

SAMSUNG

GSM TELEPHONE

SGH-C300

SERVICE *Manual*

GSM TELEPHONE



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10. Product Function

1. Specification

1-1. GSM General Specification

	GSM 900 Phase 1	EGSM 900 Phase 2	DCS1800 Phase 1
Freq. Band[MHz] Uplink/Downlink	890~915 935~960	880~915 925~960	1710~1785 1805~1880
ARFCN range	1~124	0~124 & 975~1023	512~885
Tx/Rx spacing	45 MHz	45 MHz	95 MHz
Mod. Bit rate/ Bit Period	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
Modulation	0.3 GMSK	0.3 GMSK	0.3 GMSK
MS Power	33 dBm~13 dBm	33 dBm~5 dBm	30 dBm~0 dBm
Power Class	5 pcl ~ 15 pcl	5 pcl ~ 19 pcl	0 pcl ~ 15 pcl
Sensitivity	-102 dBm	-102 dBm	-100 dBm
TDMA Mux	8	8	8
Cell Radius	35 Km	35 Km	2 Km

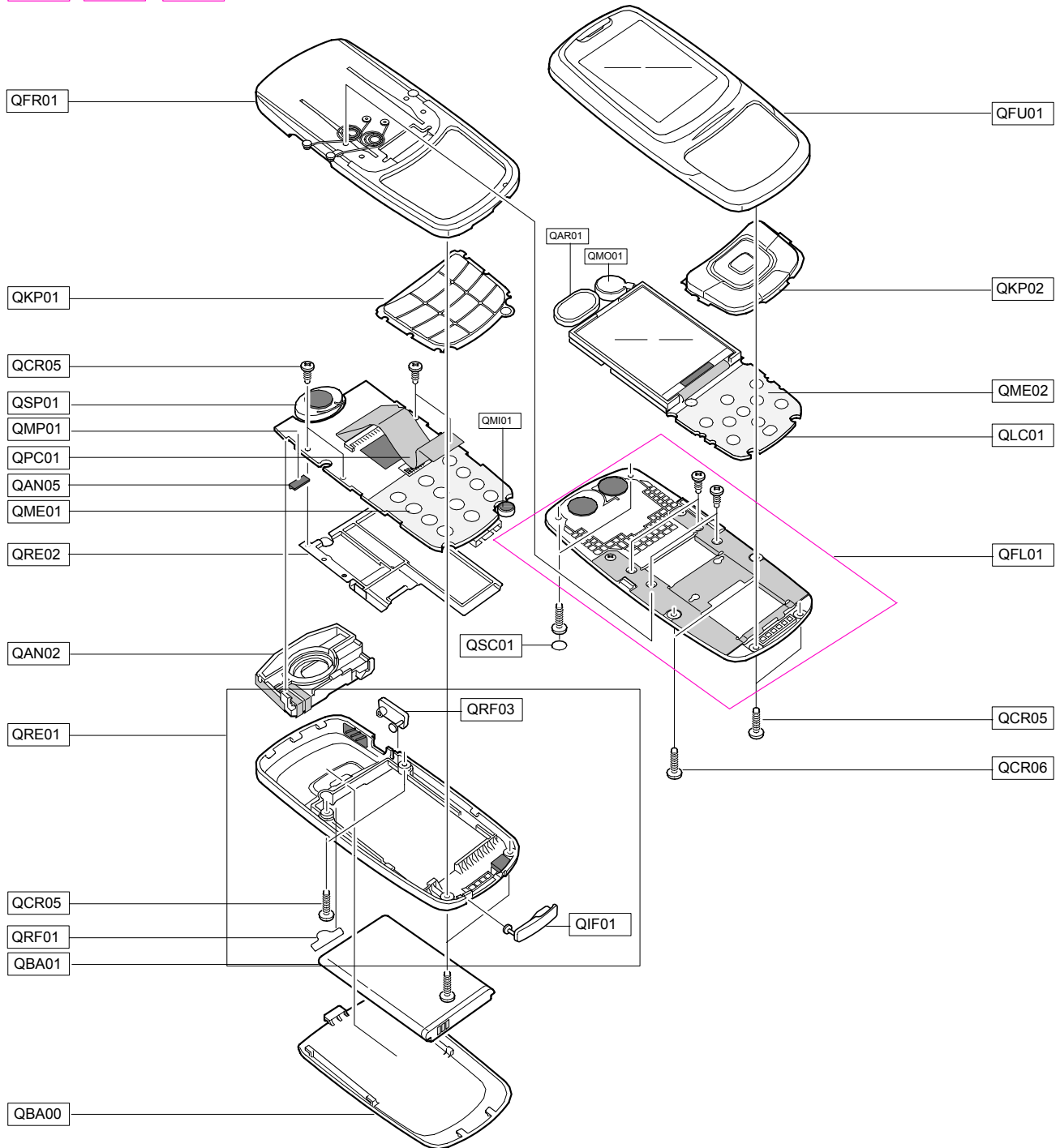
1-2. GSM TX power class

TX Power control level	GSM900	TX Power control level	DCS1800
5	33±2 dBm	0	30±3 dBm
6	31±2 dBm	1	28±3 dBm
7	29±2 dBm	2	26±3 dBm
8	27±2 dBm	3	24±3 dBm
9	25±2 dBm	4	22±3 dBm
10	23±2 dBm	5	20±3 dBm
11	21±2 dBm	6	18±3 dBm
12	19±2 dBm	7	16±3 dBm
13	17±2 dBm	8	14±3 dBm
14	15±2 dBm	9	12±4 dBm
15	13±2 dBm	10	10±4 dBm
16	11±3 dBm	11	8±4 dBm
17	9±3 dBm	12	6±4 dBm
18	7±3 dBm	13	4±4 dBm
19	5±3 dBm	14	2±5 dBm
		15	0±5 dBm

2. Exploded View and Parts List

2-1. Cellular phone Exploded View

QHI01 = QFR01 + QFL01

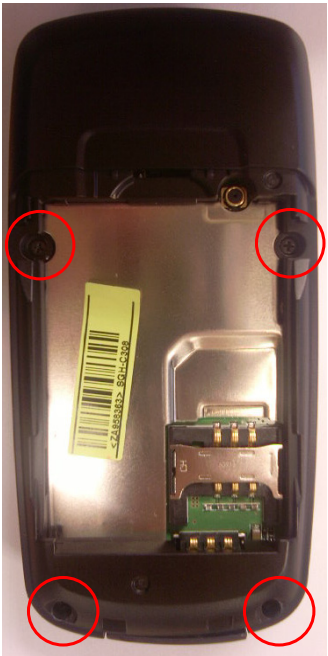
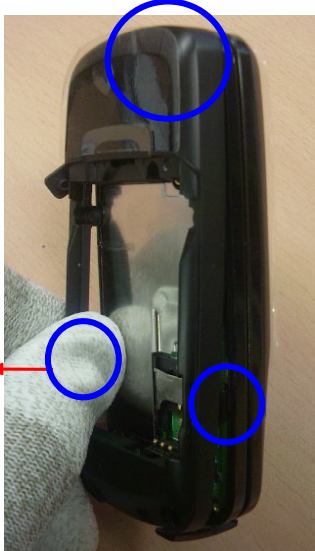

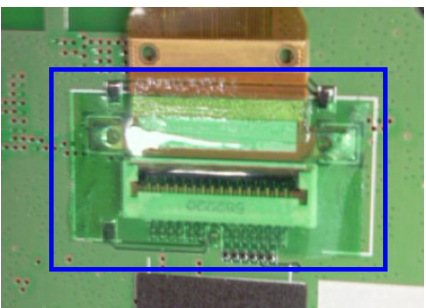
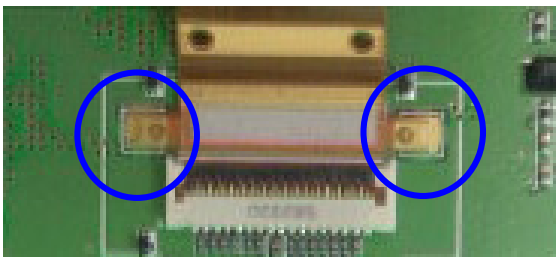


2-2. Cellular phone Parts list

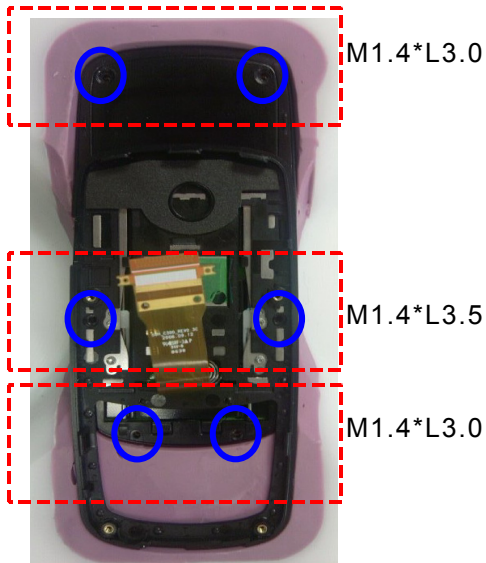
Design LOC		Discription	SEC CODE
QAN02		INTENNA-SGHC300	GH42-01026A
QAN05		ASSY MEC-INTENNA CONTACT	GH75-08168A
QAR01		AUDIO-RECEIVER	3009-001248
QBA00		PMO-COVER BATT	GH72-35005A
QBA01		INNER BATTERY PACK-800MAH,MAIN	GH43-02589A
QCR05		SCREW-MACHINE	6001-001478
QCR05		SCREW-MACHINE	6001-001478
QCR05		SCREW-MACHINE	6001-001478
QCR06		SCREW-MACHINE	6001-001155
QFU01		ASSY COVER-SLIDE UPPER	GH98-02593A
QKP01		ASSY KEYPAD-MAIN(RUSS/BLK)	GH98-03231A
QKP02		ASSY KEYPAD-SUB(OPEN/SIL)	GH98-02701A
QLC01		ELA UNIT-SGHC300 LCD MODULE KI	GH96-02439A
QME01		UNIT-DOME SHEET (F/K)	GH59-03770A
QME02		UNIT-DOME SHEET (N/K)	GH59-03769A
QMI01		MICROPHONE-ASSY-SGHC300	GH30-00323A
QMO01		MOTOR-DC	3101-001324
QMP01		PBA MAIN-SGHC300 (PBA MAIN)	GH92-03086A
QPC01		MEA-SLIDE FPCB KIT	GH97-06882A
QRE02		ASSY BRACKET-REAR	GH98-02598A
QRF01		MPR-TAPE SHEET RF	GH74-28478A
QSC01		MPR-TAPE COVER SHEET SCREW	GH74-28472A
QSP01		SPEAKER	3001-002083
QHI01		ASSY HINGE-SLIDE	GH98-02594A
	QFL01	ASSY COVER-SLIDE LOWER	GH98-02595A
	QFR01	ASSY CASE-FRONT	GH98-02596A
QRE01		ASSY CASE-REAR	GH98-02597A
	QRF03	PMO-COVER EAR	GH72-35003A
	QIF01	PMO-COVER IF	GH72-35004A

Discription	SEC CODE
BAG PE	6902-000297
ADAPTOR-EU 220V TYPE(BLK)	GH44-01334A
LABEL(P)-WATER SOAK	GH68-02026A
LABEL(P)-WATER SOAK	GH68-02026A
MANUAL-SFC	GH68-04336A
LABEL(P)-BARCODE RUSSIA	GH68-08494A
MANUAL USERS-EU RUSSIAN	GH68-12796A
LABEL(R)-MAIN(SER)	GH68-13315B
BOX(P)-UNIT MAIN(SER)	GH69-04832B
PMO-COVER SLIDE WINDOW	GH72-35006A
RMO-RUBBER CSP	GH73-08597A
RMO-RUBBER LCD PBA	GH73-08818A
MPR-GASK TAPE	GH74-24020A
MPR-TAPE IF COVER	GH74-24740A
MPR-GASK TAPE	GH74-24796A
MPR-SPONGE INTENNA	GH74-28468A
MPR-TAPE SLIDE WINDOW	GH74-28470A
MPR-VINYL BOHO WINDOW	GH74-28851A
MPR-SPONGE MAIN PCB	GH74-29058A
MPR-SPONGE LCD FPCB	GH74-29059A
MPR-TAPE ESD	GH74-29066A
MPR-TAPE FPCB BACK B	GH74-29067A
MPR-SPONGE KEYPAD	GH74-29255A
MPR-SPONGE KEYPAD	GH74-29255A
MPR-INSU TAPE	GH74-29334A
MPR-ELEC TAPE	GH74-29335A
MPR-INSU TAPE	GH74-29352A
MPR-INSU TAPE	GH74-29352A
MPR-SPONGE SPK	GH74-29444A
MPR-SPONGE	GH74-29579A

2-3. Disassembly

<p>1</p> 	<p>2</p> 
<p>1)Disjoint the REAR screw of 4 points.</p> <p>※ caution</p> <p>1) Be careful of scratch.</p>	<p>1) After get out the cover of earjack and IF connector cover, disjoint REAR's lower locker and upper locker as a picture below.</p> <p>※ caution</p> <p>1) Be careful of scratch.</p>
<p>3</p> 	<p>4</p>  
<p>1) Disjoint two lockers assembled with PBA.</p> <p>※ caution</p> <p>1) Be careful of the damage of devices.</p>	<p>1) Remove the green tape on the FPCB with tweezers.</p> <p>2) Disjoint the FPCB by desoldering.</p> <p>※ caution</p> <p>1) Be careful of the FPCB's crack</p>

5



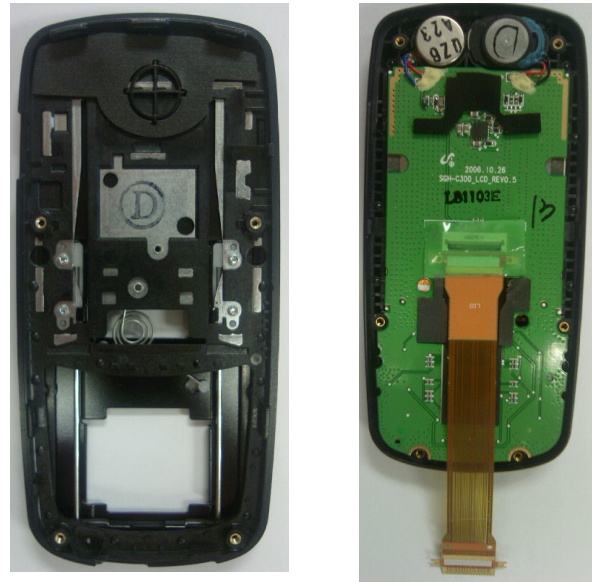
1) Disjoint 6 screws.

※ **caution**

1) Be careful of scratch.

2) Use the '+' screwdriver.

6

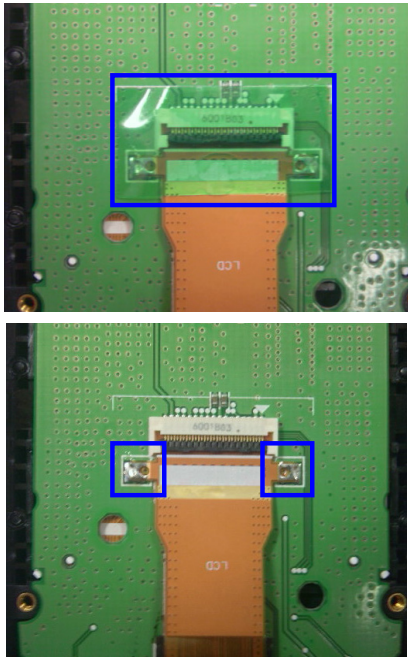


1) Disjoint HINGE ASS'Y as a picture below

※ **caution**

1) Be careful of the damage of FPCB

7



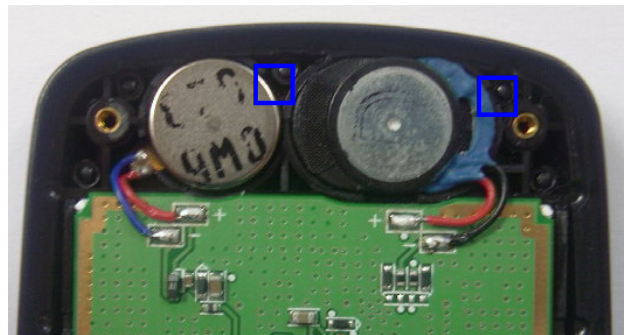
1) Remove the green tape from the FPCB

2) Disjoint the FPCB with desoldering.

※ **caution**

1) Be careful of the FPCB's crack.

8




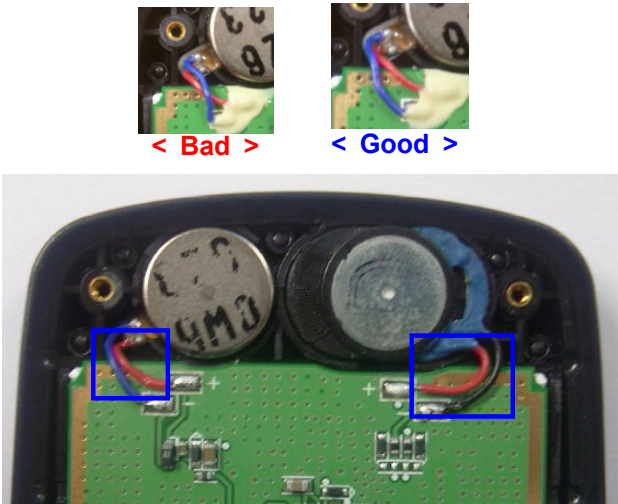
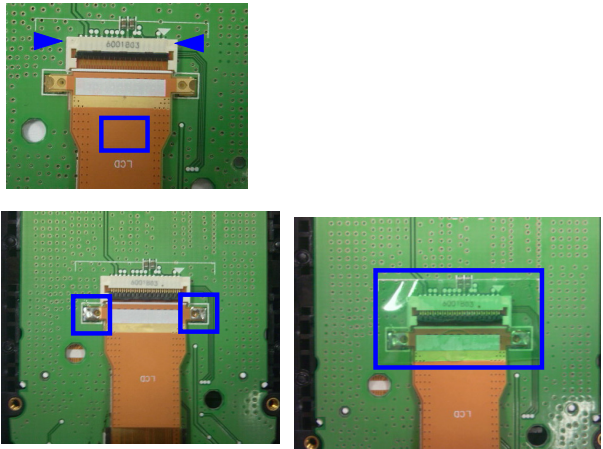
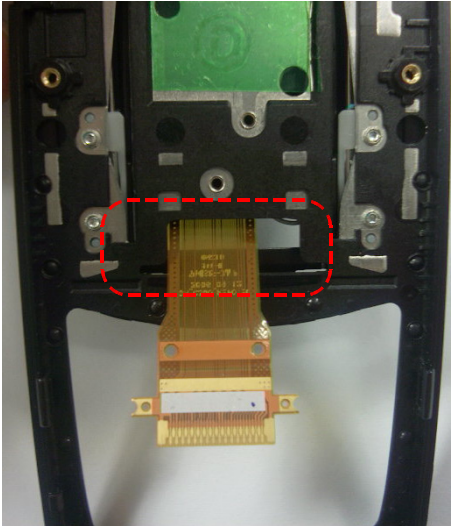
1) Remove the motor with tweezers.


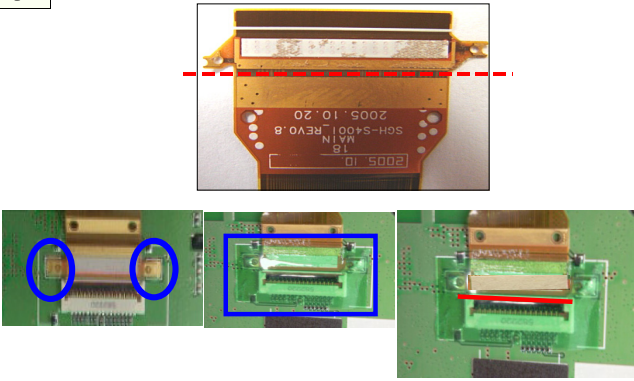
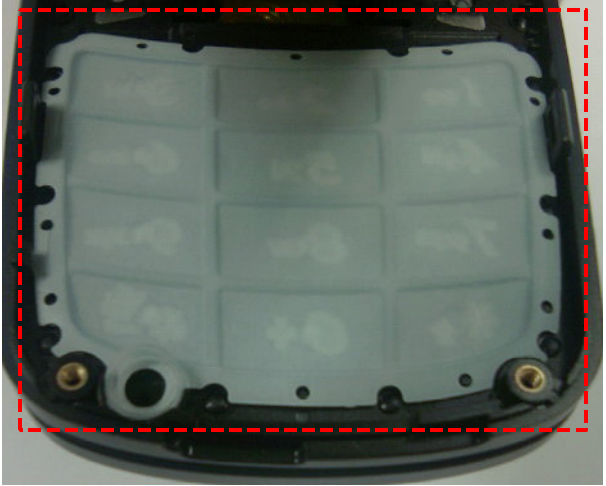

2) Remove the receiver with tweezers.

※ **caution**

1) Be careful of the damages of motor and receiver wires.

2-4. Assembly

<p>1</p> 	<p>2</p> 
<p>1) Assemble the SUB KEYPAD on UPPER as picture below.</p> <p>※ caution</p> <p>1) Put the holes around 3*4 KEY on the UPPER.</p>	<p>1) Put the SUB PBA on the UPPER with LCD's guide holes.</p> <p>2) Insert the motor and receiver on each places.</p> <p>※ caution</p> <p>1) Be careful of overlap the wires.</p> <p>2) Be careful of the damage of wires.</p>
<p>3</p> 	<p>4</p> 
<p>1) After inserting the LCD FPCB in the connector, soldering it and attach the green tape.</p> <p>※ caution</p> <p>1) Be careful of the scratch on the plastic.</p> <p>2) Be careful of the crack on LCD FPCB.</p>	<p>1) Insert the MAIN FPCB as picture below.</p> <p>※ caution</p> <p>1) Be careful of the crack on LCD FPCB.</p>

<p>5</p>  <p>M1.4*L3.0</p> <p>M1.4*L3.5</p> <p>M1.4*L3.0</p>	<p>6</p> 
<p>1) Screw up the 6 points with SLIDE JIG.</p> <p>※ caution</p> <p>1) Fix the handset on the JIG not to move it down the Slide.</p> <p>2) Screw up right size.</p>	<p>1) Fold the FPCB as the picture below.</p> <p>2) Insert the LCD FPCB to the connector along the SILK LINE, soldering and attach the green tape, double sticky tape.</p> <p>3) Move out the cover of the tape. Fold the FPCB and push that place.</p> <p>※ caution</p> <p>1) Be careful of the damage of FPCB.</p> <p>2) Attach double sticky tape with white silk line.</p>
<p>7</p> 	<p>8</p> 
<p>1) Assemble the 3*4 Keypad as picture below.</p> <p>※ caution</p> <p>1) Be careful of the 3*4 KEY PAD escaping from the holes.</p>	<p>1) After locking the PAB to the two hooks, insert the microphone into the holder.</p> <p>※ caution</p> <p>1) Be careful of the damage of the devices.</p> <p>2) Be careful of MIC escaping from the KEY PAD.</p>

9

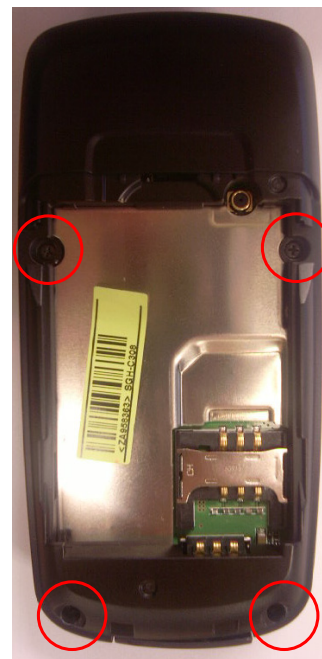


1) At first, assemble the REAR's upper and joint the lower with pushing two lockers.

※ **caution**

1) Be careful of the scratch on the plastic.

10



1) Screw up the 4 points with SCREW JIG.

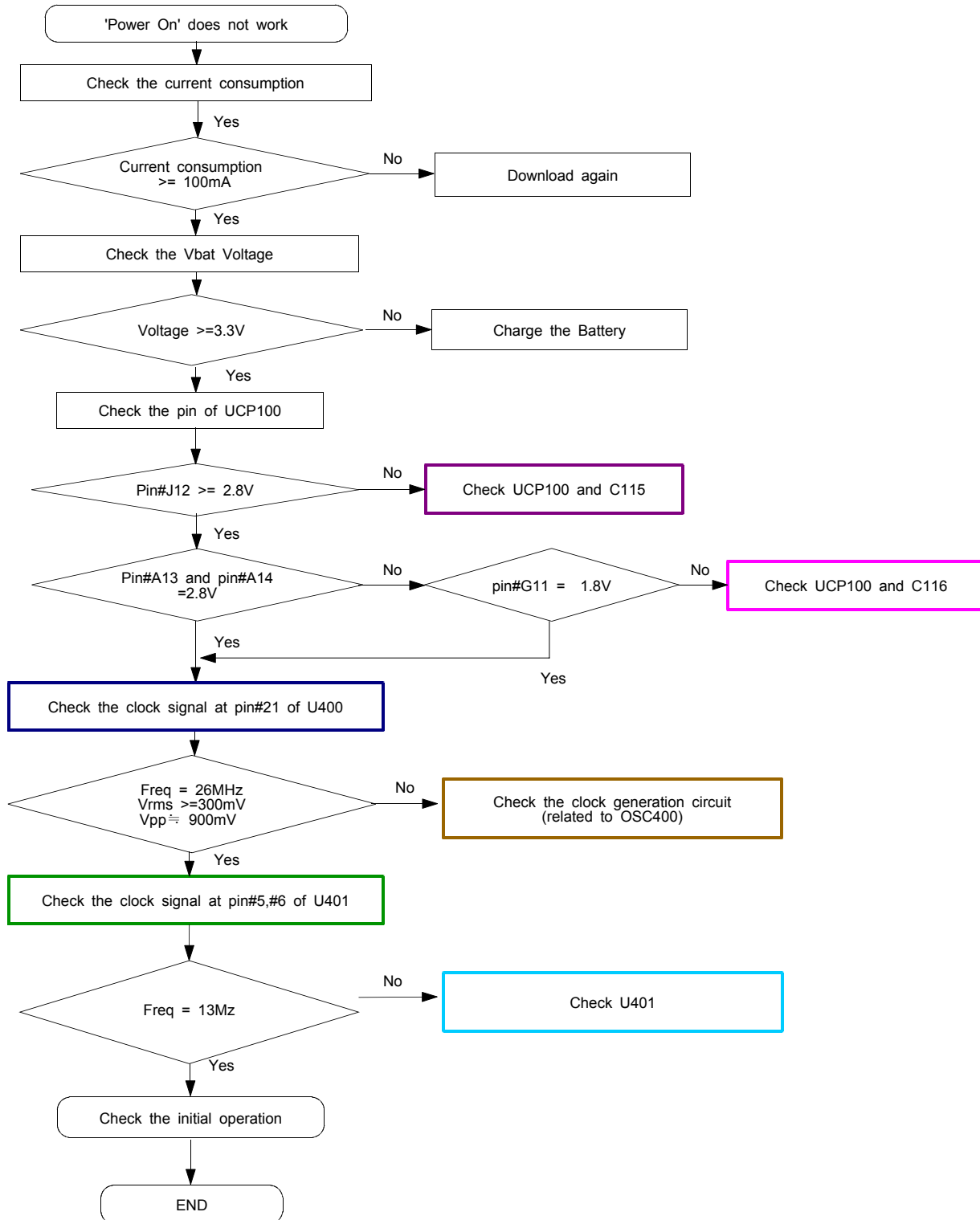
※ **caution**

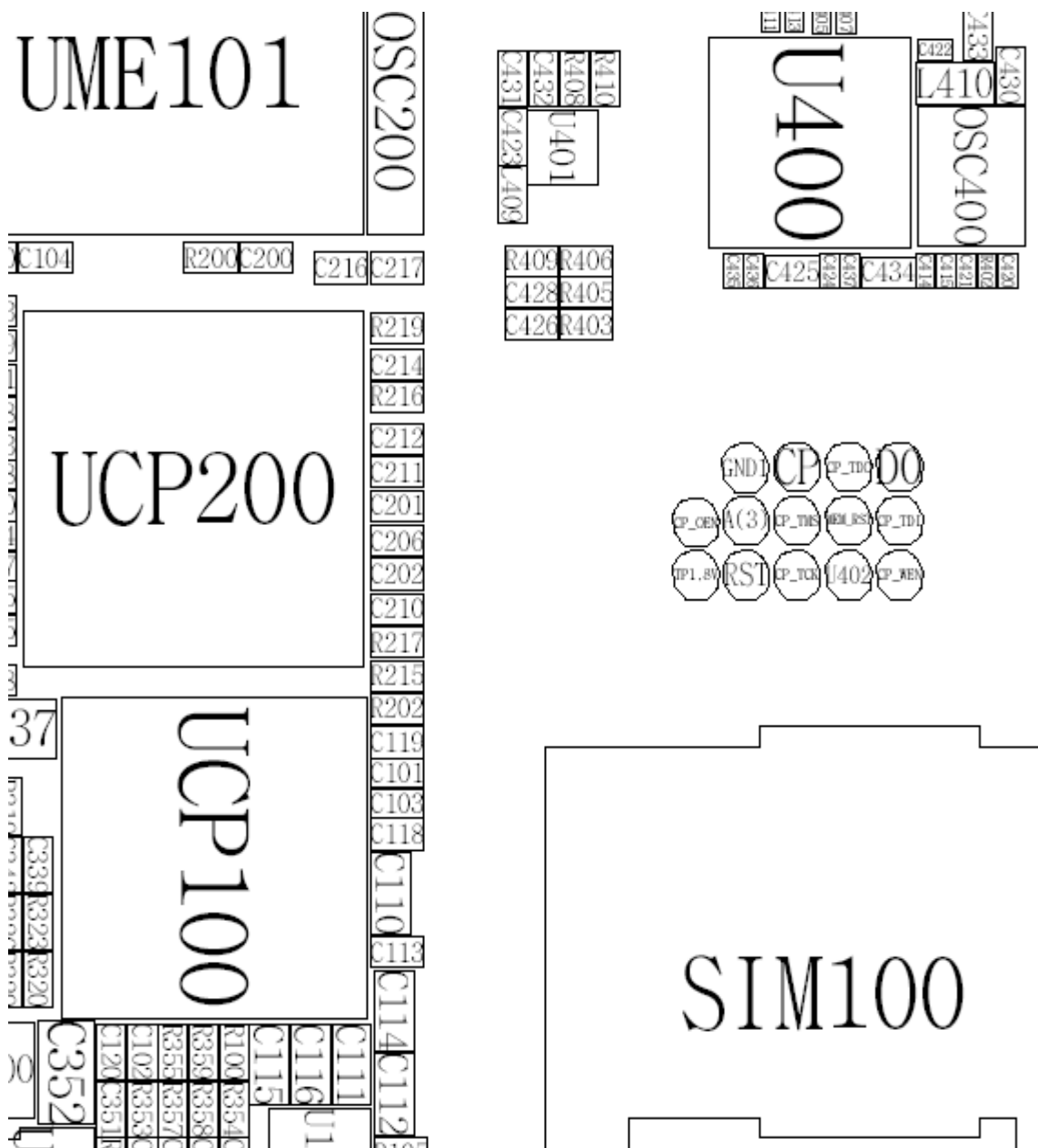
1) Be careful of the scratch on the plastic.

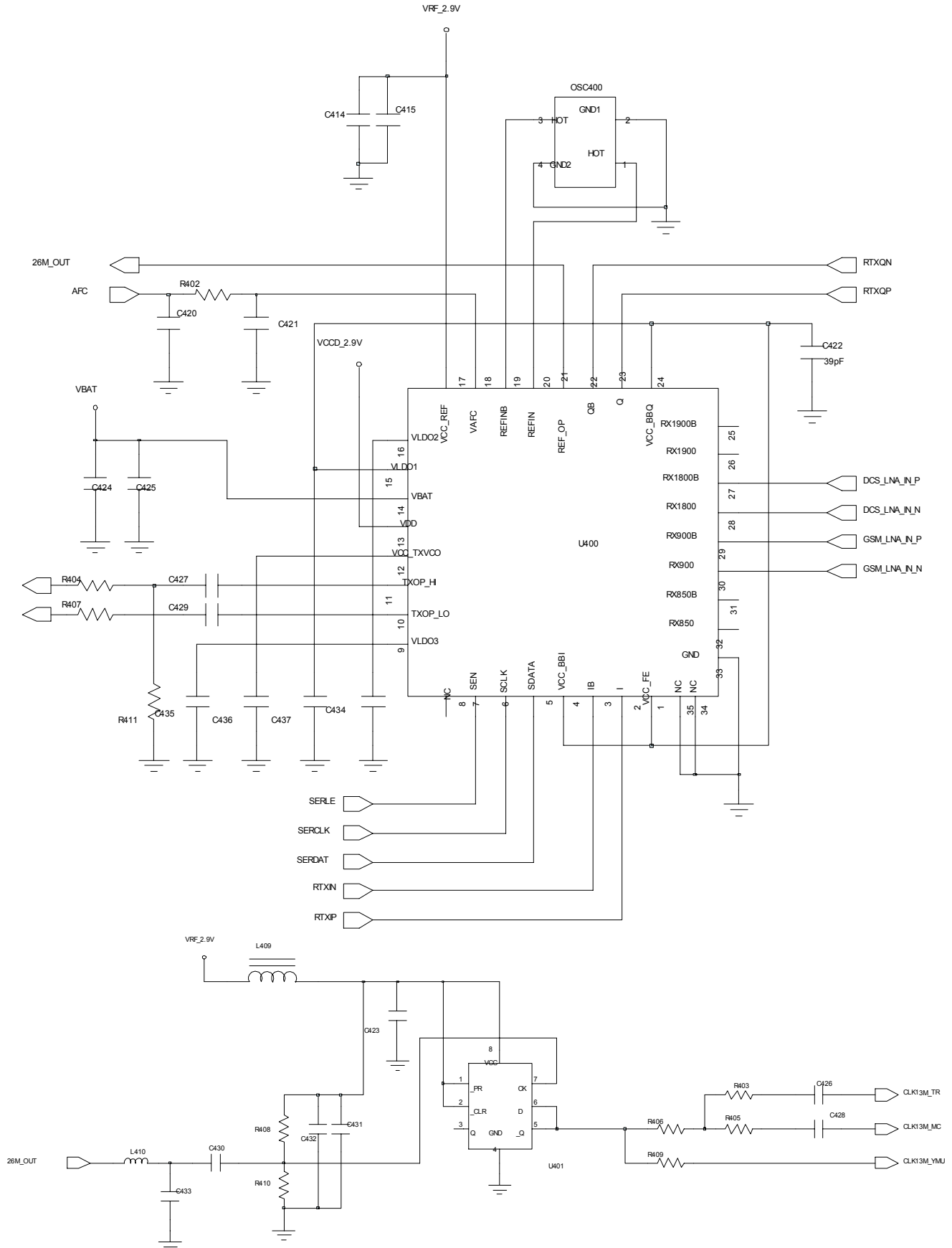
3. Flow Chart of Troubleshooting

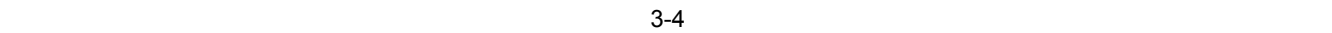
3-1.Baseband

3-1-1. Power ON

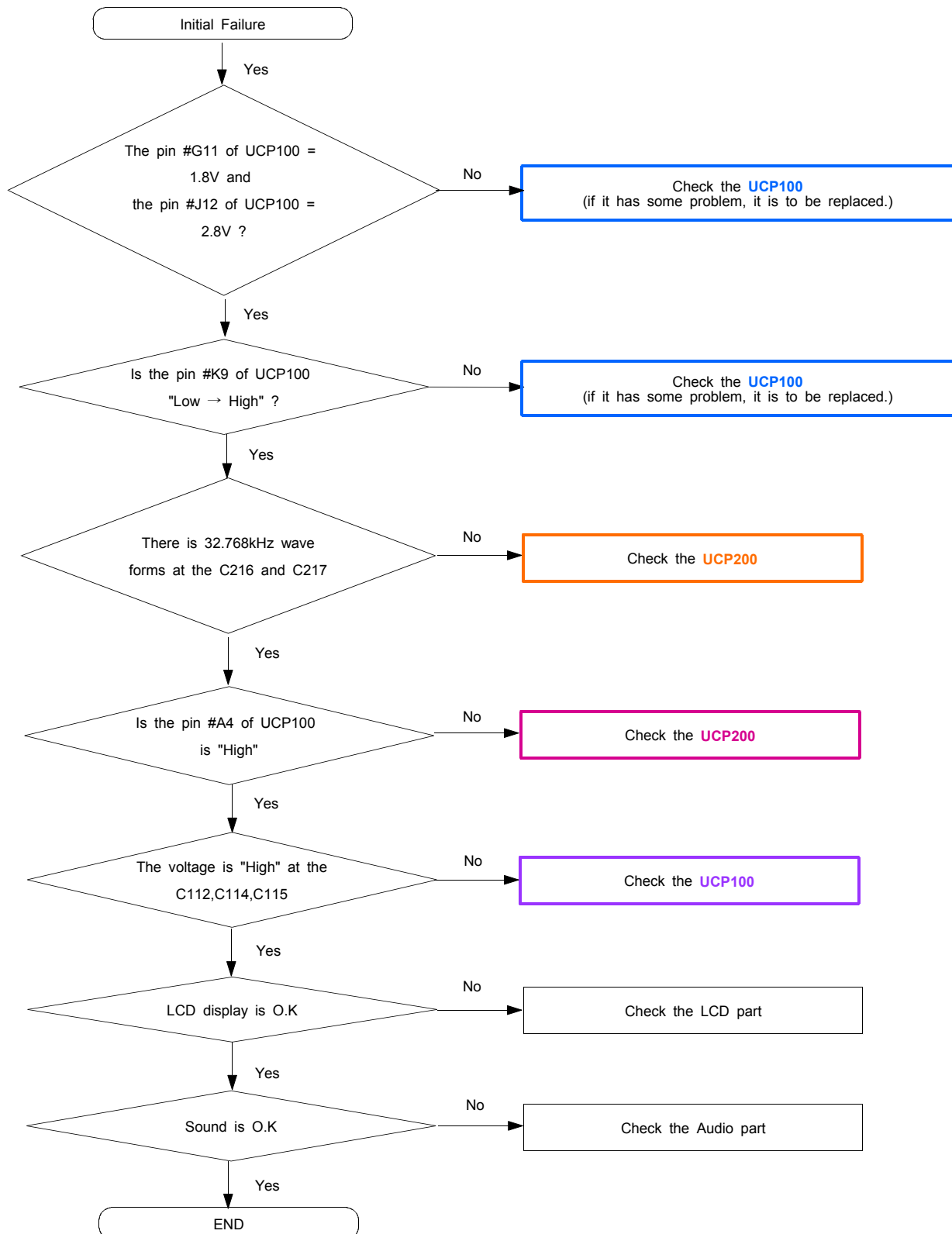


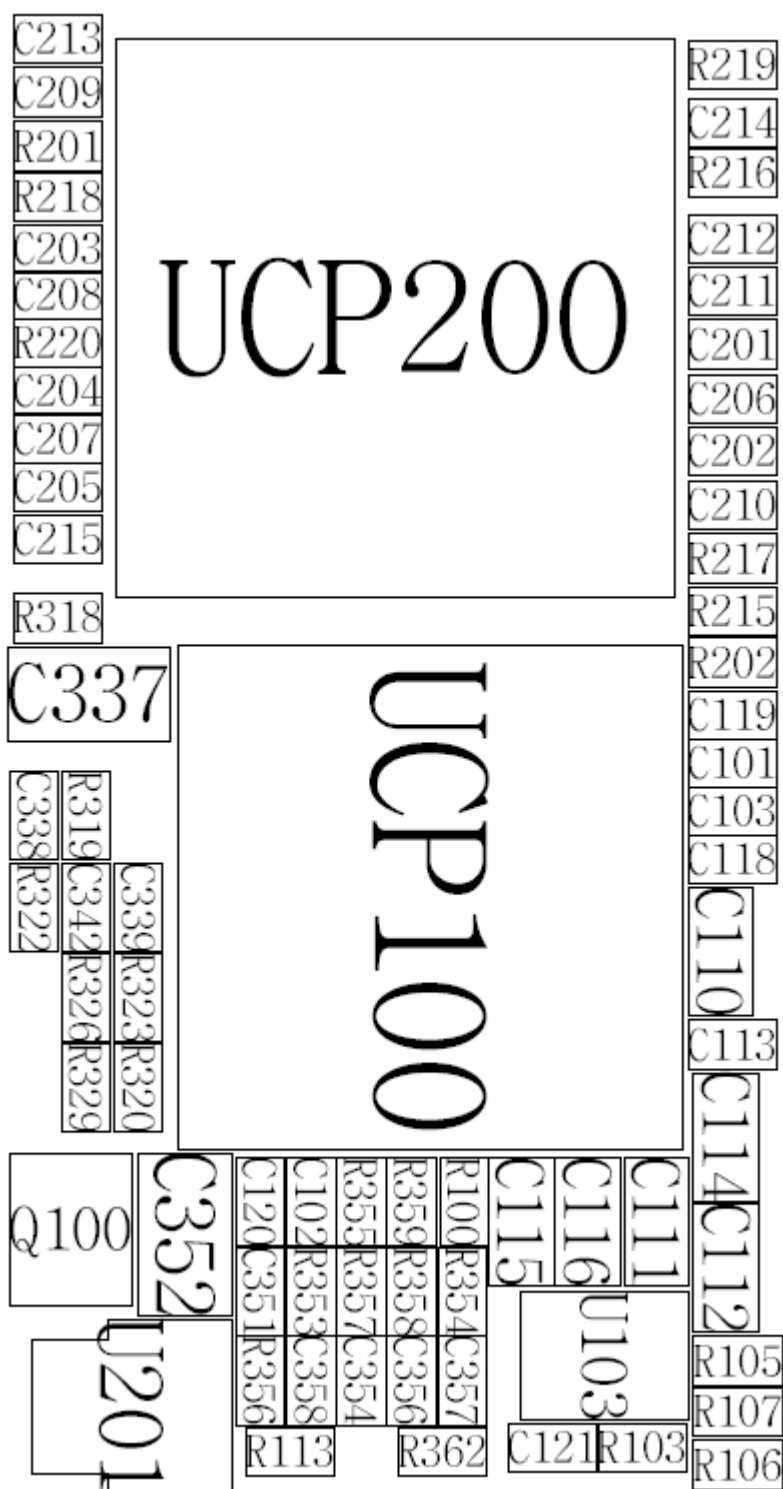


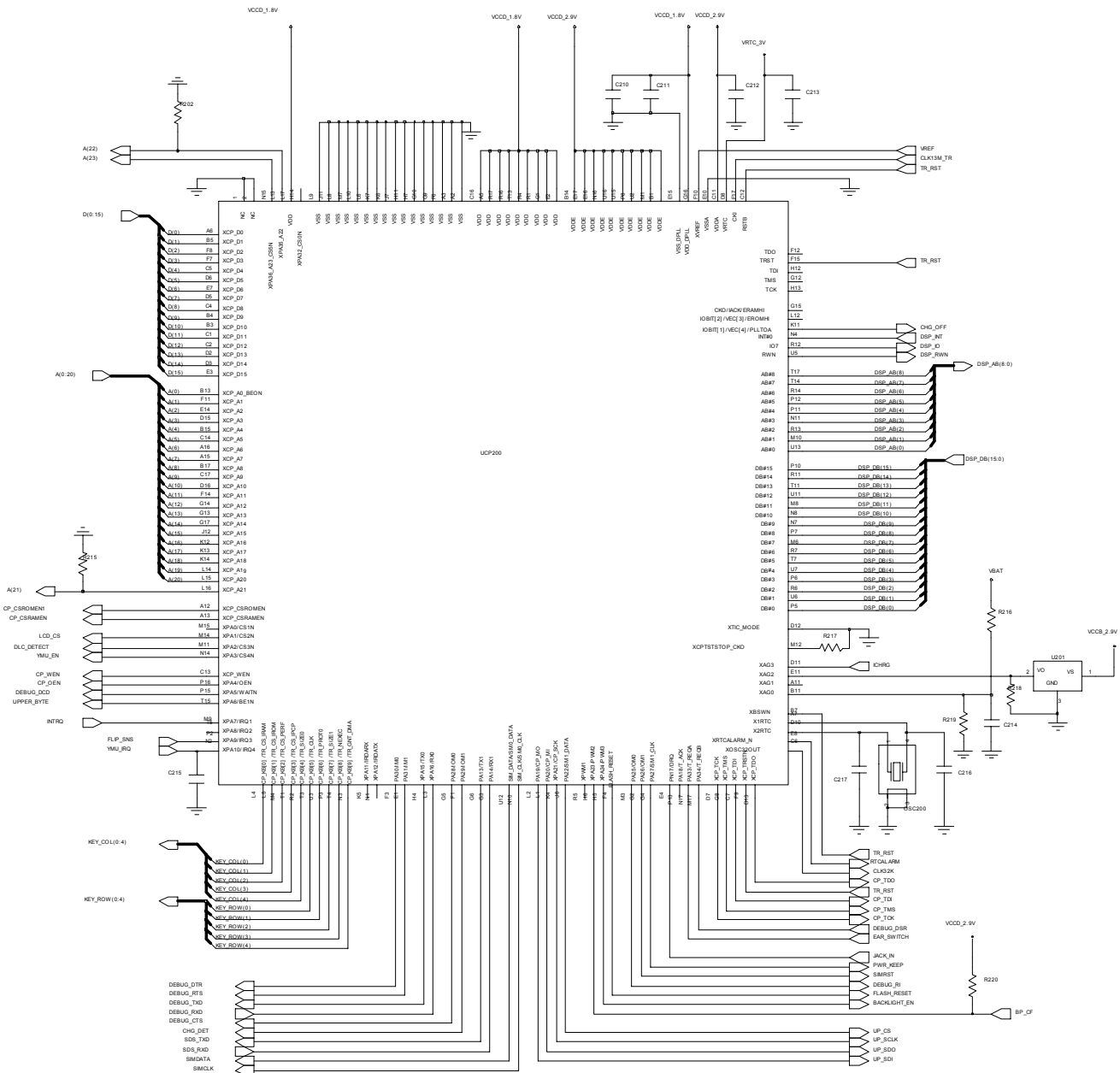




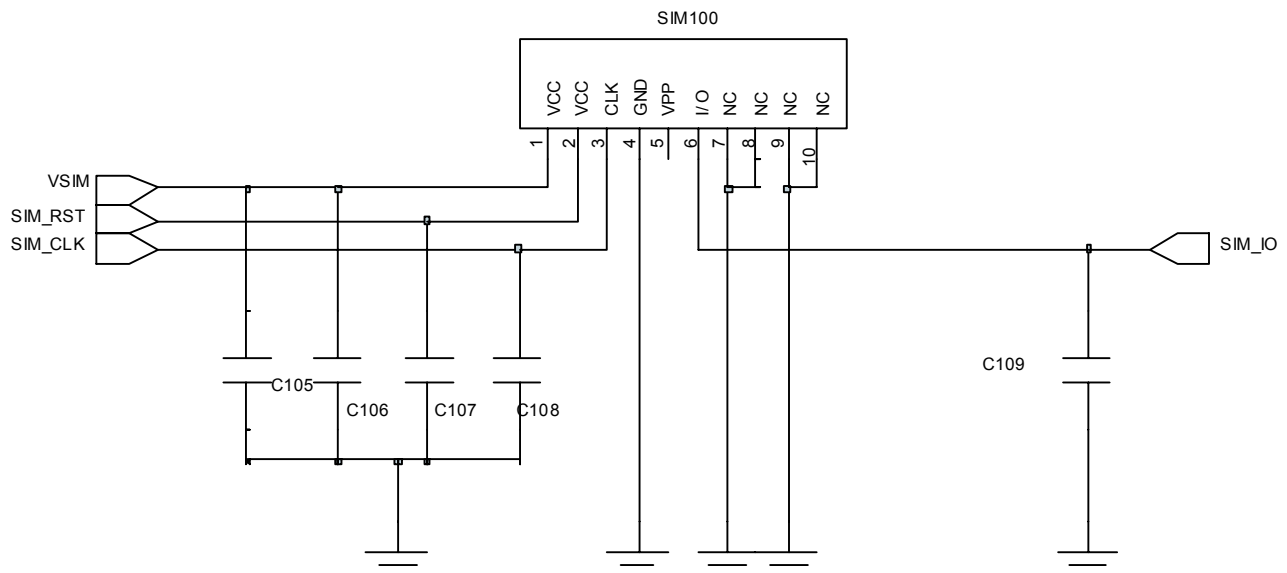
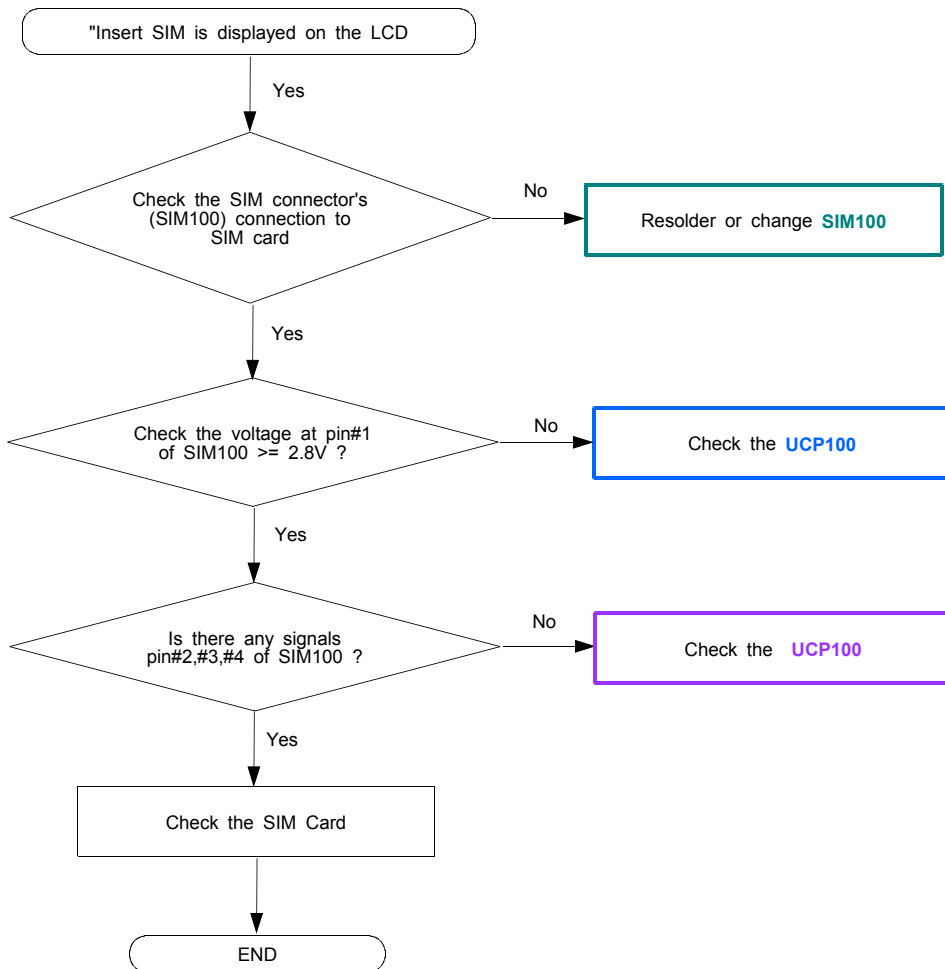
3-1-2. Initial

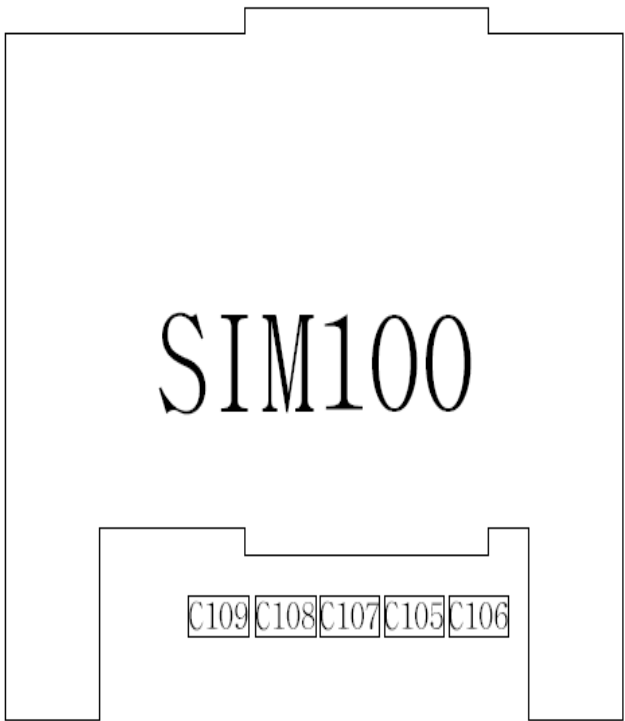
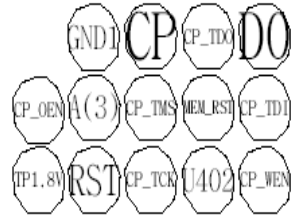
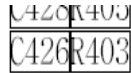
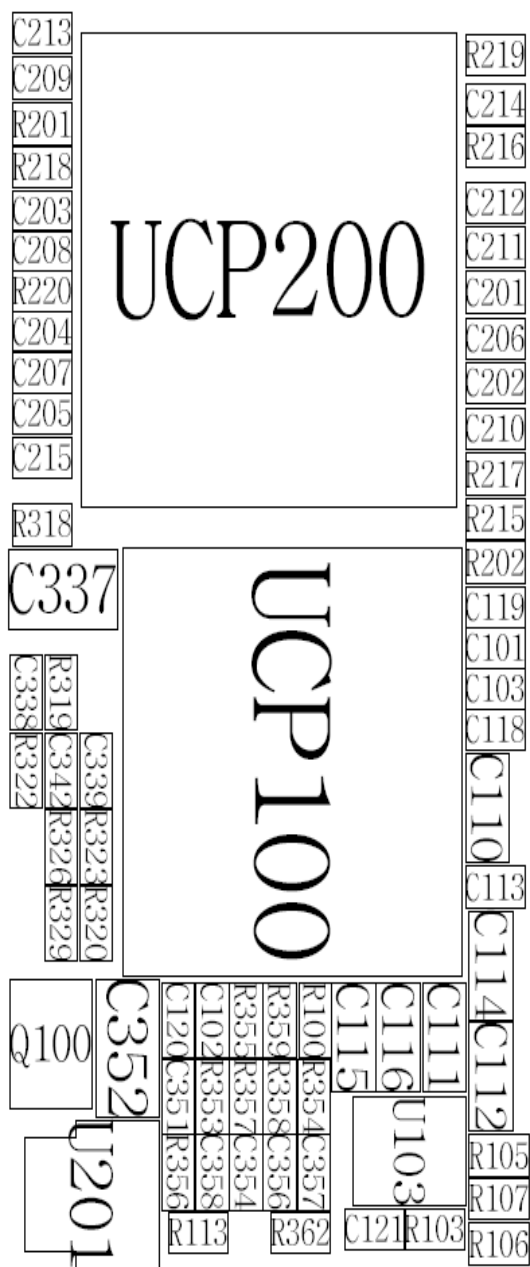




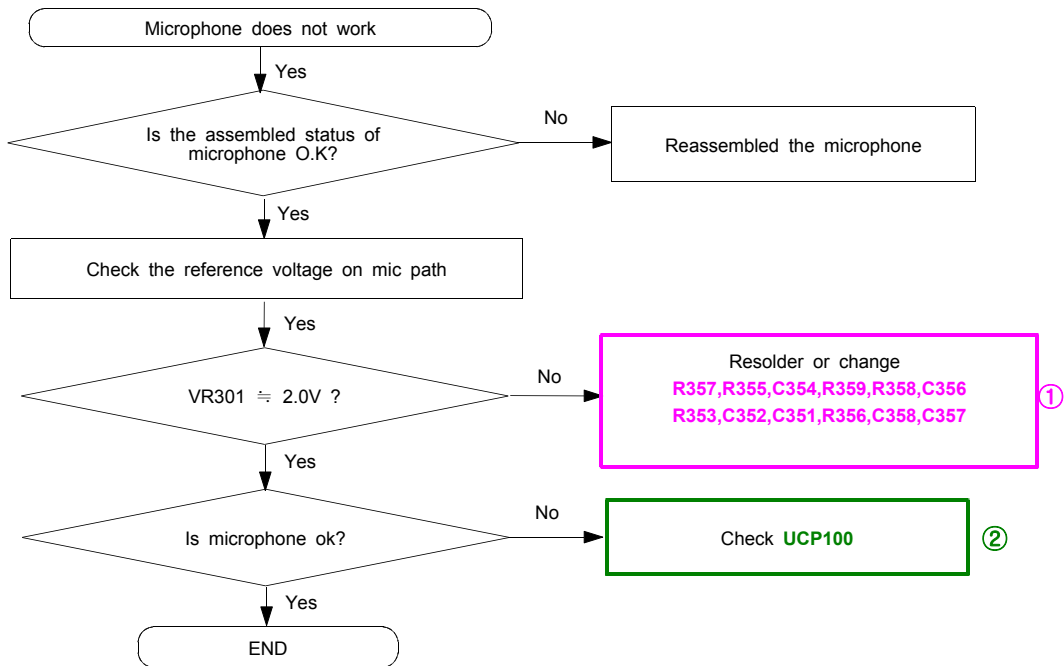


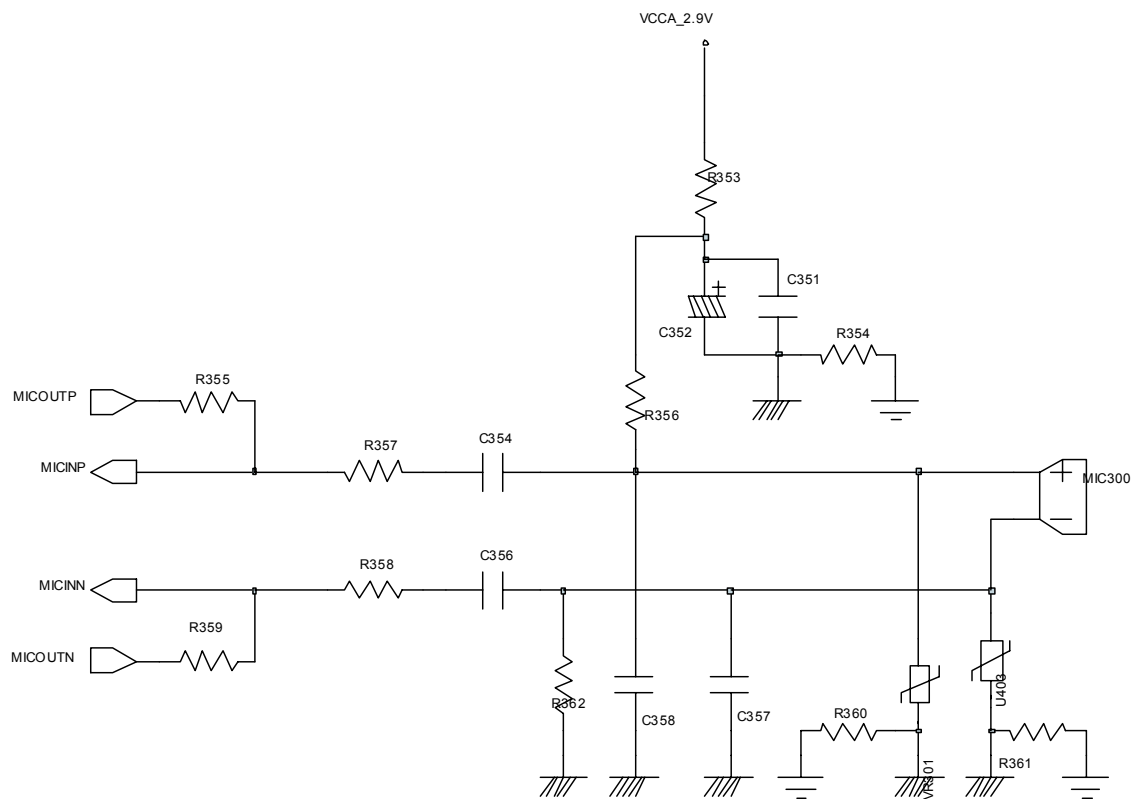
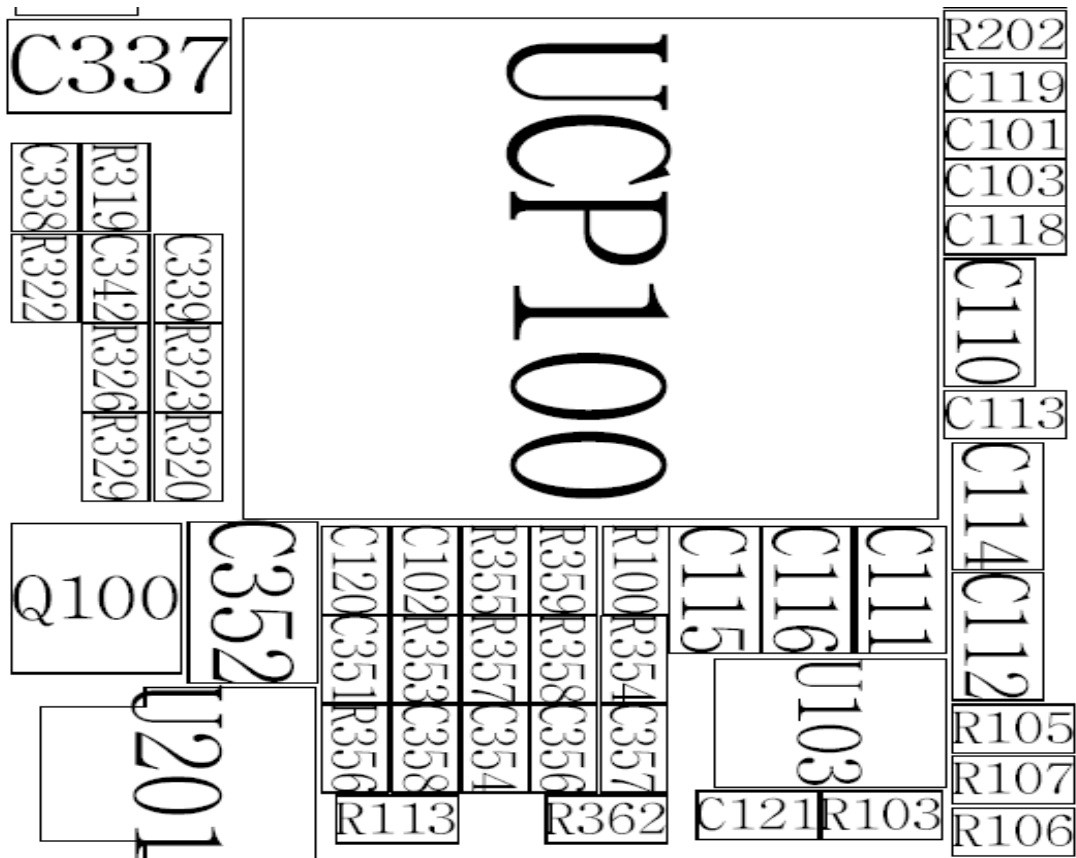
3-1-3. Sim Part



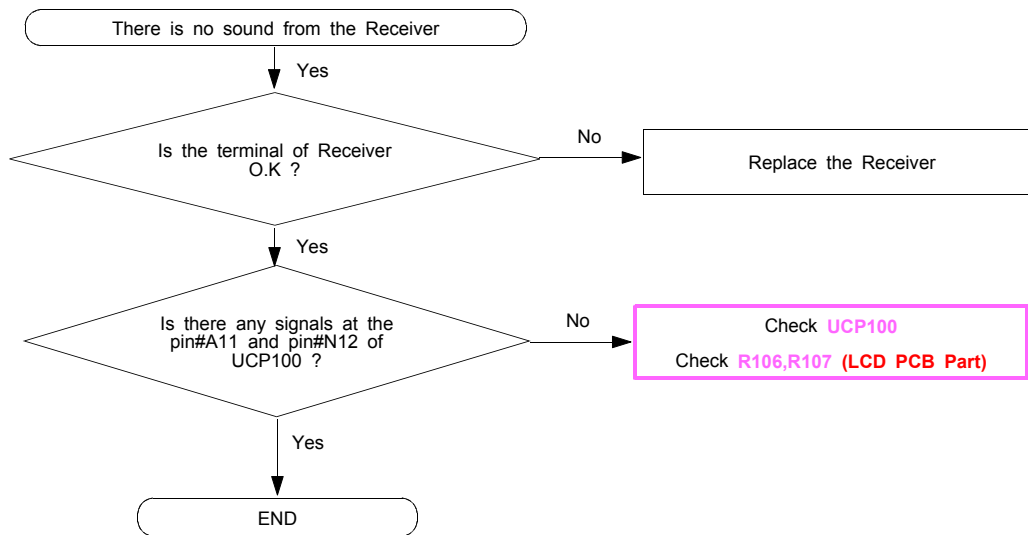


3-1-4. Microphone Part

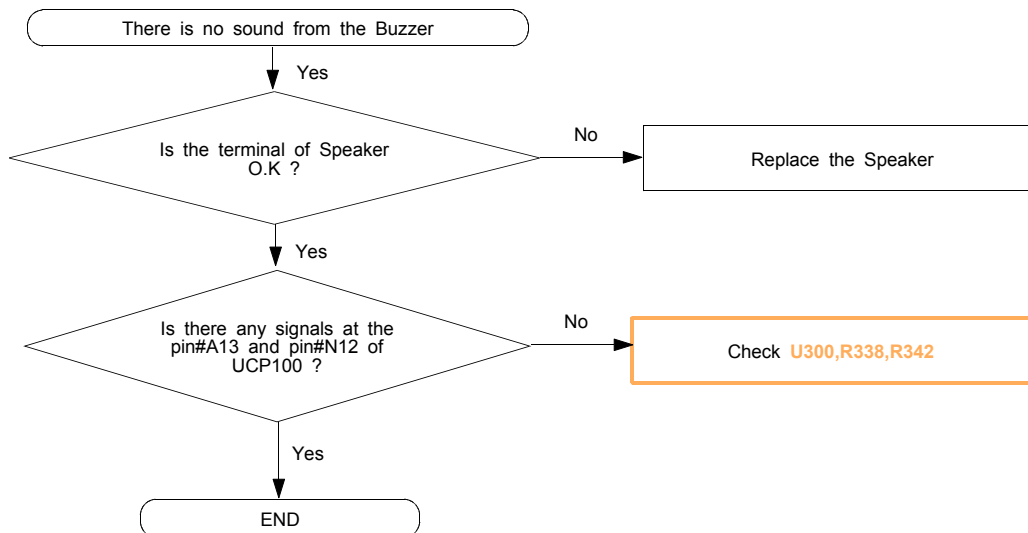




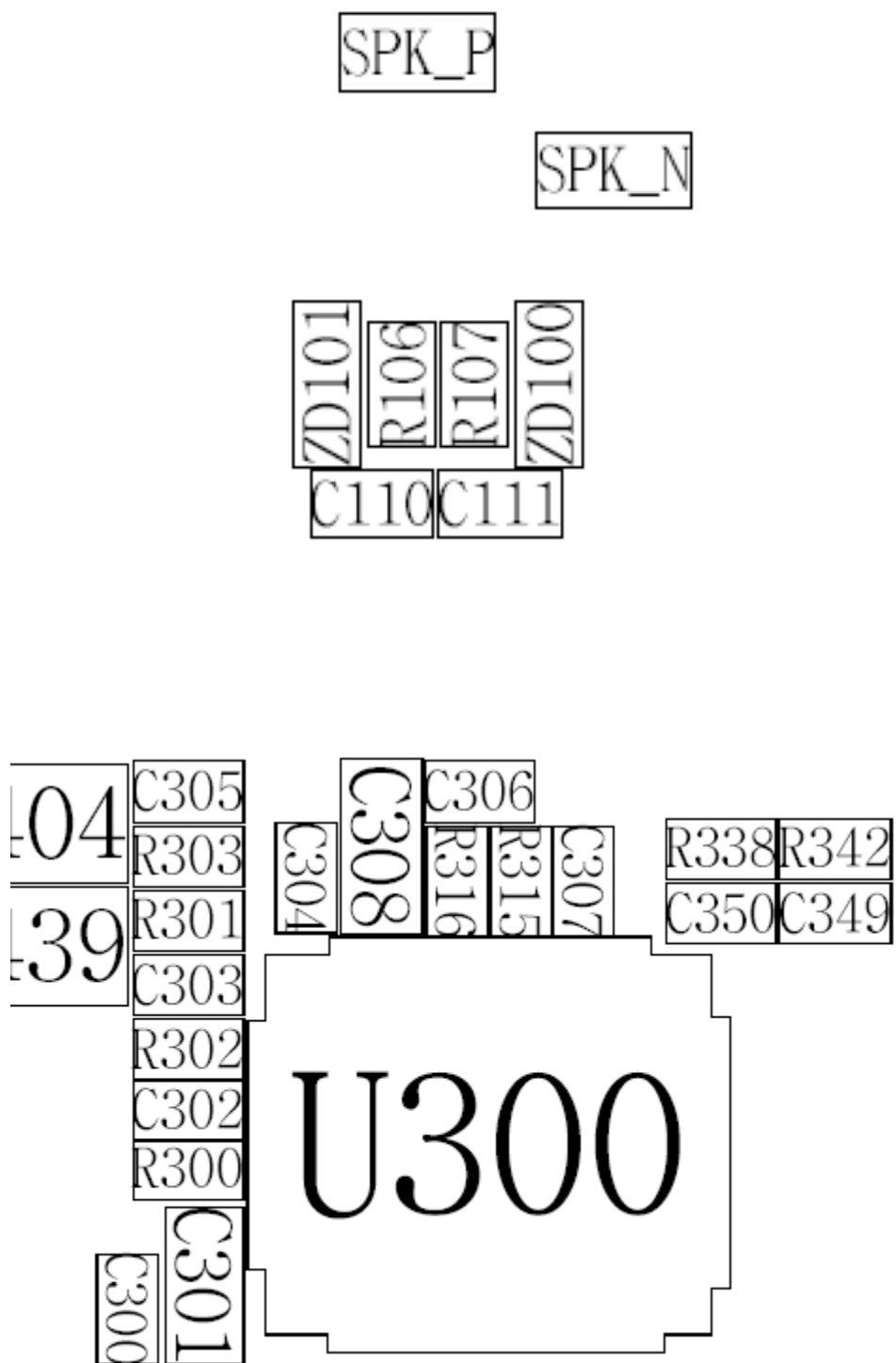
3-1-5. Receiver Part

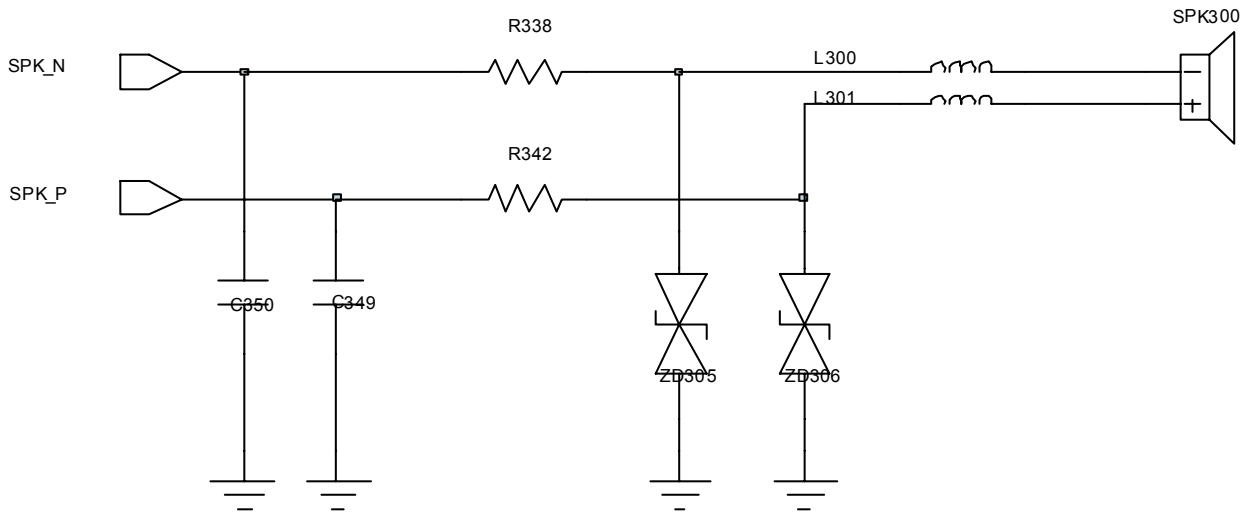


3-1-6. Speaker Part



< LCD PCB Part >

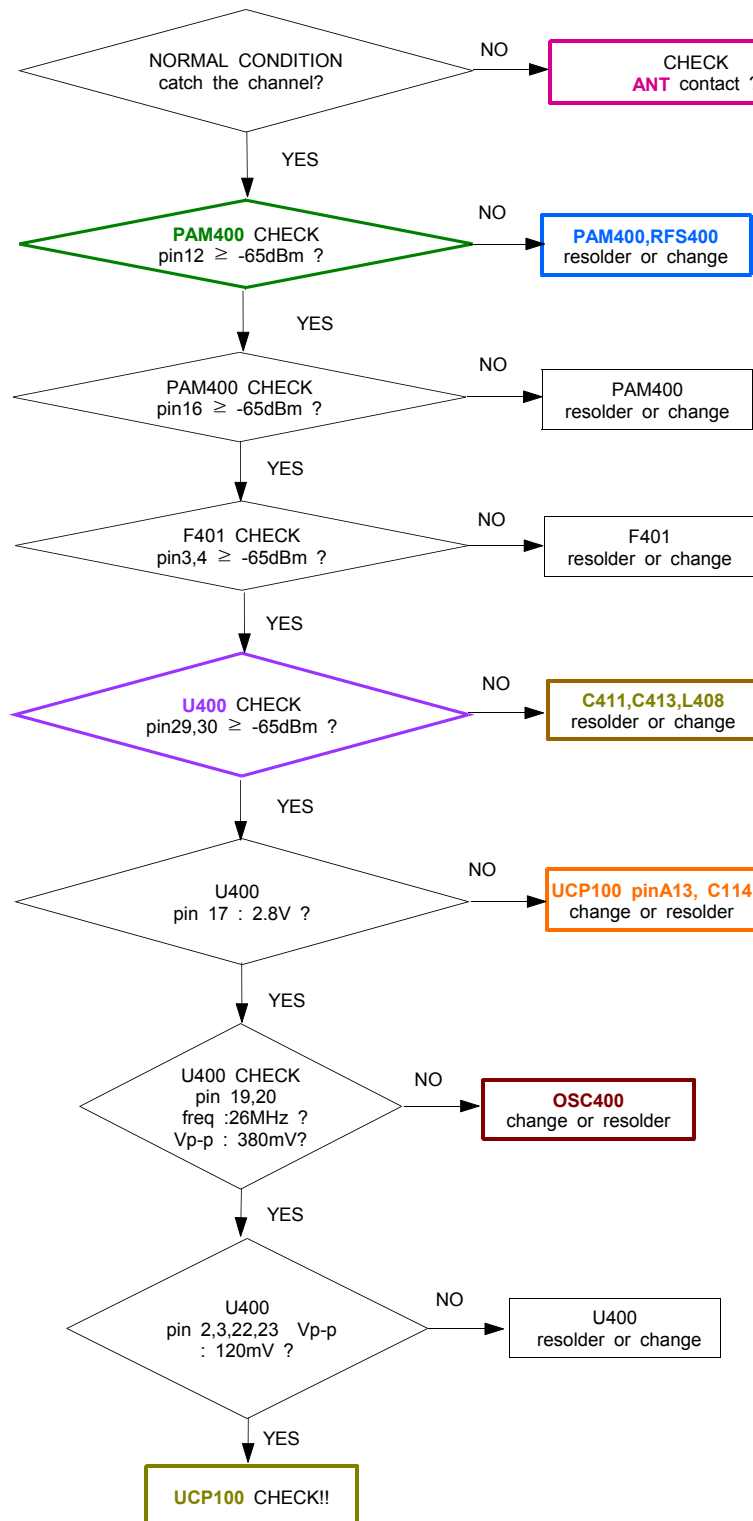


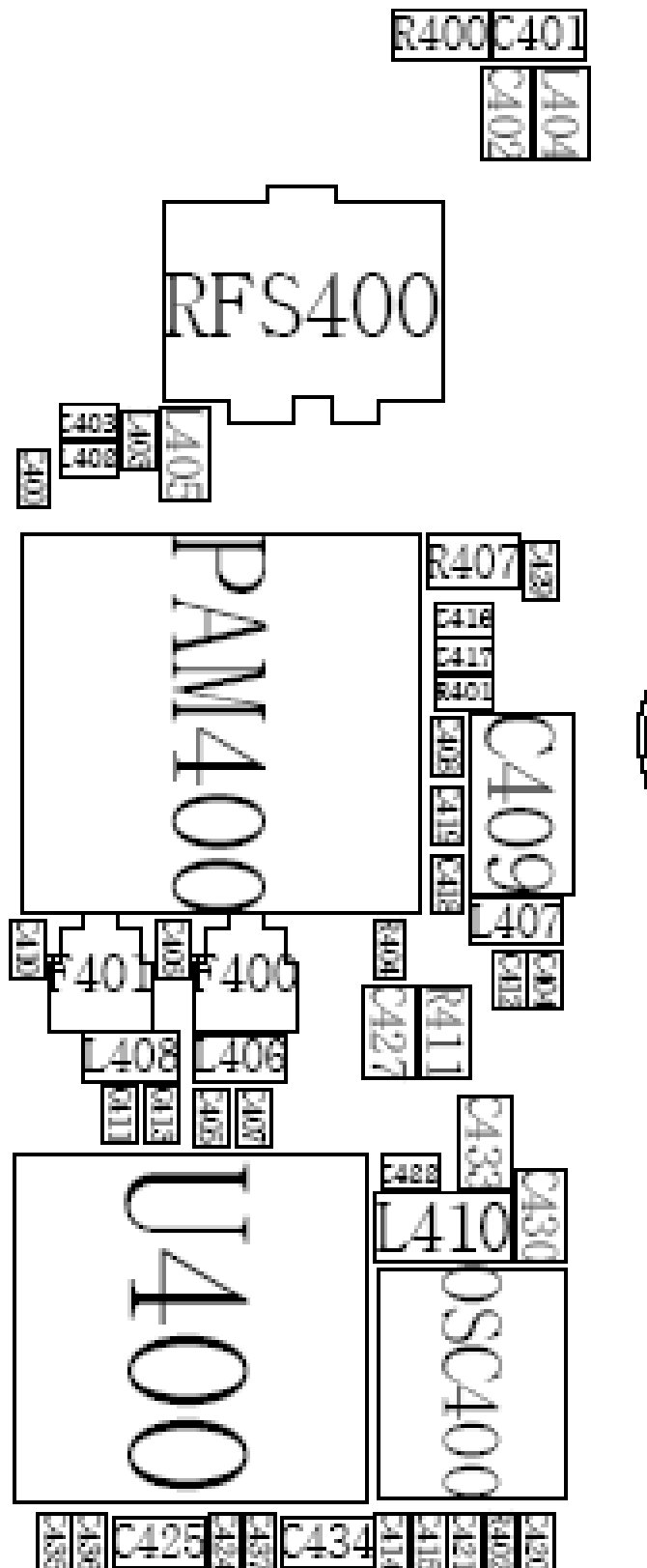


3-2.RF

3-2-1. EGSM RX

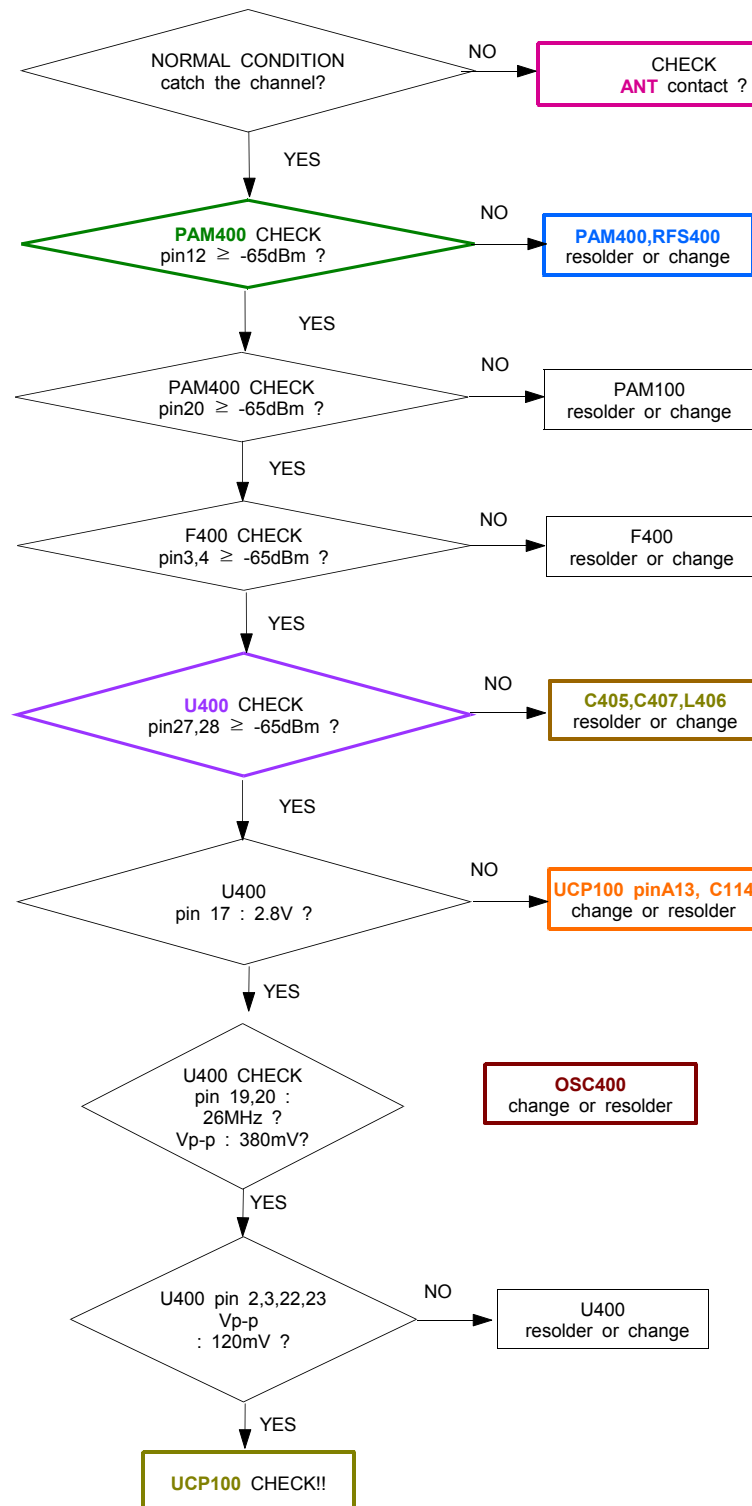
CONTINUOUS RX ON
RF INPUT : 62CH
AMP : -50dBm

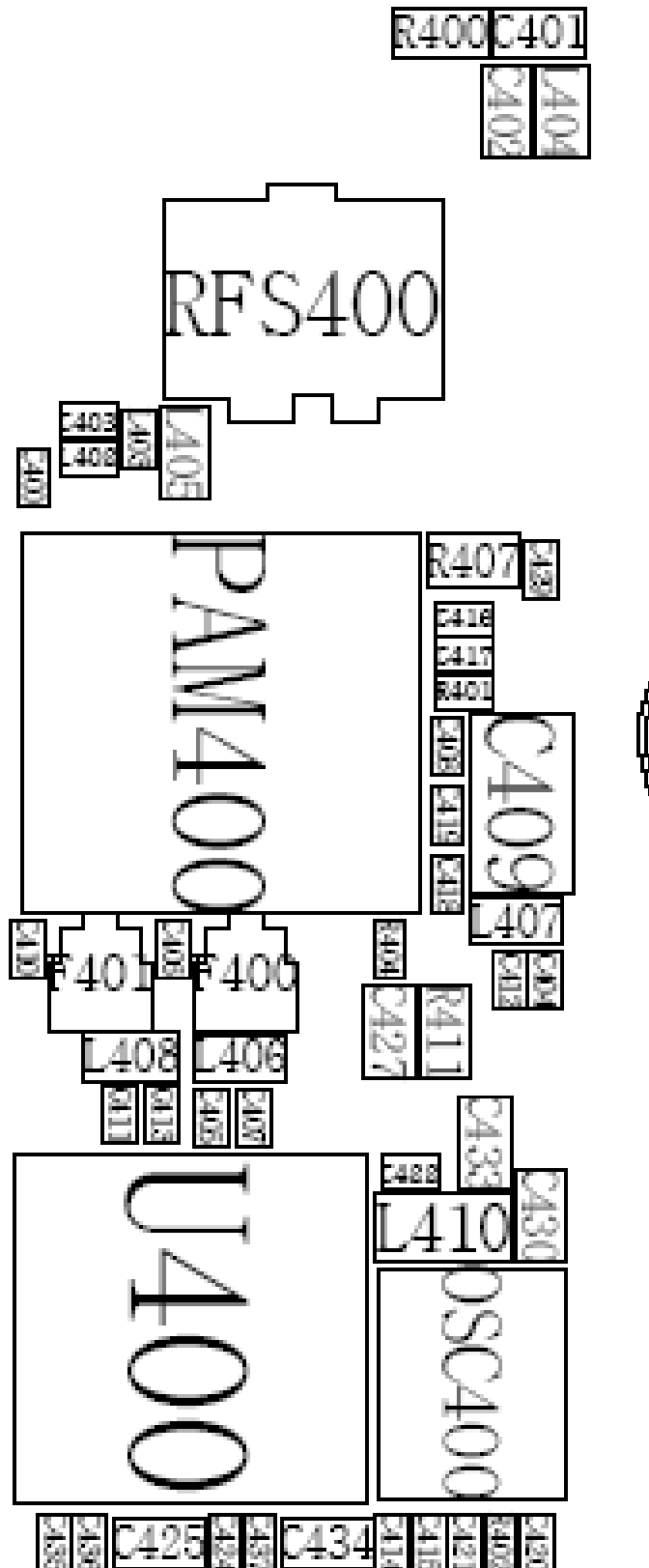




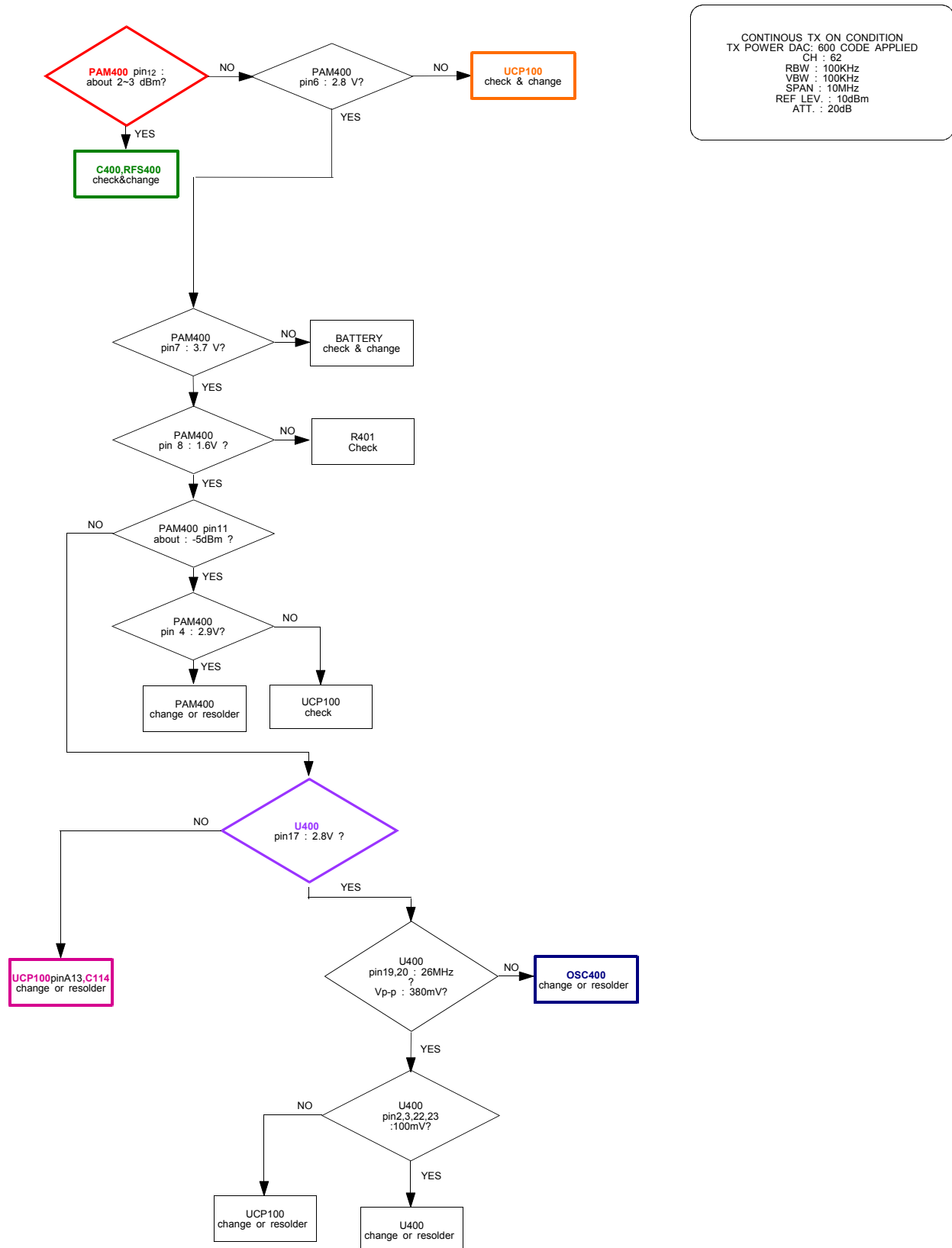
3-2-2. DCS RX

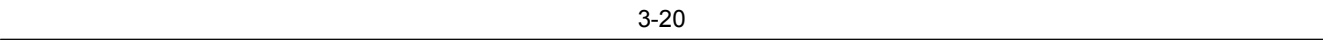
CONTINUOUS RX ON
RF INPUT : 698CH
AMP : -50dBm



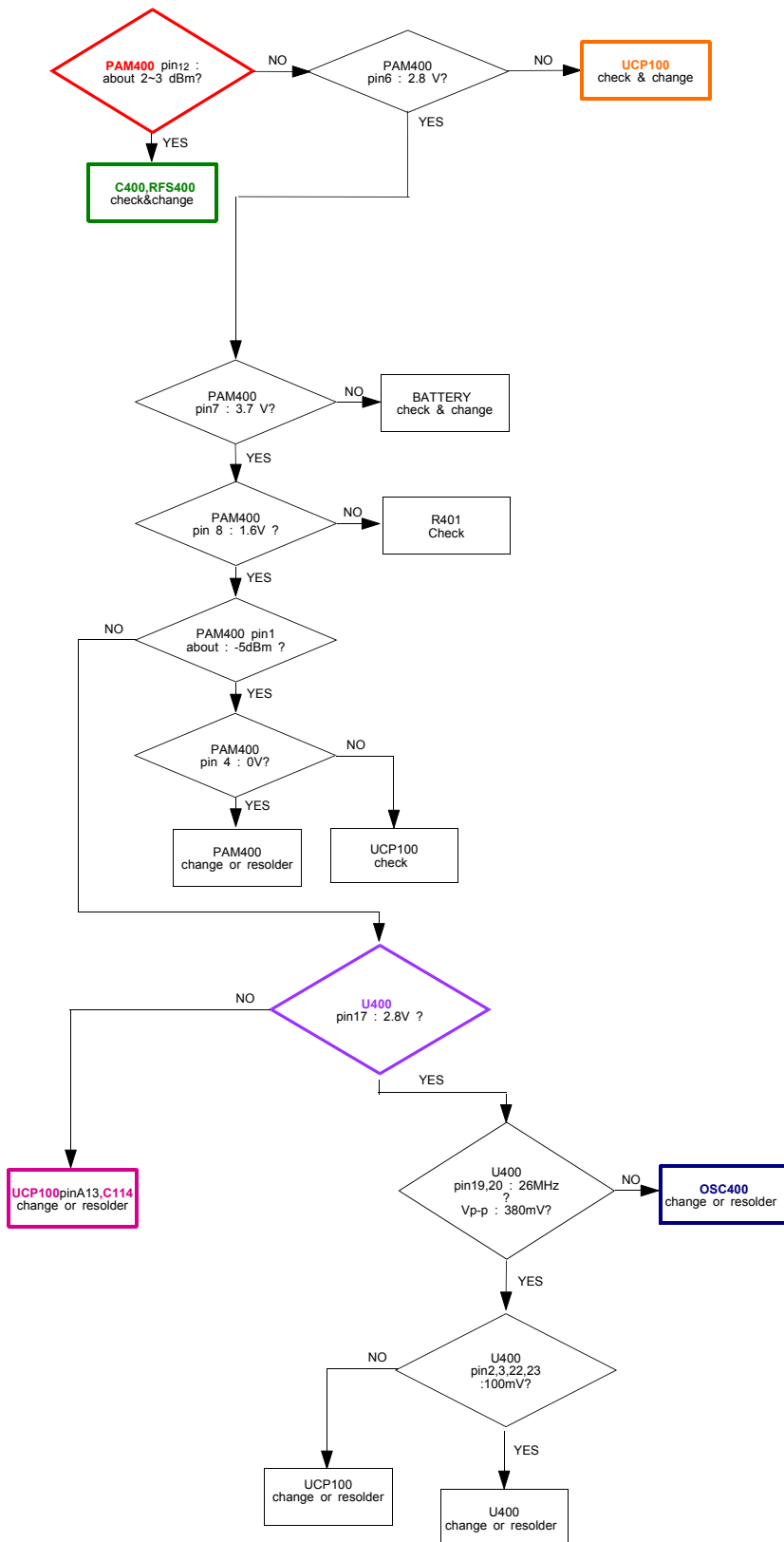


3-2-3. EGSM TX

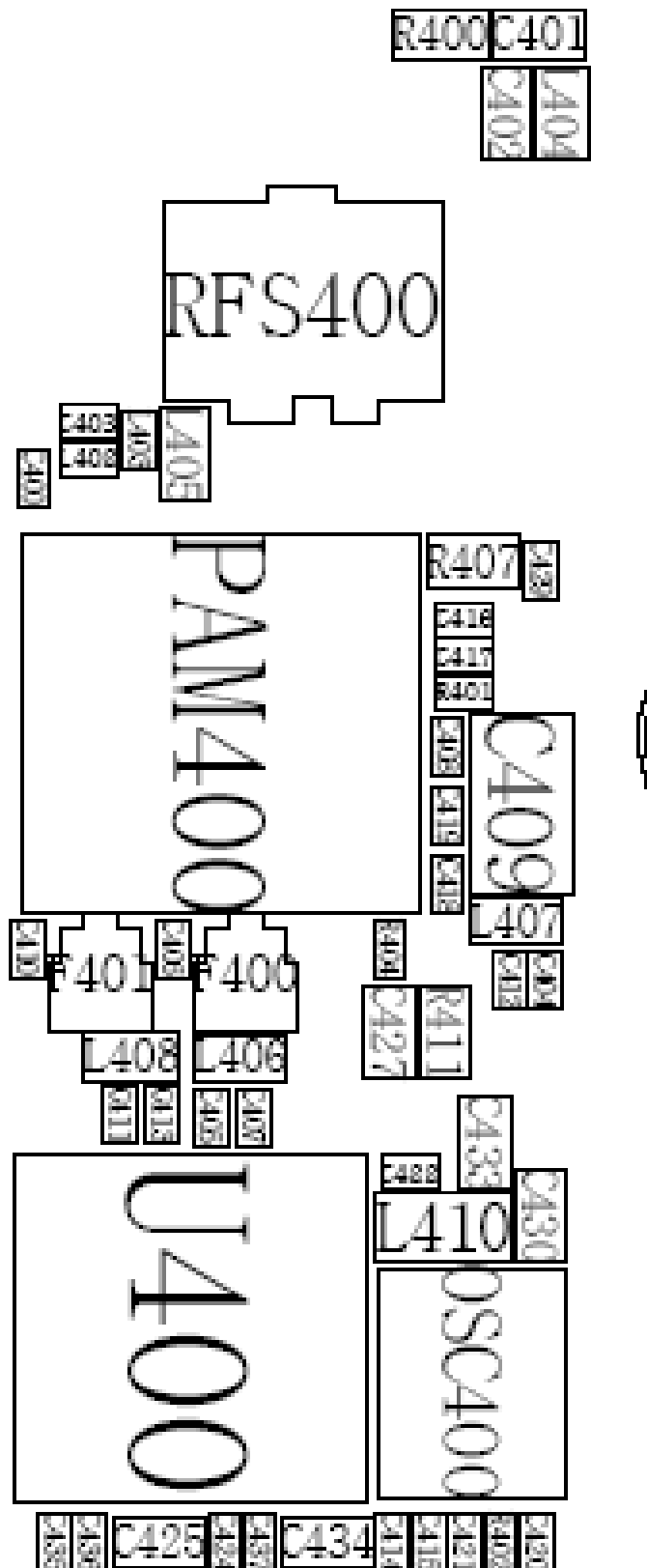


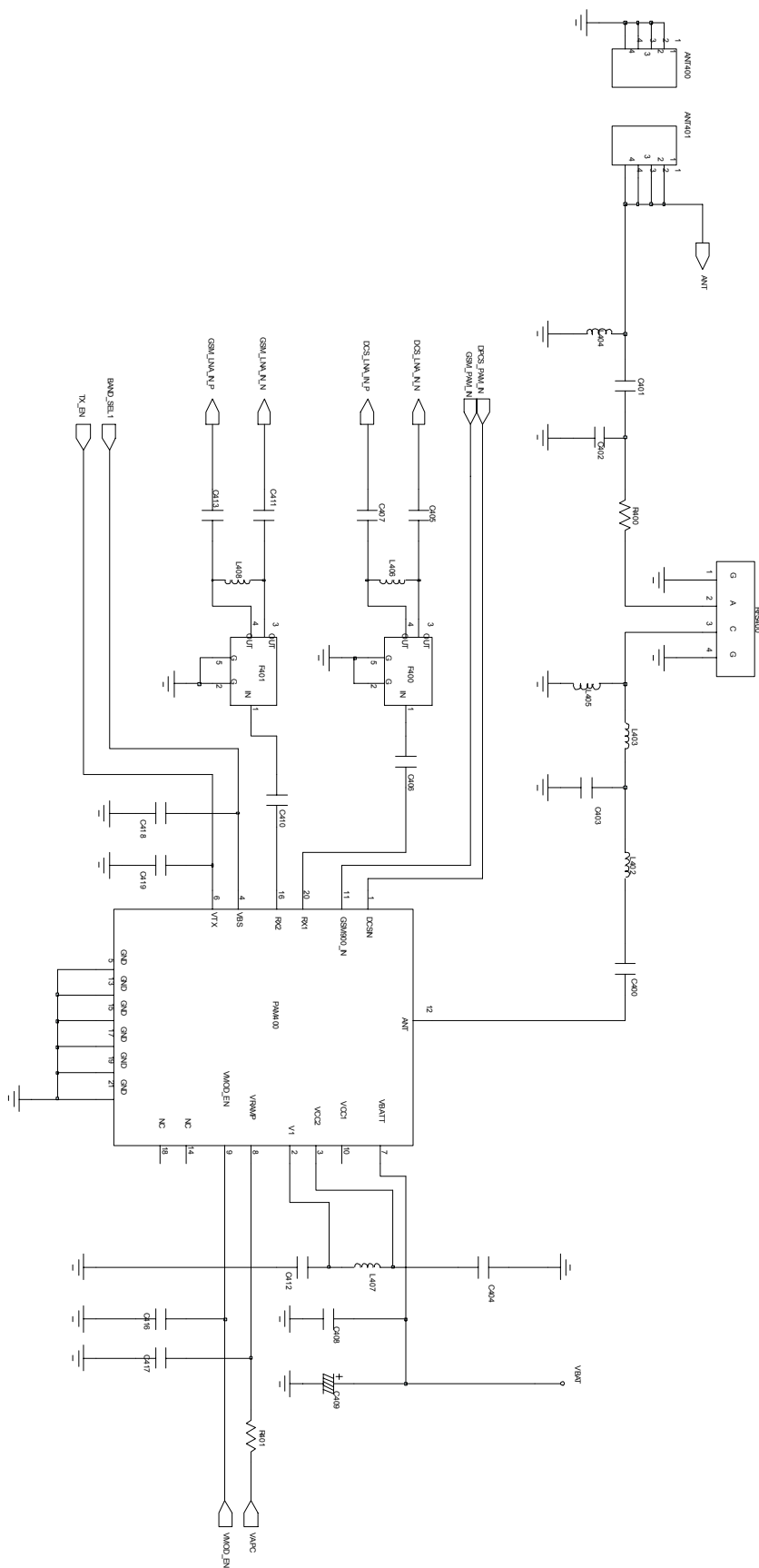


3-2-4. DCS TX



CONTINUOUS TX ON CONDITION
CH : 698CH(DCS)
TX POWER CODE: 520 CODE Applied
RBW : 100KHz
VBW : 100KHz
SPAN : 10MHz
REF. LEV. : 10dBm
ATT. : 20dB





4. Array course control



Test Jig (GH80-03307A)



Test Cable (GH39-00127A)



RF Test Cable (GH39-00283A)

Software Downloading

4-1. Downloading Binary Files

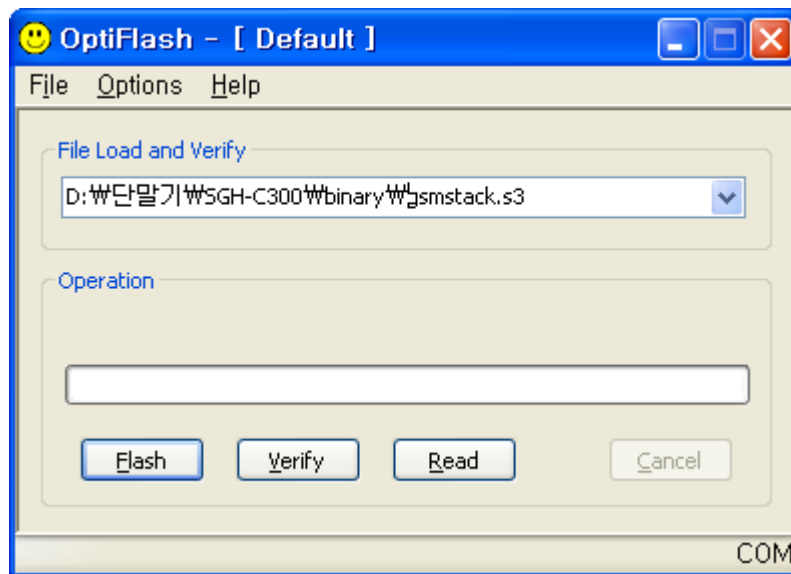
- Three binary files for downloading C300
 - C300XXYY.s3 : Main source code binary

4-2. Pre-requisite for Downloading

- Downloader Program([OptiFlash.exe](#))
- C300 Mobile Phone
- Data Cable
- Binary files

4-3. S/W Downloader Program

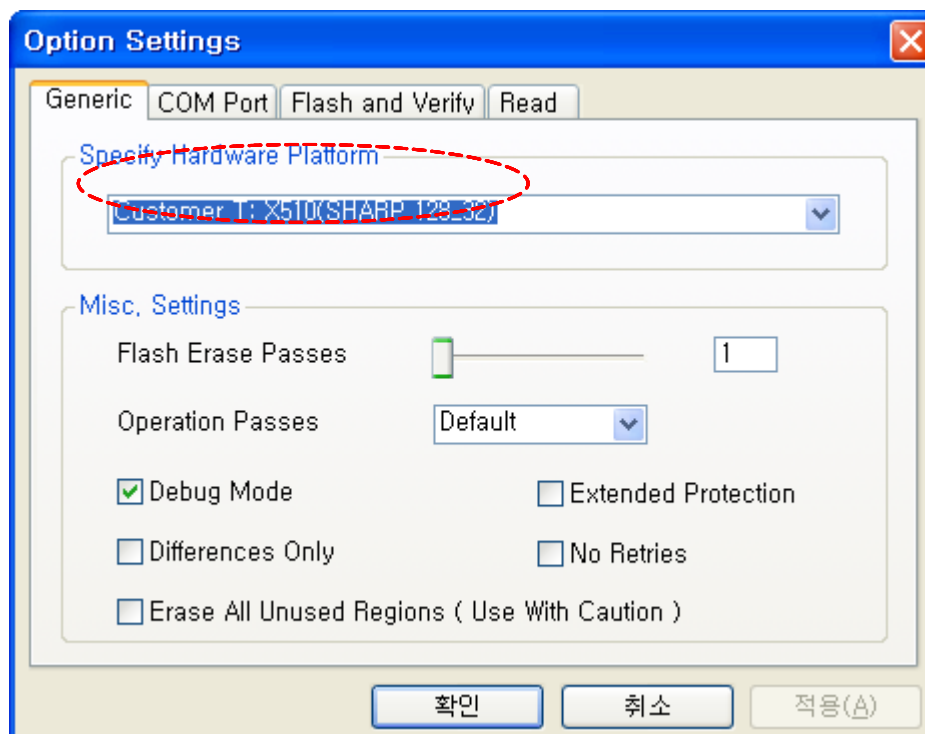
1. Load the binary download program by executing the "Optiflash.exe"



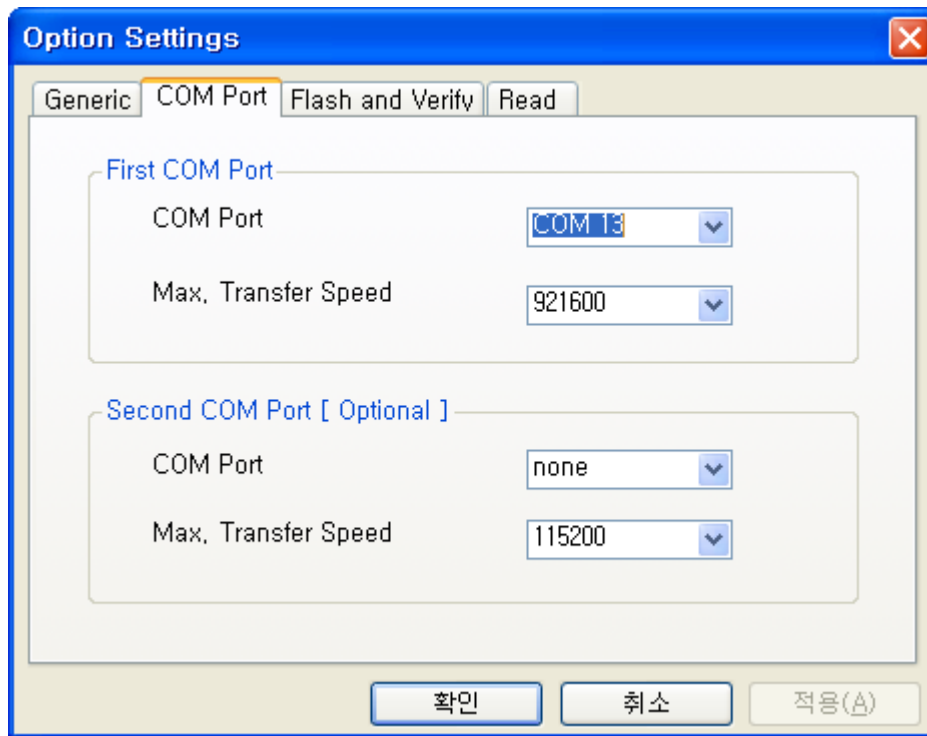
2. Select the "Options" → "Settings" → "Generic" → "Specify hardware platform".

Choose hardware platform for the downloader file setting.

Set the everything else as the default values which are shown below



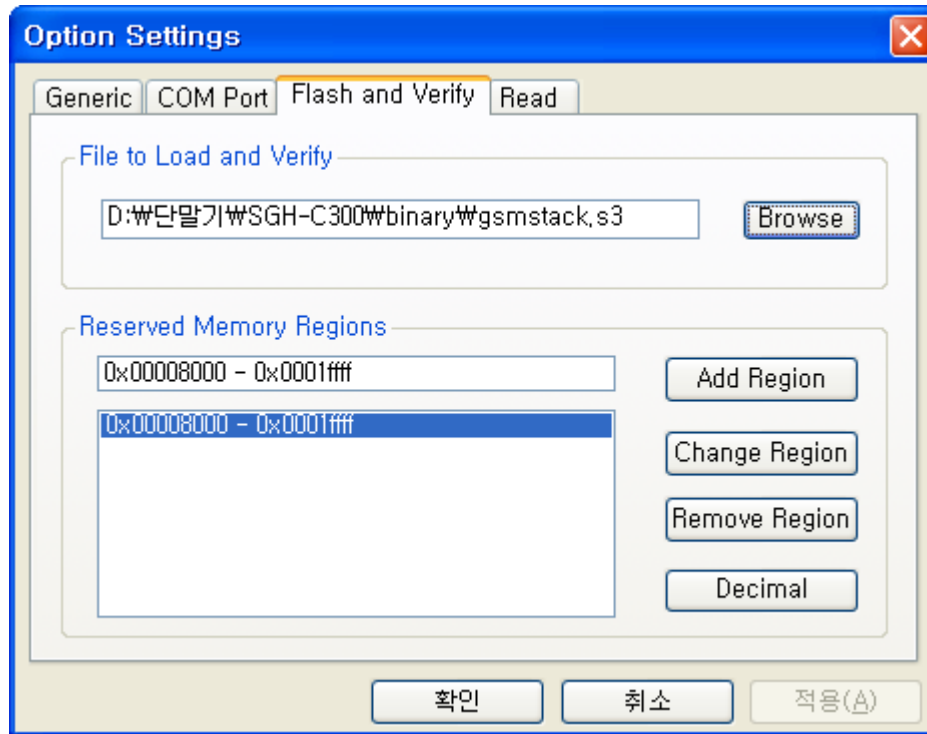
3. Select the **COM port** when the download cable is connected



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

4. Select the **"Flash&Verify"** → **"Browse"**

Set the directory path and choose the lastet s/w binary, for example "XC300XXYY.s3", for the downloader binary setting.



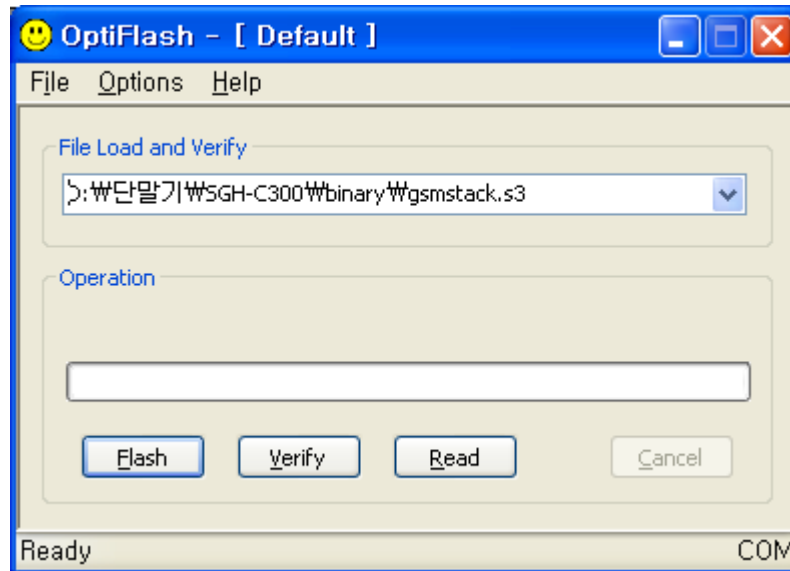
Make sure that not to change the reserved memory regions.

In case of C300 the reserved regions are :

- 0x00008000 - 0x0001ffff

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.



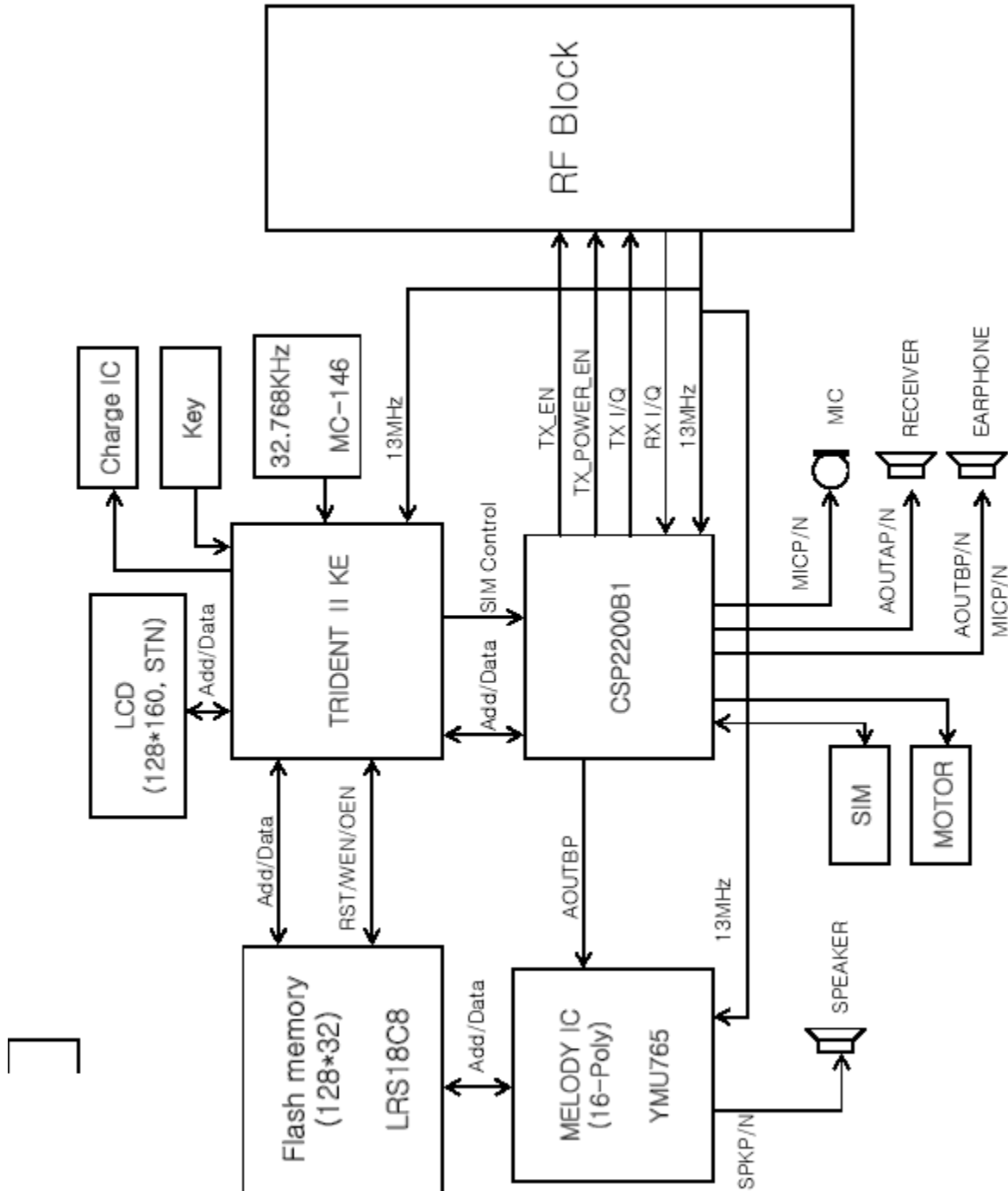
6. When downloading is finished successfully, there is a "All is well" message.
7. After finishing downloading, Certain memory resets should be done to guarantee the normal performance.
8. Confirm the downloaded version name and etc. :

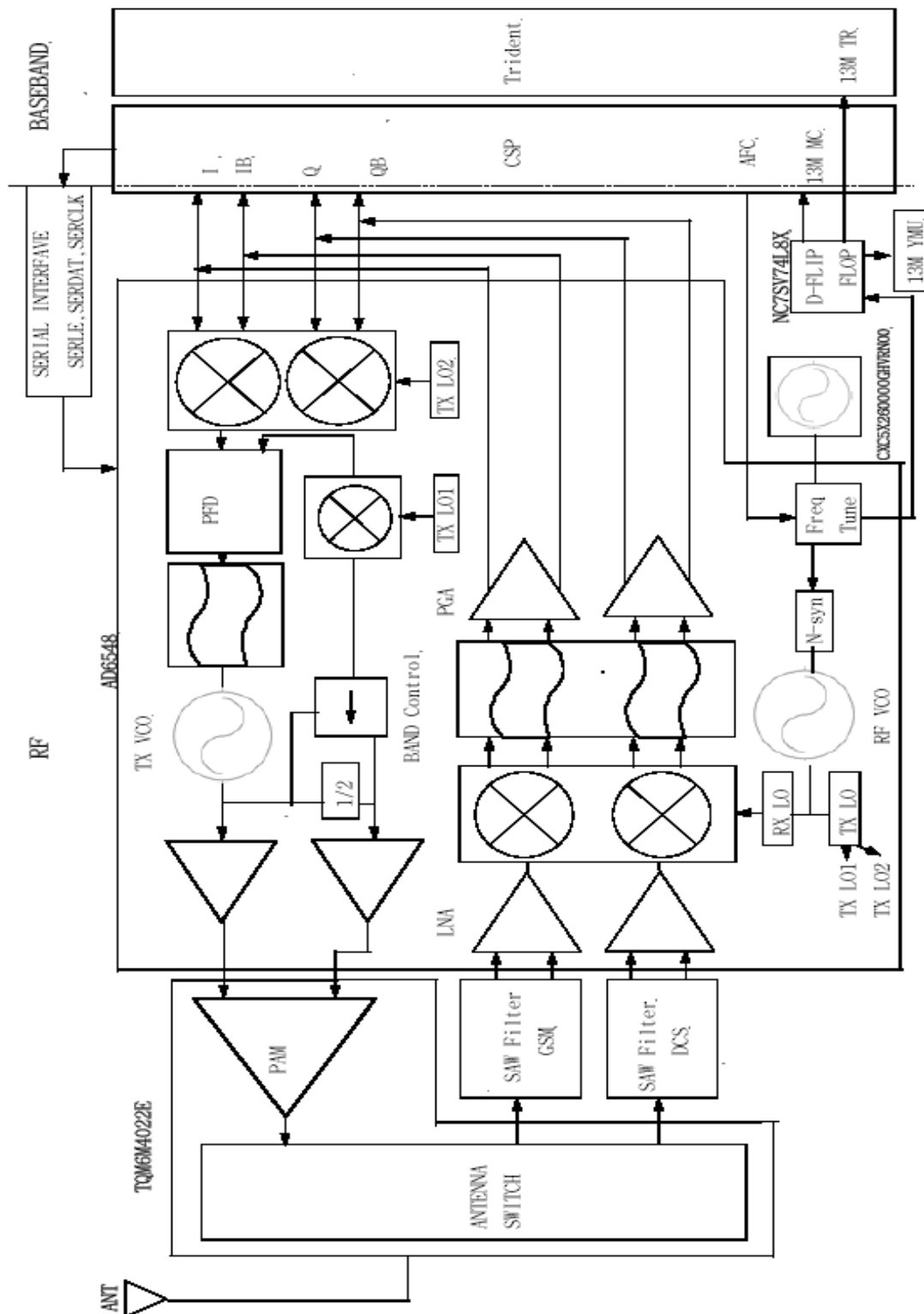
***#1234#**

Full Reset :

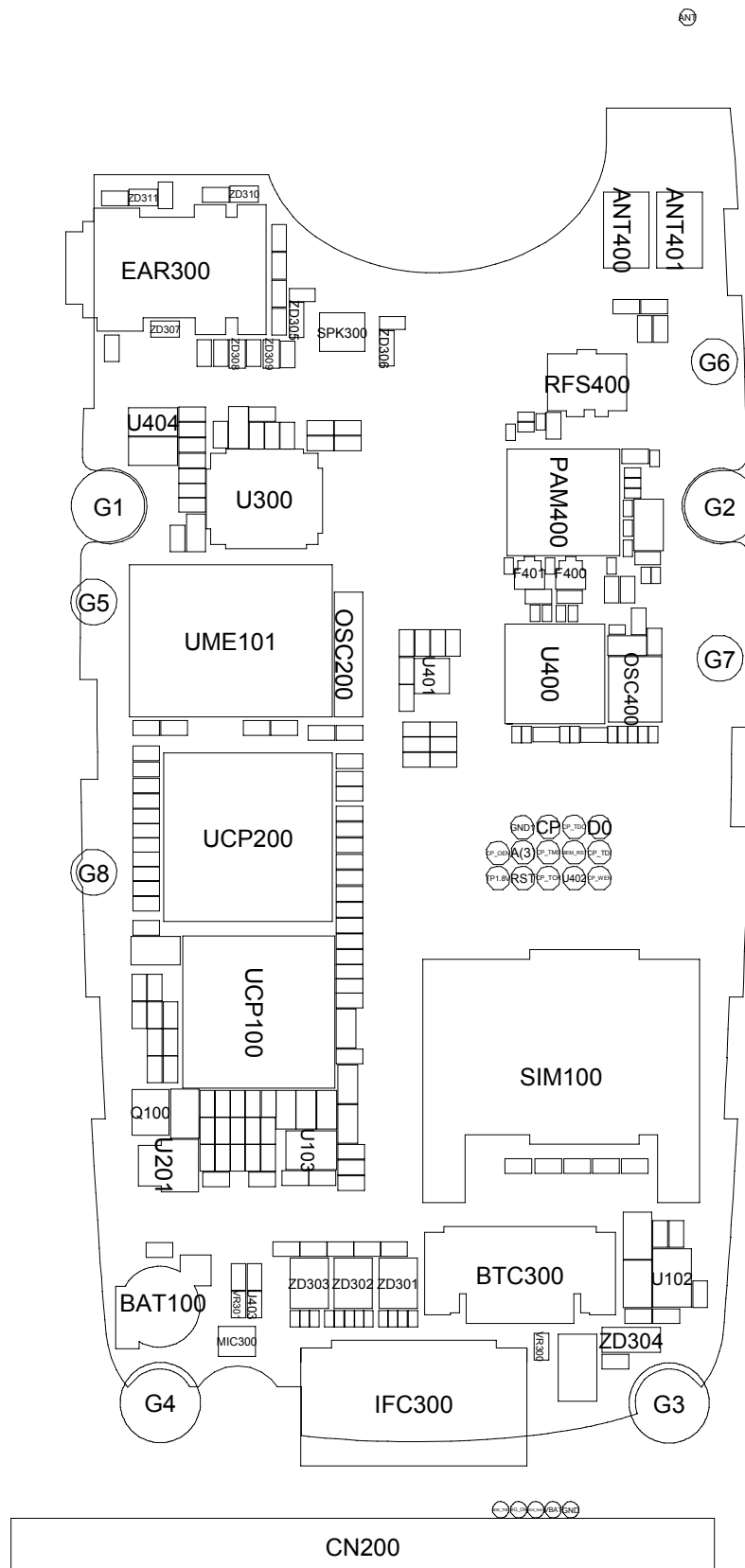
***2767*3855#**

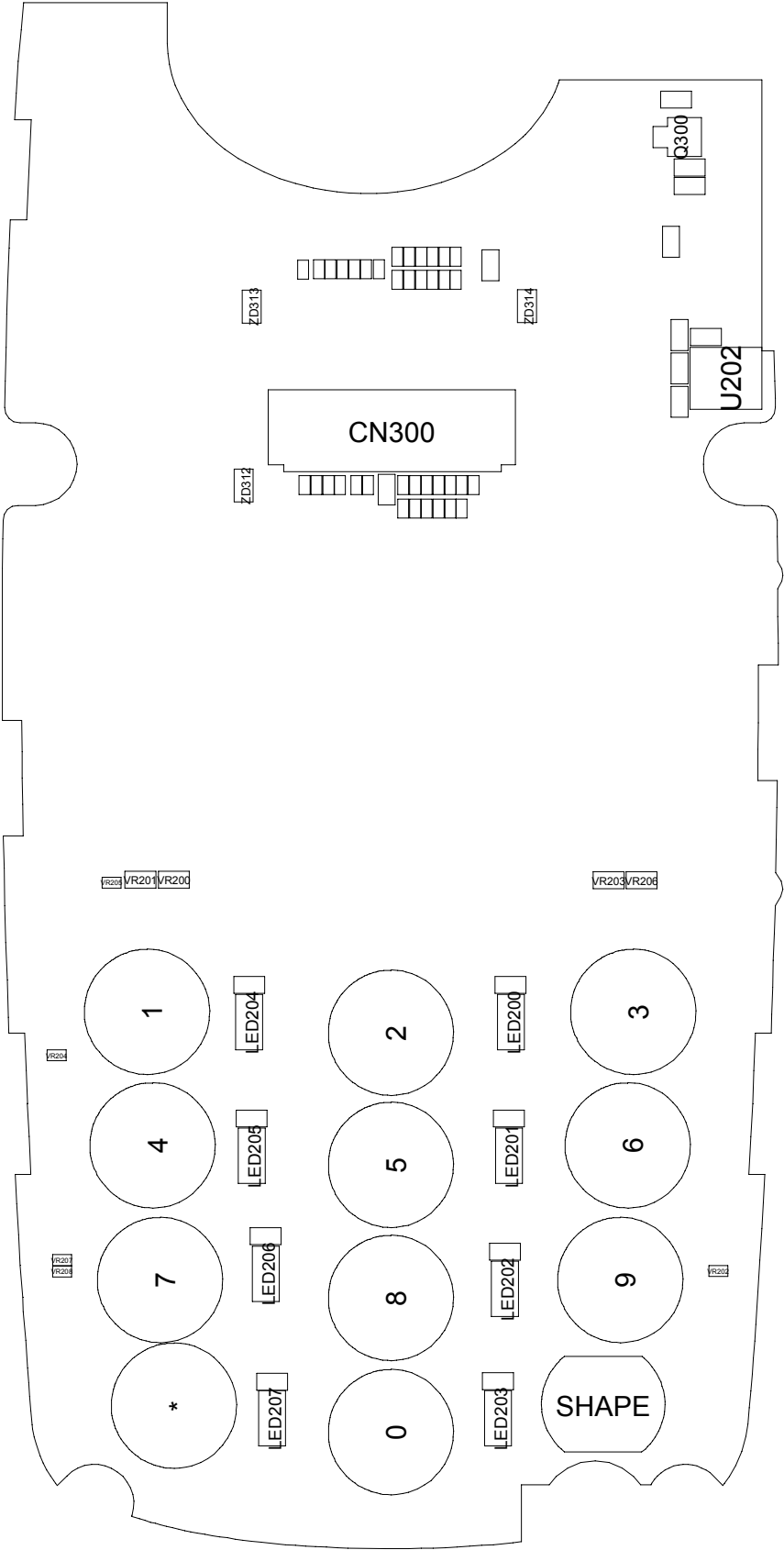
5. Block Diagrams





6. PCB Diagrams





7. MAIN Electrical Parts List

SEC CODE	Design LOC	Discription	STATUS
0403-001547	ZD304	DIODE-ZENER	SA
0406-001083	ZD301	DIODE-TVS	SA
0406-001083	ZD302	DIODE-TVS	SA
0406-001083	ZD303	DIODE-TVS	SA
0406-001210	ZD305	DIODE-TVS	SA
0406-001210	ZD306	DIODE-TVS	SA
0406-001254	ZD307	DIODE-TVS	SA
0406-001254	ZD308	DIODE-TVS	SA
0406-001254	ZD309	DIODE-TVS	SA
0406-001254	ZD310	DIODE-TVS	SA
0406-001254	ZD311	DIODE-TVS	SA
0406-001254	ZD312	DIODE-TVS	SA
0406-001254	ZD313	DIODE-TVS	SA
0406-001254	ZD314	DIODE-TVS	SA
0501-000225	Q300	TR-SMALL SIGNAL	SA
0504-000168	Q100	TR-DIGITAL	SA
0601-002053	LED200	LED	SA
0601-002053	LED201	LED	SA
0601-002053	LED202	LED	SA
0601-002053	LED203	LED	SA
0601-002053	LED204	LED	SA
0601-002053	LED205	LED	SA
0601-002053	LED206	LED	SA
0601-002053	LED207	LED	SA
0801-002529	U103	IC-CMOS LOGIC	SA
0801-003013	U401	IC-CMOS LOGIC	SA
1009-001024	U202	IC-HALL EFFECT S/W	SA
1108-000010	UME101	IC-MCP	SA
1201-002364	PAM400	IC-POWER AMP	SA
1203-003304	UCP100	IC-POWER SUPERVISOR	SA
1203-003663	U102	IC-BATTERY	SA
1204-001811	U300	IC-MELODY	SA
1205-003098	U400	IC-TRANSCEIVER	SA
1209-001219	U201	IC-SENSOR	SA
1405-001082	U403	VARISTOR	SA
1405-001082	VR200	VARISTOR	SA
1405-001082	VR201	VARISTOR	SA

SEC CODE	Design LOC	Discription	STATUS
1405-001082	VR203	VARISTOR	SA
1405-001082	VR206	VARISTOR	SA
1405-001082	VR300	VARISTOR	SA
1405-001082	VR301	VARISTOR	SA
1405-001183	VR202	VARISTOR	SA
1405-001183	VR204	VARISTOR	SA
1405-001183	VR205	VARISTOR	SA
1405-001183	VR207	VARISTOR	SA
1405-001183	VR208	VARISTOR	SA
2007-000140	R107	R-CHIP	SA
2007-000140	R327	R-CHIP	SA
2007-000142	R362	R-CHIP	SA
2007-000144	R100	R-CHIP	SA
2007-000157	R202	R-CHIP	SA
2007-000157	R215	R-CHIP	SA
2007-000157	R321	R-CHIP	SA
2007-000157	R332	R-CHIP	SA
2007-000160	R303	R-CHIP	SA
2007-000161	R320	R-CHIP	SA
2007-000161	R329	R-CHIP	SA
2007-000161	R355	R-CHIP	SA
2007-000161	R359	R-CHIP	SA
2007-000162	R104	R-CHIP	SA
2007-000162	R106	R-CHIP	SA
2007-000162	R110	R-CHIP	SA
2007-000162	R217	R-CHIP	SA
2007-000164	R221	R-CHIP	SA
2007-000164	R300	R-CHIP	SA
2007-000165	R334	R-CHIP	SA
2007-000170	R218	R-CHIP	SA
2007-000170	R408	R-CHIP	SA
2007-000170	R410	R-CHIP	SA
2007-000171	R113	R-CHIP	SA
2007-000171	R322	R-CHIP	SA
2007-000171	R338	R-CHIP	SA
2007-000171	R342	R-CHIP	SA
2007-000171	R354	R-CHIP	SA

SEC CODE	Design LOC	Discription	STATUS
2007-000171	R360	R-CHIP	SA
2007-000171	R361	R-CHIP	SA
2007-000171	R400	R-CHIP	SA
2007-000171	R406	R-CHIP	SA
2007-000172	R103	R-CHIP	SA
2007-000172	R200	R-CHIP	SA
2007-000172	R201	R-CHIP	SA
2007-000172	R203	R-CHIP	SA
2007-000172	R204	R-CHIP	SA
2007-000172	R205	R-CHIP	SA
2007-000172	R206	R-CHIP	SA
2007-000172	R207	R-CHIP	SA
2007-000172	R208	R-CHIP	SA
2007-000172	R209	R-CHIP	SA
2007-000172	R210	R-CHIP	SA
2007-000566	R333	R-CHIP	SA
2007-000566	R335	R-CHIP	SA
2007-000566	R336	R-CHIP	SA
2007-000566	R337	R-CHIP	SA
2007-000775	R301	R-CHIP	SA
2007-000775	R302	R-CHIP	SA
2007-000775	R315	R-CHIP	SA
2007-000831	R105	R-CHIP	SA
2007-000831	R331	R-CHIP	SA
2007-001119	R318	R-CHIP	SA
2007-001119	R353	R-CHIP	SA
2007-001307	R409	R-CHIP	SA
2007-001308	R405	R-CHIP	SA
2007-001320	R319	R-CHIP	SA
2007-001320	R356	R-CHIP	SA
2007-001323	R328	R-CHIP	SA
2007-001325	R316	R-CHIP	SA
2007-002797	R403	R-CHIP	SA
2007-002965	R324	R-CHIP	SA
2007-002965	R325	R-CHIP	SA
2007-002965	R407	R-CHIP	SA
2007-007014	R344	R-CHIP	SA

SEC CODE	Design LOC	Discription	STATUS
2007-007142	R323	R-CHIP	SA
2007-007142	R326	R-CHIP	SA
2007-007142	R357	R-CHIP	SA
2007-007142	R358	R-CHIP	SA
2007-007573	R216	R-CHIP	SA
2007-007573	R219	R-CHIP	SA
2007-007741	R402	R-CHIP	SA
2007-008045	R304	R-CHIP	SA
2007-008045	R305	R-CHIP	SA
2007-008045	R306	R-CHIP	SA
2007-008045	R307	R-CHIP	SA
2007-008045	R308	R-CHIP	SA
2007-008045	R309	R-CHIP	SA
2007-008045	R310	R-CHIP	SA
2007-008045	R311	R-CHIP	SA
2007-008045	R312	R-CHIP	SA
2007-008045	R313	R-CHIP	SA
2007-008045	R314	R-CHIP	SA
2007-008045	R317	R-CHIP	SA
2007-008137	R108	R-CHIP	SA
2007-008419	R339	R-CHIP	SA
2007-008419	R340	R-CHIP	SA
2007-008419	R341	R-CHIP	SA
2007-008419	R343	R-CHIP	SA
2007-008419	R345	R-CHIP	SA
2007-008419	R346	R-CHIP	SA
2007-008419	R347	R-CHIP	SA
2007-008419	R348	R-CHIP	SA
2007-008419	R349	R-CHIP	SA
2007-008419	R350	R-CHIP	SA
2007-008419	R351	R-CHIP	SA
2007-008419	R352	R-CHIP	SA
2007-008516	R401	R-CHIP	SA
2007-008806	R404	R-CHIP	SA
2007-009160	R109	R-CHIP	SA
2203-000233	C117	C-CER,CHIP	SA
2203-000233	C215	C-CER,CHIP	SA

SEC CODE	Design LOC	Discription	STATUS
2203-000254	C102	C-CER,CHIP	SA
2203-000254	C103	C-CER,CHIP	SA
2203-000254	C200	C-CER,CHIP	SA
2203-000254	C201	C-CER,CHIP	SA
2203-000254	C202	C-CER,CHIP	SA
2203-000254	C203	C-CER,CHIP	SA
2203-000254	C205	C-CER,CHIP	SA
2203-000254	C209	C-CER,CHIP	SA
2203-000254	C211	C-CER,CHIP	SA
2203-000254	C305	C-CER,CHIP	SA
2203-000330	C216	C-CER,CHIP	SA
2203-000330	C217	C-CER,CHIP	SA
2203-000359	C349	C-CER,CHIP	SA
2203-000359	C350	C-CER,CHIP	SA
2203-000359	C357	C-CER,CHIP	SA
2203-000359	C358	C-CER,CHIP	SA
2203-000386	C426	C-CER,CHIP	SA
2203-000438	C306	C-CER,CHIP	SA
2203-000438	C343	C-CER,CHIP	SA
2203-000438	C344	C-CER,CHIP	SA
2203-000438	C346	C-CER,CHIP	SA
2203-000438	C430	C-CER,CHIP	SA
2203-000627	C433	C-CER,CHIP	SNA
2203-000654	C303	C-CER,CHIP	SA
2203-000679	C210	C-CER,CHIP	SA
2203-000812	C107	C-CER,CHIP	SA
2203-000812	C108	C-CER,CHIP	SA
2203-000812	C427	C-CER,CHIP	SA
2203-000812	C431	C-CER,CHIP	SA
2203-000940	C105	C-CER,CHIP	SA
2203-000995	C109	C-CER,CHIP	SA
2203-000995	C345	C-CER,CHIP	SA
2203-001072	C348	C-CER,CHIP	SA
2203-001405	C302	C-CER,CHIP	SA
2203-001412	C428	C-CER,CHIP	SA
2203-005344	C118	C-CER,CHIP	SA
2203-005344	C213	C-CER,CHIP	SA

SEC CODE	Design LOC	Discription	STATUS
2203-005344	C347	C-CER,CHIP	SA
2203-005446	C401	C-CER,CHIP	SA
2203-005514	C354	C-CER,CHIP	SA
2203-005514	C356	C-CER,CHIP	SA
2203-005682	C312	C-CER,CHIP	SA
2203-005682	C313	C-CER,CHIP	SA
2203-005682	C314	C-CER,CHIP	SA
2203-005682	C315	C-CER,CHIP	SA
2203-005682	C316	C-CER,CHIP	SA
2203-005682	C317	C-CER,CHIP	SA
2203-005682	C318	C-CER,CHIP	SA
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2203-005682	C328	C-CER,CHIP	SA
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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	C336	C-CER,CHIP	SA
2203-005682	C416	C-CER,CHIP	SA
2203-005682	C418	C-CER,CHIP	SA
2203-005682	C419	C-CER,CHIP	SA
2203-005683	C405	C-CER,CHIP	SA
2203-005683	C407	C-CER,CHIP	SA
2203-005719	C411	C-CER,CHIP	SA
2203-005719	C413	C-CER,CHIP	SA
2203-005719	C414	C-CER,CHIP	SA

SEC CODE	Design LOC	Discription	STATUS
2203-005719	C420	C-CER,CHIP	SA
2203-005719	C422	C-CER,CHIP	SA
2203-005736	C406	C-CER,CHIP	SA
2203-005736	C410	C-CER,CHIP	SA
2203-005736	C417	C-CER,CHIP	SA
2203-005819	C111	C-CER,CHIP	SA
2203-005819	C112	C-CER,CHIP	SA
2203-005819	C114	C-CER,CHIP	SA
2203-005819	C115	C-CER,CHIP	SA
2203-005819	C116	C-CER,CHIP	SA
2203-006048	C101	C-CER,CHIP	SA
2203-006048	C106	C-CER,CHIP	SA
2203-006048	C119	C-CER,CHIP	SA
2203-006048	C204	C-CER,CHIP	SA
2203-006048	C207	C-CER,CHIP	SA
2203-006048	C212	C-CER,CHIP	SA
2203-006048	C214	C-CER,CHIP	SA
2203-006048	C218	C-CER,CHIP	SA
2203-006048	C219	C-CER,CHIP	SA
2203-006048	C300	C-CER,CHIP	SA
2203-006048	C304	C-CER,CHIP	SA
2203-006048	C307	C-CER,CHIP	SA
2203-006048	C309	C-CER,CHIP	SA
2203-006048	C311	C-CER,CHIP	SA
2203-006048	C353	C-CER,CHIP	SA
2203-006048	C423	C-CER,CHIP	SA
2203-006048	C432	C-CER,CHIP	SA
2203-006194	C404	C-CER,CHIP	SA
2203-006194	C421	C-CER,CHIP	SA
2203-006194	C424	C-CER,CHIP	SA
2203-006257	C338	C-CER,CHIP	SA
2203-006257	C351	C-CER,CHIP	SA
2203-006260	C100	C-CER,CHIP	SA
2203-006260	C104	C-CER,CHIP	SA
2203-006260	C206	C-CER,CHIP	SA
2203-006260	C208	C-CER,CHIP	SA
2203-006260	C434	C-CER,CHIP	SA

SEC CODE	Design LOC	Discription	STATUS
2203-006318	C403	C-CER,CHIP	SA
2203-006324	C110	C-CER,CHIP	SA
2203-006361	C124	C-CER,CHIP	SA
2203-006377	C126	C-CER,CHIP	SA
2203-006423	C310	C-CER,CHIP	SA
2203-006423	C408	C-CER,CHIP	SA
2203-006423	C412	C-CER,CHIP	SA
2203-006423	C415	C-CER,CHIP	SA
2203-006423	C435	C-CER,CHIP	SA
2203-006423	C436	C-CER,CHIP	SA
2203-006423	C437	C-CER,CHIP	SA
2203-006556	C400	C-CER,CHIP	SA
2203-006556	C429	C-CER,CHIP	SA
2203-006562	C113	C-CER,CHIP	SA
2203-006562	C120	C-CER,CHIP	SA
2203-006562	C121	C-CER,CHIP	SA
2203-006626	C339	C-CER,CHIP	SA
2203-006626	C342	C-CER,CHIP	SA
2203-006626	C425	C-CER,CHIP	SA
2203-006681	C125	C-CER,CHIP	SA
2404-001339	C301	C-TA,CHIP	SA
2404-001343	C308	C-TA,CHIP	SA
2404-001374	C409	C-TA,CHIP	SA
2404-001406	C355	C-TA,CHIP	SA
2404-001414	C337	C-TA,CHIP	SA
2404-001414	C352	C-TA,CHIP	SA
2404-001463	C439	C-TA,CHIP	SA
2404-001463	U404	C-TA,CHIP	SA
2703-001236	L410	INDUCTOR-SMD	SA
2703-002200	L408	INDUCTOR-SMD	SA
2703-002313	L405	INDUCTOR-SMD	SA
2703-002484	L406	INDUCTOR-SMD	SA
2703-002544	L300	INDUCTOR-SMD	SA
2703-002544	L301	INDUCTOR-SMD	SA
2703-002558	L407	INDUCTOR-SMD	SA
2703-002917	L402	INDUCTOR-SMD	SA
2703-002917	L403	INDUCTOR-SMD	SA

SEC CODE	Design LOC	Discription	STATUS
2801-003856	OSC200	CRYSTAL-SMD	SA
2801-004587	OSC400	CRYSTAL-SMD	SA
2904-001592	F401	FILTER-SAW	SA
2904-001599	F400	FILTER-SAW	SA
3301-001534	L409	BEAD-SMD	SA
3301-001729	L200	BEAD-SMD	SA
3705-001358	RFS400	CONNECTOR-COAXIAL	SA
3708-002112	CN300	CONNECTOR-FPC/FFC/PIC	SA
3709-001384	SIM100	CONNECTOR-CARD EDGE	SA
3710-001611	IFC300	CONNECTOR-INTERFACE	SA
3711-006228	BTC300	HEADER-BATTERY	SA
3722-002249	EAR300	JACK-EAR PHONE	SA
4302-001130	BAT100	BATTERY-LI(2ND)	SA
GH09-00036A	UCP200	IC MICOM-SGHX480	SA
GH71-06338A	ANT400	NPR-BRACKET ANT CONTACT	SA
GH71-06338A	ANT401	NPR-BRACKET 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

- SMS or MMS messages
- Voicemail
- Broadcast message
- SOS messages
- Calendar, Alarm, Calculator, Voice memo, Speed dial, etc...

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