

SAMSUNG

GSM TELEPHONE

GT-C3300i(GT-C3300V,
GT-C3303i Common)

SERVICE *Manual*

GSM TELEPHONE



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Notice :

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

1. Safety Precautions

1-1. Repair Precaution

- Repair in Shield Box, during detailed tuning. Take specially care of tuning or test, because specipicty of cellular phone is sensitive for surrounding interference(RF noise).
- Be careful to use a kind of magnetic object or tool, because performance of parts is damaged by the influence of magnetic force.
- Surely use a standard screwdriver when you disassemble this product, otherwise screw will be worn away.
- Use a thicken twisted wire when you measure level.
A thicken twisted wire has low resistance, therefore error of measurement is few.
- Repair after separate Test Pack and Set because for short danger (for example an overcurrent and furious flames of parts etc) when you repair board in condition of connecting Test Pack and tuning on.
- Take specially care of soldering, because Land of PCB is small and weak in heat.
- Surely tune on/off while using AC power plug, because a repair of battery charger is dangerous when tuning ON/OFF PBA and Connector after disassembling charger.
- Don't use as you pleases after change other material than replacement registered on SEC System. Otherwise engineer in charge isn't charged with problem that you don't keep this rules.

1-2. ESD(Electrostatically Sensitive Devices) Precaution

Several semiconductor may be damaged easily by static electricity. Such parts are called by ESD (Electrostatically Sensitive Devices), for example IC,BGA chip etc. Read Precaution below.

You can prevent from ESD damage by static electricity.

- Remove static electricity remained your body before you touch semiconductor or parts with semiconductor. There are ways that you touch an earthed place or wear static electricity prevention string on wrist.
- Use earthed soldering steel when you connect or disconnect ESD.
- Use soldering removing tool to break static electricity. , otherwise ESD will be damaged by static electricity.
- Don't unpack until you set up ESD on product. Because most of ESD are packed by box and aluminum plate to have conductive power,they are prevented from static electricity.
- You must maintain electric contact between ESD and place due to be set up until ESD is connected completely to the proper place or a circuit board.

2. Specification

2-1. GSM General Specification

	GSM 850	EGSM 900	DCS1800	PCS1900
Freq. Band[MHz] Uplink/Downlink	824~849 869~894	880~915 925~960	1710~1785 1805~1880	1850~1910 1930~1990
ARFCN range	128~25	0~124 & 975~1023	512~885	512~810
Tx/Rx spacing	45MHz	45MHz	95MHz	80MHz
Mod. Bit rate/ Bit Period	270.833kbps 3.692us	270.833kbps 3.692us	270.833kbps 3.692us	270.833kbps 3.692us
Time Slot Period/Frame Period	576.9us 4.615ms	576.9us 4.615ms	576.9us 4.615ms	576.9us 4.615ms
Modulation	0.3GMSK	0.3GMSK	0.3GMSK	0.3GMSK
MS Power	33dBm ~5dBm	33dBm ~5dBm	30dBm ~0dBm	30dBm ~0dBm
Power Class	4 (max +33dBm)	4 (max +33dBm)	1 (max +30dBm)	1 (max +30dBm)
Sensitivity	-102dBm	-102dBm	-100dBm	-100dBm
TDMA Mux	8	8	8	8
Cell Radius	35Km	35Km	2Km	2Km

2-2. GSM Tx Power Class

TX Power control level	GSM850 GSM900	TX Power control level	DCS1800	TX Power control level	PCS1900
5	33±2 dBm	0	30±3 dBm	0	30±3 dBm
6	31±2 dBm	1	28±3 dBm	1	28±3 dBm
7	29±2 dBm	2	26±3 dBm	2	26±3 dBm
8	27±2 dBm	3	24±3 dBm	3	24±3 dBm
9	25±2 dBm	4	22±3 dBm	4	22±3 dBm
10	23±2 dBm	5	20±3 dBm	5	20±3 dBm
11	21±2 dBm	6	18±3 dBm	6	18±3 dBm
12	19±2 dBm	7	16±3 dBm	7	16±3 dBm
13	17±2 dBm	8	14±3 dBm	8	14±3 dBm
14	15±2 dBm	9	12±4 dBm	9	12±4 dBm
15	13±2 dBm	10	10±4 dBm	10	10±4 dBm
16	11±3 dBm	11	8±4 dBm	11	8±4 dBm
17	9±3 dBm	12	6±4 dBm	12	6±4 dBm
18	7±3 dBm	13	4±4 dBm	13	4±4 dBm
19	5±3 dBm	14	2±5 dBm	14	2±5 dBm
		15	0±5 dBm	15	0±5 dBm

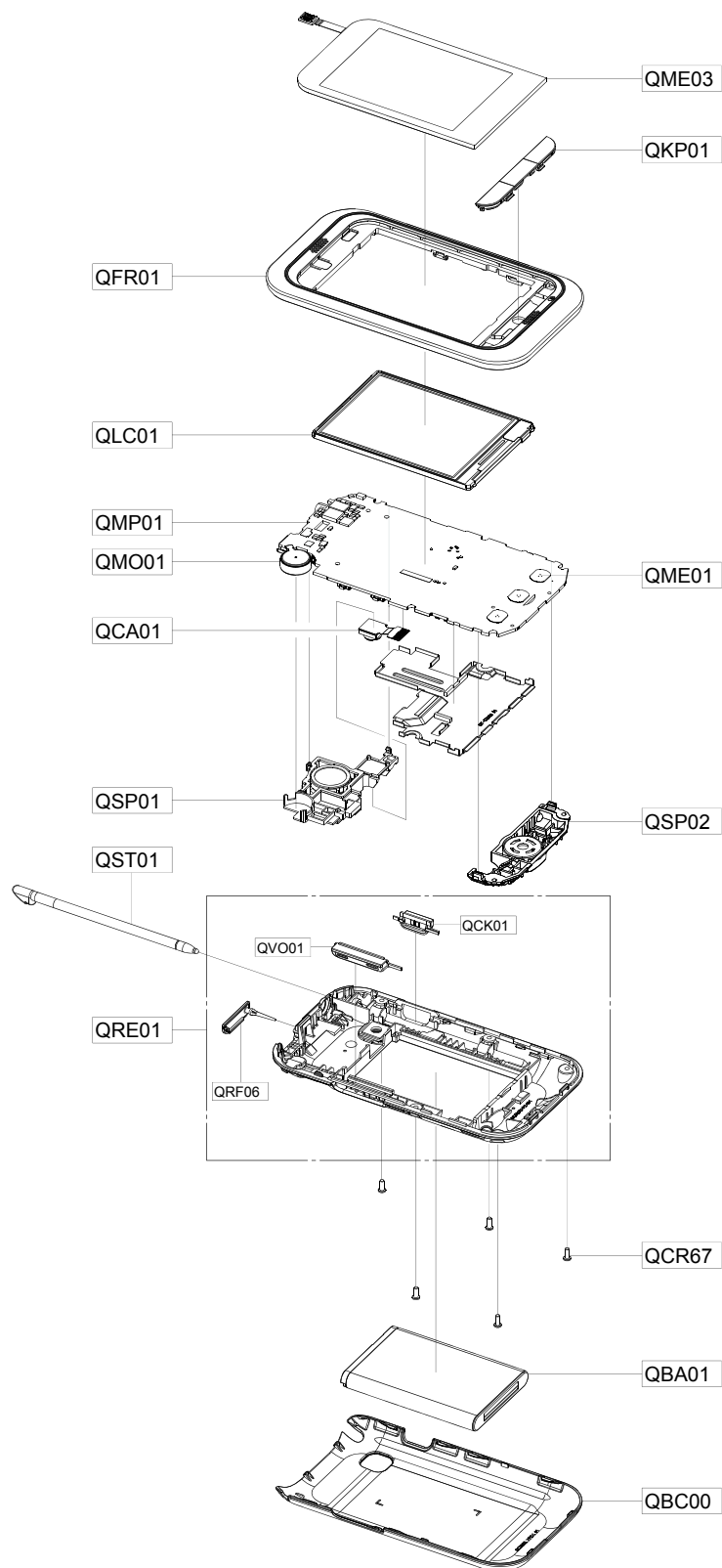
3. Product Function

Main Function

- UMTS, EDGE, GPRS
- 64 Poly Melody
- BT 2.1 + EDR
- USB 2.0
- WAP2.0, JAVA, MPEG4
- MMS / SMS
- Weight: 80.4 g (with standard battery : Product 59.9 g, Battery 20.5 g))
- Camera: 1.3 Mega Pixel, CMOS
- LCD : 2.4" TFT (LCD)
- Size: 103.9 x 56.5 x 12.9 mm
- GPRS/EDGE : Class 10
- Battery: 1000 mAH
- Memory: 256MB/1G/256 MUXED
- Band: GSM 850/900/1800/1900
- BB: STE PN4908
- RF: Skyworks SKY77548
- Dual Speaker

4. Exploded View and Parts List

4-1. Cellular phone Exploded View



4-2. Cellular phone Parts list

Design LOC		Description	SEC CODE
QCR67		SCREW-MACHINE	6001-002083
QMO01		MOTOR DC-GT-C3300I_MOTOR	GH31-00525A
QBA01		INNER BATTERY PACK-1000MAH,BLK,ENG,EU	GH43-03184A
QME01		DOME SHEET-GT-C3300	GH59-09280A
QME03		TOUCH/PANEL-GT-C3300	GH59-09281A
QSP02		MODULE-SPK+INT B (GT-C3300)	GH59-09366A
QCA01		CAMERA MODULE-MODULE,GT-C3300K(1.3M)	GH59-09730A
QSP01		MODULE-SPK+INT A (GT-C3300I)	GH59-10641A
QST01		PMO ACCE-STYLUS PEN	GH72-58591A
QMP01		A/S ASSY-PBA MAIN (COMM)	GH82-05501A
QLC01		ELA MODULE-GT-C3300 LCD MODULE	GH96-04815A
QKP01		ASSY KEYPAD-MAIN	GH98-16375A
QFR01		ASSY CASE-FRONT	GH98-16378A
QBC00		ASSY COVER-BATT	GH98-16379A
QRE01		ASSY CASE-REAR VE (EU / BLK)	GH98-19038A
	QVO01	PMO KEY-VOLUME VE (BLK)	GH72-61963A
	QCK01	PMO KEY-HOLD KEY VE (BLK)	GH72-61964A
	QRF06	PMO COVER-USB VE (BLK)	GH72-61965A

5. MAIN Electrical Parts List(2011.01.14)

SEC CODE	Design LOC	Discription
0403-001688	D305	DIODE-ZENER
0404-001172	D307	DIODE-SCHOTTKY
0406-001288	ZD304	DIODE-TVS
0406-001288	ZD305	DIODE-TVS
0406-001288	ZD306	DIODE-TVS
0406-001361	ZD307	DIODE-TVS
0406-001375	ZD301	DIODE-TVS
0406-001375	ZD303	DIODE-TVS
0406-001446	D301	DIODE-TVS
0406-001446	D302	DIODE-TVS
0406-001446	D303	DIODE-TVS
0406-001446	D304	DIODE-TVS
0406-001446	ZD308	DIODE-TVS
0406-001446	ZD309	DIODE-TVS
0406-001446	ZD310	DIODE-TVS
0407-001002	D306	DIODE-ARRAY
0505-002384	Q301	FET-SILICON
0505-002712	U200	FET-SILICON
1001-001635	U301	IC-ANALOG SWITCH
1001-001677	U306	IC-ANALOG SWITCH
1108-000355	UME200	IC-MCP
1201-002494	U311	IC-AUDIO AMP
1201-002494	U312	IC-AUDIO AMP
1201-002985	PAM100	IC-POWER AMP
1203-004291	U302	IC-MULTI REG
1203-006772	U101	IC-POS1.FIXED REG.
1203-006772	U319	IC-POS1.FIXED REG.
1203-006772	U321	IC-POS1.FIXED REG.
1204-003022	U102	IC-DEMODULATOR
1205-003517	U100	IC-BLUETOOTH
1205-004012	UCP200	IC-MODEM
1404-001221	TH201	THERMISTOR-NTC
1405-001298	V100	VARISTOR
1405-001298	V300	VARISTOR
1405-001298	V301	VARISTOR
1405-001298	V302	VARISTOR
2007-000138	R310	R-CHIP
2007-000140	R339	R-CHIP
2007-000140	R340	R-CHIP
2007-000141	R213	R-CHIP
2007-000141	R214	R-CHIP
2007-000141	R334	R-CHIP
2007-000143	R357	R-CHIP

Main Electrical Parts List

SEC CODE	Design LOC	Discription
2007-000148	R202	R-CHIP
2007-000148	R203	R-CHIP
2007-000148	R204	R-CHIP
2007-000148	R205	R-CHIP
2007-000148	R211	R-CHIP
2007-000148	R228	R-CHIP
2007-000149	R224	R-CHIP
2007-000149	R228	R-CHIP
2007-000151	R325	R-CHIP
2007-000152	R313	R-CHIP
2007-000152	R314	R-CHIP
2007-000152	R346	R-CHIP
2007-000152	R348	R-CHIP
2007-000153	R232	R-CHIP
2007-000153	R233	R-CHIP
2007-000161	R312	R-CHIP
2007-000161	R349	R-CHIP
2007-000162	R101	R-CHIP
2007-000162	R102	R-CHIP
2007-000162	R103	R-CHIP
2007-000162	R114	R-CHIP
2007-000162	R226	R-CHIP
2007-000162	R227	R-CHIP
2007-000162	R333	R-CHIP
2007-000164	R115	R-CHIP
2007-000170	R360	R-CHIP
2007-000170	R361	R-CHIP
2007-002796	R116	R-CHIP
2007-003001	R315	R-CHIP
2007-003001	R317	R-CHIP
2007-003015	R100	R-CHIP
2007-003015	R113	R-CHIP
2007-007021	R311	R-CHIP
2007-007021	R347	R-CHIP
2007-007156	R238	R-CHIP
2007-007156	R239	R-CHIP
2007-007156	R358	R-CHIP
2007-007190	R341	R-CHIP
2007-007190	R342	R-CHIP
2007-008403	R353	R-CHIP
2007-008403	R354	R-CHIP
2007-008403	R355	R-CHIP
2007-008403	R356	R-CHIP

SEC CODE	Design LOC	Discription
2007-008766	R210	R-CHIP
2203-000233	C302	C-CER,CHIP
2203-000233	C304	C-CER,CHIP
2203-000233	C361	C-CER,CHIP
2203-000233	C363	C-CER,CHIP
2203-000233	C371	C-CER,CHIP
2203-000233	C377	C-CER,CHIP
2203-000233	L101	C-CER,CHIP
2203-000254	C109	C-CER,CHIP
2203-000254	C117	C-CER,CHIP
2203-000254	C231	C-CER,CHIP
2203-000278	C145	C-CER,CHIP
2203-000330	C142	C-CER,CHIP
2203-000386	C103	C-CER,CHIP
2203-000386	C320	C-CER,CHIP
2203-000425	C305	C-CER,CHIP
2203-000425	C306	C-CER,CHIP
2203-000425	C323	C-CER,CHIP
2203-000438	C106	C-CER,CHIP
2203-000438	C116	C-CER,CHIP
2203-000438	C121	C-CER,CHIP
2203-000438	C242	C-CER,CHIP
2203-000438	C248	C-CER,CHIP
2203-000438	C332	C-CER,CHIP
2203-000438	C338	C-CER,CHIP
2203-000438	C379	C-CER,CHIP
2203-000438	C380	C-CER,CHIP
2203-000696	C143	C-CER,CHIP
2203-000812	C114	C-CER,CHIP
2203-000812	C141	C-CER,CHIP
2203-000812	C232	C-CER,CHIP
2203-000812	C233	C-CER,CHIP
2203-001153	C319	C-CER,CHIP
2203-002709	C200	C-CER,CHIP
2203-002709	C201	C-CER,CHIP
2203-002709	C204	C-CER,CHIP
2203-002709	C205	C-CER,CHIP
2203-002709	C206	C-CER,CHIP
2203-002709	C207	C-CER,CHIP
2203-002709	C208	C-CER,CHIP
2203-002709	C209	C-CER,CHIP
2203-002709	C210	C-CER,CHIP
2203-002709	C239	C-CER,CHIP

Main Electrical Parts List

SEC CODE	Design LOC	Discription
2203-002709	C346	C-CER,CHIP
2203-005056	C390	C-CER,CHIP
2203-005234	C111	C-CER,CHIP
2203-005234	C127	C-CER,CHIP
2203-005234	C131	C-CER,CHIP
2203-005234	C133	C-CER,CHIP
2203-005234	C134	C-CER,CHIP
2203-005288	C113	C-CER,CHIP
2203-005288	C147	C-CER,CHIP
2203-005288	C148	C-CER,CHIP
2203-005344	C102	C-CER,CHIP
2203-005344	C303	C-CER,CHIP
2203-005395	C139	C-CER,CHIP
2203-005444	C108	C-CER,CHIP
2203-006048	C100	C-CER,CHIP
2203-006048	C246	C-CER,CHIP
2203-006048	C247	C-CER,CHIP
2203-006048	C350	C-CER,CHIP
2203-006048	C391	C-CER,CHIP
2203-006208	C217	C-CER,CHIP
2203-006260	C243	C-CER,CHIP
2203-006324	C301	C-CER,CHIP
2203-006348	C317	C-CER,CHIP
2203-006399	C129	C-CER,CHIP
2203-006399	C146	C-CER,CHIP
2203-006399	C202	C-CER,CHIP
2203-006399	C211	C-CER,CHIP
2203-006399	C212	C-CER,CHIP
2203-006399	C213	C-CER,CHIP
2203-006399	C215	C-CER,CHIP
2203-006399	C218	C-CER,CHIP
2203-006399	C219	C-CER,CHIP
2203-006399	C220	C-CER,CHIP
2203-006399	C221	C-CER,CHIP
2203-006399	C230	C-CER,CHIP
2203-006399	C236	C-CER,CHIP
2203-006399	C244	C-CER,CHIP
2203-006399	C245	C-CER,CHIP
2203-006399	C313	C-CER,CHIP
2203-006399	C327	C-CER,CHIP
2203-006399	C328	C-CER,CHIP
2203-006399	C336	C-CER,CHIP
2203-006399	C339	C-CER,CHIP

SEC CODE	Design LOC	Discription
2203-006399	C340	C-CER,CHIP
2203-006399	C342	C-CER,CHIP
2203-006399	C343	C-CER,CHIP
2203-006399	C344	C-CER,CHIP
2203-006399	C357	C-CER,CHIP
2203-006399	C368	C-CER,CHIP
2203-006399	C369	C-CER,CHIP
2203-006399	C382	C-CER,CHIP
2203-006399	C383	C-CER,CHIP
2203-006399	U322	C-CER,CHIP
2203-006399	U323	C-CER,CHIP
2203-006562	C311	C-CER,CHIP
2203-006562	C388	C-CER,CHIP
2203-006585	C329	C-CER,CHIP
2203-006585	C330	C-CER,CHIP
2203-006585	C384	C-CER,CHIP
2203-006585	C385	C-CER,CHIP
2203-006681	C389	C-CER,CHIP
2203-006753	C144	C-CER,CHIP
2203-006824	C224	C-CER,CHIP
2203-006872	C101	C-CER,CHIP
2203-006872	C104	C-CER,CHIP
2203-006872	C105	C-CER,CHIP
2203-006872	C216	C-CER,CHIP
2203-006890	C234	C-CER,CHIP
2203-007240	C229	C-CER,CHIP
2203-007279	C115	C-CER,CHIP
2203-007393	C214	C-CER,CHIP
2203-007393	C223	C-CER,CHIP
2203-007393	C347	C-CER,CHIP
2203-007393	C358	C-CER,CHIP
2203-007393	C386	C-CER,CHIP
2703-001708	L103	INDUCTOR-SMD
2703-002170	L111	INDUCTOR-SMD
2703-002199	L117	INDUCTOR-SMD
2703-002204	L118	INDUCTOR-SMD
2703-002204	L119	INDUCTOR-SMD
2703-002204	L120	INDUCTOR-SMD
2703-002204	L121	INDUCTOR-SMD
2703-002205	L113	INDUCTOR-SMD
2703-002207	L116	INDUCTOR-SMD
2703-002269	L108	INDUCTOR-SMD
2703-002269	L124	INDUCTOR-SMD

Main Electrical Parts List

SEC CODE	Design LOC	Discription
2703-002281	L106	INDUCTOR-SMD
2703-002281	L126	INDUCTOR-SMD
2703-002308	L308	INDUCTOR-SMD
2703-002308	L309	INDUCTOR-SMD
2703-002313	L300	INDUCTOR-SMD
2703-002313	L310	INDUCTOR-SMD
2703-002314	L104	INDUCTOR-SMD
2703-002368	L125	INDUCTOR-SMD
2703-002608	L112	INDUCTOR-SMD
2703-003121	L110	INDUCTOR-SMD
2703-003121	L122	INDUCTOR-SMD
2703-003297	L202	INDUCTOR-SMD
2703-003476	L123	INDUCTOR-SMD
2703-003498	L306	INDUCTOR-SMD
2801-004769	OSC201	CRYSTAL-SMD
2801-004902	OSC200	CRYSTAL-SMD
2901-001469	F300	FILTER-EMI/ESD
2901-001469	F301	FILTER-EMI/ESD
2901-001469	F302	FILTER-EMI/ESD
2903-001424	F100	FILTER-DIELECTRIC
2904-001891	F101	FILTER-SAW
2904-001920	F102	FILTER-SAW
3003-001138	MIC300	MIC MEMS
3301-001729	L307	BEAD-SMD
3301-001885	L201	BEAD-SMD
3301-001917	L301	BEAD-SMD
3301-001917	L302	BEAD-SMD
3301-001917	L305	BEAD-SMD
3301-001917	L311	BEAD-SMD
3301-001917	U320	BEAD-SMD
3301-002070	L303	BEAD-SMD
3301-002070	L304	BEAD-SMD
3404-001152	TACK_DN	SWITCH-TACT
3404-001152	TACK_HD	SWITCH-TACT
3404-001152	TACT_UP	SWITCH-TACT
3705-001503	RFS100	CONNECTOR-COAXIAL
3708-002222	HDC300	CINNECTOR-FPC/FFC/PIC
3709-001488	SIM300	CONNECTOR-CARD EDGE
3709-001605	CD300	CONNECTOR-CARD EDGE
3711-006808	BTC300	HEADER-BATTERY
3711-007446	HEA300	HEADER-BOARD TO BOARD
3711-007478	SLC300	HEADER-BOARD TO BOARD
3712-001348	FM_ANT	CONNECTOR-TERMINAL

SEC CODE	Design LOC	Discription
3712-001348	SPK_DWN	CONNECTOR-TERMINAL
3712-001348	SPK_DWP	CONNECTOR-TERMINAL
3722-002840	IF300	JACK-MINI USB
3722-003107	EAR300	JACK-EAR PHONE
4709-001865	U104	RF-MODULE
GH70-03951A	SC100	ICT SHIELD-SHIELD CAN CLIP
GH70-03951A	SC101	ICT SHIELD-SHIELD CAN CLIP
GH70-03951A	SC104	ICT SHIELD-SHIELD CAN CLIP

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

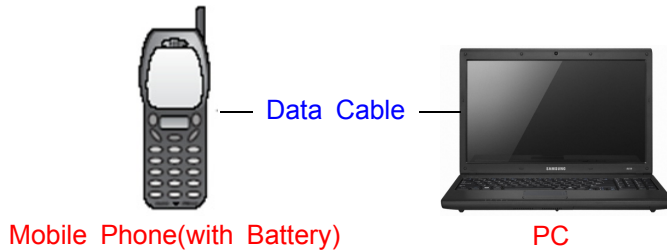
6. Level 1 Repair

1) USB Cable : Because of supporting USB 2.0 cable, the device manager of your PC may not recognize the cable that does not support USB 2.0.

2) Battery : AB553446BU



- Diagram of connection



6-1. Software Download

6-1-1. Pre-requisite for Download

- Download Program
 - **Flash loader 7.4.7_SSG_v0.0_Lite.exe** : **Flash Loader 7.4.7_SSG_v0.0_Lite(mdl_updated)**
- USB Driver
 - **Samsung USB Modem driver** : **Libre_USB_downloader_b0.6.zip**
- GT-C3300i Mobile Device
- Data Cable
- JIG BOX (GH99-36900A)
- RF Test Cable (GH39-00985A)
- JIG Cable (GH39-01160A)
- Adapter (GH99-38251A)
- Binary files
- ActiveSync Setting
- Driver Installation.

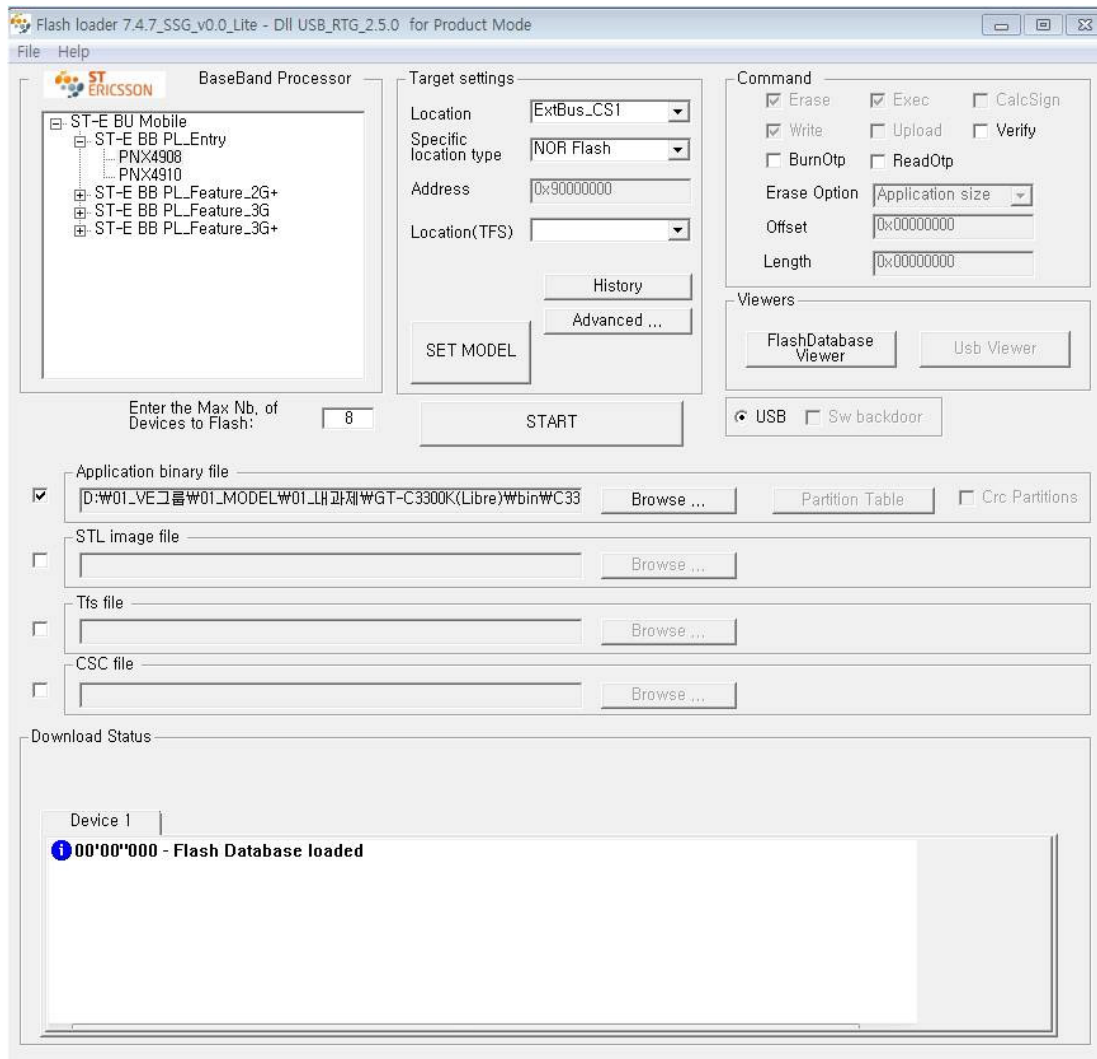
6-1-2. Driver Installation

- Make sure that you install the driver for a phone.
- You have to install the driver of Samsung USB Modem of downloading a phone image
- **Restart your host PC after you install the phone driver.**

6-1-3. S/W Download Process

1) Execute the downloader

Execute the 'Flash loader 7.4.7_SSG_v0.0_Lite.exe' program.

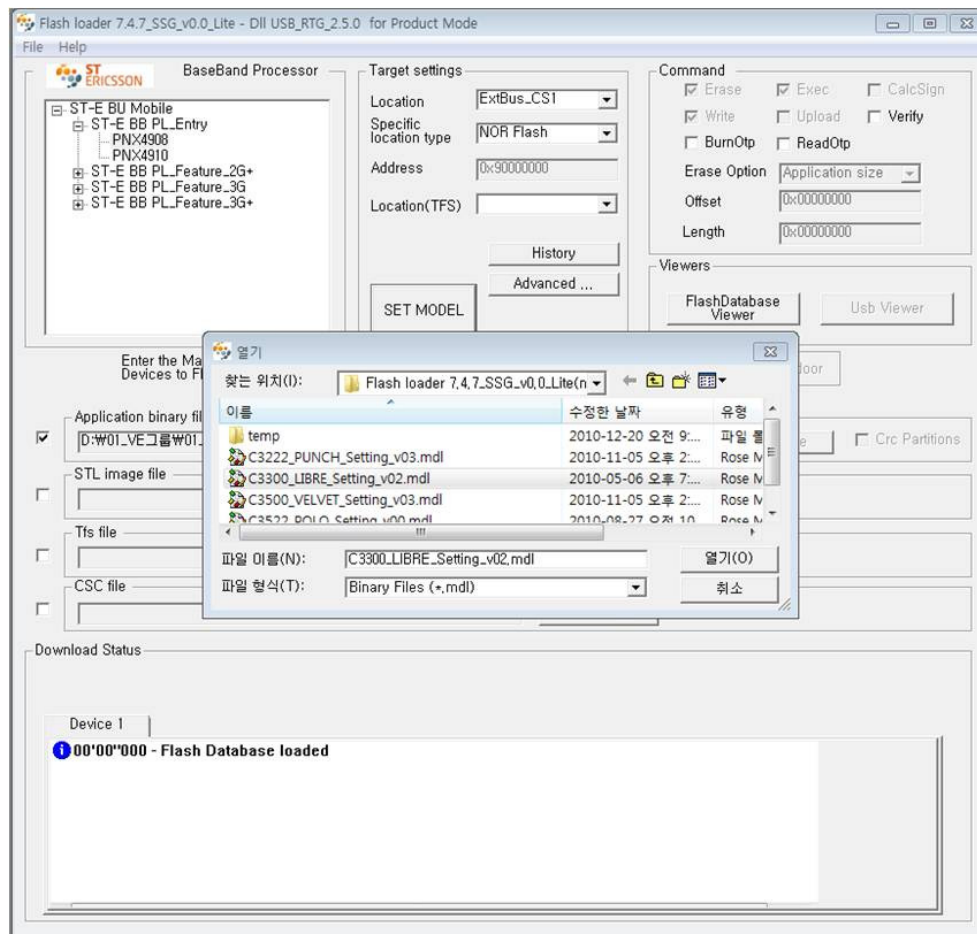


(Notice : Flash loader 7.4.7_SSG_v0.0_Lite supports only Single-CSC.)

2) Set Model

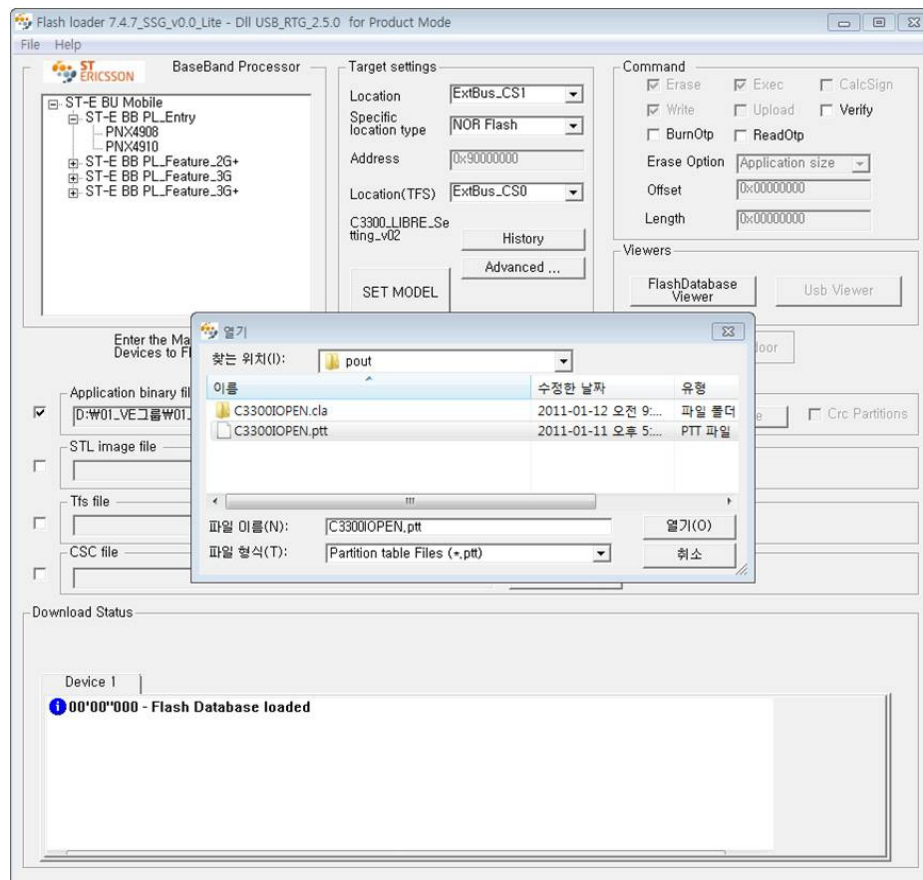
Click "SET MODEL", and you can select appropriate model.

You should choose "C3300_LIBRE_Setting_v02.mdl" for further advance.



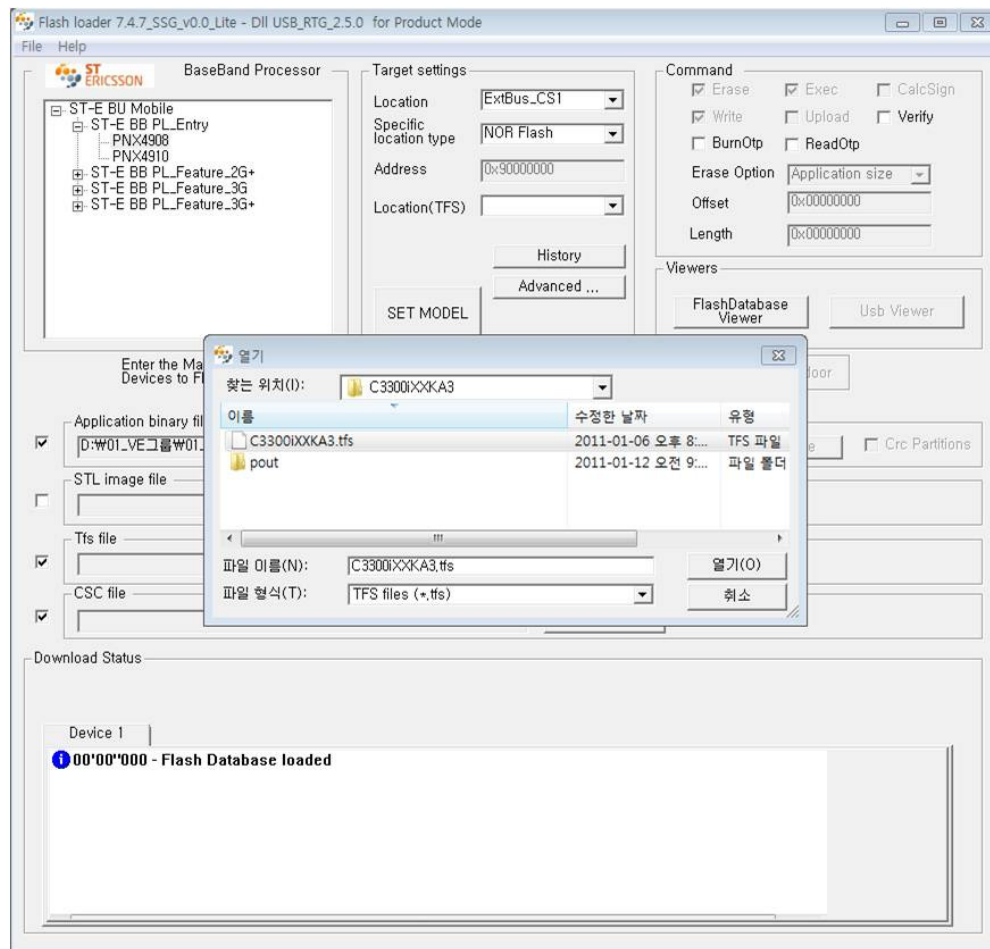
3) Select the binary, TFS, and CSC files

You can select a certain binary named *.ptt file with browsing files



Please check the check box of TFS, CSC file, you should activate TFS, CSC.
Also you can select the TFS files, and CSC files.

(Notice : The buttons of TFS and CSC need to be activated not only after phone image is added first)



4) Select the download mode

Click "START" to ready to download binary.

(Notice : In this step, the mobile device actually don't download the binary yet.)

5) Connect the device

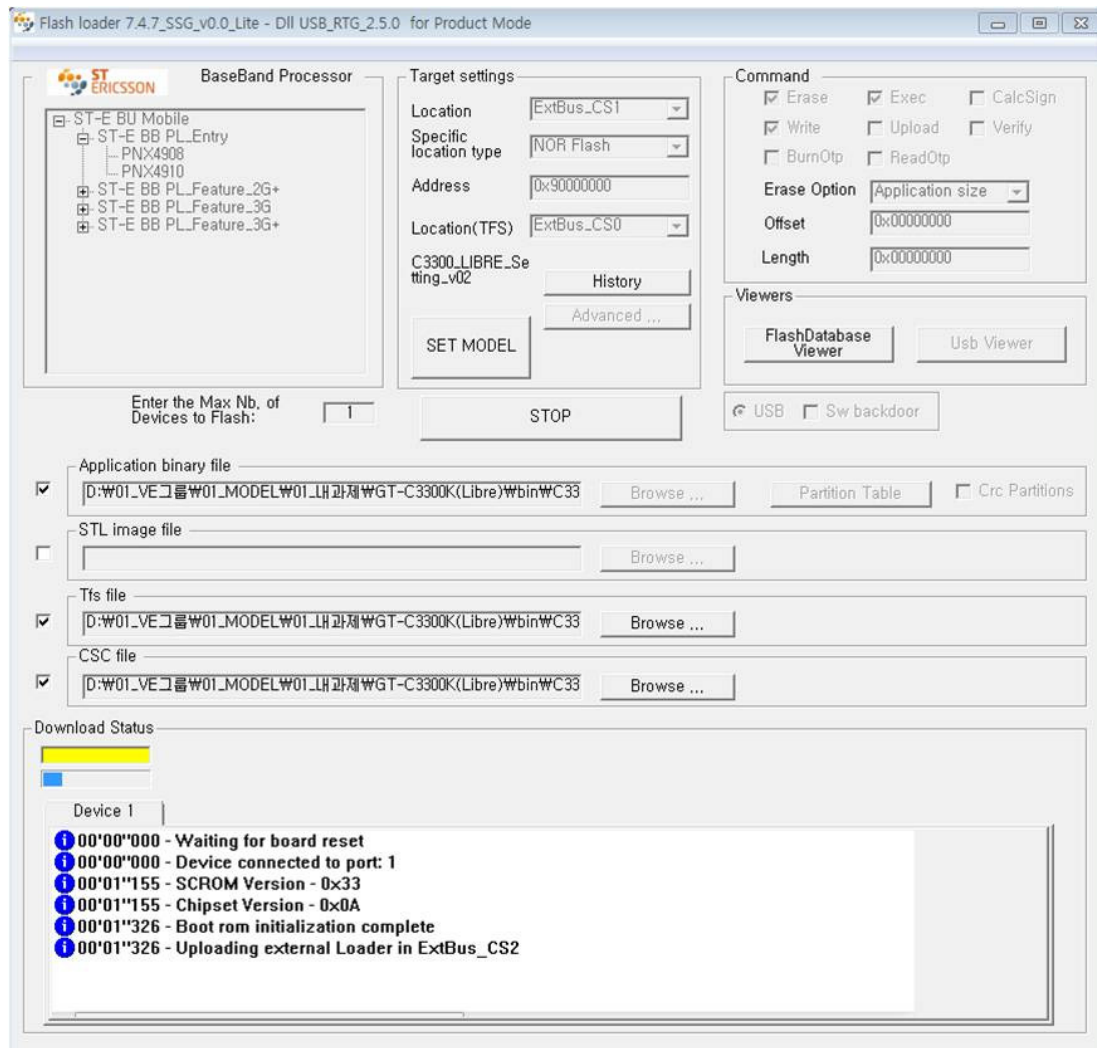
First, power off the device with battery.

Second, press "Hold Key" and "Volume up Key" "

After that, connect PC with device using USB cable.

(Don't detach your finger from two keys.)

In that case the device will power on and downloader recognize the device automatically



6) Complete download

The download process is automatically executed.

If "Slot freed for new download" message was shown without any problems, you now download the binary successfully.

(Notice : After download process is completed, take care of the abnormal power off situation(ex. mount/demount battery) within the first booting time. It may cause malfunction)

7) Confirm Download

- Reboot the device and confirm whether the device does normal operation.
- When completing download, downloader is automatically initialized and ready for connecting next device.

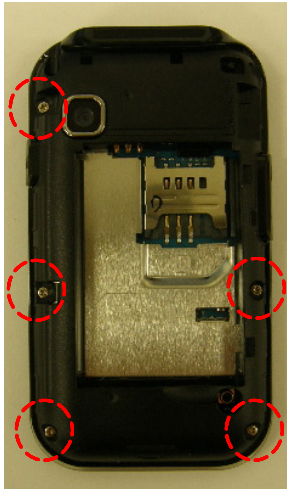
7. Level 2 Repair

7-1. Disassembly and Assembly Instructions

7-1-1. Disassembly

1

1) Unscrew the 5 points.

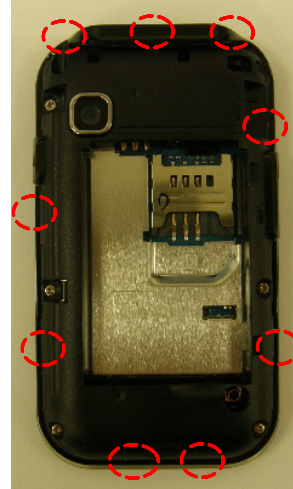


※ Caution

1) Be care of scratch and molding damage.

2

1) Separate the REAR CASE. 9 hooks

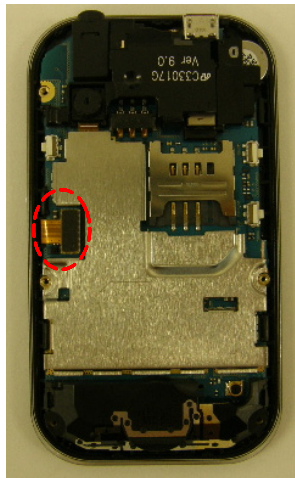


※ Caution

1) Be care of scratch and molding damage.

3

1) Separate the LCD connector

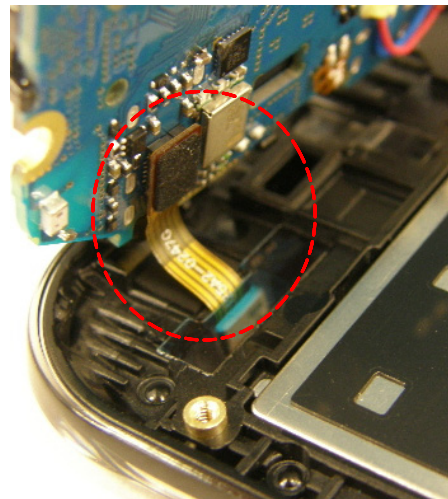


※ Caution

1) Be care of scratch and molding damage.

4

1) Separate the TSP connector.



※ Caution

1) Be care of scratch and molding damage.
2) Be care of damage to the TSP.

5

1) Separate LCD, KEYPAD and TSP from the FRONT CASE.

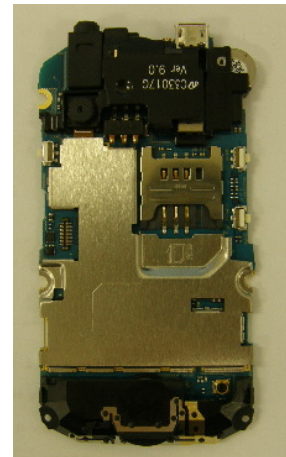


※ **Caution**

- 1) Be care of scratch and molding damage.
- 2) Be care of damage to the LCD.

6

1) Separate the MOTOR/SHIELD CAN /INTENNA/CAMERA(D,K) from the PBA.



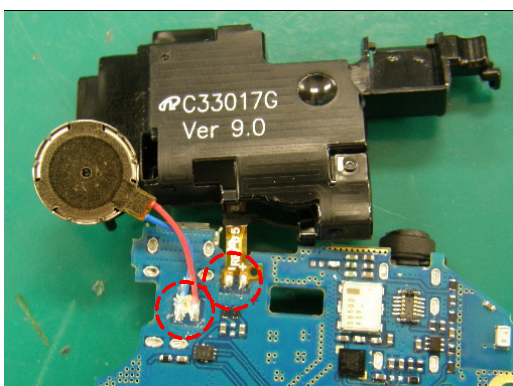
※ **Caution**

- 1) Be care of damage to FPCB and Wire.
- 2) Be care of damage to the Intenna pattern

7-1-1. Assembly

1

1) Solder the Speaker and motor.

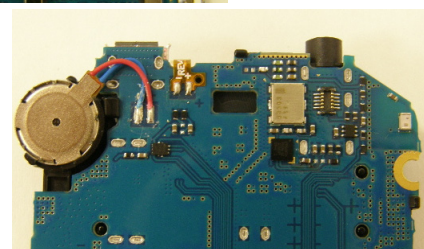
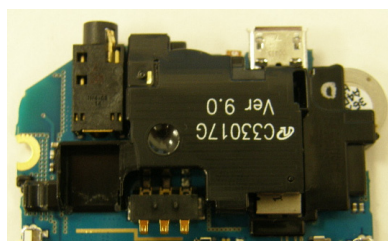


※ Caution

1) Be care of damage the FPCB.

2

1) Assemble the SPEAKER MODULE to PBA and attach the Motor to module.

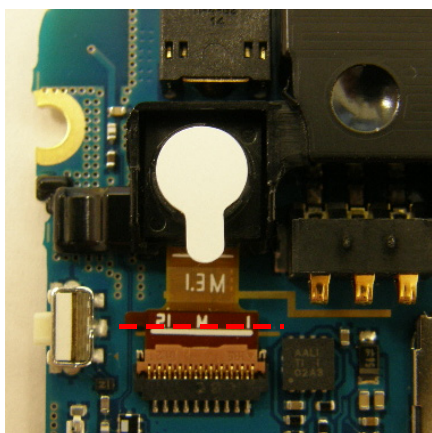


※ Caution

1) Be care of damage to PBA and MOTOR wire

3

1) Assemble the CAMERA

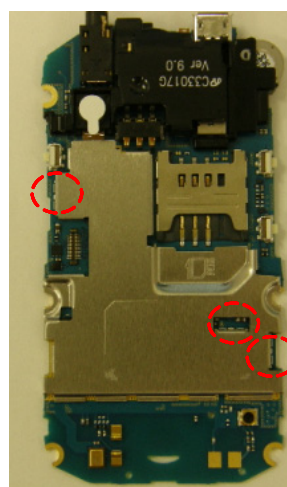


※ Caution

1) Be care of damage to FM Radio PATTERN and PBA.

4

1) Assemble the insu tape and shieldcan



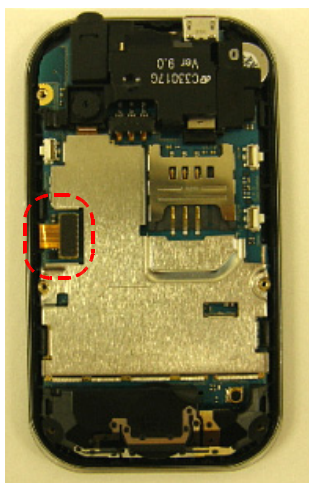
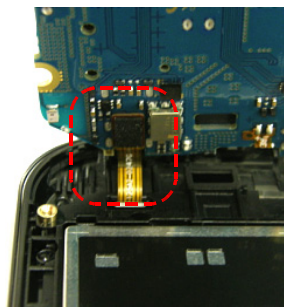
※ Caution

1) Be care of damage to PBA.

<div data-bbox="168 237 803 289" data-label="Text"> <p>5 1) Assemble the INTENNA</p> </div> <div data-bbox="272 424 704 735" data-label="Image"> </div>	<div data-bbox="829 237 1464 289" data-label="Text"> <p>6 1) Assemble the earjack rubber</p> </div> <div data-bbox="959 413 1294 774" data-label="Image"> </div>
<div data-bbox="168 831 803 951" data-label="Text"> <p>※ Caution 1) Be care of damage to INTENNA PATTERN and PBA.</p> </div>	<div data-bbox="829 831 1464 951" data-label="Text"> <p>※ Caution 1) Be care of damage the CAMERA FPCB and connector</p> </div>
<div data-bbox="168 993 803 1102" data-label="Text"> <p>7 1) Assemble the KEYPAD. 2) Attach the TSP.</p> </div> <div data-bbox="201 1171 719 1570" data-label="Image"> </div>	<div data-bbox="829 993 1464 1102" data-label="Text"> <p>8 1) Assemble the LCD. 2) Attach the insu tape.</p> </div> <div data-bbox="878 1182 1396 1541" data-label="Image"> </div>
<div data-bbox="168 1663 803 1810" data-label="Text"> <p>※ Caution 1) Be care of scratch and molding damage. 2) Be care of TSP Fpcb damage.</p> </div>	<div data-bbox="829 1663 1464 1810" data-label="Text"> <p>※ Caution 1) Be care of damage the LCD module. 2) Be care of TSP Fpcb damage.</p> </div>

9

- 1) Connect the TSP connector and then Assemble the PBA the to FRONT ASS'Y.
- 2) Connect the LCD connector.



10

- 1) Assemble the REAR CASE.



※ **Caution**

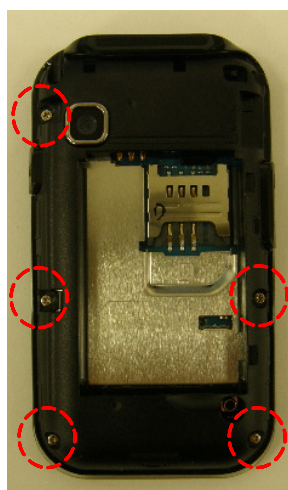
- 1) Be care of scratch and molding damage.
- 2) Be care of damage to TSP FPCB.

※ **Caution**

- 1) Be care of scratch and molding damage.

11

- 1) Screw 5 points.
 ● Torque : 1.0 ~ 1.2 Kgf·cm
 Size : M1.4 * L3.5



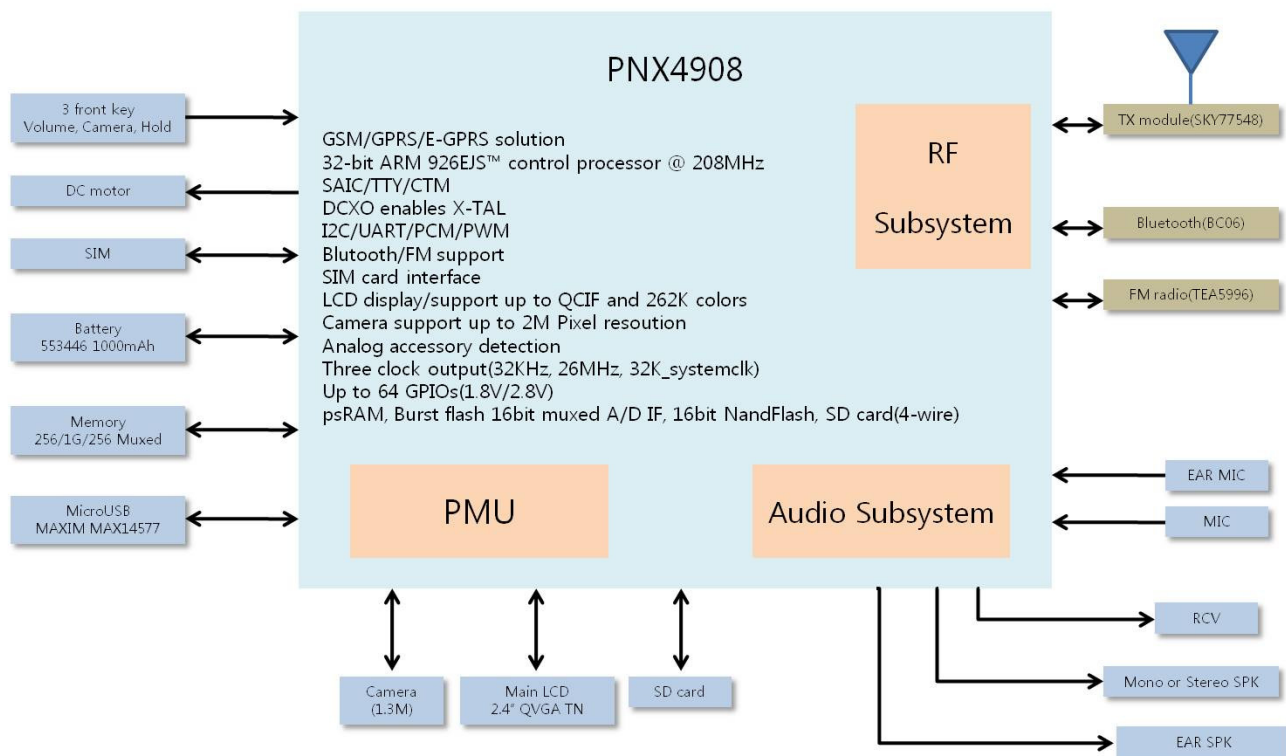
※ **Caution**

- 1) Be care of scratch and molding damage.

8. Level 3 Repair

8-1. Block Diagram

Libre VE Block Diagram

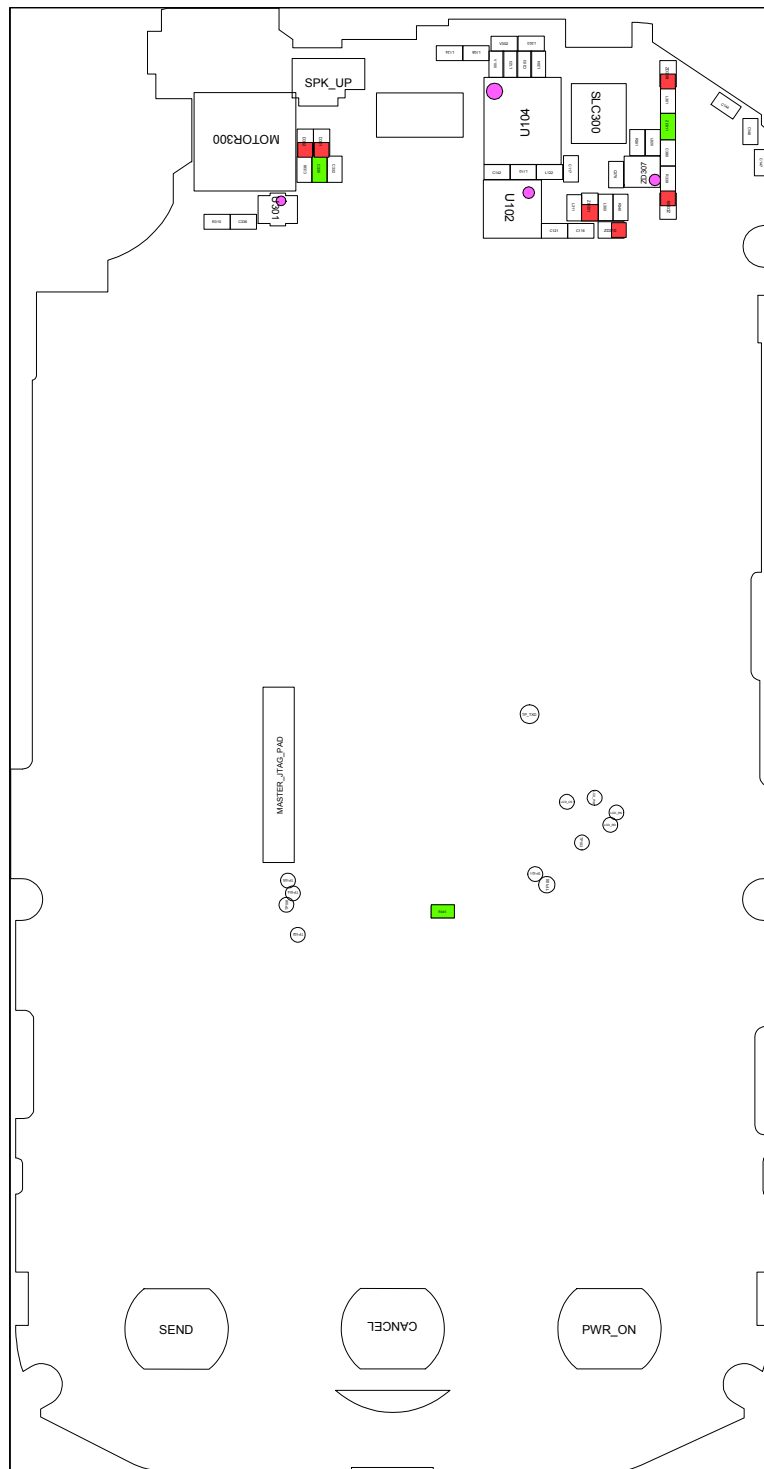


8-2. PCB Diagrams (2011.01.14 Rev0.2)

8-2-1. Top

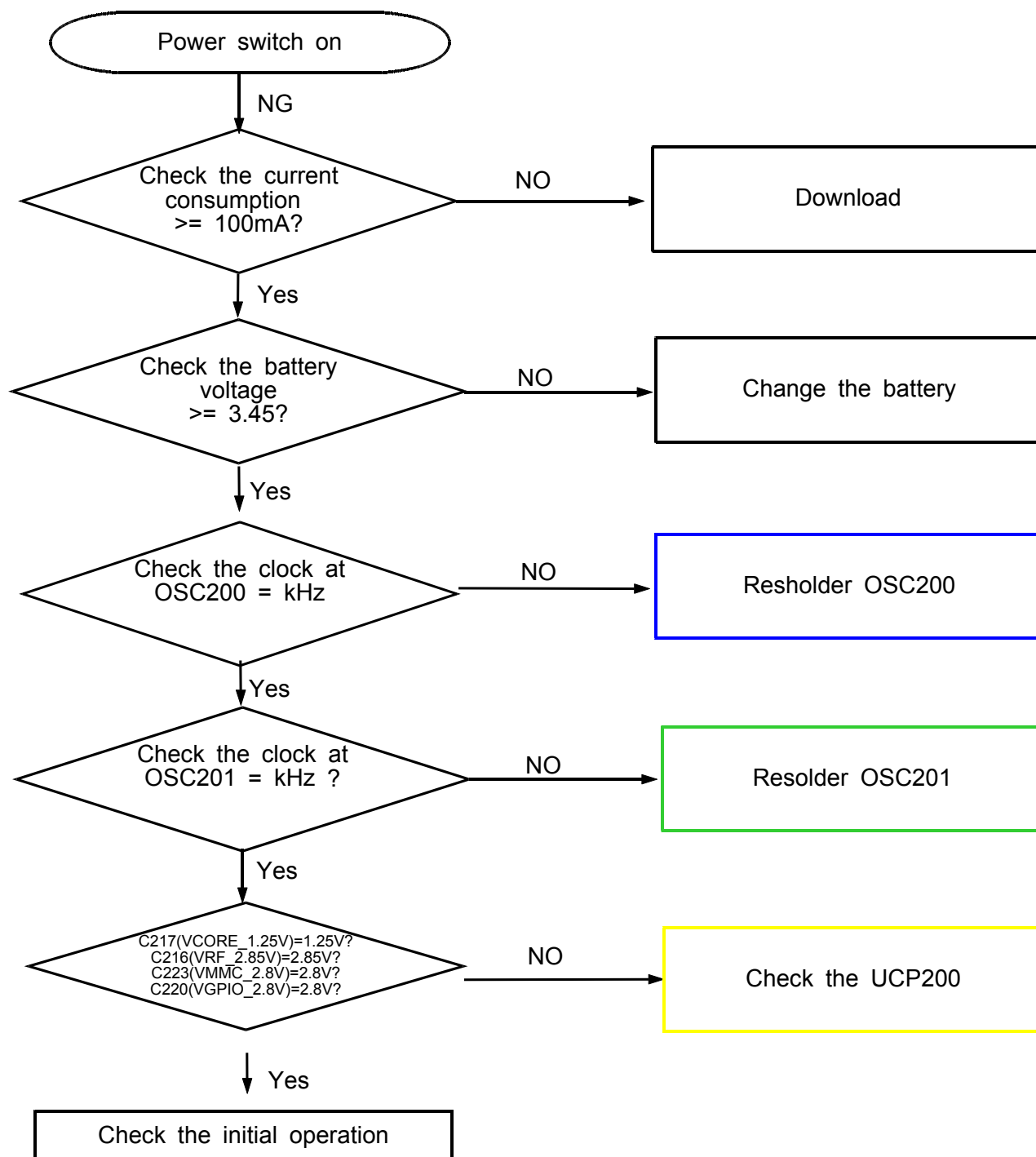


8-2-1. Bottom



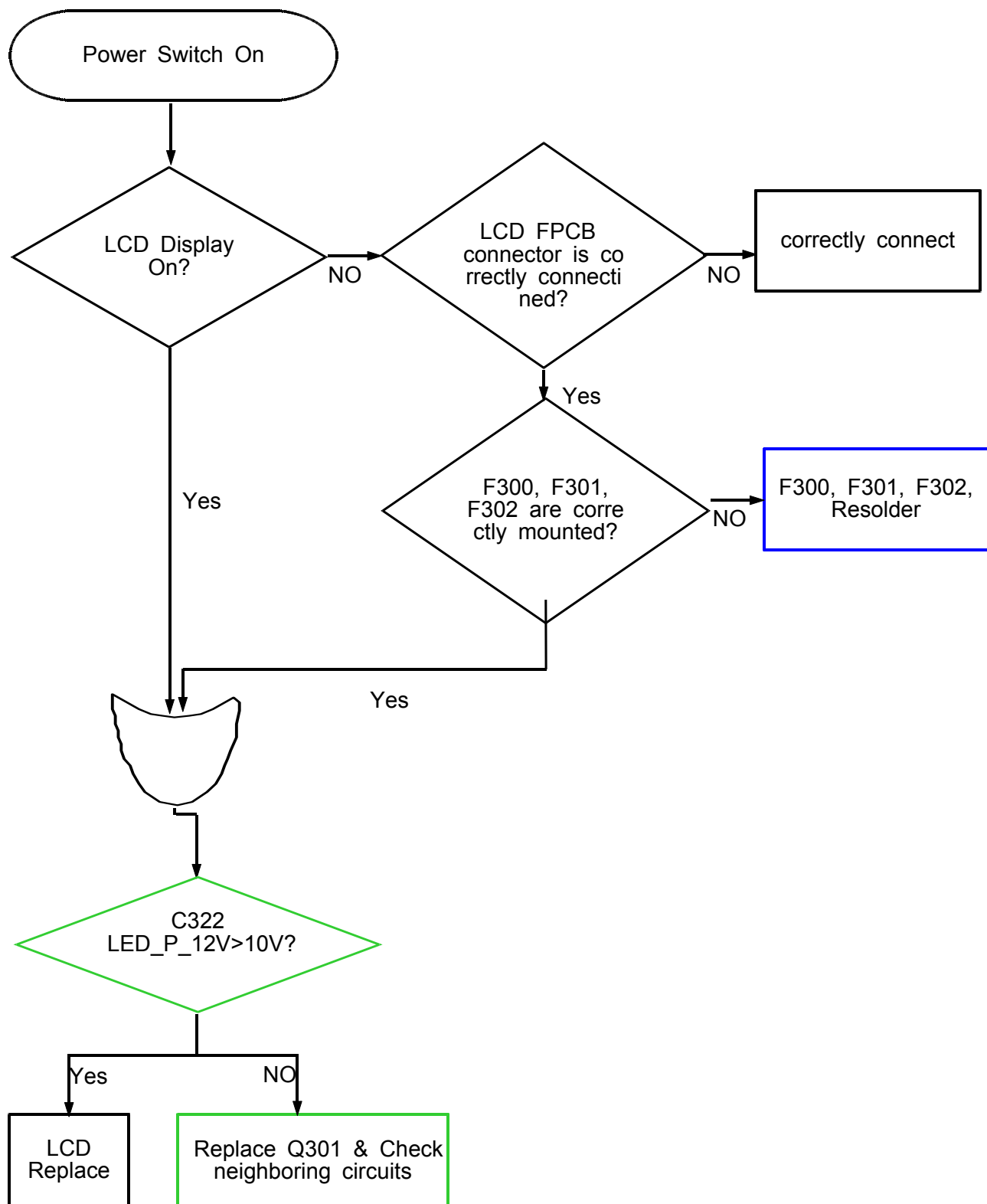
8-3. LOGIC

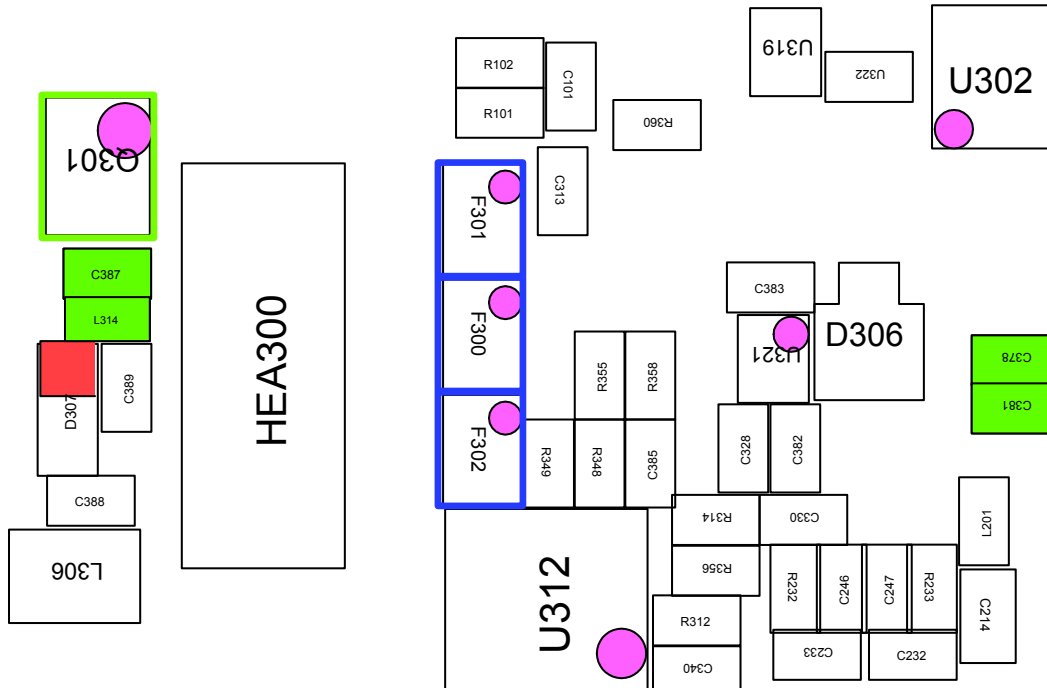
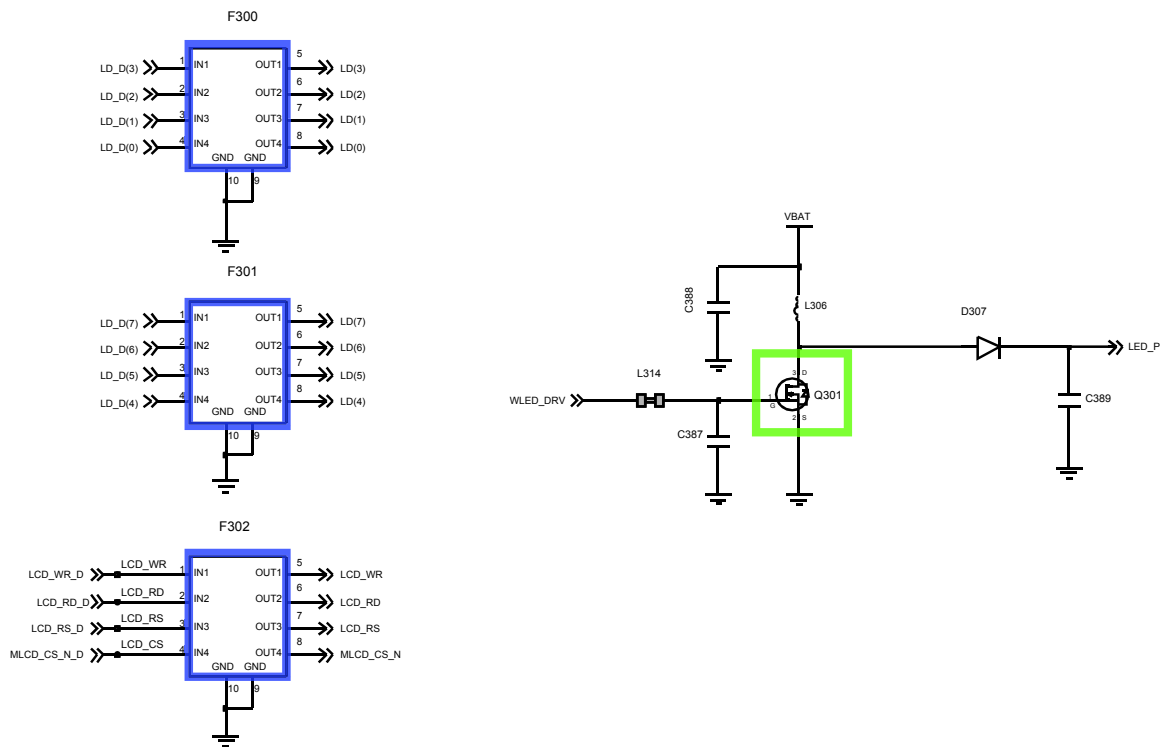
8-3-1. Power On



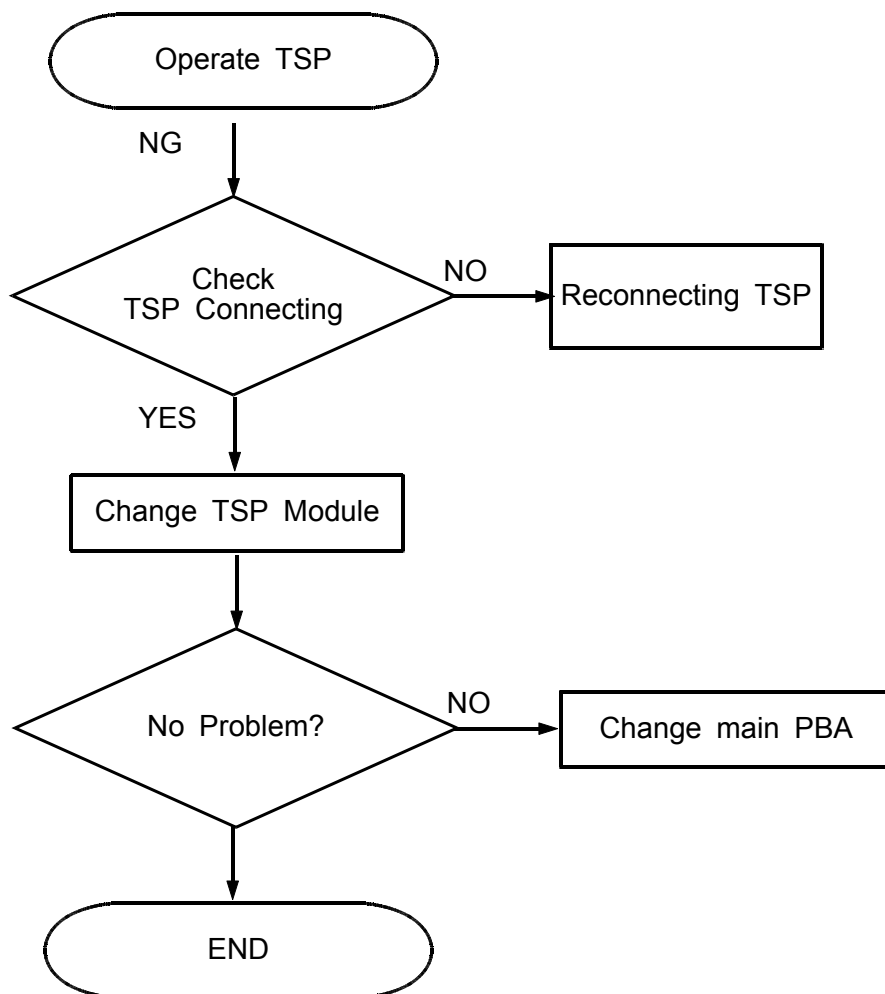


8-3-2. LCD Working

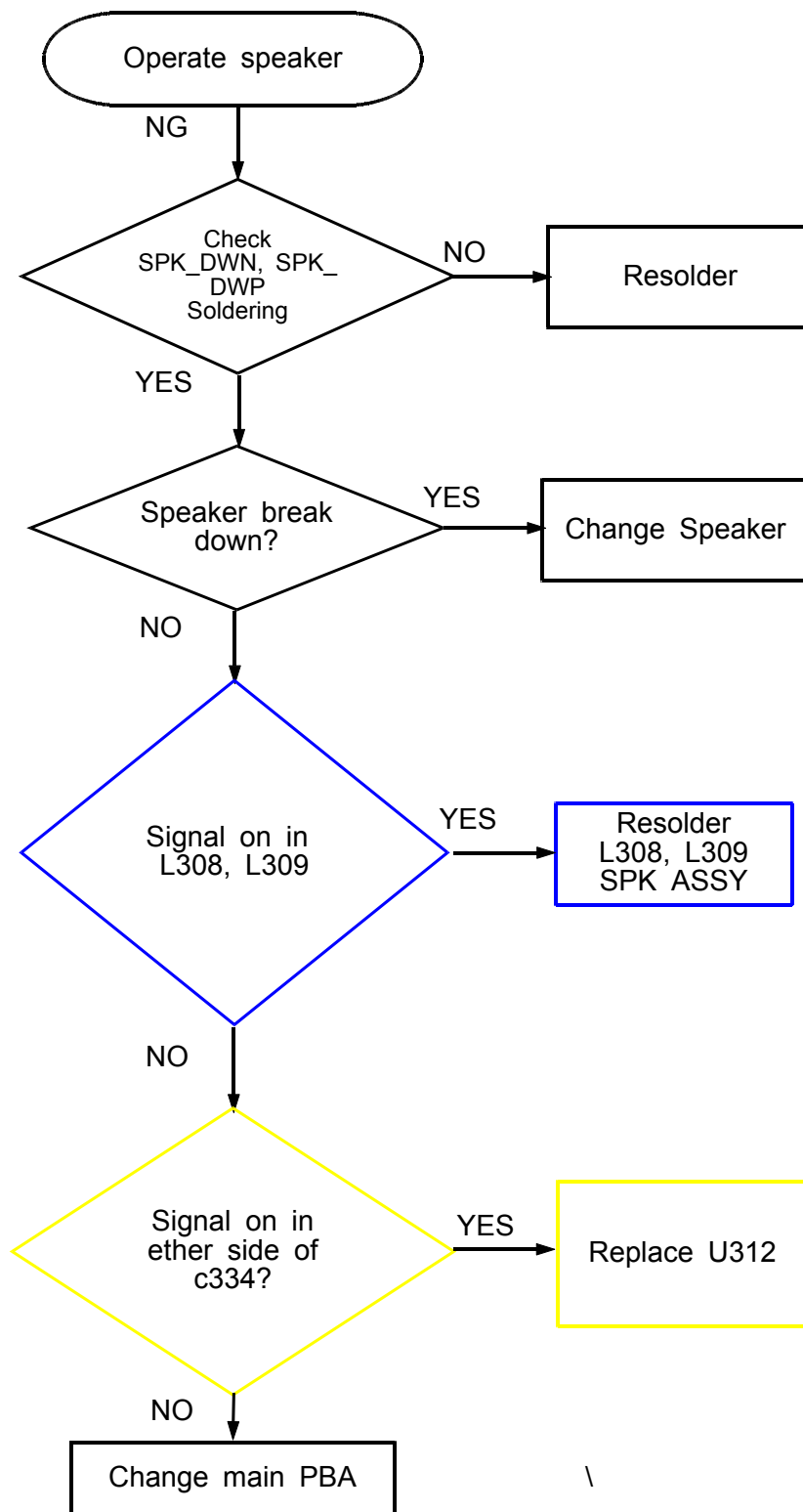


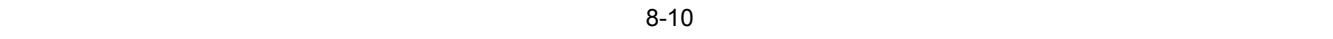


8-3-3. TSP

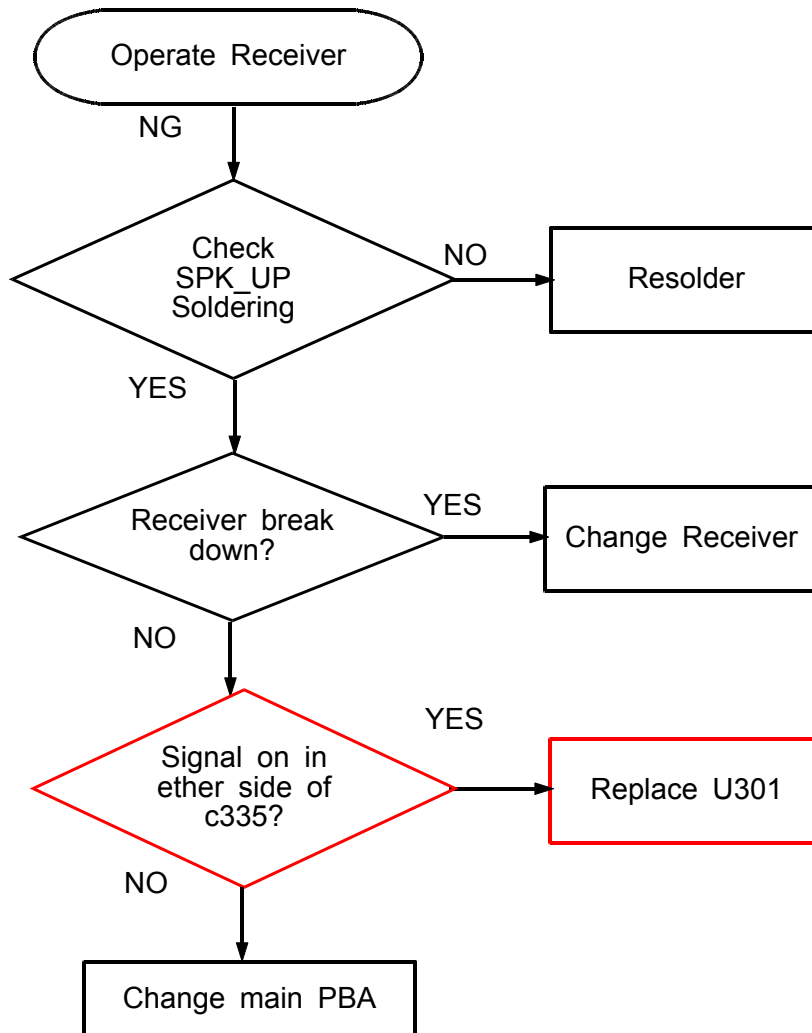


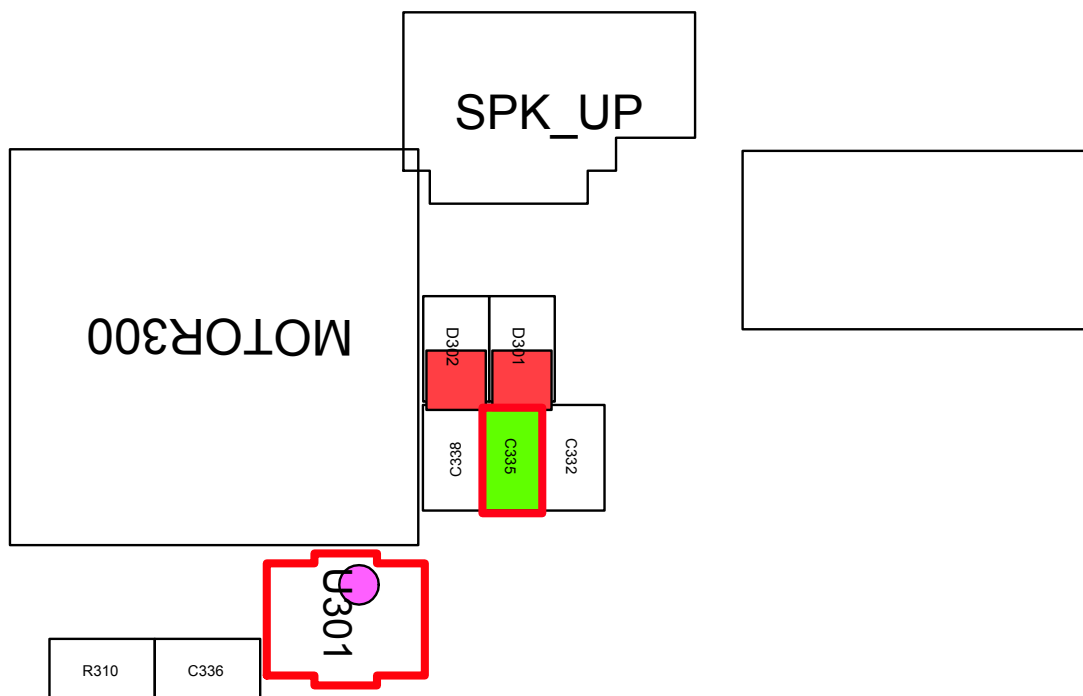
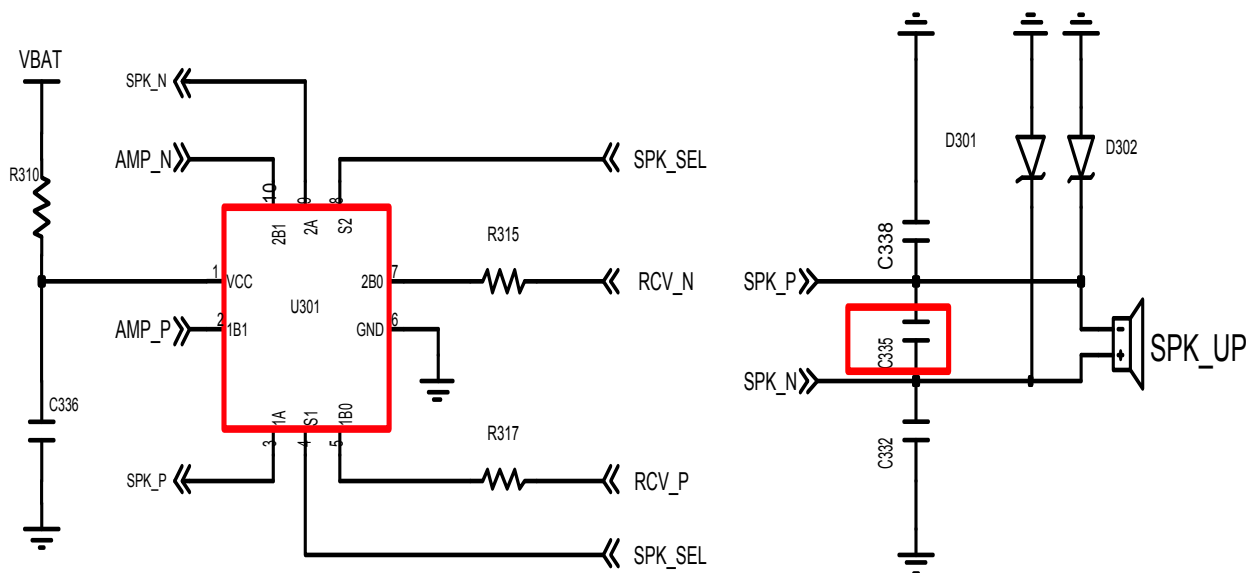
8-3-3. Audio Working

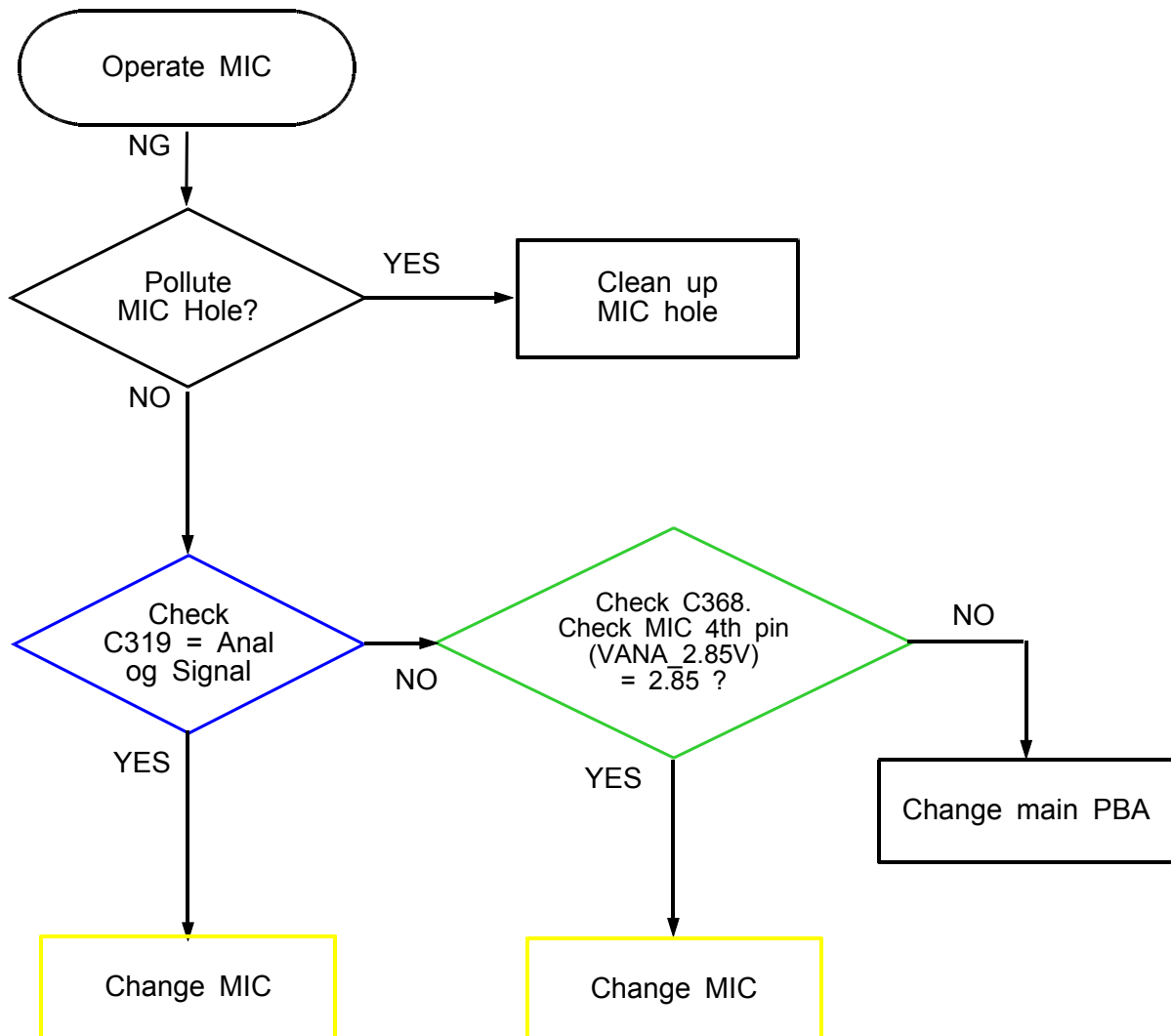
● Lower Speaker Working

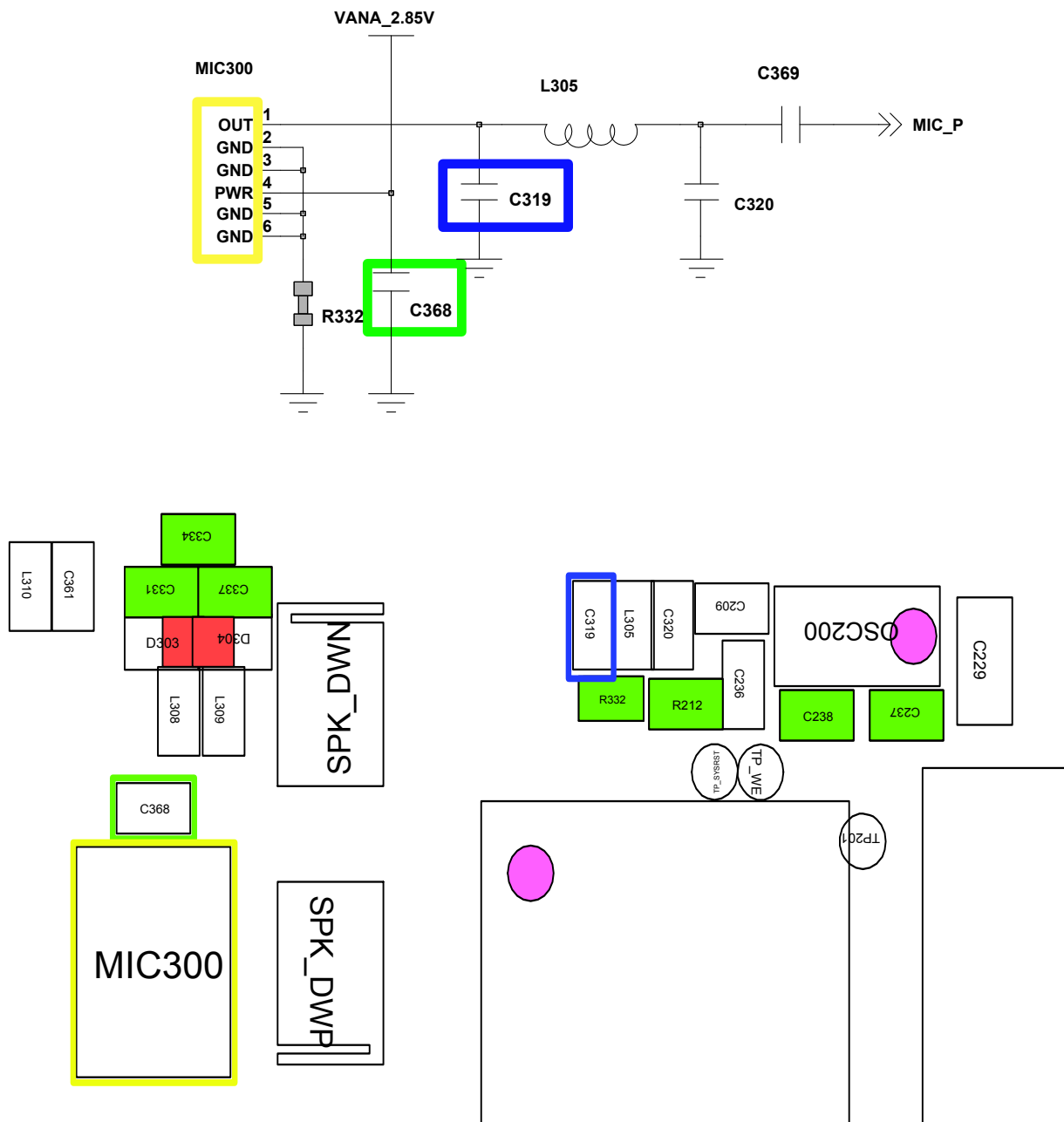


- Upper Speaker Working

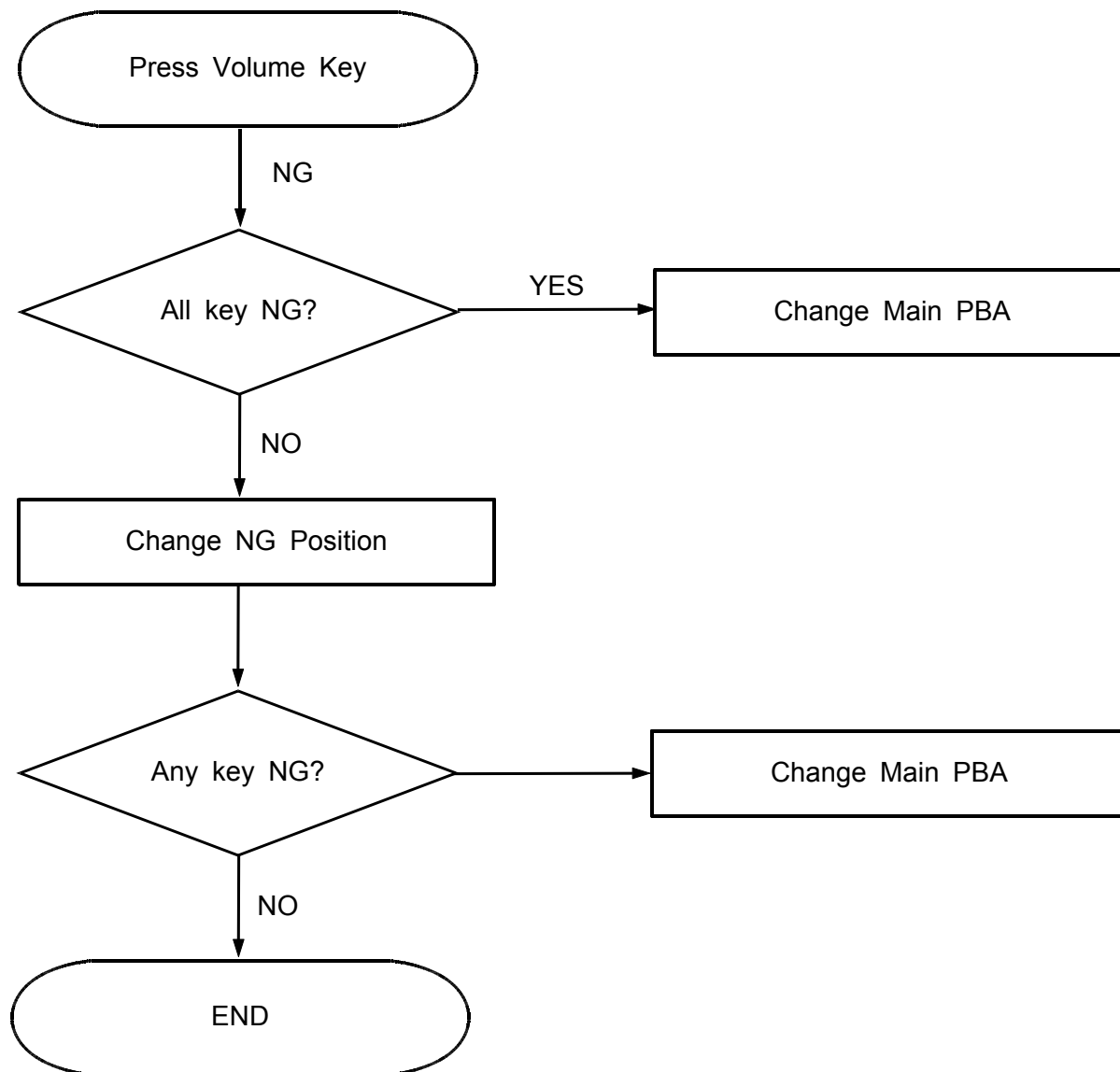




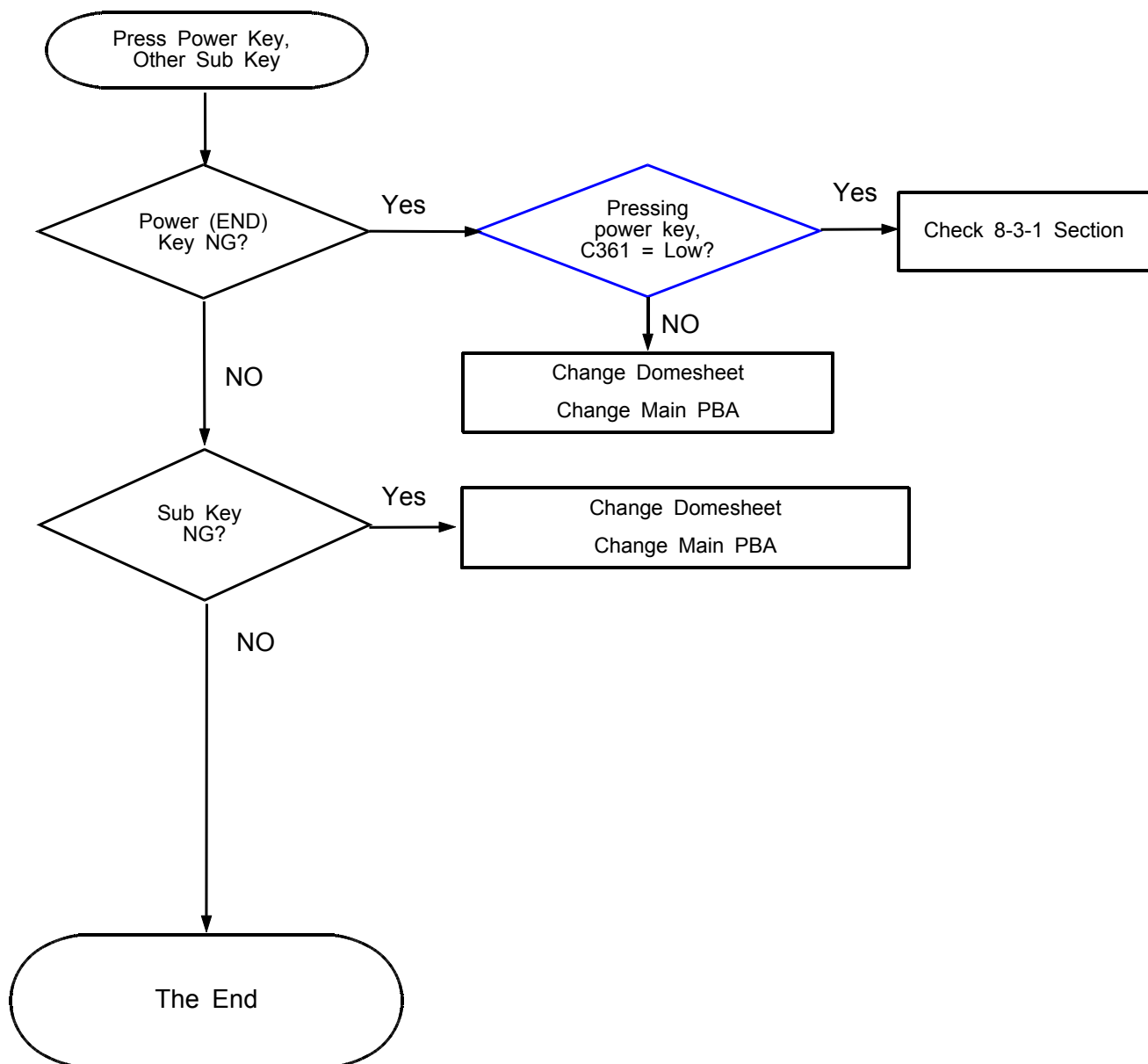
● MIC Working

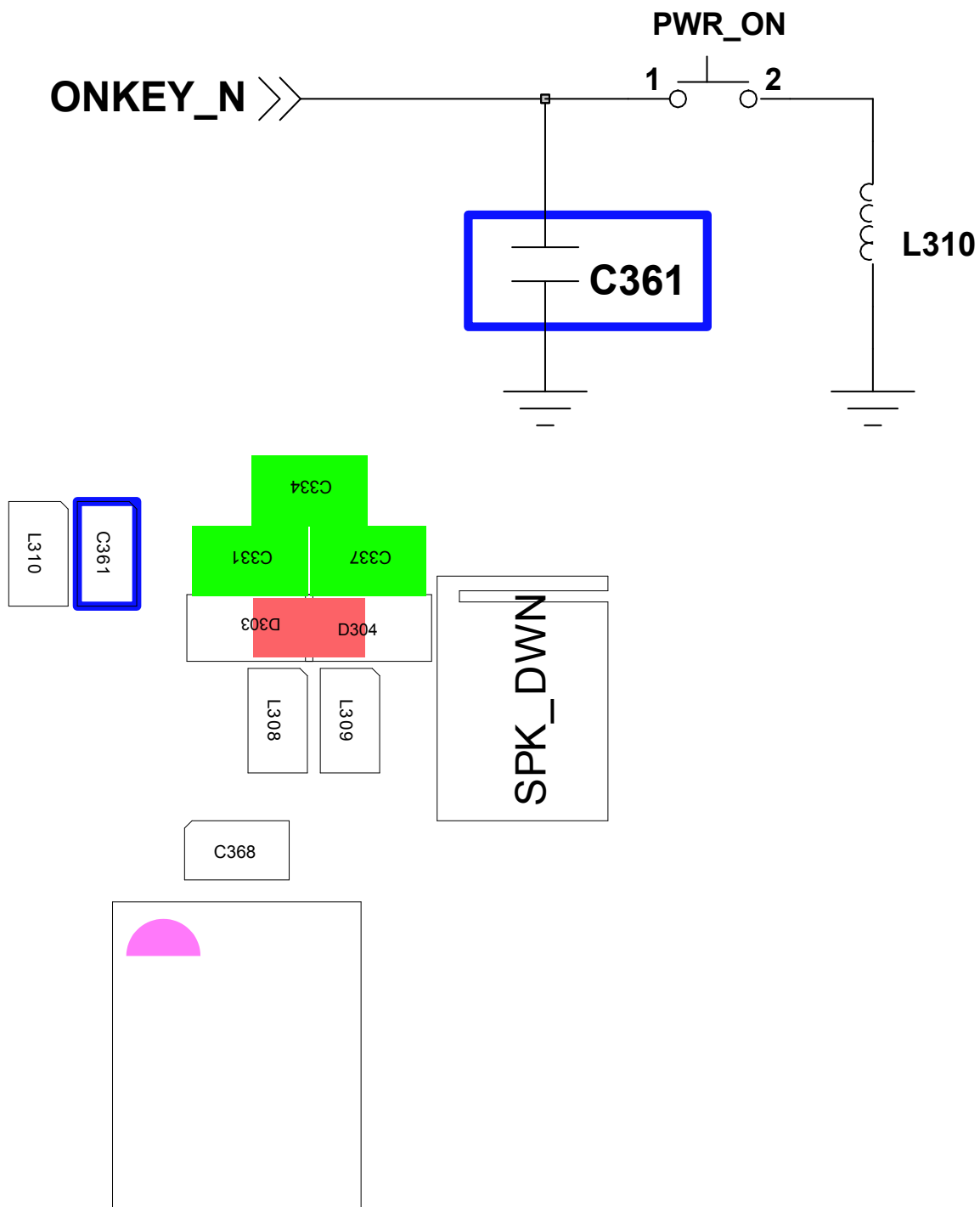


8-3-5. KEY Working

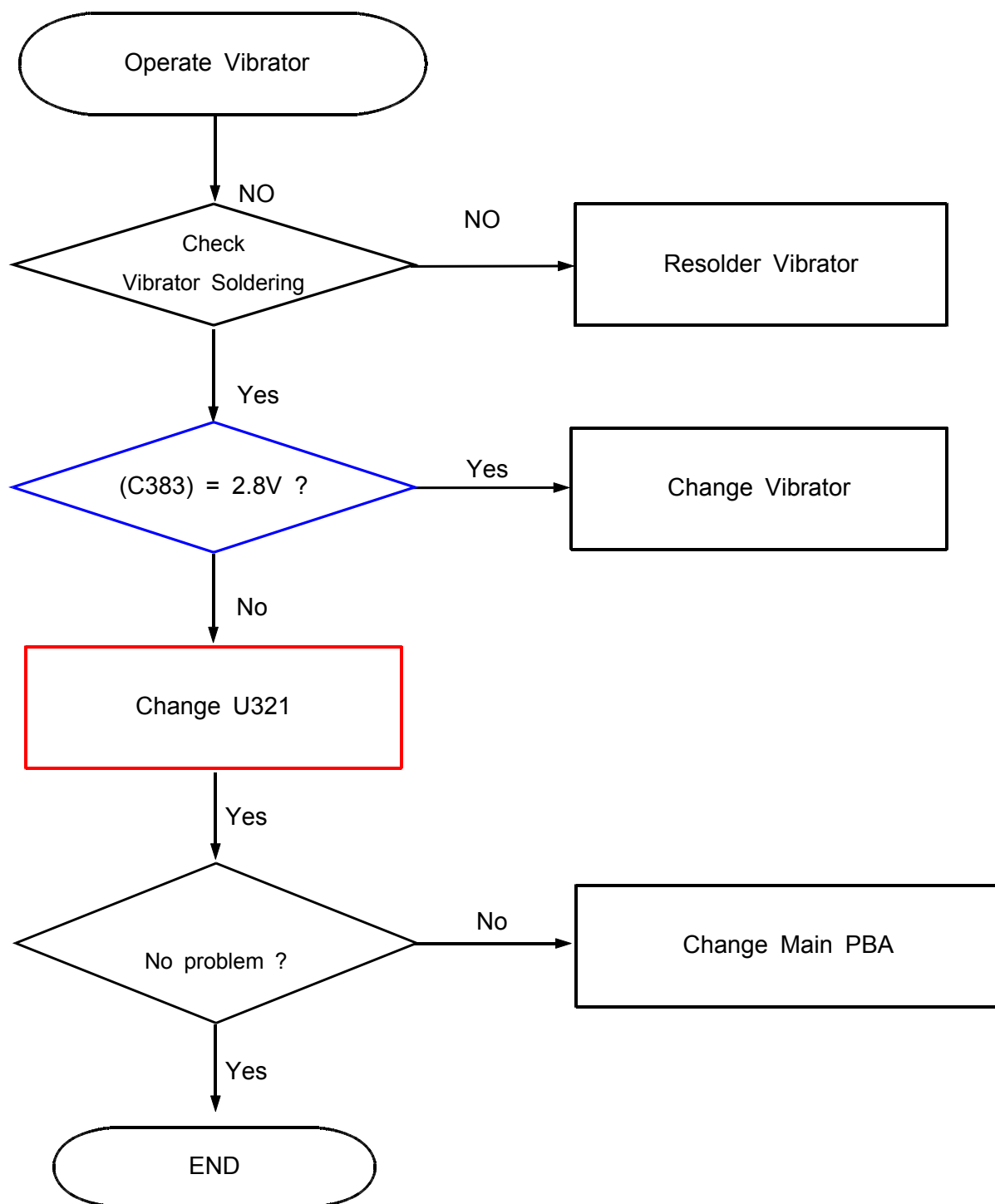
● Volume KEY

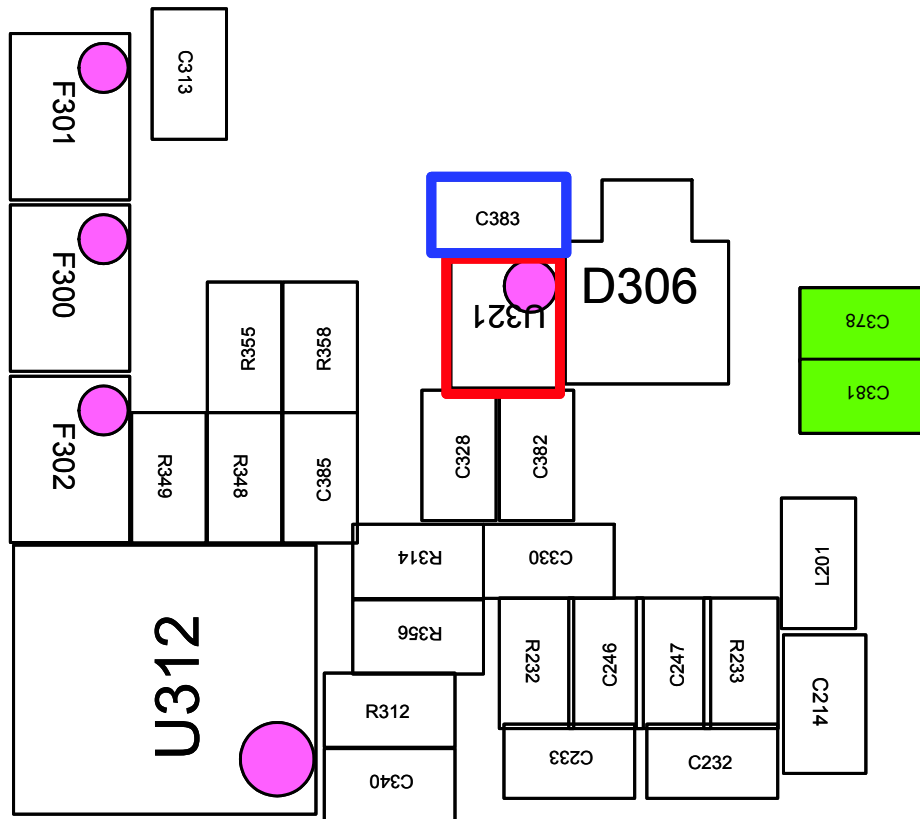
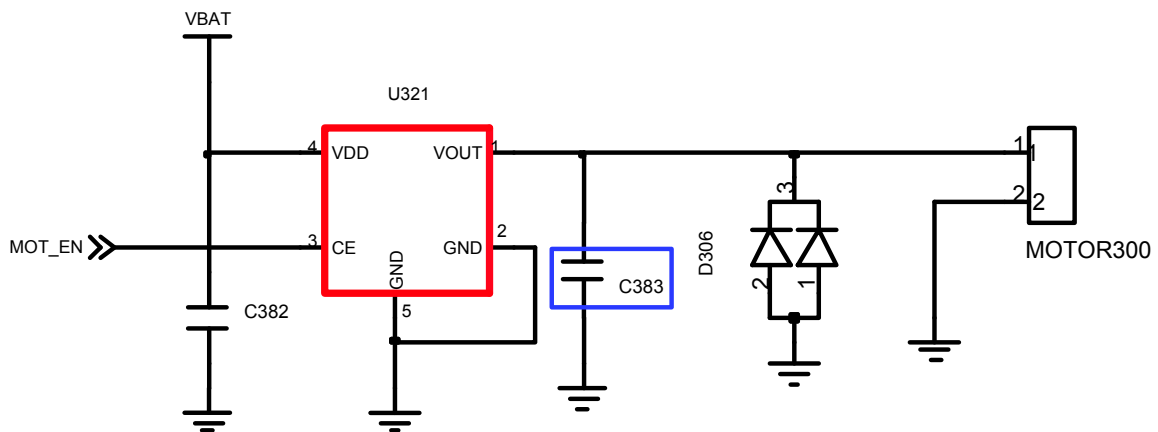
- Sub Key



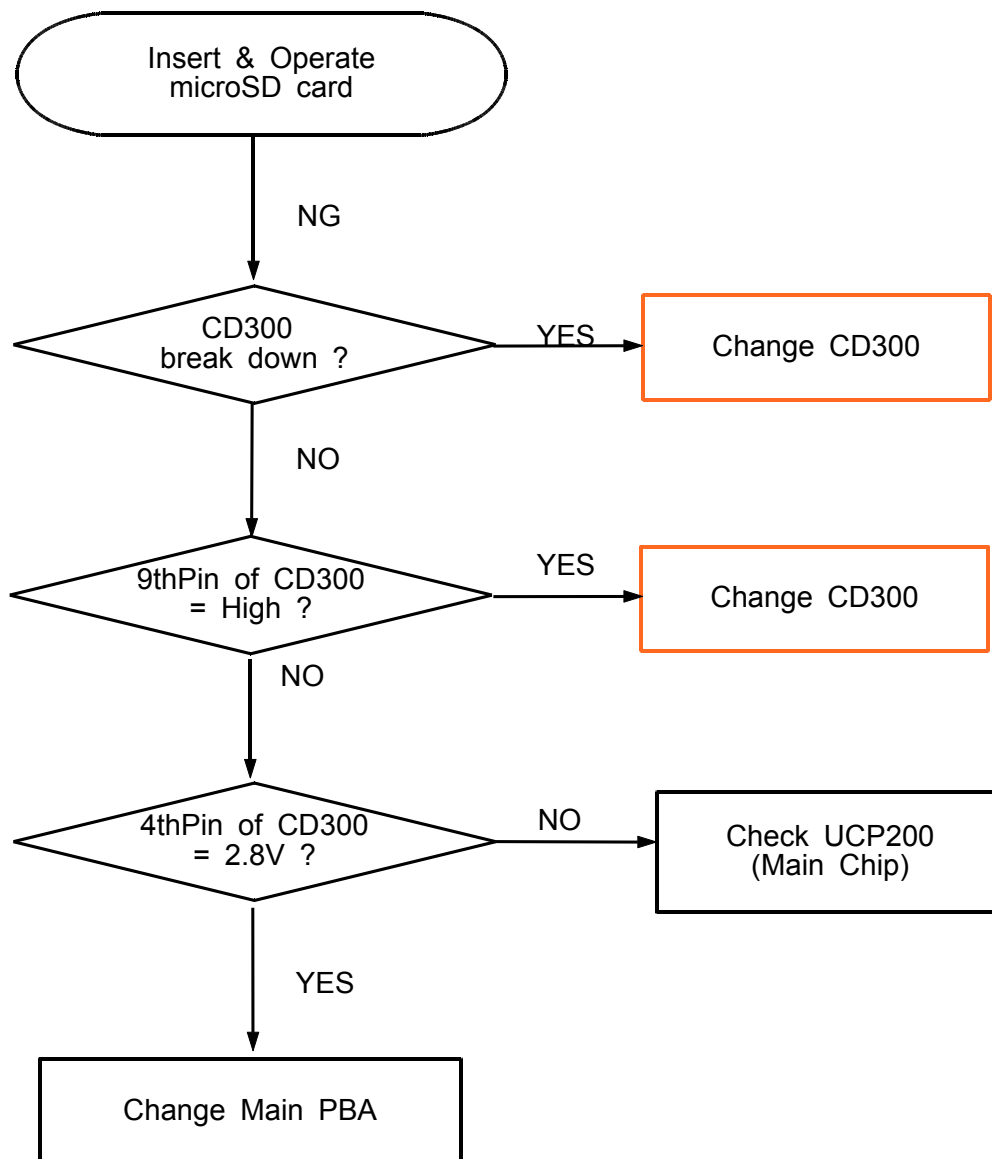


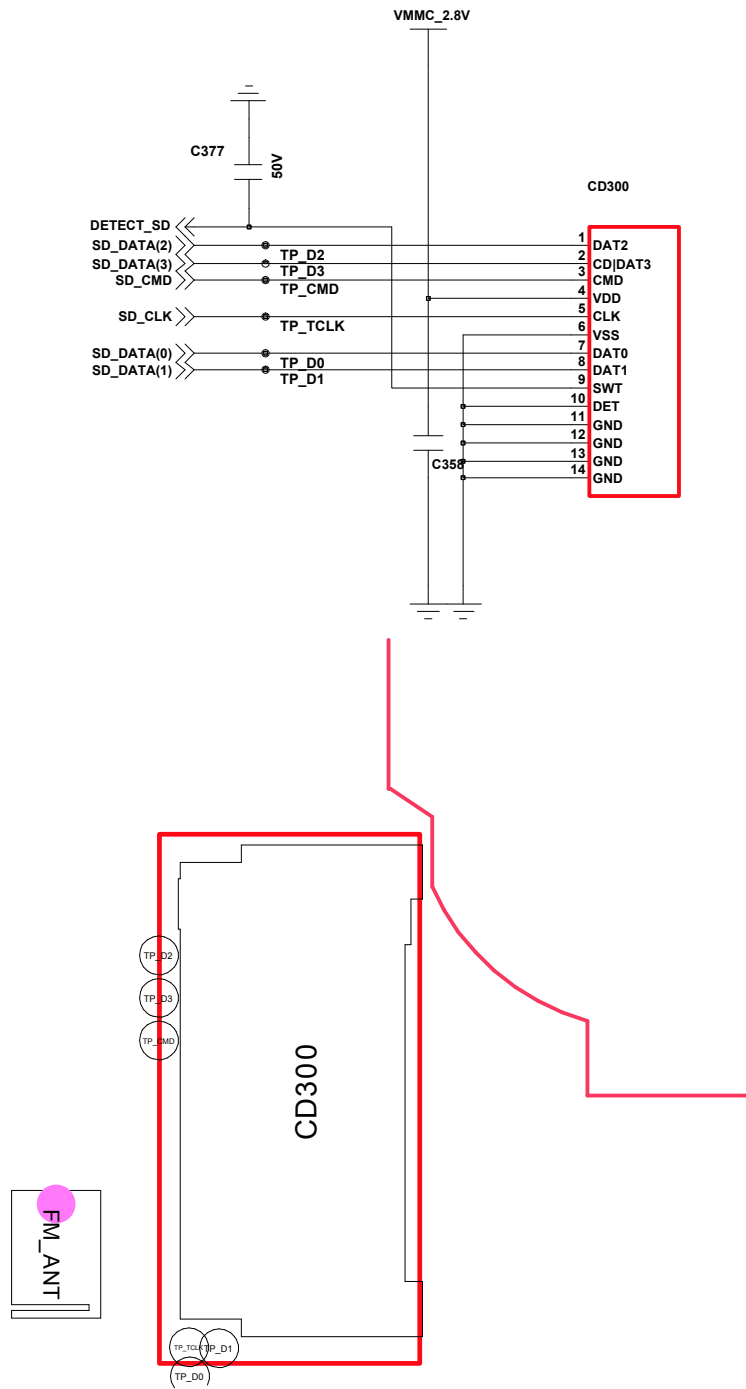
8-3-6. Vibrator Working



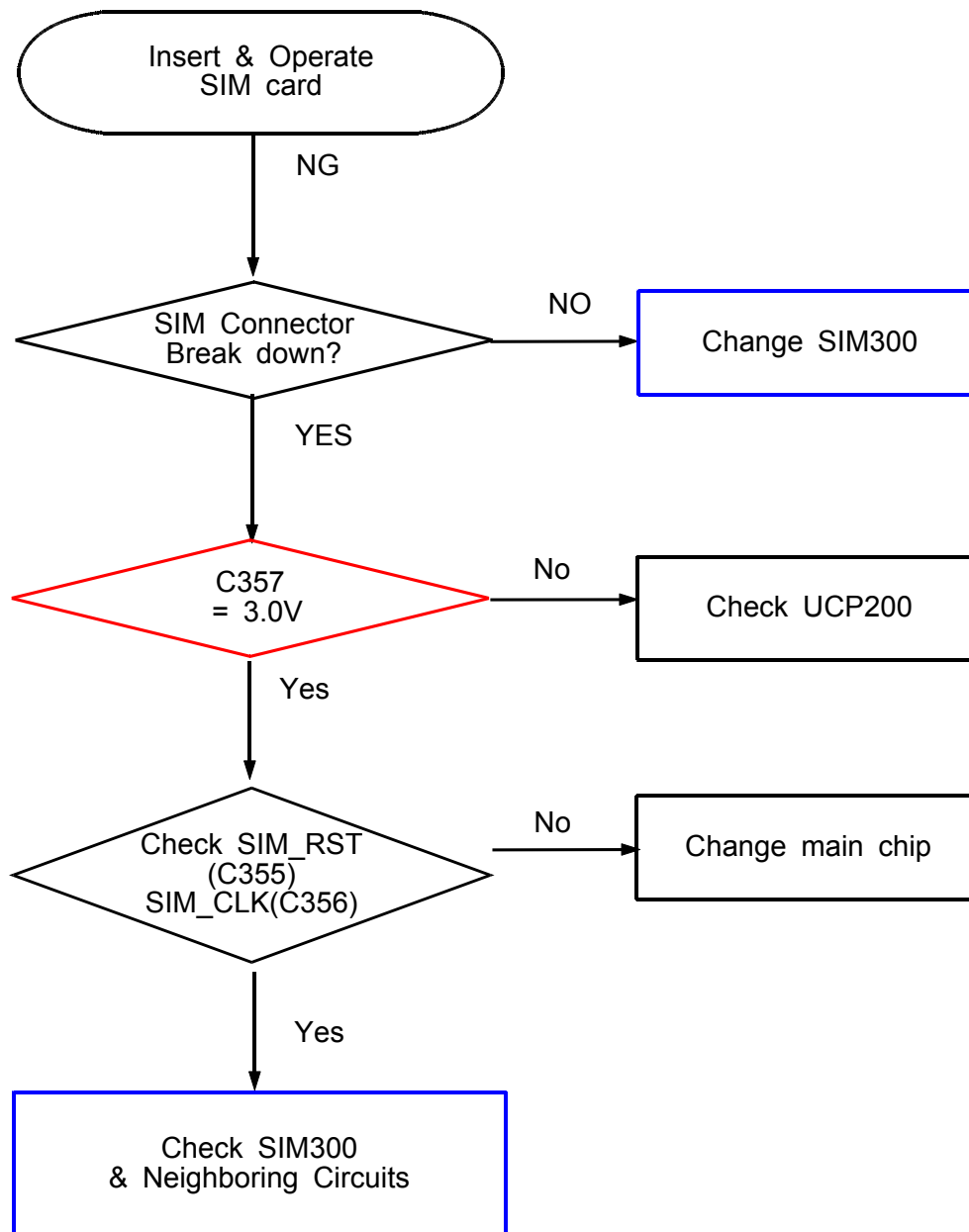


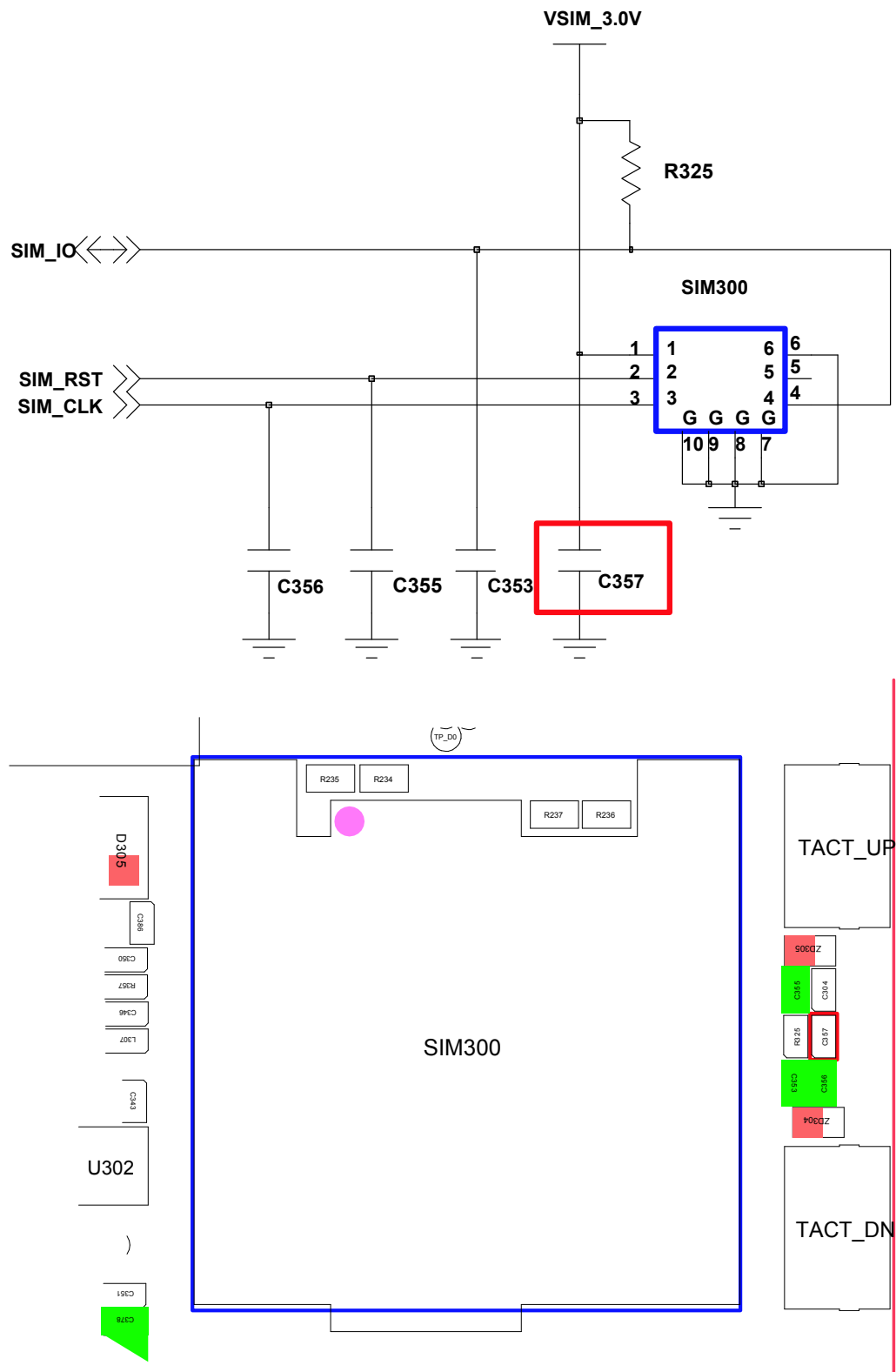
8-3-7. T-Flash Card Working



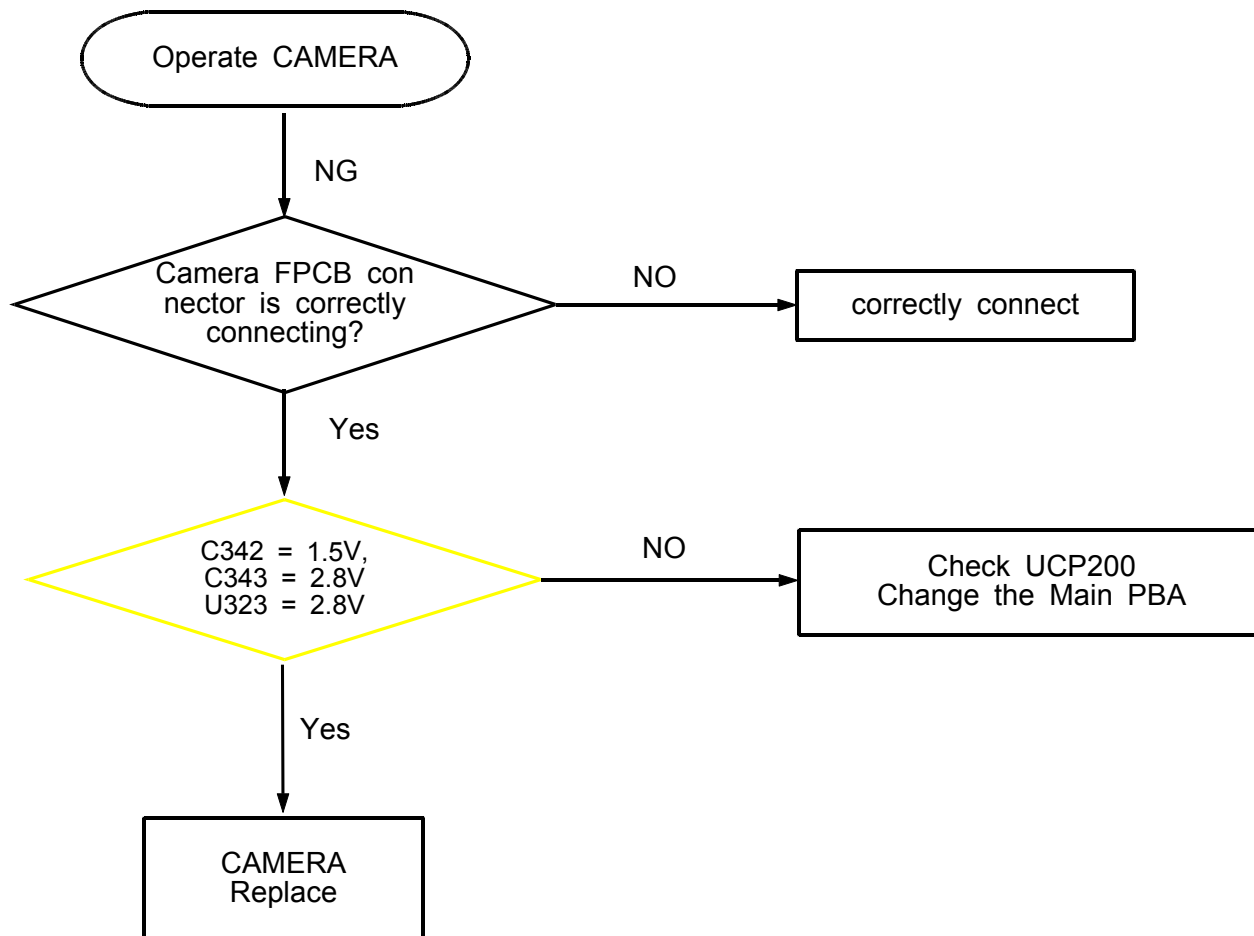


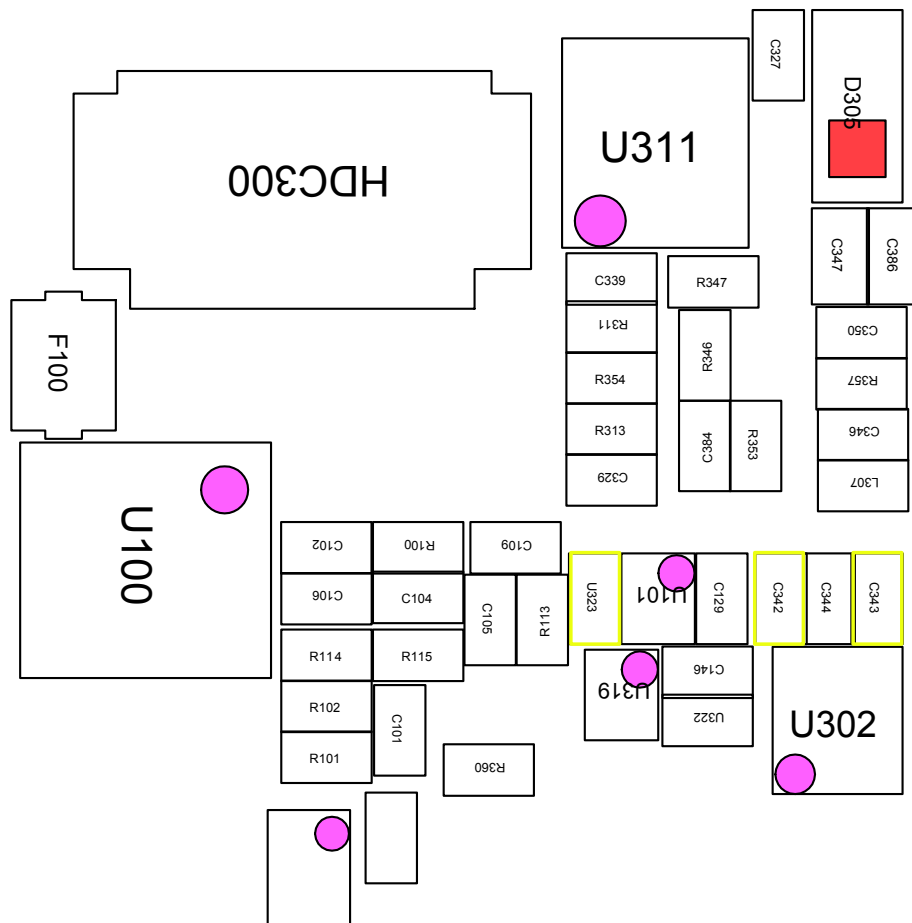
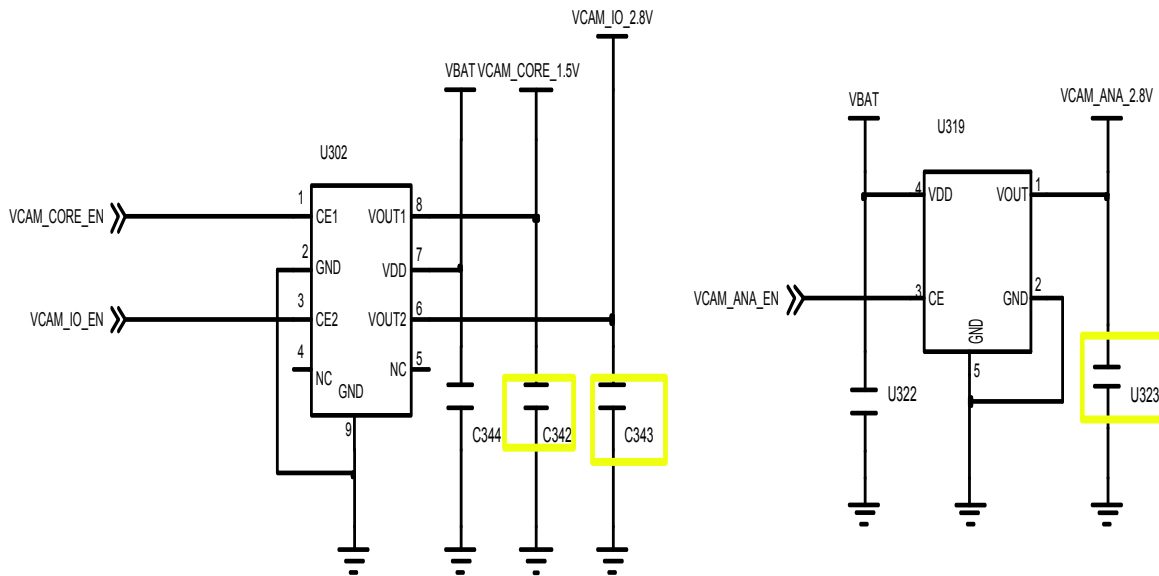
8-3-8. SIM Card Working





8-3-9 CAMERA Working

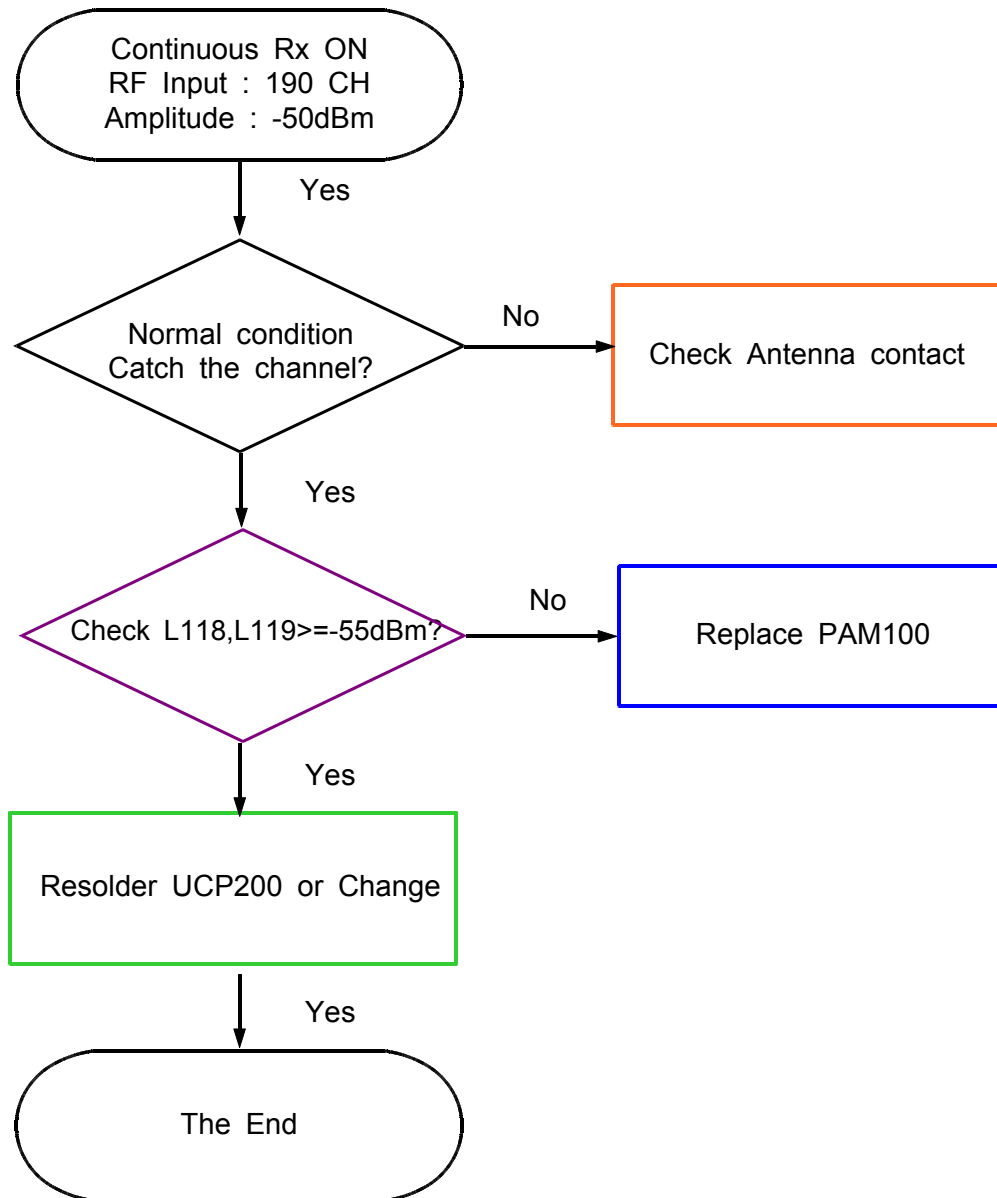




8-4-1. GSM850 RX

**If you check the tx chain,

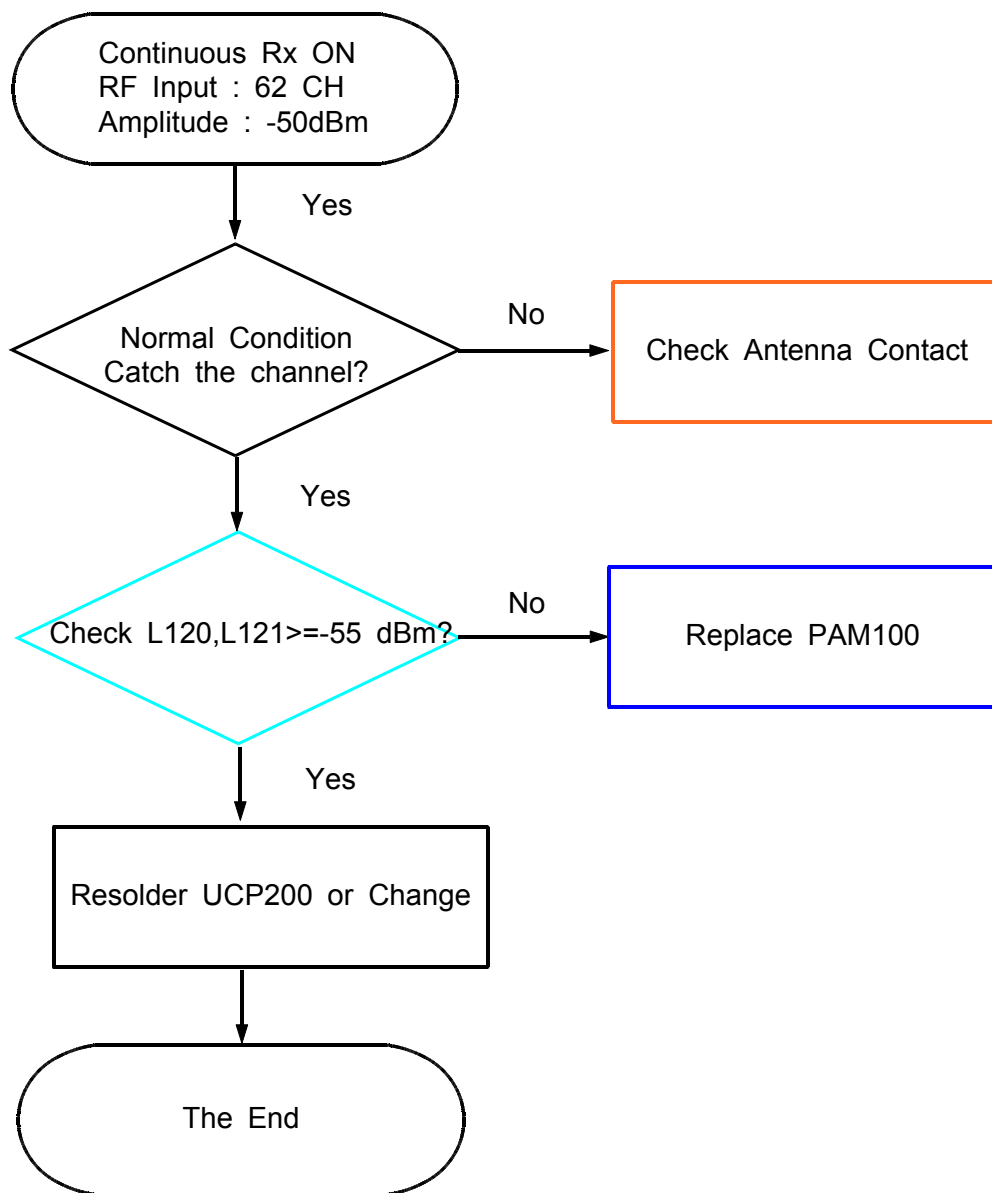
Check the not only RF Device but also resistor, inductor and capacitor.



8-4-2. GSM900 RX

**If you check the tx chain,

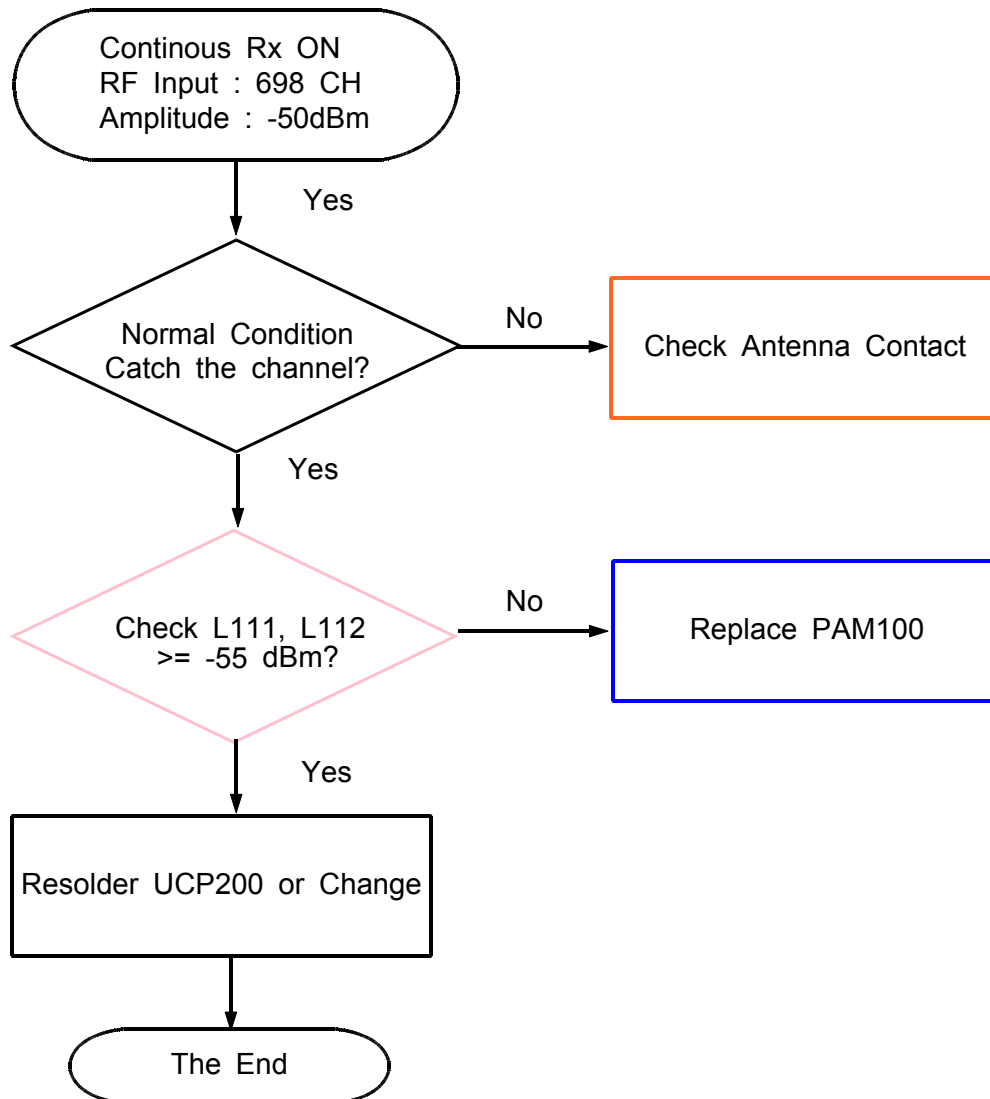
Check the not only RF Device but also resistor, inductor and capacitor.

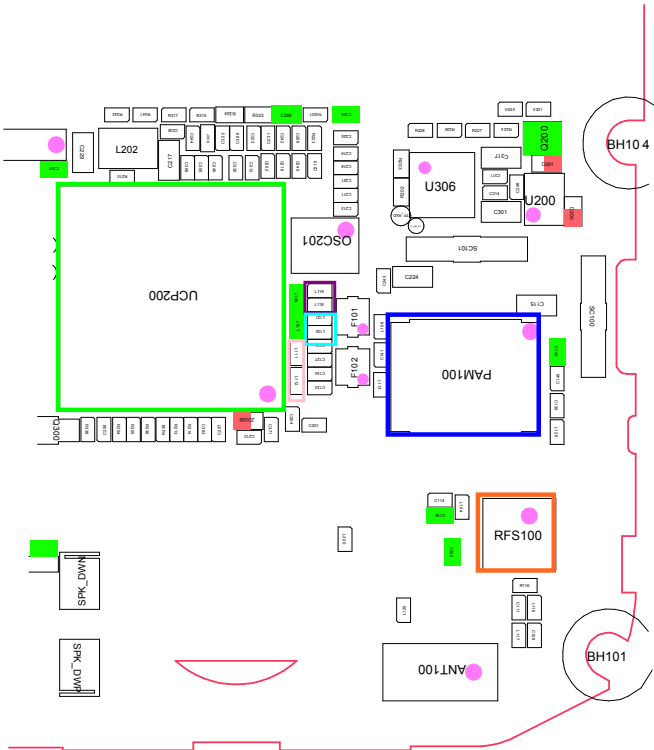


8-4-3. DCS/PCS RX

**If you check the tx chain,

Check the not only RF Device but also resistor, inductor and capacitor.

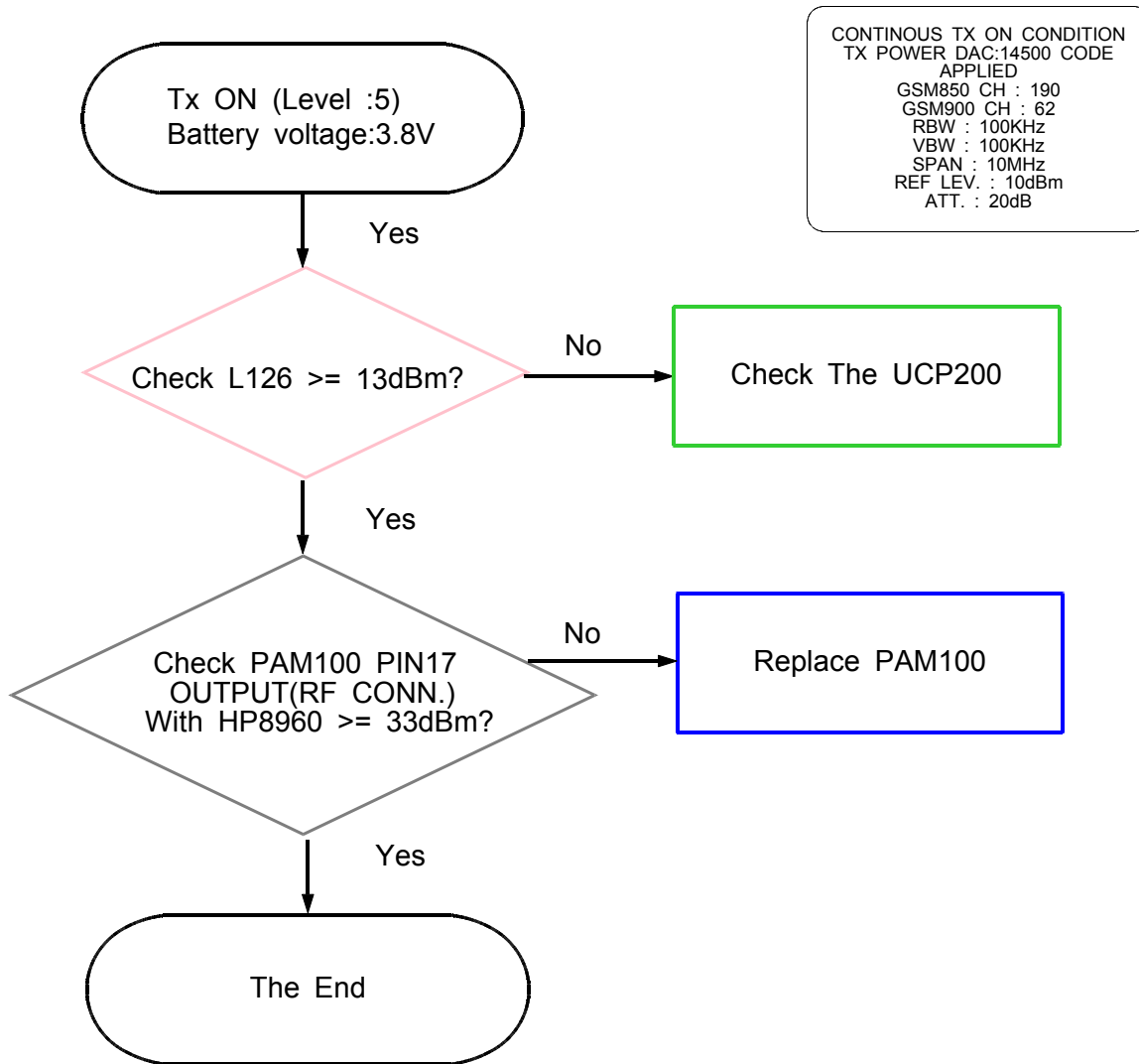




8-4-4. GSM850/900 TX

**If you check the tx chain,

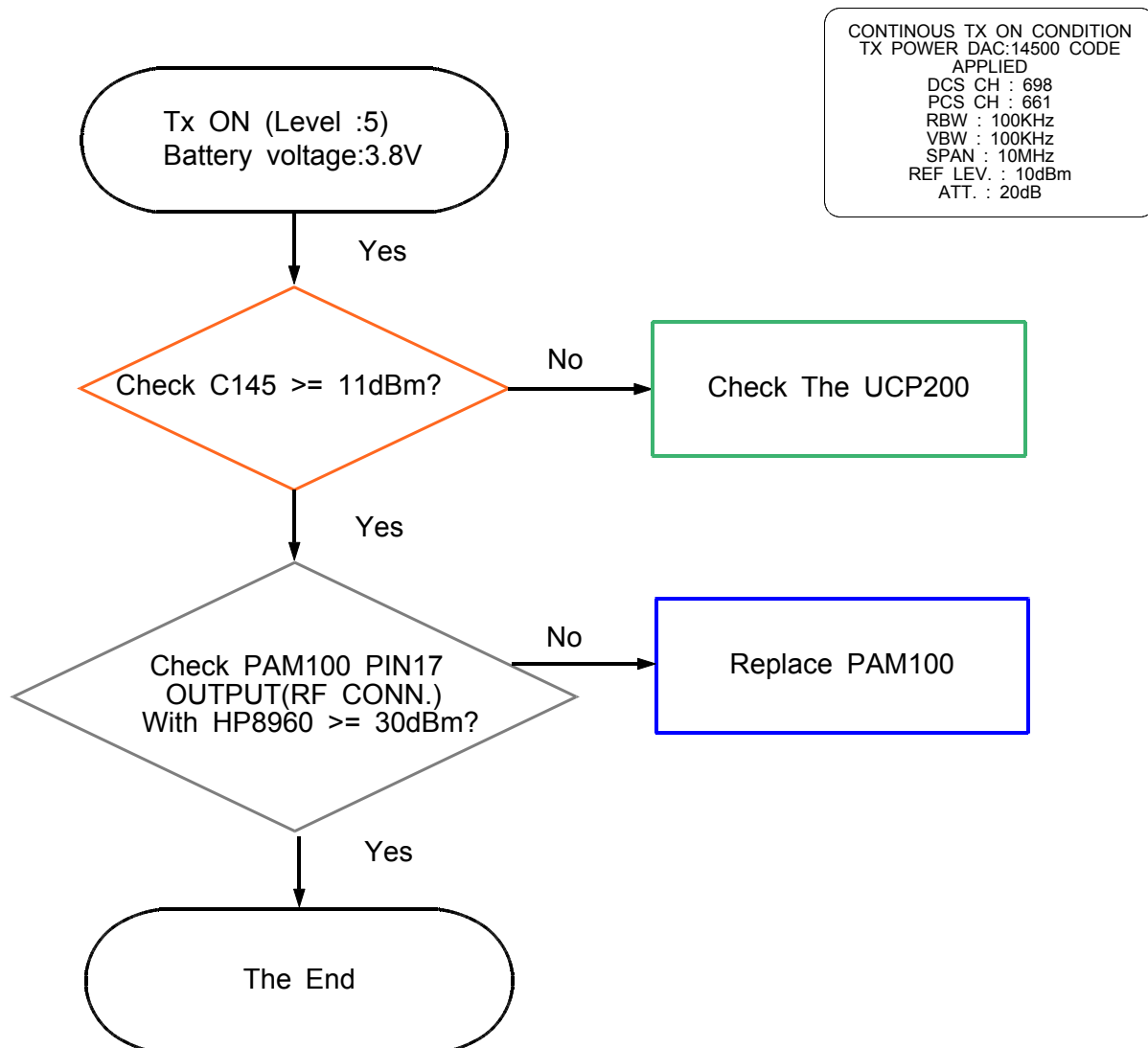
Check the not only RF Device but also resistor, inductor and capacitor.

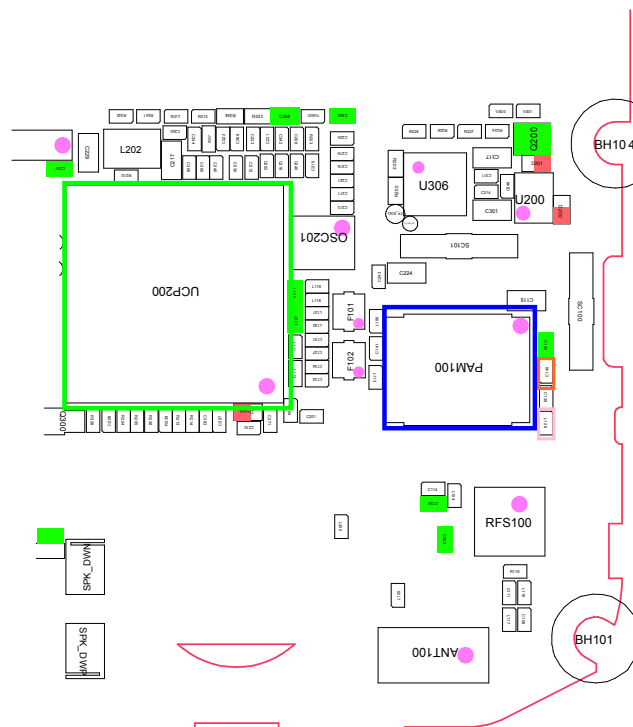
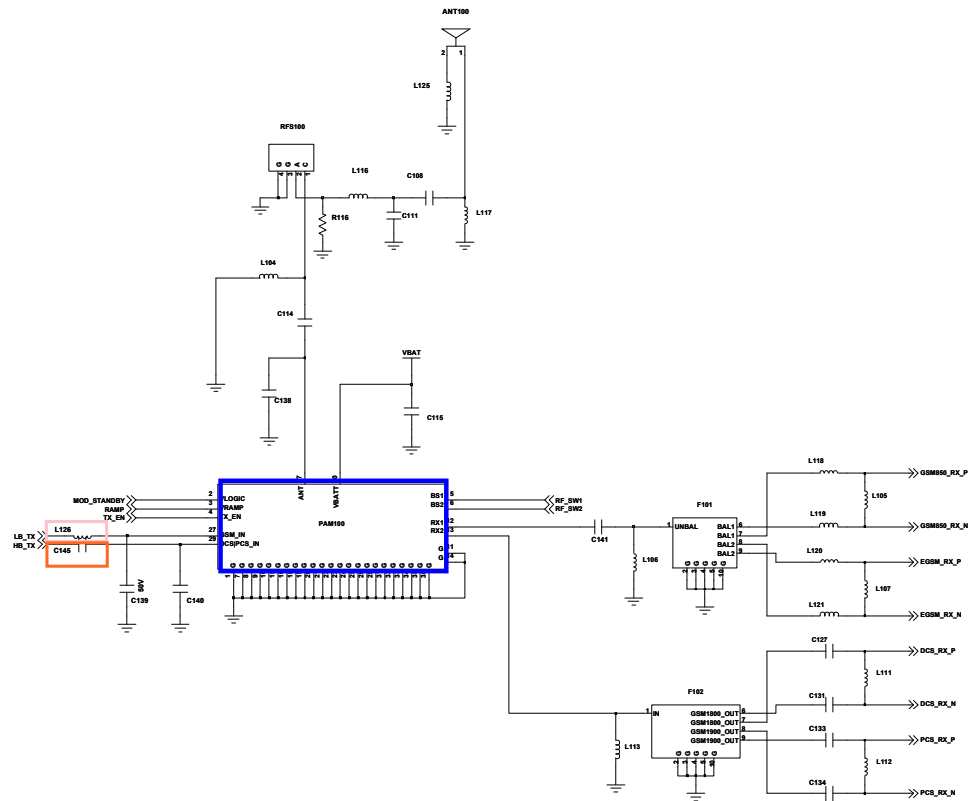


8-4-7. DCS/PCS TX

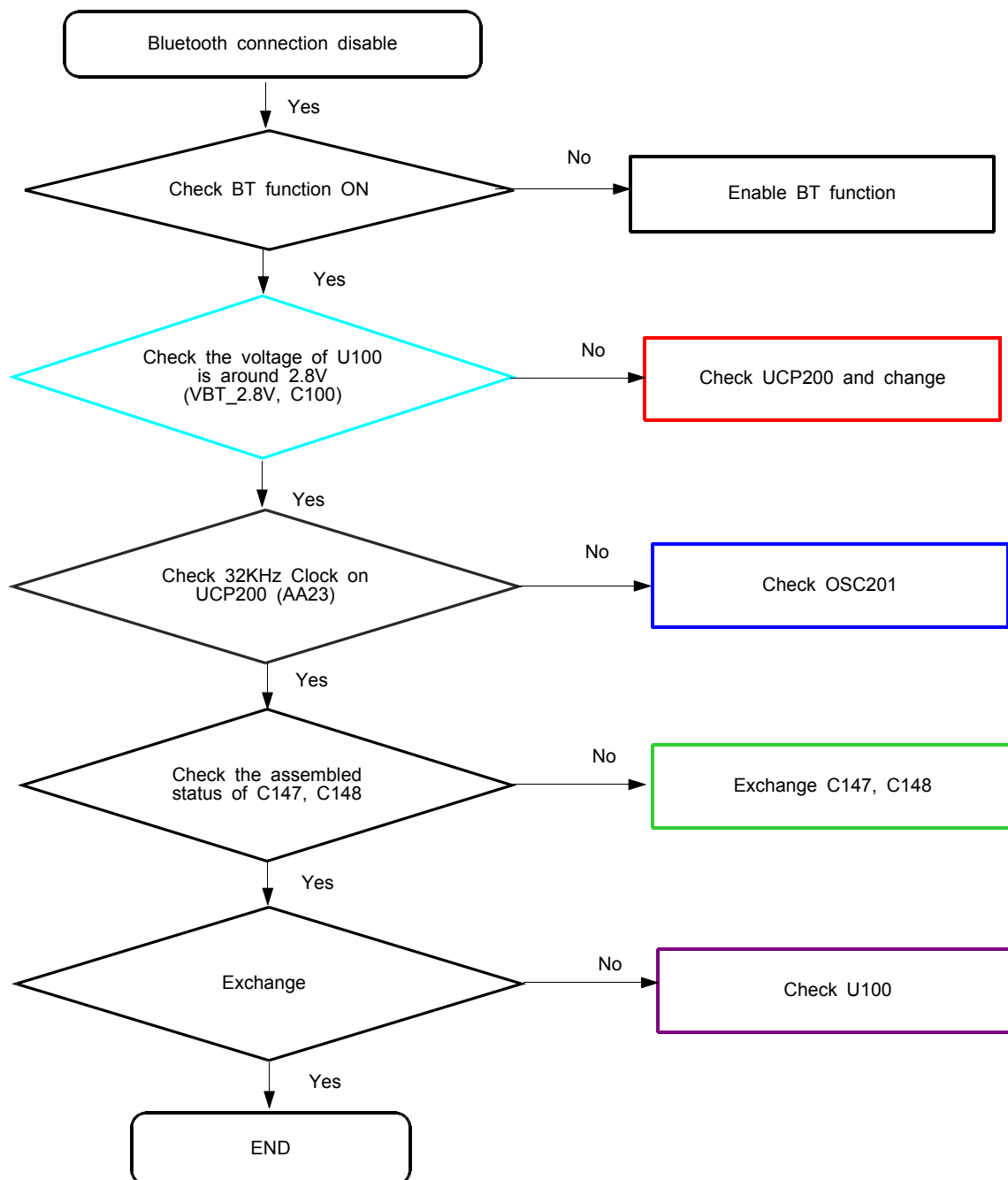
**If you check the tx chain,

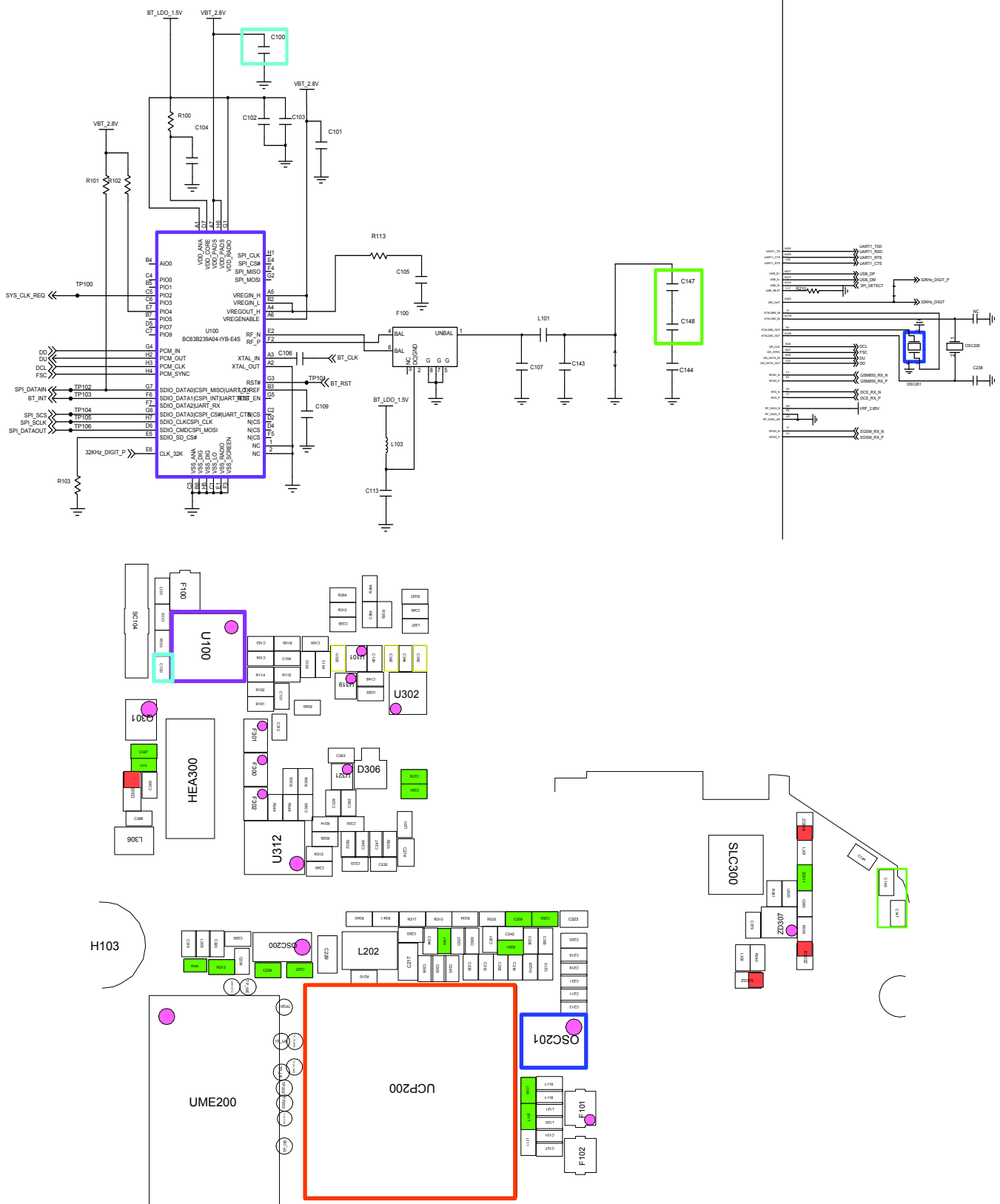
Check the not only RF Device but also resistor, inductor and capacitor.



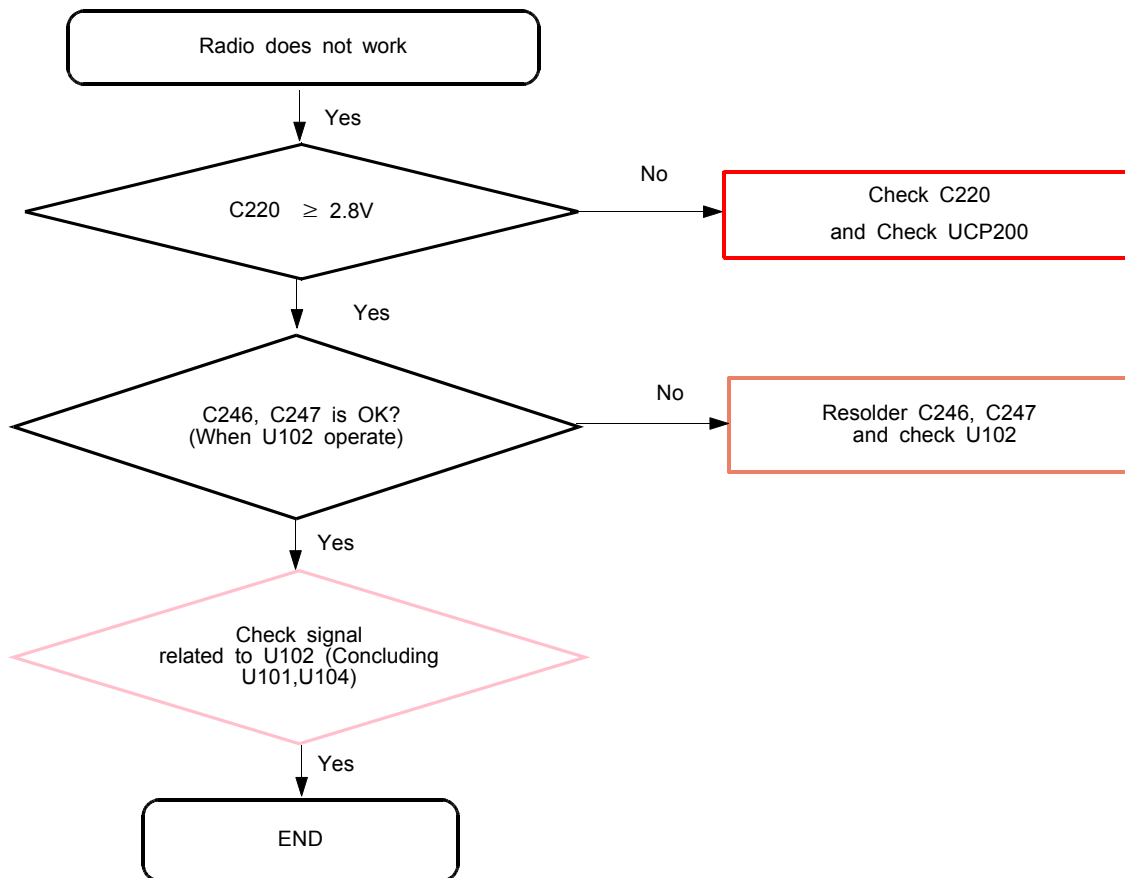


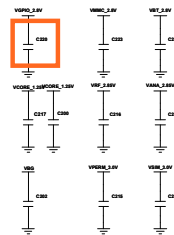
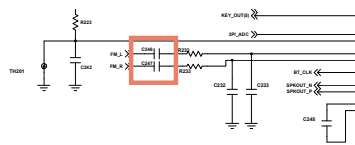
8-4-8 BLUETOOTH





8-4-11. FM RADIO





8-4. Service Schematics

- NC Point(Top View)

● : NC

U100

	1	2	3	4	5	6	7
A	○	○	○	○	○	○	○
B		○	○	●	●	○	●
C	○	●	○	●	●	●	●
D		●		●	●	○	○
E	○	○		●	○	○	○
F		○	○	●	●	○	○
G	○	●	○	○	●	○	○
H	●	○	○	○	○	○	○

U102

	1	2	3	4	5	6
A	○	●	○	○	○	○
B	○					○
C	○					○
D	○					○
E	○					○
F	○	○	●	●	●	○

UME200

	1	2	3	4	5	6	7	8	9	10
A	●	●	●	○	○	○	○	○	●	●
B	○	●	●	○	○	○	○	○	●	●
C	○	●	●	○	○	○	○	●	●	○
D	●	●	●	○	○	○	○	●	●	●
E	●	○	●	○	○	○	●	○	○	●
F	●	●	●					●	●	●
G	●	●	●					●	●	●
H	●	●	●					●	●	●
J	●	●	●					●	●	●
K	●	●	●					●	●	●
L	●	●	○					●	●	●
M	●	○	○					●	●	○
N	●	○	○	○	○	○	○	○	○	○
O	●	○	○	○	○	○	○	○	○	●
P	○	○	○	○	○	○	○	○	○	○
R	○	○	○	○	○	○	○	○	○	○
T	○	○	○	○	○	○	○	○	○	○
U	●	○	○	○	○	○	○	○	○	●

UCP200

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
B	O	O	●	O	O	O	O	O	O	O	O	O	O	O	●	O	O	O	O	O	O	O	O	O
C	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
D	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
E	O	O	O	O		O															O	O	O	O
F	O	O	O	O																O	O		O	O
G	O	O	O	O															O	●	O		O	O
H	O	O	O	O					O	O	O	O	O	O	O	O			O	O	O	O	O	O
J	O	O	O	O					O	O	O	O	O	O	O	O			O	O	O		O	O
K	O	O	O	O					O	O	O	O	O	O	O	O			O	O	O		O	O
L	O	O	O	O					O	O	O	O	O	O	O	O			O	O	O	O	O	O
M	O	O	O	O					O	O	O	O	O	O	O	O			O	O	O		O	●
N	O	O	O	O					O	O	O	O	O	O	O	O			O	O	O	O	O	O
P	O	O	O	O					O	O	O	O	O	O	O	O			O	O	O		O	O
R	O	O	O	●					O	O	O	O	O	O	O	O			O	O	O		O	O
T	O	O	O	●					O	O	O	O	O	O	O	O			O	●	O		O	O
U	O	O	O	O					O	O	O	O	O	O	O	O				O	O		●	O
V	O	O	O	O																	O	●	O	O
W	O	O	O	O																	O	O	O	O
Y	O	O	O	O	O	●	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
AA	O	O	O	O	O	●	O	O	●	●	O	O	O	O	O	O	O	O	O	O	O	O	O	O
AB	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	●	O	O	O
AC	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O

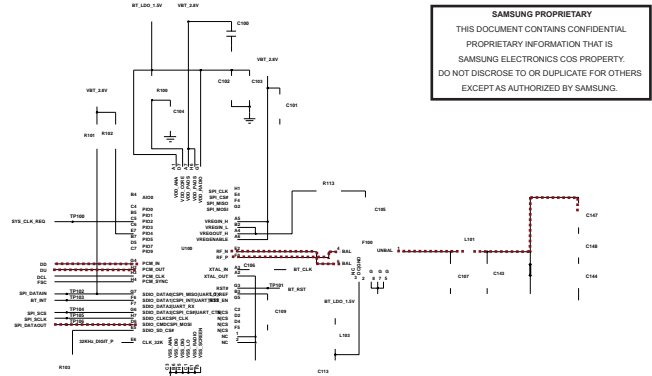
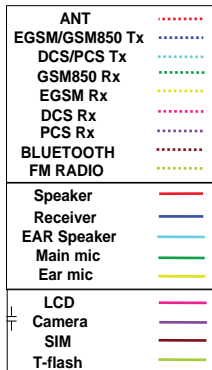
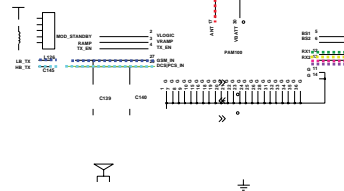
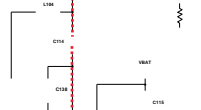
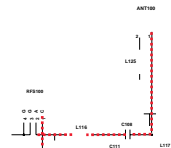
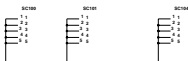
U306

	1	2	3	4	5
E	O	O	O	O	O
D	O	O	O	O	O
C	O	O	O	O	O
B	O	O	O	O	O
A	O	O	O	O	O

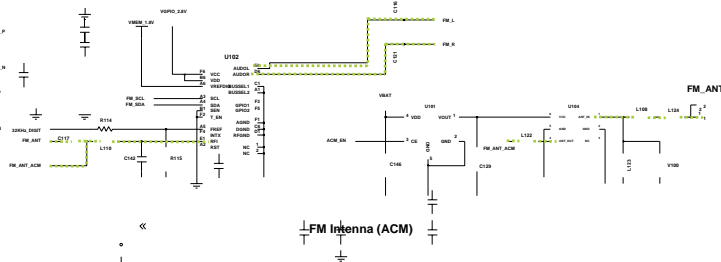
9. Reference Abbreviate

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

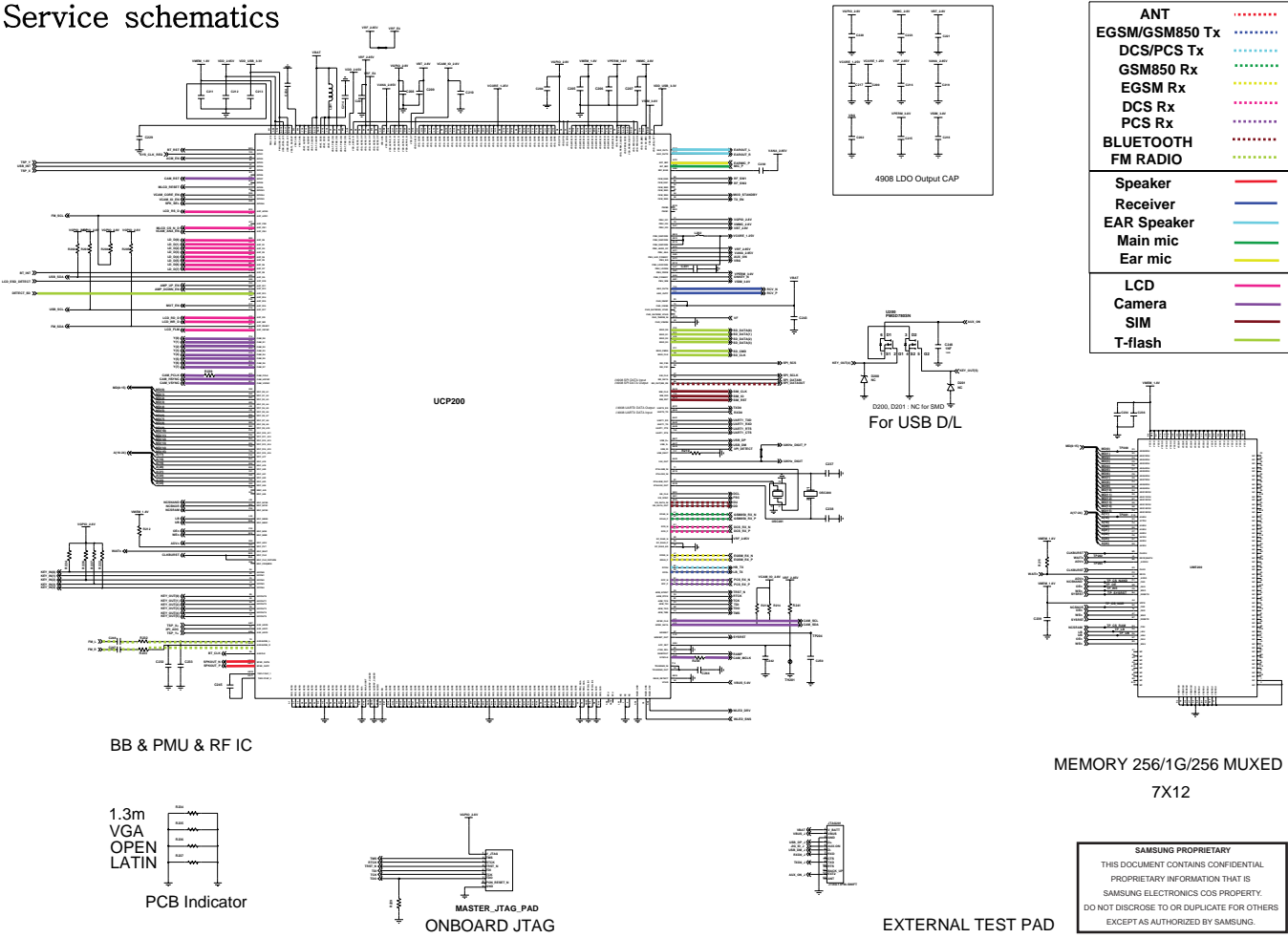


VBT_2.8V
Bluetooth - CSR BC06 : SPI interface, 2.8V IO

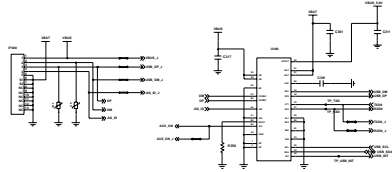


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Service schematics

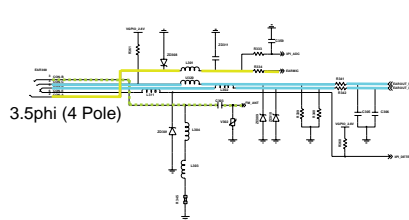


Service schematics

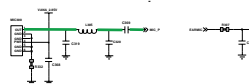


microUSB I/F

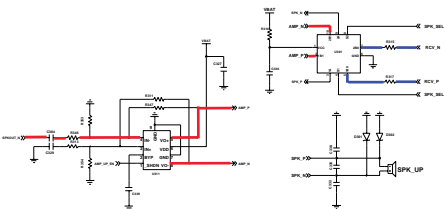
USB Switch + Charger



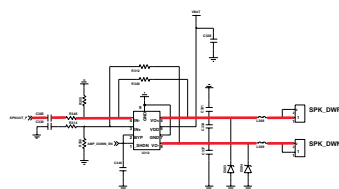
3.5phi (4 Pole)



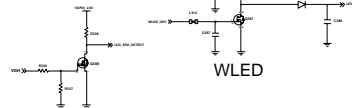
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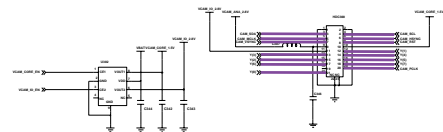
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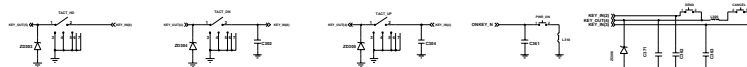
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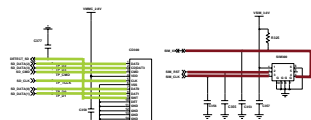
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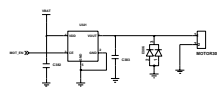
CAMERA



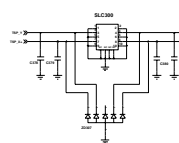
KEYS



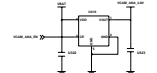
SIM



TSP Conn - 10pins



Battery Conn



Hirose - 21pins ZIP-Conn

ANT
EGSM/GSM850 Tx
DCS/PCS Tx
GSM850 Rx
EGSM Rx
DCS Rx
PCS Rx
BLUETOOTH
FM RADIO
Speaker
Receiver
EAR Speaker
Main mic
Ear mic
LCD
Camera
SIM
T-flash

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