

SAMSUNG

GSM TELEPHONE

SGH-Z370

SERVICE *Manual*

GSM TELEPHONE



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**SAMSUNG
ELECTRONICS**



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1. Specification

1-1. GSM/WCDMA General Specification

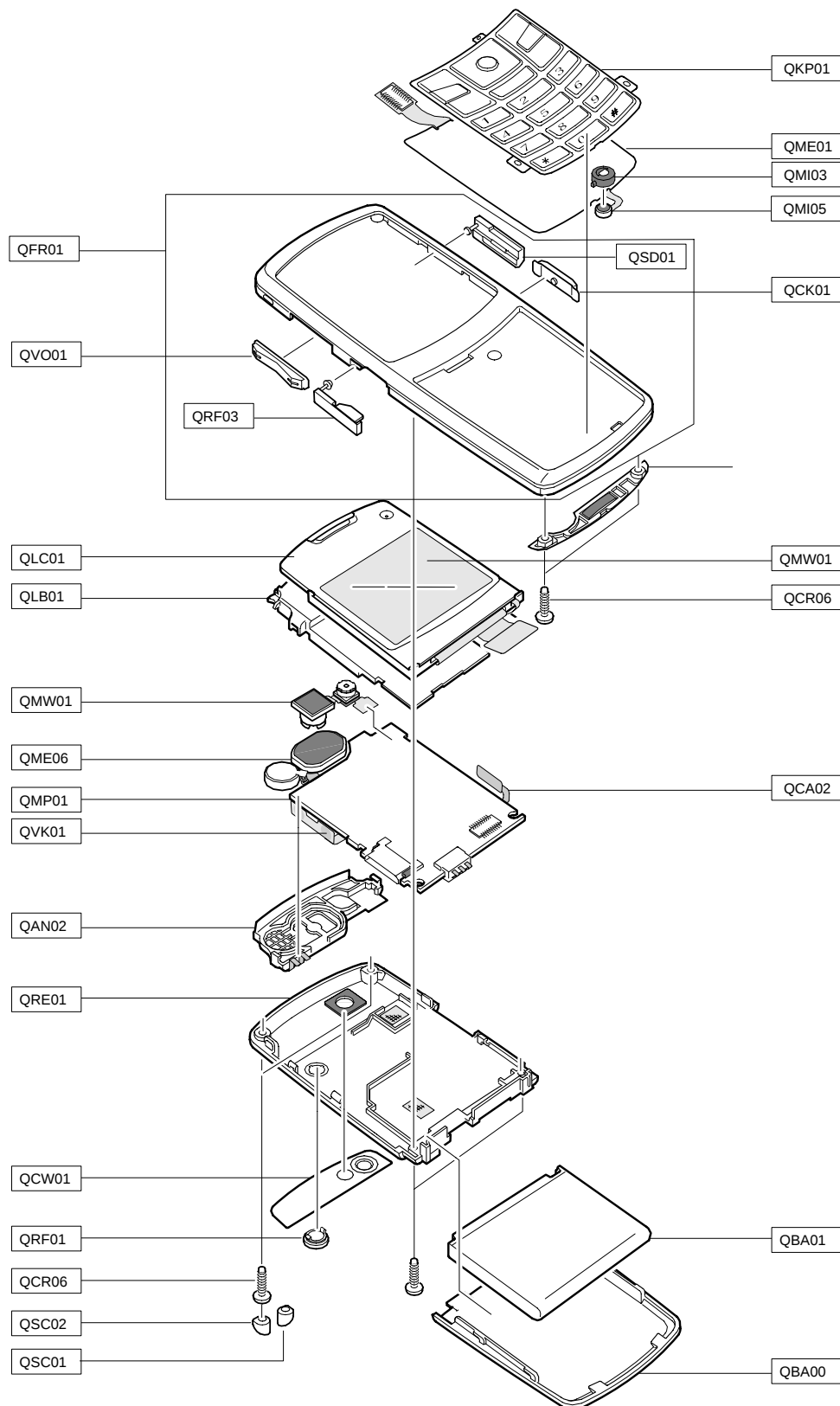
	EGSM 900 Phase 2	DCS1800 Phase 1	PCS1900	WCDMA
Freq. Band[MHz] Uplink/Downlink	880~915 925~960	1710~1785 1805~1880	1850~1910 1930~1990	1920~1980 2110~2170
ARFCN range	0~124 & 975~1023	512~885	512~810	10562~10838
Tx/Rx spacing	45 MHz	95 MHz	80 MHz	190 MHz
Mod. Bit rate/ Bit Period	270.833 kbps 3.692 us	270.833 kbps 3.692 us	270.833 kbps 3.692 us	3.84 Mcps/s
Time Slot Period/Frame Period	576.9 us 4.615 ms	576.9 us 4.615 ms	576.9 us 4.615 ms	10 ms
Modulation	0.3 GMSK	0.3 GMSK	0.3 GMSK	UL:2BPSK DL:QPSK
MS Power	33 dBm~5 dBm	30 dBm~0 dBm	30 dBm~0 dBm	MAX:24(+1,-3) dBm MIN:<-50 dBm
Power Class	5 pcl ~ 19 pcl	0 pcl ~ 15 pcl	0 pcl ~ 15 pcl	CLASS3
Sensitivity	-102 dBm	-100 dBm	-100 dBm	-106.7 dBm
TDMA Mux	8	8	8	-
Cell Radius	35 Km	2 Km	-	-

1-2. GSM TX power class

TX Power control level	EGSM900	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

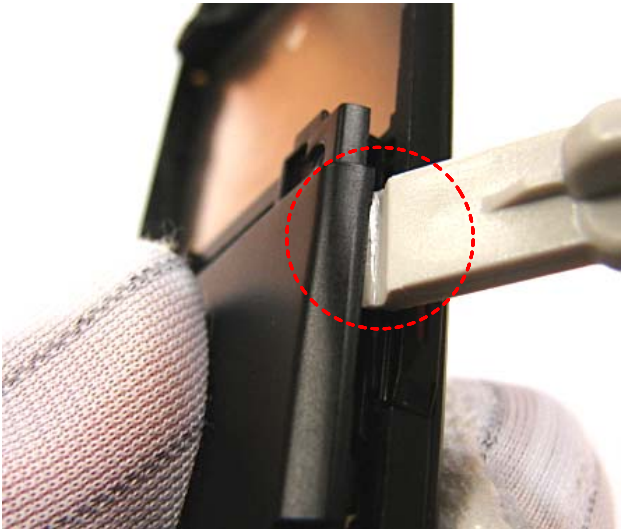
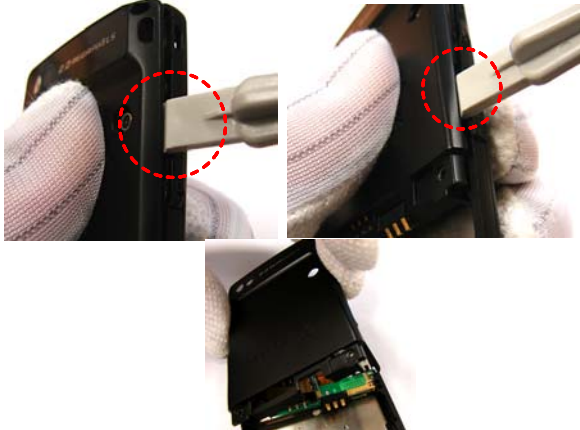


2-2. Cellular phone Parts list

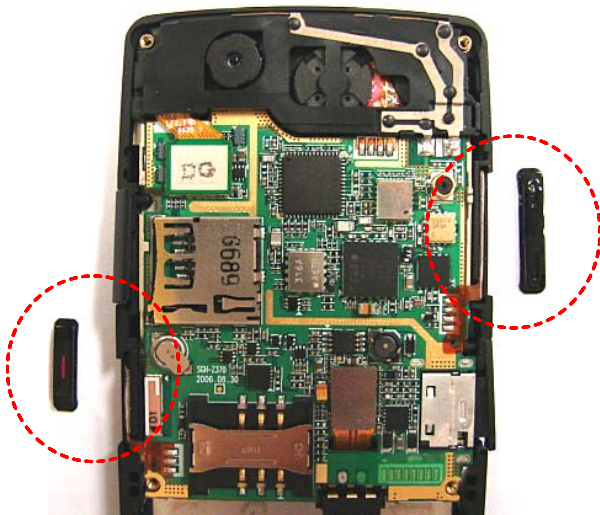
Design LOC	Description	SEC CODE
QAN02	INTENNA-SGHZ370	GH42-00932A
QBA00	ASSY COVER-BATTERY	GH98-02793C
QBA01	INNER BATTERY PACK-900MAH	GH43-02398A
QCA01	UNIT-SGHZ370 CAMERA	GH59-03551A
QCA02	UNIT-CAMERAKEY	GH59-03381A
QCK01	ASSY KEY-CAM	GH98-02272C
QCR06	SCREW-MACHINE	6001-001155
QCR06	SCREW-MACHINE	6001-001155
QCR06	SCREW-MACHINE	6001-001155
QCW01	PMO-COVER CAMERA WINDOW	GH72-32220C
QFR01	ASSY CASE-FRONT	GH98-01388C
QKP01	ASSY KEYPAD-(CCM/TSS)	GH98-03117C
QLB01	ASSY BRACKET-LCD	GH98-01391A
QLC01	LCD-MODULE SGHZ370	GH07-00953C
QME06	UNIT-SPK_MOT FPCB	GH59-03520A
QMI03	RMO-RUBBER MIC HOLDER	GH73-08098A
QMI05	ASSY CASE-MIC	GH98-01833C
QMP01	PBA MAIN-SGHZ370S	GH92-02996A
QMW01	AS-LCD WINDOW	GH81-05667C
QRE01	ASSY CASE-REAR	GH98-01389C
QRF01	PMO-COVER RF	GH72-33246C
QRF03	PMO-COVER EARJACK	GH72-32212C
QSC01	PMO-COVER SCREW R	GH72-35365B
QSC02	PMO-COVER SCREW L	GH72-35366B
QSD01	PMO-COVER SD CARD	GH72-32560C
QVK01	UNIT-VOLUMEKEY	GH59-03382A
QVO01	PMO-VOLUME KEY	GH72-32219C

Description	SEC CODE
CBF INTERFACE-DATA LINK CABLE	GH39-00444B
ADAPTOR-SGHE690,SIL,UK,A_TYPE	GH44-01362B
MPR-VINYL BOHO LCD	GH74-28570A
MANUAL USERS-SEA ENGLISH	GH68-12837A
MANUAL USERS-SEA CHINESE	GH68-12936A
S/W CD-SGHZ370 PC STUDIO 3.0	GH46-00329A
BAG PE	6902-000634
LABEL(P)-IMEI	GH68-01335D
LABEL(R)-MAIN(EU)	GH68-12458A
BOX(P)-UNIT MAIN(XEU)	GH69-04470E
CUSHION-CASE-UK	GH69-04472A
UNIT-EARPHONE,SGHZ370,SIL,A-TY	GH59-03679B
MPR-VINYL BOHO MAIN WINDOW	GH74-26444A
AS-LCD TAPE	GH81-05668A
LABEL(P)-WATER SOAK	GH68-02026A
RMO-RUBBER BATT CONT	GH73-07777A
MPR-VINYL BOHO CAM	GH74-23666A
MPR-TAPE BOHO J-TAG	GH74-25773A
MPR-GASK TAPE	GH74-27265A
RMO-RUBBER LDI	GH73-08704A
MPR-SPONGE LDI	GH74-28627A
MPR-VINYL BOHO CAM	GH74-23666A
MPR-VINYL BOHO CAM WINDOW	GH74-26443A
LABEL(P)-WATER SOAK	GH68-02026A
MPR-VINYL BOHO KEYPAD	GH74-22928A
UNIT-EL KEY PBA,SKY/BLU	GH59-03376C
AS-IC-MCP UMTS	GH81-06105A

2-3. Disassembly

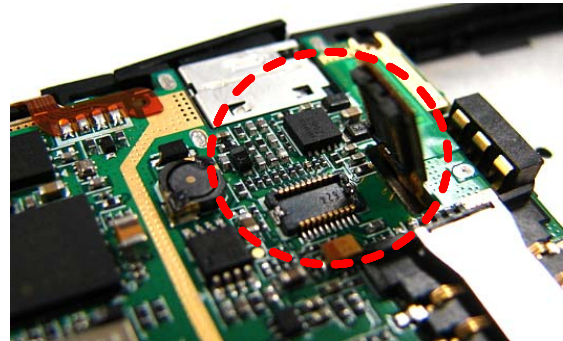
1 	2  -Use the disjoining tool certainly. -Be careful a break at the time of disjoining because rear is soft material.
1) Remove screw/RF cap of rear 2) Unscrew 4 points of Rear * caution 1) Disjoint the locker while pressing a crack of Rear camera part with disjoining tool.	1) Disjoint the locker while pressing a crack of Rear camera part with disjoining tool. * caution 1) Be careful not to be scratched or made scar on the SET. 2) Be careful not to be damaged on the Rear at the time of disjoining.
3 	4 
1) Disjoint the locker while pressing a crack of Rear SIM connector part with disjoining tool. * caution 1) Be careful not to be scratched or made scar on the SET. 2) Be careful not to be damaged on the Rear at the time of disjoining.	1) Disjoint the locker while pressing a crack of Rear Volume key part with disjoining tool. 2) Disjoint the locker while pressing a crack of the right lower part of Rear with disjoining tool. 3) Disassemble the rear. * caution 1) Be careful not to be scratched or made scar on the SET. 2) Be careful not to be damaged on the Rear at the time of disjoining.

5



- 1) Disassemble the camera key and the volume key.

6



- 1) Disconnect the EL key FPCB connector.

※ **caution**

- 1) When disassembling EL key FPCB, be careful not to be damaged on the FPCB.

7

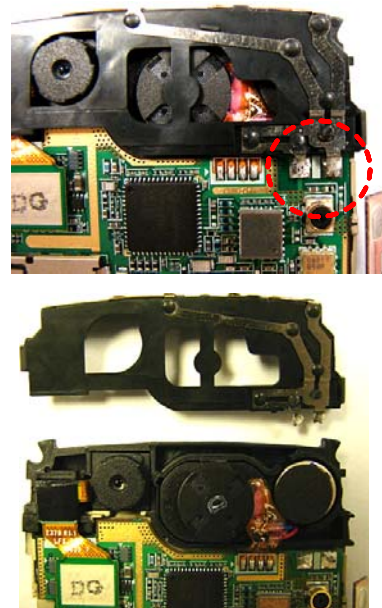


- 1) Disassemble the main PBA and front cover.

※ **caution**

- 1) Be careful not to be damaged on the main PBA and LCD part.

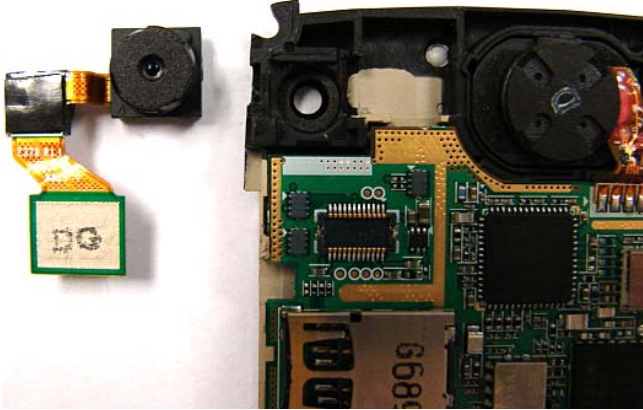
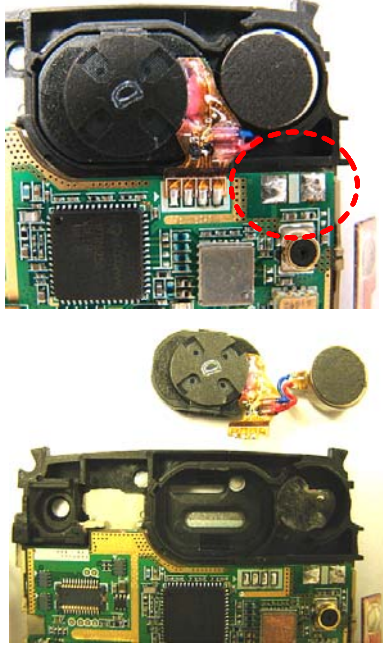
8



- 1) Disassemble the Intenna.

※ **caution**

- 1) Disassemble the intenna after removing the solder in soldering part.

9 	10 
1) Disassemble the camera module. ※ caution 1) Be careful not to be damaged on the CAMERA.	1) Disassemble the SPK/MOT. ※ caution 1) Disassemble after removing the solder in soldering part.
11 	12 
1) Disassemble the LCD module and Main PBA. ※ caution 1) Be careful not to be damaged on the LCD module and Main PBA.	1) Disassemble the Gasket and LCD. ※ caution 1) Be careful not to be damaged on the LCD module.

13

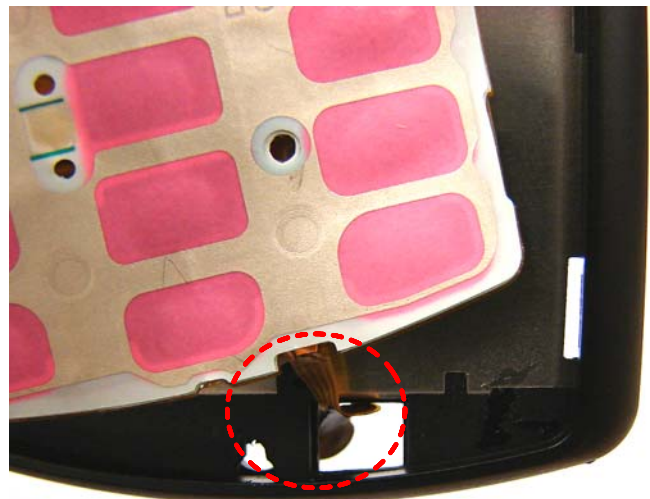
- 1) Disassemble the Mic cover.
- ※ **caution**
- 1) When disassemble the mic cover, do it after unscrew 2 points like the picture

14

- 1) Detach the Key pad.
- ※ **caution**
- 1) Be careful not to be damaged on the EL sheet.

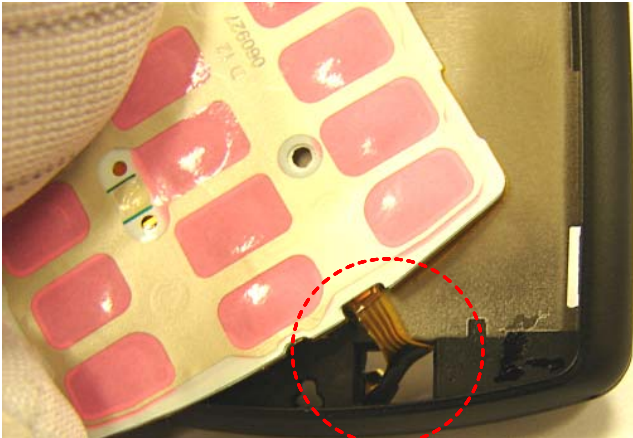
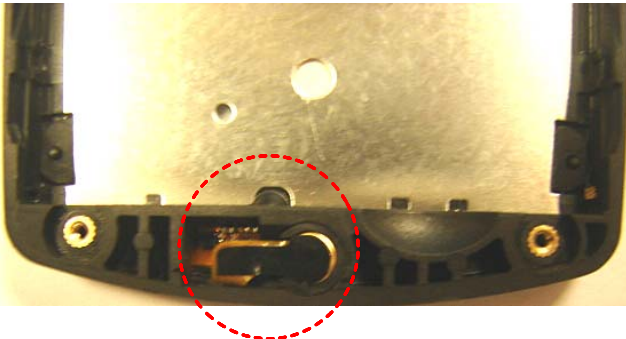
15

- 1) Detach the EL sheet.
- ※ **caution**
- 1) Be careful not to be damaged on the EL connector FPCB.

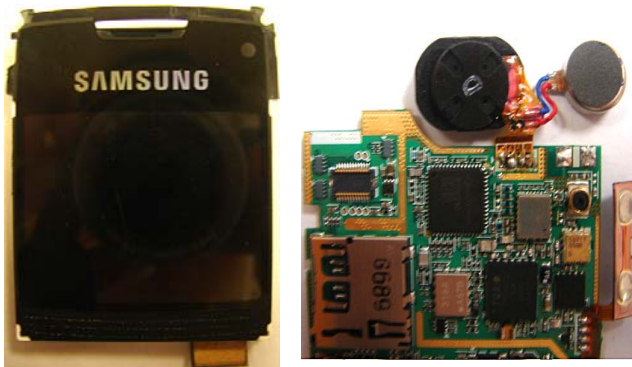
16

- 1) Disassemble the MIC.
- ※ **caution**
- 1) Be careful not to be damaged on the MIC FPCB.

2-4. Assembly

1 	2 
1) Insert the MIC of EL sheet in the hole on the lower of Front cover. ※ caution 1) Be careful not to be damaged on the MIC FPCB.	1) Insert the EL SHEET F-PCB in the hole of Front. 2) Fix the EL KEY PAD on Front cover. ※ caution 1) Insert FPCB in the hole before fixing the EL KEYPAD. 2) Be careful not to be damaged on the FPCB.
3 	4 
1) Fix the MIC in position like the picture. ※ caution 1) Check the damage of F-PCB with an eye.	1) Assemble the mic cover and then screw 2 points. 2) Attach the KEY PAD. 3) Press down the KEY PAD so as not to be detached it. ※ caution 1) Check the connecting condition of KEY PAD.

5



- 1) Attach the LCD on the LCD Bracket by guide lib of LCD.
- 2) Solder the SPK/MOT.

6

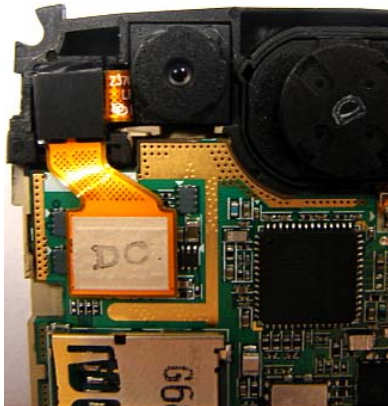


- 1) Assemble the LCD and the MAIN PBA.

※ **caution**

- 1) Connect the LCD F-PCB connector on the MAIN PBA.

7



- 1) Assemble the CAMERA and connect it.

※ **caution**

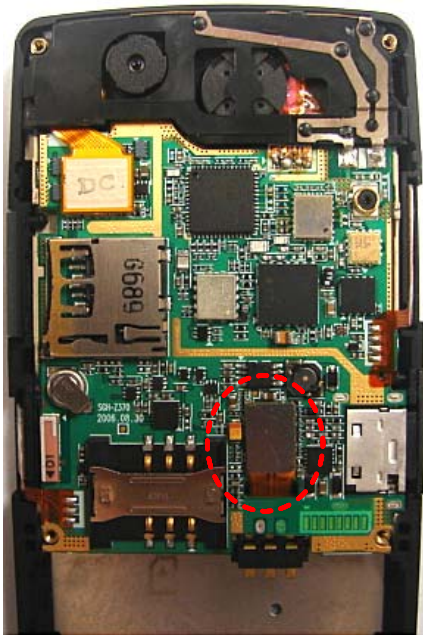
- 1) When insert the CAMERA, be careful not to be damaged on it.
- 2) When connect the CAMERA CON F-PCB, be careful not to be damaged on it.

8



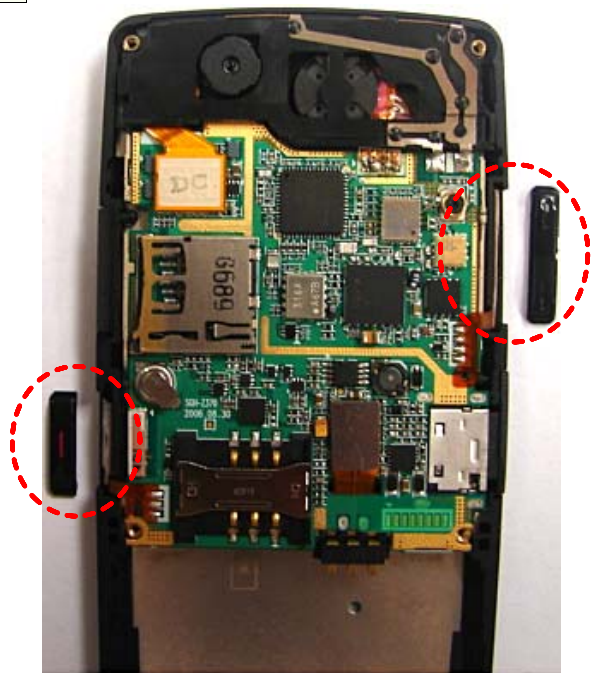
- 1) Assemble the ANTENNA ASS'Y and then solder it.

9



- 1) Assemble the MAIN PBA and the FRONT.
*** caution**
- 1) When insert the EL connector, be careful not to be damaged on it.
- 2) Check the connecting condition of CONNECTOR

10



- 1) Insert the Camera key and the Volume key.
*** caution**
- 1) After check the insertion direction, insert it.

11



- 1) Assemble the REAR and then screw 4 points.

12

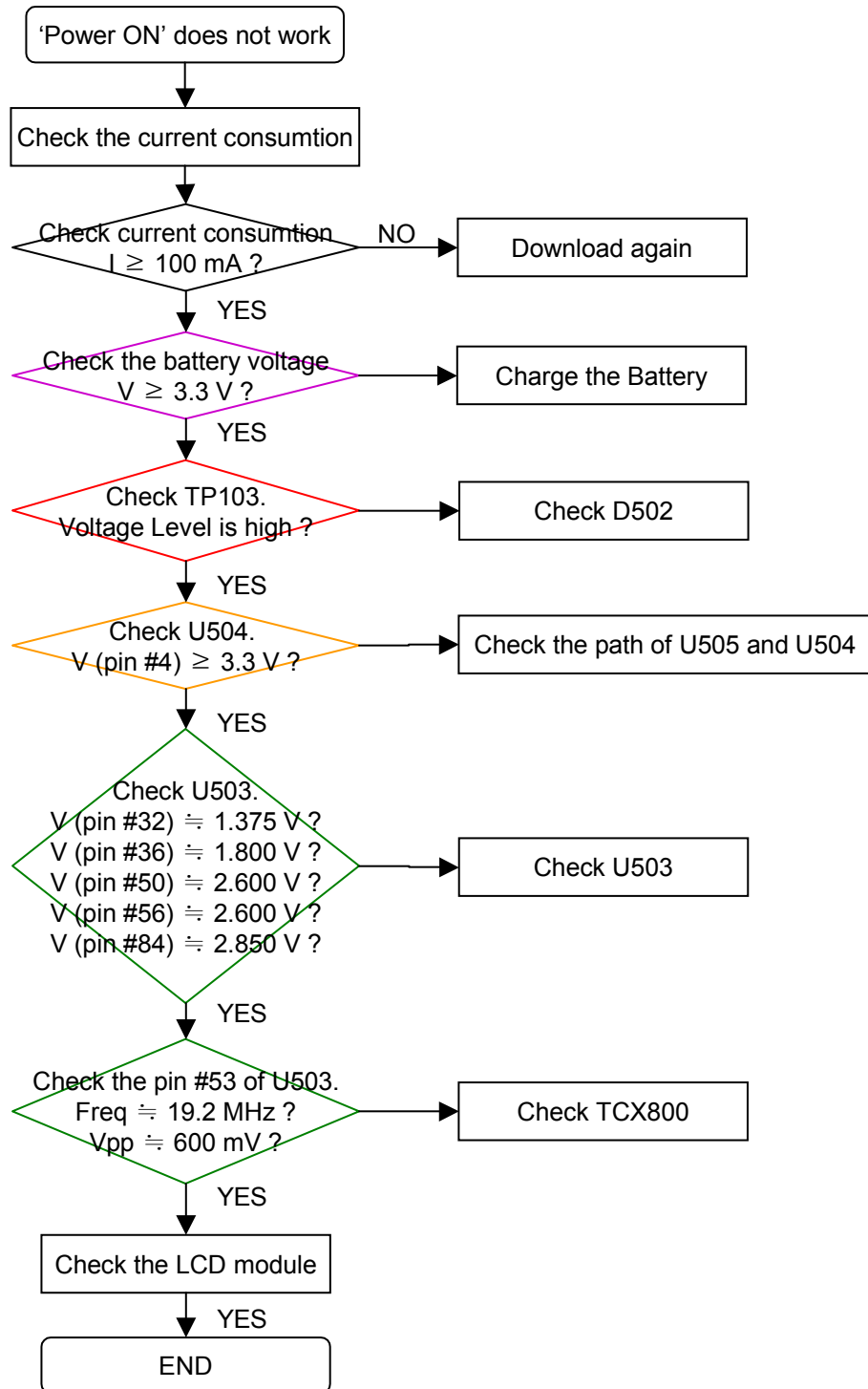


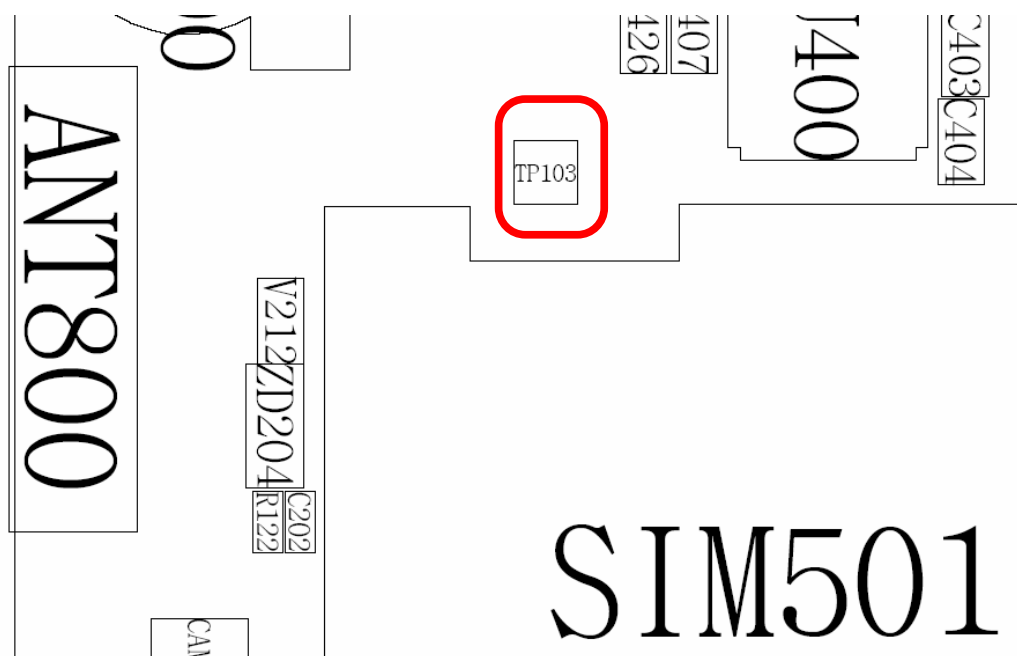
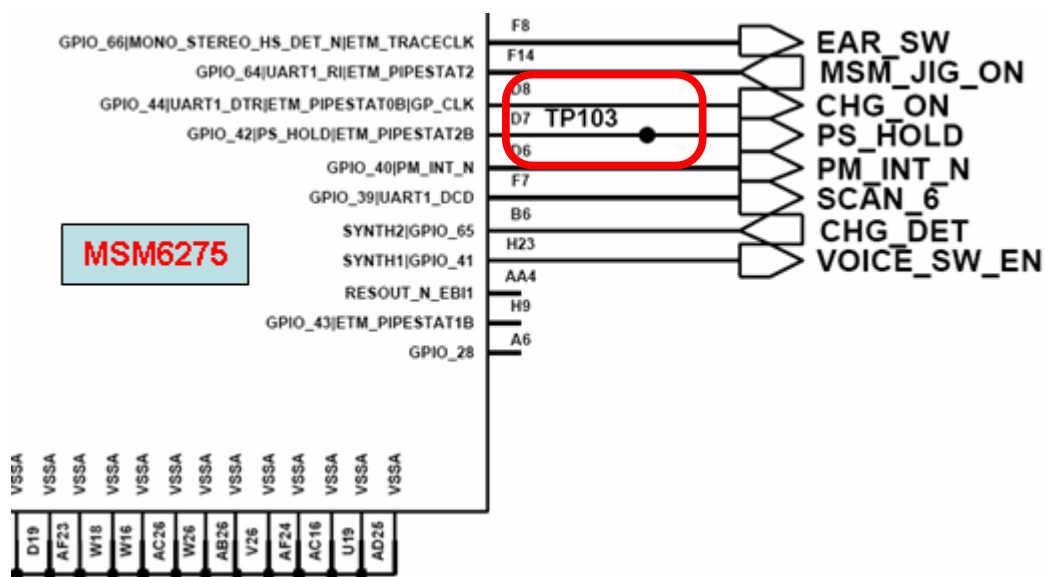
- 1) Insert the SCREW COVER and the RF COVER.
*** caution**
- 1) After check the insertion direction, insert the SCREW COVER.

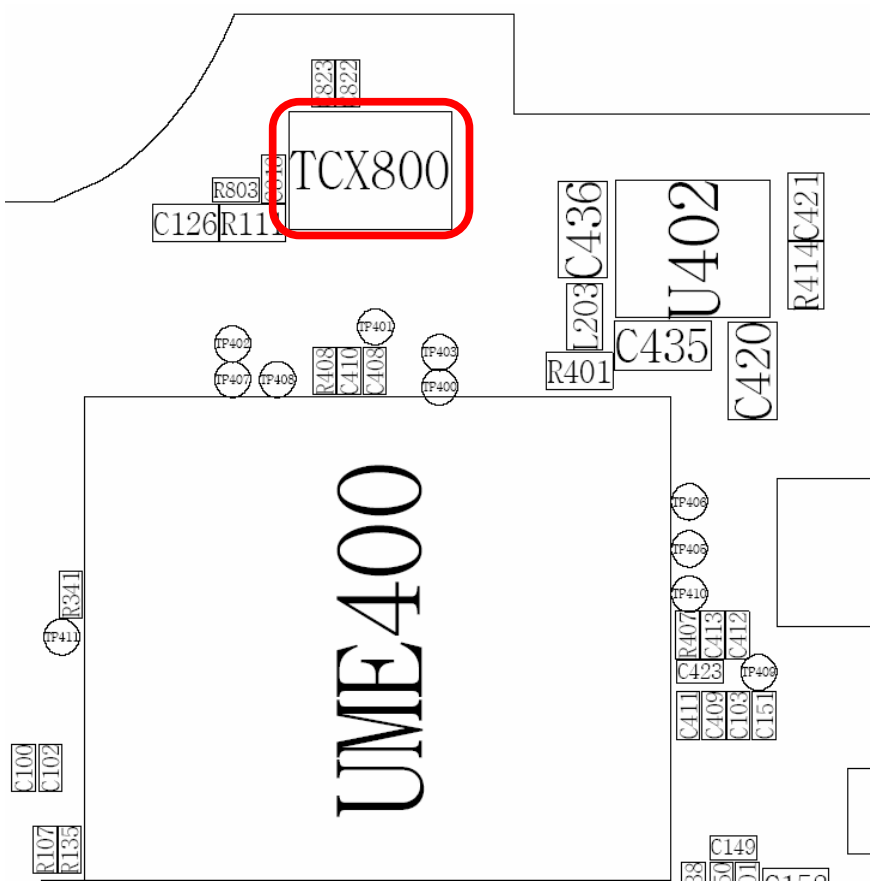
3. Chart of Troubleshooting

3-1.Baseband

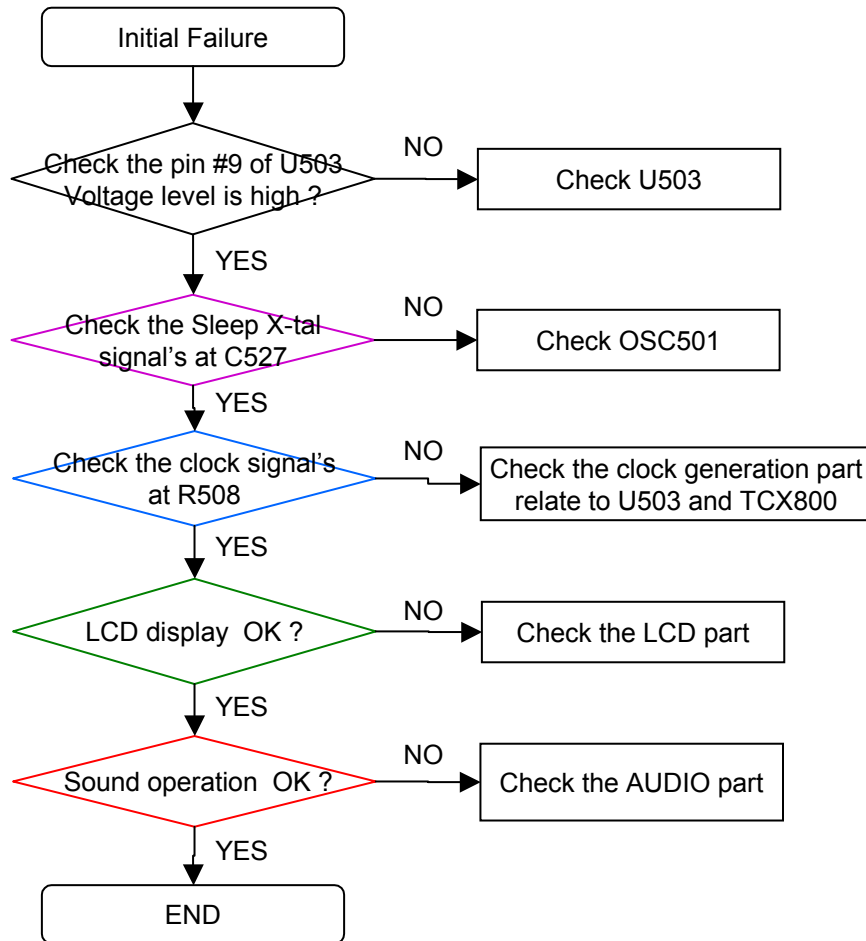
3-1-1. Power ON

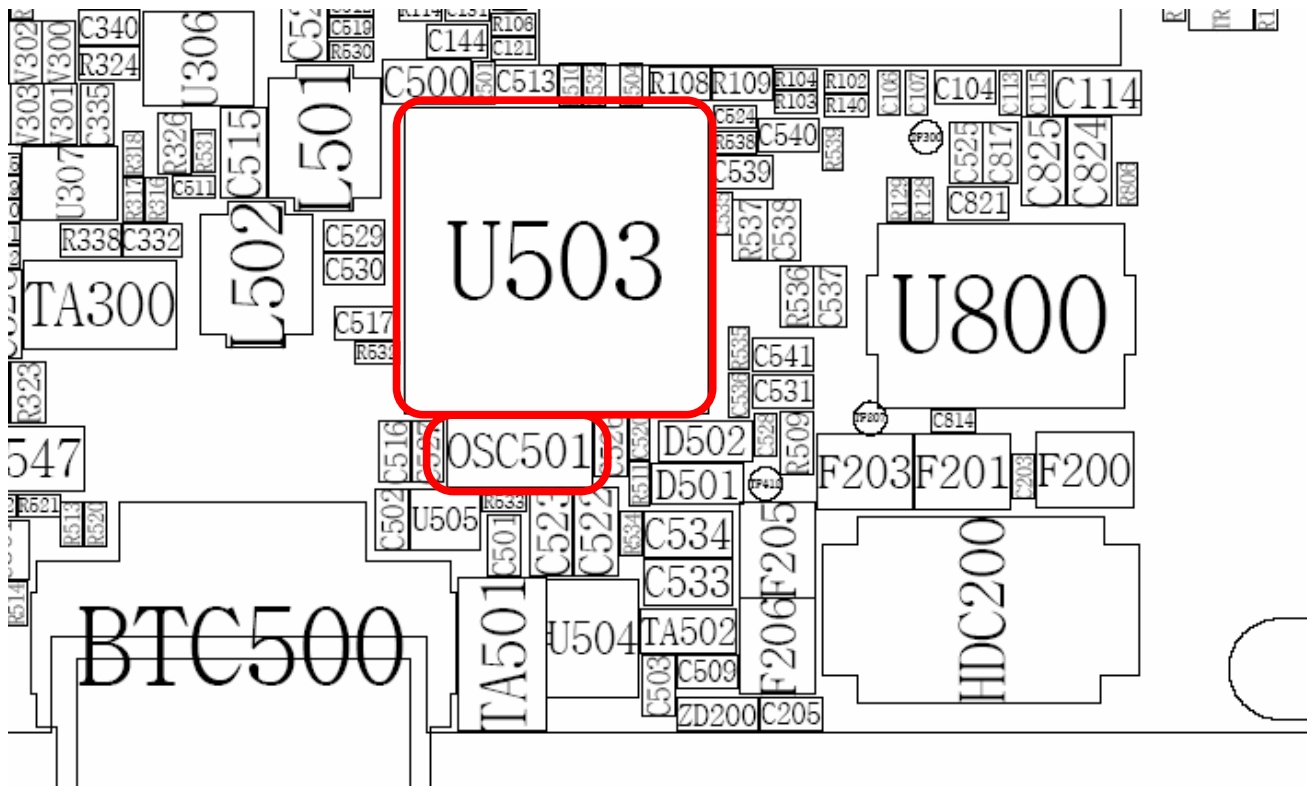




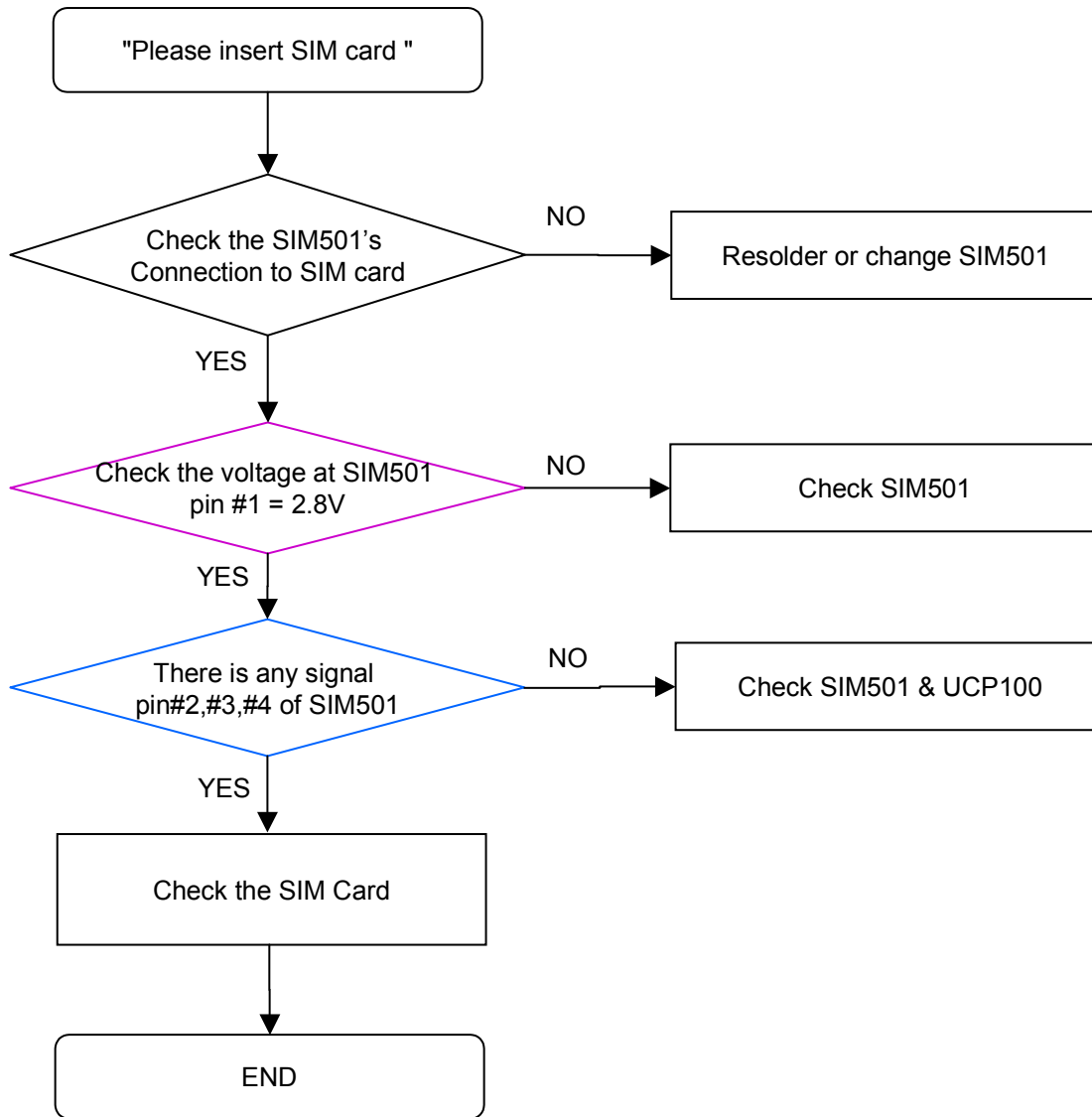


3-1-2. System Initial



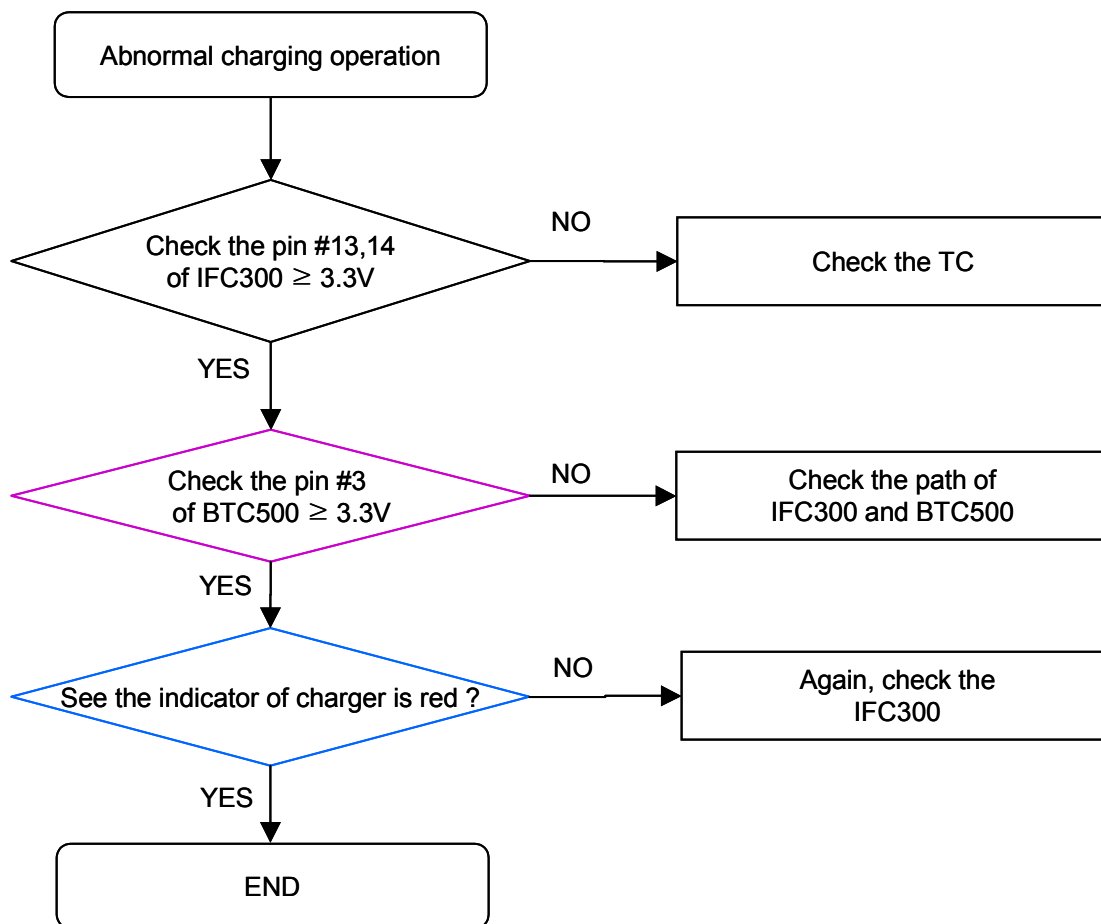


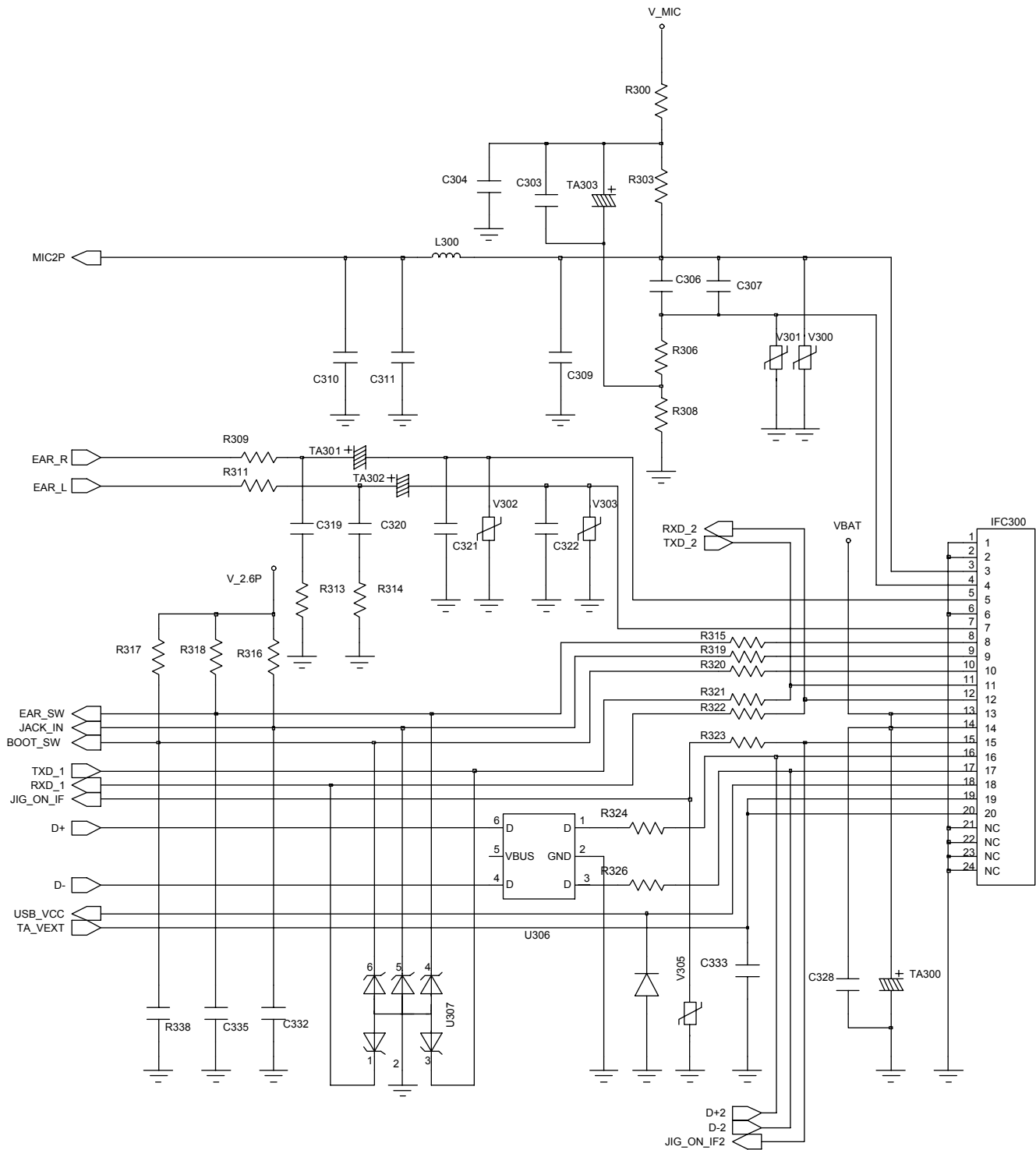
3-1-3. SIM Part

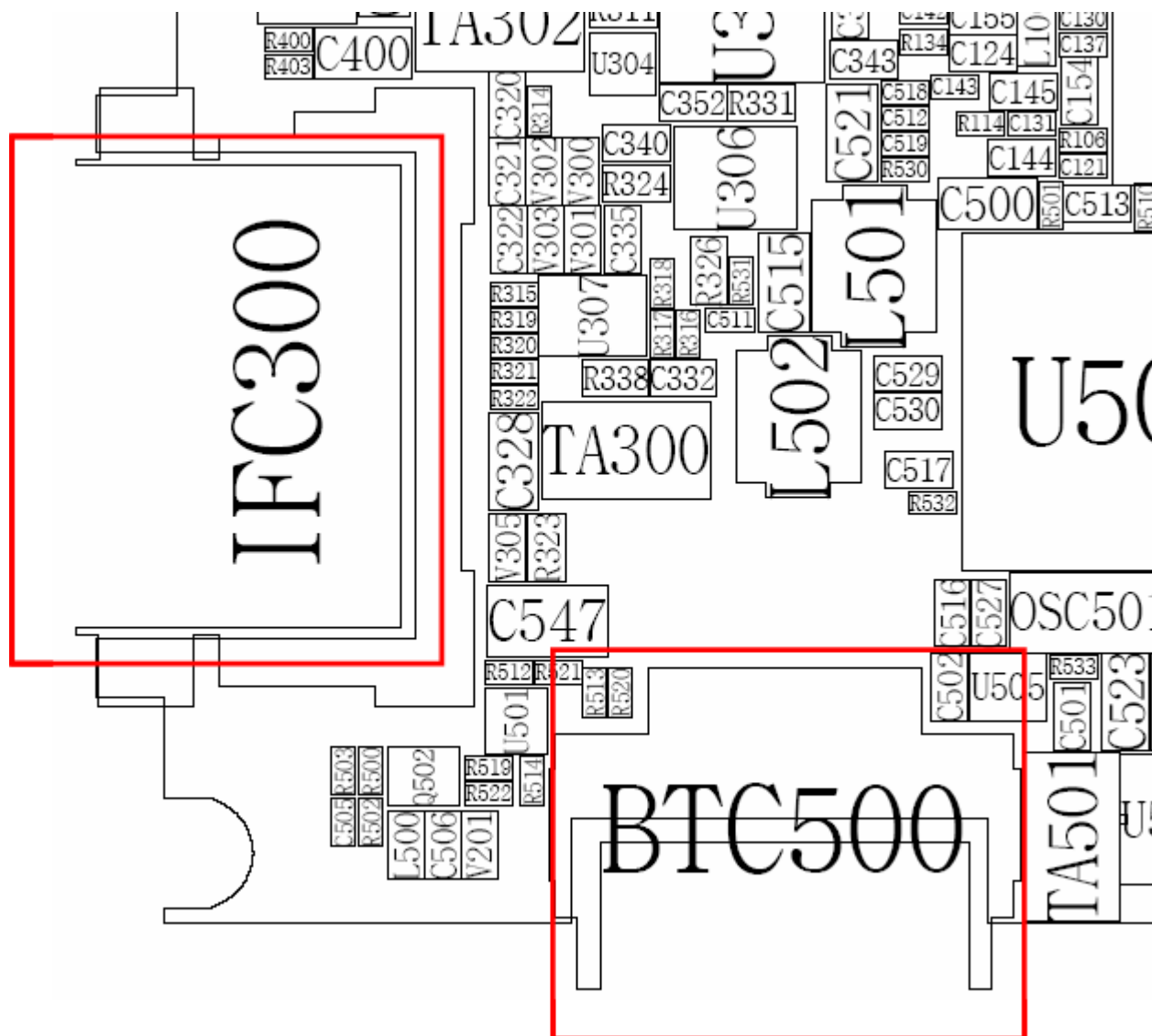


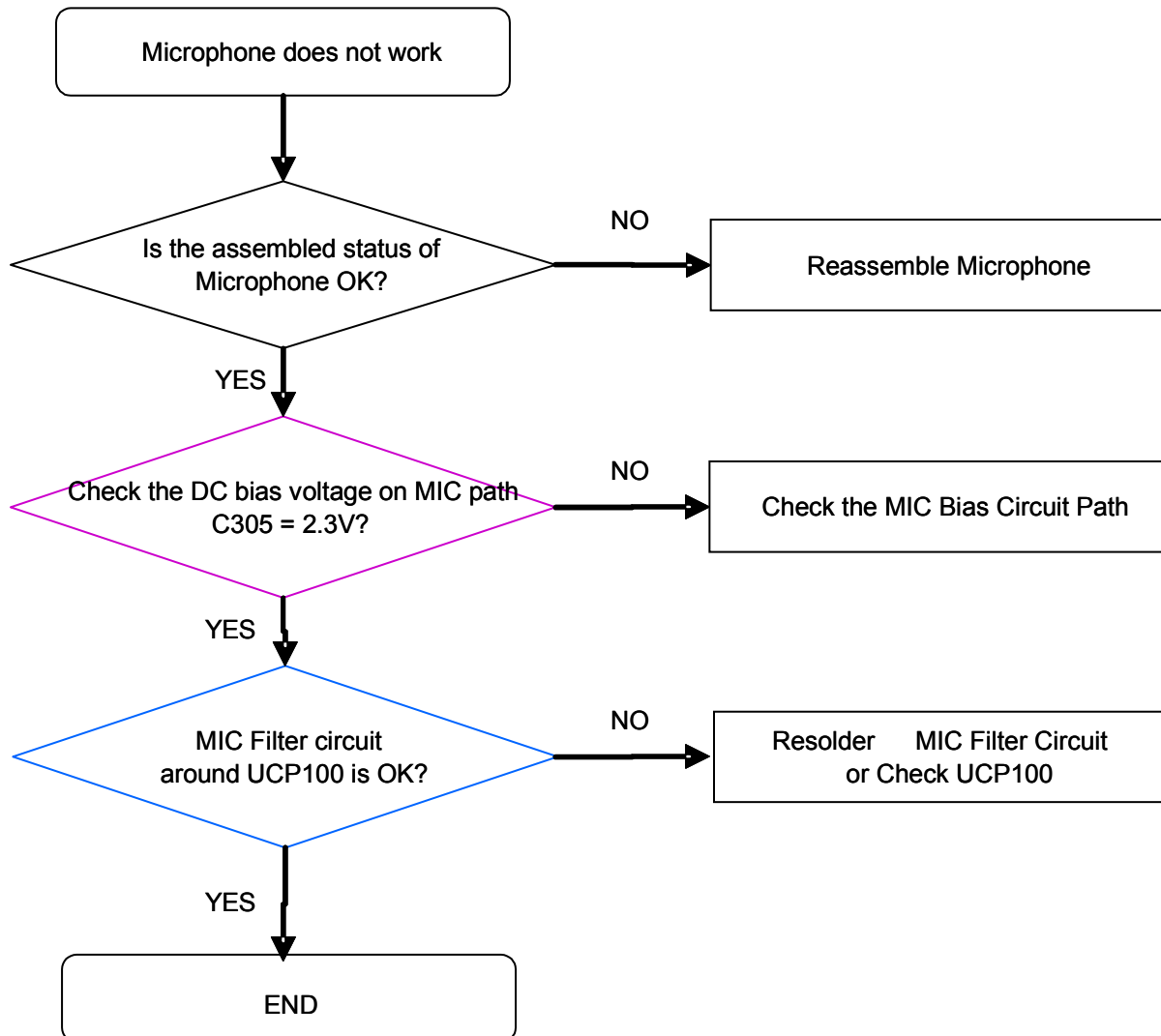


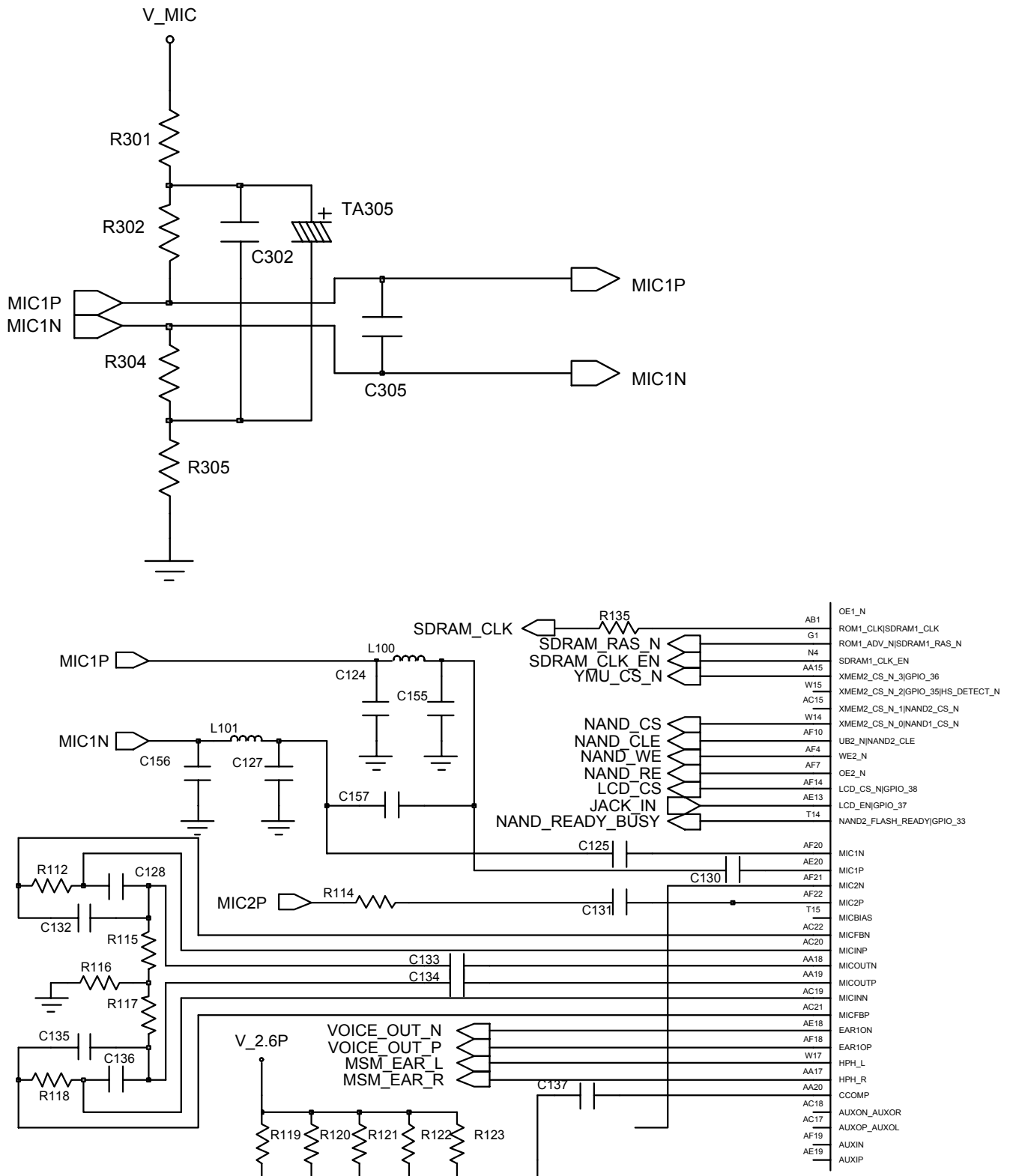
3-1-4. Charging Part

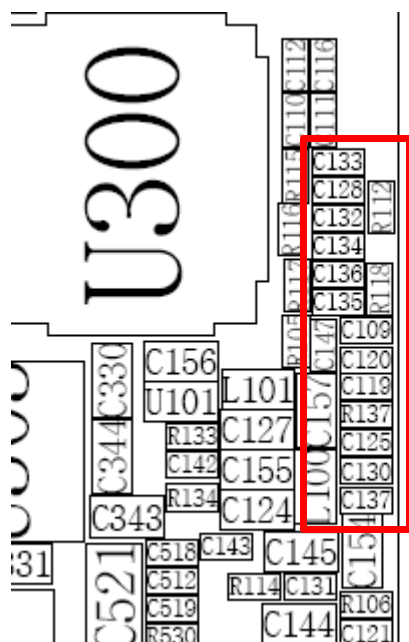
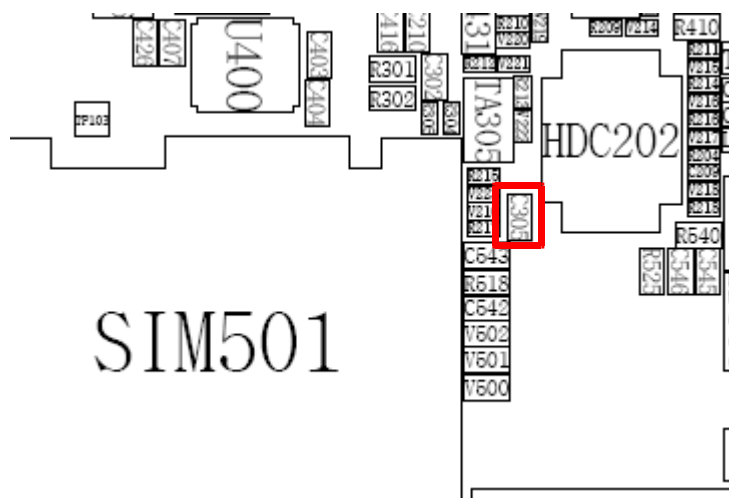






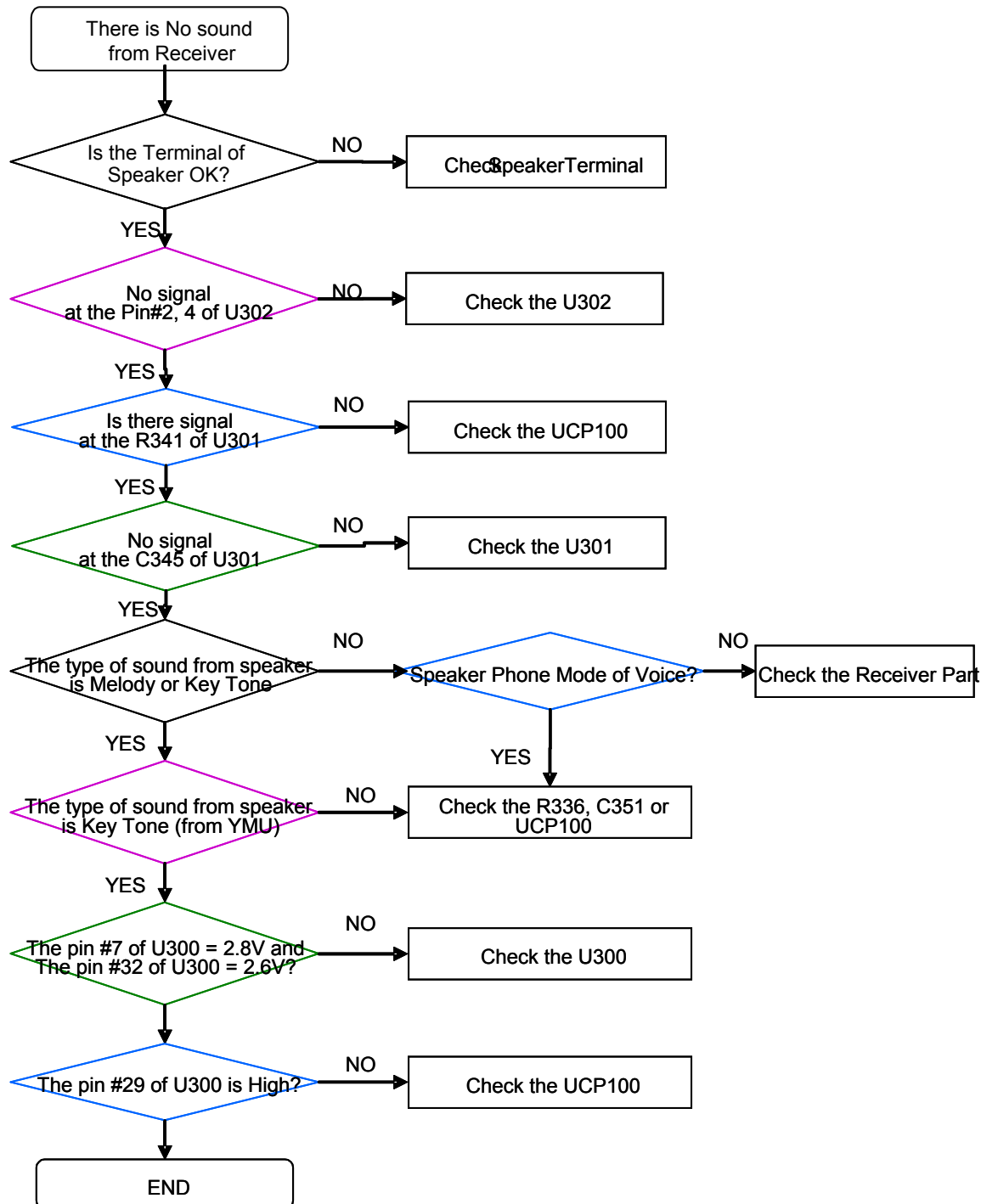
3-1-5. Microphone Part

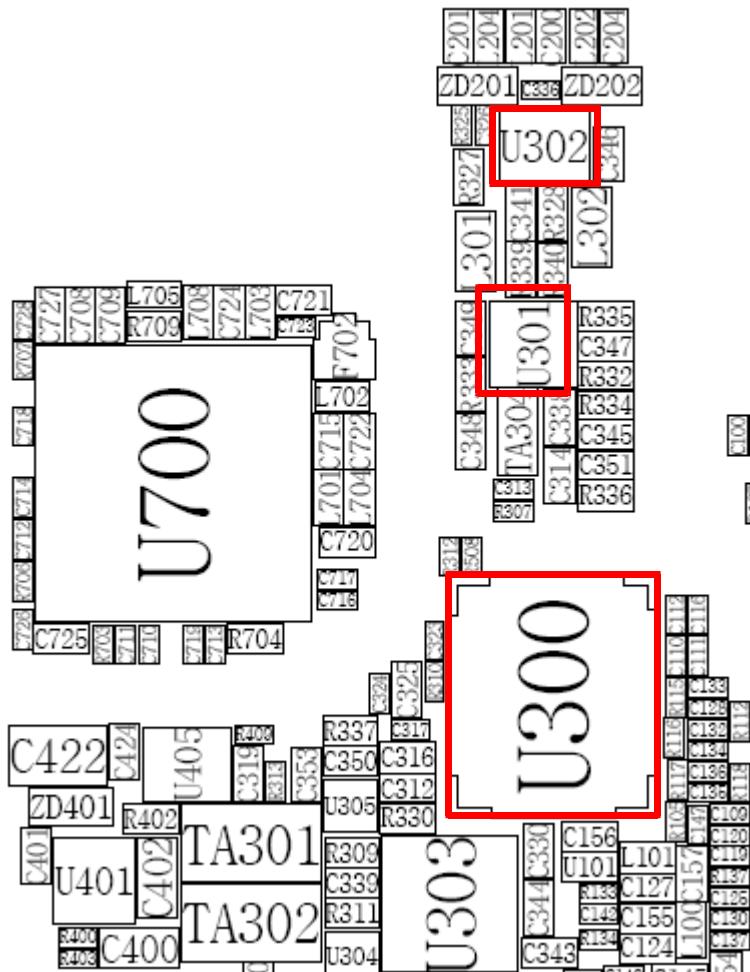


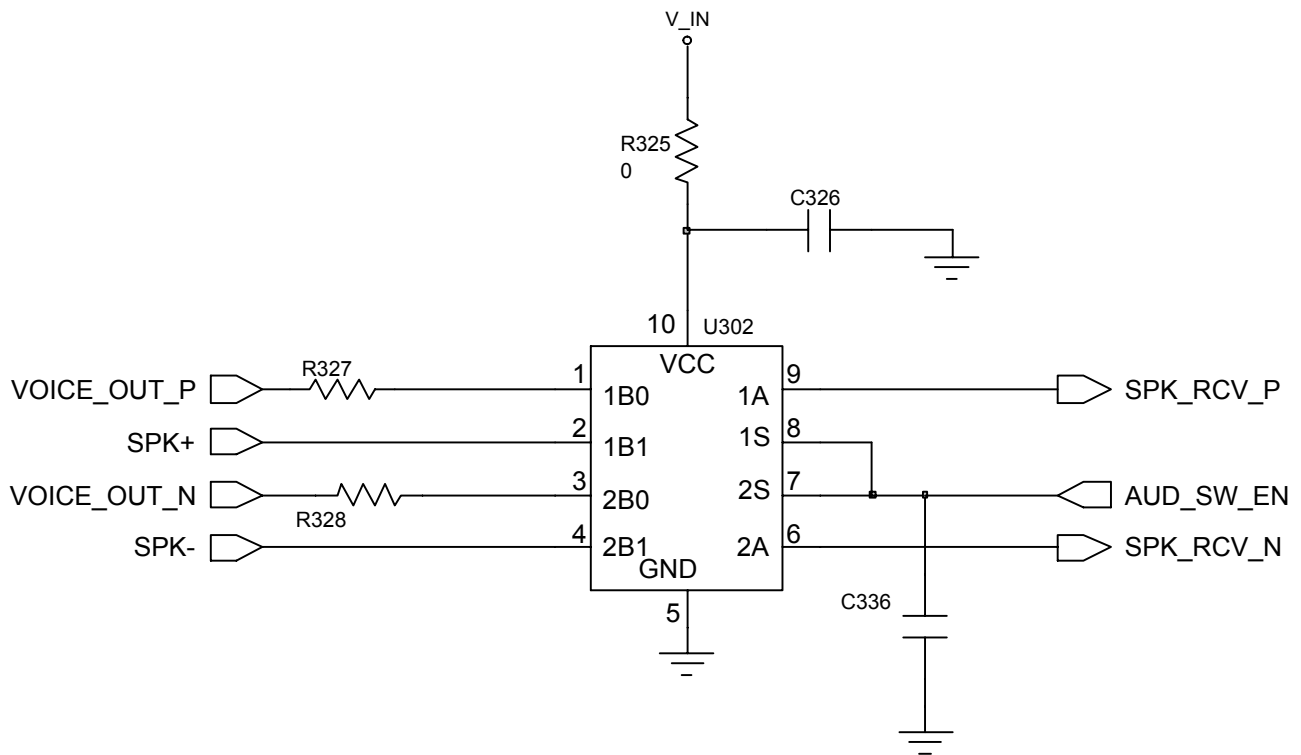
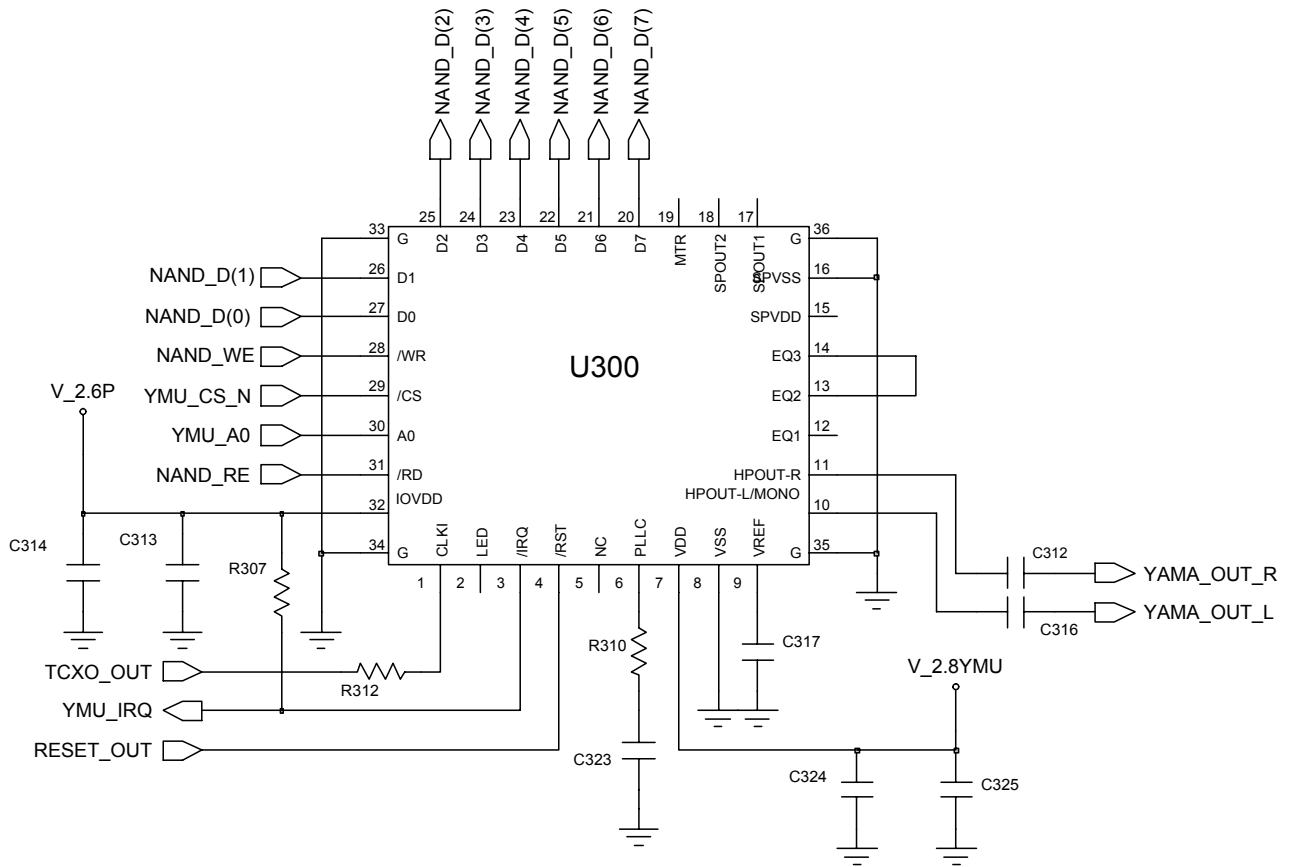


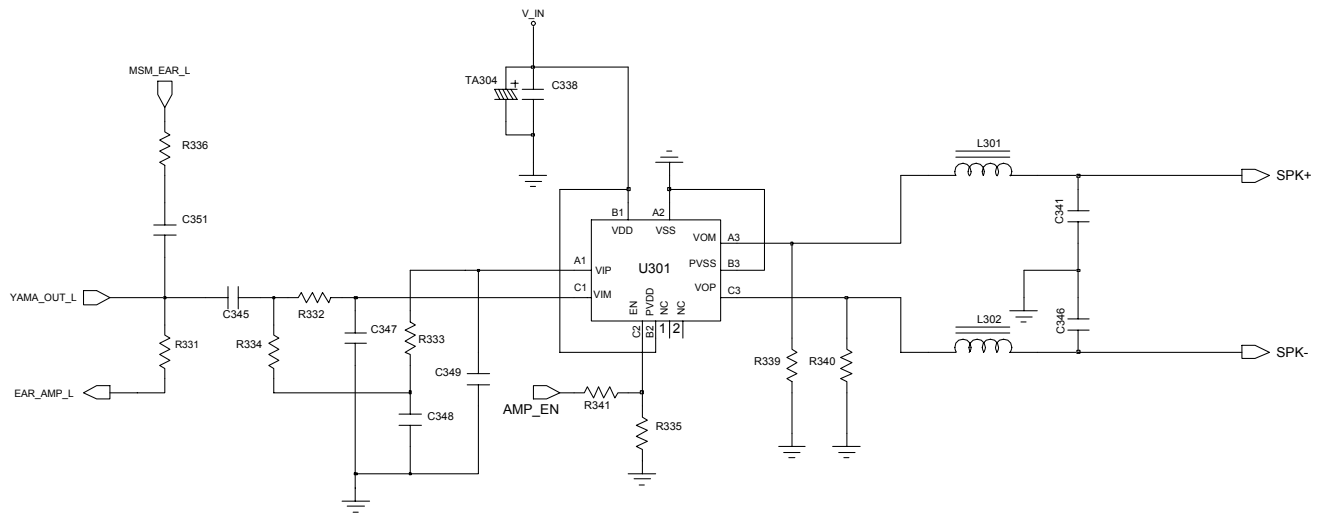
UCP100

3-1-6. Speaker Part

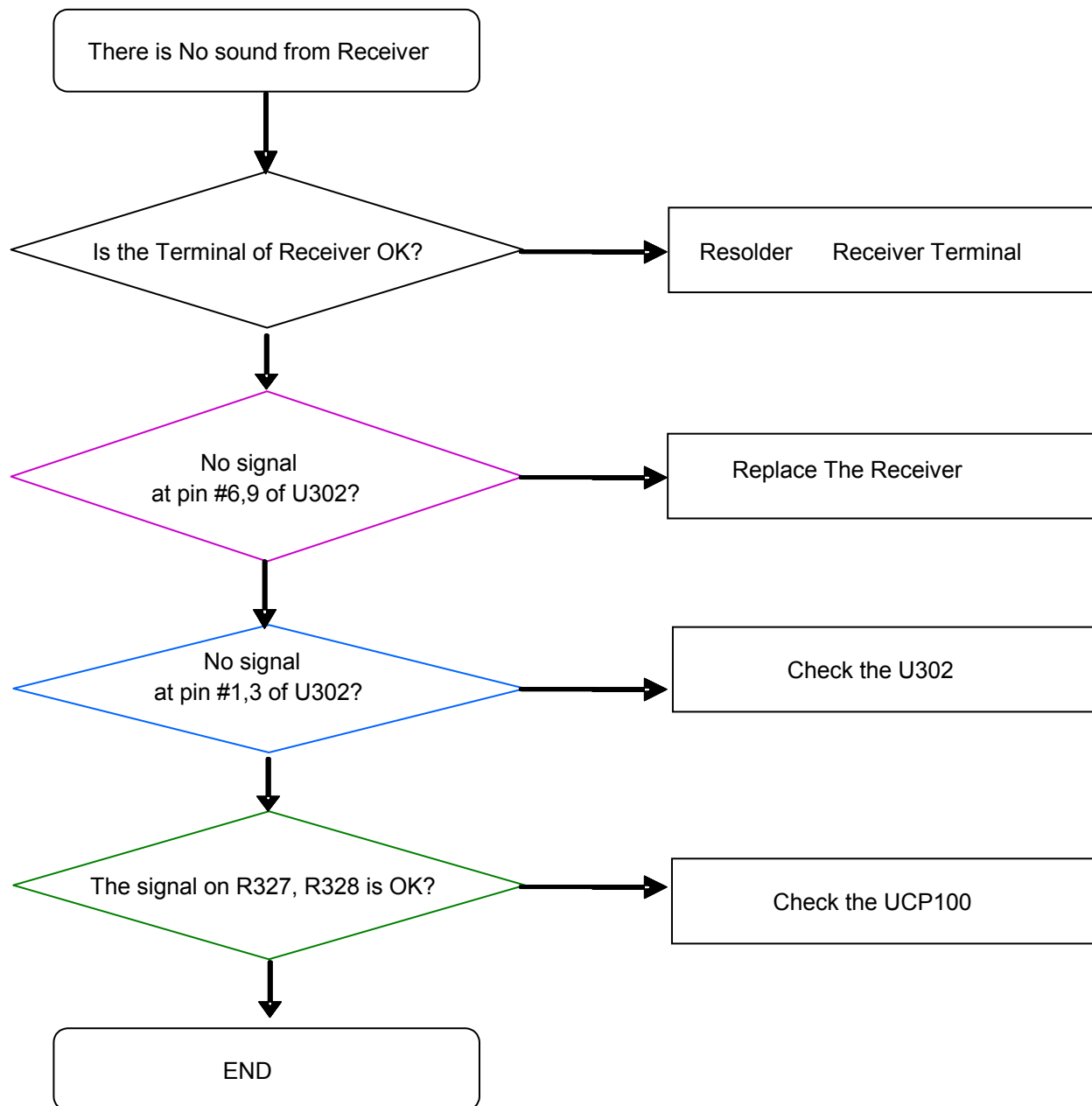


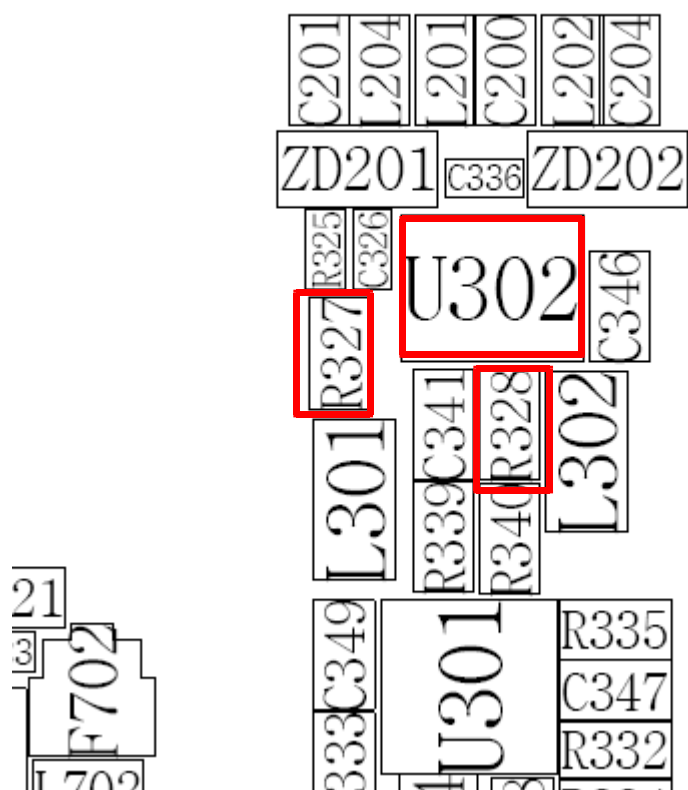






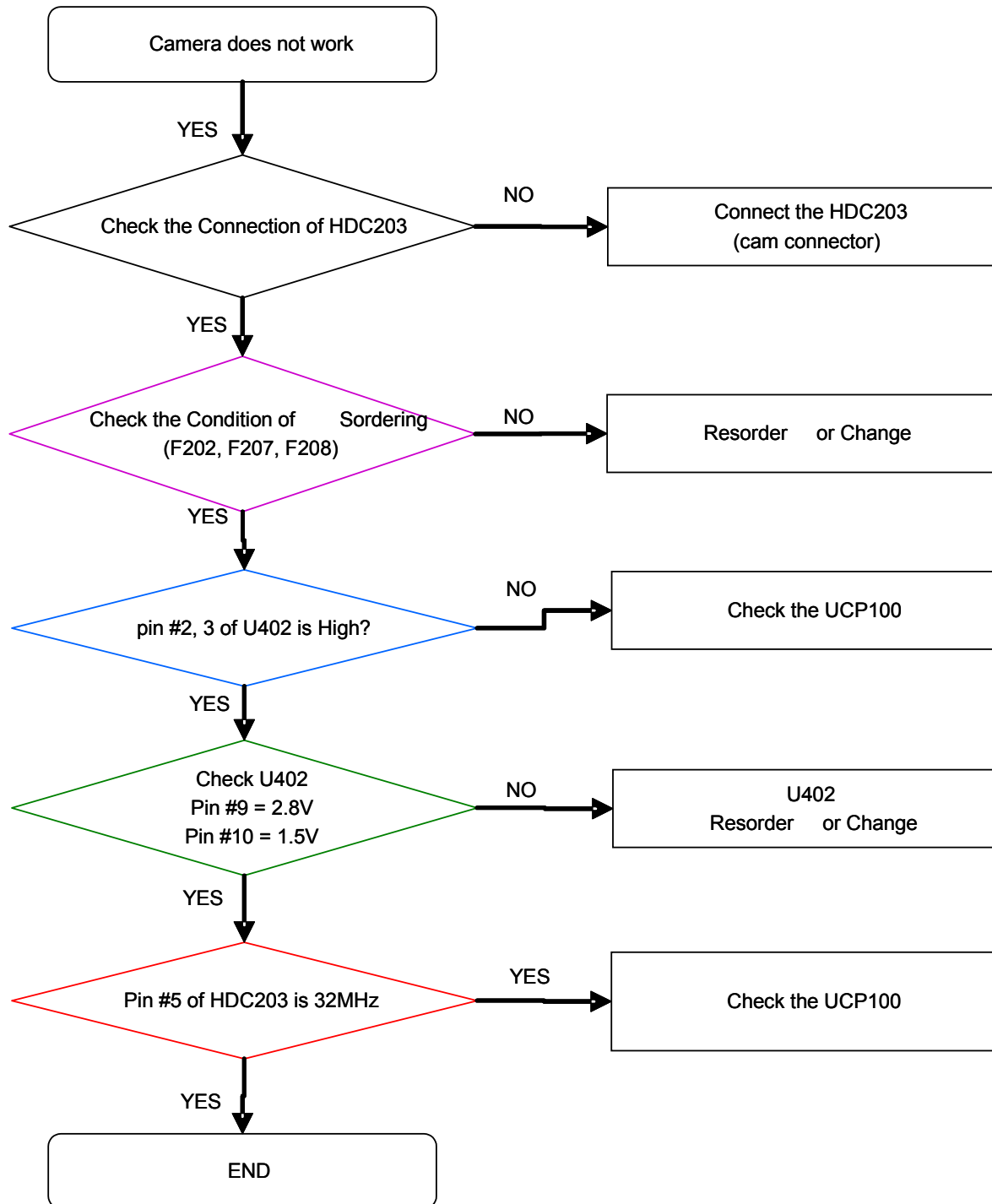
3-1-7. Receiver Part



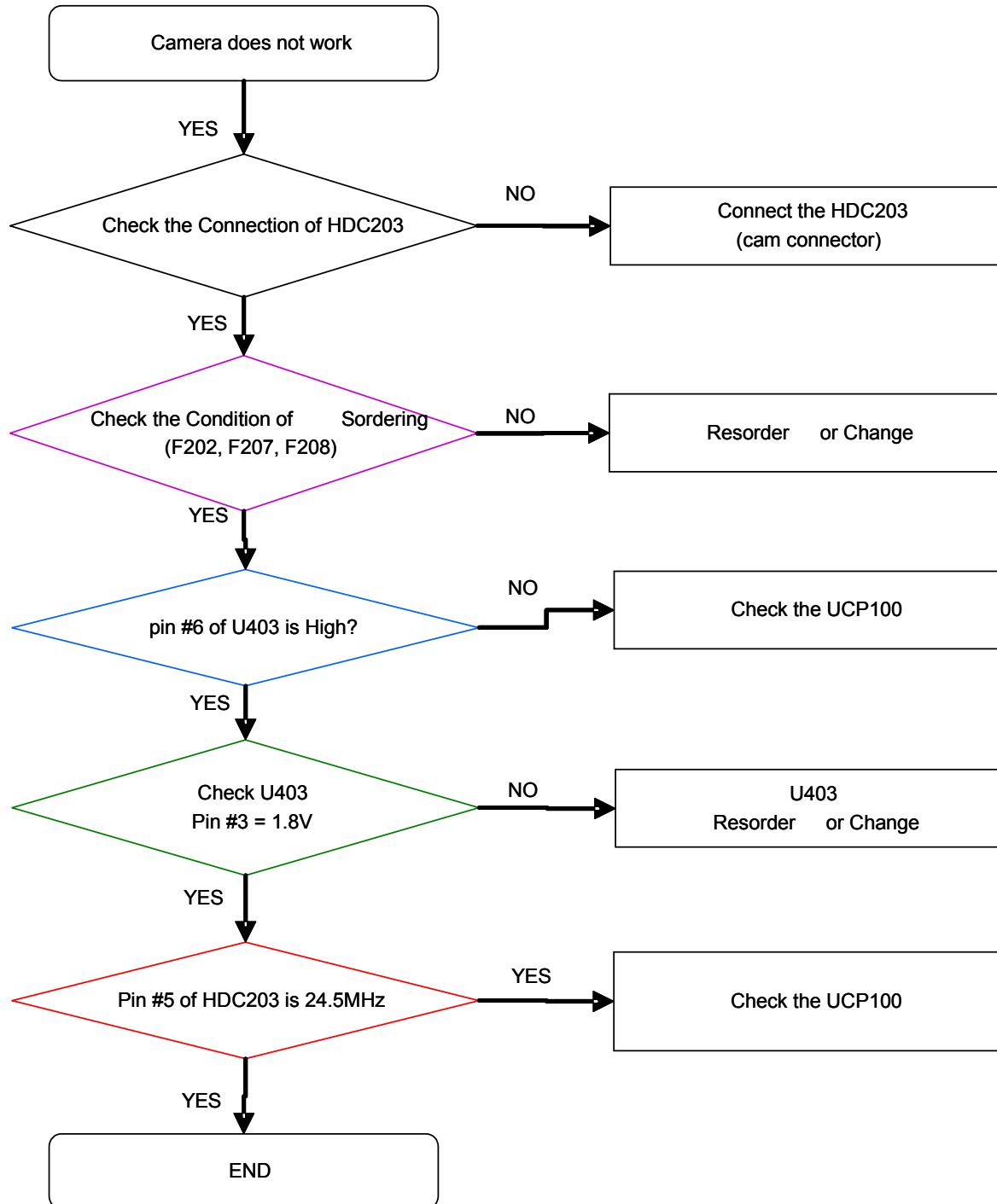


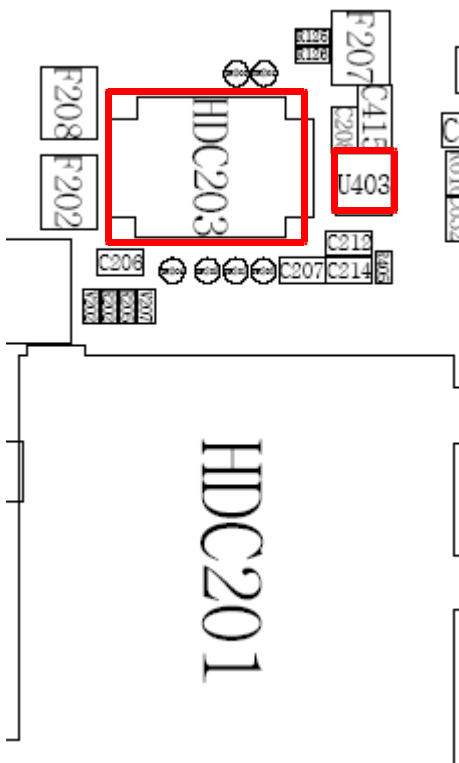
3-1-8. Camera Part

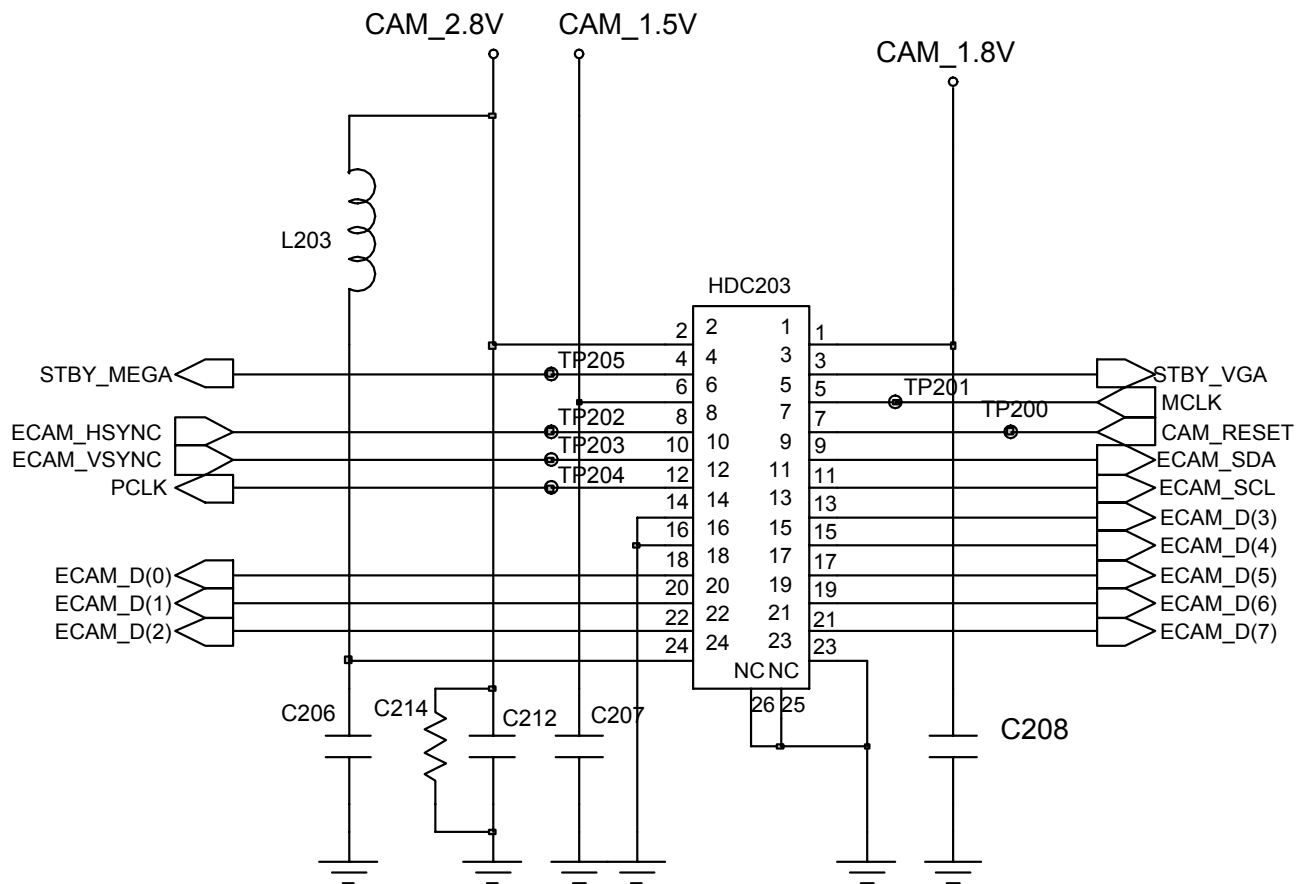
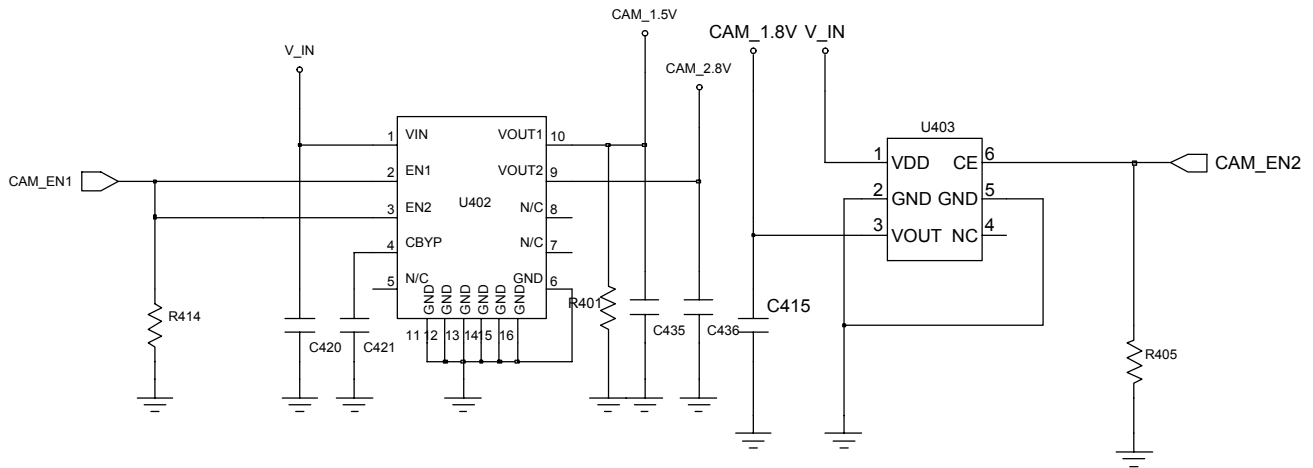
1) 2Mega Camera



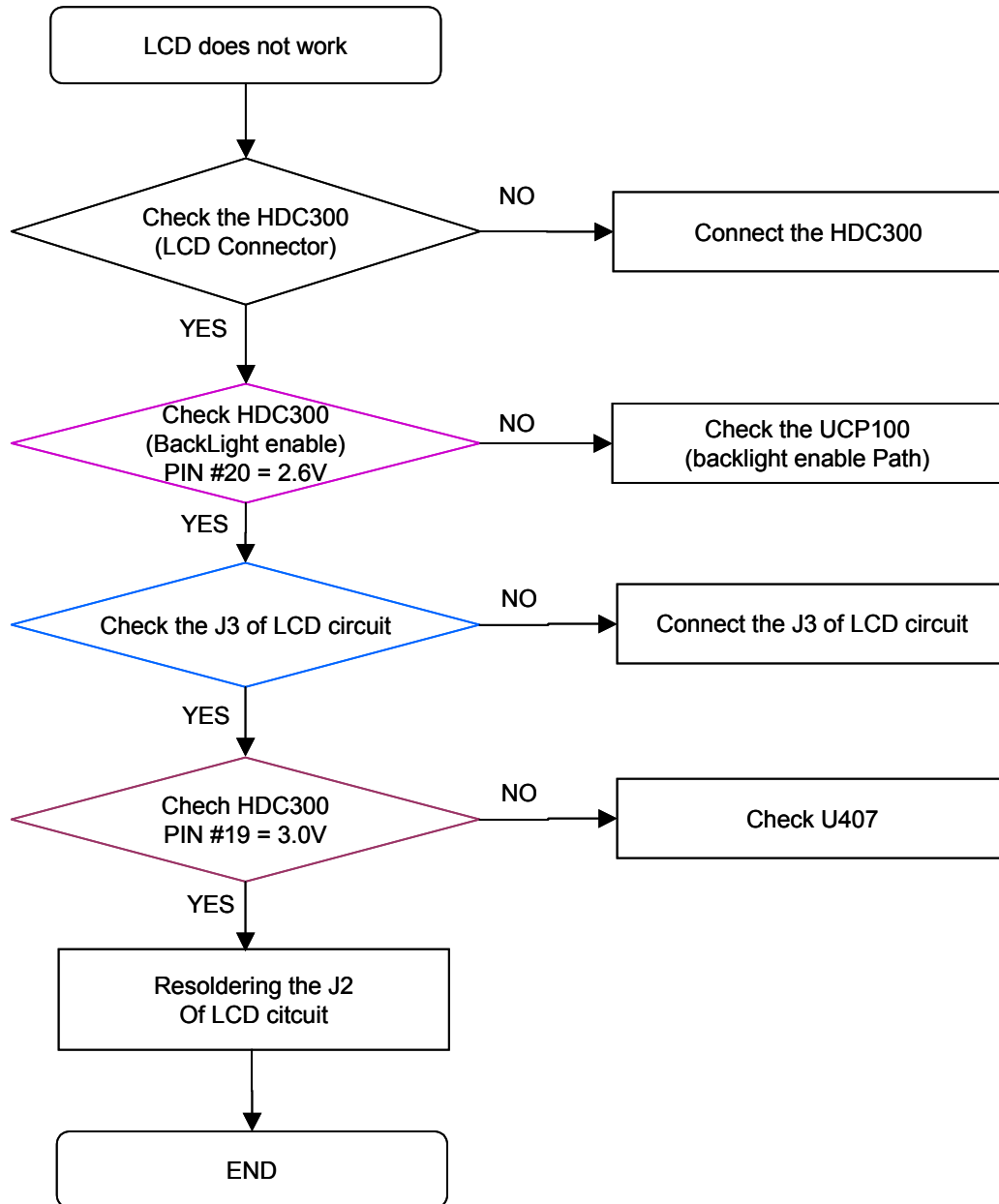
2) VGA Camera

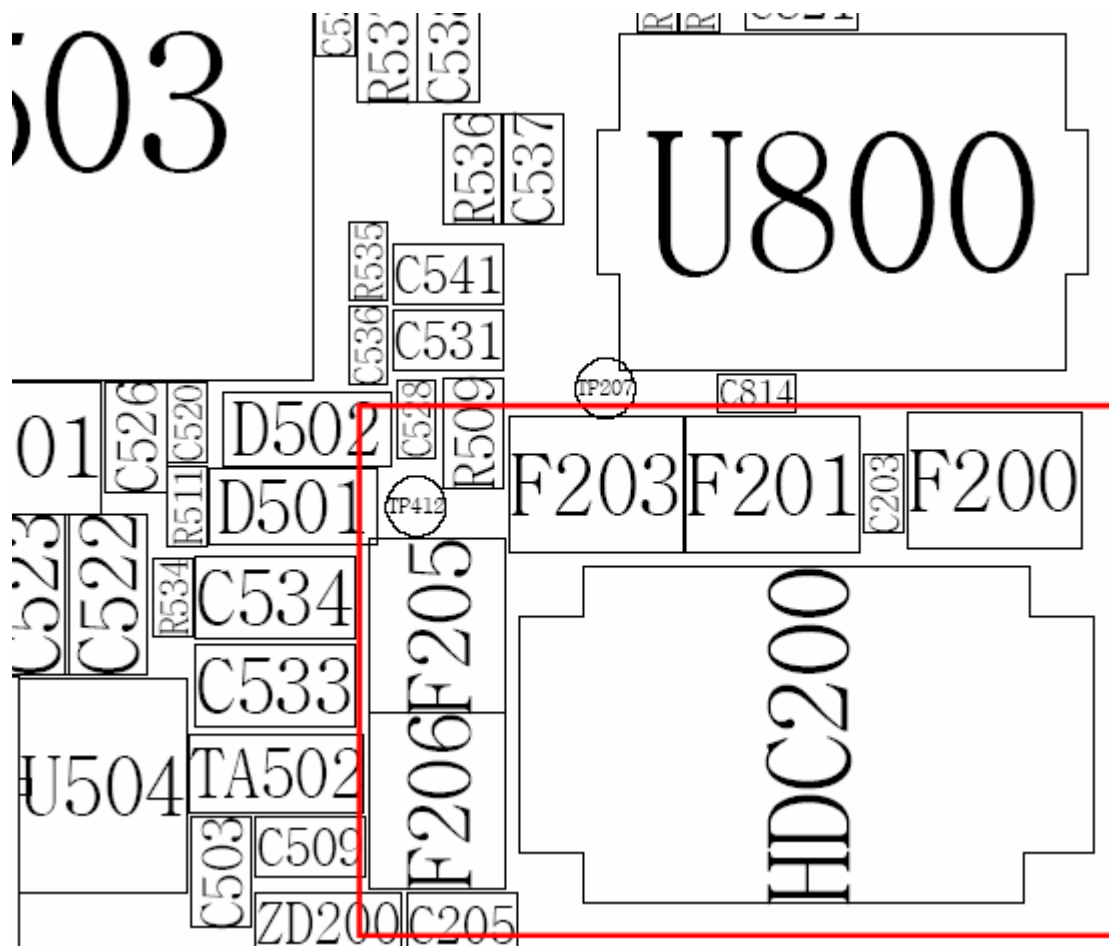


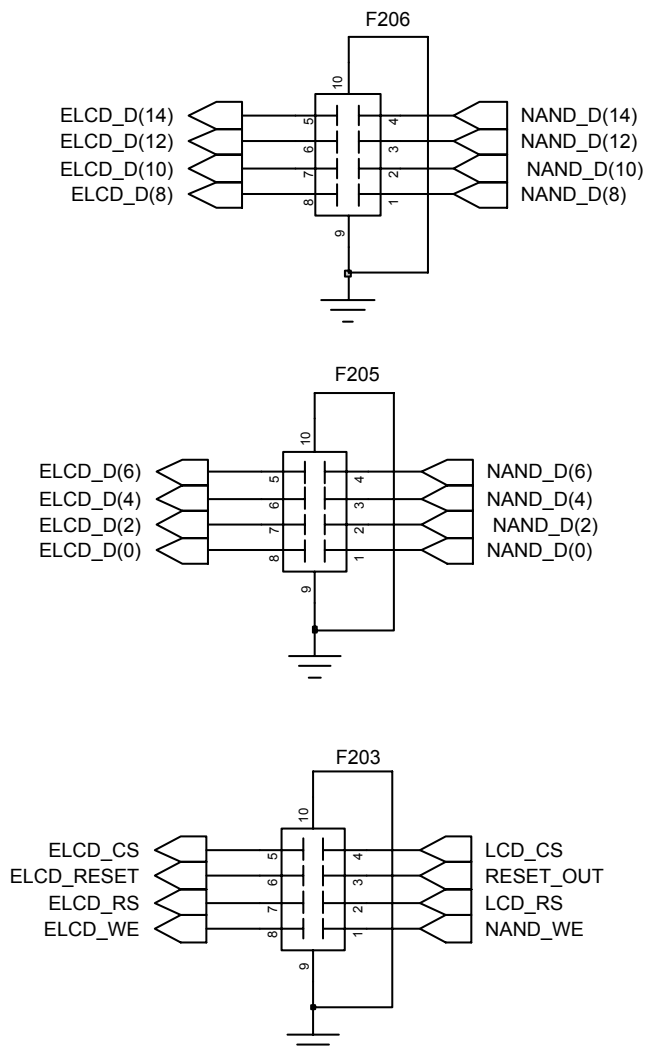
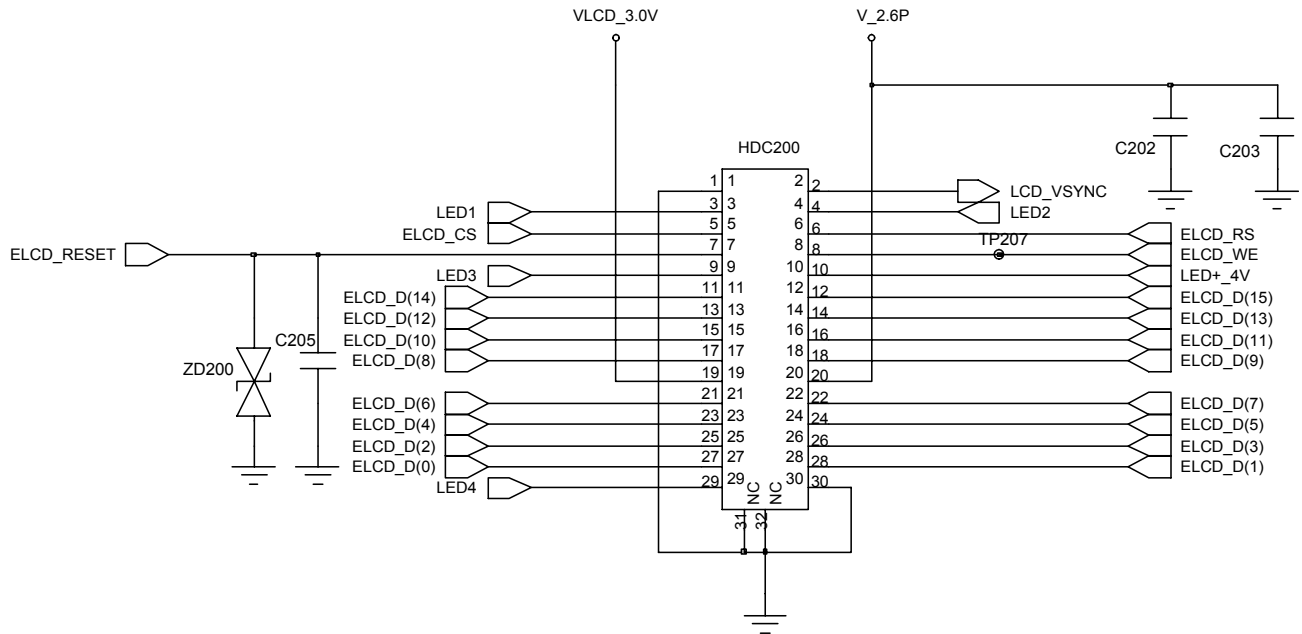


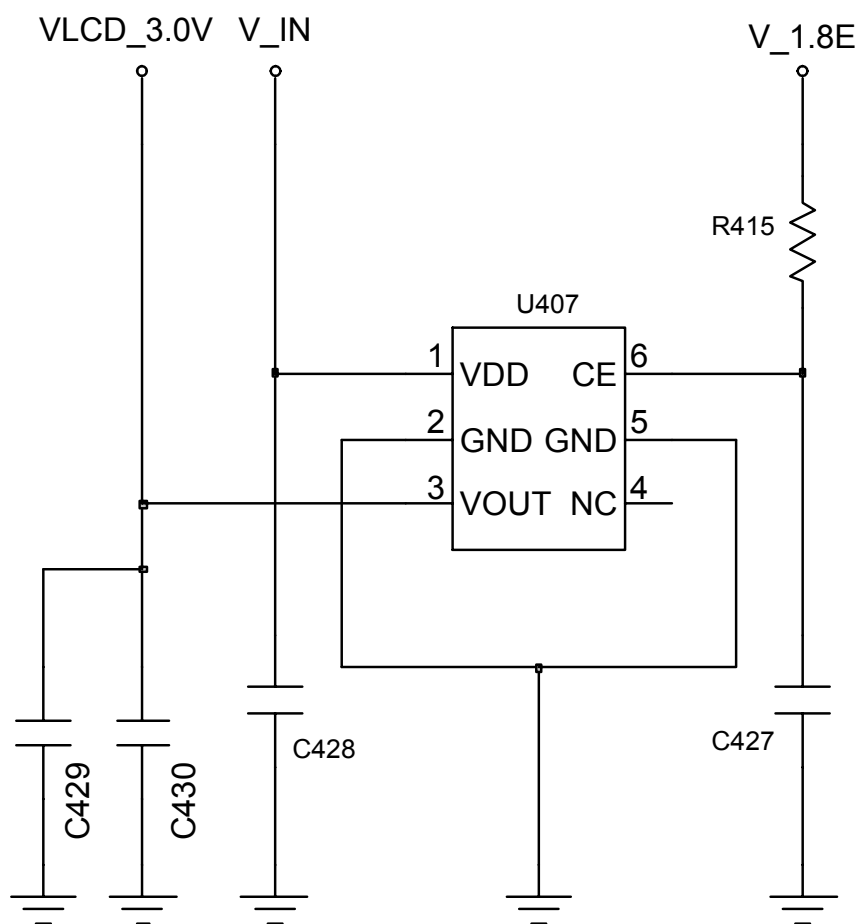


3-1-9. LCD



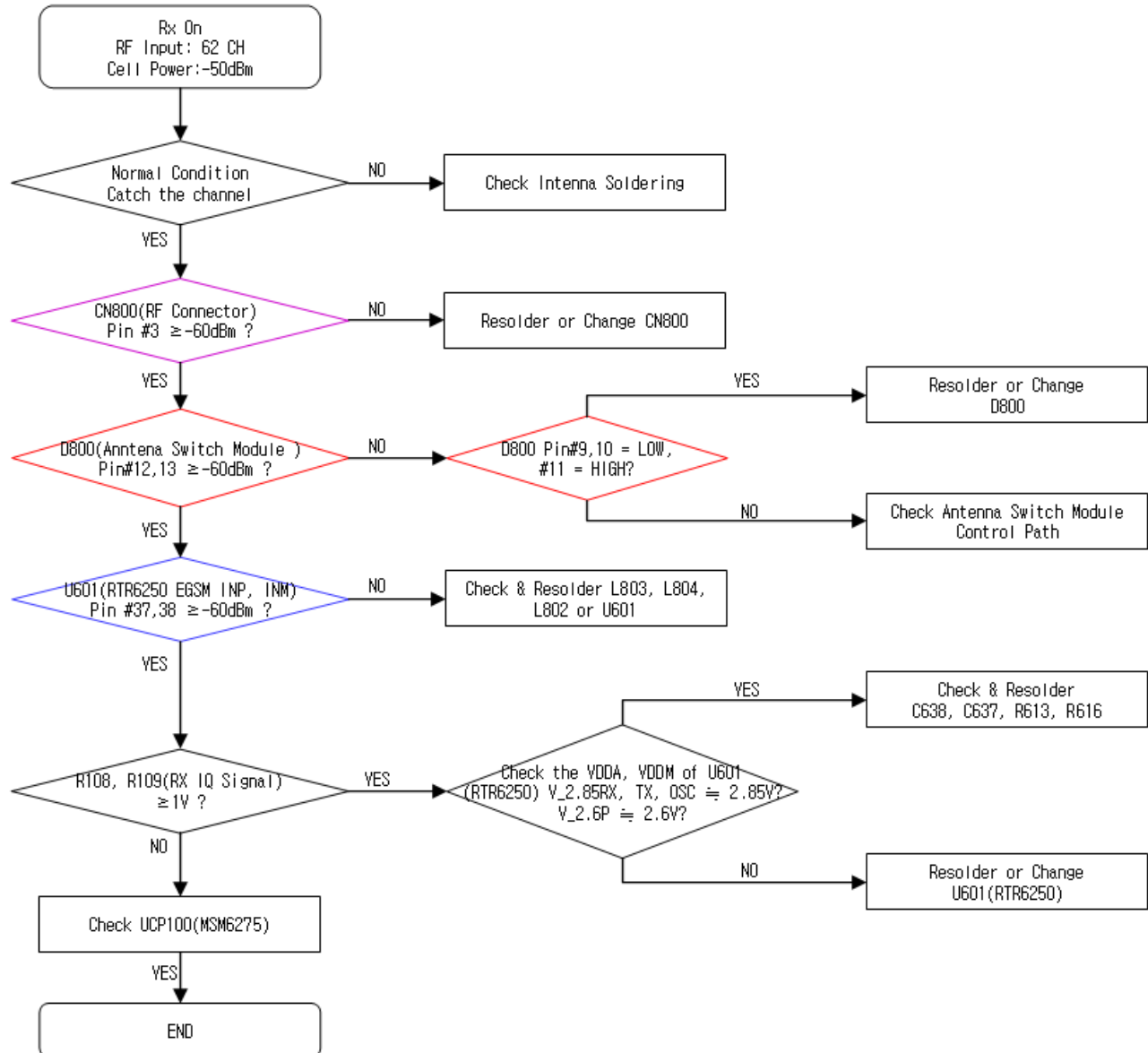




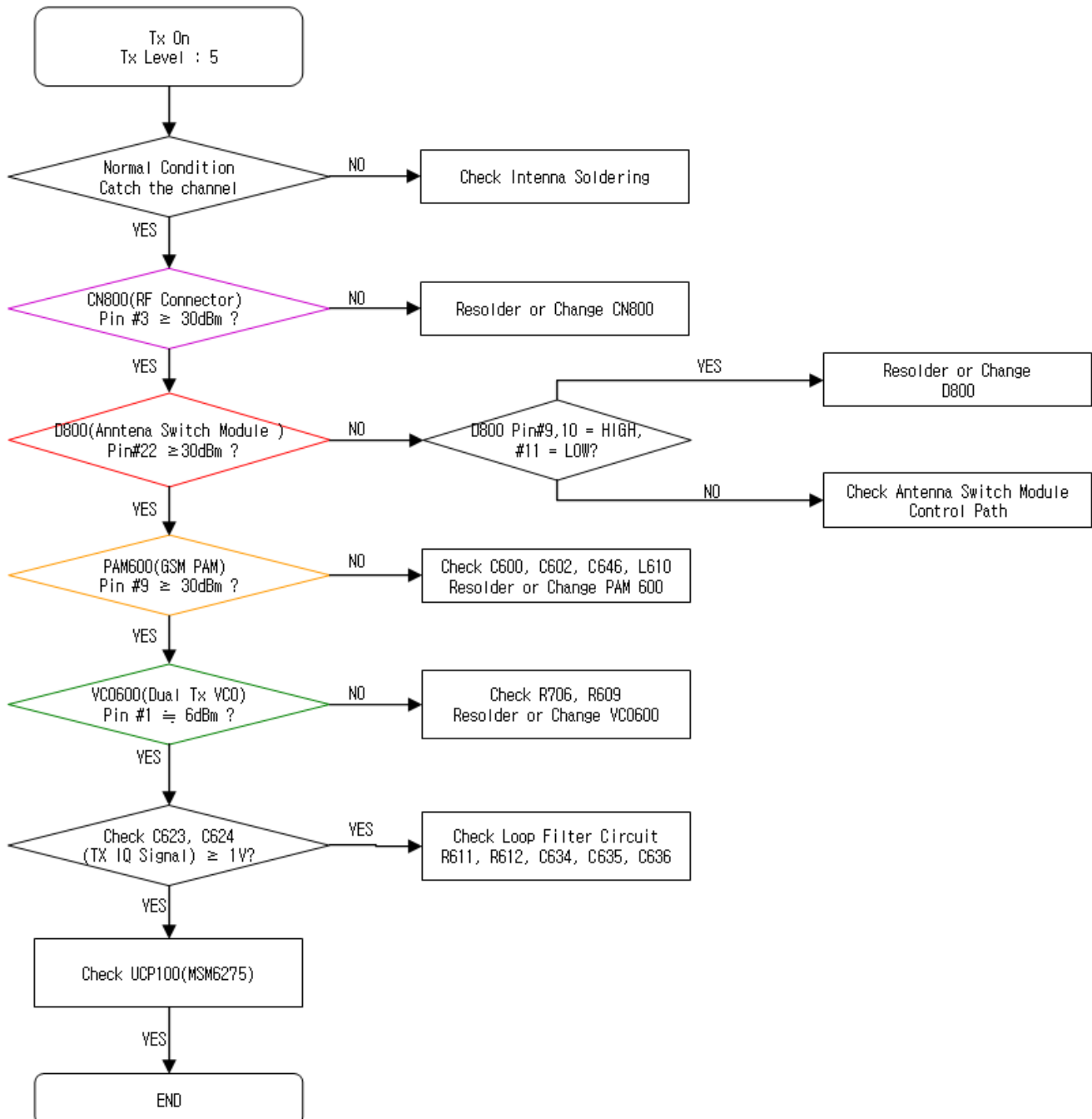


3-2.RF

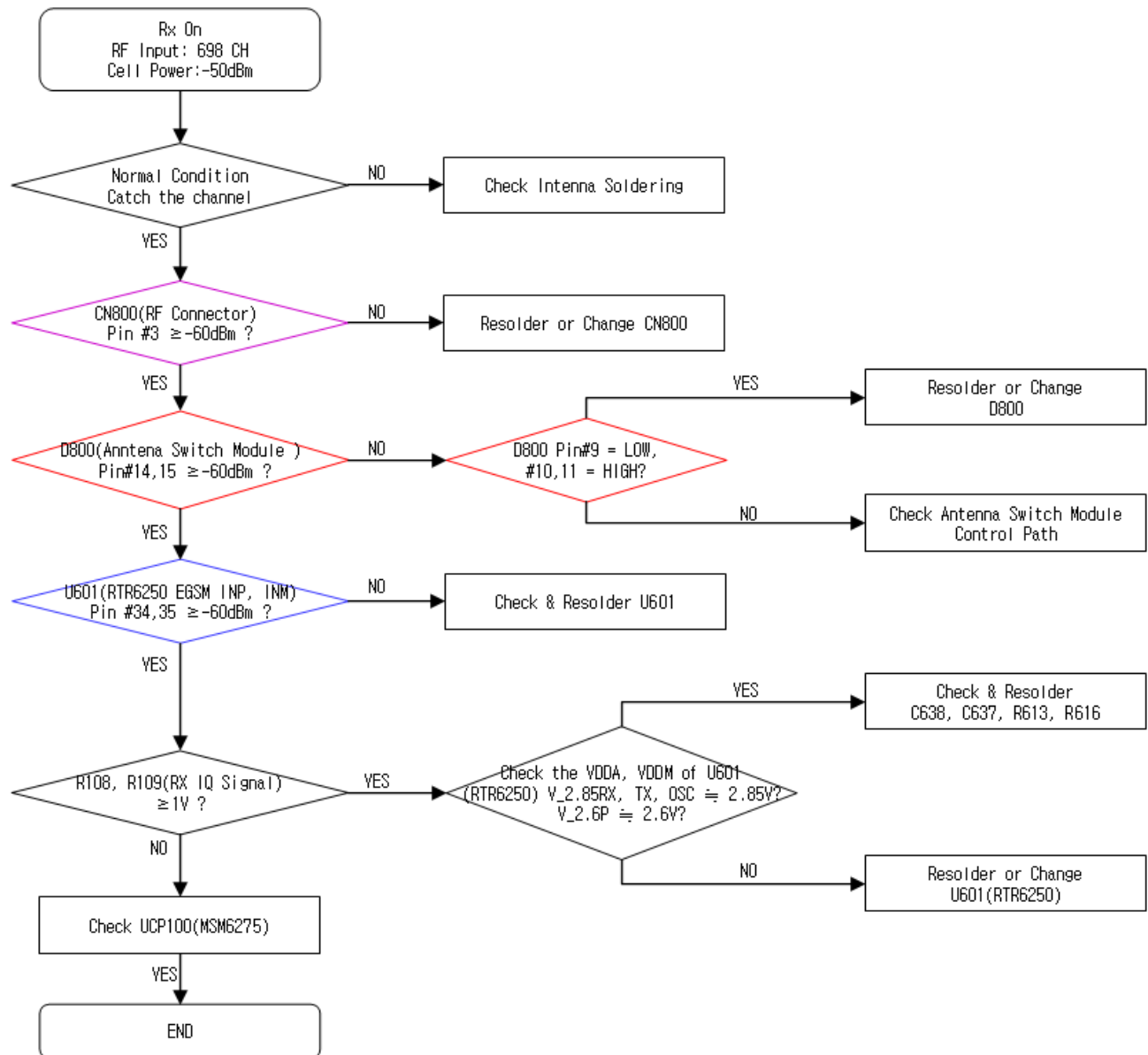
3-2-1. EGSM Receiver



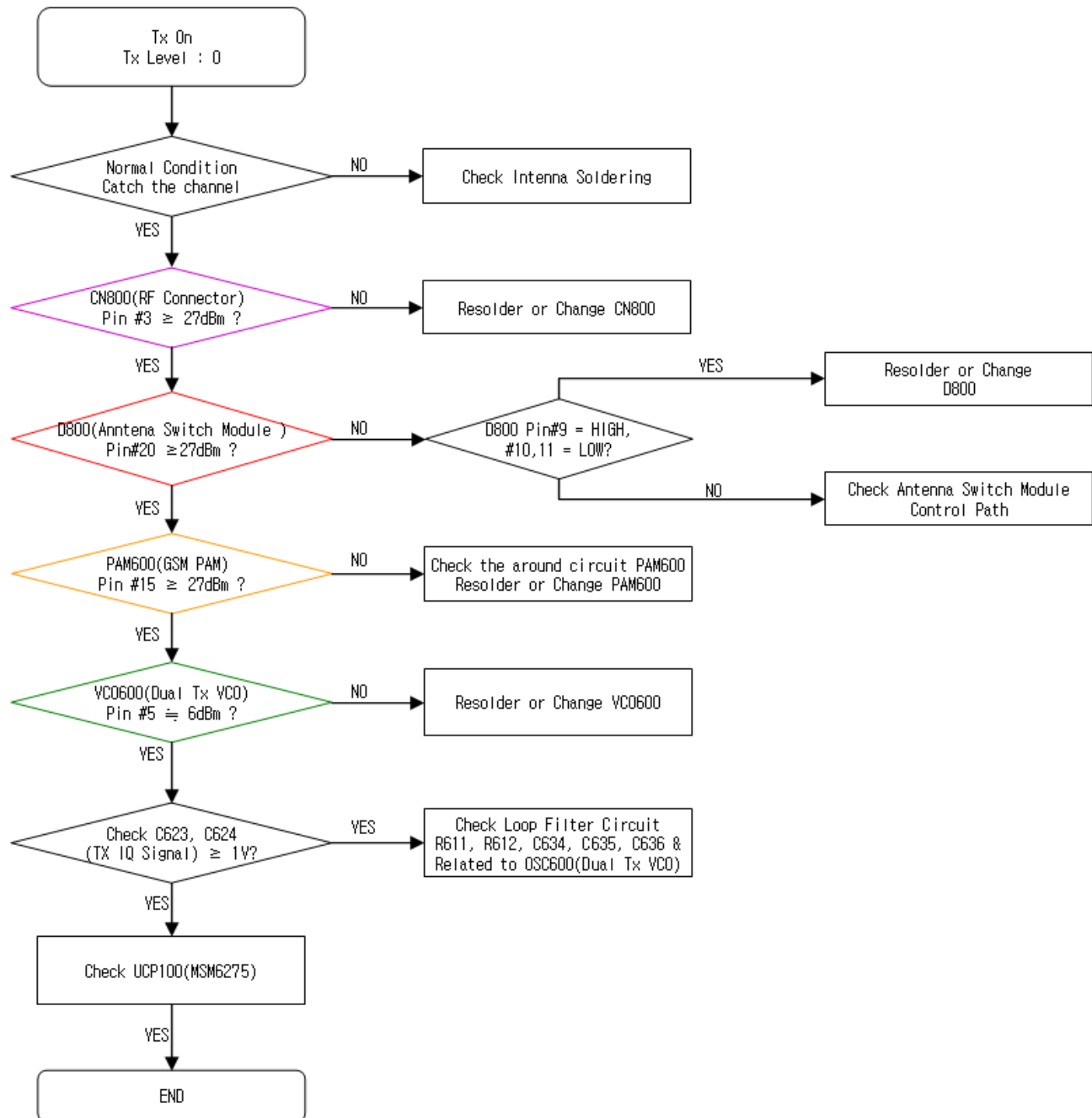
3-2-2. EGSM Transmitter



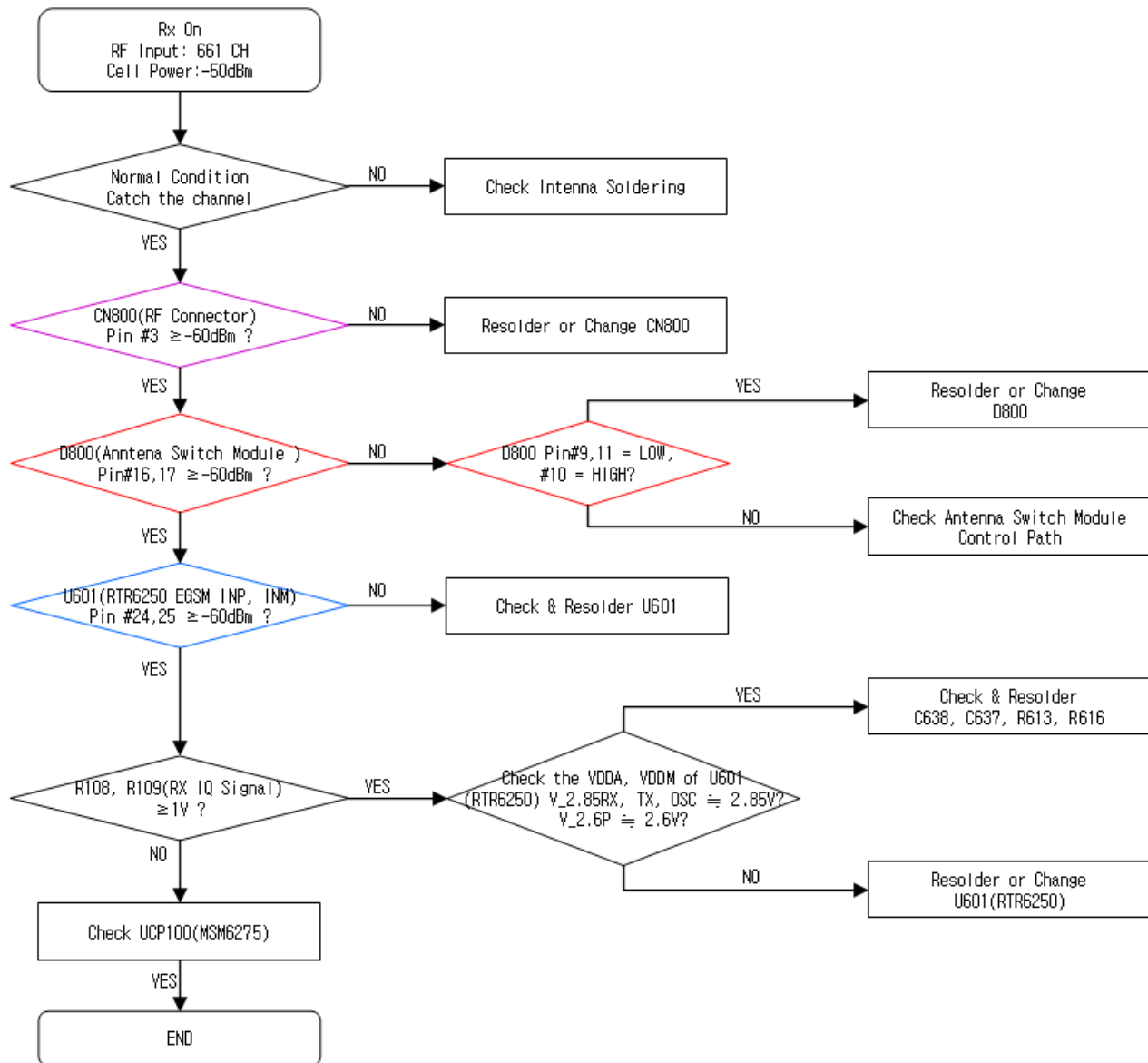
3-2-3. DCS Receiver



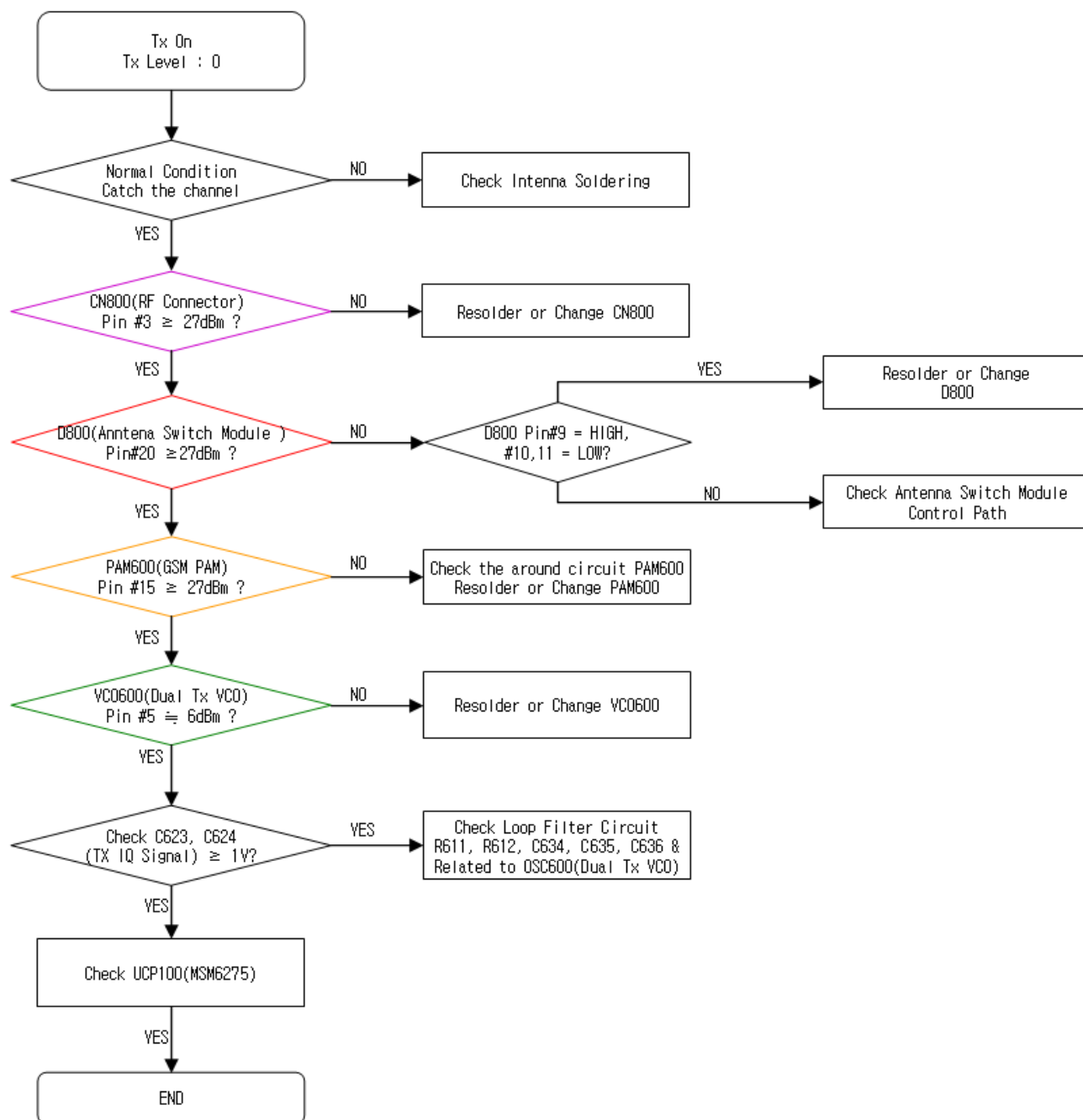
3-2-4. DCS Transmitter

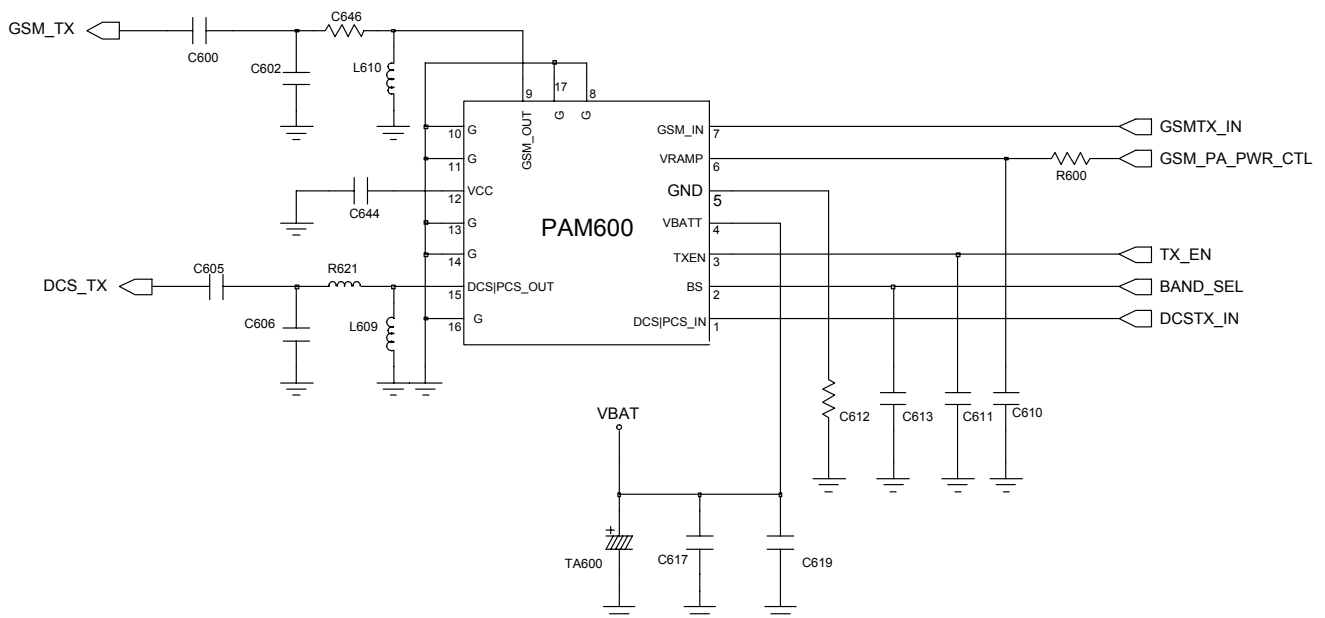
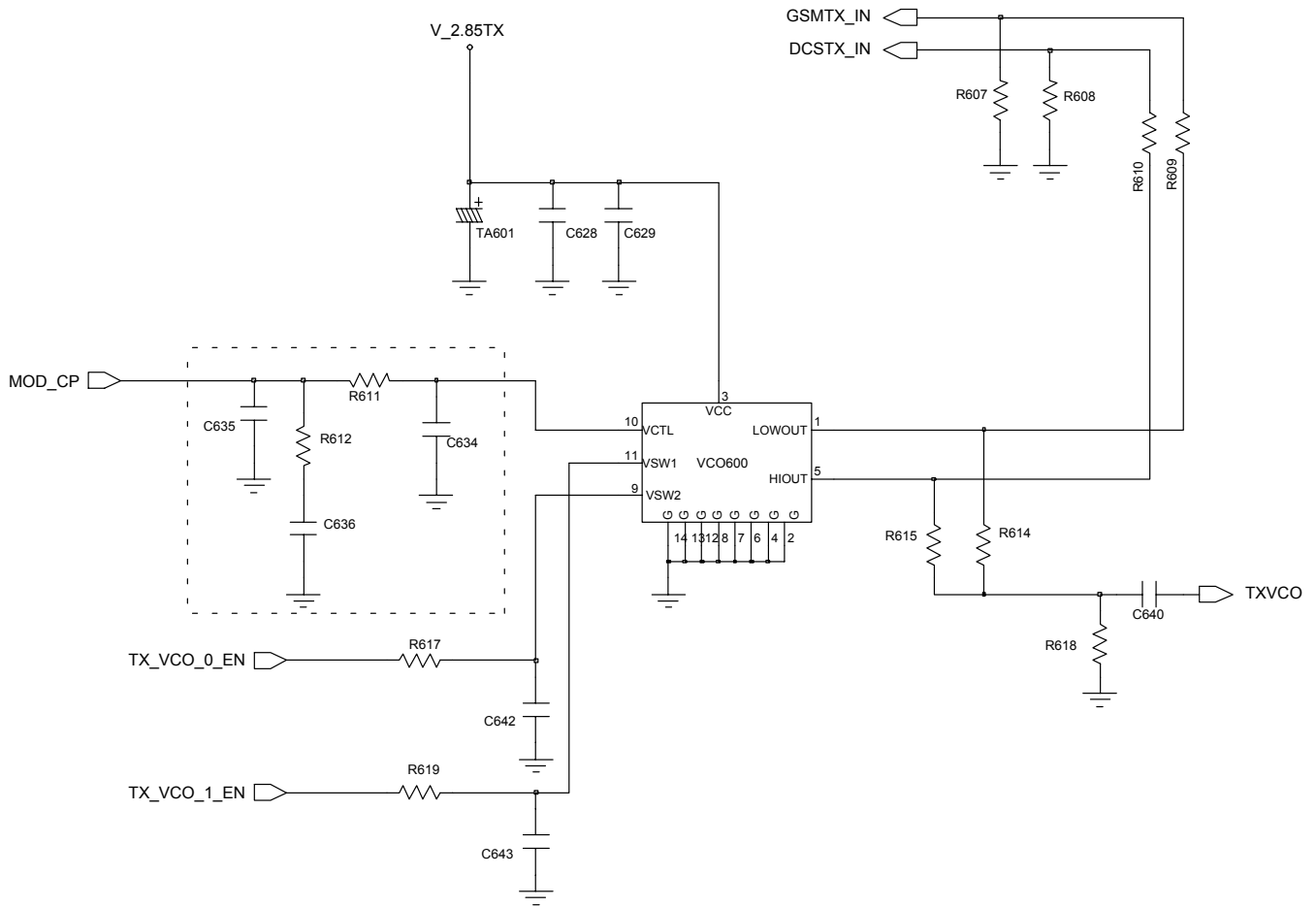


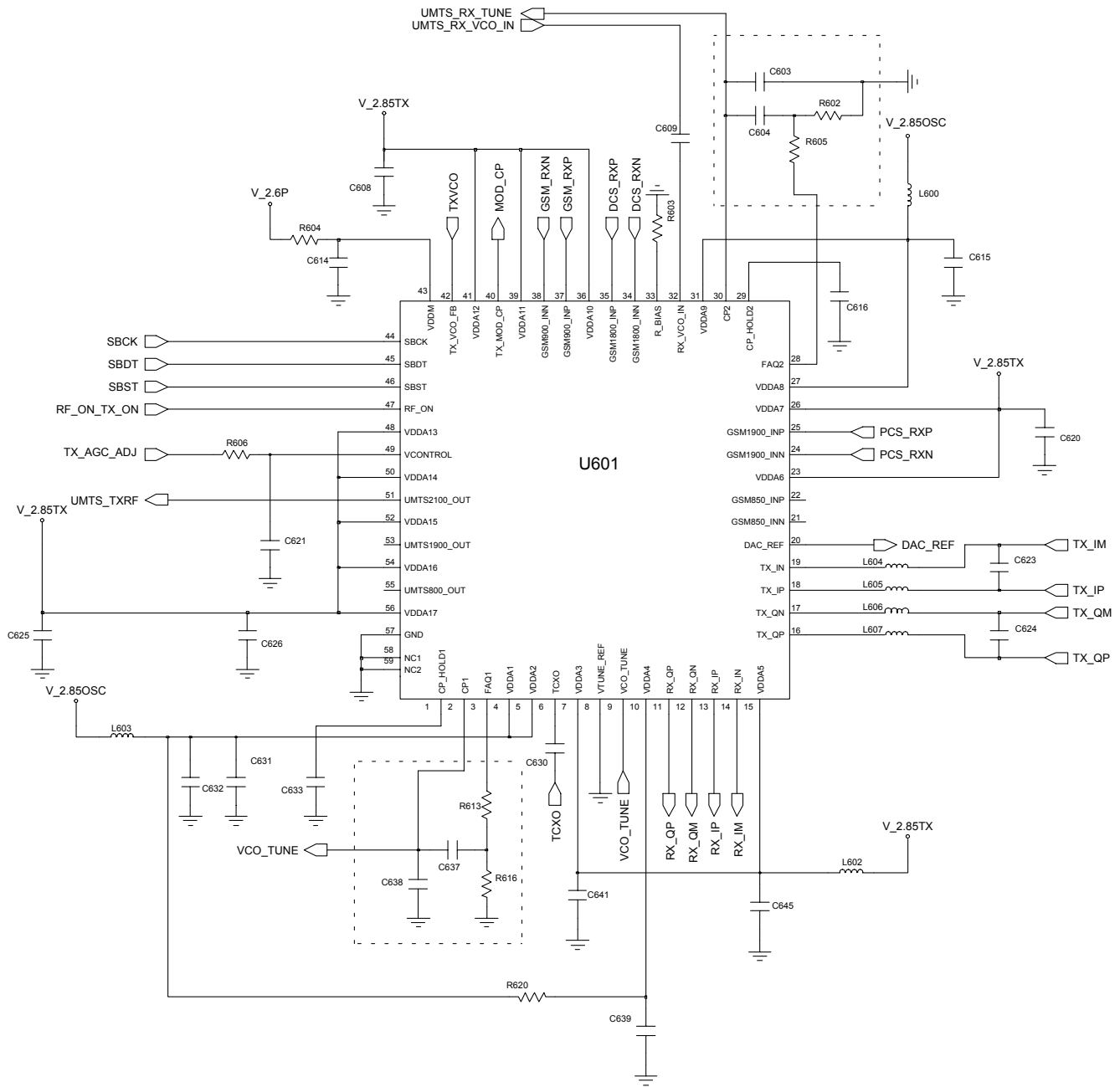
3-2-5. PCS Receiver

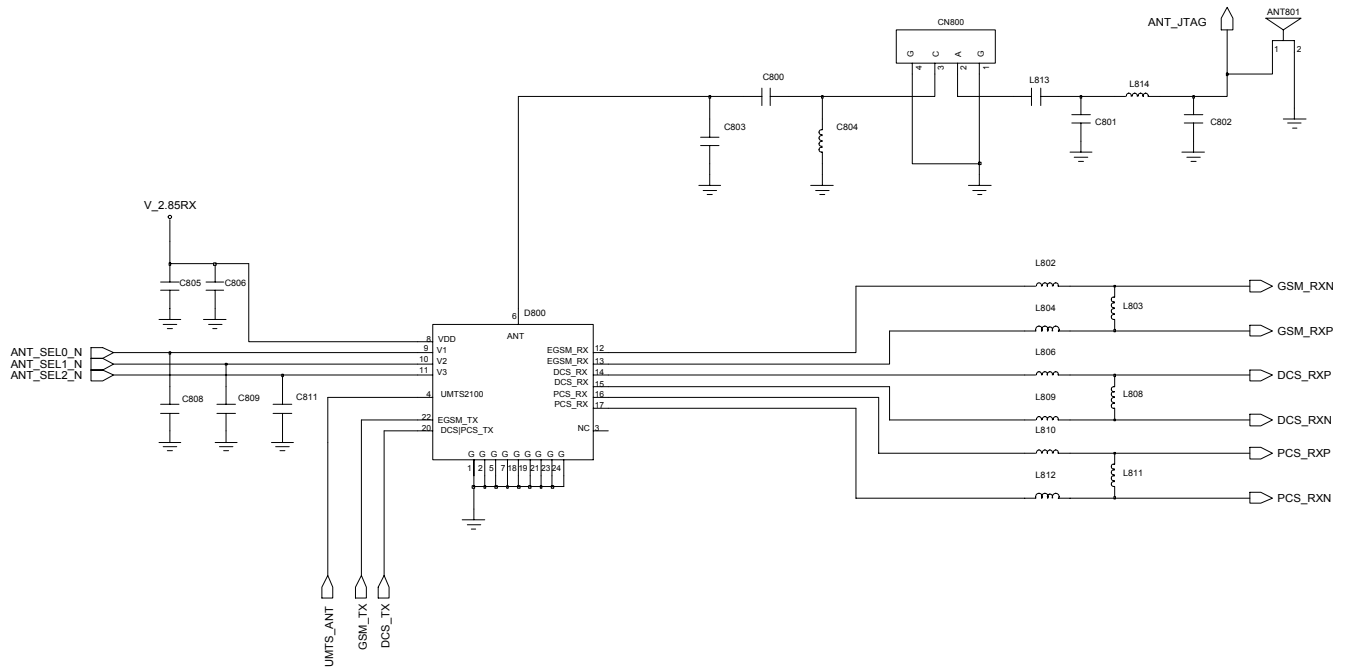


3-2-6. PCS Transmitter

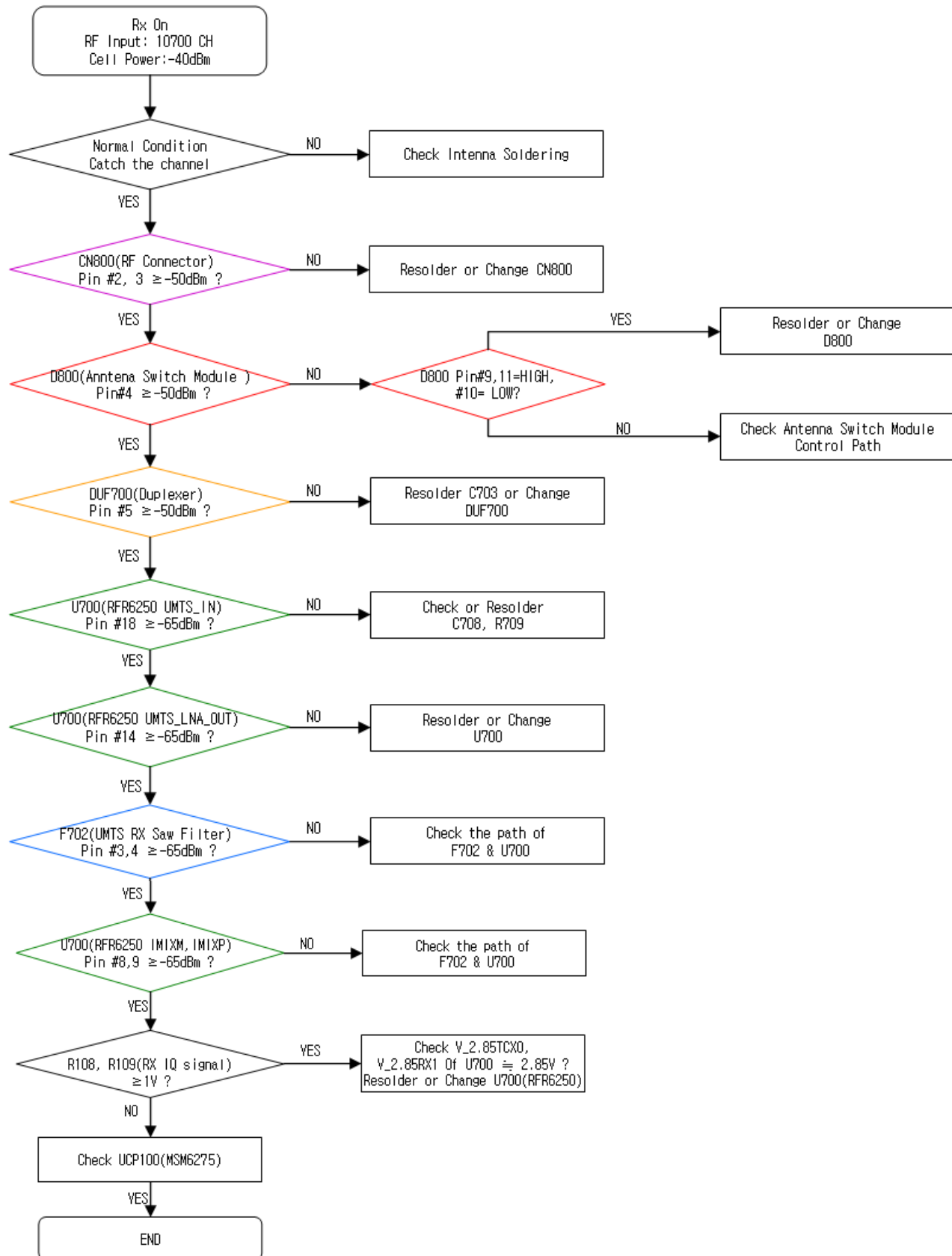




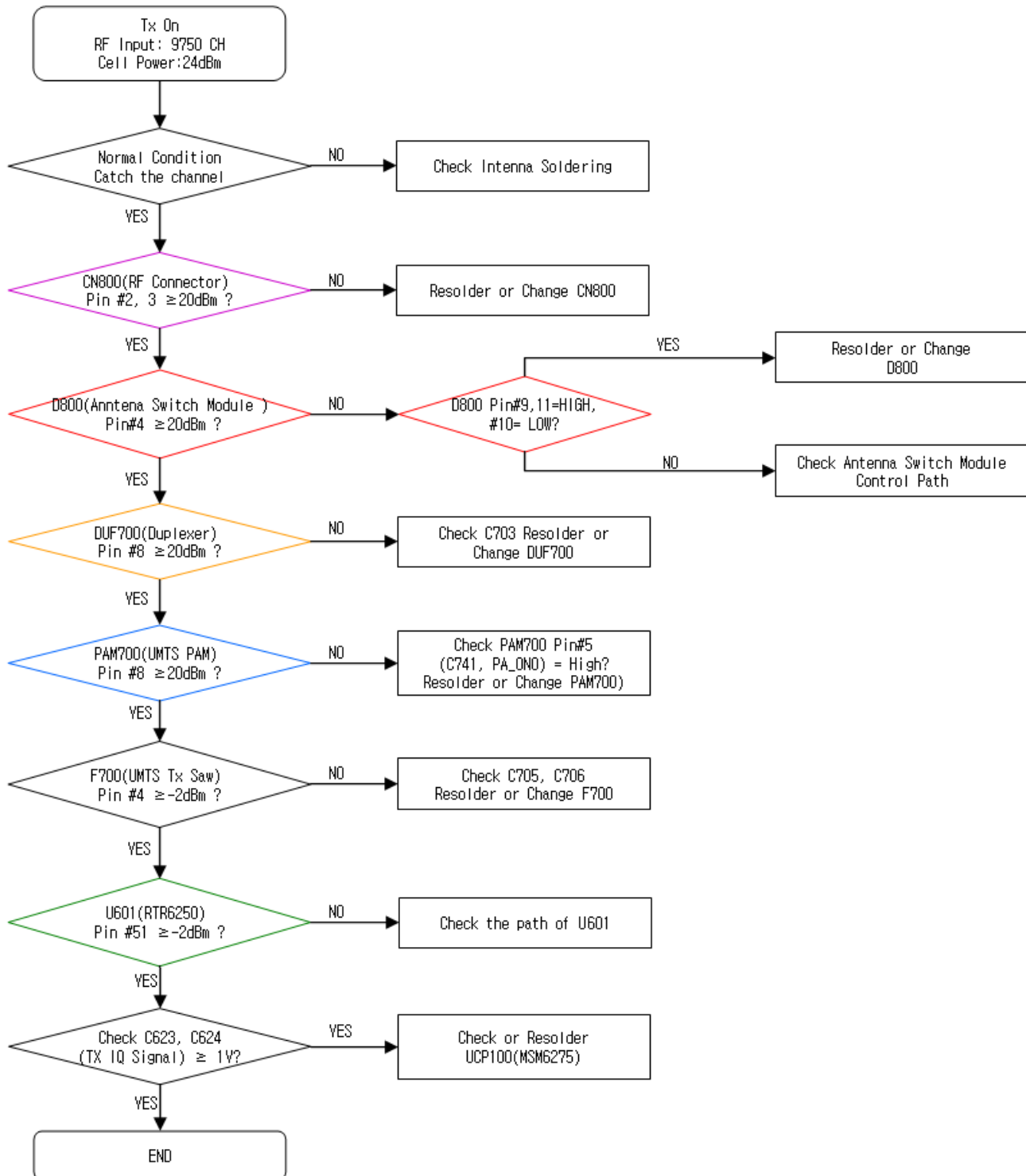


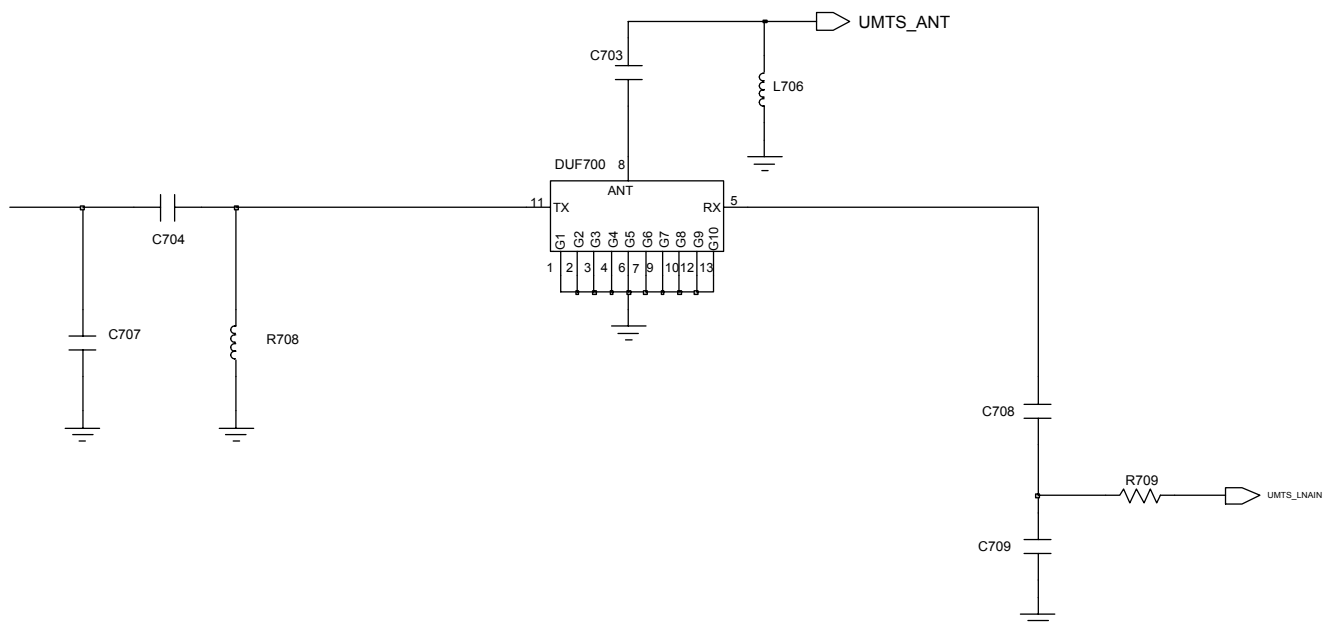


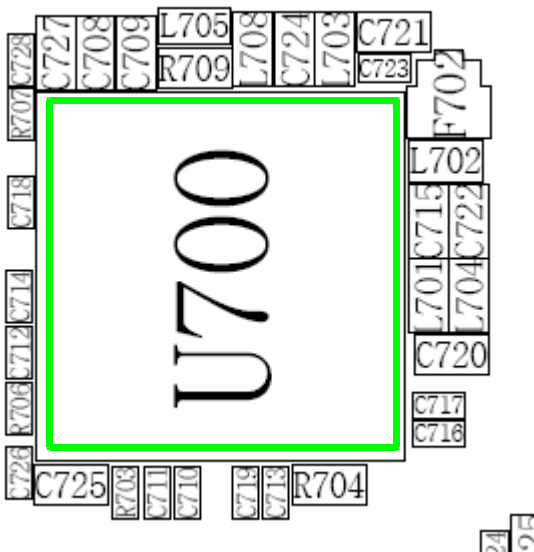
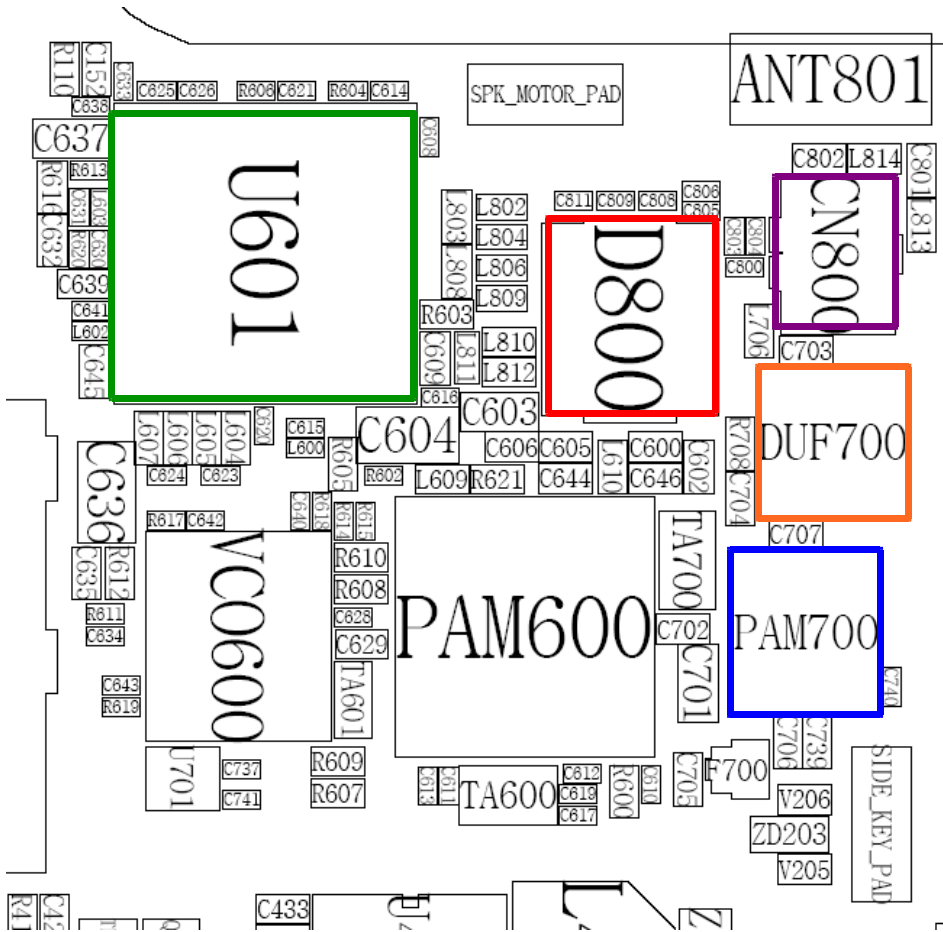
3-2-7. UMTS Receiver



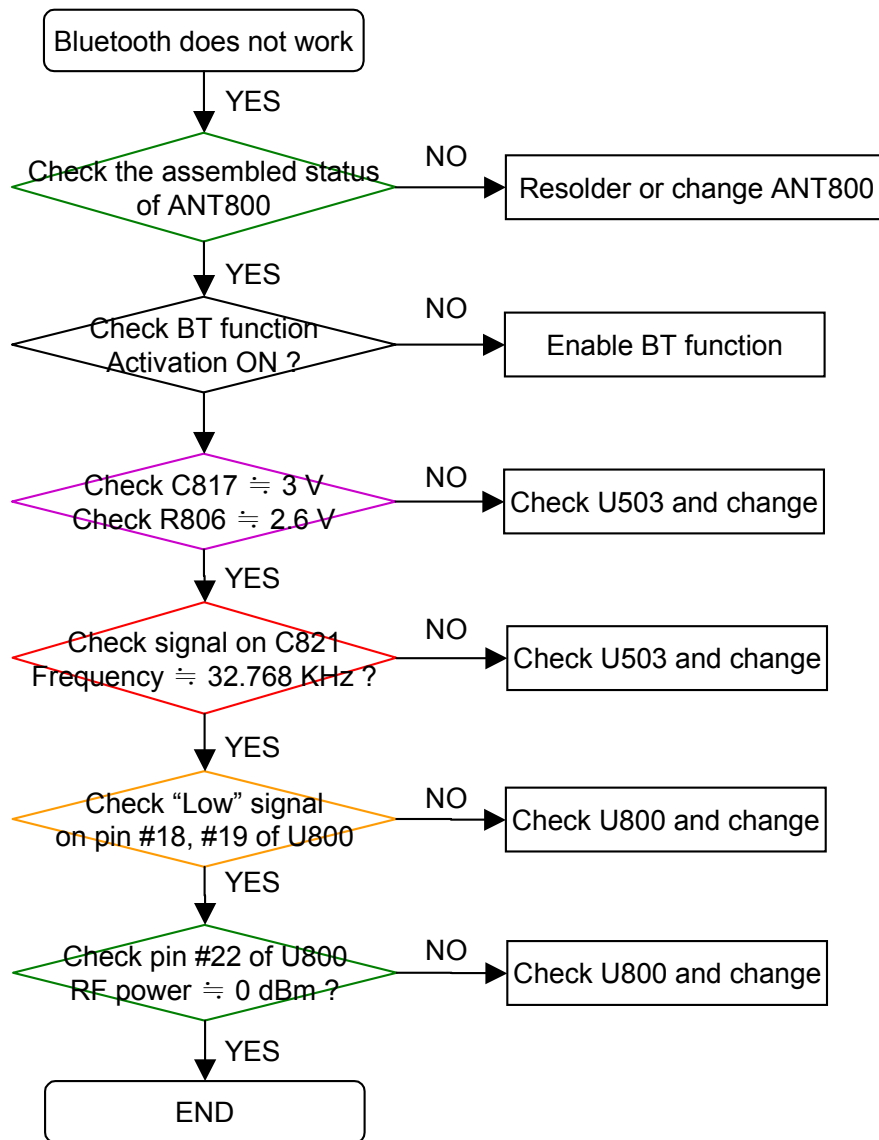
3-2-8. UMTS Transmitter

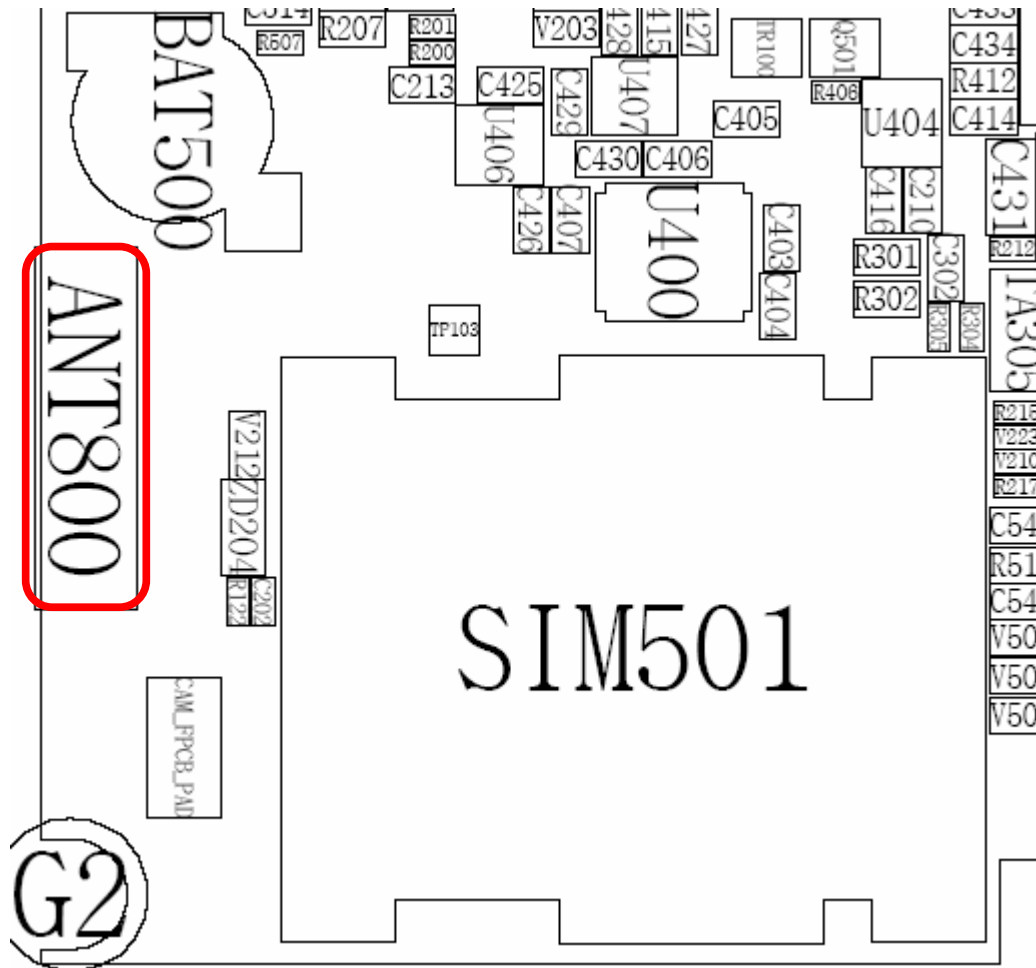
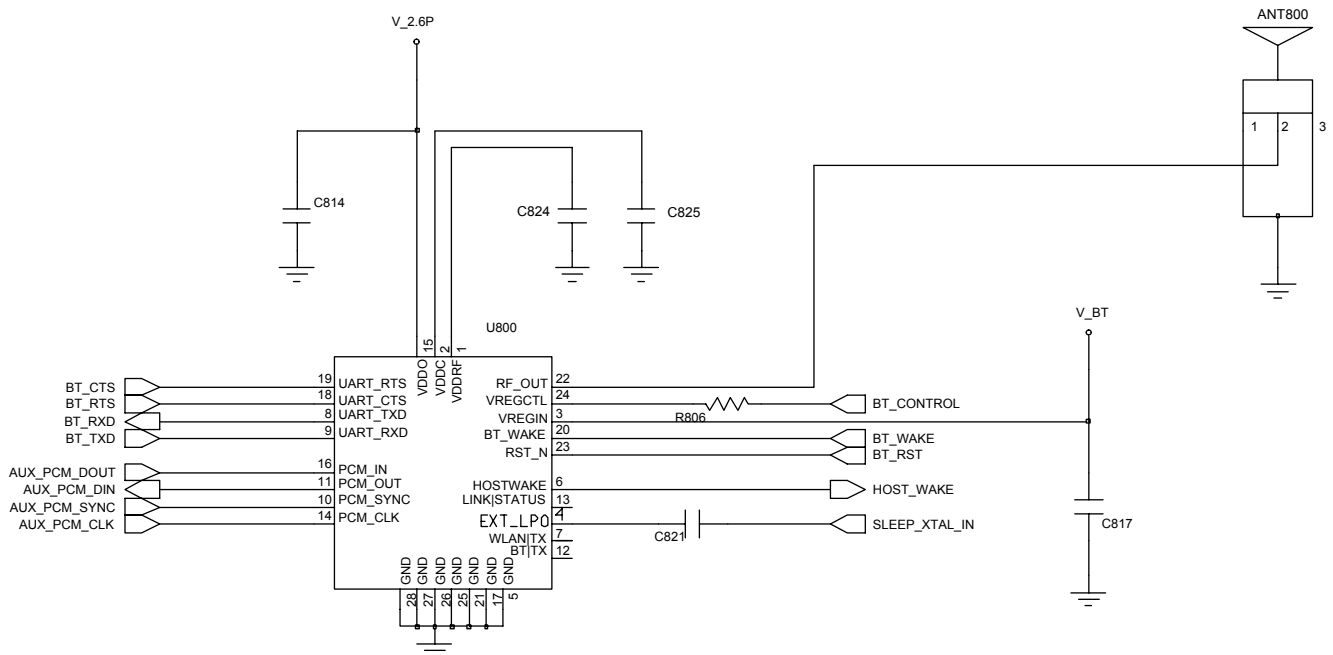


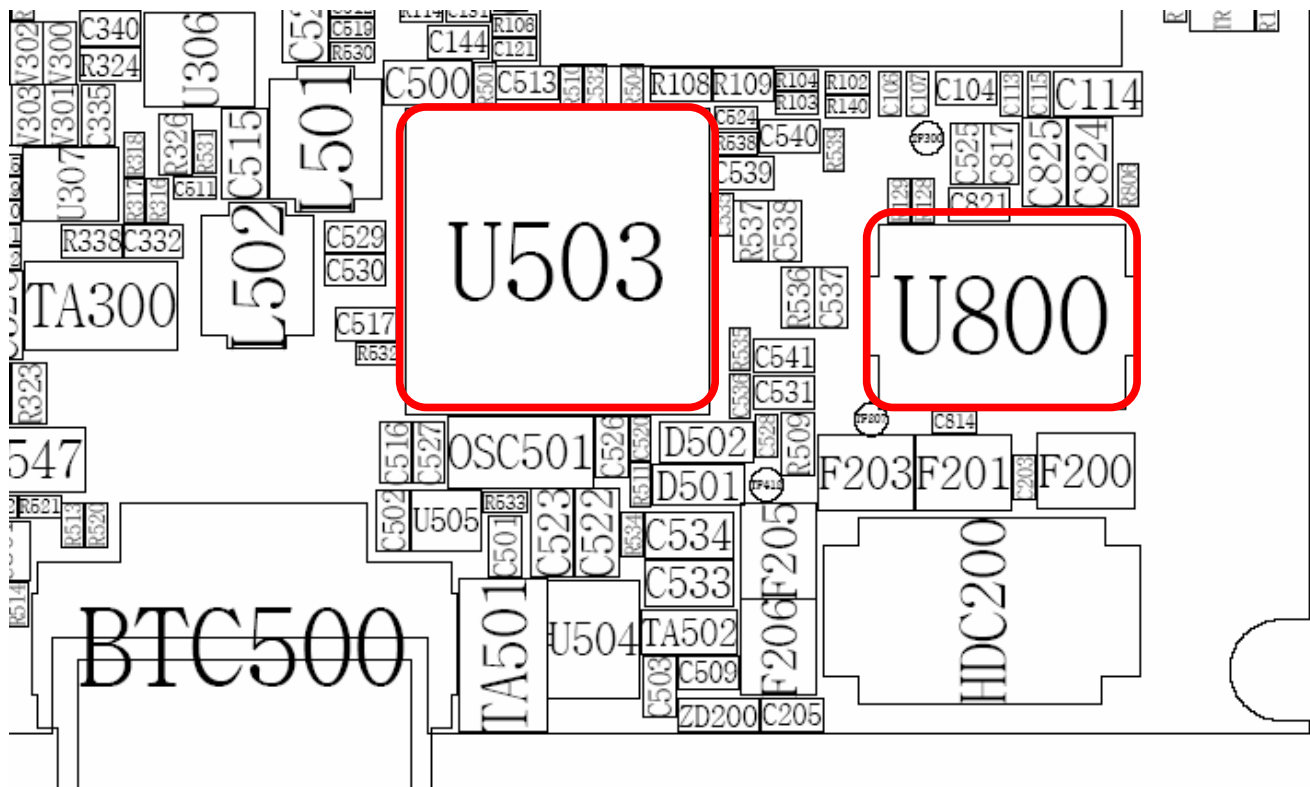




3-2-9. BLUETOOTH







4. Array course control



Test Jig (GH80-03308A)



Test Cable (GH39-00478A)



RF Test Cable (GH39-00397A)

Software Downloading

4-1. Downloading Binary Files

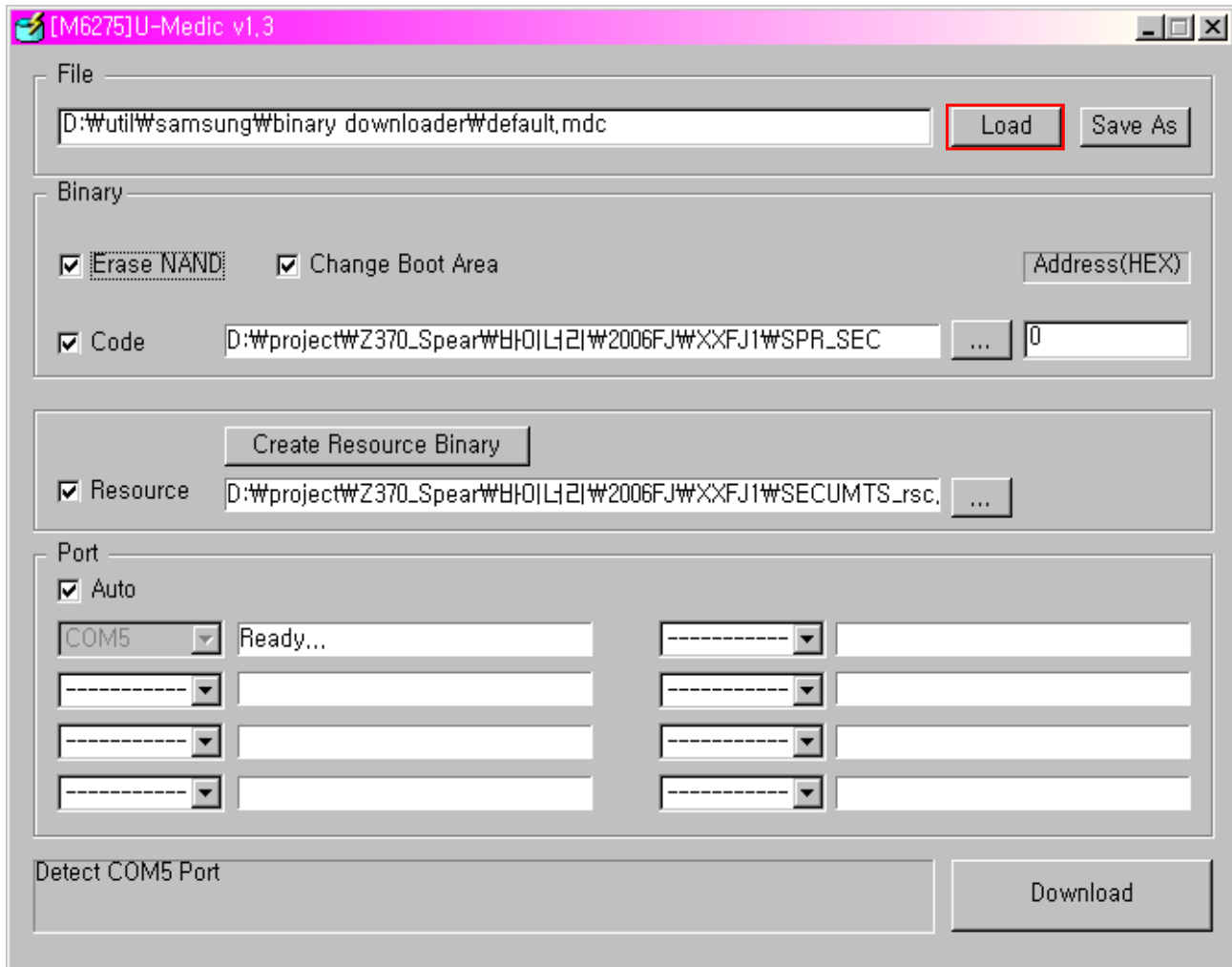
- Three binary files for downloading Z370.
 - SPR_SEC : Main source code binary folder.
 - Z370XXYYY_Rsc.bin : Resource file

4-2. Pre-requisite for Downloading

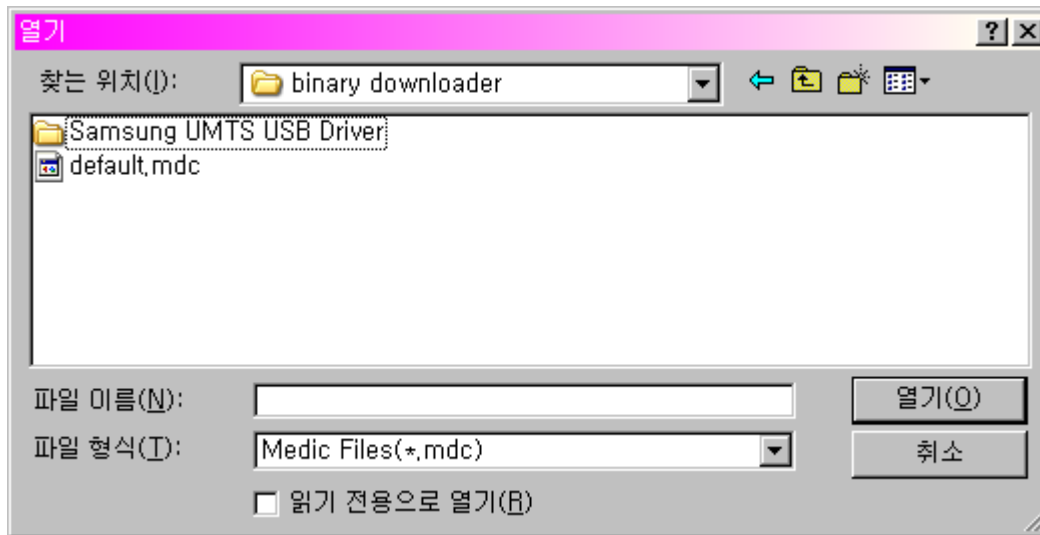
- Downloader Program([\[M6275\]U-Medic_v1\[1\].3.exe](#))
- Z370 Mobile Phone
- Data Cable
- Binary files

4-3. S/W Downloader Program

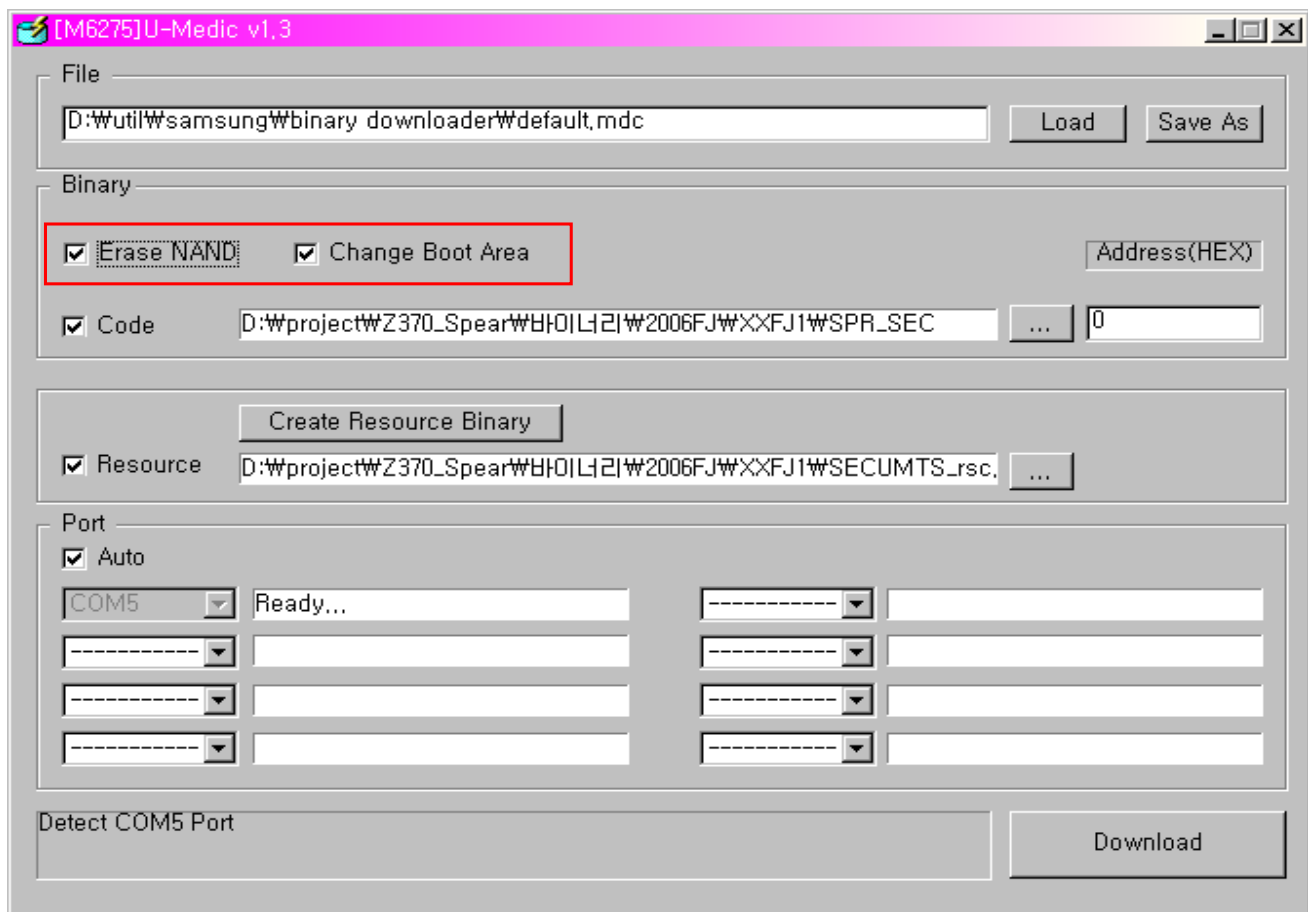
1. Load the binary download program by executing the “[M6275]U-Medic_v1[1].3.exe”



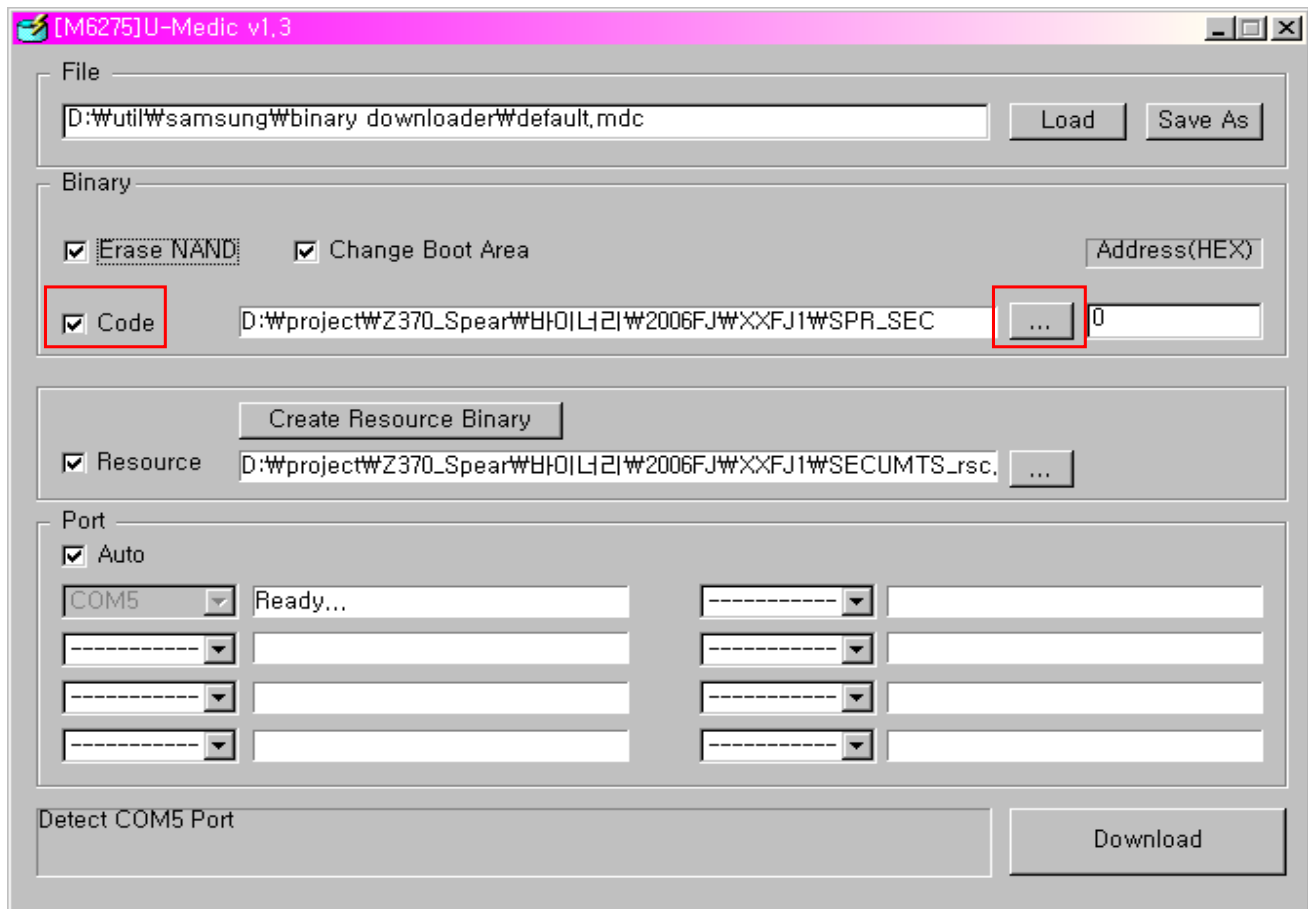
Click the "load" button, then choose the "default.mdc" file located in execution folder.



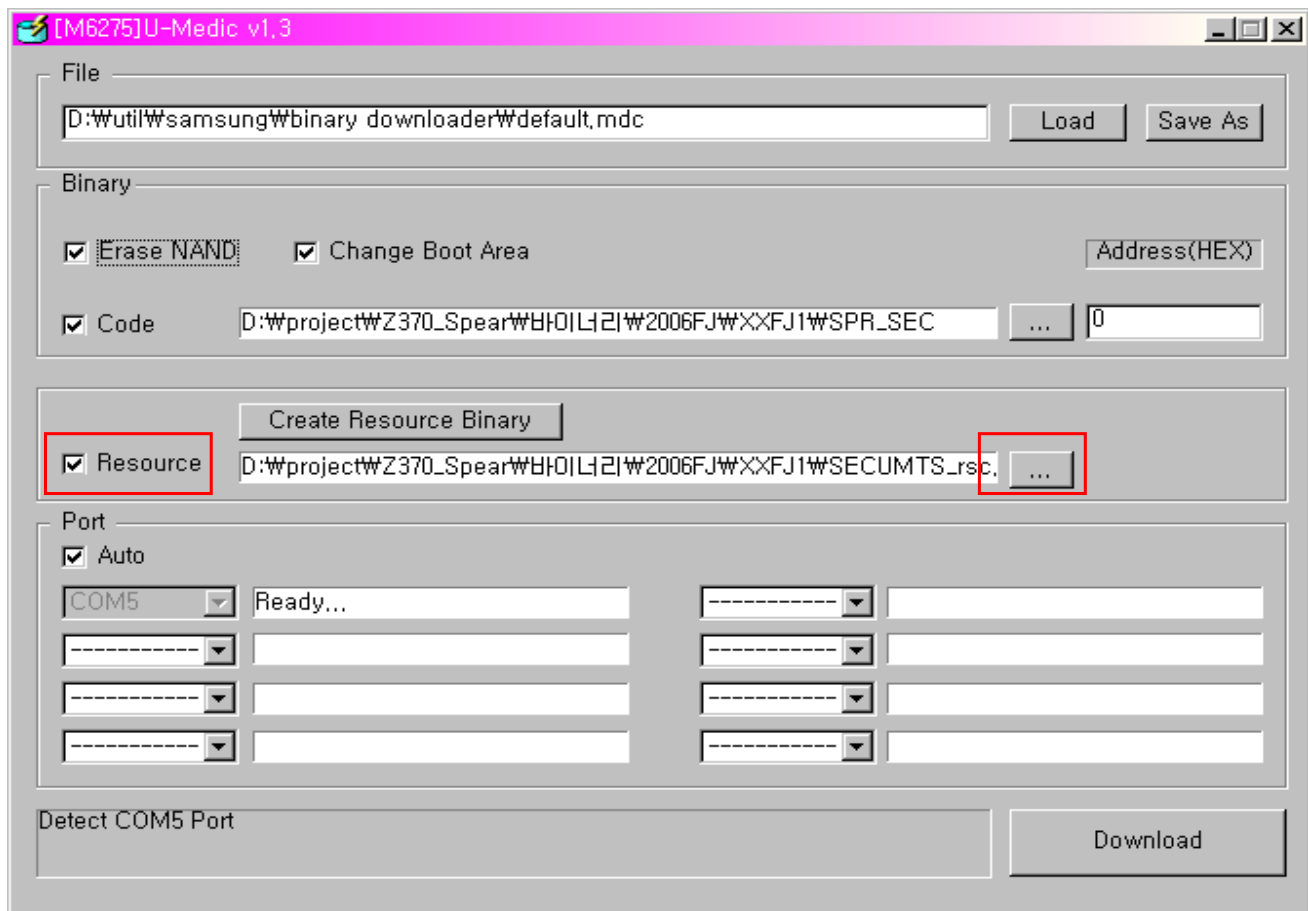
3. Check Erase NAND and Change Boot Area



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.

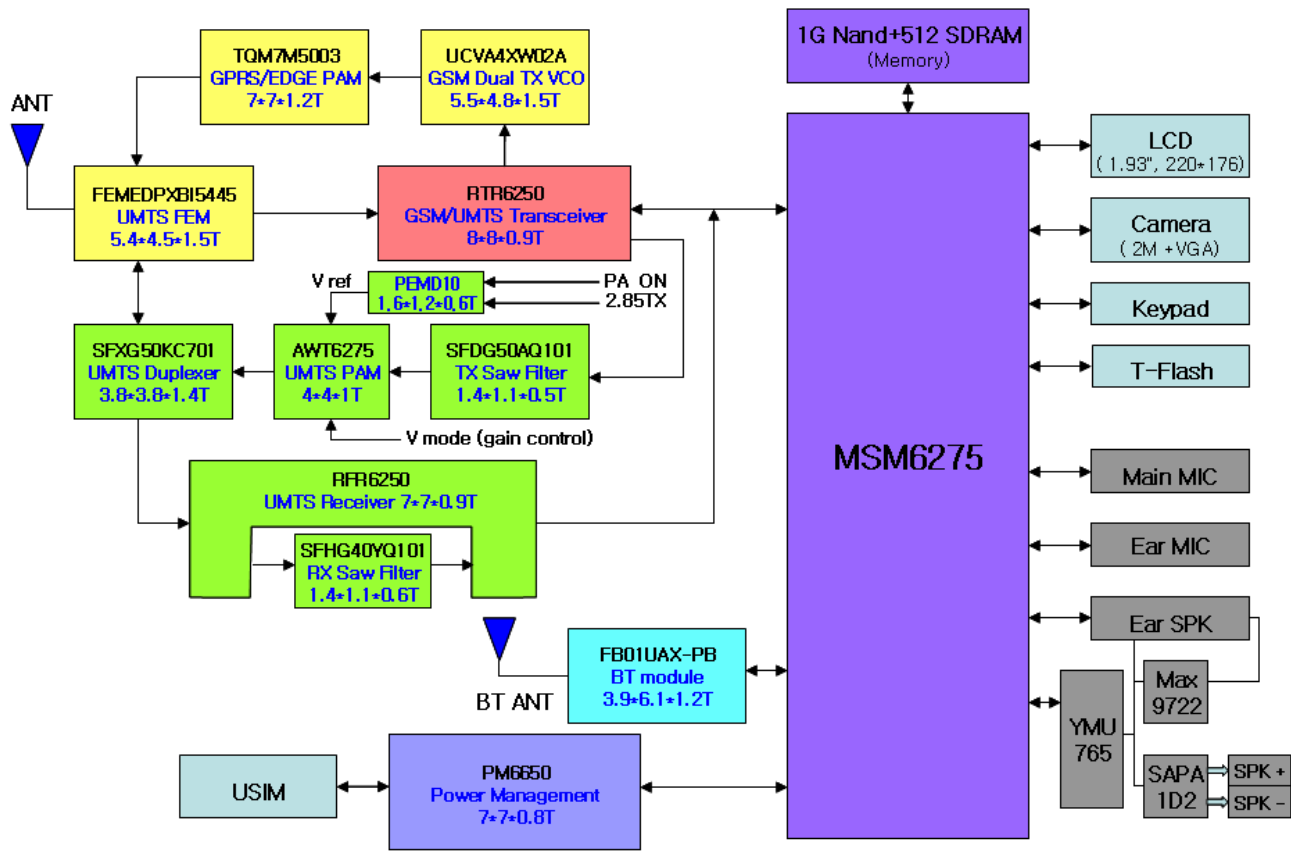
6. When downloading is finished successfully, there is a “ready...” message. ♪
7. After finishing downloading, Certain memory resets should be done to guarantee the normal performance.♪
8. Confirm the downloaded version name and etc. :♪

***#5002*8376263#**♪

Full Reset : ♪

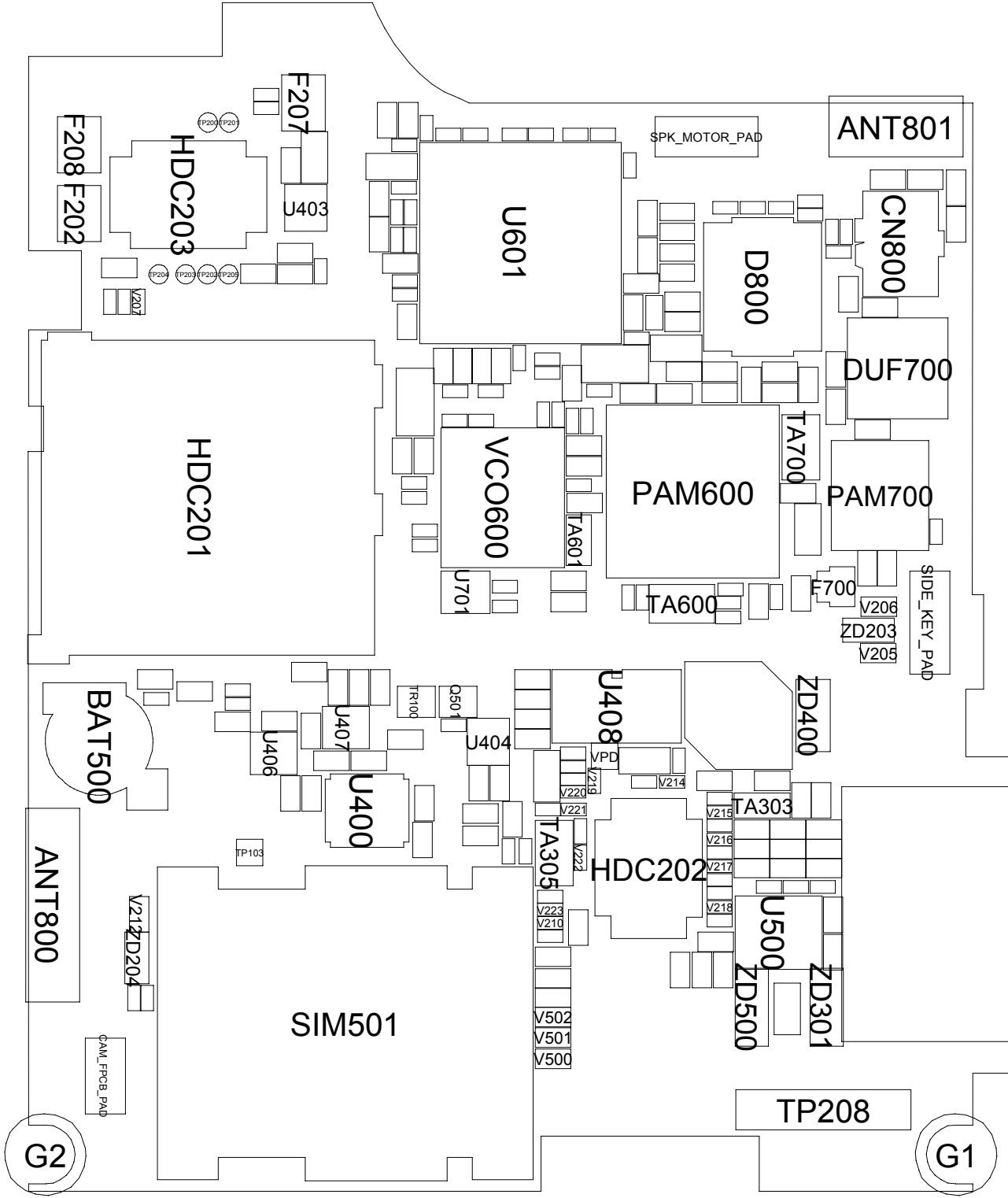
***2767*3855#**

5. Block Diagrams



SGH-Z370 Block Diagram

6. PCB Diagrams



6-2

7. MAIN Electrical Parts List

SEC CODE	Design LOC	Discription	STATUS
0403-001511	ZD400	DIODE-ZENER	SA
0403-001547	ZD301	DIODE-ZENER	SA
0403-001547	ZD500	DIODE-ZENER	SA
0404-001172	D100	DIODE-SCHOTTKY	SA
0404-001172	D101	DIODE-SCHOTTKY	SA
0404-001172	D502	DIODE-SCHOTTKY	SA
0404-001172	ZD401	DIODE-SCHOTTKY	SA
0406-001201	ZD201	DIODE-TVS	SA
0406-001201	ZD202	DIODE-TVS	SA
0406-001201	ZD203	DIODE-TVS	SA
0406-001201	ZD204	DIODE-TVS	SA
0406-001208	U307	DIODE-TVS	SA
0406-001210	ZD200	DIODE-TVS	SA
0504-001113	Q501	TR-DIGITAL	SA
0504-001113	Q502	TR-DIGITAL	SA
0504-001113	TR100	TR-DIGITAL	SA
0504-001113	TR101	TR-DIGITAL	SA
0504-001151	U701	TR-DIGITAL	SA
0505-001889	U504	FET-SILICON	SA
0801-002995	U501	IC-CMOS LOGIC	SA
1001-001265	U304	IC-ANALOG SWITCH	SA
1001-001265	U305	IC-ANALOG SWITCH	SA
1001-001336	U302	IC-ANALOG SWITCH	SA
1003-001716	U408	IC-EL DRIVER	SA
1006-001322	U102	IC-LINE TRANSCEIVER	SA
1108-000071	UME400	IC-MCP	SA
1201-002195	U303	IC-AUDIO AMP	SA
1201-002233	U301	IC-AUDIO AMP	SA
1201-002288	PAM600	IC-POWER AMP	SA
1201-002305	PAM700	IC-POWER AMP	SA
1203-003275	U402	IC-MULTI REG.	SA
1203-003531	U405	IC-POS.FIXED REG.	SA
1203-003629	U401	IC-POS.FIXED REG.	SA
1203-003688	U403	IC-POS.FIXED REG.	SA
1203-003708	U400	IC-DC/DC CONVERTER	SA
1203-003728	U505	IC-VOL. DETECTOR	SA

SEC CODE	Design LOC	Discription	STATUS
1203-003737	U404	IC-POSIFIXED REG.	SA
1203-003742	U500	IC-BATTERY	SA
1203-003787	U406	IC-POSIFIXED REG.	SA
1203-003815	U407	IC-POSIFIXED REG.	SA
1203-004102	U503	IC-POWER SUPERVISOR	SA
1204-001915	U306	IC-FILTER	SA
1204-002138	U300	IC-MELODY	SA
1205-002645	U601	IC-TRANSCEIVER	SA
1205-002781	U700	IC-RECEIVER	SA
1205-002790	UCP100	IC-MODEM	SA
1404-001224	U101	THERMISTOR-NTC	SA
1405-001108	V300	VARISTOR	SA
1405-001108	V301	VARISTOR	SA
1405-001108	V302	VARISTOR	SA
1405-001108	V303	VARISTOR	SA
1405-001110	V201	VARISTOR	SA
1405-001110	V305	VARISTOR	SA
1405-001133	V205	VARISTOR	SA
1405-001133	V206	VARISTOR	SA
1405-001133	V212	VARISTOR	SA
1405-001133	V500	VARISTOR	SA
1405-001133	V501	VARISTOR	SA
1405-001133	V502	VARISTOR	SA
1405-001158	F202	VARISTOR	SA
1405-001158	F207	VARISTOR	SA
1405-001158	F208	VARISTOR	SA
1405-001161	F200	VARISTOR	SA
1405-001161	F201	VARISTOR	SA
1405-001161	F203	VARISTOR	SA
1405-001161	F205	VARISTOR	SA
1405-001161	F206	VARISTOR	SA
1405-001177	V207	VARISTOR	SA
1405-001177	V210	VARISTOR	SA
1405-001177	V214	VARISTOR	SA
1405-001177	V215	VARISTOR	SA
1405-001177	V216	VARISTOR	SA

SEC CODE	Design LOC	Discription	STATUS
1405-001177	V217	VARISTOR	SA
1405-001177	V218	VARISTOR	SA
1405-001177	V219	VARISTOR	SA
1405-001177	V220	VARISTOR	SA
1405-001177	V221	VARISTOR	SA
1405-001177	V222	VARISTOR	SA
1405-001177	V223	VARISTOR	SA
2007-000140	R306	R-CHIP	SA
2007-000141	R600	R-CHIP	SA
2007-000145	R616	R-CHIP	SA
2007-000148	C214	R-CHIP	SA
2007-000148	R339	R-CHIP	SA
2007-000148	R340	R-CHIP	SA
2007-000149	R332	R-CHIP	SA
2007-000149	R333	R-CHIP	SA
2007-000151	R335	R-CHIP	SA
2007-000151	R518	R-CHIP	SA
2007-000157	R414	R-CHIP	SA
2007-000161	R412	R-CHIP	SA
2007-000164	R540	R-CHIP	SA
2007-000168	R524	R-CHIP	SA
2007-000171	C646	R-CHIP	SA
2007-000171	R300	R-CHIP	SA
2007-000171	R308	R-CHIP	SA
2007-000171	R309	R-CHIP	SA
2007-000171	R311	R-CHIP	SA
2007-000171	R402	R-CHIP	SA
2007-000171	R709	R-CHIP	SA
2007-000172	R324	R-CHIP	SA
2007-000172	R326	R-CHIP	SA
2007-000242	R302	R-CHIP	SA
2007-000690	R410	R-CHIP	SA
2007-000758	R207	R-CHIP	SA
2007-001119	R301	R-CHIP	SA
2007-001284	R609	R-CHIP	SA
2007-001292	R612	R-CHIP	SA

SEC CODE	Design LOC	Discription	STATUS
2007-001311	R608	R-CHIP	SA
2007-001313	R607	R-CHIP	SA
2007-001323	R323	R-CHIP	SA
2007-001323	R415	R-CHIP	SA
2007-001329	R303	R-CHIP	SA
2007-001333	R330	R-CHIP	SA
2007-001333	R331	R-CHIP	SA
2007-003001	R327	R-CHIP	SA
2007-003001	R328	R-CHIP	SA
2007-007155	R336	R-CHIP	SNA
2007-007155	R337	R-CHIP	SNA
2007-007318	R110	R-CHIP	SA
2007-007468	R509	R-CHIP	SA
2007-007491	R603	R-CHIP	SA
2007-007491	R704	R-CHIP	SA
2007-007741	R504	R-CHIP	SA
2007-007766	R111	R-CHIP	SA
2007-007798	R610	R-CHIP	SA
2007-008040	R208	R-CHIP	SA
2007-008040	R209	R-CHIP	SA
2007-008040	R210	R-CHIP	SA
2007-008040	R211	R-CHIP	SA
2007-008040	R212	R-CHIP	SA
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2007-008045	R604	R-CHIP	SA
2007-008045	R611	R-CHIP	SA
2007-008045	R617	R-CHIP	SA
2007-008045	R619	R-CHIP	SA
2007-008045	R703	R-CHIP	SA

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2007-008051	R310	R-CHIP	SA
2007-008051	R613	R-CHIP	SA
2007-008052	R400	R-CHIP	SA
2007-008052	R602	R-CHIP	SA
2007-008054	R133	R-CHIP	SA
2007-008055	R159	R-CHIP	SA
2007-008055	R317	R-CHIP	SA
2007-008055	R318	R-CHIP	SA
2007-008055	R503	R-CHIP	SA
2007-008055	R511	R-CHIP	SA
2007-008055	R520	R-CHIP	SA
2007-008055	R522	R-CHIP	SA
2007-008213	R605	R-CHIP	SA
2007-008275	R525	R-CHIP	SA
2007-008419	R315	R-CHIP	SA
2007-008419	R319	R-CHIP	SA
2007-008419	R320	R-CHIP	SA
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2007-008419	R322	R-CHIP	SA
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2007-008478	R304	R-CHIP	SA
2007-008478	R312	R-CHIP	SA
2007-008483	R105	R-CHIP	SA
2007-008483	R138	R-CHIP	SA
2007-008483	R204	R-CHIP	SA
2007-008483	R307	R-CHIP	SA
2007-008483	R403	R-CHIP	SA
2007-008483	R405	R-CHIP	SA
2007-008483	R406	R-CHIP	SA
2007-008483	R409	R-CHIP	SA
2007-008483	R501	R-CHIP	SA
2007-008483	R514	R-CHIP	SA
2007-008483	R516	R-CHIP	SA
2007-008483	R517	R-CHIP	SA
2007-008483	R806	R-CHIP	SA

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2007-008516	R115	R-CHIP	SA
2007-008516	R117	R-CHIP	SA
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2007-008516	R202	R-CHIP	SA
2007-008516	R205	R-CHIP	SA
2007-008516	R407	R-CHIP	SA
2007-008516	R500	R-CHIP	SA
2007-008516	R507	R-CHIP	SA
2007-008516	R513	R-CHIP	SA
2007-008516	R519	R-CHIP	SA
2007-008531	R114	R-CHIP	SA
2007-008531	R313	R-CHIP	SA
2007-008531	R314	R-CHIP	SA
2007-008531	R620	R-CHIP	SA
2007-008531	R706	R-CHIP	SA
2007-008531	R707	R-CHIP	SA
2007-008542	C612	R-CHIP	SA
2007-008542	R103	R-CHIP	SA
2007-008542	R104	R-CHIP	SA
2007-008542	R106	R-CHIP	SA
2007-008542	R107	R-CHIP	SA
2007-008542	R116	R-CHIP	SA
2007-008542	R128	R-CHIP	SA
2007-008542	R129	R-CHIP	SA
2007-008542	R140	R-CHIP	SA
2007-008542	R160	R-CHIP	SA
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2007-008542	R408	R-CHIP	SA
2007-008542	R530	R-CHIP	SA
2007-008542	R531	R-CHIP	SA
2007-008542	R532	R-CHIP	SA
2007-008542	R533	R-CHIP	SA
2007-008542	R534	R-CHIP	SA

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2007-008542	R538	R-CHIP	SA
2007-008542	R539	R-CHIP	SA
2007-008579	R614	R-CHIP	SA
2007-008579	R615	R-CHIP	SA
2007-008588	R125	R-CHIP	SA
2007-008588	R126	R-CHIP	SA
2007-008806	R135	R-CHIP	SA
2007-008806	R508	R-CHIP	SA
2007-008806	R618	R-CHIP	SA
2007-008964	R108	R-CHIP	SA
2007-008964	R109	R-CHIP	SA
2007-009166	R134	R-CHIP	SA
2007-009169	R527	R-CHIP	SA
2007-009170	R112	R-CHIP	SA
2007-009170	R118	R-CHIP	SA
2007-009170	R316	R-CHIP	SA
2007-009171	R119	R-CHIP	SA
2007-009171	R120	R-CHIP	SA
2007-009171	R121	R-CHIP	SA
2007-009171	R122	R-CHIP	SA
2007-009171	R123	R-CHIP	SA
2007-009212	R606	R-CHIP	SA
2007-009233	R521	R-CHIP	SA
2007-009314	R512	R-CHIP	SA
2203-000233	C821	C-CER,CHIP	SA
2203-000233	L813	C-CER,CHIP	SA
2203-000254	C152	C-CER,CHIP	SA
2203-000254	C205	C-CER,CHIP	SA
2203-000254	C401	C-CER,CHIP	SA
2203-000254	C702	C-CER,CHIP	SA
2203-000278	C157	C-CER,CHIP	SA
2203-000330	C705	C-CER,CHIP	SA
2203-000330	C721	C-CER,CHIP	SA
2203-000386	C124	C-CER,CHIP	SA
2203-000386	C156	C-CER,CHIP	SA

SEC CODE	Design LOC	Discription	STATUS
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2203-000386	C311	C-CER,CHIP	SA
2203-000386	C526	C-CER,CHIP	SA
2203-000386	C527	C-CER,CHIP	SA
2203-000438	C341	C-CER,CHIP	SA
2203-000438	C346	C-CER,CHIP	SA
2203-000489	C153	C-CER,CHIP	SA
2203-000812	C127	C-CER,CHIP	SA
2203-000812	C144	C-CER,CHIP	SA
2203-000812	C154	C-CER,CHIP	SA
2203-000812	C155	C-CER,CHIP	SA
2203-000812	C200	C-CER,CHIP	SA
2203-000812	C204	C-CER,CHIP	SA
2203-000812	C303	C-CER,CHIP	SA
2203-000812	C305	C-CER,CHIP	SA
2203-000812	C307	C-CER,CHIP	SA
2203-000812	C309	C-CER,CHIP	SA
2203-000812	C310	C-CER,CHIP	SA
2203-000812	C321	C-CER,CHIP	SA
2203-000812	C322	C-CER,CHIP	SA
2203-000812	C600	C-CER,CHIP	SA
2203-000812	C605	C-CER,CHIP	SA
2203-000812	C703	C-CER,CHIP	SA
2203-000812	C708	C-CER,CHIP	SA
2203-000995	C506	C-CER,CHIP	SA
2203-000995	C706	C-CER,CHIP	SA
2203-001072	C433	C-CER,CHIP	SA
2203-001124	C724	C-CER,CHIP	DNA
2203-002443	C635	C-CER,CHIP	SA
2203-002668	C602	C-CER,CHIP	SA
2203-002668	C707	C-CER,CHIP	SA
2203-002668	C802	C-CER,CHIP	SA
2203-002709	C213	C-CER,CHIP	SA
2203-002709	C720	C-CER,CHIP	SA
2203-003019	C434	C-CER,CHIP	SA
2203-005053	C609	C-CER,CHIP	SA

SEC CODE	Design LOC	Discription	STATUS
2203-005053	C715	C-CER,CHIP	SA
2203-005053	C722	C-CER,CHIP	SA
2203-005056	C704	C-CER,CHIP	SA
2203-005138	C347	C-CER,CHIP	SA
2203-005138	C349	C-CER,CHIP	SA
2203-005249	C333	C-CER,CHIP	SA
2203-005288	C606	C-CER,CHIP	SA
2203-005344	C145	C-CER,CHIP	SA
2203-005344	C345	C-CER,CHIP	SA
2203-005344	C348	C-CER,CHIP	SA
2203-005482	C201	C-CER,CHIP	SA
2203-005482	C210	C-CER,CHIP	SA
2203-005482	C304	C-CER,CHIP	SA
2203-005482	C338	C-CER,CHIP	SA
2203-005482	C414	C-CER,CHIP	SA
2203-005482	C421	C-CER,CHIP	SA
2203-005482	C425	C-CER,CHIP	SA
2203-005482	C429	C-CER,CHIP	SA
2203-005482	C501	C-CER,CHIP	SA
2203-005482	C502	C-CER,CHIP	SA
2203-005482	C503	C-CER,CHIP	SA
2203-005482	C509	C-CER,CHIP	SA
2203-005482	C529	C-CER,CHIP	SA
2203-005482	C530	C-CER,CHIP	SA
2203-005482	C531	C-CER,CHIP	SA
2203-005482	C537	C-CER,CHIP	SA
2203-005682	C615	C-CER,CHIP	SA
2203-005682	C631	C-CER,CHIP	SA
2203-005682	C737	C-CER,CHIP	SA
2203-005682	C740	C-CER,CHIP	SA
2203-005682	C741	C-CER,CHIP	SA
2203-005682	C800	C-CER,CHIP	SA
2203-005682	C806	C-CER,CHIP	SA
2203-005682	C808	C-CER,CHIP	SA
2203-005682	C809	C-CER,CHIP	SA
2203-005682	C811	C-CER,CHIP	SA

SEC CODE	Design LOC	Discription	STATUS
2203-005729	C122	C-CER,CHIP	SA
2203-005729	C123	C-CER,CHIP	SA
2203-005729	C642	C-CER,CHIP	SA
2203-005729	C643	C-CER,CHIP	SA
2203-005732	C610	C-CER,CHIP	SA
2203-005736	C326	C-CER,CHIP	SA
2203-005736	C520	C-CER,CHIP	SA
2203-005736	C634	C-CER,CHIP	SA
2203-005736	C640	C-CER,CHIP	SA
2203-005736	C711	C-CER,CHIP	SA
2203-005736	C716	C-CER,CHIP	SA
2203-005736	C718	C-CER,CHIP	SA
2203-005736	C726	C-CER,CHIP	SA
2203-005736	C728	C-CER,CHIP	SA
2203-005806	C102	C-CER,CHIP	SNA
2203-005806	C103	C-CER,CHIP	SNA
2203-005806	C105	C-CER,CHIP	SNA
2203-005806	C106	C-CER,CHIP	SNA
2203-005806	C109	C-CER,CHIP	SNA
2203-005806	C110	C-CER,CHIP	SNA
2203-005806	C115	C-CER,CHIP	SNA
2203-005806	C116	C-CER,CHIP	SNA
2203-005806	C118	C-CER,CHIP	SNA
2203-005806	C119	C-CER,CHIP	SNA
2203-005806	C149	C-CER,CHIP	SNA
2203-005806	C150	C-CER,CHIP	SNA
2203-005806	C151	C-CER,CHIP	SNA
2203-005806	C323	C-CER,CHIP	SNA
2203-005806	C410	C-CER,CHIP	SNA
2203-005806	C511	C-CER,CHIP	SNA
2203-005806	C512	C-CER,CHIP	SNA
2203-005806	C518	C-CER,CHIP	SNA
2203-005806	C519	C-CER,CHIP	SNA
2203-005806	C535	C-CER,CHIP	SNA
2203-005806	C536	C-CER,CHIP	SNA
2203-005806	C626	C-CER,CHIP	SNA

SEC CODE	Design LOC	Discription	STATUS
2203-005806	C630	C-CER,CHIP	SNA
2203-005806	C641	C-CER,CHIP	SNA
2203-005806	C714	C-CER,CHIP	SNA
2203-005806	C823	C-CER,CHIP	SNA
2203-005808	C203	C-CER,CHIP	SA
2203-005808	C608	C-CER,CHIP	SA
2203-005808	C614	C-CER,CHIP	SA
2203-005808	C616	C-CER,CHIP	SA
2203-005808	C617	C-CER,CHIP	SA
2203-005808	C633	C-CER,CHIP	SA
2203-005808	C710	C-CER,CHIP	SA
2203-005819	C431	C-CER,CHIP	SA
2203-005819	C432	C-CER,CHIP	SA
2203-006047	C126	C-CER,CHIP	SA
2203-006194	C143	C-CER,CHIP	SA
2203-006194	C209	C-CER,CHIP	SA
2203-006194	C408	C-CER,CHIP	SA
2203-006194	C409	C-CER,CHIP	SA
2203-006194	C413	C-CER,CHIP	SA
2203-006194	C505	C-CER,CHIP	SA
2203-006194	C532	C-CER,CHIP	SA
2203-006194	C611	C-CER,CHIP	SA
2203-006194	C613	C-CER,CHIP	SA
2203-006194	C822	C-CER,CHIP	SA
2203-006208	C402	C-CER,CHIP	SA
2203-006208	C515	C-CER,CHIP	SA
2203-006208	C521	C-CER,CHIP	SA
2203-006208	C522	C-CER,CHIP	SA
2203-006208	C523	C-CER,CHIP	SA
2203-006260	C319	C-CER,CHIP	SA
2203-006260	C320	C-CER,CHIP	SA
2203-006260	C332	C-CER,CHIP	SA
2203-006260	C335	C-CER,CHIP	SA
2203-006260	C427	C-CER,CHIP	SA
2203-006260	C542	C-CER,CHIP	SA
2203-006260	R338	C-CER,CHIP	SA

SEC CODE	Design LOC	Discription	STATUS
2203-006305	C619	C-CER,CHIP	SA
2203-006307	C547	C-CER,CHIP	SA
2203-006324	C114	C-CER,CHIP	SA
2203-006324	C328	C-CER,CHIP	SA
2203-006324	C400	C-CER,CHIP	SA
2203-006324	C420	C-CER,CHIP	SA
2203-006324	C435	C-CER,CHIP	SA
2203-006324	C436	C-CER,CHIP	SA
2203-006324	C701	C-CER,CHIP	SA
2203-006324	C824	C-CER,CHIP	SA
2203-006324	C825	C-CER,CHIP	SA
2203-006361	C422	C-CER,CHIP	SA
2203-006379	C621	C-CER,CHIP	SA
2203-006423	C100	C-CER,CHIP	SA
2203-006423	C101	C-CER,CHIP	SA
2203-006423	C107	C-CER,CHIP	SA
2203-006423	C108	C-CER,CHIP	SA
2203-006423	C111	C-CER,CHIP	SA
2203-006423	C112	C-CER,CHIP	SA
2203-006423	C113	C-CER,CHIP	SA
2203-006423	C120	C-CER,CHIP	SA
2203-006423	C121	C-CER,CHIP	SA
2203-006423	C128	C-CER,CHIP	SA
2203-006423	C133	C-CER,CHIP	SA
2203-006423	C134	C-CER,CHIP	SA
2203-006423	C136	C-CER,CHIP	SA
2203-006423	C137	C-CER,CHIP	SA
2203-006423	C142	C-CER,CHIP	SA
2203-006423	C147	C-CER,CHIP	SA
2203-006423	C148	C-CER,CHIP	SA
2203-006423	C202	C-CER,CHIP	SA
2203-006423	C313	C-CER,CHIP	SA
2203-006423	C317	C-CER,CHIP	SA
2203-006423	C324	C-CER,CHIP	SA
2203-006423	C411	C-CER,CHIP	SA
2203-006423	C412	C-CER,CHIP	SA

SEC CODE	Design LOC	Discription	STATUS
2203-006423	C524	C-CER,CHIP	SA
2203-006423	C528	C-CER,CHIP	SA
2203-006423	C620	C-CER,CHIP	SA
2203-006423	C625	C-CER,CHIP	SA
2203-006423	C628	C-CER,CHIP	SA
2203-006423	C712	C-CER,CHIP	SA
2203-006423	C713	C-CER,CHIP	SA
2203-006423	C717	C-CER,CHIP	SA
2203-006423	C719	C-CER,CHIP	SA
2203-006423	C805	C-CER,CHIP	SA
2203-006423	C814	C-CER,CHIP	SA
2203-006423	C818	C-CER,CHIP	SA
2203-006556	C623	C-CER,CHIP	SA
2203-006556	C624	C-CER,CHIP	SA
2203-006562	C104	C-CER,CHIP	SA
2203-006562	C117	C-CER,CHIP	SA
2203-006562	C158	C-CER,CHIP	SA
2203-006562	C206	C-CER,CHIP	SA
2203-006562	C207	C-CER,CHIP	SA
2203-006562	C208	C-CER,CHIP	SA
2203-006562	C302	C-CER,CHIP	SA
2203-006562	C312	C-CER,CHIP	SA
2203-006562	C316	C-CER,CHIP	SA
2203-006562	C330	C-CER,CHIP	SA
2203-006562	C339	C-CER,CHIP	SA
2203-006562	C340	C-CER,CHIP	SA
2203-006562	C343	C-CER,CHIP	SA
2203-006562	C344	C-CER,CHIP	SA
2203-006562	C350	C-CER,CHIP	SA
2203-006562	C351	C-CER,CHIP	SA
2203-006562	C403	C-CER,CHIP	SA
2203-006562	C405	C-CER,CHIP	SA
2203-006562	C406	C-CER,CHIP	SA
2203-006562	C407	C-CER,CHIP	SA
2203-006562	C416	C-CER,CHIP	SA
2203-006562	C424	C-CER,CHIP	SA

SEC CODE	Design LOC	Discription	STATUS
2203-006562	C426	C-CER,CHIP	SA
2203-006562	C428	C-CER,CHIP	SA
2203-006562	C513	C-CER,CHIP	SA
2203-006562	C514	C-CER,CHIP	SA
2203-006562	C544	C-CER,CHIP	SA
2203-006562	C545	C-CER,CHIP	SA
2203-006562	C546	C-CER,CHIP	SA
2203-006562	C629	C-CER,CHIP	SA
2203-006562	C632	C-CER,CHIP	SA
2203-006562	C639	C-CER,CHIP	SA
2203-006562	C645	C-CER,CHIP	SA
2203-006562	C725	C-CER,CHIP	SA
2203-006562	C727	C-CER,CHIP	SA
2203-006617	C132	C-CER,CHIP	SA
2203-006617	C135	C-CER,CHIP	SA
2203-006648	C125	C-CER,CHIP	SA
2203-006648	C130	C-CER,CHIP	SA
2203-006648	C131	C-CER,CHIP	SA
2203-006824	C500	C-CER,CHIP	SA
2203-006824	C533	C-CER,CHIP	SA
2203-006824	C534	C-CER,CHIP	SA
2203-006825	C415	C-CER,CHIP	SA
2203-006838	C540	C-CER,CHIP	SA
2203-006847	C638	C-CER,CHIP	SA
2203-006872	C212	C-CER,CHIP	SA
2203-006872	C314	C-CER,CHIP	SA
2203-006872	C325	C-CER,CHIP	SA
2203-006872	C352	C-CER,CHIP	SA
2203-006872	C353	C-CER,CHIP	SA
2203-006872	C430	C-CER,CHIP	SA
2203-006872	C516	C-CER,CHIP	SA
2203-006872	C517	C-CER,CHIP	SA
2203-006872	C525	C-CER,CHIP	SA
2203-006872	C538	C-CER,CHIP	SA
2203-006872	C539	C-CER,CHIP	SA
2203-006872	C541	C-CER,CHIP	SA

SEC CODE	Design LOC	Discription	STATUS
2203-006872	C817	C-CER,CHIP	SA
2301-001200	C636	C-FILM,SMD-PPS	SA
2301-001213	C604	C-FILM,SMD-PPS	SA
2301-001735	C603	C-FILM,SMD	SA
2301-001807	C637	C-FILM,SMD	SA
2404-001225	TA601	C-TA,CHIP	SA
2404-001377	TA303	C-TA,CHIP	SA
2404-001381	TA304	C-TA,CHIP	SA
2404-001381	TA502	C-TA,CHIP	SA
2404-001406	TA300	C-TA,CHIP	SA
2404-001406	TA501	C-TA,CHIP	SA
2404-001411	TA600	C-TA,CHIP	SA
2404-001414	TA305	C-TA,CHIP	SA
2404-001430	TA700	C-TA,CHIP	SA
2404-001448	TA301	C-TA,CHIP	SA
2404-001448	TA302	C-TA,CHIP	SA
2703-001724	L814	INDUCTOR-SMD	SA
2703-001750	L703	INDUCTOR-SMD	SA
2703-001751	L810	INDUCTOR-SMD	SA
2703-001751	L812	INDUCTOR-SMD	SA
2703-001752	L803	INDUCTOR-SMD	SA
2703-001990	L701	INDUCTOR-SMD	SA
2703-001990	L704	INDUCTOR-SMD	SA
2703-001990	L708	INDUCTOR-SMD	SA
2703-002198	R708	INDUCTOR-SMD	SA
2703-002205	L702	INDUCTOR-SMD	SA
2703-002208	R621	INDUCTOR-SMD	SA
2703-002268	L609	INDUCTOR-SMD	SA
2703-002269	L610	INDUCTOR-SMD	SA
2703-002309	L201	INDUCTOR-SMD	SA
2703-002309	L202	INDUCTOR-SMD	SA
2703-002313	L100	INDUCTOR-SMD	SA
2703-002313	L101	INDUCTOR-SMD	SA
2703-002313	L204	INDUCTOR-SMD	SA
2703-002313	L300	INDUCTOR-SMD	SA
2703-002597	L802	INDUCTOR-SMD	SA

SEC CODE	Design LOC	Discription	STATUS
2703-002597	L804	INDUCTOR-SMD	SA
2703-002608	L806	INDUCTOR-SMD	SA
2703-002608	L809	INDUCTOR-SMD	SA
2703-002608	L811	INDUCTOR-SMD	SA
2703-002700	L705	INDUCTOR-SMD	SA
2703-002782	L501	INDUCTOR-SMD	SA
2703-002782	L502	INDUCTOR-SMD	SA
2703-002819	L604	INDUCTOR-SMD	SA
2703-002819	L605	INDUCTOR-SMD	SA
2703-002819	L606	INDUCTOR-SMD	SA
2703-002819	L607	INDUCTOR-SMD	SA
2703-002870	C804	INDUCTOR-SMD	SA
2703-002870	L600	INDUCTOR-SMD	SA
2703-002870	L602	INDUCTOR-SMD	SA
2703-002870	L603	INDUCTOR-SMD	SA
2703-002966	L400	INDUCTOR-SMD	SA
2801-004466	OSC501	CRYSTAL-SMD	SA
2802-001182	OSC101	RESONATOR-CERAMIC	SA
2806-001377	VCO600	OSCILLATOR-VCO	SA
2809-001274	TCX800	OSCILLATOR-VCTCXO	SA
2904-001658	F700	FILTER-SAW	SA
2904-001702	F702	FILTER-SAW	SA
2910-000010	DUF700	DUPLEXER-SAW	SA
2911-000048	D800	DUPLEXER-FEM	SA
3301-001158	L301	BEAD-SMD	SA
3301-001158	L302	BEAD-SMD	SA
3301-001534	L500	BEAD-SMD	SA
3301-001534	R536	BEAD-SMD	SA
3301-001534	R537	BEAD-SMD	SA
3301-001659	L203	BEAD-SMD	SA
3705-001421	CN800	CONNECTOR-COAXIAL	SA
3709-001344	HDC201	CONNECTOR-CARD EDGE	SA
3709-001447	SIM501	CONNECTOR-CARD EDGE	SA
3710-002363	IFC300	SOCKET-INTERFACE	SA
3711-005643	HDC203	HEADER-BOARD TO BOARD	SA
3711-005659	HDC202	HEADER-BOARD TO BOARD	SA

SEC CODE	Design LOC	Discription	STATUS
3711-005728	HDC200	HEADER-BOARD TO BOARD	SA
3711-006256	BTC500	HEADER-BATTERY	SA
4202-001210	ANT800	ANTENNA-CHIP	SA
4302-001130	BAT500	BATTERY-LI(2ND)	SA
4709-001460	U800	BLUETOOTH MODULE	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

- 3G
- Camera and Camcorder
- Media player
- Photo printing
- Bluetooth
- File viewer
- Web browser
- Name card
- Multimedia Message Service (MMS)
- Email
- Java
- Calendar
- Voice recorder