

SAMSUNG

GSM TELEPHONE

GT-P3100

SERVICE *Manual*

GSM TELEPHONE

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Notice: All functionality, features, specifications, and other product information provided in this document, including but not limited to, benefits, design, pricing, components, performance, availability, and capabilities of the product are subject to change without notice. Samsung reserves the right to alter this document or the product described herein at anytime, without obligation to provide notification of such changes.

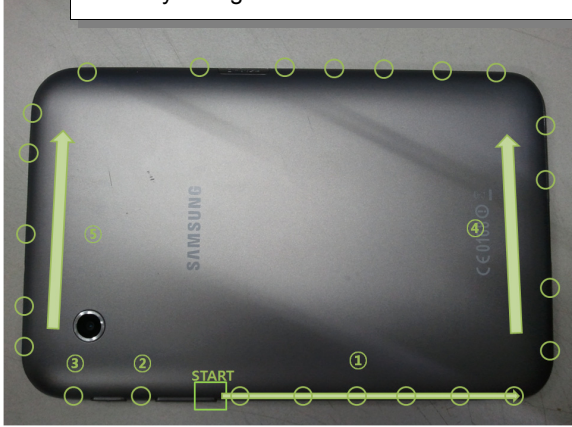
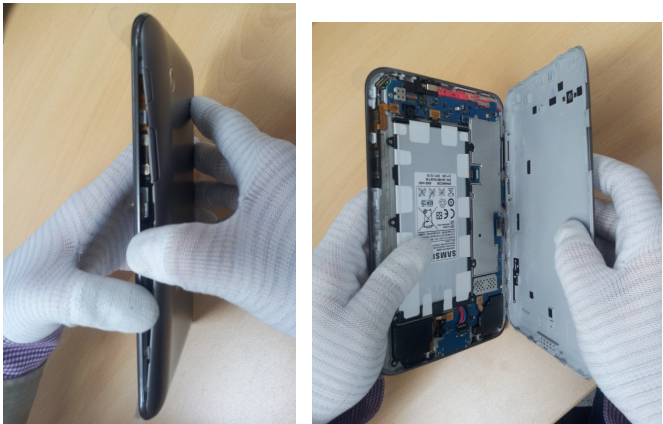
**SAMSUNG
ELECTRONICS**



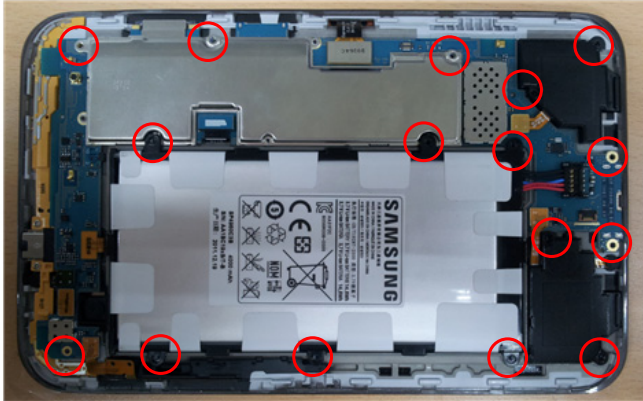
7. Level 2 Repair

7-1. Disassembly and assembly Instructions

7-1-1. Disassembly

1 Disassemble the rear cover with the front cover by using the hook  ○ : Hook (24 Point)	2 Put the disassemble jig as shown in the picture below. And disassemble hooks in regular sequence. 
Be careful not to scratch cover. Follow the numbered sequence when you disjoint	Be careful not to scratch cover. Follow the numbered sequence when you disjoint
3 Disassemble the rest of the hooks. 	4 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. 
Be careful not to scratch cover. Follow the numbered sequence when you disjoint	Be careful not to scratch cover. Follow the numbered sequence when you disjoint

- 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

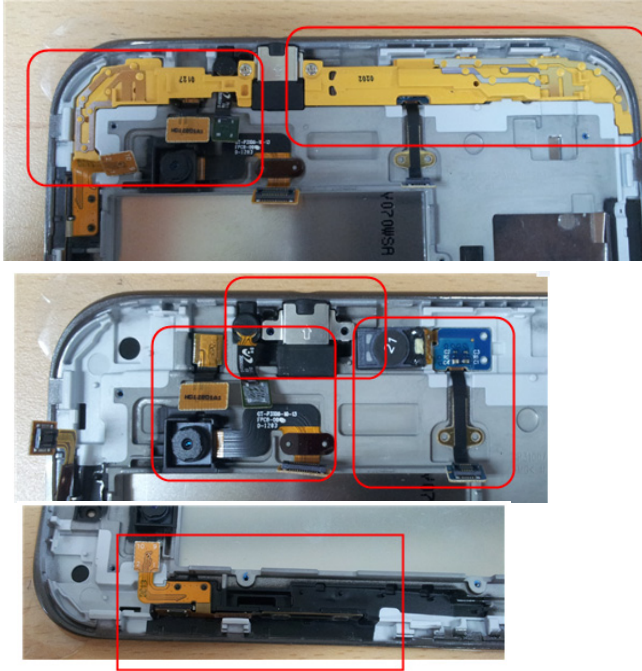
- 8** Separate PBA from the Front.



Be careful not to scratch cover

9

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

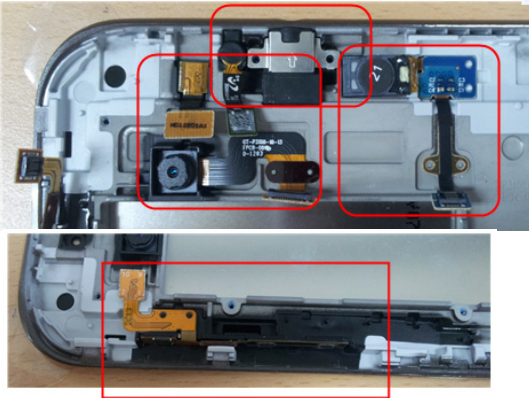


Be careful not to damage the FPCBs

7-1-2. assemble

1

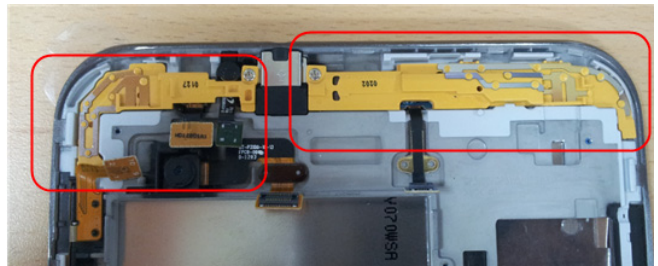
Assemble the 3M Camera, Earjack, Volume FPCB, VGA Camera, Sensor FPCB



Be careful not to damage the FPCBs

2

Assemble the Antenna



Be careful not to damage the FPCBs

3

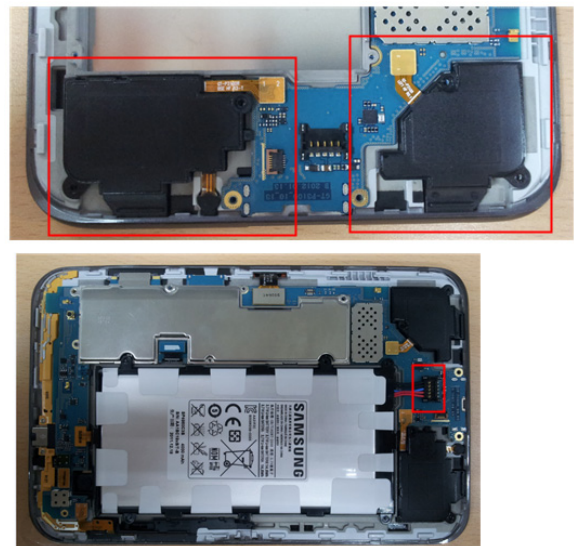
Assemble PBA and all Connectors



Be careful not to damage the FPCBs

4

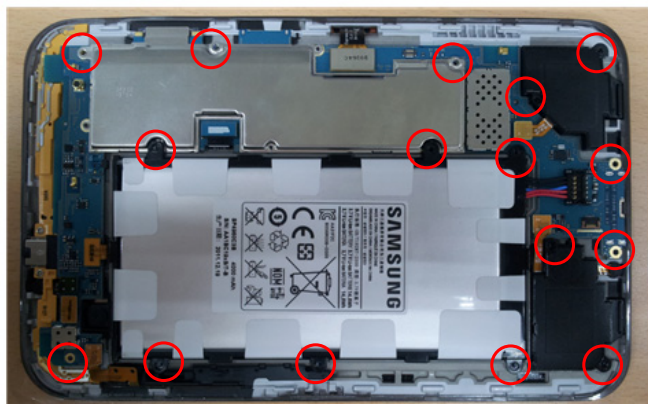
Assemble the Speakers Battery



Be careful not to damage the FPCBs

5

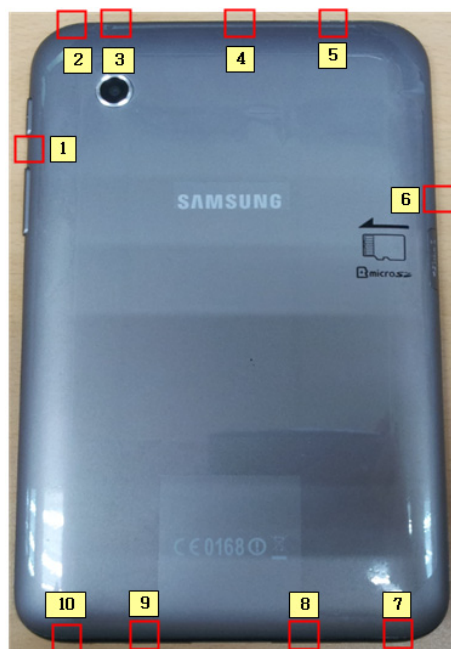
Screw at 16 point
(L1.4*3.0, Torque 0.9 ~ 1.0 kgf.cm)



Be careful not to damage the FPCBs

6

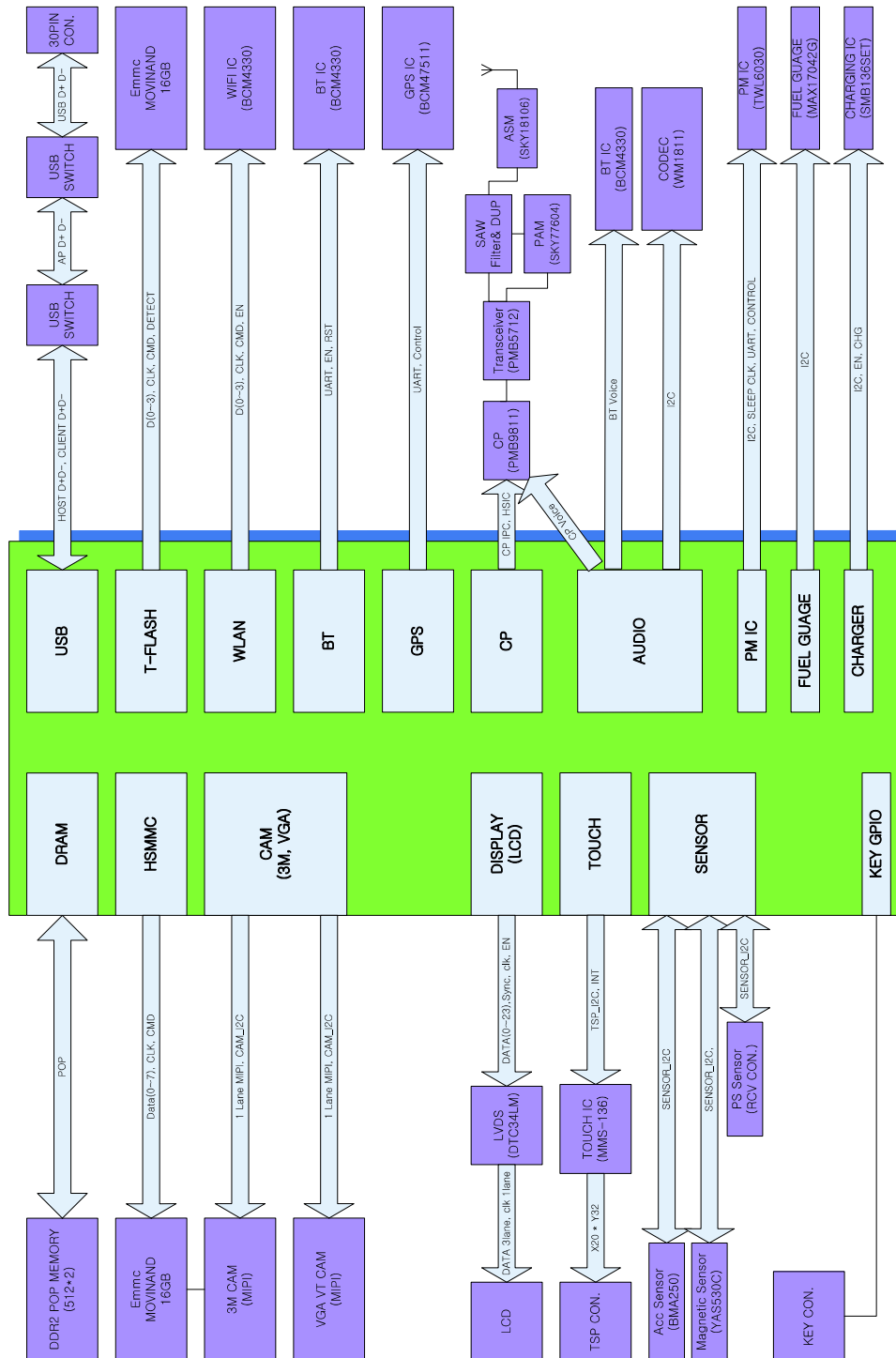
Assemble the Rear.

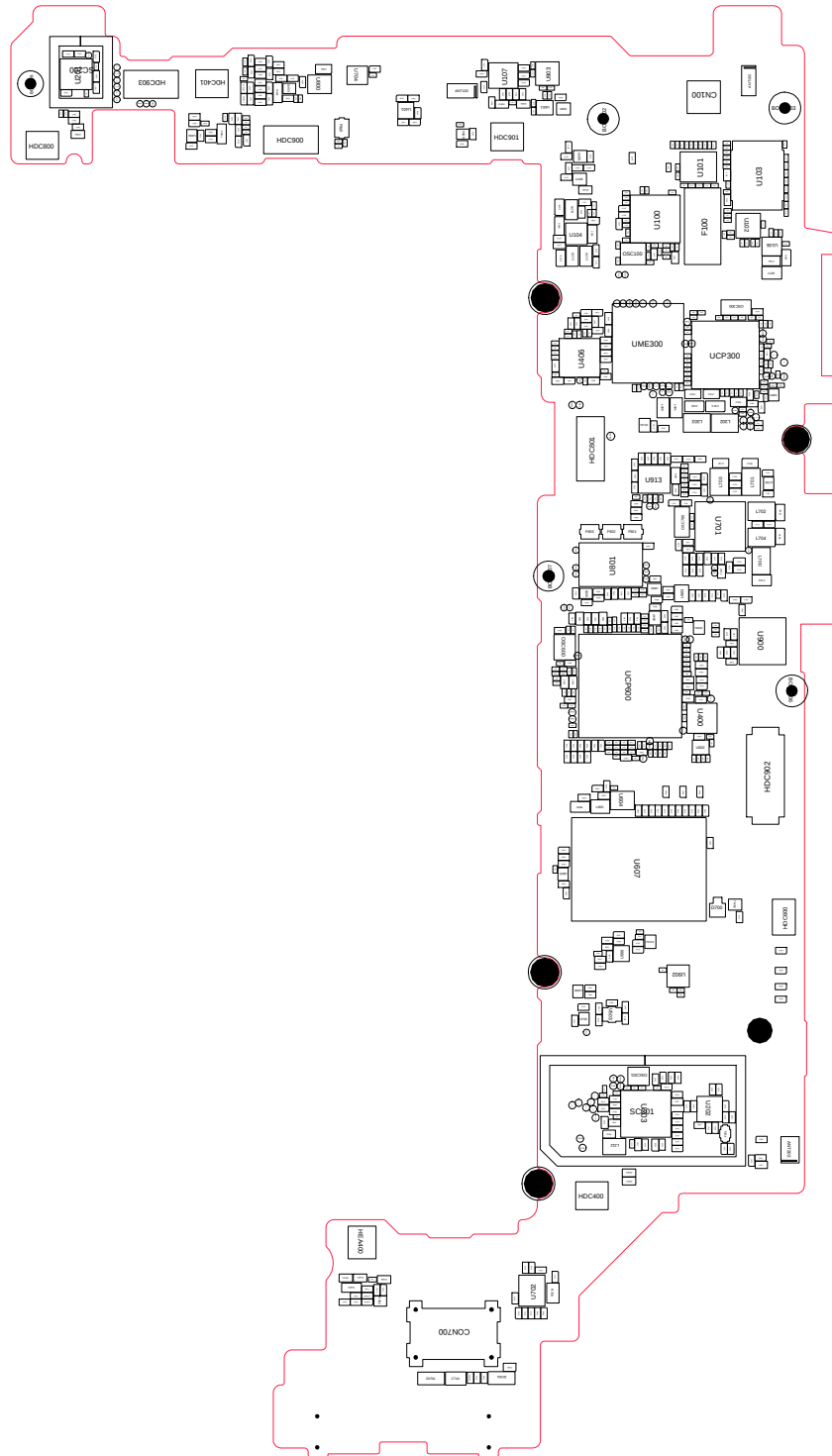


Be careful not to damage the FPCBs, not to scratch cover.

8. Level 3 Repair

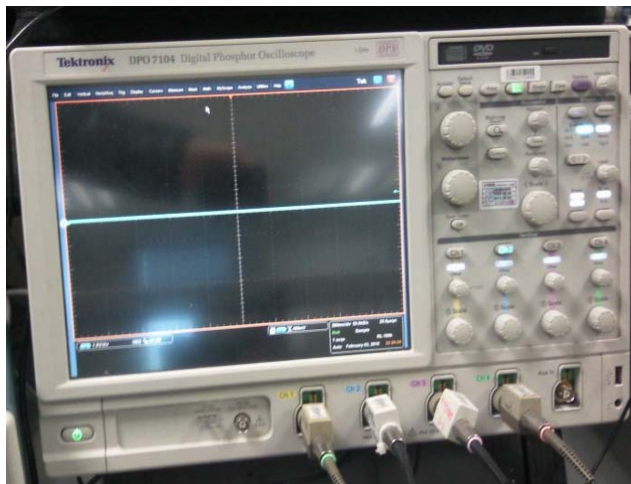
8-1. Block Diagram





8-3. Flow Chart of Troubleshooting

Equipments



↑ Oscilloscope



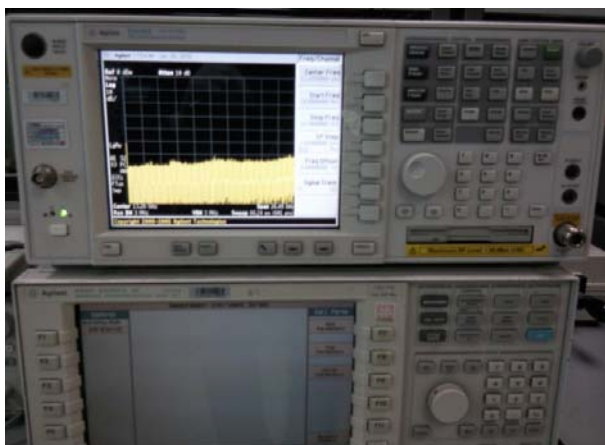
↑ Digital Multimeter



↑ Power Supply



↑ + driver, ESD Safe Tweezer

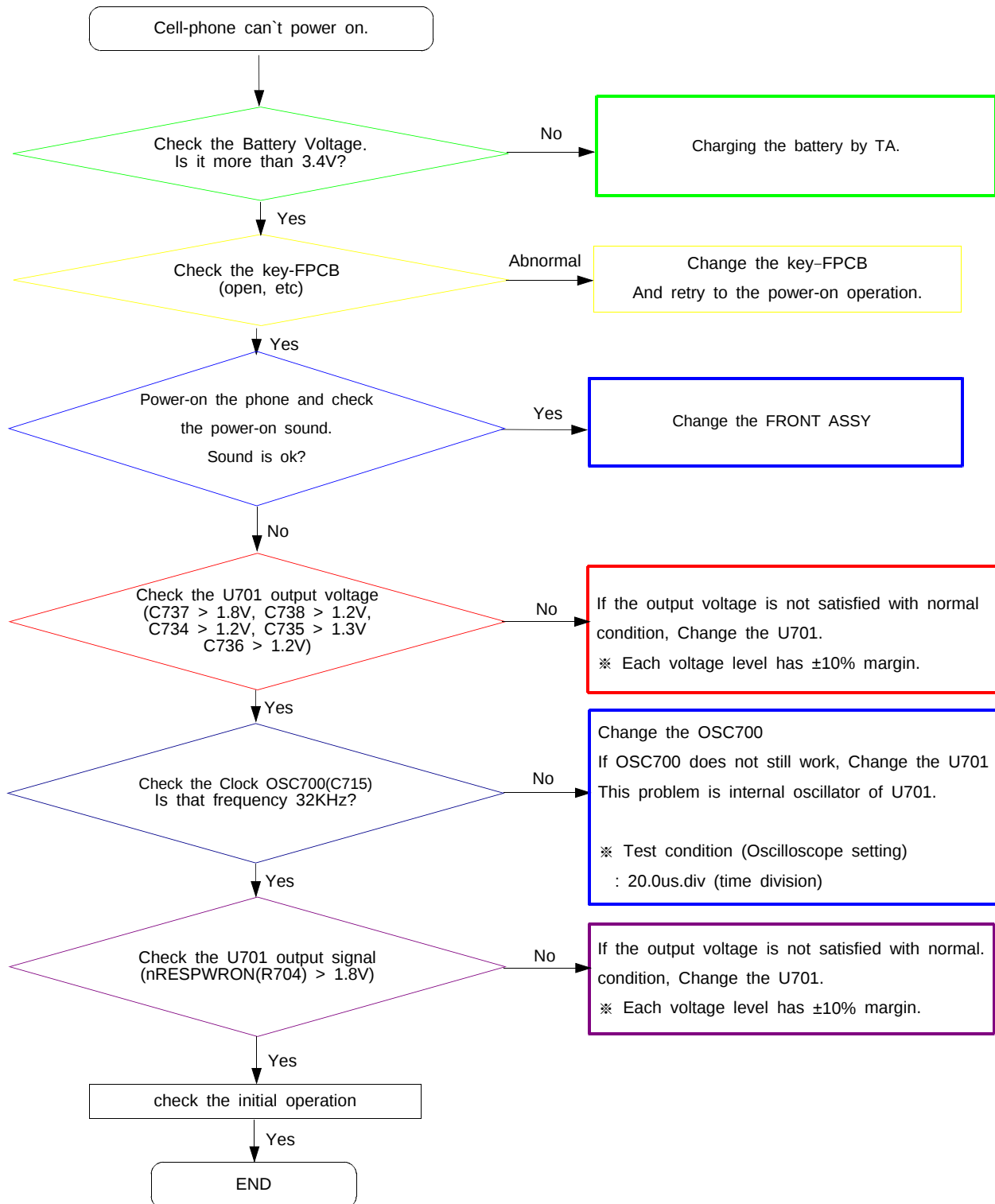


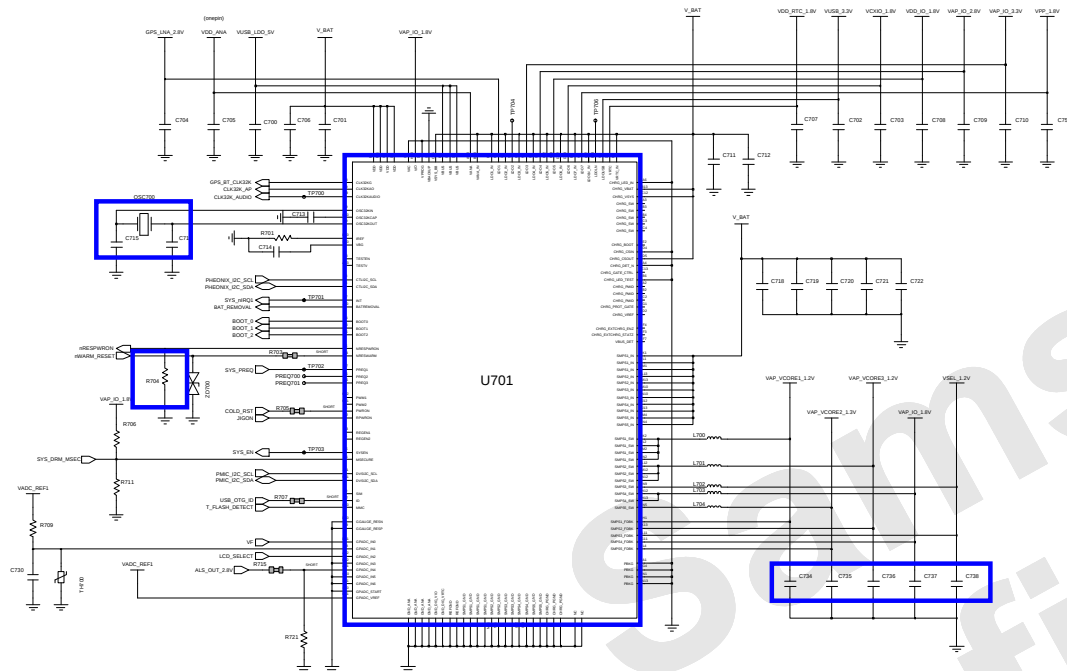
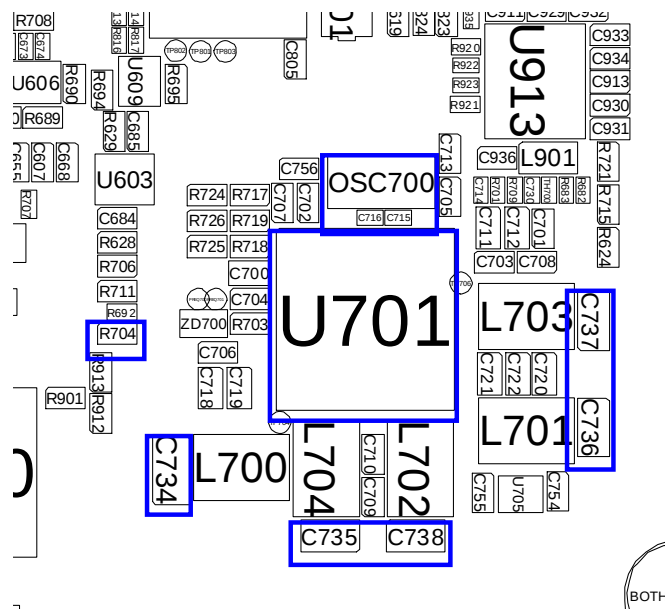
↑ 8960 & Spectrum Analyzer



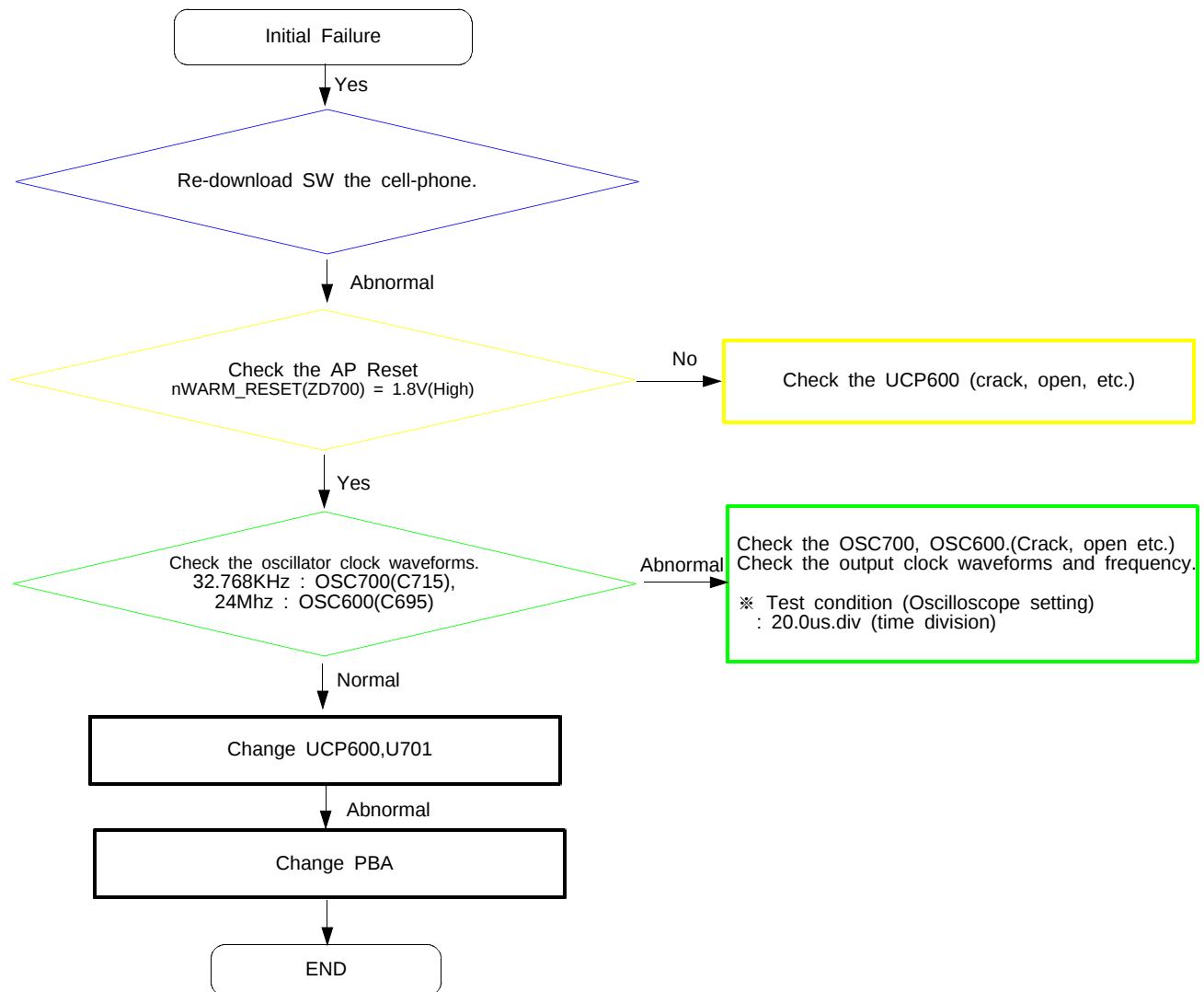
↑ Soldering iron

8-3-1. Power On



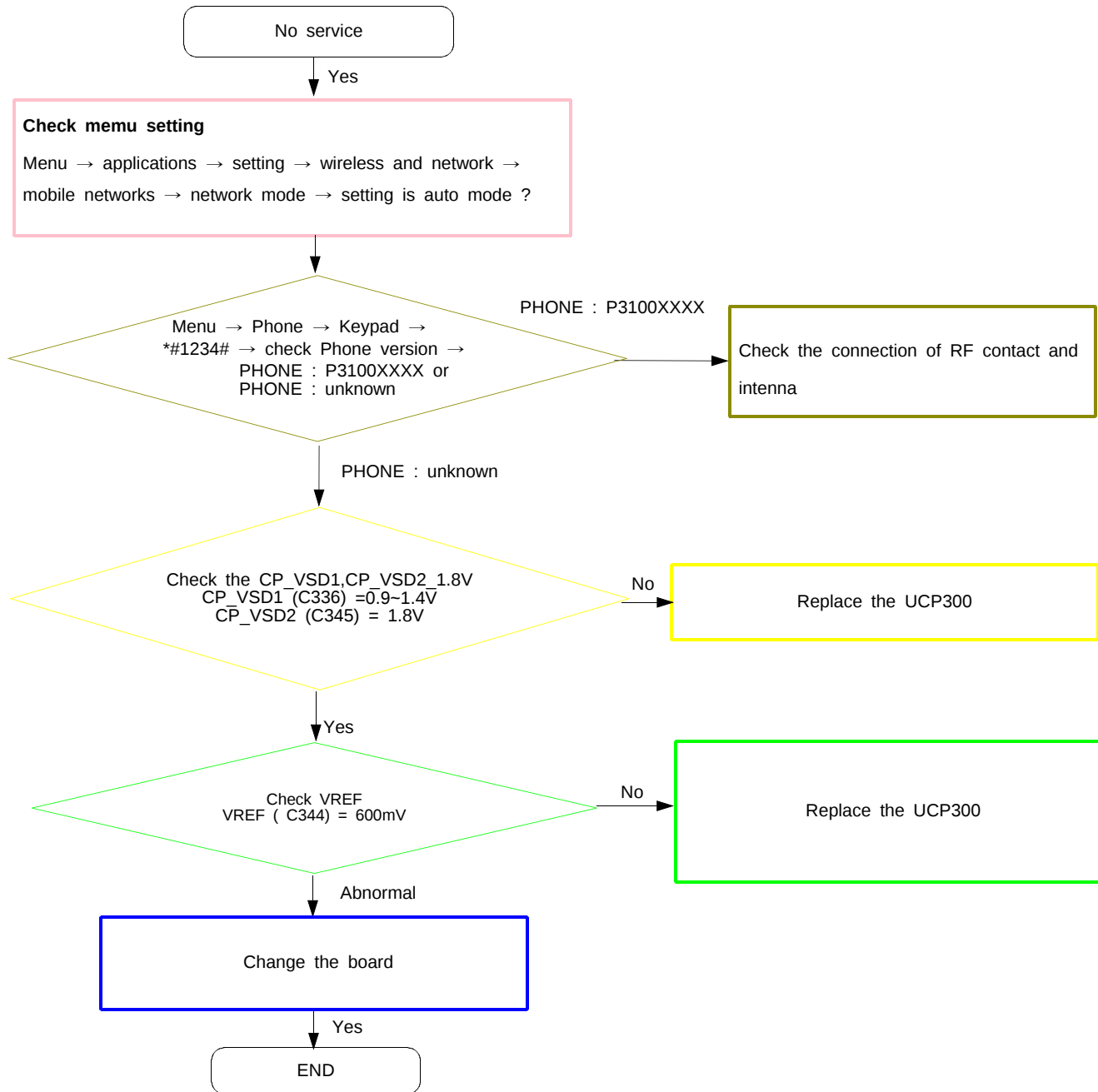


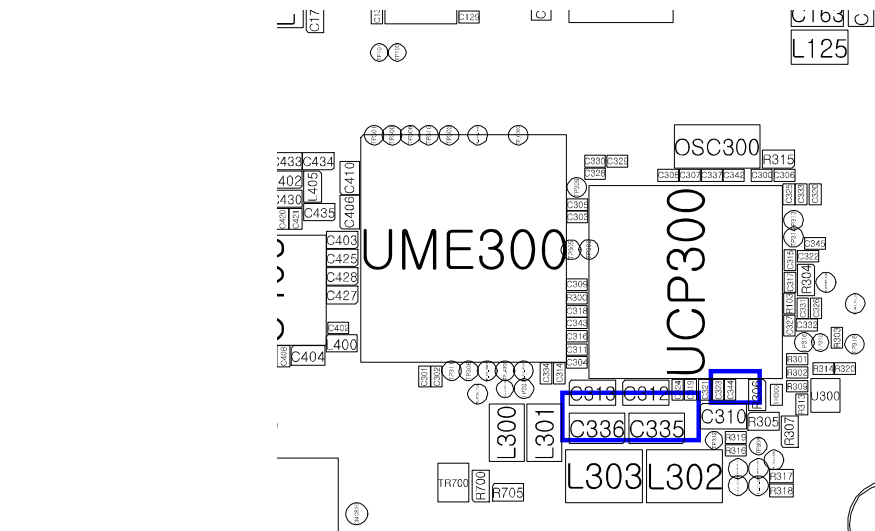
8-3-2. Initial



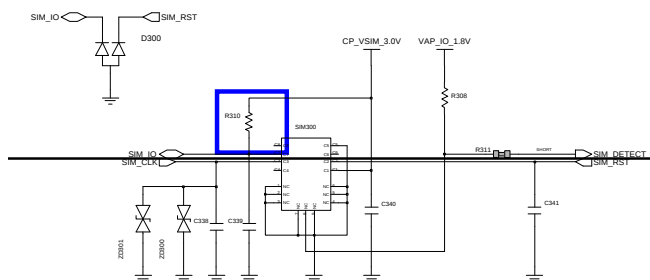
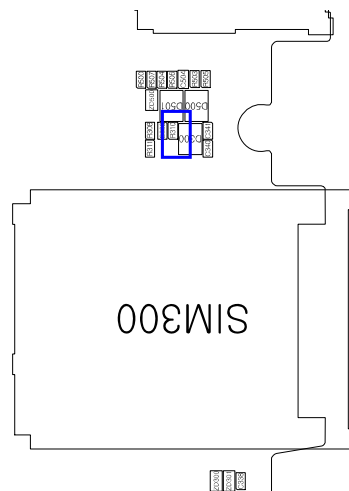
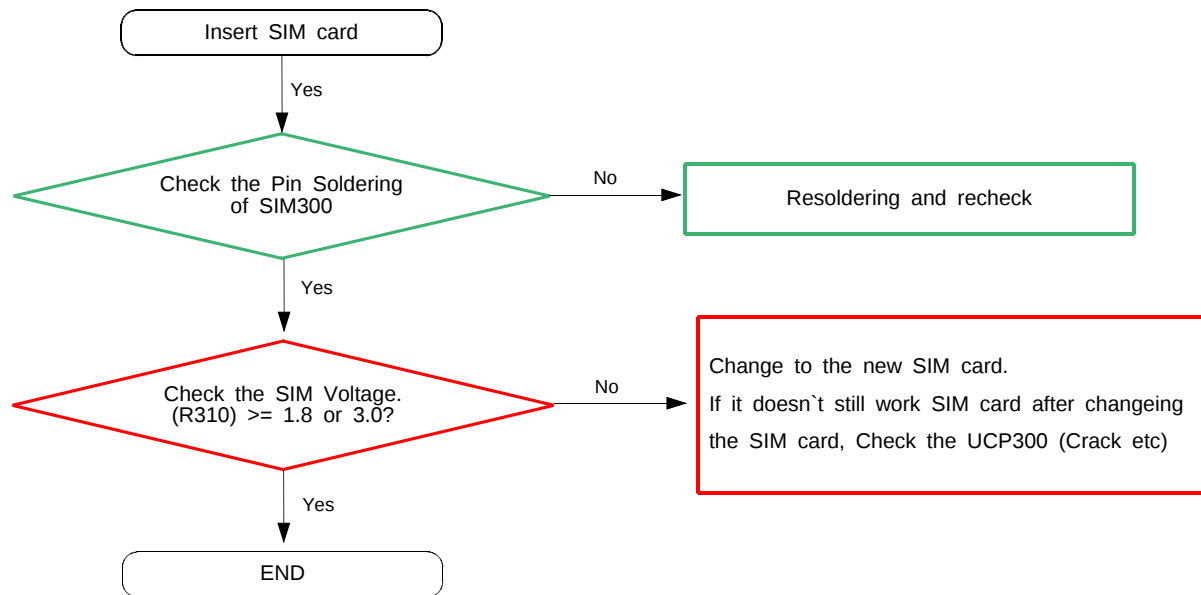


8-3-3. No Service

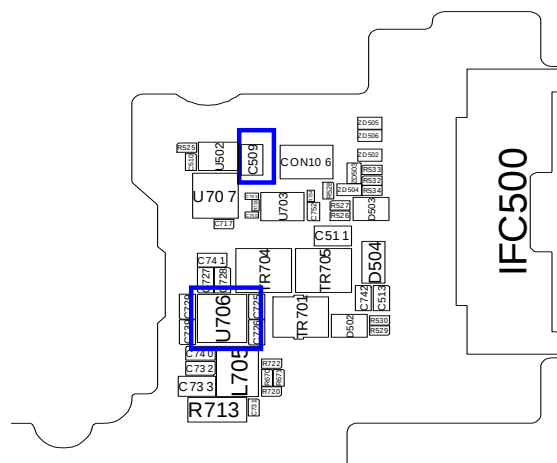
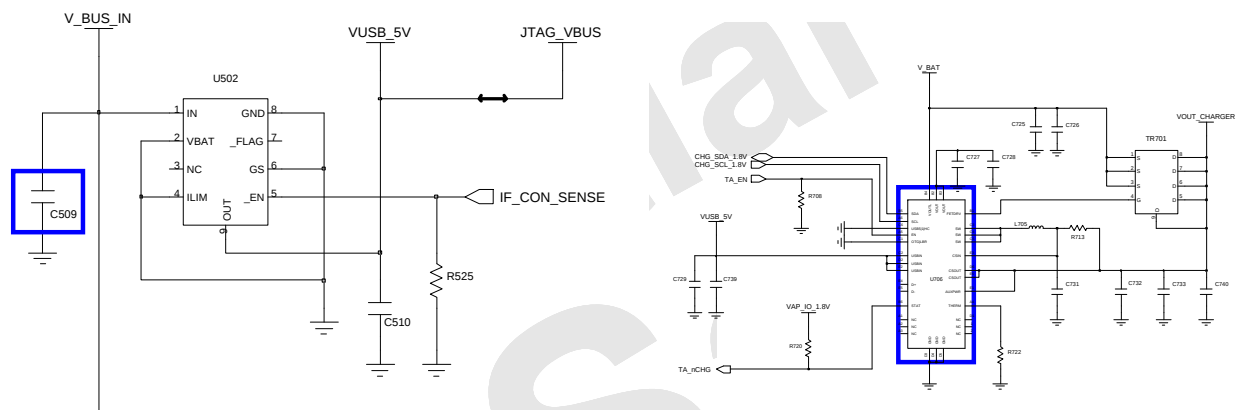
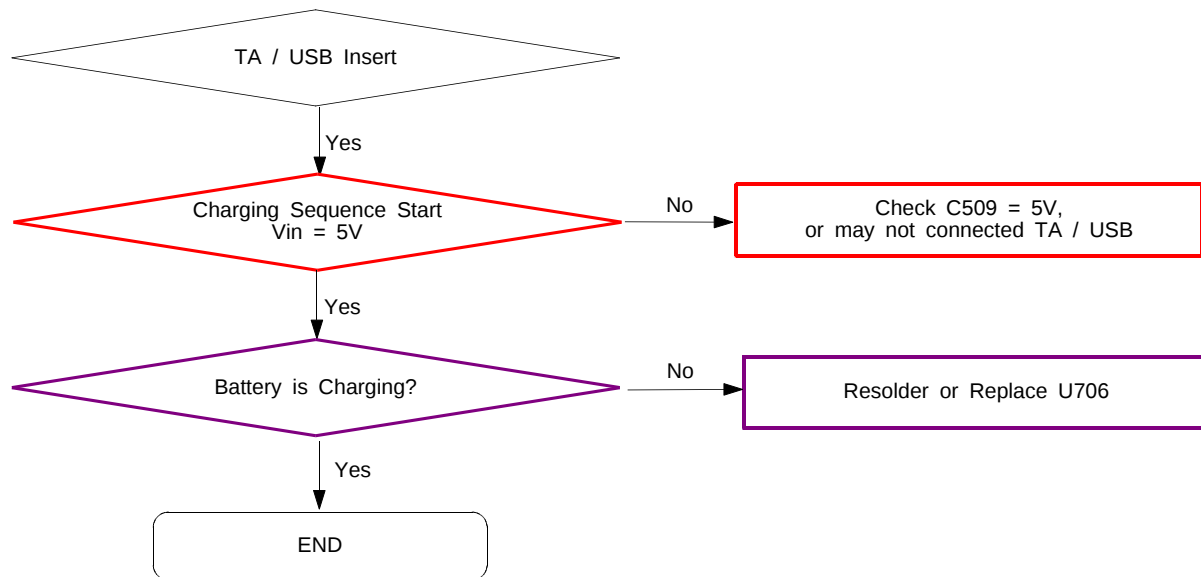




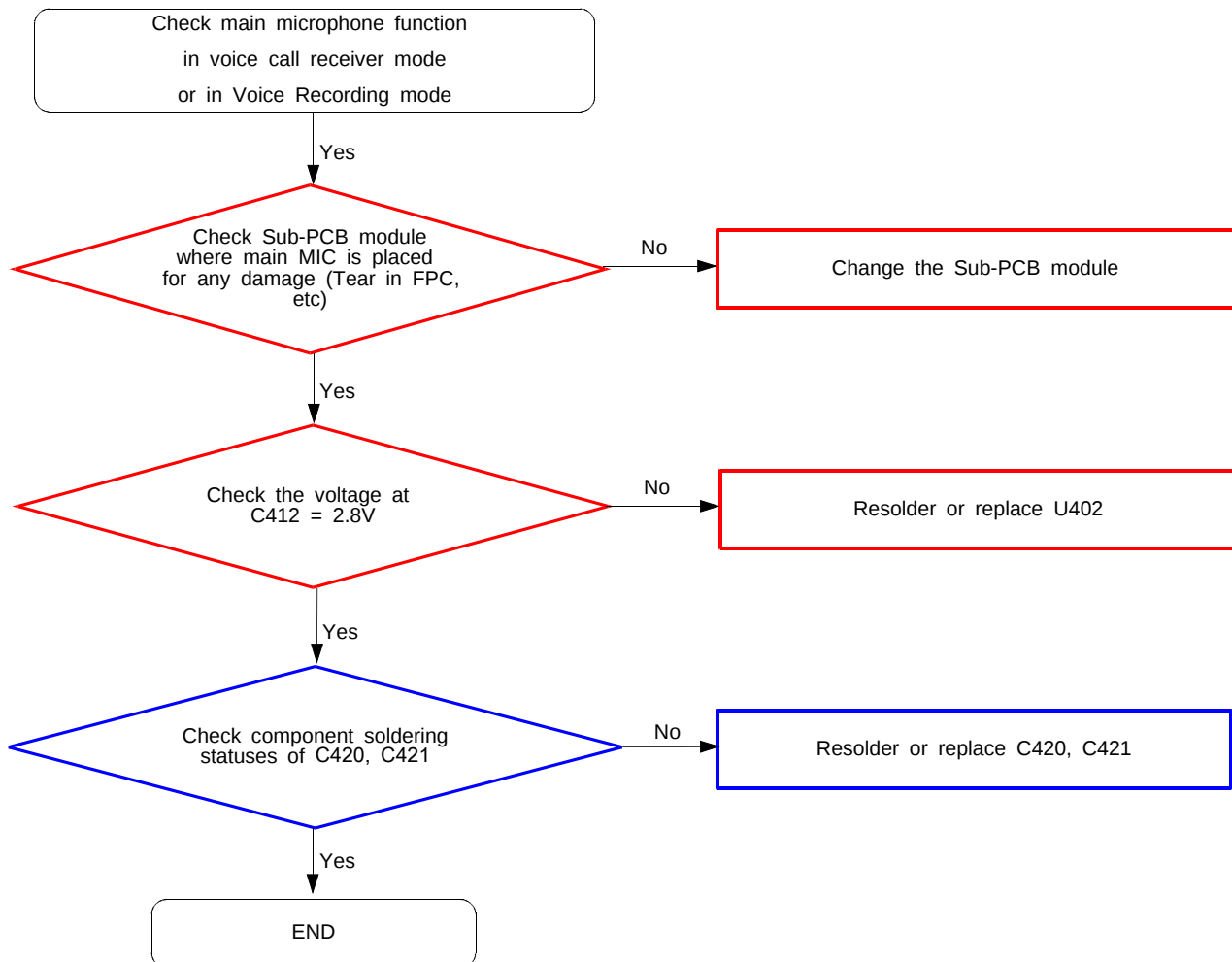
8-3-4. Sim Part

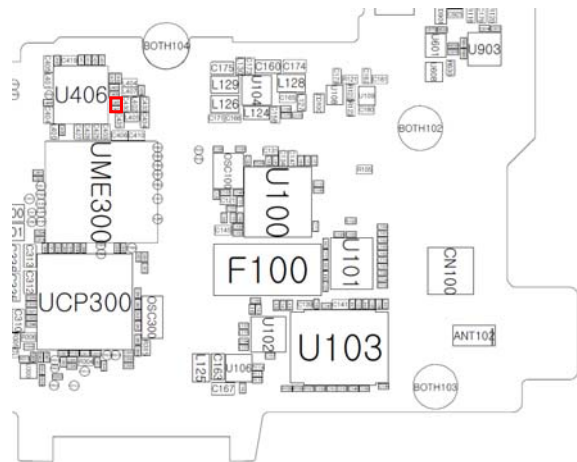
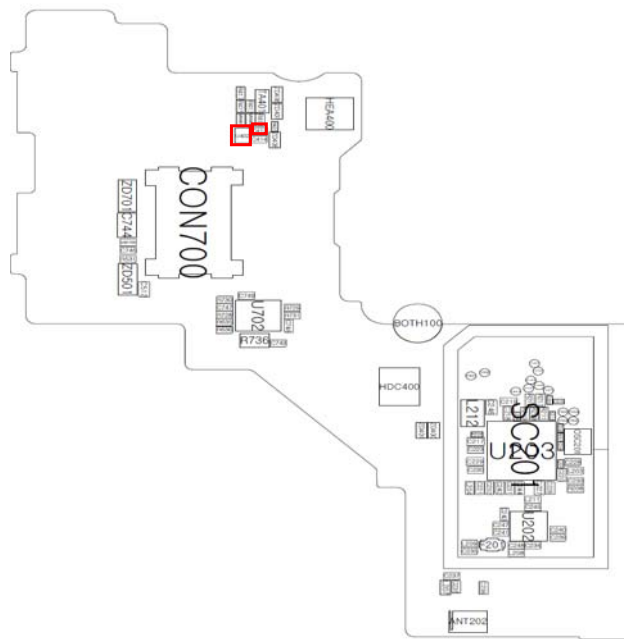


8-3-5. Charging Part

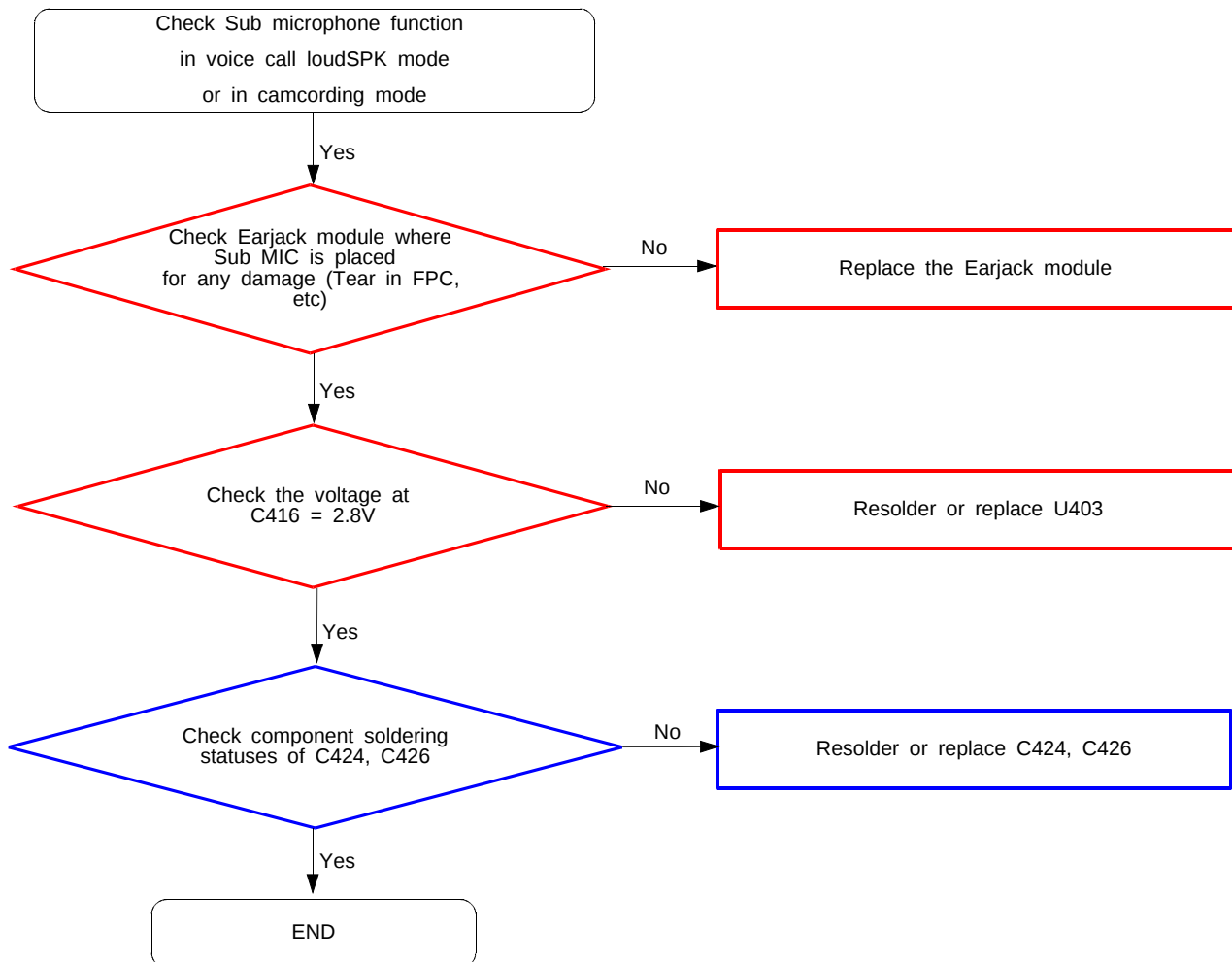


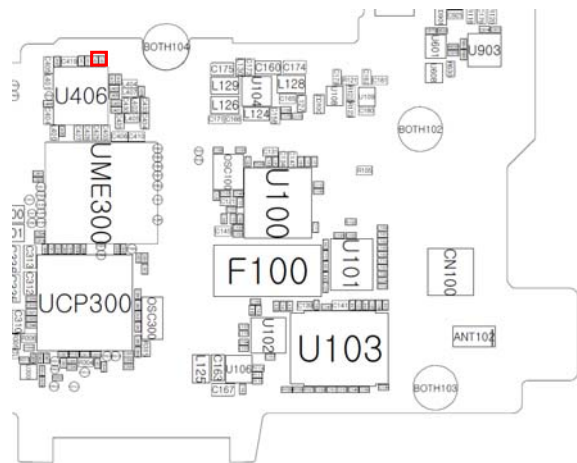
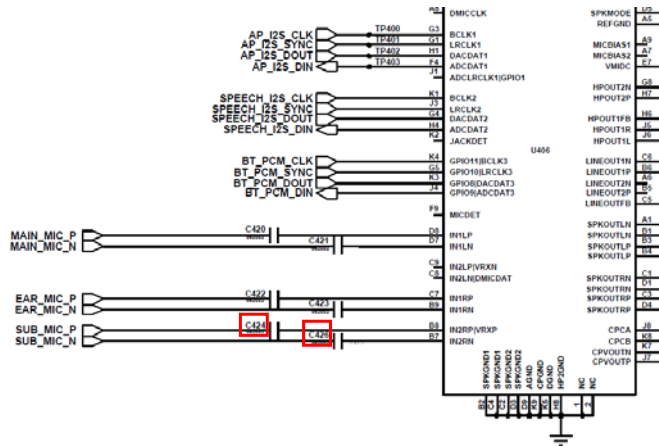
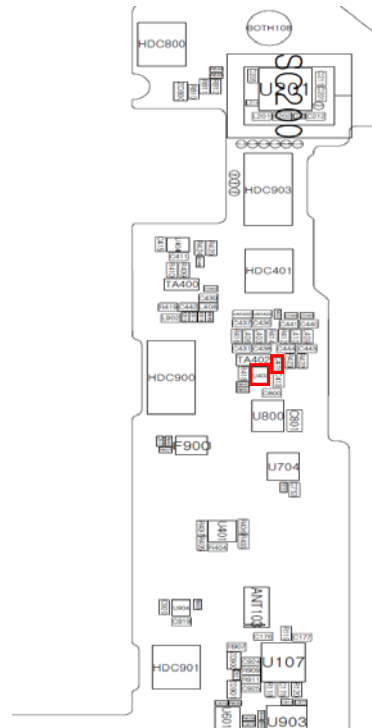
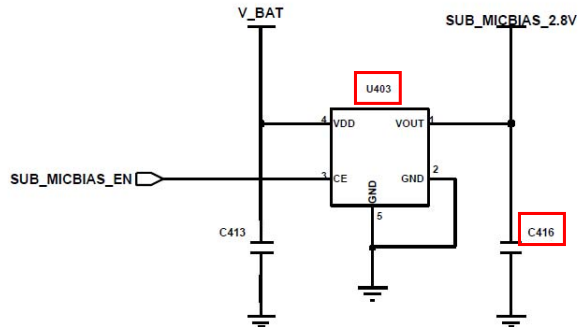
8-3-6. Microphone Part (Main MIC)



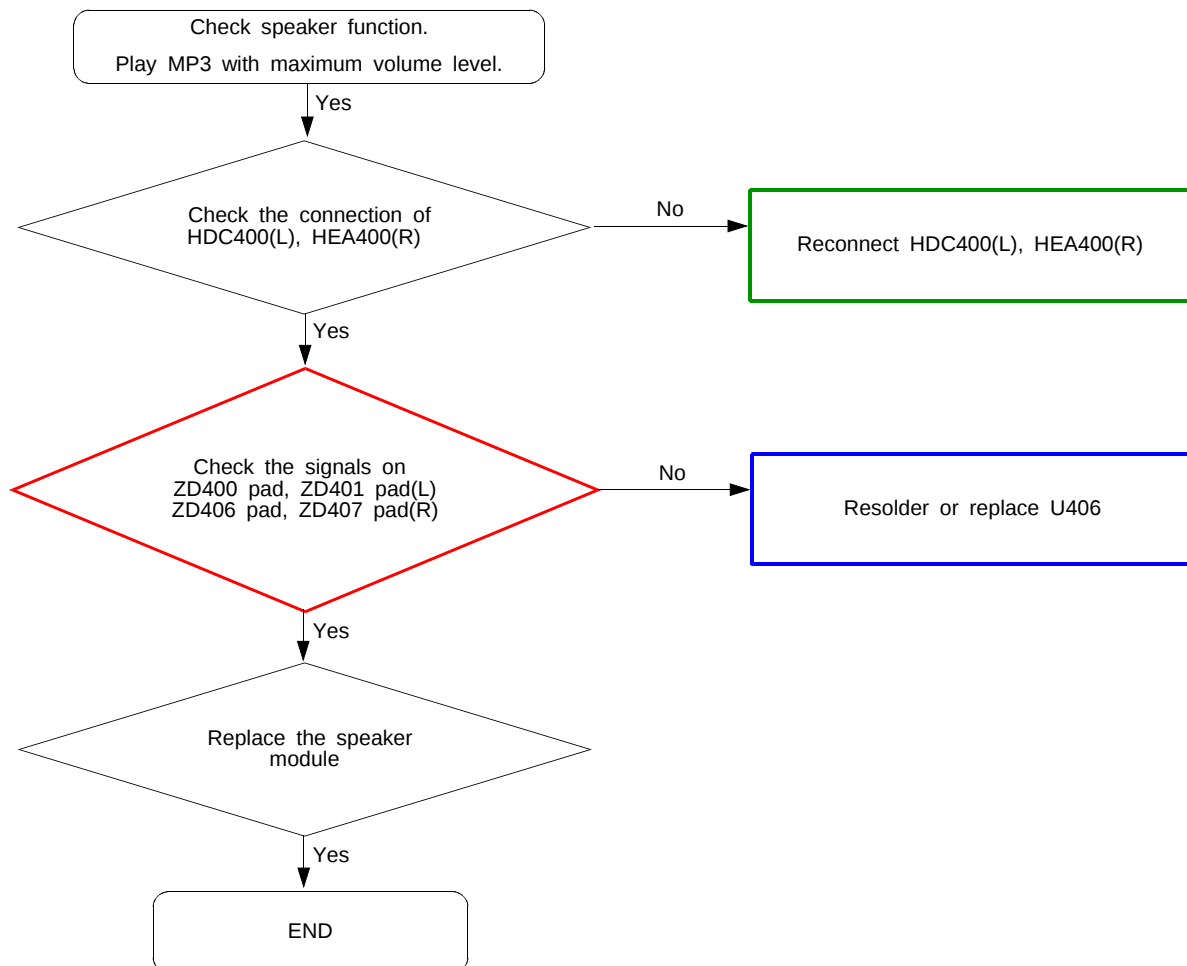


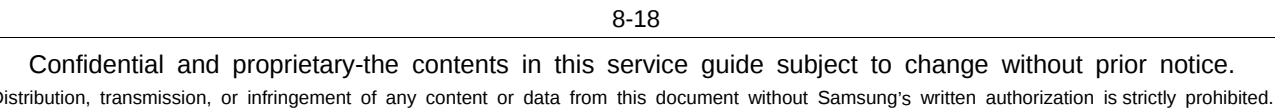
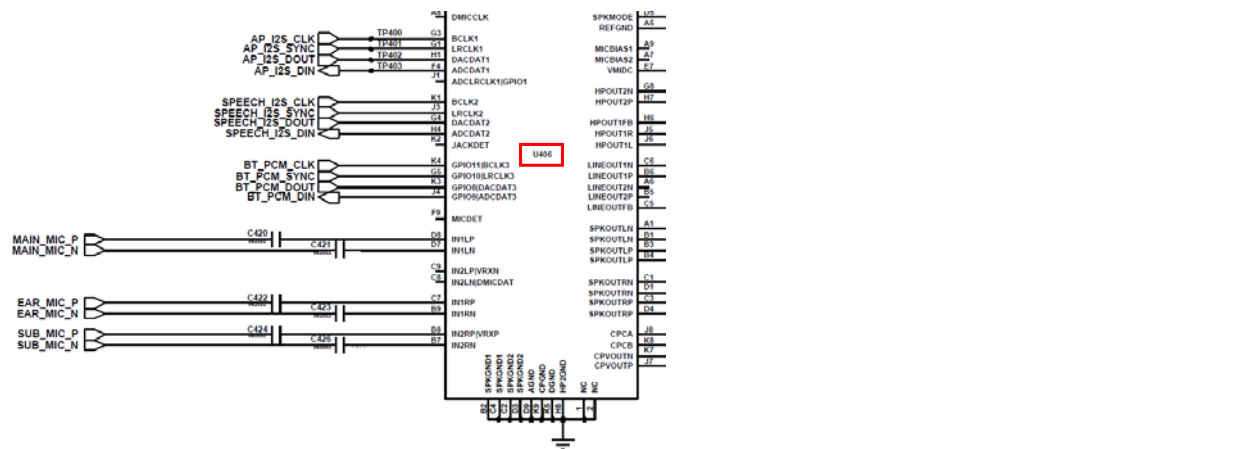
8-3-6-1. Microphone Part (Sub MIC)



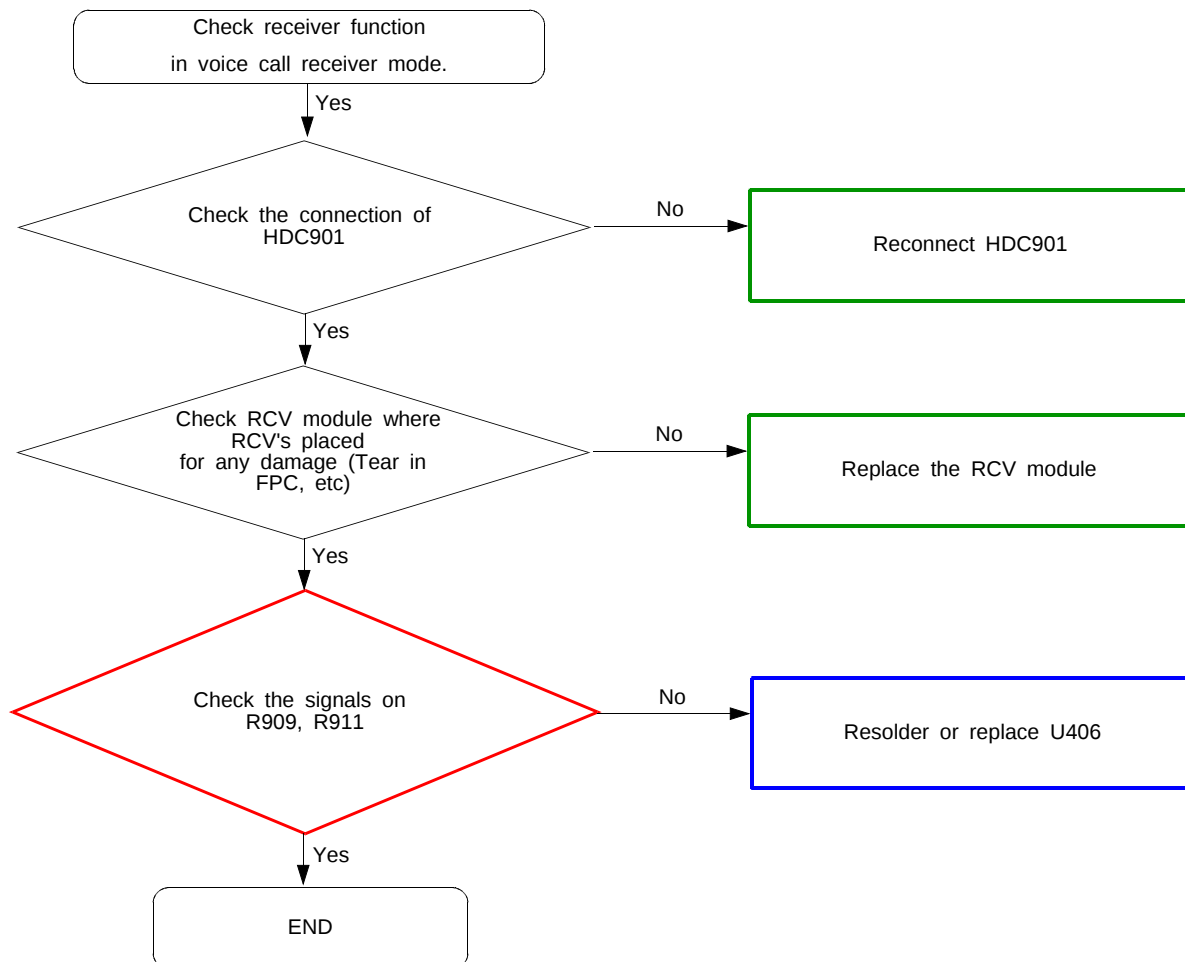


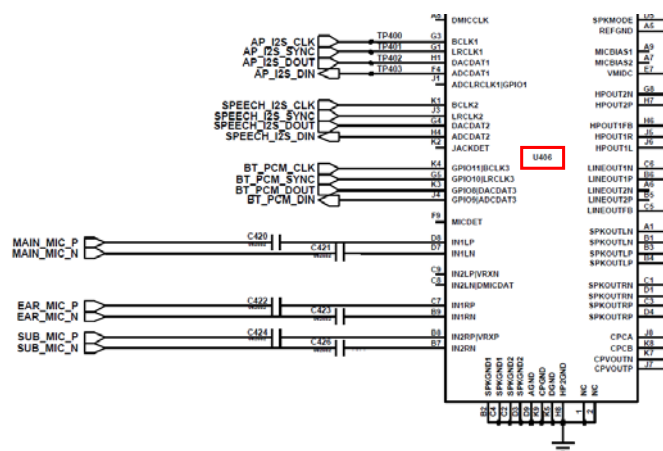
8-3-7. Speaker Part



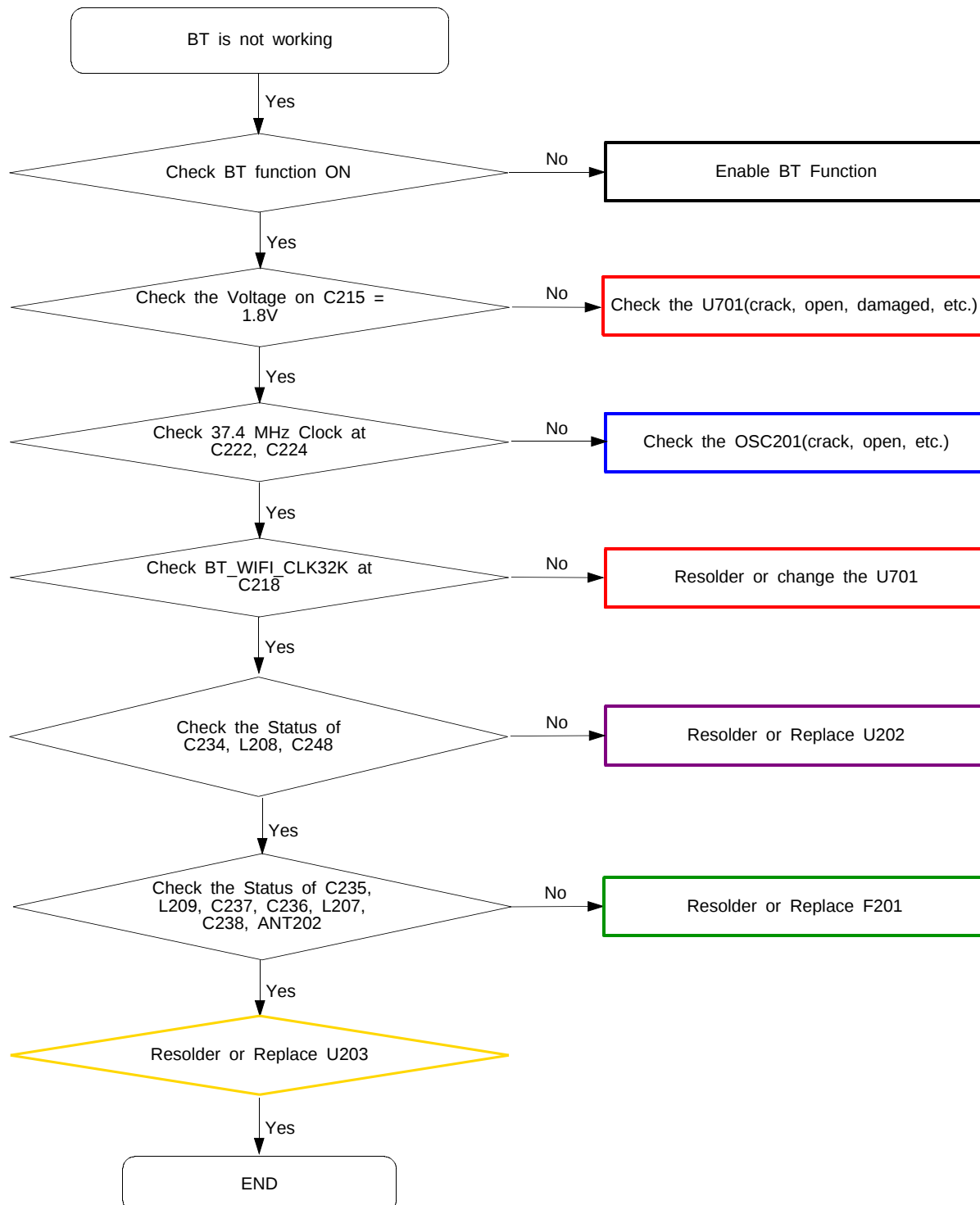


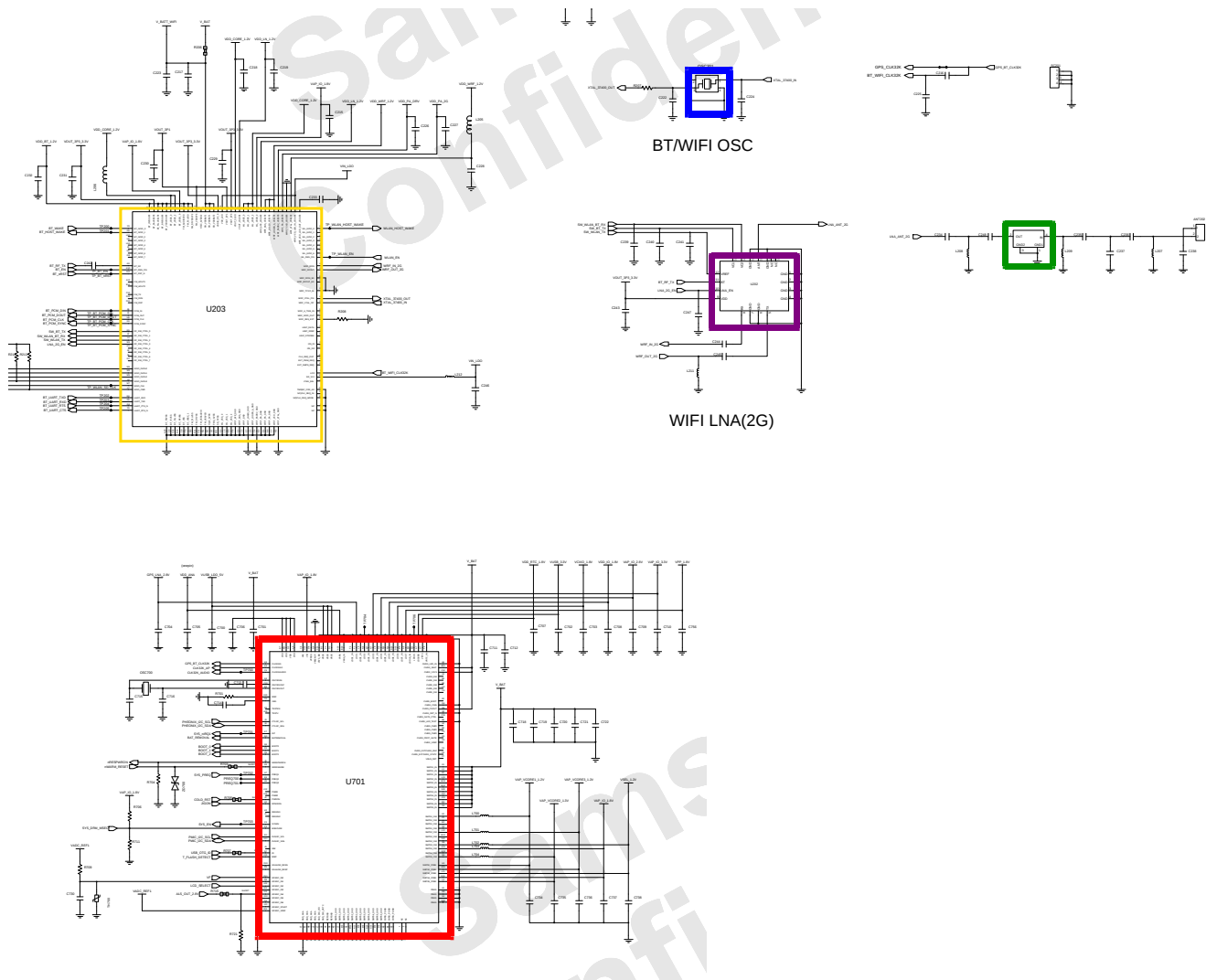
8-3-8. Receiver Part

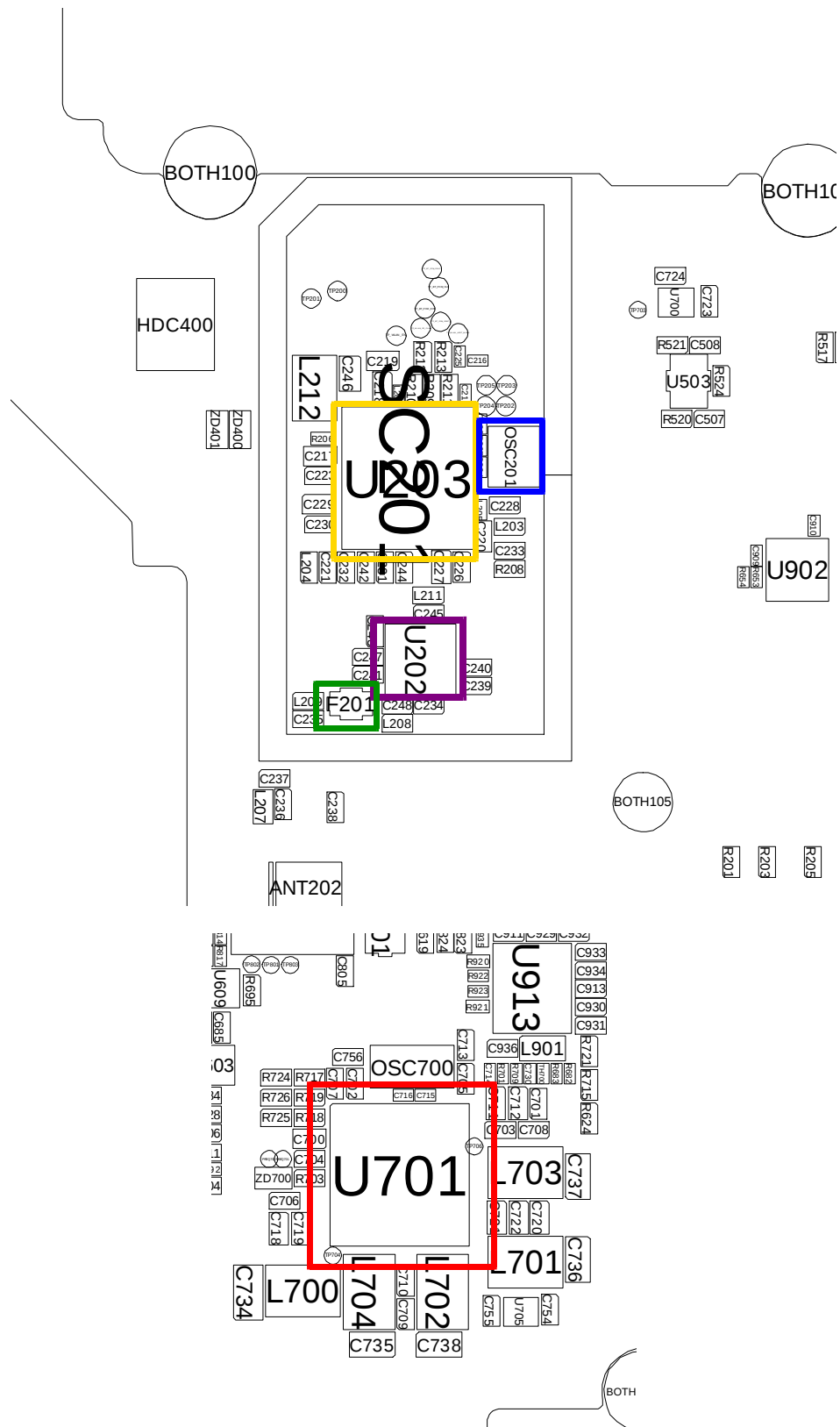




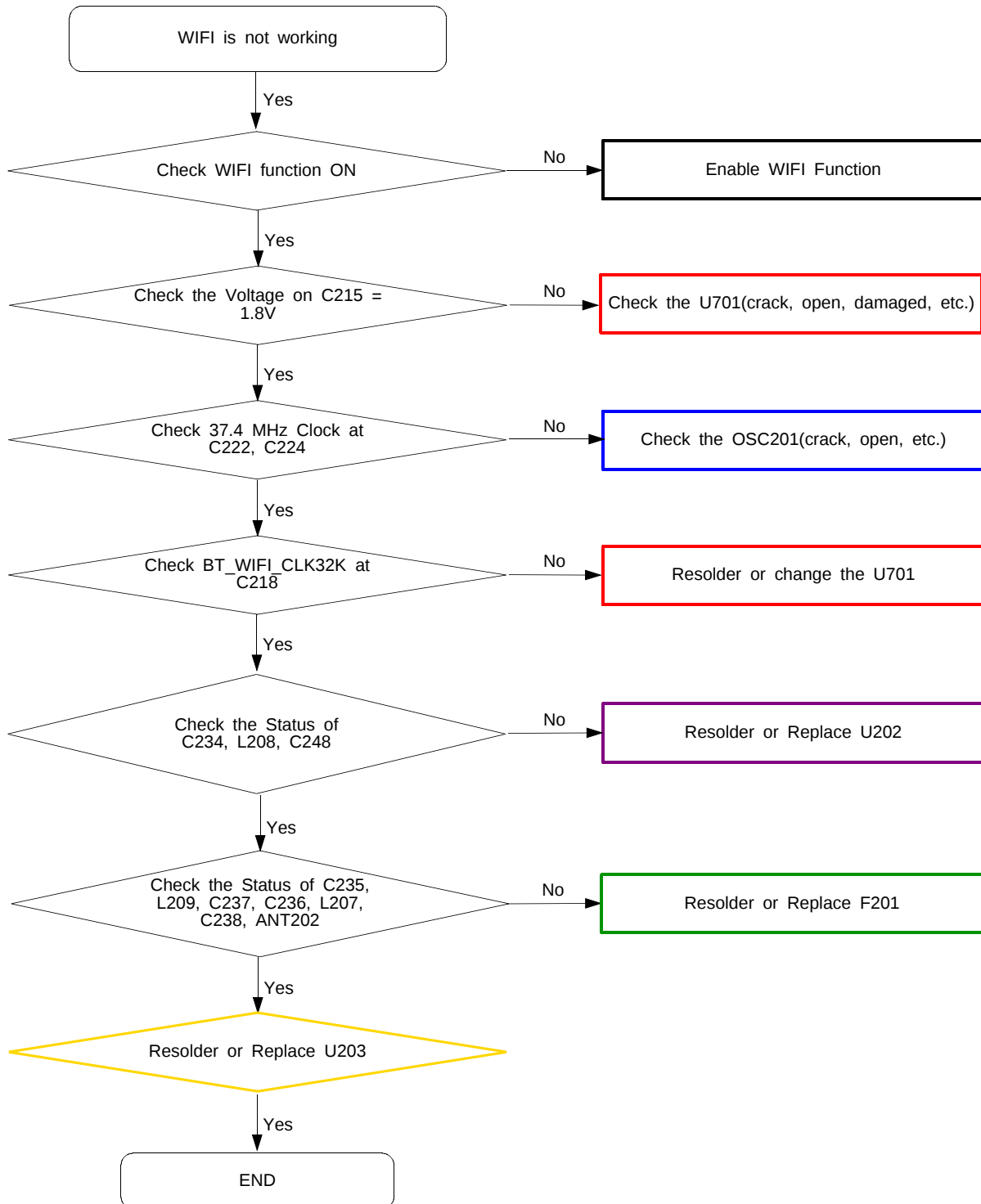
8-3-9. BT

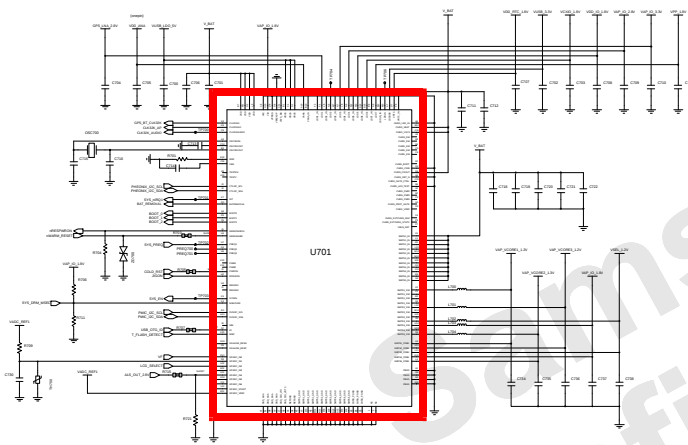
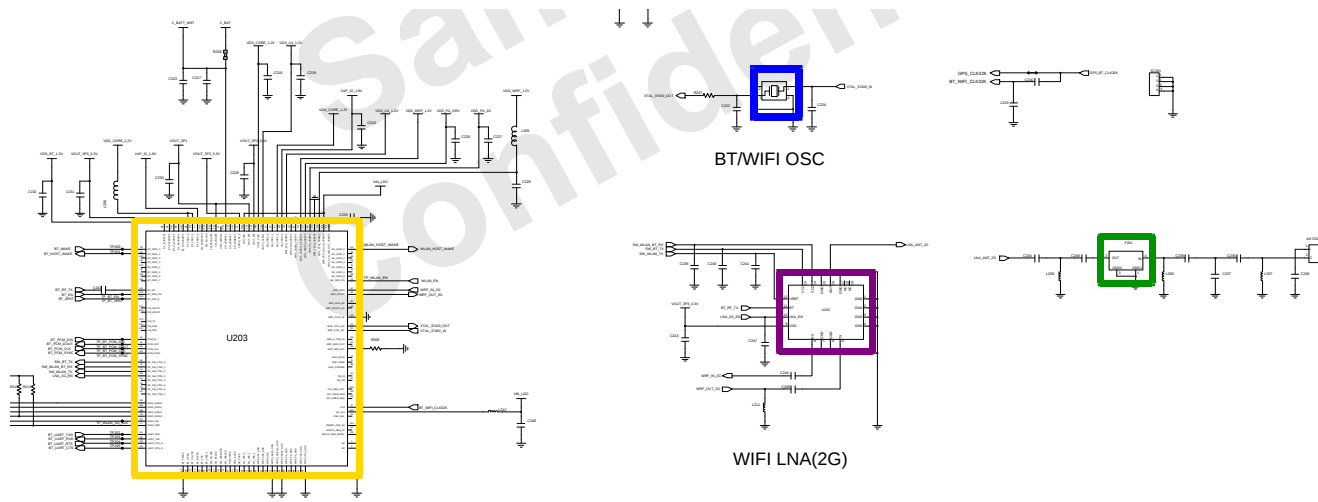


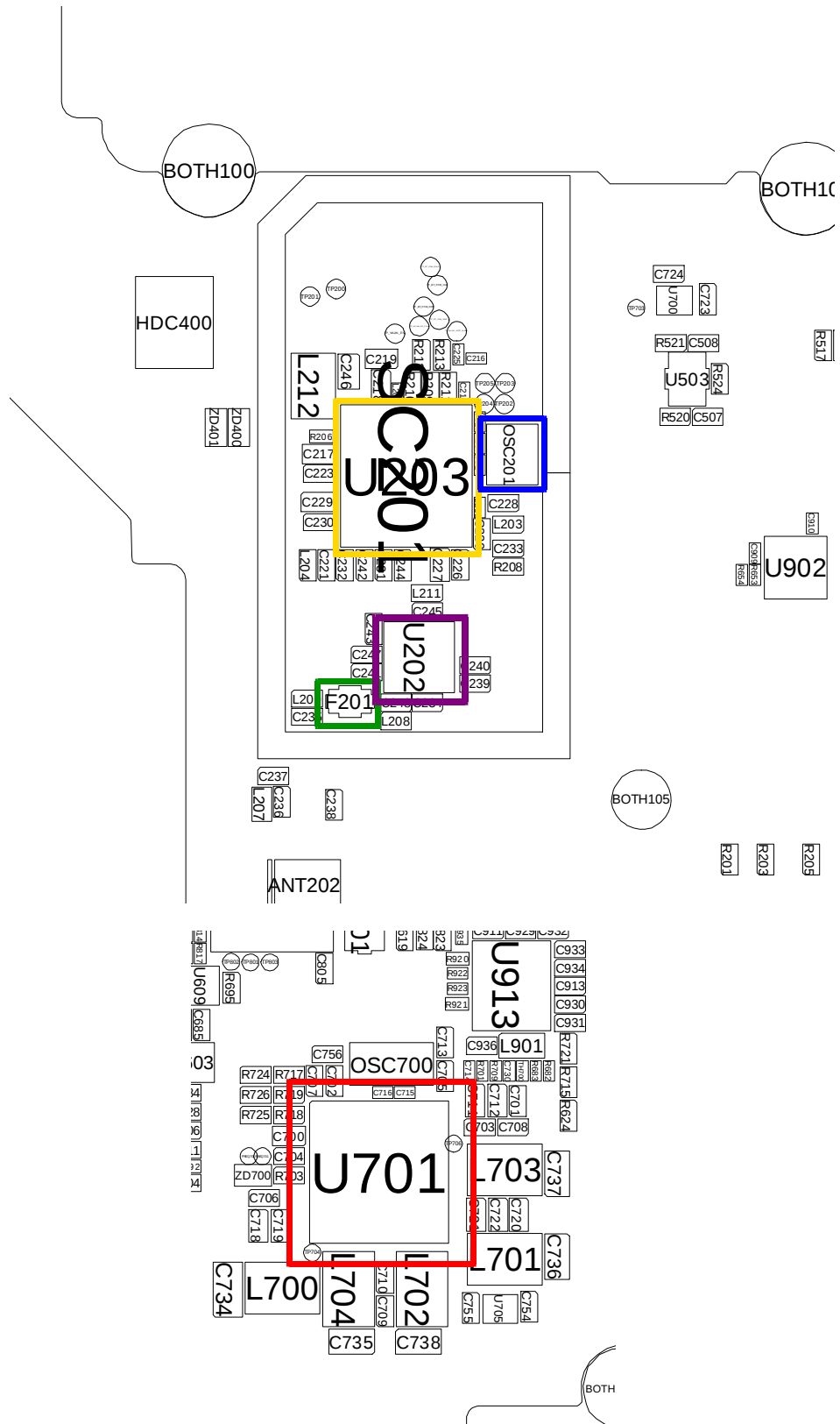




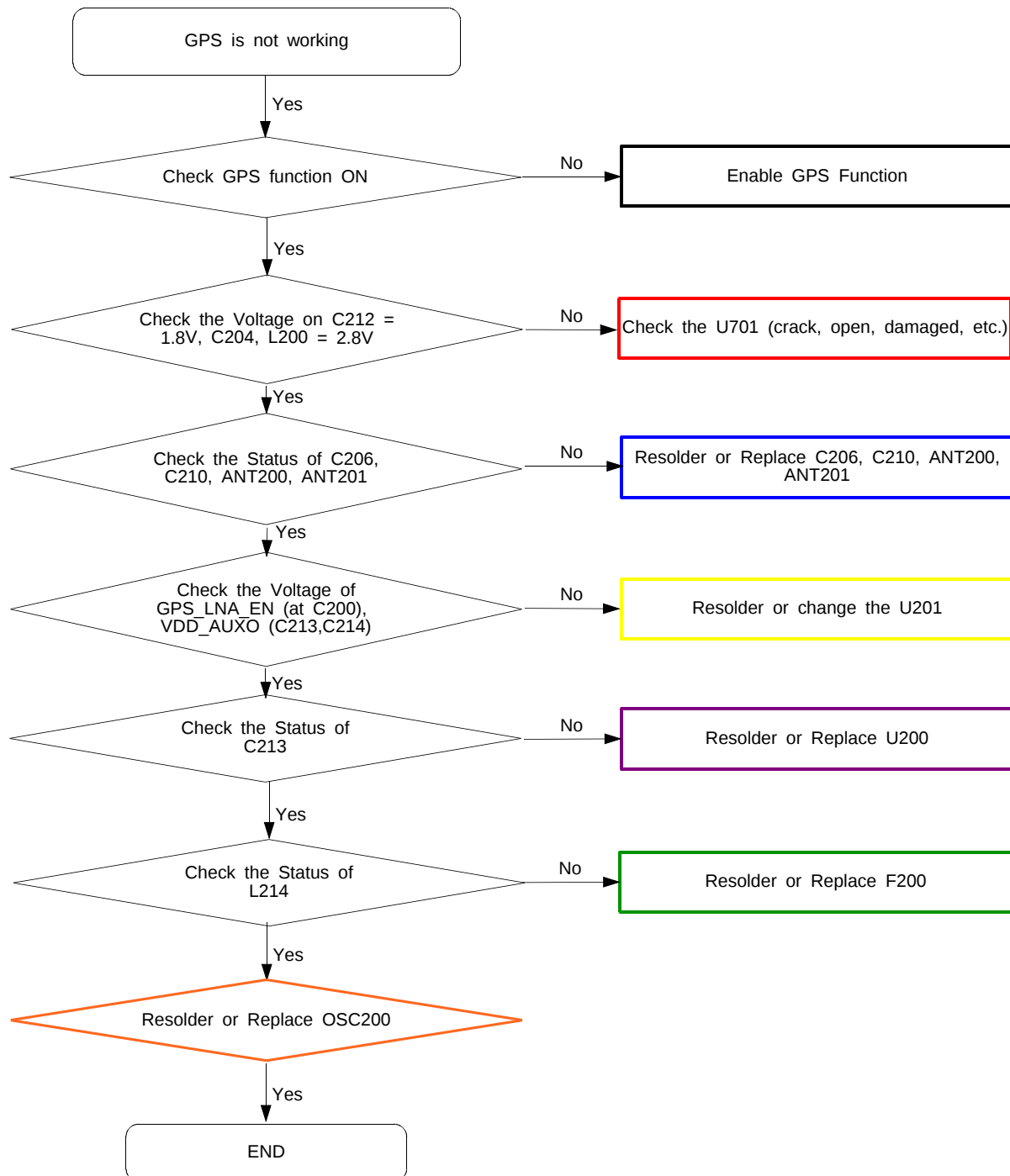
8-3-10. WIFI

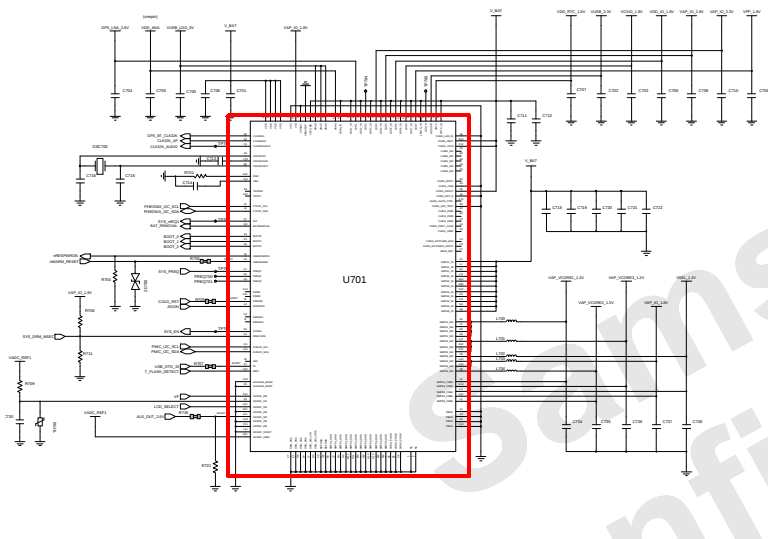
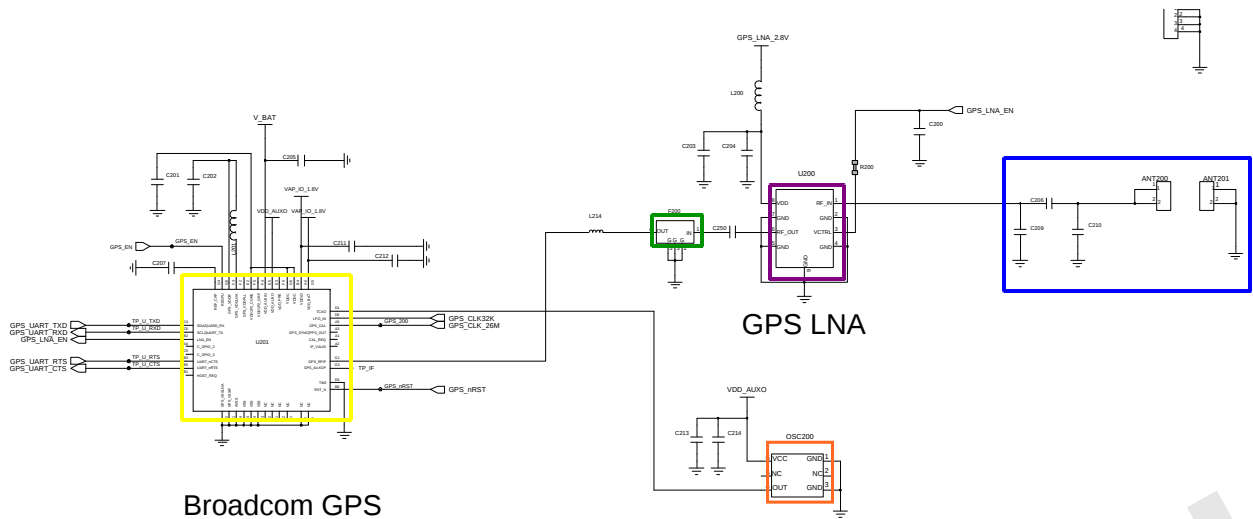


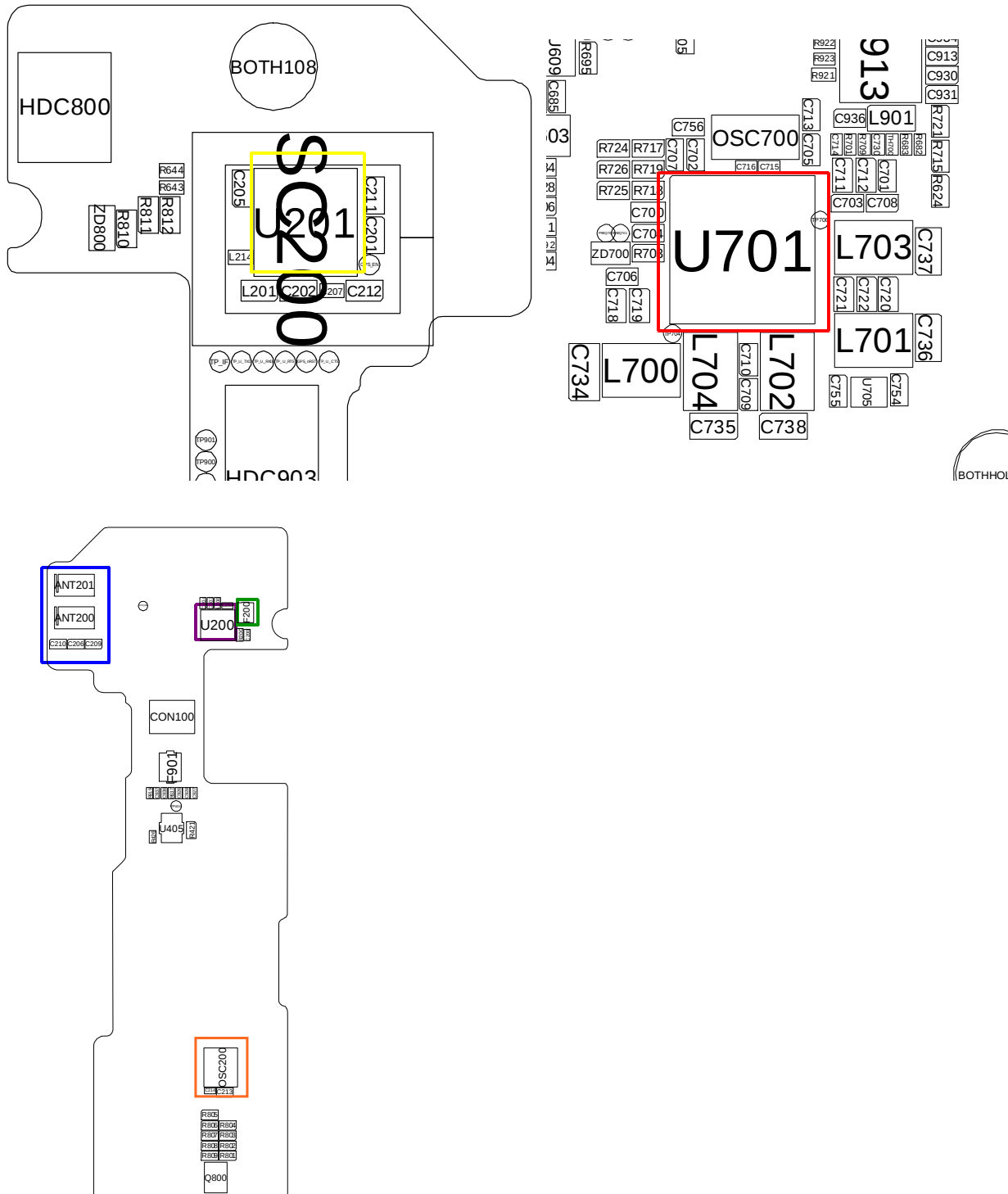




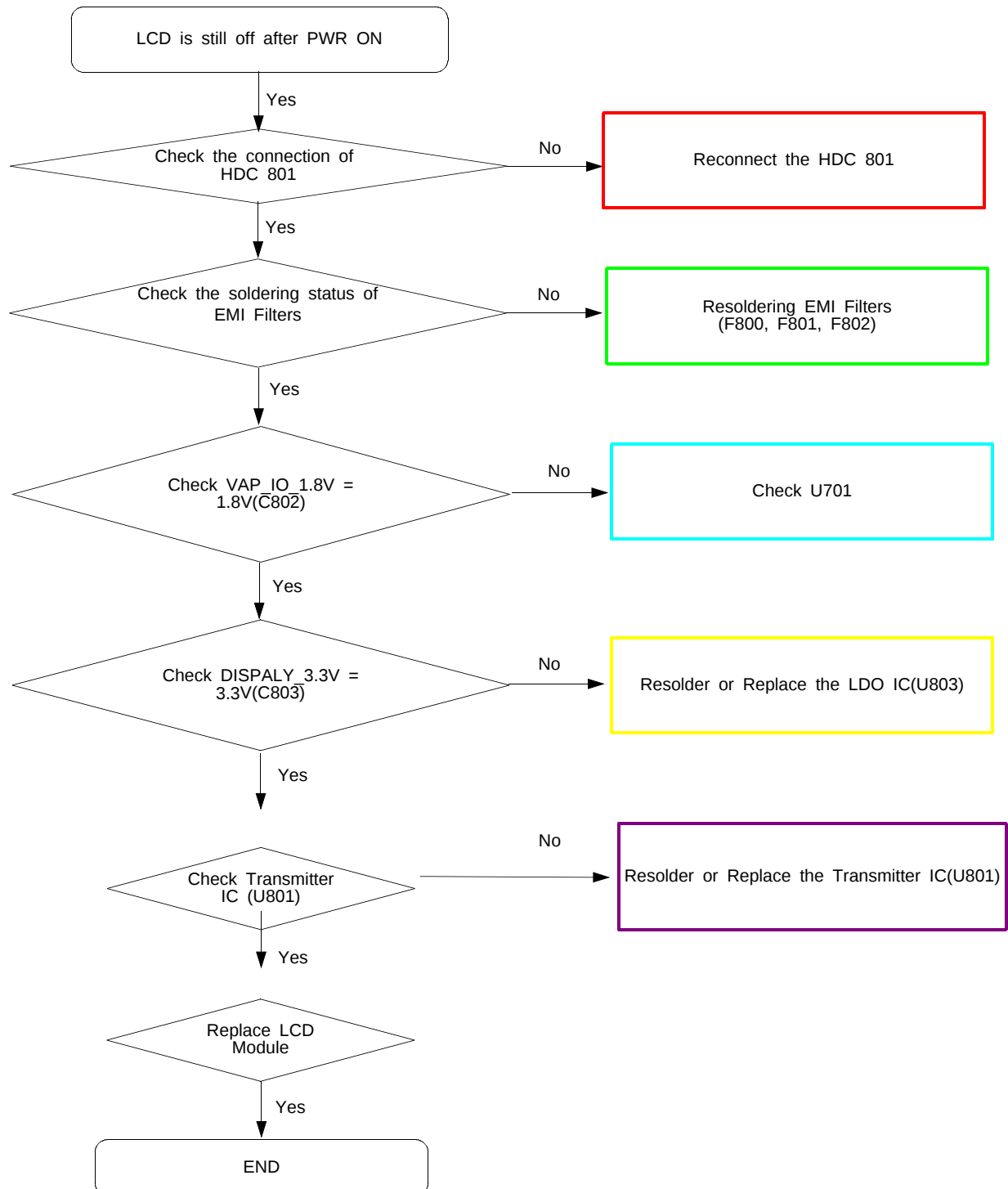
8-3-11. GPS

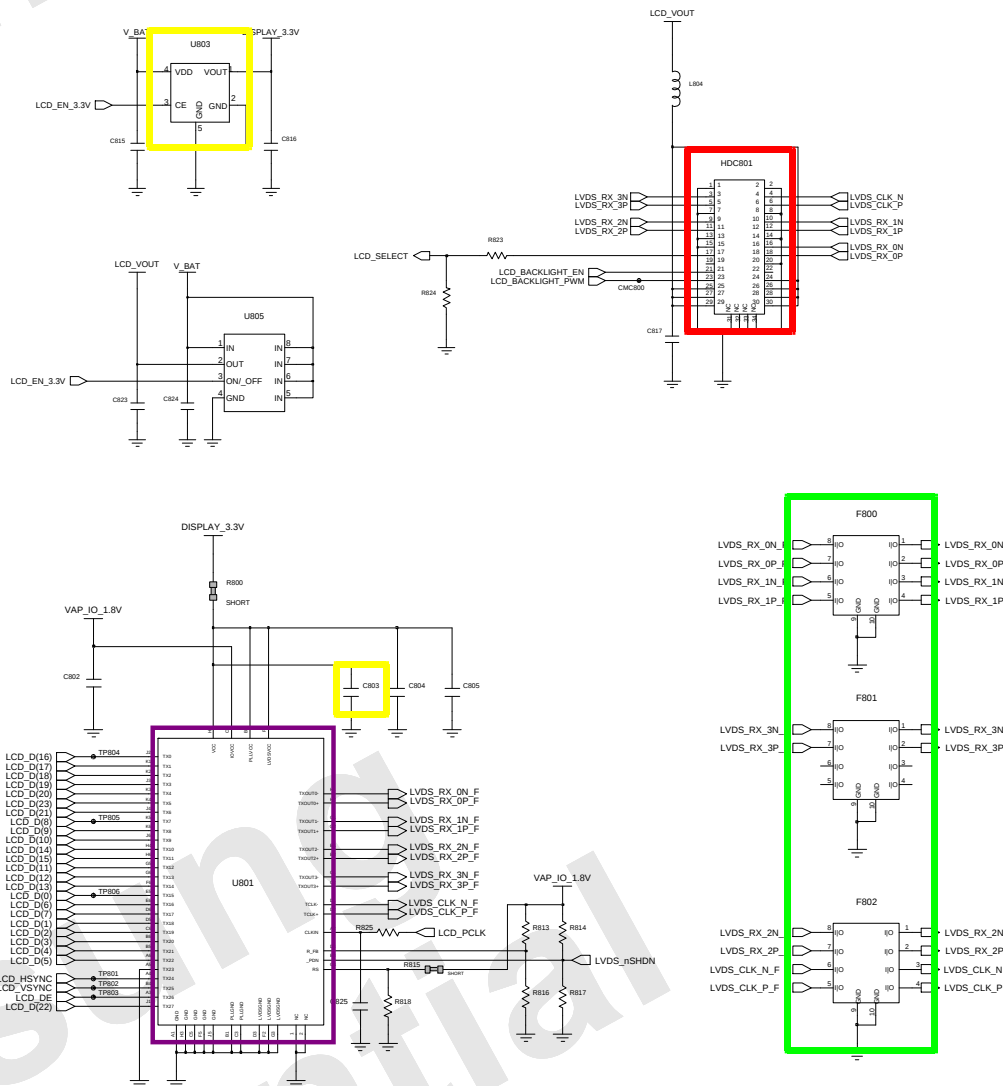




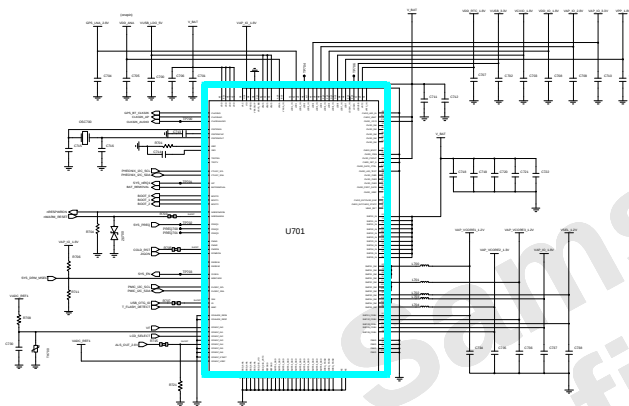


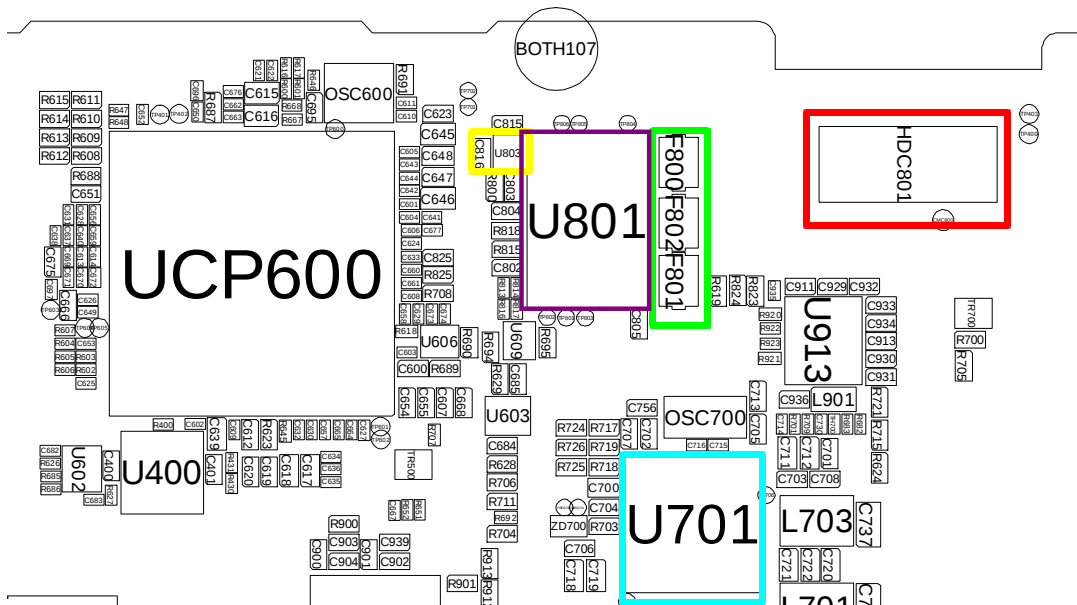
8-3-12. LCD



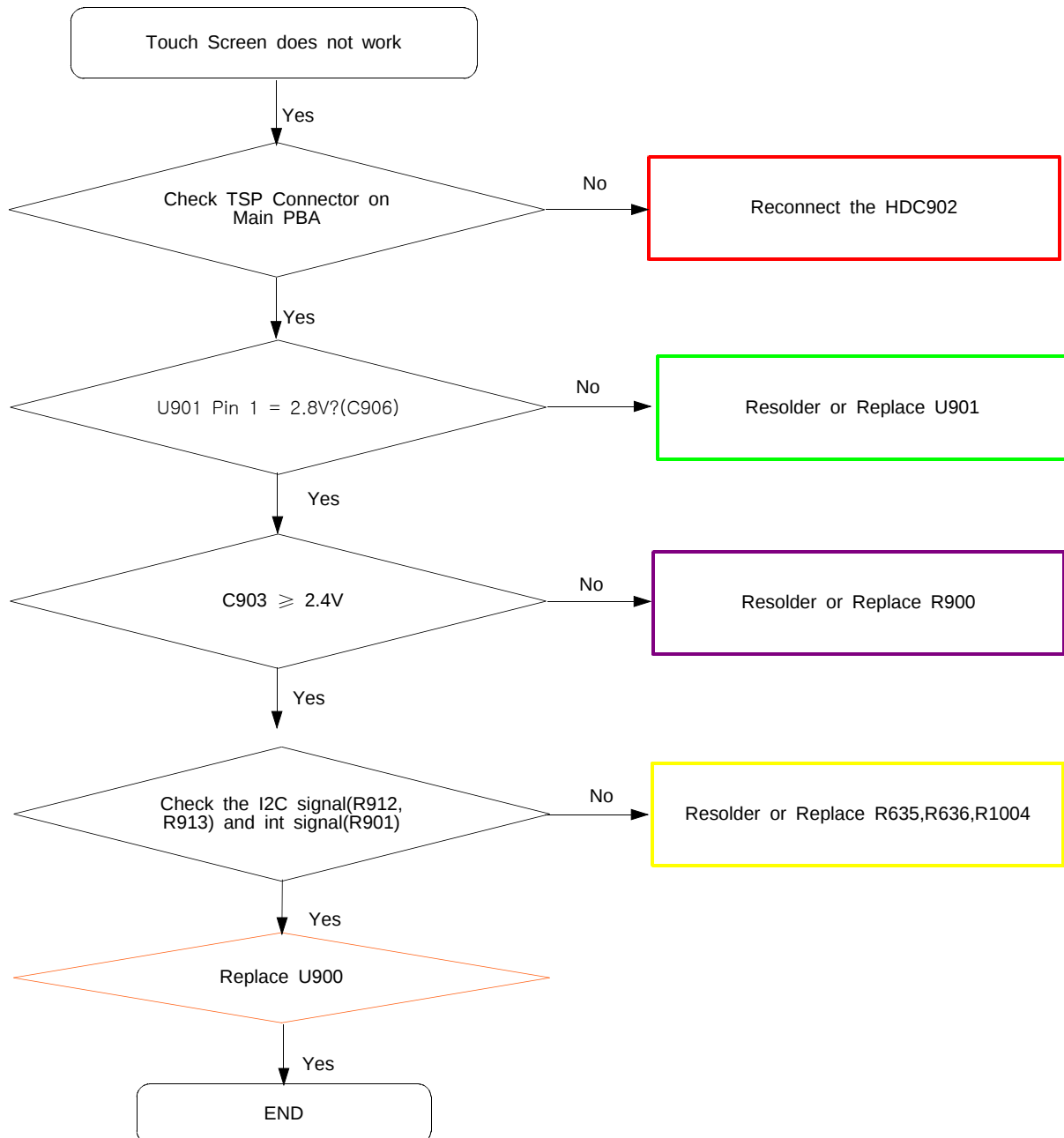


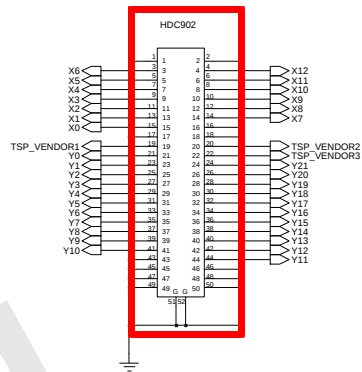
LVDS Transmitter



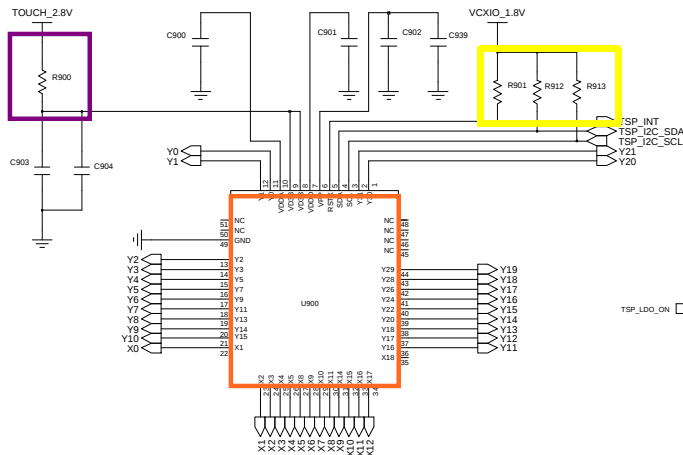


8-3-13. TSP

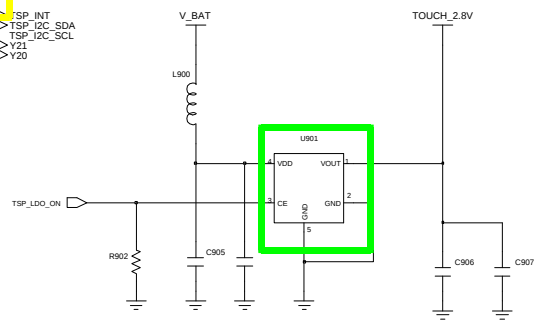




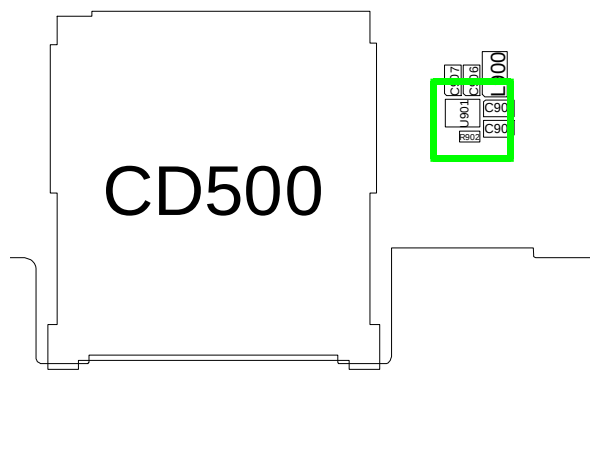
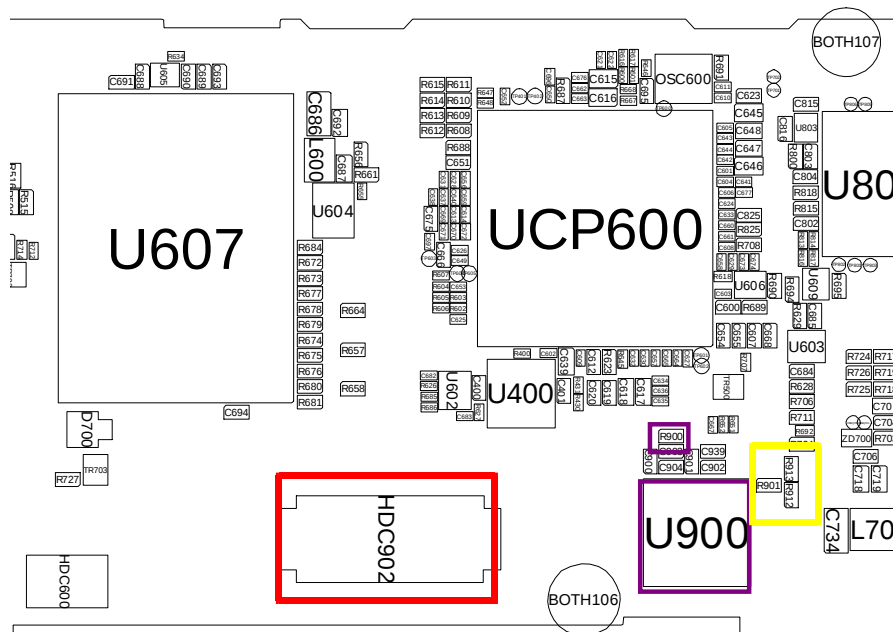
50Pin TOUCH Con.



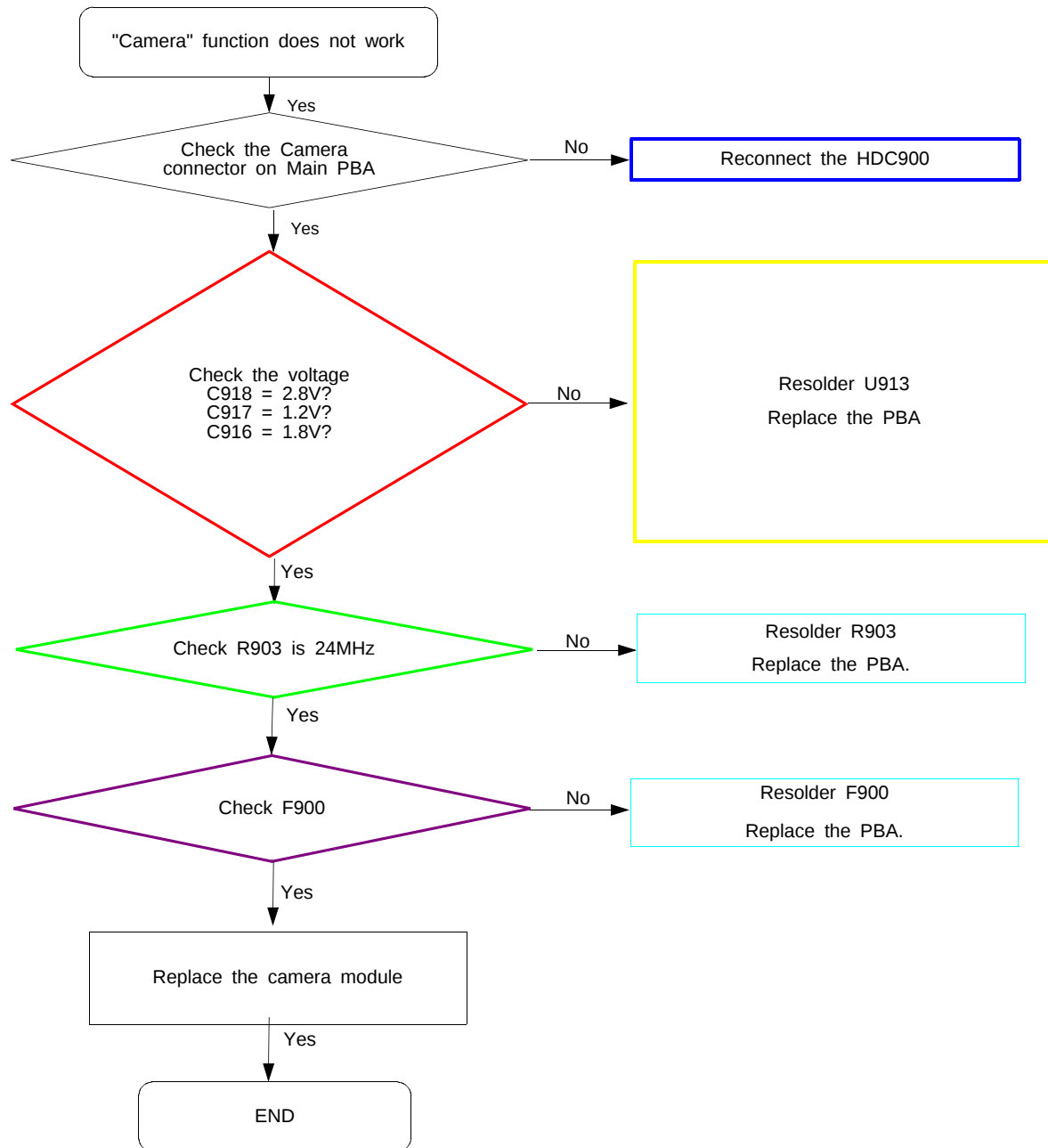
TOUCH SENSOR IC

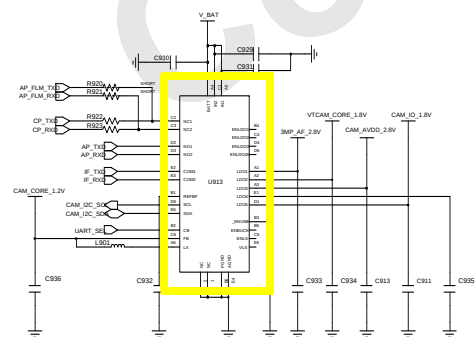
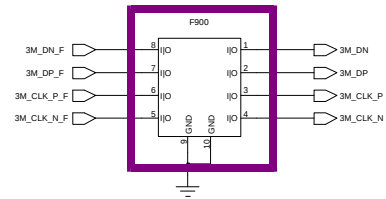


TOUCH LDO

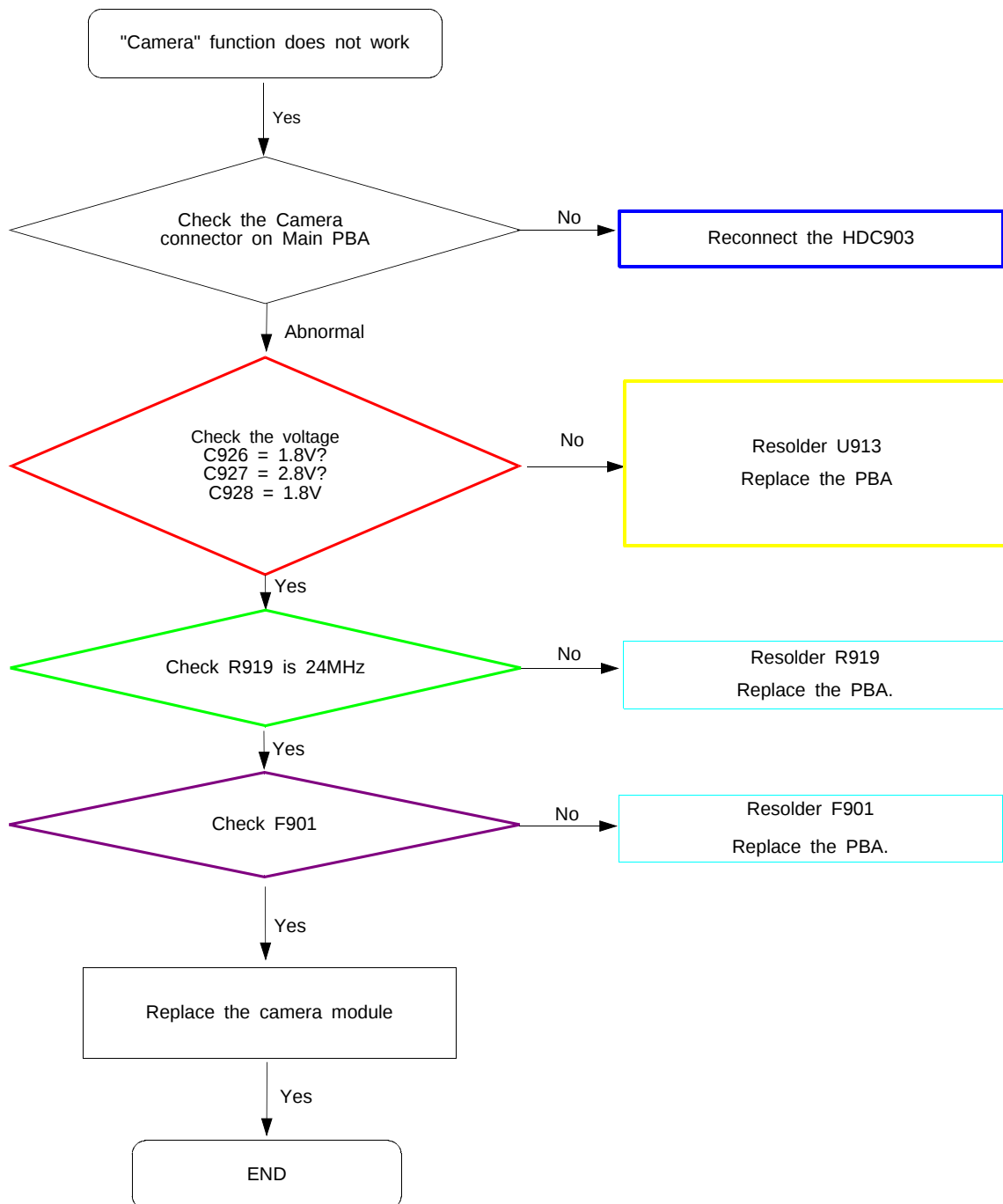


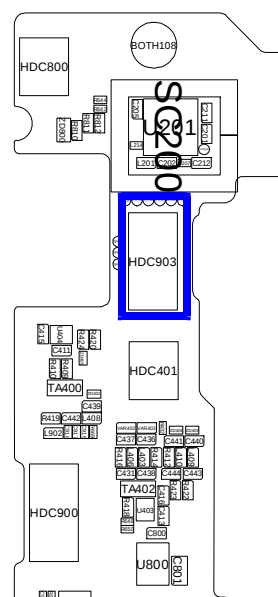
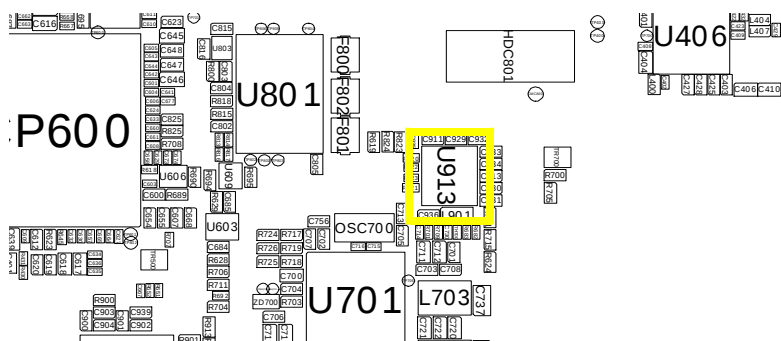
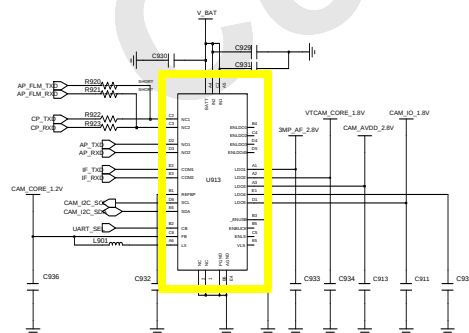
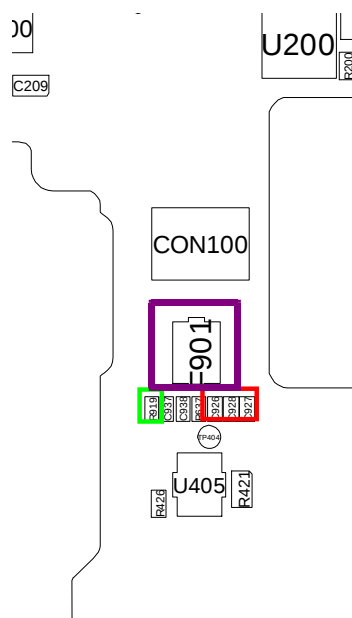
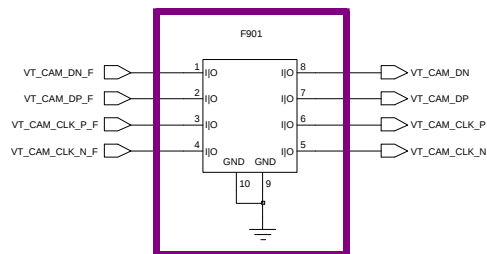
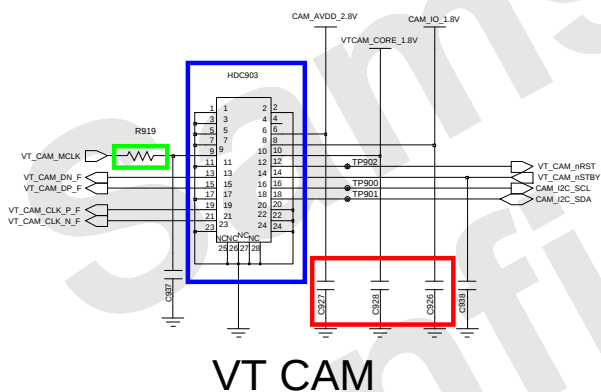
8-3-14. 3M CAM



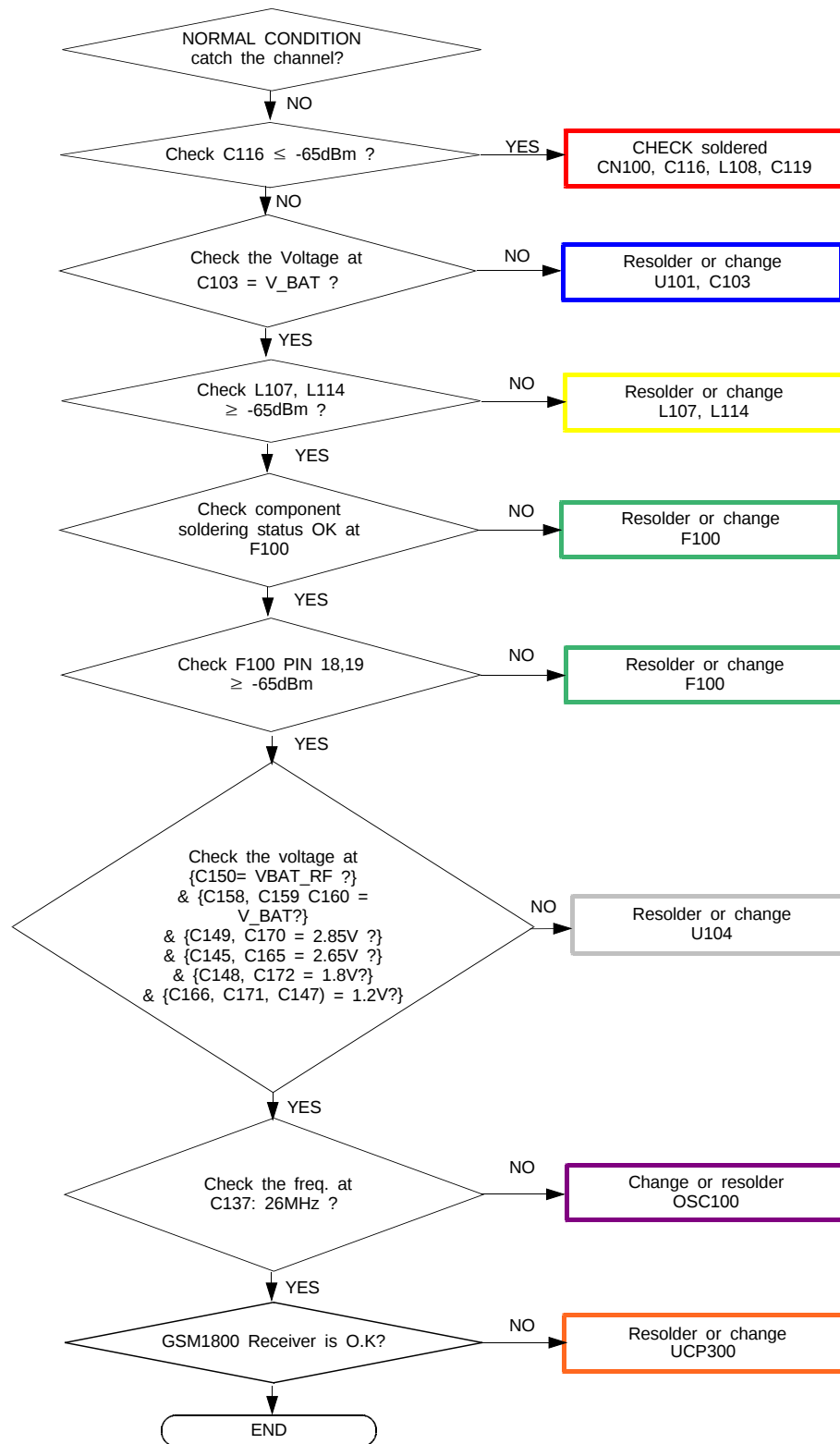


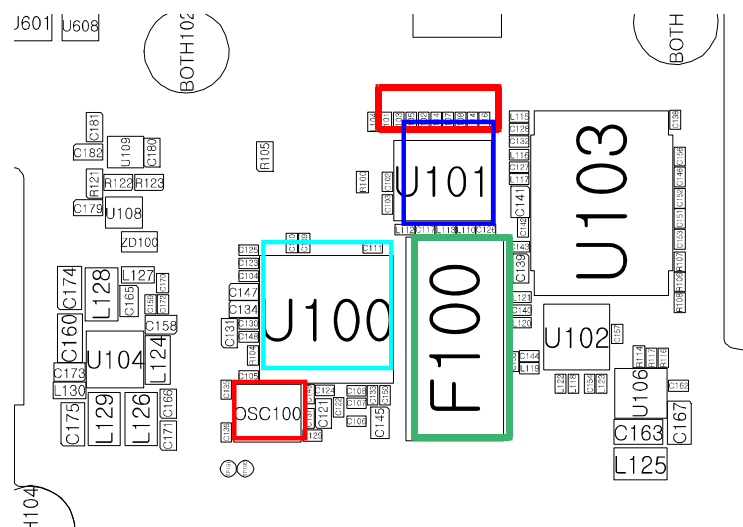
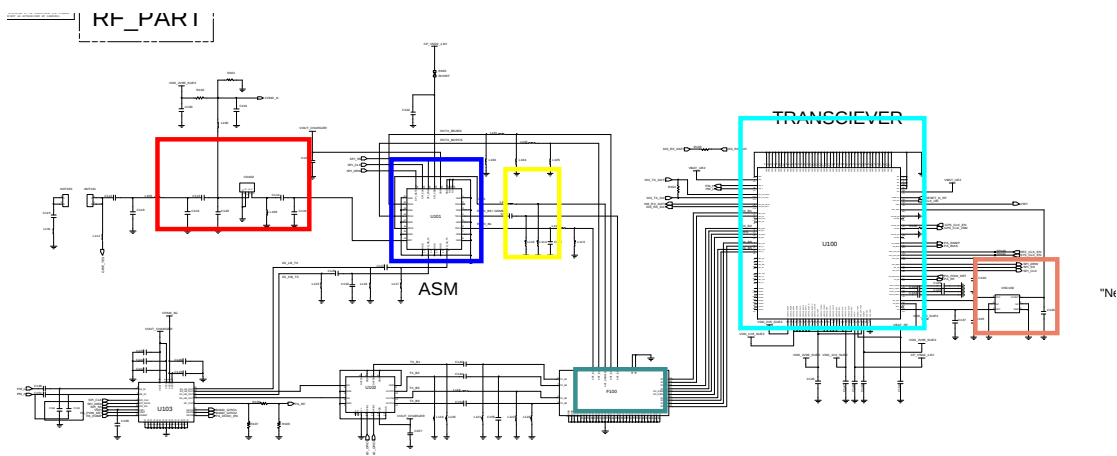
8-3-15. VGA CAM





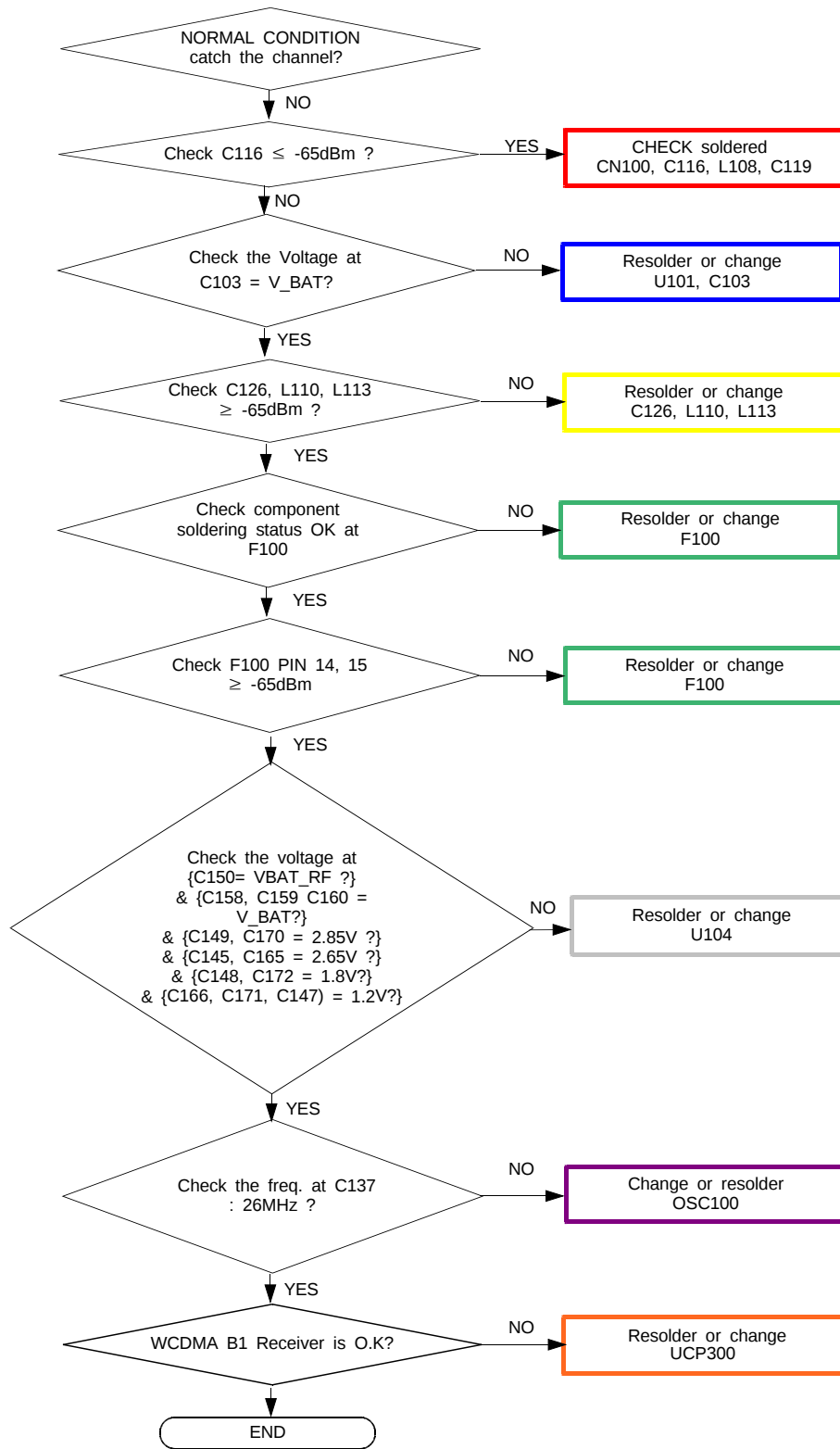
8-3-16. GSM1800 RX

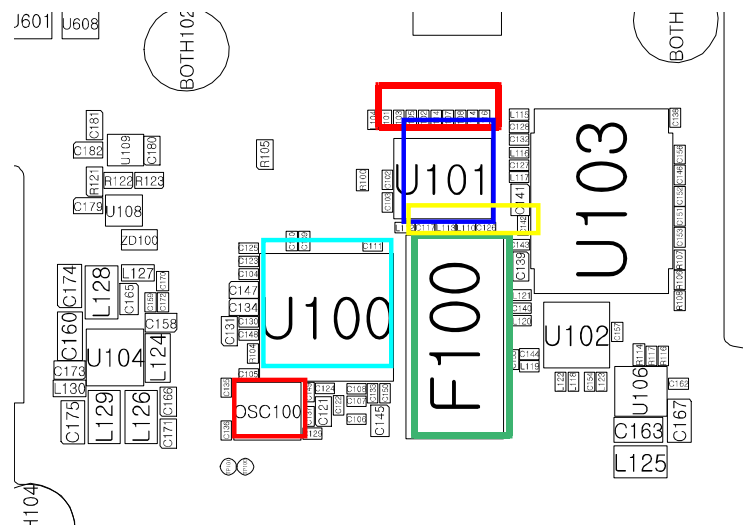
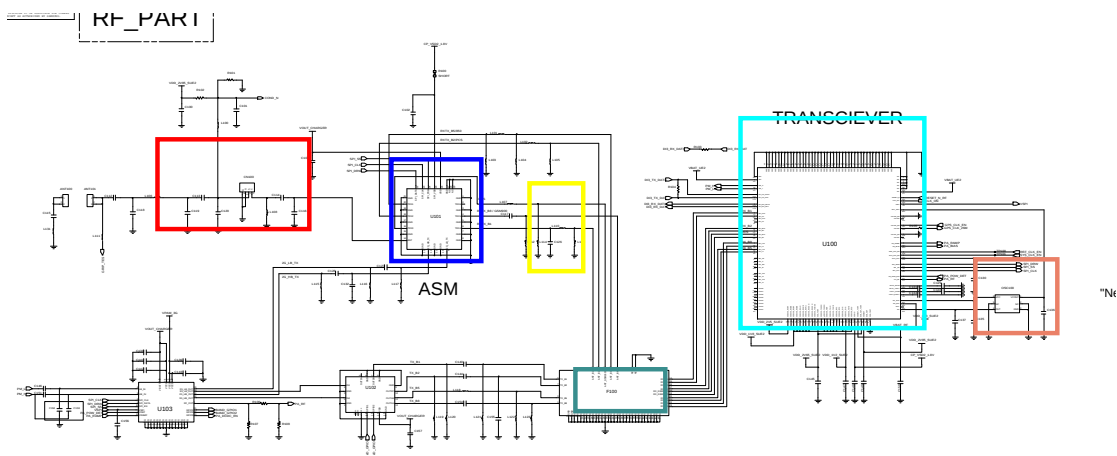




8-3-17. WCDMA Band1 RX

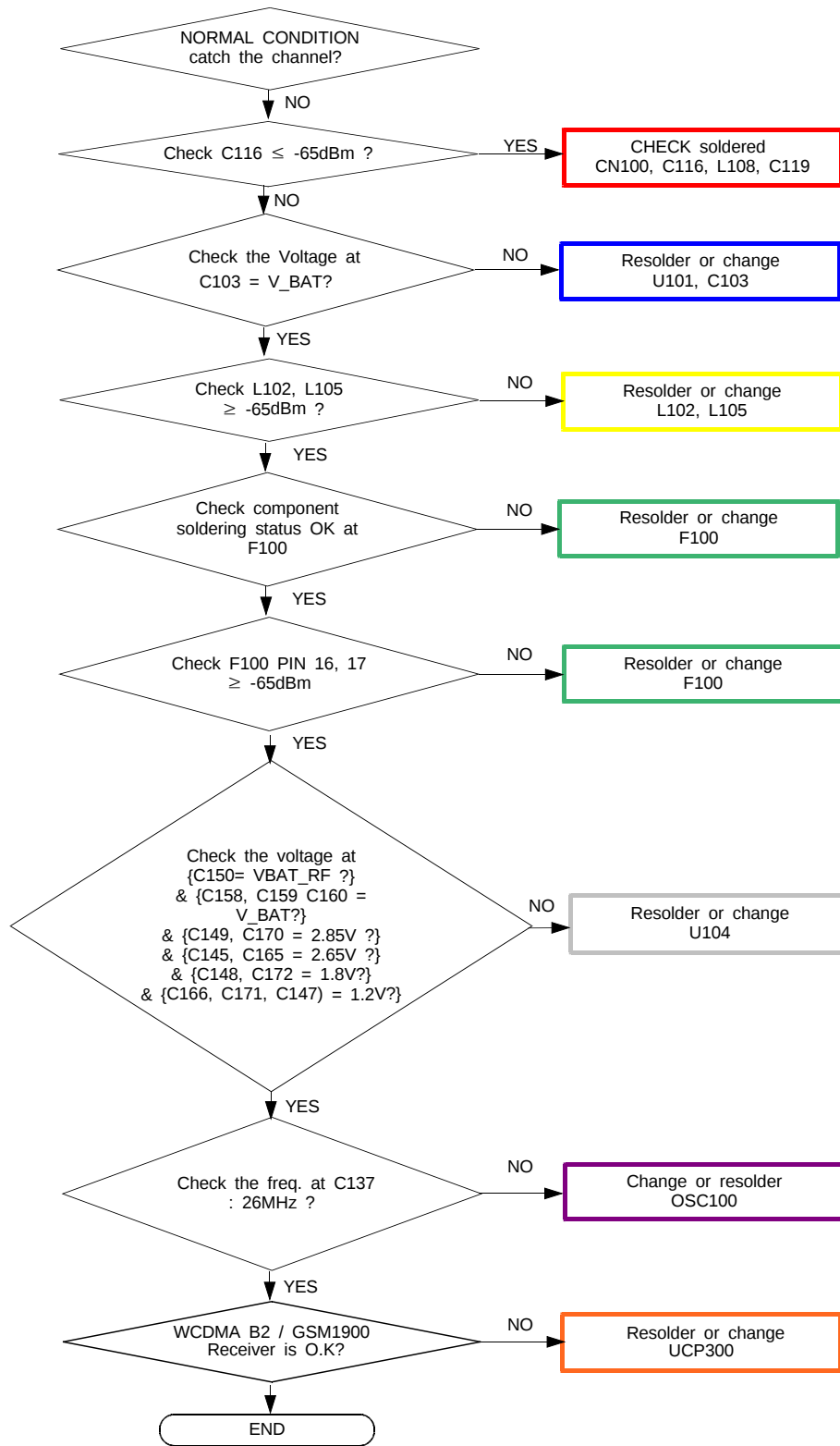
CONTINUOUS RX ON
RF INPUT : 10700CH
AMP : -50dBm

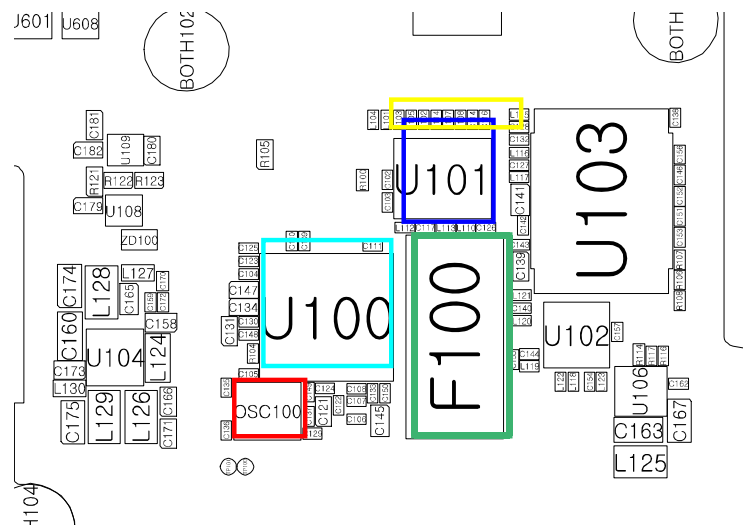
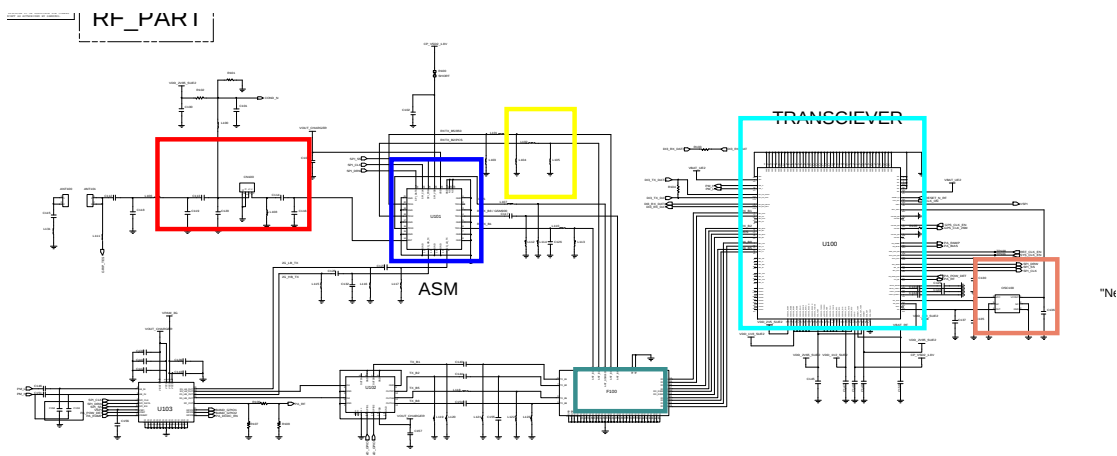




8-3-18. WCDMA Band2 / GSM1900 RX

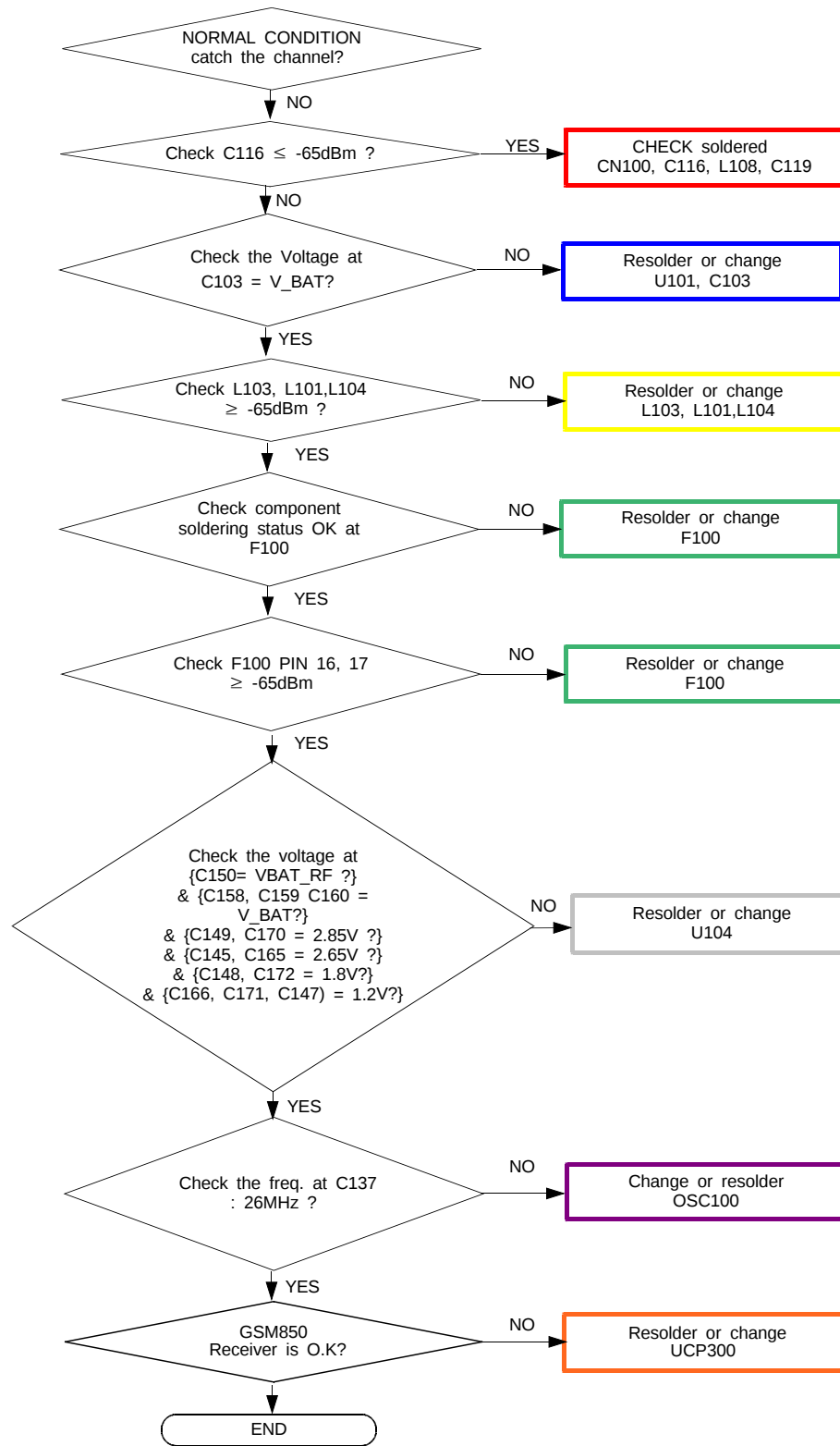
CONTINUOUS RX ON
RF INPUT : 9880CH
AMP : -50dBm

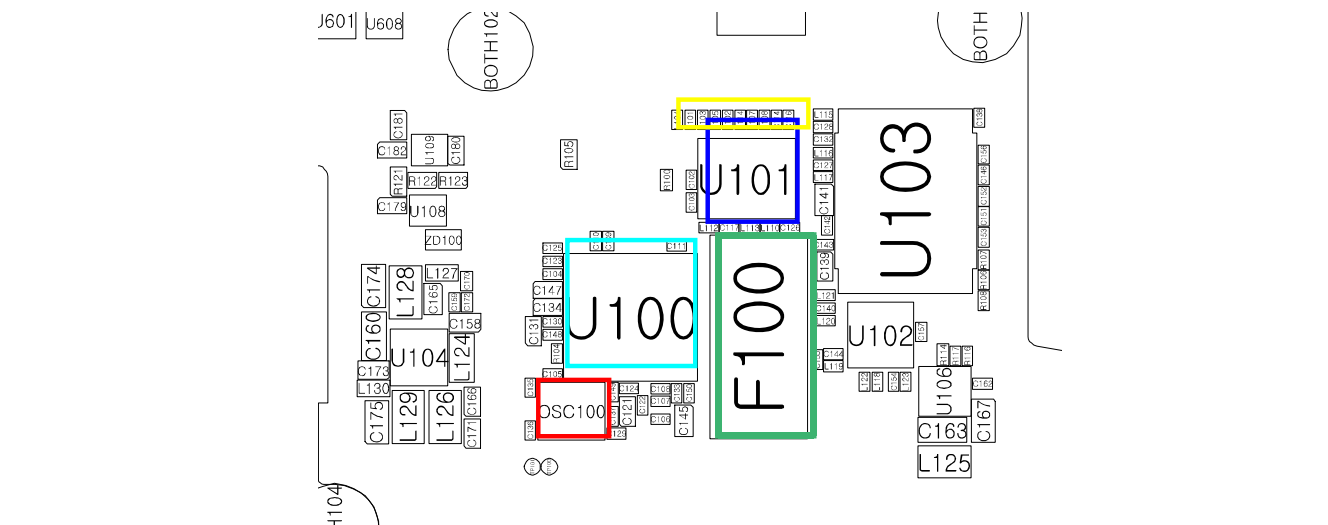
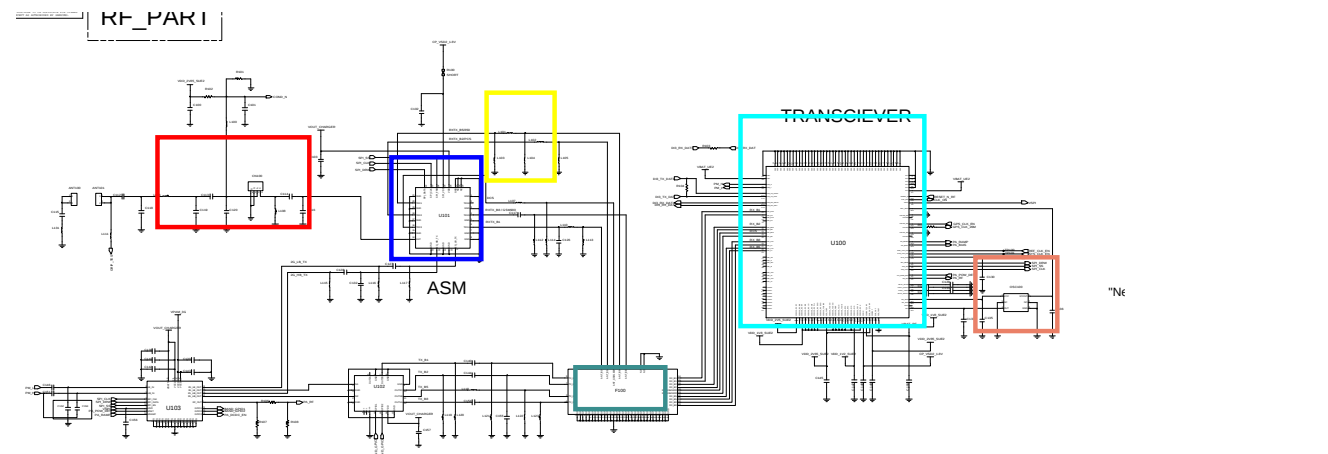




8-3-19. GSM 850 RX/WCDMA850

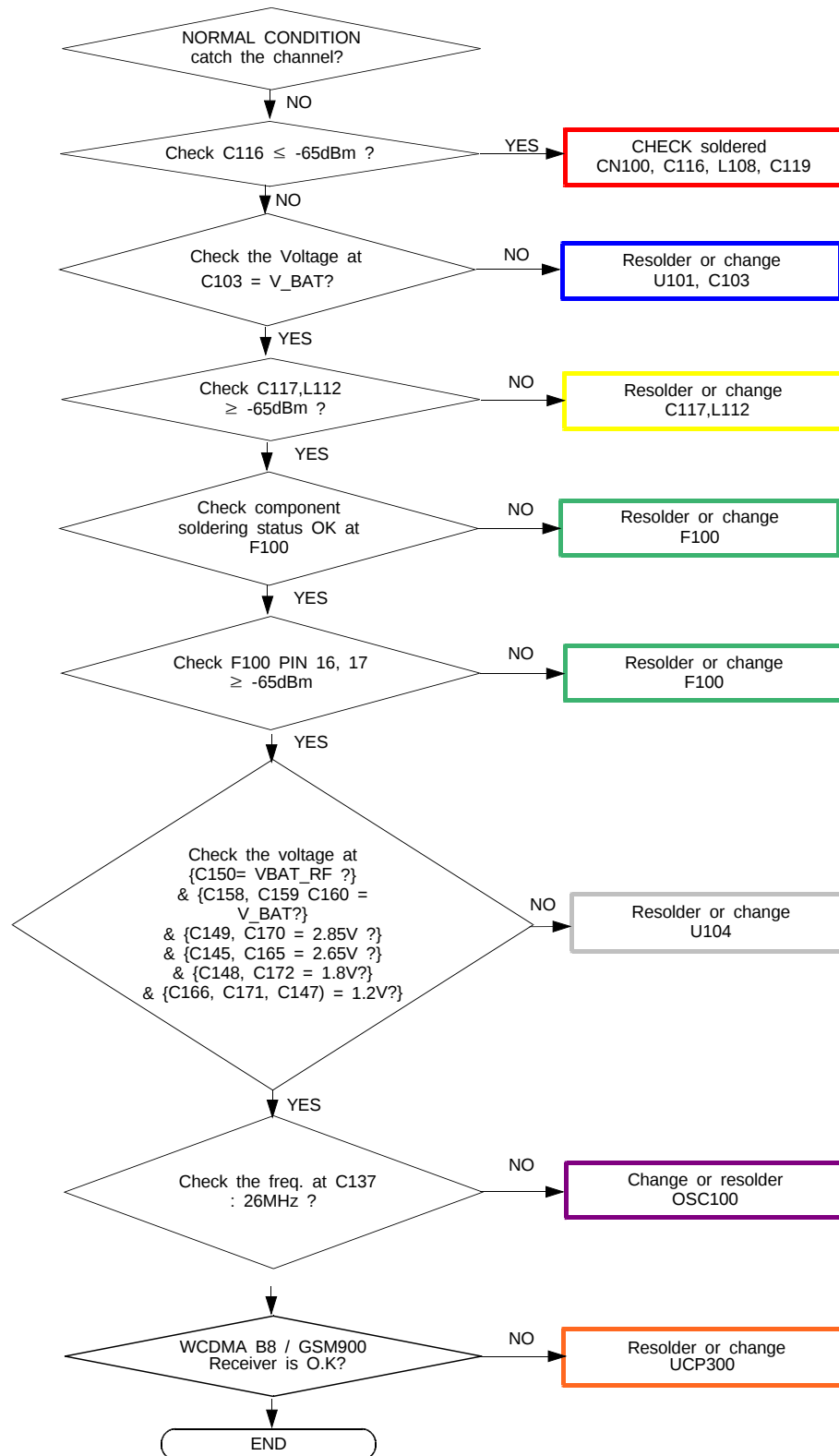
CONTINUOUS RX ON
RF INPUT : 4408CH
AMP : -50dBm

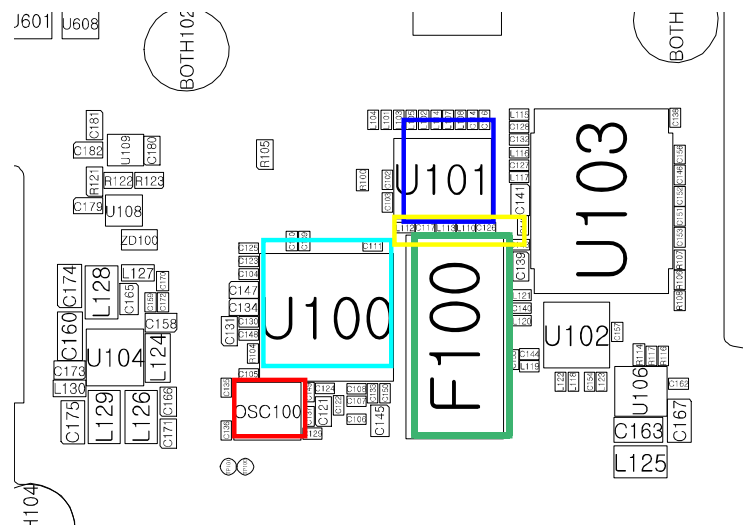
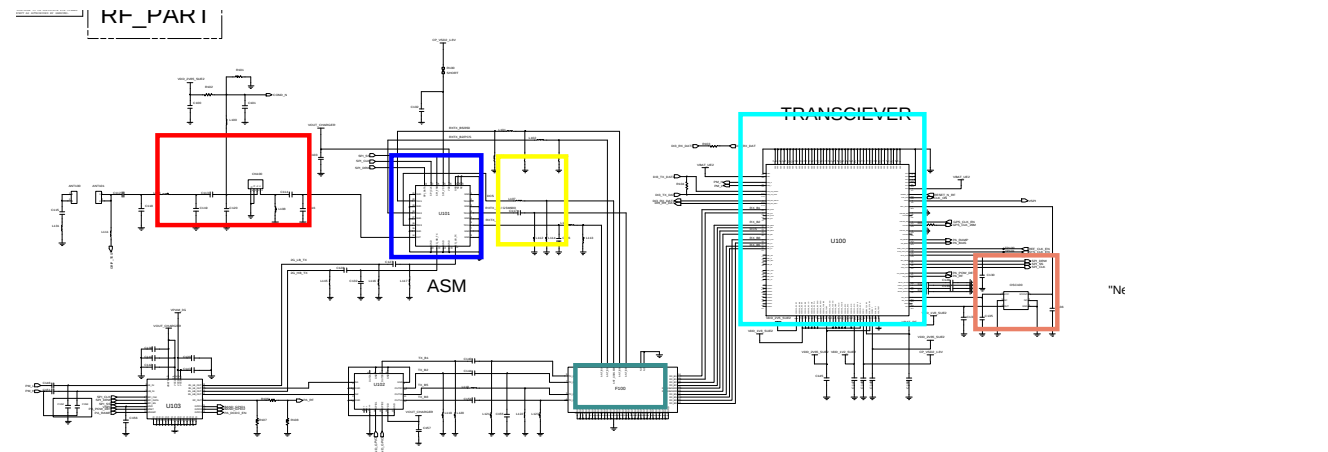




8-3-20. WCDMA Band8 / GSM900 RX

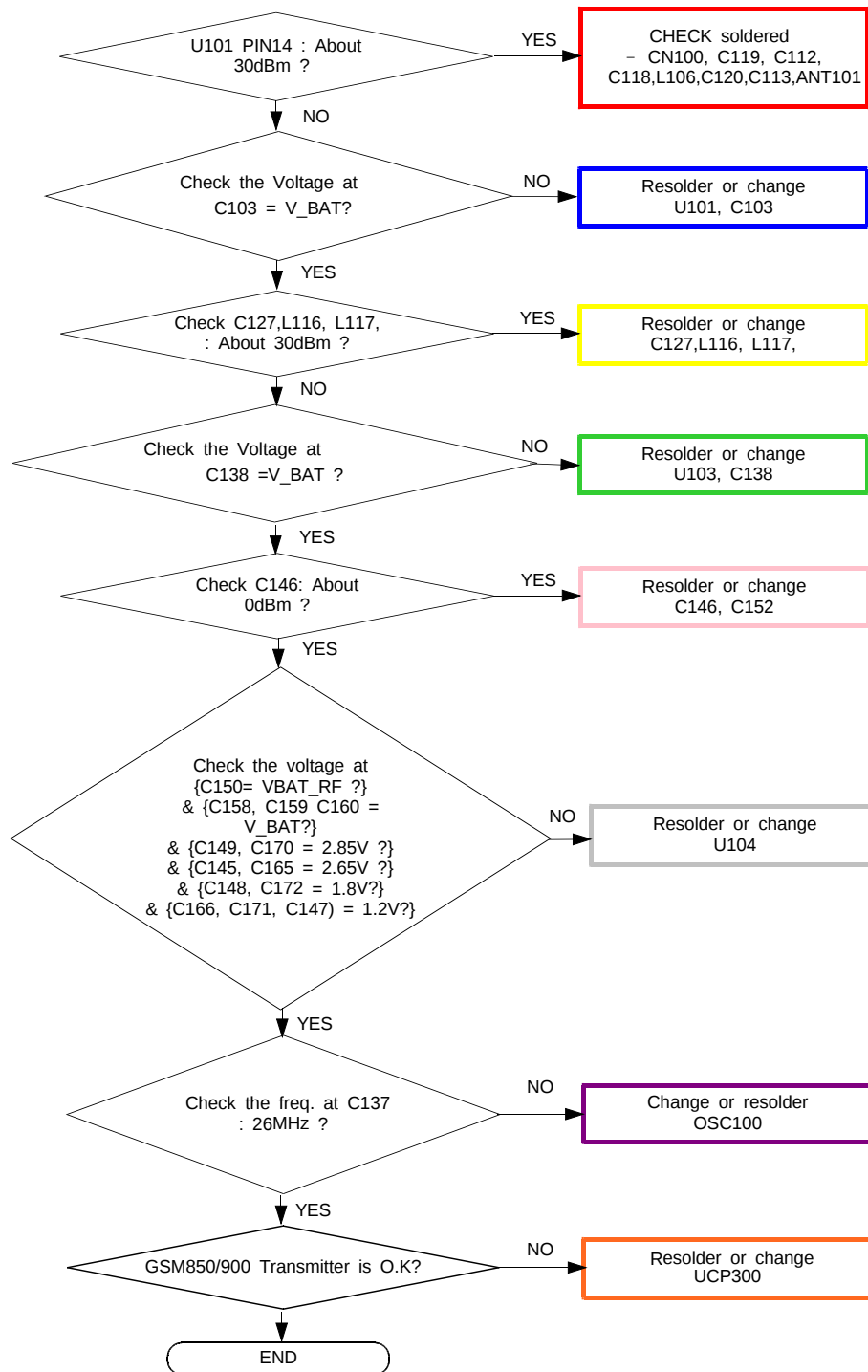
CONTINUOUS RX ON
RF INPUT : 3013CH
AMP : -50dBm

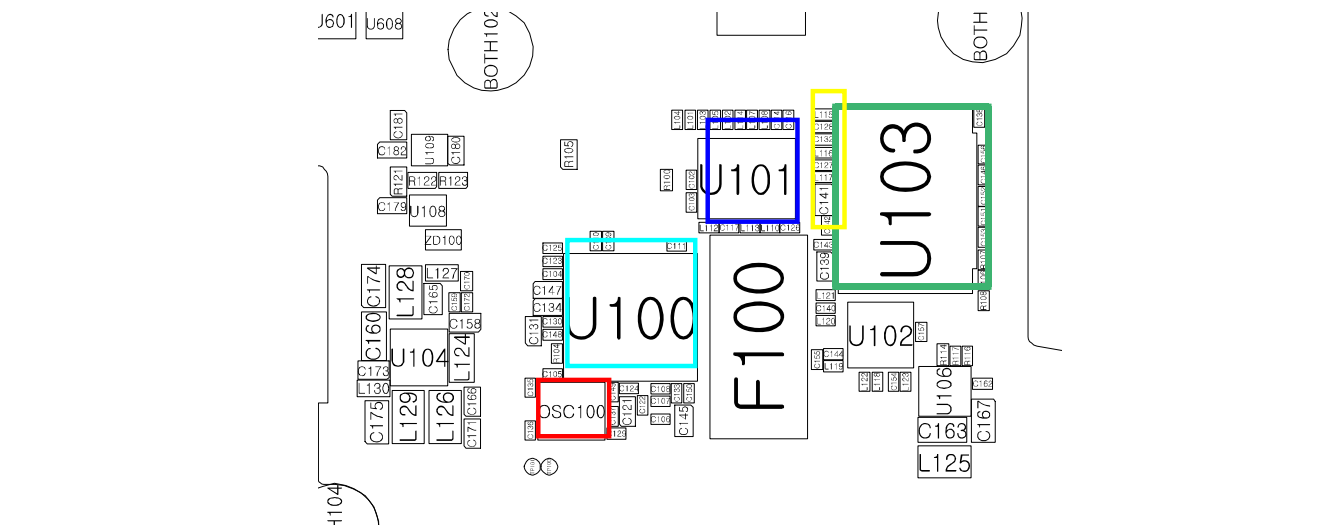
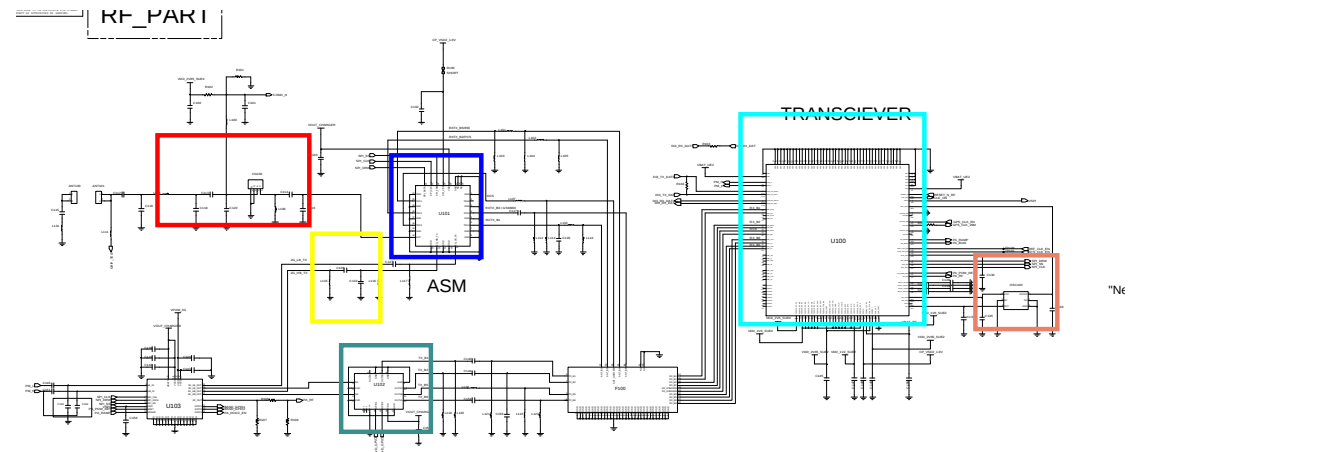




8-3-21. GSM850/GSM900 TX

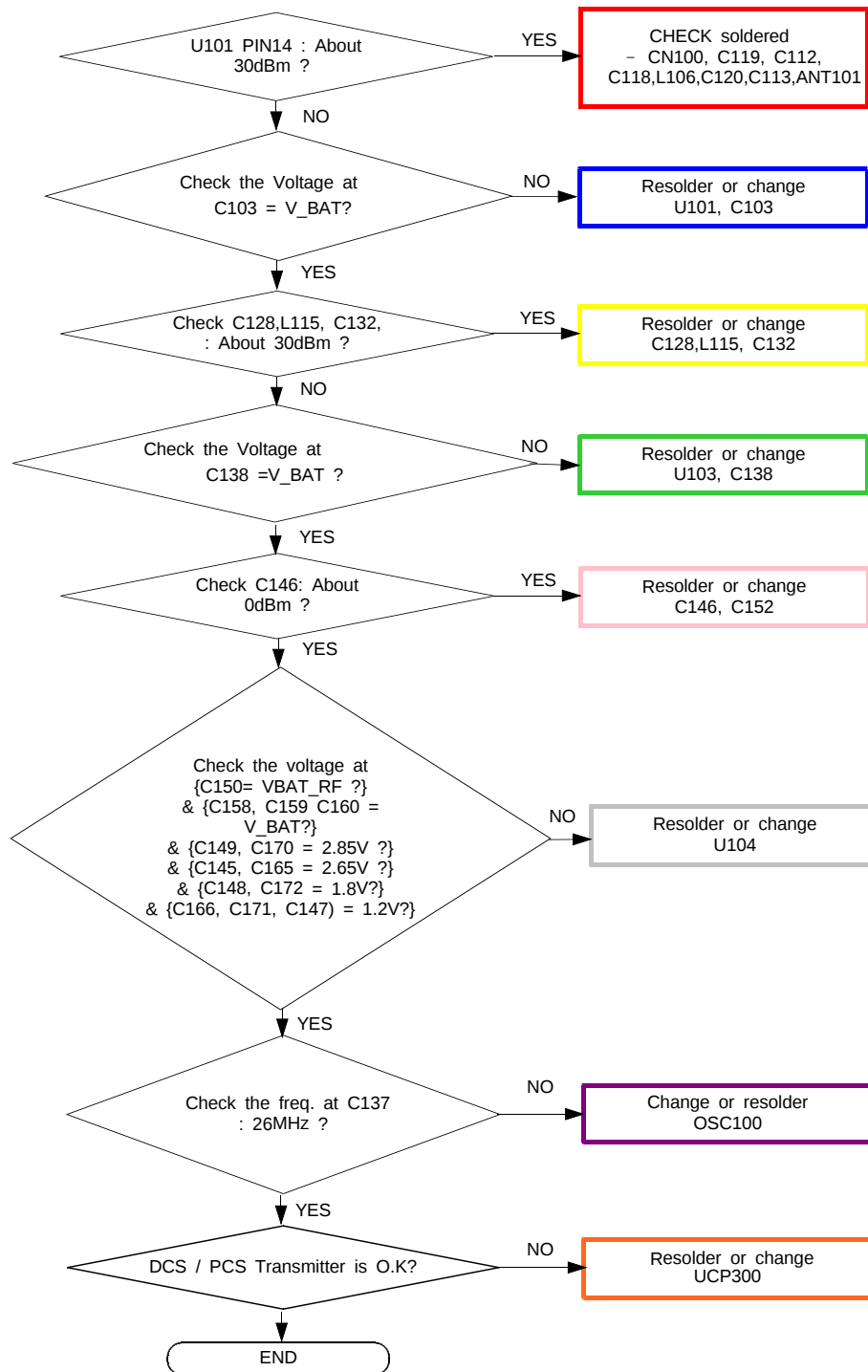
CONTINUOUS TX ON CONDITION
TX POWER DAC:14500 CODE
APPLIED
GSM850 CH : 190
GSM900 CH : 62
RBW : 100KHz
VBW : 100KHz
SPAN : 10MHz
REF LEV. : 10dBm
ATT. : 20dB

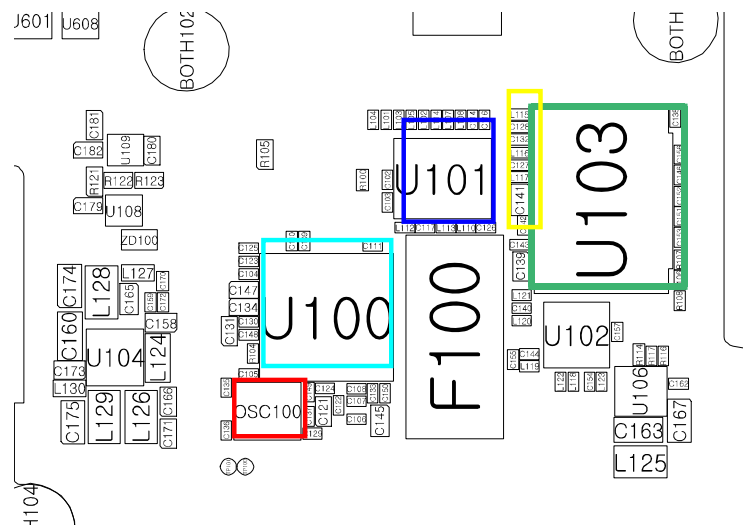
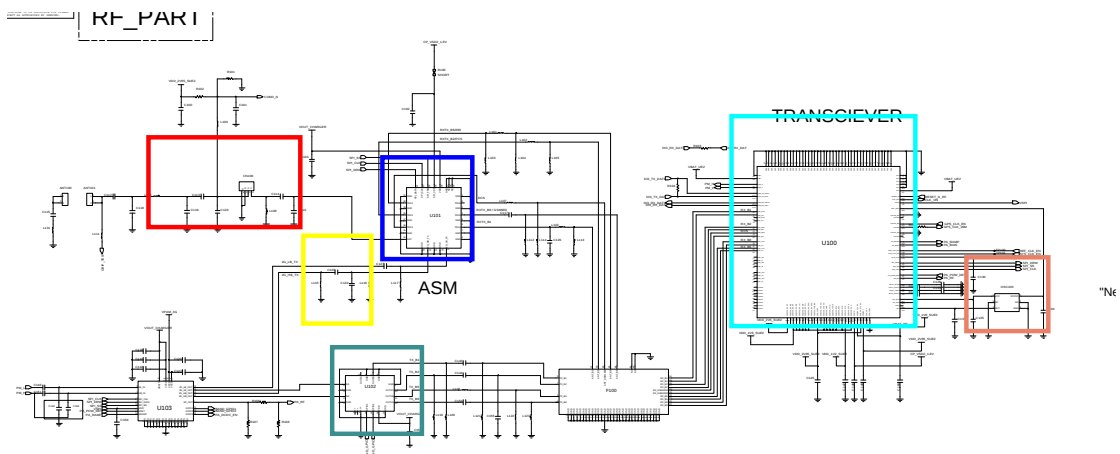




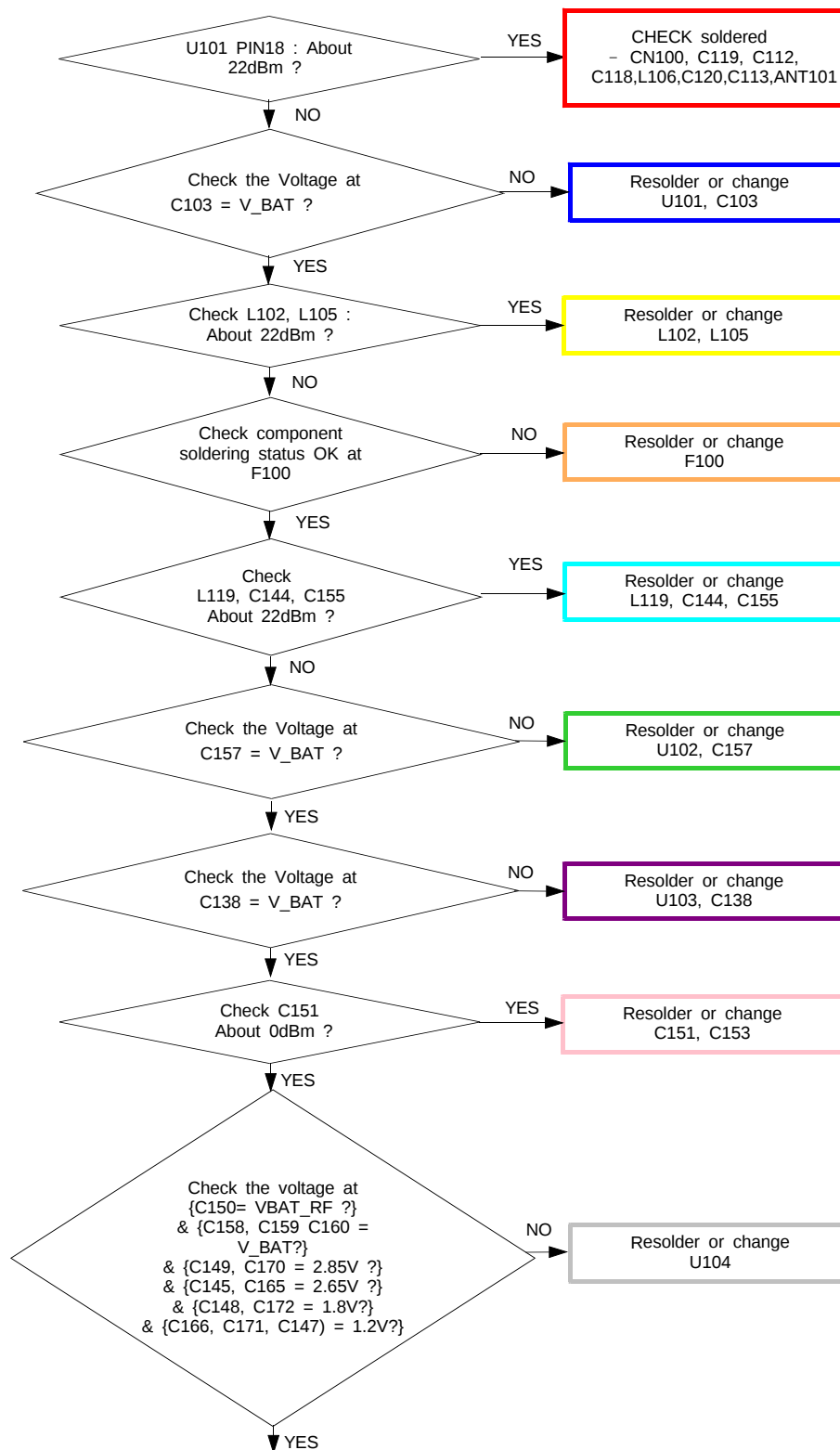
8-3-22. DCS/PCS TX

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

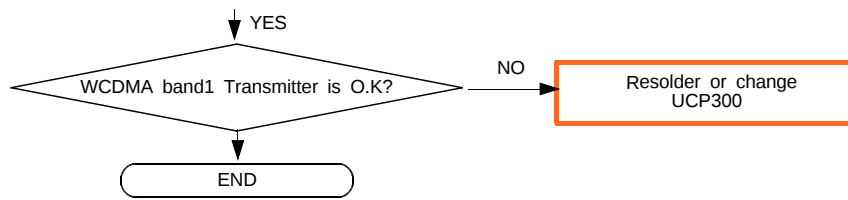




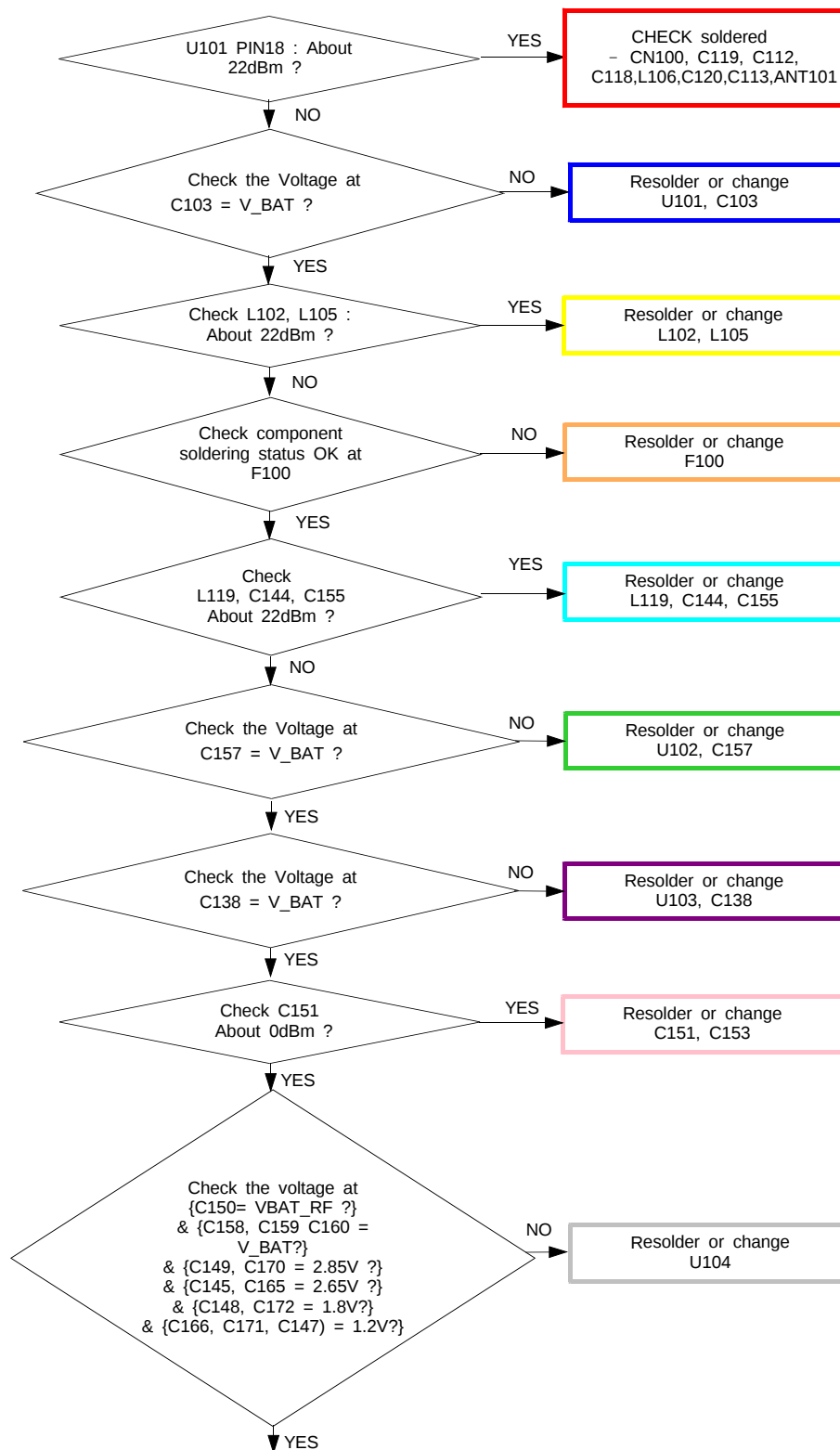
8-3-23. WCDMA BAND1 TX



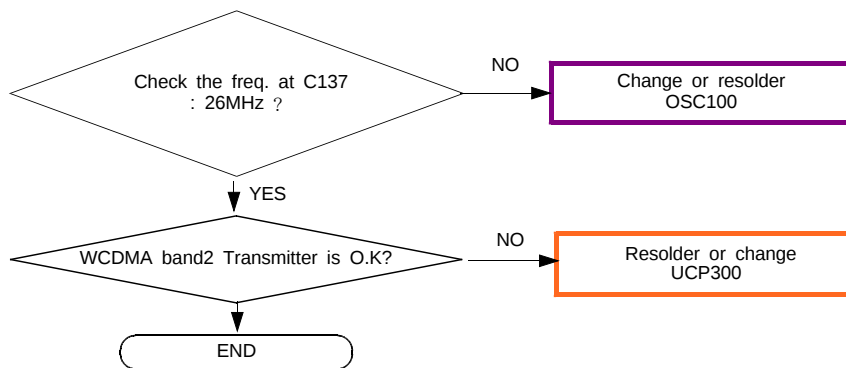
CONTINUOUS TX ON CONDITION
TX POWER DAC:14500 CODE
APPLIED
WCDMA Band1 CH : 10700
RBW : 100KHz
VBW : 100KHz
SPAN : 10MHz
REF LEV. : 10dBm
ATT. : 20dB

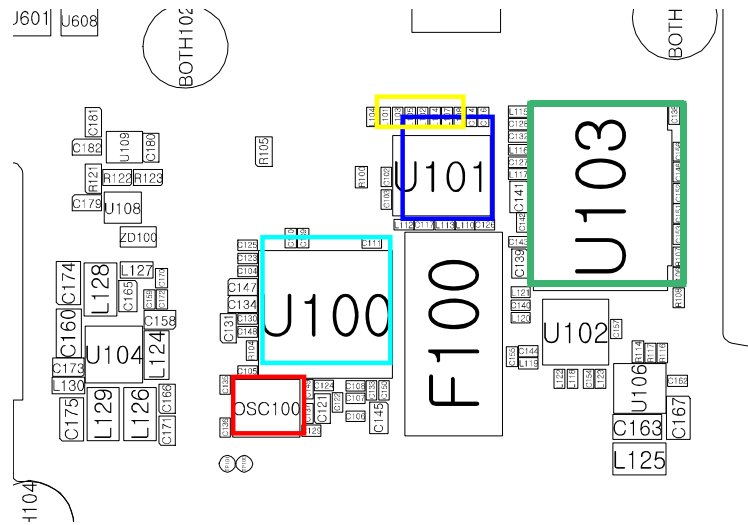
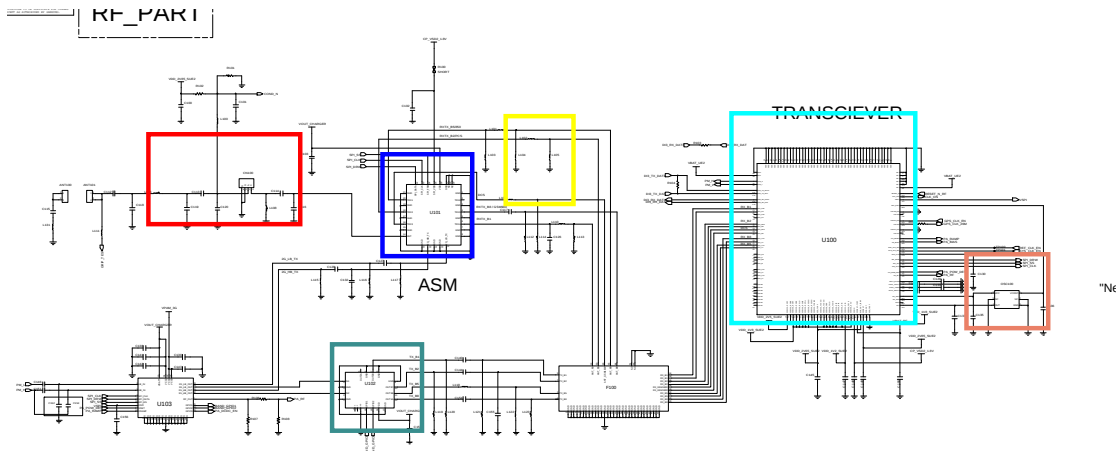


8-3-24. WCDMA BAND2 TX

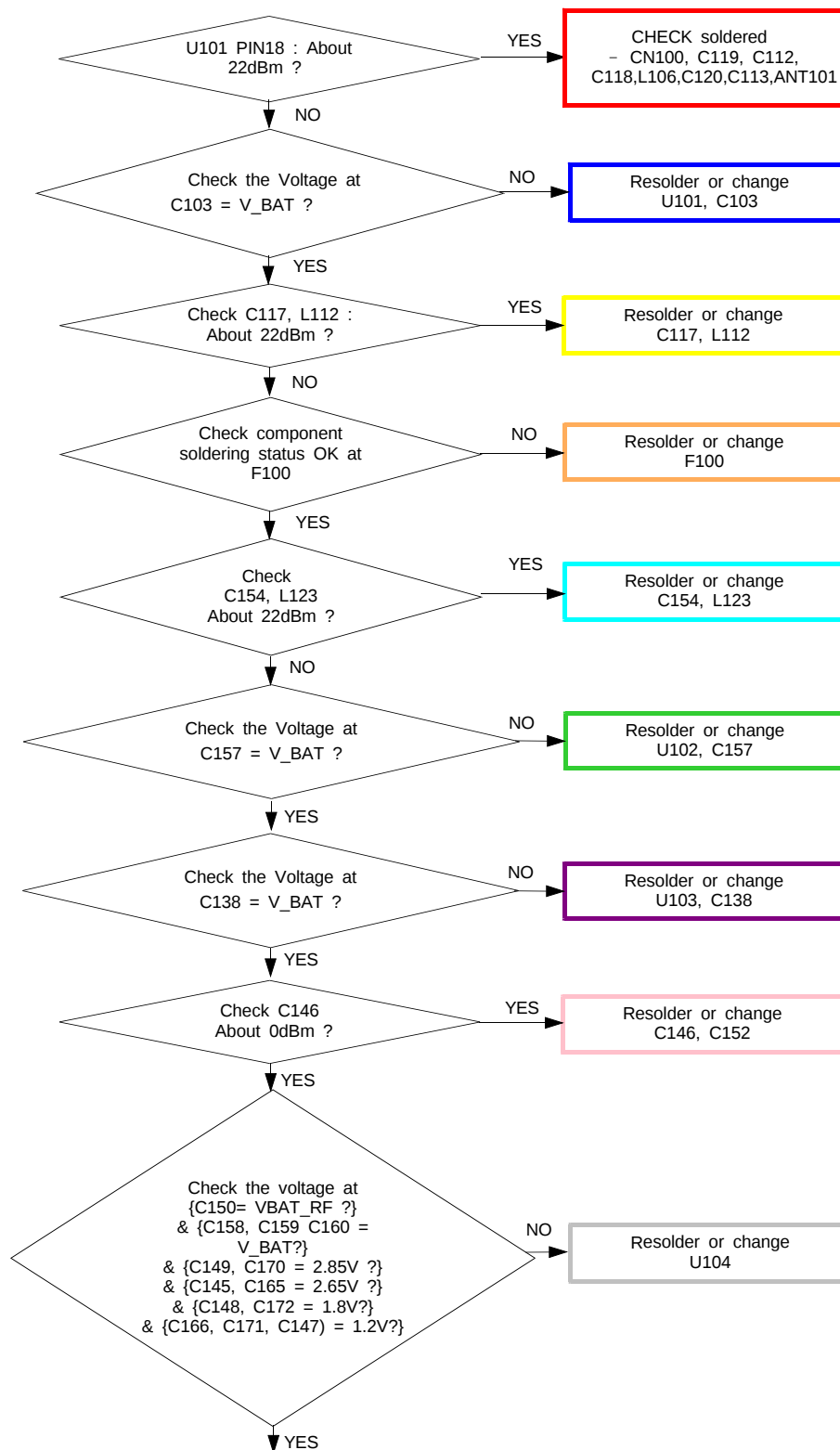


CONTINUOUS TX ON CONDITION
TX POWER DAC:14500 CODE
APPLIED
WCDMA Band2 CH : 9880
RBW : 100KHz
VBW : 100KHz
SPAN : 10MHz
REF LEV : 10dBm
ATT : 20dB

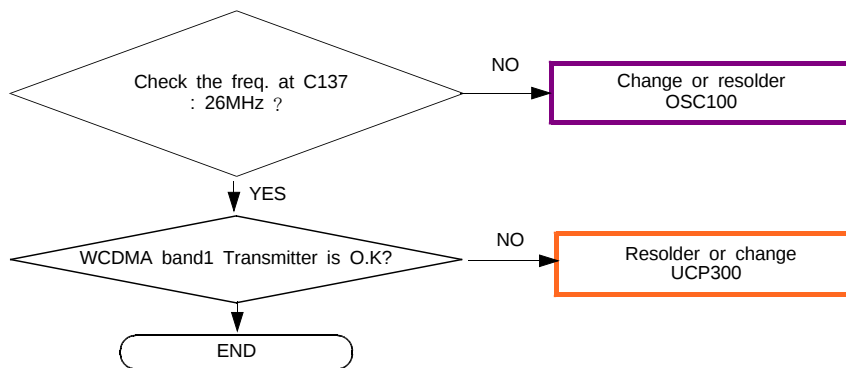


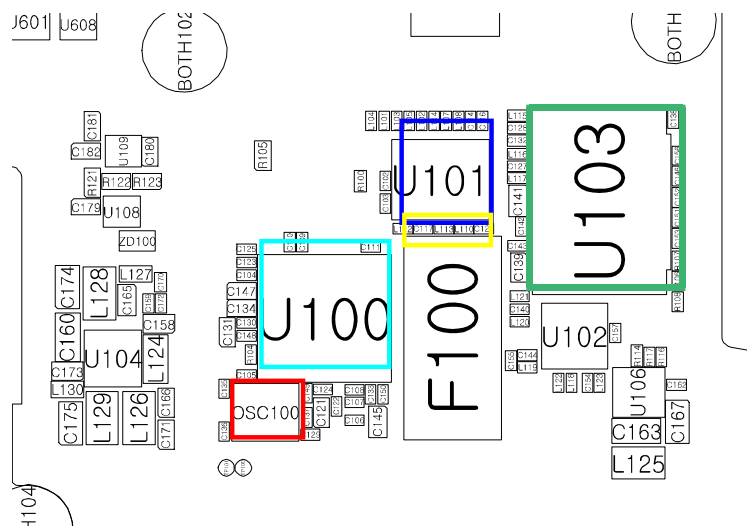
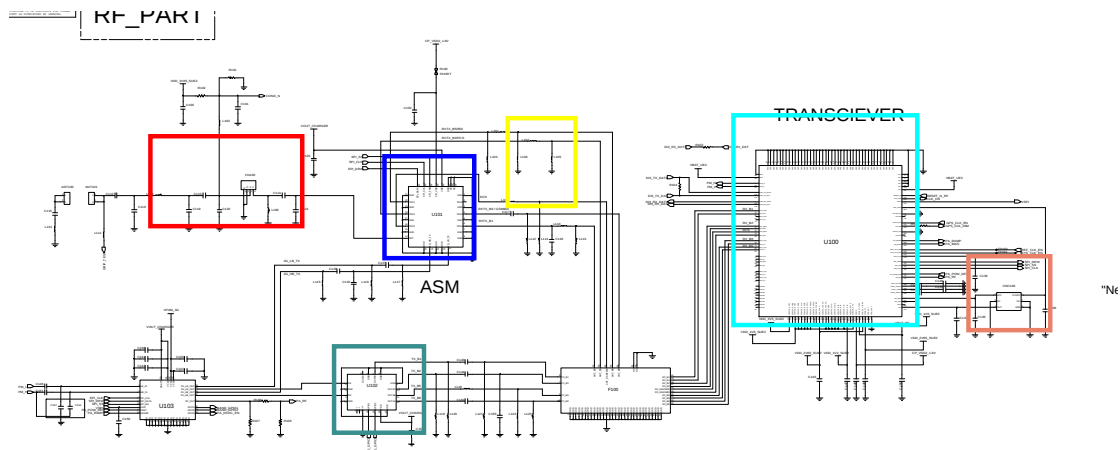


8-3-25. WCDMA BAND8 TX

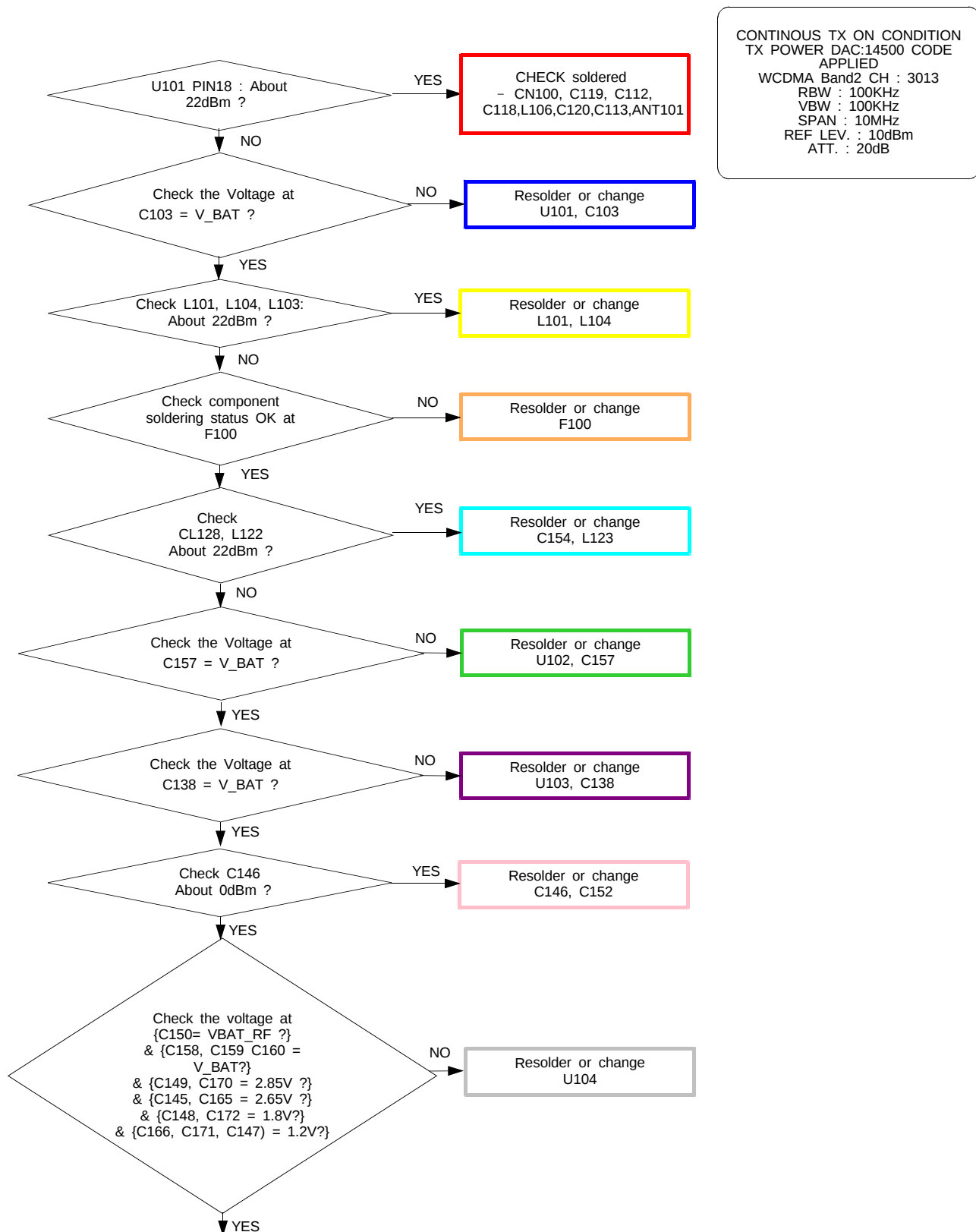


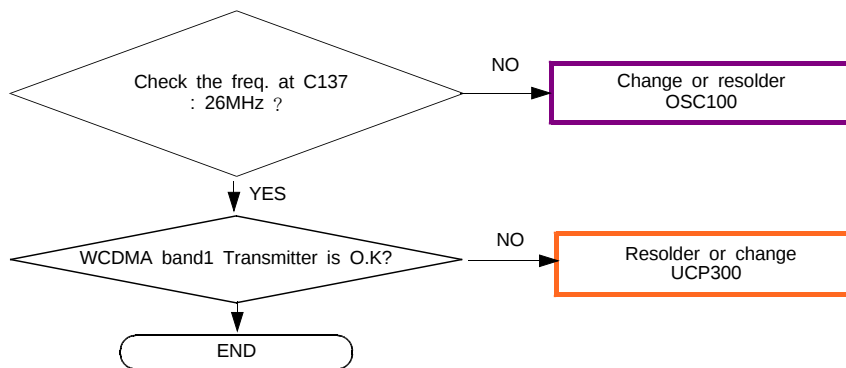
CONTINUOUS TX ON CONDITION
TX POWER DAC:14500 CODE
APPLIED
WCDMA Band2 CH : 3013
RBW : 100KHz
VBW : 100KHz
SPAN : 10MHz
REF LEV. : 10dBm
ATT. : 20dB

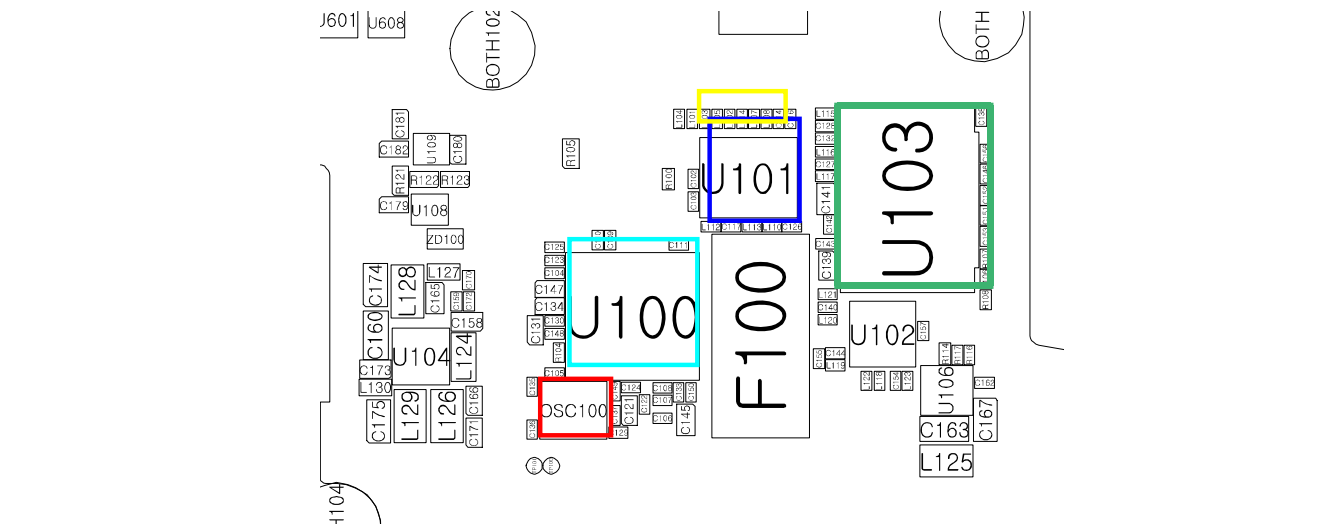
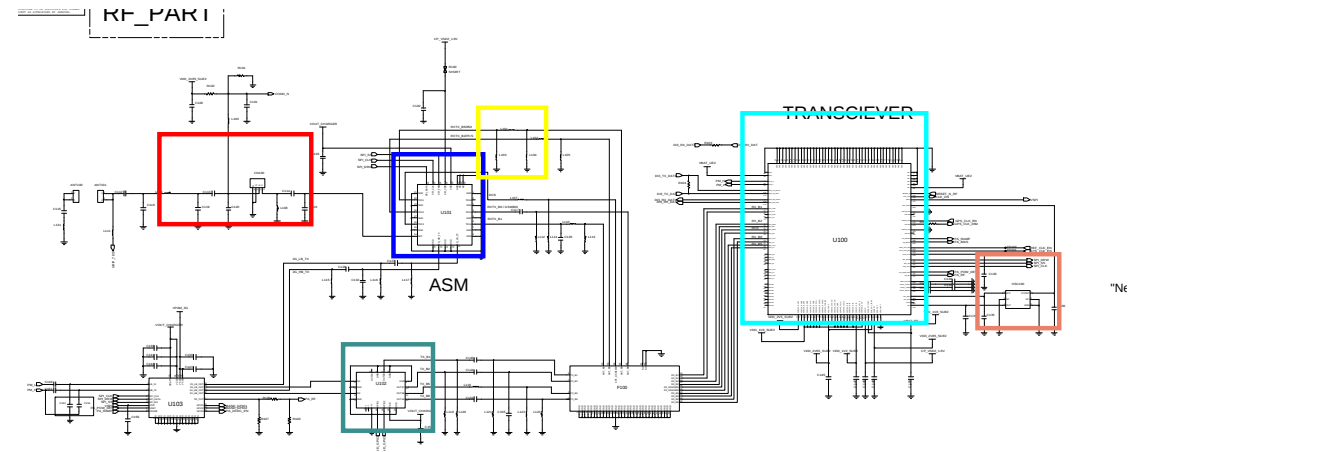


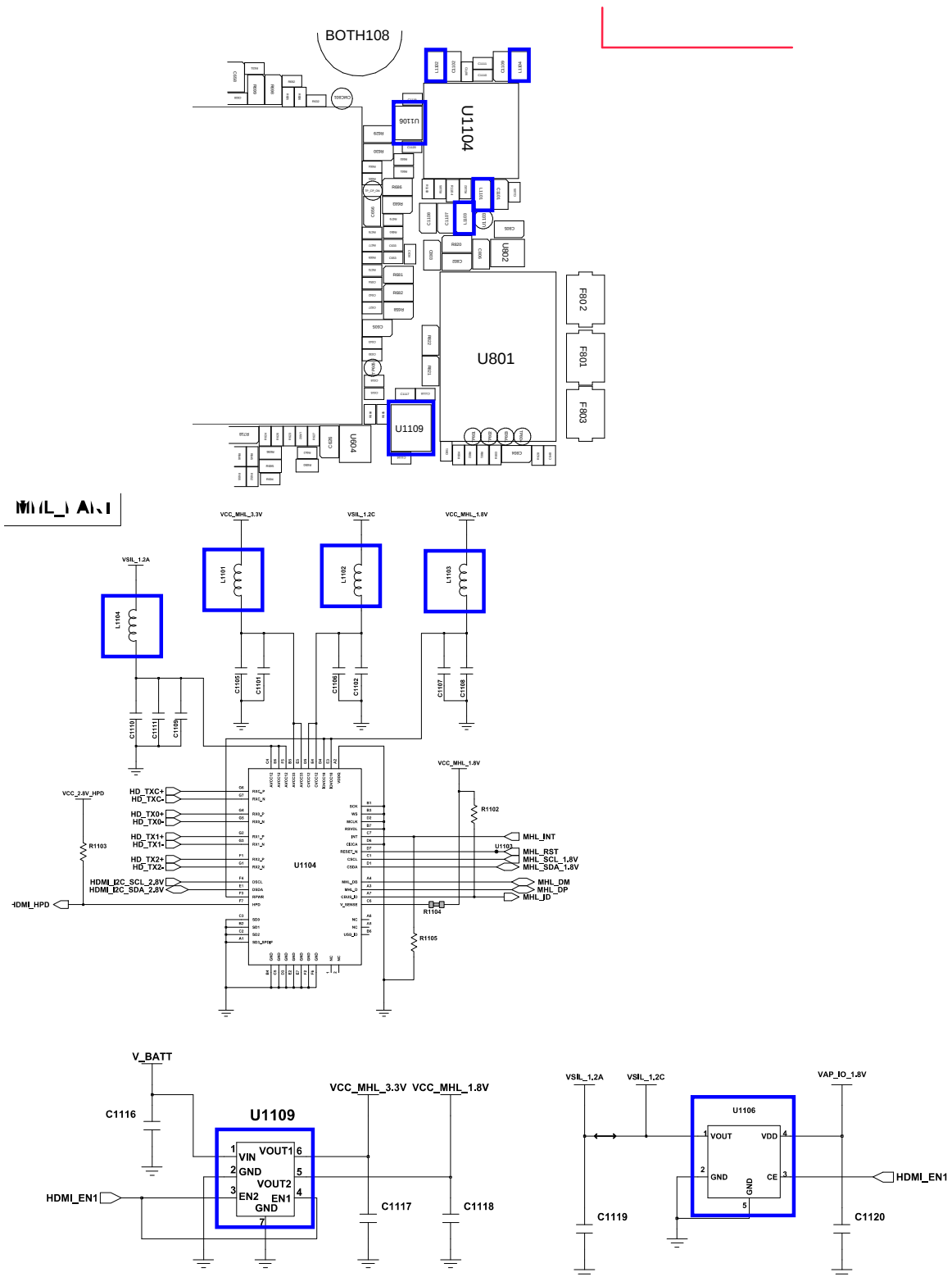


8-3-26. WCDMA BAND5 TX

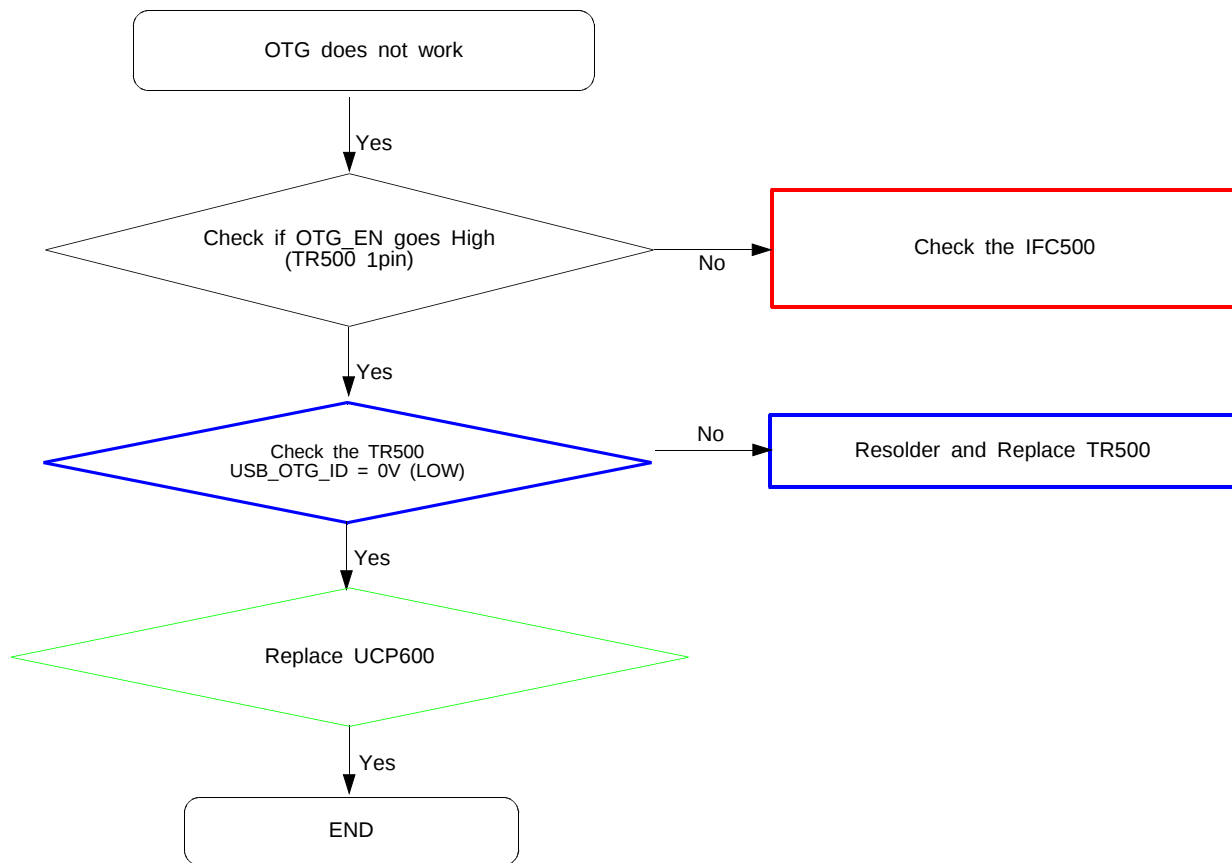


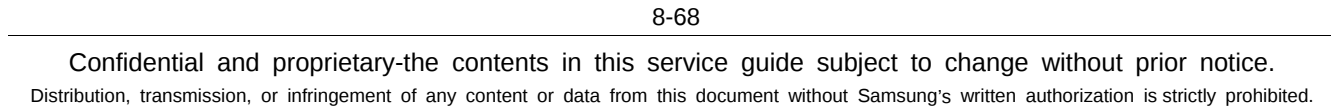






8-3-27. OTG

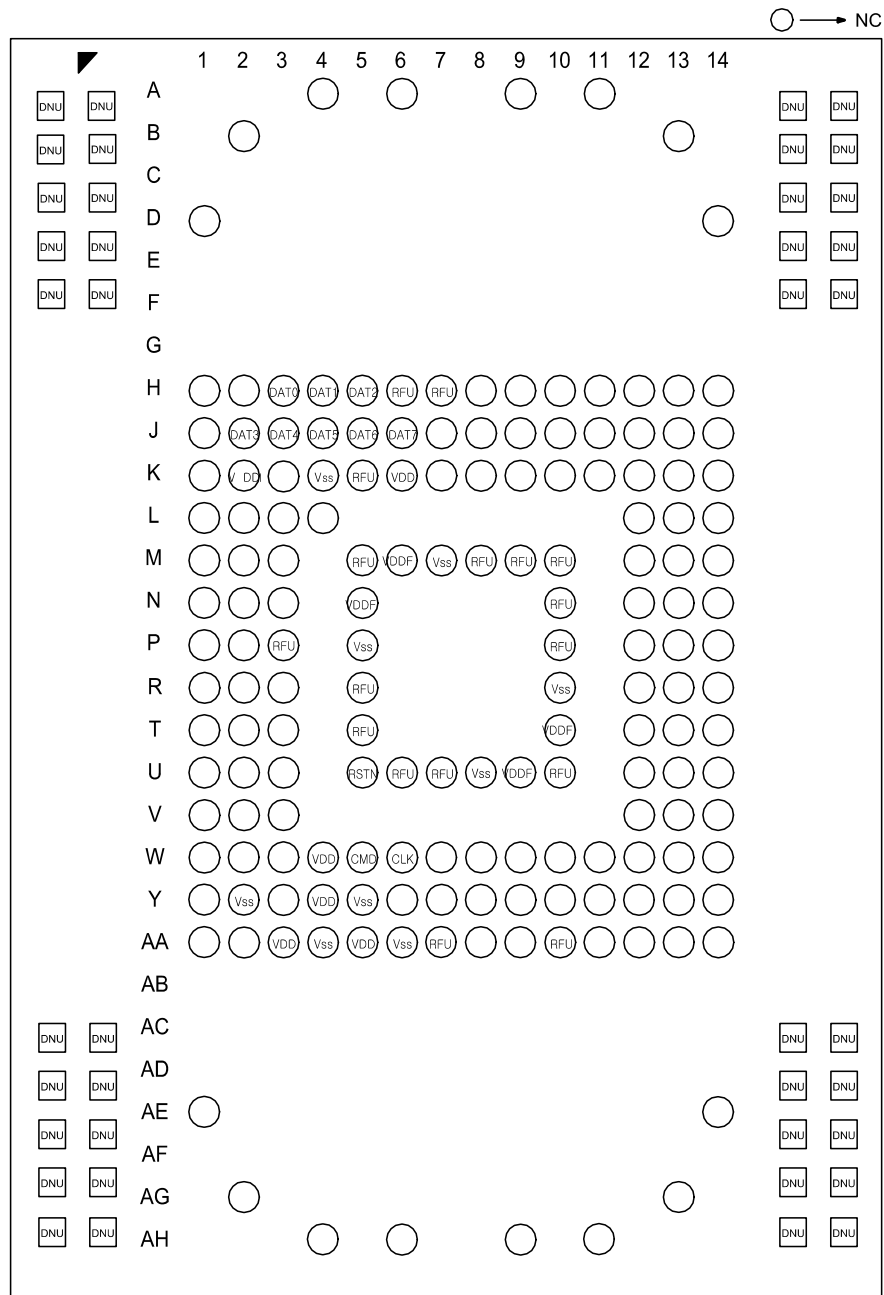




8-4. NC Point
-UCP600

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
A	pkbs_mmc	pop_vad2_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	hbm_dci_1	hbm_dci_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	pop_vad1_1	pop_vad2_1	pop_vad2_1	gmic_s86	vids_jb3	gmic_s17	gmic_s19	ves	gmic_s22	vids_jb3	ves	gmic_s24	vids_jb3	vids_jb3	assay	NC
B	pop_vad2_1	pop_vad2_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	hbm_dci_1	hbm_dci_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	ves	pop_vad2_1	pop_vad2_1	gmic_s87	gmic_s16	gmic_s18	gmic_s20	gmic_s21	gmic_s23	gmic_s25	gmic_s26	gmic_s27	gmic_s28	gmic_s29	ves	NC
C	pop_vad2_1	pop_vad2_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	hbm_dci_1	hbm_dci_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	ves	pop_vad2_1	pop_vad2_1	gmic_s88	gmic_s17	gmic_s19	gmic_s21	gmic_s23	gmic_s25	gmic_s27	gmic_s29	gmic_s31	gmic_s32	gmic_s33	pop_vad2_1	pop_vad2_1
D	pop_vad2_1	pop_vad2_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	hbm_dci_1	hbm_dci_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	ves	pop_vad2_1	pop_vad2_1	gmic_s89	gmic_s18	gmic_s20	gmic_s22	gmic_s24	gmic_s26	gmic_s28	gmic_s30	gmic_s32	gmic_s34	gmic_s35	pop_vad2_1	pop_vad2_1
E	pop_vad2_1	pop_vad2_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	hbm_dci_1	hbm_dci_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	ves	pop_vad2_1	pop_vad2_1	gmic_s90	gmic_s19	gmic_s21	gmic_s23	gmic_s25	gmic_s27	gmic_s29	gmic_s31	gmic_s33	gmic_s35	gmic_s36	pop_vad2_1	pop_vad2_1
F	pop_vad2_1	pop_vad2_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	hbm_dci_1	hbm_dci_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	ves	pop_vad2_1	pop_vad2_1	gmic_s91	gmic_s20	gmic_s22	gmic_s24	gmic_s26	gmic_s28	gmic_s30	gmic_s32	gmic_s34	gmic_s36	gmic_s37	pop_vad2_1	pop_vad2_1
G	pop_vad2_1	pop_vad2_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	hbm_dci_1	hbm_dci_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	ves	pop_vad2_1	pop_vad2_1	gmic_s92	gmic_s21	gmic_s23	gmic_s25	gmic_s27	gmic_s29	gmic_s31	gmic_s33	gmic_s35	gmic_s37	gmic_s38	pop_vad2_1	pop_vad2_1
H	pop_vad2_1	pop_vad2_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	hbm_dci_1	hbm_dci_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	ves	pop_vad2_1	pop_vad2_1	gmic_s93	gmic_s22	gmic_s24	gmic_s26	gmic_s28	gmic_s30	gmic_s32	gmic_s34	gmic_s36	gmic_s38	gmic_s39	pop_vad2_1	pop_vad2_1
I	pop_vad2_1	pop_vad2_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	hbm_dci_1	hbm_dci_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	ves	pop_vad2_1	pop_vad2_1	gmic_s94	gmic_s23	gmic_s25	gmic_s27	gmic_s29	gmic_s31	gmic_s33	gmic_s35	gmic_s37	gmic_s39	gmic_s40	pop_vad2_1	pop_vad2_1
J	pop_vad2_1	pop_vad2_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	hbm_dci_1	hbm_dci_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	ves	pop_vad2_1	pop_vad2_1	gmic_s95	gmic_s24	gmic_s26	gmic_s28	gmic_s30	gmic_s32	gmic_s34	gmic_s36	gmic_s38	gmic_s40	gmic_s41	pop_vad2_1	pop_vad2_1
K	pop_vad2_1	pop_vad2_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	hbm_dci_1	hbm_dci_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	ves	pop_vad2_1	pop_vad2_1	gmic_s96	gmic_s25	gmic_s27	gmic_s29	gmic_s31	gmic_s33	gmic_s35	gmic_s37	gmic_s39	gmic_s41	gmic_s42	pop_vad2_1	pop_vad2_1
L	pop_vad2_1	pop_vad2_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	hbm_dci_1	hbm_dci_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	ves	pop_vad2_1	pop_vad2_1	gmic_s97	gmic_s26	gmic_s28	gmic_s30	gmic_s32	gmic_s34	gmic_s36	gmic_s38	gmic_s40	gmic_s42	gmic_s43	pop_vad2_1	pop_vad2_1
M	pop_vad2_1	pop_vad2_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	hbm_dci_1	hbm_dci_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	ves	pop_vad2_1	pop_vad2_1	gmic_s98	gmic_s27	gmic_s29	gmic_s31	gmic_s33	gmic_s35	gmic_s37	gmic_s39	gmic_s41	gmic_s43	gmic_s44	pop_vad2_1	pop_vad2_1
N	pop_vad2_1	pop_vad2_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	hbm_dci_1	hbm_dci_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	ves	pop_vad2_1	pop_vad2_1	gmic_s99	gmic_s28	gmic_s30	gmic_s32	gmic_s34	gmic_s36	gmic_s38	gmic_s40	gmic_s42	gmic_s44	gmic_s45	pop_vad2_1	pop_vad2_1
P	pop_vad2_1	pop_vad2_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	hbm_dci_1	hbm_dci_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	ves	pop_vad2_1	pop_vad2_1	gmic_s100	gmic_s29	gmic_s31	gmic_s33	gmic_s35	gmic_s37	gmic_s39	gmic_s41	gmic_s43	gmic_s45	gmic_s46	pop_vad2_1	pop_vad2_1
R	pop_vad2_1	pop_vad2_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	hbm_dci_1	hbm_dci_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	ves	pop_vad2_1	pop_vad2_1	gmic_s101	gmic_s30	gmic_s32	gmic_s34	gmic_s36	gmic_s38	gmic_s40	gmic_s42	gmic_s44	gmic_s46	gmic_s47	pop_vad2_1	pop_vad2_1
T	pop_vad2_1	pop_vad2_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	hbm_dci_1	hbm_dci_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	ves	pop_vad2_1	pop_vad2_1	gmic_s102	gmic_s31	gmic_s33	gmic_s35	gmic_s37	gmic_s39	gmic_s41	gmic_s43	gmic_s45	gmic_s47	gmic_s48	pop_vad2_1	pop_vad2_1
U	pop_vad2_1	pop_vad2_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	hbm_dci_1	hbm_dci_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	ves	pop_vad2_1	pop_vad2_1	gmic_s103	gmic_s32	gmic_s34	gmic_s36	gmic_s38	gmic_s40	gmic_s42	gmic_s44	gmic_s46	gmic_s48	gmic_s49	pop_vad2_1	pop_vad2_1
V	pop_vad2_1	pop_vad2_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	hbm_dci_1	hbm_dci_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	ves	pop_vad2_1	pop_vad2_1	gmic_s104	gmic_s33	gmic_s35	gmic_s37	gmic_s39	gmic_s41	gmic_s43	gmic_s45	gmic_s47	gmic_s49	gmic_s50	pop_vad2_1	pop_vad2_1
W	pop_vad2_1	pop_vad2_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	hbm_dci_1	hbm_dci_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	ves	pop_vad2_1	pop_vad2_1	gmic_s105	gmic_s34	gmic_s36	gmic_s38	gmic_s40	gmic_s42	gmic_s44	gmic_s46	gmic_s48	gmic_s50	gmic_s51	pop_vad2_1	pop_vad2_1
Y	pop_vad2_1	pop_vad2_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	hbm_dci_1	hbm_dci_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	ves	pop_vad2_1	pop_vad2_1	gmic_s106	gmic_s35	gmic_s37	gmic_s39	gmic_s41	gmic_s43	gmic_s45	gmic_s47	gmic_s49	gmic_s51	gmic_s52	pop_vad2_1	pop_vad2_1
AA	pop_vad2_1	pop_vad2_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	hbm_dci_1	hbm_dci_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	ves	pop_vad2_1	pop_vad2_1	gmic_s107	gmic_s36	gmic_s38	gmic_s40	gmic_s42	gmic_s44	gmic_s46	gmic_s48	gmic_s50	gmic_s52	gmic_s53	pop_vad2_1	pop_vad2_1
AB	pop_vad2_1	pop_vad2_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	hbm_dci_1	hbm_dci_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	ves	pop_vad2_1	pop_vad2_1	gmic_s108	gmic_s37	gmic_s39	gmic_s41	gmic_s43	gmic_s45	gmic_s47	gmic_s49	gmic_s51	gmic_s53	gmic_s54	pop_vad2_1	pop_vad2_1
AC	pop_vad2_1	pop_vad2_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	hbm_dci_1	hbm_dci_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	ves	pop_vad2_1	pop_vad2_1	gmic_s109	gmic_s38	gmic_s40	gmic_s42	gmic_s44	gmic_s46	gmic_s48	gmic_s50	gmic_s52	gmic_s54	gmic_s55	pop_vad2_1	pop_vad2_1
AD	pop_vad2_1	pop_vad2_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	hbm_dci_1	hbm_dci_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	ves	pop_vad2_1	pop_vad2_1	gmic_s110	gmic_s39	gmic_s41	gmic_s43	gmic_s45	gmic_s47	gmic_s49	gmic_s51	gmic_s53	gmic_s55	gmic_s56	pop_vad2_1	pop_vad2_1
AE	pop_vad2_1	pop_vad2_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	hbm_dci_1	hbm_dci_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	ves	pop_vad2_1	pop_vad2_1	gmic_s111	gmic_s40	gmic_s42	gmic_s44	gmic_s46	gmic_s48	gmic_s50	gmic_s52	gmic_s54	gmic_s56	gmic_s57	pop_vad2_1	pop_vad2_1
AF	pop_vad2_1	pop_vad2_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	hbm_dci_1	hbm_dci_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	ves	pop_vad2_1	pop_vad2_1	gmic_s112	gmic_s41	gmic_s43	gmic_s45	gmic_s47	gmic_s49	gmic_s51	gmic_s53	gmic_s55	gmic_s57	gmic_s58	pop_vad2_1	pop_vad2_1
AG	pop_vad2_1	pop_vad2_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	hbm_dci_1	hbm_dci_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	ves	pop_vad2_1	pop_vad2_1	gmic_s113	gmic_s42	gmic_s44	gmic_s46	gmic_s48	gmic_s50	gmic_s52	gmic_s54	gmic_s56	gmic_s58	gmic_s59	pop_vad2_1	pop_vad2_1
AH	pop_vad2_1	pop_vad2_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	hbm_dci_1	hbm_dci_1	vids_jb3	vids_jb3	vids_jb3	vids_jb3	ves	pop_vad2_1	pop_vad2_1	gmic_s114	gmic_s43	gmic_s45	gmic_s47	gmic_s49	gmic_s51	gmic_s53	gmic_s55	gmic_s57	gmic_s59	gmic_s60	pop_vad2_1	pop_vad2_1

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