



Agenda

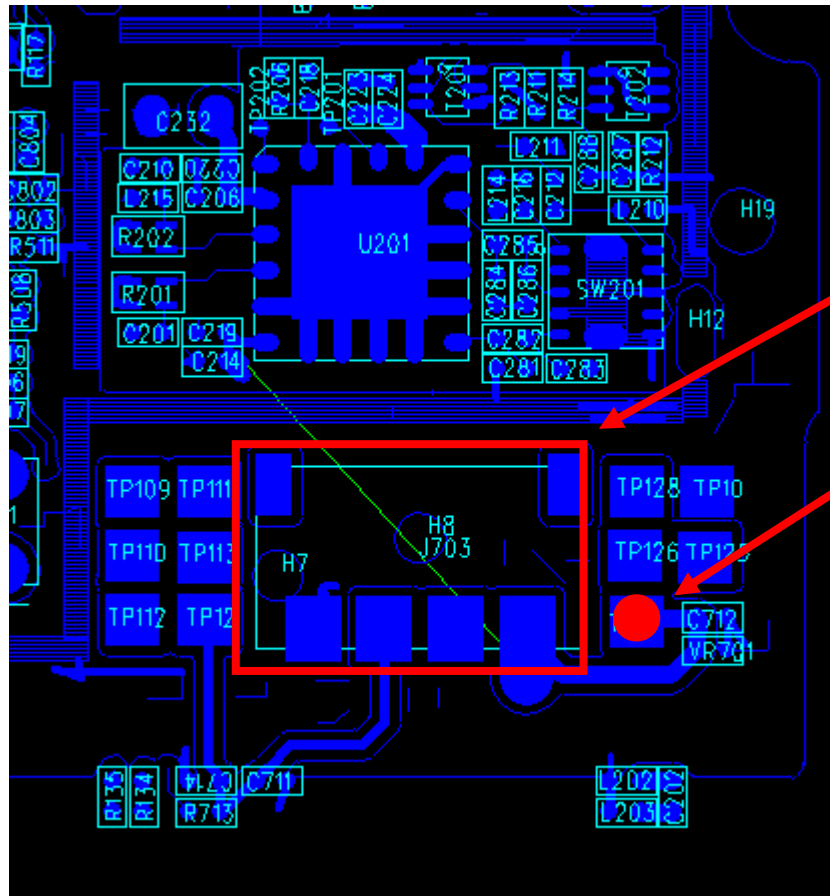


- A. Can not power on**
- B. “Insert SIM”**
- C. Display abnormal**
- D. No Keypad’s and LCM backlight**
- E. Receiver no key tone**
- F. No ring tone**
- G. Can not charge**
- H. Keypad no function**
- I. Vibrator out of control**
- J. Microphone no function**
- K. Earphone no function**
- L. RTC ab-normal**
- M. Phone hang**
- N. Auto power on**
- O. Auto power off**
- P. Can not call out**
- Q.FM no function (only available for W213)**

A. Can't power on

1. Check the voltage of the battery.
 - ◆ VBAT (red square) > 3.6V
2. Check Battery connector J703

● Probe Point



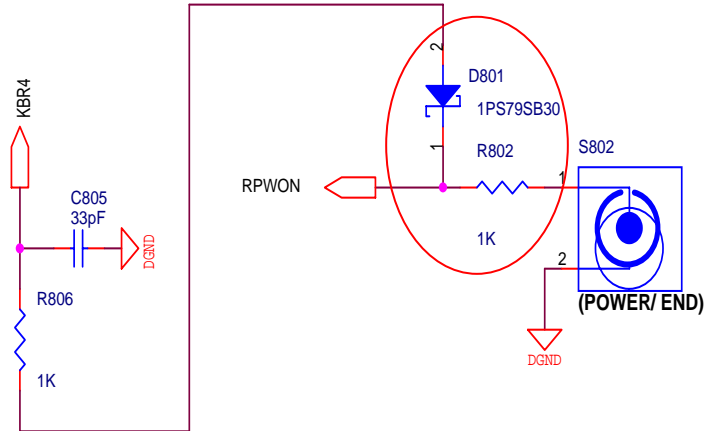
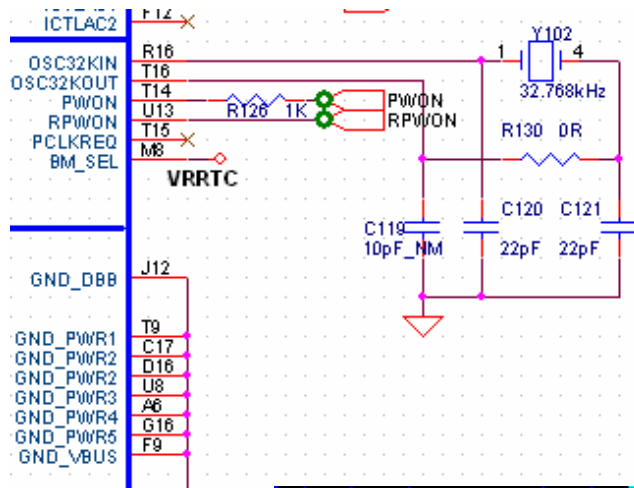
Battery connector

Should be >3.6V

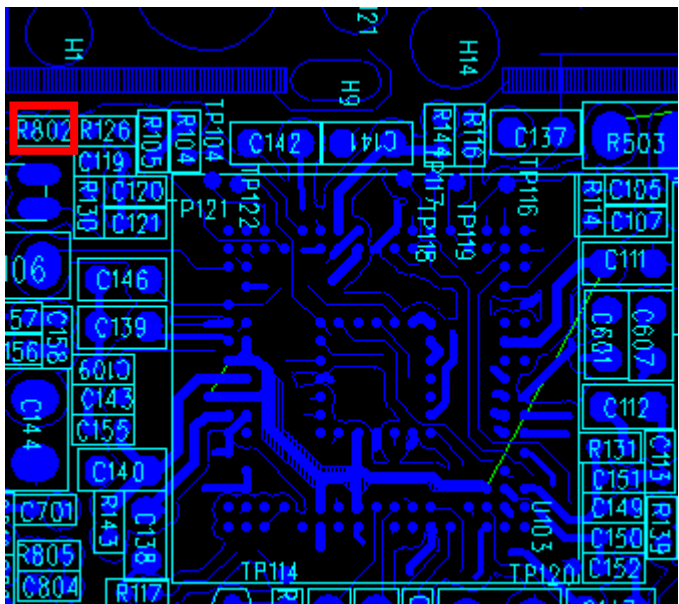
A. Can't power on



3. Check the Power-ON path.



Power on path
R802/D801

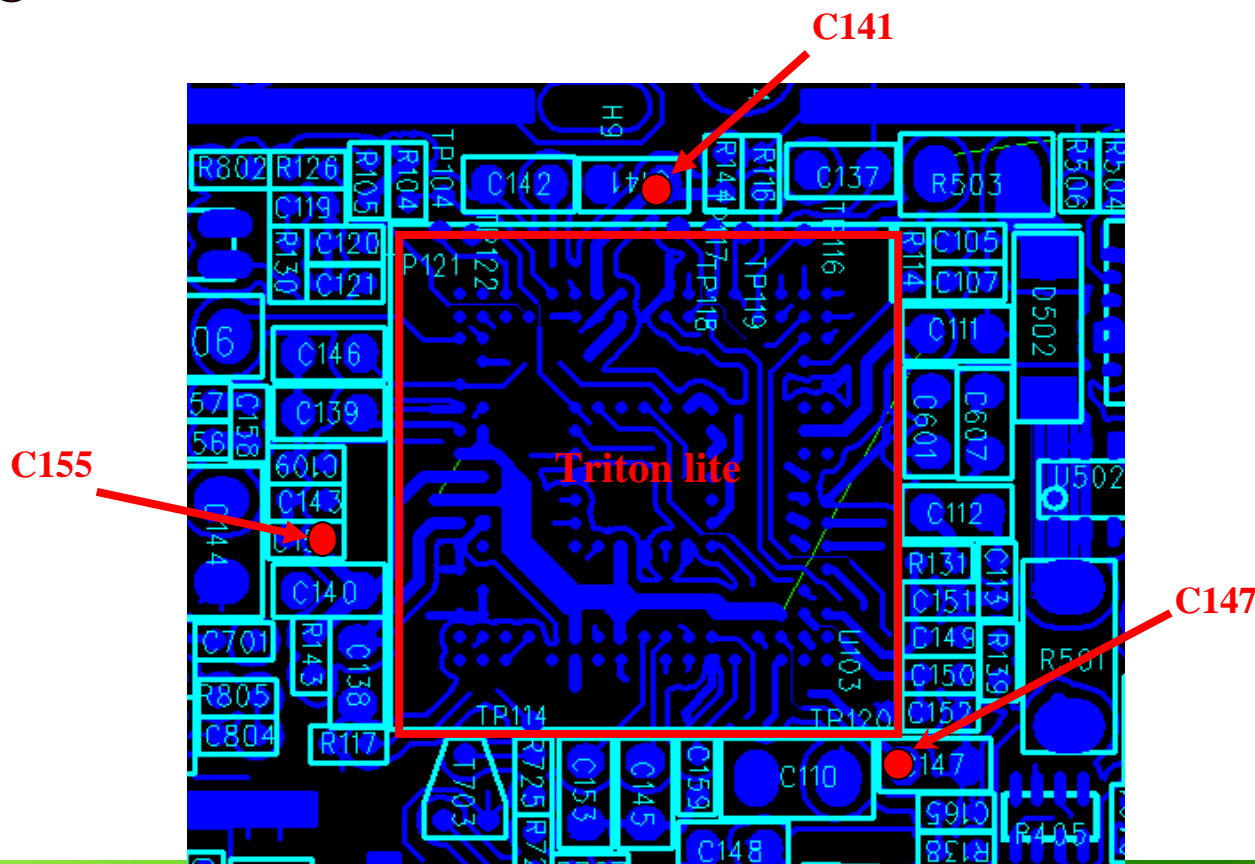




4. Check Triton_lite regulator voltage.

- A. VRABB_2.8V should be 2.8V(C147)
- B. VRIO_1.8V should be 1.8V(C155)
- C. VRMEM_1.8V should be 1.8V(C141)

 Probe Point





A. Can't power on

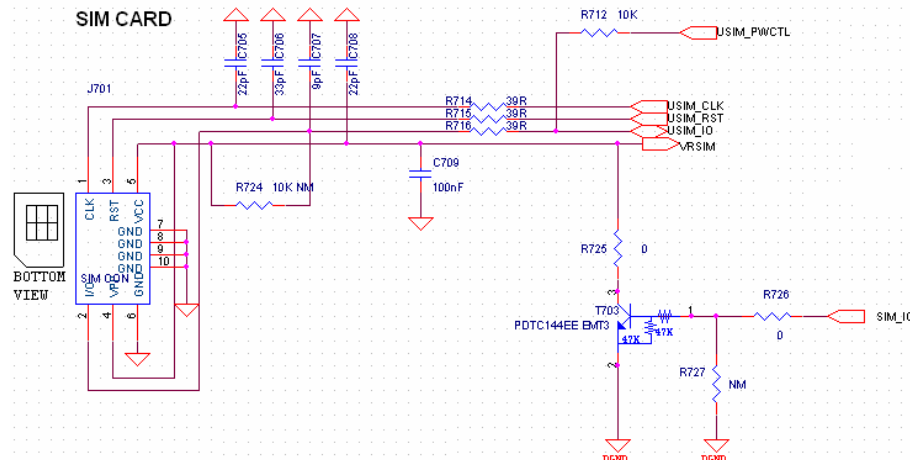


5. Try to download SW to the damaged unit. If the damaged unit can not power on, you can check the Flash Memory IC(U301) , LOCOSTO(U101) and Triton_lite (U103).

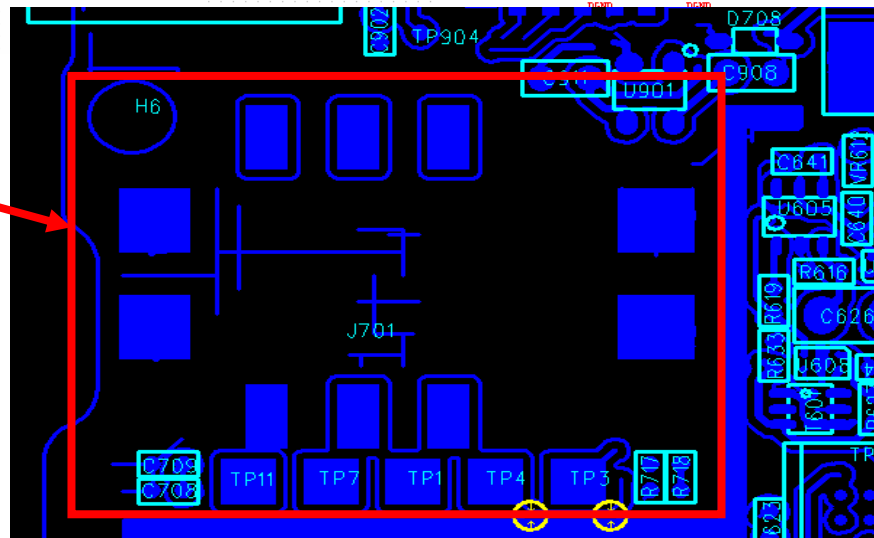
B. "Insert SIM" issue



1. Download SW to the damaged unit
2. Check the SIM connect

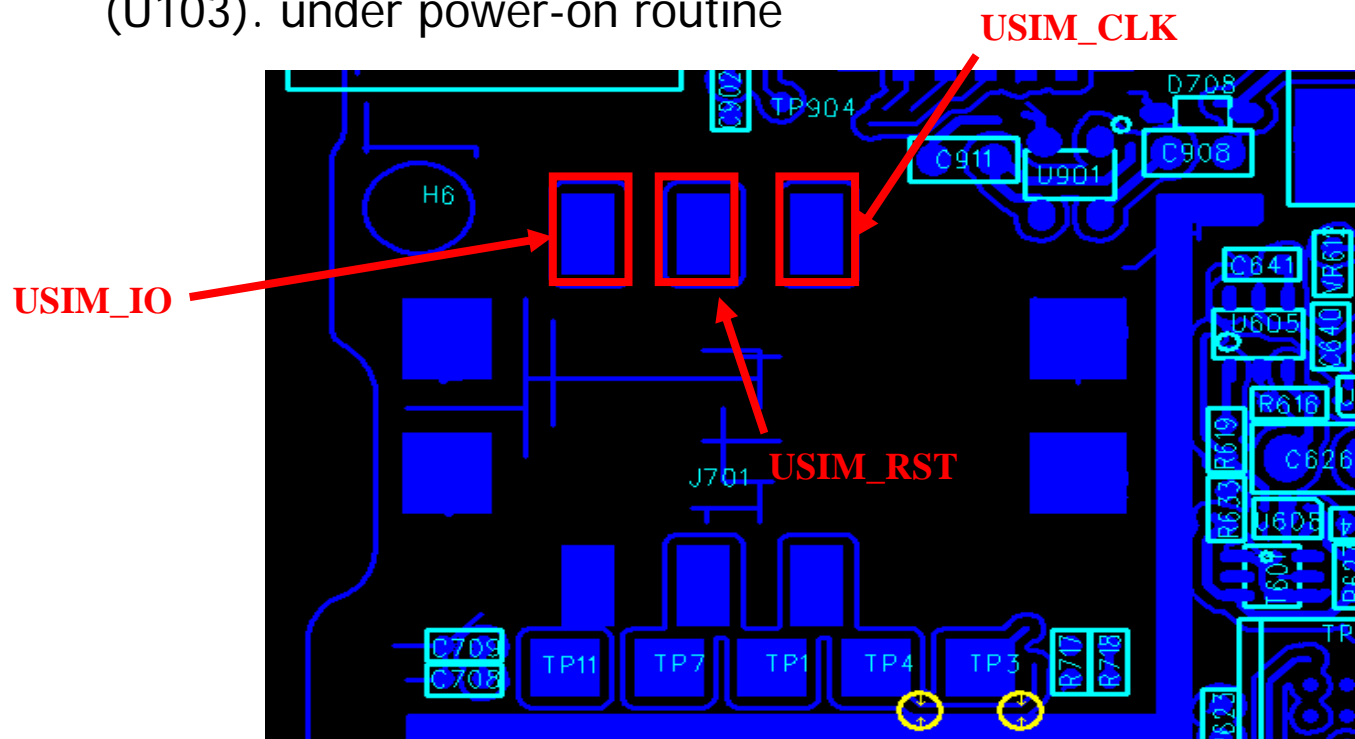


SIM circuit



B. "Insert SIM" issue

3. Check the SIM interface between LOCOSTO(U101) & Triton_lite (U103). under power-on routine

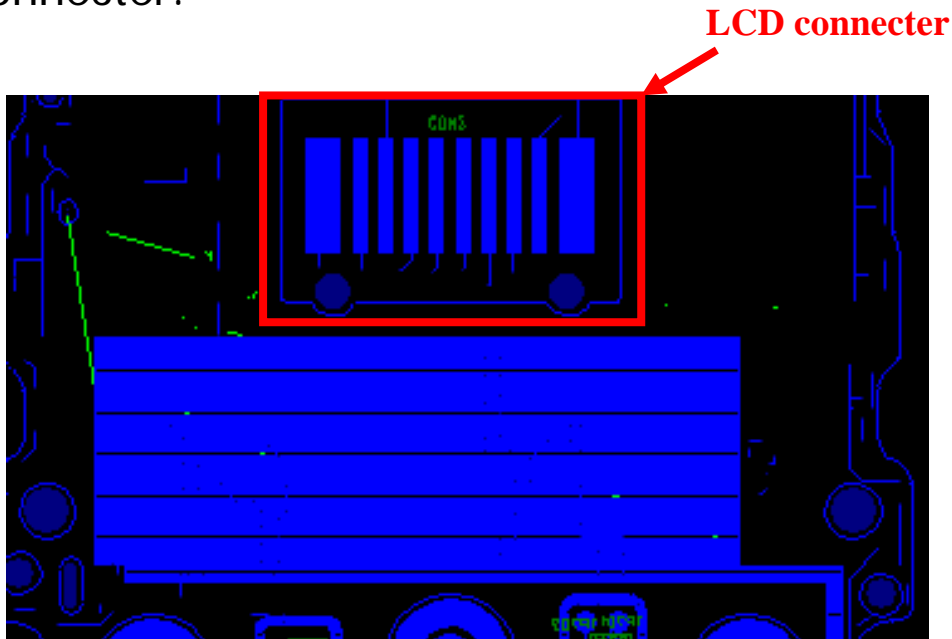


4. If all the signals of Triton_lite(U103) are normal and all the signals of LOCOSTO(U101) are abnormal, please check LOCOSTO(U101).

5. If all the signals of Triton_lit(U103) are abnormal, please check Triton_lite(U103)

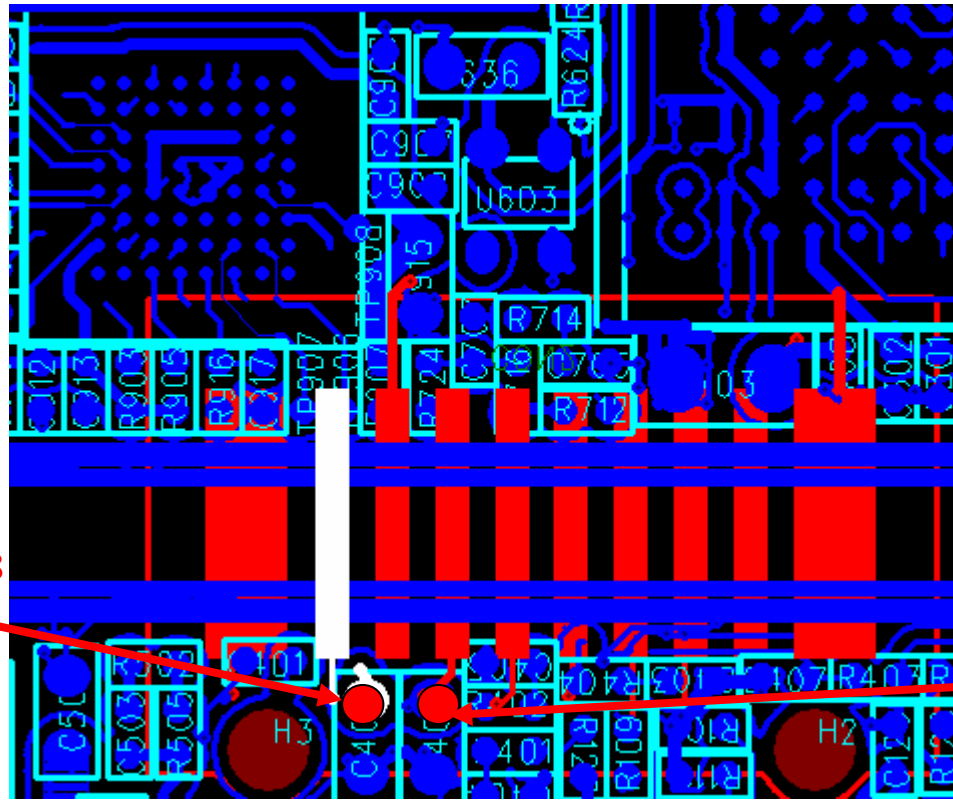
C. No Display or Display abnormal

1. Please download SW to the damaged unit.
2. Please check the status of LCM connect.
3. Please check the LCM whether LCM is normal or damaged.
4. If LCM is normal, please check MB whether is damaged or not.
5. Please check all the signal traces of LOCOSTO (U101).
and LCD connector.



C. No Display or Display abnormal

The following is layout of LCM connector



Should be about VR2V8
(2.8V)

Should be VRIO (1.8V)



D. No LCM backlight



1. Please download SW to the damaged unit.
2. Replace the new LCM



E. Receiver no key tone

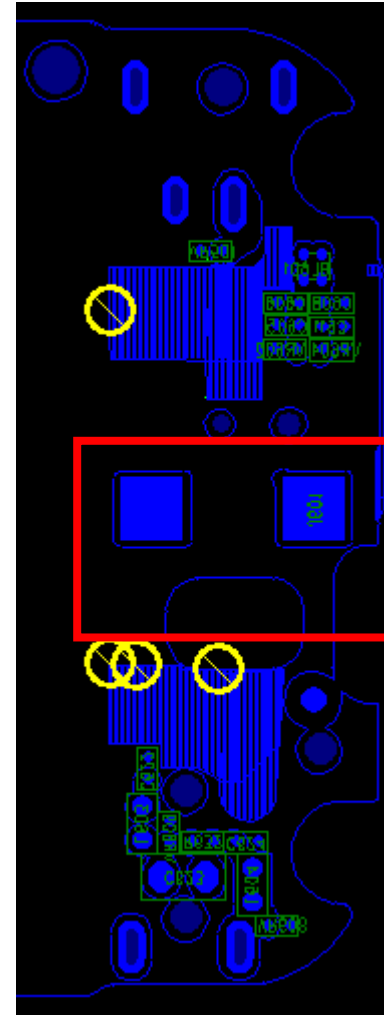
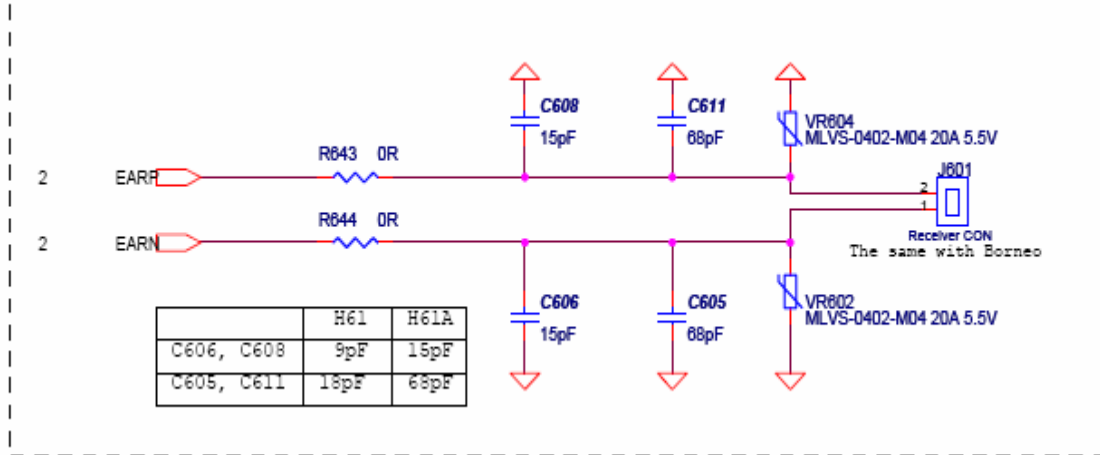


1. Please download SW to the damaged unit.
2. Measure the receiver's impedance(about 32 ohm)
3. Check whether the receiver is normal or not. If abnormal, please exchange with the normal one and check if the function is OK now?
4. If receiver is normal, please replace with the other normal one and check whether the function is normal or not? If the function is normal, it may be the solder problem.
5. If MB is damaged, please check the related circuits.
6. Check the components' connection and impedance(BL601).
5. If all the signals are abnormal, please check Triton_lite(103)

E. Receiver no key tone

Check the related circuits

RECEIVER



**Receiver
J601**



F. No ring tone

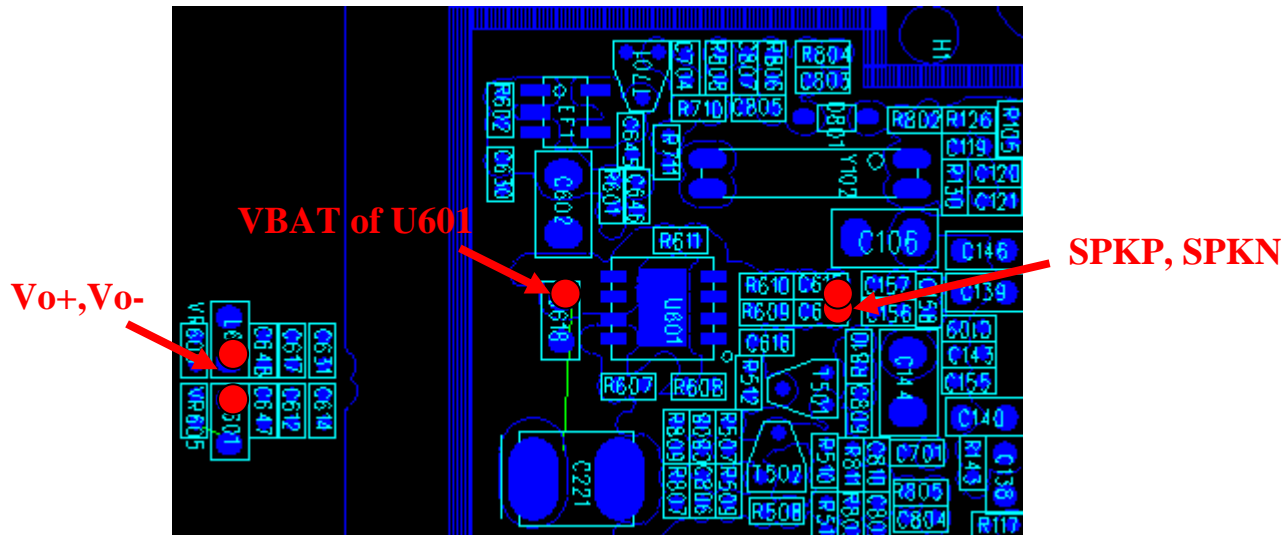
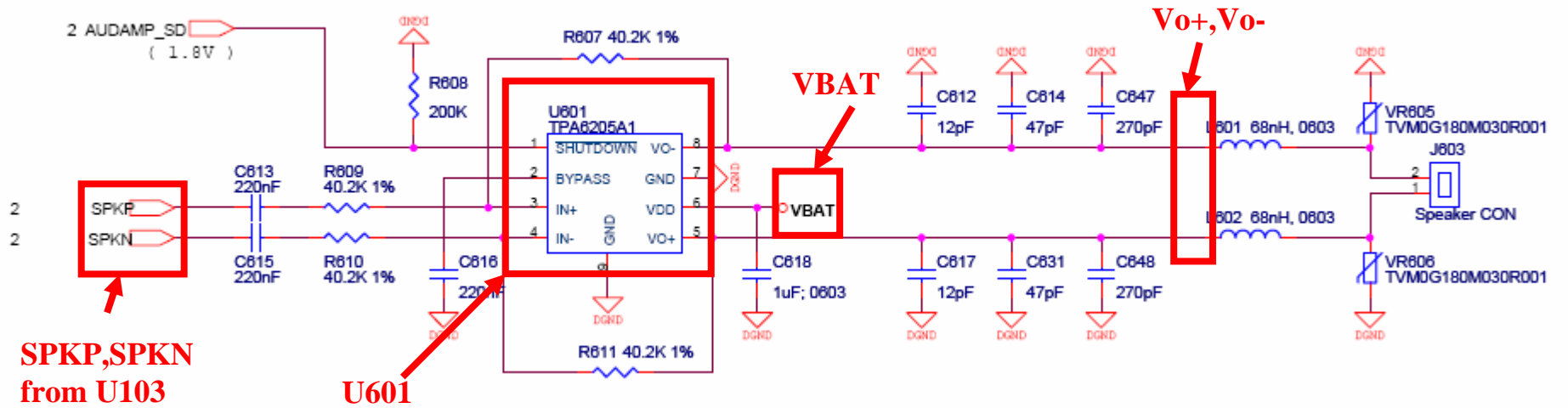


1. Check the Ring volume setting.
2. Please download SW to the damaged unit.
3. Check the Speaker's impedance(about 8ohm).
4. Check the related circuits and components include **Speaker** connecter and
Check the SPKP/SPKN of Triton_lite(U103), Vo+, Vo- & VBAT of U601.
5. If all the signals of **Speaker** are abnormal, please check Triton_lite(U103) & U601
6. If all the signals of Triton_lite(U103) & U601 are normal and all the signals of
Speaker are abnormal, please check **Speaker**

F. No ring tone

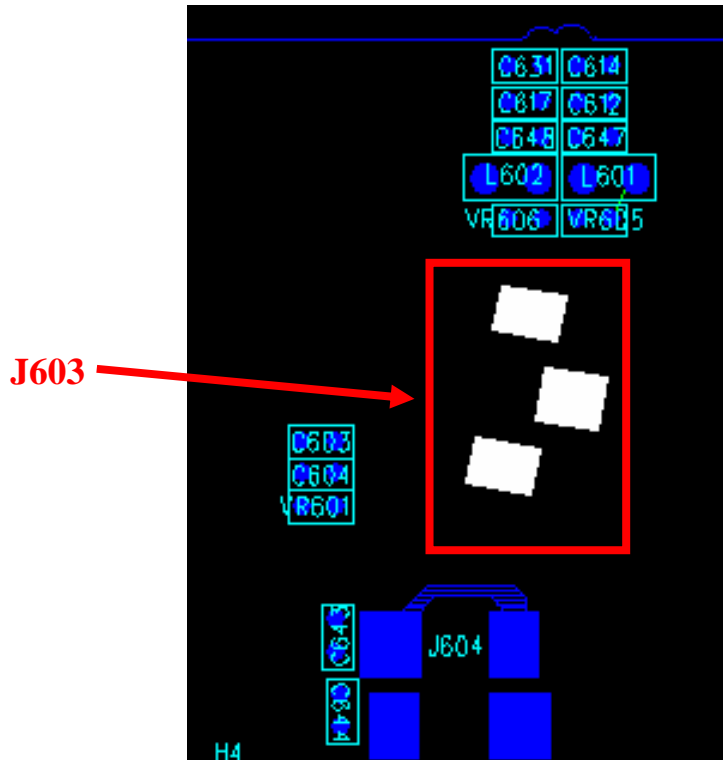


SPEAKER The schematic and layout of speaker and U601.





The layout of speaker

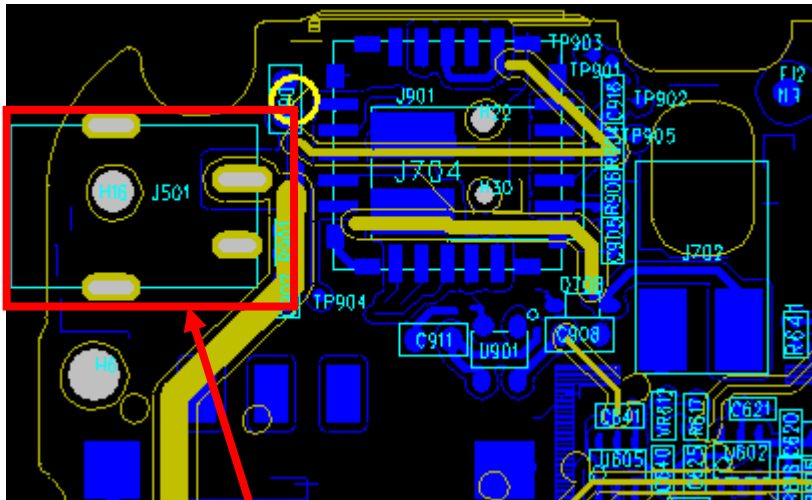


G. Can not charge

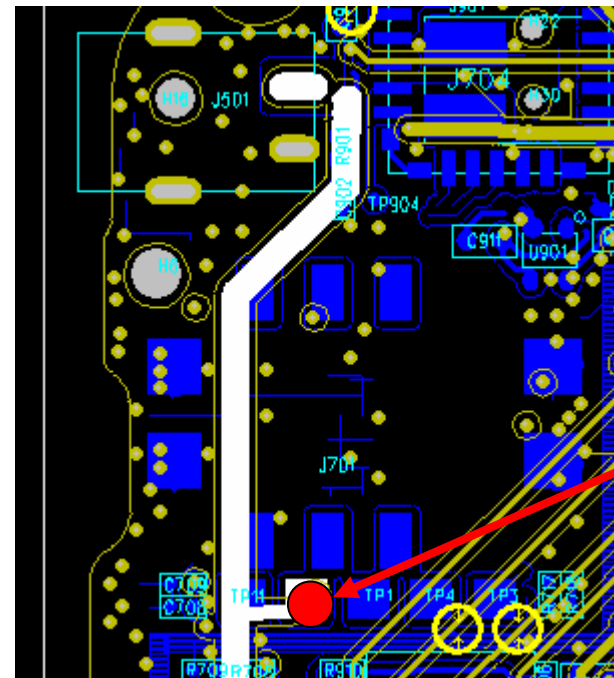


1. Check the battery and adaptor
2. Download SW to the unit.
3. Check the DC Jack(J501).

● Probe Point



DC Jack



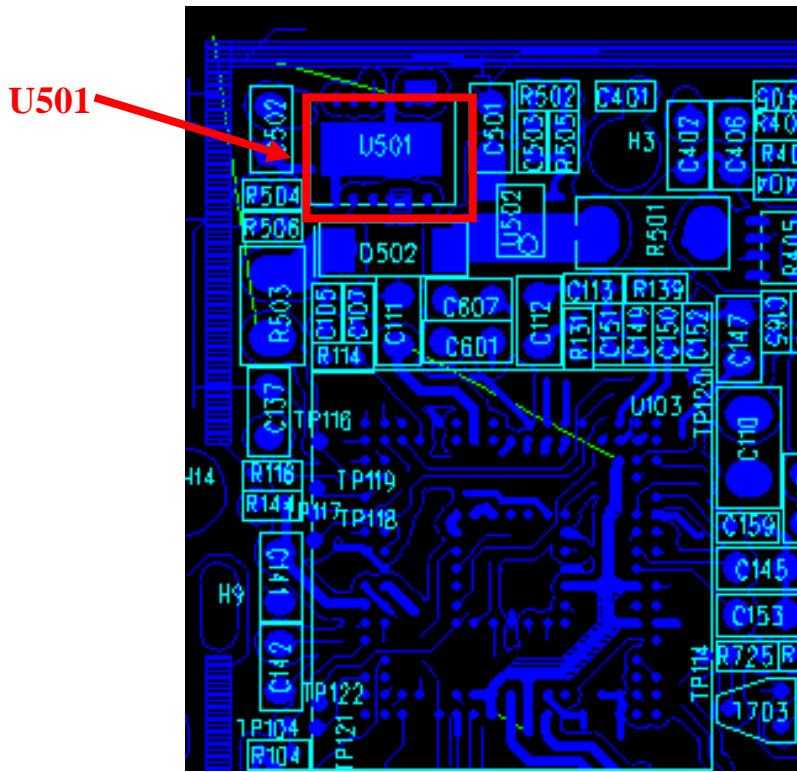
Charging voltage should be 5~6V

TP7

G. Can not charge



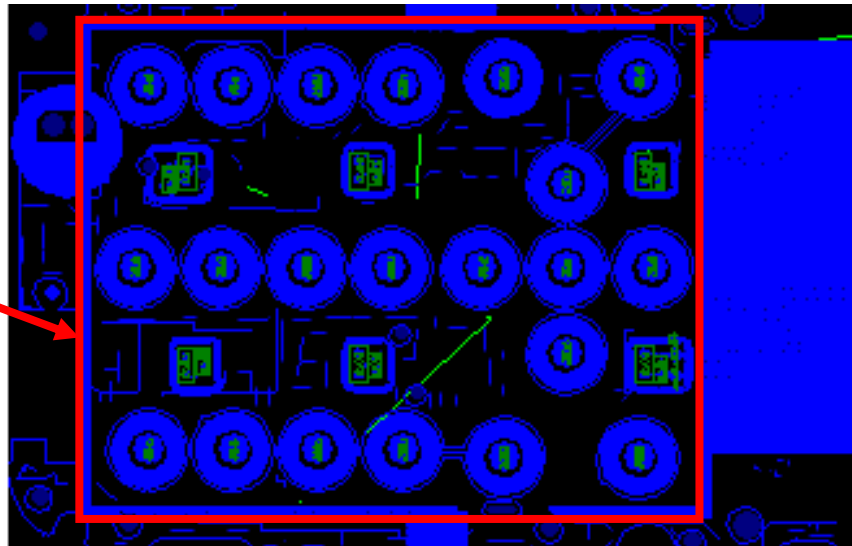
4. Check the battery connect.
5. Check the Protect IC(U501).



H. Keypad no function

1. Download SW to the damaged unit
2. Check the metal Done and Key.
3. If there are more than 2 Keys failed, please check the LOCOSTO(U101).
Or check the Key PAD of the PCB.

Metal Done & Key

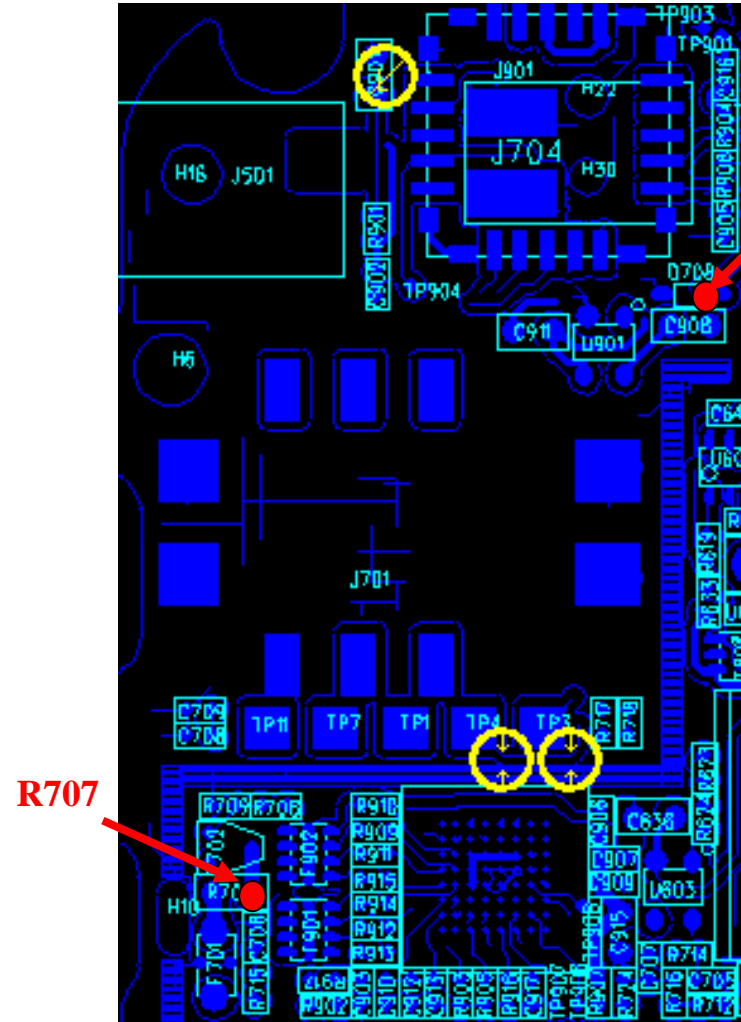
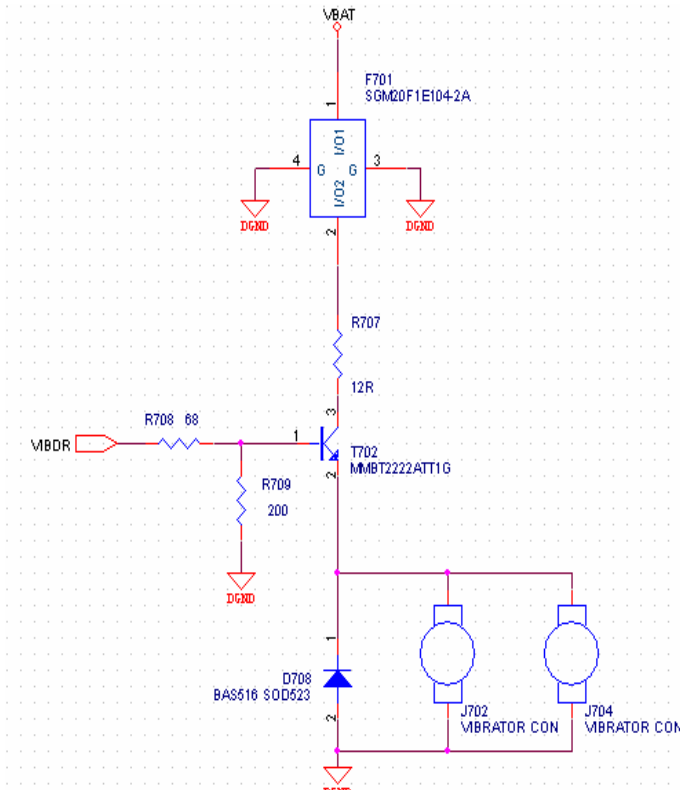


I. Vibrator abnormal



1. Check the vibration setting.
2. Check the vibrator
3. Check the related circuits

● Probe Point

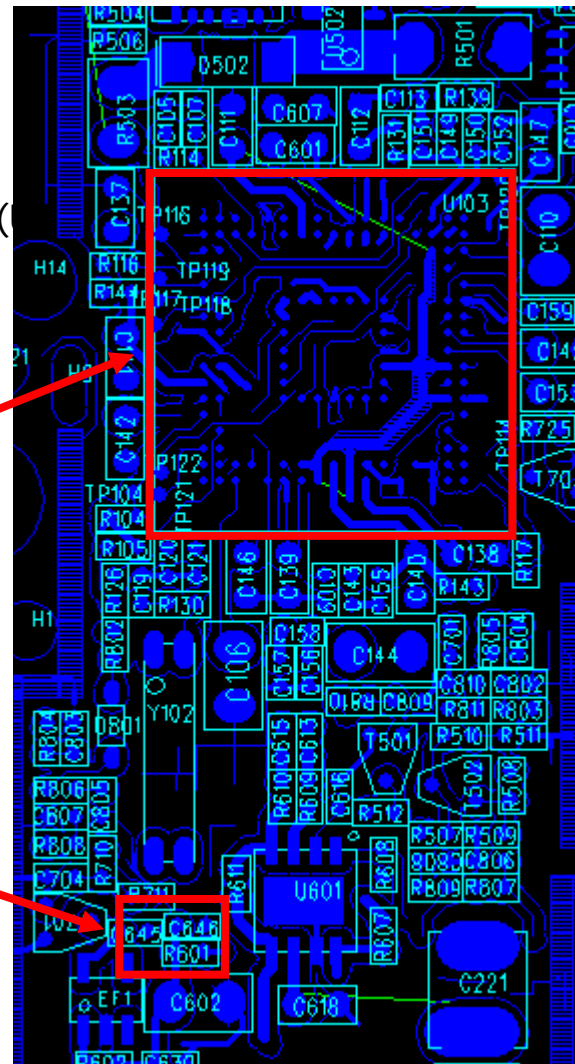


J. Microphone no function

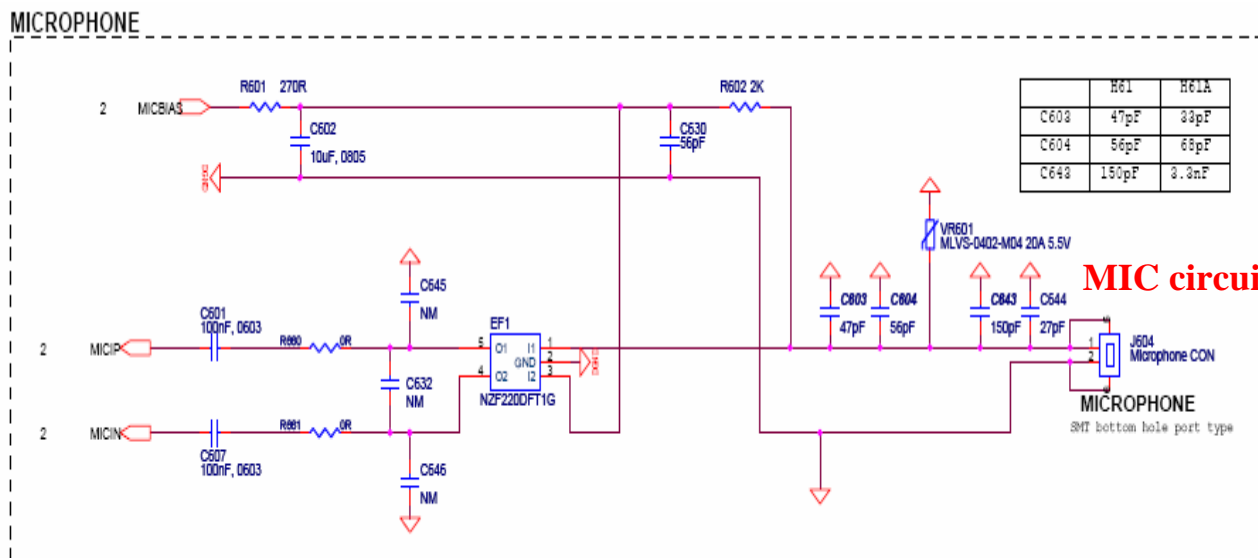


1. Download SW to the damaged unit
2. Check or replace the microphone
3. Check the related circuits
 - a. If all the signals of microphone are abnormal, please check Triton_lite
 - b. If all the signals of Triton_lite(U103) are normal and all the signals of microphone are abnormal, please check microphone.
 - c. Check other components

Triton_lite



MIC circuit

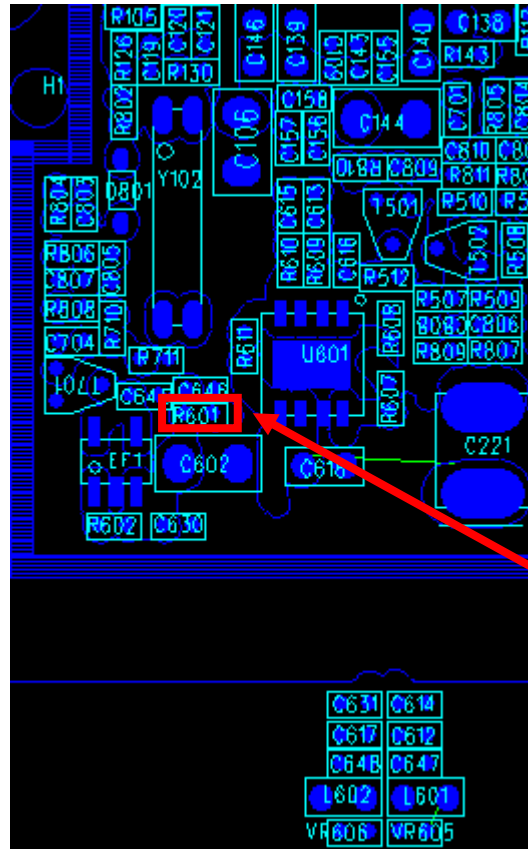


J. Microphone no function



4. Check the related circuits

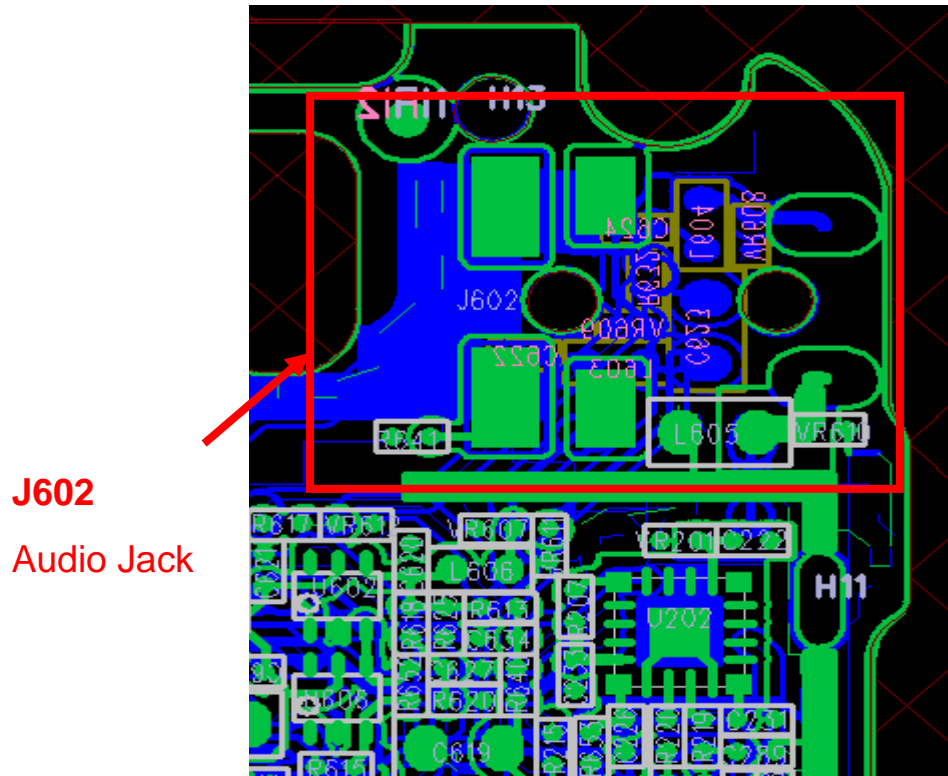
● Probe Point



R601
Should be about 2V

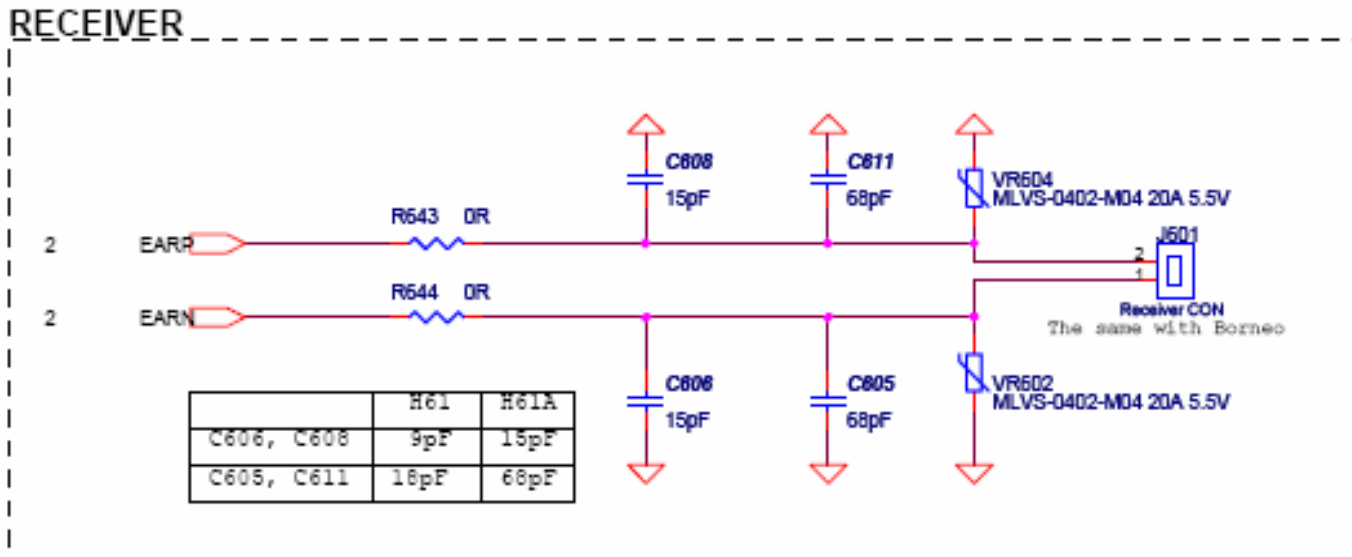
K. Earphone no function

1. Check the Earphone
2. Download SW to the damaged unit.
3. Check the Audio Jack(J602)



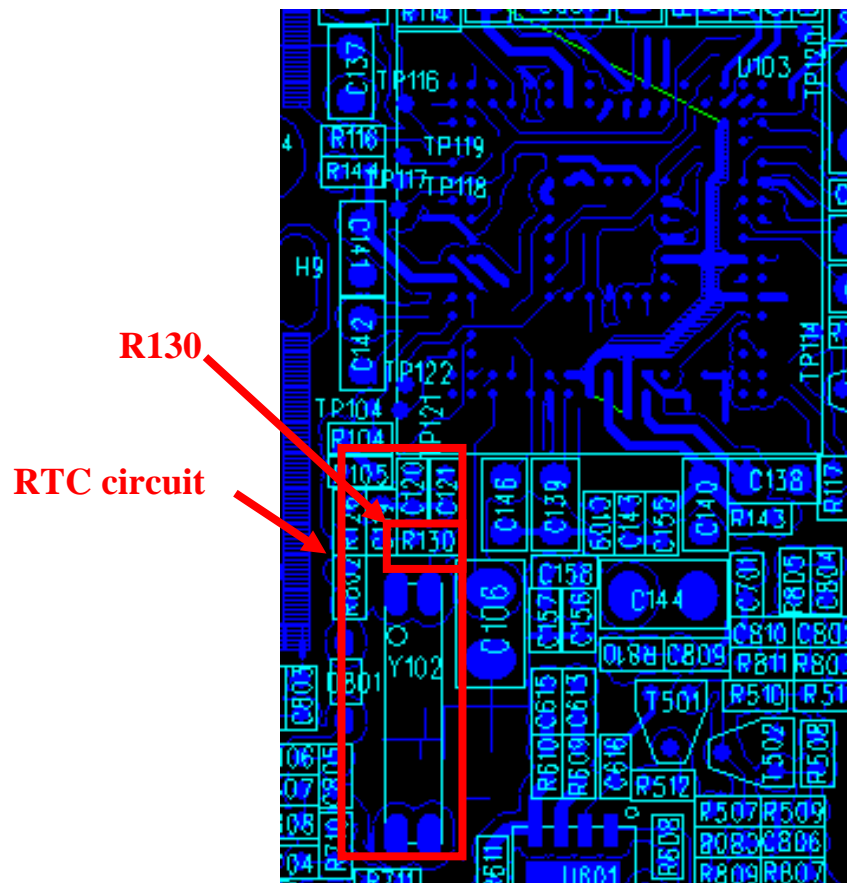
K. Earphone no function

4. Check the related circuits





1. Download SW to the damaged unit
2. Check if the signal @ R130 is 32.768K of 32KHz oscillator
3. Check the related circuits of Triton_lite(U103)





M. Phone Hang



1. Try to load code from the damaged unit and download SW to the damaged unit.
2. If the damaged unit still has the issue, check the intel flash(U301) or Triton_lite(U103), LOCOSTO(U101)



N. Auto Power On



1. Please check the alarm setting of auto power on
2. Please check the power-on path(page3 A.3)
3. Please check the charger path, refer page17
4. Try to load code from the damaged unit and download SW to the damaged unit.

If the damaged unit still has the same issue, you can check the intel flash(U301) Or Triton_lite(U103), and LOCOSTO (U101)



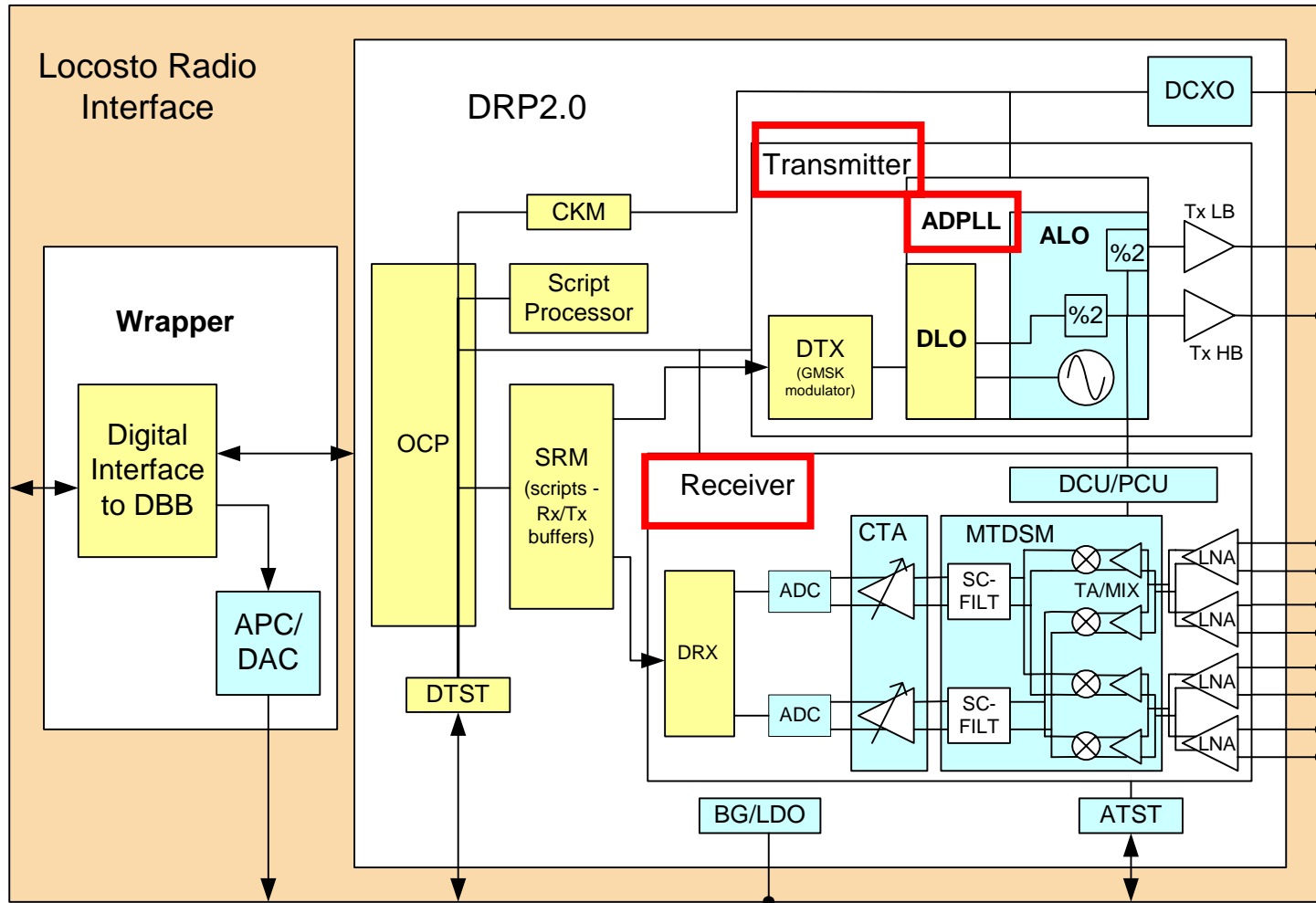
O. Auto Power Off



1. Please check the alarm setting of auto power off
2. Download SW to the damaged unit.
3. Check the leakage current ($<200\mu\text{A}$)
4. If the leakage current is normal, please Triton_lite(U103)
5. If the leakage current is abnormal, please check the part, PA(U201) & Audio Amp(U601).



RF Tranceiver Block Diagram

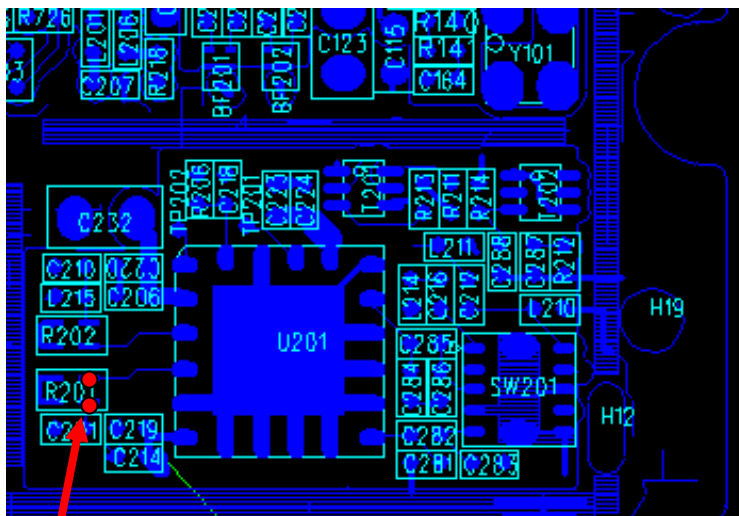




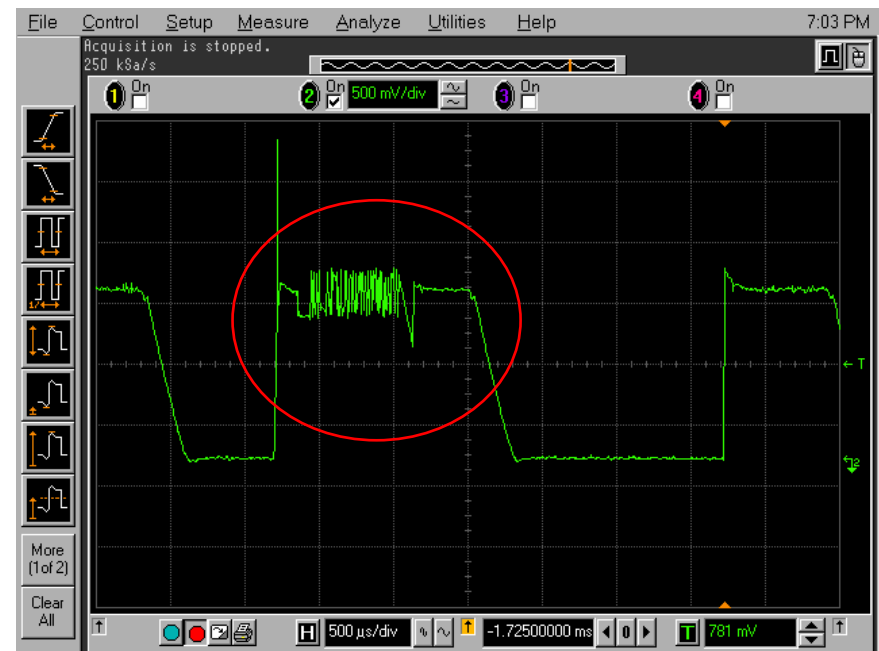
Tx Path (I/Q) in GSM Band

1. Set HP8960 or HP8922, Operating mode: Test mode, Test function: BCH+TCH
CH62:902.4MHz, cell power:-60dBm, MS_TX_level : 5
3. Use oscilloscope probe to touch **red point** and you can find that(For Example:The TXIP signal)

 Probe Point



R201(PIN1,2)

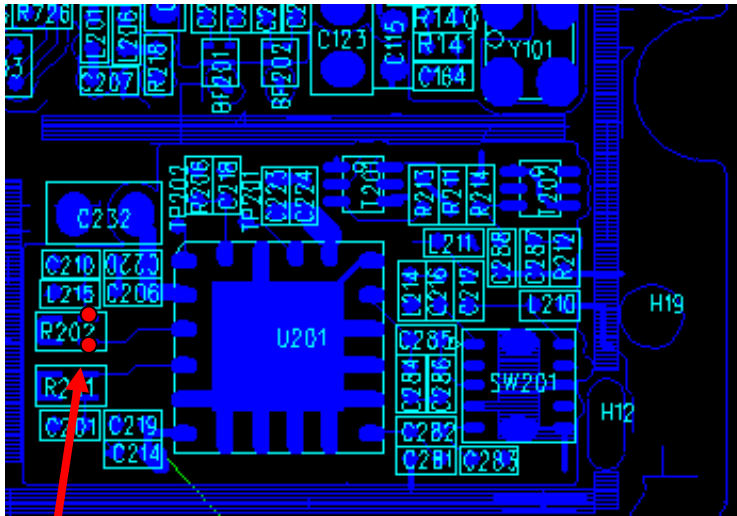




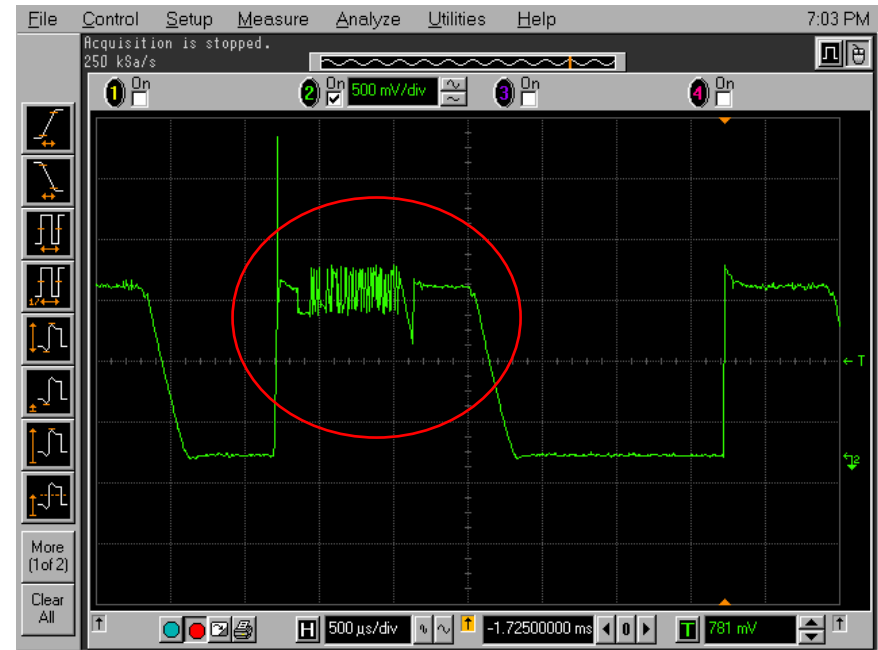
Tx Path (I/Q) in DCS Band

1. Set HP8960 or HP8922, Operating mode: Test mode, Test function: BCH+TCH
CH699: 1747.6MHz, cell power: -60dBm, MS_TX_level : 0
3. Use oscilloscope probe to touch **red point** and you can find wave (For Example: The TXIP signal)

 Probe Point



R202(PIN1,2)

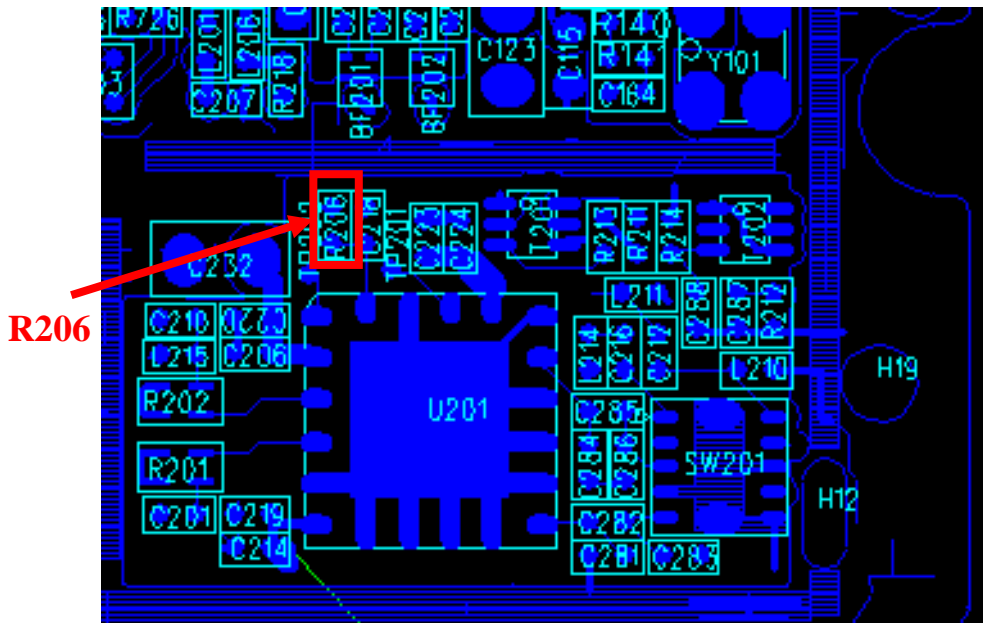




Tx path(PA) in GSM Band

1. Set HP8960 or HP8922, Operating mode: Test mode, Test function: BCH+TCH
CH62: 902.4MHz, cell power: -60dBm, MS_TX_level: 5
2. TX signal1 : Use oscilloscope probe to touch R206 to get signal1 wave

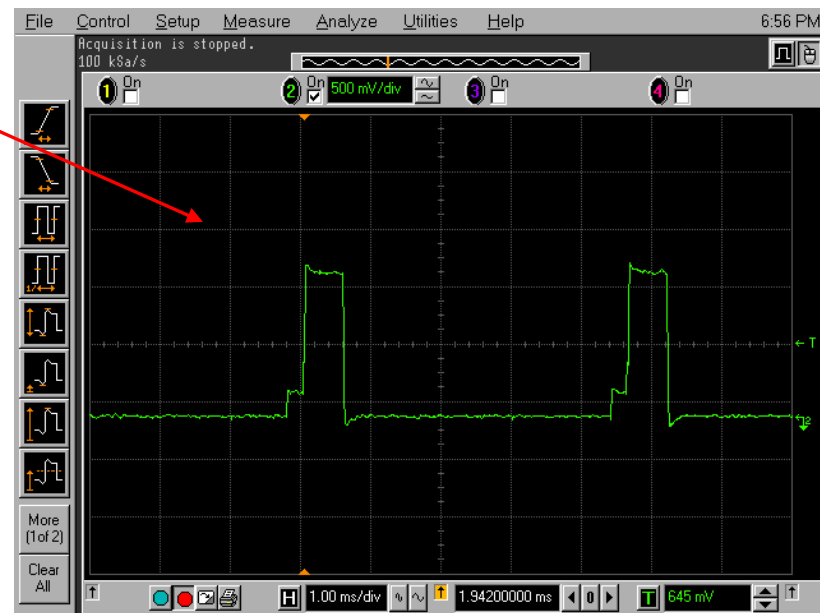
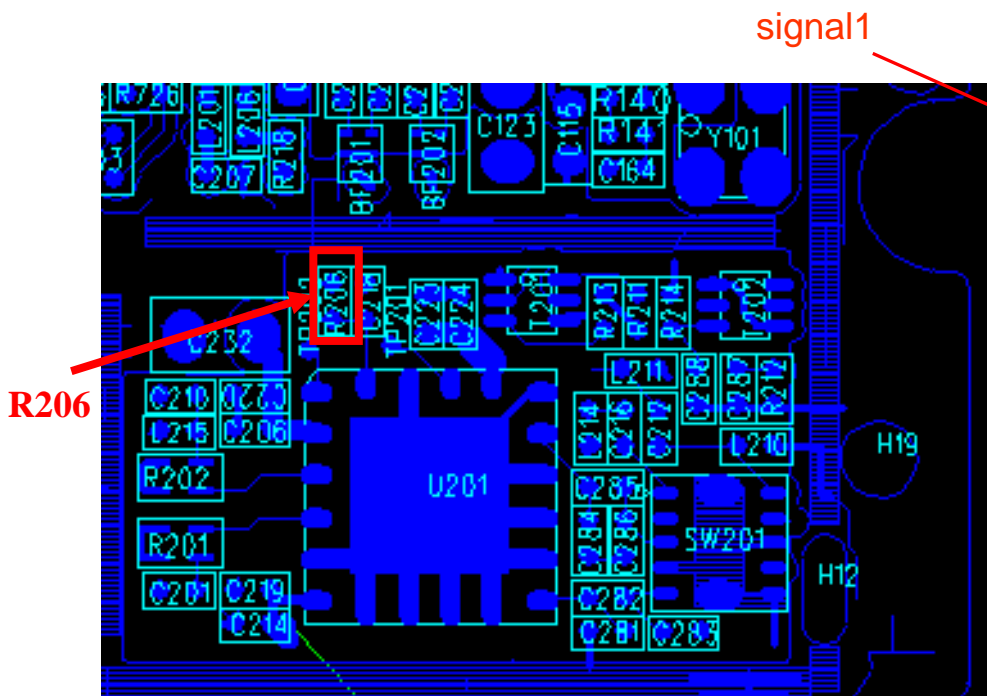
Signal1(APC Wave)





Tx path(PA) in DCS Band

1. Set HP8960 or HP8922, Operating mode: Test mode, Test function: BCH+TCH
CH699: 1747.6MHz, cell power: -60dBm, MS_TX_level : 0
2. TX signal1 : Use oscilloscope probe to touch R206 to get signal1 wave



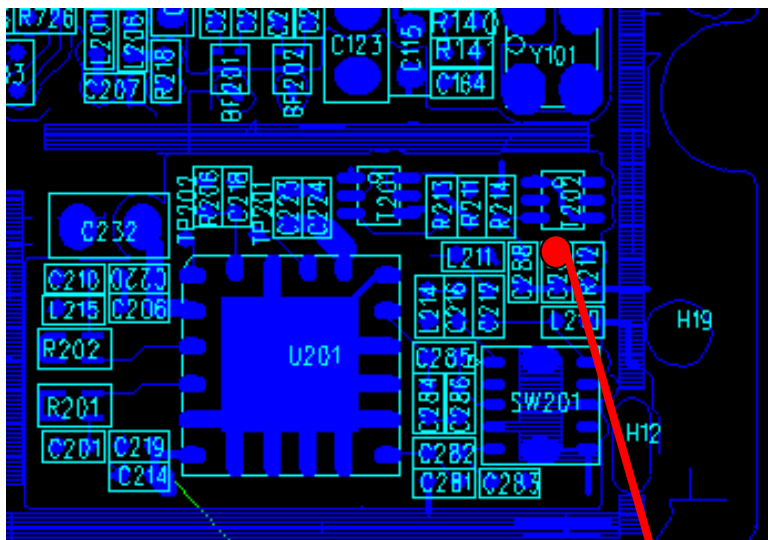


Tx path(TR switch) in GSM Band

1. Set HP8960 or HP8922, Operating mode: Test mode, Test function: BCH+TCH

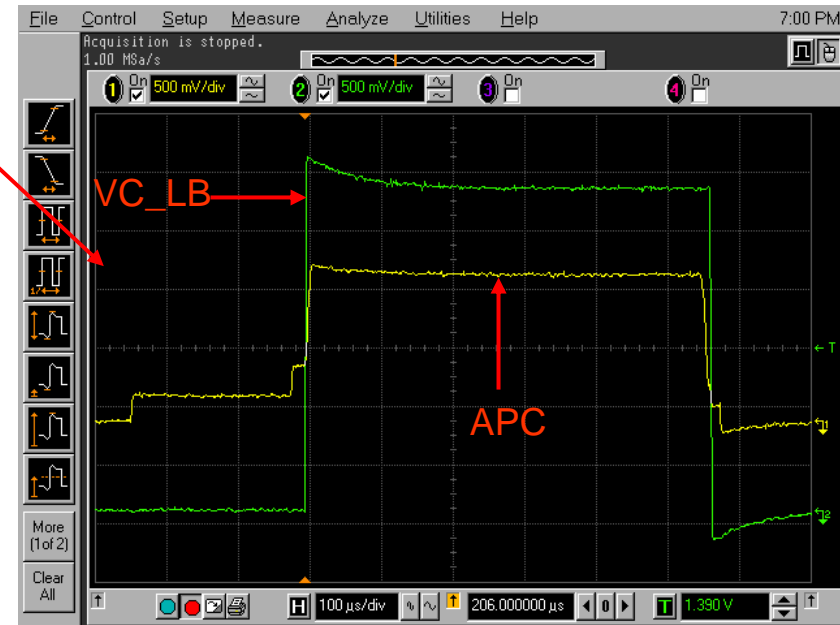
CH62: 902.4MHz, cell power: -60dBm, MS_TX_level : 5

2. TX signal1 : Use oscilloscope probe to touch SW201 Pin10(C287) to get signal1 wave



C287

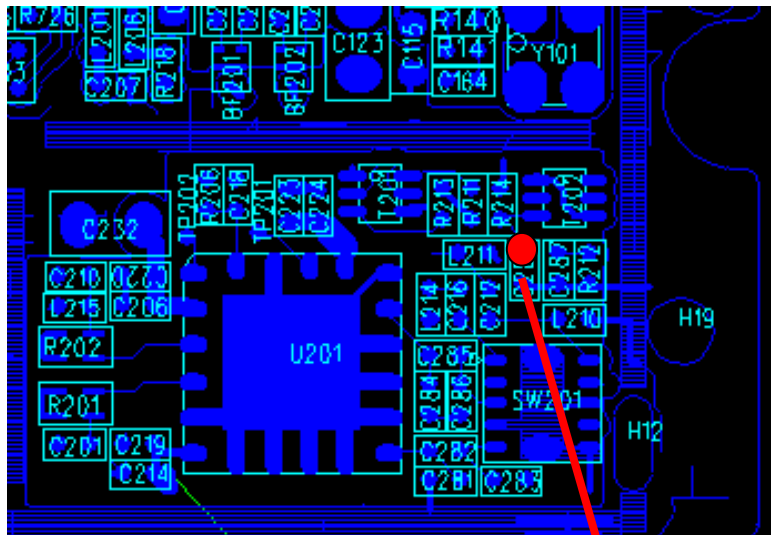
Signal1



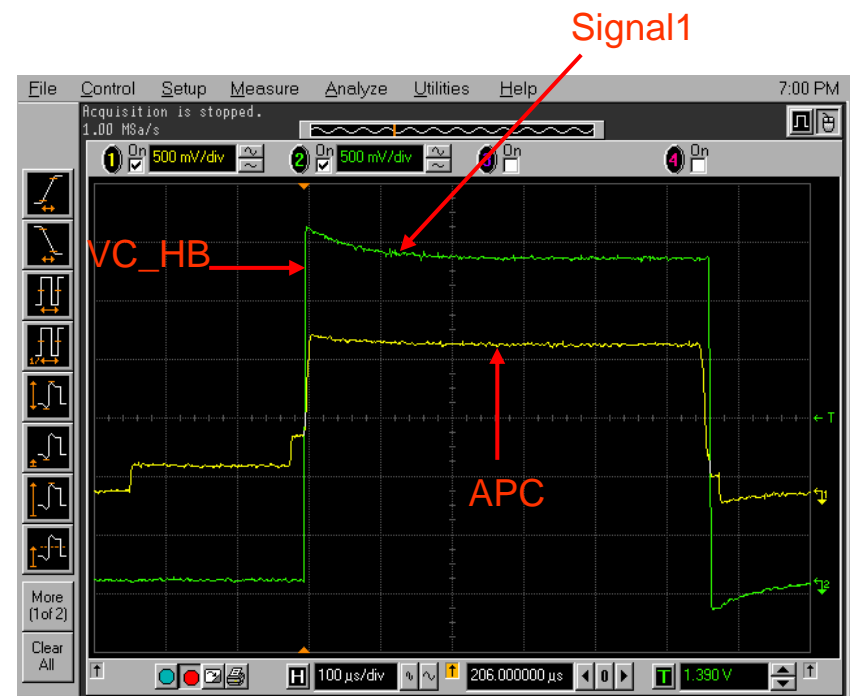


Tx path(TR switch) in DCS Band

1. Set HP8960 or HP8922, Operating mode: Test mode, Test function: BCH+TCH
CH699:1747.6MHz, cell power:-60dBm, MS_TX_level : 0
2. TX signal1 : Use oscilloscope probe to touch SW201 Pin2(C288) to get signal1 wave



C288

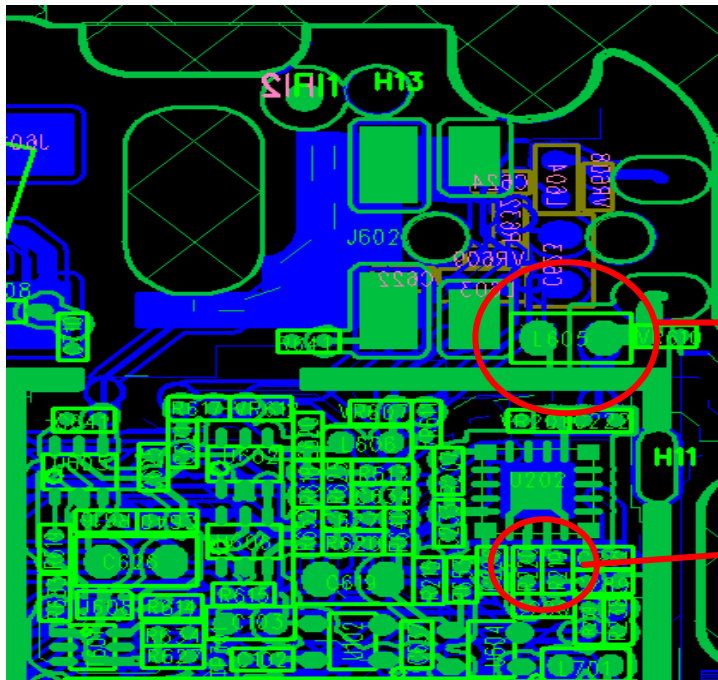




Q. FM no function (only available for W213)



1. Please Check if the Headphone connected well(Headphone antenna is used)
2. Download SW to the damaged unit.
3. Please Check the output of FM IC(U202) . (Replace FM IC if there is no/bad signal at output of FM IC)
4. Please Check Triton_lite(U103)



Headphone antenna path

Output of FM IC