

SAMSUNG

GSM TELEPHONE

GT-N5110

SERVICE *Manual*

GSM TELEPHONE

CONTENTS



1. Safety Precautions
2. Specification
3. Product Function
4. Exploded View and Parts list
5. MAIN Electrical Parts List
6. Level 1 Repair
7. Level 2 Repair
8. Level 3 Repair
9. Reference data

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**



2. Specification

2-1. GSM General Specification

Freq. Band[MHz] Uplink/ Downlink								
ARFCN range								
Tx/Rx spacing								
Mod. Bit rate/ Bit Period								
Time Slot Period/ Frame Period								
Modulation								
MS Power								
Power Class								
Sensitivity								
TDMA Mux								
Cell Radius								

2-2. GSM Tx Power Class

TX Power control level		TX Power control level		TX Power control level		TX Power control level	
5		5		0		0	
6		6		1		1	
7		7		2		2	
8		8		3		3	
9		9		4		4	
10		10		5		5	
11		11		6		6	
12		12		7		7	
13		13		8		8	
14		14		9		9	
15		15		10		10	
16		16		11		11	
17		17		12		12	
18		18		13		13	
19		19		14		14	
				15		15	

3. Operation Instruction and Installation

Main Function

- Android OS: Jelly Bean
- Main 5MP AF, Sub 1.3MP
- 8" WXGA TFT Full Touch (C-Type)
- A-GPS / GLONASS/ BT v4.0 + EDR with LE / USB v2.0 / Wi-Fi (802.11 a/b/g/n)/ OTG
- Recording definition: 800p / Playback at 1280p resolution
- Sensors: Accelation, Magnetic, Light
- Additional :
 - 1.6GHz Quad Core CPU

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 replacement parts may not function properly.

1-2. ESD(Electrostatically Sensitive Devices) Precaution

Many semiconductors and ESDs in electronic devices are particularly sensitive to static discharge and can be easily damaged by it. We recommend protecting these components with conductive 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.

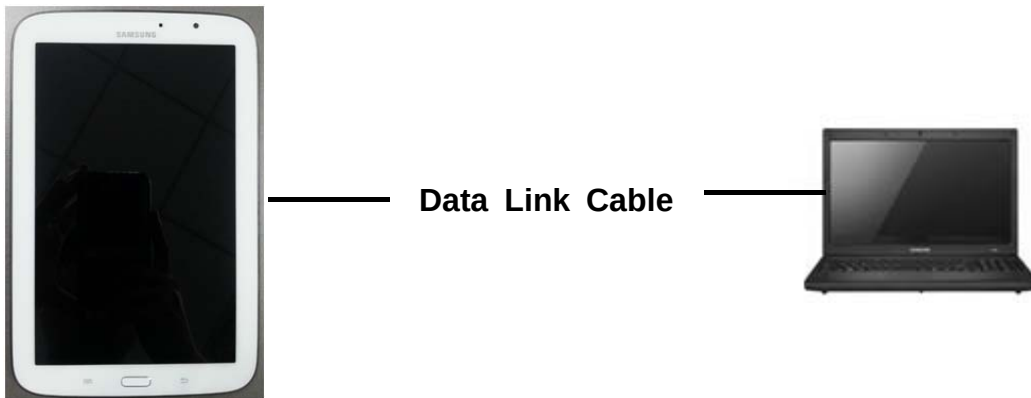
6. Level 1 Repair

6-1. S/W Download

6-1-1. Pre-requisite for S/W Downloading

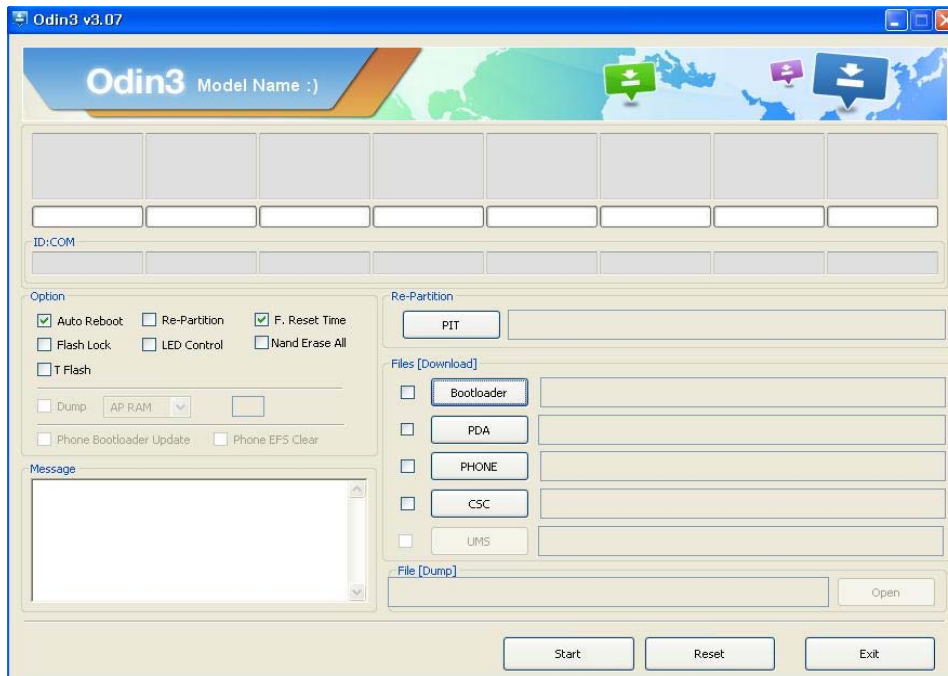
- Downloader Program ([Odin3 v3.07.exe](#))
- GT-N5110
- Data Link Cable (GH39-01578A)
- Binary files

❖ Settings



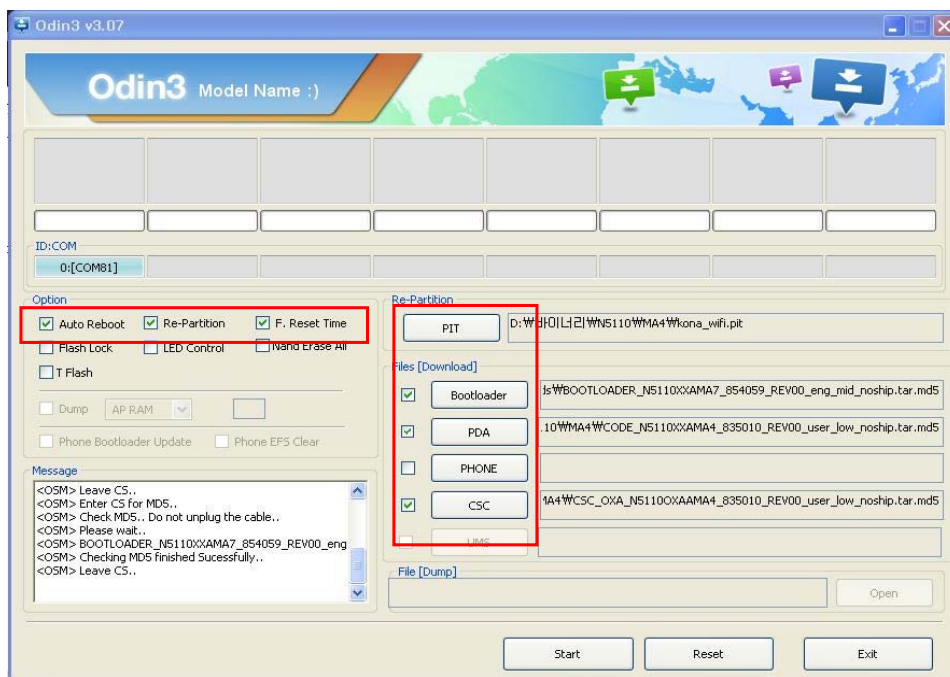
6-1-2. S/W Downloader Program

- Load the binary download program by executing the **"Odin3 v3.07.exe"** ← Run this file.



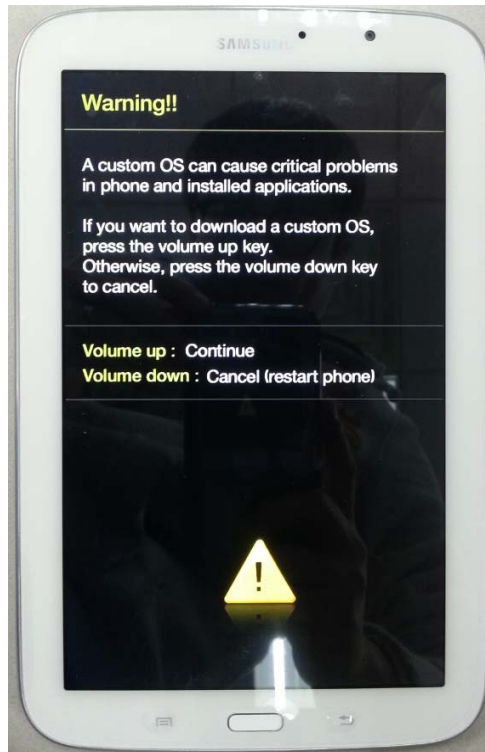
1. Option checking and select files

- Check Re-Partition, Auto Reboot and F. Reset Time, then select PIT, Bootloader, PDA and CSC File.

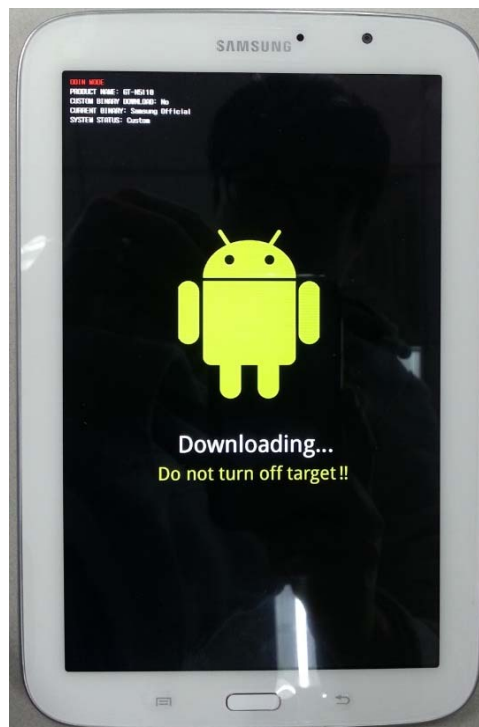


2. Enter Device into Download Mode

- Press volume down button and power key at same time for 5 seconds, then you can see below display.

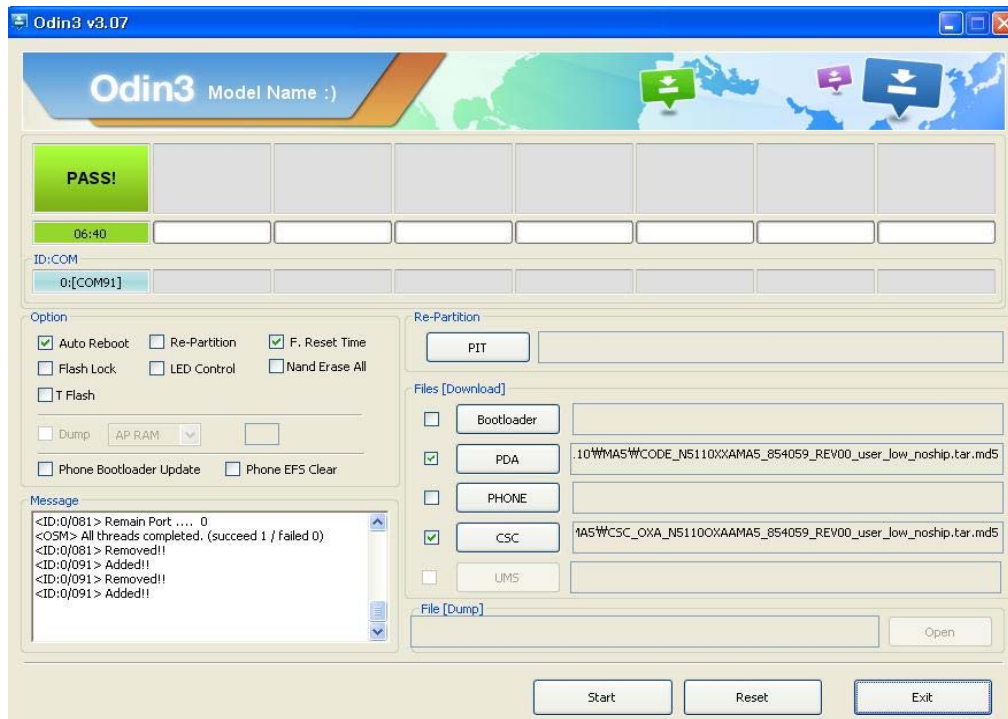


- Press volume up button to enter device into download mode.





4. Start Downloading PIT, Bootloader, PDA and CSC files by clicking Start button. Then wait for "PASS" to be appear on the screen.

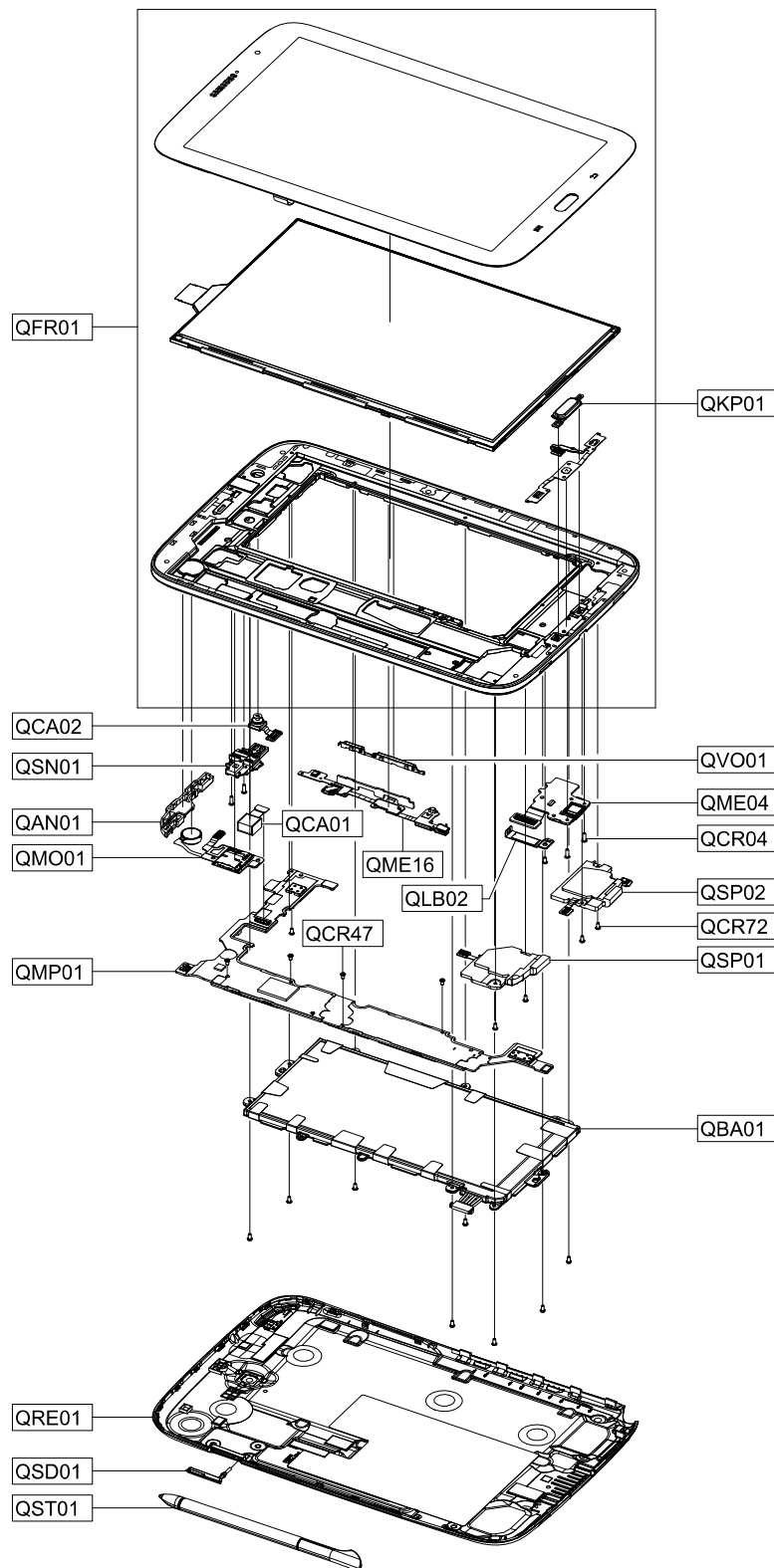


5. Once the device boots up, confirm the downloaded version name and etc. :
***#1234#**

Full Reset :
***2767*3855#**

4. Exploded View and Parts List

4-1. Cellular phone Exploded View



5. MAIN Electrical Parts List

SEC Code	Design LOC	Description
0403-001688	ZD511,ZD700	DIODE-ZENER
0404-001669	D800	DIODE-SCHOTTKY
0406-001223	ZD407,ZD408,ZD409	DIODE-TVS
0406-001239	D501	DIODE-TVS
0406-001267	U500,ZD500,ZD501	DIODE-TVS
0406-001267	ZD502,ZD503	DIODE-TVS
0406-001293	ZD509,ZD510	DIODE-TVS
0406-001369	U505	DIODE-TVS
0406-001413	ZD404,ZD405,ZD410	DIODE-TVS
0406-001413	ZD903,ZD904,ZD905	DIODE-TVS
0406-001459	ZD1000,ZD100	DIODE-TVS
0406-001459	ZD1002,ZD1003,	DIODE-TVS
0406-001459	ZD406,ZD504	DIODE-TVS
0406-001459	ZD505	DIODE-TVS
0406-001505	ZD508	DIODE-TVS
0406-001526	D500	DIODE-TVS
0504-001113	Q600	TR-DIGITAL
0504-001171	TR702	TR-DIGITAL
0505-002384	TR400	FET-SILICON
0505-002388	TR1000	FET-SILICON
0801-003437	U403	IC-CMOS LOGIC
0902-002996	UCP600	IC-MICROPROCESSOR
1001-001546	U405	IC-ANALOG SWITCH
1001-001650	U400	IC-ANALOG MULTIPLEX
1003-002431	U1007	IC-LEVEL DRIVER
1003-002469	U1002,U1006	IC-LEVEL DRIVER
1009-001058	U600	IC-HALL EFFECT SW
1107-002190	UME600	IC-FLASH MEMORY
1201-003469	U200	IC-GPS AMP
1202-001120	U404	IC-VOLTAGE COMP.
1203-004818	U902	IC-POSI.FIXED REG.
1203-004819	U903	IC-POSI.FIXED REG.
1203-005574	U1003	IC-POSI.FIXED REG.
1203-006182	U501	IC-VOL. DETECTOR
1203-006346	U702	IC-RESET
1203-006766	U504	IC-VOL. DETECTOR
1203-006817	U700	IC-POSI.FIXED REG.
1203-006872	U1000	IC-POSI.FIXED REG.
1203-006874	U1004	IC-POSI.FIXED REG.
1203-007321	U705	IC-POWER SUPERVISOR

1203-007490	U402	IC-MULTI REG.
1203-007623	U706	IC-BATTERY
1203-007624	U802	IC-BACKLIGHT DRIVER
1203-007643	U800	IC-DC/DC CONVERTER
1203-007657	U701	IC-POWER SUPERVISOR
1203-007677	U1005	IC-POSI.FIXED REG.
1204-003387	U1001	IC-REMOTE CONTROL
1205-003611	U601	IC-SWITCH
1205-004233	C1013	IC-TRANSMITTER
1205-004509	UCD400	IC-CODEC
1205-004521	U904	IC-CONTROLLER
1205-004535	U503	IC-SWITCH
1205-004598	U203	IC-WIFI
1205-004649	U201	IC-GPS RECEIVER
1205-004674	U1008	IC-CONTROLLER
1209-002142	U900	IC-SENSOR
1209-002153	U901	IC-SENSOR
1404-001728	TH600	THERMISTOR-NTC
1405-001346	VR700	VARISTOR
2007-000138	R416,R902	R-CHIP
2007-000140	R668,R669	R-CHIP
2007-000141	R411	R-CHIP
2007-000143	R909	R-CHIP
2007-000148	C1041,C1042,C1047	R-CHIP
2007-000148	C1048,C1052,R424	R-CHIP
2007-000148	R695	R-CHIP
2007-000162	C1056,R1040,R415	R-CHIP
2007-000170	C1002,R419,R420	R-CHIP
2007-000173	R610	R-CHIP
2007-000174	C1051	R-CHIP
2007-001292	R412	R-CHIP
2007-001295	R1001,R1002,R1003	R-CHIP
2007-001295	R1004,R1005,R1006	R-CHIP
2007-001295	R1007,R1008,R1009	R-CHIP
2007-003006	R402,R403	R-CHIP
2007-003015	R516,R517	R-CHIP
2007-007014	R601,R602,R603,R604	R-CHIP
2007-007014	R605,R606,R607,R608	R-CHIP
2007-007014	R609	R-CHIP
2007-007131	R805	R-CHIP
2007-007136	R688	R-CHIP

2007-007137	R410	R-CHIP
2007-007142	R1021,R511,R721	R-CHIP
2007-007193	R901	R-CHIP
2007-007199	R900	R-CHIP
2007-007306	R706,R720	R-CHIP
2007-007312	R693,R694	R-CHIP
2007-007318	R409	R-CHIP
2007-007517	R657,R658,R691,R692	R-CHIP
2007-007573	R414	R-CHIP
2007-007741	R1018,R512,R664,R680	R-CHIP
2007-007741	R711	R-CHIP
2007-007942	R417,R514,R684,R696	R-CHIP
2007-007942	R697,R908	R-CHIP
2007-008040	R1030	R-CHIP
2007-008048	R1022,R1023,R213	R-CHIP
2007-008052	R1012,R1013,R1016	R-CHIP
2007-008052	R1025,R1026,R630	R-CHIP
2007-008052	R631,R676,R677	R-CHIP
2007-008055	R1033,R1041,R600	R-CHIP
2007-008055	R625,R650,R651,R652	R-CHIP
2007-008055	R672,R673,R674,R675	R-CHIP
2007-008055	R681,R687,R689,R803	R-CHIP
2007-008211	R906	R-CHIP
2007-008275	R804	R-CHIP
2007-008403	R718	R-CHIP
2007-008420	R1029,R1039,R413	R-CHIP
2007-008478	R647,R648,R666,R667	R-CHIP
2007-008483	R500,R501,R502,R503	R-CHIP
2007-008483	R504,R623	R-CHIP
2007-008486	R705,R714	R-CHIP
2007-008516	R1011,R1017,R621	R-CHIP
2007-008516	R622,R624,R641,R662	R-CHIP
2007-008516	R663,R665,R686,R690	R-CHIP
2007-008531	R515	R-CHIP
2007-008588	R1031,R1032	R-CHIP
2007-008633	R719	R-CHIP
2007-008798	R704	R-CHIP
2007-008800	R655,R656	R-CHIP
2007-008806	R401	R-CHIP
2007-009084	R1000,R1015	R-CHIP
2007-009084	R703,R709,R912	R-CHIP

2007-009155	C229,C247,C259,C263	R-CHIP
2007-009157	R612,R615,R634,R635	R-CHIP
2007-009157	R661,R910	R-CHIP
2007-009158	R1019,R1020	R-CHIP
2007-009171	R205,R206,R207,R208	R-CHIP
2007-009171	R209	R-CHIP
2007-009408	R632,R633,R645,R646	R-CHIP
2007-009408	R653,R654,R659,R660	R-CHIP
2007-009408	R670,R671,R678,R679	R-CHIP
2007-009408	R682,R683	R-CHIP
2007-009805	R510	R-CHIP
2007-009866	R712	R-CHIP
2007-009964	R685	R-CHIP
2203-000233	C433,C434	C-CER,CHIP
2203-000254	C222,C901	C-CER,CHIP
2203-000278	C1045,C1046	C-CER,CHIP
2203-000386	C430,C431	C-CER,CHIP
2203-000425	C437,C447,C448	C-CER,CHIP
2203-000489	C654	C-CER,CHIP
2203-000714	C655,C658	C-CER,CHIP
2203-000725	C783	C-CER,CHIP
2203-000854	C804	C-CER,CHIP
2203-001153	C429,C432	C-CER,CHIP
2203-001239	C449,C450	C-CER,CHIP
2203-001259	C1018,C1019	C-CER,CHIP
2203-002668	C205	C-CER,CHIP
2203-002687	C775	C-CER,CHIP
2203-002709	C910	C-CER,CHIP
2203-005052	C203	C-CER,CHIP
2203-005682	C1057,C1058,C1059	C-CER,CHIP
2203-005682	C502,C503,C504	C-CER,CHIP
2203-005725	C201,C207,C705,C707	C-CER,CHIP
2203-005727	C781	C-CER,CHIP
2203-005729	C250,C427	C-CER,CHIP
2203-005731	C656,C657	C-CER,CHIP
2203-005732	C428	C-CER,CHIP
2203-005734	C510	C-CER,CHIP
2203-005736	C224	C-CER,CHIP
2203-005806	C211	C-CER,CHIP
2203-006048	C1015,C1017,C1044	C-CER,CHIP
2203-006048	C1054,C659	C-CER,CHIP

2203-006121	C1012,C215,C216,C244	C-CER,CHIP
2203-006190	C601,C603,C629	C-CER,CHIP
2203-006257	C902	C-CER,CHIP
2203-006305	C219,C220,C236,C251	C-CER,CHIP
2203-006305	C252,C253,C256,C258	C-CER,CHIP
2203-006305	C262,C264,C265	C-CER,CHIP
2203-006399	C414	C-CER,CHIP
2203-006423	C1004,C1005,C1007	C-CER,CHIP
2203-006423	C1009,C1011,C1014	C-CER,CHIP
2203-006423	C1020,C1026,C210	C-CER,CHIP
2203-006423	C401,C405,C438,C604	C-CER,CHIP
2203-006423	C606,C609,C613,C619	C-CER,CHIP
2203-006423	C648,C649,C653,C700	C-CER,CHIP
2203-006423	C701,C704,C773,C780	C-CER,CHIP
2203-006423	C907,C909	C-CER,CHIP
2203-006562	C1000,C1001,C1023	C-CER,CHIP
2203-006562	C1027,C1028,C1030	C-CER,CHIP
2203-006562	C1031,C1032,C1033	C-CER,CHIP
2203-006562	C1034,C1035,C1037	C-CER,CHIP
2203-006562	C1038,C1039,C1040	C-CER,CHIP
2203-006562	C1055,C412,C441,C703	C-CER,CHIP
2203-006562	C706,C789,C906,C913	C-CER,CHIP
2203-006562	C915,C916	C-CER,CHIP
2203-006642	C245,C255,C620,C622	C-CER,CHIP
2203-006642	C626	C-CER,CHIP
2203-006681	C768	C-CER,CHIP
2203-006707	C208,C225,C230,C234	C-CER,CHIP
2203-006707	C246,C248	C-CER,CHIP
2203-006815	C509	C-CER,CHIP
2203-006824	C900	C-CER,CHIP
2203-006839	C1029,C1043,C1050	C-CER,CHIP
2203-006839	C1053,C767,C769	C-CER,CHIP
2203-006844	C1022	C-CER,CHIP
2203-006872	C1003,C1006,C1008	C-CER,CHIP
2203-006872	C1010,C200,C402,C423	C-CER,CHIP
2203-006872	C425,C426,C605,C612	C-CER,CHIP
2203-006872	C618,C634,C638,C646	C-CER,CHIP
2203-006872	C647,C650,C728,C729	C-CER,CHIP
2203-006872	C733,C735,C742,C746	C-CER,CHIP
2203-006872	C747,C748,C754,C755	C-CER,CHIP
2203-006872	C917,C920,C921	C-CER,CHIP

2203-006896	C217	C-CER,CHIP
2203-006979	C776,C903,C904	C-CER,CHIP
2203-007210	C702	C-CER,CHIP
2203-007240	C757,C758,C759,C760	C-CER,CHIP
2203-007240	C761	C-CER,CHIP
2203-007269	C772	C-CER,CHIP
2203-007271	C1036,C235,C788,C914	C-CER,CHIP
2203-007317	C417,C501,C607,C610	C-CER,CHIP
2203-007317	C614,C643,C721,C723	C-CER,CHIP
2203-007317	C724,C725,C752,C753	C-CER,CHIP
2203-007317	C756,C762	C-CER,CHIP
2203-007342	C1016,C1049,C708	C-CER,CHIP
2203-007342	C709,C710,C711,C712	C-CER,CHIP
2203-007342	C713	C-CER,CHIP
2203-007385	C631,C635,C639,C640	C-CER,CHIP
2203-007393	C242,C260,C660,C922	C-CER,CHIP
2203-007449	C1024,C1025,C202	C-CER,CHIP
2203-007449	C206,C214,C400,C608	C-CER,CHIP
2203-007449	C611,C615,C616,C617	C-CER,CHIP
2203-007449	C621,C623,C624,C625	C-CER,CHIP
2203-007449	C627,C628,C632,C633	C-CER,CHIP
2203-007449	C636,C637,C641,C642	C-CER,CHIP
2203-007449	C644,C645,C719,C726	C-CER,CHIP
2203-007449	C727,C730,C731,C732	C-CER,CHIP
2203-007449	C734,C736,C737,C738	C-CER,CHIP
2203-007449	C739,C740,C741,C743	C-CER,CHIP
2203-007449	C744,C745,C749,C750	C-CER,CHIP
2203-007449	C751,C771,C774,C779	C-CER,CHIP
2203-007449	C782,C911,C925,C926	C-CER,CHIP
2203-007449	C927	C-CER,CHIP
2203-007456	C511,C512,C513,C763	C-CER,CHIP
2203-007456	C784	C-CER,CHIP
2203-007634	C506,C802	C-CER,CHIP
2203-007775	C403,C404,C409,C602	C-CER,CHIP
2203-007790	C805,C807	C-CER,CHIP
2203-007795	C600,C765,C766	C-CER,CHIP
2203-007796	C1021,C204,C209,C227	C-CER,CHIP
2203-007796	C228,C232,C407,C408	C-CER,CHIP
2203-007796	C415,C416,C420,C421	C-CER,CHIP
2203-007796	C422,C424,C651,C652	C-CER,CHIP
2203-007796	C777,C778,C912	C-CER,CHIP

2203-008095	C231,C233,C254	C-CER,CHIP
2203-008097	C226,C238,C239,C240	C-CER,CHIP
2203-008097	C243,C257,C261	C-CER,CHIP
2203-008126	C505	C-CER,CHIP
2203-008243	C785	C-CER,CHIP
2203-008526	C516	C-CER,CHIP
2203-008527	C714,C715,C716,C717	C-CER,CHIP
2203-008527	C718,C786,C787,C800	C-CER,CHIP
2203-008527	C801,C803,C806	C-CER,CHIP
2203-008528	C507,C770	C-CER,CHIP
2203-008529	C241,C406,C720,C722	C-CER,CHIP
2203-008529	C764,C809,R903	C-CER,CHIP
2404-001561	TA400	C-TA,CHIP
2703-002369	L201	INDUCTOR-SMD
2703-003687	L707,L708,L709	INDUCTOR-SMD
2703-003913	L801	INDUCTOR-SMD
2703-004297	L711	INDUCTOR-SMD
2703-004299	L214	INDUCTOR-SMD
2703-004302	L213	INDUCTOR-SMD
2703-004338	L211	INDUCTOR-SMD
2703-004366	L203,L204,L212	INDUCTOR-SMD
2703-004373	L700,L701,L702,L703	INDUCTOR-SMD
2703-004373	L704,L705,L706,L710	INDUCTOR-SMD
2703-004530	L803	INDUCTOR-SMD
2801-004785	OSC1000	CRYSTAL-SMD
2801-005107	OSC201	CRYSTAL-SMD
2801-005157	OSC700	CRYSTAL-SMD
2801-005163	OSC600	CRYSTAL-SMD
2801-005213	OSC1001	CRYSTAL-SMD
2805-001098	OSC200	OSCILLATOR-TCXO
2901-001625	F500,F800	FILTER-EMI/ESD
2901-001647	F801,F802	FILTER-EMI/ESD
2901-001673	F900	FILTER-EMI/ESD
2901-001674	F901,F902	FILTER-EMI/ESD
2904-002085	F201,F202	FILTER-GPS SAW
2909-001324	F203	FILTER-LC
2911-000232	U202	DUPLEXER-FEM
2911-000233	U204	DUPLEXER-FEM
3301-001534	L210	BEAD-SMD
3301-001729	L1000,L1001	BEAD-SMD
3301-001885	L402,L403,L404,L405	BEAD-SMD

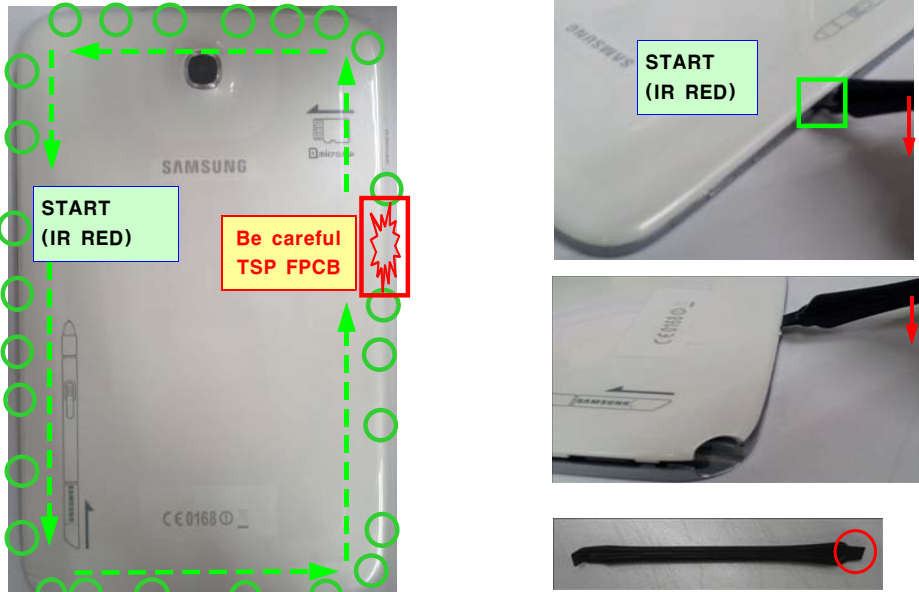
3301-001895	L200	BEAD-SMD
3301-001901	L900	BEAD-SMD
3301-001929	L400,L401	BEAD-SMD
3301-001956	L800	BEAD-SMD
3301-002037	L1002,L1003,L1004	BEAD-SMD
3301-002037	L804	BEAD-SMD
3301-002066	C928	BEAD-SMD
3301-002078	L409,L411	BEAD-SMD
3708-002222	HDC900	CONNECTOR-FPC/FFC/PIC
3708-002781	SLC900	CONNECTOR-FPC/FFC/PIC
3708-003131	SLC1000	CONNECTOR-FPC/FFC/PIC
3711-006843	IFC500	HEADER-BOARD TO BOARD
3711-006923	HDC1000	HEADER-BOARD TO BOARD
3711-006925	HDC901	HEADER-BOARD TO BOARD
3711-007173	HDC500,HDC600	HEADER-BOARD TO BOARD
3711-007188	HDC402	HEADER-BOARD TO BOARD
3711-007295	HDC800	HEADER-BOARD TO BOARD
3711-007810	HDC1001	HEADER-BOARD TO BOARD
3711-008347	HDC400	HEADER-BOARD TO BOARD
3711-008421	BTC700	CONNECTOR-HEADER
3712-001375	ANT202,ANT203	CONNECTOR-TERMINAL
4709-001672	F204	FREQ-DISTRIBUTER
4709-002021	F200	FREQ-DISTRIBUTER
GH62-00025A	CON100	PAD GAP-PCB GASKET(GT-N5100)
GH63-02825A	SC200	SHIELD-CAN D (SMD)
GH80-03320A	R214,R215,R216,R217	PB-SHORT-1005
GH80-03321A	R518,R722,U507	PB-SHORT-0603
GH98-25581A	SC201	ASSY COVER-SHIELDCAN C SMD

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

7. Level 2 Repair

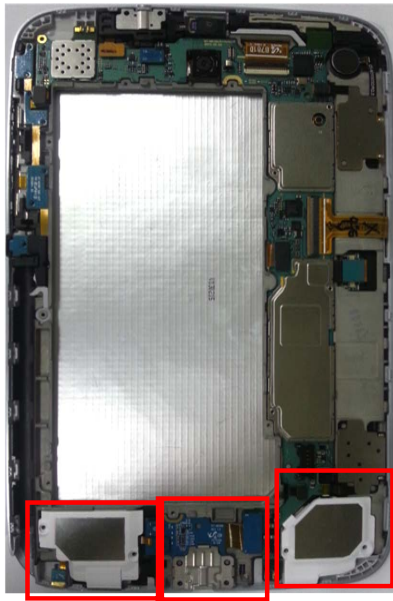
7-1. Disassembly and Assembly Instructions

7-1-1. Disassembly

1	Disjoint Hook at REAR // Disassemble REAR	
1) Be careful not to make scratch and molding damage!		1) Use flat point of disassembly jig
2	Disassemble SCREW	3 Disassemble FPCB
		
1) Disassemble SCREW(17point) 2) Detach Battery connector		1) Hold up Main PBA from bottom. 2) Be careful not to scratch FPCB

4

Disassemble SPK(L),(R), IF PCB



5

Disassemble PBA

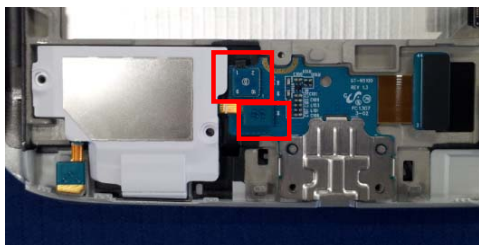
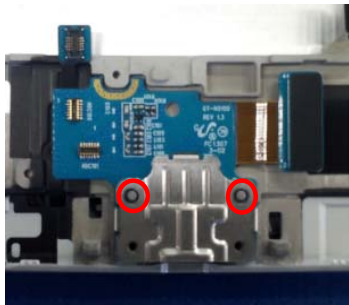


- 1) Hold up Main PBA from FRONT.
- 2) Be careful not to scratch FPCB

7-1-2. Assembly

1

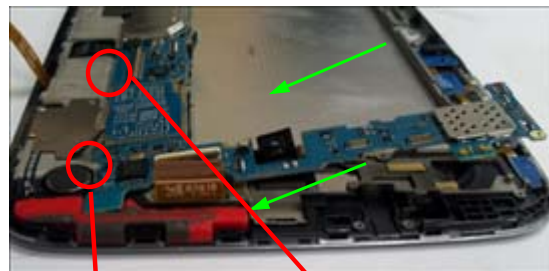
Assemble IF PCB/SPK on FRONT.



- 1) Assemble IF PCB and SPK on Front.

2

Assemble PBA



- 1) Assemble PBA on Front Ass'y
- 2) Check Front hook.

3

Assemble connector



1) Be careful not to scratch FPCB

4

Assemble SCREW



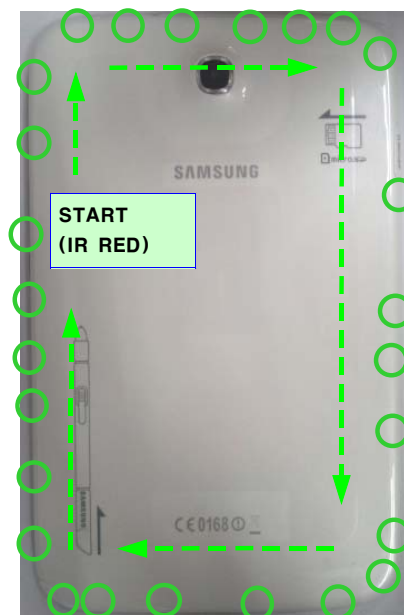
1)  : 1.4 * 2.5 (Silver, 6001-002051) 13 point

 : 1.4 * 4.0(Black, 6001-001479) 4 point

2) Drive Screws with torque $1.2 \pm 0.1 \text{ Kgf/cm}^2$

5

Assemble REAR



1) Assemble REAR hook

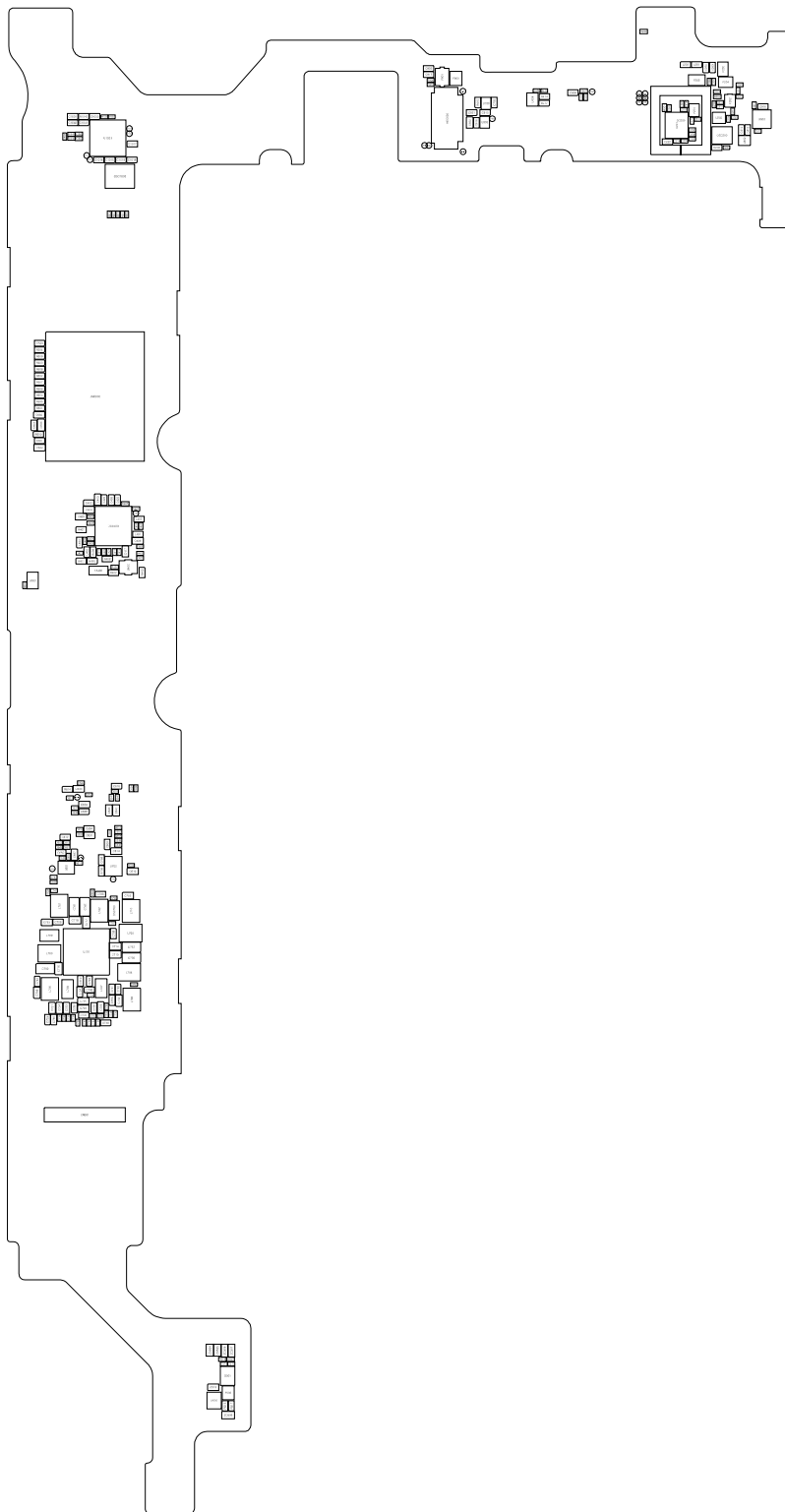
8-1. Block Diagram

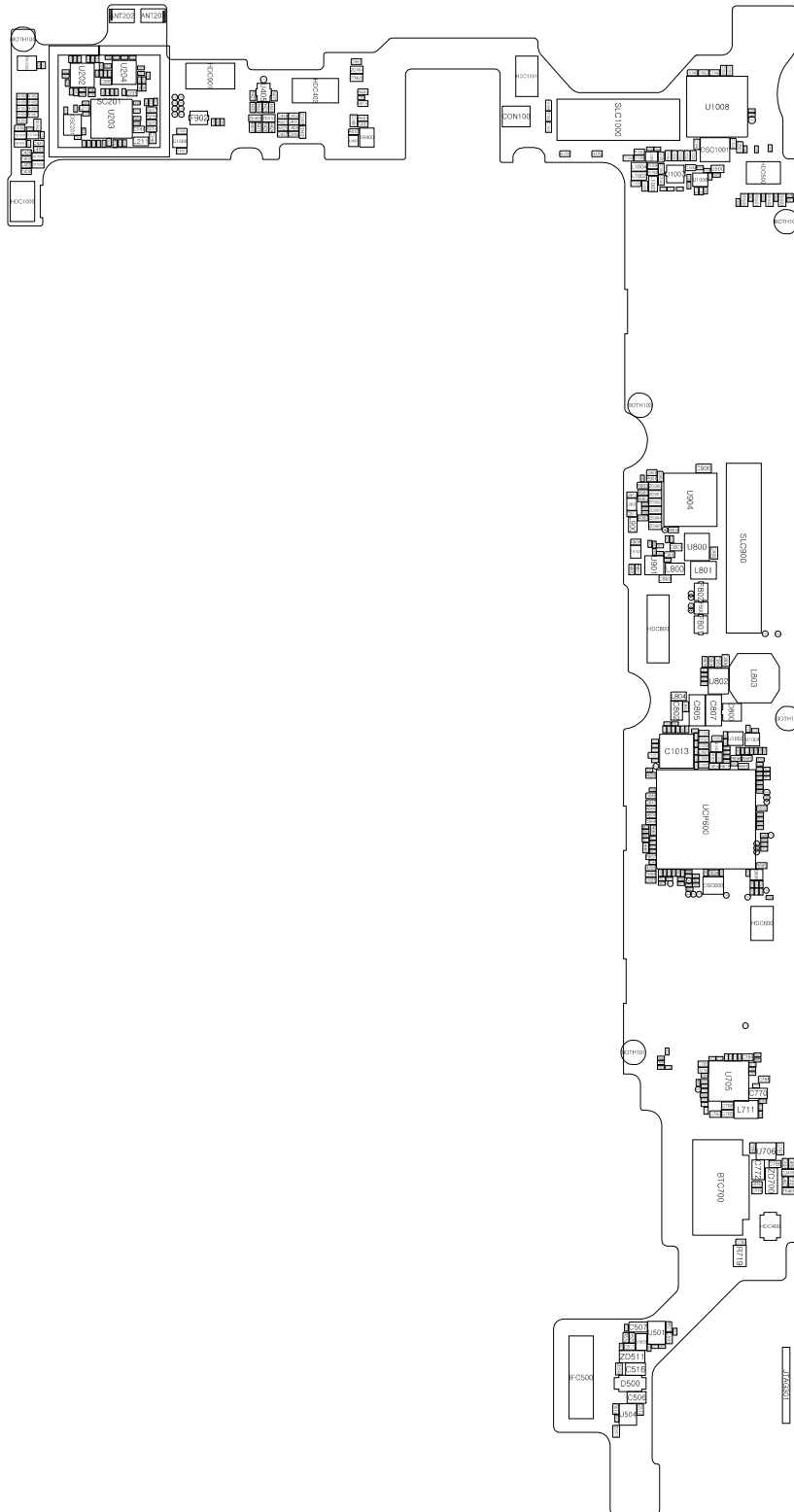
The block diagram illustrates the SC54412BHB-A030 AP chip and its connections to various external components. Key sections include:

- BT/WiFi/GPS:** Features BT/WiFi (BCM43434HKBG), GPS (BCM4752UB2G), and BT/WiFi/GPS (BT/WiFi) blocks. It includes antennas (ANT), D-Plexers (D P X, B P F), SAW filters (SAW), and LNA/PA blocks.
- IF:** Includes a 11pin to 44pin IF Connector, CODEC, and IF blocks.
- PMIC:** Features a PMIC (MAX77686 GEWE-Y) and an EXT_IQ_POWER_CONTROL block.
- SENSOR/SM CAM/VT CAM:** Includes a 5M CAM CON (P903-215-0.35BW), a 13M VT CAM CON (P903-215-0.35BW), and a 3 SPI EARJACK + SUB MIC (M1802-020-020-020).
- AP CHIP:** The central SC54412BHB-A030 chip, showing internal components like the BT/WiFi, GPS, and IF blocks.
- AUDIO CODEC:** Includes an AUDIO CODEC (WM1811 AECS) and an AUDIO CODEC (WM1811 AECS).
- Other components:** Includes a T-FLASH (A98125H), AP CLOCK (SGR030400D00), MOVIE NAND (NAND030400D00), and various connectors (Connector, Connector).

8-2. PCB Diagrams

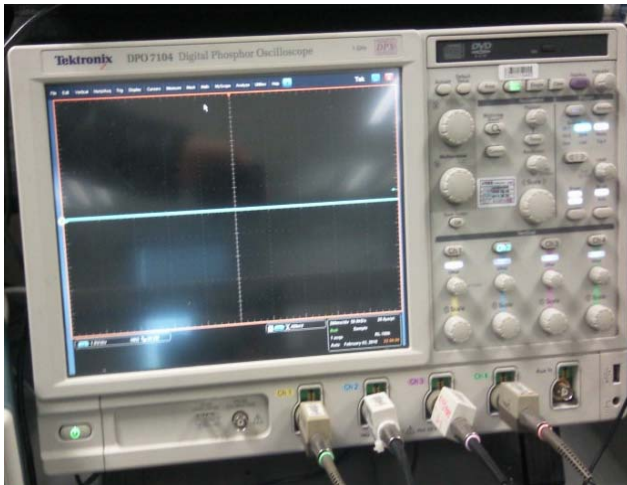
8-2-1. Top





8-3. Flow Chart of Troubleshooting

Equipments



↑ Oscilloscope



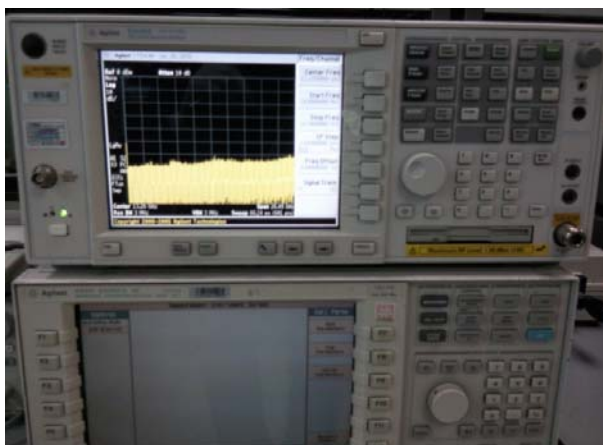
↑ Digital Multimeter



↑ Power Supply



↑ + driver, ESD Safe Tweezer

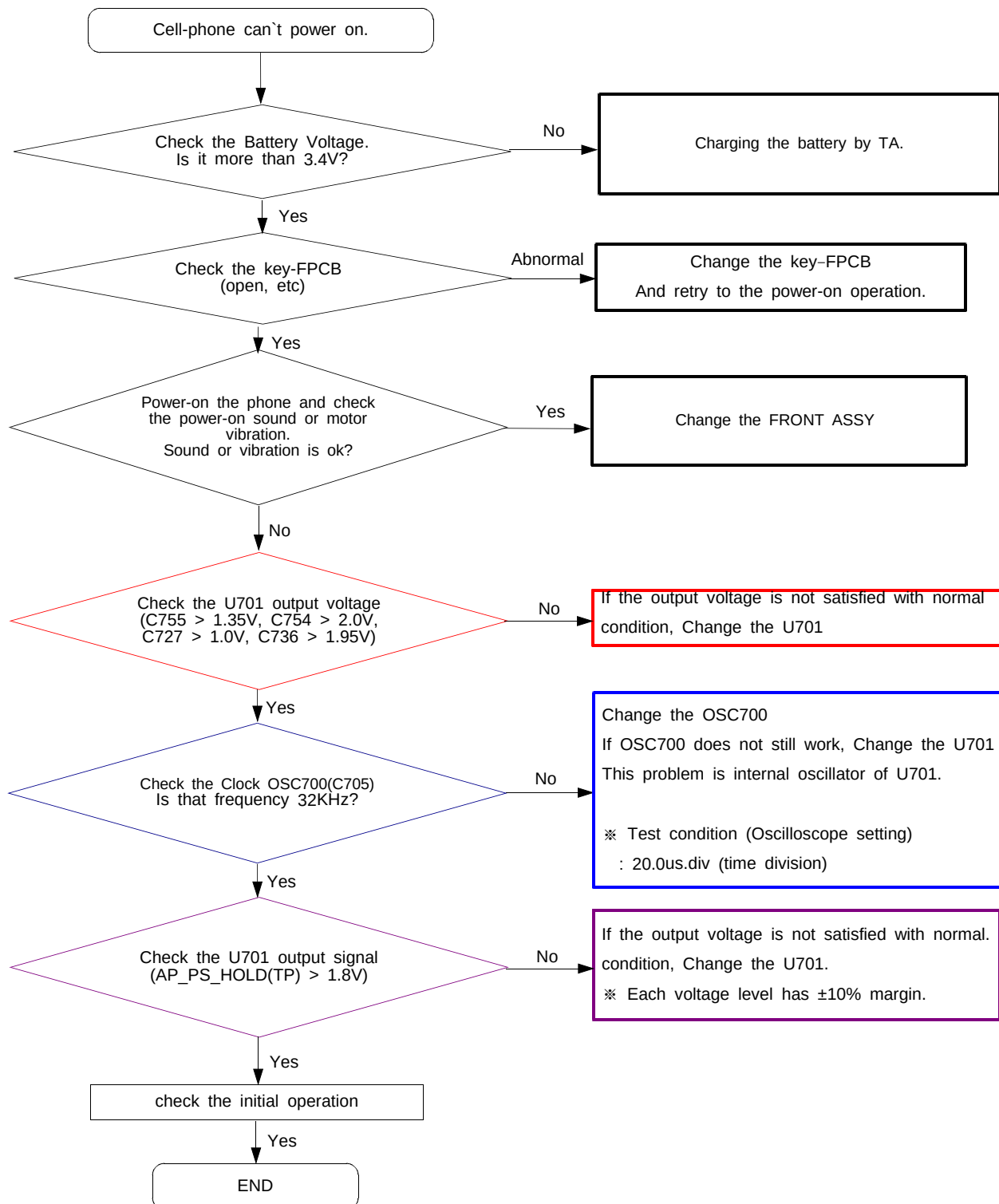


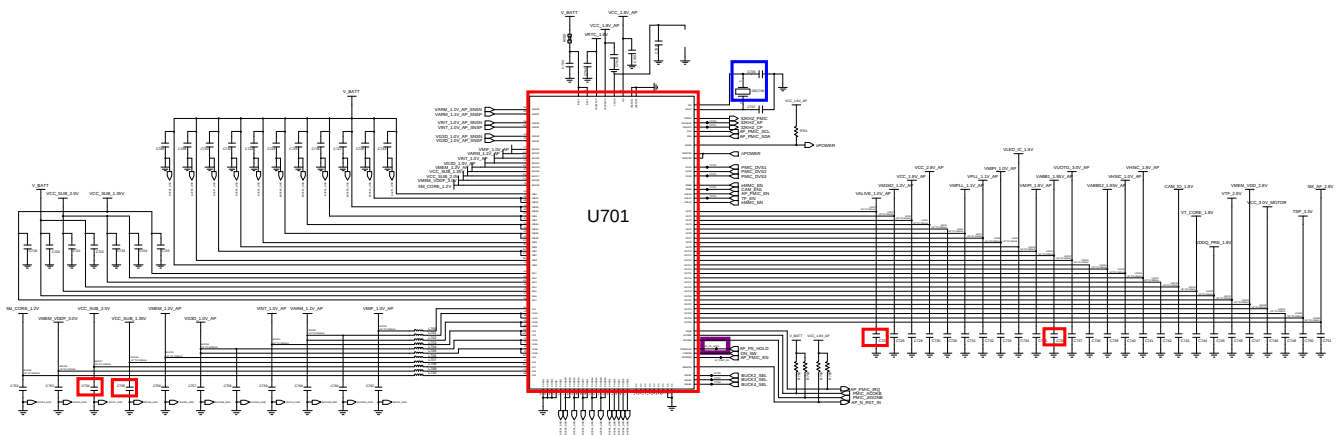
↑ 8960 & Spectrum Analyzer



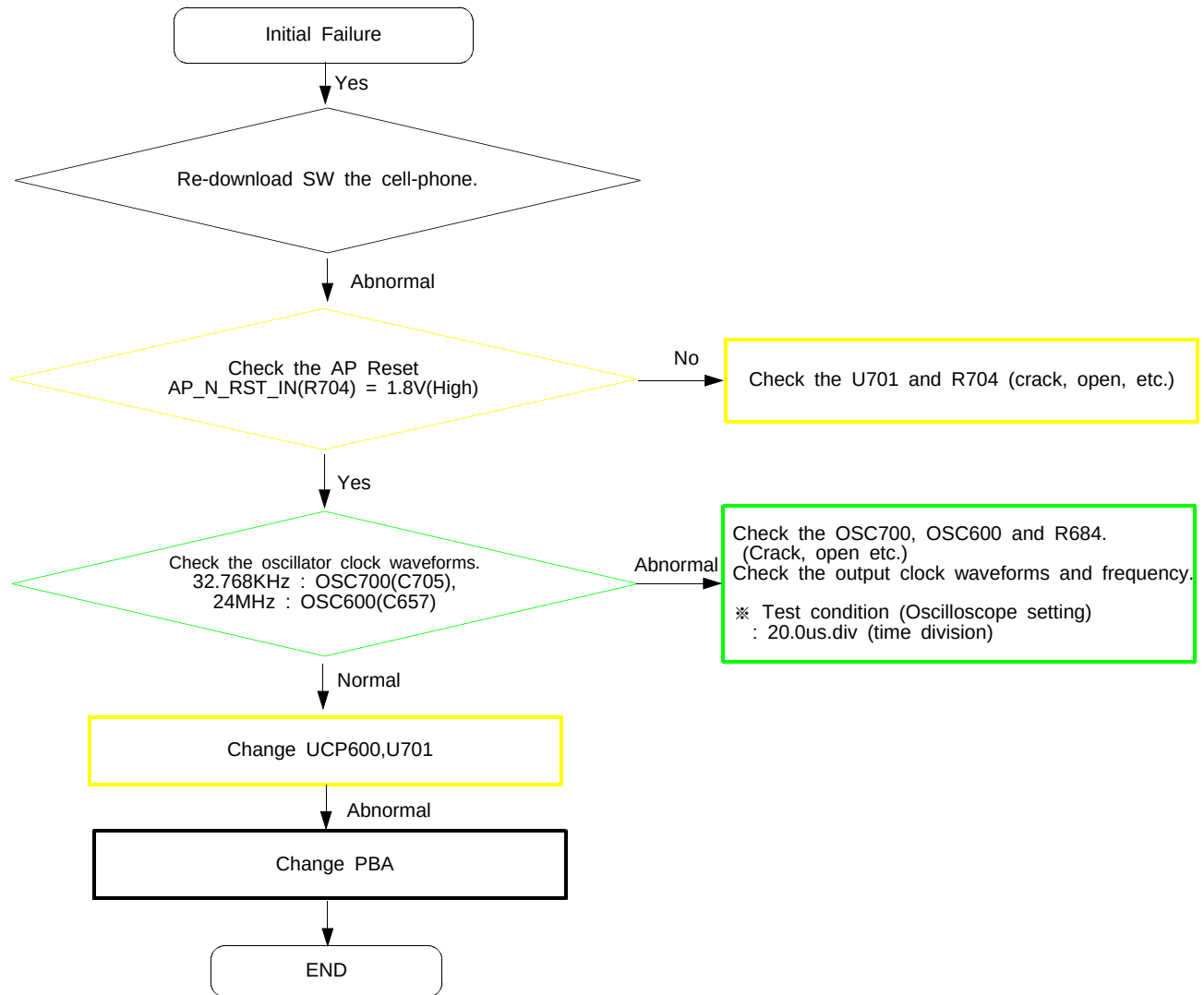
↑ Soldering iron

8-3-1. Power On



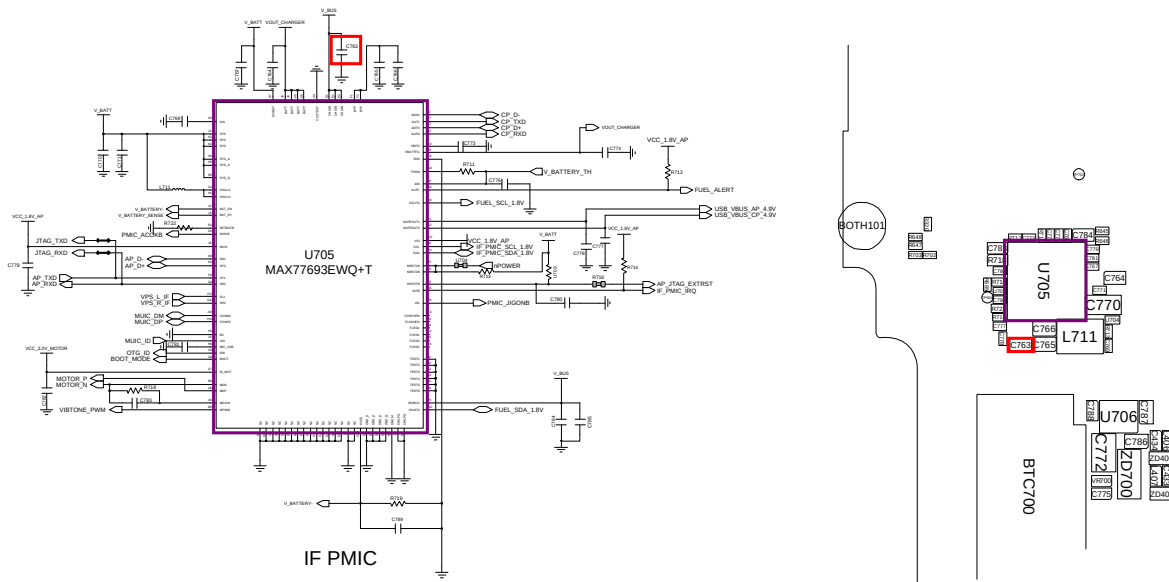
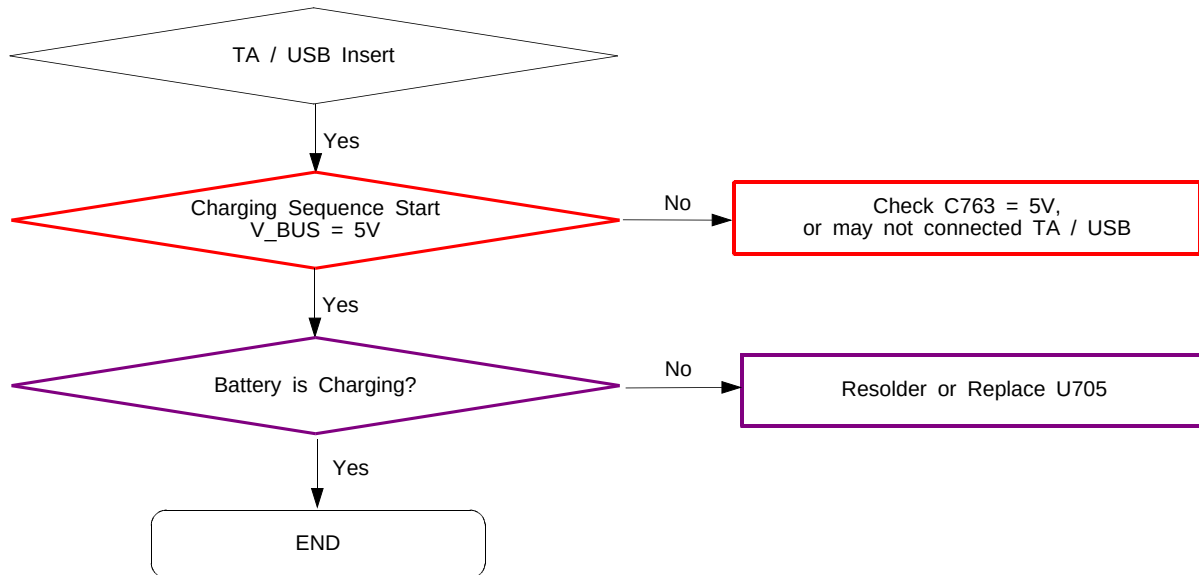


8-3-2. Initial

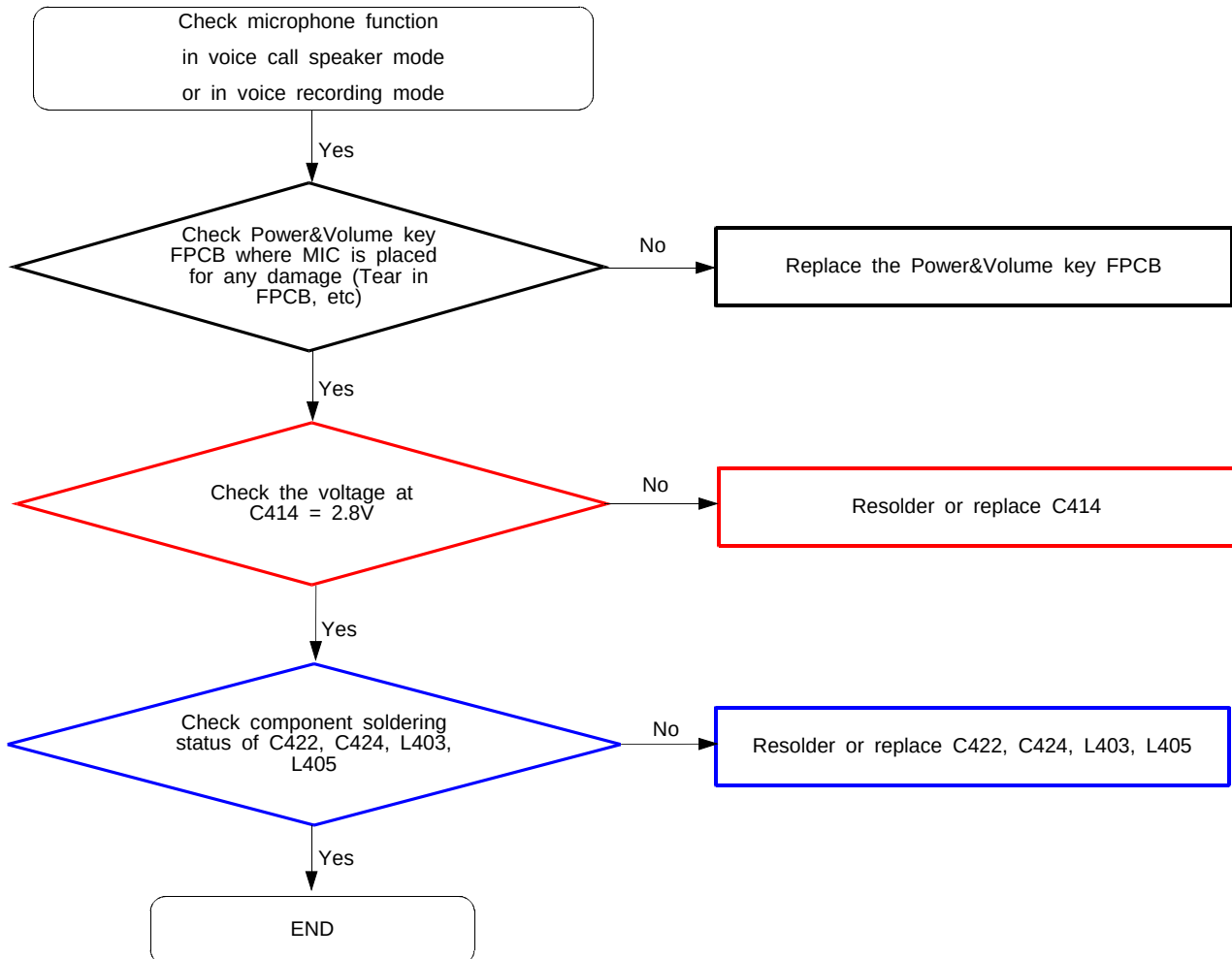


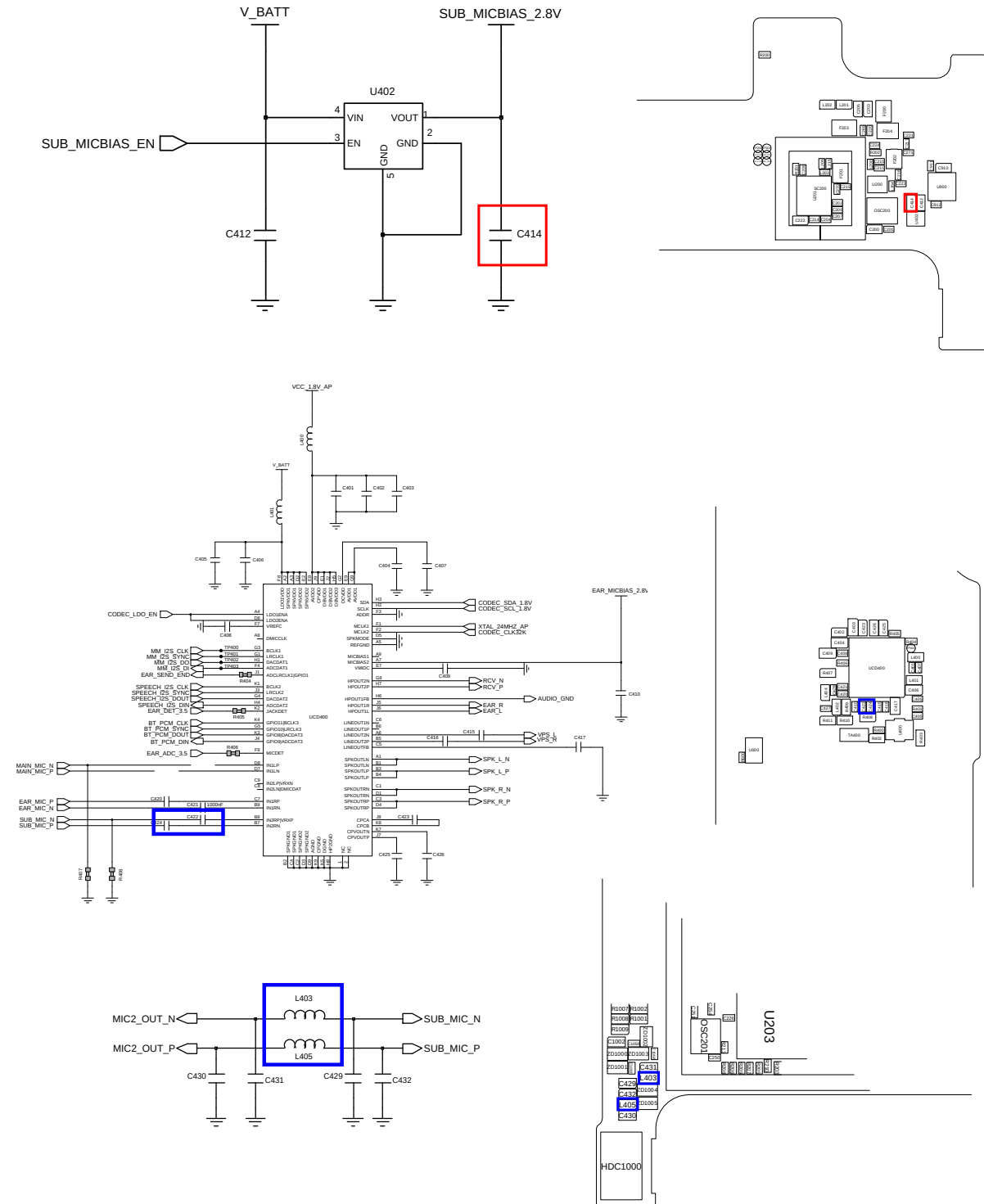


8-3-3. Charging Part

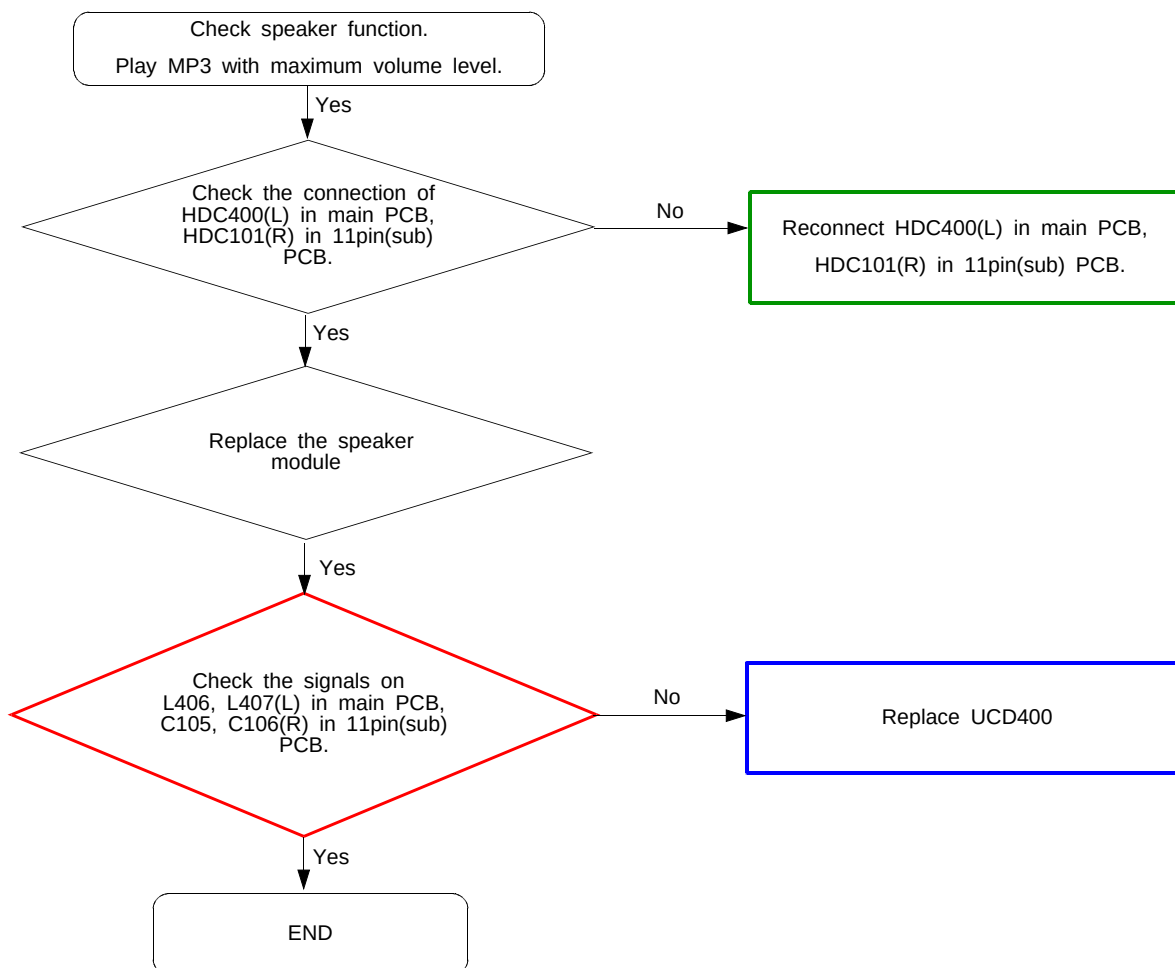


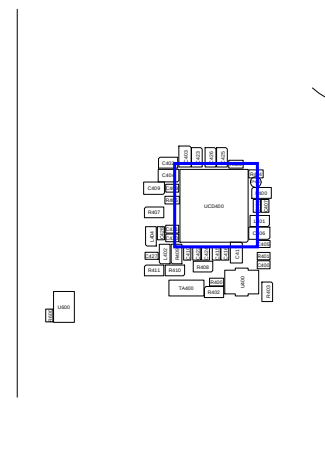
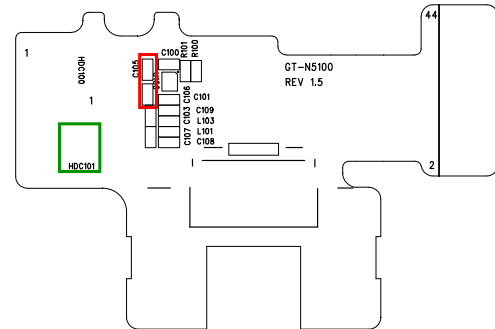
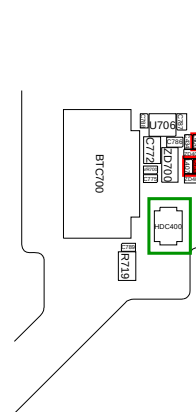
8-3-4. Microphone Part



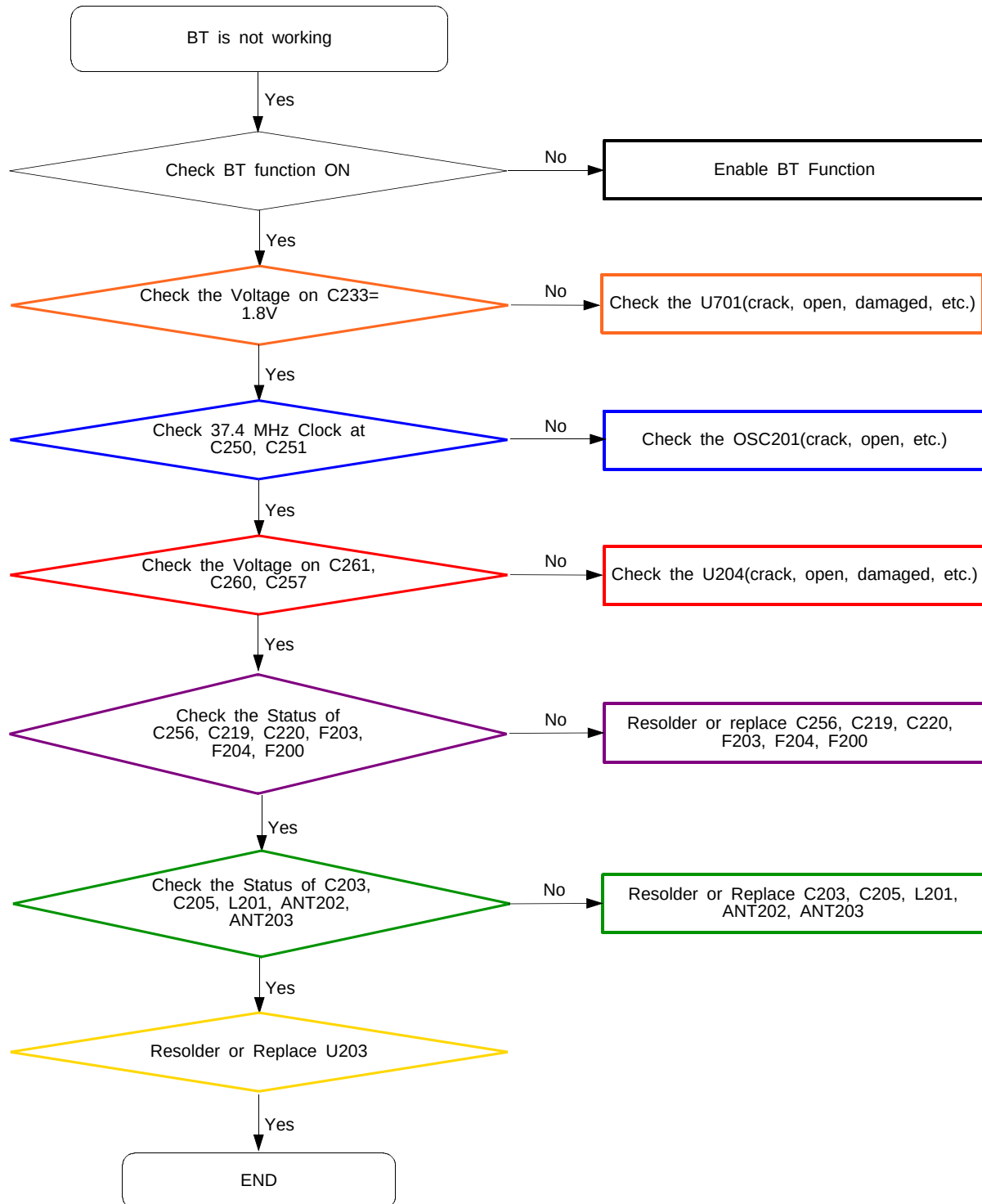


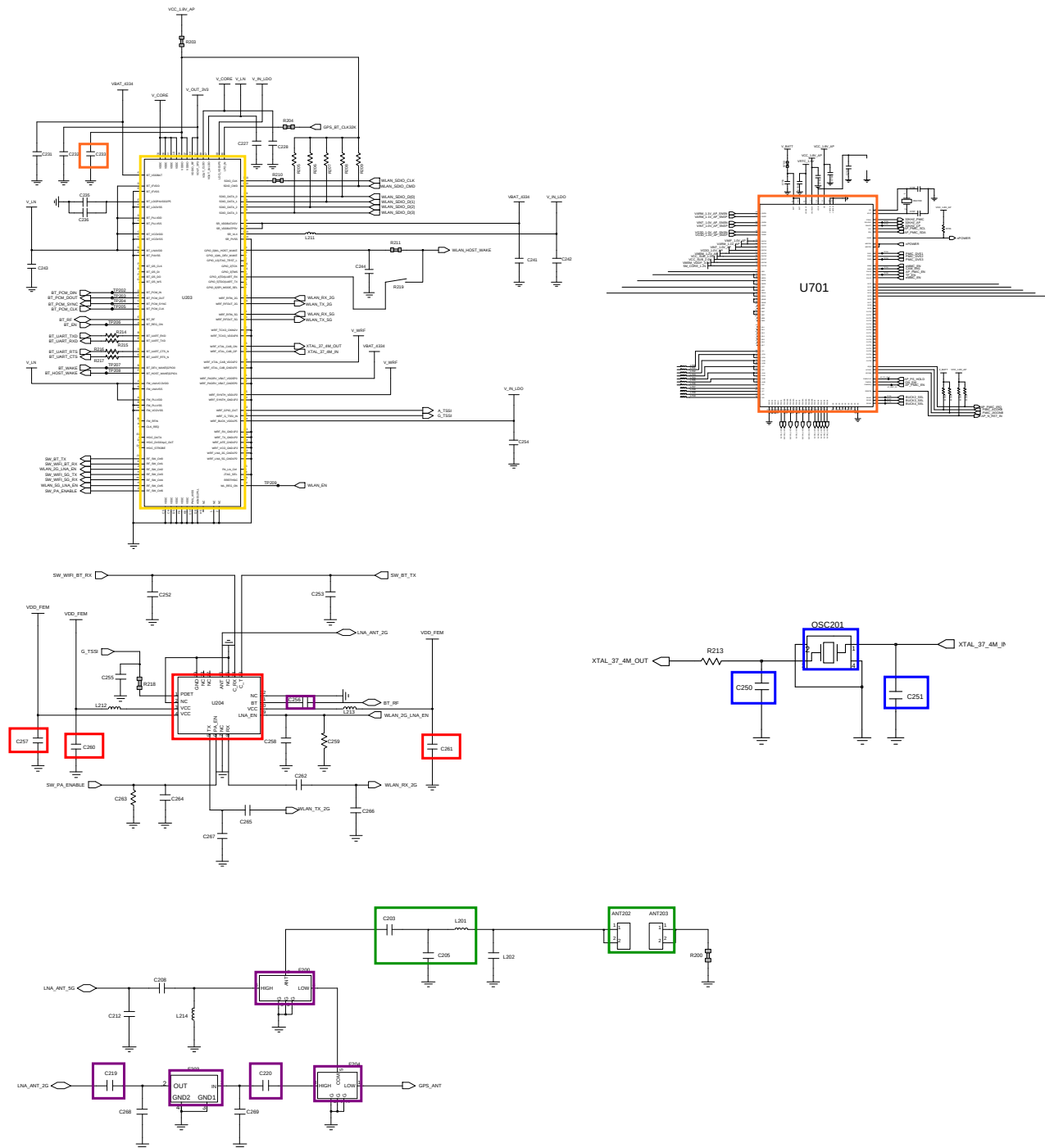
8-3-5. Speaker Part





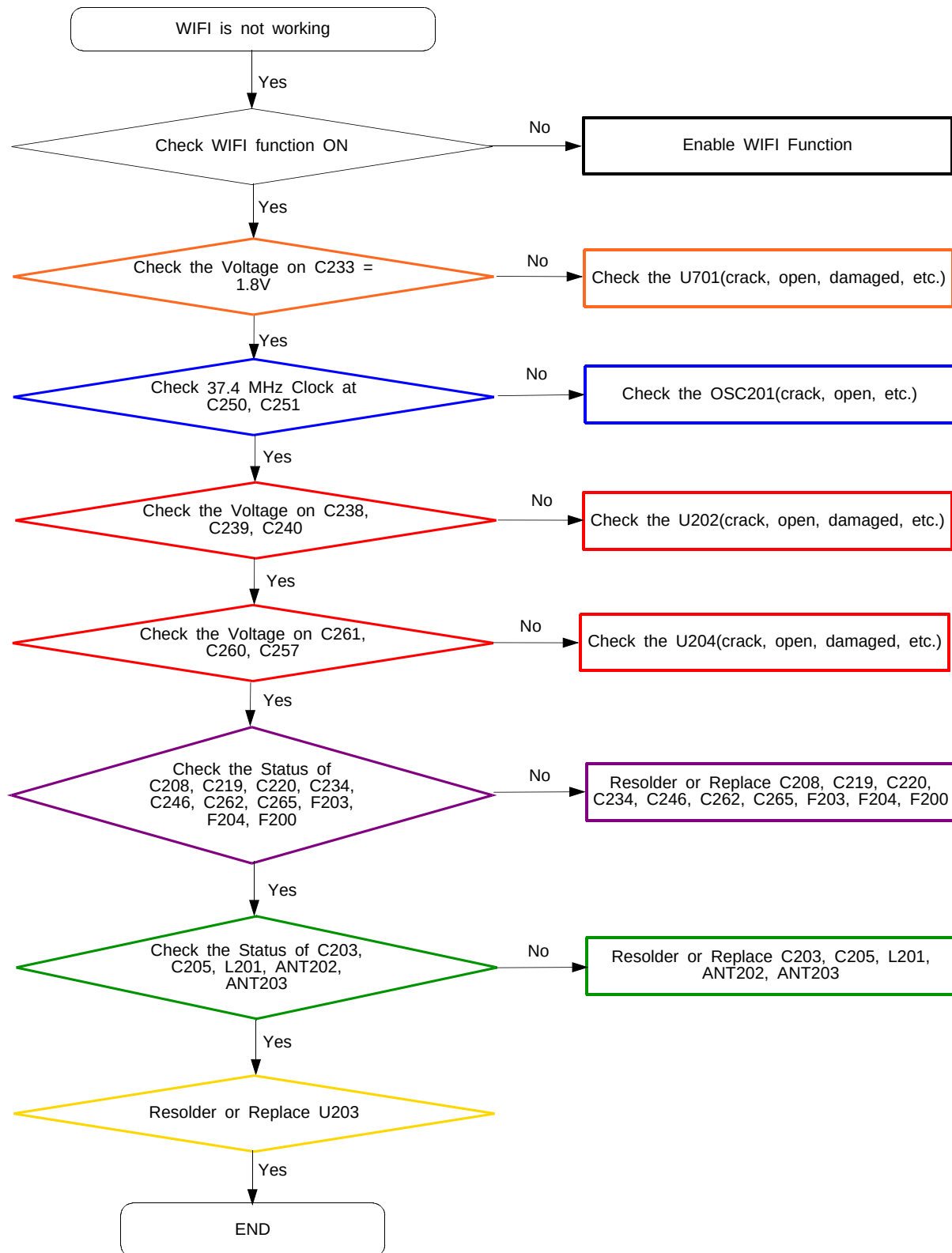
8-3-6. BT Part

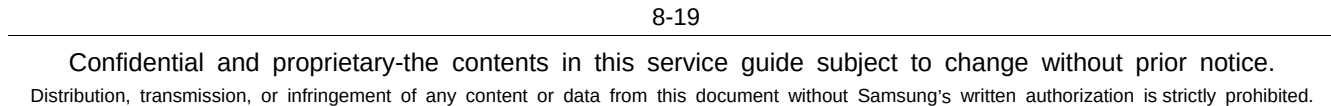


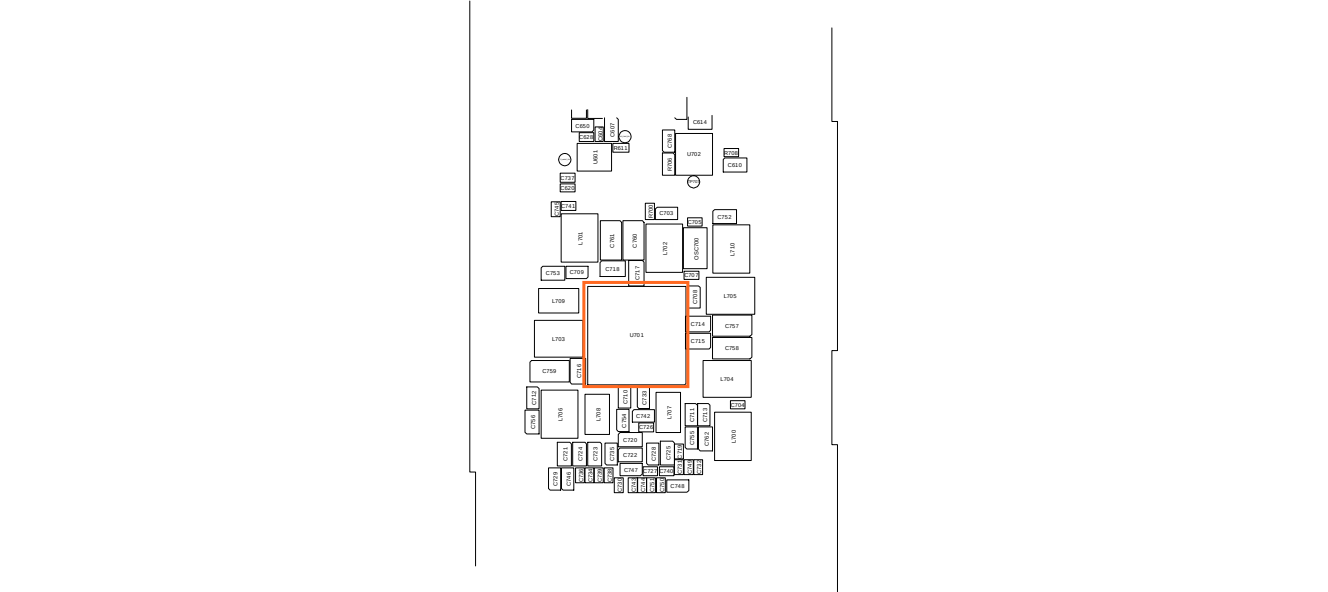




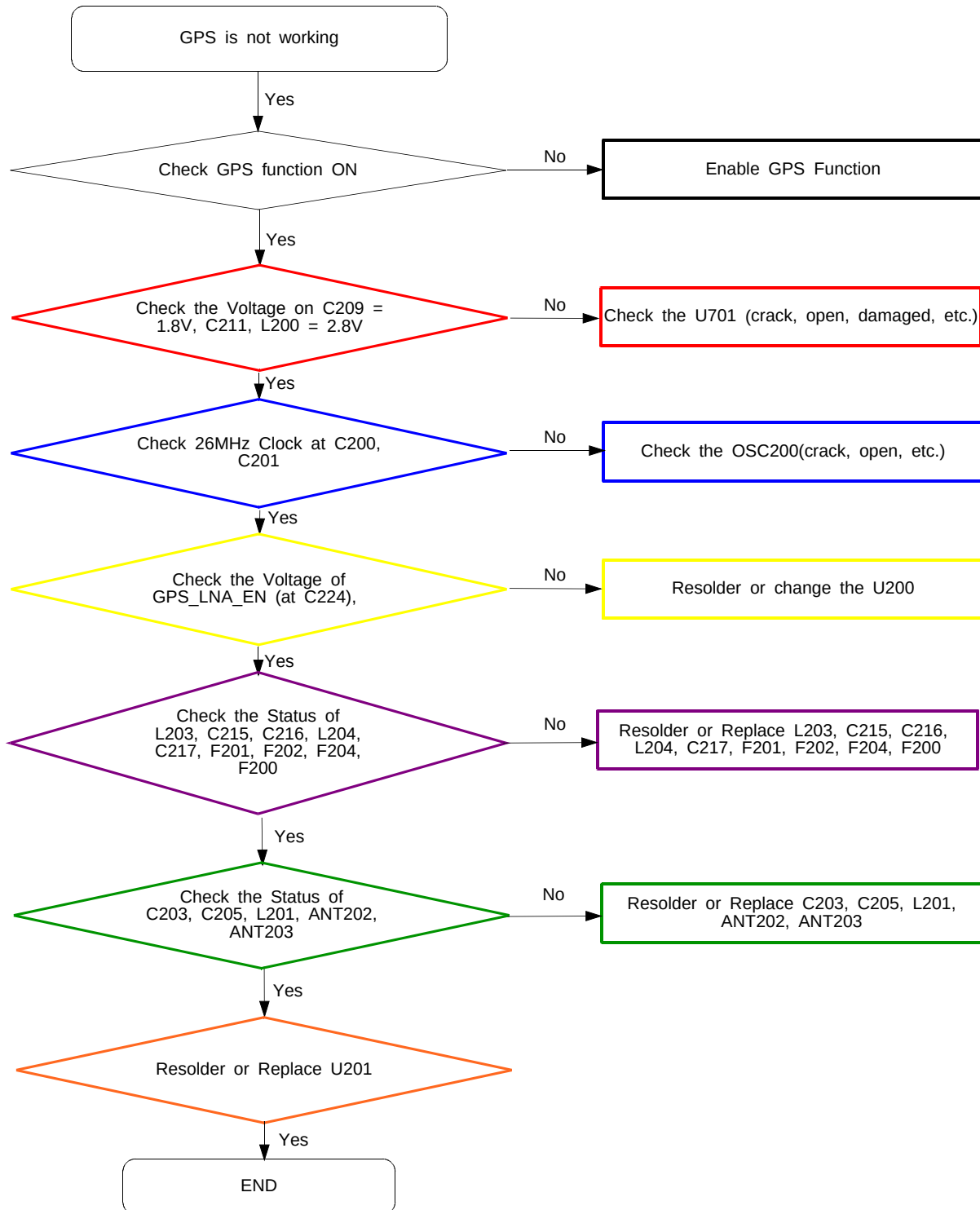
8-3-7. WIFI Part

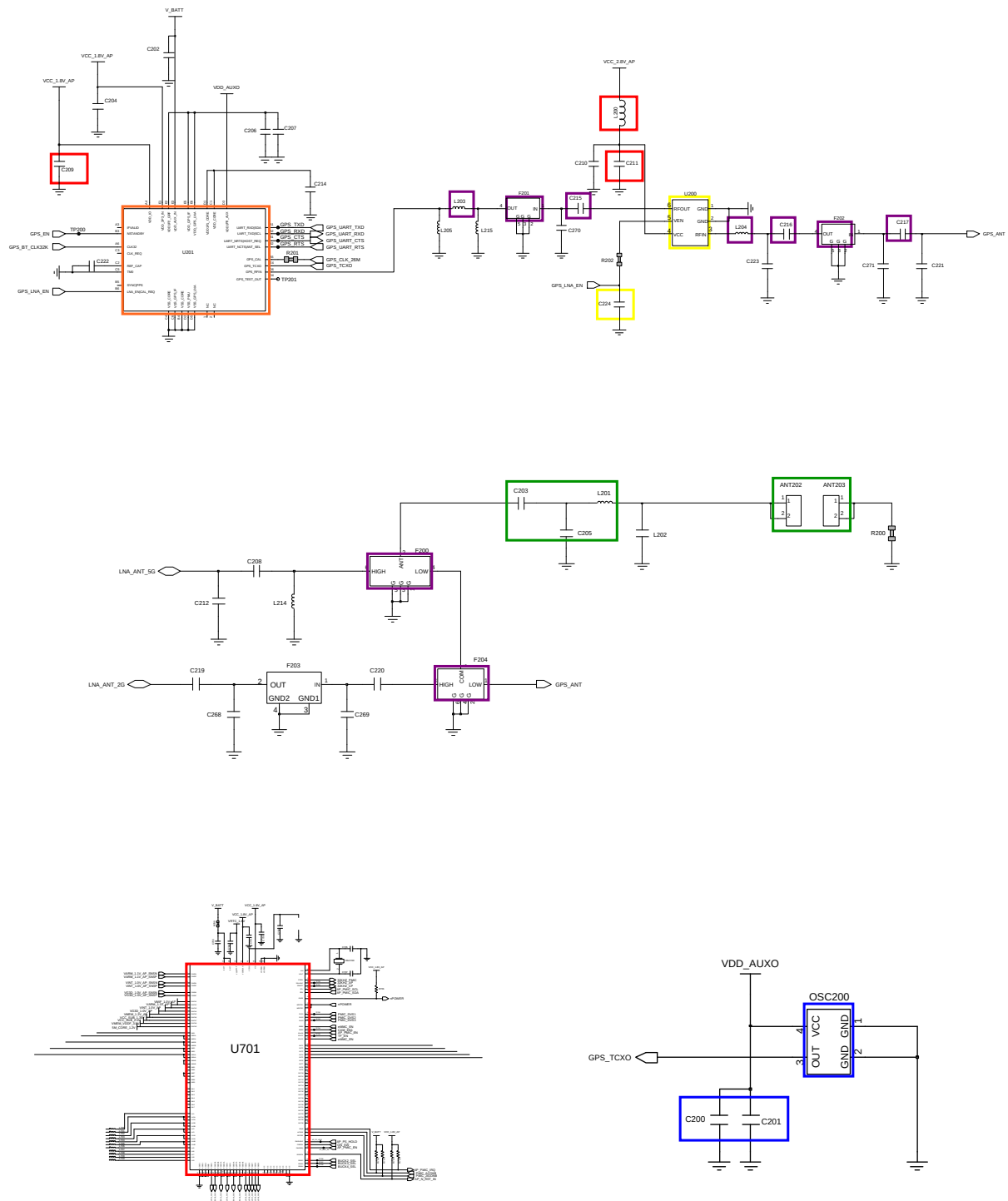


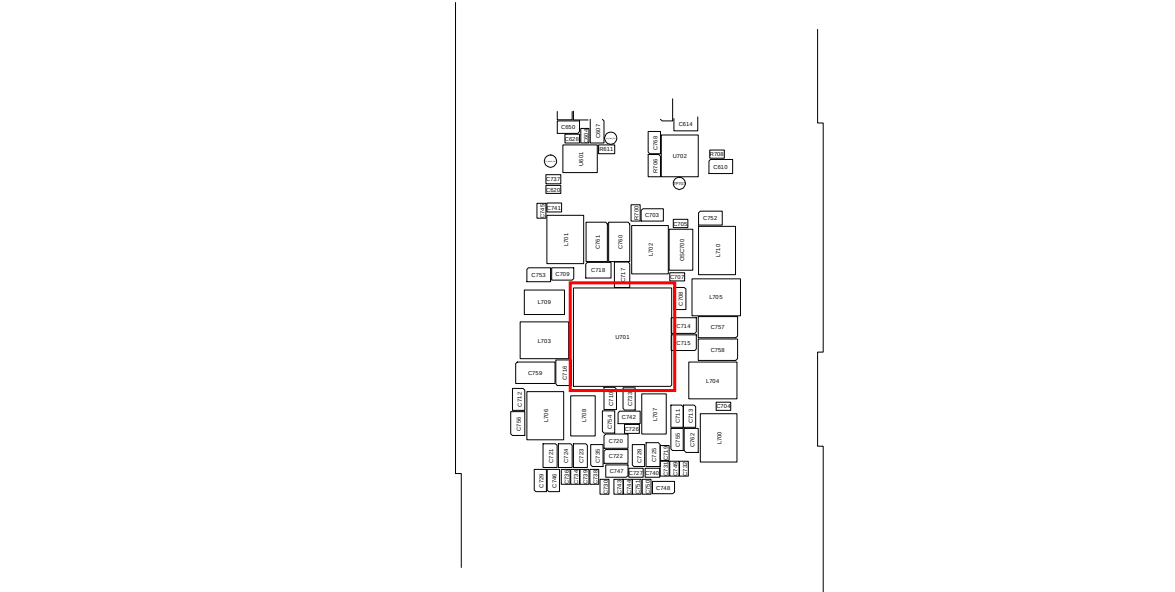




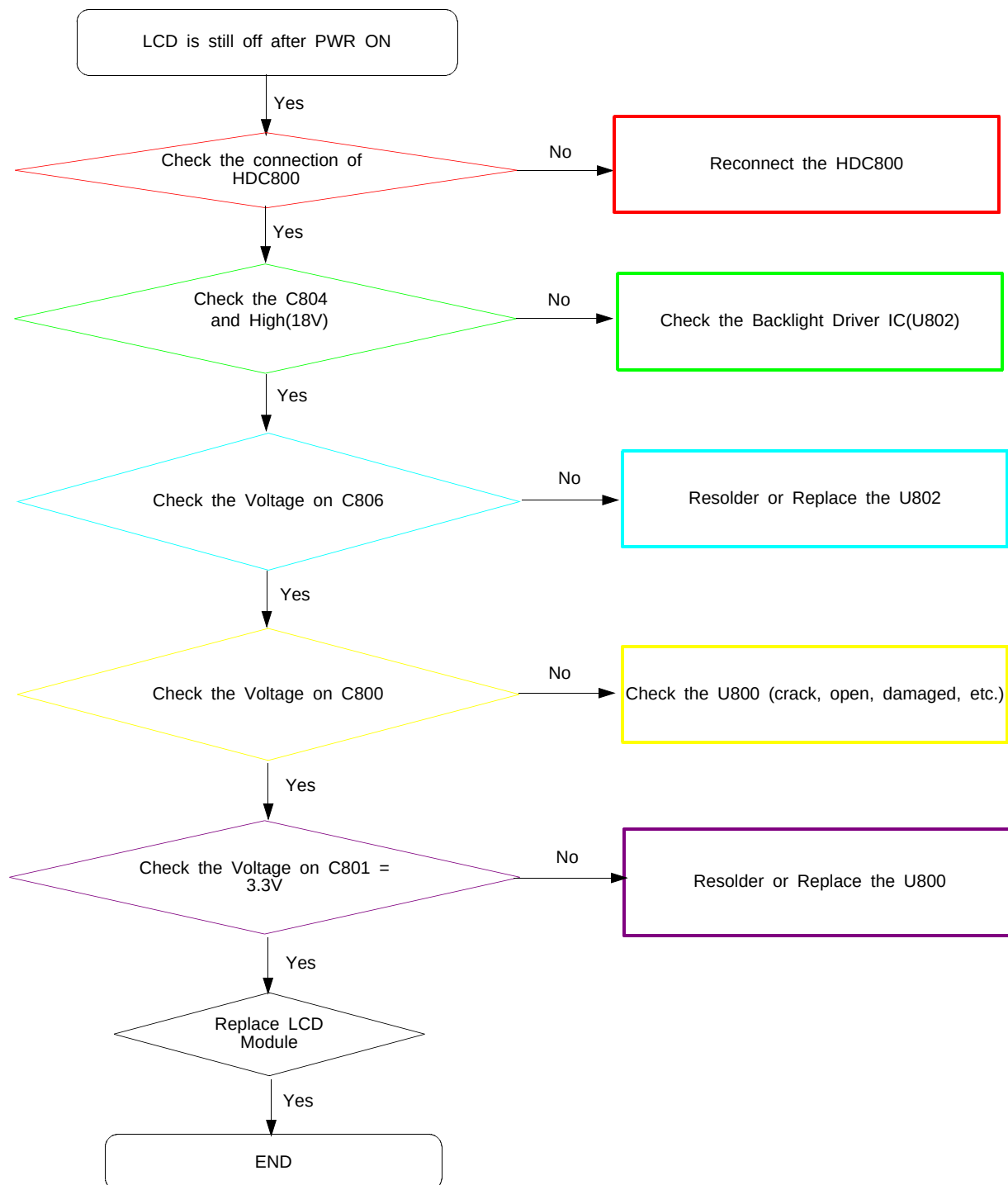
8-3-8. GPS Part

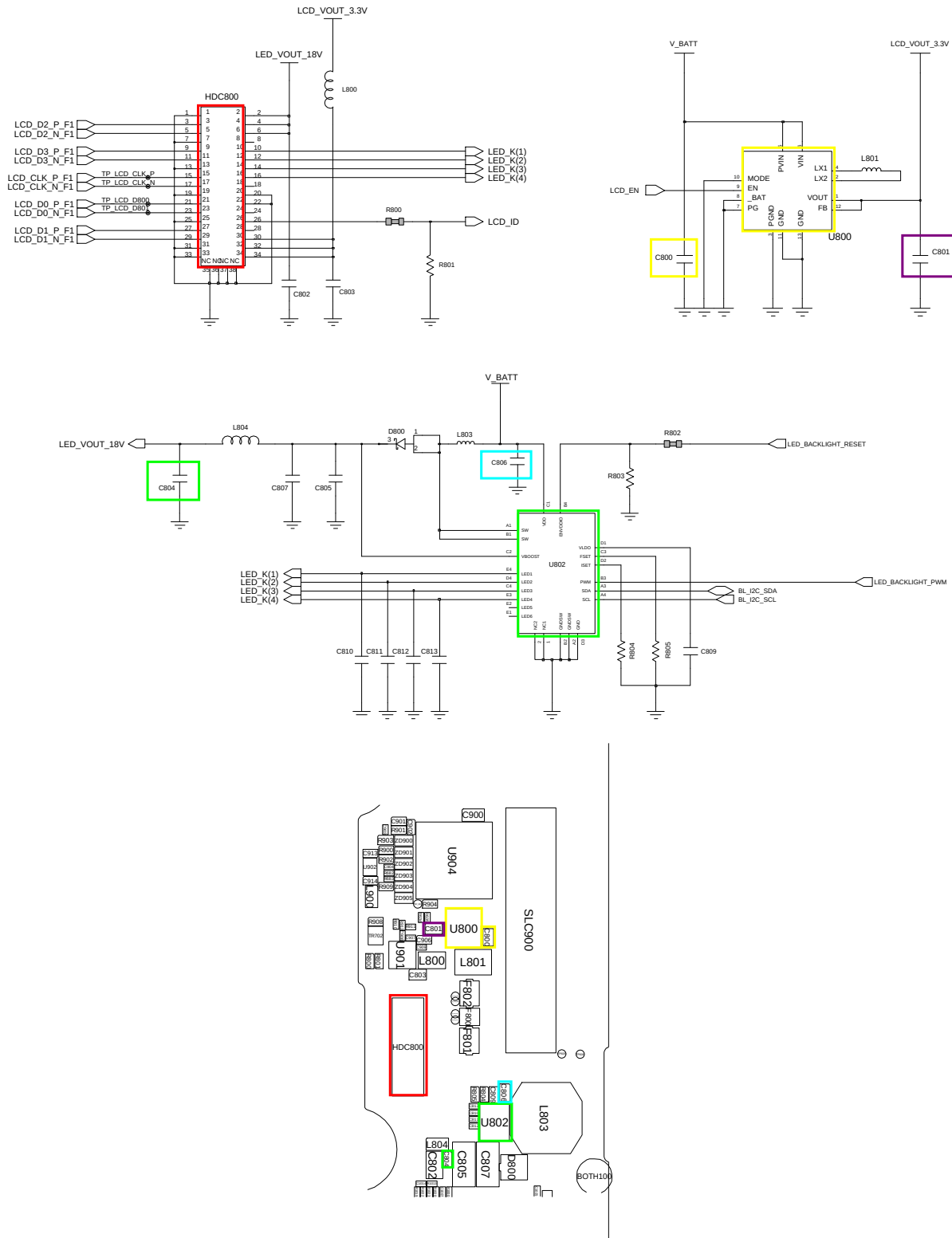




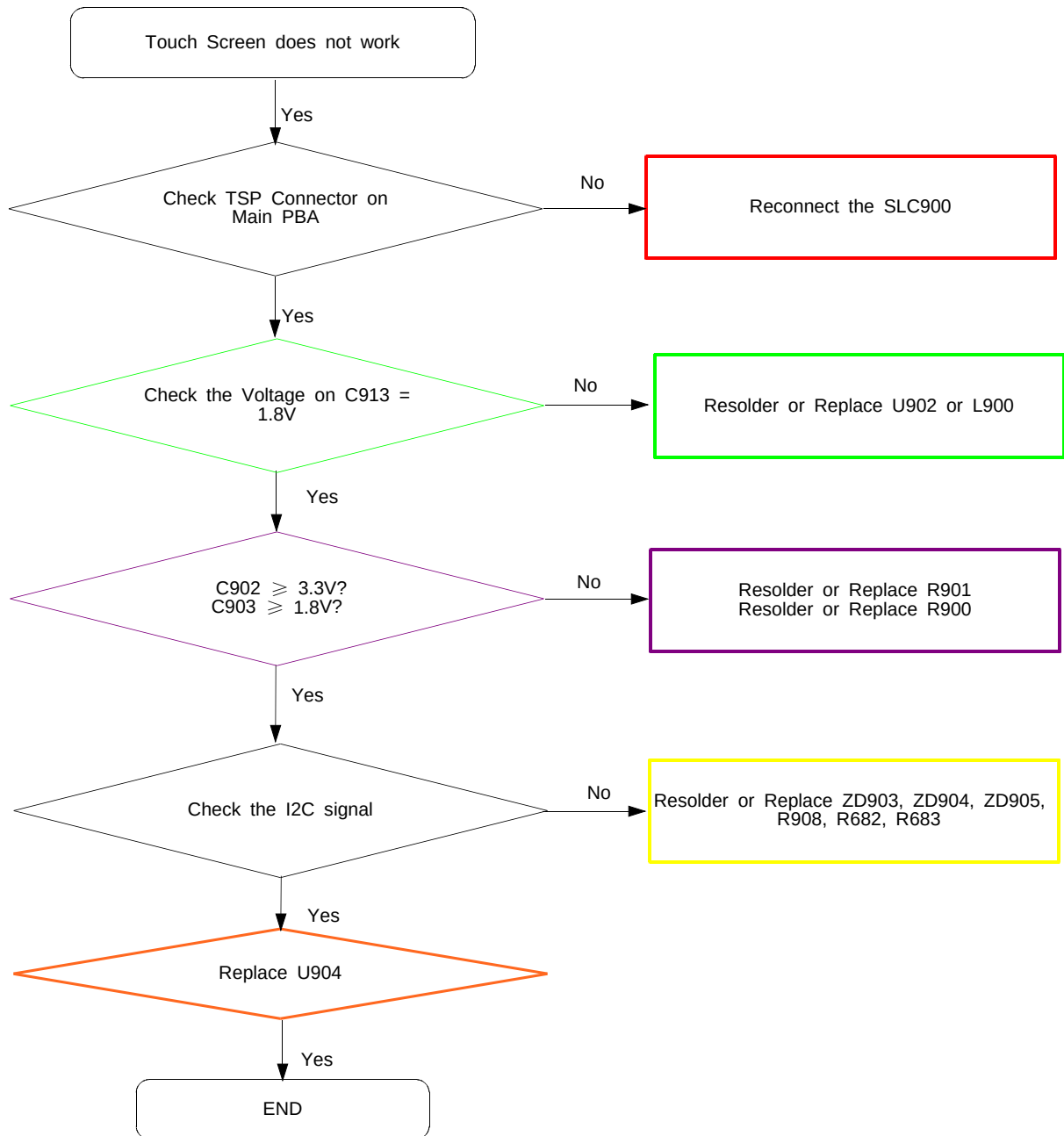


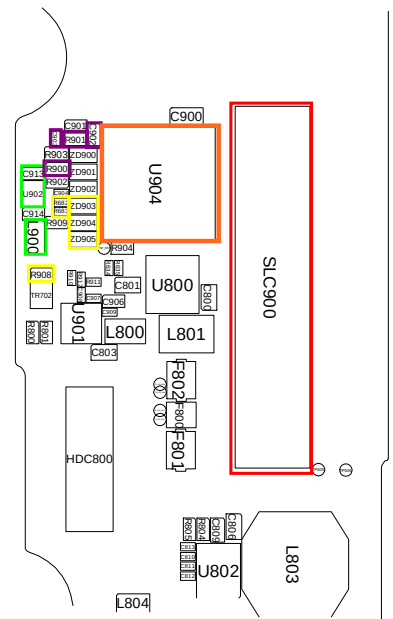
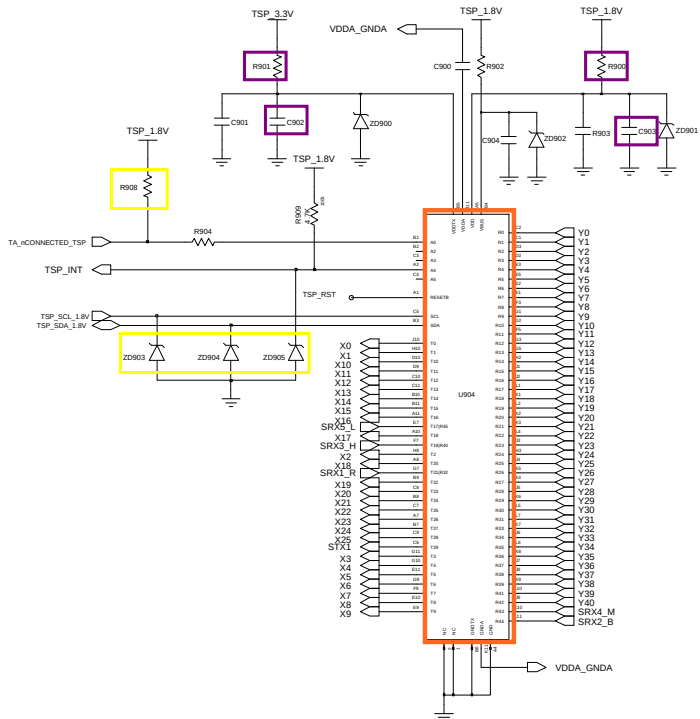
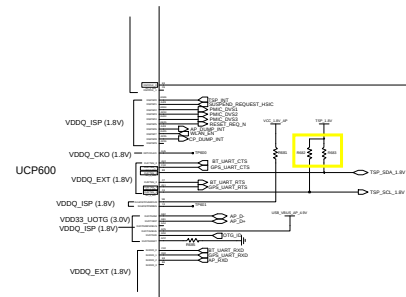
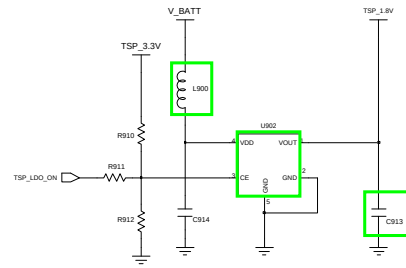
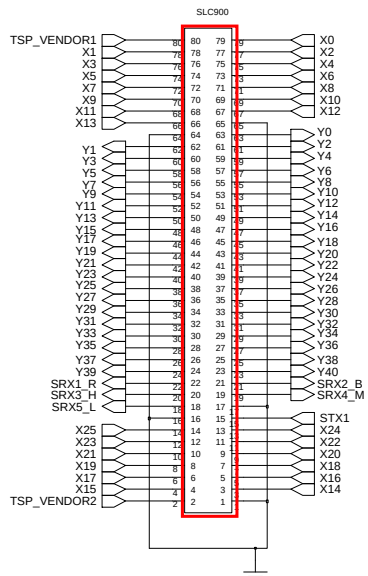
8-3-9. LCD



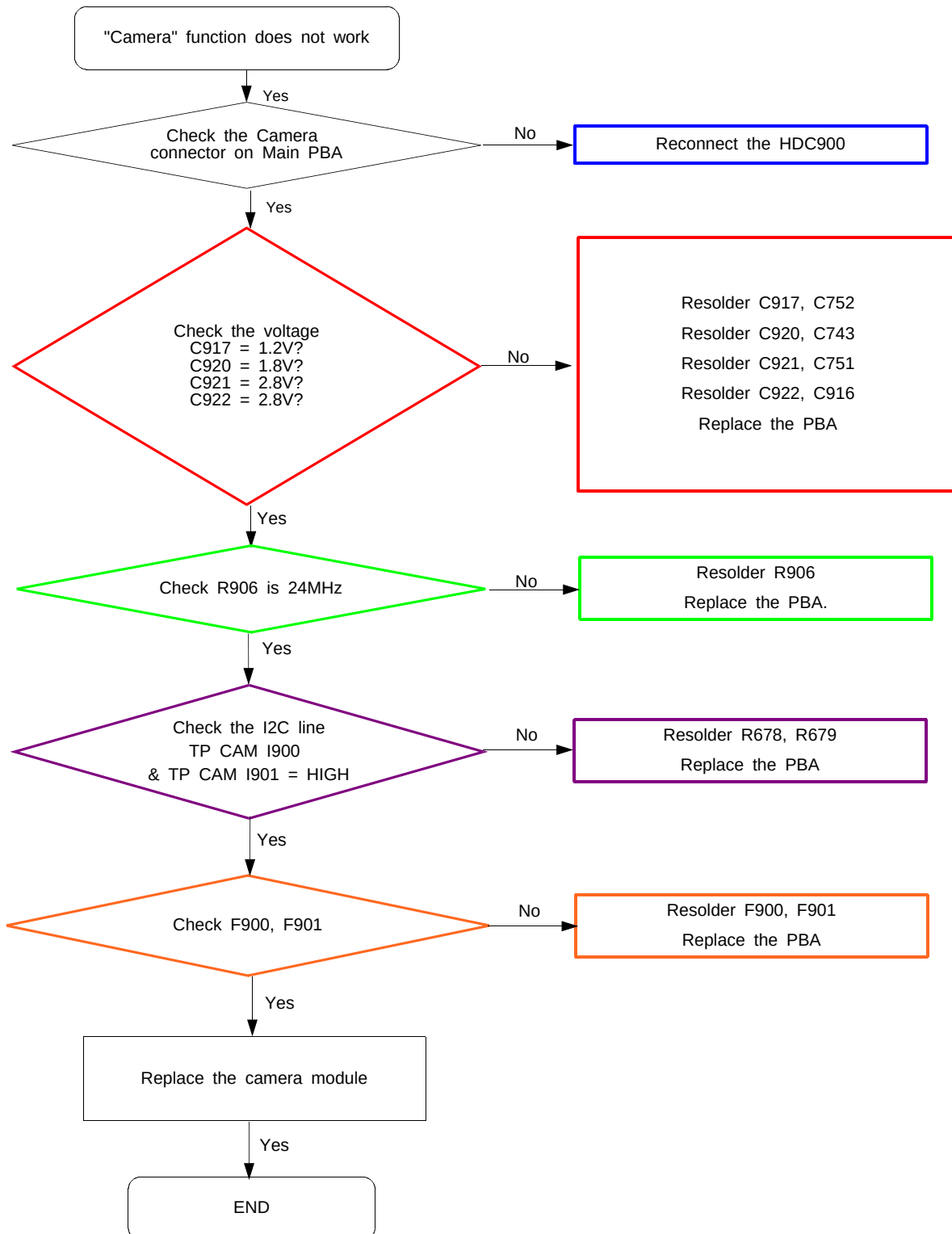


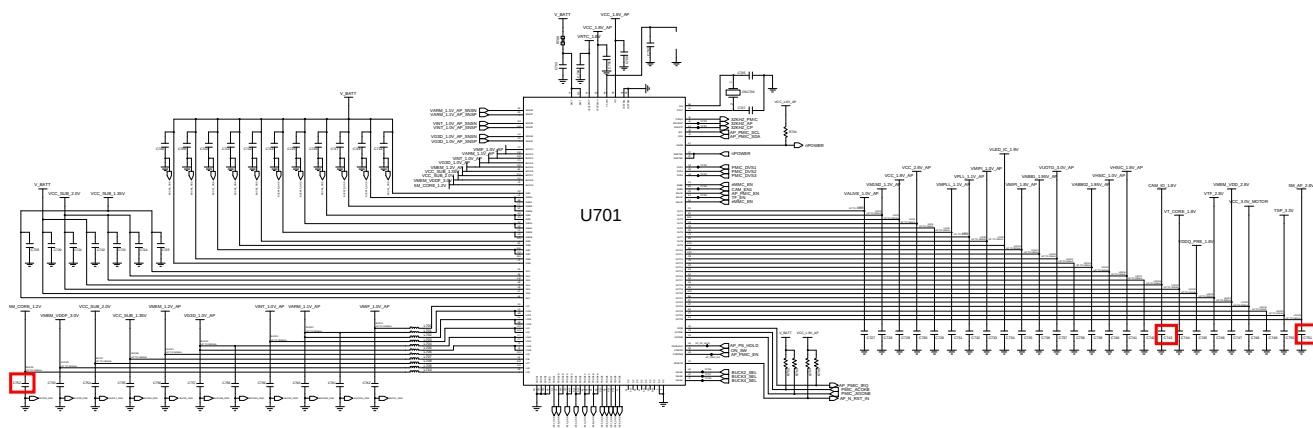
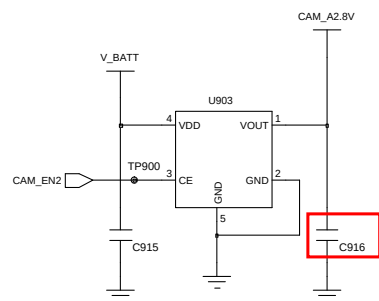
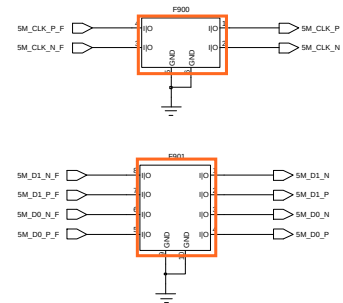
8-3-10. TSP

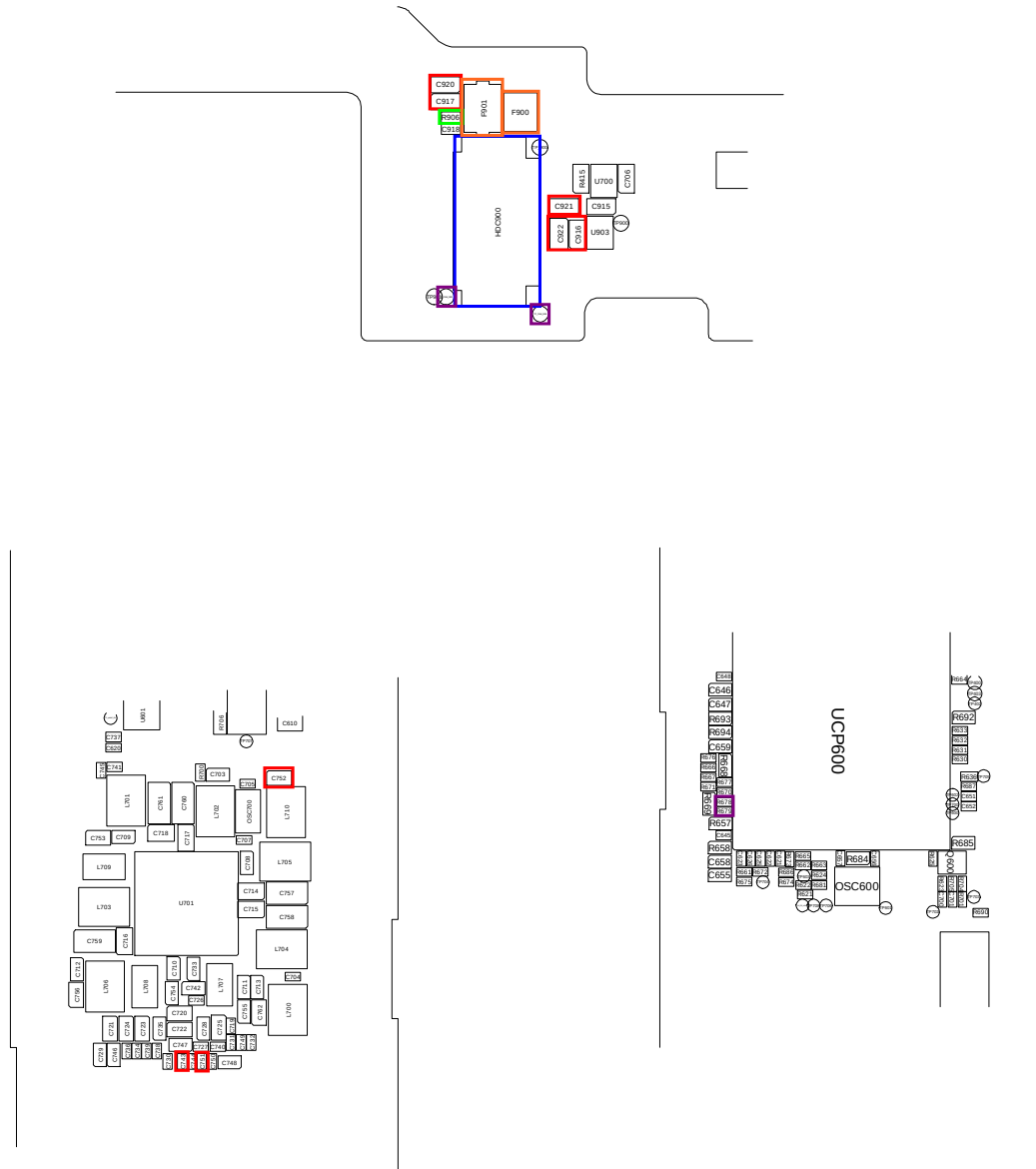




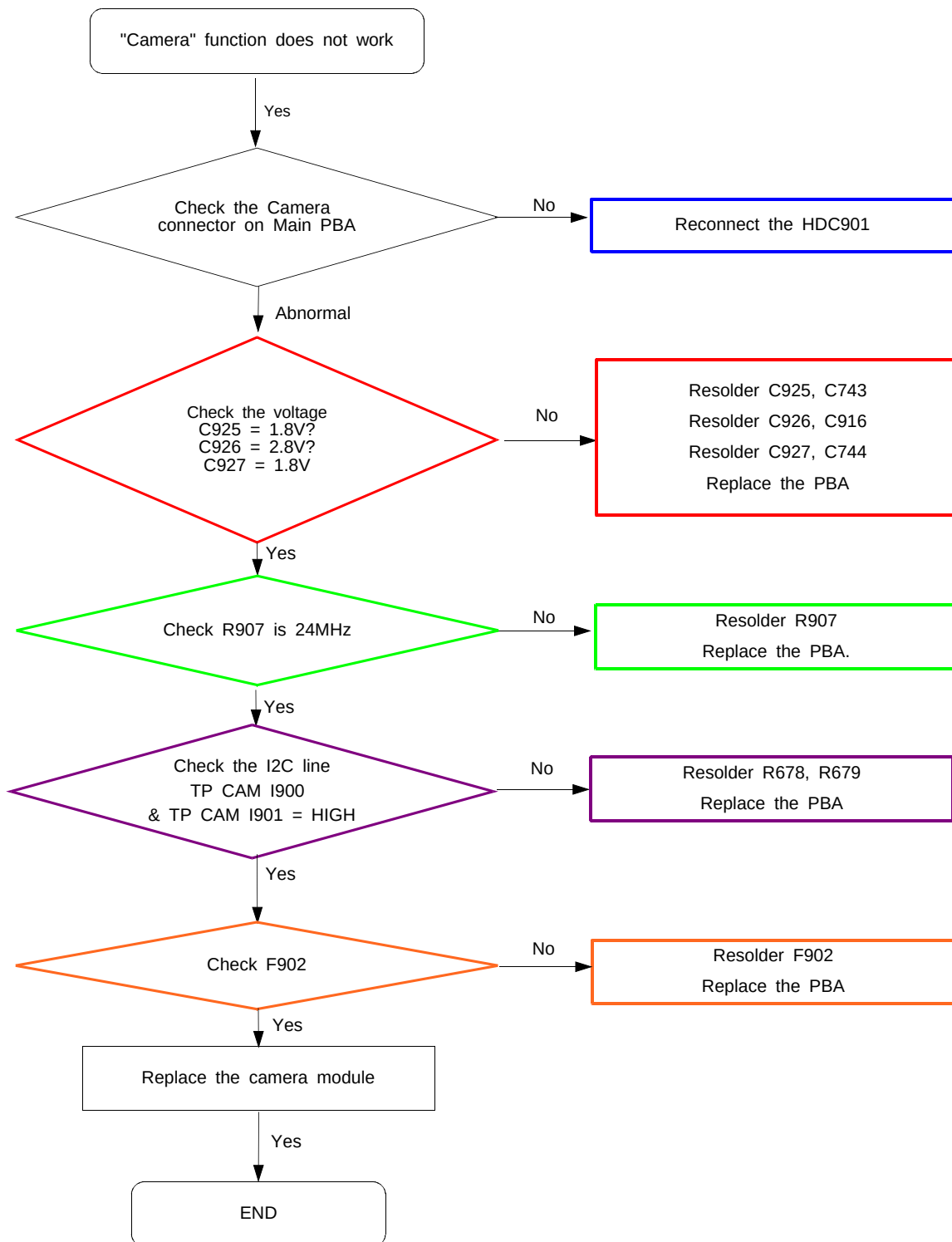
8-3-11. 3M CAM

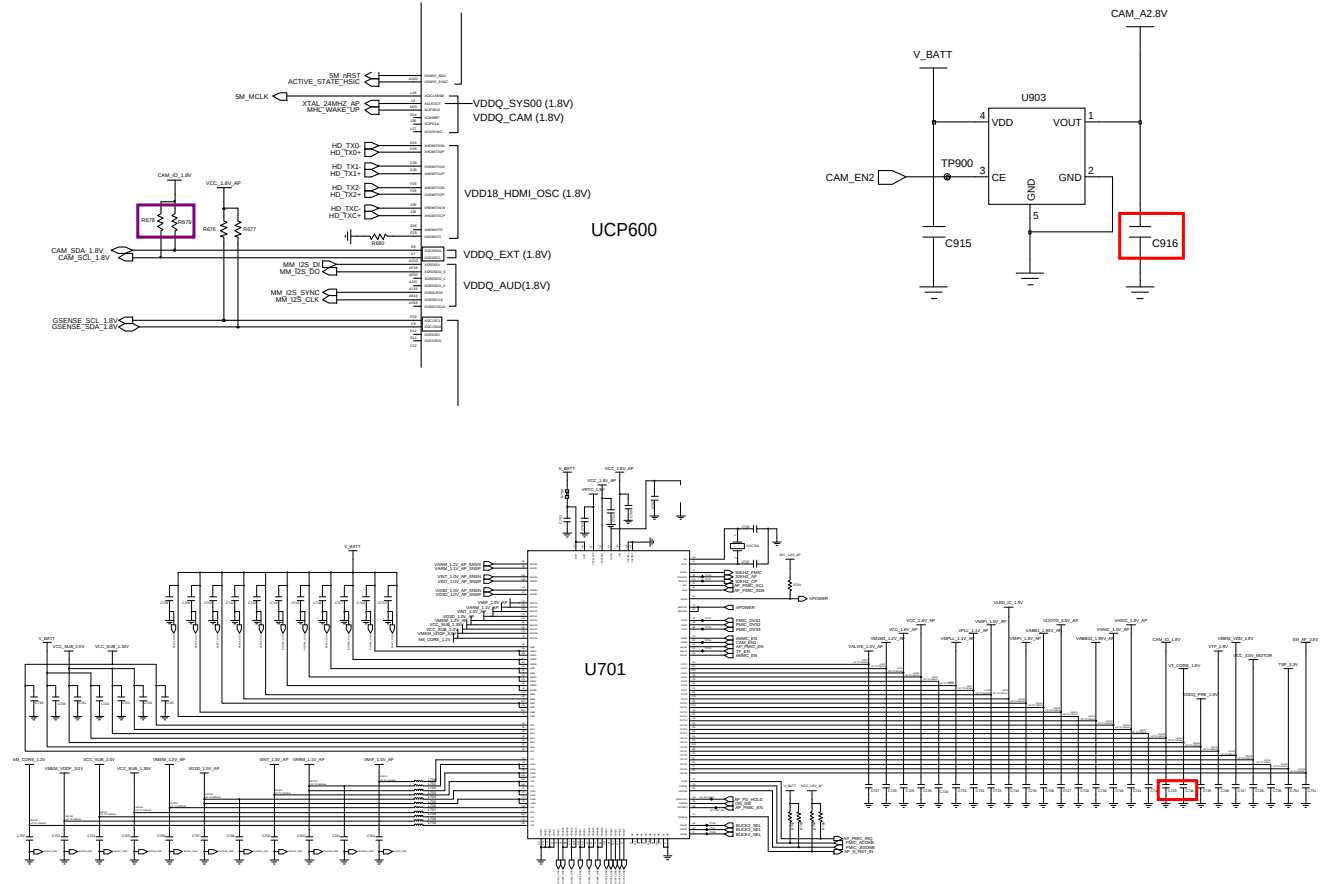






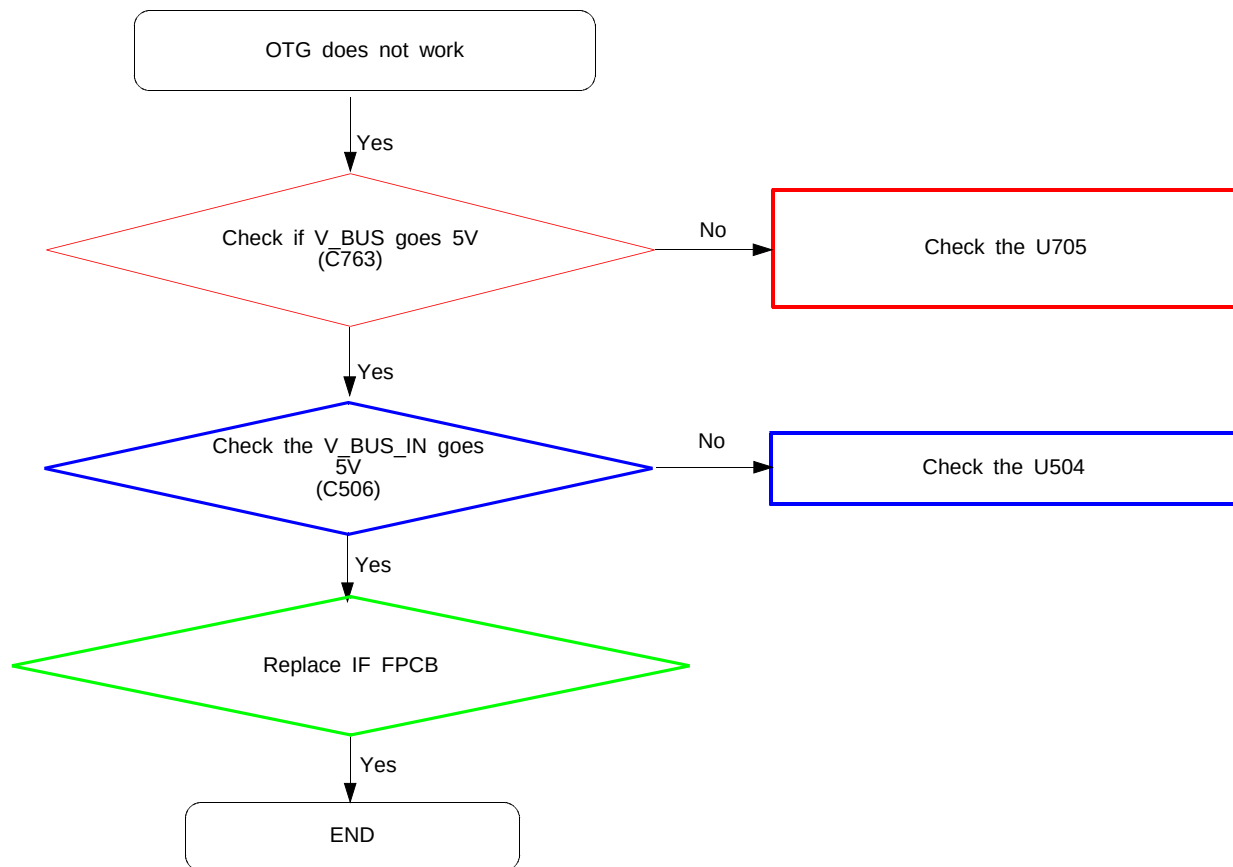
8-3-12. 1.3M CAM

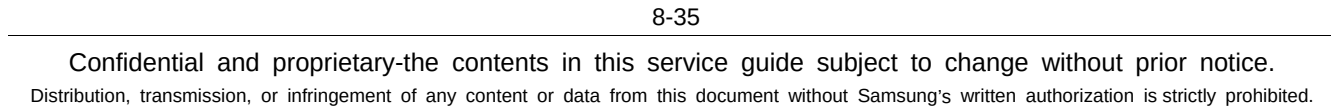




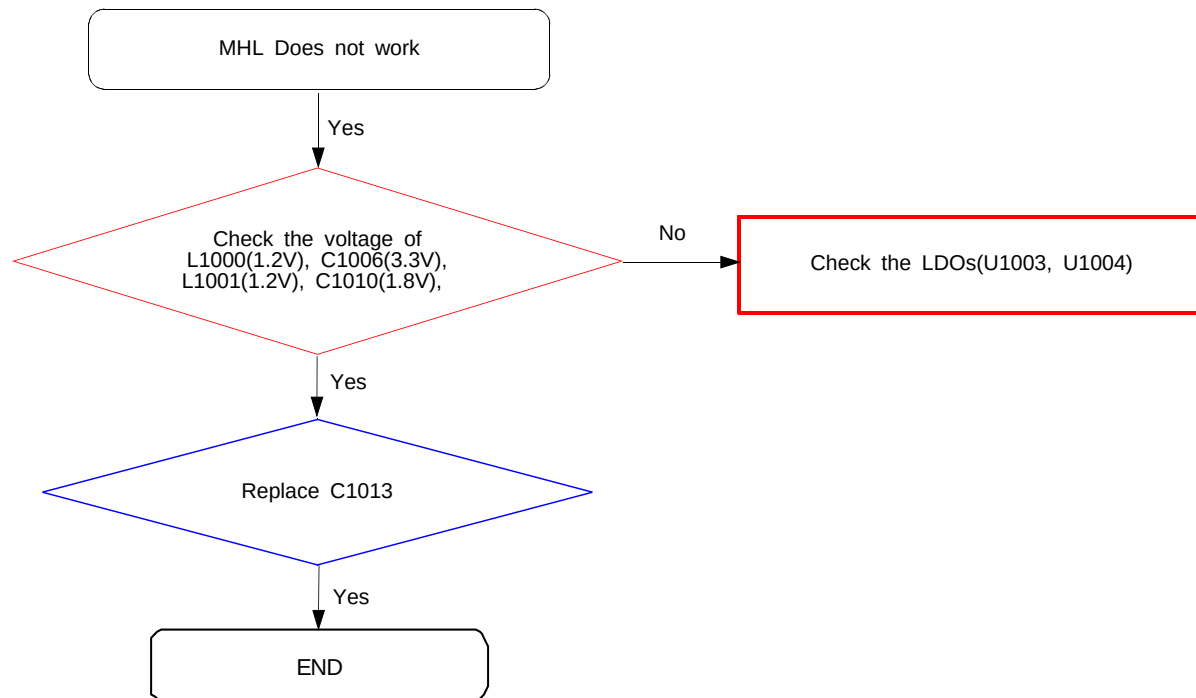


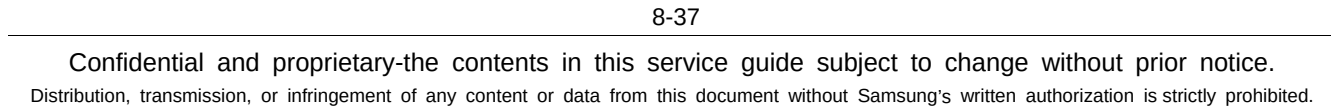
8-3-13. OTG





8-3-14. MHL





8-3-15. S-pen

