



GSM TELEPHONE

GT-S5660

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.

**SAMSUNG
ELECTRONICS**



2. Specification

2-1. GSM General Specification

	GSM850 Phase 1	EGSM 900 Phase 2	DCS1800 Phase 1	PCS1900	WCDMA 2100	WCDMA900
Freq. Band[MHz] Uplink/Downlink	824~849 869~894	880~915 925~960	1710~1785 1805~1880	1850~1910 1930~1990	1922~1977 2112~2167	880~915 925~960
ARFCN range	128~251	0~124 & 975~1023	512~885	512~810	UL:9612~988 88DL:10562 ~10838	UL:2712~2863,DL:2937 ~ 3088
Tx/Rx spacing	45MHz	45MHz	95MHz	80MHz	190MHz	45MHz
Mod. Bit rate/ Bit Period	270.833kbp s 3.692us	270.833kbp s 3.692us	270.833kbp s 3.692us	270.833kbp s 3.692us	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: h: 10ms Slotlength: 0.667ms	FrameLength: h: 10ms Slotlength: 0.667ms
Modulation	0.3GMSK	0.3GMSK	0.3GMSK	0.3GMSK	QPSKHQPS K	QPSKHQPS K
MS Power	33dBm~5dB m	33dBm~5dB m	30dBm~0dB m	30dBm~0dB m	24dBm~- 50dBm	24dBm~- 50dBm
Power Class	5pcl ~ 19pcl	5pcl ~ 19pcl	0pcl ~ 15pcl	0pcl ~ 15pcl	3(max+24dB m)	3(max+24dB m)
Sensitivity	-102dBm	-102dBm	-100dBm	-100dBm	-106.7dBm	-106.7dBm
TDMA Mux	8	8	8	8	8	8
Cell Radius	35Km	35Km	2Km	2Km	2Km	2Km

2-2. GSM Tx Power Class

TX Power control level	GSM850	TX Power control level	EGSM900	TX Power control level	DCS1800	TX Power control level	PCS1900
5	33±2 dBm	5	33±2 dBm	0	30±3 dBm	0	30±3 dBm
6	31±2 dBm	6	31±2 dBm	1	28±3 dBm	1	28±3 dBm
7	29±2 dBm	7	29±2 dBm	2	26±3 dBm	2	26±3 dBm
8	27±2 dBm	8	27±2 dBm	3	24±3 dBm	3	24±3 dBm
9	25±2 dBm	9	25±2 dBm	4	22±3 dBm	4	22±3 dBm
10	23±2 dBm	10	23±2 dBm	5	20±3 dBm	5	20±3 dBm
11	21±2 dBm	11	21±2 dBm	6	18±3 dBm	6	18±3 dBm
12	19±2 dBm	12	19±2 dBm	7	16±3 dBm	7	16±3 dBm
13	17±2 dBm	13	17±2 dBm	8	14±3 dBm	8	14±3 dBm
14	15±2 dBm	14	15±2 dBm	9	12±4 dBm	9	12±4 dBm
15	13±2 dBm	15	13±2 dBm	10	10±4 dBm	10	10±4 dBm
16	11±3 dBm	16	11±3 dBm	11	8±4 dBm	11	8±4 dBm
17	9±3dBm	17	9±3dBm	12	6±4 dBm	12	6±4 dBm
18	7±3 dBm	18	7±3 dBm	13	4±4 dBm	13	4±4 dBm
19	5±3 dBm	19	5±3 dBm	14	2±5 dBm	14	2±5 dBm
				15	0±5 dBm	15	0±5 dBm

3. Operation Instruction and Installation

Main Function

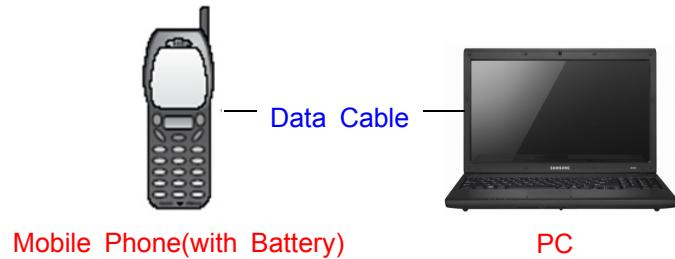
- Quad Band EGSM850/900/DCS/PCS (EDGE/GPRS), UMTS 900/2100MHz
- HSDPA 7.2 Mbps
- 3.2" HVGA TFT Full Touch (c-type)
- Music player, Voice Recorder
- GPS / BT v2.1 / USB v2.0 / WiFi (802.11 b/n/g)
- 3M Camera
- FM Radio Receiver
- Sensors: Accelerometer, Compass, Proximity
- Improve TouchWiz 3.0 Light for Android(Multiple SNS(Facebook, Myspace, Twitter),Multiple IM(Parling: AOL, G-talk))
- Android Froyo OS
- SMS/MMS/Email

6. Level 1 Repair

6-1. Software Download

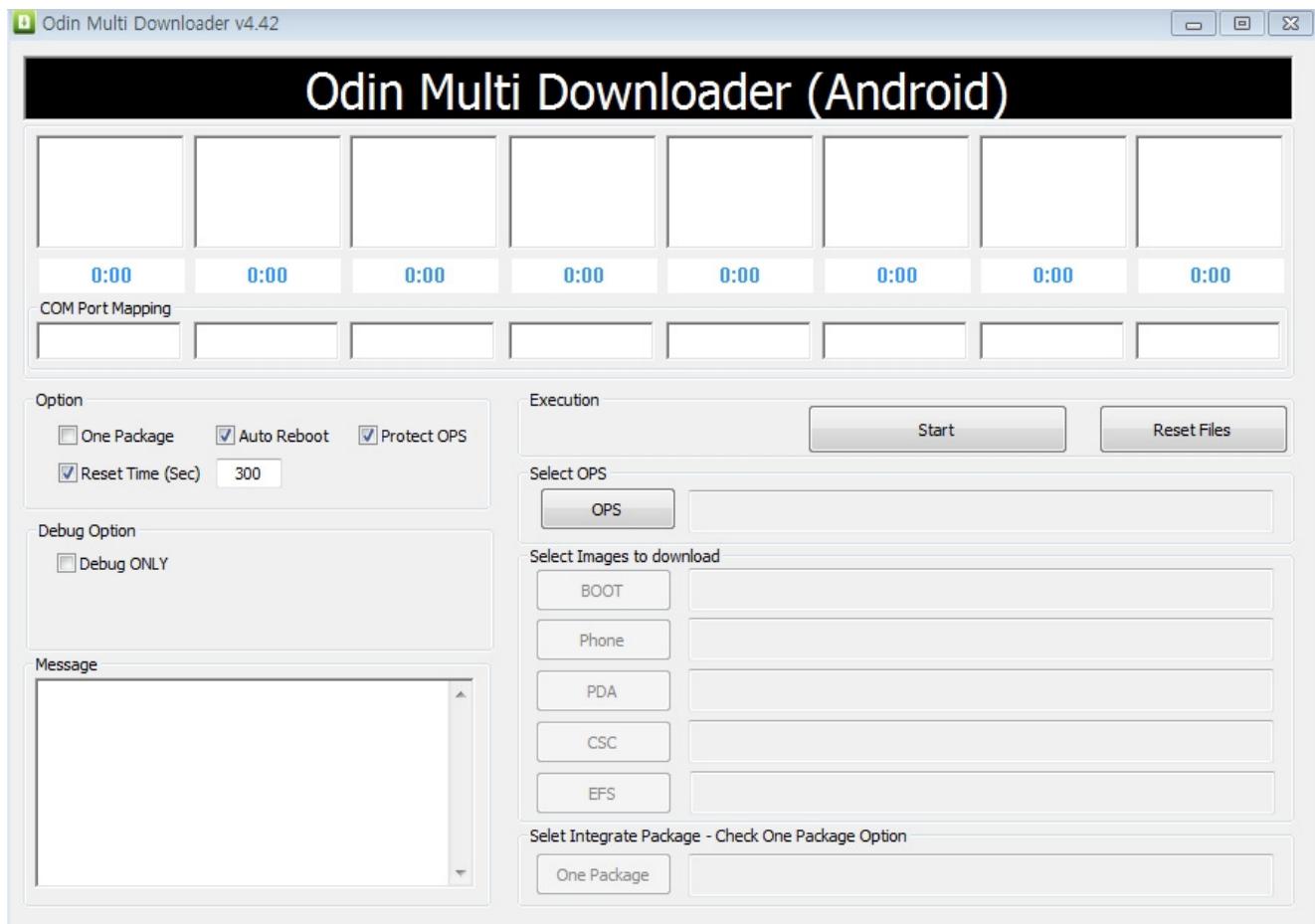
6-1-1. Pre-requisite for Download

- Downloader Program ([Odin Multi Downloader v4.42](#))
 - GT-S5660 Mobile Phone
 - Data Cable
 - JIG BOX (GH99-36900A)
 - RF Test Cable (GH39-00985A)
 - JIG Cable (GH39-01160A)
 - Adapter (GH99-38251A)
 - Binary files
- Diagram of Connection:

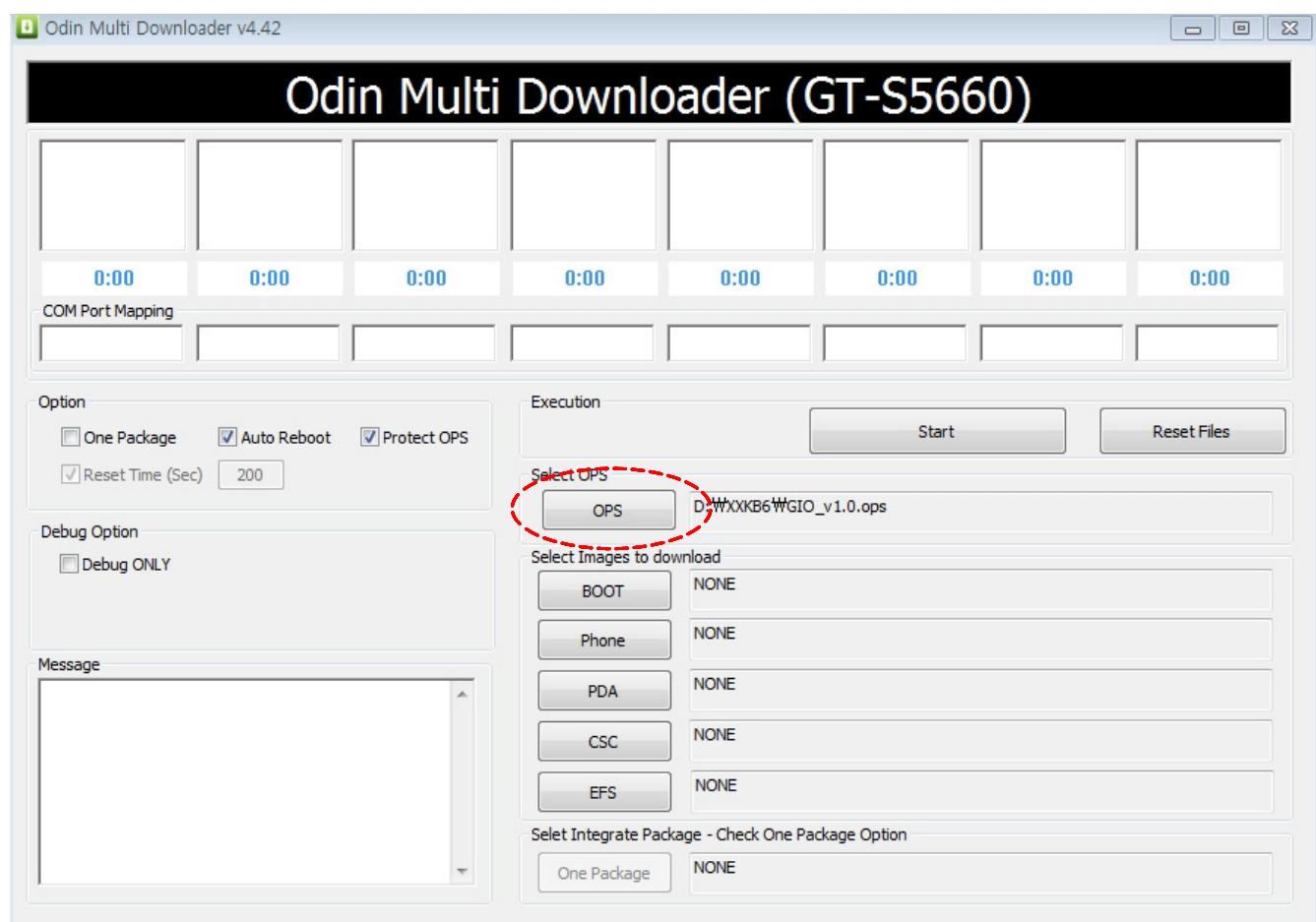


6-1-2. S/W Download Process

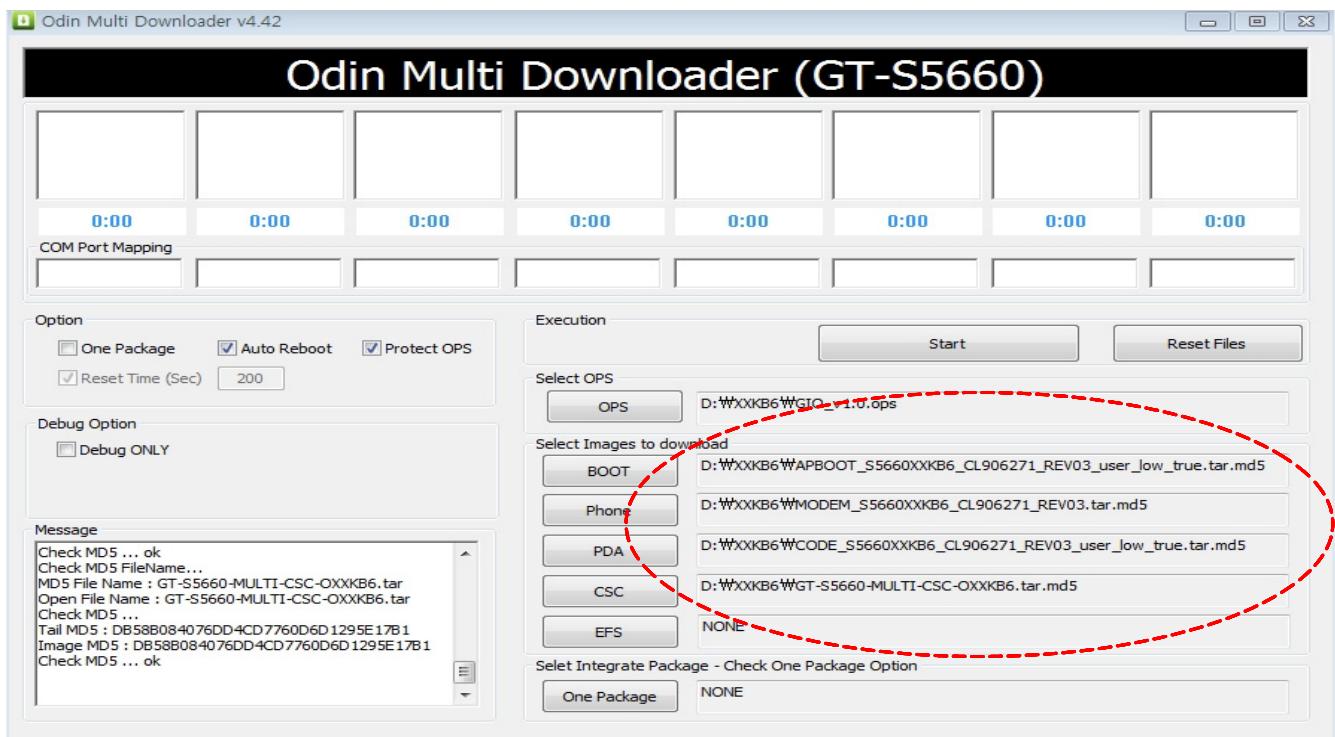
1. Load the binary download program by executing the "[Odin Multi Downloader v4.42](#)"



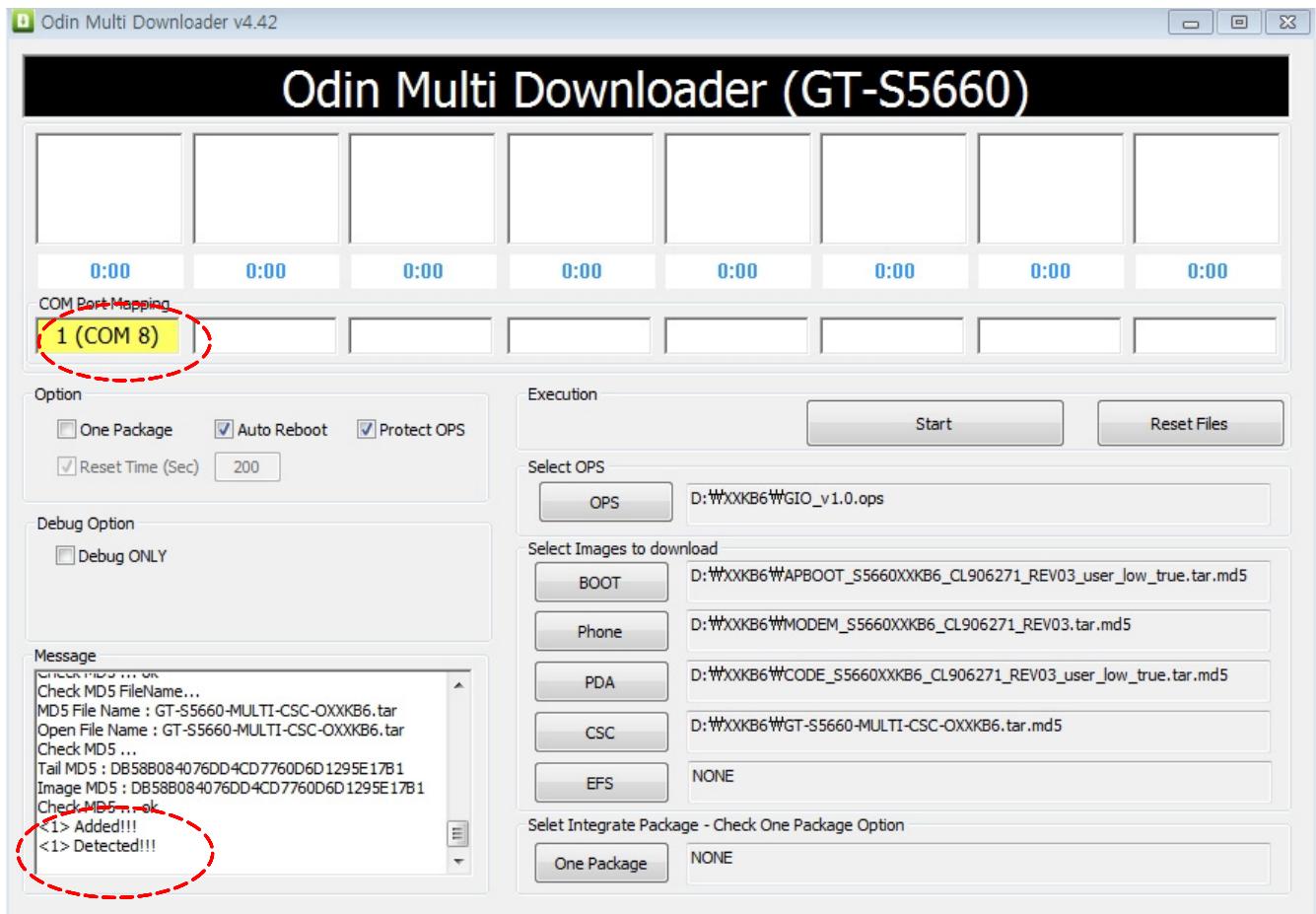
2 Select OPS file (Gio_v1.0.ops) from the folder that you saved the binary files.



3. Load the file of Bootloader, Amss, PDA, CSC files from the folder that you saved the binary files.



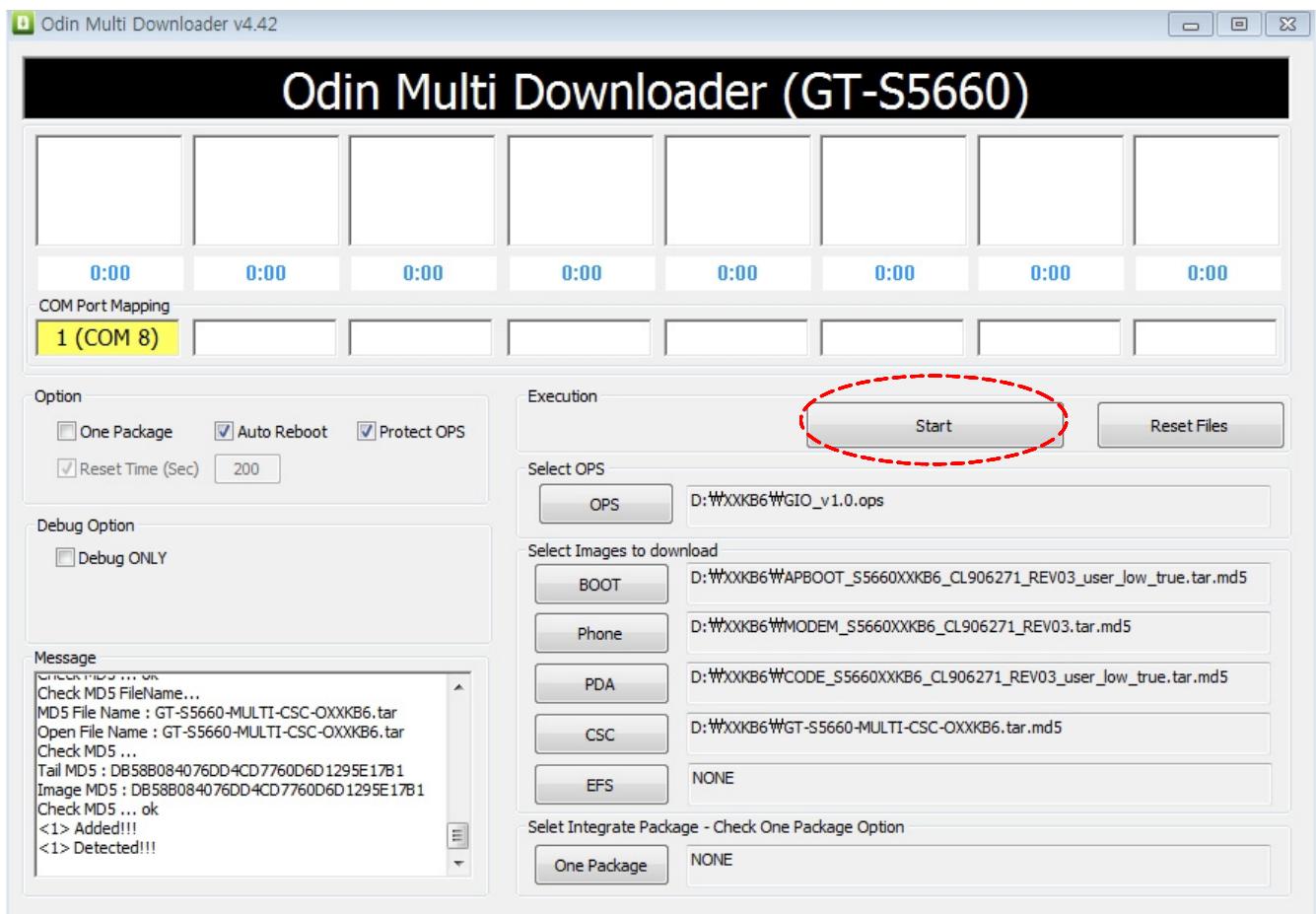
4. COM Port Mapping change to **yellow** colour when the phone with download mode is connected to PC by data cable.



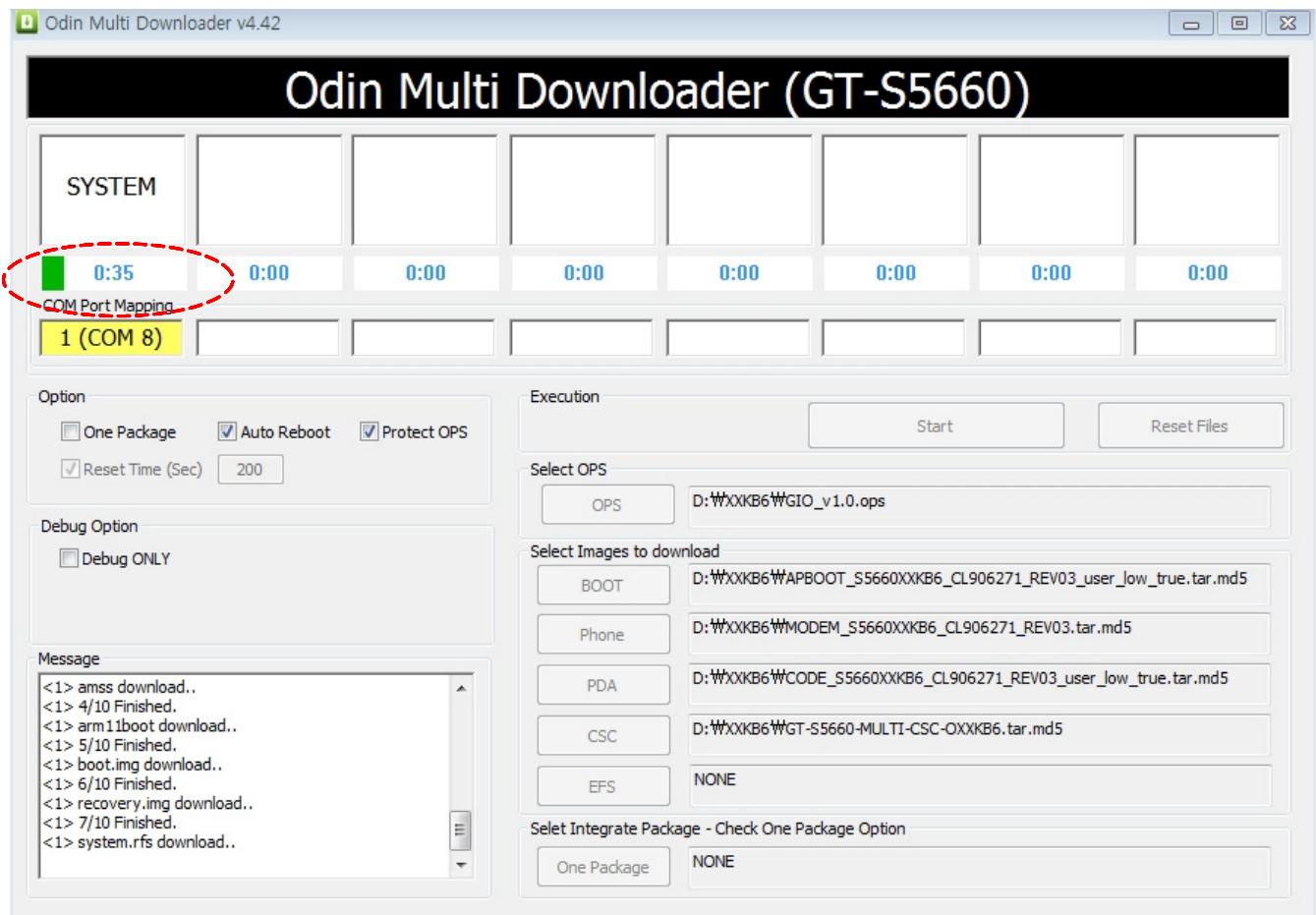
cf. You have to set the phone as a download mode by pressing Middle Key(OK Key) + Power key and Volume Down Key simultaneously before connecting to PC .

Then, the port would be searched.

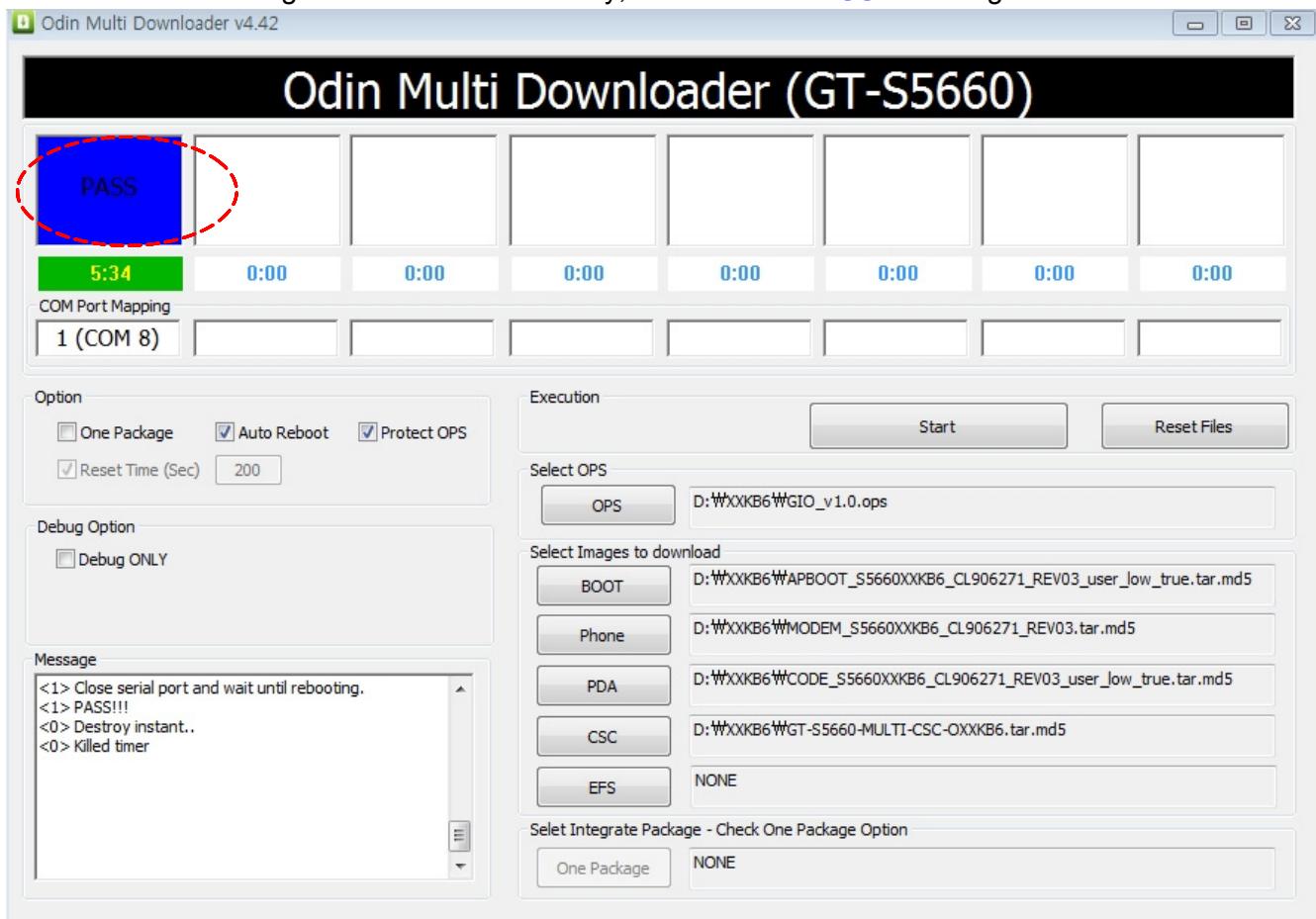
5. Click the **Start** button when the Port searched.



It will start to download.



6. When downloading is finished successfully, there is a "**PASS**" message.



7. Confirm the downloaded version name and etc. :

***#1234#**

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

- Repair in Shield Box, during detailed tuning. Take specially care of tuning or test, because specificity 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

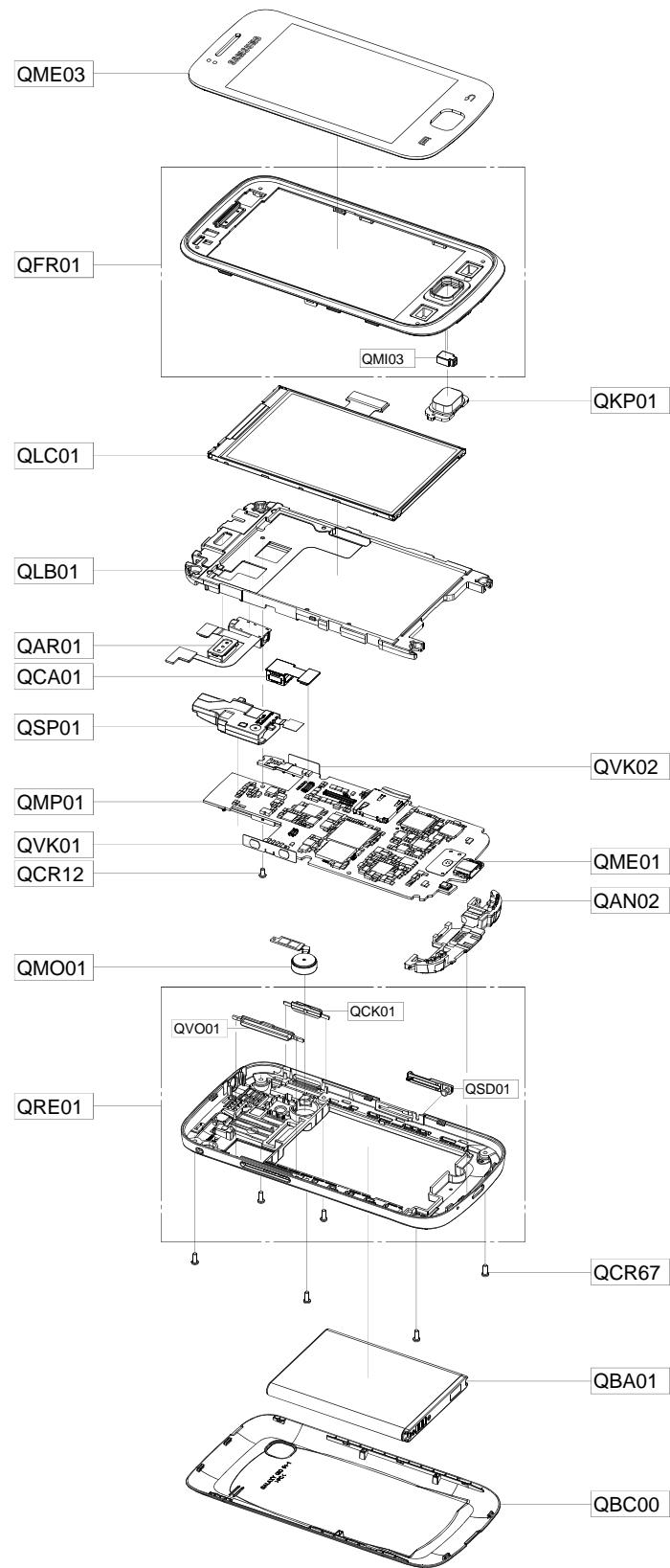
Several semiconductor may be damaged easily by static electricity. Such parts are called by ESD (Electrostatically Sensitive Devices), for example IC,BGA chip etc. Read Precaution below.

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.

4. Exploded View and Parts List

4-1. Cellular phone Exploded View



4-2. Cellular phone Parts list

Design LOC	Description	SEC CODE
QCR12	SCREW-MACHINE	6001-001530
QCR67	SCREW-MACHINE	6001-002083
QMO01	MOTOR DC-GT_S5660	GH31-00533A
QAN02	INTENNA-MAIN(GT_S5660)	GH42-02961A
QBA01	INNER BATTERY PACK-EB494358VU,GT-S5830,L	GH43-03504A
QVK02	KEY FPCB-POWER KEY(GT_S5660)	GH59-10888A
QVK01	KEY FPCB-VOLUME KEY(GT_S5660)	GH59-10889A
QME01	DOME SHEET-GT_S5660	GH59-10897A
QME03	TOUCH/PANEL-GT_S5660	GH59-10911A
QSP01	MODULE-SPK(GT_S5660)	GH59-10913A
QAR01	MODULE-RCV+SENSOR(GT_S5660)	GH59-10920A
QKP01	PMO KEY-HOME	GH72-63203A
QMP01	A/S ASSY-PBA MAIN(COMM)GT_S5660	GH82-05634A
QLC01	ASSY LCD-3.2" HVGA GT_S5660	GH96-05097A
QCA01	ASSY CAMERA-3M(GT_S5660)	GH96-05106A
QBC00	ASSY COVER-BATT	GH98-19585A
QLB01	ASSY BRACKET-LCD	GH98-19588A
QFR01	ASSY CASE-FRONT	GH98-19583A
QMI03	ASSY COVER-MIC HOLDER	GH98-19587A
QRE01	ASSY CASE-REAR	GH98-19584A
QVO01	PMO KEY-VOLUME	GH72-63171A
QCK01	PMO KEY-POWER	GH72-63172A
QSD01	PMO COVER-MICRO SD	GH72-63174A

5. MAIN Electrical Parts List

SEC CODE	DESIGN LOC	Description
0403-001870	D600	TDZ5V6J
0404-001646	ZD509	PMEG4005EJ
0406-001267	ZD507,ZD508	RCLAMP0521P
0406-001361	ZD503	PESD5V0U5BV
0406-001369	ZD601	RCLAMP3654P.TCT
0406-001375	ZD504	UCLAMP0501T
0406-001413	ZD505,ZD506	PESD5V0F1BL
0406-001459	ZD500,ZD501,ZD502	RD1301B
0406-001459	ZD602	RD1301B
0407-001002	D400,D500	DAN222TL
0504-001138	Q601	DTA114EM
0505-001325	Q500	2SK3019
0505-002341	Q600	SI1013X-T1-GE3
0601-002846	LED500,LED501	19-217UTD/S759/TR8
0801-003265	U300	74AUP1G74GM
0801-003383	U301	74LVC1G00GM
1001-001645	U601	FSA9280AUMX
1108-000411	UME300	KAT007012C-BRTT
1201-003057	PAM101	RF7201
1201-003168	U200	SFMG1M0Q001
1201-003192	PAM100	SKY77544-51
1202-001068	U506	TC75S56FE
1203-004818	U600	RP103K181D-TR
1203-006159	U102	AAT2146IJS-0.6-T1
1203-006346	U500	FT8010MPX
1203-006732	U400	MAX8899GEWZ-T
1203-006760	U505	KTD259EHD-TR
1205-003297	U103	RTR6285
1205-004076	U202	AR6003G-AC2B-R
1205-004113	U201	BCM20780C0KUBG
1205-004180	UCP300	MSM7227-1-SCREEN
1209-002023	U504	BMA222
1209-002030	U503	MMC3280MS
1404-001221	TH300	NCP15WB473J04RC
2007-000137	R325	RC1005J202CS
2007-000138	R103,R120,R121,R322	RC1005J101CS

SEC CODE	DESIGN LOC	Description
2007-000138	R326	RC1005J101CS
2007-000140	R118,R303,R510	RC1005J102CS
2007-000141	R304,R305,R306,R307	RC1005J222CS
2007-000141	R311,R312,R313,R314	RC1005J222CS
2007-000141	R607	RC1005J222CS
2007-000143	R620	RC1005J472CS
2007-000144	R400	RC1005J512CS
2007-000148	R308,R502,R509,R600	RC1005J103CS
2007-000148	R618	RC1005J103CS
2007-000149	R610	RC1005J123CS
2007-000152	R621,R622	RC1005J203CS
2007-000153	R508	RC1005J223CS
2007-000160	R506	RC1005J683CS
2007-000162	R302,R315,R319,R324	RC1005J104CS
2007-000162	R327,R410,R507,R521	RC1005J104CS
2007-000170	R528	RC1005J105CS
2007-000172	R516	RC1005J100CS
2007-000758	R505	RC1005J334CS
2007-001119	R512	RC1005J681CS
2007-001291	R405,R406	RC1005J300CS
2007-001292	R330	RC1005J330CS
2007-001298	R329,R401	RC1005J510CS
2007-001301	R119,R500,R501	MCR01MZP5J680
2007-001339	R612	RC1005J184CS
2007-007107	R407	RC1005F1003CS
2007-007132	R204	RC1005F153CS
2007-007139	R309,R310,R523	MCR01MZP5F4702
2007-007309	R117	MCR01MZP5F1202
2007-007334	R402,R517	RC1005F2003CS
2007-007468	R116,R409	RK73H1ETP1213F
2007-007480	R408	RK73H1ETP1303F
2007-007528	R513	RK73H1ETP1501F
2007-007573	R403	RK73H1ETP3303F
2007-008044	R106	MCR006MZPJ680
2007-008045	R126,R127,R611	ERJ1GEJ101C
2007-008055	R300,R338	ERJ1GENJ104X

SEC CODE	DESIGN LOC	Description
2007-008057	R128,R129	MCR006YZPJ151
2007-008298	R301	RC1005F49R9CS
2007-008483	R613,R614,R615,R616	RMC1/20473JPA
2007-008483	R617	RMC1/20473JPA
2007-008502	R114	RC1005F4993CS
2007-008531	R320	MCR006MZPJ0100
2007-008766	R323	ERJ2RKF6041X
2007-008812	R404	RC1005F2153CS
2007-009115	R104	RC0603J240CS
2007-009155	R619	MCR006YZPJ474
2007-009794	R205	RK73H1HTTC6191F
2203-000233	C113,C149,C177,C188	GRP1555C1H101J
2203-000233	C190,C197,C212,C213	GRP1555C1H101J
2203-000233	C235,C435	GRP1555C1H101J
2203-000254	C111,C117,C171,C204	GRP155R71C103K
2203-000278	C151,C200,C203,C209	GRP1555C1H100D
2203-000278	C228,C511	GRP1555C1H100D
2203-000359	C518,C524	GRP1555C1H151JD01E
2203-000386	C528	GRP1555C1H150J
2203-000425	C433,C434	GRP1555C1H180J
2203-000438	C102,C112,C173,C216	GRP155R71H102K
2203-000489	C139,C140,C328	GRP155R71H222K
2203-000585	C428	GRP155R71H221KD01E
2203-000627	C164,C170,C187	GRM1555C1H220J
2203-000696	C321	GRP1555C1H2R0C
2203-000812	C103,C114,C142,C163	GRP1555C1H330J
2203-000812	C208,C211,C323,C513	GRP1555C1H330J
2203-000812	C617	GRP1555C1H330J
2203-000995	C329,C330,C429,C514	GRP1555C1H470J
2203-000995	C618,C636,U502	GRP1555C1H470J
2203-001017	C179,C182	GRP1555C1H4R0C
2203-001033	C191	GRP155R71E562KD01E
2203-001072	C245	GRP1555C1H560JD01E
2203-001153	C150,C153	GRP1555C1H680J
2203-001385	C116,C135,C137	GRP1555C1H1R5CZ01E
2203-001405	C406,C407	04023G223ZAT2A

SEC CODE	DESIGN LOC	Description
2203-002668	C120,C128	C1005CG1H0R5BT
2203-005057	C136,C512	GRP1555C1H8R2CZ01E
2203-005249	C526,C607	GRM188R71H104K
2203-005382	C181,C232,C234	GRP1555C1H6R0BZ01E
2203-005480	C324	GRP155R71A333KA01E
2203-005483	C503,C504	GRP155R61A683KA01E
2203-005682	C125,C126,C133,C134	GRP0335C1E330JD01E
2203-005682	C156,C158	GRP0335C1E330JD01E
2203-005725	C193	GRP0335C1E220JD01E
2203-005736	C194	GRP0335C1E101JD01E
2203-005806	C122	GRP033R71C102KD01E
2203-006048	C101,C162,C169,C186	GRM155R71A104K
2203-006048	C205,C206,C210,C222	GRM155R71A104K
2203-006048	C224,C225,C227,C230	GRM155R71A104K
2203-006048	C231,C240,C300,C301	GRM155R71A104K
2203-006048	C303,C306,C308,C309	GRM155R71A104K
2203-006048	C311,C312,C313,C314	GRM155R71A104K
2203-006048	C315,C318,C322,C325	GRM155R71A104K
2203-006048	C326,C327,C331,C332	GRM155R71A104K
2203-006048	C436,C437,C442,C443	GRM155R71A104K
2203-006048	C501,C507,C517,C520	GRM155R71A104K
2203-006048	C522,C523,C525	GRM155R71A104K
2203-006123	C217	GRM0335C1E5R6CD01D
2203-006137	C506	CL05B223KONC
2203-006187	C127,C129	GRM0335C1E3R9B
2203-006201	C239	GRM188R60J225KE01D
2203-006208	C159,C500,C615	CM105X5R475M06AT
2203-006260	C400	GRM155R61A224KE19E
2203-006348	C619	CV105X5R105K25AT
2203-006399	C201,C202,C214,C215	GRM155R60J105KE19D
2203-006399	C221,C302,C304,C305	GRM155R60J105KE19D
2203-006399	C307,C317,C319,C320	GRM155R60J105KE19D
2203-006399	C408,C409,C416,C417	GRM155R60J105KE19D
2203-006399	C418,C419,C423,C424	GRM155R60J105KE19D
2203-006399	C425,C426,C427,C430	GRM155R60J105KE19D
2203-006399	C432,C445,C502,C508	GRM155R60J105KE19D

SEC CODE	DESIGN LOC	Description
2203-006399	C509,C603,C604,C605	GRM155R60J105KE19D
2203-006399	C606,C608,C609,C610	GRM155R60J105KE19D
2203-006399	C623,C627,C633	GRM155R60J105KE19D
2203-006423	C183	GRM33X5R104K6.3
2203-006562	C431,C444	CV05X5R105K10AH
2203-006707	C123,C124	GRM0335C1E4R7C
2203-006824	C141,C160,C401,C402	CV105X5R475K10AT
2203-006824	C403,C404,C405,C420	CV105X5R475K10AT
2203-006824	C438,C439,C440,C441	CV105X5R475K10AT
2203-006824	C614	CV105X5R475K10AT
2203-006842	C233	CL05C471JB5NNNC
2203-006846	C130,C132	ECJZEC1E2R0B
2203-006979	C185	CL03B103KP3NNNC
2203-007240	C310,C316,C505	CL10A226MQ8NRNE
2203-007271	C207,C220,C223,C226	CL05A225KP5NSNC
2203-007271	C229,C238,C244,C410	CL05A225KP5NSNC
2203-007271	C411,C412,C413,C414	CL05A225KP5NSNC
2203-007271	C415,C422,C625,C626	CL05A225KP5NSNC
2203-007279	C118,C527	CV105X5R106M10AT
2203-007317	C184,C421	CV05X5R475M06AH
2203-007701	C521,C616	QV105X5R106M10AT
2404-001506	TA400	C-TA,CHIP;TCTP1A476M8R-D
2703-001729	L116	LL1005-FH1N8S
2703-001747	L131,L140	LL1005-FH4N7S
2703-002176	L117	CIH05T2N7SNC
2703-002198	L121,L203	CIH05T10NJNC
2703-002200	L111	CIH05T18NJNC
2703-002203	L101	CIH05T15NJNC
2703-002205	L120,L202	CIH05T3N9KNC
2703-002208	L118,L119,L130	CIH05T2N2SNC
2703-002268	L122	CIH05T8N2JNC
2703-002269	L207	CIH05T56NJNC
2703-002281	L106	CIH05T5N6SNC
2703-002308	L500	CIH05T68NJNC
2703-002314	L133,L506	CIH05T47NJNC
2703-002365	L113,L205	CIH05T1N2SNC

SEC CODE	DESIGN LOC	Description
2703-002369	L105	CIH05T1N5SNC
2703-002544	L132	LQW15AN8N2H00D
2703-002842	L136	LLV0603-F2N2S
2703-002861	L507	LPF3010T-100M
2703-002958	L109	CIH03T56NJNC
2703-003685	L123	CIG21L4R7MNE
2703-003686	L400,L401,L402,L403	CIG21L2R2MNE
2703-003915	L103,L104	CML0306-5N6-JNH
2703-004030	L107,L108,L110	LQP03TN22NJ02D
2801-004909	OSC400	EXS00A-MU00031
2801-005045	OSC200	CXC6X260000GHVRE00
2809-001366	OSC100	1XTV19200AEB
2901-001525	F600,F601,F602,F603	ICVE10184E150R101FR
2901-001525	F604,F605,F606	ICVE10184E150R101FR
2901-001650	F607	ICMEF212P121MFR
2904-001658	F103	SFDG50AQ101
2904-001702	F105	SFHG40YQ101
2904-001869	F101	B9504
2904-001881	F100	SFRG42PY002
2910-000099	DUF101	SFXG50PD502
2910-000117	DUF100	SAYRJ897MCA0B0A
2911-000162	F200	D6105
3003-001136	MIC500	SPU0410HR5H
3301-001438	L204	BLM15BB750SN1D
3301-001659	L200,L201	BLM15AG601SN1
3301-001729	L512	BLM15AG102SN1D
3301-001756	L100,L602,L603	BLM15HG102SN1D
3301-001789	L601	BLM15EG121SN1D
3301-001885	L501,L502,L503,L504	BLM15HD182SN1D
3301-001885	L505,L510,L513	BLM15HD182SN1D
3301-002037	L508,L509	BLM18KG601SN1
3705-001731	RFS100	KMS-560-002-BEF
3709-001575	CD600	SCHA4B0301
3709-001668	SIM600	5000-6P-2.7XB
3711-006483	HEA600	14-5802-054-202-829
3711-006615	SPK500	AXT610124AW1

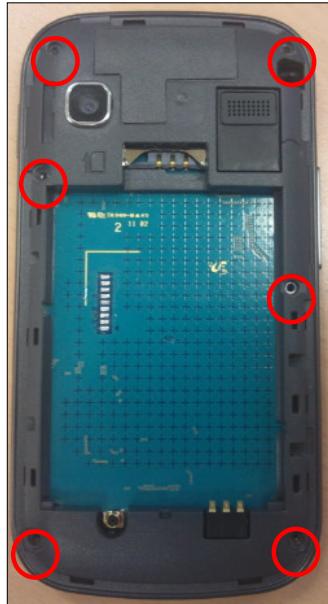
SEC CODE	DESIGN LOC	Description
3711-006923	HEA501	14-5802-016-002-829
3711-006925	HEA601	BM10B(0.8)-24DP-0.4V
3711-007650	BTC600	202-03050-00341
3712-001348	ANT100,ANT101,ANT200	HJ-ICT-05Y
3712-001348	ANT201,MOT500,MOT501	HJ-ICT-05Y
3722-002867	IFC600	HY07-AB0770

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

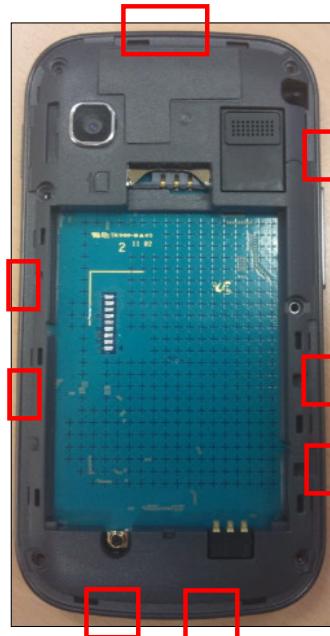
7. Level 2 Repair

7-1. Disassembly

1



2



Release the screws at 6 points.
 1.0 ± 0.1 kgf.cm

**DO NOT MAKE SCRATCH ON
THE REAR.**

Disjoint hook 8 points at the rear

3



Disjoint using a decompositional tool at the side
of the rear.

DO NOT MAKE SCRATCH ON THE REAR.

4

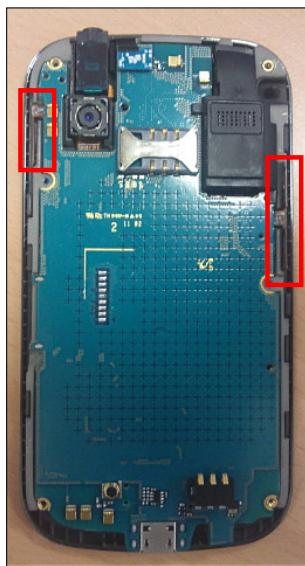


Release the screws at 2 points.

1.0 ± 0.1 kgf.cm

7. Level 2 Repair

5



Tear off the both FPCBs

Be careful not to rip up the FPCBs.

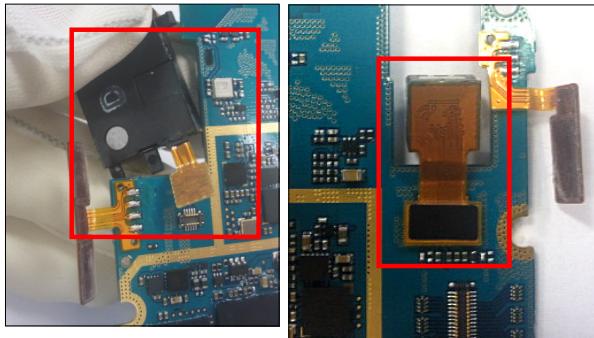
6



Separate the PBA and the Front.

Be careful not to damage the FPCB.

7



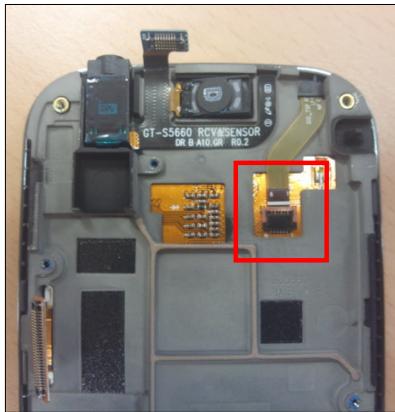
Separate the earjack module and the camera module.

8



Separate the Homekey and the front.

9



Separate the TSP FPCB and the connector.

10



Separate the braket and the front.

Be careful not to damage the LCD FPCB

11



Separate the LCD and the front.

12



Separate the TSP and the front.

Be careful not to damage the TPS FPCB.

7-2. Assembly

1



Assemble the TSP and the front.

Be careful not to tear up the TSP FPCB.

2



Assemble the LCD and the front.

3



1. Assemble the bracket and the front.
2. Insert the TSP FPCB into the connector.

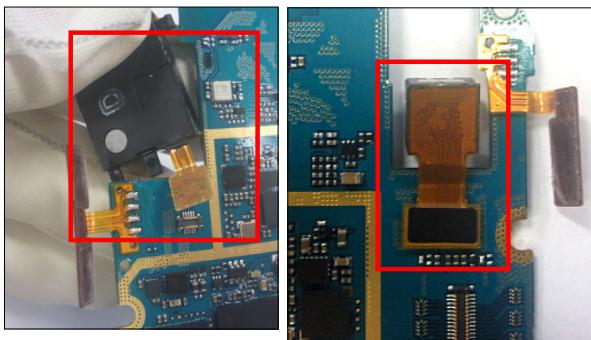
Be careful to damage the LCD FPCB.

4



Insert the TSP FPCB into the connector.

5



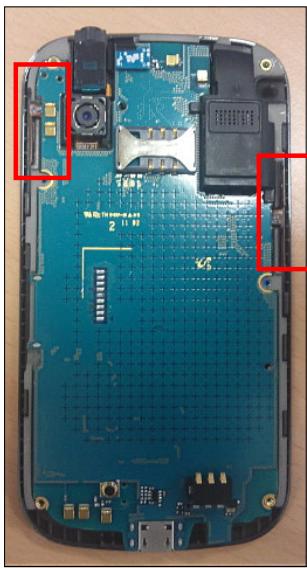
Assemble the earjack module and the camera module.

6



Connect the PBA and the LCD connector.

7



Attach the both FPCBs on the braket.

8

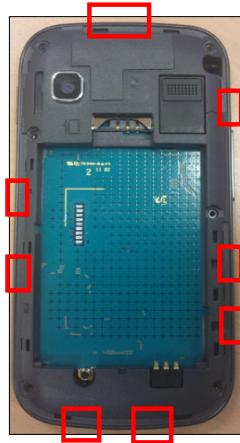
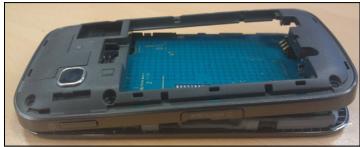


Screw up at 2 points.

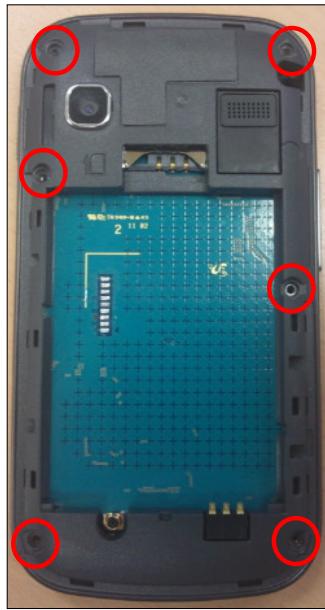
1.0 ± 0.1 kgf.cm

Be careful not to damage the PBA.

9



10



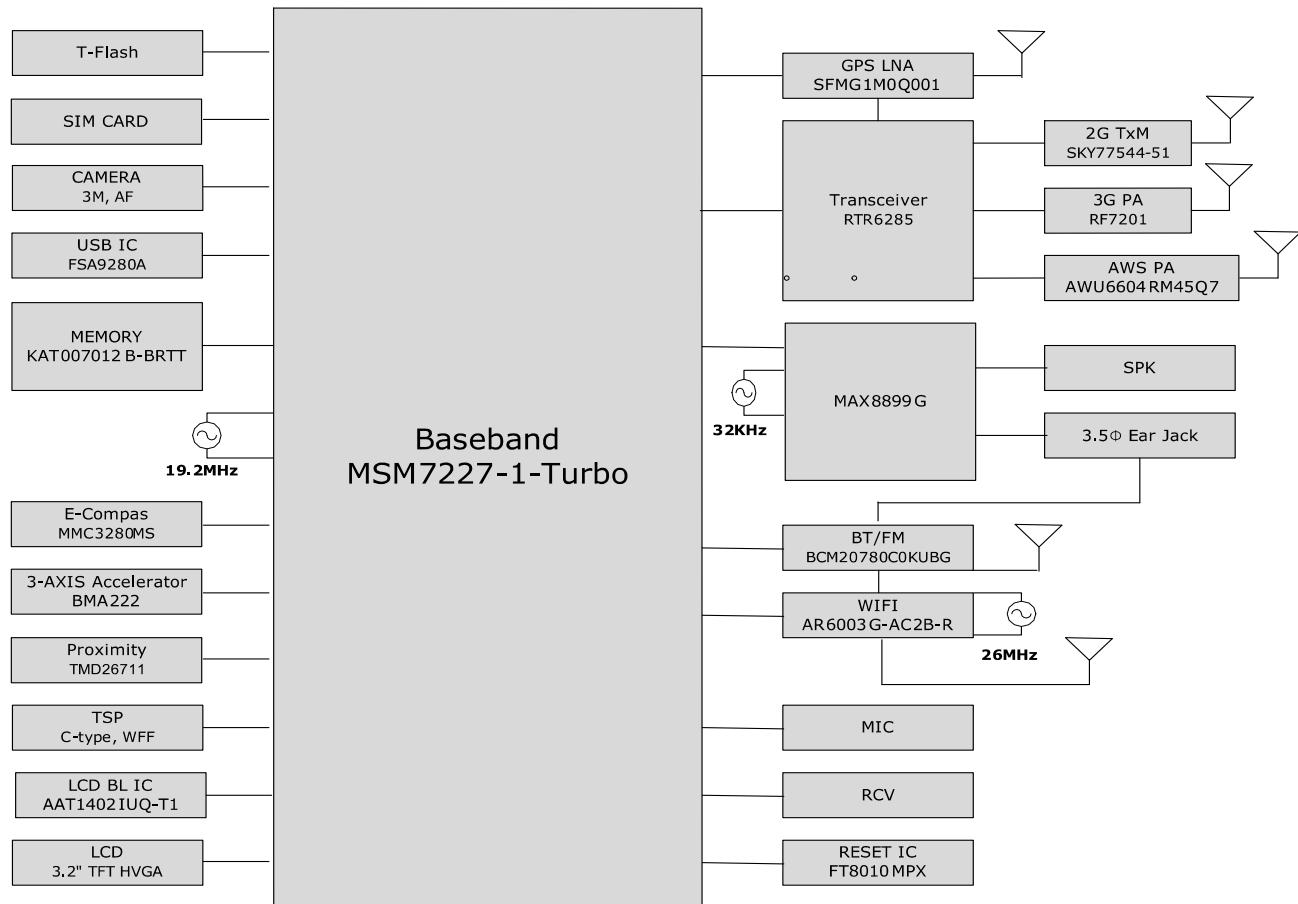
1. Assemble the Rear and the Front ass'y.
2. Hook at the 8 points.

Screw at 6 points.
 1.0 ± 0.1 kgf.cm

**DO NOT MAKE SCRATCH ON
THE REAR.**

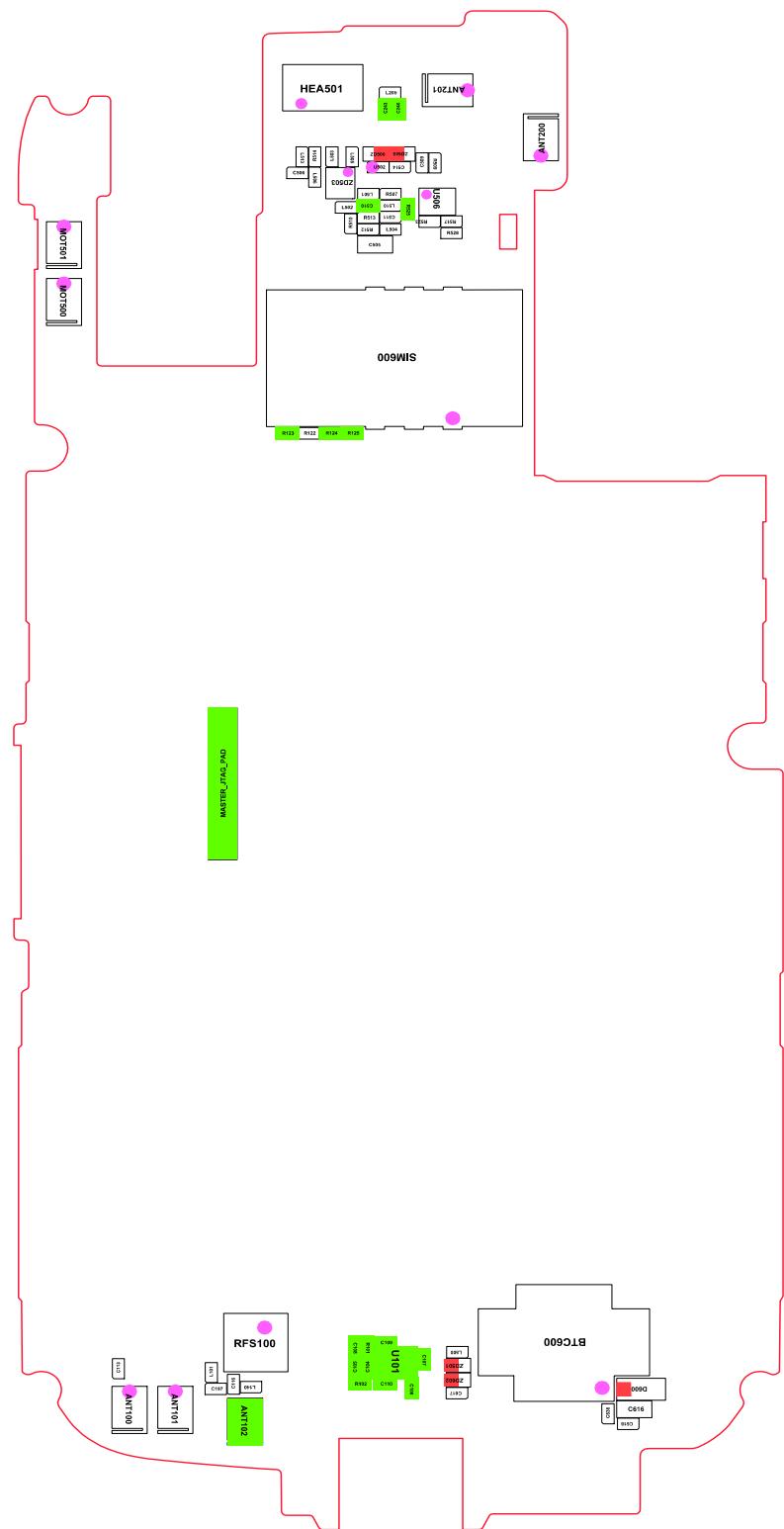
8. Level 3 Repair

8-1. Block Diagram

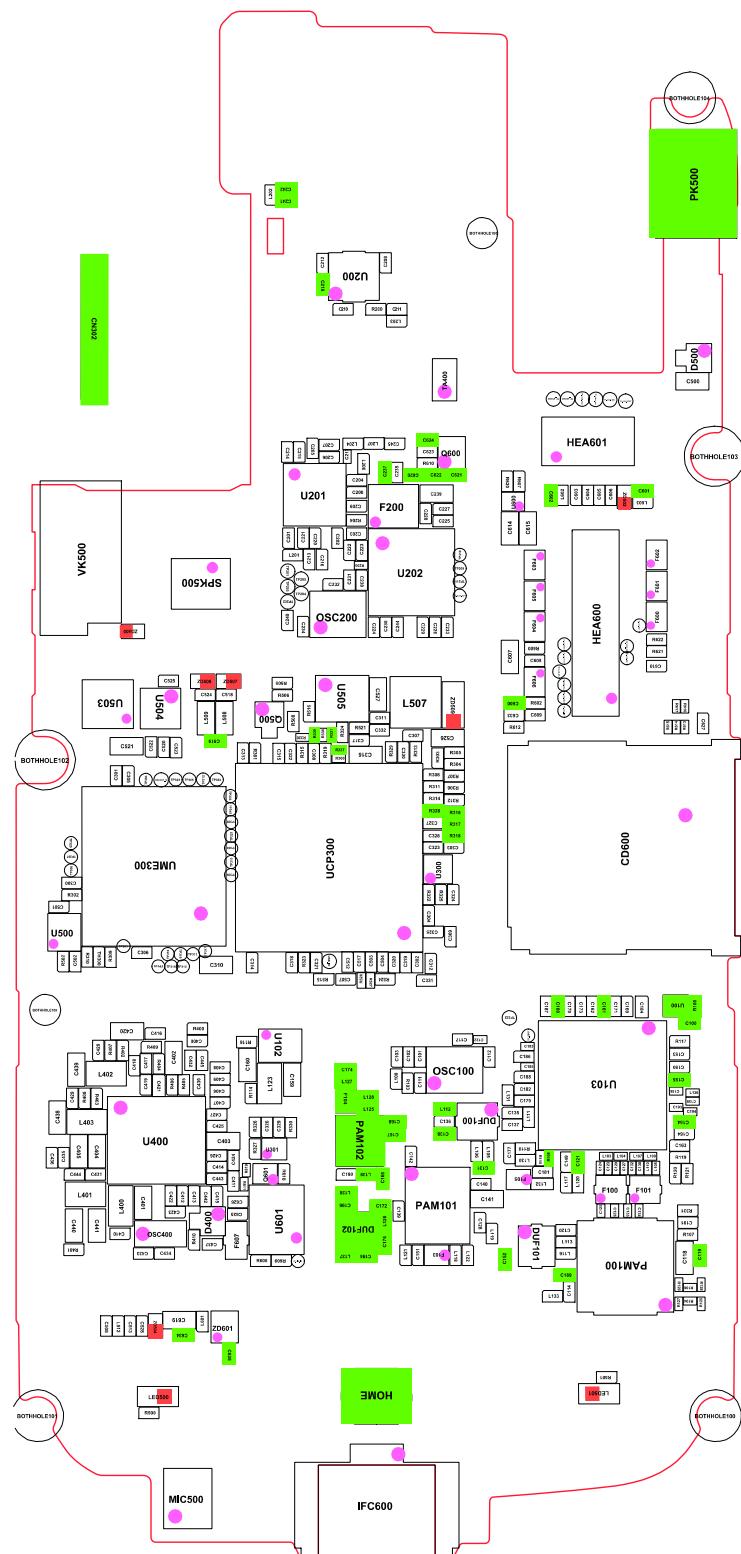


8-2. PCB Diagrams

8-2-1. Top

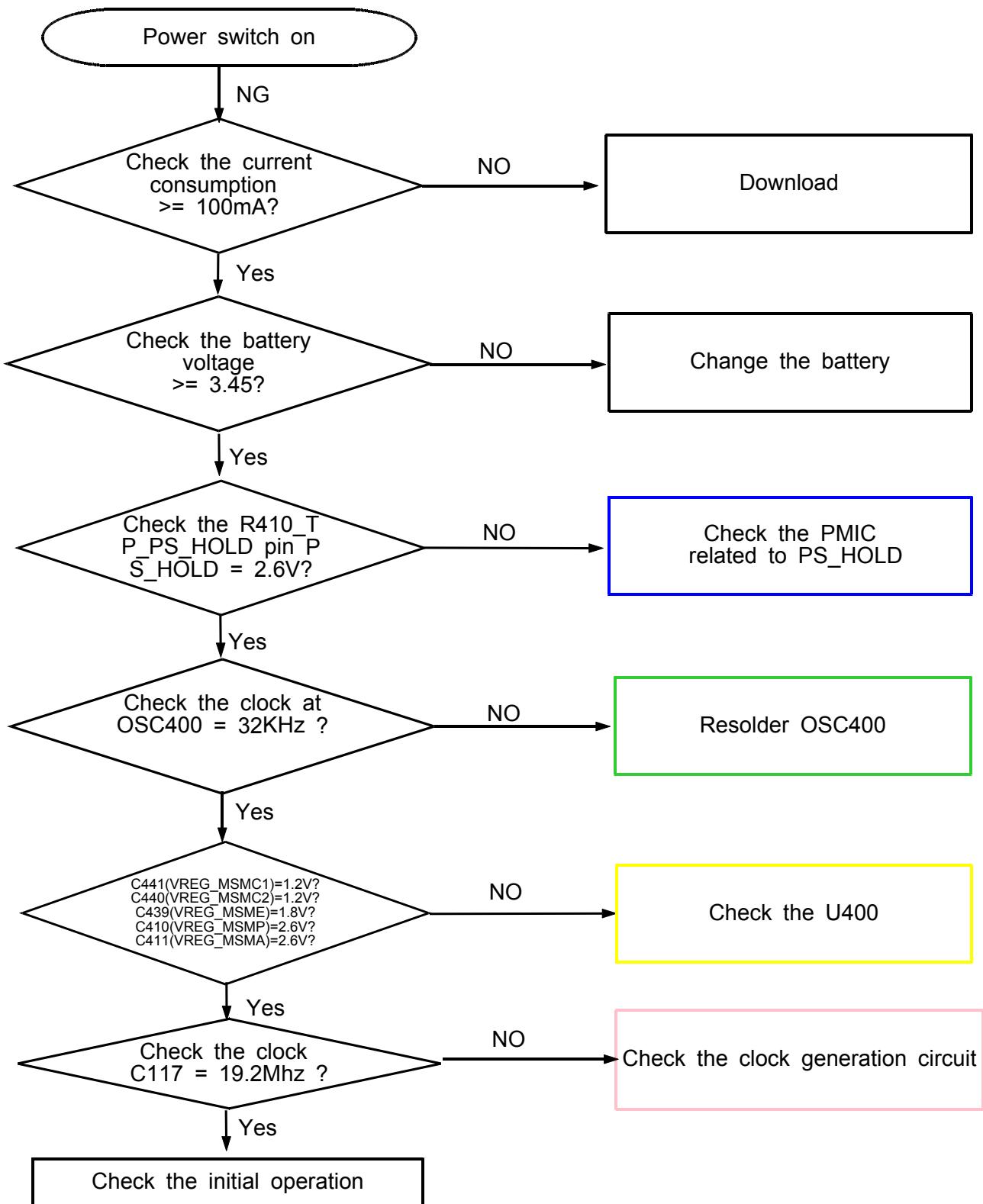


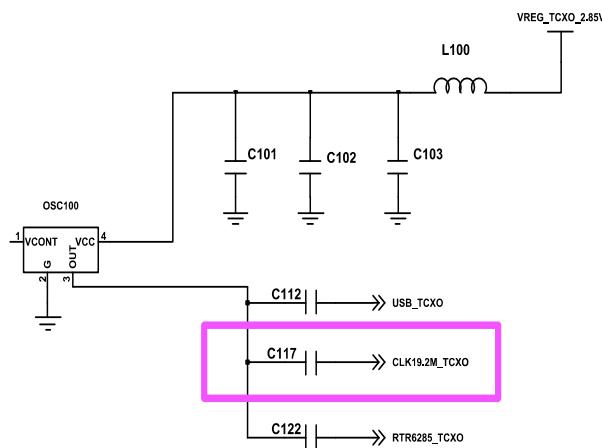
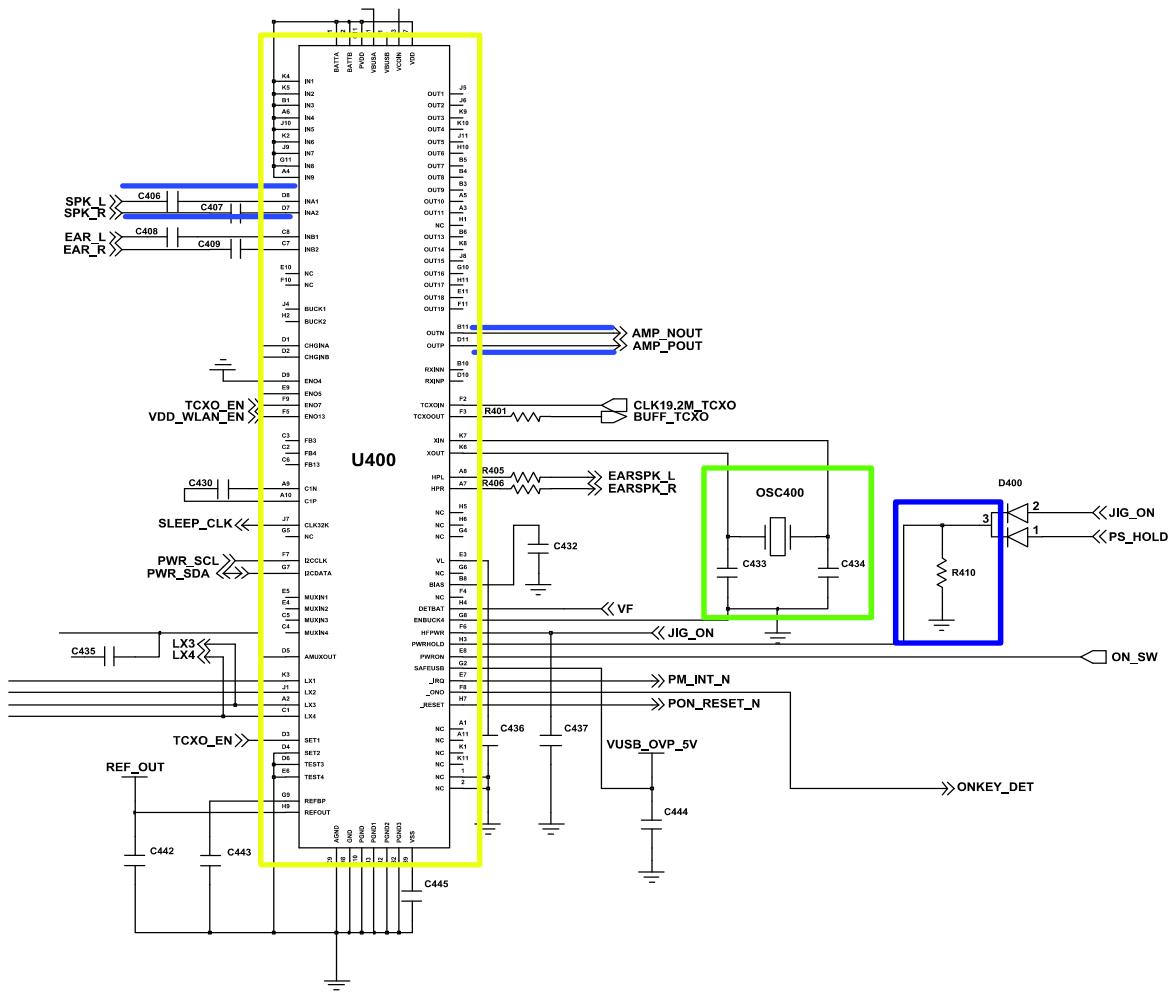
8-2-1. Bottom

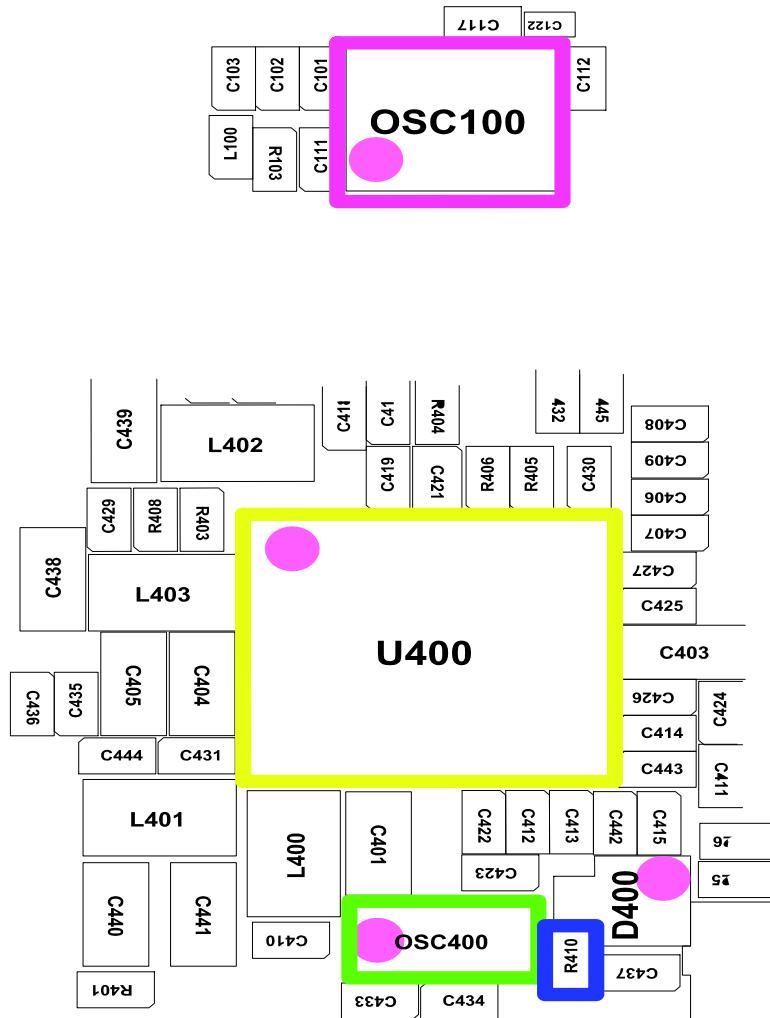


8-3. LOGIC

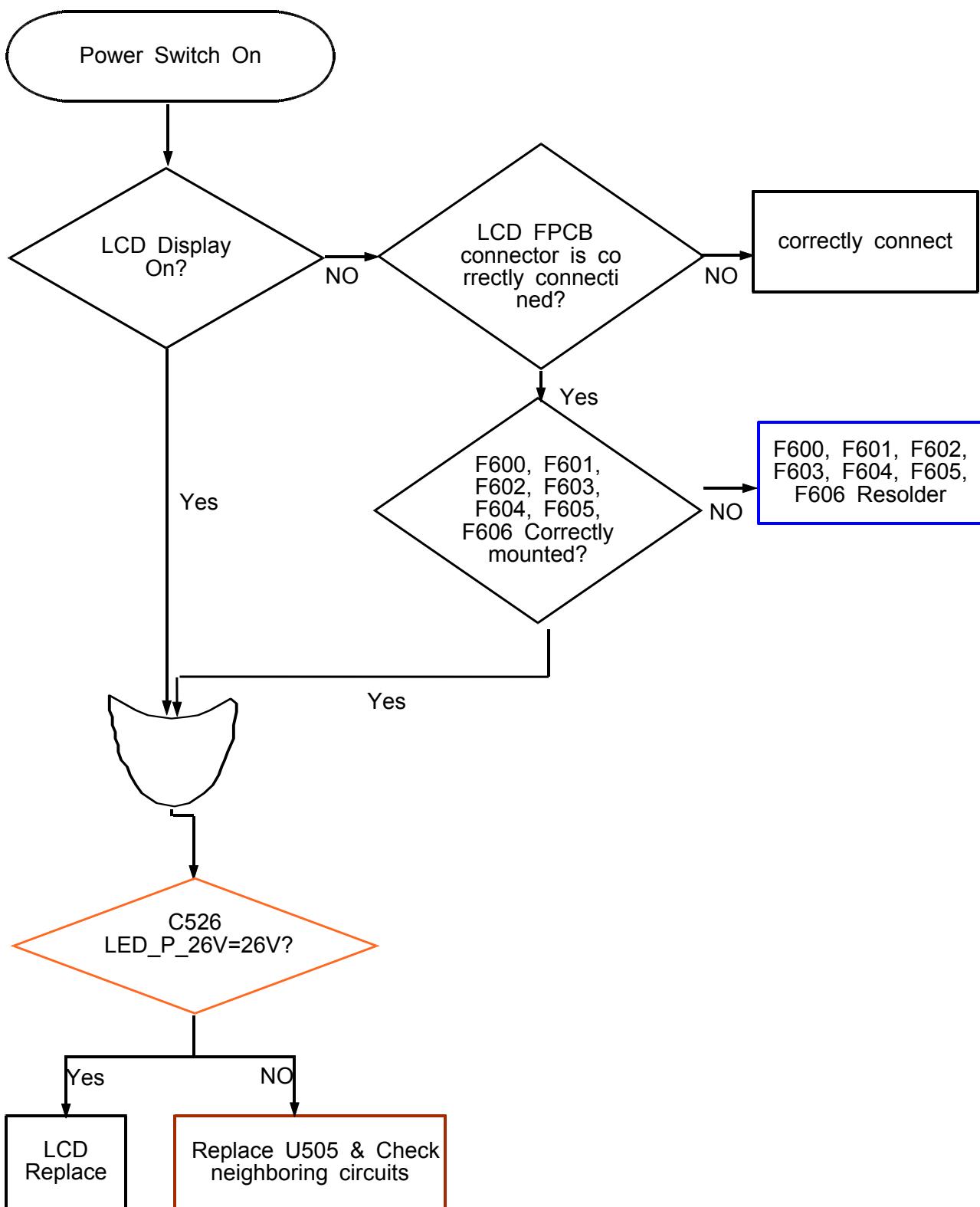
8-3-1. Power On

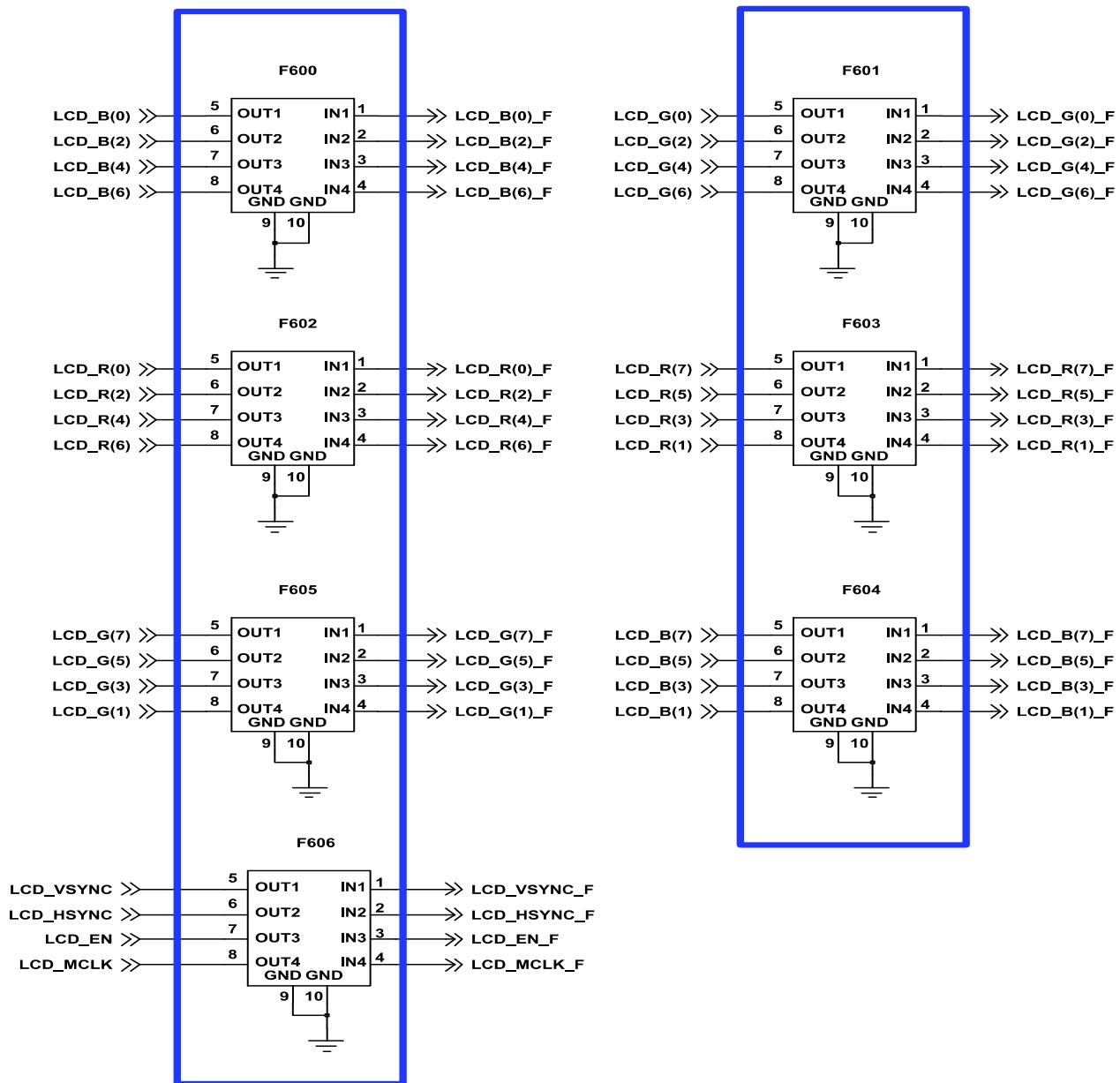


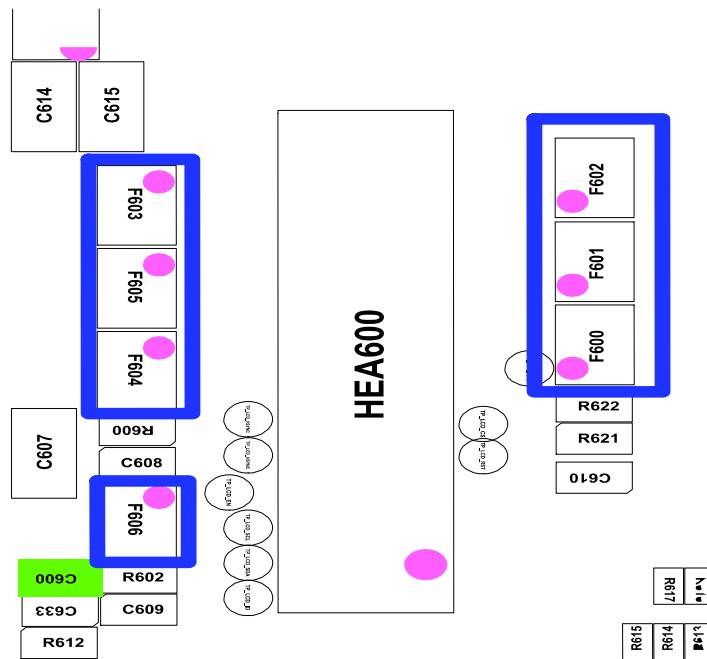
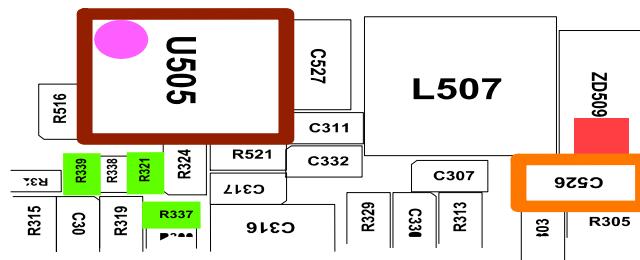
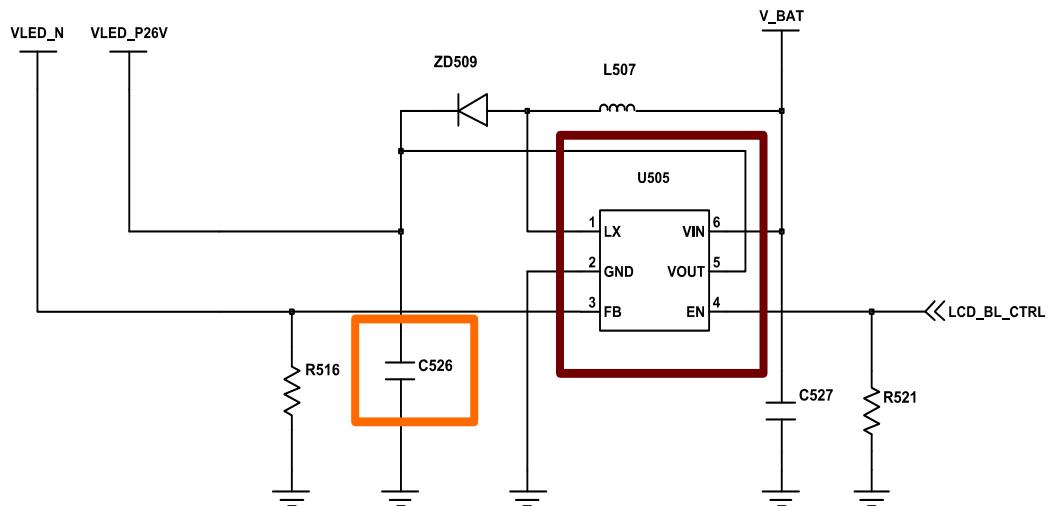




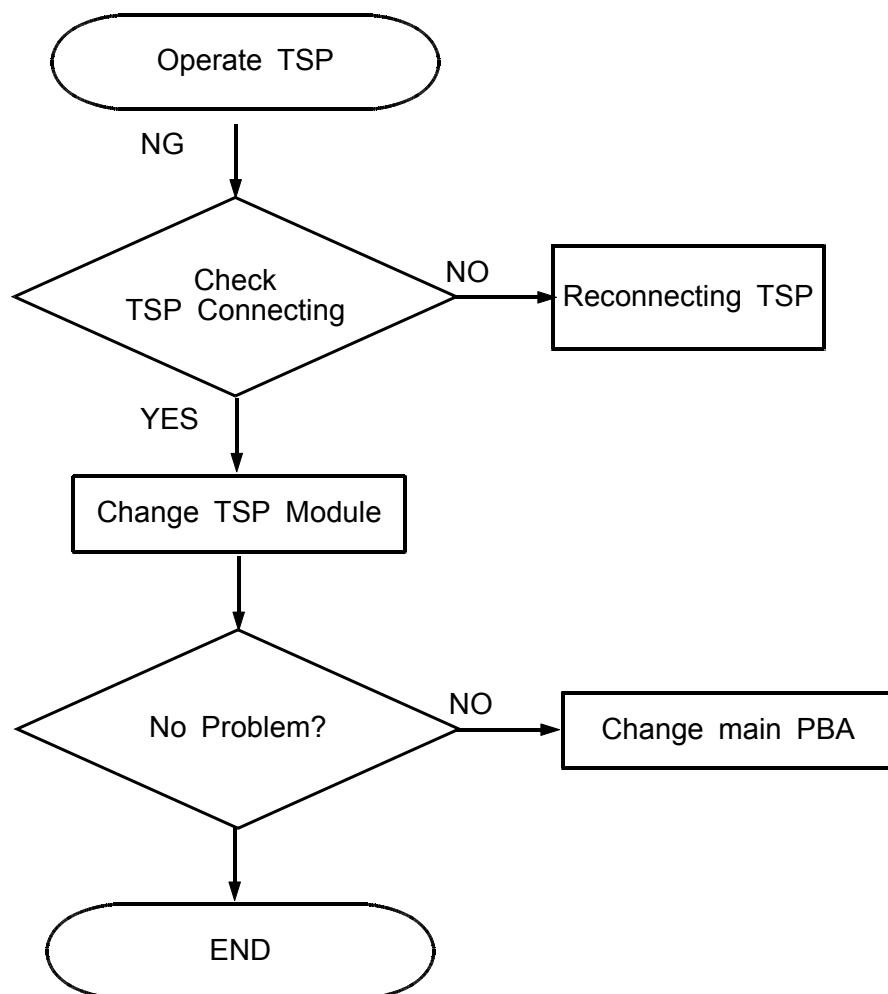
8-3-2. LCD Working



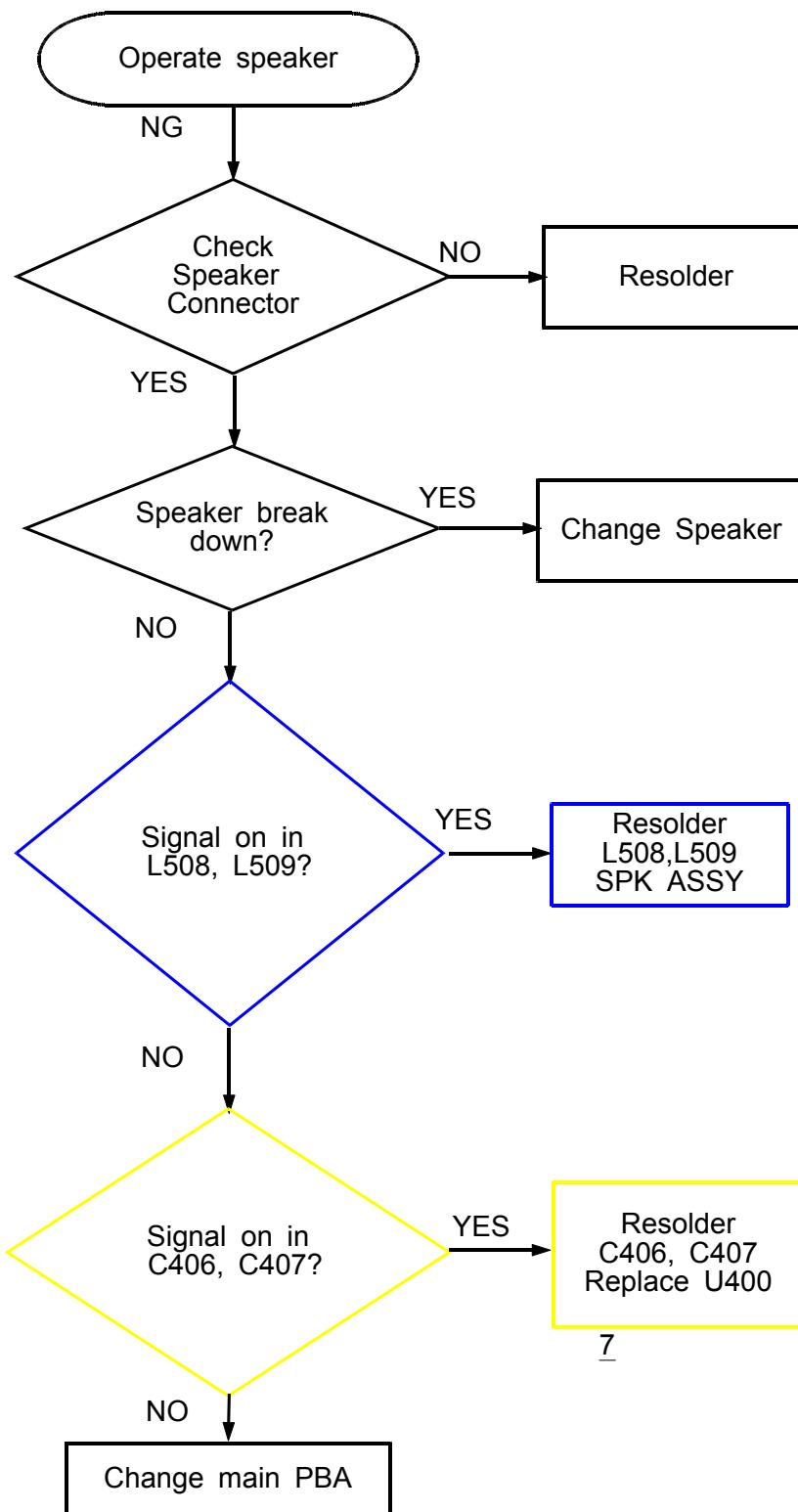




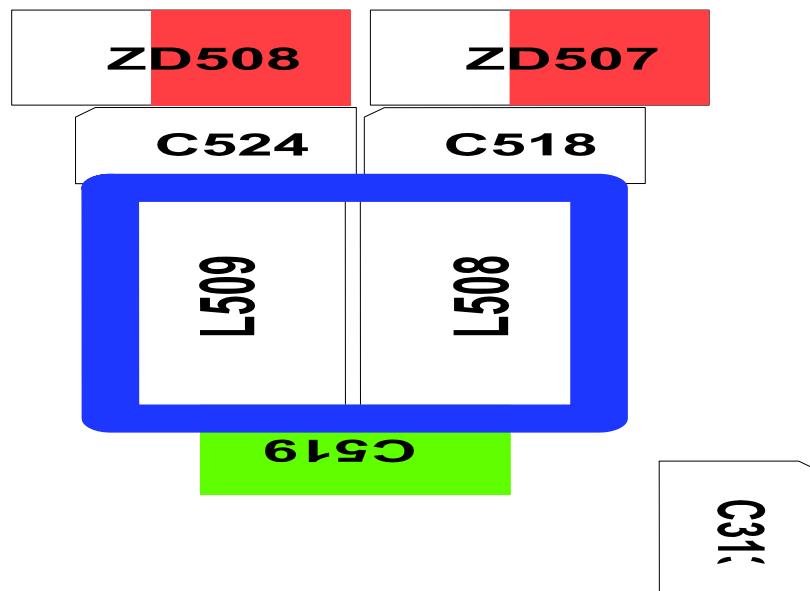
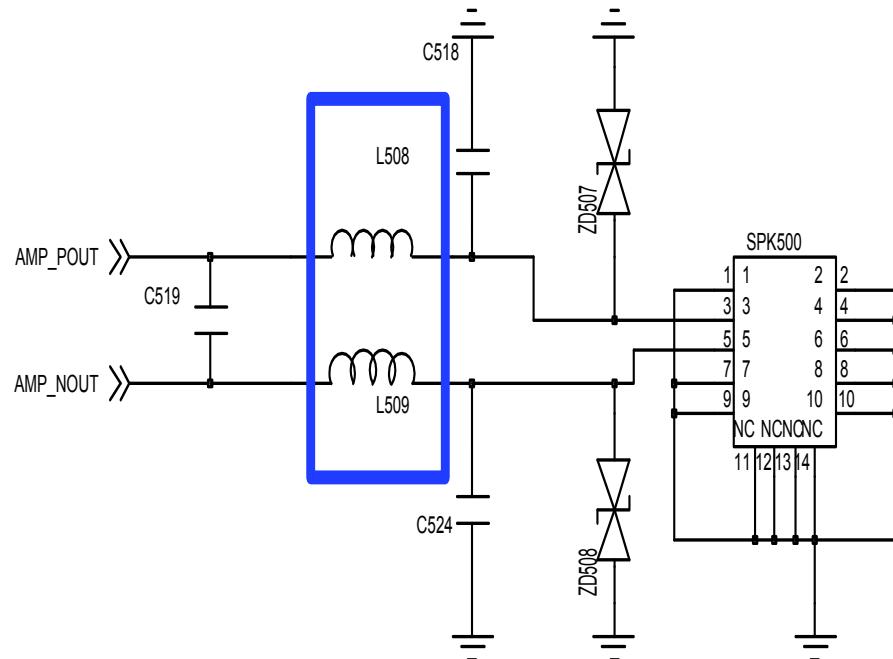
8-3-3. TSP

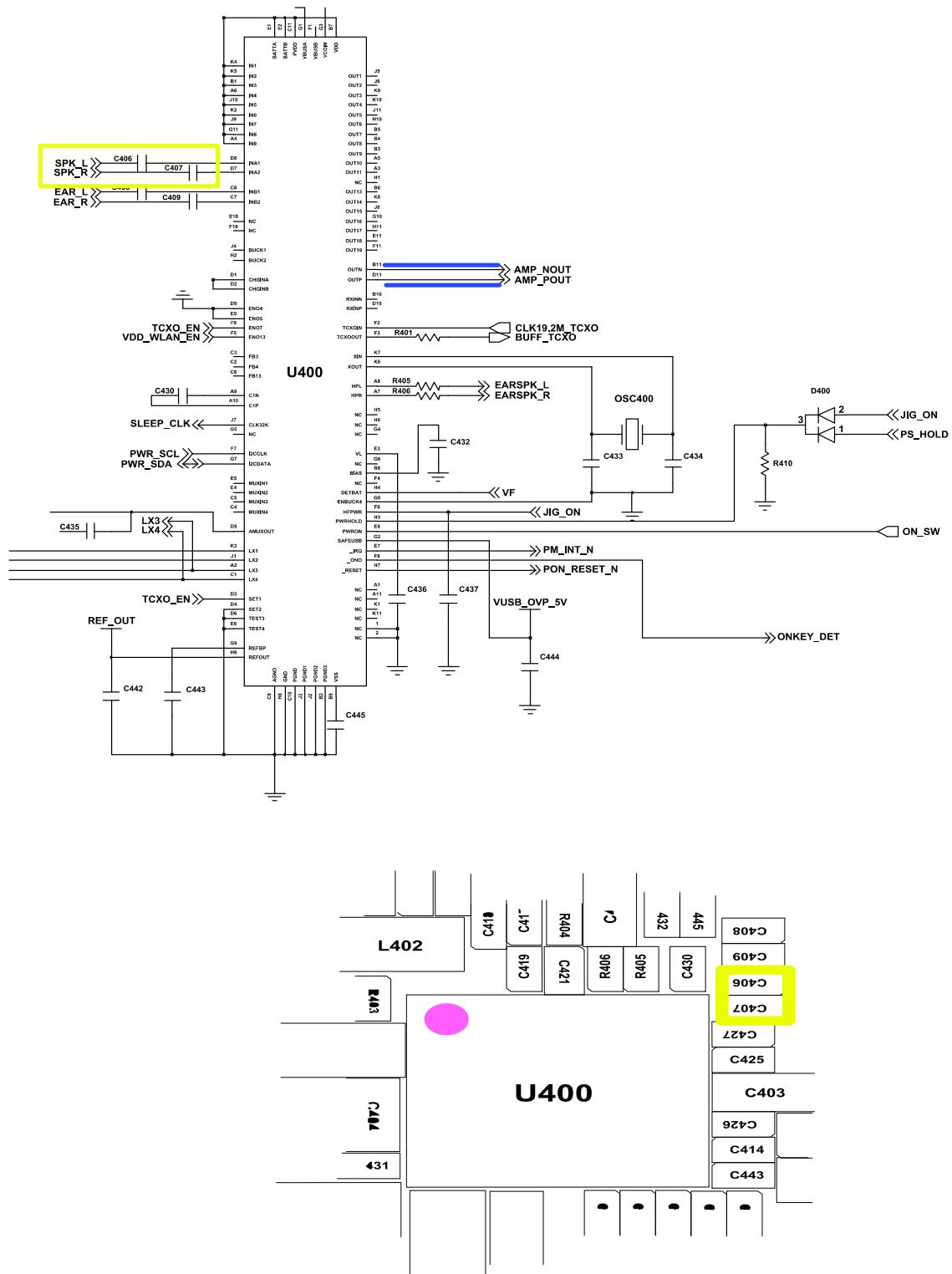


8-3-3. Audio Working

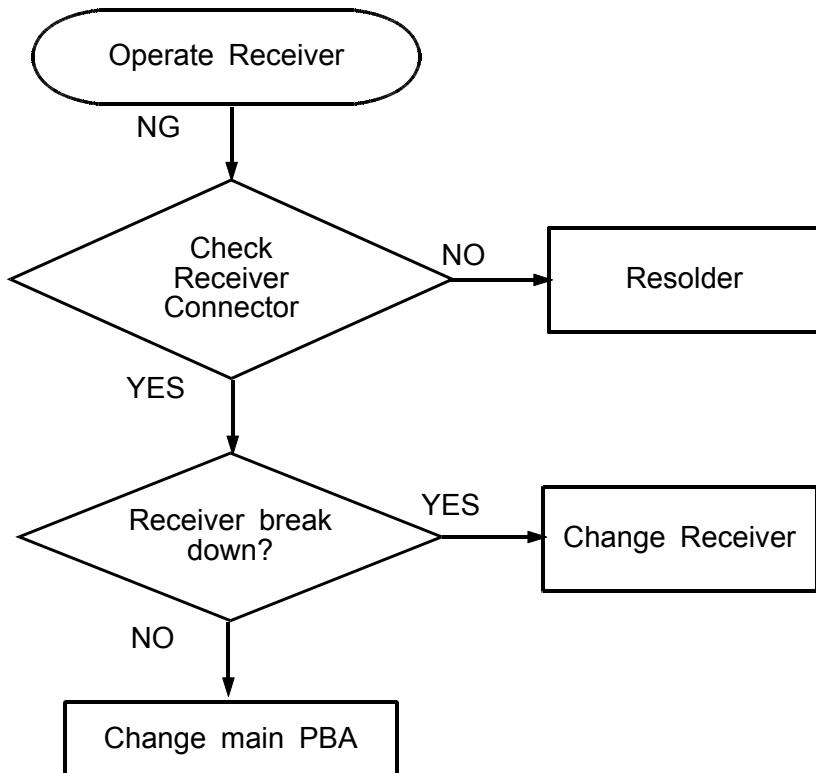
● Speaker Working

7

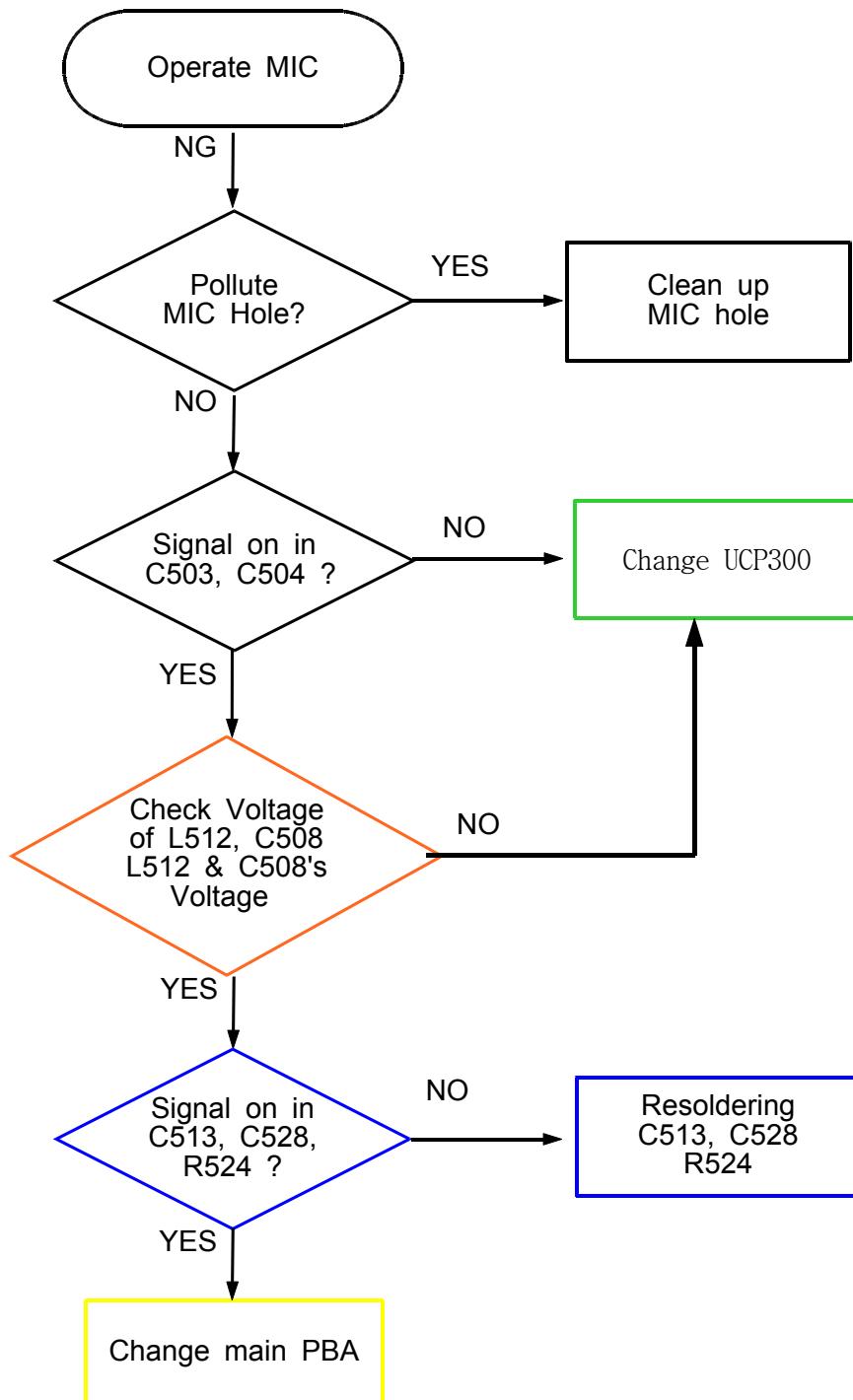


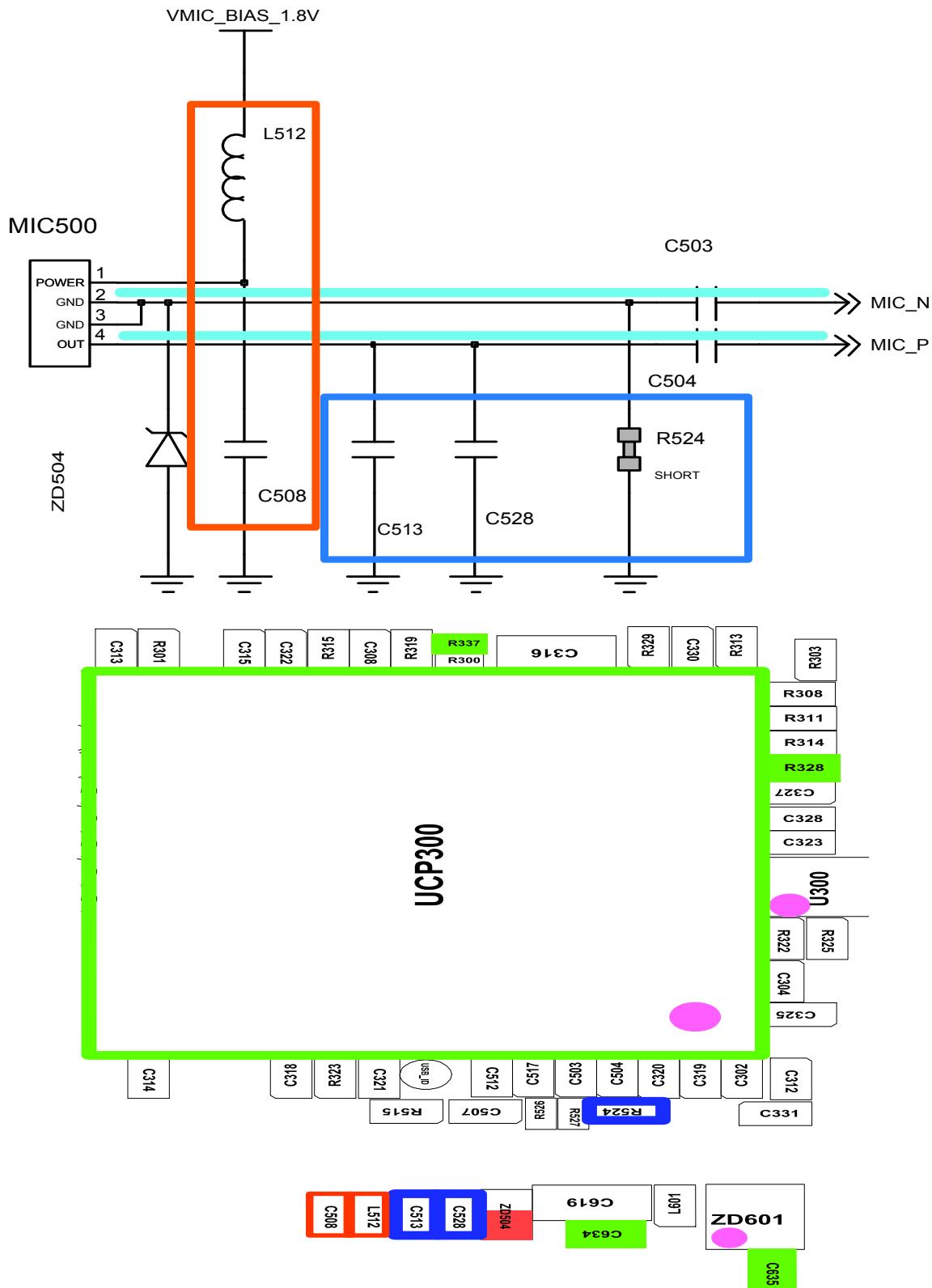


- Receiver Working

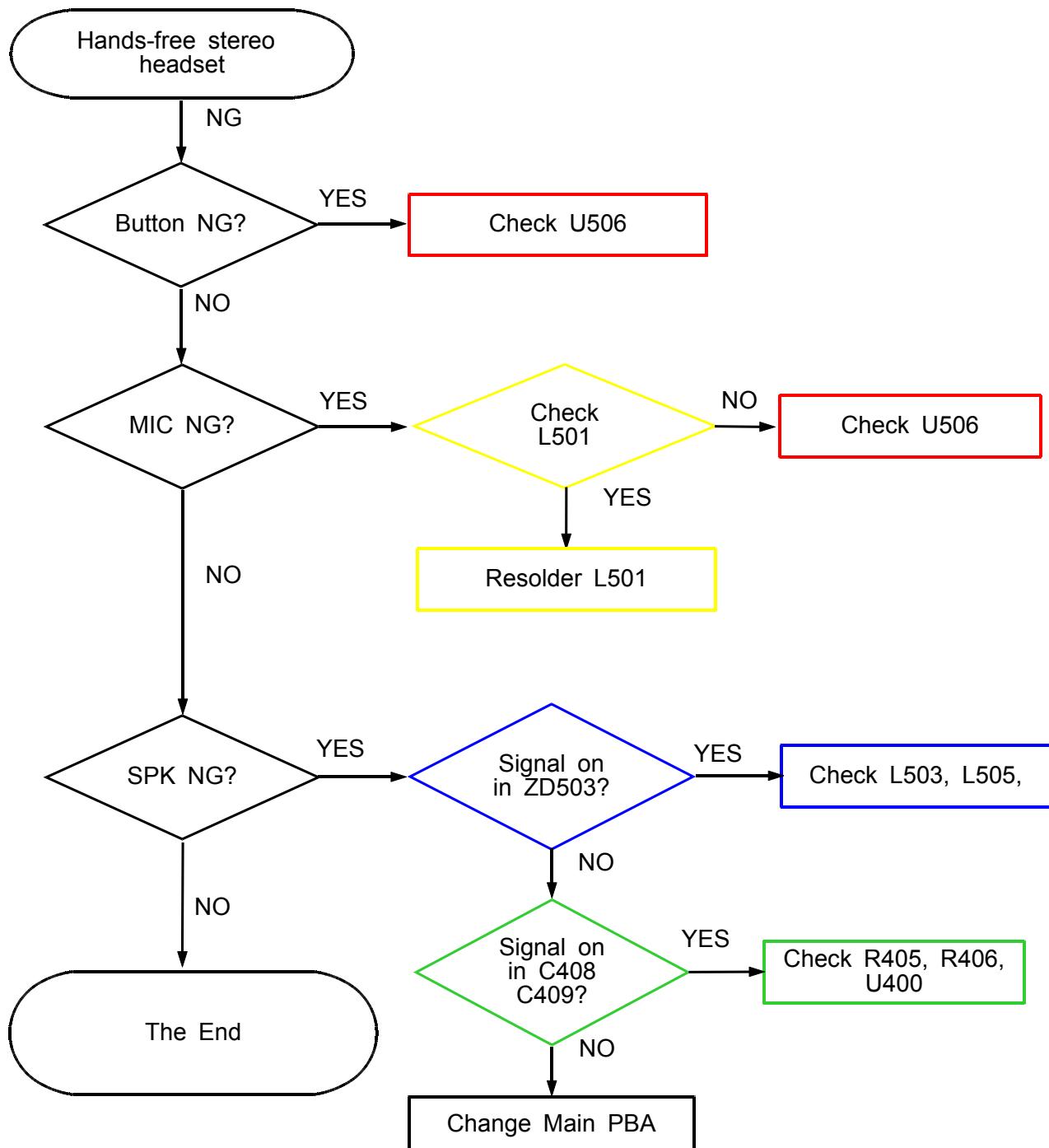


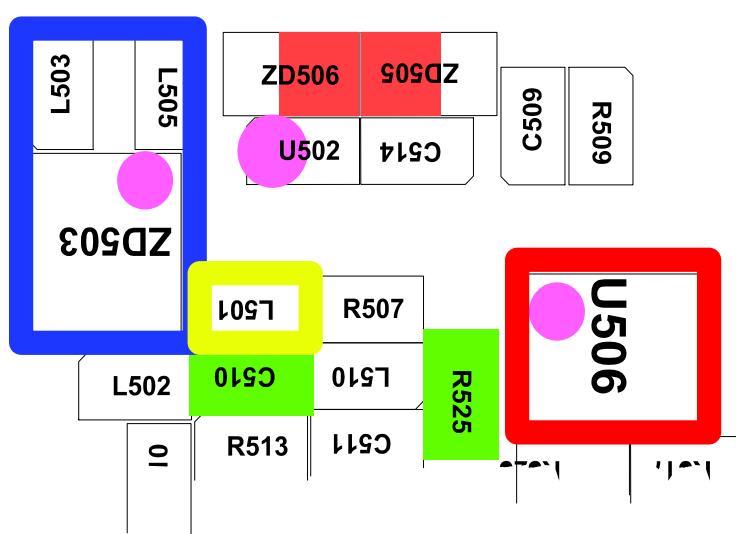
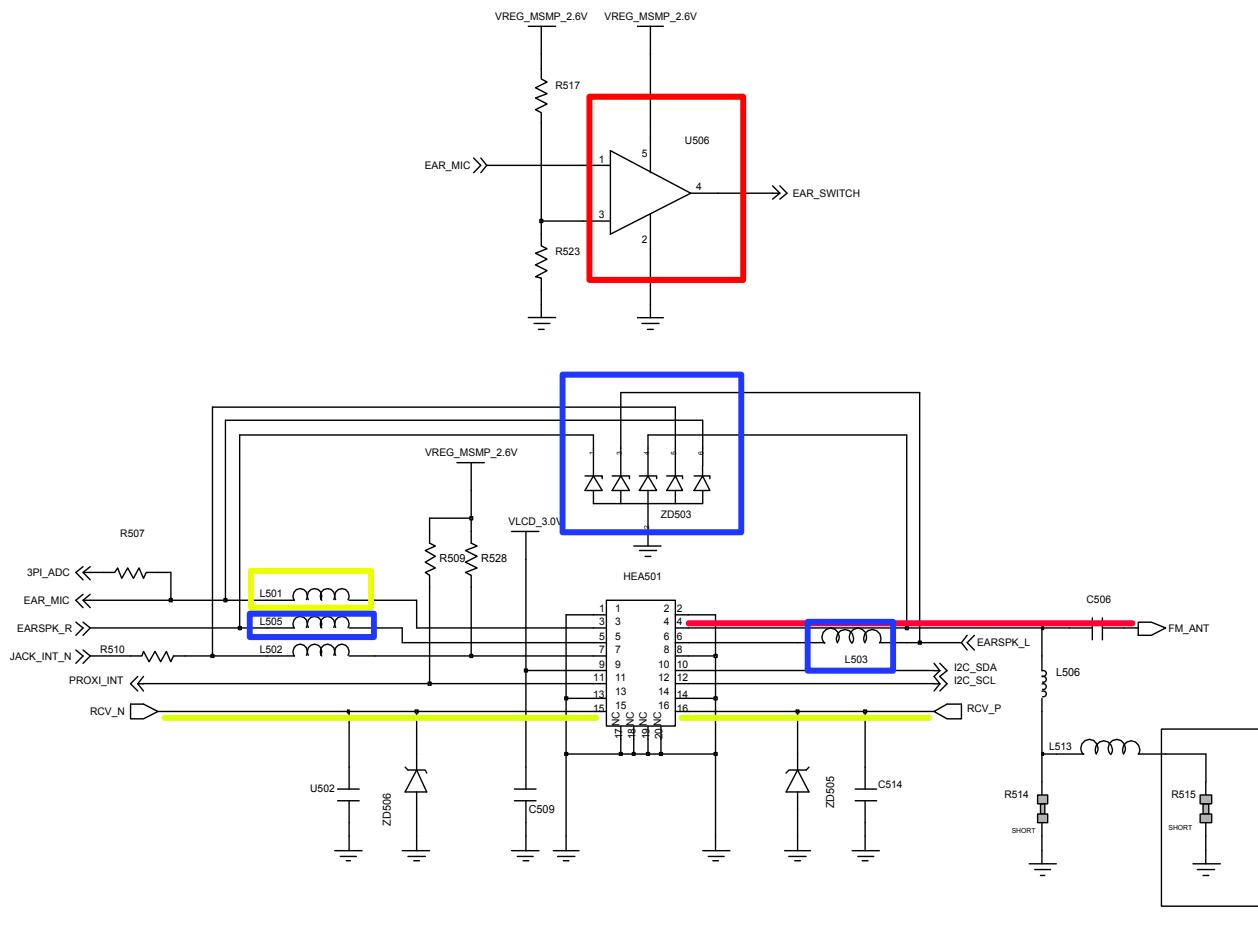
- MIC Working

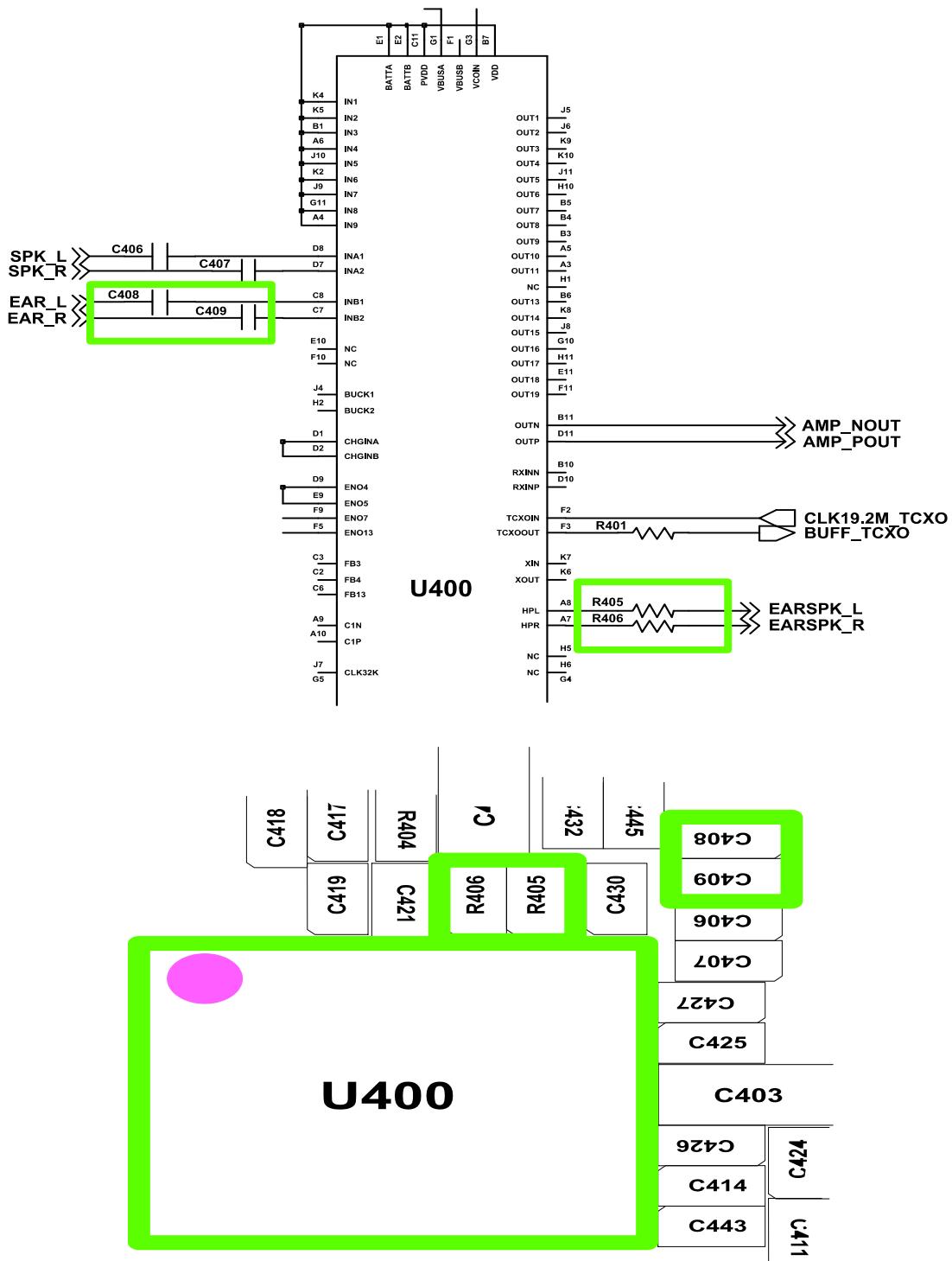




■ Stereo Headset Working

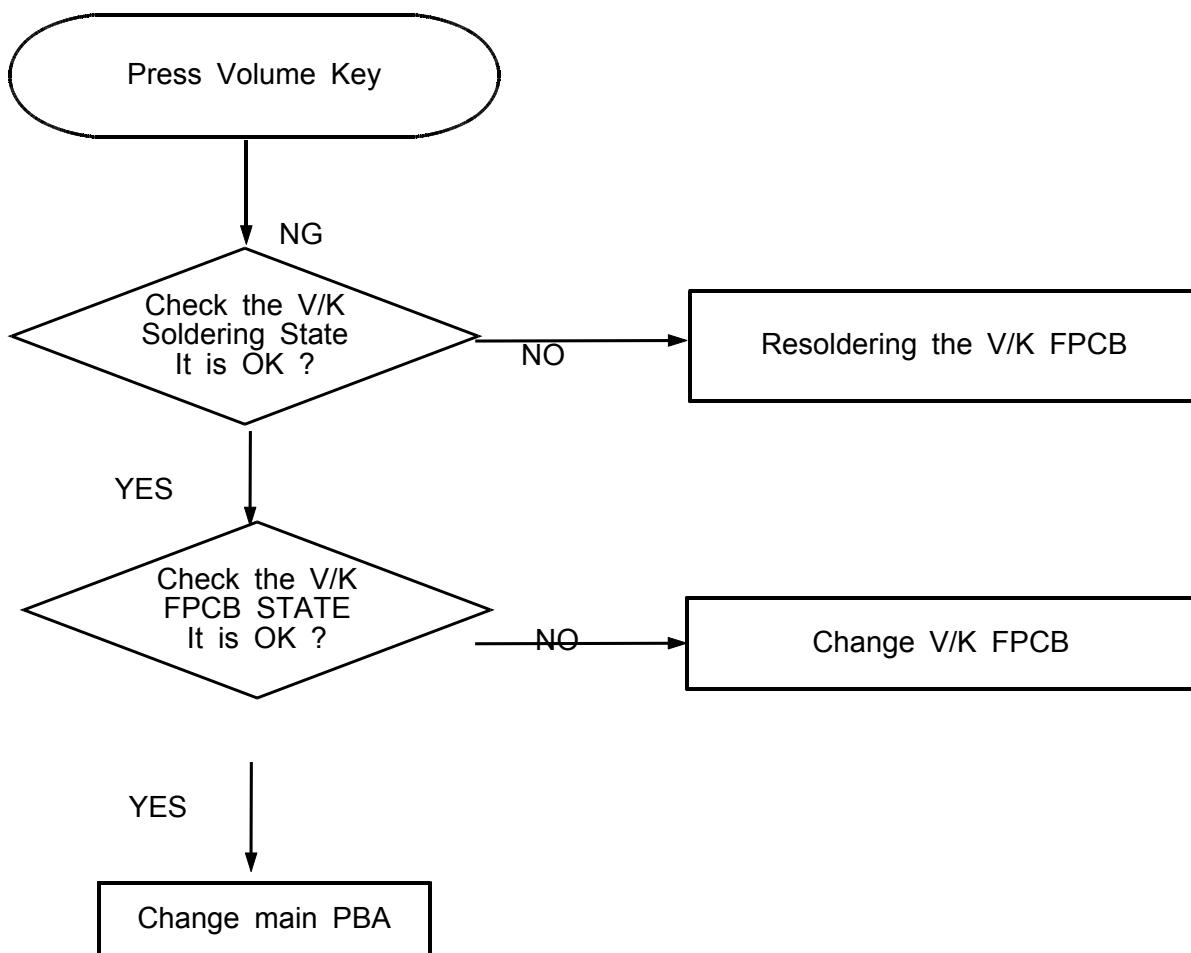




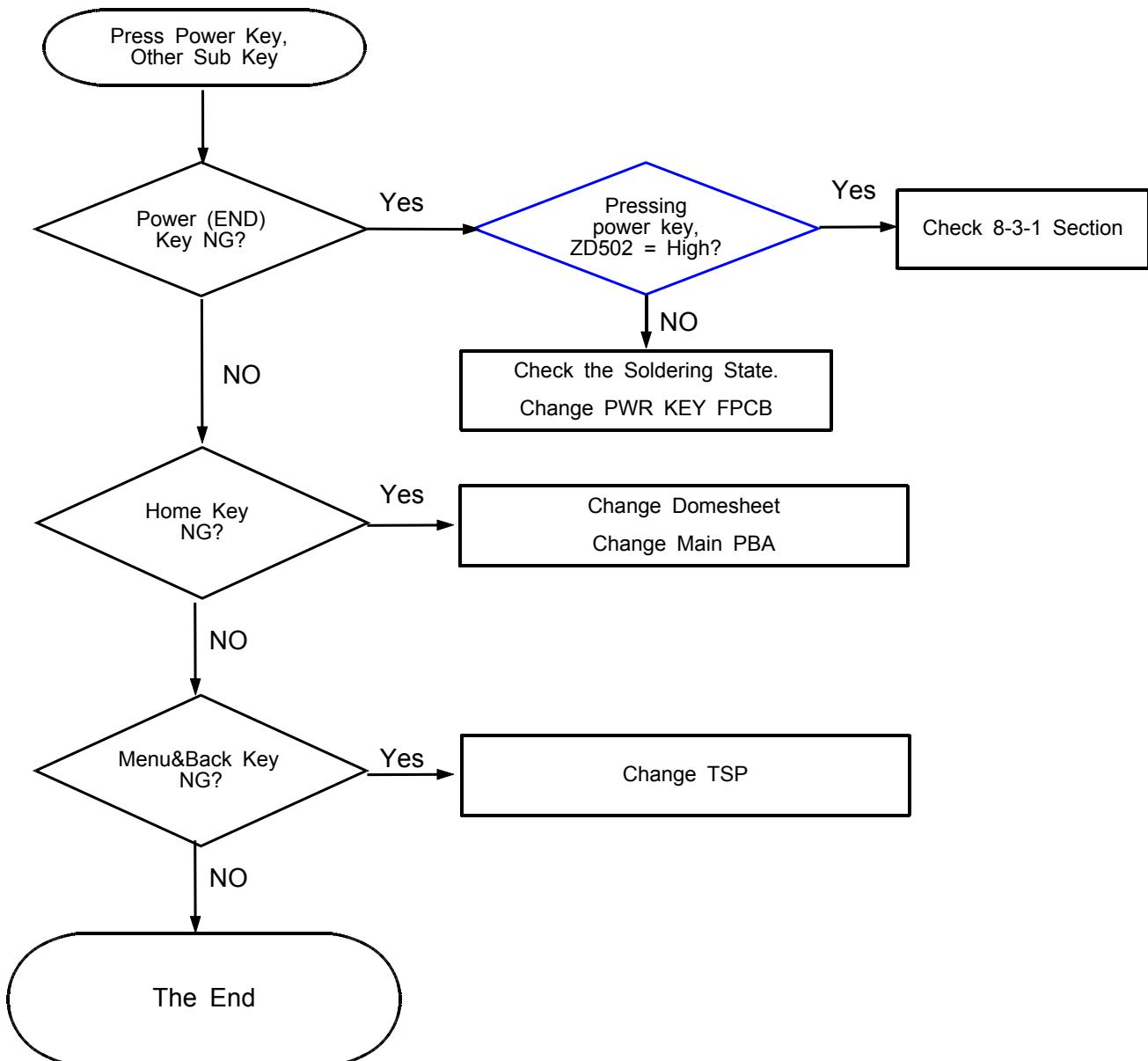


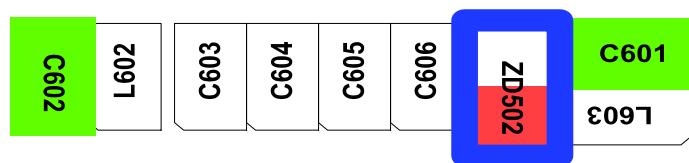
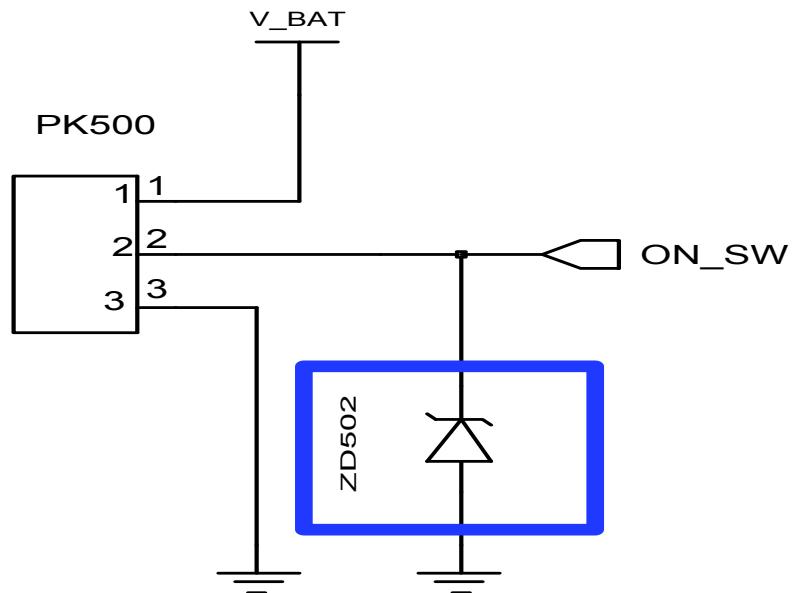
8-3-5. KEY Working

- Volume KEY

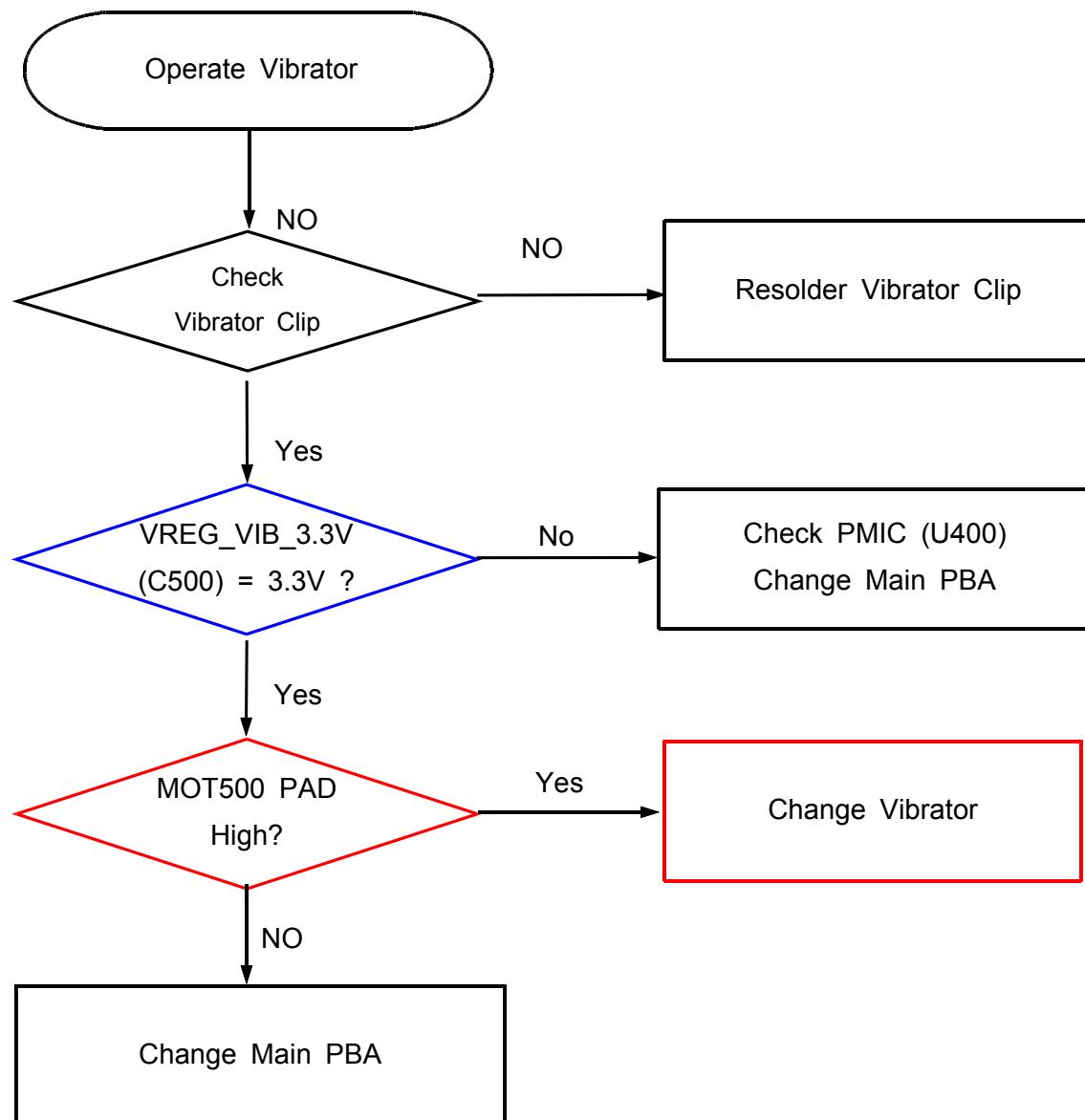


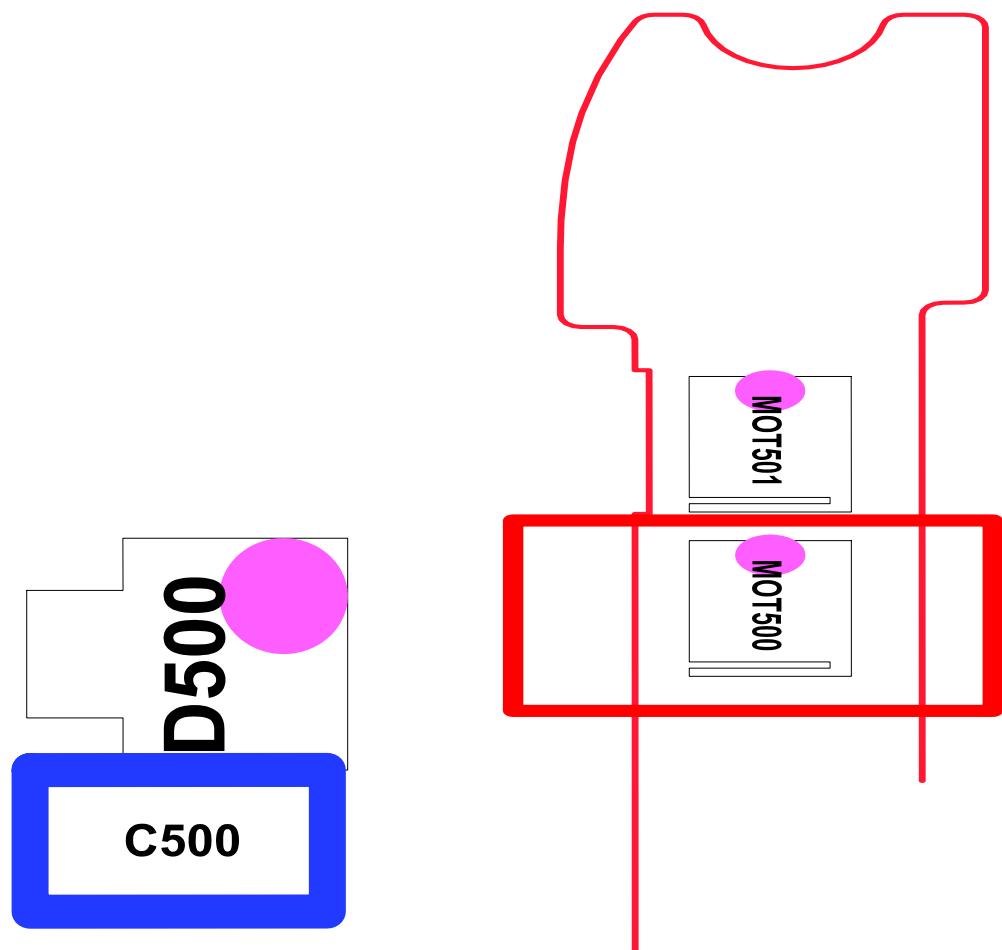
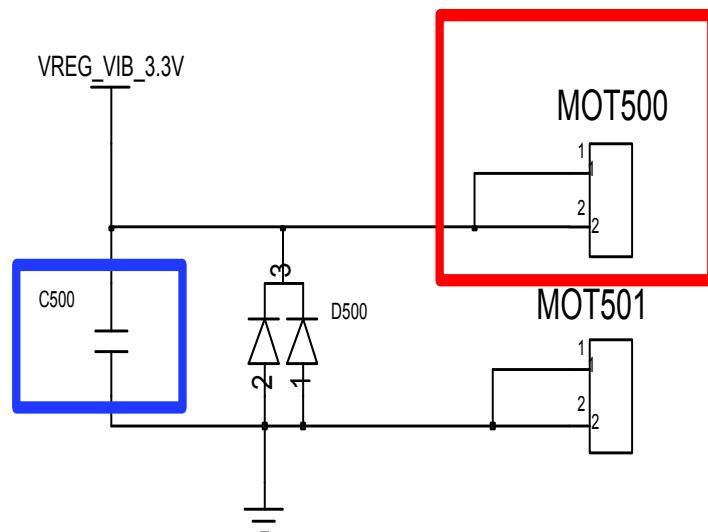
- Sub Key



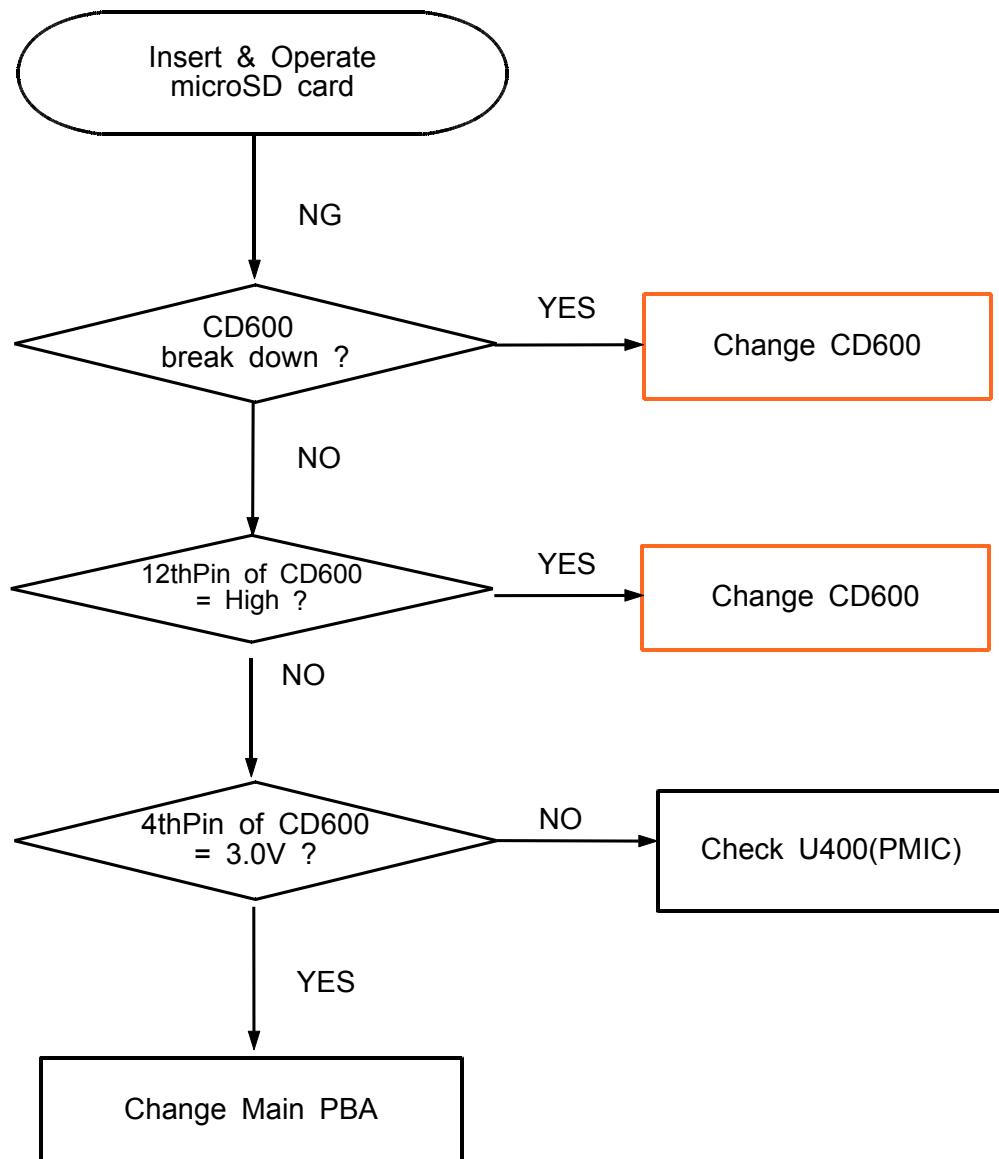


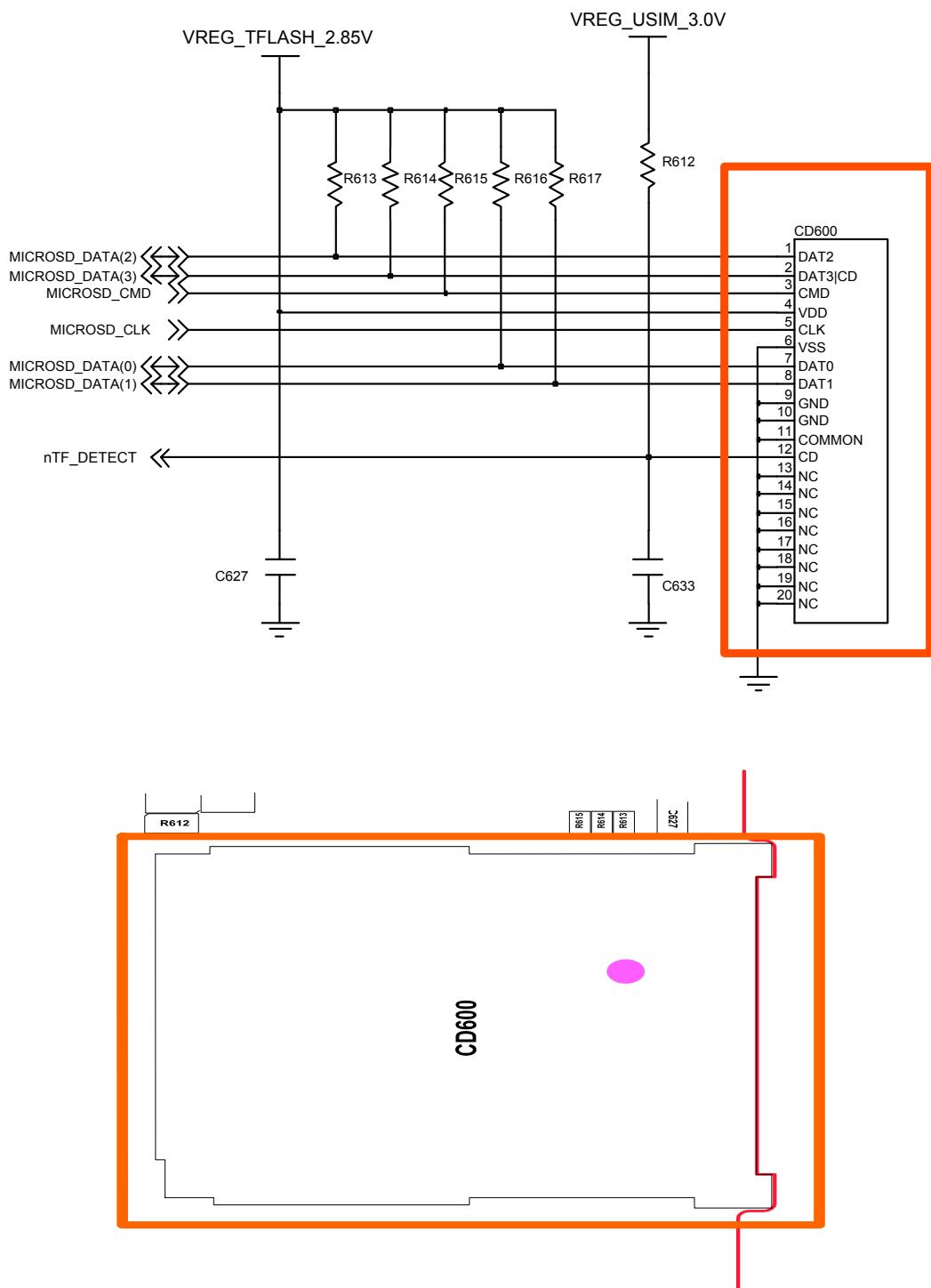
8-3-6. Vibrator Working



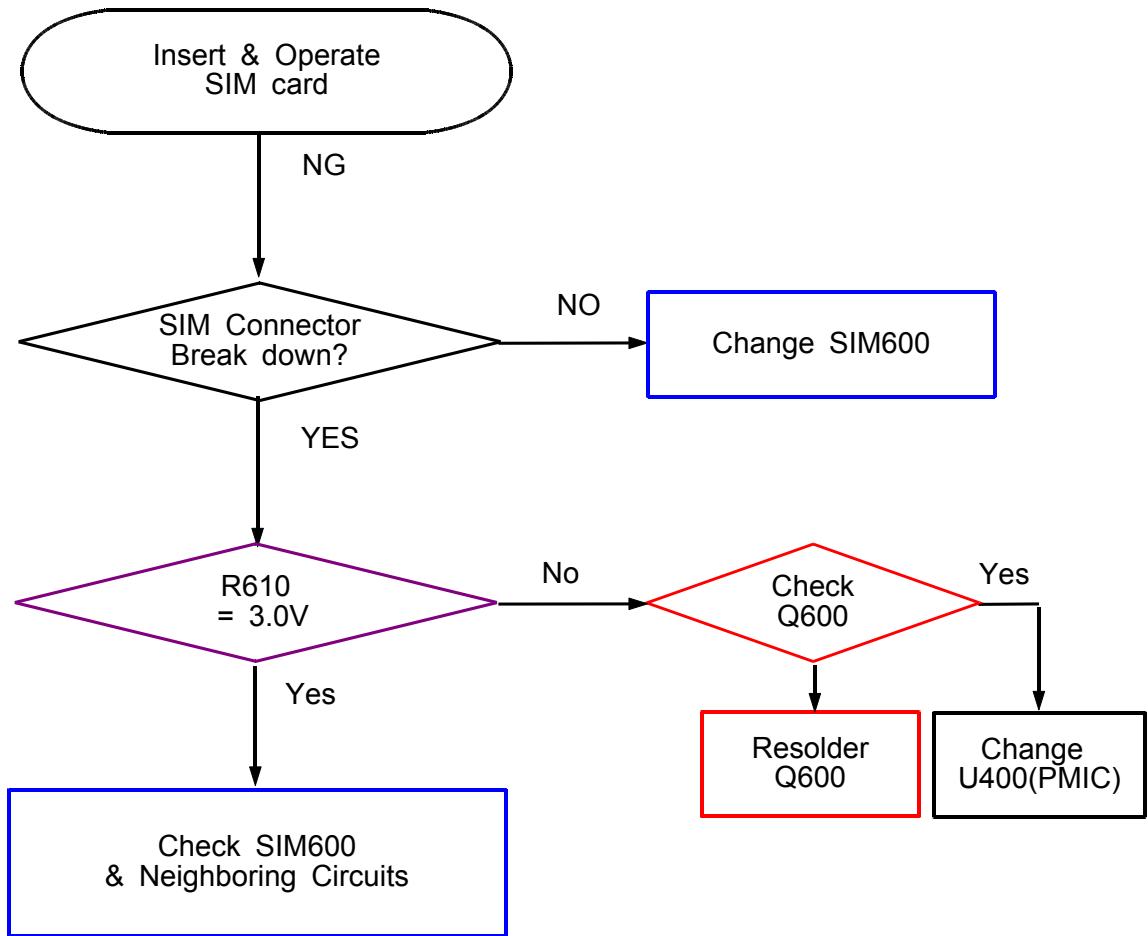


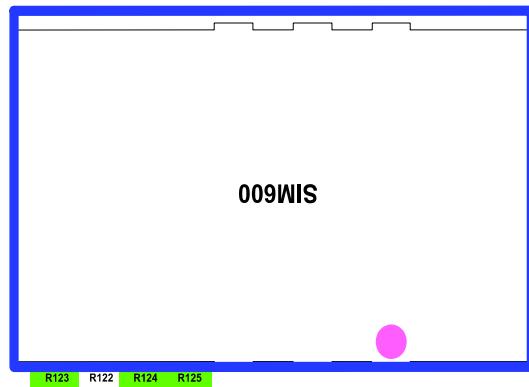
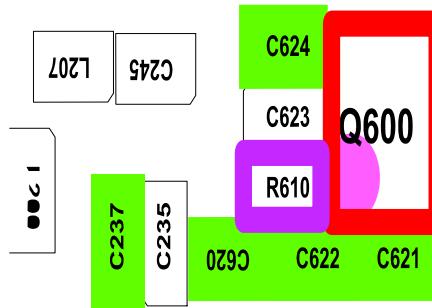
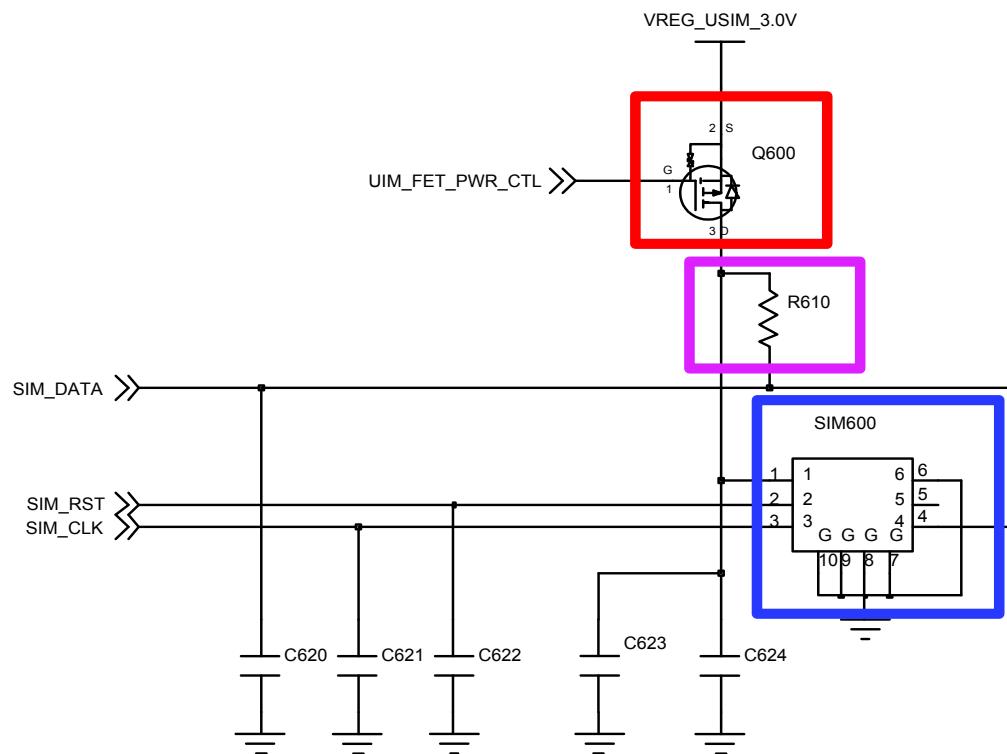
8-3-7. T-Flash Card Working



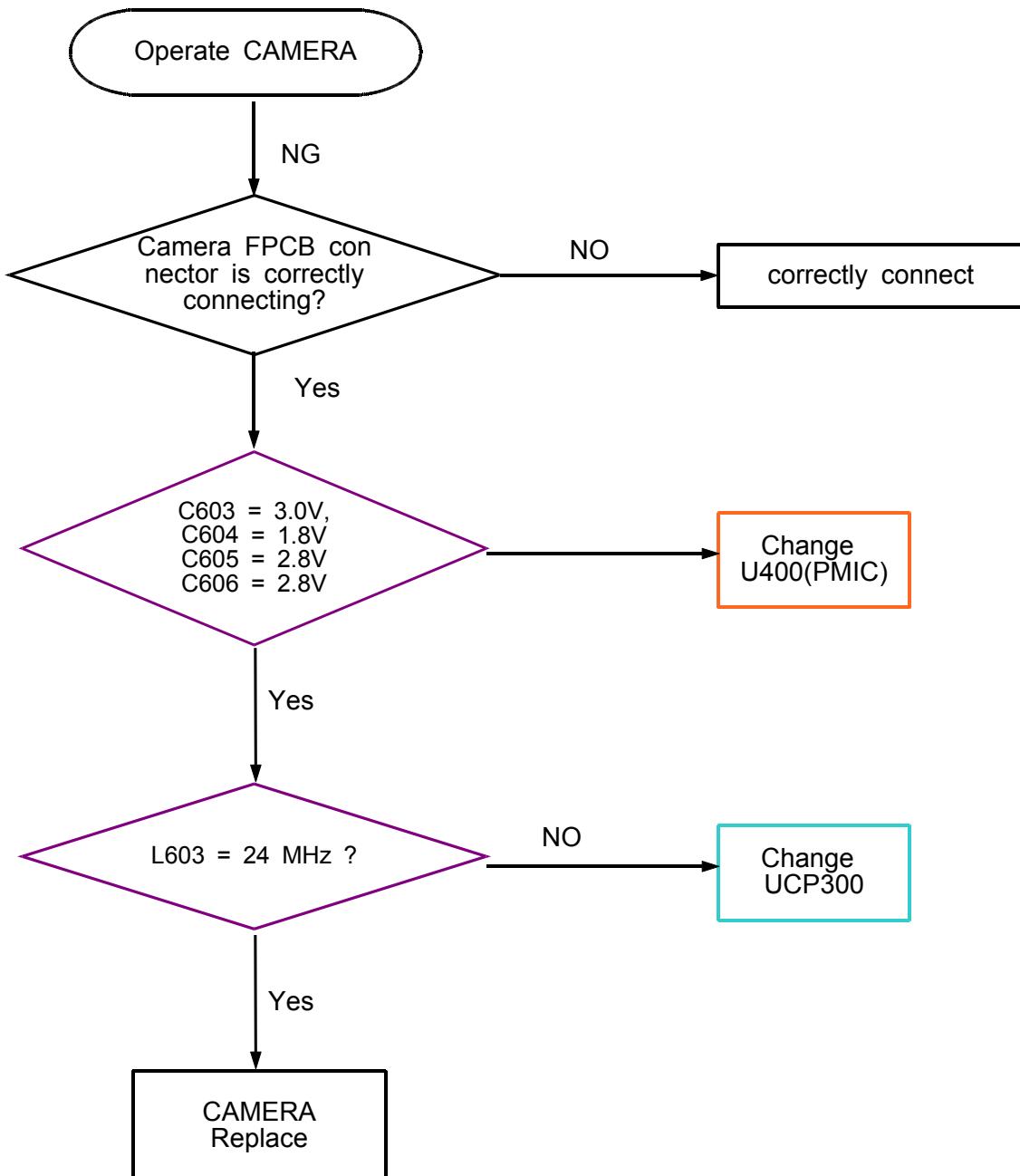


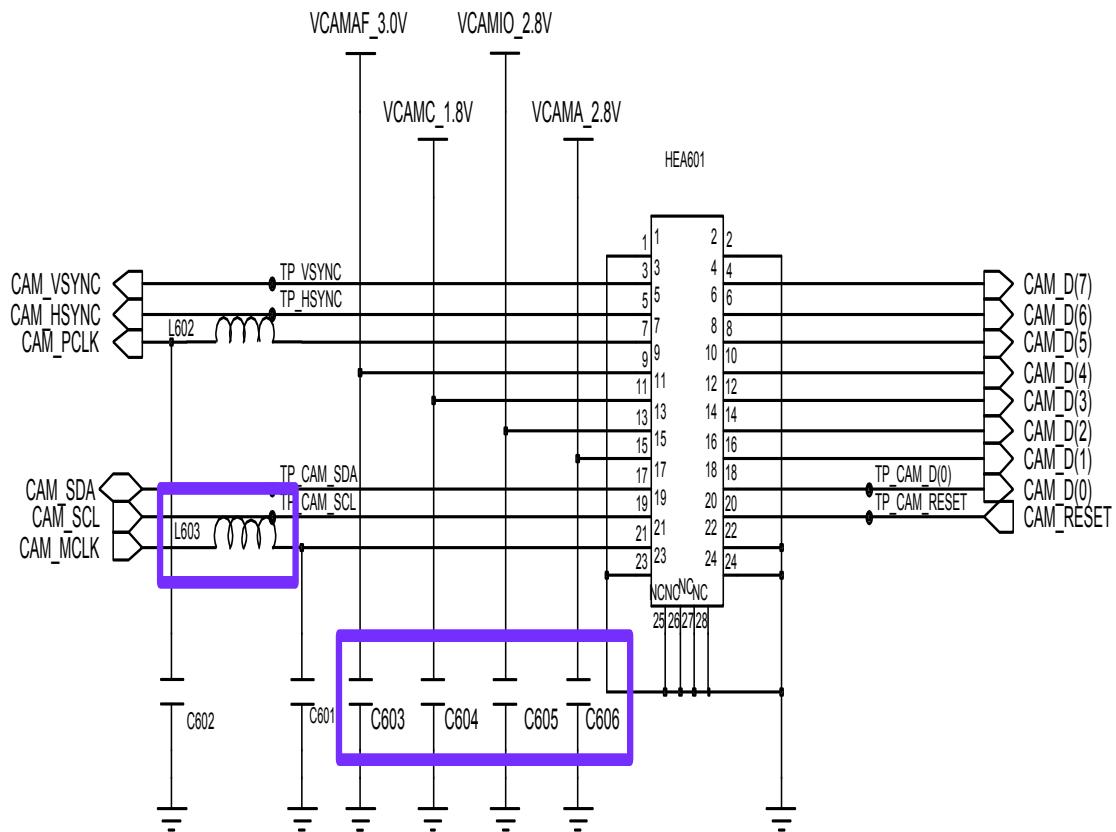
8-3-8. SIM Card Working



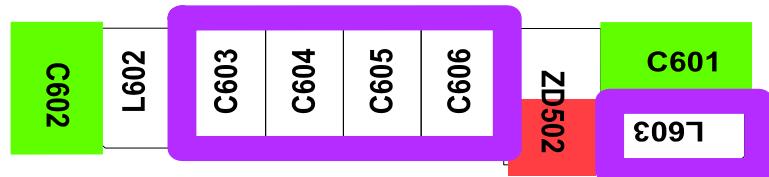


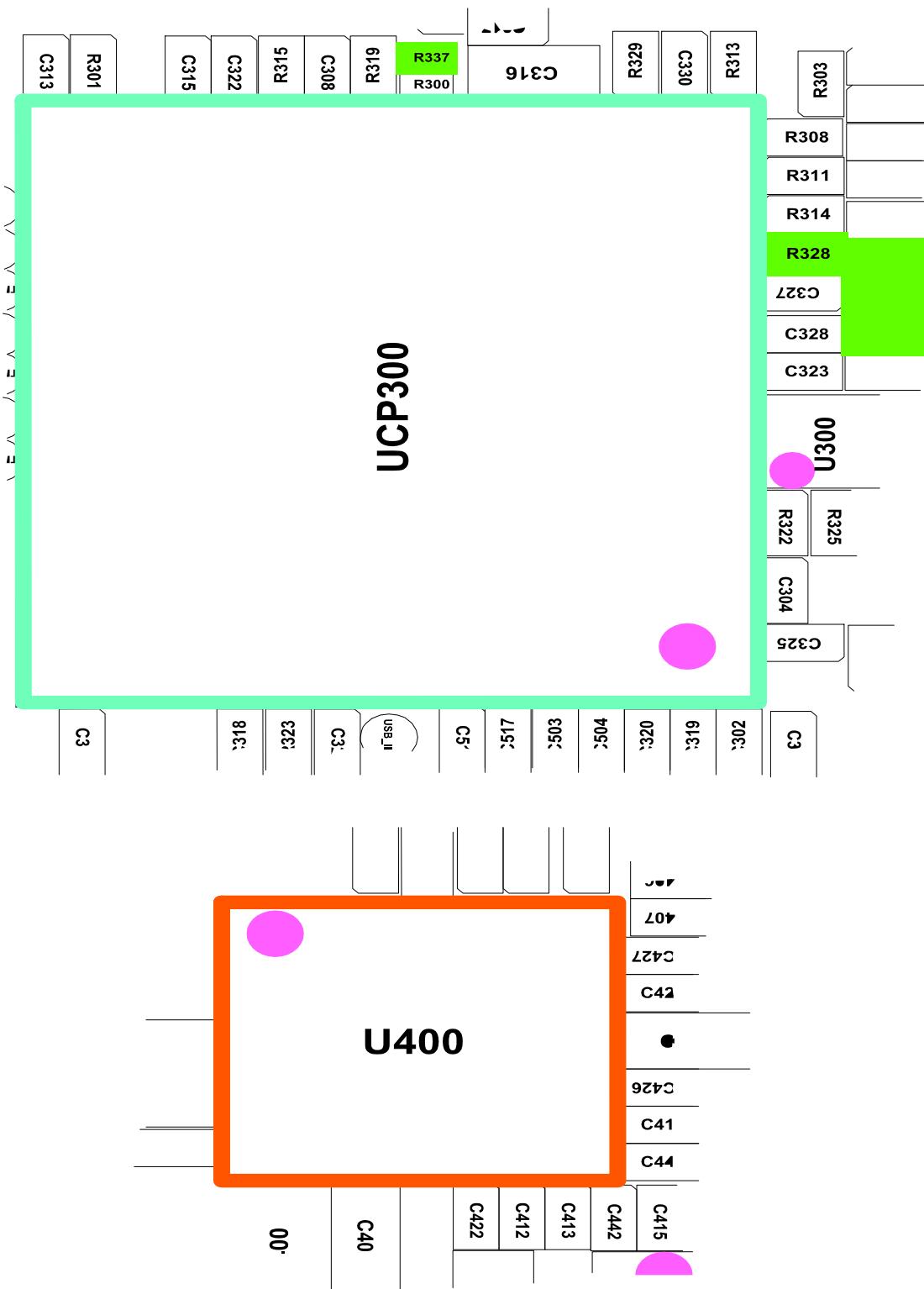
8-3-9 CAMERA Working





HEA601

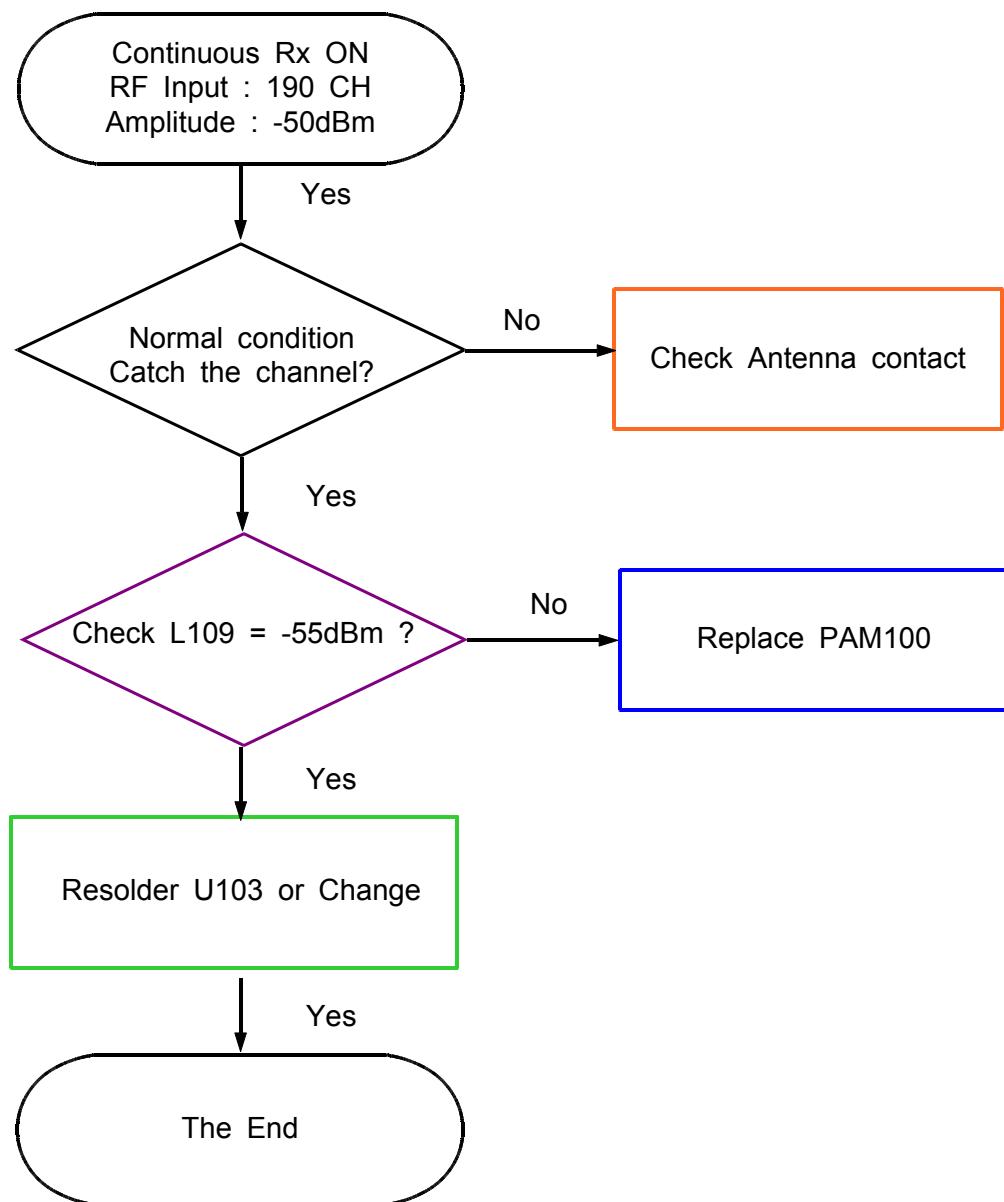




8-4-1. GSM850 RX

**If you check the tx chain,

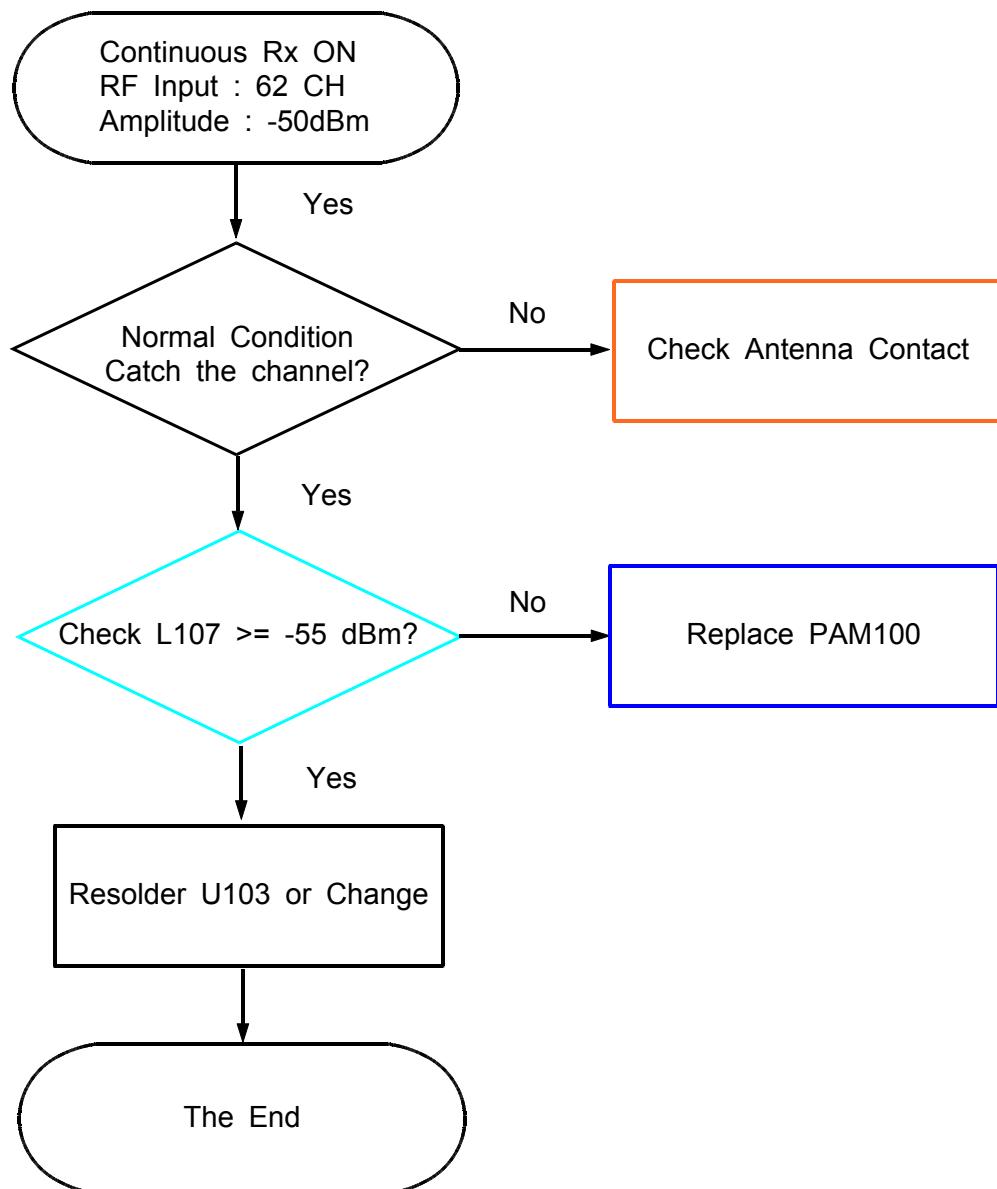
Check the not only RF Device but also resistor, inductor and capacitor.



8-4-2. GSM900 RX

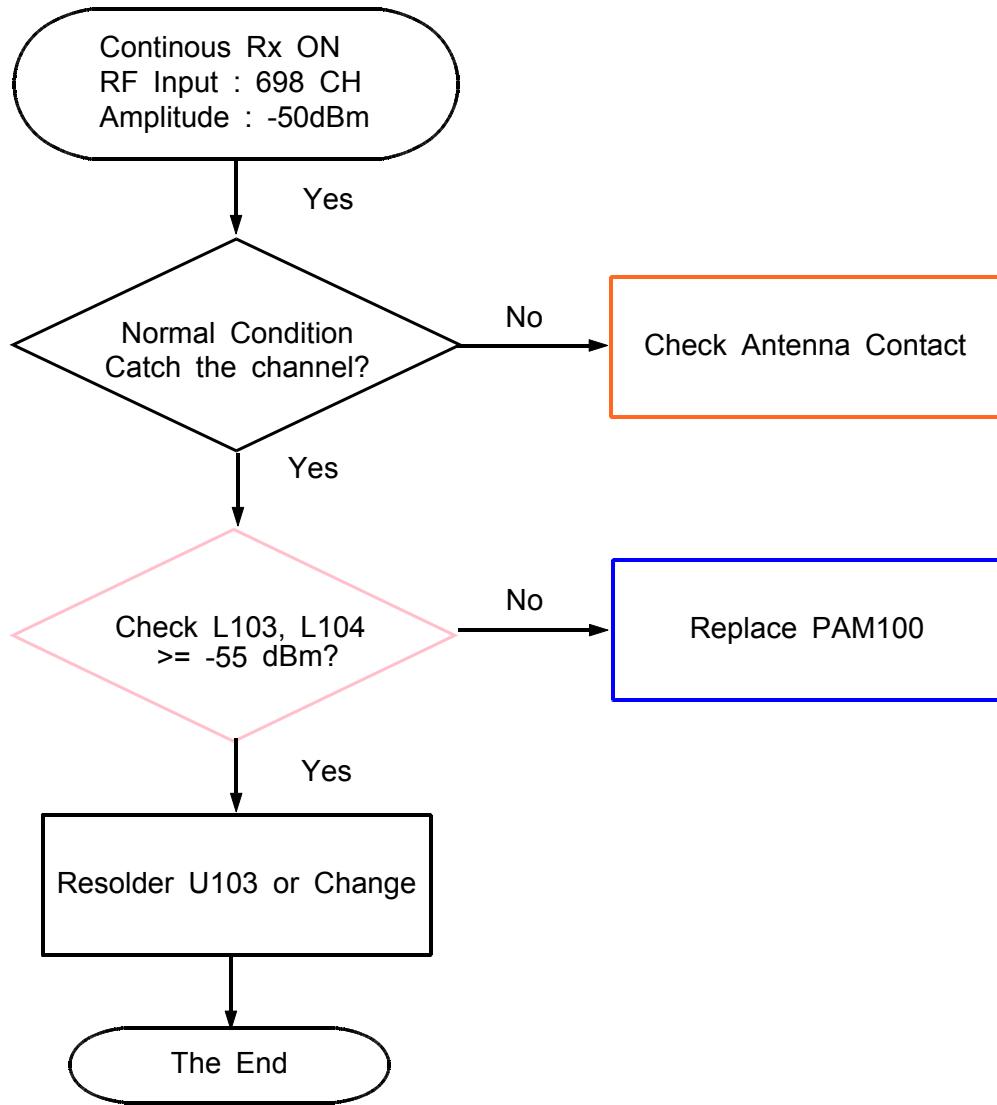
**If you check the tx chain,

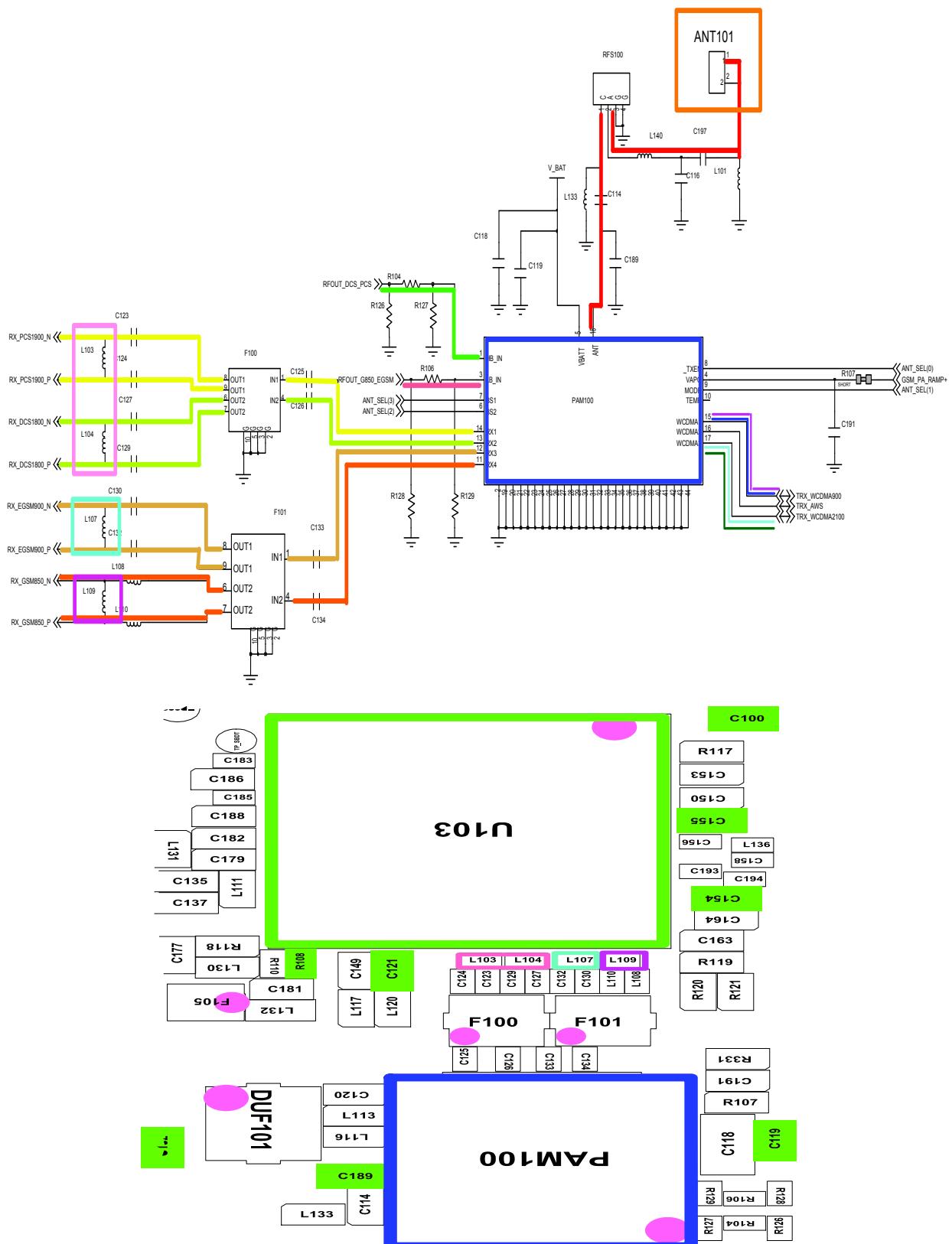
Check the not only RF Device but also resistor, inductor and capacitor.



8-4-3. DCS/PCS RX

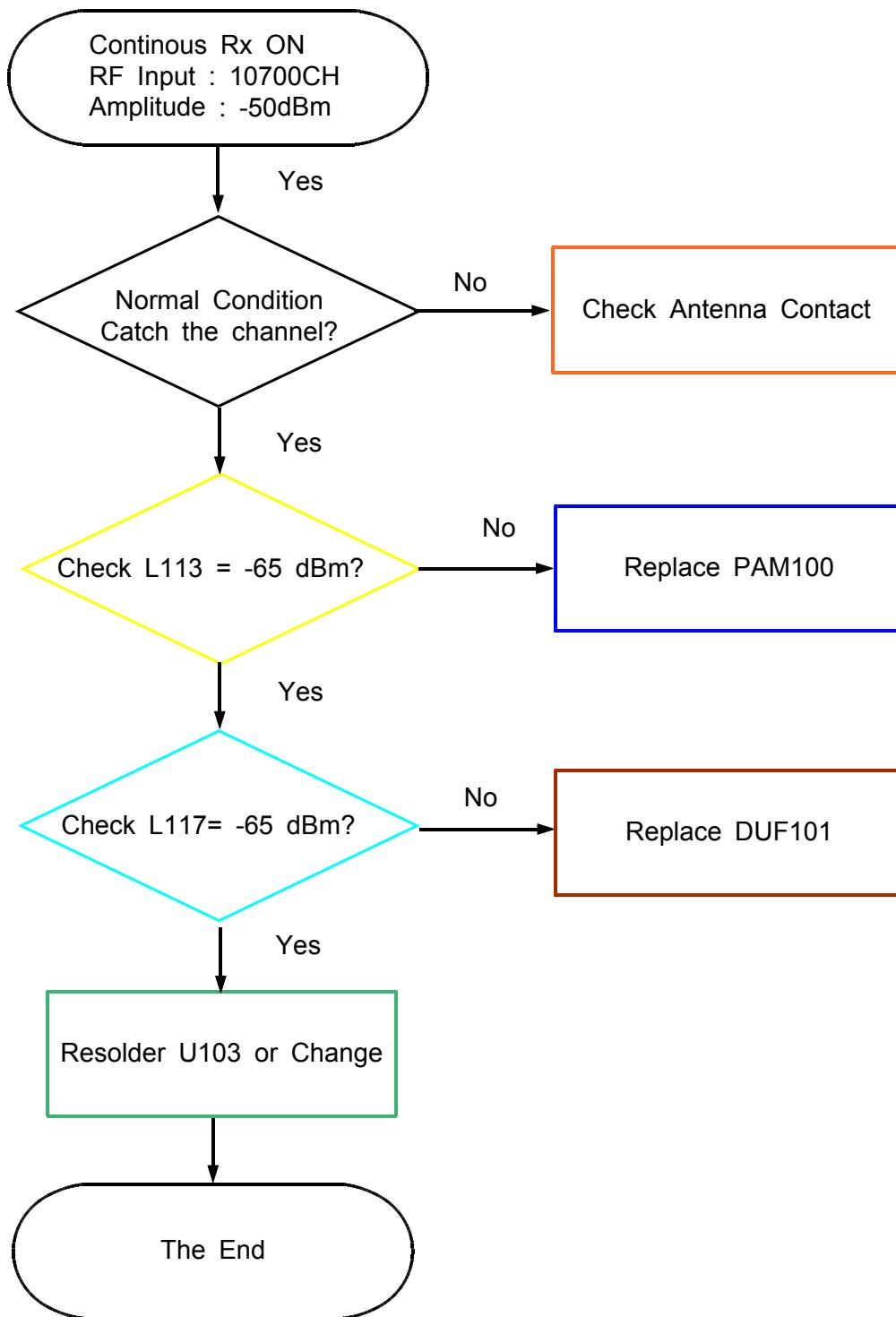
**If you check the tx chain,
Check the not only RF Device but also resistor, inductor and capacitor.





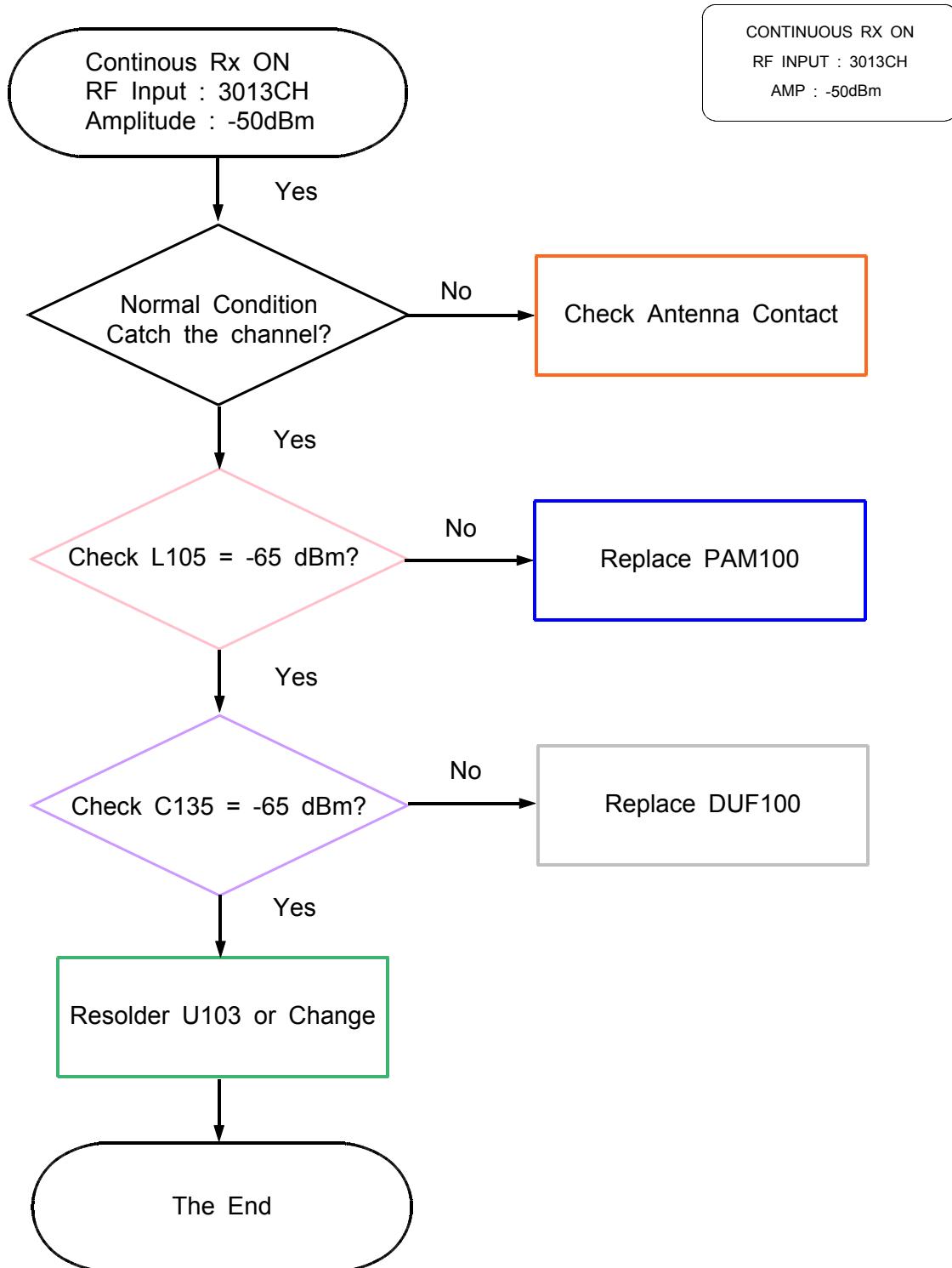
8-4-4. WCDMA Band1 RX

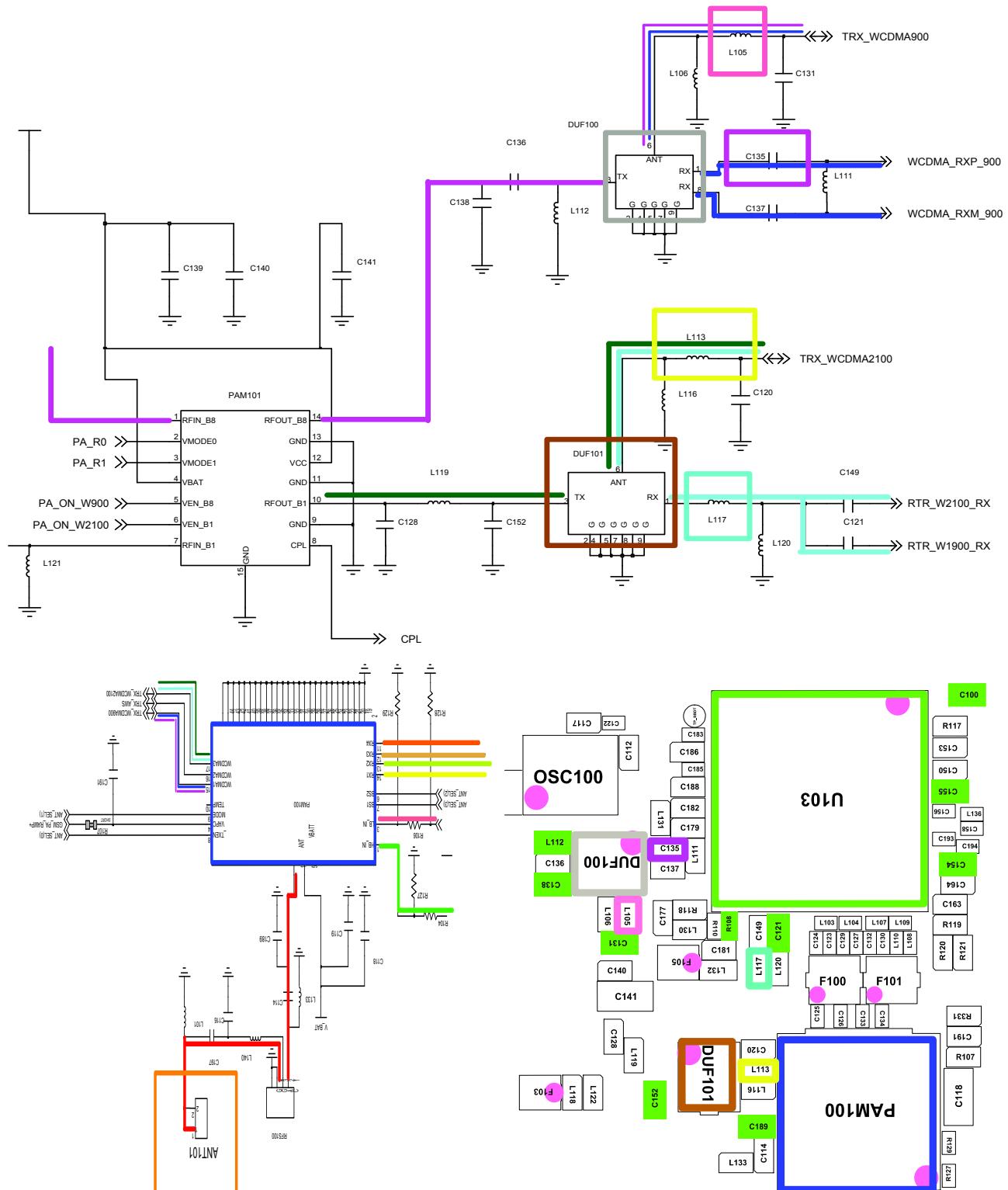
**If you check the tx chain,
Check the not only RF Device but also resistor, inductor and capacitor.



8-4-5. WCDMA Band8 RX

**If you check the tx chain,
Check the not only RF Device but also resistor, inductor and capacitor.

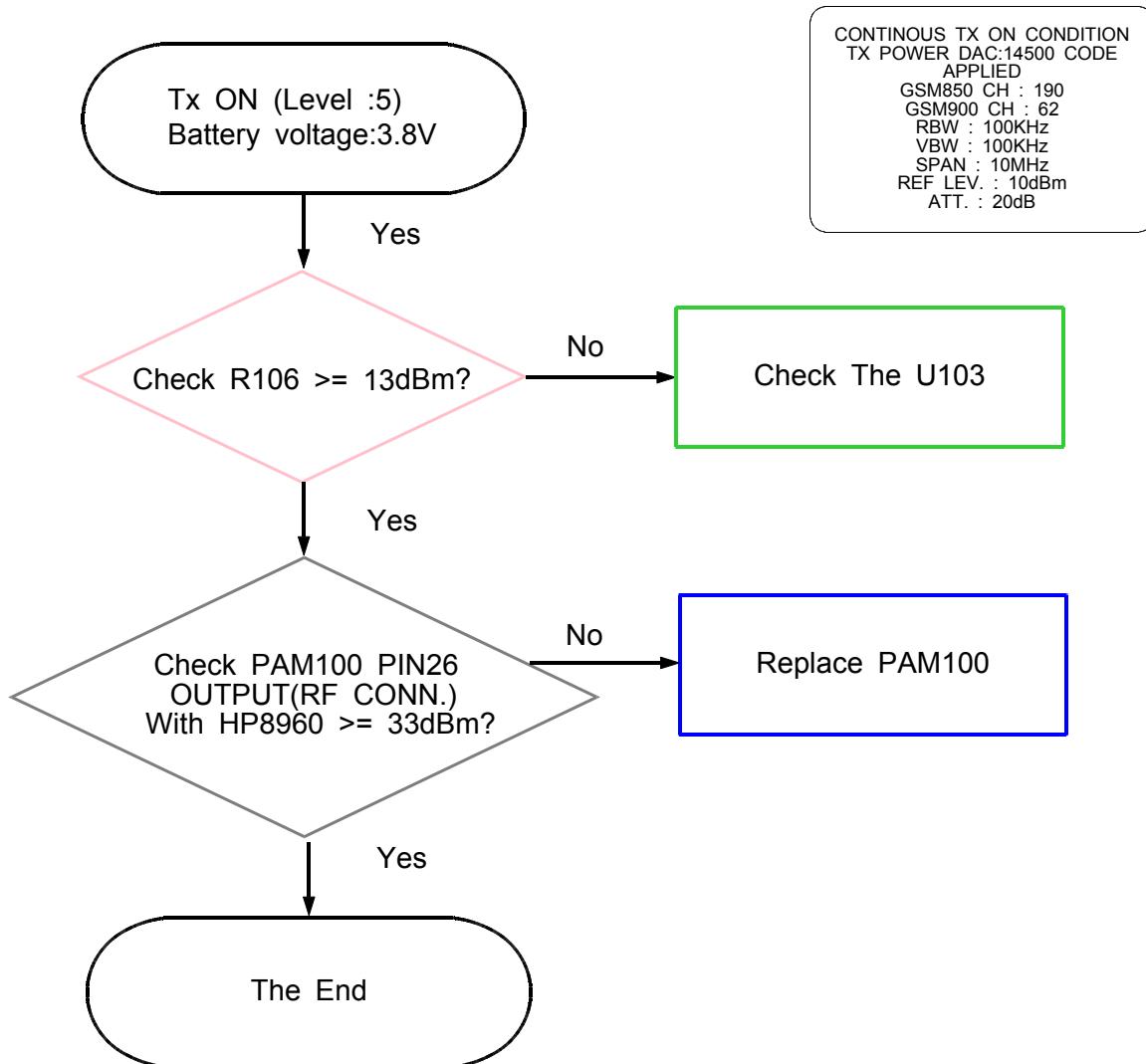




8-4-6. GSM850/900 TX

**If you check the tx chain,

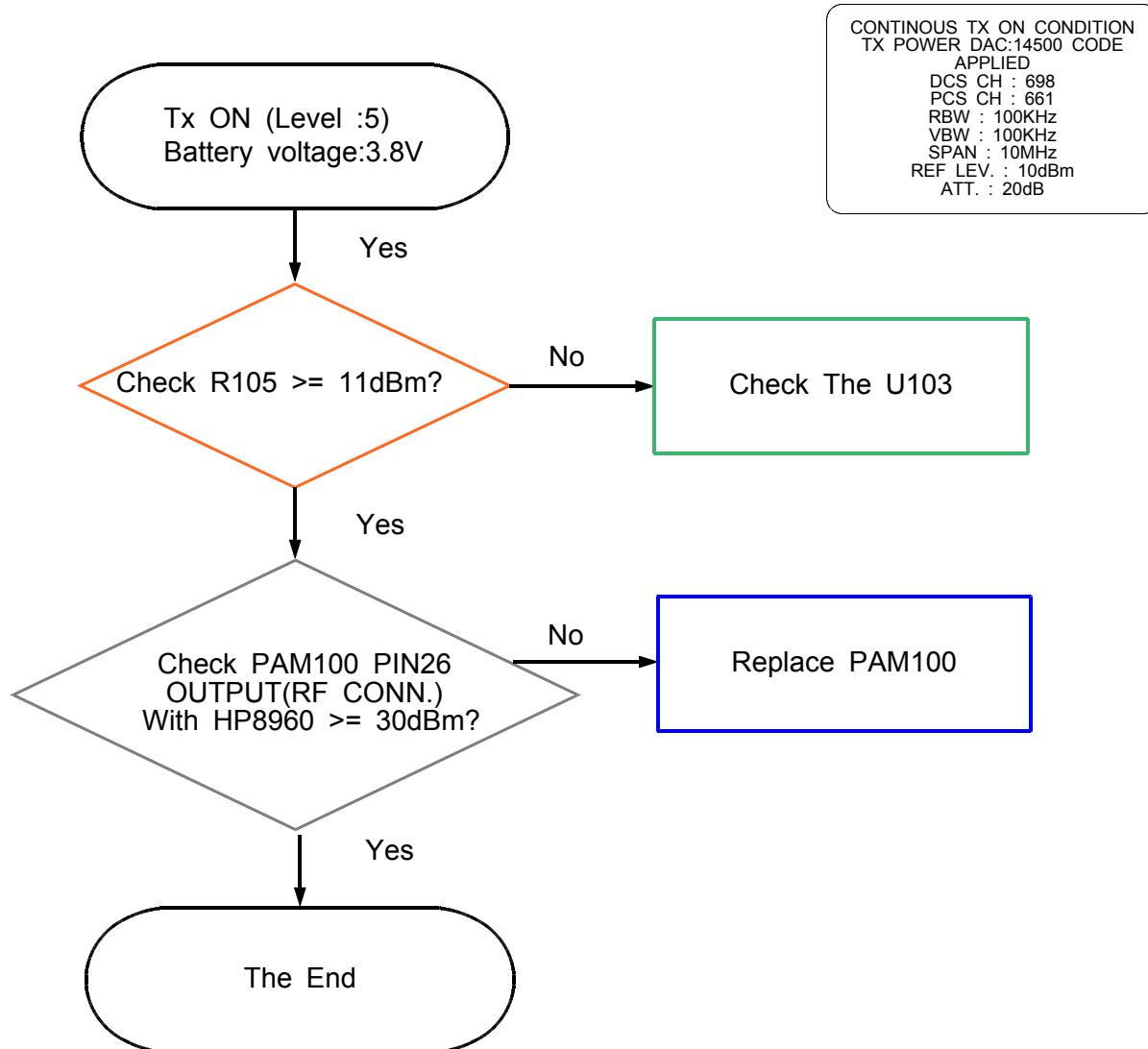
Check the not only RF Device but also resistor, inductor and capacitor.

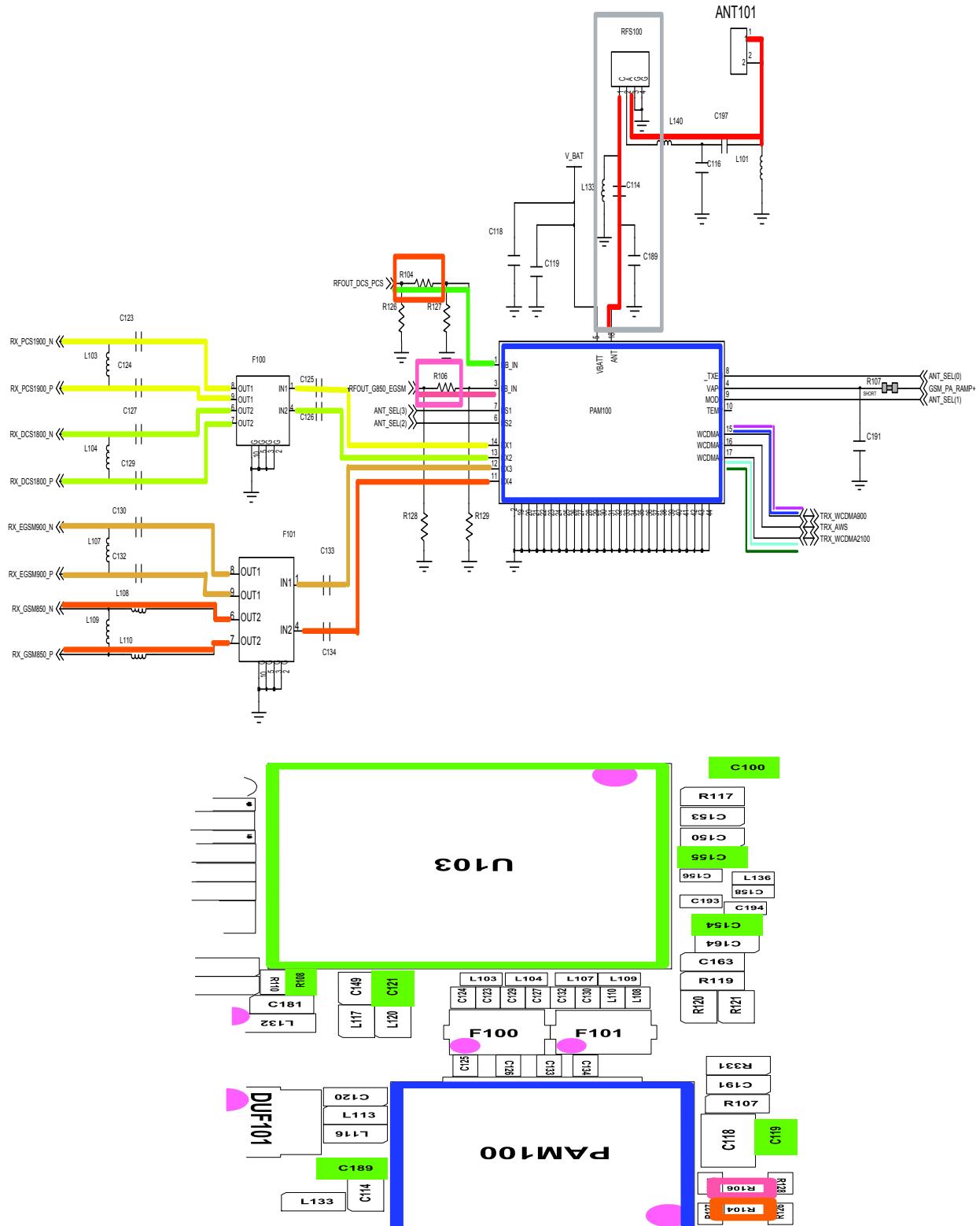


8-4-7. DCS/PCS TX

**If you check the tx chain,

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

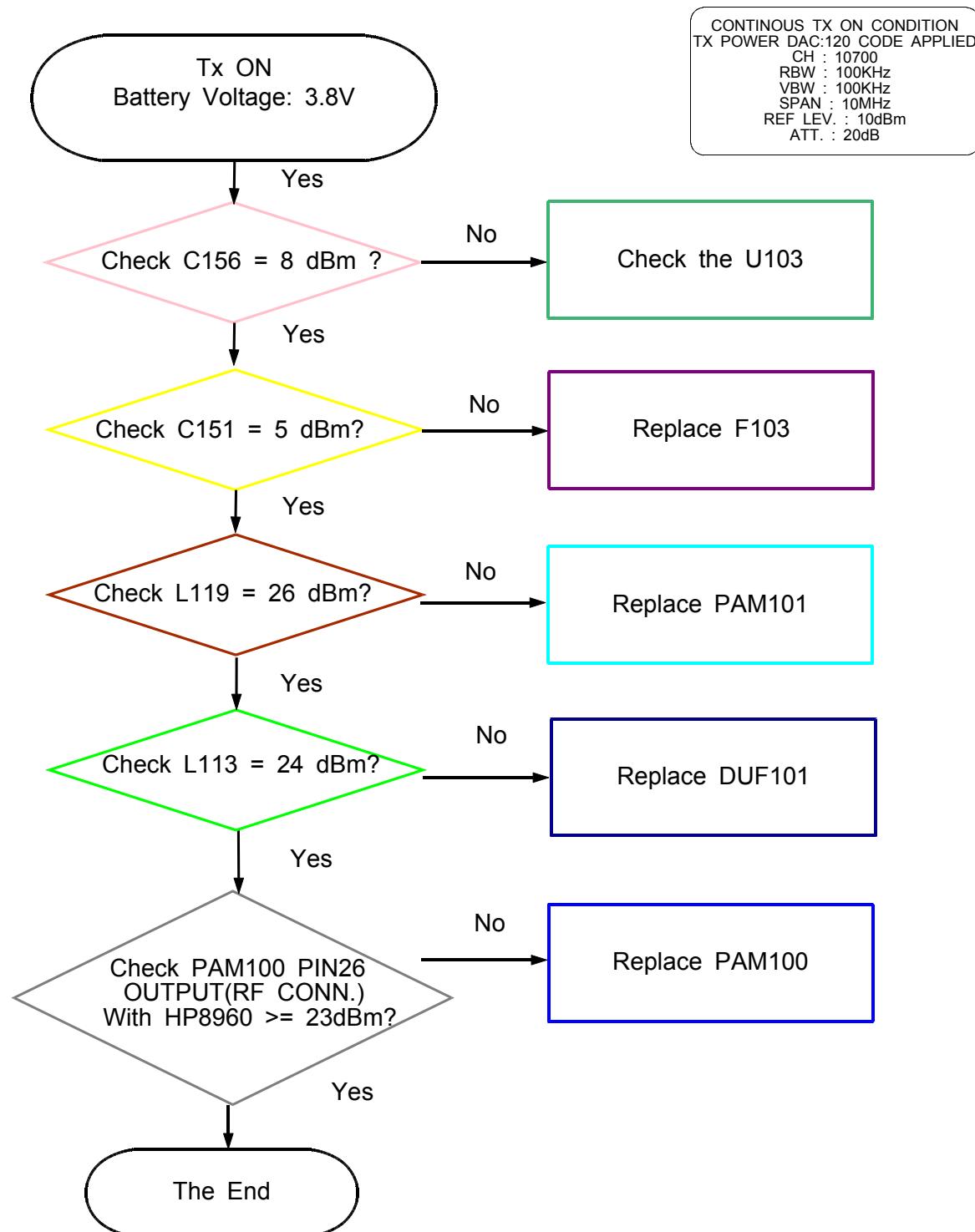




8-4-8. WCDMA Band1 TX

**If you check the tx chain,

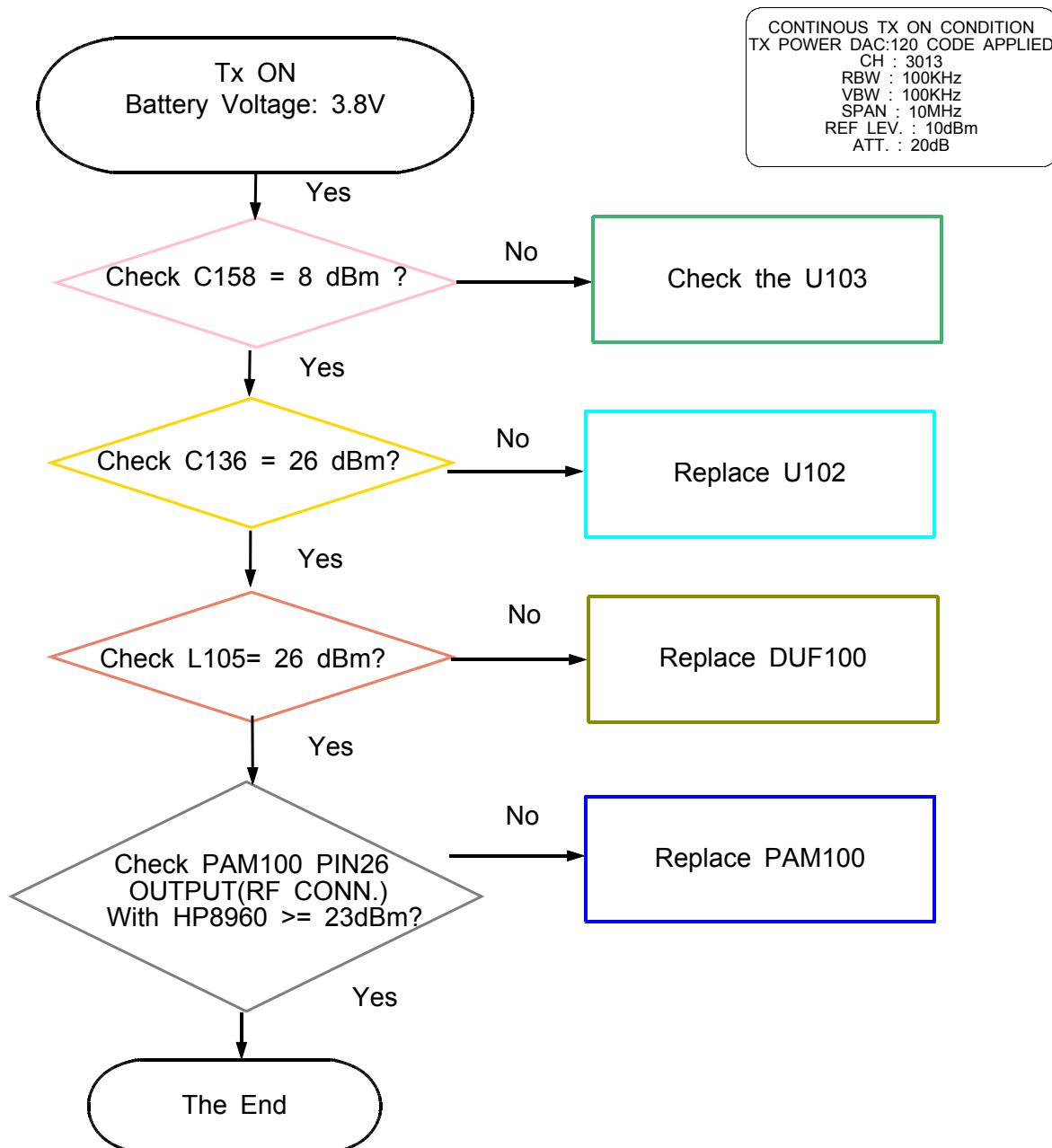
Check the not only RF Device but also resistor, inductor and capacitor.

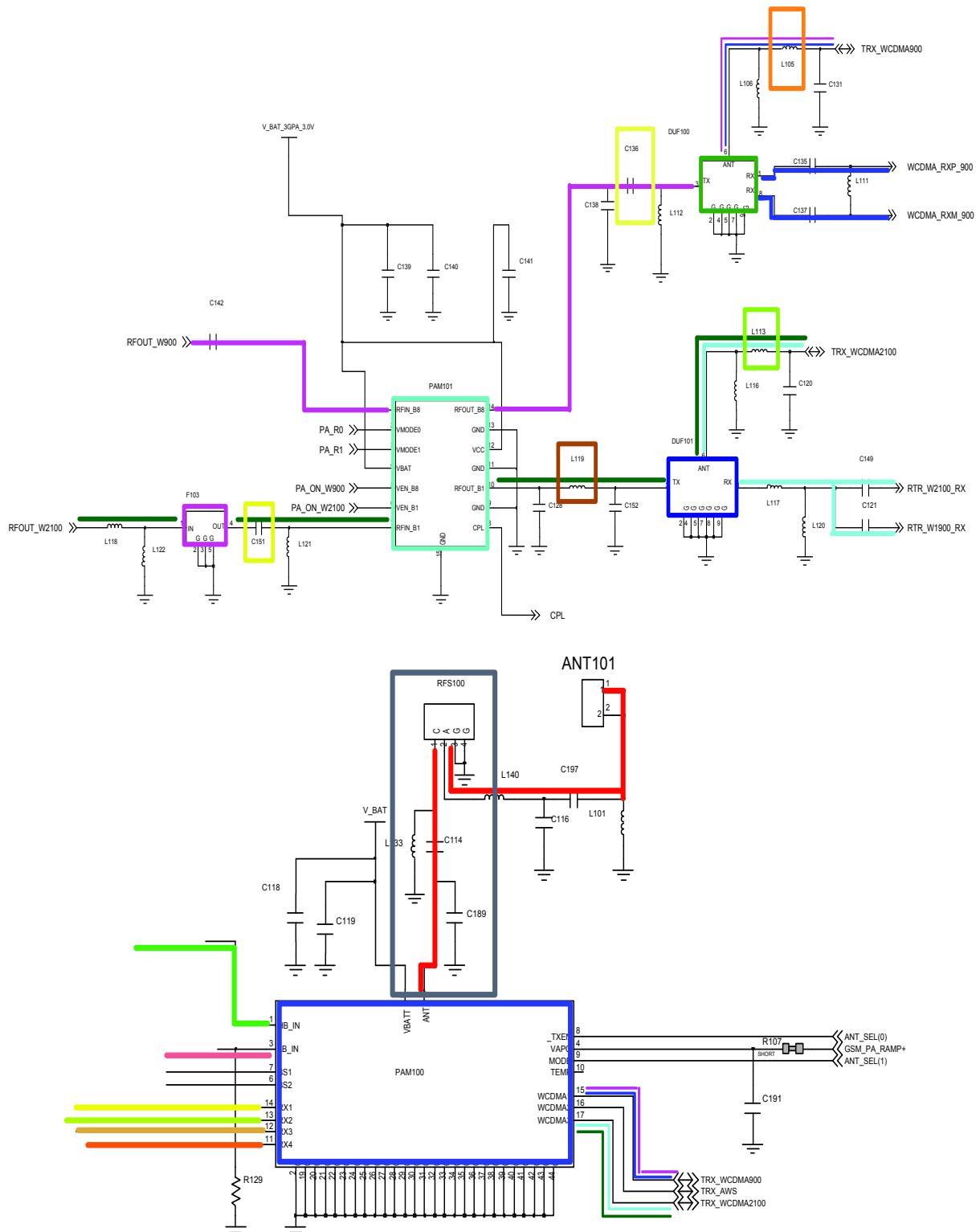


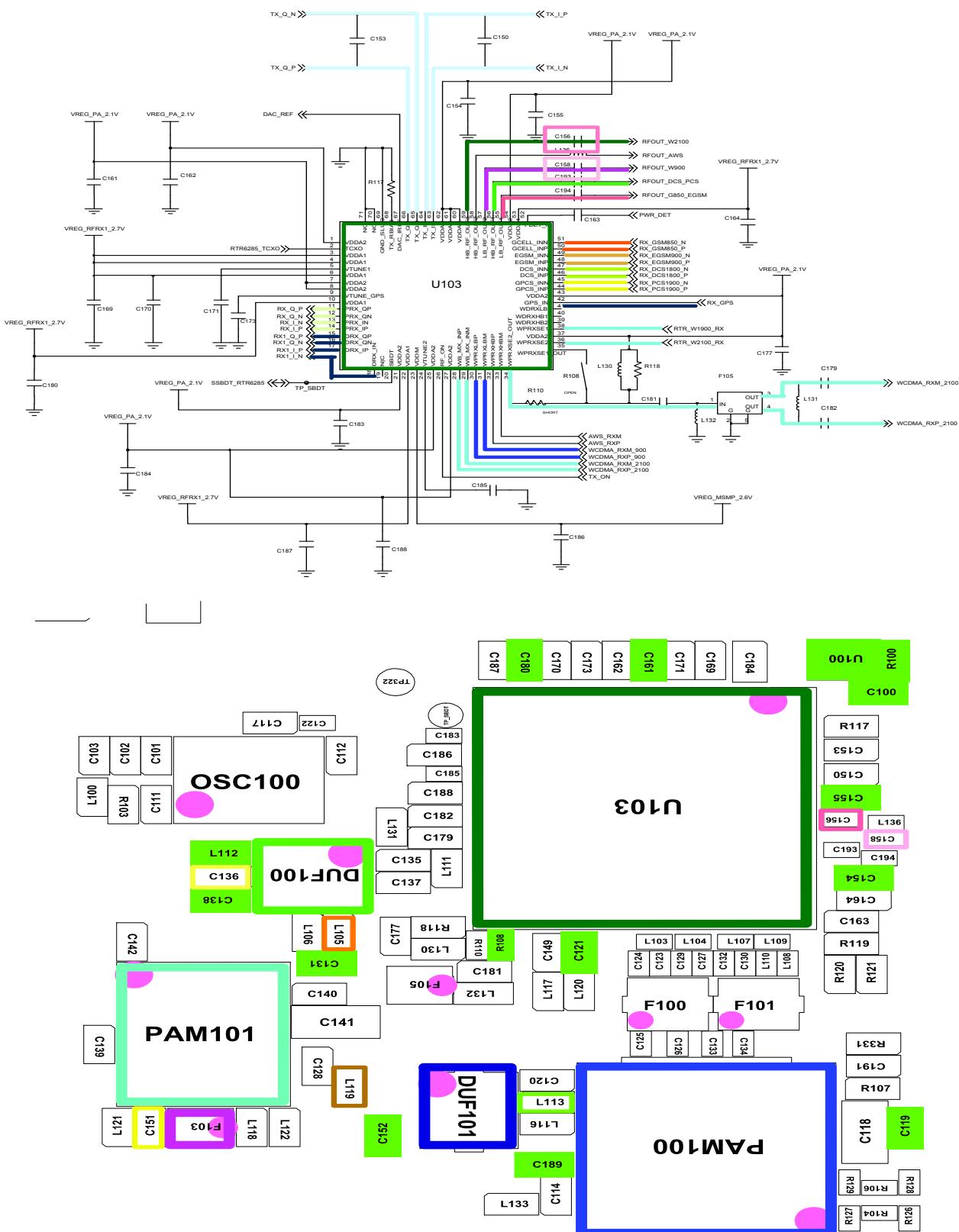
8-4-9. WCDMA Band8 TX

**If you check the tx chain,

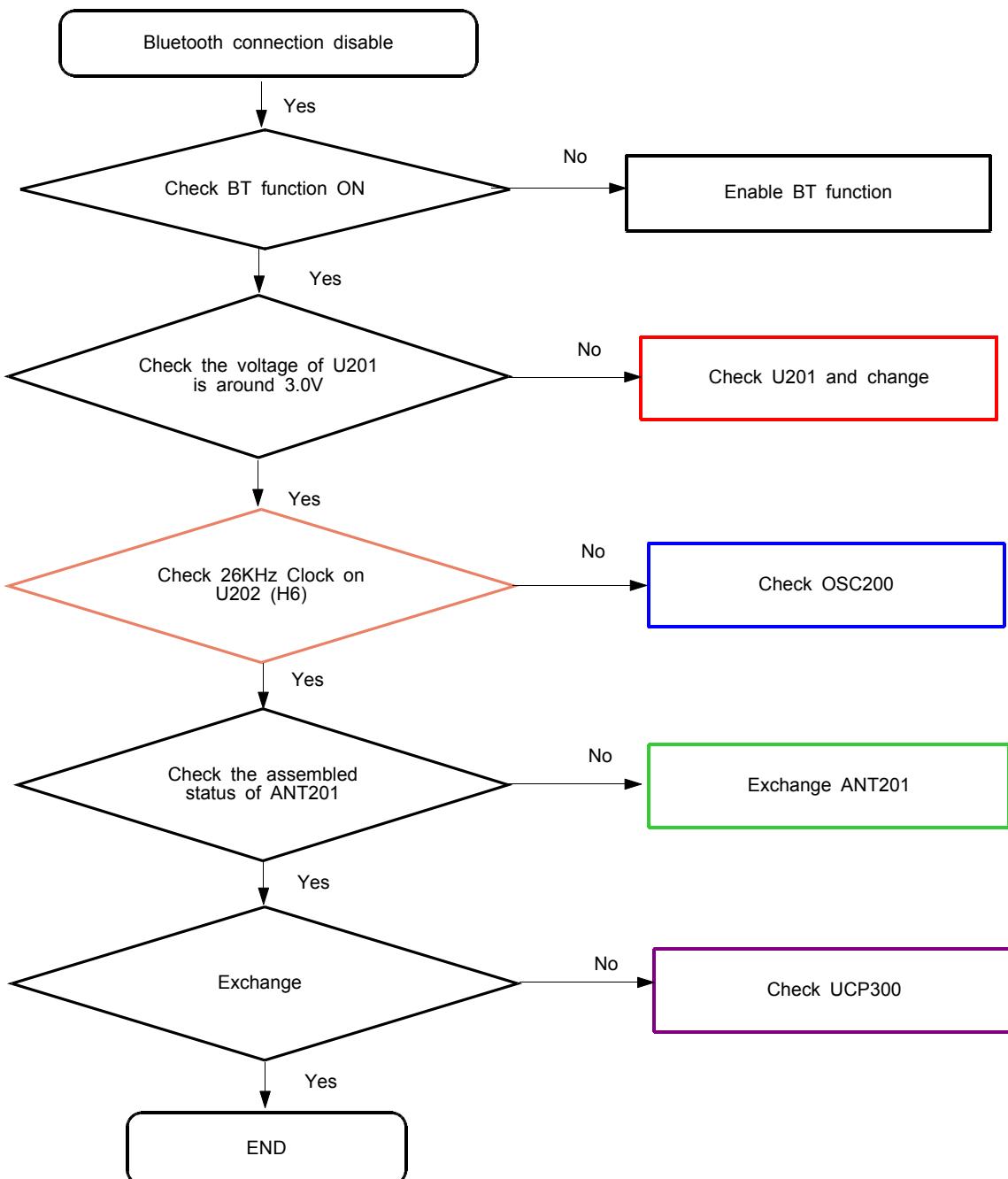
Check the not only RF Device but also resistor, inductor and capacitor.

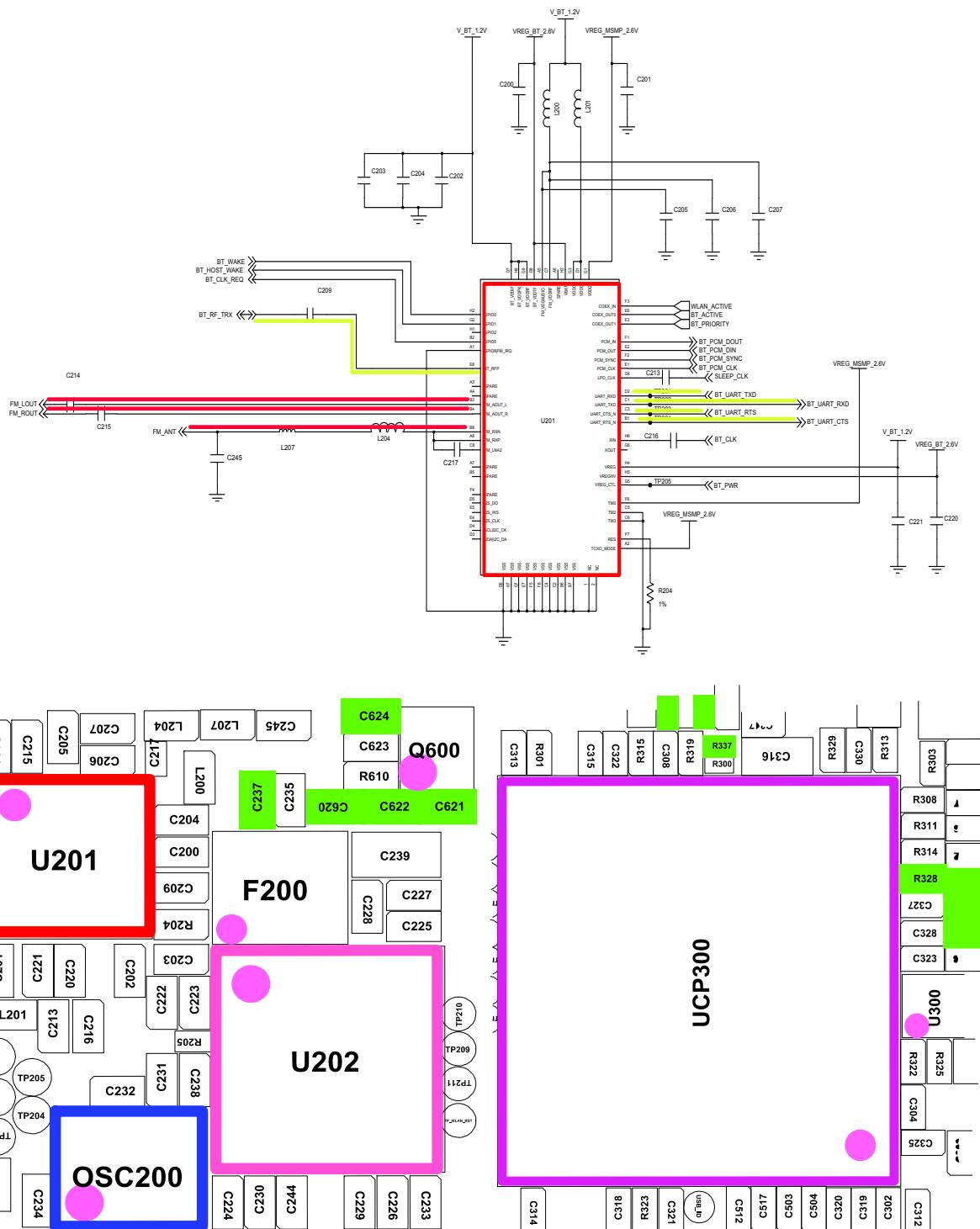


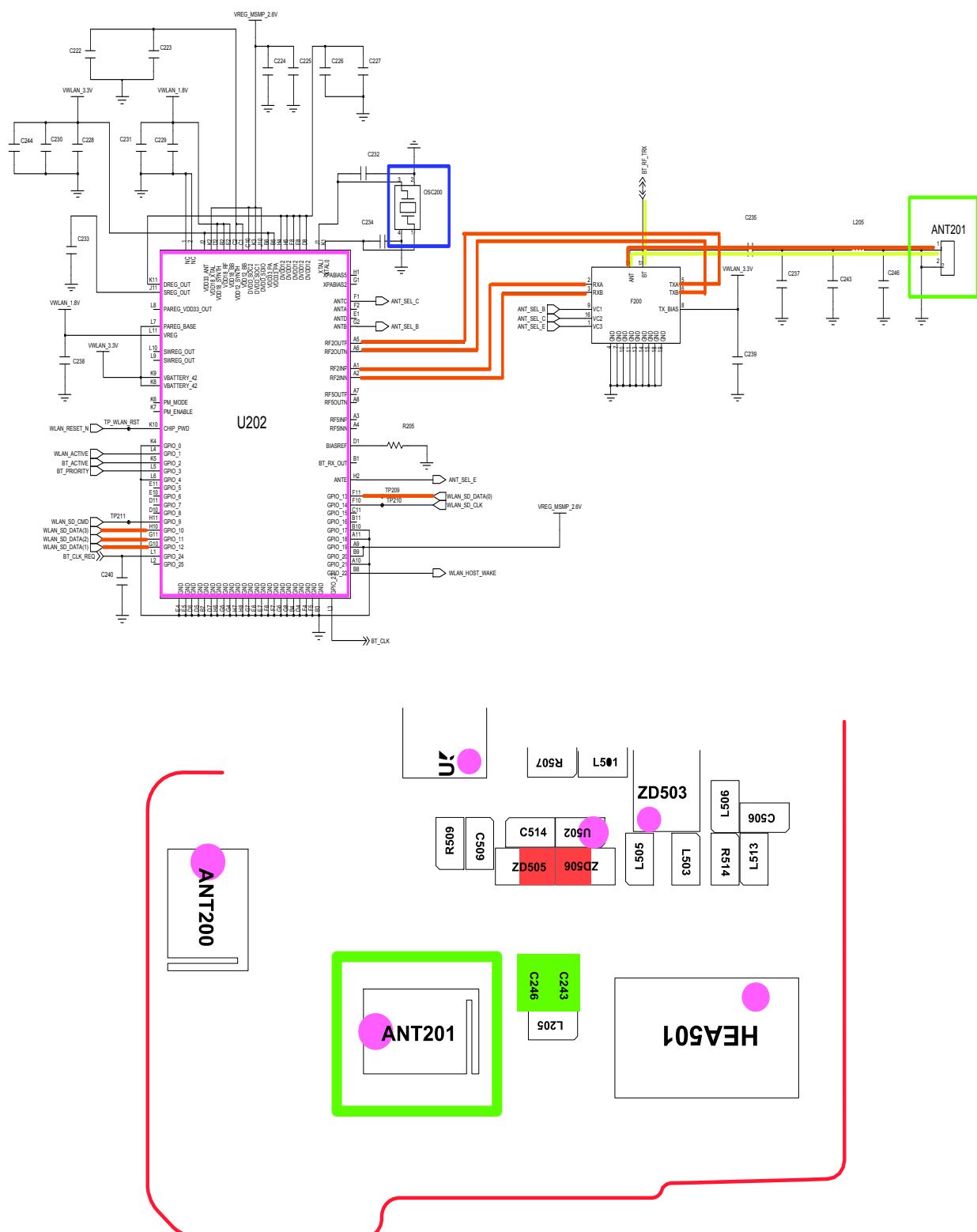




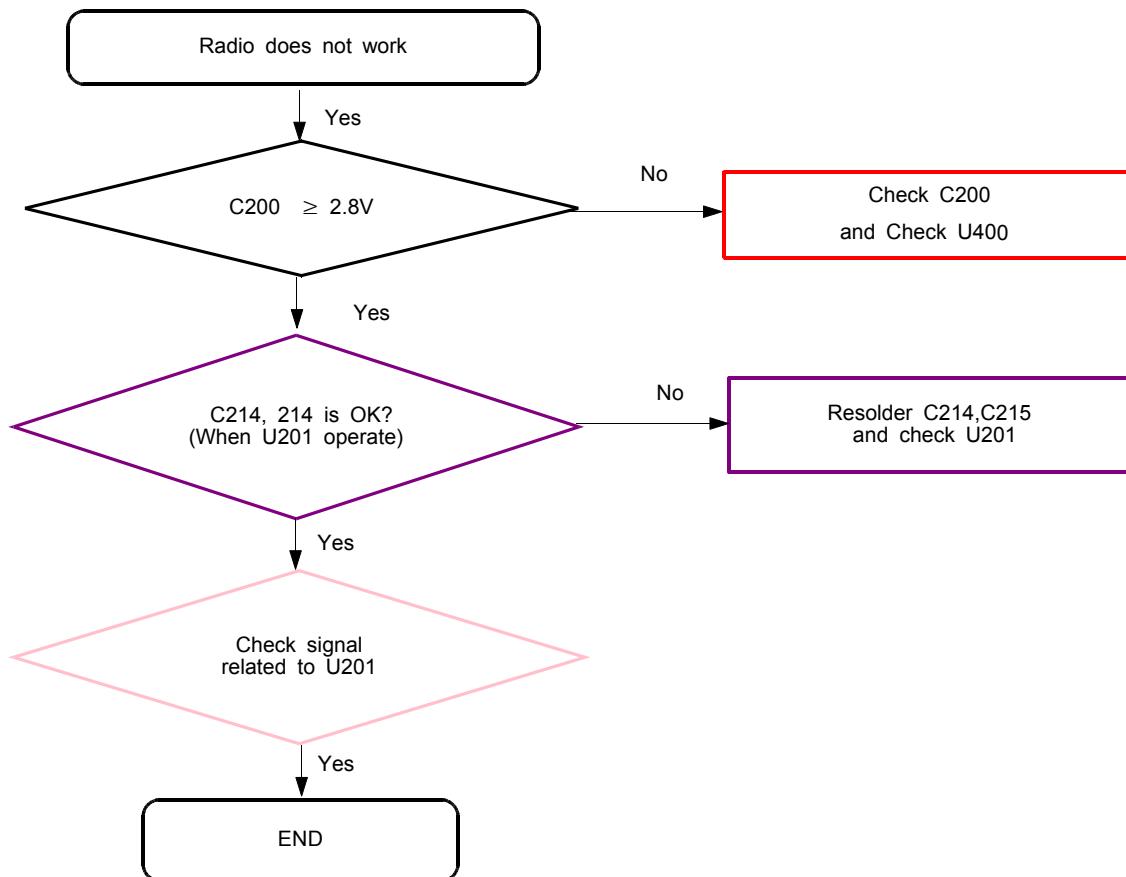
8-4-10. BLUETOOTH

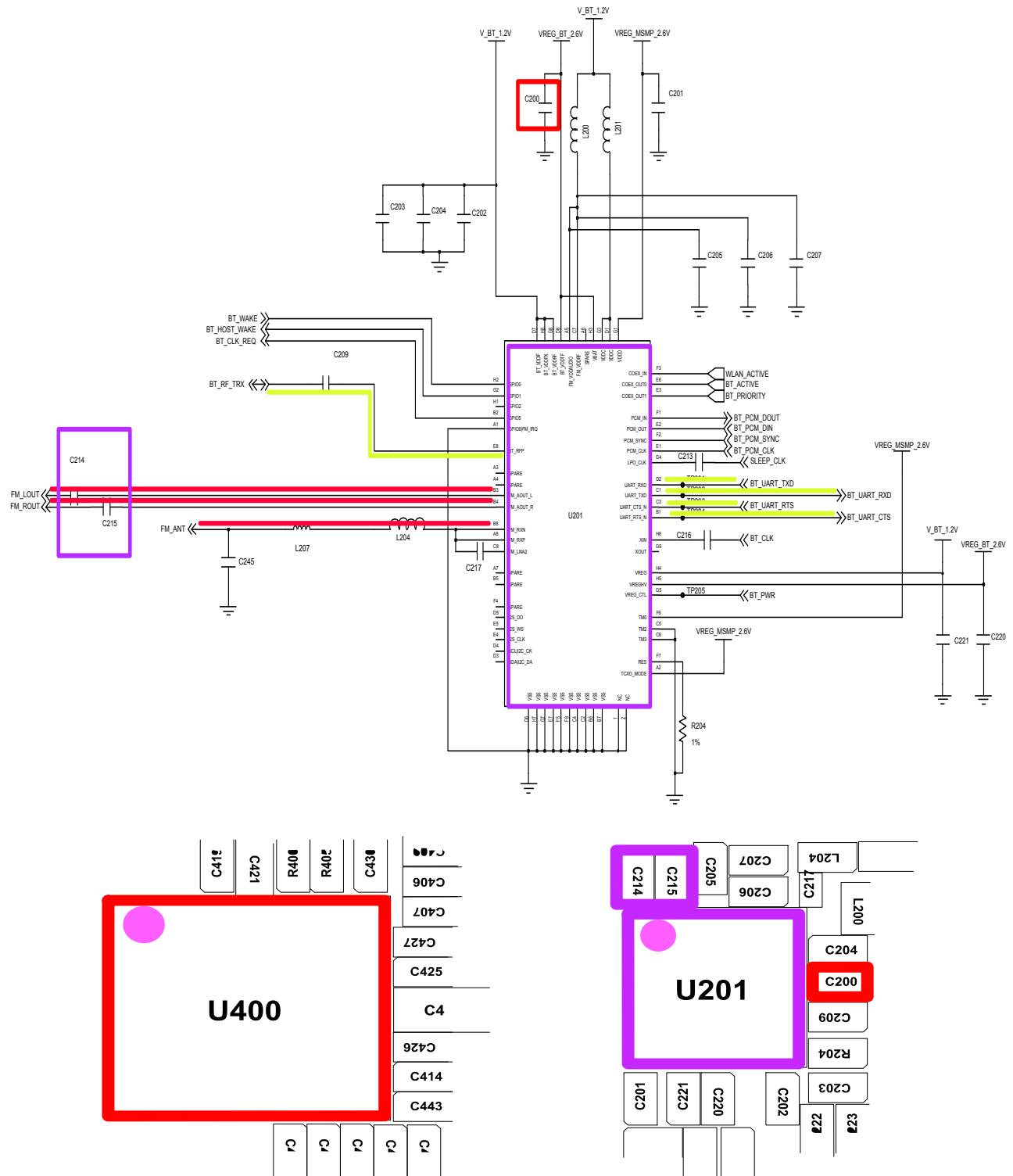




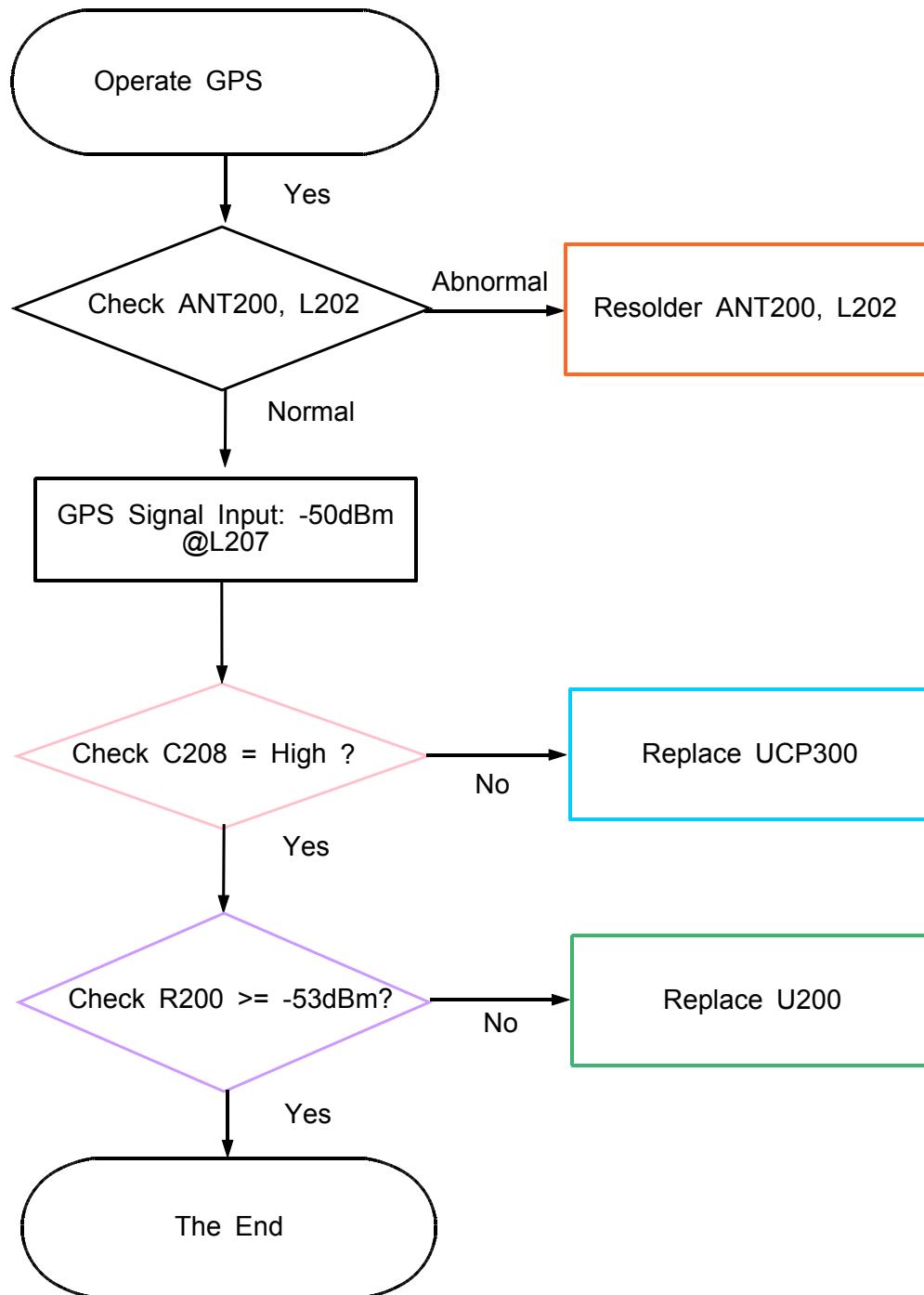


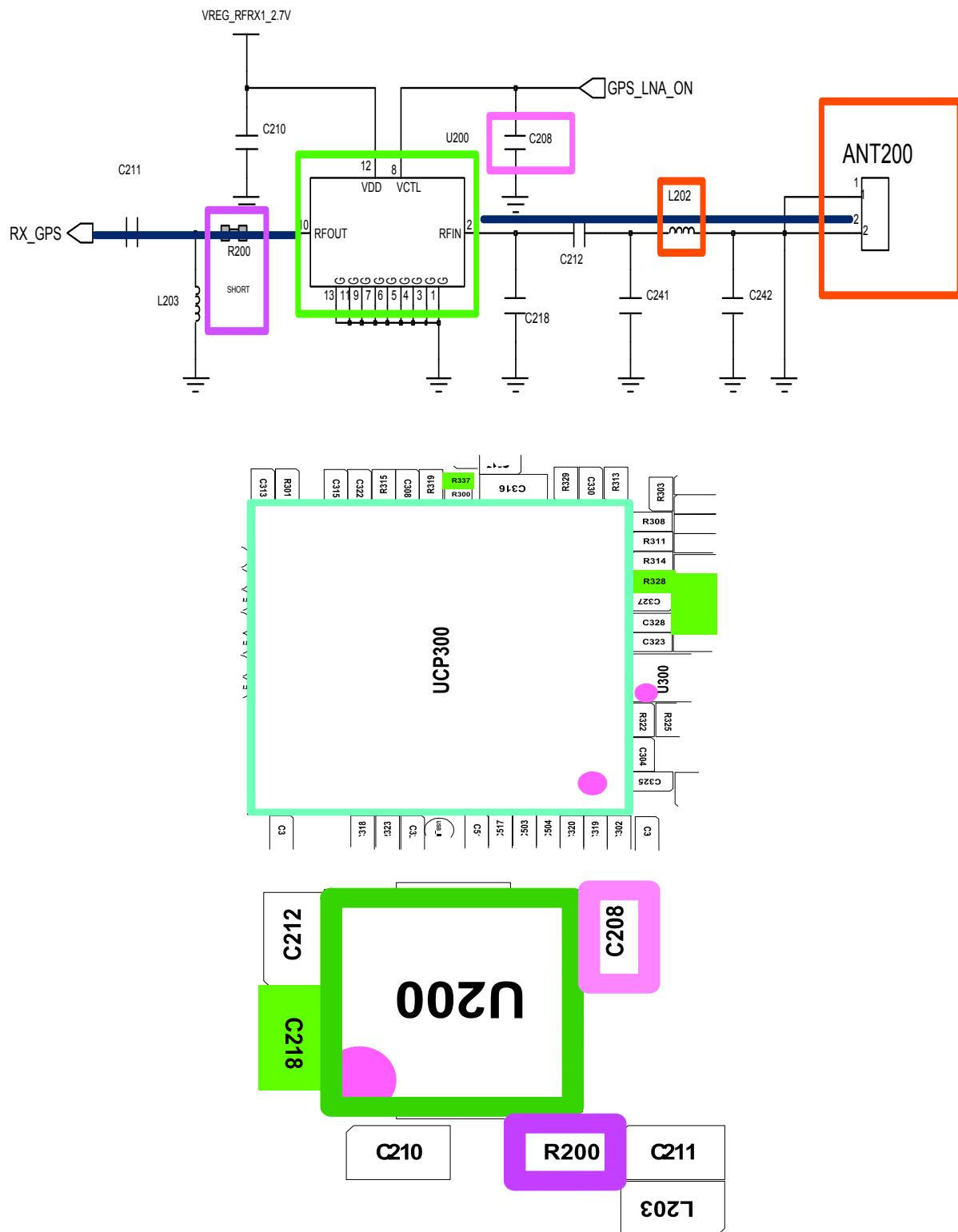
8-4-11. FM RADIO





8-4-12. GPS





8-5. Service Schematics

- NC Point(Top View)

● : NC

UME300

	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

	1	2	3	4	5	6	7	8	9	10	11
A	●	○	○	○	○	○	○	○	○	○	●
B	○	○	○	○	○	○	○	○	○	○	○
C	○	○	○	○	○	○	○	○	○	○	○
D	○	○	○	○	○	○	○	○	○	○	○
E	○	○	○	○	○	○	○	○	○	●	○
F	○	○	○	●	○	○	○	○	○	●	○
G	○	○	○	●	●	●	○	○	○	○	○
H	●	○	○	○	●	●	○	○	○	○	○
J	○	○	○	○	○	○	○	○	○	○	○
K	●	○	○	○	○	○	○	○	○	○	●

UCP300

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
A	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
B	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	●	
C	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	●	
D	●	○	○																						○	○	●	
E	●	○	○																						○	○	●	
F	●	○	○																						○	○	●	
G	●	○	○																						○	○	●	
H	●	○	○																						○	○	●	
J	●	○	○																						○	○	●	
K	●	○	○																						○	○	●	
L	●	○	○														○	○	○	○	○	○	○	○	○	●		
M	●	○	○														○	○	○	○	○	○	○	○	○	●		
N	●	○	○														○	○	○	○	○	○	○	○	○	●		
P	●	○	○														○	○	○	○	○	○	○	○	○	●		
R	●	○	○														○	○	○	○	○	○	○	○	○	●		
T	●	○	○														○	○	○	○	○	○	○	○	○	●		
U	●	○	○														○	○	○	○	○	○	○	○	○	●		
V	●	○	○															○	○	○	○	○	○	○	○	●		
W	●	○	○														○	○	○	○	○	○	○	○	○	●		
Y	●	○	○														○	○	○	○	○	○	○	○	○	●		
AA	●	○	○																			○	○	○	●	AA		
AB	●	○	○														○	○	○	○	○	○	○	○	○	●		
AC	●	○	○														○	○	○	○	○	○	○	○	○	●		
AD	●	○	○																					○	○	●		
AE	●	○	○														○	○	○	○	○	○	○	○	○	●		
AF	●	○	○														○	○	○	○	○	○	○	○	○	●		
AG	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		

U202

	1	2	3	4	5	6	7	8	9	10	11
A	○	○	○	○	○	○	○	○	○	○	○
B	●	○	○	○	○	○	○	○	○	○	○
C	○	○							○	○	
D	○	○		○	○	○	○	○		○	○
E	○	○		○	○	○	○	○		○	○
F	○	○		○	○	○	○	○		○	○
G	○	○		○	○	○	○	○		○	○
H	○	○		○	○	○	○	○		○	○
J	○	○							○	○	
K	○	○	○	○	○	○	○	○	○	○	○
L	○	○	○	○	○	○	○	○	○	○	○

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