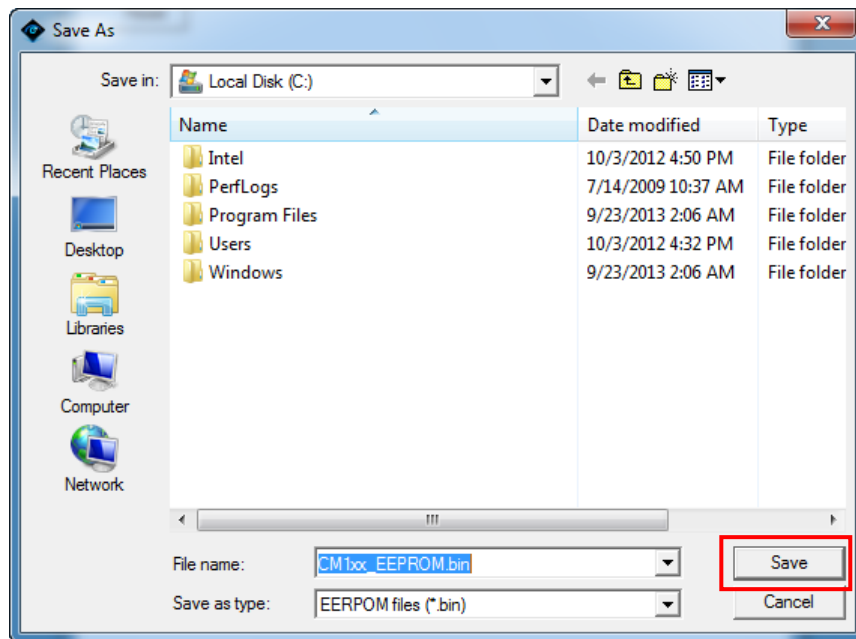
This function can export EEPROM data to a binary file

EEPROM->FILE

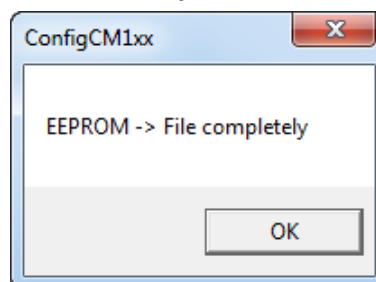
Click on the [EEPROM ->FILE], this tool will export the data of the EEPROM into a binary file.



You need to select the storage location and type a file name (Ex:CM1xx_EEPROM.bin) and then click on [Save].



After binary file export is finished, you can see below dialog box.



4.5 File → EEPROM

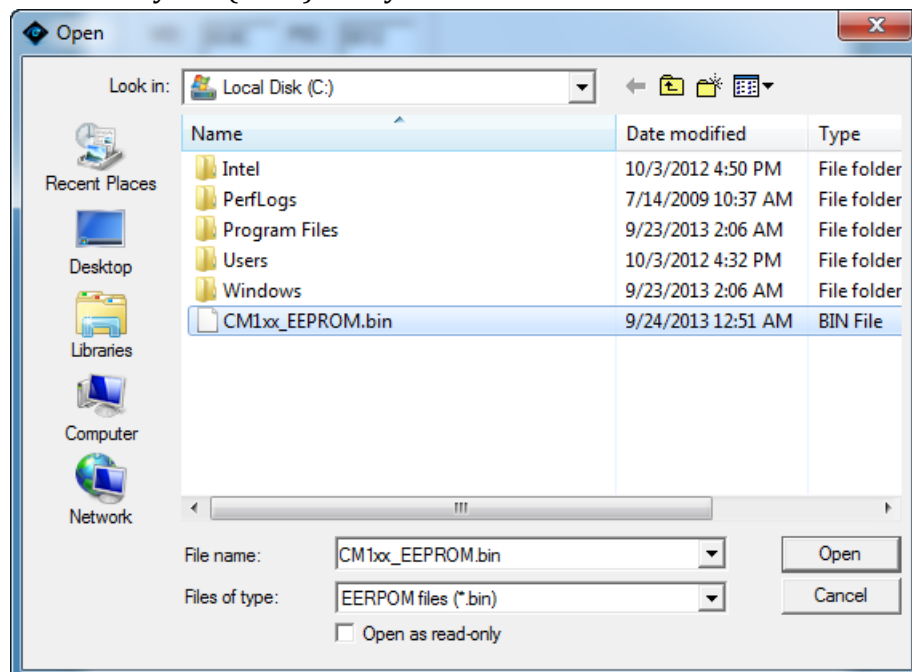
This function can load a binary file and write to EEPROM.

FILE->EEPROM

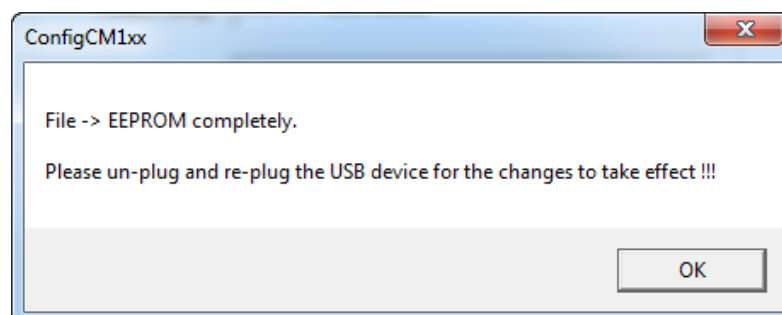
Click on [FILE->EEPROM] can load a binary file.



Choose a binary file (*.bin) that you want to write to EEPROM.



After the EEPROM data writing is finished, you can see below dialog box.



4.6 Refresh

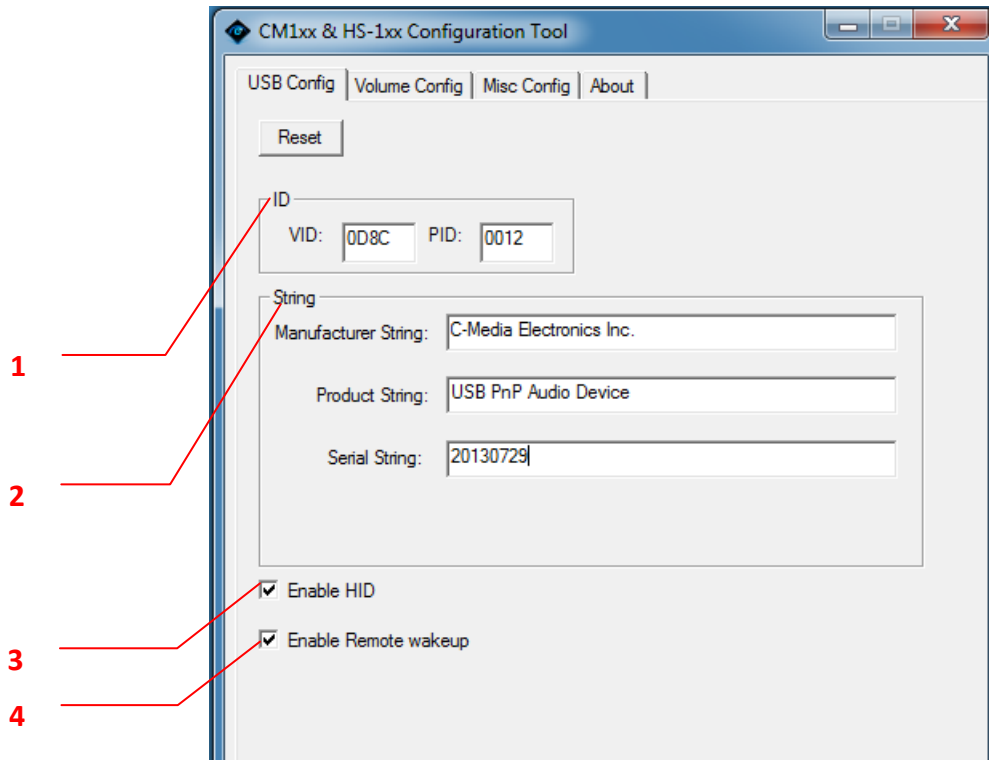
Click on [REFRESH] button, configuration tool will auto execute the [Stop] and then execute [Connect] to refresh the EEPROM connection.



5. The Configuration Settings Introduction

5.1 USB Config Page

Set the USB information and USB setting



USB Information

1. ID

VID

Vendor ID

PID

Product ID

2. String (String limit 30bytes)

Manufacture String (can not be empty)

Input Manufacture name (Default: C-Media Electronics Inc.)

Product String (can not be empty)

Input Product Model No. or Model Name. (Default: USB Audio Device)

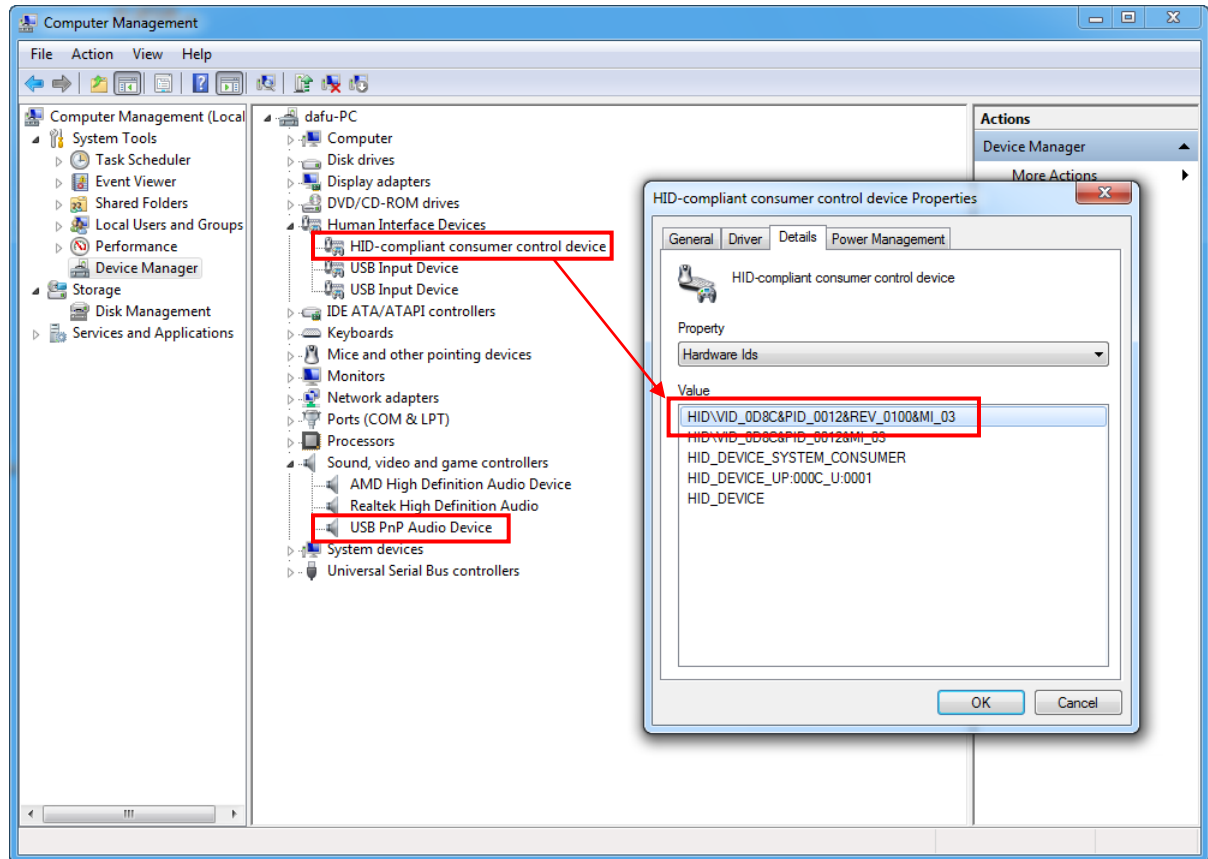
Serial Number

Input product serial number or version.

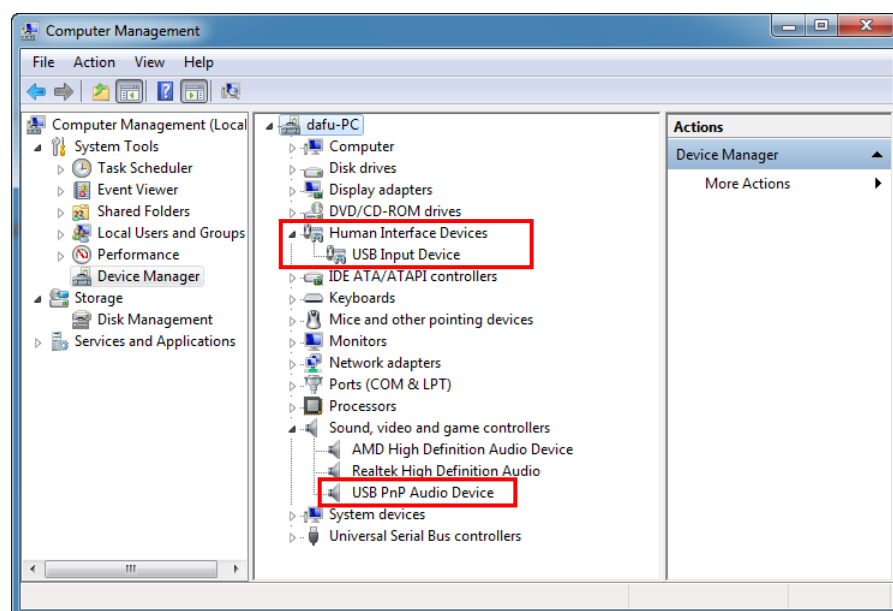
3. USB Setting

◆ Enable HID Descriptor

Enable HID Function



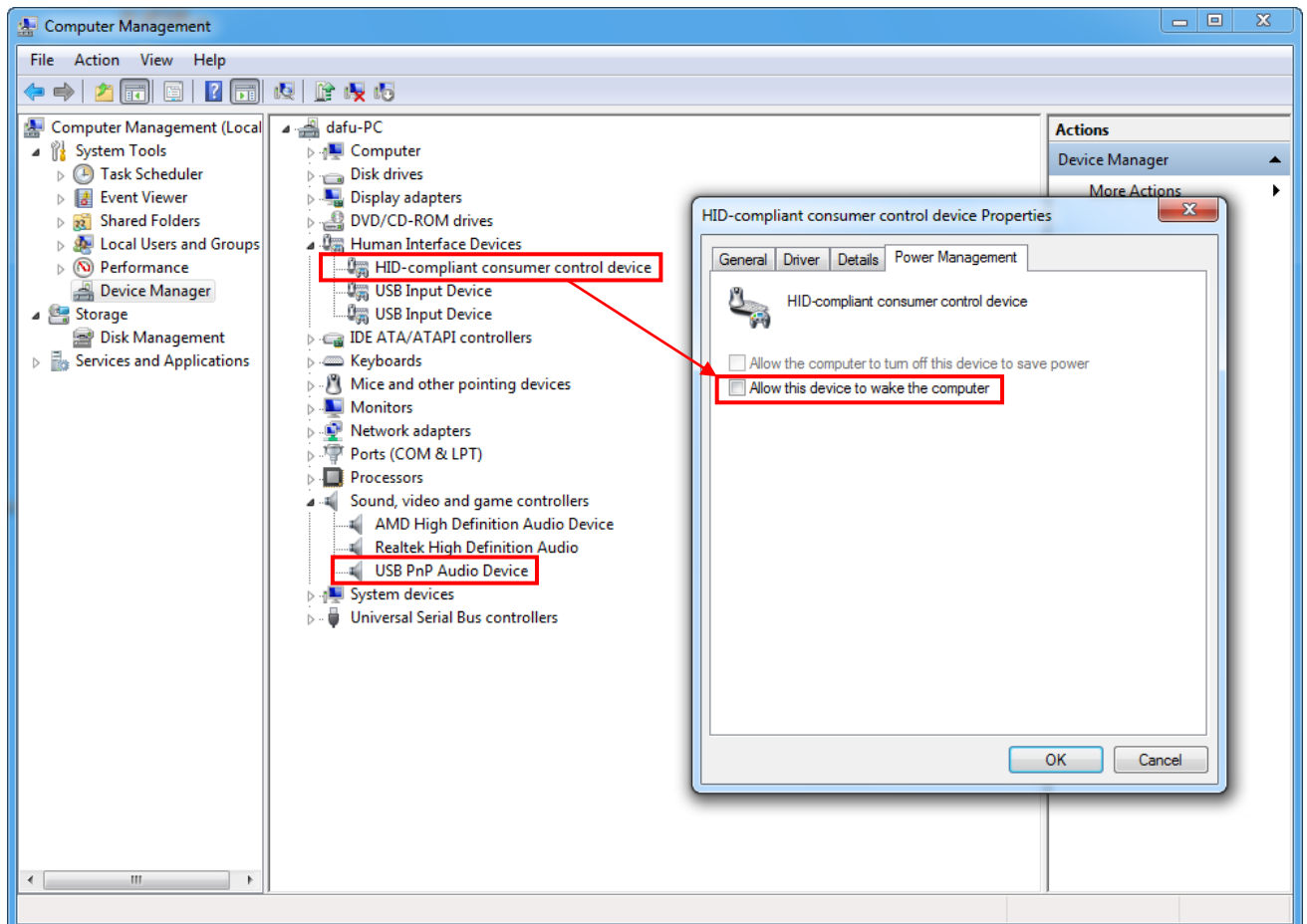
HID Disable



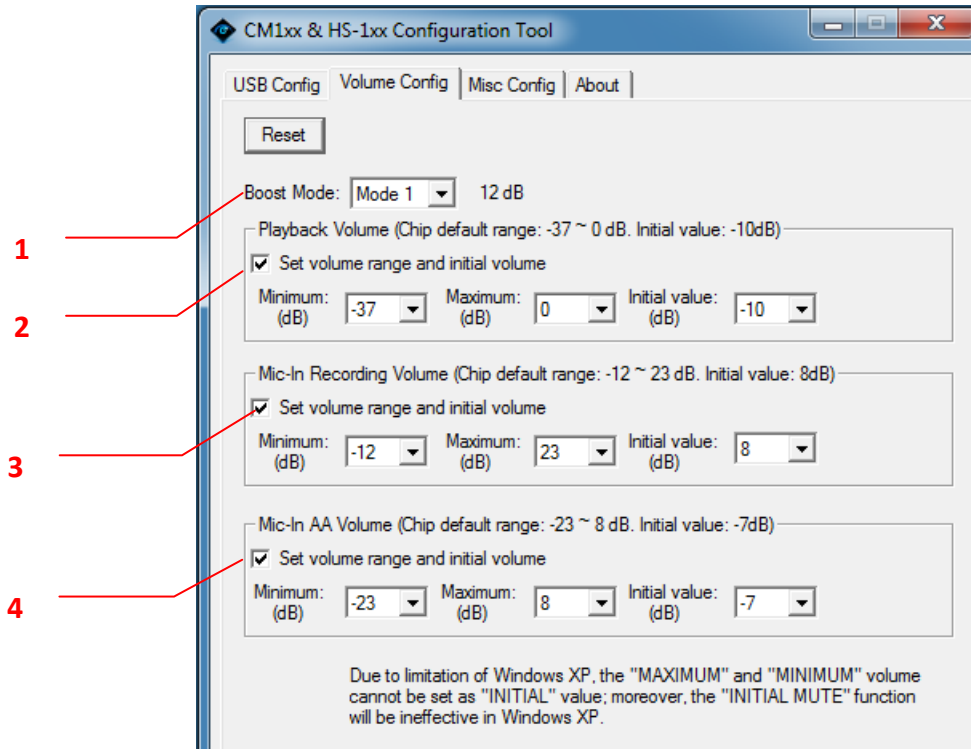
◆ Enable Remote Wakeup

Enable Remote

When this item has enabled, you can see an “Allow this device to wake the computer” item.



5.2 Volume Config Page



1. Boost Mode

There are two boost modes, mode0 and mode1; this setting provided different ranges of the initial value for "Mic-In" and "Mic-In A-A path".

Boost mode configuration table:

	Minimum (dB)	Maximum(dB)	Initial(dB)
Playback(mode0)	-37	0	-10
Playback(mode1)	-37	0	-10
Mic (mode 0)	-22	23	-2
Mic (mode 1)	-12	23	8
AA (mode 0)	-23	0	-23
AA (mode 1)	-23	8	-7

2. Playback Volume

Playback Volume (Chip default range: -37 ~ 0 dB. Initial value: -10dB)

☒ Set volume range and initial volume

Minimum: (dB) Maximum: (dB) Initial value: (dB)

Set volume range and initial volume

Set the Playback range and initial volume is valid

Minimum (dB):

Set the Playback minimum volume

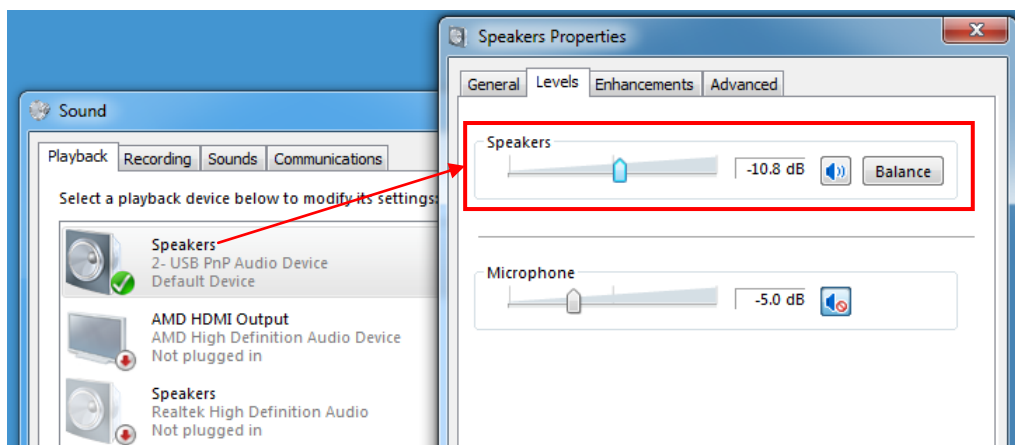
Maximum (dB):

Set the Playback minimum volume

Initial value (dB):

Set the Playback initial volume

Playback Volume Check:



3. Mic-In Recording Volume

Mic-In Recording Volume (Chip default range: -22 ~ 23 dB. Initial value: -2dB)

☒ Set volume range and initial volume

Minimum: (dB) Maximum: (dB) Initial value: (dB)

Set volume range and initial volume

Set the Mic-In range and initial volume is valid

Minimum (dB):

Set the Mic-In minimum volume

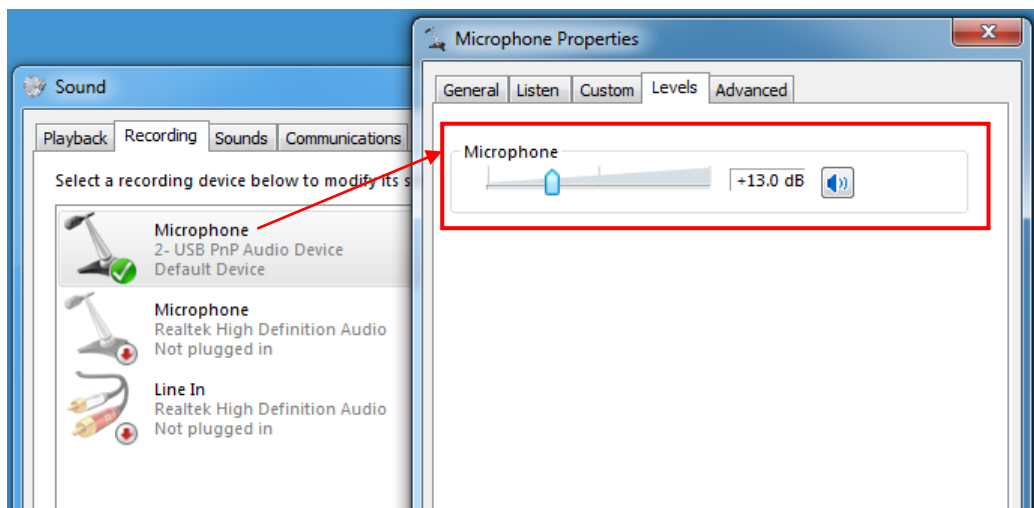
Maximum (dB):

Set the Mic-In minimum volume

Initial value (dB):

Set the Mic-In initial volume

Mic-In Recording Volume Check:



4. Mic-In AA Volume

Mic-In AA Volume (Chip default range: -23 ~ 0 dB. Initial value: -23dB)

☒ Set volume range and initial volume:

Minimum: (dB) Maximum: (dB) Initial value: (dB)

Set volume range and initial volume

Set the Mic-In AA range and initial volume is valid

Minimum (dB):

Set the Mic-In AA minimum volume

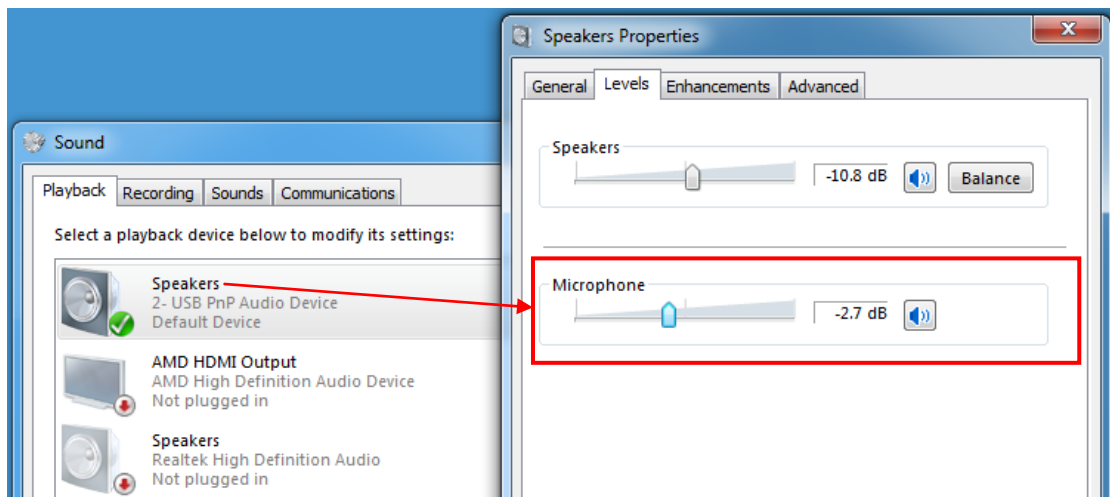
Maximum (dB):

Set the Mic-In AA minimum volume

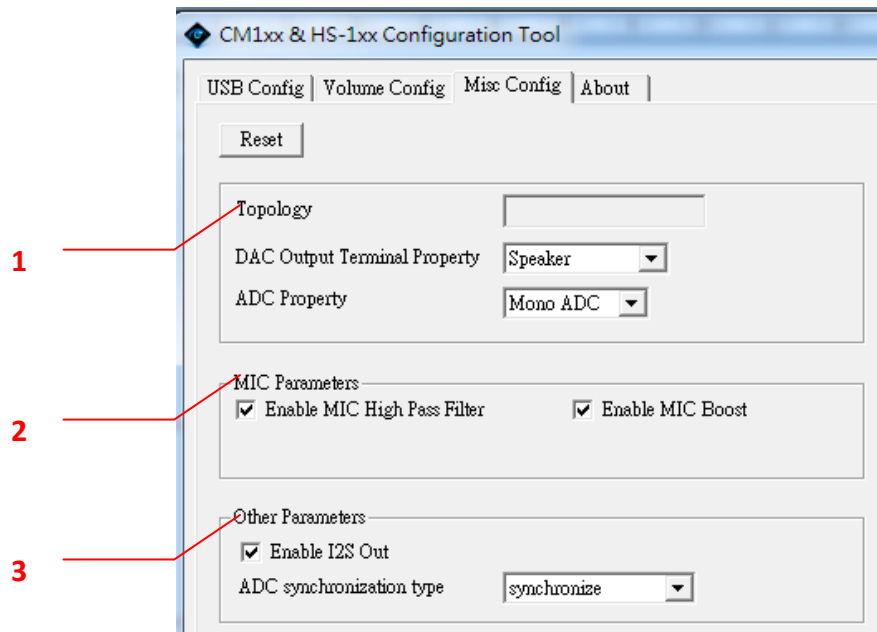
Initial value (dB):

Set the Mic-In AA initial volume

Mic-In AA Volume Check:



5.3 Misc Config Page



1. Topology

Display hardware topology type.

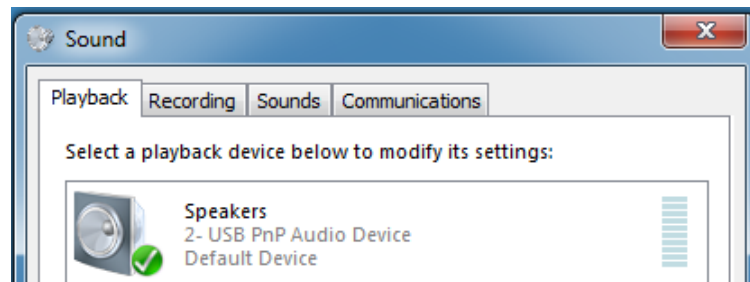
Topology Definition List:

- ✧ Speaker
- ✧ Mono Microphone with Selector
- ✧ Mono Microphone
- ✧ Stereo Microphone with Selector
- ✧ Stereo Microphone
- ✧ Headset with Mixer
- ✧ Headset

DAC Output Terminal Property:

- ✧ Speaker
- ✧ Headset

DAC Output Terminal in Speaker as below:



DAC Output Terminal in Headphone as below:



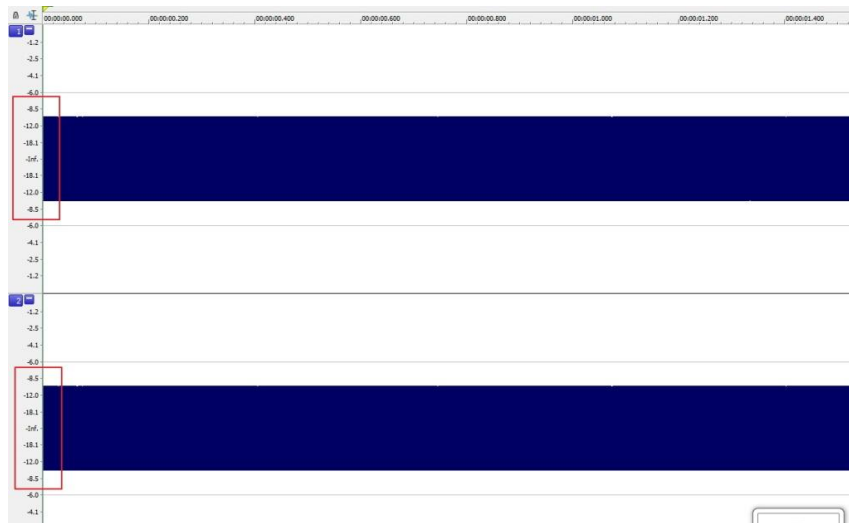
XP limitation: The HID function is not available in Headset.

2. MIC Parameters

◆ Enable High Pass Filter

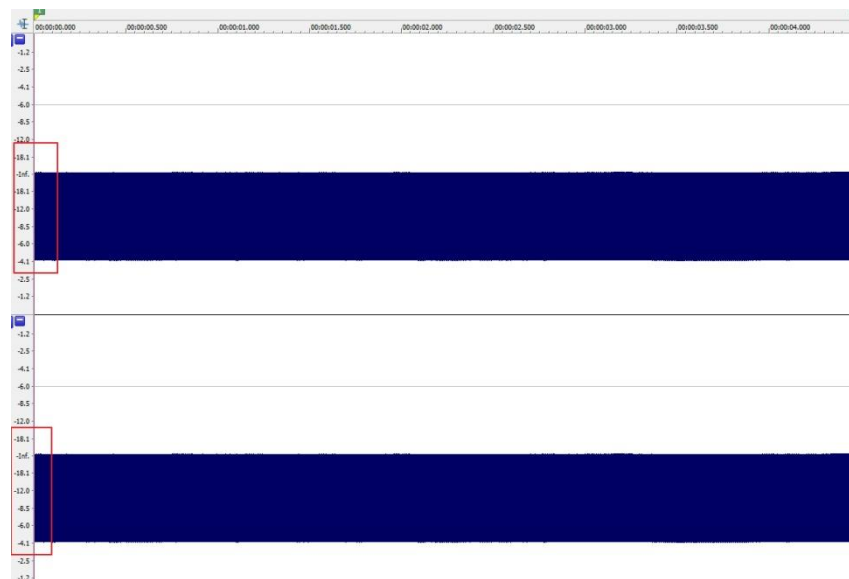
To open the ADC high-pass filter and filtered DC offset.

Playing a sine wave with DC offset, and then records it by the HS-100B/CM108B/CM119B/CM118B Mic, here is the waveform as enable high pass filter.



◆ Disable High Pass Filter

Here is the waveform as disable high pass filter, the waveform has deviated inf.



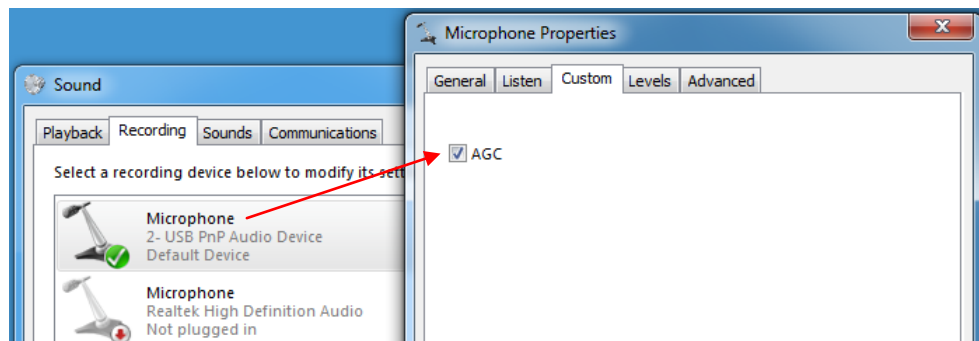
◆ **Enable MIC Boost**

To enable the AGC function

AGC gain volume is depend on Boot Mode ([Chapter 5.2](#))

- ✧ Mode 0: 22dB
- ✧ Mode 1: 12dB

The AGC switch is in property page of custom tag.



3. Other Parameters

◆ **Other Parameters**

Enable I2S Out

To enable I2S output.

The I2S signal and analog signal will be output at the same time.
(Notice: Please confirm the HW has I2S output.)

Disable I2S Out

There is analog signal output only.

ADC synchronous type

Could select between synchronize or asynchronize for microphone input, the default setting is synchronize.

5.4 About

You can find the Configuration tool version on this page.

