

SAMSUNG

GSM TELEPHONE

SGH-U100

SERVICE *Manual*

GSM TELEPHONE



CONTENTS

1. Specification
2. Exploded View and Parts list
3. Chart of Troubleshooting
4. Array course control
5. Block Diagrams
6. PCB Diagrams
7. MAIN Electrical Parts List
8. Reference data
9. Safety Precautions
10. Product Function

Contents

1. Specification

1-1. GSM/CDMA General Specification	1-1
1-2. GSM TX power class	1-2

2. Exploded View and Parts list

2-1. Cellular phone Exploded View	2-1
2-2. Cellular phone Parts list	2-2
2-3. Disassembly	2-4
2-4. Assembly	2-8

3. Chart of Troubleshooting

3-1. Baseband	3-1
3-1-1. Power ON	3-1
3-1-2. System Initial	3-6
3-1-3. SIM Part	3-8
3-1-4. Charging Part	3-10
3-1-5. Microphone Part	3-13
3-1-6. Speaker Part	3-16
3-1-7. Receiver Part	3-20
3-1-8. Camera Part	3-22
3-1-9. LCD	3-26
3-2. RF	3-13
3-2-1. EGSM Receiver	3-30
3-2-2. EGSM Transmitter	3-31
3-2-3. DCS Receiver	3-32
3-2-4. DCS Transmitter	3-33
3-2-5. PCS Receiver	3-34
3-2-6. PCS Transmitter	3-35
3-2-7. UMTS Receiver	3-40
3-2-8. UMTS Transmitter	3-41
3-2-9. BLUETOOTH	3-45

Contents

4. Array course control

4-1. Downloading Binary Files	4-2
4-2. Pre-requisite for Downloading	4-2
4-3. S/W Downloader Program	4-3

5. Block Diagrams

6. PCB Diagrams

7. MAIN Electrical Parts List

8. Reference data

8-1. Reference Abbreviate	8-1
---------------------------------	-----

9. Safety Precautions

9-1. Repair Precaution	9-1
9-2. ESD(Electrostatically Sensitive Devices) Precaution	9-2

10. Product Function

1. Specification

1-1. GSM General Specification

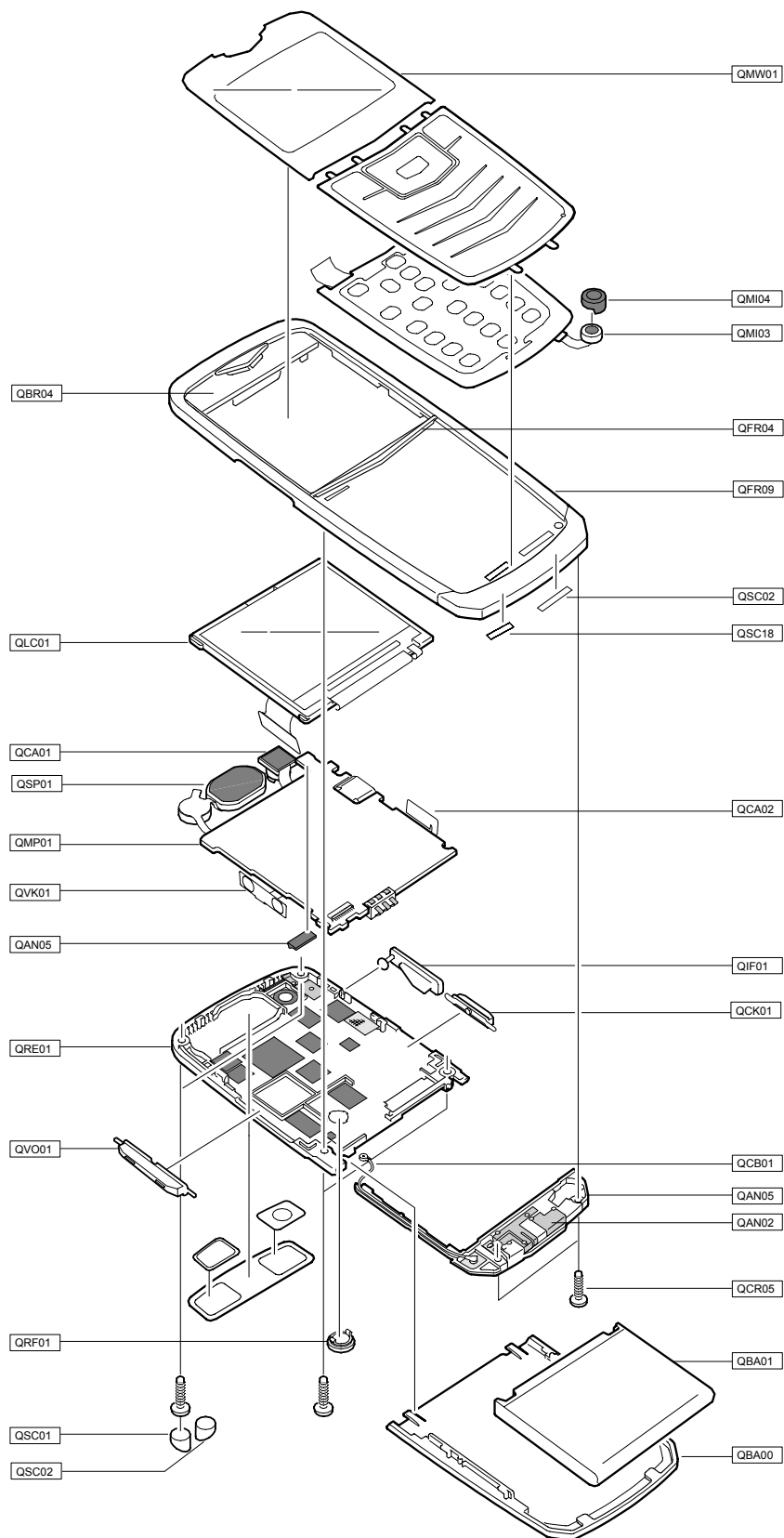
	GSM900 Phase 1	EGSM 900 Phase 2	DCS1800 Phase 1	PCS1900
Freq. Band[MHz] Uplink/Downlink	890~915 935~960	880~915 925~960	1710~1785 1805~1880	1850~1910 1930~1990
ARFCN range	1~124	0~124 & 975~1023	512~885	512~810
Tx/Rx spacing	45 MHz	45 MHz	95 MHz	80 MHz
Mod. Bit rate/ Bit Period	270.833 kbps 3.692 us	270.833 kbps 3.692 us	270.833 kbps 3.692 us	270.833 kbps 3.692 us
Time Slot Period/Frame Period	576.9 us 4.615 ms	576.9 us 4.615 ms	576.9 us 4.615 ms	576.9 us 4.615 ms
Modulation	0.3 GMSK	0.3 GMSK	0.3 GMSK	0.3 GMSK
MS Power	33 dBm~13 dBm	33 dBm~5 dBm	30 dBm~0 dBm	30 dBm~0 dBm
Power Class	5 pcl ~ 15 pcl	5 pcl ~ 19 pcl	0 pcl ~ 15 pcl	0 pcl ~ 15 pcl
Sensitivity	-102 dBm	-102 dBm	-100 dBm	-100 dBm
TDMA Mux	8	8	8	8
Cell Radius	35 Km	35 Km	2 Km	-

1-2. 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

2. Exploded View and Parts List

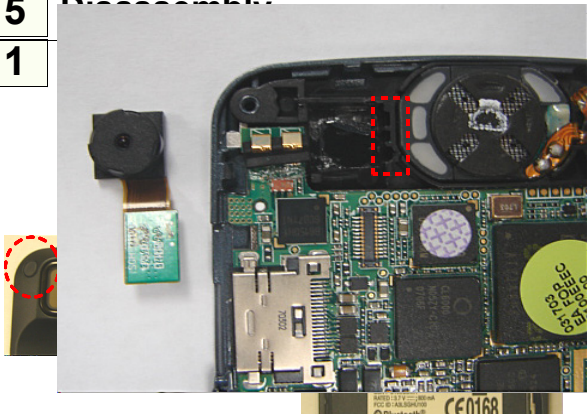
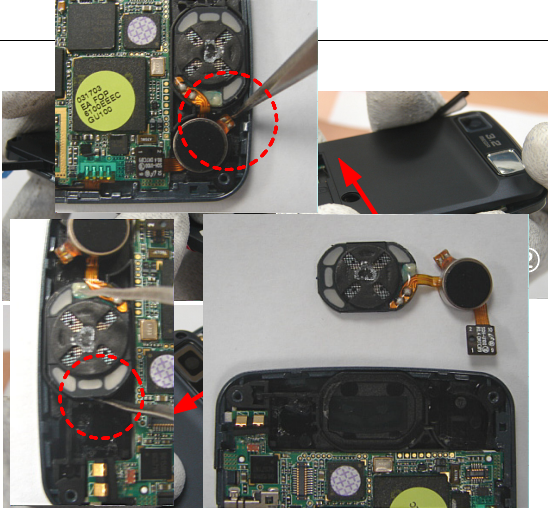
2-1. Cellular phone Exploded View



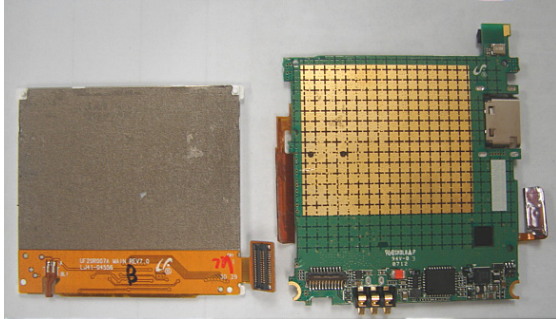
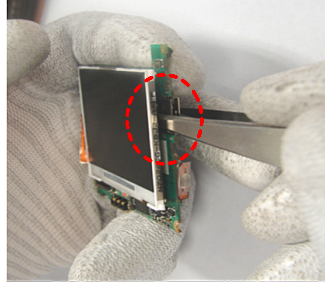
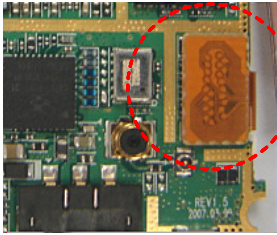
2-2. Cellular phone Parts list

Design LOC		Discription	SEC CODE
QAN05		ASSY MEC-RUBBER ANT CON	GH75-09161A
QBA00		PMO-BATT COVER	GH72-35337A
QBA01		INNER BATTERY PACK-690MAH,BLK,	GH43-02834A
QBR04		ASSY BRACKET-SPK	GH98-02749A
QCA01		UNIT-CAMERA MODULE	GH59-04032A
QCA02		UNIT-SIDE CAM KEY FPCB	GH59-04144A
QCB01		COAXIAL CABLE-SGH-X840	GH39-00765A
QCK01		PMO-KEY CAMERA	GH72-35339A
QCR05		SCREW-MACHINE	6001-001478
QCR05		SCREW-MACHINE	6001-001478
QCR05		SCREW-MACHINE	6001-001478
QLC01		MEA-LCD KIT	GH97-07604A
QMP01		PBA-SGHU100	GH92-03211A
QMW01		ASSY COVER-MAIN WINDOW	GH98-02745A
QRF01		PMO-COVER RF	GH72-29064J
QSC01		RMO-COVER SCREW R	GH73-08666A
QSC02		RMO-COVER SCREW L	GH73-08667A
QSC16		ASSY RUBBER-LED L	GH98-05161A
QSC18		ASSY RUBBER-LED R	GH98-05162A
QSP01		UNIT-SPEAKER ASSY	GH59-03737A
QVK01		UNIT-SIDE KEY FPCB ASSY	GH59-03735A
QVO01		PMO-KEY VOLUME	GH72-35338A
QAN05		ASSY COVER-ANTENNA	GH98-05215A
	QAN02	ANTENNA-SGHU100,MAIN	GH42-01182A
QFR09		ASSY KEYPAD-FRONT	GH98-05314A
	QFR04	PMO-DECO FRONT	GH72-36498A
	QMI03	RMO-HOLDER MIC	GH73-08421A
	QMI04	RMO-RUBBER COVER MIC	GH73-09518A
QRE01		ASSY COVER-REAR	GH98-02746A
	QIF01	PMO-IF COVER	GH72-35333A

Discription	SEC CODE
BAG PE	6902-000634
CBF INTERFACE-DLC,X830,BLK,PCB	GH39-00720A
ADAPTOR-SGHE690,BLK,EU,A_TYPE	GH44-01361A
S/W CD-SGHU100,PC STUDIO 3.1	GH46-00432A
UNIT-EARPHONE,SGHE790,MAIN,A-T	GH59-03884A
LABEL(R)-WATER SOAK	GH68-09361A
MANUAL USERS-EU SPANISH	GH68-13105A
LABEL(R)-MAIN(EU)	GH68-14353A
BOX(P)-UNIT MAIN(EU)	GH69-05224A
CUSHION-CASE(EU)	GH69-05226A
RMO RUBBER-BOARD	GH73-09881A
MPR-VINYL BOHO REAR 2	GH74-25517A
MPR-INSU TAPE	GH74-29166A
MPR-INSU TAPE	GH74-29556A
VINYL-BOHO KEYPAD	GH74-31735A
MPR-VINYL BOHO WINDOW OUT	GH74-32135A
TAPE ELEC-LCD	GH74-33025A

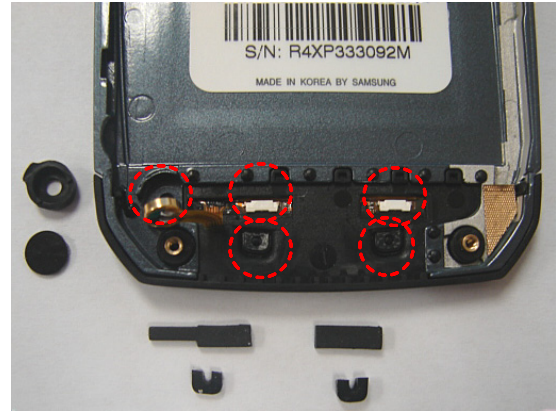
5 1 	6 2 
1) Separate the camera connector. 2) Separate the camera module using the unlocking gap. ※ caution 1) Be careful not to make any damage to the F-PCB and the connector.	1) Separate the motor and the receiver. ※ caution 1) Be careful not to make any damage to the F-PCB and the connector.
7 ※ caution 1) Be on t	8 tions below. ※ caution 1) Be careful not to make any scratch or damage on the exterior
3 	
1) Hold the front cover in the diagonal direction and twist it pushing the main window. 2) Do it opposite direction. ※ caution 1) Be careful not to make any damage to the key F-PCB. 2) Separate slowly with no damage to the LCD module. 3) Pull up the locker of the insert type connector as disassembling the key F-PCB.	1) Unscrew 2 intenna bolts. 2) Separate the intenna from the front cover. 3) Separate the intenna and the coaxial cable. ※ caution 1) Separate the window. 2) Separate the motor and receiver bracket. ※ caution 1) Be careful of the damage to 2 LCD holders in the red circles while disassembling the window.

9



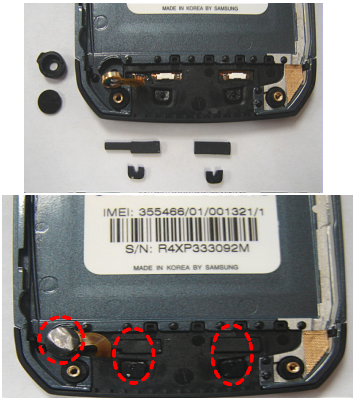
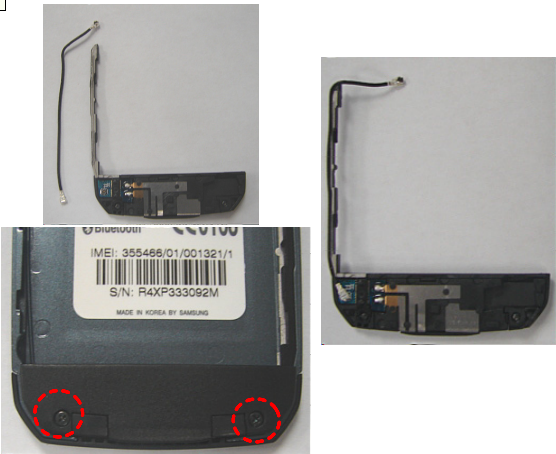
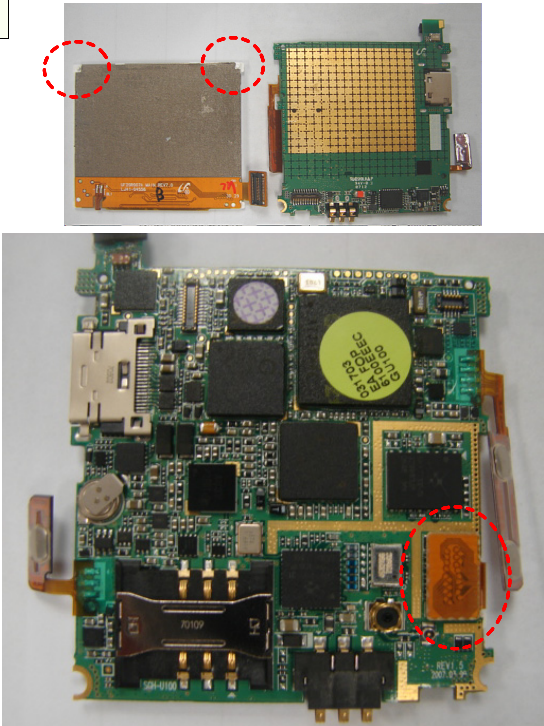
- 1) Separate the LCD connector.
 - 2) Separate the LCD module and the PBA inserting deeply a pair of round edge tweezers between them.
- ※ **caution**
- 1) Separate slowly with no damage to the LCD module.

10

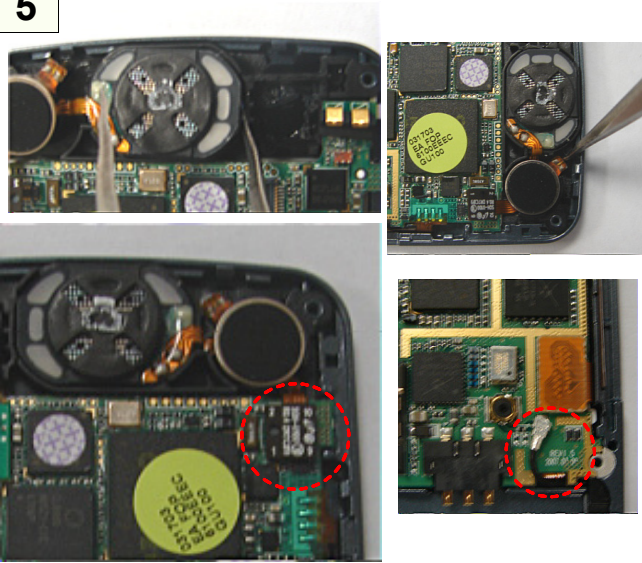


- 1) Separate the MIC rubbers, the LED light block rubbers and the key pad hold rubbers.
- ※ **caution**
- 1) Be careful not to make any damage to the MIC F-PCB.

2-4. Assembly

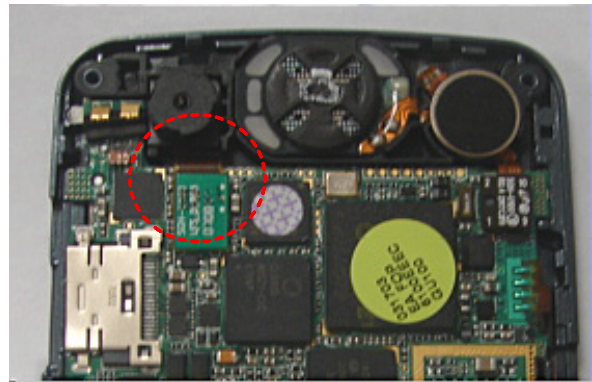
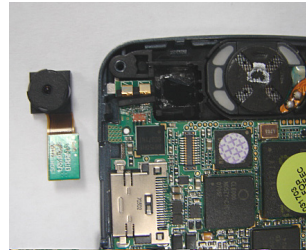
1 	2 
1) Attach the MIC rubbers, the LED light block rubbers and the key pad hold rubbers. 2) Place the MIC on the correct position in the picture below. ※ caution 1) Handle the mic F-PCB with care not to be torn. 2) Assemble a salient part of the MIC holder facing outside.	1) Assemble the antenna and the coaxial cable. 2) Attach the antenna ASS'Y to the front cover and screw 2 bolts. ※ caution 1) Check the coaxial cable assembled properly.
3 	4 
1) Put together the LCD module and the PBA assembling two connecting points of the LCD in the red circles with the PBA. 2) Connect the LCD connector. ※ caution 1) Handle the F-PCB with care not to be torn.	1) Assemble the front cover and the PBA ASS'Y. detached it. ※ caution 1) Handle the key F-PCB with care not to be torn while assembling. 2) Check the insulation tape attached to the correct place. 3) As inserting the key F-PCB, make sure its guide line is placed the right below of the connector locker. 4) Assemble the MOT/SPK bracket and the front cover locking left and right sides of them.

5



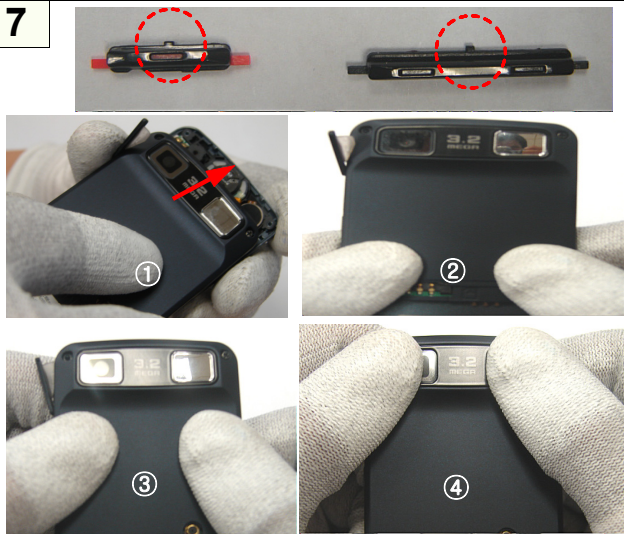
- 1) Assemble the motor after the speaker.
 - 2) Assemble the connector.
 - 3) Assemble the coaxial cable correctly.
- ※ **caution**
- 1) Handle the F-PCB with care not to be torn.
 - 2) Check the coaxial cable properly assembled.

6



- 1) Assemble the camera module.
 - 2) Connect the camera connector.
- ※ **caution**
- 1) Handle the F-PCB with care not to be torn.

7



- 1) Place the salient parts of the camera key and the volume key facing the rear cover.
 - 2) After assembling the front and rear, press them properly.
- ※ **caution**
- 1) Check the camera key and the volume key are placed the correct positions.
 - 2) Check the all the lockers properly locked.

8



- 1) Screw 4 bolts.
 - 2) Put the screw caps in the upper end of the rear cover.
- ※ **caution**
- 1) Be careful not to make any scratch or damage on the exterior.

9



1) Attach the window to the front cover.

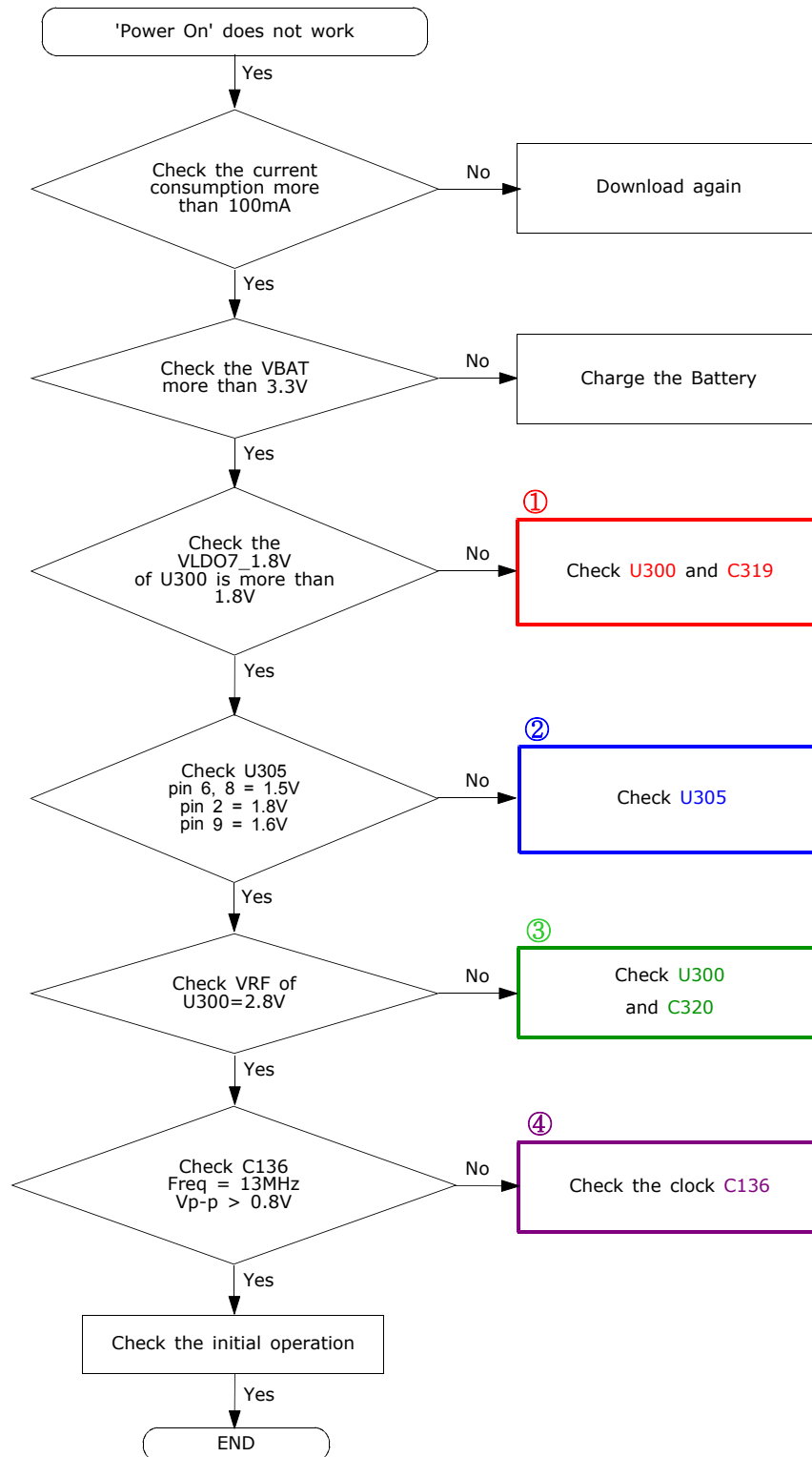
※ **caution**

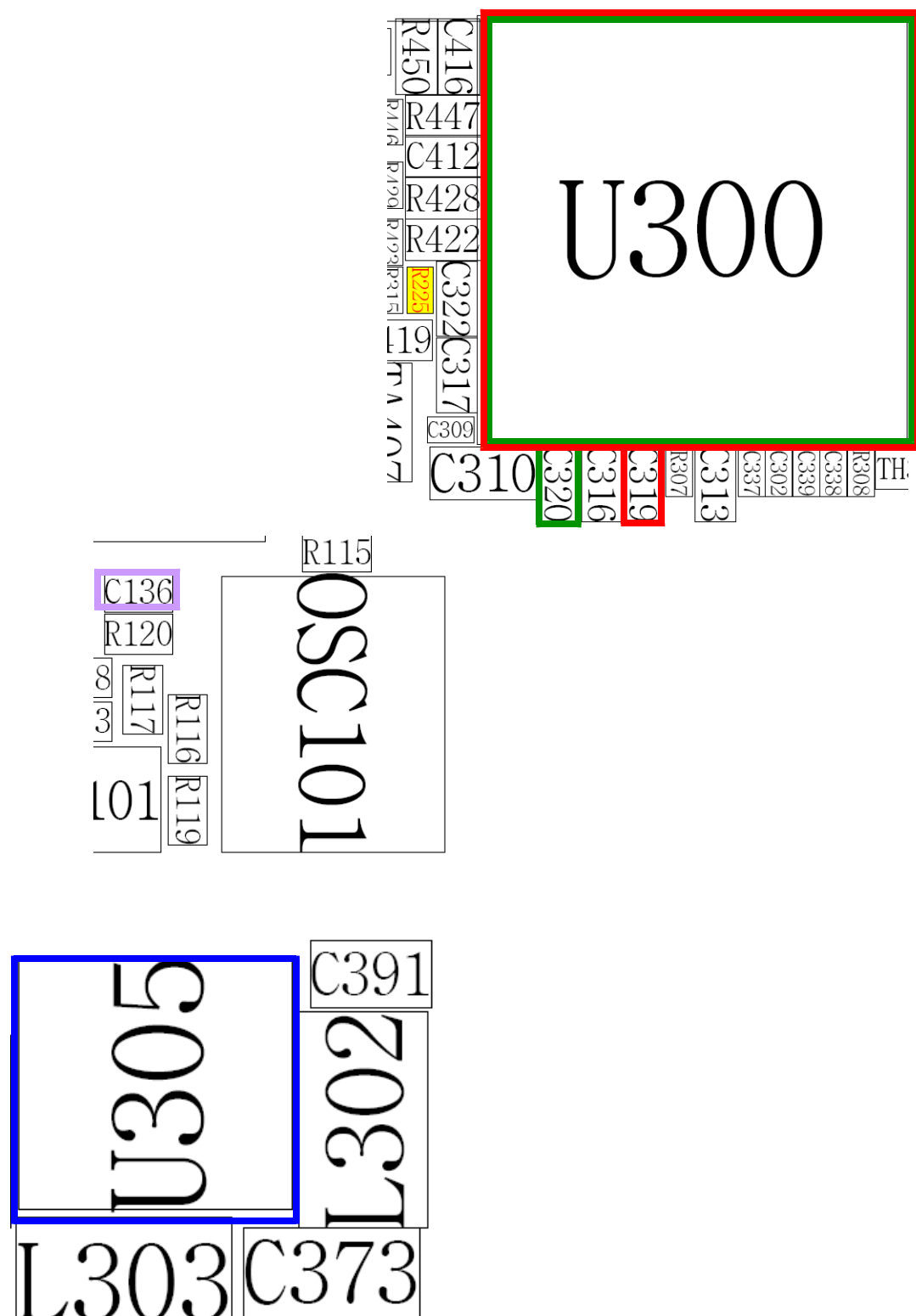
- 1) Check dust and dirt on the LCD and the window.
- 2) Check the front cover and the window completely assembled without an unnecessary gap.

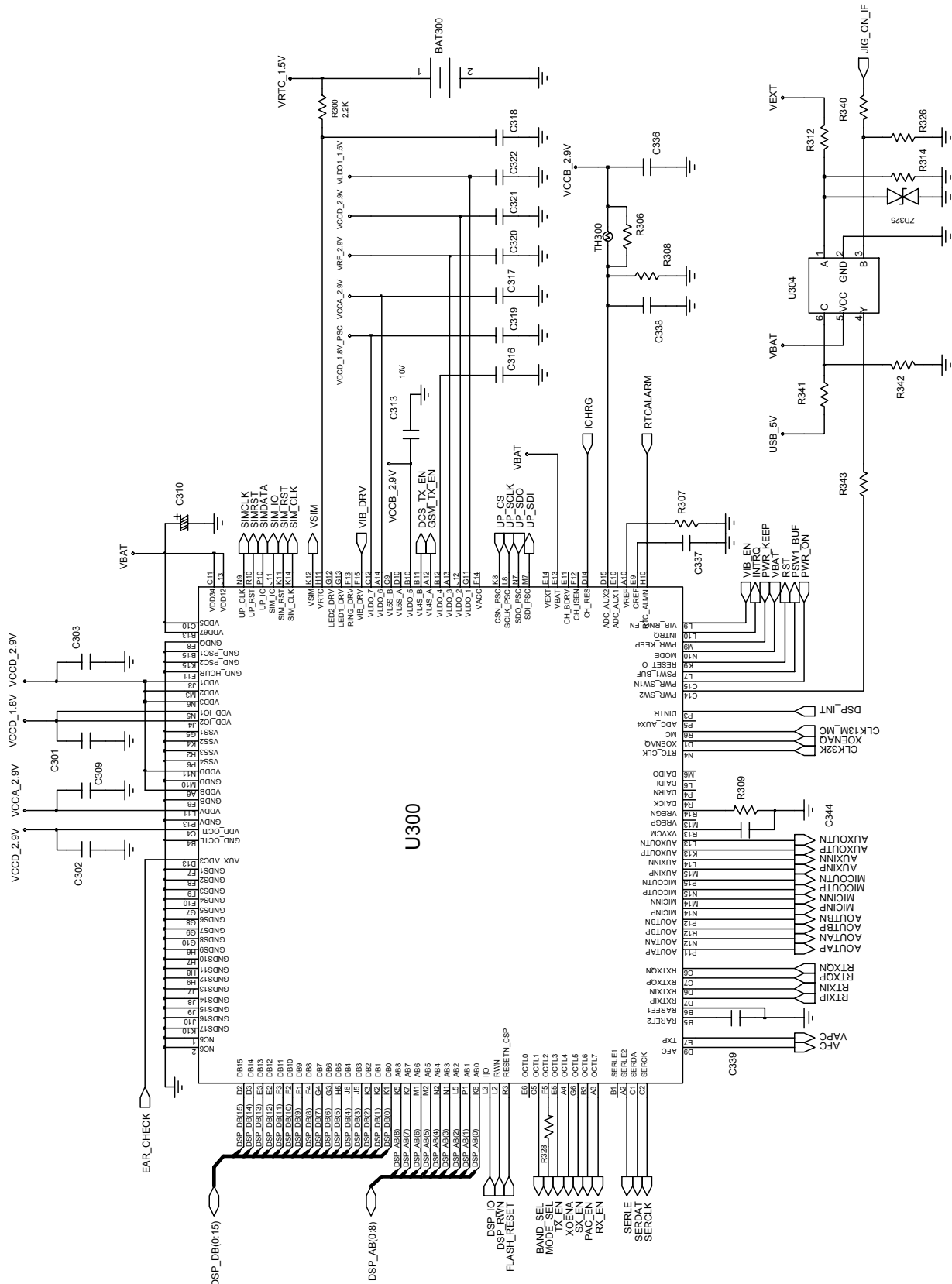
3. Flow Chart of Troubleshooting

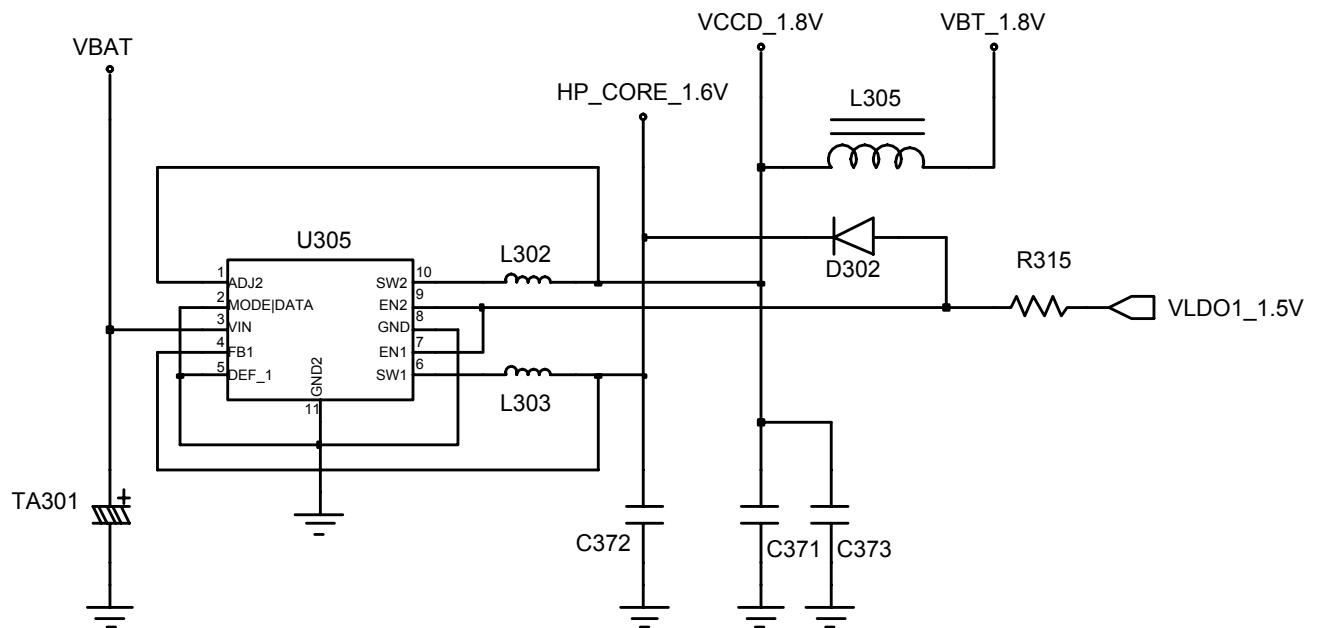
3-1 BASEBAND

3-1-1. Power ON

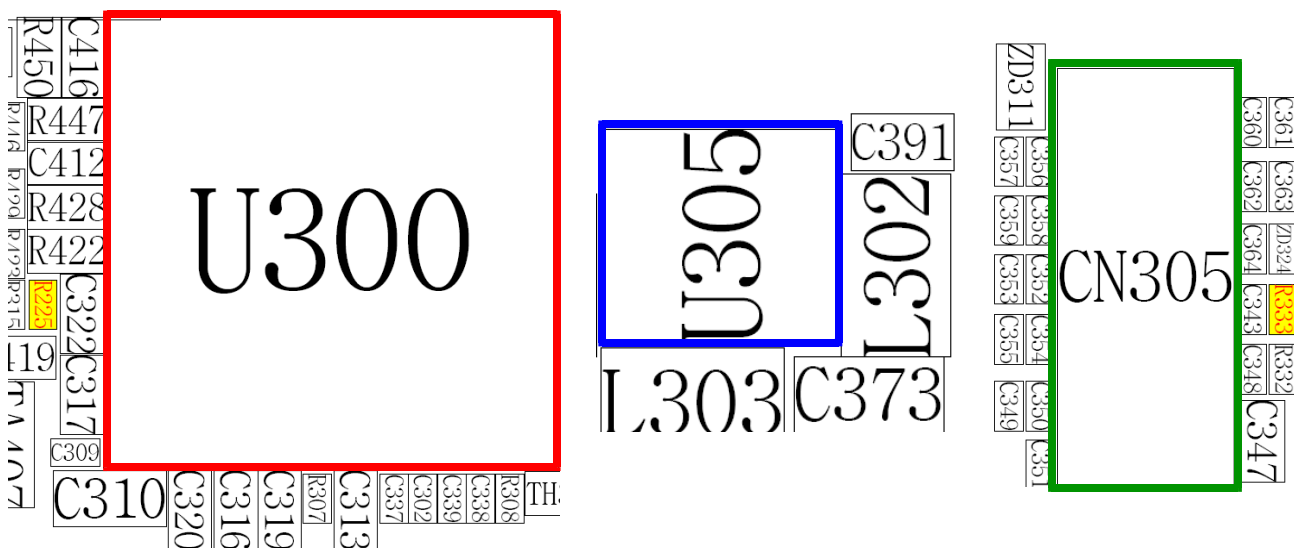
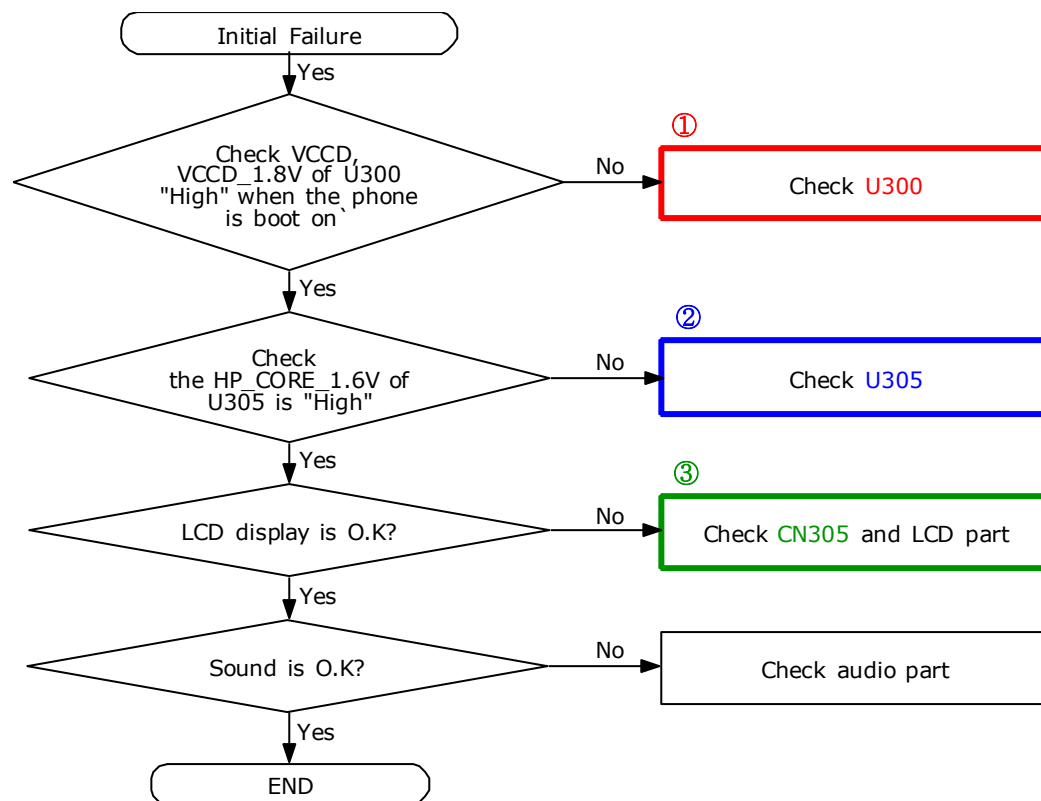


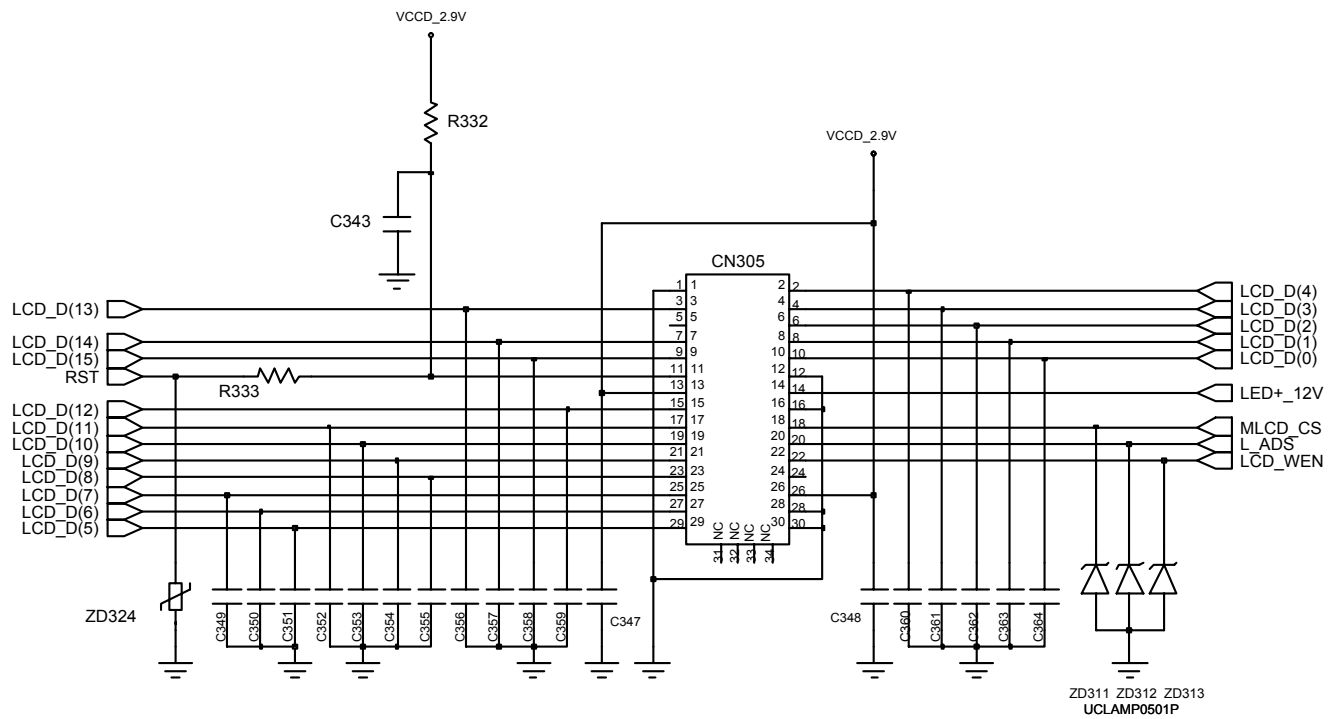




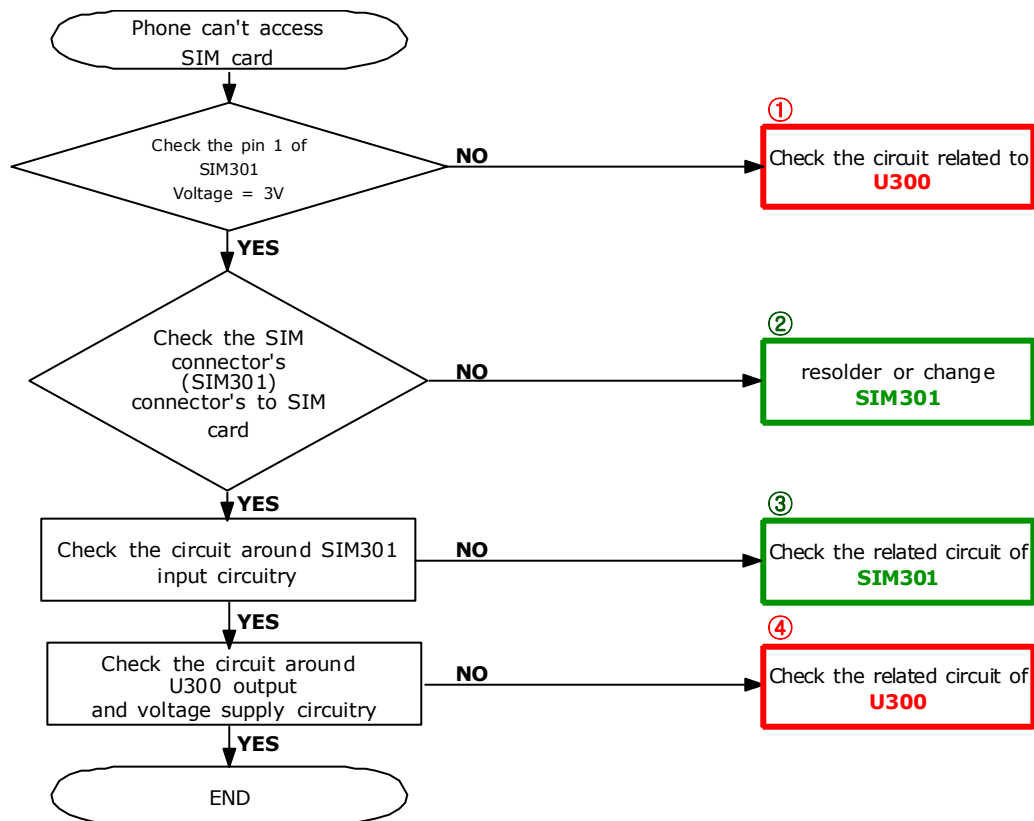


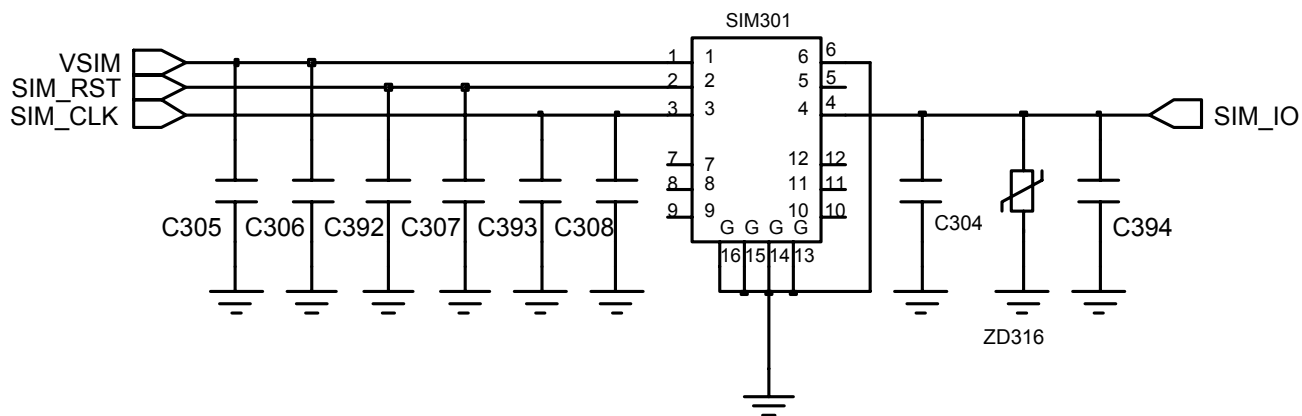
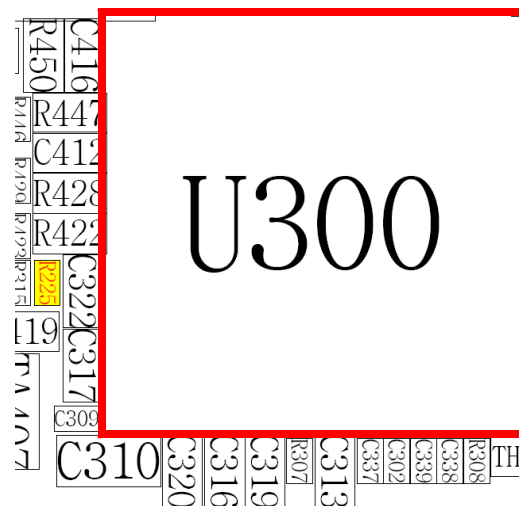
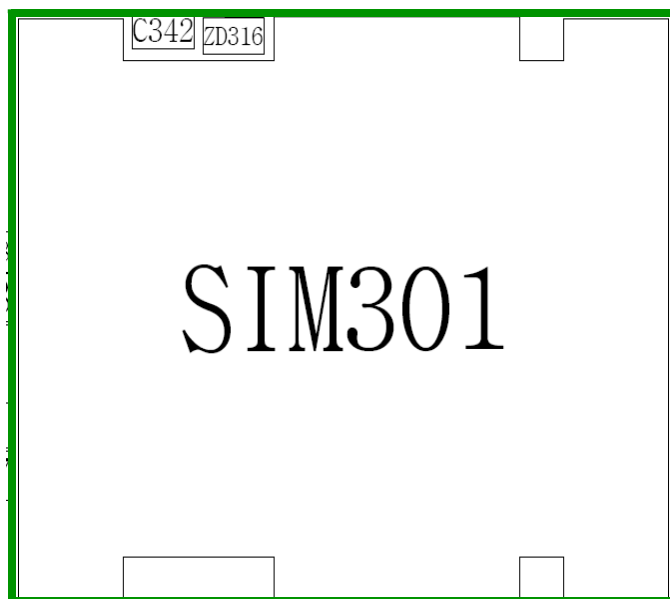
3-1-2. Initial



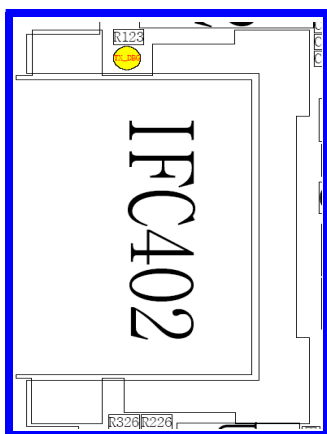
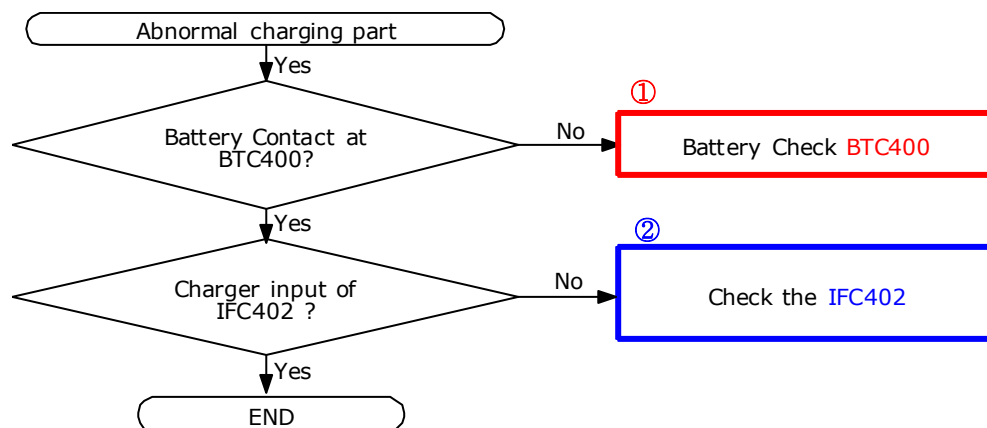


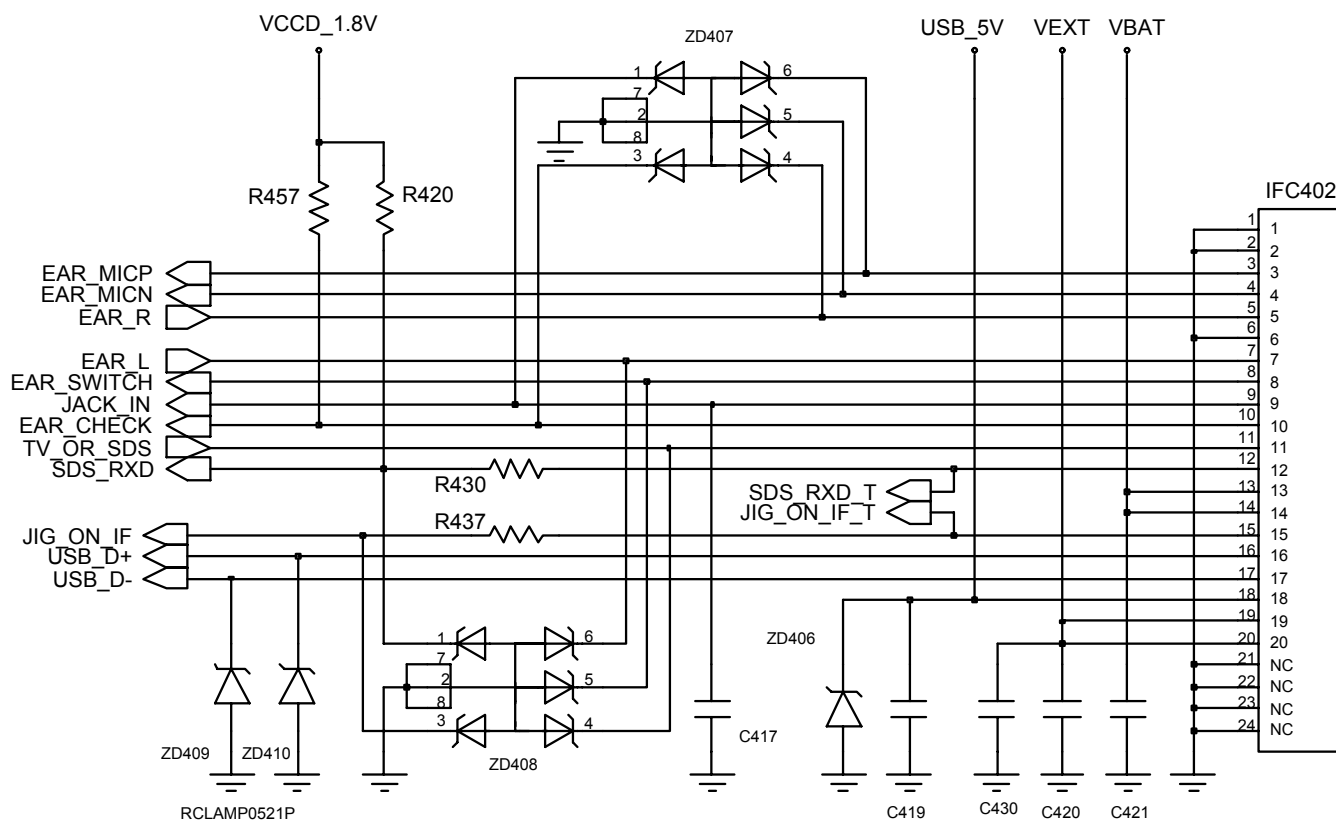
3-1-3. Sim Part



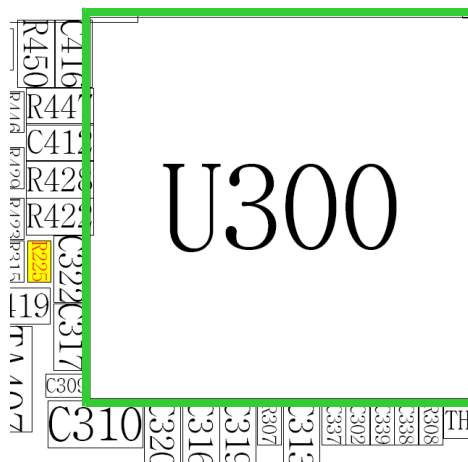
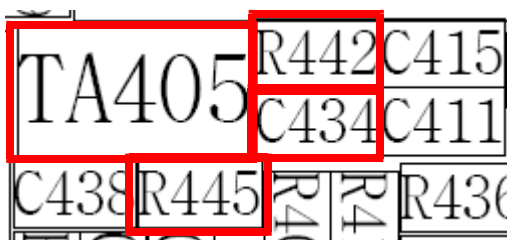
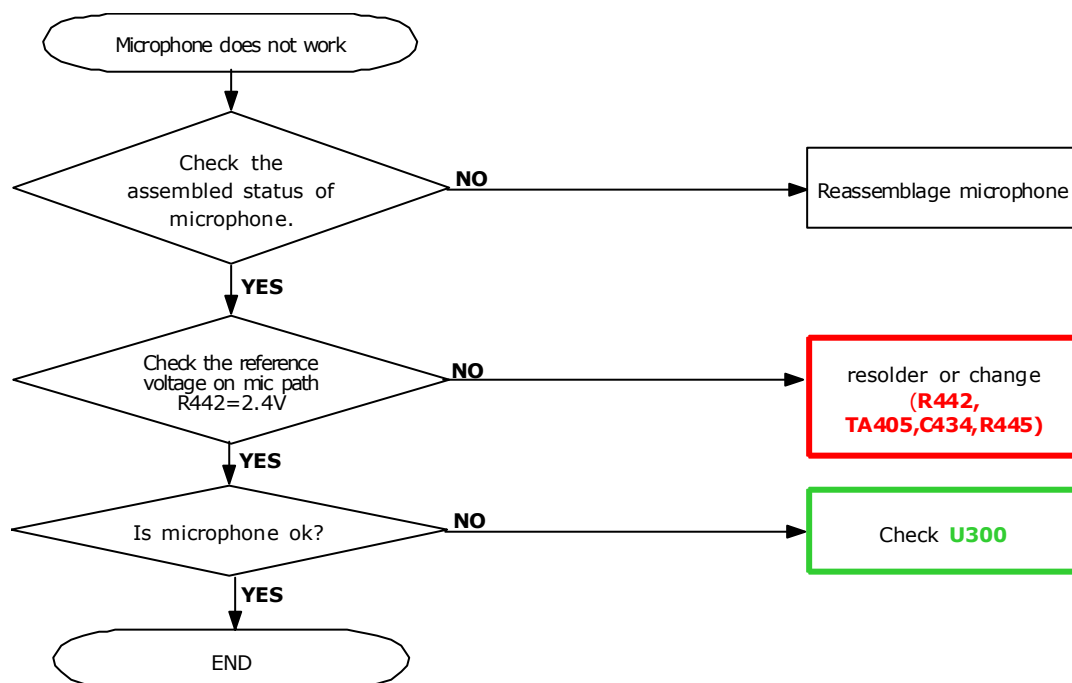


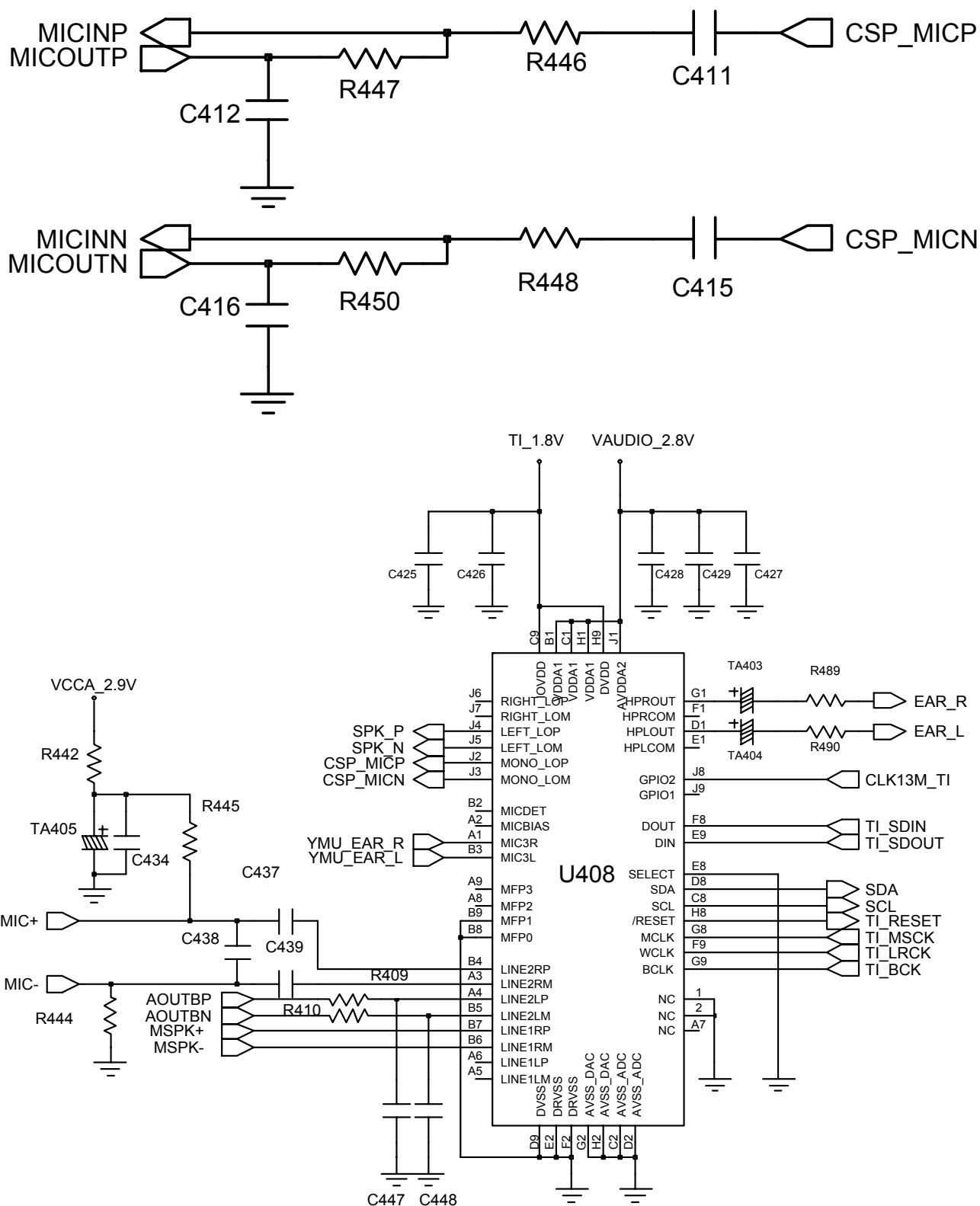
3-1-4. Charging Part



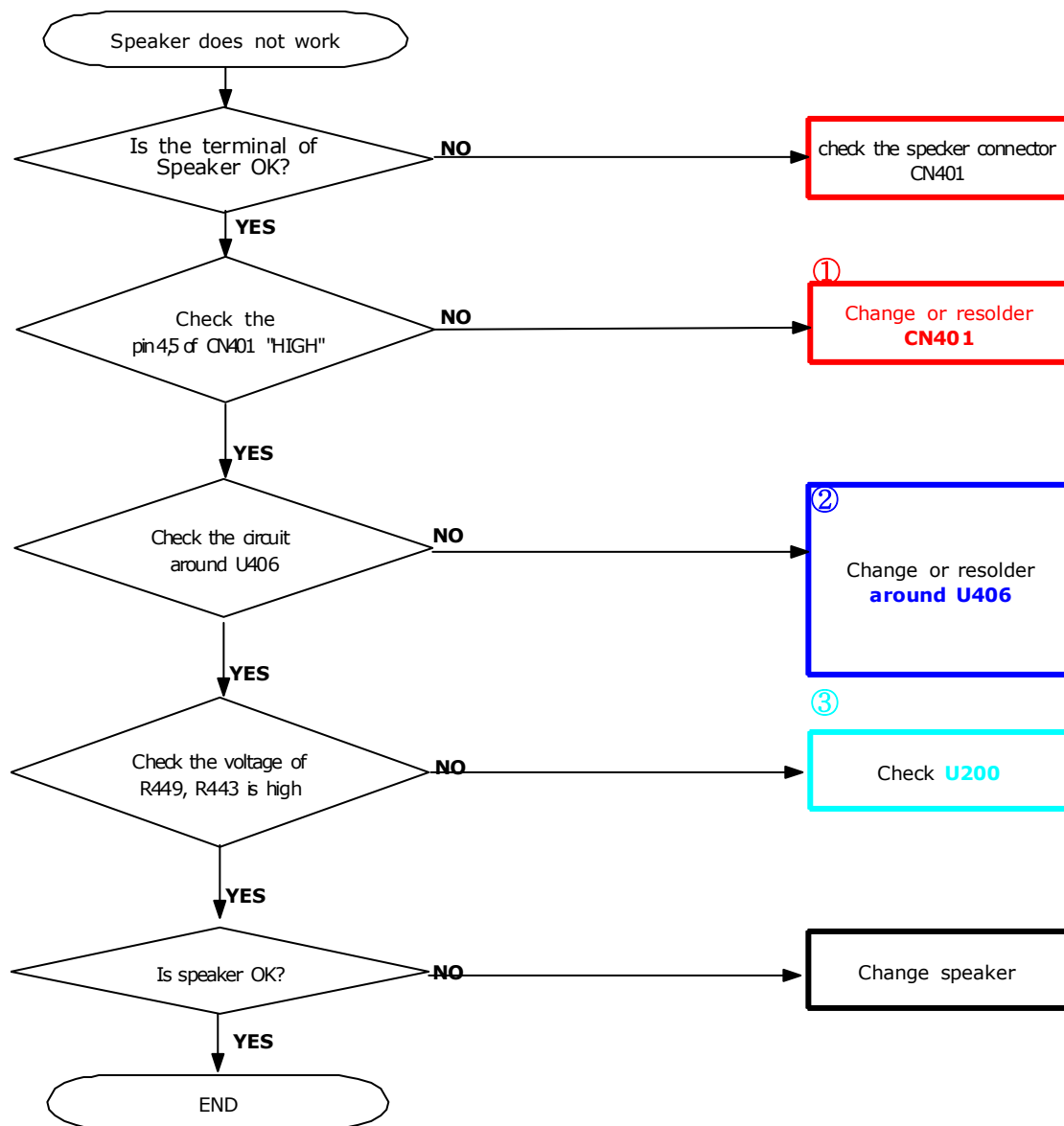


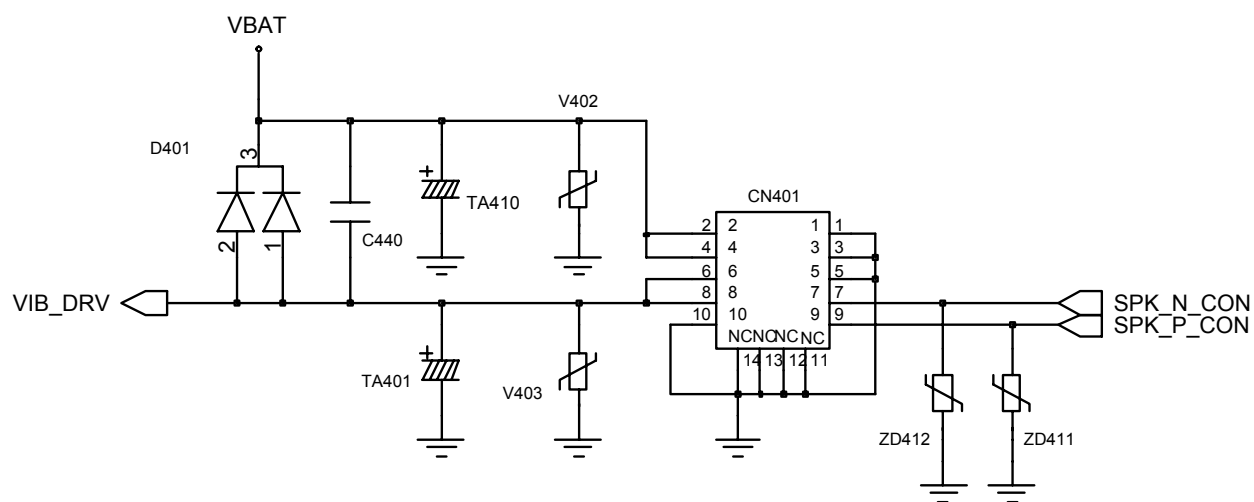
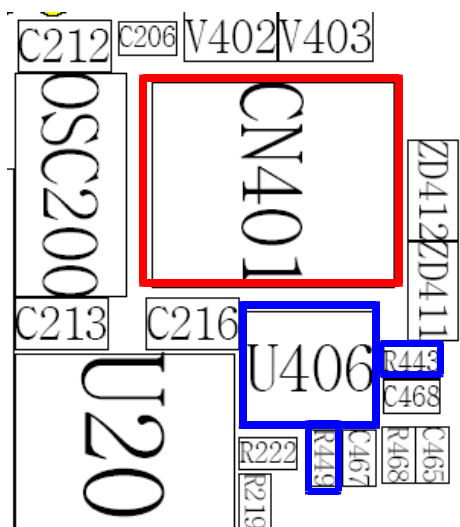
3-1-5. Microphone Part

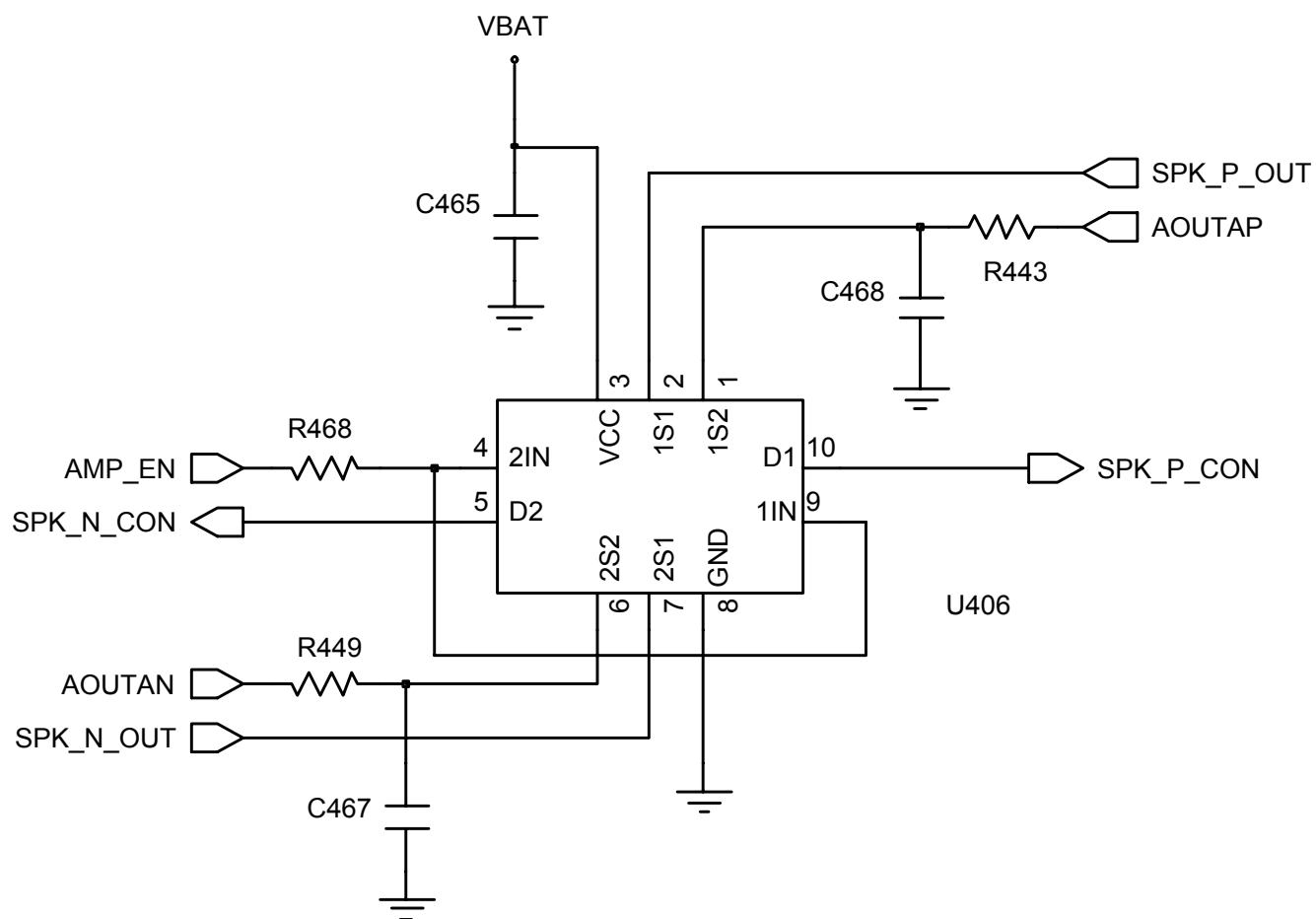




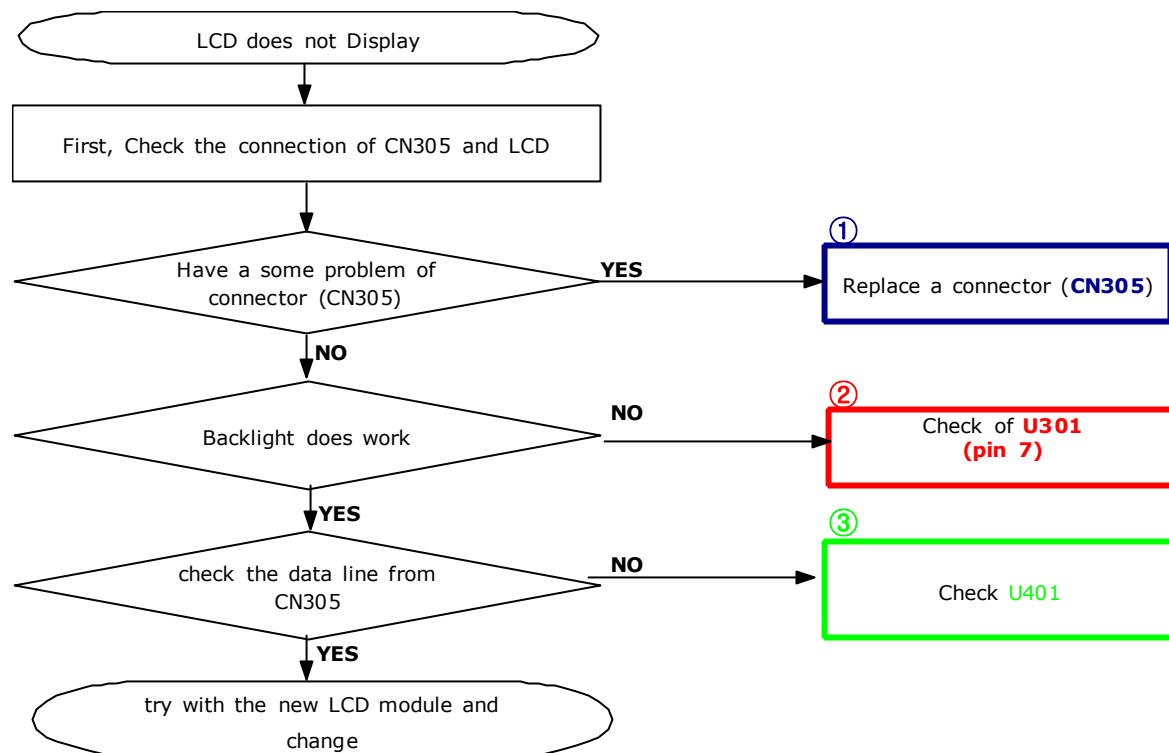
3-1-6. Speaker Part

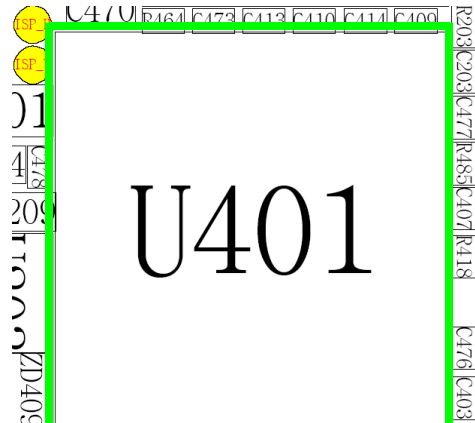
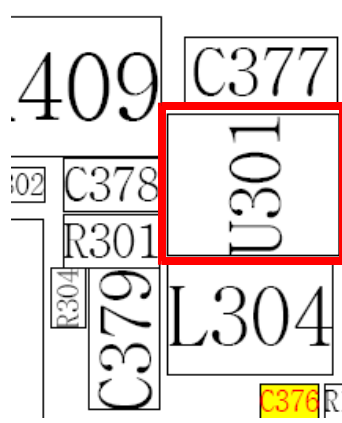
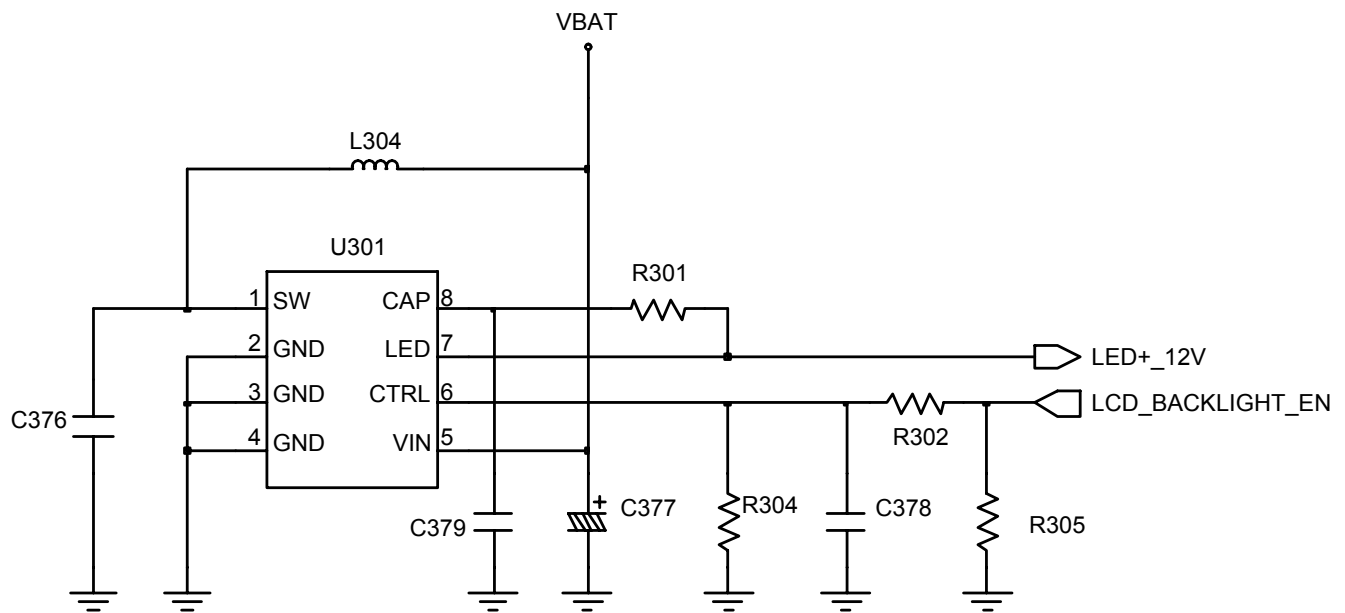


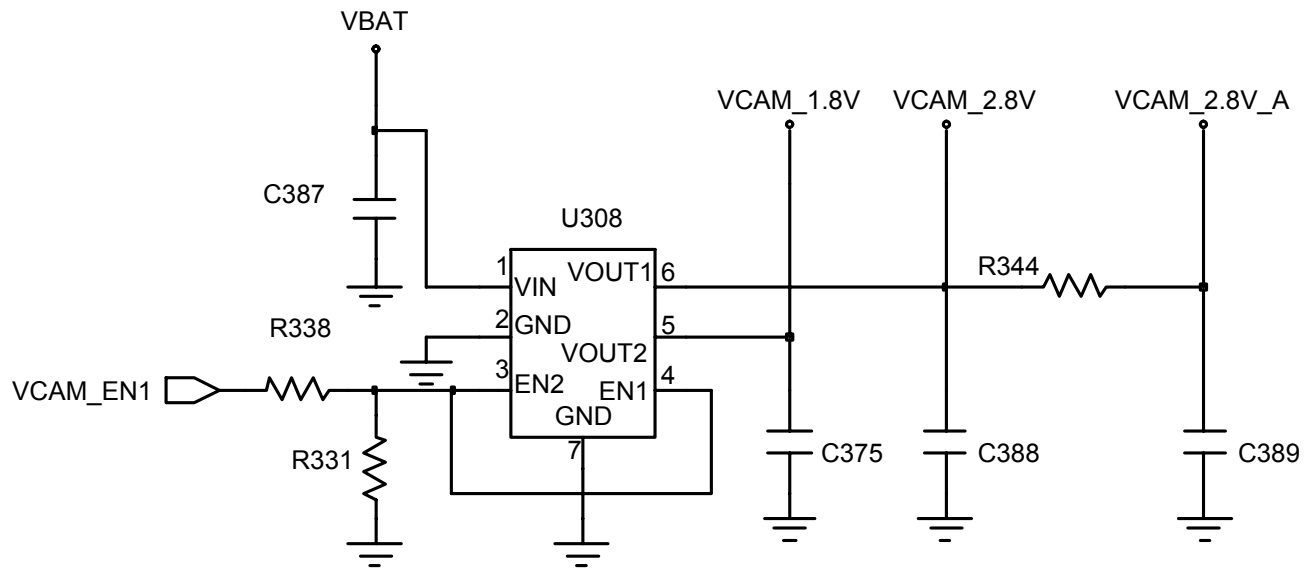




3-1-7. LCD



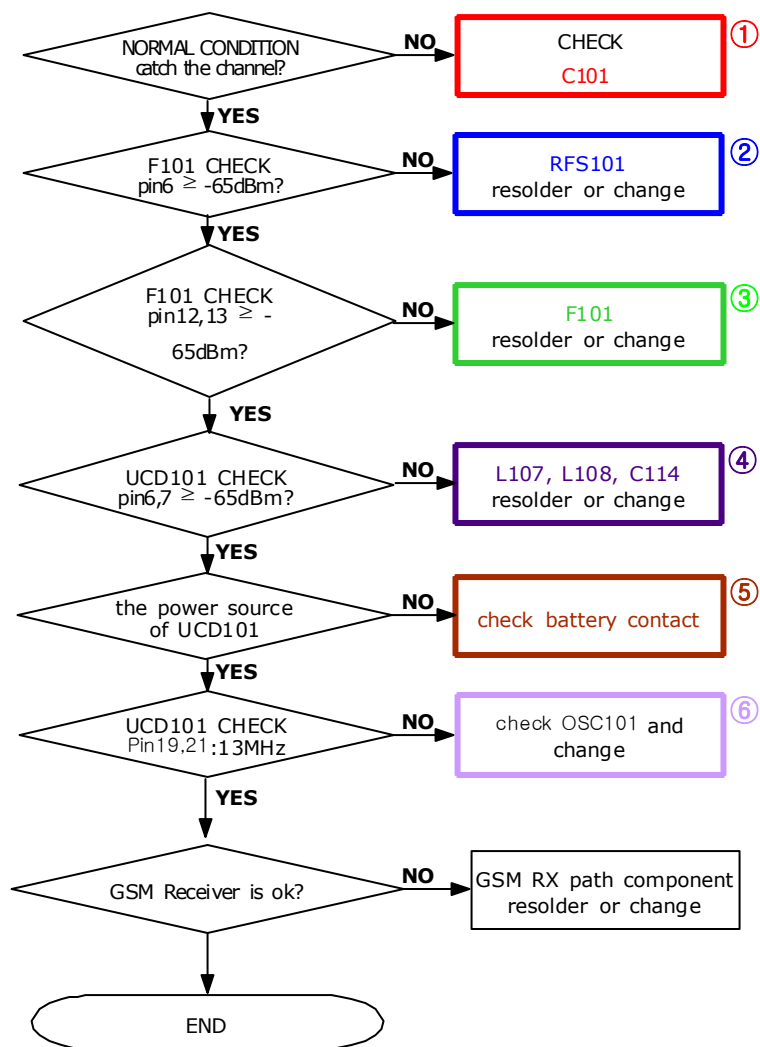




3-2. RF

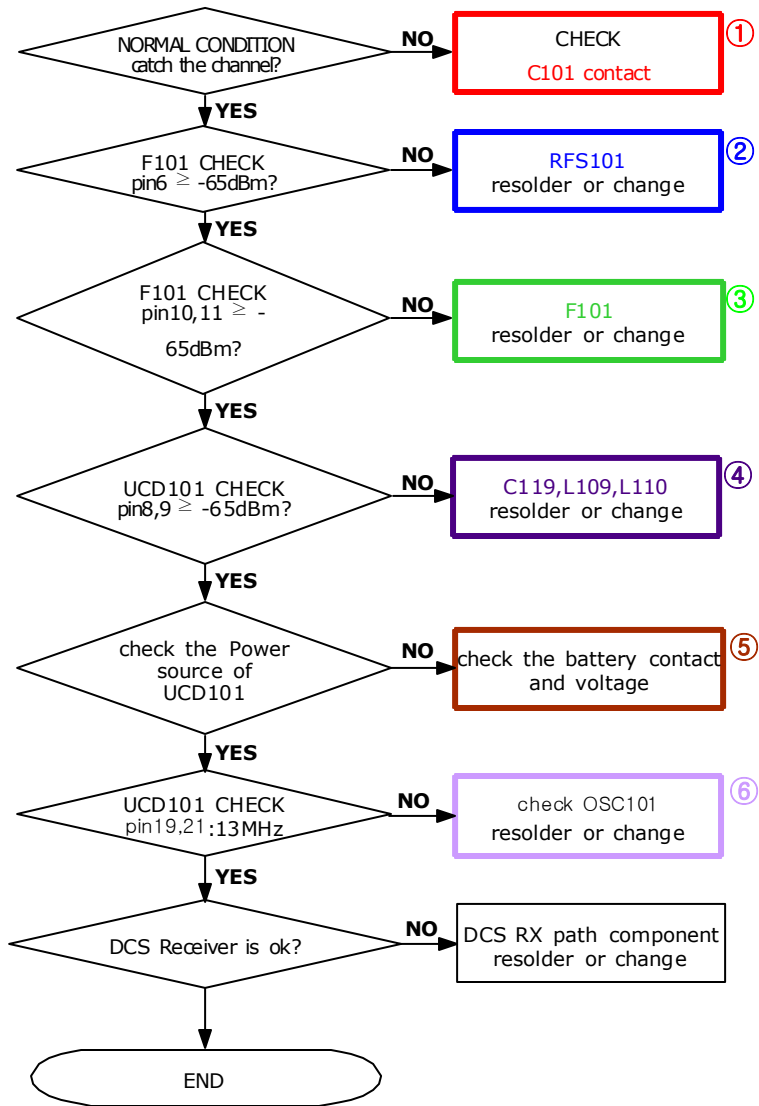
3-2-1. GSM Receiver

CONTINUOUS RX ON
RF INPUT : 62CH
Cell power : -50dBm



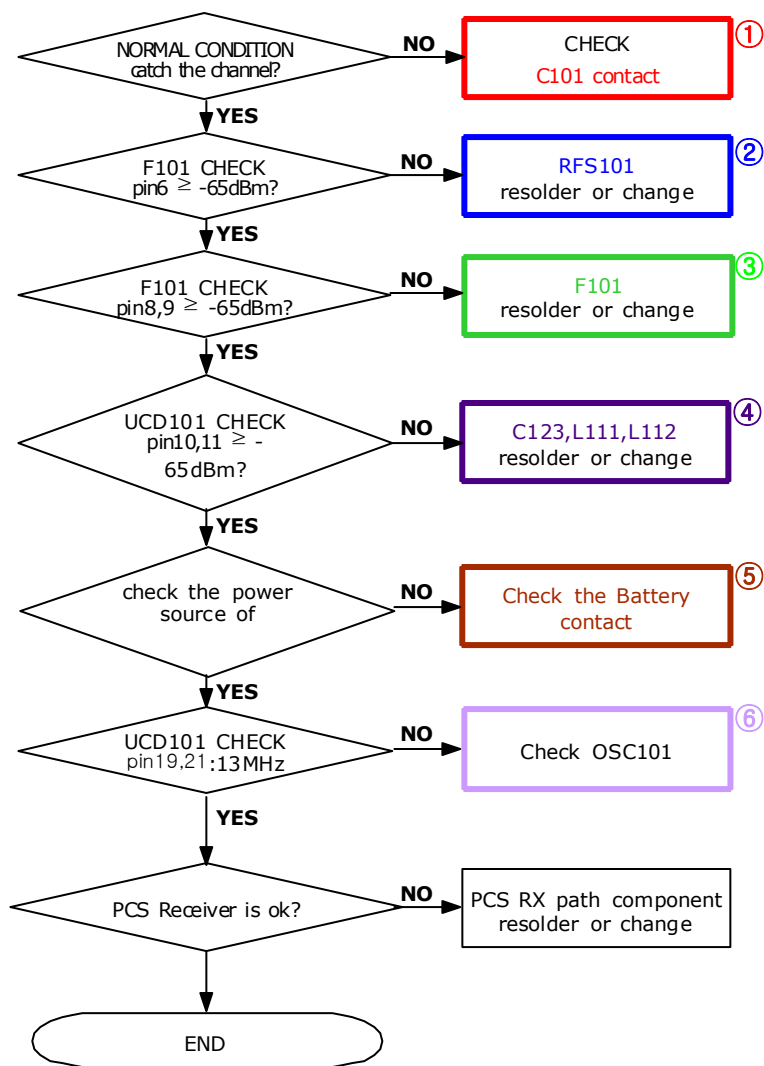
3-2-2. DCS Receiver

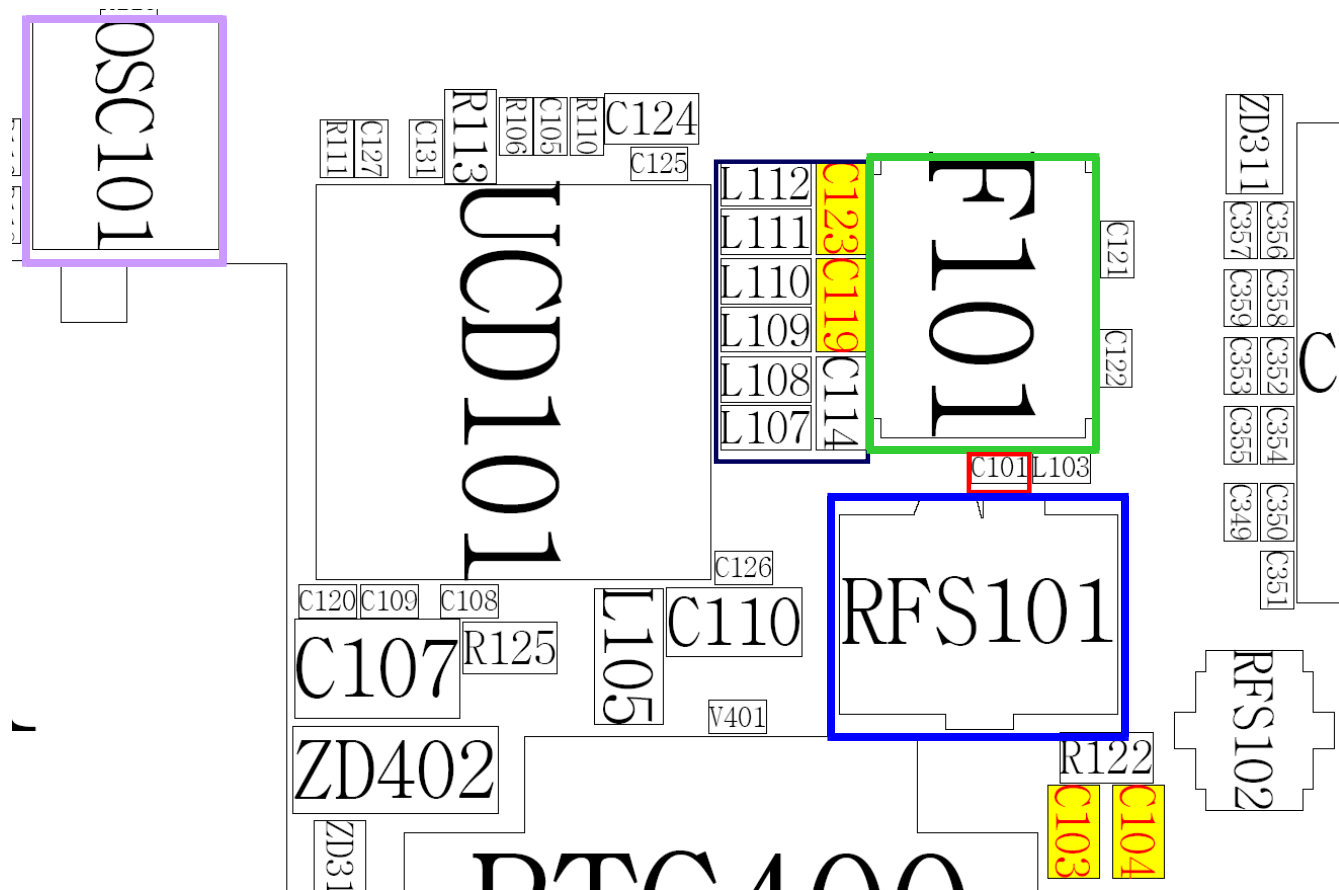
CONTINUOUS RX ON
RF INPUT : 698CH
Cell power : -50dBm

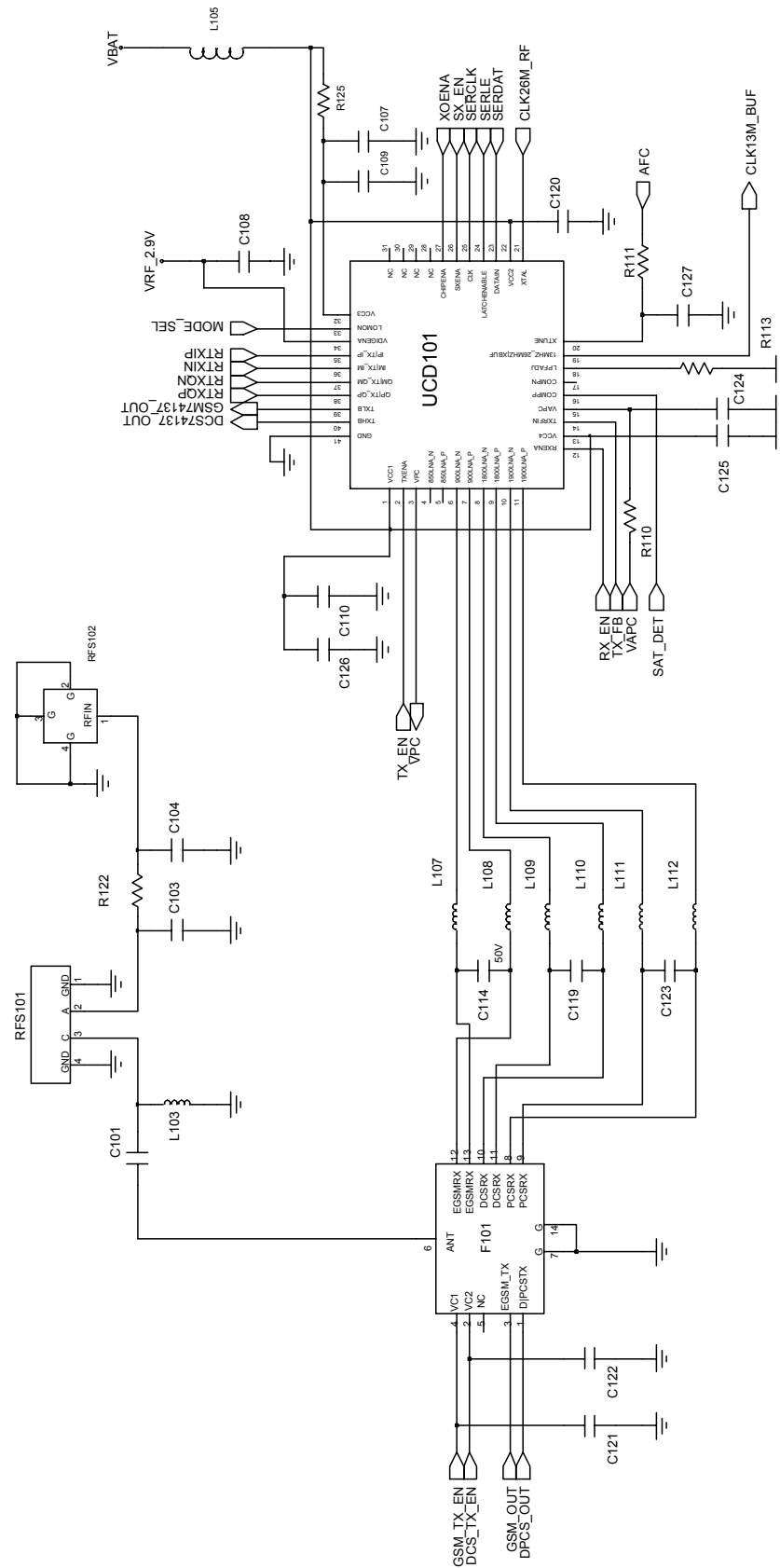


3-2-3. PCS Receiver

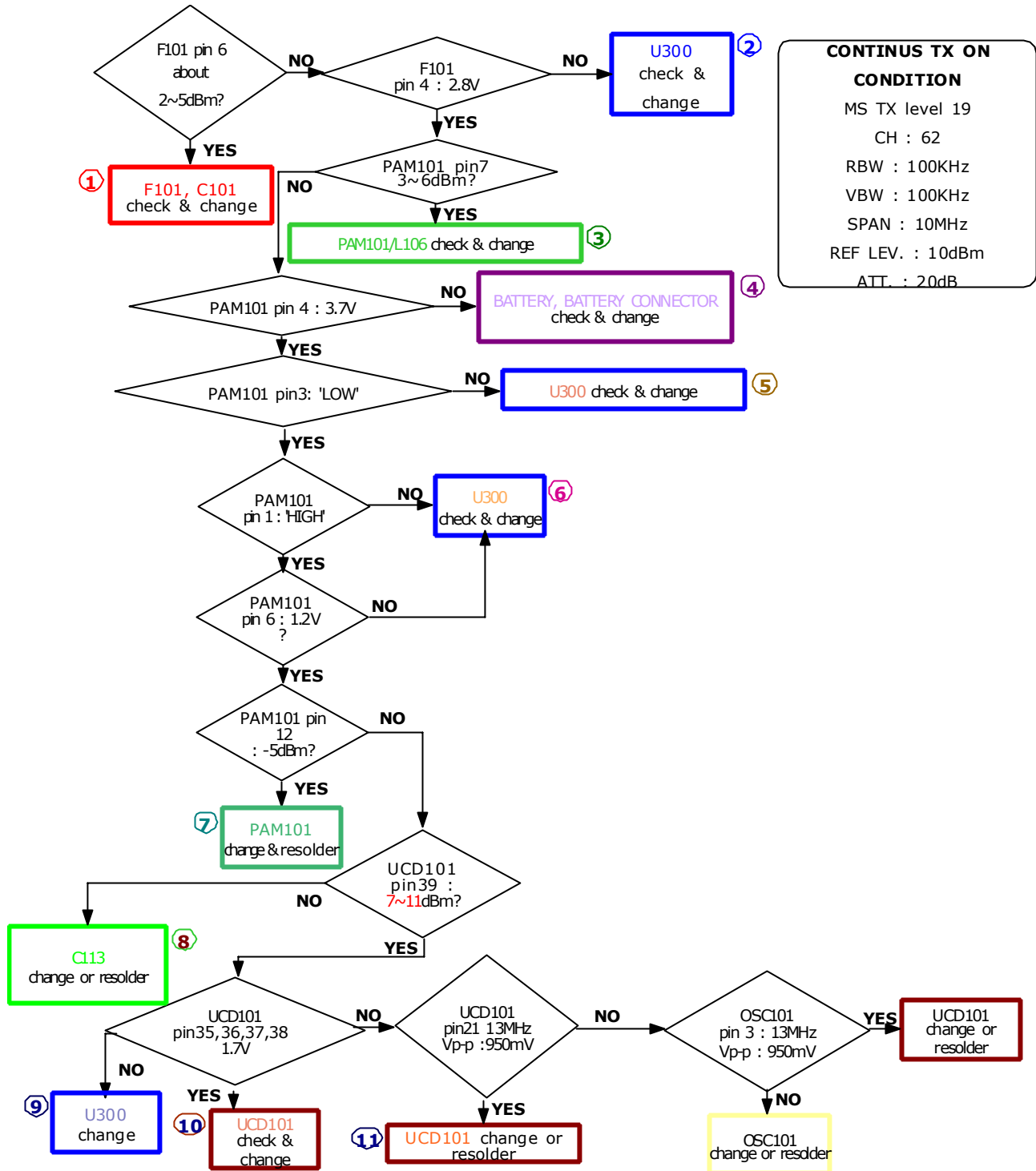
CONTINUOUS RX ON
RF INPUT : 698CH
Cell power : -50dBm



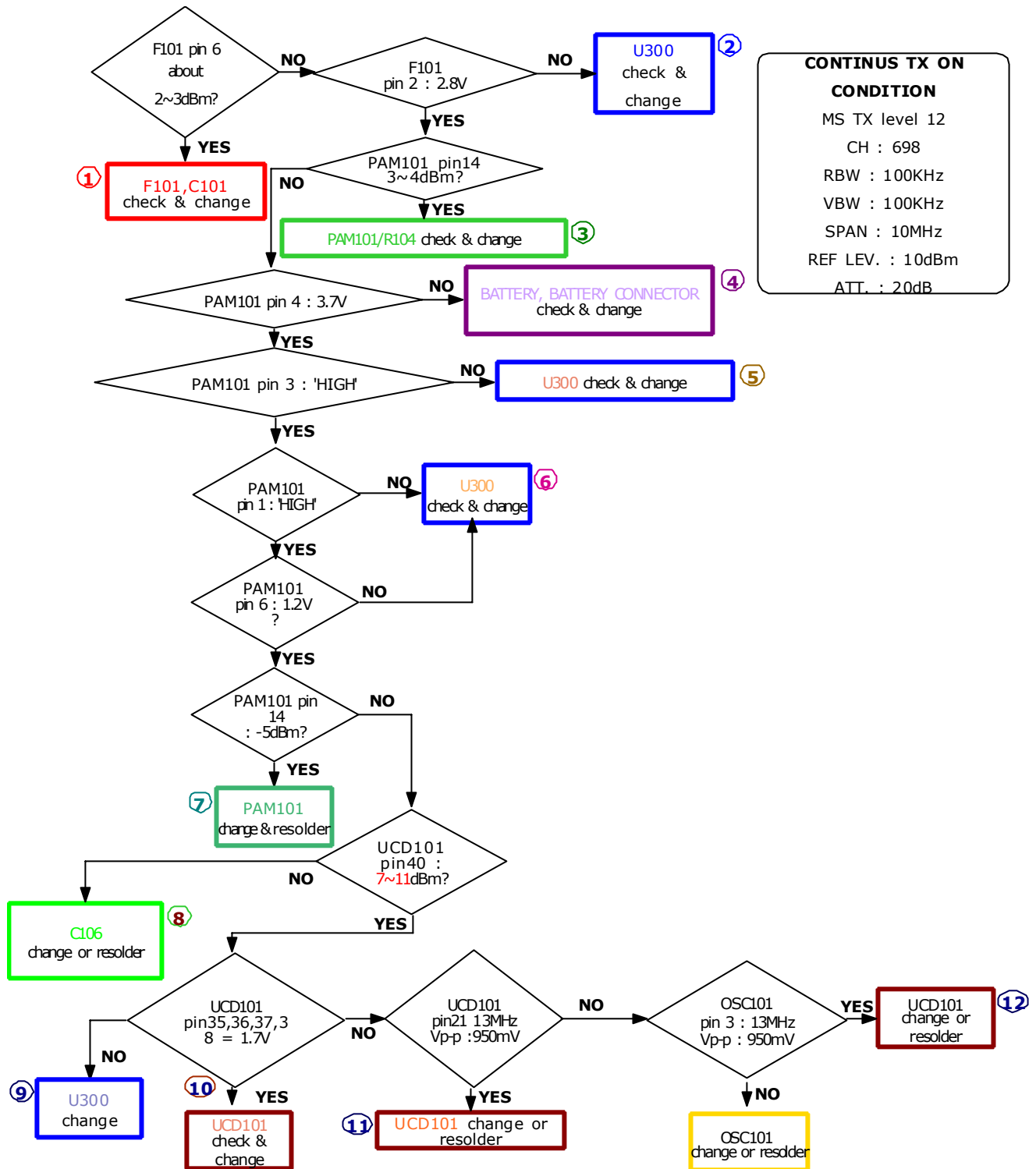




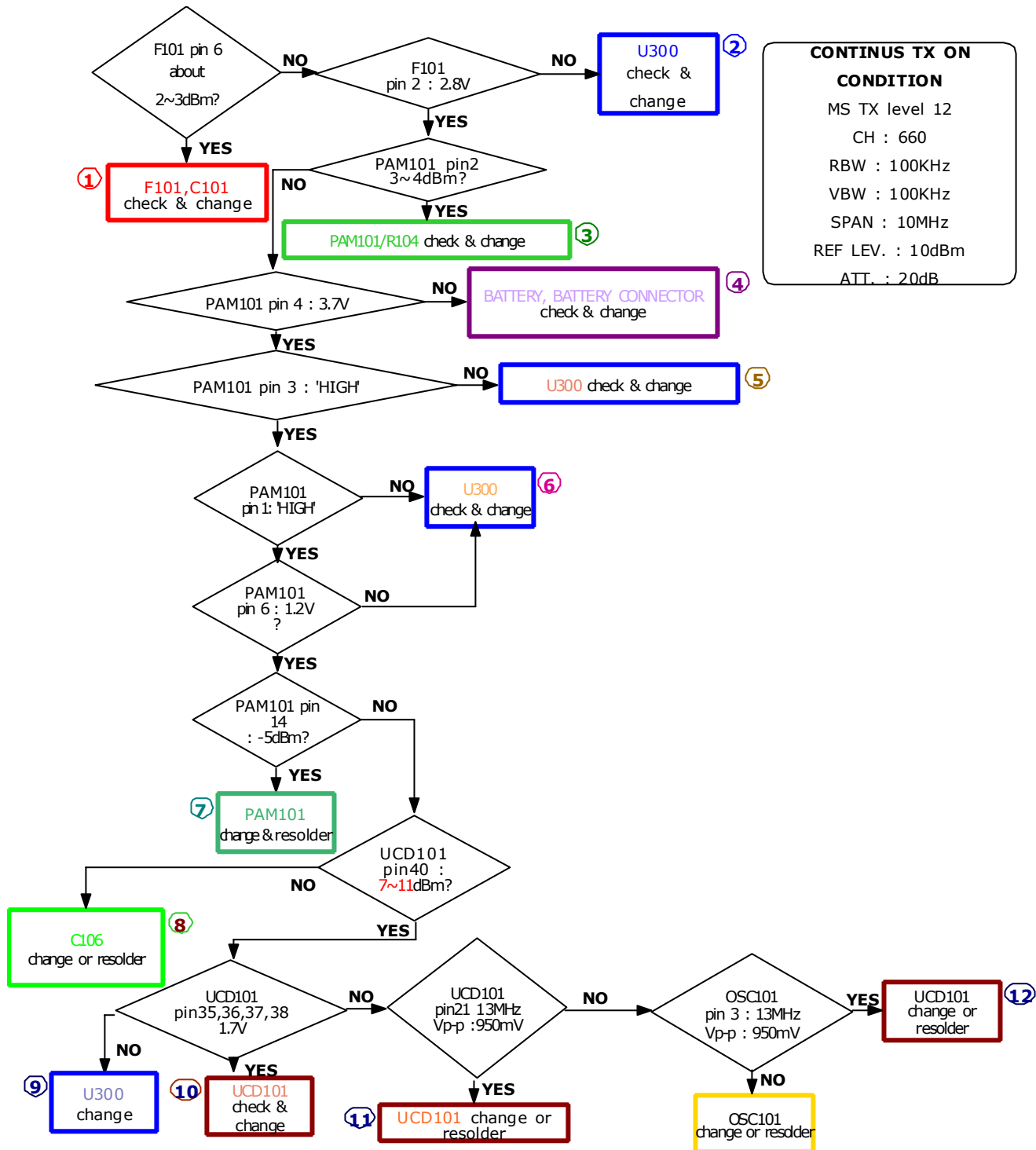
3-2-4. GSM Transmitter

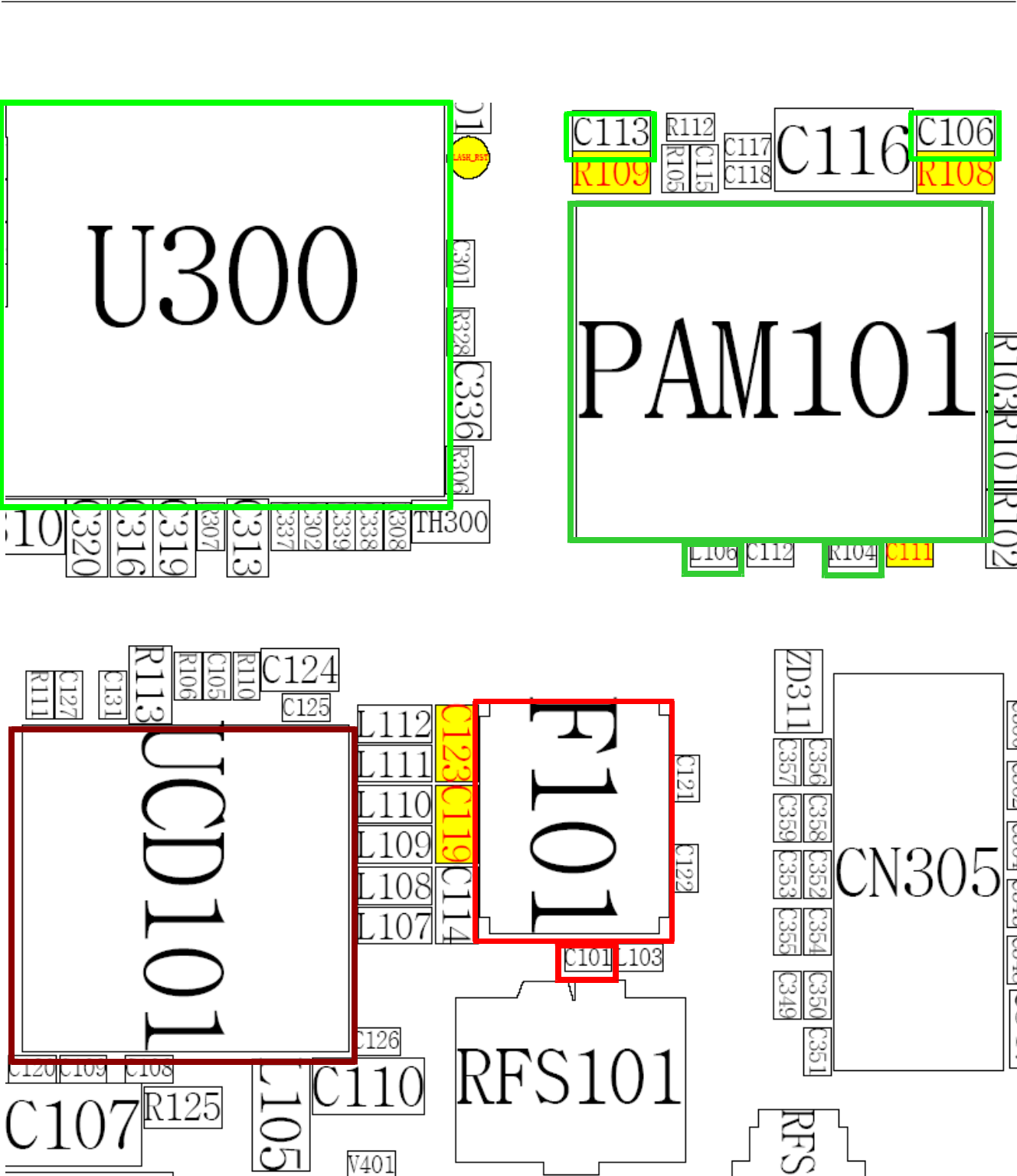


3-2-5. DCS Transmitter

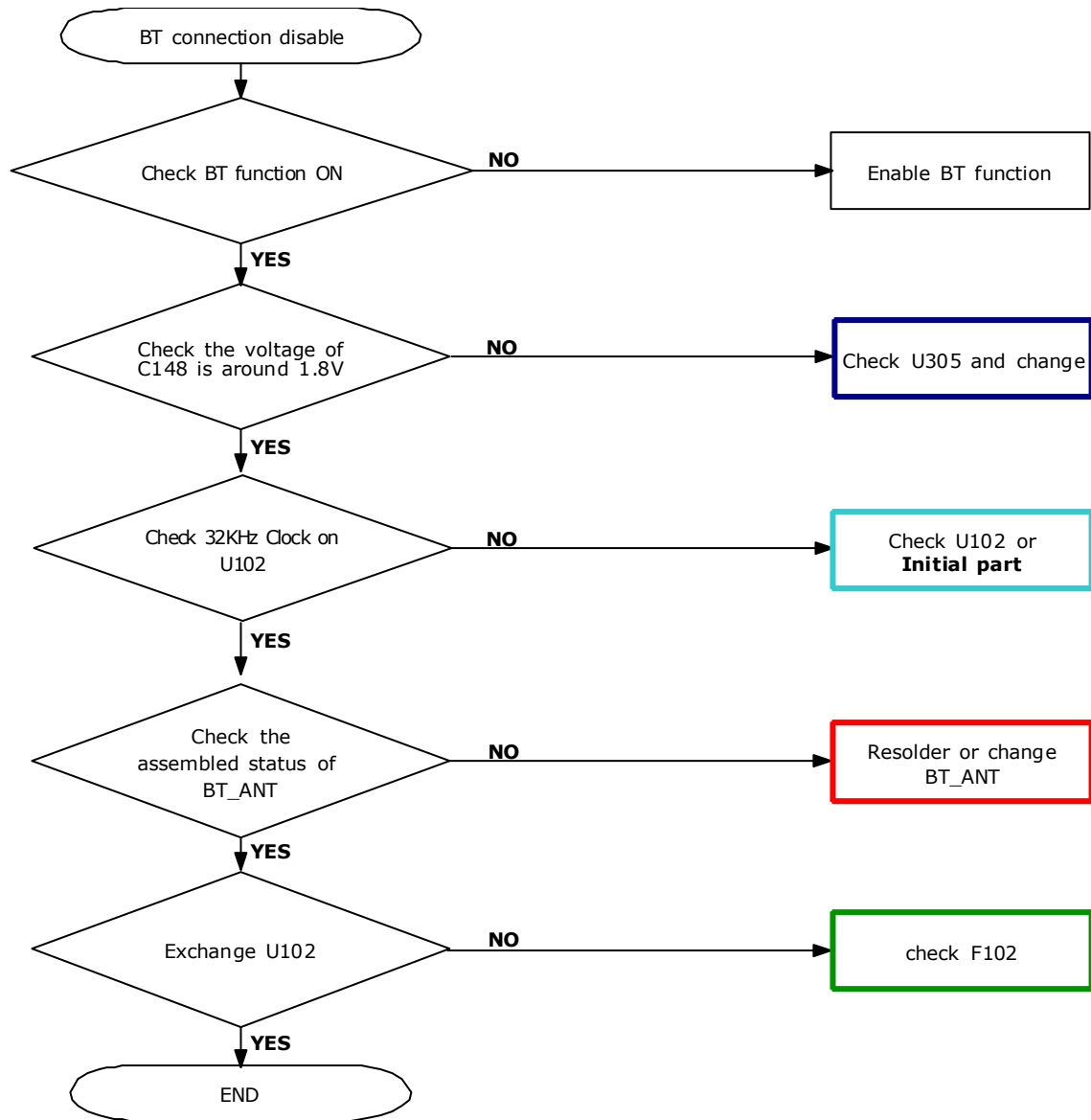


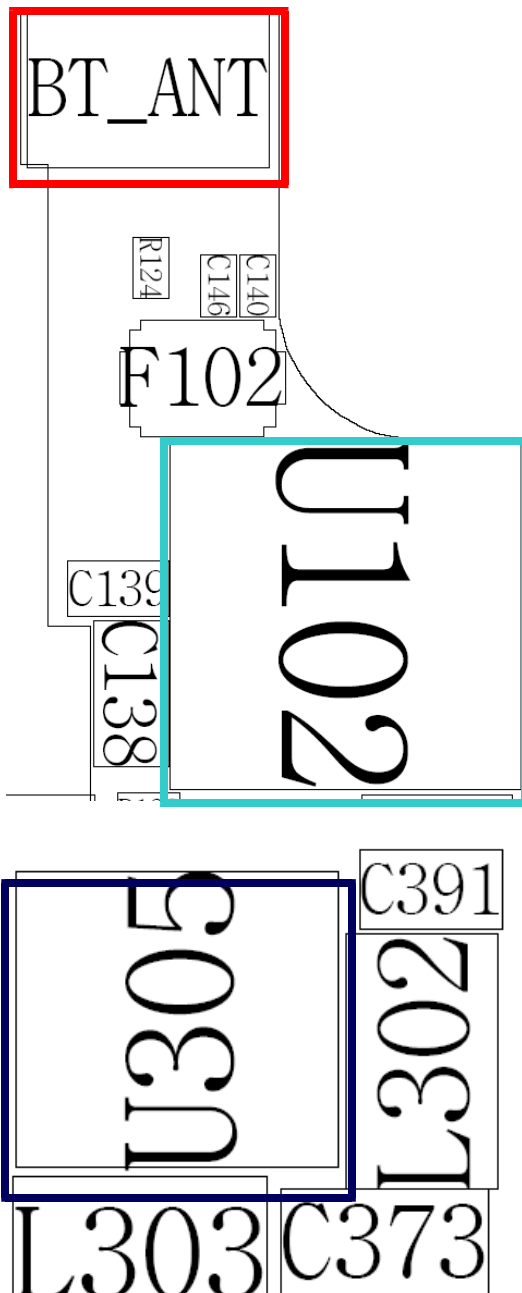
3-2-6. PCS Transmitter

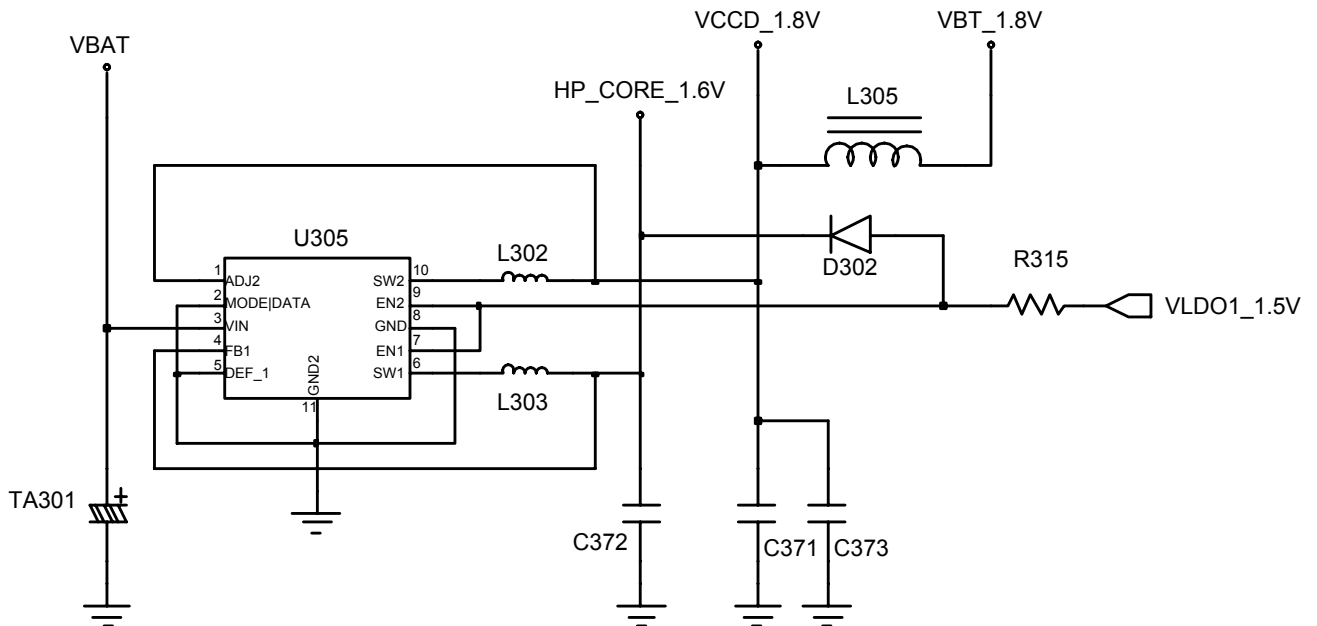
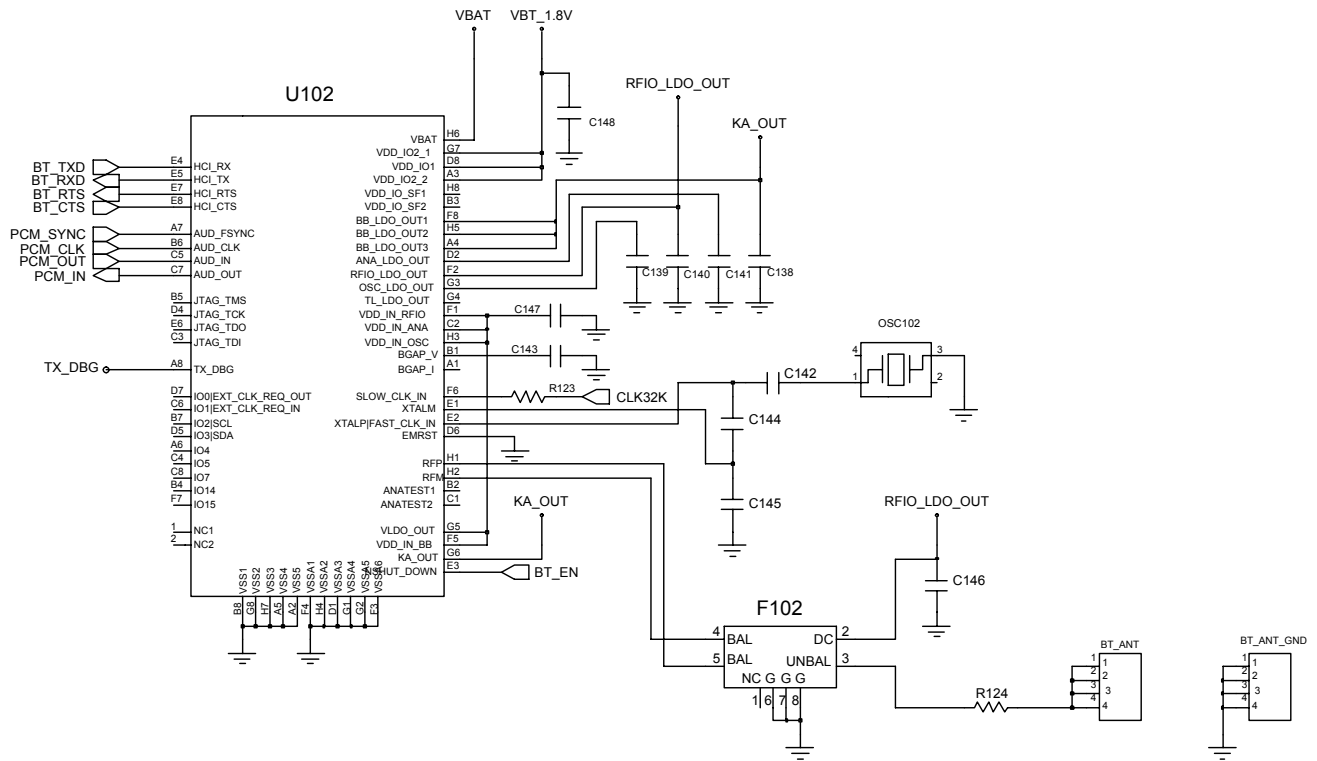




3-2-7. Bluetooth Part







4. Array course control



Test Jig (GH80-03308A)



Test Cable (GH39-00478A)



RF Test Cable (GH39-00397A)

Software Downloading

4-1. Downloading Binary Files

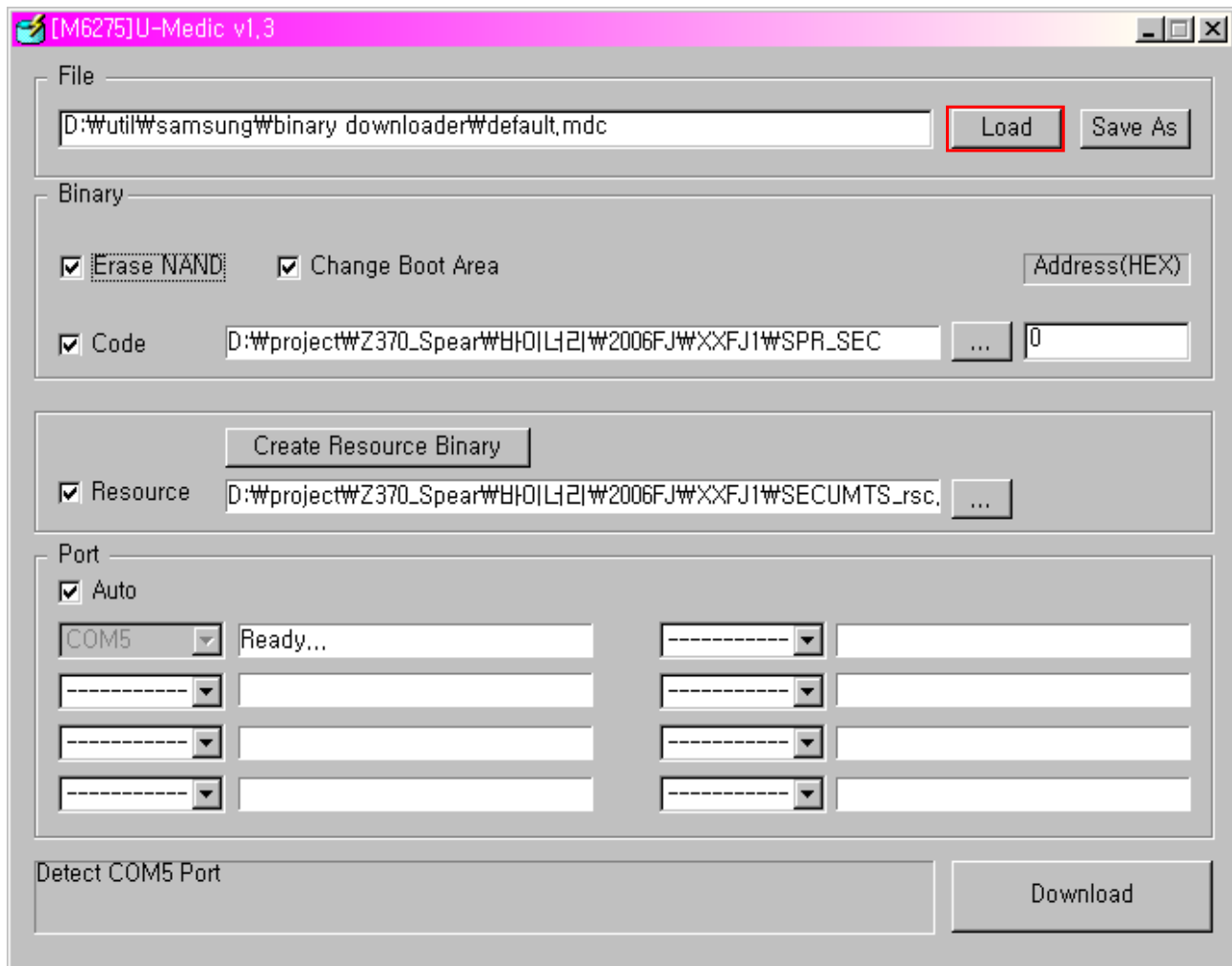
- Three binary files for downloading U100.
 - SPR_SEC : Main source code binary folder.
 - U100XXYYY_Rsc.bin : Resource file

4-2. Pre-requisite for Downloading

- Downloader Program([\[M6275\]U-Medic_v1\[1\].3.exe](#))
- U100 Mobile Phone
- Data Cable
- Binary files

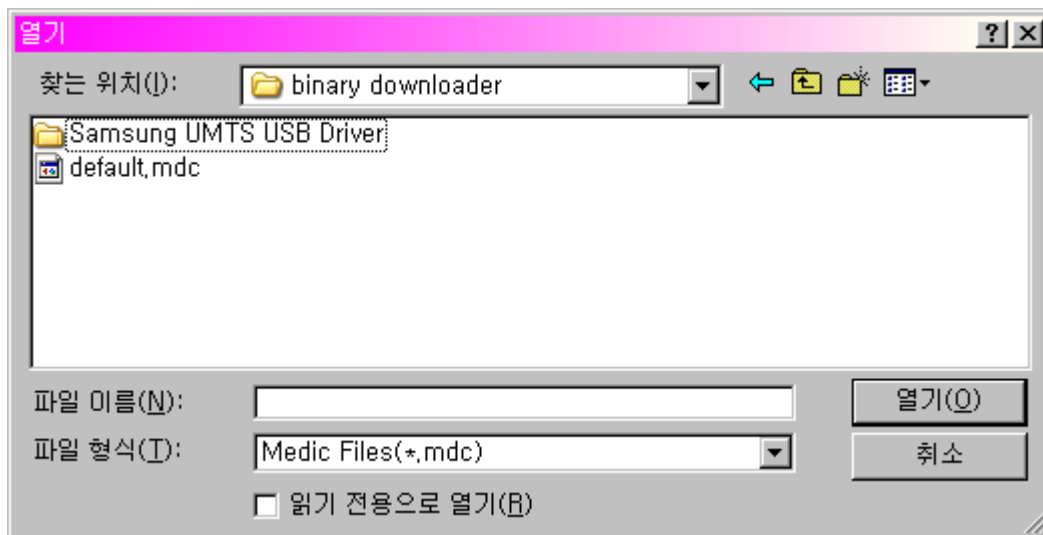
4-3. S/W Downloader Program

1. Load the binary download program by executing the “[M6275]U-Medic_v1[1].3.exe”

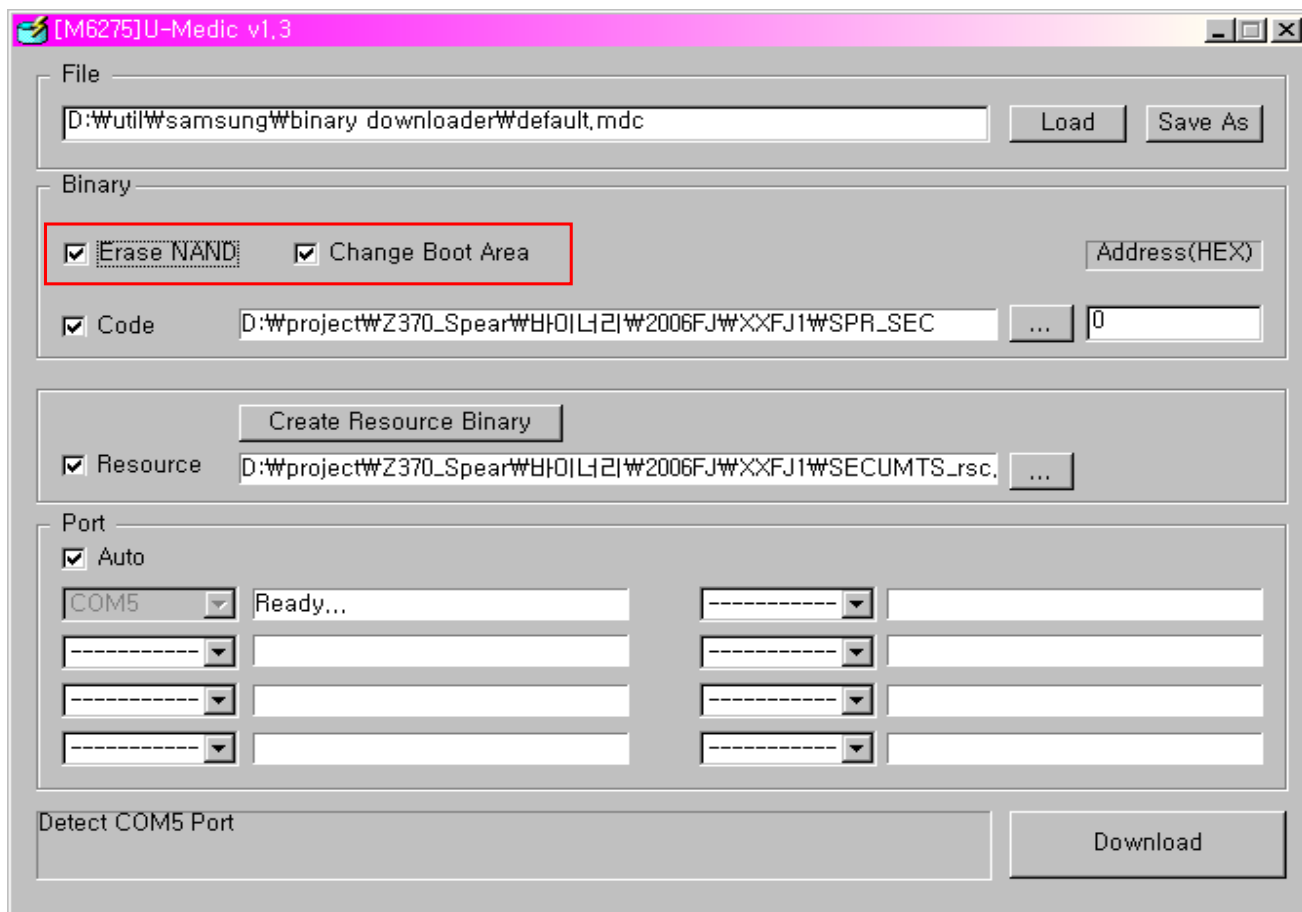


2. Load mdc file

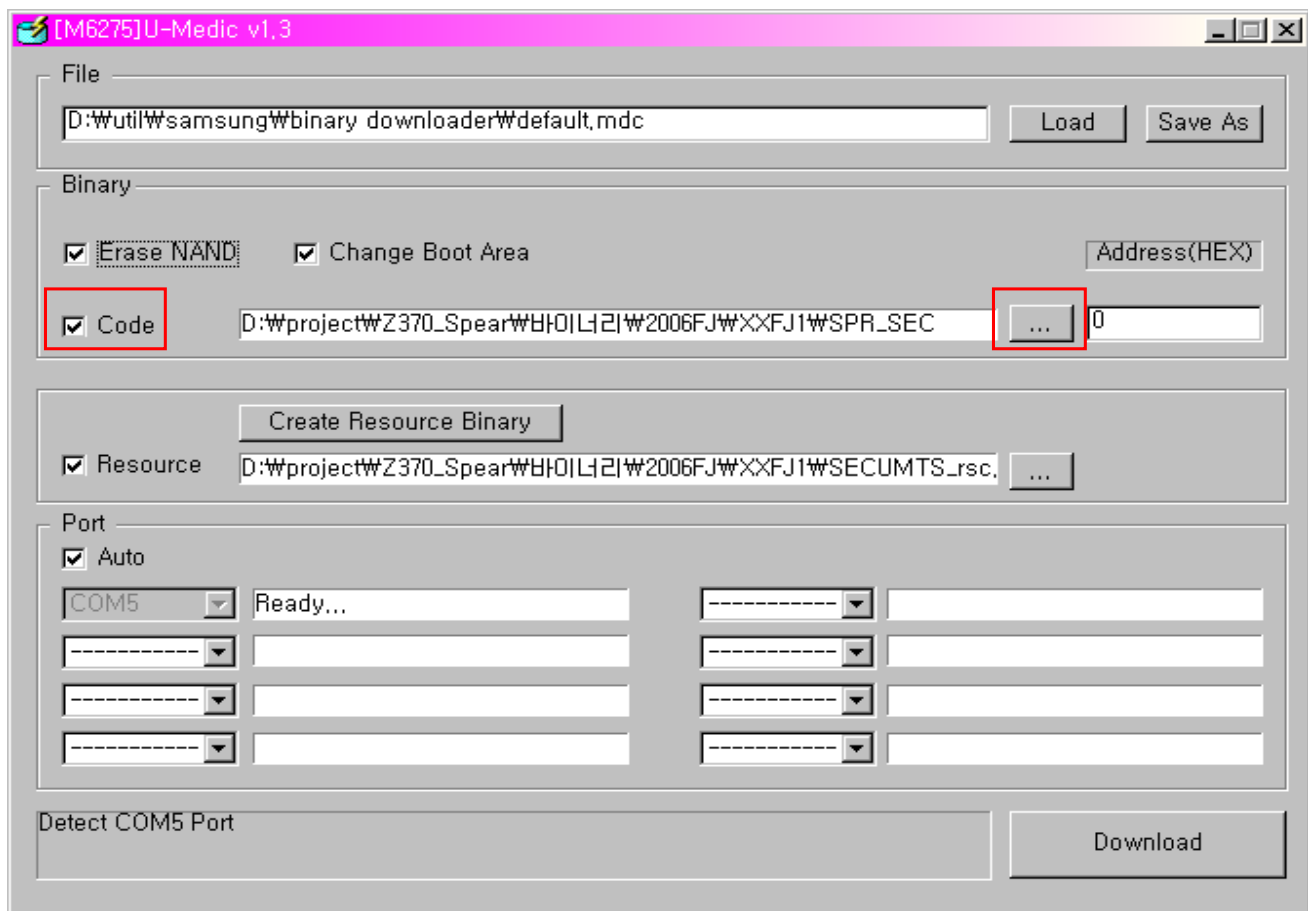
Click the "load" button, then choose the "default.mdc" file located in execution folder.



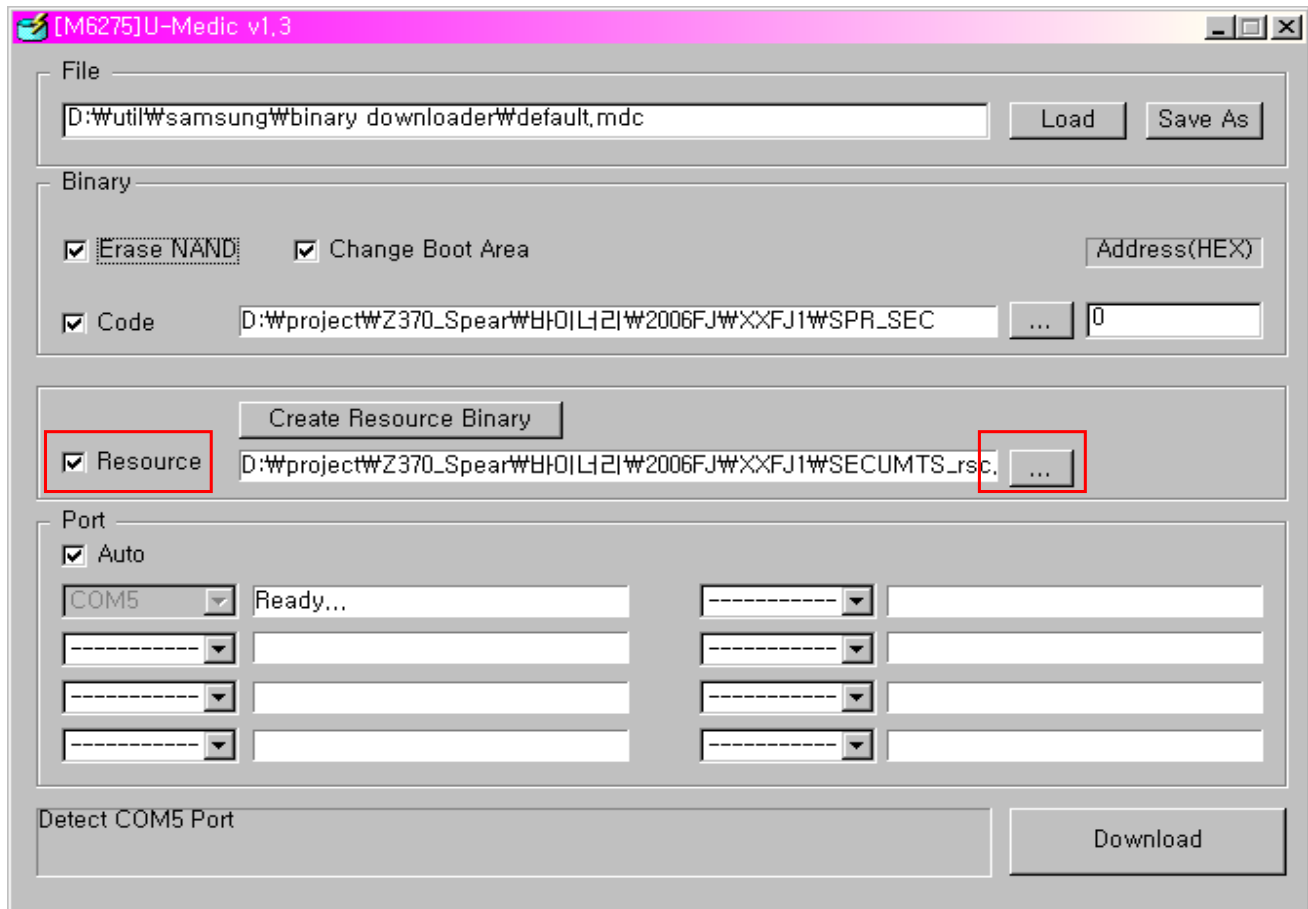
3. Check Erase NAND and Change Boot Area



4. Check Code and Select the binary folder.



5. Check Resource and Select the resource file.



6. Connect the download cable to the mobile.

Turn on the mobile phone pushing the "4" button at the same time.

When the phone is ready to download, you will see the "Ready...", Click the "Download" button.

If not, you have to install the samsung usb modem driver.

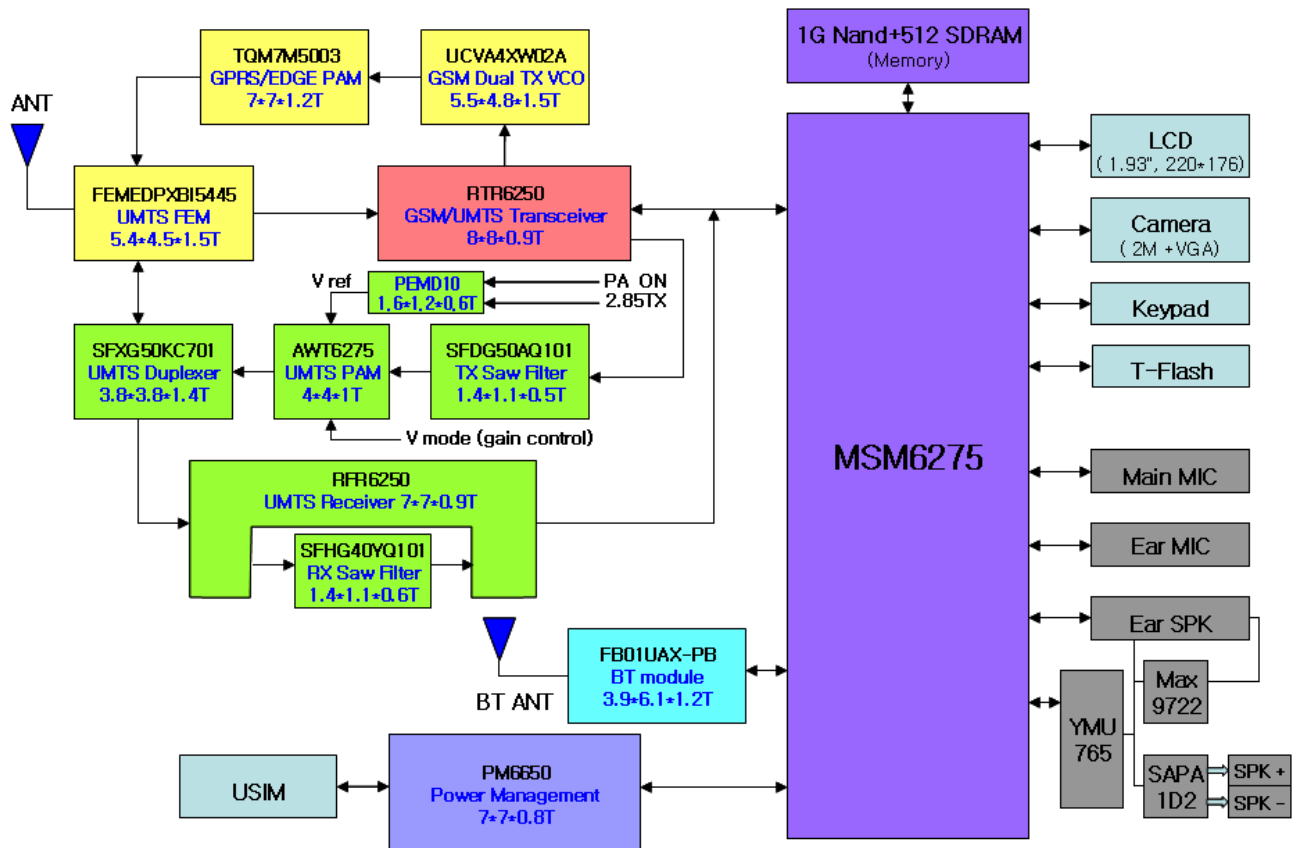
6. When downloading is finished successfully, there is a “ready...” message.
7. After finishing downloading, Certain memory resets should be done to guarantee the normal performance.
8. Confirm the downloaded version name and etc. :

***#1234#**

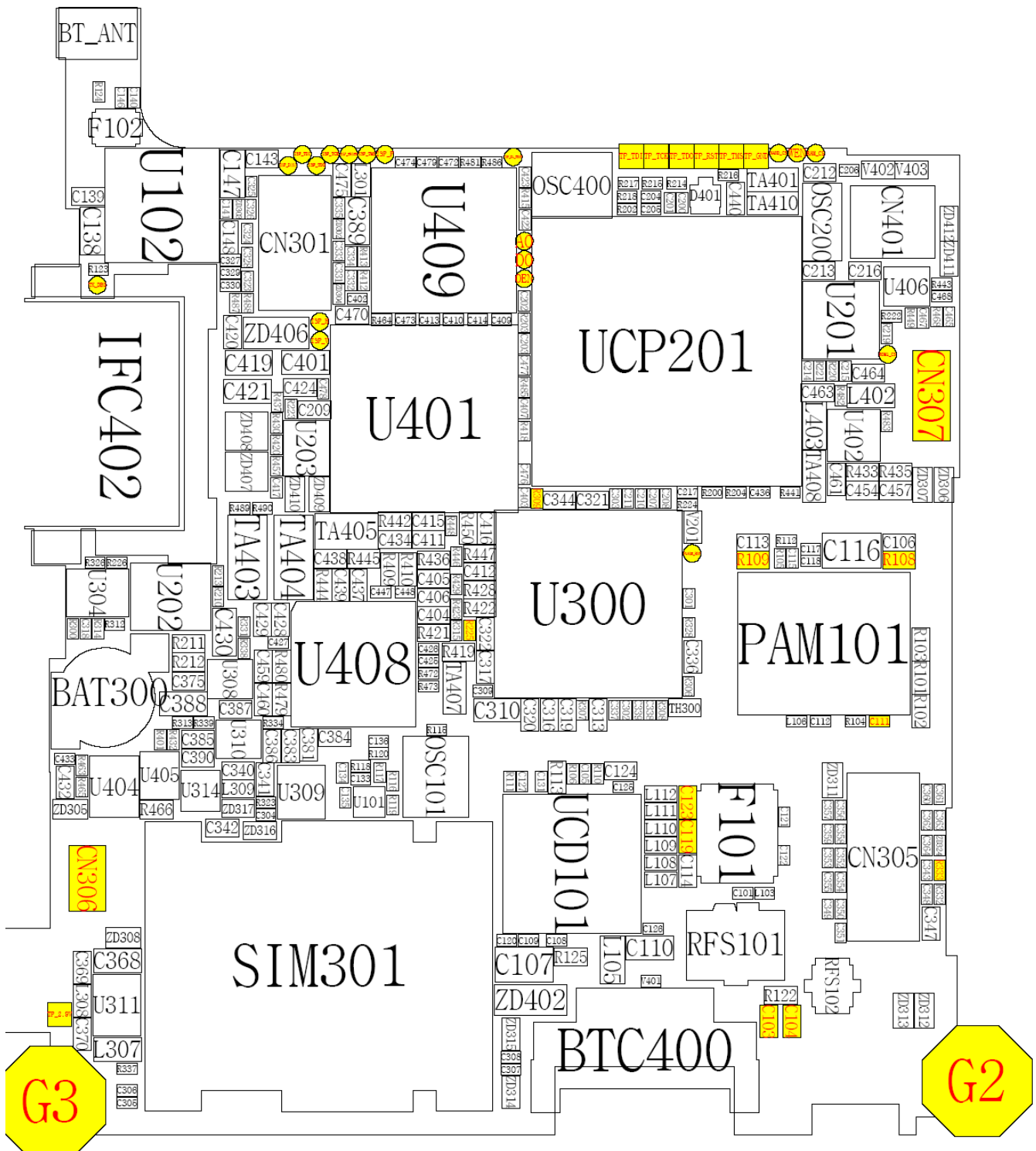
Full Reset :

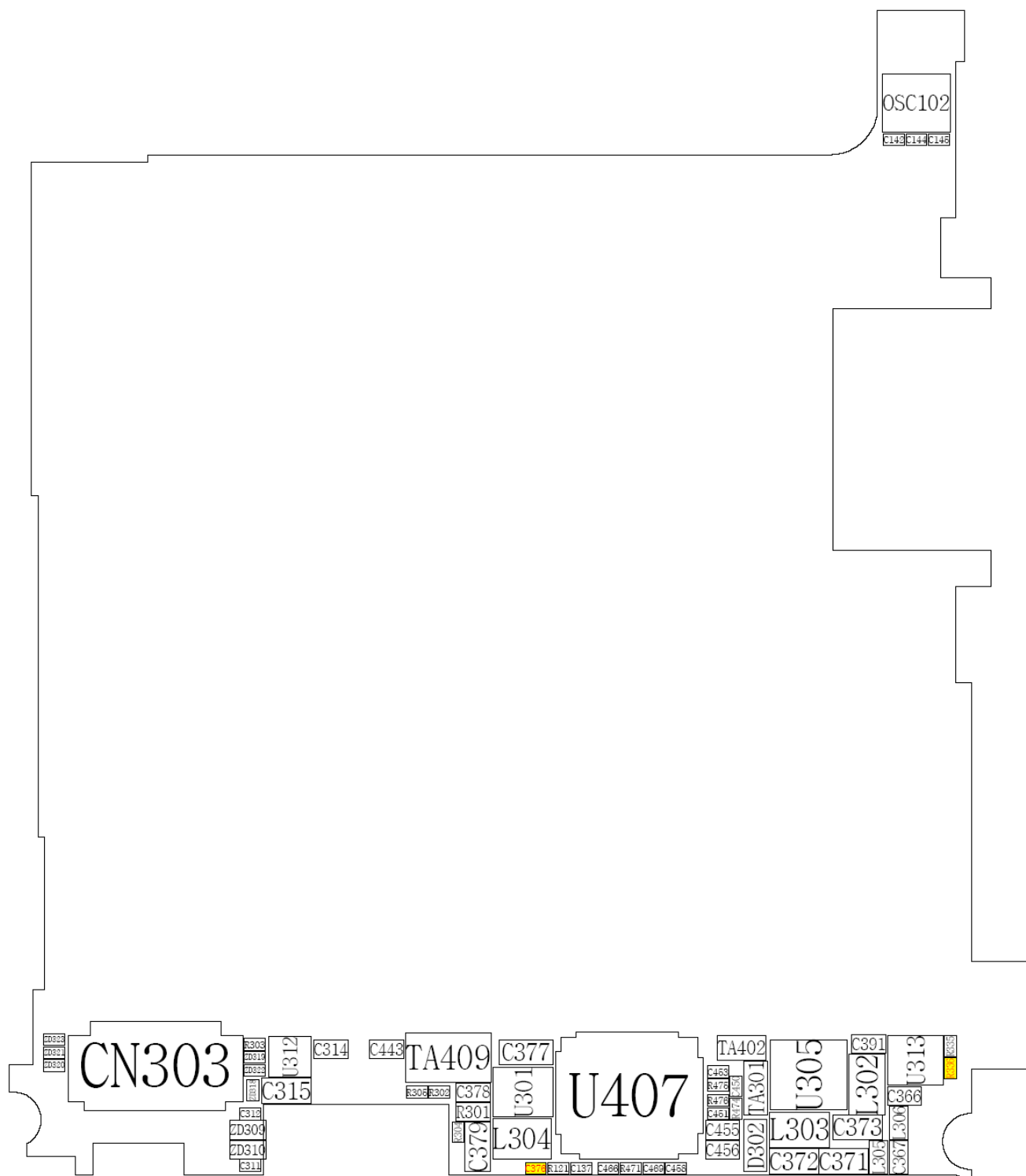
***2767*3855#**

5. Block Diagrams



6. PCB Diagrams





7. MAIN Electrical Parts List

SEC CODE	Design LOC	Discription	STATUS
0401-000164	D401	DIODE-SWITCHING	SA
0403-001411	ZD406	DIODE-ZENER	SA
0403-001547	ZD402	DIODE-ZENER	SA
0404-001172	D302	DIODE-SCHOTTKY	SA
0406-001190	ZD407	DIODE-TVS	SA
0406-001190	ZD408	DIODE-TVS	SA
0406-001210	ZD325	DIODE-TVS	SA
0406-001223	ZD309	DIODE-TVS	SA
0406-001223	ZD310	DIODE-TVS	SA
0406-001254	ZD305	DIODE-TVS	SA
0406-001254	ZD306	DIODE-TVS	SA
0406-001254	ZD307	DIODE-TVS	SA
0406-001254	ZD308	DIODE-TVS	SA
0406-001254	ZD311	DIODE-TVS	SA
0406-001254	ZD312	DIODE-TVS	SA
0406-001254	ZD313	DIODE-TVS	SA
0406-001267	ZD409	DIODE-TVS	SA
0406-001267	ZD410	DIODE-TVS	SA
0505-002207	U313	FET-SILICON	SA
0801-002958	U101	IC-CMOS LOGIC	SA
0801-002995	U304	IC-CMOS LOGIC	SA
1001-001231	U405	IC-ANALOG SWITCH	SA
1001-001401	U203	IC-ANALOG SWITCH	SA
1001-001428	U406	IC-ANALOG MULTIPLEX	SA
1108-000063	UCP201UP	IC-MCP	SA
1201-002147	U404	IC-VIDEO AMP	SA
1201-002233	U402	IC-AUDIO AMP	SA
1201-002368	PAM101	IC-POWER AMP	SA
1203-003754	U312	IC-POSIFIXED REG.	SA
1203-003754	U314	IC-POSIFIXED REG.	SA
1203-004119	U300	IC-POWER SUPERVISOR	SA
1203-004172	U301	IC-DC/DC CONVERTER	SA
1203-004340	U309	IC-MULTI REG.	SA
1203-004482	U305	IC-DC/DC CONVERTER	SA
1203-004518	U202	IC-BATTERY	SA
1203-004554	U311	IC-DC/DC CONVERTER	SA

SEC CODE	Design LOC	Discription	STATUS
1203-004595	U310	IC-MULTI REG.	SA
1203-004596	U308	IC-MULTI REG.	SA
1204-002138	U407	IC-MELODY	SA
1204-002742	U409	IC-VIDEO PROCESS	SA
1205-002272	U201	IC-TRANSCEIVER	SA
1205-002696	U102	IC-DATA COMM./GEN.	SA
1205-002944	UCD101	IC-TRANSCEIVER	SA
1205-002946	U408	IC-CODEC	SA
1205-003210	U401	IC-CODEC	SA
1404-001165	TH300	THERMISTOR-NTC	SA
1405-001082	V201	VARISTOR	SA
1405-001082	V401	VARISTOR	SA
1405-001082	V402	VARISTOR	SA
1405-001082	V403	VARISTOR	SA
1405-001093	ZD316	VARISTOR	SA
1405-001177	ZD302	VARISTOR	SA
1405-001177	ZD303	VARISTOR	SA
1405-001177	ZD304	VARISTOR	SA
1405-001177	ZD318	VARISTOR	SA
1405-001177	ZD319	VARISTOR	SA
1405-001177	ZD320	VARISTOR	SA
1405-001177	ZD321	VARISTOR	SA
1405-001177	ZD322	VARISTOR	SA
1405-001177	ZD323	VARISTOR	SA
1405-001177	ZD324	VARISTOR	SA
1405-001177	ZD411	VARISTOR	SA
1405-001177	ZD412	VARISTOR	SA
2007-000139	R102	R-CHIP	SA
2007-000139	R103	R-CHIP	SA
2007-000141	R421	R-CHIP	SA
2007-000141	R436	R-CHIP	SA
2007-000141	R473	R-CHIP	SA
2007-000141	R488	R-CHIP	SA
2007-000148	R483	R-CHIP	SA
2007-000171	R122	R-CHIP	SA
2007-000171	R123	R-CHIP	SA

SEC CODE	Design LOC	Discription	STATUS
2007-000171	R125	R-CHIP	SA
2007-000171	R328	R-CHIP	SA
2007-000171	R337	R-CHIP	SA
2007-000171	R344	R-CHIP	SA
2007-000171	R409	R-CHIP	SA
2007-000171	R410	R-CHIP	SA
2007-000173	R479	R-CHIP	SA
2007-000173	R480	R-CHIP	SA
2007-001119	R419	R-CHIP	SA
2007-001119	R442	R-CHIP	SA
2007-001290	R101	R-CHIP	SA
2007-007009	R466	R-CHIP	SA
2007-007131	R212	R-CHIP	SA
2007-007134	R113	R-CHIP	SA
2007-007134	R433	R-CHIP	SA
2007-007134	R435	R-CHIP	SA
2007-007314	R211	R-CHIP	SA
2007-007528	R444	R-CHIP	SA
2007-007528	R445	R-CHIP	SA
2007-007590	R422	R-CHIP	SA
2007-007590	R428	R-CHIP	SA
2007-007590	R447	R-CHIP	SA
2007-007590	R450	R-CHIP	SA
2007-007741	R110	R-CHIP	SA
2007-007741	R302	R-CHIP	SA
2007-007741	R340	R-CHIP	SA
2007-007741	R423	R-CHIP	SA
2007-007741	R429	R-CHIP	SA
2007-007741	R446	R-CHIP	SA
2007-007741	R448	R-CHIP	SA
2007-007741	R468	R-CHIP	SA
2007-007741	R482	R-CHIP	SA
2007-007798	R301	R-CHIP	SA
2007-008044	R112	R-CHIP	SA
2007-008045	R118	R-CHIP	SA
2007-008045	R121	R-CHIP	SA

SEC CODE	Design LOC	Discription	STATUS
2007-008045	R223	R-CHIP	SA
2007-008045	R401	R-CHIP	SA
2007-008051	R471	R-CHIP	SA
2007-008052	R307	R-CHIP	SA
2007-008052	R464	R-CHIP	SA
2007-008055	R202	R-CHIP	SA
2007-008055	R203	R-CHIP	SA
2007-008055	R204	R-CHIP	SA
2007-008055	R312	R-CHIP	SA
2007-008055	R326	R-CHIP	SA
2007-008055	R332	R-CHIP	SA
2007-008055	R341	R-CHIP	SA
2007-008055	R485	R-CHIP	SA
2007-008057	R465	R-CHIP	SA
2007-008297	R306	R-CHIP	SA
2007-008419	R430	R-CHIP	SA
2007-008419	R432	R-CHIP	SA
2007-008419	R437	R-CHIP	SA
2007-008420	R220	R-CHIP	SA
2007-008420	R221	R-CHIP	SA
2007-008420	R489	R-CHIP	SA
2007-008420	R490	R-CHIP	SA
2007-008478	R219	R-CHIP	SA
2007-008483	R214	R-CHIP	SA
2007-008483	R215	R-CHIP	SA
2007-008483	R216	R-CHIP	SA
2007-008483	R217	R-CHIP	SA
2007-008483	R218	R-CHIP	SA
2007-008483	R222	R-CHIP	SA
2007-008483	R303	R-CHIP	SA
2007-008483	R305	R-CHIP	SA
2007-008483	R313	R-CHIP	SA
2007-008483	R323	R-CHIP	SA
2007-008483	R331	R-CHIP	SA
2007-008483	R334	R-CHIP	SA
2007-008483	R343	R-CHIP	SA

SEC CODE	Design LOC	Discription	STATUS
2007-008483	R420	R-CHIP	SA
2007-008483	R441	R-CHIP	SA
2007-008483	R463	R-CHIP	SA
2007-008516	R111	R-CHIP	SA
2007-008516	R200	R-CHIP	SA
2007-008531	R224	R-CHIP	SA
2007-008542	R104	R-CHIP	SA
2007-008542	R106	R-CHIP	SA
2007-008542	R115	R-CHIP	SA
2007-008542	R116	R-CHIP	SA
2007-008542	R124	R-CHIP	SA
2007-008542	R225	R-CHIP	SA
2007-008542	R315	R-CHIP	SA
2007-008542	R335	R-CHIP	SA
2007-008542	R481	R-CHIP	SA
2007-008587	R117	R-CHIP	SA
2007-008588	R105	R-CHIP	SA
2007-008588	R300	R-CHIP	SA
2007-008588	R412	R-CHIP	SA
2007-008588	R413	R-CHIP	SA
2007-008588	R472	R-CHIP	SA
2007-008588	R487	R-CHIP	SA
2007-008765	R308	R-CHIP	SNA
2007-008786	R304	R-CHIP	SA
2007-008808	R475	R-CHIP	SA
2007-009084	R415	R-CHIP	SA
2007-009111	R443	R-CHIP	SA
2007-009111	R449	R-CHIP	SA
2007-009158	R474	R-CHIP	SA
2007-009169	R213	R-CHIP	SA
2007-009170	R314	R-CHIP	SA
2007-009170	R342	R-CHIP	SA
2007-009170	R457	R-CHIP	SA
2007-009171	R338	R-CHIP	SA
2007-009171	R339	R-CHIP	SA
2007-009171	R476	R-CHIP	SA

SEC CODE	Design LOC	Discription	STATUS
2007-009233	R226	R-CHIP	SA
2007-009314	R119	R-CHIP	SA
2007-009354	R418	R-CHIP	SA
2203-000254	C126	C-CER,CHIP	SA
2203-000254	C338	C-CER,CHIP	SA
2203-000278	C212	C-CER,CHIP	SA
2203-000278	C213	C-CER,CHIP	SA
2203-000311	C124	C-CER,CHIP	SA
2203-000330	C106	C-CER,CHIP	SA
2203-000386	C438	C-CER,CHIP	SA
2203-000438	C463	C-CER,CHIP	SA
2203-000438	C464	C-CER,CHIP	SA
2203-000812	C113	C-CER,CHIP	SA
2203-000812	C351	C-CER,CHIP	SA
2203-000812	C360	C-CER,CHIP	SA
2203-000812	C406	C-CER,CHIP	SA
2203-000812	C412	C-CER,CHIP	SA
2203-000812	C416	C-CER,CHIP	SA
2203-001405	C336	C-CER,CHIP	SA
2203-002677	C114	C-CER,CHIP	SA
2203-002709	C437	C-CER,CHIP	SA
2203-002709	C439	C-CER,CHIP	SA
2203-002709	C440	C-CER,CHIP	SA
2203-002709	C443	C-CER,CHIP	SA
2203-002709	C461	C-CER,CHIP	SA
2203-005481	C411	C-CER,CHIP	SA
2203-005481	C415	C-CER,CHIP	SA
2203-005482	C301	C-CER,CHIP	SA
2203-005682	C118	C-CER,CHIP	SA
2203-005682	C134	C-CER,CHIP	SA
2203-005682	C137	C-CER,CHIP	SA
2203-005682	C307	C-CER,CHIP	SA
2203-005682	C308	C-CER,CHIP	SA
2203-005682	C311	C-CER,CHIP	SA
2203-005682	C312	C-CER,CHIP	SA
2203-005682	C326	C-CER,CHIP	SA

SEC CODE	Design LOC	Discription	STATUS
2203-005682	C327	C-CER,CHIP	SA
2203-005682	C328	C-CER,CHIP	SA
2203-005682	C329	C-CER,CHIP	SA
2203-005682	C330	C-CER,CHIP	SA
2203-005682	C331	C-CER,CHIP	SA
2203-005682	C332	C-CER,CHIP	SA
2203-005682	C333	C-CER,CHIP	SA
2203-005682	C334	C-CER,CHIP	SA
2203-005682	C335	C-CER,CHIP	SA
2203-005682	C349	C-CER,CHIP	SA
2203-005682	C350	C-CER,CHIP	SA
2203-005682	C352	C-CER,CHIP	SA
2203-005682	C353	C-CER,CHIP	SA
2203-005682	C354	C-CER,CHIP	SA
2203-005682	C355	C-CER,CHIP	SA
2203-005682	C356	C-CER,CHIP	SA
2203-005682	C357	C-CER,CHIP	SA
2203-005682	C358	C-CER,CHIP	SA
2203-005682	C359	C-CER,CHIP	SA
2203-005682	C361	C-CER,CHIP	SA
2203-005682	C362	C-CER,CHIP	SA
2203-005682	C363	C-CER,CHIP	SA
2203-005682	C364	C-CER,CHIP	SA
2203-005682	C479	C-CER,CHIP	SA
2203-005719	C447	C-CER,CHIP	SA
2203-005719	C448	C-CER,CHIP	SA
2203-005719	C467	C-CER,CHIP	SA
2203-005719	C468	C-CER,CHIP	SA
2203-005725	C101	C-CER,CHIP	SA
2203-005725	C109	C-CER,CHIP	SA
2203-005725	C146	C-CER,CHIP	SA
2203-005736	C105	C-CER,CHIP	SA
2203-005736	C318	C-CER,CHIP	SA
2203-005736	C425	C-CER,CHIP	SA
2203-005736	C427	C-CER,CHIP	SA
2203-005742	C144	C-CER,CHIP	SA

SEC CODE	Design LOC	Discription	STATUS
2203-005742	C145	C-CER,CHIP	SA
2203-005792	C112	C-CER,CHIP	SA
2203-005806	C142	C-CER,CHIP	SNA
2203-005806	C466	C-CER,CHIP	SNA
2203-006048	C209	C-CER,CHIP	SA
2203-006121	C115	C-CER,CHIP	SA
2203-006121	C305	C-CER,CHIP	SA
2203-006141	C419	C-CER,CHIP	SA
2203-006141	C421	C-CER,CHIP	SA
2203-006194	C127	C-CER,CHIP	SA
2203-006194	C200	C-CER,CHIP	SA
2203-006194	C203	C-CER,CHIP	SA
2203-006194	C205	C-CER,CHIP	SA
2203-006194	C207	C-CER,CHIP	SA
2203-006194	C208	C-CER,CHIP	SA
2203-006194	C211	C-CER,CHIP	SA
2203-006194	C217	C-CER,CHIP	SA
2203-006194	C302	C-CER,CHIP	SA
2203-006194	C309	C-CER,CHIP	SA
2203-006257	C143	C-CER,CHIP	SA
2203-006257	C316	C-CER,CHIP	SA
2203-006257	C347	C-CER,CHIP	SA
2203-006257	C378	C-CER,CHIP	SA
2203-006257	C434	C-CER,CHIP	SA
2203-006260	C404	C-CER,CHIP	SA
2203-006260	C405	C-CER,CHIP	SA
2203-006305	C121	C-CER,CHIP	SA
2203-006305	C122	C-CER,CHIP	SA
2203-006305	C133	C-CER,CHIP	SA
2203-006305	C304	C-CER,CHIP	SA
2203-006305	C422	C-CER,CHIP	SA
2203-006305	C423	C-CER,CHIP	SA
2203-006324	C110	C-CER,CHIP	SA
2203-006348	C379	C-CER,CHIP	SA
2203-006348	C430	C-CER,CHIP	SA
2203-006361	C107	C-CER,CHIP	SA

SEC CODE	Design LOC	Discription	STATUS
2203-006361	C116	C-CER,CHIP	SA
2203-006423	C108	C-CER,CHIP	SA
2203-006423	C135	C-CER,CHIP	SA
2203-006423	C140	C-CER,CHIP	SA
2203-006423	C141	C-CER,CHIP	SA
2203-006423	C201	C-CER,CHIP	SA
2203-006423	C202	C-CER,CHIP	SA
2203-006423	C204	C-CER,CHIP	SA
2203-006423	C206	C-CER,CHIP	SA
2203-006423	C210	C-CER,CHIP	SA
2203-006423	C214	C-CER,CHIP	SA
2203-006423	C215	C-CER,CHIP	SA
2203-006423	C303	C-CER,CHIP	SA
2203-006423	C306	C-CER,CHIP	SA
2203-006423	C323	C-CER,CHIP	SA
2203-006423	C324	C-CER,CHIP	SA
2203-006423	C325	C-CER,CHIP	SA
2203-006423	C339	C-CER,CHIP	SA
2203-006423	C343	C-CER,CHIP	SA
2203-006423	C348	C-CER,CHIP	SA
2203-006423	C402	C-CER,CHIP	SA
2203-006423	C403	C-CER,CHIP	SA
2203-006423	C407	C-CER,CHIP	SA
2203-006423	C409	C-CER,CHIP	SA
2203-006423	C410	C-CER,CHIP	SA
2203-006423	C413	C-CER,CHIP	SA
2203-006423	C414	C-CER,CHIP	SA
2203-006423	C426	C-CER,CHIP	SA
2203-006423	C433	C-CER,CHIP	SA
2203-006423	C436	C-CER,CHIP	SA
2203-006423	C458	C-CER,CHIP	SA
2203-006423	C469	C-CER,CHIP	SA
2203-006423	C472	C-CER,CHIP	SA
2203-006423	C473	C-CER,CHIP	SA
2203-006423	C474	C-CER,CHIP	SA
2203-006423	C476	C-CER,CHIP	SA

SEC CODE	Design LOC	Discription	STATUS
2203-006423	C477	C-CER,CHIP	SA
2203-006423	C478	C-CER,CHIP	SA
2203-006562	C139	C-CER,CHIP	SA
2203-006562	C313	C-CER,CHIP	SA
2203-006562	C317	C-CER,CHIP	SA
2203-006562	C319	C-CER,CHIP	SA
2203-006562	C320	C-CER,CHIP	SA
2203-006562	C321	C-CER,CHIP	SA
2203-006562	C322	C-CER,CHIP	SA
2203-006562	C340	C-CER,CHIP	SA
2203-006562	C341	C-CER,CHIP	SA
2203-006562	C342	C-CER,CHIP	SA
2203-006562	C344	C-CER,CHIP	SA
2203-006562	C366	C-CER,CHIP	SA
2203-006562	C367	C-CER,CHIP	SA
2203-006562	C381	C-CER,CHIP	SA
2203-006562	C386	C-CER,CHIP	SA
2203-006562	C387	C-CER,CHIP	SA
2203-006562	C391	C-CER,CHIP	SA
2203-006562	C424	C-CER,CHIP	SA
2203-006562	C432	C-CER,CHIP	SA
2203-006562	C455	C-CER,CHIP	SA
2203-006562	C456	C-CER,CHIP	SA
2203-006562	C470	C-CER,CHIP	SA
2203-006562	C475	C-CER,CHIP	SA
2203-006585	C454	C-CER,CHIP	SA
2203-006585	C457	C-CER,CHIP	SA
2203-006620	C450	C-CER,CHIP	SNA
2203-006626	C459	C-CER,CHIP	SA
2203-006626	C460	C-CER,CHIP	SA
2203-006648	C417	C-CER,CHIP	SA
2203-006681	C216	C-CER,CHIP	SA
2203-006681	C420	C-CER,CHIP	SA
2203-006708	C315	C-CER,CHIP	SA
2203-006708	C368	C-CER,CHIP	SA
2203-006824	C138	C-CER,CHIP	SA

SEC CODE	Design LOC	Discription	STATUS
2203-006824	C401	C-CER,CHIP	SA
2203-006825	C371	C-CER,CHIP	SA
2203-006825	C372	C-CER,CHIP	SA
2203-006825	C373	C-CER,CHIP	SA
2203-006825	C388	C-CER,CHIP	SA
2203-006825	C389	C-CER,CHIP	SA
2203-006839	C120	C-CER,CHIP	SA
2203-006839	C125	C-CER,CHIP	SA
2203-006839	C453	C-CER,CHIP	SA
2203-006839	C465	C-CER,CHIP	SA
2203-006872	C147	C-CER,CHIP	SA
2203-006872	C148	C-CER,CHIP	SA
2203-006872	C314	C-CER,CHIP	SA
2203-006872	C369	C-CER,CHIP	SA
2203-006872	C370	C-CER,CHIP	SA
2203-006872	C375	C-CER,CHIP	SA
2203-006872	C383	C-CER,CHIP	SA
2203-006872	C384	C-CER,CHIP	SA
2203-006872	C385	C-CER,CHIP	SA
2203-006872	C390	C-CER,CHIP	SA
2203-006872	C428	C-CER,CHIP	SA
2203-006872	C429	C-CER,CHIP	SA
2203-006979	C117	C-CER,CHIP	SA
2203-006979	C131	C-CER,CHIP	SA
2203-006979	C337	C-CER,CHIP	SA
2203-006979	C451	C-CER,CHIP	SA
2404-001339	C310	C-TA,CHIP	SA
2404-001339	TA402	C-TA,CHIP	SA
2404-001352	TA405	C-TA,CHIP	SA
2404-001381	C377	C-TA,CHIP	SA
2404-001381	TA301	C-TA,CHIP	SA
2404-001381	TA401	C-TA,CHIP	SA
2404-001381	TA407	C-TA,CHIP	SA
2404-001381	TA408	C-TA,CHIP	SA
2404-001381	TA410	C-TA,CHIP	SA
2404-001406	TA409	C-TA,CHIP	SA

SEC CODE	Design LOC	Discription	STATUS
2404-001478	TA403	C-TA,CHIP	SA
2404-001478	TA404	C-TA,CHIP	SA
2703-002597	L107	INDUCTOR-SMD	SA
2703-002597	L108	INDUCTOR-SMD	SA
2703-002636	L109	INDUCTOR-SMD	SA
2703-002636	L110	INDUCTOR-SMD	SA
2703-002700	L111	INDUCTOR-SMD	SA
2703-002700	L112	INDUCTOR-SMD	SA
2703-002734	L302	INDUCTOR-SMD	SA
2703-002734	L303	INDUCTOR-SMD	SA
2703-002794	L106	INDUCTOR-SMD	SA
2703-002824	L304	INDUCTOR-SMD	SA
2703-002910	L103	INDUCTOR-SMD	SA
2703-003002	L307	INDUCTOR-SMD	SA
2801-004339	OSC200	CRYSTAL-SMD	SA
2801-004458	OSC400	CRYSTAL-SMD	SA
2801-004552	OSC101	CRYSTAL-SMD	SA
2801-004578	OSC102	CRYSTAL-SMD	SA
2911-000034	F101	DUPLEXER-FEM	SA
3301-001158	L402	BEAD-SMD	SA
3301-001158	L403	BEAD-SMD	SA
3301-001208	L105	BEAD-SMD	SA
3301-001342	L305	BEAD-SMD	SA
3301-001342	L306	BEAD-SMD	SA
3301-001342	L308	BEAD-SMD	SA
3301-001342	L309	BEAD-SMD	SA
3705-001339	RFS102	CONNECTOR-COAXIAL	SNA
3705-001421	RFS101	CONNECTOR-COAXIAL	SA
3708-002222	CN303	CONNECTOR-FPC/FFC/PIC	SA
3709-001447	SIM301	CONNECTOR-CARD EDGE	SA
3710-002477	IFC402	SOCKET-INTERFACE	SA
3711-006217	BTC400	HEADER-BATTERY	SA
3711-006327	CN401	HEADER-BOARD TO BOARD	SA
3711-006328	CN305	HEADER-BOARD TO BOARD	SA
3711-006405	CN301	HEADER-BOARD TO BOARD	SA
4302-001158	BAT300	BATTERY-LI(2ND)	SA

SEC CODE	Design LOC	Discription	STATUS
4709-001457	F102	BALUN	SA
GH09-00045A	UCP201	IC MICOM	SA
GH71-06013A	BT_ANT	NPR-ANT CONTACT	SA
GH71-06013A	BT_ANT_GND	NPR-ANT CONTACT	SA

8. Reference data

8-1. 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

9. Safety Precautions

9-1. 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 manetic 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.

9-2. 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.

10. Product Function

Main Function

- Camera and camcorder
- Synchronisation with Windows Media Player
- Image editor
- Music player
- Bluetooth
- Photo printing
- Phone to TV
- File viewer
- Multimedia Message Service (MMS)
- SOS message

**SAMSUNG
ELECTRONICS**



GSPN (Global Service Partner Network)

Country	Web Site
North America	service.samsungportal.com
Latin America	latin.samsungportal.com
CIS	cis.samsungportal.com
Europe	europe.samsungportal.com
China	china.samsungportal.com
Asia	asia.samsungportal.com
Mideast & Africa	mea.samsungportal.com