

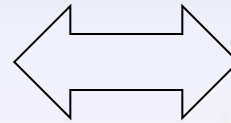
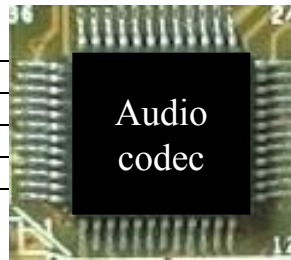
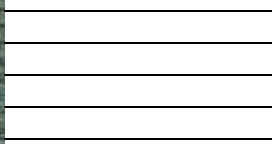
Audio

Sephiroth Kwon

GRMA

26-05-2009

AUDIO

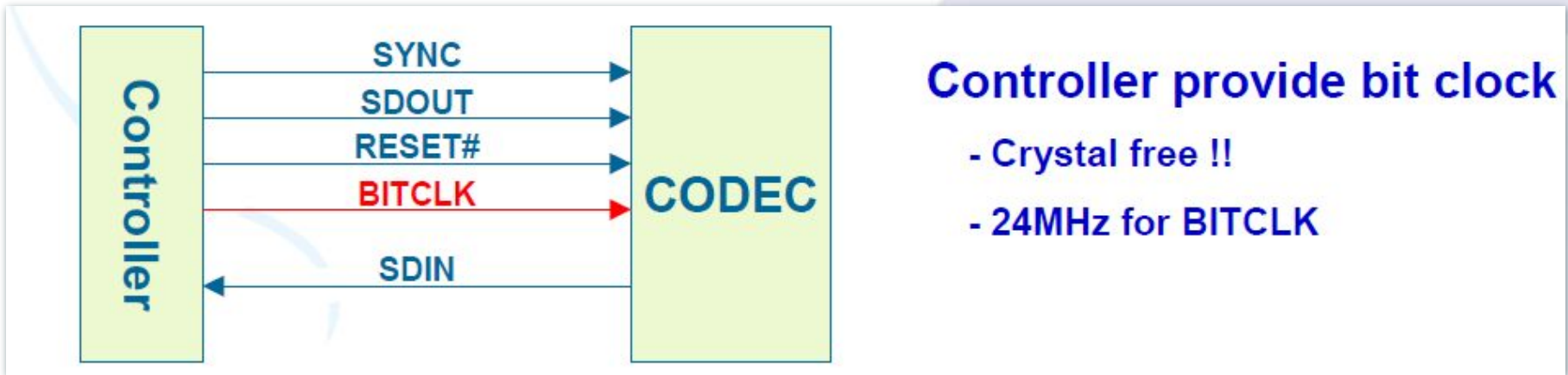


5-pin serial data
transaction :

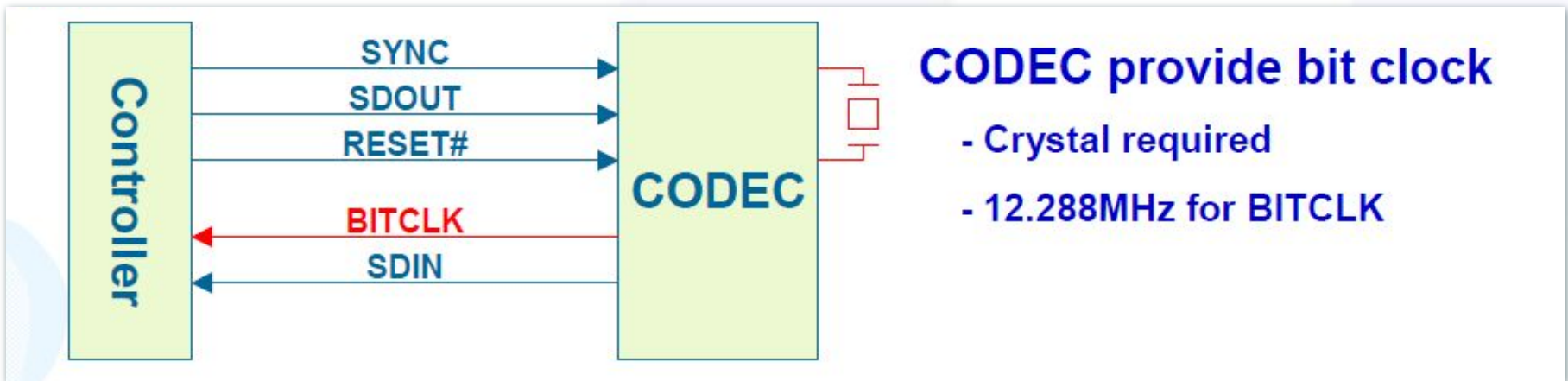
BIT_CLK, SYNC, RESET,
SDATA_IN, SDATA_OUT

Audio Bus

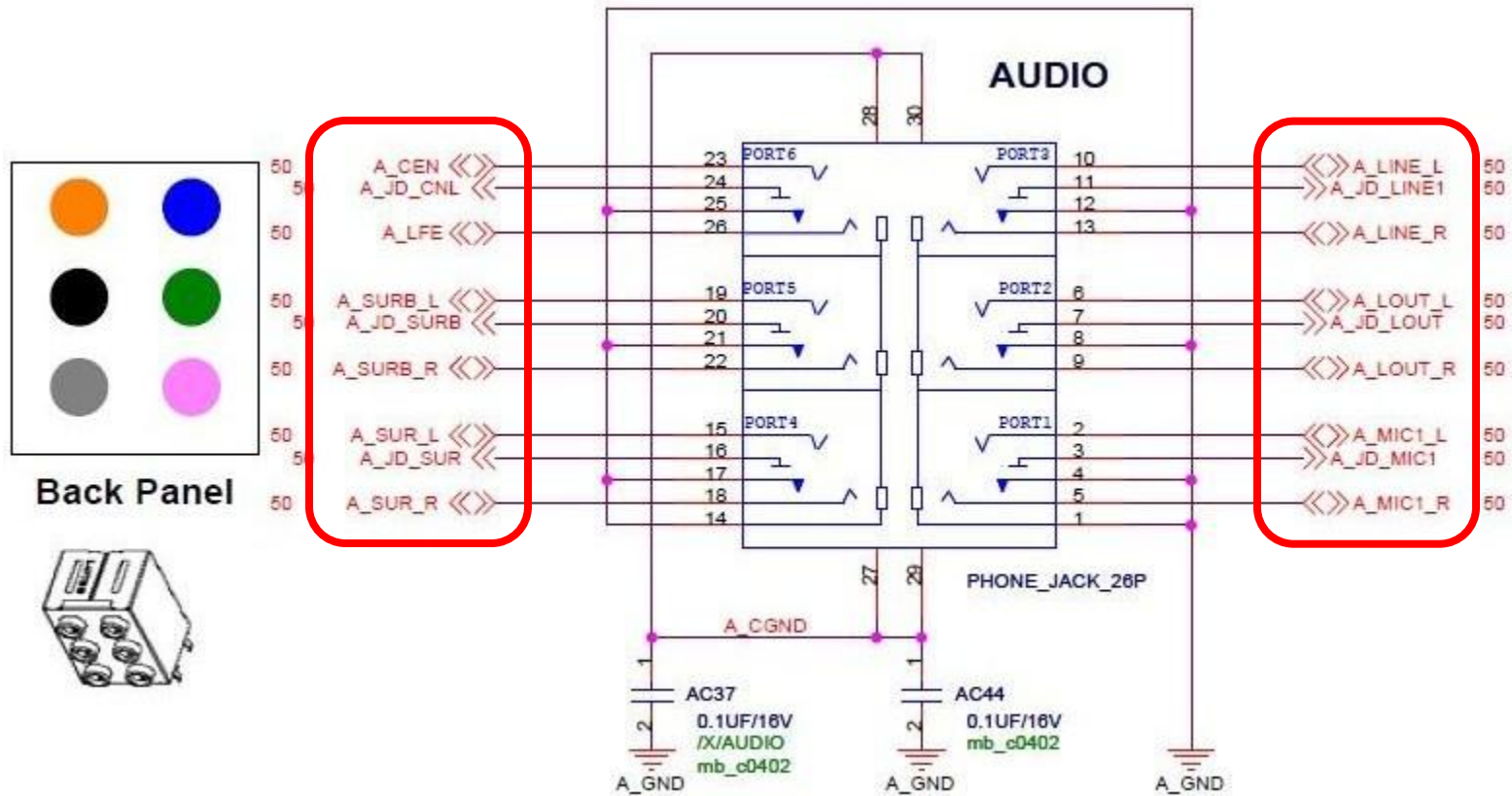
Azalia



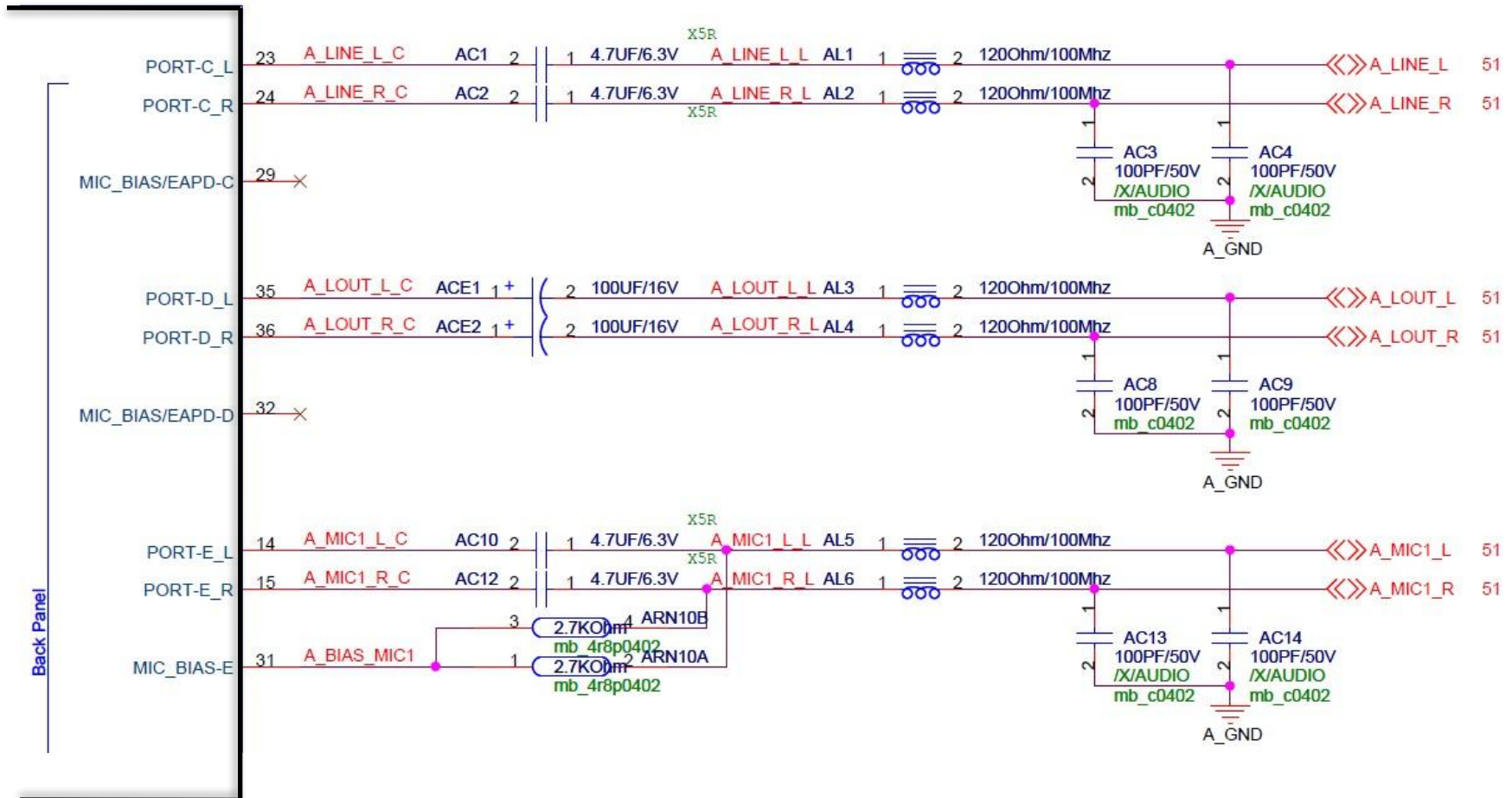
AC'97



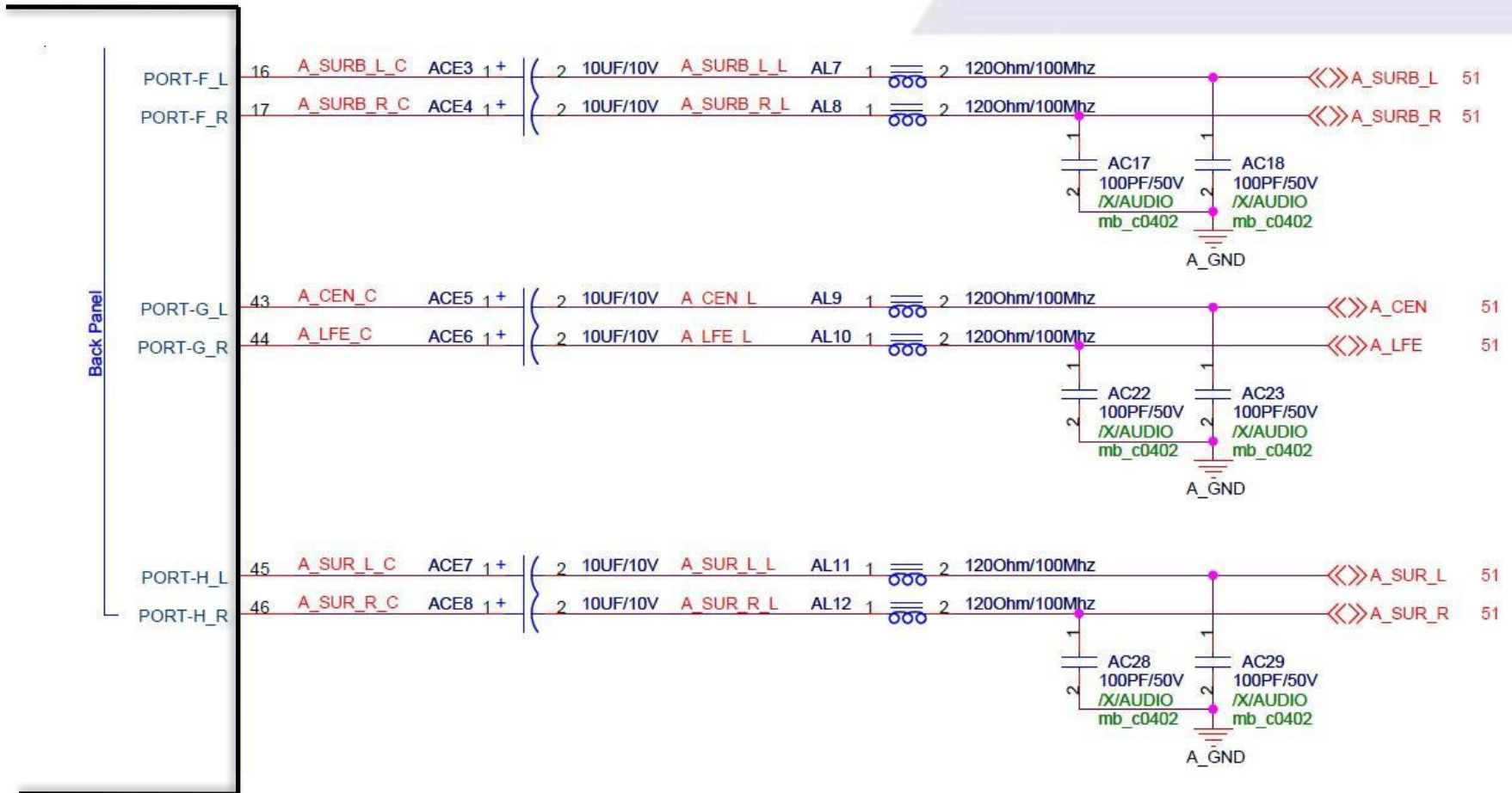
AUDIO(Azalia) Signals Description



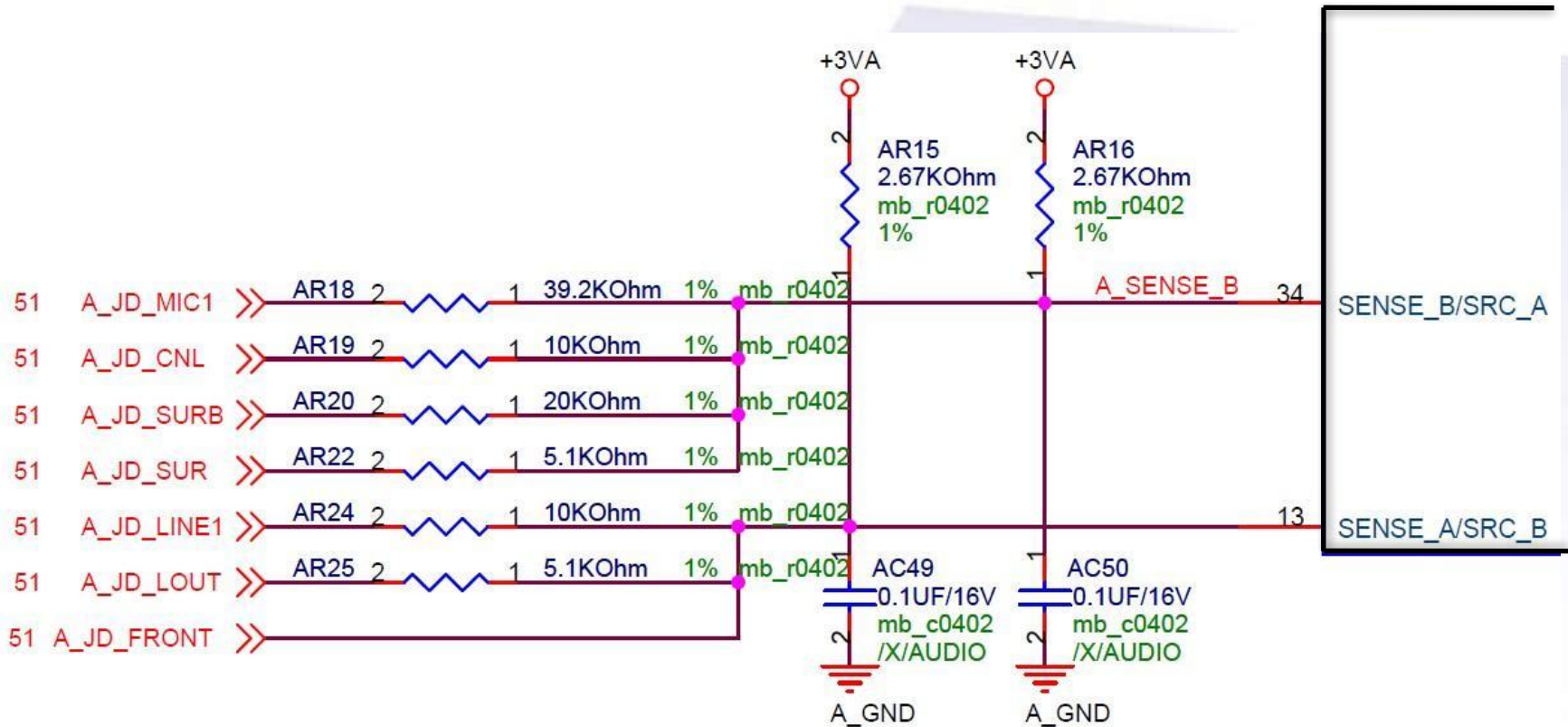
AUDIO(Azalia) Signals Description



AUDIO(Azalia) Signals Description

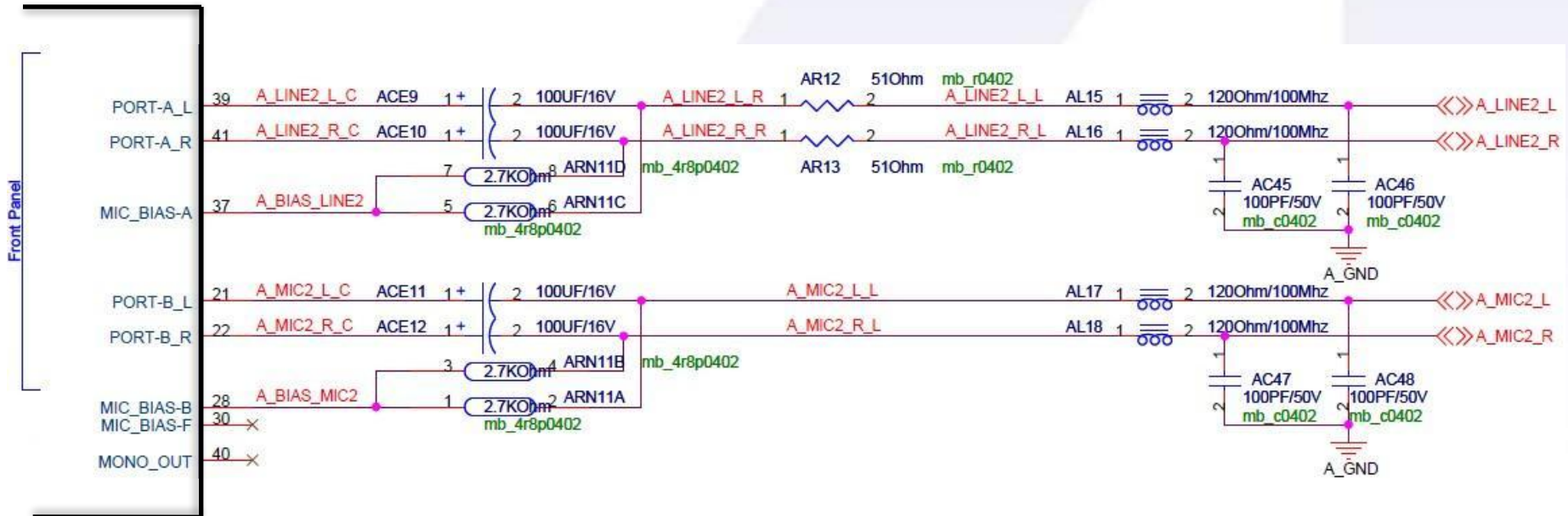
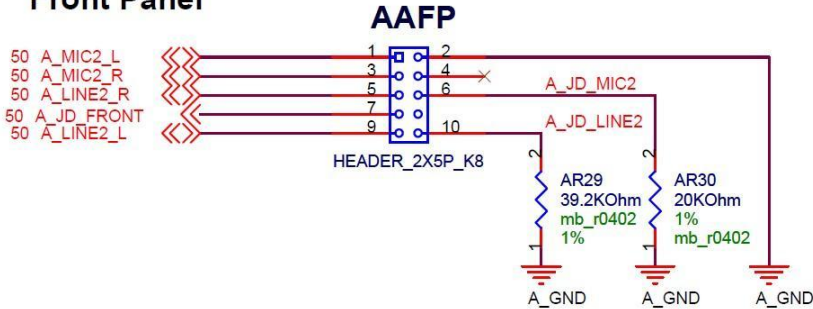


AUDIO(Azalia) Signals Description

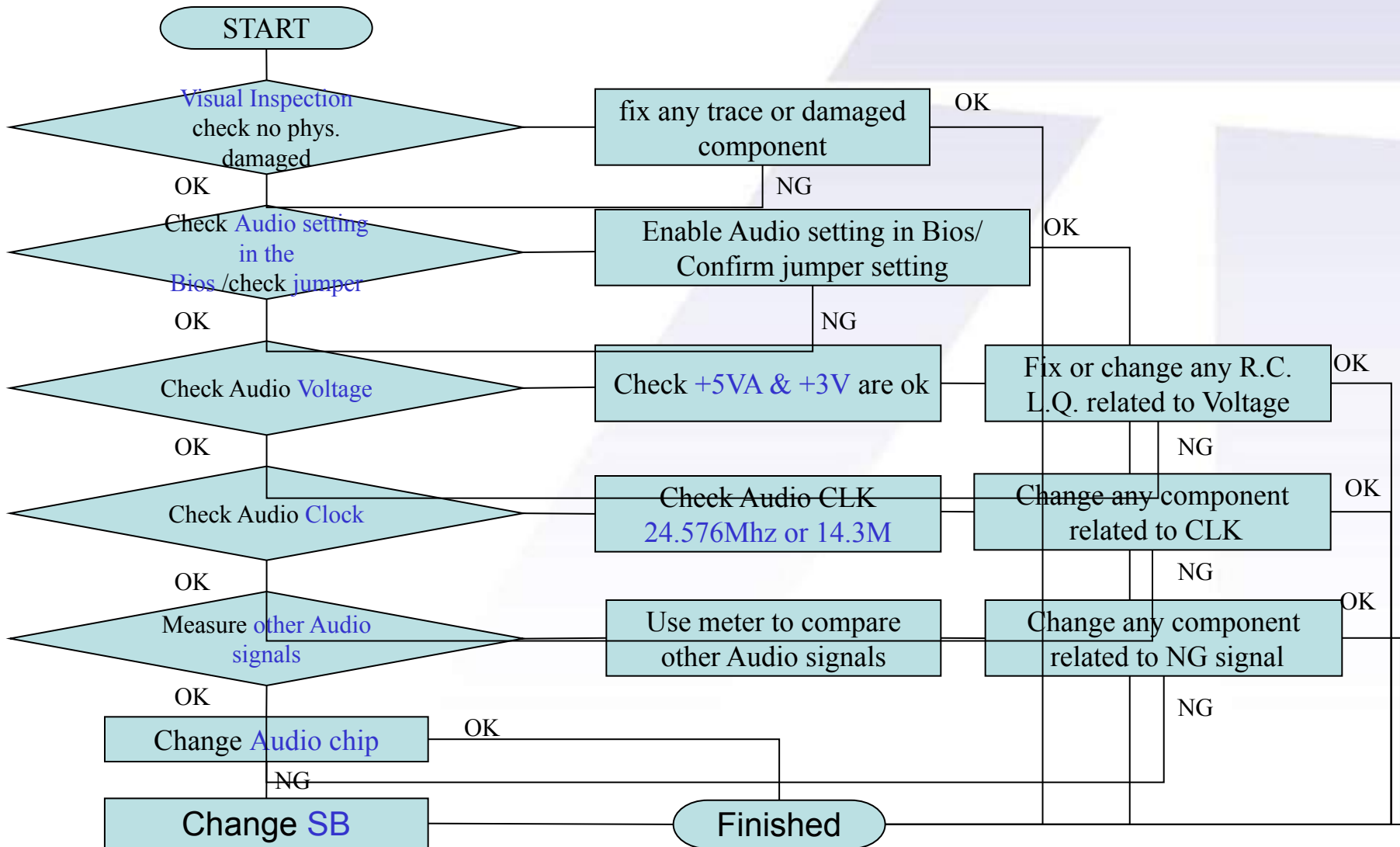


AUDIO(Azalia) Signals Description

Front Panel



Repair Flow Chart



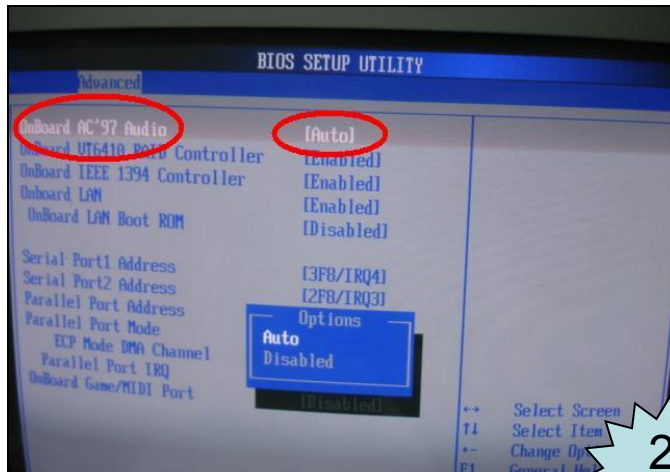
Repair Technique-Visual Inspection



1

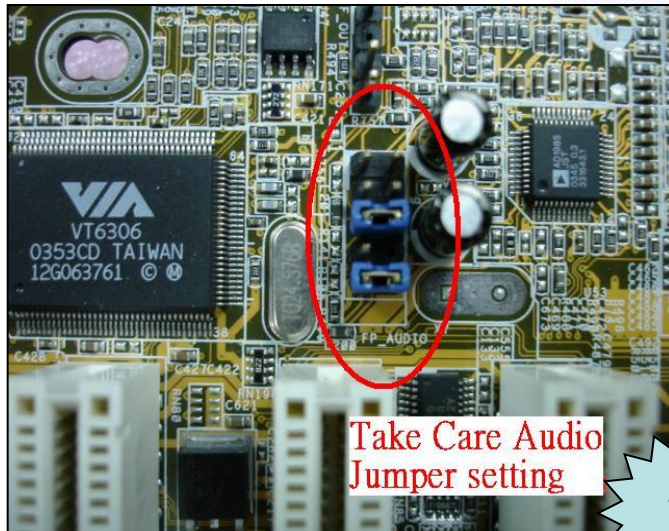
Visual Inspection to check Audio connector, Audio chip & nearby related components are not damaged.

Repair Technique-Check Bios & Jumper setting



Check **Audio** setting is enable in the Bios.

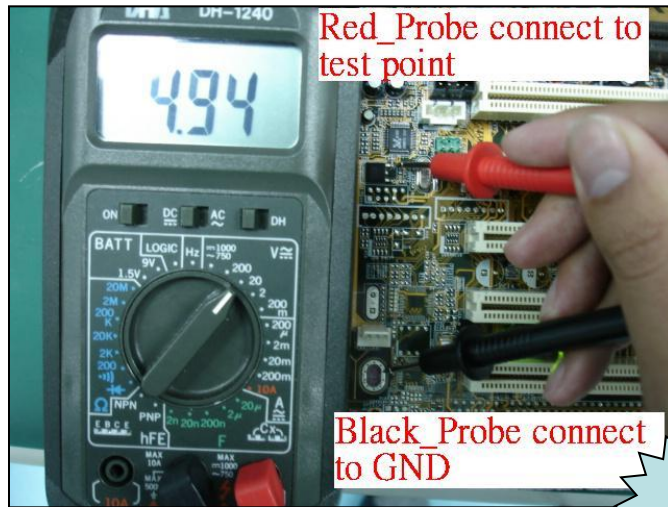
2-1



Make sure **Audio Jumper** is mounted properly.

2-2

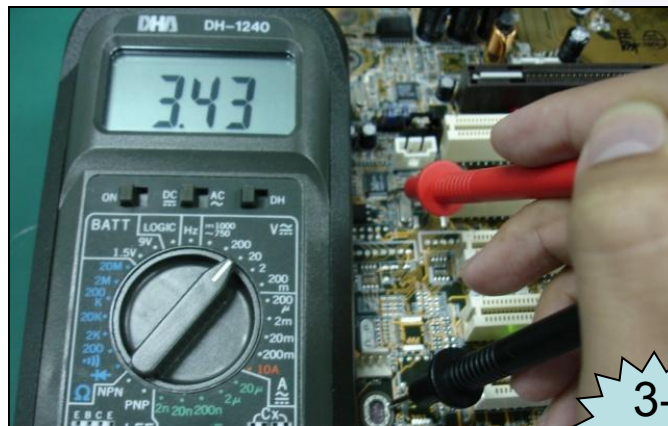
Repair Technique-Measure Audio Voltage



3-1

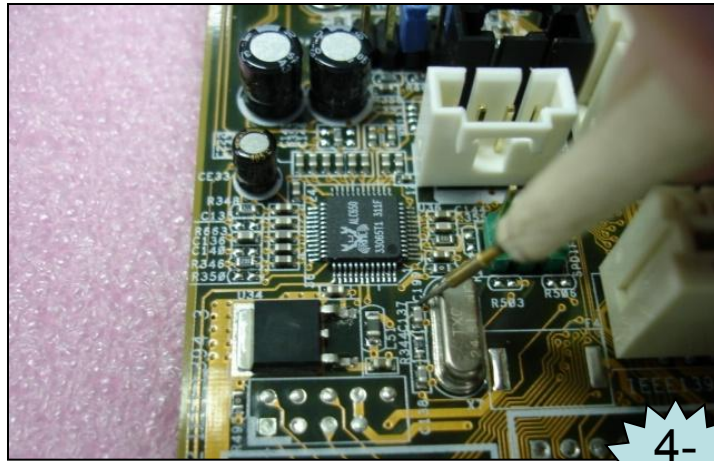
Use Multi-Meter to measure AUD +5V & 3.3V.

P.S. Audio +5V is transferred by small regulator like 78L05 (+12V to AUD+5V)



3-2

Repair Technique-Measure Audio Clock



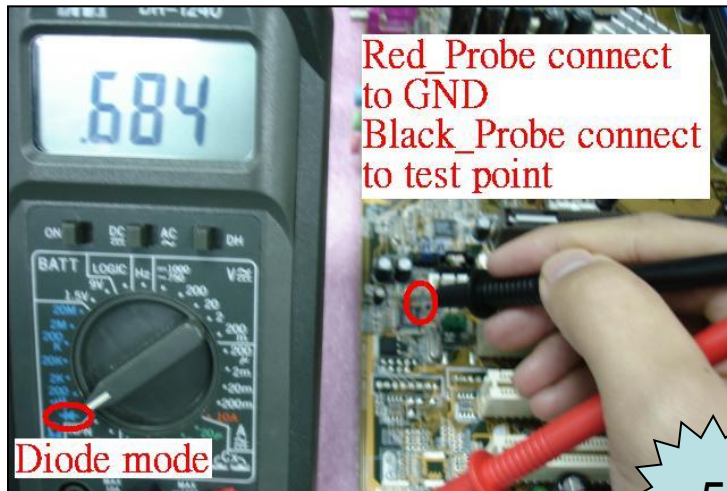
4-1

Use Oscilloscope to measure Audio CLK 24.576Mhz (from X'TAL) or 14.318Mhz (from CLK Generator)



4-2

Repair Technique-Measure Audio signals



5

Use Multi-Meter to measure other Audio signals' bias voltage value.

(This method should be compared with good MB)

If the symptom is still existing please try to **change Audio chip**.

After change Audio chip the problem is still constant please try to **change SB at last**.

P.S.

AC97 Audio chip through **AC97 link** connect to SB.

HA Audio chip through **Azalia link** connect to SB.

Thank You!
