Test Procedure for the LV3327PMGEVB Evaluation Board

# Test Items

***Step check**

Volume, Output gain

***Characteristic**

Loudness, Output noise voltage, THD, Maximum input voltage, Input selector, Output selector

# Test Setup 1

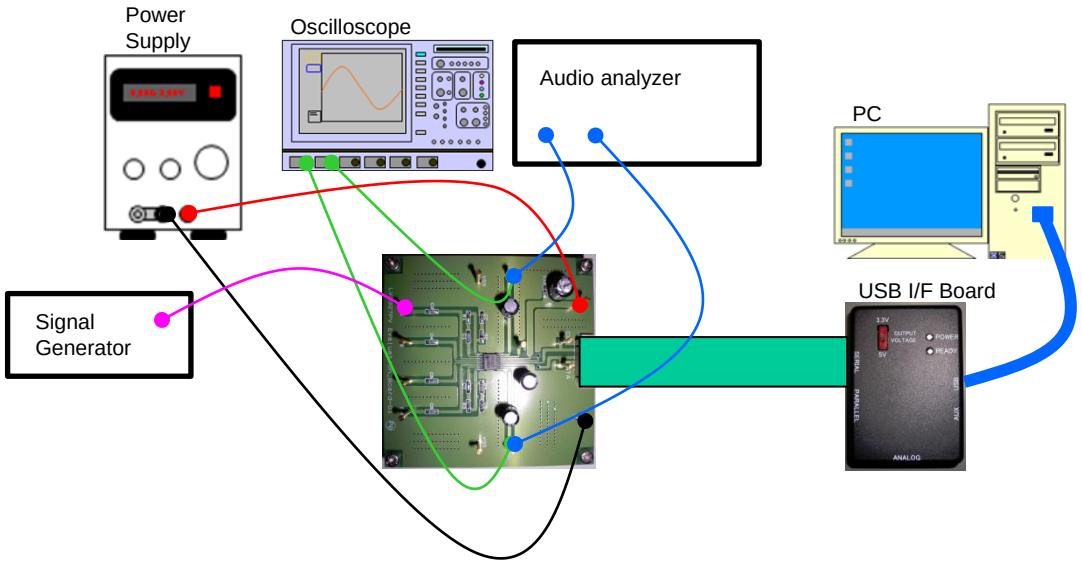



Fig 1

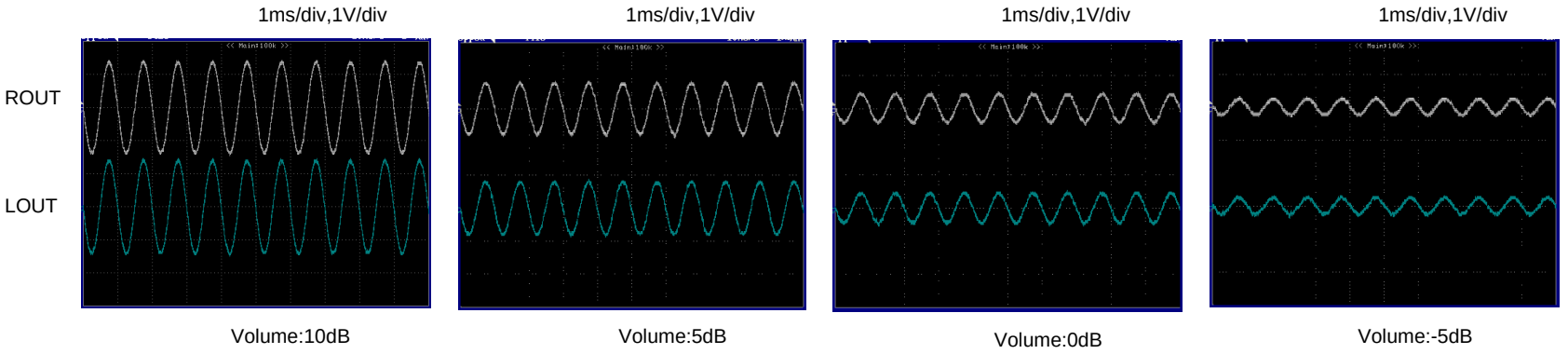
Equipment :

- ✓ Power Supply … 1pc
- ✓ Oscilloscope … 1pc
- ✓ Signal Generator … 1pc
- ✓ Audio analyzer … 1pc
- ✓PC … 1pc
- ✓USB I/F Board … 1pc
- ✓LV3327PV Evaluation_Board … 1pc

## Step check1 : Volume

- Please apply an electric power supply:5V.
- Input signal : VIN=-10dB,f=1kHz→IN1
- Setting from PC
  - Set Input selector in IN1. Each setting level:FLAT.
  - Output Selector select.→Selector(Lch)=Lch, Selector(Rch)=Rch
  - Transmit Volume data. Confirm an output waveform.

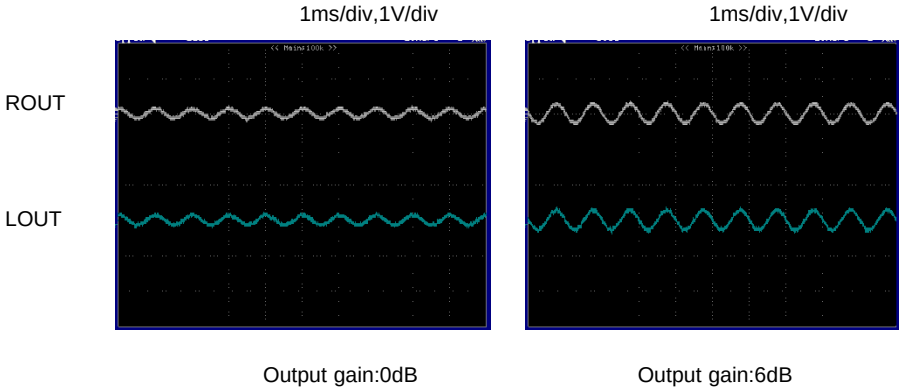
Check the waveform in OSC. Confirm the step level in Audio Analyzer.
About the following waveforms. Setting of Volume: Waveform of 10dB/5dB/0dB/-5dB



## Step check2 : Output gain

- Please apply an electric power supply:5V.
- Input signal : VIN=-10dB,f=1kHz→IN1
- Setting from PC
  - Set Input selector in IN1. Each setting level:FLAT.
  - Output Selector select.→Selector(Lch)=Lch, Selector(Rch)=Rch
  - Volume 0dB set
  - Transmit Output gain data. Confirm an output waveform.

Check the waveform in OSC. Confirm the step level in Audio Analyzer.
About the following waveforms. Setting of Output gain: Waveform of 0dB/6dB

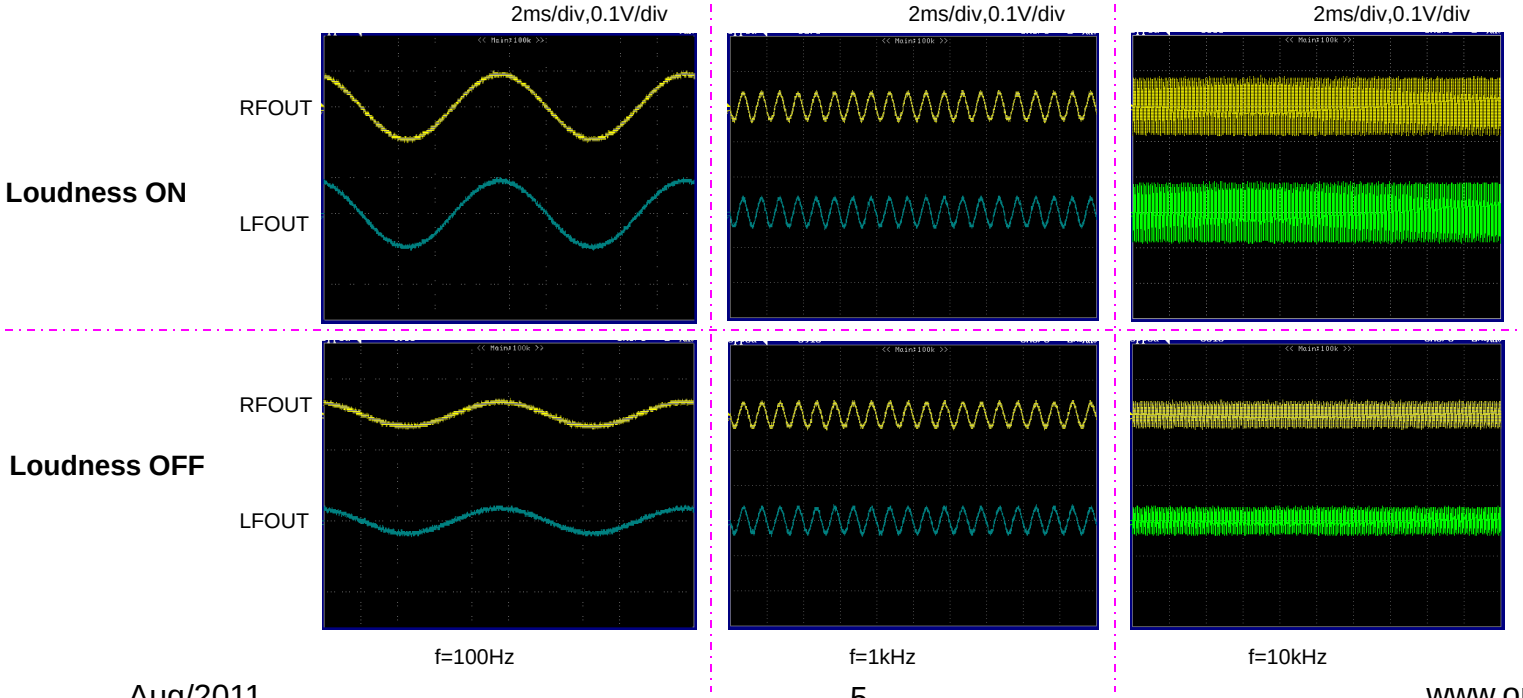


## Characteristic1 : Loudness

- Set up (Refer to Fig1)
- Please apply an electric power supply:5V.
- Input signal level : VIN=0dB→IN1
- Setting from PC
  - ・Set Input selector in IN1. Each setting level:FLAT.
  - ・Transmit Volume data -32dB and Loudness control ON.
  - ・Confirm output level : input frequency 100Hz/1kHz/10kHz.

Check the waveform in OSC. Confirm the output level in Audio Analyzer.

About the following waveforms. Condition : Loudness ON/OFF, input frequency 100Hz/1kHz/10kHz.



# Test Setup 2

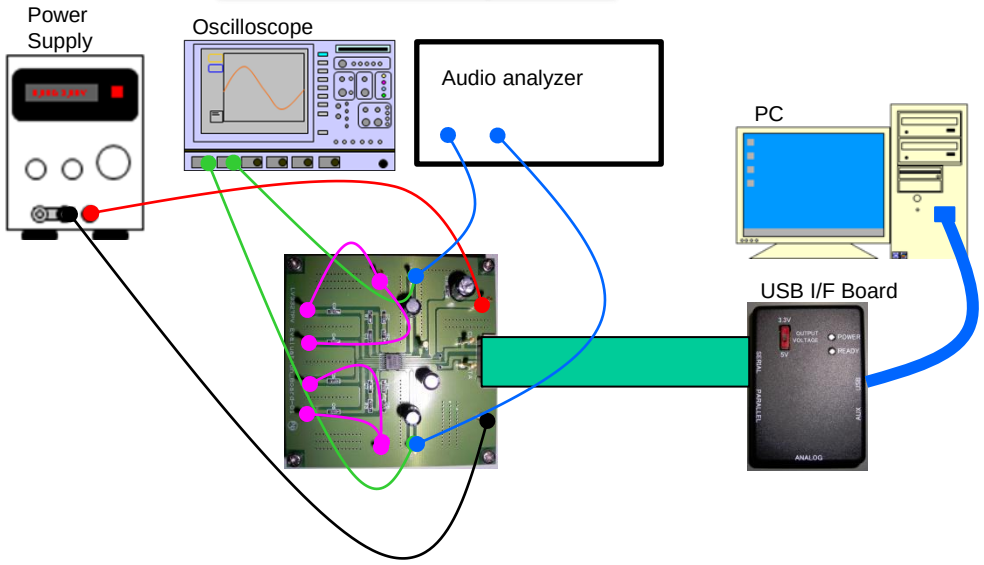



Fig 2

## Characteristic6 : Output noise voltage

- Set up (Refer to Fig2)
- Please apply an electric power supply:5V.
- Input pin is all GND.
- Setting from PC
  - ・Set Input selector in IN1. Each setting level:FLAT

Confirm the output level in Audio Analyzer.→noise level check

## Characteristic7 : THD

- Set up (Refer to Fig1)
- Please apply an electric power supply:5V.
- Input signal : VIN=0dB,f=1kHz→IN1
- Setting from PC
  - ・Set Input selector in IN1. Each setting level:FLAT.

Confirm the output level in Audio Analyzer.→THD

## Characteristic8 : Maximum input voltage

- Set up (Refer to Fig1)
- Please apply an electric power supply:5V.
- Input frequency: 1kHz→IN1
- Setting from PC
  - ・Set Input selector in IN1. Each setting level:FLAT.

The output level adjust VIN to become level of THD=1 %.
Confirm level of VIN in Audio Analyzer .→Maximum input voltage

## Characteristic9 : Input selector

- Please apply an electric power supply:5V.
- Connect Signal Generator to “input sel” which wants to input a signal (input signal :VIN=0dB,f=1kHz).
  Other “input sel” ,OPEN.
- Setting from PC
  - Selector “input sel” set. Each of other setting level : FLAT.
  - Check the waveform in OSC. →Confirm the output waveform of FLAT.
  - Choose “input sel” which does not enter of the signal . →Confirm the output waveform of no signal.

In the case of set up (Refer to Fig1) , IN1:signal input, other “input sel”: OPEN .