



GSM TELEPHONE

GT-B7350

SERVICE *Manual*

GSM TELEPHONE

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**SAMSUNG
ELECTRONICS**



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2. Specification

2-1. GSM General Specification

	GSM850 Phase 1	EGSM 900 Phase 2	DCS1800 Phase 1	PCS1900	WCDMA2100	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:9612~9888 DL: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: 10ms Slotlength: 0.667ms	FrameLength: 10ms Slotlength: 0.667ms
Modulation	0.3GMSK	0.3GMSK	0.3GMSK	0.3GMSK	QPSKHQPSK	QPSKHQPSK
MS Power	33dBm~5dBm	33dBm~5dBm	30dBm~0dBm	30dBm~0dBm	24dBm~-50dBm	24dBm~-50dBm
Power Class	5pcl ~ 19pcl	5pcl ~ 19pcl	0pcl ~ 15pcl	0pcl ~ 15pcl	3(max+24dBm)	3(max+24dBm)
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

- GSM(2G EDGE/GPRS)850/900/1800/1900, WCDMA(3G HSDPA)W900/W2100
- HSDPA 7.2 Mbps
- 2.62" TFT Touch (R-type)
- Music player, Voice Recorder
- A-GPS / Bluetooth v2.0+EDR / WiFi (802.11 b/g)
- 3M Camera(AF)
- FM Radio Receiver
- USB 2.0 Full Speed
- Windows Mobile 6.5
- SMS/MMS/Email

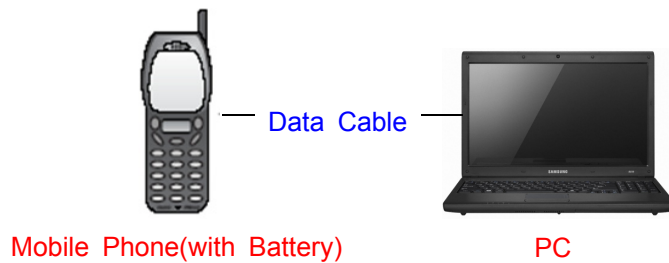
6. Level 1 Repair

6-1. Software Download

6-1-1. Pre-requisite for Download

- Downloader Program ([MSM7x27 & MSM7X25_MultiDownloader.exe](#))
- GT-B7350 Mobile Phone
- Data Cable
- JIG BOX (GH99-36900A)
- RF Test Cable (GH39-00985A)
- JIG Cable (GH39-01338A)
- Adapter (GH99-38251A)
- Binary files

- Diagram of Connection:



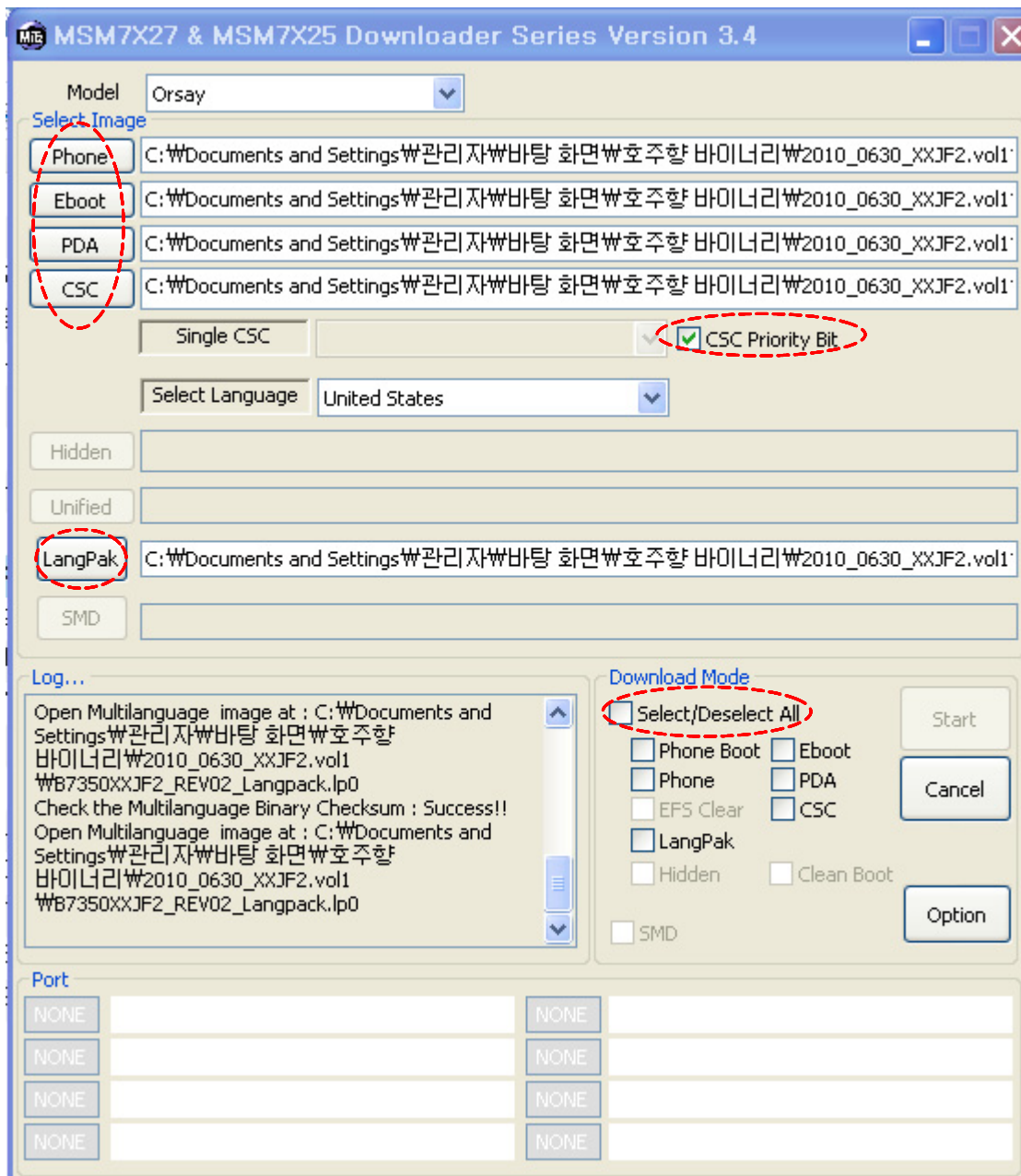
6-1-2. S/W Download Process

1. Load the binary download program by executing the "**MSM7x27 & MSM7X25_MultiDownloader.exe**"

The screenshot shows the 'MSM7X27 & MSM7X25 Downloader Series Developer Version 4.1' window. At the top, the 'Model' is set to 'Orsay'. Under the 'Select Image' section, buttons for 'Phone', 'Eboot', 'PDA', 'CSC', 'LangPak', and 'SMD' are visible. Each button has a corresponding text field that displays an error message: 'This File is not a [Component] Image File!!'. Below these fields, there is a 'CSC Priority Bit' checkbox which is checked, and a 'Select Language' dropdown menu. Further down, there are 'Hidden' and 'Unified' checkboxes. The 'Log...' section on the left shows a scrollable list of the same error messages. On the right, the 'Download Mode' section contains several checkboxes: 'Select/Deselect All', 'Phone Boot', 'Eboot', 'Phone', 'PDA', 'EFS Clear' (which is selected), 'CSC', 'LangPak', 'Hidden', 'Clean Boot', and 'SMD'. There are 'Start', 'Cancel', and 'Option' buttons in this section. At the bottom, the 'Port' section features a table with four rows and two columns, each containing a 'NONE' button and an empty text field.

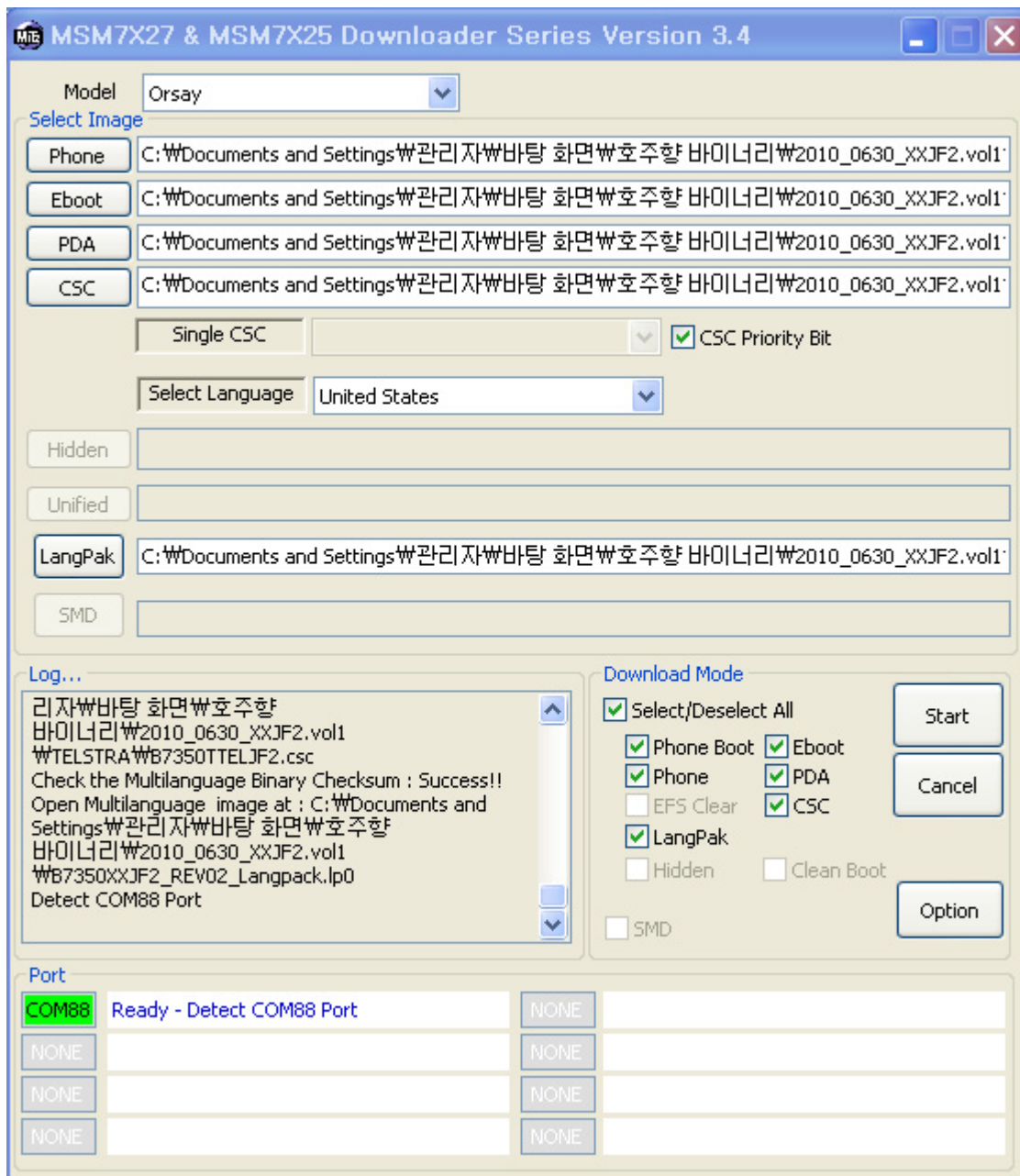
Port	
NONE	
NONE	
NONE	
NONE	

2. Set the Download program



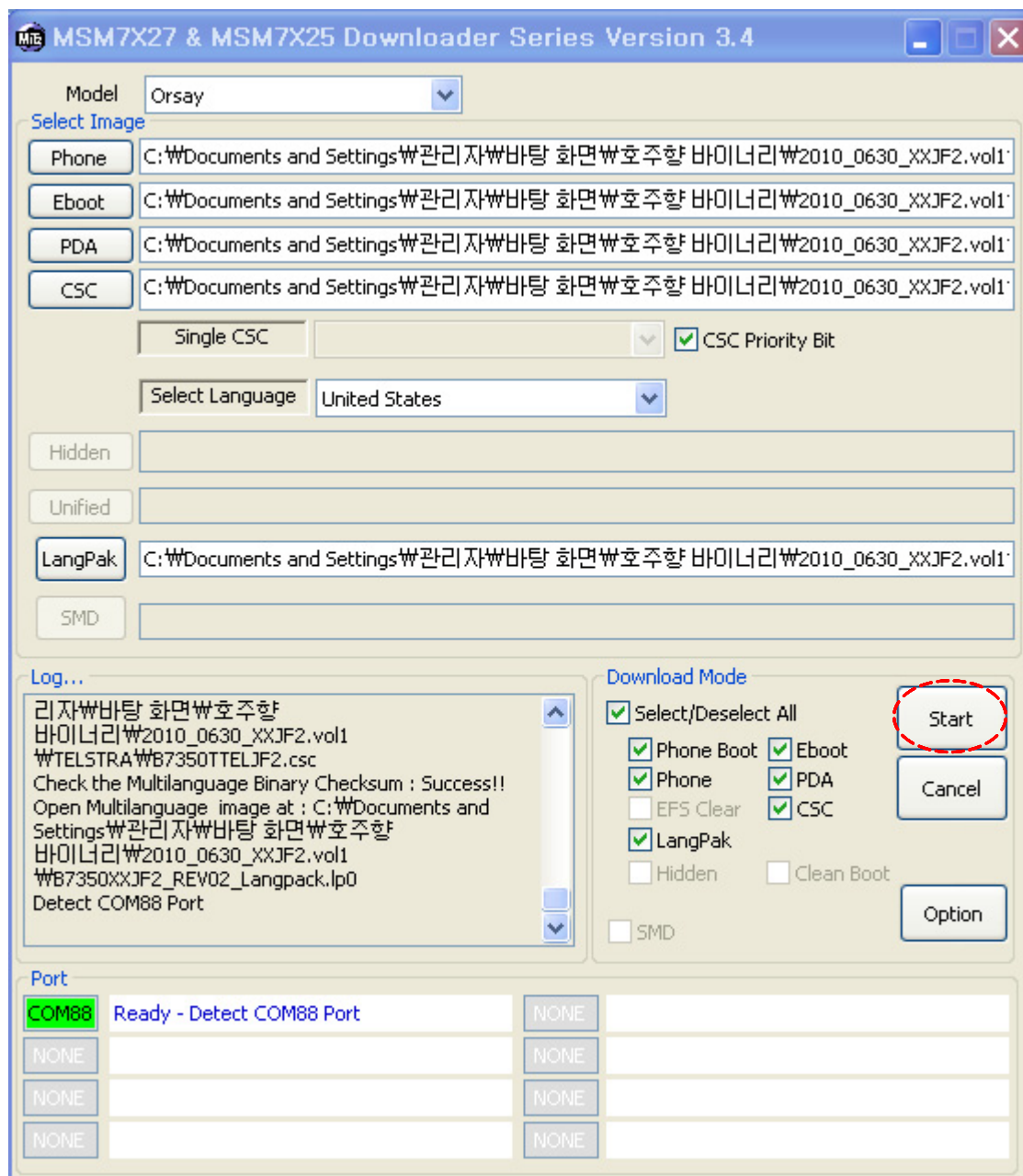
- (1).Load "phone,Eboot,PDA,CSC,LangPak" files
- (2) Check "CSC Priority Bit" and "Select/Deselet All"

3. COM Port Mapping change to **Green Color** when the phone with download mode is connected to PC by data cable.

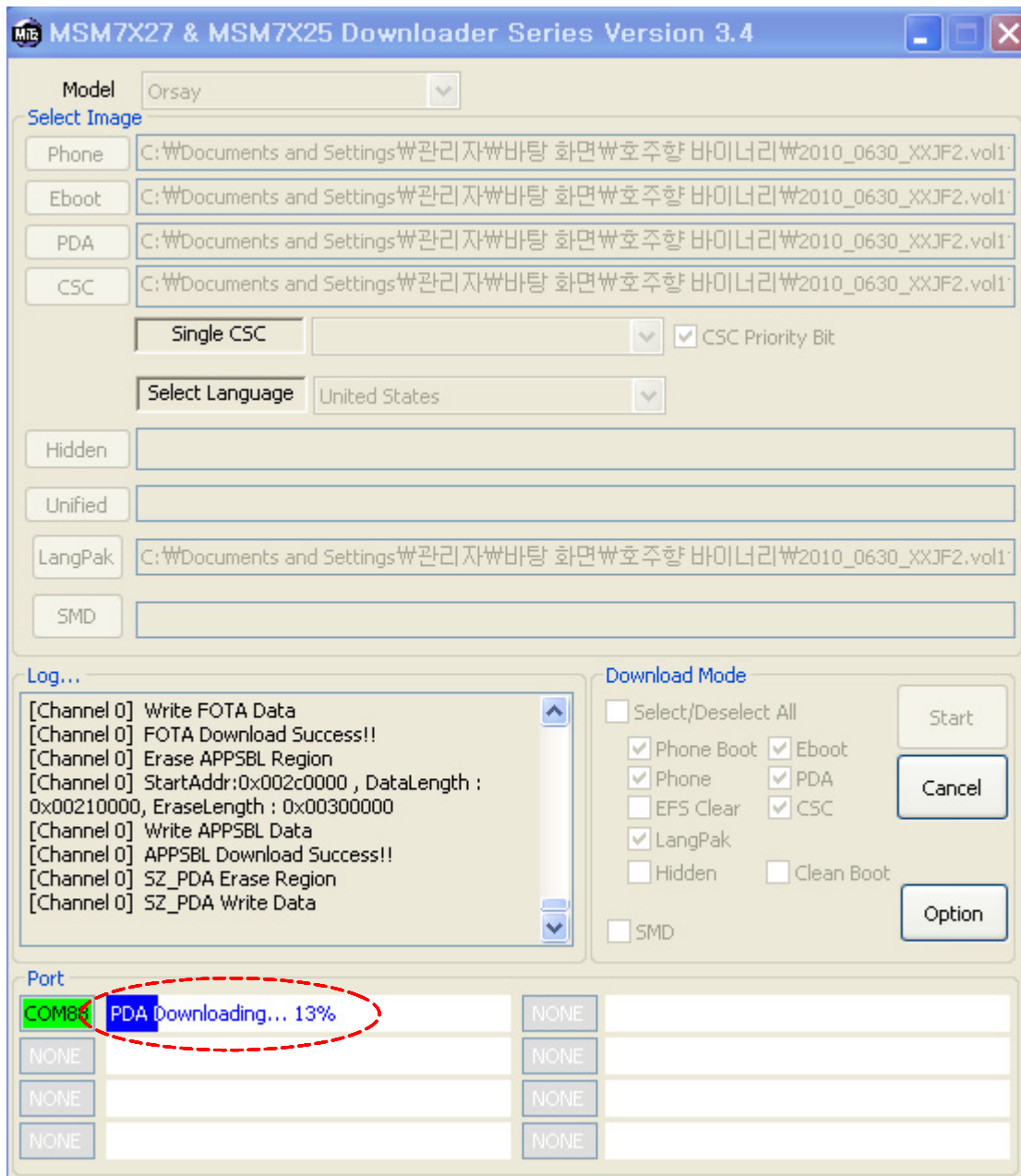


cf. You have to set the phone as a download mode by pressing Volume down + Hold key + End key simultaneously before connecting to PC .

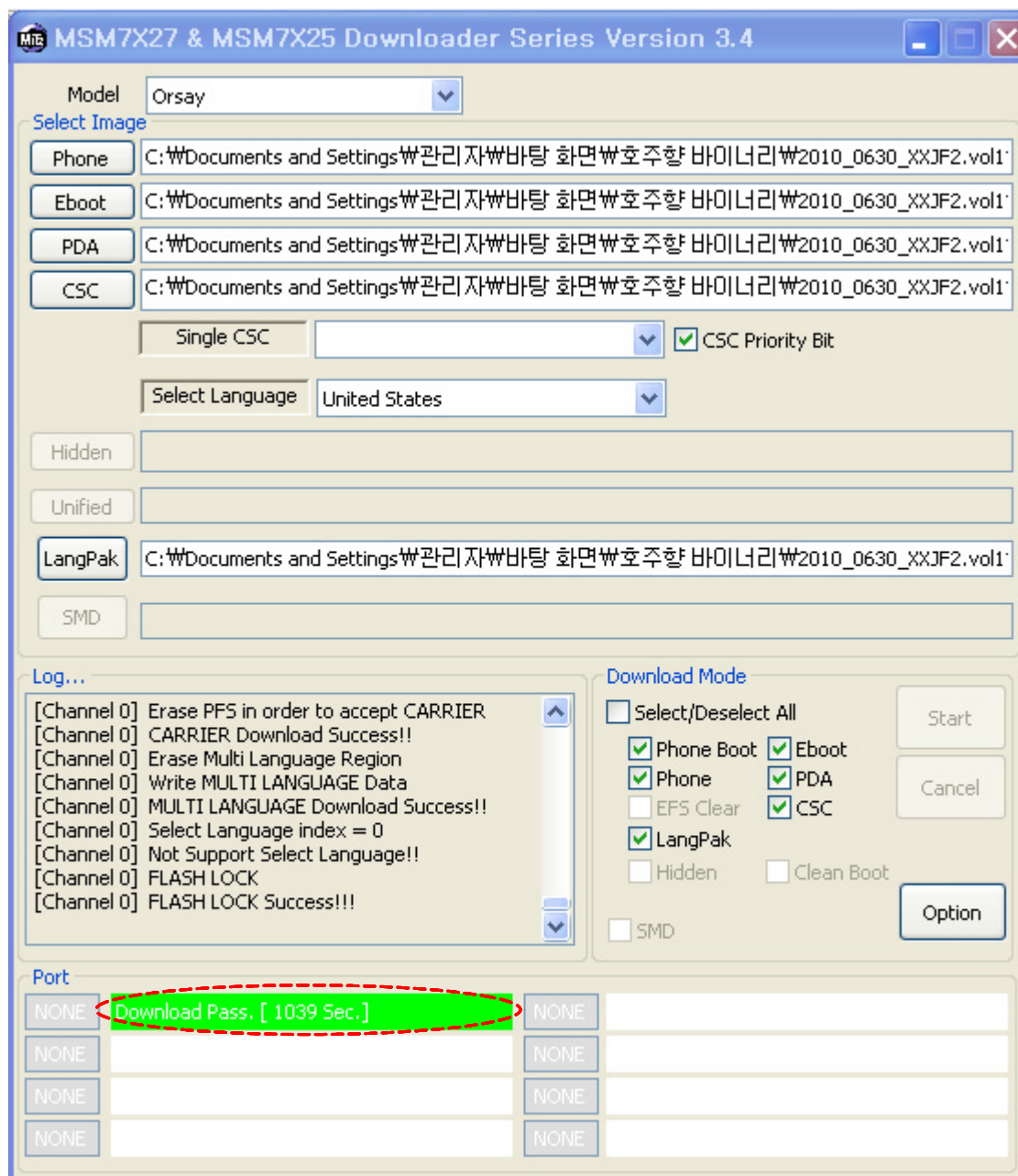
4. Click the **Start** button when the Port searched.



It will start to download.



5. When downloading is finished successfully, there is a "**Download Pass**" message.



6. 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 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

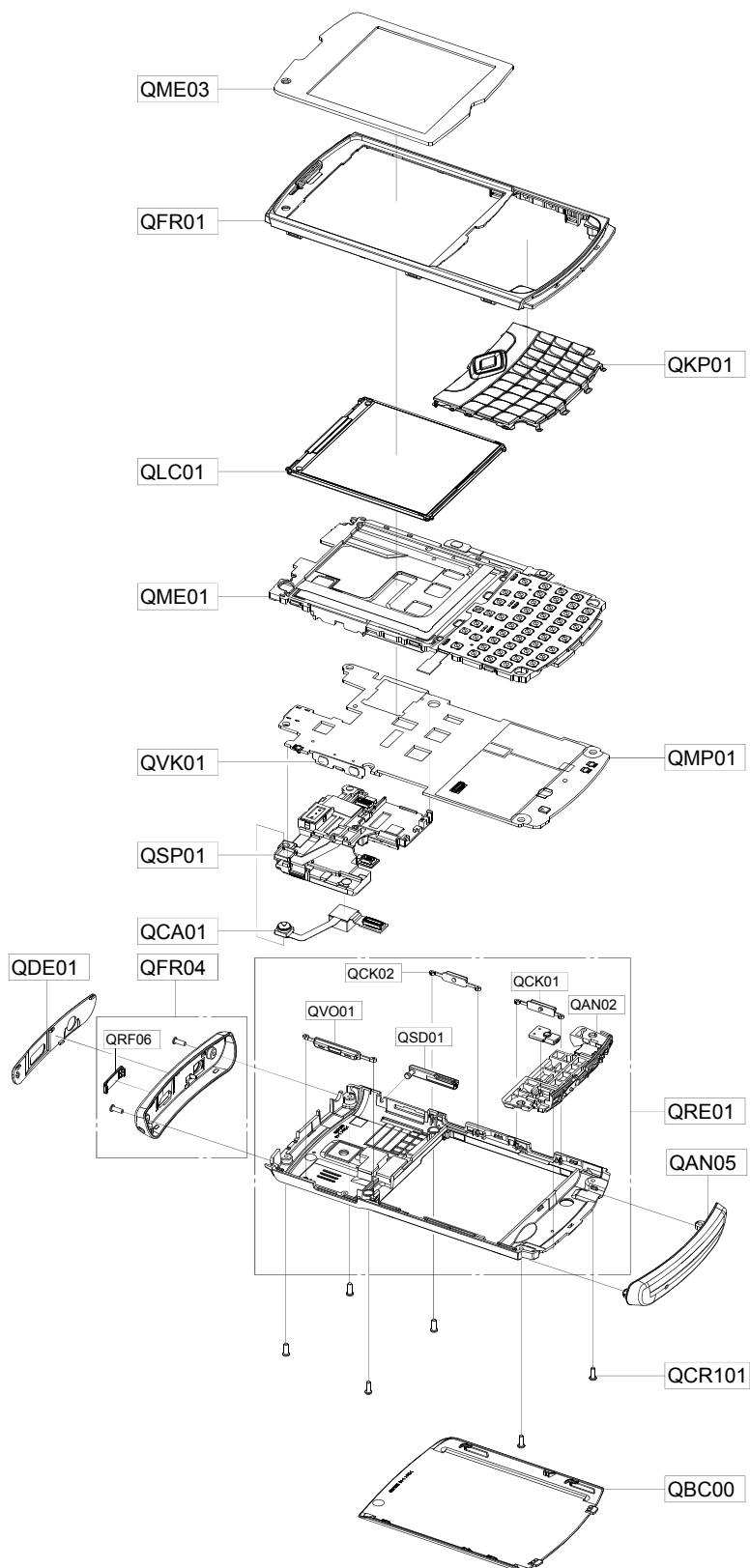
Several semiconductor may be damaged easily by static electricity. Such parts are called by ESD (Electrostatically Sensitive Devices), for example IC,BGA chip etc. Read Precaution below.

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.

4. Exploded View and Parts List

4-1. Cellular phone Exploded View



4-2. Cellular phone Parts list

Design LOC		Description	SEC CODE
QCR101		SCREW-MACHINE	6001-002005
QSP01		MODULE-SPK/MOT/RCV	GH59-09738A
QCA01		CAMERA MODULE-GT-B7350,3AF_CIF CAMERA MO	GH59-09812A
QVK01		KEY FPCB-VOL KEY(GT_B7350)	GH59-09772A
QME03		TOUCH/PANEL-TOUCH KEY(GT_B7350)	GH59-09840A
QMP01		A/S ASSY-PBA MAIN (COMM)	GH82-05111A
QLC01		ASSY LCD-2.6" 320X320 GT-B7350 ASSY	GH96-04750A
QME01		ASSY MODULE-TF KEY PBA+BRACKET(GTB7350)	GH96-04853A
QFR01		ASSY COVER-FRONT(EU/OG)	GH98-17299A
QKP01		ASSY KEYPAD-MAIN(XK/OPEN)	GH98-17300A
QDE01		ASSY DECO-TOP CAP	GH98-17305A
QAN05		ASSY COVER-ANTENNA	GH98-17306A
QBC00		ASSY COVER-BATT	GH98-17619A
QFR04		ASSY DECO-TOP	GH98-17304A
	QRF06	PMO COVER-USB	GH72-60105A
QRE01		ASSY COVER-REAR	GH98-17518A
	QAN02	ANTENNA-GT_B7350(MAIN)	GH42-02623A
	QCK02	PMO KEY-HOLD	GH72-60100A
	QCK01	PMO KEY-CAMERA	GH72-60101A
	QVO01	PMO KEY-VOLUME	GH72-60102A
	QSD01	PMO COVER-SD	GH72-60103A

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5-2. Cellular phone Parts list : GT-B7350XKAXEF

Design LOC	Description	SEC CODE
QAN02	ANTENNA-GT_B7350(MAIN)	GH42-02623A
QAN05	ASSY COVER-ANTENNA	GH98-17306A
QBC00	ASSY COVER-BATT	GH98-17619A
QCA01	ASSY CAMERA-MODULE(B7350_3M)	GH96-04926A
QCK01	PMO KEY-CAMERA	GH72-60101A
QCK02	PMO KEY-HOLD	GH72-60100A
QCR101	SCREW-MACHINE	6001-002005
QDE01	ASSY DECO-TOP CAP	GH98-17305A
QFR01	ASSY COVER-FRONT(EU/OG)	GH98-17299A
QFR04	ASSY DECO-TOP	GH98-17304A
QKP01	ASSY KEYPAD-MAIN(XK/FRA)	GH98-17815A
QLC01	ASSY LCD-2.6" 320X320 GT-B7350 ASSY	GH96-04750A
QME01	ASSY MODULE-TF KEY PBA+BRACKET(GTB7350)	GH96-04853A
QME03	TOUCH/PANEL-TOUCH KEY(GT_B7350)	GH59-09840A
QMP01	A/S ASSY-PBA MAIN (COMM)	GH82-05111A
QRE01	ASSY COVER-REAR	GH98-17518A
QRF06	PMO COVER-USB	GH72-60105A
QSD01	PMO COVER-SD	GH72-60103A
QSP01	MODULE-SPK/MOT/RCV	GH59-09738A
QVK01	KEY FPCB-VOL KEY(GT_B7350)	GH59-09772A
QVO01	PMO KEY-VOLUME	GH72-60102A

7. Level 2 Repair

7-1. Disassembly

1

1)Disassemble Deco Top Cover.



2

1)Unscrew the 2 points of Deco Top.
2)Separate Deco Top from the SET.



※ Caution

1) Be care of scratch and molding damage.

※ Caution

1) Be care of scratch and molding damage.
2) Torque : 1.0 ~ 1.2 Kgf-cm

3

1)Unscrew the 6 points of Rear.

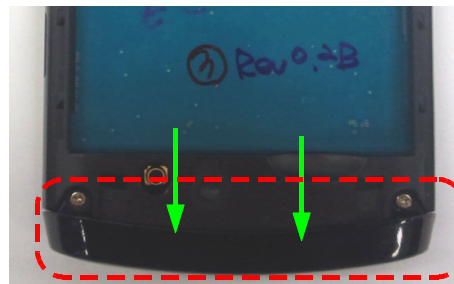


※ Caution

1) Be care of scratch and molding damage.
2) Torque : 1.0 ~ 1.2 Kgf-cm

4

1) Separate Intenna Cover from the SET.



※ Caution

1) Be care of scratch and molding damage.

5

1) Separate the Rear Case from the Set.



6

1) Disconnect LCD connector
2) Separate PBA from the Ass'y



※ Caution

1) Be care of scratch and molding damage.

※ Caution

1) Be care of damage to LCD F-CPB.

7

1) Disconnect Key connector

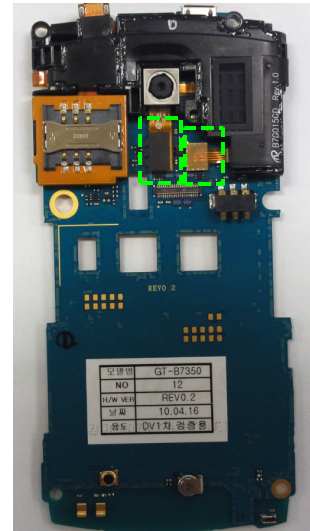


※ Caution

1) Be care of damage to Key F-CPB.

8

1) Disconnect CAM, SPK connector

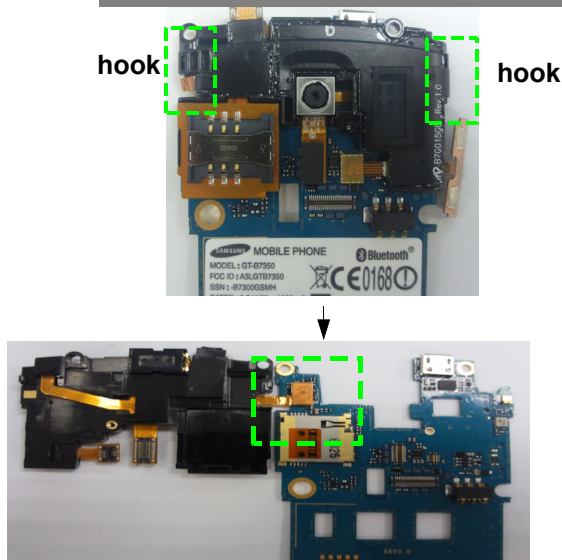


※ Caution

1) Be care of damage to part of PBA

9

- 1) Disassemble SPK Ass'y from PBA.
- 2) Disconnect SIM connector

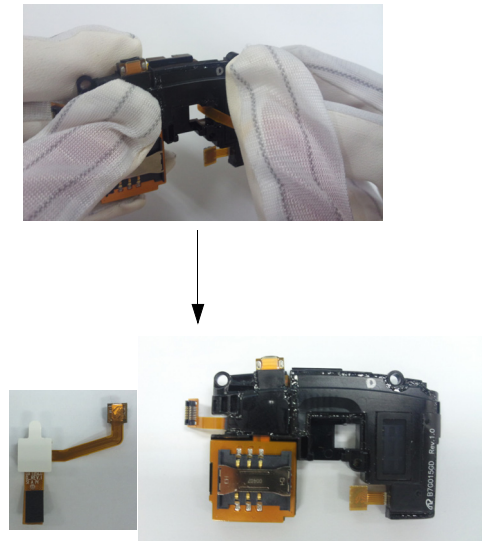


※ **Caution**

- 1) Be care of damage to SIM F-CPB.

10

- 1) Separate the Camera from SPK ass'y



※ **Caution**

- 1) Be care of damage to Camera F-CPB.

11

- 1) After Zip Connector open, separate TSP FPCB from Front Ass'y.



※ **Caution**

- 1) Be care of damage to TSP F-CPB

12

- 1) Separate the Bracket from Front Ass'y by disassembling hook.

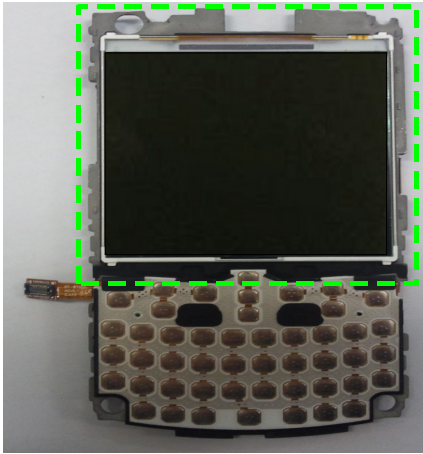


※ **Caution**

- 1) Be care of scratch and molding damage.

13

1) Diassemble the LCD module from the Bracket



※ **Caution**

1) Be care of damage to LCD

14

1))Diassemble TSP from Front



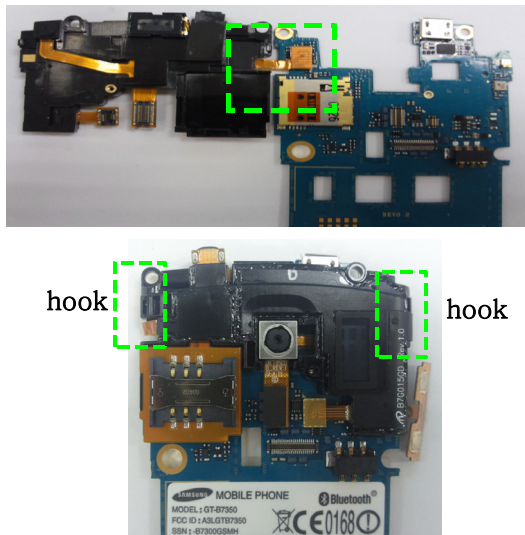
※ **Caution**

1) Be care of damage to TSP.

7-2. Assembly

1

1) Assemble SPK Ass'y to PBA

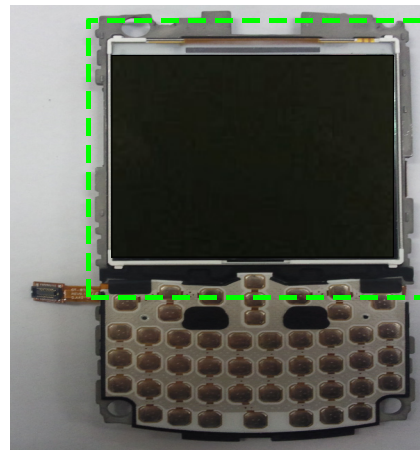


※ Caution

1) Be care of damage to SPK

2

1) Assemble LCD on the Bracket.

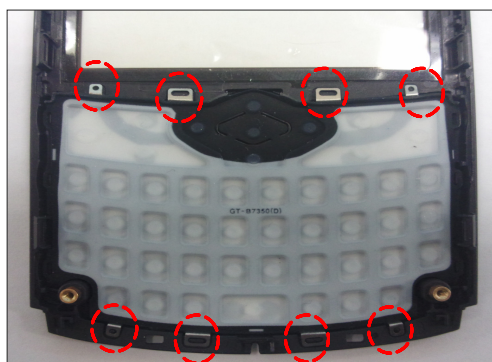


※ Caution

1) Be care of damage to LCD

3

1) Assemble the Keypad on Front

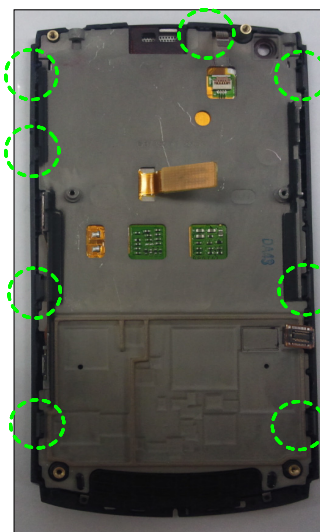


※ Caution

1) Be care of scratch and molding damage.

4

1) Assemble the LCD bracket on the front

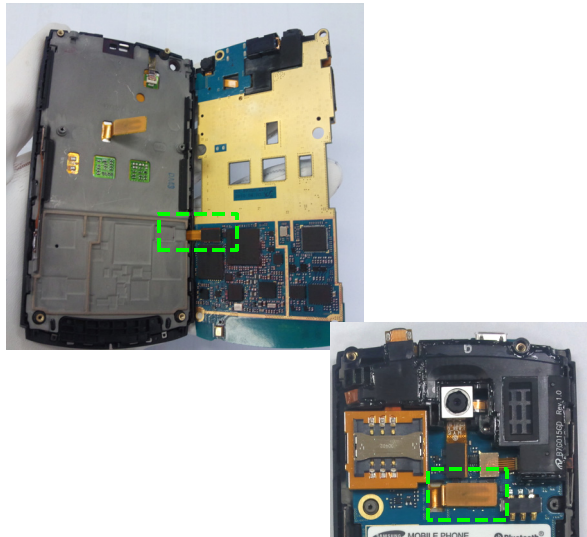


※ Caution

1) Be care of scratch and molding damage.

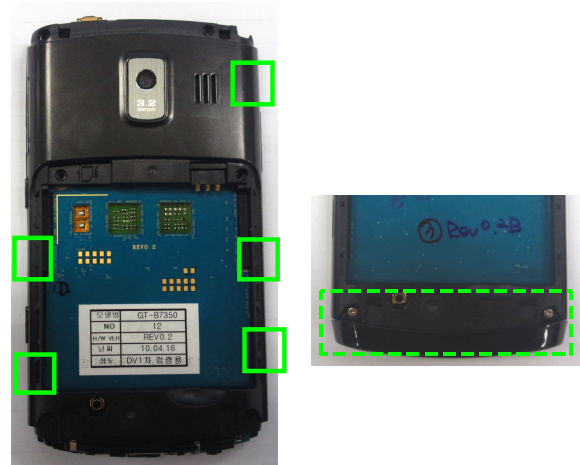
5

- 1) Assemble the PBA to LCD Bracket.
- 2) Assemble LCD connector on PBA



6

- 1) Assemble the Rear.
- 2) Assemble the Intenna Cover.



※ **Caution**

- 1) Be care of damage to FPCB

※ **Caution**

- 1) Be care of scratch and molding damage.

7

- 1)Screw 6 point.



8

- 1)Assemble Deco Top.



※ **Caution**

- 1) Be care of scratch and molding damage.
- 2) Torque : 1.0 ~ 1.2 Kgf·cm

9

1) Screw 2 point

**※ Caution**

- 1) Be care of scratch and molding damage.
- 2) Torque : 1.0 ~ 1.2 Kgf-cm

10

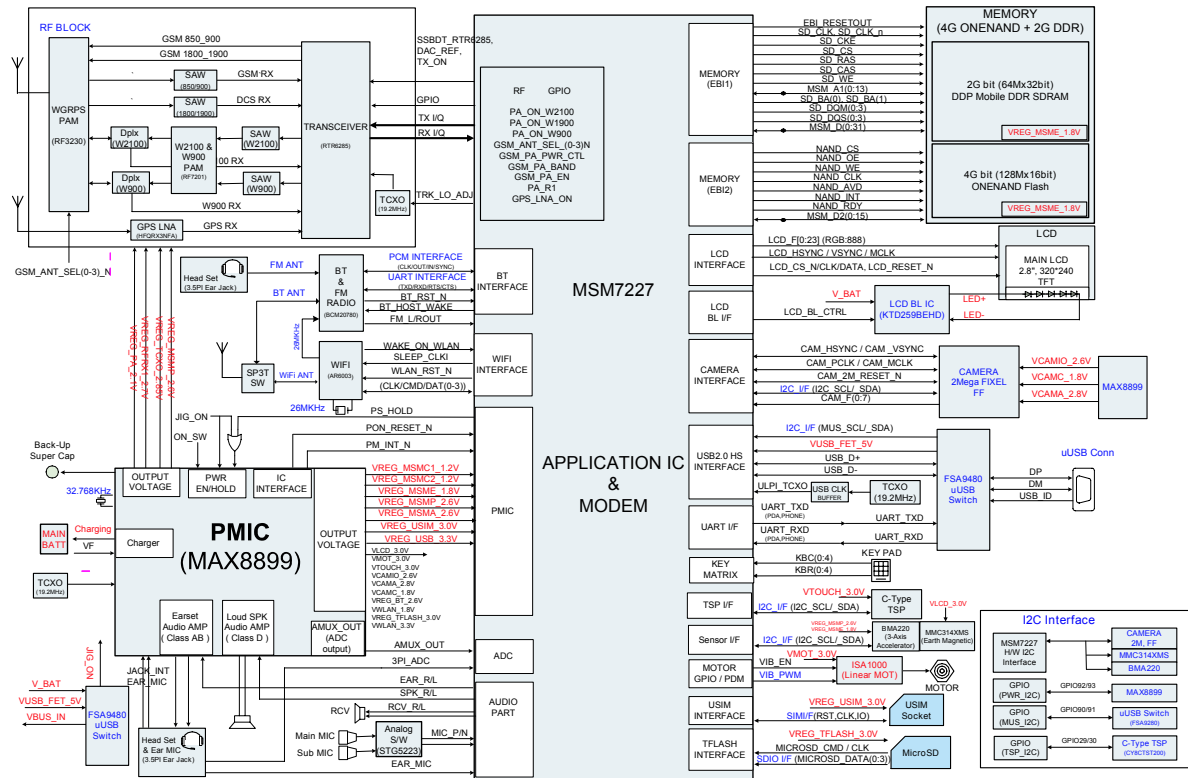
1) Assemble Deco Top Cover.

**※ Caution**

- 1) Be care of scratch and molding damage.

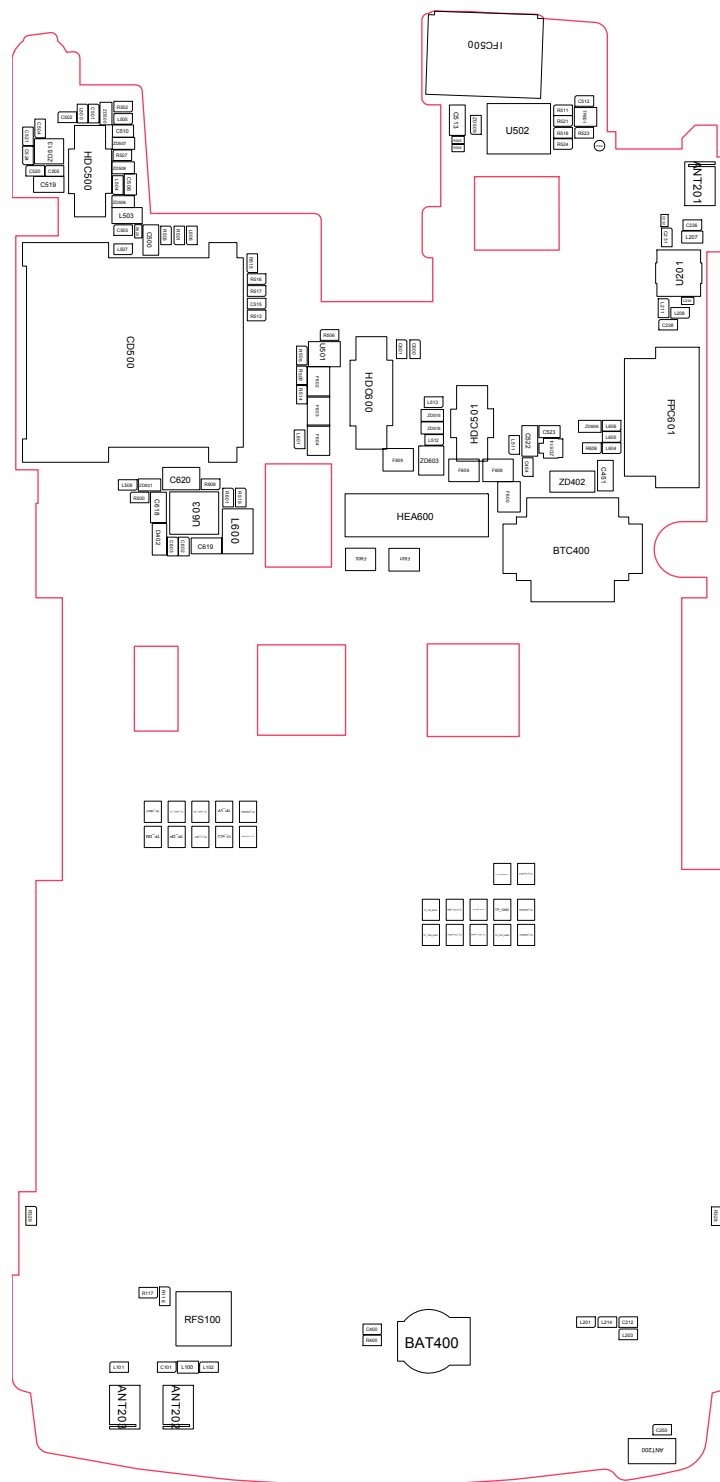
8. Level 3 Repair

8-1. Block Diagram

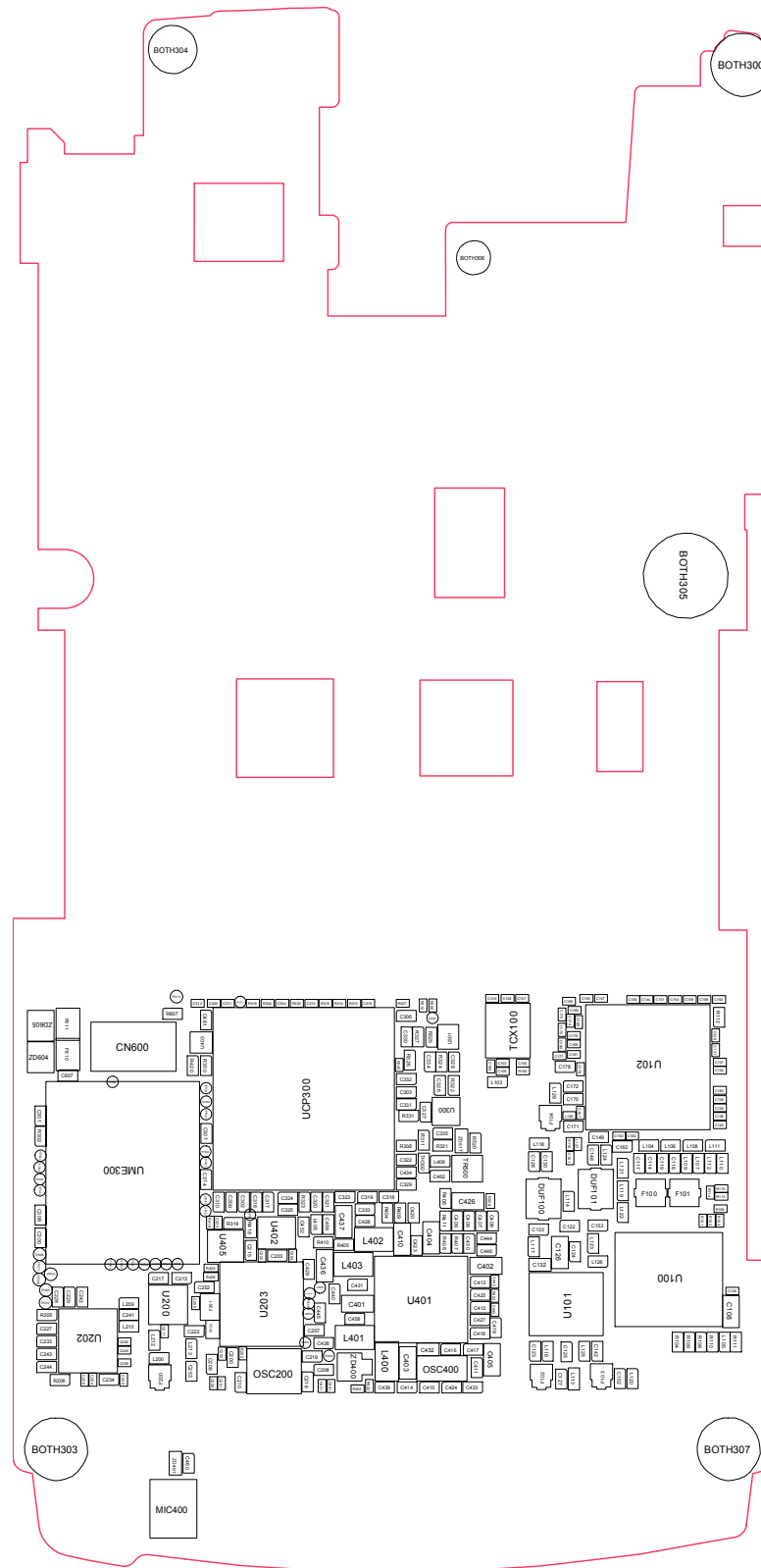


8-2. PCB Diagrams

8-2-1. Top

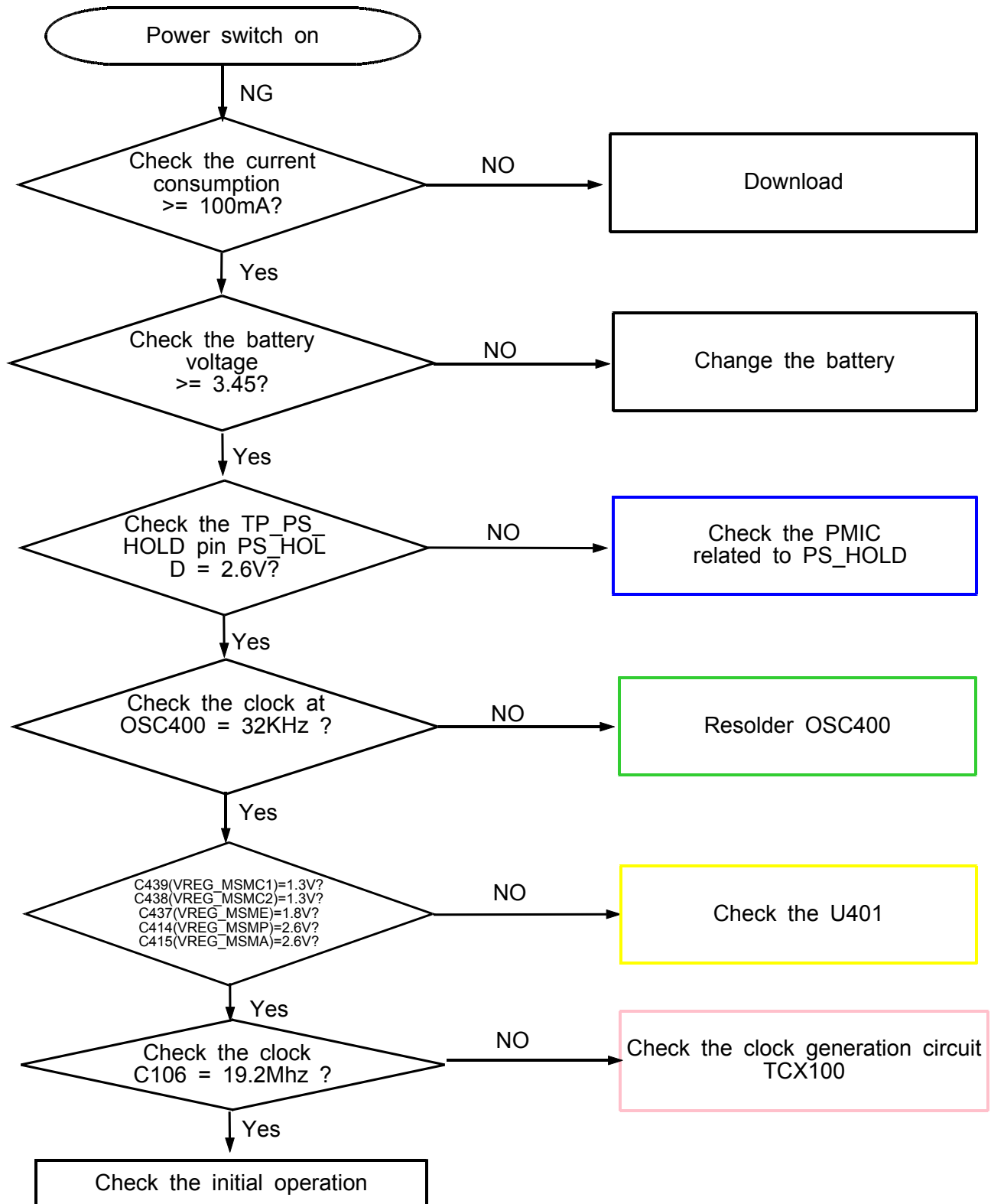


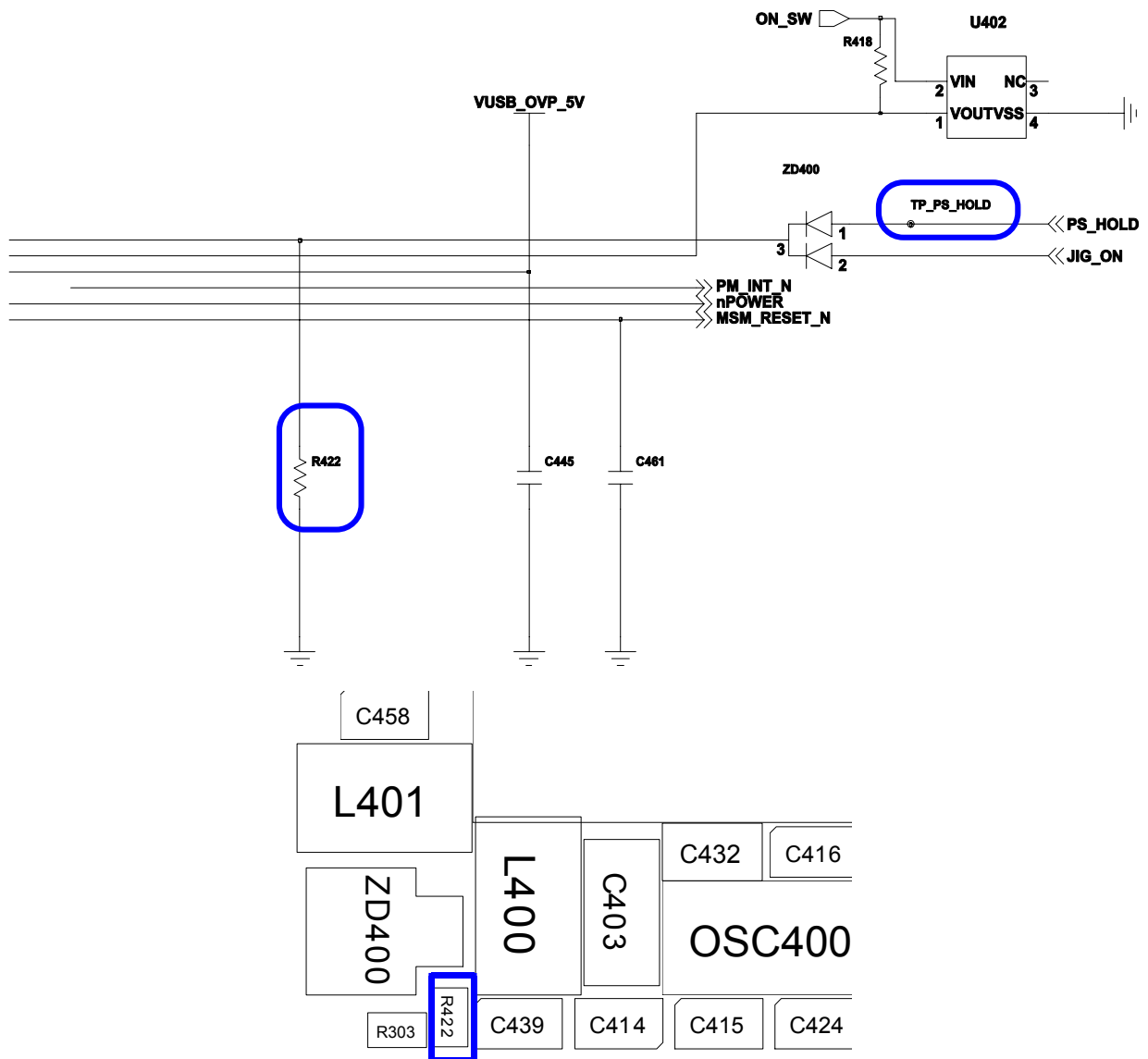
8-2-1. Bottom

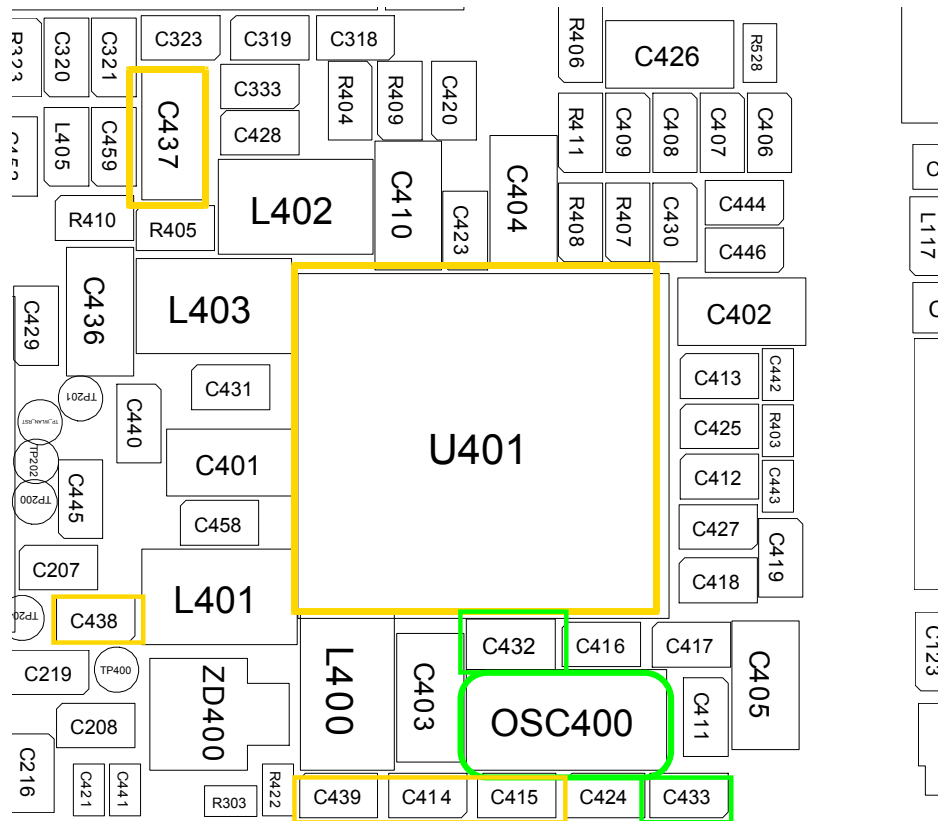
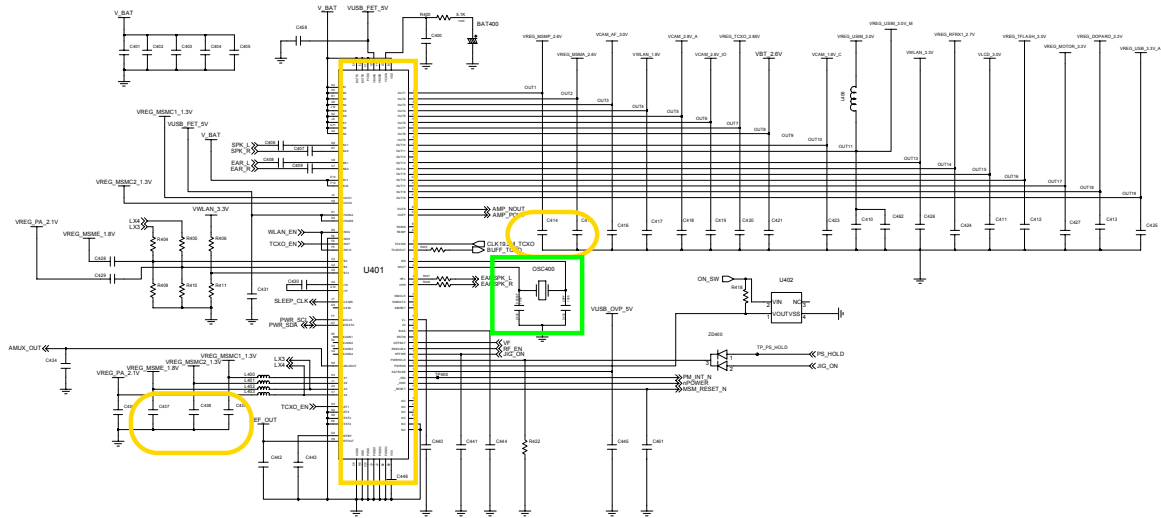


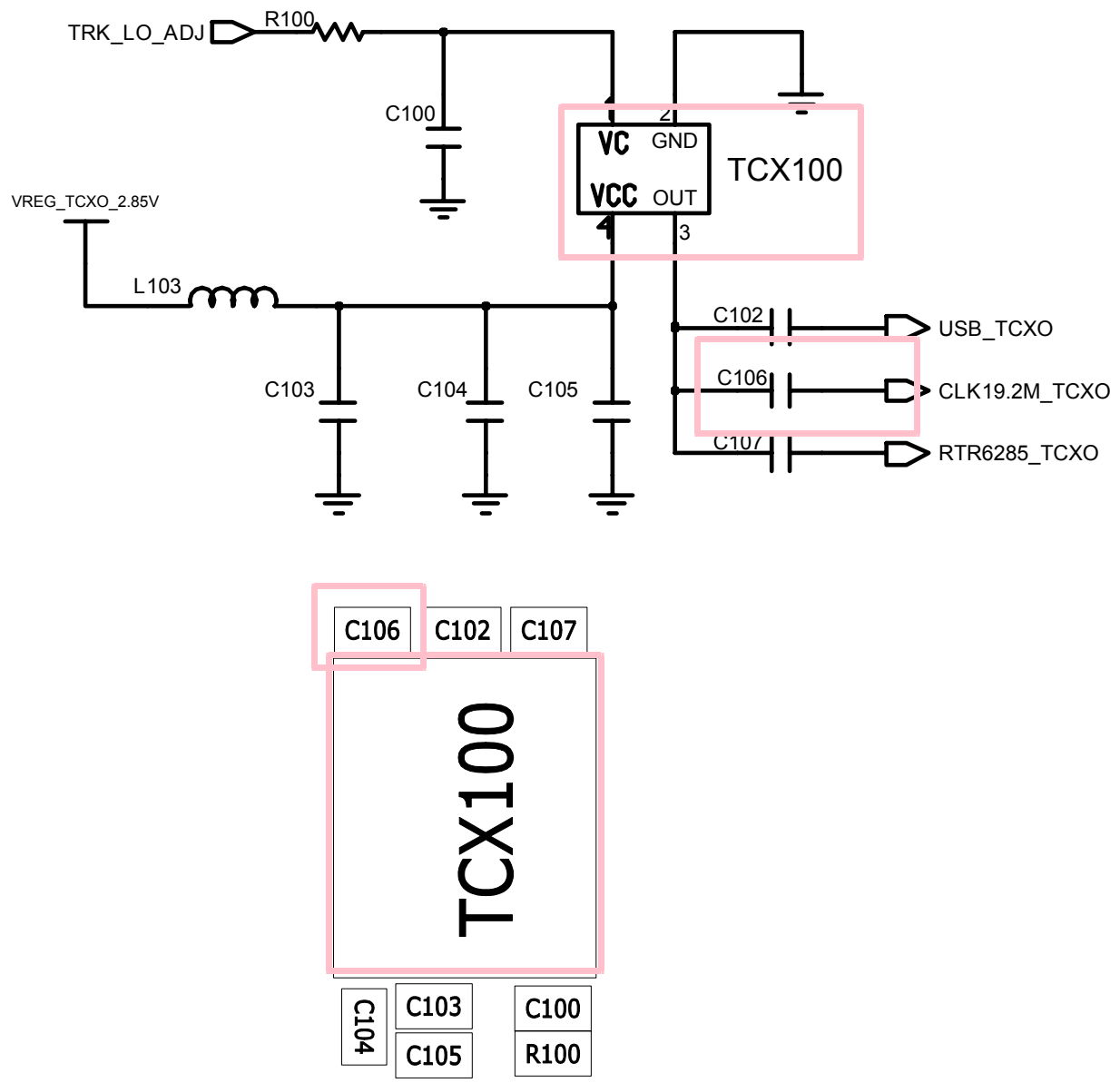
8-3. LOGIC

8-3-1. Power On

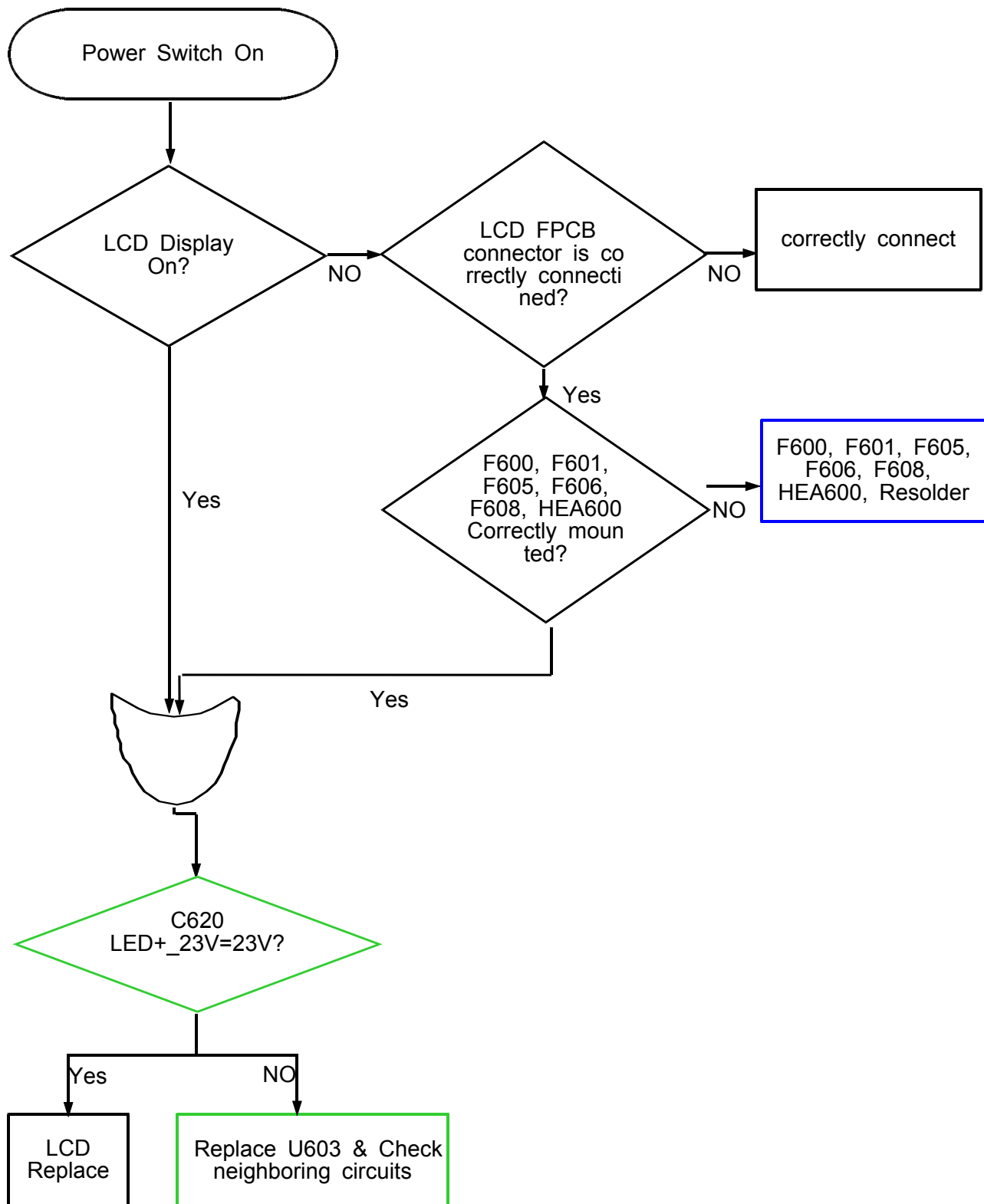


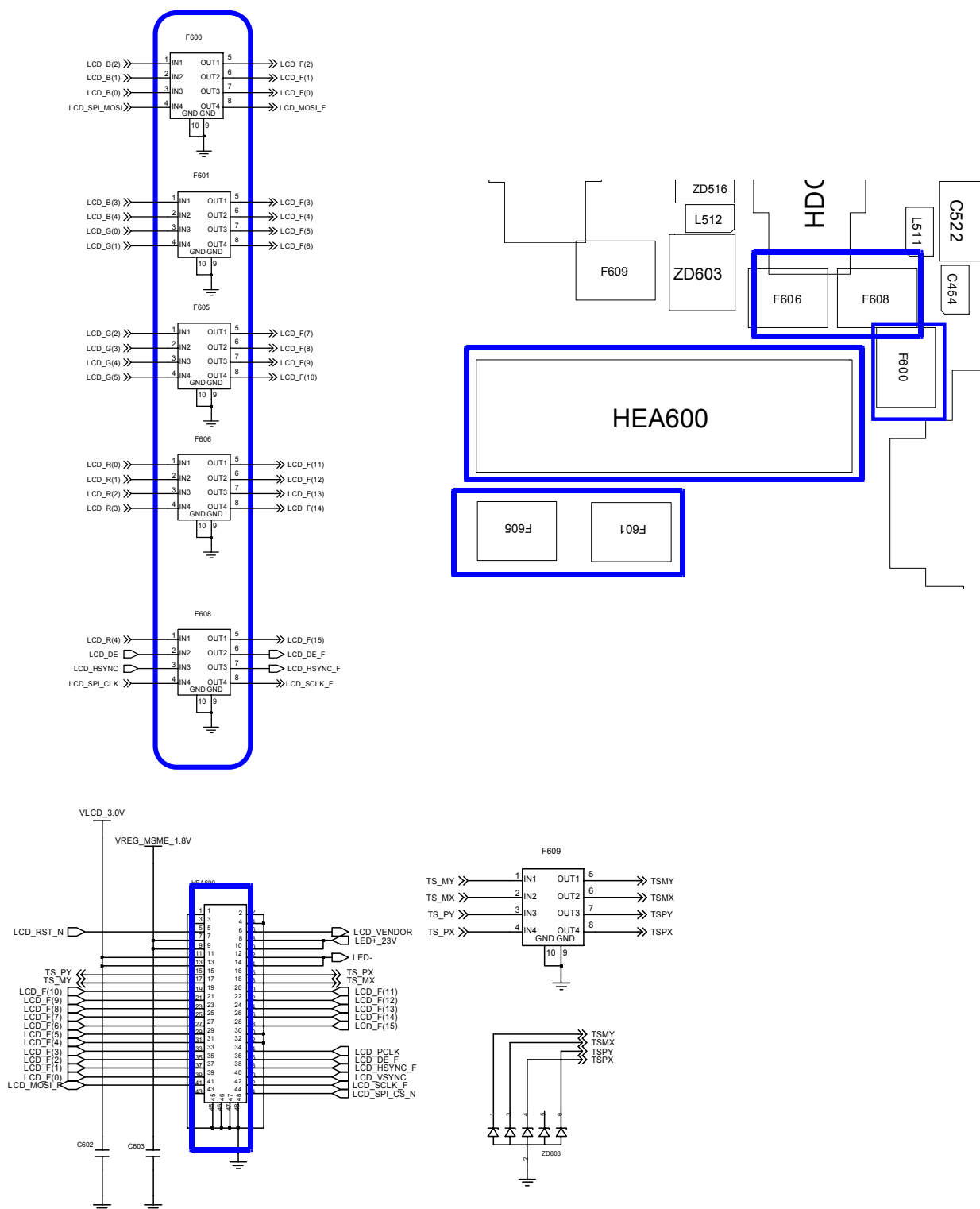


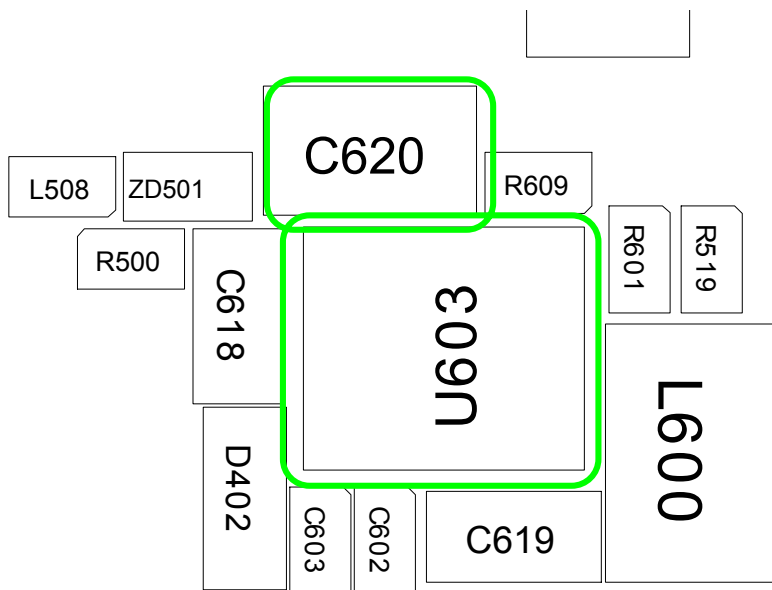
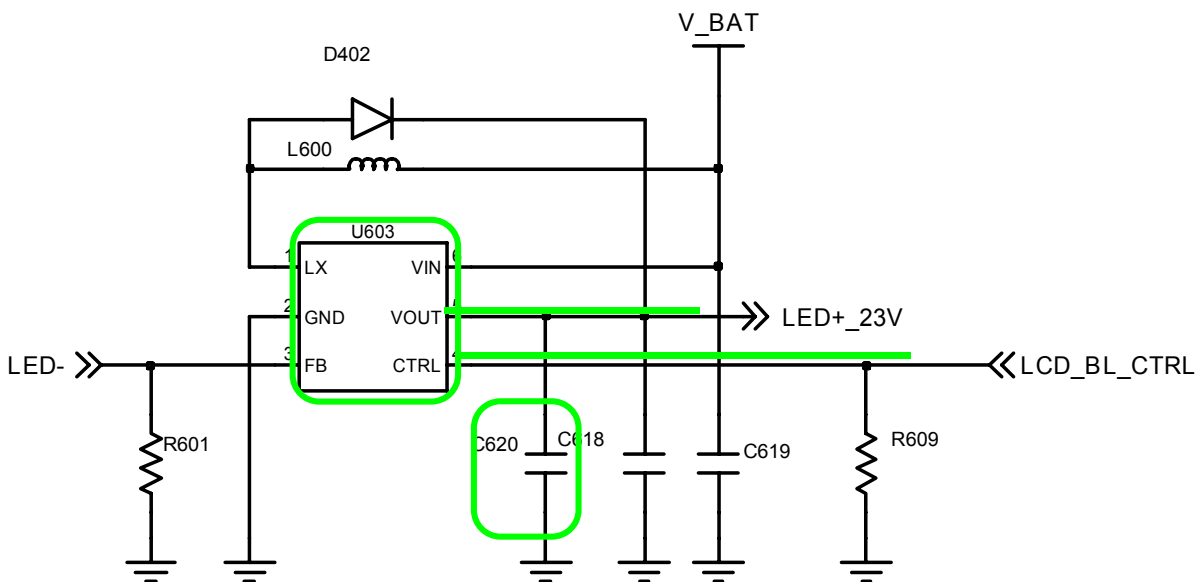




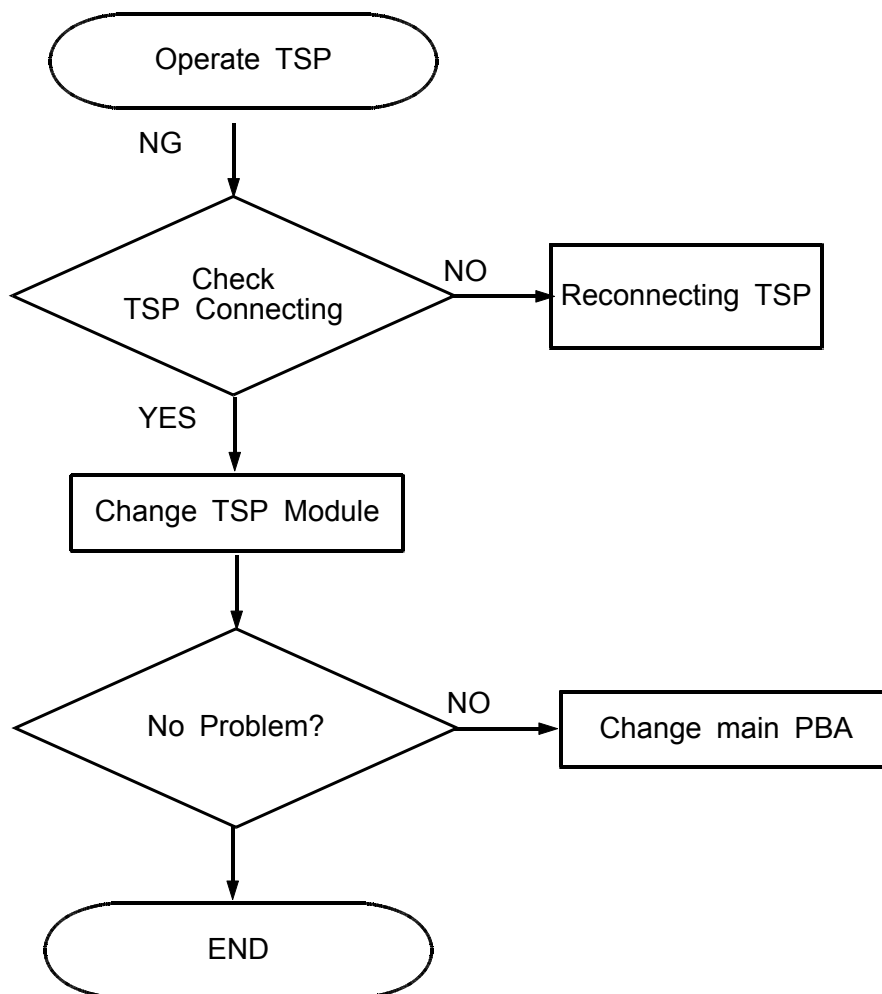
8-3-2. LCD Working





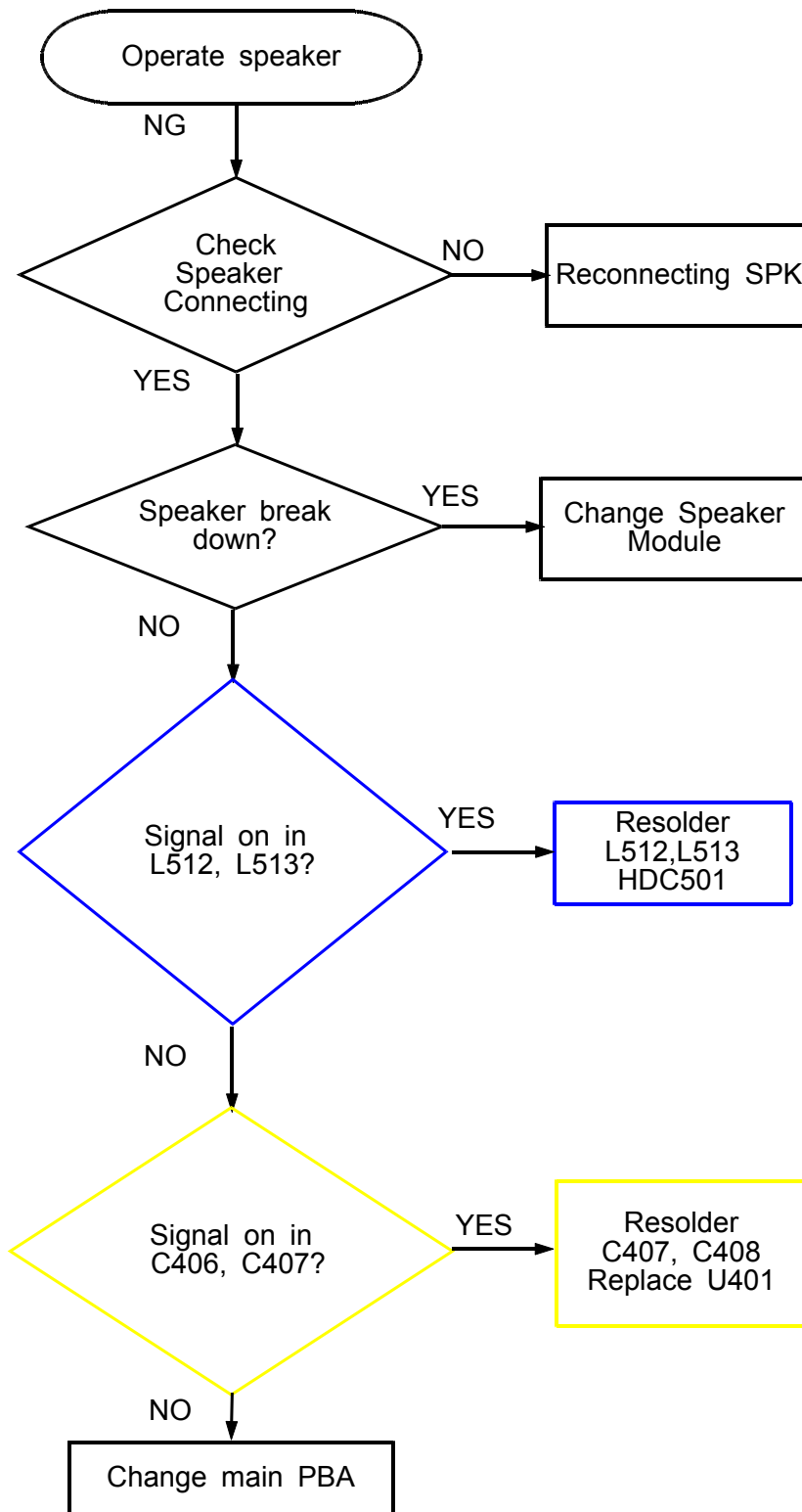


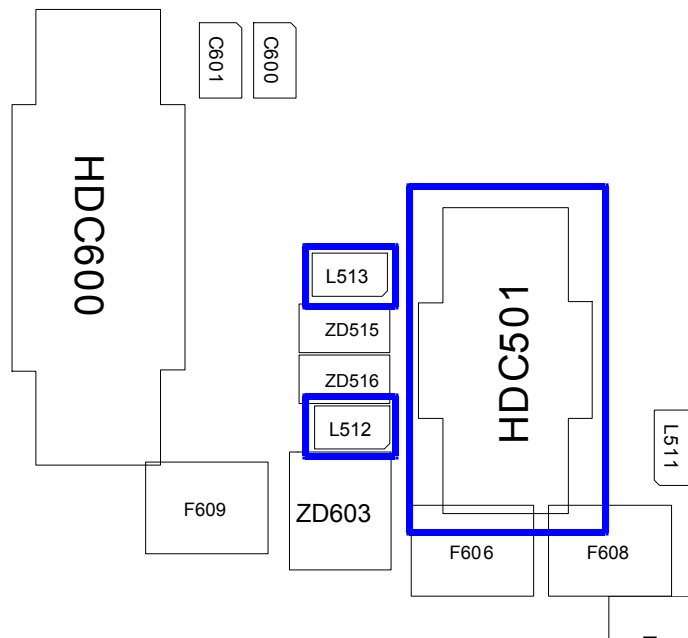
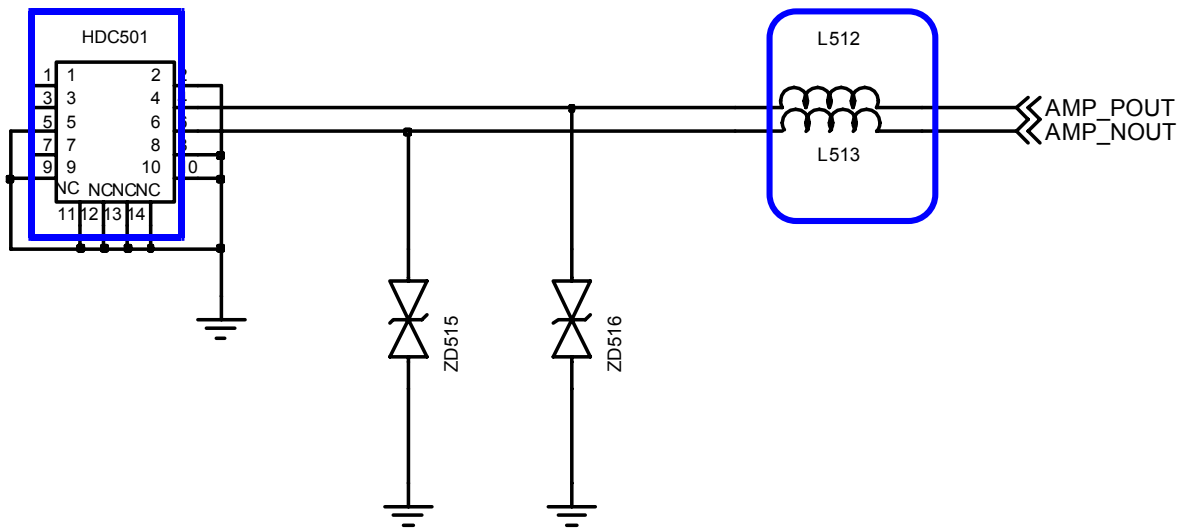
8-3-3. TSP

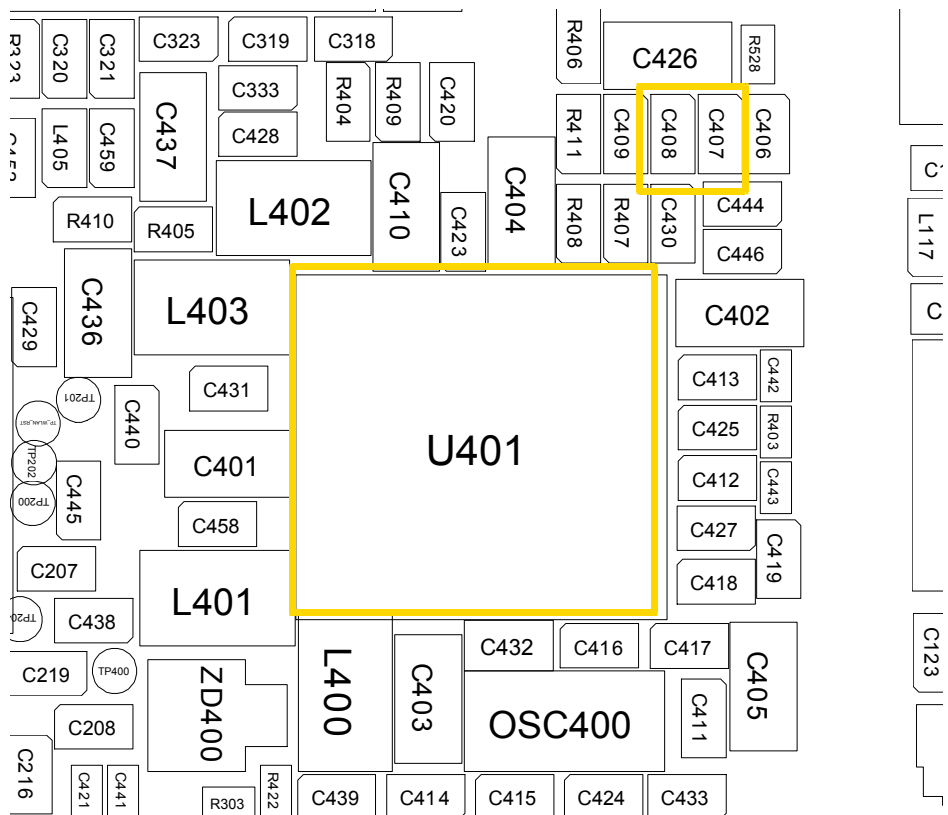
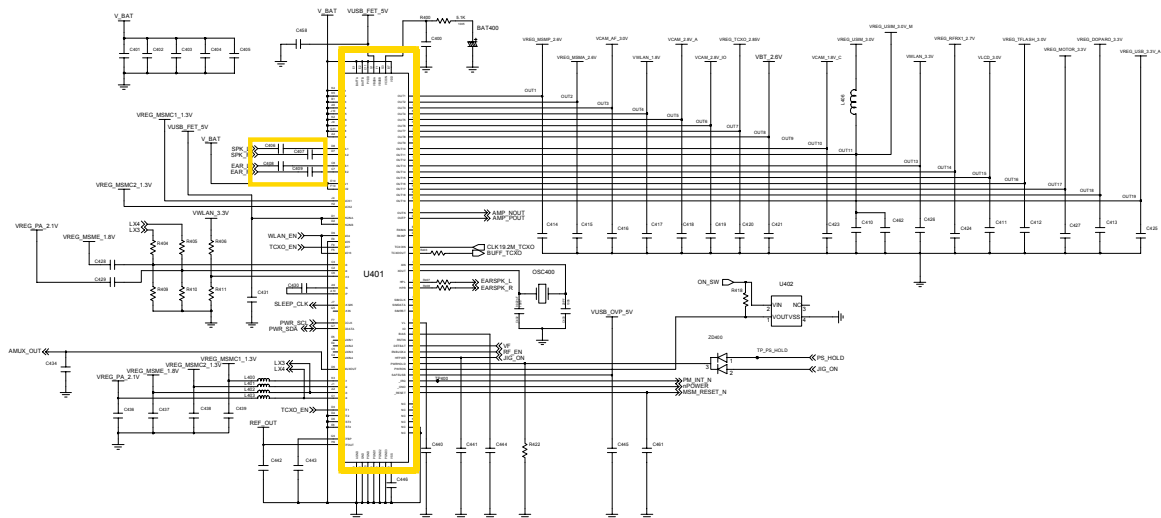


8-3-4. Audio Working

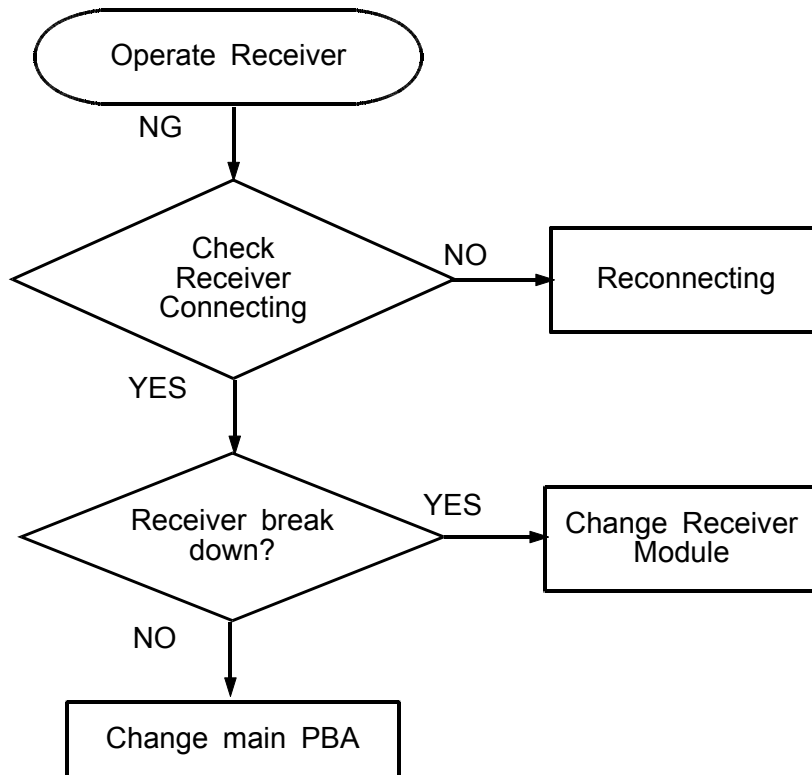
- Speaker Working



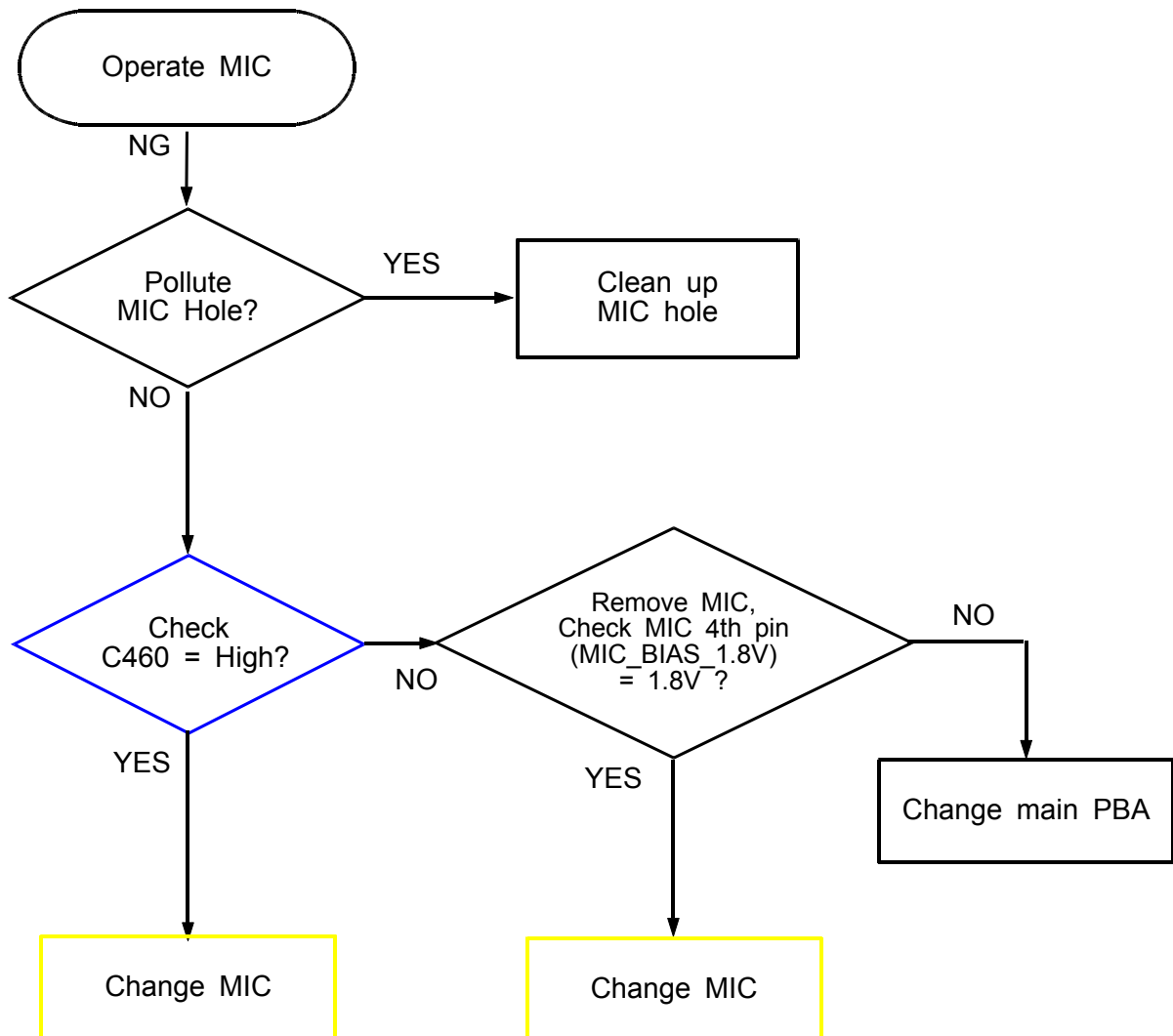


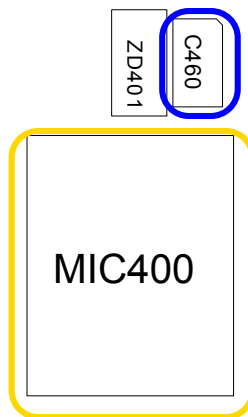
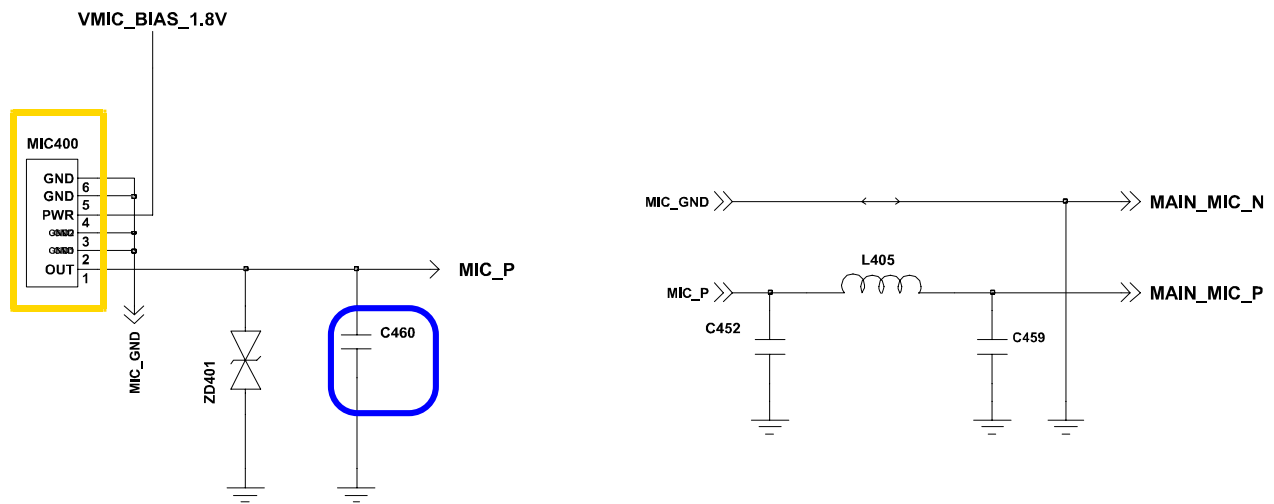


- Receiver Working

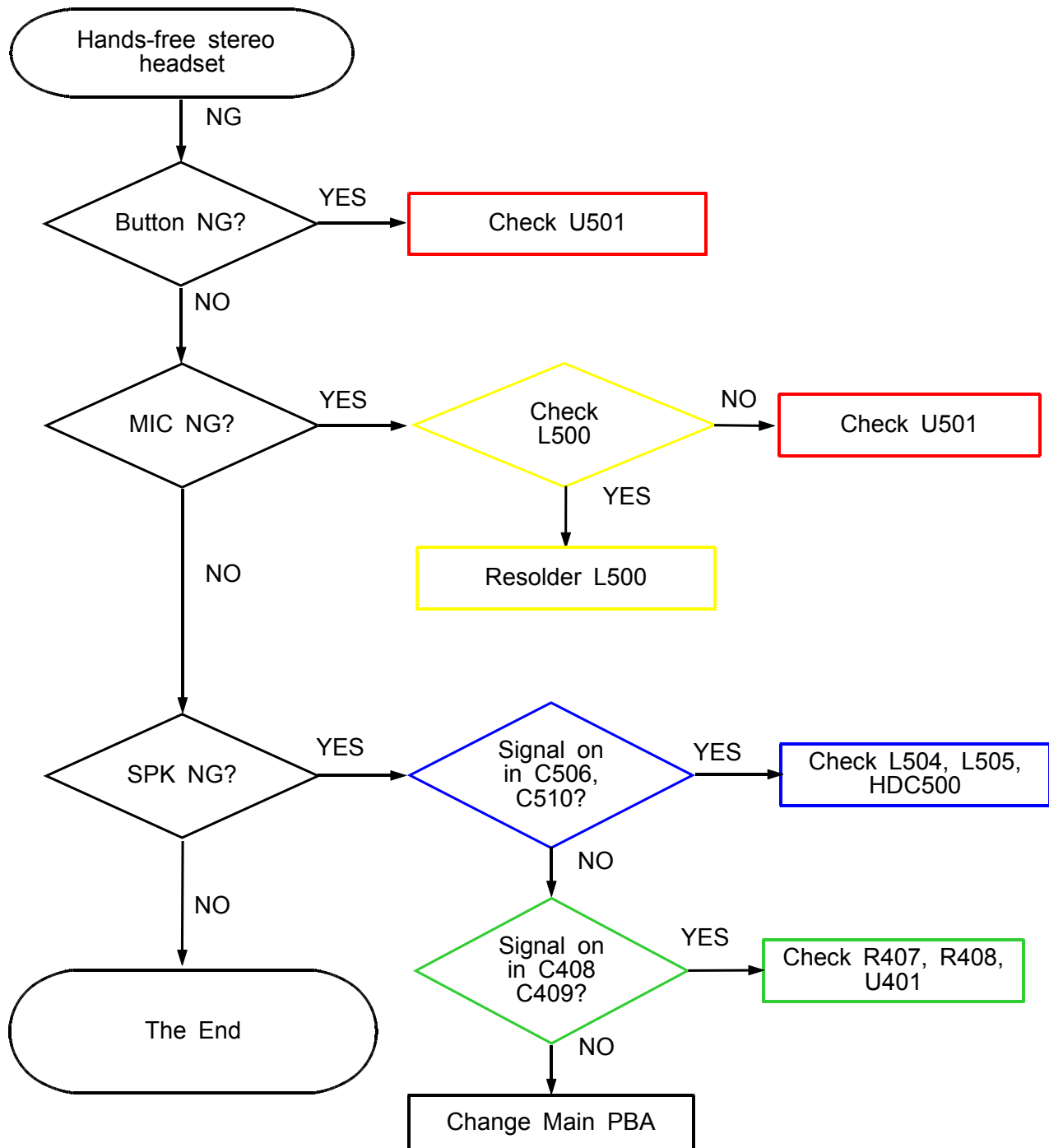


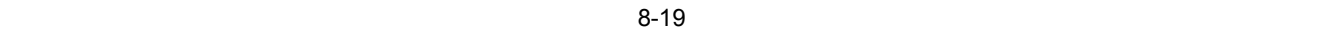
- Main MIC Working

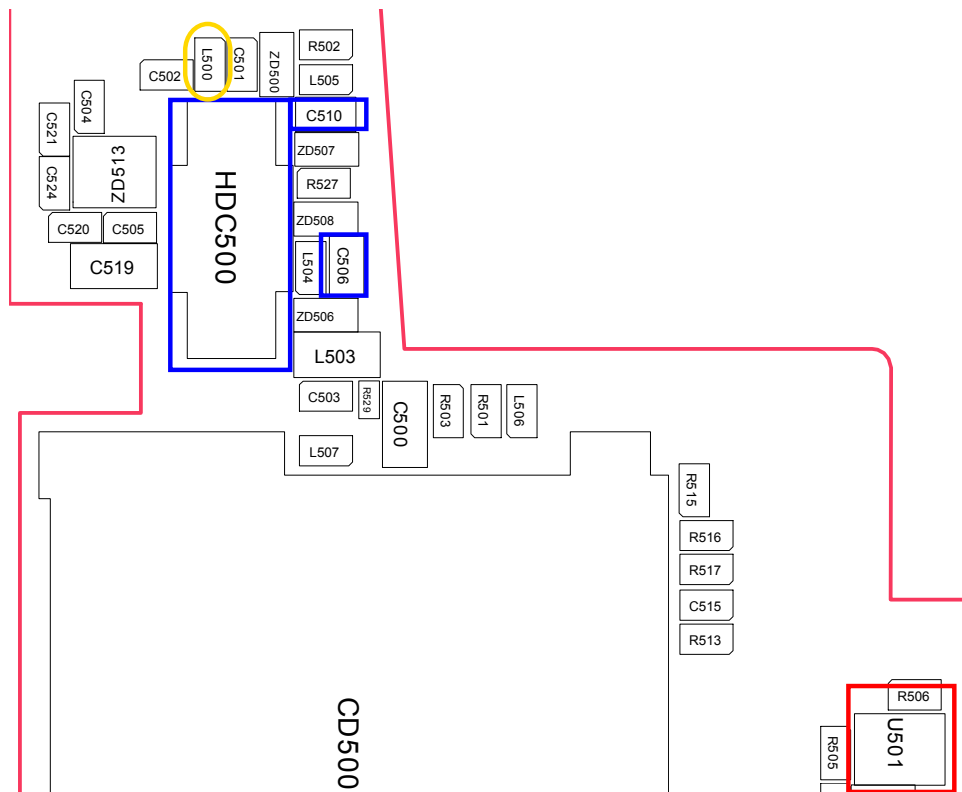


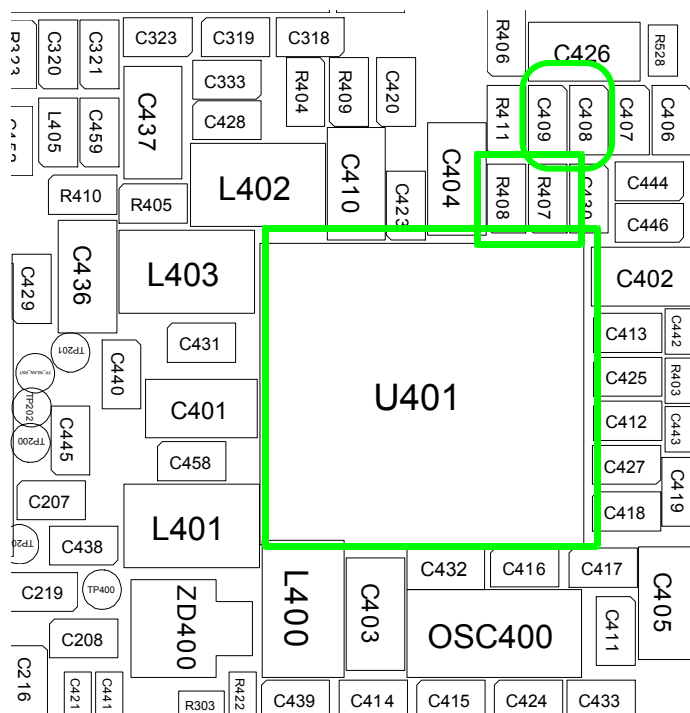
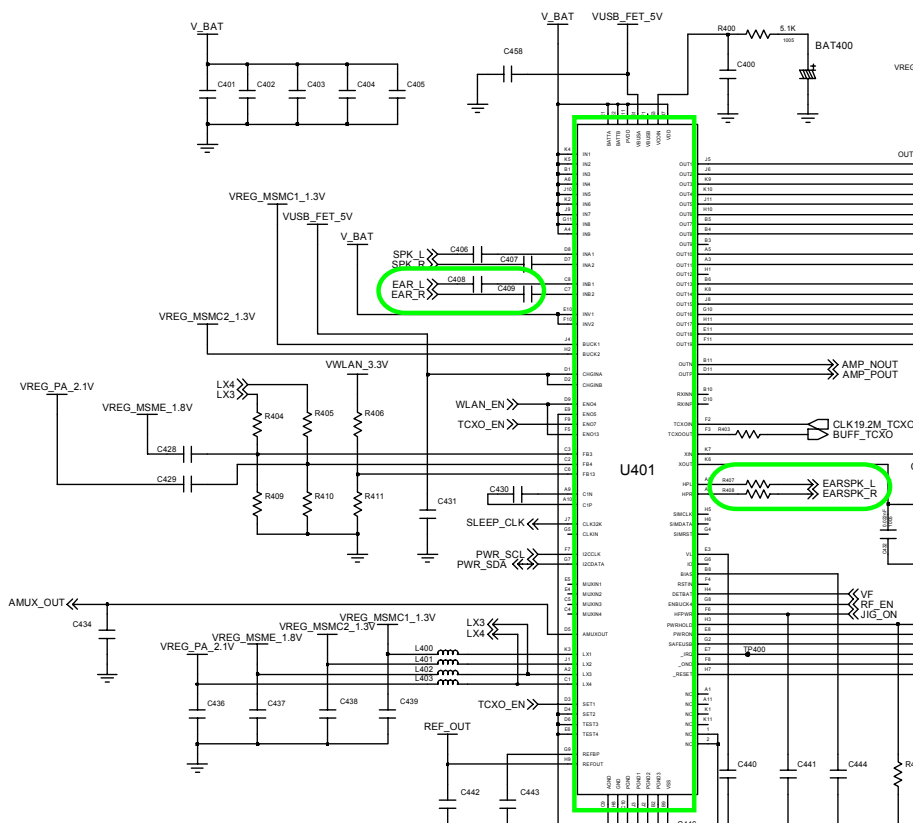


■ Stereo Headset Working



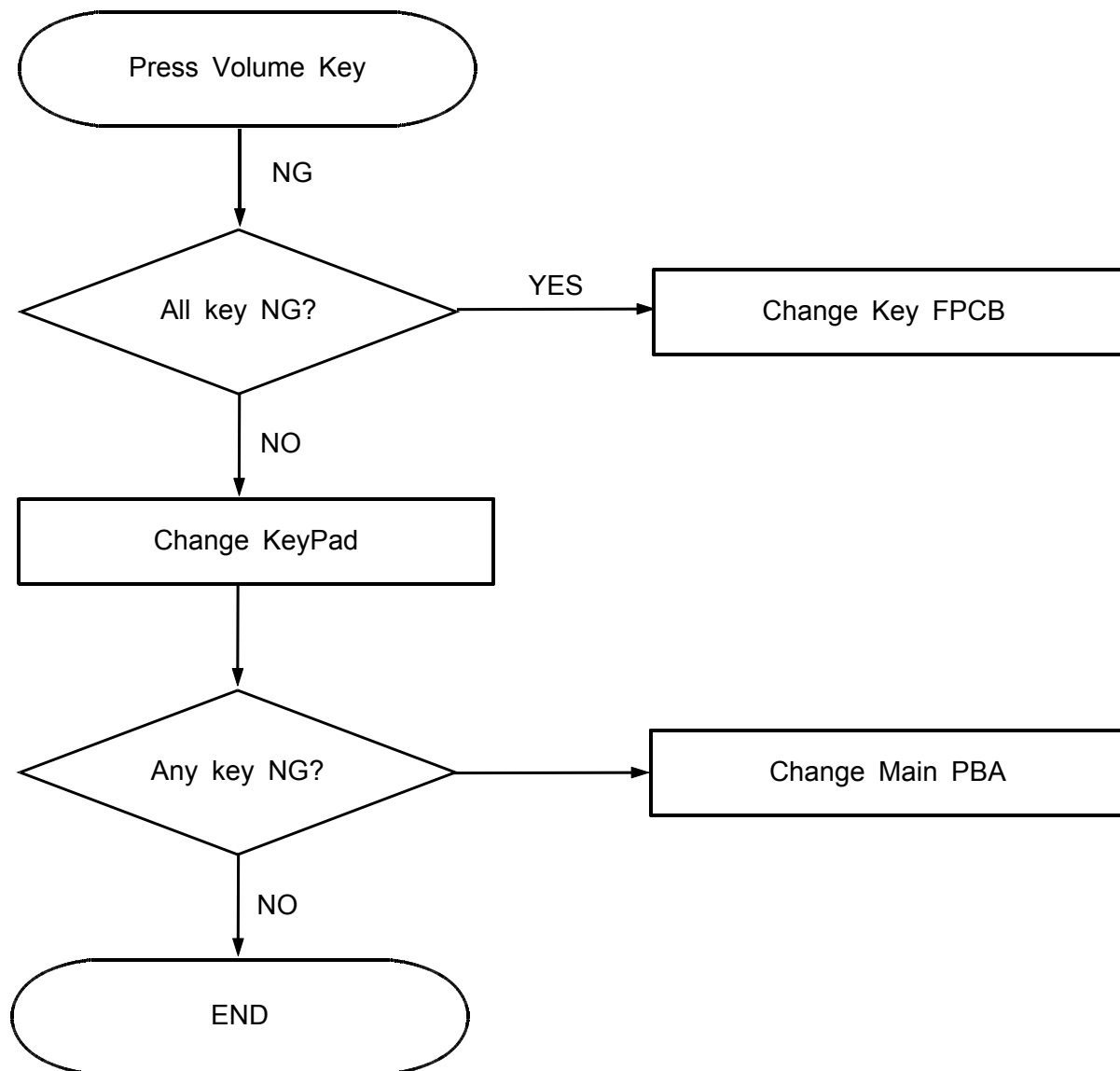




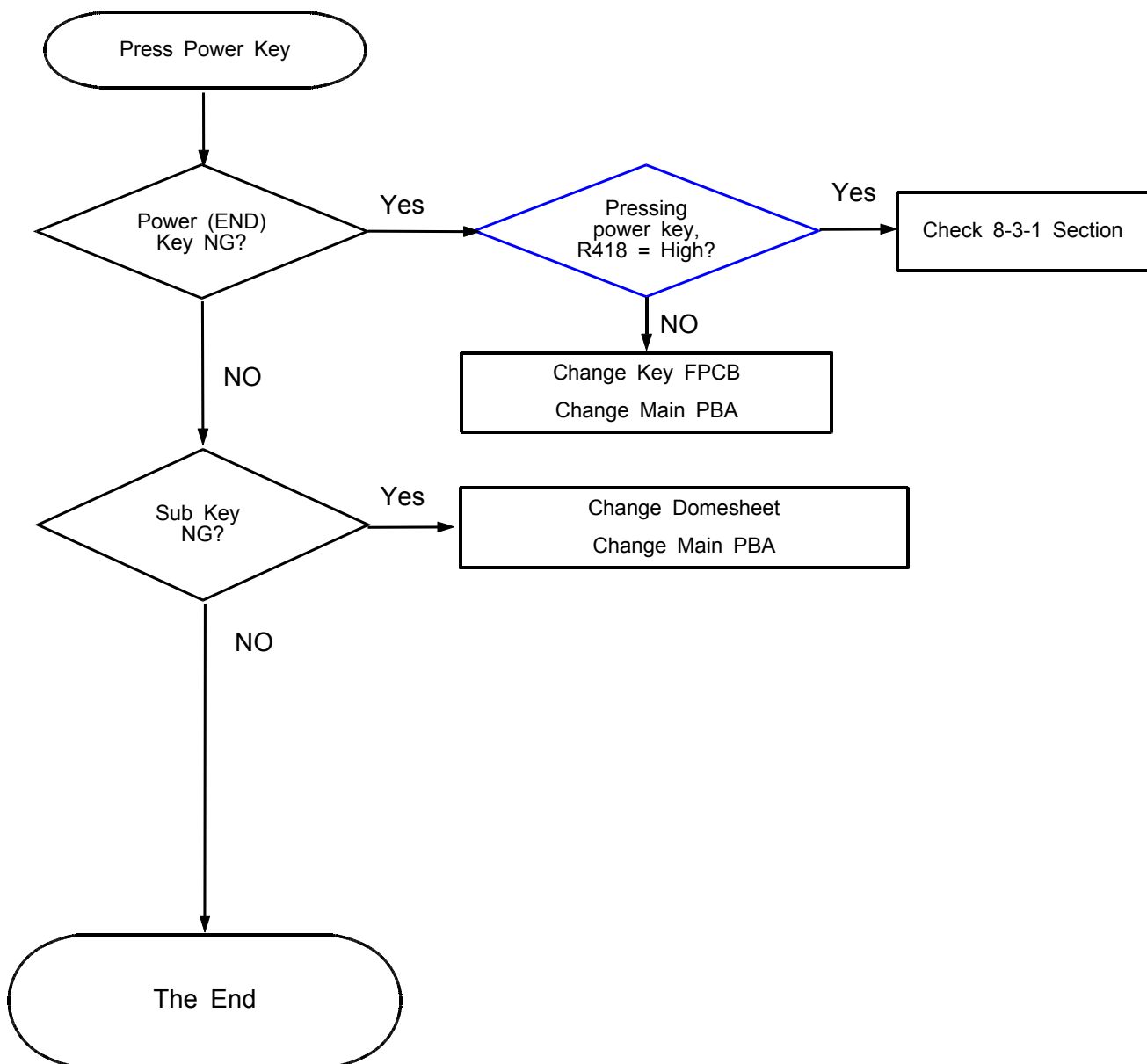


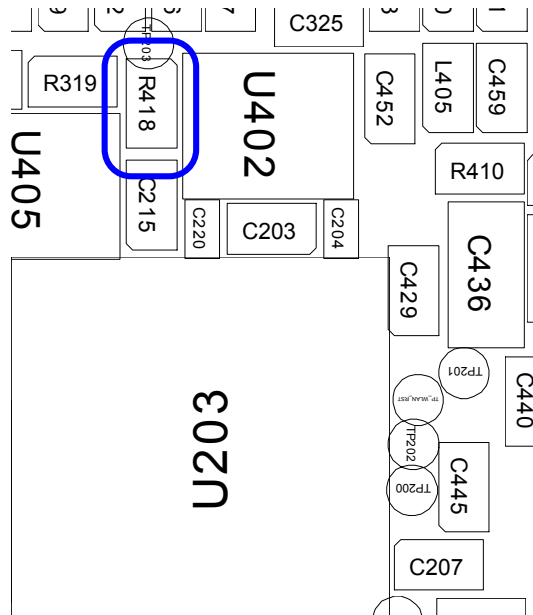
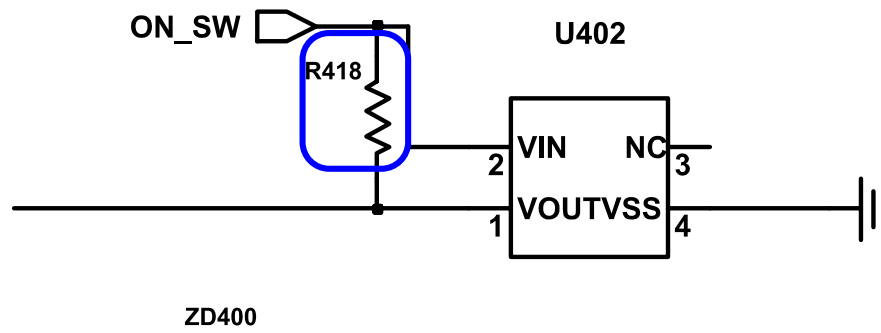
8-3-5. KEY Working

- Volume KEY

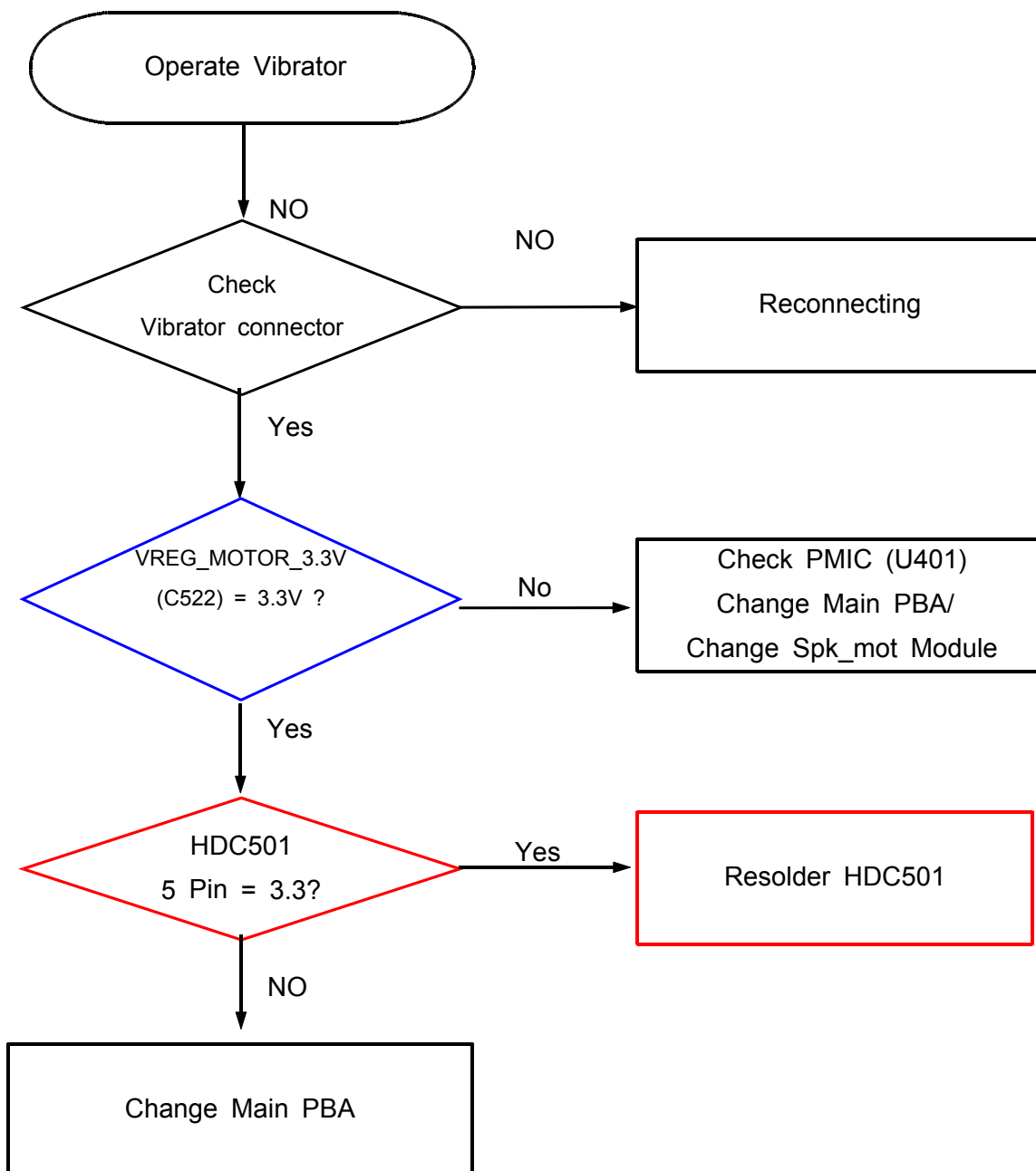


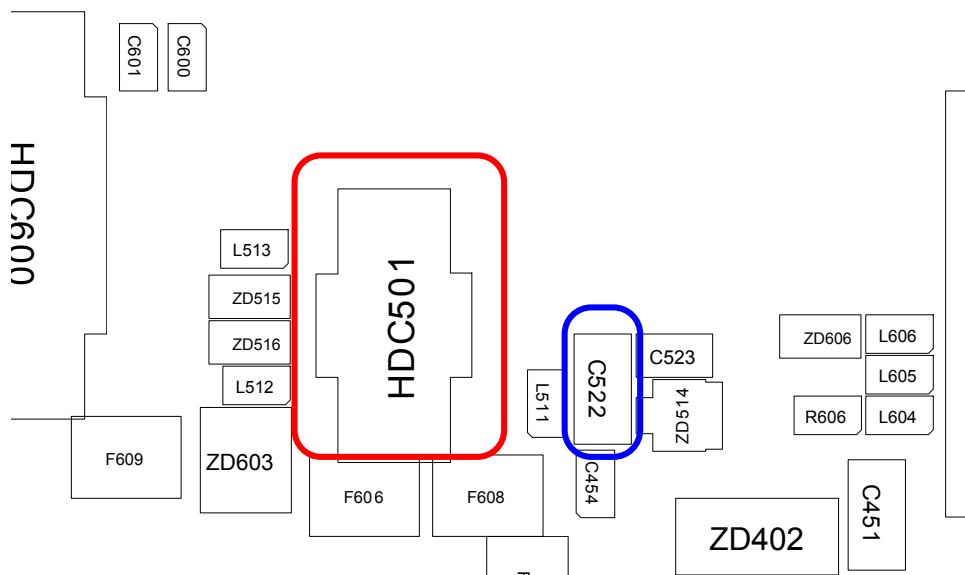
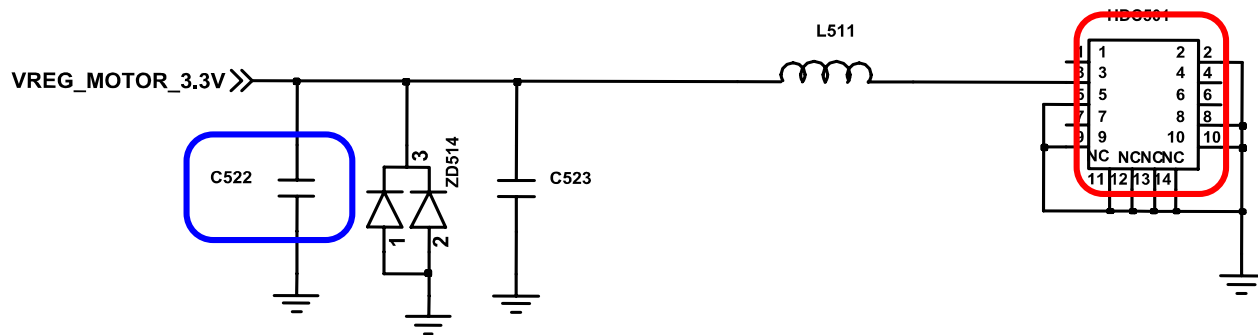
- Main Key



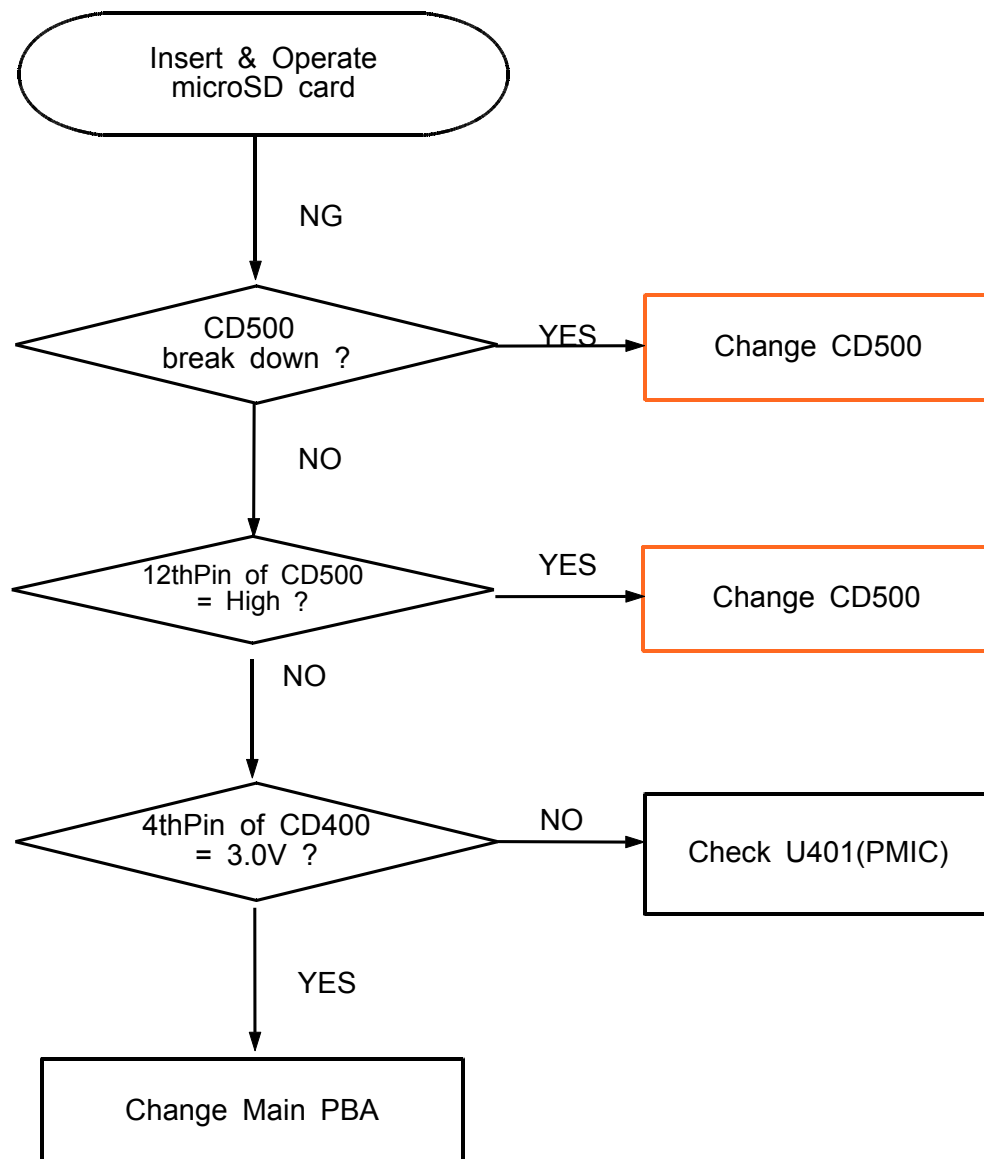


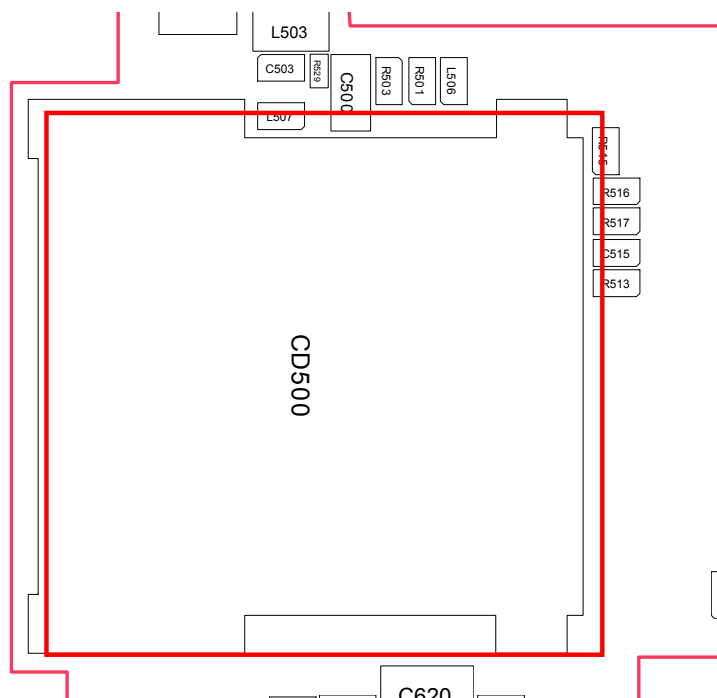
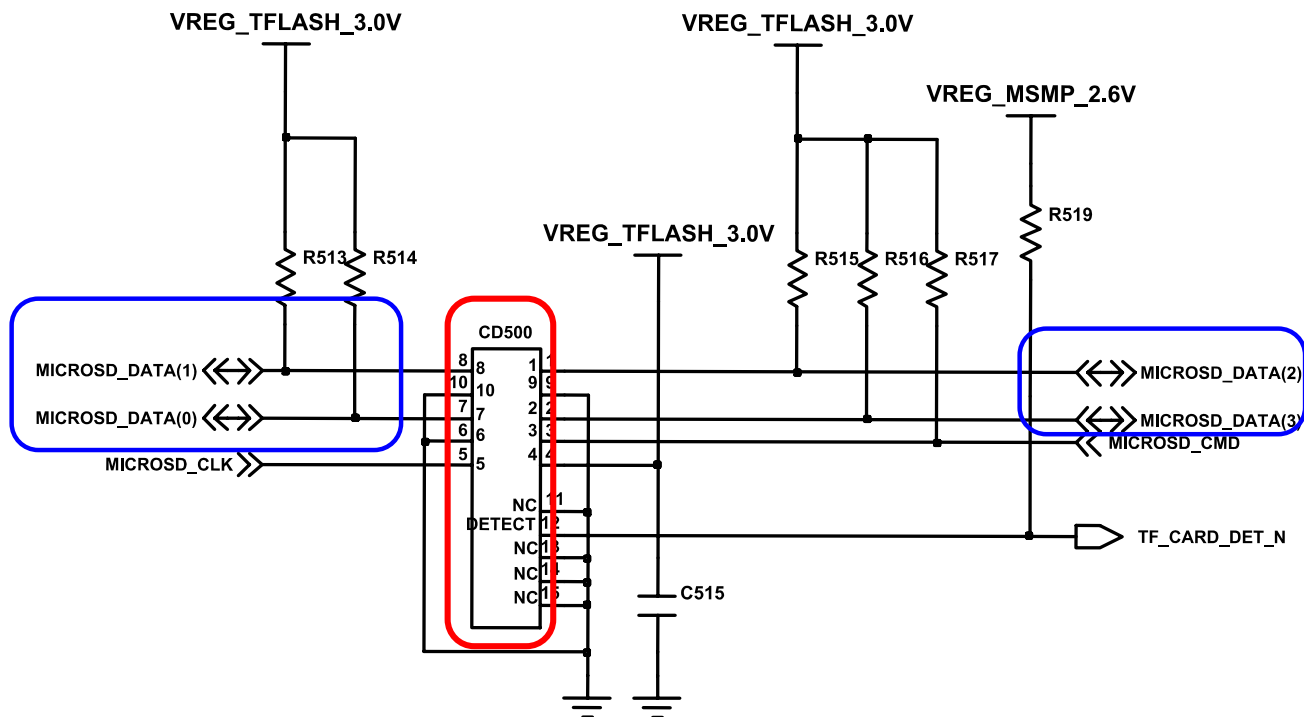
8-3-6. Vibrator Working



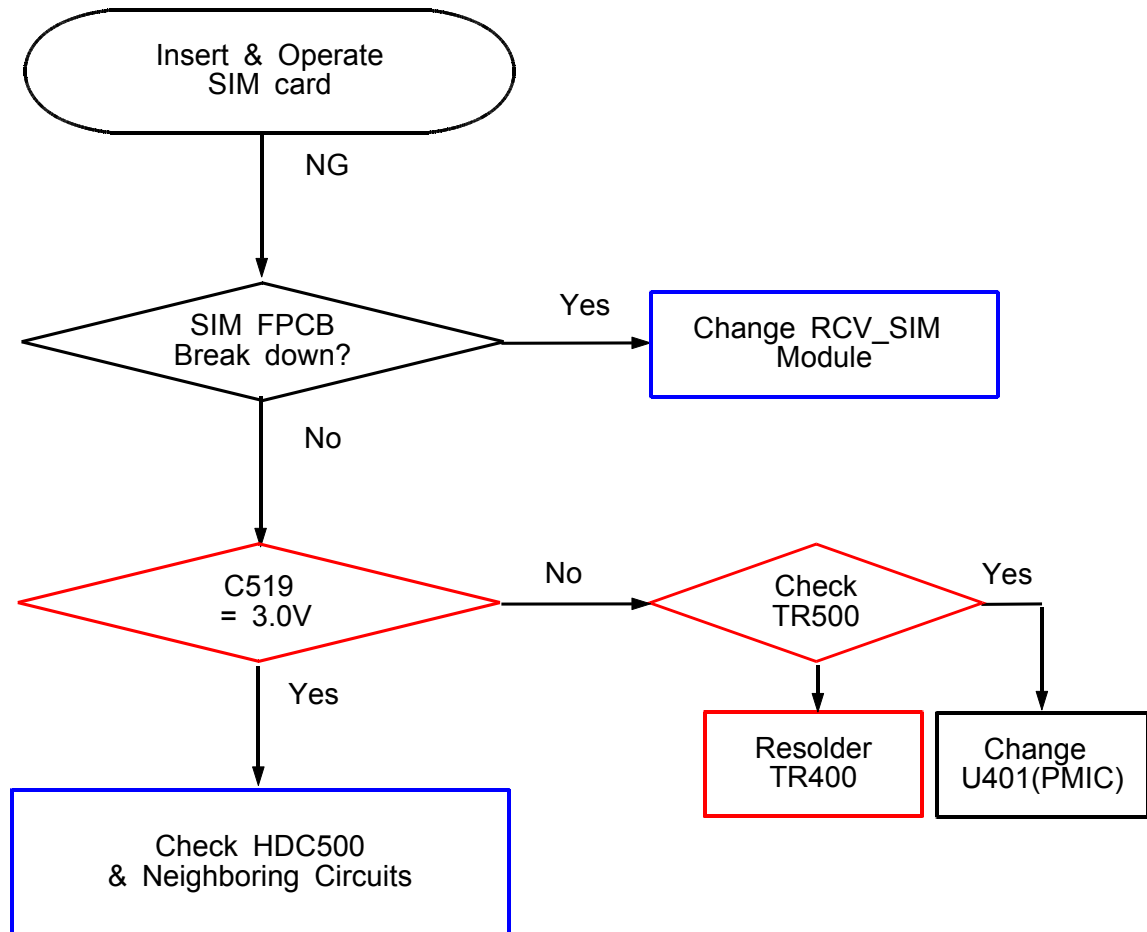


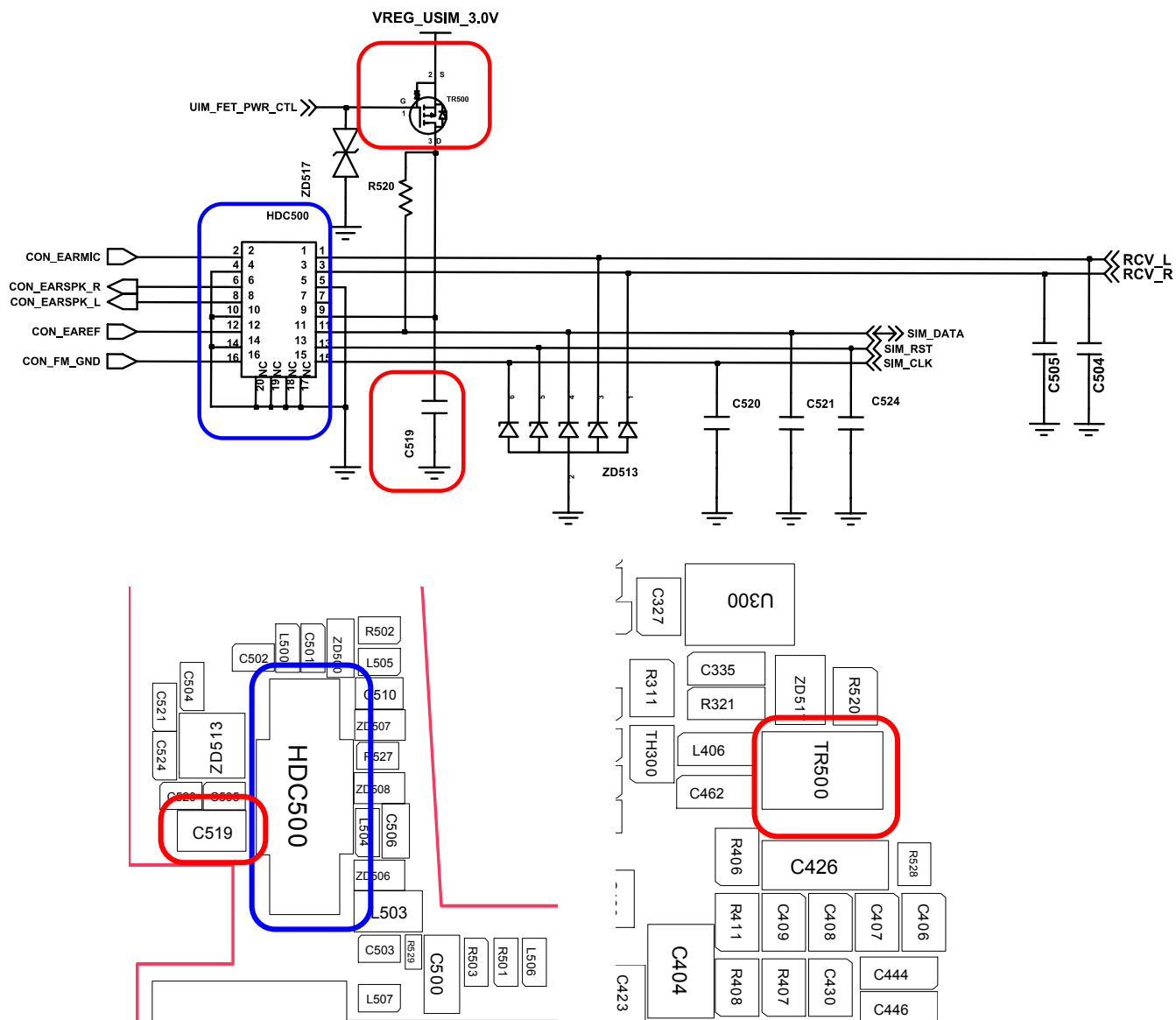
8-3-7. T-Flash Card Working

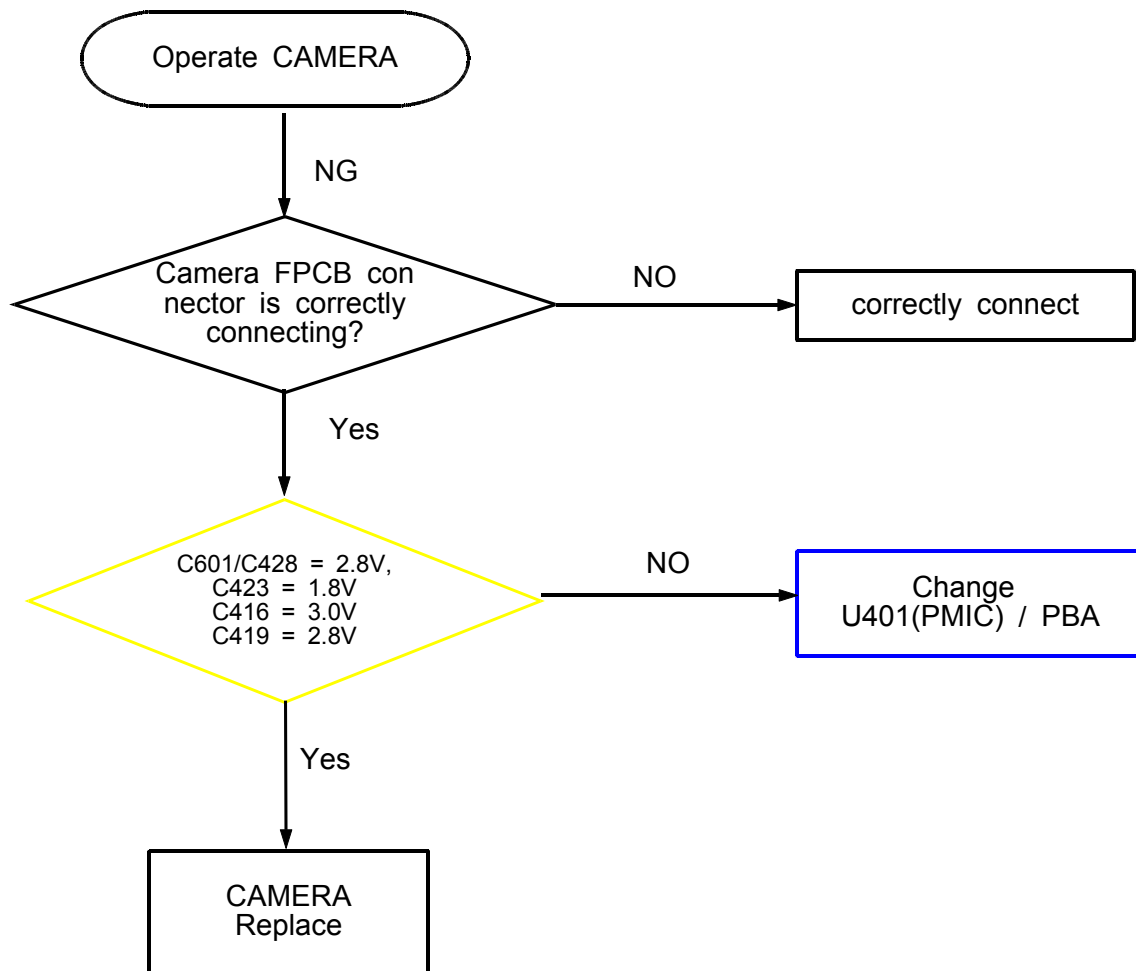


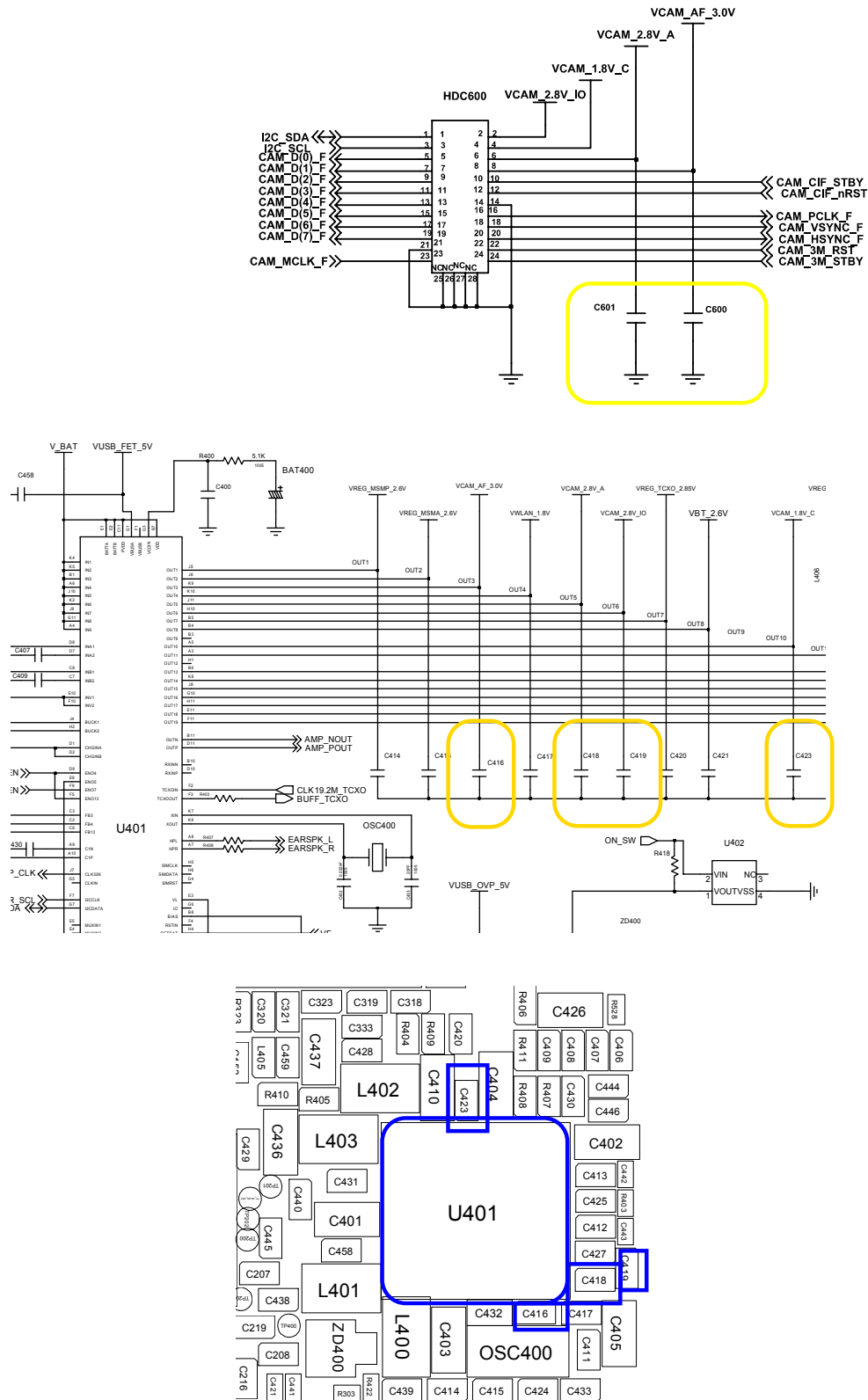


8-3-8. SIM Card Working





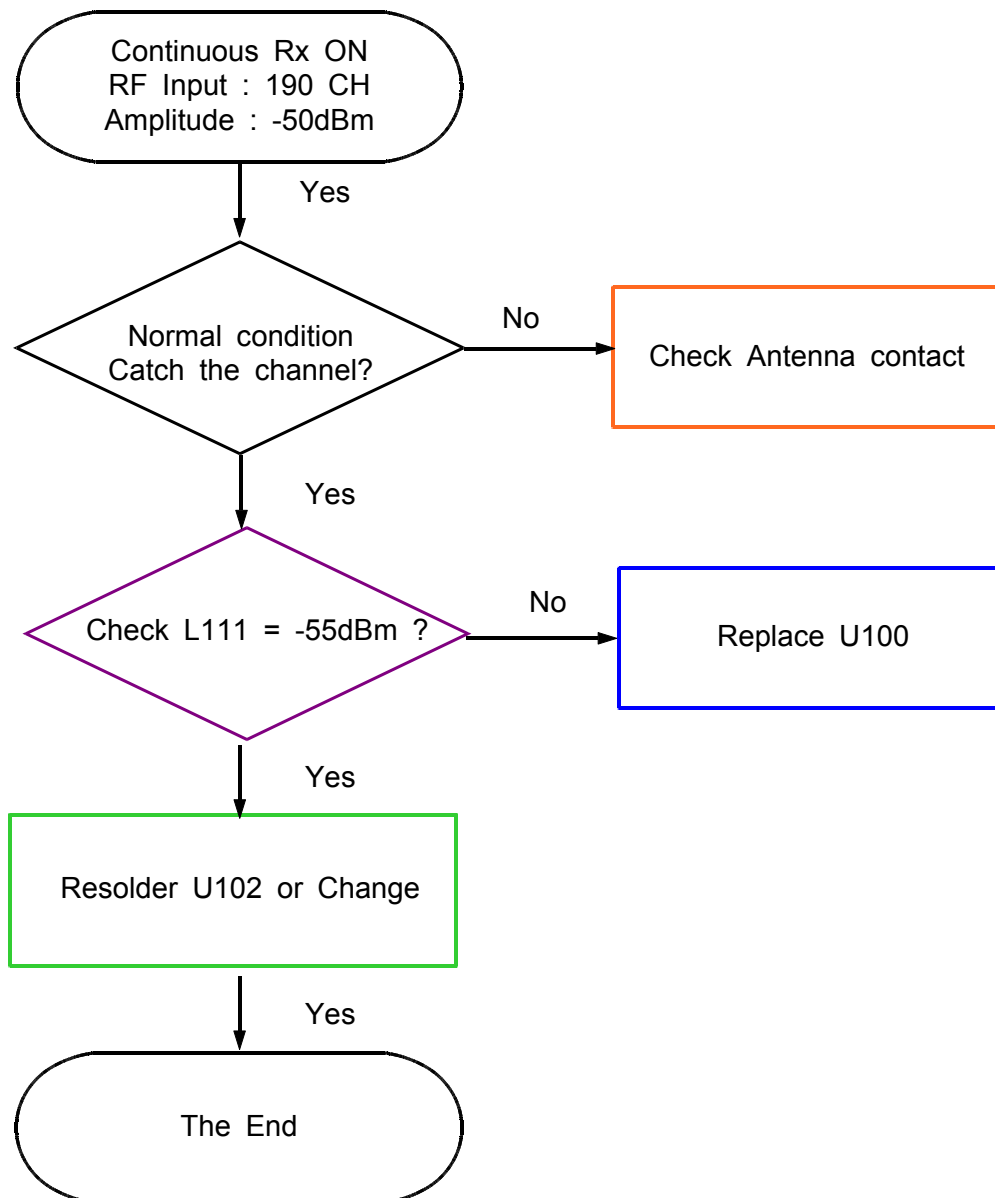
8-3-9 CAMERA Working



8-4-1. GSM850 RX

**If you check the tx chain,

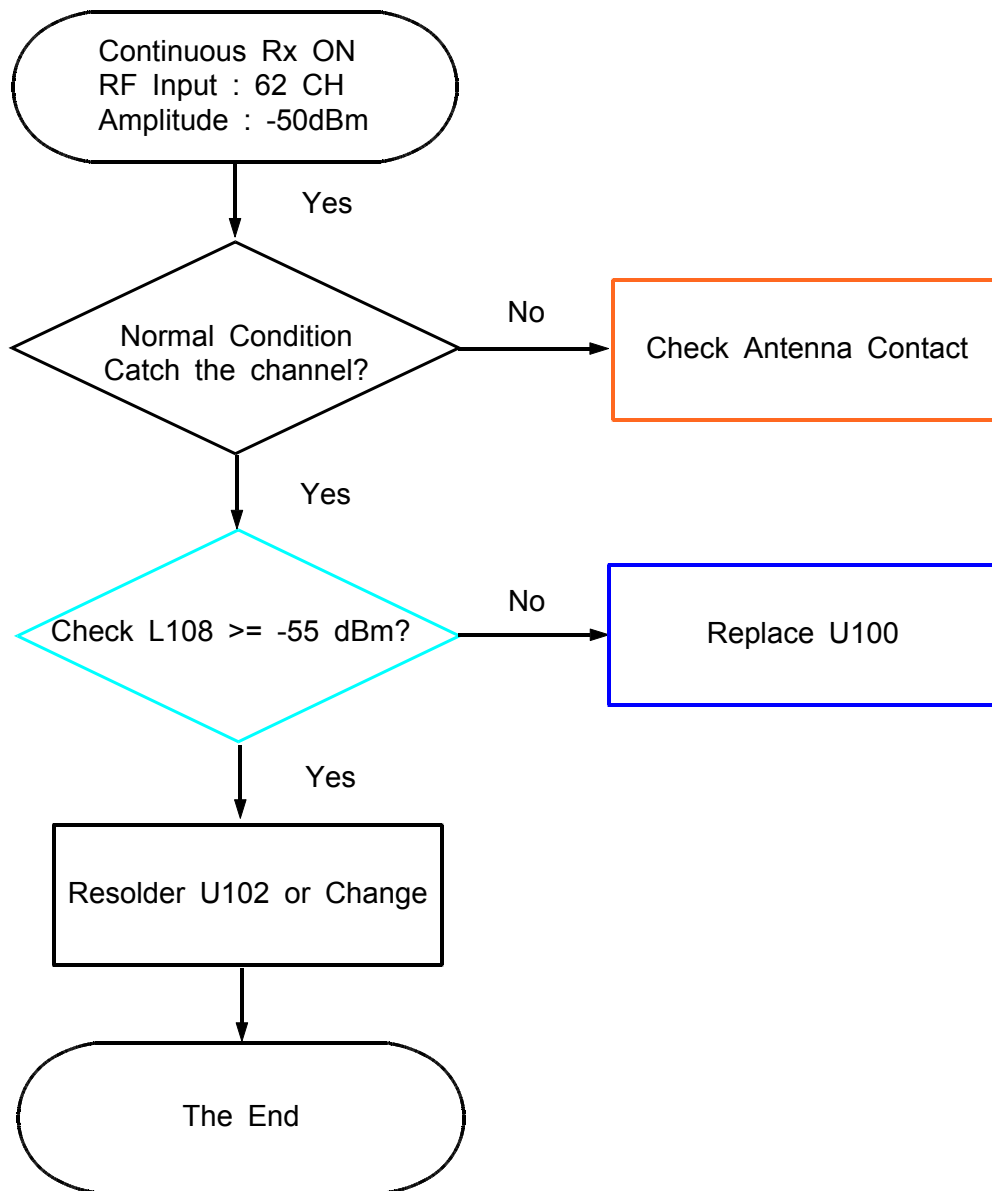
Check the not only RF Device but also resistor, inductor and capacitor.



8-4-2. GSM900 RX

**If you check the tx chain,

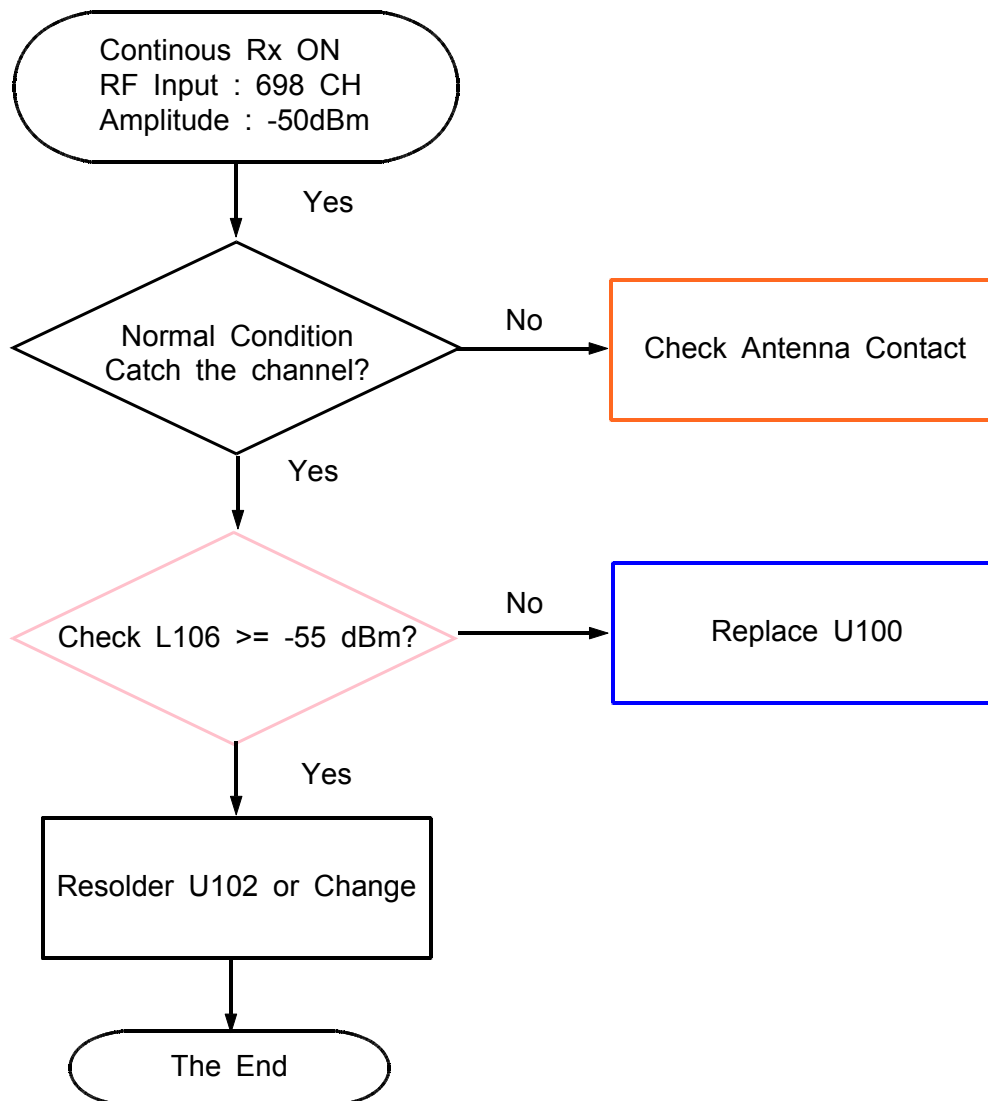
Check the not only RF Device but also resistor, inductor and capacitor.



8-4-3. DCS RX

**If you check the tx chain,

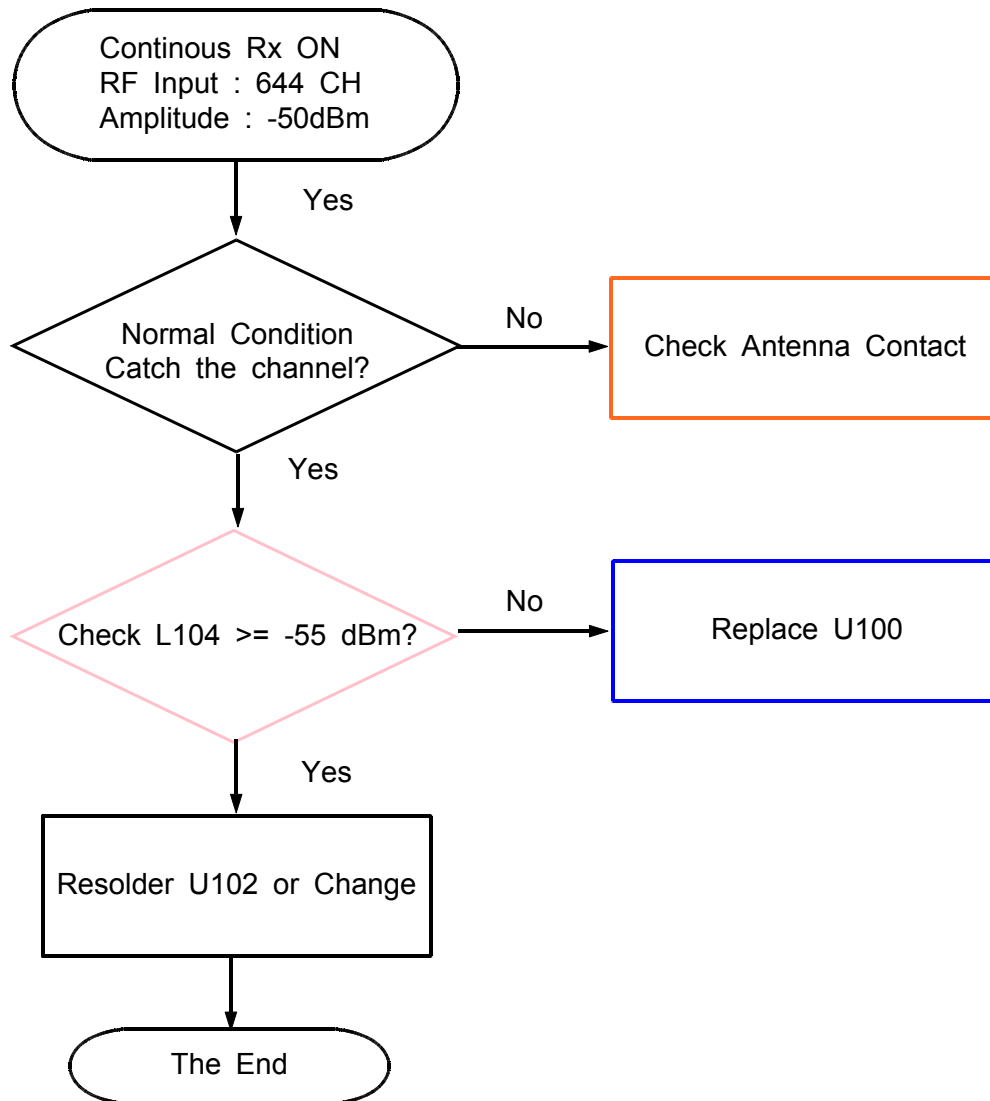
Check the not only RF Device but also resistor, inductor and capacitor.



8-4-4. PCS RX

**If you check the tx chain,

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

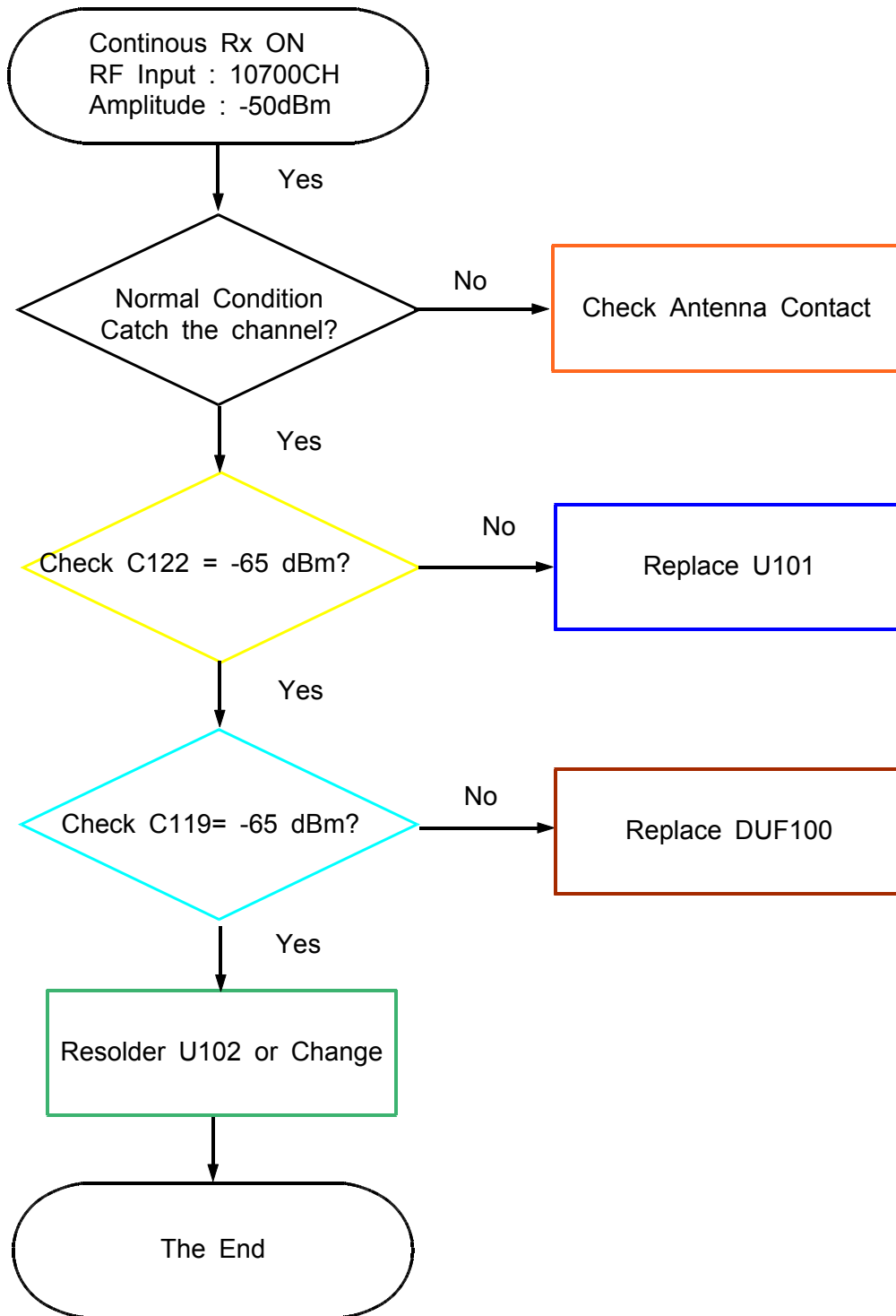




8-4-5. WCDMA Band1 RX

**If you check the tx chain,

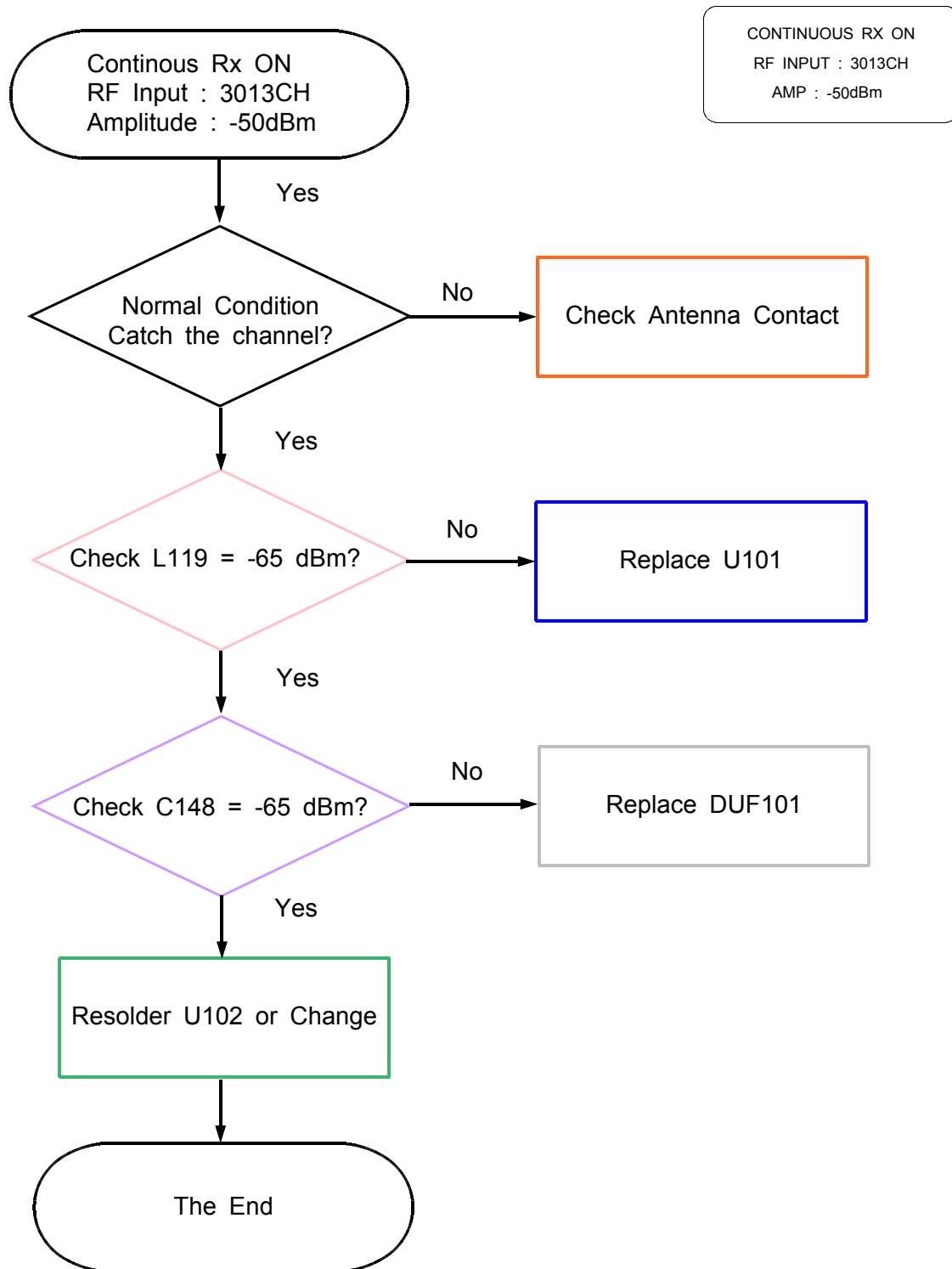
Check the not only RF Device but also resistor, inductor and capacitor.

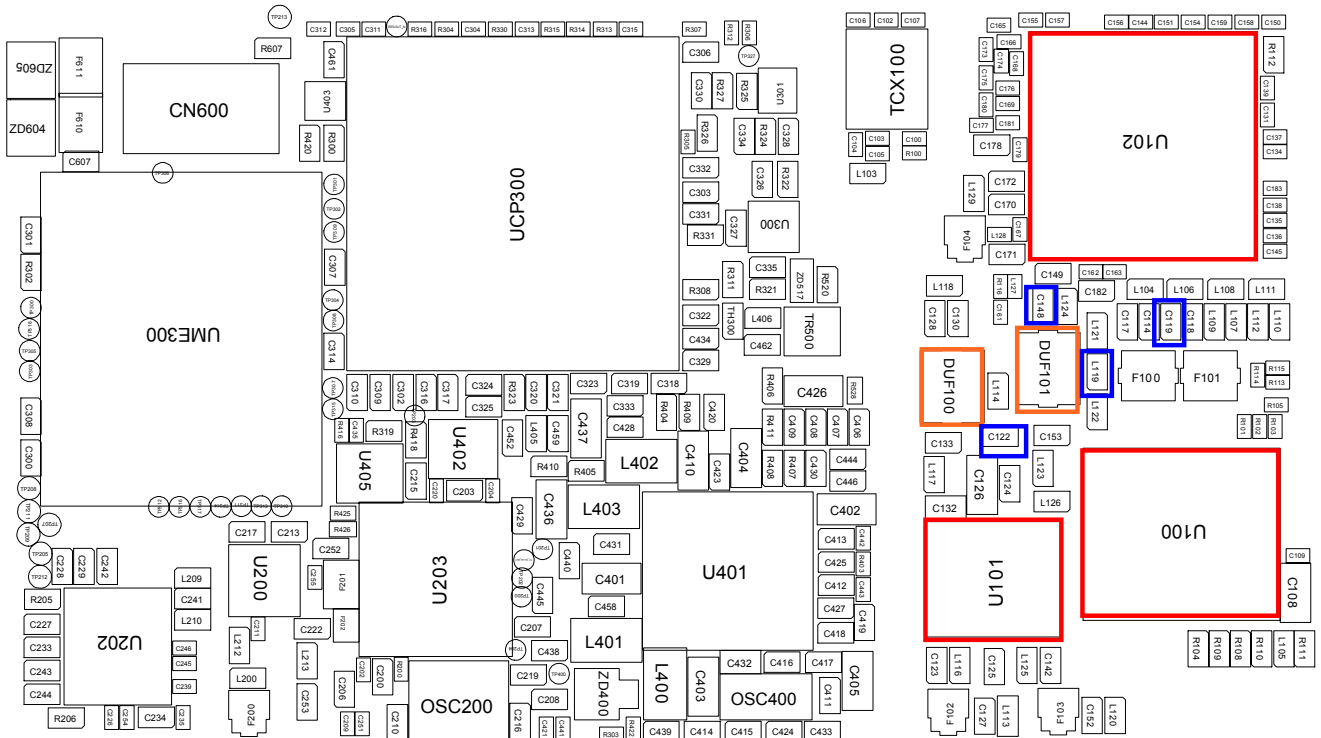
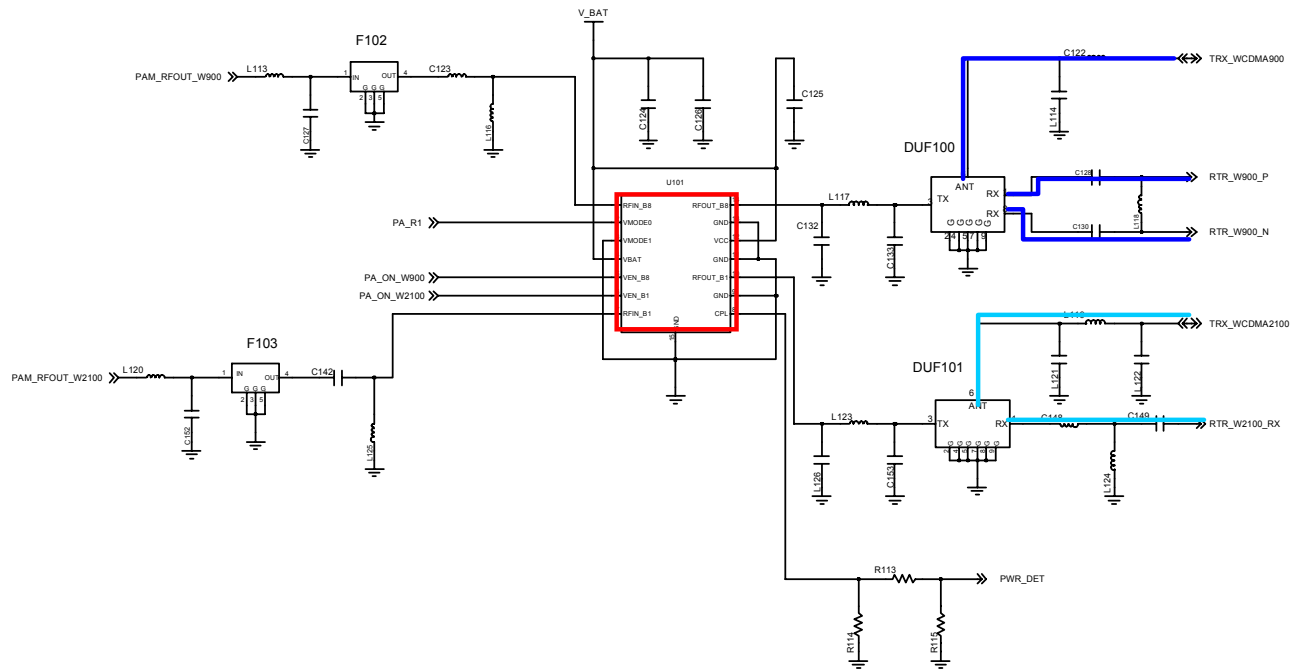


8-4-6. WCDMA Band8 RX

**If you check the tx chain,

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

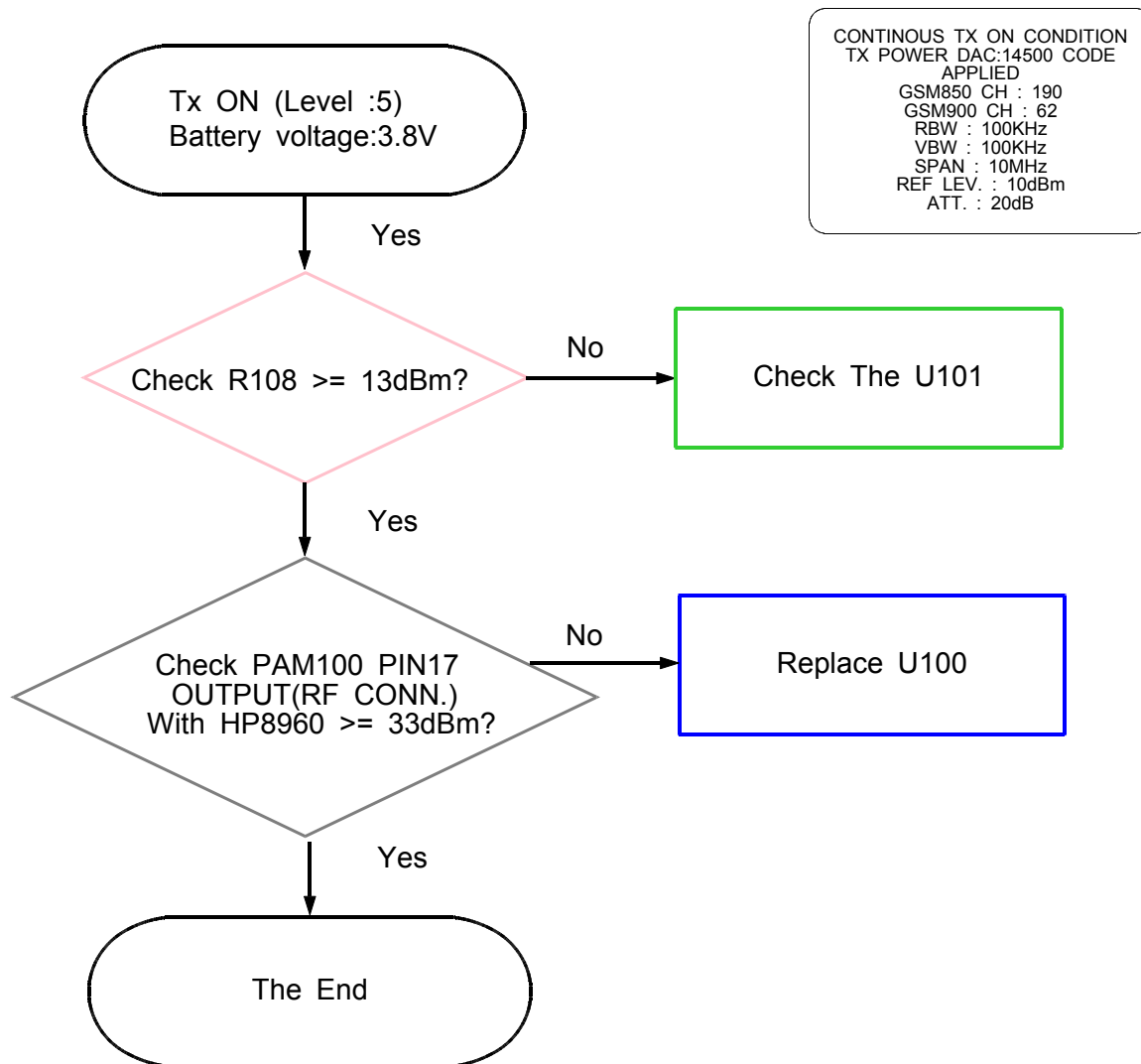




8-4-7. GSM850/900 TX

**If you check the tx chain,

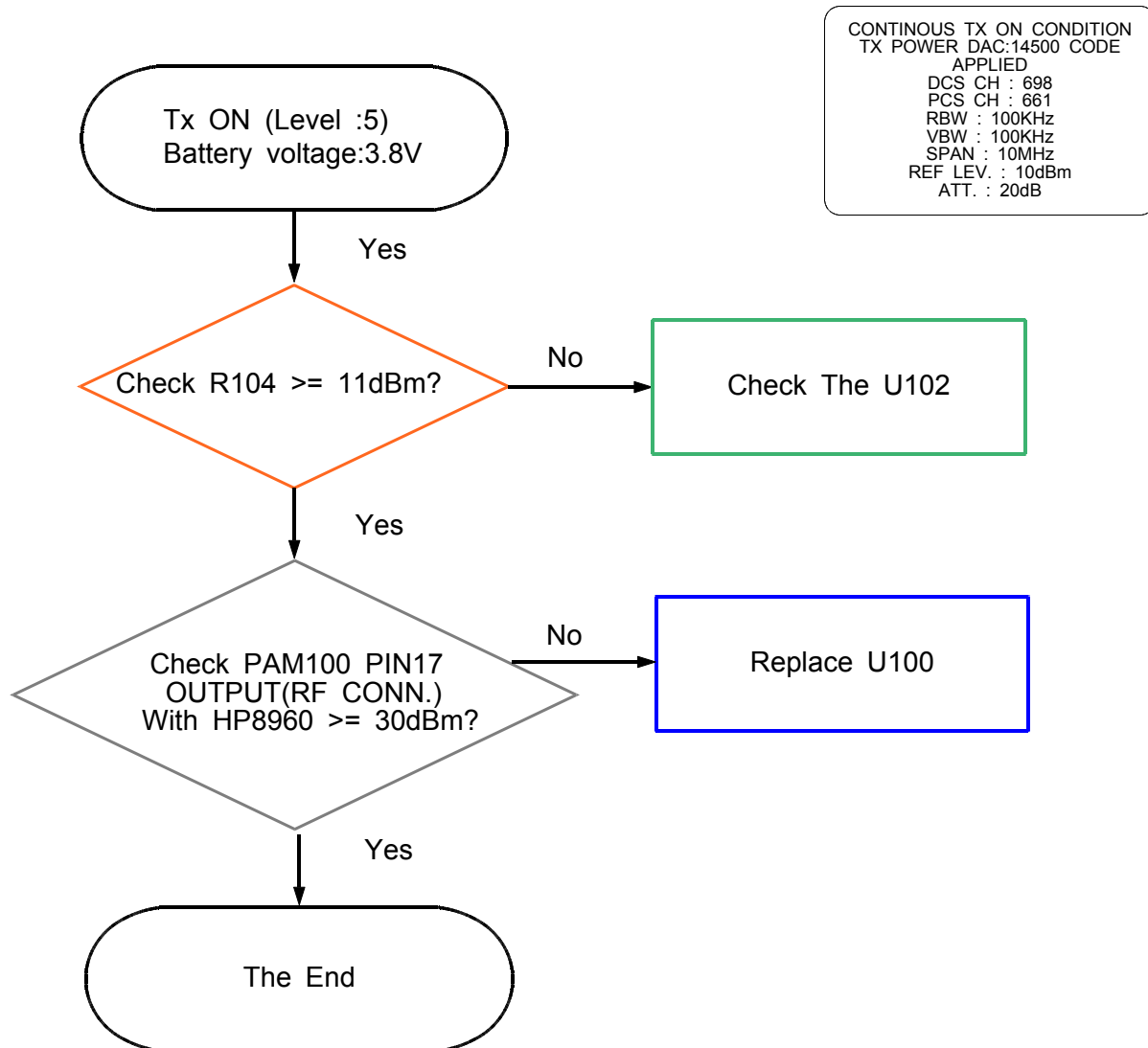
Check the not only RF Device but also resistor, inductor and capacitor.

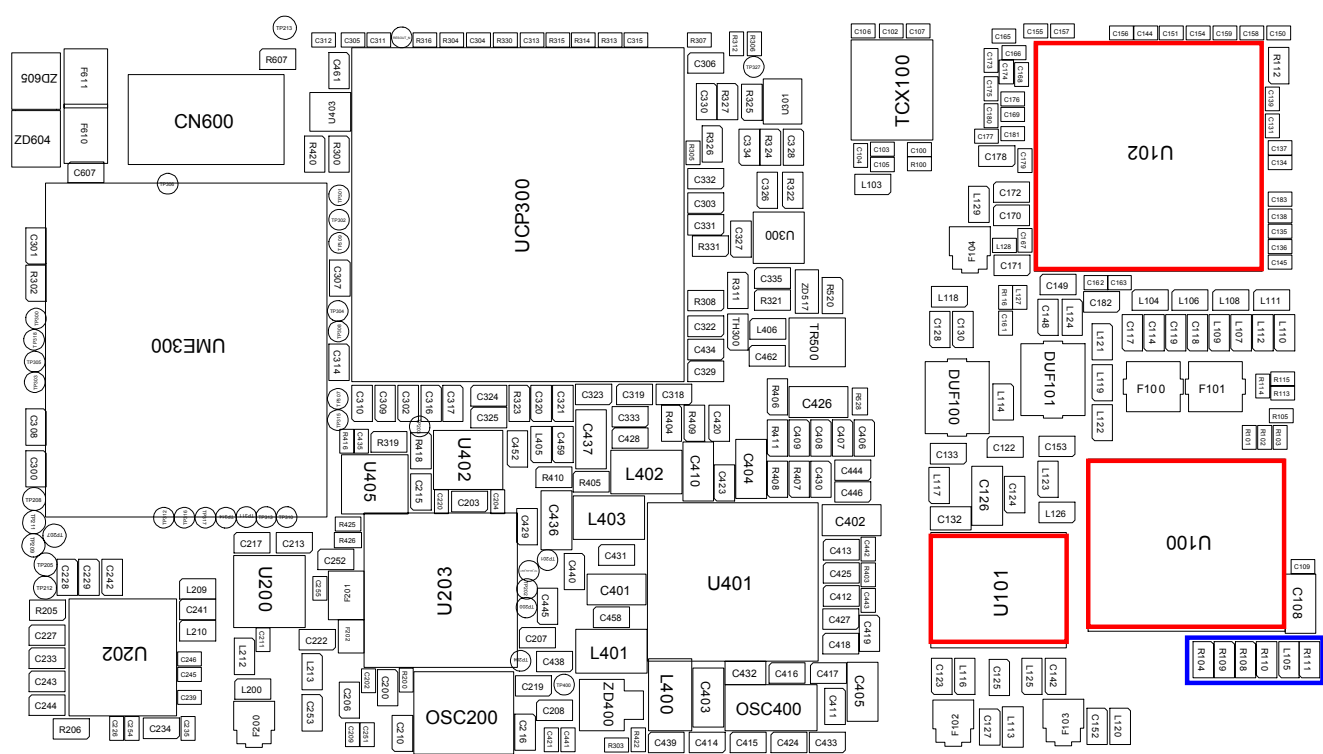


8-4-8. DCS/PCS TX

**If you check the tx chain,

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

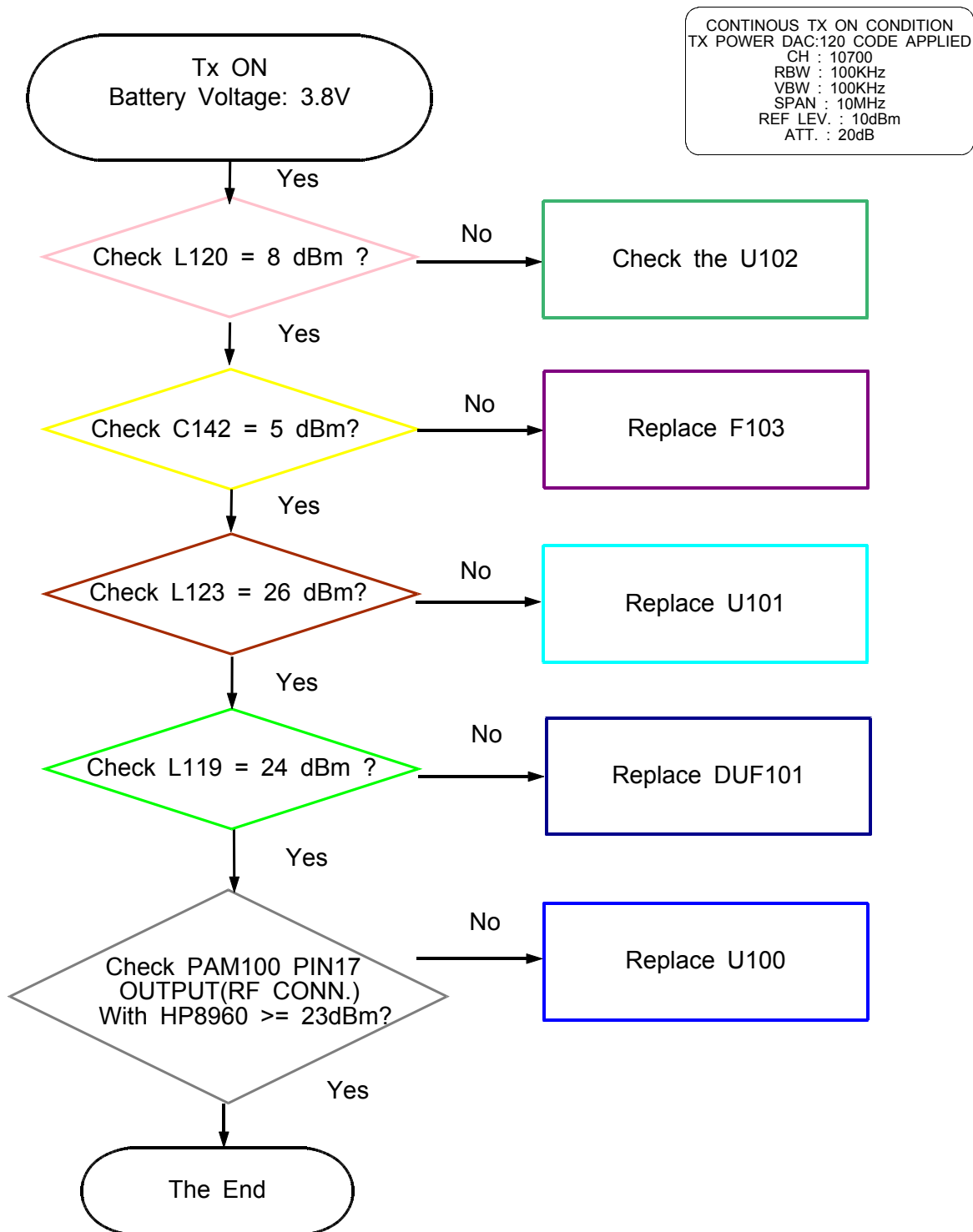




8-4-9. WCDMA Band1 TX

**If you check the tx chain,

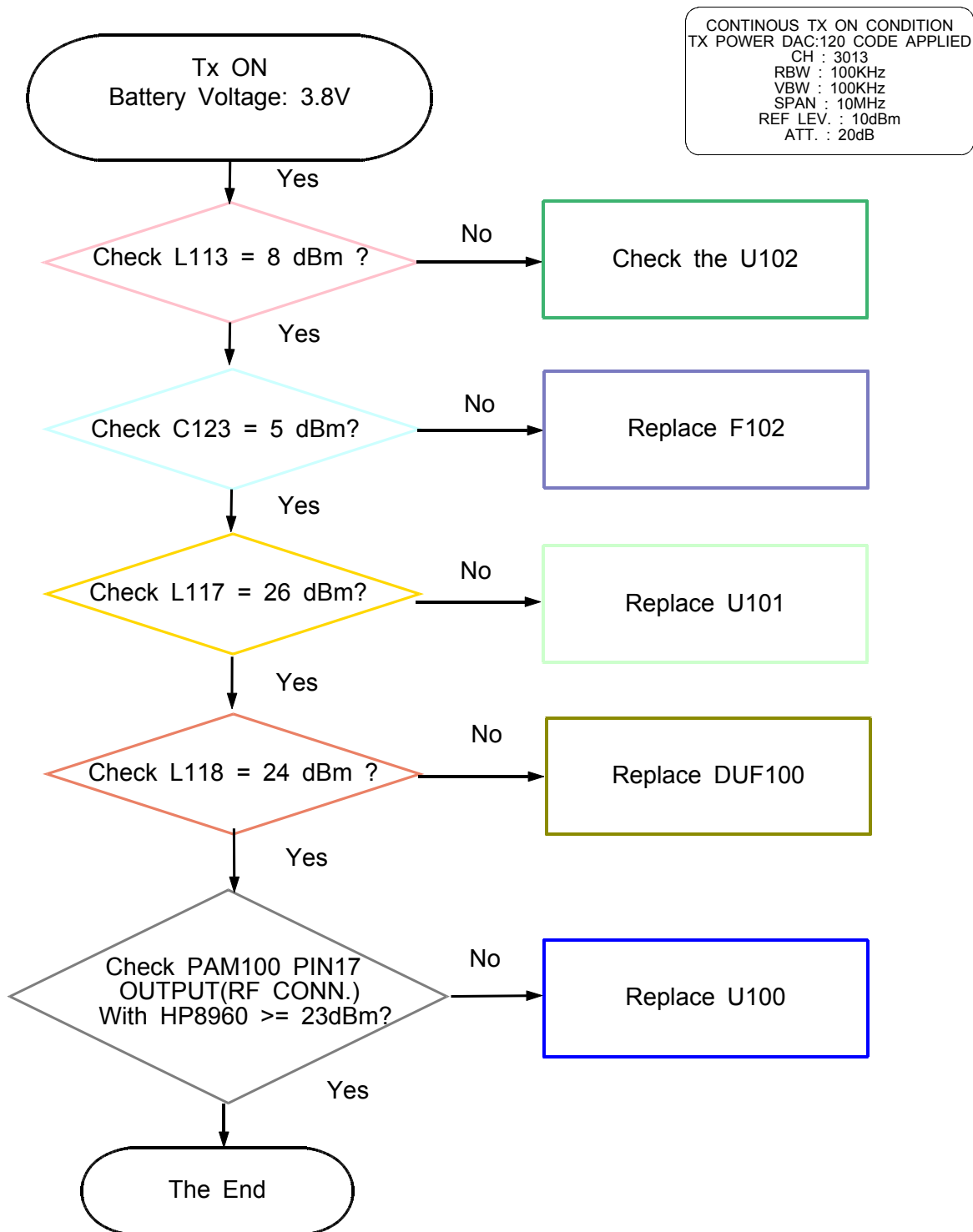
Check the not only RF Device but also resistor, inductor and capacitor.

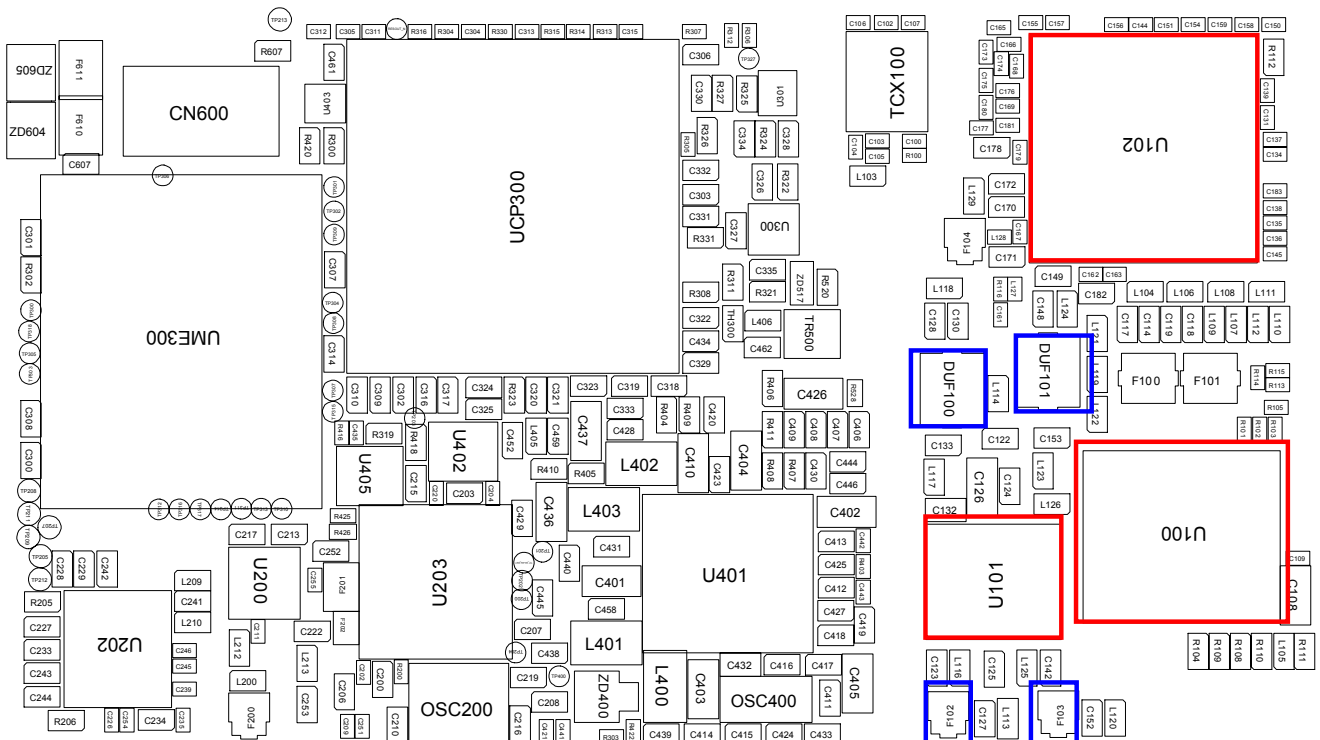
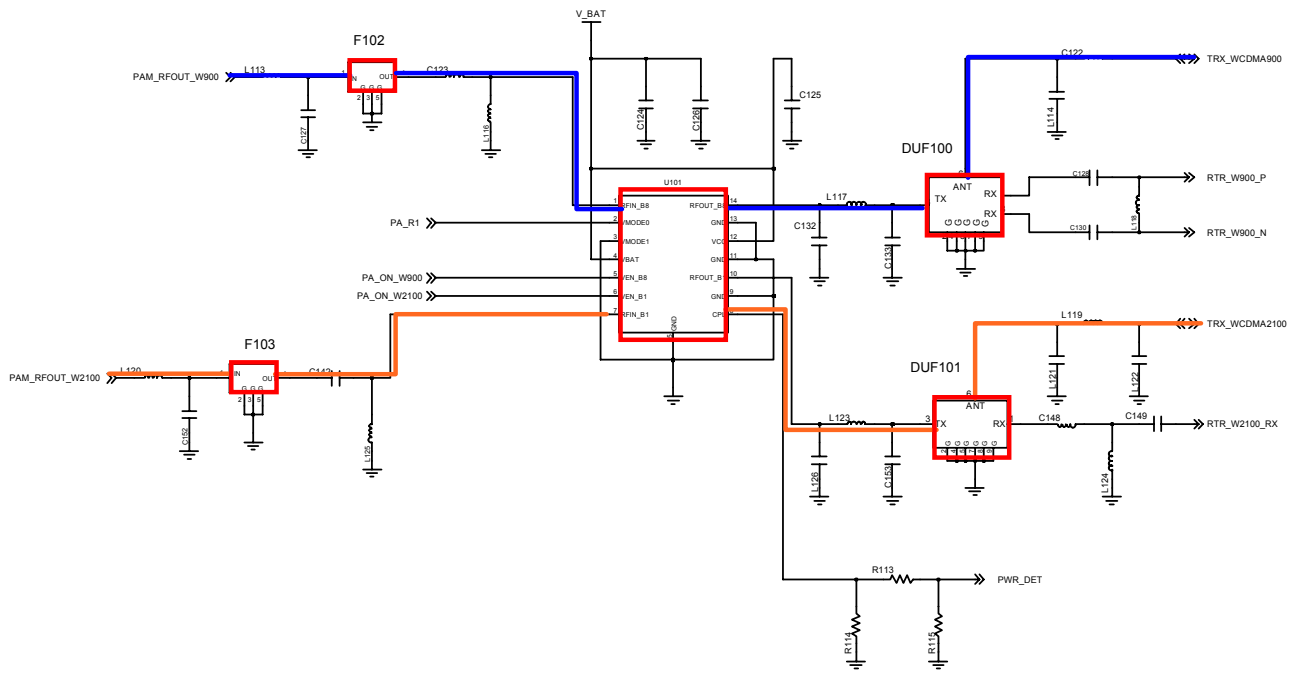


8-4-10. WCDMA Band8 TX

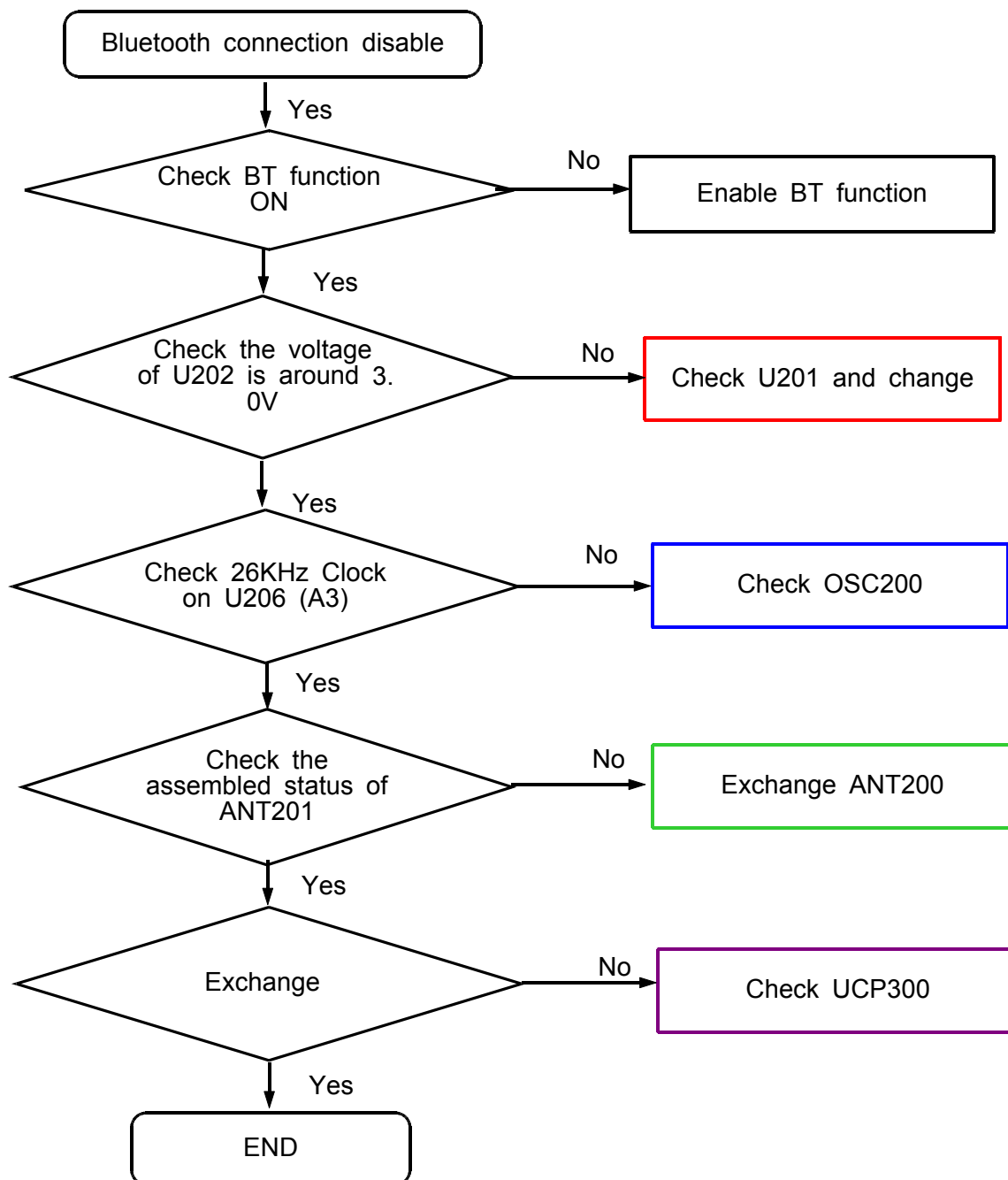
**If you check the tx chain,

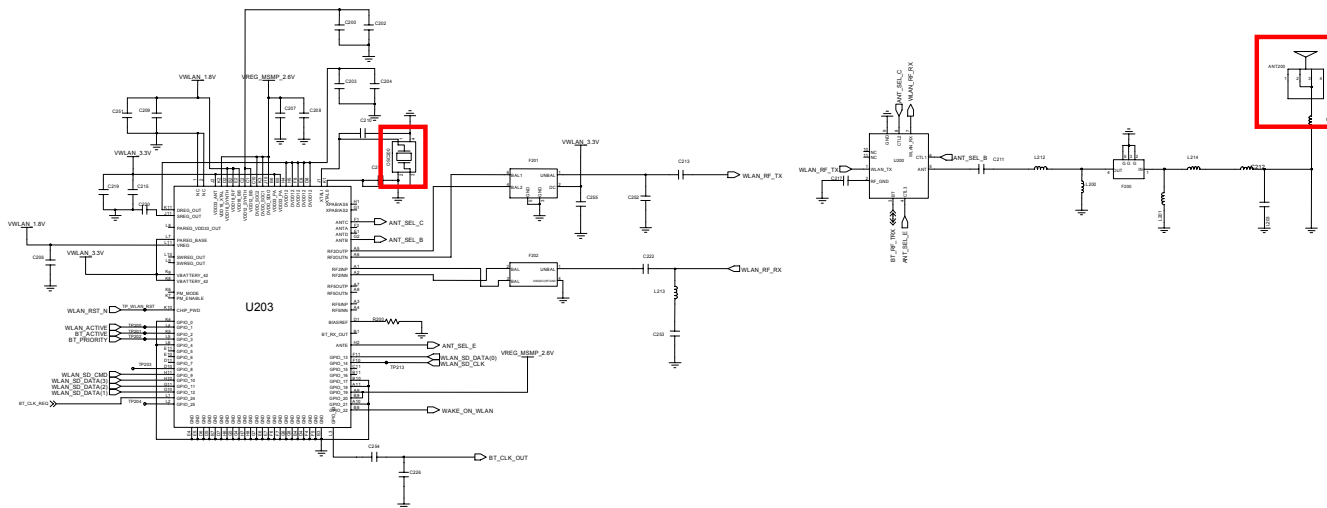
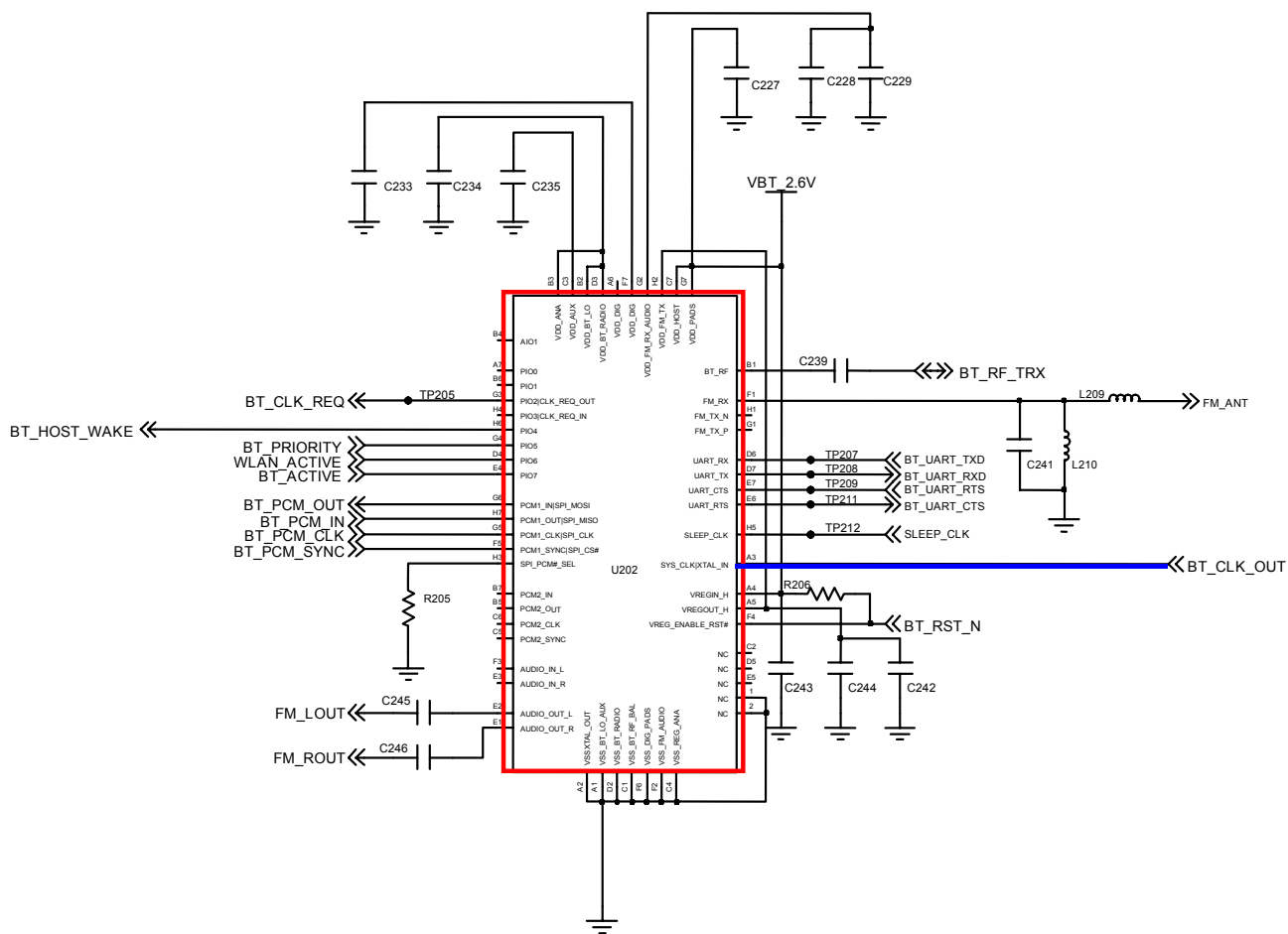
Check the not only RF Device but also resistor, inductor and capacitor.

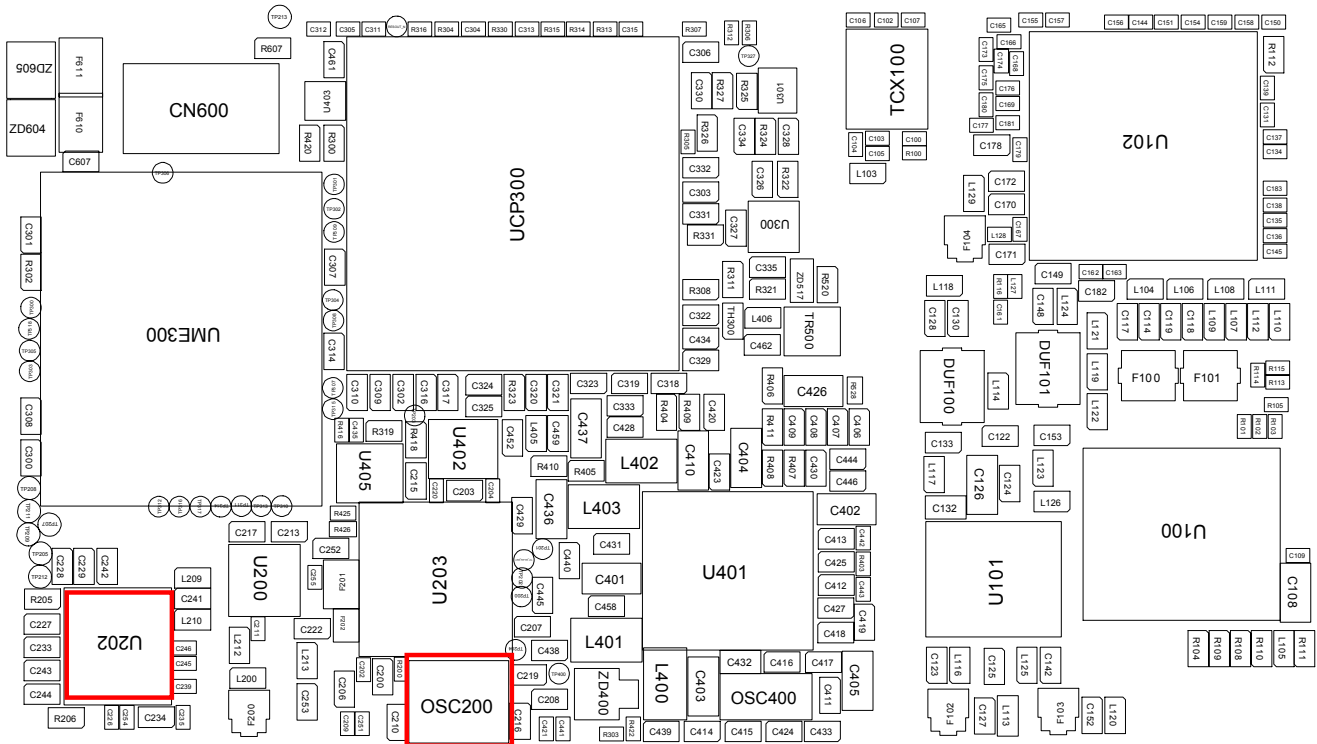




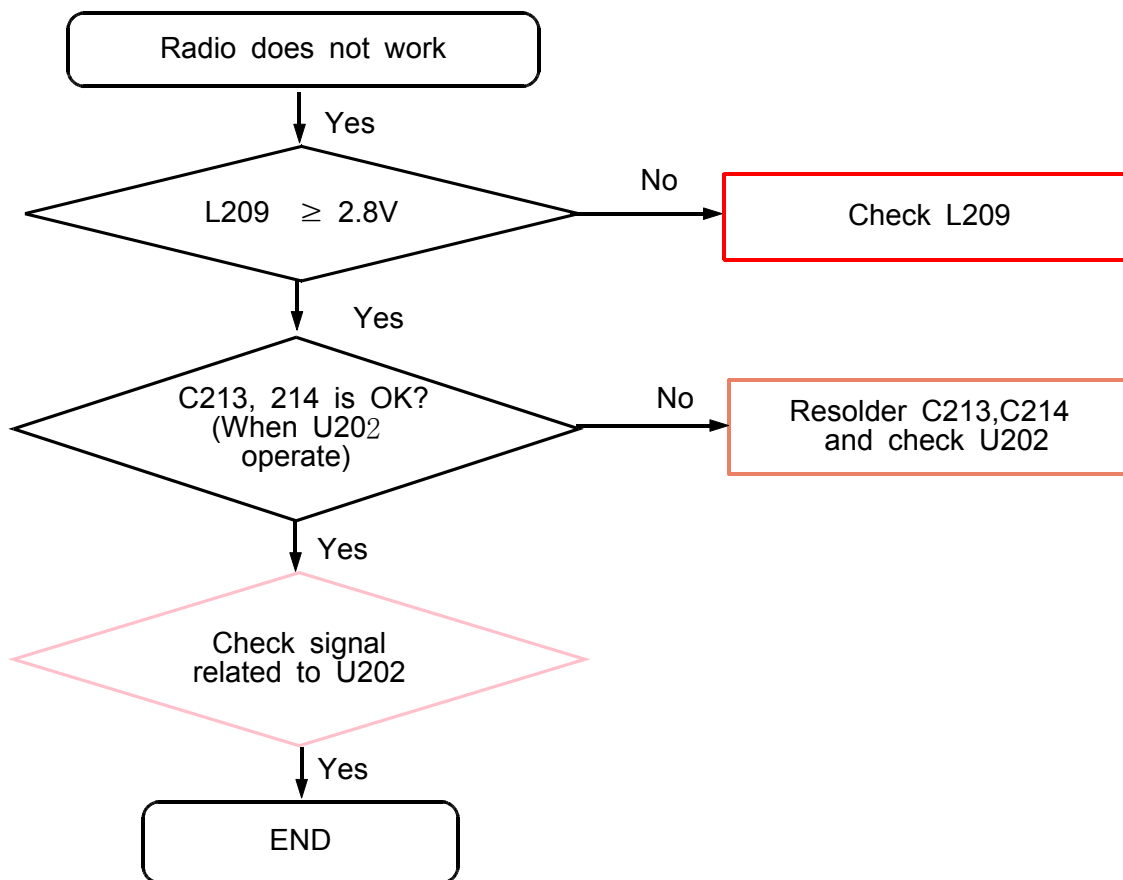
8-4-11. BLUETOOTH



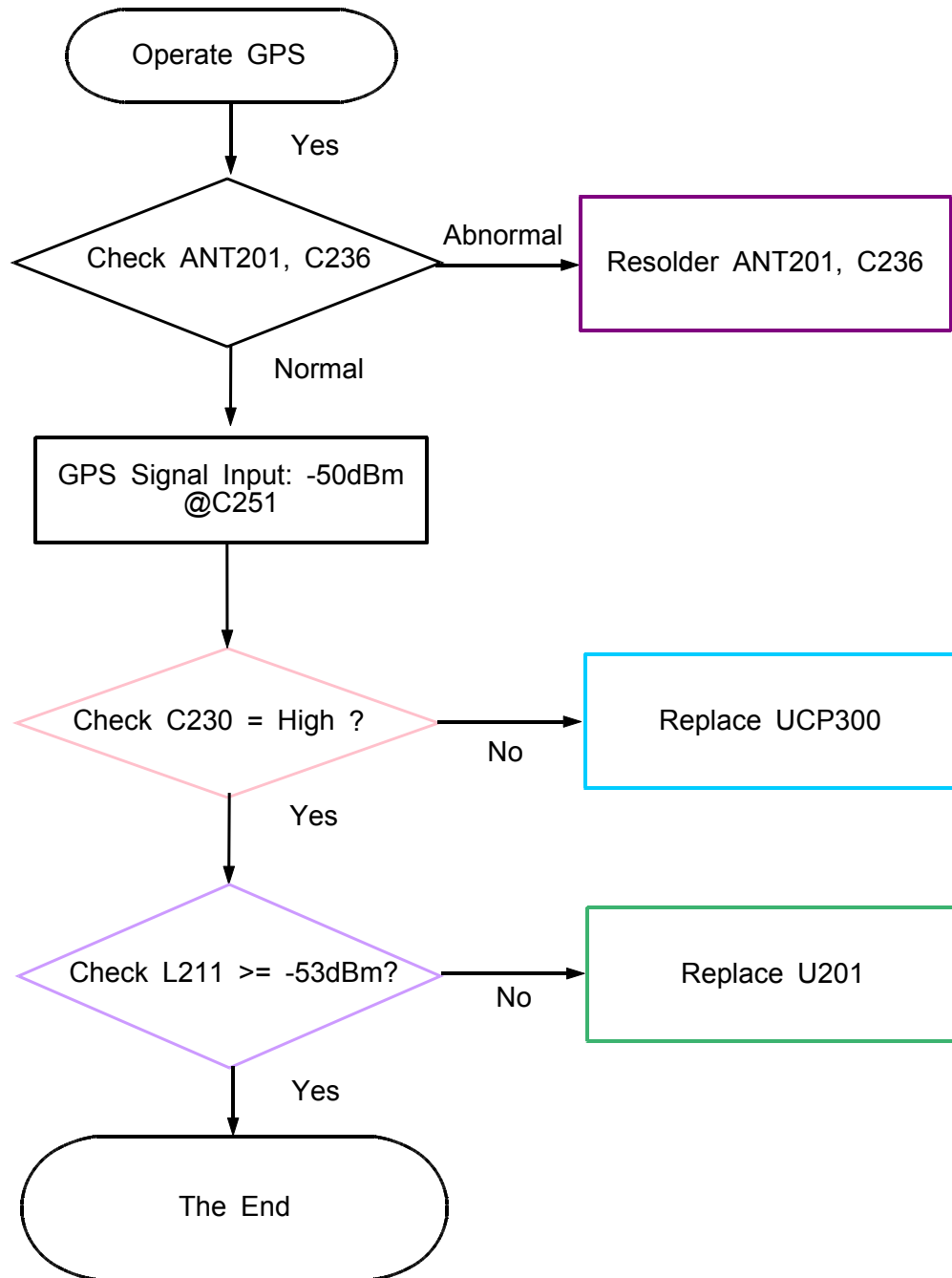


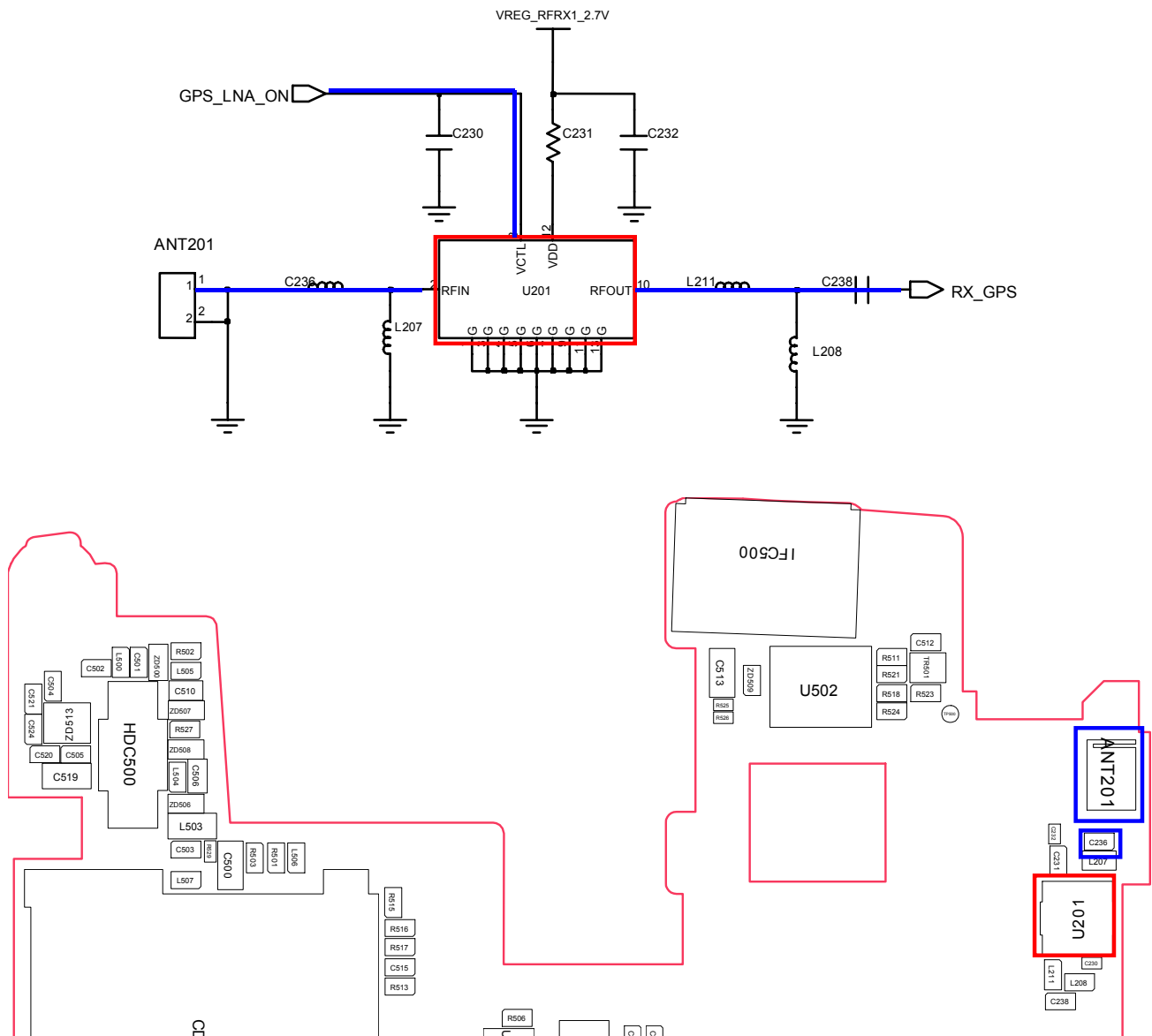


8-4-12. FM RADIO

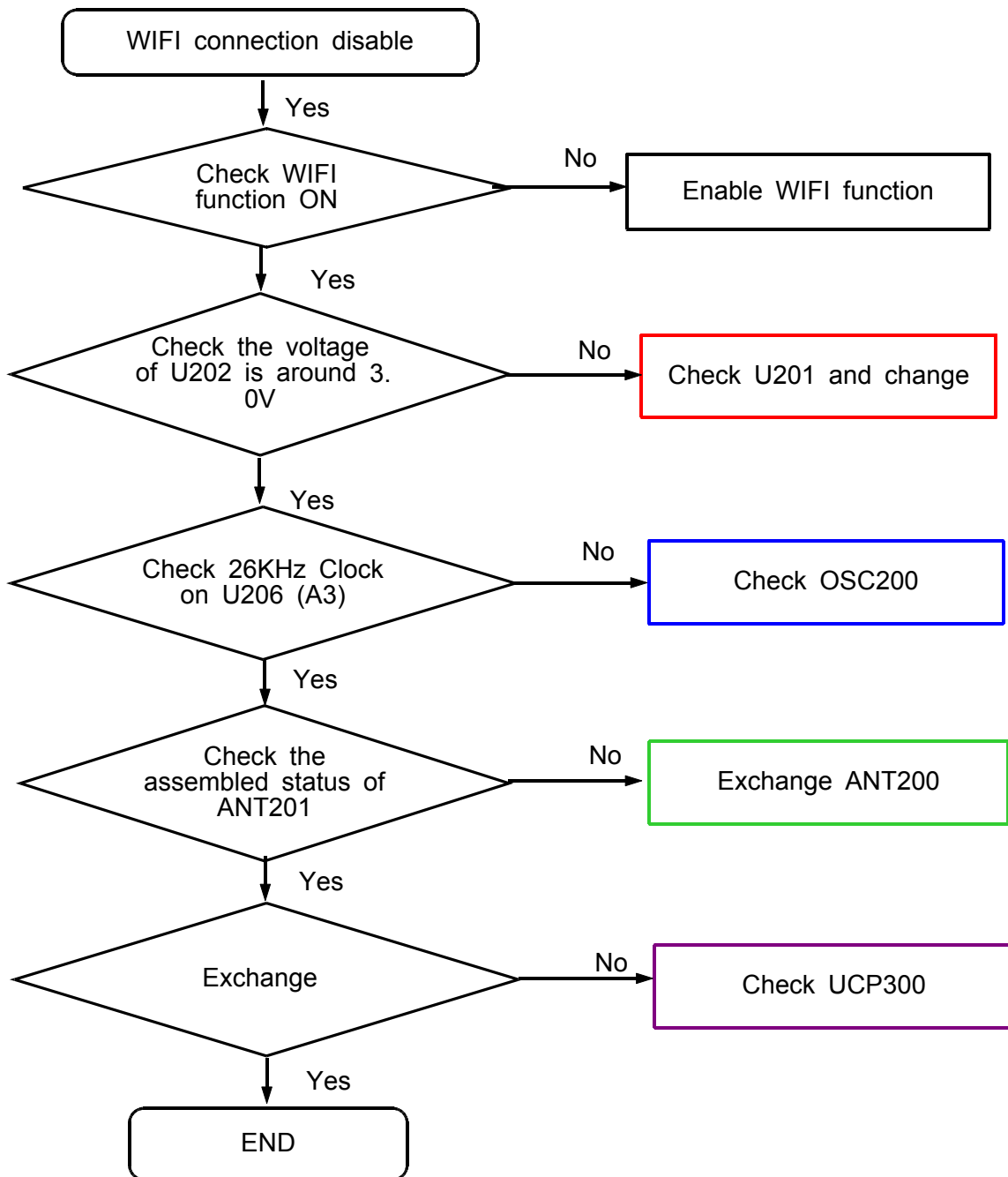


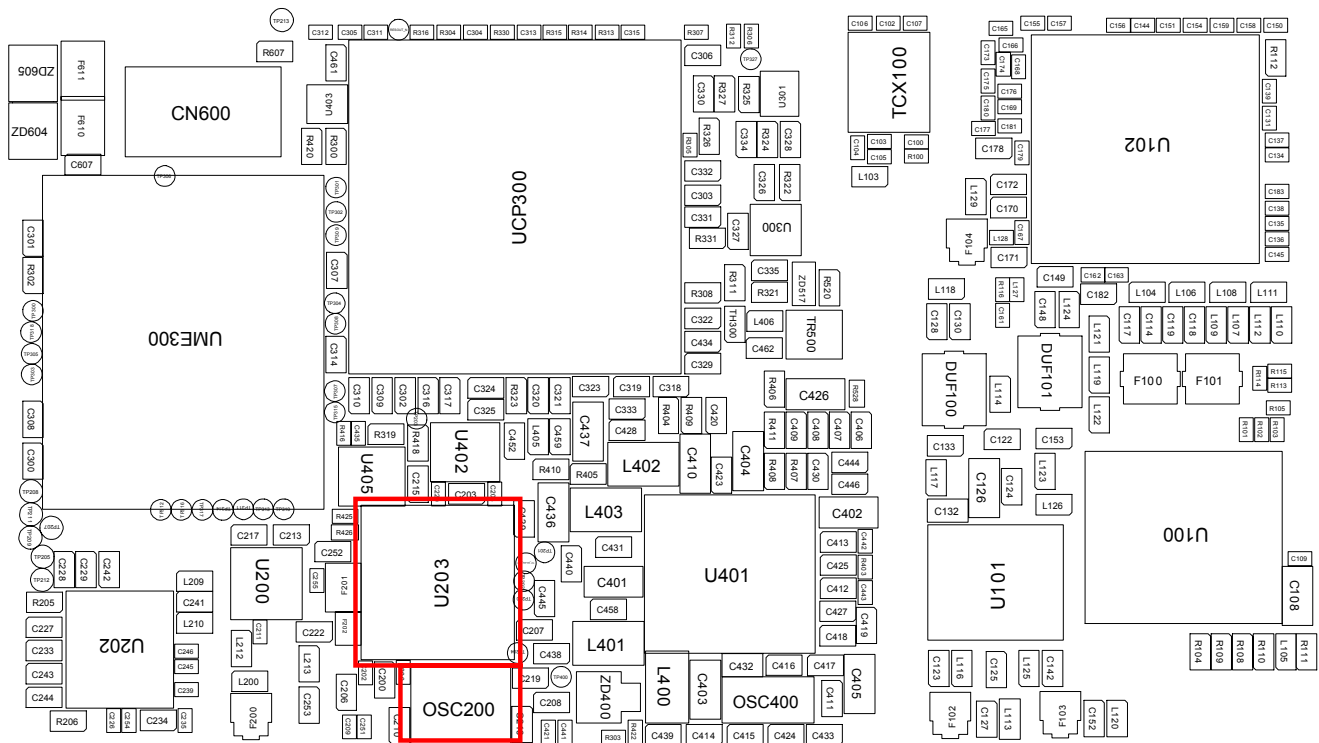
8-4-13. GPS





8-4-13. wifi





8-5. Service Schematics

- NC Point(Top View)**UME300**

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
A	DNU	DNU	NC	VSSo	VCCo	VSSQd	VDDQd	VDDQd	VSSQd	VSSd	VDDd	VSSQd	DNU	DNU
B	DNU	VSSo	/OEo	NC	/RPo	/WEo	DQS3d	DQ31d	DQ29d	DQ20d	DQ30d	DQ27d	VDDQd	DNU
C	VSSd	NC	/WEd	/AVDo	/CEo	RDYo	DQ22d	DQ16d	DQ21d	DQ28d	DQ26d	DQ17d	DQM2d	VDDQd
D	VDDd	/CSd	BA0d	A1 Index								DQ25d	DQM3d	VSSQd
E	NC	/RASd	A2d			VCCo	NC	NC	INTo	NC	NC	DQ24d	DQ23d	DQS2d
F	/CASd	A12d	A0d			CLKo				NC		DQ19d	DQ18d	VSSQd
G	CKEd	A9d	BA1d			VSSo				NC		VDDd	VDDQd	CKd
H	VDDd	A11d	A7d			ADQ8o				ADQ15o		VSSd	VDDQd	/CKd
J	A4d	VSSd	A5d			ADQ9o				ADQ14o		DQS1d	DQM0d	VSSQd
K	A6d	A10d	A3d			ADQ10o	ADQ11o	VCCQo	VSSo	ADQ12o	ADQ13o	DQ10d	DQM1d	DQ12d
L	A13d	A8d	A1d									DQ13d	DQ15d	VSSQd
M	VSSd	VDDd	NC	ADQ5o	ADQ2o	ADQ0o	DQ14d	DQ11d	DQ1d	DQ5d	DQ4d	DQ6d	DQ8d	VDDQd
N	DNU	VCCQo	NC	ADQ6o	ADQ3o	VSSQd	DQ3d	DQ9d	DQ0d	DQ7d	DQ2d	DQS0d	VDDQd	DNU
P	DNU	DNU	VSSo	ADQ7o	ADQ4o	ADQ1o	VDDQd	VDDQd	VSSQd	VSSd	VDDd	VSSQd	DNU	DNU

153 FBGA: Top View (Ball Down)

	M-DDR
	OneNAND
	Power
	Ground
	NC / DNU

UCP300(● : NC)

	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	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	A
B	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	B
C	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	C
D	●	○	○																						○	○	●	D
E	●	○	○		○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○		○	○	●	E
F	●	○	○		○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○		○	○	●	F
G	●	○	○		○	○																○	○		○	○	●	G
H	●	○	○		○	○		○	○	○	○	○	○	○	○	○	○	○	○	○		○	○		○	○	●	H
J	●	○	○		○	○		○	○	○	○	○	○	○	○	○	○	○	○	○		○	○		○	○	●	J
K	●	○	○		○	○		○	○										○	○		○	○		○	○	●	K
L	●	○	○		○	○		○	○			○	○	○	○	○	○		○	○		○	○		○	○	●	L
M	●	○	○		○	○		○	○			○	○	○	○	○	○		○	○		○	○		○	○	●	M
N	●	○	○		○	○		○	○			○	○	○	○	○	○		○	○		○	○		○	○	●	N
P	●	○	○		○	○		○	○			○	○	○	○	○	○		○	○		○	○		○	○	●	P
R	●	○	○		○	○		○	○			○	○	○	○	○	○		○	○		○	○		○	○	●	R
T	●	○	○		○	○		○	○			○	○	○	○	○	○		○	○		○	○		○	○	●	T
U	●	○	○		○	○		○	○			○	○	○	○	○	○		○	○		○	○		○	○	●	U
V	●	○	○		○	○		○	○										○	○		○	○		○	○	●	V
W	●	○	○		○	○		○	○	○	○	○	○	○	○	○	○	○	○	○		○	○		○	○	●	W
Y	●	○	○		○	○		○	○	○	○	○	○	○	○	○	○	○	○	○		○	○		○	○	●	Y
AA	●	○	○		○	○																○	○		○	○	●	AA
AB	●	○	○		○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○		○	○	●	AB
AC	●	○	○		○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○		○	○	●	AC
AD	●	○	○																						○	○	●	AD
AE	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	●	AE
AF	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	●	AF
AG	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	AG
	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	

5. MAIN Electrical Parts List

5-1. Main

SEC CODE	DESIGN LOC	DESCRIPTION
4202-001463	ANT200	ODBTP3015
2409-001172	BAT400	SM3R3703-R01
3711-006910	BTC400	KQ03SL-3R
2203-006194	C100	GRP033R70J103K
2203-001385	C101	GRP1555C1H1R5C
2203-005806	C102	GRP033R71C102K
2203-006556	C103	GRM0335C1E470J
2203-005806	C104	GRP033R71C102K
2203-006423	C105	GRM33X5R104K6.
2203-006979	C106	CL03B103KP3NNN
2203-005806	C107	GRP033R71C102K
2203-007270	C108	CL10A106KP8NNN
2203-006611	C109	GRM0335C1E2R7C
2203-005053	C114	GRP1555C1H3R9C
2203-005053	C117	GRP1555C1H3R9C
2203-005053	C118	GRP1555C1H3R9C
2203-005053	C119	GRP1555C1H3R9C
2703-002208	C122	CIH05T2N2SNC
2703-002176	C123	CIH05T2N7SNC
2203-000438	C124	GRP155R71H102K
2203-002443	C125	GRP155R71H331K
2203-007270	C126	CL10A106KP8NNN
2203-005281	C127	GRP1555C1H1R5B
2203-005053	C128	GRP1555C1H3R9C
2203-005053	C130	GRP1555C1H3R9C
2203-005732	C131	GRP0335C1E680J
2203-005446	C132	GRP1555C1H2R7B
2203-005736	C134	GRP0335C1E101J
2203-005725	C135	GRP0335C1E220J
2203-006423	C136	GRM33X5R104K6.
2203-006423	C137	GRM33X5R104K6.
2203-005736	C138	GRP0335C1E101J
2203-005732	C139	GRP0335C1E680J
2203-000812	C142	GRP1555C1H330J
2203-005736	C144	GRP0335C1E101J
2203-005682	C145	GRP0335C1E330J

SEC CODE	DESIGN LOC	DESCRIPTION
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2203-000696	C217	GRP1555C1H2R0C
2203-006681	C219	GRM155F51E104Z
2203-006121	C220	GRM33X7R471K16
2203-000278	C222	GRP1555C1H100D
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2203-006399	C307	GRM155R60J105K
2203-006048	C308	GRM155R71A104K
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2203-006048	C331	GRM155R71A104K
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2203-005057	C333	GRP1555C1H8R2C
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2007-001292	R327	RC1005J330CS
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2007-008806	R403	RC0603J510CS
2007-007334	R404	RC1005F2003CS
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1205-003297	U102	RTR6285
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1205-004076	U203	AR6003G-AC2B-R
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0406-001223	ZD517	PG05DBTFC
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0406-001286	ZD605	PESD5V0L5UV
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