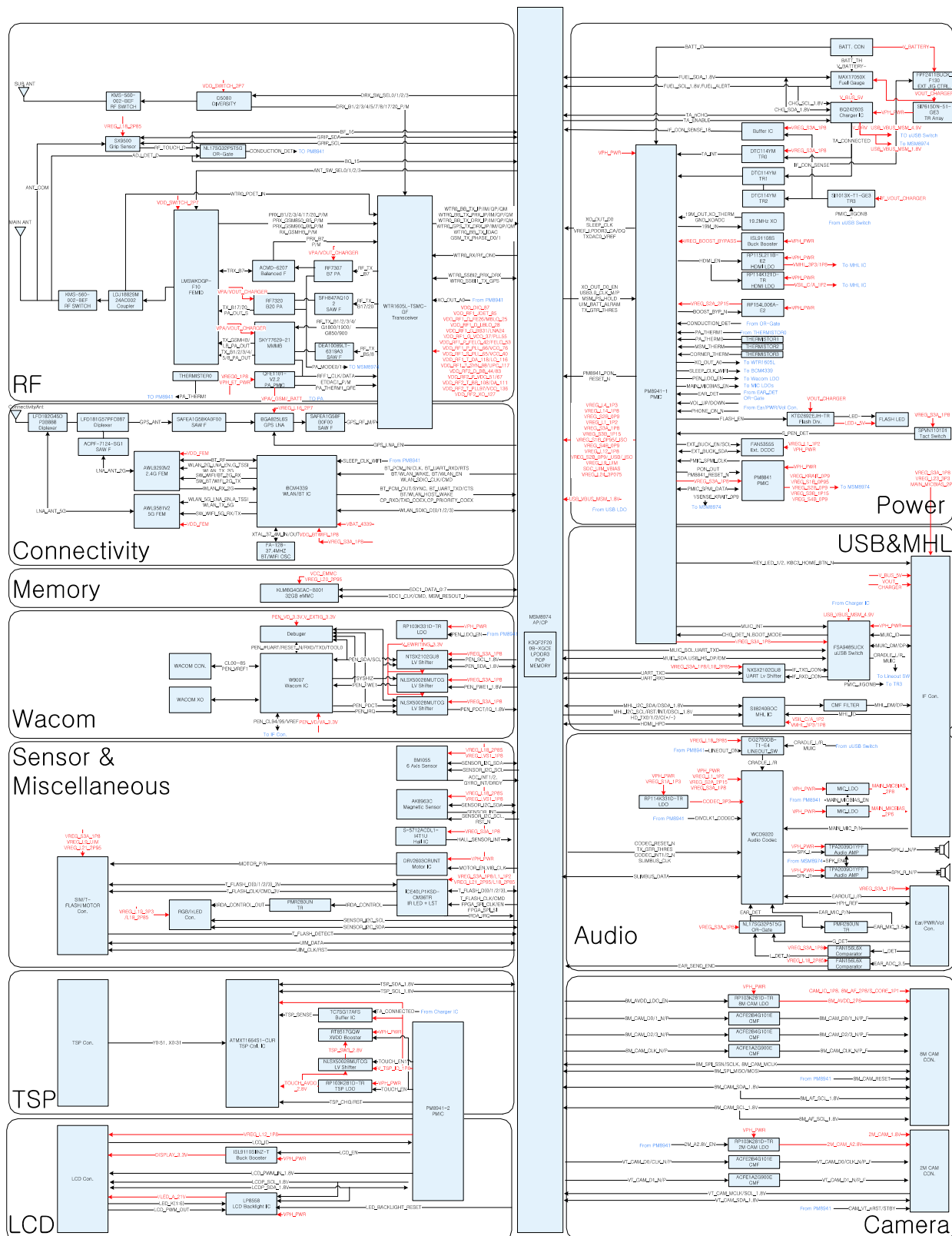


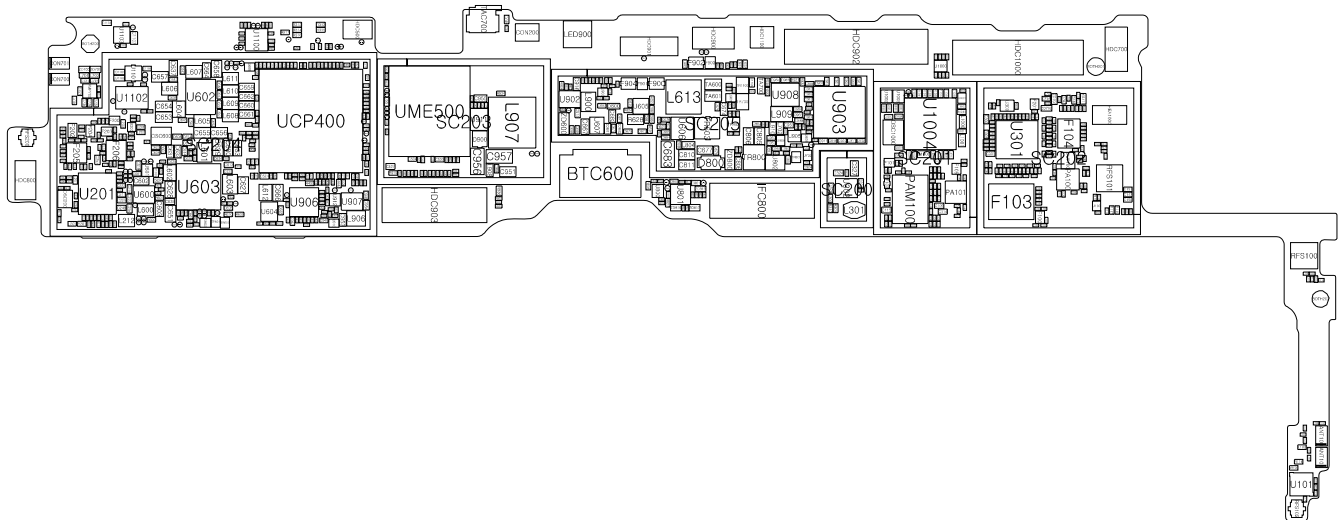
8. Level 3 Repair

8-1. Block Diagram

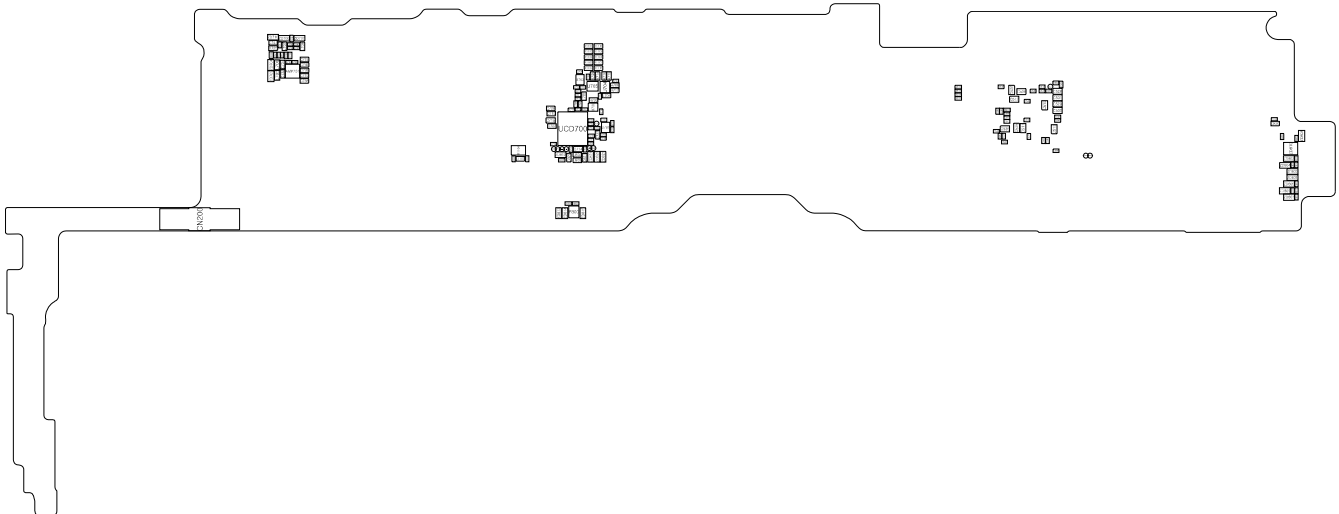


8-2. PCB Diagrams

8-2-1. Main PCB Top

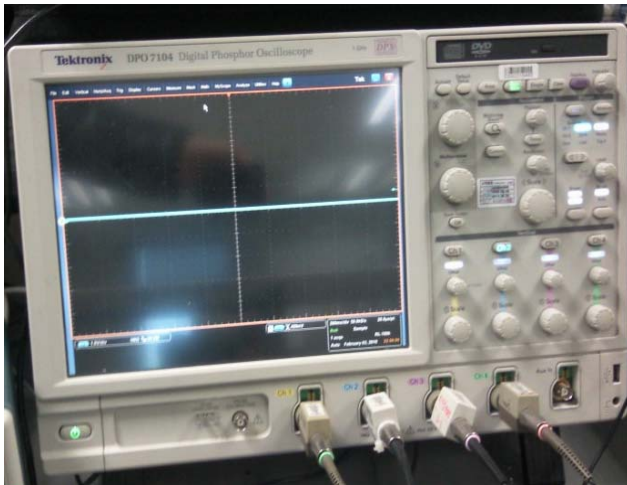


8-2-2. Bottom



8-3. Flow Chart of Troubleshooting

Equipments



↑ Oscilloscope



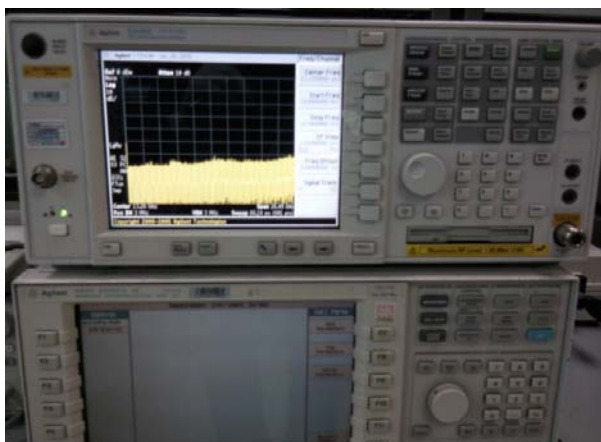
↑ Digital Multimeter



↑ Power Supply



↑ + driver, ESD Safe Tweezer

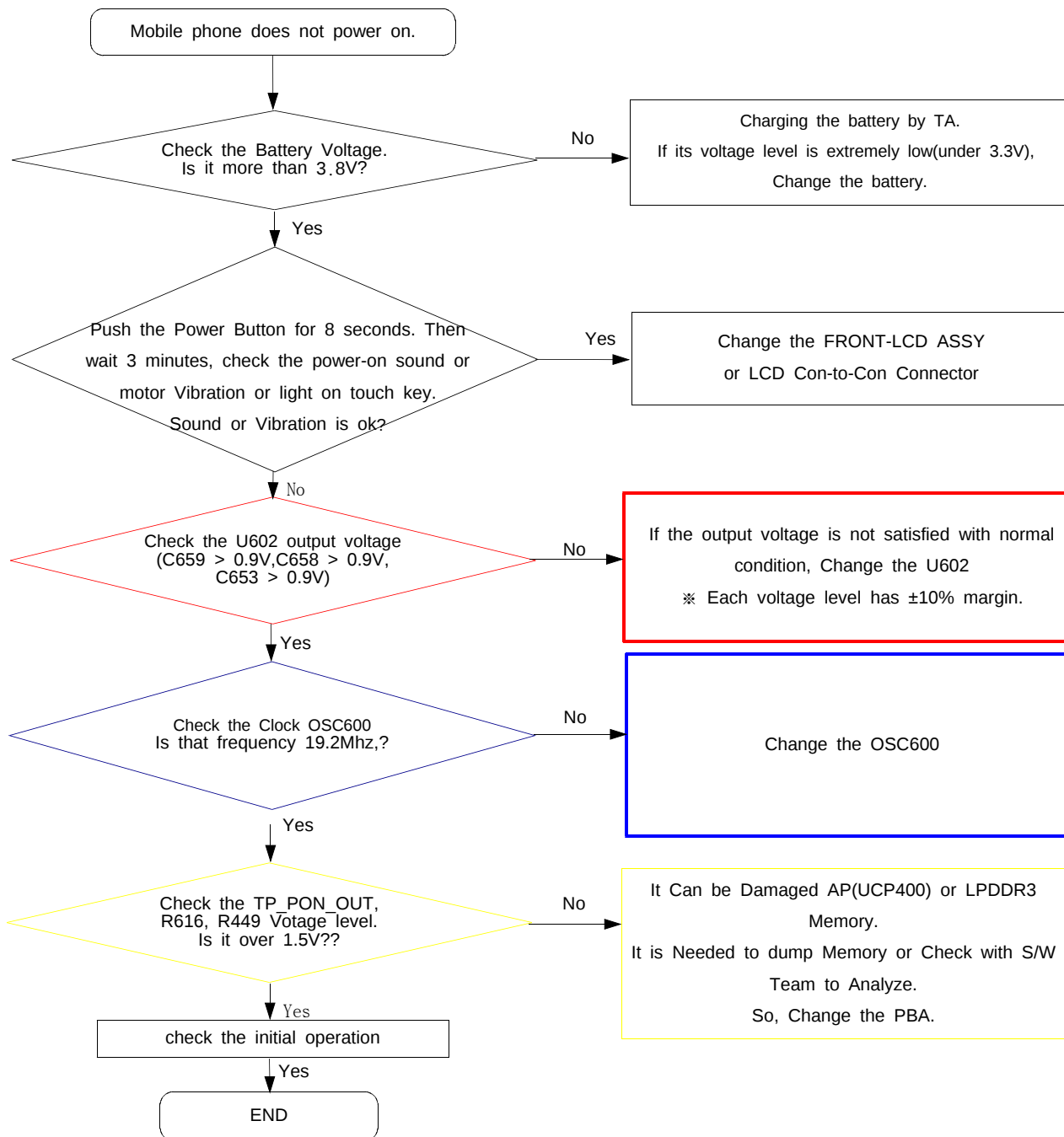


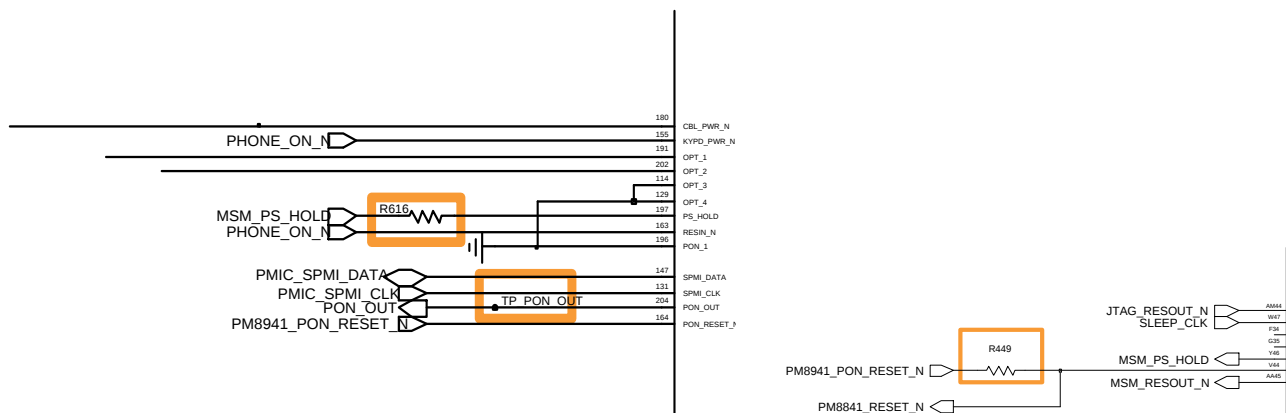
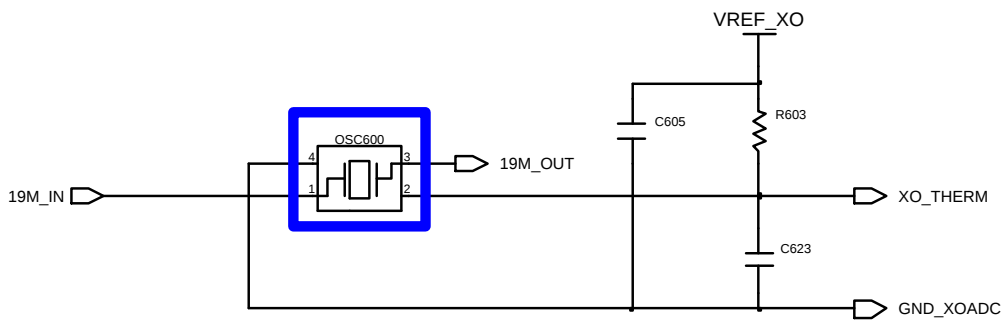
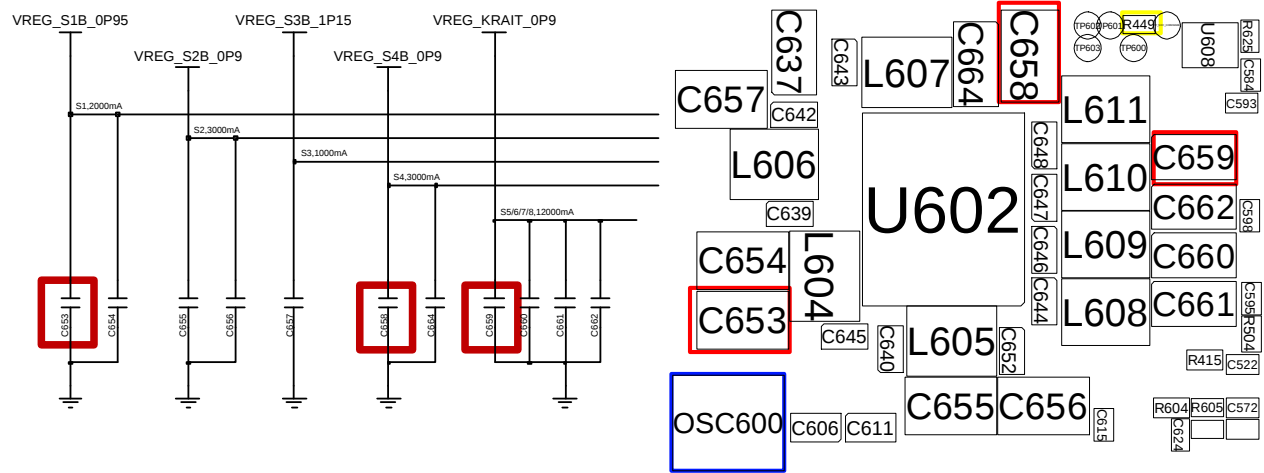
↑ 8960 & Spectrum Analyzer

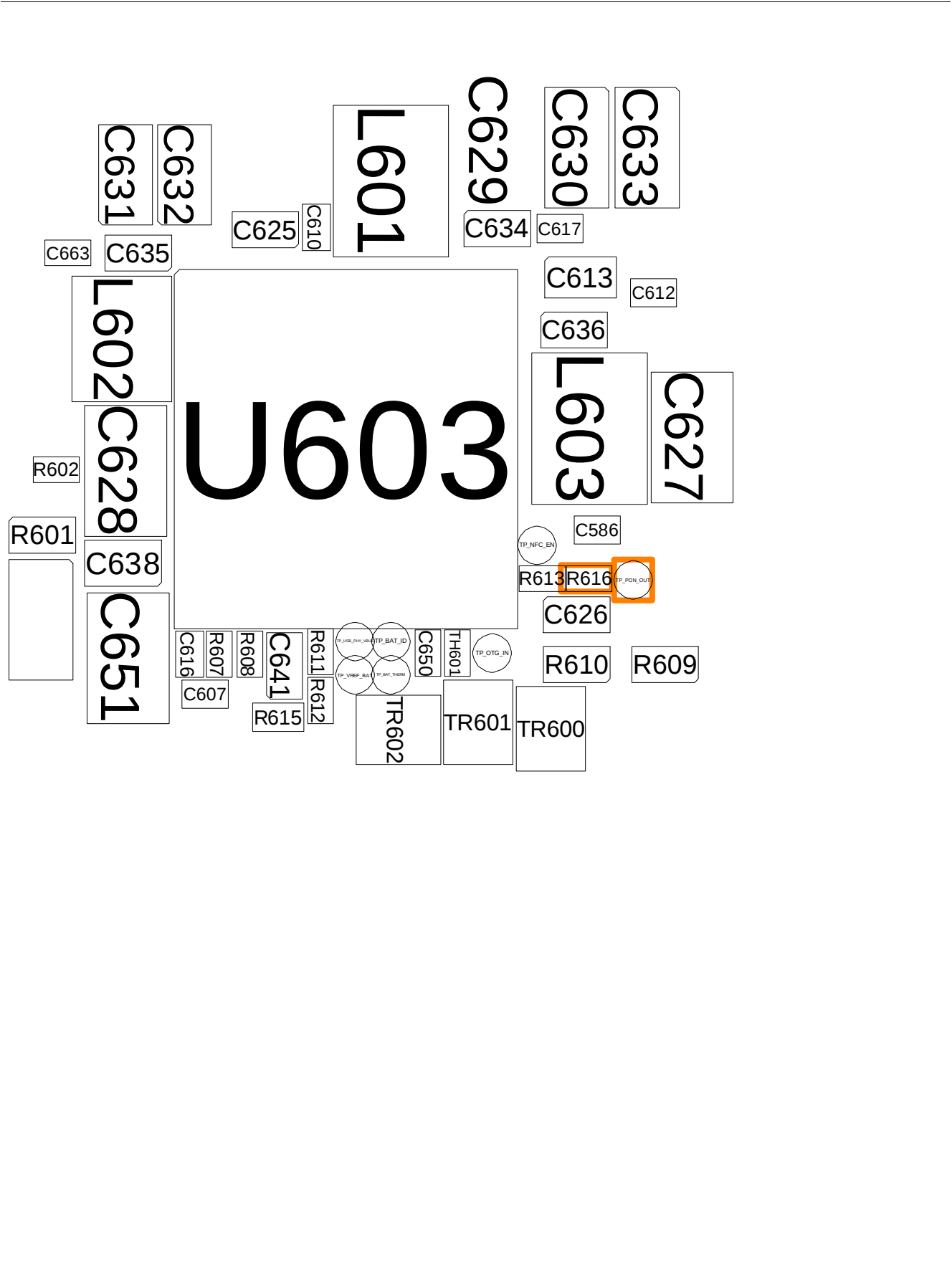


↑ Soldering iron

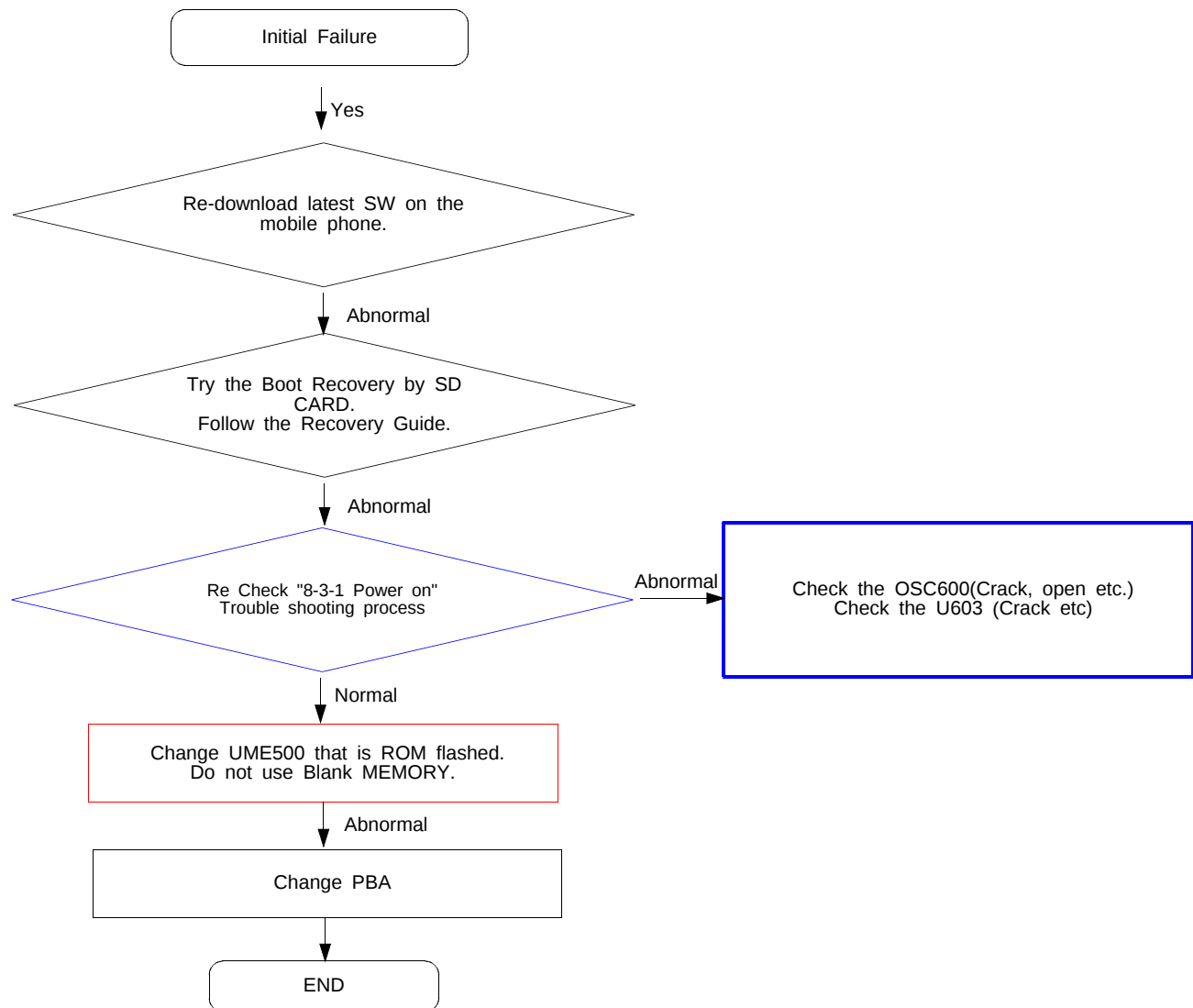
8-3-1. Power On

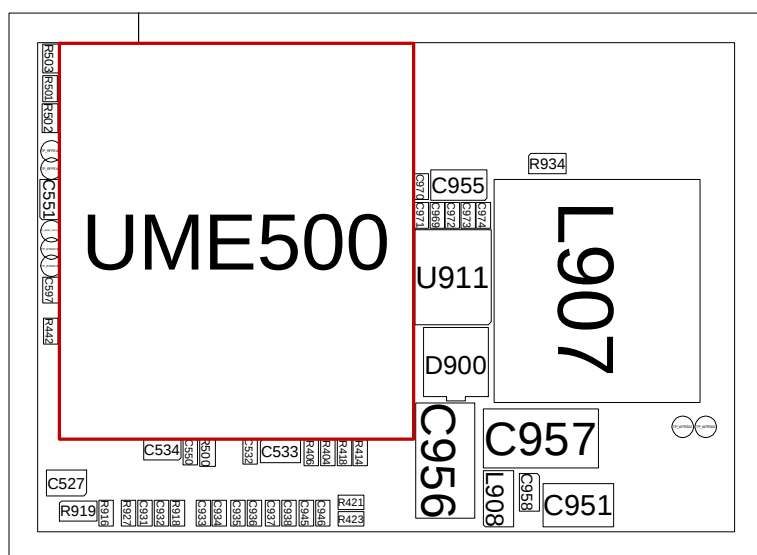
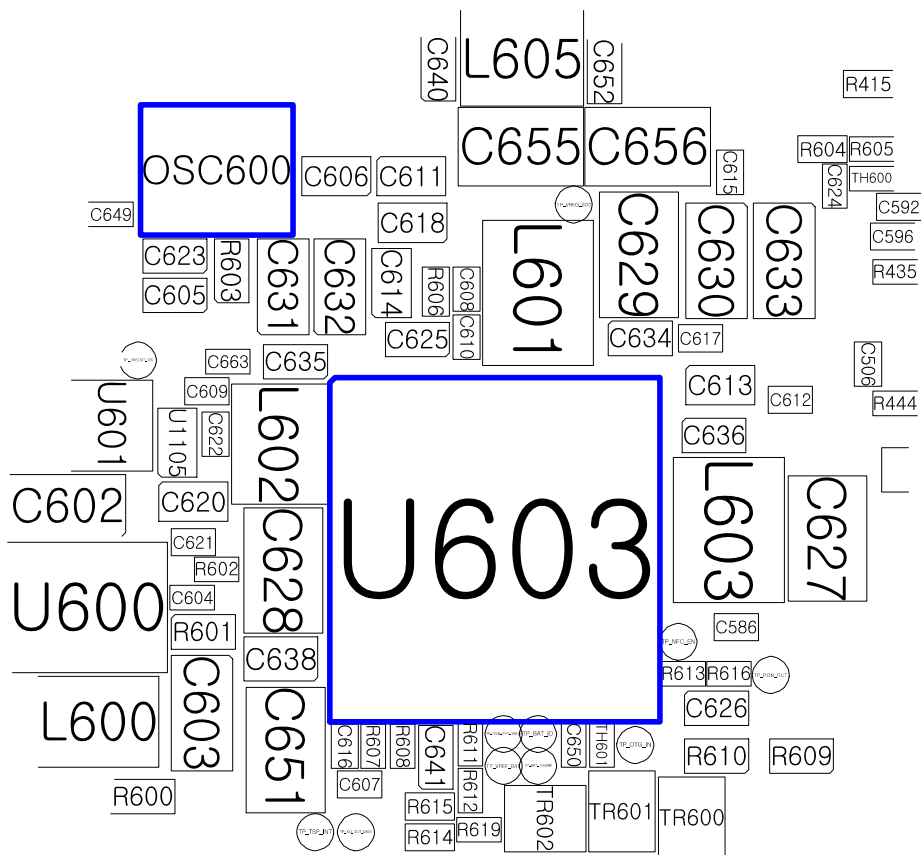




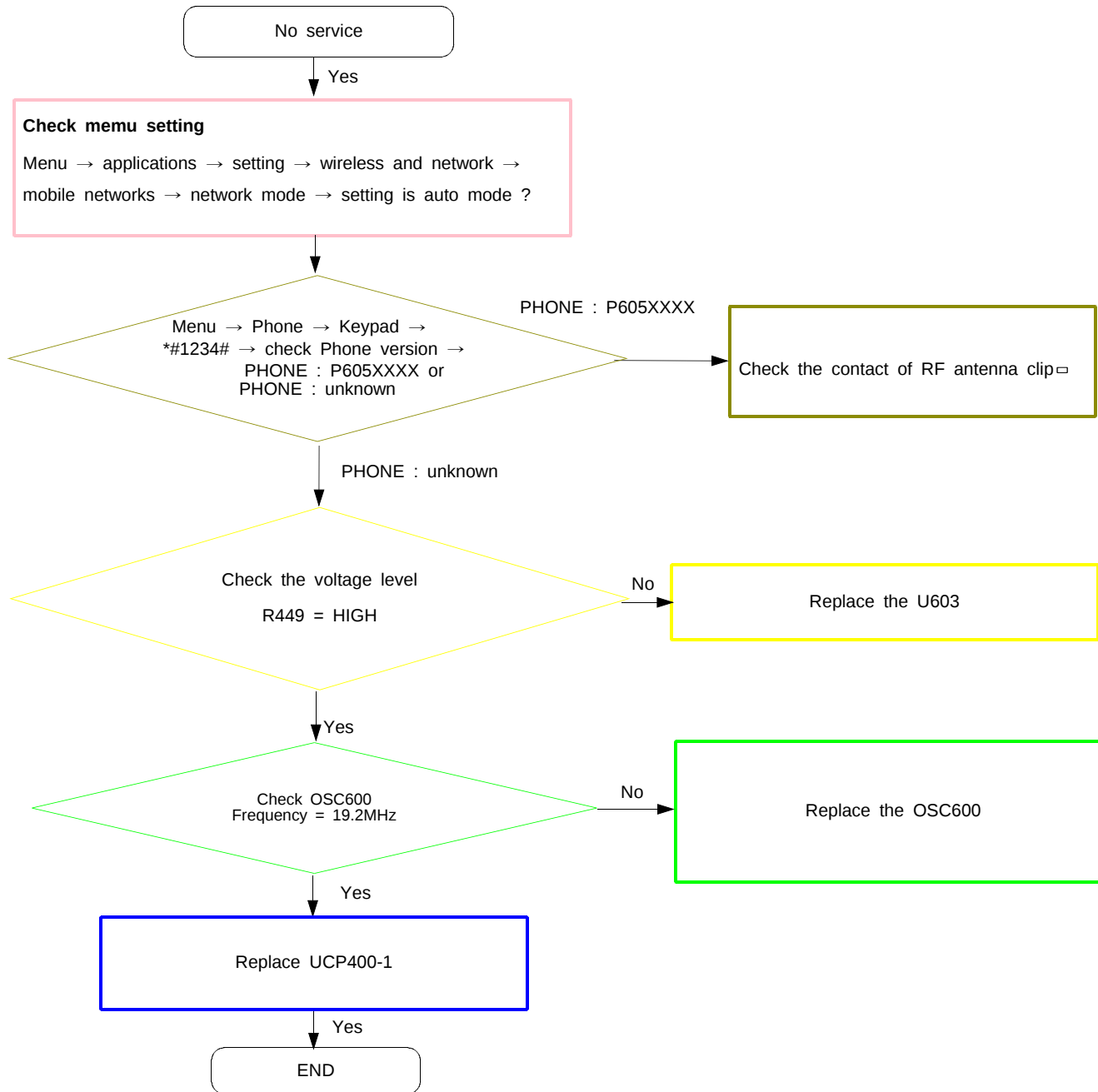


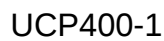
8-3-2. Initial

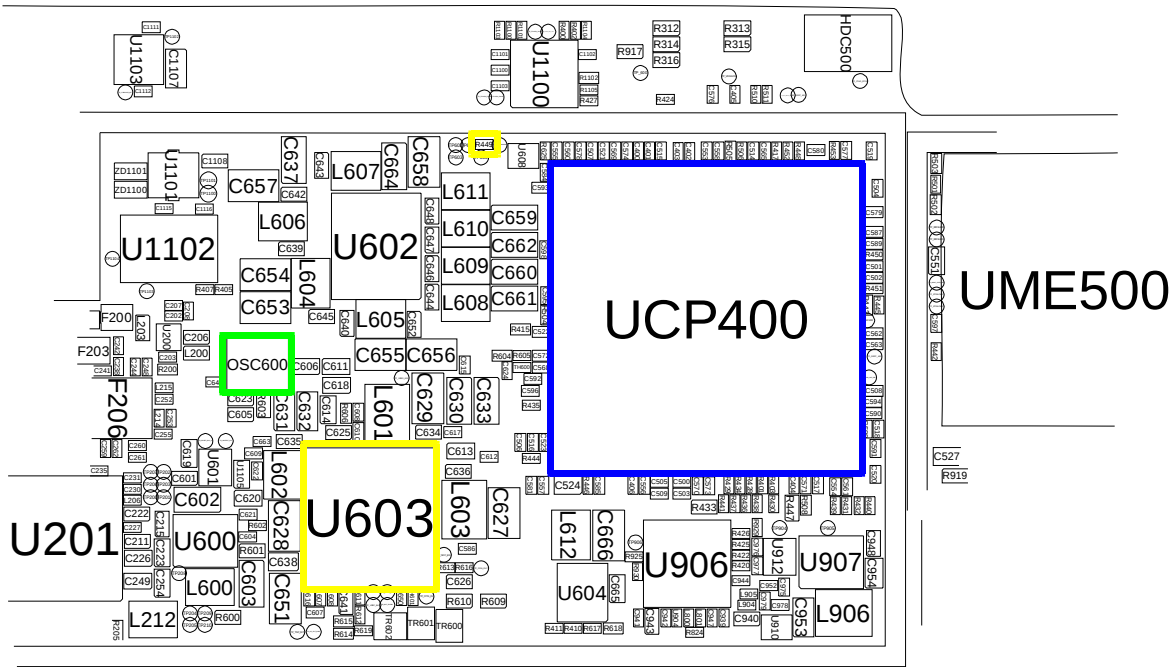




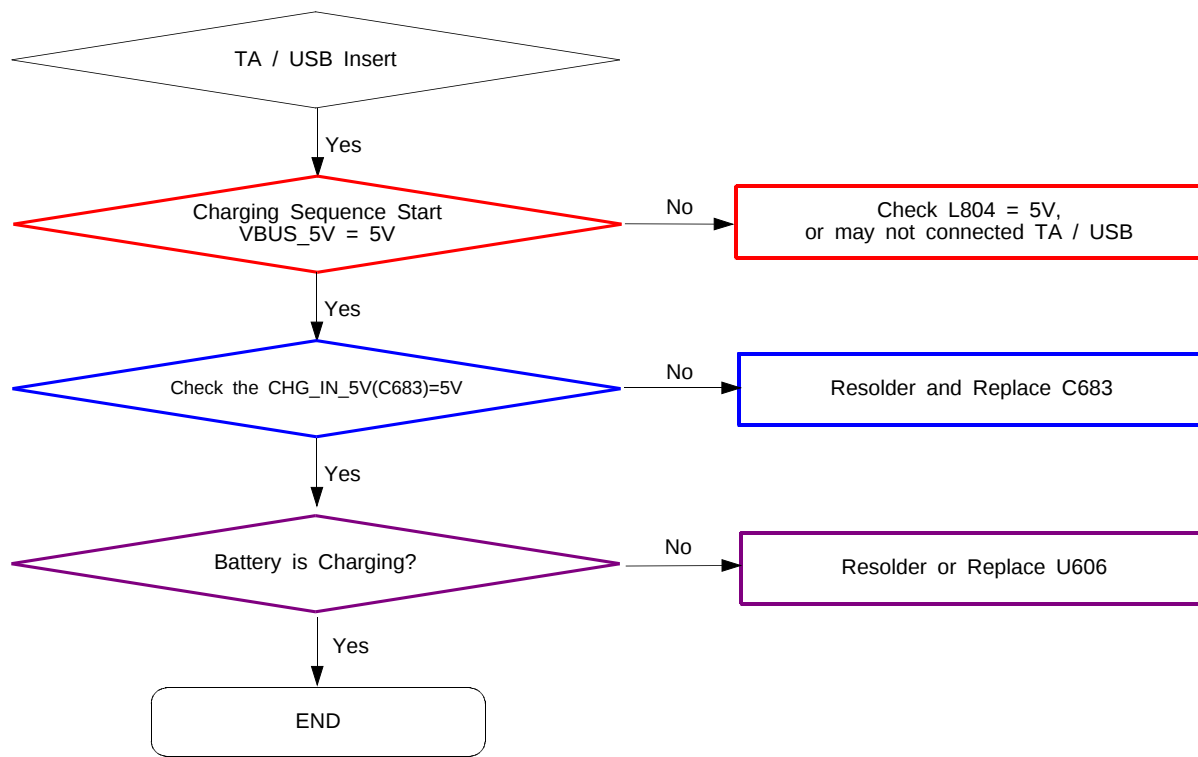
8-3-3. No Service

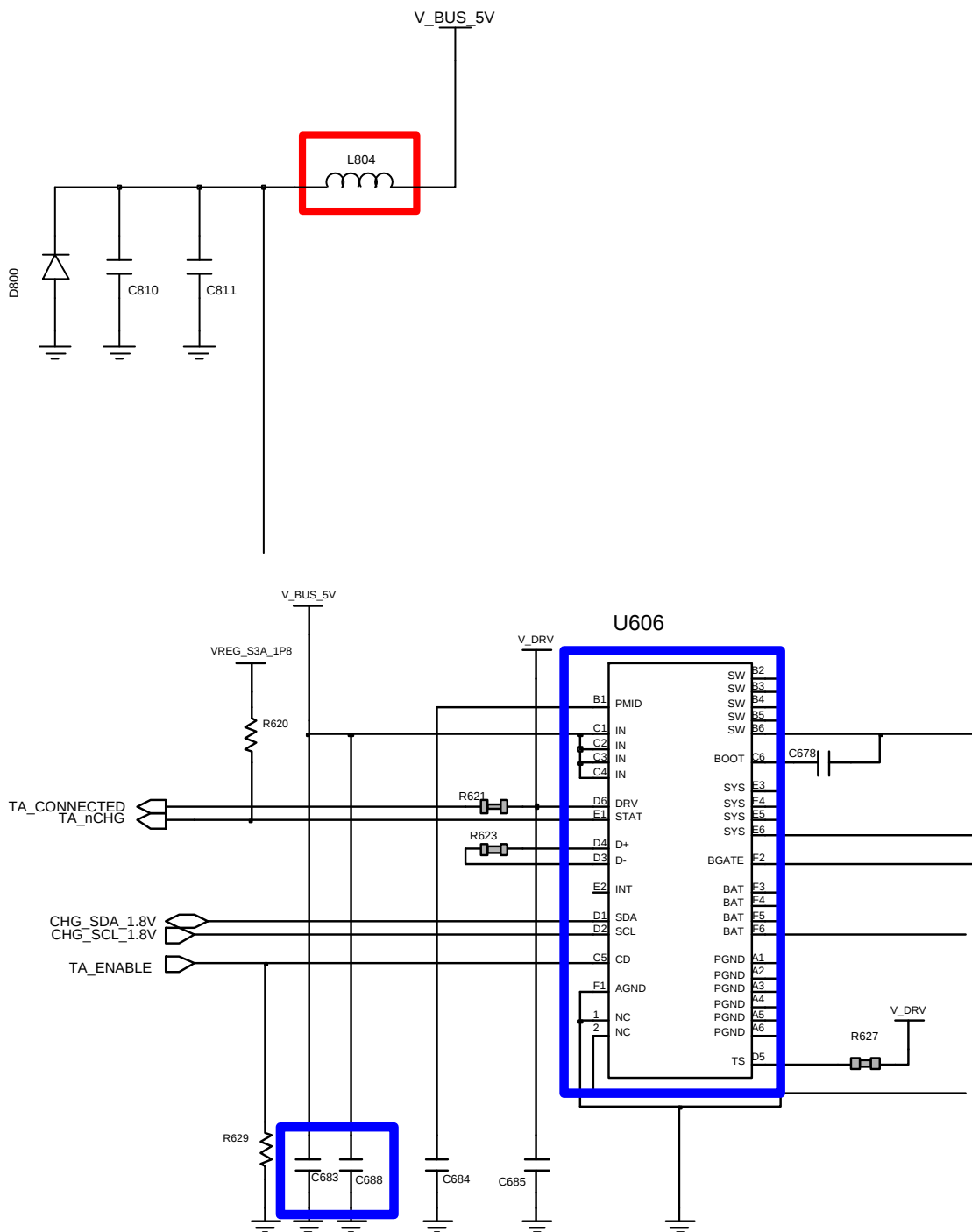


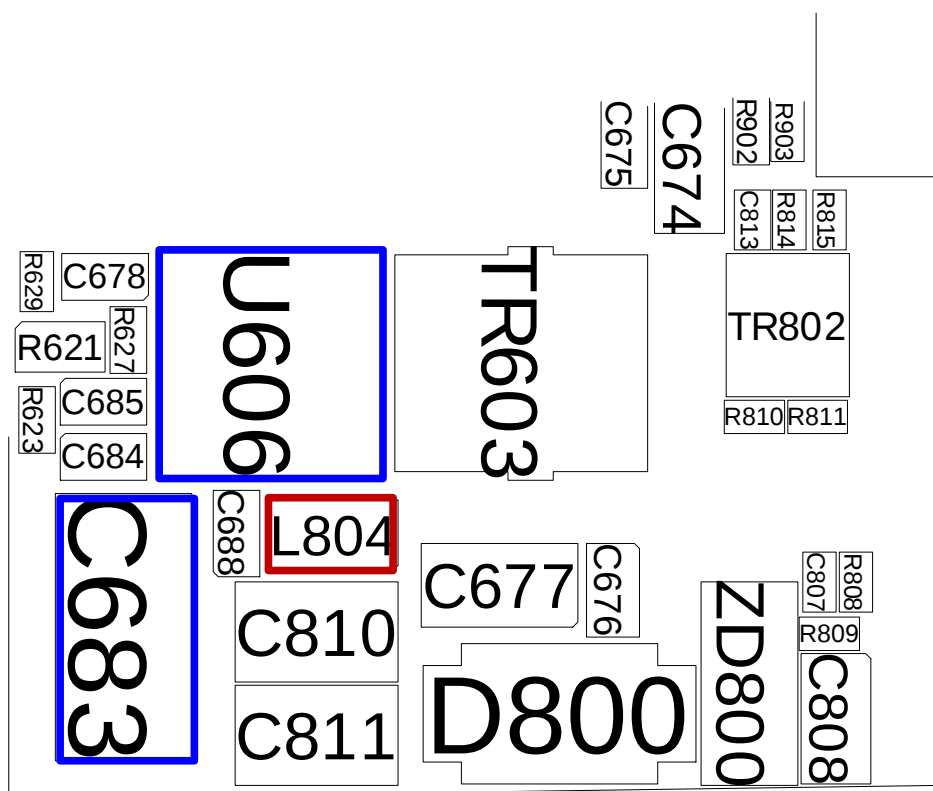




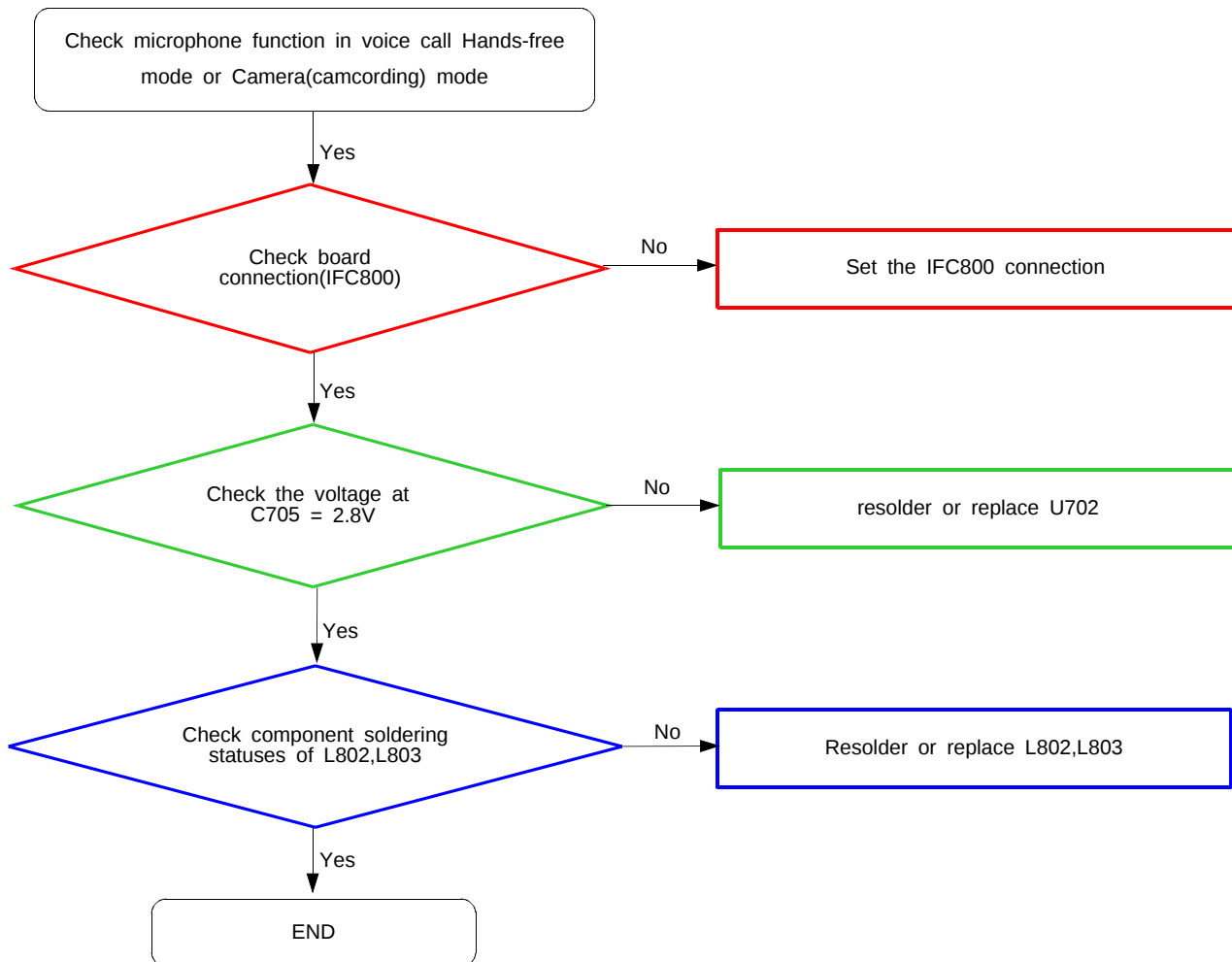
8-3-4. Charging Part

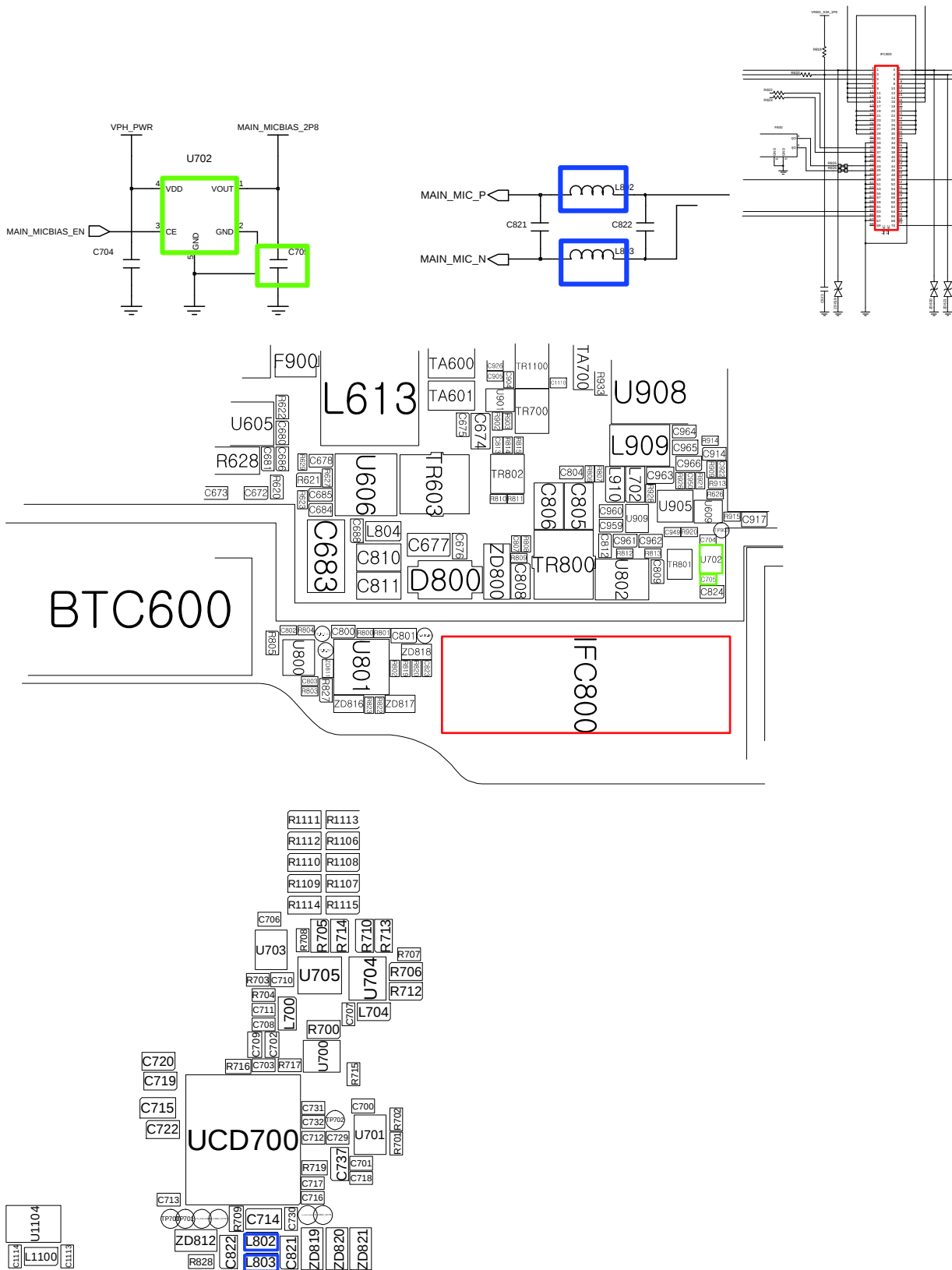




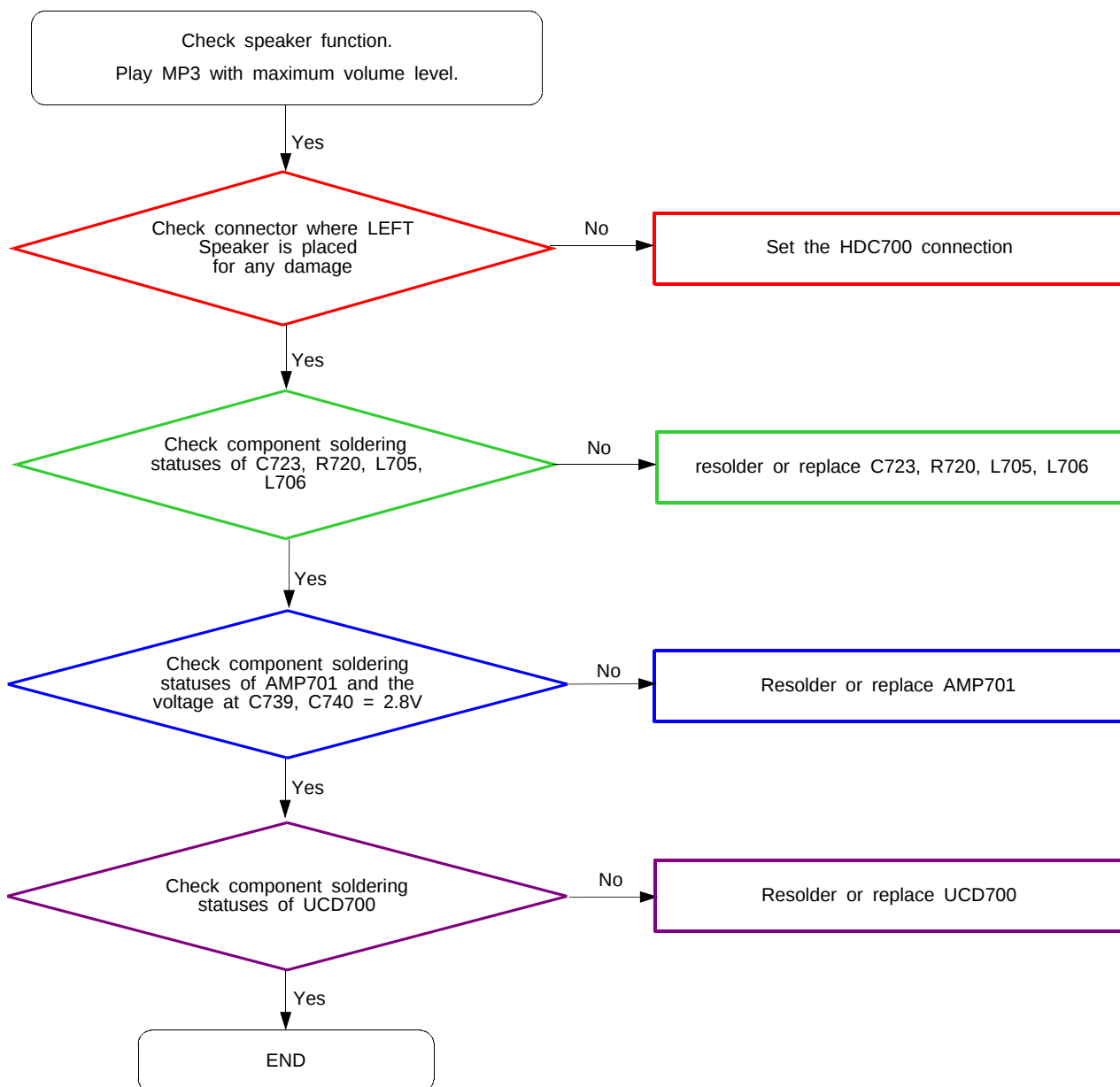


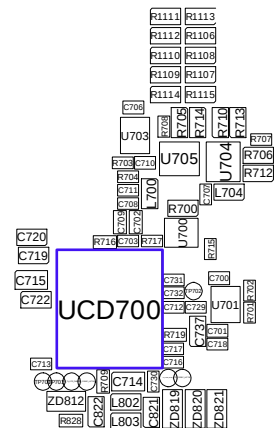
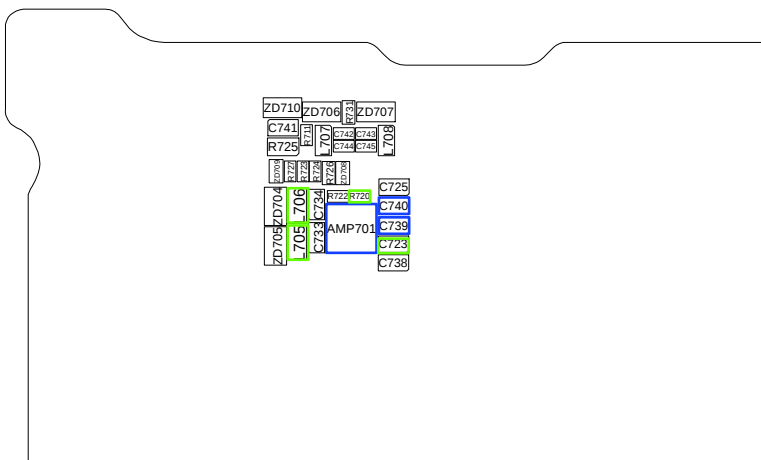
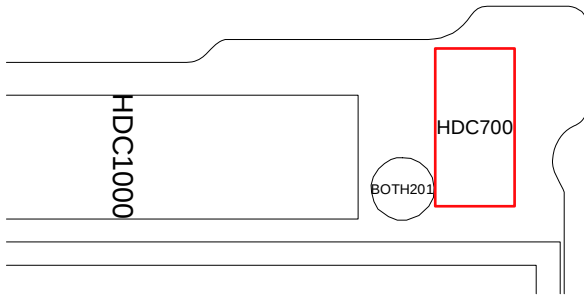
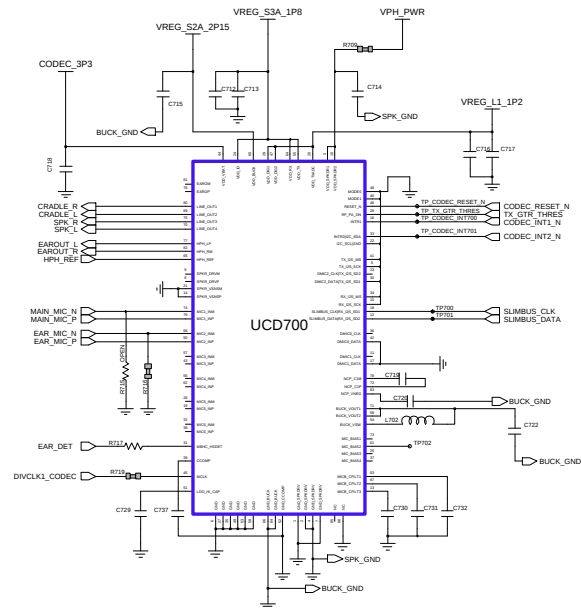
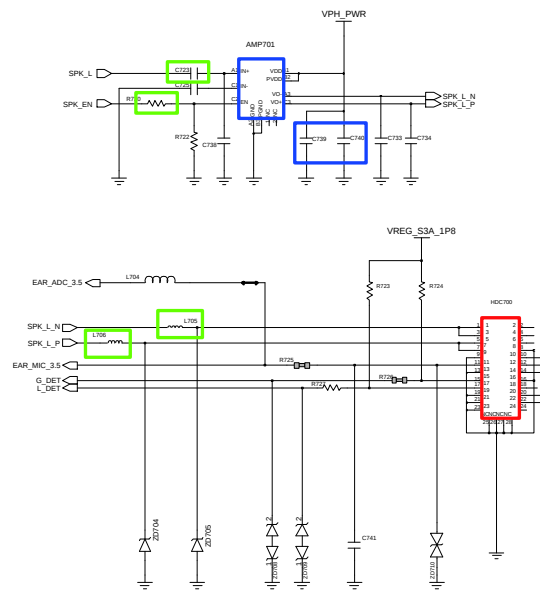
8-3-5 Microphone Part



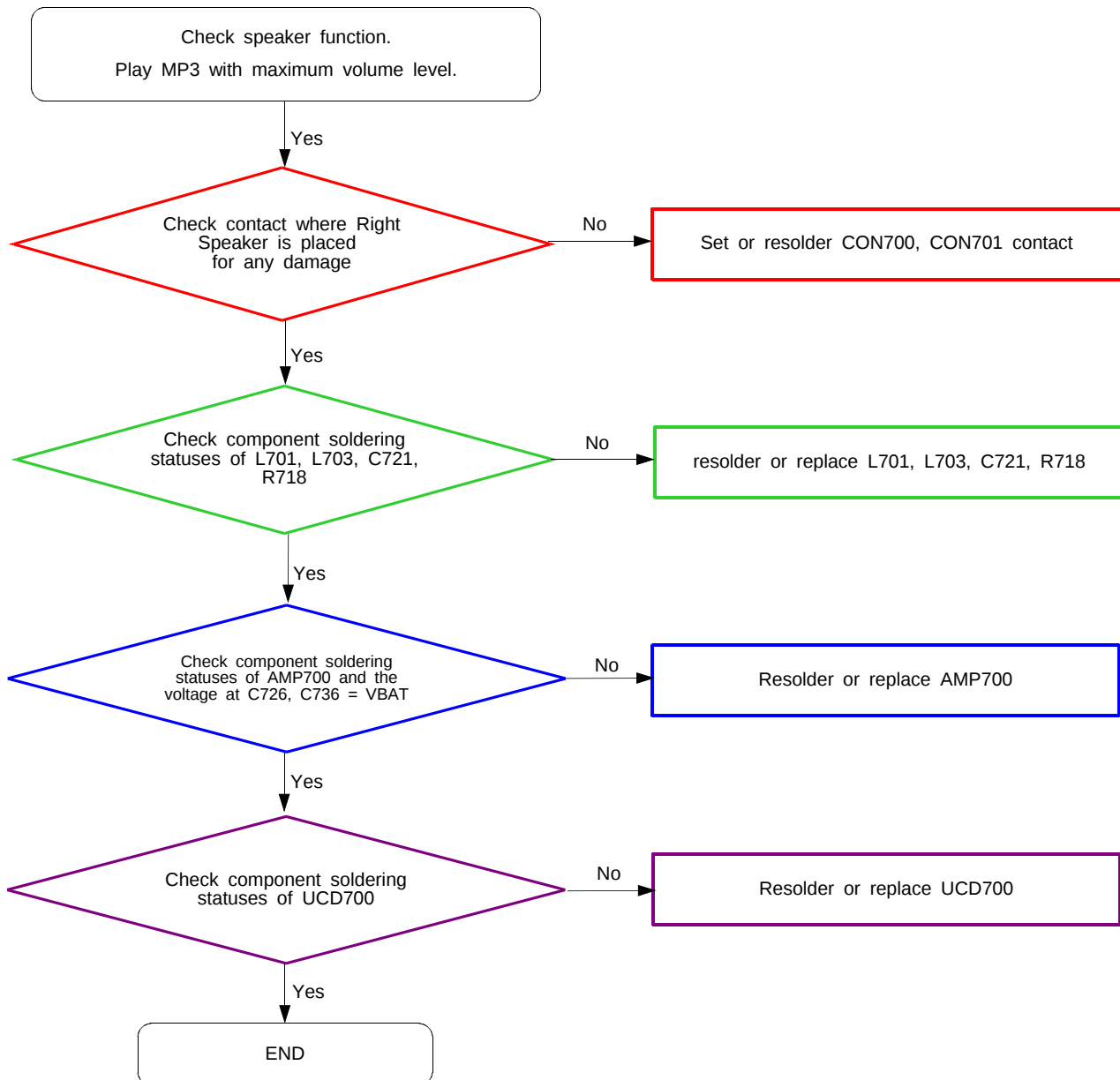


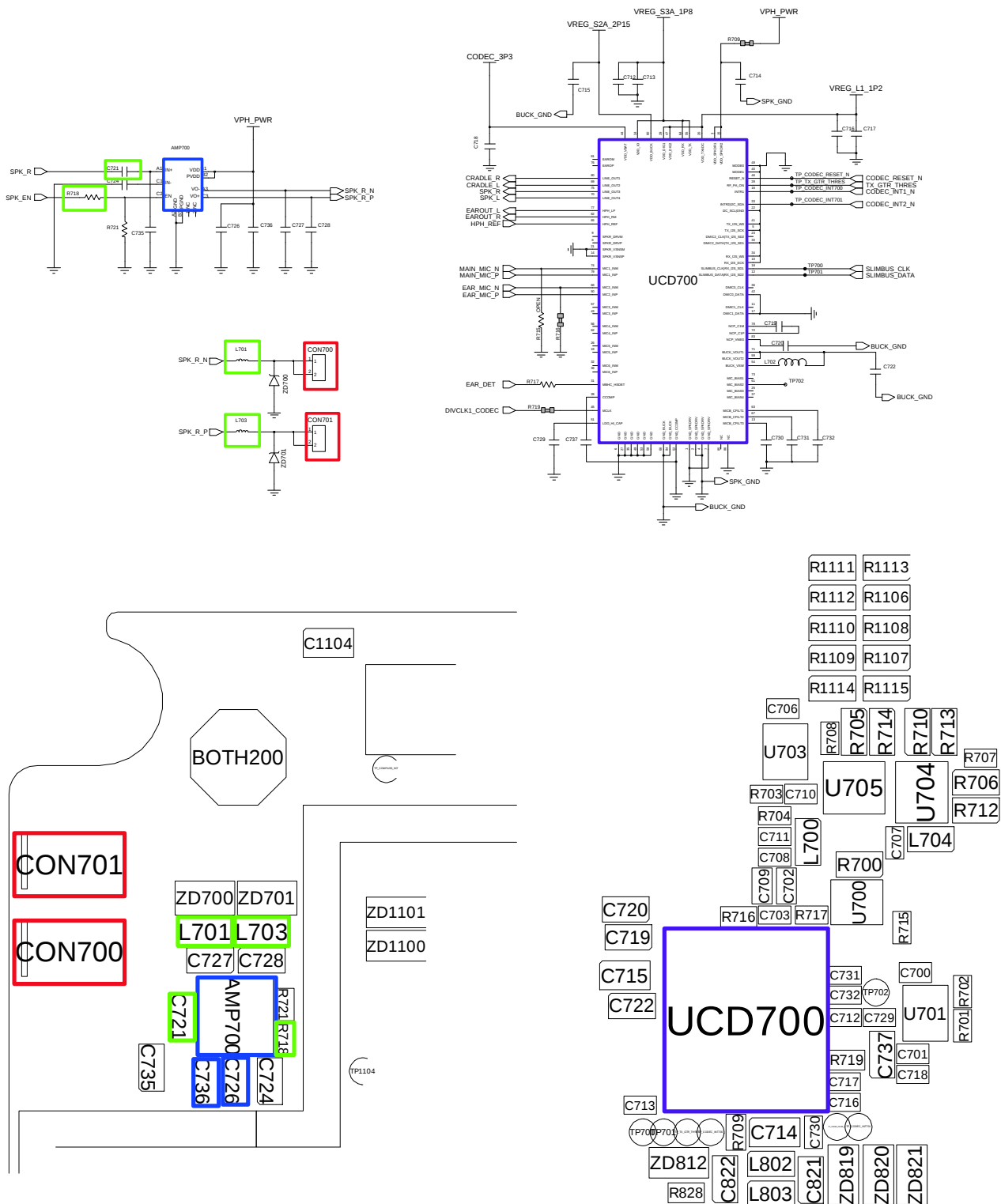
8-3-6-1. Speaker Part (LEFT)



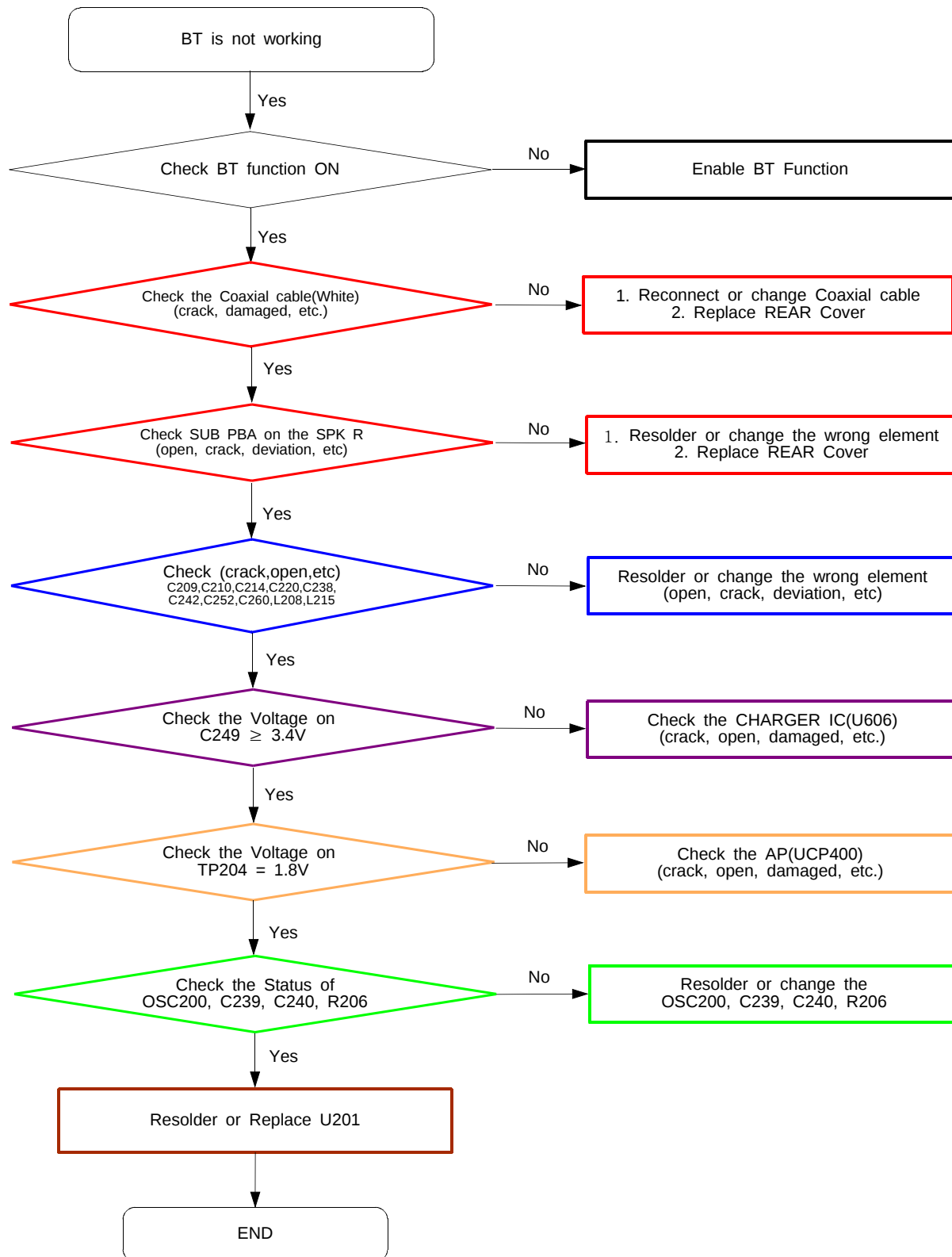


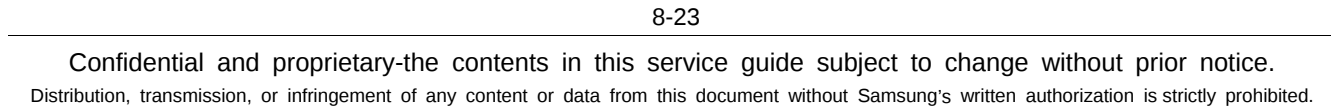
8-3-6-2. Speaker Part (RIGHT)

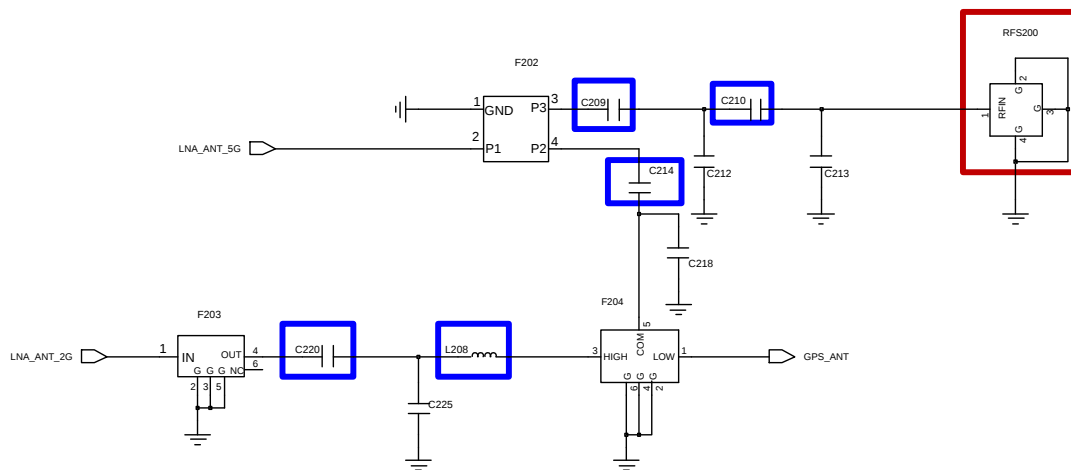
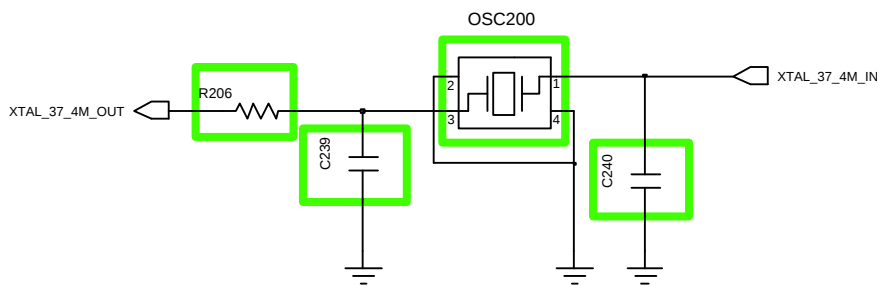
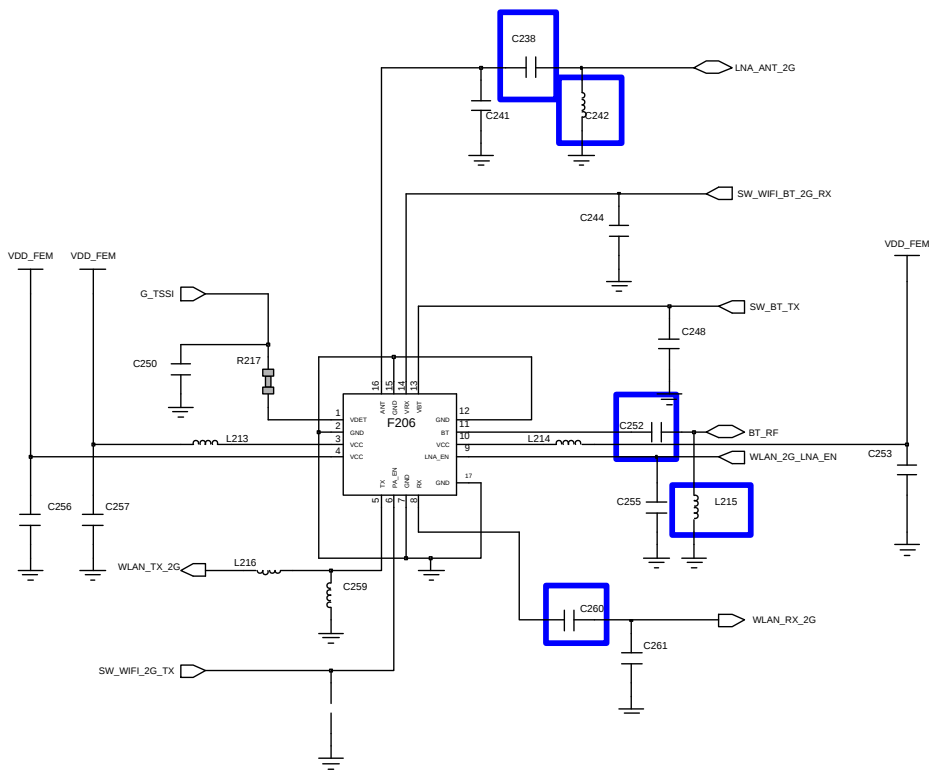


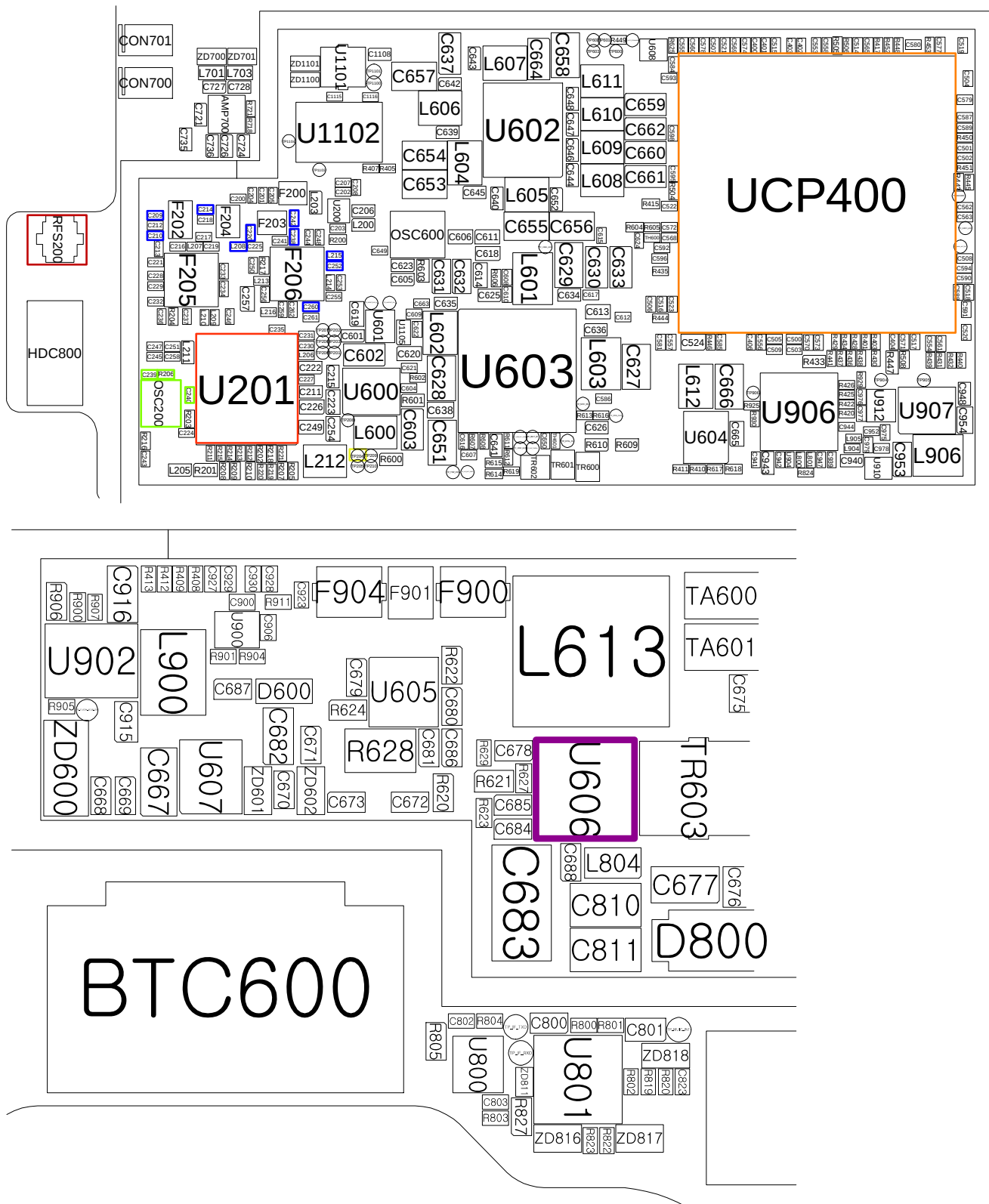


8-3-7. BT

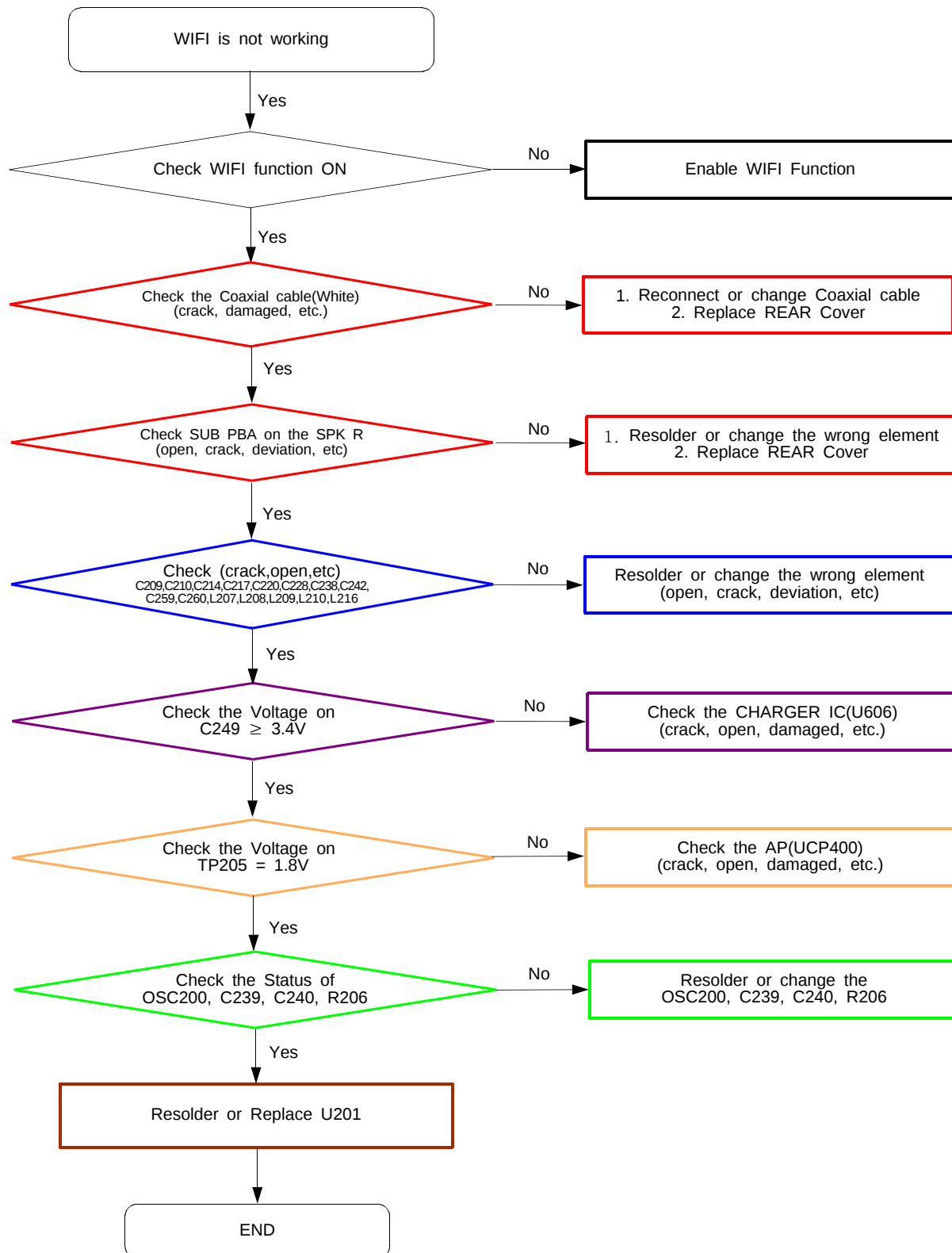


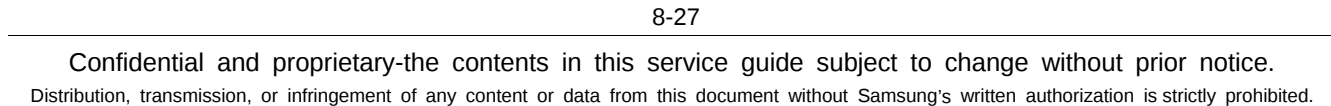


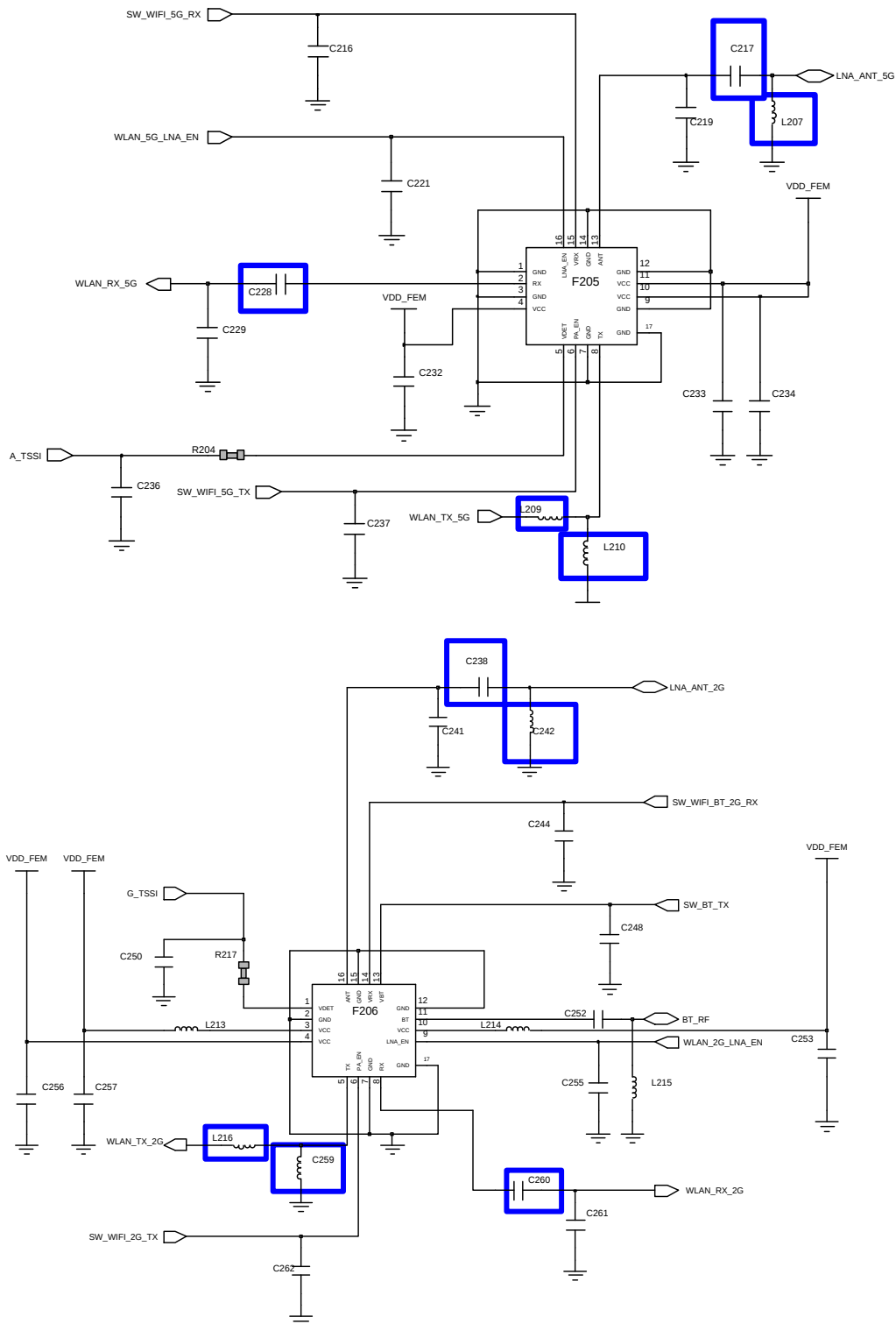


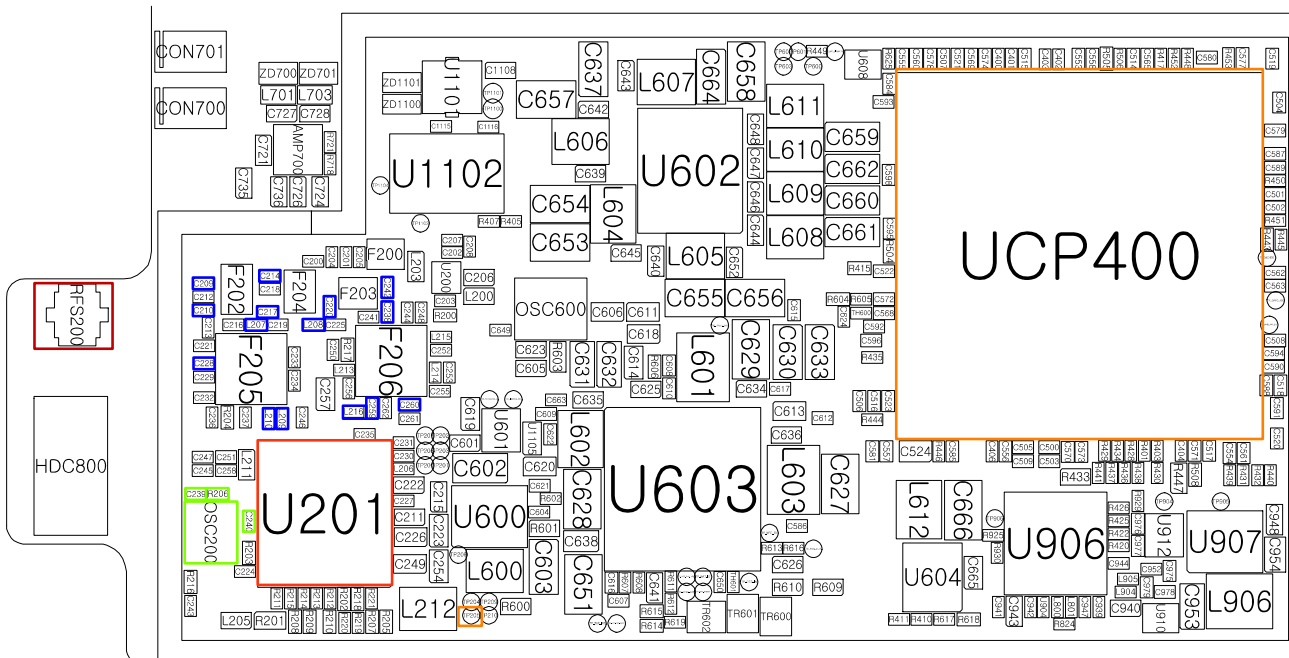
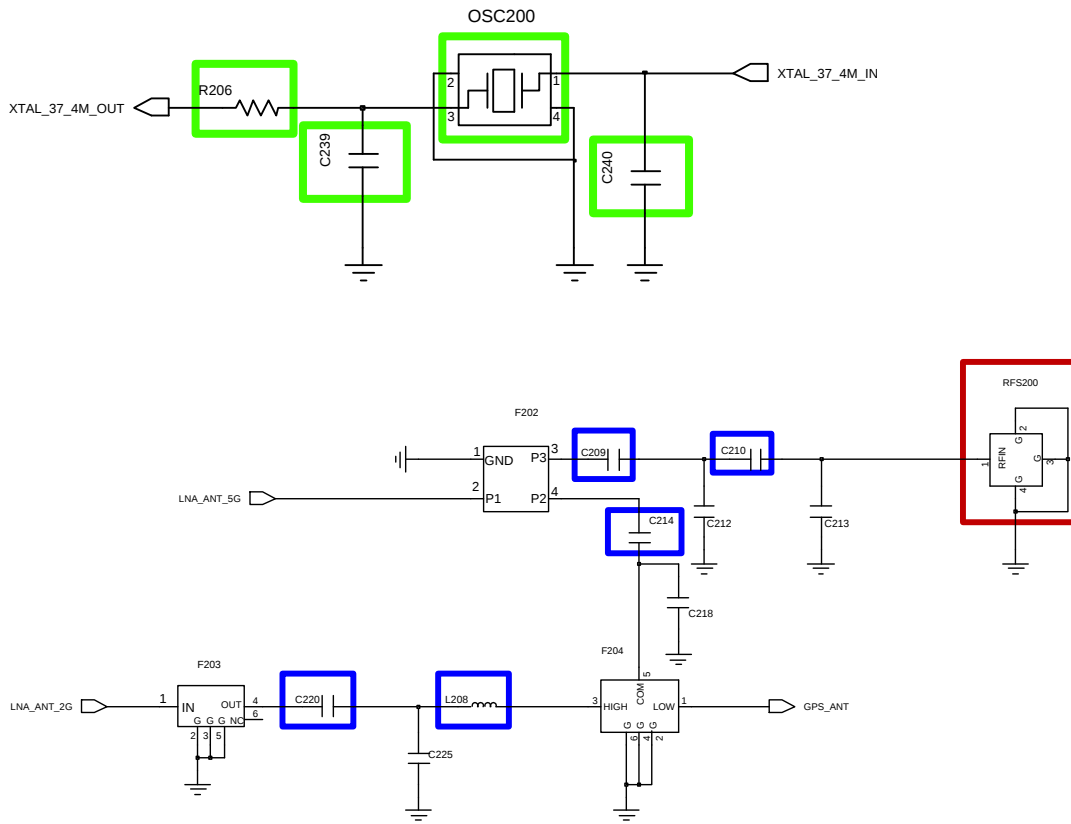


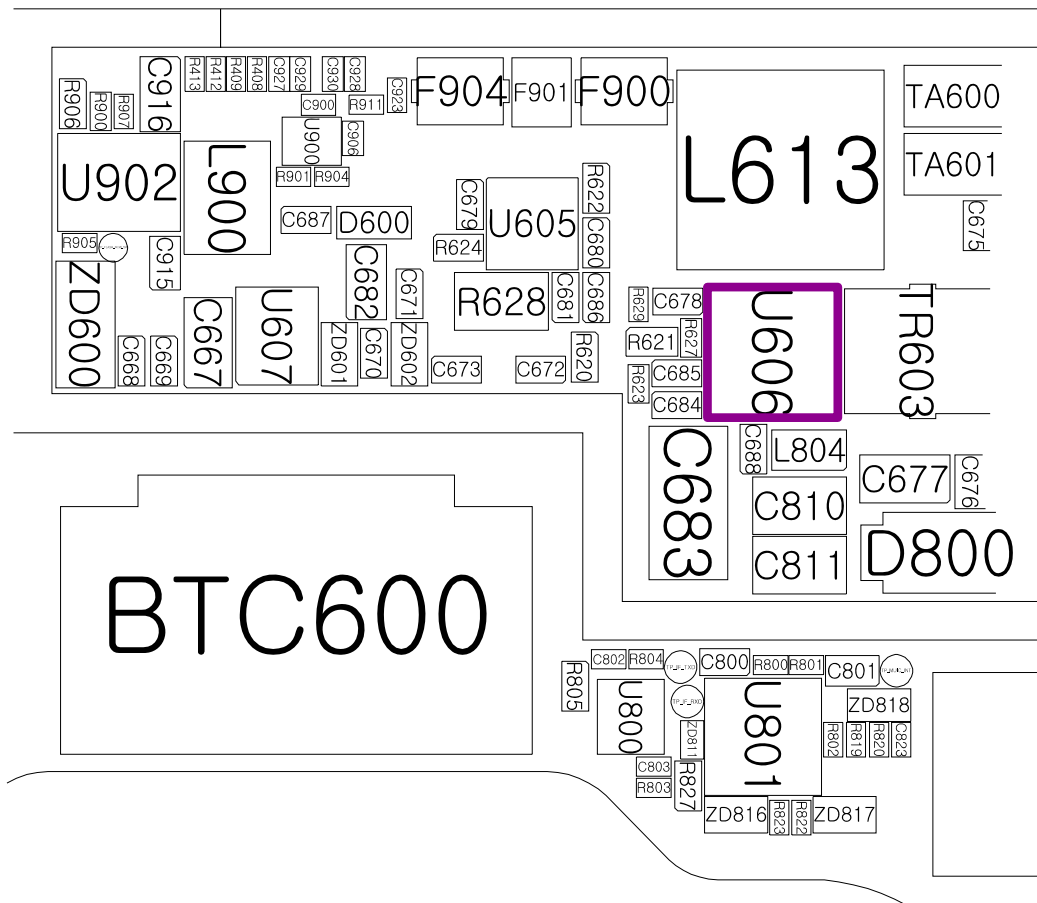
8-3-8. WIFI



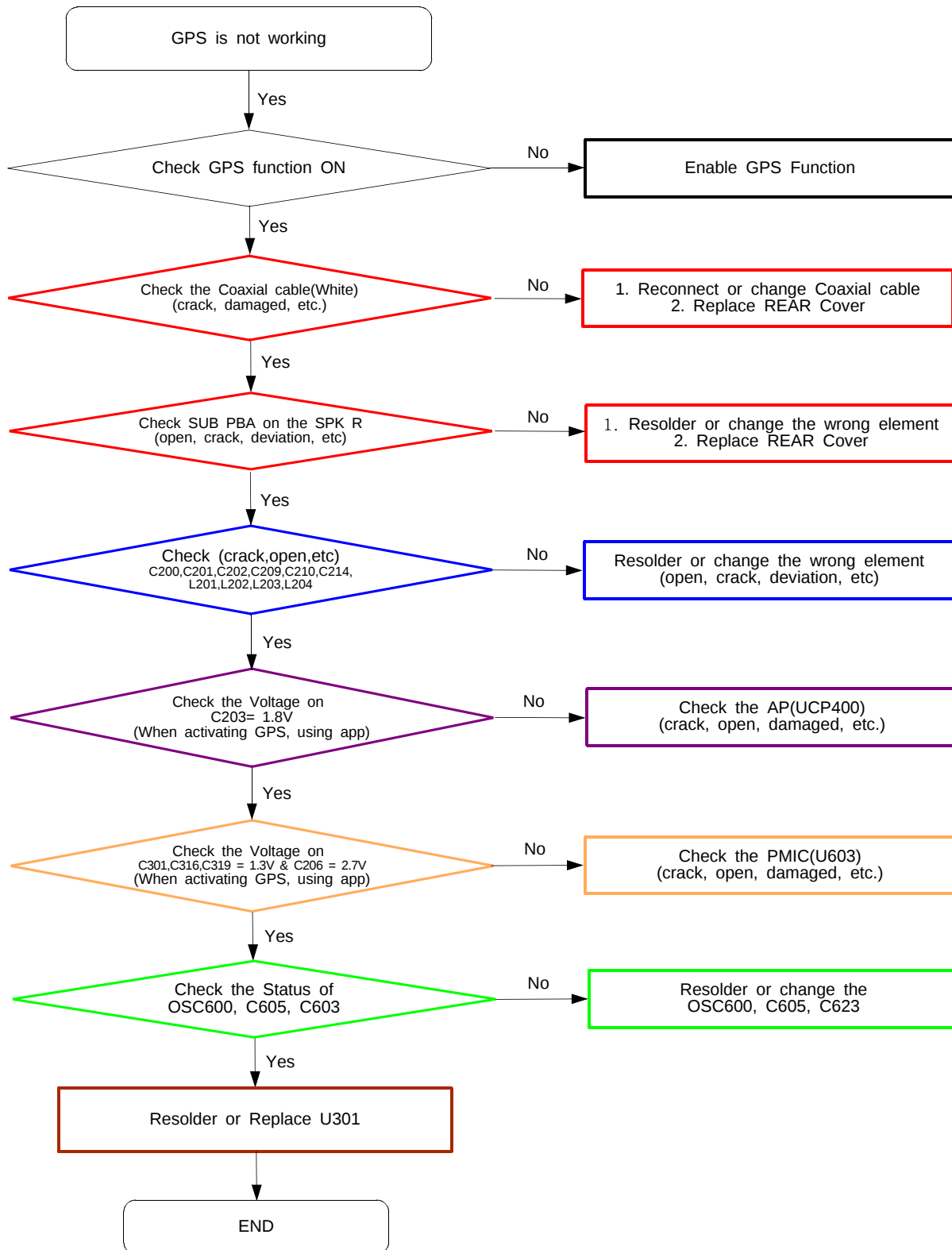


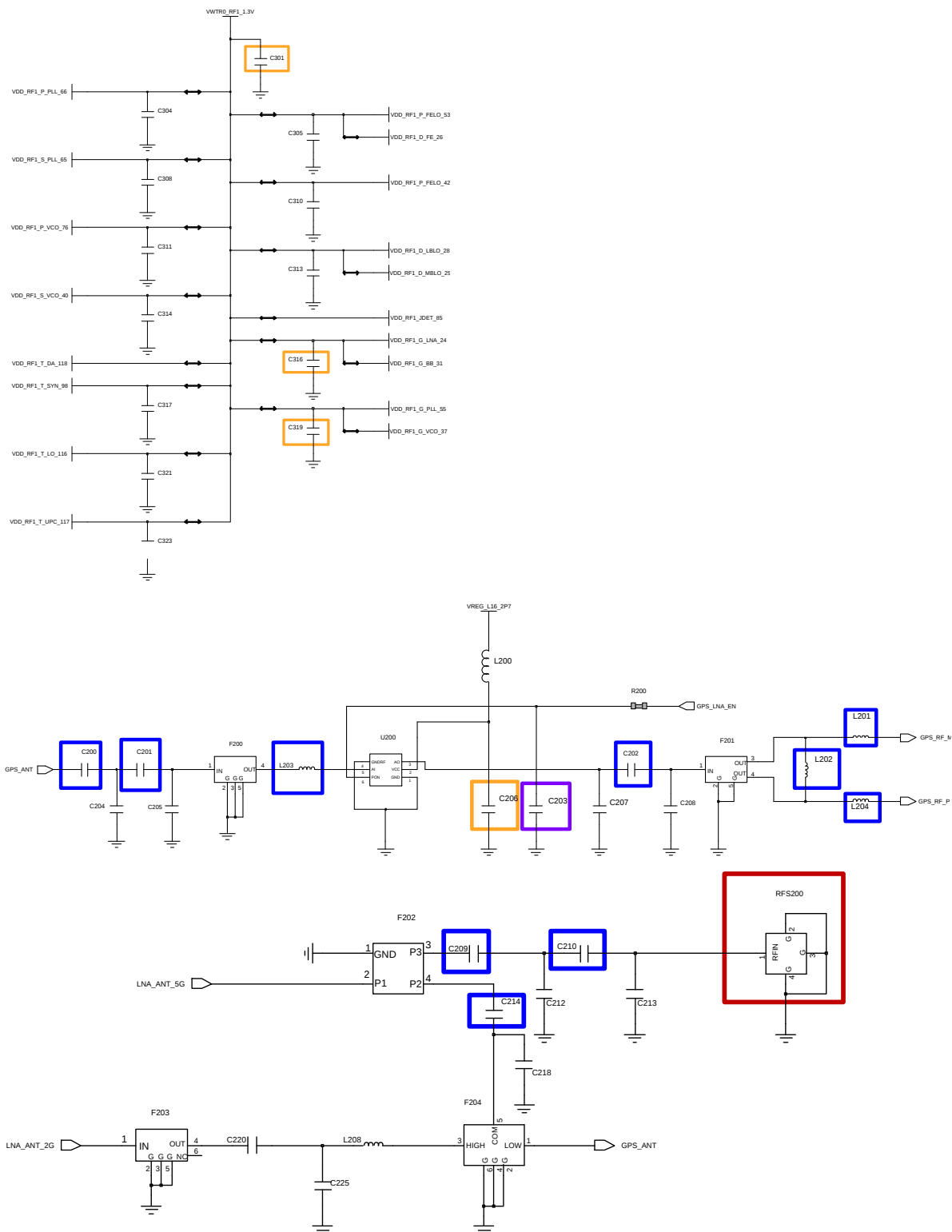


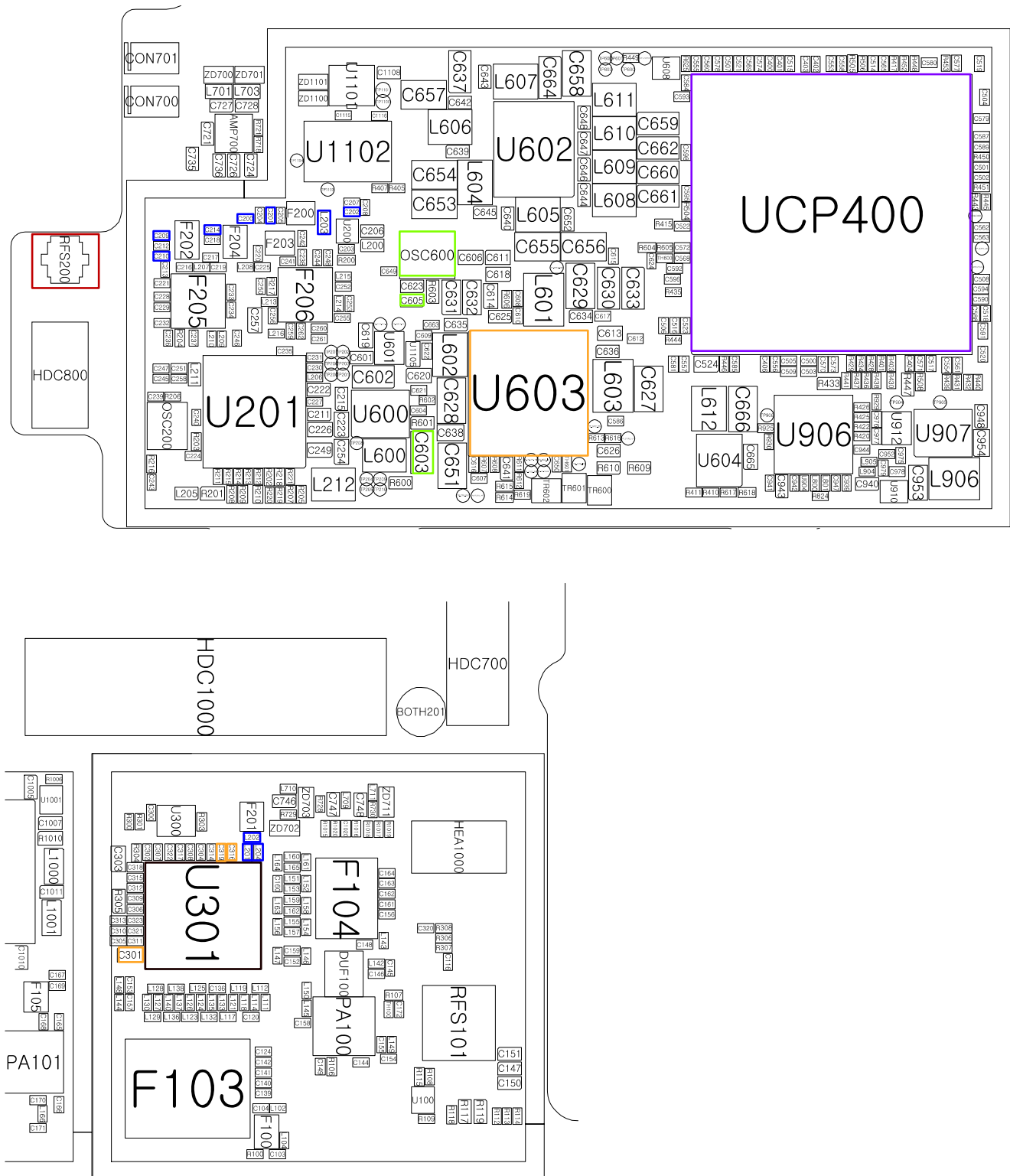




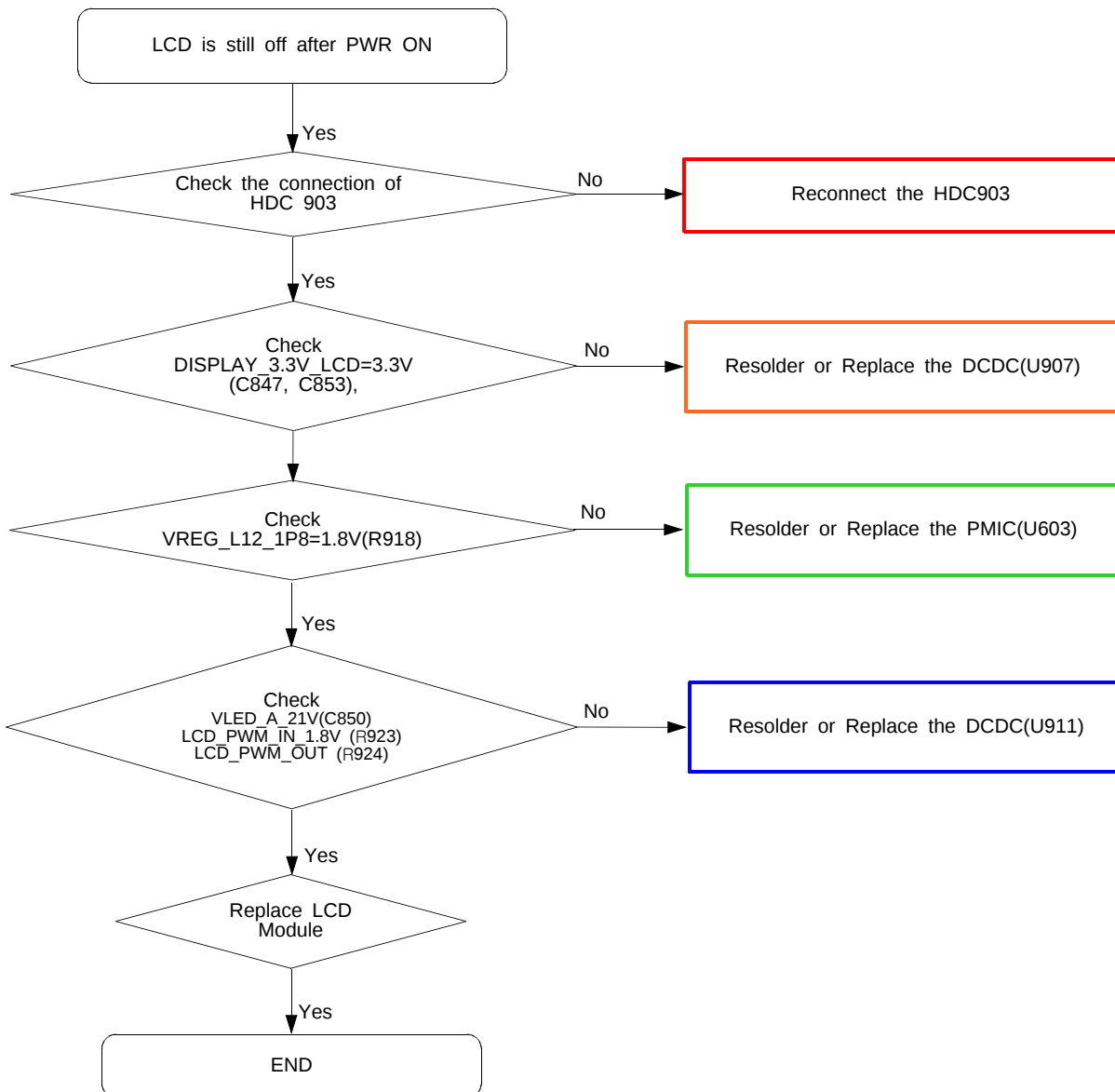
8-3-9. GPS

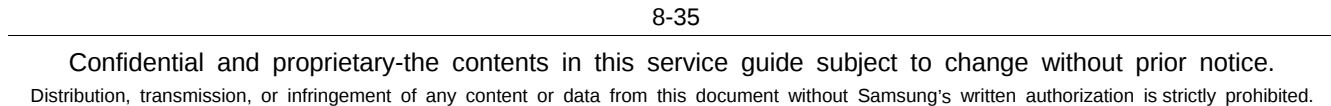


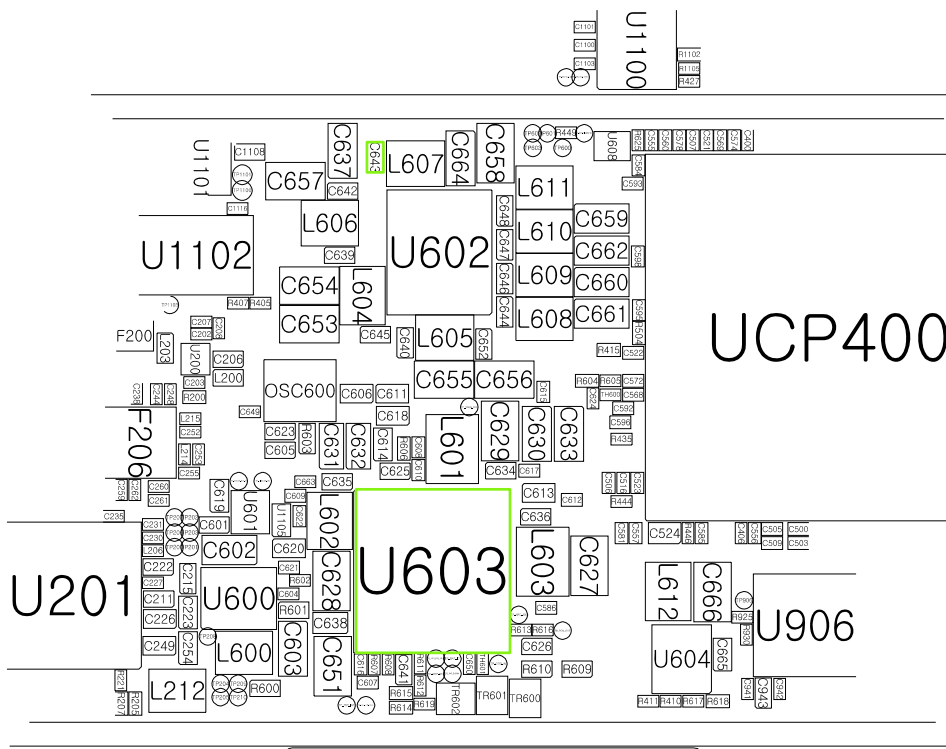




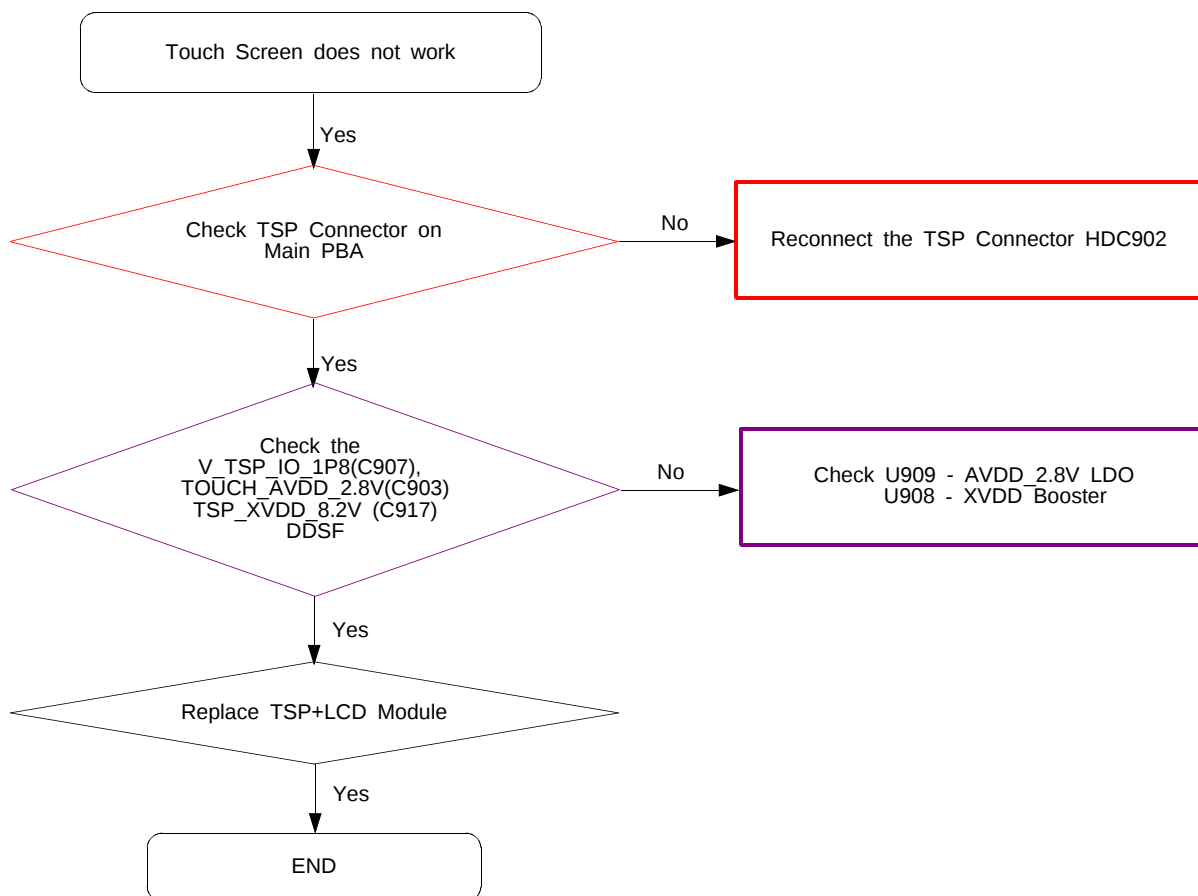
8-3-10. LCD

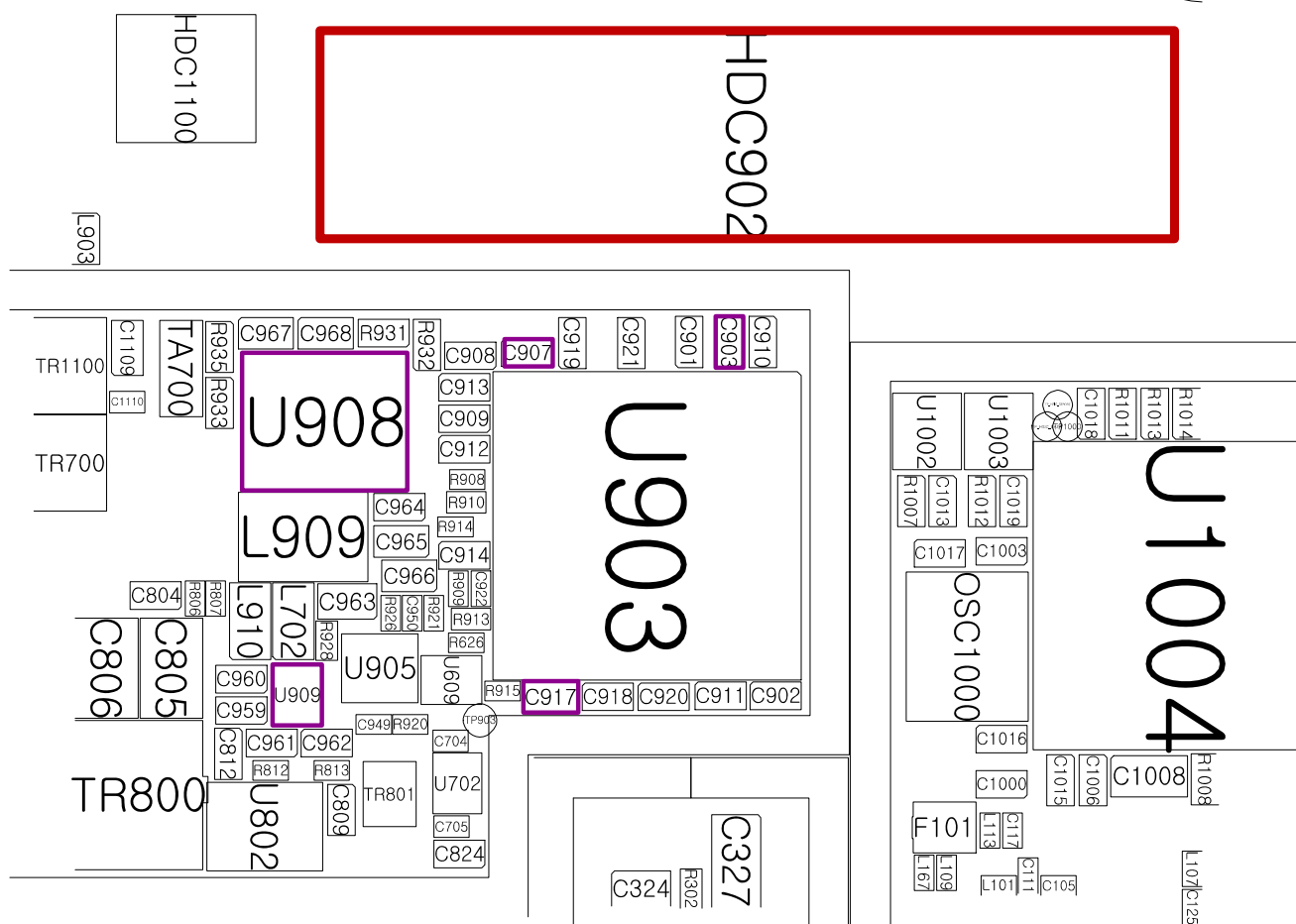




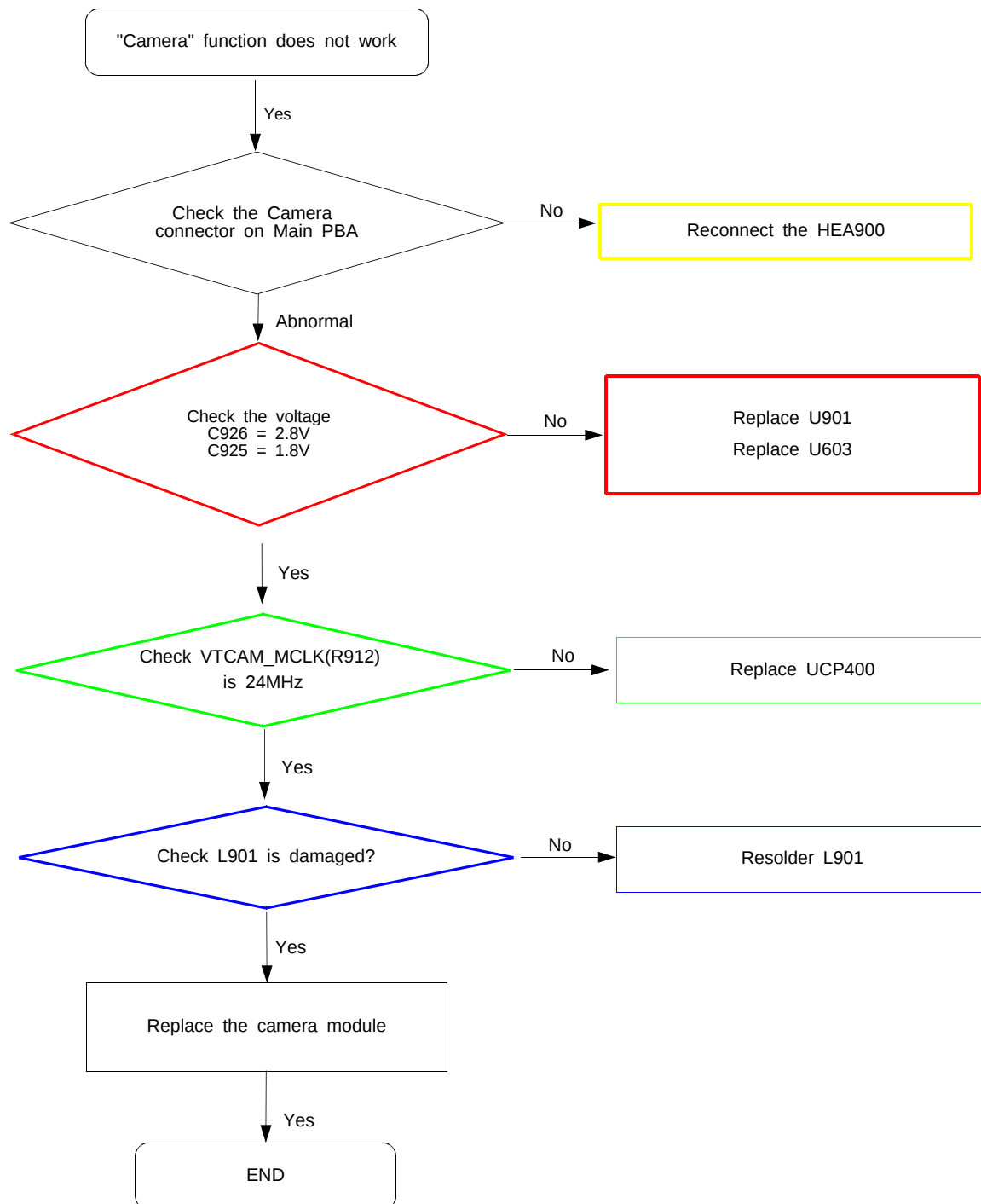


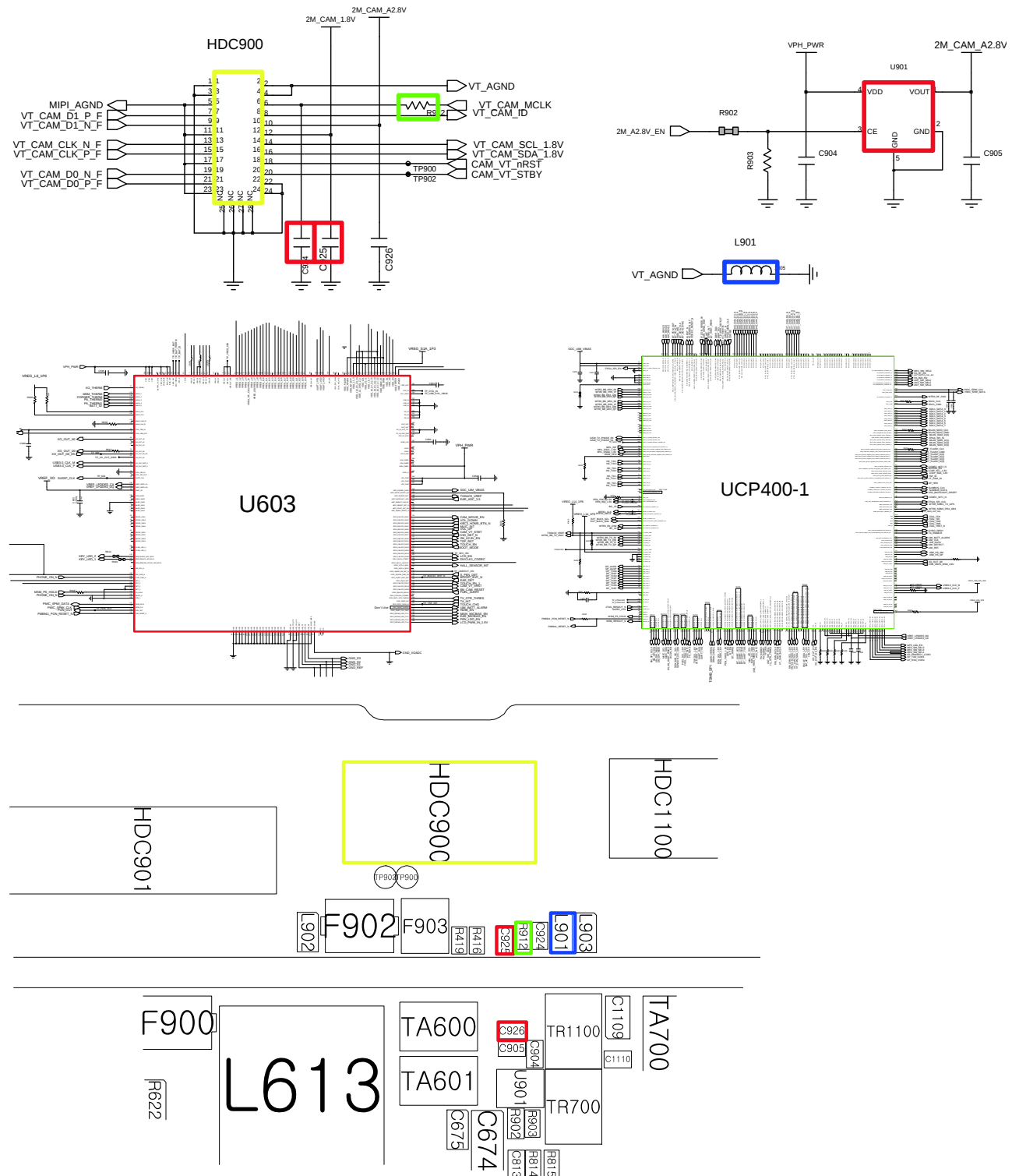
8-3-11. TSP

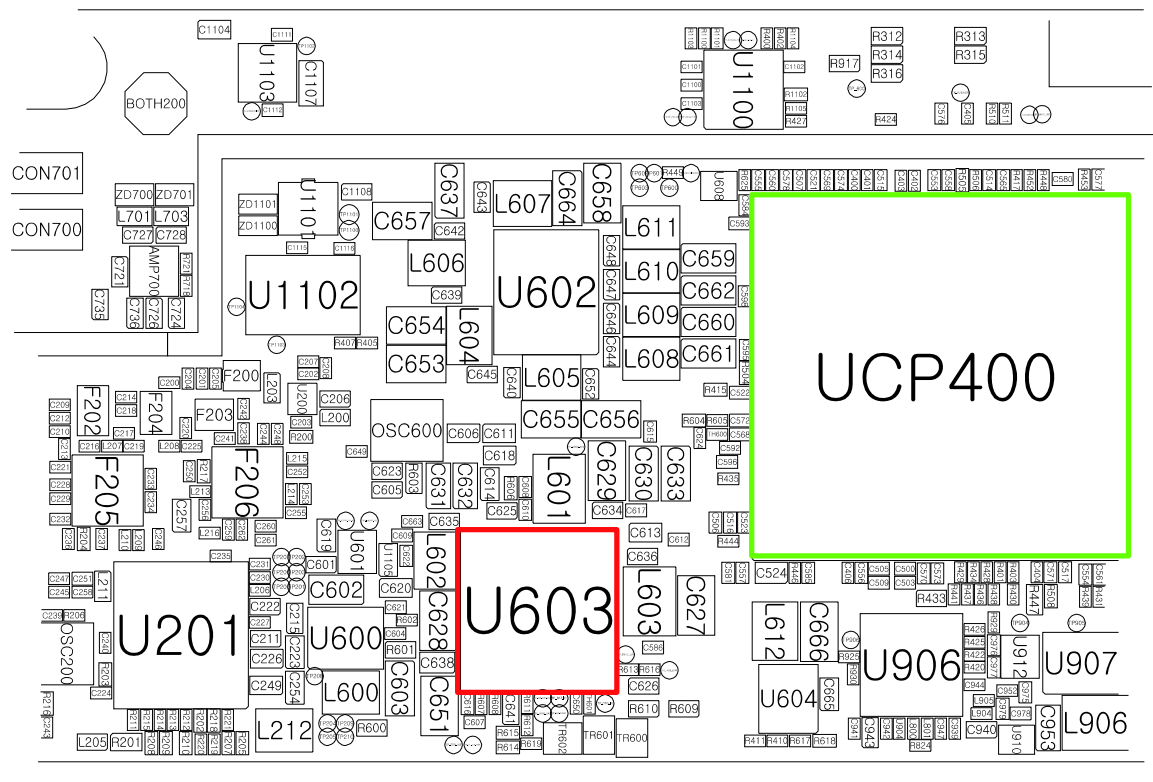




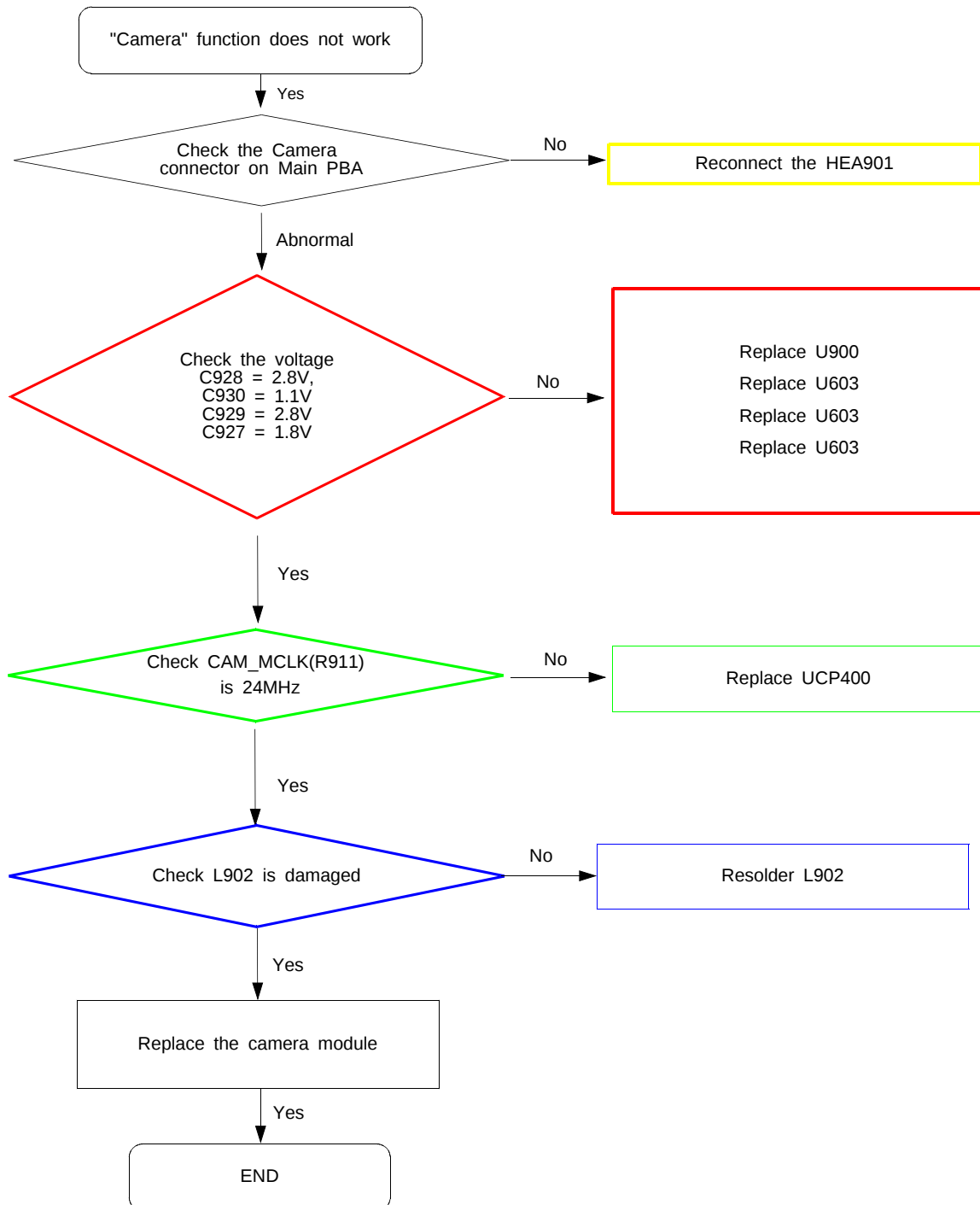
8-3-12. VT CAM

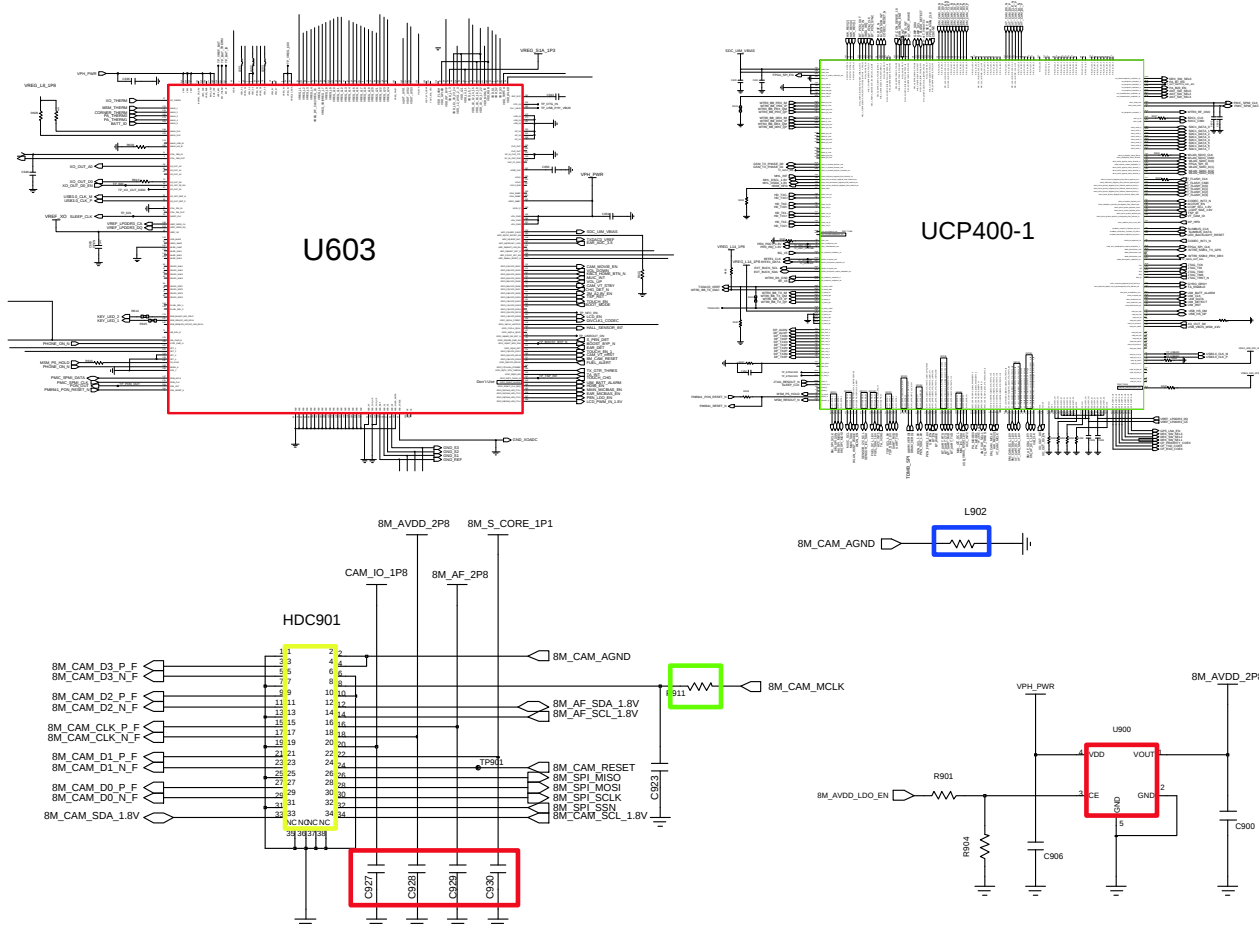




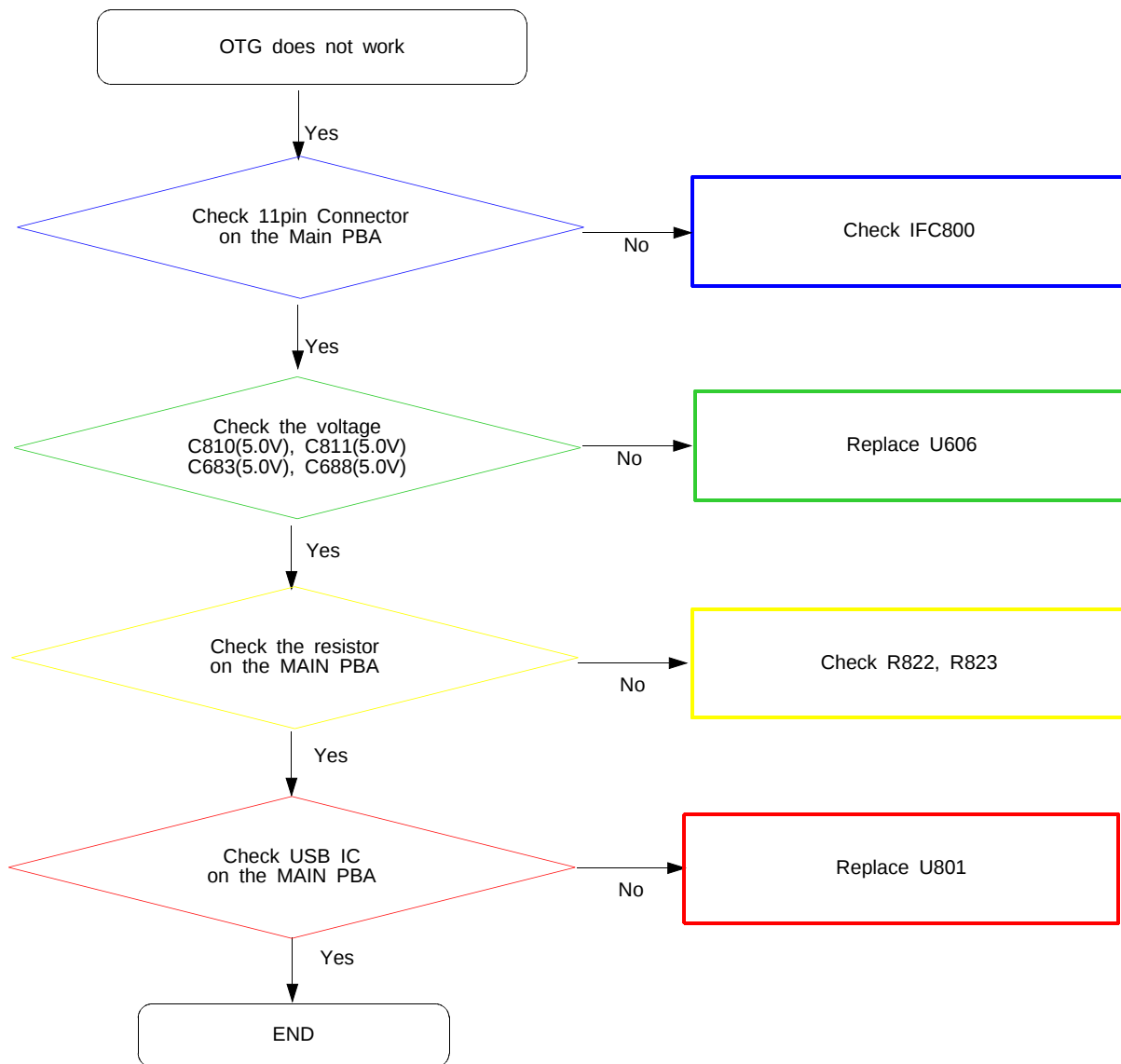


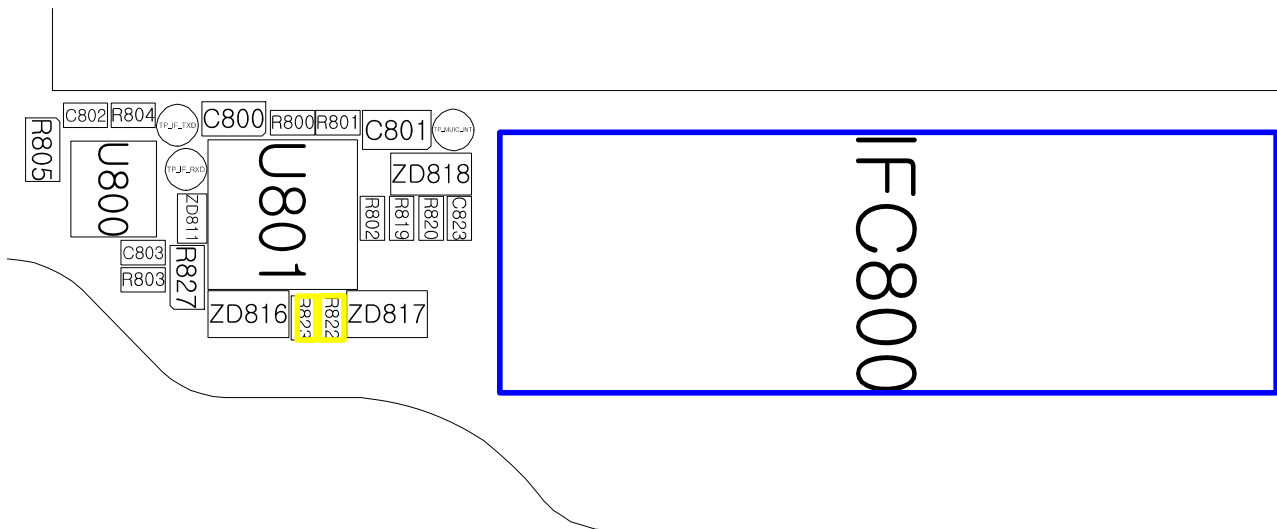
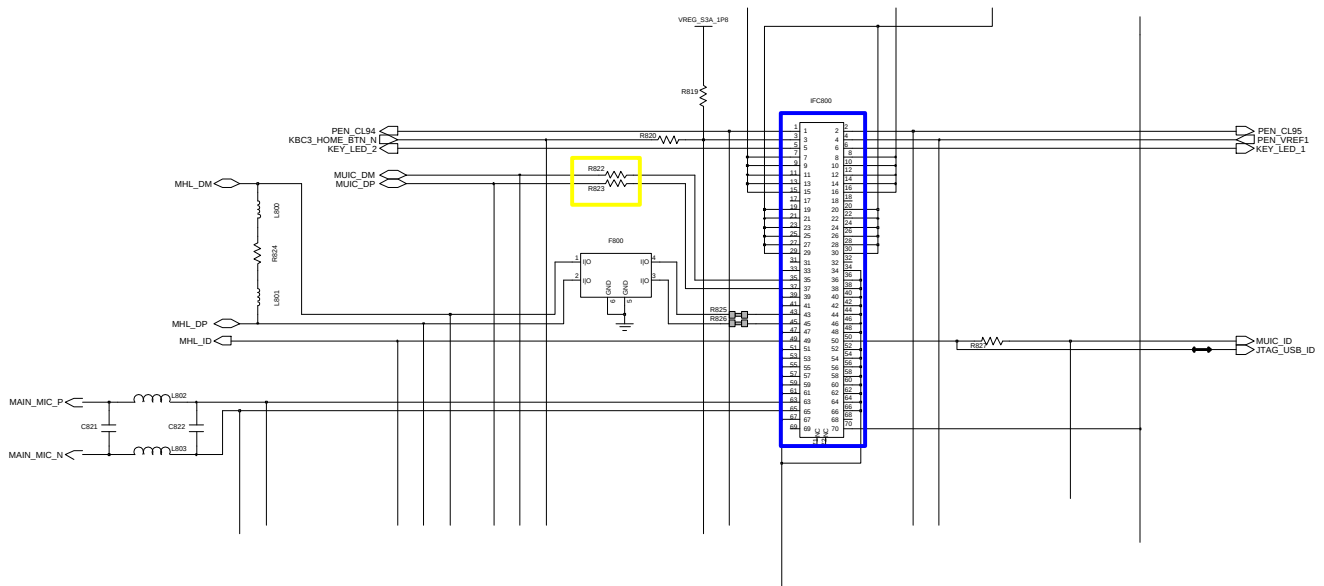
8-3-13. 8M CAM

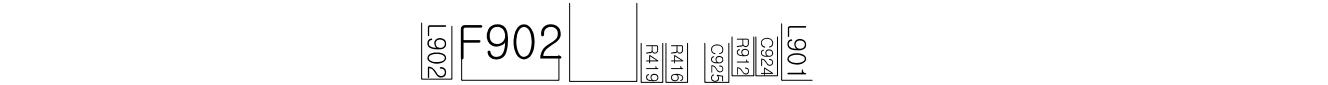


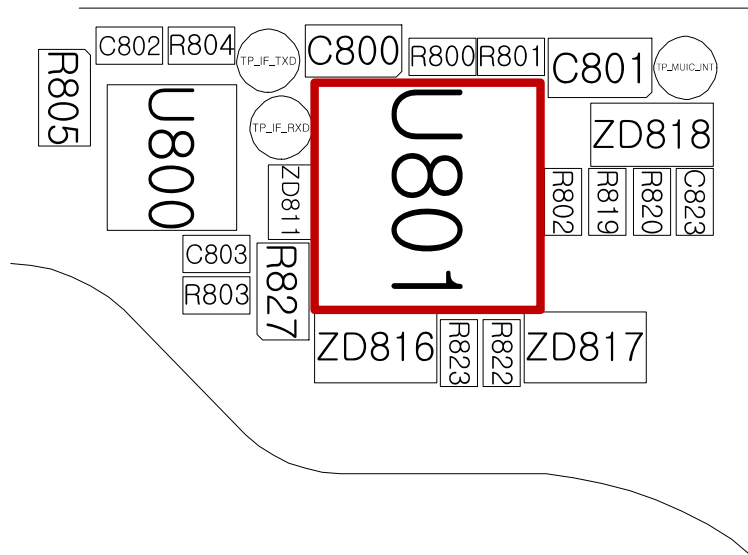
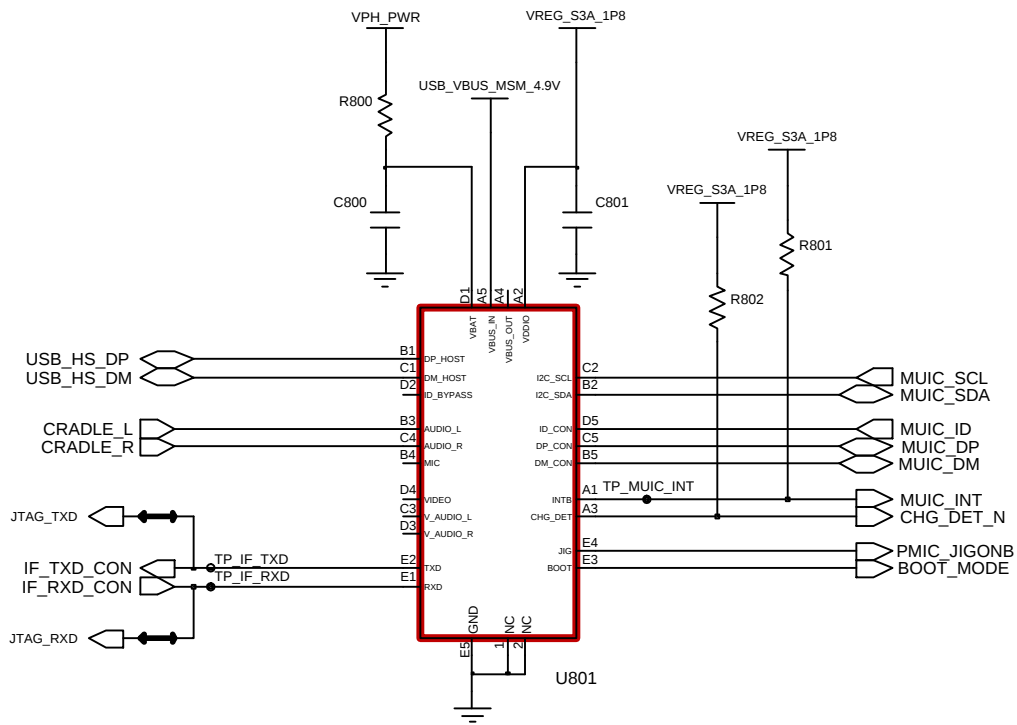


8-3-14. OTG

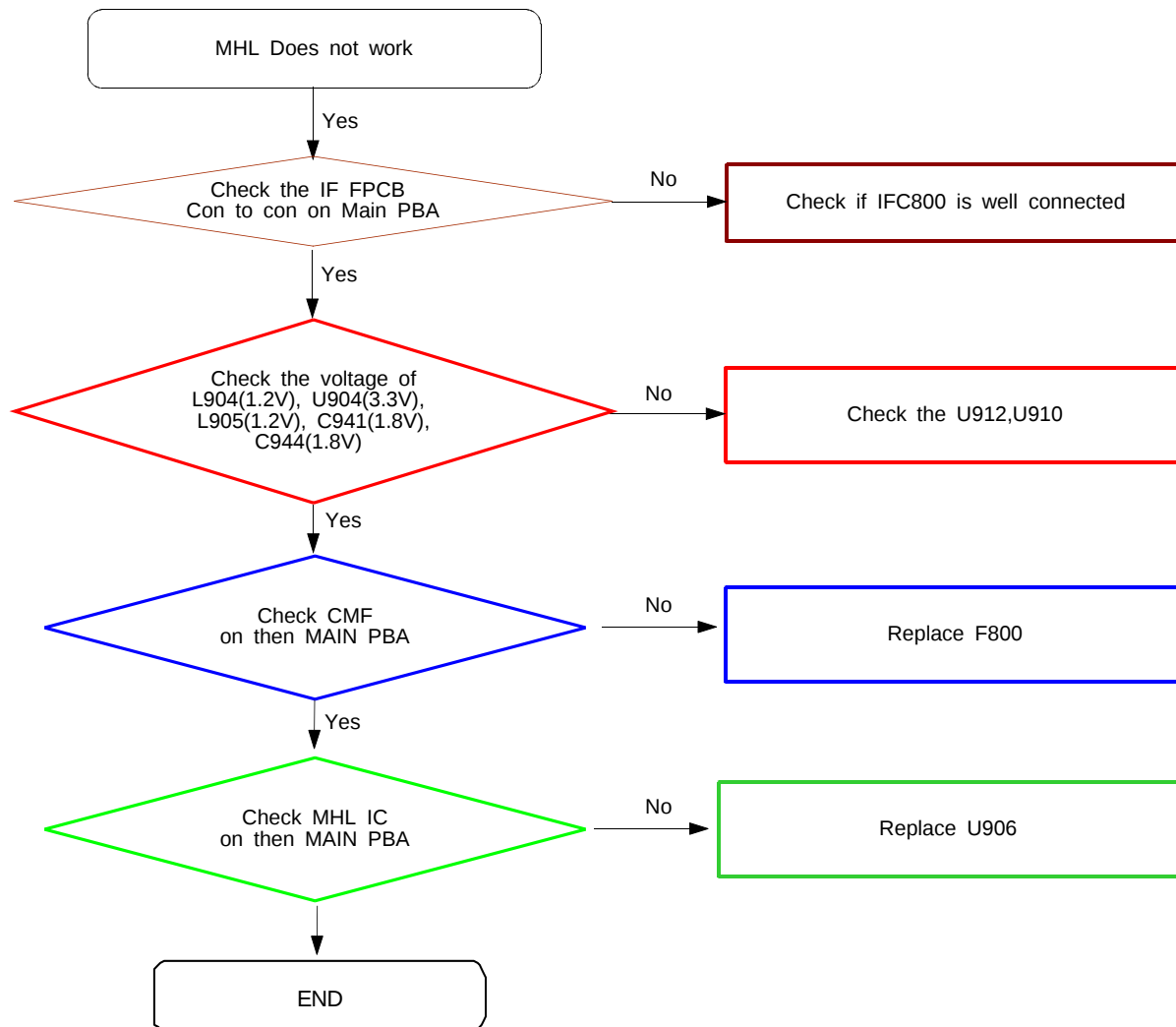


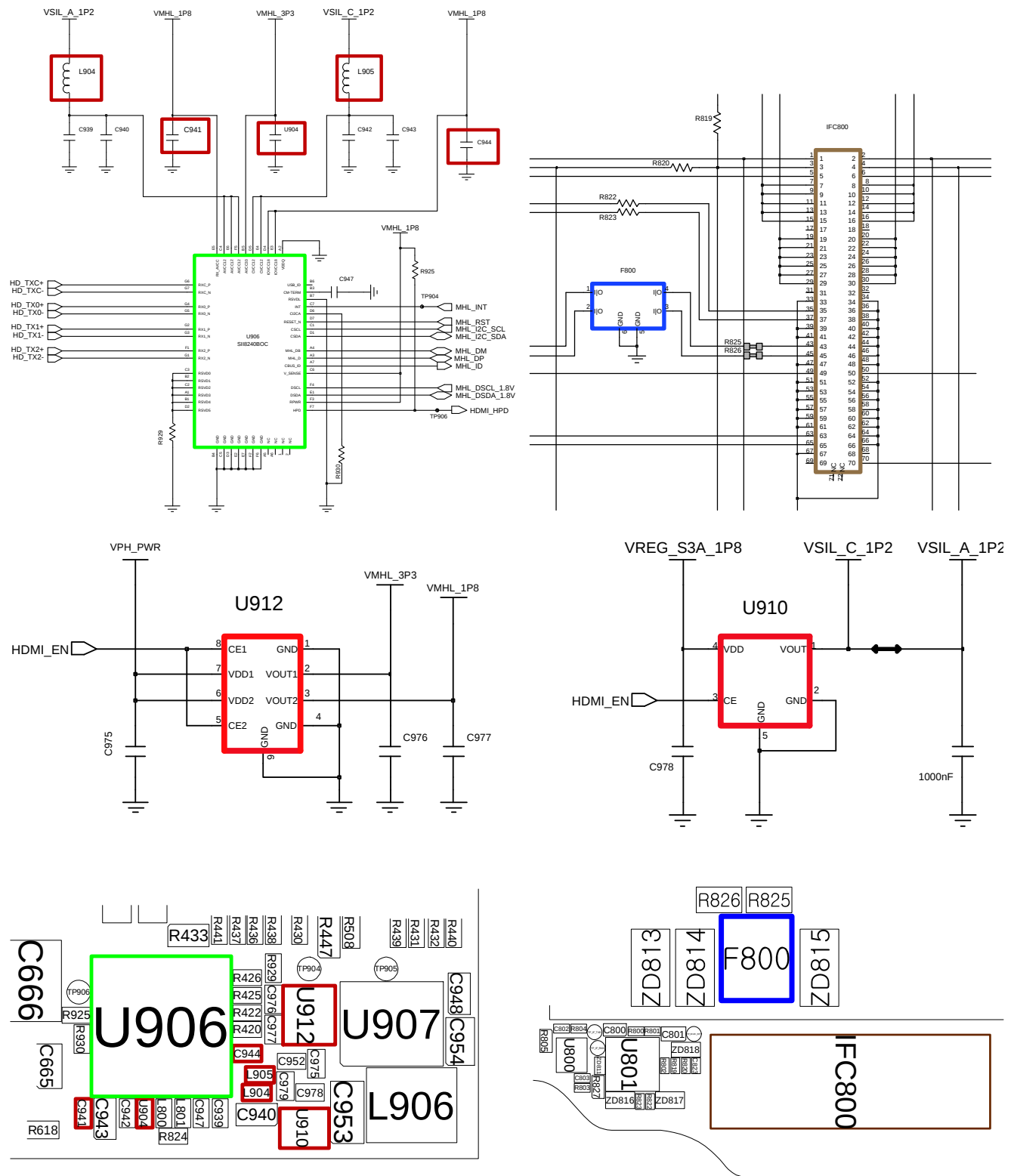




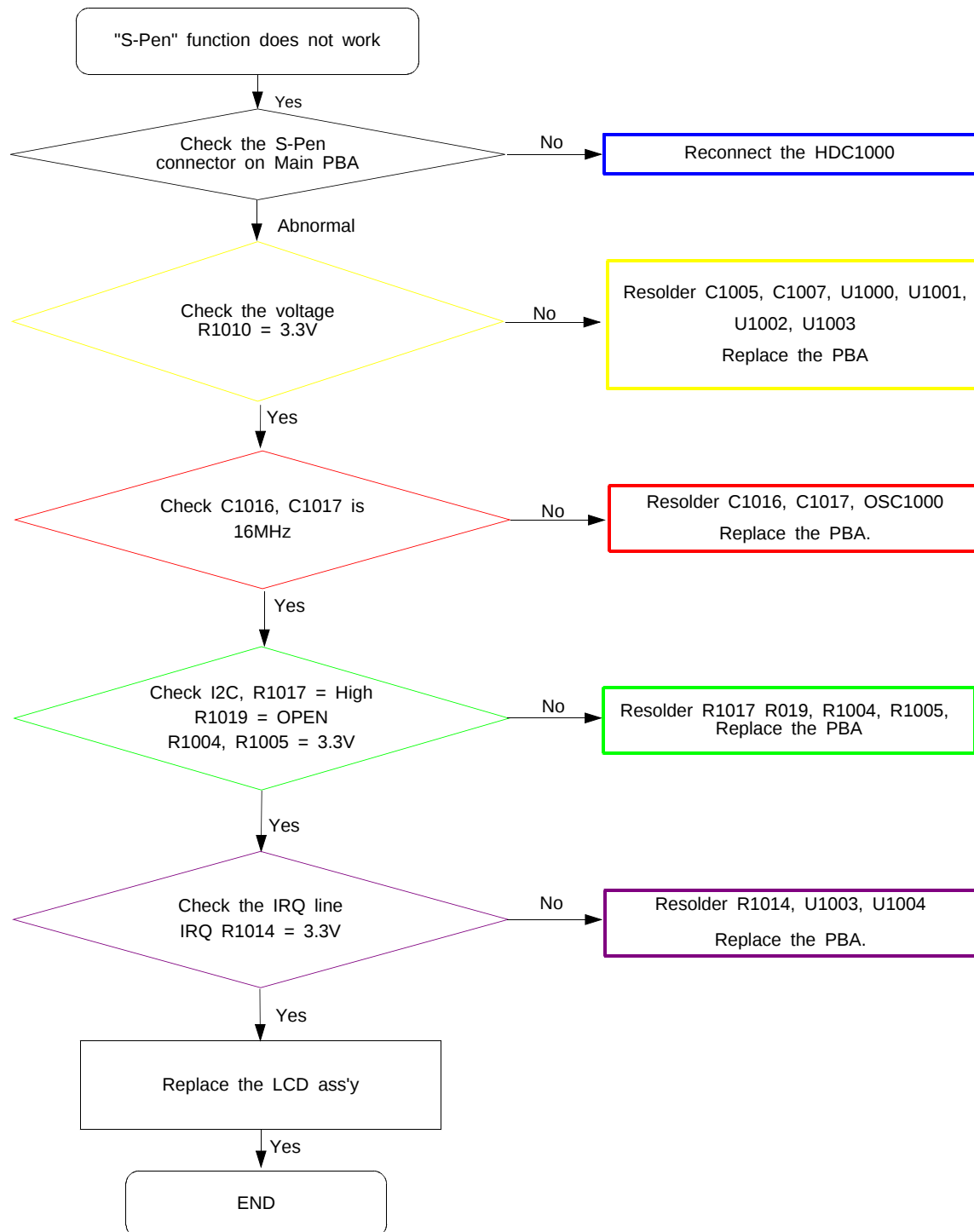


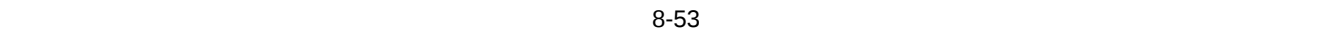
8-3-15. MHL



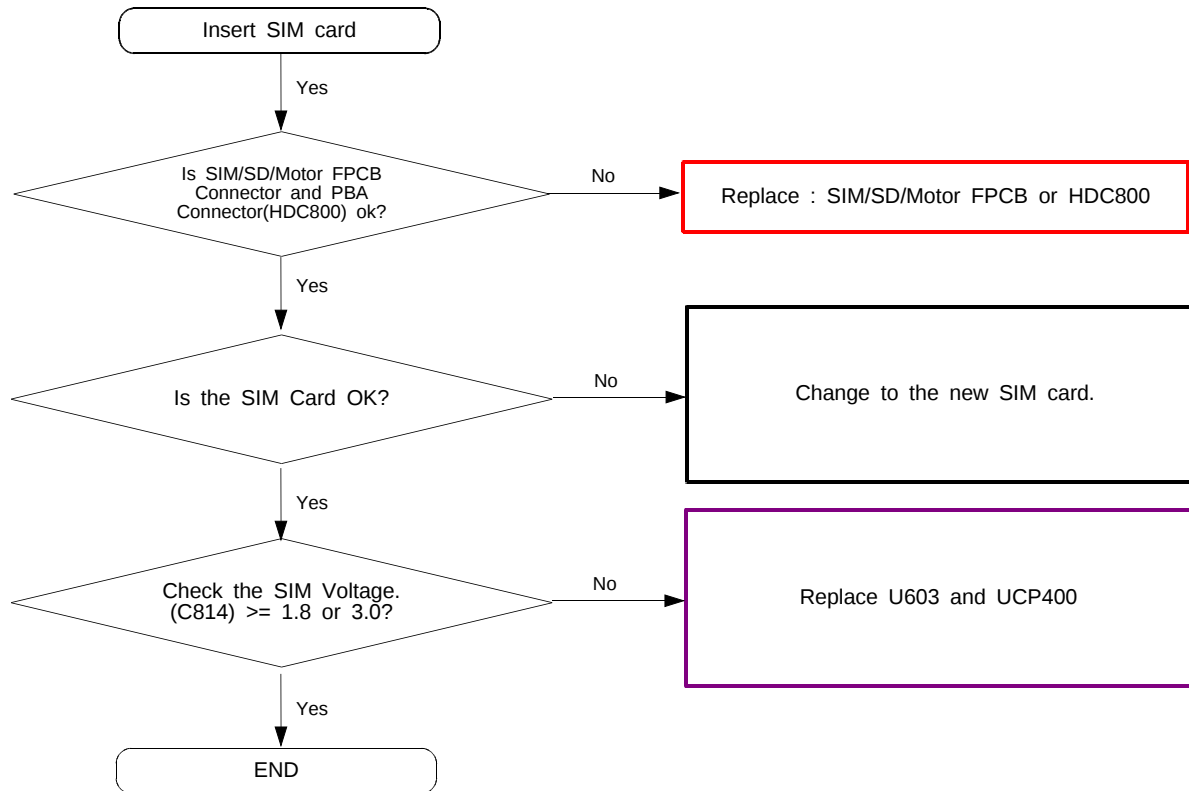


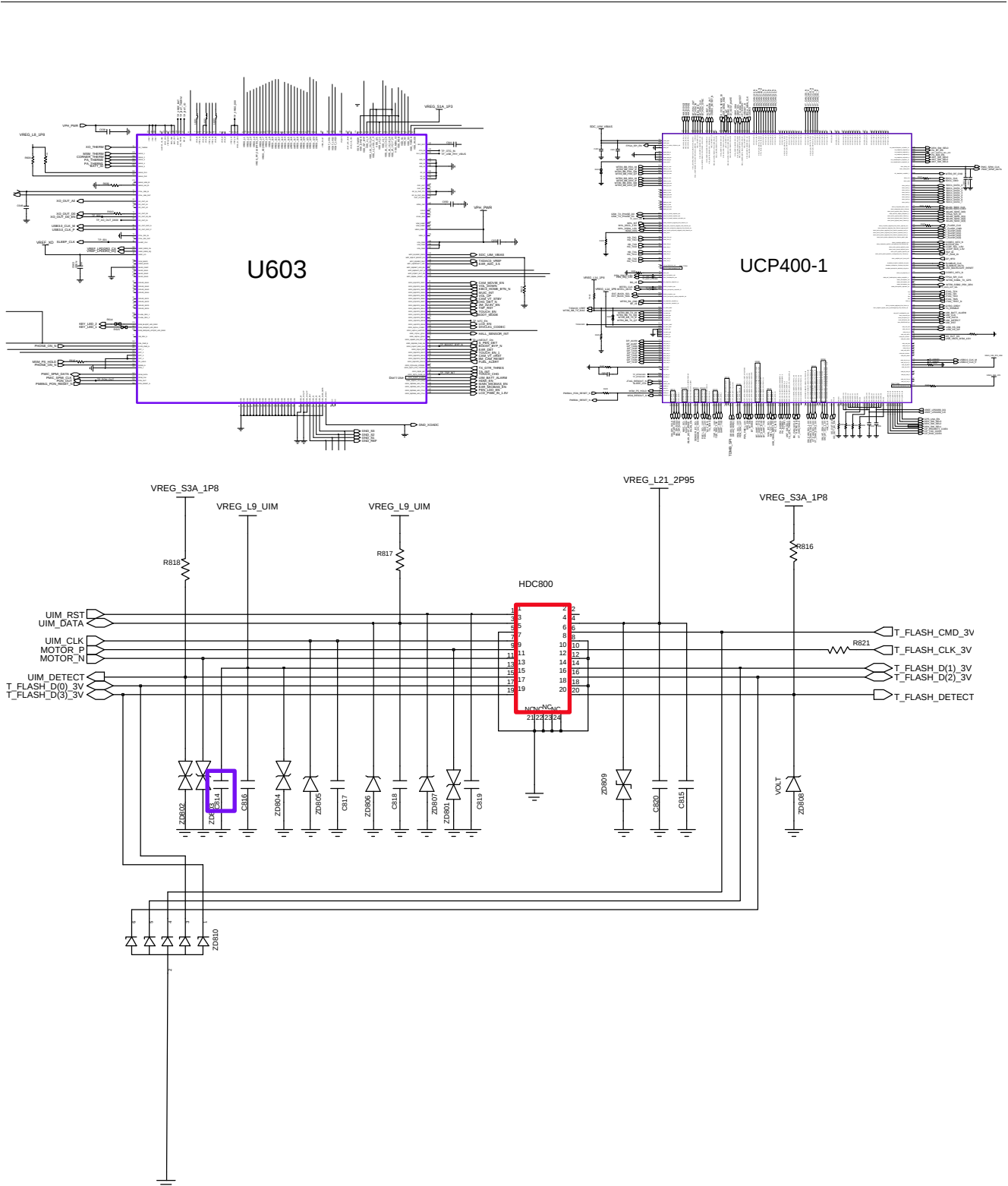
8-3-16. S-pen

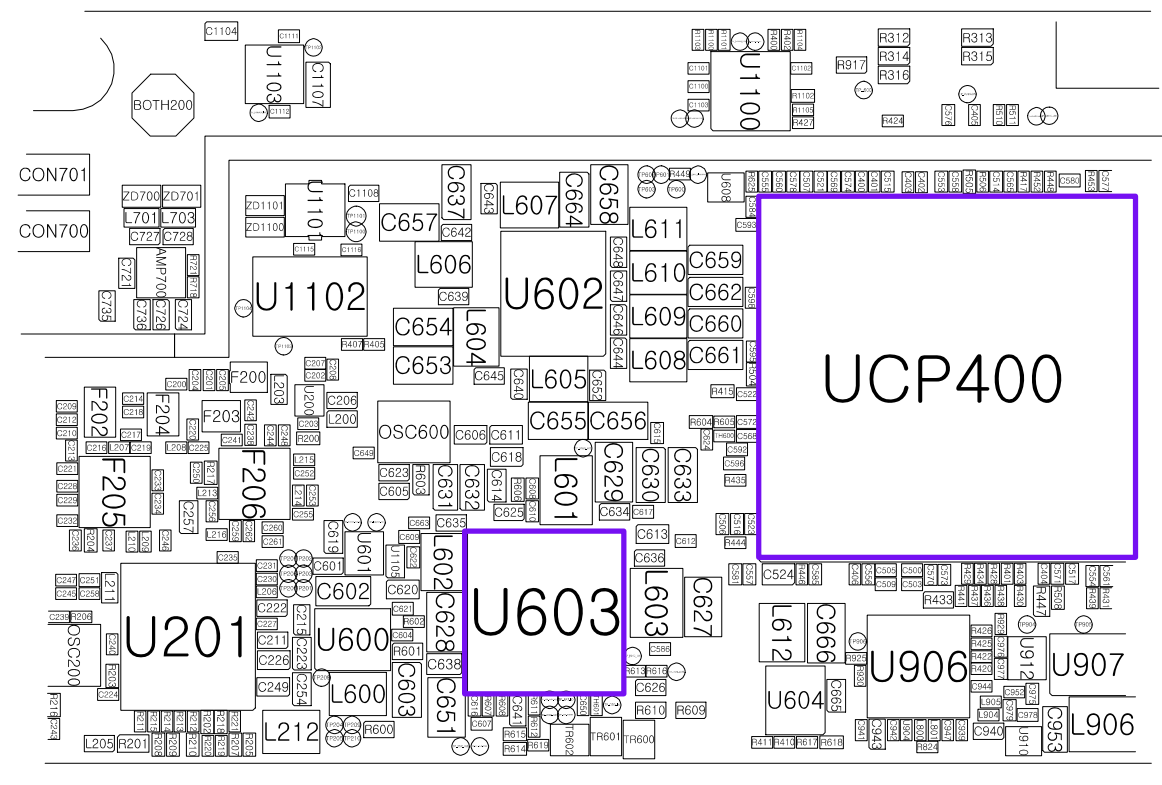
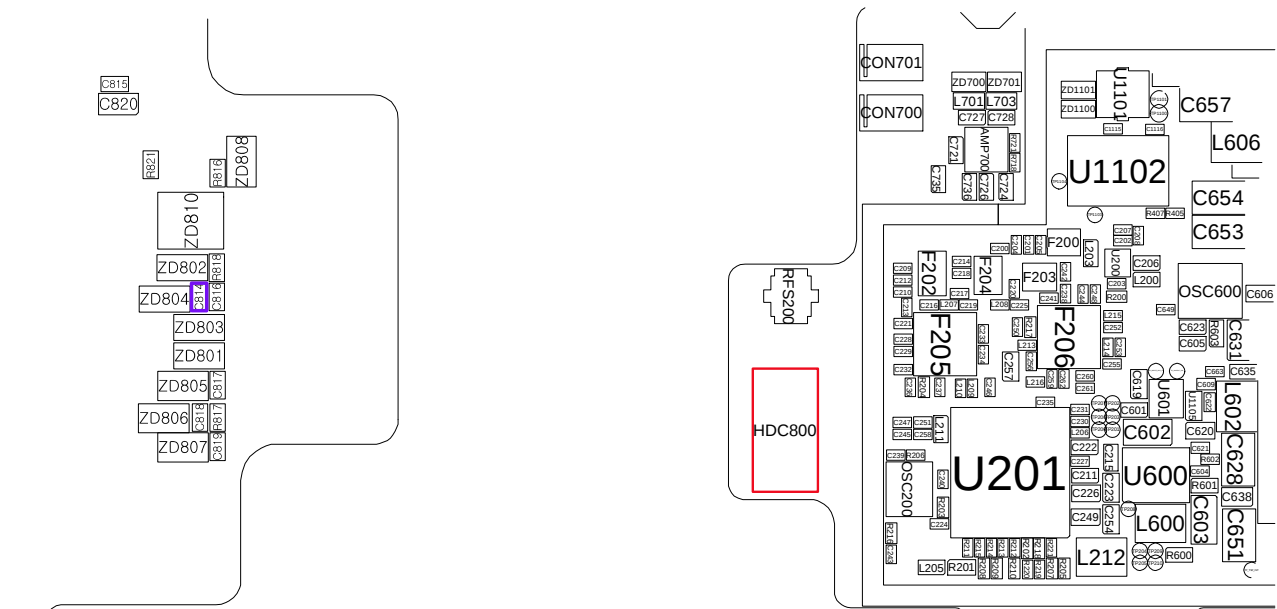




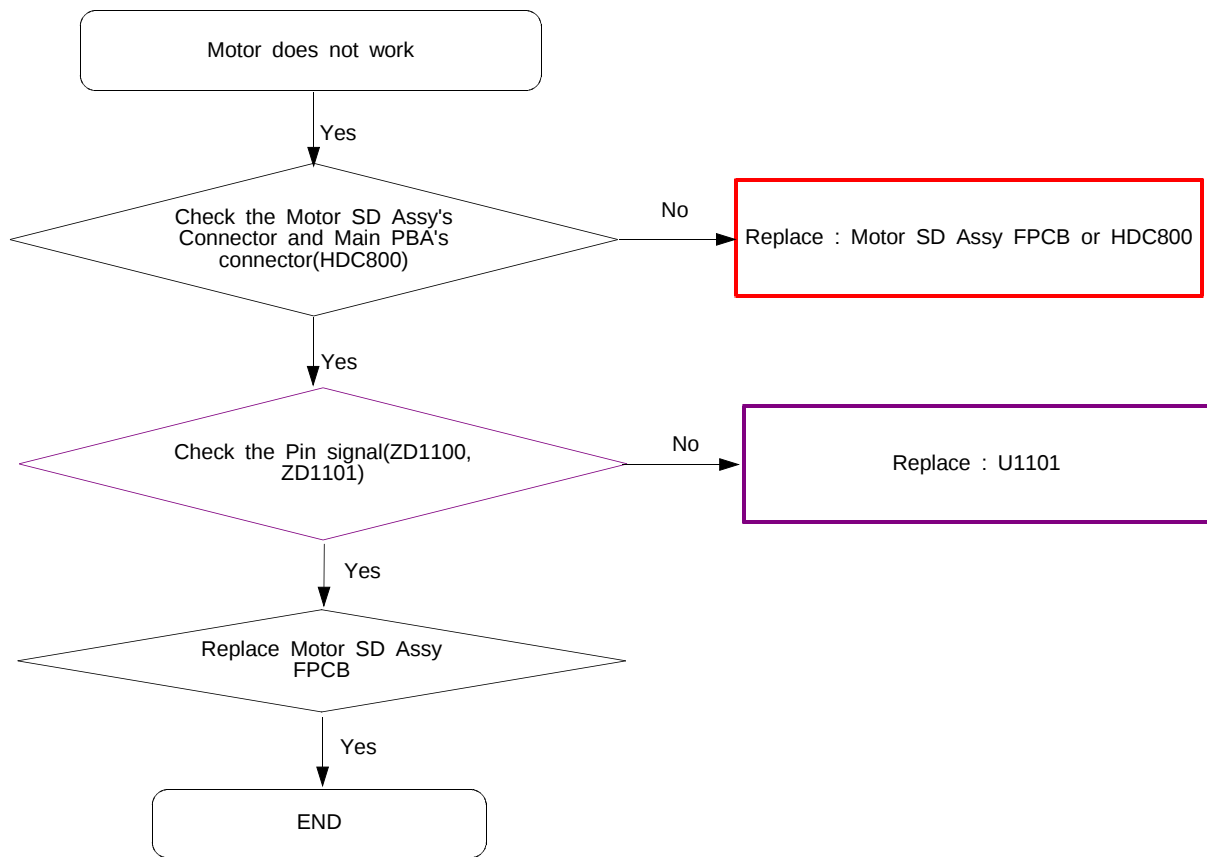
8-3-17. Sim Part

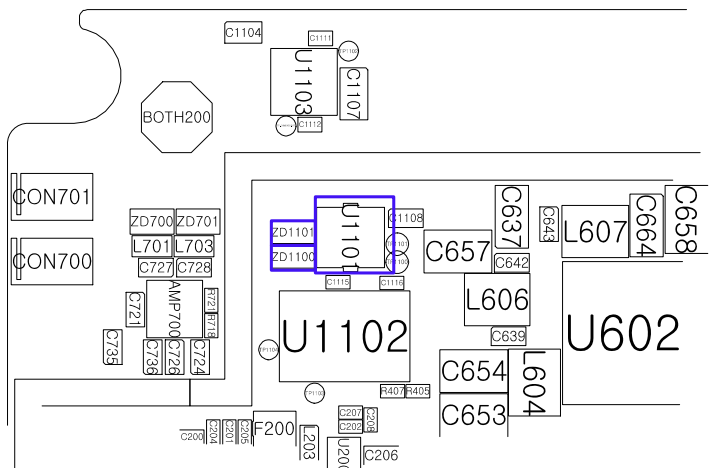
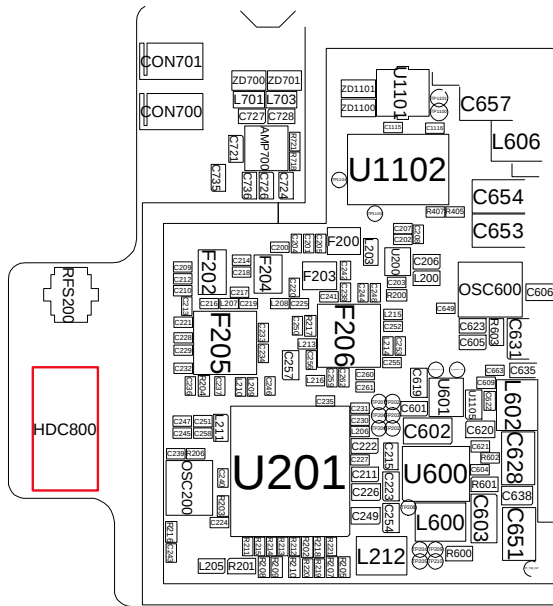
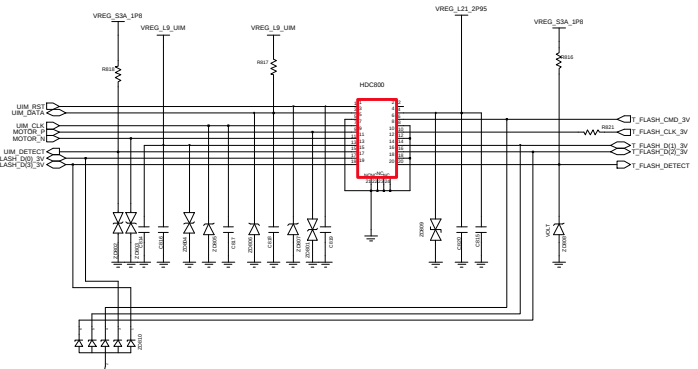
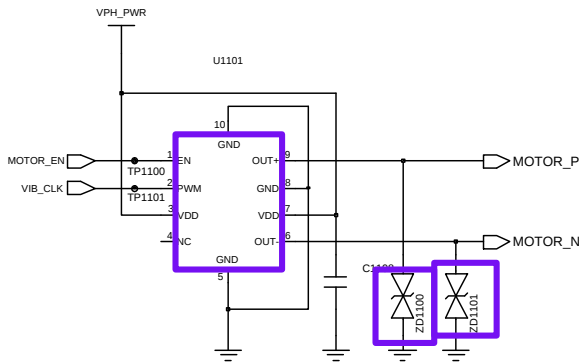




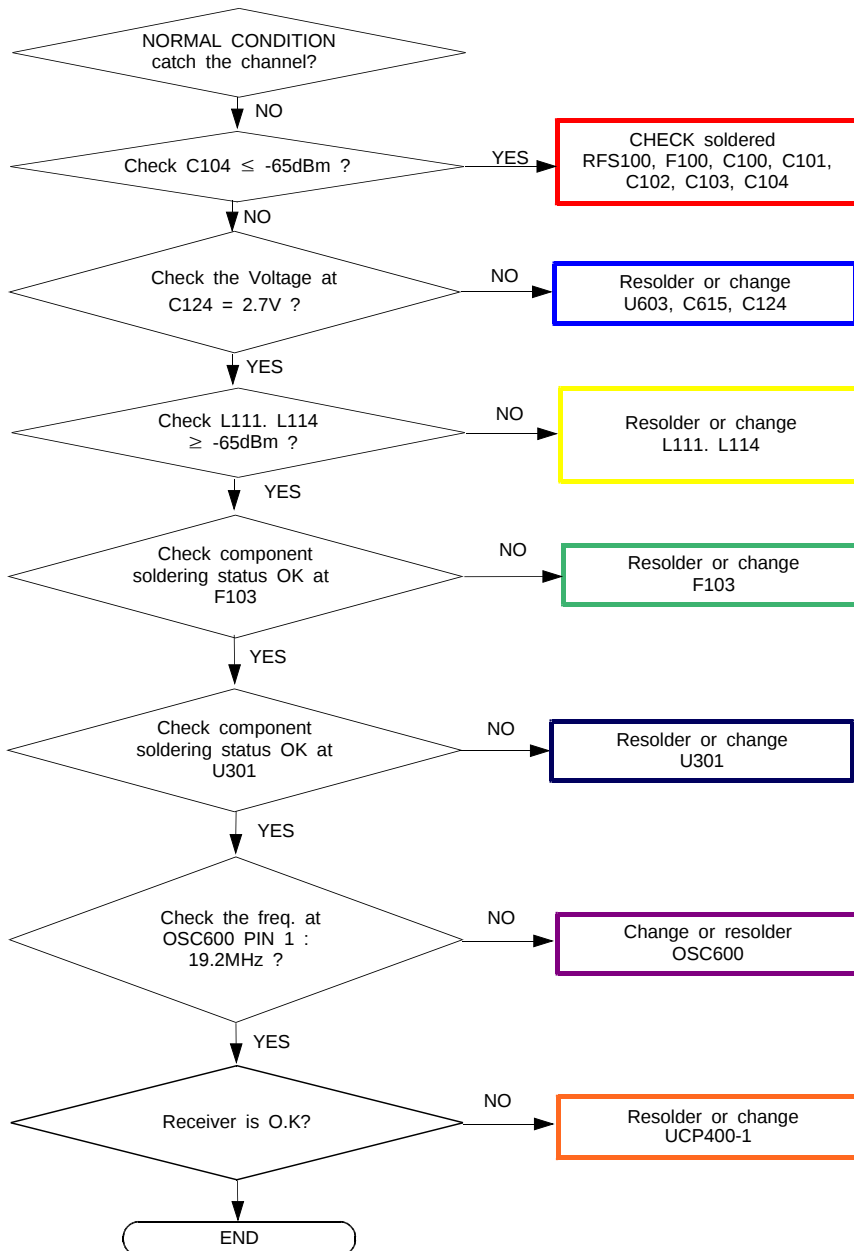


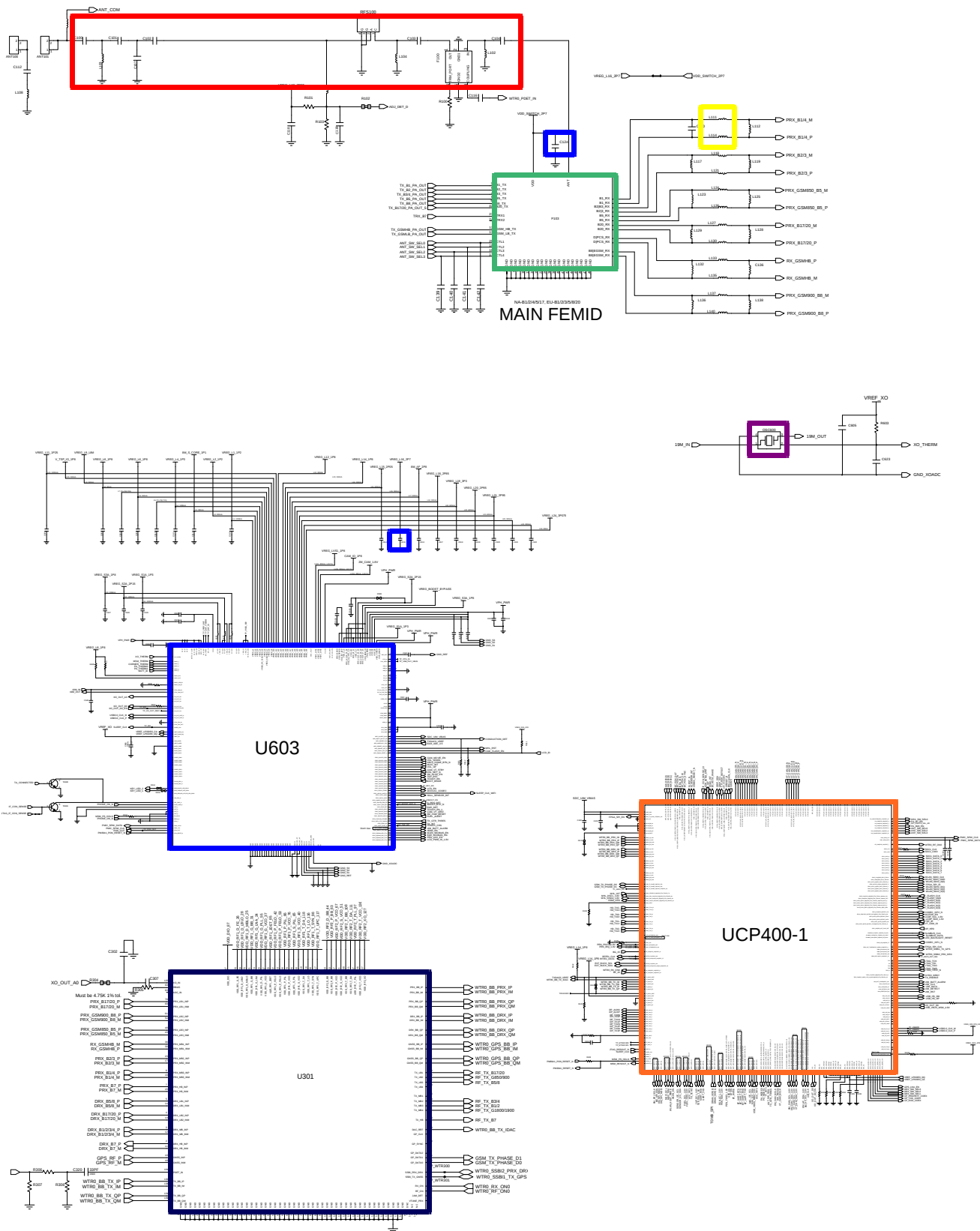
8-3-18. Motor

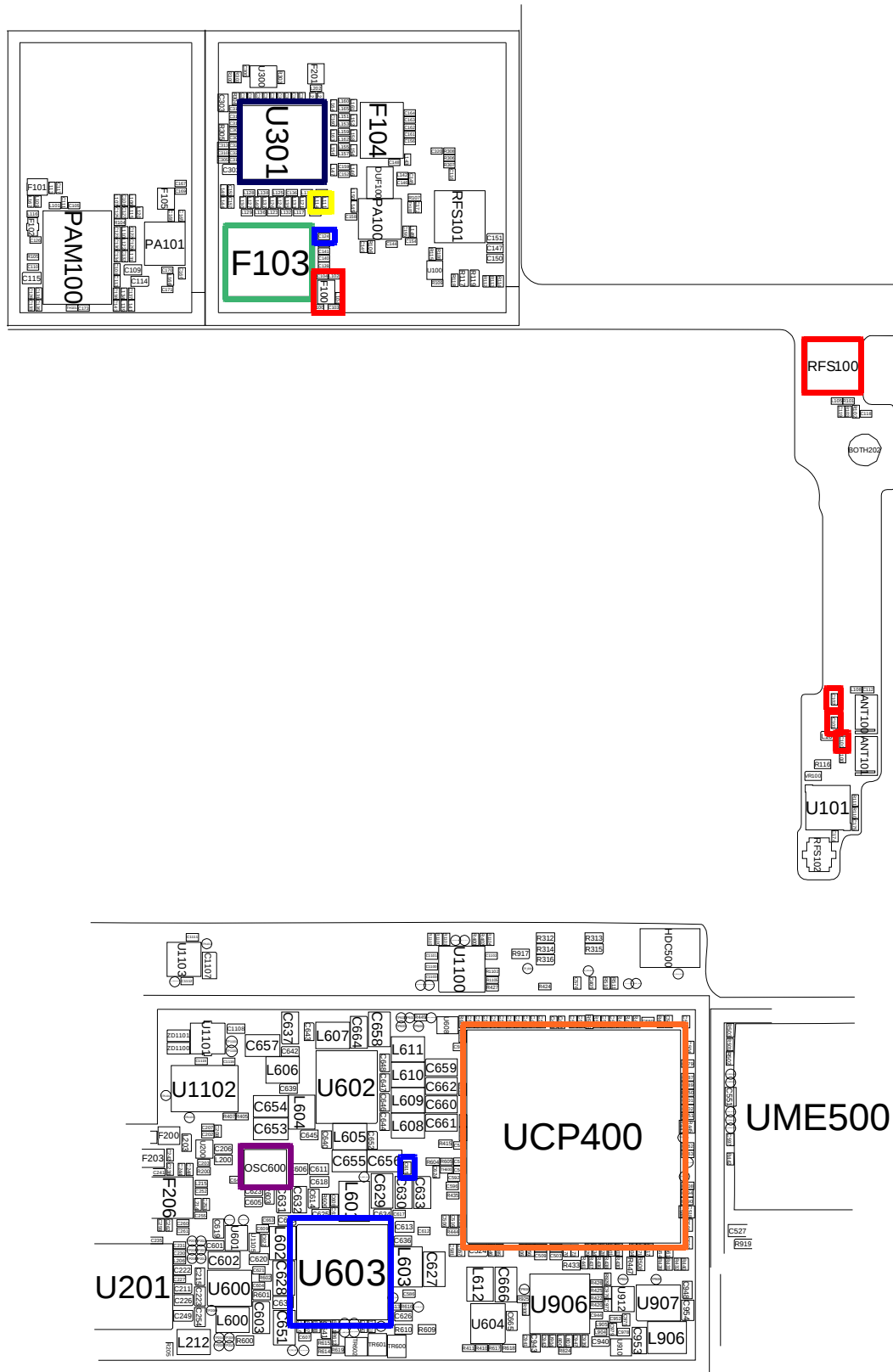




8-3-19. LTE Band1/ WCDMA Band1 RX

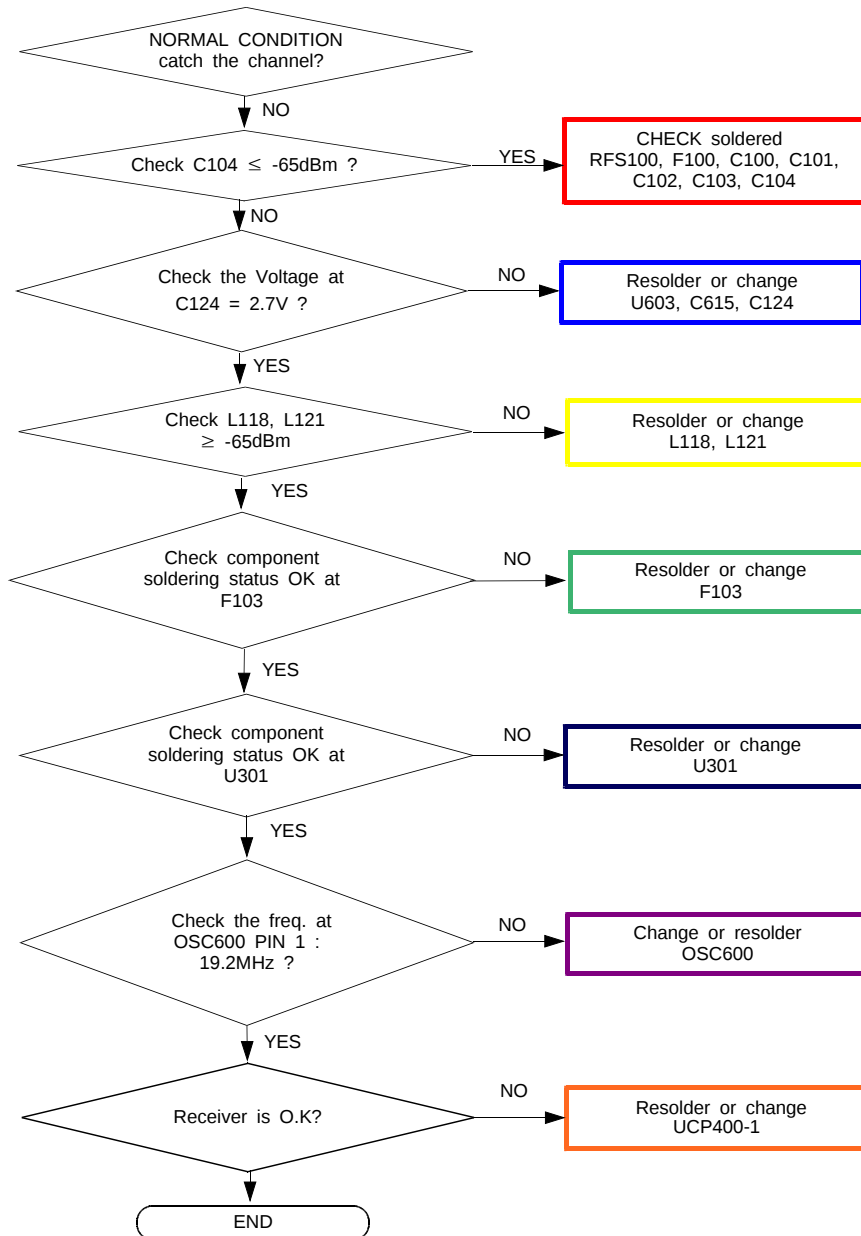


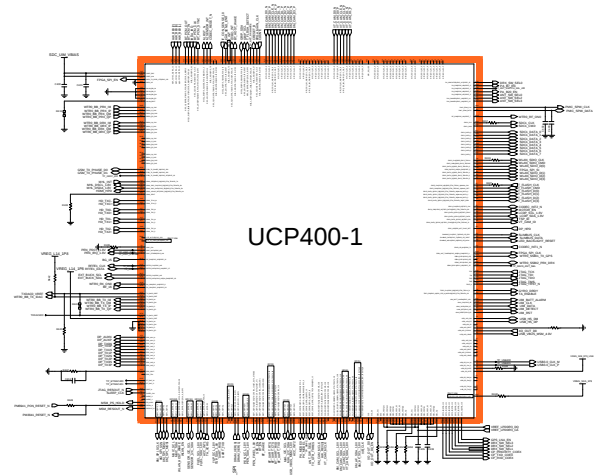
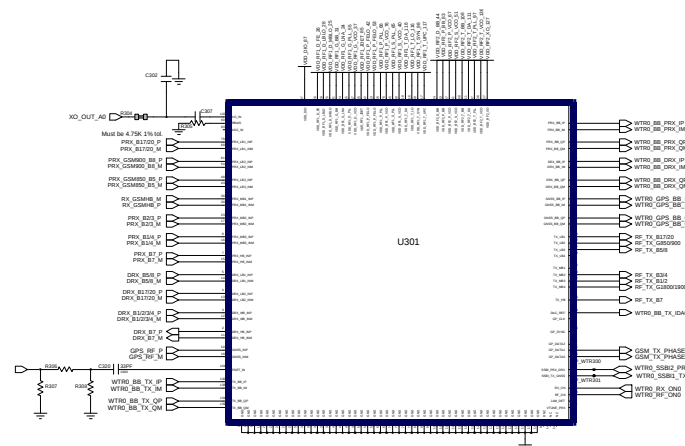
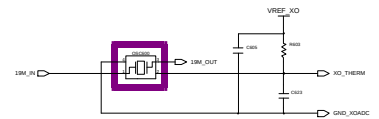


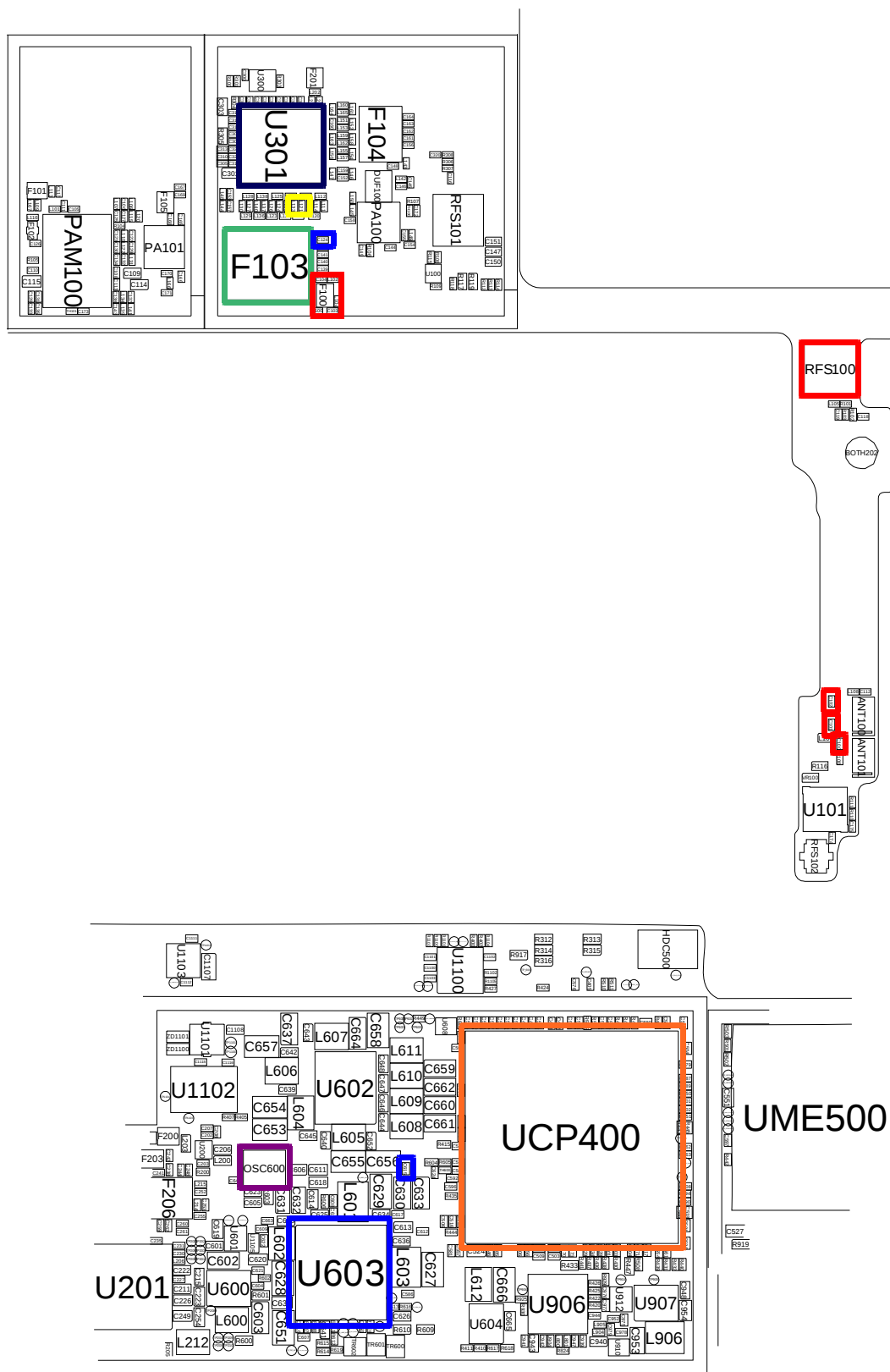


8-3-20. LTE Band3/ WCDMA Band2 RX

CONTINUOUS RX ON
RF INPUT : LTE B3: 1575CH
WCDMA B2: 4407CH
AMP : -50dBm

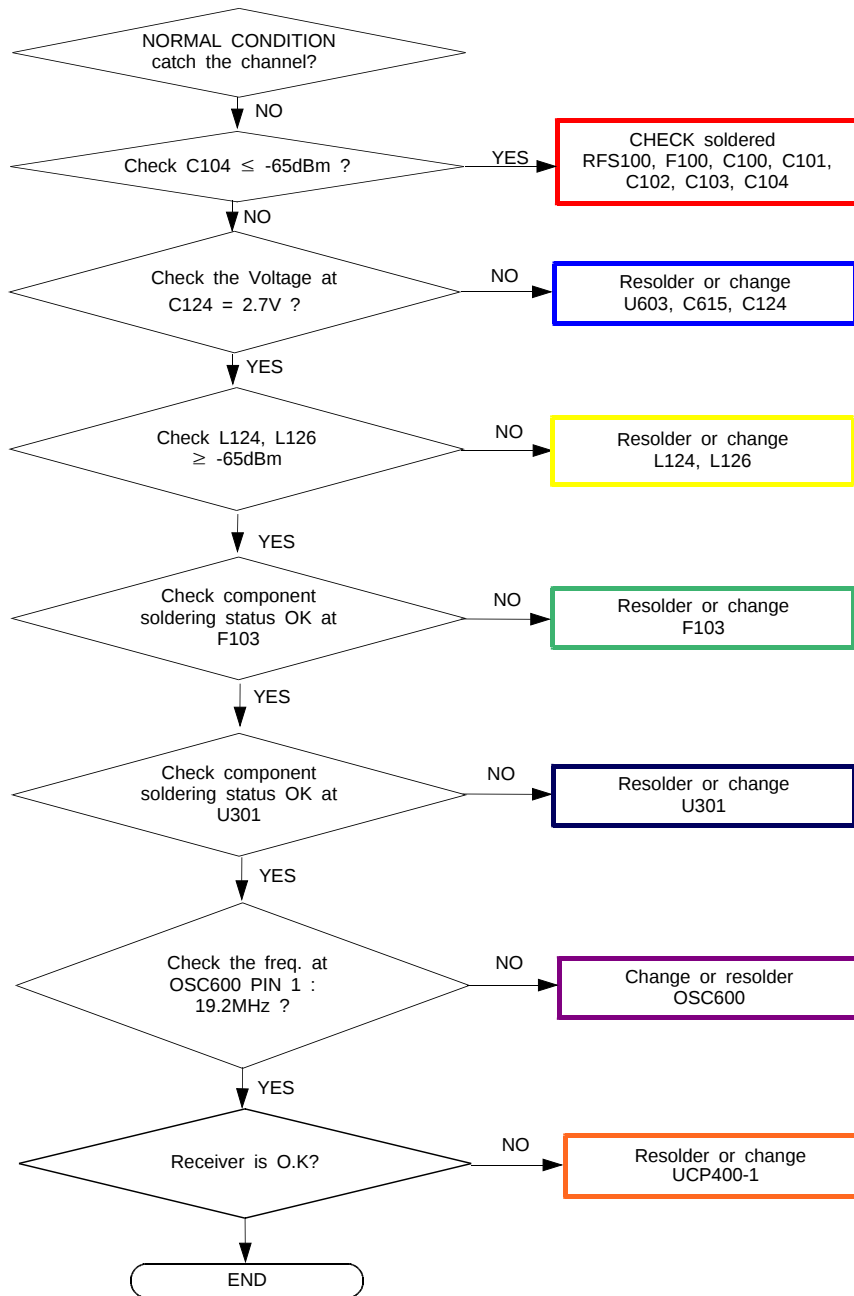


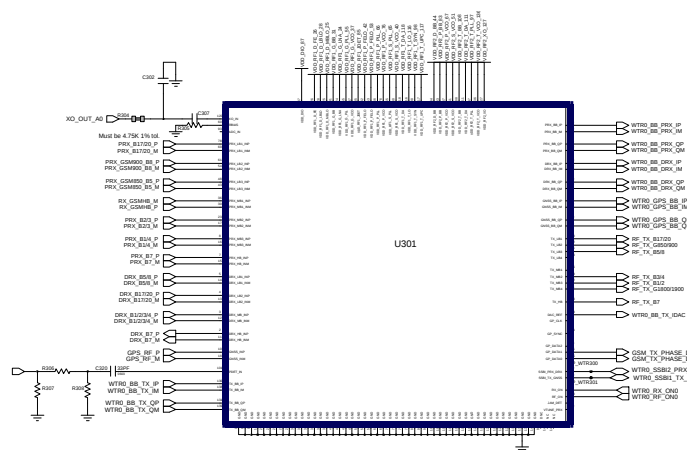
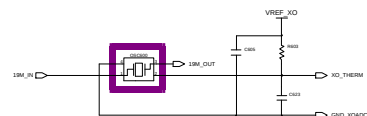


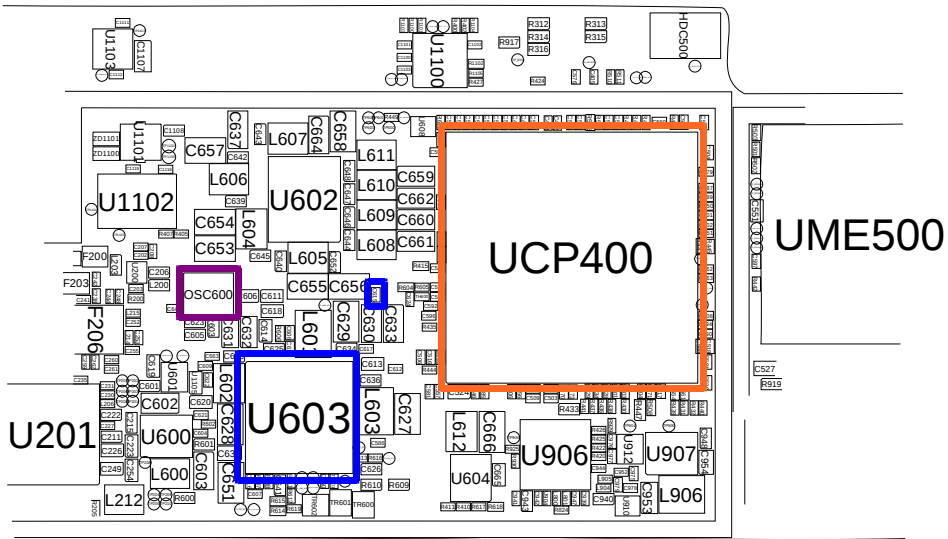


8-3-21. LTE Band5/ WCDMA Band5/ GSM850 RX

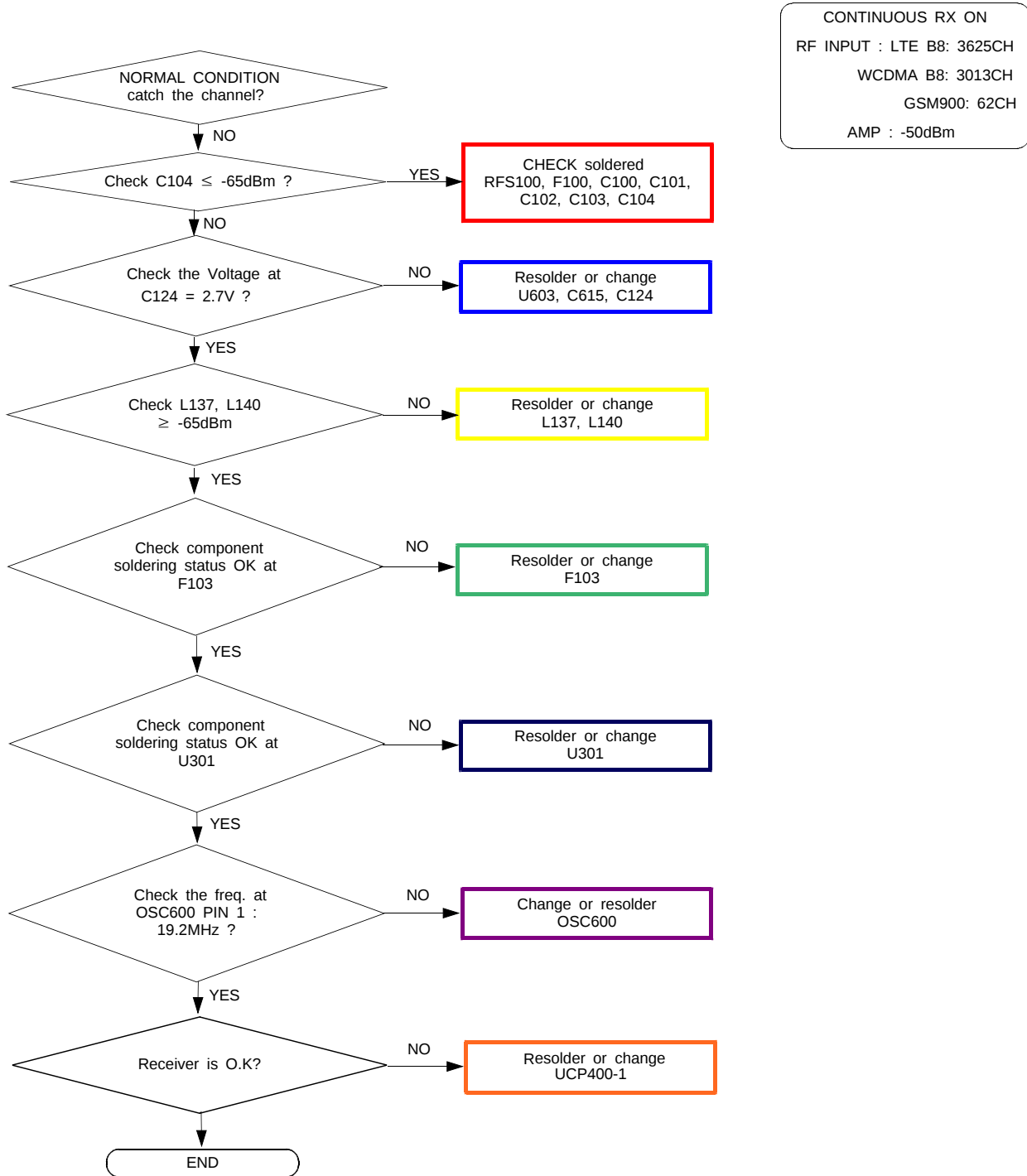
CONTINUOUS RX ON
 RF INPUT : LTE B5: 2525CH
 WCDMA B5: 4408CH
 GSM850: 190CH
 AMP : -50dBm

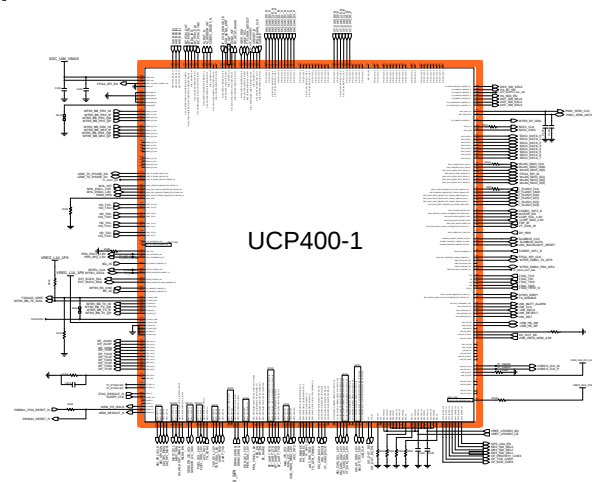
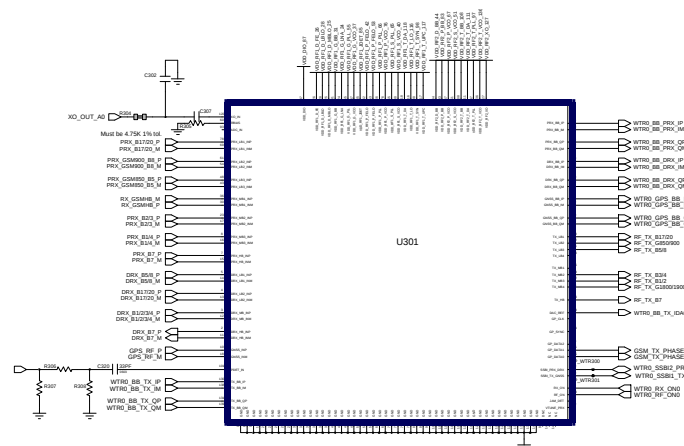
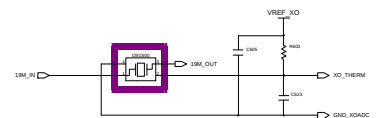
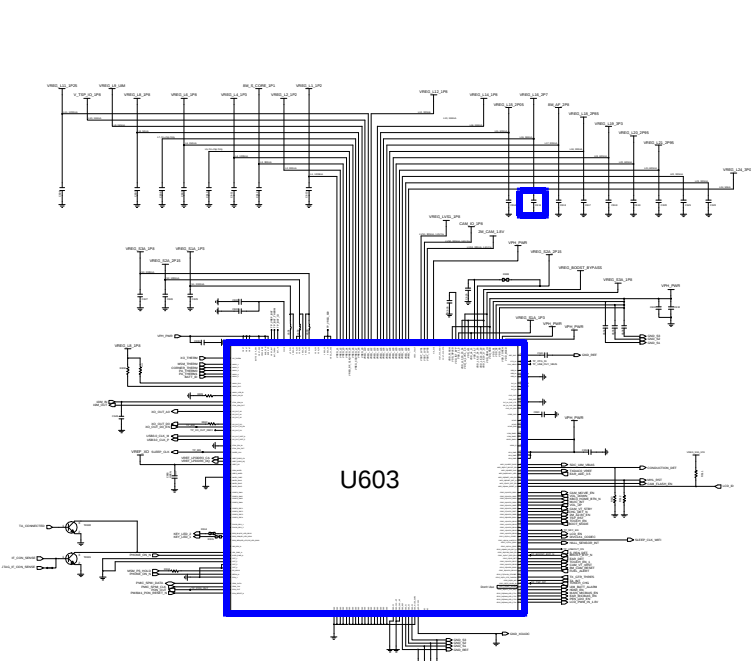
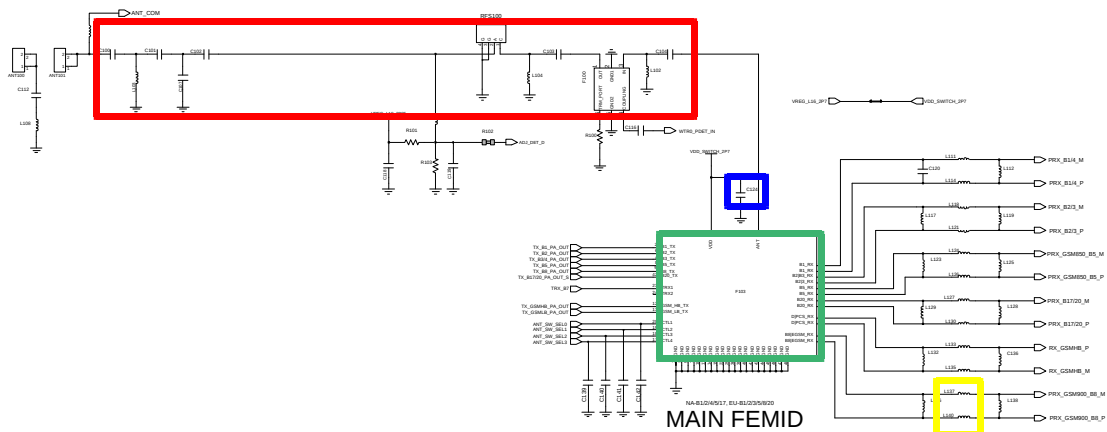


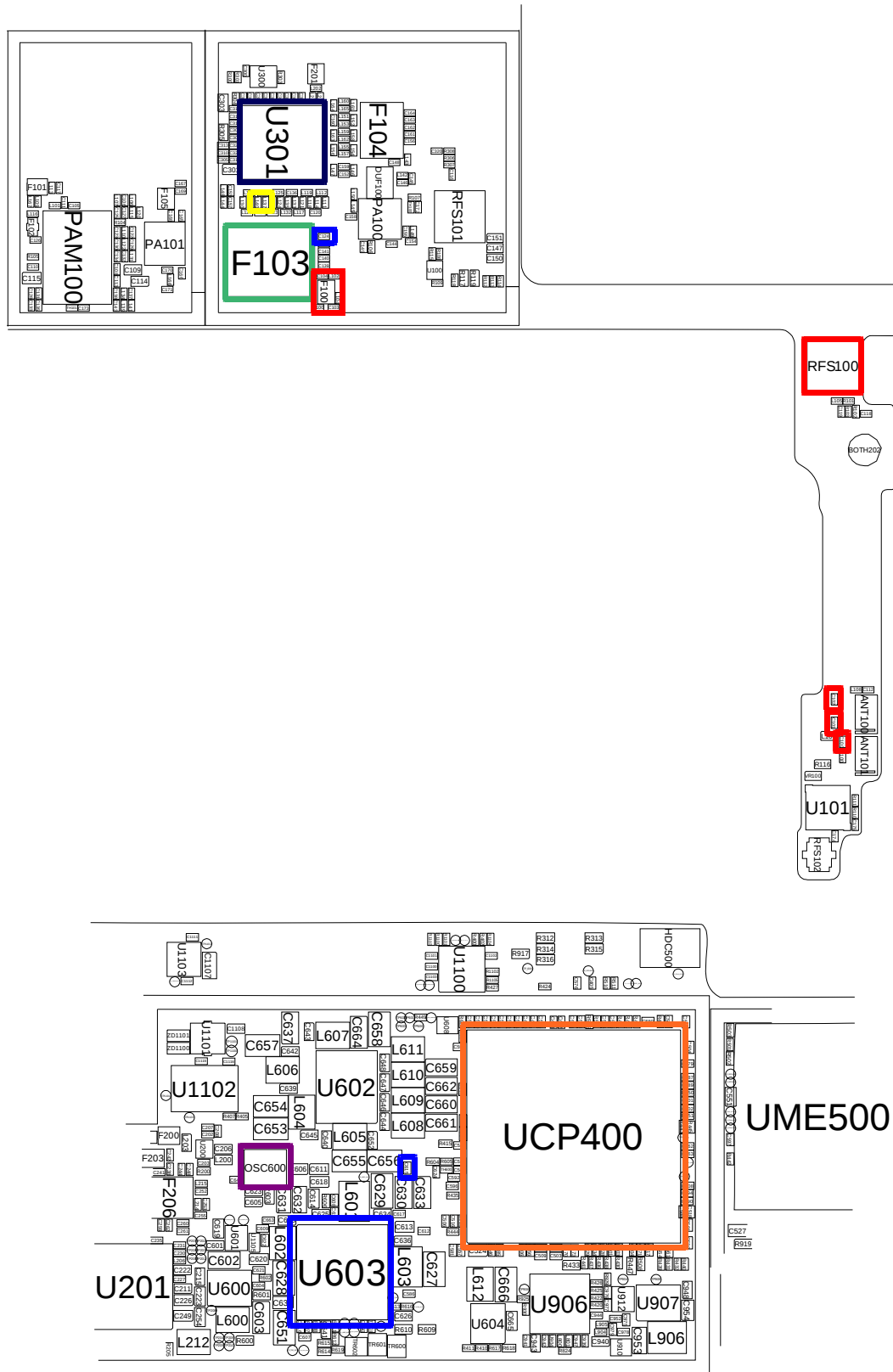




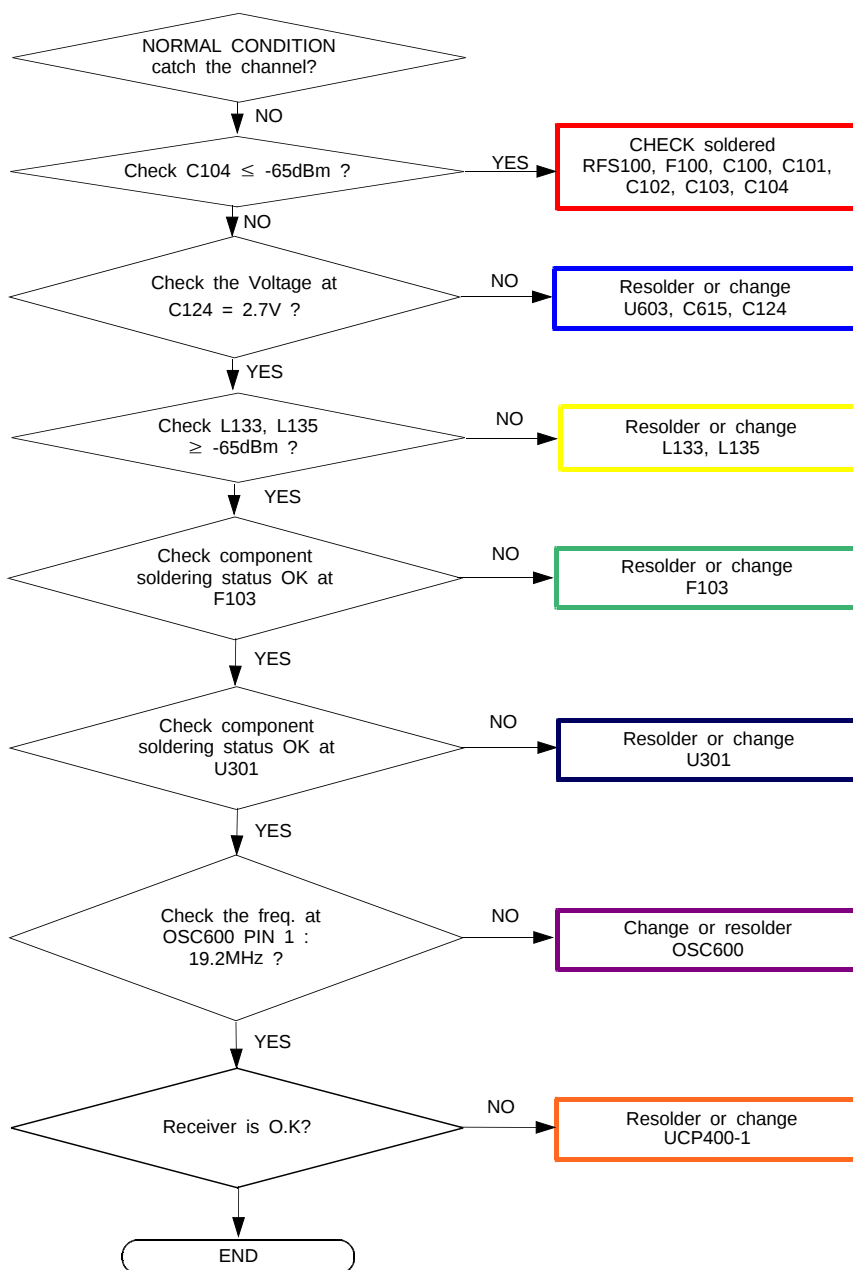
8-3-22. LTE Band8/ WCDMA Band8/ GSM900 RX



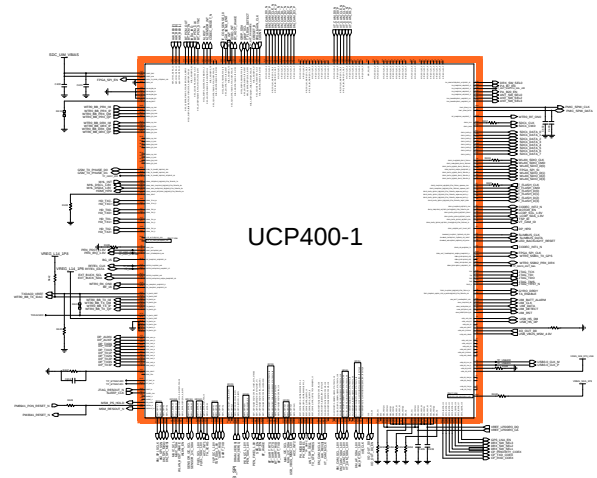
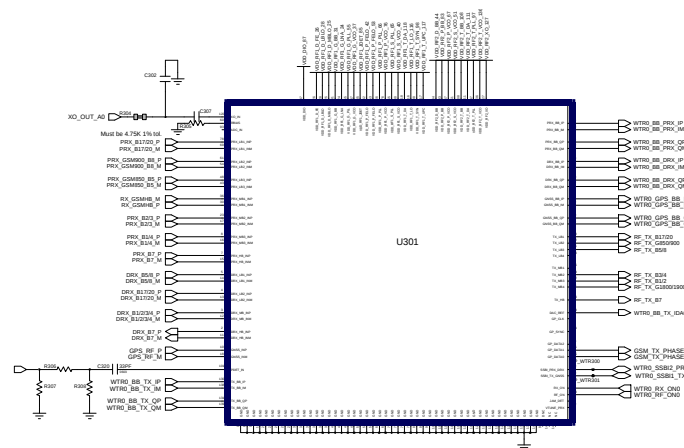
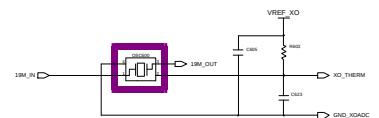
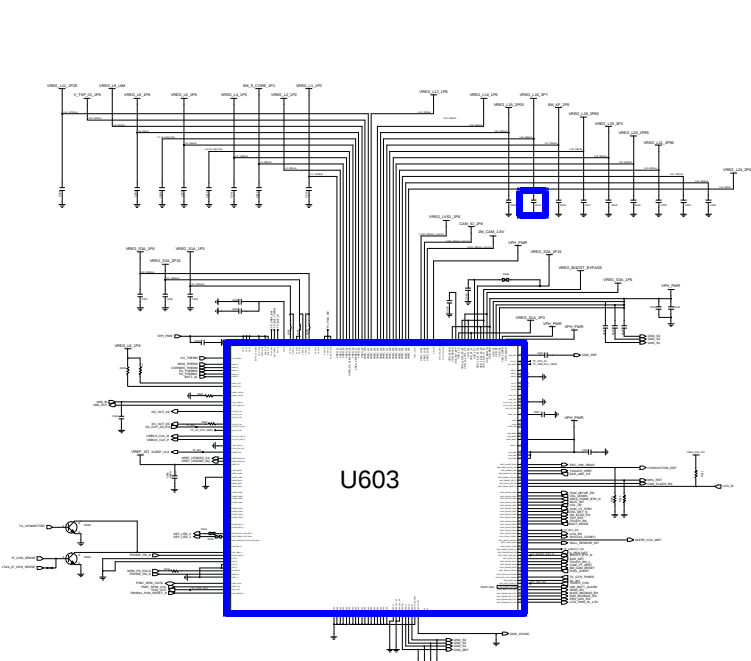
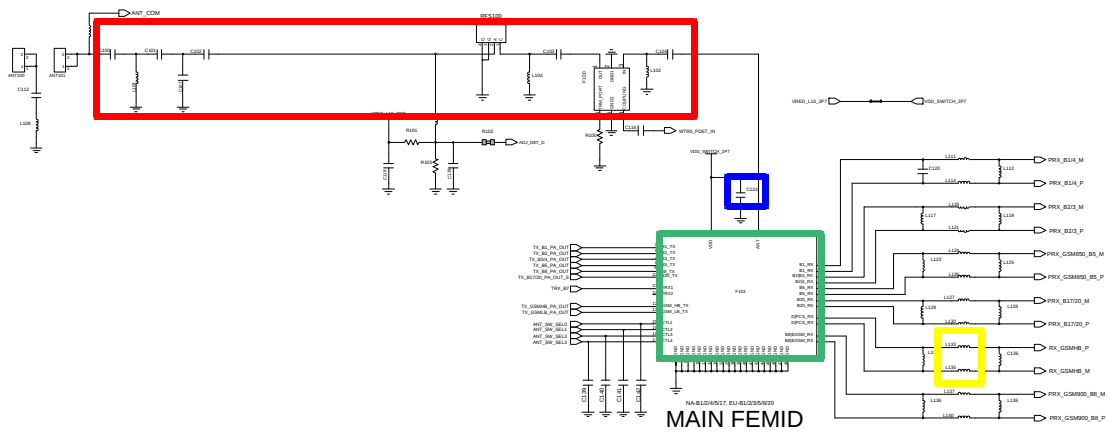


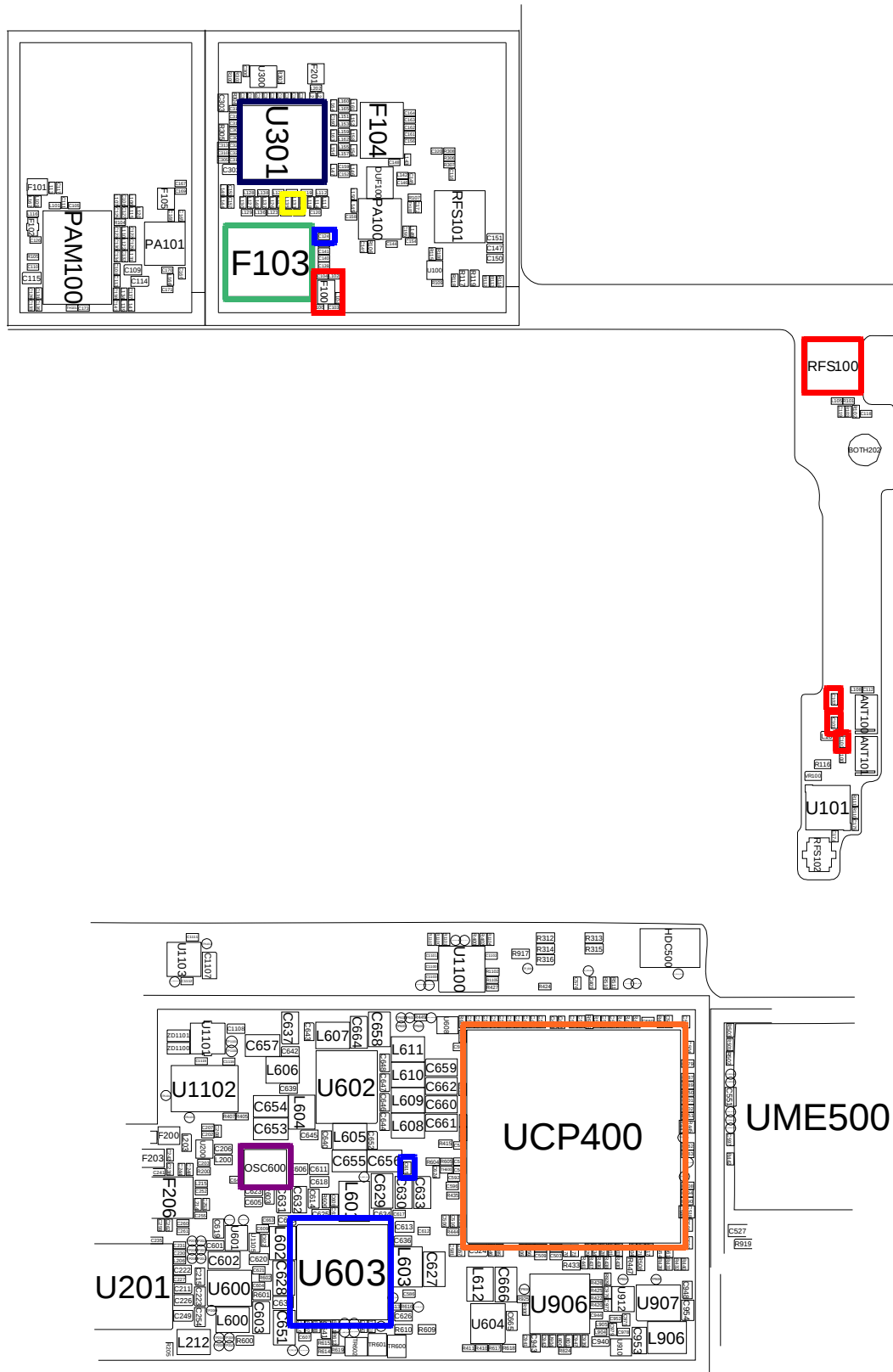


8-3-23. GSM1800/1900 RX

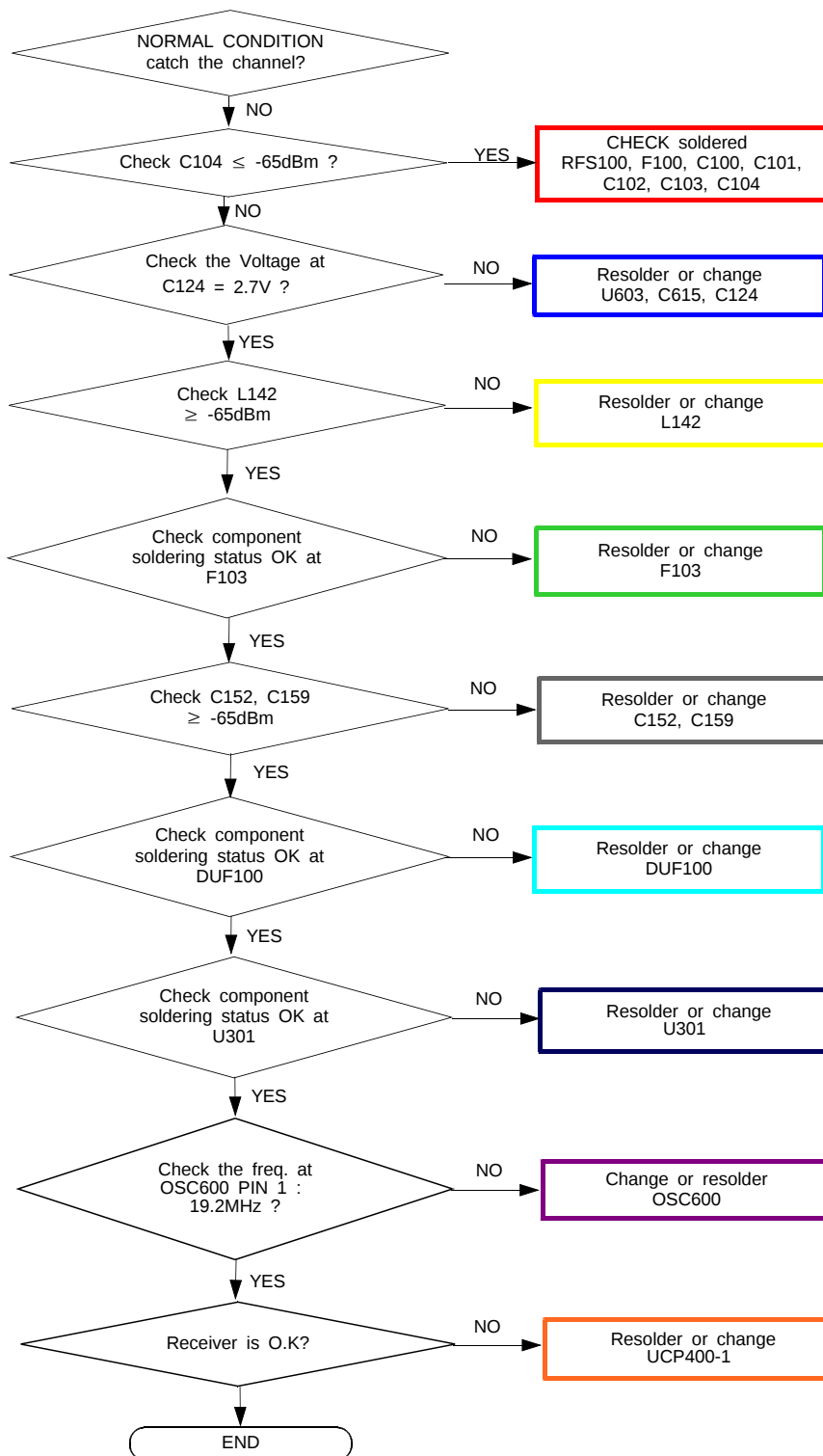


CONTINUOUS RX ON
 RF INPUT : DCS : 700CH
 PCS : 661CH
 AMP : -50dBm

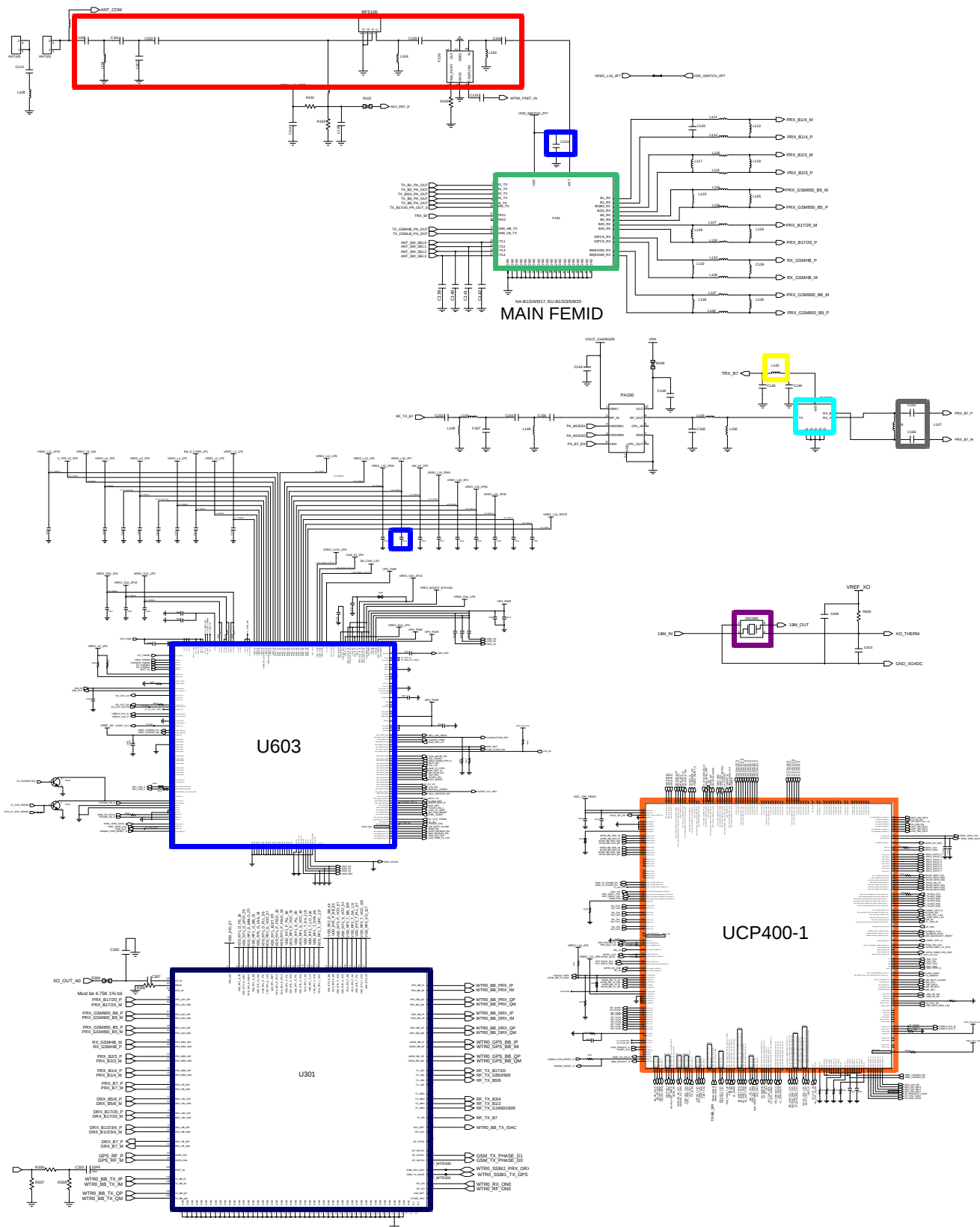


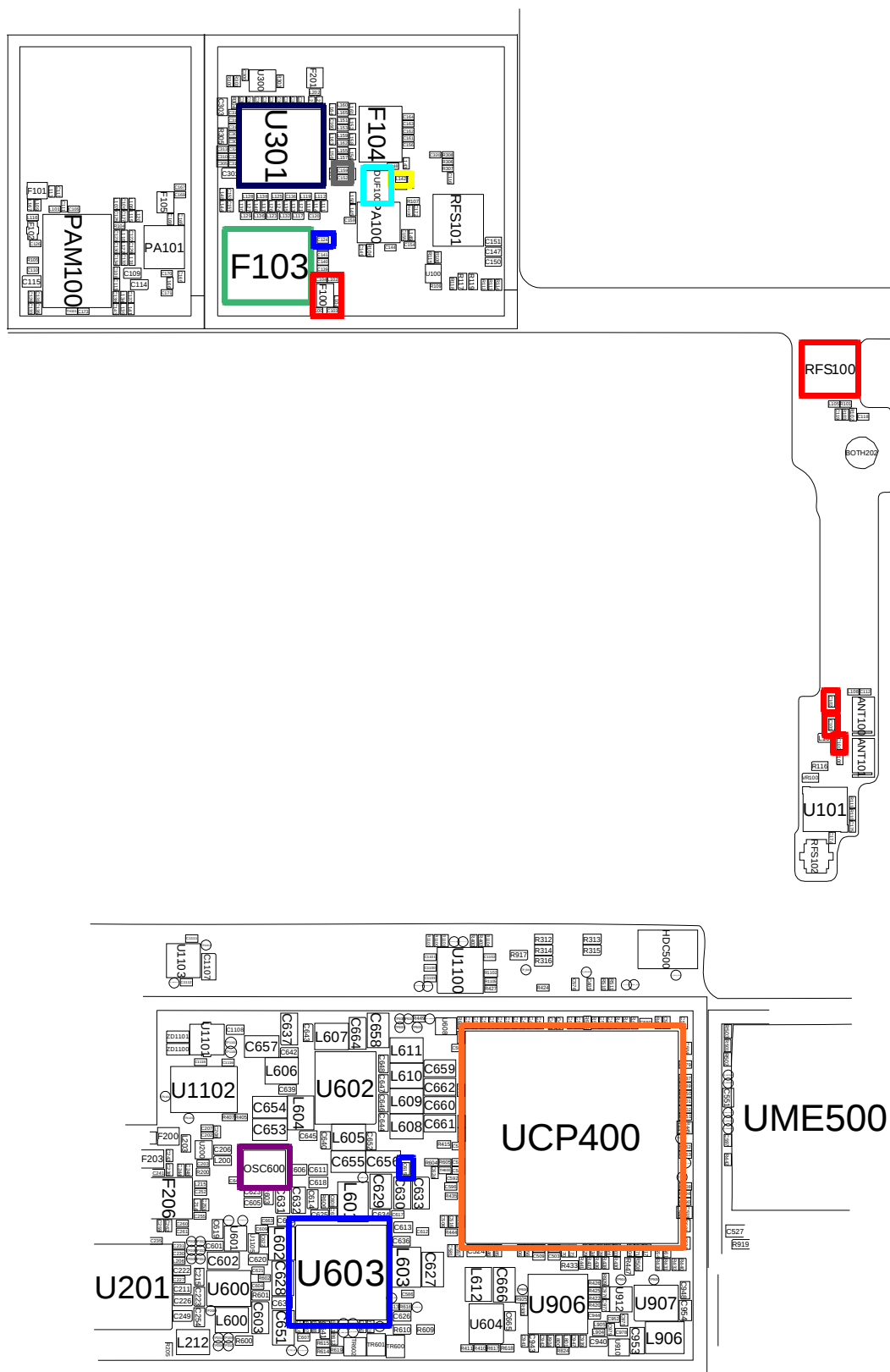


8-3-24. LTE Band7 RX

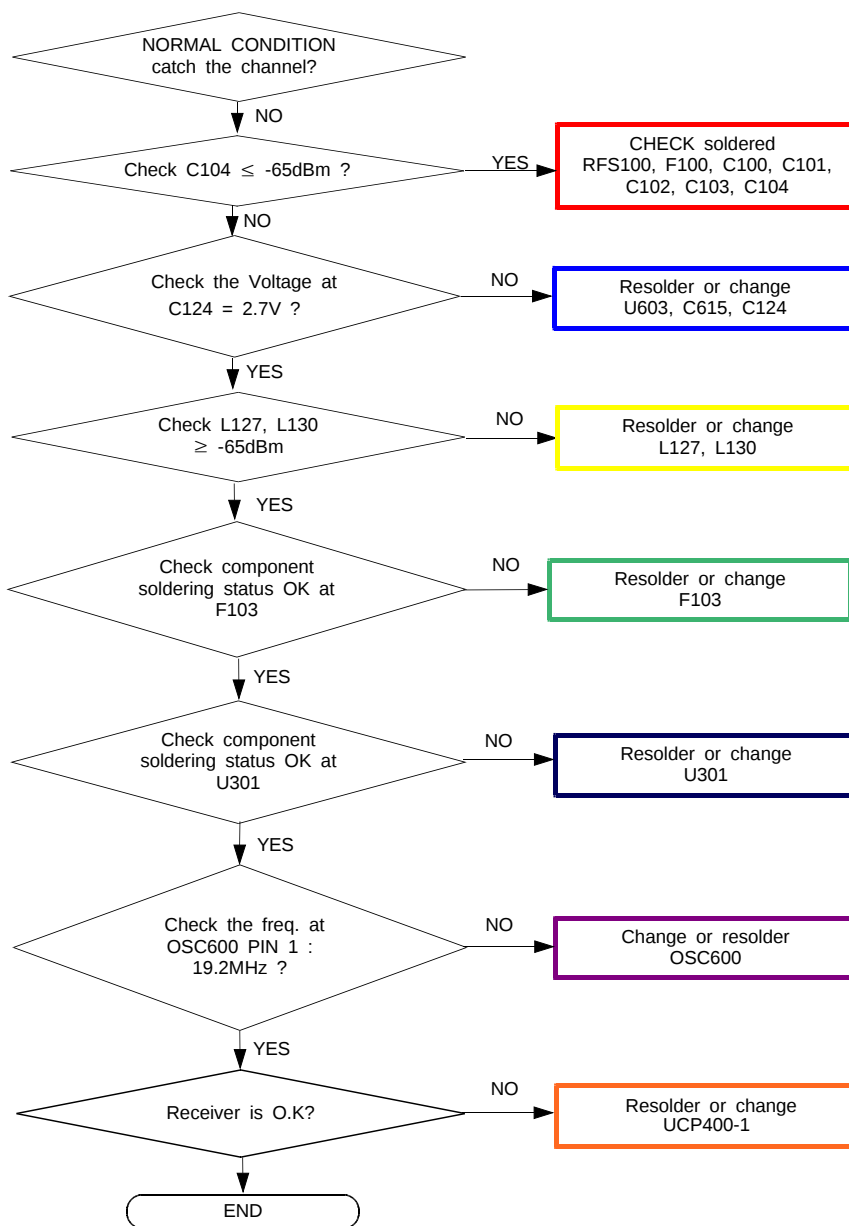


CONTINUOUS RX ON
RF INPUT : LTE B7: 3100CH
AMP : -50dBm

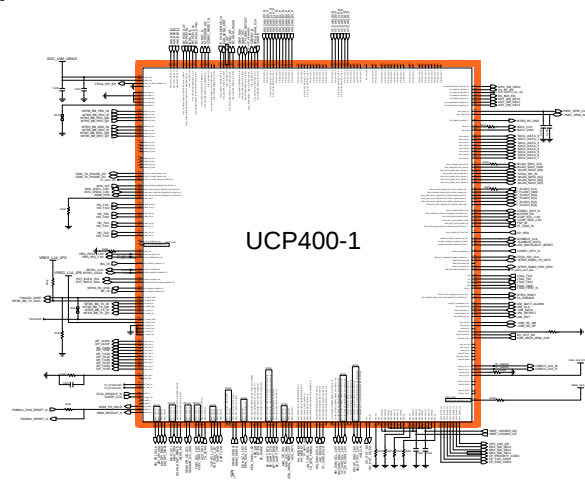
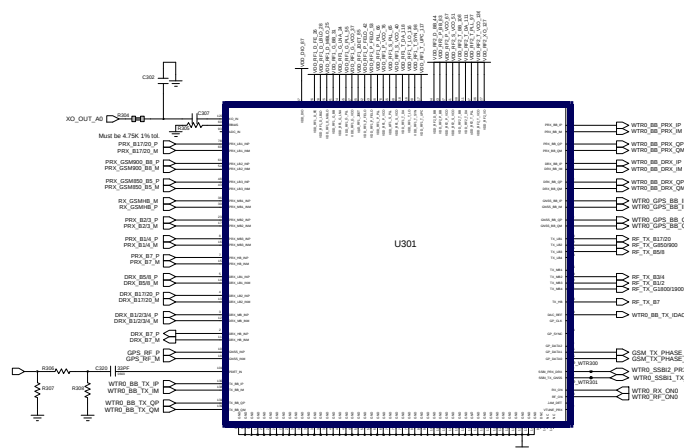
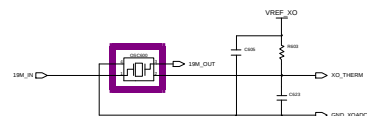


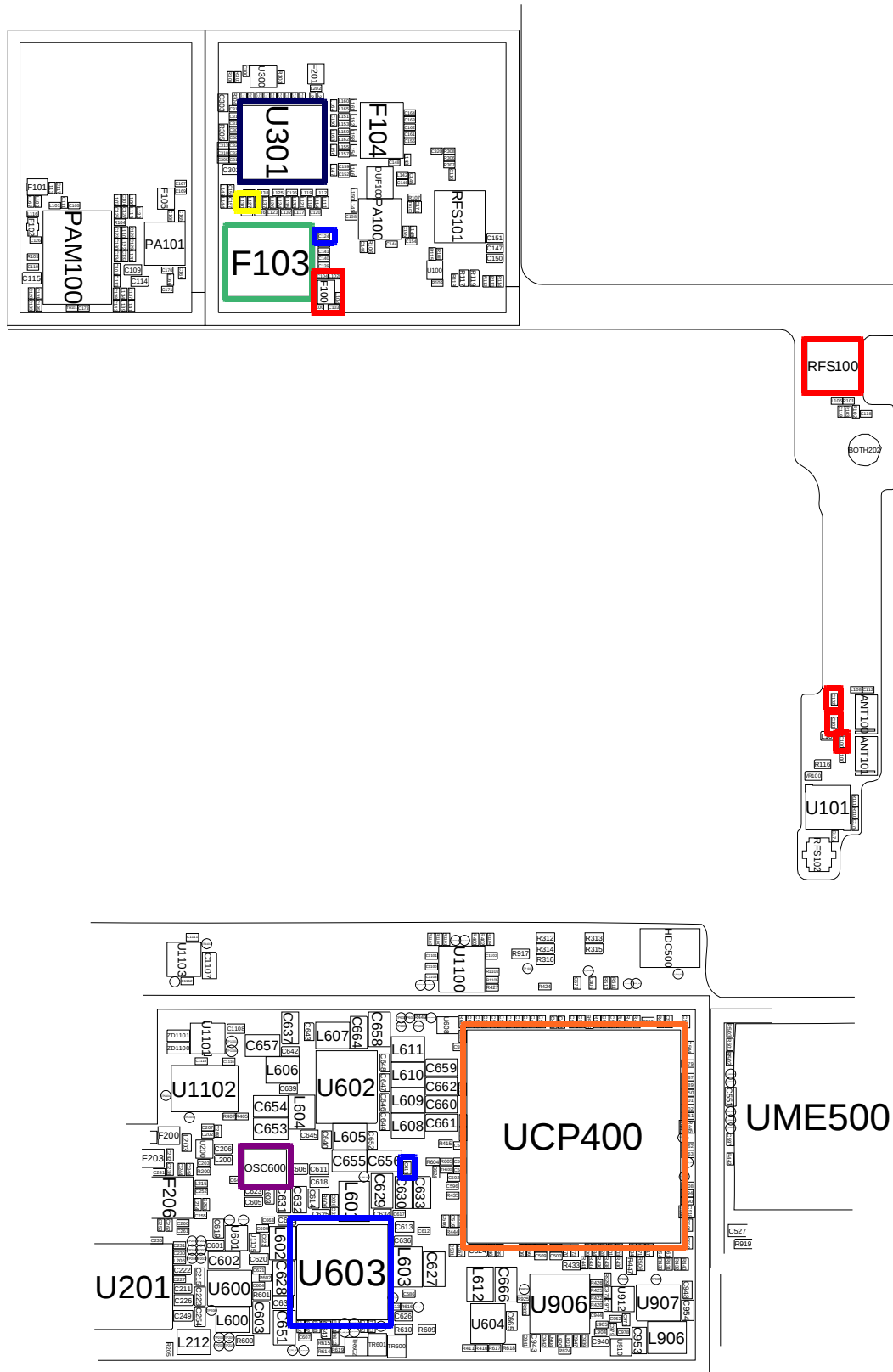


8-3-25. LTE Band20 RX

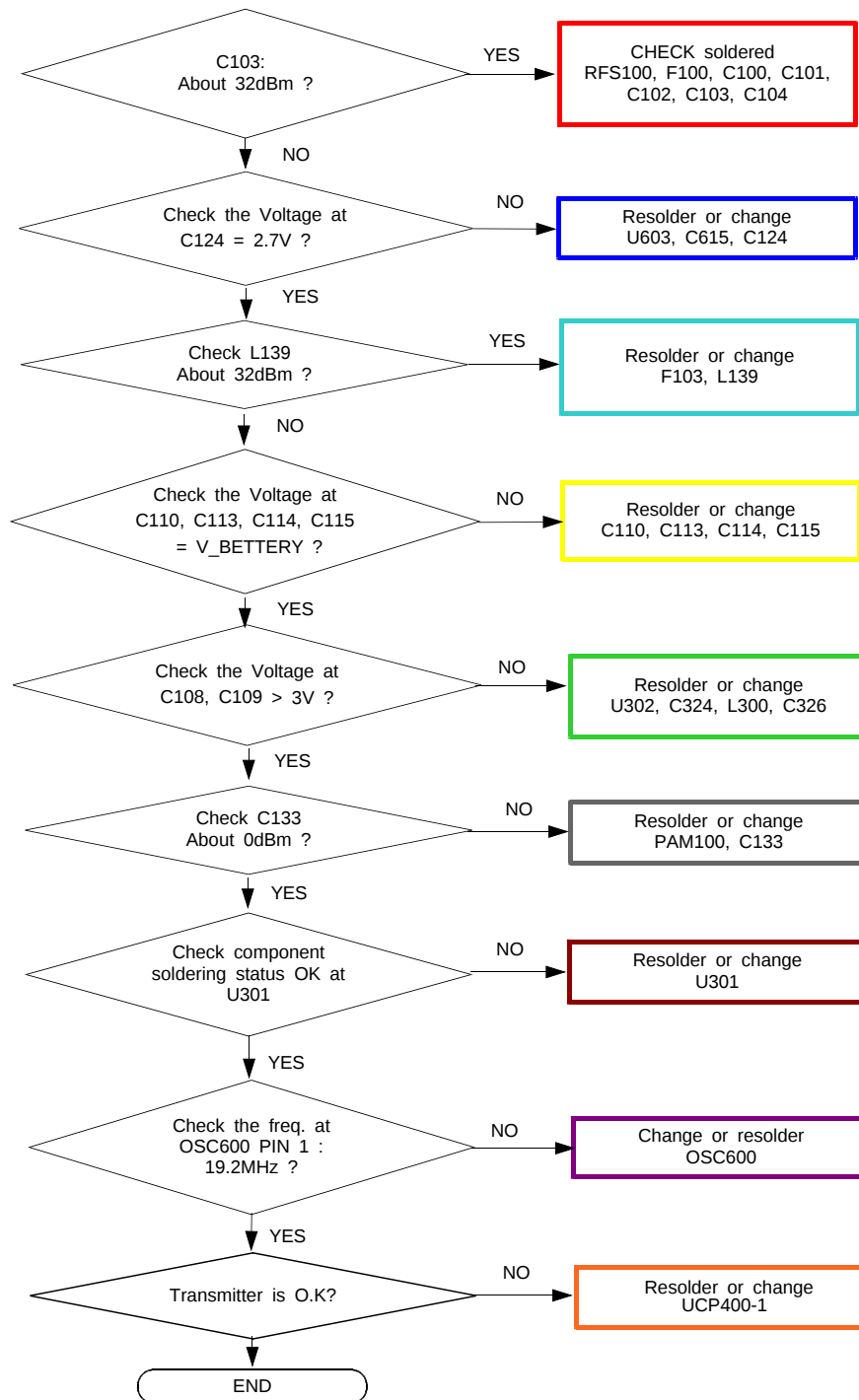


CONTINUOUS RX ON
RF INPUT : LTE B20: 6300CH
AMP : -50dBm

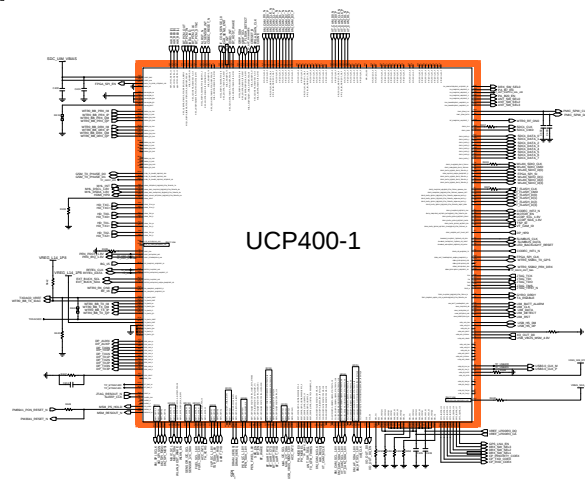
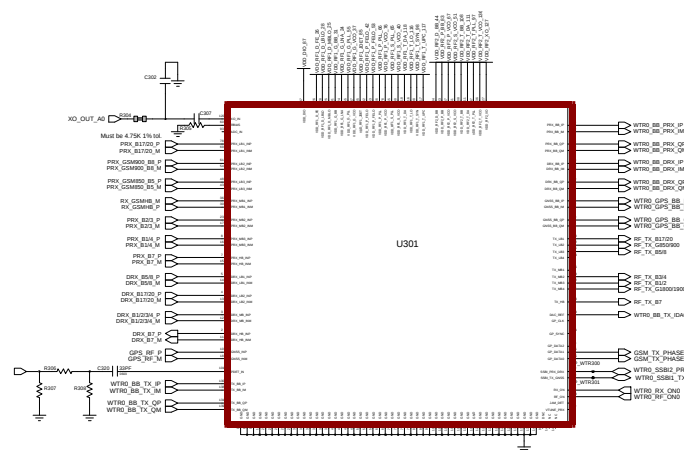
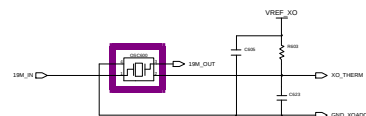
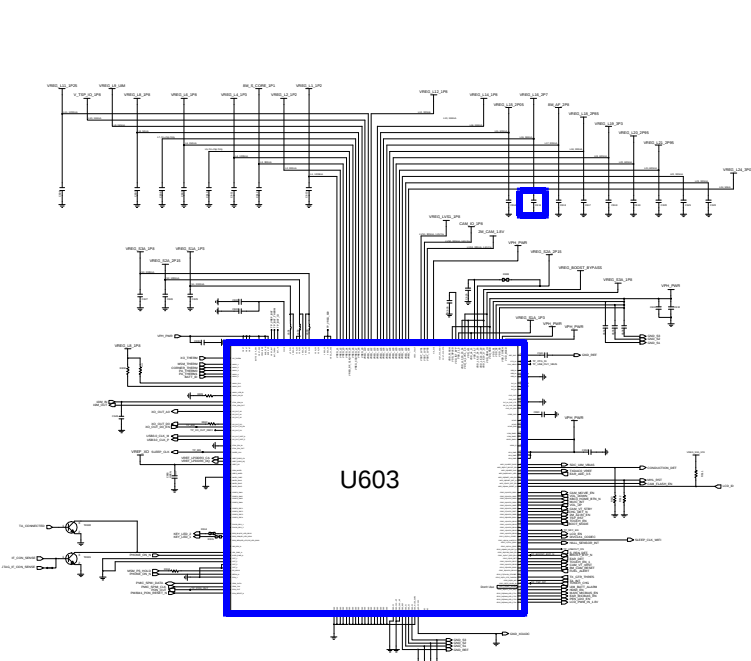
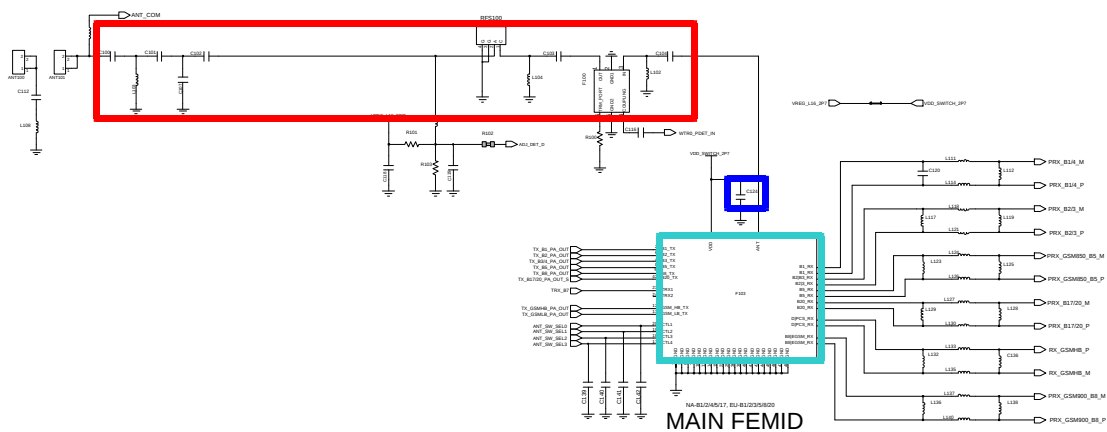


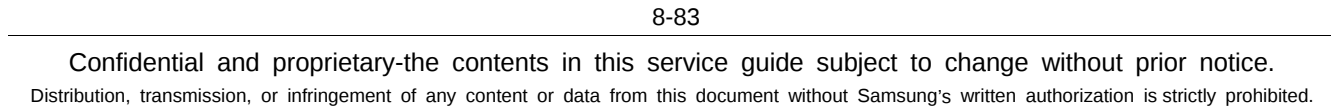


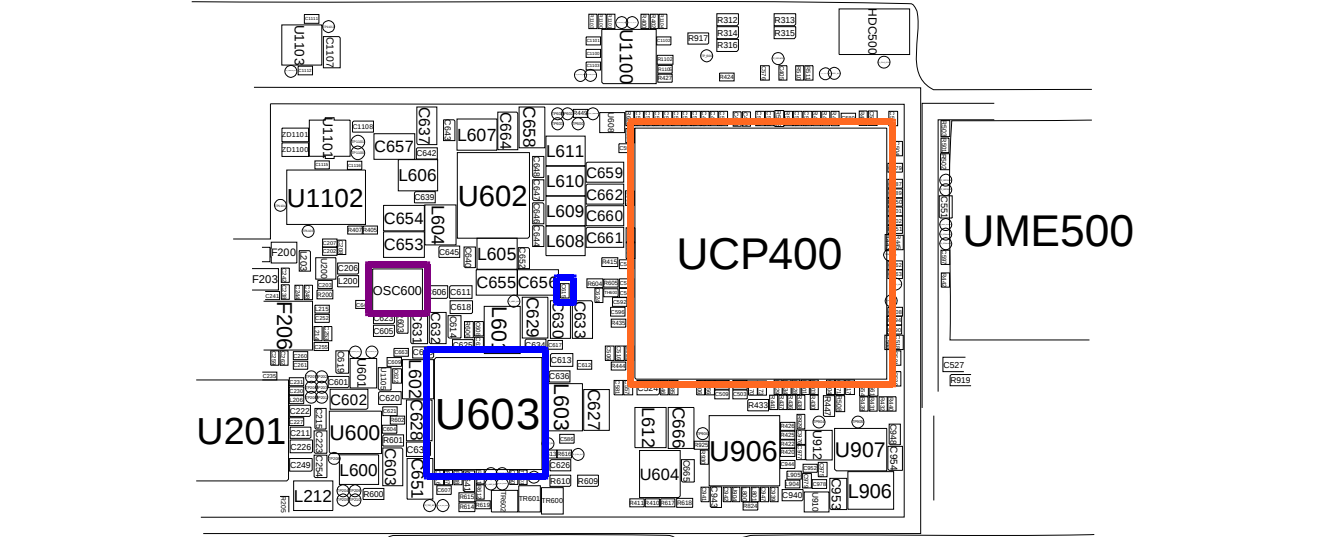
8-3-26. GSM850/ GSM900 TX



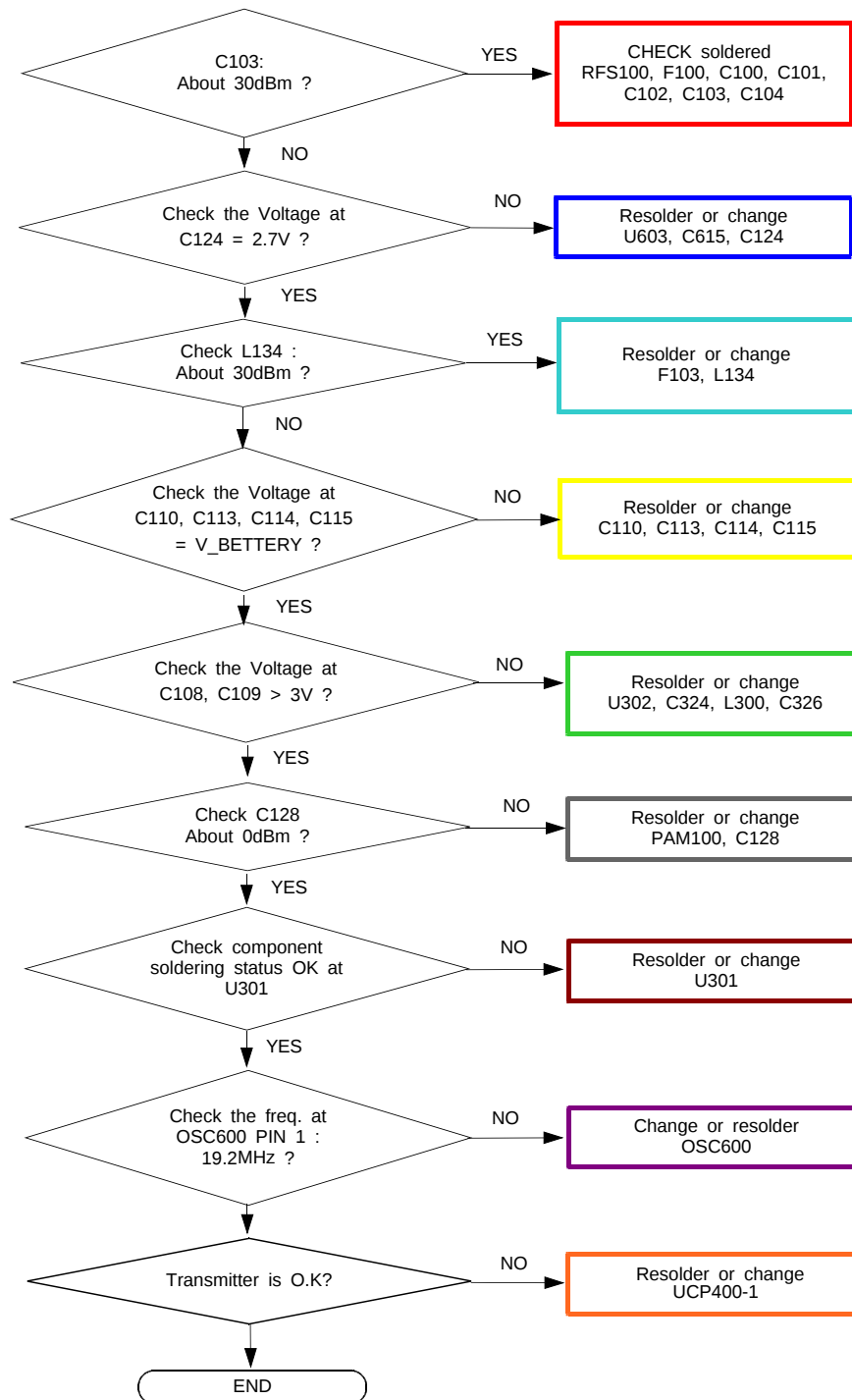
CONTINUOUS TX ON CONDITION
TX POWER IDX1 APPLIED
GSM850 CH : 190
GSM900 CH : 62
RBW : 100KHz
VBW : 100KHz
SPAN : 10MHz
REF. LEV. : 10dBm
ATT. : 20dB



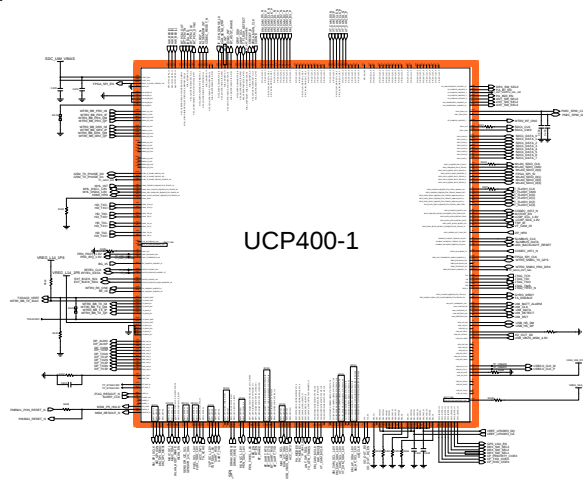
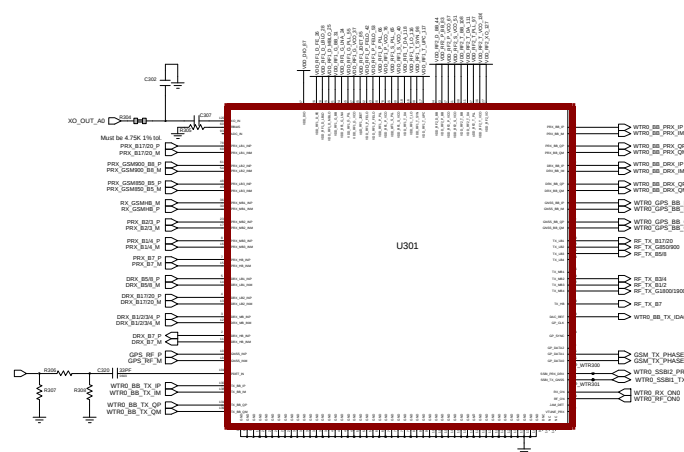
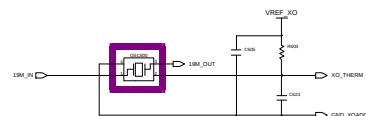
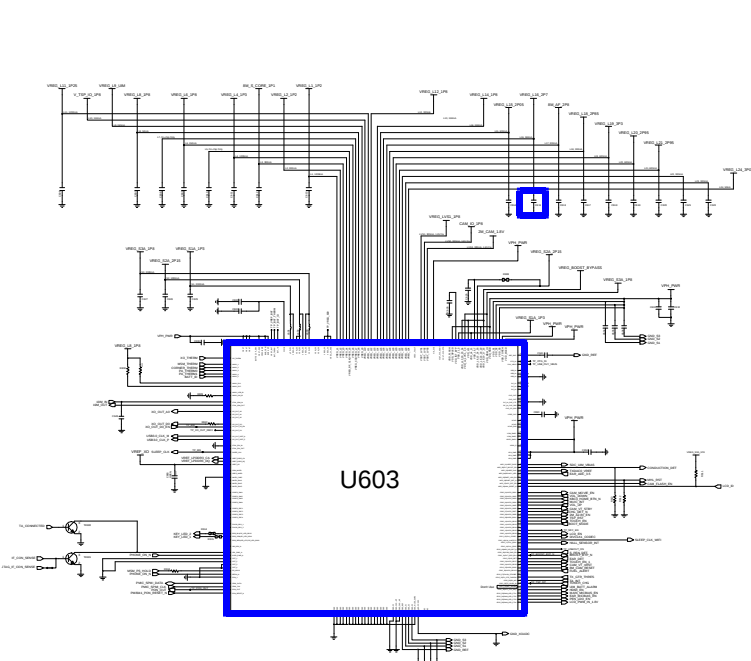
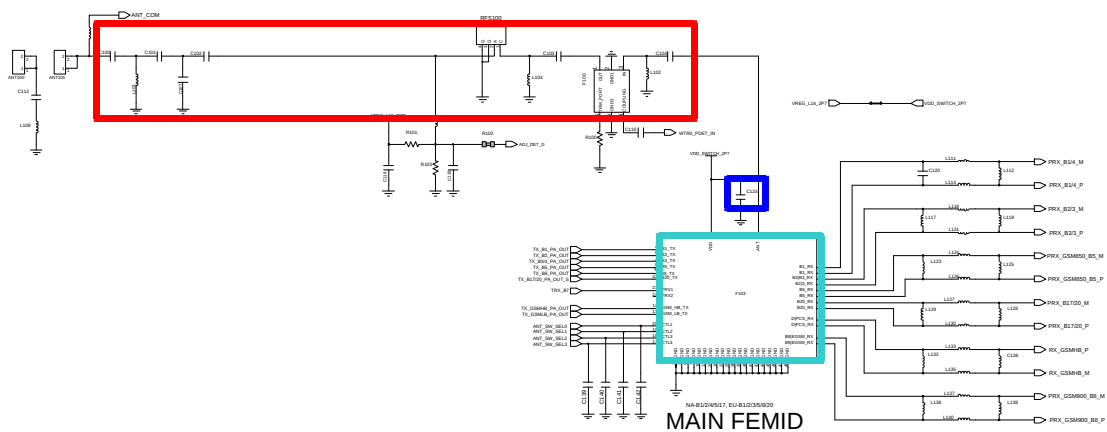


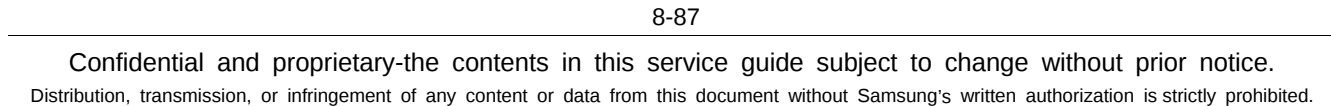


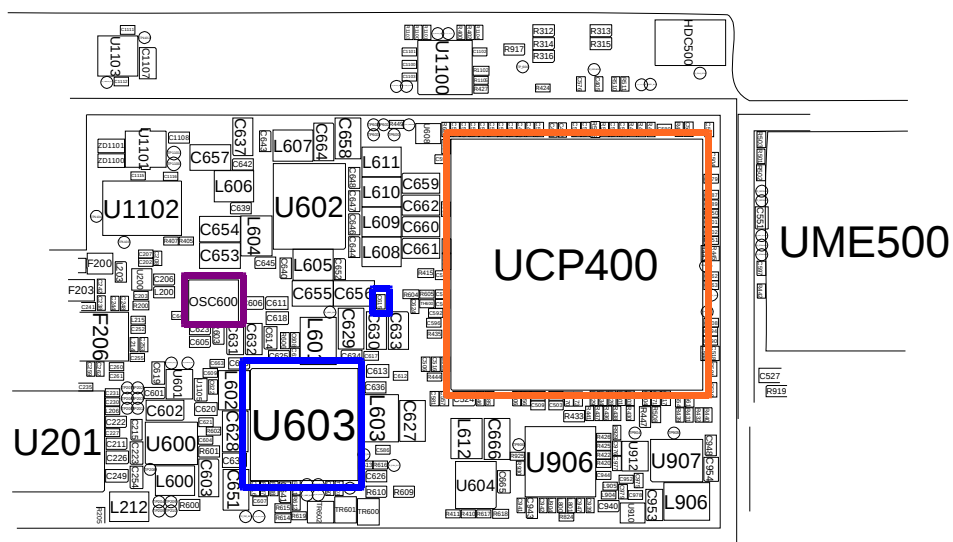
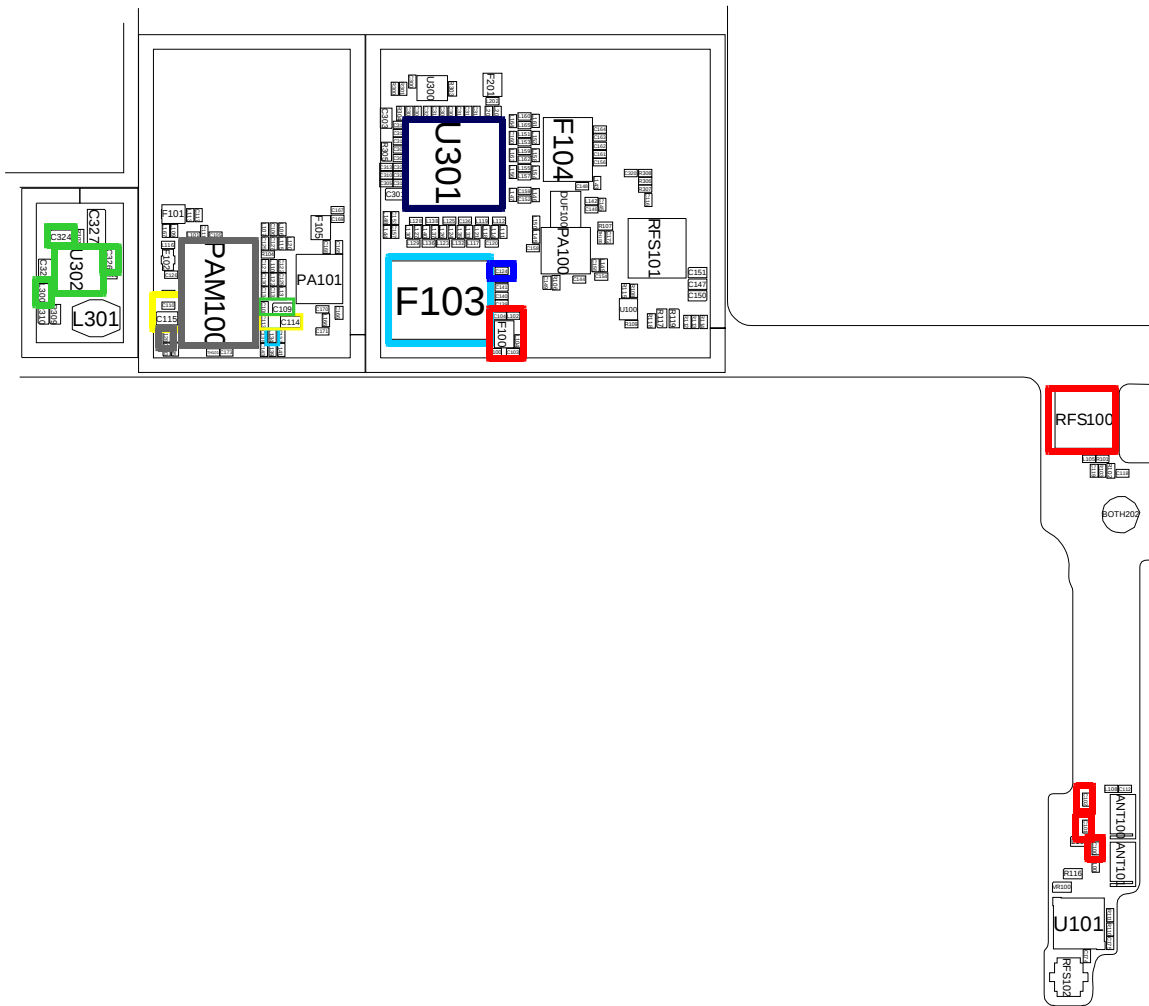
8-3-27. DCS/ PCS TX



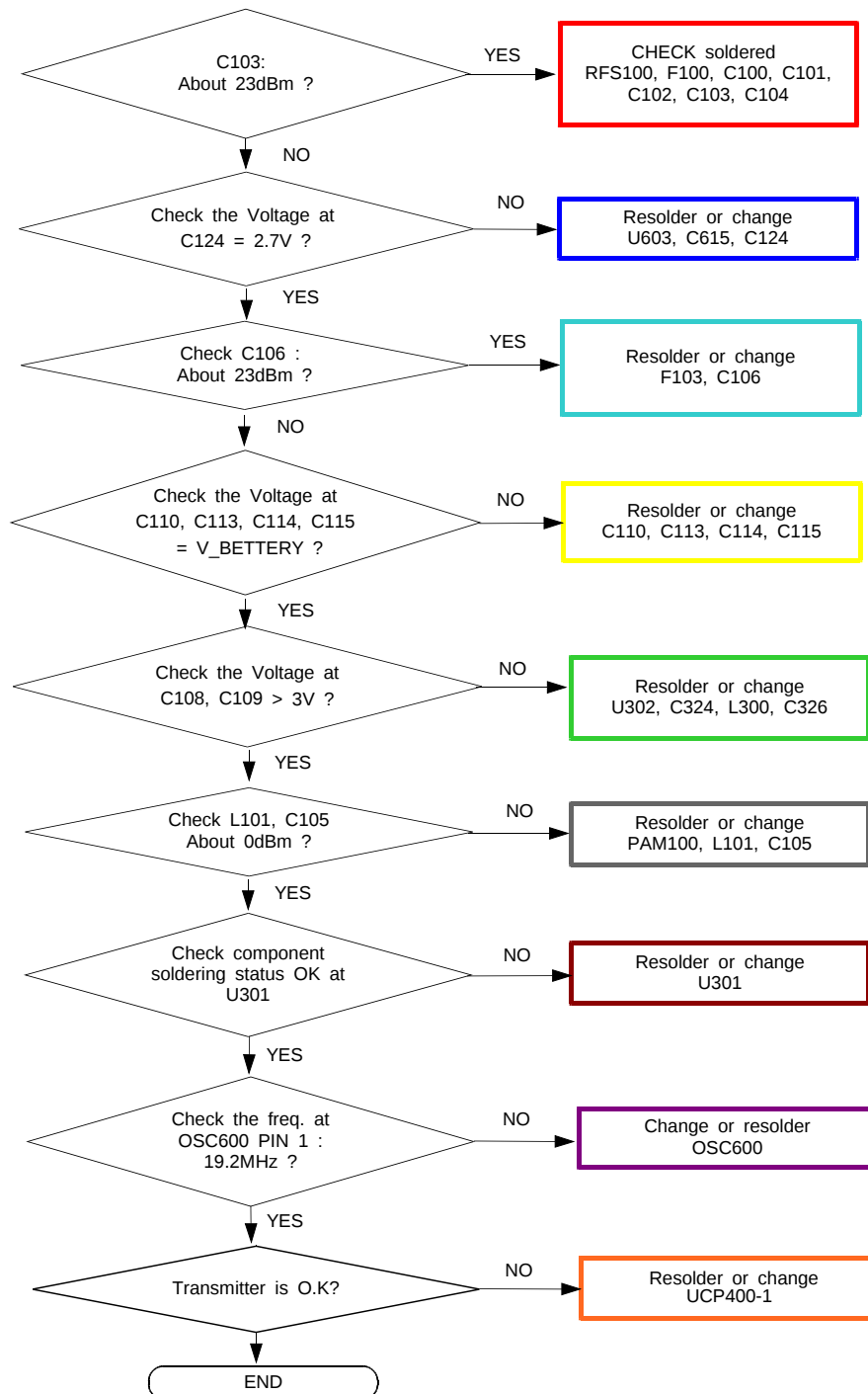
CONTINUOUS TX ON CONDITION
TX POWER IDX1 APPLIED
DCS CH : 700
PCS CH : 661
RBW : 100KHz
VBW : 100KHz
SPAN : 10MHz
REF. LEV. : 10dBm
ATT. : 20dB



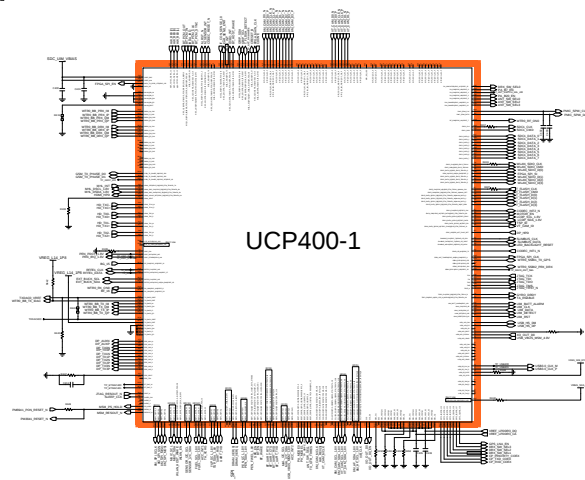
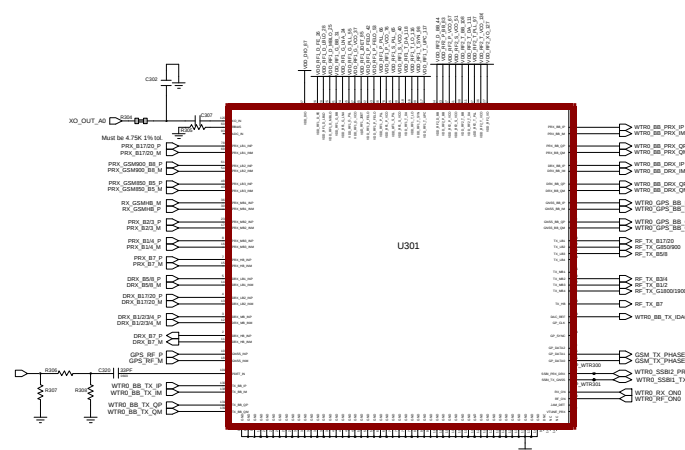
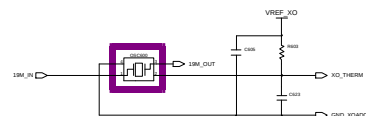
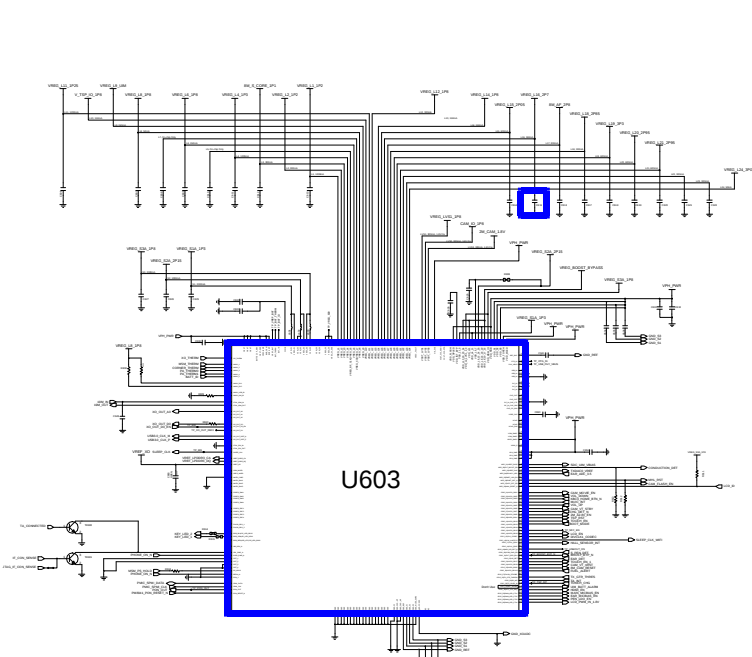
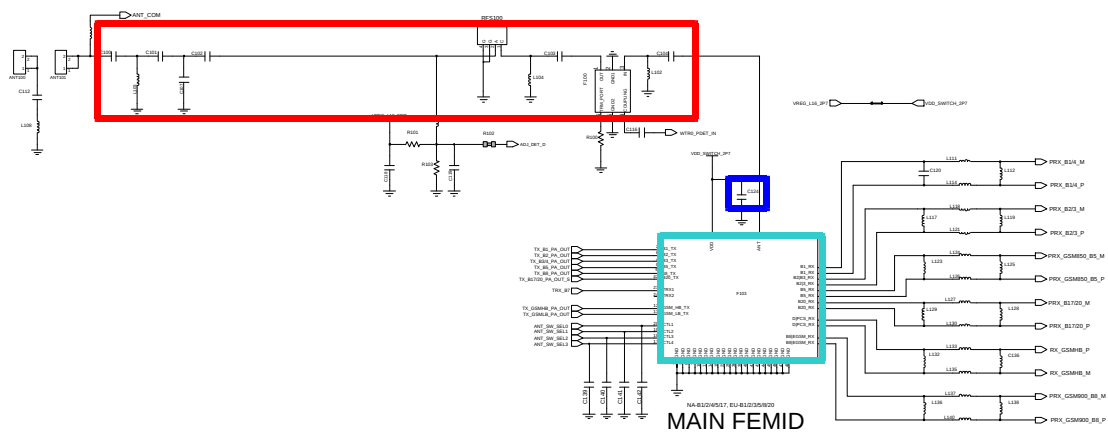


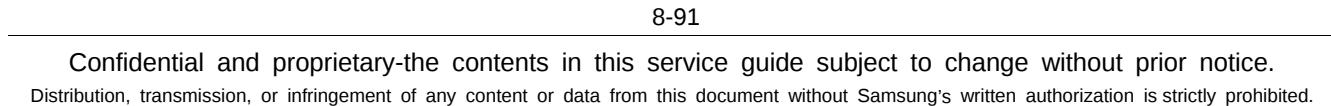


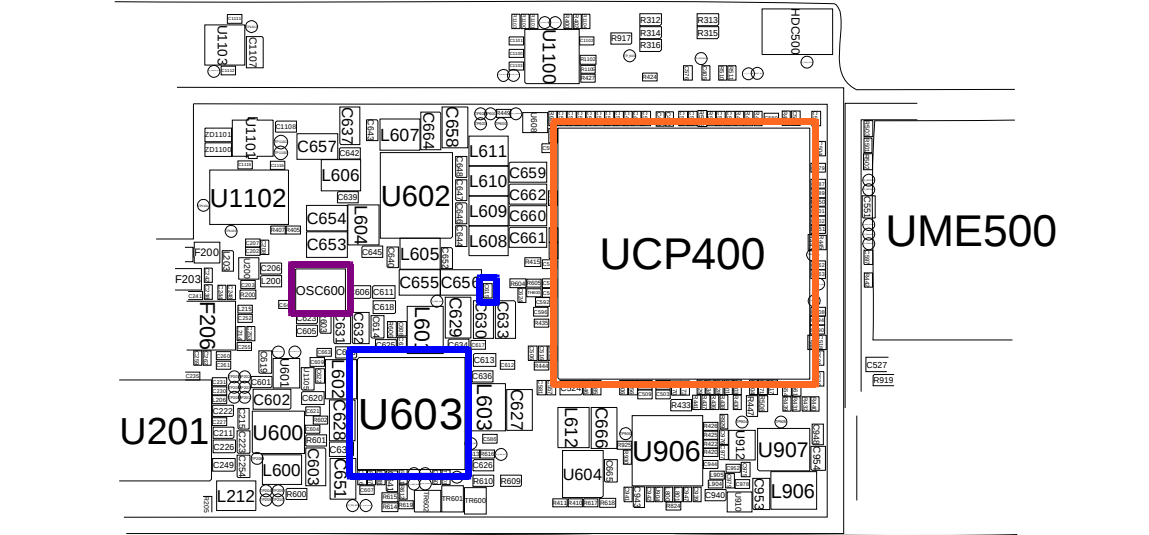
8-3-28. LTE Band1/ WCDMA Band1 TX



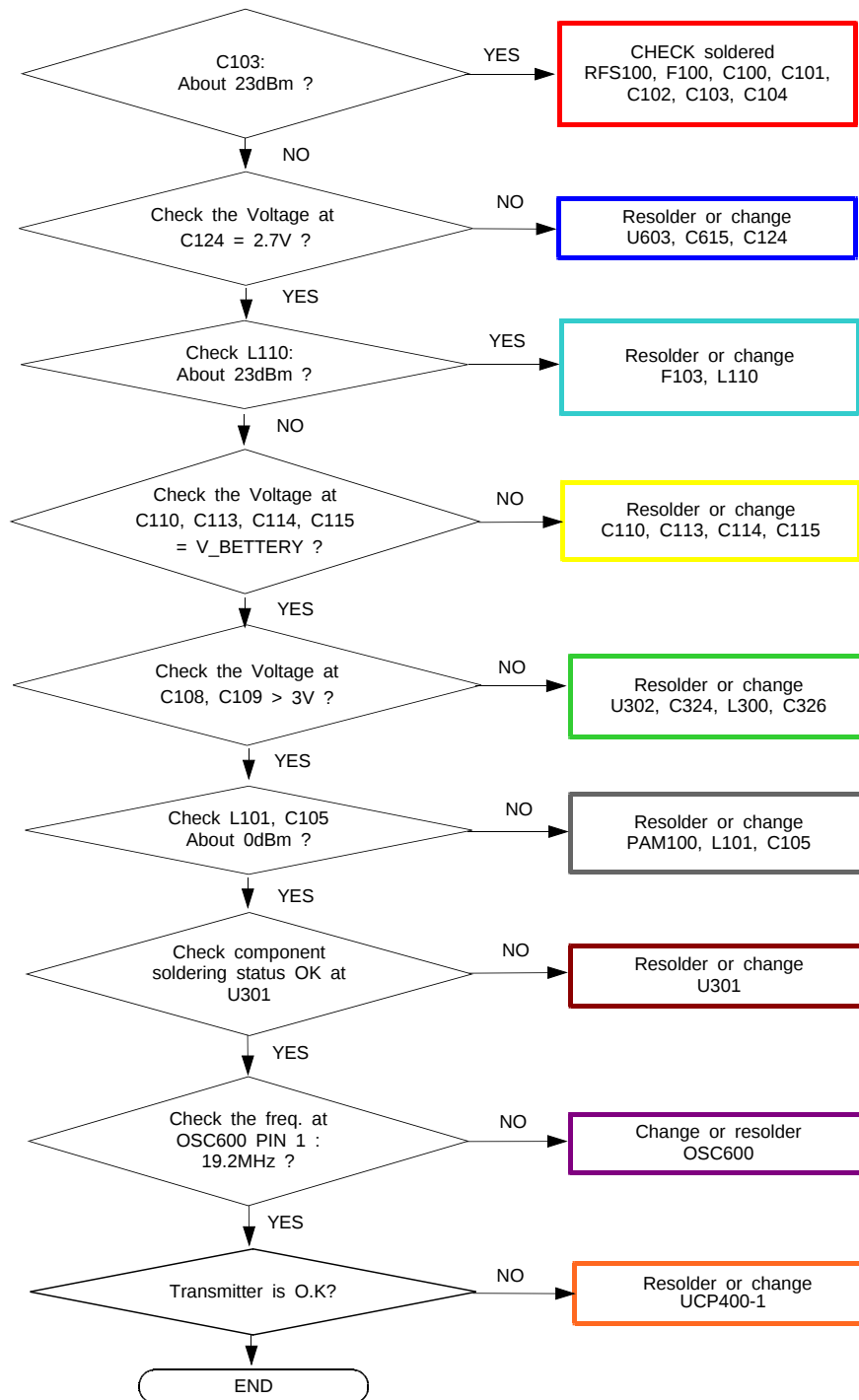
CONTINUOUS TX ON CONDITION
 TX POWER IDX1 APPLIED
 LTE B1 CH : 18300
 WCDMA B1 CH : 9750
 RBW : 100KHz
 VBW : 100KHz
 SPAN : 10MHz
 REF LEV. : 10dBm
 ATT. : 20dB



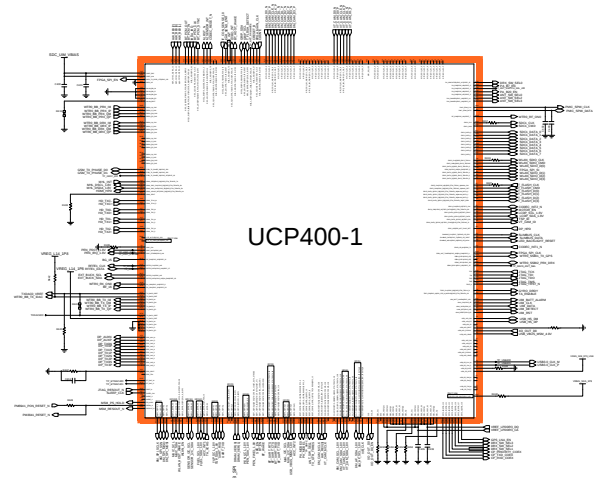
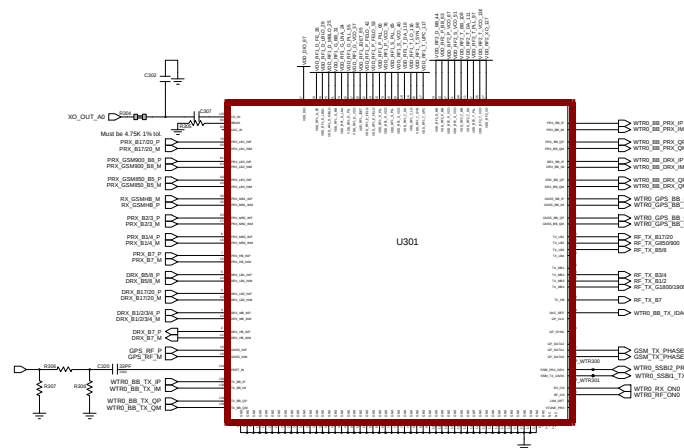
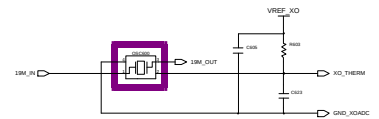
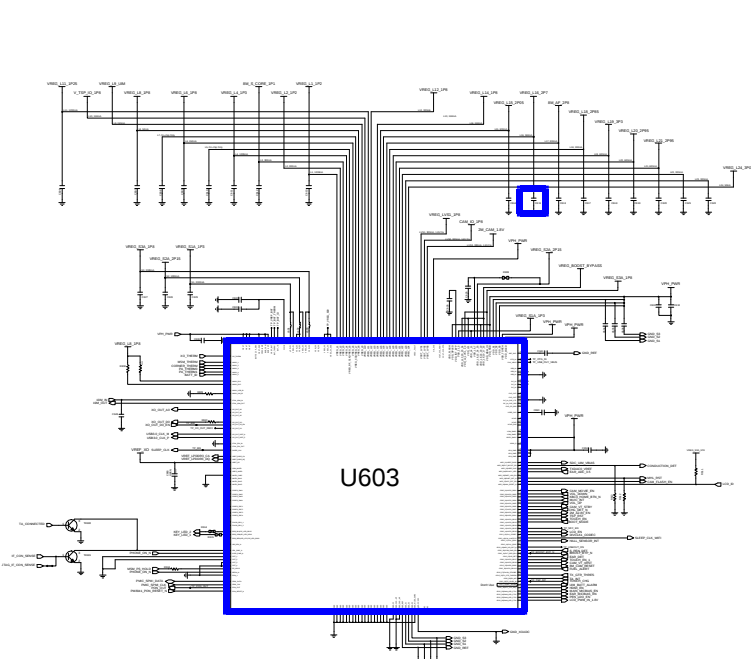
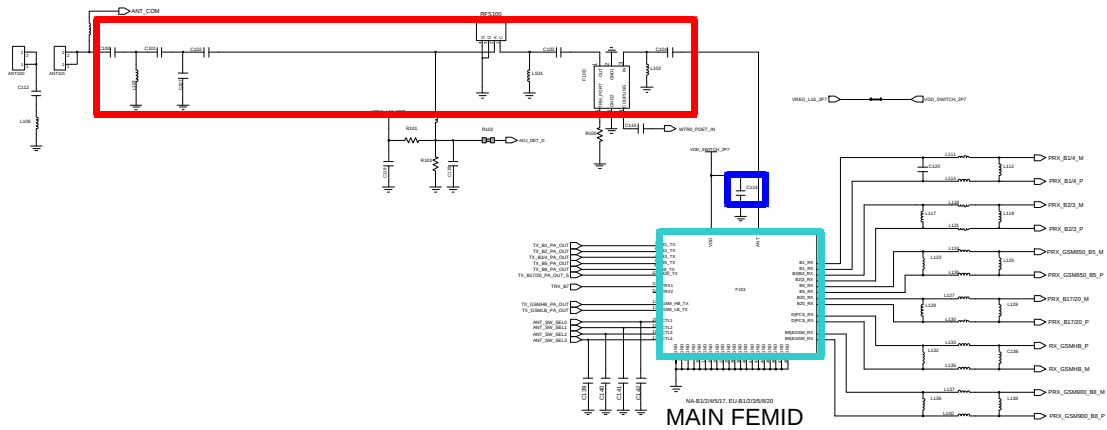


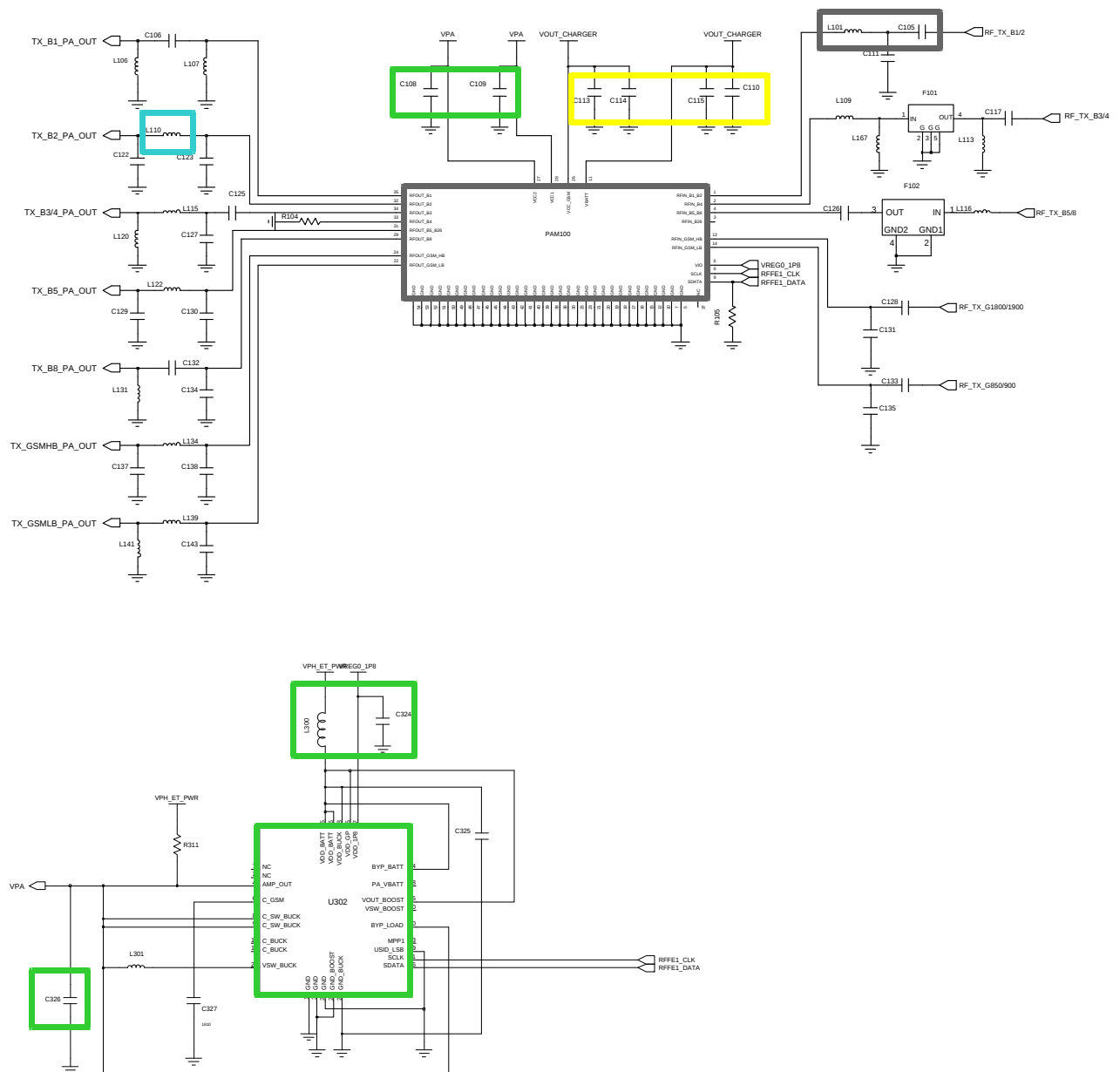


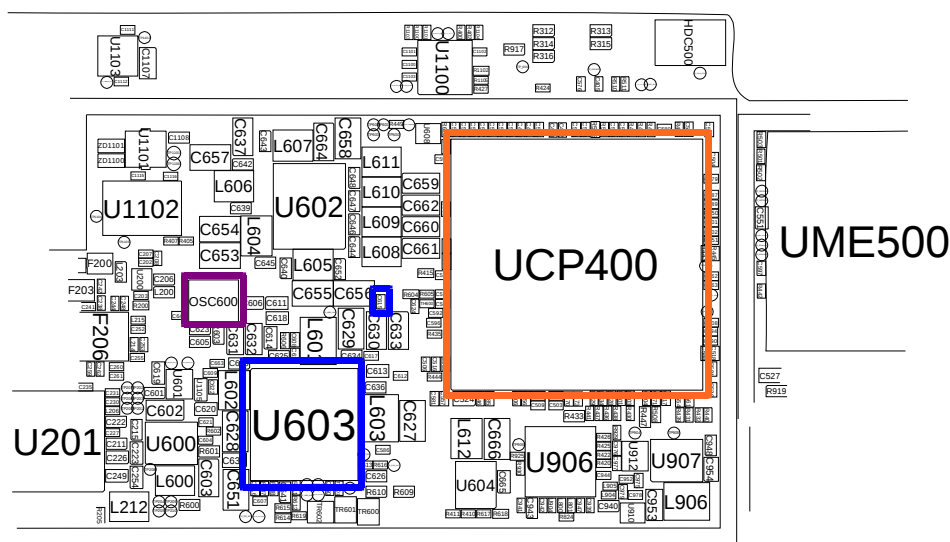
8-3-29. WCDMA Band2 TX



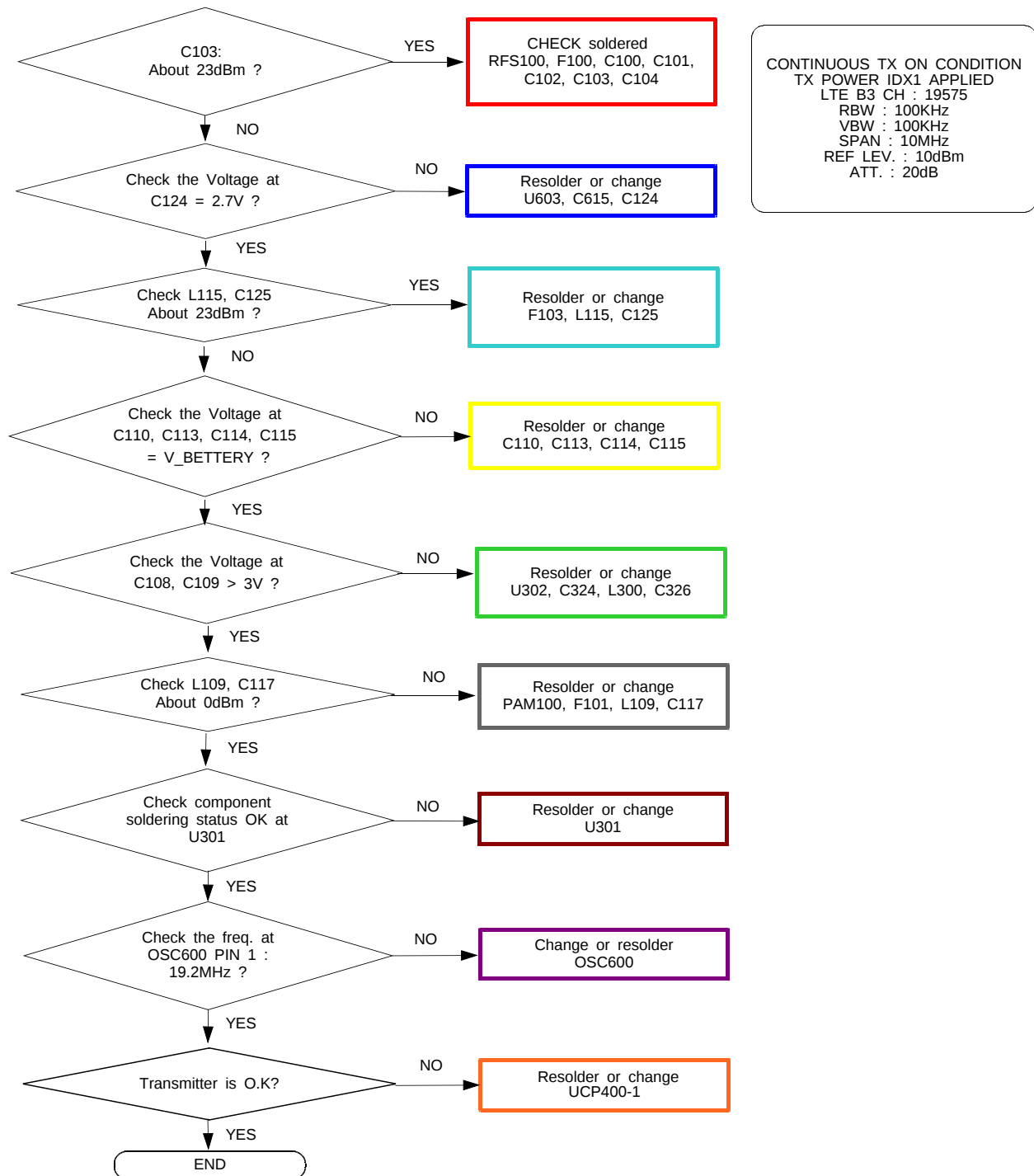
CONTINUOUS TX ON CONDITION
 TX POWER IDX1 APPLIED
 WCDMA B2 CH : 9400
 RBW : 100KHz
 VBW : 100KHz
 SPAN : 10MHz
 REF LEV. : 10dBm
 ATT. : 20dB

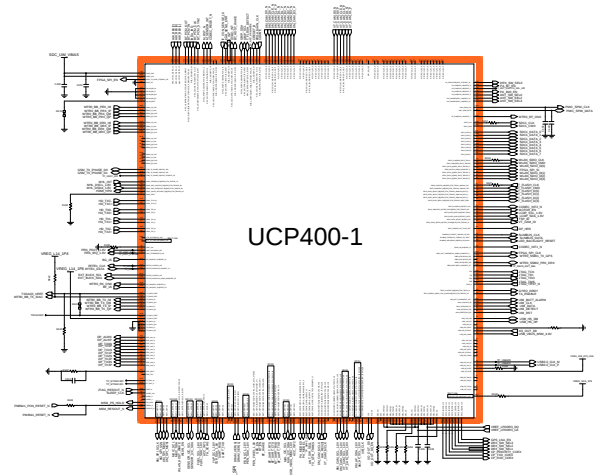
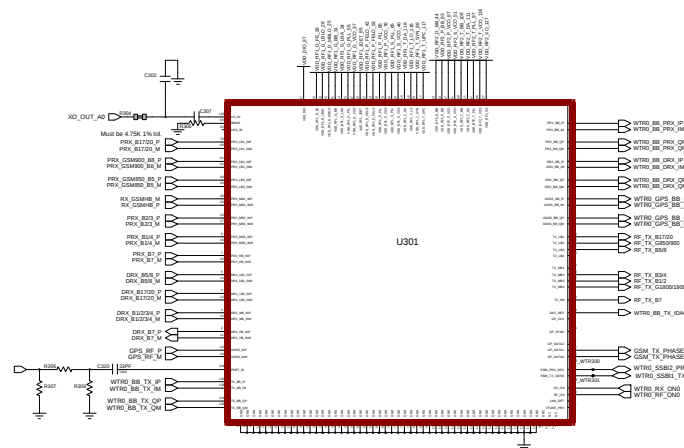
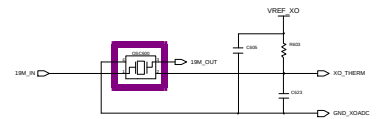
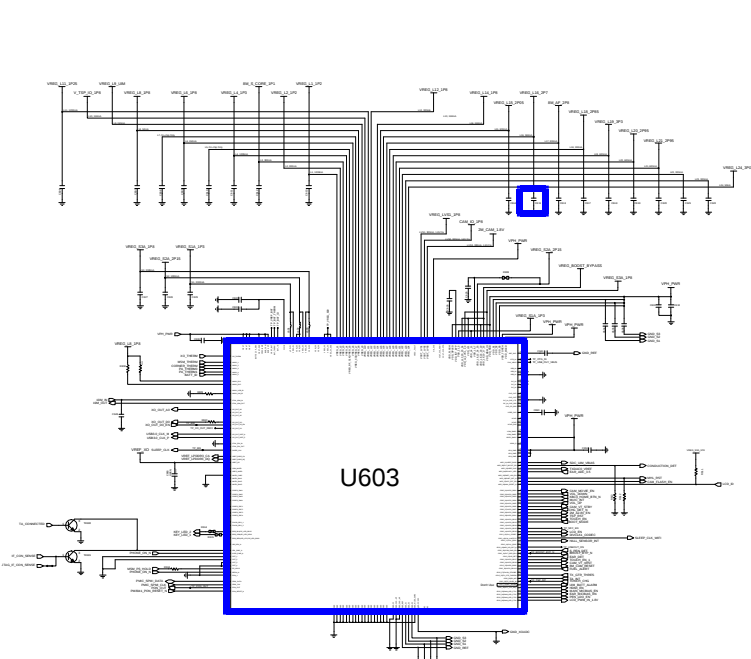
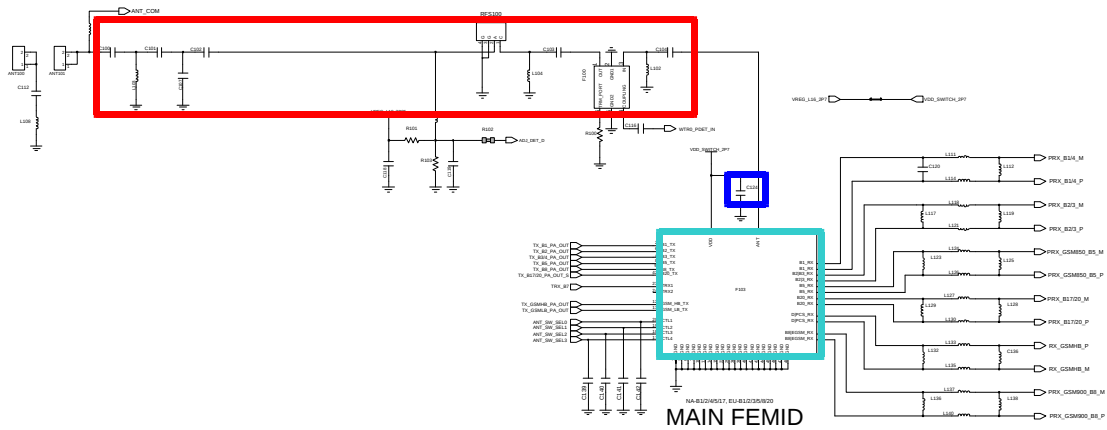


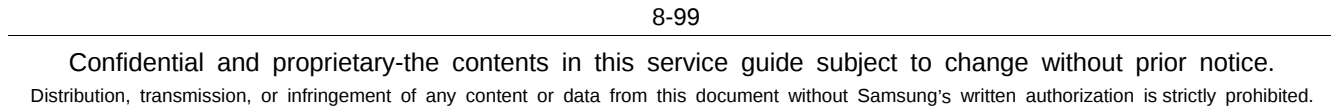


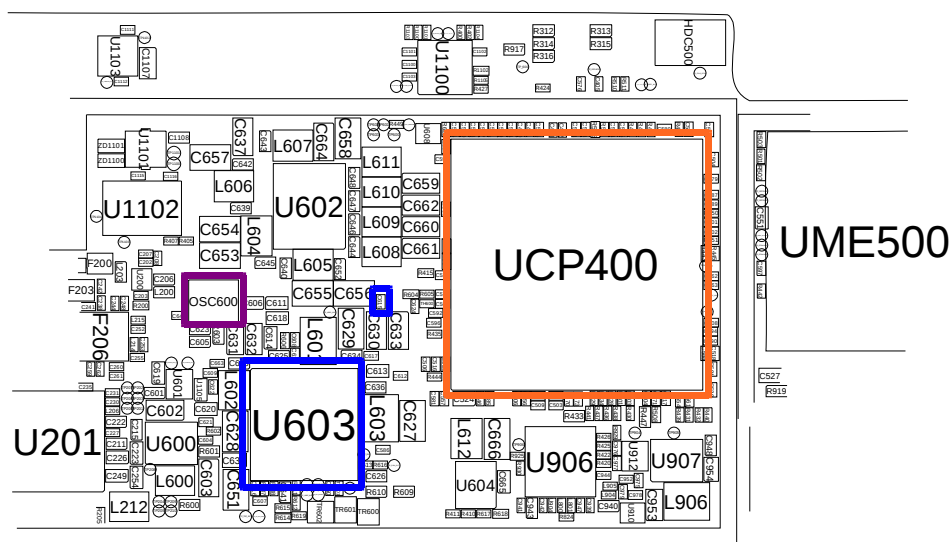


8-3-30. LTE Band3 TX

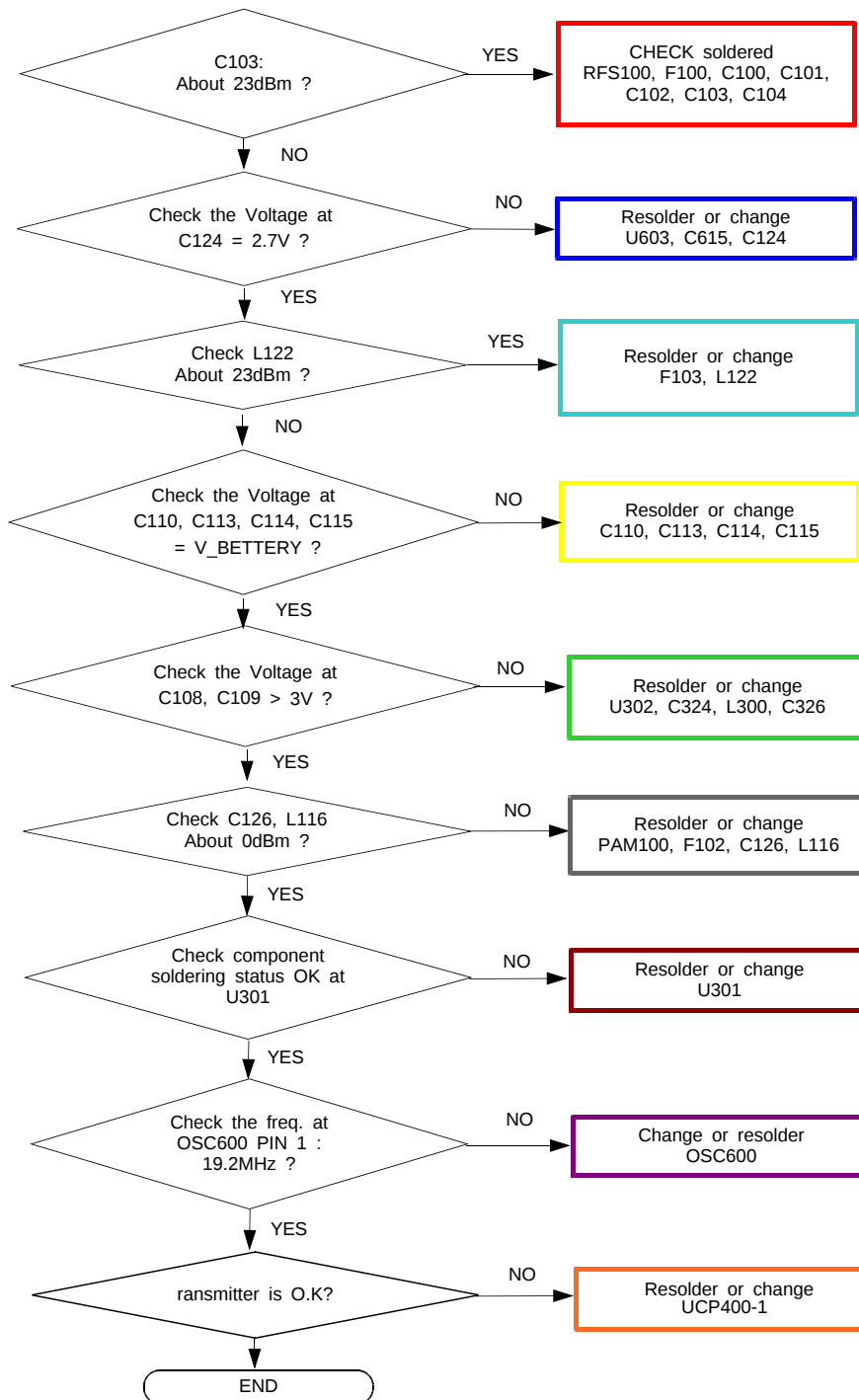




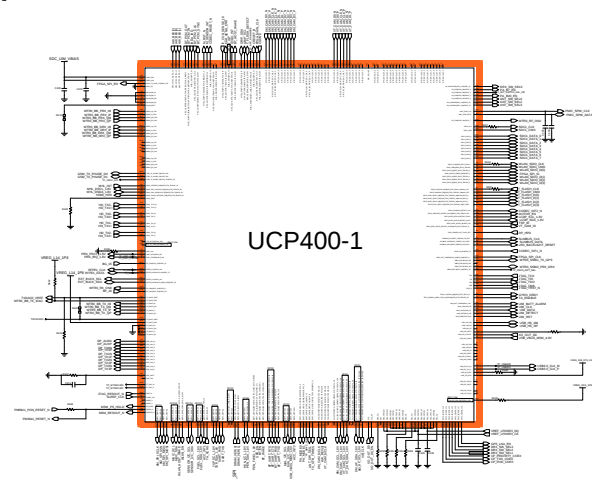
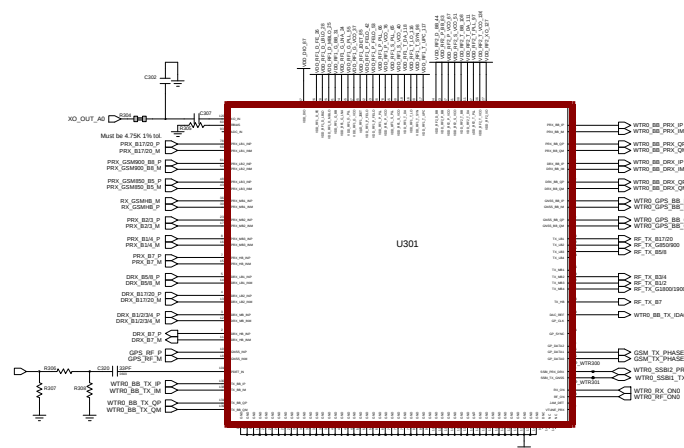
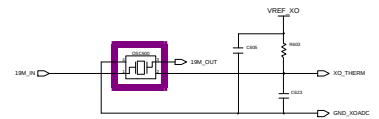


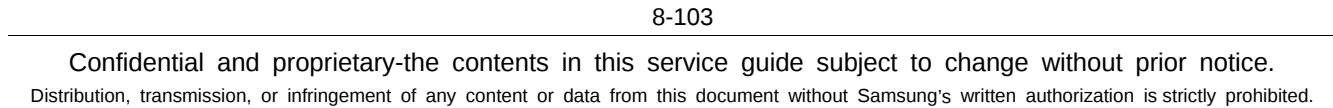


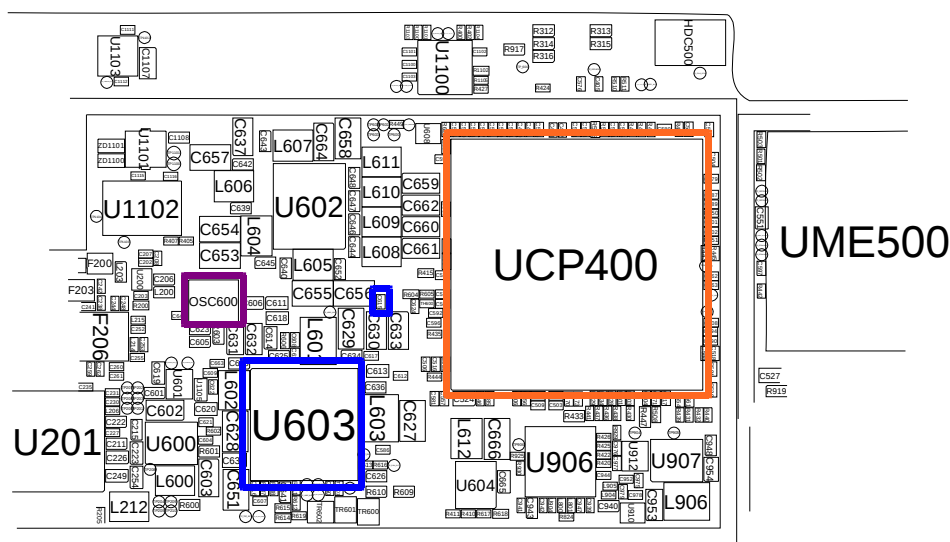
8-3-31. LTE Band5/ WCDMA Band5 TX



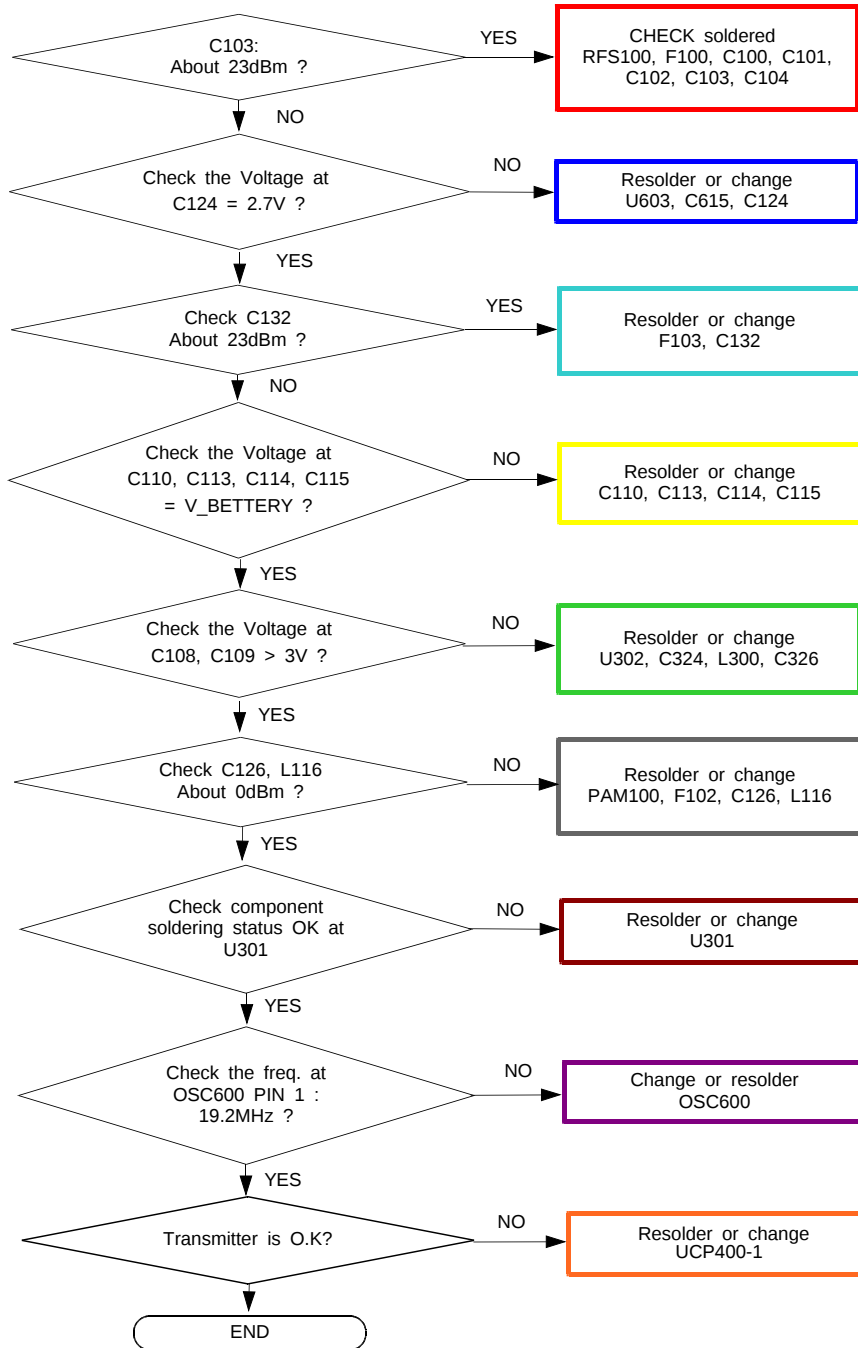
CONTINUOUS TX ON CONDITION
APPLIED
 LTE B5 CH : 20525
 WCDMA B5 CH : 4183
 RBW : 100KHz
 VBW : 100KHz
 SPAN : 10MHz
 REF LEV. : 10dBm
 ATT. : 20dB





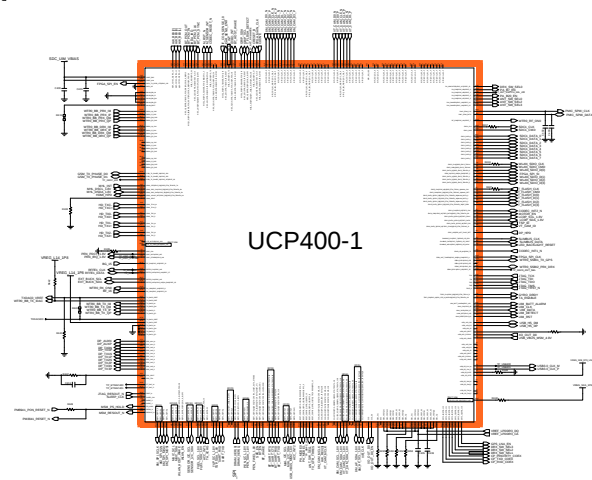
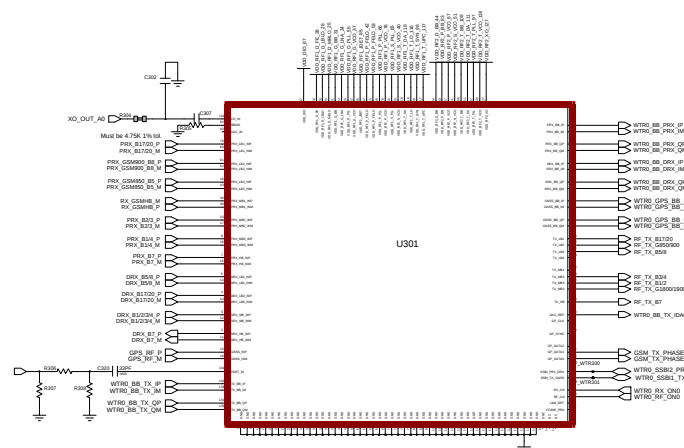
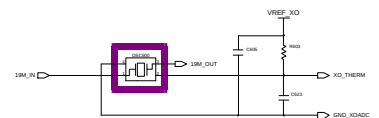
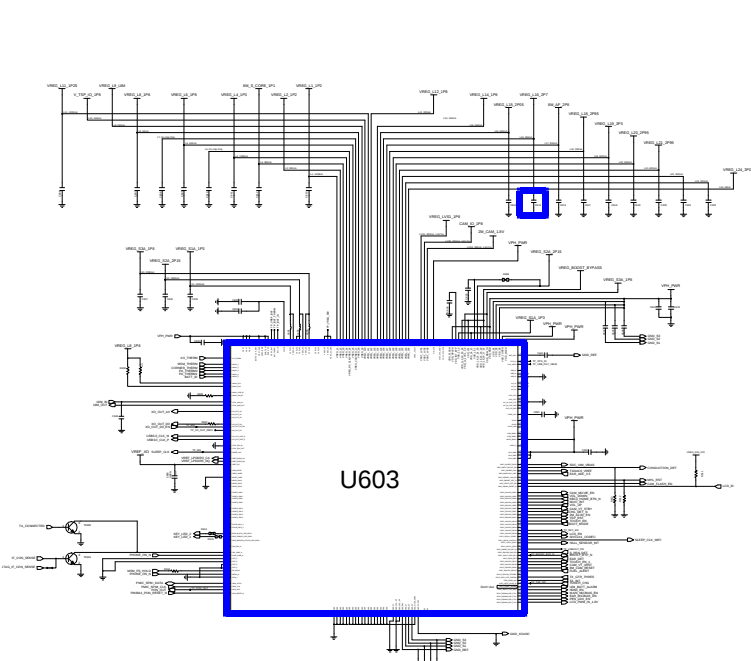
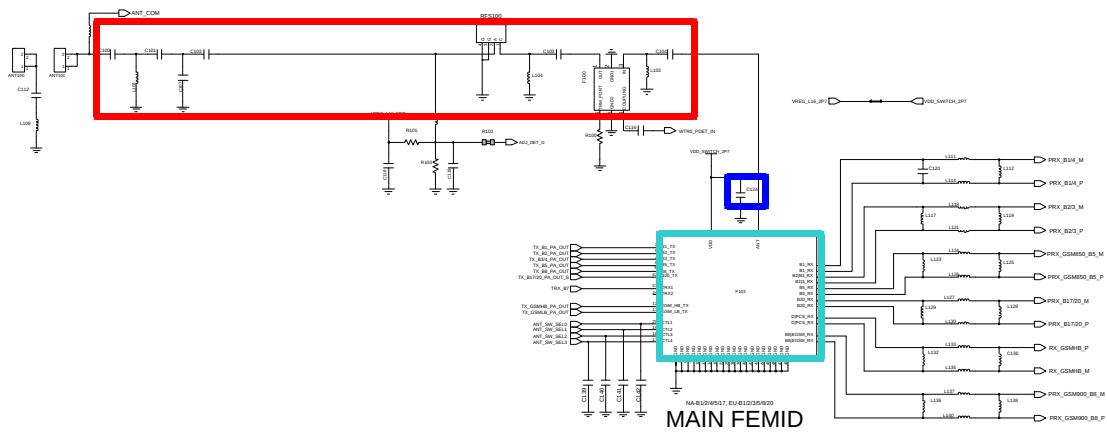


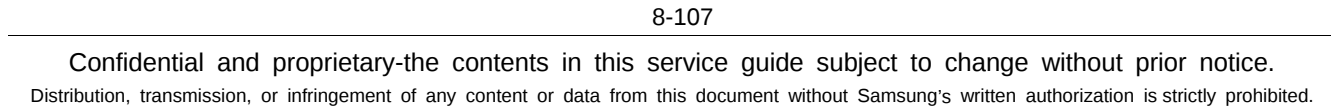
8-3-32. LTE Band8/ WCDMA Band8 TX

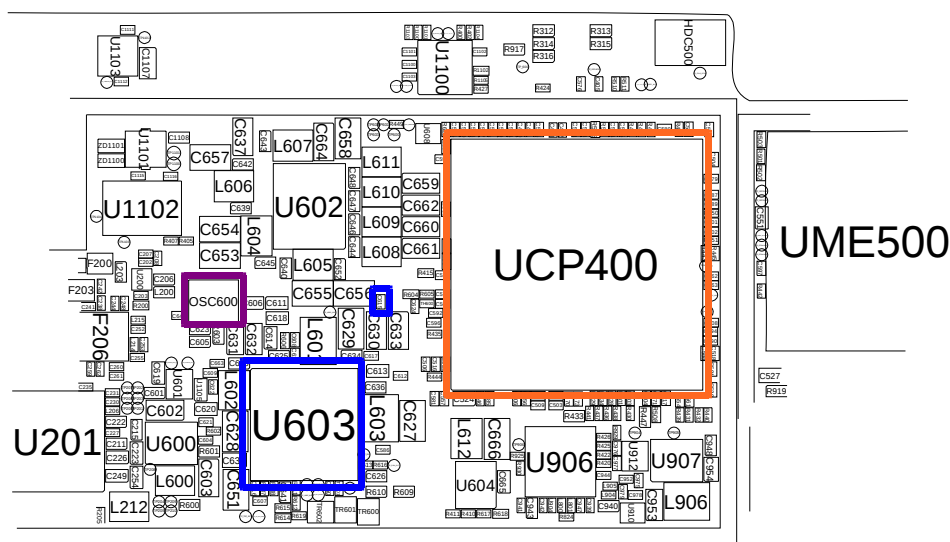


CONTINUOUS TX ON CONDITION
APPLIED

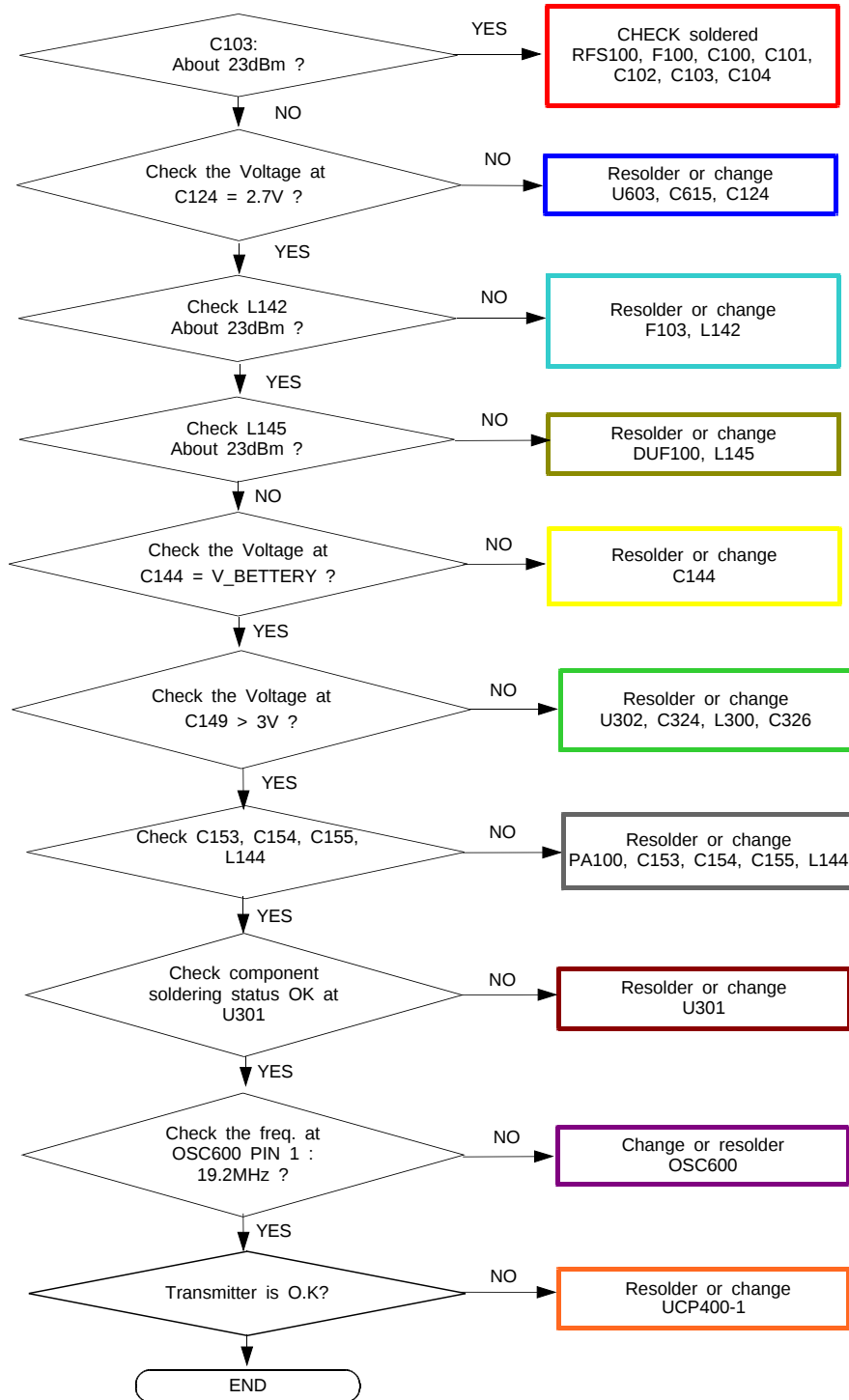
LTE B8 CH : 21625
WCDMA B8 CH : 2788
RBW : 100KHz
VBW : 100KHz
SPAN : 10MHz
REF LEV. : 10dBm
ATT. : 20dB



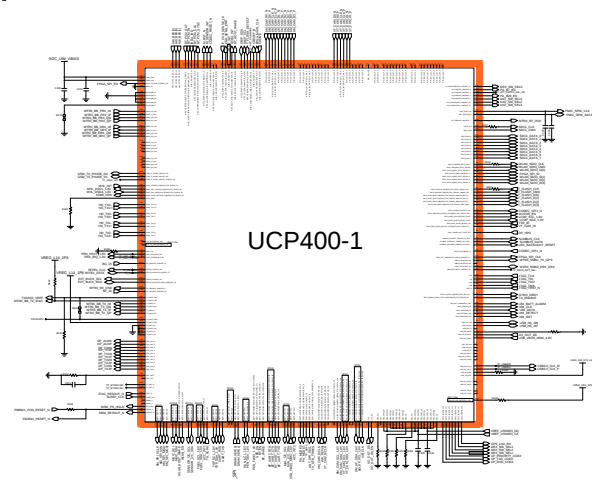


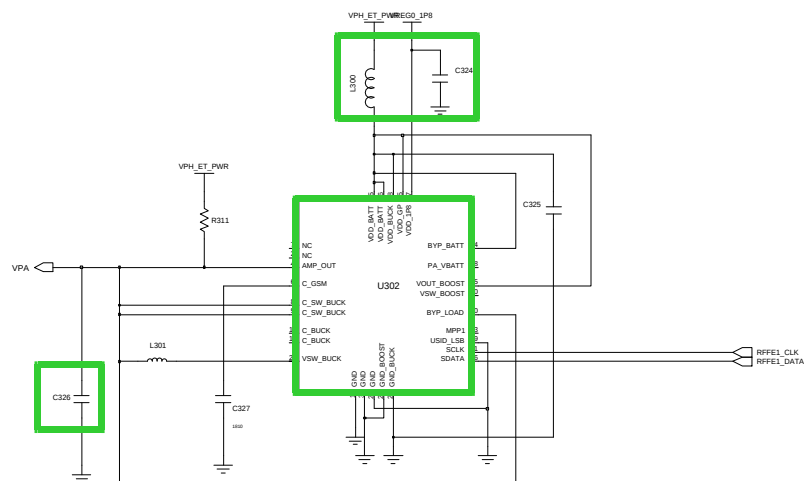
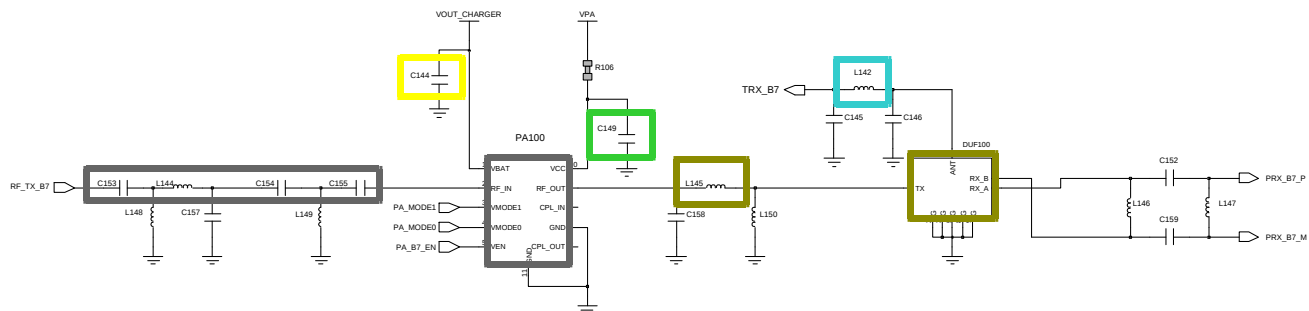


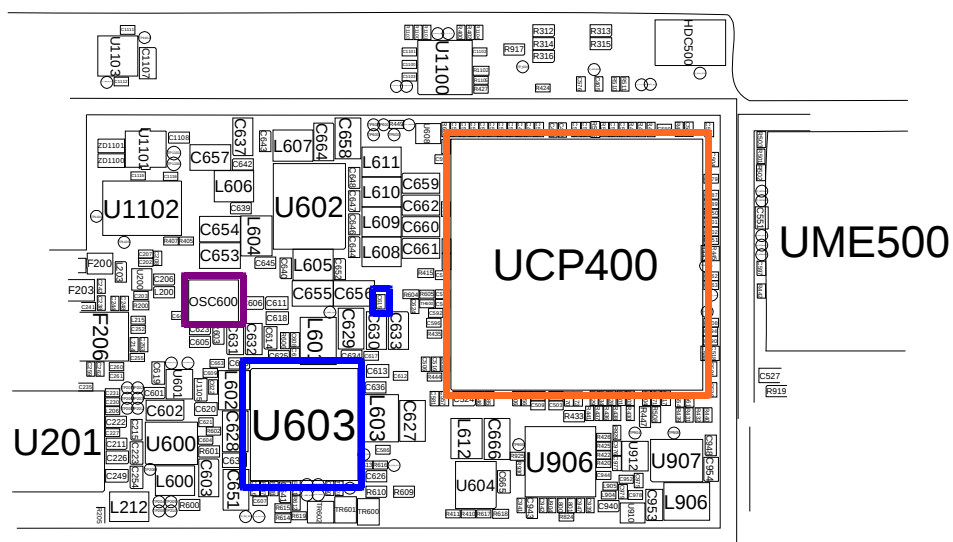
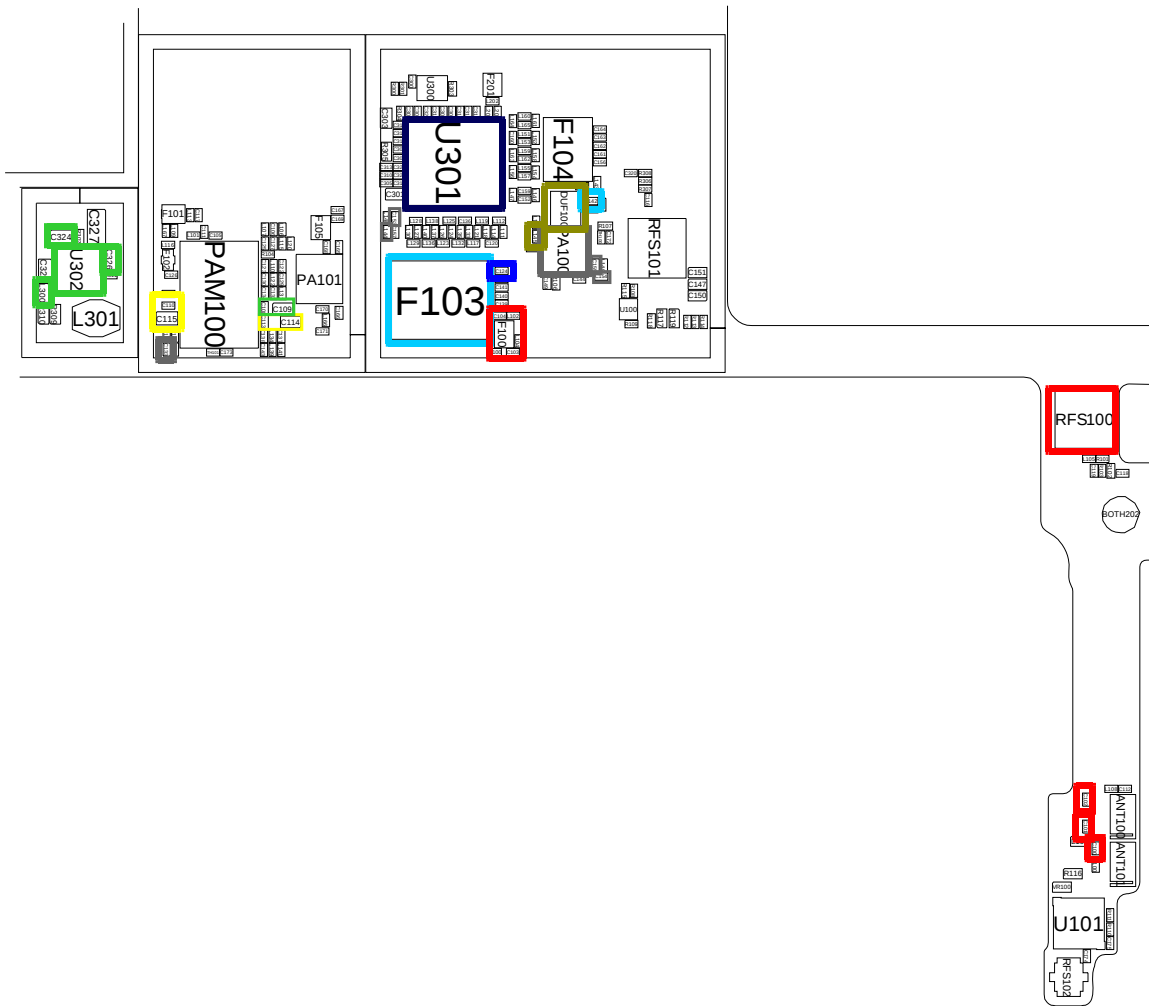
8-3-33. LTE Band7 TX



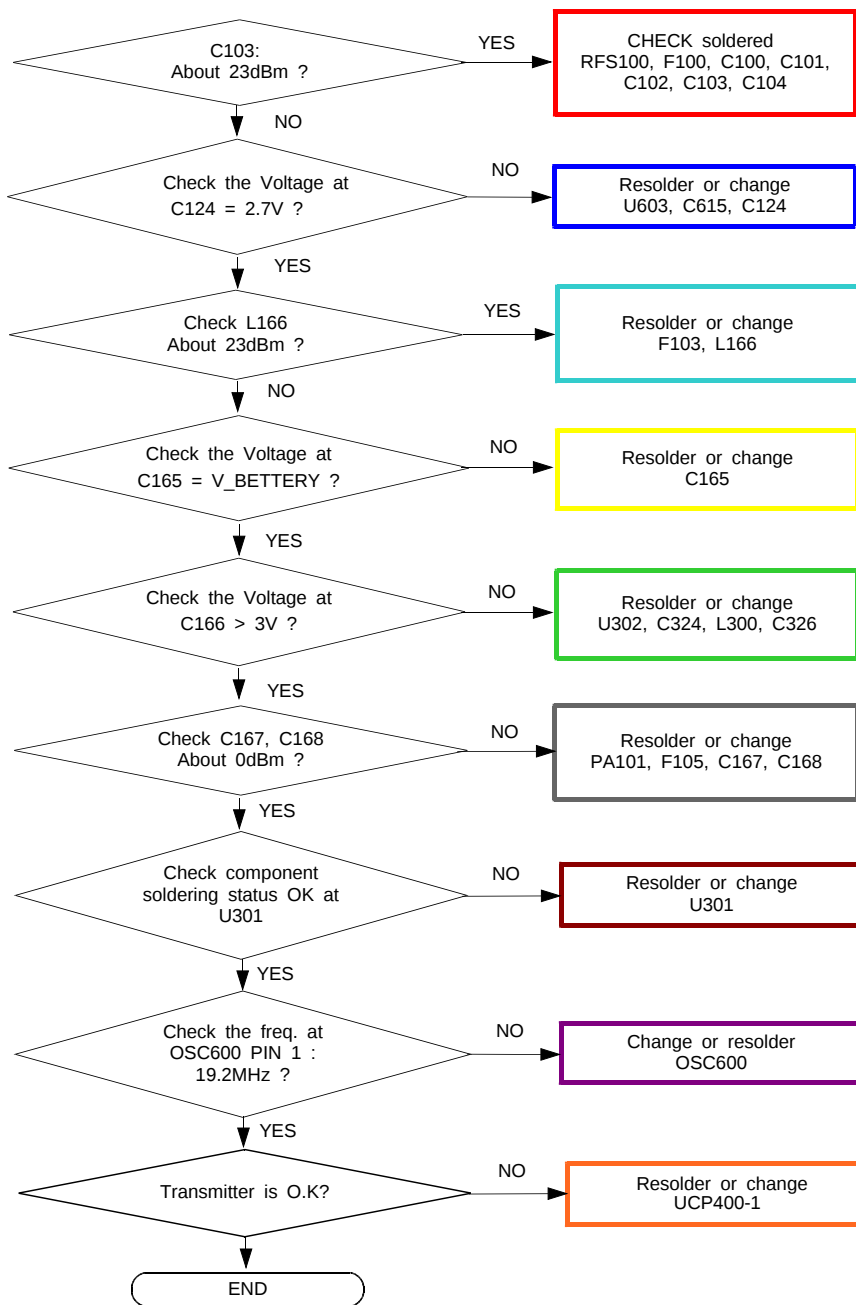
CONTINUOUS TX ON CONDITION
APPLIED
LTE B7 CH : 21100
RBW : 100KHz
VBW : 100KHz
SPAN : 10MHz
REF LEV. : 10dBm
ATT. : 20dB



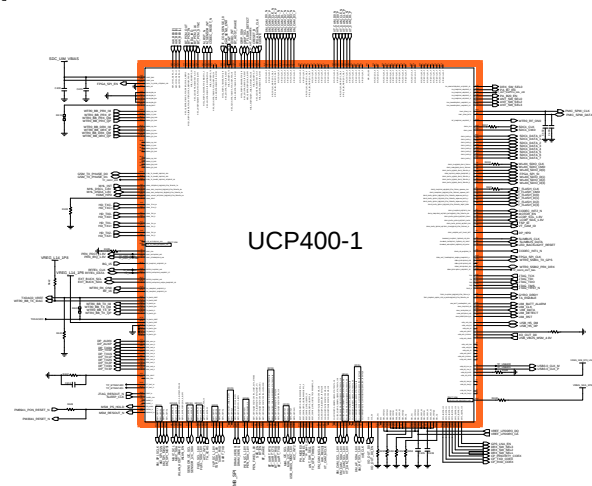
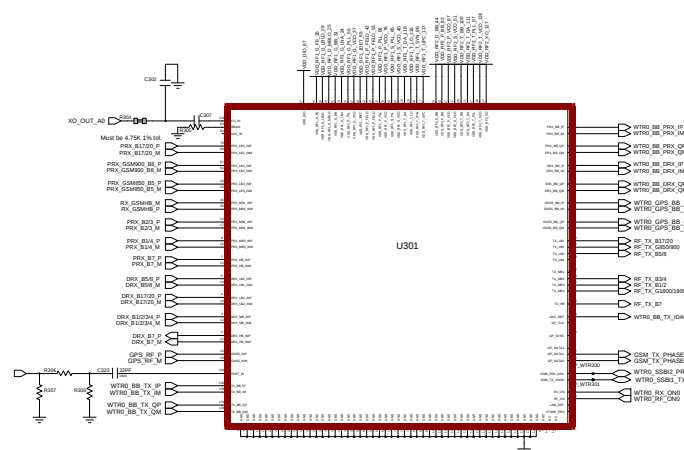
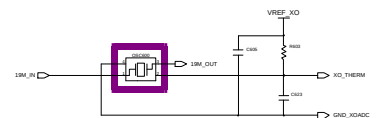
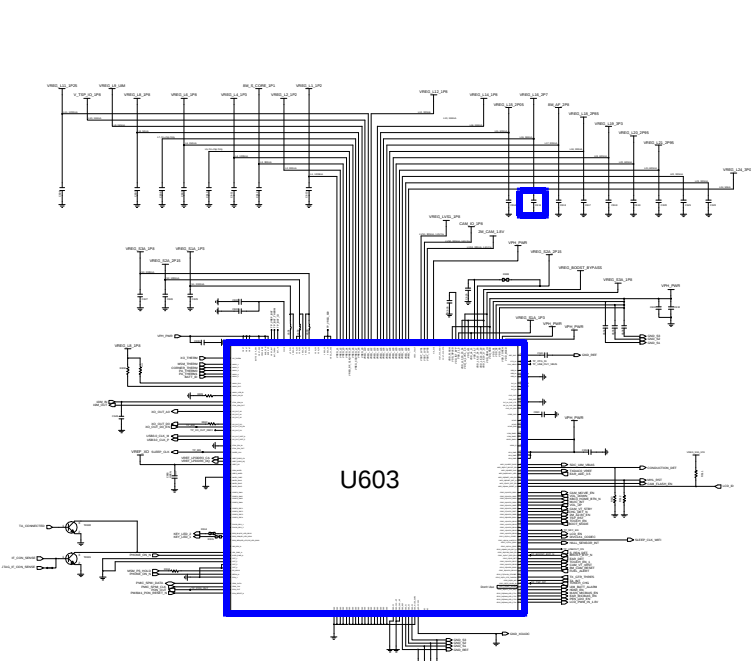
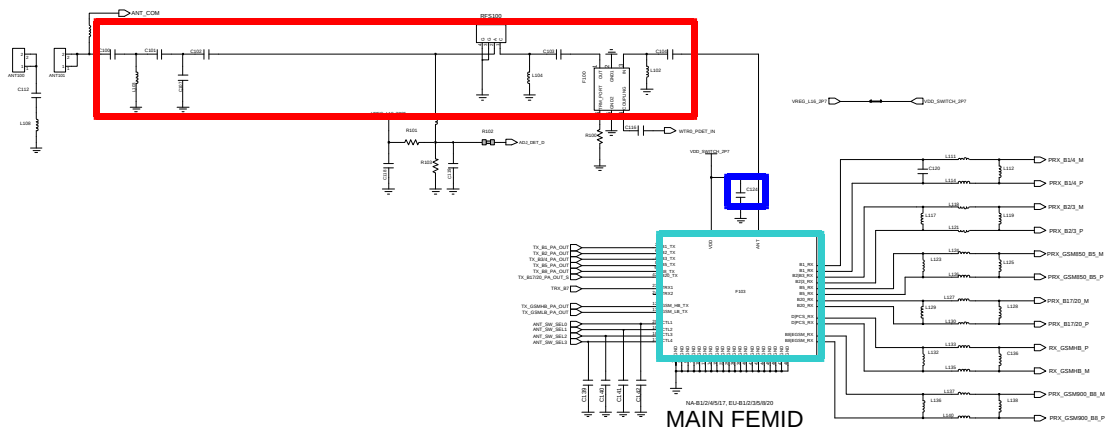


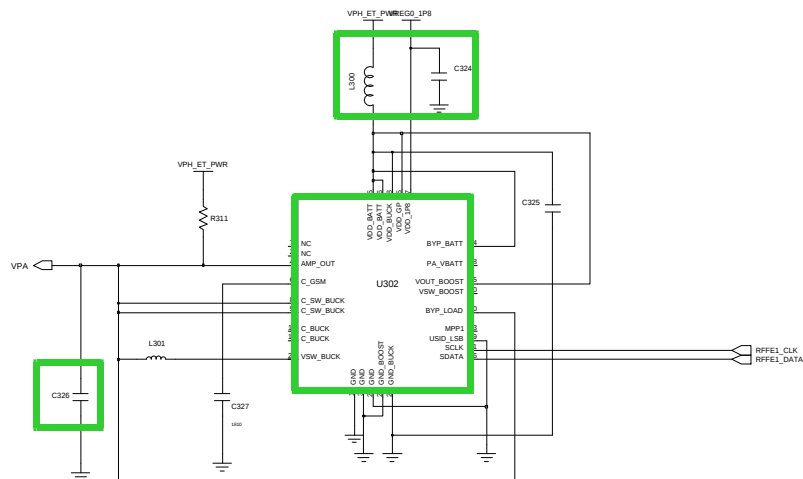
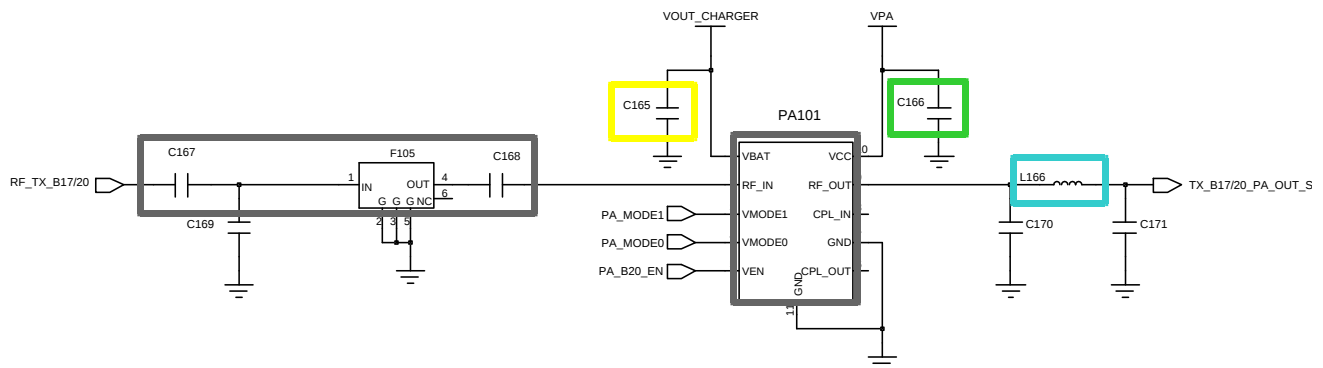


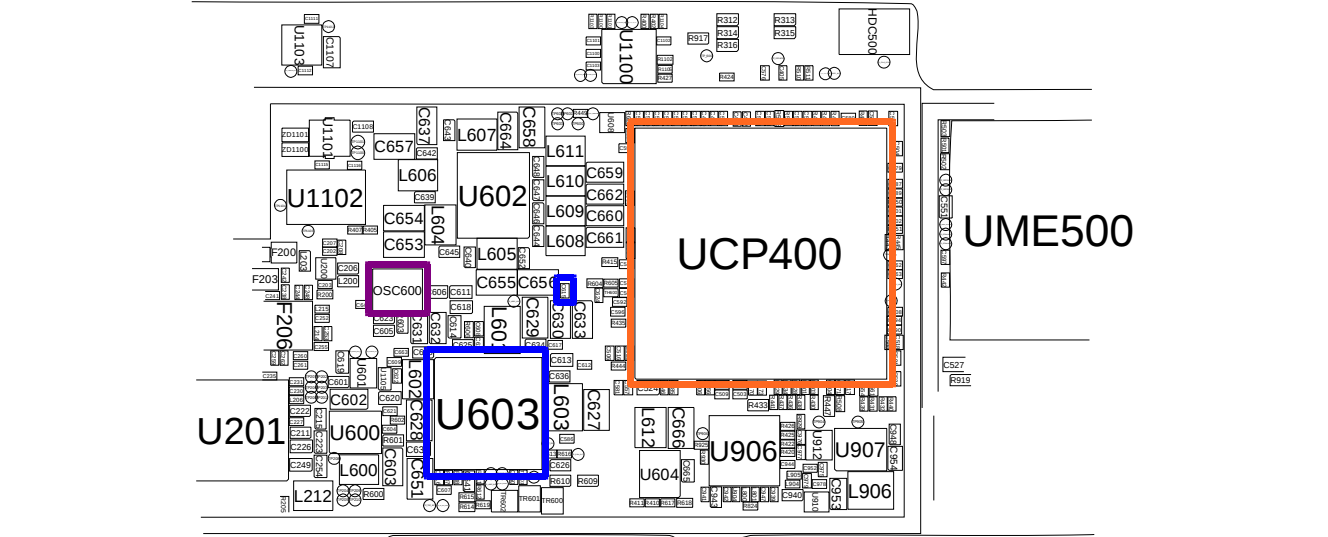
8-3-34. LTE Band20 TX



CONTINUOUS TX ON CONDITION
APPLIED
LTE Band20 CH : 24300
RBW : 100KHz
VBW : 100KHz
SPAN : 10MHz
REF. LEV. : 10dBm
ATT. : 20dB

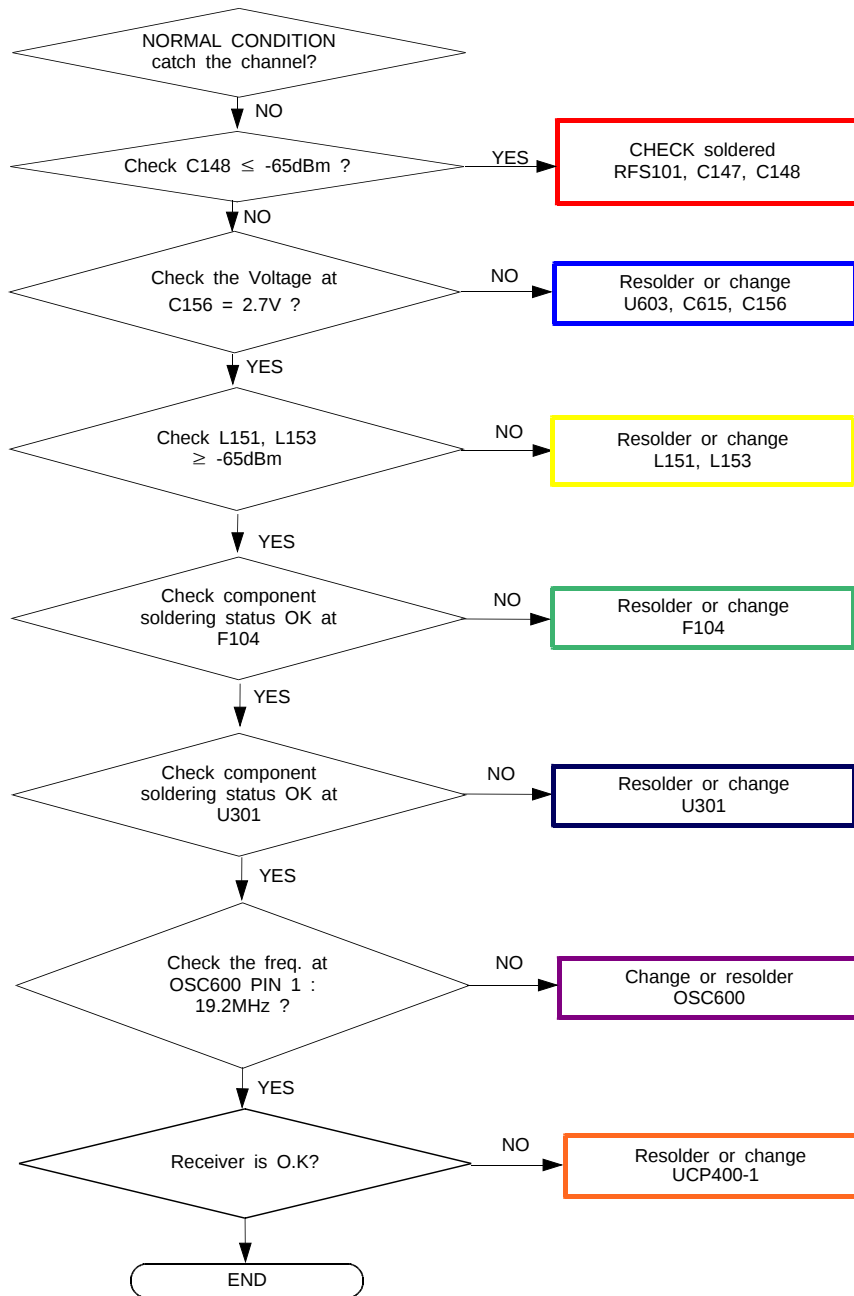


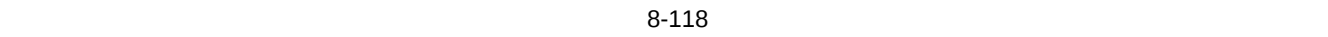


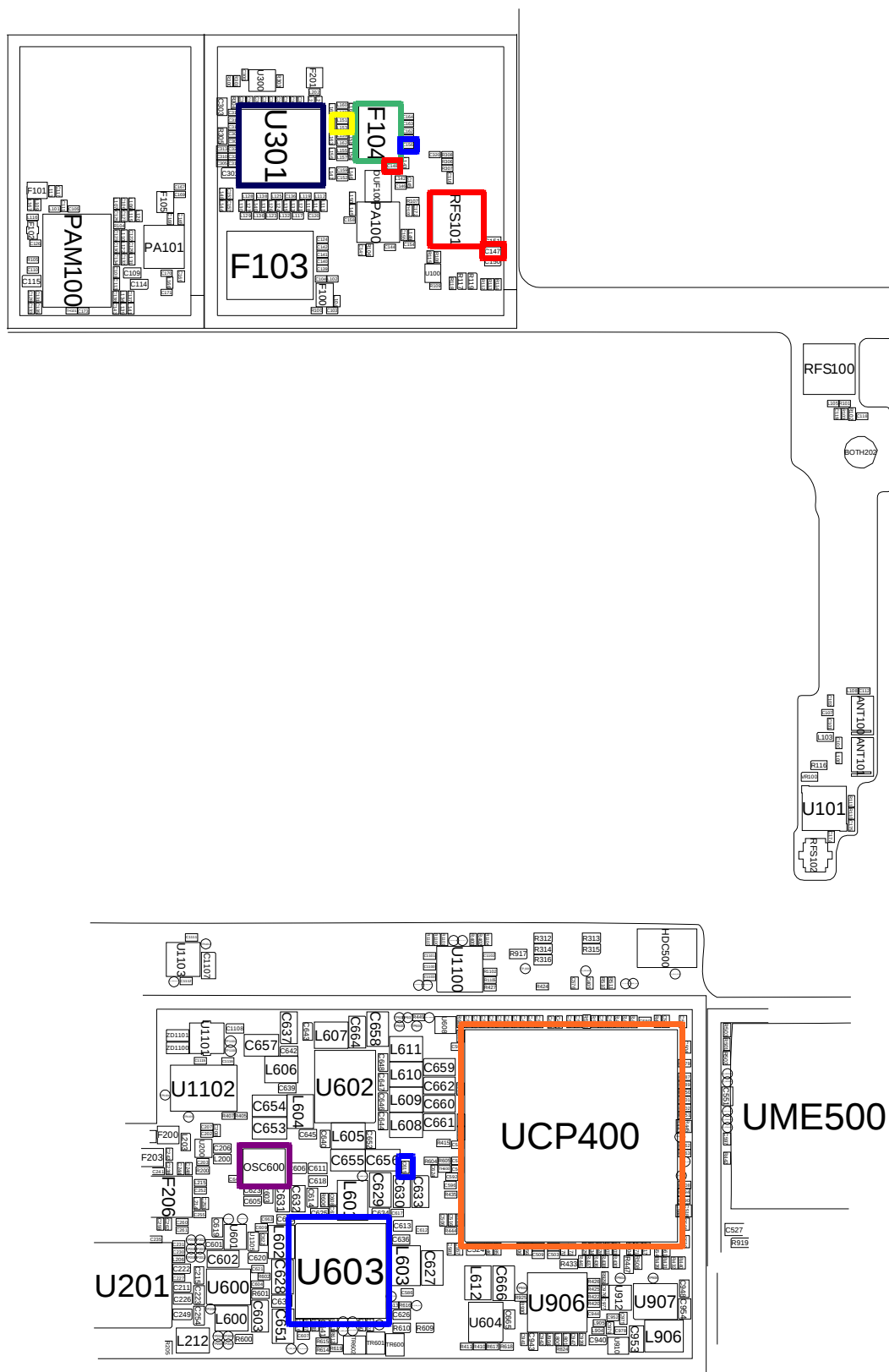


8-3-35. LTE Band1/ LTE Band3/ WCDMA Band1 DRX

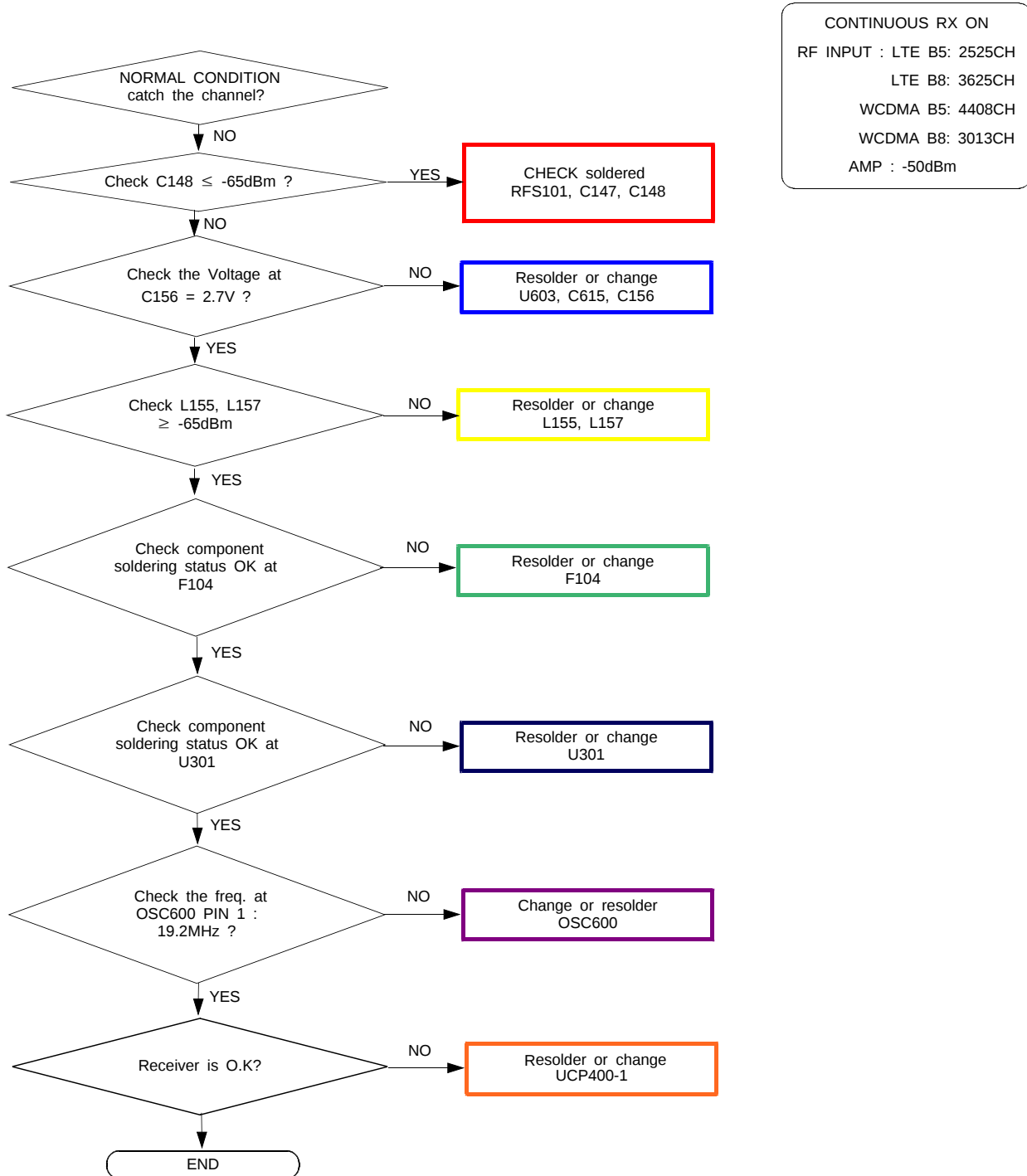
CONTINUOUS RX ON
 RF INPUT : LTE B1: 300CH
 LTE B3: 1575CH
 WCDMA B1: 10700CH
 AMP : -50dBm

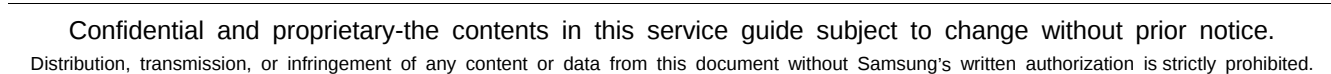


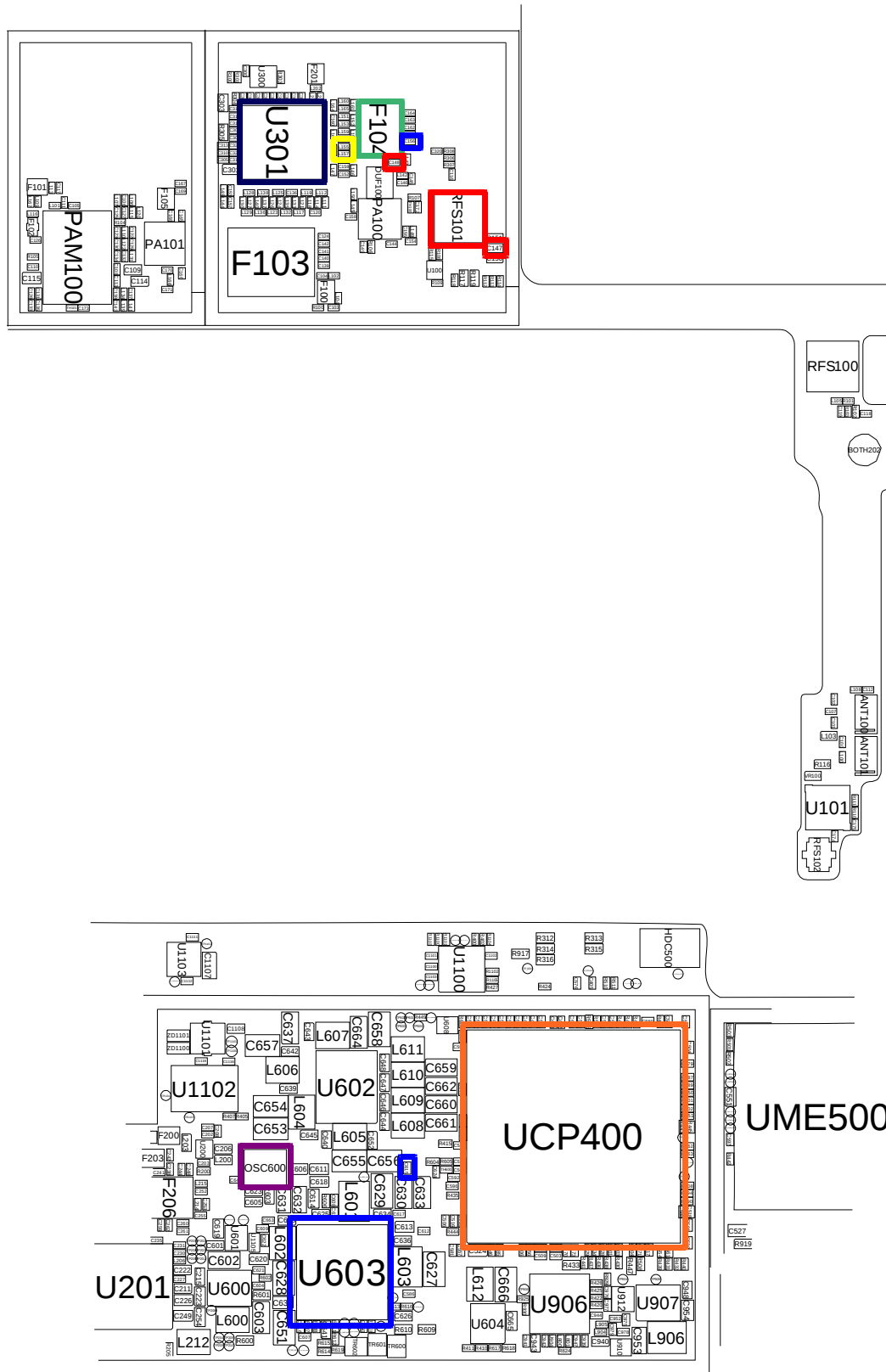




8-3-36. LTE Band5/ LTE Band8/ WCDMA Band5/ WCDMA Band8 DRX

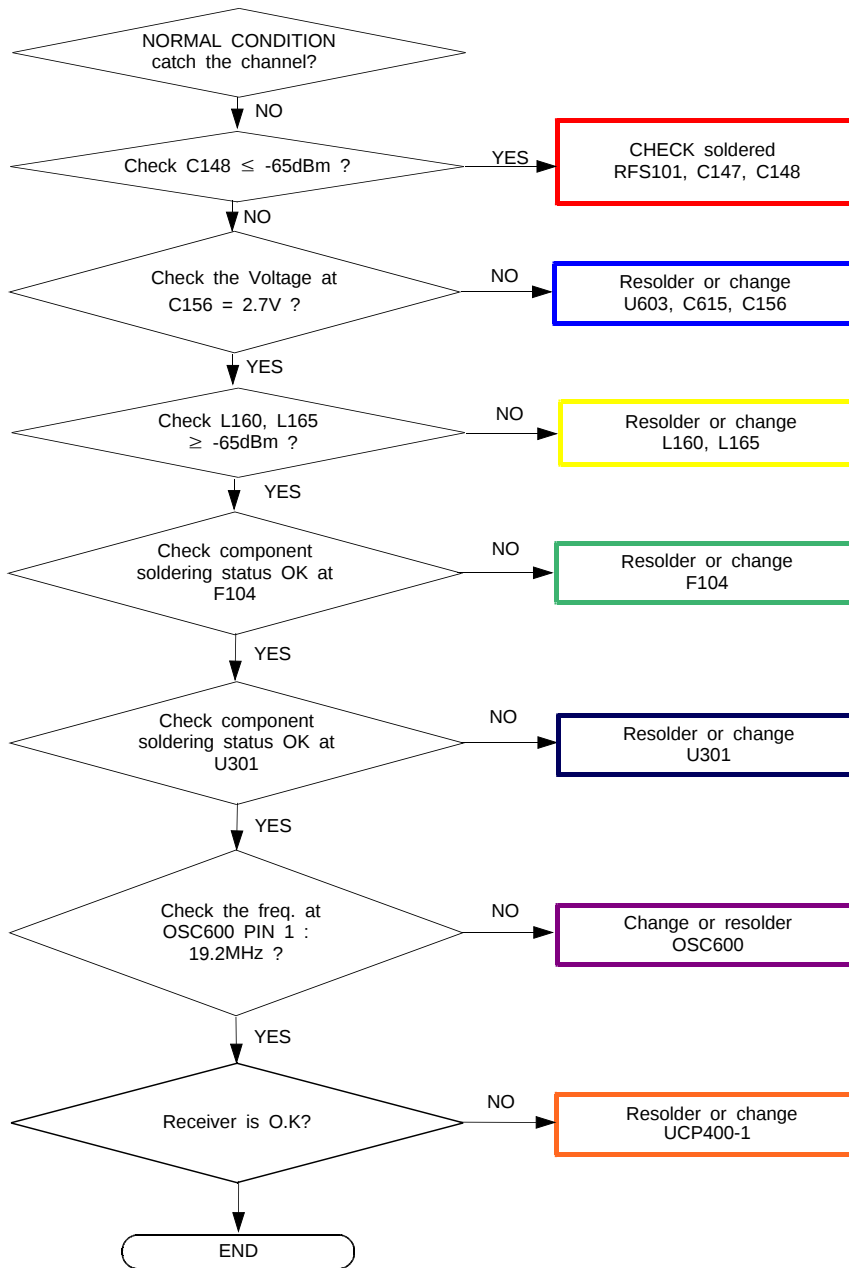


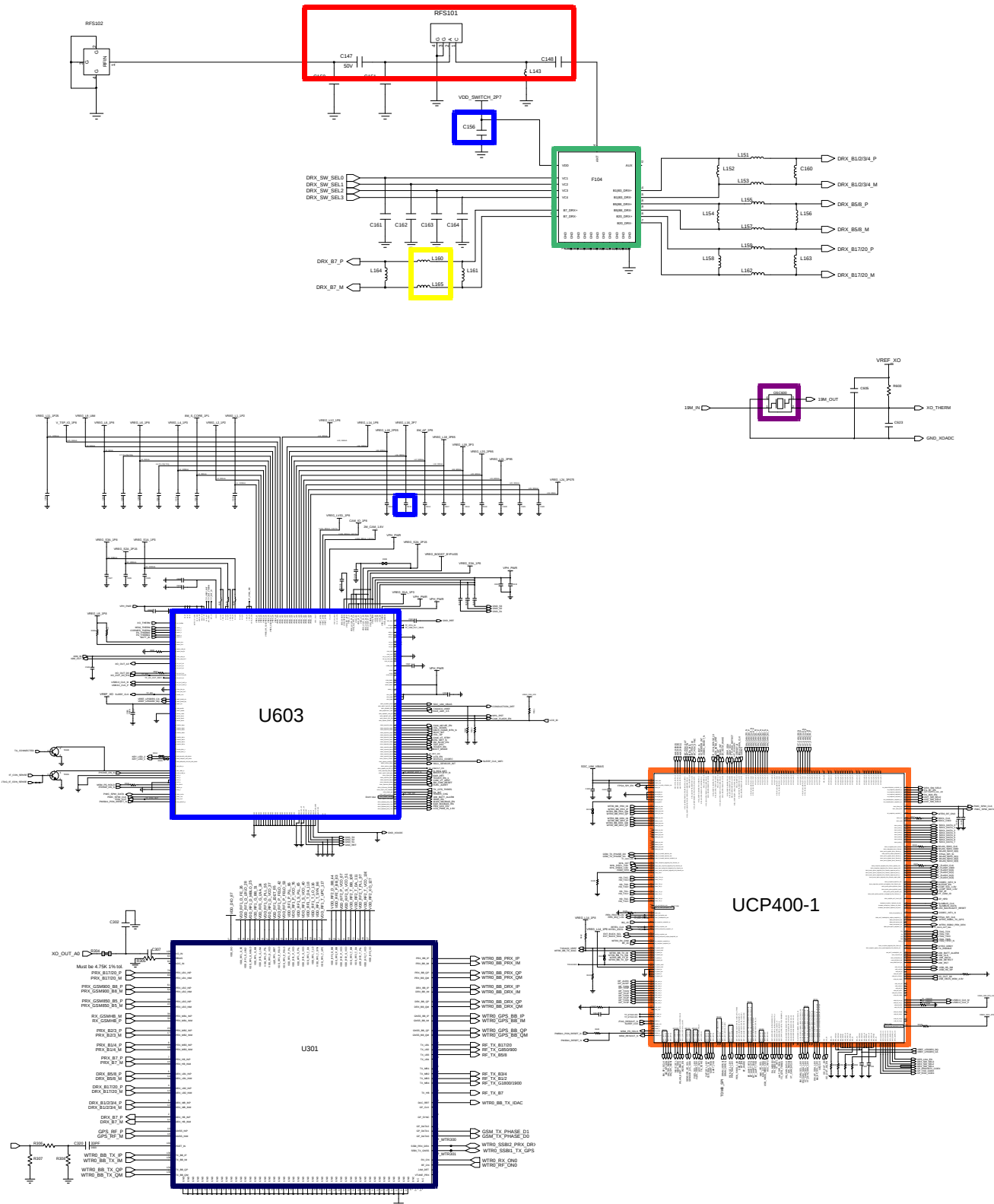


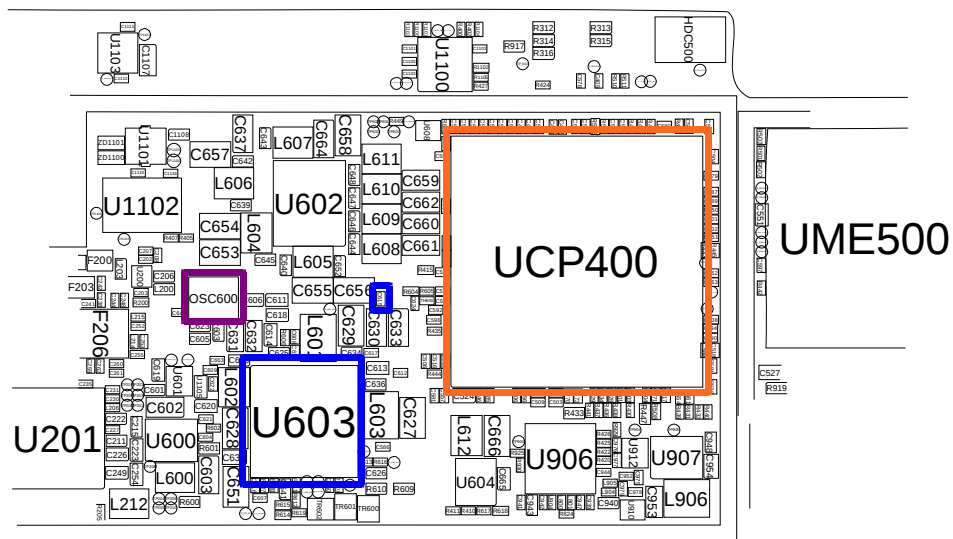


8-3-37. LTE Band7 DRX

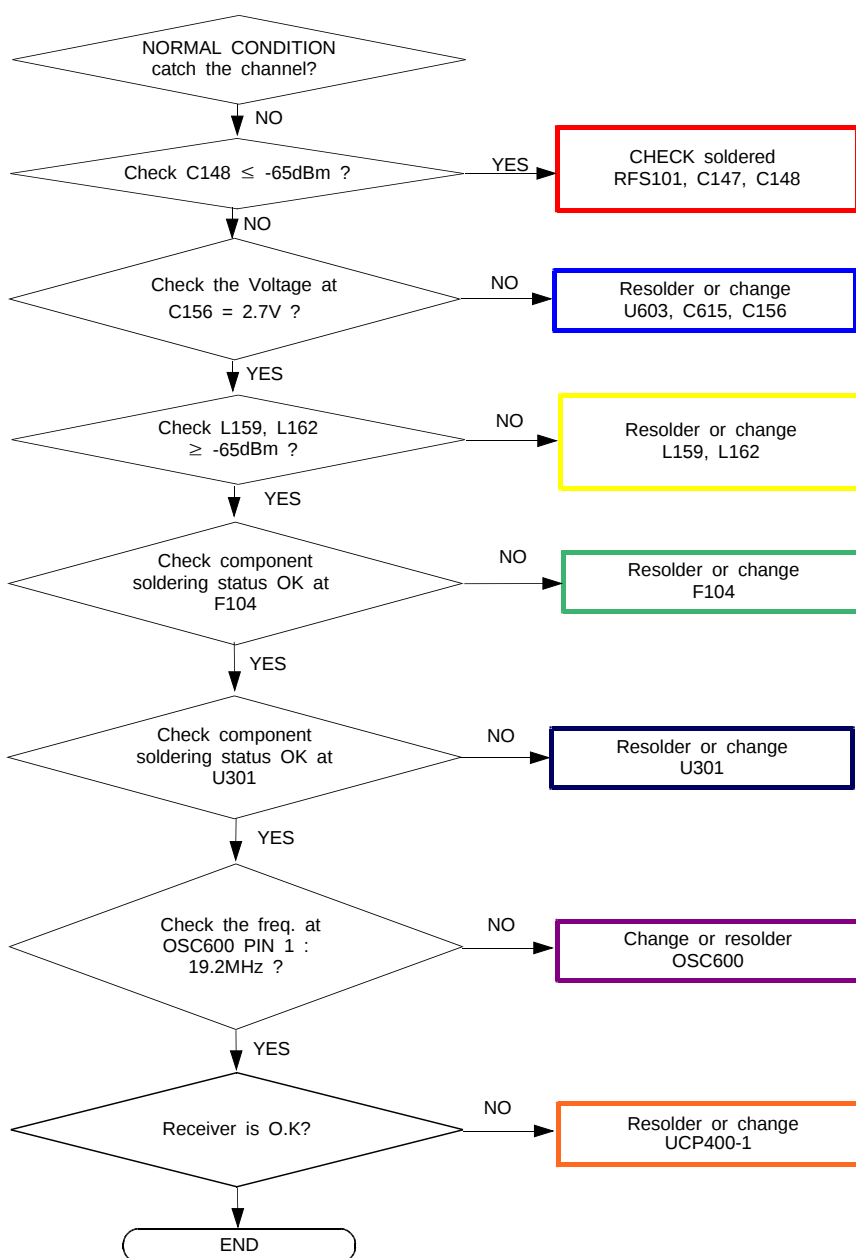
CONTINUOUS RX ON
RF INPUT : LTE B7: 3100CH
AMP : -50dBm







8-3-38. LTE Band20 DRX



CONTINUOUS RX ON
RF INPUT : LTE B20: 6300CH
AMP : -50dBm

