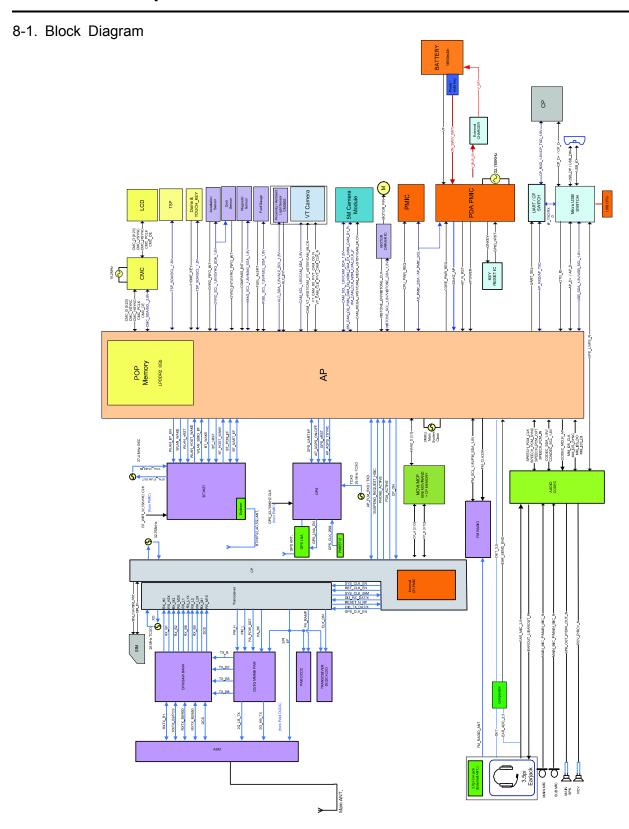
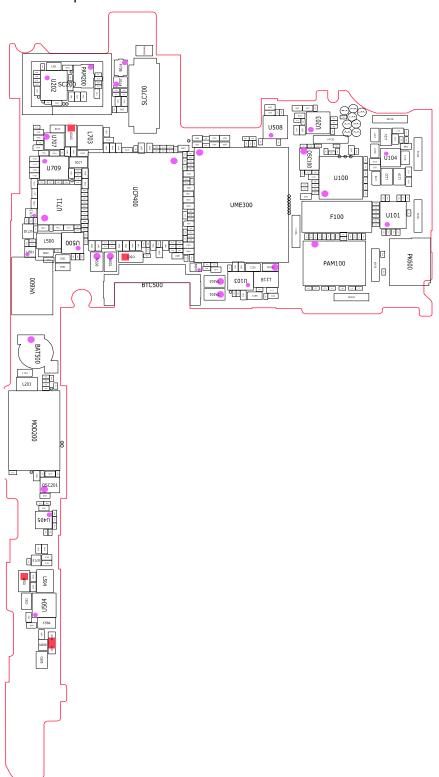
8. Level 3 Repair

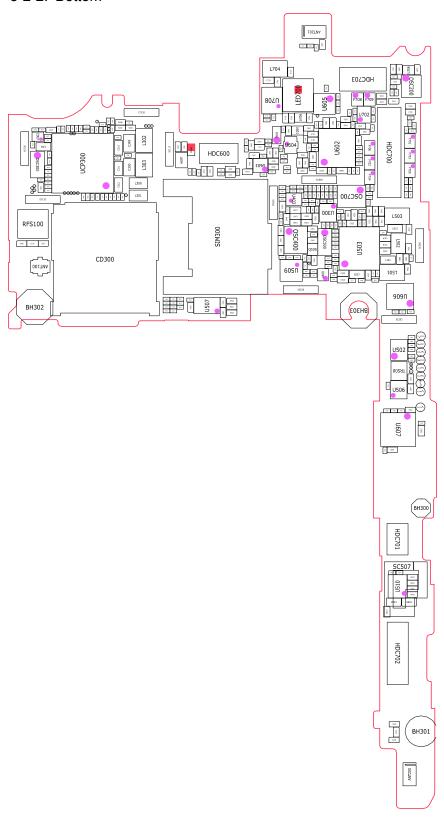


8-2. PCB Diagrams

8-2-1. Top

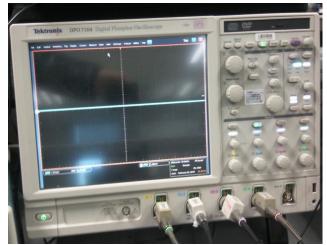


8-2-2. Bottom



8-3. Flow Chart of Troubleshooting

Equipments



↑ Oscilloscope



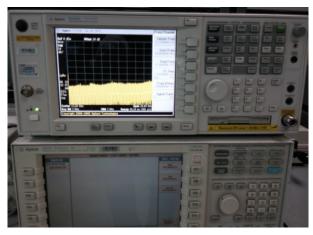
↑ Digital Multimeter



↑ Power Supply



↑ + driver, ESD Safe Tweezer

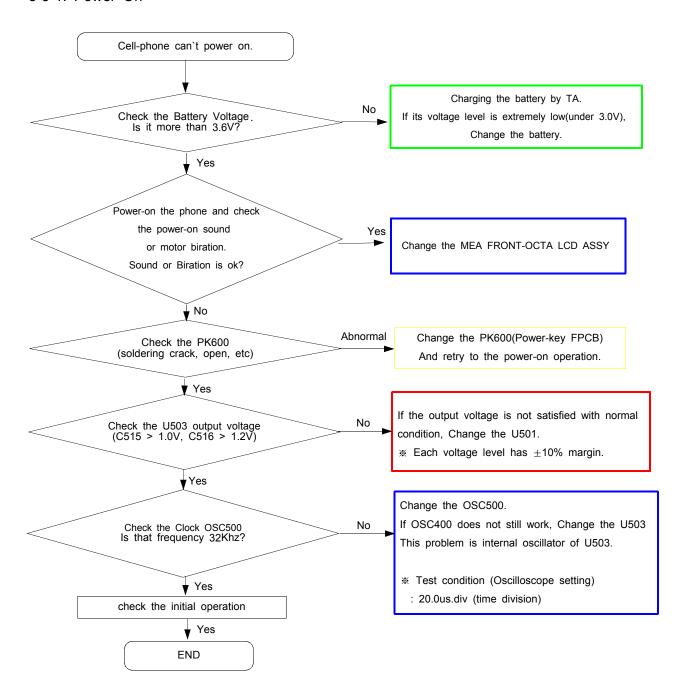


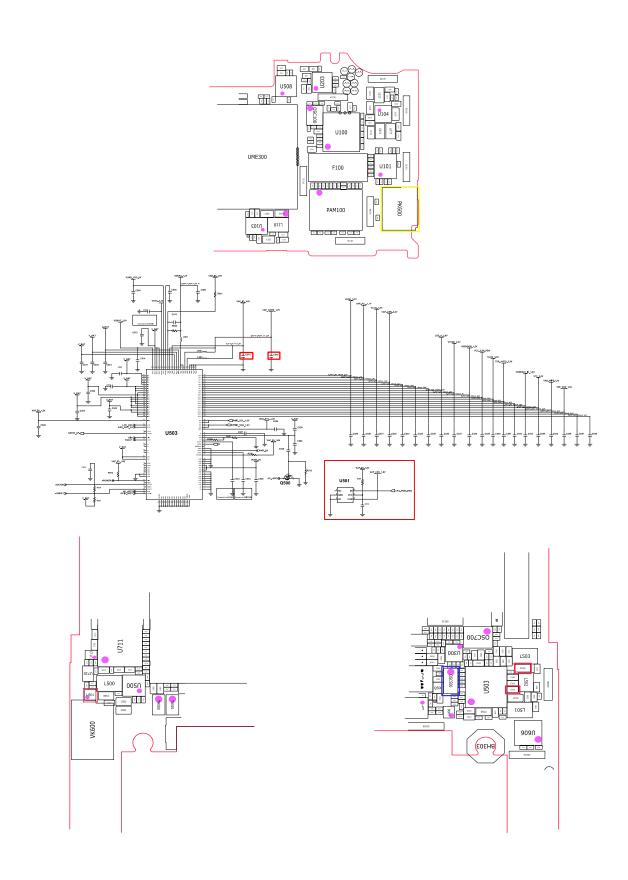
↑ 8960 & Spectrum Analyzer



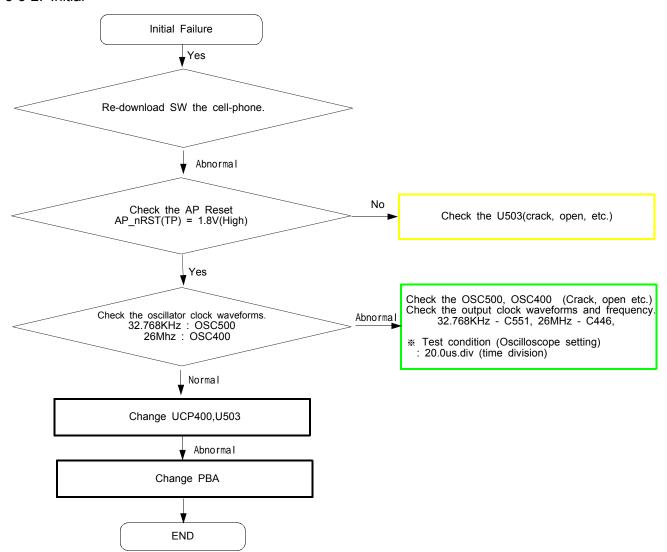
↑ Soldering iron

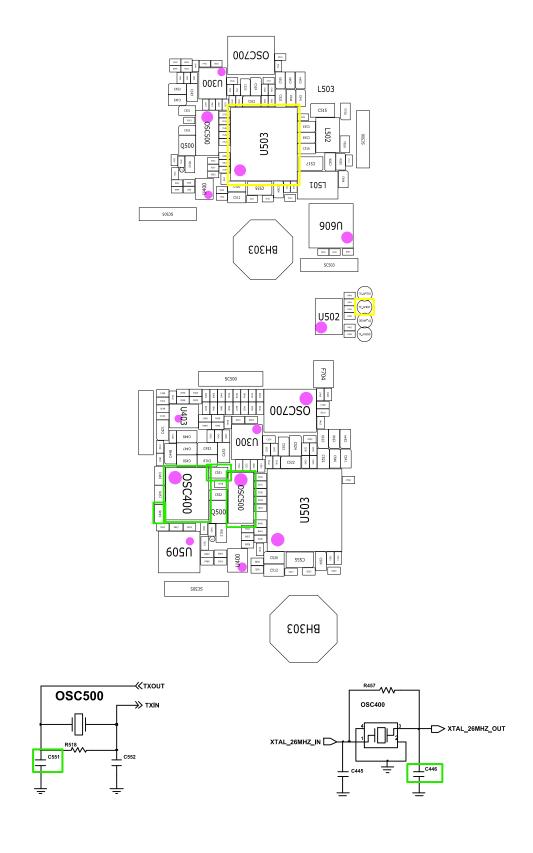
8-3-1. Power On



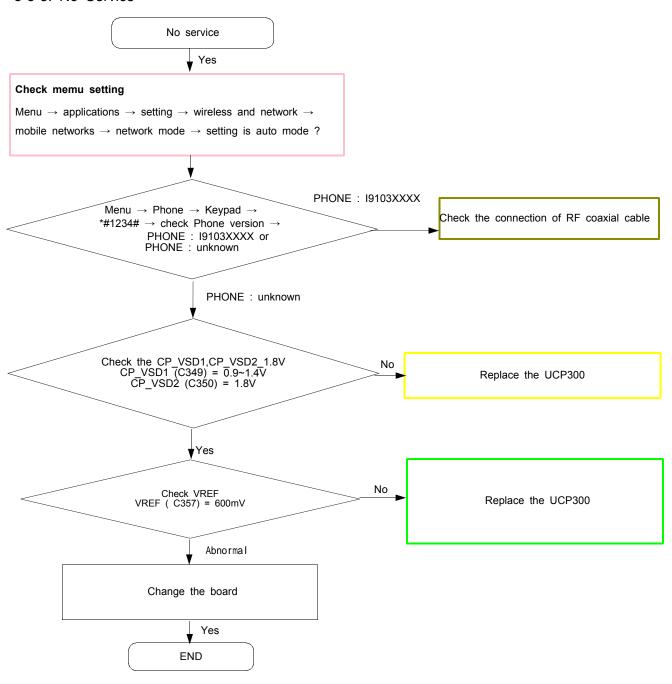


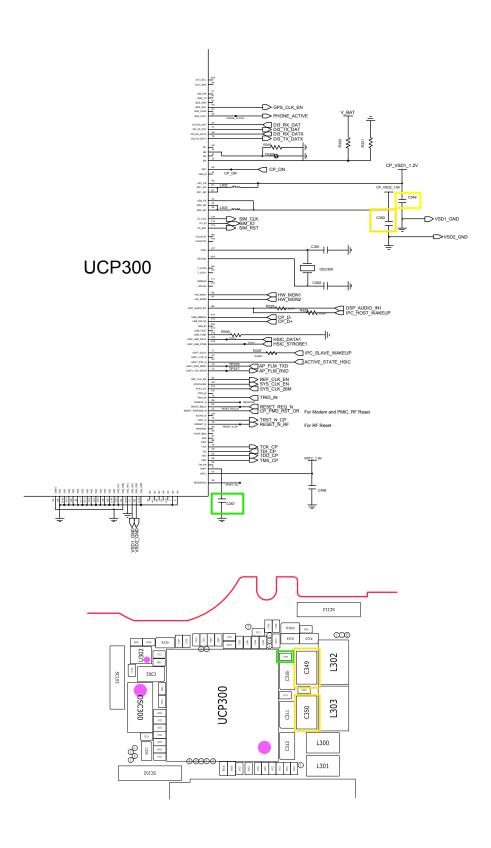
8-3-2. Initial



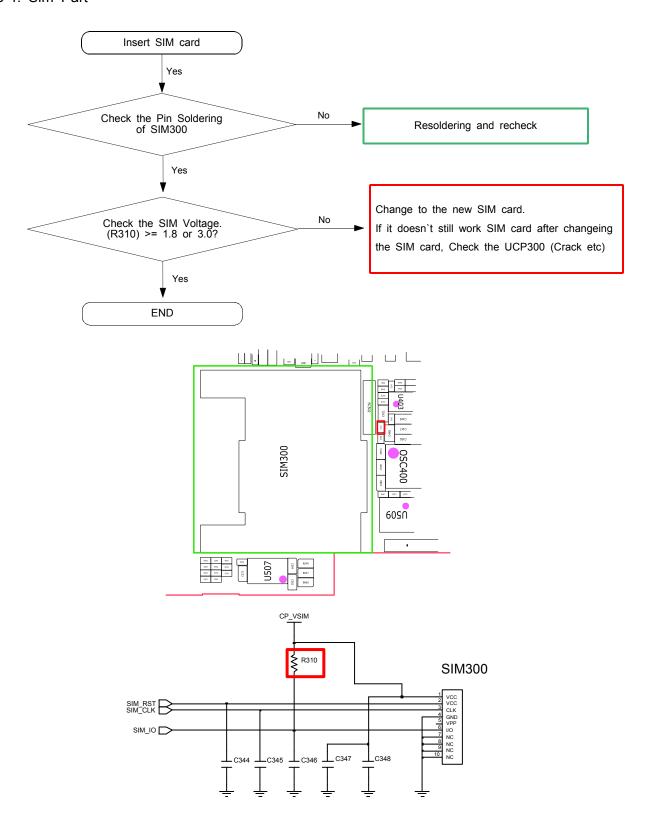


8-3-3. No Service

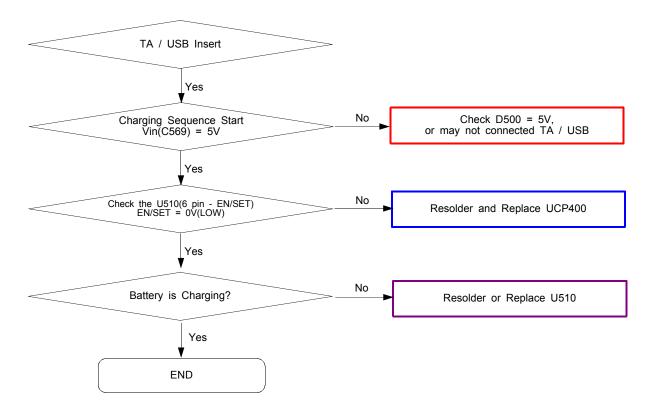


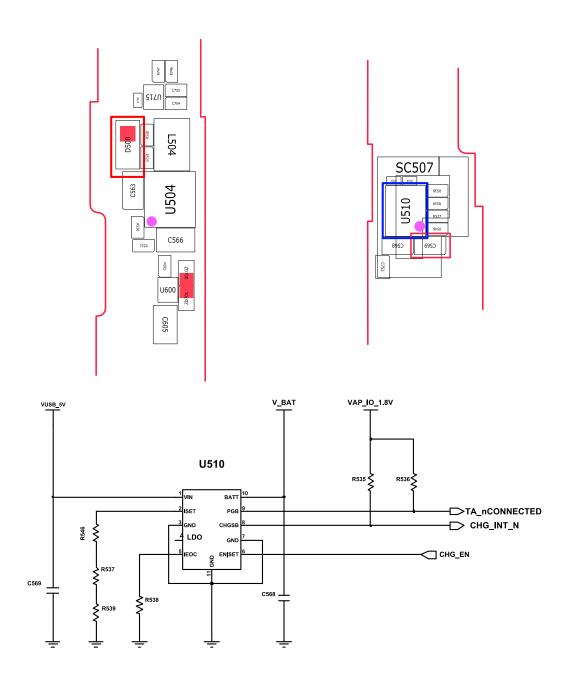


8-3-4. Sim Part

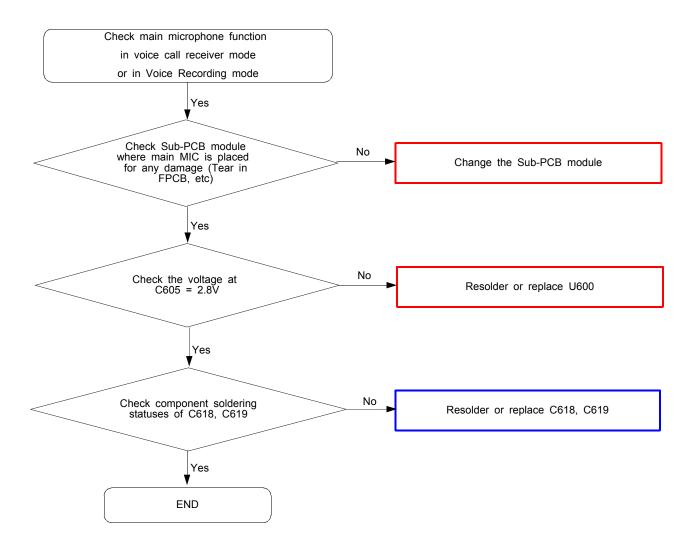


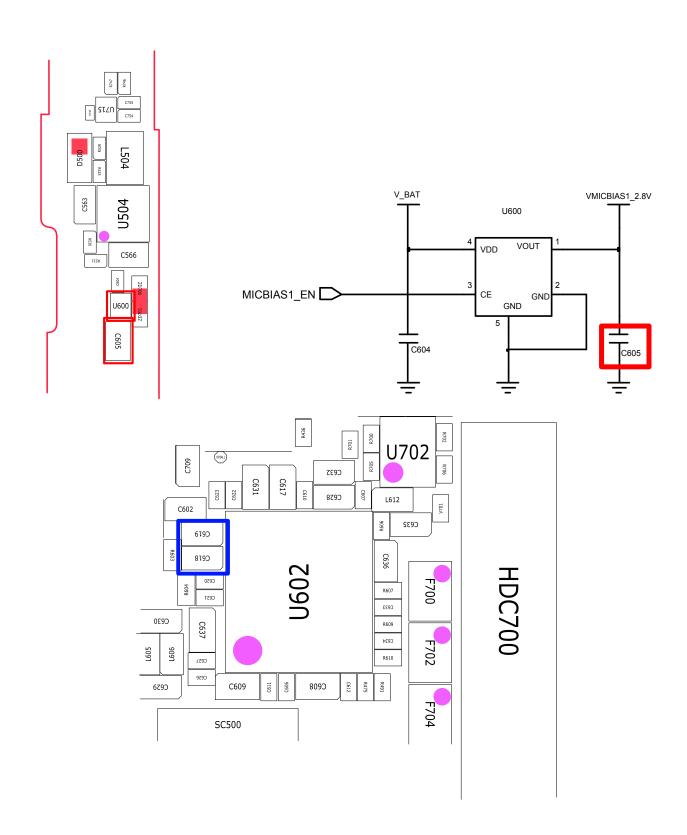
8-3-5. Charging Part



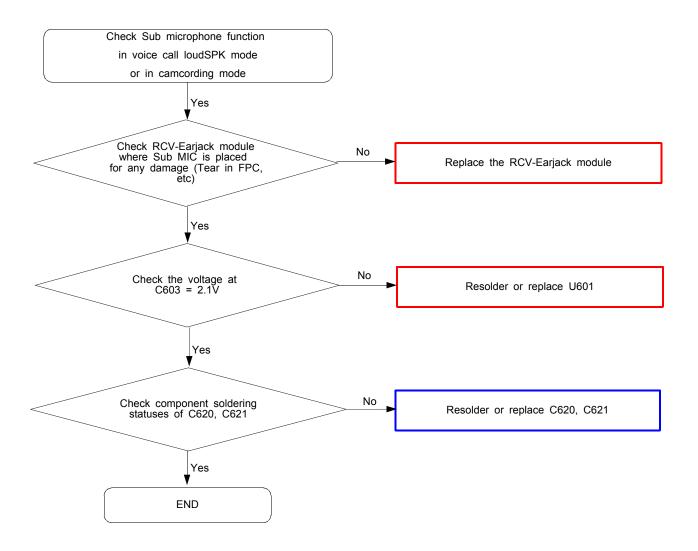


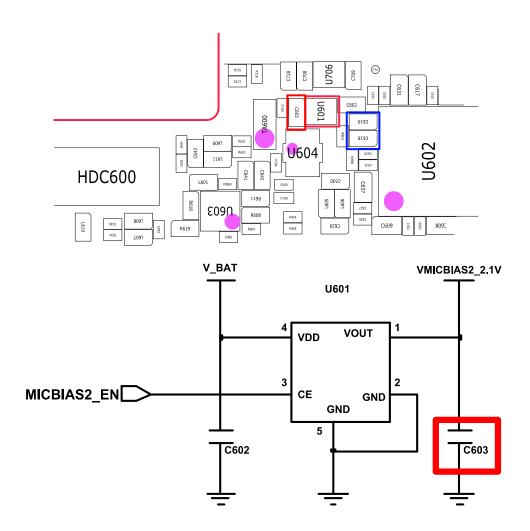
8-3-6. Microphone Part (Main MIC)



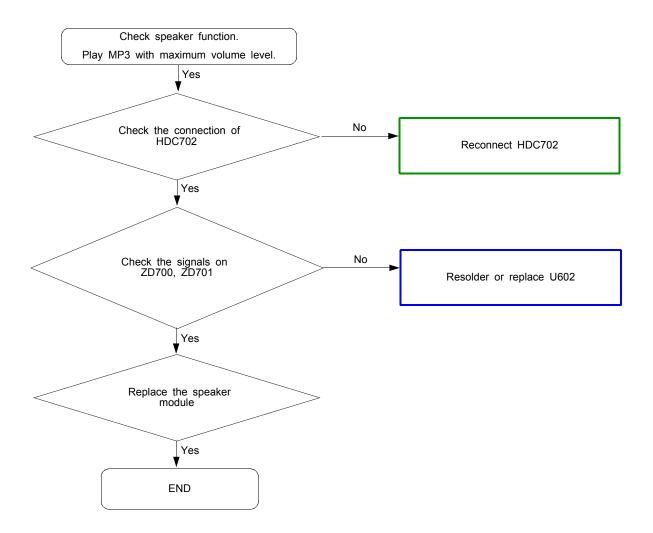


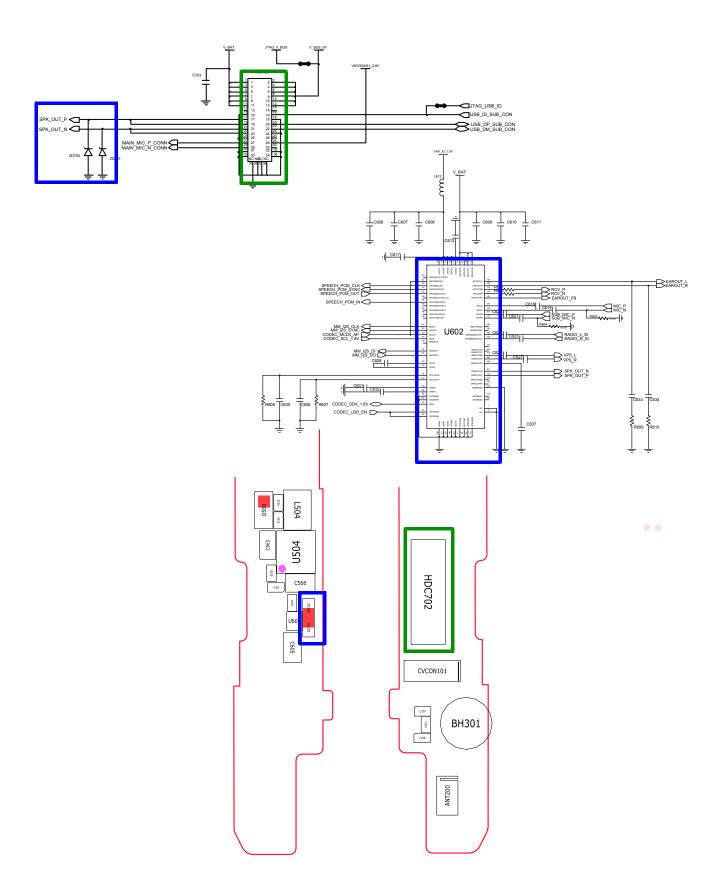
8-3-6-1. Microphone Part (Sub MIC)



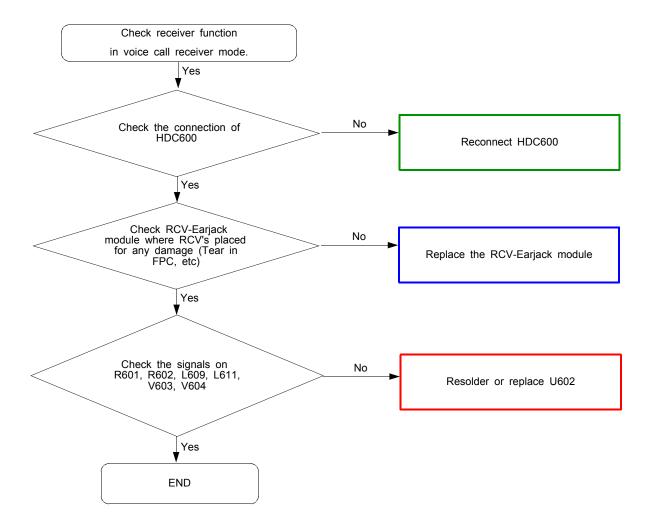


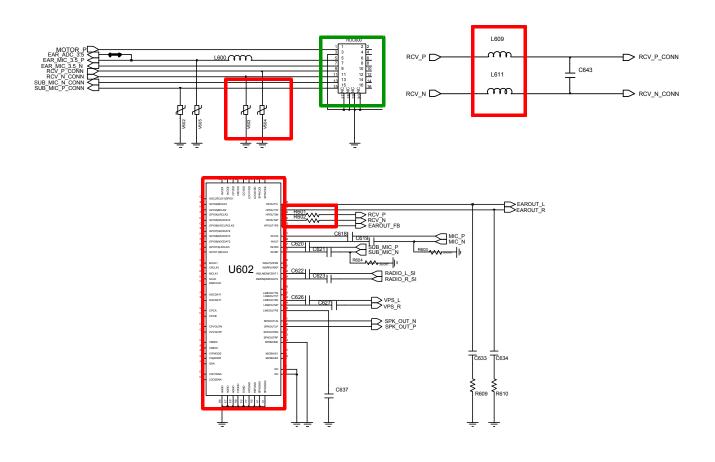
8-3-7. Speaker Part





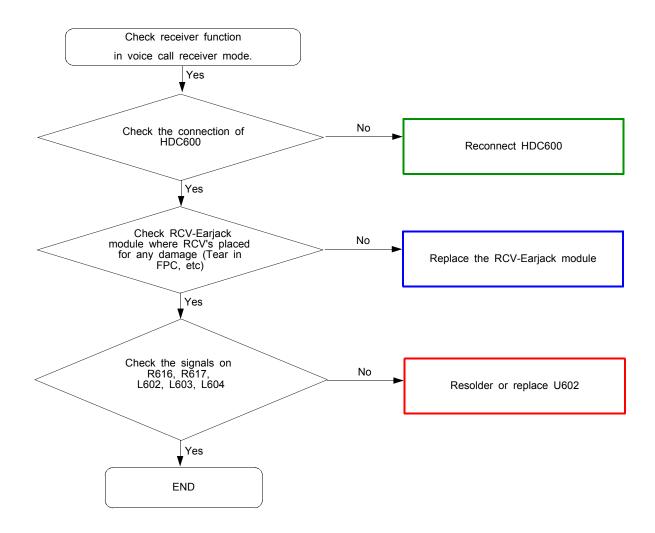
8-3-8. Receiver Part

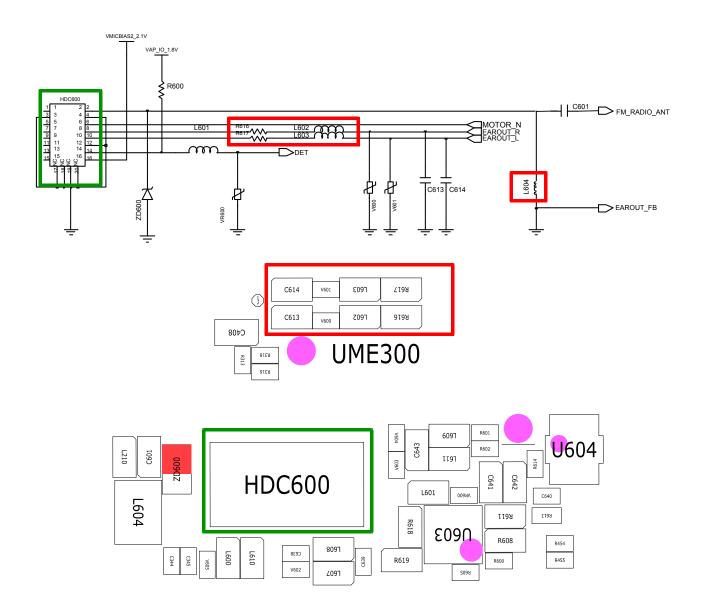




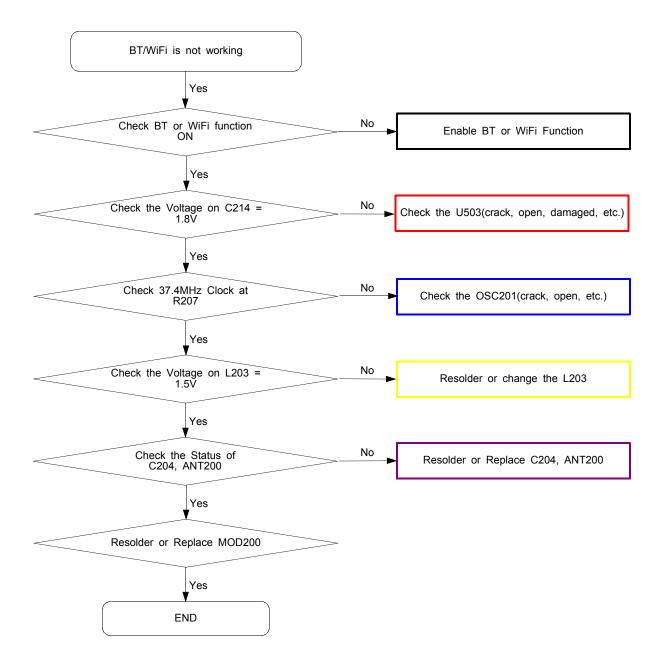


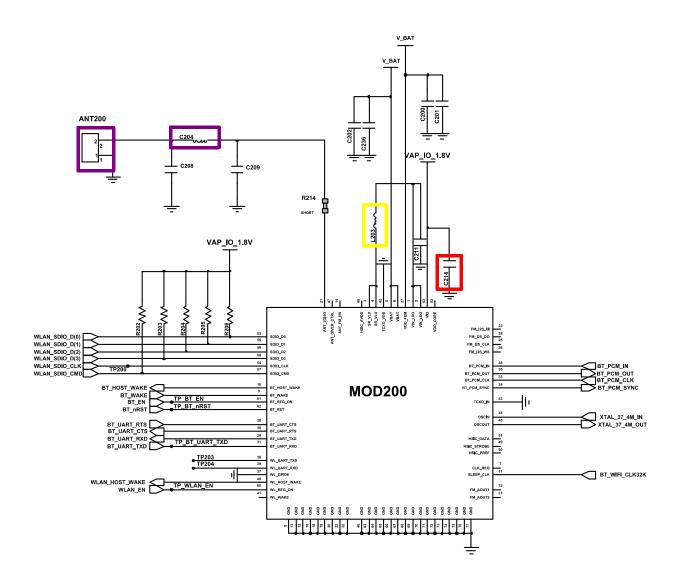
8-3-9 EAR (Headset) Part

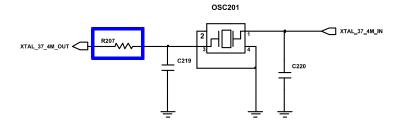


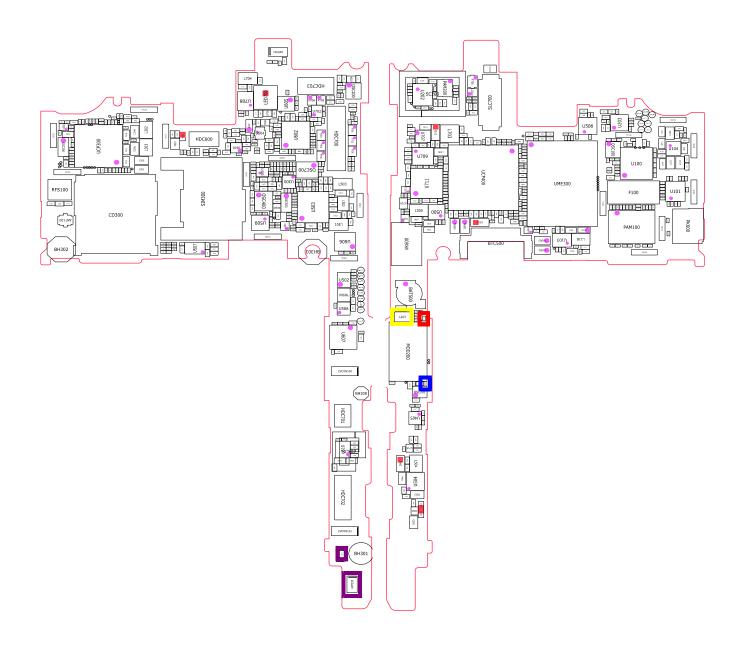


8-3-10. BT/WIFI

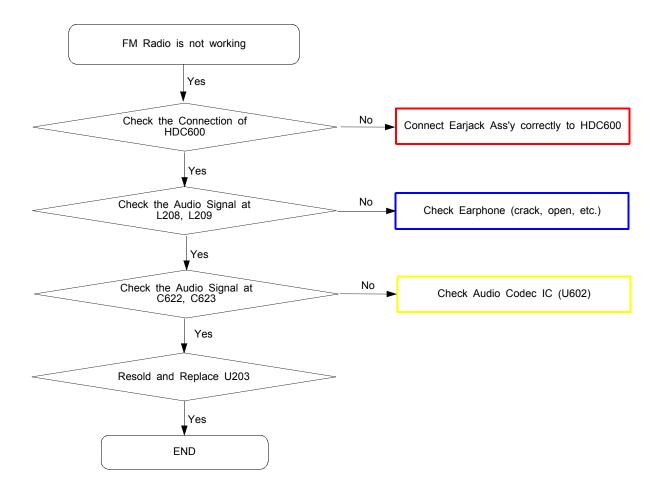


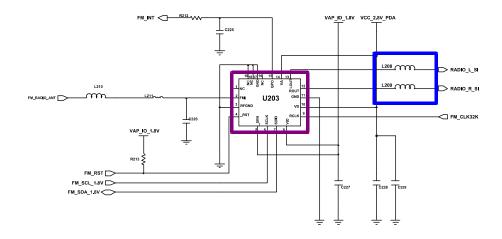


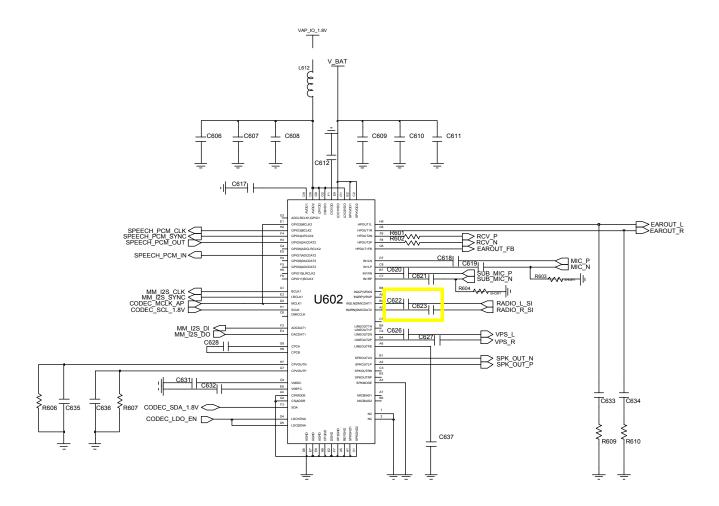


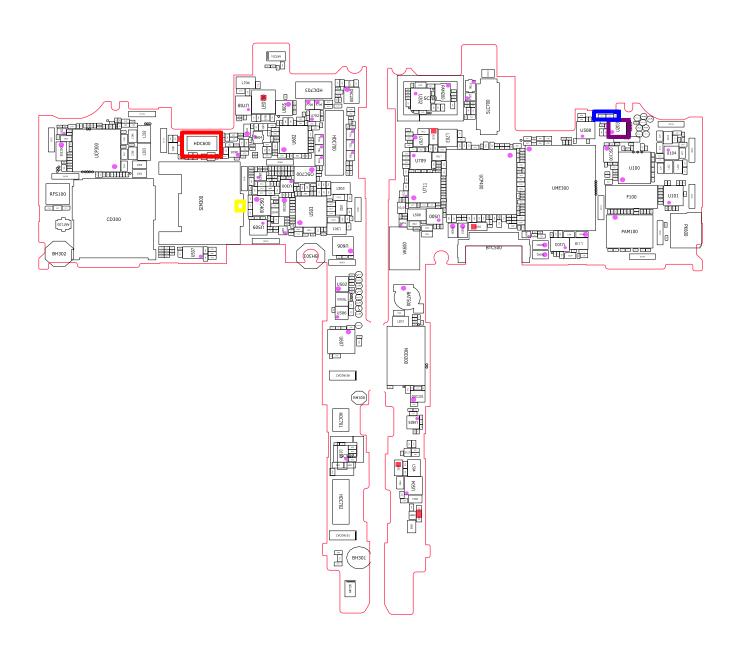


8-3-11. FM RADIO

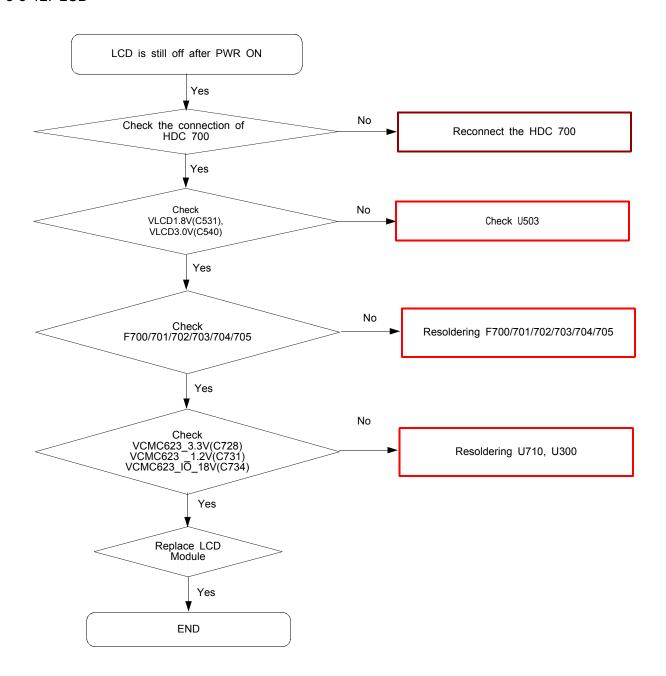


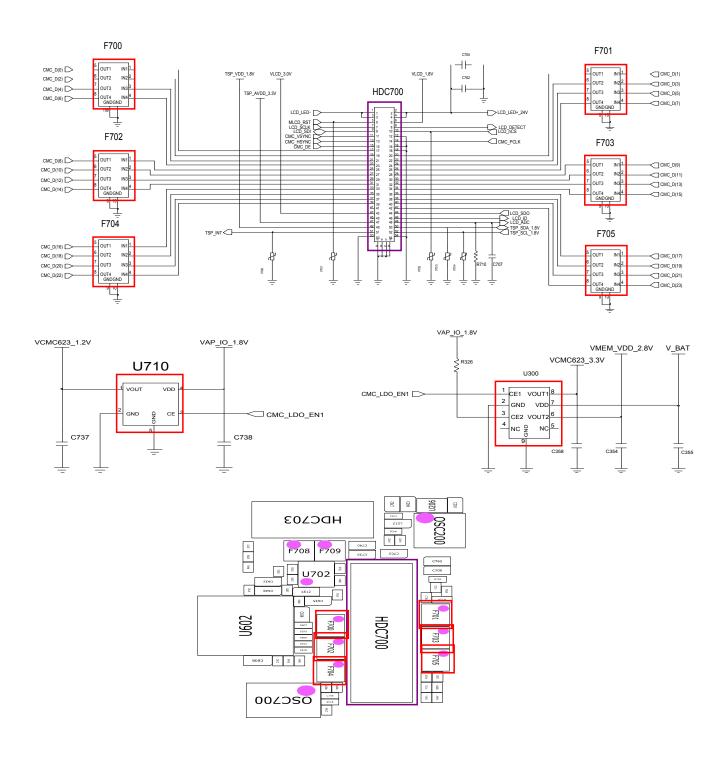




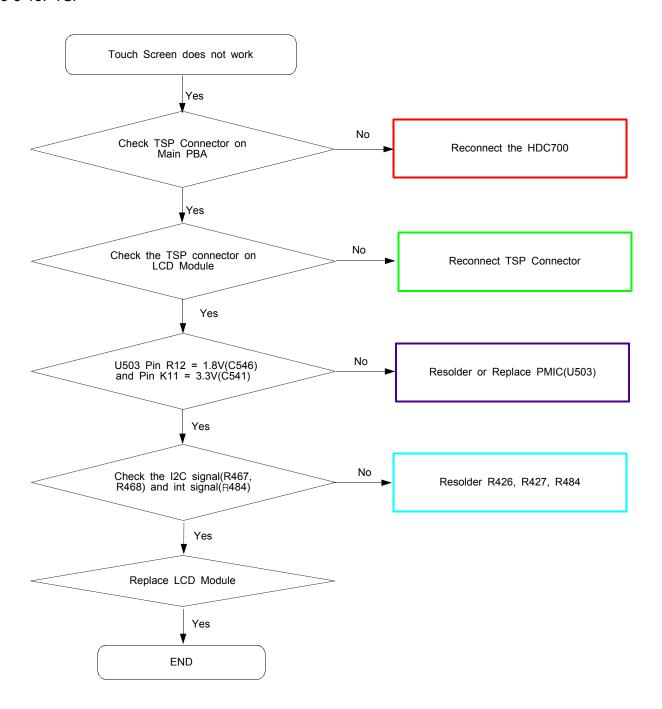


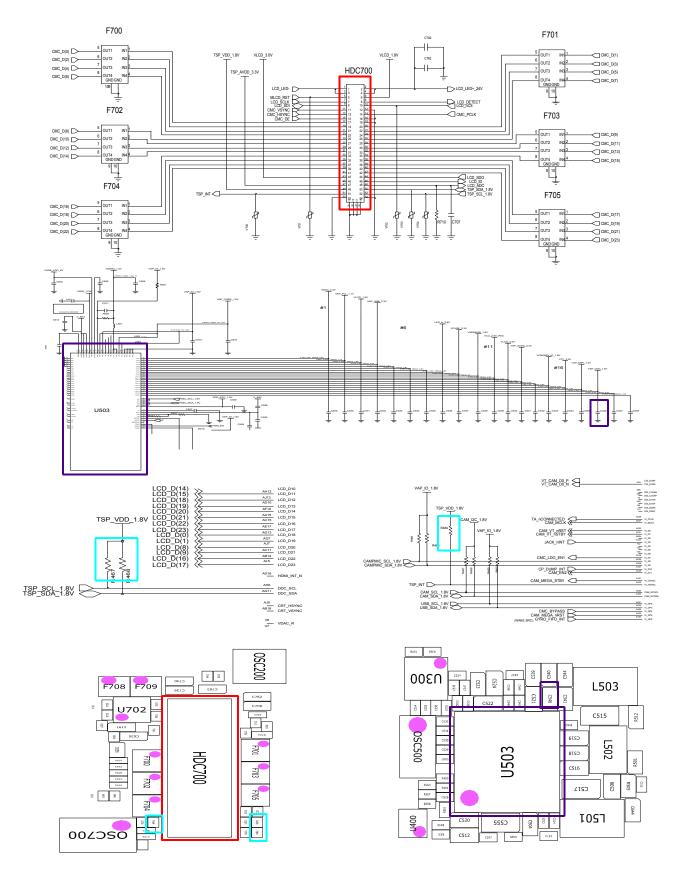
8-3-12. LCD



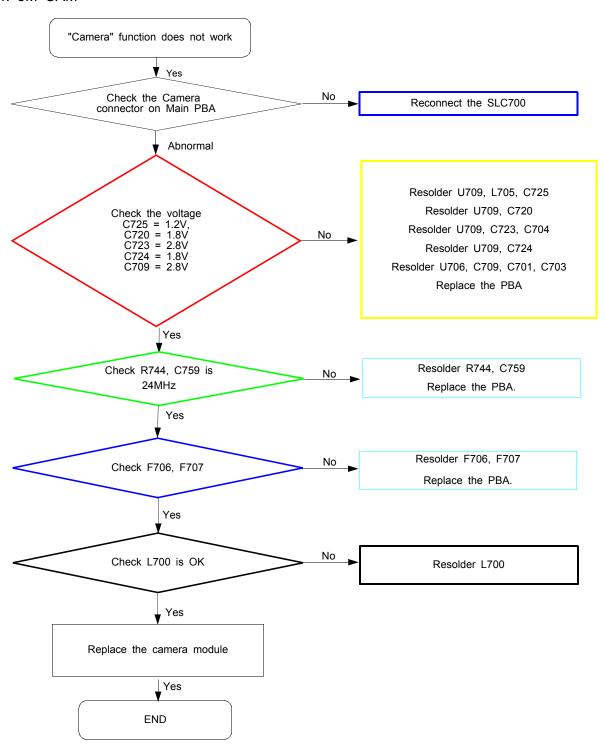


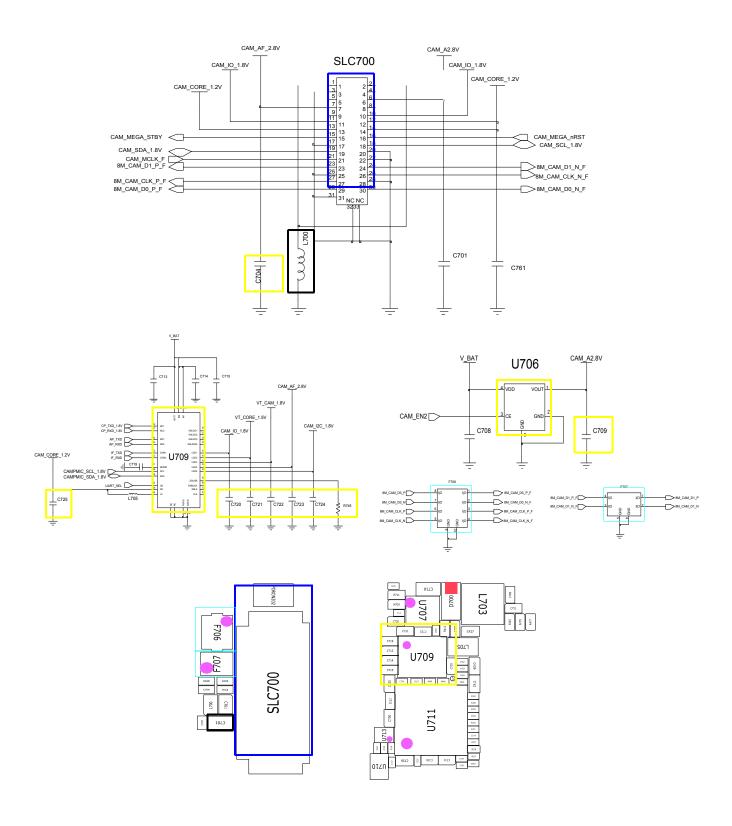
8-3-13. TSP



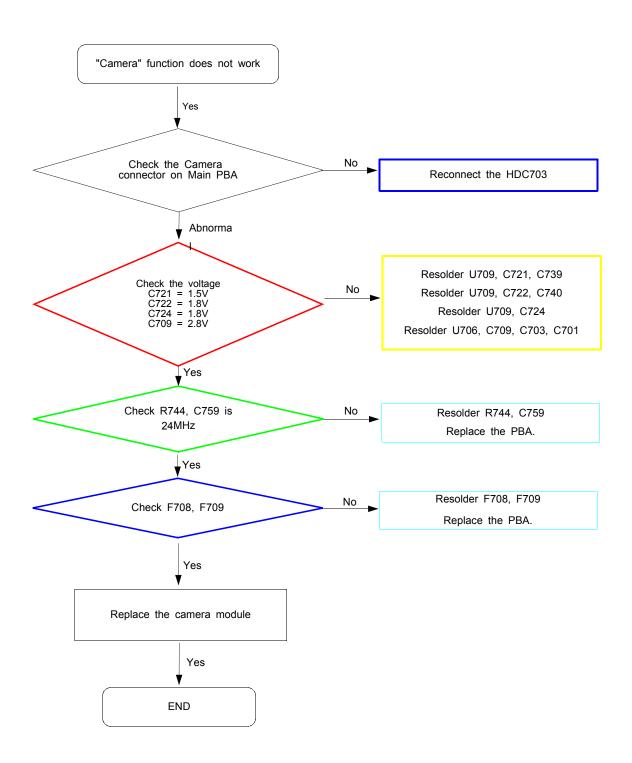


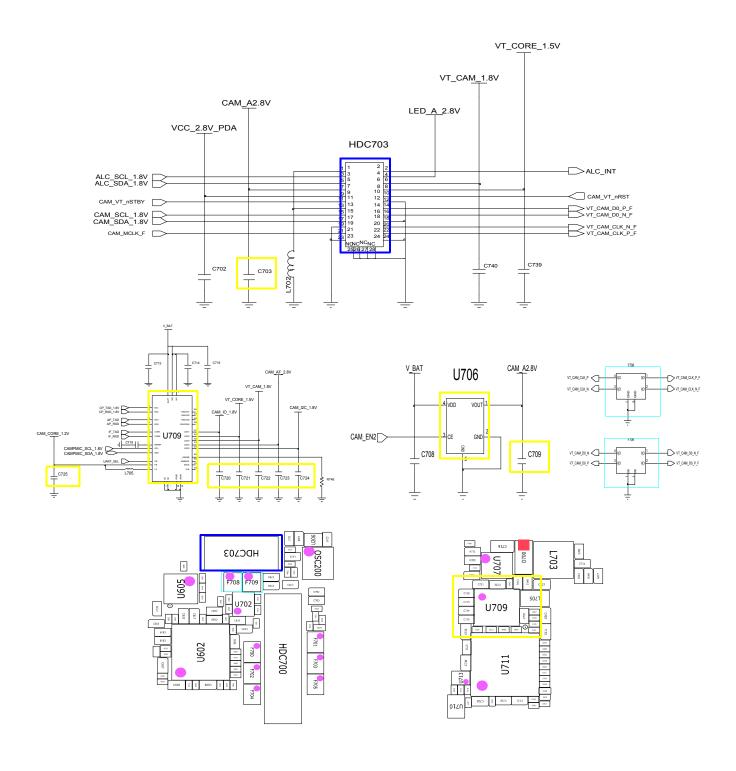
8-3-14. 5M CAM



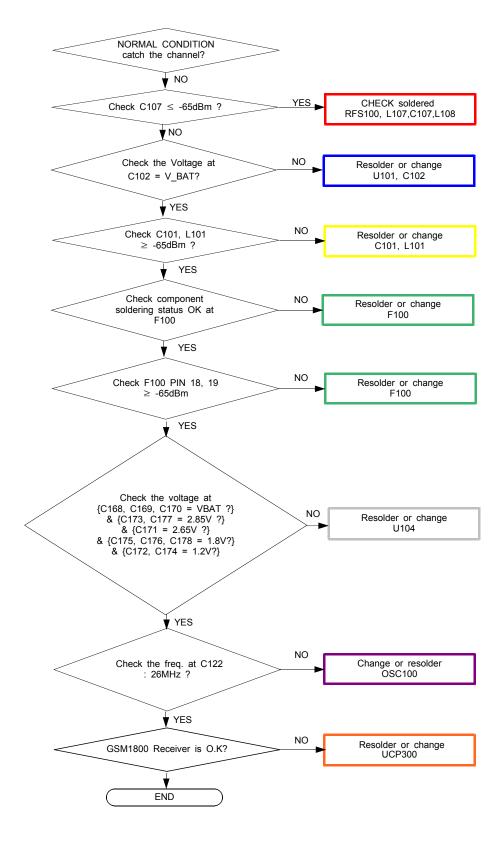


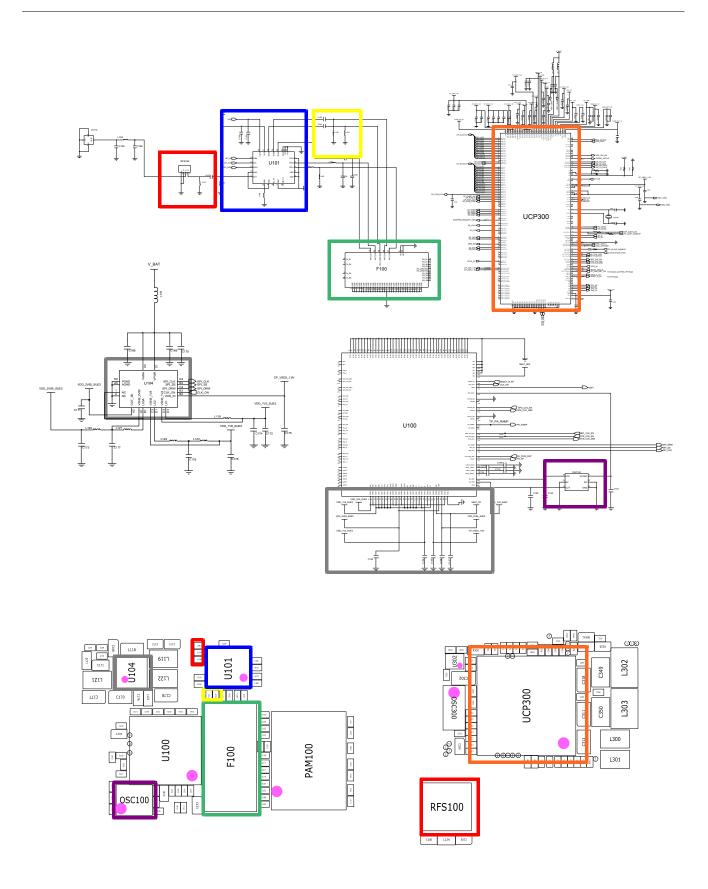
8-3-15. 1.3M CAM



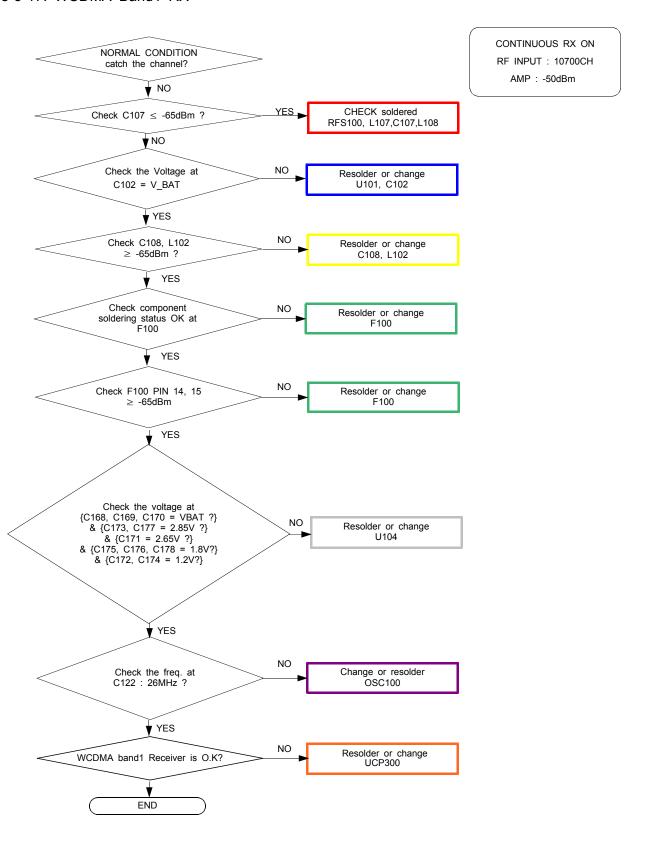


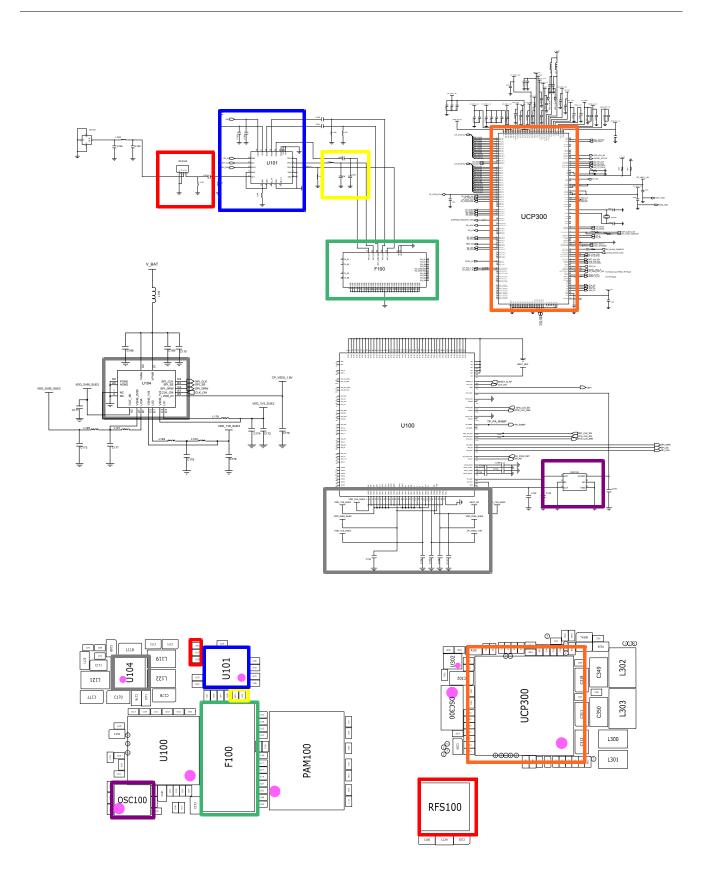
8-3-16. GSM1800 RX



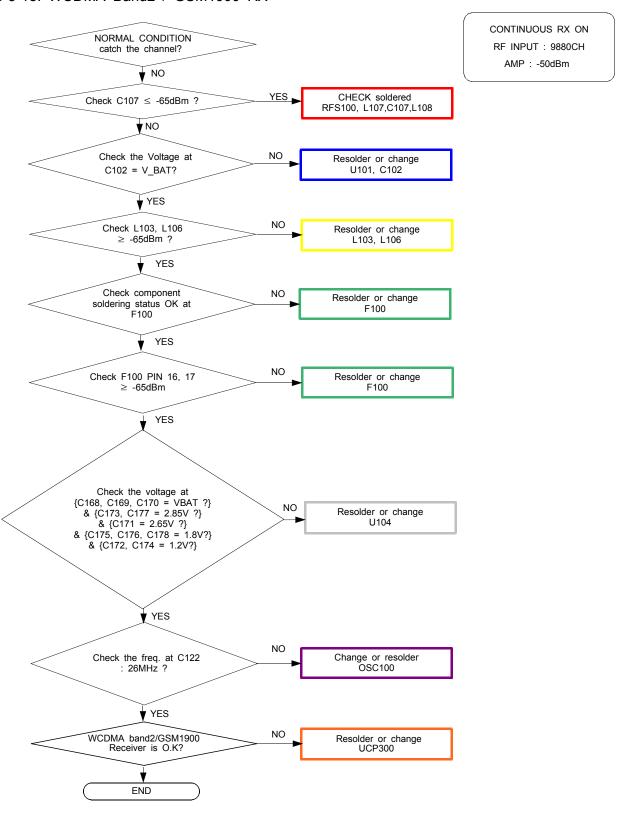


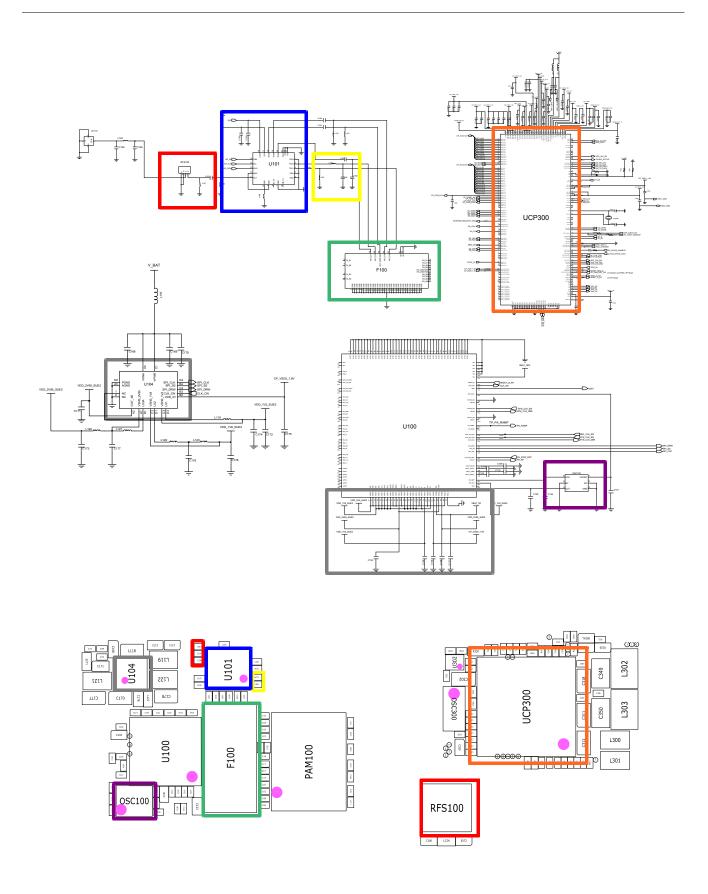
8-3-17. WCDMA Band1 RX



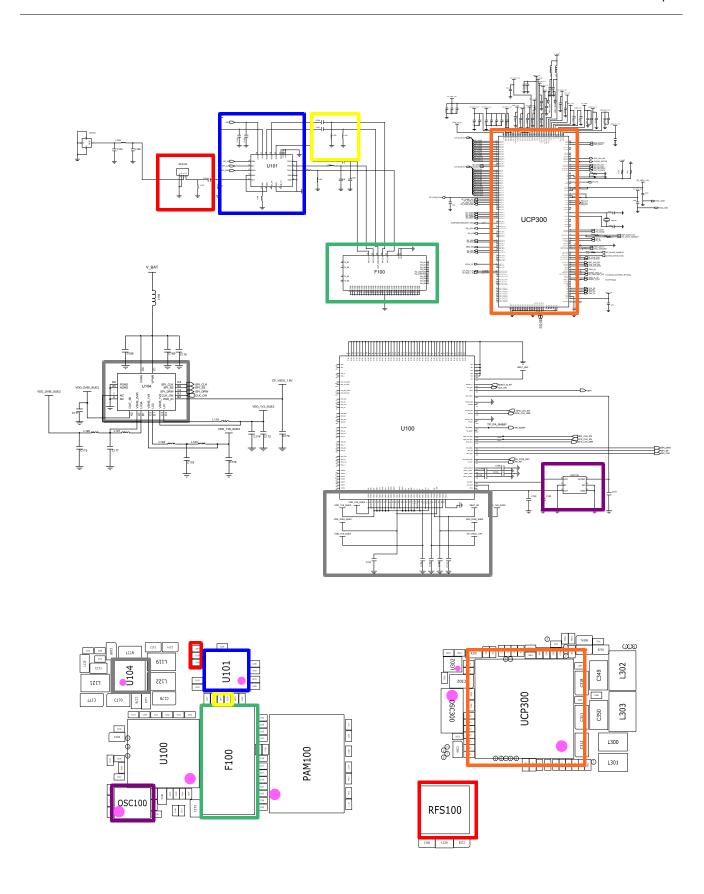


8-3-18. WCDMA Band2 / GSM1900 RX

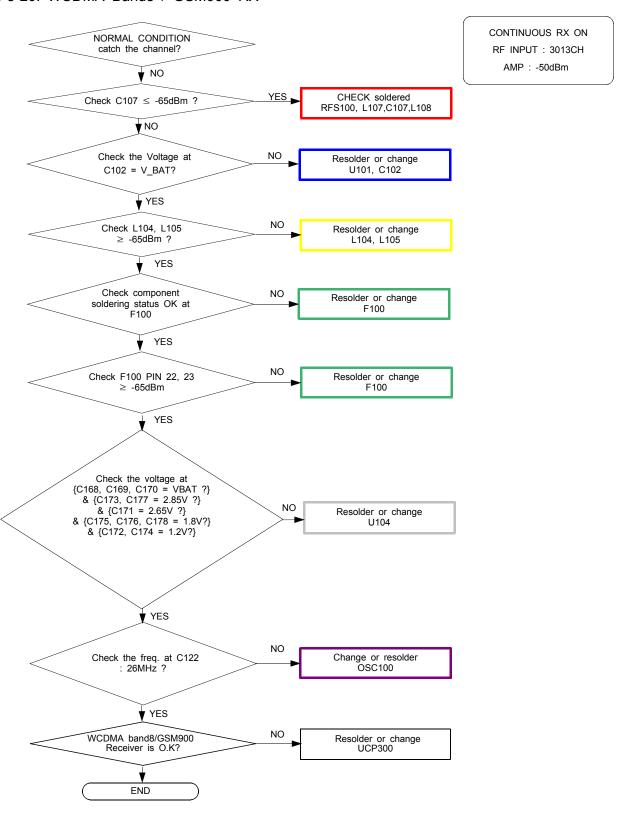


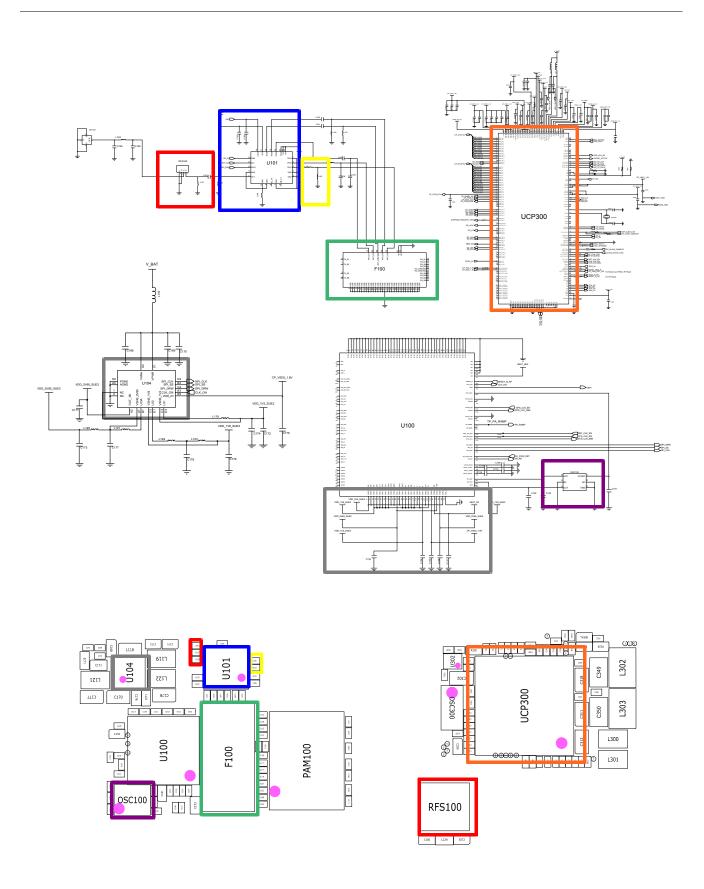


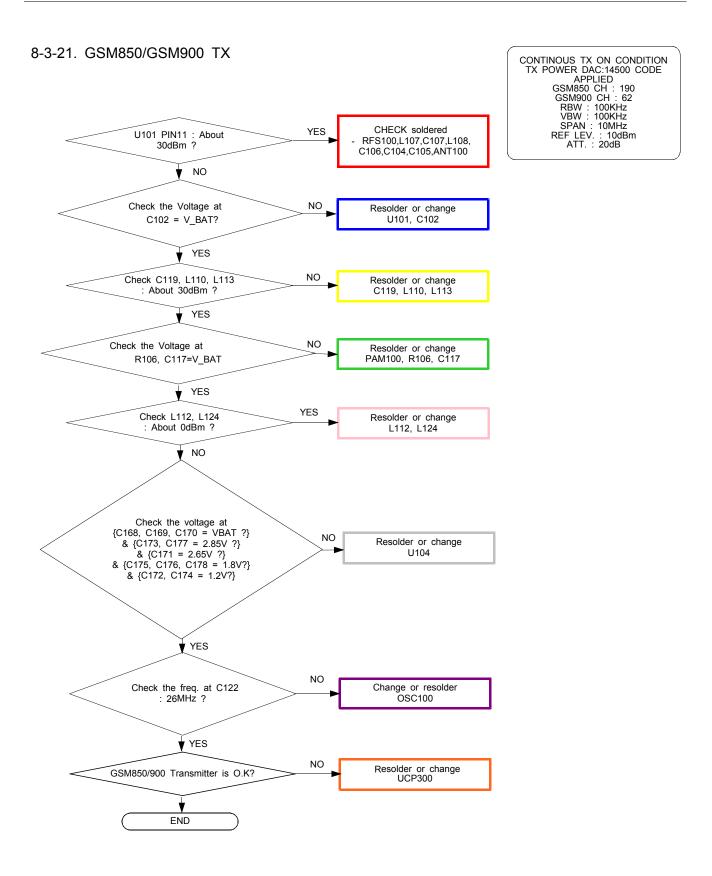
8-3-19. WCDMA Band5 / GSM 850 RX CONTINUOUS RX ON NORMAL CONDITION RF INPUT: 4408CH catch the channel? AMP: -50dBm **▼** NO CHECK soldered Check C107 \leq -65dBm ? RFS100, L107,C107,L108 **▼**NO NO Resolder or change Check the Voltage at $C102 = V_BAT?$ U101, C102 ▼ YES NO Check C100, L100 Resolder or change C100, L100 ≥ -65dBm ? YES Check component NO Resolder or change soldering status OK at F100 F100 YES NO Check F100 PIN 20, 21 Resolder or change F100 ≥ -65dBm YES Check the voltage at {C168, C169, C170 = VBAT ?} & {C173, C177 = 2.85V ?} & {C173, C177 - 2.65V ?} & {C171 = 2.65V ?} & {C175, C176, C178 = 1.8V?} & {C172, C174 = 1.2V?} NO Resolder or change U104 YES NO Check the freq. at C122 : 26MHz ? Change or resolder OSC100 ▼ YES NO Resolder or change UCP300 WCDMA band5/GSM850 Receiver is O.K? **END**

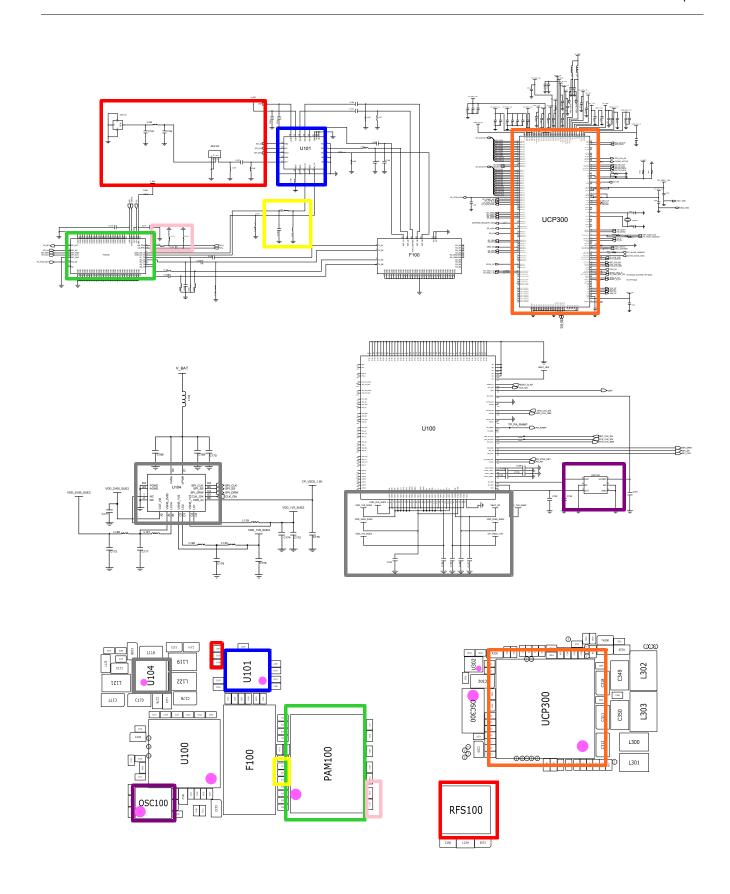


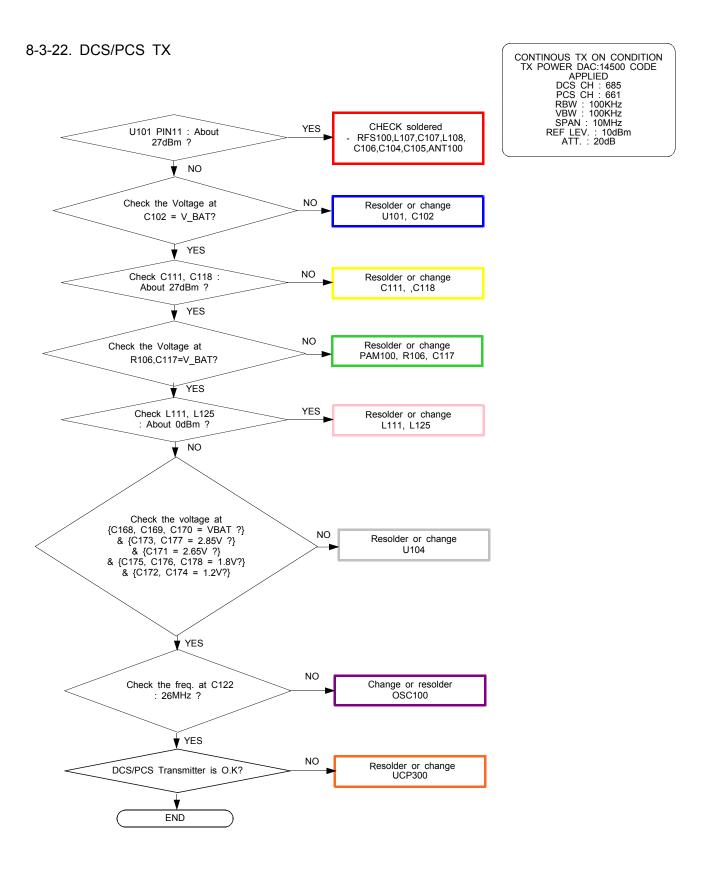
8-3-20. WCDMA Band8 / GSM900 RX

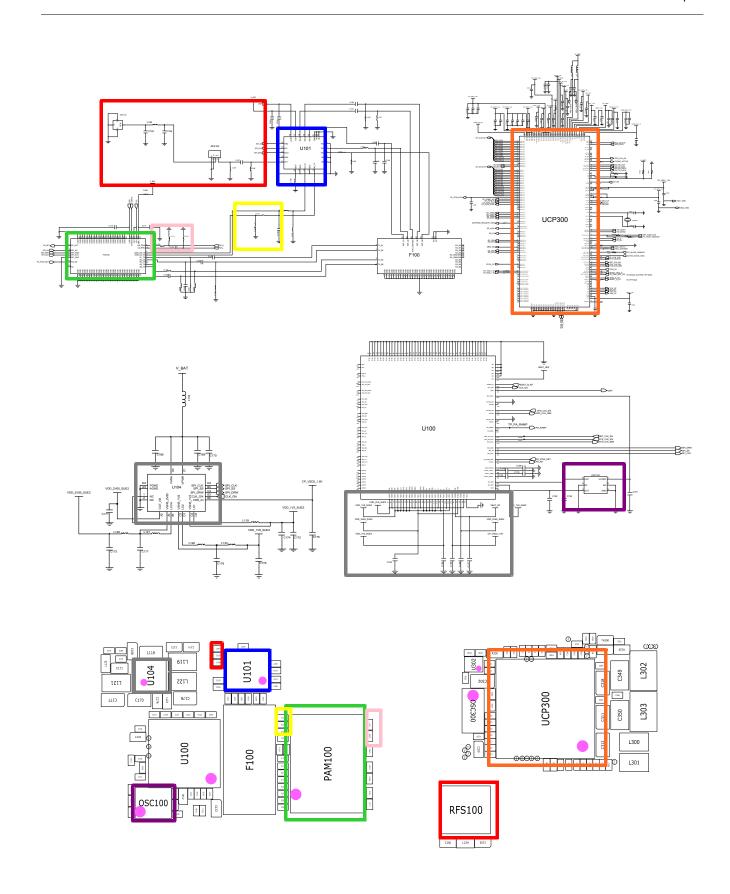


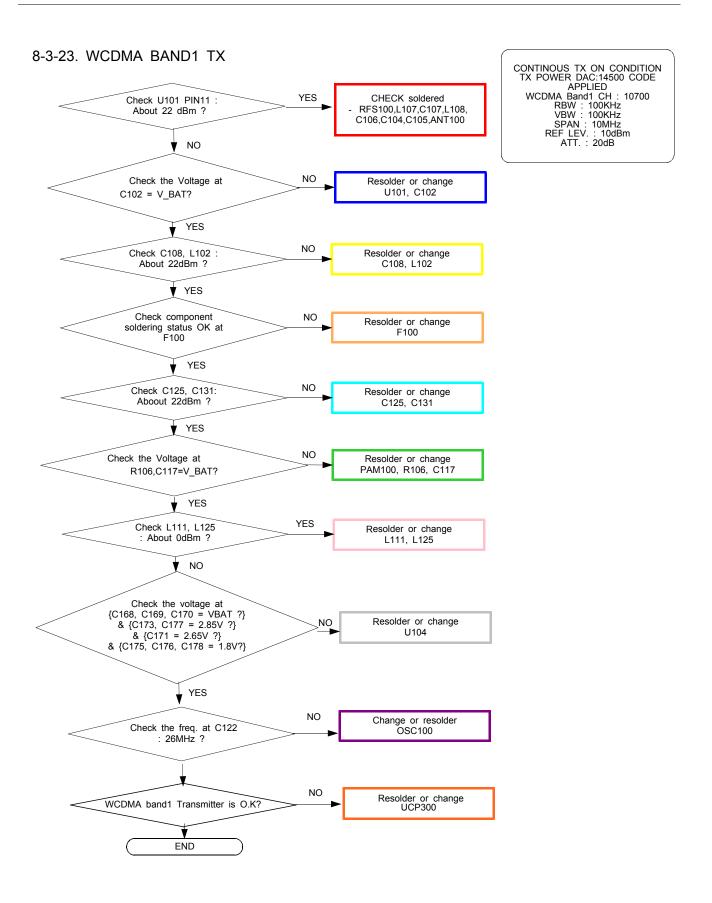


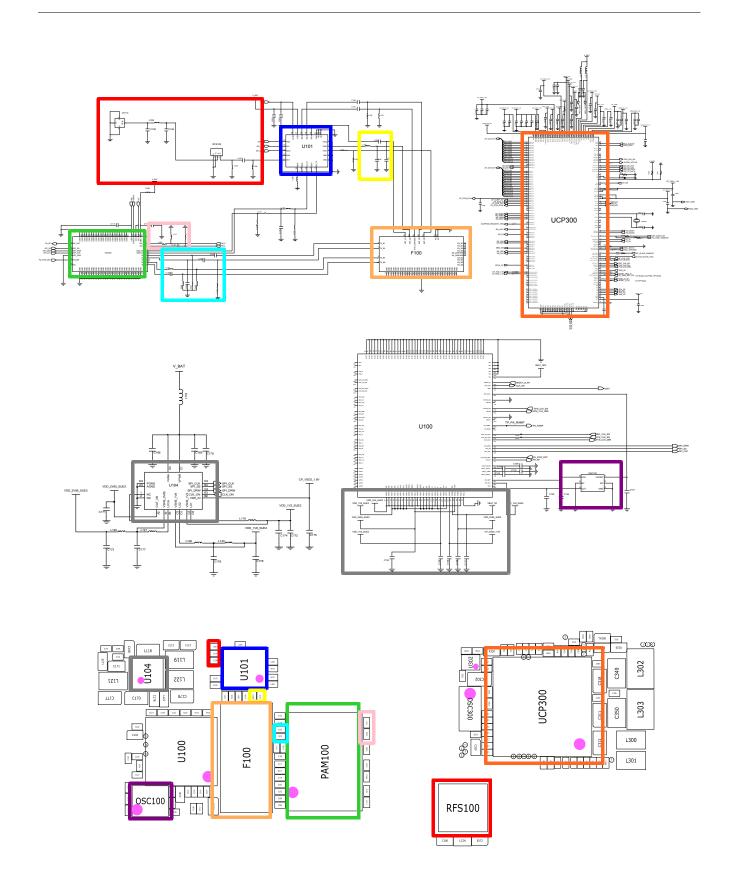




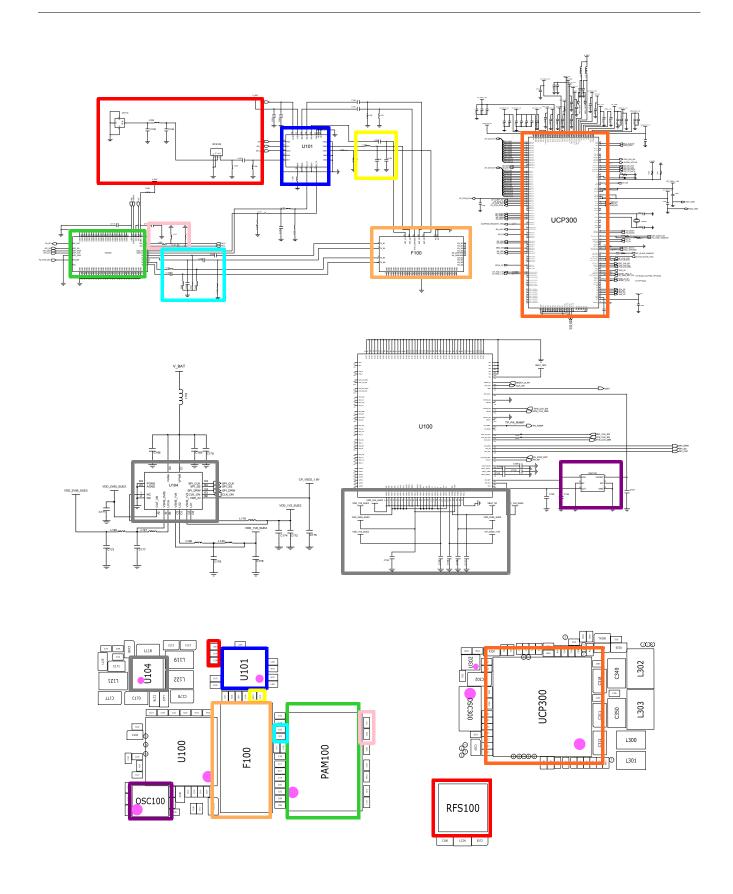




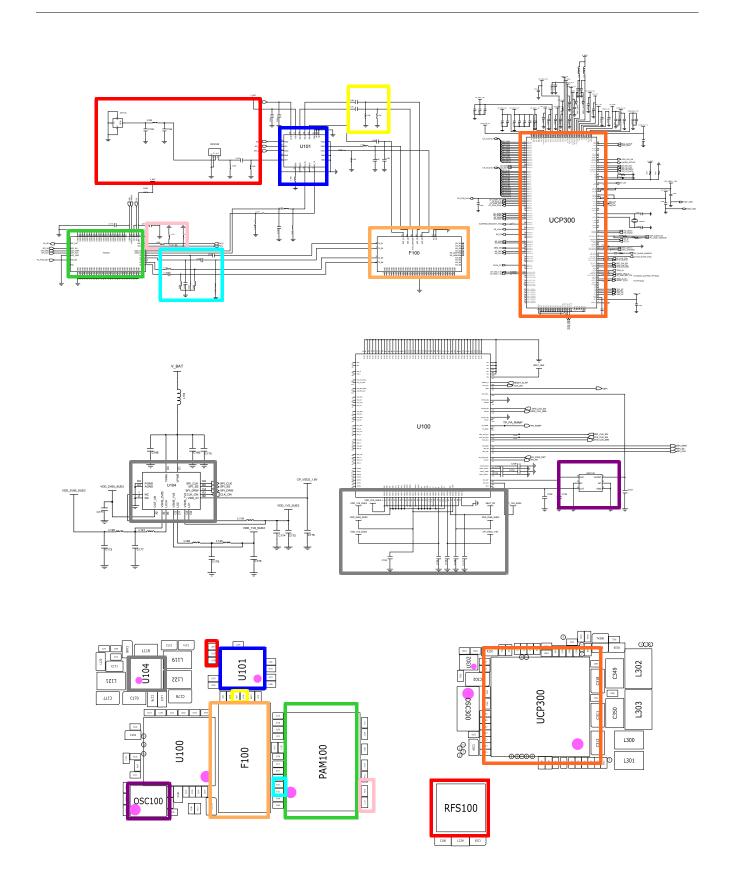




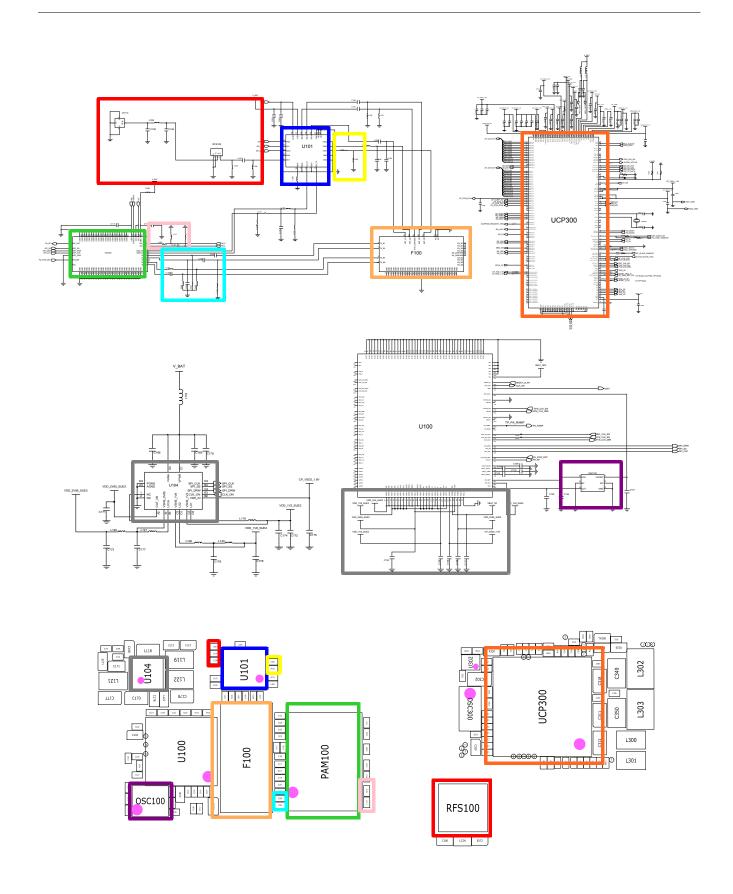
8-3-24. WCDMA BAND2 TX CONTINOUS TX ON CONDITION TX POWER DAC:14500 CODE APPLIED WCDMA Band2 CH: 9880 RBW: 100KHz VBW: 100KHz SPAN: 10MHz REF LEV.: 10dBm ATT.: 20dB CHECK soldered YES Check U106 PIN11: RFS100,L107,C107,L108, About 22 dBm ? C106,C104,C105,ANT100 **▼** NO Check the Voltage at Resolder or change C102 = V_BAT? U101, C102 YES NO Check L103, L106: Resolder or change About 22dBm ? L103, L106 YES Check component NO Resolder or change F100 soldering status OK at F100 YES NO Check C130, C126, L114 : About 22dBm ? Resolder or change C130, C126, L114 **▼** YES NO Check the Voltage at Resolder or change PAM100, R106, C117 R106,C117=V_BAT? YES Check L111, L125 Resolder or change : About 0dBm ? L111, L125 NO Check the voltage at {C168, C169, C170 = VBAT ?} NO Resolder or change & {C173, C177 = 2.85V ?} U104 & {C171 = 2.65V ?} YES NO Check the freq. at C122 Change or resolder : 26MHz ? OSC100 **▼** YES NO Resolder or change UCP300 WCDMA band2 Transmitter is O.K? END



8-3-25. WCDMA BAND5 TX CONTINOUS TX ON CONDITION TX POWER DAC:14500 CODE X POWER DAC:14500 CODI APPLIED WCDMA Band5 CH: 4408 RBW: 100KHz VBW: 100KHz SPAN: 100HHz REF LEV: 10dBm ATT: 20dB CHECK soldered YES Check U101 PIN11: RFS100,L107,C107,L108, About 22 dBm ? C106,C104,C105,ANT100 NO Check the Voltage at NO Resolder or change C102 = V_BAT? U101, C102 YES NO Check C100, L100 Resolder or change About 22dBm ? C100, L100 YES Check component NO Resolder or change soldering status OK at F100 F100 YES NO Check C127, C132 Resolder or change About 22dBm ? C127, C132 YES NO Check the Voltage at Resolder or change PAM100, R106, C117 R106,C117=V_BAT? YES NO Check L112, L124 Resolder or change : About 0dBm ? L112, L124 YES Check the voltage at {C168, C169, C170 = VBAT ?} & {C173, C177 = 2.85V ?} NO Resolder or change U104 & {C171 = 2.65V ?} & {C175, C176, C178 = 1.8V?} YES NO Change or resolder Check the freq. at C122 OSC100 : 26MHz ? YES NO Resolder or change UCP300 WCDMA band5 Transmitter is O.K? **END**



8-3-26. WCDMA BAND8 TX CONTINOUS TX ON CONDITION TX POWER DAC:14500 CODE X POWER DAC:14500 COD APPLIED WCDMA Band2 CH: 3013 RBW: 100KHz VBW: 100KHz SPAN: 10MHz REF LEV:: 10dBm ATT:: 20dB CHECK soldered YES Check U101 PIN11: RFS100,L107,C107,L108, About 22 dBm ? C106,C104,C105,ANT100 NO Check the Voltage at NO Resolder or change $C102 = V_BAT?$ U101, C102 YES NO Check L104, L105 Resolder or change About 22dBm ? L104, L105 YES Check component NO Resolder or change soldering status OK at F100 F100 YES NO Check C128, C129 : Resolder or change About 22dBm ? C128, C129 YES NO Check the Voltage at Resolder or change PAM100, R106, C117 R106,C117=V_BAT? YES Check L112, L124 YES Resolder or change : About 0dBm ? L112, L124 NO NO Check the voltage at {C168, C169, C170 = VBAT ?} Resolder or change & {C173, C177 = 2.85V ?} U104 & {C171 = 2.65V ?} & {C175, C176, C178 = 1.8V? YES NO Check the freq. at C122 : 26MHz ? Change or resolder OSC100 YES NO Resolder or change UCP300 WCDMA band8 Transmitter is O.K? YES END



8-3-27. OTG

