

# GSM TELEPHONE

## GT-P3100

# SERVICE *Manual*

## GSM TELEPHONE

## CONTENTS



1. Safety Precautions
2. Specification
3. Product Function
4. Exploded View and Parts list
5. MAIN Electrical Parts List
6. Level 1 Repair
7. Level 2 Repair
8. Level 3 Repair
9. Reference data

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**SAMSUNG  
ELECTRONICS**



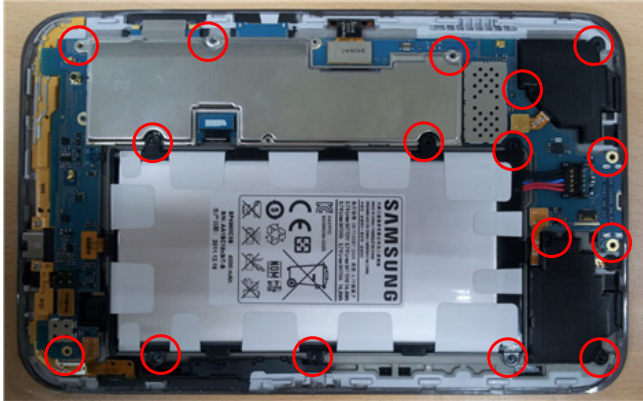
## 7. Level 2 Repair

### 7-1. Disassembly and assembly Instructions

#### 7-1-1. Disassembly

<div data-bbox="185 352 776 445"><b>1</b> Disassemble the rear cover with the front cover by using the hook</div> <div data-bbox="198 445 766 844"></div> <div data-bbox="331 865 587 907">○ : Hook (24 Point)</div> <div data-bbox="243 940 724 1058"></div>	<div data-bbox="828 352 1409 445"><b>2</b> Put the disassemble jig as shown in the picture below. And disassemble hooks in regular sequence.</div> <div data-bbox="863 466 1393 772"></div> <div data-bbox="863 781 1338 1075"></div>
<p>Be careful not to scratch cover. Follow the numbered sequence when you disjoint</p>	<p>Be careful not to scratch cover. Follow the numbered sequence when you disjoint</p>
<div data-bbox="168 1184 792 1243"><b>3</b> Disassemble the rest of the hooks.</div> <div data-bbox="168 1272 565 1524"></div> <div data-bbox="418 1528 779 1780"></div>	<div data-bbox="828 1184 1474 1348"><b>4</b> Put your hand has opened between the front assy and the rear cover. First, disassemble the hooks in the direction of IF connector. And then disassemble all the remain hooks.</div> <div data-bbox="831 1360 1123 1780"></div> <div data-bbox="1140 1381 1490 1780"></div>
<p>Be careful not to scratch cover. Follow the numbered sequence when you disjoint</p>	<p>Be careful not to scratch cover. Follow the numbered sequence when you disjoint</p>

- 5** Carefully release the screws at 16 different locations from the Front.  
(L1.4\*3.0, Torque 0.9 ~ 1.0 kgf.cm)



Be careful not to scratch cover

- 6** Separate the Speaker, Battery from the PBA.



Be careful not to damage the FPCBs  
Be careful not to damage the wires

- 7** Separate IF Connector, TSP, LCD, 3M Camera, VGA Camera, Volume Key, Earjack FPCBs from the PBA



Be careful not to damage the FPCBs

- 8** Separate PBA from the Front.

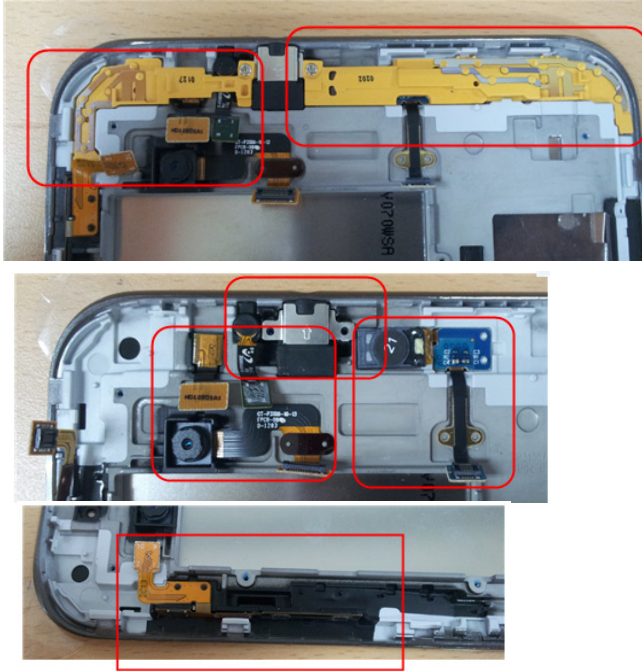


Be careful not to scratch cover



9

Separate the Antenna, 3M Camera, Earjack, Volume FPCB, VGA Camera, Sensor FPCB from the Front.

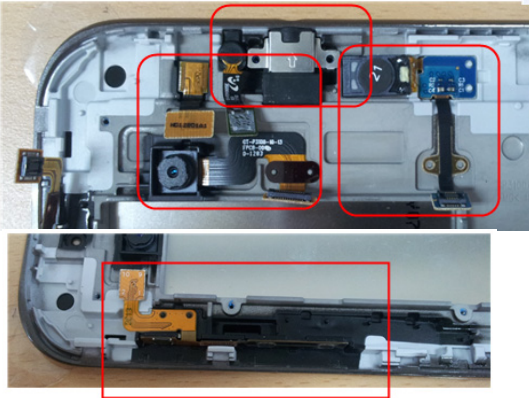


Be careful not to damage the FPCBs

## 7-1-2. assemble

1

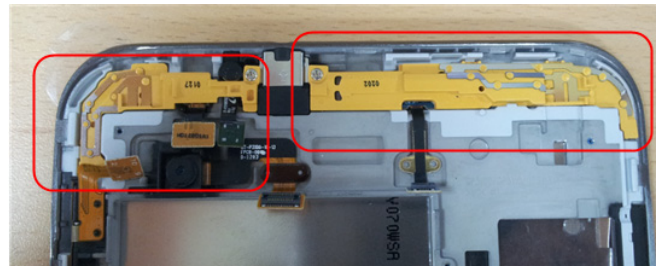
Assemble the 3M Camera, Earjack, Volume FPCB, VGA Camera, Sensor FPCB



Be careful not to damage the FPCBs

2

Assemble the Antenna



Be careful not to damage the FPCBs

3

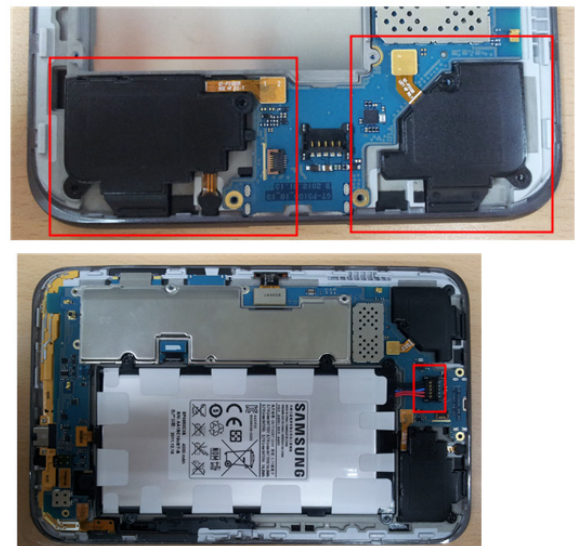
Assemble PBA and all Connectors



Be careful not to damage the FPCBs

4

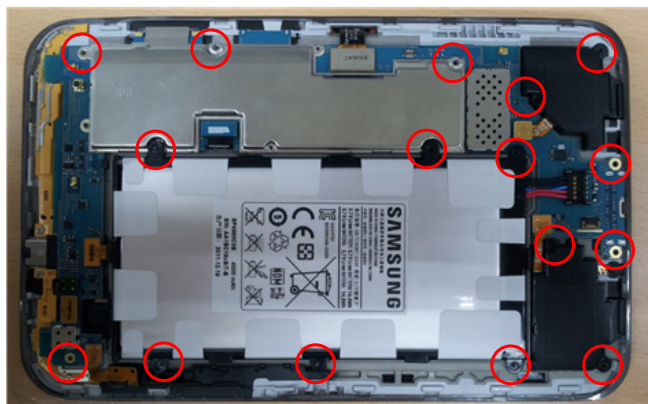
Assemble the Speakers Battery



Be careful not to damage the FPCBs

5

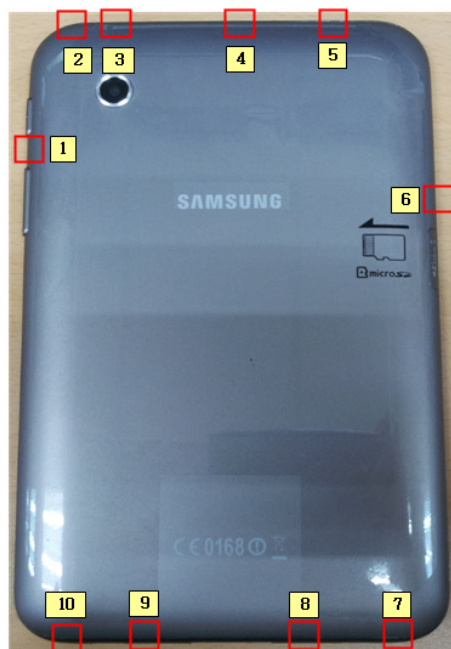
Screw at 16 point  
(L1.4\*3.0, Torque 0.9 ~ 1.0 kgf.cm)



Be careful not to damage the FPCBs

6

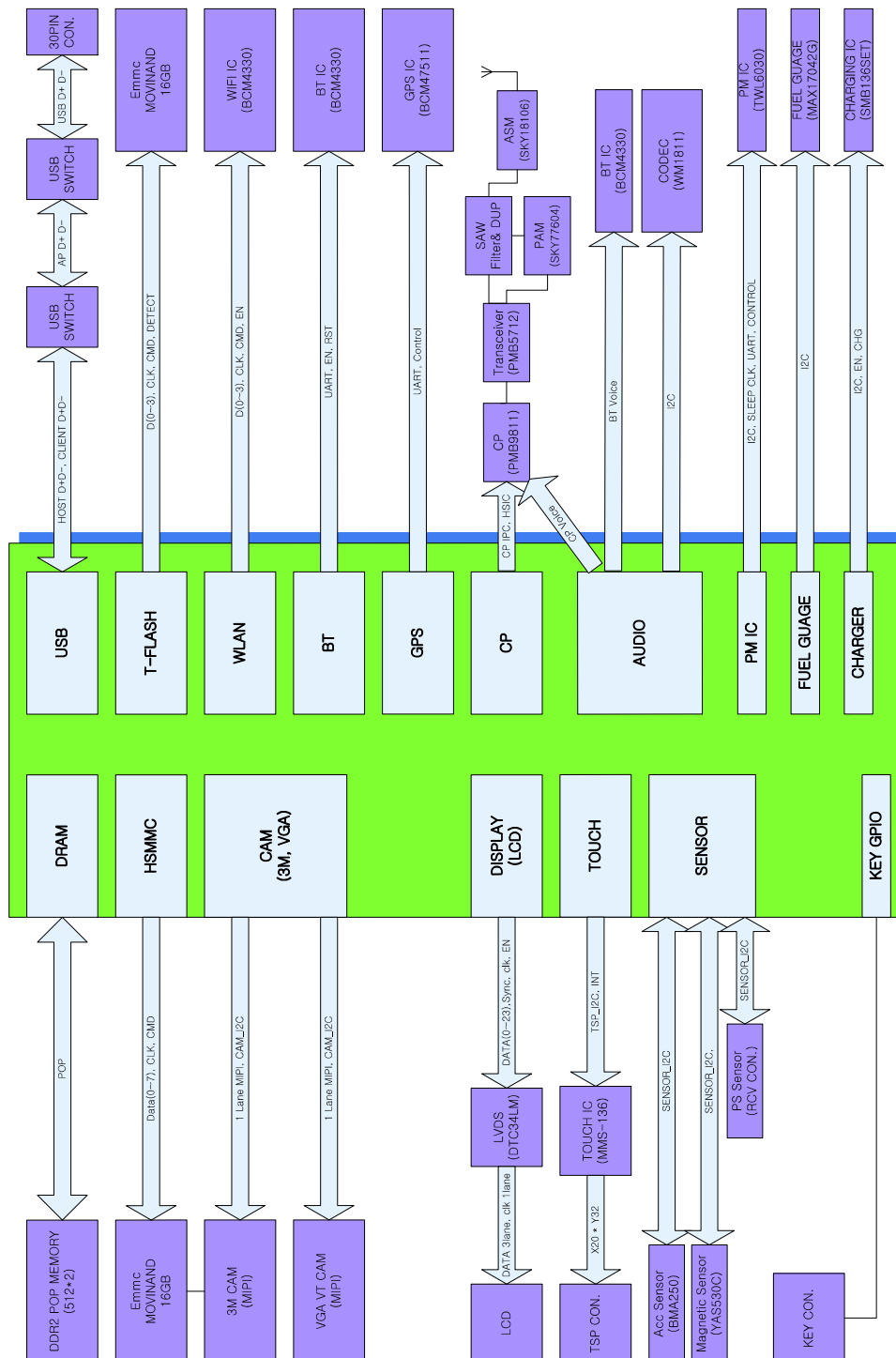
Assemble the Rear.



Be careful not to damage the FPCBs, not to scratch cover.

## 8. Level 3 Repair

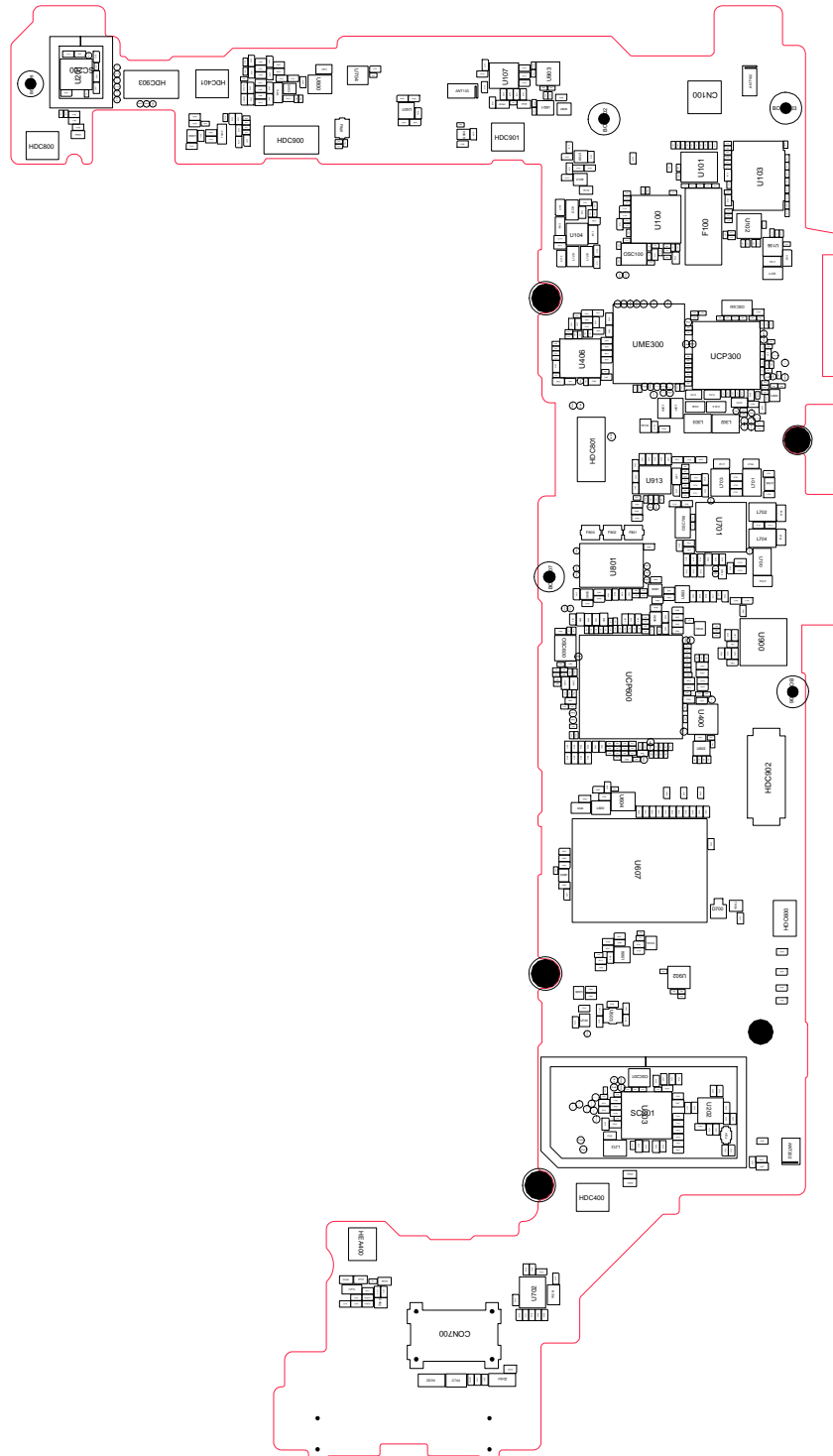
### 8-1. Block Diagram





## 8-2. PCB Diagrams

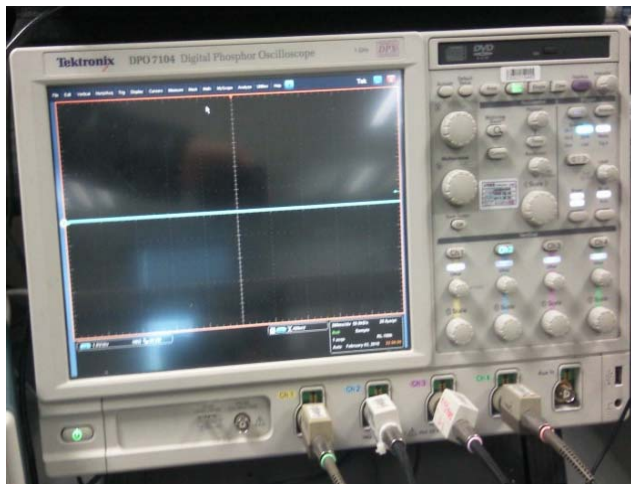
### 8-2-1. Top





### 8-3. Flow Chart of Troubleshooting

#### Equipments



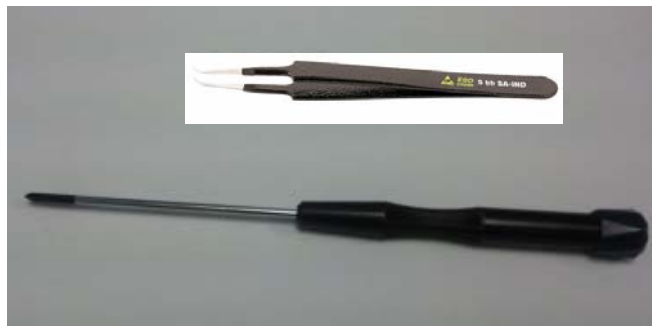
↑ Oscilloscope



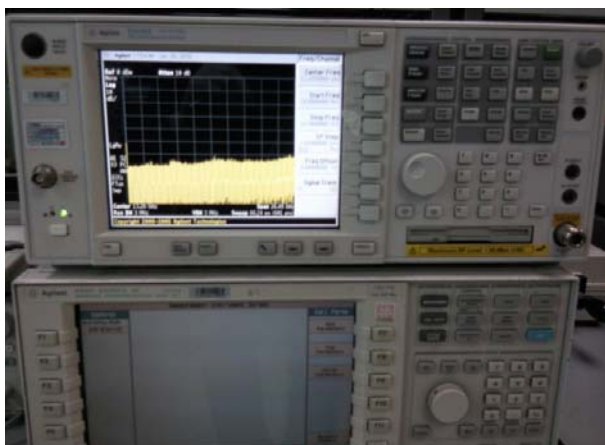
↑ Digital Multimeter



↑ Power Supply



↑ + driver, ESD Safe Tweezer

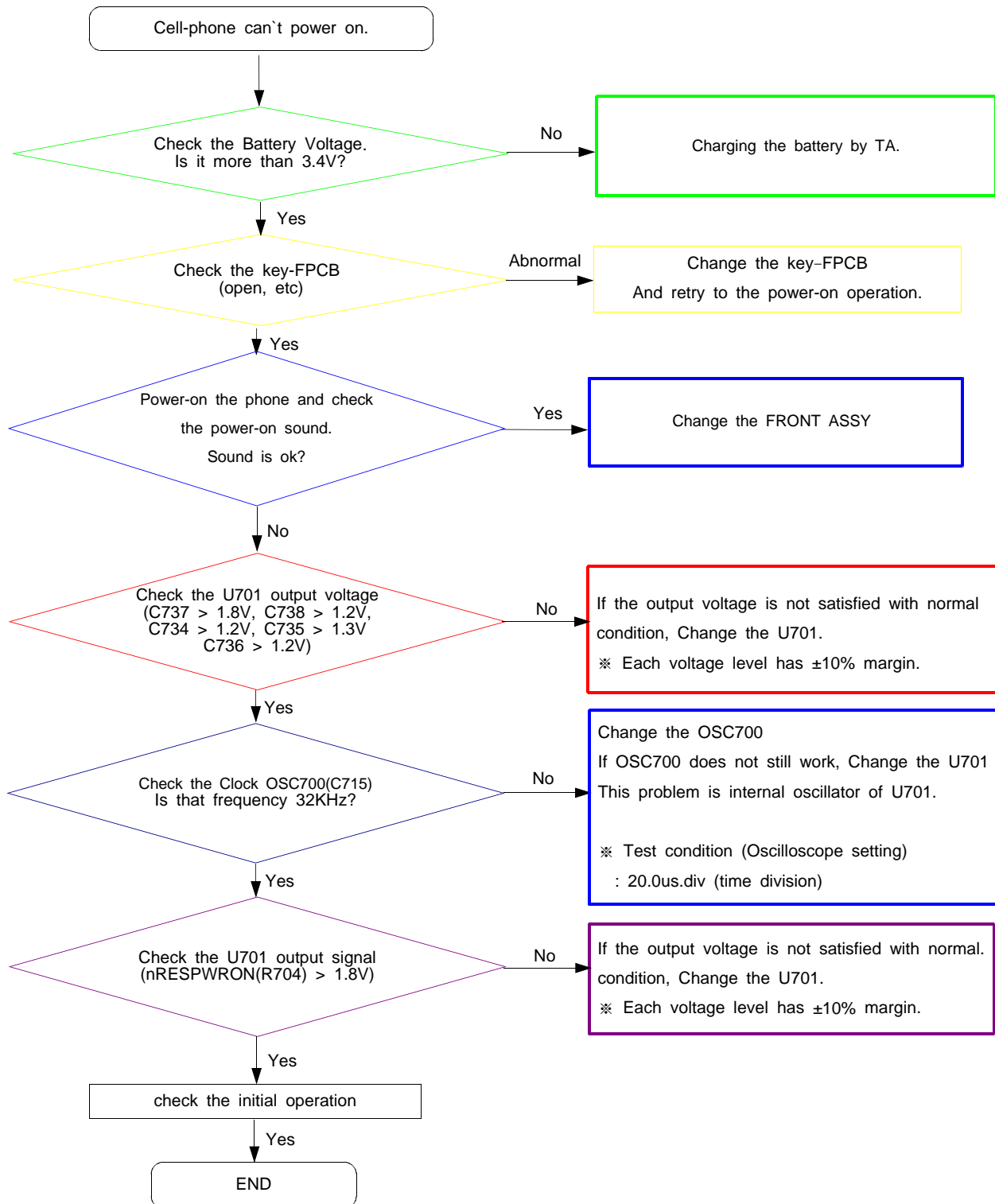


↑ 8960 & Spectrum Analyzer

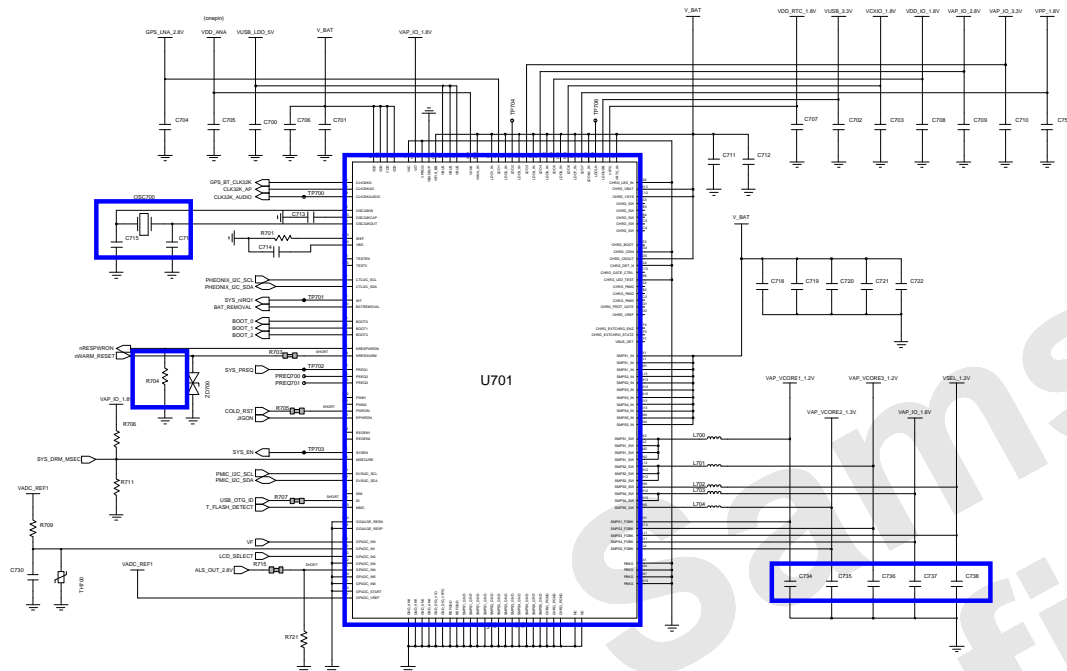
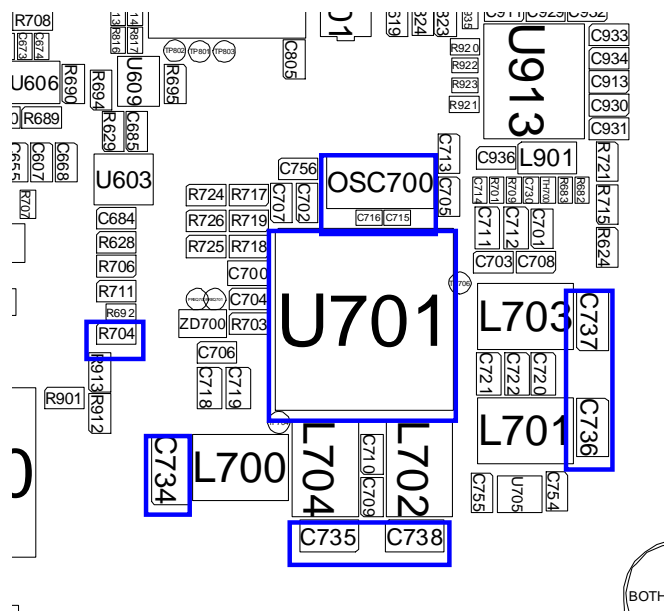


↑ Soldering iron

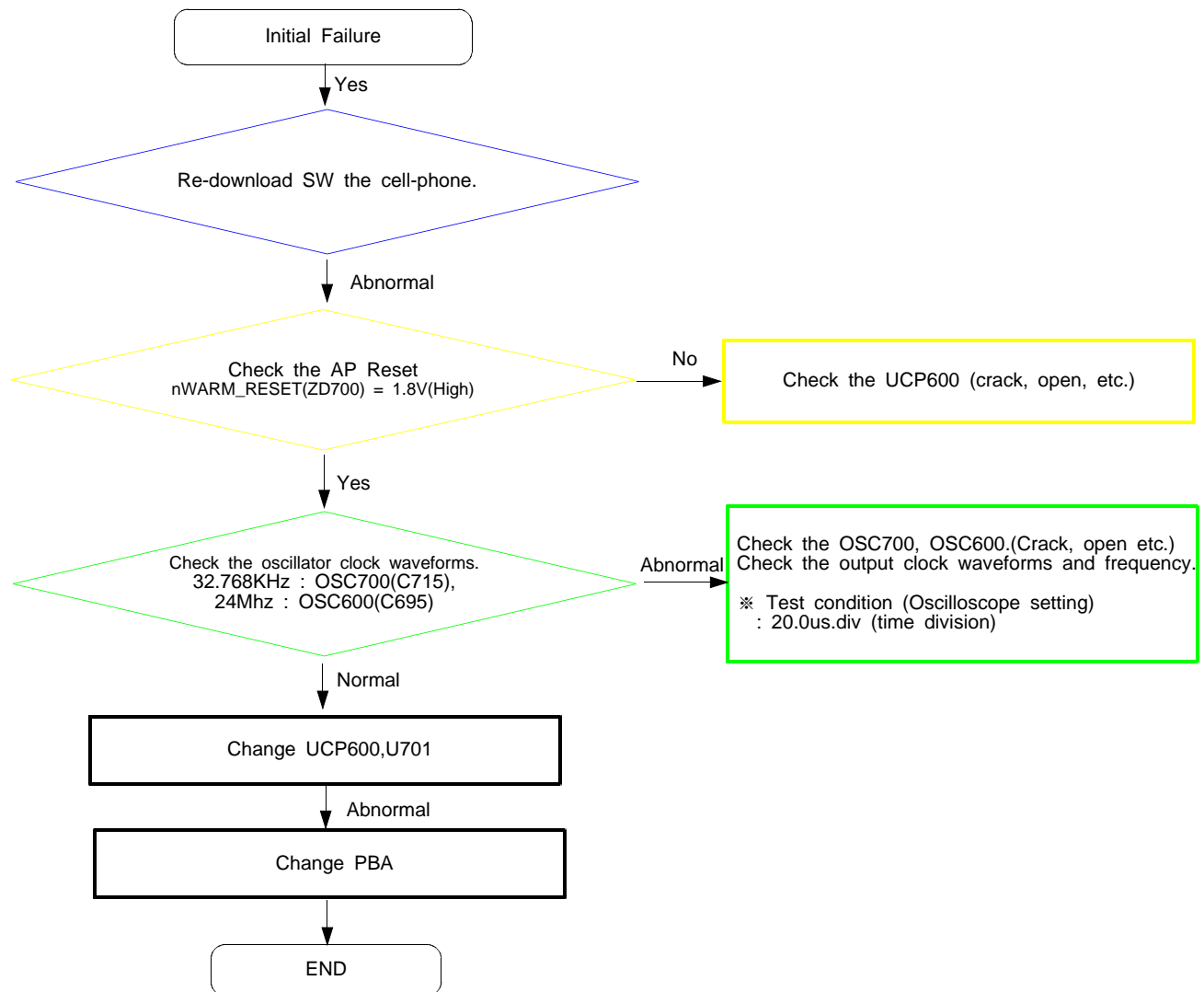
## 8-3-1. Power On

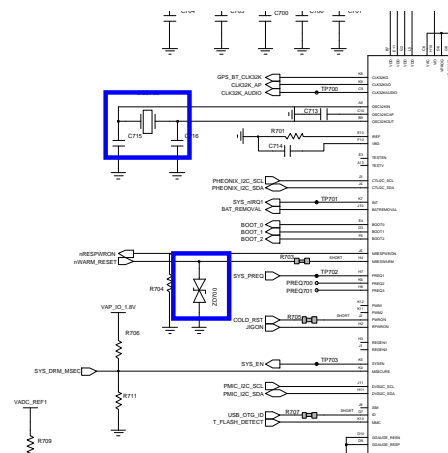
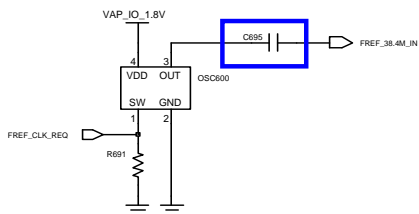
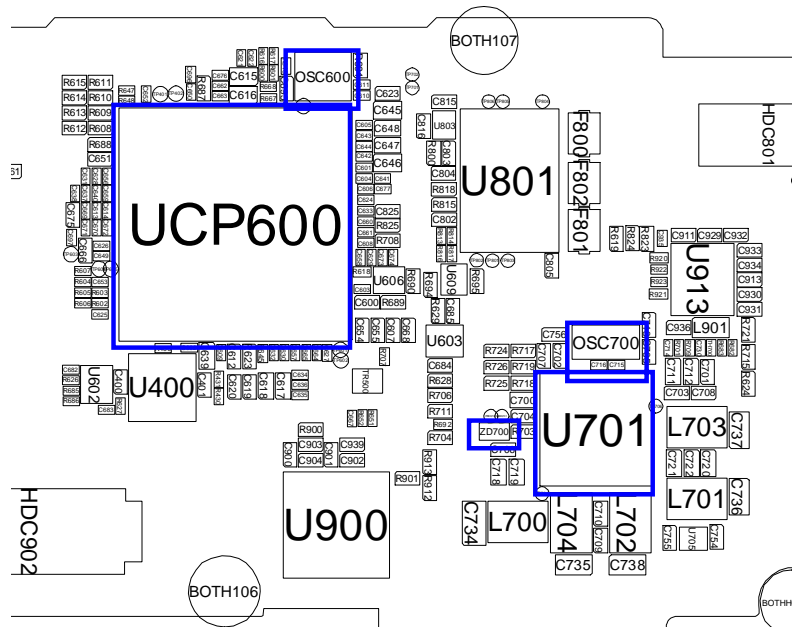




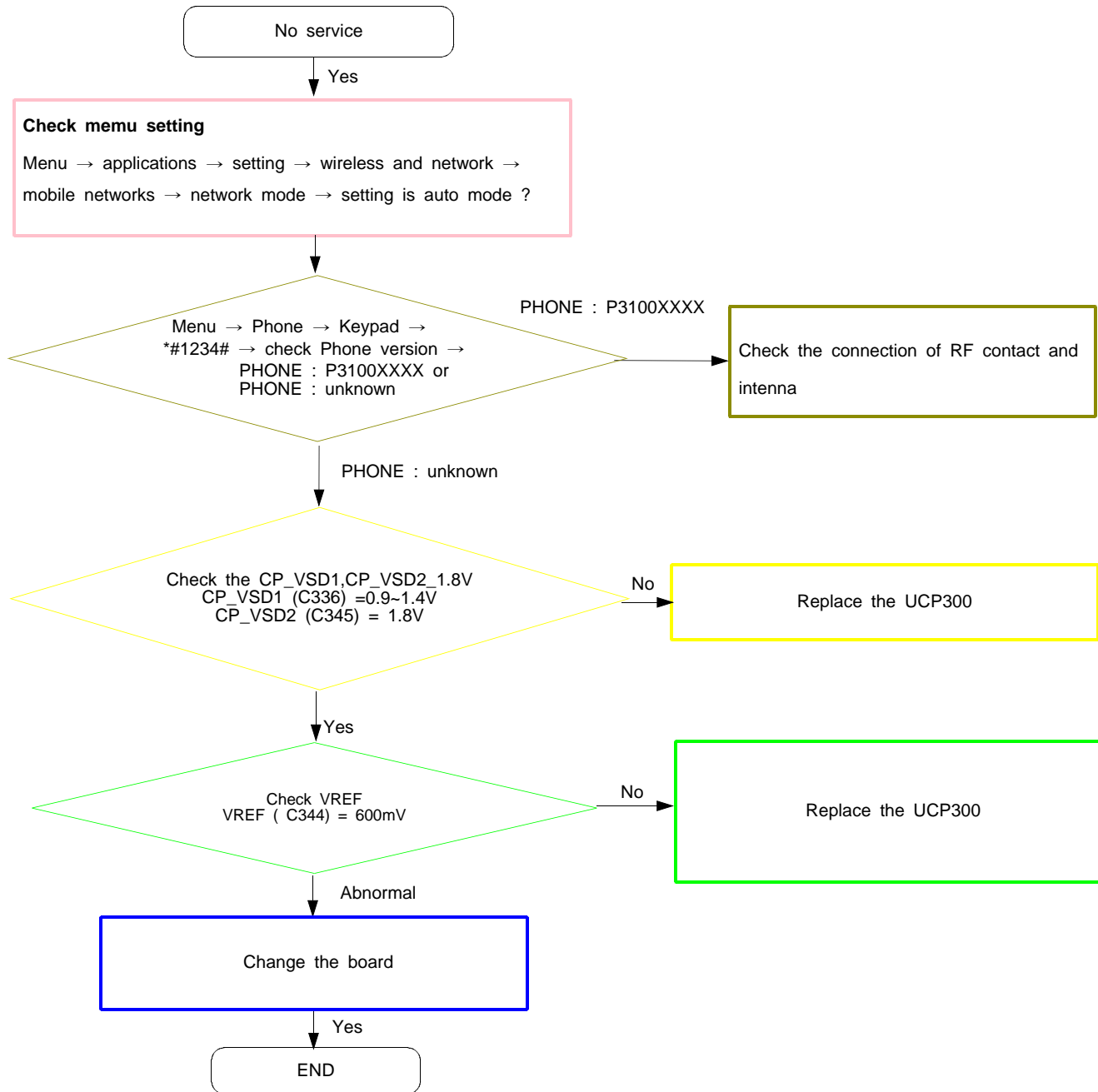


## 8-3-2. Initial

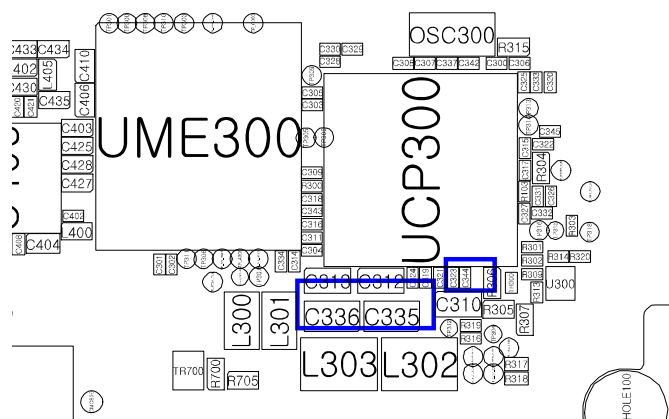
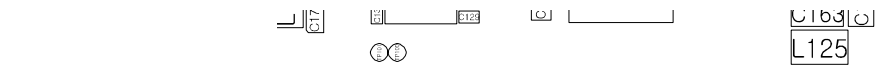




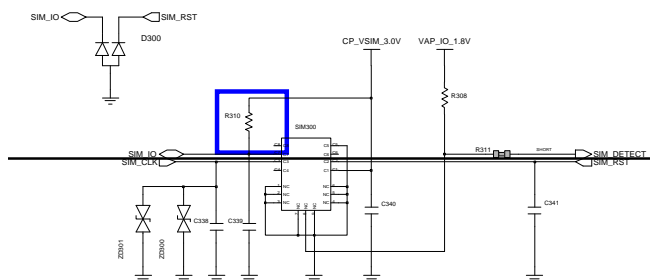
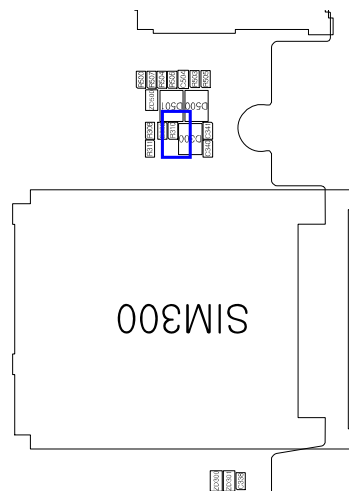
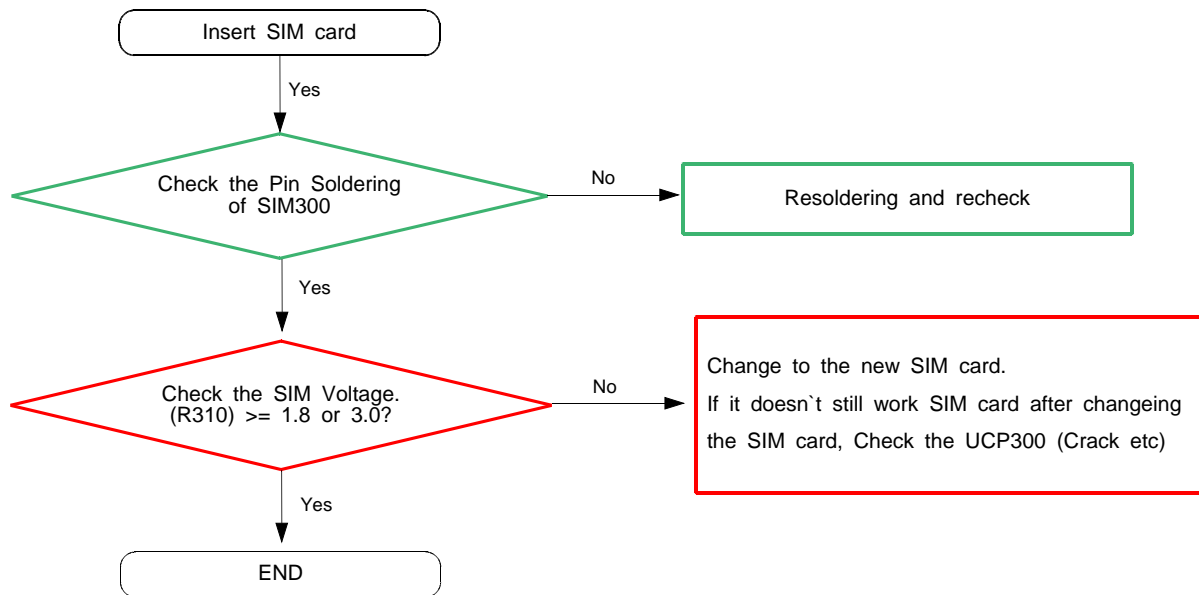
## 8-3-3. No Service



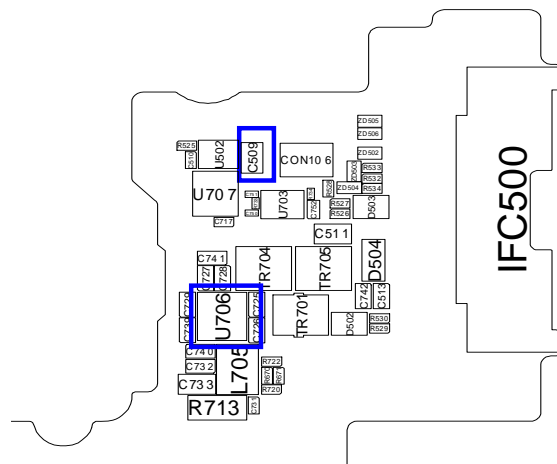
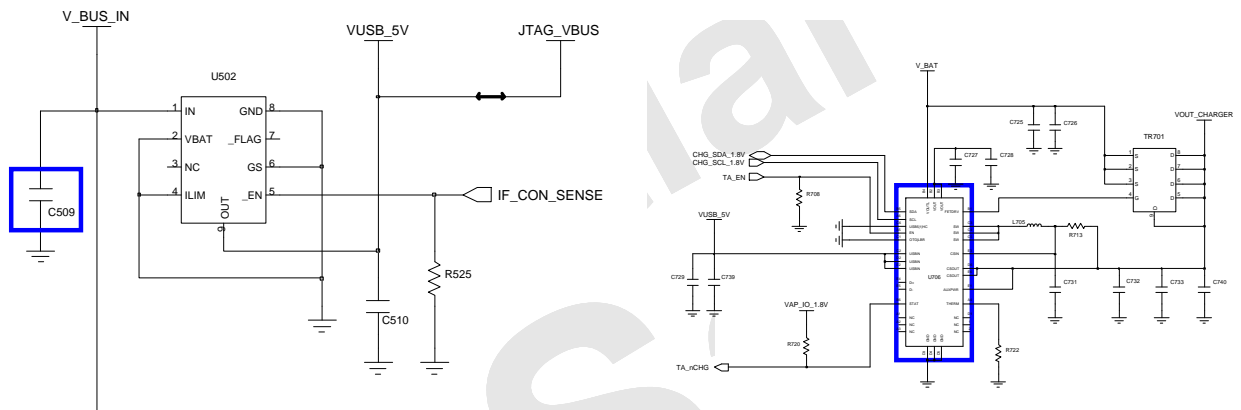
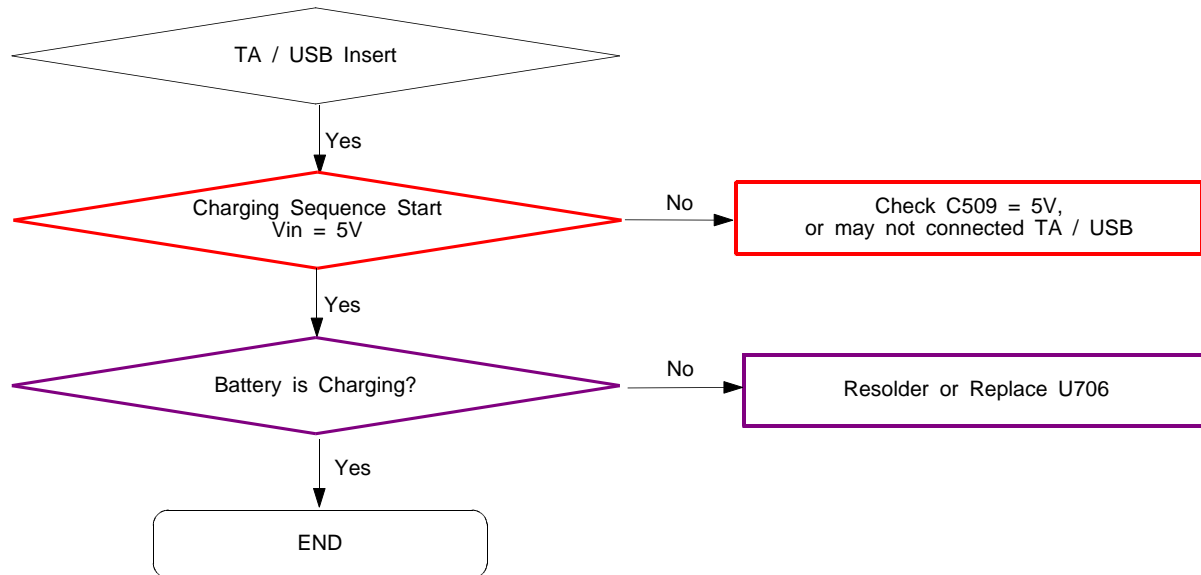




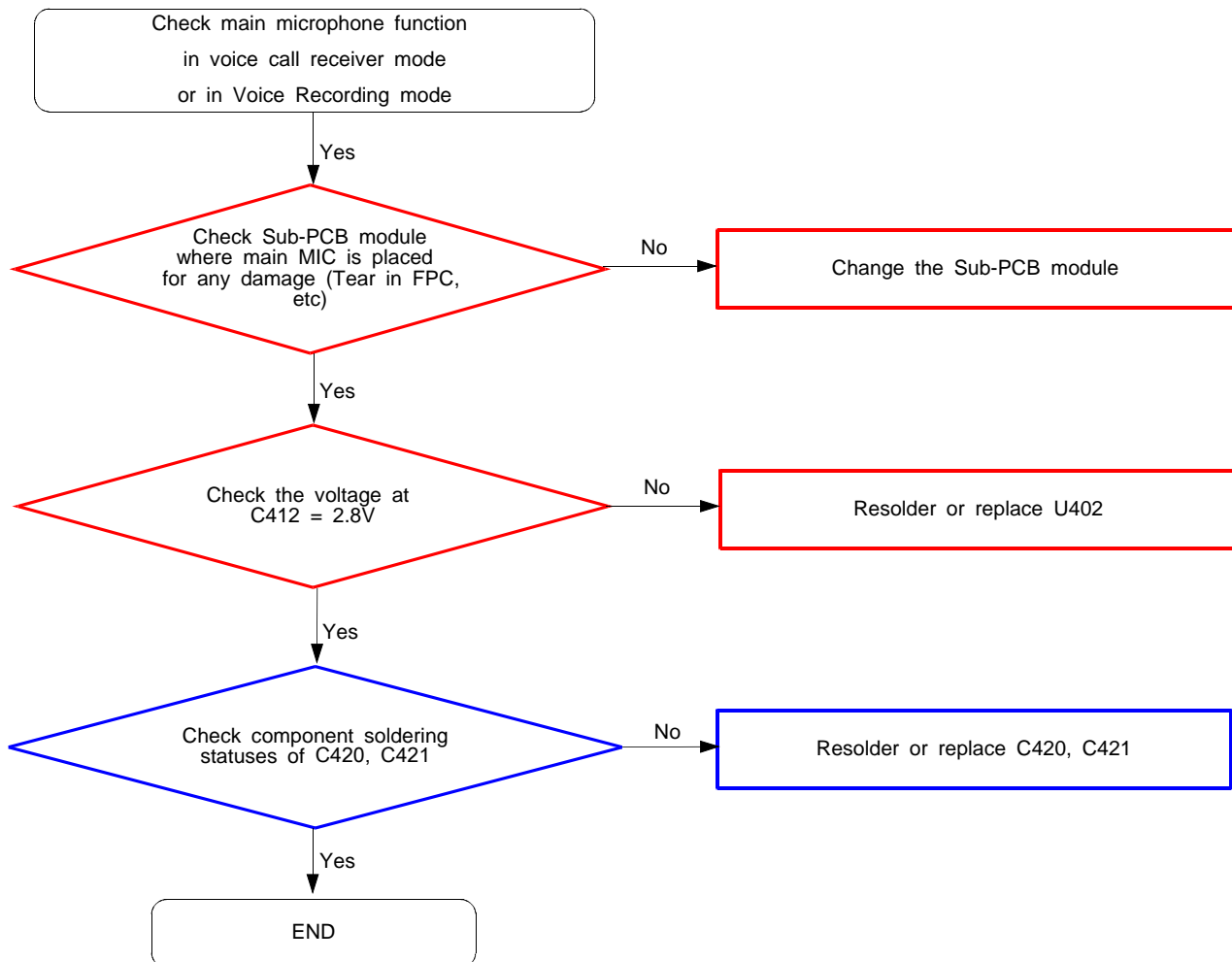
## 8-3-4. Sim Part



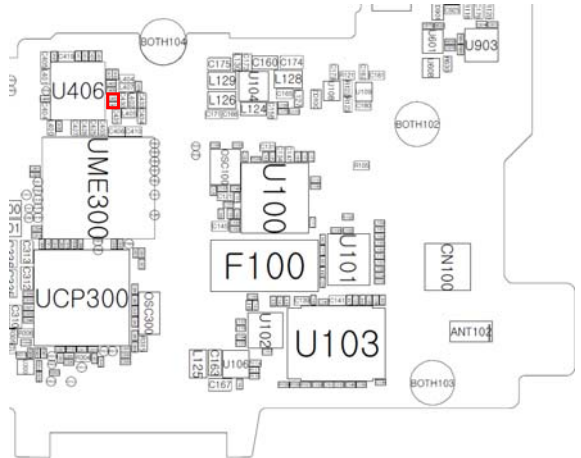
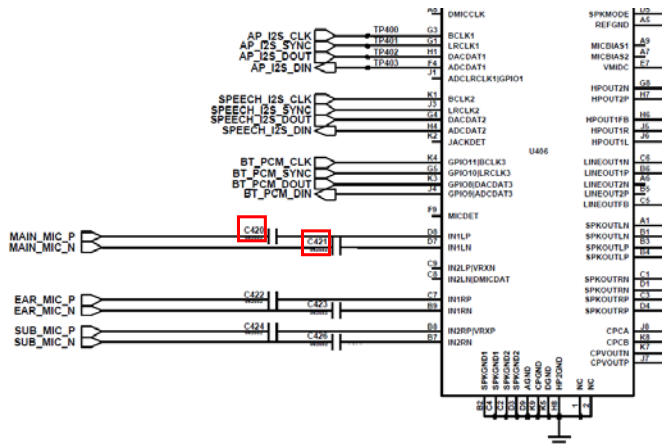
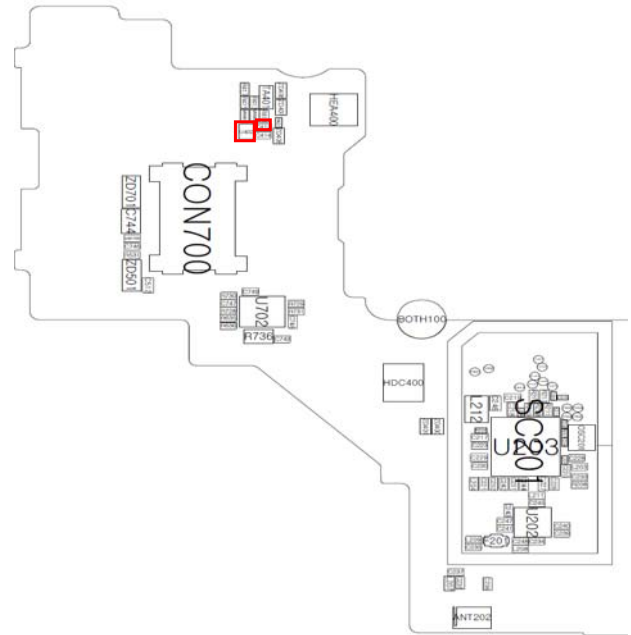
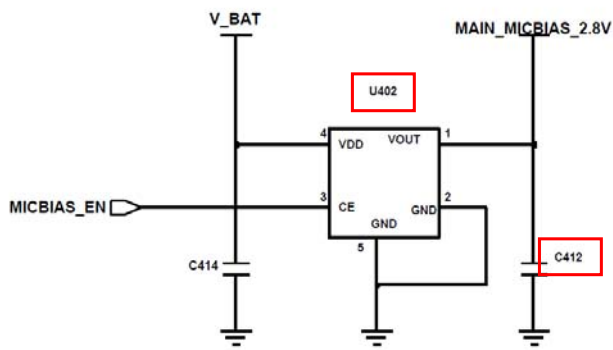
## 8-3-5. Charging Part



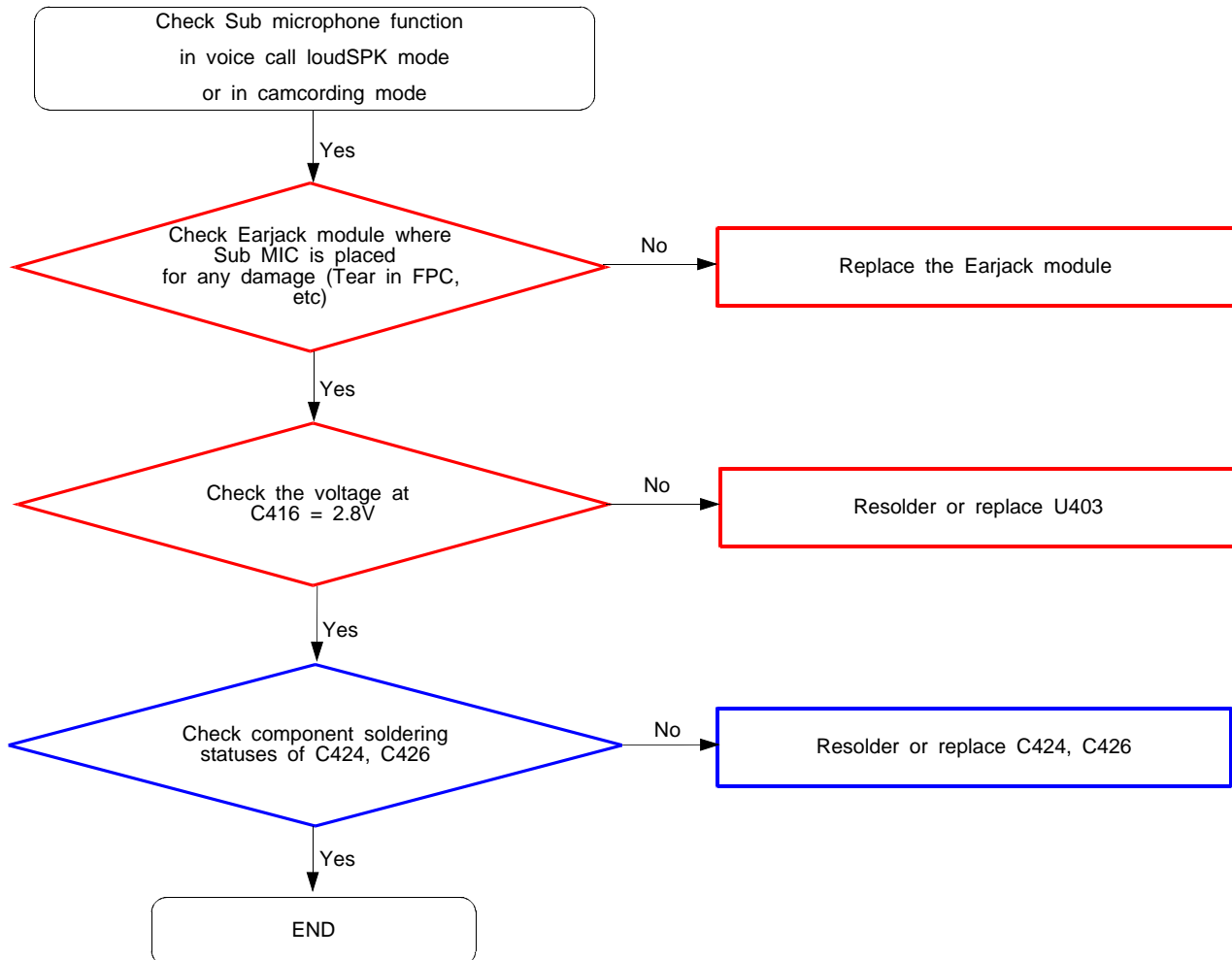
## 8-3-6. Microphone Part (Main MIC)





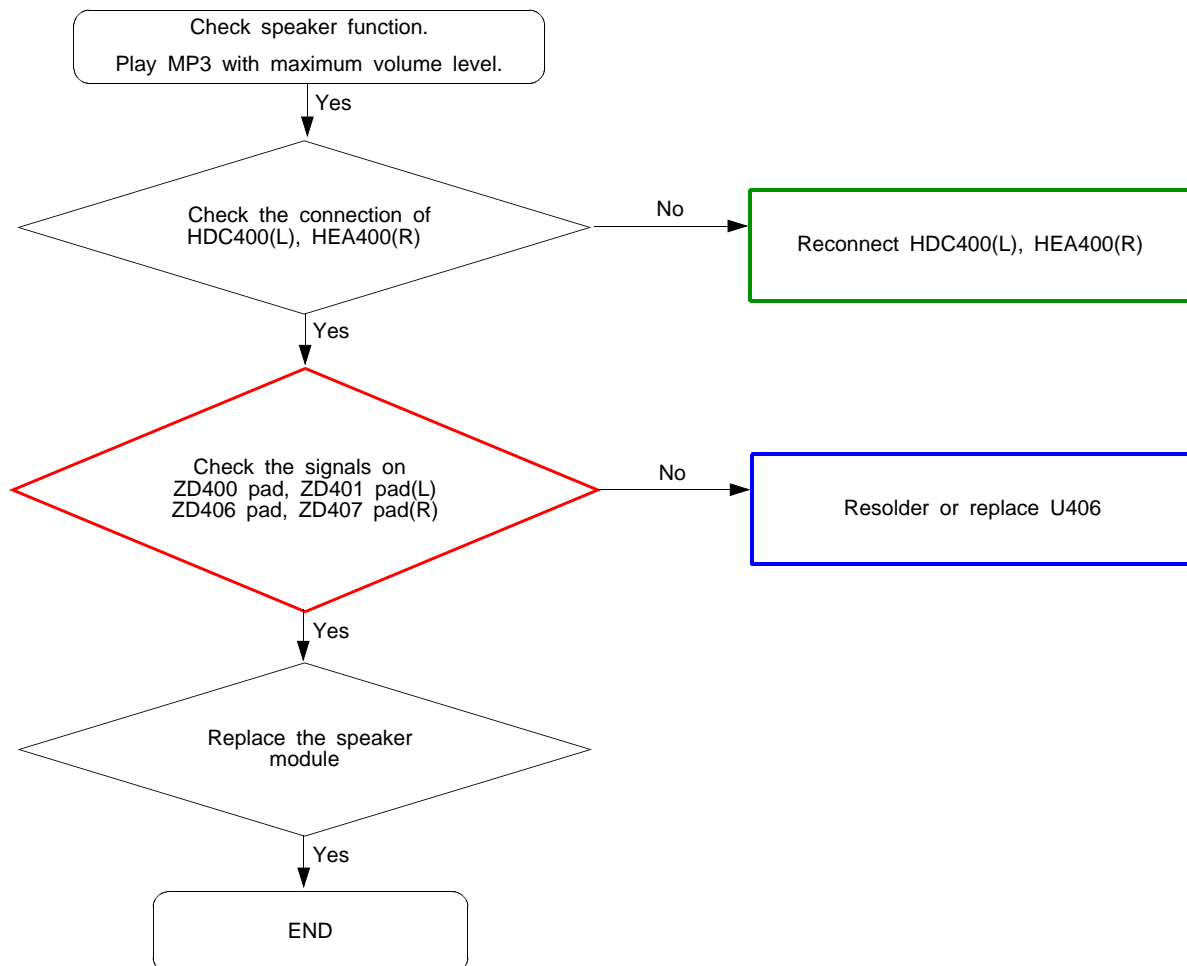


## 8-3-6-1. Microphone Part (Sub MIC)

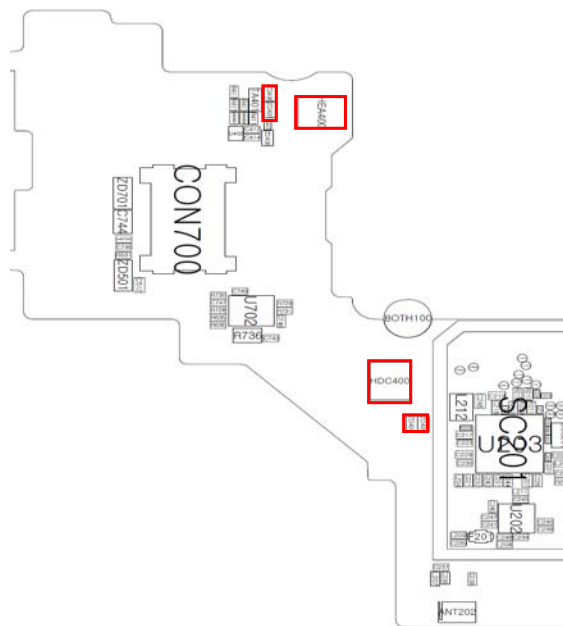
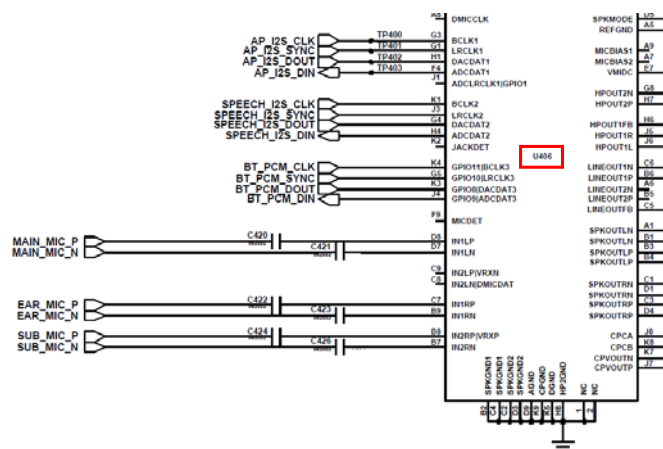
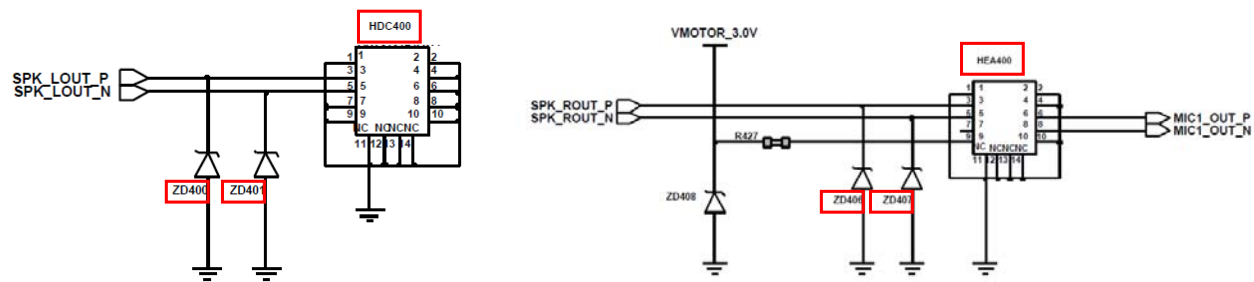




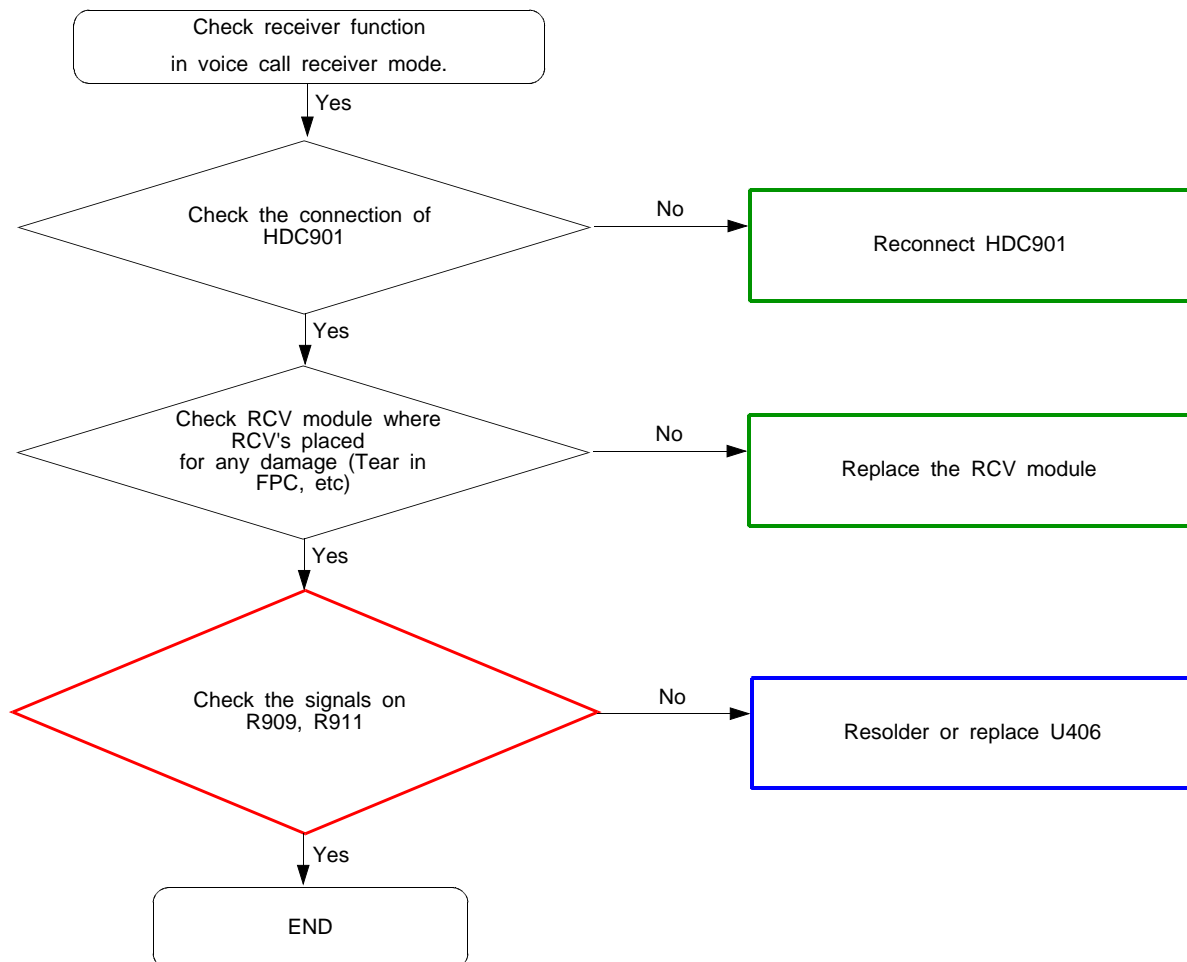
## 8-3-7. Speaker Part

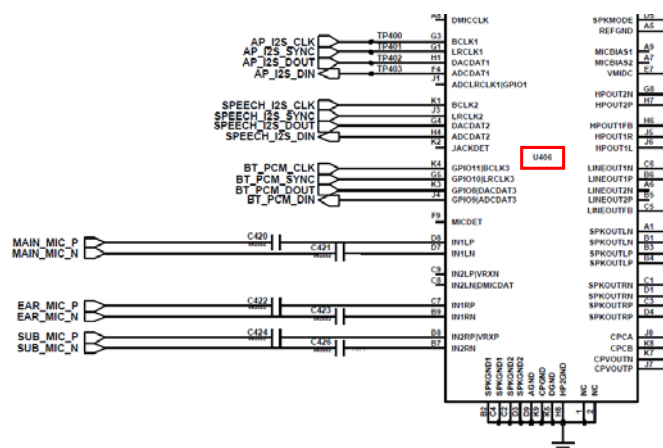




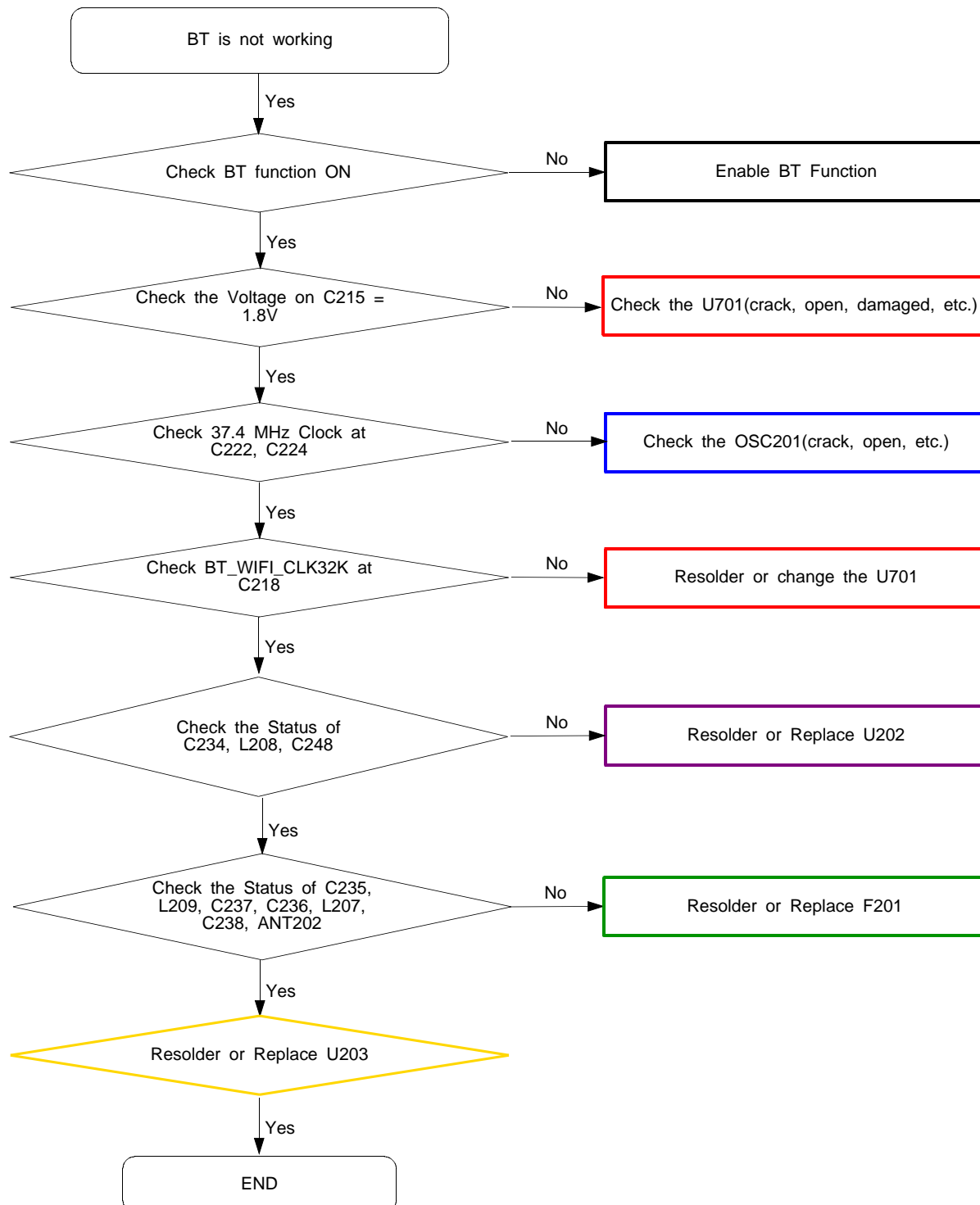


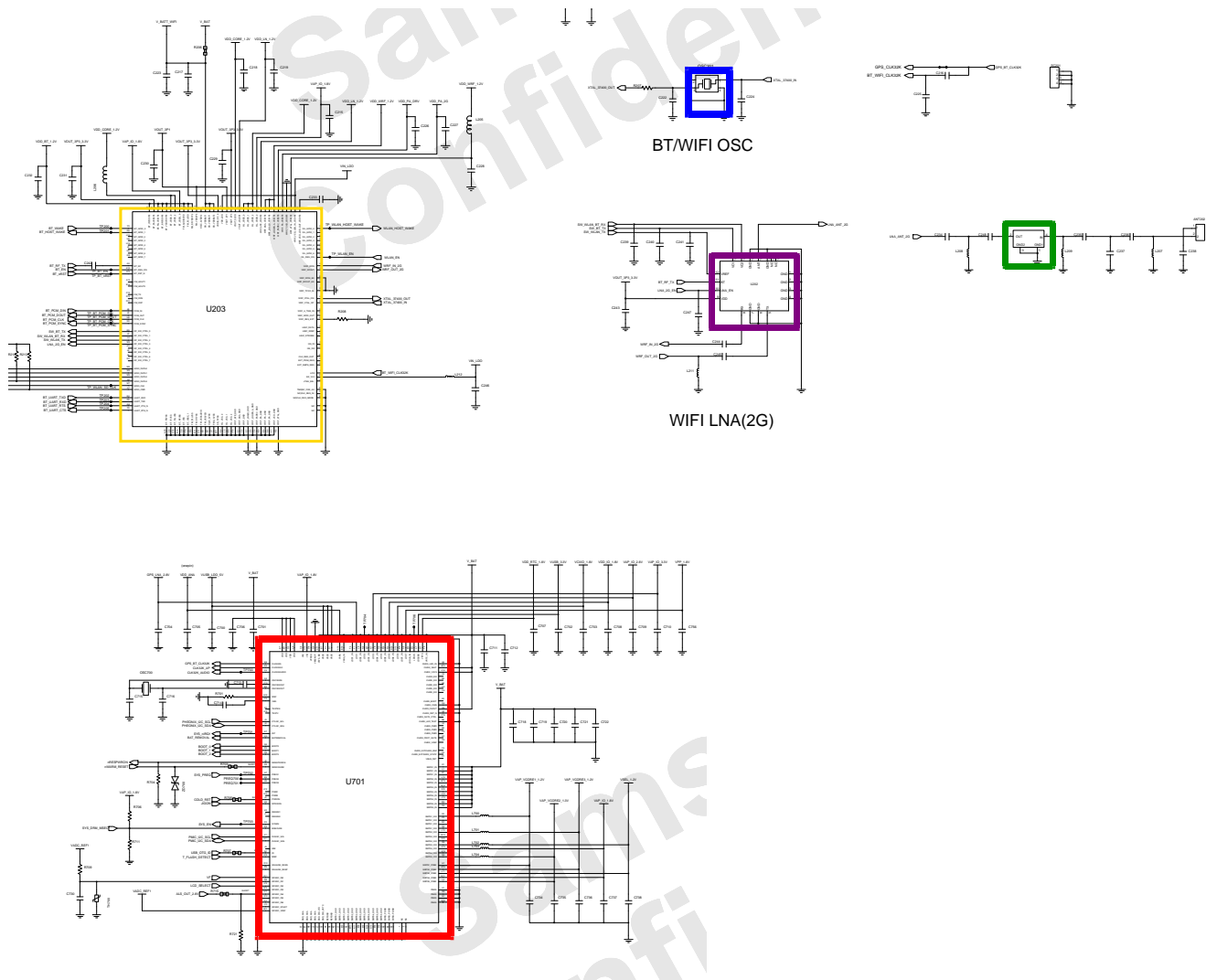
## 8-3-8. Receiver Part

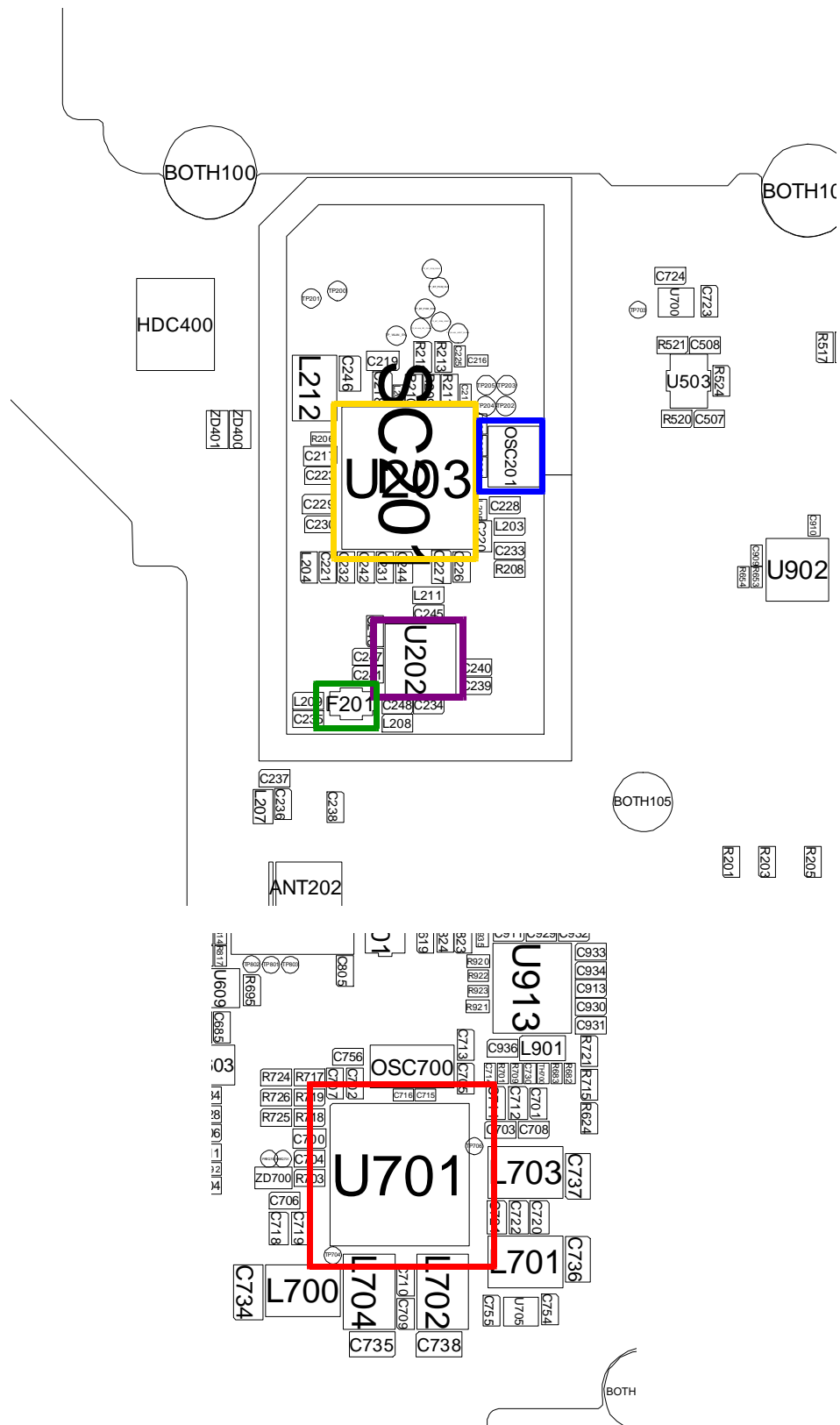




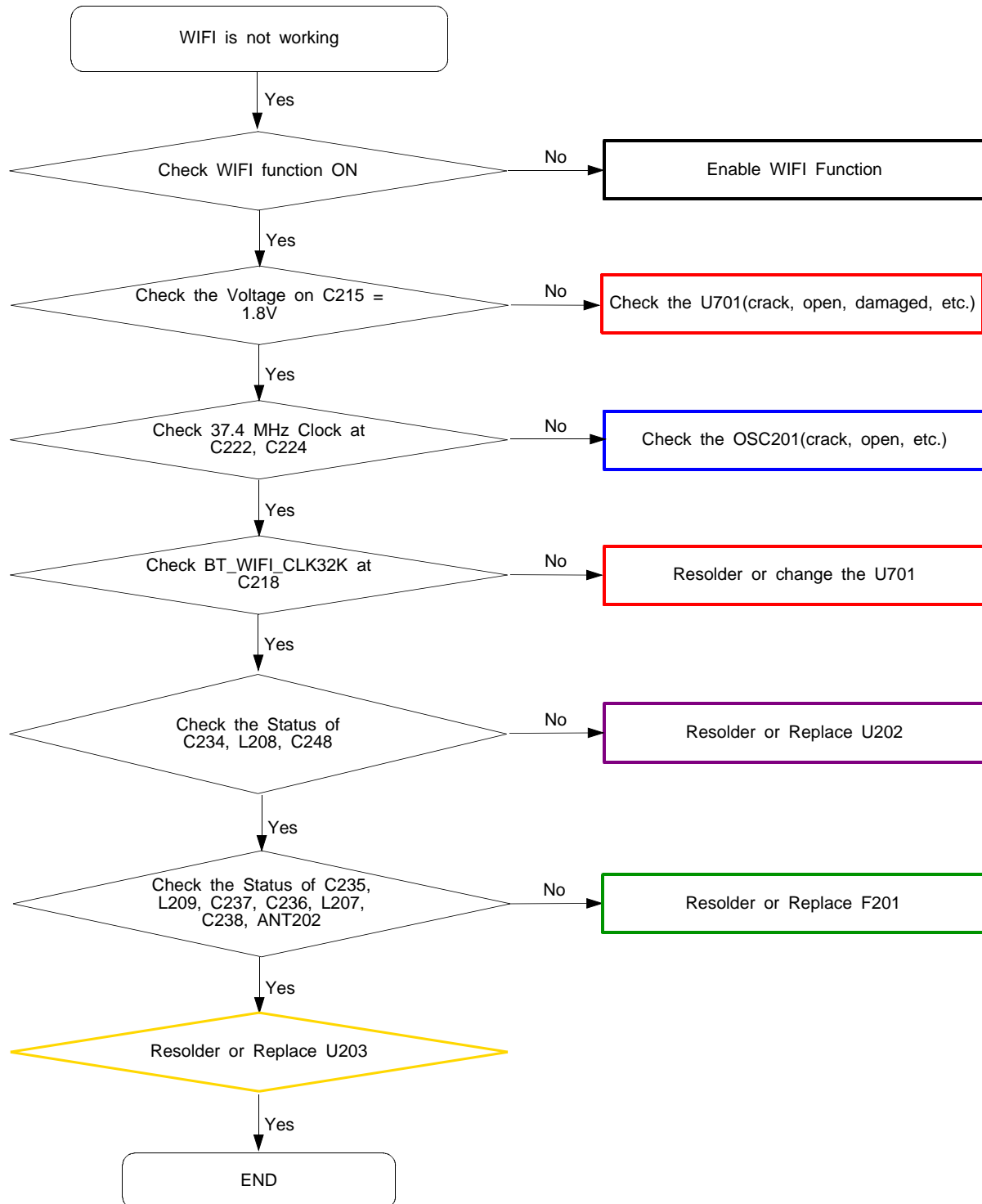
## 8-3-9. BT



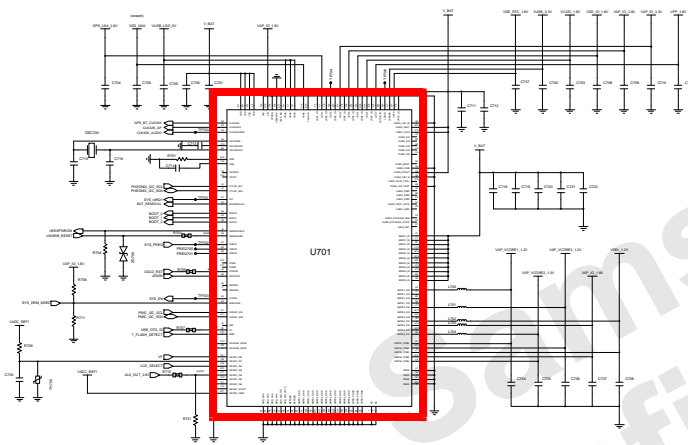
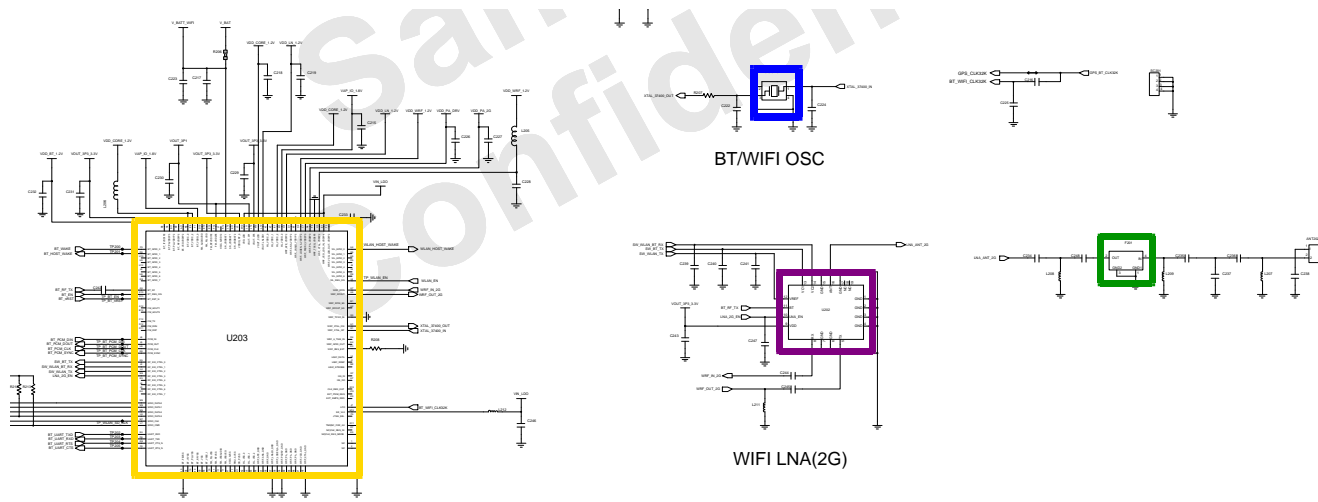


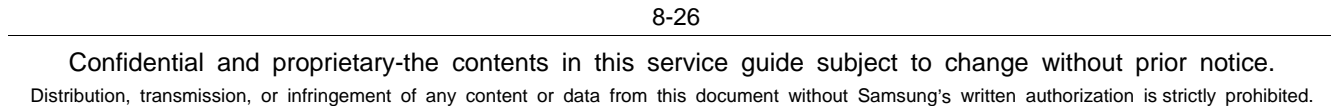


### 8-3-10. WIFI

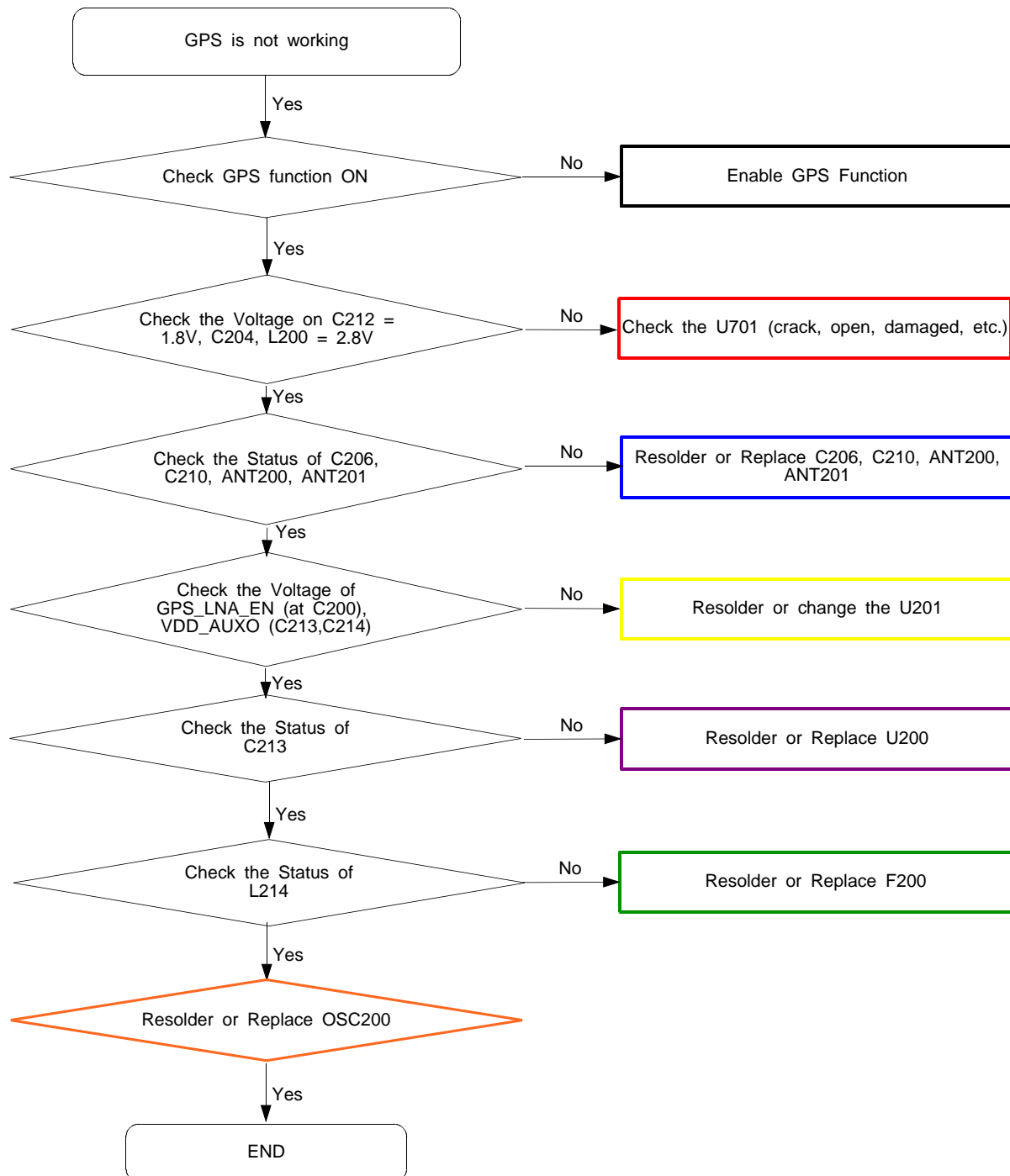


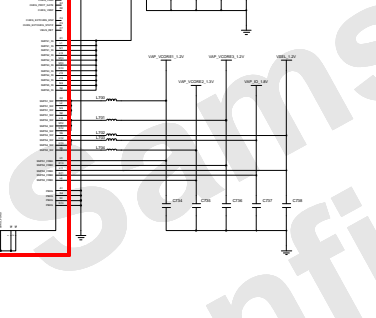


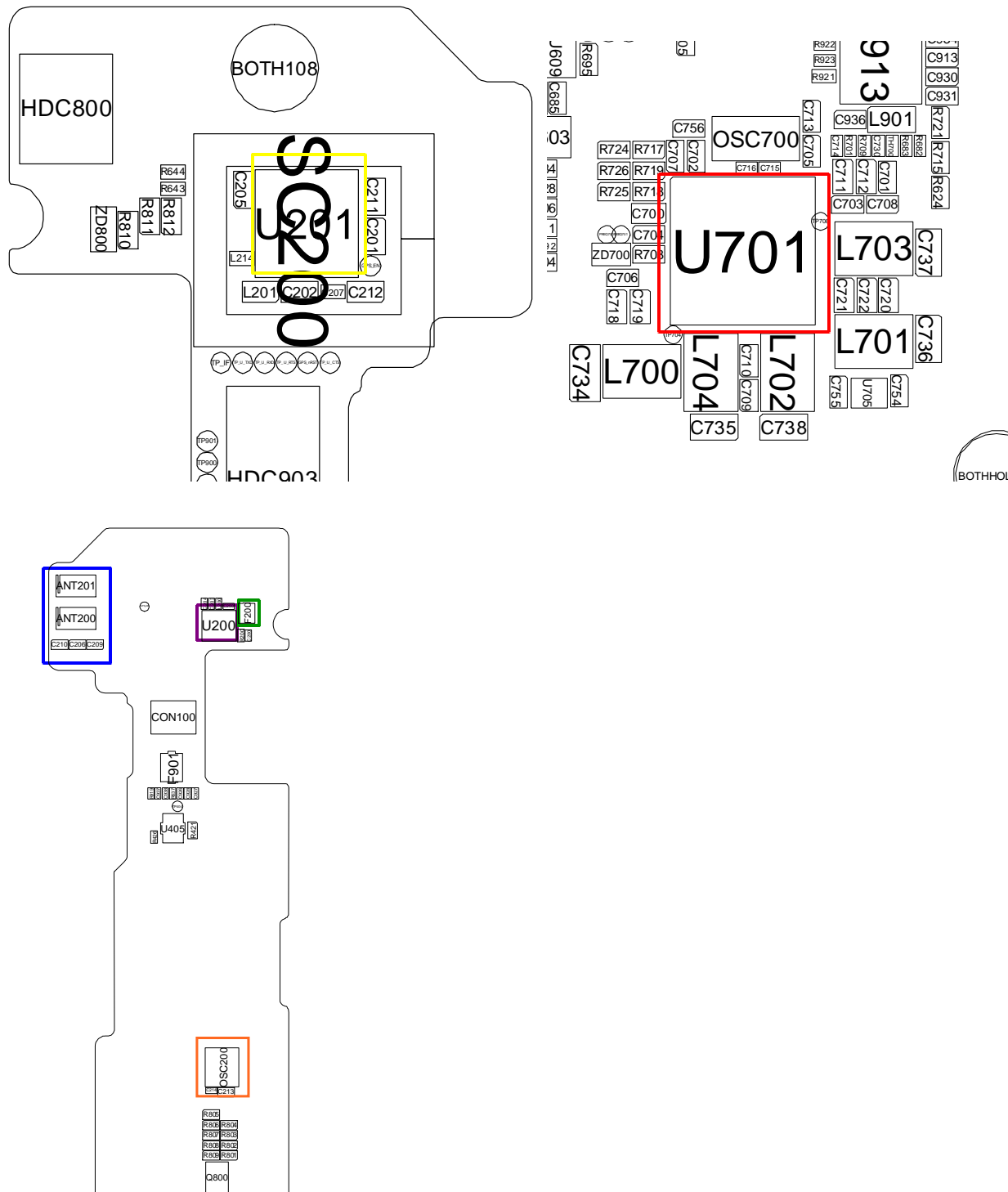




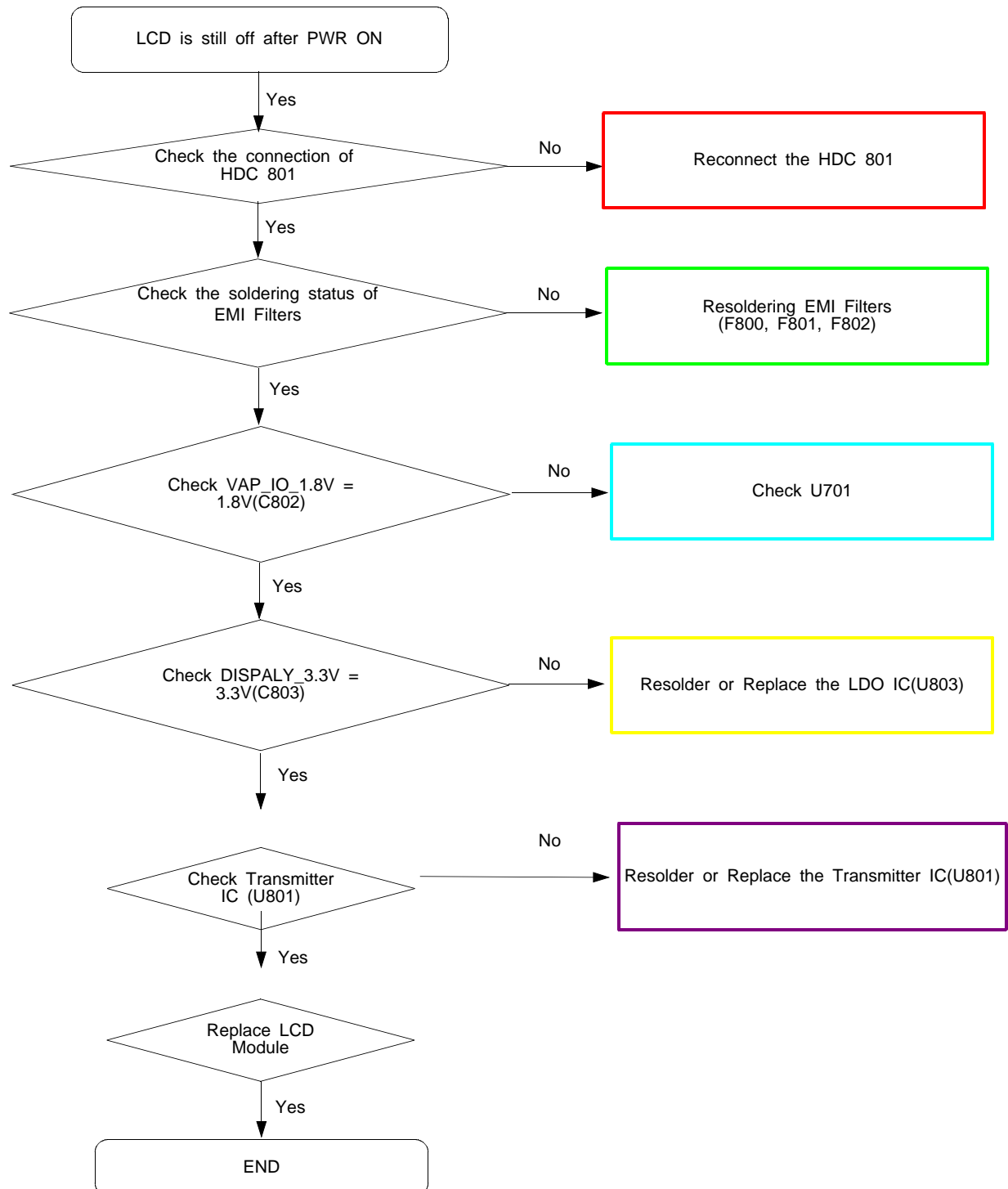
## 8-3-11. GPS

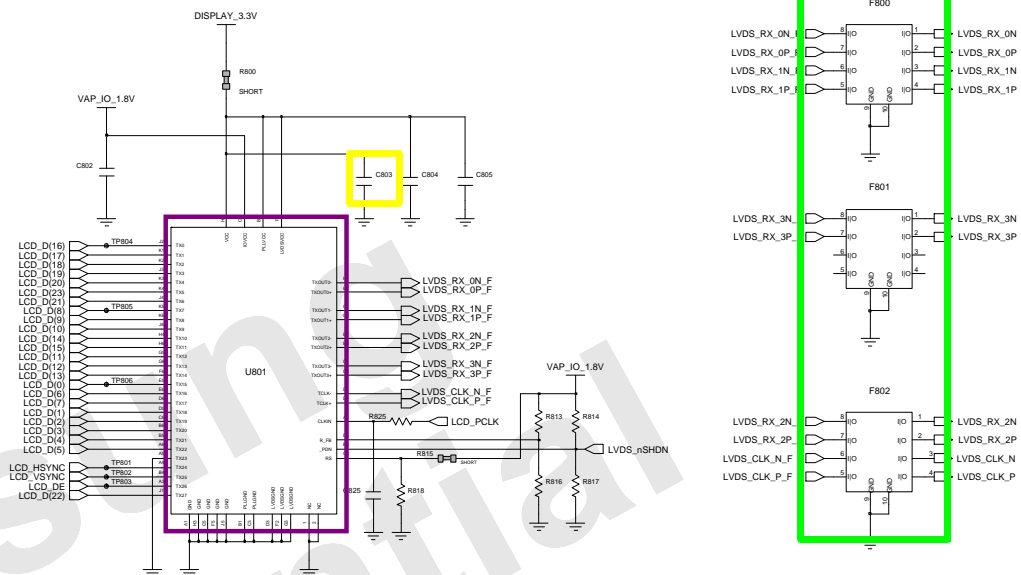
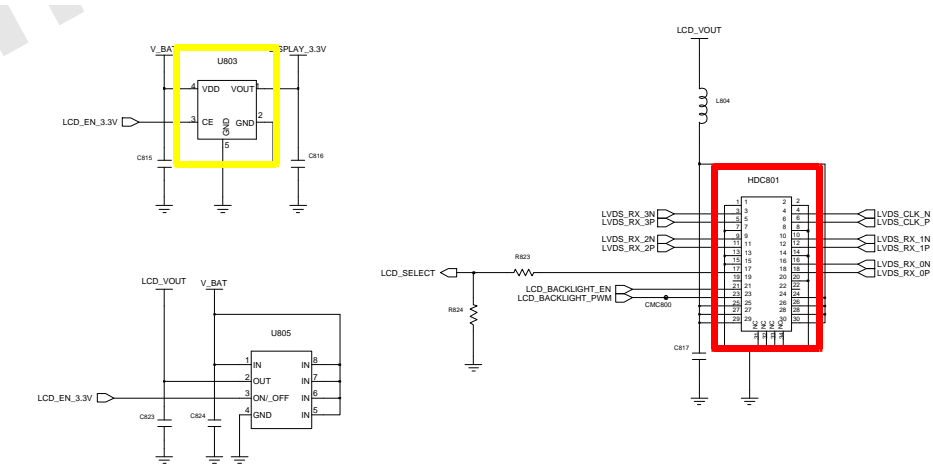




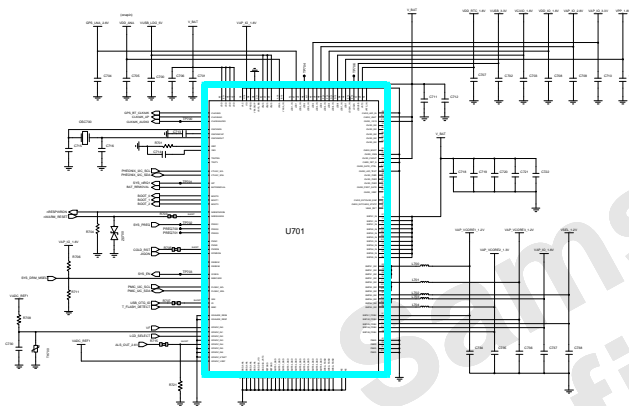


## 8-3-12. LCD





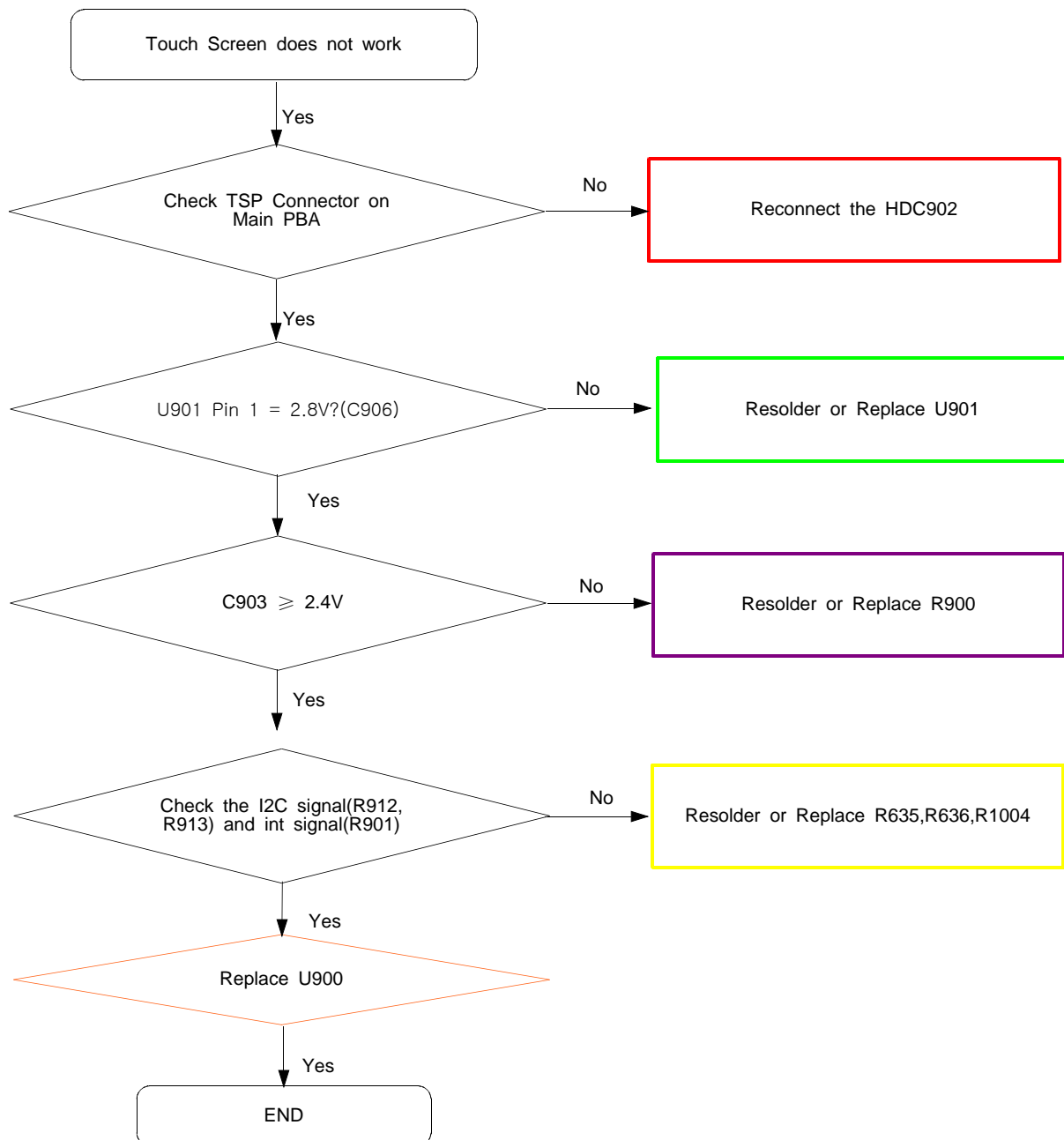
# LVDS Transmitter

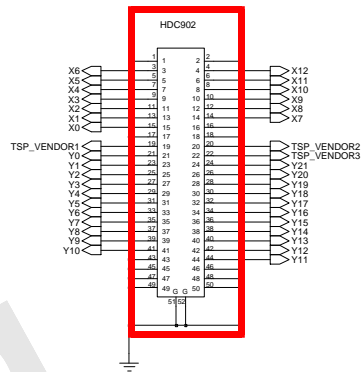




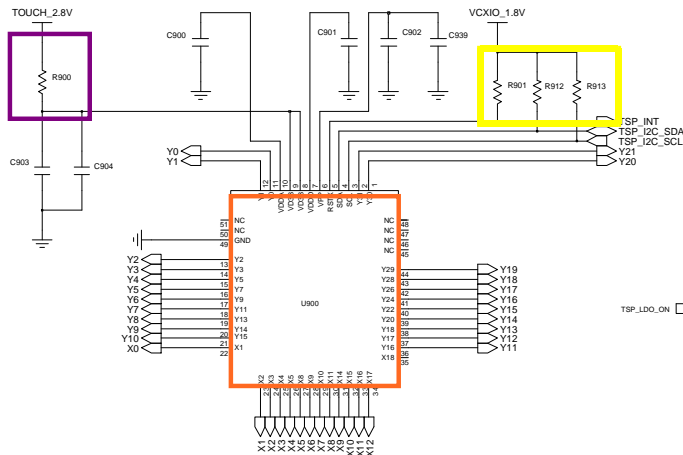


## 8-3-13. TSP

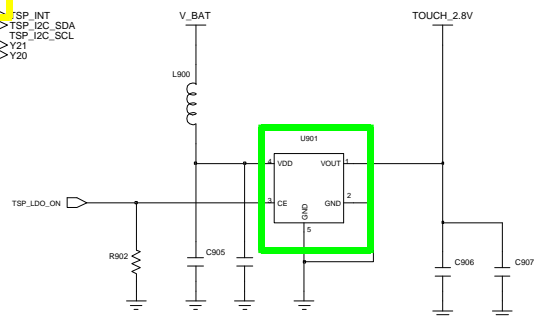




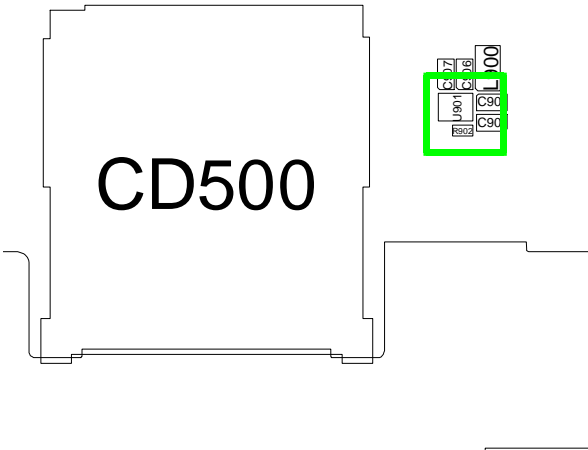
50Pin TOUCH Con.



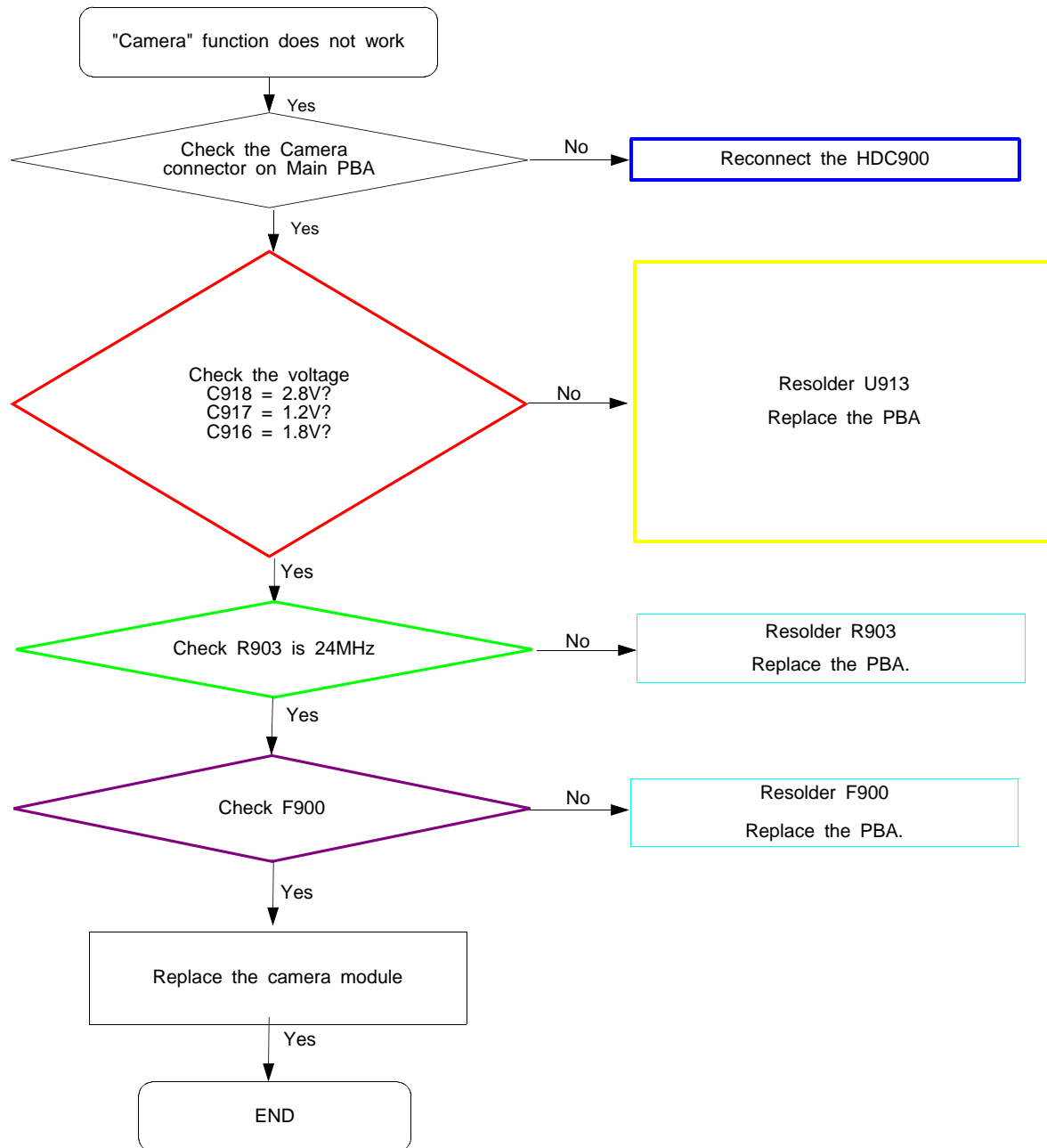
TOUCH SENSOR IC

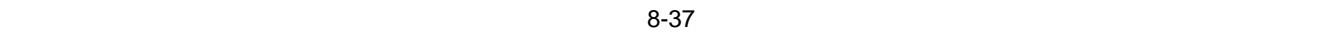
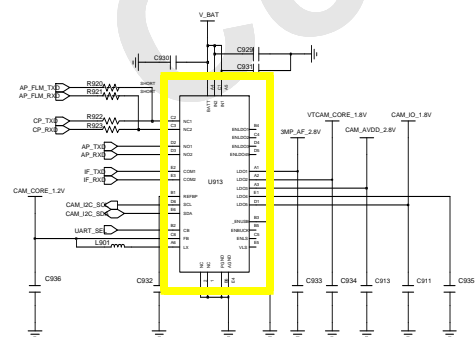
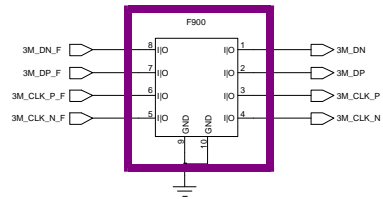


TOUCH LDO

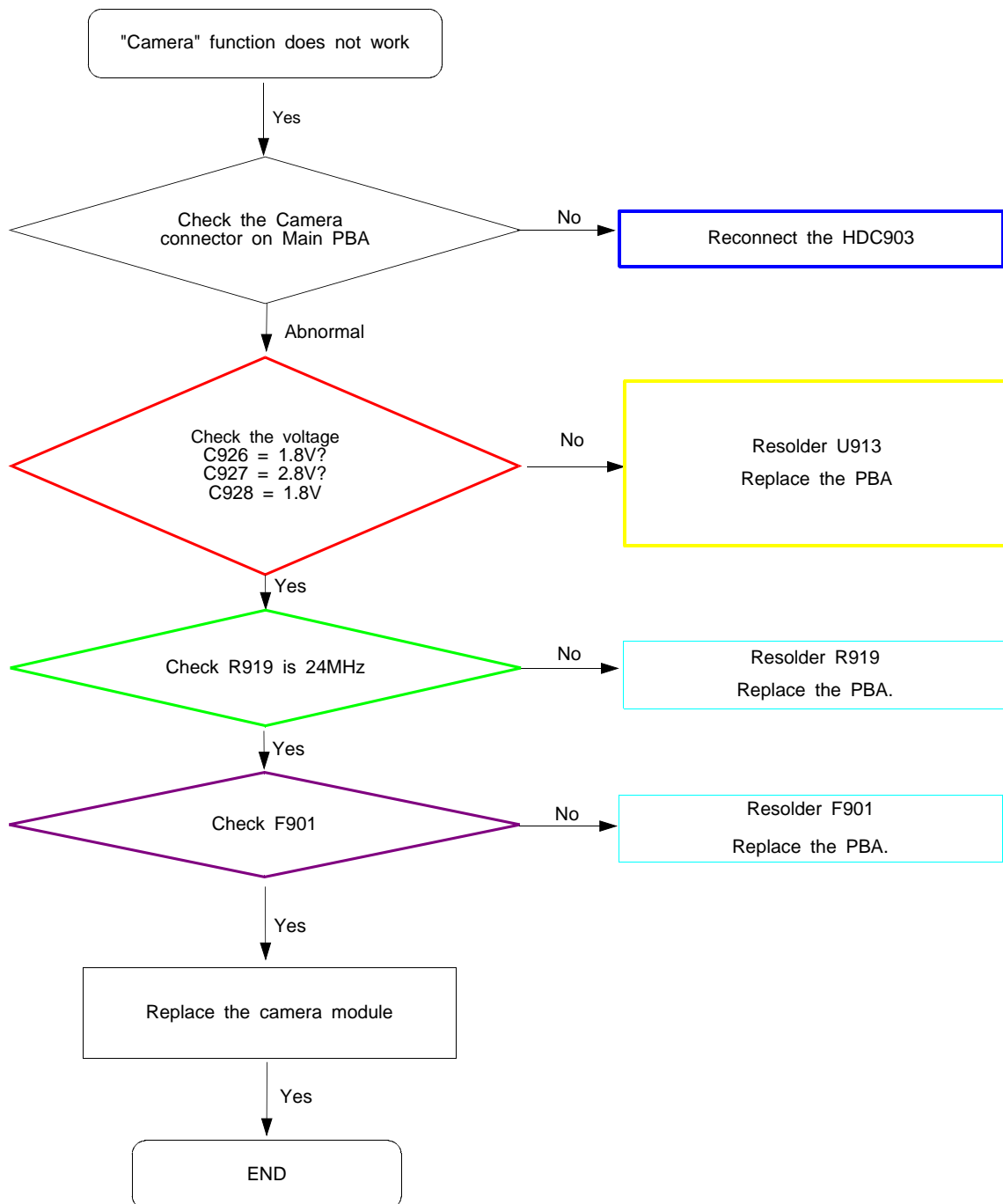


### 8-3-14. 3M CAM

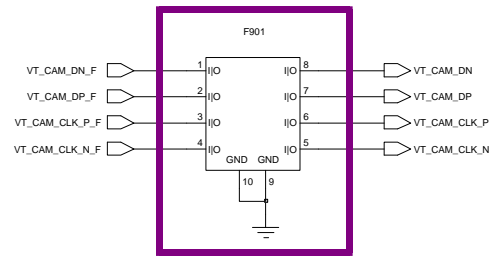




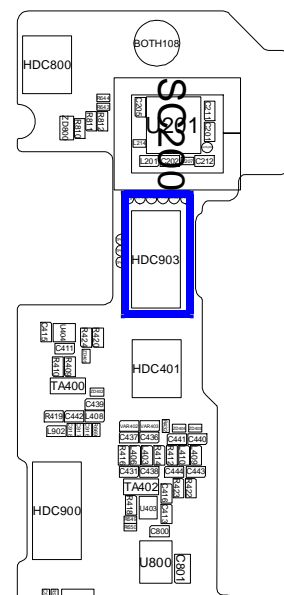
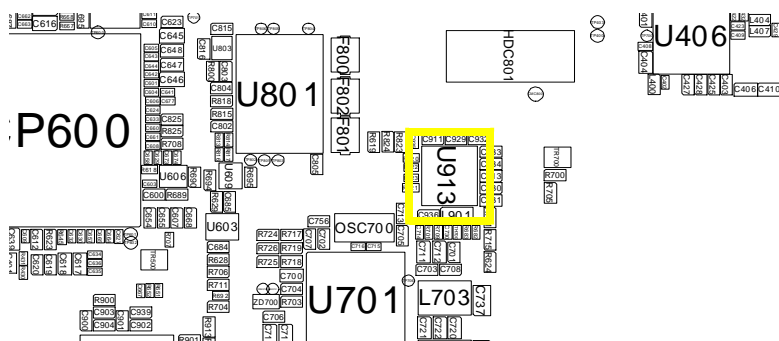
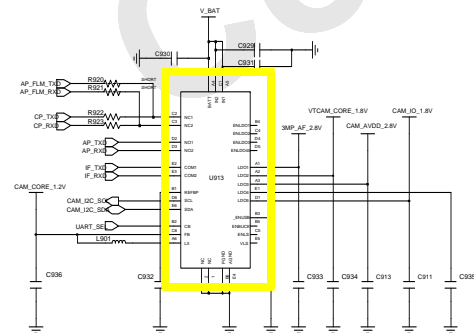
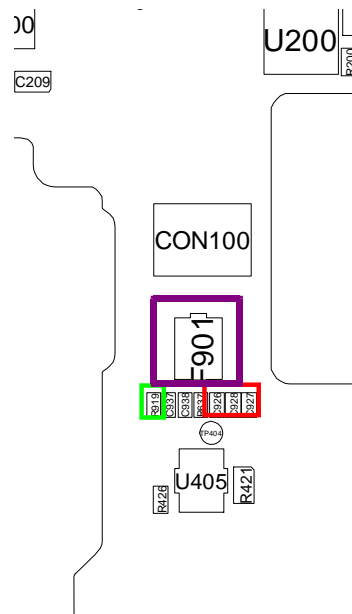
### 8-3-15. VGA CAM



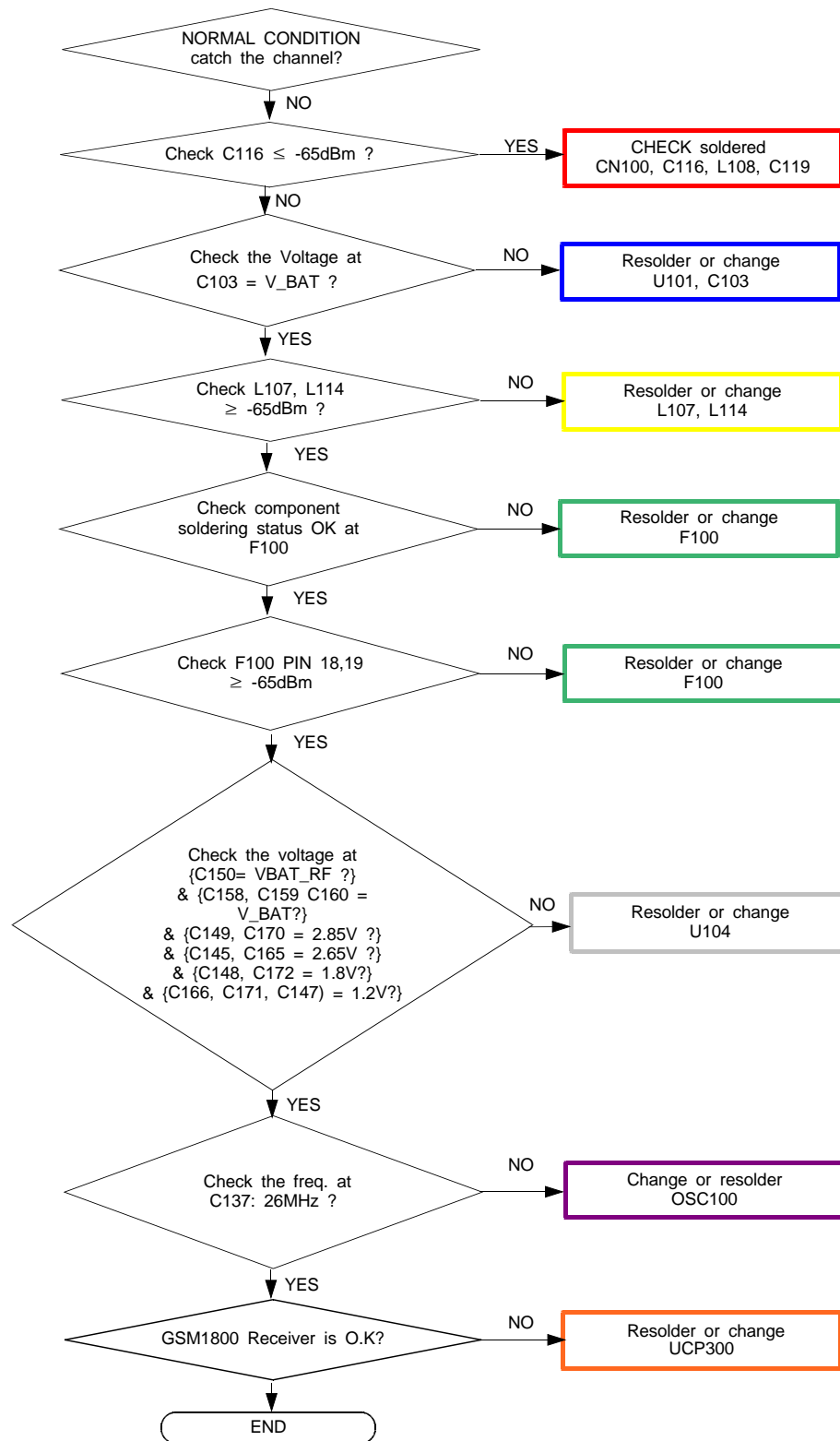


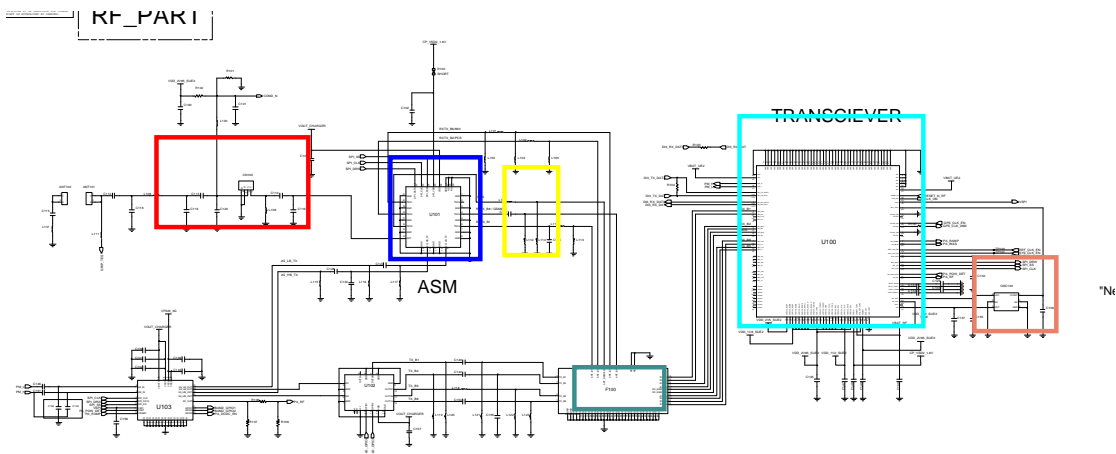


VT CAM



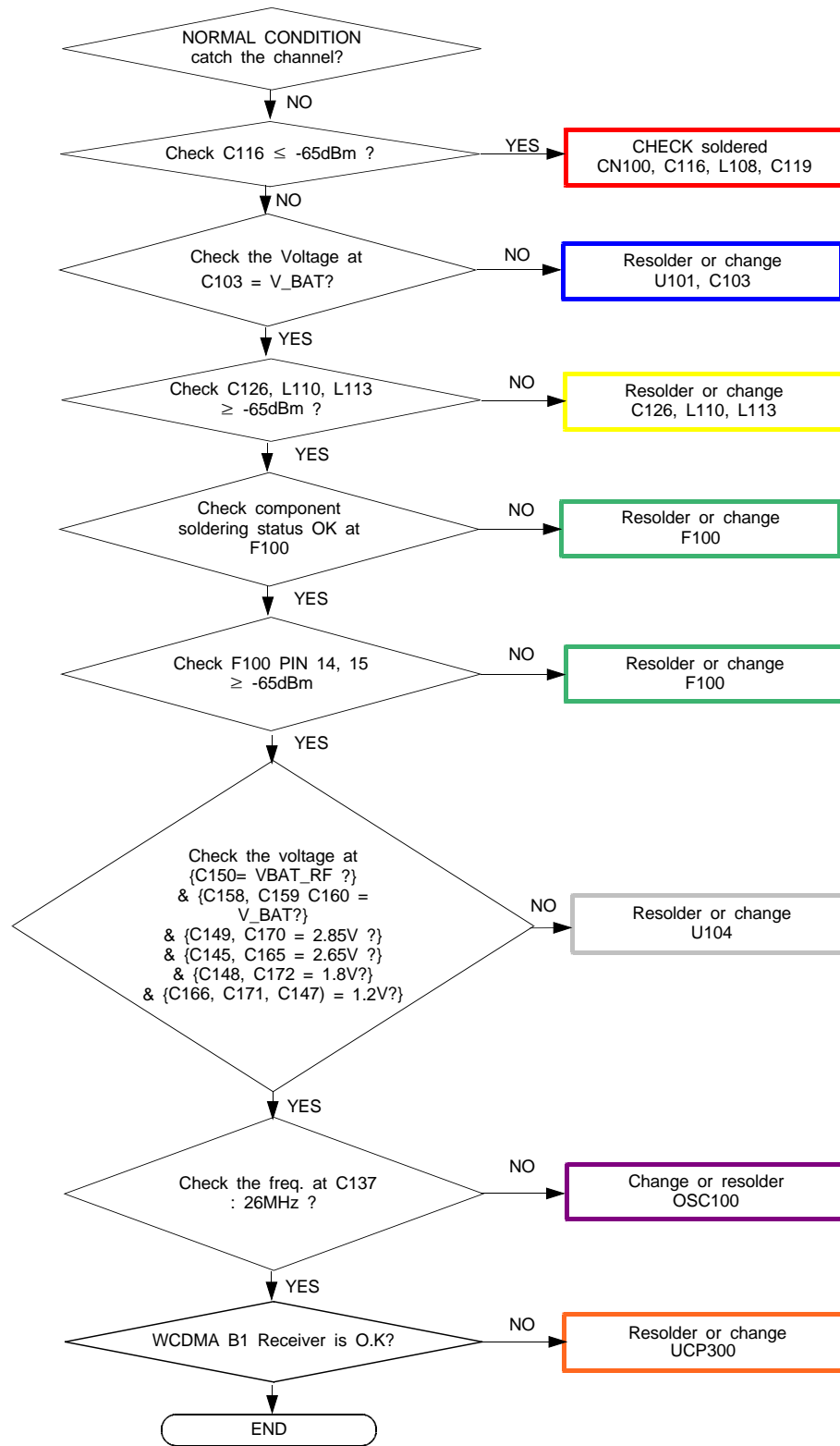
## 8-3-16. GSM1800 RX

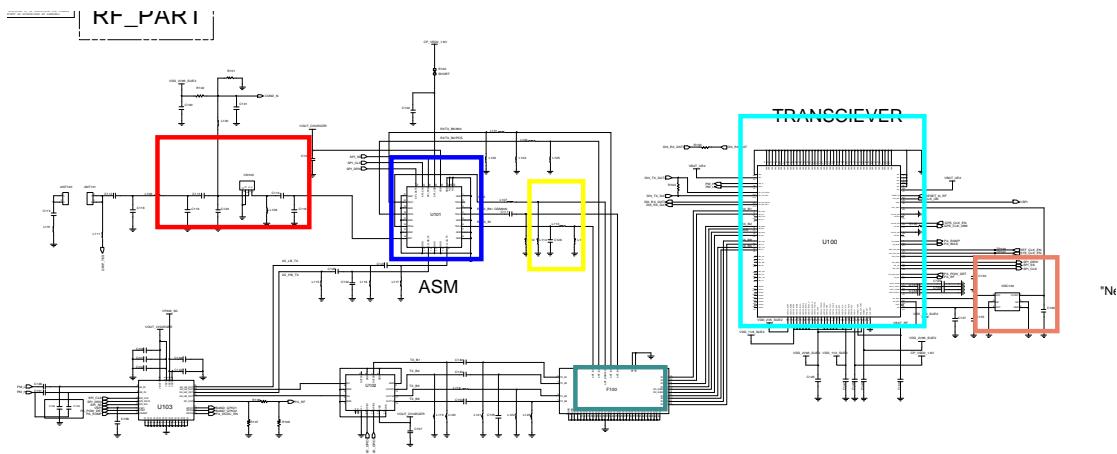




## 8-3-17. WCDMA Band1 RX

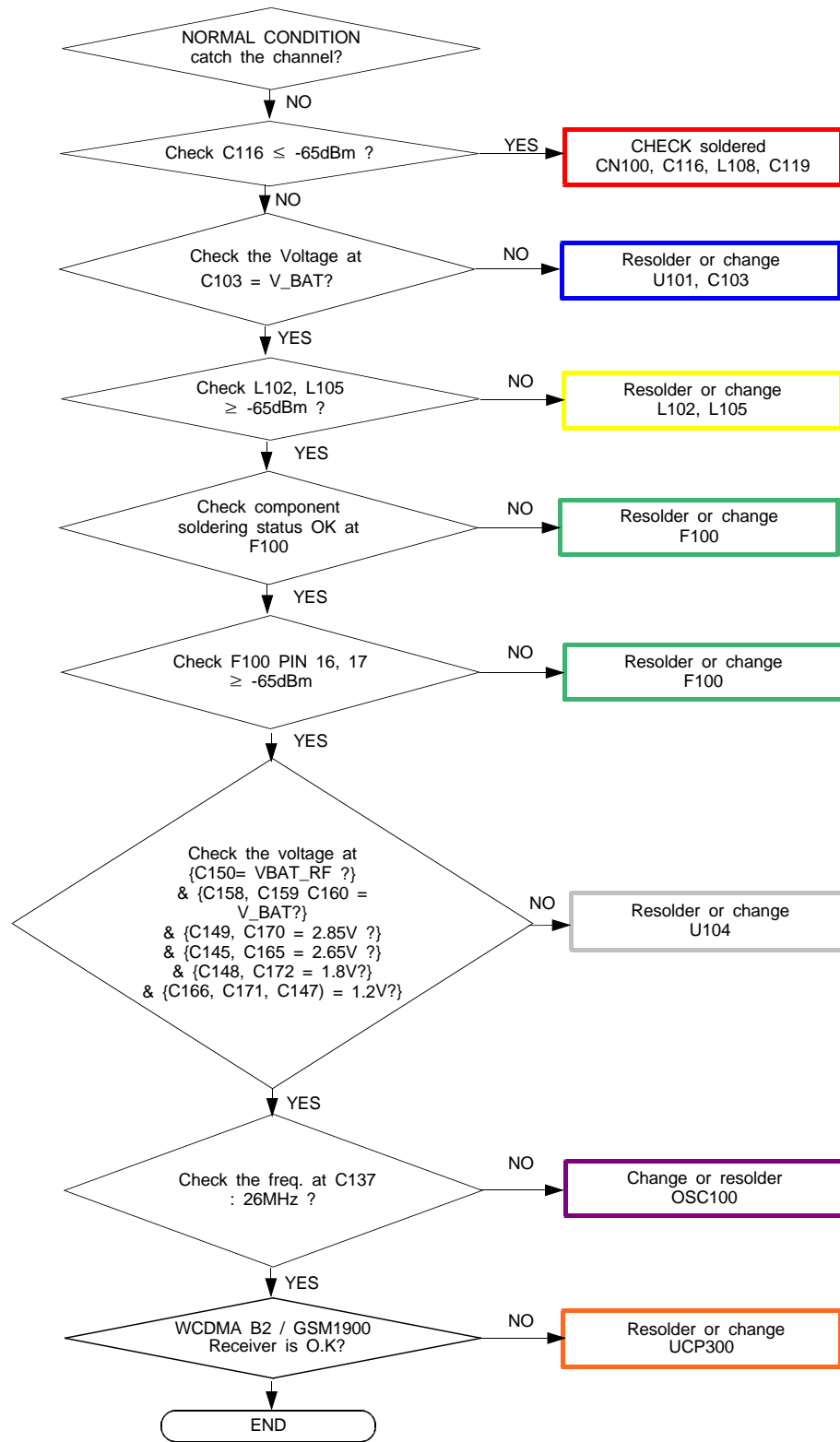
CONTINUOUS RX ON  
RF INPUT : 10700CH  
AMP : -50dBm





## 8-3-18. WCDMA Band2 / GSM1900 RX

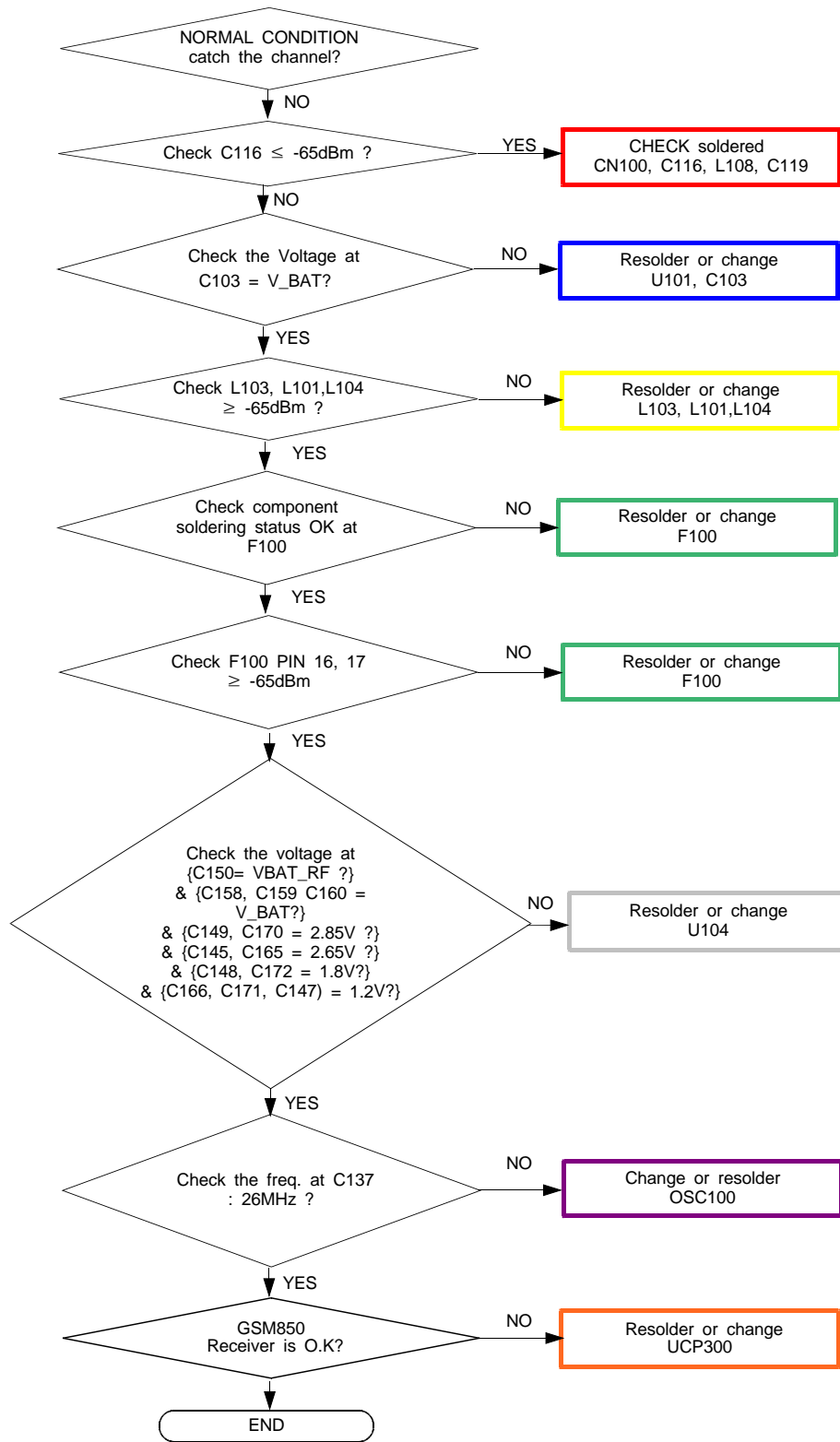
CONTINUOUS RX ON  
RF INPUT : 9880CH  
AMP : -50dBm



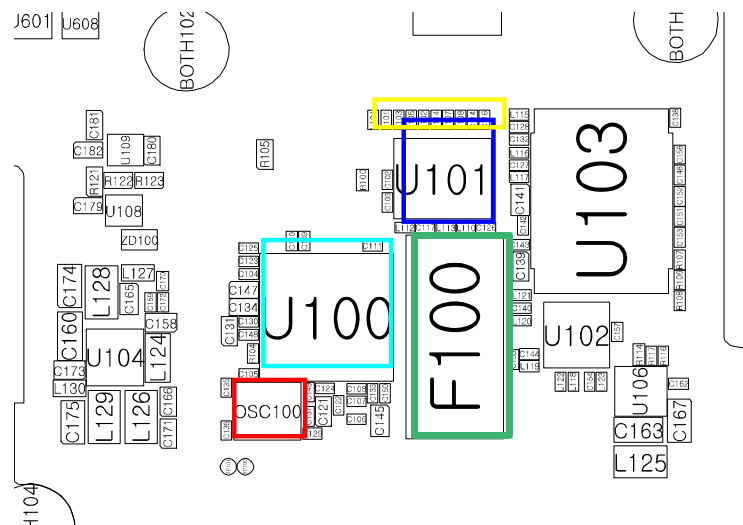
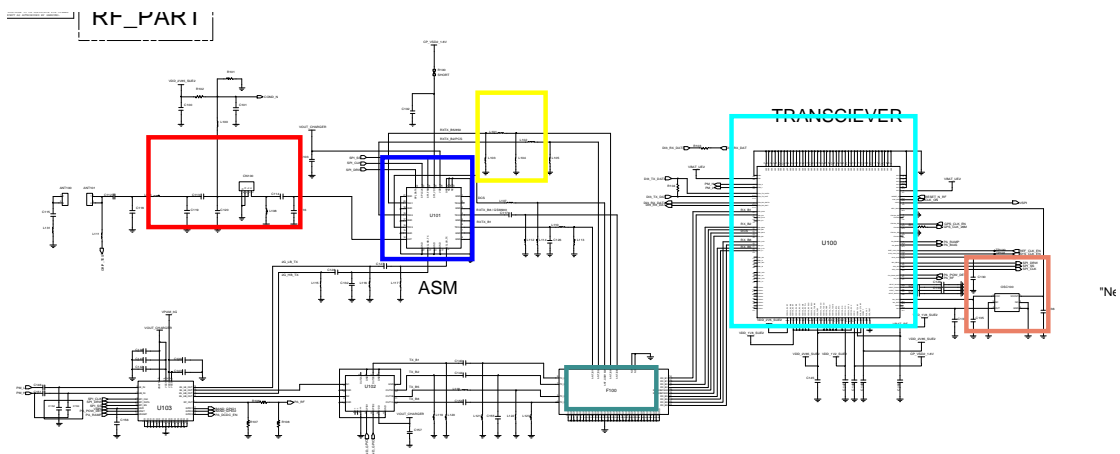


## 8-3-19. GSM 850 RX/WCDMA850

CONTINUOUS RX ON  
RF INPUT : 4408CH  
AMP : -50dBm

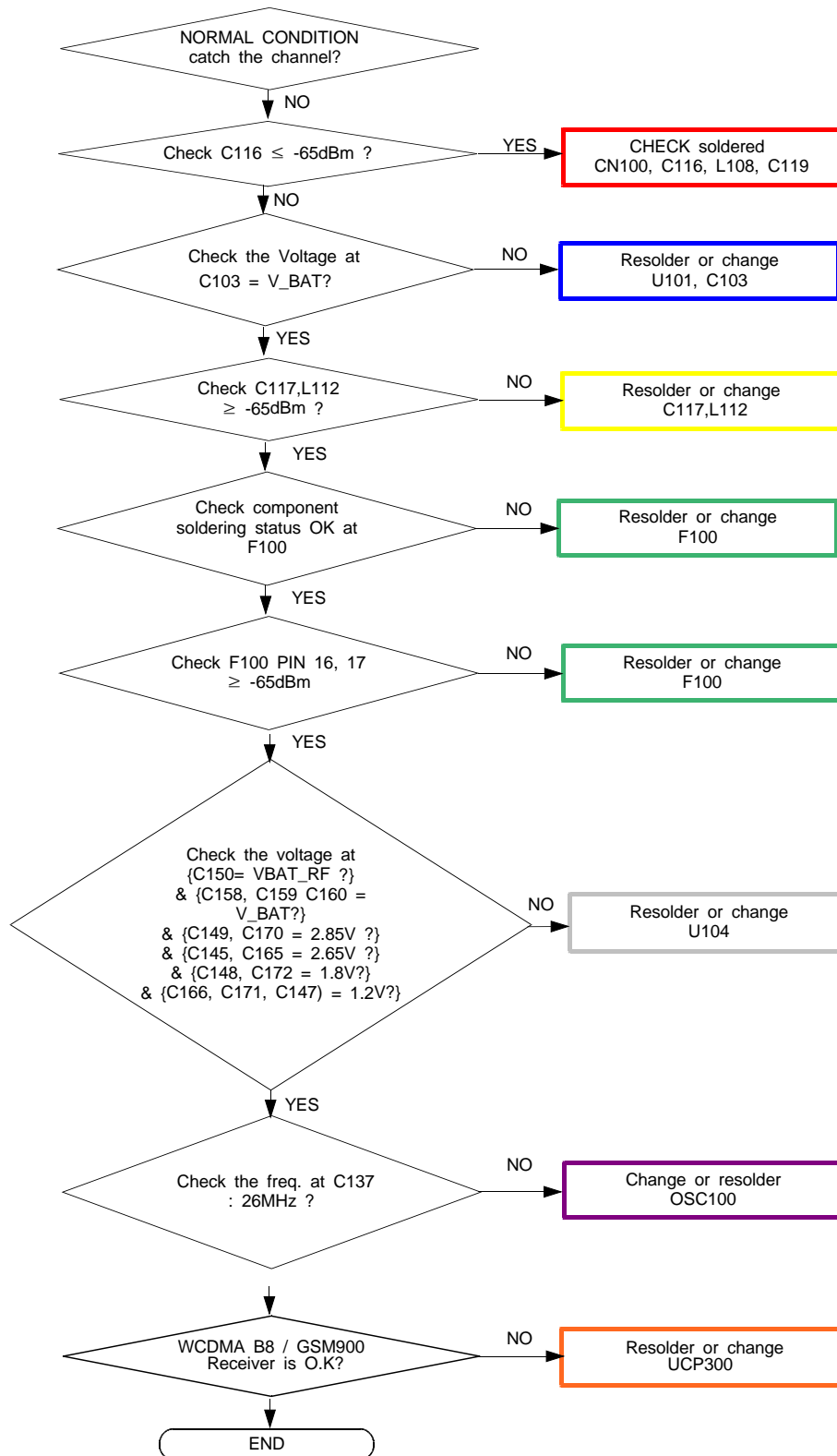


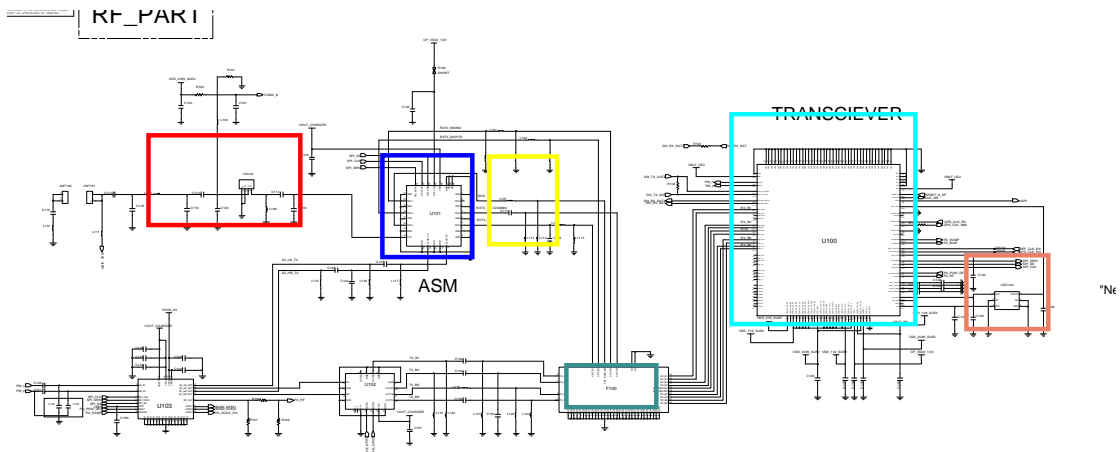




## 8-3-20. WCDMA Band8 / GSM900 RX

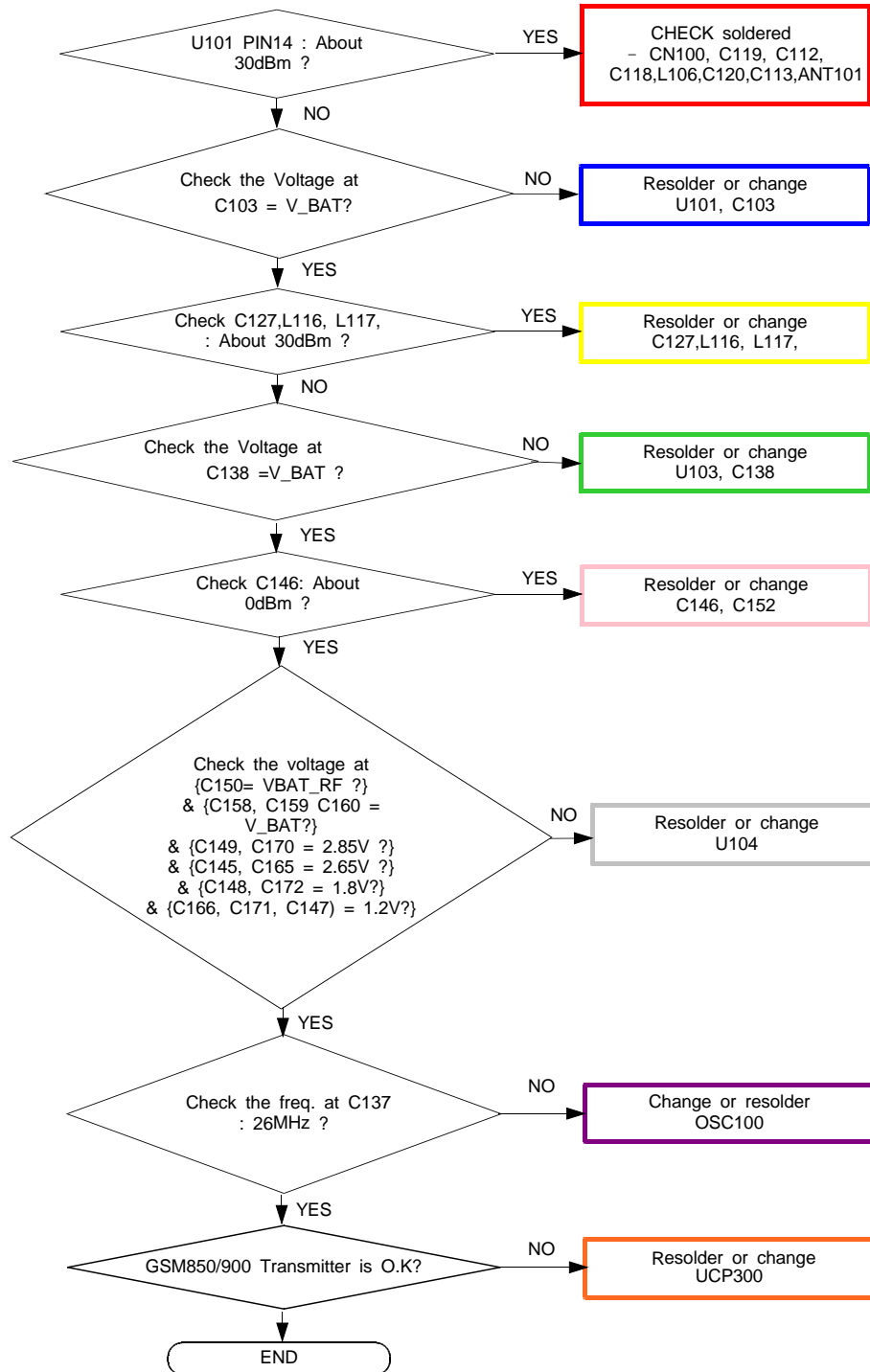
CONTINUOUS RX ON  
RF INPUT : 3013CH  
AMP : -50dBm

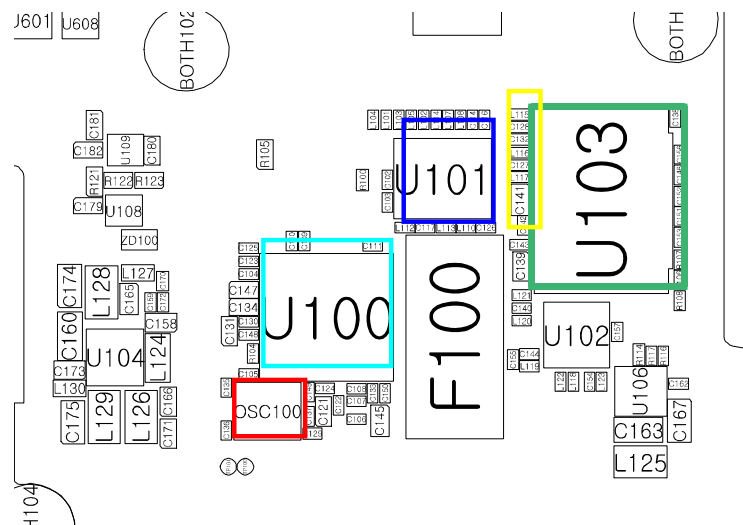
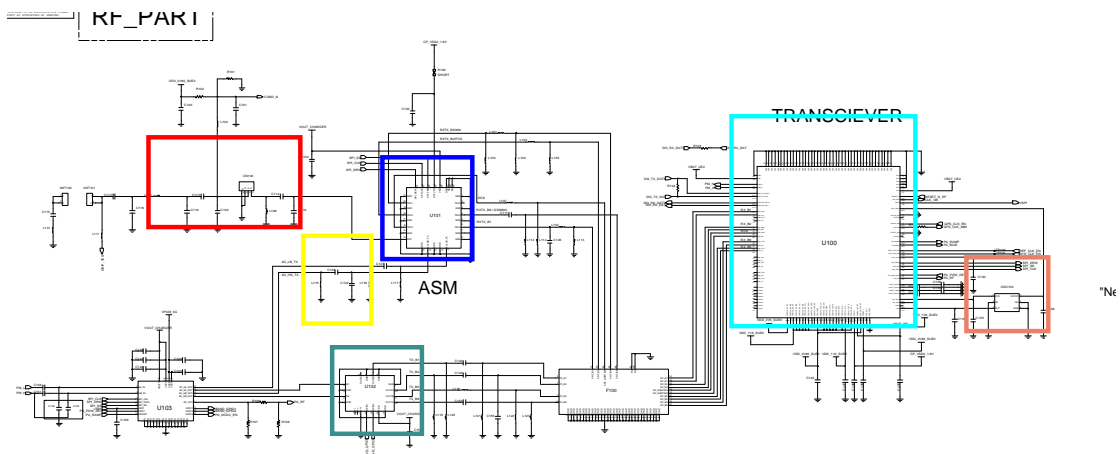




## 8-3-21. GSM850/GSM900 TX

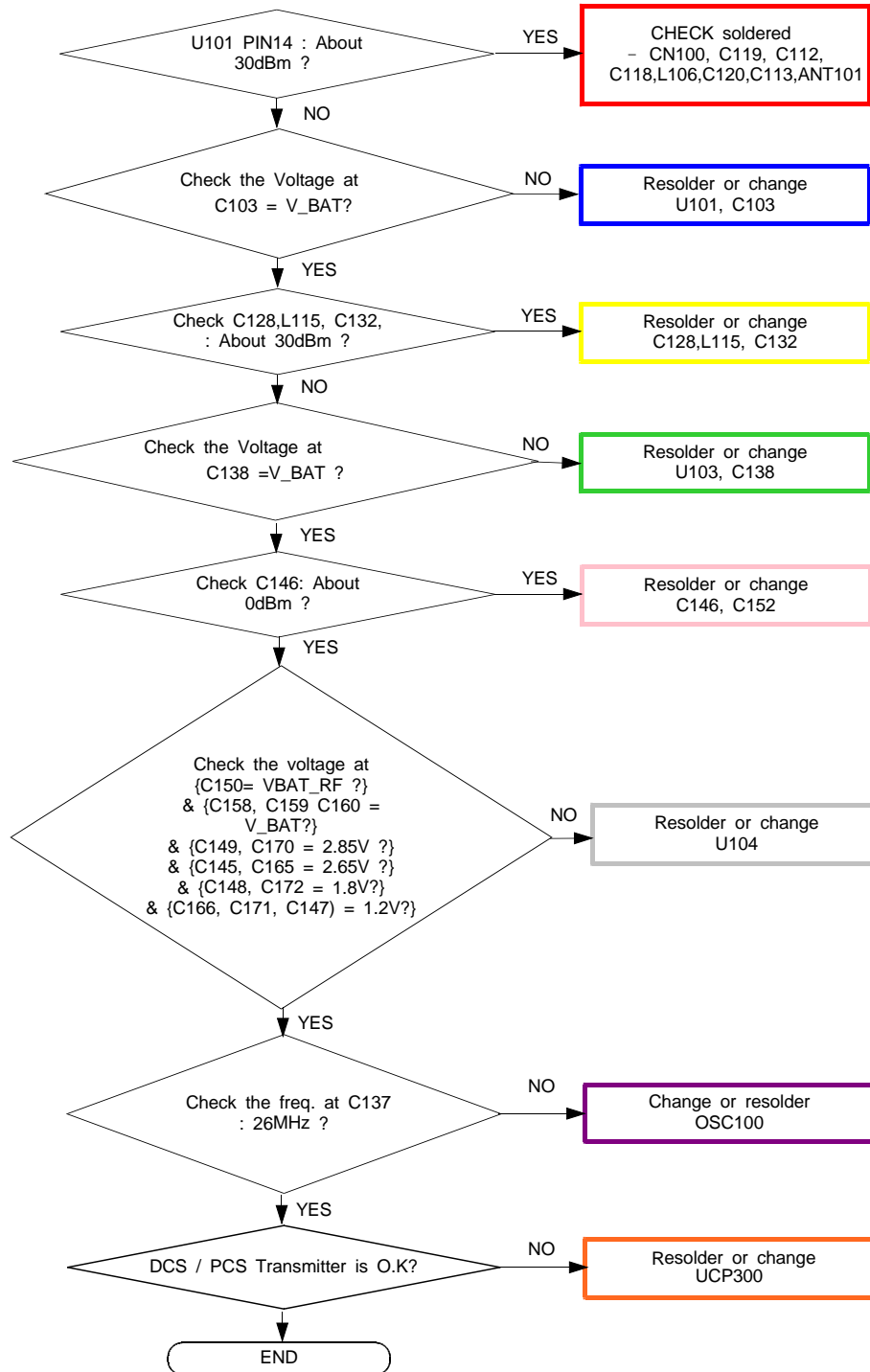
CONTINUOUS TX ON CONDITION  
TX POWER DAC:14500 CODE  
APPLIED  
GSM850 CH : 190  
GSM900 CH : 62  
RBW : 100KHz  
VBW : 100KHz  
SPAN : 10MHz  
REF LEV. : 10dBm  
ATT. : 20dB

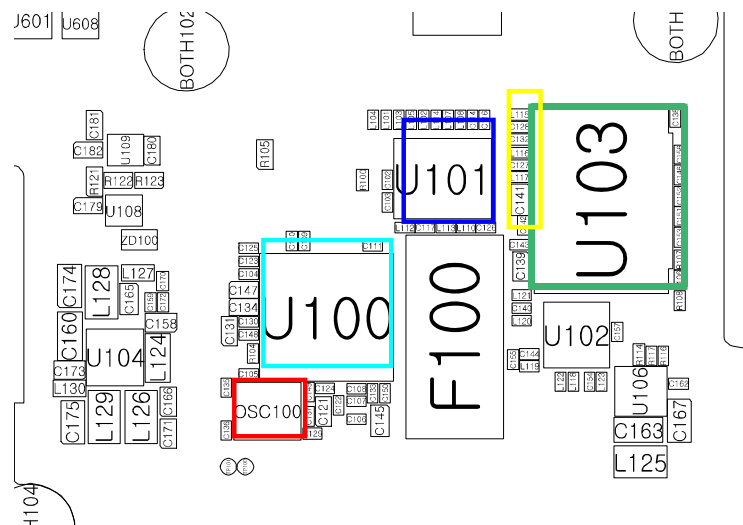
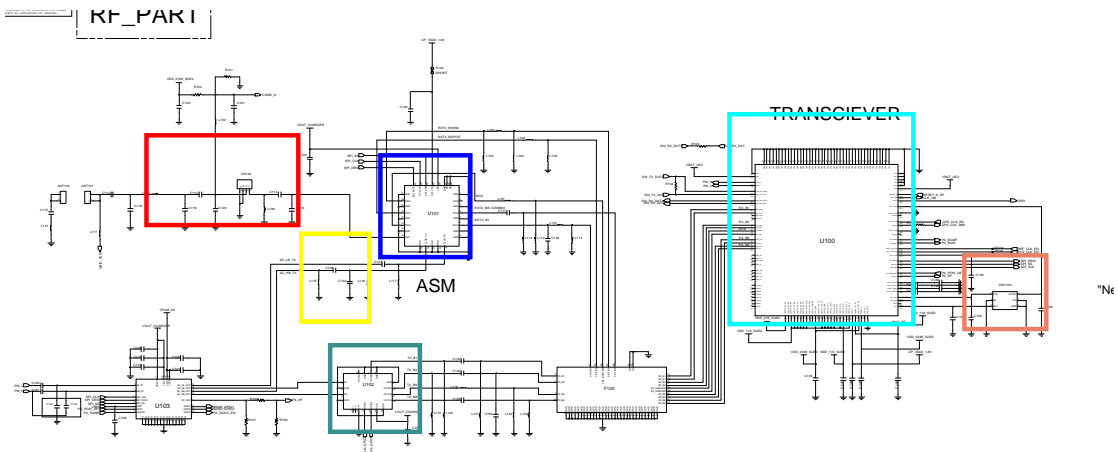




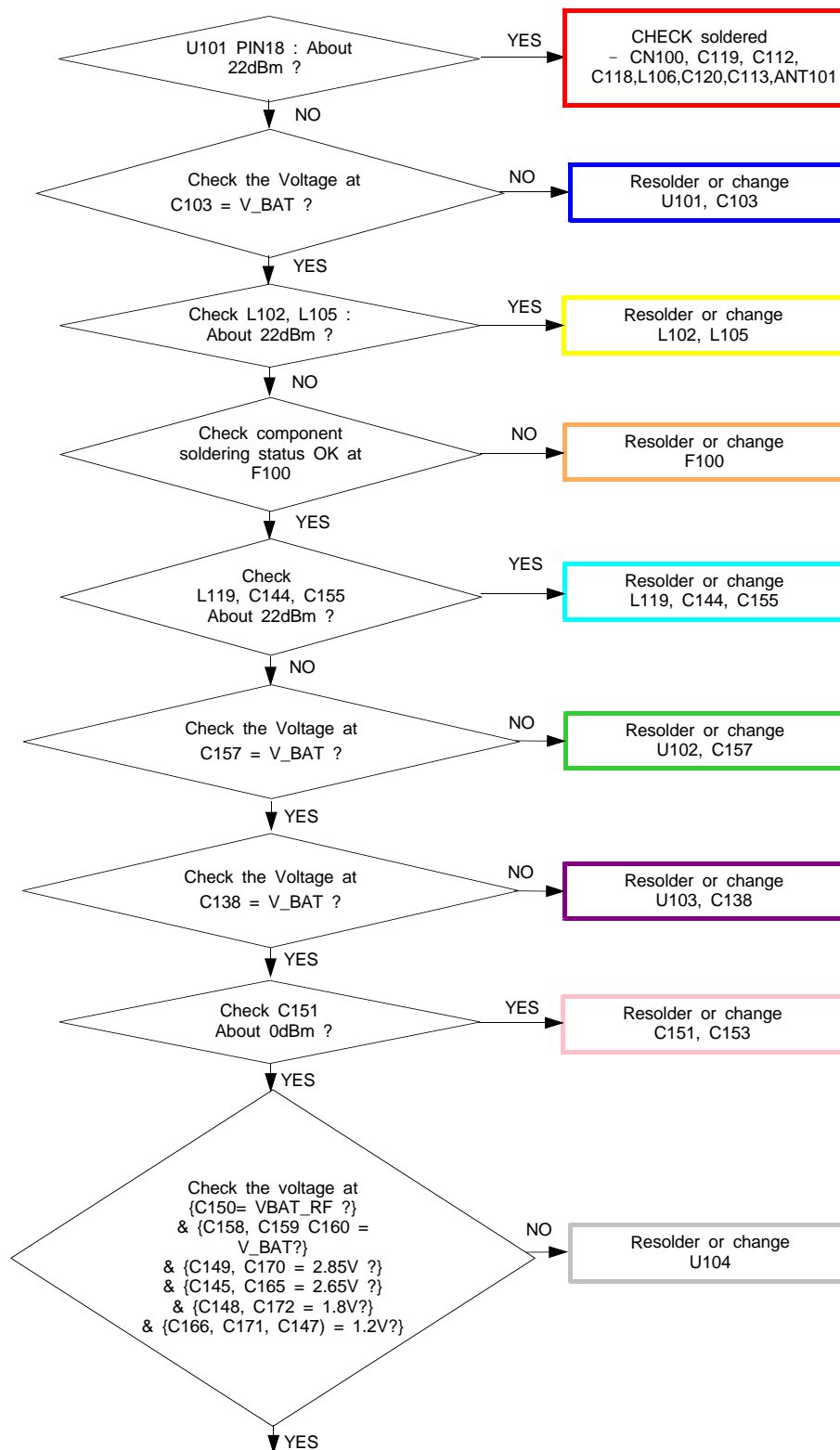
## 8-3-22. DCS/PCS TX

CONTINUOUS TX ON CONDITION  
TX POWER DAC:14500 CODE  
APPLIED  
GSM850 CH : 190  
GSM900 CH : 62  
RBW : 100KHz  
VBW : 100KHz  
SPAN : 10MHz  
REF LEV. : 10dBm  
ATT. : 20dB



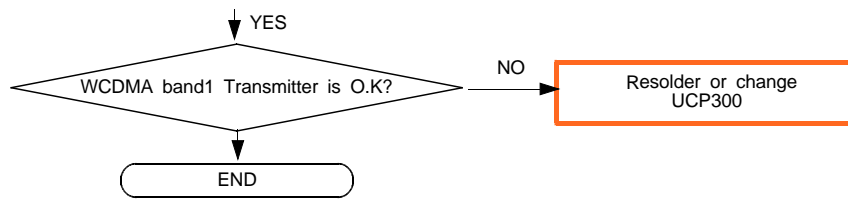


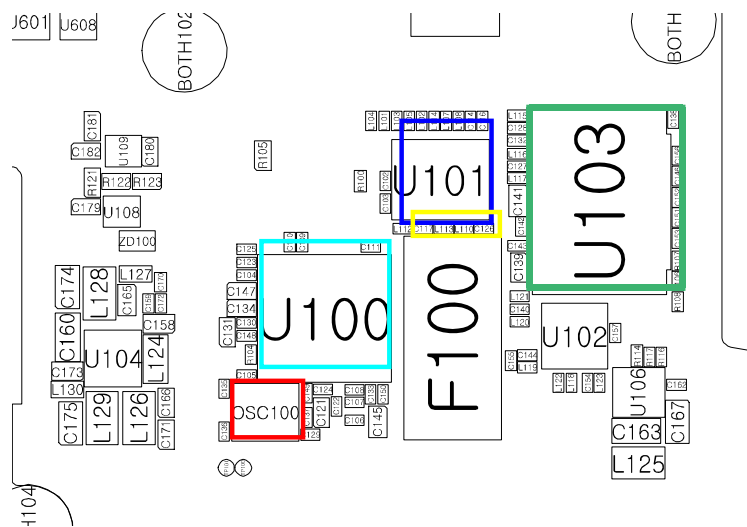
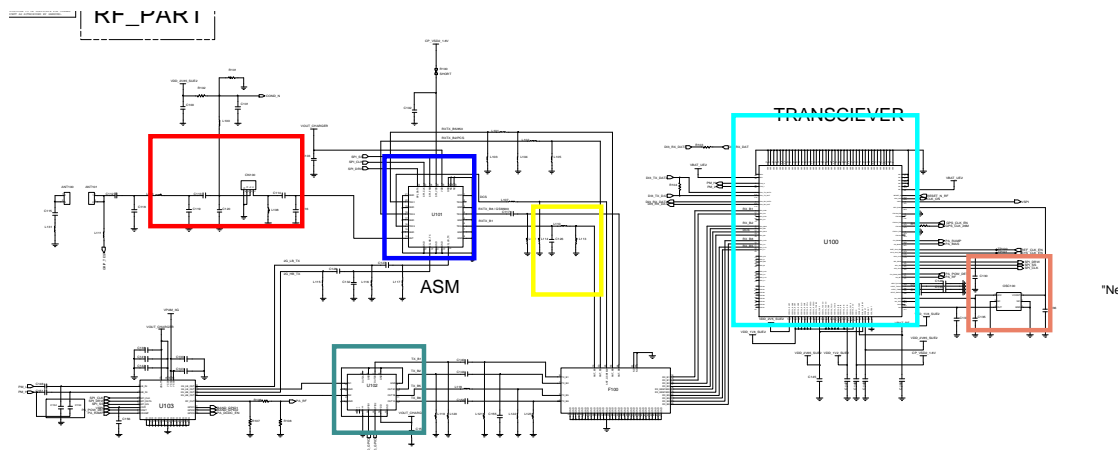
## 8-3-23. WCDMA BAND1 TX



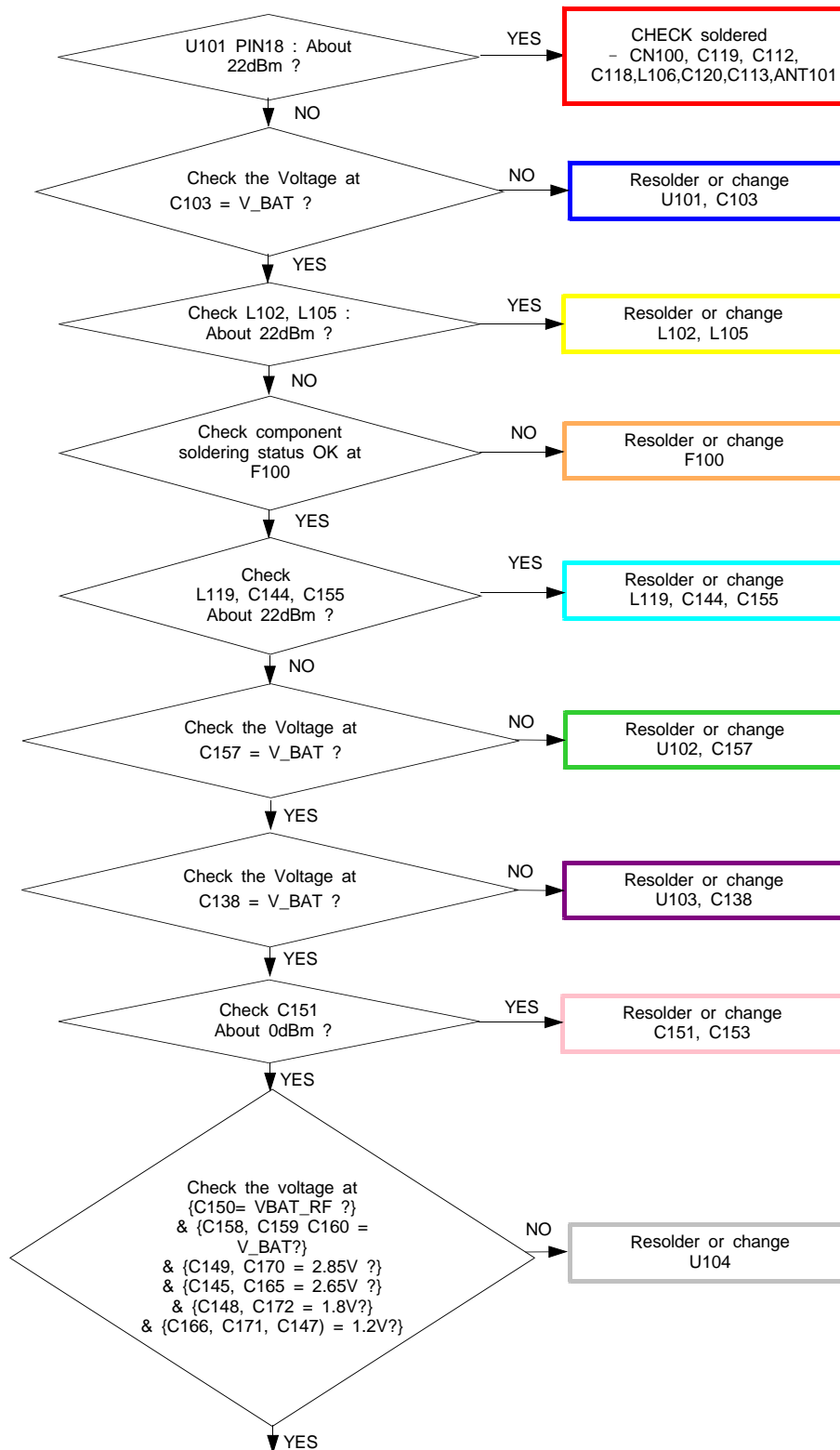
CONTINUOUS TX ON CONDITION  
TX POWER DAC:14500 CODE  
APPLIED  
WCDMA Band1 CH : 10700  
RBW : 100KHz  
VBW : 100KHz  
SPAN : 10MHz  
REF LEV. : 10dBm  
ATT. : 20dB



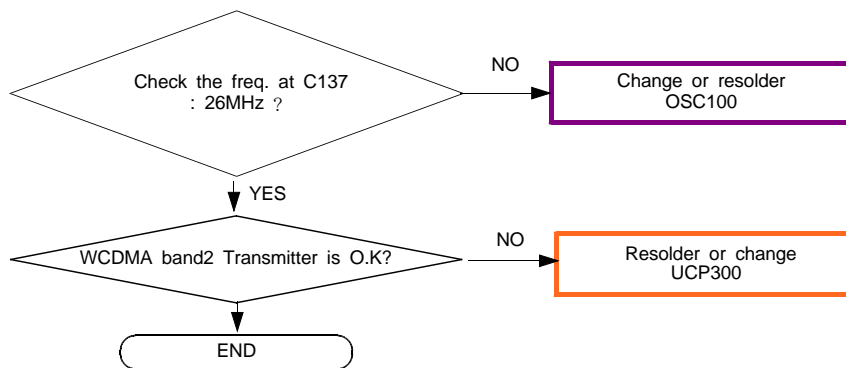


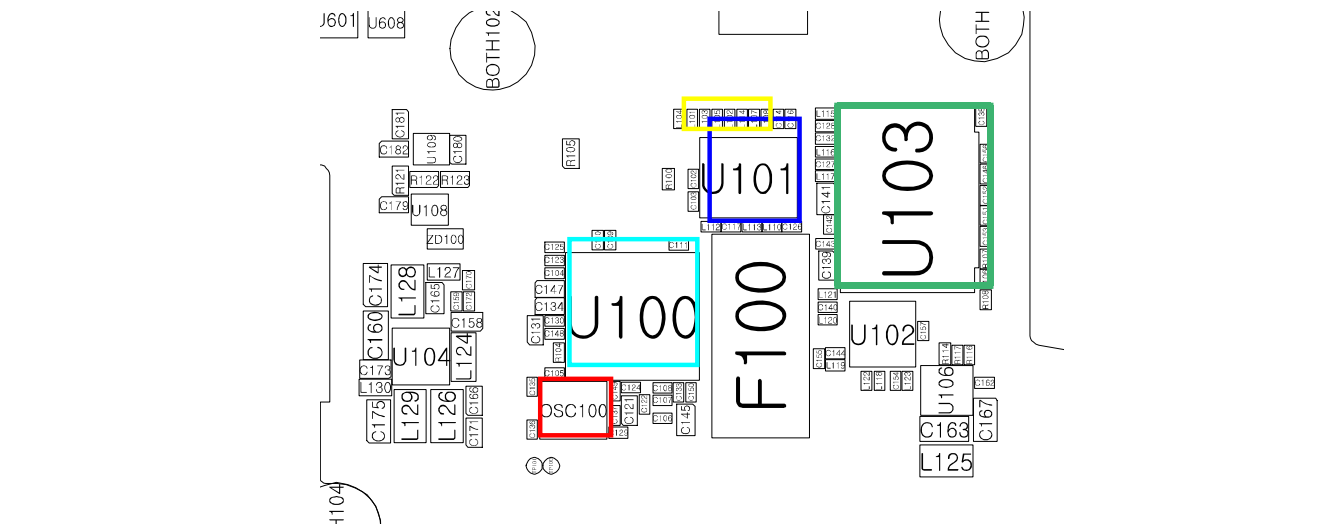
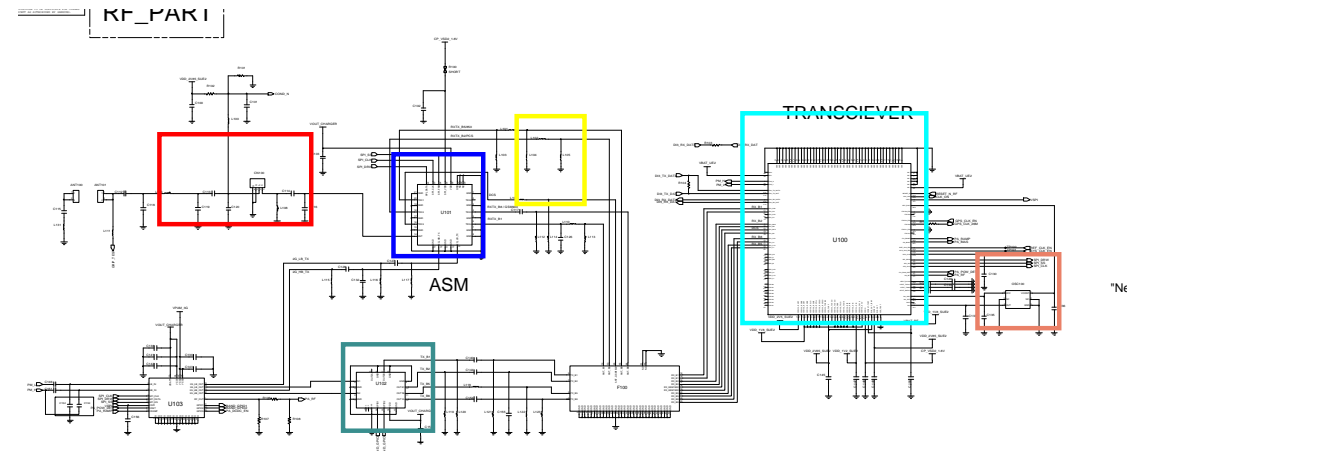


## 8-3-24. WCDMA BAND2 TX

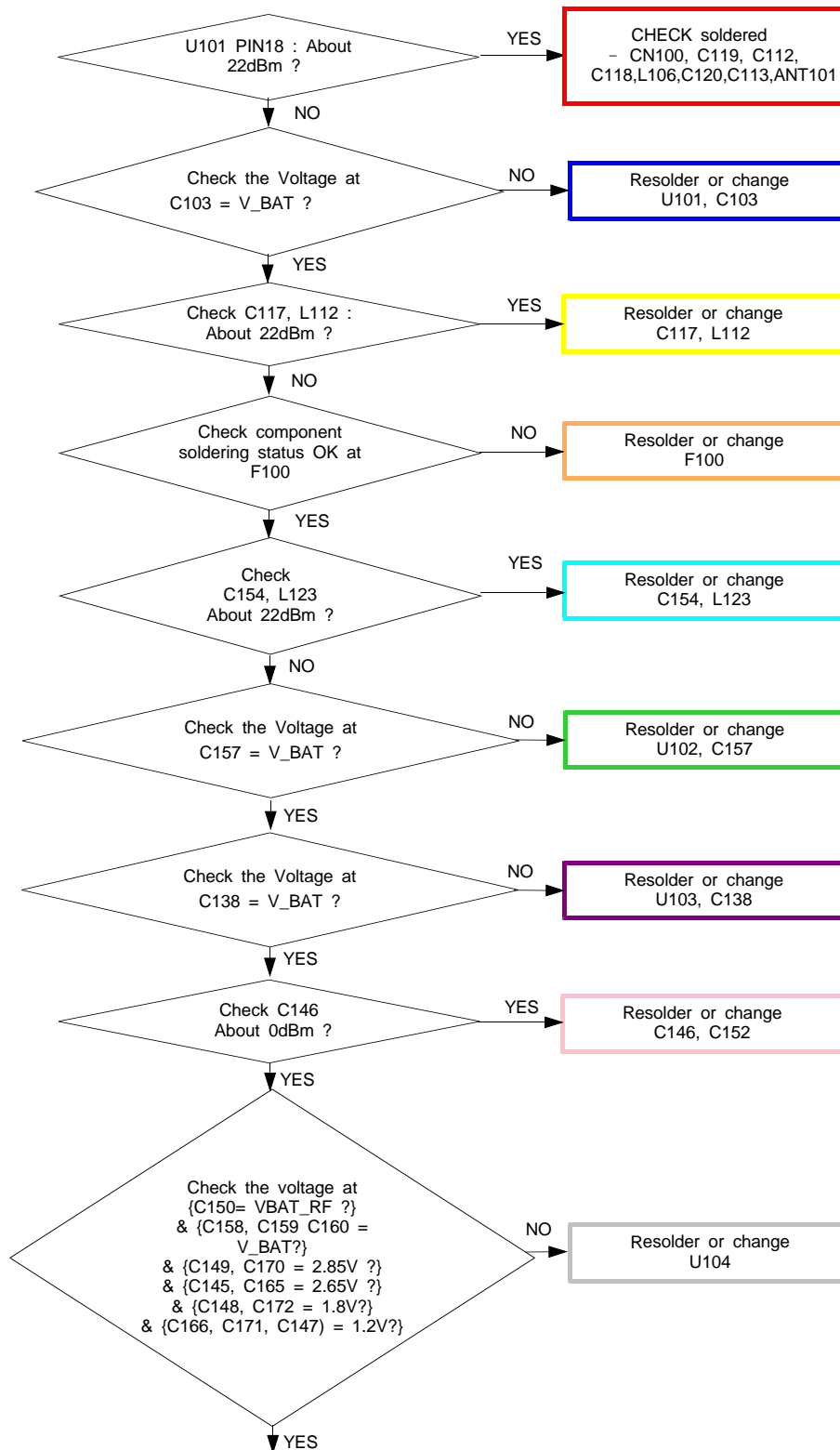


CONTINUOUS TX ON CONDITION  
TX POWER DAC:14500 CODE  
APPLIED  
WCDMA Band2 CH : 9880  
RBW : 100KHz  
VBW : 100KHz  
SPAN : 10MHz  
REF LEV. : 10dBm  
ATT. : 20dB

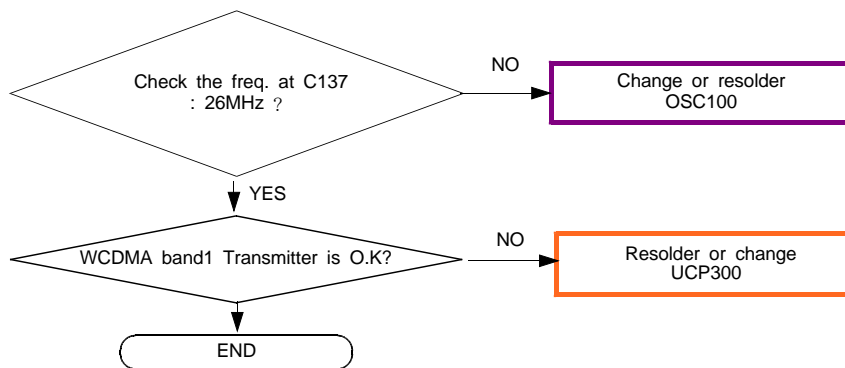


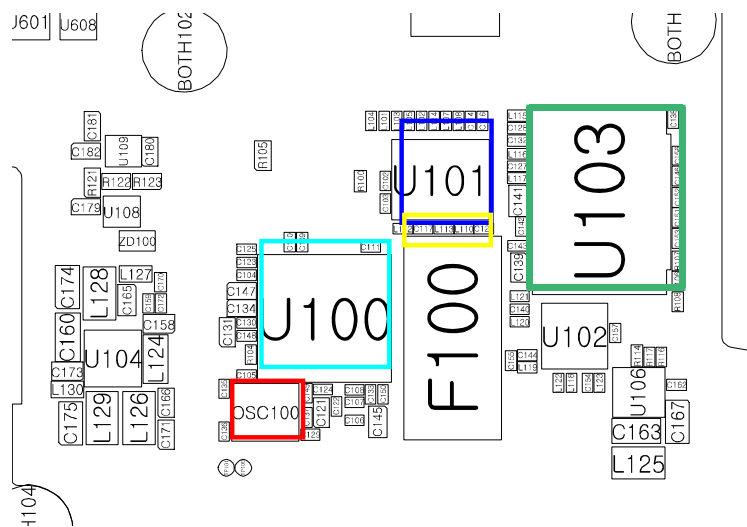
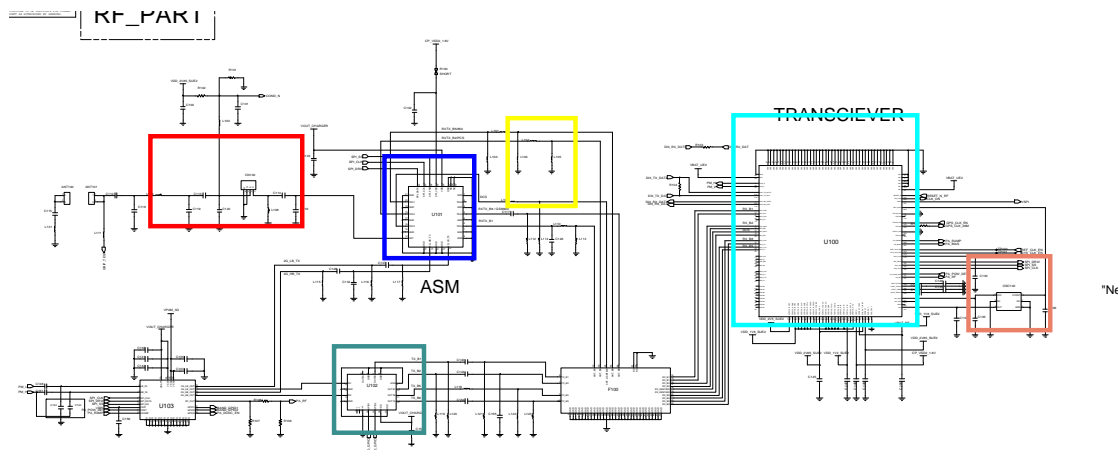


## 8-3-25. WCDMA BAND8 TX



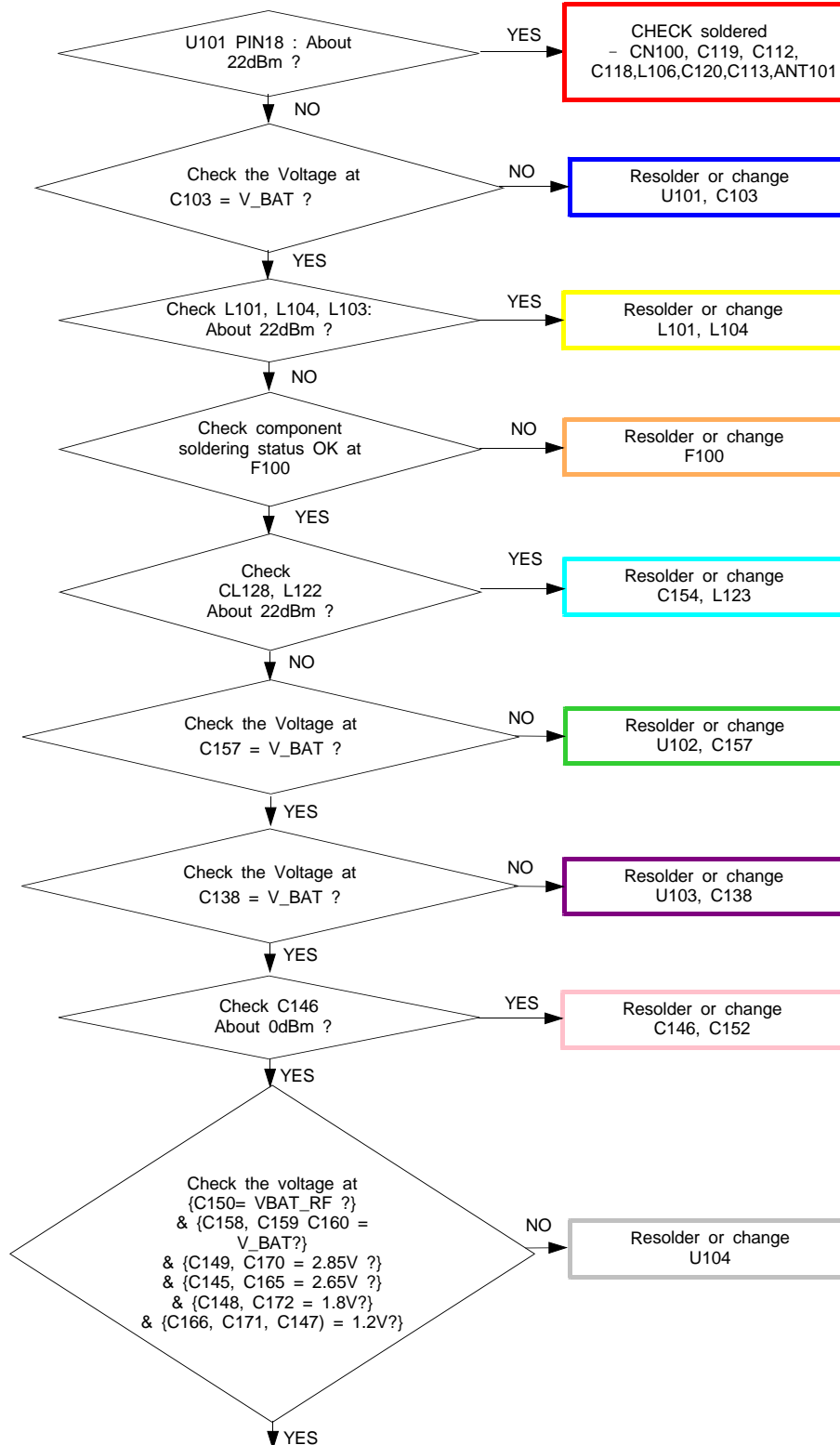
CONTINUOUS TX ON CONDITION  
TX POWER DAC:14500 CODE  
APPLIED  
WCDMA Band2 CH : 3013  
RBW : 100KHz  
VBW : 100KHz  
SPAN : 10MHz  
REF LEV. : 10dBm  
ATT. : 20dB



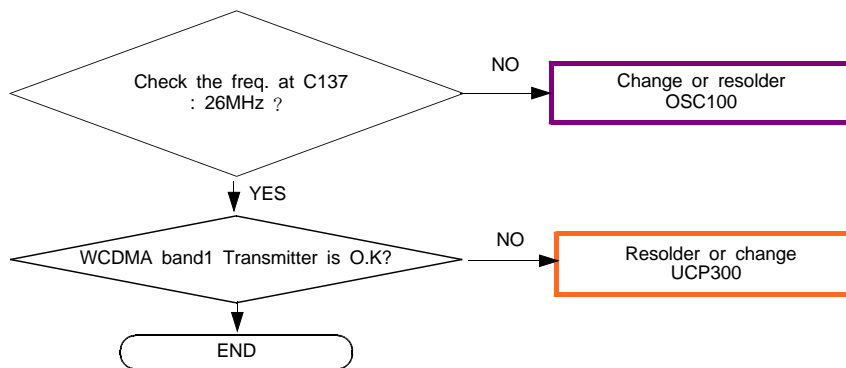


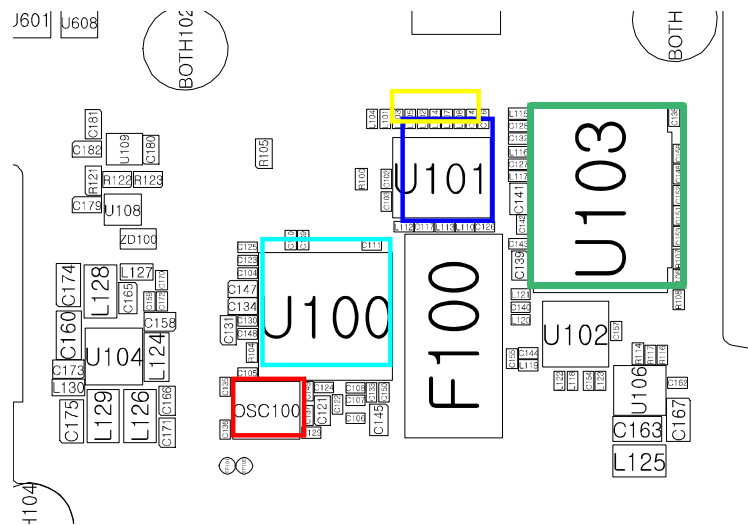
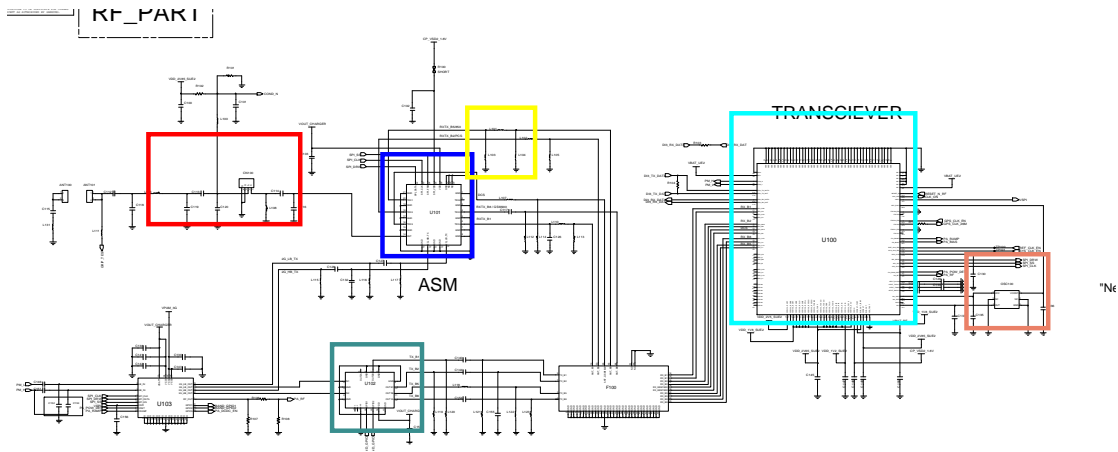


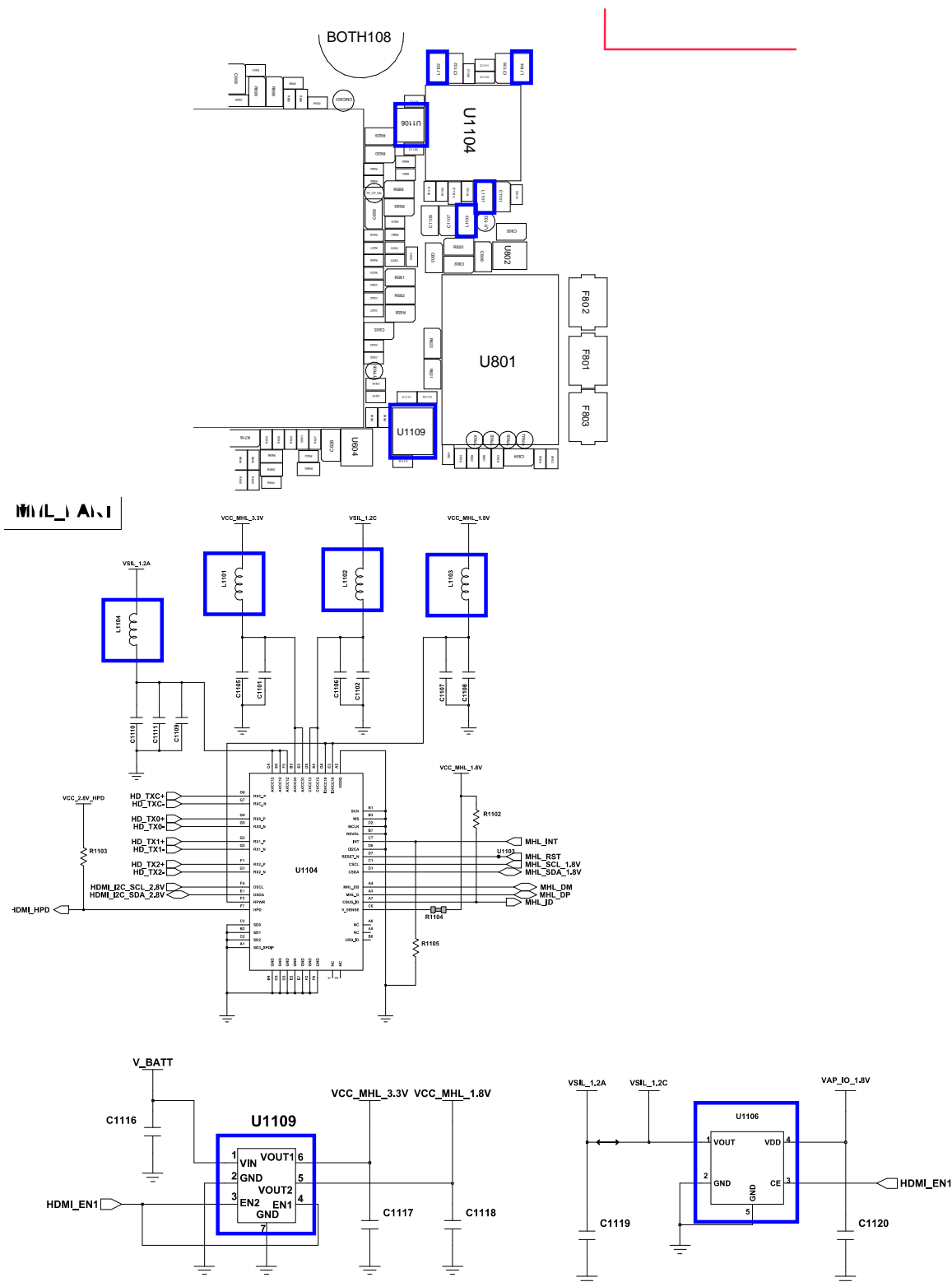
## 8-3-26. WCDMA BAND5 TX



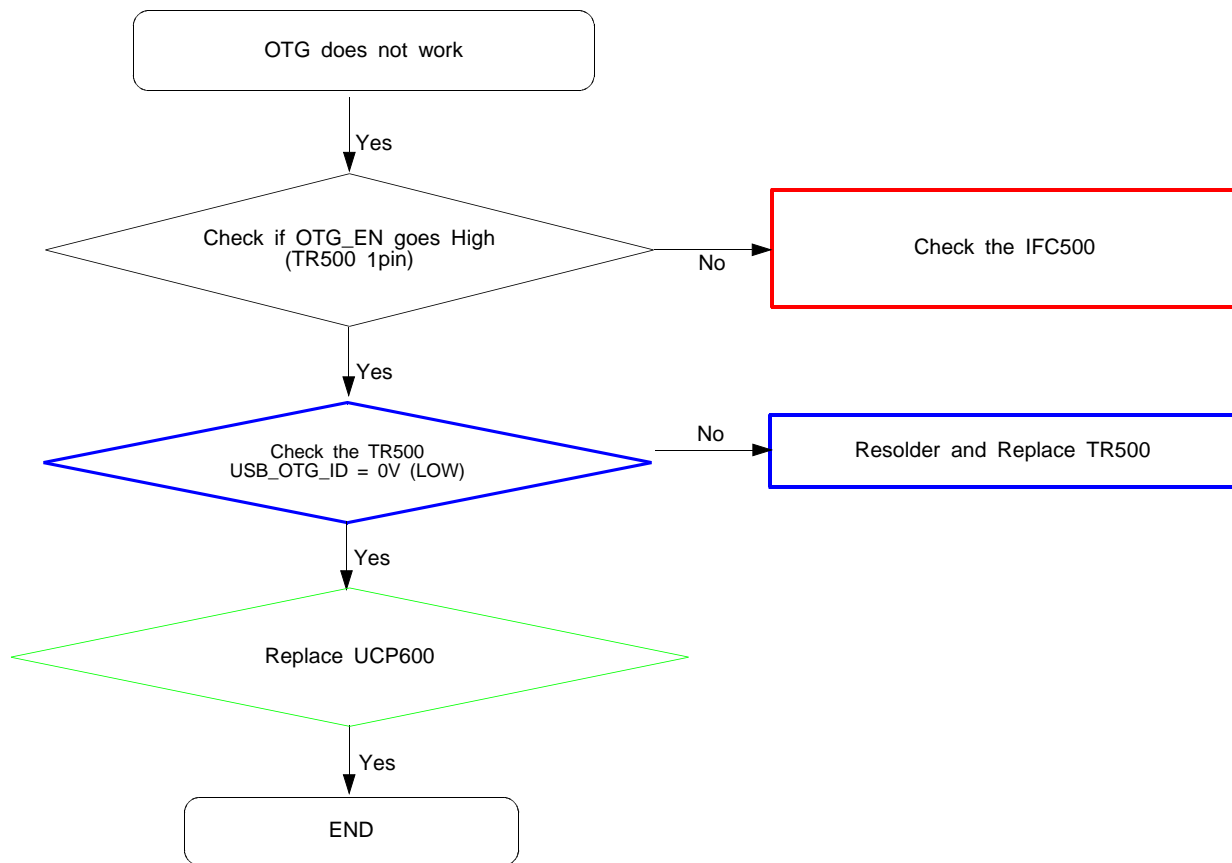
CONTINUOUS TX ON CONDITION  
TX POWER DAC:14500 CODE  
APPLIED  
WCDMA Band2 CH : 3013  
RBW : 100KHz  
VBW : 100KHz  
SPAN : 10MHz  
REF LEV. : 10dBm  
ATT. : 20dB

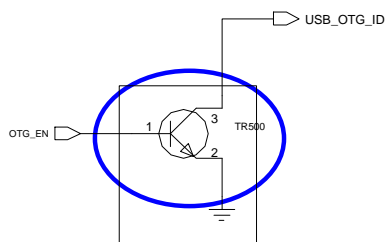
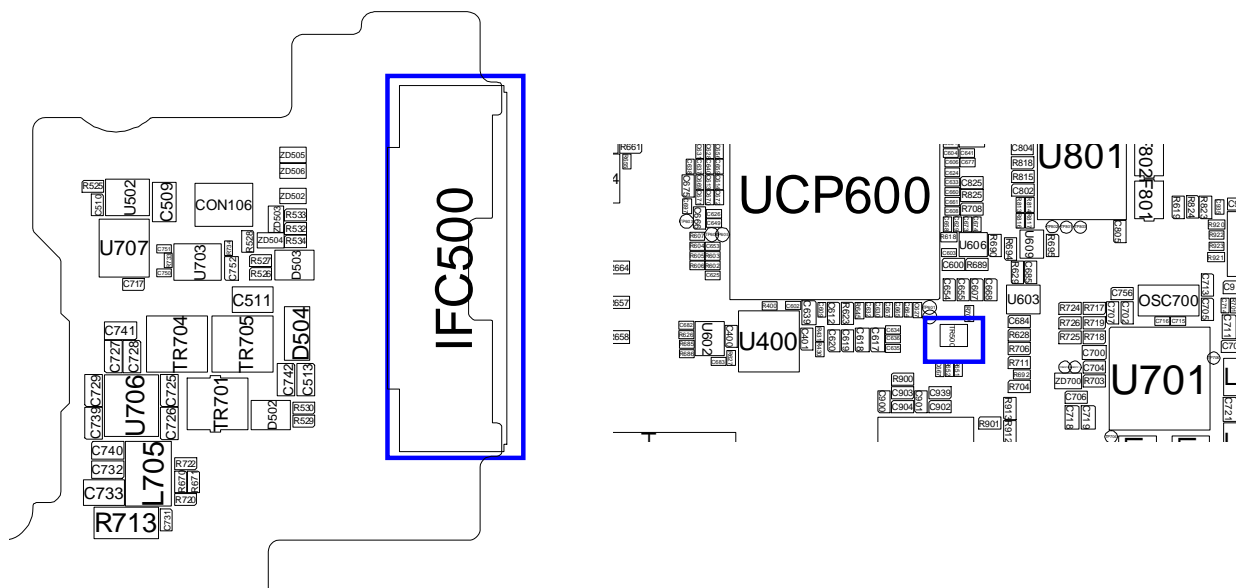






## 8-3-27. OTG





8-4. NC Point  
-UCP600

[illegible]

-U607

