

SAMSUNG

GSM TELEPHONE

SGH-J630

SERVICE *Manual*

GSM TELEPHONE



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**SAMSUNG
ELECTRONICS**



GSPN (Global Service Partner Network)

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North America	service.samsungportal.com
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1. Safety Precautions

1-1. Repair Precaution

- Repair in Shield Box, during detailed tuning.

Take specially care of tuning or test, because 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 errors of measurement are 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

	EGSM 900	DCS1800	PCS1900	W-CDMA 2100
Freq. Band[MHz] Uplink/Downlink	880~915 925~960	1710~1785 1805~1880	1850~1910 1930~1990	1920~1980 2110~2170
ARFCN range	0~124 & 975~1023	512~885	512~810	UL:9612~9888 DL:10562~10838
Tx/Rx spacing	45MHz	95MHz	80MHz	190MHz
Mod. Bit rate/ Bit Period	270.833kbps 3.692us	270.833kbps 3.692us	270.833kbps 3.692us	3.84Mcps
Time Slot Period/Frame Period	576.9us 4.615ms	576.9us 4.615ms	576.9us 4.615ms	Frame length : 10ms Slot length : 0.667ms
Modulation	0.3GMSK	0.3GMSK	0.3GMSK	QPSK HQPSK
MS Power	33dBm~5dBm	30dBm~0dBm	30dBm~0dBm	24dBm ~ - 50dBm
Power Class	4 (max +33dBm)	1 (max +30dBm)	1 (max +30dBm)	3 (max +24dBm)
Sensitivity	-102dBm	-100dBm	-100dBm	-106.7dBm
TDMA Mux	8	8	8	NA
Cell Radius	35Km	2Km	2Km	2Km

2-2. GSM TX power class

TX Power control level	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

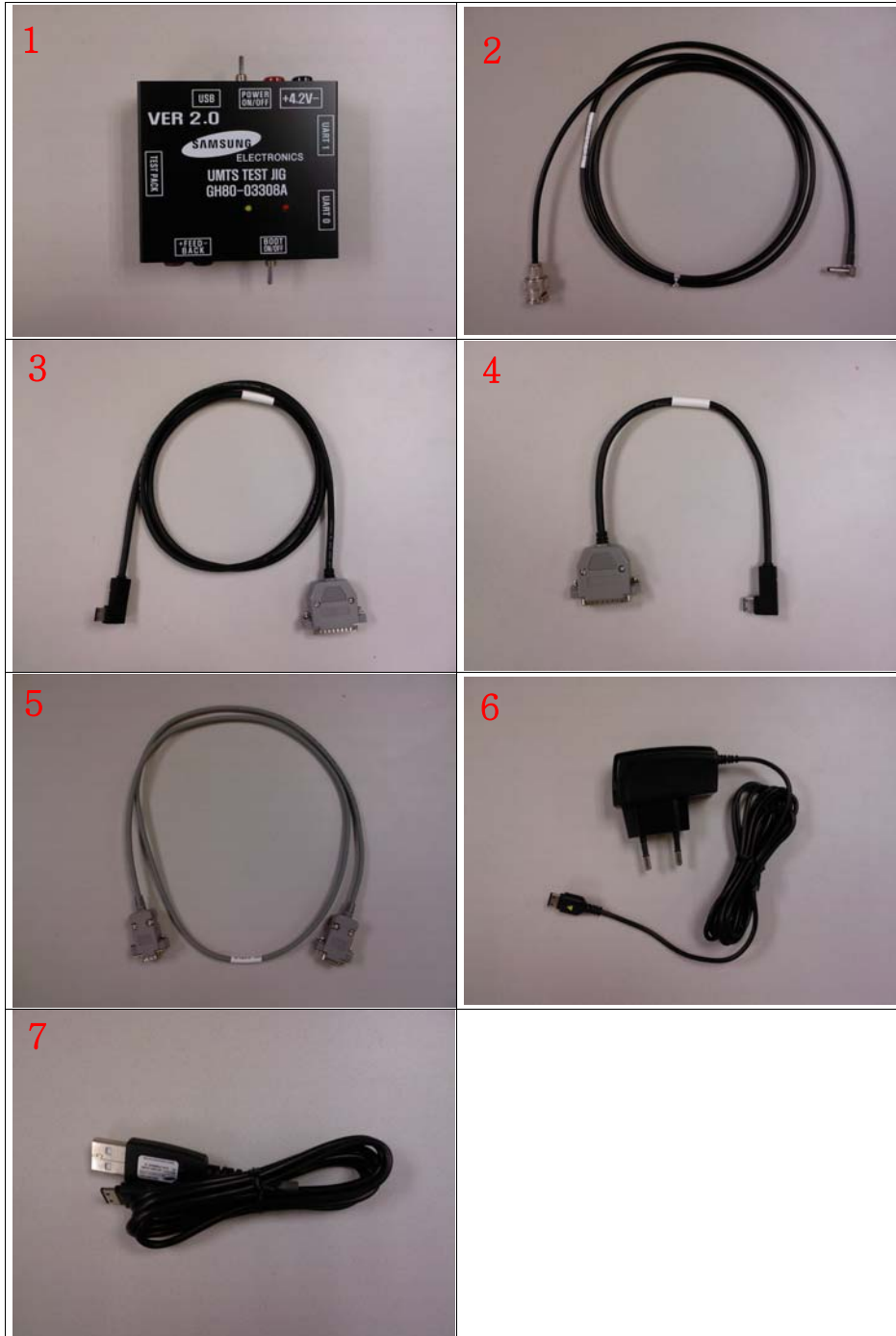
3. Product Function

Main Function

- MP3 / 72 Poly Melody
- BT 2.0
- MMS (Video Message 600KB)/ Streaming(CV)
- External Memory: micro SD
- IM(Windows Live, Yahoo, AOL)
- Oz Email
- USB 2.0
- WAP2.0, JAVA2.0, MPEG4
- MIDP 2.0 / CLDC 1.1
- Auto Time Setting
- GPRS/EDGE : class 10
- BT : Braodcom BCM2045
- Battery: 880mAH(533640)
- Weight: 82 g
- Memory: 1Gb NAND + 512Mb SDRAM
- Camera: - 2M (LSI)
- LCD : 2.2" QCIF TFT + 1.07" TFT(AMLCD)
- Size: 100.7x50.5x12.9mm
- Band: GSM900/1800/1900, WCDMA2100
- BB: Qualcomm MSM6260, PM6658
- RF: Qualcomm RTR6285

4. Array course control

4-1. Software Adjustments



1. INSTALL-TEST JIG BOX (GH80-03308A)
2. RF test cable (GH39-00397A)
3. Test cable 1.5M (GH39-00993A)
4. Test cable 0.4M (GH39-00990A)
5. Serial cable (LJ39-00013A)

6. Travel Adaptor (GH44-01702A)

7. Data Link Cable (GH39-00922A)

4-2. Software Downloading

4-2-1. Downloading Binary Files

- Four binary files for downloading J630
 - amss : Modem binary for communication function & user interface and various applications.
 - Rsrc_J630_H3G.rc1: Files need for each application
 - Rsrc2_Masseto(Low).rc2 : Power on/off animation
 - FactoryFs_J630_H3G.ffs : Default file system to be put into in initial production.

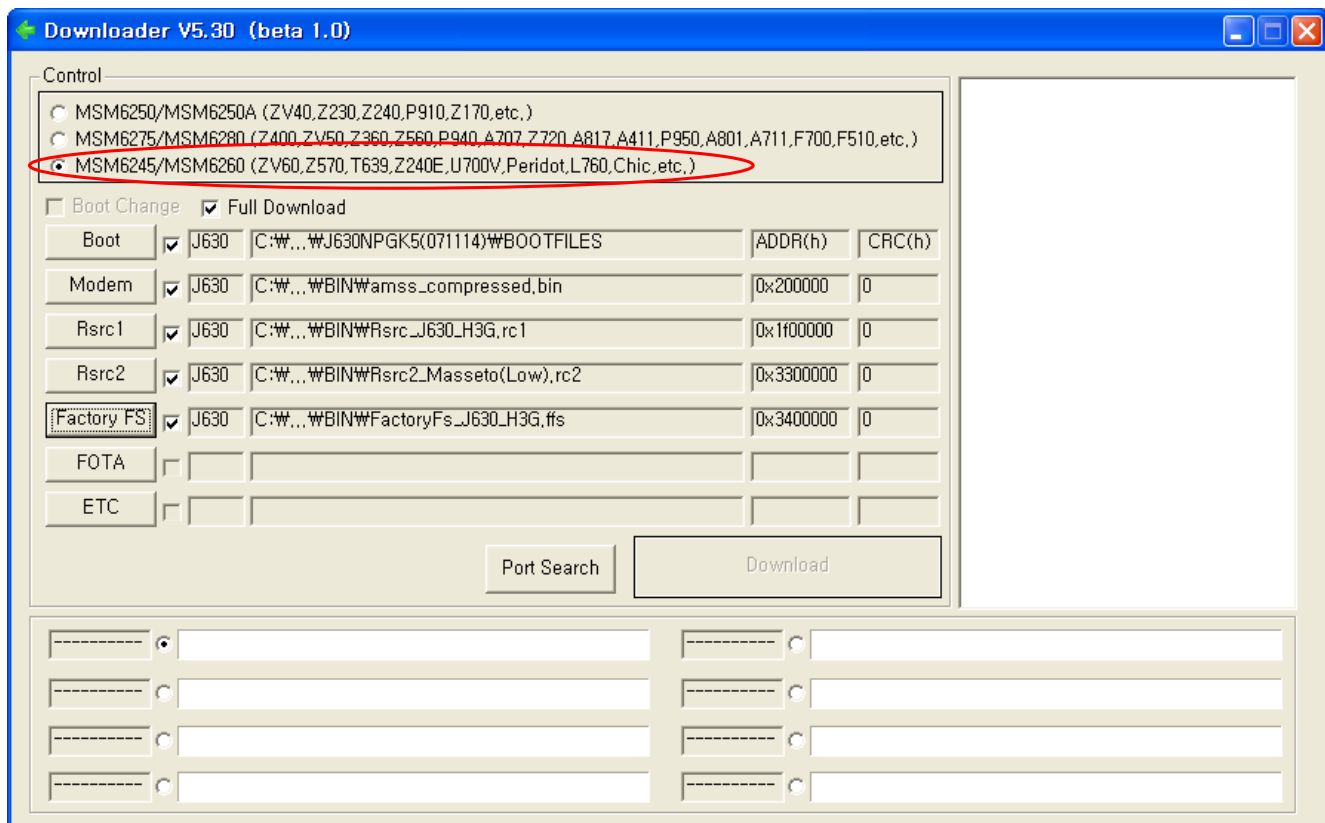
4-2-2. Pre-requisite for Downloading

- Downloader Program ([MultiLoader V5.30\(Beta1.0\)](#))
- SGH-J630 Mobile Phone
- USB Data Link Cable
- Binary files

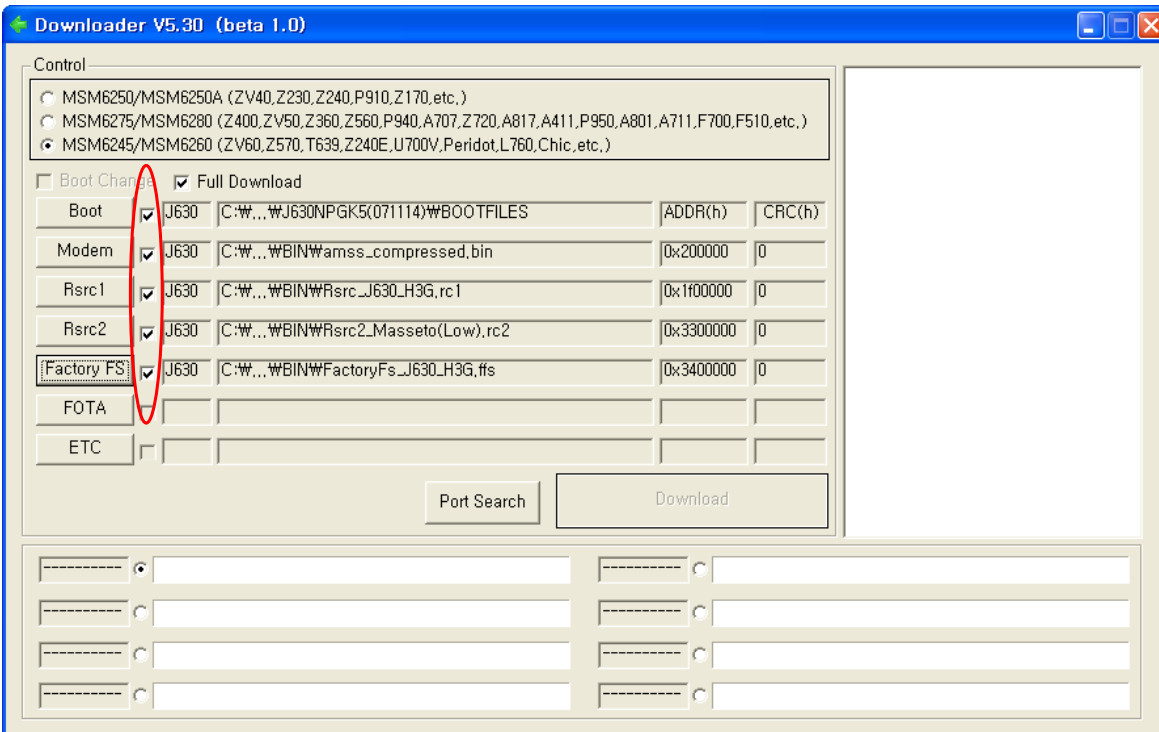
4-2-3. S/W Downloader Program

1. Boot the A747 by pressing 'power ON key' + '9 key' at the same time.
If you do properly, you can see the following message on Main LCD "Download"

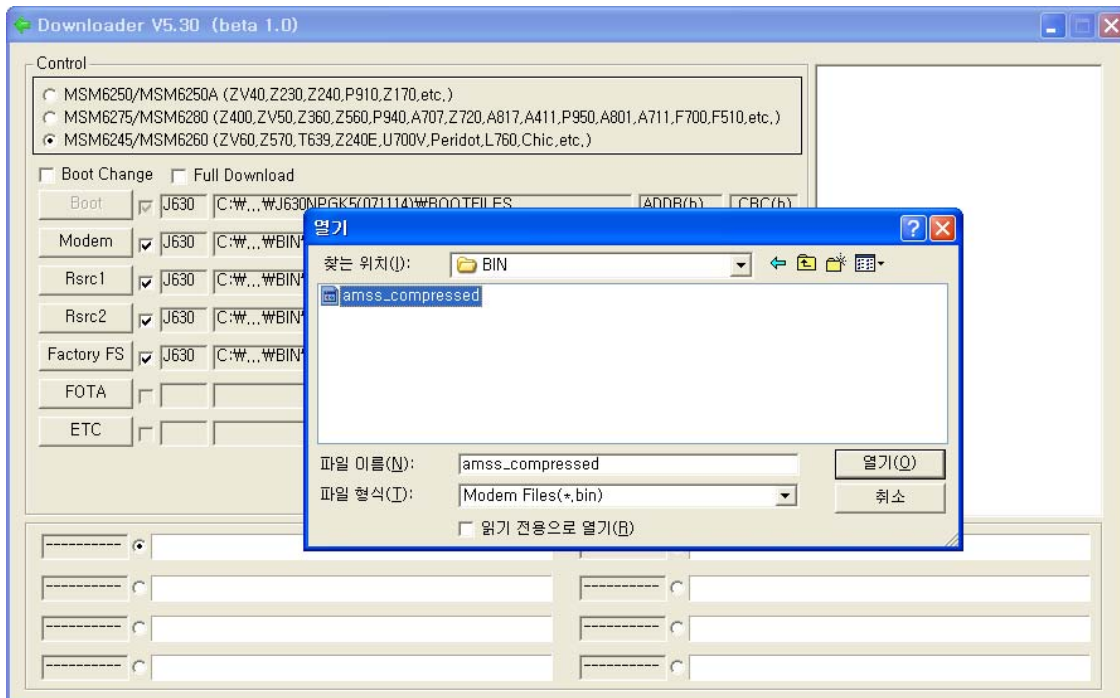
2. Load the binary download program by executing the "**MultiLoader V5.30(Beta1.0)**".
And the Check the **MSM6245/MSM6260**



3. Select the check box what you want to download.

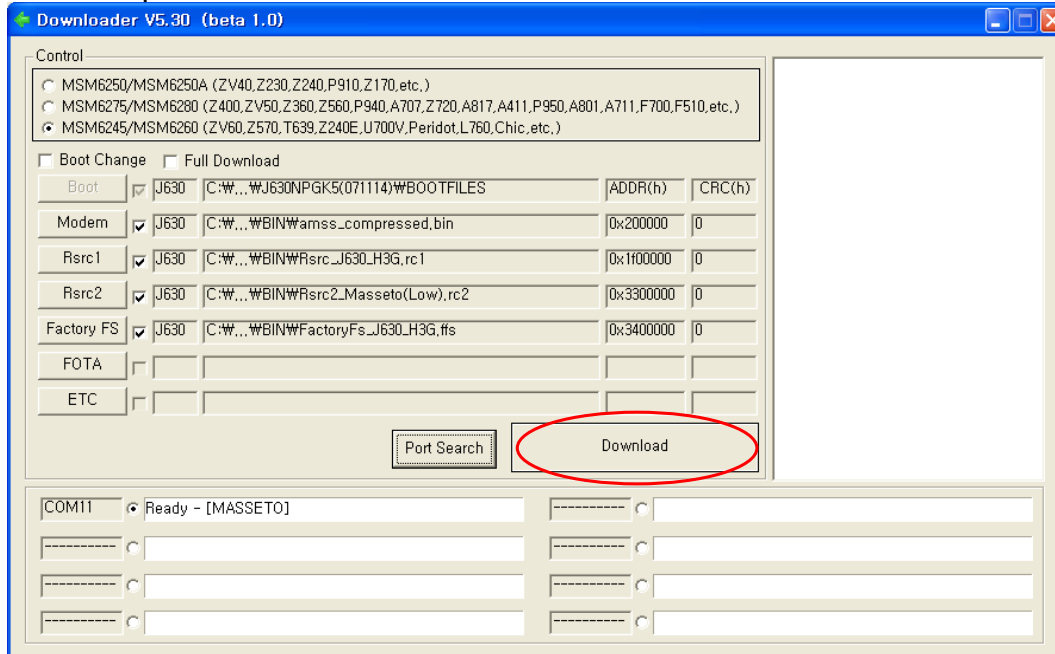


4. Select the binary file what you want to download



* Up to eight ports are supported.

5. Now press the button 'Download'.

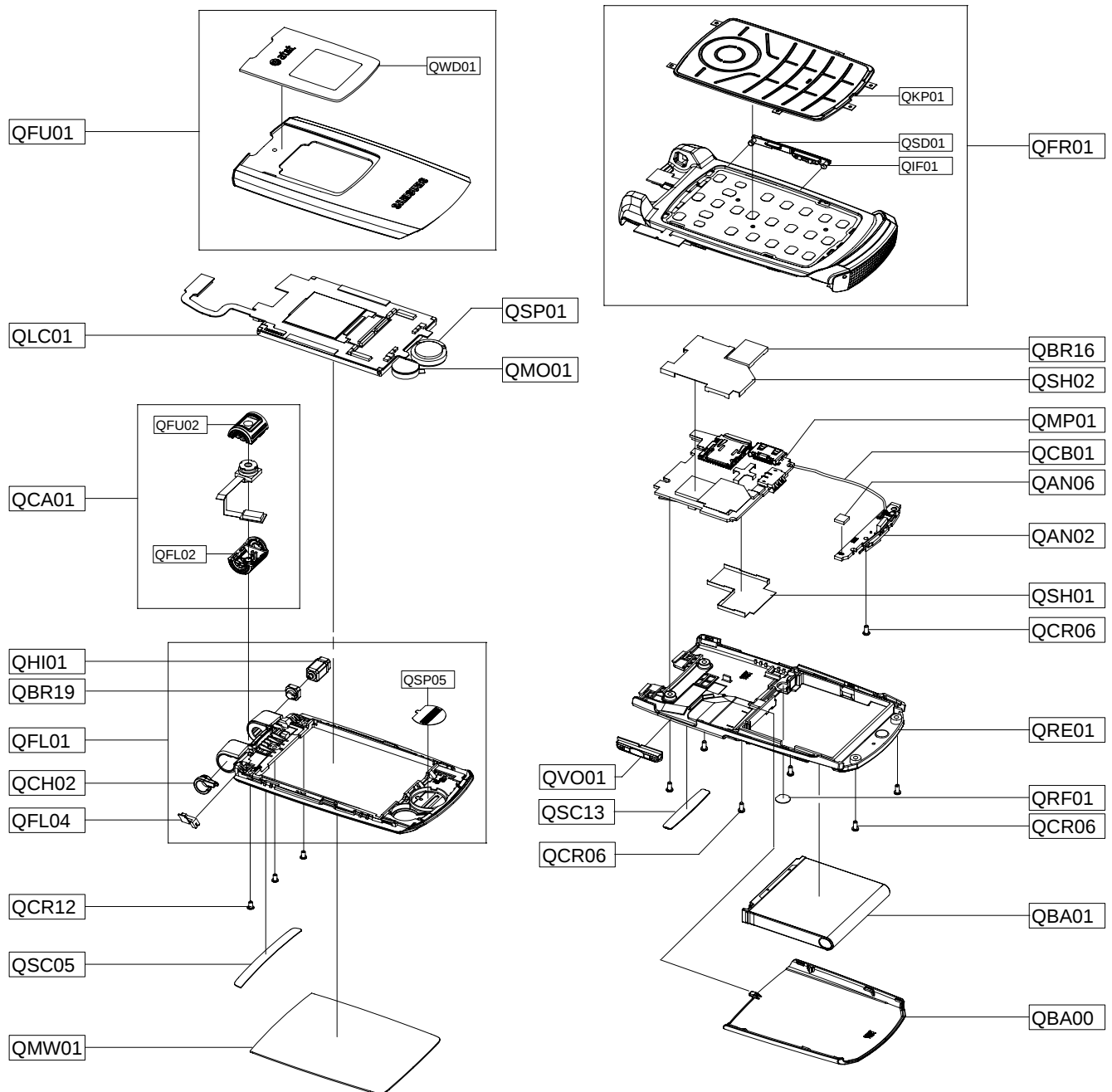


6. When downloading is complete, UE reboot automatically.

-If there is difference in FactoryFS.bin, UE will format file system automatically.

5. Exploded View and Parts List

5-1. Cellular phone Exploded View



5-2. Cellular phone Parts List

Design LOC		Description	SEC CODE
QAN02		INTENNA-SGHJ630	GH42-01445A
QAN06		RMO-ANT CONTACT RUBBER	GH73-03121A
QBA00		PMO COVER-BATTERY	GH72-45600A
QBA01		INNER BATTERY PACK-880MAH , BL	GH43-02795A
QBR16		ICT SHIELD-LID	GH70-02982A
QBR19		NDC BRACKET-HINGE CAP	GH71-07760A
QCB01		CBF COAXIAL CABLE-SGH A747	GH39-00945A
QCH02		NDC BRACKET-CAMERA DUMMY	GH71-07927A
QCR06		SCREW-MACHINE	6001-001155
QCR06		SCREW-MACHINE	6001-001155
QCR06		SCREW-MACHINE	6001-001155
QCR12		SCREW-MACHINE	6001-001530
QFL04		PMO DECO-LOWER	GH72-45393A
QHI01		ASSY HINGE-FOLDER	GH98-07089A
QLC01		LCD-MODULE, SGH A747	GH07-01149A
QMO01		MOTOR DC-SGH A747	GH31-00396A
QMP01		PBA MAIN-SGHJ630	GH92-04310A
QMW01		ASSY COVER-MAIN WINDOW	GH98-07115A
QRE01		ASSY CASE-REAR	GH98-07112A
QRF01		TAPE-RF SHEET	GH74-35458A
QSC05		TAPE-LOWER SCREW COVER	GH74-36589A
QSC13		ASSY COVER-REAR SCREW	GH98-06968A
QSH01		ASSY COVER-SHIELD TOP	GH98-06987A
QSH02		ASSY COVER-SHIELD BTM	GH98-07090A
QSP01		SPEAKER	3001-002177
QVO01		PMO KEY-VOLUME	GH72-44219A
QCA01		CAMERA MODULE	GH59-04608A
	QFL02	ASSY CASE-CAMERA LOWER	GH98-06318A
	QFU02	ASSY CASE-CAMERA UPPER	GH98-06317A
QFL01		ASSY CASE-FOLDER LOWER	GH98-07110A

Design LOC		Description	SEC CODE
	QSP05	ASSY DECO-SPK GRILL	GH98-06602A
QFR01		ASSY CASE-FRONT	GH98-07111A
	QIF01	PMO COVER-IF	GH72-44213A
	QKP01	ASSY KEYPAD-(HUI/COFFEE_BRN)	GH98-07117A
	QSD01	PMO COVER-SD	GH72-44214A
QFU01		ASSY CASE-FOLDER UPPER	GH98-07109A
	QWD01	ASSY COVER-SUB WINDOW	GH98-07116A

Description	SEC CODE
BAG PE	6902-000634
CBF INTERFACE-DLC APCBS10BBE(S	GH39-00922A
ADAPTOR-ATADS10EBE,BLK,EU	GH44-01702A
S/W CD-SGHJ630 PC LINK CD	GH46-00578A
EARPHONE	GH59-04735A
LABEL(P)-UNIT SEAL	GH68-00518B
LABEL(P)-IMEI BARCODE(HUI)	GH68-02190C
LABEL(R)-WATER SOAK	GH68-09361A
MANUAL USERS-EU ITALIAN	GH68-16974A
LABEL(R)-MAIN(EU)	GH68-16997A
BOX-UNIT(EU)	GH69-06277A
CUSHION-CASE(EU)	GH69-06278A
SPONGE-SPK SEAL UP	GH74-34722A
SPONGE-LCD LDI	GH74-35389A
TAPE-SIM CARD	GH74-35459A
TAPE-LCD SIDE	GH74-35813A
VINYL-BOHO MAIN WINDOW	GH74-36531A
SPONGE-MOTOR	GH74-36621A
SPONGE-SUB LCD V3	GH74-36896A
VINYL-BOHO CAM OUT	GH74-36897A
TAPE INSU-COVER FIX	GH74-37175A
AS-SUB MODULE	GH81-06945A
AS-FPC- I/F	GH81-06946A
AS-TAPE KEYPAD	GH81-07018A

6. Main Electrical Parts List

SEC Code	Design LOC	Description	STATUS
0401-001141	ZD600	DIODE-SWITCHING	SA
0403-001547	D603	DIODE-ZENER	SA
0406-001237	D401	DIODE-TVS	SNA
0406-001237	D600	DIODE-TVS	SNA
0406-001237	D601	DIODE-TVS	SNA
0406-001237	D602	DIODE-TVS	SNA
0406-001237	D604	DIODE-TVS	SNA
0406-001237	D605	DIODE-TVS	SNA
0406-001237	D606	DIODE-TVS	SNA
0407-001002	D400	DIODE-ARRAY	SA
0504-001113	TR400	TR-DIGITAL	SA
1001-001336	U601	IC-ANALOG SWITCH	SA
1001-001428	U303	IC-ANALOG MULTIPLEX	SA
1001-001428	U501	IC-ANALOG MULTIPLEX	SA
1108-000159	UME300	IC-MCP	SA
1201-002195	U502	IC-AUDIO AMP	SA
1201-002304	U500	IC-AUDIO AMP	SA
1201-002534	PAM100	IC-POWER AMP	SA
1201-002548	PAM201	IC-POWER AMP	SA
1203-003523	U406	IC-POSI.FIXED REG.	SA
1203-003754	U402	IC-POSI.FIXED REG.	SA
1203-003754	U405	IC-POSI.FIXED REG.	SA
1203-004362	U401	IC-MULTI REG.	SA
1203-004518	U404	IC-BATTERY	SA
1203-004778	U400	IC-POWER SUPERVISOR	SA
1205-002686	U403	IC-SWITCH	SA
1205-002942	U110	IC-TRANSCEIVER	SA
1205-003281	UCP310	IC-MODEM	SA
1205-003297	U201	IC-TRANSCEIVER	SA
1209-001712	U302	IC-SENSOR	SA
2007-000144	R412	R-CHIP	SA
2007-000148	R406	R-CHIP	SA
2007-000170	R128	R-CHIP	SA
2007-000171	R211	R-CHIP	SA
2007-000171	R213	R-CHIP	SA
2007-000932	R320	R-CHIP	SA
2007-001217	R202	R-CHIP	SA
2007-001217	R203	R-CHIP	SA
2007-001285	R208	R-CHIP	SA
2007-001285	R209	R-CHIP	SA
2007-001298	R200	R-CHIP	SA
2007-001298	R317	R-CHIP	SA
2007-001305	R201	R-CHIP	SA
2007-007131	R419	R-CHIP	SA
2007-007310	R620	R-CHIP	SA
2007-007310	R629	R-CHIP	SA
2007-007314	R418	R-CHIP	SA
2007-007468	R407	R-CHIP	SA
2007-007489	R124	R-CHIP	SA
2007-007590	R631	R-CHIP	SA
2007-008043	R507	R-CHIP	SA
2007-008043	R508	R-CHIP	SA
2007-008044	R110	R-CHIP	SA

SEC Code	Design LOC	Description	STATUS
2007-008045	R102	R-CHIP	SA
2007-008045	R109	R-CHIP	SA
2007-008045	R125	R-CHIP	SA
2007-008045	R333	R-CHIP	SA
2007-008045	R511	R-CHIP	SA
2007-008045	R616	R-CHIP	SA
2007-008045	R617	R-CHIP	SA
2007-008045	R618	R-CHIP	SA
2007-008045	R619	R-CHIP	SA
2007-008045	R624	R-CHIP	SA
2007-008049	R302	R-CHIP	SA
2007-008052	R307	R-CHIP	SA
2007-008057	R106	R-CHIP	SA
2007-008057	R108	R-CHIP	SA
2007-008419	R207	R-CHIP	SA
2007-008419	R626	R-CHIP	SA
2007-008419	R627	R-CHIP	SA
2007-008483	R330	R-CHIP	SA
2007-008483	R332	R-CHIP	SA
2007-008483	R400	R-CHIP	SA
2007-008483	R401	R-CHIP	SA
2007-008483	R402	R-CHIP	SA
2007-008483	R403	R-CHIP	SA
2007-008483	R404	R-CHIP	SA
2007-008483	R413	R-CHIP	SA
2007-008486	R405	R-CHIP	SA
2007-008486	R414	R-CHIP	SA
2007-008486	R415	R-CHIP	SA
2007-008486	R429	R-CHIP	SA
2007-008486	R506	R-CHIP	SA
2007-008486	U604	R-CHIP	SA
2007-008516	R300	R-CHIP	SA
2007-008516	R301	R-CHIP	SA
2007-008516	R305	R-CHIP	SA
2007-008516	R411	R-CHIP	SA
2007-008542	R129	R-CHIP	SA
2007-008542	R210	R-CHIP	SA
2007-008542	R602	R-CHIP	SA
2007-008542	R603	R-CHIP	SA
2007-008542	R604	R-CHIP	SA
2007-008542	R605	R-CHIP	SA
2007-008542	R611	R-CHIP	SA
2007-008542	R612	R-CHIP	SA
2007-008548	R606	R-CHIP	SA
2007-008588	R126	R-CHIP	SA
2007-008588	R500	R-CHIP	SA
2007-008588	R501	R-CHIP	SA
2007-008588	R504	R-CHIP	SA
2007-008588	R505	R-CHIP	SA
2007-008588	R615	R-CHIP	SA
2007-008588	U608	R-CHIP	SA
2007-008648	R329	R-CHIP	SA
2007-008648	R331	R-CHIP	SA

SEC Code	Design LOC	Description	STATUS
2007-008648	R502	R-CHIP	SA
2007-008648	R503	R-CHIP	SA
2007-008806	R127	R-CHIP	SA
2007-008806	R130	R-CHIP	SA
2007-008806	R409	R-CHIP	SA
2007-009084	R316	R-CHIP	SA
2007-009111	R306	R-CHIP	SA
2007-009111	R610	R-CHIP	SA
2007-009154	R509	R-CHIP	SNA
2007-009154	R510	R-CHIP	SNA
2007-009170	R600	R-CHIP	SA
2007-009170	R601	R-CHIP	SA
2007-009171	R311	R-CHIP	SA
2007-009171	R312	R-CHIP	SA
2007-009171	R313	R-CHIP	SA
2007-009171	R314	R-CHIP	SA
2007-009171	R315	R-CHIP	SA
2007-009171	R408	R-CHIP	SA
2007-009171	R410	R-CHIP	SA
2007-009199	R107	R-CHIP	SA
2007-009212	R621	R-CHIP	SA
2007-009212	R630	R-CHIP	SA
2007-009420	R204	R-CHIP	SA
2203-000233	C167	C-CER,CHIP	SA
2203-000254	C284	C-CER,CHIP	SA
2203-000278	C298	C-CER,CHIP	SA
2203-000330	C172	C-CER,CHIP	SA
2203-000330	C210	C-CER,CHIP	SA
2203-000386	C173	C-CER,CHIP	SA
2203-000386	C413	C-CER,CHIP	SA
2203-000386	C430	C-CER,CHIP	SA
2203-000425	C163	C-CER,CHIP	SA
2203-000438	C118	C-CER,CHIP	SA
2203-000585	C205	C-CER,CHIP	SA
2203-000627	C215	C-CER,CHIP	SNA
2203-000627	C216	C-CER,CHIP	SNA
2203-000812	C214	C-CER,CHIP	SA
2203-000812	C230	C-CER,CHIP	SA
2203-000812	C268	C-CER,CHIP	SA
2203-000812	C290	C-CER,CHIP	SA
2203-000812	C438	C-CER,CHIP	SA
2203-000812	C440	C-CER,CHIP	SA
2203-000812	C604	C-CER,CHIP	SA
2203-000854	C503	C-CER,CHIP	SA
2203-000995	C371	C-CER,CHIP	SA
2203-001239	C202	C-CER,CHIP	SA
2203-001239	C222	C-CER,CHIP	SA
2203-001383	C160	C-CER,CHIP	SA
2203-002709	C600	C-CER,CHIP	SA
2203-005052	C162	C-CER,CHIP	SA
2203-005446	C213	C-CER,CHIP	SA
2203-005482	U605	C-CER,CHIP	SA
2203-005496	C168	C-CER,CHIP	SA

SEC Code	Design LOC	Description	STATUS
2203-005682	C104	C-CER,CHIP	SA
2203-005682	C111	C-CER,CHIP	SA
2203-005682	C112	C-CER,CHIP	SA
2203-005682	C113	C-CER,CHIP	SA
2203-005682	C125	C-CER,CHIP	SA
2203-005682	C136	C-CER,CHIP	SA
2203-005682	C157	C-CER,CHIP	SA
2203-005682	C158	C-CER,CHIP	SA
2203-005682	C164	C-CER,CHIP	SA
2203-005682	C170	C-CER,CHIP	SA
2203-005682	C171	C-CER,CHIP	SA
2203-005682	C174	C-CER,CHIP	SA
2203-005682	C176	C-CER,CHIP	SA
2203-005682	C245	C-CER,CHIP	SA
2203-005682	C248	C-CER,CHIP	SA
2203-005682	C259	C-CER,CHIP	SA
2203-005682	C288	C-CER,CHIP	SA
2203-005682	C305	C-CER,CHIP	SA
2203-005682	C311	C-CER,CHIP	SA
2203-005682	C321	C-CER,CHIP	SA
2203-005682	C331	C-CER,CHIP	SA
2203-005682	C343	C-CER,CHIP	SA
2203-005682	C411	C-CER,CHIP	SA
2203-005682	C422	C-CER,CHIP	SA
2203-005682	C432	C-CER,CHIP	SA
2203-005682	C434	C-CER,CHIP	SA
2203-005682	C435	C-CER,CHIP	SA
2203-005682	C436	C-CER,CHIP	SA
2203-005682	C437	C-CER,CHIP	SA
2203-005682	C441	C-CER,CHIP	SA
2203-005682	C527	C-CER,CHIP	SA
2203-005682	C605	C-CER,CHIP	SA
2203-005682	C614	C-CER,CHIP	SA
2203-005682	C616	C-CER,CHIP	SA
2203-005682	C620	C-CER,CHIP	SA
2203-005682	C622	C-CER,CHIP	SA
2203-005719	C140	C-CER,CHIP	SA
2203-005719	C373	C-CER,CHIP	SA
2203-005719	C502	C-CER,CHIP	SA
2203-005719	C506	C-CER,CHIP	SA
2203-005719	C507	C-CER,CHIP	SA
2203-005719	C508	C-CER,CHIP	SA
2203-005719	C510	C-CER,CHIP	SA
2203-005719	C523	C-CER,CHIP	SA
2203-005719	C524	C-CER,CHIP	SA
2203-005719	C525	C-CER,CHIP	SA
2203-005719	C526	C-CER,CHIP	SA
2203-005719	C528	C-CER,CHIP	SA
2203-005719	C529	C-CER,CHIP	SA
2203-005719	C607	C-CER,CHIP	SA
2203-005719	C610	C-CER,CHIP	SA
2203-005719	C611	C-CER,CHIP	SA
2203-005725	C237	C-CER,CHIP	SA

SEC Code	Design LOC	Description	STATUS
2203-005725	C243	C-CER,CHIP	SA
2203-005725	C244	C-CER,CHIP	SA
2203-005725	C246	C-CER,CHIP	SA
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2203-005729	C372	C-CER,CHIP	SA
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2203-005792	C299	C-CER,CHIP	SA
2203-005806	C131	C-CER,CHIP	SNA
2203-005806	C165	C-CER,CHIP	SNA
2203-005806	C254	C-CER,CHIP	SNA
2203-005806	C304	C-CER,CHIP	SNA

SEC Code	Design LOC	Description	STATUS
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2203-005806	C333	C-CER,CHIP	SNA
2203-005806	C339	C-CER,CHIP	SNA
2203-005806	C365	C-CER,CHIP	SNA
2203-005806	C366	C-CER,CHIP	SNA
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2203-005806	C522	C-CER,CHIP	SNA
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2203-006194	C344	C-CER,CHIP	SA
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2203-006194	C364	C-CER,CHIP	SA
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2203-006324	C209	C-CER,CHIP	SA
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2203-006399	C443	C-CER,CHIP	SA
2203-006399	C462	C-CER,CHIP	SA

SEC Code	Design LOC	Description	STATUS
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2203-006423	C129	C-CER,CHIP	SA
2203-006423	C175	C-CER,CHIP	SA
2203-006423	C201	C-CER,CHIP	SA
2203-006423	C203	C-CER,CHIP	SA
2203-006423	C218	C-CER,CHIP	SA
2203-006423	C225	C-CER,CHIP	SA
2203-006423	C226	C-CER,CHIP	SA
2203-006423	C227	C-CER,CHIP	SA
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2203-006423	C239	C-CER,CHIP	SA
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2203-006423	C241	C-CER,CHIP	SA
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2203-006423	C253	C-CER,CHIP	SA
2203-006423	C267	C-CER,CHIP	SA
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2203-006423	C338	C-CER,CHIP	SA
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2203-006423	C407	C-CER,CHIP	SA
2203-006423	C408	C-CER,CHIP	SA
2203-006423	C410	C-CER,CHIP	SA
2203-006423	C412	C-CER,CHIP	SA
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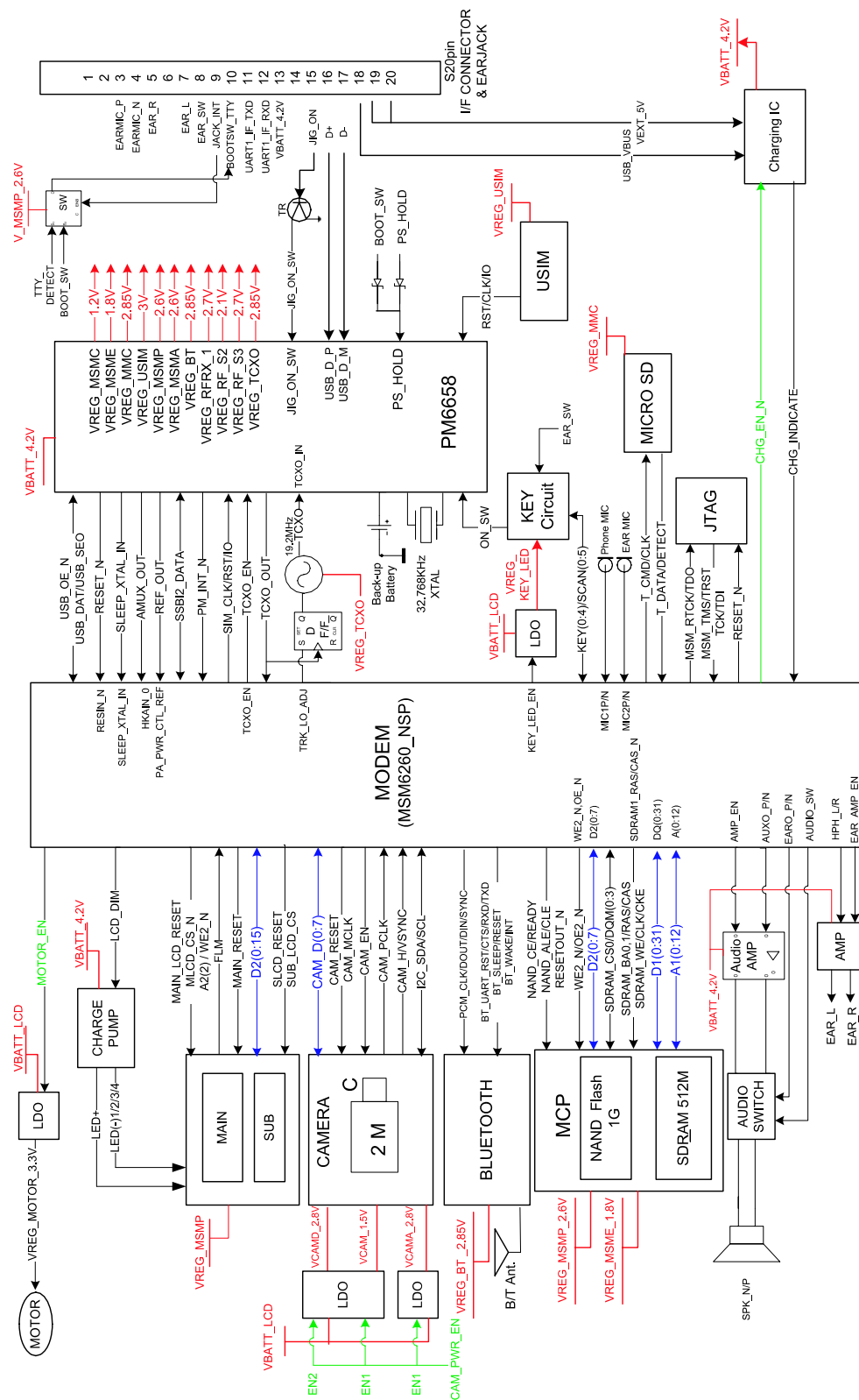
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2203-006423	C619	C-CER,CHIP	SA
2203-006423	C623	C-CER,CHIP	SA
2203-006462	C307	C-CER,CHIP	SA
2203-006562	C120	C-CER,CHIP	SA
2203-006562	C361	C-CER,CHIP	SA
2203-006562	C433	C-CER,CHIP	SA
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2203-006562	C530	C-CER,CHIP	SA
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2203-006562	C532	C-CER,CHIP	SA
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2203-006604	C143	C-CER,CHIP	SA
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2203-006648	C169	C-CER,CHIP	SA
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2203-006665	C148	C-CER,CHIP	SA
2203-006668	C302	C-CER,CHIP	SA
2203-006674	C145	C-CER,CHIP	SNA
2203-006674	C146	C-CER,CHIP	SNA
2203-006824	C292	C-CER,CHIP	SA
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2203-006824	C401	C-CER,CHIP	SA
2203-006824	C414	C-CER,CHIP	SA
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2203-006824	C471	C-CER,CHIP	SA
2203-006824	C621	C-CER,CHIP	SA
2203-006825	C363	C-CER,CHIP	SA
2203-006825	C377	C-CER,CHIP	SA
2203-006838	C121	C-CER,CHIP	SA
2203-006838	C124	C-CER,CHIP	SA
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2203-006842	C133	C-CER,CHIP	SA
2203-006872	C416	C-CER,CHIP	SA
2203-006872	C419	C-CER,CHIP	SA

SEC Code	Design LOC	Description	STATUS
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2203-006872	C470	C-CER,CHIP	SA
2203-006872	C473	C-CER,CHIP	SA
2203-006872	C500	C-CER,CHIP	SA
2203-006979	C249	C-CER,CHIP	SA
2203-006979	C279	C-CER,CHIP	SA
2203-006979	C602	C-CER,CHIP	SA
2203-007170	C177	C-CER,CHIP	SA
2404-001339	TA501	C-TA,CHIP	SA
2404-001381	TA400	C-TA,CHIP	SA
2404-001381	TA401	C-TA,CHIP	SA
2404-001381	TA500	C-TA,CHIP	SA
2404-001381	TA601	C-TA,CHIP	SA
2404-001474	TA101	C-TA,CHIP	SA
2404-001474	TA602	C-TA,CHIP	SA
2404-001506	TA600	C-TA,CHIP	SA
2703-001178	L135	INDUCTOR-SMD	SA
2703-001729	L100	INDUCTOR-SMD	SA
2703-001737	L124	INDUCTOR-SMD	SA
2703-002200	L134	INDUCTOR-SMD	SA
2703-002207	L216	INDUCTOR-SMD	SA
2703-002365	L217	INDUCTOR-SMD	SA
2703-002544	L206	INDUCTOR-SMD	SA
2703-002612	L218	INDUCTOR-SMD	SA
2703-002785	L210	INDUCTOR-SMD	SA
2703-002795	L108	INDUCTOR-SMD	SNA
2703-002858	L112	INDUCTOR-SMD	SA
2703-002872	L400	INDUCTOR-SMD	SA
2703-002872	L401	INDUCTOR-SMD	SA
2703-002872	L402	INDUCTOR-SMD	SA
2703-002901	L128	INDUCTOR-SMD	SNA
2703-002903	L205	INDUCTOR-SMD	SA
2703-002906	L212	INDUCTOR-SMD	SA
2703-002917	L208	INDUCTOR-SMD	SA
2703-003004	L102	INDUCTOR-SMD	SA
2703-003004	L129	INDUCTOR-SMD	SA
2703-003335	L116	INDUCTOR-SMD	SA
2801-004339	OSC400	CRYSTAL-SMD	SA
2801-004515	OSC101	CRYSTAL-SMD	SA
2809-001280	OSC100	OSCILLATOR-VCTCXO	SA
2901-001409	F600	FILTER-EMI SMD	SA
2901-001409	F601	FILTER-EMI SMD	SA
2901-001409	F602	FILTER-EMI SMD	SA
2901-001409	F603	FILTER-EMI SMD	SA
2901-001409	F604	FILTER-EMI SMD	SA
2901-001413	F605	FILTER-EMI SMD	SA
2901-001413	F606	FILTER-EMI SMD	SA
2904-001658	F201	FILTER-SAW	SA
2904-001702	F203	FILTER-SAW	SA
2909-001285	F106	FILTER-LC	SA
2910-000039	DUF2100	DUPLEXER-FBAR	SA
2911-000088	F100	DUPLEXER-FEM	SA
3301-001158	L503	BEAD-SMD	SA

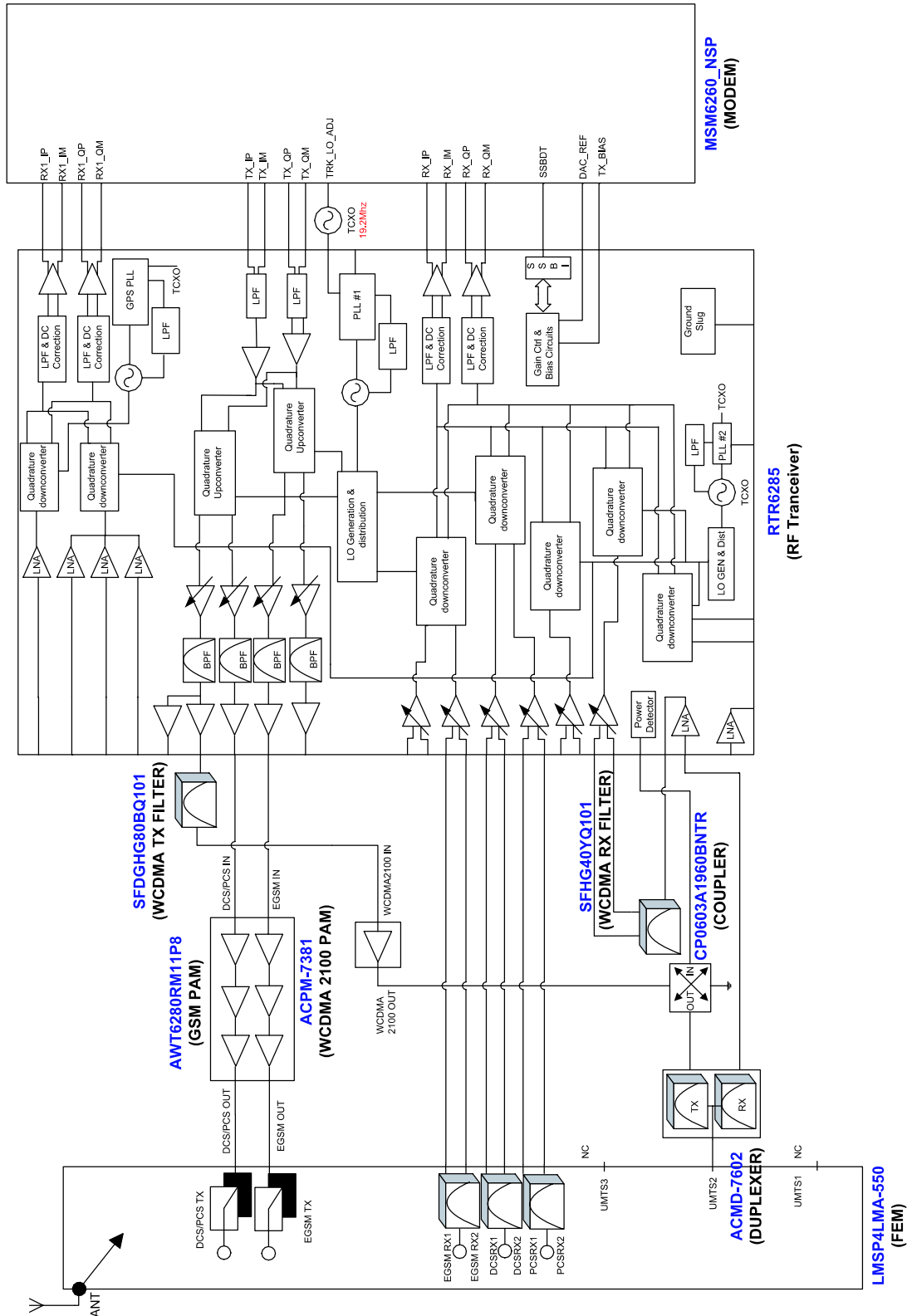
SEC Code	Design LOC	Description	STATUS
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3301-001659	L121	BEAD-SMD	SA
3301-001756	L500	BEAD-SMD	SA
3301-001756	L502	BEAD-SMD	SA
3301-001778	L600	CORE-FERRITE BEAD	SA
3301-001778	L601	CORE-FERRITE BEAD	SA
3705-001421	RFS100	CONNECTOR-COAXIAL	SA
3705-001448	RFS101	CONNECTOR-COAXIAL	SA
3709-001391	SIM400	CONNECTOR-CARD EDGE	SA
3709-001464	CD400	CONNECTOR-CARD EDGE	SA
3710-002523	IFC600	SOCKET-INTERFACE	SA
3711-005659	HDC601	HEADER-BOARD TO BOARD	SA
3711-006105	HDC600	HEADER-BOARD TO BOARD	SA
3711-006256	BTC600	HEADER-BATTERY	SA
3711-006405	U602	HEADER-BOARD TO BOARD	SA
4202-001255	ANT102	ANTENNA-CHIP	SA
4302-001180	BAT400	BATTERY-LI(2ND)	SA
4709-001399	CPL201	COUPLER-DIRECTION	SA
GH70-02640A	FPC100	ICT SHIELD-CAN CLIP	SA
GH70-02640A	FPC101	ICT SHIELD-CAN CLIP	SA
GH70-02640A	FPC102	ICT SHIELD-CAN CLIP	SA
GH70-02640A	FPC105	ICT SHIELD-CAN CLIP	SA
GH70-02640A	FPC108	ICT SHIELD-CAN CLIP	SA
GH70-02640A	FPC109	ICT SHIELD-CAN CLIP	SA
GH70-02640A	FPC111	ICT SHIELD-CAN CLIP	SA
GH70-02640A	FPC112	ICT SHIELD-CAN CLIP	SA
GH70-02983A	SC100	ICT SHIELD-FRAME	SA

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

7-1. Base Band Solution Block Diagram

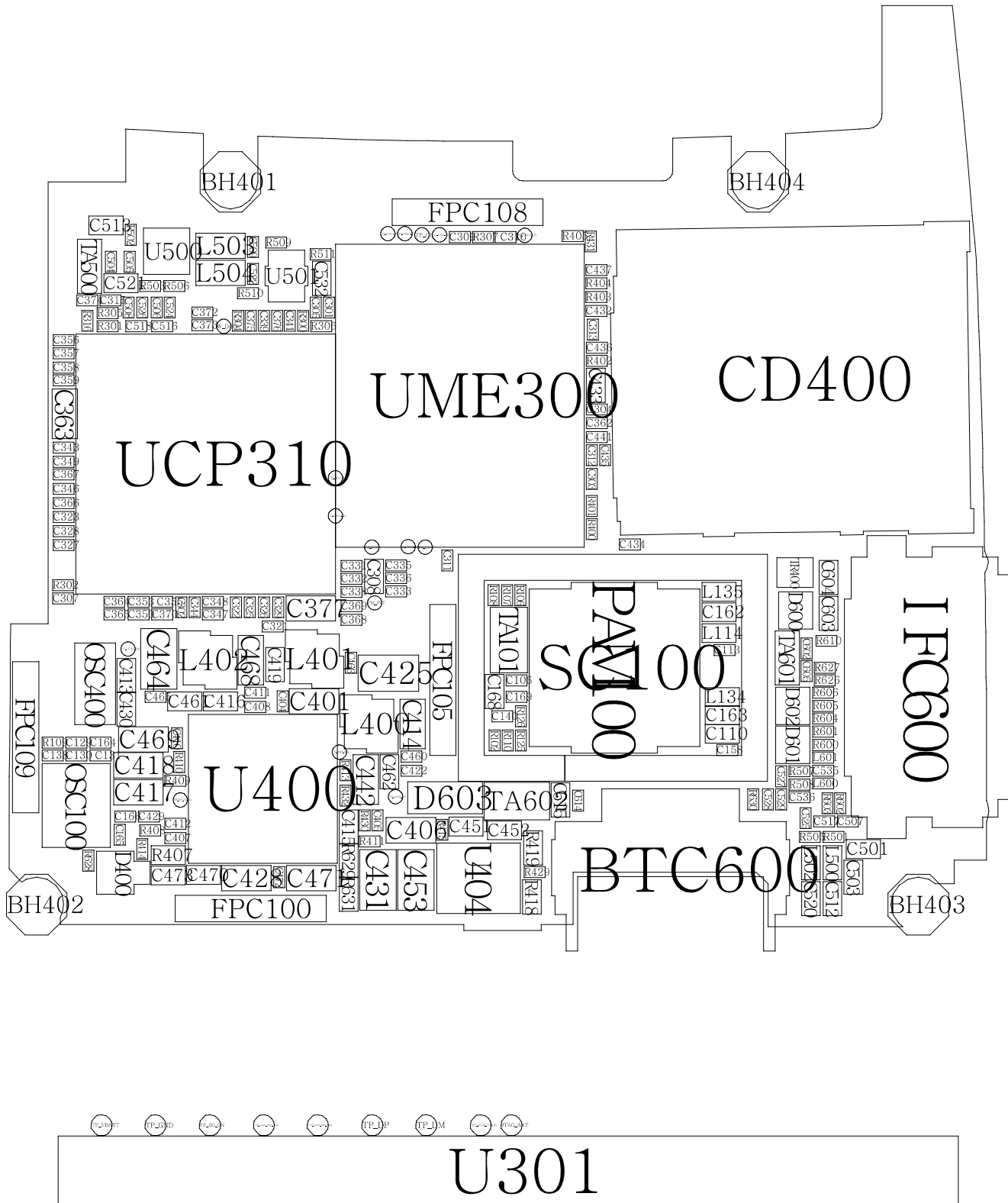


7-2. RF Solution Block Diagram



8. PCB Diagrams

- Main top view



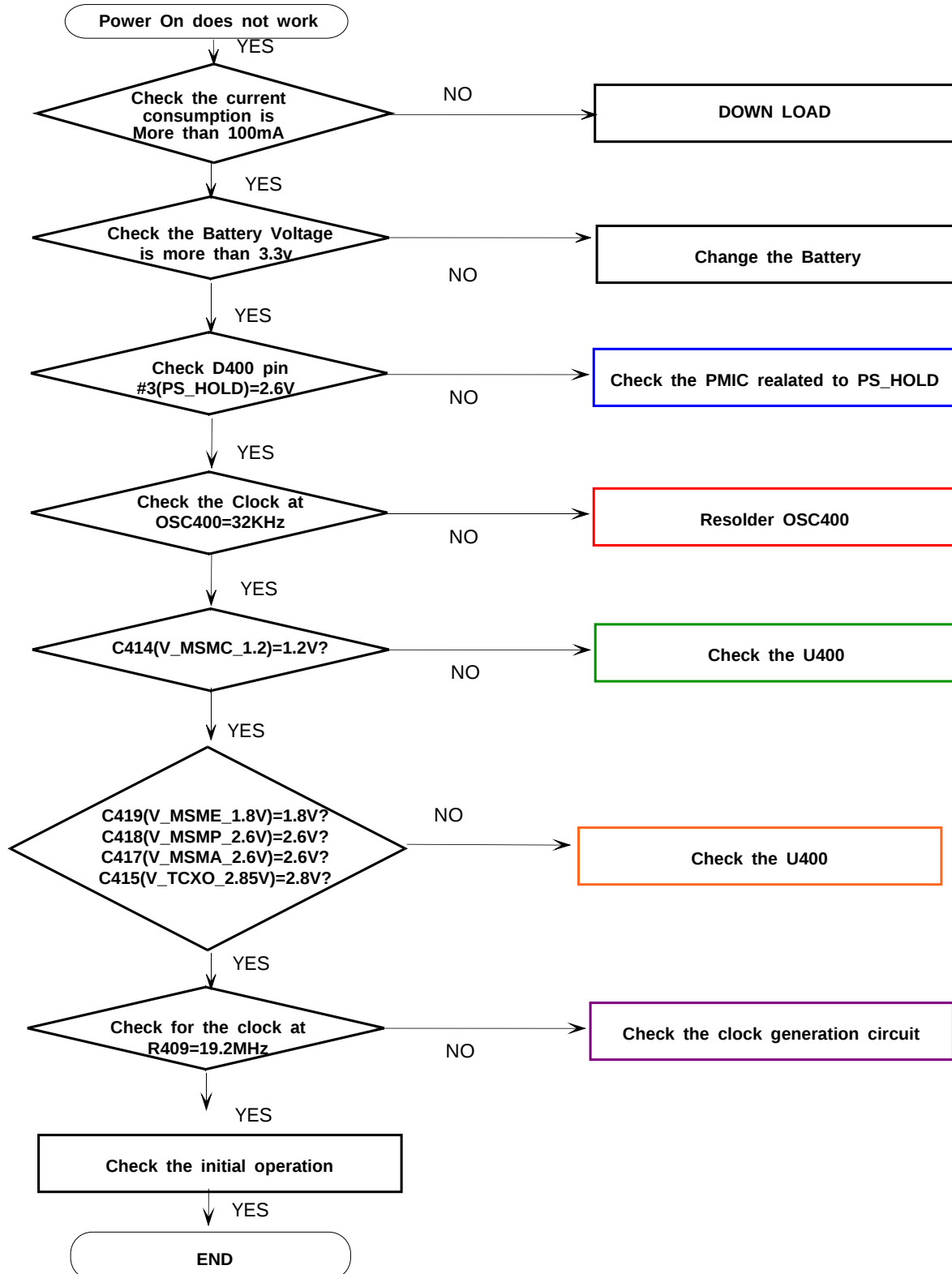


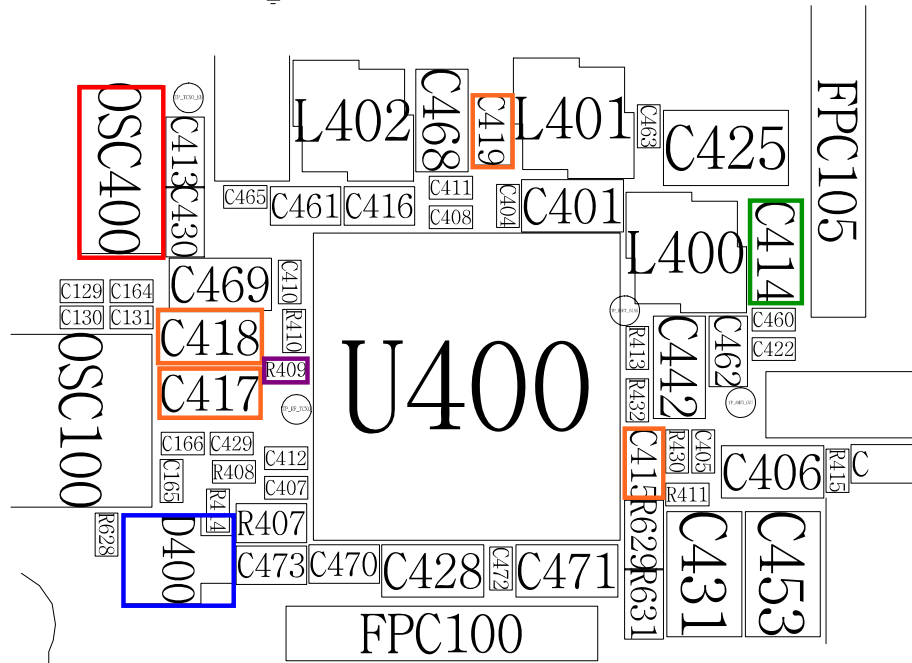
9. Flow Chart of Troubleshooting

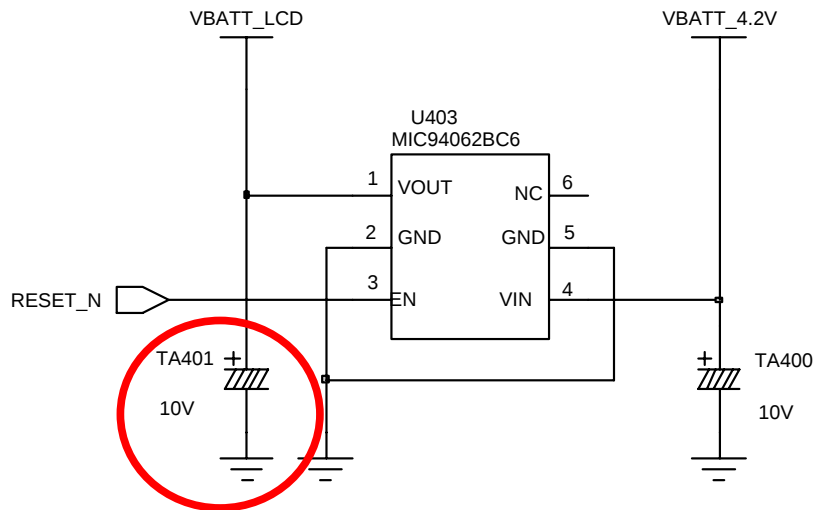
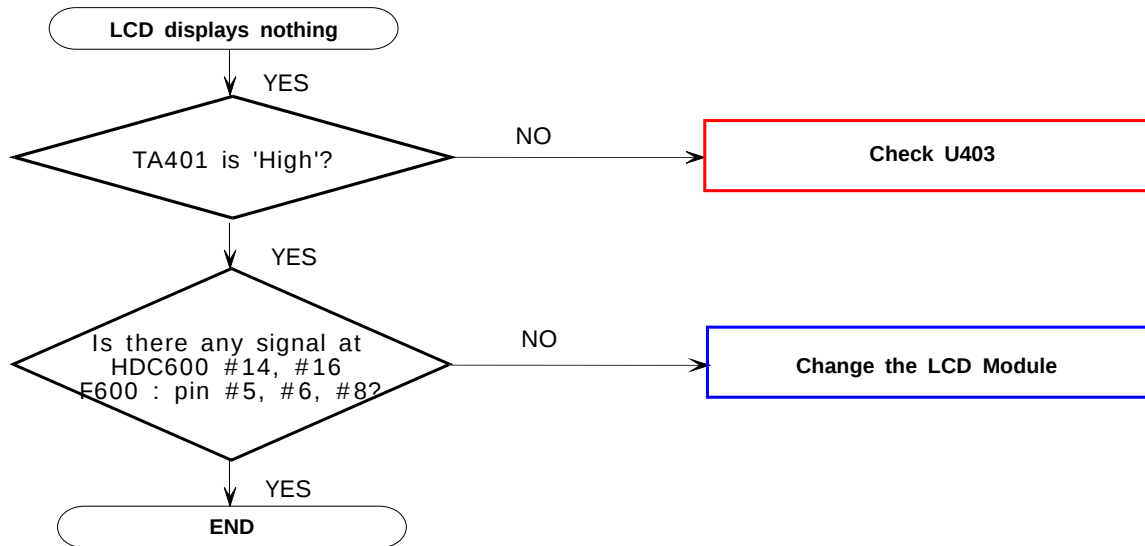
9. Flow Chart of Troubleshooting

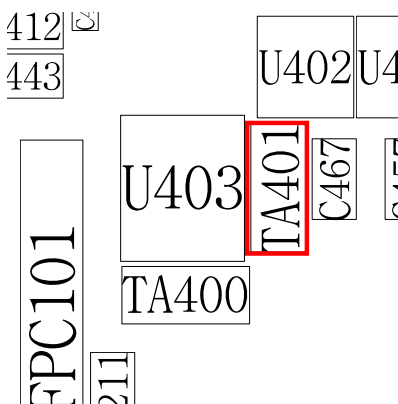
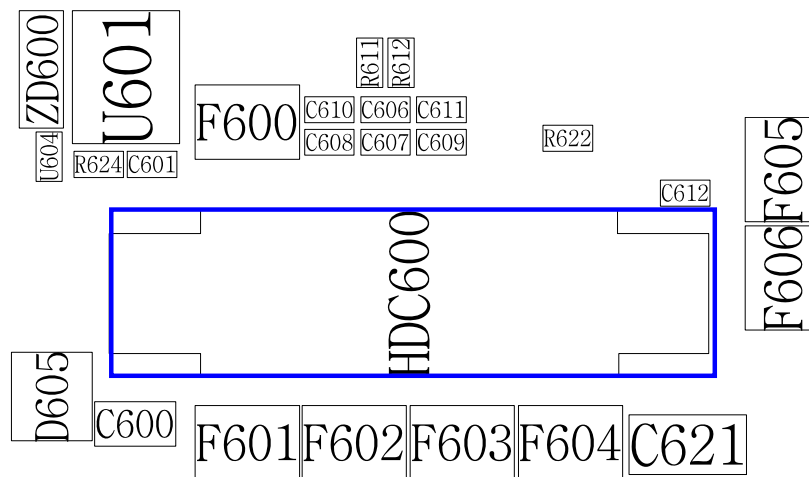
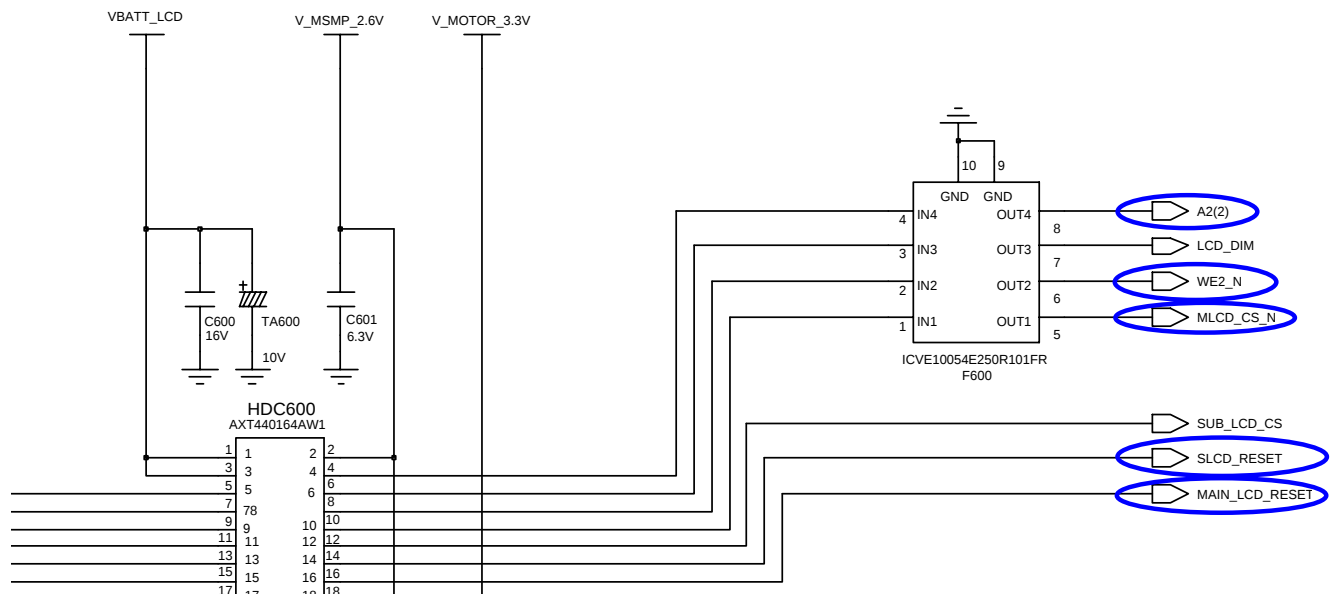
9-1.Logic

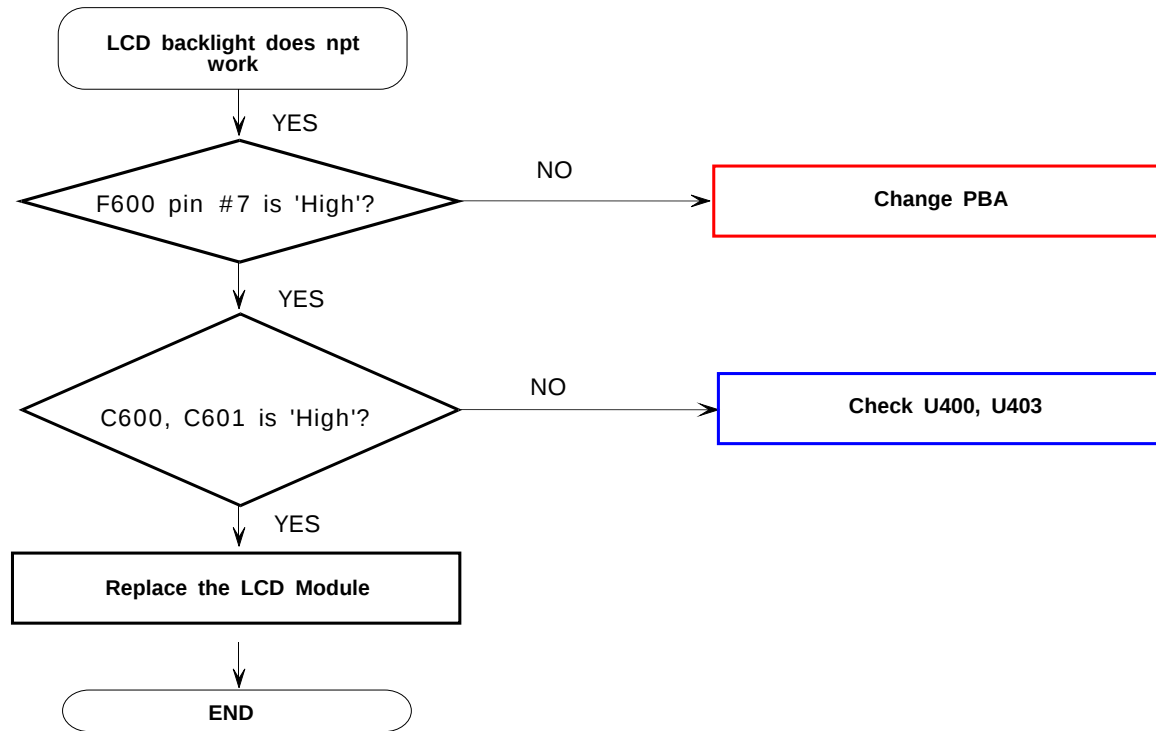
9-1-1. Power on

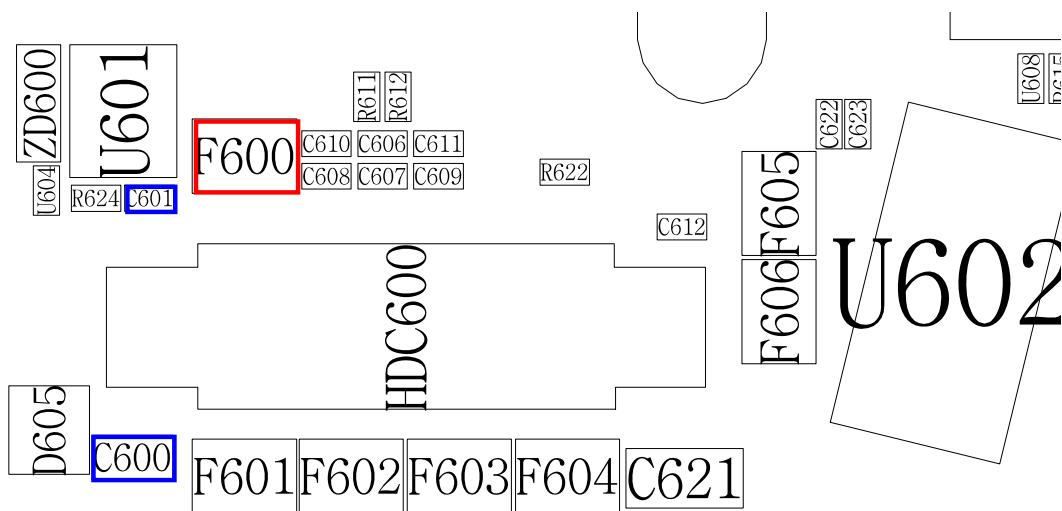
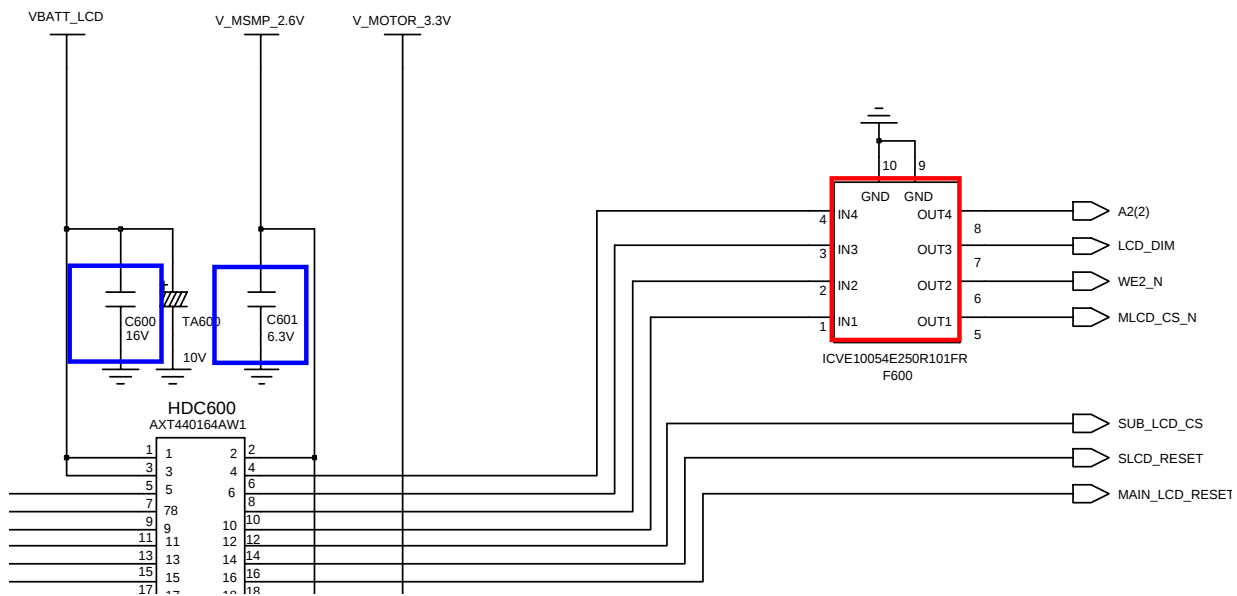




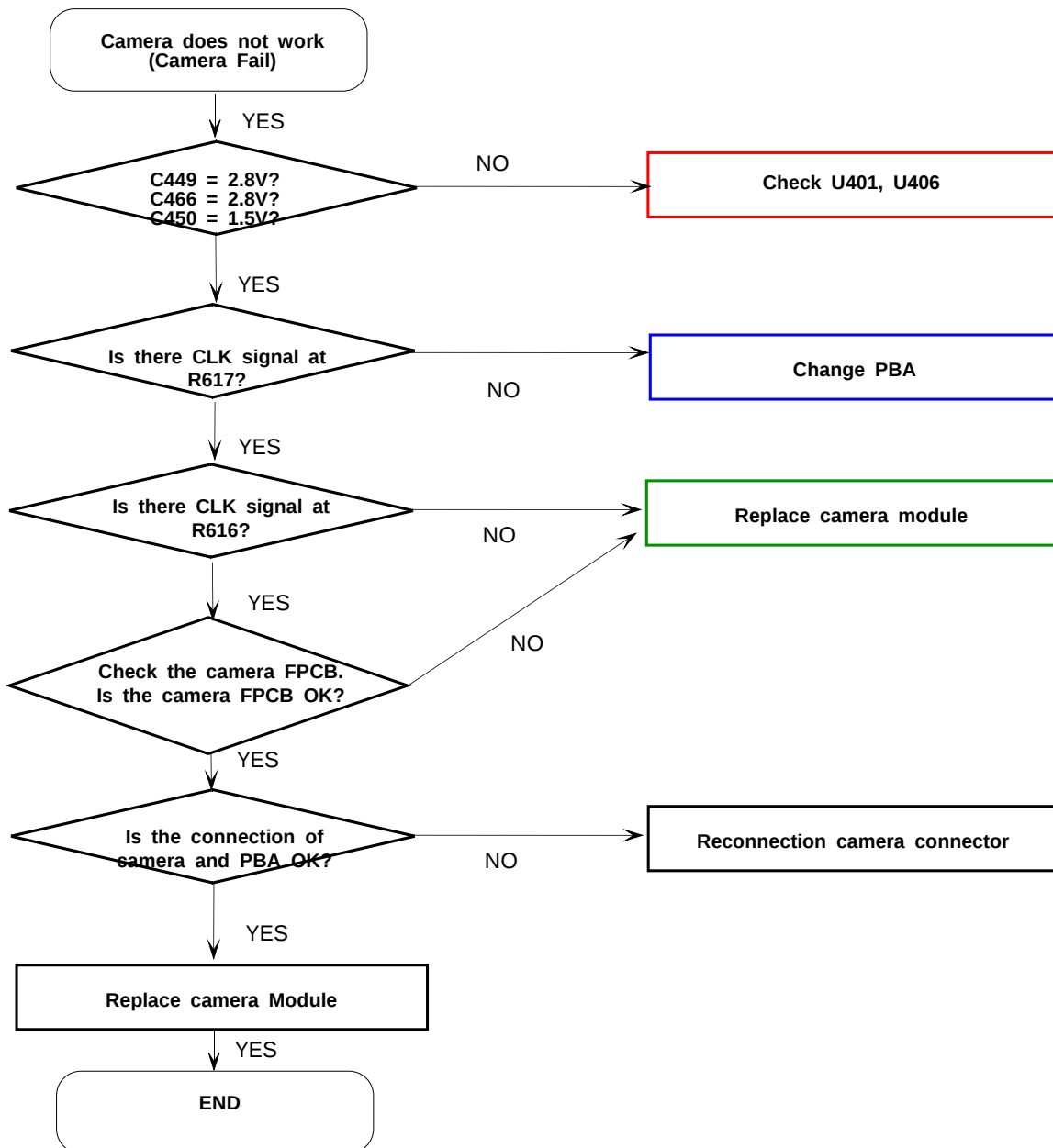
9-1-2. LCD Part

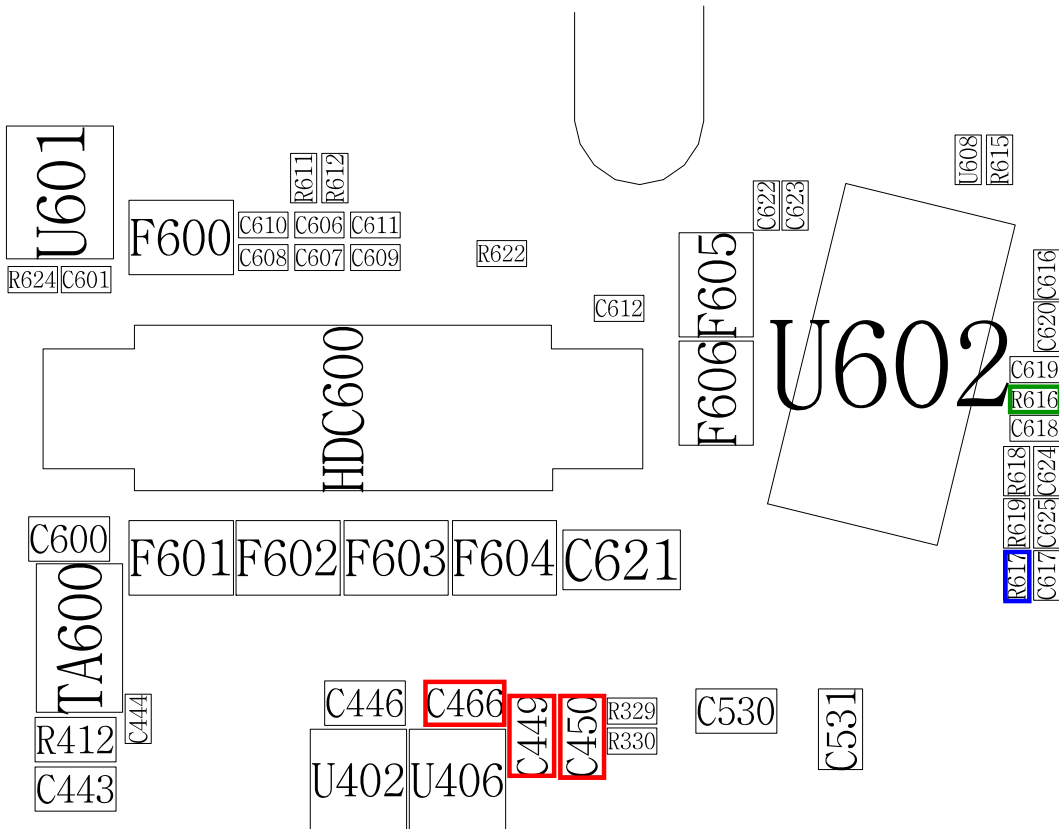
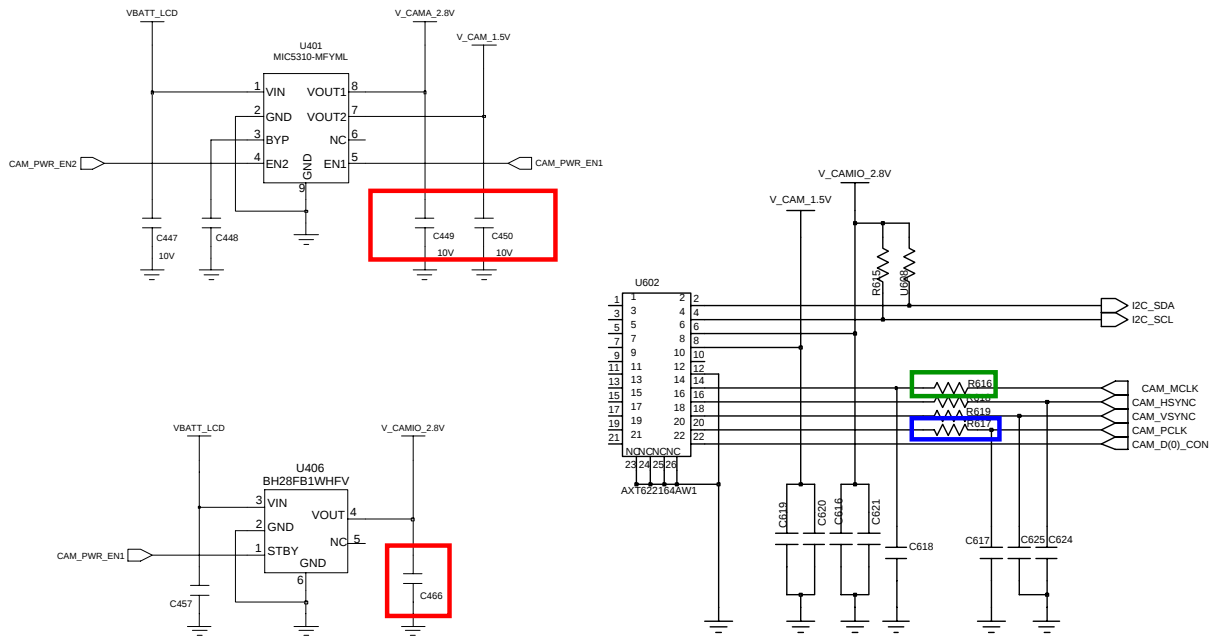


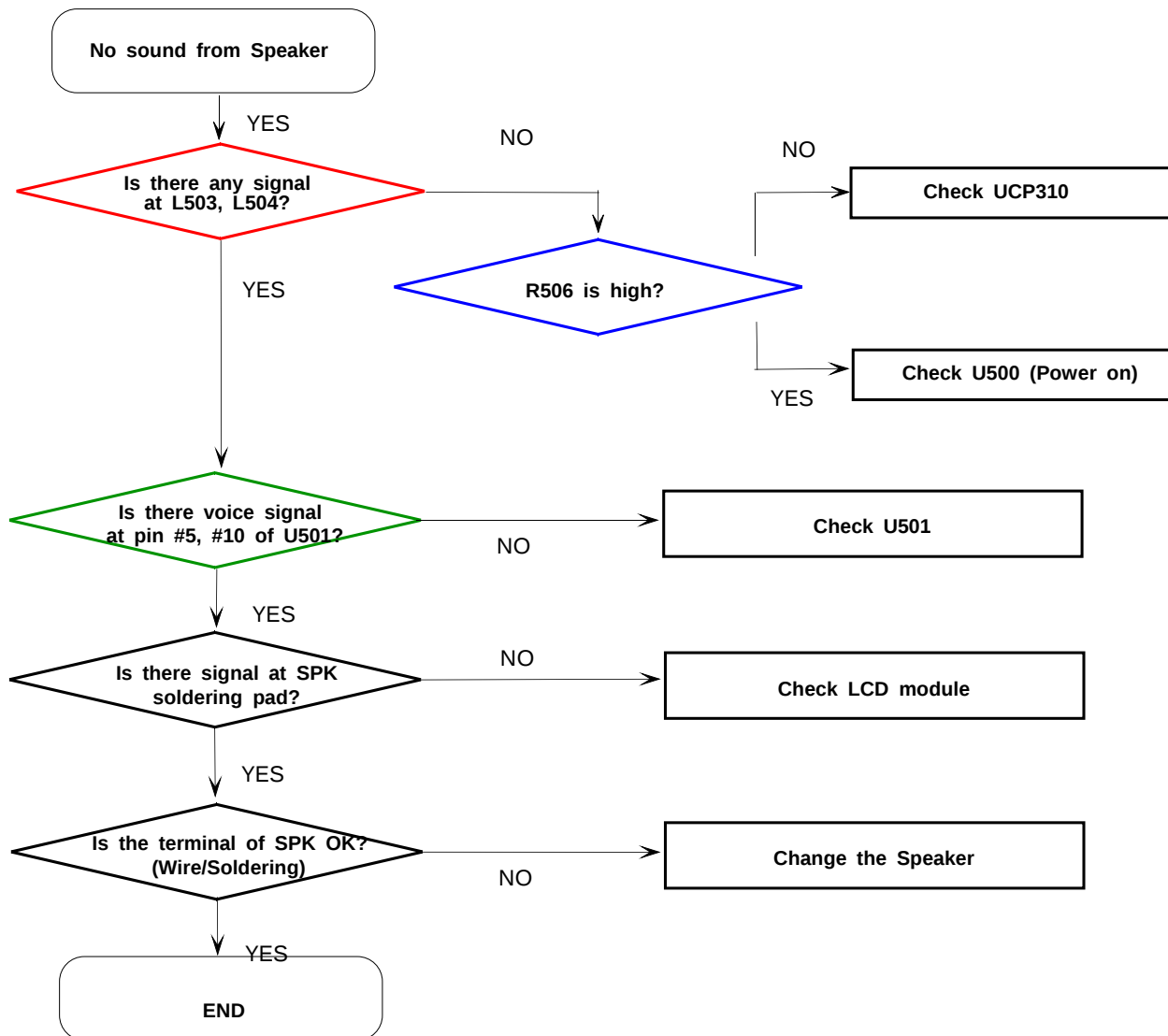


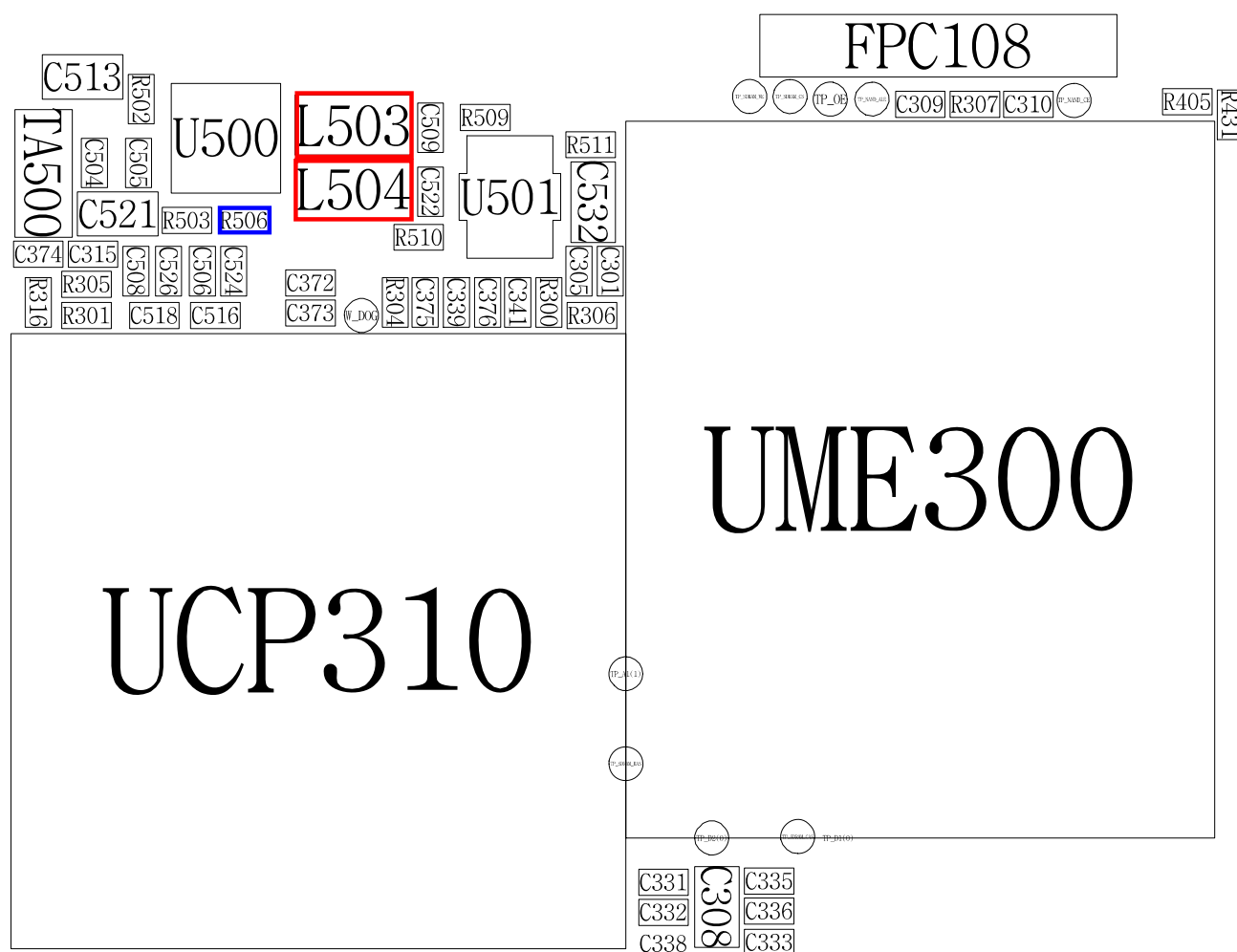
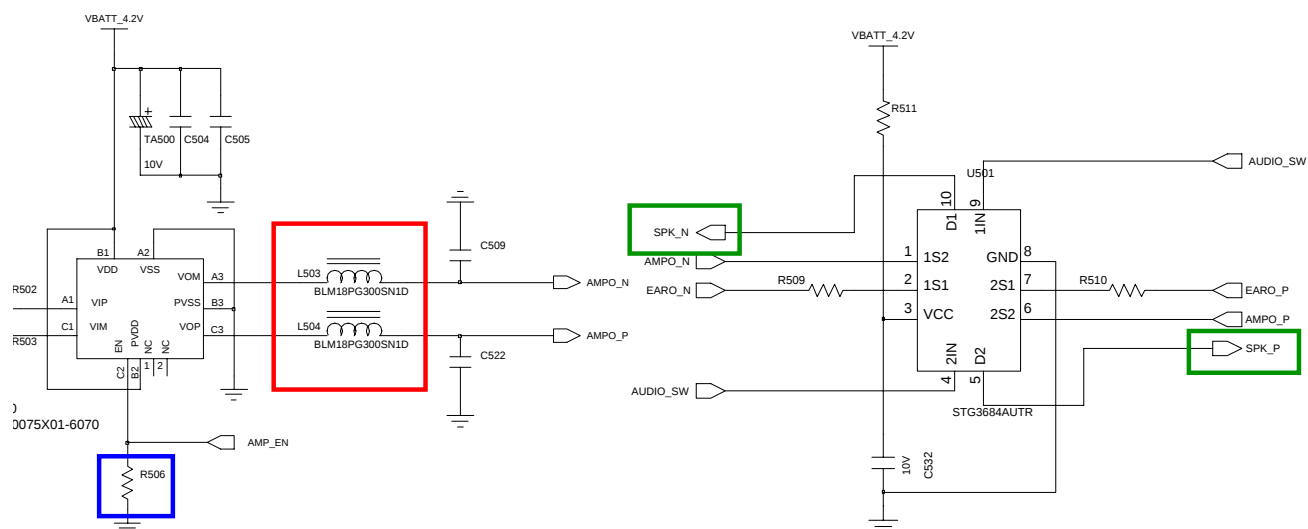


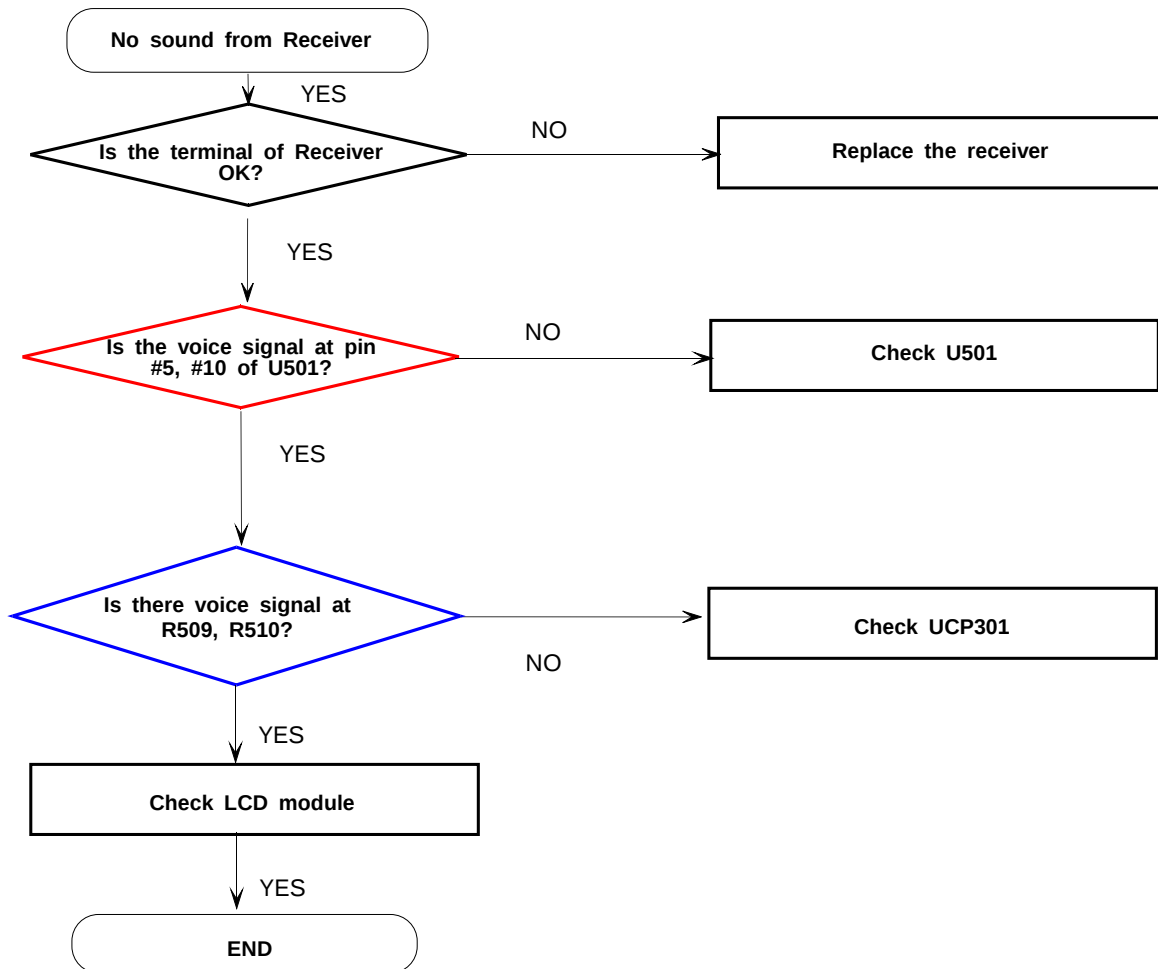
9-1-3. Camera Part

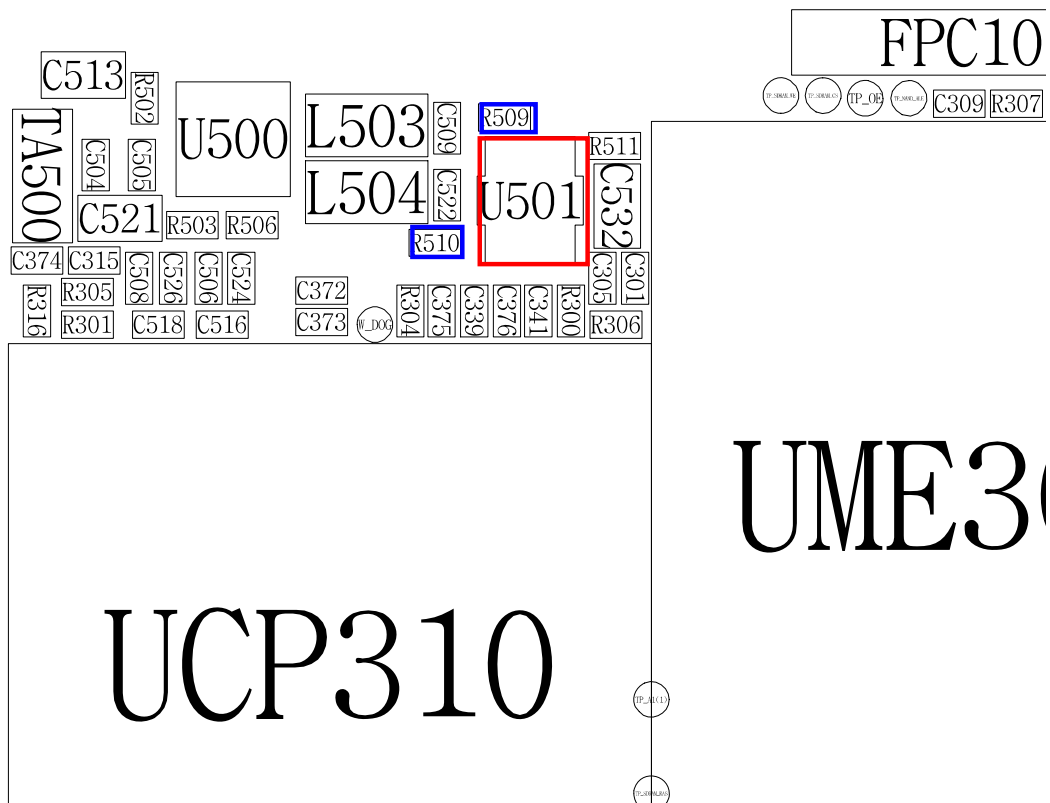
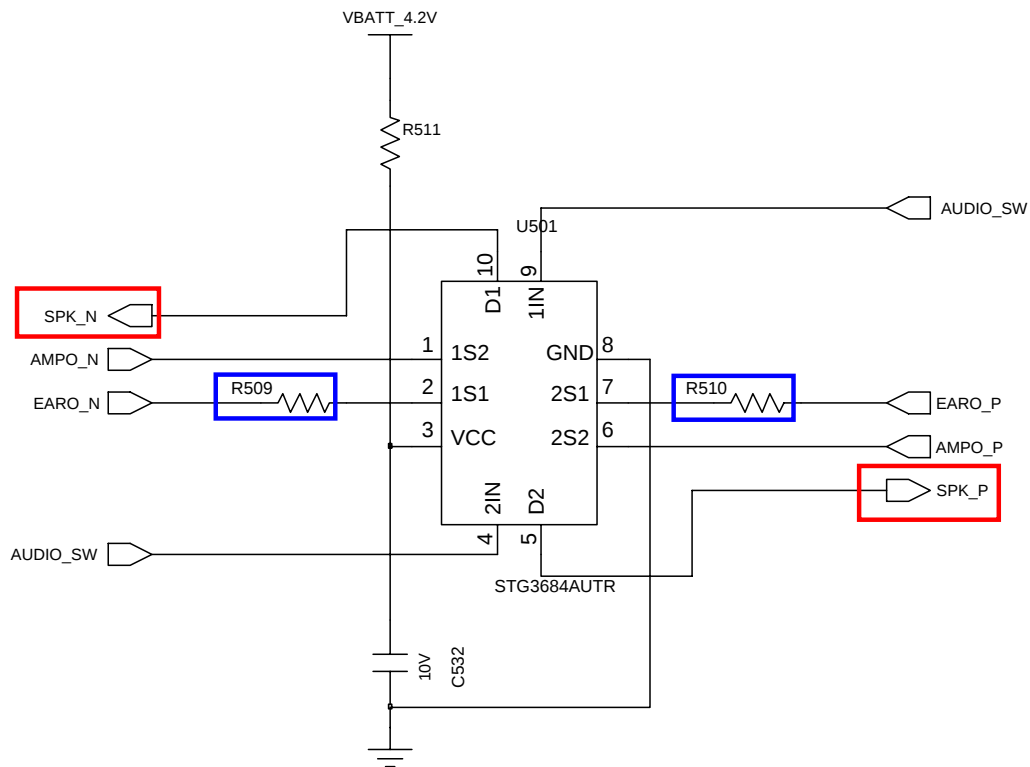




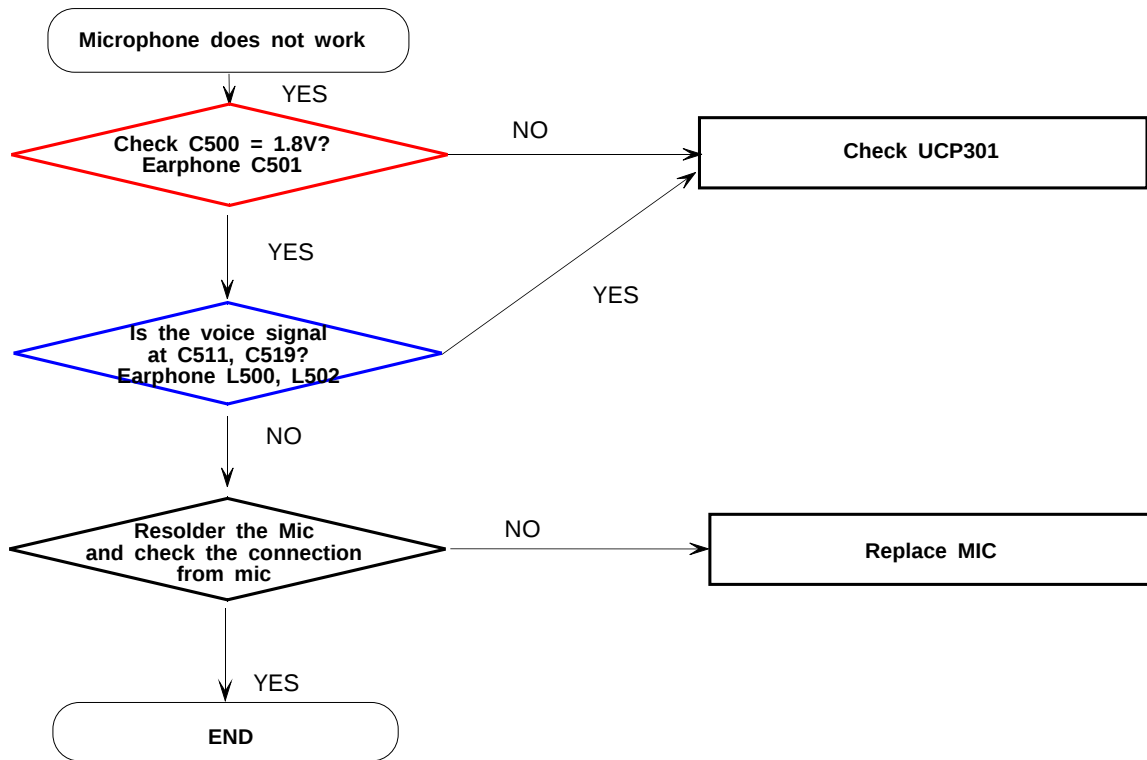
9-1-4. Speaker Part (Melody)

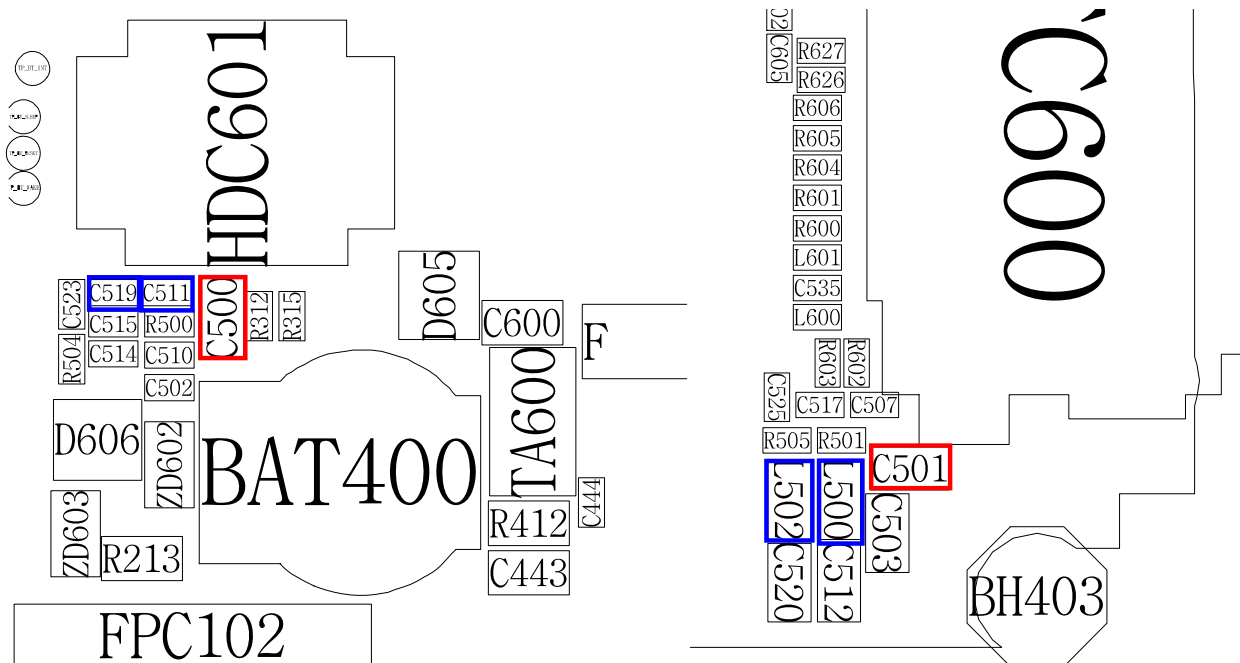
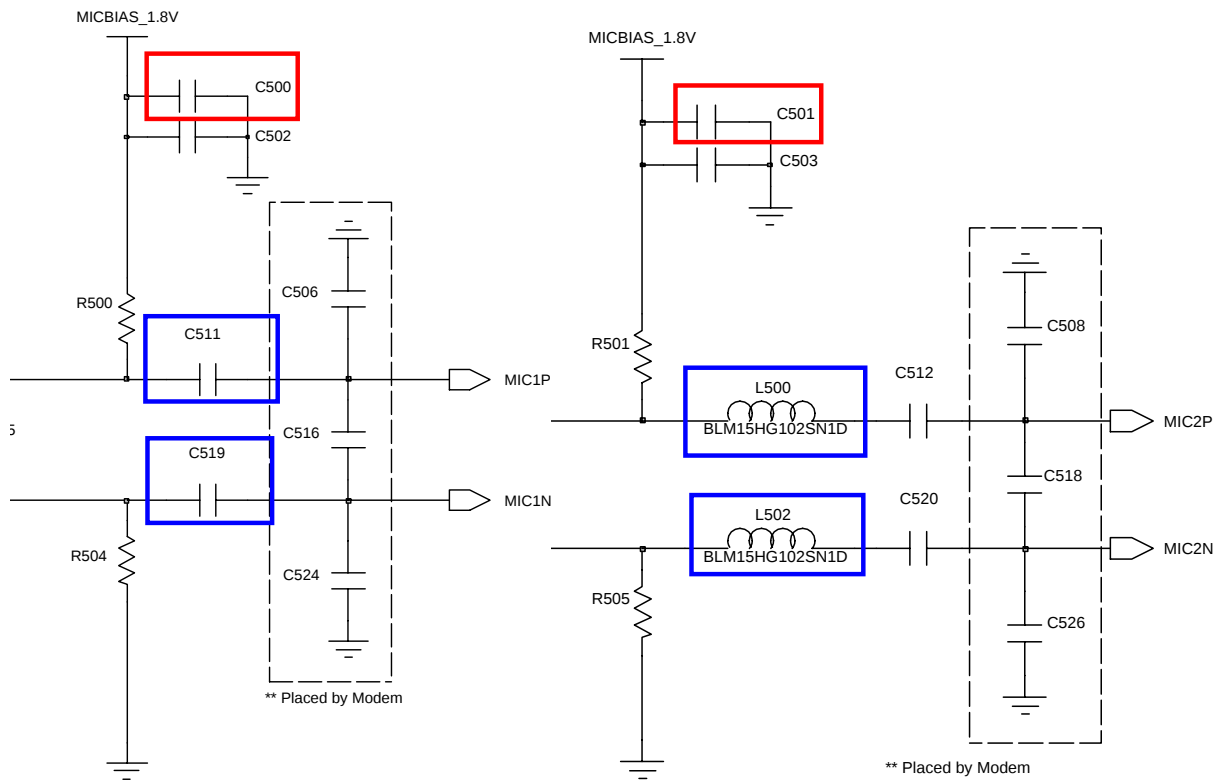


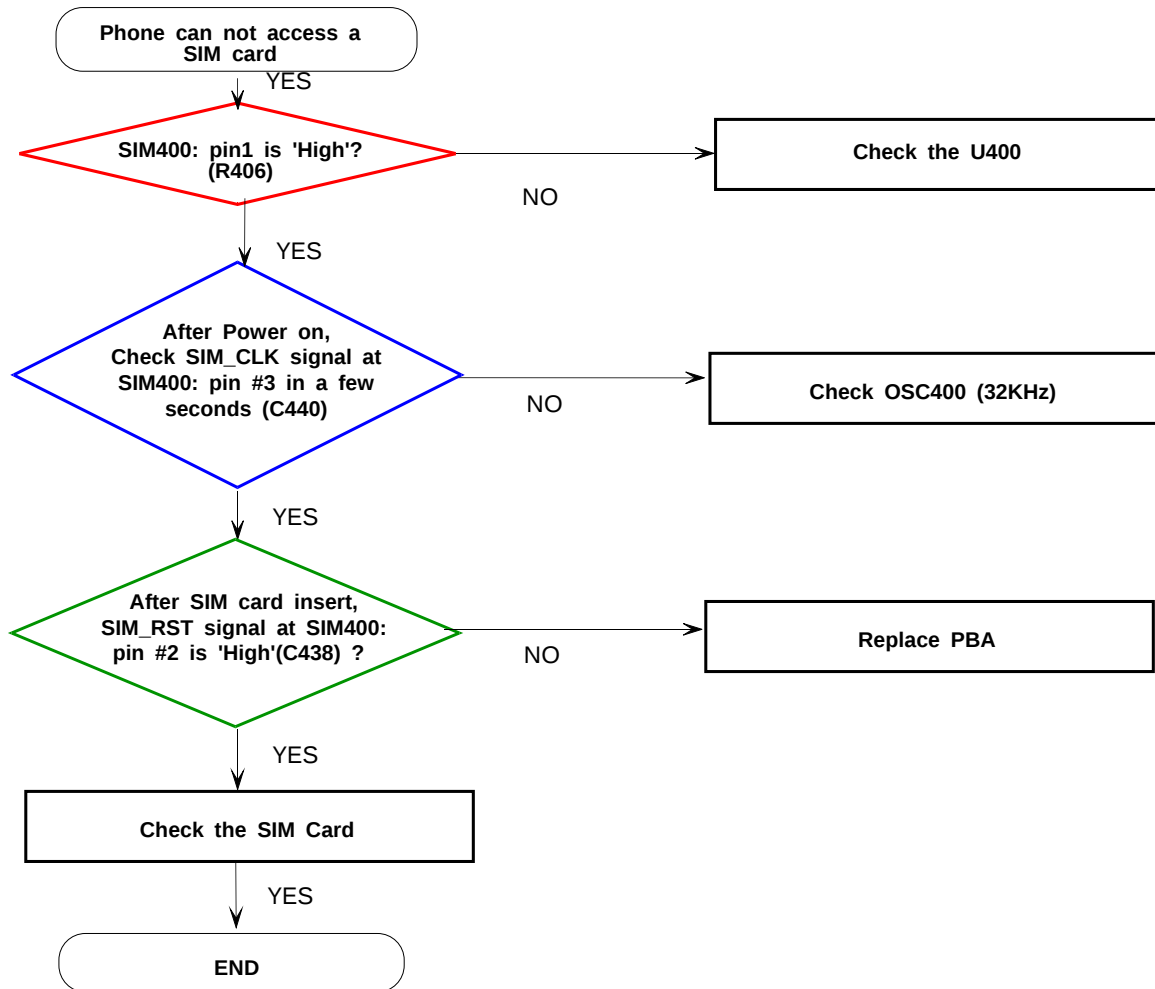
9-1-5. Receiver Part (Voice)

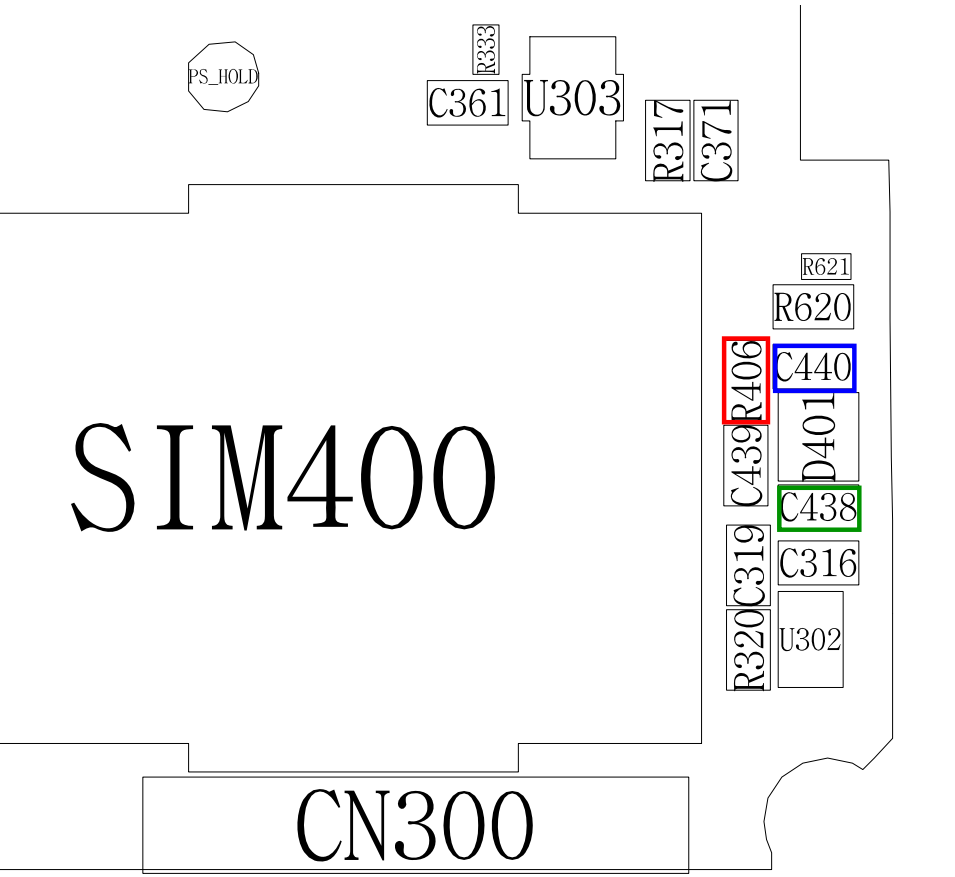


9-1-6. Microphone Part

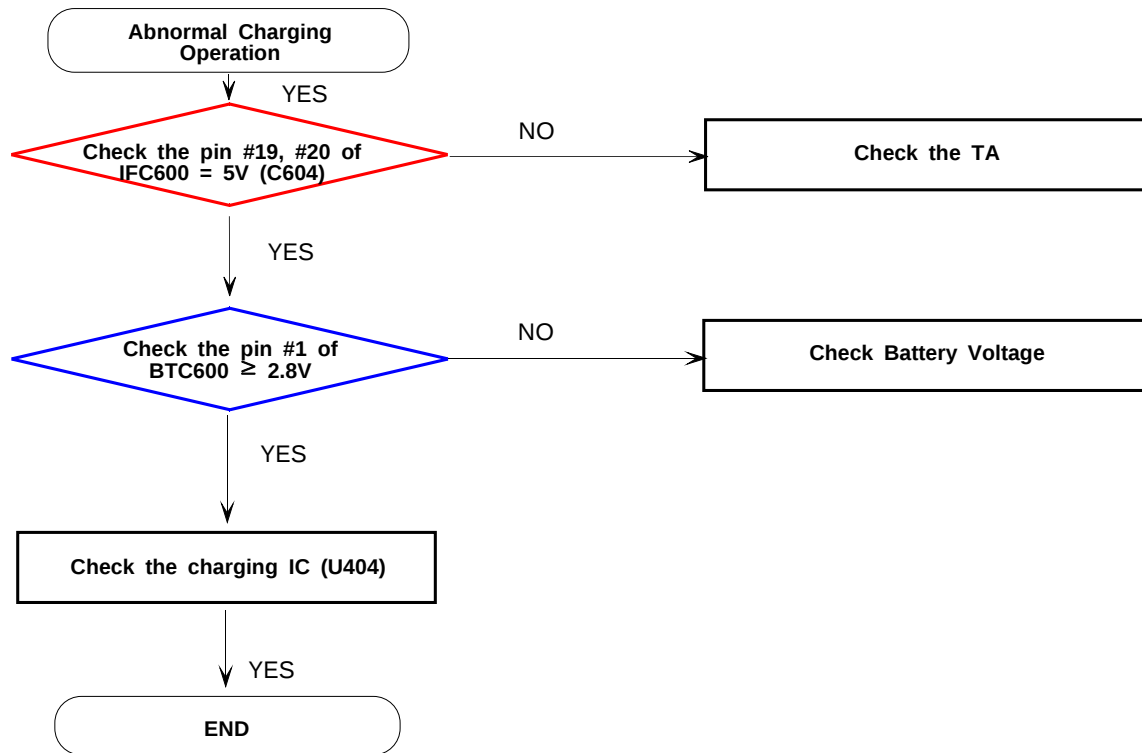


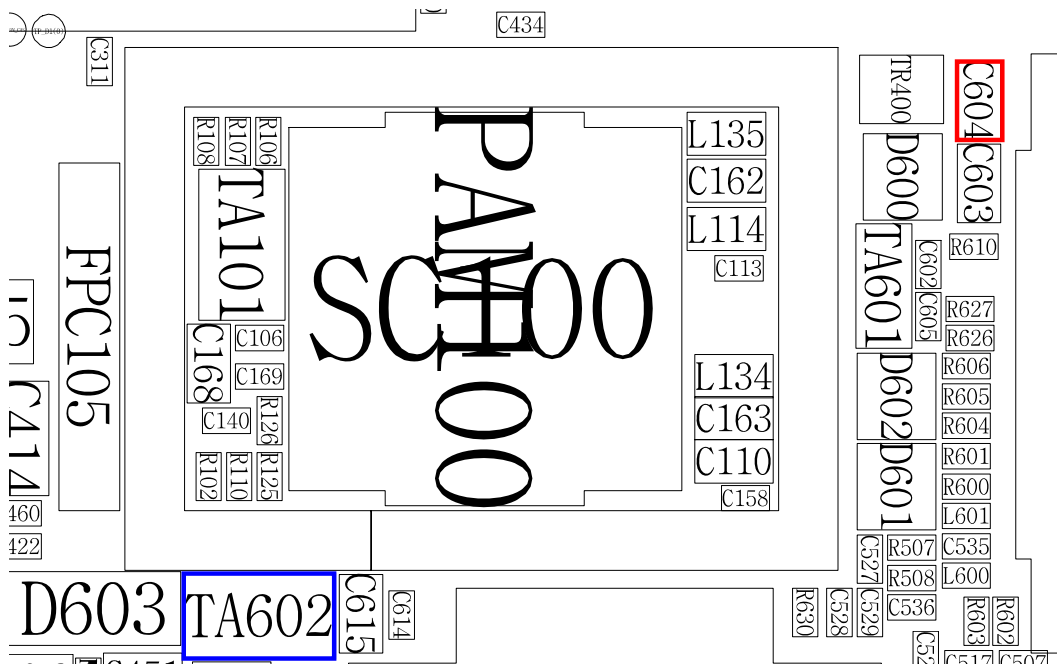
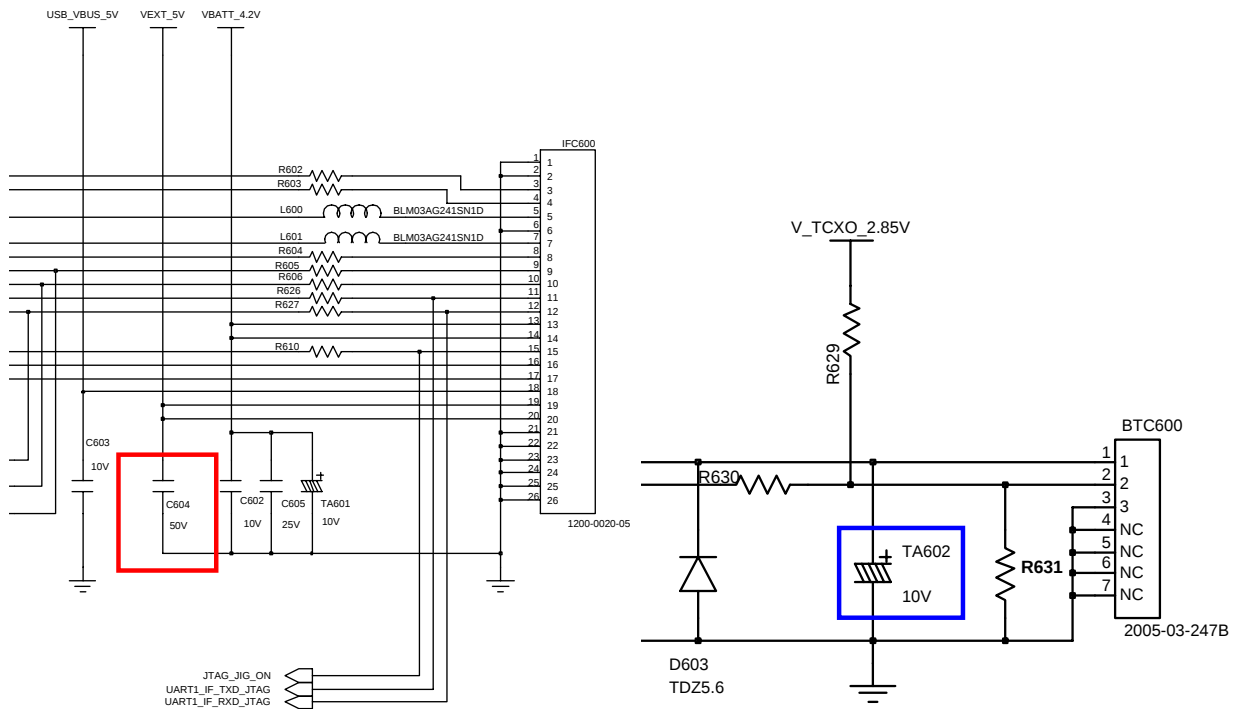


9-1-7. SIM Part



9-1-8. Charging Part

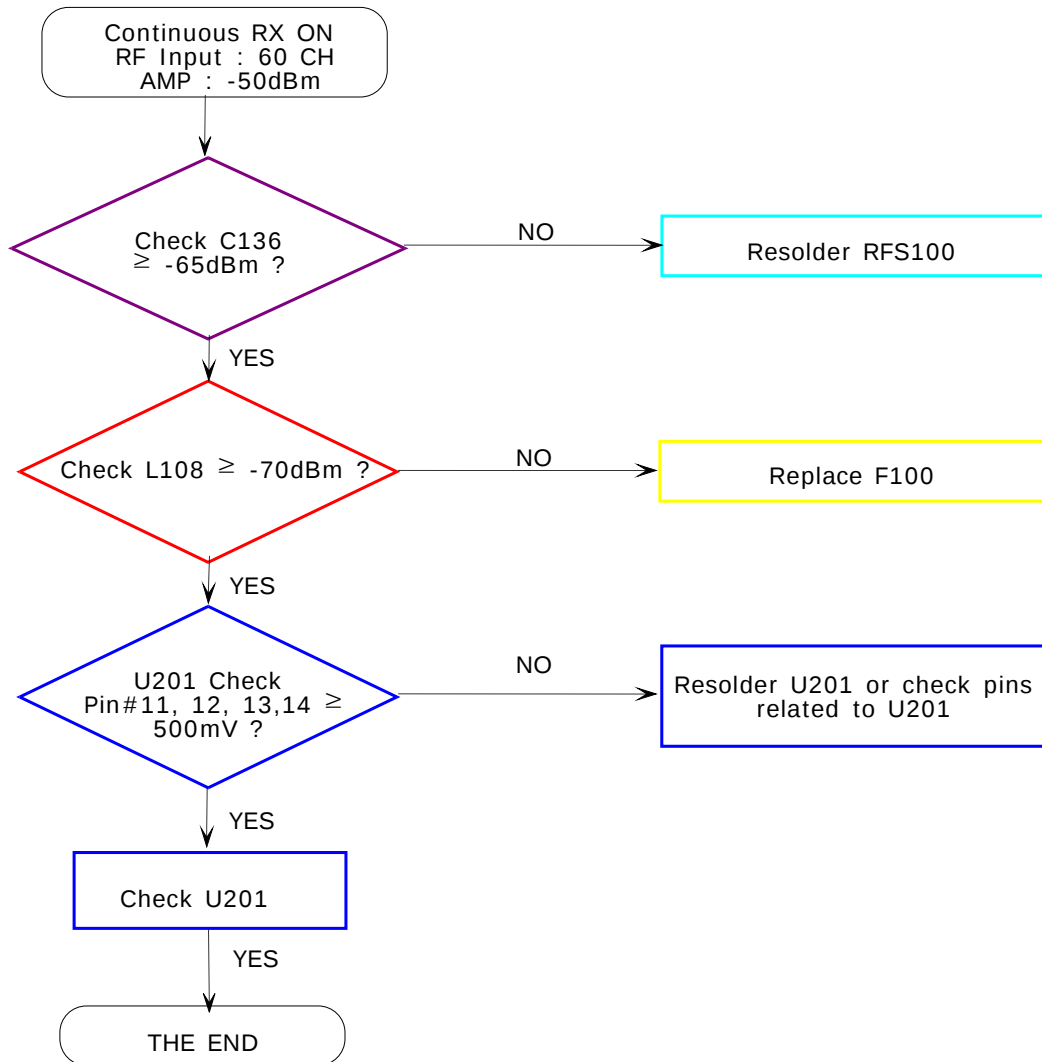




9-2.RF**9-2-1. GSM900 Receiver**

**If you check the rx chain,

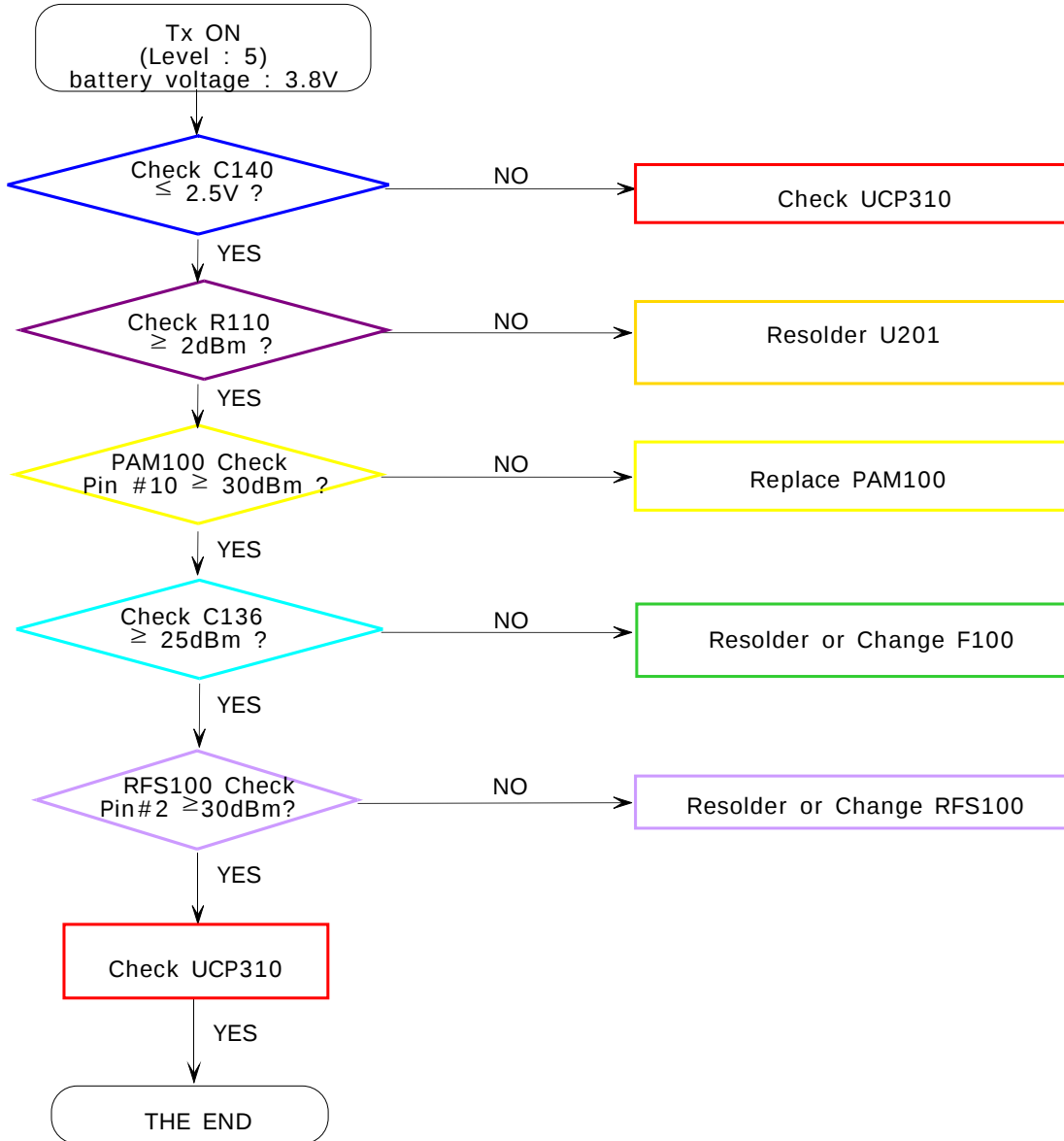
Check not only RF Devices but also resistors, inductors and capacitors.

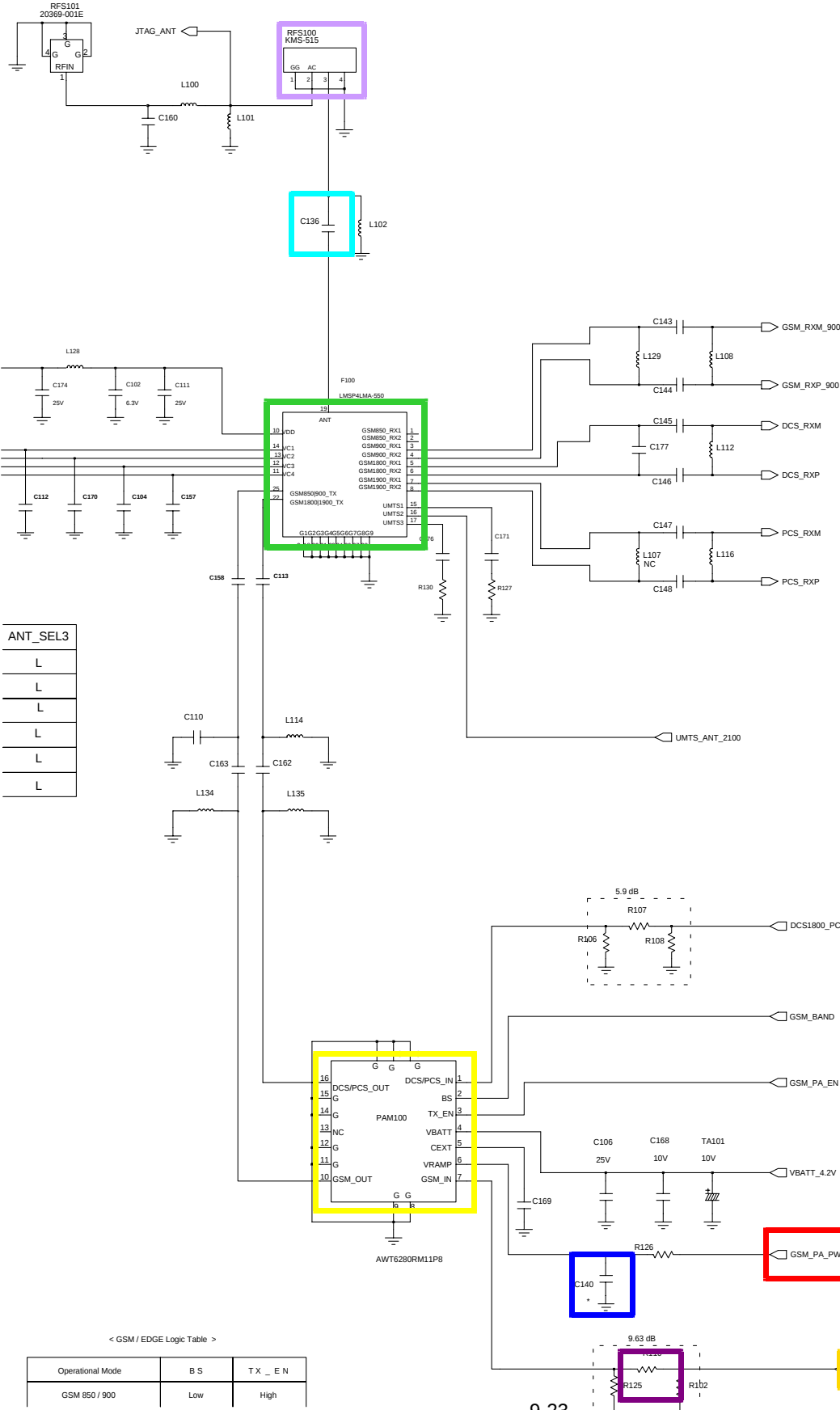


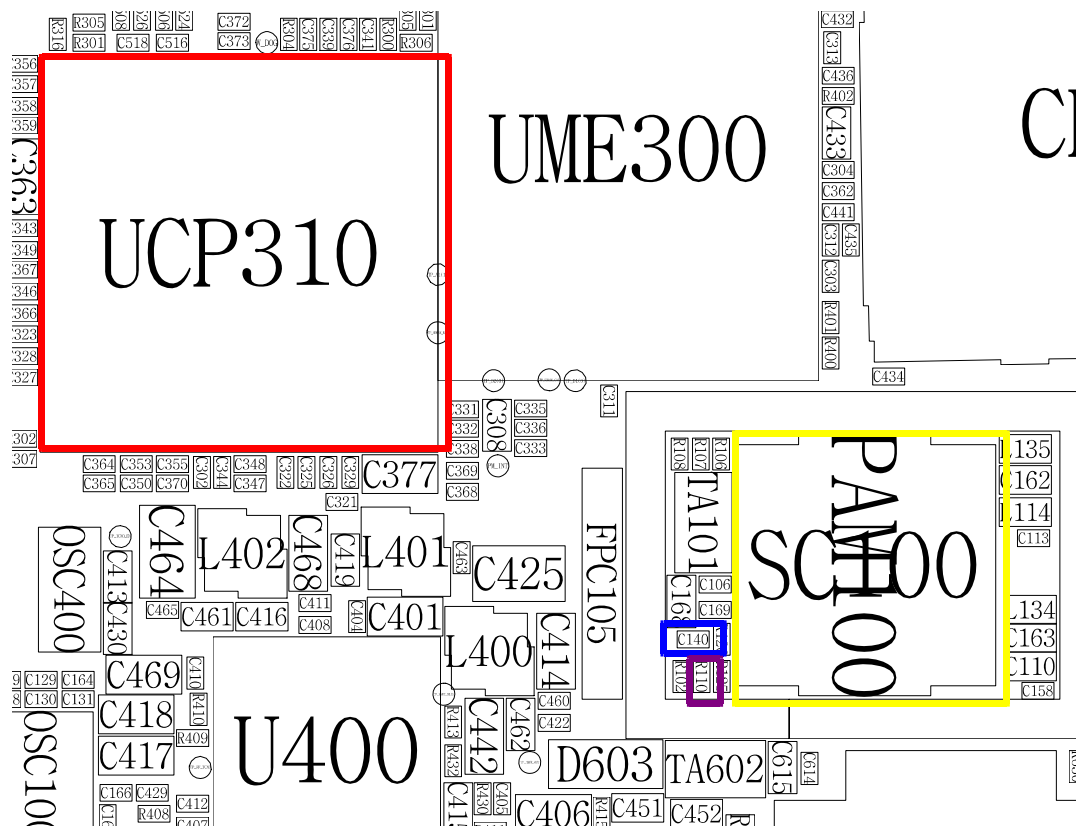
9-2-2. GSM900 Transmitter

**If you check the tx chain,

Check not only RF Devices but also resistors, inductors and capacitors.



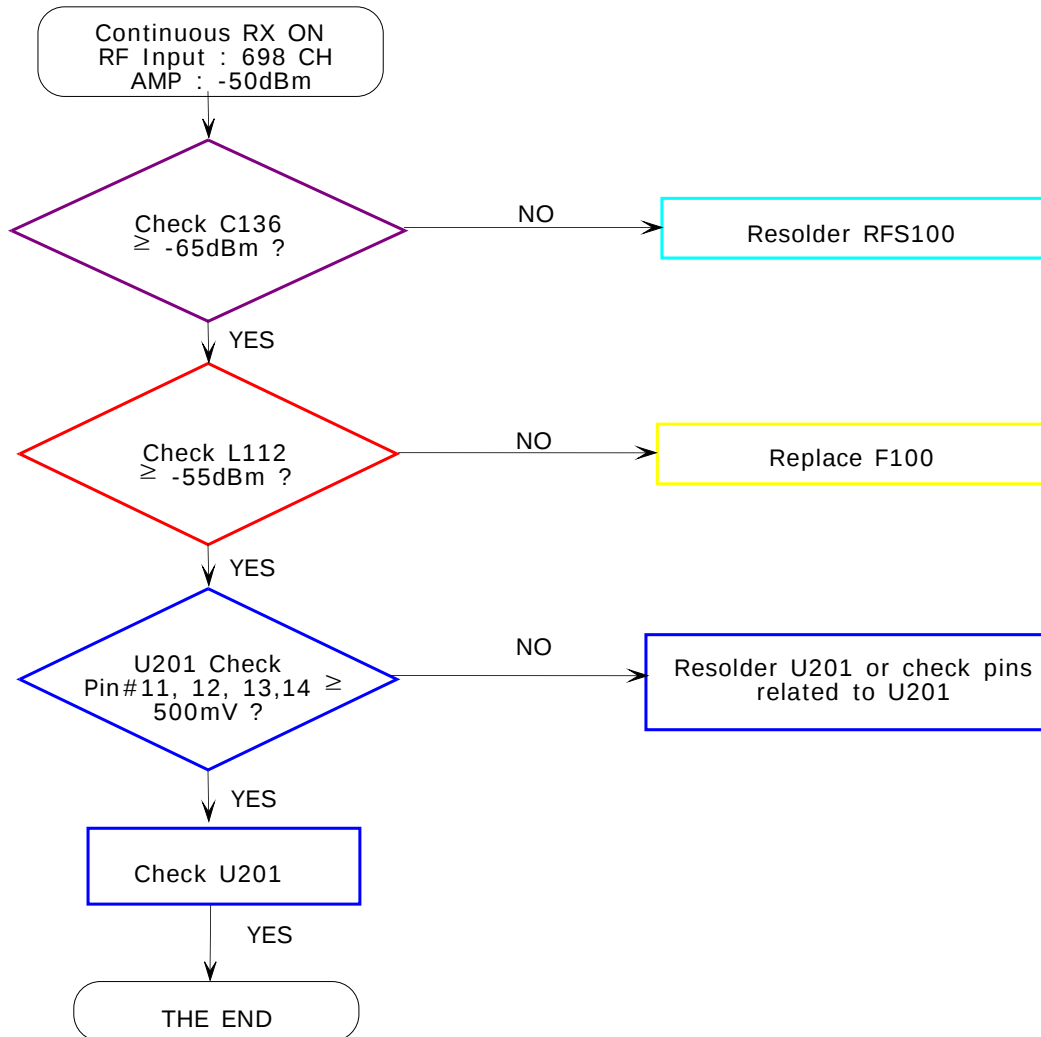


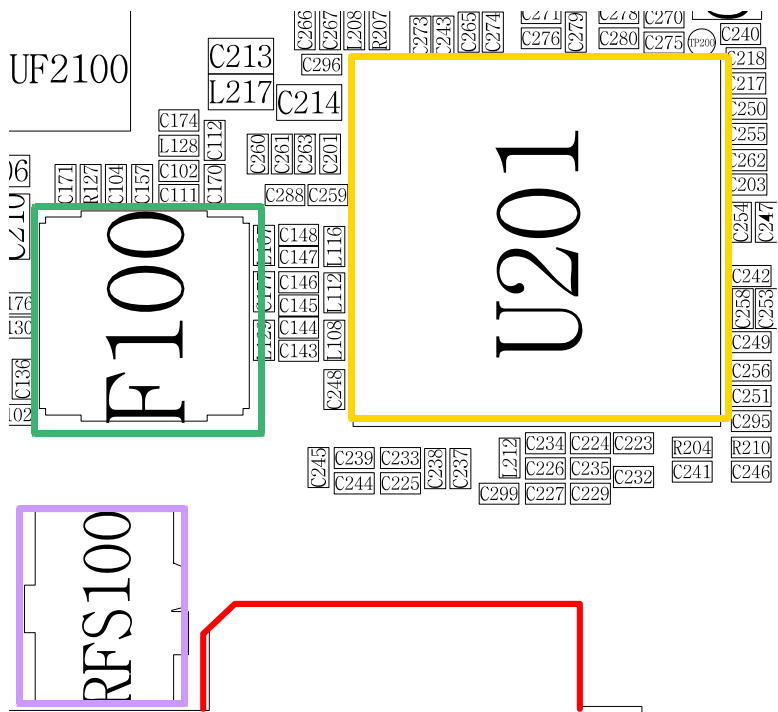


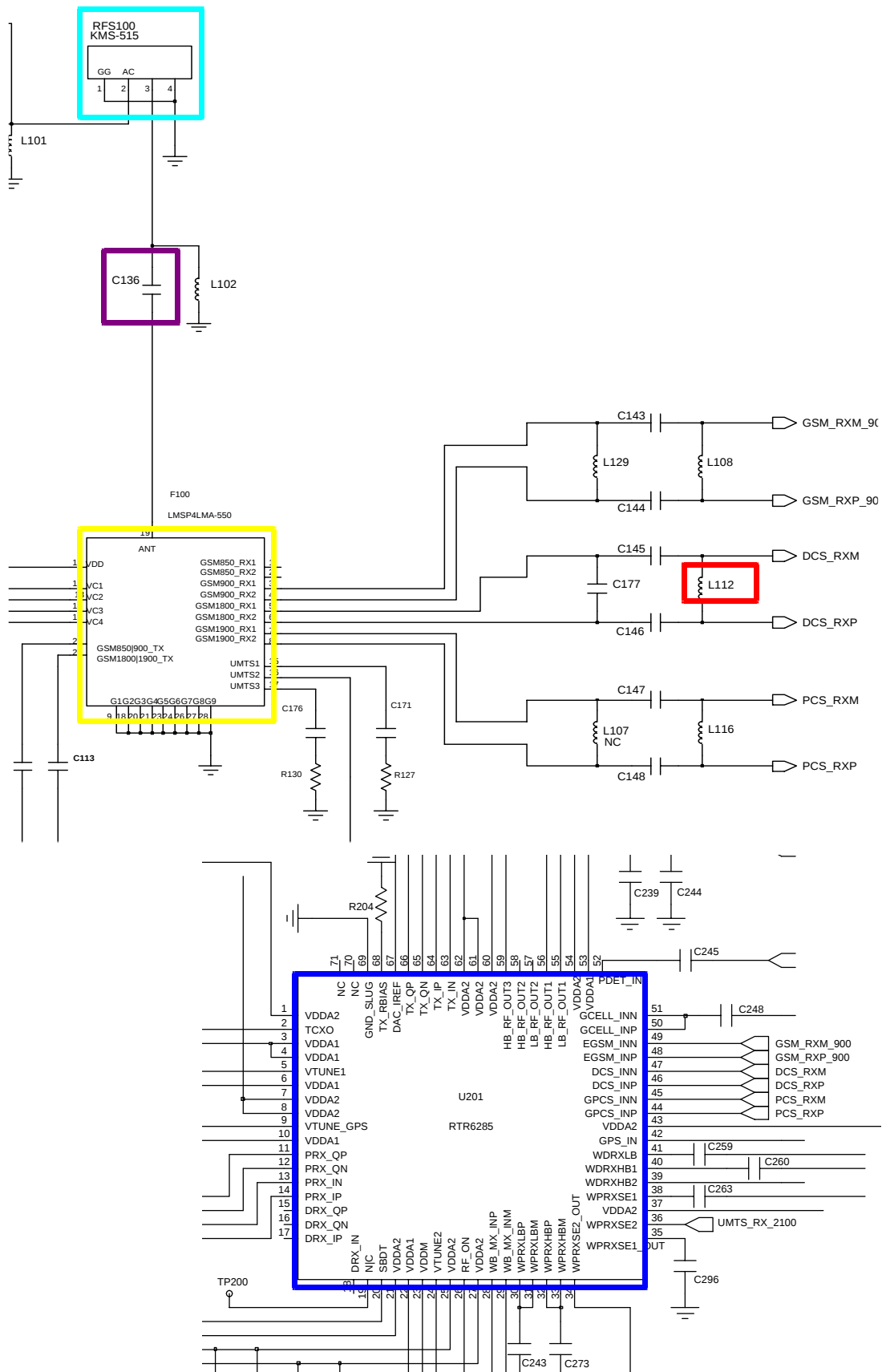
9-2-3. DCS1800 Receiver

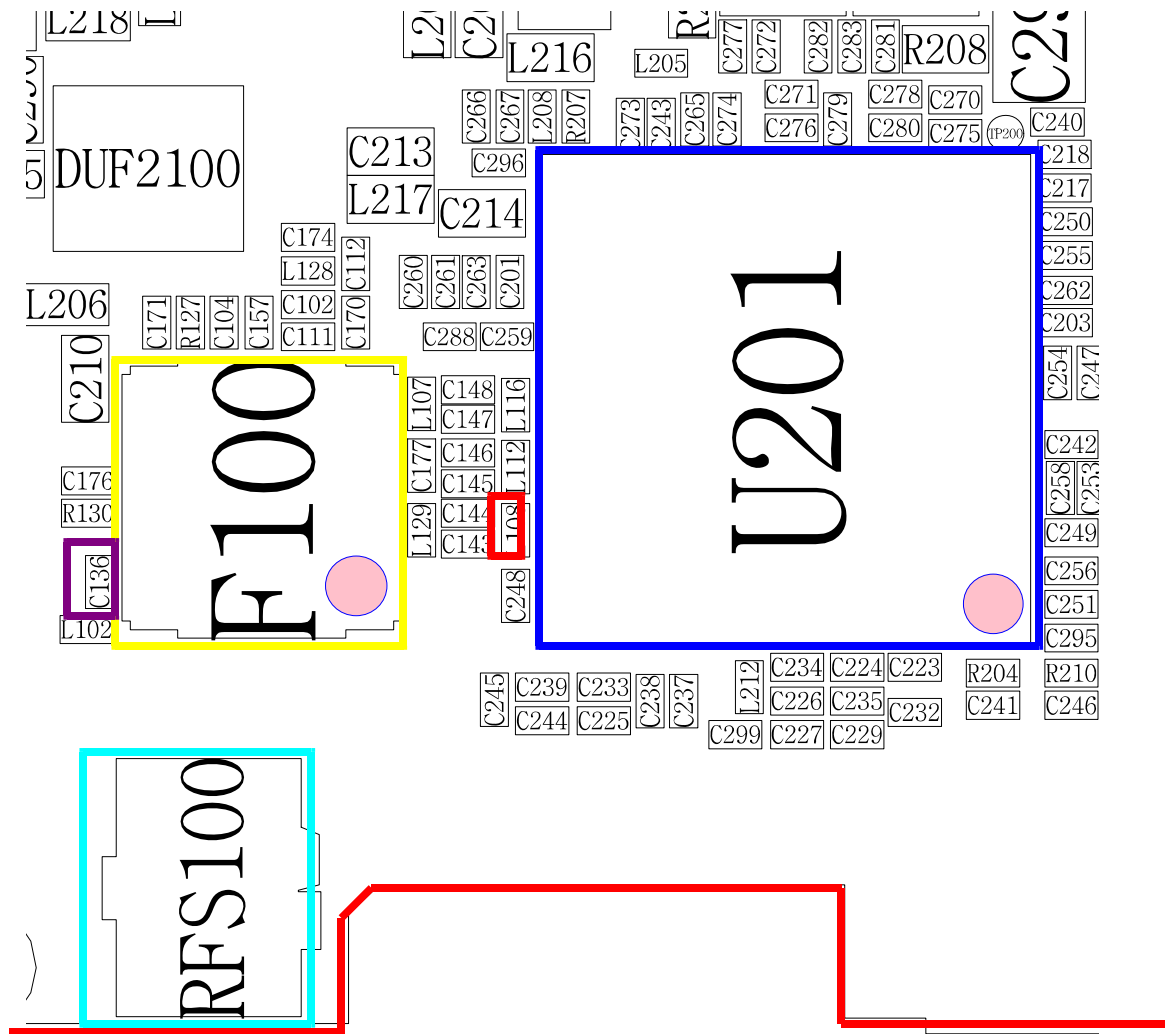
**If you check the rx chain,

Check not only RF Devices but also resistors, inductors and capacitors.





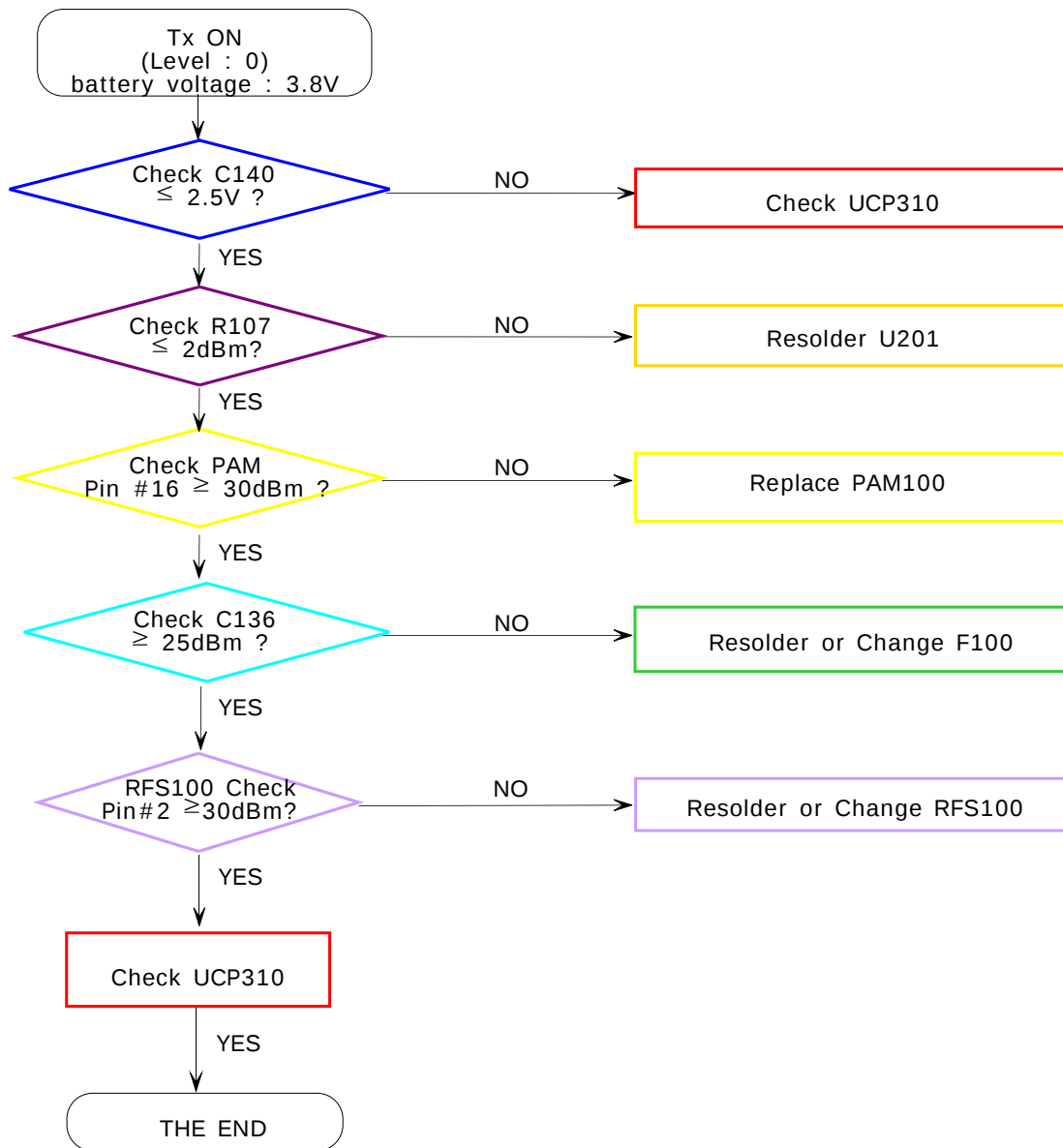




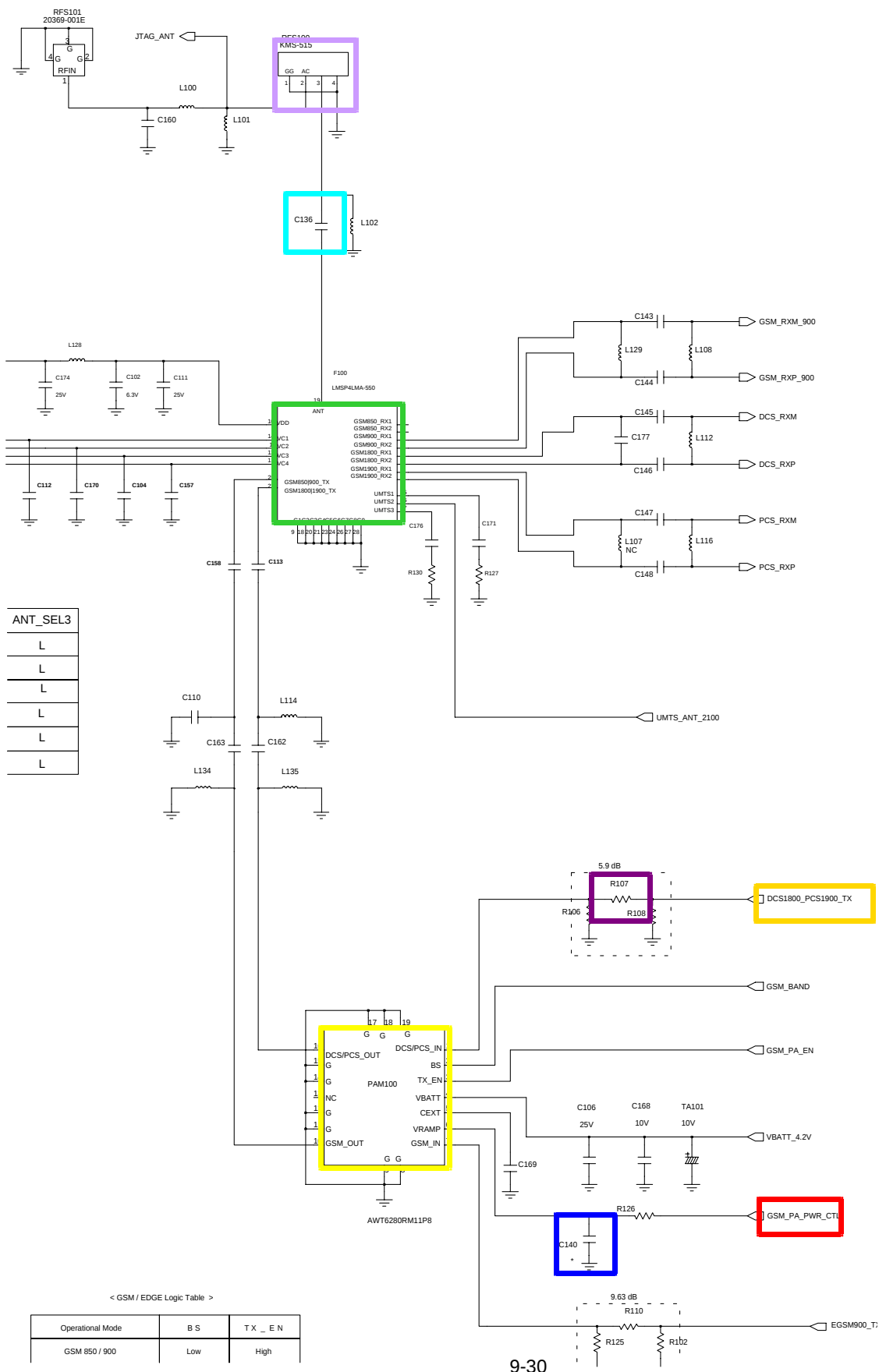
9-2-4. DCS1800 Transmitter

**If you check the tx chain,

Check not only RF Devices but also resistors, inductors and capacitors.



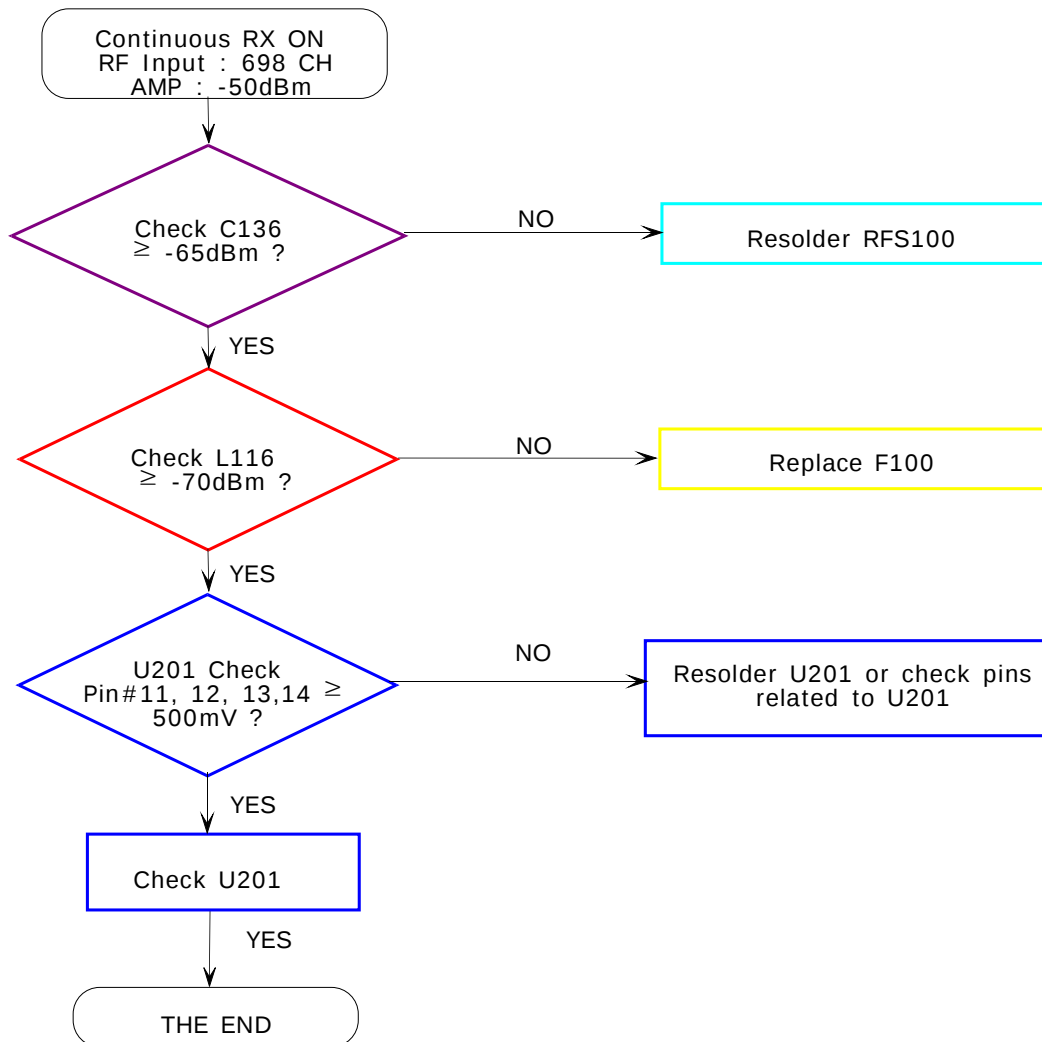
Flow Chart of Troubleshooting

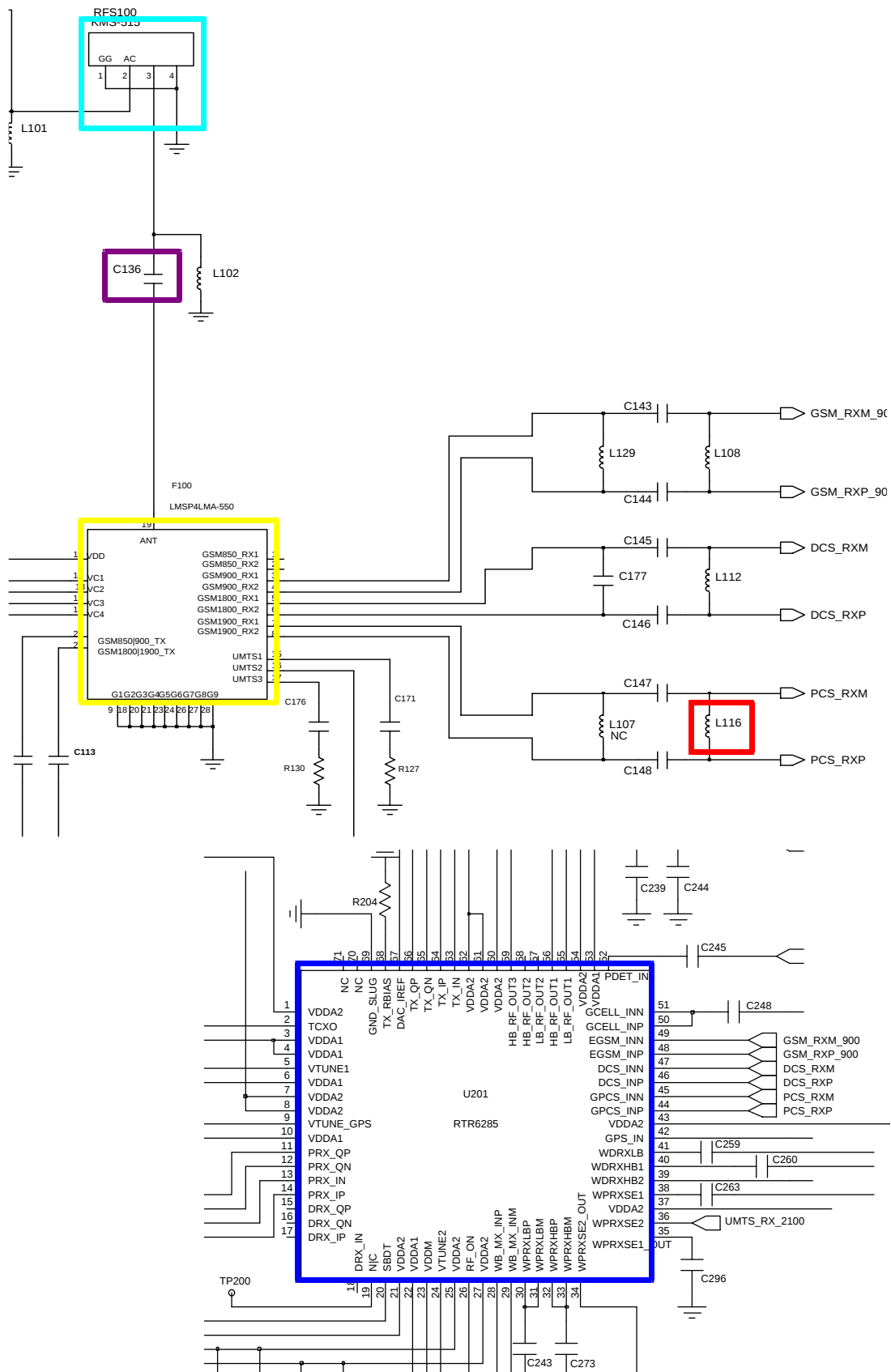


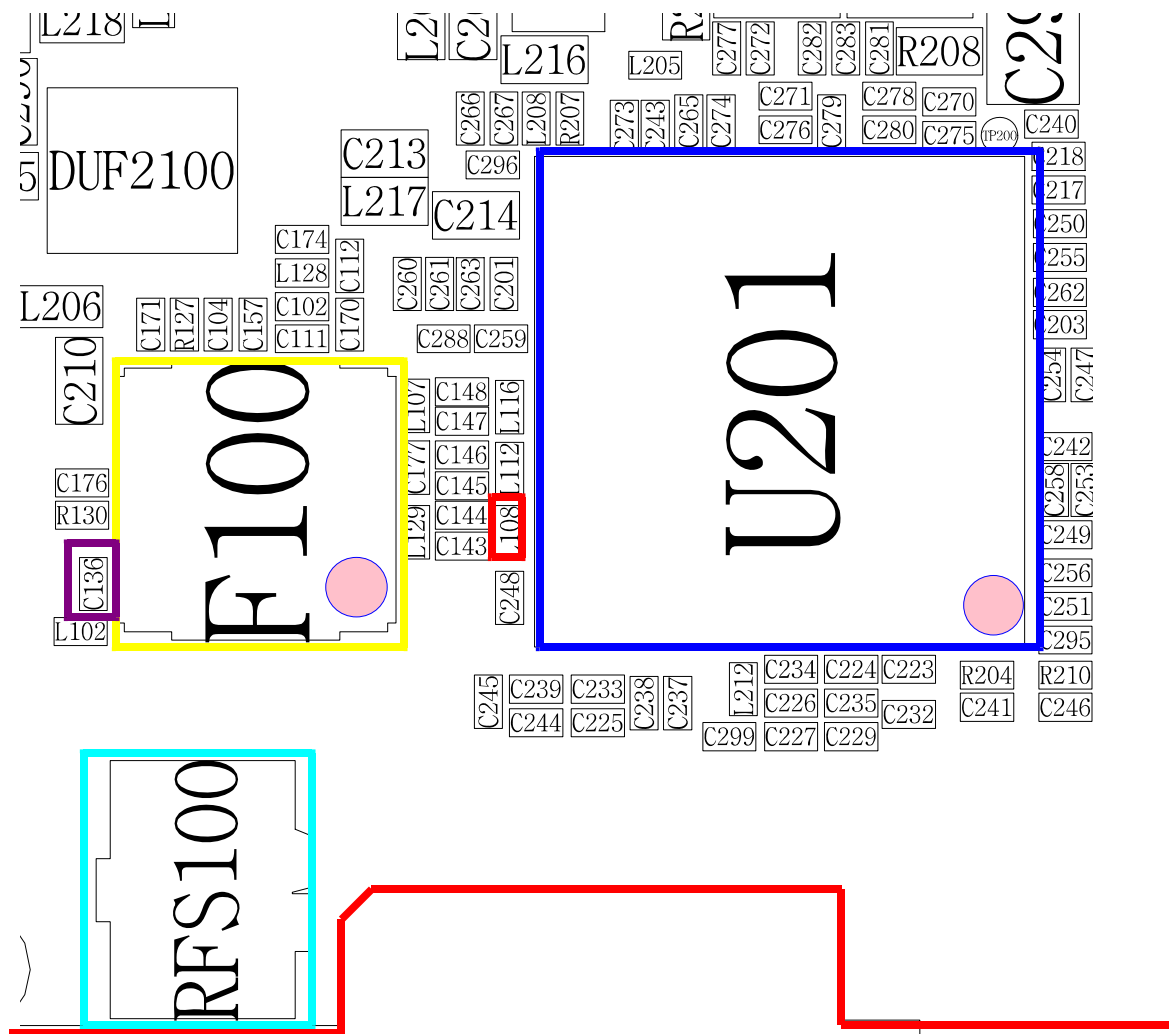
9-2-5. PCS1900 Receiver

****If you check the rx chain,**

Check not only RF Devices but also resistors, inductors and capacitors.



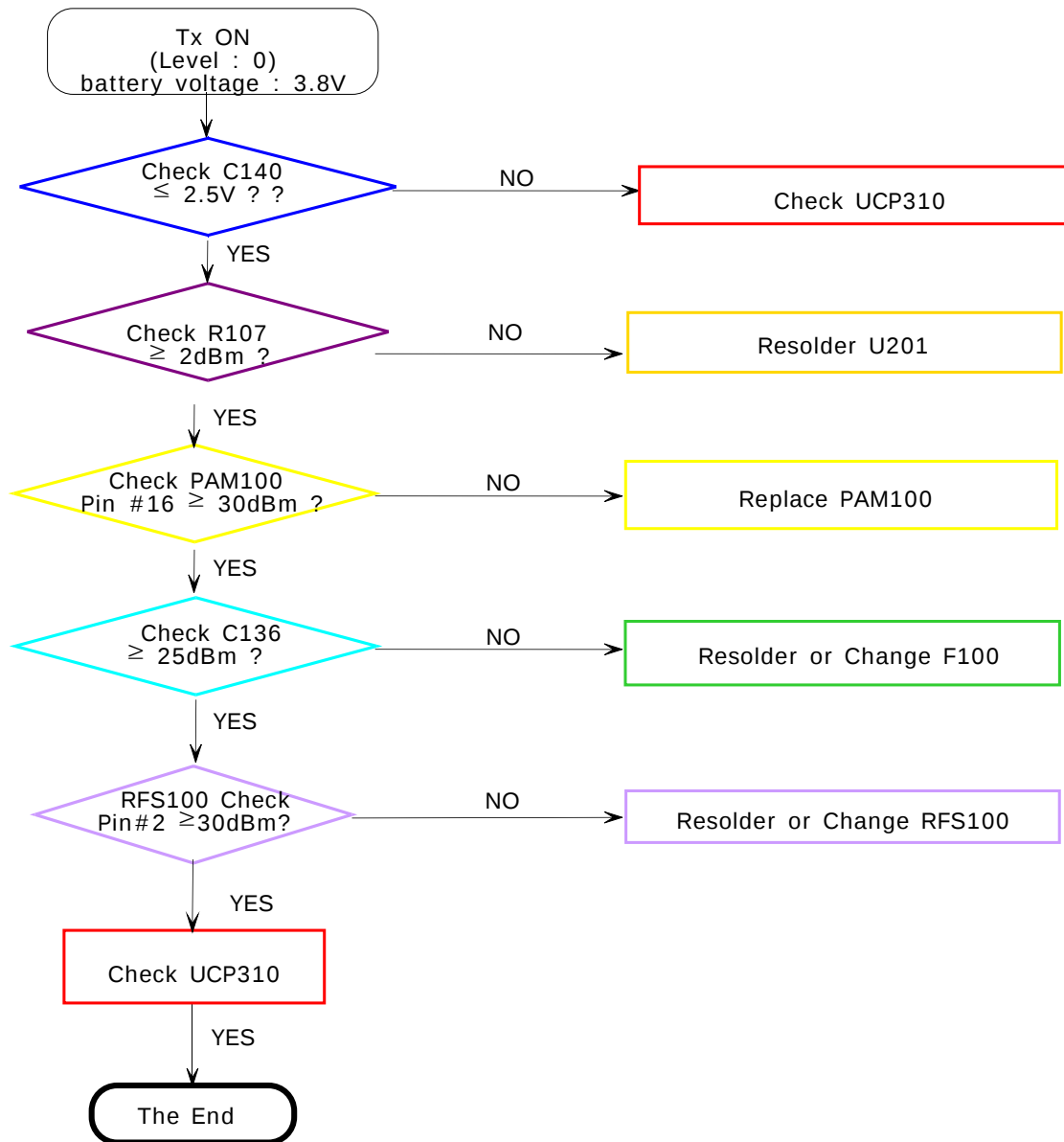




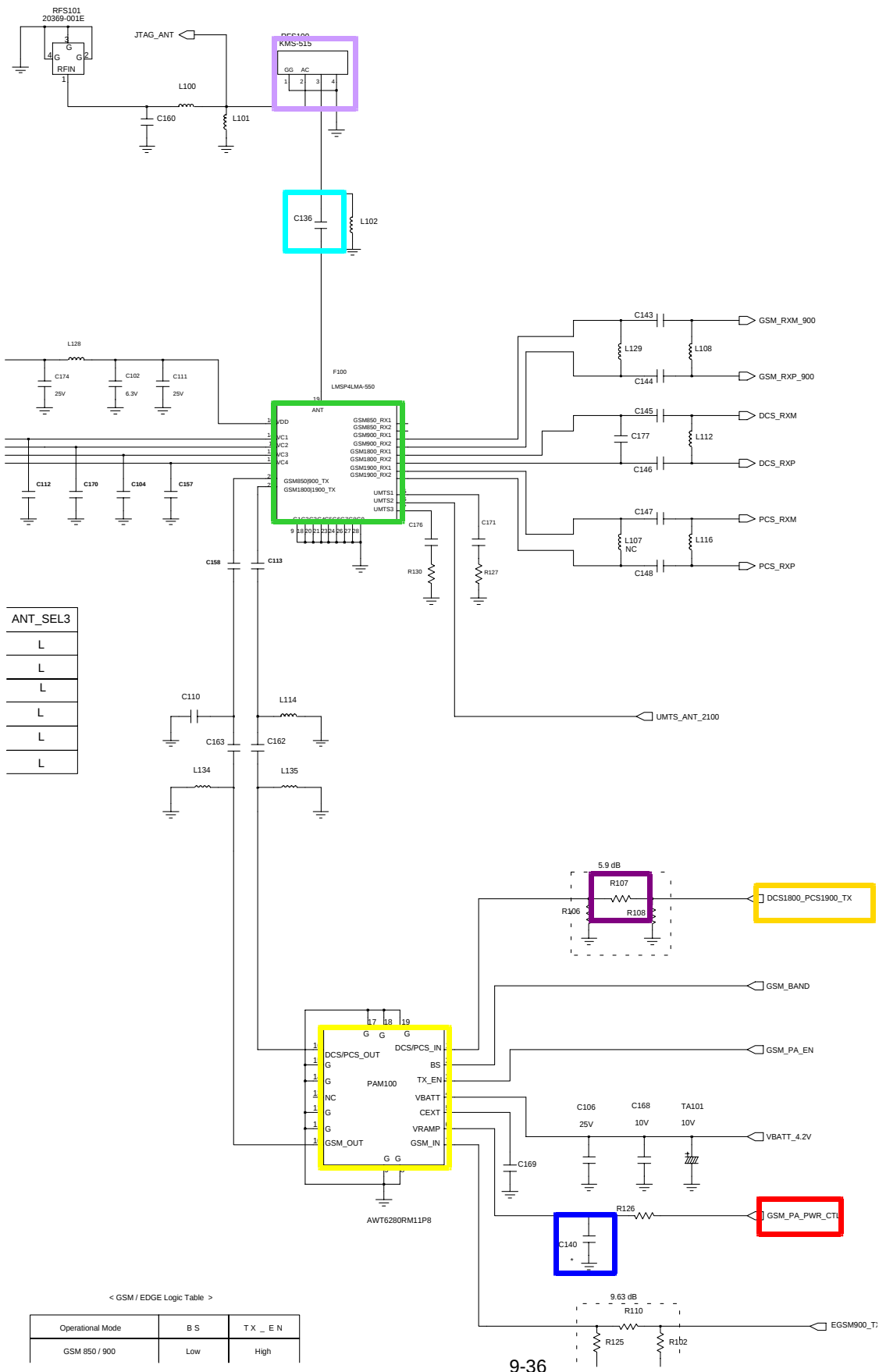
9-2-6. PCS1900 Transmitter

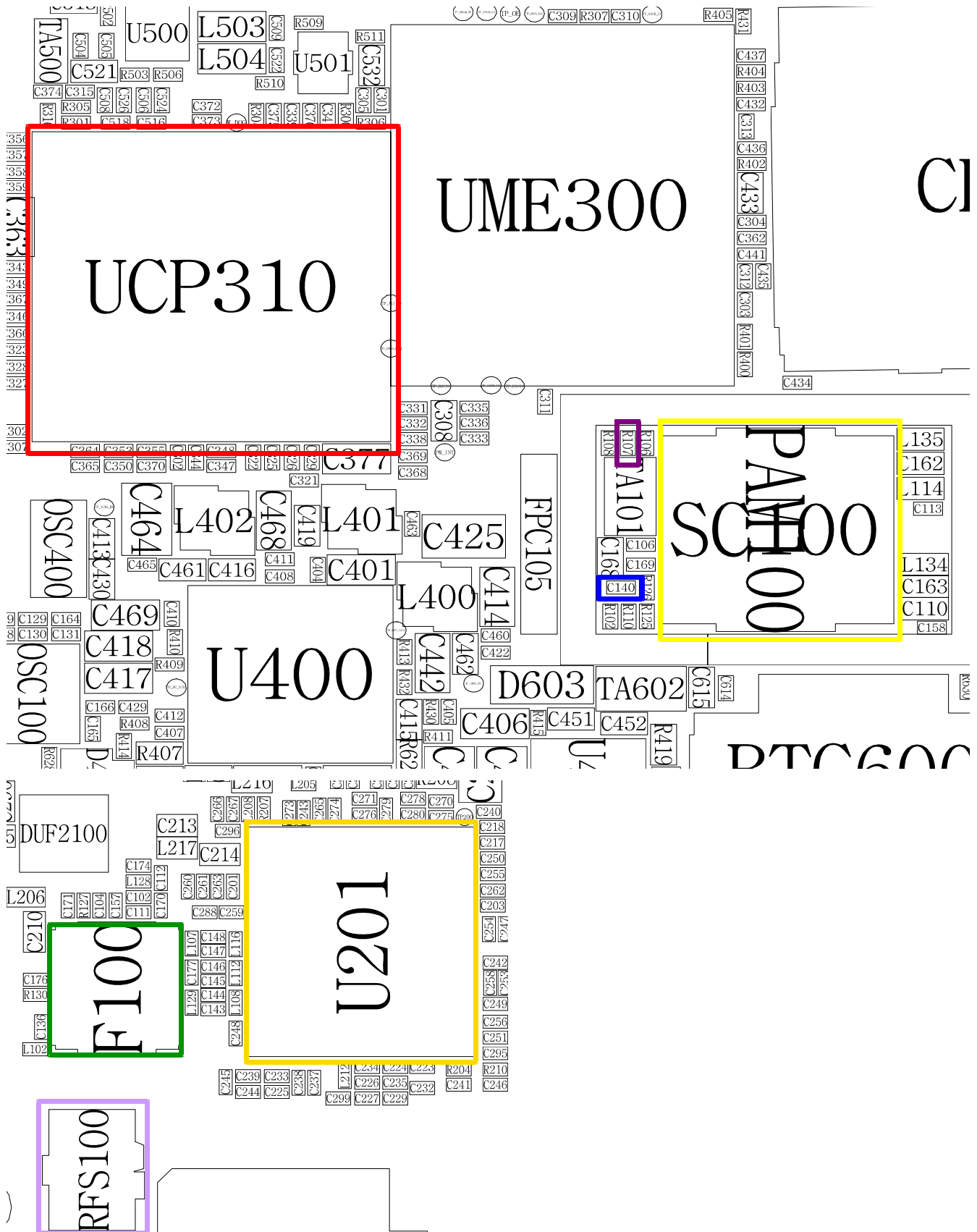
**If you check the tx chain,

Check not only RF Devices but also resistors, inductors and capacitors.



Flow Chart of Troubleshooting

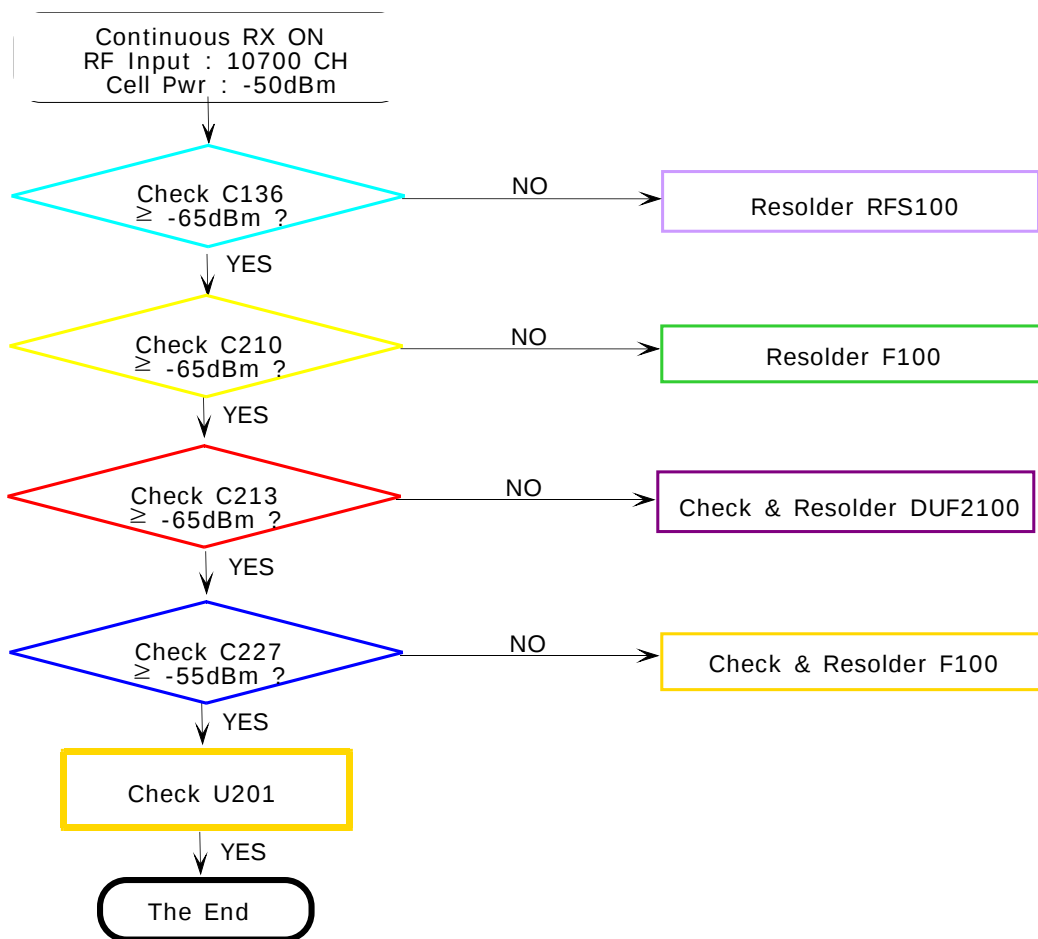


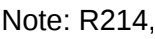


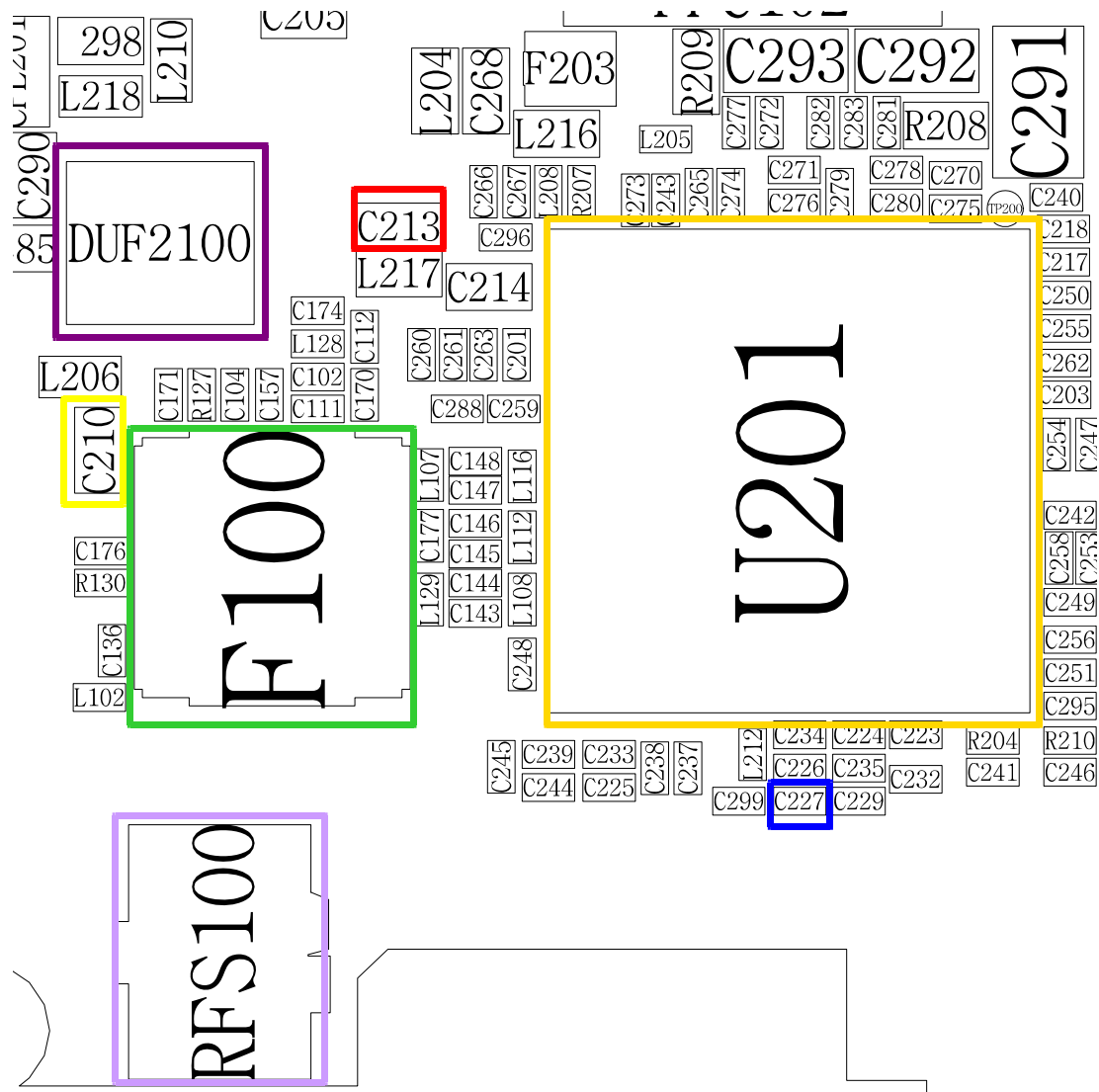
9-2-7. UMTS 2100 Receiver

**If you check the tx chain,

Check not only RF Devices but also resistors, inductors and capacitors..



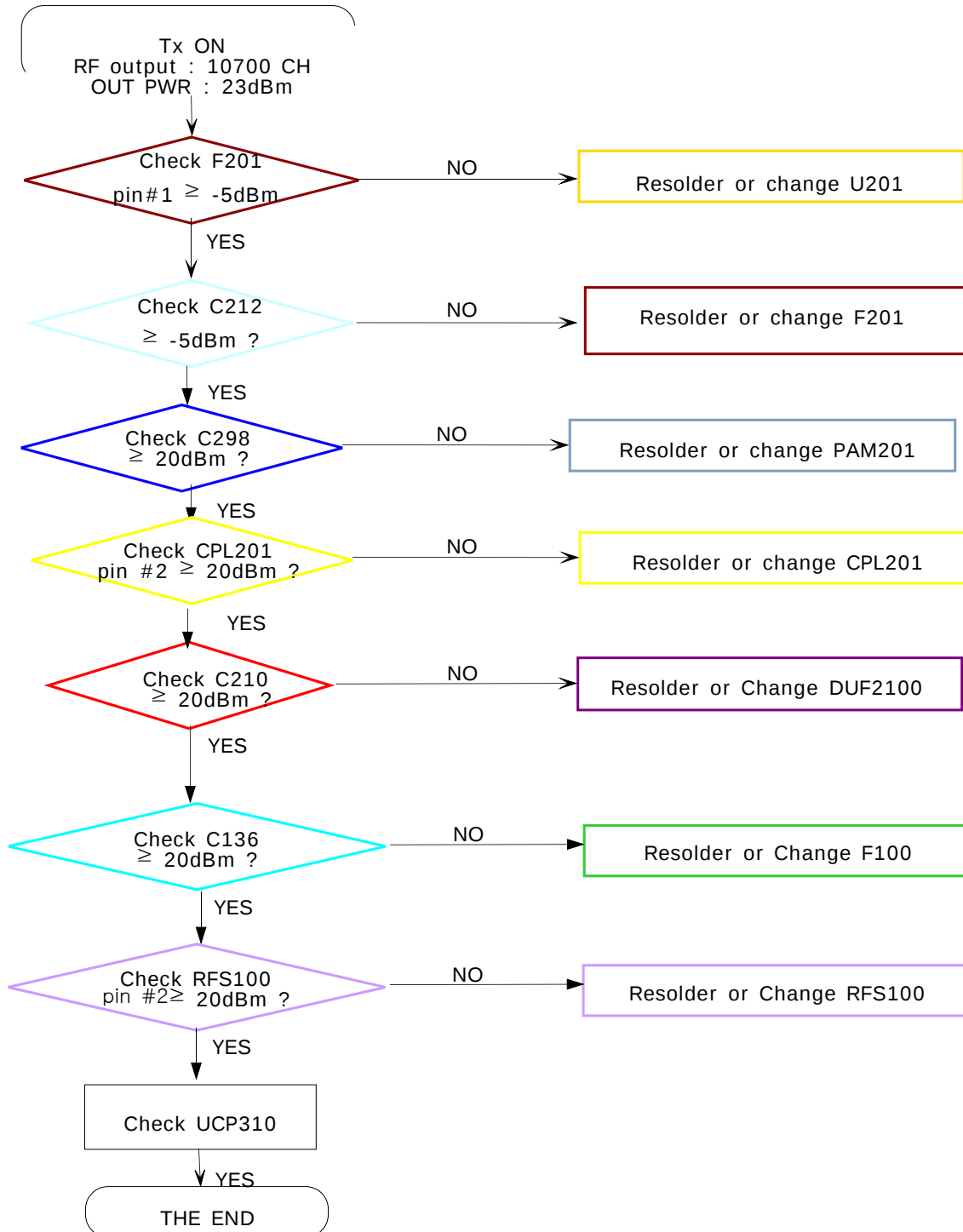




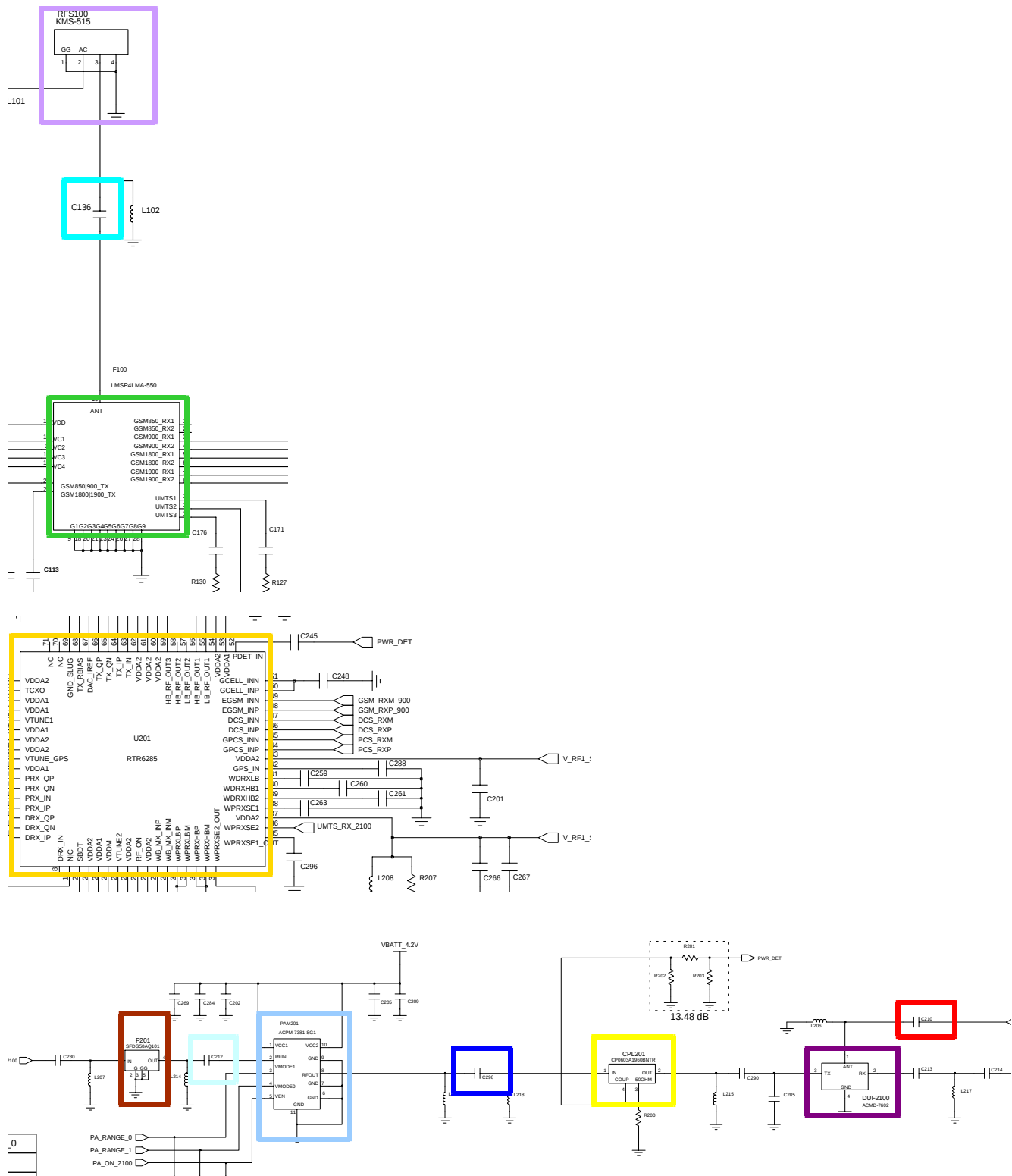
9-2-8. UMTS 2100 Transmitter

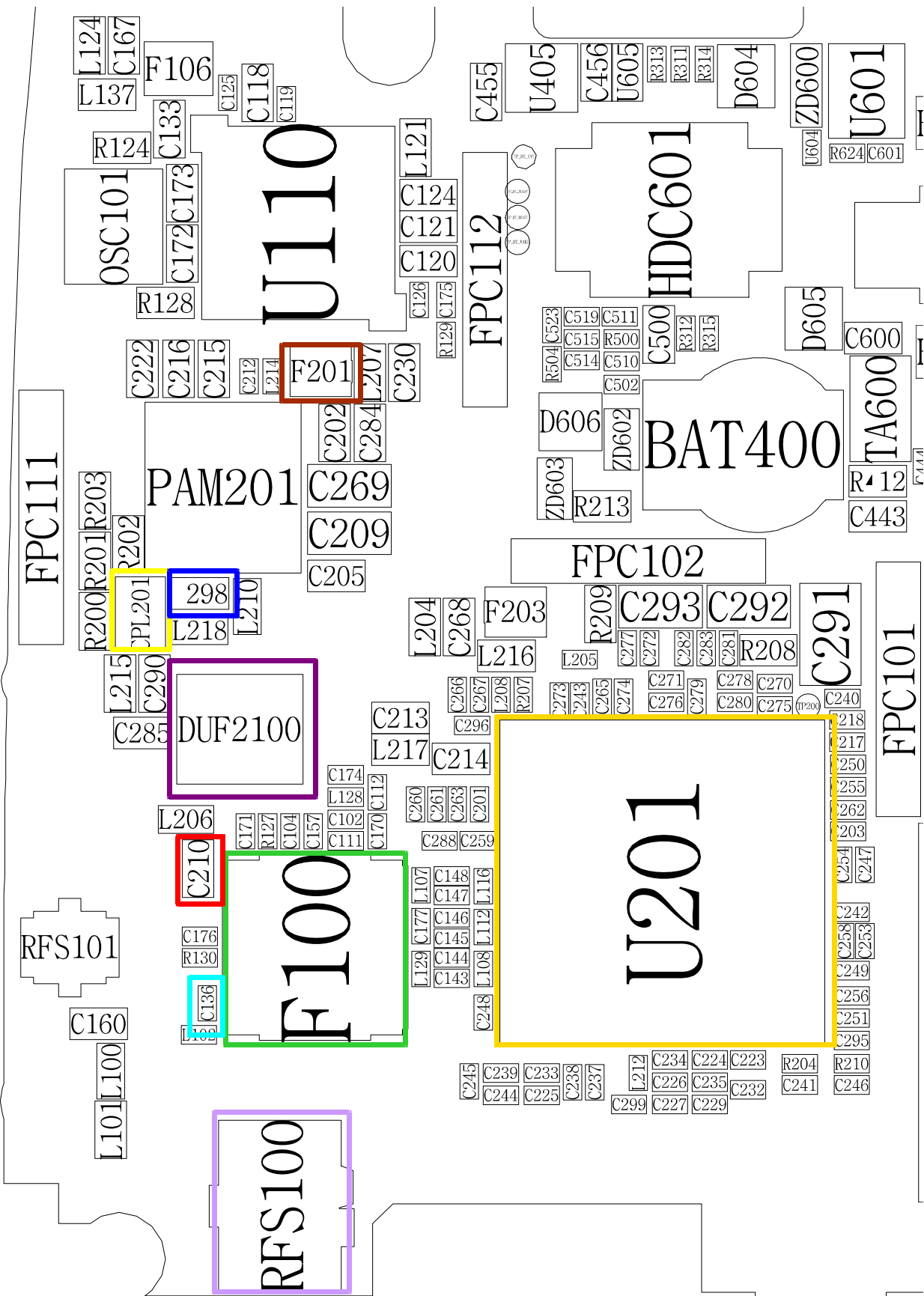
**If you check the tx chain,

Check not only RF Devices but also resistors, inductors and capacitors.

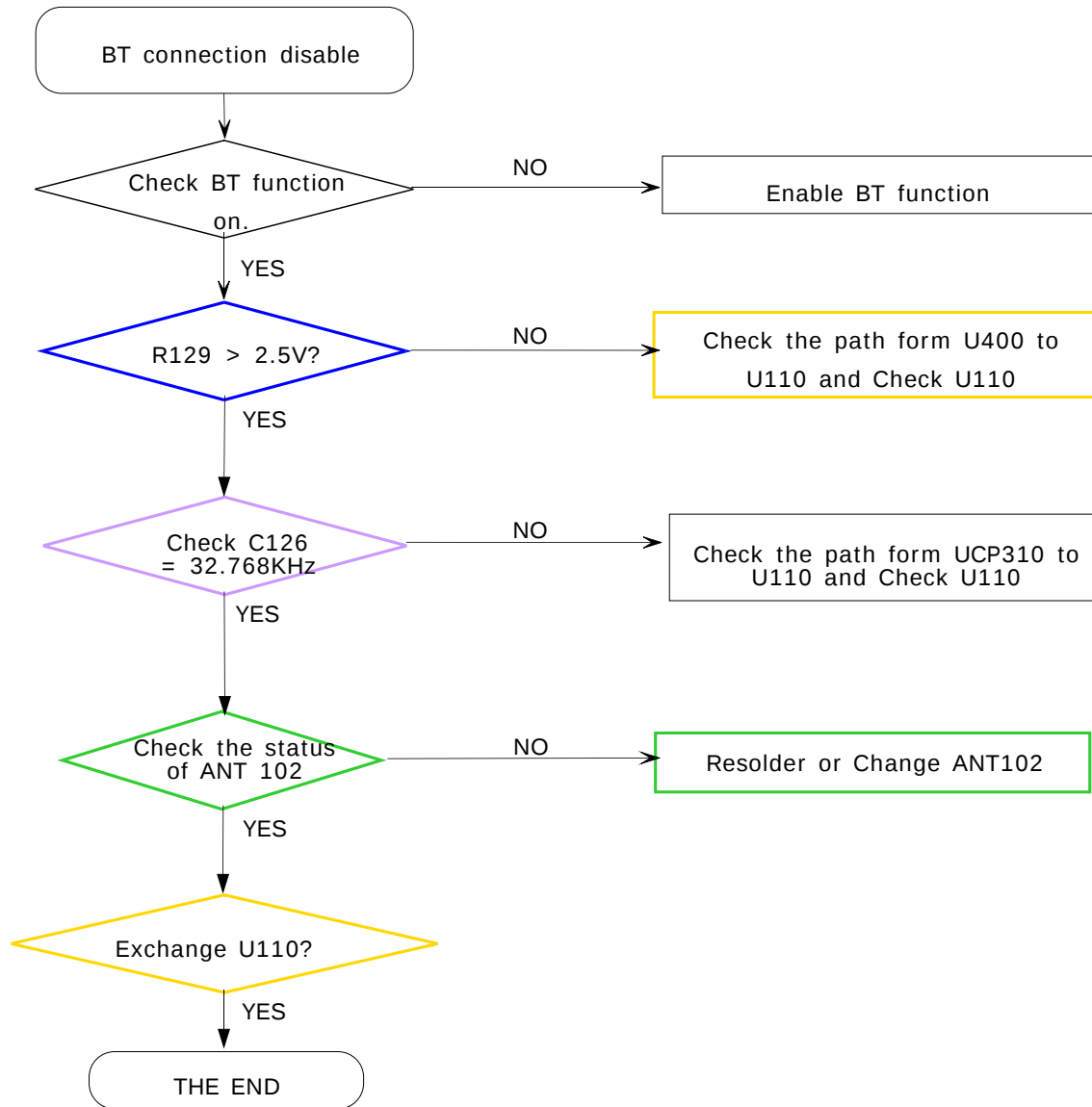


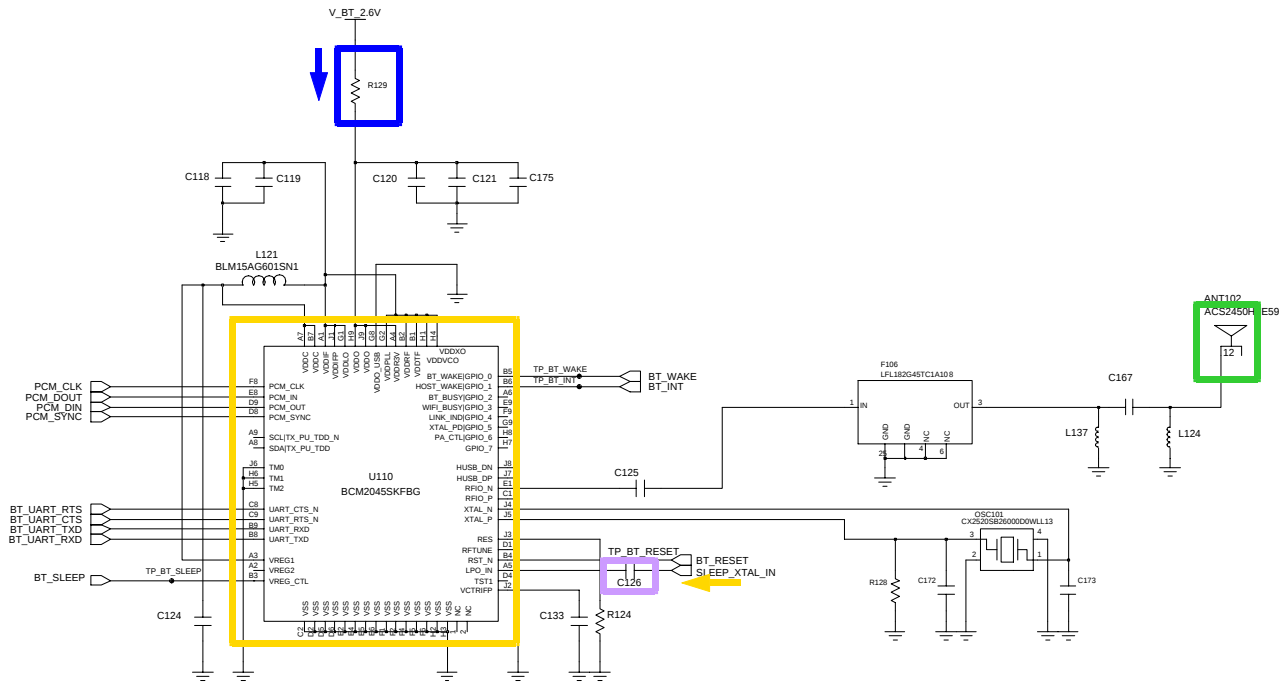
Flow Chart of Troubleshooting

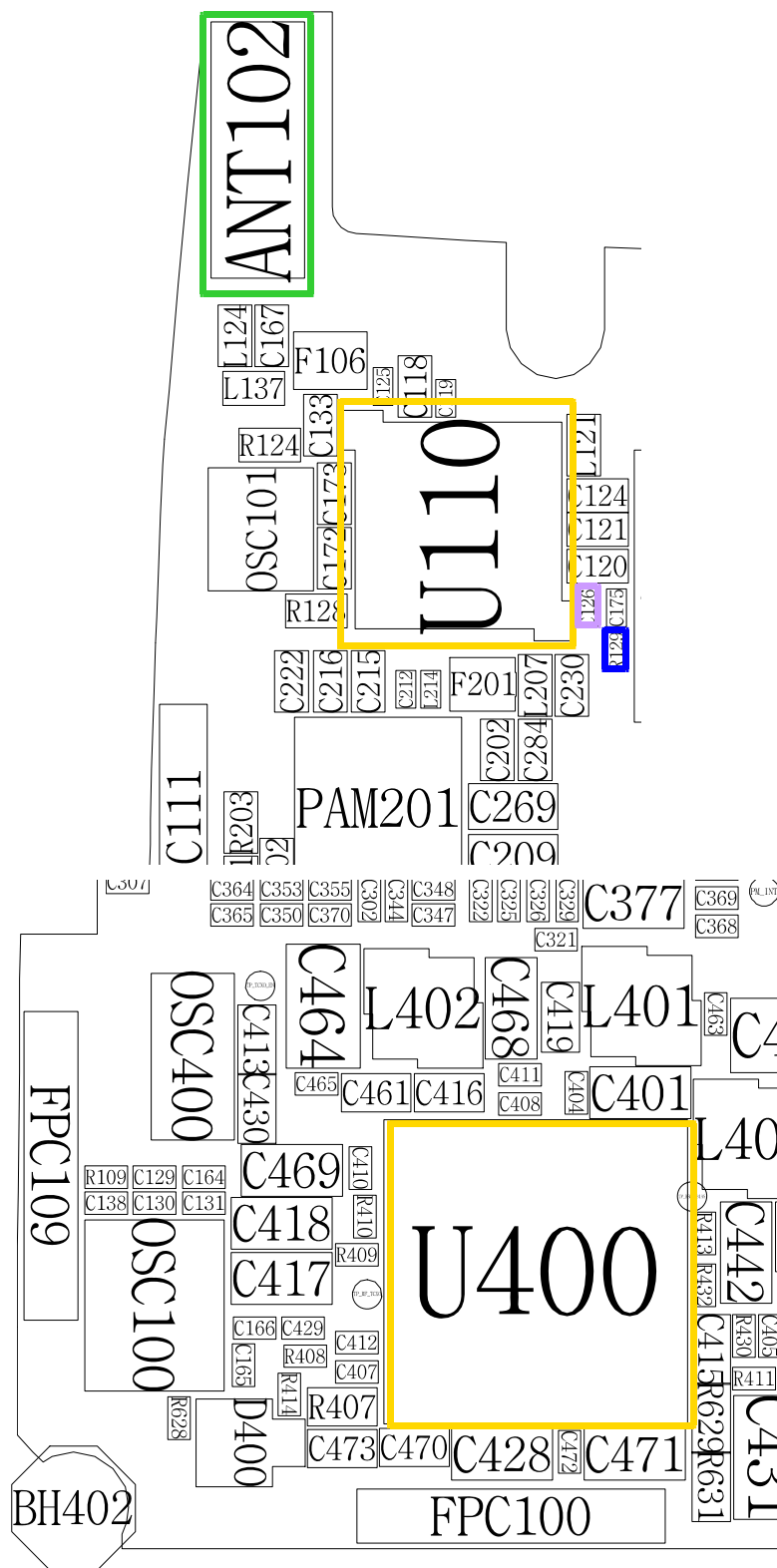




9-2-9. BLUETOOTH







10. Reference data

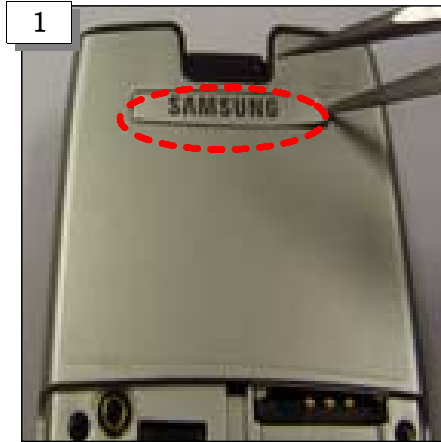
Reference Abbreviation

- **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

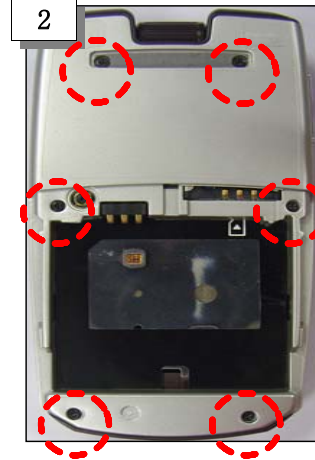
11. Disassembly and Assembly Instructions

11-1. Disassembly Instructions

– Rear



Remove the Rear Screw Sheet



Remove the SCREWS(6 points)



Disjoint the Hooks of REAR

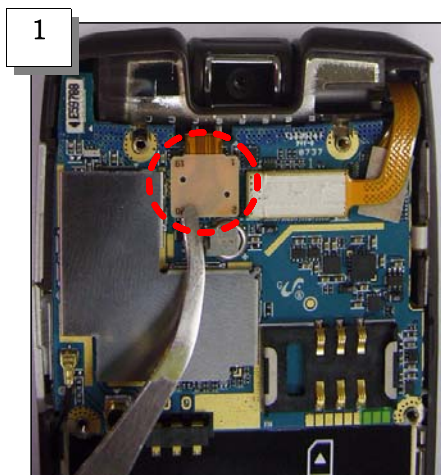


Open the side with a JIG

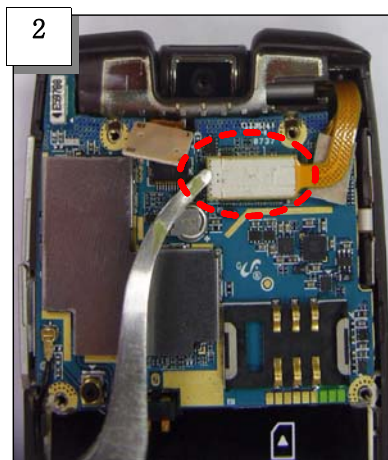


Take the REAR apart

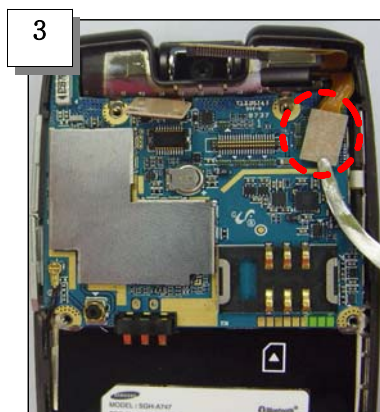
– PBA



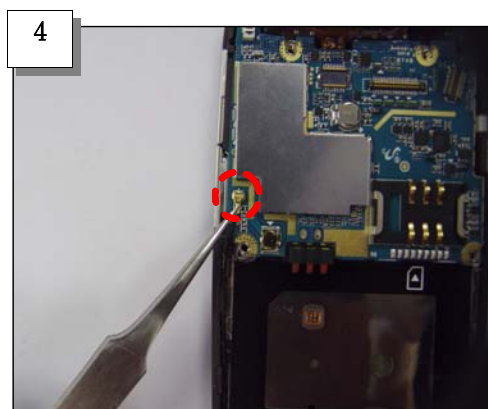
Take the Key FPCB apart



Take the LCD CONNECTOR apart



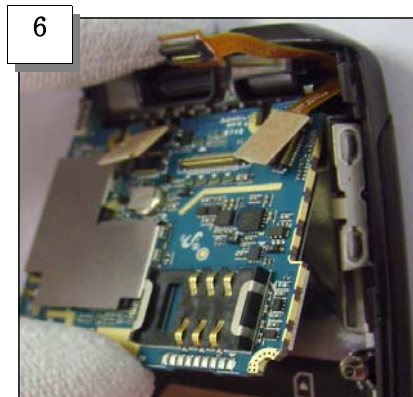
Take the CAMERA CONNECTOR apart



Take the INTENA CONNECTOR apart

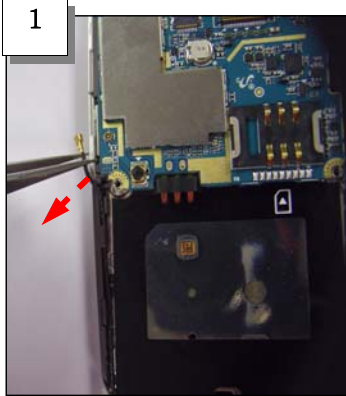


Take the SIDE KEY apart



Draw the PBA out

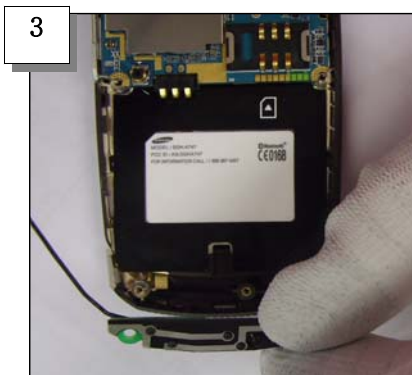
– Front



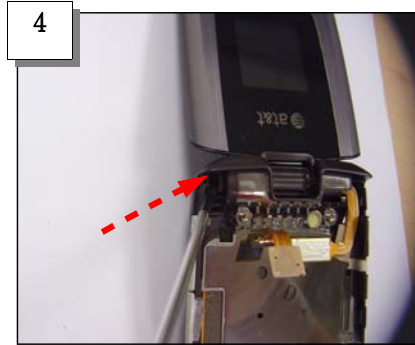
Take the INT WIRE apart



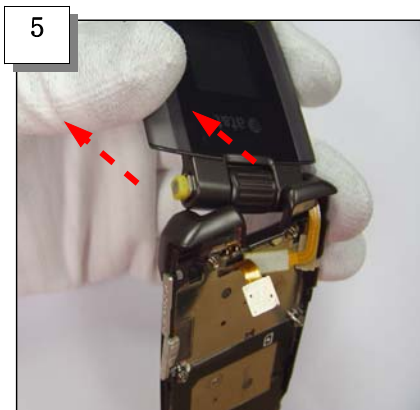
Remove the SCREWS(1 points)



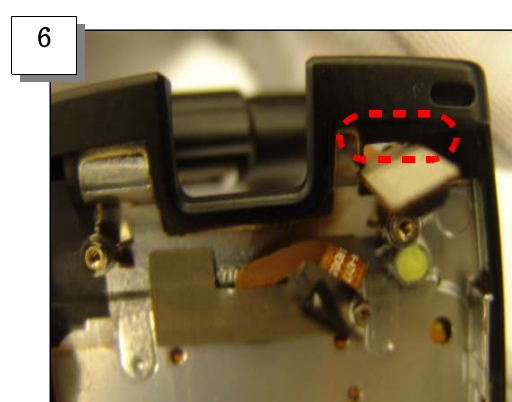
Take the INTENA apart



Disjoint the FOLDER pressing the HINGE with a lever



Take the HINGE apart

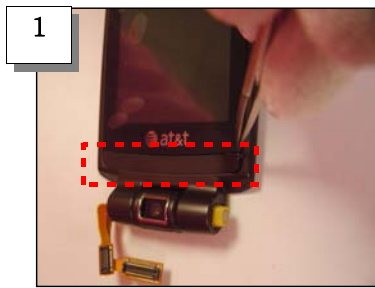


Draw out the LCD and CAMERA FPCB

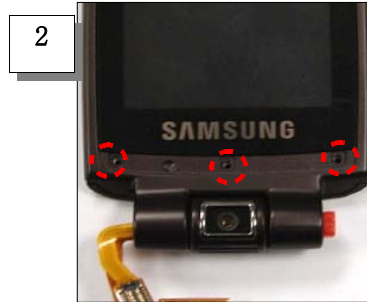


Separate FRONT and FOLDER

– Folder



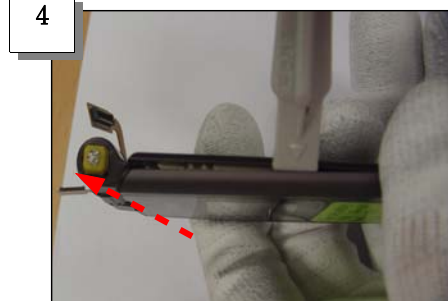
Remove the SCREW CAP



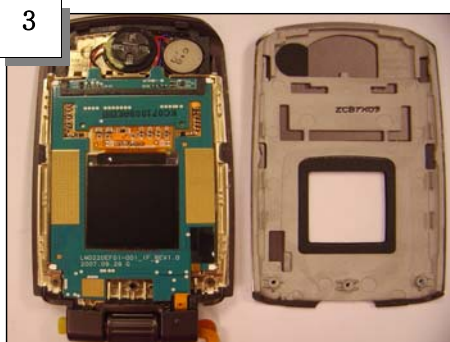
Remove the SCREWS(3 points)



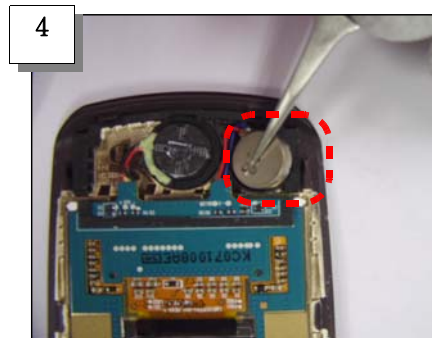
Open the side with a Jig



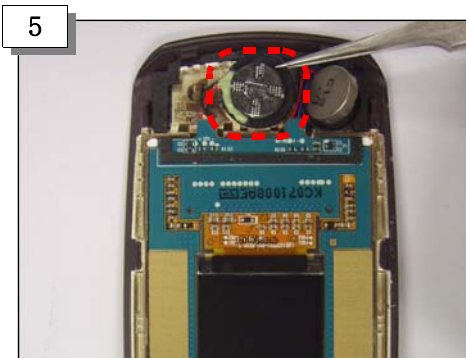
Open the front with a Jig



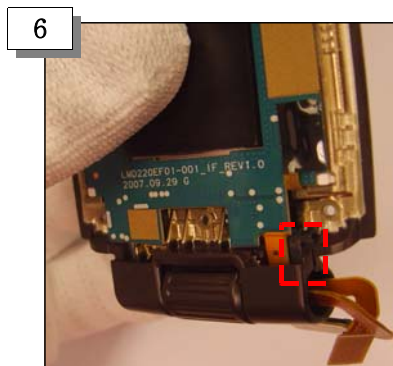
Separate Upper and Lower



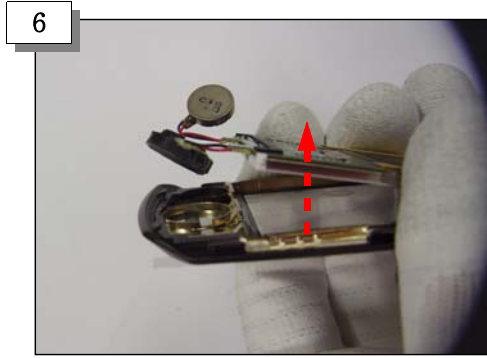
Draw out the MOTOR



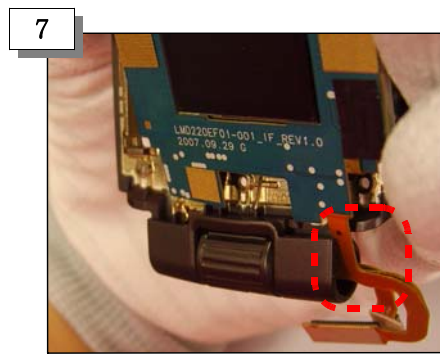
Draw out the SPEAKER



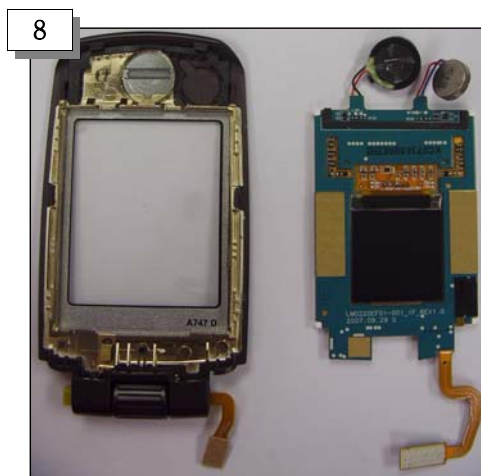
Draw out DUMMY



Draw out the LCD

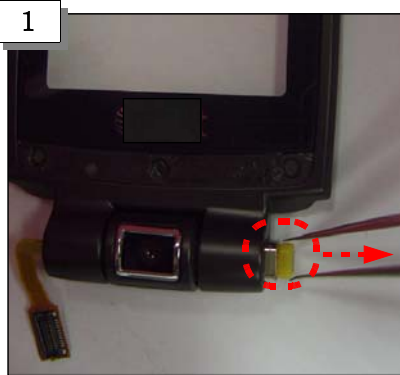


Draw out the LCD FPBC

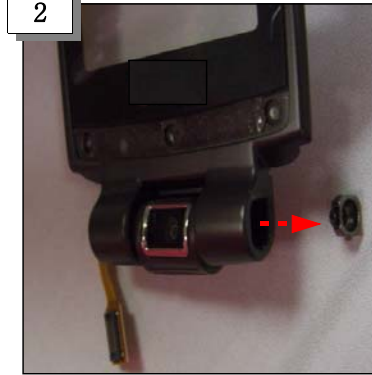


Separate the LCD and LOWER

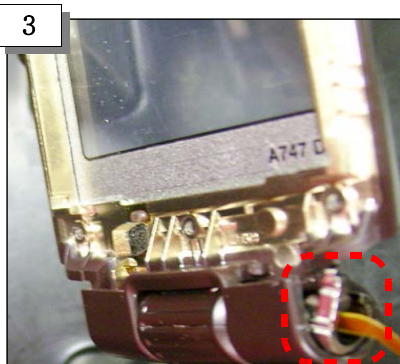
– Camera



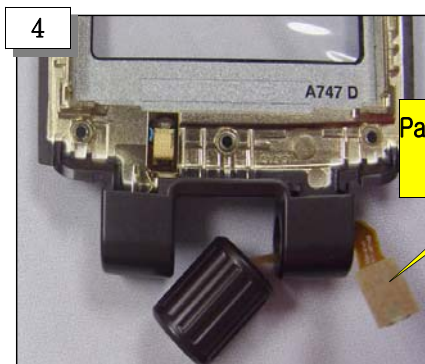
Remove the HINGE



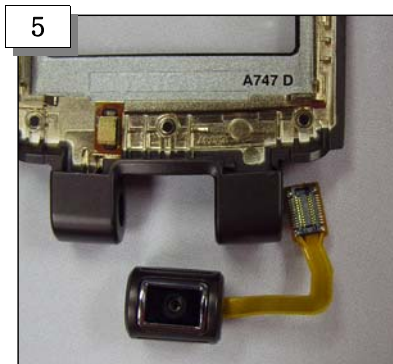
Remove the HINGE STOPPER



Remove the HINGE BRACKET



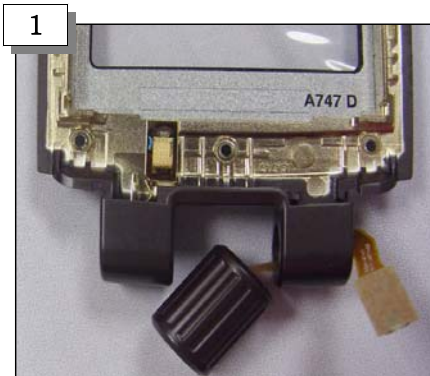
Remove the CAMERA apart



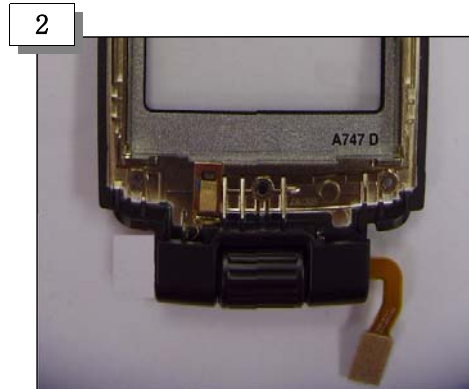
Separate CAMERA & LOWER

11-2. Assemble Instructions

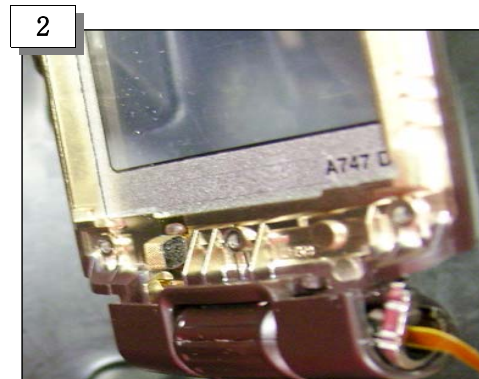
– Camera



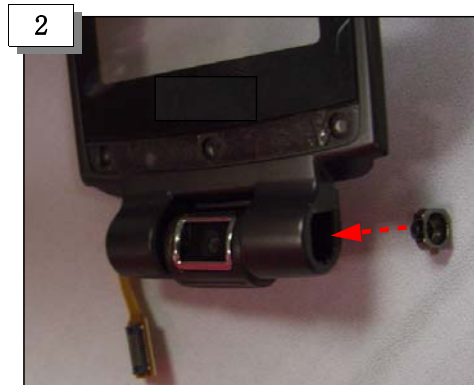
Join CAMERA FPCB to LOWER



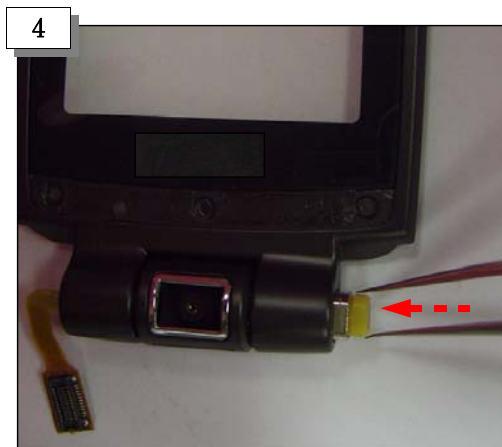
Join CAMERA to LOWER



Insert the HINGE BRACKET

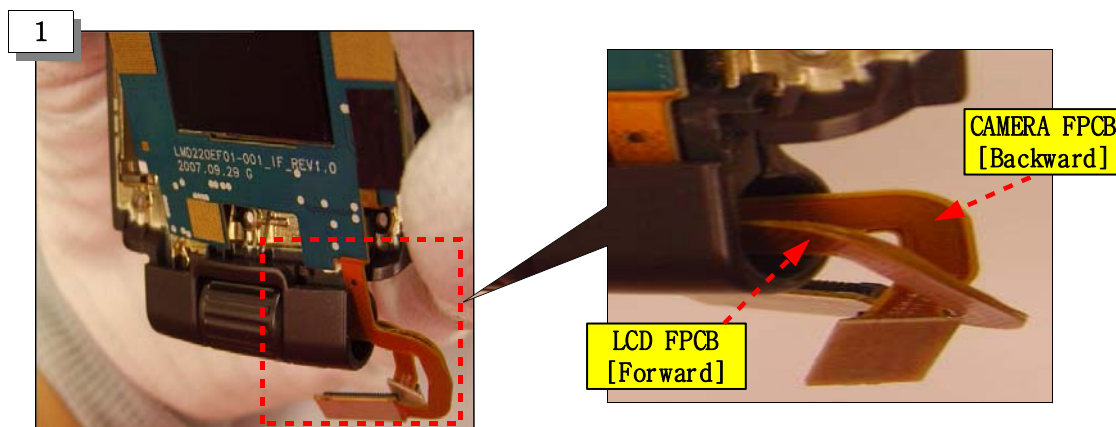


Insert the HINGE STOPPER

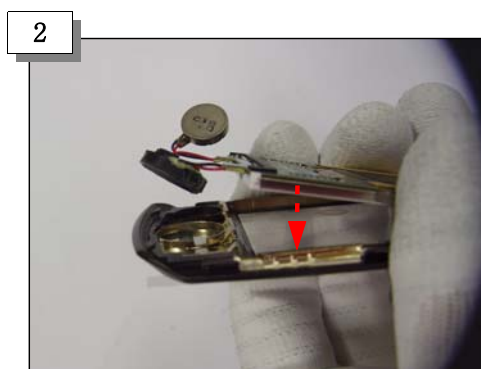


Insert the HINGE

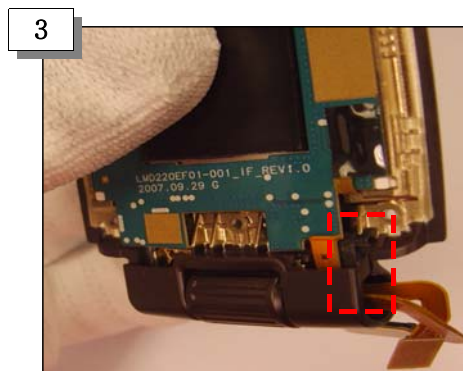
– Lower



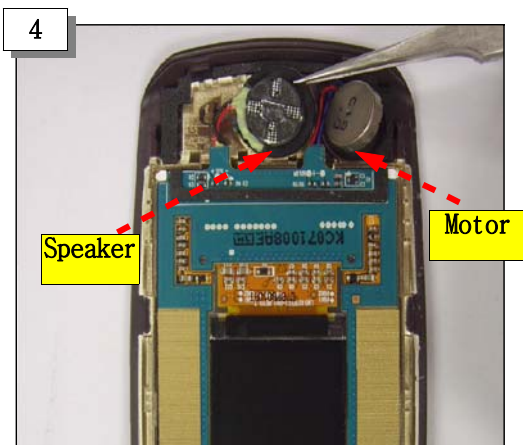
Insert CAMERA FPCB to LOWER



Join the LCD Part to the LOWER



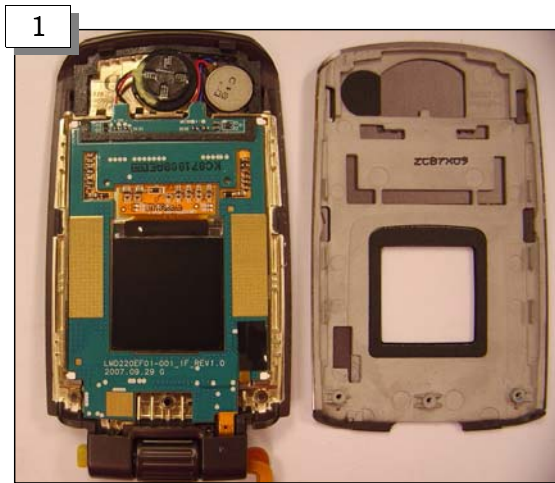
Insert the Dummy



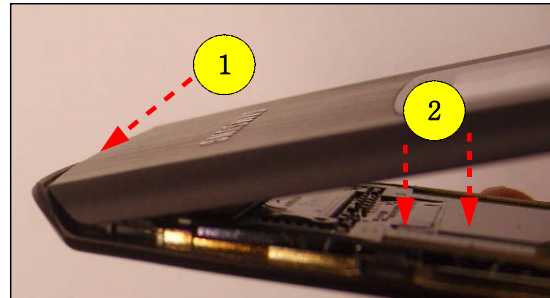
Join the Speaker and Motor



– Folder



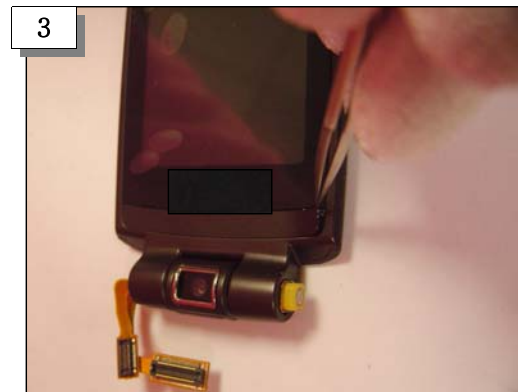
Join UPPER to LOWER



Adhere UPPER and LOWER closely



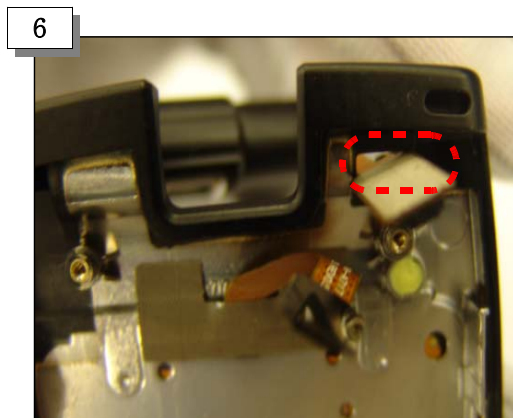
Tighten the SCREWS(3 points)



Tighten the SCREW CAPS(1 point)



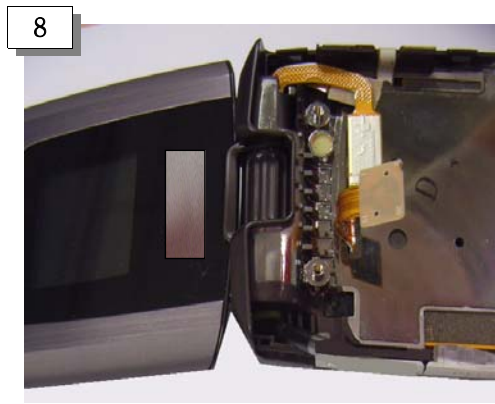
Join FOLDER to FRONT



Insert LCD/CAMERA CONNECTOR into FRONT

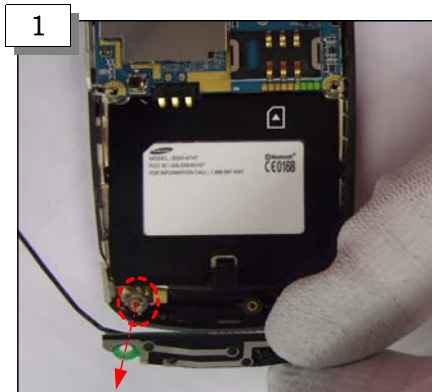


Join FOLDER to FRONT
pressing the HINGE

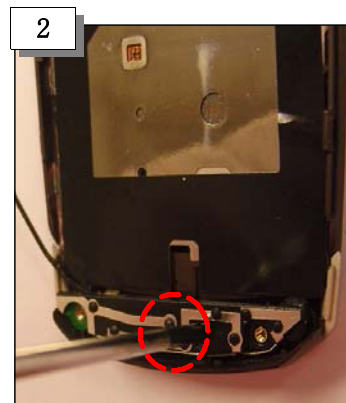


Join FOLDER TO FRONT

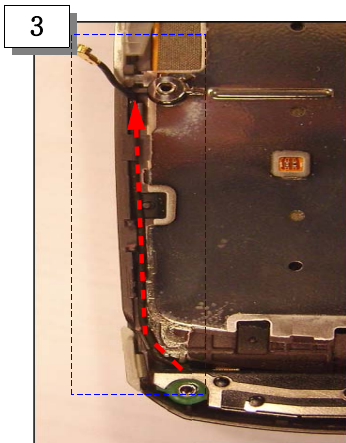
– Front



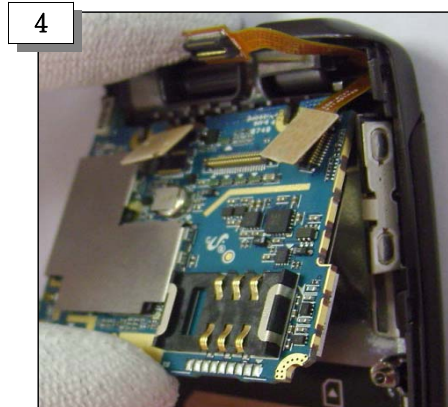
Insert the INTENA



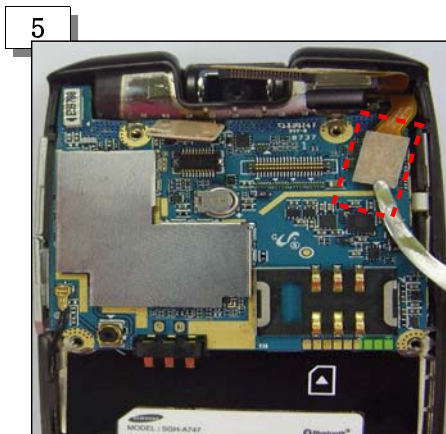
Tighten a screw



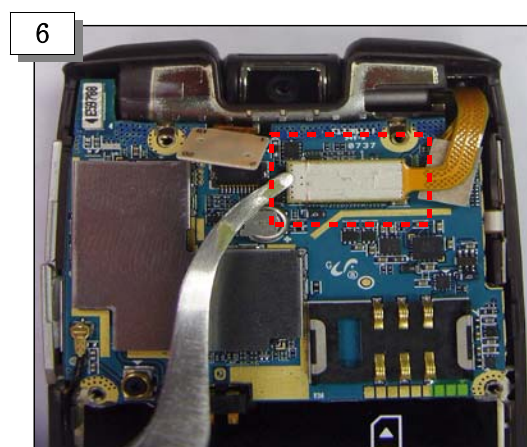
Arrange the INT WIRE in order



Insert the PBA - 1

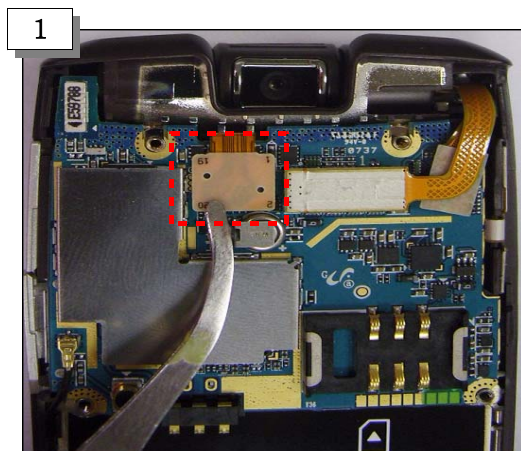


Insert the CAMERA CONNECTOR

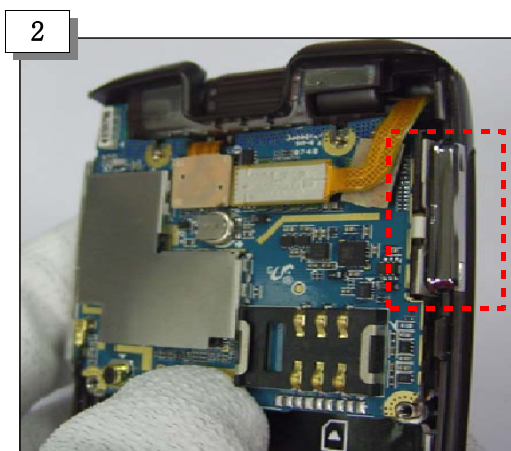


Insert the LCD CONNECTOR

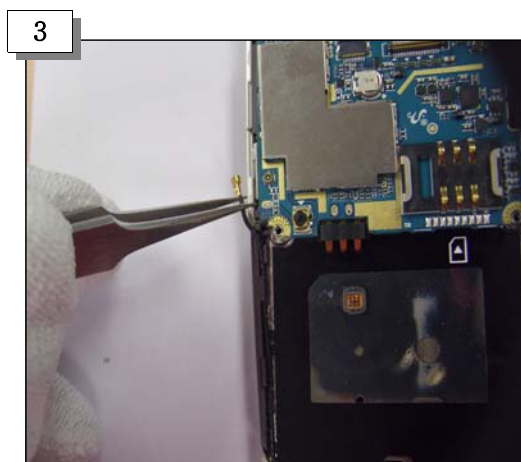
– PBA



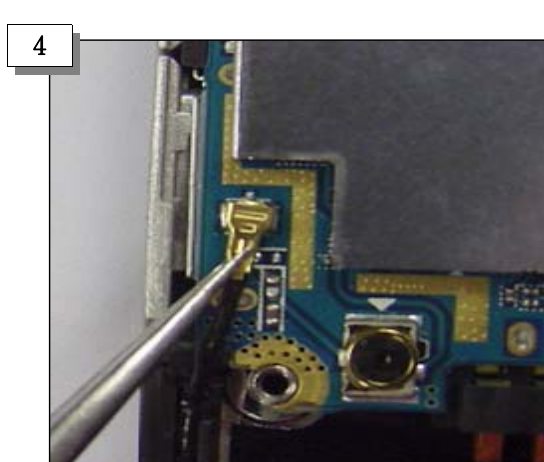
Insert the KEY FPCB CONNECTOR



Insert the SIDE KEY

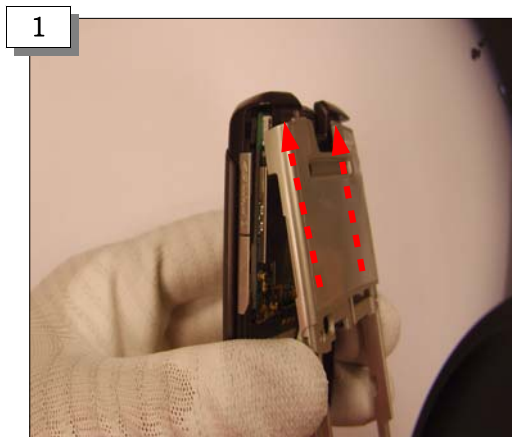


Insert the INT. CONNECTOR - 1

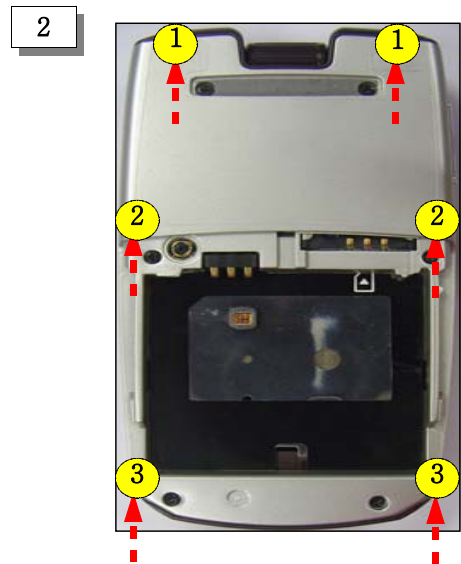


Insert the INT. CONNECTOR - 1

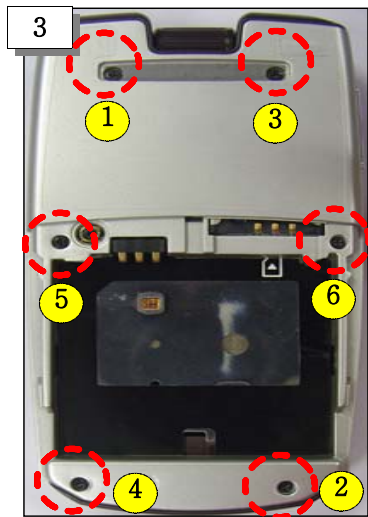
– Rear



Insert the REAR HOOK



Press the INT WIRE in order



Insert Screws on REAR(6 points)



Attach the SCREW CAPS on REAR

