

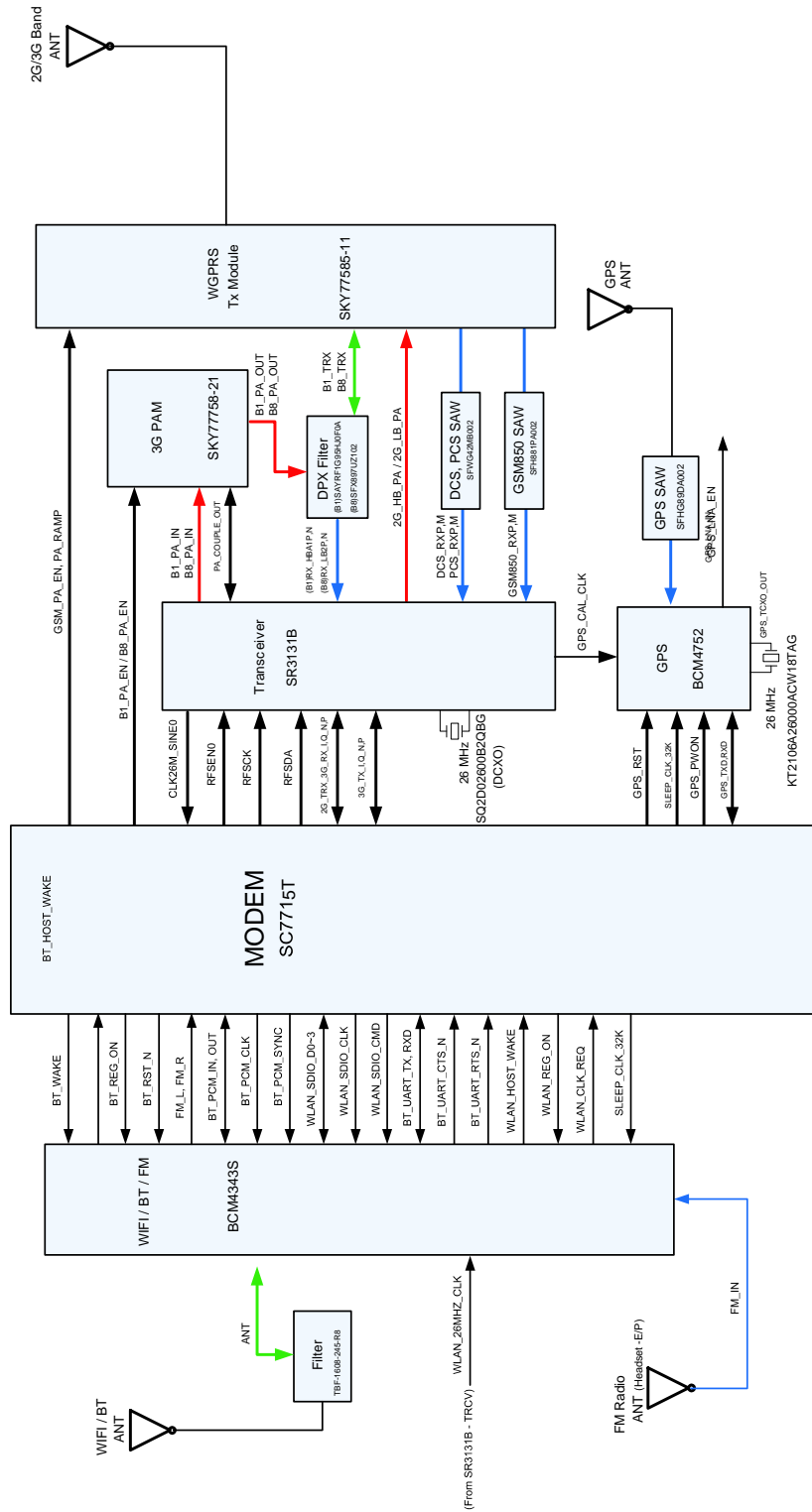
8. Level 3 Repair

8-1. Block Diagram

[All Support Band]
 2G : GSM850/900/1800/1900
 3G : WCDMA2100/900
 - WCDMA1 : 2100 MHz
 - WCDMA8 : 900 MHz
 [Within USA Support Band,
 Rx and Tx Frequency]
 - GSM850 :
 Rx 869.2 ~ 912.6 MHz
 Tx 824.2 ~ 848.8 MHz
 - GSM1900 :
 Rx 1930.2 ~ 1989.8 MHz
 Tx 1850.2 ~ 1909.8 MHz

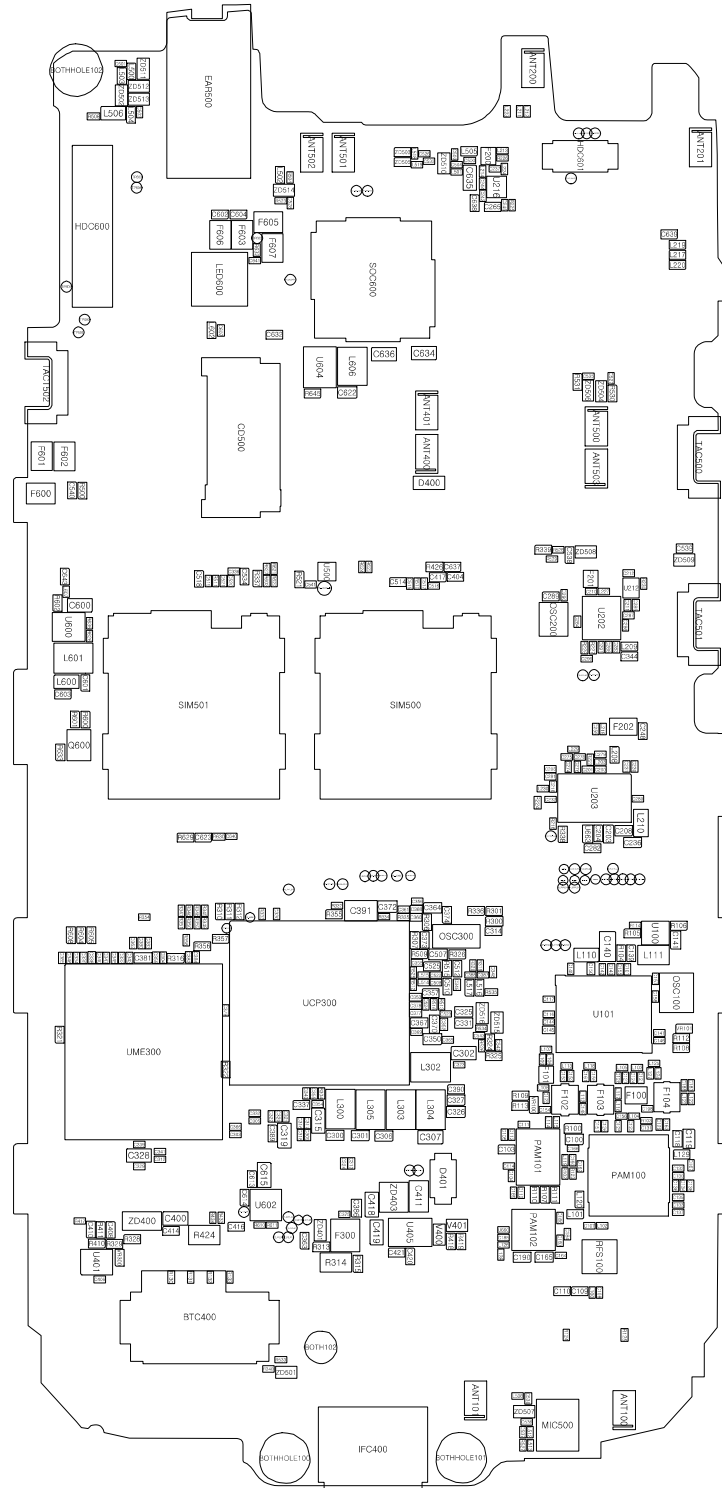
RF TX: RED
 RF RX: BLUE
 TX & RX: GREEN
 CONTROL, CLK: BLACK

SM-G313H/DD Block Diagram

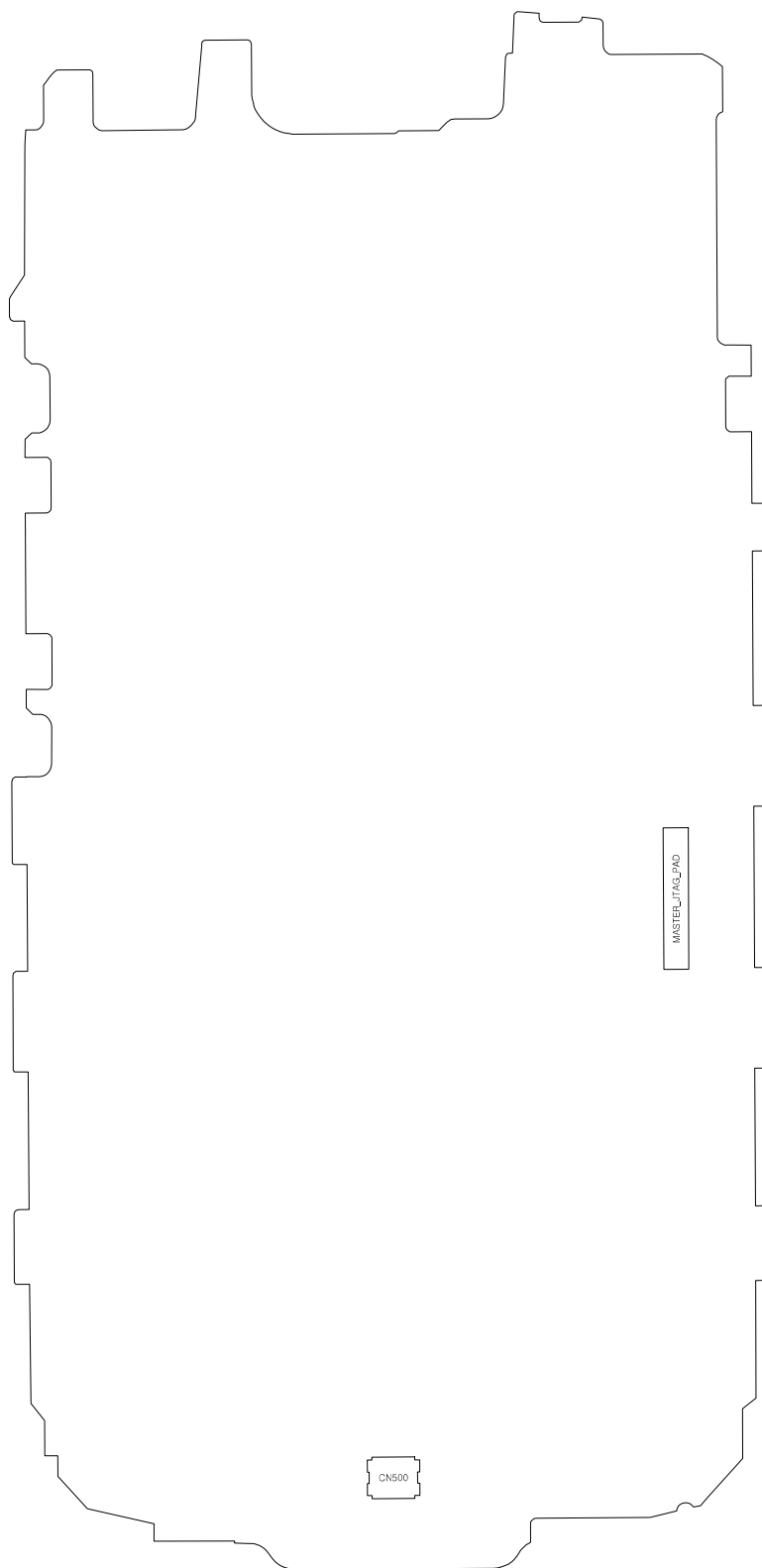


8-2. PCB Diagrams

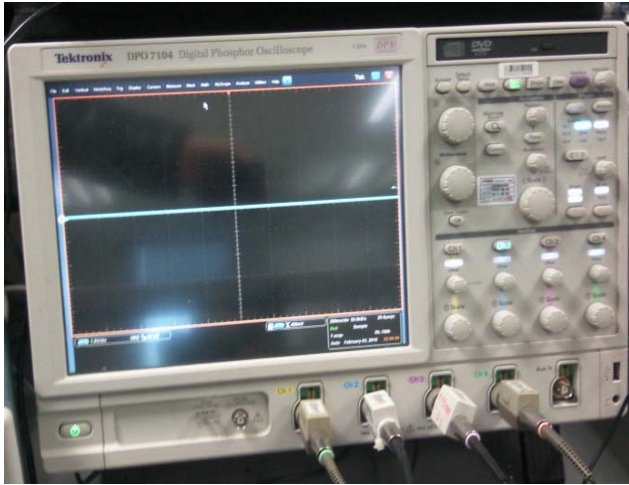
8-2-1. Top



8-2-2. Bottom



8-3. Flow Chart of Troubleshooting Equipments



Oscilloscope



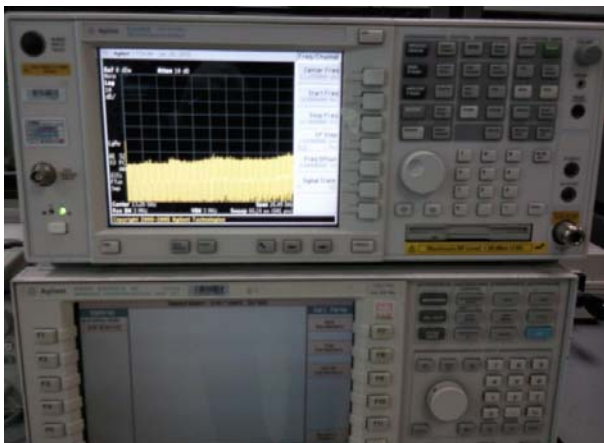
Digital Multimeter



Power Supply



'+' driver, ESD Safe Tweezer

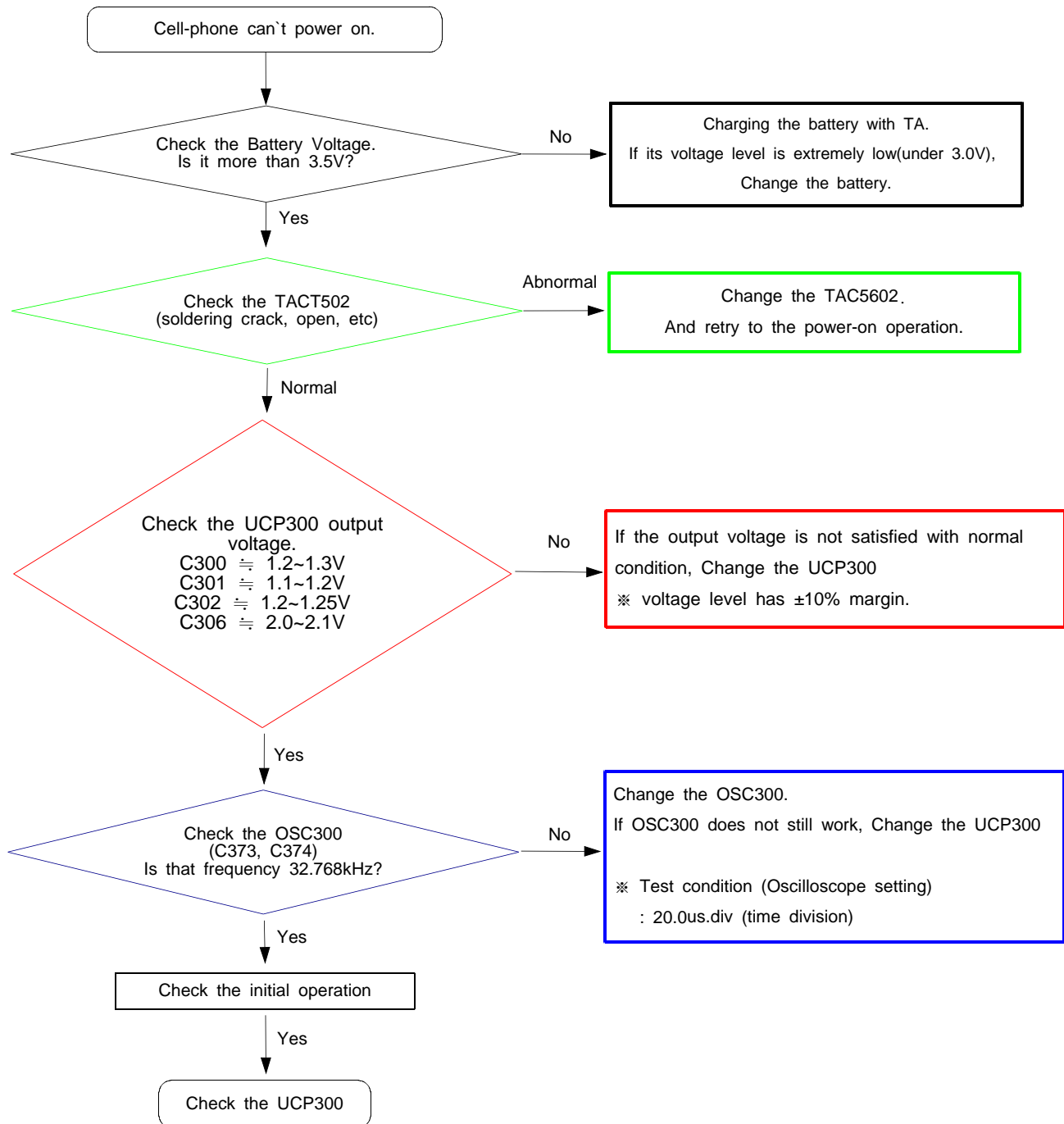


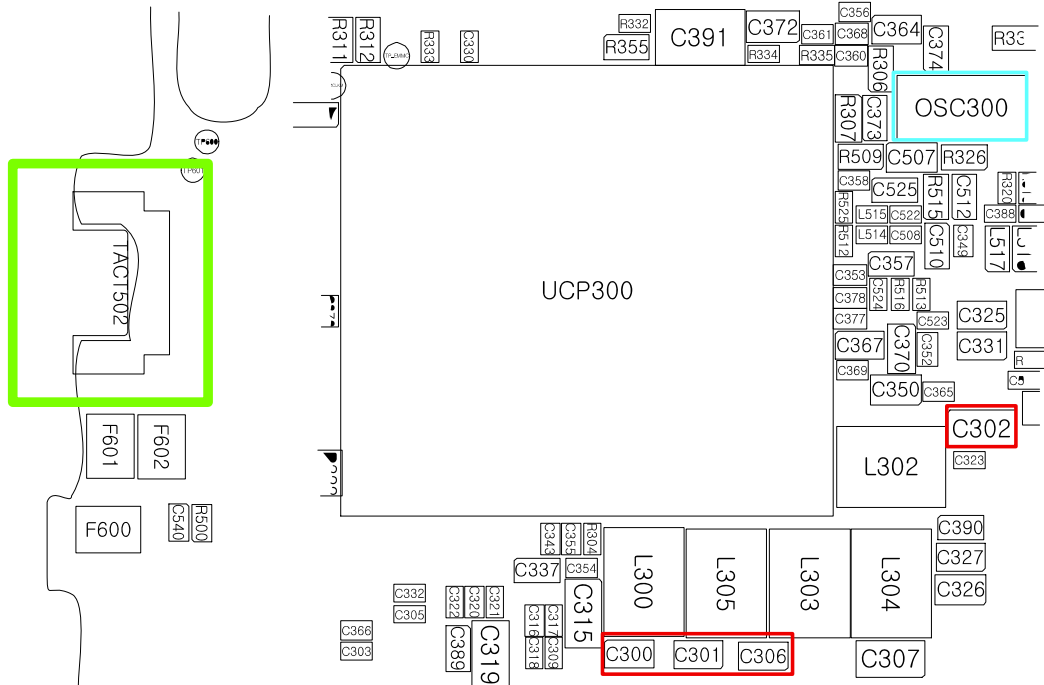
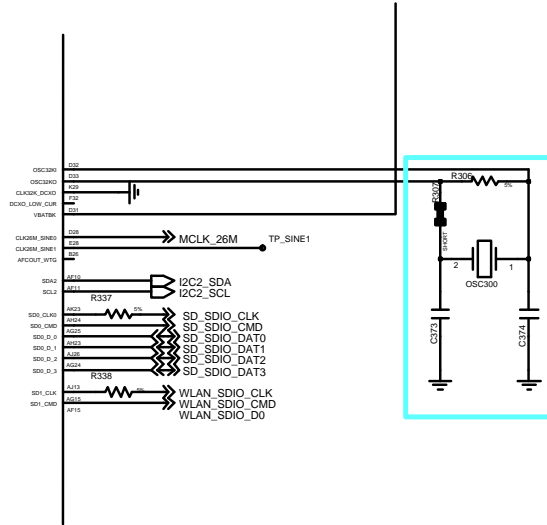
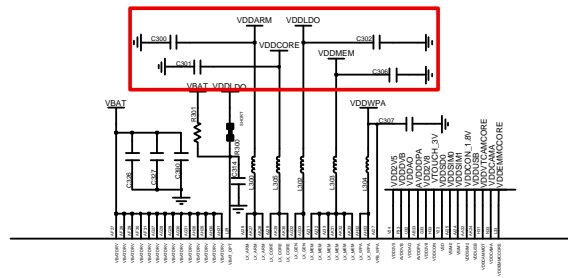
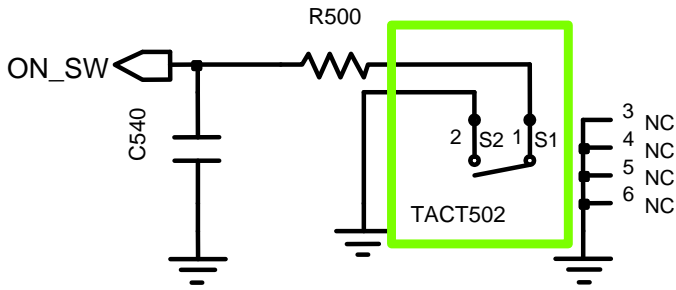
8960 & Spectrum Analyzer



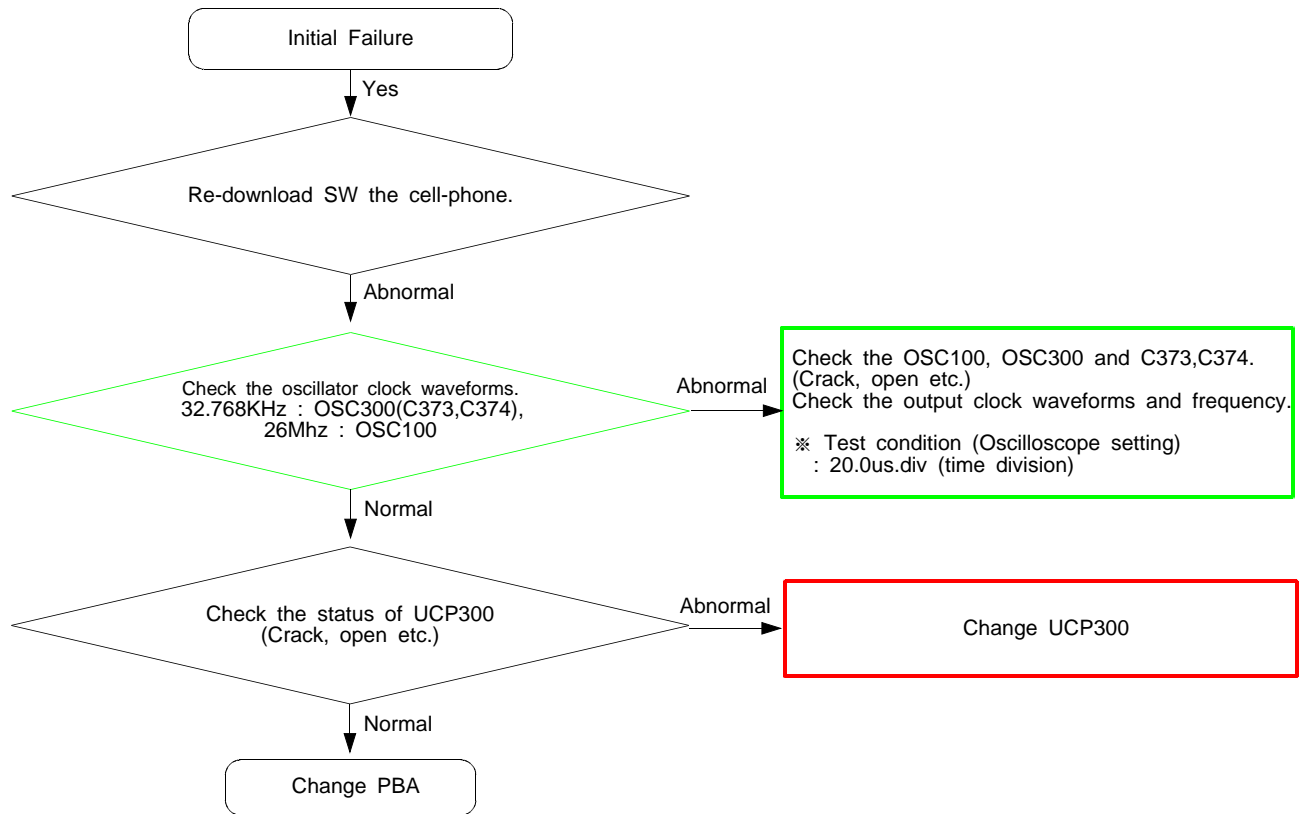
Soldering iron

8-4-1. Power On

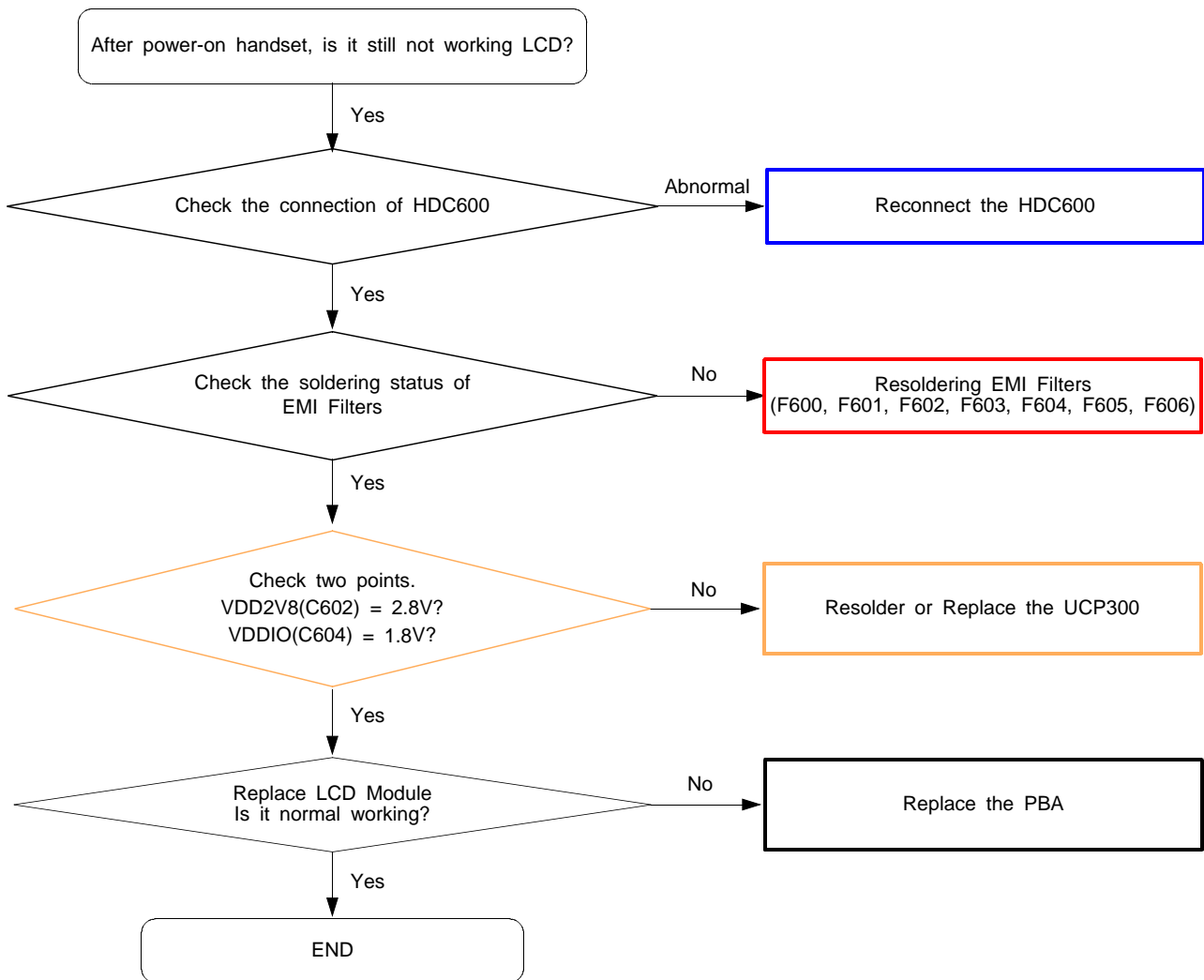


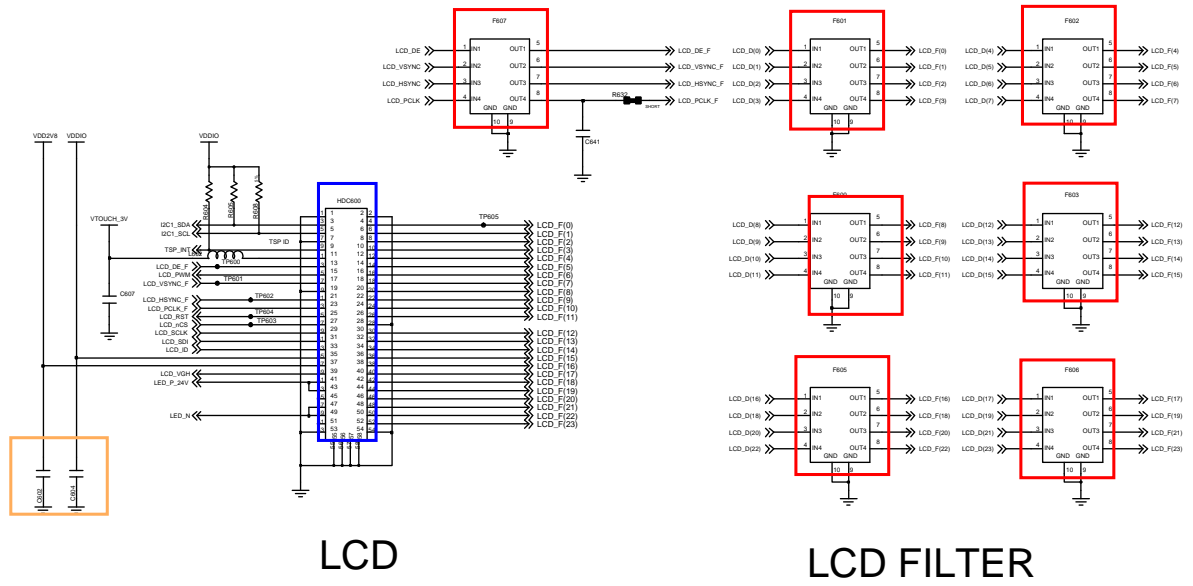
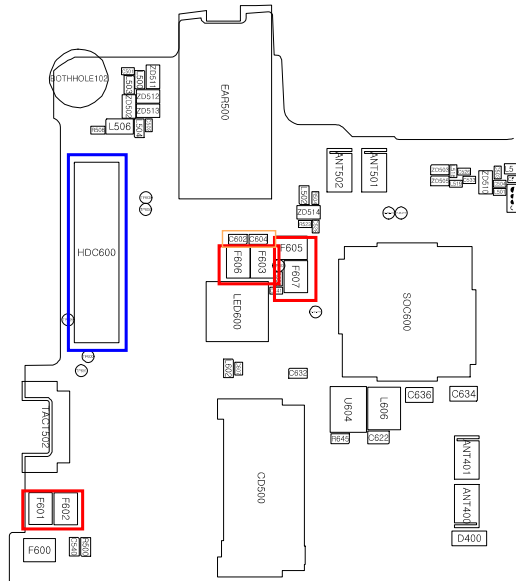


8-4-2. Initial

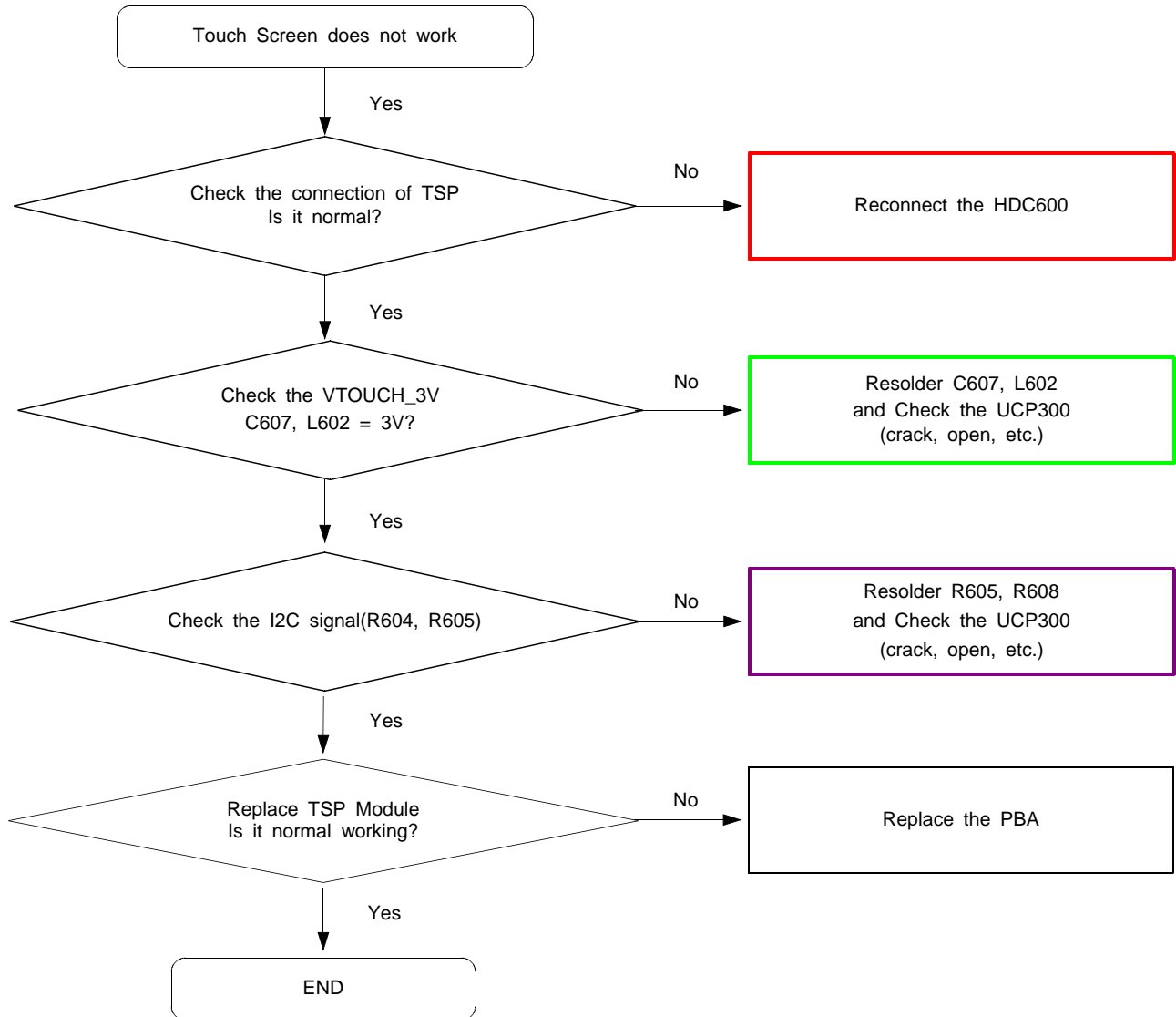


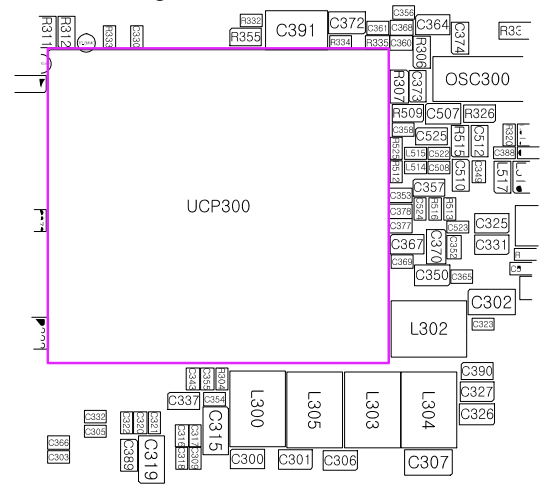
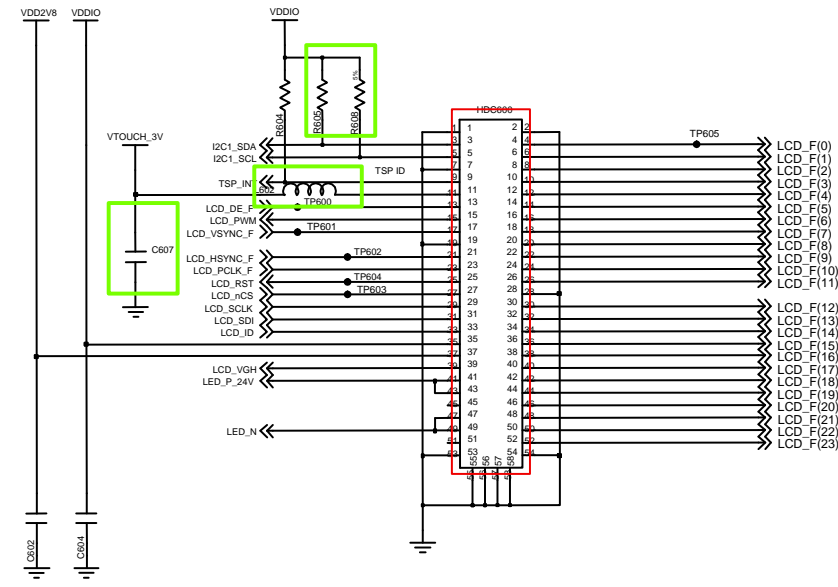
8-4-3. LCD





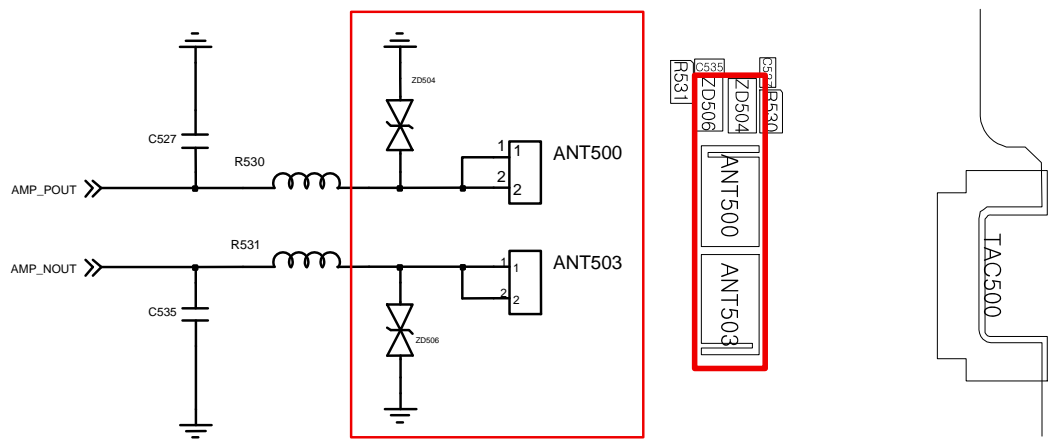
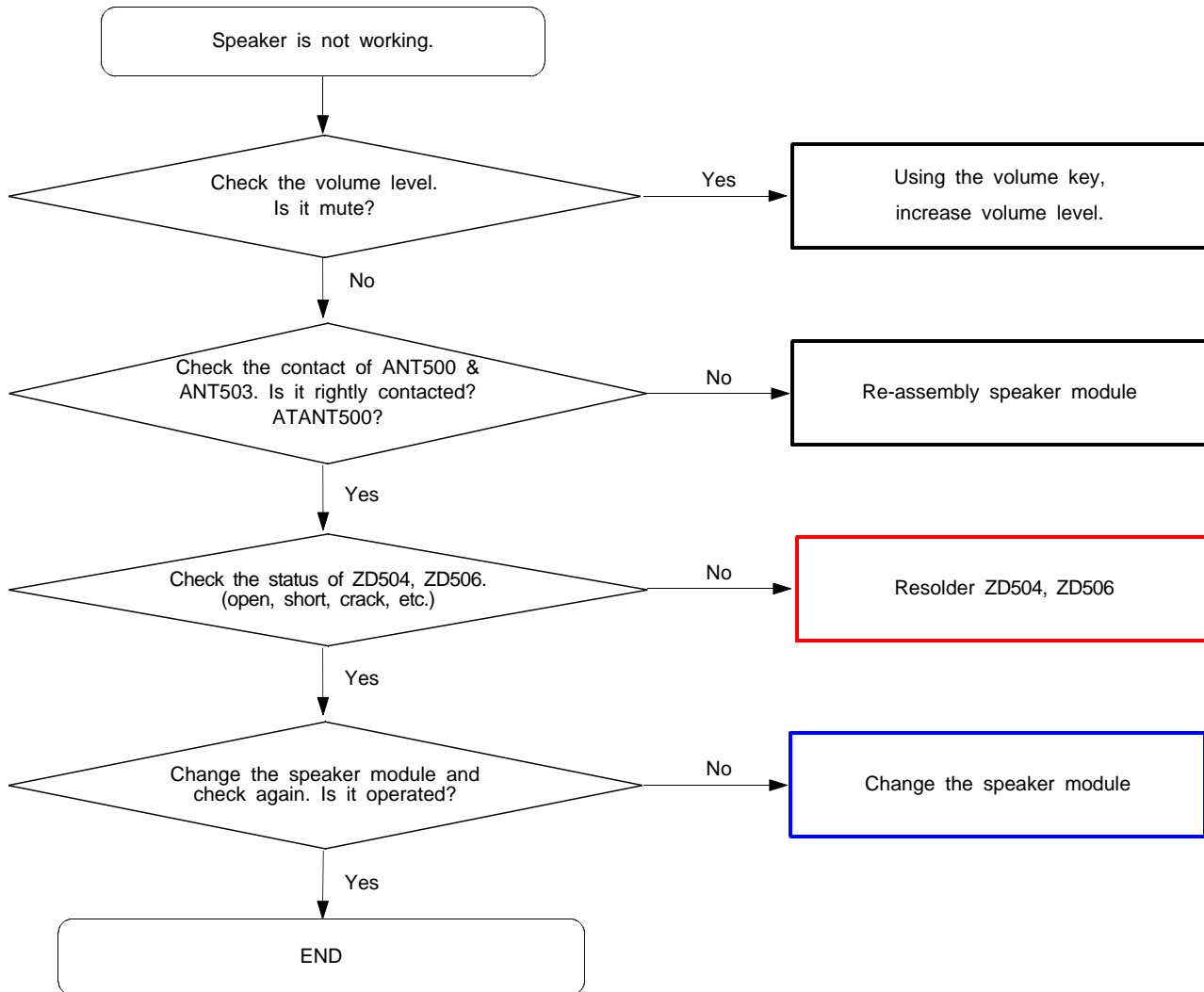
8-4-4. TSP



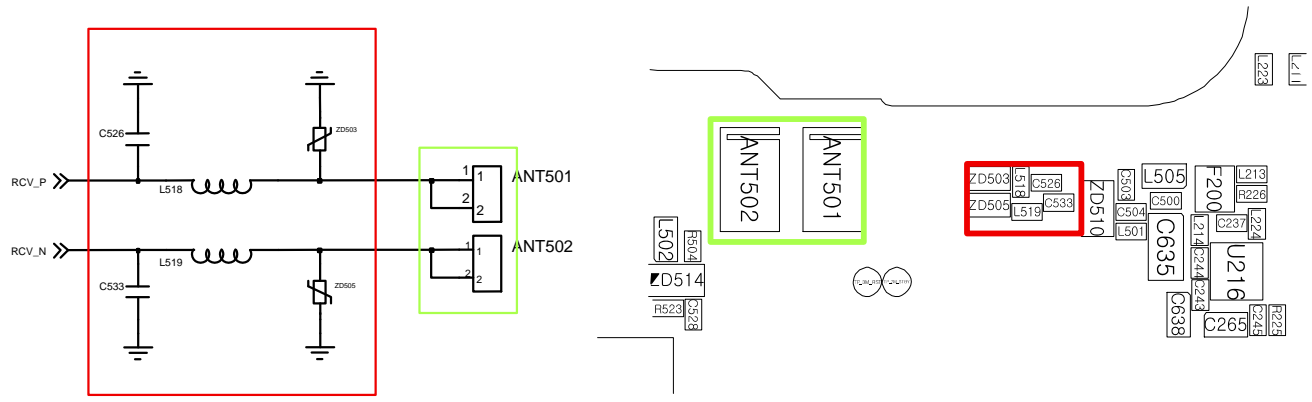
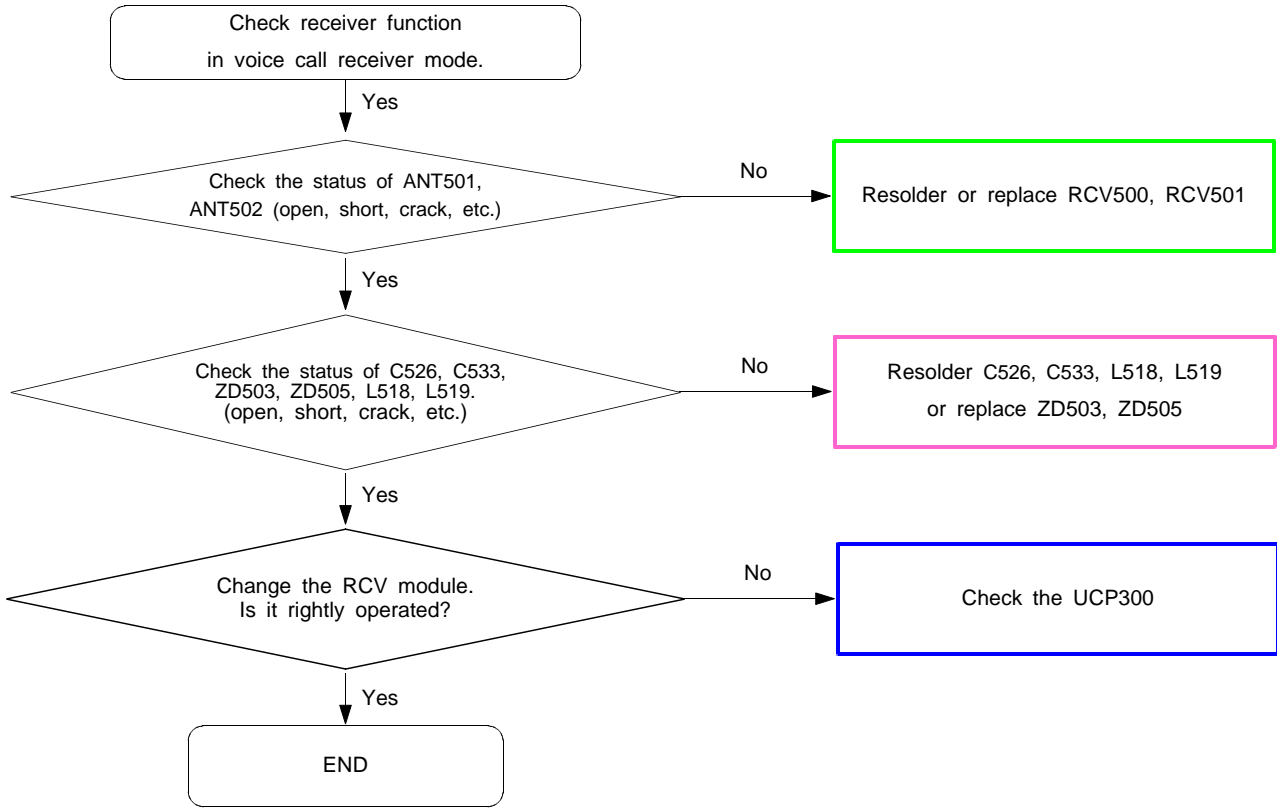


8-4-5. Audio Part

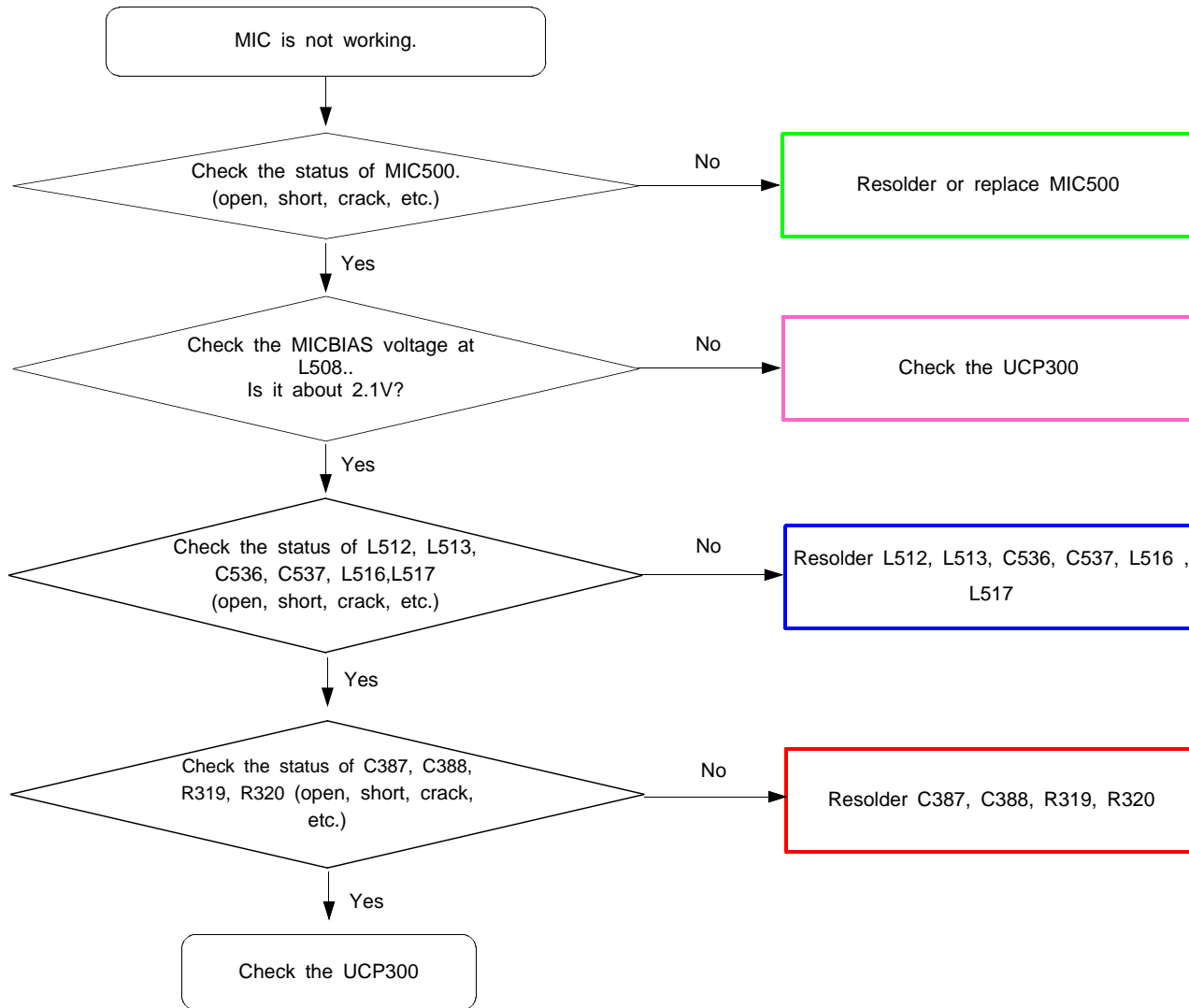
● Speaker Module

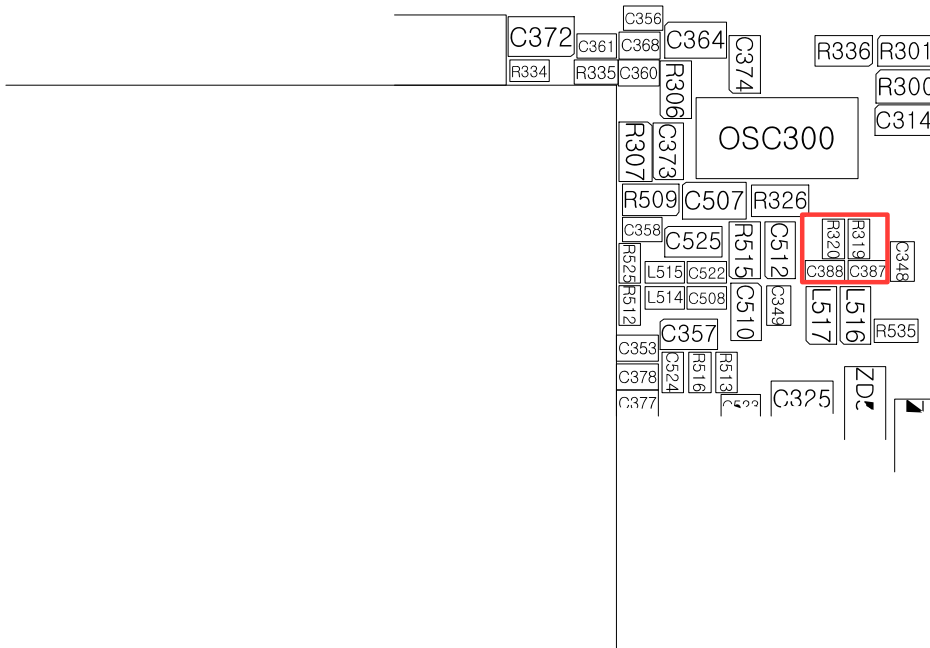
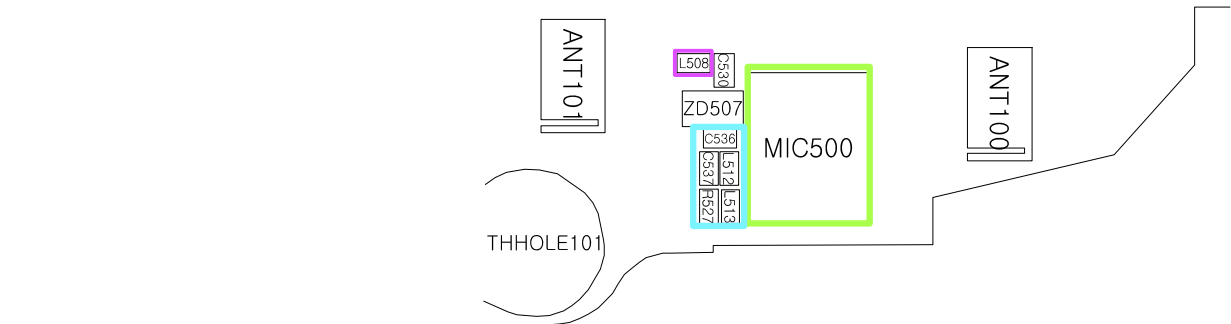
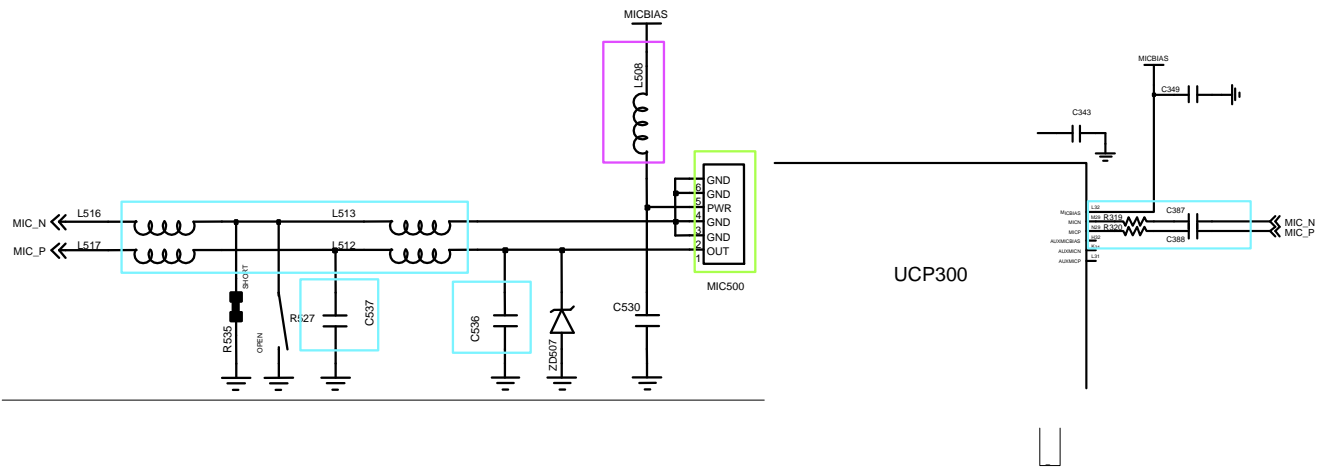


● **Receiver Working**

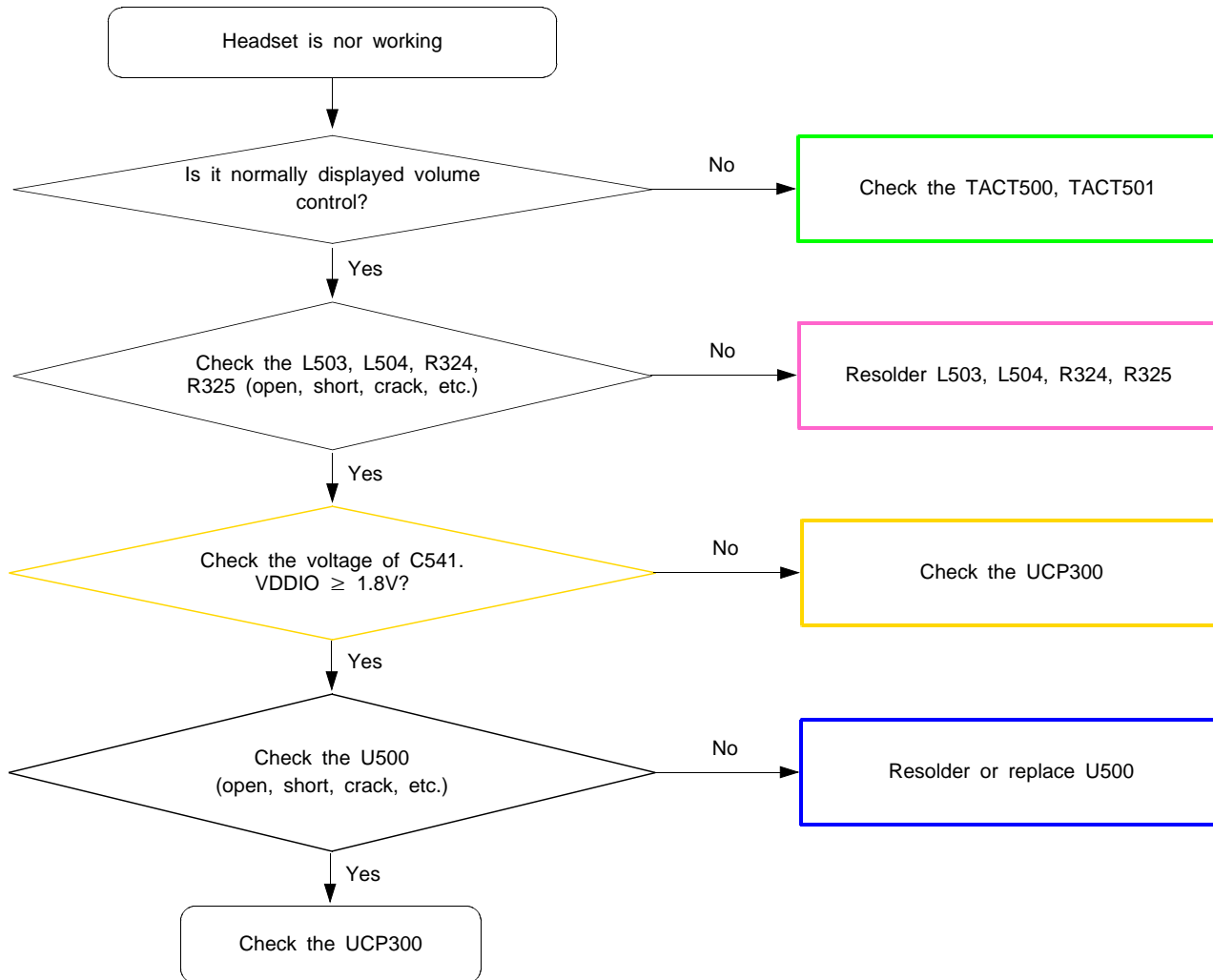


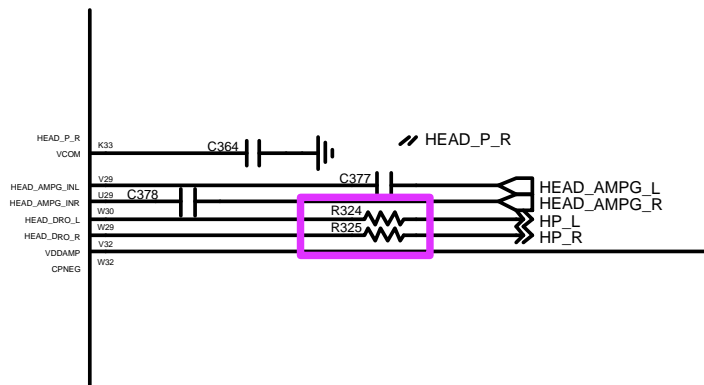
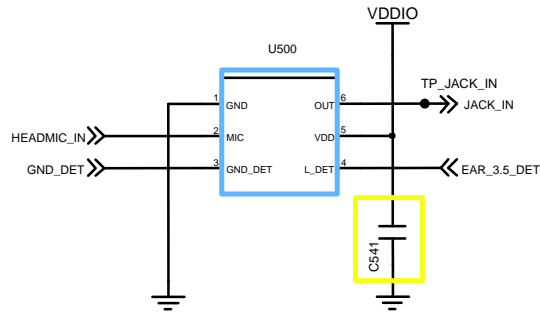
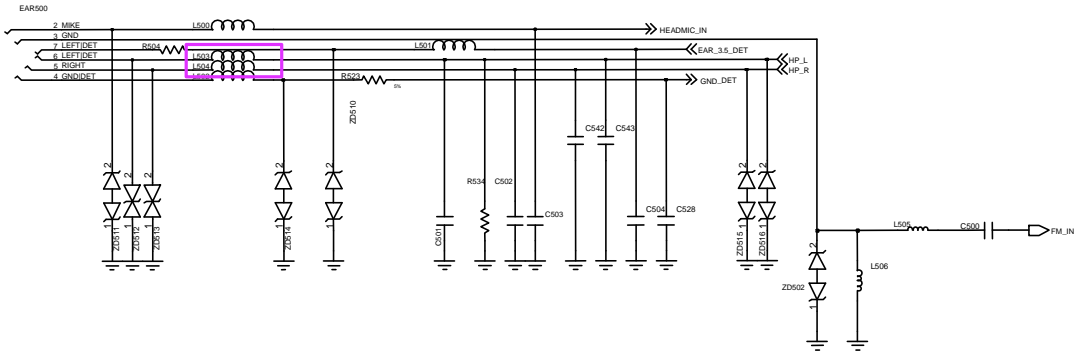
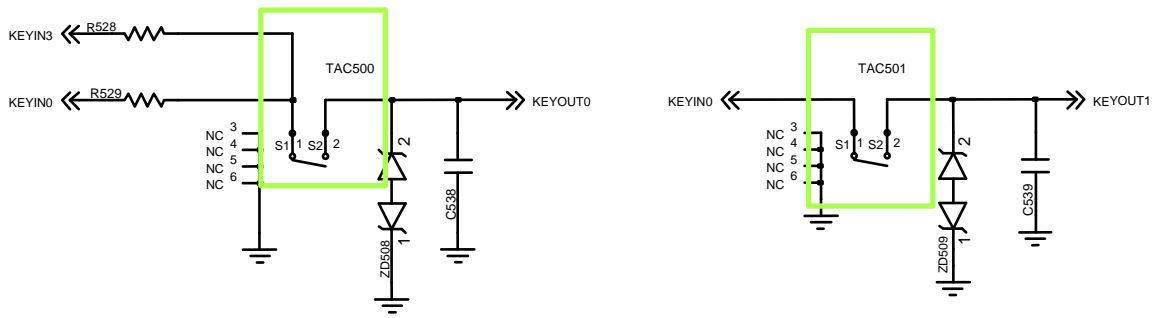
● MIC Working (Main MIC)

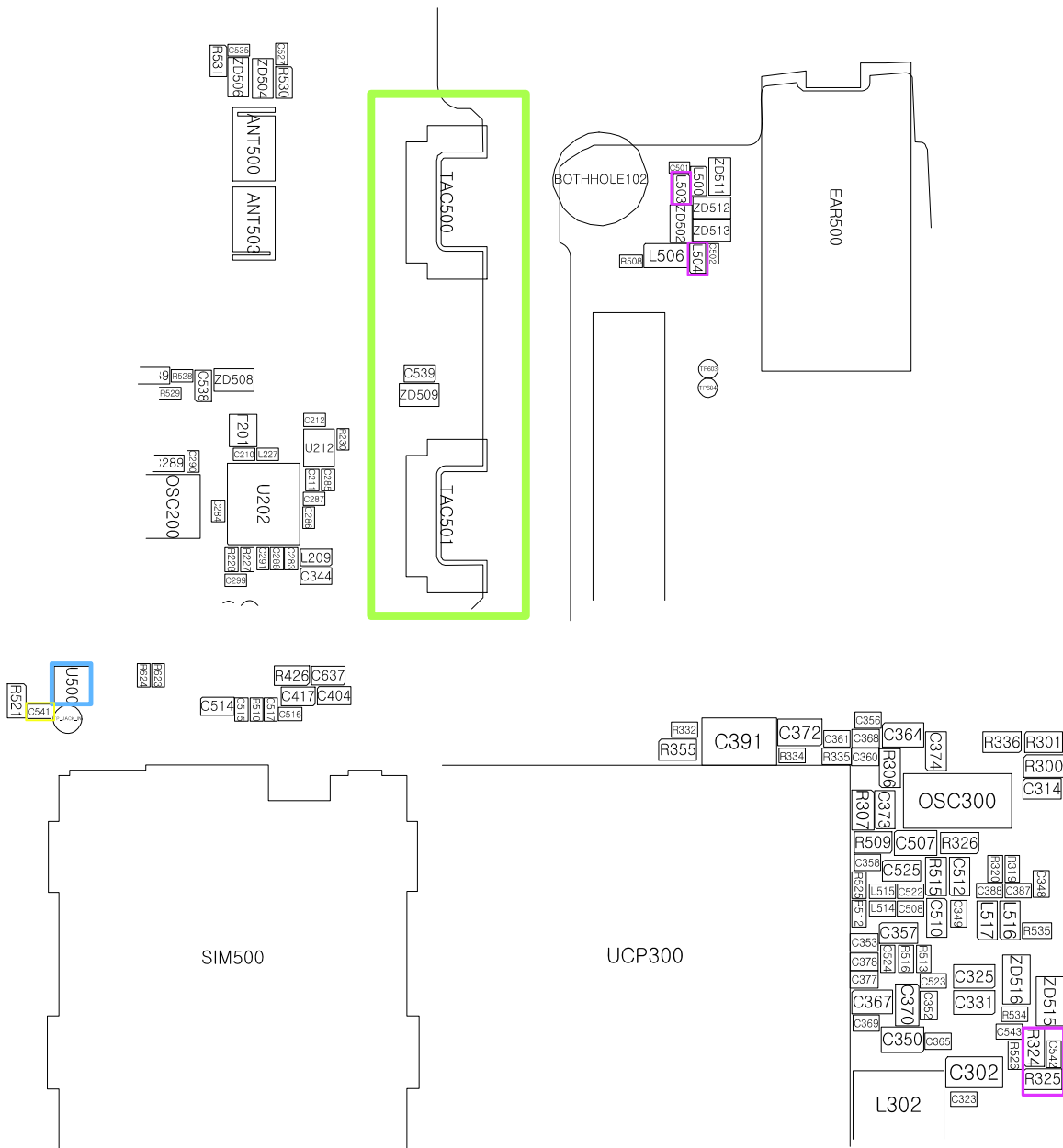




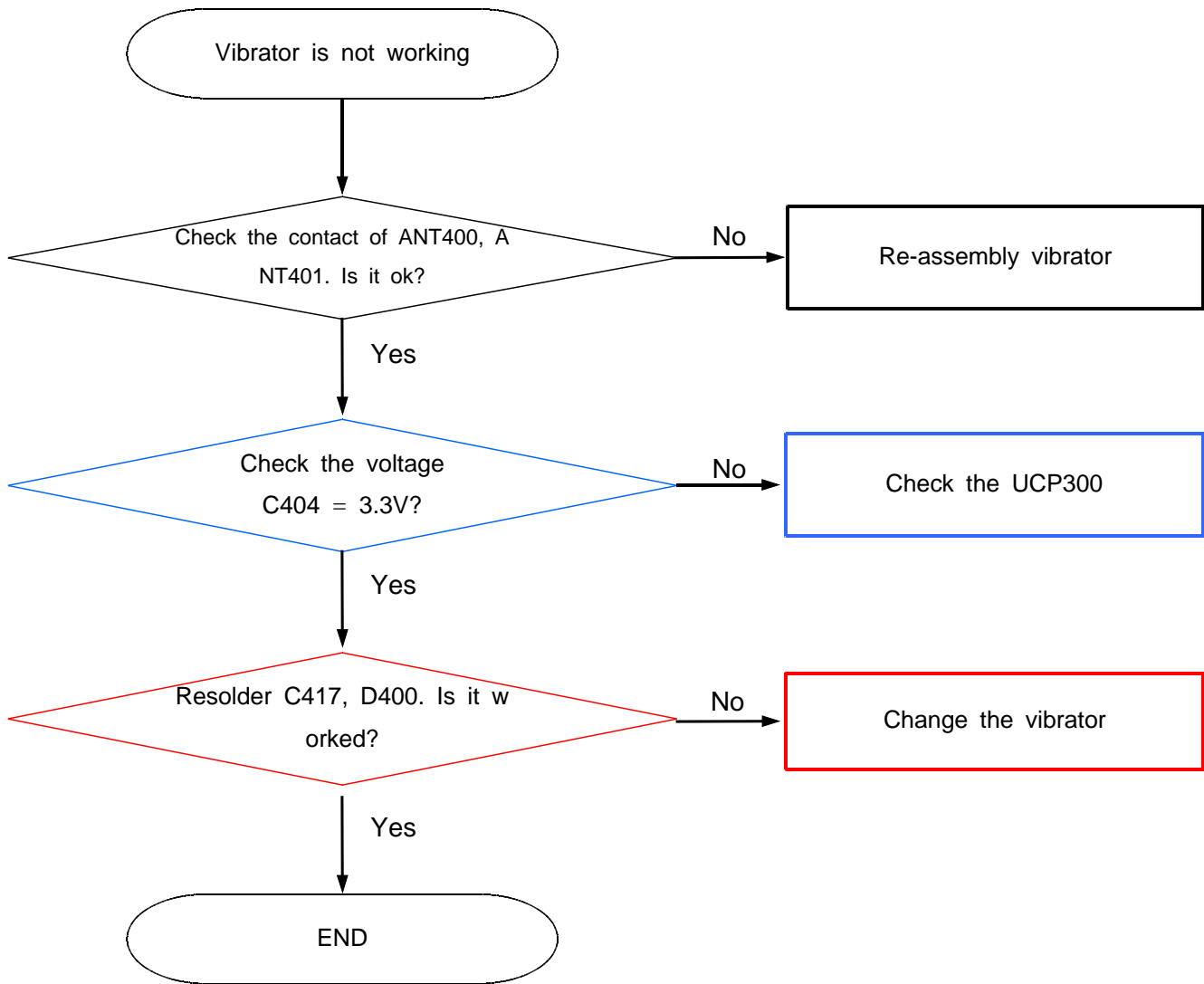
● Stereo Headset

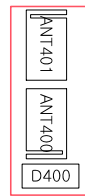
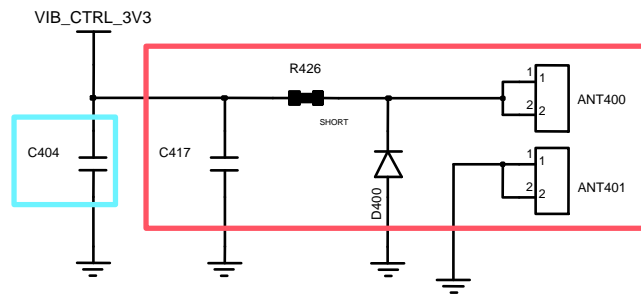




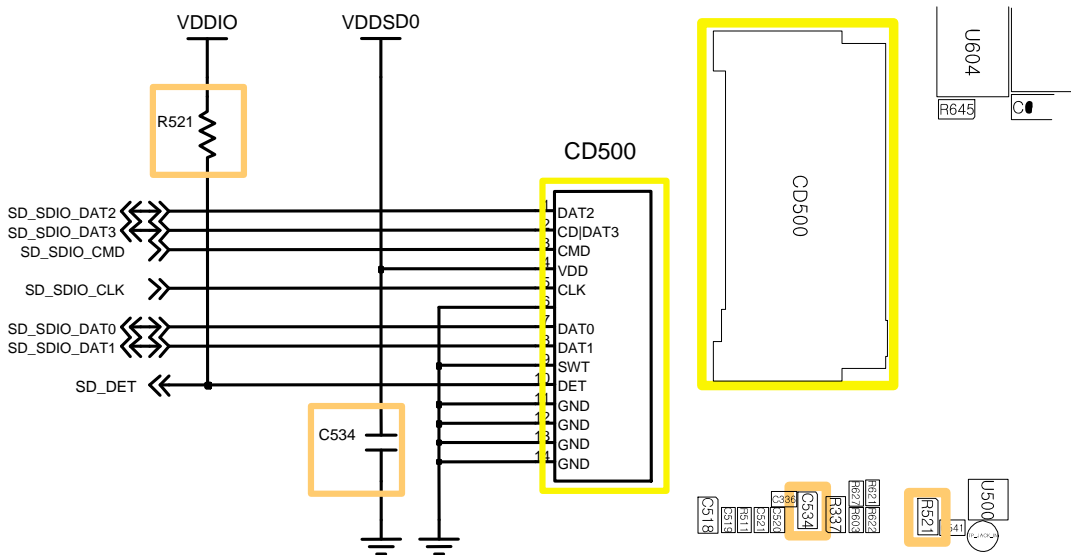
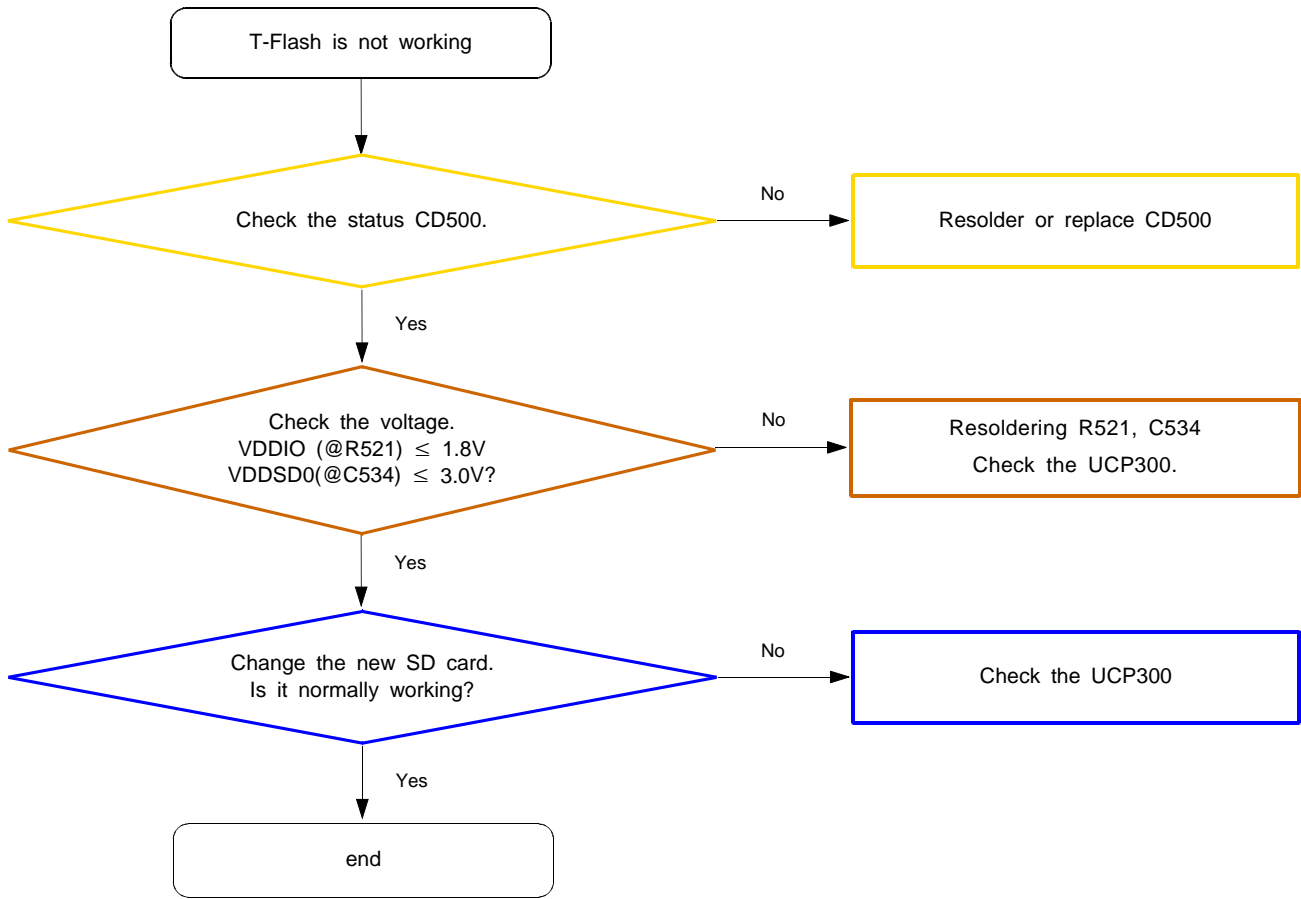


8-4-6. Vibrator Working

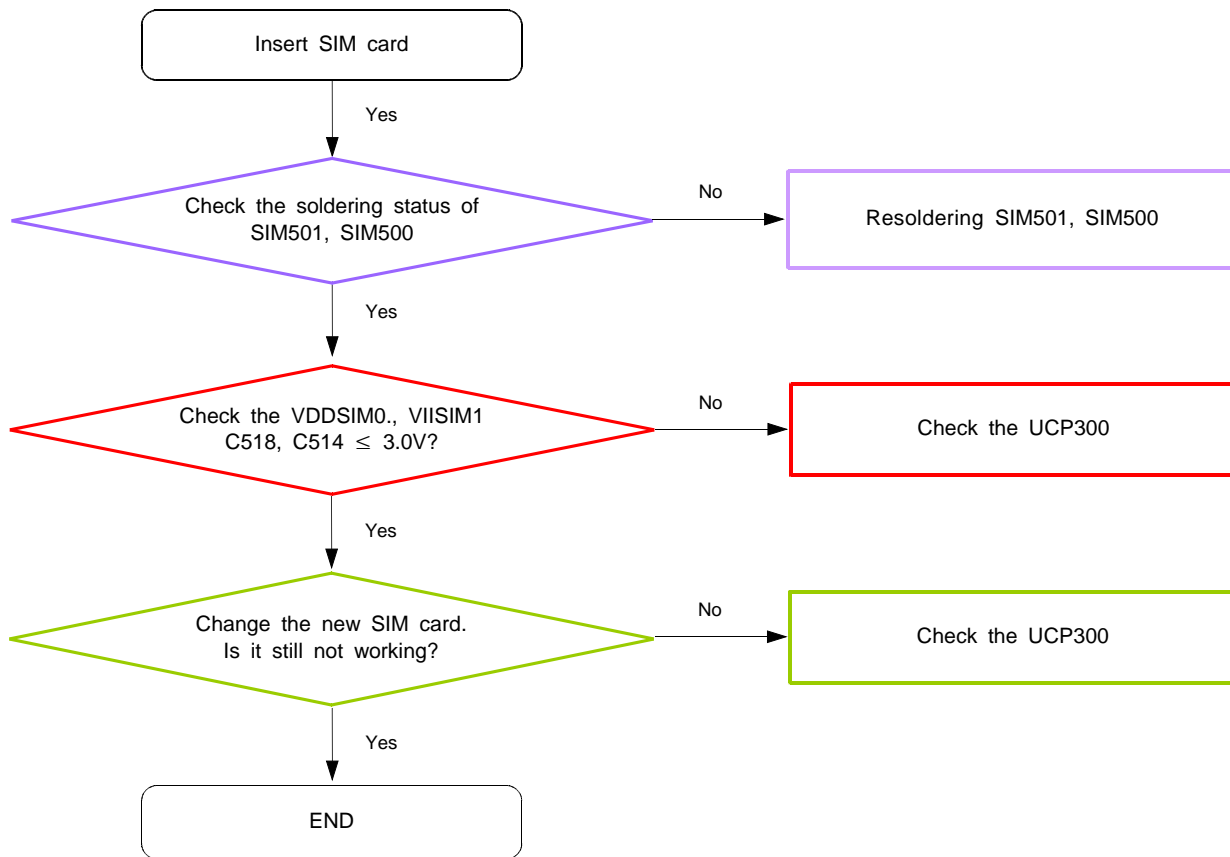


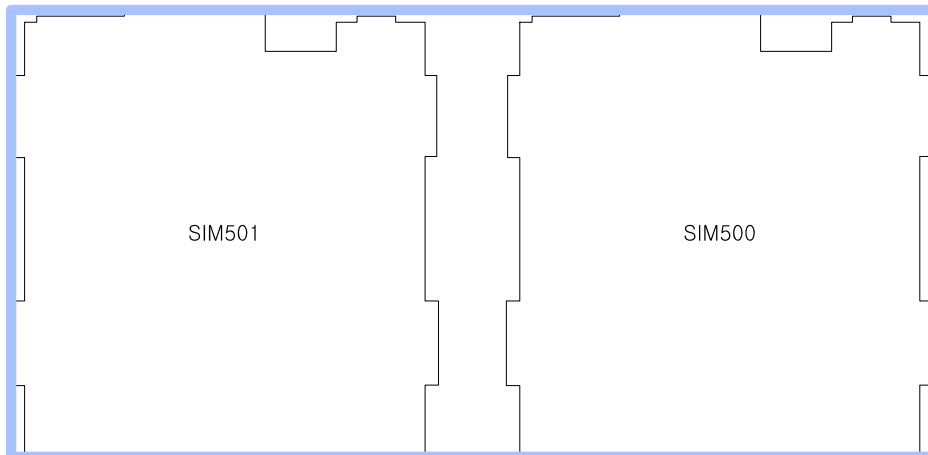
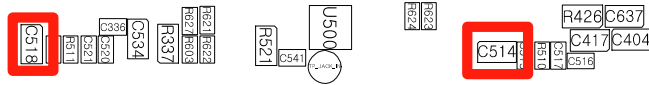
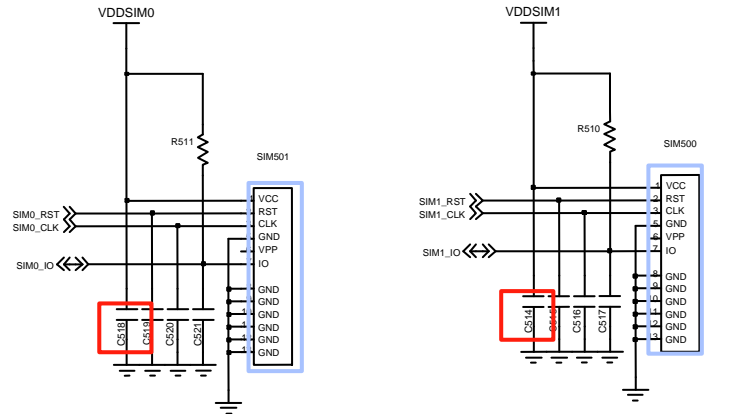


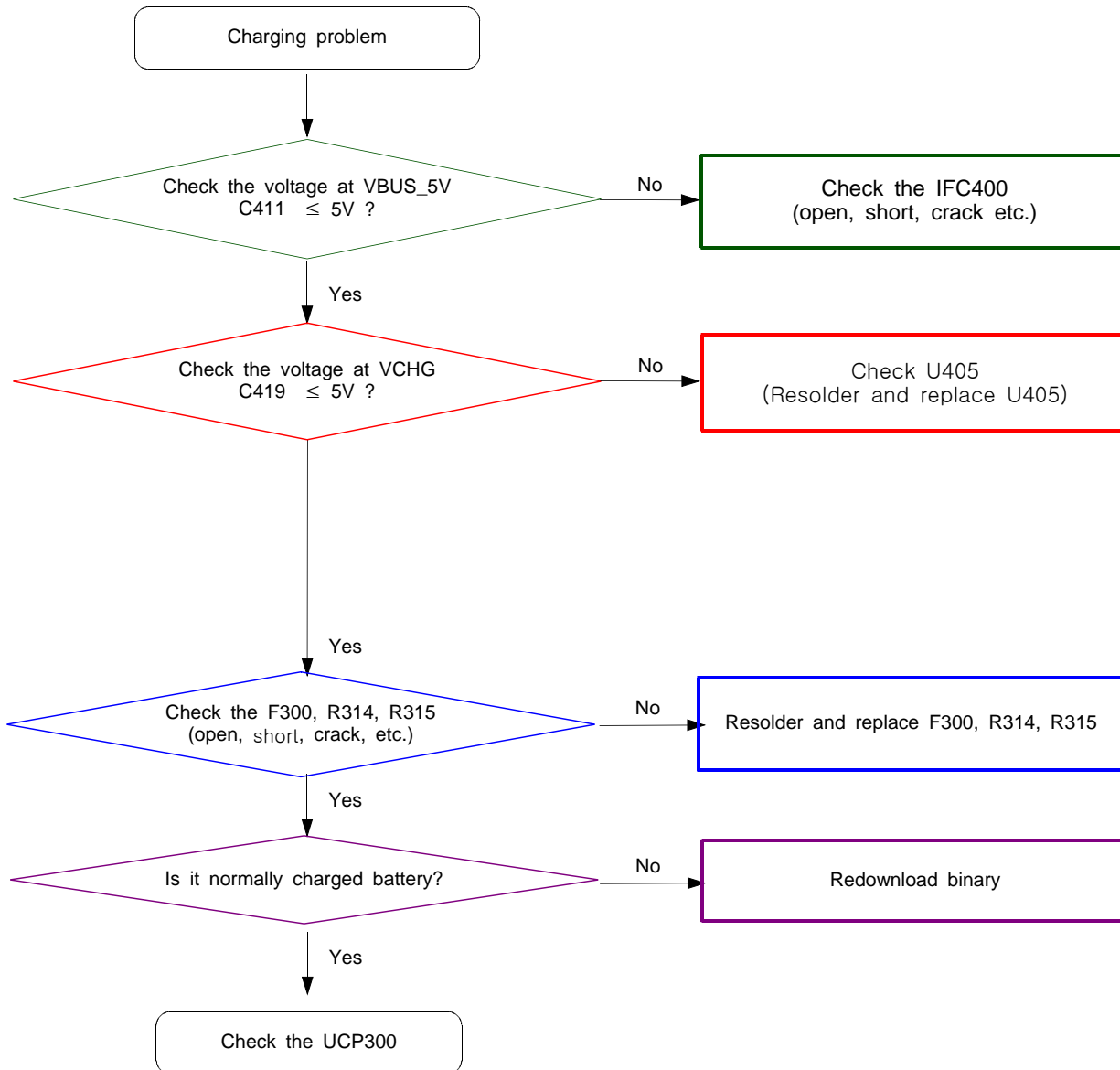
8-4-7. T-Flash Card Working

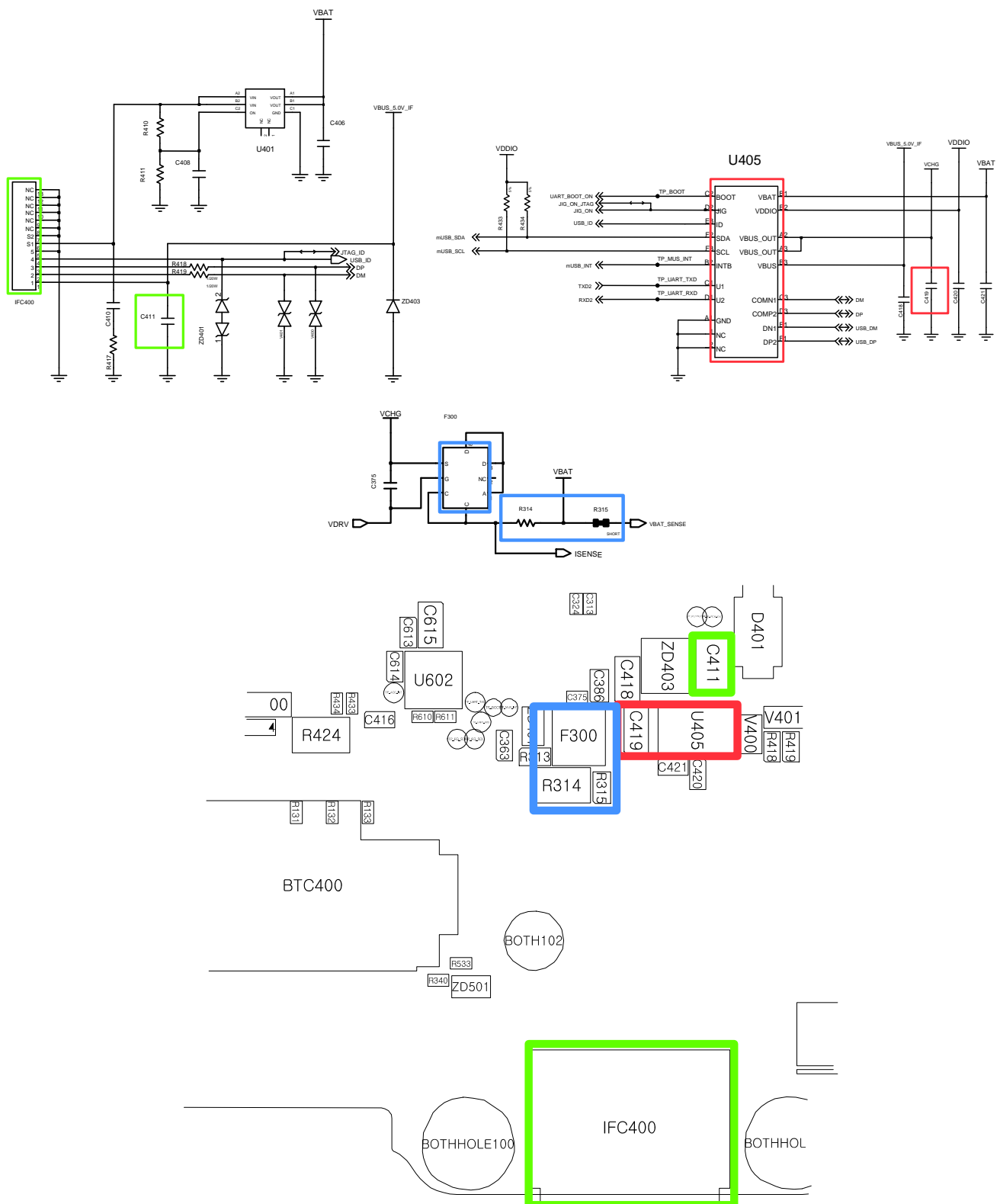


8-4-8. Sim Card

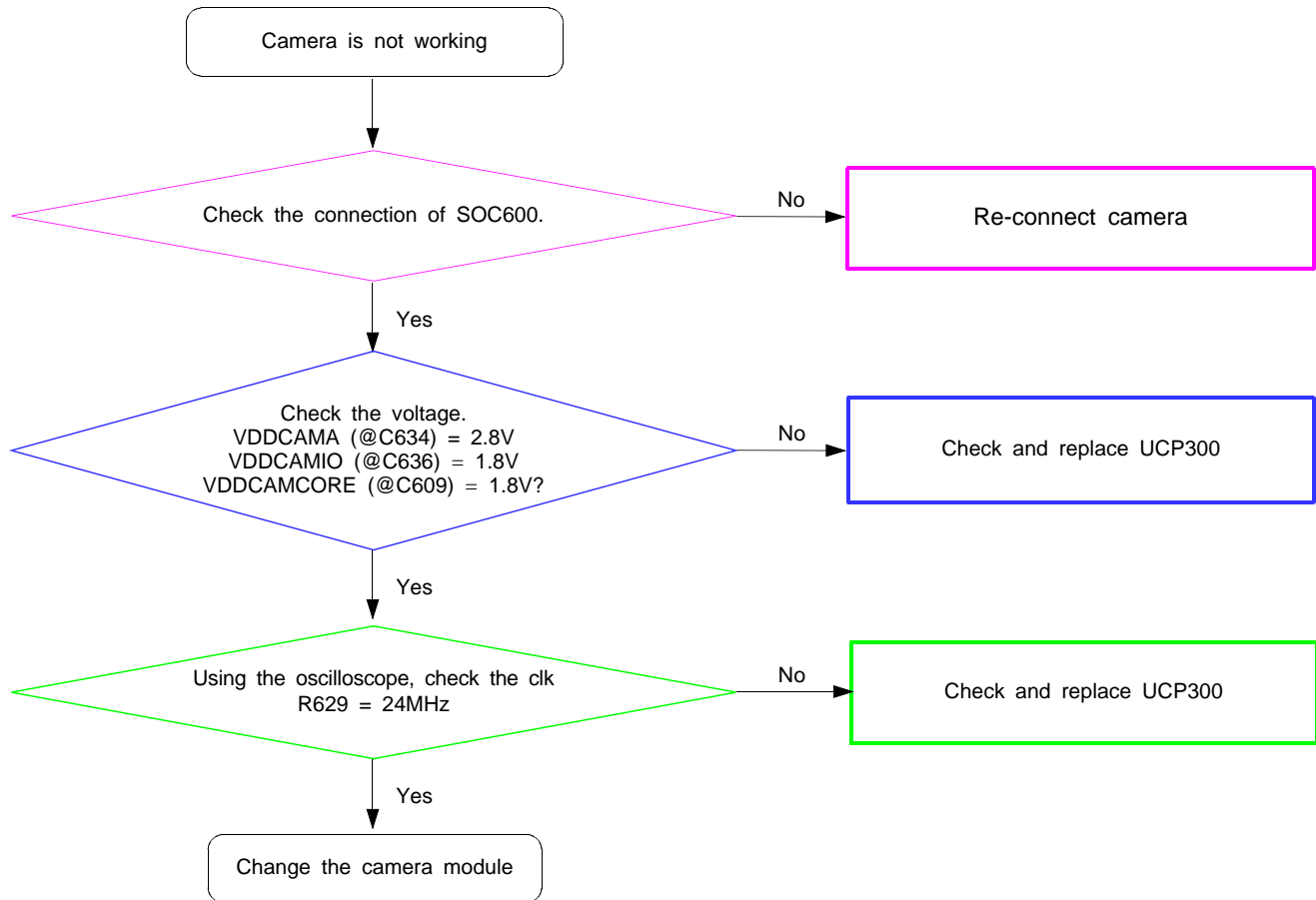


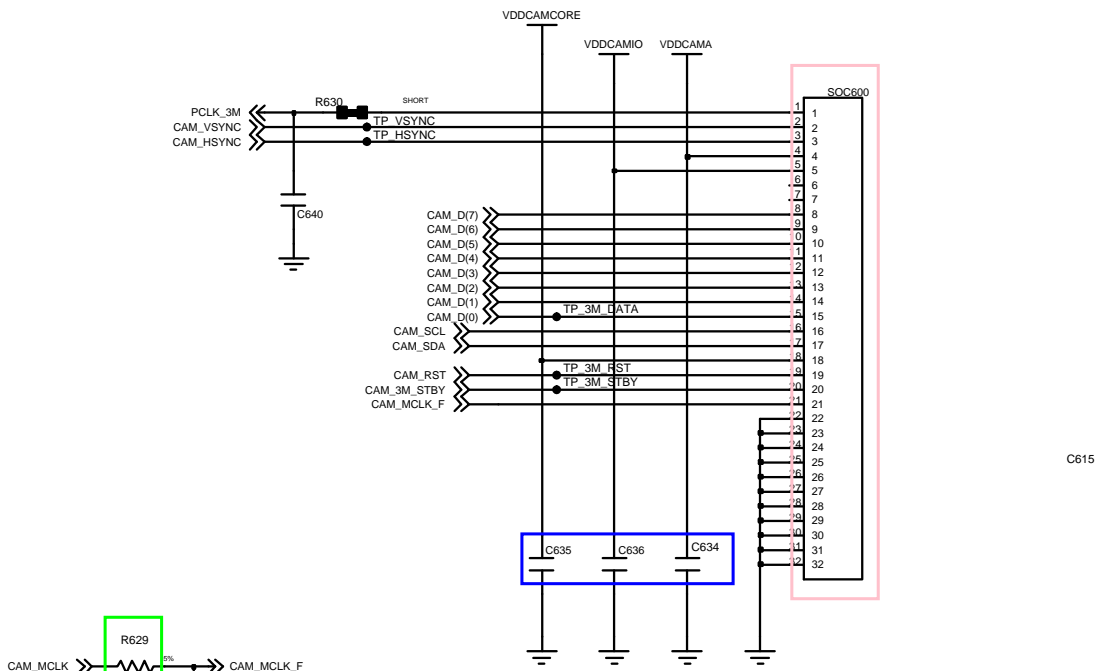
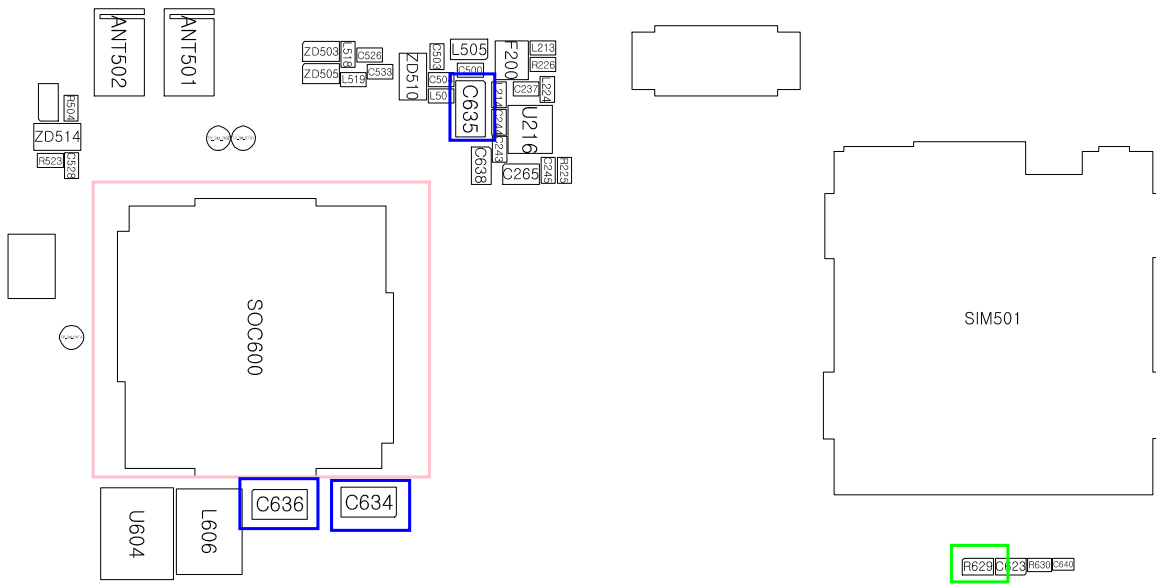


8-4-9. Charging



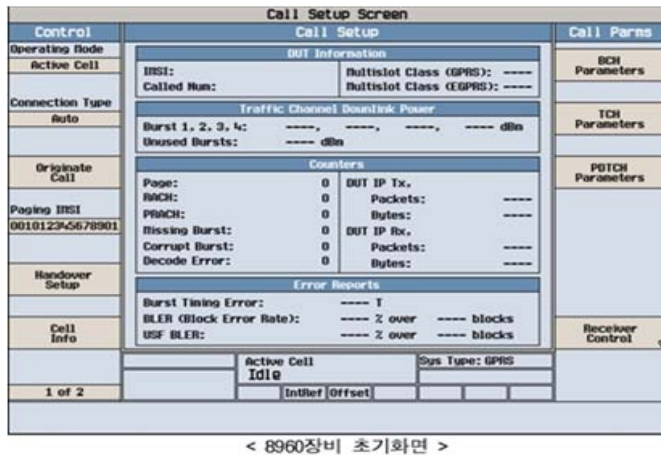
8-4-10 CAMERA





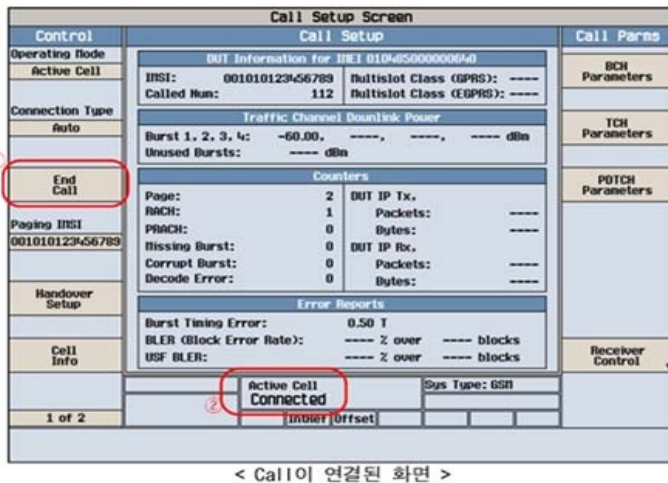
3M CAMERA

※ presetting 8960



(Rx setting)

1. Active Cell : select GSM or GPRS
2. Connection Type : select Auto(GSM), BLER(GPRS)
3. BCH Parameter : select measuring band (DCS or EGSM)
4. Cell power : -60dBm



(Tx setting)

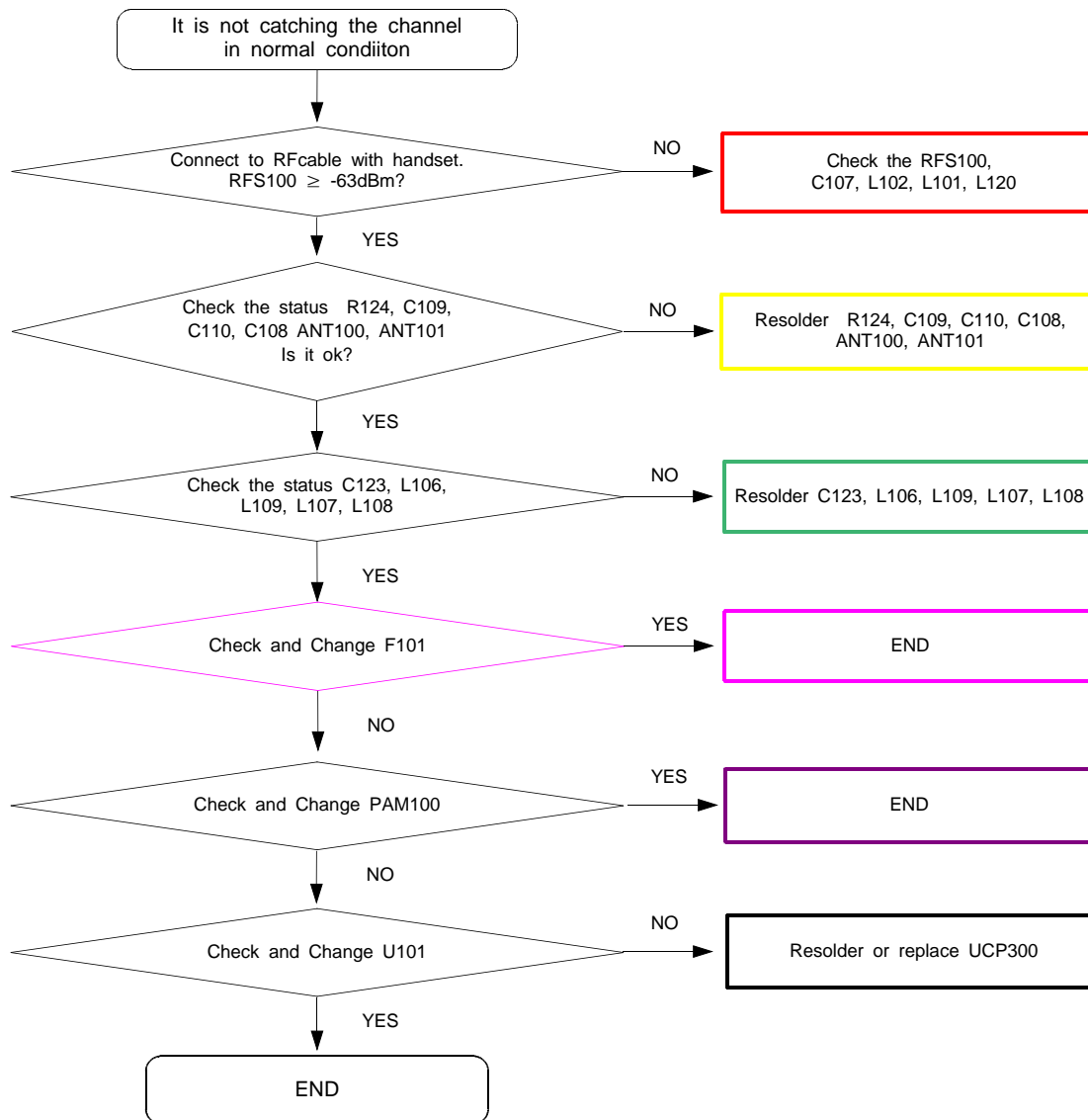
※ After setting 8960 (EGSM / DCS)

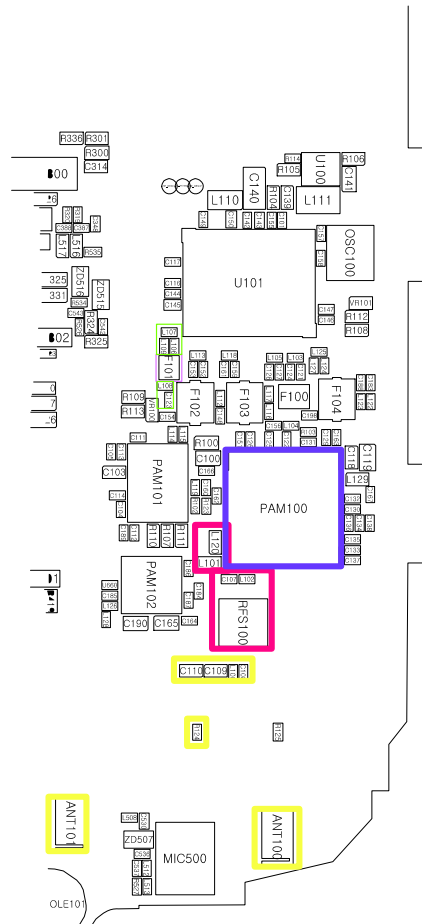
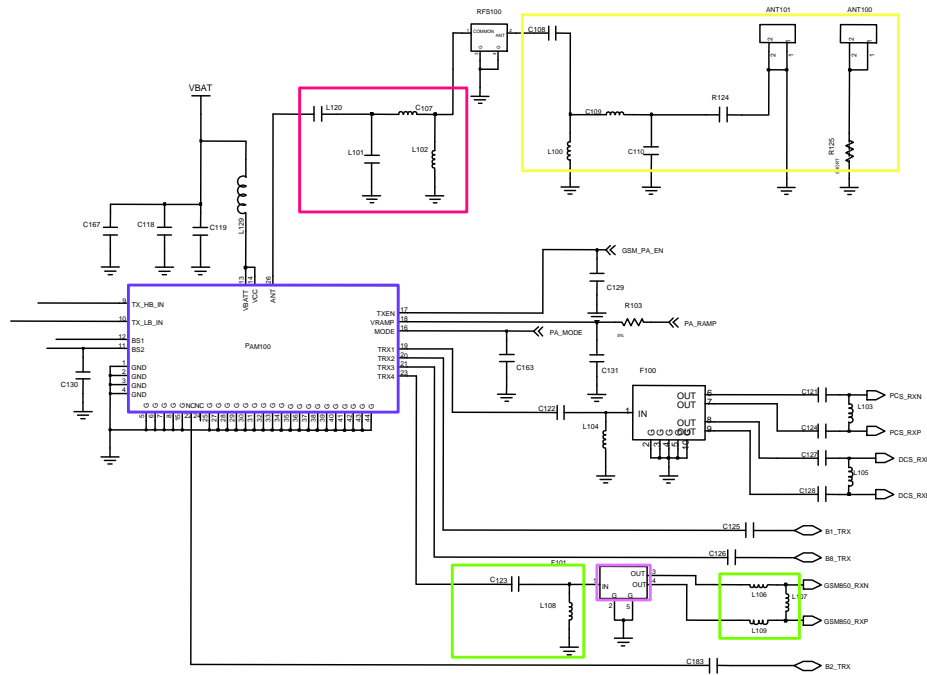
1. After setting, prepare the call setup Display
2. Using an Originate Call, make a call.
3. Confirm the display "connected"
4. start the measuring

※ 8960 & spectrum analyzer (down & up at picture)

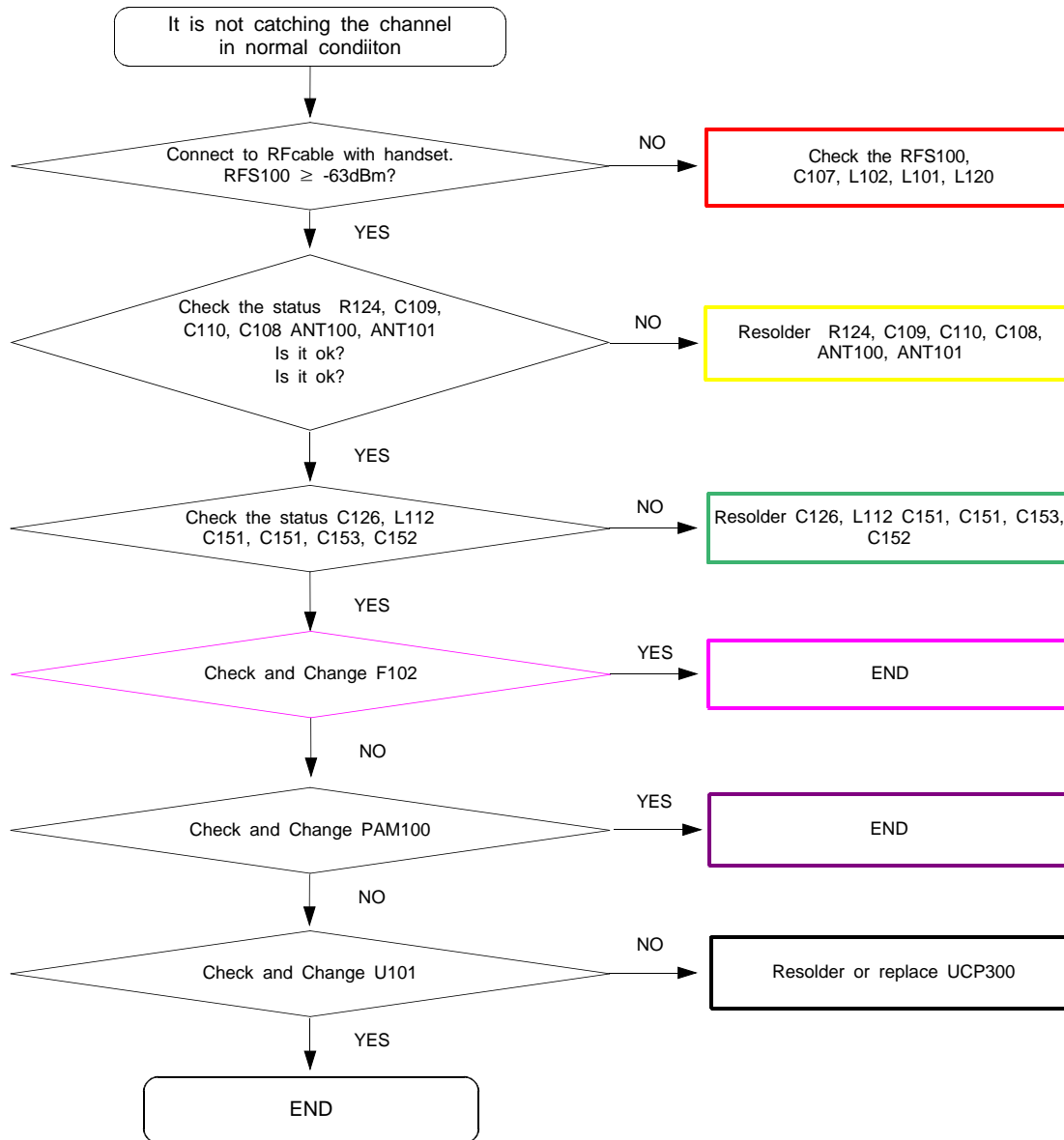
- spectrum analyzer : testing method = the way using an Oscilloscope
- 8960 : connect using RF Cable between 8960 & RF Connector in board.

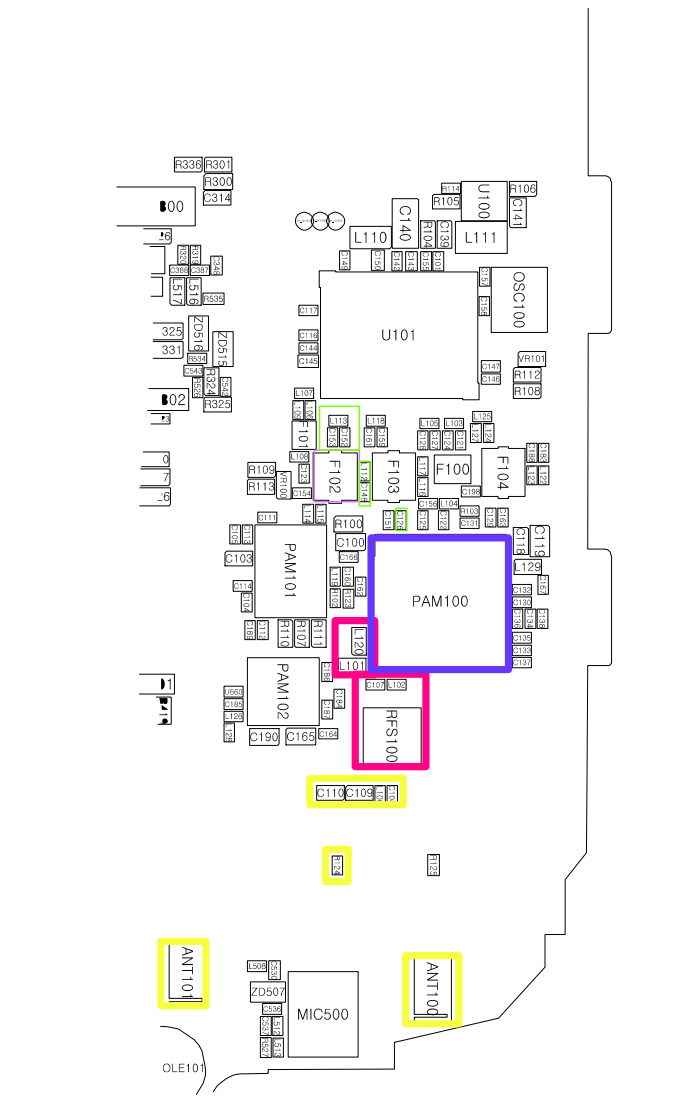
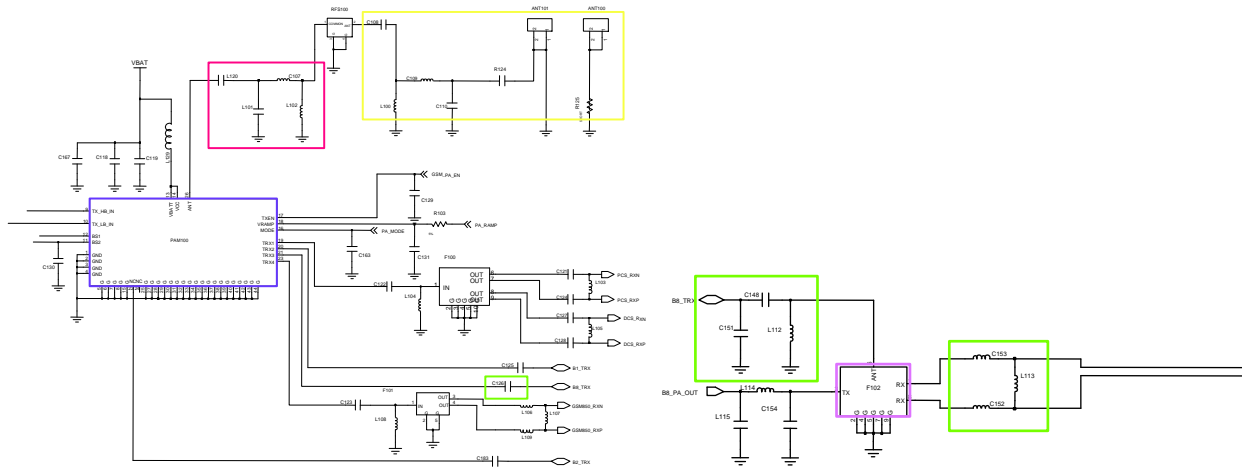
8-5-1. GSM 850 Rx



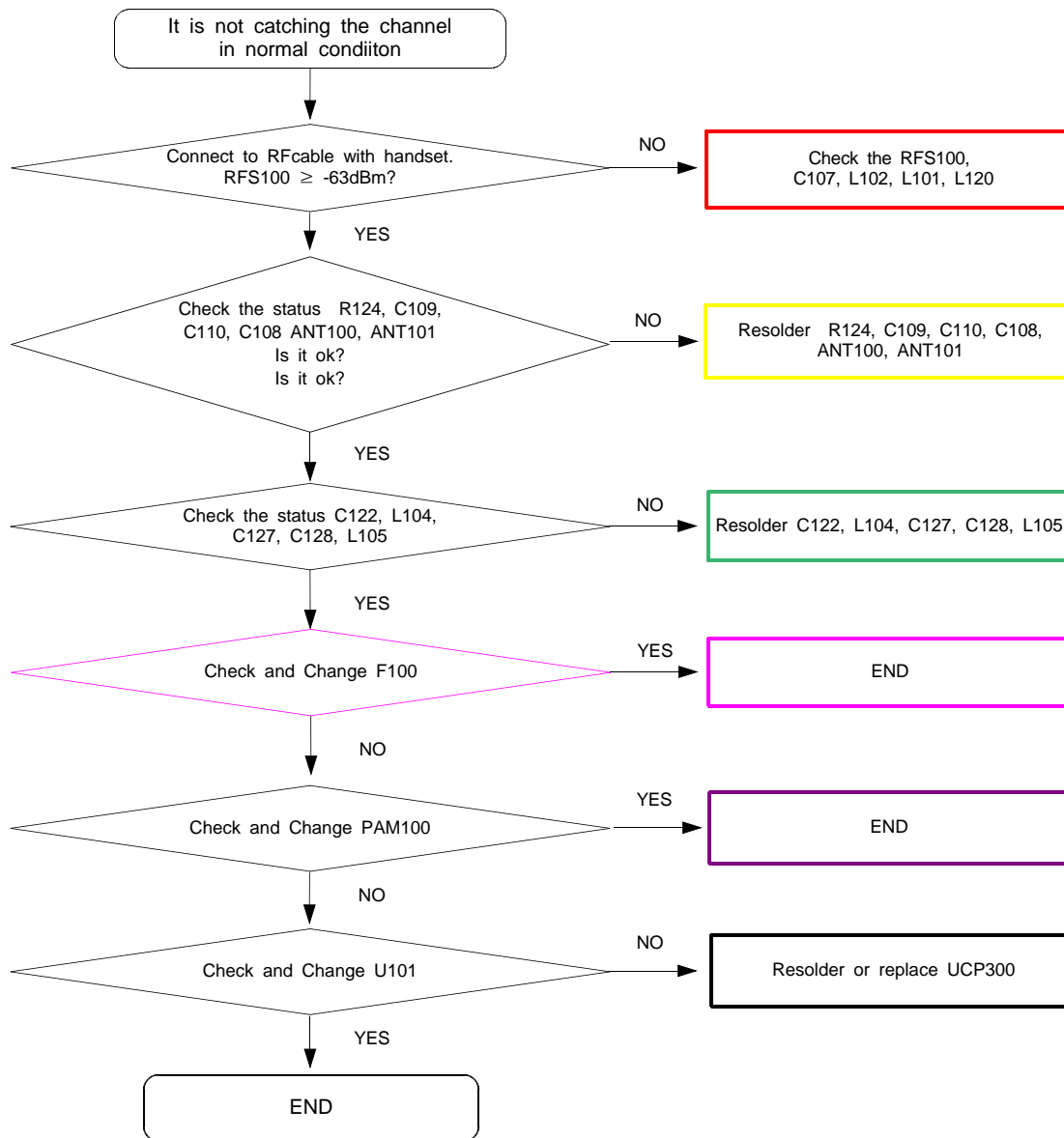


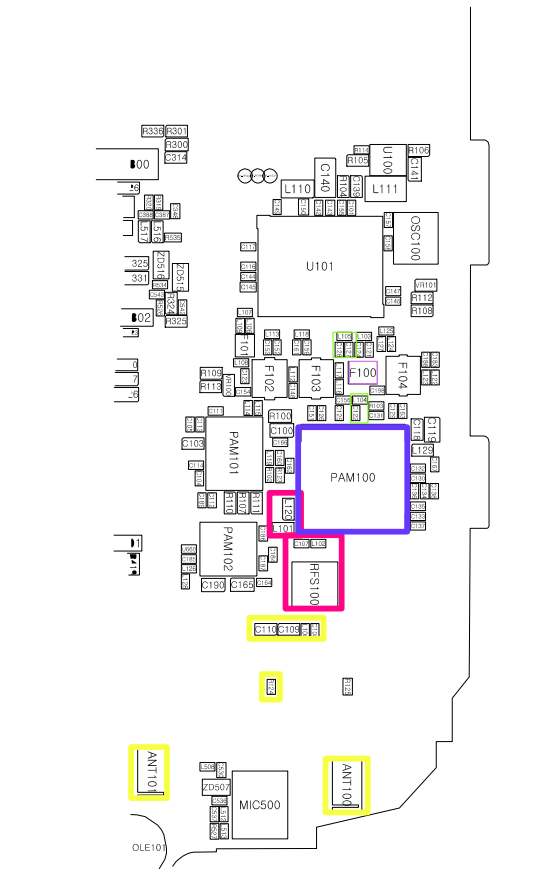
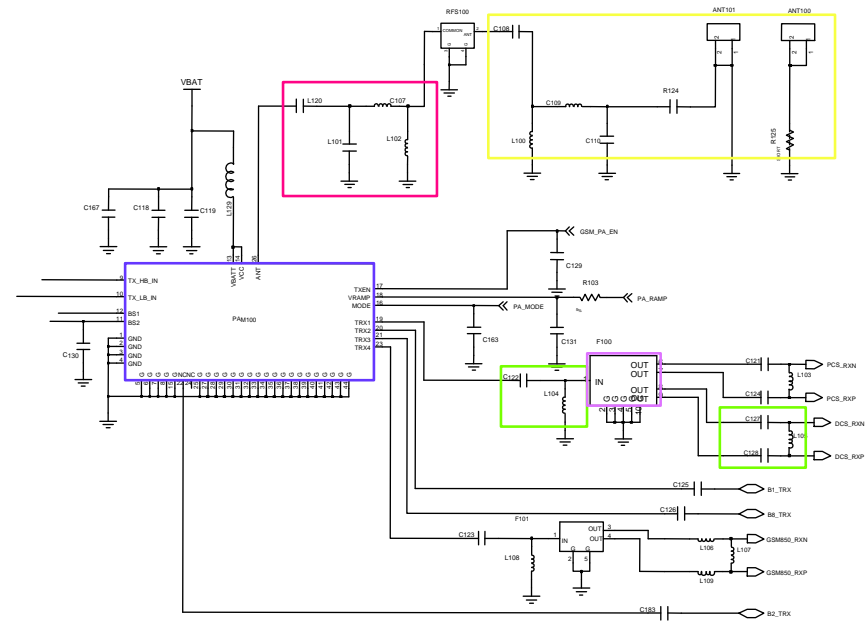
8-5-2. GSM 900/ WCDMA Band8 (900) Rx



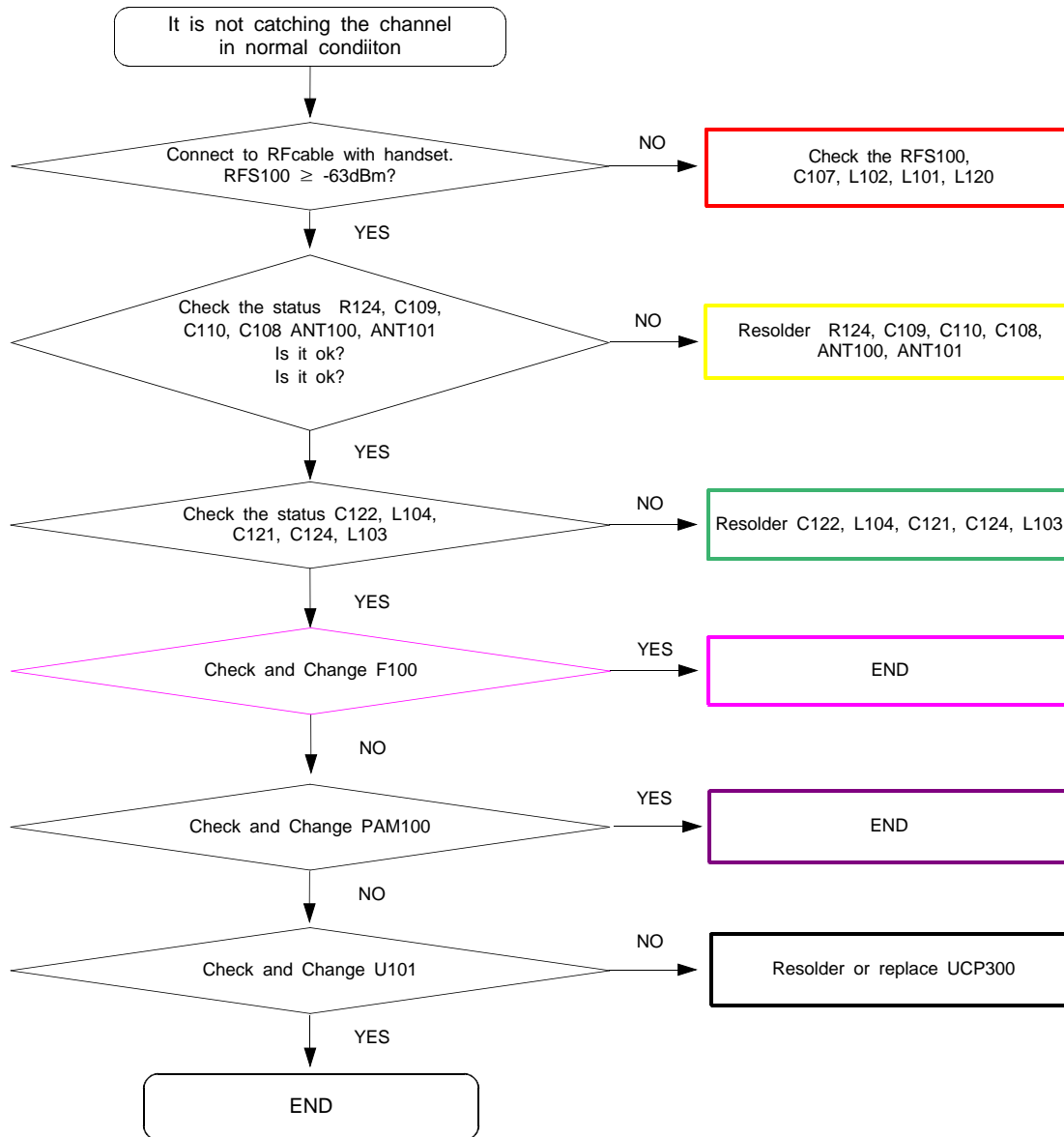


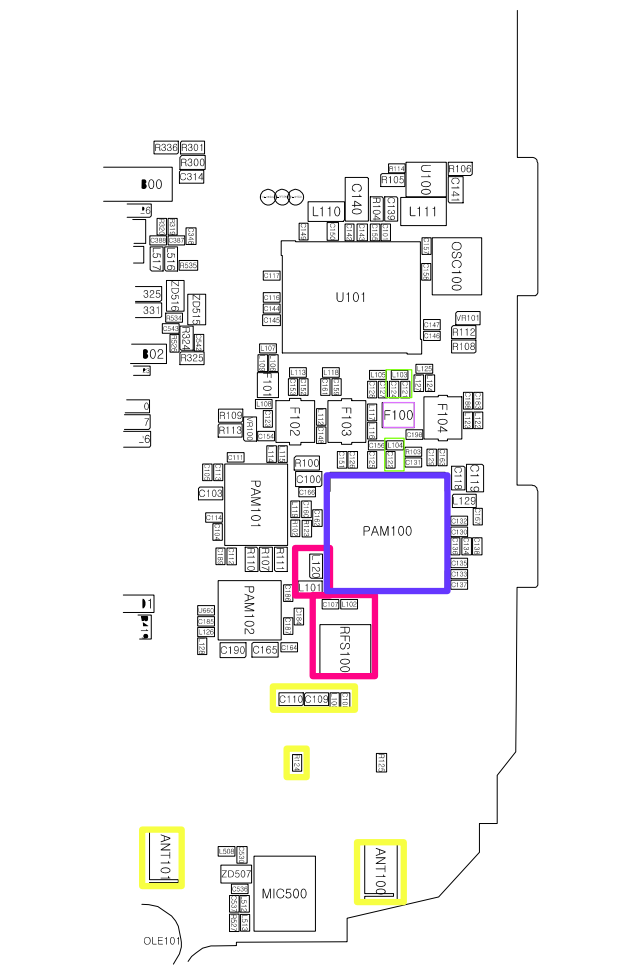
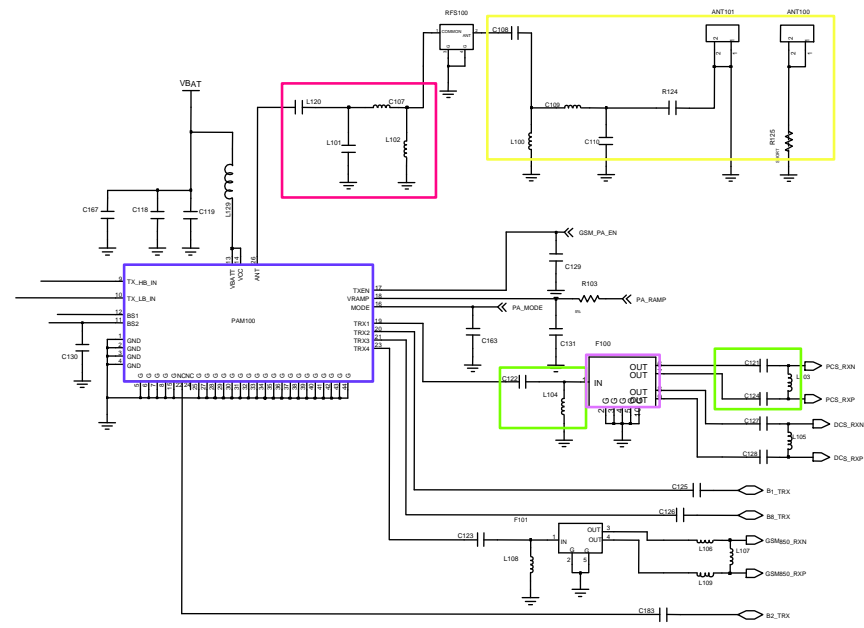
8-5-3. DCS1800 Rx



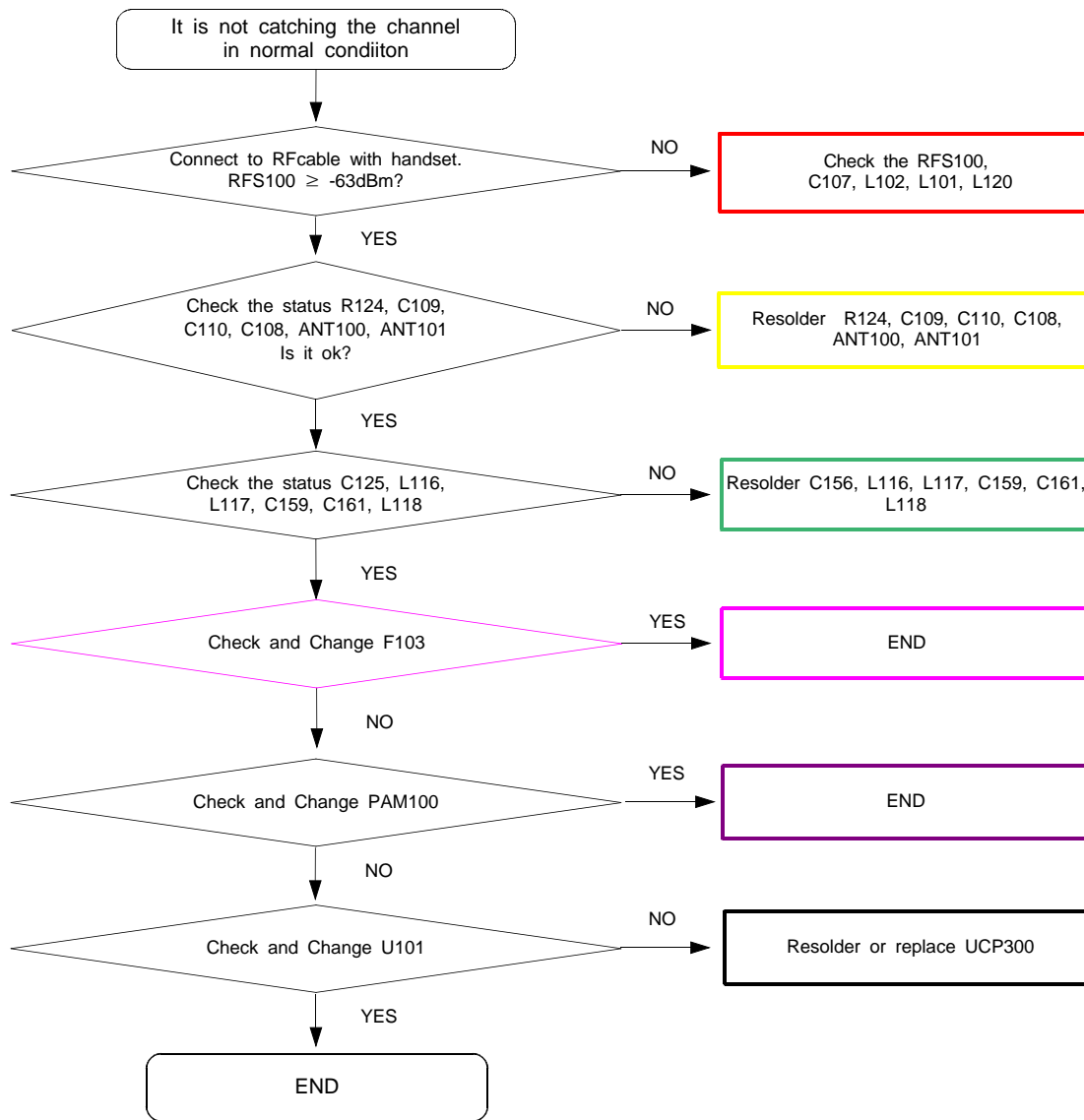


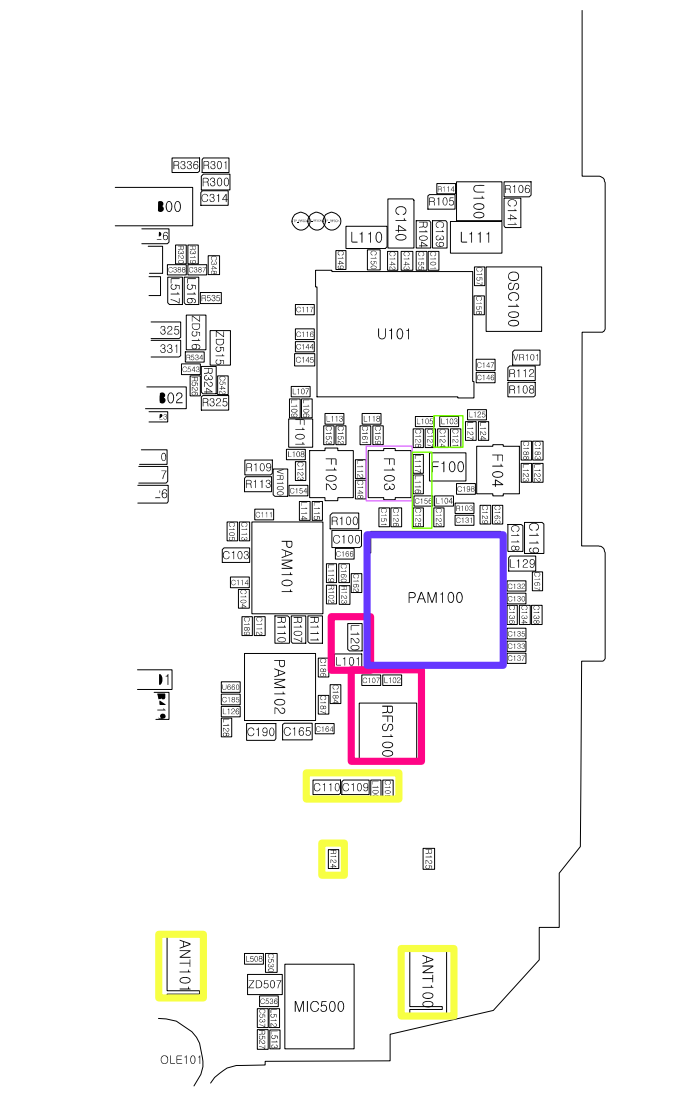
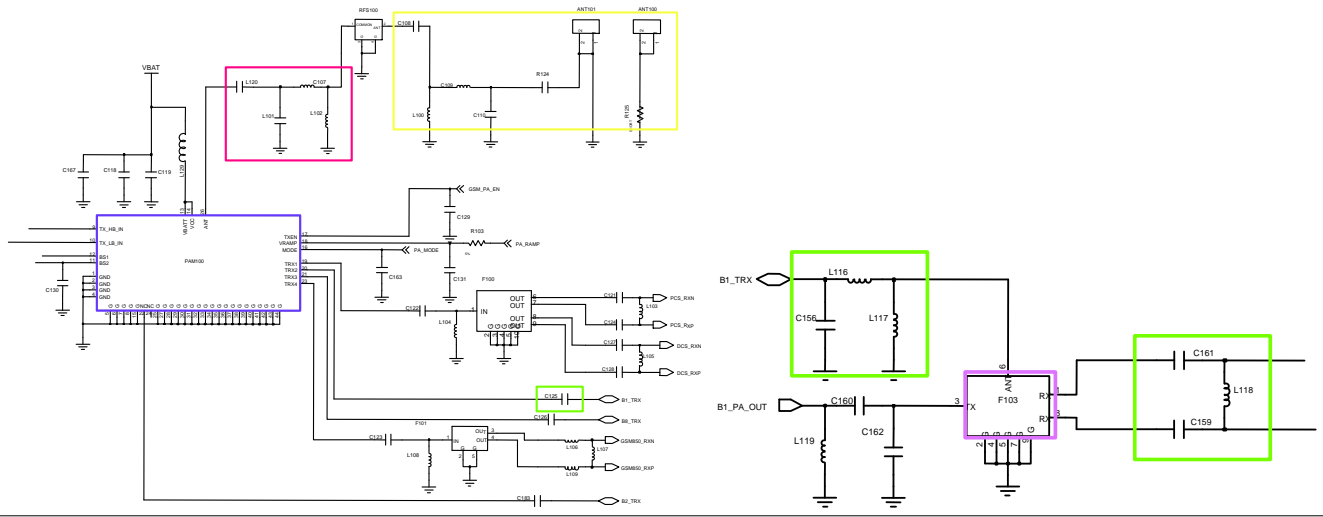
8-5-4. PCS1900 Rx



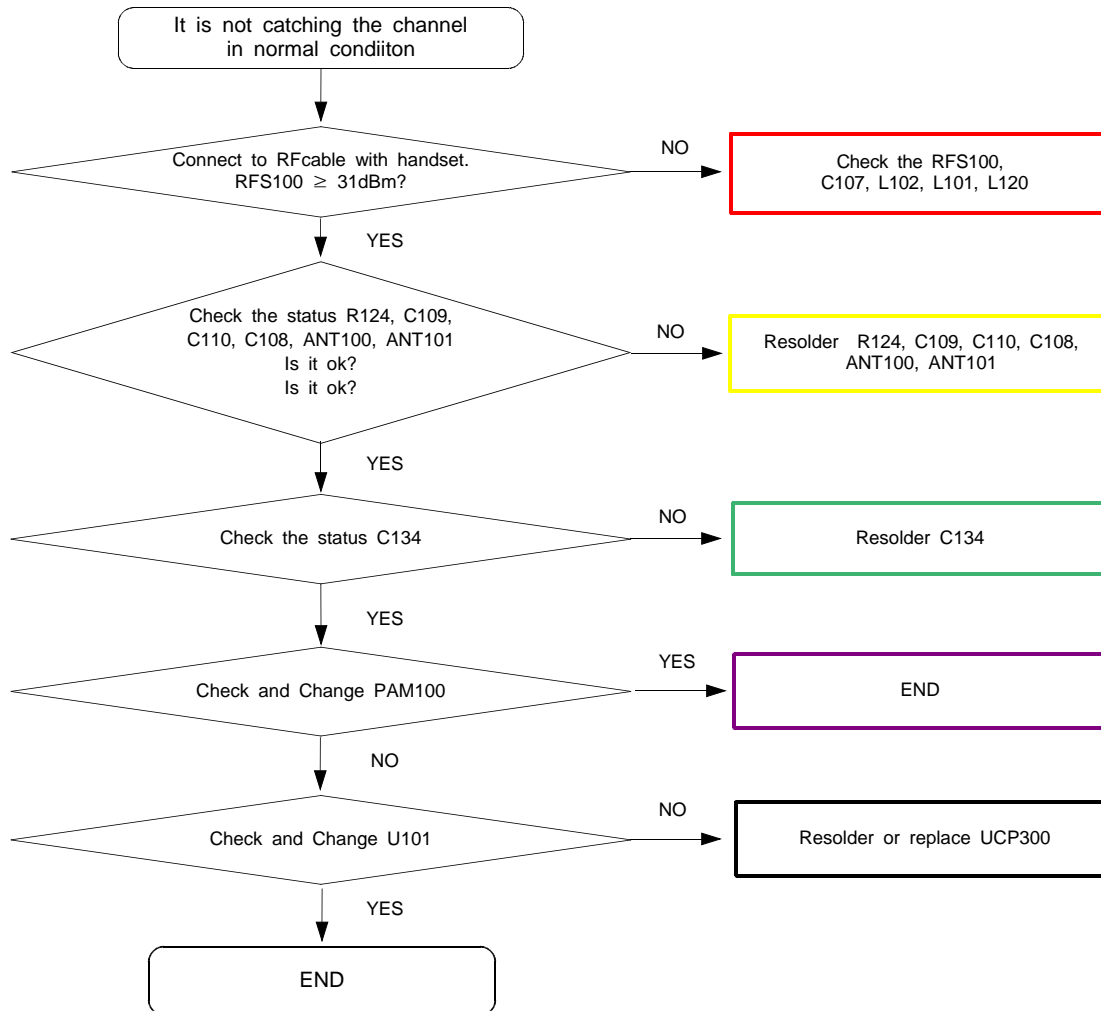


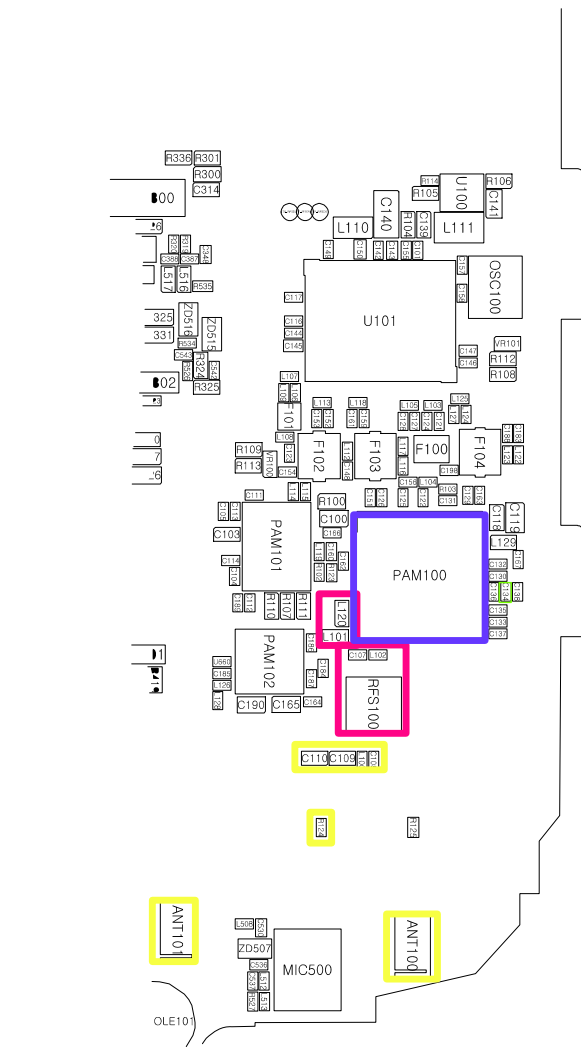
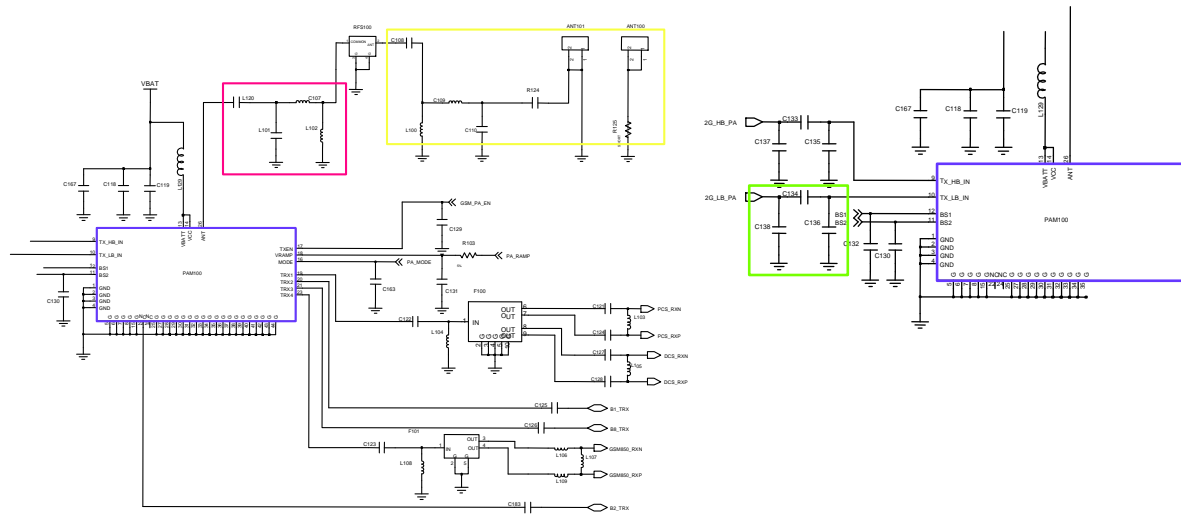
8-5-5. WCDMA Band1 (2100) Rx



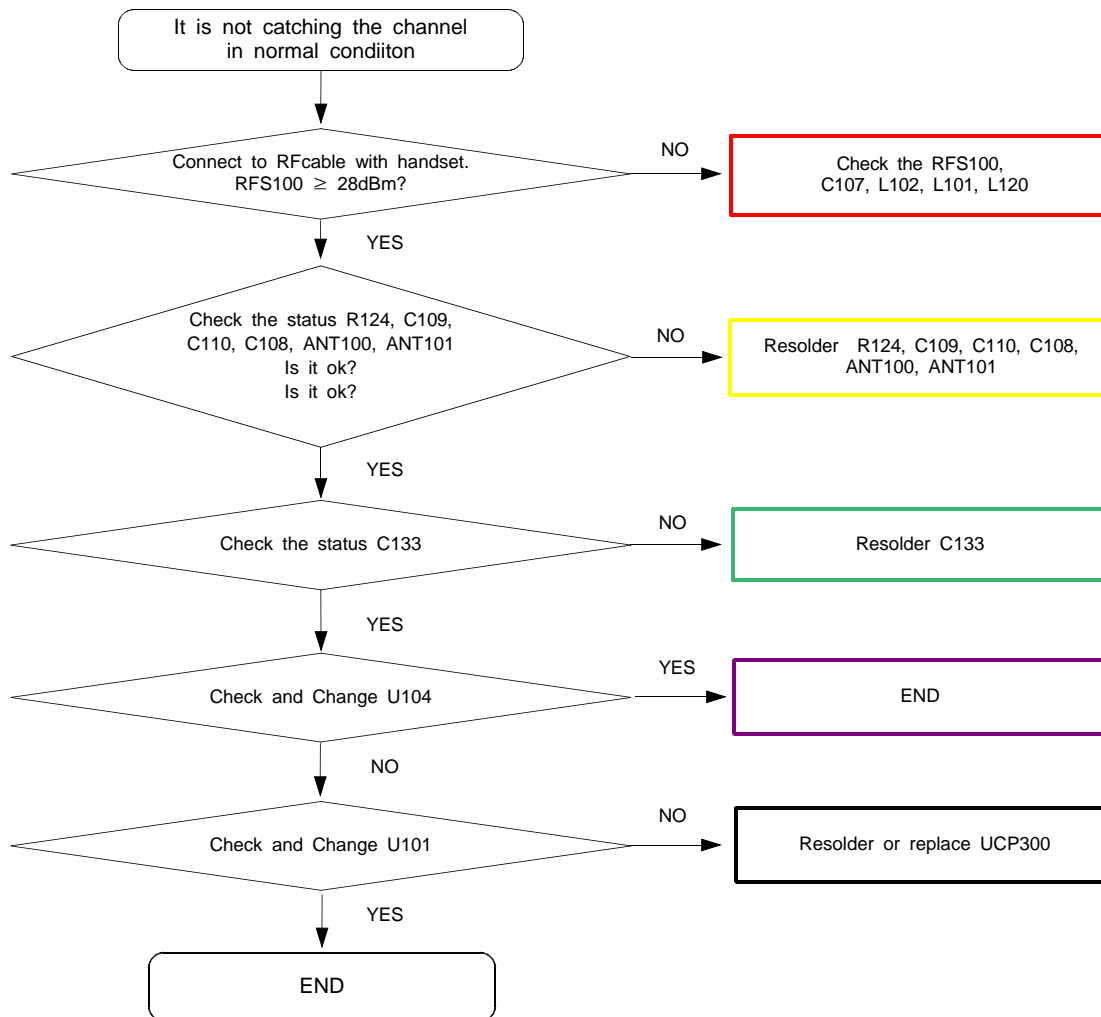


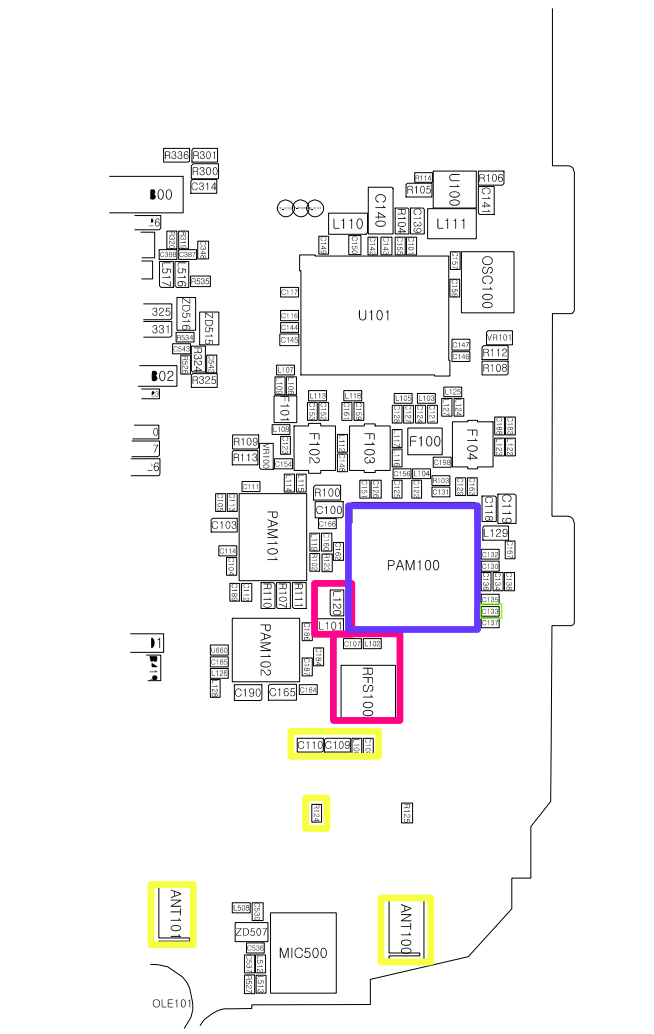
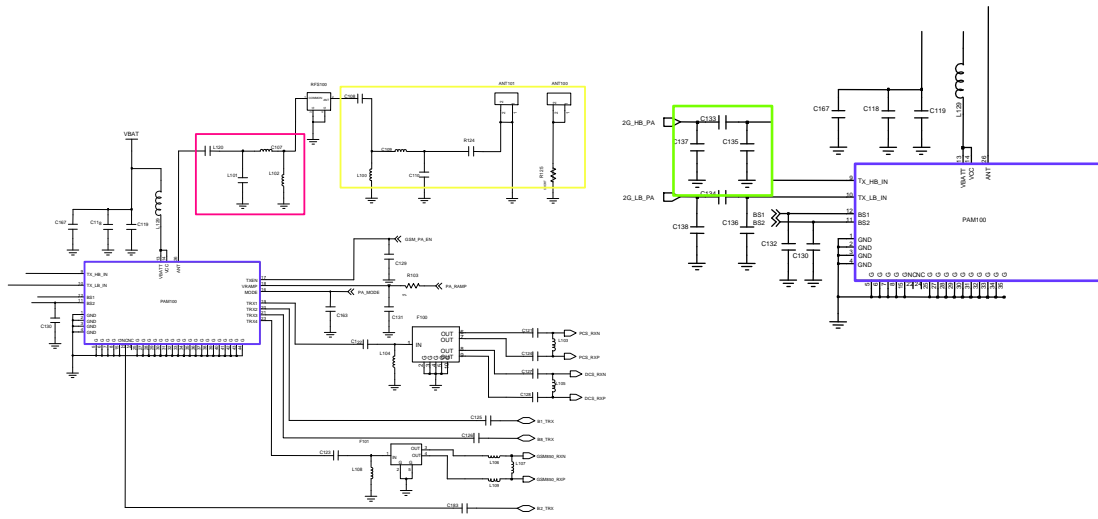
8-5-6. GSM 850 / 900 Tx



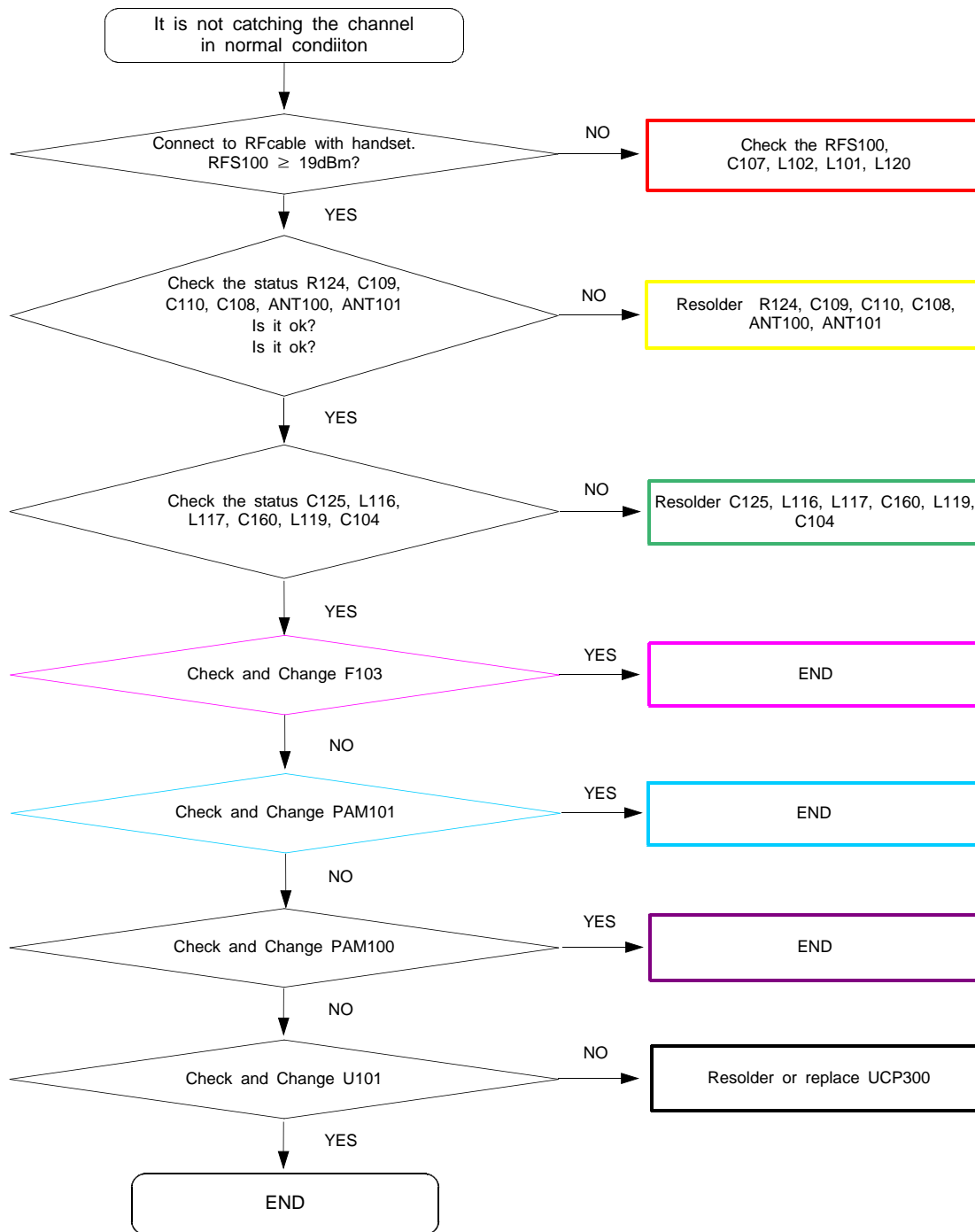


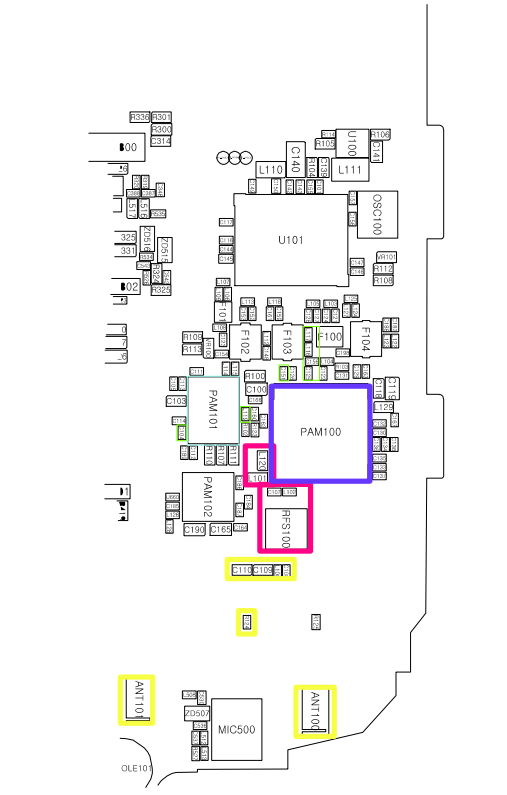
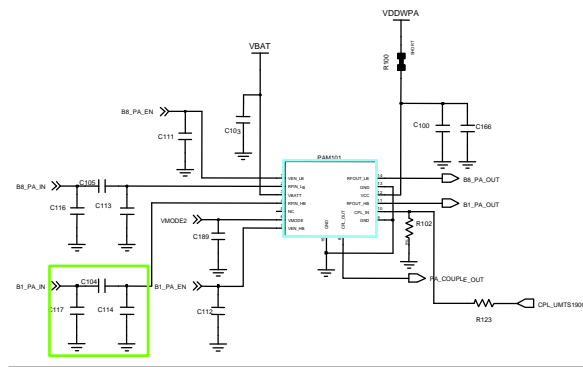
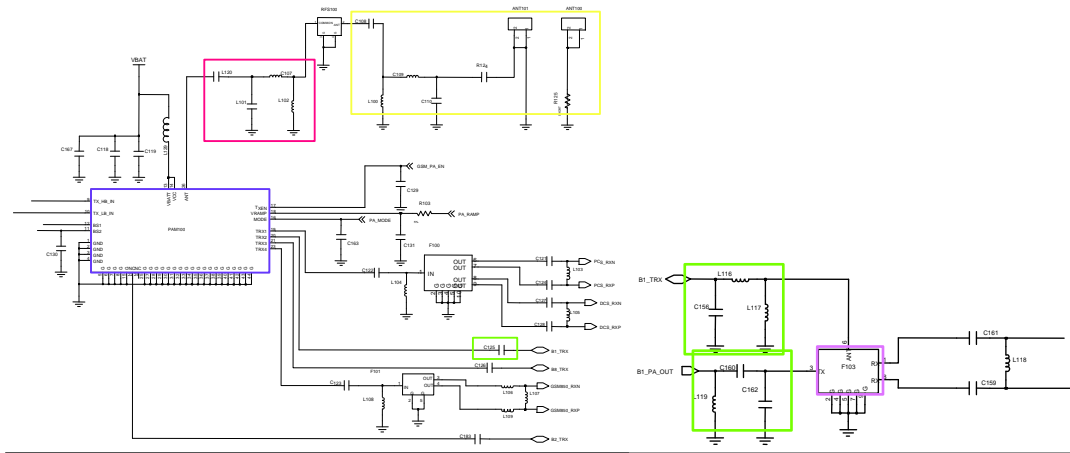
8-5-7. GSM 1800 / 1900 Tx



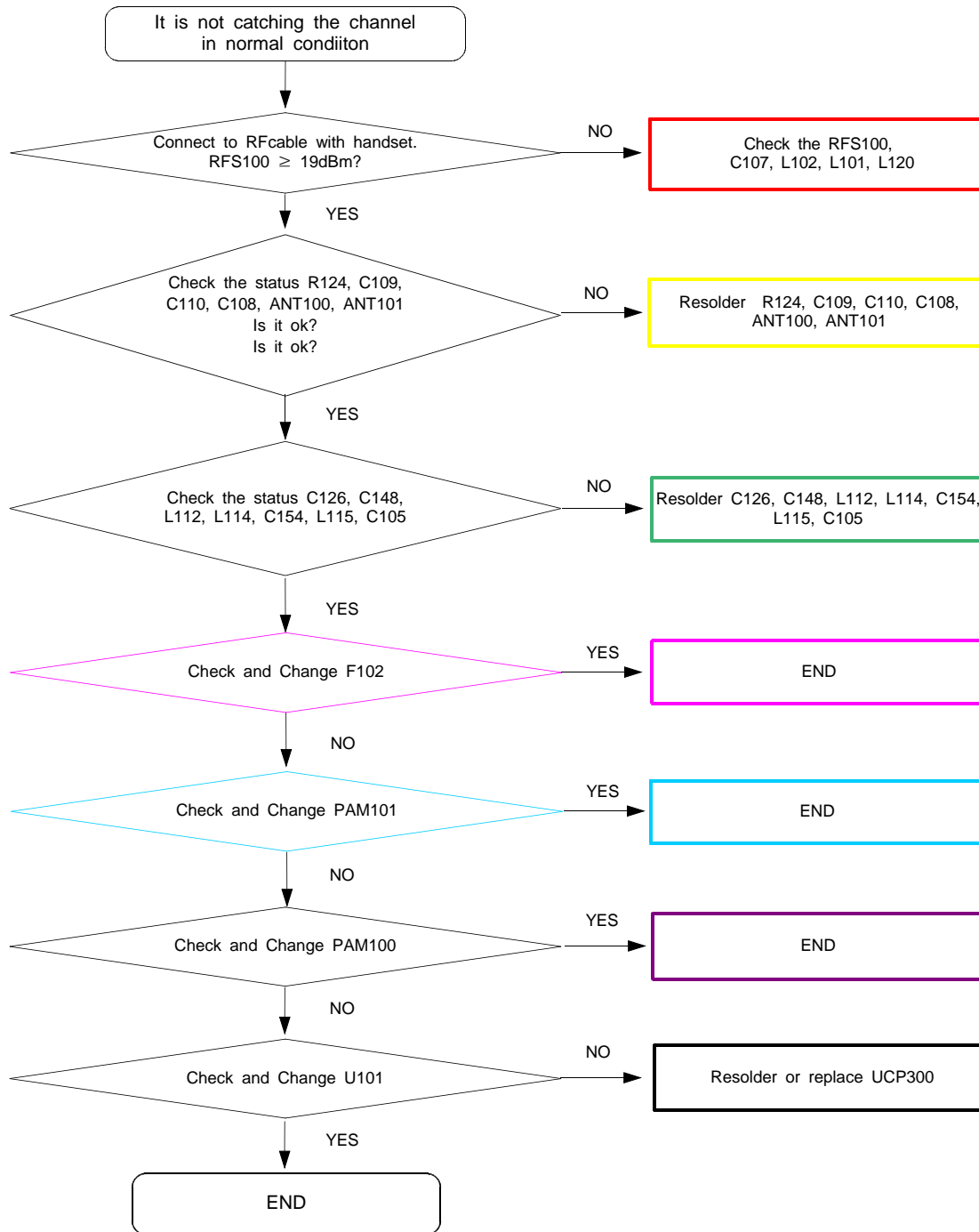


8-5-8. WCDMA Band1 (2100) Tx

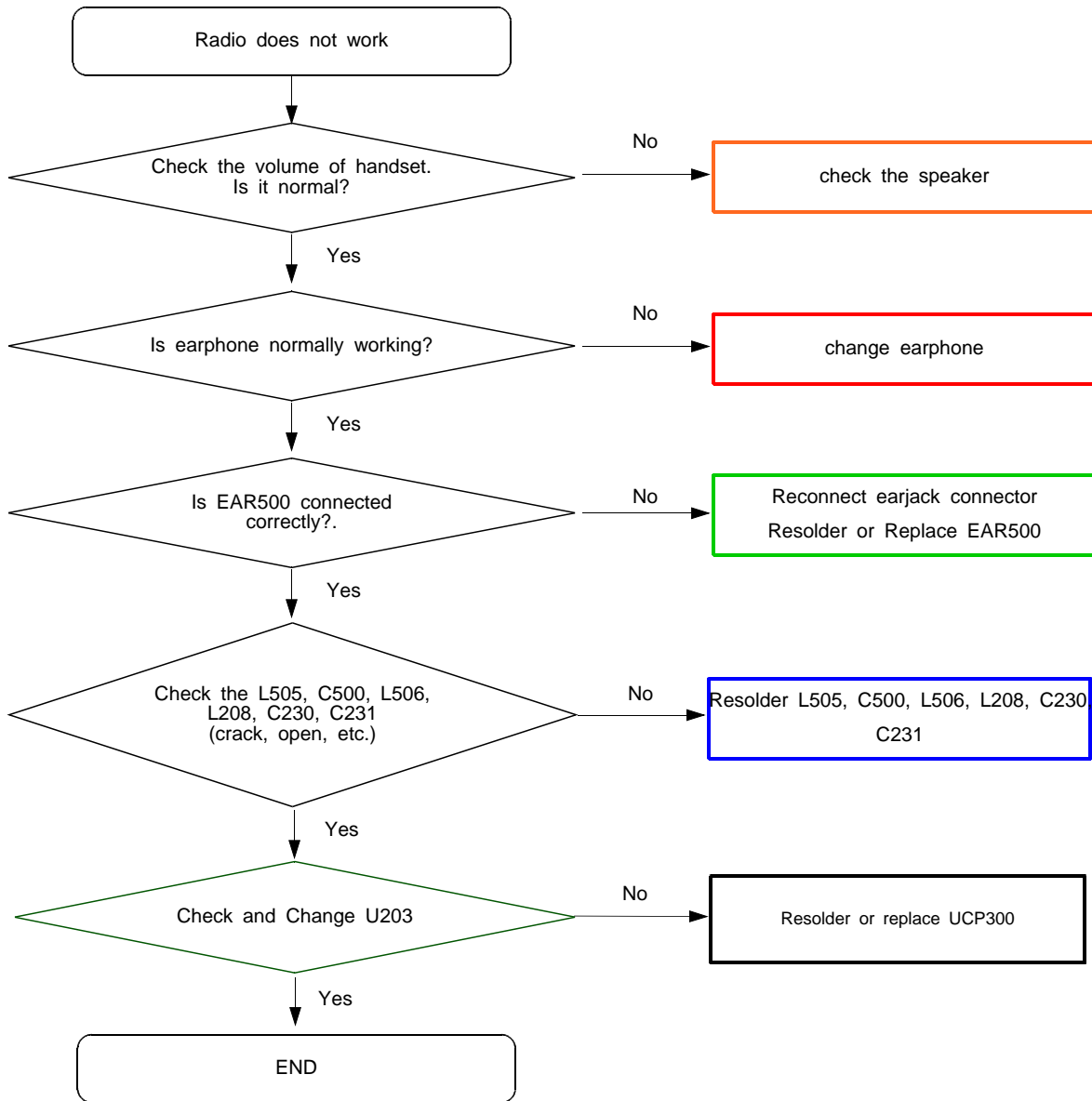


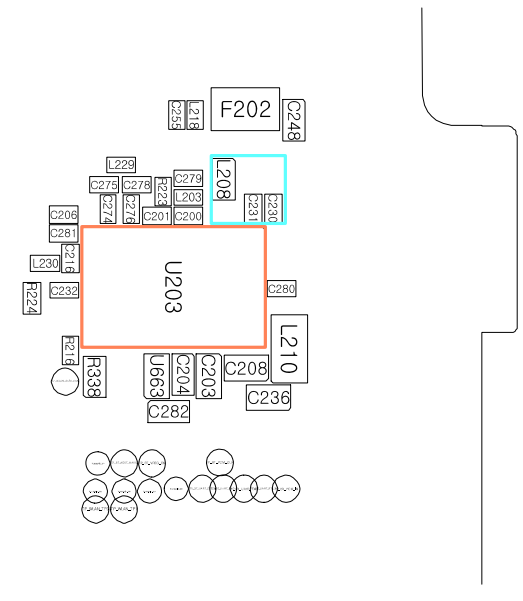
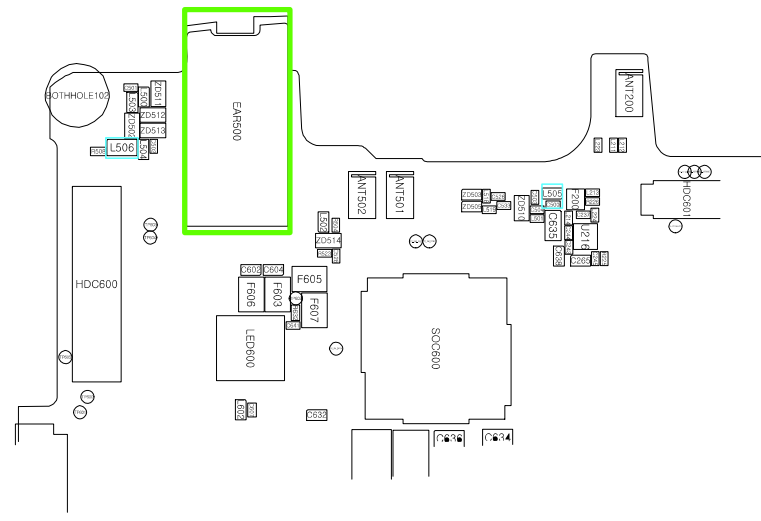
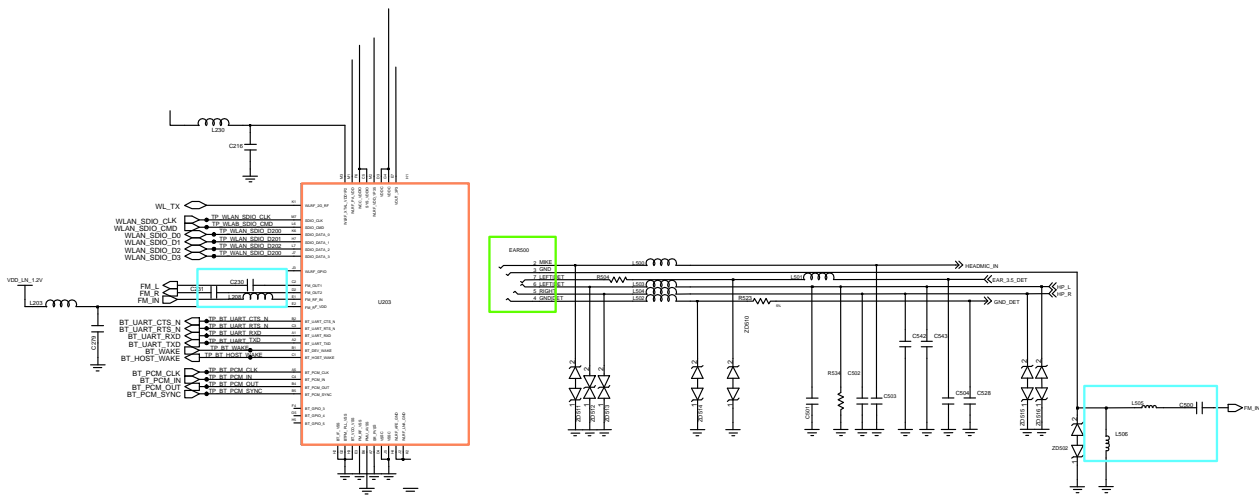


8-5-9. WCDMA Band8 (900) Tx

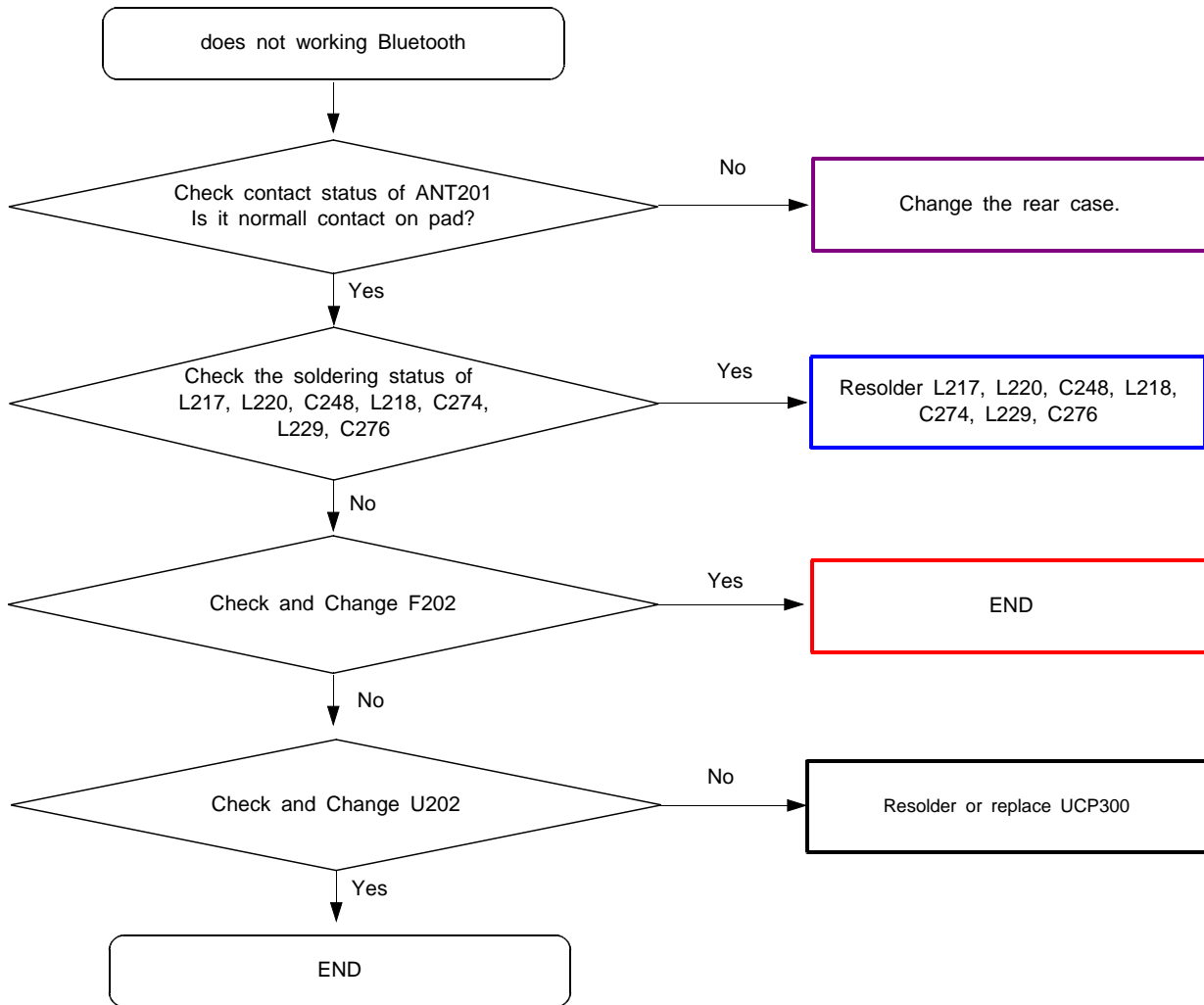


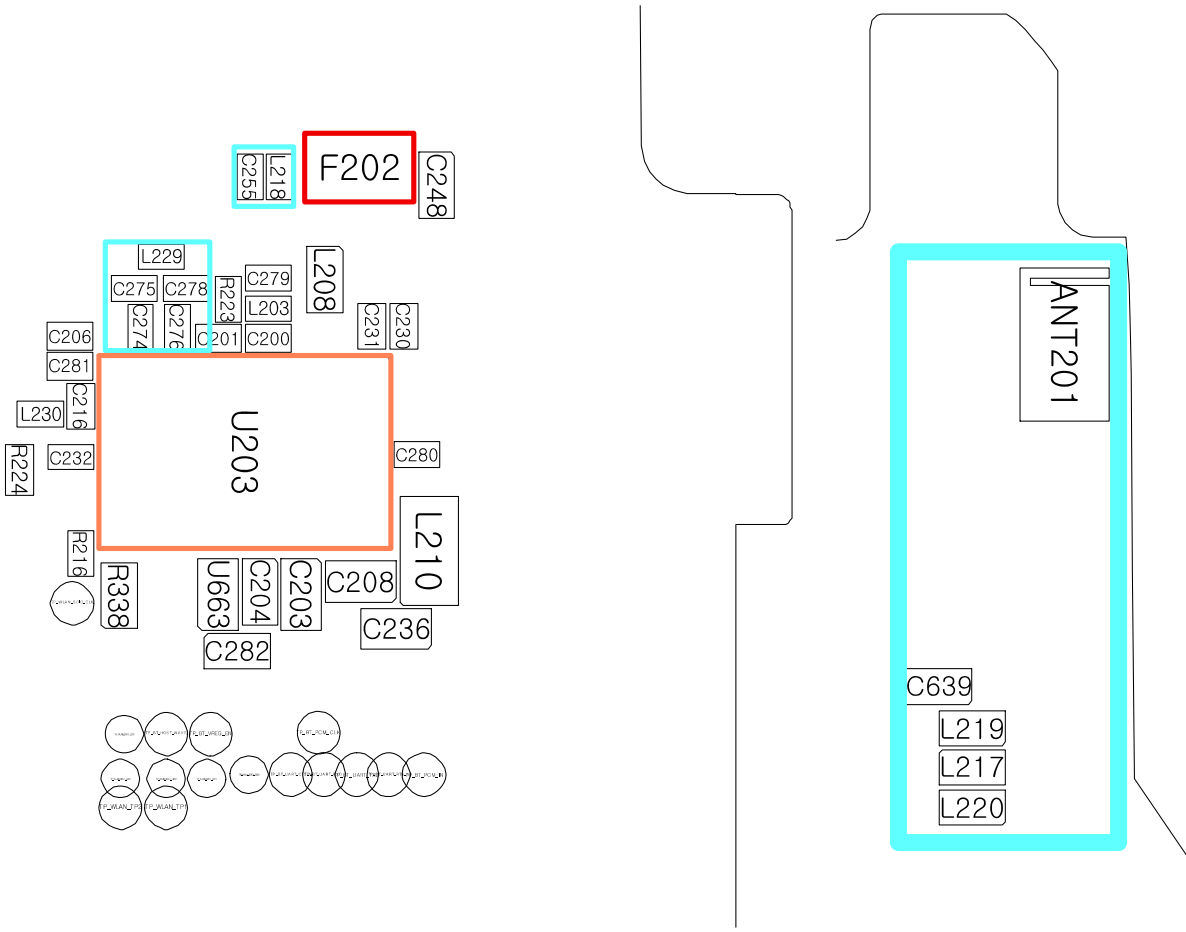
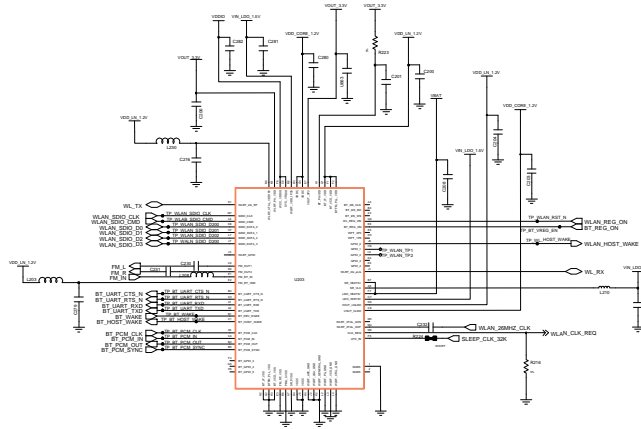
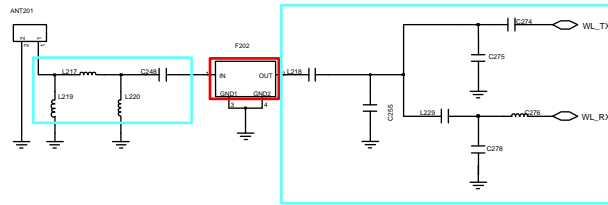
8-5-10. FM RADIO



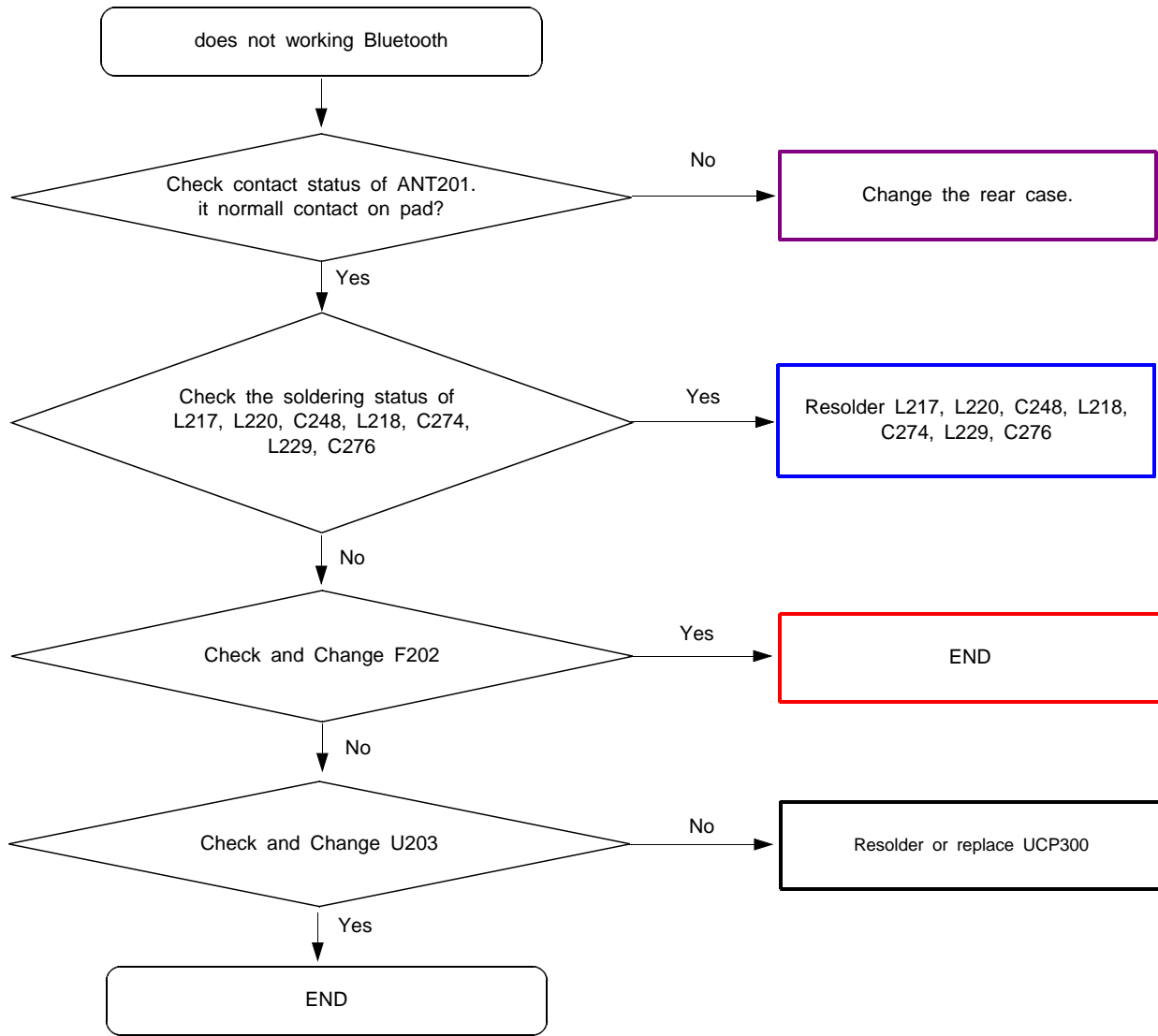


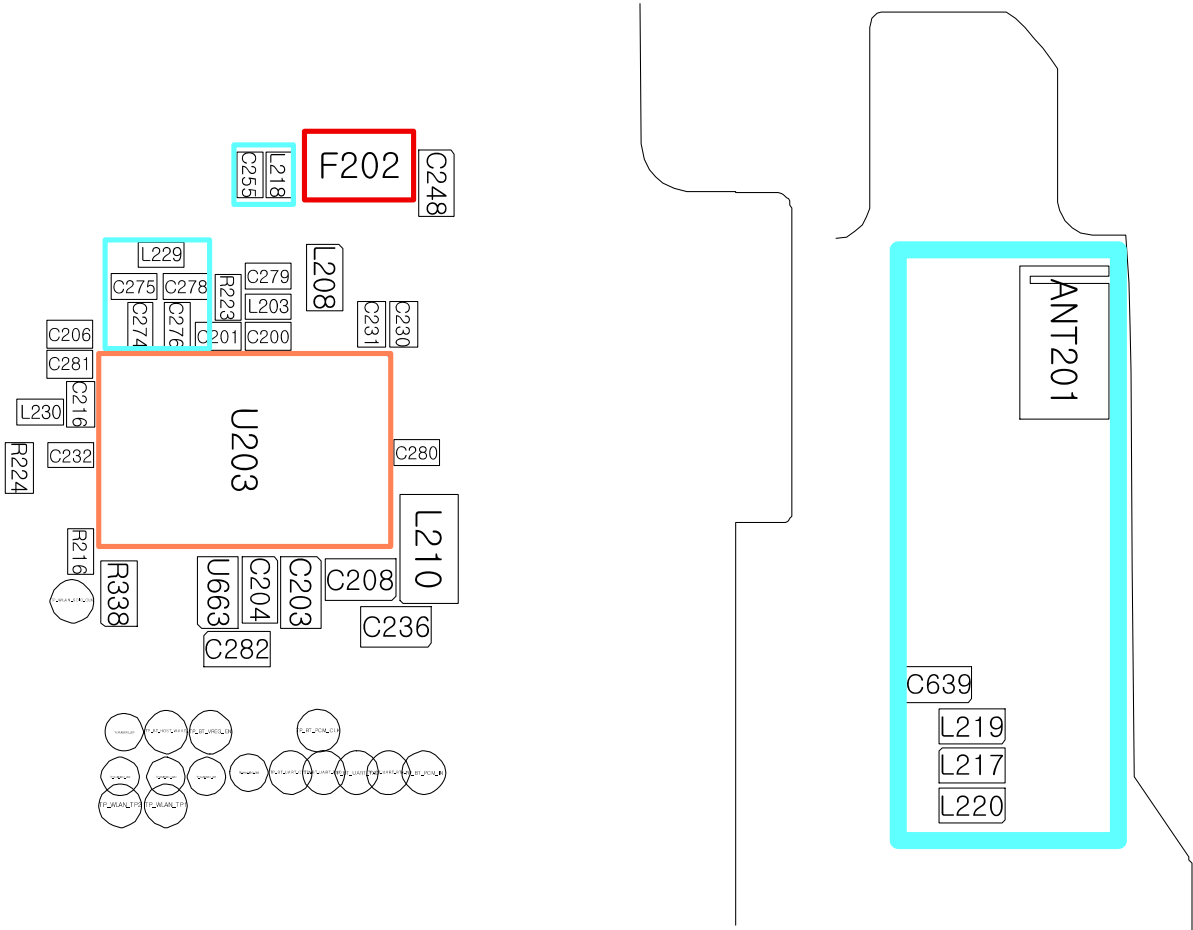
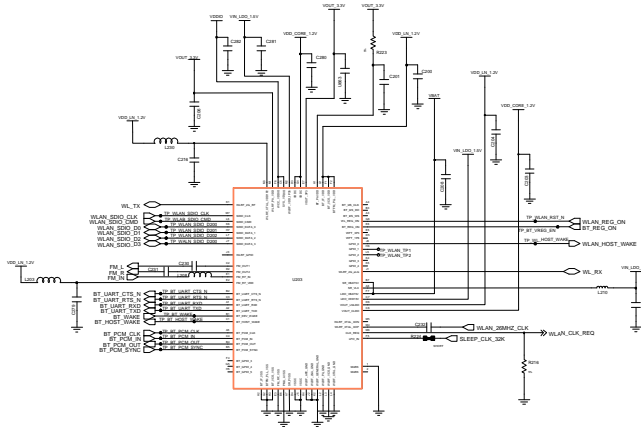
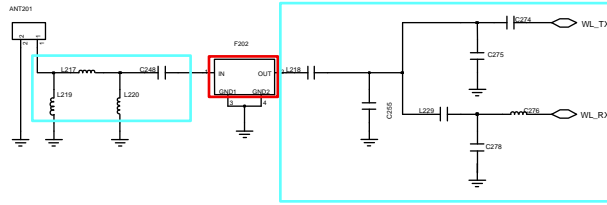
8-5-11. Bluetooth



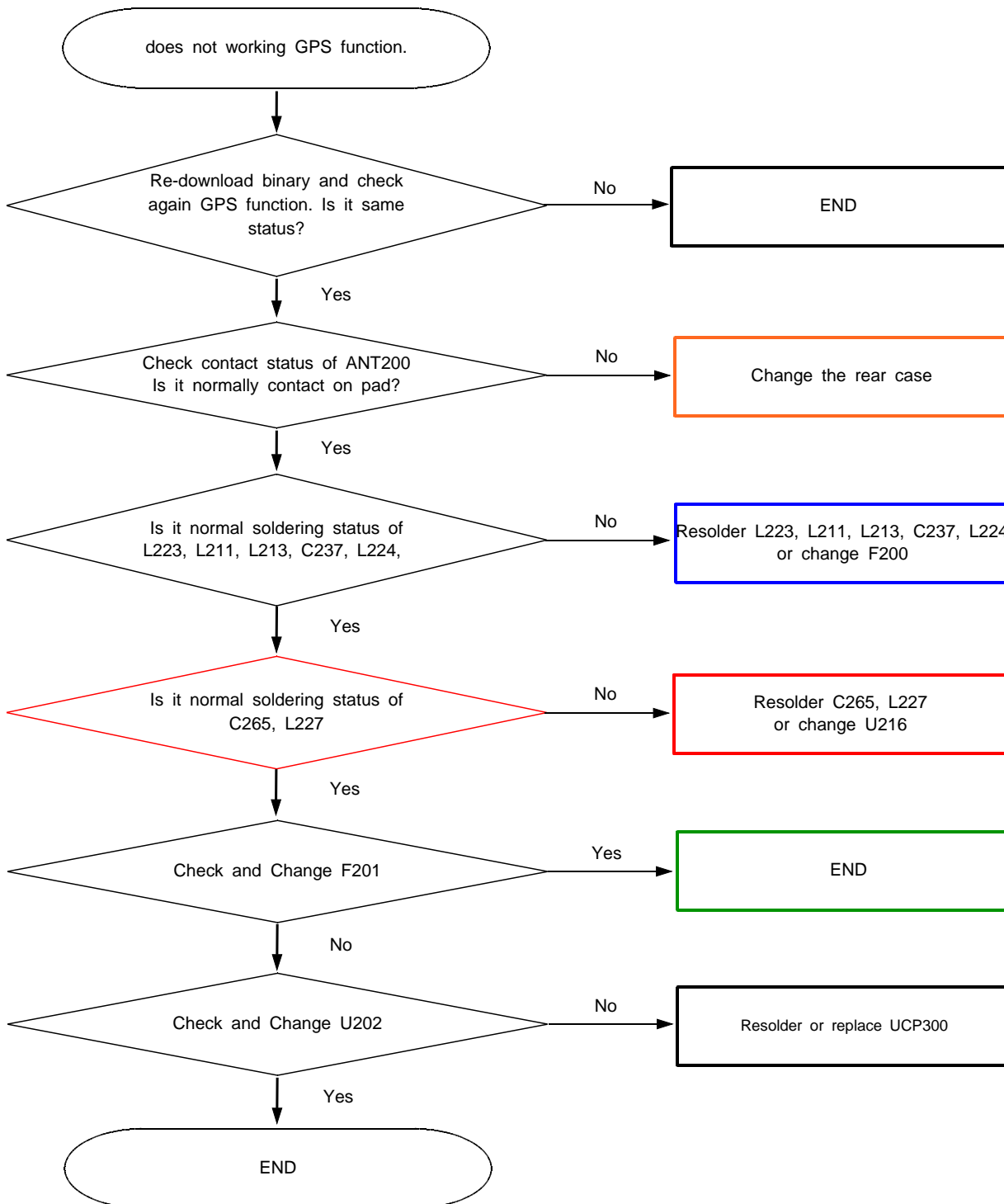


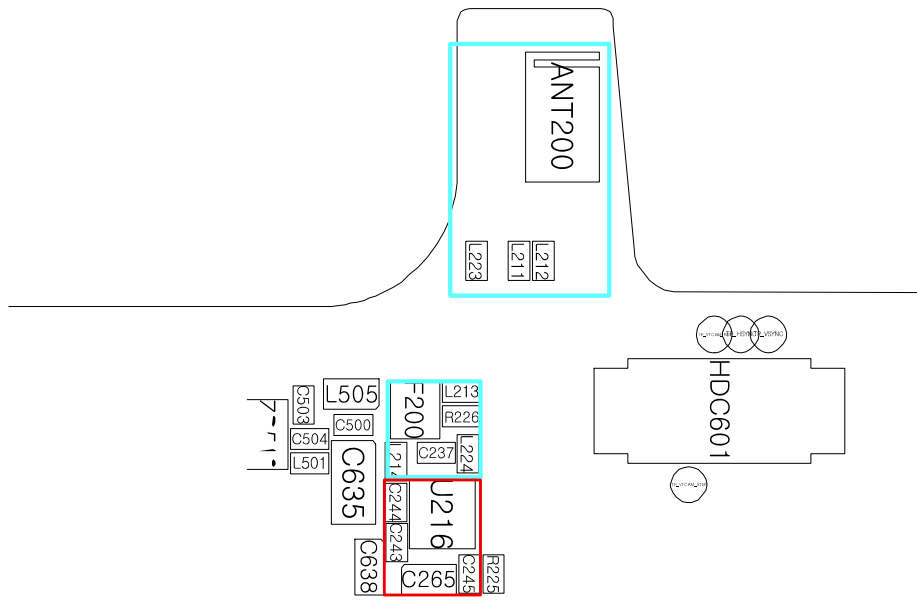
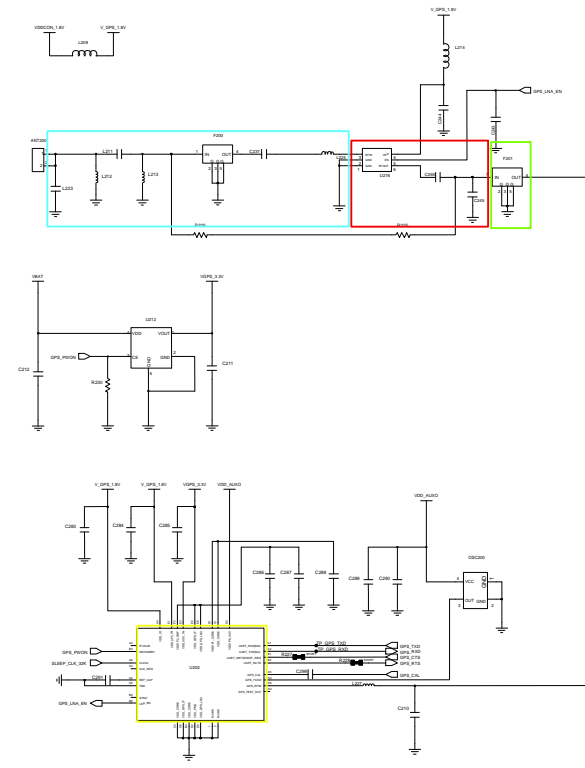
8-5-12. WiFi

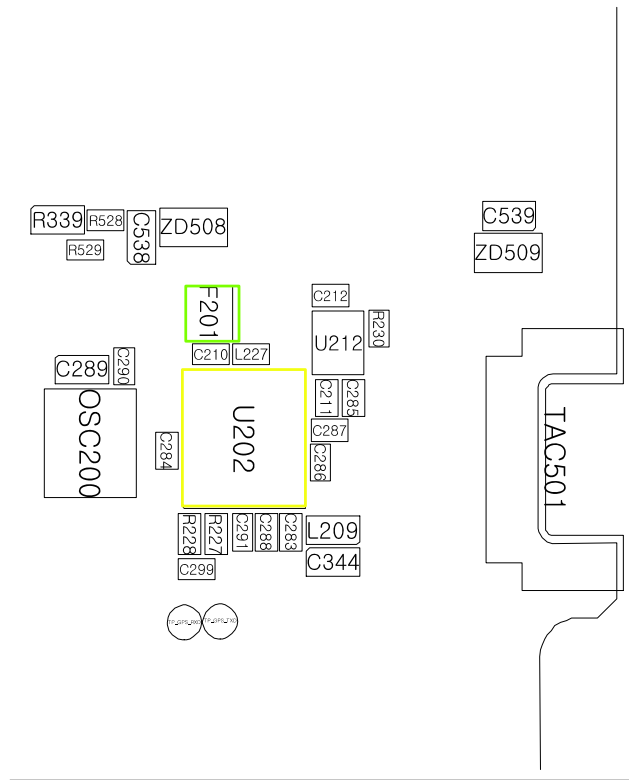




8-5-13. GPS







8-6. Service Schematics

- NC Point(Top View)

● : NC

UME300

	1	2	3	4	5	6	7	8	9	10
A	○	○	○	○	○	○	○	○	○	○
B	○	○	○	○	○	○	○	○	○	○
C	○	○	○	○	○	○				
D	●	●	●	●	●	●				
E	○	●	●		○	○	○	○	○	○
F	○	○	●		○	○	○	○	○	○
G	○	○	○		○	○	○	○	○	○
H	○	○	○		○	○	○	○	○	○
J	○	○	○		○	○	○	○	○	○
K	○	○	○		○	○	○	○	○	○
L	○	○	○		○	○				
M	○	●	○		○	○	○	○	○	
N	○	●	●		○	○				
P	○	●	●		○	○	○	○	○	○
R	○	○	○		○	○	○	○	○	○
T	○	○	○		○	○	○	○	○	○
U	○	○	○		○	○	○	○	○	○
V	○	○	●		○	○	○	○	○	○
W	○	●	●		○	○	○	○	○	○
Y	○	○							○	○