SAMSUNG

GSM TELEPHONE

SGH-E570

SERVICE Manual

GSM TELEPHONE

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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	-

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1-2. GSM TX power class

TX Power control level	GSM900
5	33±2 dBm
6	31±2 dBm
7	29±2 dBm
8	27±2 dBm
9	25±2 dBm
10	23±2 dBm
11	21±2 dBm
12	19±2 dBm
13	17±2 dBm
14	15±2 dBm
15	13±2 dBm
16	11±3 dBm
17	9± 3dBm
18	7±3 dBm
19	5±3 dBm

TX Power control level	DCS1800
0	30±3 dBm
1	28±3 dBm
2	26±3 dBm
3	24±3 dBm
4	22±3 dBm
5	20±3 dBm
6	18±3 dBm
7	16±3 dBm
8	14±3 dBm
9	12±4 dBm
10	10±4 dBm
11	8±4 dBm
12	6±4 dBm
13	4±4 dBm
14	2±5 dBm
15	0±5 dBm

TX Power control level	PCS1900
0	30±3 dBm
1	28±3 dBm
2	26±3 dBm
3	24±3 dBm
4	22±3 dBm
5	20±3 dBm
6	18±3 dBm
7	16±3 dBm
8	14±3 dBm
9	12±4 dBm
10	10±4 dBm
11	8±4 dBm
12	6±4 dBm
13	4±4 dBm
14	2±5 dBm
15	0±5 dBm

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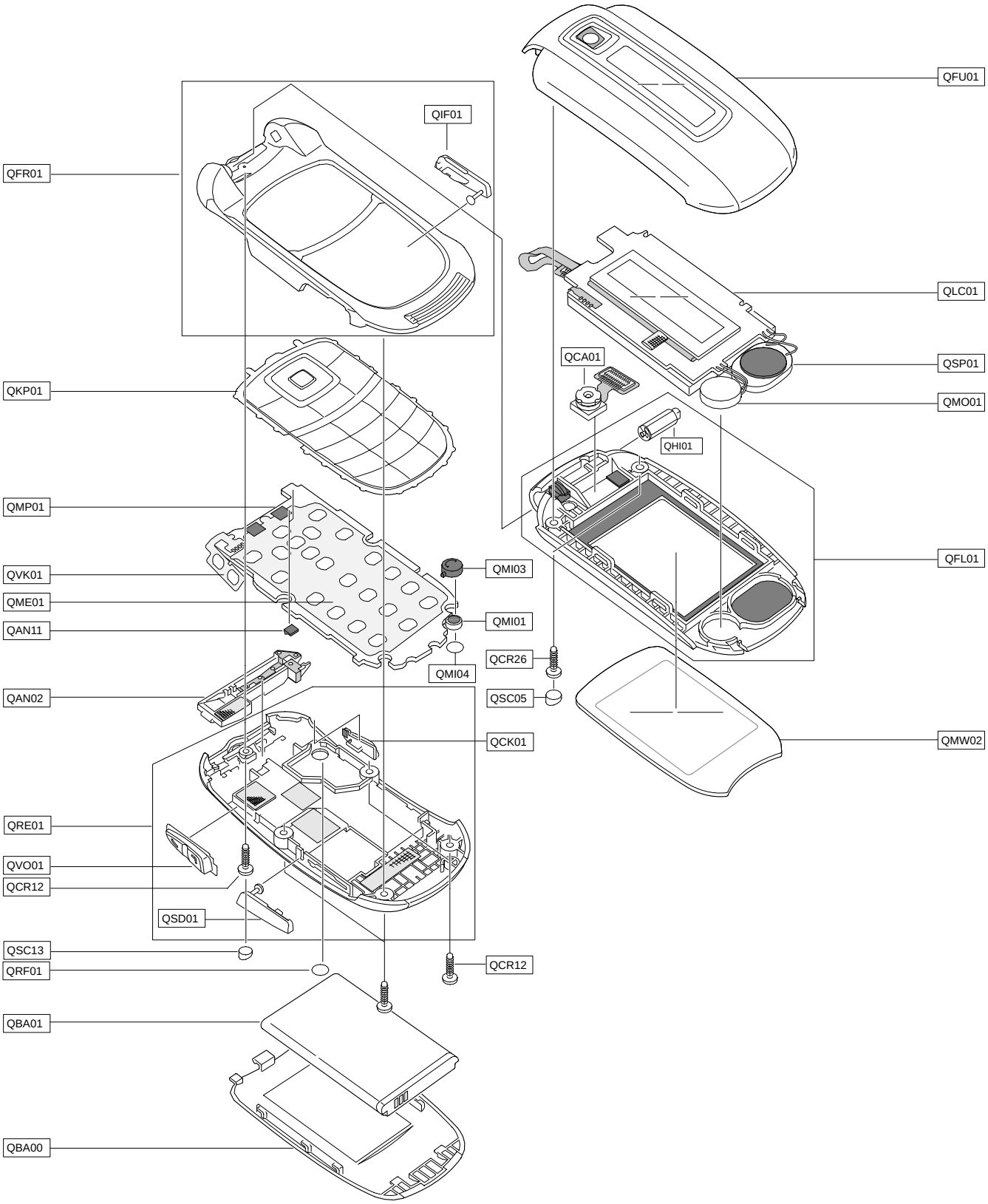
2. Exploded View and Parts List

2-1. Cellular phone Exploded View



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2-2. Cellular phone Parts list

Design LOC	Description	SEC CODE
QAN02	INTENNA-SGHE570	GH42-01020A
QAN11	ASSY-CUSHION-CUSHION RUBBER IN	GH98-01077A
QBA00	ASSY COVER-BATTERY	GH98-02557D
QBA01	INNER BATTERY PACK-800MAH,BLK,	GH43-02692A
QCA01	UNIT-CAMERA MODULE,SGHE570	GH59-03744A
QCK01	ASSY KEY-CAMERA	GH98-03111A
QCR12	SCREW-MACHINE	6001-001530
QCR12	SCREW-MACHINE	6001-001530
QCR26	SCREW-MACHINE	6001-001850
QFL01	ASSY COVER-LOWER FOLDER	GH98-02553D
QFR01	ASSY COVER-FRONT FOLDER	GH98-02555D
QFU01	ASSY COVER-UPPER FOLDER	GH98-02550D
QHI01	ASSY HINGE	GH98-03590A
QIF01	PMO-COVER IF	GH72-34959D
QKP01	ASSY KEYPAD-(RUSS/BLK)	GH98-03151D
QLC01	ELA UNIT-SGHE570 LCD MODULE	GH96-02283A
QME01	UNIT-TF DOME ASSY	GH59-03765A
QMI01	MICROPHONE-ASSY-SGHE570	GH30-00308A
QMI03	RMO-HOLDER MIC	GH73-08172A
QMI04	RMO-RUBBER HOLDER MIC CAP	GH73-08395A
QMO01	MOTOR DC-SGHZ130	GH31-00154C
QMP01	PBA MAIN-SGH-E570	GH92-02865A
QMW02	PMO-WINDOW MAIN	GH72-34878D
QRE01	ASSY COVER-REAR FOLDER	GH98-02556D
QRF01	MPR-TAPE RF SHEET	GH74-28702D
QSC05	RMO-COVER SCREW FOLDER	GH73-08268D
QSC13	RMO-COVER SCREW REAR	GH73-08243B
QSD01	PMO-COVER MICRO SD	GH72-34961D
QSP01	SPEAKER	3001-002060
QVK01	UNIT-SIDE KEY FPCB	GH59-03772A
QVO01	PMO-KEY VOLUME	GH72-34887A

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Description	SEC CODE
CBF INTERFACE-DATA LINK CABLE	GH39-00444A
ADAPTOR-SGHE690,BLK,EU,A_TYPE	GH44-01361A
UNIT-EARPHONE,20P,B-TYPE	GH59-03883A
LABEL(P)-WATER SOAK	GH68-02026A
MPR-INSU TAPE	GH74-24056A
MPR-INSU TAPE	GH74-29995A
LABEL(P)-WATER SOAK	GH68-02026A
PMO-BRACKET FPCB HOLE	GH72-36267A
MPR-GASK TAPE	GH74-28704A
MPR-VINYL BOHO MAIN WINDOW IN	GH74-29683A
MPR-TAPE WINDOW MAIN	GH74-28696A
MPR-INSU TAPE	GH74-27956A
MPR-TAPE LED	GH74-17926A
MPR-TAPE	GH74-27509A
MPR-INSU TAPE LDI	GH74-29022A
MPR-REMOVE TAPE LCD	GH74-13804A
S/W CD-SAMSUNG PC STUDIO 2.0,E	GH46-00340A
MANUAL-SFC	GH68-04336A
MANUAL USERS-EU RUSSIAN	GH68-13017A
BAG PE	6902-000297
LABEL(P)-BARCODE RUSSIA	GH68-08494A
LABEL(R)-MAIN(SER)	GH68-13164B
CUSHION-CASE TA2 MA2	GH69-04745A
BOX(P)-UNIT MAIN(SER)	GH69-04750B

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2-3. Disassembly

1

1) Remove Screw Covers by a Pincette.

※ caution

1) Be careful not to get a damage of Rear Case

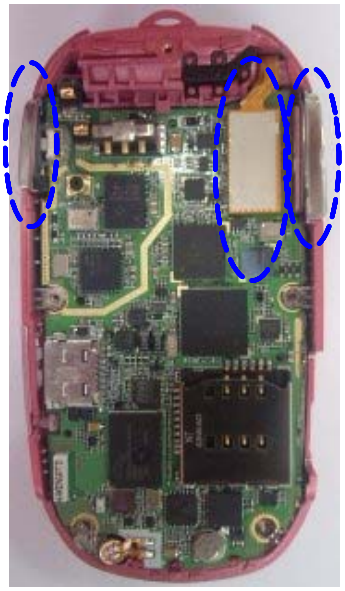
2

1) Remove five points of Rear Screw.
2) Lift up Rear Case softly

※ caution

1) Be careful not to get a damage of Rear Case
2)Be Careful not to get a damage of any Devices

3



1) Disjoint Con To Con Connector
2) Disjoint Volume Key and Camera Key
3) Disjoint Volume Key FPCB in front

※ caution

1) Be Careful not to get a damage of LCD CONNECTOR FPCB

4

1) Disjoint a PBA in Front

※ caution

1) Be Careful not to get a damage of any Devices

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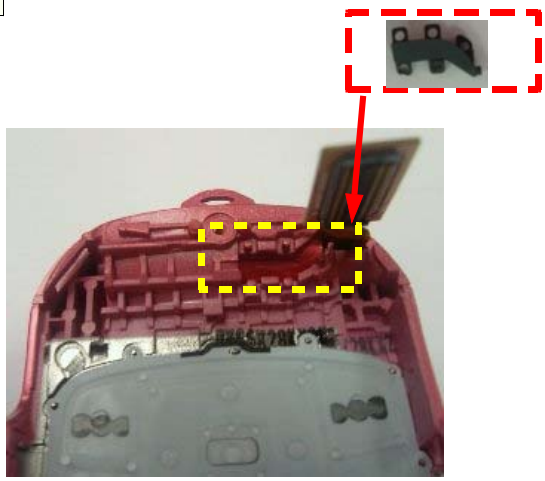
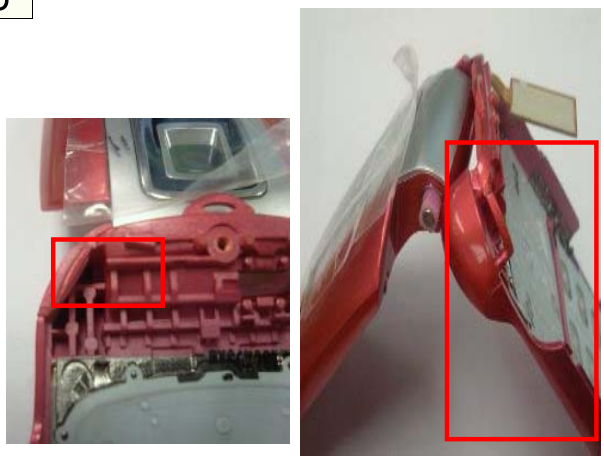


1) remove TAPE

※ caution

1) Be Careful not to get damage of Con To Con and FPCB

6



1)Disassemble the Folder from Front Case

※ caution

1) Be Careful not to get a damage of front
2) Be Careful not to get a damage of FPCB
3)Be Careful not to get a damage around Cases

7

1) Remove Screw Covers by a Pincette.

※ caution

1) Remove Screw Covers by a Pincette.
2) Be Careful not to get a damage of lower

8

1)Remove two points of Screw.

※ caution

1) Be Careful not to get a damage of lower

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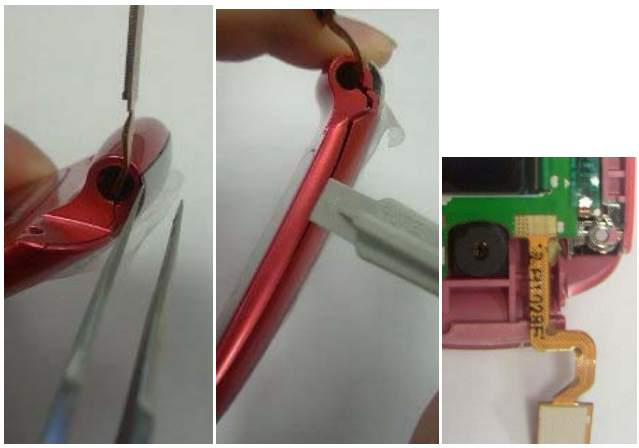

1) Open Hooker in the Upper Hinge decomposition groove by a pincette.
2) Disassemble the Side of Hookers by assembly stick
3)separate F-PCB

※ caution

1) Be careful not to get a damage of FPCB and CONNECTOR
2) Be careful not to get a damage around cases.

10

1)Separate the motor and speaker from lower case by a Pincette.

※ caution

1) Be careful not to get a damage of speaker & motor.
2) Be careful not to get a damage around cases.

11

1)separate LCD from FOLDER LOWER

※ caution

1) Be careful not to get a damage around cases.
2) Be careful not to get a damage of FPCB

12

1) Separate the camera module from lower case by a Pincette.

※ caution

1) Be careful not to get a damage around cases.
2) Be careful not to get a damage of CAMERA FPCB

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9

1) Separate INTENNA from REAR

※ **caution**

1) Be careful not to get a damage around cases.

10

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2-4. Assembly

1

1)Assemble a INTENA after inserting upper RIB first.

※ caution

1) Be careful not to get a damage around cases.

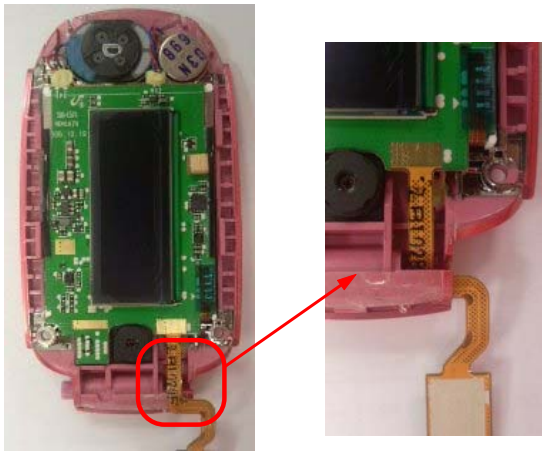
2

1)Insert the camera module From lower part.

※ caution

1) Be careful not to get a damage of CAMERA FPCB

3



1)Assemble LCD module to lower

2) Assemble SPEAKER to not twist wire

3) Assemble CAMERA CONNECTOR to LOCKER

4) Assemble LCD F-PCB to hole

※ caution

1) Be careful not to get a damage around cases.

2) Be careful not to get a damage of FPCB

4

1)Assemble UPPER and LOWER

※ caution

1) Be careful not to get a damage around cases.

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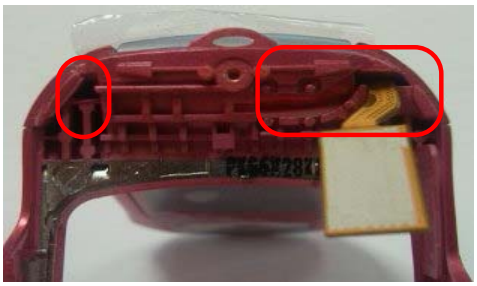
5

1) Drive two screws on Folder.

6

1) Assemble 2 screw covers on Folder.

7



1) Insert the Con To Con to front hole.
2) Assemble the folder to Front case.

※ caution
1) Be careful not to get a damage around cases.
2) Be careful not to get a damage of FPCB

8

1) Insert the KeyPad From front part.

※ caution
1) Insert KeyPad according to the Front standard rib.

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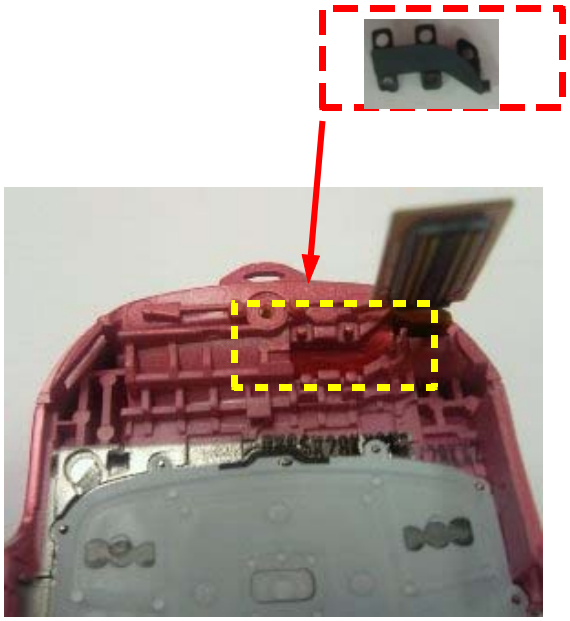

1) Assemble TAPE

※ caution

1) Be careful not to get a damage of FPCB

10

1) Assemble a PBA
2) Assemble LCD CONNECTOR
3) Assemble Camera Key and Volume Key

※ caution

1) Be Careful not to get damage of Con To Con
2) Make sure snap sounds when insert.

11

1) Assemble Rear Case SET.

※ caution

1) Be careful not to get a damage of Front case.

12

1) drive 4 screws on rear case.

※ caution

1) Be careful not to get a damage of Front case.

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13

1)Insert Screw Caps by pincette.

※ caution

1) Be careful not to get a damage of Front case.

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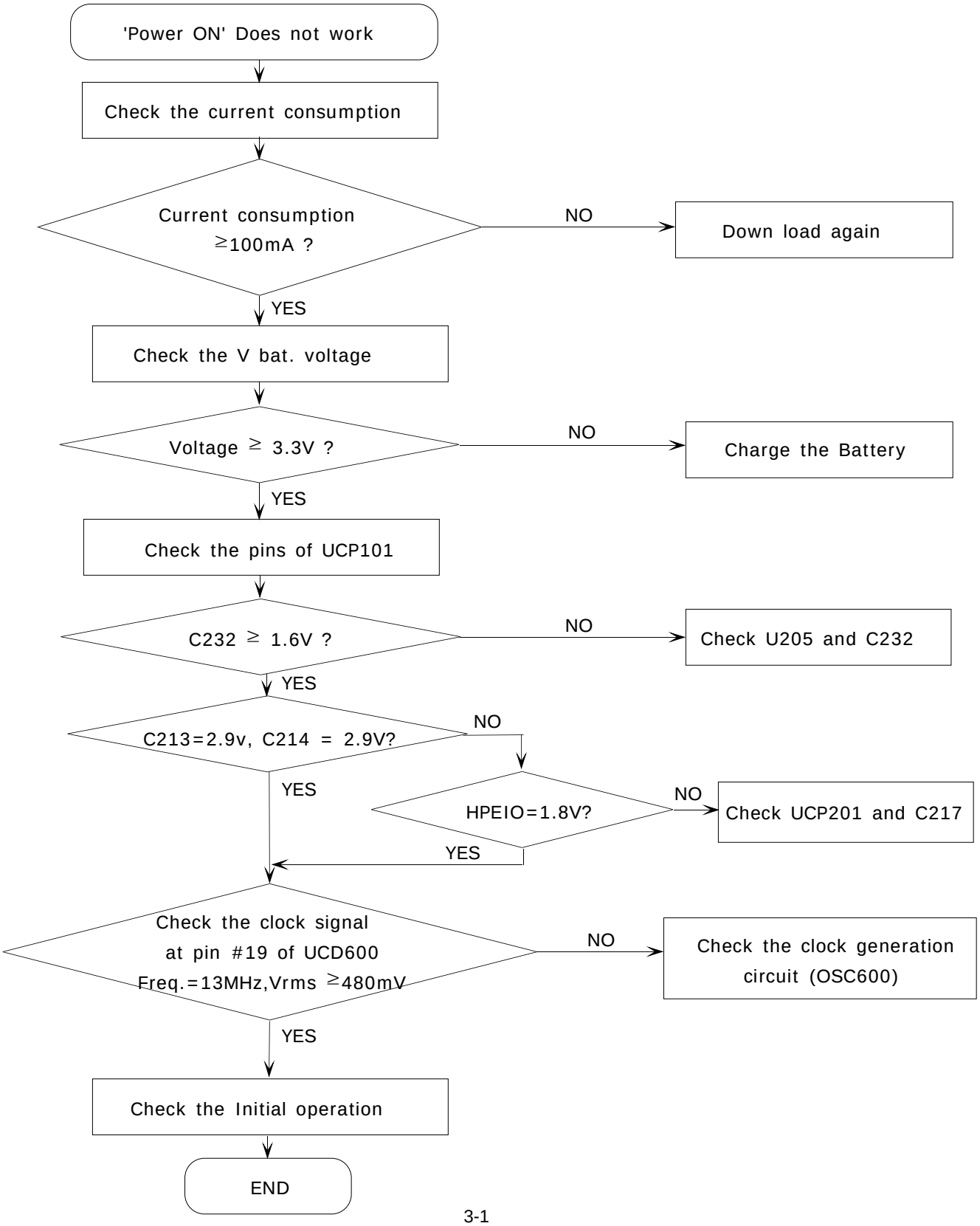
3. Flow Chart of Troubleshooting

3-1. Baseband

3-1-1. Power ON



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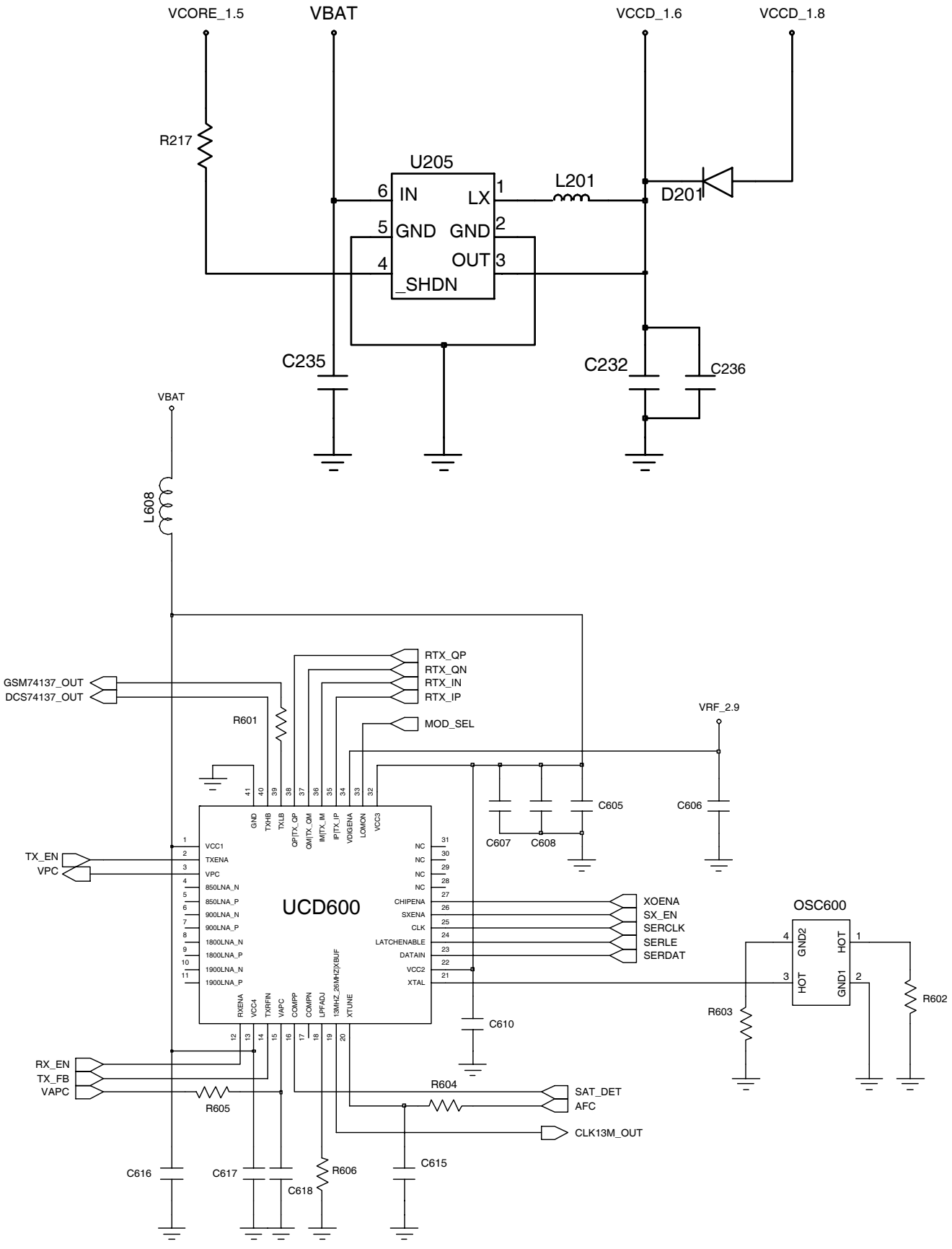

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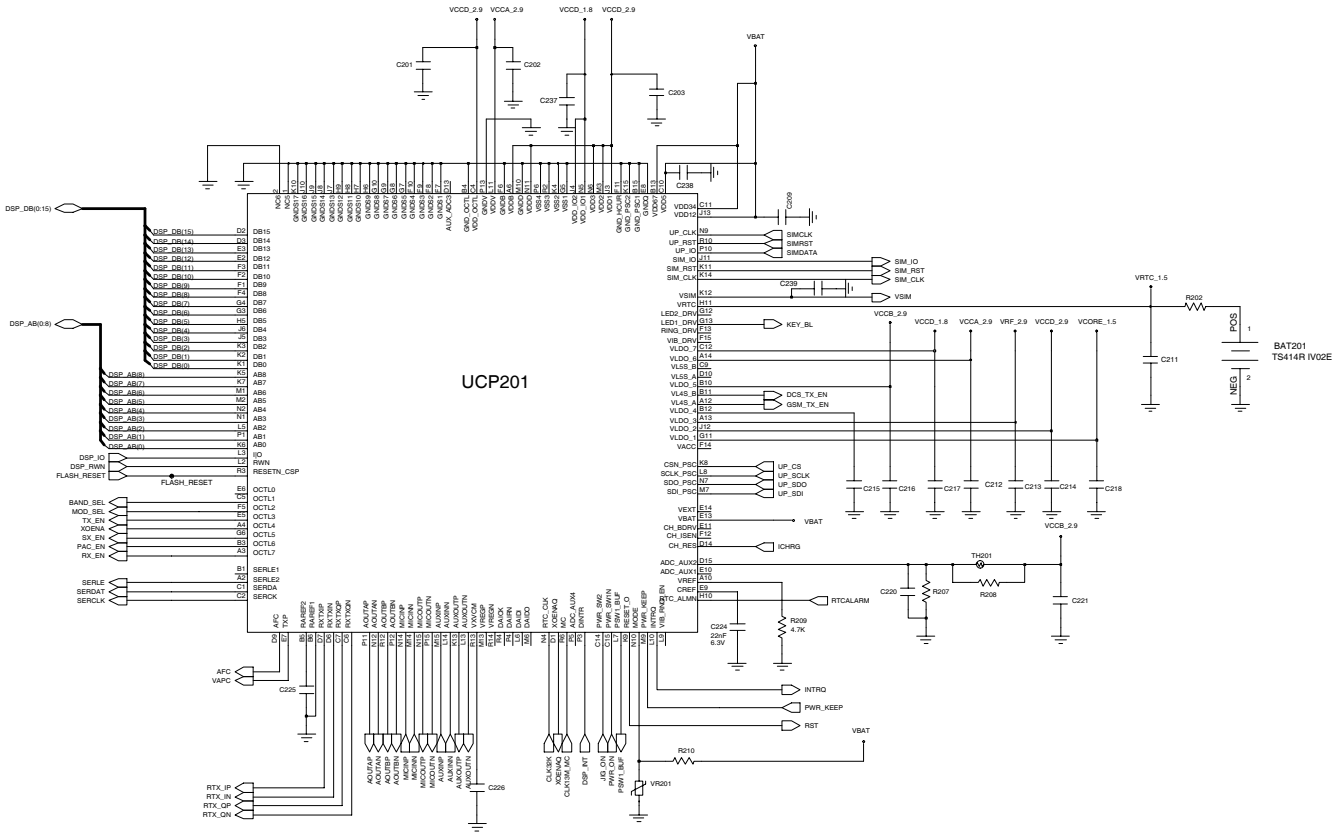

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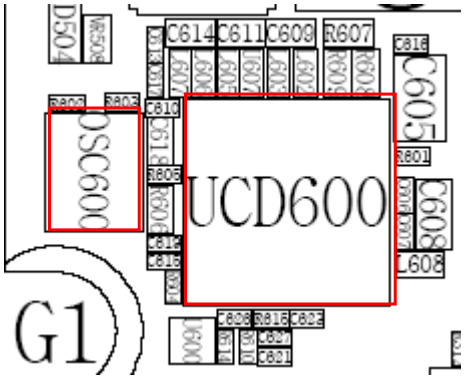

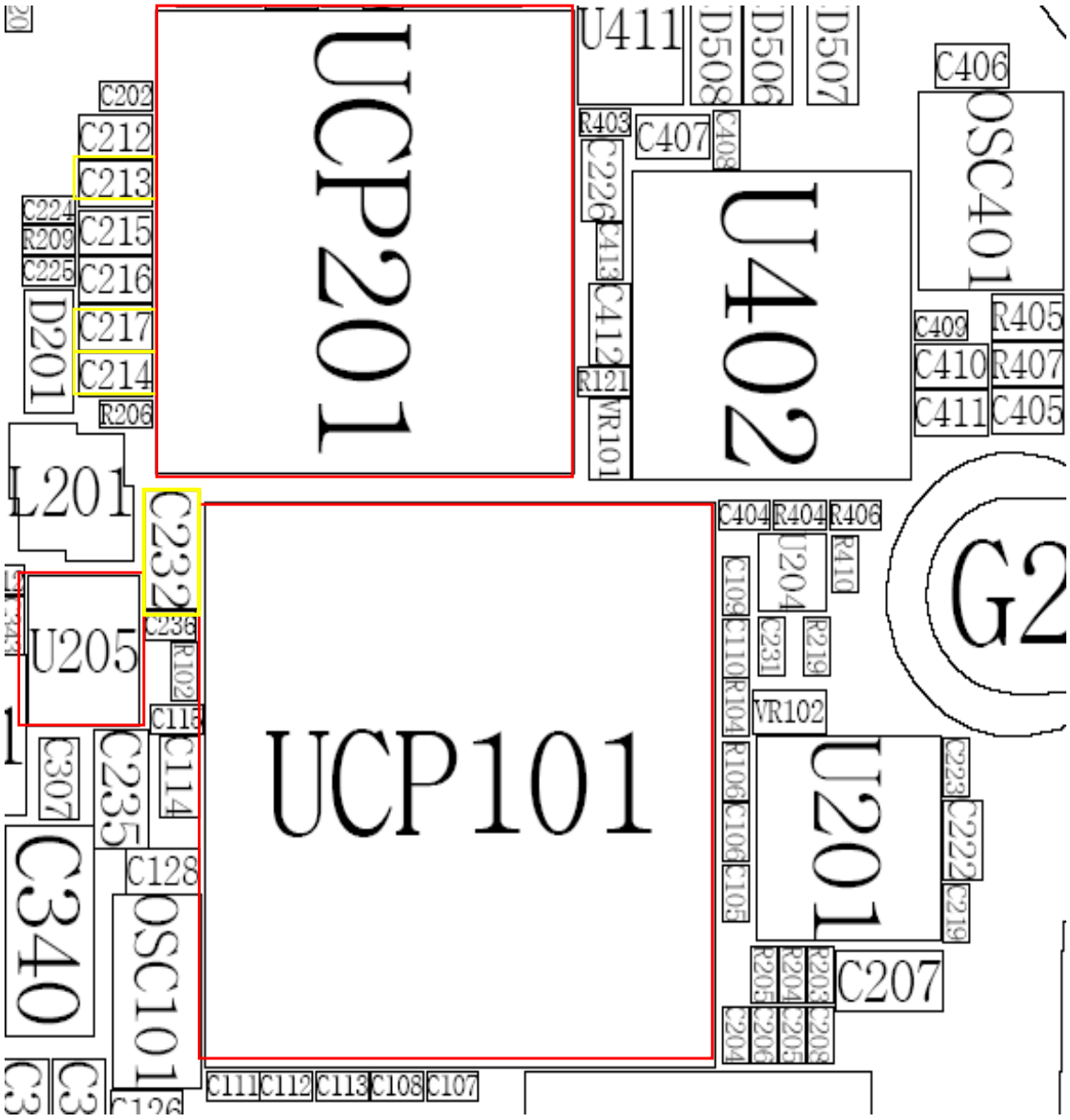

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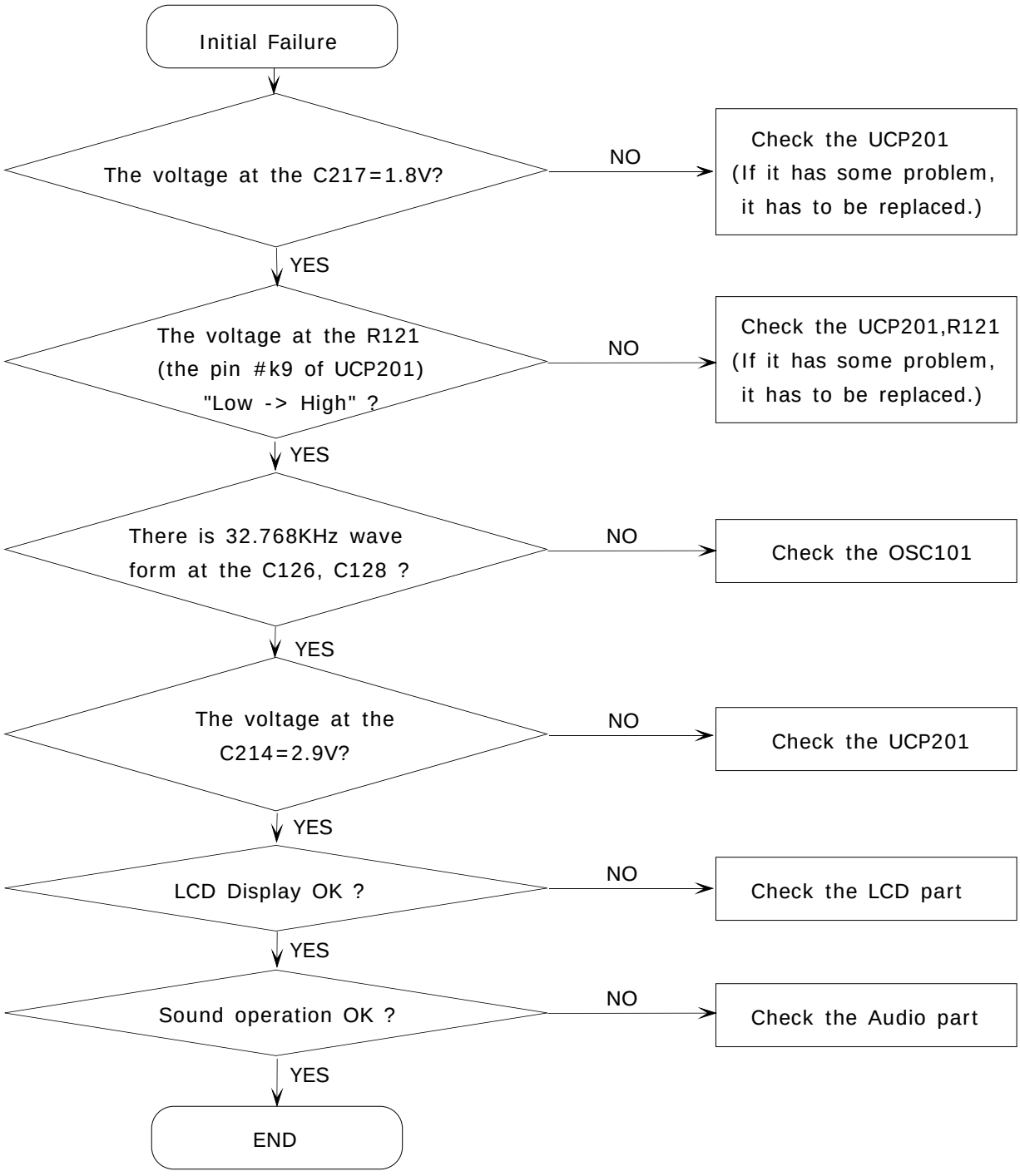
3-1-2. Initial



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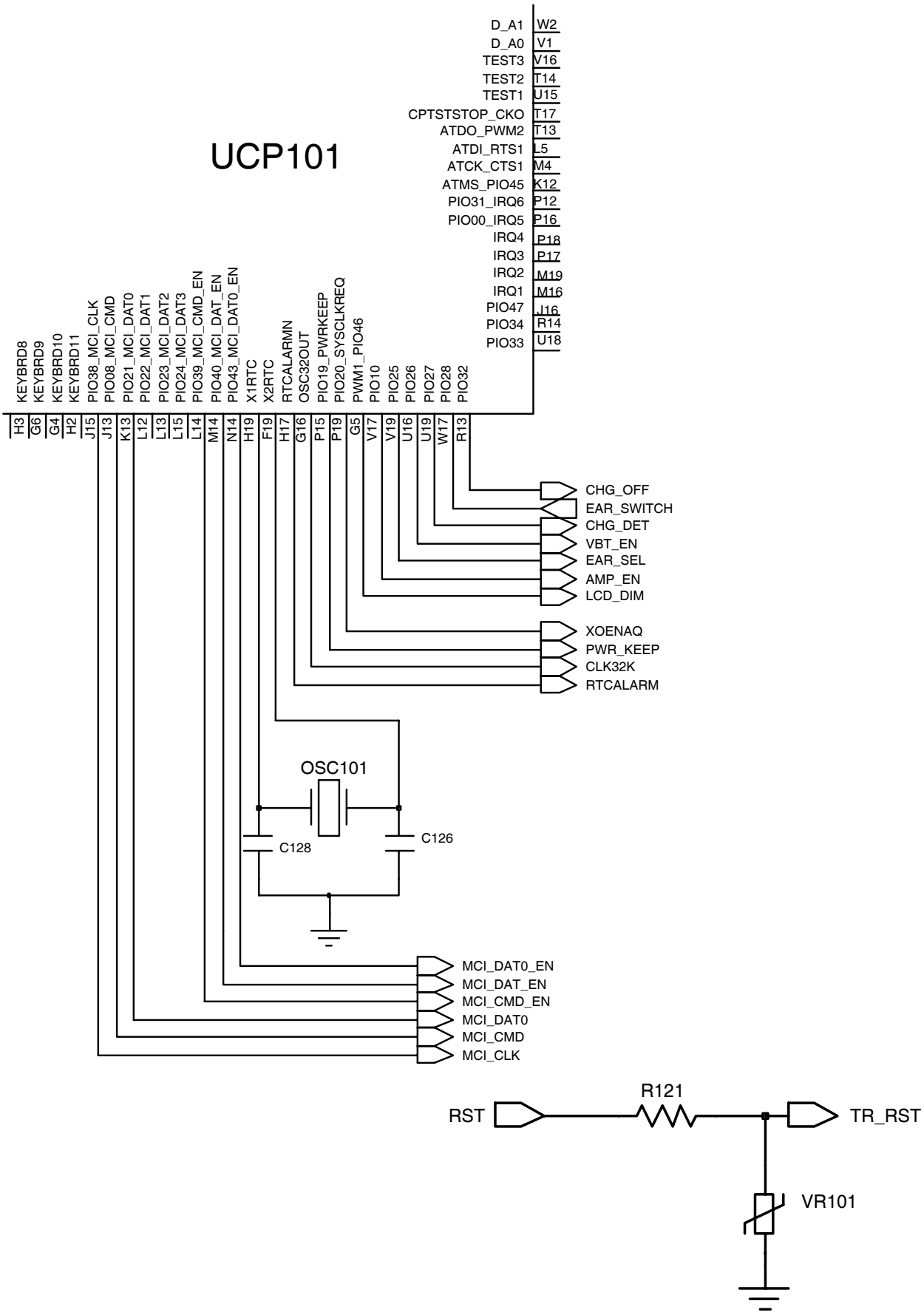

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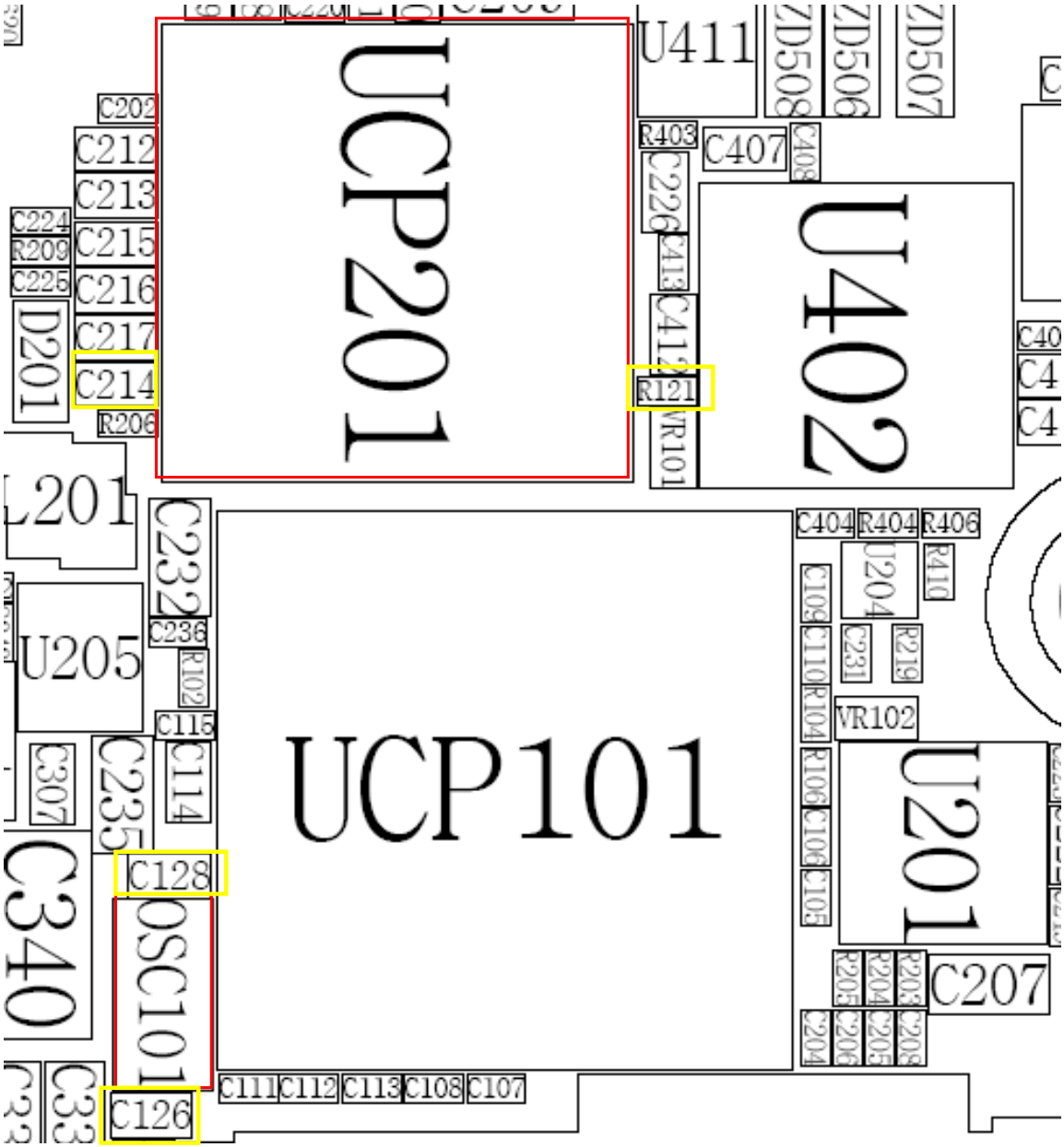

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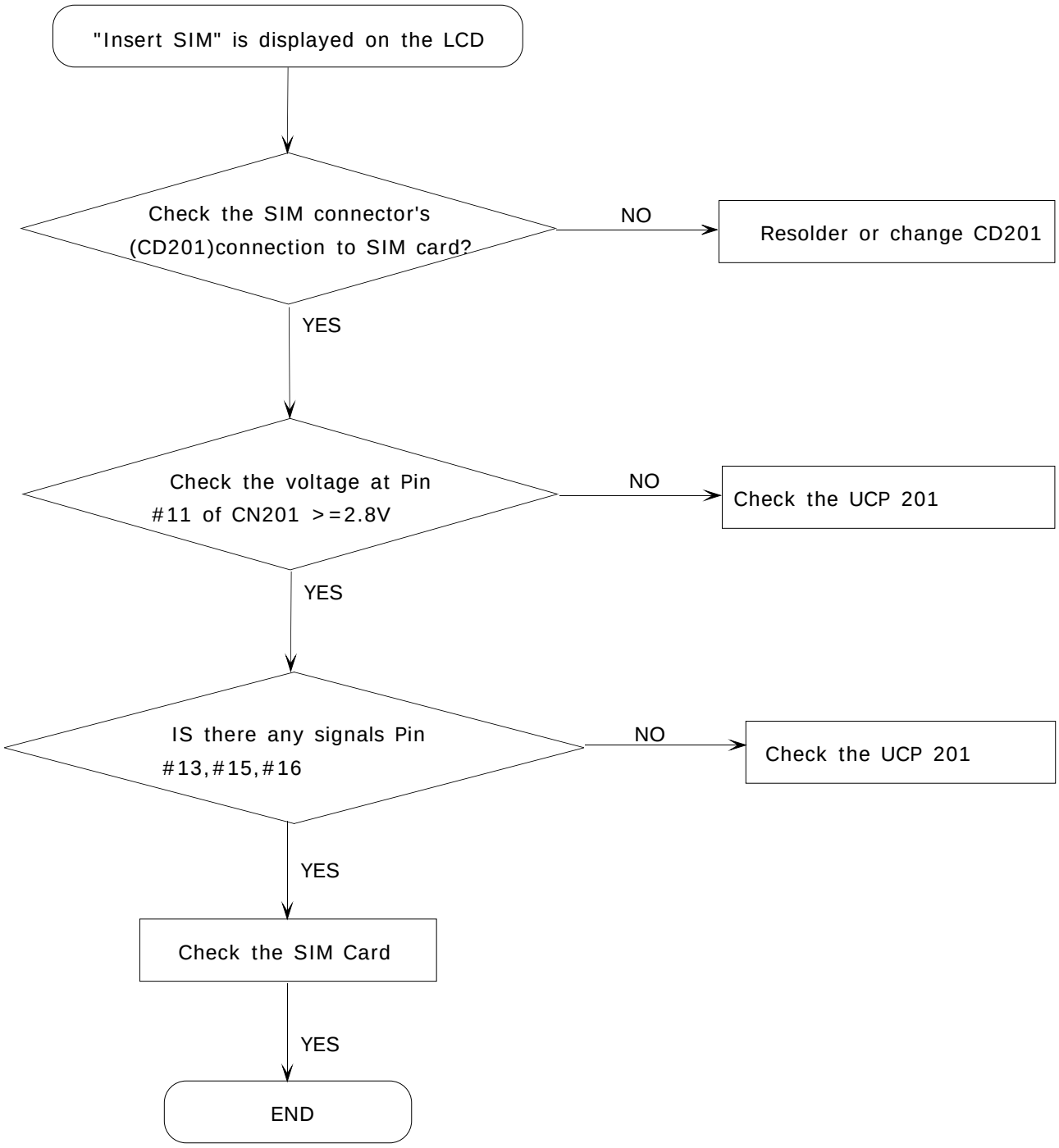
3-1-3. Sim Part



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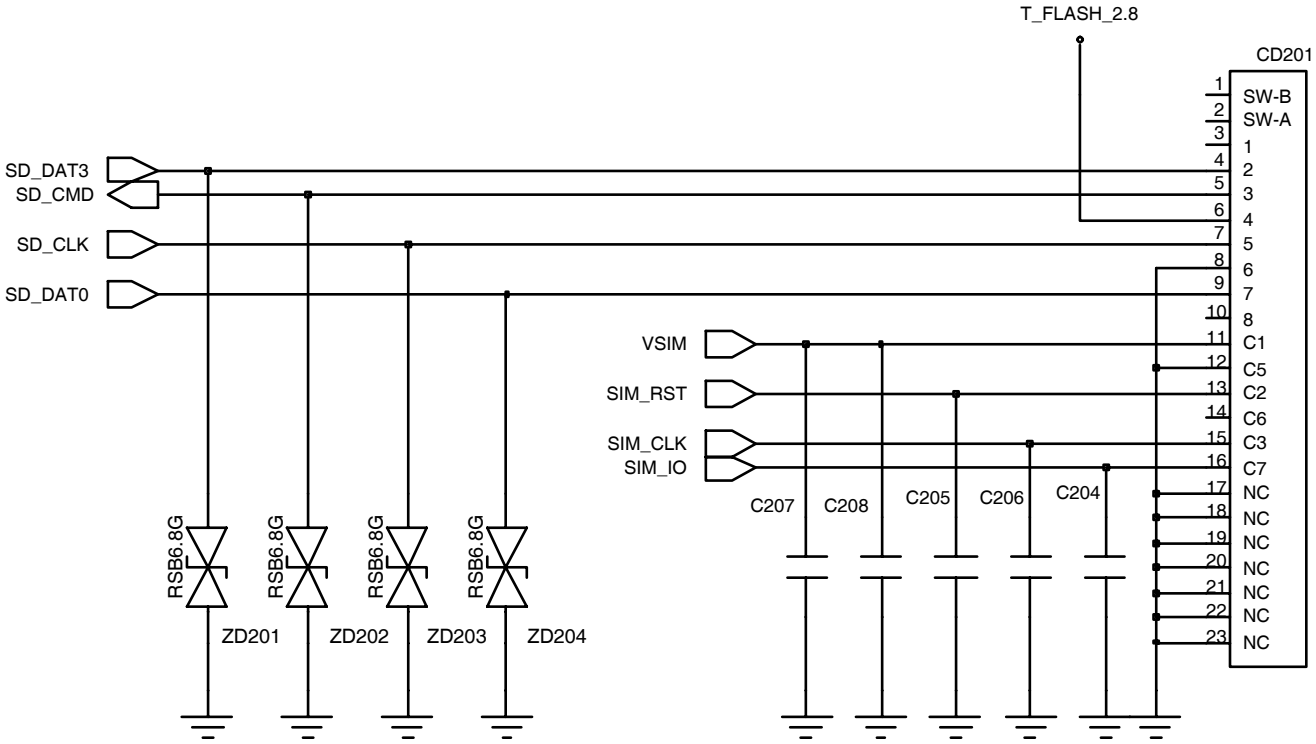

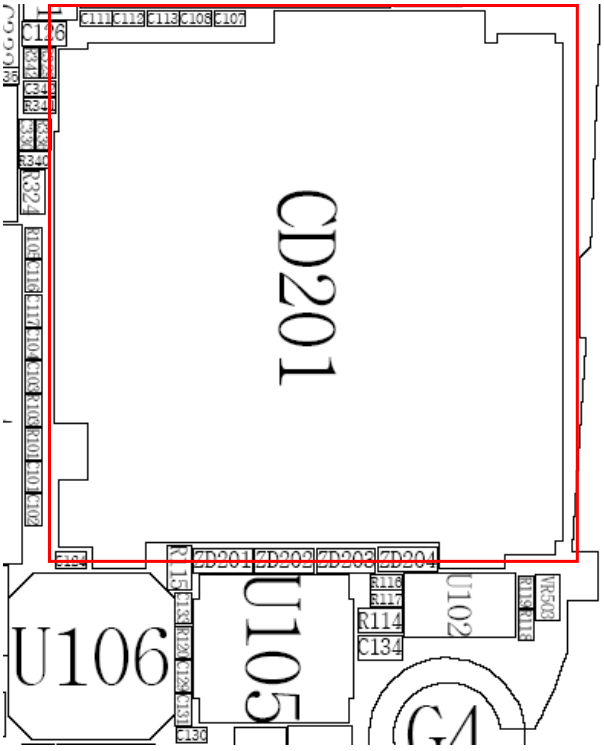

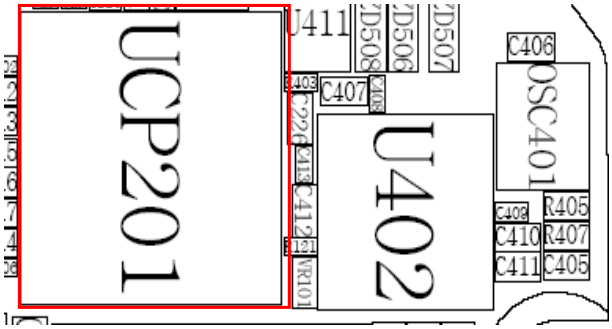

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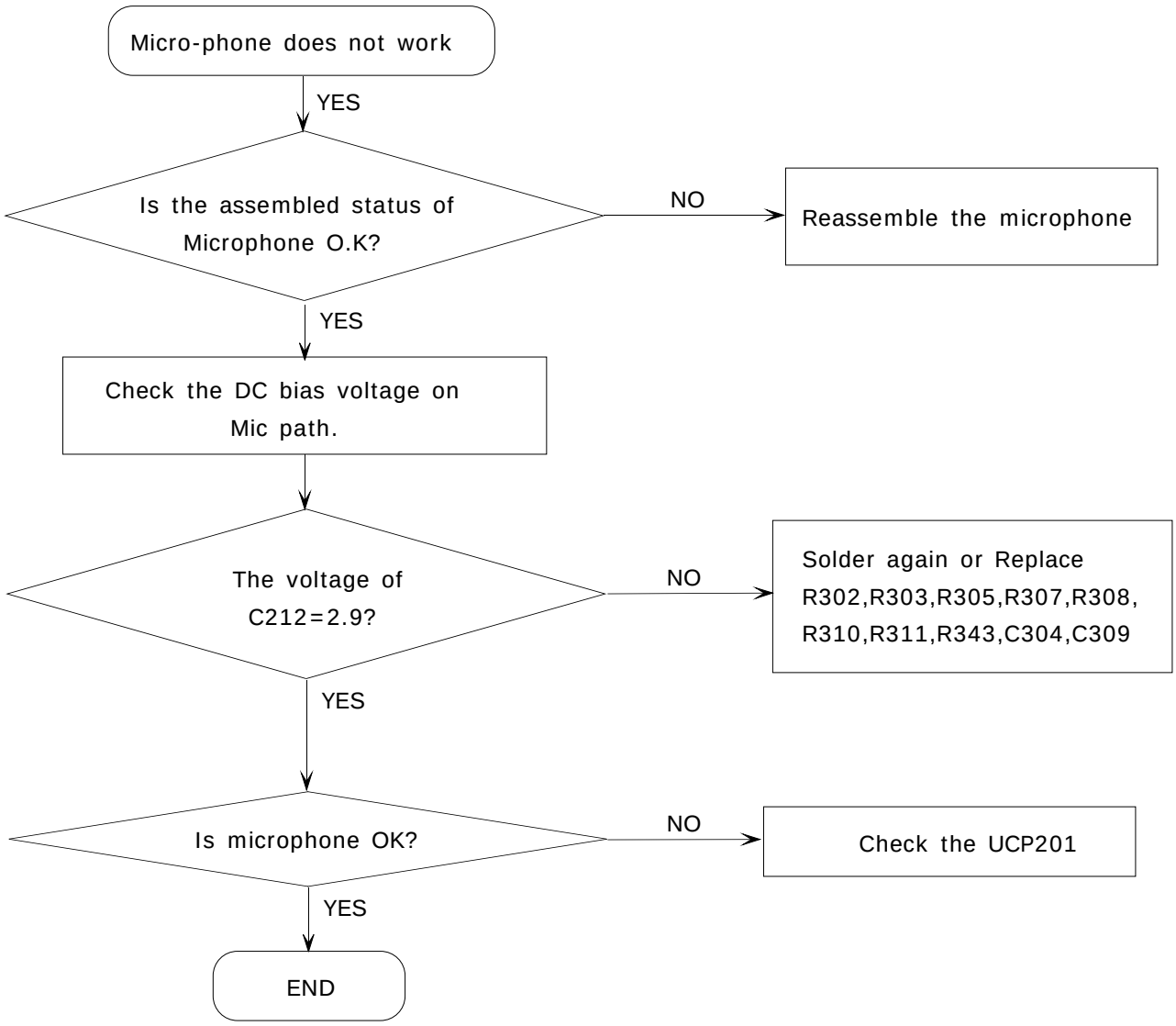
3-1-4. Microphone Part



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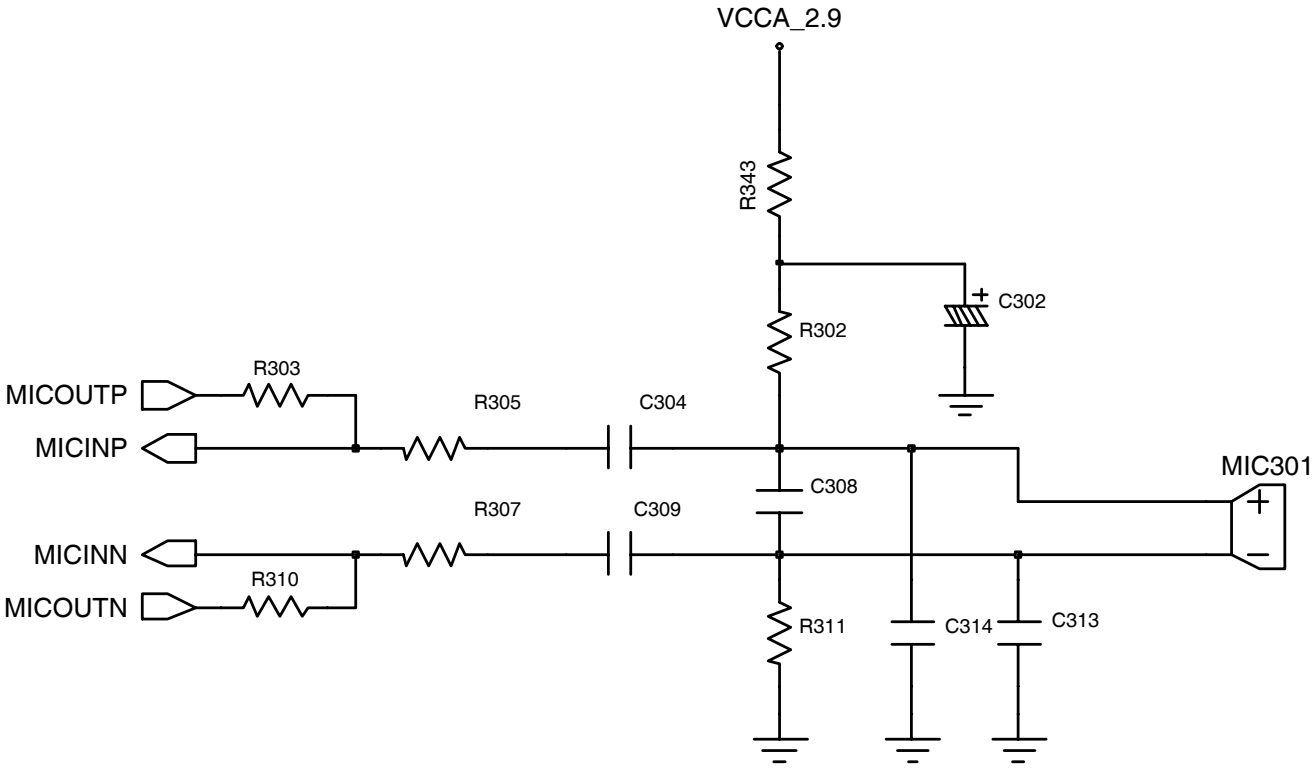

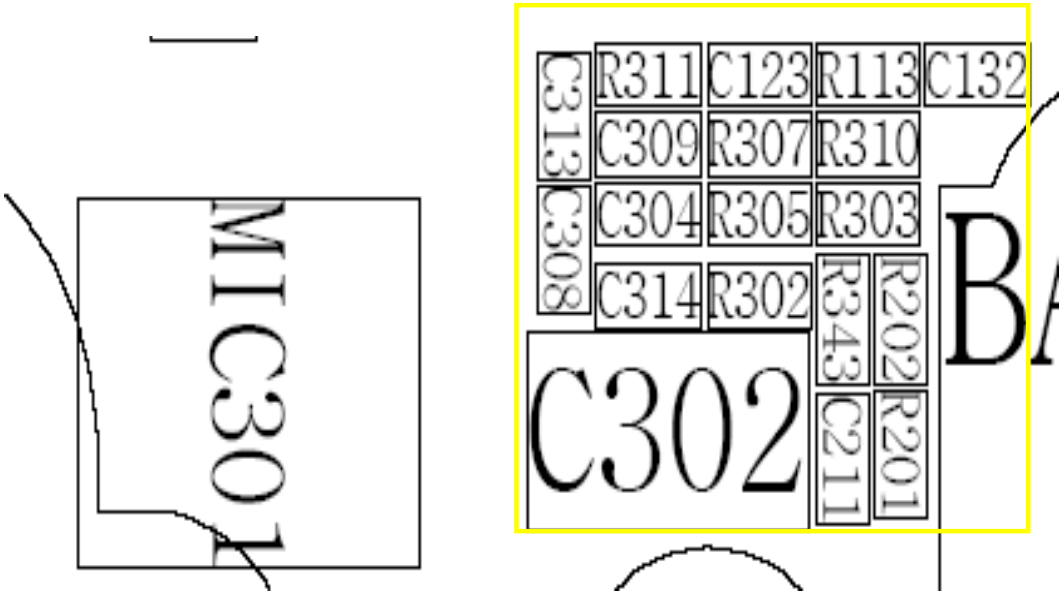

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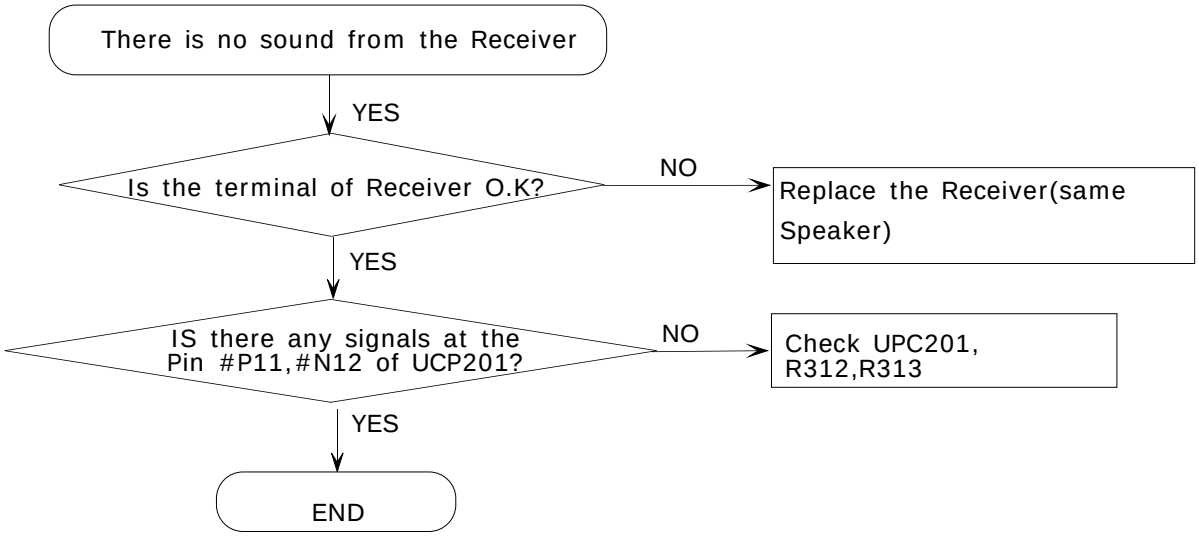
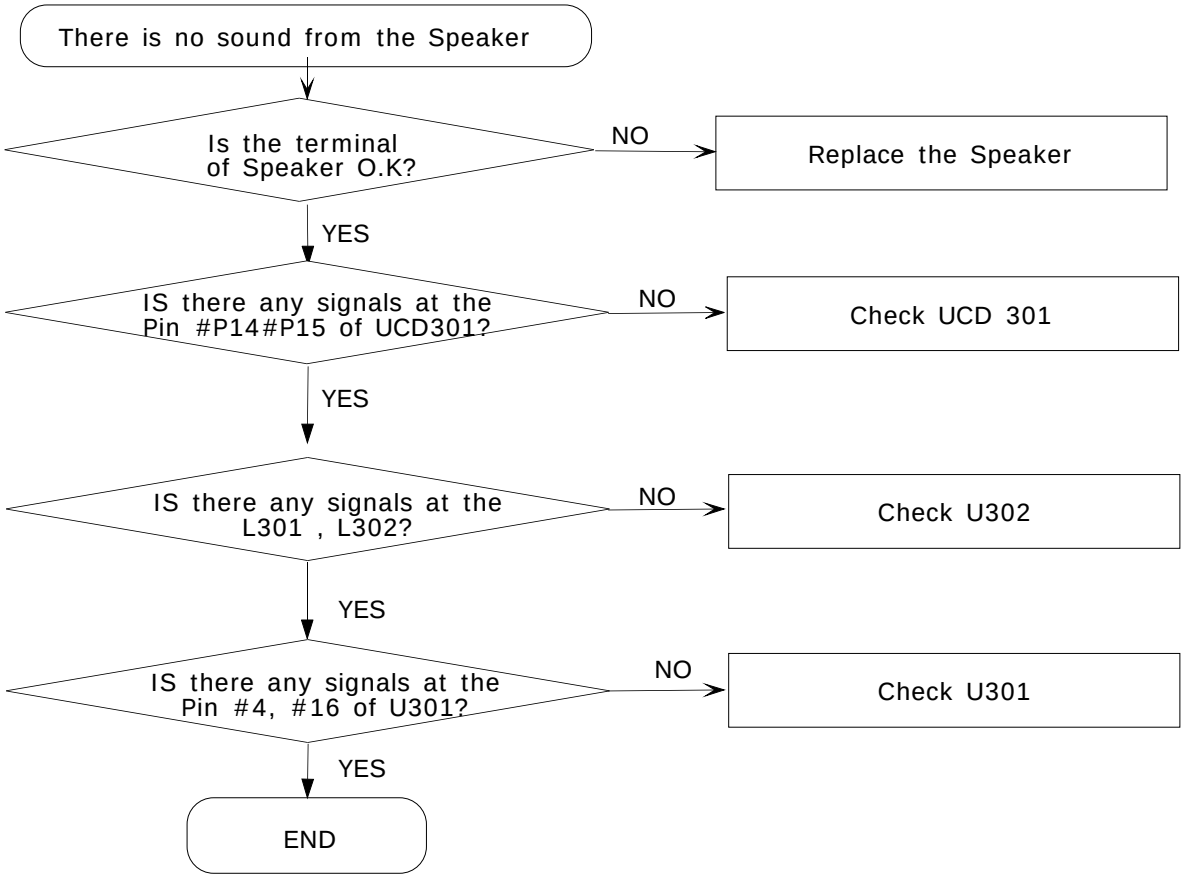
3-1-5. Receiver Part



3-1-6. Speaker Part



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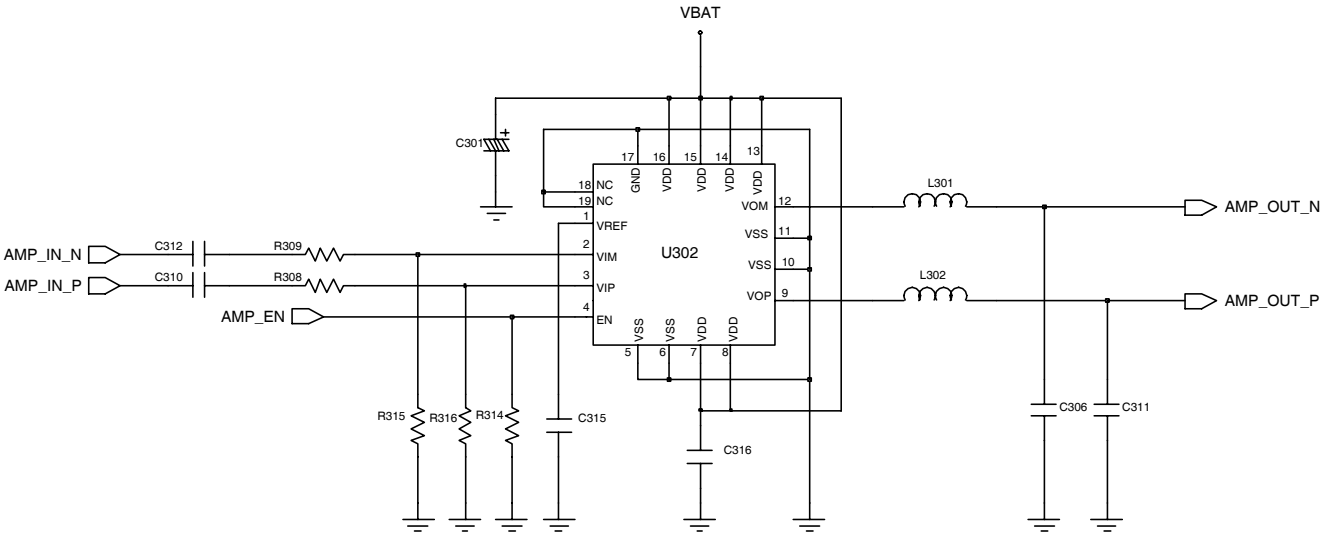

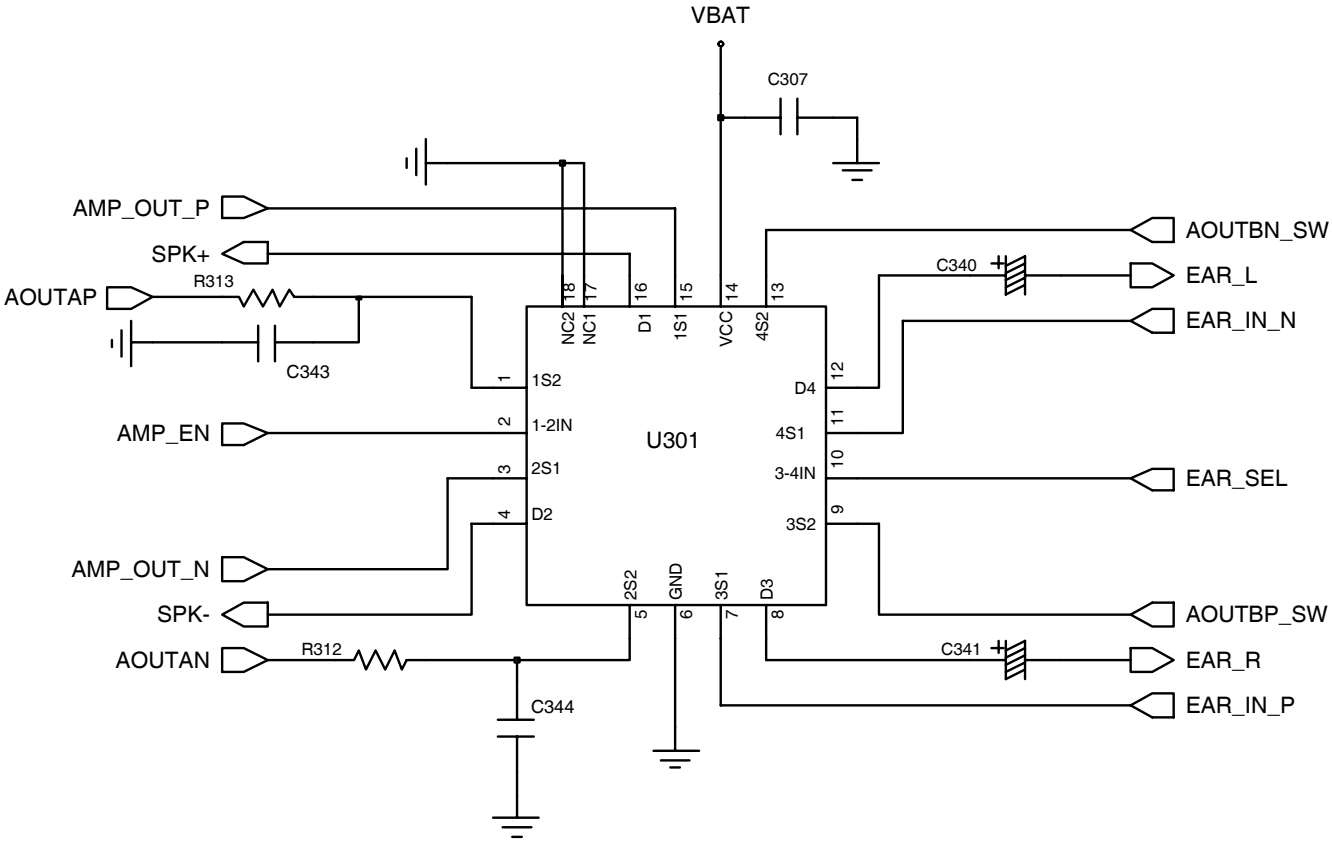

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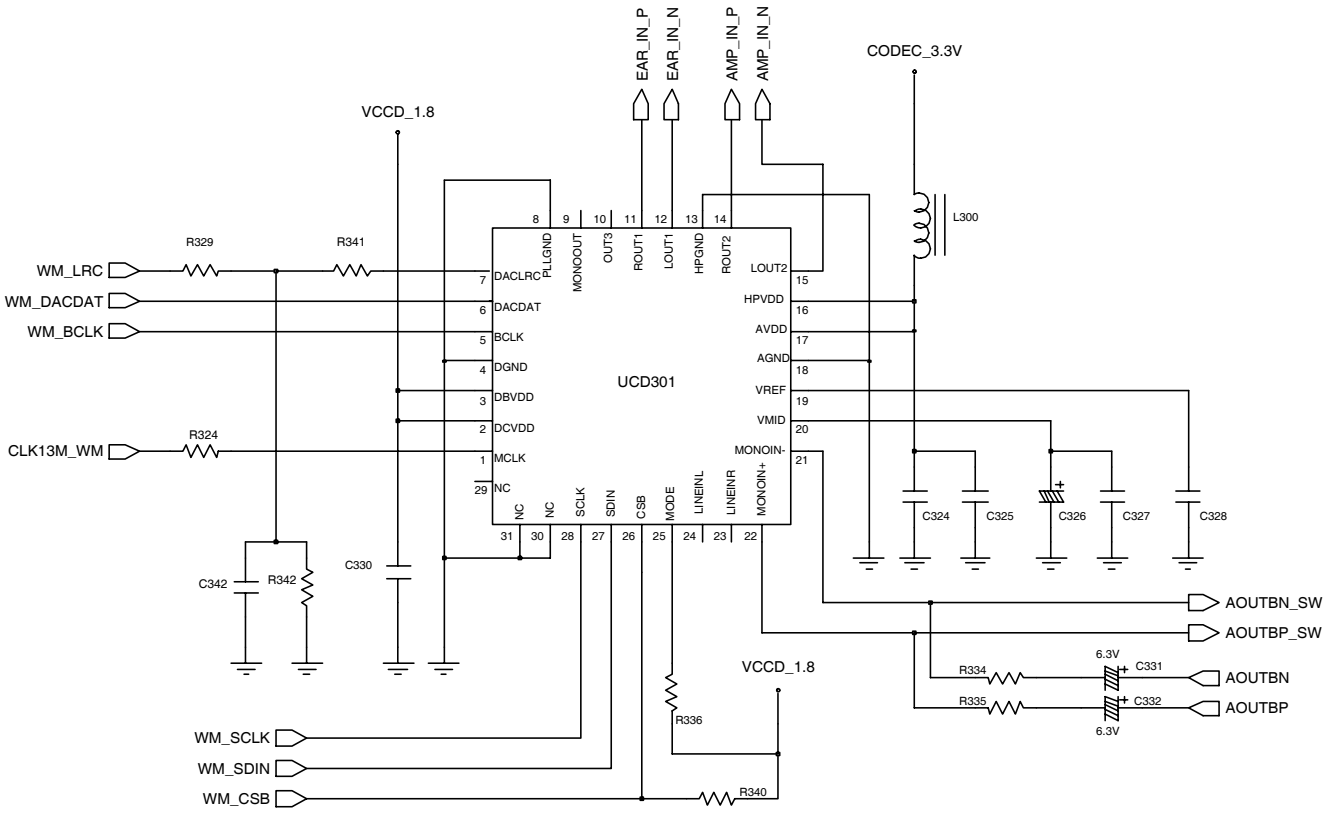

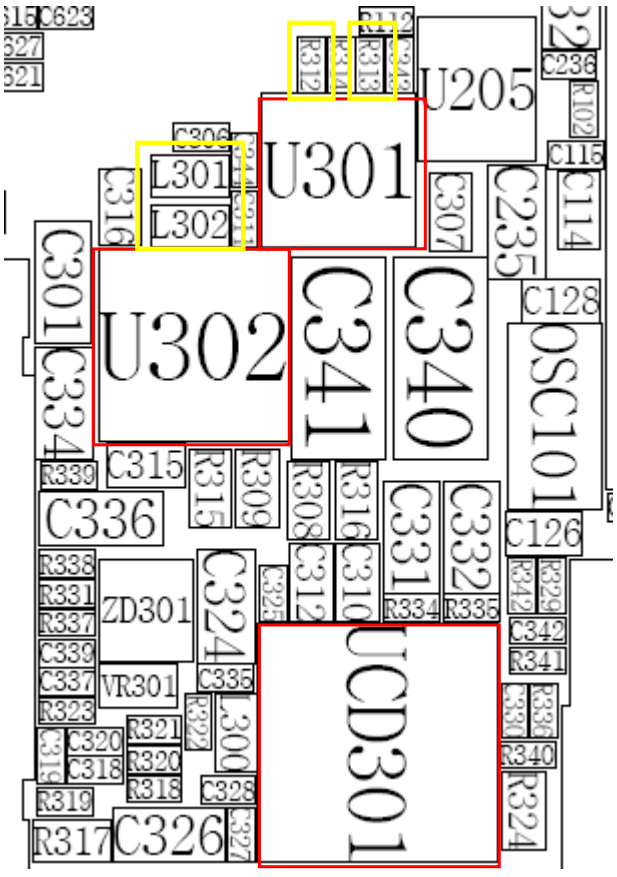

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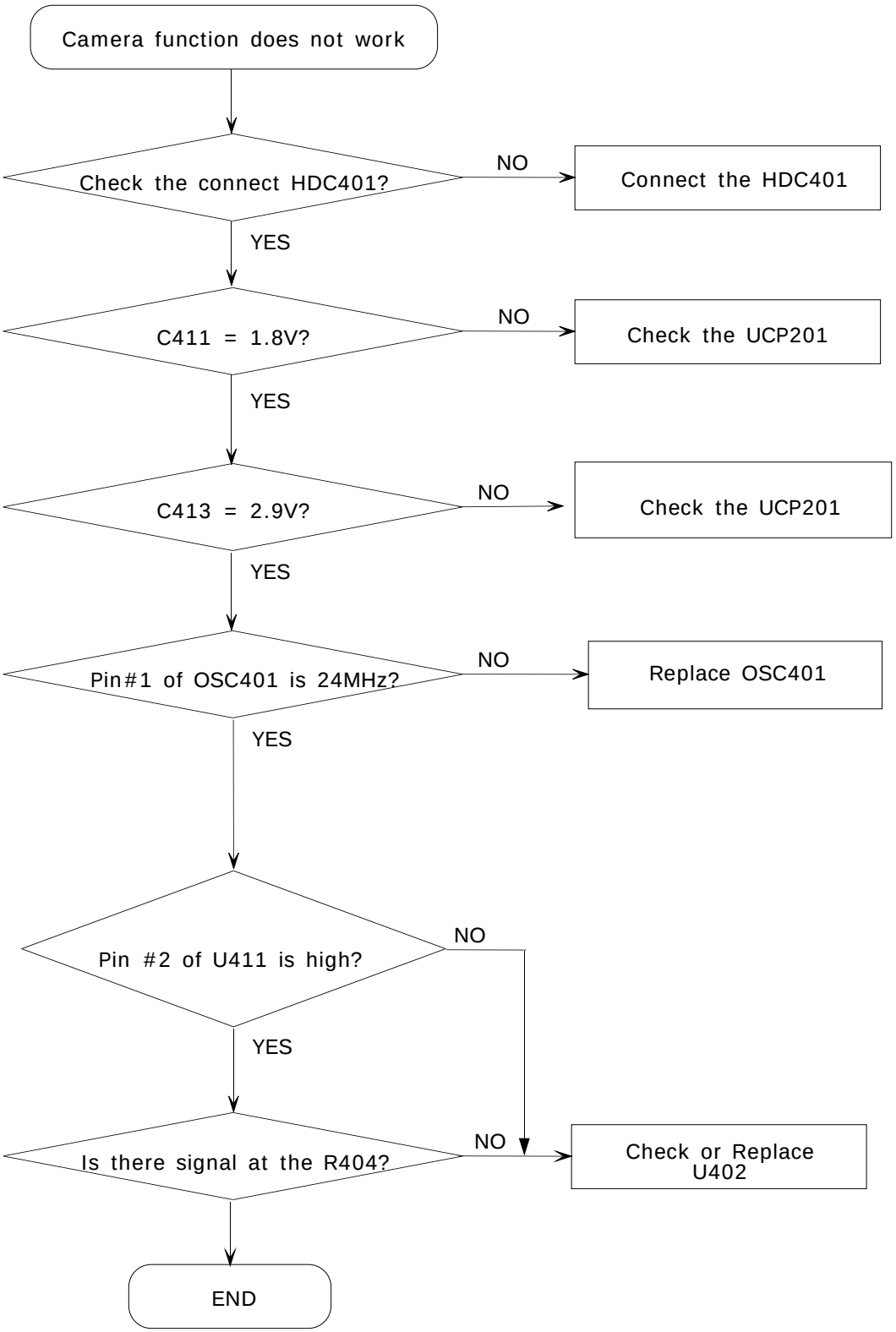
3-1-7. Camera Part



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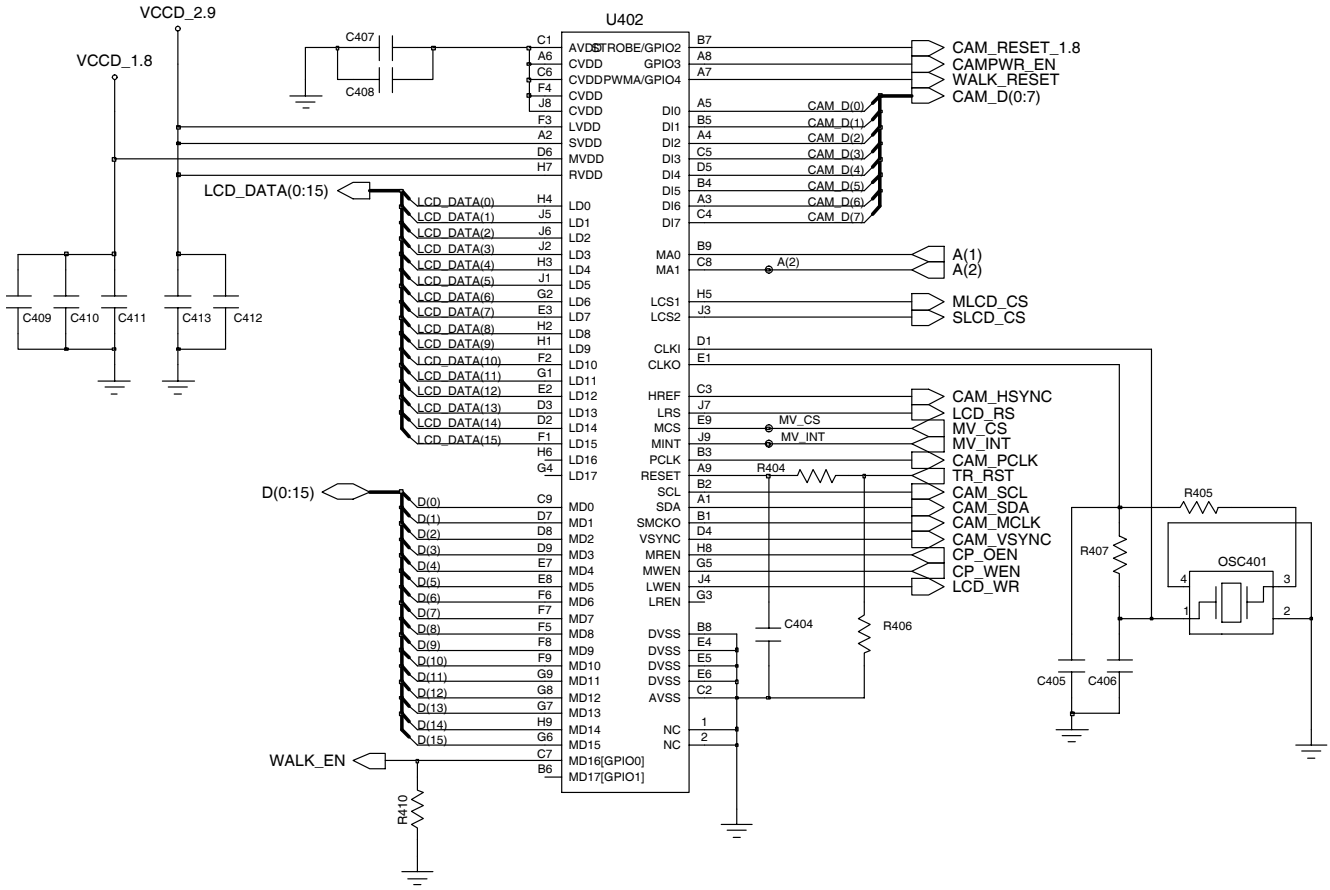

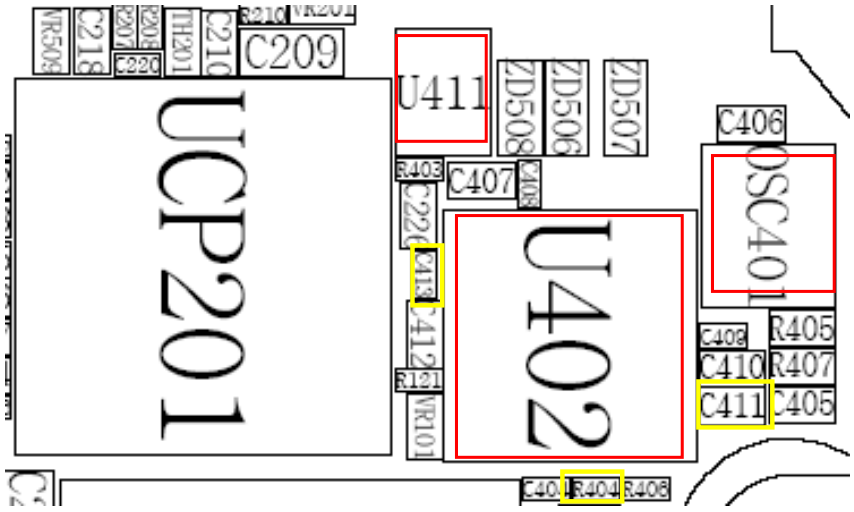

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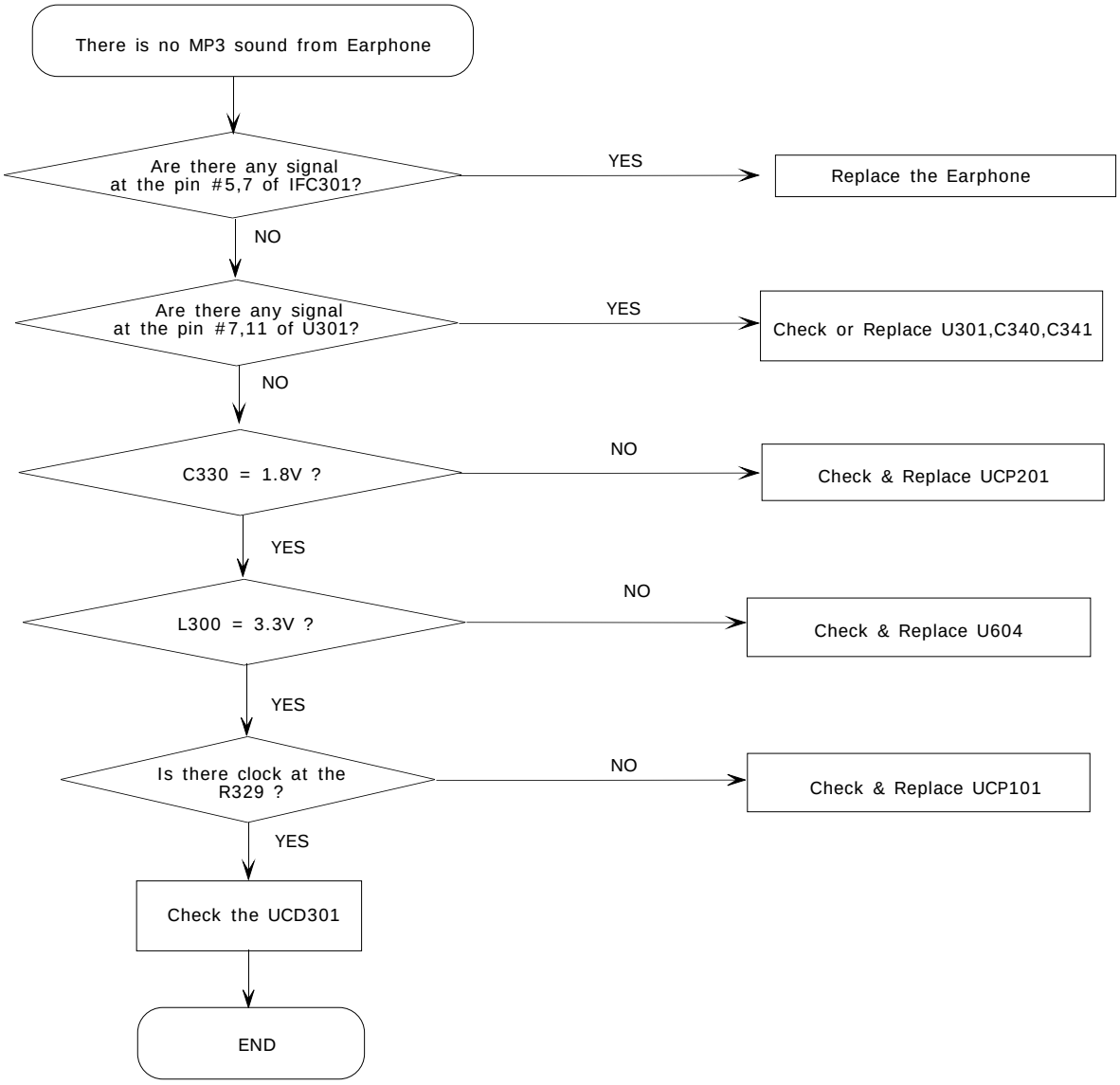
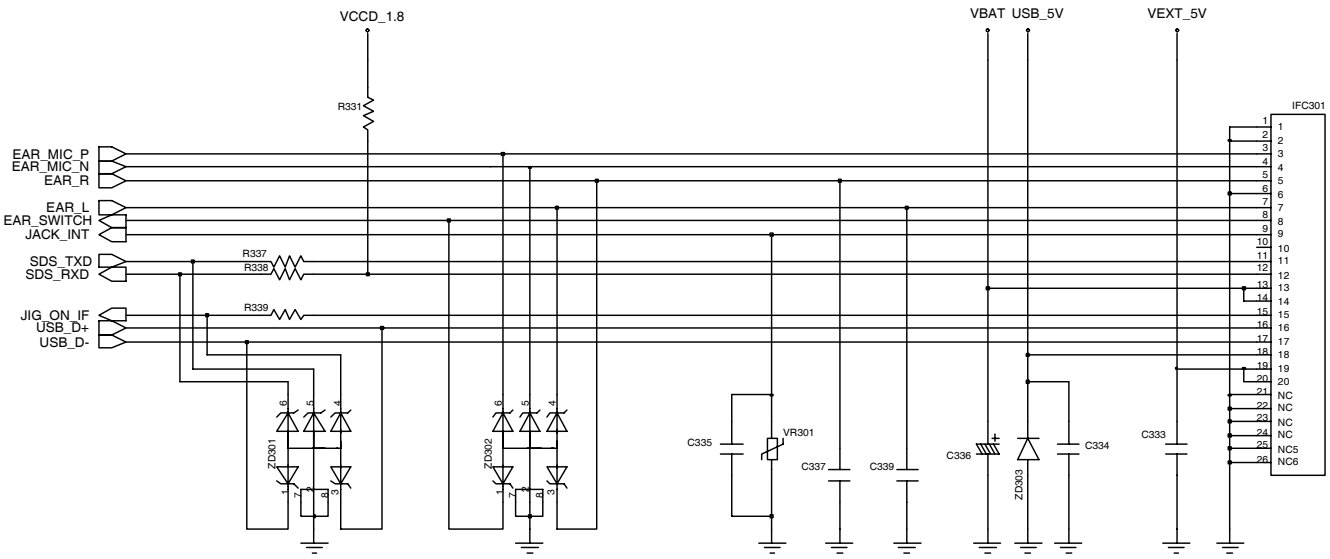
3-1-8. Mp3 Display Part



SAMSUNG Proprietary-Contents may change without notice
This Document can not be used without Samsung's authorization



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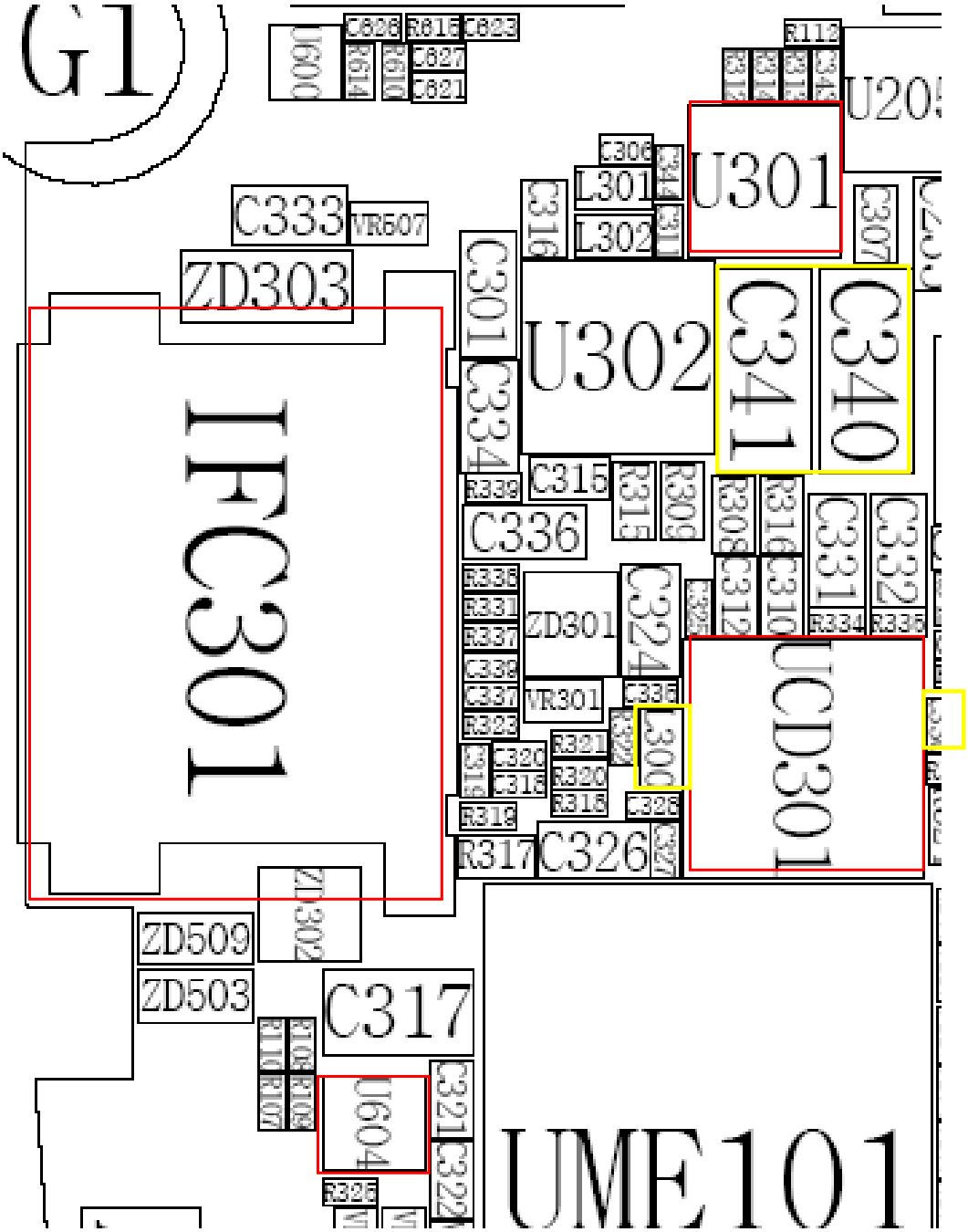
This Document can not be used without Samsung's authorization



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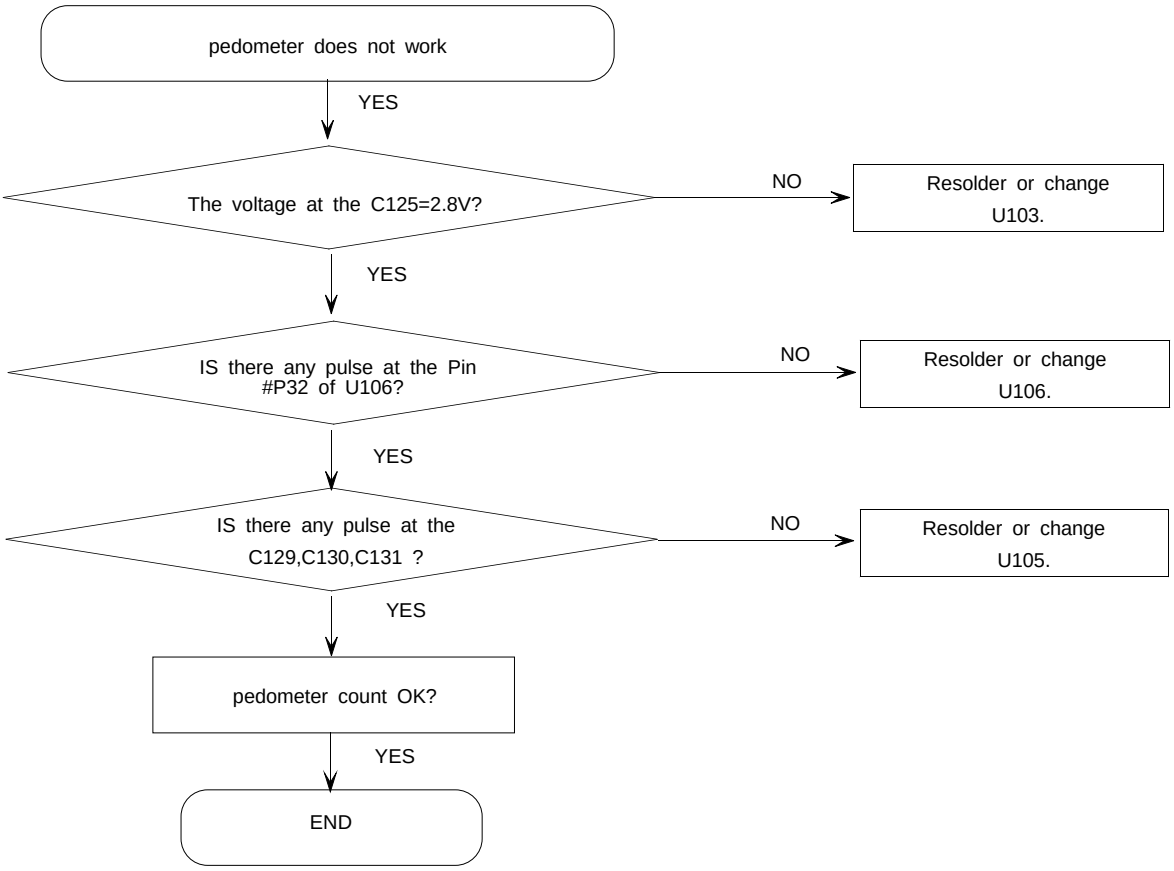
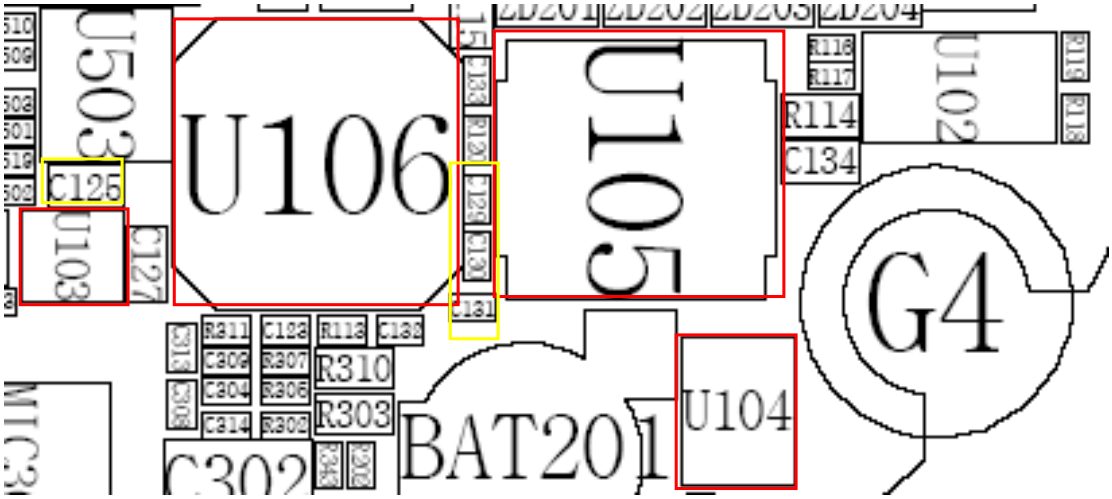
3-1-9. Pedometer Part





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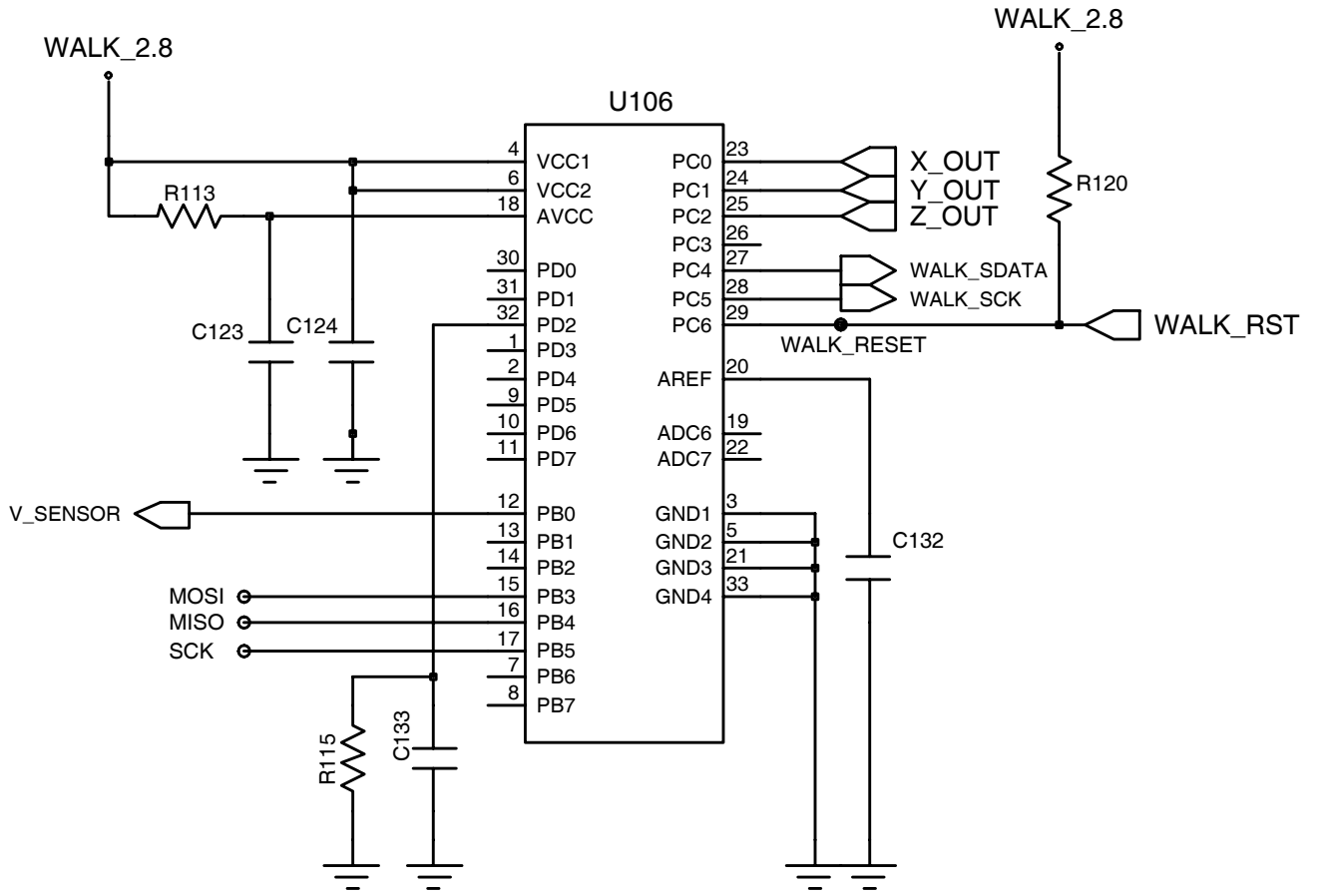
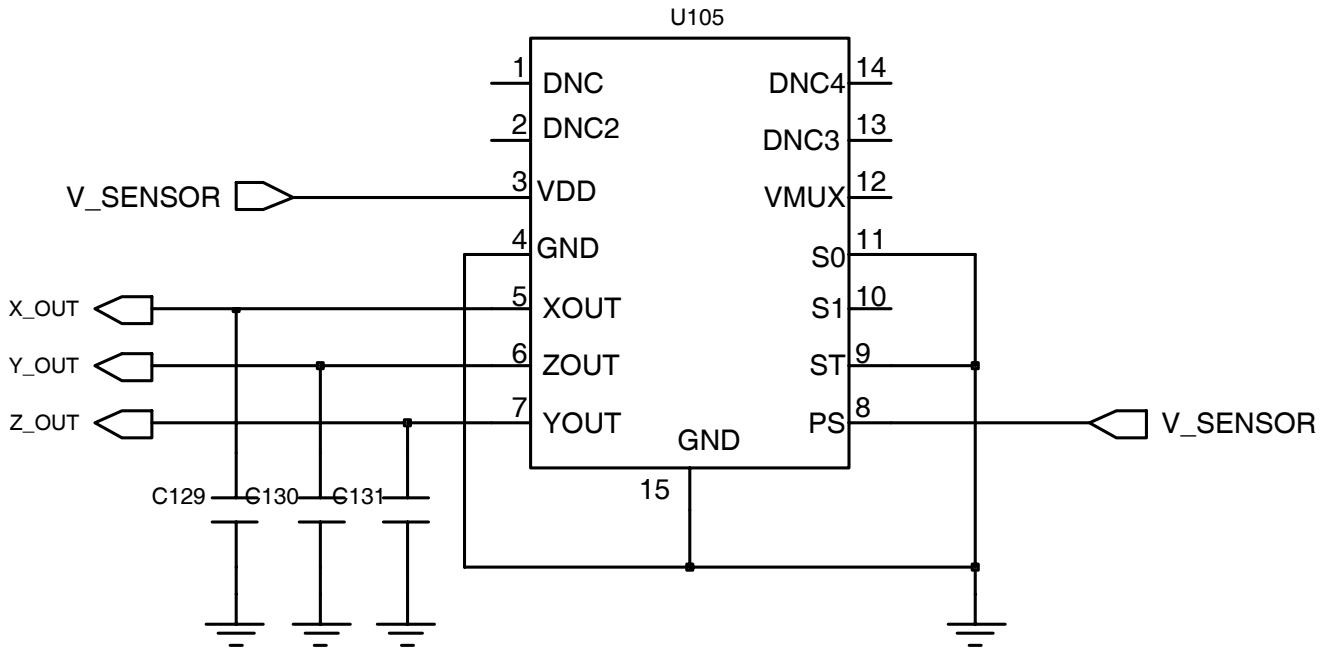
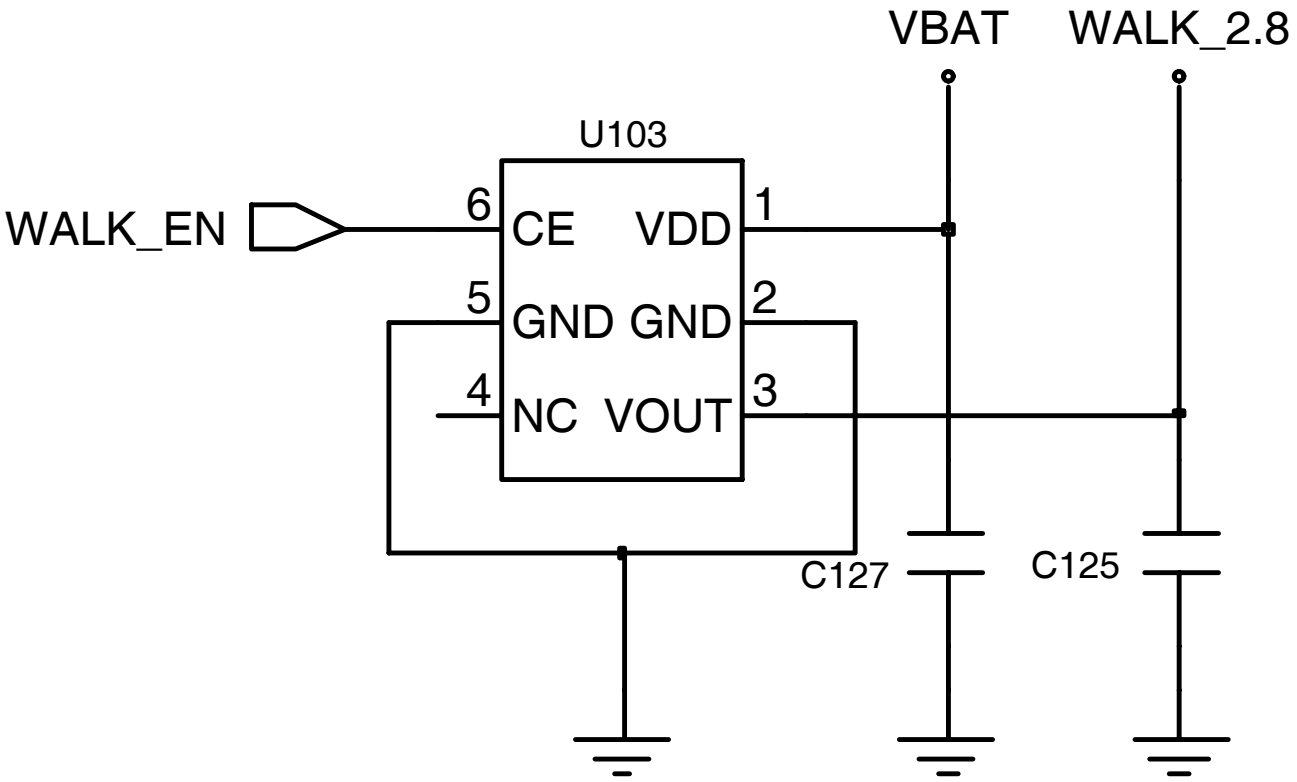
This Document can not be used without Samsung's authorization





SAMSUNG Proprietary-Contents may change without notice
This Document can not be used without Samsung's authorization



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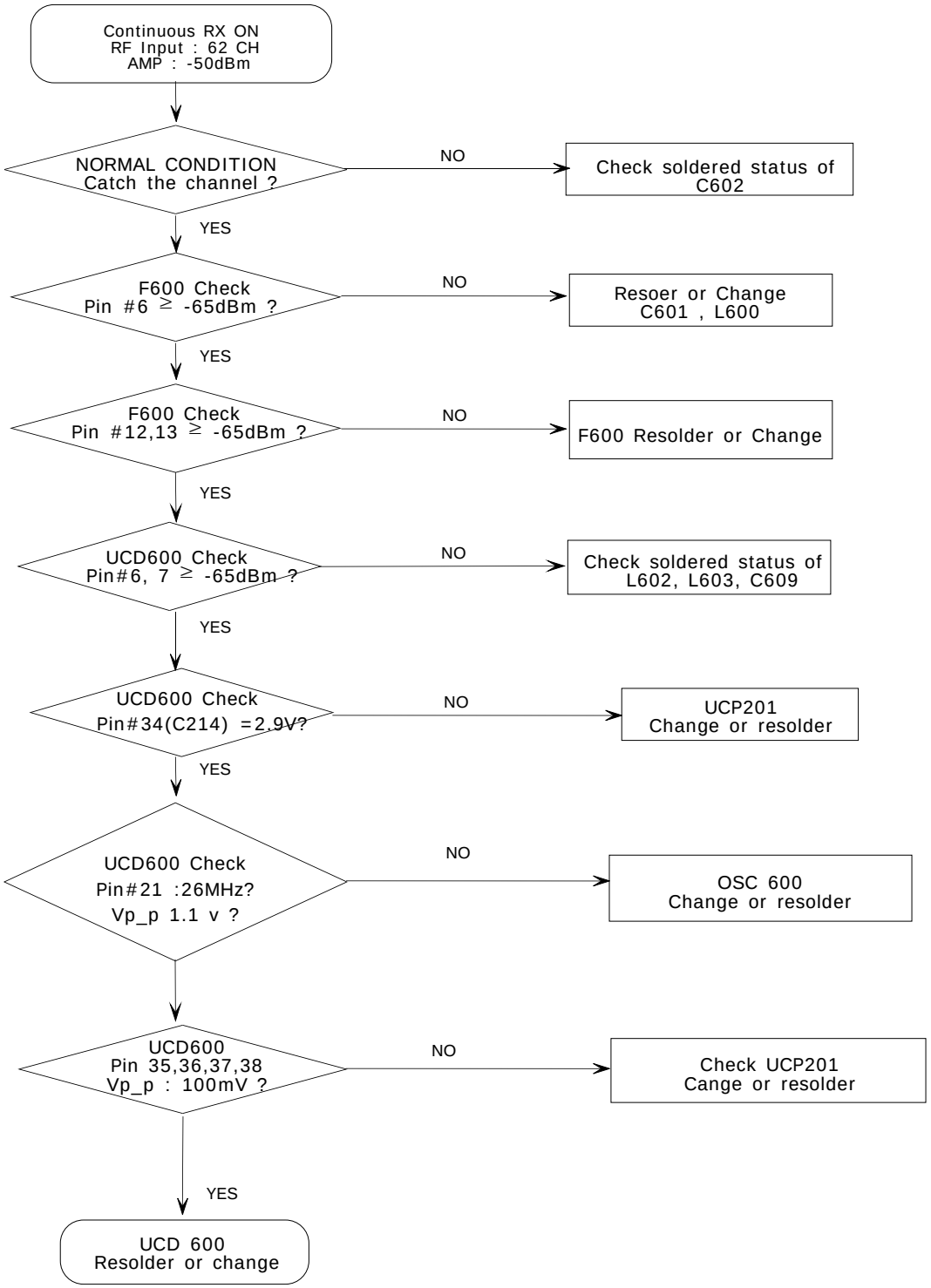
3-2.RF

3-2-1. EGSM RX



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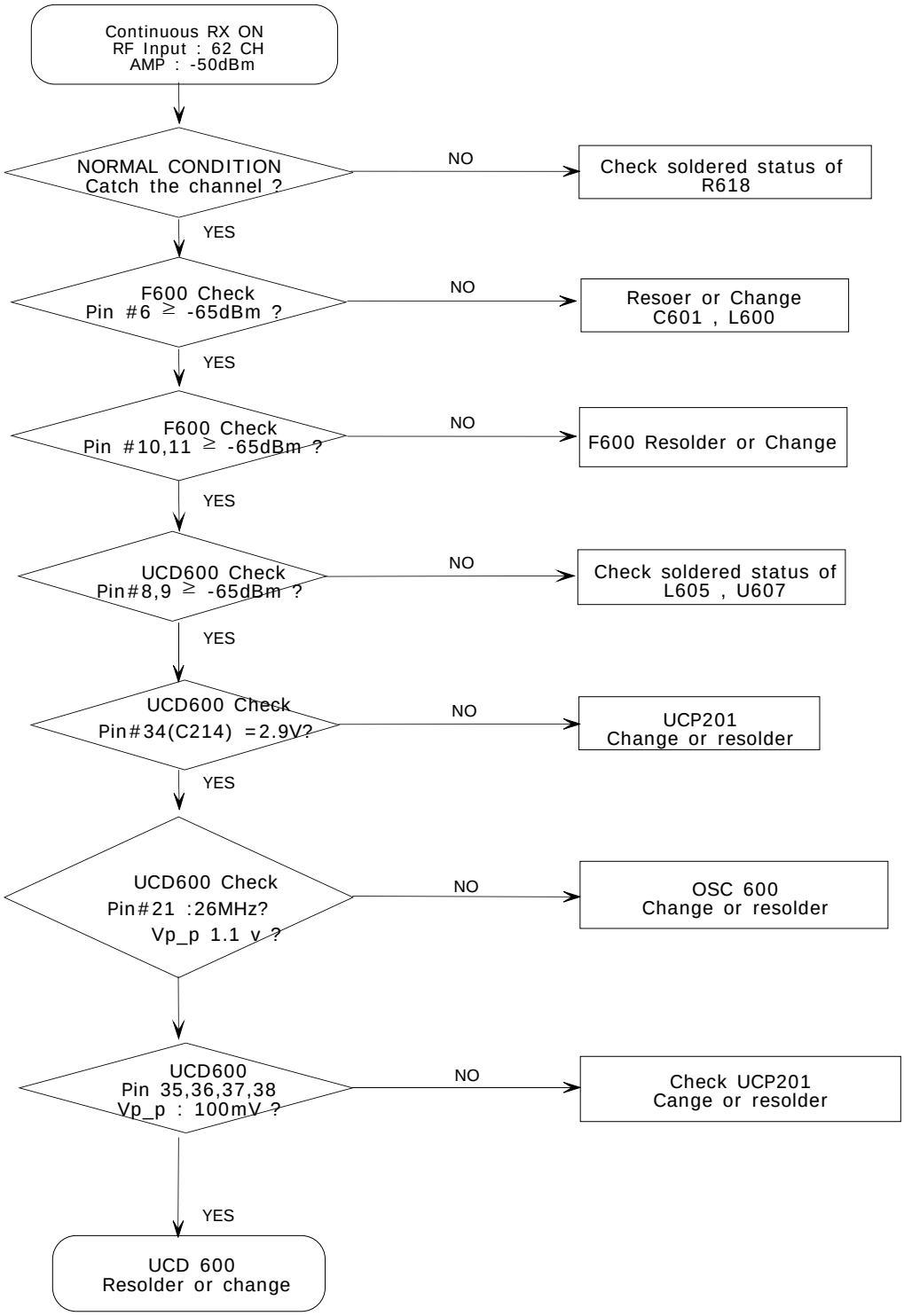
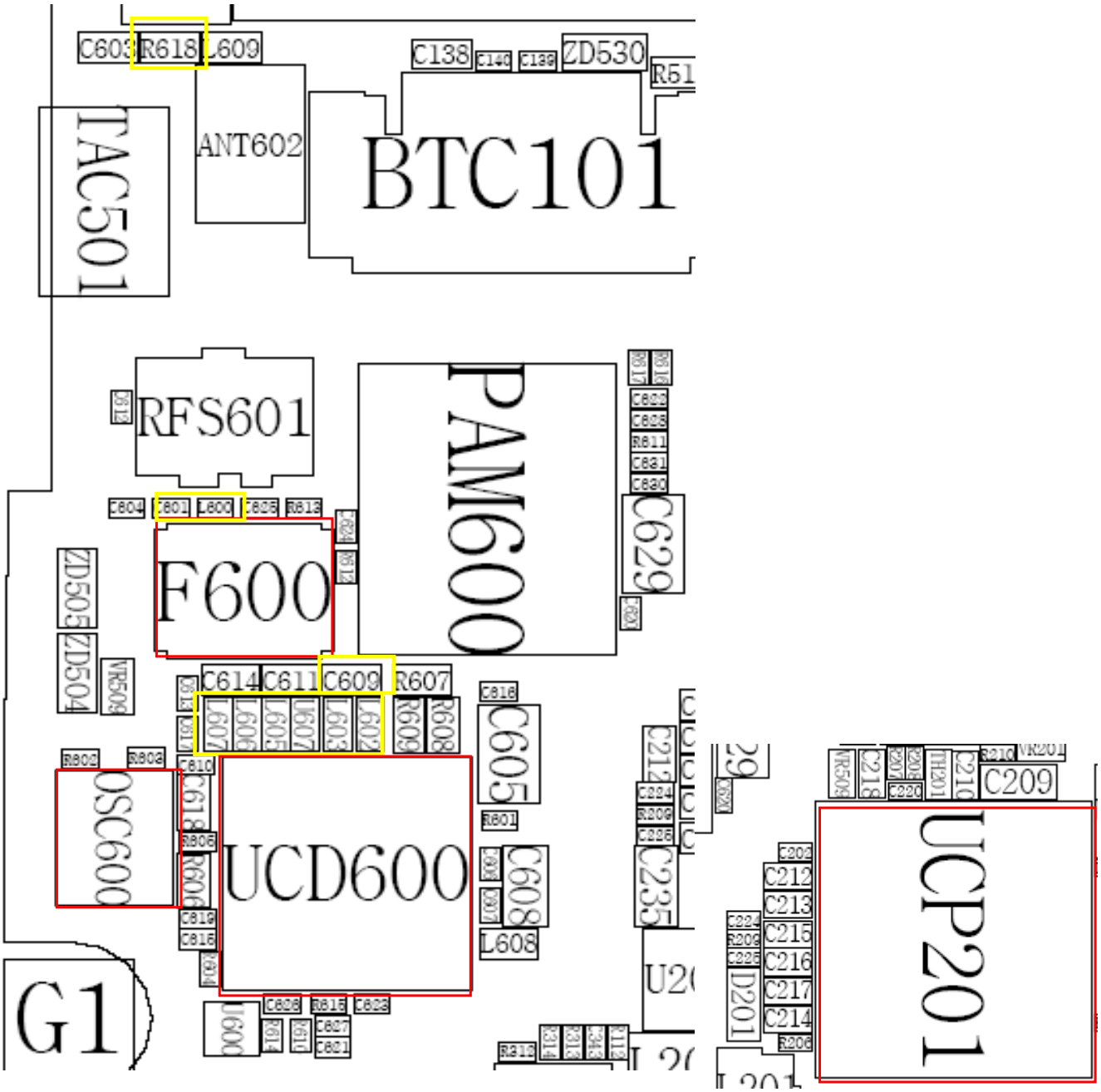
3-2-2. DCS RX



SAMSUNG Proprietary-Contents may change without notice
This Document can not be used without Samsung's authorization



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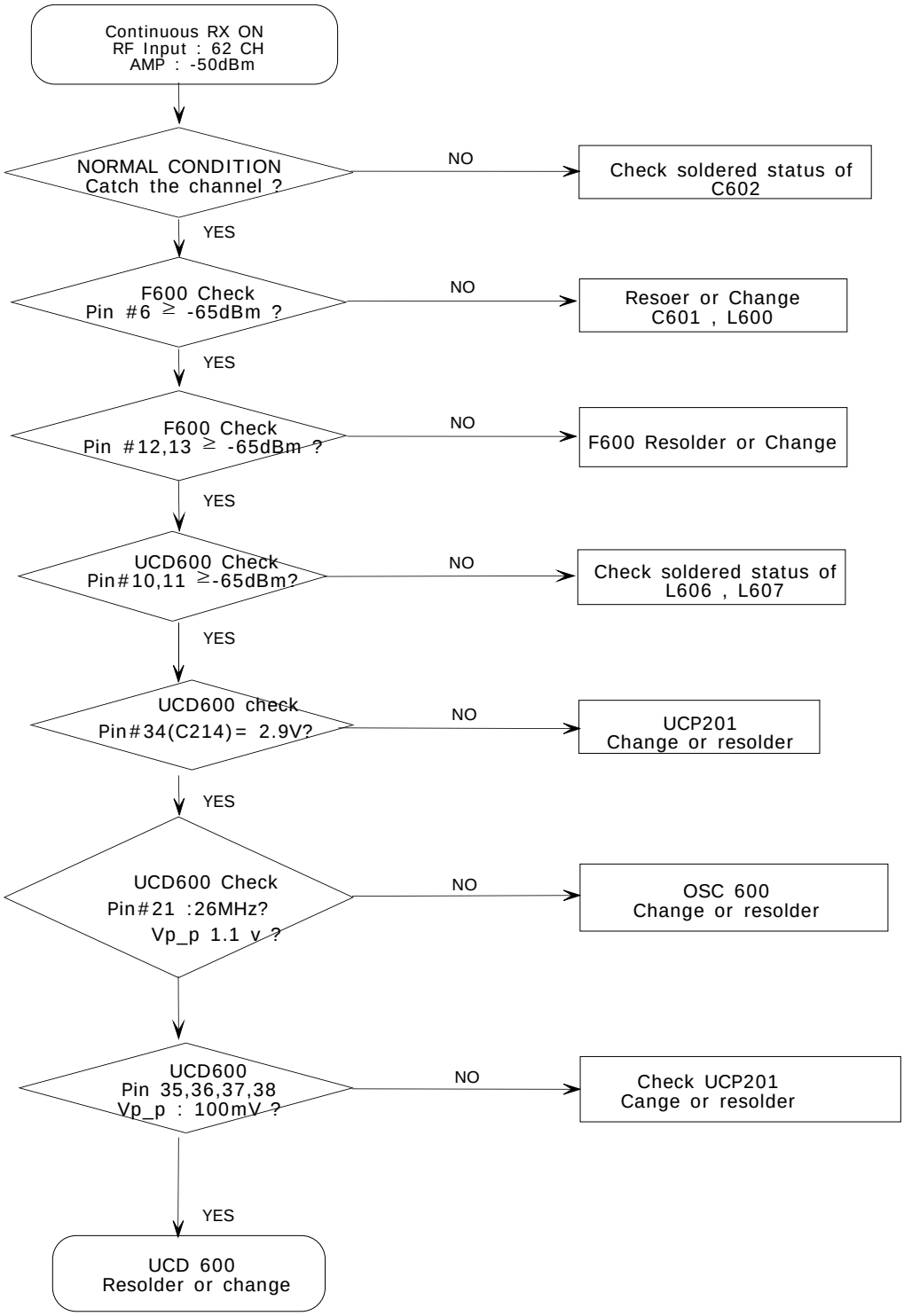
3-2-3. PCS RX



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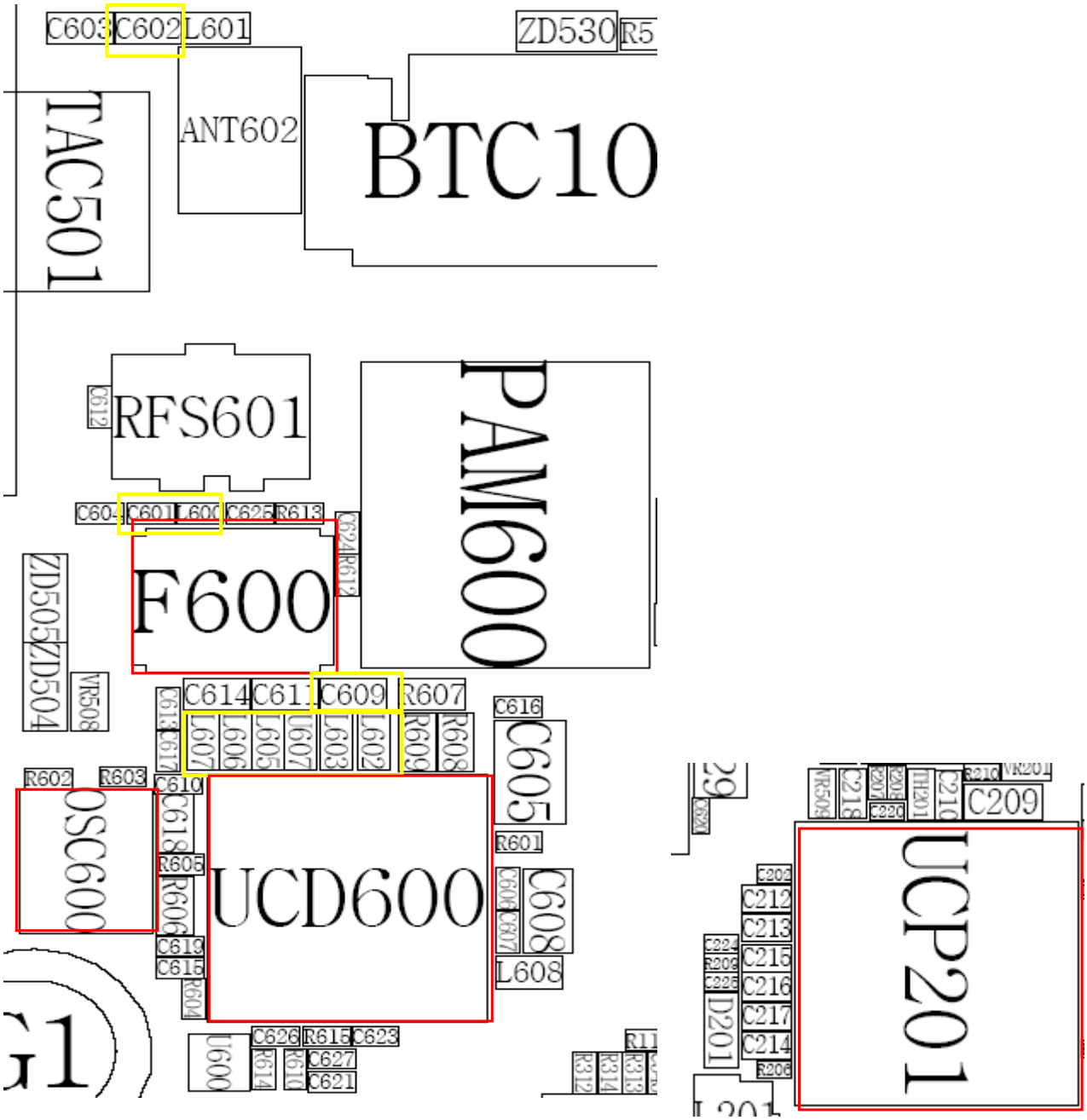

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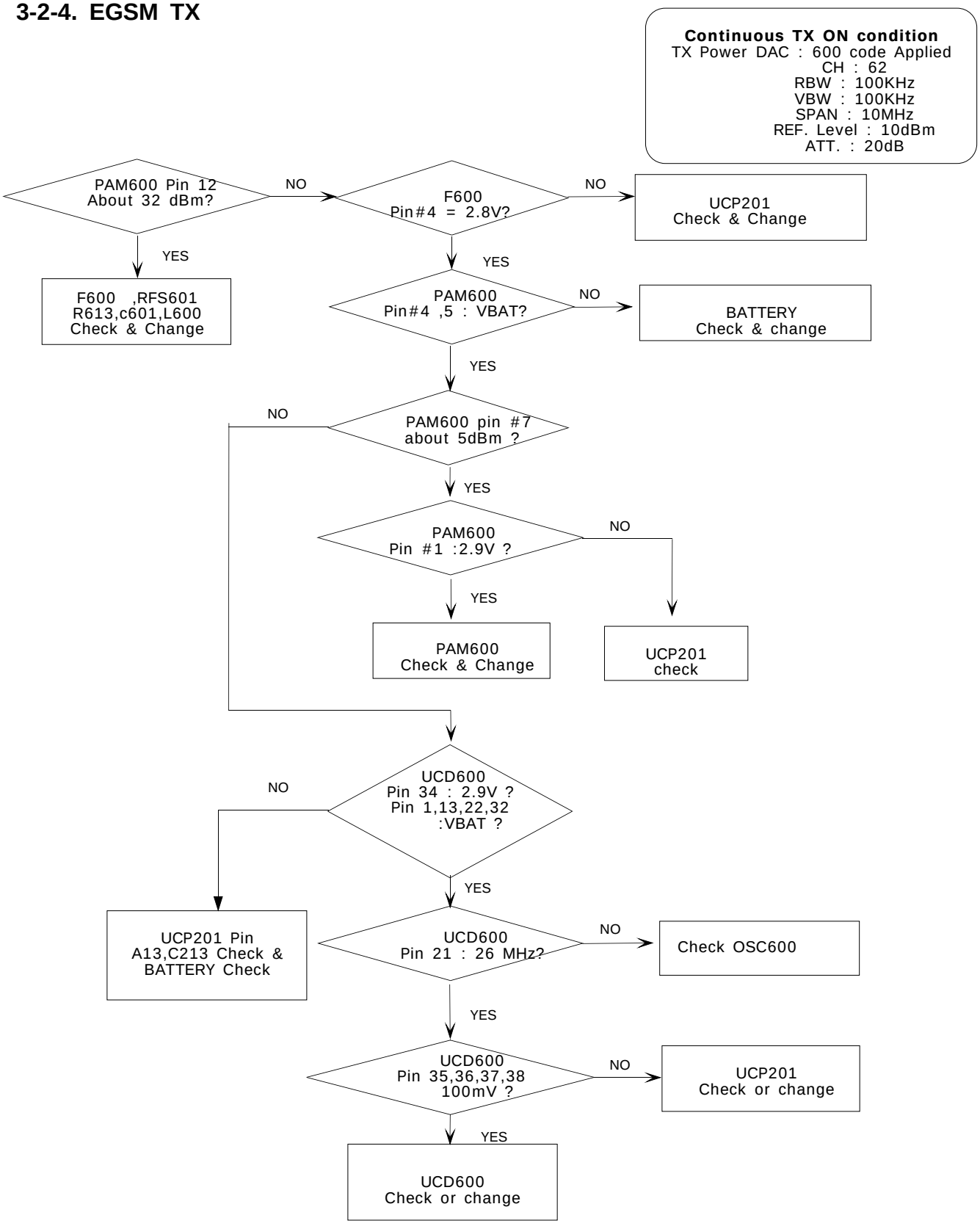
This Document can not be used without Samsung's authorization

3-2-4. EGSM TX



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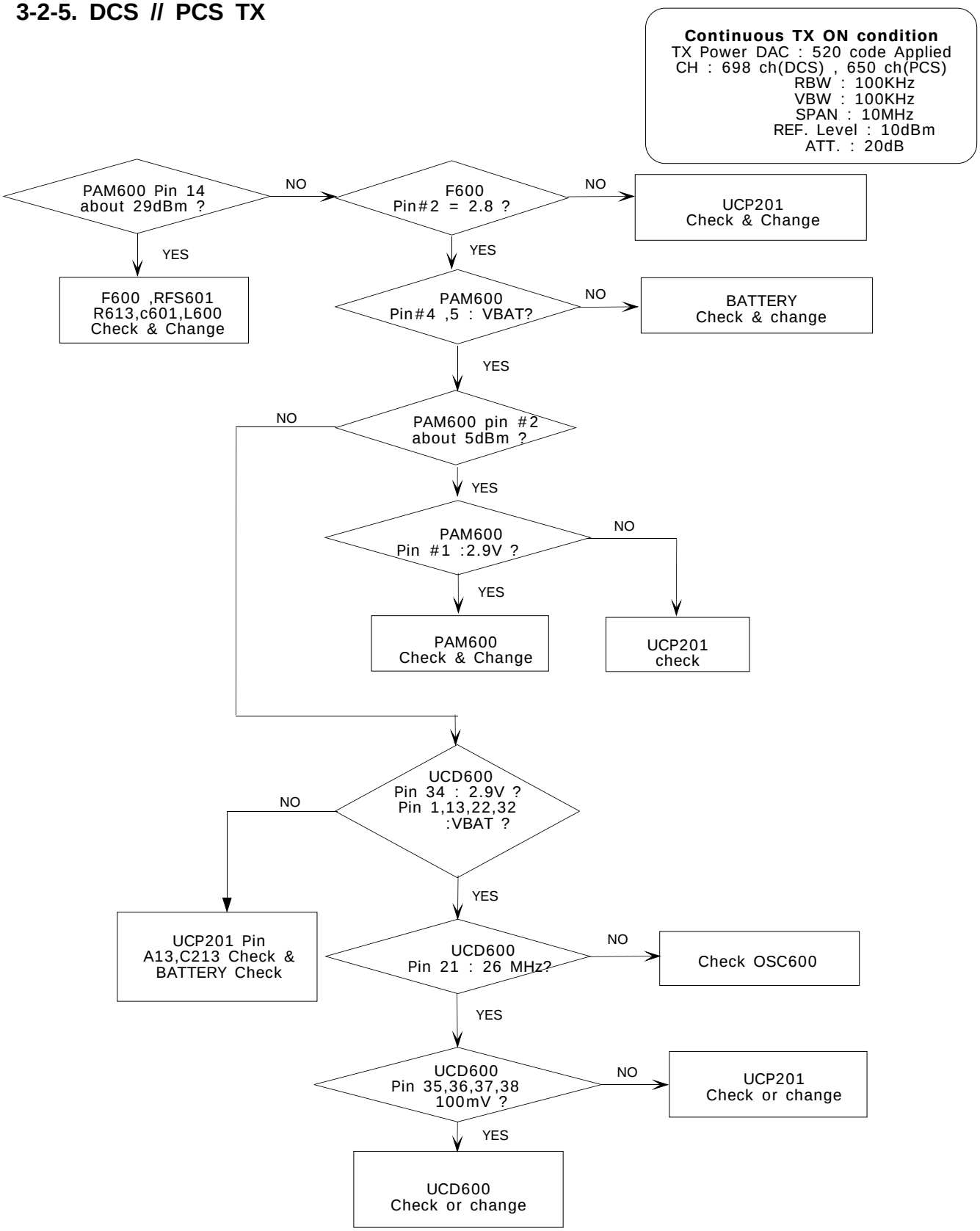
3-2-5. DCS // PCS TX



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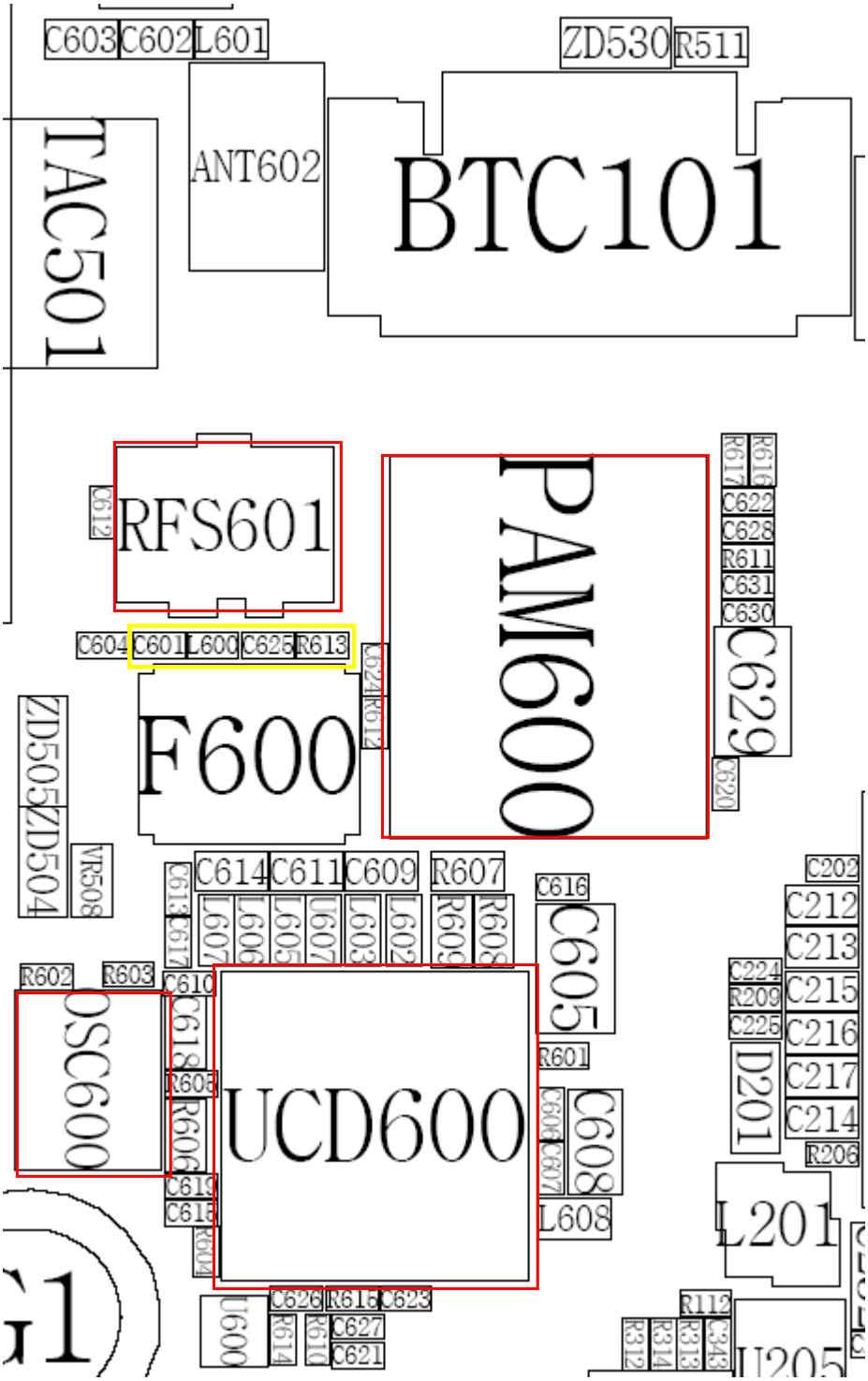

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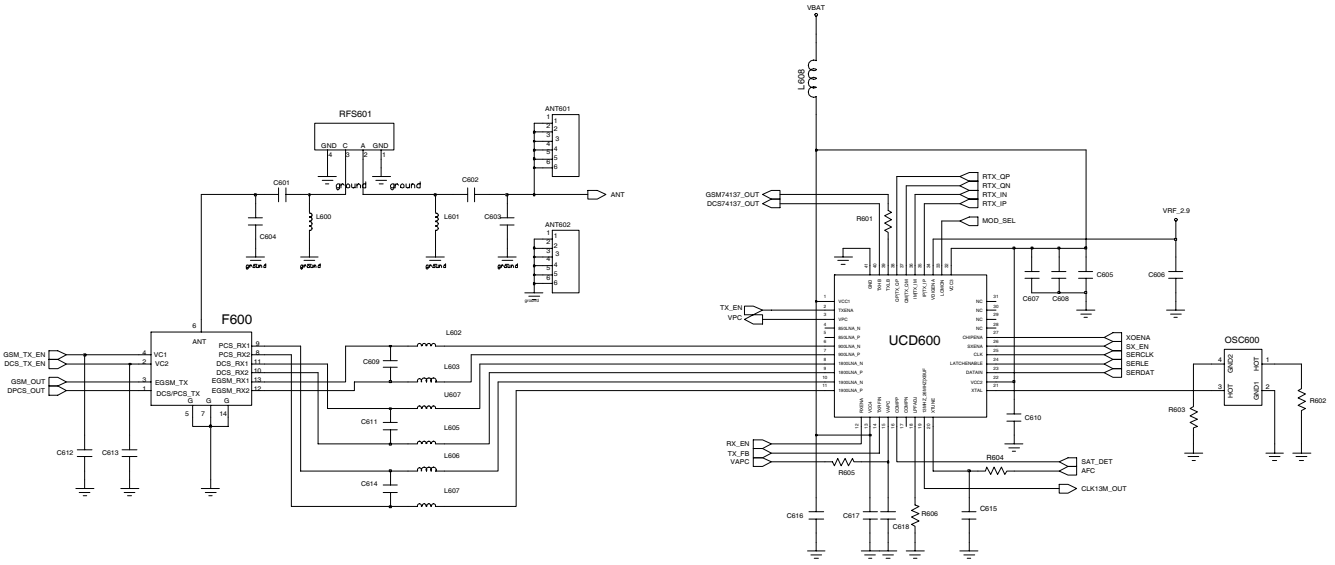

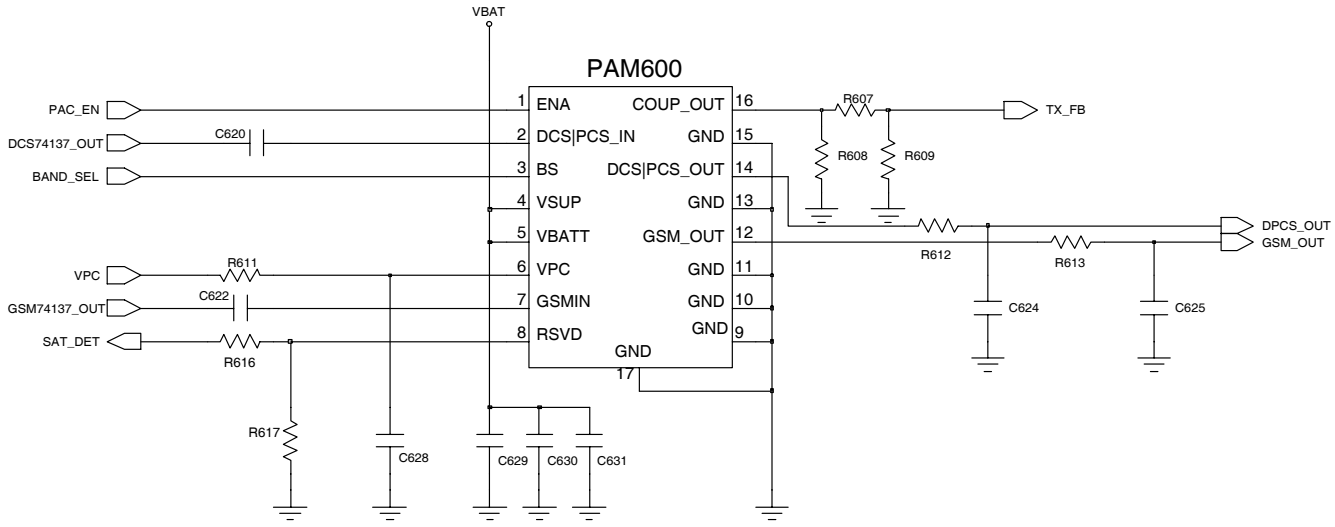

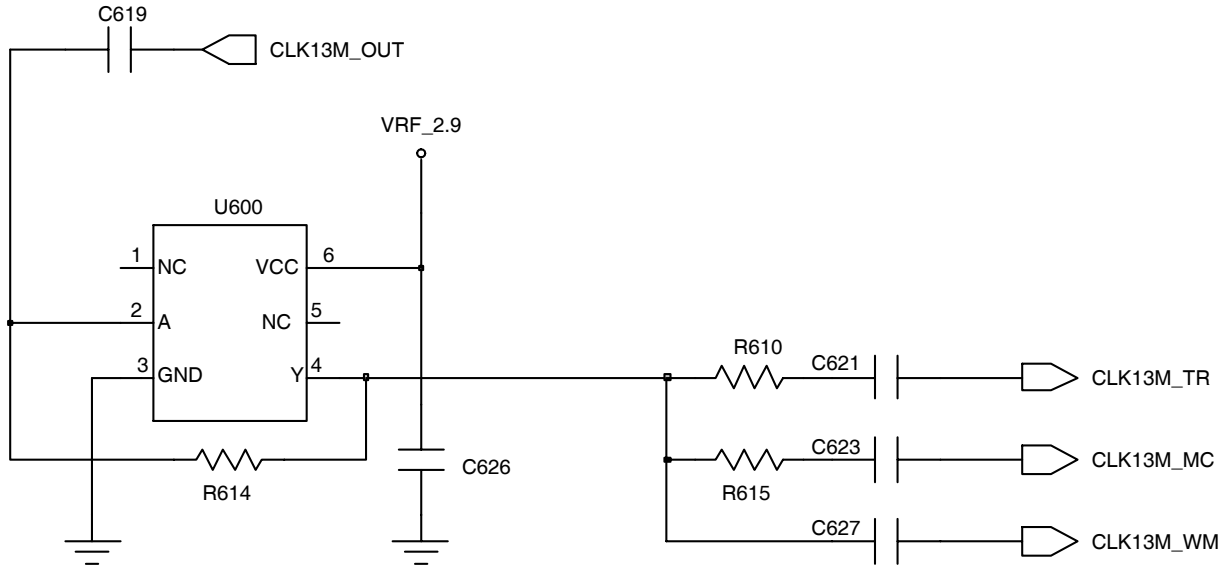

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4. Array course control

Test Jig (GH80-03307A)

Test Cable (GH39-00483A)

RF Test Cable (GH39-00397A)

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Software Downloading

4-1. Downloading Binary Files

1) Three binary files for E570

-E570XXYY.s3

4-2. Pre-requsite for Downloading

- Downloader Program (OptiFlash.exe)
- E570 Mobile Phone
- Data Cable
- Binary files

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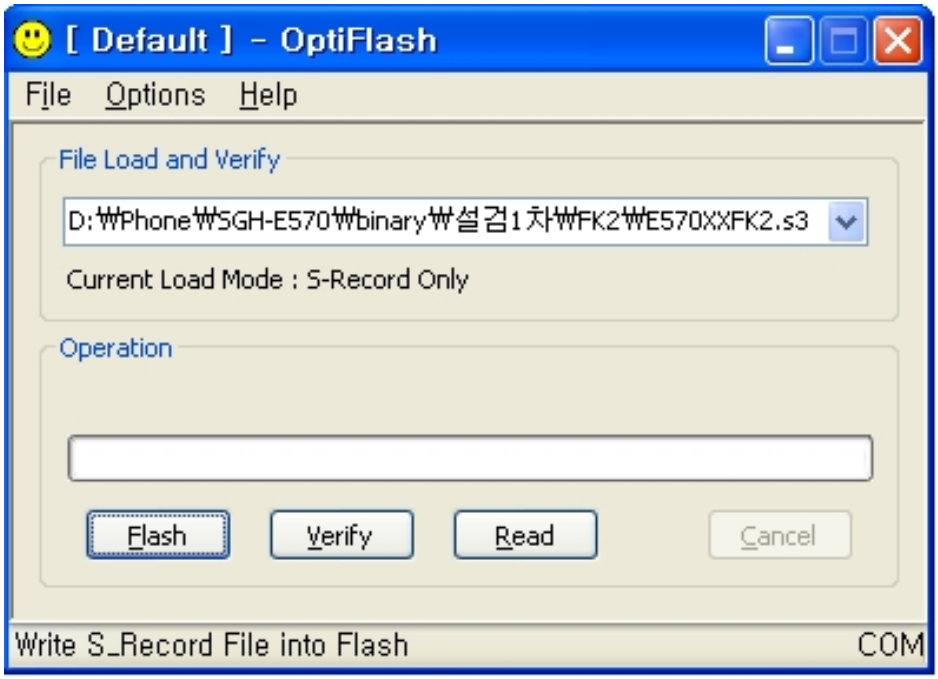
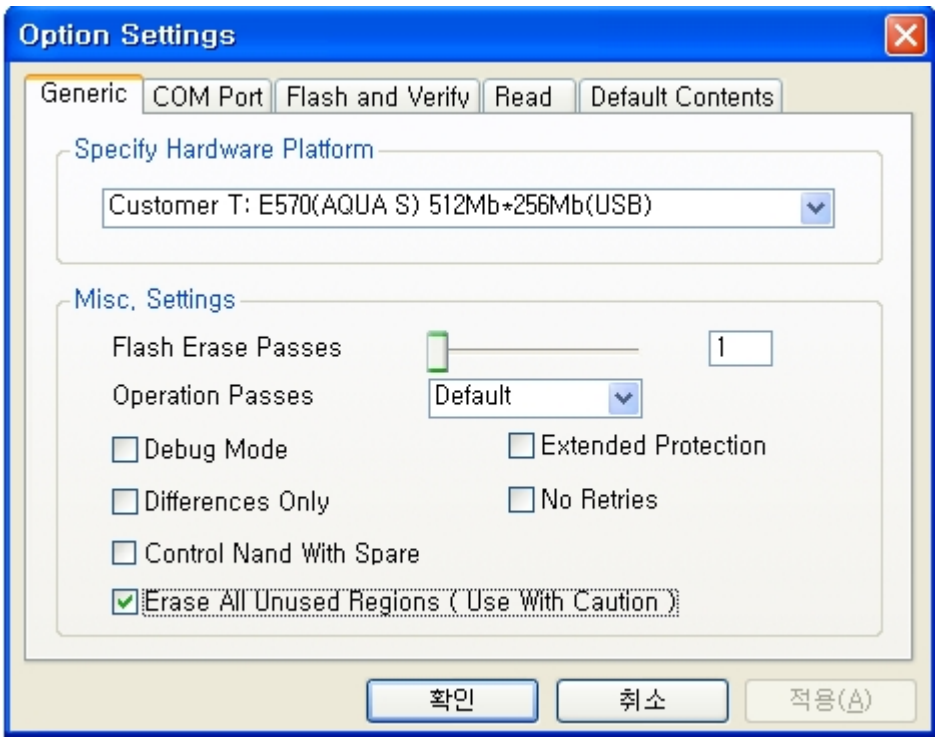
4-3. S/W Downloader Program

1. Load the binary download program by executing the "**OptiFlash.exe**"



2. Select the **Options -> Settings -> Generic -> Specify hardware platform** . Choose hardware platform for the downloader file setting.
Set the everything else as the default values which are shown below



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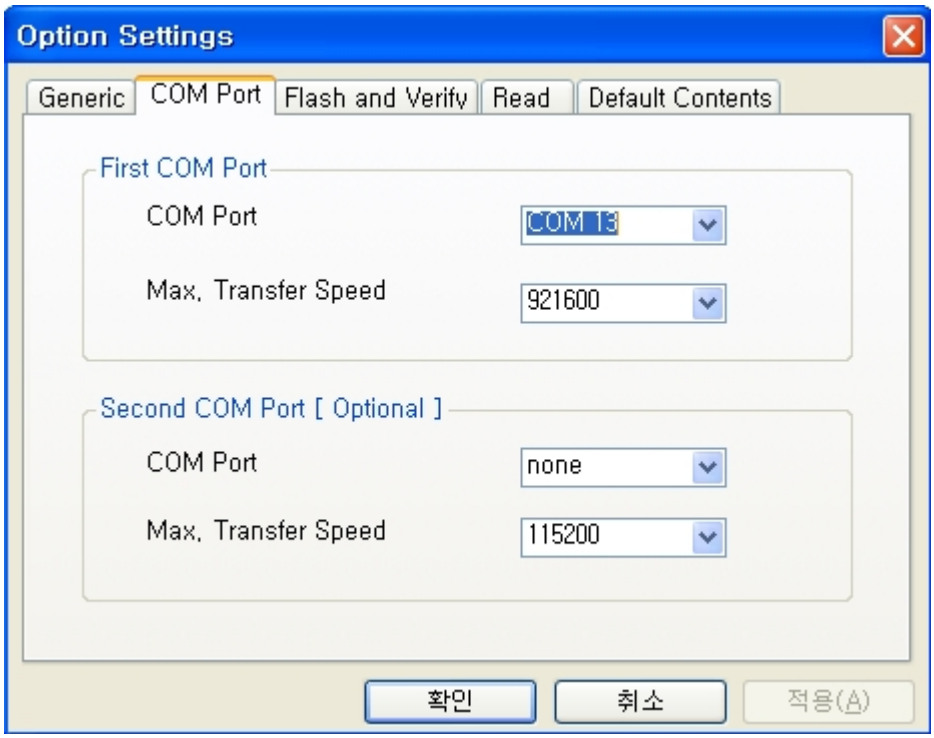
3. Select the **COM port** when the download cable is connected



Up to twelve ports are supported. Additionally you can select the maximum transfer speed OptiFlash will use to communicate with the phone. However, OptiFlash will use a slower speed if either the PC's or the phone's serial hardware is incapable of handling the selected speed

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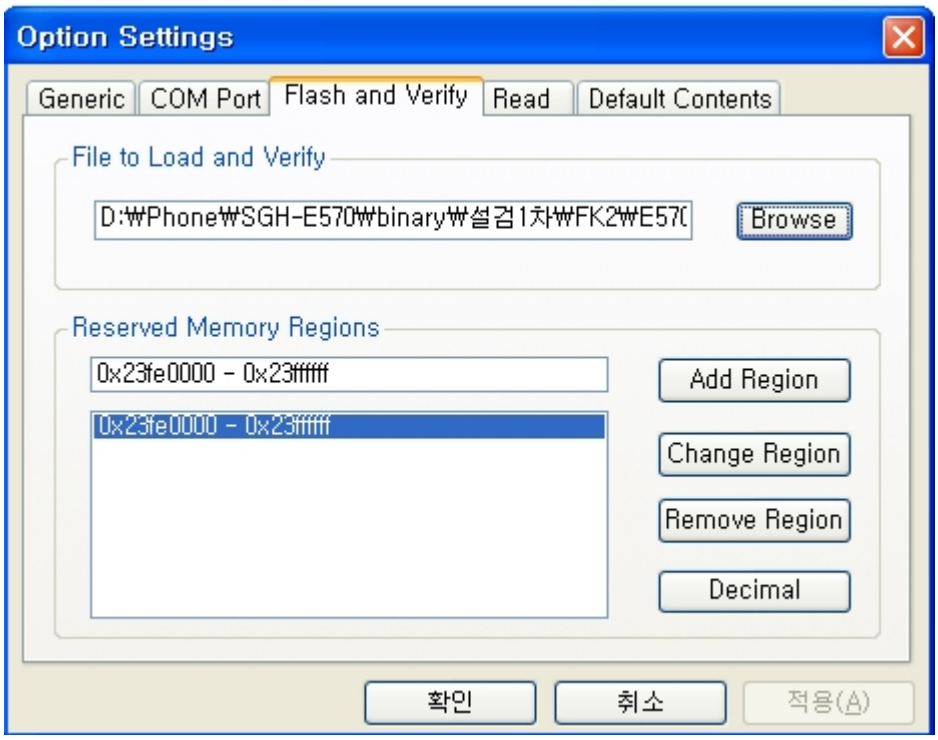
4. Select the **Flash&Verify -> Browse** Set the directory path and choose the latest s/w binary, for example
E570XXYY.s3 for the downloader binary setting.



Make sure that not to change the reserved memory regions.
In case of E570 the reserved regions are :
-0x23fe0000 - 0x23ffffff

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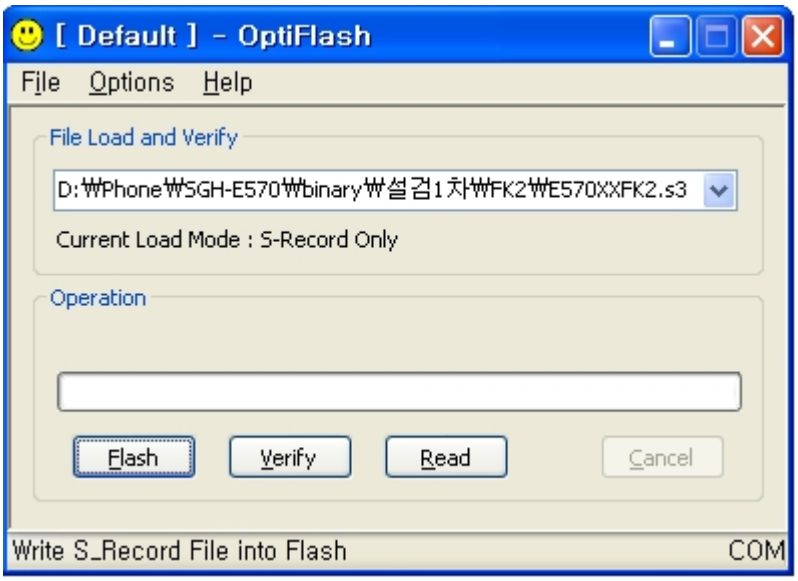
5. Click "**OK**" button then press "**Flash"**
(Before pressing "Flash" button, push the button **"*" and "END" at the same time**. Then press "Flash".)
Downloader will upload the binary file as below for the downloading.



6. When downloading is finished successfully, there is a "All is well" 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#**

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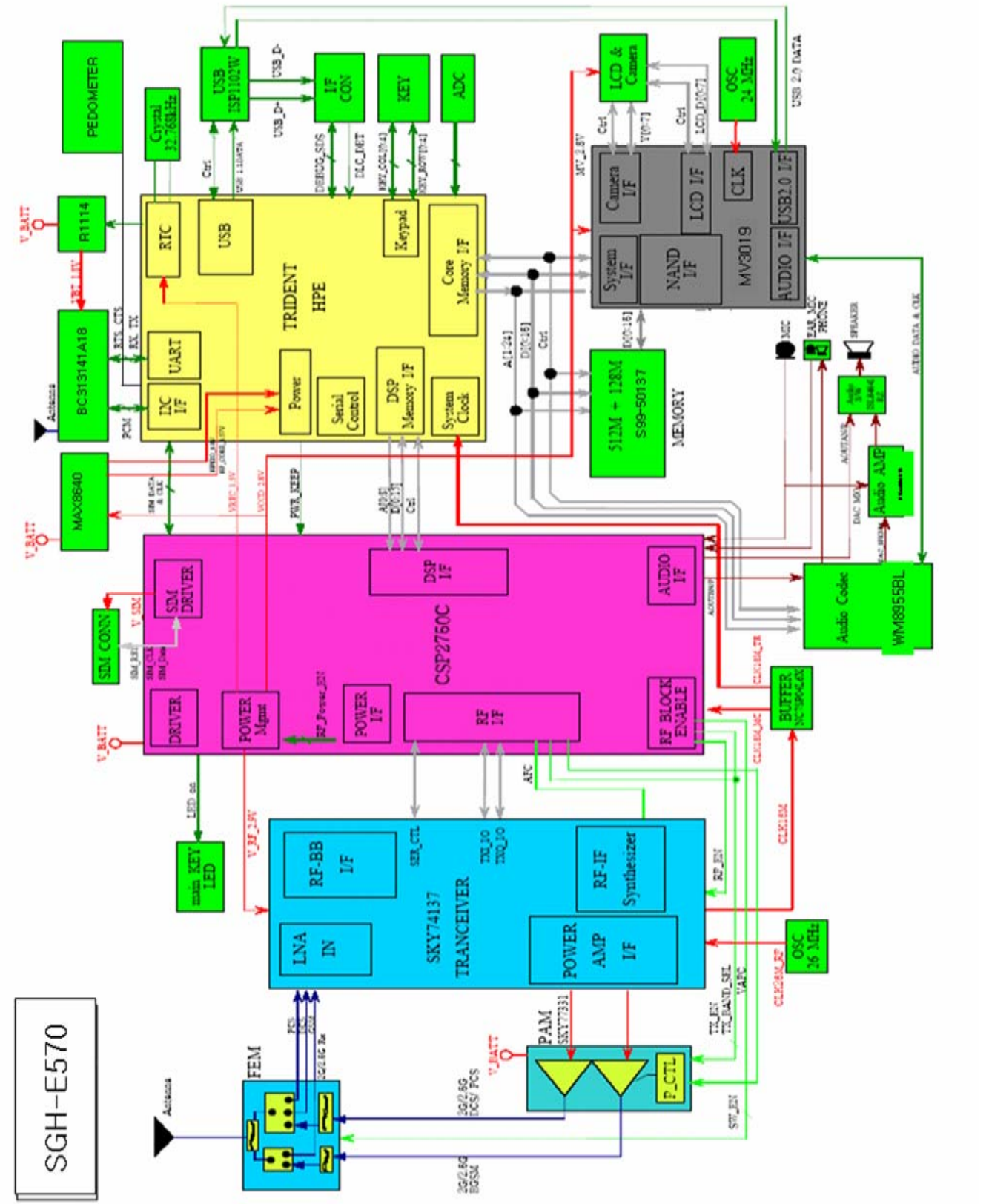
5. Block Diagrams



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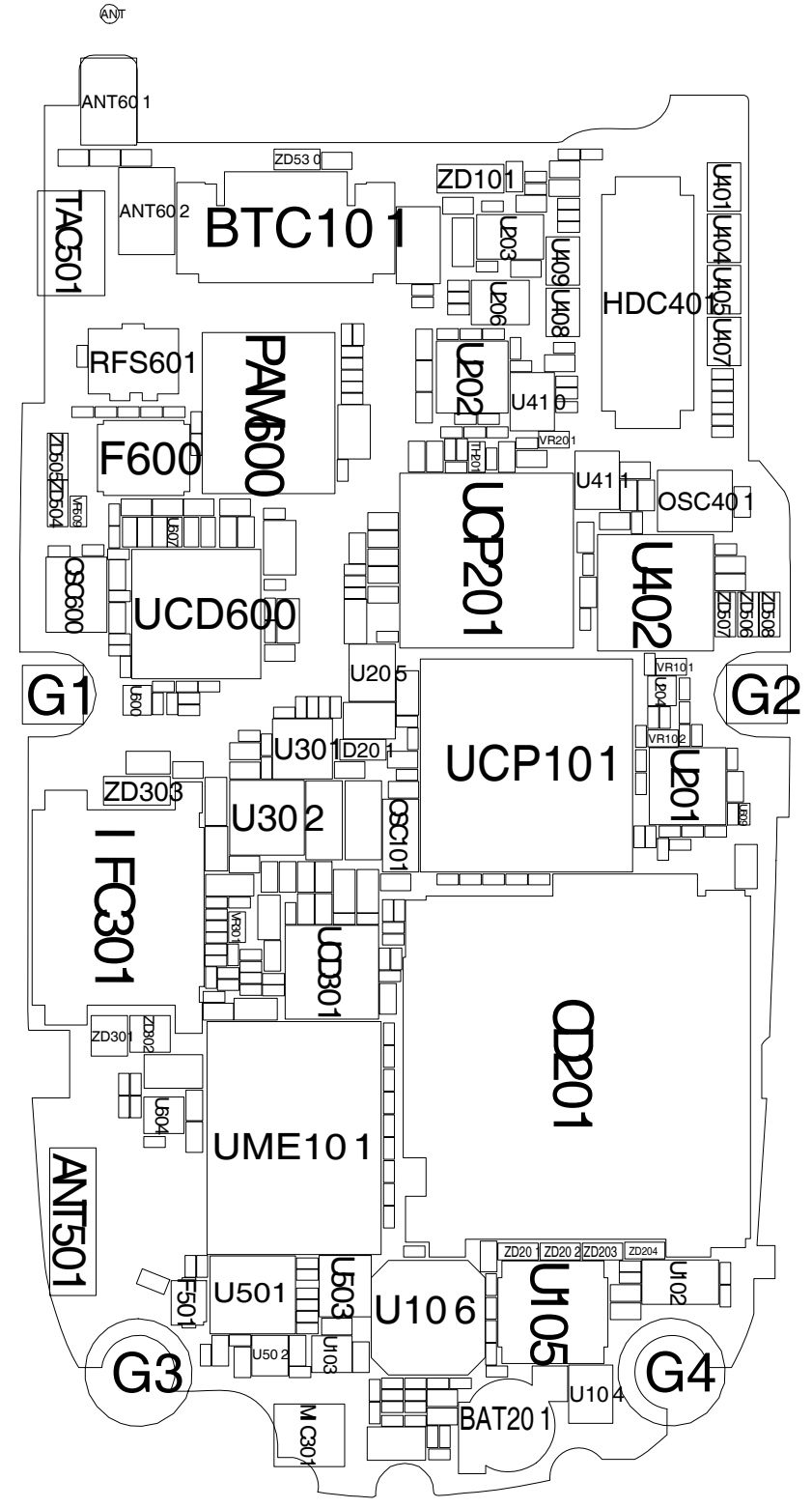
6. PCB Diagrams



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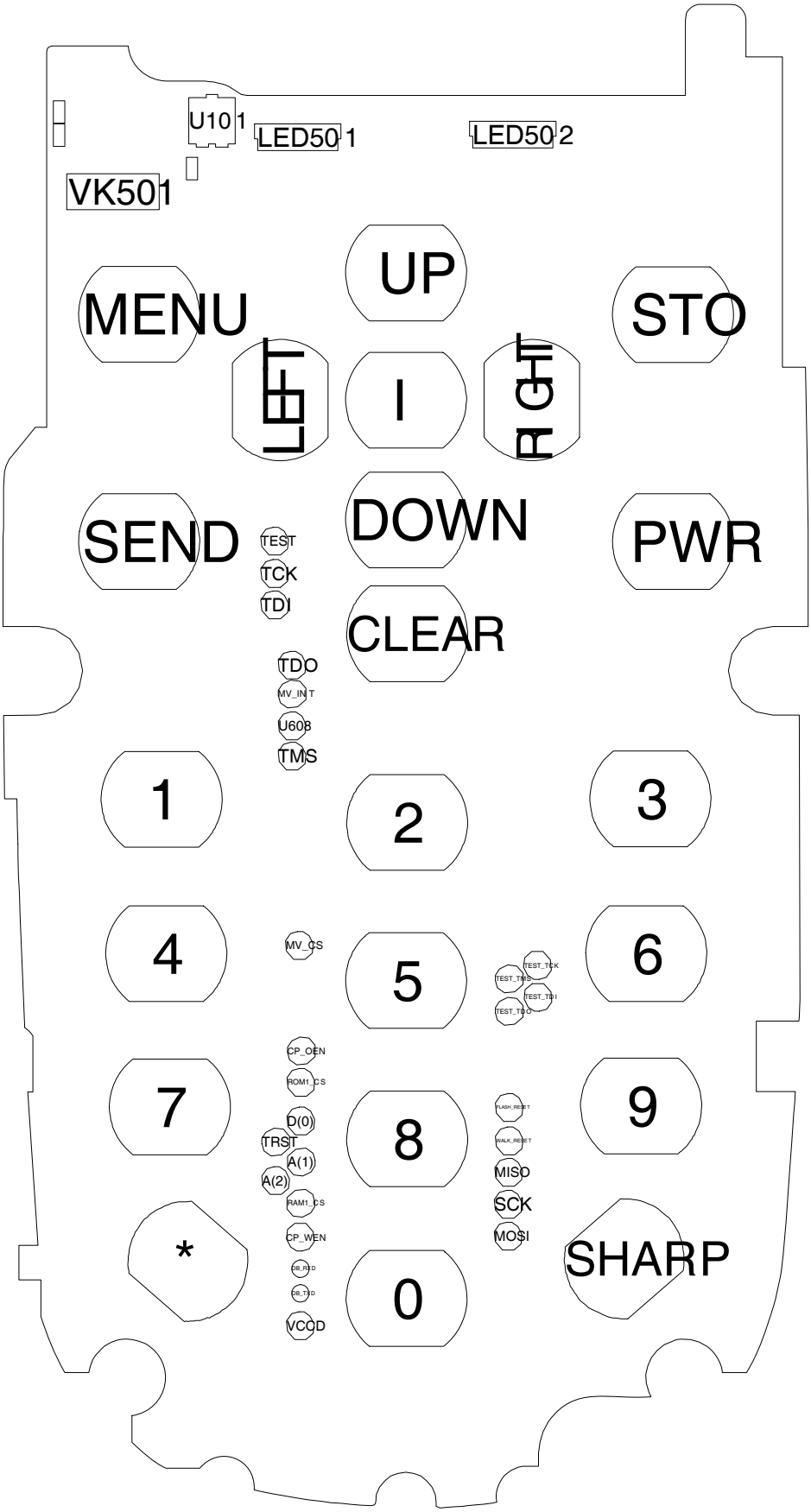

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7. MAIN Electrical Parts List

SEC CODE	Design LOC	Discription	STATUS
0403-001547	ZD101	DIODE-ZENER	SA
0403-001547	ZD303	DIODE-ZENER	SA
0404-001172	D201	DIODE-SCHOTTKY	SA
0406-001150	ZD504	DIODE-TVS	SA
0406-001150	ZD505	DIODE-TVS	SA
0406-001150	ZD530	DIODE-TVS	SA
0406-001190	ZD301	DIODE-TVS	SA
0406-001190	ZD302	DIODE-TVS	SA
0406-001201	ZD506	DIODE-TVS	SA
0406-001201	ZD507	DIODE-TVS	SA
0406-001201	ZD508	DIODE-TVS	SA
0406-001210	ZD201	DIODE-TVS	SA
0406-001210	ZD202	DIODE-TVS	SA
0406-001210	ZD203	DIODE-TVS	SA
0406-001210	ZD204	DIODE-TVS	SA
0601-002310	LED501	LED	SA
0601-002310	LED502	LED	SA
0801-002529	U206	IC-CMOS LOGIC	SA
0801-002958	U204	IC-CMOS LOGIC	SA
0801-002958	U600	IC-CMOS LOGIC	SA
0801-002975	U104	IC-CMOS LOGIC	SA
0801-002975	U410	IC-CMOS LOGIC	SA
0801-002975	U411	IC-CMOS LOGIC	SA
1001-001349	U301	IC-ANALOG MULTIPLEX	SA
1002-001497	UCD301	IC-D/A CONVERTER	SA
1003-001991	U102	IC-LEVEL DRIVER	SA
1009-001023	U101	IC-HALL EFFECT S/W	SA
1108-000092	UME101	IC-MCP	SA
1201-002240	U302	IC-AUDIO AMP	SA
1201-002368	PAM600	IC-POWER AMP	SA
1203-003663	U203	IC-BATTERY	SA
1203-003688	U502	IC-POSI.FIXED REG.	SA
1203-003737	U604	IC-POSI.FIXED REG.	SA
1203-003787	U103	IC-POSI.FIXED REG.	SA
1203-003789	U201	IC-POWER SUPERVISOR	SA
1203-004119	UCP201	IC-POWER SUPERVISOR	SA
1203-004475	U205	IC-DC/DC CONVERTER	SA

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SEC CODE	Design LOC	Discription	STATUS
1205-002272	U202	IC-TRANSCEIVER	SA
1205-002944	UCD600	IC-TRANSCEIVER	SA
1205-003064	U501	IC-DATA COMM./GEN.	SA
1209-001626	U105	IC-SENSOR	SA
1404-001165	TH201	THERMISTOR-NTC	SA
1405-001082	VR101	VARISTOR	SA
1405-001082	VR102	VARISTOR	SA
1405-001082	VR201	VARISTOR	SA
1405-001082	VR301	VARISTOR	SA
1405-001108	VR509	VARISTOR	SA
2007-000139	R317	R-CHIP	SA
2007-000139	R608	R-CHIP	SA
2007-000139	R609	R-CHIP	SA
2007-000154	R308	R-CHIP	SA
2007-000154	R309	R-CHIP	SA
2007-000157	R211	R-CHIP	SA
2007-000165	R114	R-CHIP	SA
2007-000170	R315	R-CHIP	SA
2007-000170	R316	R-CHIP	SA
2007-000170	R407	R-CHIP	SA
2007-000171	R522	R-CHIP	SA
2007-000171	R618	R-CHIP	SA
2007-001290	R607	R-CHIP	SA
2007-001313	R324	R-CHIP	SA
2007-003112	R511	R-CHIP	SA
2007-003112	R512	R-CHIP	SA
2007-007099	R115	R-CHIP	SA
2007-007134	R606	R-CHIP	SA
2007-007741	R605	R-CHIP	SA
2007-008045	R113	R-CHIP	SA
2007-008045	R121	R-CHIP	SA
2007-008045	R210	R-CHIP	SA
2007-008045	R329	R-CHIP	SA
2007-008045	R615	R-CHIP	SA
2007-008049	R341	R-CHIP	SA
2007-008052	R209	R-CHIP	SA
2007-008053	R207	R-CHIP	SA

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SEC CODE	Design LOC	Discription	STATUS
2007-008054	R104	R-CHIP	SA
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2007-008055	R106	R-CHIP	SA
2007-008055	R111	R-CHIP	SA
2007-008055	R112	R-CHIP	SA
2007-008055	R225	R-CHIP	SA
2007-008055	R331	R-CHIP	SA
2007-008055	R410	R-CHIP	SA
2007-008137	R221	R-CHIP	SA
2007-008419	R337	R-CHIP	SA
2007-008419	R338	R-CHIP	SA
2007-008419	R339	R-CHIP	SA
2007-008420	R214	R-CHIP	SA
2007-008420	R216	R-CHIP	SA
2007-008478	R212	R-CHIP	SA
2007-008478	R302	R-CHIP	SA
2007-008478	R311	R-CHIP	SA
2007-008478	R319	R-CHIP	SA
2007-008478	R323	R-CHIP	SA
2007-008483	R105	R-CHIP	SA
2007-008483	R203	R-CHIP	SA
2007-008483	R204	R-CHIP	SA
2007-008483	R205	R-CHIP	SA
2007-008483	R217	R-CHIP	SA
2007-008483	R218	R-CHIP	SA
2007-008483	R222	R-CHIP	SA
2007-008483	R223	R-CHIP	SA
2007-008483	R314	R-CHIP	SA
2007-008483	R325	R-CHIP	SA
2007-008483	R406	R-CHIP	SA
2007-008483	R409	R-CHIP	SA
2007-008483	R523	R-CHIP	SA
2007-008483	R524	R-CHIP	SA
2007-008486	R219	R-CHIP	SA
2007-008516	R116	R-CHIP	SA
2007-008516	R117	R-CHIP	SA
2007-008516	R118	R-CHIP	SA

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2007-008516	R119	R-CHIP	SA
2007-008516	R120	R-CHIP	SA
2007-008516	R305	R-CHIP	SA
2007-008516	R307	R-CHIP	SA
2007-008516	R320	R-CHIP	SA
2007-008516	R321	R-CHIP	SA
2007-008516	R336	R-CHIP	SA
2007-008516	R340	R-CHIP	SA
2007-008516	R342	R-CHIP	SA
2007-008516	R604	R-CHIP	SA
2007-008531	R404	R-CHIP	SA
2007-008542	R102	R-CHIP	SA
2007-008542	R103	R-CHIP	SA
2007-008542	R107	R-CHIP	SA
2007-008542	R108	R-CHIP	SA
2007-008542	R109	R-CHIP	SA
2007-008542	R110	R-CHIP	SA
2007-008542	R601	R-CHIP	SA
2007-008542	R602	R-CHIP	SA
2007-008542	R603	R-CHIP	SA
2007-008542	R612	R-CHIP	SA
2007-008542	R613	R-CHIP	SA
2007-008542	R616	R-CHIP	SA
2007-008542	R617	R-CHIP	SA
2007-008579	R213	R-CHIP	SA
2007-008579	R215	R-CHIP	SA
2007-008579	R343	R-CHIP	SA
2007-008587	R610	R-CHIP	SA
2007-008588	R202	R-CHIP	SA
2007-008774	R519	R-CHIP	SA
2007-008786	R208	R-CHIP	SA
2007-008808	R224	R-CHIP	SA
2007-008808	R318	R-CHIP	SA
2007-008808	R322	R-CHIP	SA
2007-009081	R303	R-CHIP	SNA
2007-009081	R310	R-CHIP	SNA
2007-009111	R334	R-CHIP	SA

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2007-009111	R335	R-CHIP	SA
2007-009124	R405	R-CHIP	SA
2007-009154	R312	R-CHIP	SNA
2007-009154	R313	R-CHIP	SNA
2007-009160	R220	R-CHIP	SA
2007-009208	R344	R-CHIP	SA
2007-009208	R345	R-CHIP	SA
2007-009314	R614	R-CHIP	SA
2007-009408	R611	R-CHIP	SA
2203-000189	C334	C-CER,CHIP	SA
2203-000254	C114	C-CER,CHIP	SA
2203-000311	C618	C-CER,CHIP	SA
2203-000330	C126	C-CER,CHIP	SA
2203-000330	C128	C-CER,CHIP	SA
2203-000386	C405	C-CER,CHIP	SA
2203-000386	C406	C-CER,CHIP	SA
2203-000466	C603	C-CER,CHIP	SA
2203-002677	C609	C-CER,CHIP	SA
2203-002709	C222	C-CER,CHIP	SA
2203-005249	C333	C-CER,CHIP	SA
2203-005682	C107	C-CER,CHIP	SA
2203-005682	C121	C-CER,CHIP	SA
2203-005682	C137	C-CER,CHIP	SA
2203-005682	C205	C-CER,CHIP	SA
2203-005682	C236	C-CER,CHIP	SA
2203-005682	C308	C-CER,CHIP	SA
2203-005682	C313	C-CER,CHIP	SA
2203-005682	C314	C-CER,CHIP	SA
2203-005682	C319	C-CER,CHIP	SA
2203-005682	C343	C-CER,CHIP	SA
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2203-005682	C415	C-CER,CHIP	SA
2203-005682	C416	C-CER,CHIP	SA
2203-005682	C417	C-CER,CHIP	SA
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2203-005682	C423	C-CER,CHIP	SA
2203-005682	C424	C-CER,CHIP	SA

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2203-005682	C426	C-CER,CHIP	SA
2203-005682	C427	C-CER,CHIP	SA
2203-005682	C512	C-CER,CHIP	SA
2203-005682	C513	C-CER,CHIP	SA
2203-005682	C622	C-CER,CHIP	SA
2203-005683	C120	C-CER,CHIP	SA
2203-005683	C419	C-CER,CHIP	SA
2203-005683	C425	C-CER,CHIP	SA
2203-005683	C621	C-CER,CHIP	SA
2203-005725	C342	C-CER,CHIP	SA
2203-005725	C601	C-CER,CHIP	SA
2203-005725	C607	C-CER,CHIP	SA
2203-005727	C140	C-CER,CHIP	SA
2203-005729	C505	C-CER,CHIP	SA
2203-005736	C211	C-CER,CHIP	SA
2203-005736	C616	C-CER,CHIP	SA
2203-005736	C617	C-CER,CHIP	SA
2203-005736	C623	C-CER,CHIP	SA
2203-005792	C508	C-CER,CHIP	SA
2203-005806	C306	C-CER,CHIP	SNA
2203-005806	C311	C-CER,CHIP	SNA
2203-005806	C337	C-CER,CHIP	SNA
2203-005806	C339	C-CER,CHIP	SNA
2203-005819	C608	C-CER,CHIP	SA
2203-006048	C134	C-CER,CHIP	SA
2203-006048	C227	C-CER,CHIP	SA
2203-006091	C310	C-CER,CHIP	SA
2203-006091	C312	C-CER,CHIP	SA
2203-006121	C628	C-CER,CHIP	SA
2203-006194	C101	C-CER,CHIP	SA
2203-006194	C104	C-CER,CHIP	SA
2203-006194	C108	C-CER,CHIP	SA
2203-006194	C115	C-CER,CHIP	SA
2203-006194	C116	C-CER,CHIP	SA
2203-006194	C201	C-CER,CHIP	SA
2203-006194	C202	C-CER,CHIP	SA
2203-006194	C220	C-CER,CHIP	SA

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2203-006194	C404	C-CER,CHIP	SA
2203-006194	C414	C-CER,CHIP	SA
2203-006194	C502	C-CER,CHIP	SA
2203-006194	C503	C-CER,CHIP	SA
2203-006194	C504	C-CER,CHIP	SA
2203-006194	C615	C-CER,CHIP	SA
2203-006257	C217	C-CER,CHIP	SA
2203-006257	C239	C-CER,CHIP	SA
2203-006260	C215	C-CER,CHIP	SA
2203-006305	C204	C-CER,CHIP	SA
2203-006305	C206	C-CER,CHIP	SA
2203-006305	C509	C-CER,CHIP	SA
2203-006305	C612	C-CER,CHIP	SA
2203-006305	C613	C-CER,CHIP	SA
2203-006305	C619	C-CER,CHIP	SA
2203-006324	C235	C-CER,CHIP	SA
2203-006348	C207	C-CER,CHIP	SA
2203-006361	C605	C-CER,CHIP	SA
2203-006361	C629	C-CER,CHIP	SA
2203-006379	C420	C-CER,CHIP	SA
2203-006423	C102	C-CER,CHIP	SA
2203-006423	C103	C-CER,CHIP	SA
2203-006423	C106	C-CER,CHIP	SA
2203-006423	C117	C-CER,CHIP	SA
2203-006423	C118	C-CER,CHIP	SA
2203-006423	C123	C-CER,CHIP	SA
2203-006423	C124	C-CER,CHIP	SA
2203-006423	C132	C-CER,CHIP	SA
2203-006423	C203	C-CER,CHIP	SA
2203-006423	C208	C-CER,CHIP	SA
2203-006423	C219	C-CER,CHIP	SA
2203-006423	C223	C-CER,CHIP	SA
2203-006423	C225	C-CER,CHIP	SA
2203-006423	C229	C-CER,CHIP	SA
2203-006423	C230	C-CER,CHIP	SA
2203-006423	C231	C-CER,CHIP	SA
2203-006423	C237	C-CER,CHIP	SA

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SEC CODE	Design LOC	Discription	STATUS
2203-006423	C304	C-CER,CHIP	SA
2203-006423	C309	C-CER,CHIP	SA
2203-006423	C318	C-CER,CHIP	SA
2203-006423	C320	C-CER,CHIP	SA
2203-006423	C325	C-CER,CHIP	SA
2203-006423	C327	C-CER,CHIP	SA
2203-006423	C328	C-CER,CHIP	SA
2203-006423	C330	C-CER,CHIP	SA
2203-006423	C408	C-CER,CHIP	SA
2203-006423	C409	C-CER,CHIP	SA
2203-006423	C413	C-CER,CHIP	SA
2203-006423	C501	C-CER,CHIP	SA
2203-006423	C606	C-CER,CHIP	SA
2203-006423	C610	C-CER,CHIP	SA
2203-006423	C626	C-CER,CHIP	SA
2203-006439	C620	C-CER,CHIP	SNA
2203-006556	C119	C-CER,CHIP	SA
2203-006556	C139	C-CER,CHIP	SA
2203-006556	C241	C-CER,CHIP	SA
2203-006556	C627	C-CER,CHIP	SA
2203-006562	C125	C-CER,CHIP	SA
2203-006562	C127	C-CER,CHIP	SA
2203-006562	C138	C-CER,CHIP	SA
2203-006562	C209	C-CER,CHIP	SA
2203-006562	C212	C-CER,CHIP	SA
2203-006562	C213	C-CER,CHIP	SA
2203-006562	C214	C-CER,CHIP	SA
2203-006562	C216	C-CER,CHIP	SA
2203-006562	C218	C-CER,CHIP	SA
2203-006562	C226	C-CER,CHIP	SA
2203-006562	C228	C-CER,CHIP	SA
2203-006562	C238	C-CER,CHIP	SA
2203-006562	C240	C-CER,CHIP	SA
2203-006562	C307	C-CER,CHIP	SA
2203-006562	C315	C-CER,CHIP	SA
2203-006562	C316	C-CER,CHIP	SA
2203-006562	C321	C-CER,CHIP	SA

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SEC CODE	Design LOC	Discription	STATUS
2203-006562	C322	C-CER,CHIP	SA
2203-006562	C407	C-CER,CHIP	SA
2203-006562	C410	C-CER,CHIP	SA
2203-006562	C411	C-CER,CHIP	SA
2203-006562	C412	C-CER,CHIP	SA
2203-006562	C421	C-CER,CHIP	SA
2203-006562	C422	C-CER,CHIP	SA
2203-006562	C506	C-CER,CHIP	SA
2203-006562	C507	C-CER,CHIP	SA
2203-006647	C129	C-CER,CHIP	SA
2203-006647	C130	C-CER,CHIP	SA
2203-006647	C131	C-CER,CHIP	SA
2203-006648	C113	C-CER,CHIP	SA
2203-006648	C221	C-CER,CHIP	SA
2203-006648	C224	C-CER,CHIP	SA
2203-006648	C335	C-CER,CHIP	SA
2203-006674	C510	C-CER,CHIP	SNA
2203-006681	C233	C-CER,CHIP	SA
2203-006824	C324	C-CER,CHIP	SA
2203-006868	C133	C-CER,CHIP	SA
2203-006885	C234	C-CER,CHIP	SA
2203-006979	C630	C-CER,CHIP	SA
2203-006979	C631	C-CER,CHIP	SA
2404-001225	C326	C-TA,CHIP	SA
2404-001225	C331	C-TA,CHIP	SA
2404-001225	C332	C-TA,CHIP	SA
2404-001352	C302	C-TA,CHIP	SA
2404-001352	C317	C-TA,CHIP	SA
2404-001353	C340	C-TA,CHIP	SA
2404-001353	C341	C-TA,CHIP	SA
2404-001381	C301	C-TA,CHIP	SA
2404-001381	C336	C-TA,CHIP	SA
2404-001396	C232	C-TA,CHIP	SA
2404-001406	C122	C-TA,CHIP	SA
2703-001990	L502	INDUCTOR-SMD	SA
2703-001990	L609	INDUCTOR-SMD	SA
2703-002370	L602	INDUCTOR-SMD	SA

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2703-002370	L603	INDUCTOR-SMD	SA
2703-002586	L605	INDUCTOR-SMD	SA
2703-002586	U607	INDUCTOR-SMD	SA
2703-002700	L606	INDUCTOR-SMD	SA
2703-002700	L607	INDUCTOR-SMD	SA
2703-002910	L600	INDUCTOR-SMD	SA
2703-003111	L201	INDUCTOR-SMD	SA
2801-004458	OSC401	CRYSTAL-SMD	SA
2801-004466	OSC101	CRYSTAL-SMD	SA
2801-004552	OSC600	CRYSTAL-SMD	SA
2801-004560	U503	CRYSTAL-SMD	SA
2901-001324	U401	FILTER-EMI/ESD	SA
2901-001324	U404	FILTER-EMI/ESD	SA
2901-001324	U405	FILTER-EMI/ESD	SA
2901-001324	U407	FILTER-EMI/ESD	SA
2901-001324	U408	FILTER-EMI/ESD	SA
2901-001324	U409	FILTER-EMI/ESD	SA
2909-001283	F501	FILTER-LC	SA
2911-000034	F600	DUPLEXER-FEM	SA
3301-001342	L101	BEAD-SMD	SA
3301-001534	L300	BEAD-SMD	SA
3301-001729	L301	BEAD-SMD	SA
3301-001729	L302	BEAD-SMD	SA
3301-001756	L608	BEAD-SMD	SA
3404-001152	TAC501	SWITCH-TACT	SA
3705-001358	RFS601	CONNECTOR-COAXIAL	SA
3709-001465	CD201	CONNECTOR-CARD EDGE	SA
3710-002442	IFC301	SOCKET-INTERFACE	SA
3711-005873	HDC401	HEADER-BOARD TO BOARD	SA
3711-006084	BTC101	HEADER-BATTERY	SA
4202-001236	ANT501	ANTENNA-CHIP	SA
4302-001158	BAT201	BATTERY-LI(2ND)	SA
GH09-00044A	UCP101	IC MICOM	SA
GH09-00049A	U106	IC MICOM	SA
GH13-00044A	U402	IC ASIC-SGHE490	SA
GH71-05666A	ANT601	NPR-ANTENNA CONTACT	SA
GH71-05666A	ANT602	NPR-ANTENNA CONTACT	SA

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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

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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 disassembing 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.

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9-2. ESD(Electrostatically Sensitive Devices) Precaution

Several semiconductor may be damaged easilly 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.

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10. Product Function

Main Function

- Cmera and camcorder
- Music player
- Java
- Offline mode
- Bluetooth
- Web browser
- Multimedia Message Service (MMS)
- Name card
- Voice recorder
- Women's life
- Organiser

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