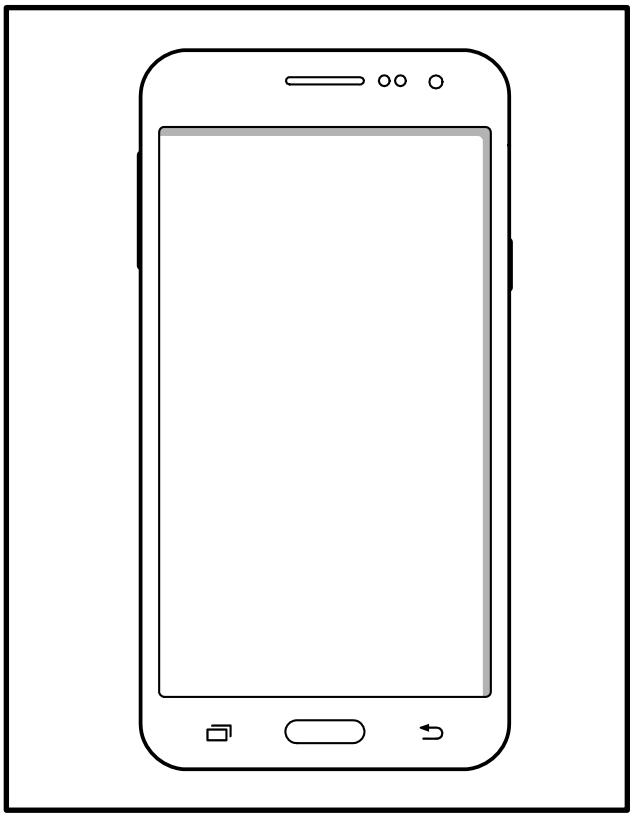
SAMSUNG

Wireless Device

SM-A300H(DS/SS)/
A300HQ Common

SERVICE Manual

Wireless Device



CONTENTS

SAMSUNG
ELECTRONICS

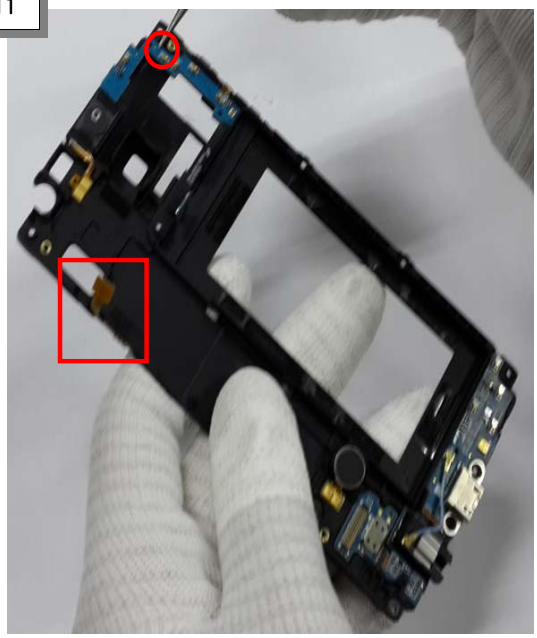
2014. 11. Rev.1.0

7. Level 2 Repair

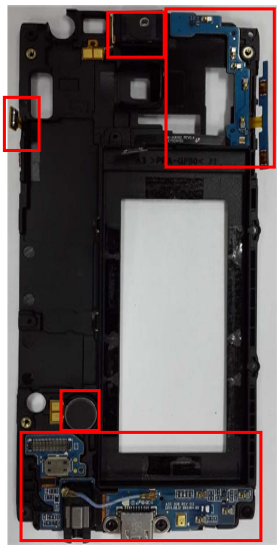
7-1. Disassembly

1 	2 
1) Put the device in the chamber for 5~10 minutes under 70~80℃.	1) Detach the Bracket Cu tape carefully from the OCTA Cu sheet using Glass absorber and holder. 2) Be careful not to separate LCD from TSP.
3 	4 
1) Disassemble loosen 12 Point of Bracket	1) Disassemble Bracket and REAR

5 	6 
1) Detach the Bracket and REAR	1) Loosen a Screw in PBA Ass'y
7 	8 
1) Detach Connector by PBA Ass'y	1) Detach the PBA from bottom REAR. 2) Be careful not to Damage.

9 	10 
1) Detach Connector by PBA.	1) Detach the Bracket and Rear
11 	12 
1) Detach upper Sub PBA from Bracket. 2) Be careful not to Damage.	1) Detach lower Sub PBA from Bracket. 2) Be careful not to Damage.

7-2. Assembly

<table>
<tr>
<td>1
  </td>
<td>2
  </td>
</tr>
<tr>
<td>1) Assemble lower sub PBA to the Rear</td>
<td>1) Assemble the upper/lower sub PBA, RCV, MOTOR, POWER KEY.</td>
</tr>
<tr>
<td>3
 
</td>
<td>4
  </td>
</tr>
<tr>
<td>1) Attach SPK and Battery on Bracket.</td>
<td>1) Attach Main Camera and Sub Camera on PBA</td>
</tr>
</table>

5  	6 
1) Assemble PBA ON Bracket 2) must press lower PBA and assemble lower PBA and Main PBA	1) Attach Connector on the PBA Assy.
7  	8 
1) Screw the 3 point 1.1 ± 0.1 Kgf/㎠	1) Assemble PBA ASSY and Rear.

5  	6 
1) Screw the 10 point 1.2 ± 0.1 Kgf/㎠	1) Press Connector and Attach LCD.
8  	
1) Press OCTA Window using Window pressing JIG.	

5. MAIN Electrical Parts List

SEC CODE	Design LOC	Description
0404-001250	D400	DIODE-SCHOTTKY
0406-001413	ZD500,ZD508,ZD511	DIODE-TVS
0406-001413	ZD516,ZD519,ZD520	DIODE-TVS
0406-001561	ZD300,ZD301,ZD514	DIODE-TVS
0406-001568	ZD504,ZD505	DIODE-TVS
0406-001633	ZD518	DIODE-TVS
0406-001642	ZD502,ZD510	DIODE-TVS
0406-001645	ZD515,ZD517	DIODE-TVS
0406-001665	ZD401	DIODE-TVS
0406-001676	ZD512,ZD513	DIODE-TVS
0504-001171	TR401,TR402	TR-DIGITAL
0505-002341	TR400	FET-SILICON
0601-003477	LED400	LED
1001-001841	U400	IC
1001-001913	U1003	IC
1001-001928	U503	IC
1003-002703	U606	IC
1108-000575	UME500	MEMORY
1201-003859	PAM1000	IC
1201-003860	PAM1001	IC
1201-003861	PAM1002	IC
1201-003876	U501	IC
1203-007790	U500,U601	IC
1203-007791	U507	IC
1203-007796	U608	IC
1203-007842	U609	IC
1203-007992	U403	IC
1203-008167	U401	IC
1203-008288	U1004	IC
1203-008295	U602	IC
1203-008324	U402	IC
1205-004829	U1006	IC
1205-004981	U207	IC
1205-005106	U505	IC
1205-005177	UCP300	IC
1209-002204	U603	IC

1209-002321	U604	IC
1404-001724	TH1000,TH300	THERMISTOR
1405-001177	C631,C632,C634,VR600	VARISTOR
1405-001177	VR601,VR602,VR608	VARISTOR
1405-001371	VR603,VR604,VR605	VARISTOR
1405-001371	VR606,VR607	VARISTOR
1405-001390	VR381,VR382,VR383	VARISTOR
1405-001390	VR384,VR609,VR610	VARISTOR
2007-001306	R414	R-CHIP
2007-003015	R600	R-CHIP
2007-007107	R352	R-CHIP
2007-007193	R549,R550	R-CHIP
2007-007315	R303	R-CHIP
2007-007318	R419	R-CHIP
2007-007480	R531	R-CHIP
2007-007589	R1005	R-CHIP
2007-008045	R413,R420,R424,R426	R-CHIP
2007-008045	R436,R502	R-CHIP
2007-008052	R520	R-CHIP
2007-008055	R407	R-CHIP
2007-008210	R1001,R333	R-CHIP
2007-008403	R501	R-CHIP
2007-008419	R403,R500,R517,R519	R-CHIP
2007-008420	R331	R-CHIP
2007-008486	R415	R-CHIP
2007-008516	R304,R305,R313,R314	R-CHIP
2007-008516	R317,R318,R343,R348	R-CHIP
2007-008516	R349,R417,R418,R506	R-CHIP
2007-008516	R507,R522,R524,R540	R-CHIP
2007-008516	R548,R602,R606,R609	R-CHIP
2007-008516	R614,R619,R624,R626	R-CHIP
2007-008516	R638	R-CHIP
2007-008531	R525	R-CHIP
2007-008582	R1002,R1003	R-CHIP
2007-008588	R544,R545,R605,R607	R-CHIP
2007-008774	R523,R535	R-CHIP
2007-008806	R1004	R-CHIP

2007-008816	R610	R-CHIP
2007-009084	R412,R618,R639	R-CHIP
2007-009155	R504	R-CHIP
2007-009157	R334,R411	R-CHIP
2007-009170	R528	R-CHIP
2007-009223	R527	R-CHIP
2007-009408	R306,R307,R311,R312	R-CHIP
2007-009408	R315,R316,R319,R320	R-CHIP
2007-009408	R325,R326,R558,R559	R-CHIP
2007-009793	R529	R-CHIP
2007-009838	R533	R-CHIP
2007-009920	R308,R516	R-CHIP
2007-010182	R543,R562	R-CHIP
2007-010856	R416	R-CHIP
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2203-005806	C373,C453	C-CERAMIC,CHIP
2203-006048	C1018	C-CERAMIC,CHIP
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2203-008759	C359,C440,C441,C444	C-CERAMIC,CHIP
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2203-008876	C546	C-CERAMIC,CHIP
2203-009076	C200,C350	C-CERAMIC,CHIP
2203-009223	C1180,C1181,C213	C-CERAMIC,CHIP
2203-009223	C240,C241,C247,C278	C-CERAMIC,CHIP
2203-009223	VR201	C-CERAMIC,CHIP
2409-001330	TA400	CAPACITOR
2703-001868	L1142	INDUCTOR-SMD
2703-002269	R521	INDUCTOR-SMD
2703-002308	C133,U1016	INDUCTOR-SMD
2703-002309	L508	INDUCTOR-SMD
2703-002367	VR202	INDUCTOR-SMD
2703-002649	L1028,L1029	INDUCTOR-SMD
2703-002903	L1041	INDUCTOR-SMD
2703-003004	L217	INDUCTOR-SMD
2703-003479	L608,L609	INDUCTOR-SMD
2703-003878	L516	INDUCTOR-SMD
2703-004000	C1092,L1017,L104	INDUCTOR-SMD
2703-004013	L1007,L1008	INDUCTOR-SMD

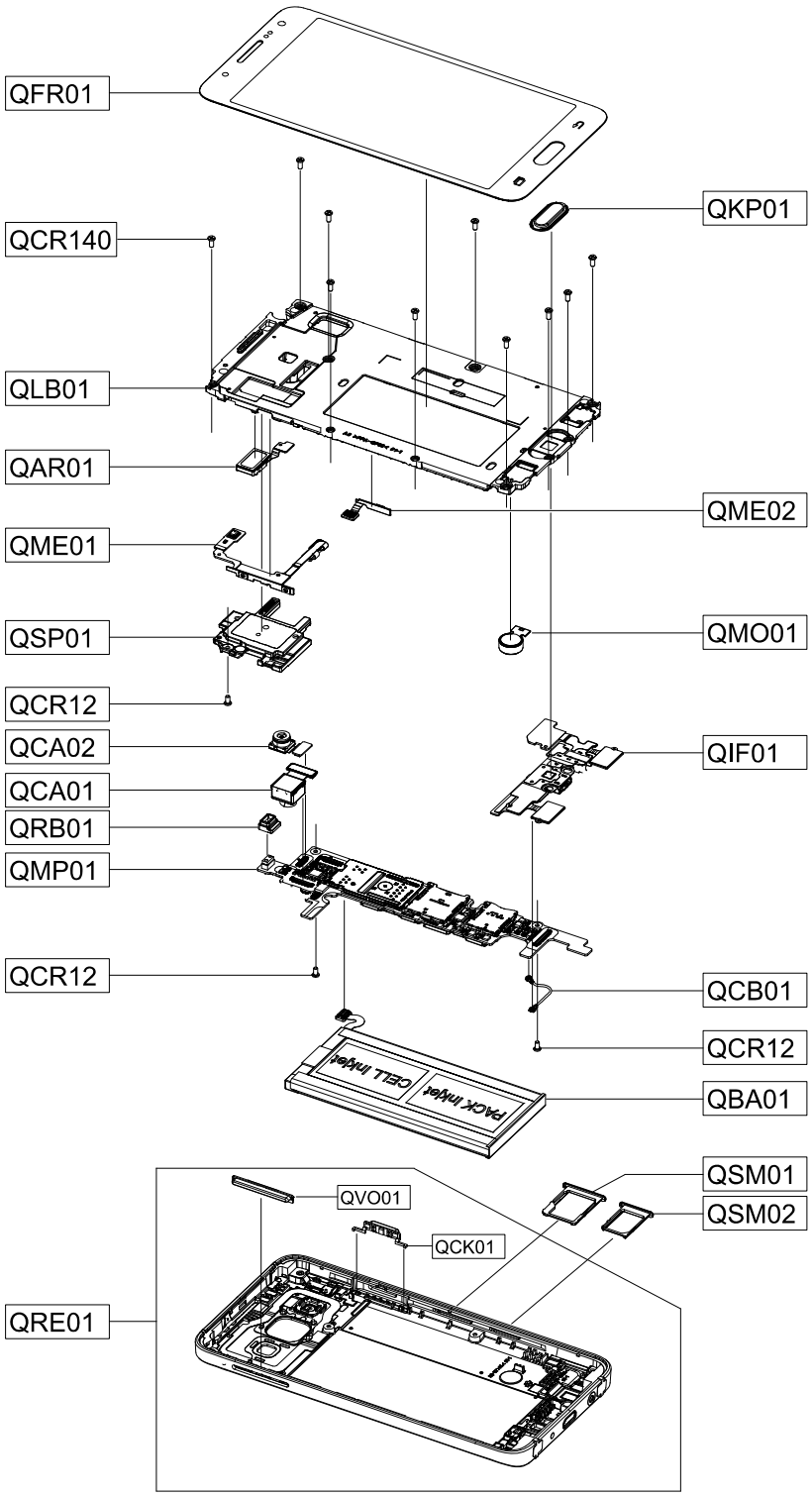
2703-004014	L1000	INDUCTOR-SMD
2703-004018	C1005,L1015,L1026	INDUCTOR-SMD
2703-004018	L210	INDUCTOR-SMD
2703-004032	L1006,L1025	INDUCTOR-SMD
2703-004034	L1013,L219	INDUCTOR-SMD
2703-004035	L1005	INDUCTOR-SMD
2703-004036	L1018	INDUCTOR-SMD
2703-004038	C1004	INDUCTOR-SMD
2703-004193	L526,L527	INDUCTOR-SMD
2703-004286	L1001,L1003,L1024	INDUCTOR-SMD
2703-004297	L405	INDUCTOR-SMD
2703-004328	C1029,L211,L212,L218	INDUCTOR-SMD
2703-004368	L1031	INDUCTOR-SMD
2703-004684	L300	INDUCTOR-SMD
2703-004756	L402,L403	INDUCTOR-SMD
2703-004775	L400,L521	INDUCTOR-SMD
2703-004786	L411	INDUCTOR-SMD
2703-004976	L1011,L1012	INDUCTOR-SMD
2703-005017	L1027	INDUCTOR-SMD
2703-005108	L602	INDUCTOR-SMD
2703-005109	L401	INDUCTOR-SMD
2703-005117	L600,L601	INDUCTOR-SMD
2801-005390	OSC400	CRYSTAL-UNIT
2901-001690	C455,C487,C488	FILTER-EMI SMD
2901-001786	F600,F601,F602	FILTER-EMI SMD
2901-001798	F603,F604,F606,F609	FILTER-EMI SMD
2901-001798	F610,F611,F612,F613	FILTER-EMI SMD
2904-002136	F1001	FILTER-SAW
2904-002168	F200	FILTER-SAW
2904-002236	F202	FILTER-SAW
2910-000228	F1002	FILTER
2910-000229	F1000	FILTER
2910-000294	F1004	FILTER
2910-000296	F1003	FILTER
3301-001729	L606,L607	CORE-FERRITE BEAD
3301-001789	L603,L604,L605	CORE-FERRITE BEAD
3301-001820	L515	CORE-FERRITE BEAD

3301-001885	L502,L507,L513,L514	CORE-FERRITE BEAD
3301-001914	L406	CORE-FERRITE BEAD
3301-002035	L524,L525	CORE-FERRITE BEAD
3301-002078	L519,L520	CORE-FERRITE BEAD
3301-002228	L1010	CORE-FERRITE BEAD
3301-002235	L510	CORE-FERRITE BEAD
3301-002236	L408,L409,L410	CORE-FERRITE BEAD
3301-002238	L501	CORE-FERRITE BEAD
3301-002239	L1040	CORE-FERRITE BEAD
3301-002248	L205	CORE-FERRITE BEAD
3301-002254	L528	CORE-FERRITE BEAD
3301-002286	L500,L503,R551	CORE-FERRITE BEAD
3301-002304	R608,R636	CORE-FERRITE BEAD
3705-001708	RFS100	CONNECTOR-COAXIAL
3705-001937	RFS102	CONNECTOR-COAXIAL
3705-002014	RFS200	CONNECTOR-COAXIAL
3709-001859	SIM601	CONNECTOR-CARD EDGE
3709-001860	SIM600	CONNECTOR-CARD EDGE
3711-007295	HDC601	CONNECTOR-HEADER
3711-008010	HDC501	CONNECTOR-HEADER
3711-008508	HDC600	CONNECTOR-HEADER
3711-008511	HDC602	CONNECTOR-HEADER
3711-008593	HDC502	CONNECTOR-HEADER
3711-008600	HDC500	CONNECTOR-HEADER
3711-008847	HDC400	CONNECTOR-HEADER
3712-001472	ANT200	CONNECTOR
3712-001516	ANT1000,ANT201	CONNECTOR
3712-001516	ANT203,ANT204,ANT500	CONNECTOR
3712-001516	ANT501,ANT600,ANT601	CONNECTOR
GH62-00033A	GA600	SOCKET-SMD GASKET(SM-T530)
GH62-00038A	GA601	PAD GAP-SMD GASKET
GH80-03321A	R1000,R223,R518	SOLDER-CREAM
GH98-34717A	SC300	ASSY COVER-SHIELD CAN A
GH98-34718A	SC301	ASSY COVER-SHIELD CAN B
GH98-34719A	SC302	ASSY COVER-SHIELD CAN C

Please consult the GSPN website (Samsung Portal) for the most recent version of the product's part list.

4. Exploded View and Parts List

4-1. Cellular phone Exploded View



2. Specification

2-1. GSM General Specification

	GSM850	EGSM 900	DCS1800	PCS1900	WCDMA 2100	WCDMA 1900	WCDMA 900	WCMDA 850
Freq. Band[MHz] Uplink/ Downlink	824~849 869~894	880~915 925~960	1710~1785 1805~1880	1850~1910 1930~1990	1922~1977 2110~2170	1852~1907 1932~1987	880~915 925~960	824~849 869~894
ARFCN range	128~251	0~124 & 975~1023	512~885	512~810	UL:9612~9888 DL:10562~10838	UL:9262~9538 DL:9662~9938	UL: 2712~2863 DL: 2937~3088	UL: 4132~4233 DL: 4357~4458
Tx/Rx spacing	45MHz	45MHz	95MHz	80MHz	190MHz	80MHz	45MHz	45MHz
Mod. Bit rate/ Bit Period	270.833kbps 3.692us	270.833kbps 3.692us	270.833kbps 3.692us	270.833kbps 3.692us	3.84Mcps	3.84Mcps	3.84Mcps	3.84Mcps
Time Slot Period/ Frame Period	576.9us 4.615ms	576.9us 4.615ms	576.9us 4.615ms	576.9us 4.615ms	FrameLength: 10ms Slotlength: 0.667ms	FrameLength: 10ms Slotlength: 0.667ms	FrameLength: 10ms Slotlength: 0.667ms	FrameLength: 10ms Slotlength: 0.667ms
Modulation	0.3GMSK	0.3GMSK	0.3GMSK	0.3GMSK	QPSK, HPSK	QPSK, HPSK	QPSKHQPSK	QPSKHQPSK
MS Power	33dBm~5dBm	33dBm~5dBm	30dBm~0dBm	30dBm~0dBm	24dBm~-50dBm	24dBm~-50dBm	24dBm~ -50dBm	24dBm~ -50dBm
Power Class	5pcl ~ 19pcl	5pcl ~ 19pcl	0pcl ~ 15pcl	0pcl ~ 15pcl	3(max+24dBm)	3(max+24dBm)	3(max+24dBm)	3(max+24dBm)
Sensitivity	-102dBm	-102dBm	-100dBm	-100dBm	-106.7dBm	-106.7dBm	-106.7dBm	-106.7dBm
TDMA Mux	8	8	8	8	8	8	8	8
Cell Radius	35Km	35Km	2Km	2Km	2Km	2Km	2Km	2Km

2-2. GSM Tx Power Class

TX Power control level	GSM850
5	33±2 dBm
6	31±2 dBm
7	29±2 dBm
8	27±2 dBm
9	25±2 dBm
10	23±2 dBm
11	21±2 dBm
12	19±2 dBm
13	17±2 dBm
14	15±2 dBm
15	13±2 dBm
16	11±3 dBm
17	9±3dBm
18	7±3 dBm
19	5±3 dBm

TX Power control level	EGSM900
5	33±2 dBm
6	31±2 dBm
7	29±2 dBm
8	27±2 dBm
9	25±2 dBm
10	23±2 dBm
11	21±2 dBm
12	19±2 dBm
13	17±2 dBm
14	15±2 dBm
15	13±2 dBm
16	11±3 dBm
17	9±3dBm
18	7±3 dBm
19	5±3 dBm

TX Power control level	DCS1800
0	30±3 dBm
1	28±3 dBm
2	26±3 dBm
3	24±3 dBm
4	22±3 dBm
5	20±3 dBm
6	18±3 dBm
7	16±3 dBm
8	14±3 dBm
9	12±4 dBm
10	10±4 dBm
11	8±4 dBm
12	6±4 dBm
13	4±4 dBm
14	2±5 dBm
15	0±5 dBm

TX Power control level	PCS1900
0	30±3 dBm
1	28±3 dBm
2	26±3 dBm
3	24±3 dBm
4	22±3 dBm
5	20±3 dBm
6	18±3 dBm
7	16±3 dBm
8	14±3 dBm
9	12±4 dBm
10	10±4 dBm
11	8±4 dBm
12	6±4 dBm
13	4±4 dBm
14	2±5 dBm
15	0±5 dBm

3. Operation Instruction and Installation

Main Function

- Android OS: KitKat
- MSM8916 (Quad 1.2 Ghz)
- 16G Bytes (eMMC) + 1GByte LPDDR
- 4.5" on-Cell Touch AMOLED (960 x 540(qHD))
- 8MP Camera + 5MP Front Camera
- GPS / BT v4.0 / USB v2.0 / WiFi (802.11 b/g/n)
- Sensors: Gyro/Accelerometer, Proximity, Light, RGB, Hall IC
- Additional :
  - FM Radio, Wifi Direct,
  - Charger 5V / 1A
  - Data Cable 3.3pi, 1.0m
  - Ear phone 3.5p, 4pin
  - Battery 1900mAh

9. Reference Abbreviate

Reference Abbreviate

- **AAC**: Advanced Audio Coding.
- **AVC** : Advanced Video Coding.
- **BER** : Bit Error Rate
- **BPSK**: Binary Phase Shift Keying
- **CA** : Conditional Access
- **CDM** : Code Division Multiplexing
- **C/I** : Carrier to Interference
- **DMB** : Digital Multimedia Broadcasting
- **EN** : European Standard
- **ES** : Elementary Stream
- **ETSI**: European Telecommunications Standards Institute
- **MPEG**: Moving Picture Experts Group
- **PN** : Pseudo-random Noise
- **PS** : Pilot Symbol
- **QPSK**: Quadrature Phase Shift Keying
- **RS** : Reed-Solomon
- **SI** : Service Information
- **TDM** : Time Division Multiplexing
- **TS** : Transport Stream

1. Safety Precautions

1-1. Repair Precaution

Before attempting any repair or detailed tuning, shield the device from RF noise or static electricity discharges.

Use only demagnetized tools that are specifically designed for small electronic repairs, as most electronic parts are sensitive to electromagnetic forces.

Use only high quality screwdrivers when servicing products. Low quality screwdrivers can easily damage the heads of screws.

Use only conductor wire of the properly gauge and insulation for low resistance, because of the low margin of error of most testing equipment.
We recommend 22-gauge twisted copper wire.

Hand-soldering is not recommended, because printed circuit boards (PCBs) can be easily damaged, even with relatively low heat. Never use a soldering iron with a power rating of more than 100 watts and use only lead-free solder with a melting point below 250°C (482°F).

Prior to disassembling the battery charger for repair, ensure that the AC power is disconnected. Always use the replacement parts that are registered in the SEC system. Third-party replac ement parts may not function properly.

1-2. ESD(Electrostatically Sensitive Devices) Precaution

Many semiconductors and ESDs in electronic devices are particularly sensitive to static discha rge and can be easily damaged by it. We recommend protecting these components with cond uctive anti-static bags when you store or transport them.

Always use an anti-static strap or wristband and remove electrostatic buildup or dissipate static electricity from your body before repairing ESDs.

Ensure that soldering irons have AC adapter with ground wires and that the ground wires are properly connected.

Use only desoldering tools with plastic tips to prevent static discharge.

Properly shield the work environment from accidental electrostatic discharge before opening packages containing ESDs.

The potential for static electricity discharge may be increased in low humidity environments, such as air-conditioned rooms. Increase the airflow to the working area to decrease the chance of accidental static electricity discharges.

6. Level 1 Repair

6-1. S/W installation

6-1-1. Required items in order to install S/W

- Installation program: Downloader Program (**Odin3 v3.09.exe with odin3.ini**)
- SM-A300H Mobile Phone
- Data Cable
- JIG BOX (GH81-11888A)
- JIG Cable (GH81-10623A)
- Adapter (GH91-11888K)
- Serial Cable
- Mobile device specific S/W: Binary files

※ Settings

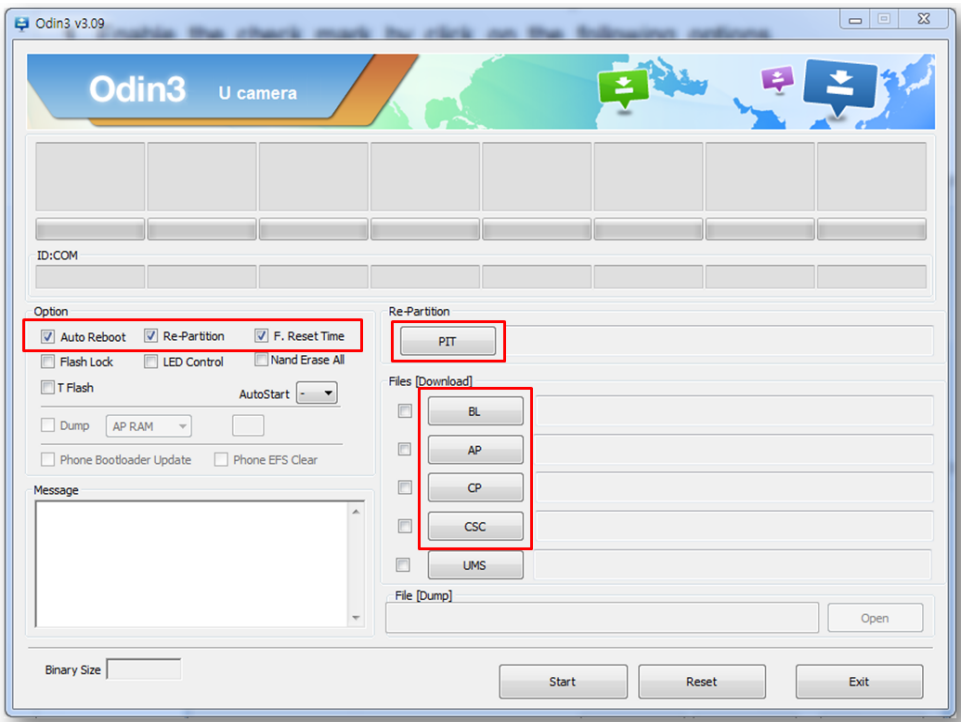
Connect ANYWAY JIG BOX
with JIG CABLE (Phone to JIG)
or PC to Phone Using Data Cable

6-2-2. S/W Installation Program (Downloader program)

■ Open up the S/W Installation Program by executing the **"Odin3 v3.09.exe" ("odin3.ini" file should be in the same folder with odin3 v3.09.exe)**

1. Enable the check mark by click on the following options,

- Check Re-Partition, Auto Reboot, and F. Reset Time
- Check PIT
- Check BL,AP,CP and CSC Files



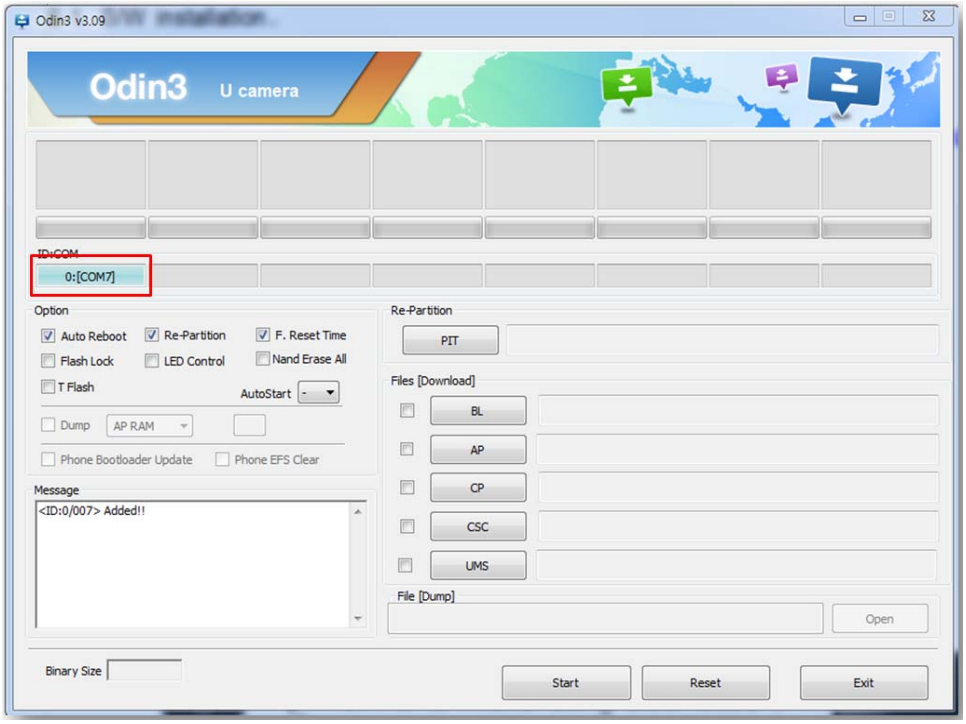
2. Enter into Download Mode

① Enter into Download Mode by pressing Volume Down button and ON/OFF Button simultaneously.

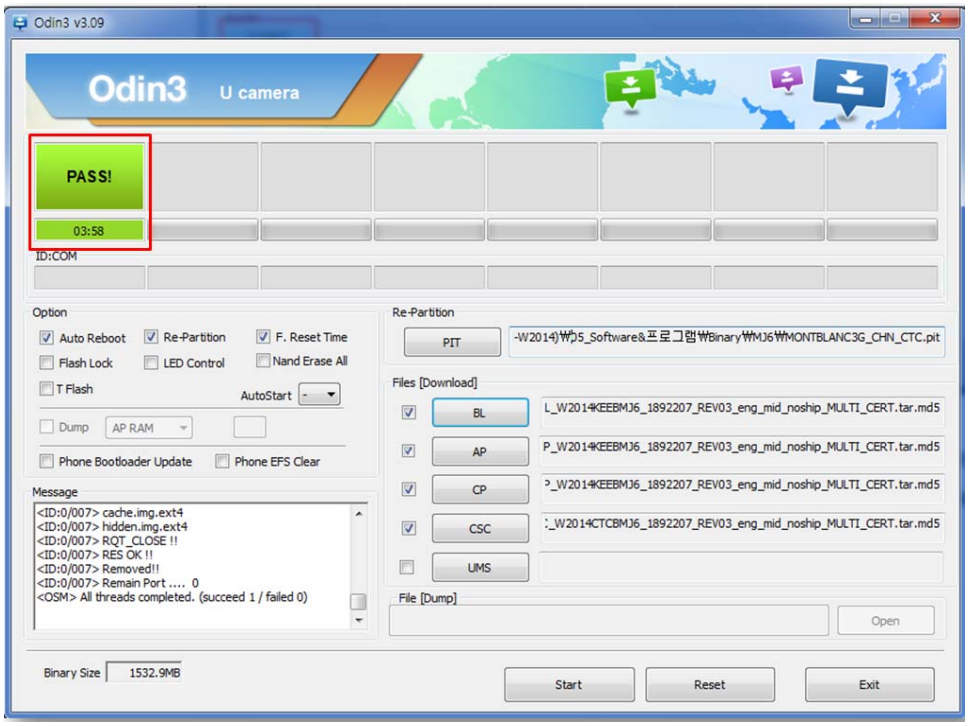
② Next, press Volume Up button.

3. Connect the device to PC via Data Cable.

Make sure that the one of communication port [ID:COM] box is highlighted in yellow. The device is now connected with the PC and ready to download the binary file into the device.



4. Start downloading binary file into the device by clicking Start Button on the screen. the green colored "PASS!" sign will appear on the upper-left box if the binary file has been successfully downloaded into the device.



5. Disconnect the device from the Data cable.

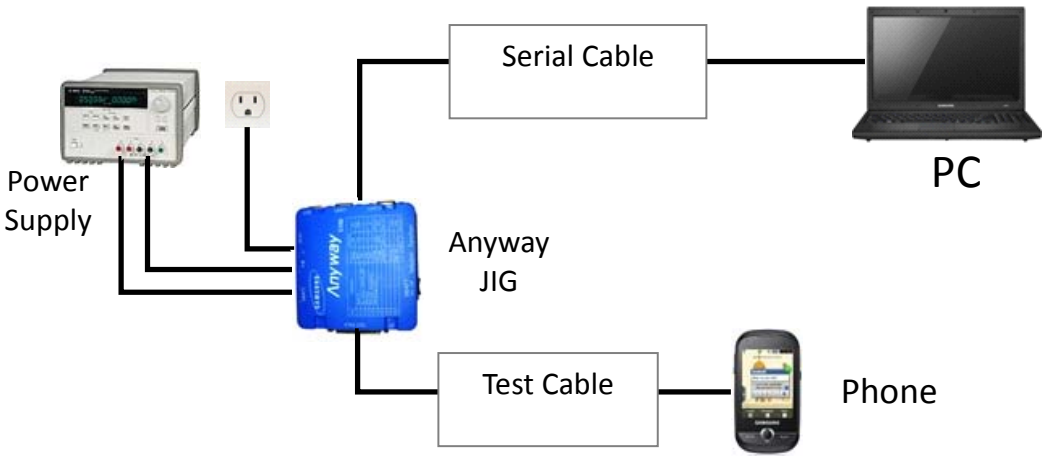
6. Once the device boots up, you can check the version of the binary file or name by pressing the following code in sequence;
***#1234#**

6-2 IMEI writing

6-2-1 Preparation

- New IMEI writing Program has been released.
- Supported Model : Models which CAB files are uploaded on HHPsvc INI File category, instead of ini file.
- Refer to below IMEI writing procedure.(For SM-A300F/G/**H** Model)

- H/W

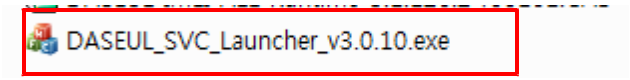


- S/W

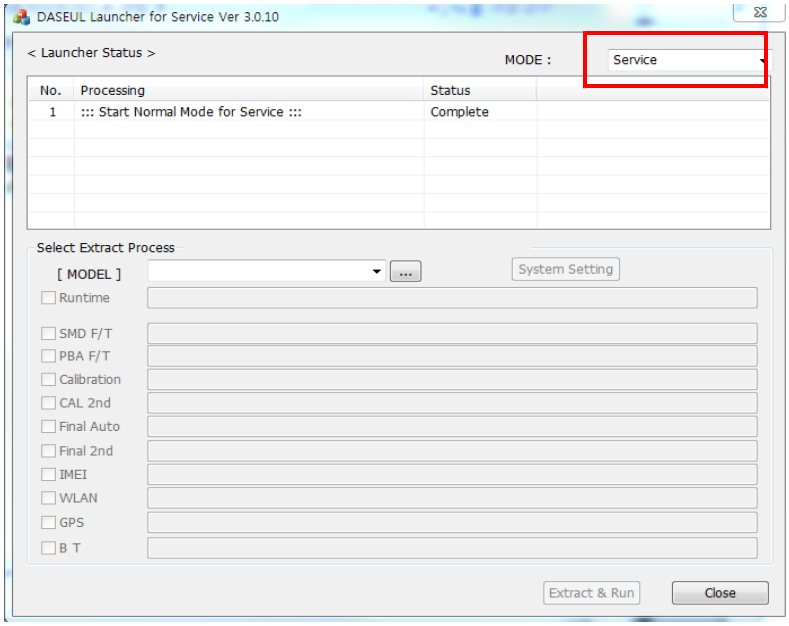
① Library Install	To use Daseul, library files should be installed. Refer to SVC Bulletin "(11-82) Daseul (New IMEI writing Program) Library Install gui de_rev1.0"
②Launcher	DASEUL_SVC_Launcher_v3_0_10 or higher -Uploaded on HHPsvc Notice
③ Runtime File	1. DASEUL_IMEI_ALL_Runtime_129_r00165 .CAB or higher -Uploaded on HHPsvc Notice 2. Make 'ModelName' folder at the same position with launcher & Runtime file. 
④Model File	Copy Model File under the 'Model Name' folder

6-2-2 IMEI writing Process

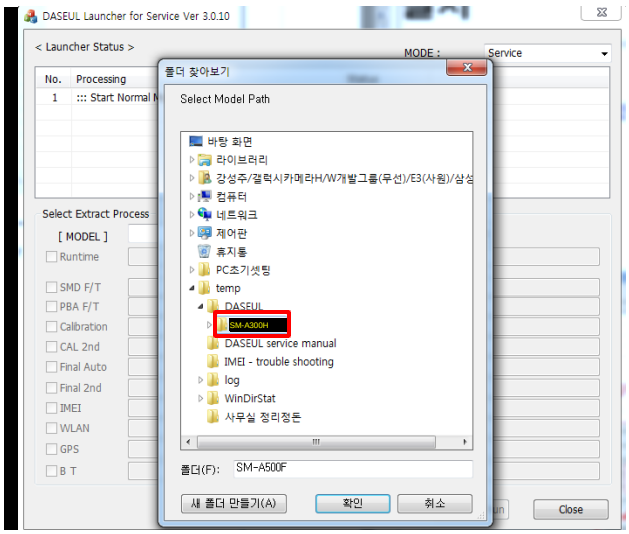
1. Run DASEUL_SVC_Launcher_v3.0.10.exe



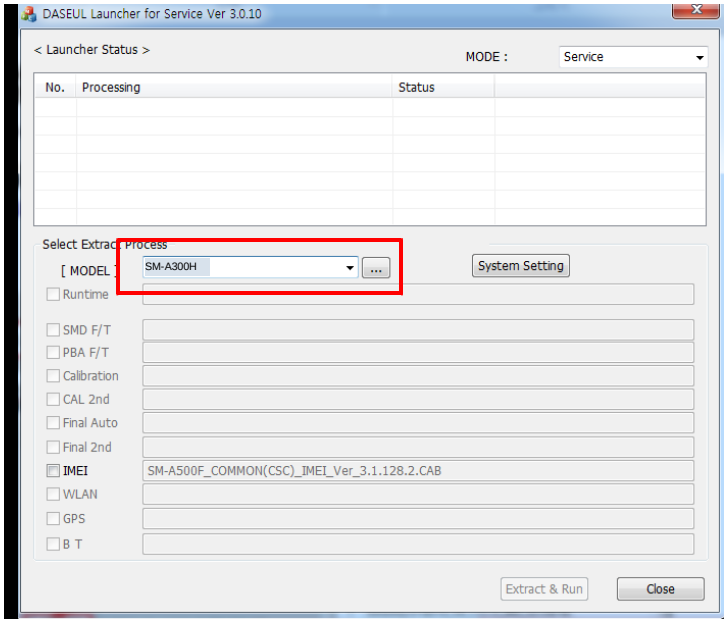
2. Select Service Mode



3. Click and Select folder where the Launcher exists

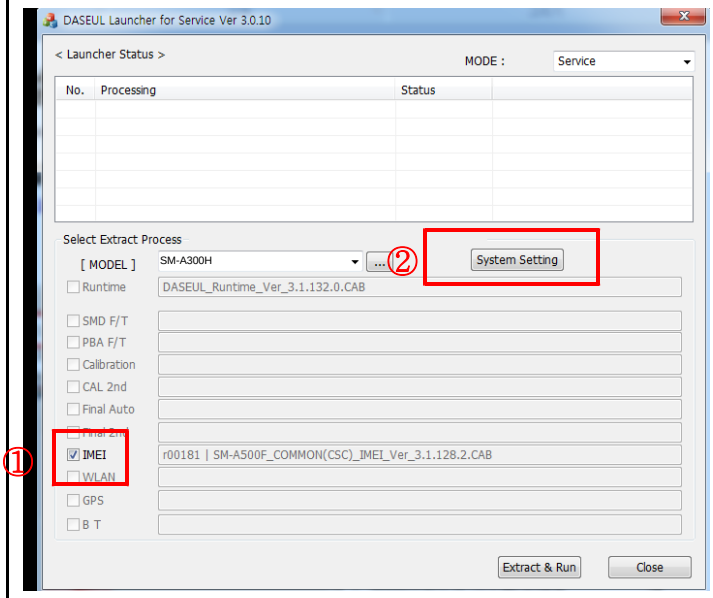


4. Select Model

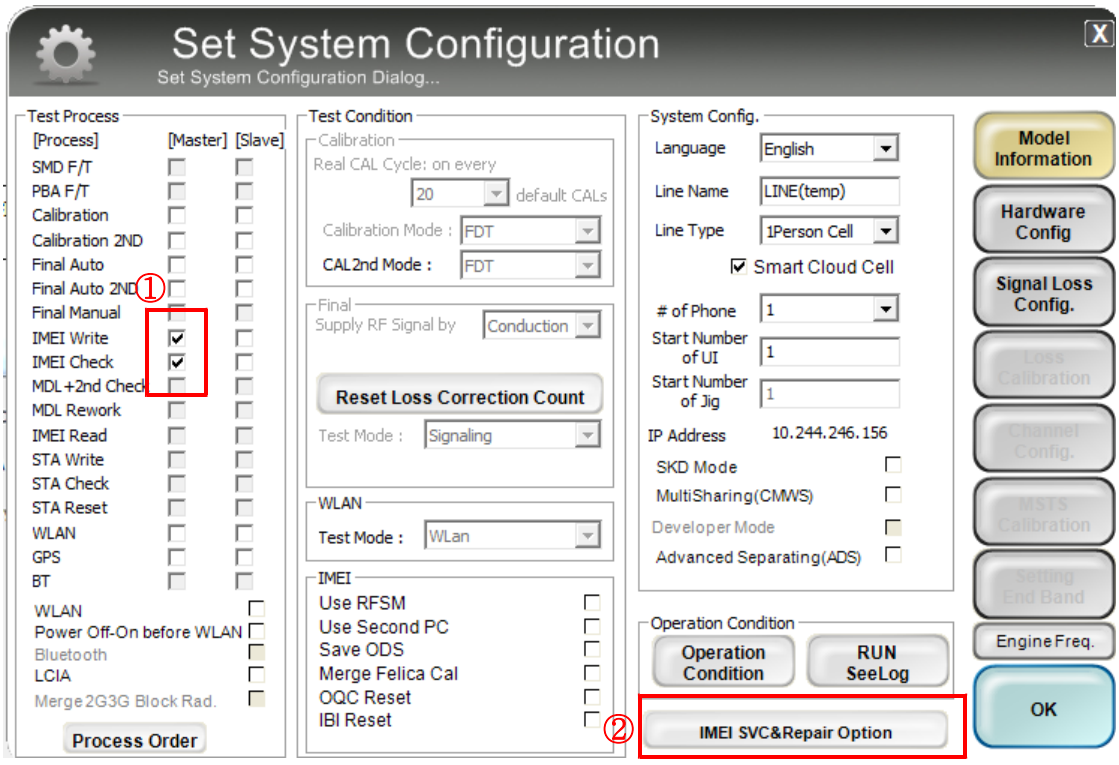


5. Check IMEI and click 'System Setting'

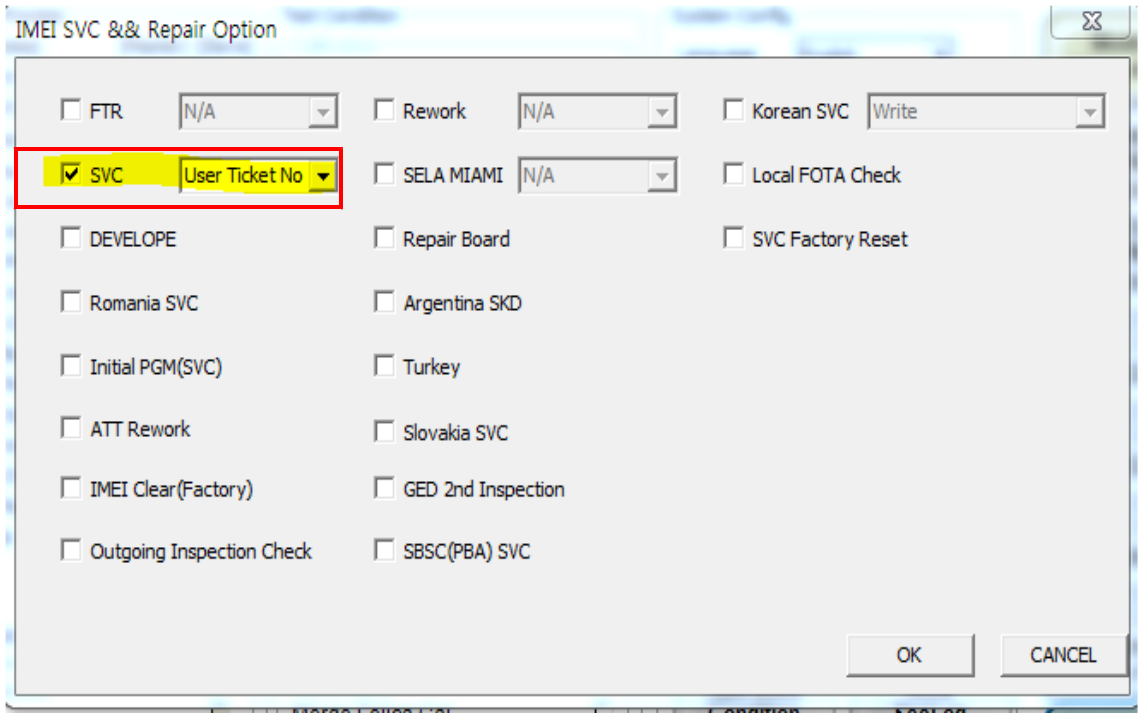
※Once you setup the setting, you don't have to do it again, unless there is change. From second run of the IMEI program, check IMEI and click 'Extract & Run'.



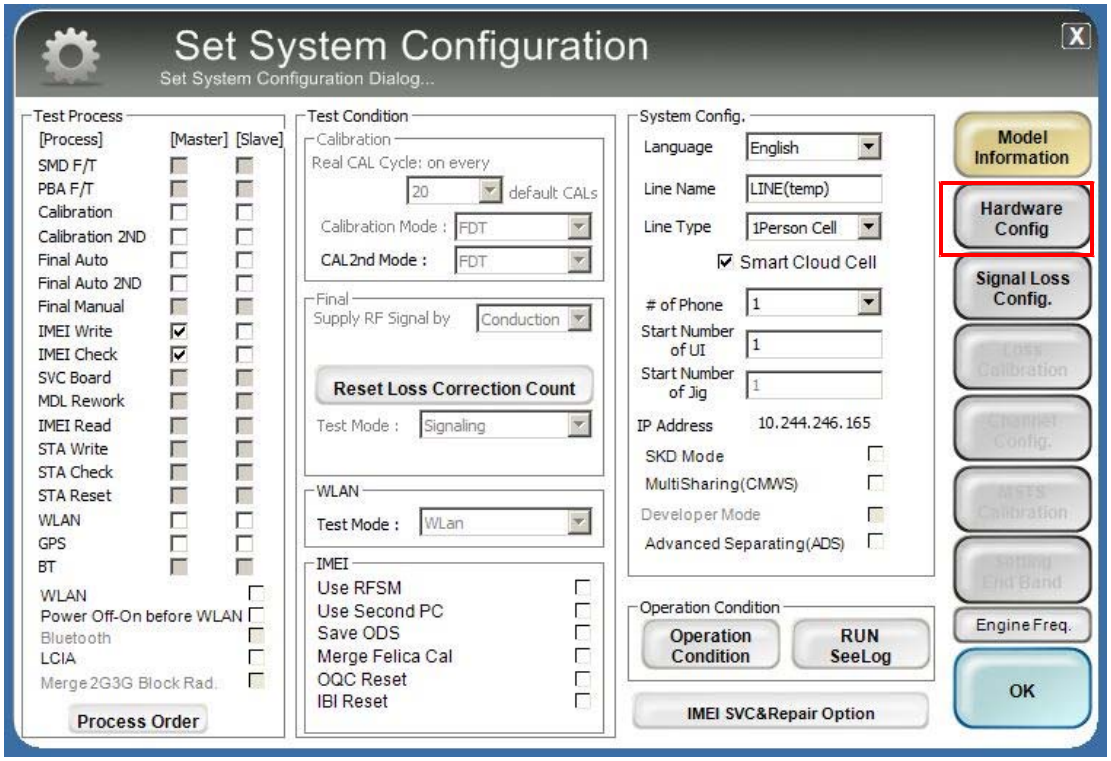
6. Check ‘IMEI Write / IMEI Check’, and click ‘IMEI SVC & Repair Option’



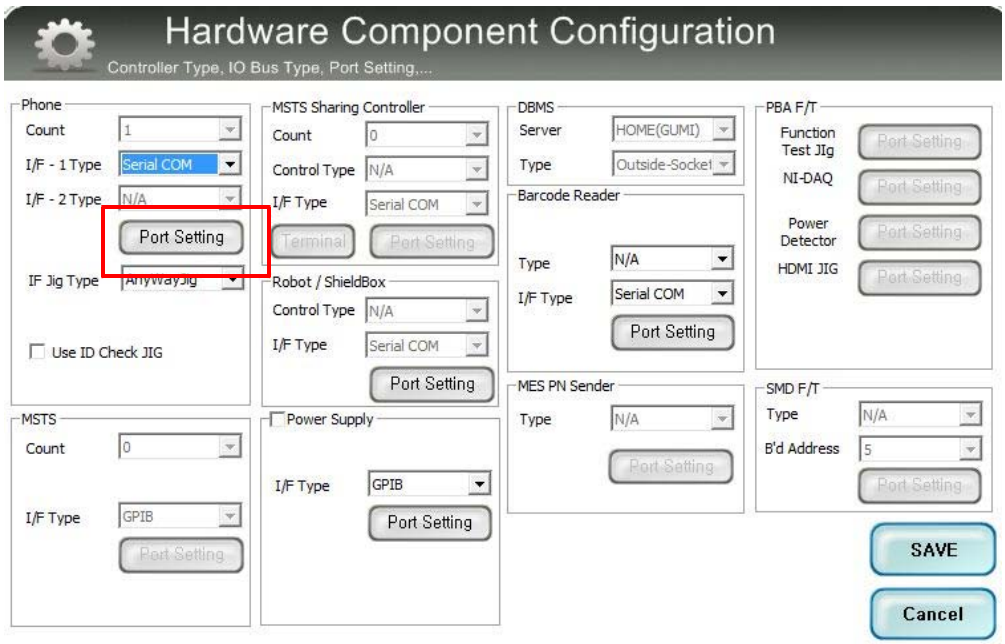
7. Check ‘SVC , User Ticket No’ and click OK



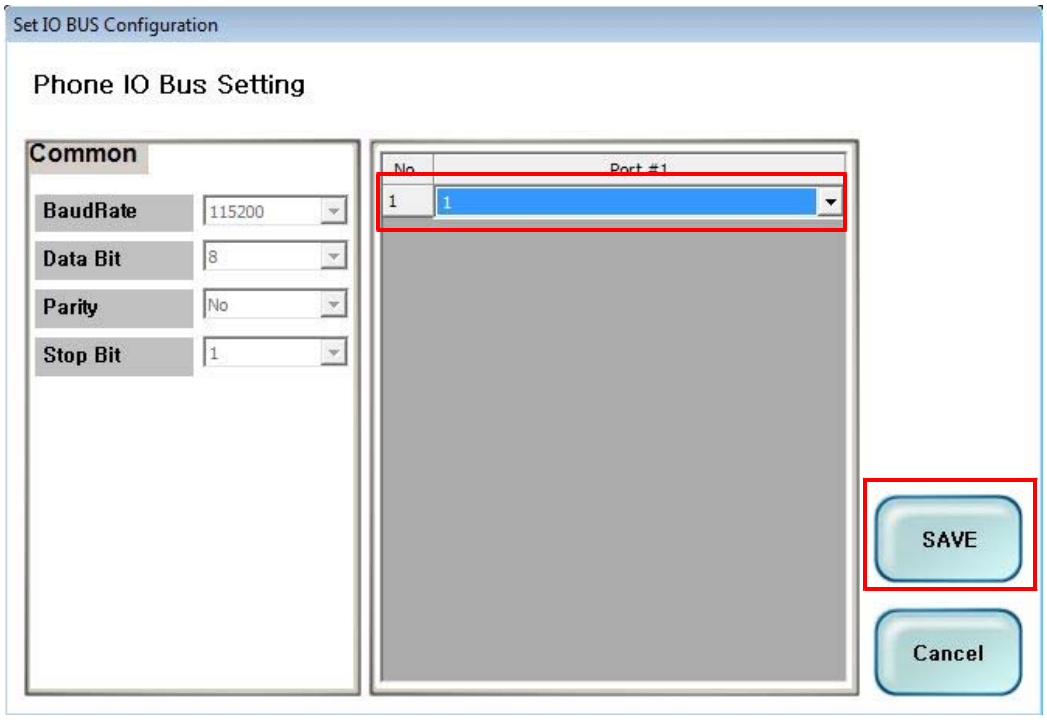
8. Click 'Hardware Config'



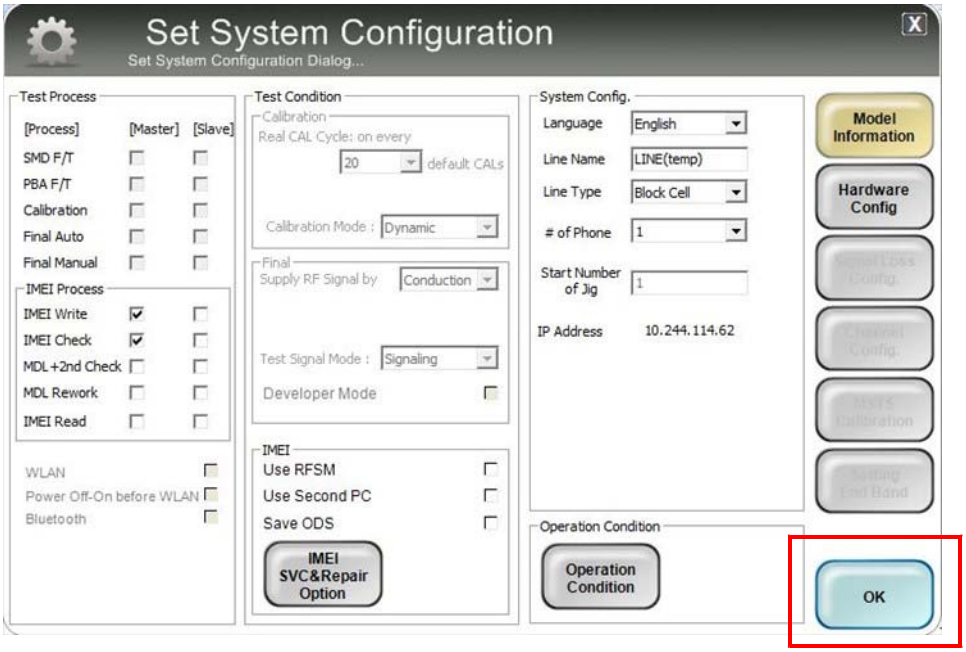
9. Click 'Port Setting'



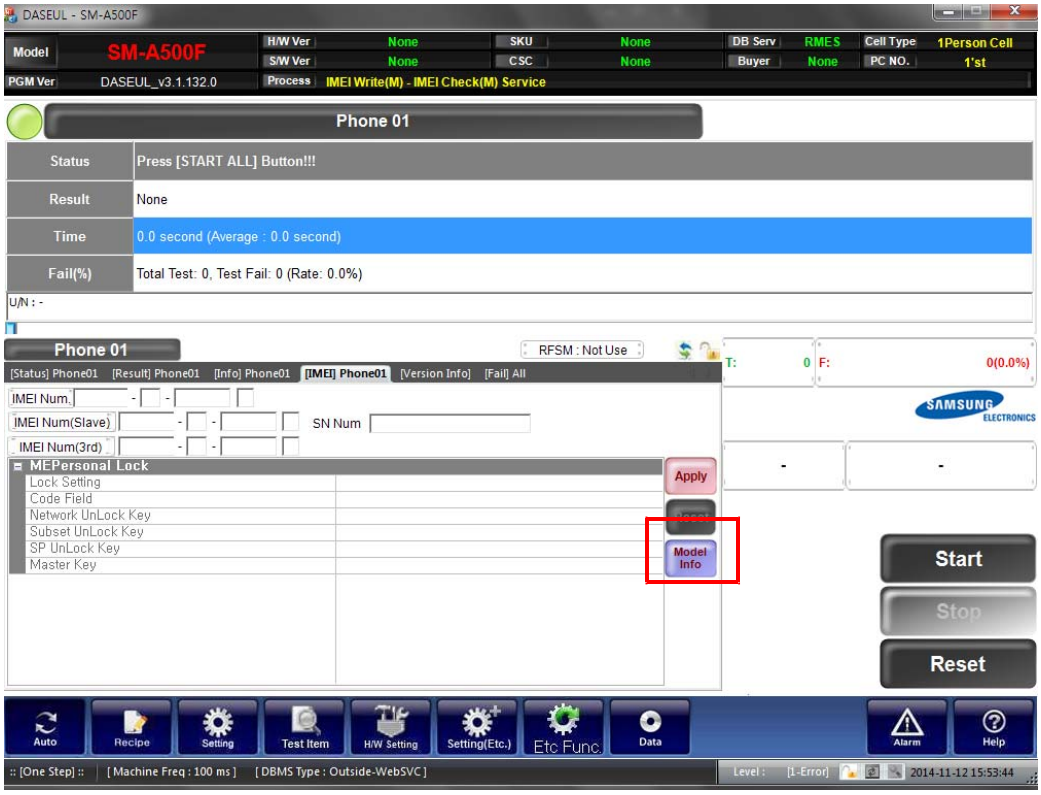
10. Select Port Number and SAVE



11.Click OK to proceed



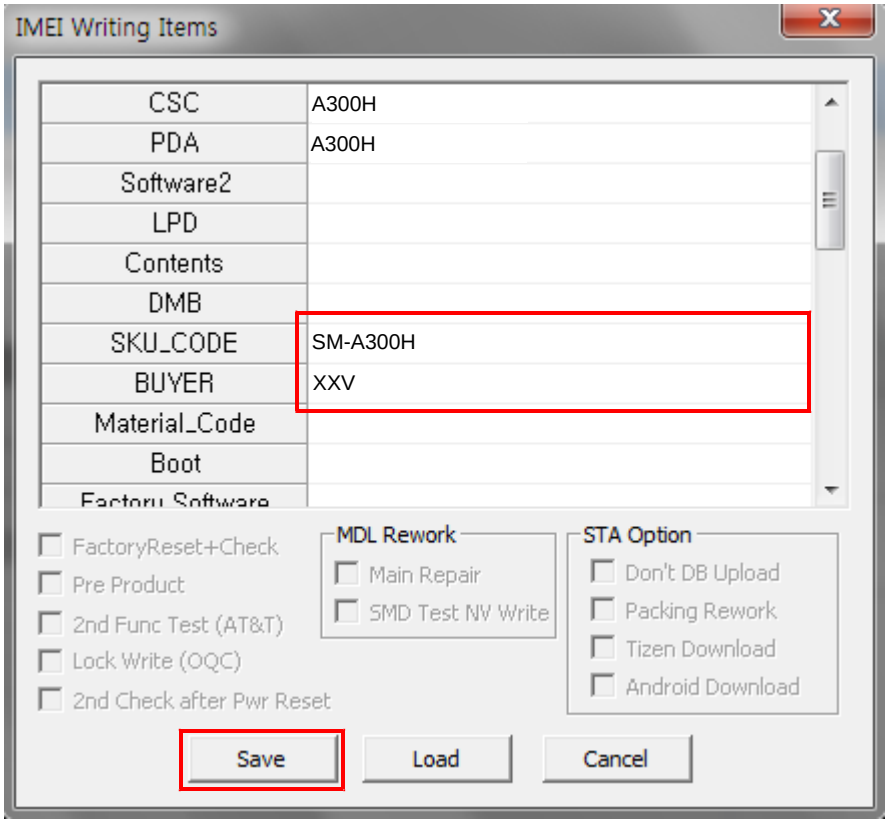
12. Click Model Info and OK when pop-up shows



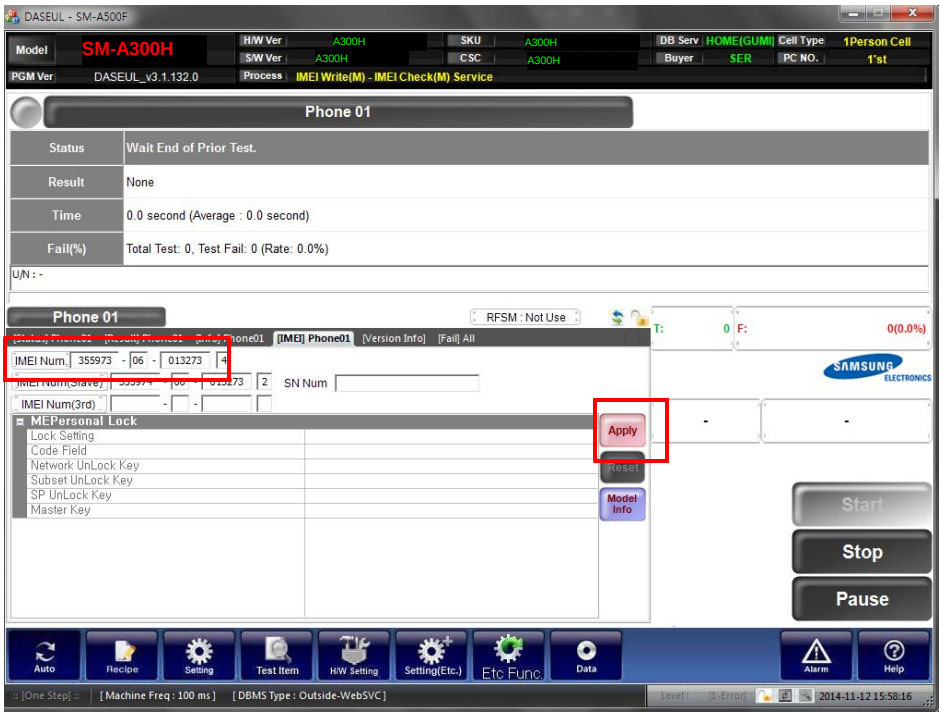
13. Click OK

14. Input SKU_CODE and BUYER, then click Save button.

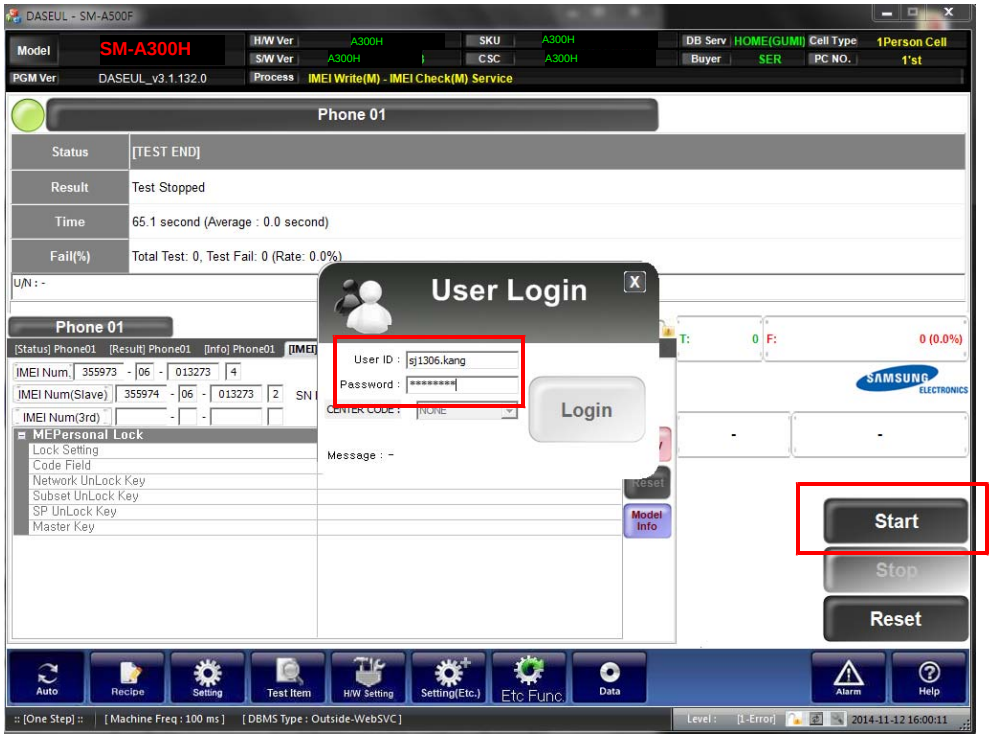
※ Refer to HHPsvc→IMEI Review to check SKU Code and buyer



15. Input IMEI Number and click Apply



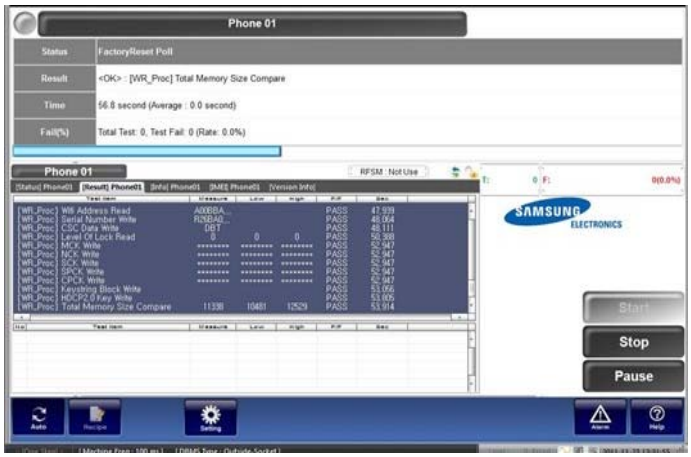
16. ① Click Start, and input IMEI writing ID and Password →②input Ticket No



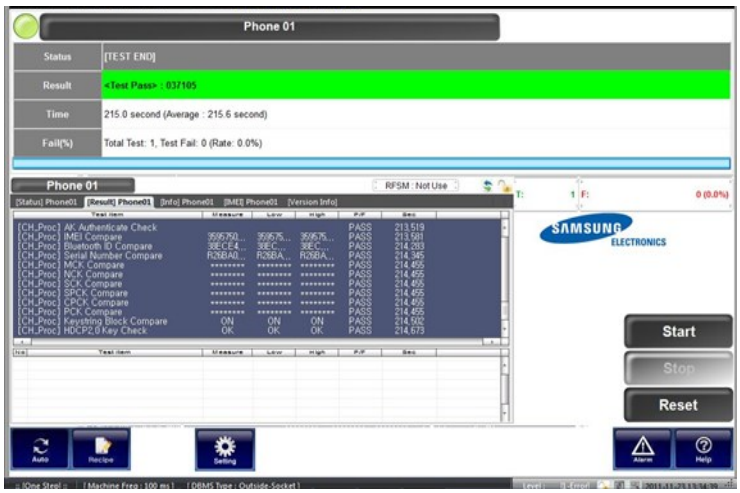
17. Connect the phone to Anyway JIG

※ When you connect the phone, the phone should be turned off.
After connecting the phone, the phone will be booted automatically.

18. IMEI Writing Proceeding



19. IMEI Writing Success



6-3. Boot Recovery

6-3-1. Symptom

- No Power on, Unable to enter download mode.

6-3-2. Coverage

- The device which get damaged for bootloader.

6-3-3. Required items in order to do Boot Recovery

- Downloader Program (**Odin3 v3.09.3.exe**)
- SM-A300H Mobile Phone(Normal device)
- Data Cable
- Micro SD Card (Higher than SDHC type and 4GB)
- Full S/W binary(pit, BL, AP, CP)
- Recovery pit file and bootloader
  - pit file: A33G_EUR_OPEN.pit
  - boot loader: normal bootloader(BL)

6-3-4. Brief process for Boot Recovery

1. Download recovery pit and bootloader to SD card by using normal device

2. Insert SD card to no power device and try to enter download mode.

3. Download full S/W to the defected device

6-3-5. Process of Boot Recovery

1. SW download

(1) Download full S/W(BL, AP, CP, CSC) to normal device.

2. Make SD card for Recovery

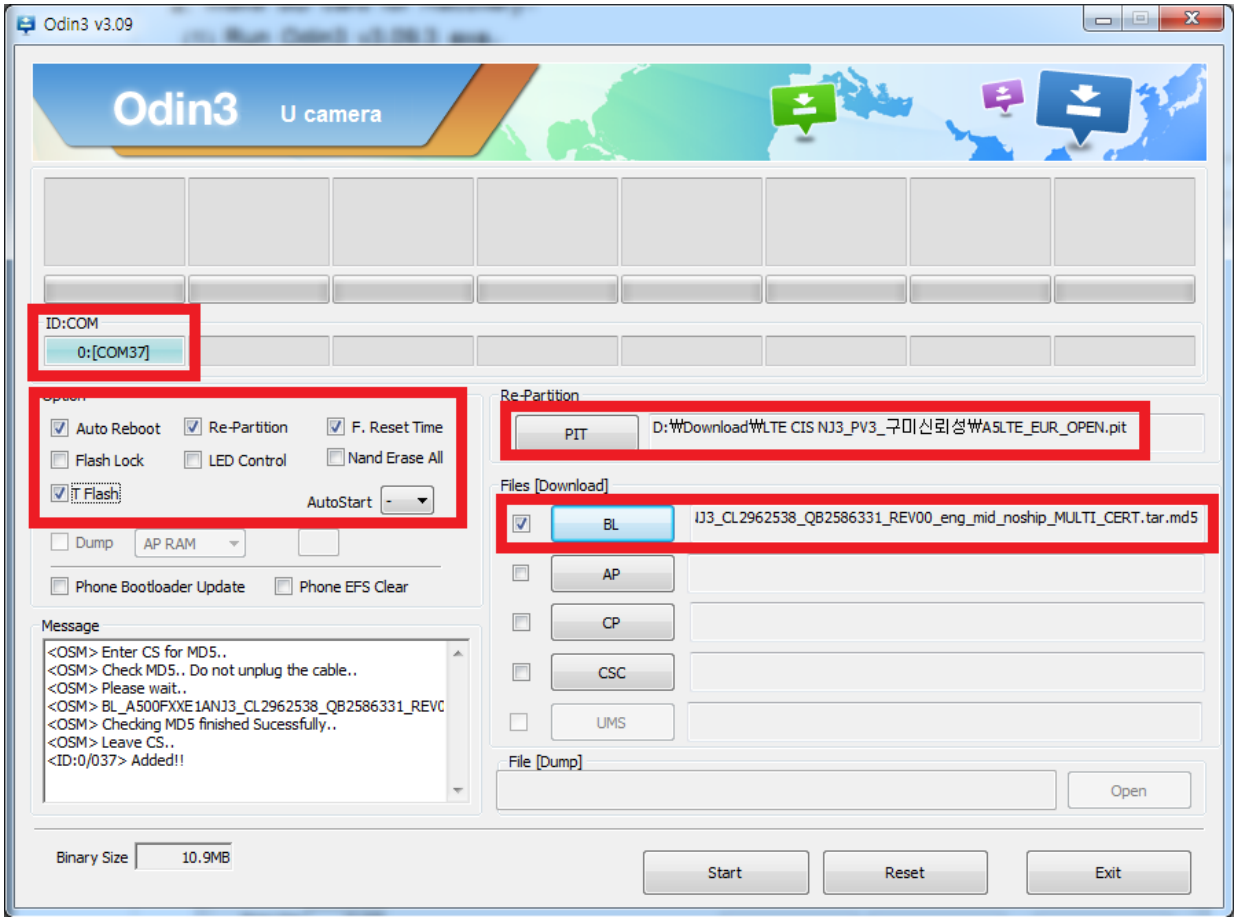
(1) Run Odin3 v3.09.3 exe

(2) Load "A53G_EUR_OPEN.pit" in PIT tap and "normal bootloader file" in BL tap.

(3) Check "T-Flash" option

(4) Insert SD card to normal device and enter to download mode.

(5) Connect the device to PC



(6) Click "Start" button to download Recovery pit and bootloader files to SD card.

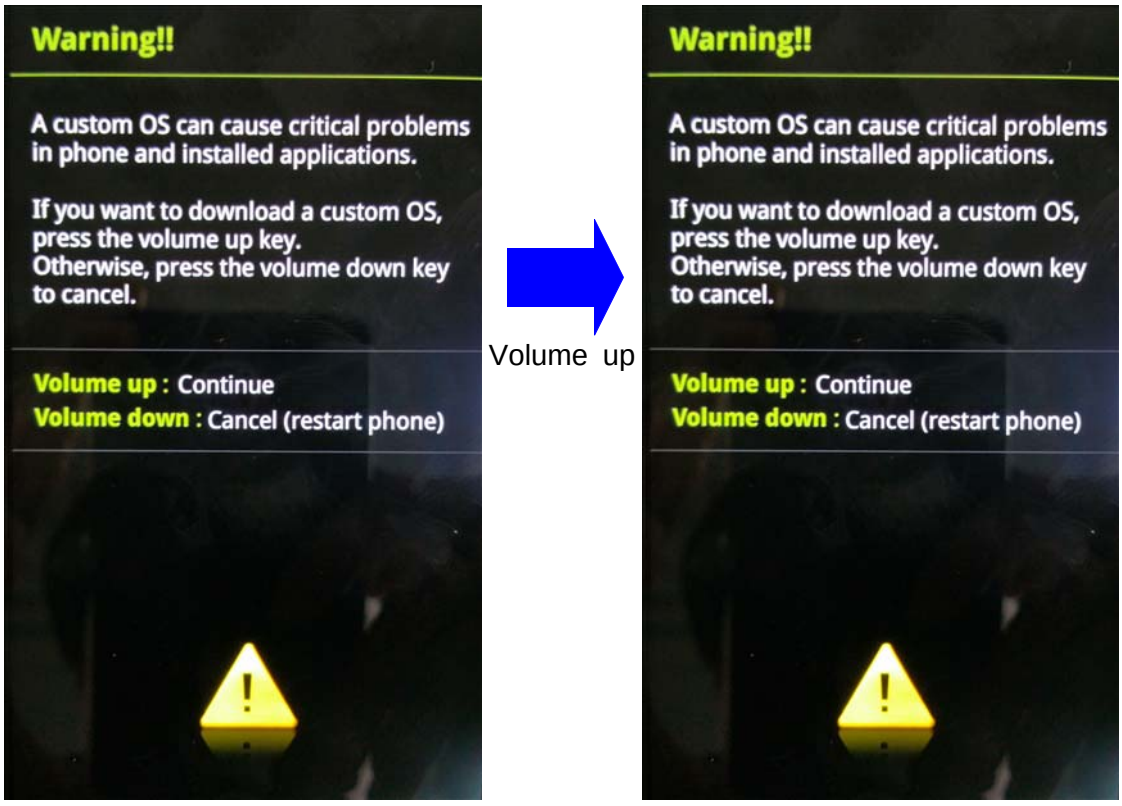
- If it is Pass, SD card has successfully made for boot recovery.
- If it is Fail, try to this with another SD card.(It would be defect of SD card)

3. Boot Recovery for damaged device

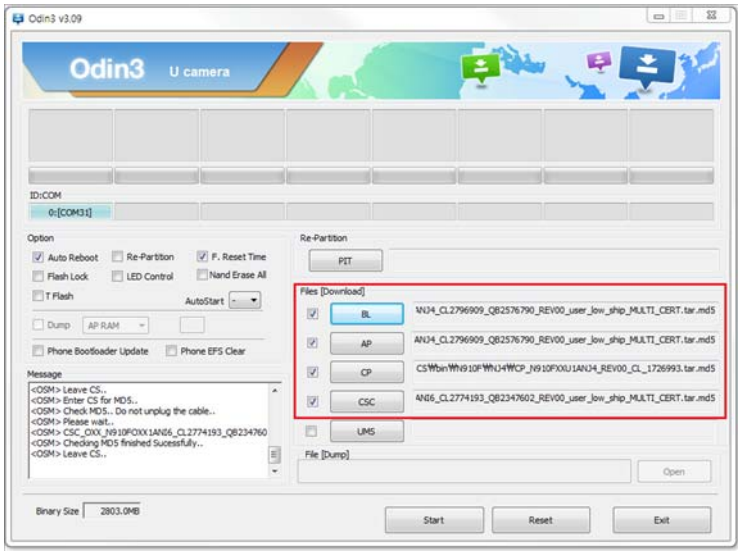
(1) Insert SD card to "No power" device

(2) Enter to download mode, using key combination(Volume down + Home + Power)

(3) If the device is successfully recovered, the device will enter download mode.



(4) After entering download mode, download full S/W to the device including BL(Bootloader), AP(Platform binary), CP(Modem binary) and CSC.



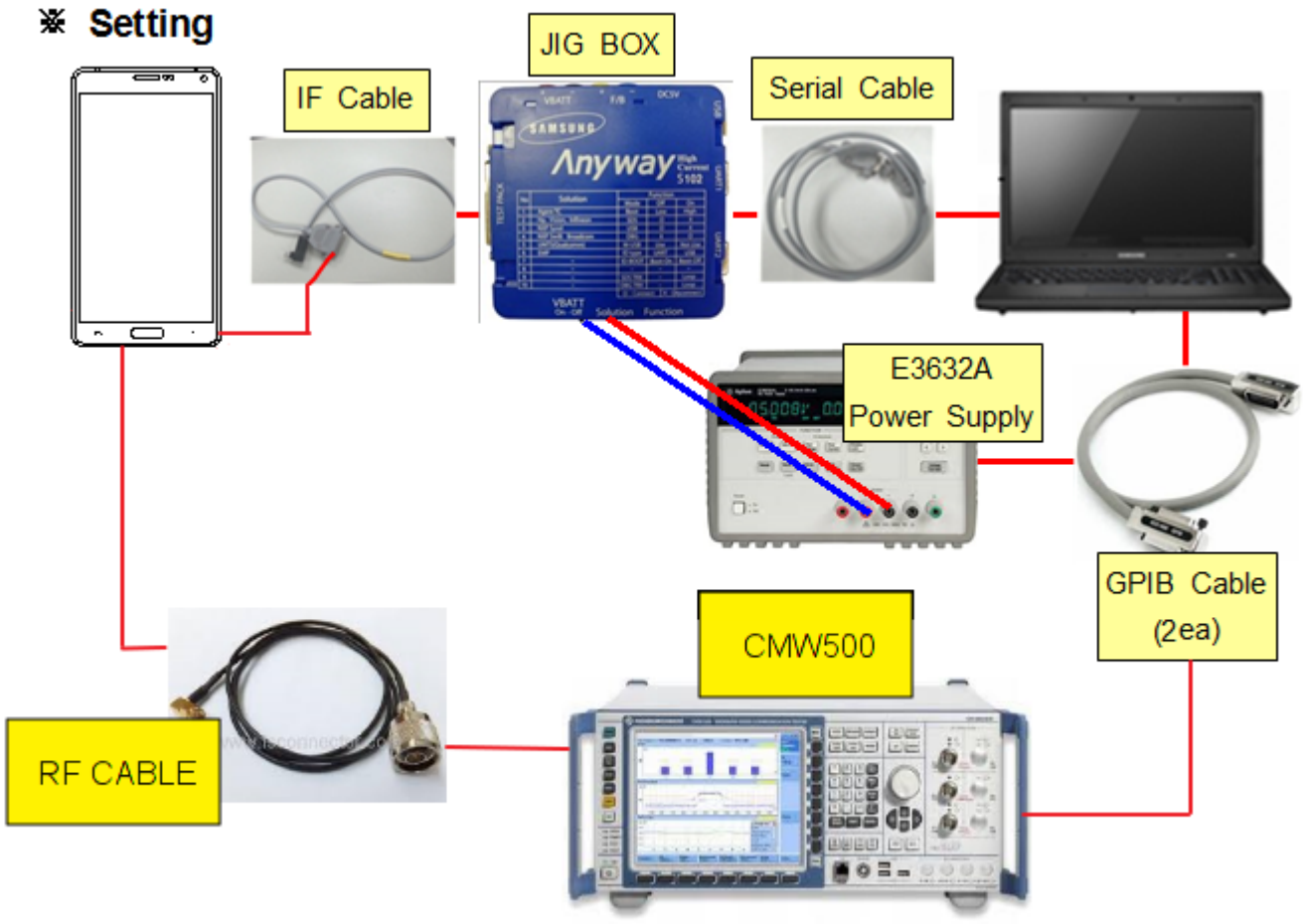
6-4. RF Calibration

6-1-1. Required items in order to calibrate RF

- Installation program: RF Calibration Program
  - Daseul_Launcher_vx.x.xx.exe
  - Daseul_CAL_ALL_Runtime_x.x.xxx.x.CAB
  - Model File (SM-A300H_OPEN_CALIBRATION_VER_x.x.xxx.xx.CAB)

※ It is required to use the latest program.

- SM-A300H Mobile Phone
- E3632A Power Supply
- JIG BOX (GH81-11888A)
- Adapter (GH81-11888K)
- 1.6T RF Cable (GH81-11456A, 1ea)
- R&S CMW500
- GPIB Cable (2ea)
- IF Cable (GH81-10631A)
- UART Serial Cable

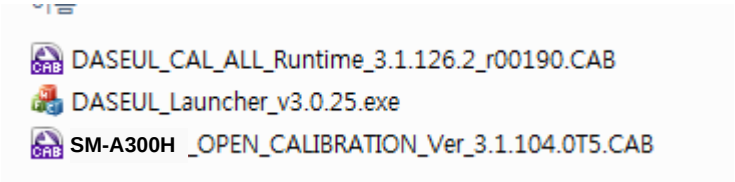


- Table of test cables

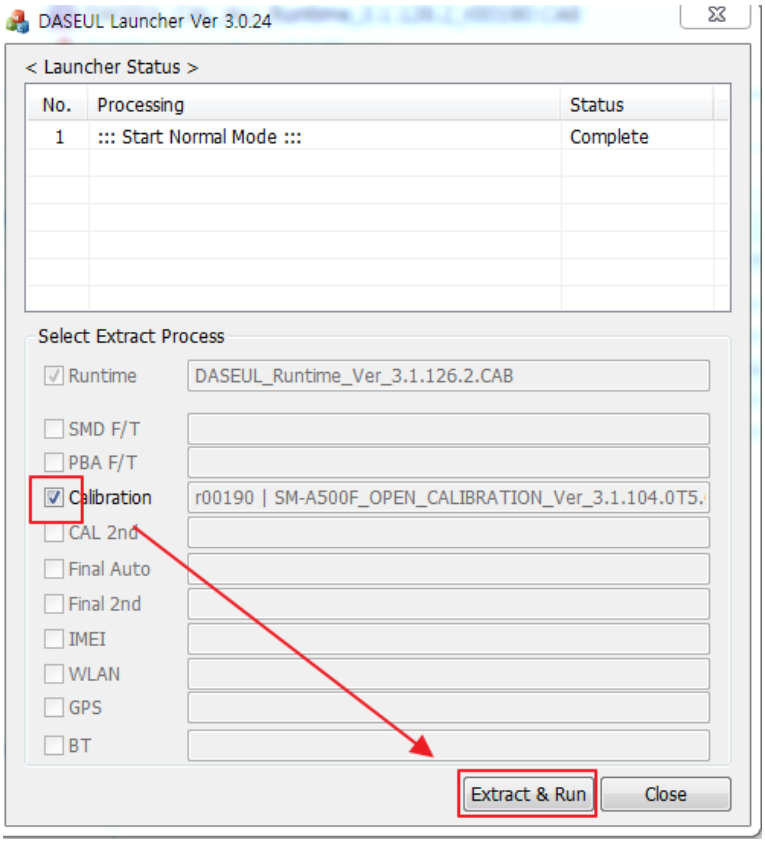
IF Cable	GH81-10631A	GH81-10952A	GH81-11171A	
	11 pin	7 pin (New)	7 pin (Old)	
RF Cable	GH81-11962D	GH81-11962G	GH81-11962C	GH81-11456A
	1.35T, Short	1.35T, Long	1.6T, Short	1.6T, Long
4 Port Divider	GH81-11962A			
	Use / No use			

6-1-2. RF Calibration Program

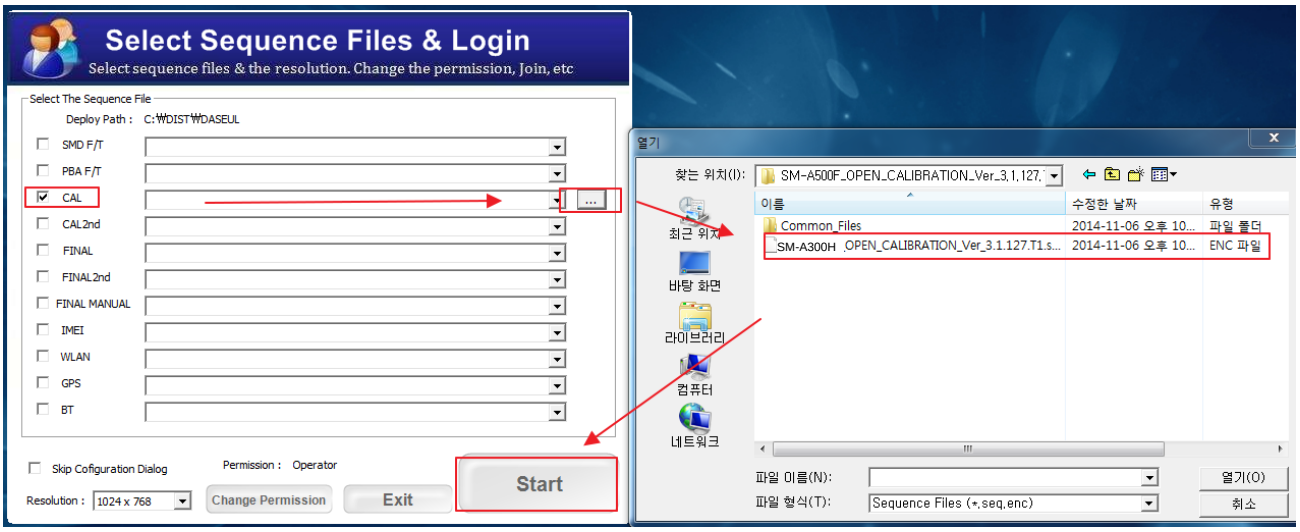
1. Run the RF Calibration Program Launcher, 'DASEUL_Launcher_vx.x.xx.exe'.



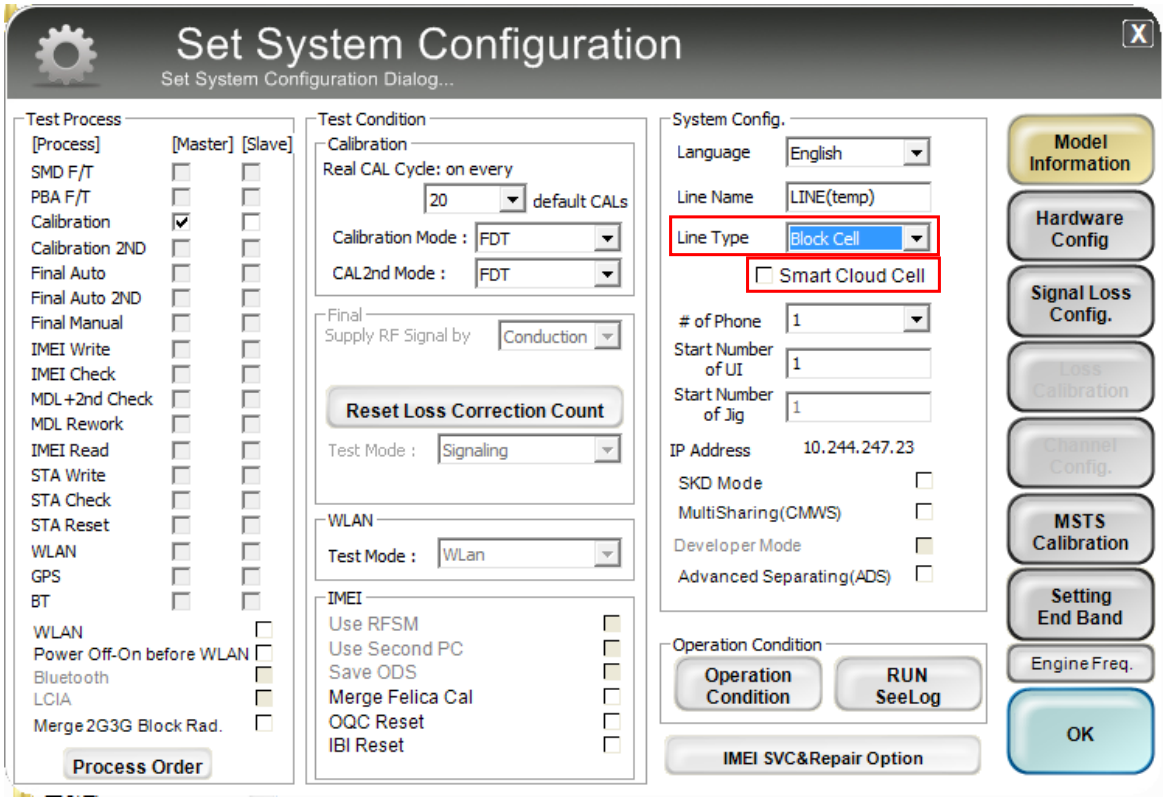
2. Check the 'Calibration' menu, and select 'Extract & Run'.



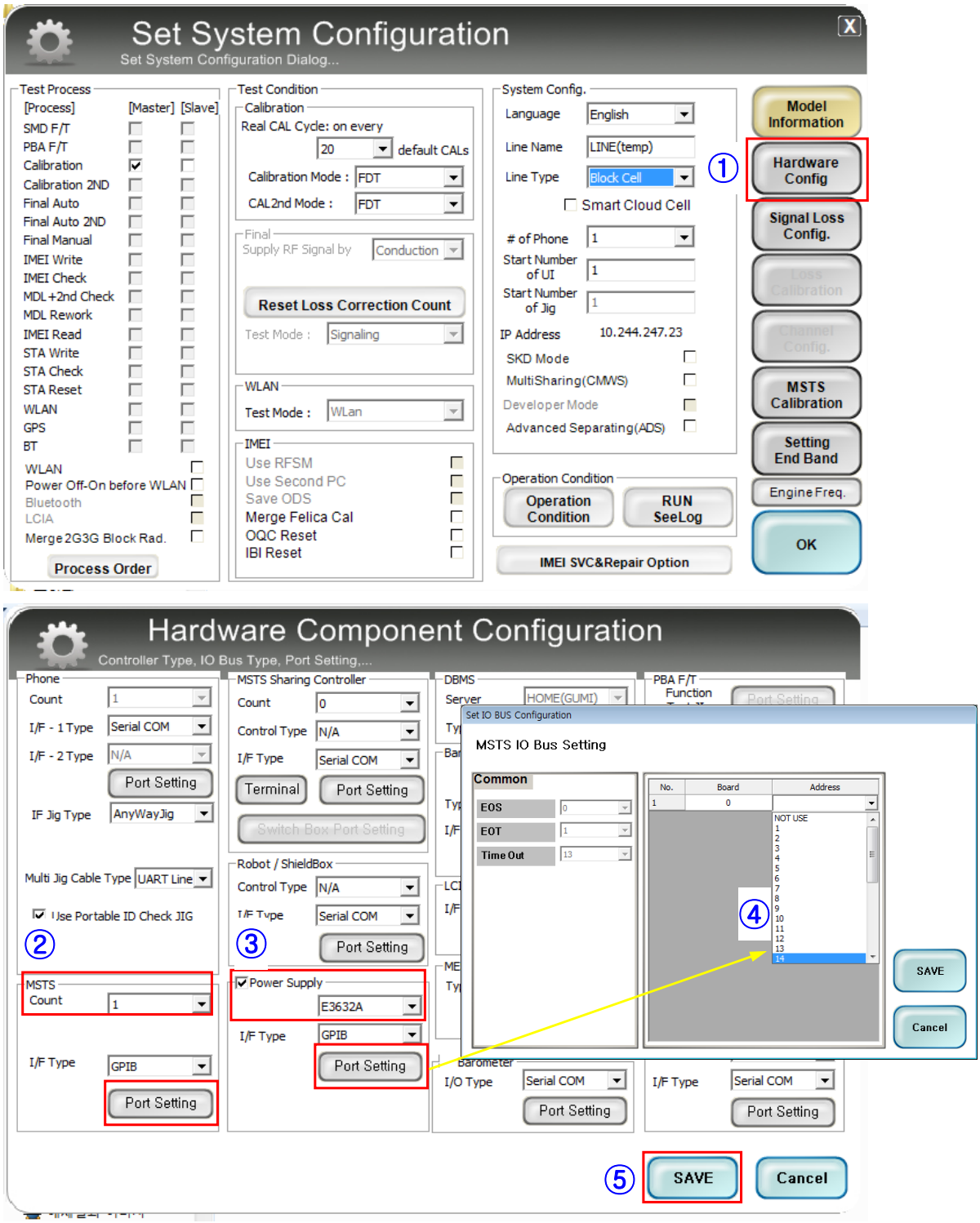
3. Check the 'CAL' and open the model file, then select 'Start' button.



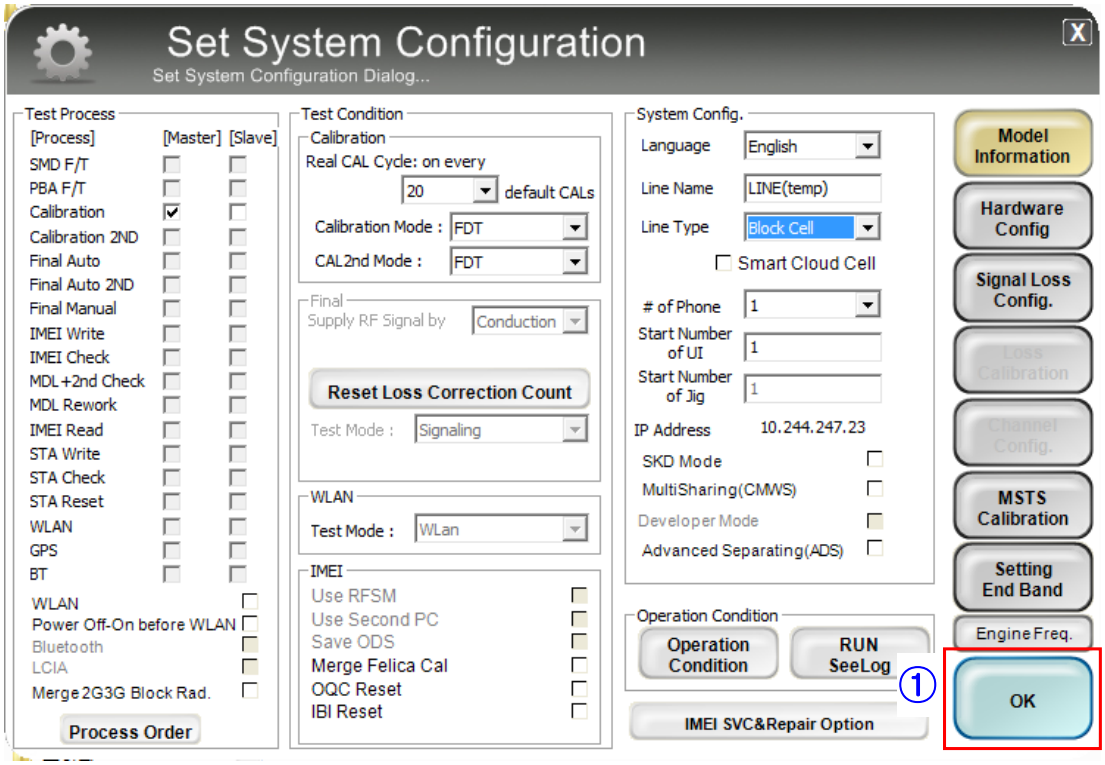
4. Change the Line Type to 'Block Cell' and disable 'Smart Cloud Cell'.

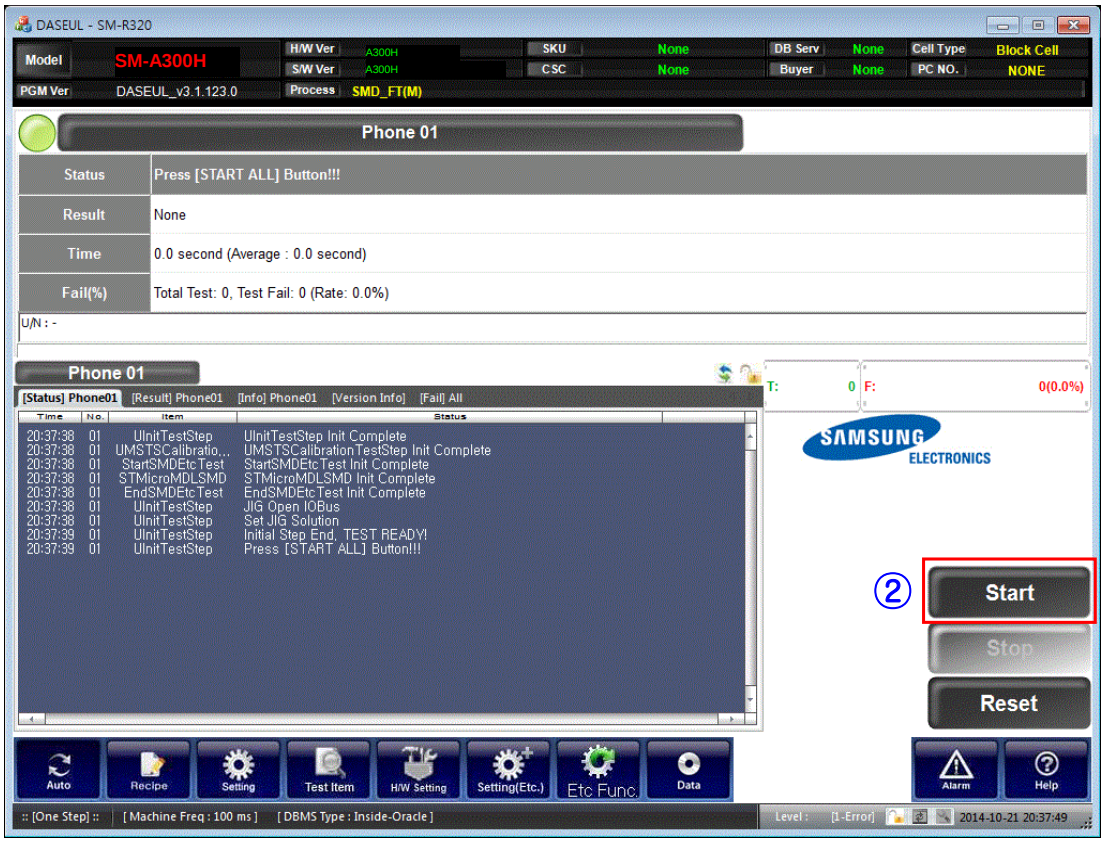


5. Set the GPIB address of MSTS(CMW500) and Power Supply(E3632A) to enter 'Hardware Config' and 'Save'. (Check the GPIB address of equipments in advance)



6. Press 'OK' to start RF Calibration after completing all settings.





8. Level 3 Repair

8-1. Speaker module Repair

→ Whenever speaker module should be changed from broken one to new one, "SPK calibration" should be done like below.

8-1-1. Required items in order to repair speaker module

- SM-A300H Mobile Phone
- SM-A300H Speaker module
- PC
- Earphone
- JIG BOX (GH99-36900B)
- JIG Cable (GH81-10953A)
- Serial Cable

※ Settings

Connect ANYWAY JIG
with JIG CABLE (Phone to JIG)
and PC to Anyway JIG Using Serial cable

9-1-2. Speaker module replacement procedure.

- To Be Determined soon.

9-1. Battery Replacement

→ Whenever the battery should be changed from broken one to new one, "Battery accumulation usage-amount initialization" should be done like below.

9-1-1. Required items in order to repair battery

- SM-A300H Mobile Phone
- SM-A300H Battery
- PC
- JIG BOX (GH99-36900B)
- JIG Cable (GH81-10953A)
- Serial Cable

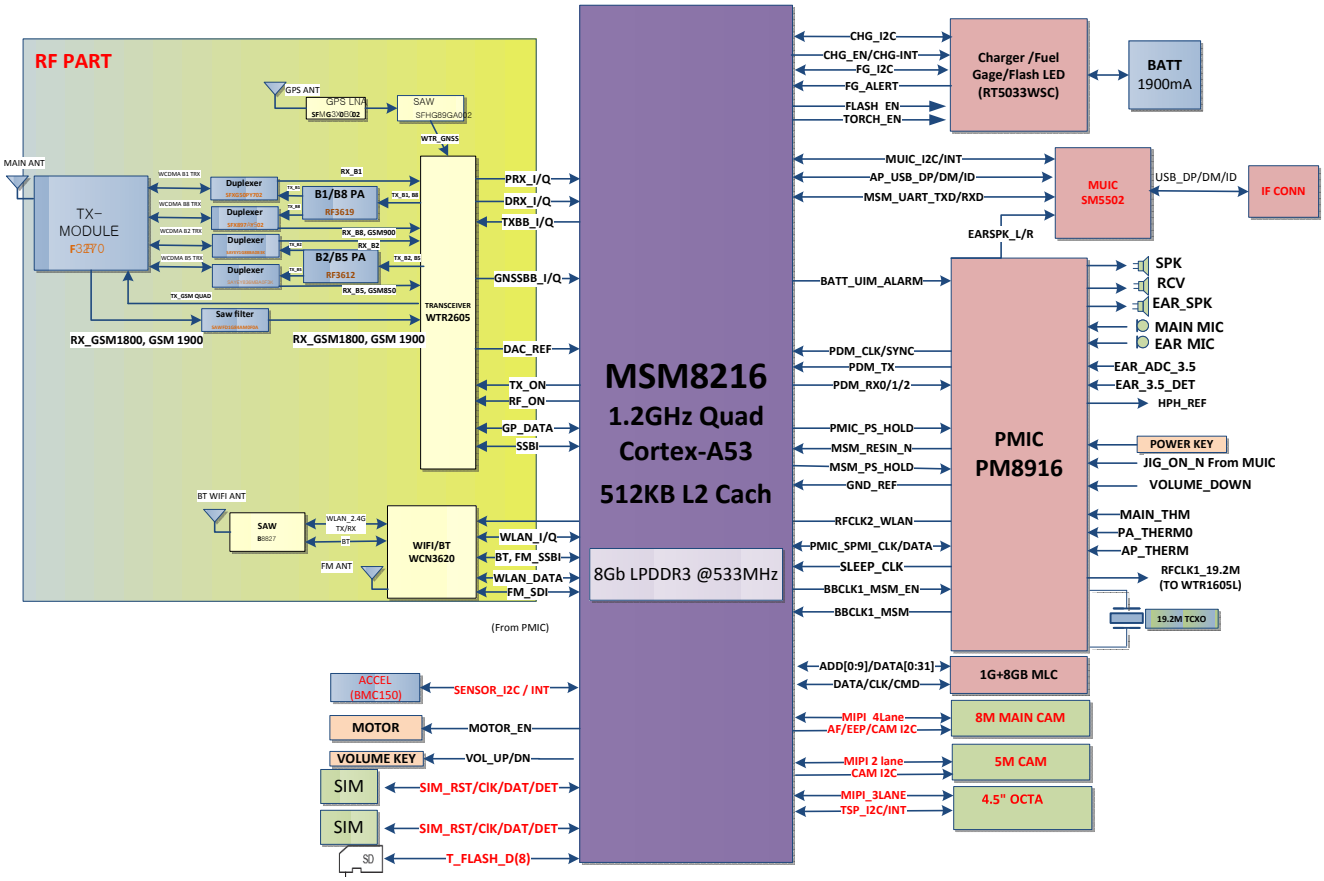
※ Settings

Connect ANYWAY JIG
with JIG CABLE (Phone to JIG)
and PC to Anyway JIG Using Serial cable

9-1-2. Battery replacement procedure.

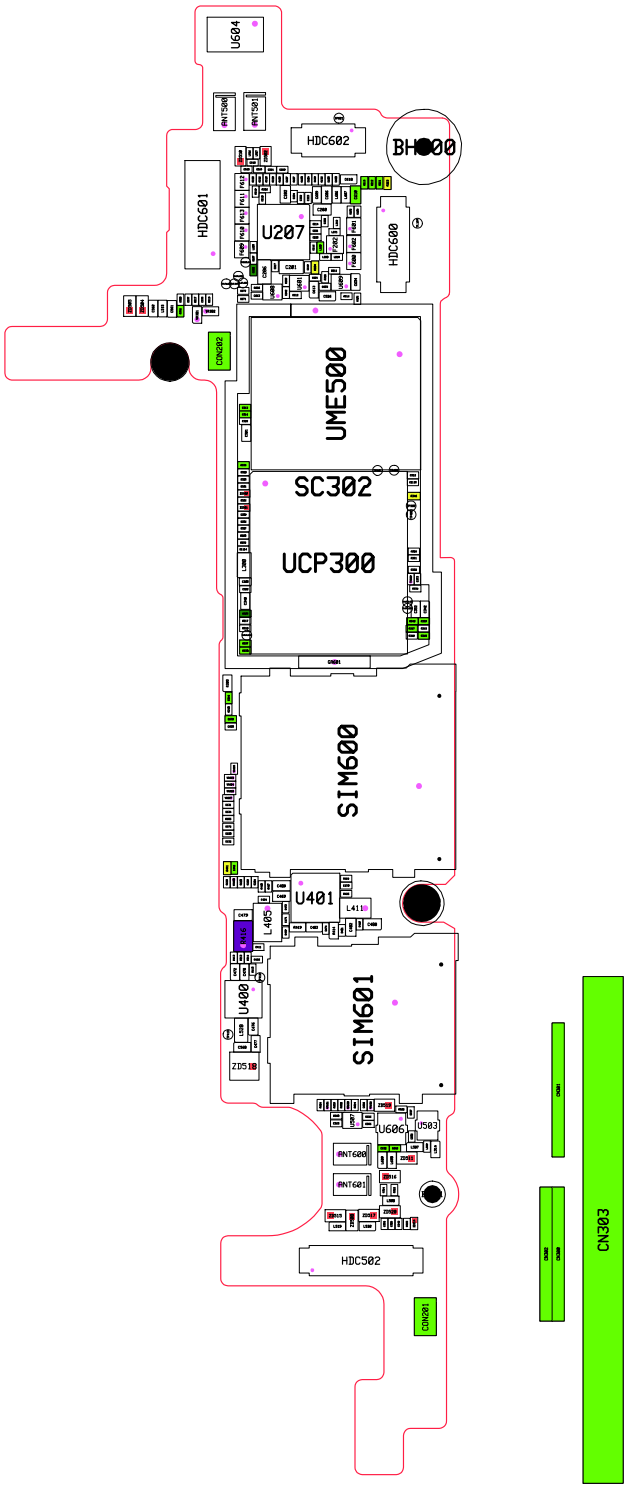
- To Be Determined soon.

8-1. Block Diagram

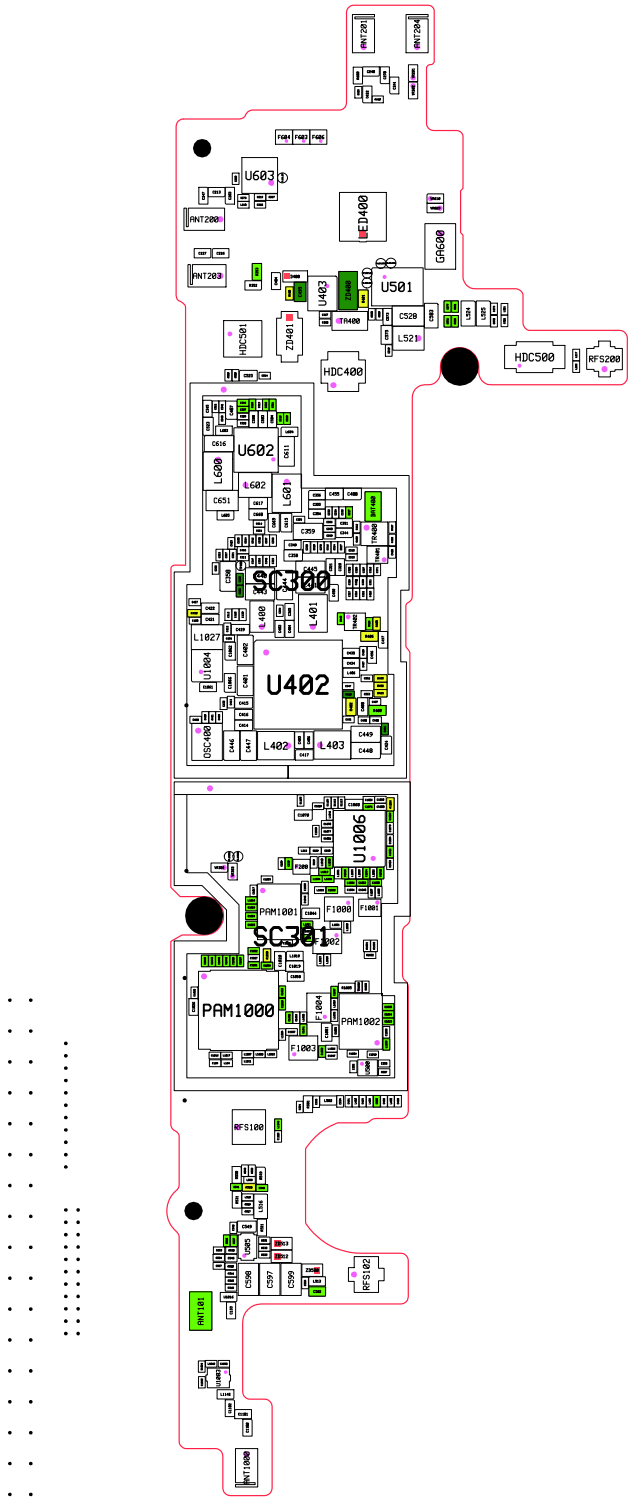


8-2. PCB Diagrams

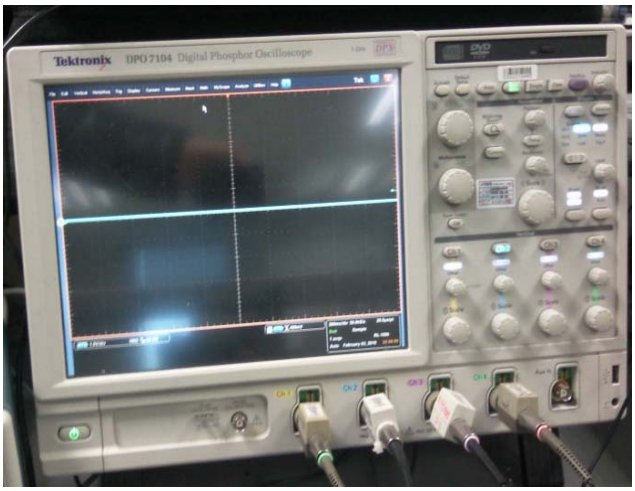
8-2-1. Main PCB Top



8-2-2. Bottom



8-2-3. Equipments

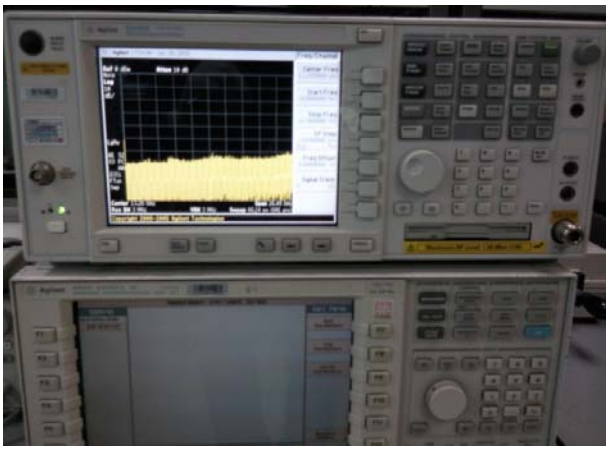


↑ Oscilloscope

↑ Digital Multimeter

↑ Power Supply

↑ + driver, ESD Safe Tweezer

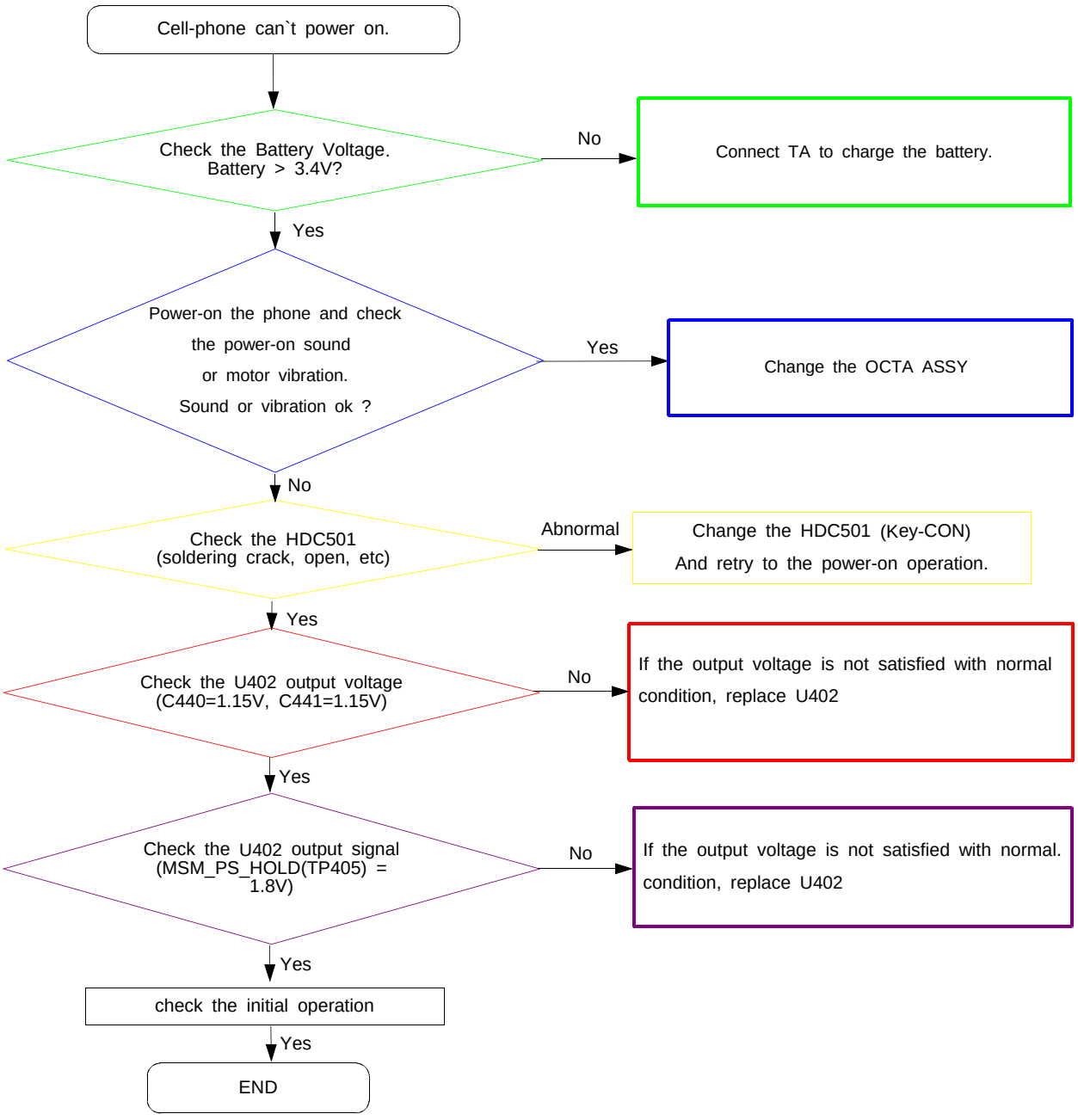


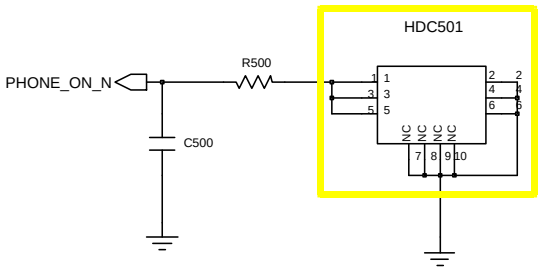
↑ 8960 & Spectrum Analyzer

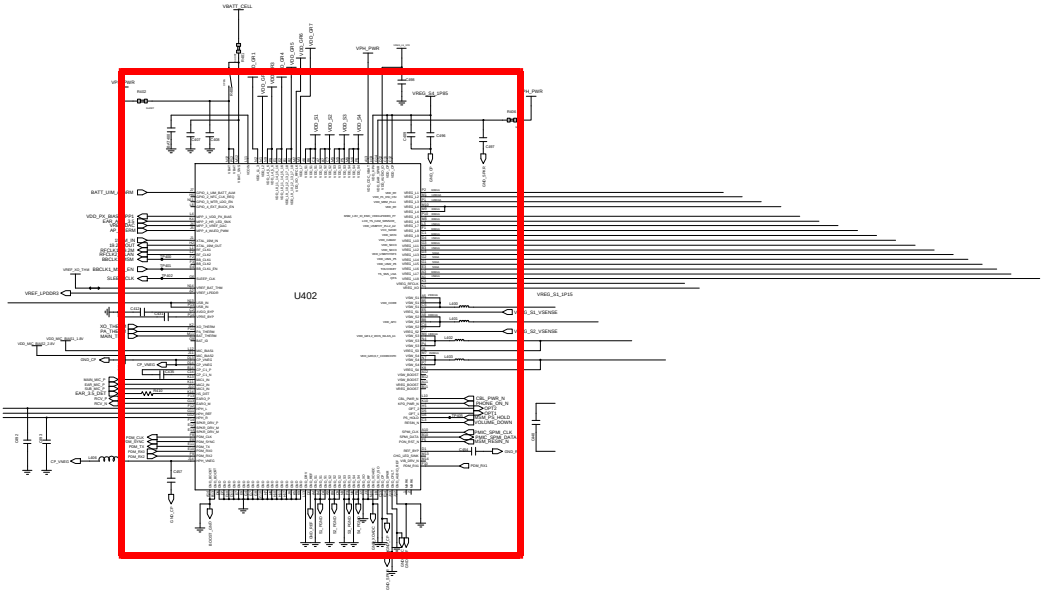
↑ Soldering iron

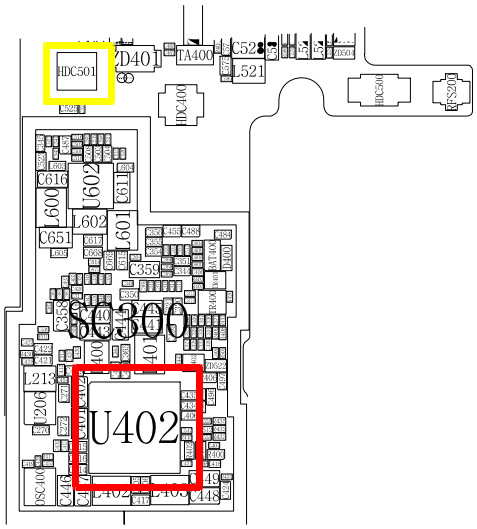
8-3. Flow Chart of Troubleshooting

8-3-1. Power On

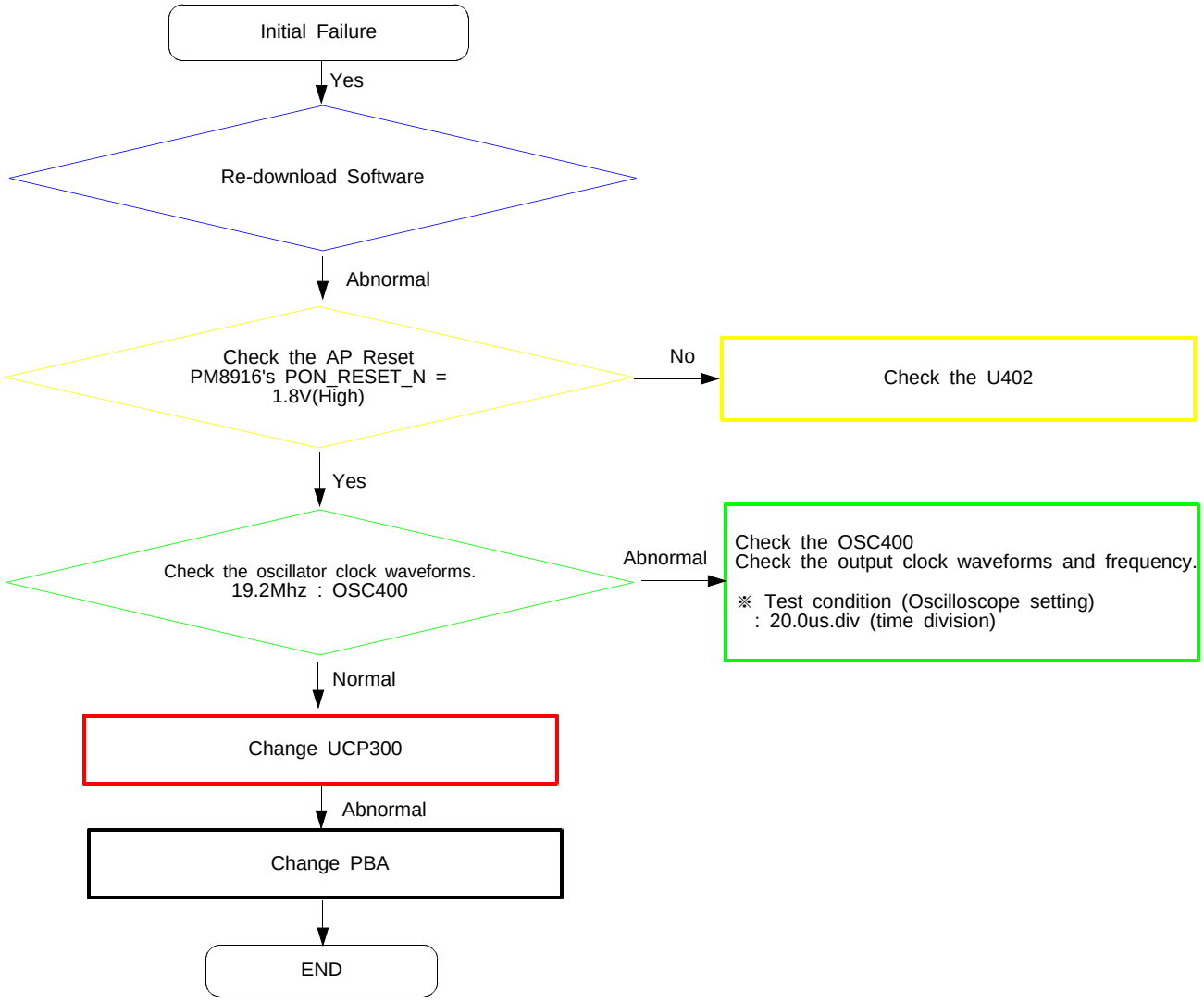


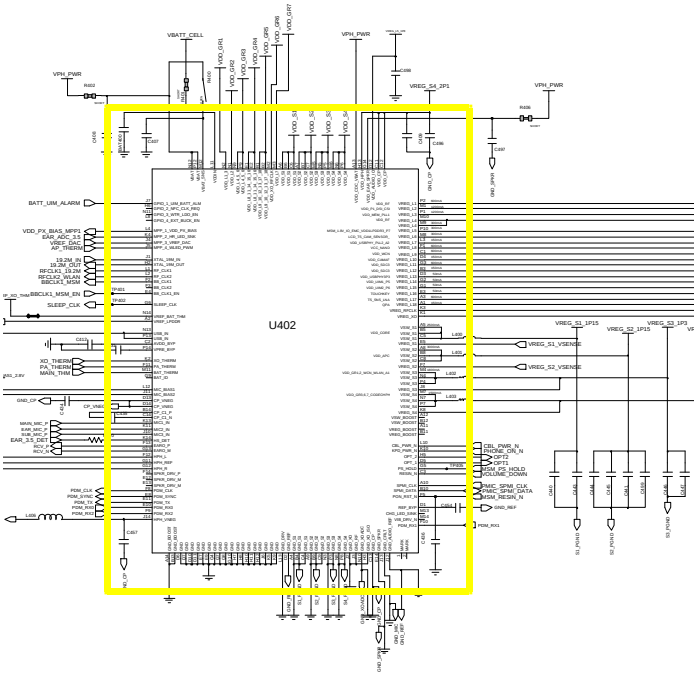


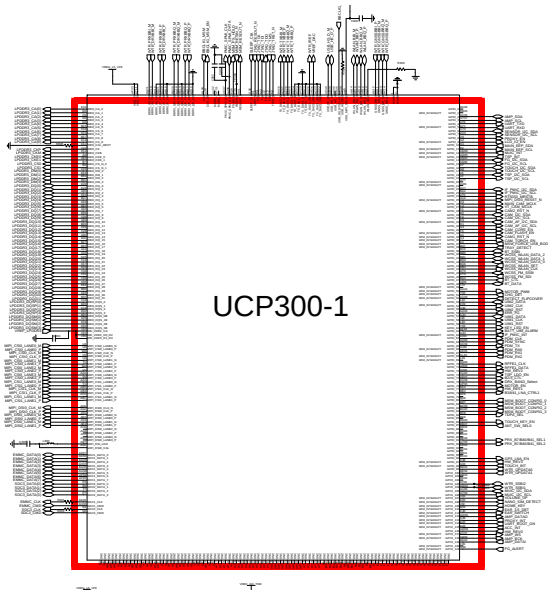


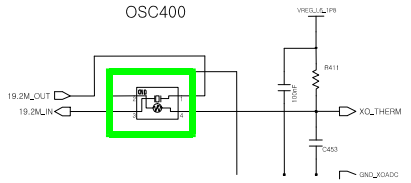


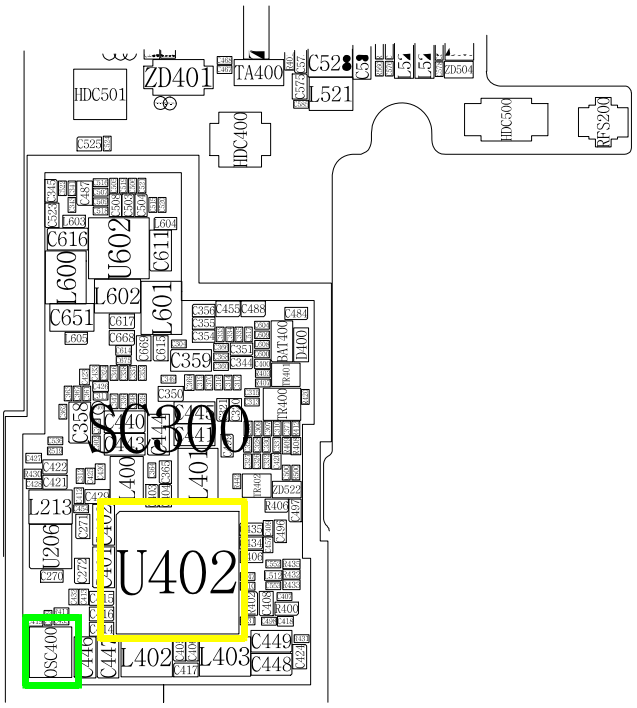
8-3-2. Initial

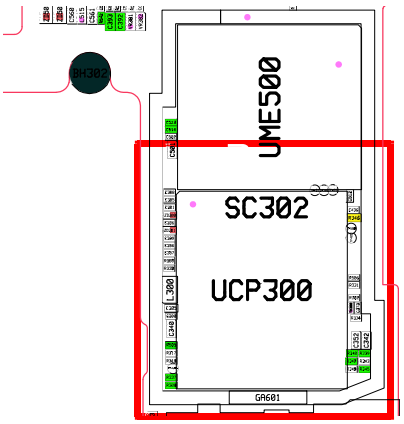




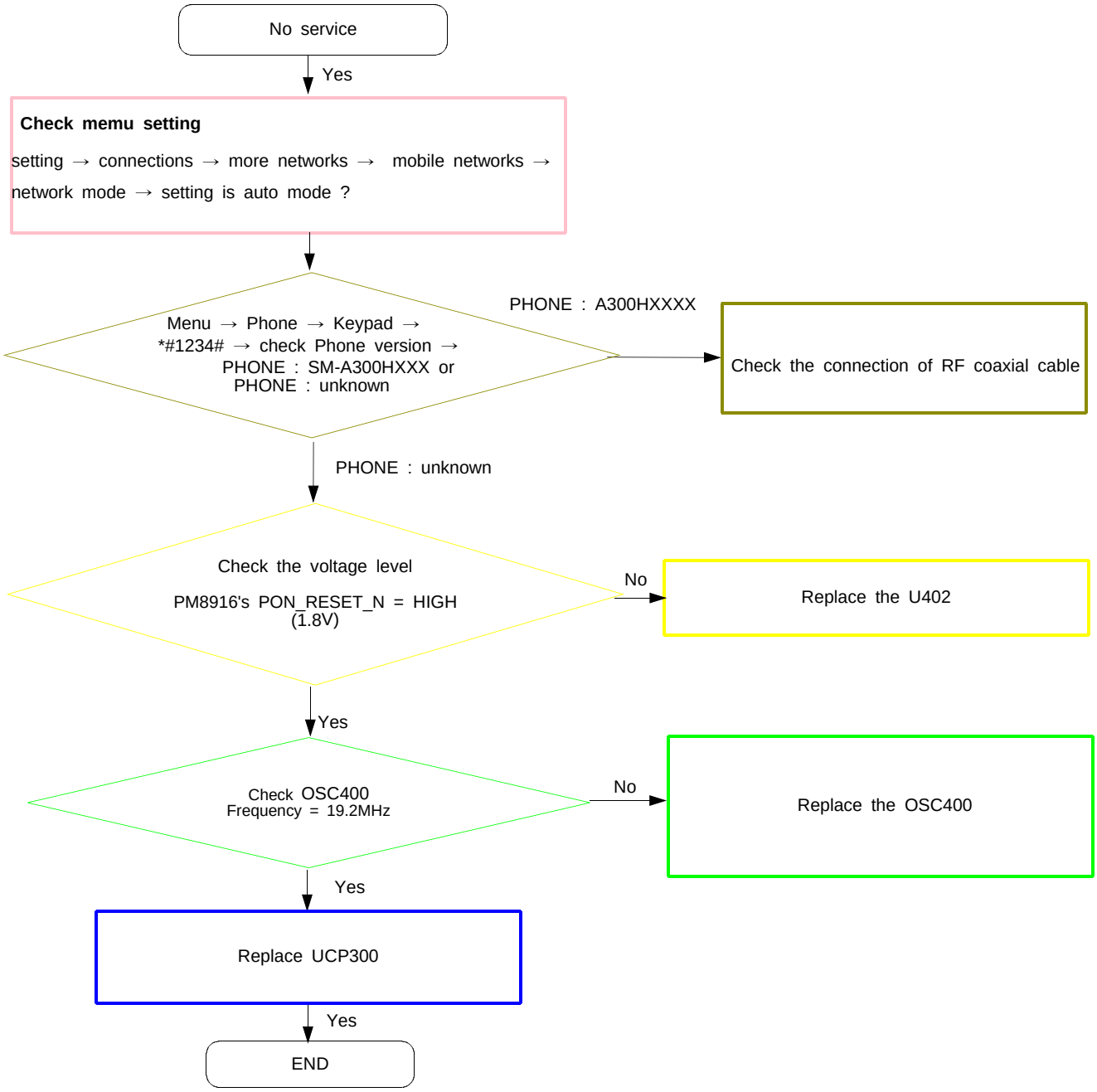


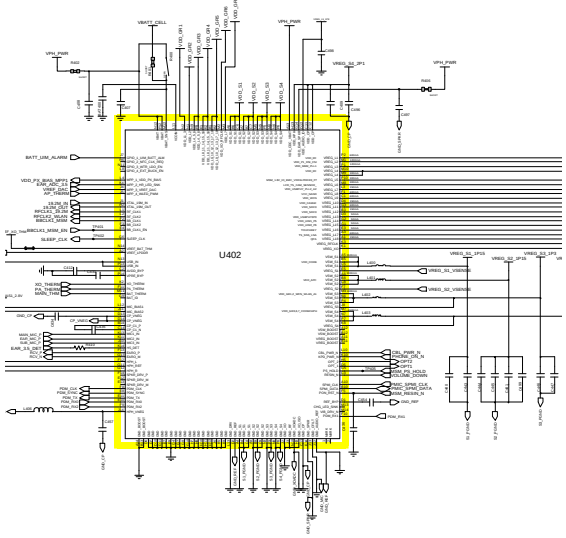


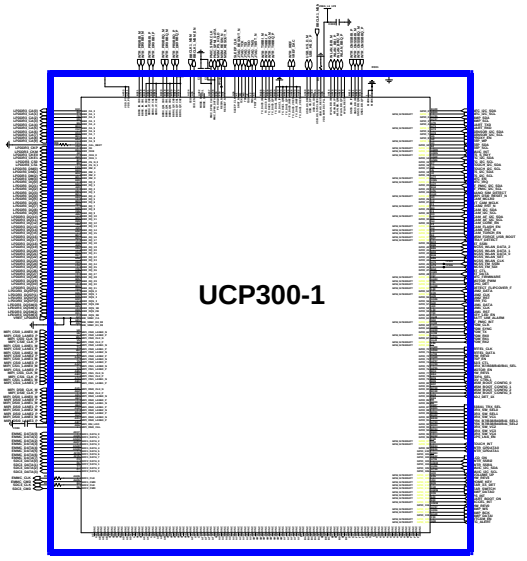


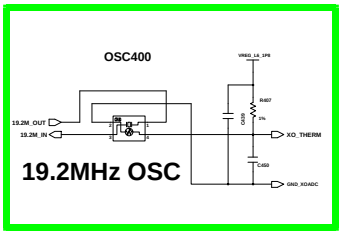


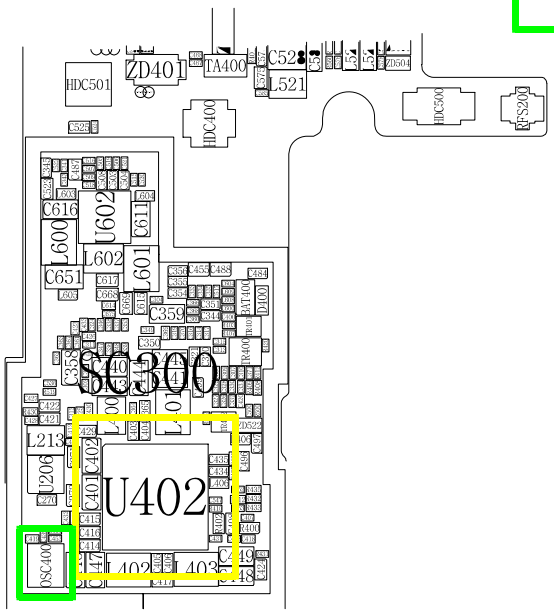
8-3-3. No Service

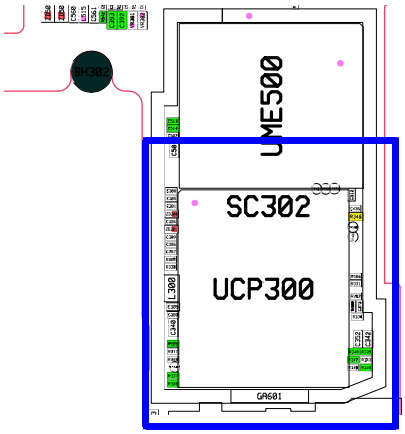




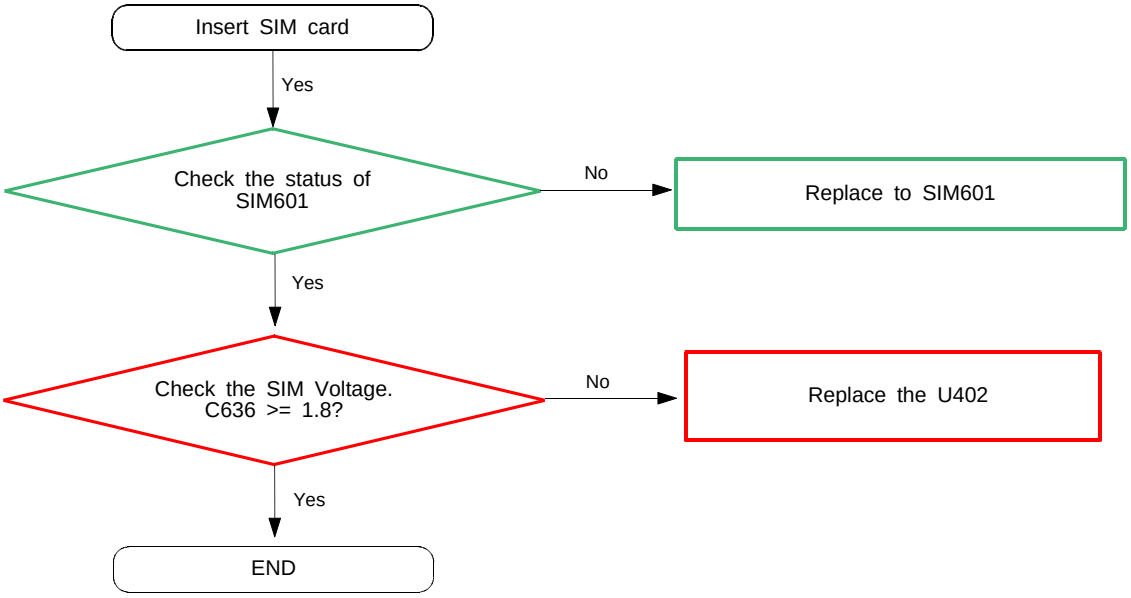


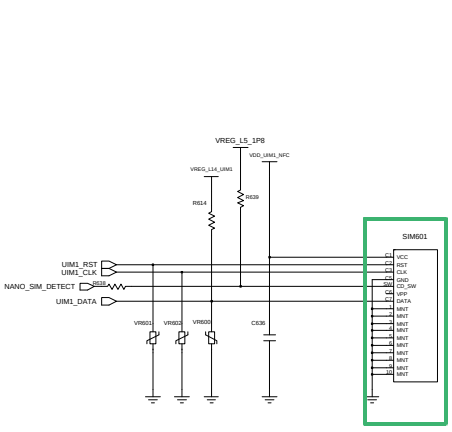


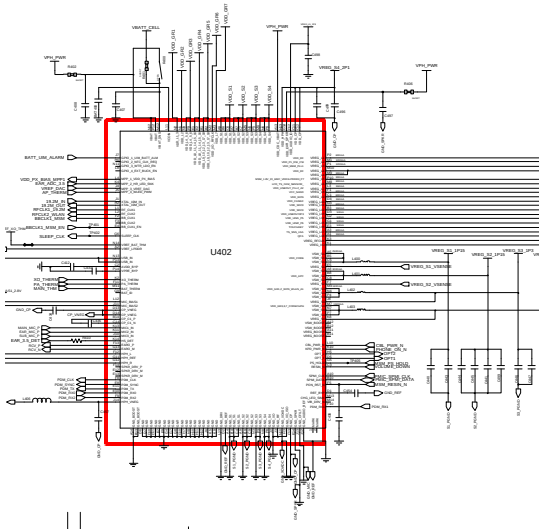


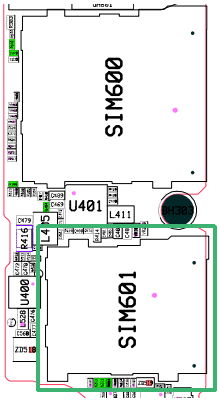


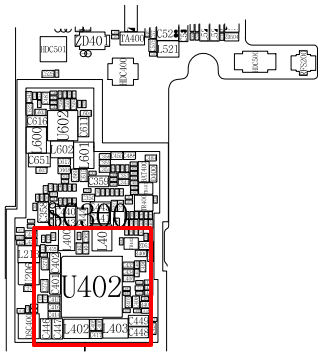
8-3-4. SIM1 Part



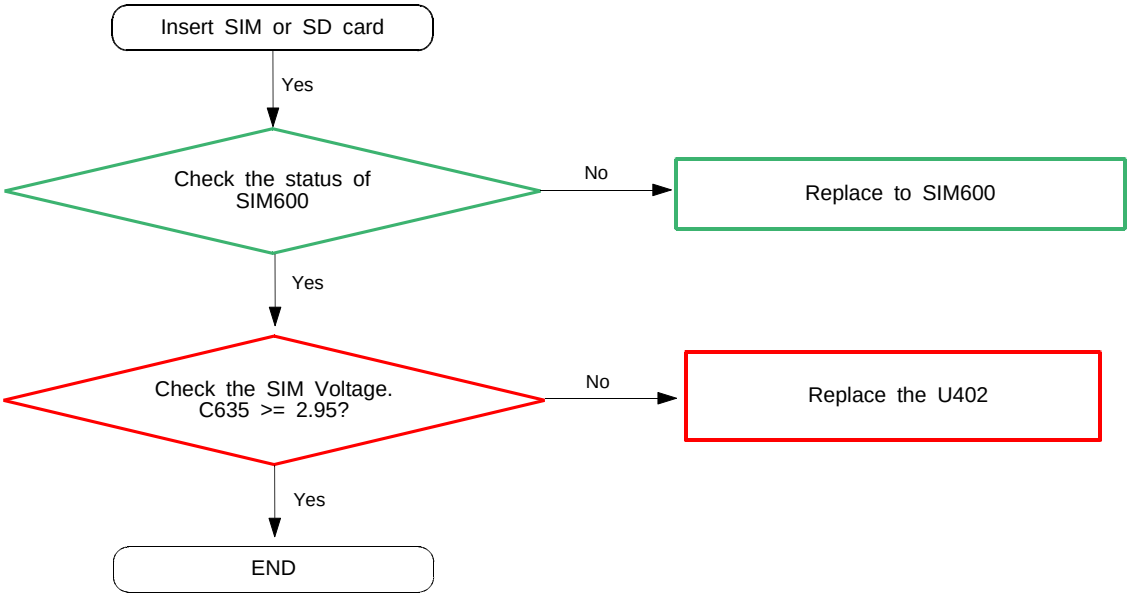


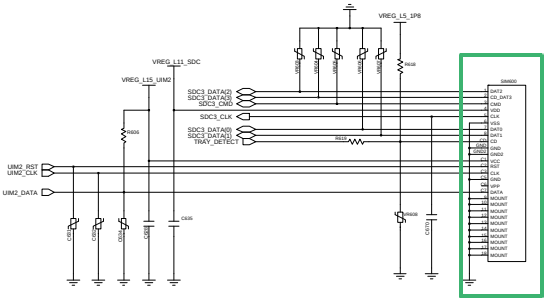


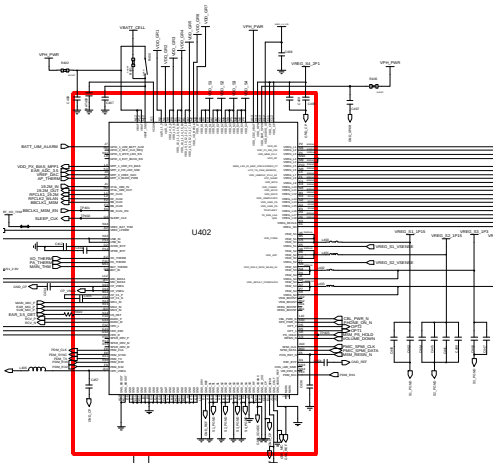


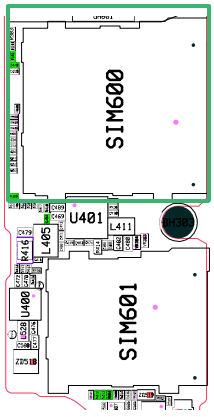


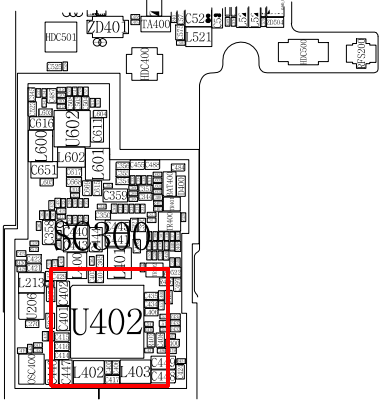
8-3-5. Hybrid Socket Part



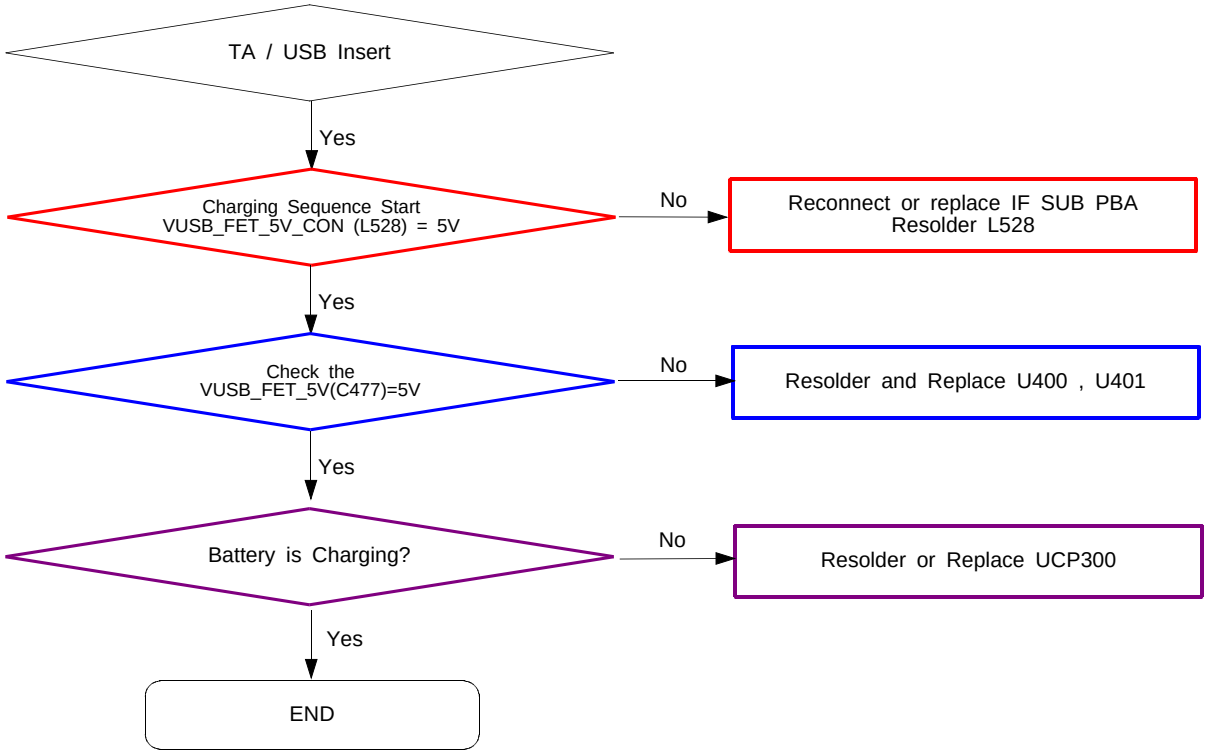


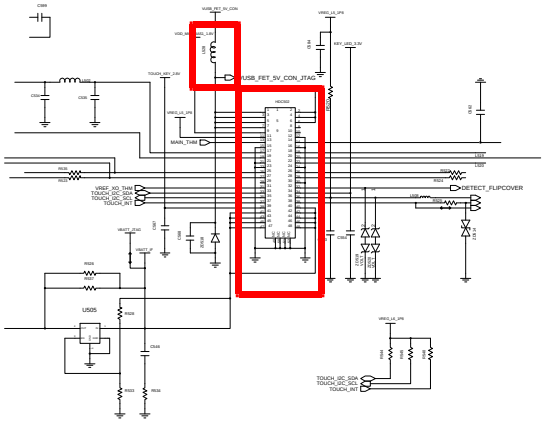


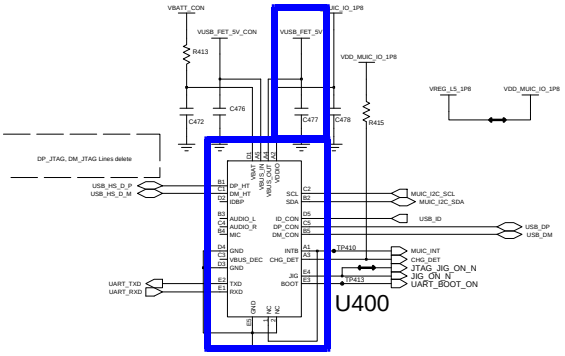


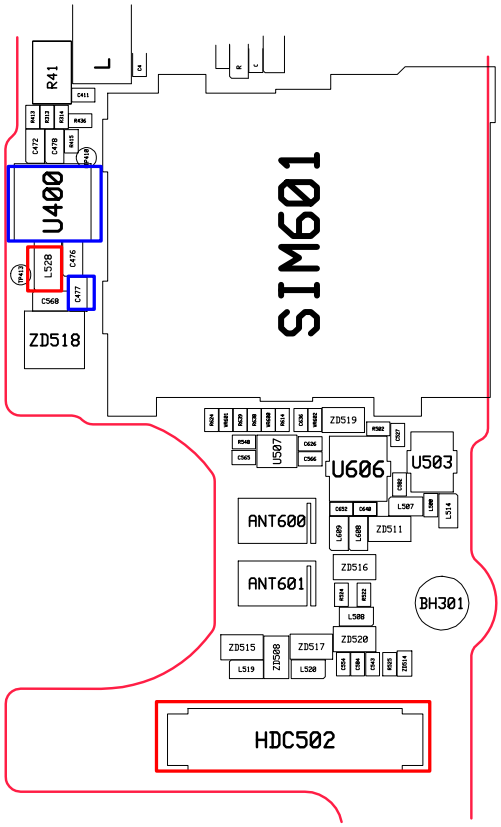


8-3-4. Charging Part

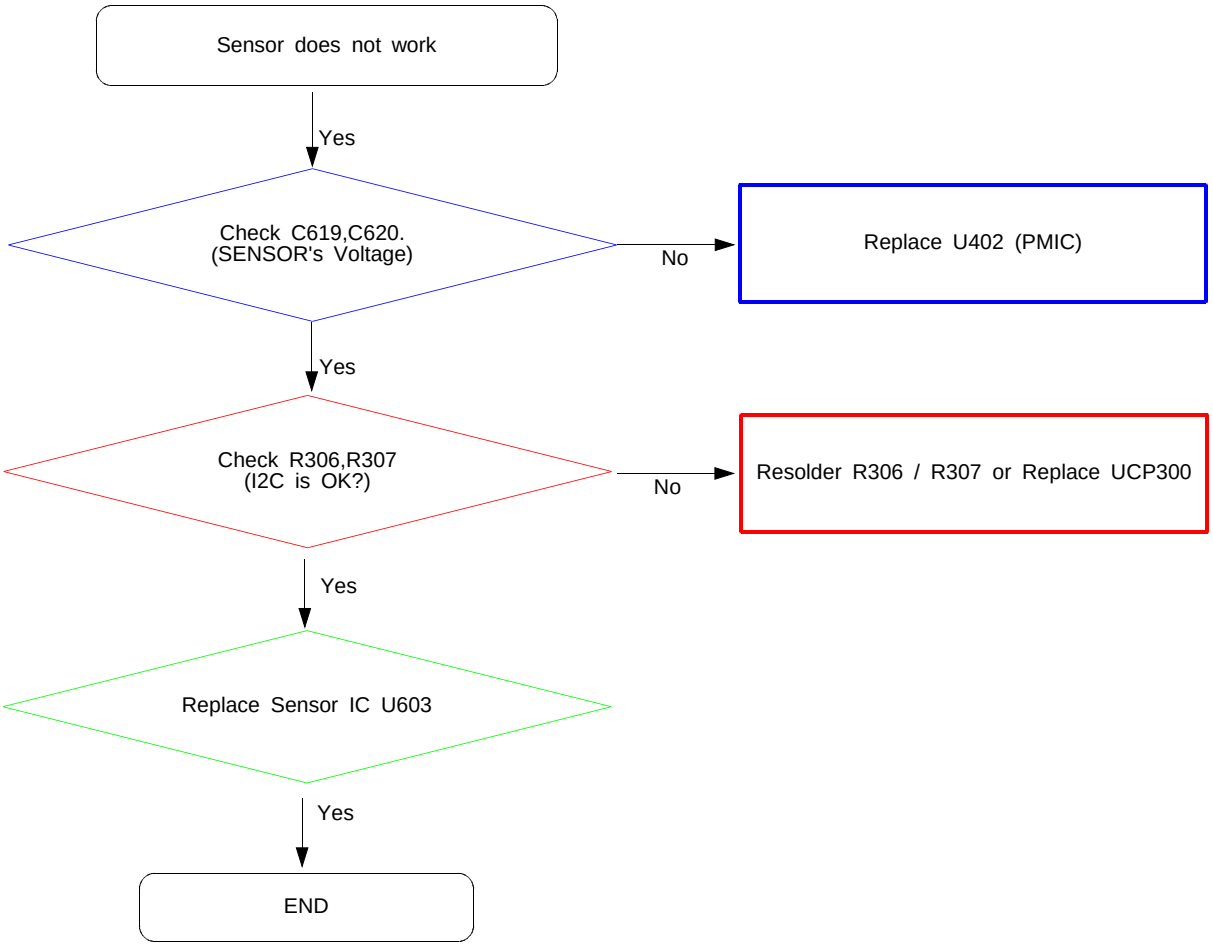


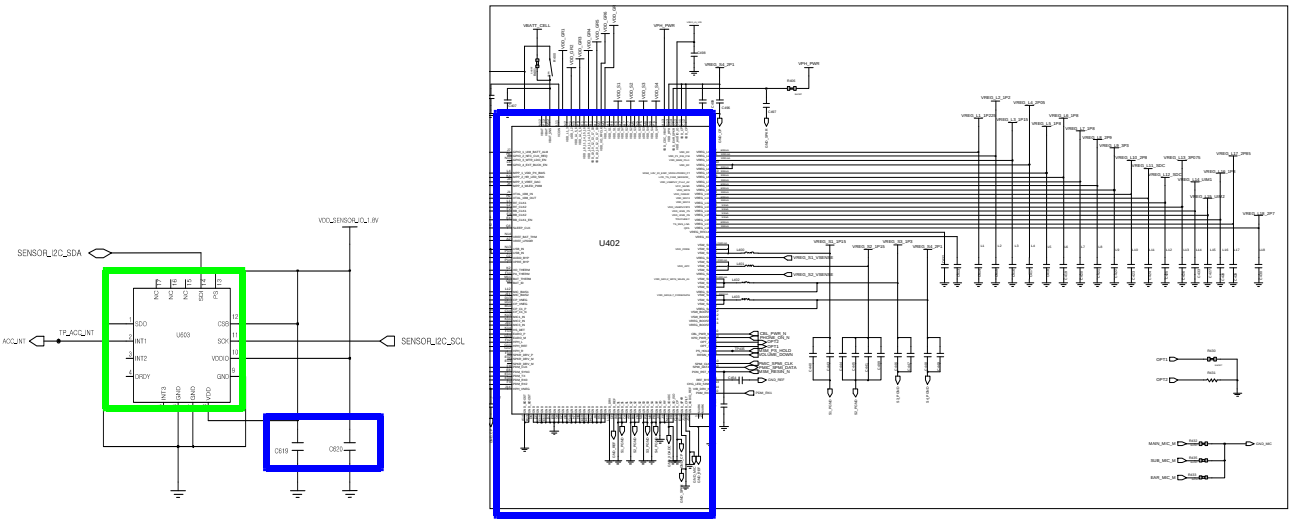


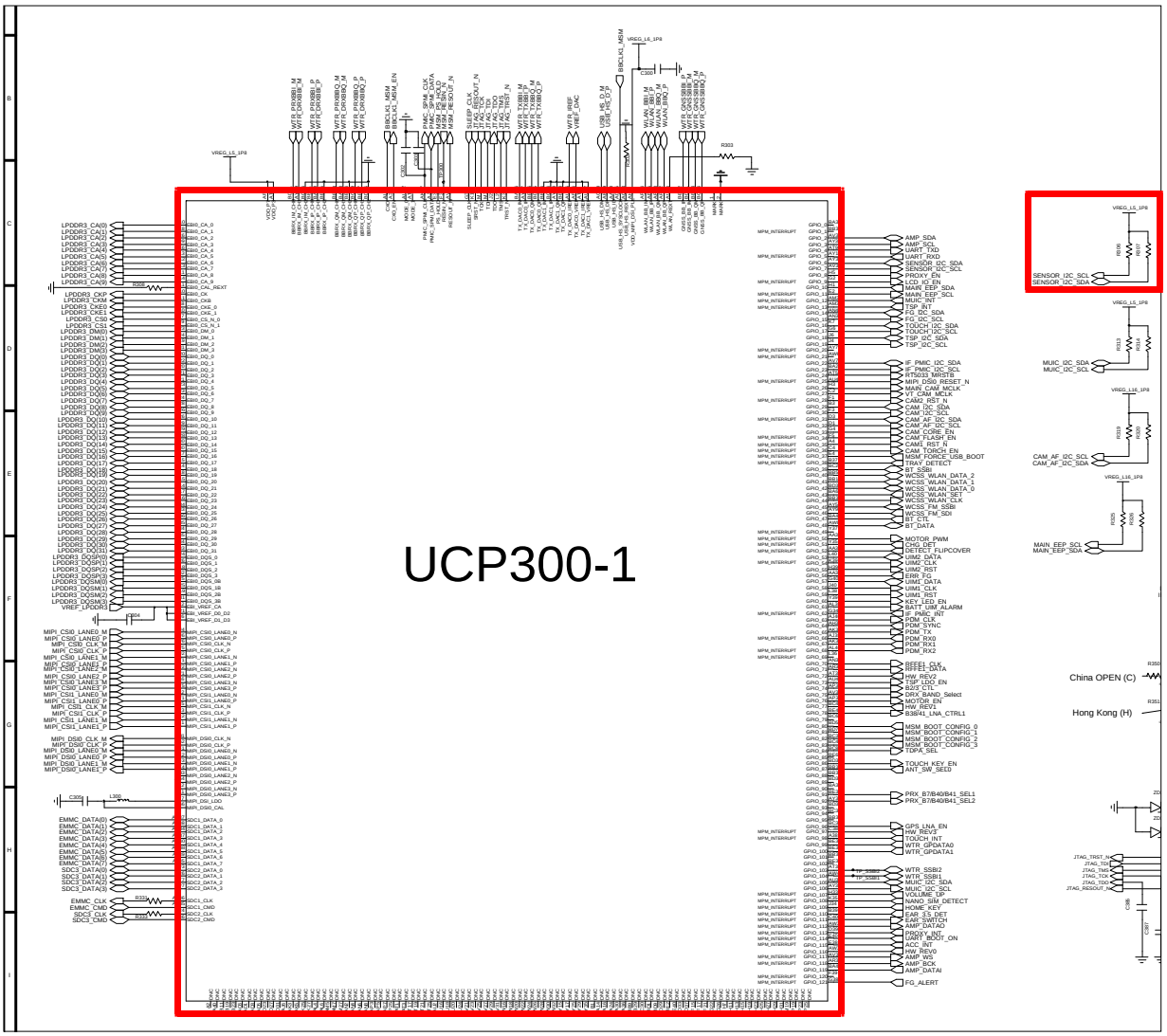


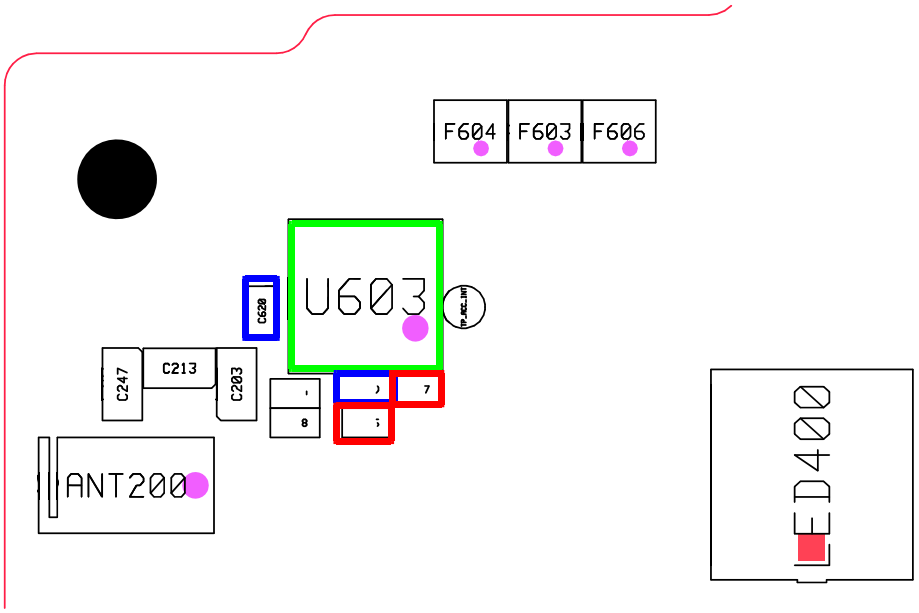


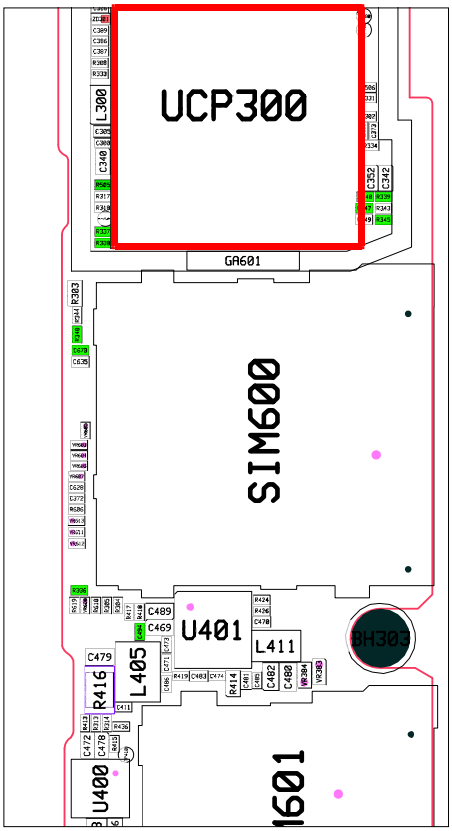
8-3-5. 6 Axis Sensor

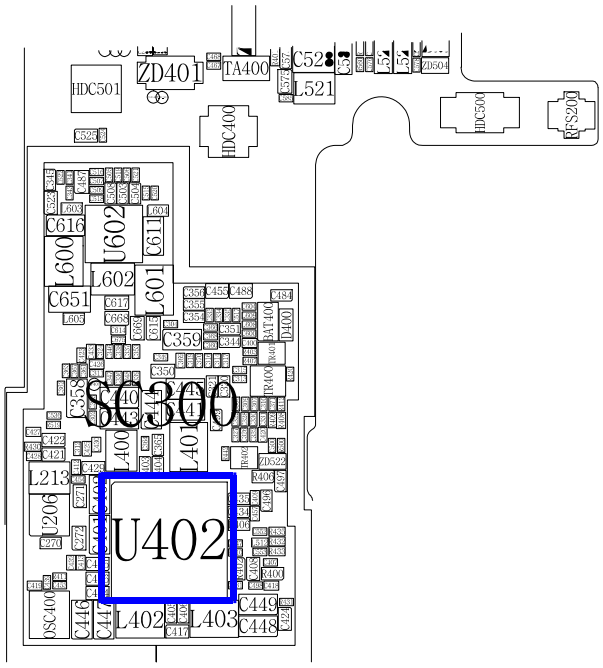




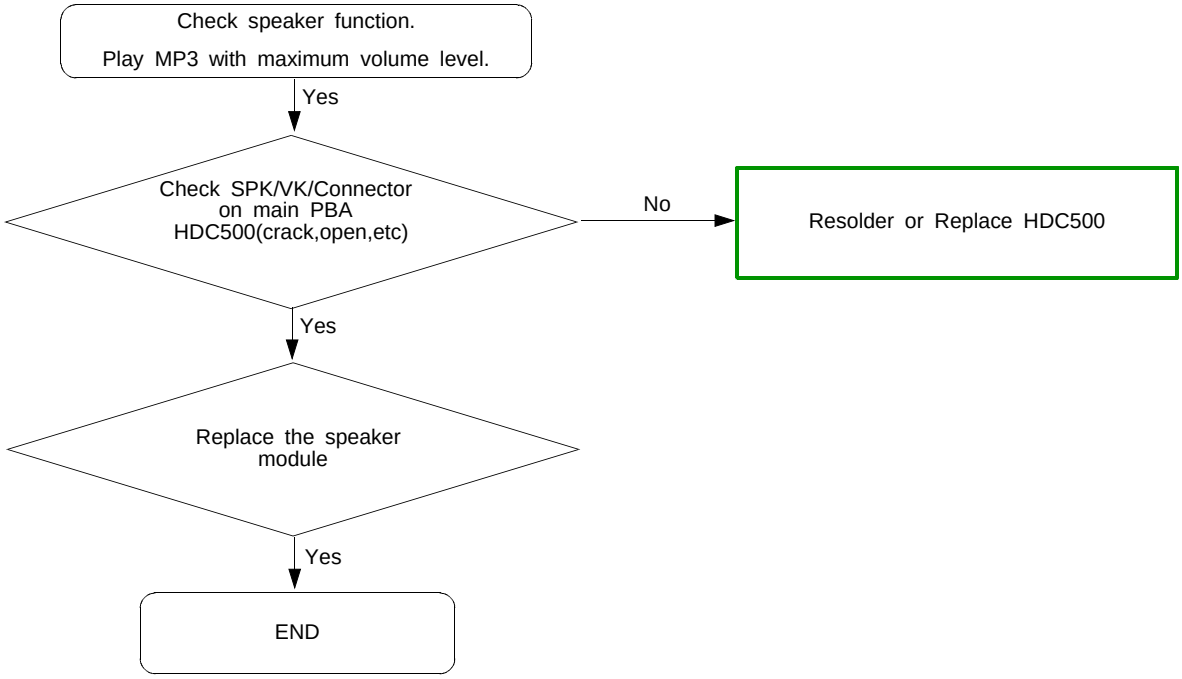


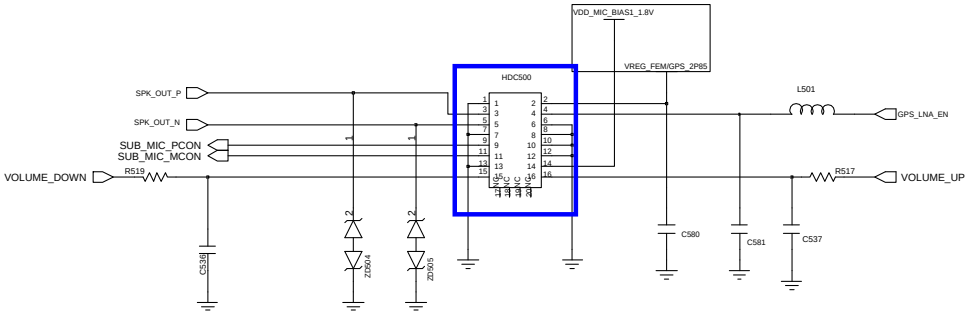




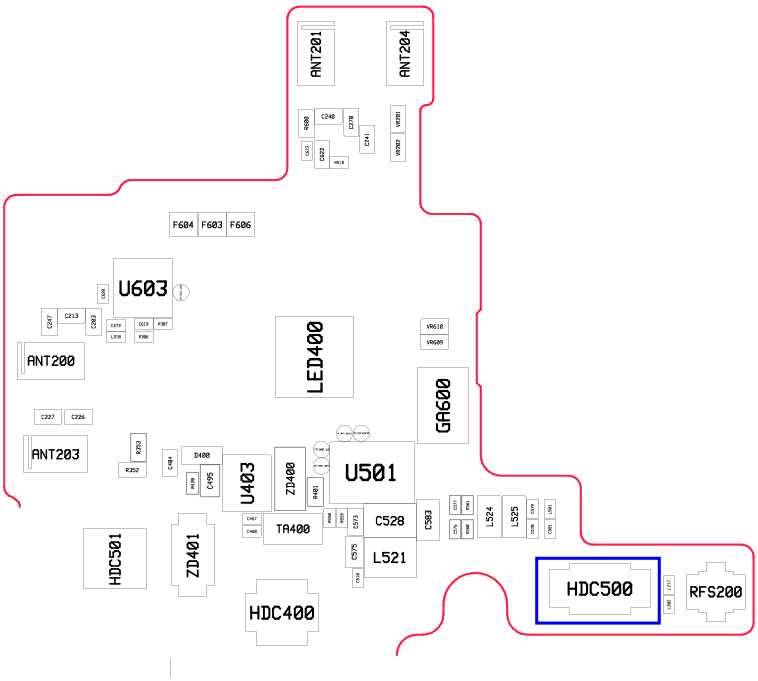


8-3-6. Speaker Part

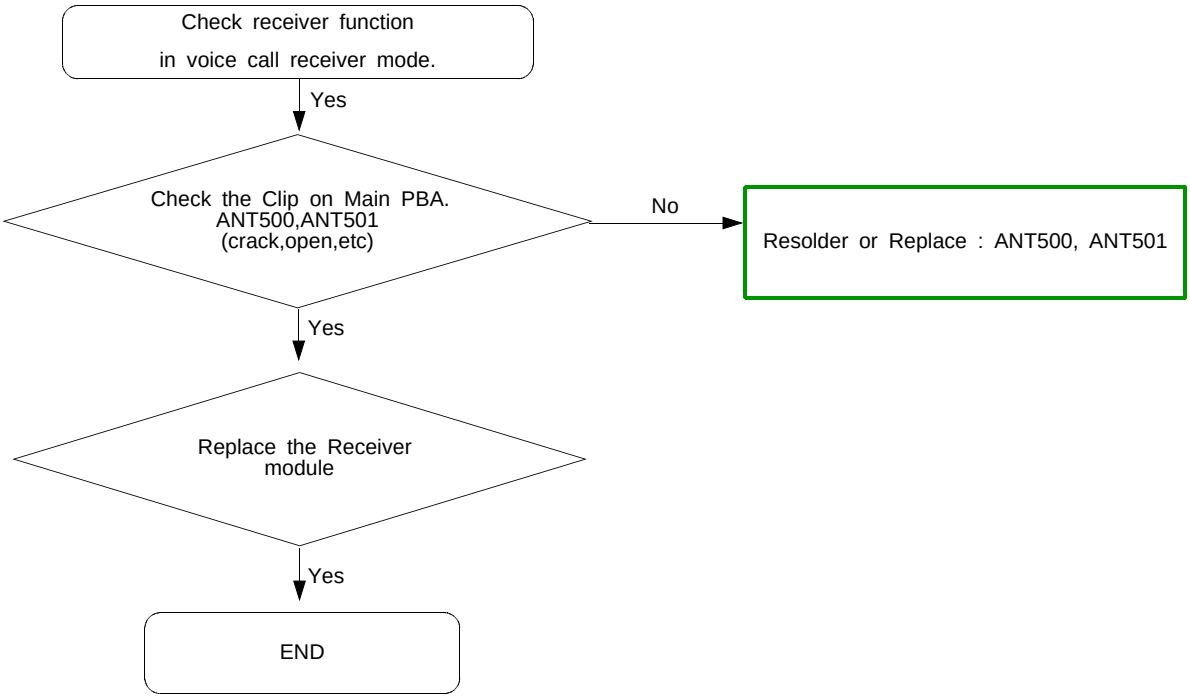


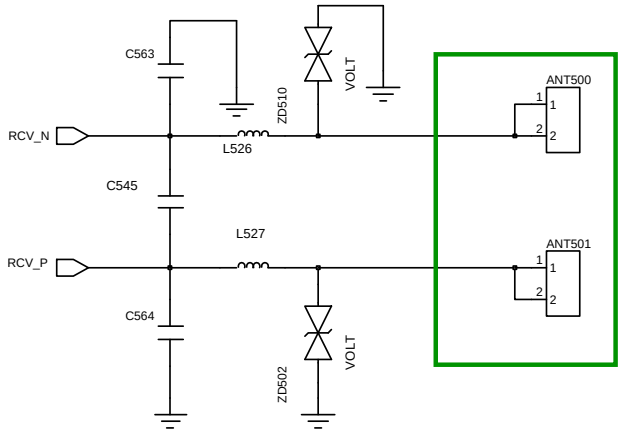


SPK / VK / Connector

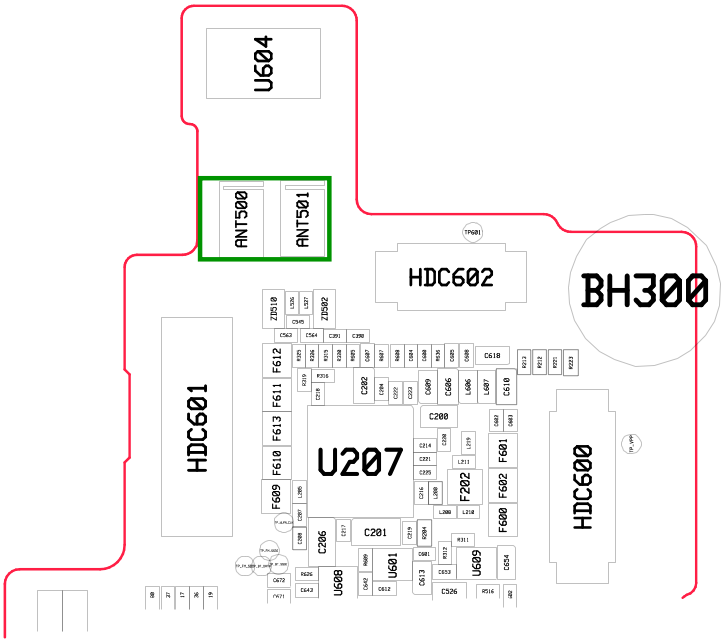


8-3-7. Receiver Part

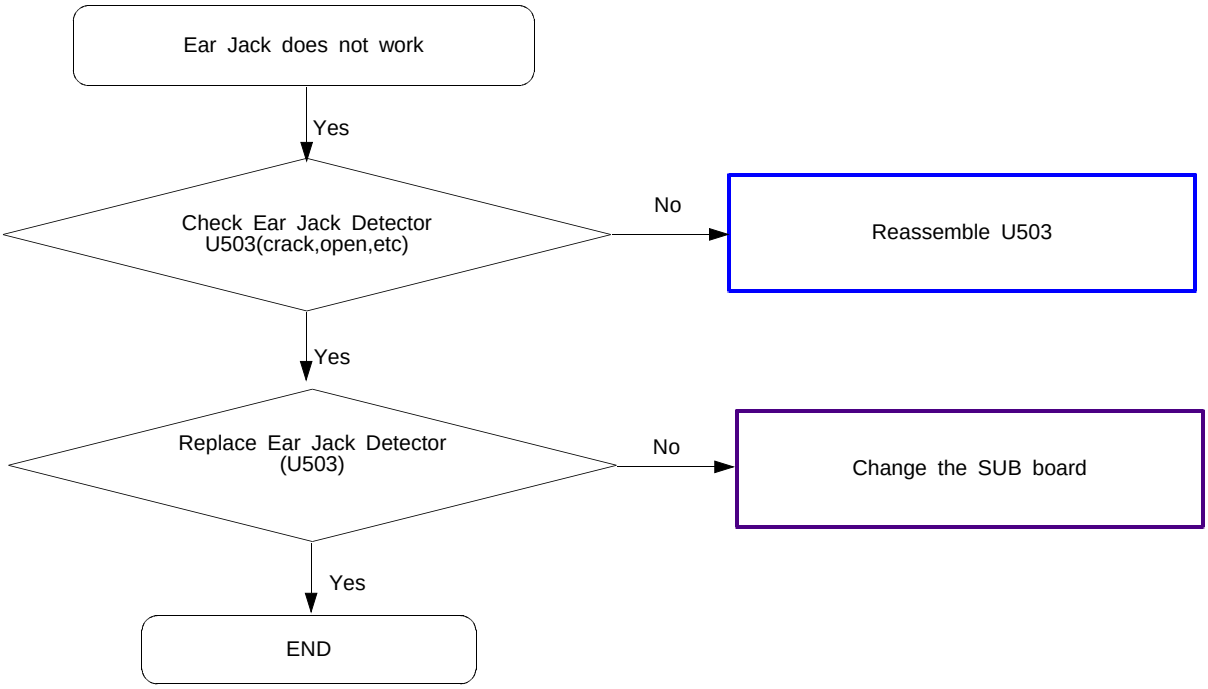


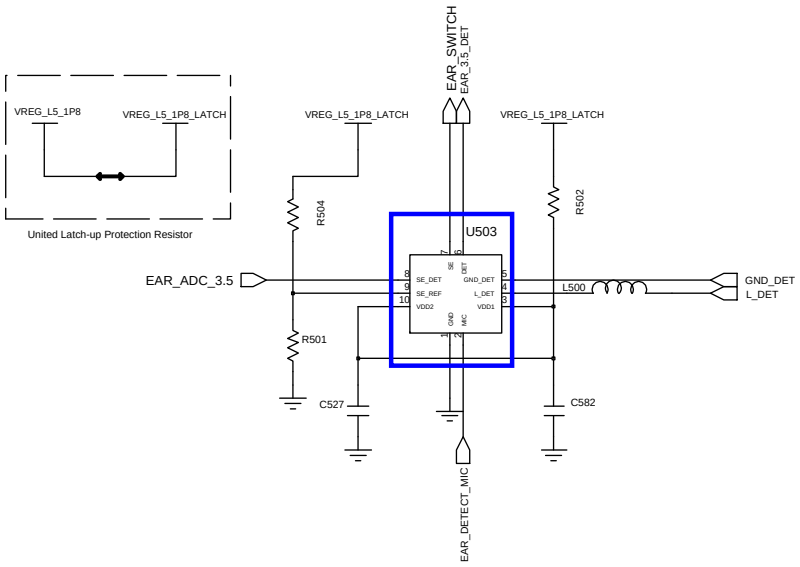


RCV CONTACT

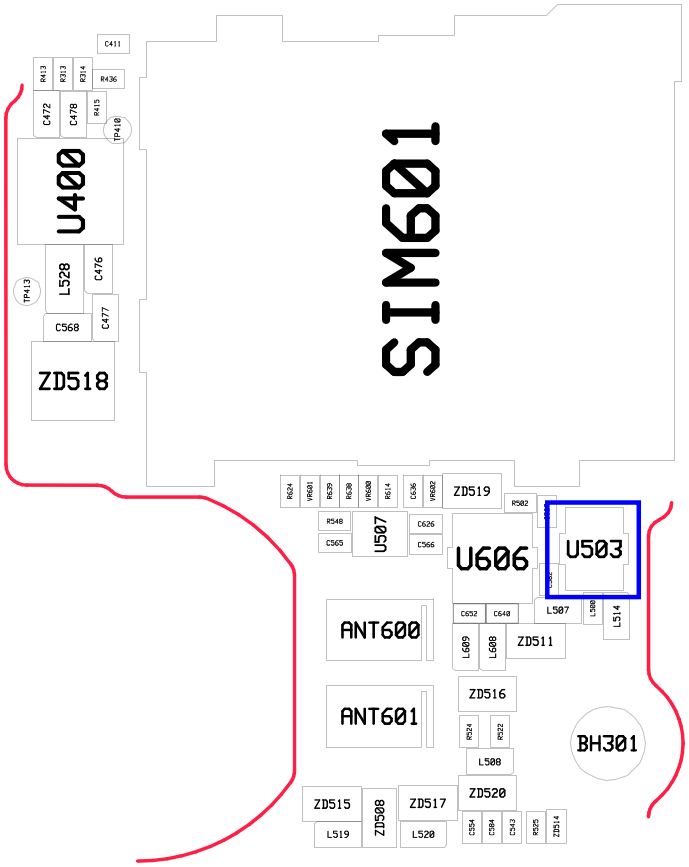


8-3-8. Ear Jack

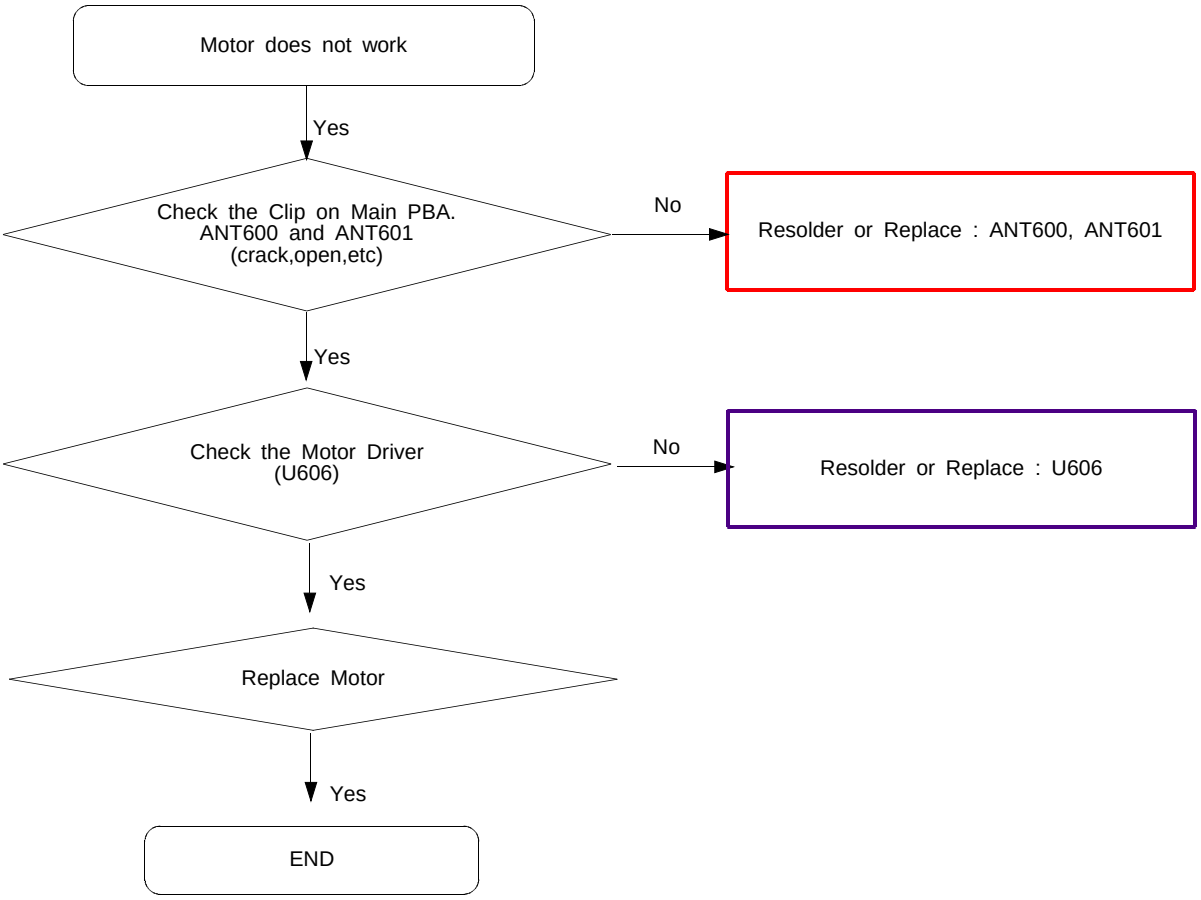


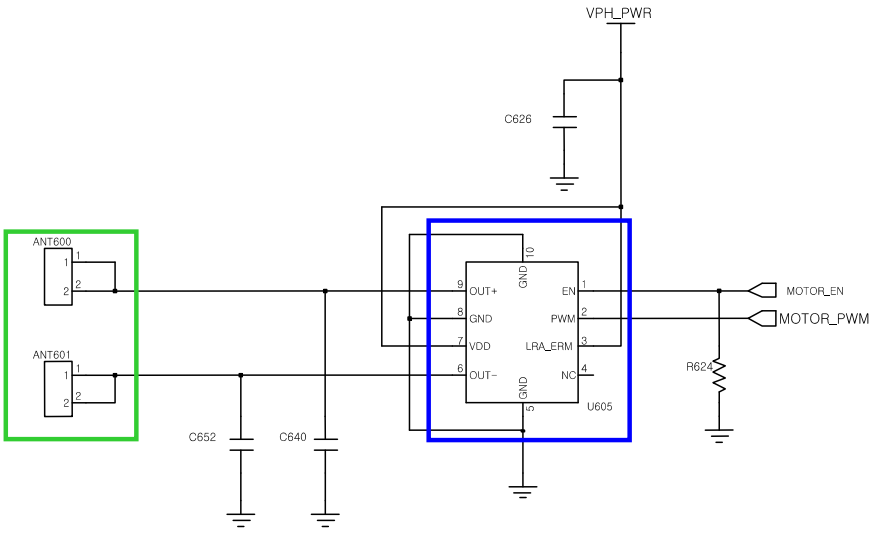


Earphone Detect

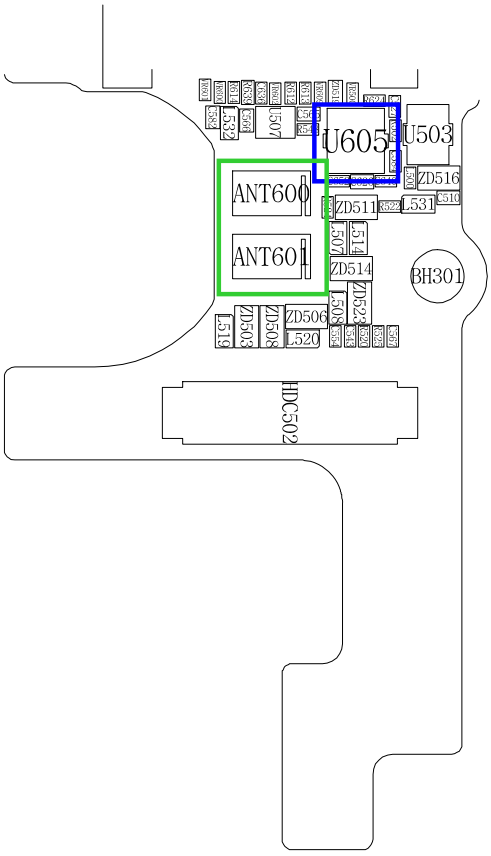


8-3-9. Motor

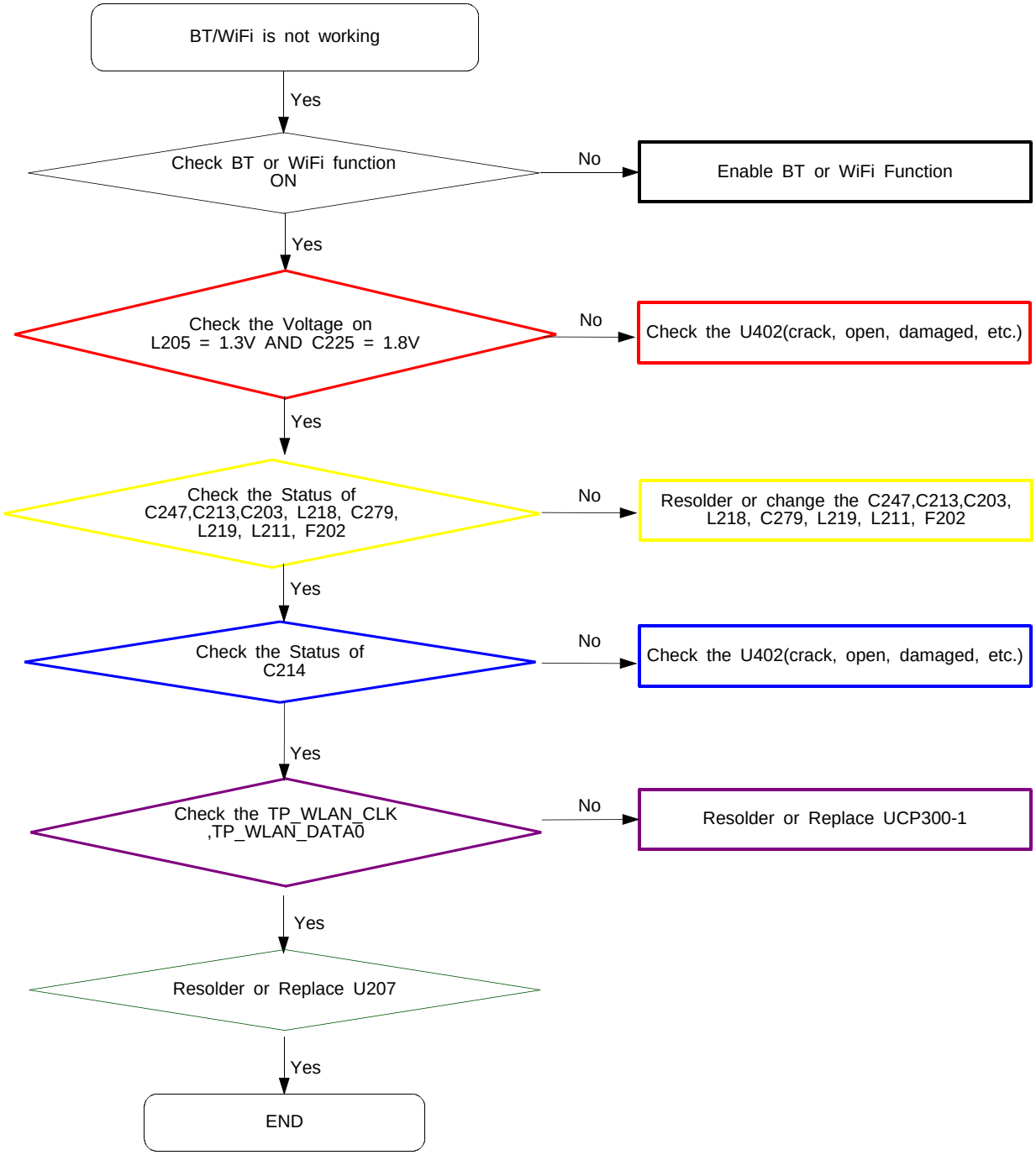


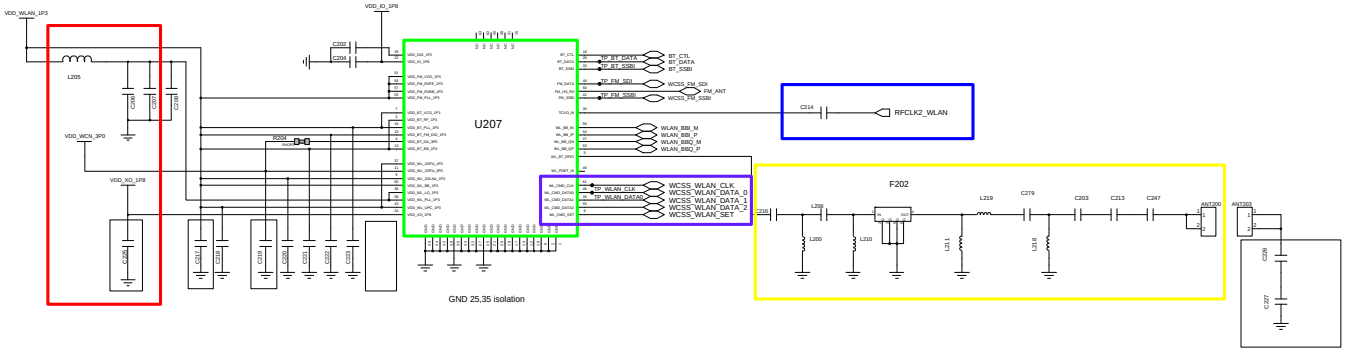


Haptic Driver



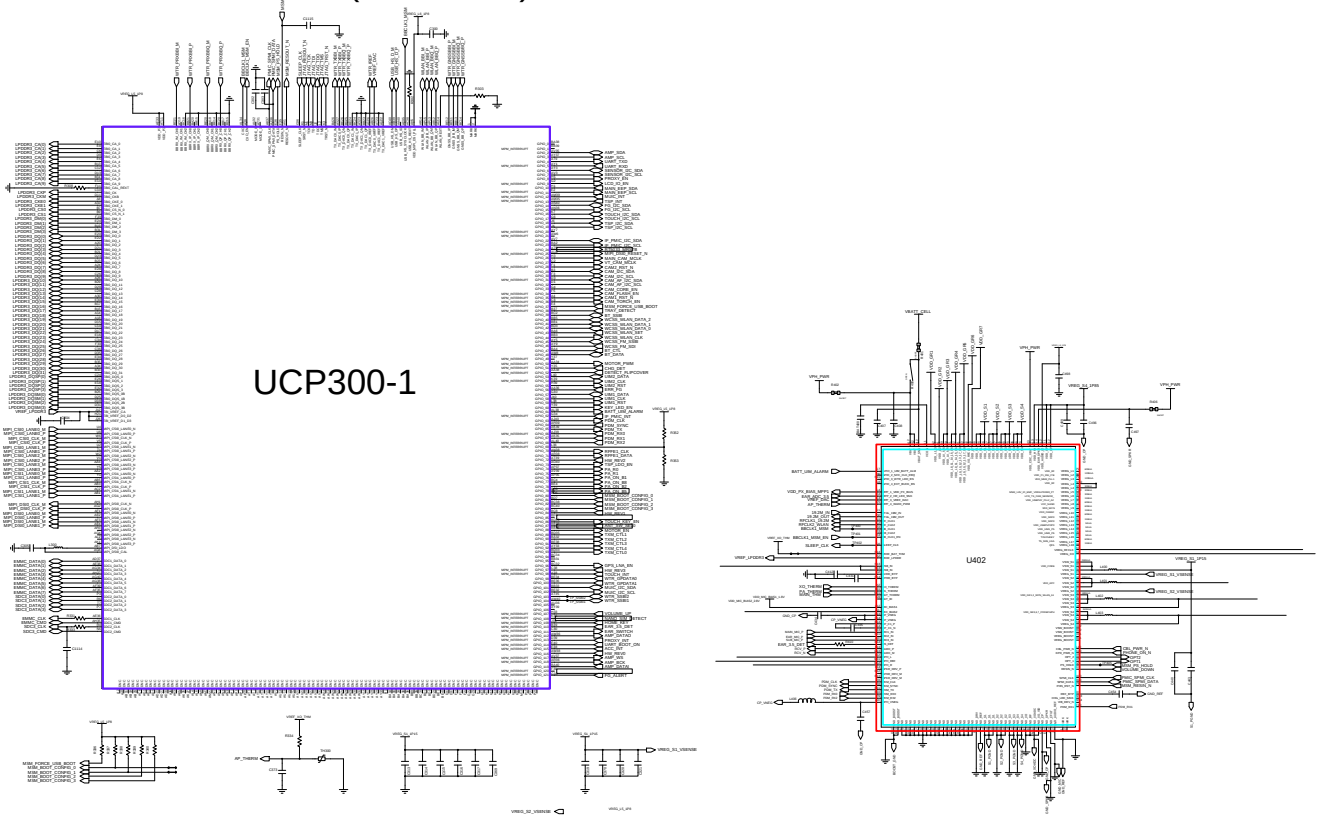
8-3-10. BT/WIFI

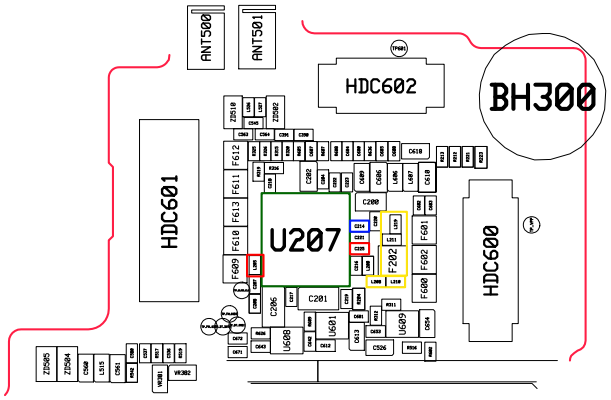


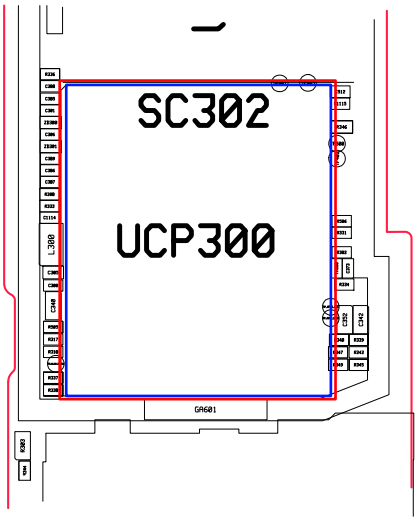


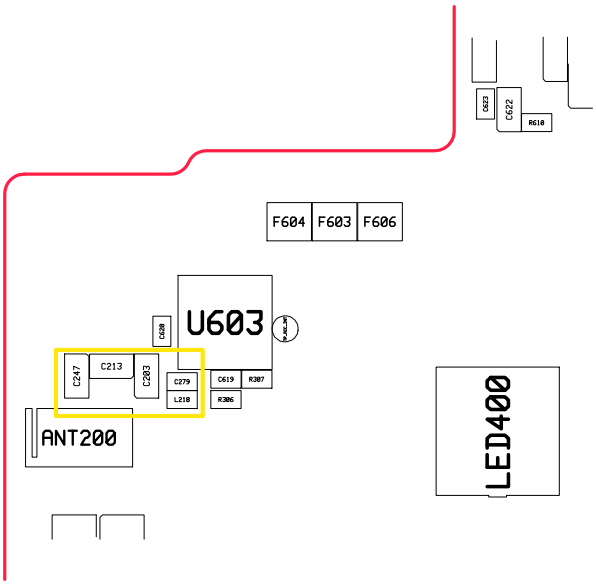
BT/WIFI

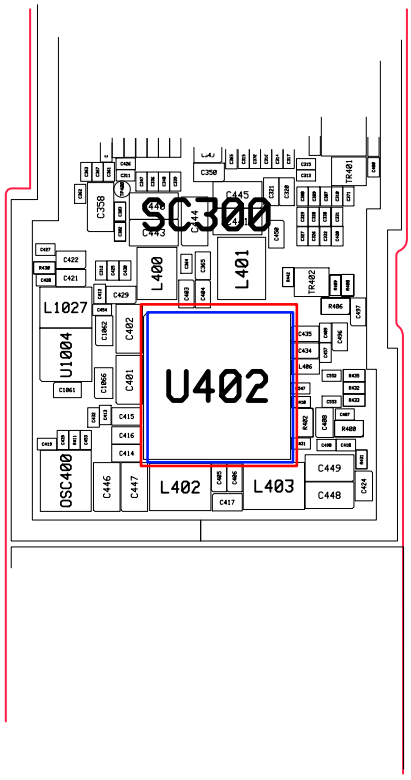
AP PART (MSM8216)



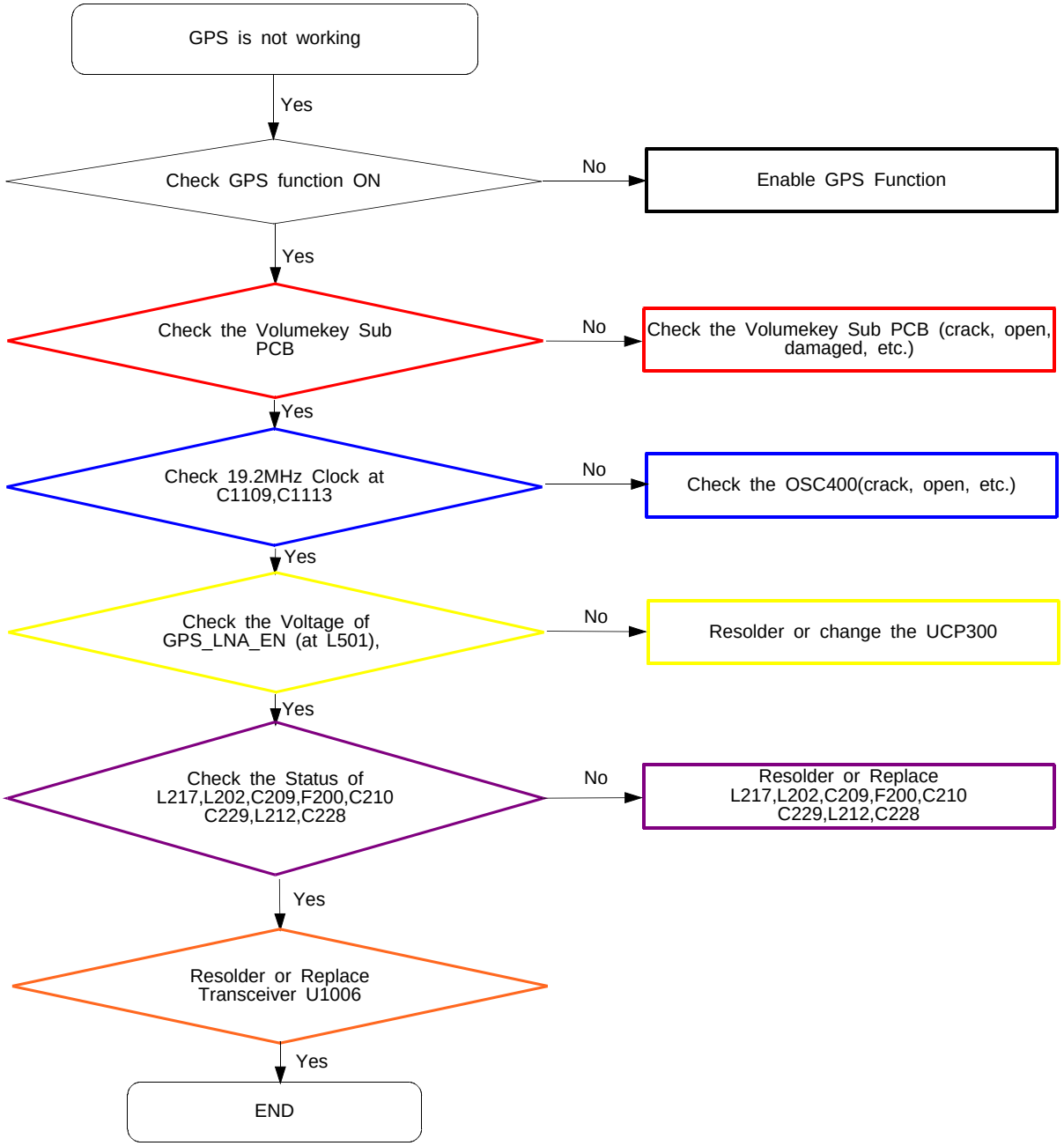


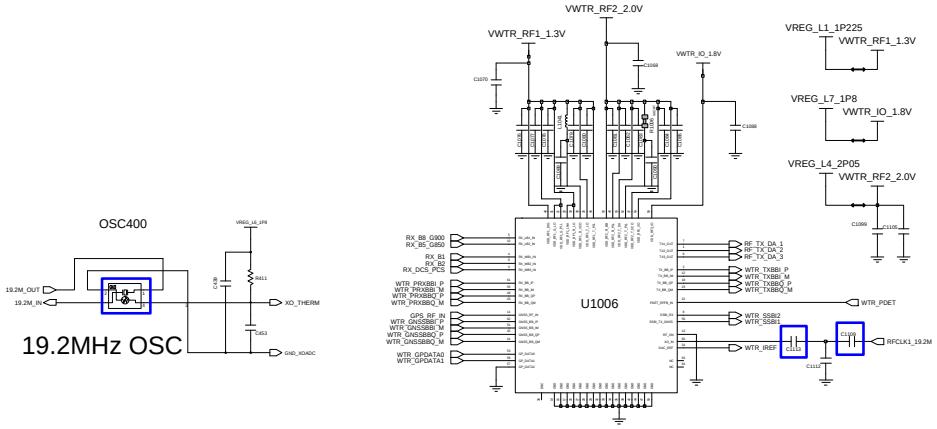




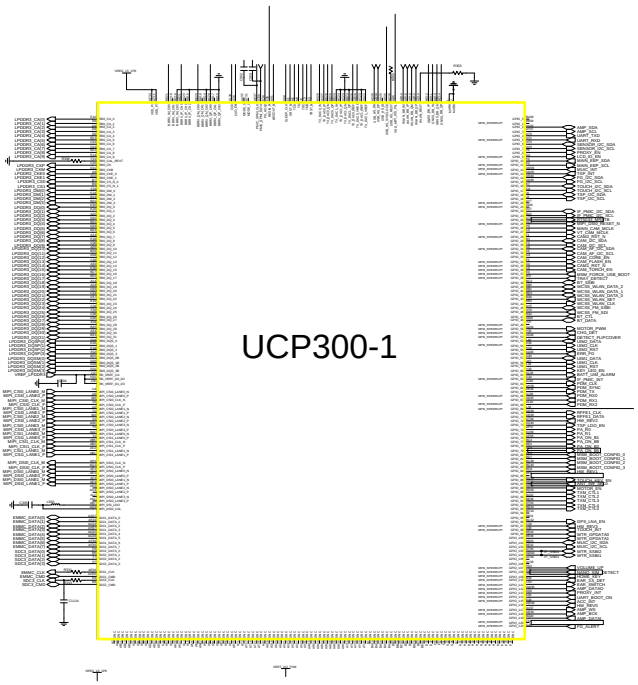


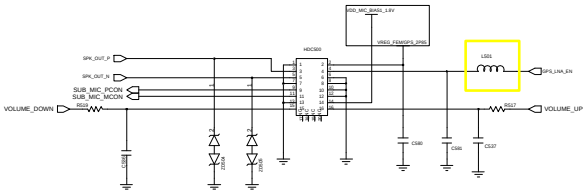
8-3-8. GPS Part



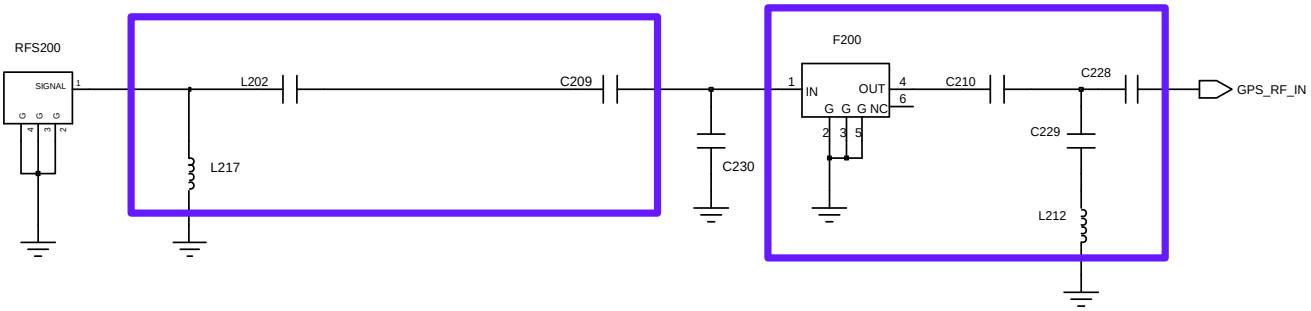


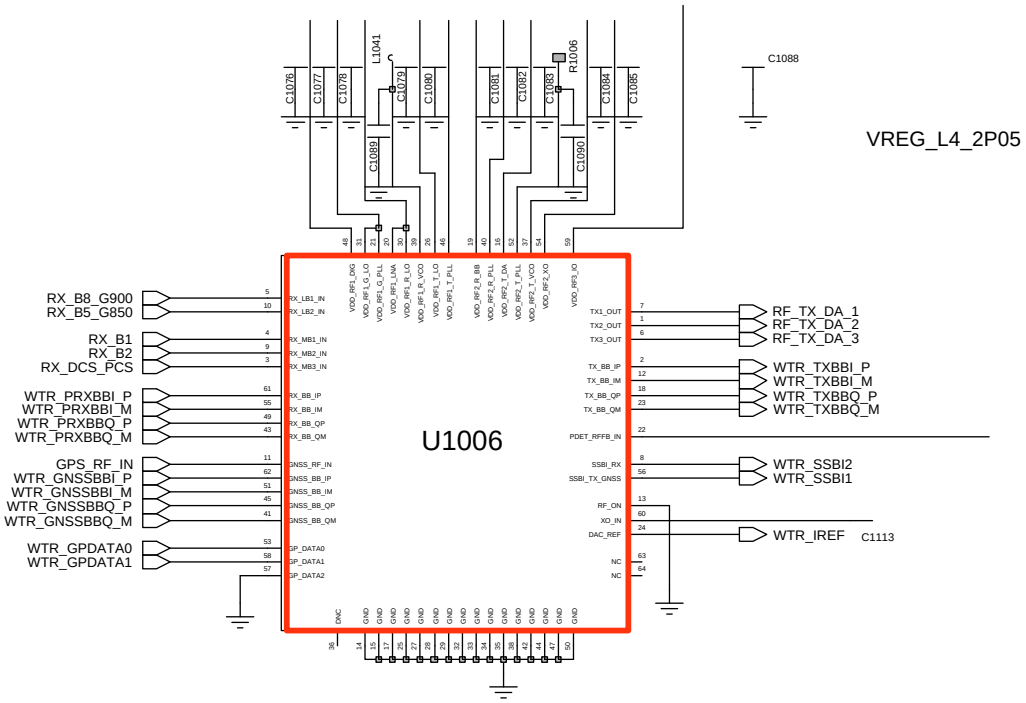
2G/3G Tranceiver

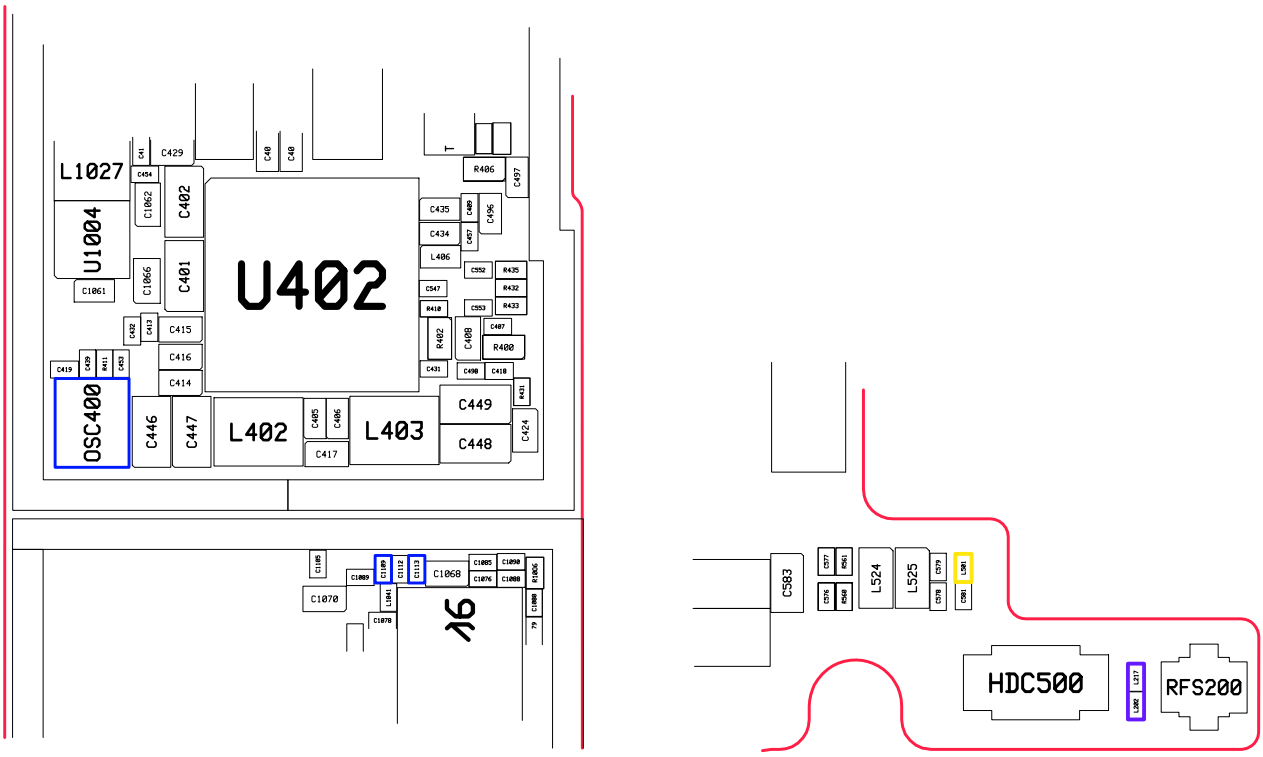


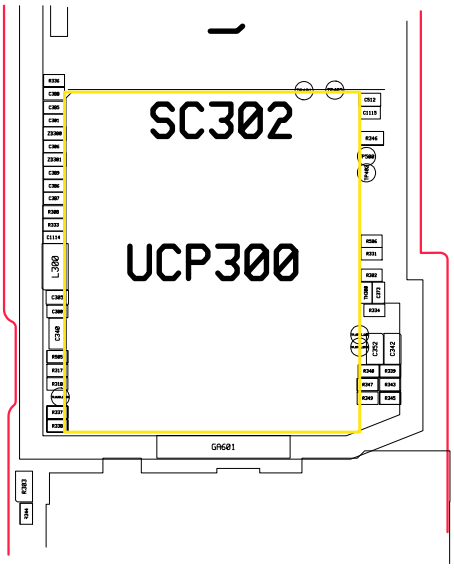


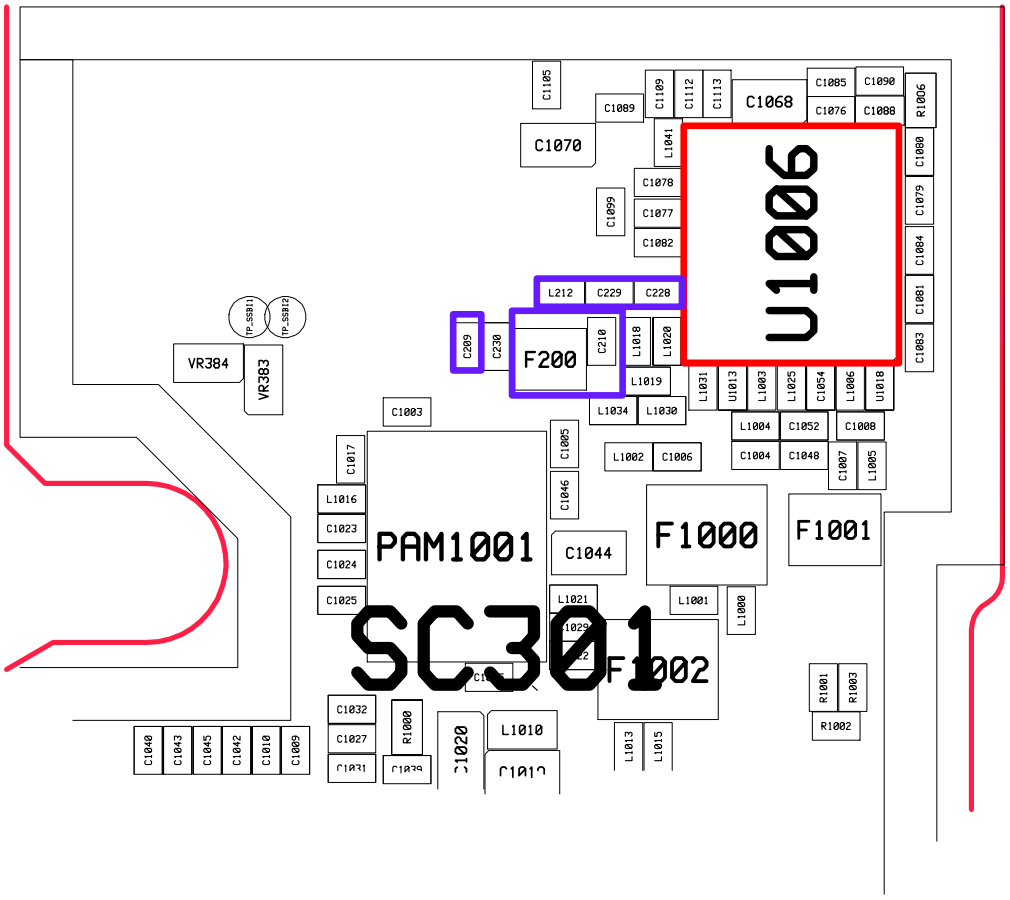
SPK / VK / Connector



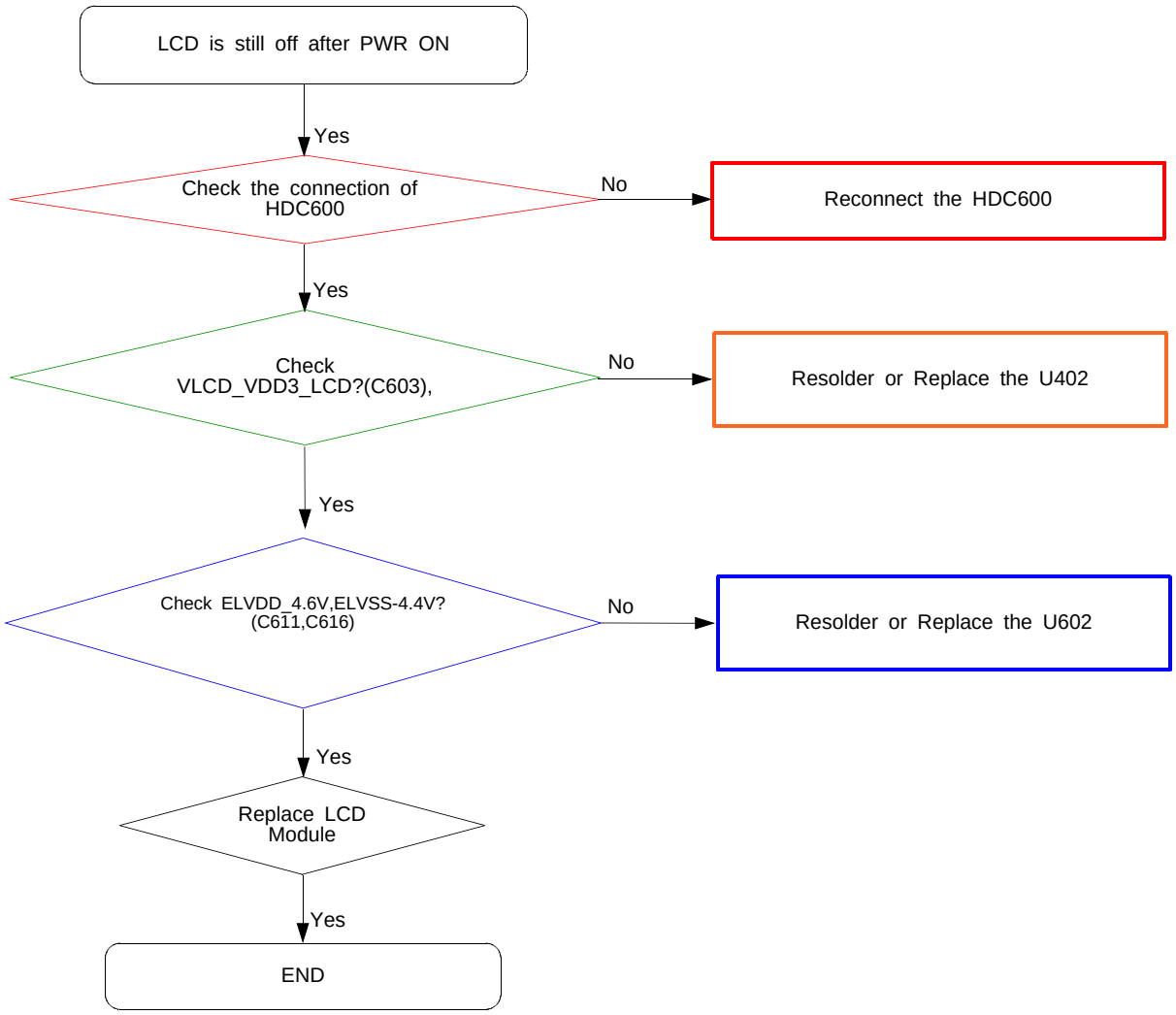


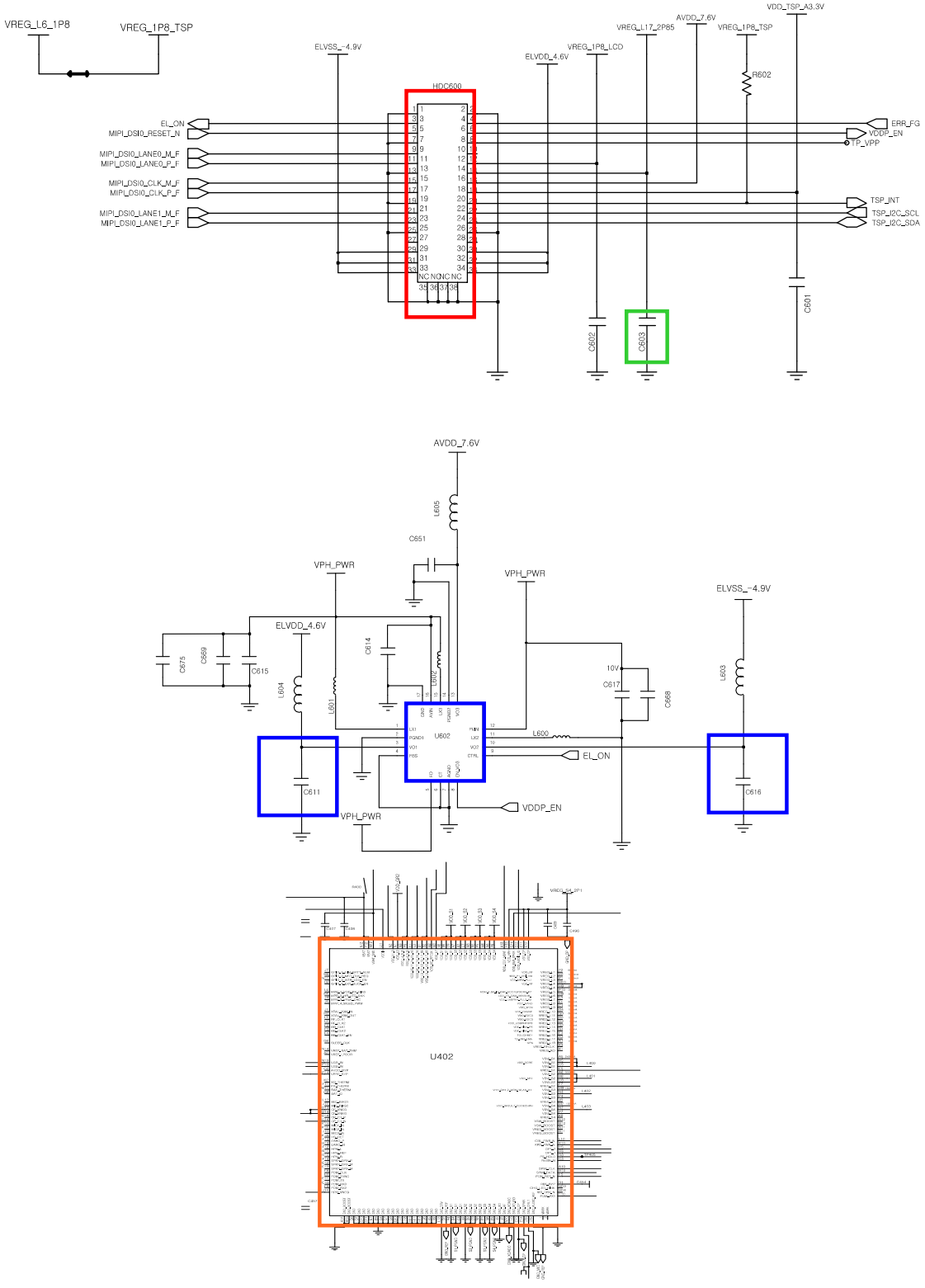


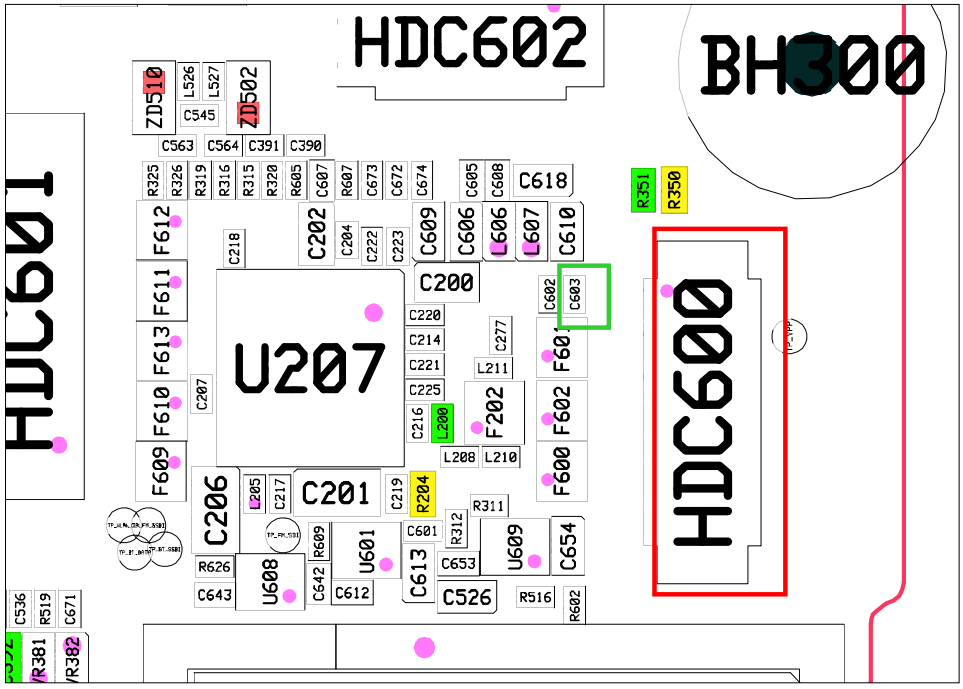


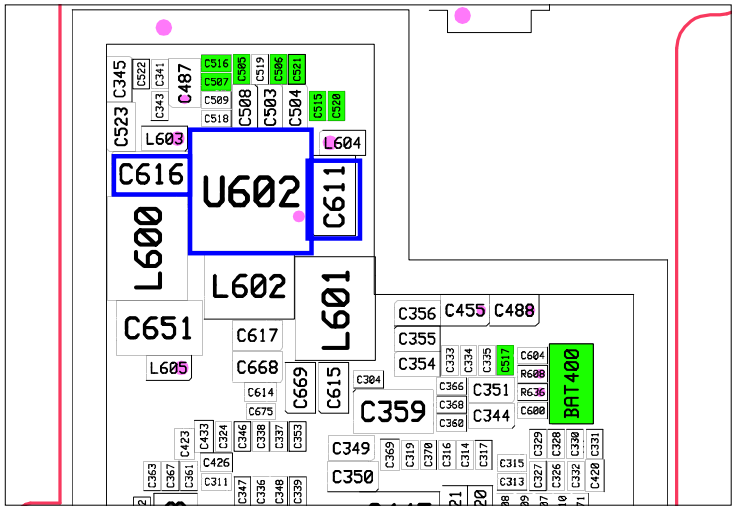


8-3-12. LCD

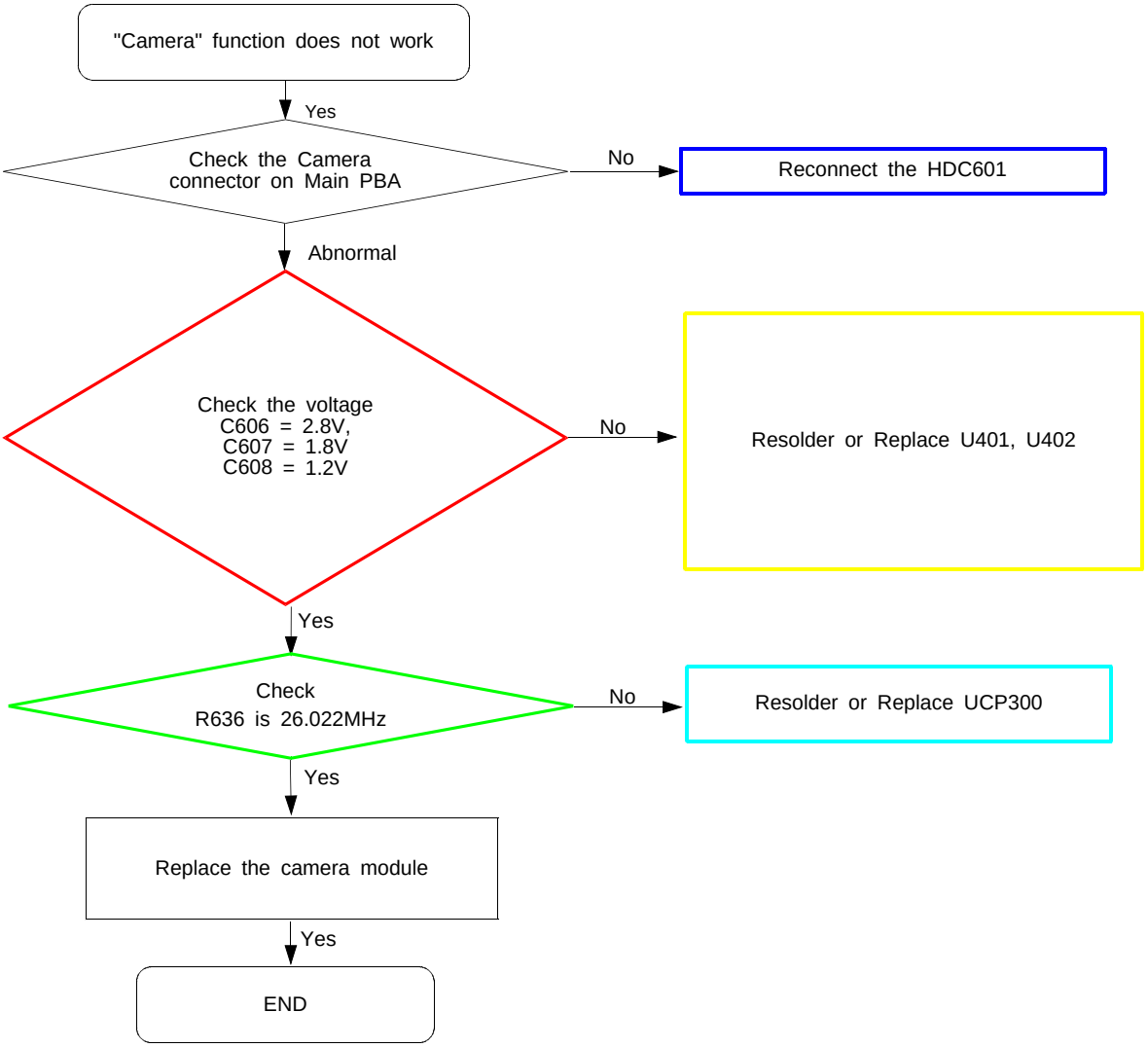


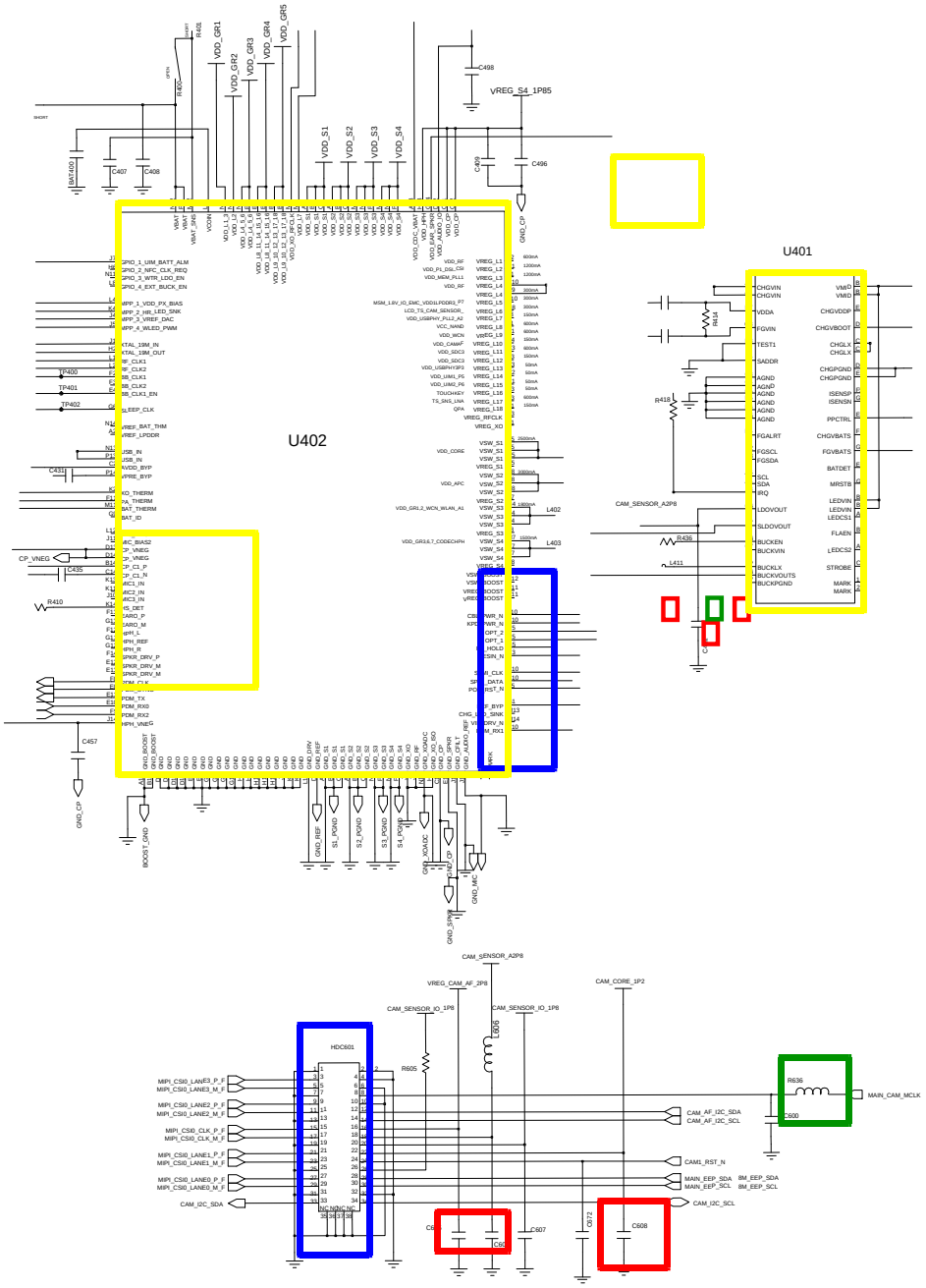


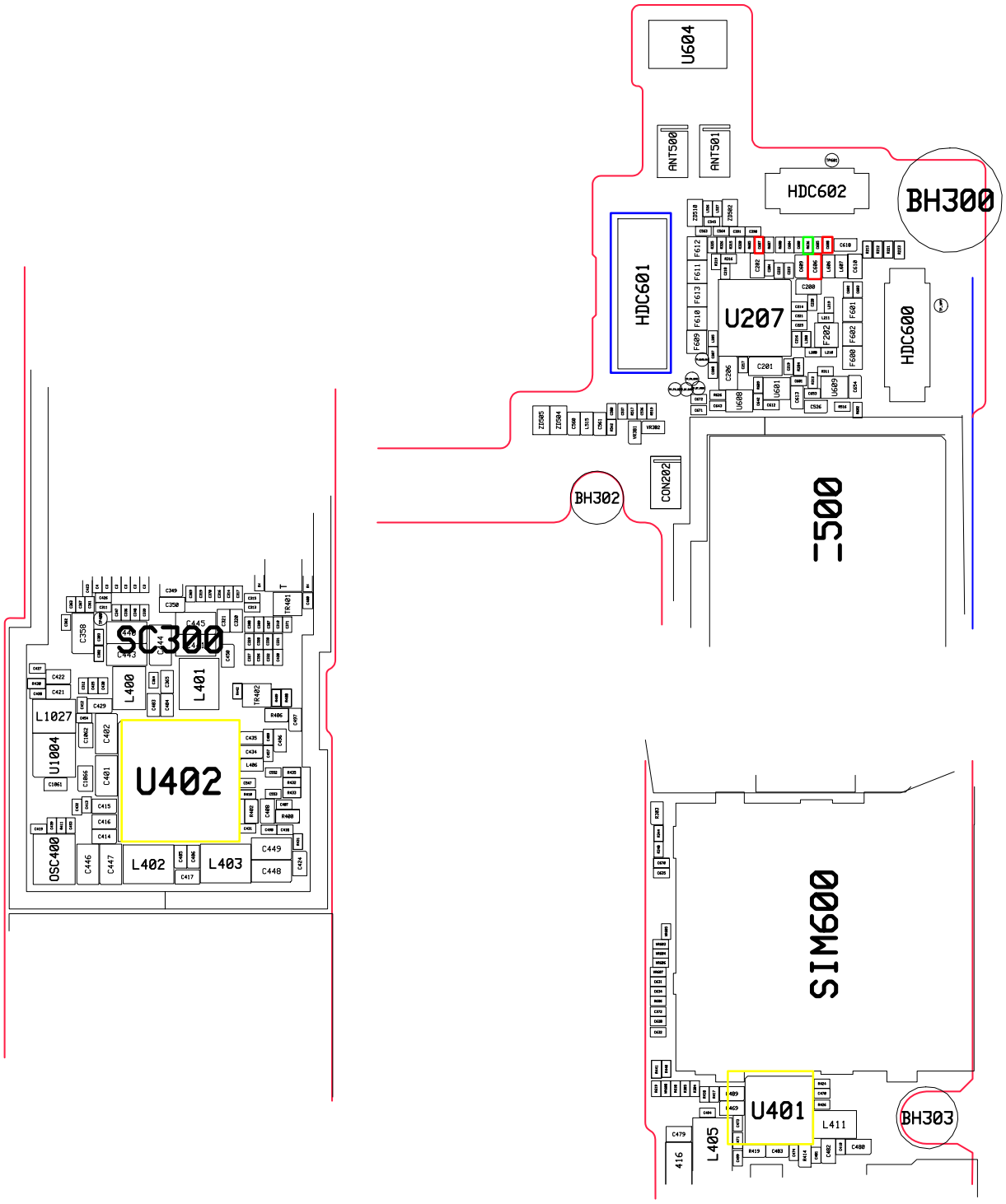




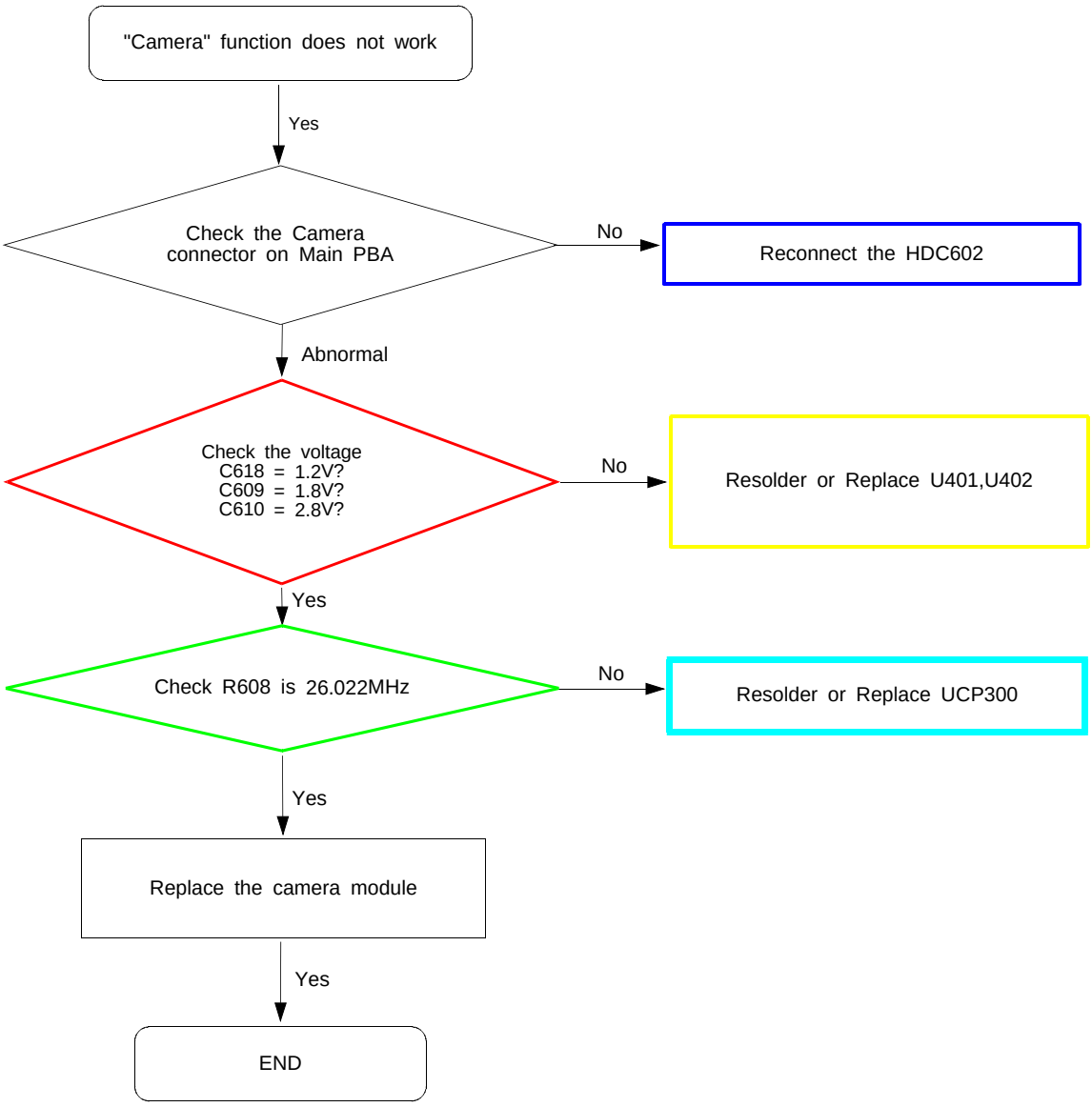
8-3-13. 8M CAM

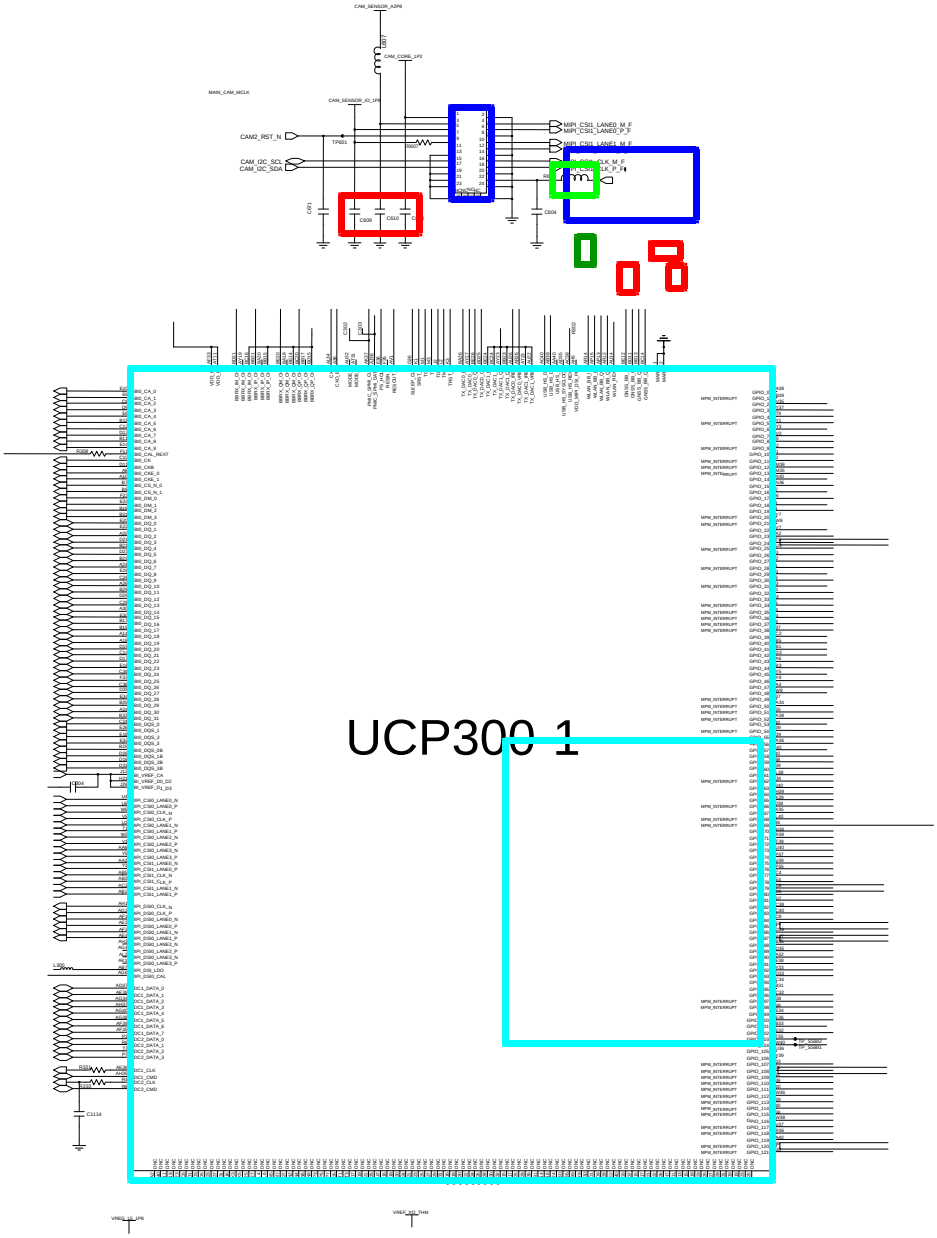


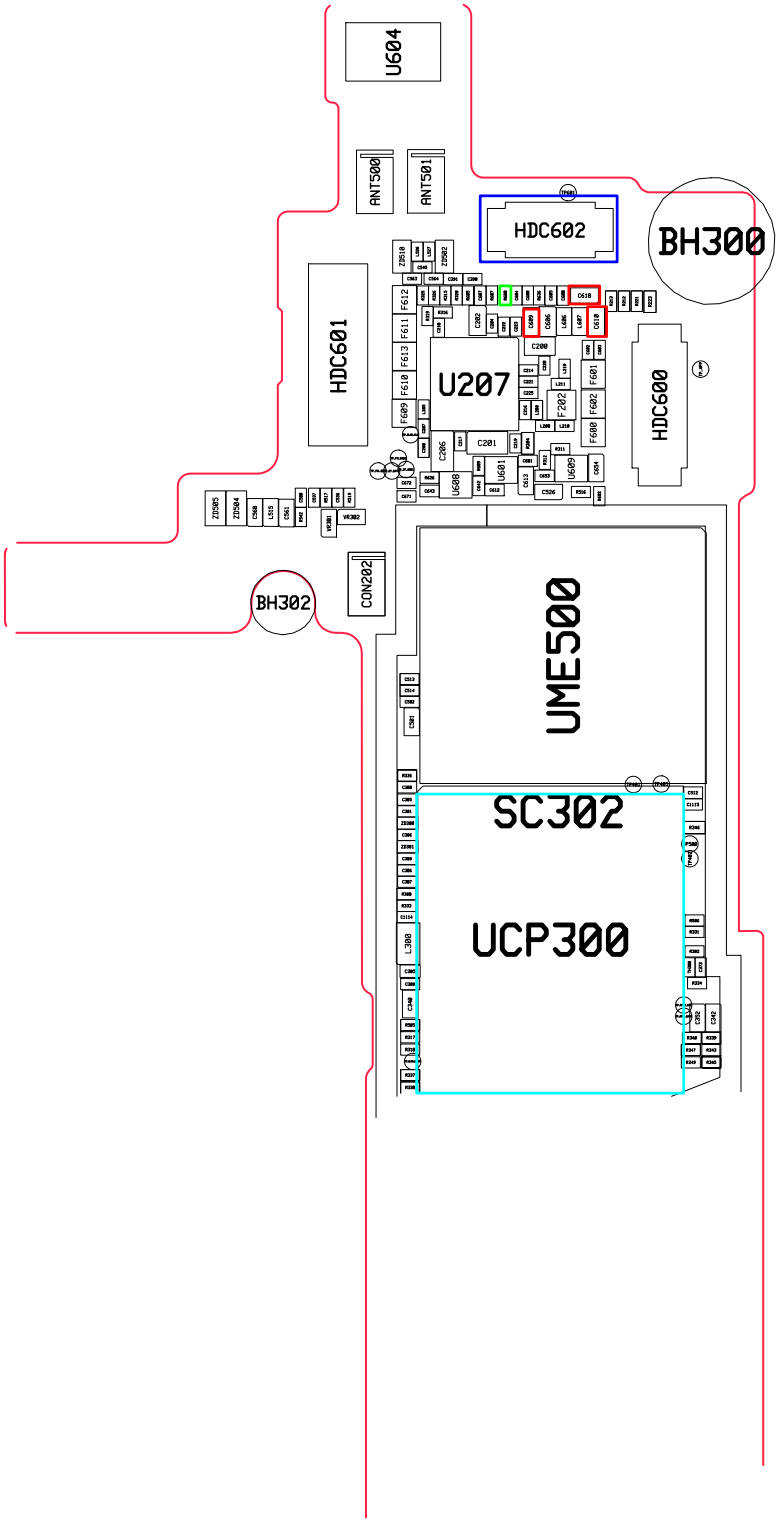




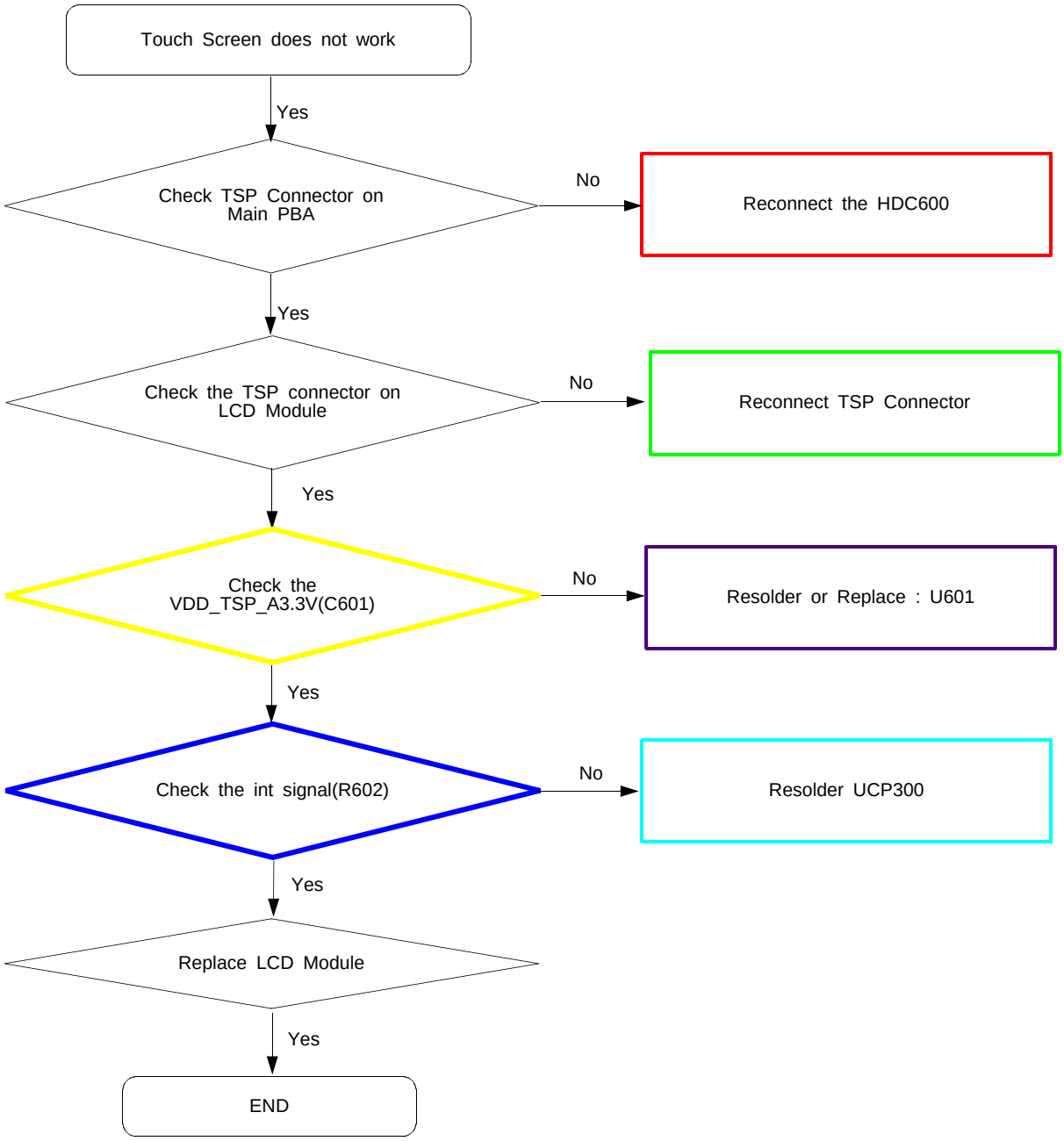
8-3-14. VT CAM

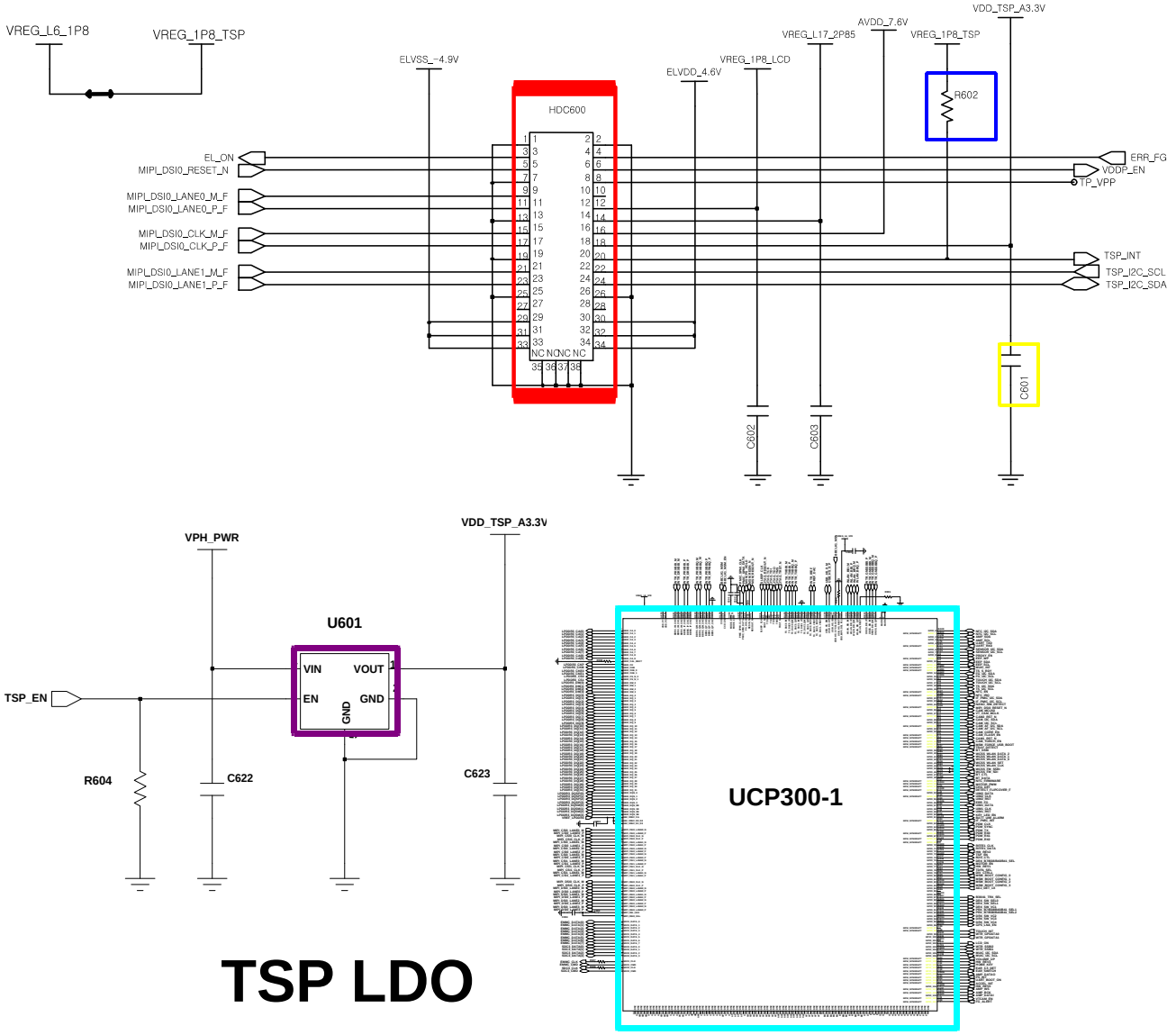


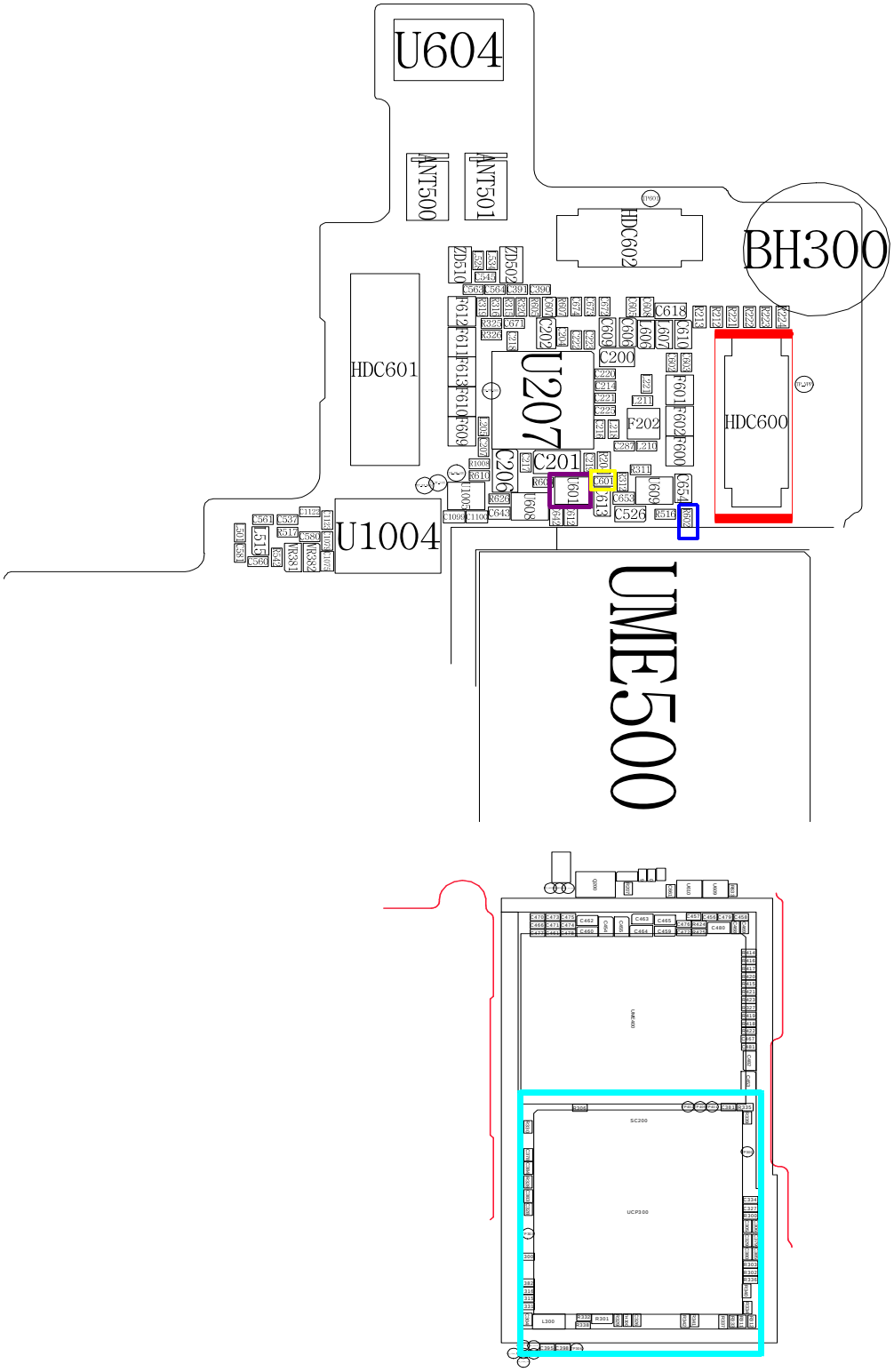




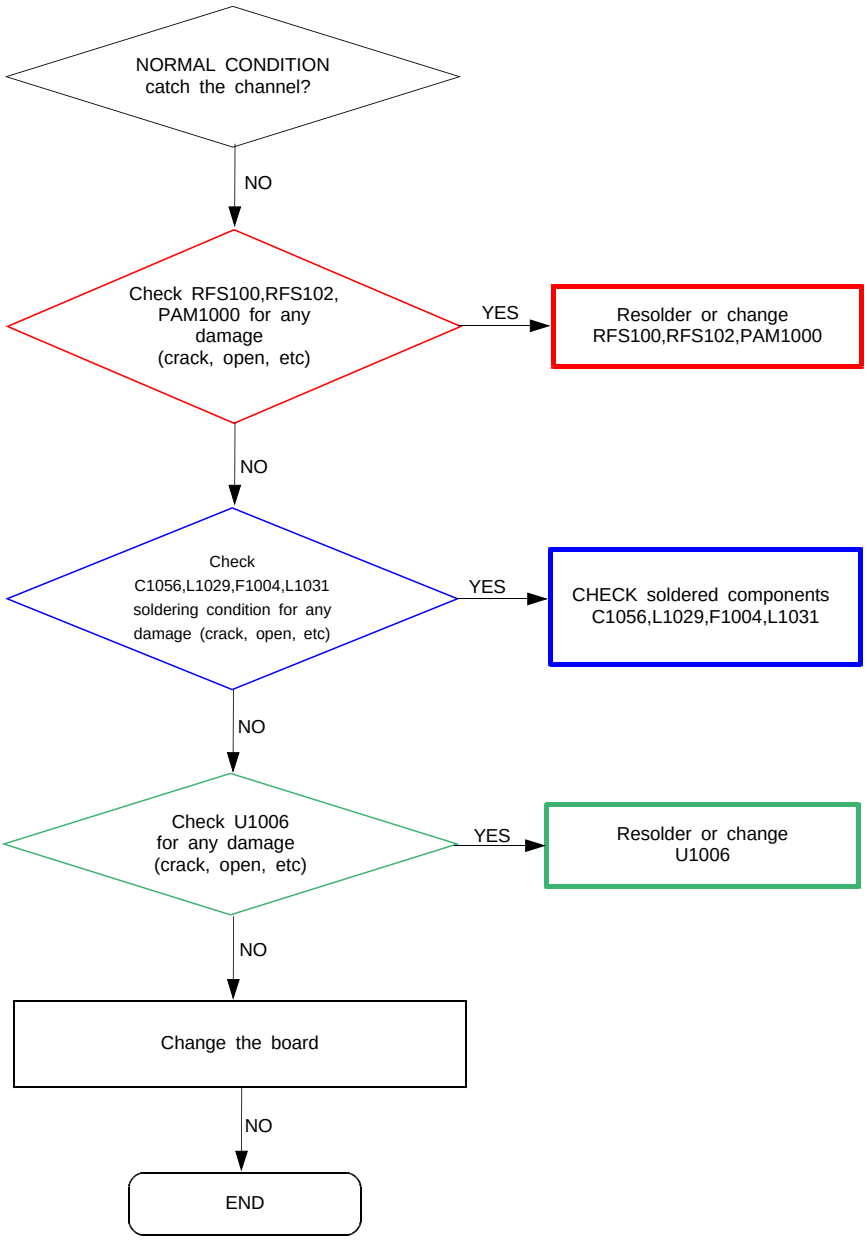
8-3-15. TSP

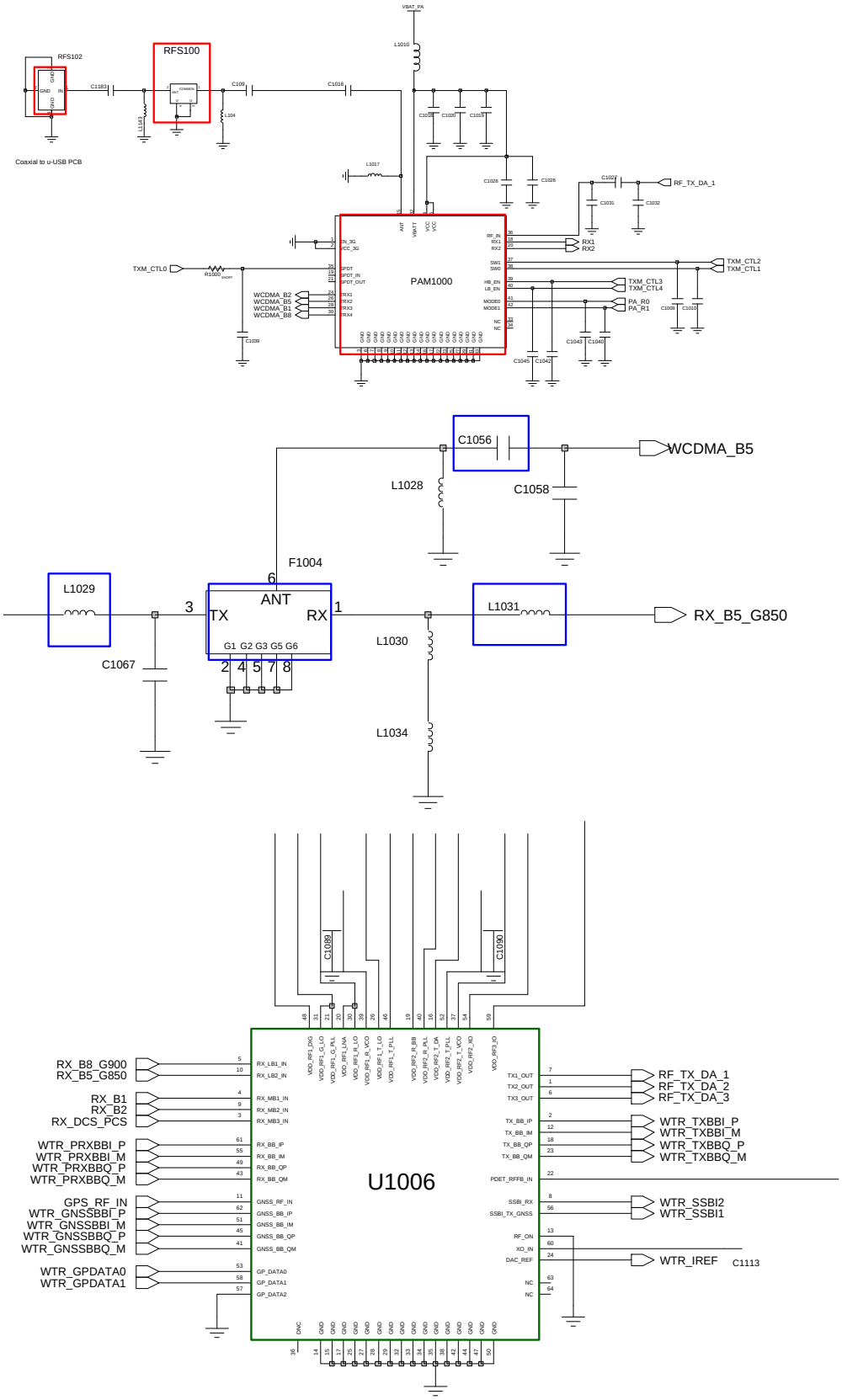


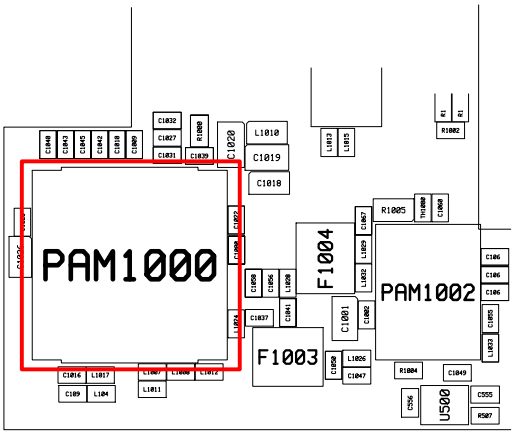


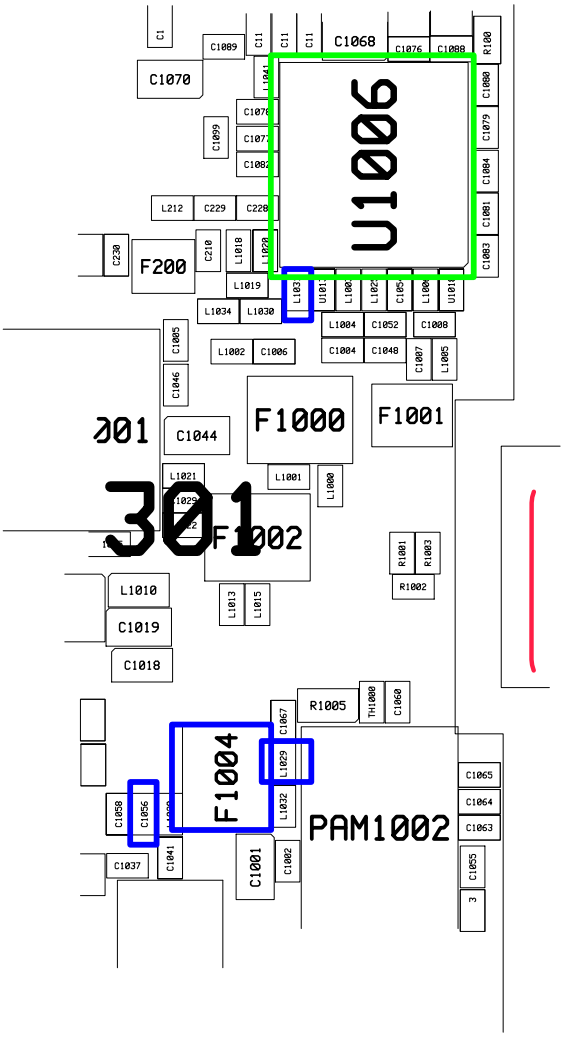


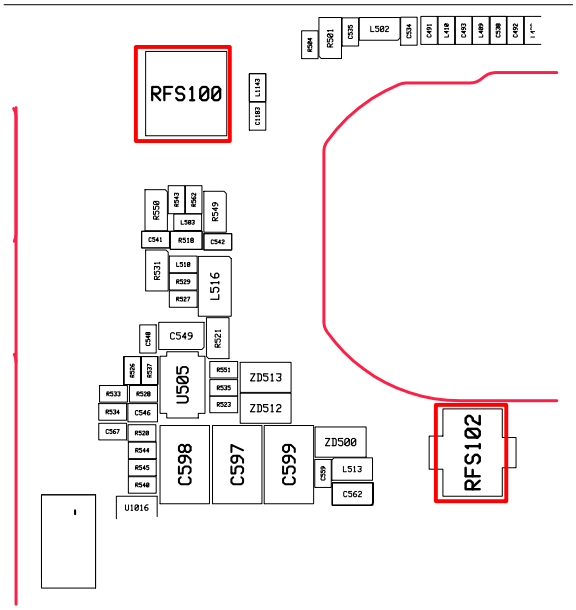
8-3-18. GSM850 / WCDMA B5 RX



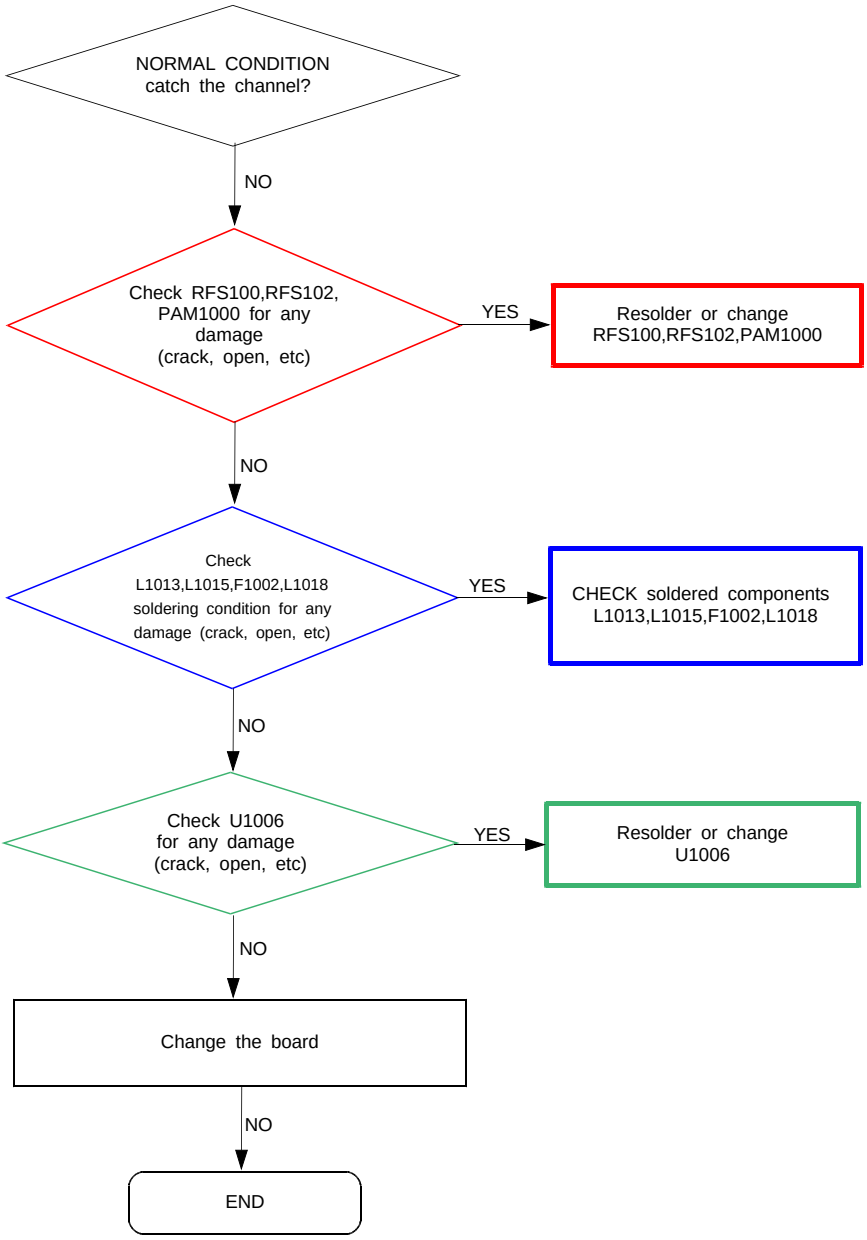


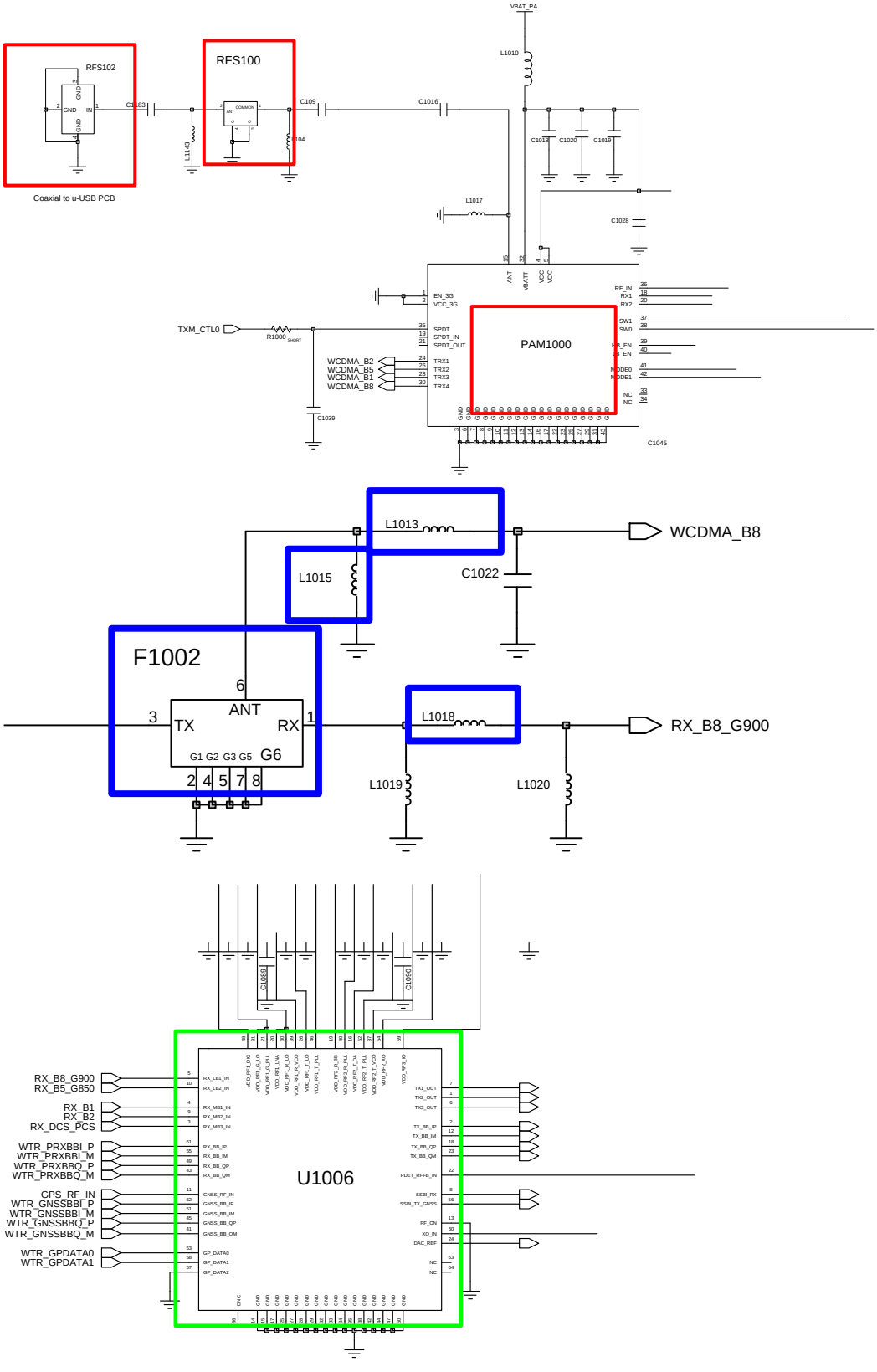


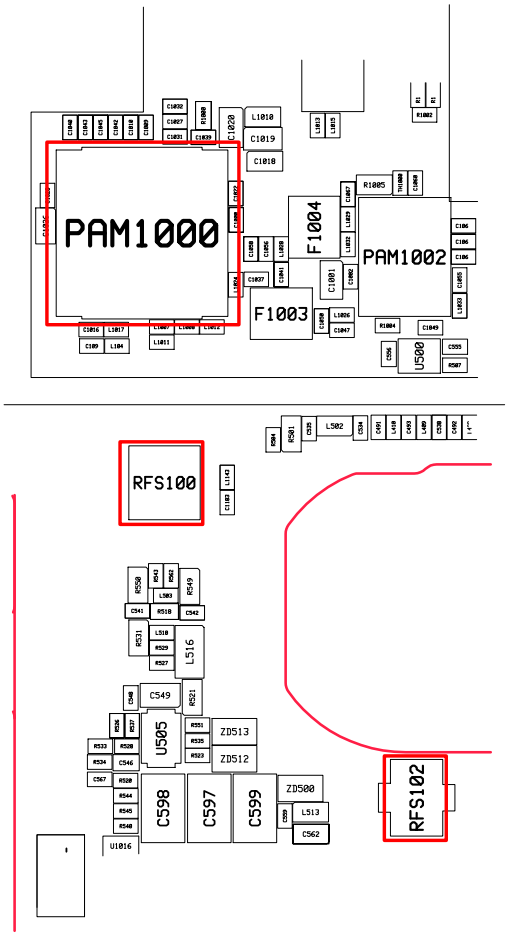


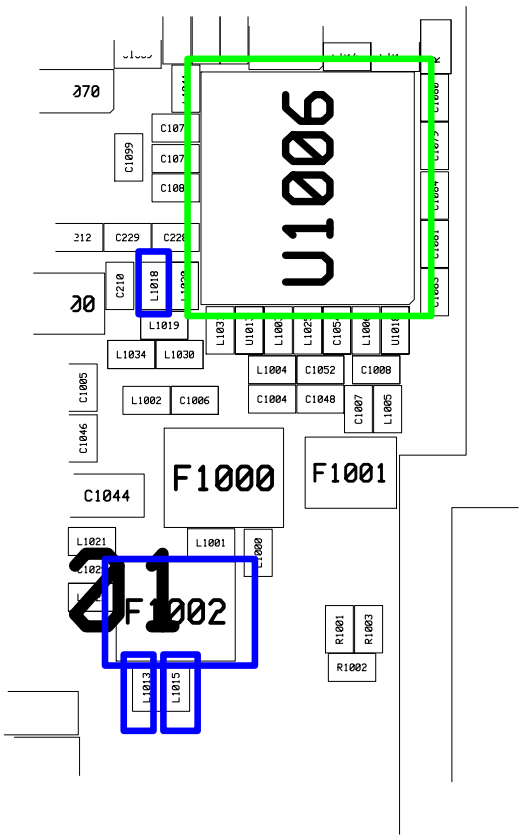


8-3-19. GSM900 / WCDMA B8 RX

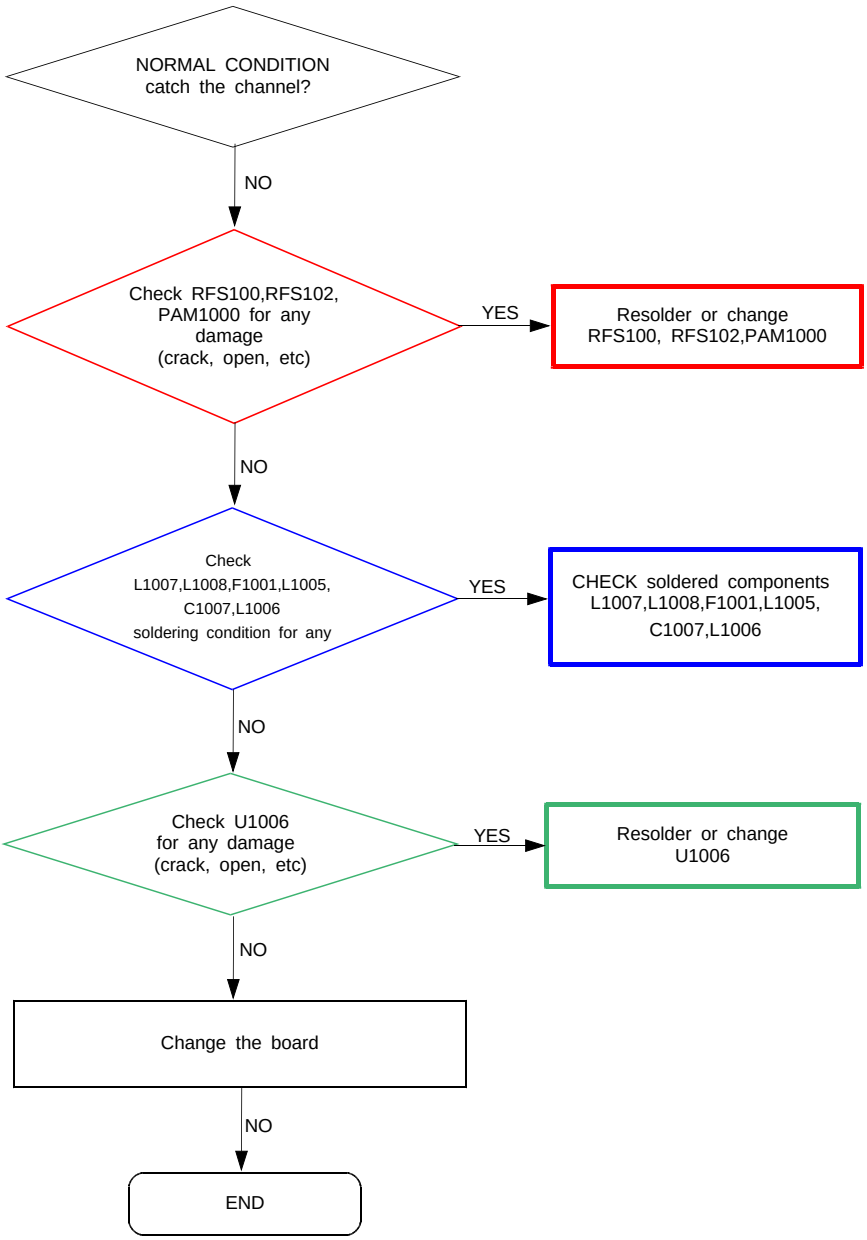


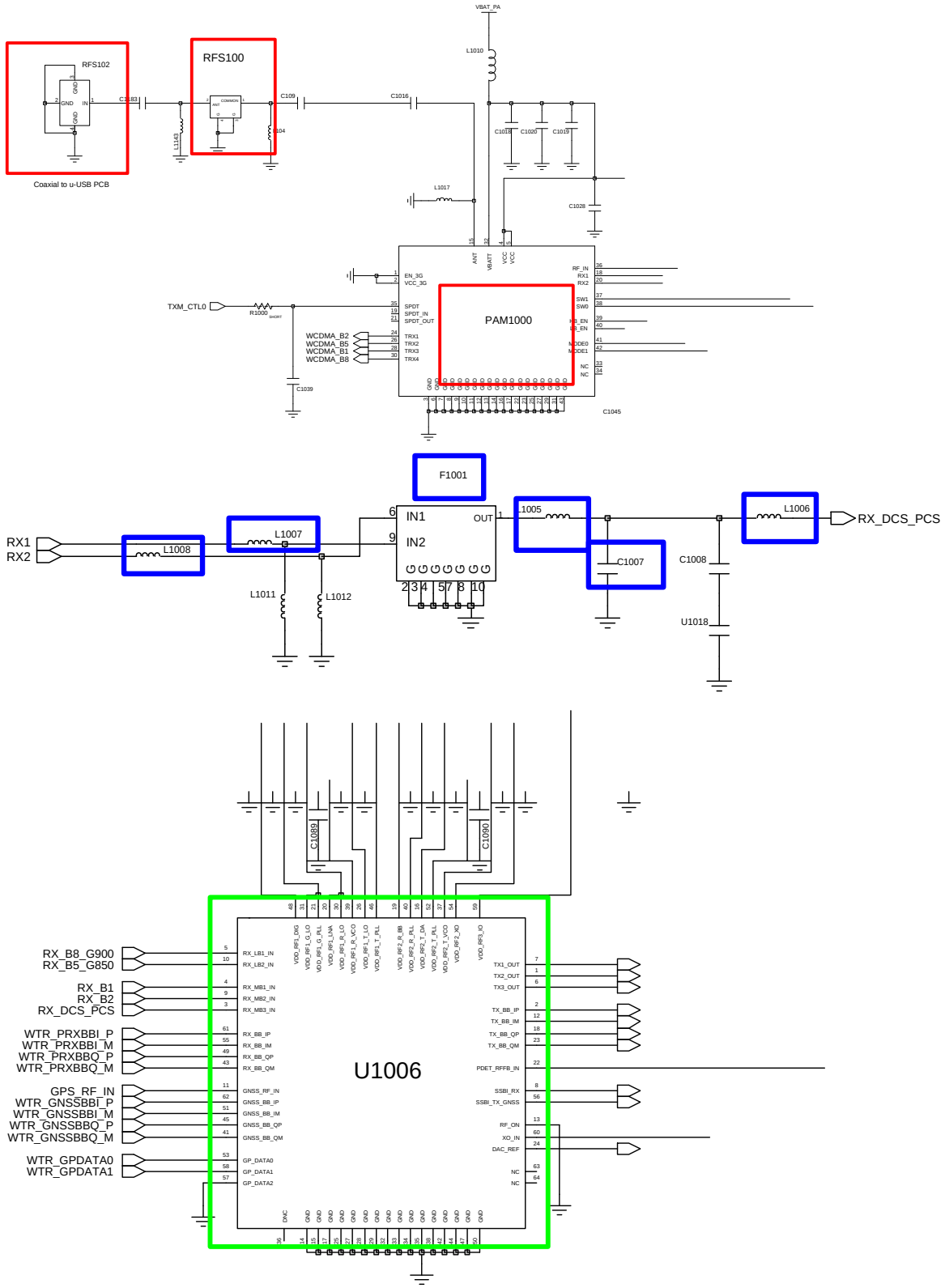


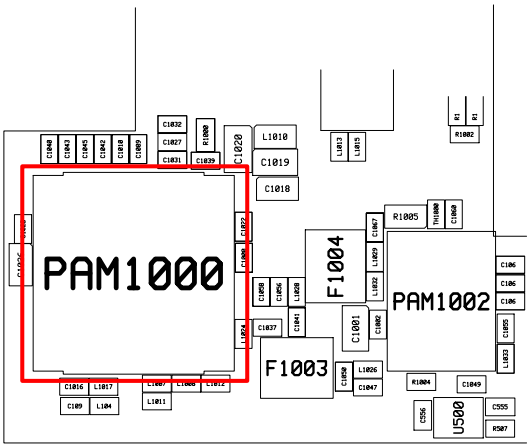


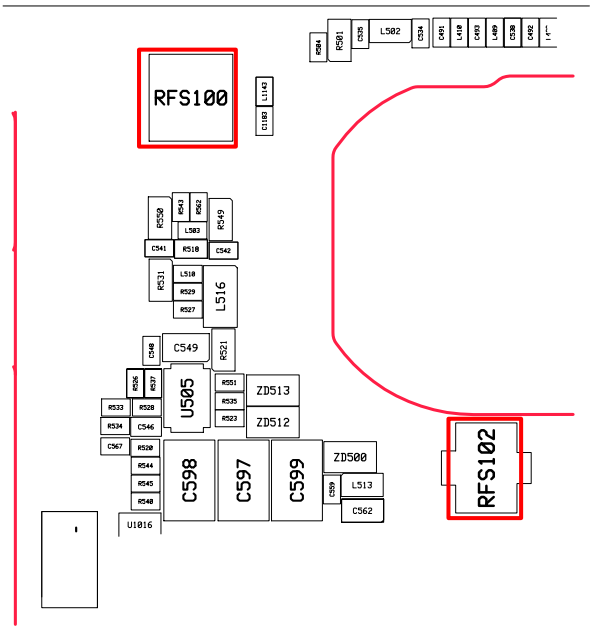


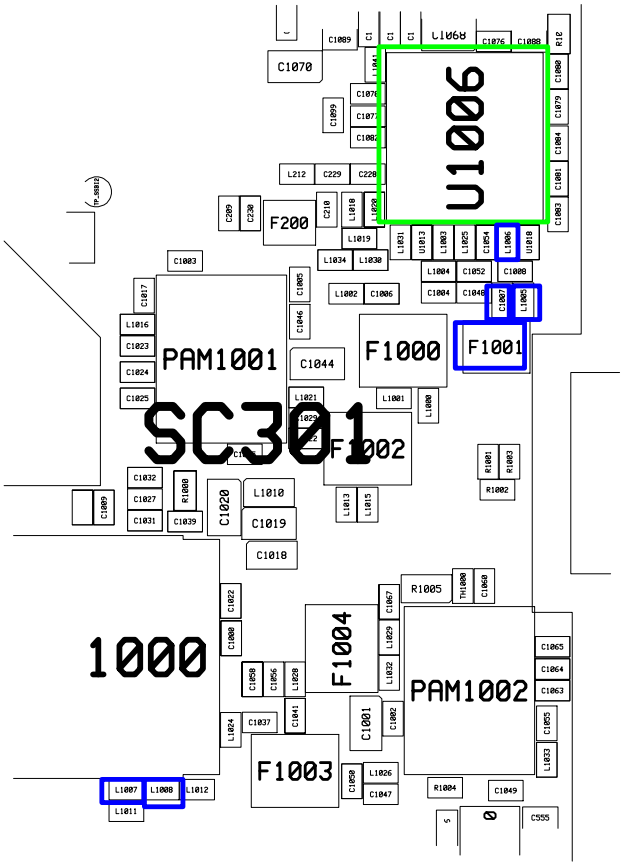
8-3-20. GSM1800 / GSM1900 RX



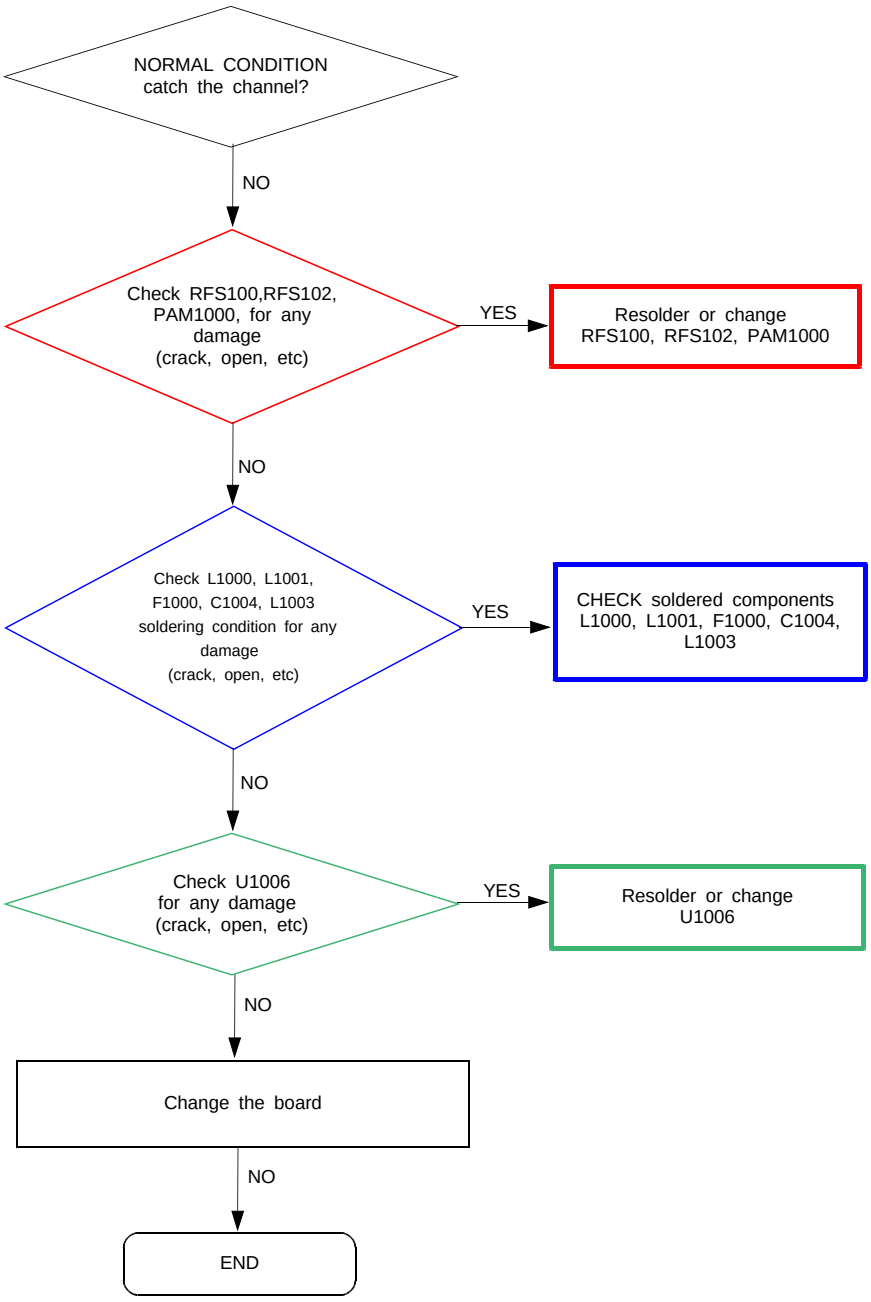


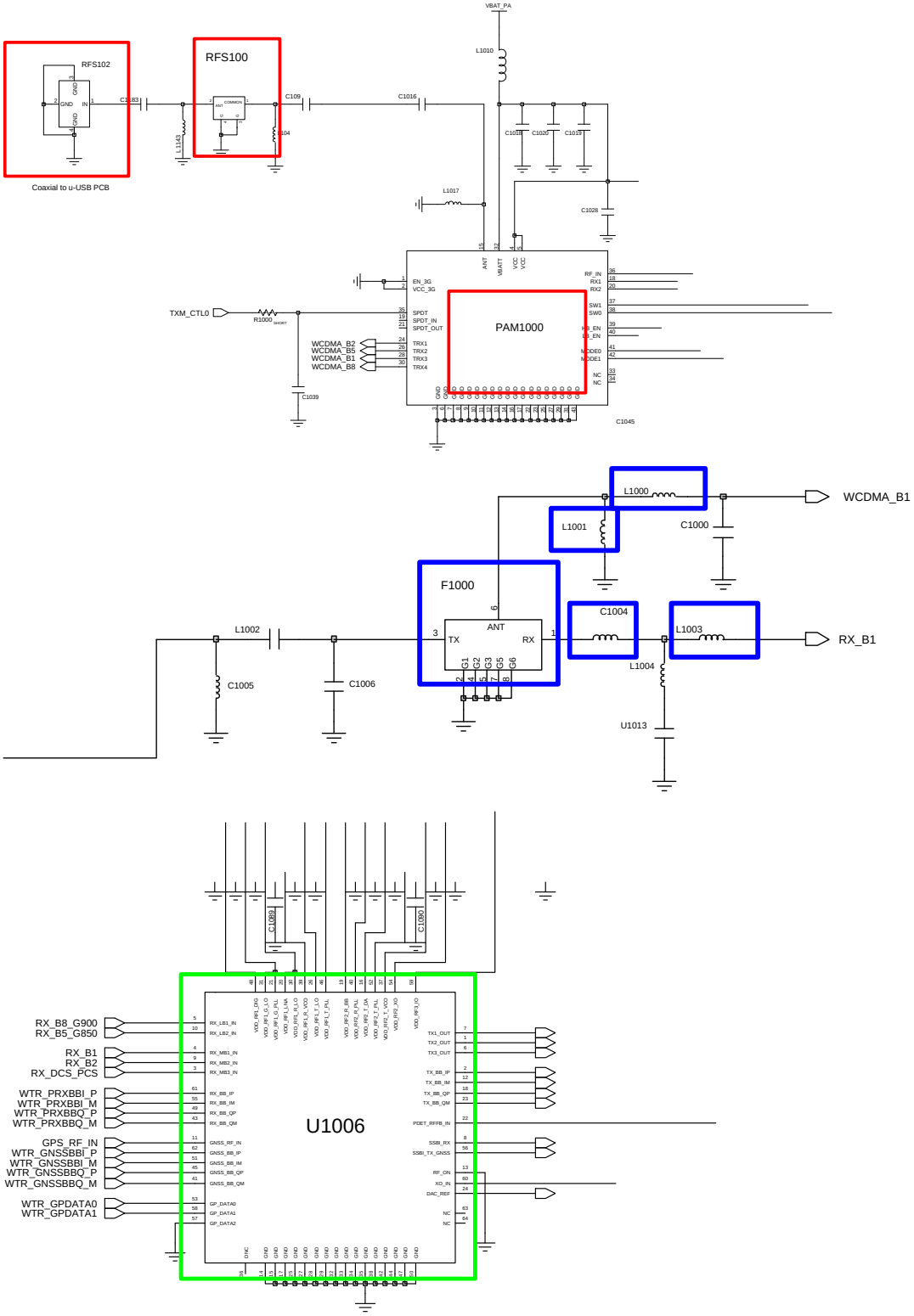


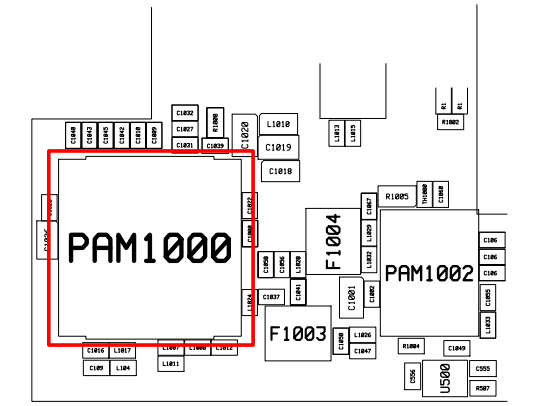


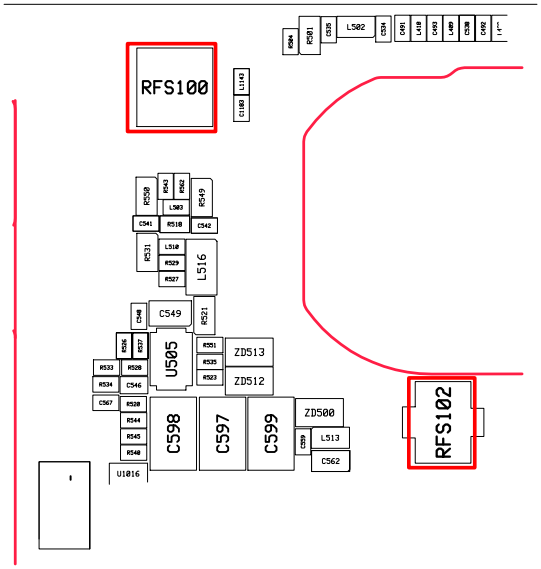


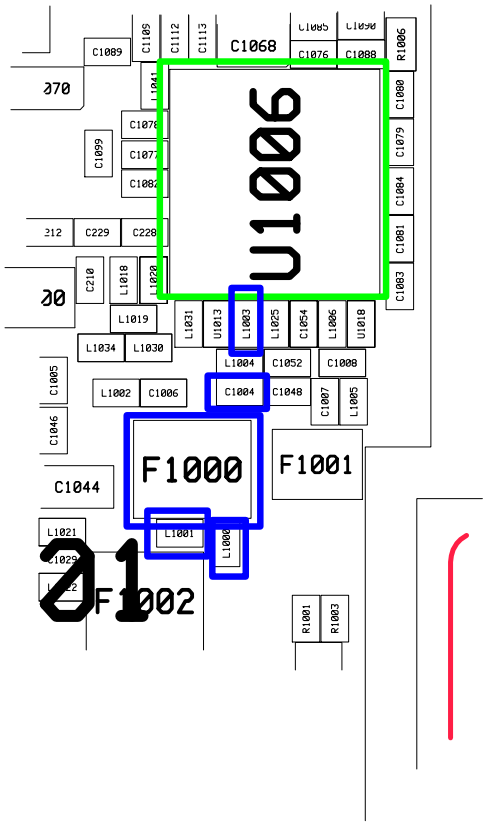
8-3-21. WCDMA B1 RX



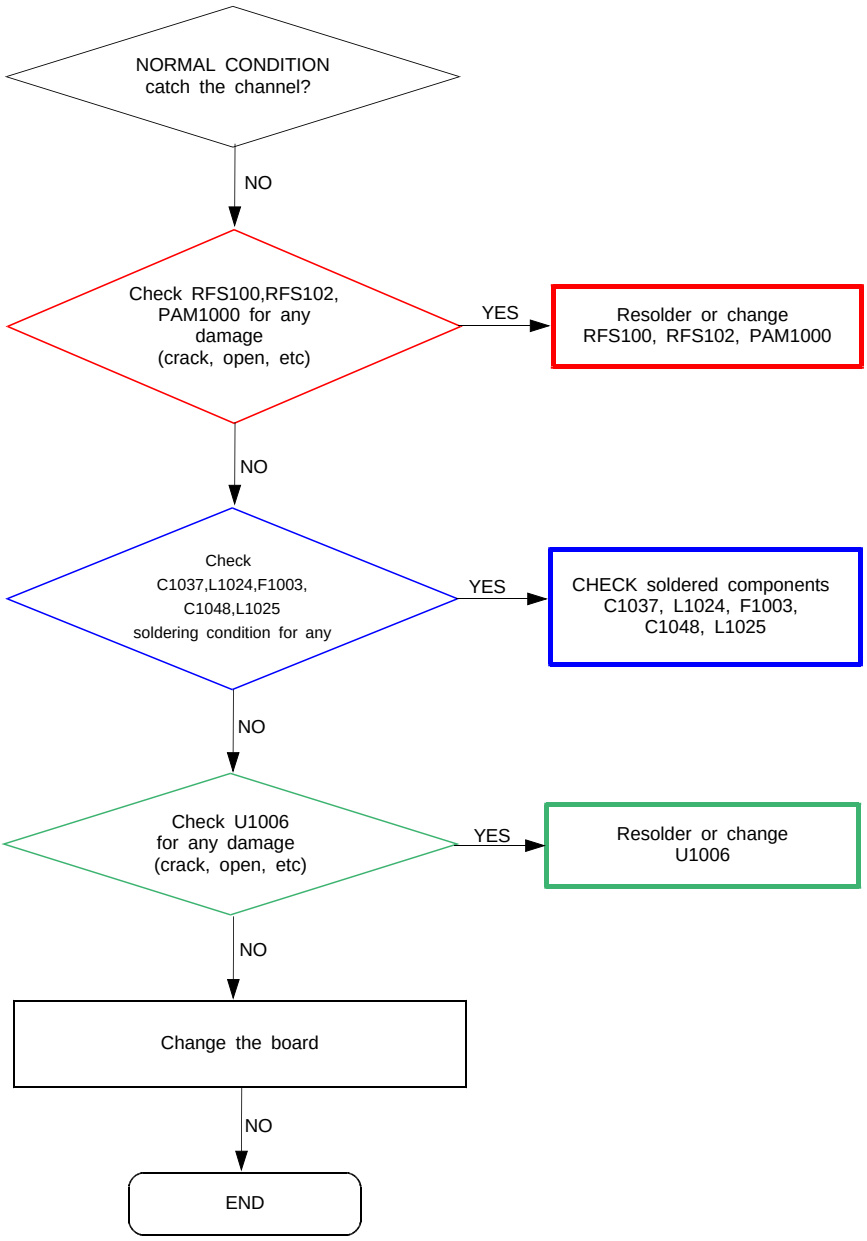


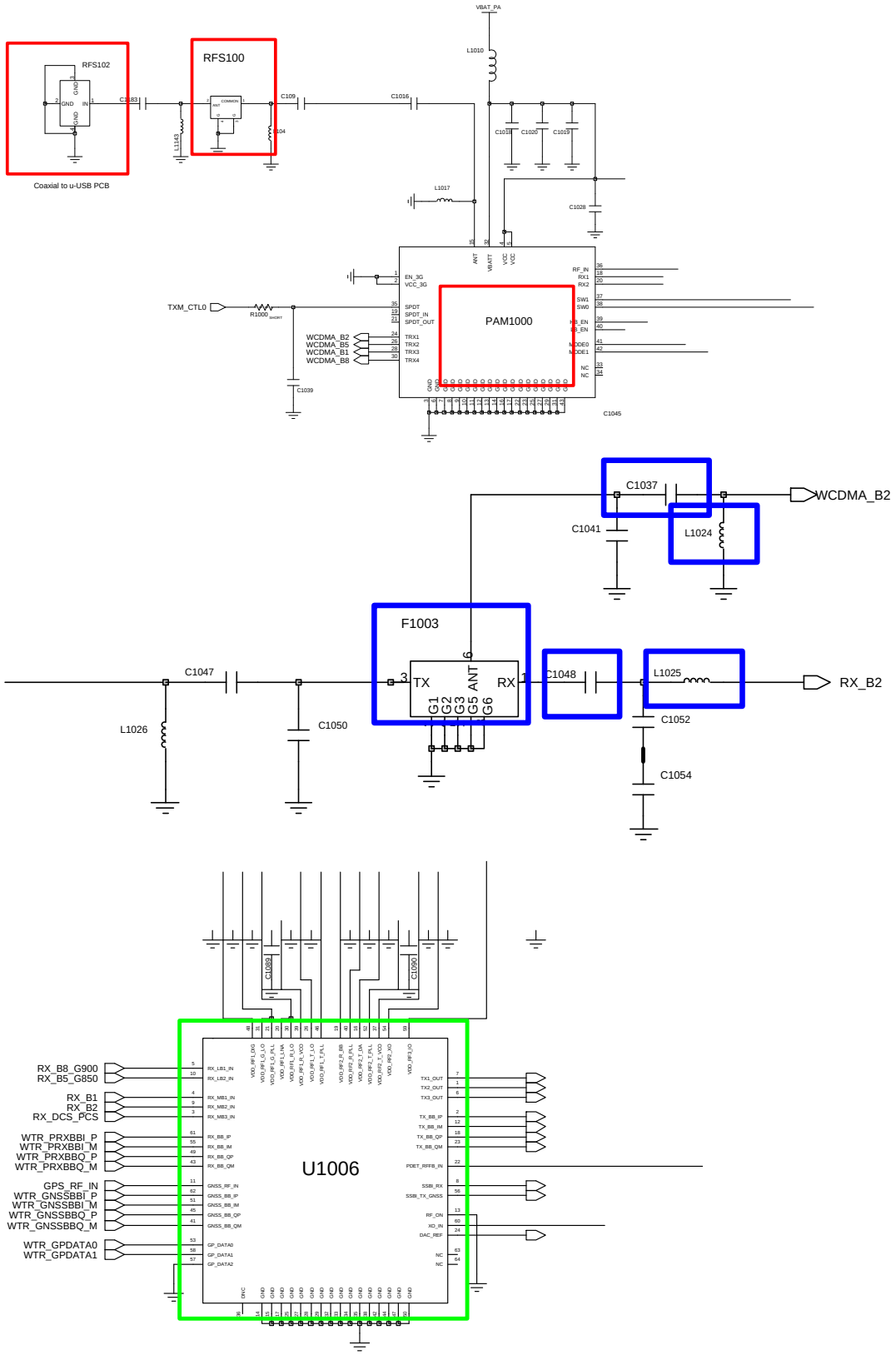


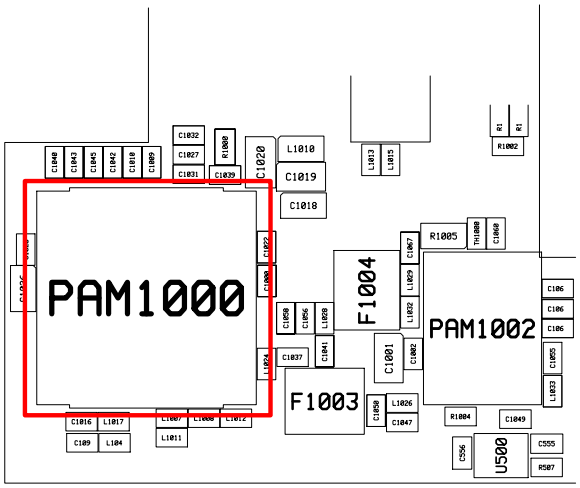


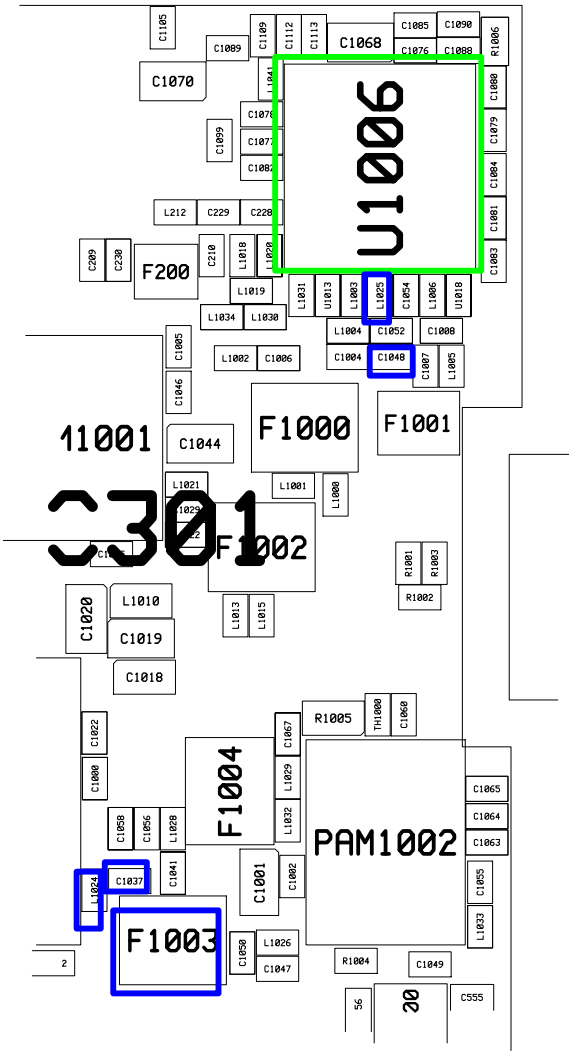


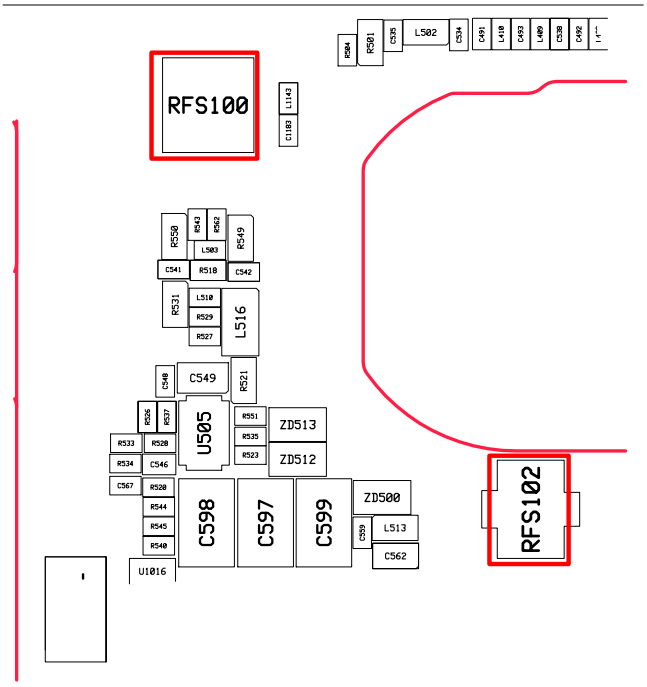
8-3-22. WCDMA B2 RX



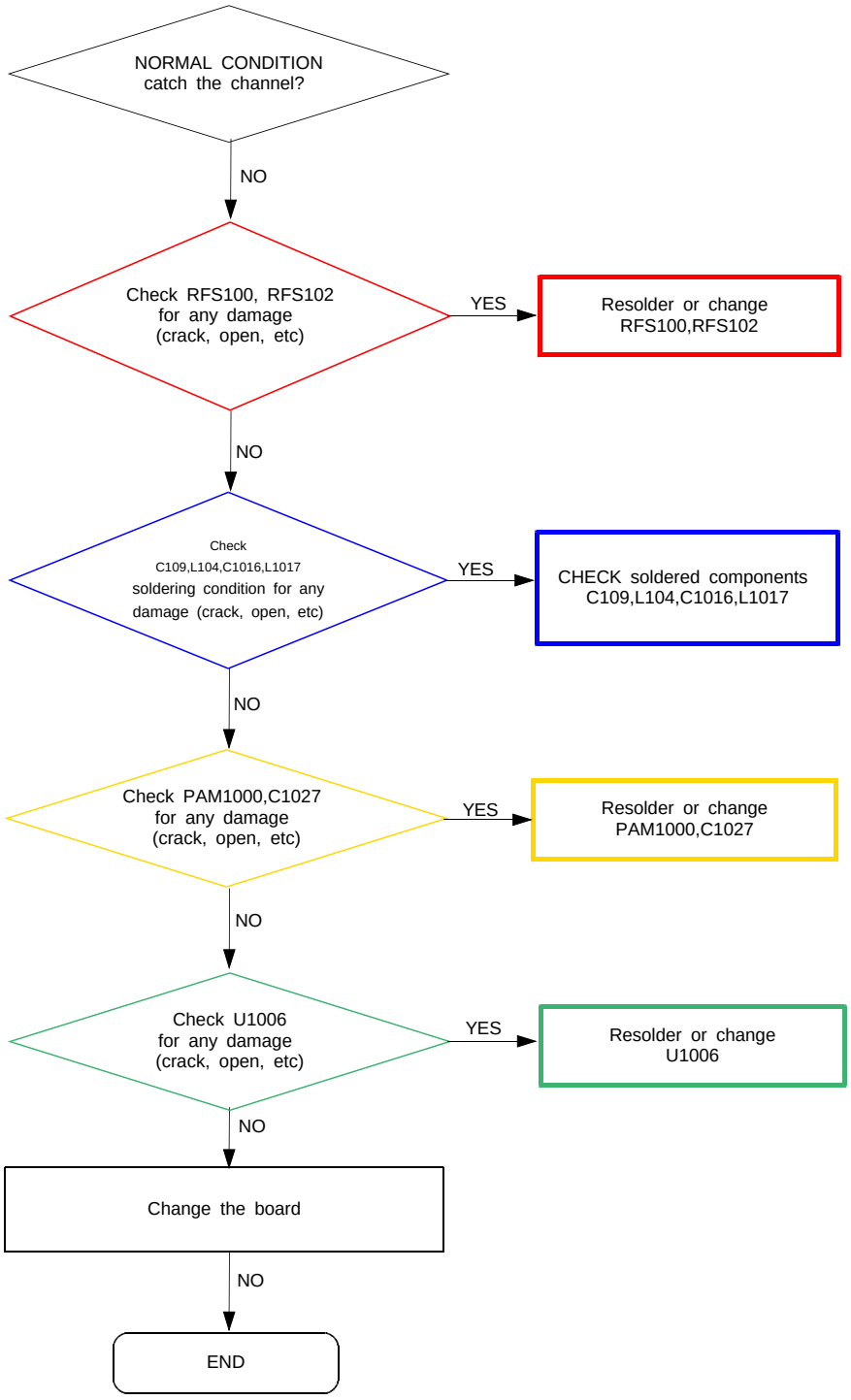


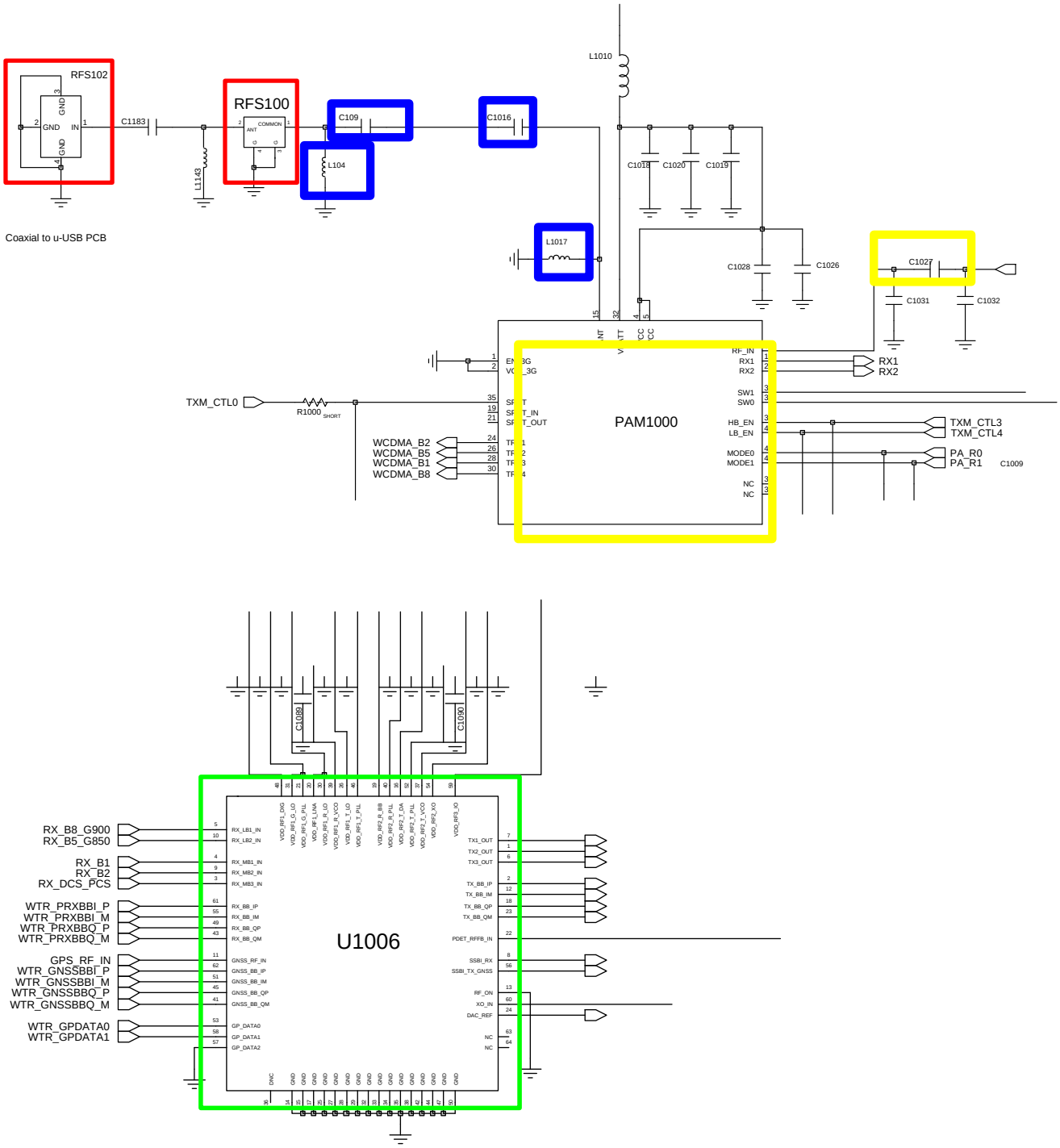


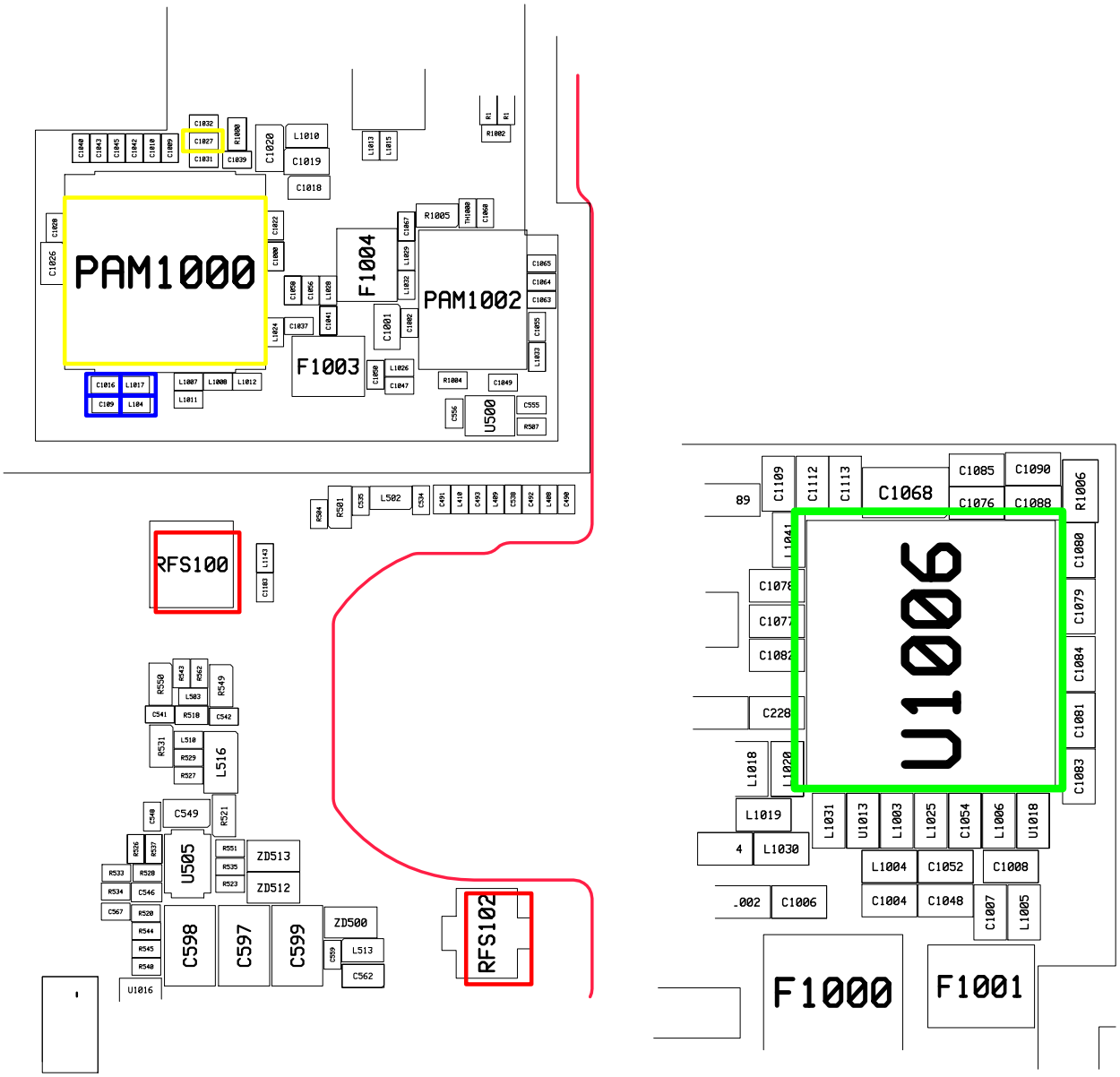




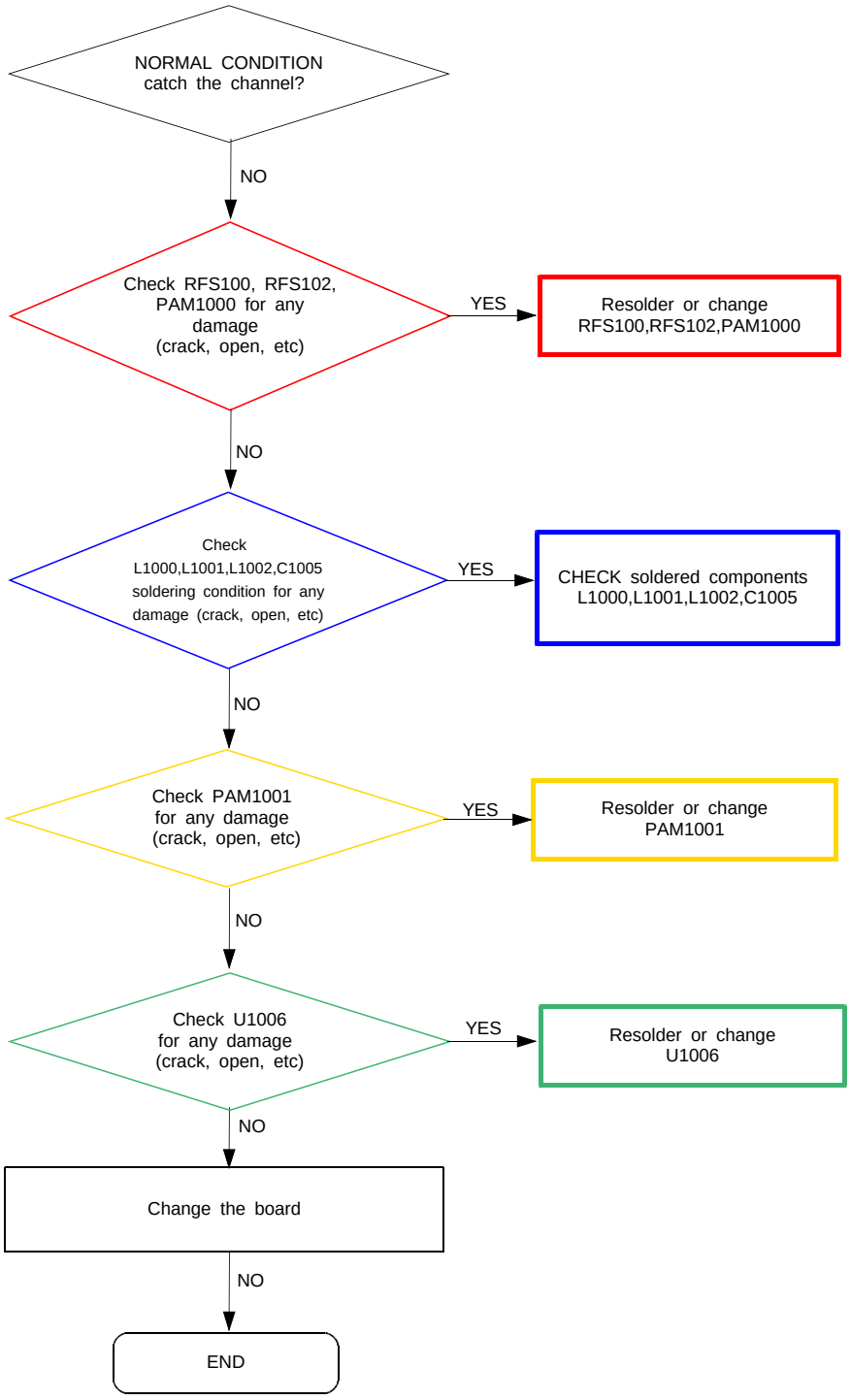
8-3-25. GSM850 / GSM900 / GSM1800 / GSM1900 TX

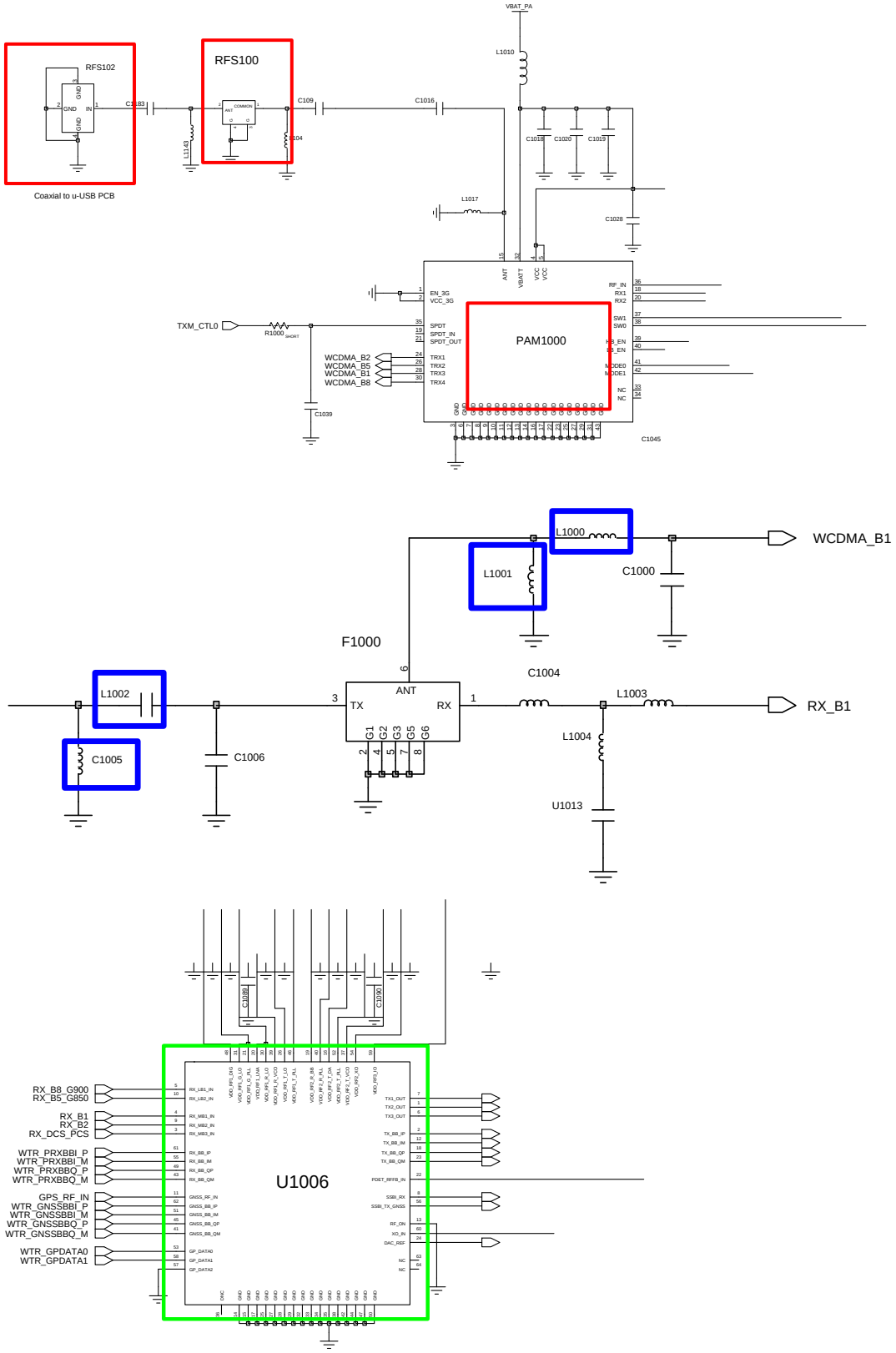


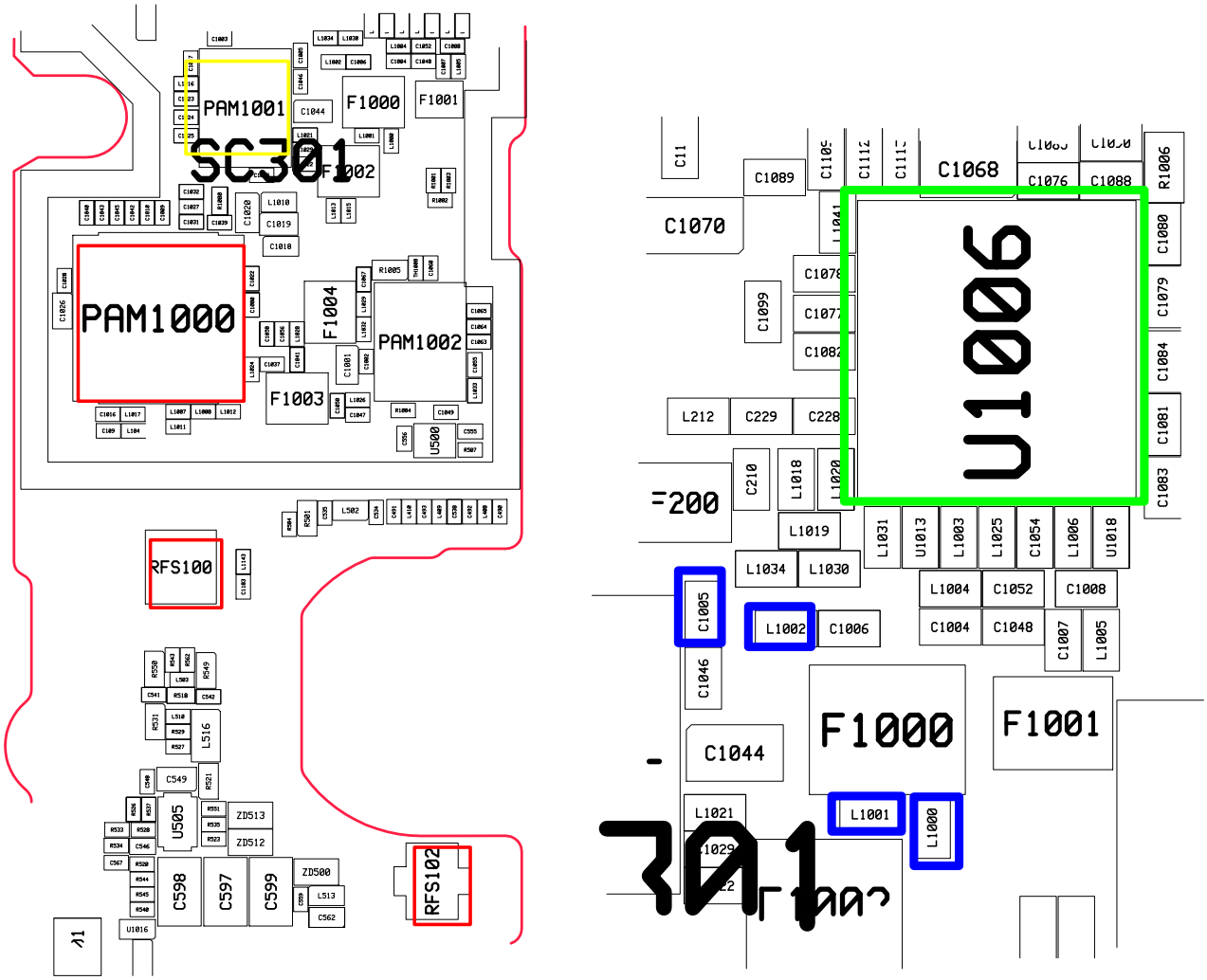




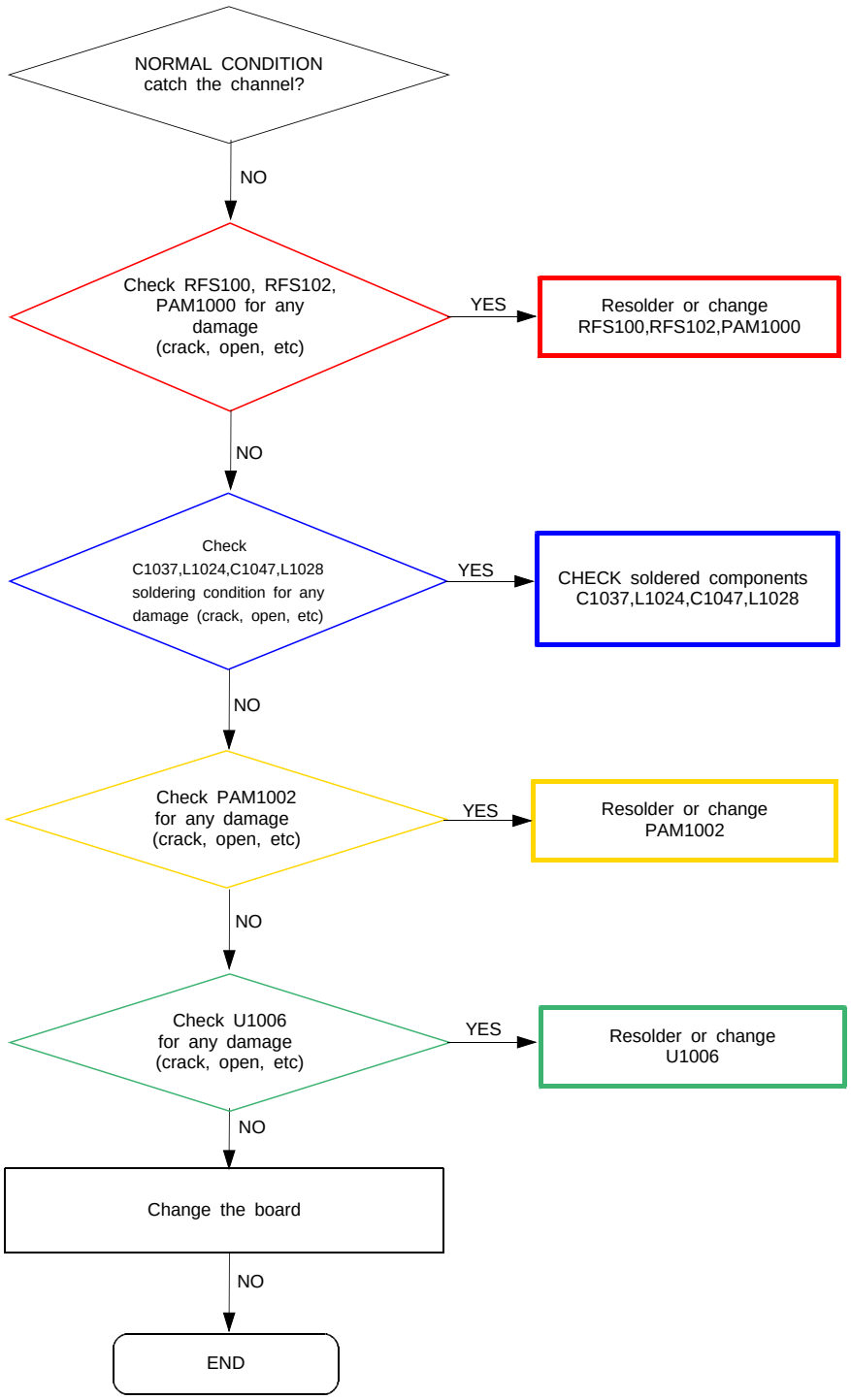
8-3-27. WCDMA B1 TX

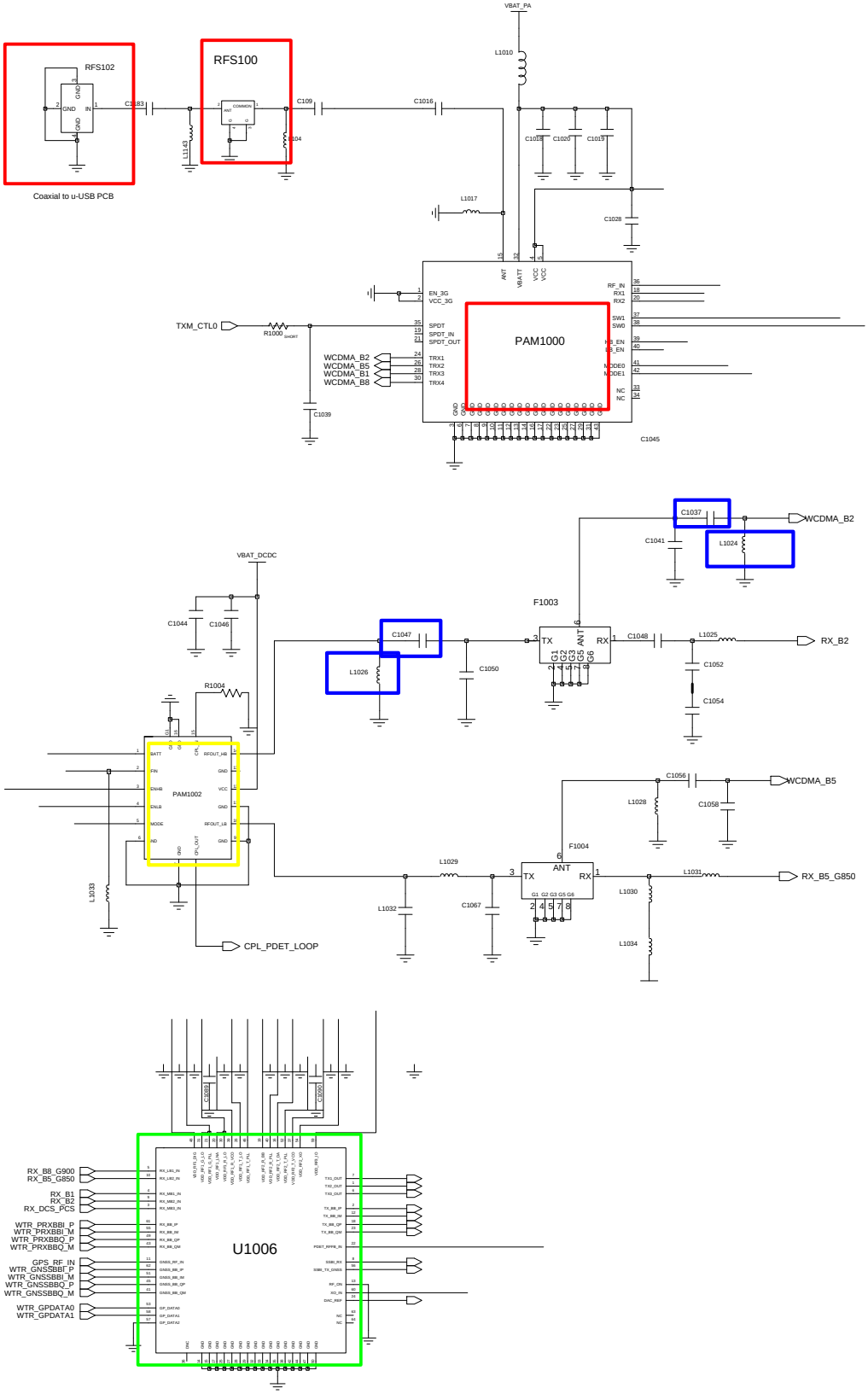


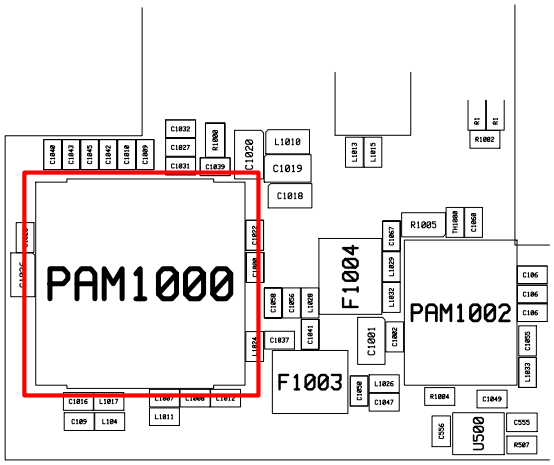


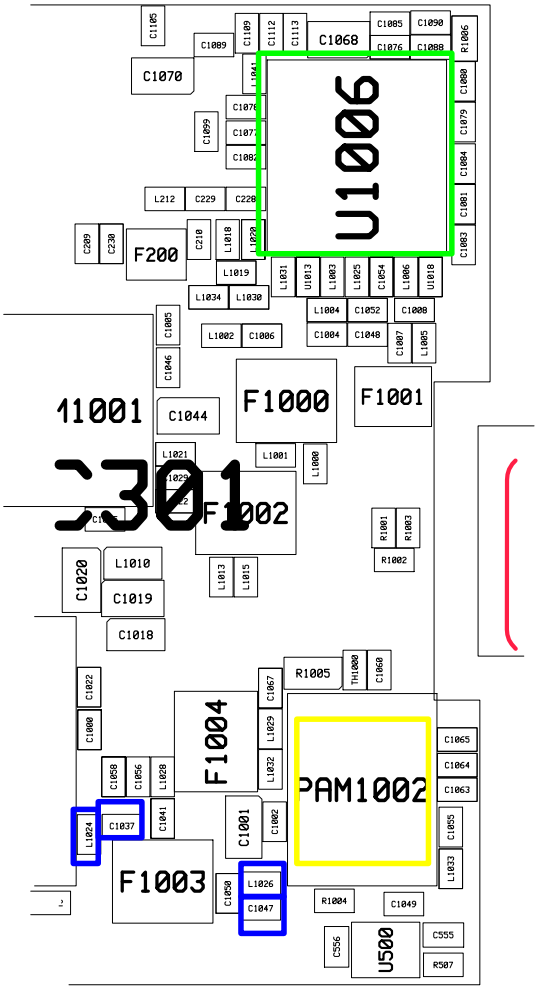


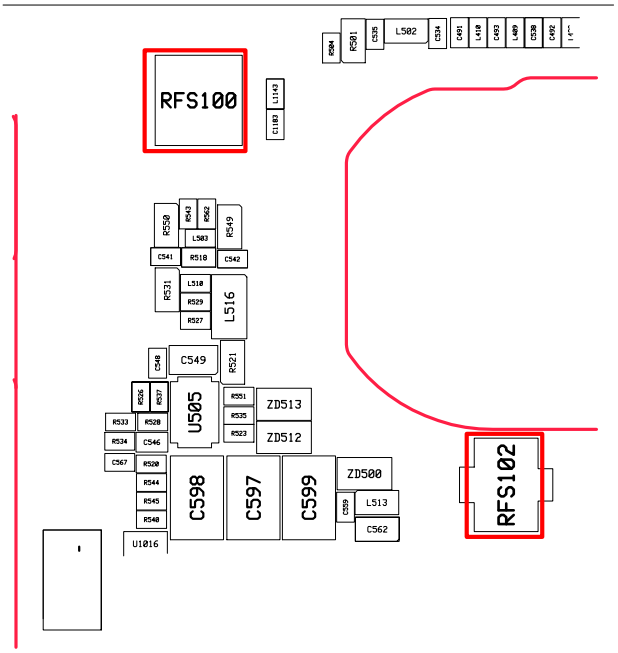
8-3-28. WCDMA B2 TX



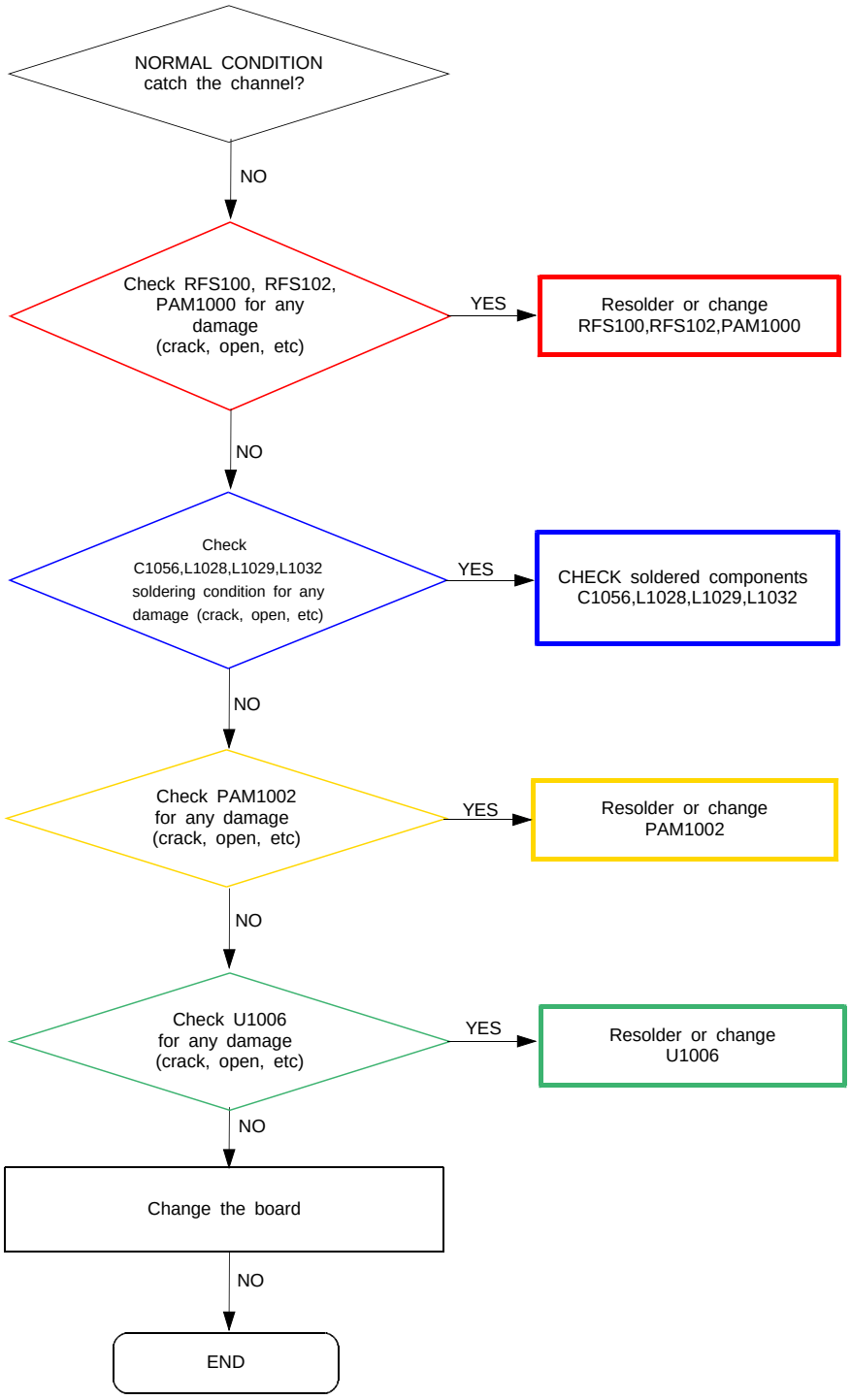


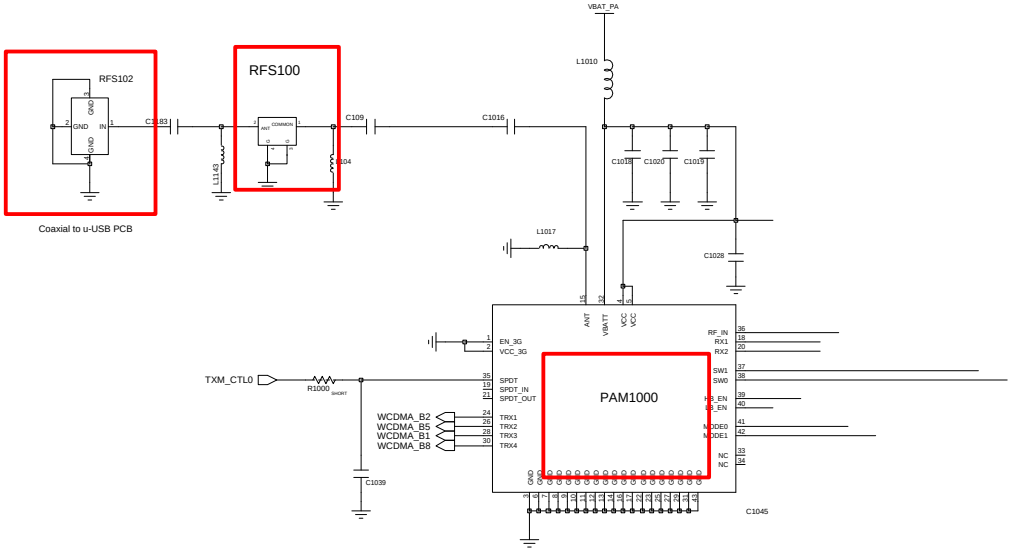


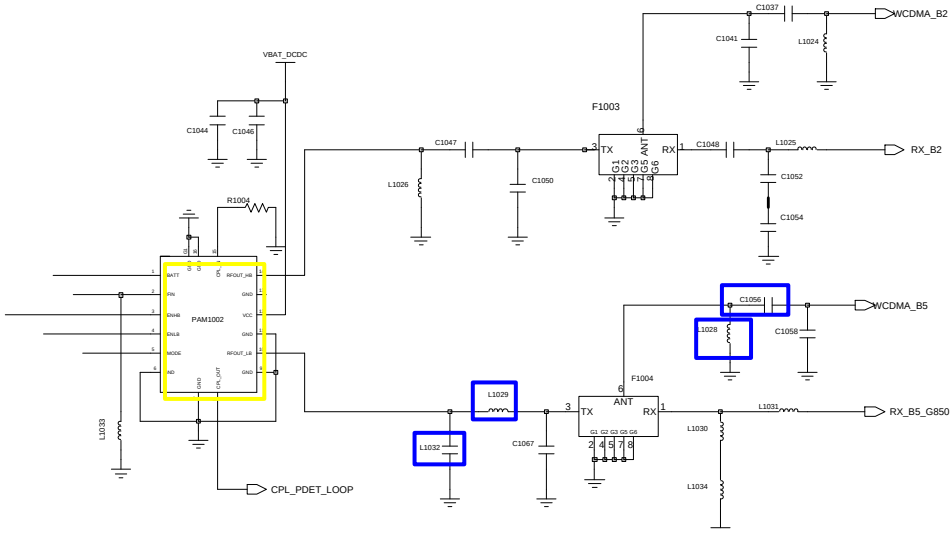


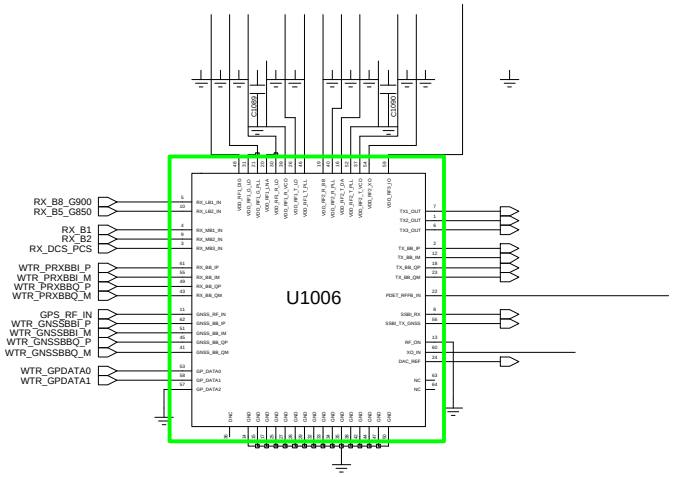


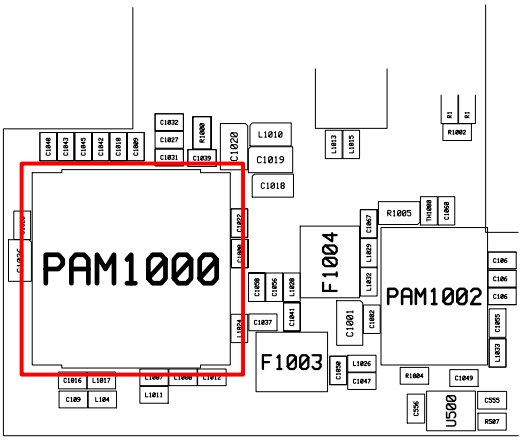
8-3-29. WCDMA B5 TX

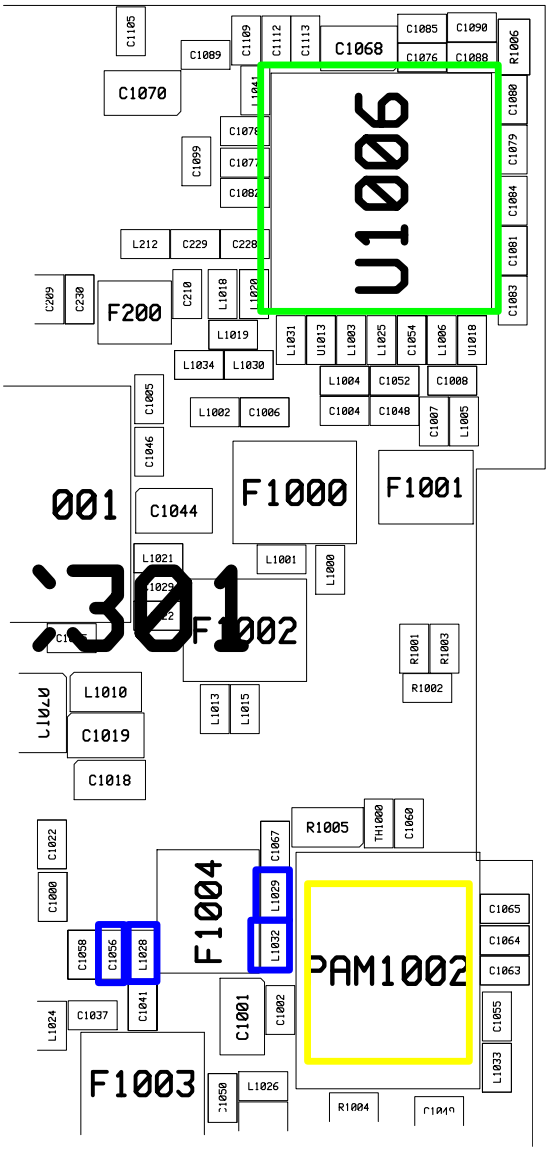


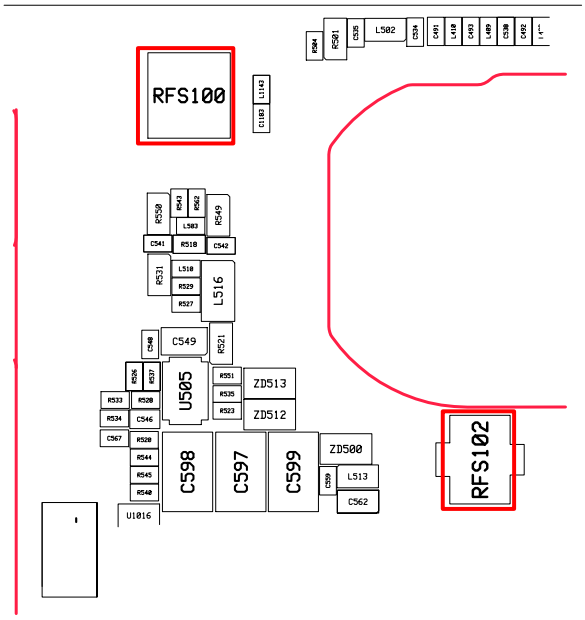




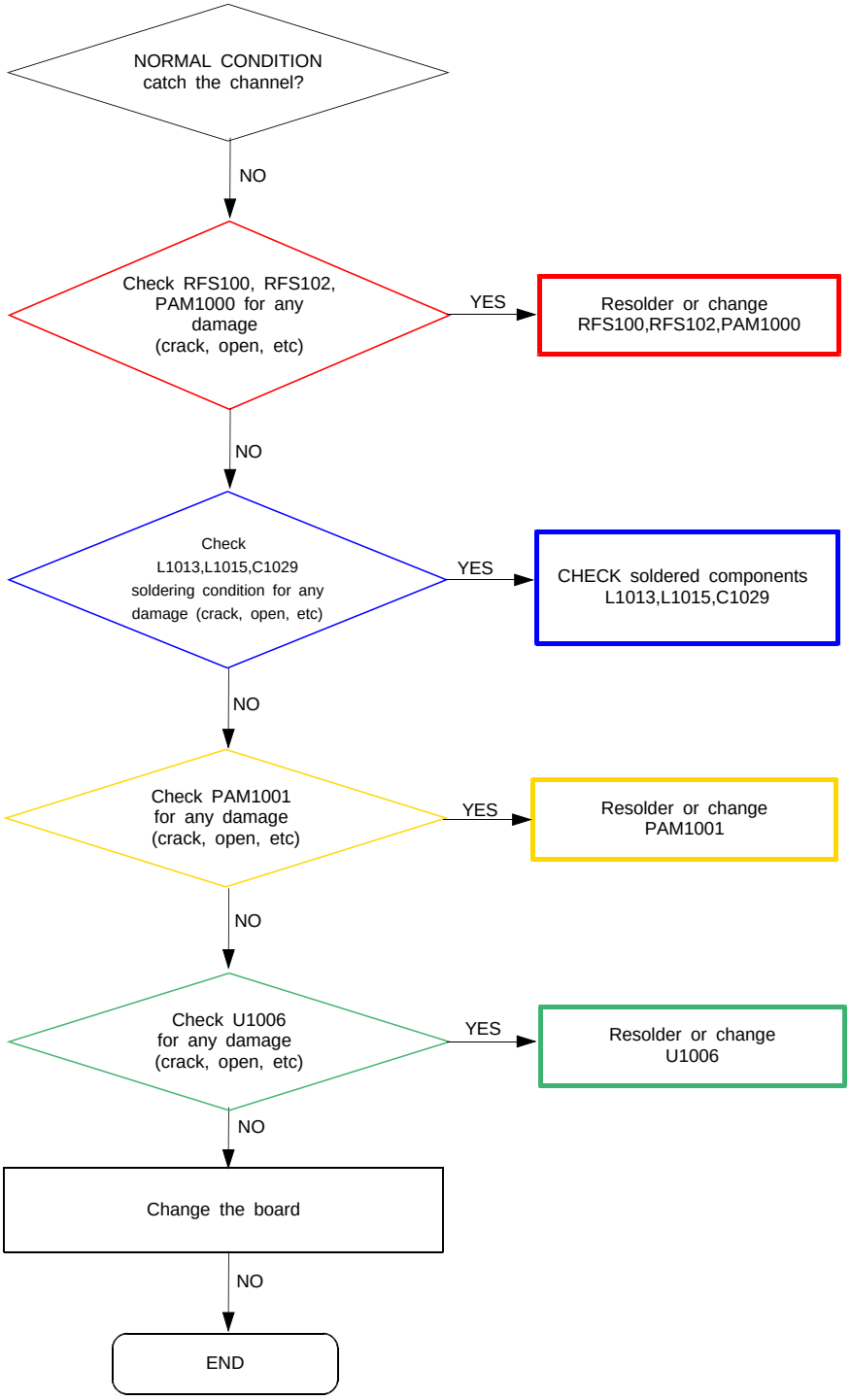


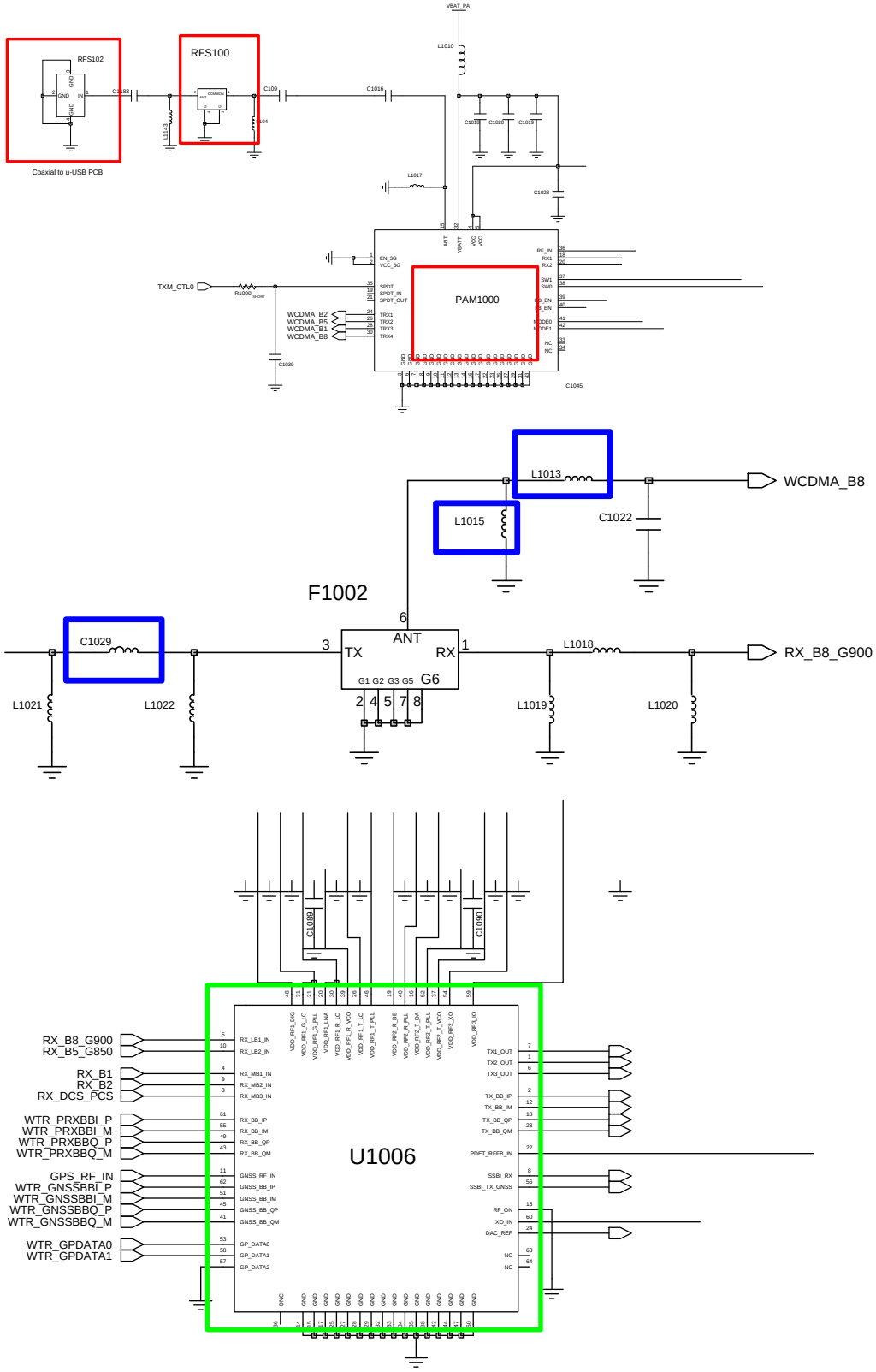


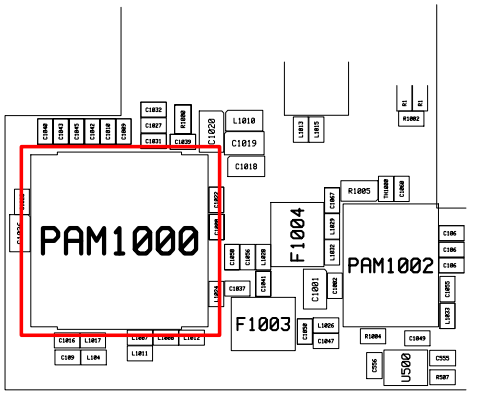


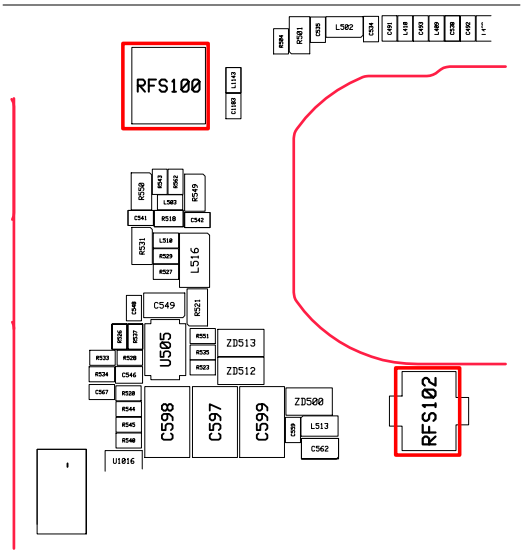


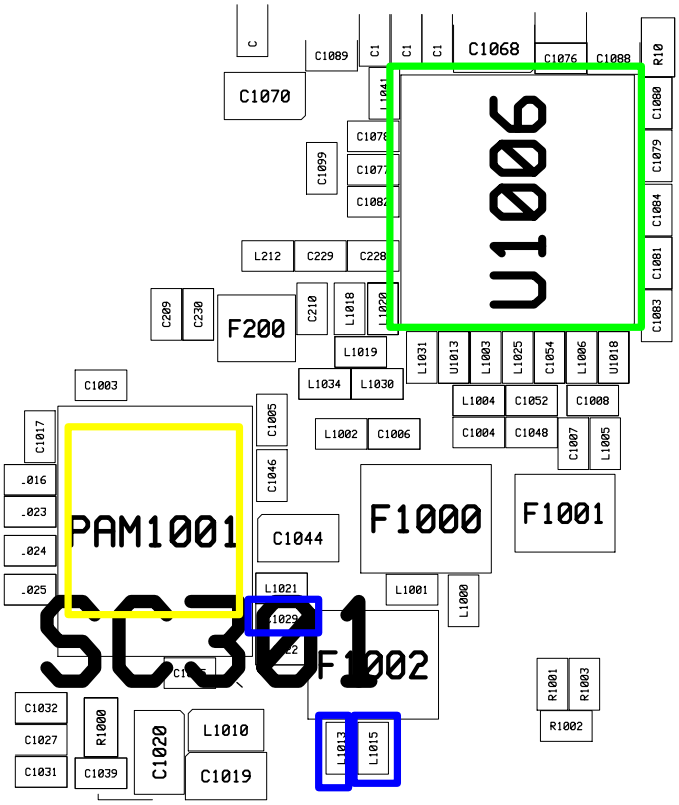
8-3-30. WCDMA B8 TX









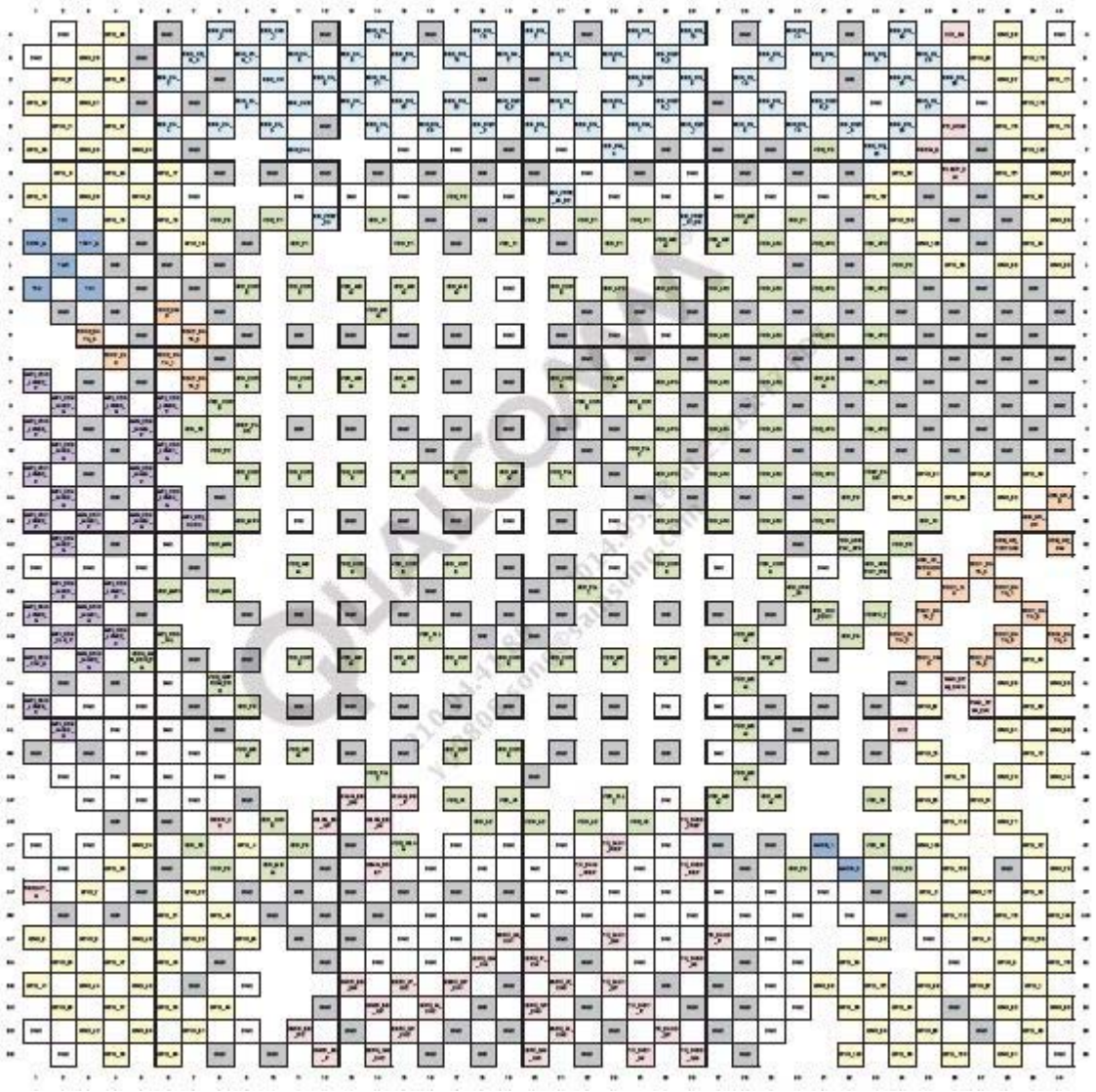


-NC Point(Top View)

●: NC

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
A														
B														
C	●													●
D	●								●	●	●	●	●	●
E	●	●	●	●	●	●	●	●	●	●	●	●	●	●
F	●					●	●							●
G	●					●	●							●
H	●					●	●							●
I	●					●	●							●
J	●					●	●							●
K	●					●	●							●
L	●					●	●							●
M	●					●	●							●
N	●					●	●							●
P	●					●	●							●
R	●					●	●							●
T	●					●	●							●
U	●					●	●							●
V	●					●	●							●
W	●					●	●							●
Y	●					●	●							●
AA						●	●							
AB						●	●							

UME400



UCP300

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
A														
B														
C										●				
D								●	●					
E						●								
F				●		●								
G														
H	●			●					●					●
J									●					
K						●	●					●		
L					●	●	●		●					
M														●
N														
P											●			

U400