

SAMSUNG

GSM TELEPHONE

SGH-i560V

SERVICE *Manual*

GSM TELEPHONE



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**SAMSUNG
ELECTRONICS**



GSPN (Global Service Partner Network)

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

1. Safety Precautions

1-1. Repair Precaution

- Repair in Shield Box, during detailed tuning.
Take specially care of tuning or test, because the specification of cellular phone is sensitive for surrounding interference(RF noise).
- Be careful to use a kind of magnetic object or tool, because performance of parts is damaged by the influence of magnetic force.
- Surely use a standard screwdriver when you disassemble this product, otherwise screw will be worn away.
- Use a thicken twisted wire when you measure level.
A thicken twisted wire has low resistance, therefore error of measurement is few.
- Repair after separate Test Pack and Set because for short danger (for example an overcurrent and furious flames of parts etc) when you repair board in condition of connecting Test Pack and tuning on.
- Take specially care of soldering, because Land of PCB is small and weak in heat.
- Surely tune on/off while using AC power plug, because a repair of battery charger is dangerous when tuning ON/OFF PBA and Connector after disassembling charger.
- Don't use as you pleases after change other material than replacement registered on SEC System.
Otherwise engineer in charge isn't charged with problem that you don't keep this rules.

1-2. ESD(Electrostatically Sensitive Devices) Precaution

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

You can prevent from ESD damage by static electricity.

- Remove static electricity remained your body before you touch semiconductor or parts with semiconductor. There are ways that you touch an earthed place or wear static electricity prevention string on wrist.
- Use earthed soldering steel when you connect or disconnect ESD.
- Use soldering removing tool to break static electricity. , otherwise ESD will be damaged by static electricity.
- Don't unpack until you set up ESD on product. Because most of ESD are packed by box and aluminum plate to have conductive power,they are prevented from static electricity.
- You must maintain electric contact between ESD and place due to be set up until ESD is connected completely to the proper place or a circuit board.

2. Specification

2-1. GSM General Specification

	EGSM 900	DCS 1800	PCS 1900	WCDMA 2100
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	UL:9612~9888 DL:10562~10838
Tx/Rx spacing	10MHz	20MHz	20MHz	130MHz
Mod. Bit rate/ Bit Period	270.833kbps 3.692us	270.833kbps 3.692us	270.833kbps 3.692us	3.84Mcps (chip rate)
Time Slot Period/ Frame Period	576.9us 4.615ms	576.9us 4.615ms	576.9us 4.615ms	Frame length : 10ms Slot length : 0.667ms
Modulation	0.3GMSK	0.3GMSK	0.3GMSK	QPSK HPSK
MS Power	33dBm~5dBm	30dBm~0dBm	30dBm~0dBm	24dBm~-50dBm
Power Class	4 (max +33dBm)	1 (max +30dBm)	1 (max +30dBm)	3 (max +24dBm)
Sensitivity	-102dBm	-100dBm	-100dBm	-106.7dBm
TDMA Mux	8	8	8	
Cell Radius	35Km	2Km	2Km	2Km

2-2. GSM TX power class

TX Power control level	GSM850 GSM900	TX Power control level	DCS1800	TX Power control level	PCS1900
5	33±2 dBm	0	30±3 dBm	0	30±3 dBm
6	31±2 dBm	1	28±3 dBm	1	28±3 dBm
7	29±2 dBm	2	26±3 dBm	2	26±3 dBm
8	27±2 dBm	3	24±3 dBm	3	24±3 dBm
9	25±2 dBm	4	22±3 dBm	4	22±3 dBm
10	23±2 dBm	5	20±3 dBm	5	20±3 dBm
11	21±2 dBm	6	18±3 dBm	6	18±3 dBm
12	19±2 dBm	7	16±3 dBm	7	16±3 dBm
13	17±2 dBm	8	14±3 dBm	8	14±3 dBm
14	15±2 dBm	9	12±4 dBm	9	12±4 dBm
15	13±2 dBm	10	10±4 dBm	10	10±4 dBm
16	11±3 dBm	11	8±4 dBm	11	8±4 dBm
17	9±3 dBm	12	6±4 dBm	12	6±4 dBm
18	7±3 dBm	13	4±4 dBm	13	4±4 dBm
19	5±3 dBm	14	2±5 dBm	14	2±5 dBm
		15	0±5 dBm	15	0±5 dBm

3. Product Function

Main Function

- HSDPA/UMTS, EDGE, GPRS
- Bluetooth v2.0 + EDR
- USB v2.0 HS compatible
- Camera 3Mega x 9 Digital Zooming and camcorder
- FM Radio
- Instant Messaging capability
- E-mail
- Featured applications provide alarms, calendar, calculator, record audio, converter, timer, stopwatch, and world time.
- File viewer (MS office, PDF)
- Multimedia Message Service (MMS)
- Multimedia capability (with included Media player)
- Photo caller ID
- Speakerphone capability
- WEB/WAP browser (HTMS, xHTML, WML)

4. Array course control

4-1. Software Adjustments

- There is 2 set to download the binary image into your device.

[First set]



1. JIG BOX (UMTS TEST JIG; GH80-03308A)
2. USB Cable : JIG to PC
3. Test Cable : JIG to SGH-i560 (GH39-00890A)
4. Power Cable : JIG to power supply
5. Serial Cable : SGH-i560 to PC
6. Power Supply
7. Rf Cable : SGH-i560 to Agilent 8960 or CMU200 (GH39-00397A)
8. Test Cable : JIG to SGH-i560 (GH39-00886A)

[Second Set]



**USB Data Link Cable : SGH-i560 to PC (GH39-00922A)
Standard Battery for SGH-i560 (GH43-02992A)**

4-2. Software Download

4-2-1. Pre-requisite for Download

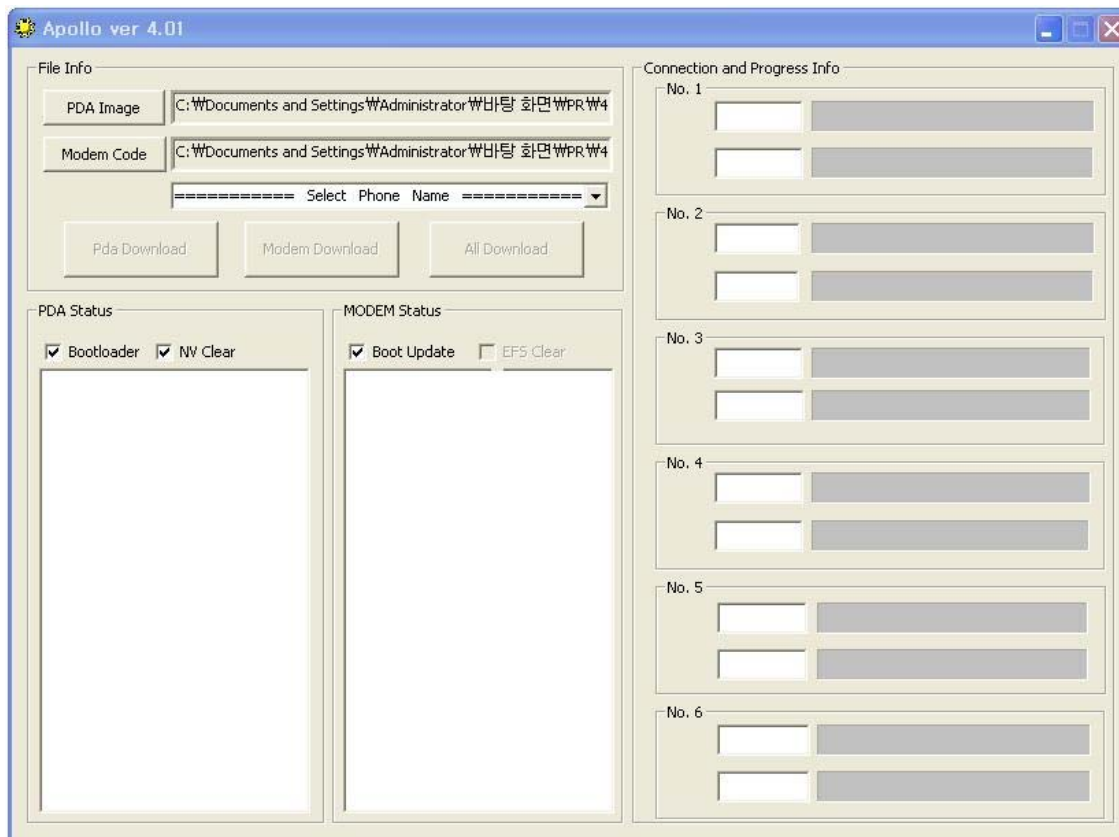
SGH - i560 Mobile Device

Apollo v4.01.exe : Downloader Application for SGH-i560

USB Download Driver : SS60_Downloader_Driver.zip

Rom Image : PDA(*.IMG), MODEM(*.BIN) images

Equipment set for Download.



4-2-2. Concepts & cautions.

You can download PDA or MODEM separately. But We are always recommended to download both at the same time using same version of rom image.

To download an image, the phone need to be set to a proper download mode.

There are 3 download modes.

PDA download : Hold 1, 4 keys and power on -> Blue screen with some information.

MODEM download : Hold 7, * keys and power on -> Blinking "MODEM DOWNLOAD"
on blue screen

All download : Hold 4, 7 keys and power on -> Blinking "ALL DOWNLOAD" on blue screen

For PDA image download, the phone shows download progress on the screen

For MODEM image download, the phone shows RGBW/B Screen.

For All download mode, MODEM image is downloaded first and then PDA downloading starts.

After downloading PDA, the phone will be reboot.

Do NOT interrupt downloading process or the phone will be damaged. You would be unable to boot up the phone or to re-flash the phone. Let it finish downloading process even though you are flashing wrong images.

4-2-3. USB Driver installation for PDA

Execution Apollo.exe.

SGH-i560 connect to the Host computer using download equipment set.

Hold "1+4" key and insert power supplied test cable when use equipment set 1

or Hold "1+4" key and press power on key when use equipment set 2.

Install PDA side driver.

Follow New H/W Installation Manager.

Select 'IBootHostUSB.inf'file under 'i560_Apollo_Drivers\PDA_driver' folder when

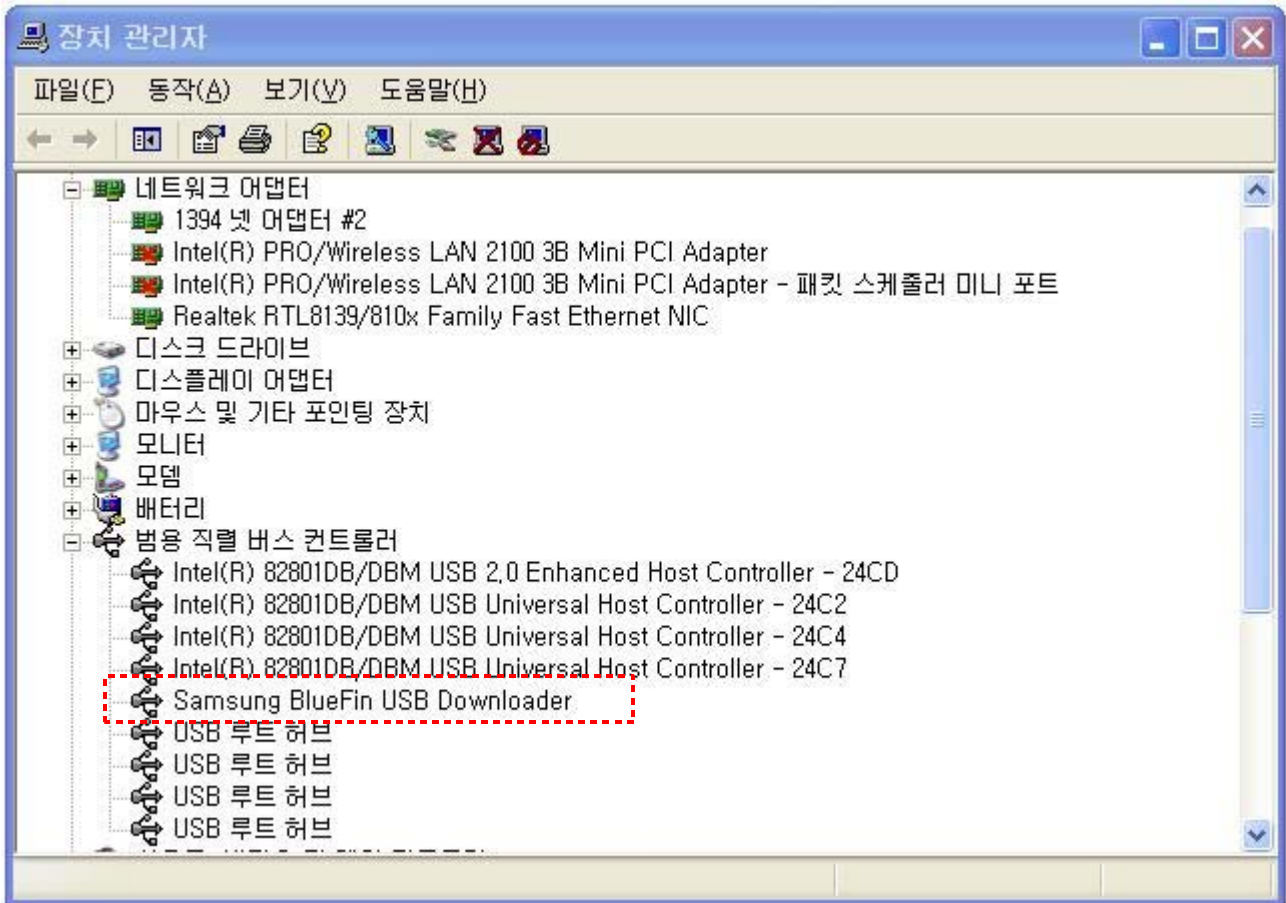
Windows asks for new h/w driver. It is safe to choose "Yes" for the warning window.

Confirm "[SAMSUNG BlueFin USB Downloader](#)" Installed.

Refer to Next Page.

** If Windows doesn't ask for USB driver, it means USB driver installation was failed before. Open Hardware Manager then delete devices with?or!mark then try again. If it doesn't work, you need to right click on the device then try Driver Update.

After installing PDA driver, Apollo shows the connection status if it is installed properly.



4-2-4. USB Driver installation for MODEM

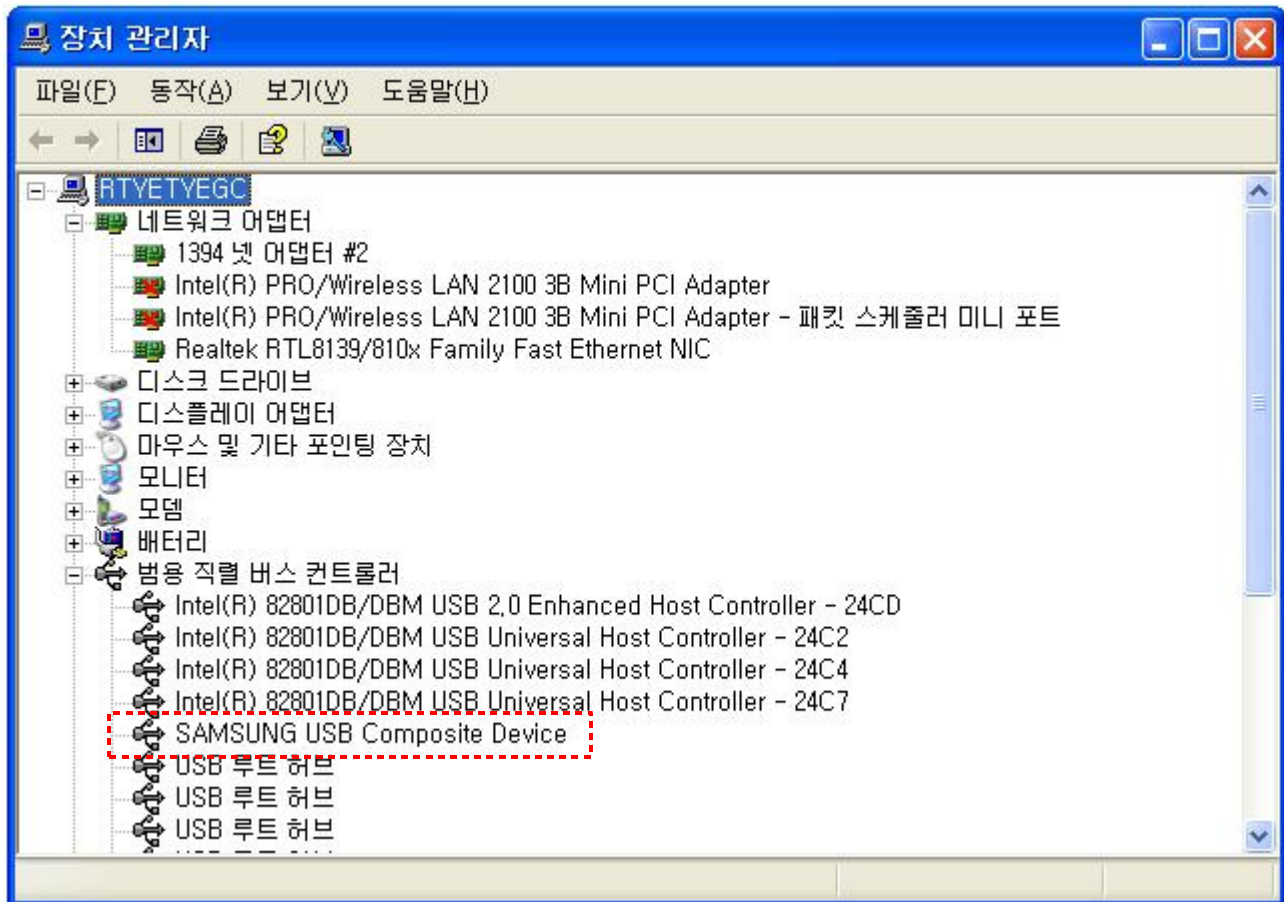
Hold “7 + *” key and insert power supplied test cable when use equipment set 1 or

Hold “7+ *” key and press power on key when use equipment set 2.

Install Modem side driver.

Execute ‘Setup.exe’file under ‘i560_Apollo_Drivers\PHONE_driver’ folder when Windows asks for new h/w driver.

Confirm “SAMSUNG USB Composite Device” Installed.



4-2-5. USB Driver installation

1. After installing PDA driver, Apollo shows the connection status if it is installed properly.



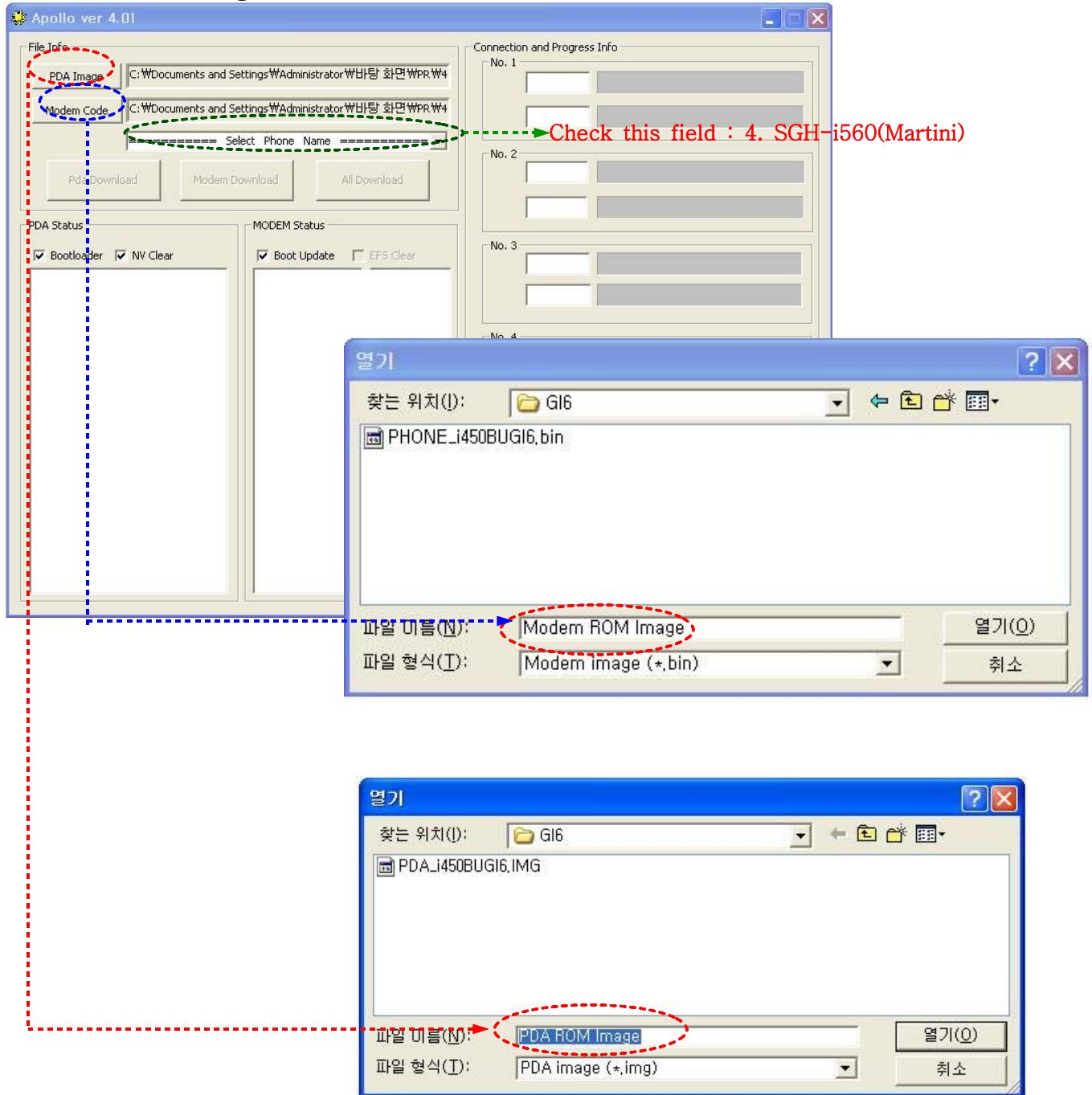
2. After installing MODEM driver, Apollo shows the connection status if it is installed properly.



4-2-6. Download the image using APOLLO

Execution Apollo.exe.

Select a Rom Image to download



Select the proper check option .

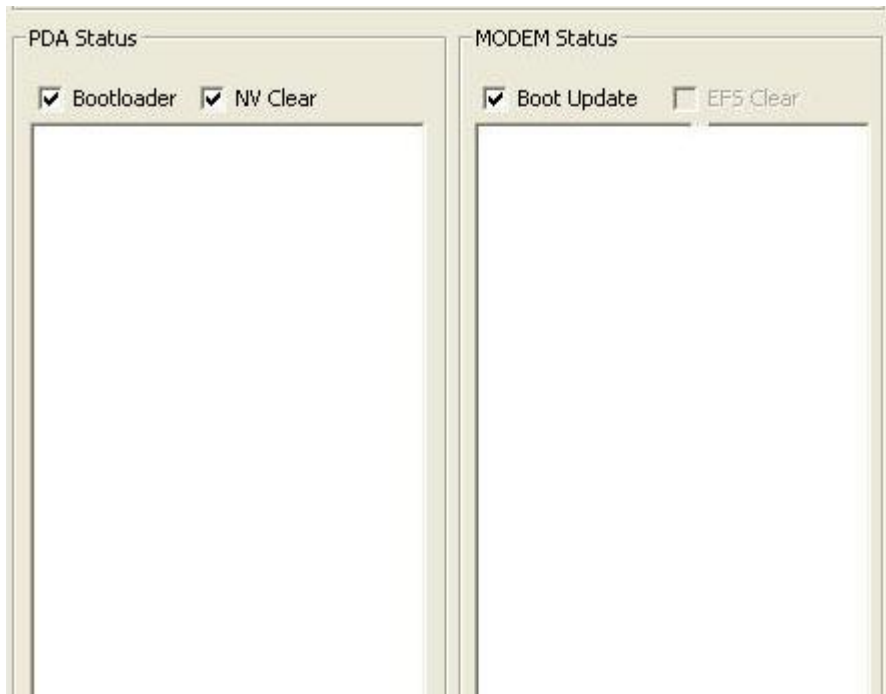
PDA stasus

- Bootloader : Update PDA Bootloader section.
- NV Clear : IMEI section erase.

You can see following message when you click this option

MODEM Status

- Boot Update : Update Modem Bootloader section.

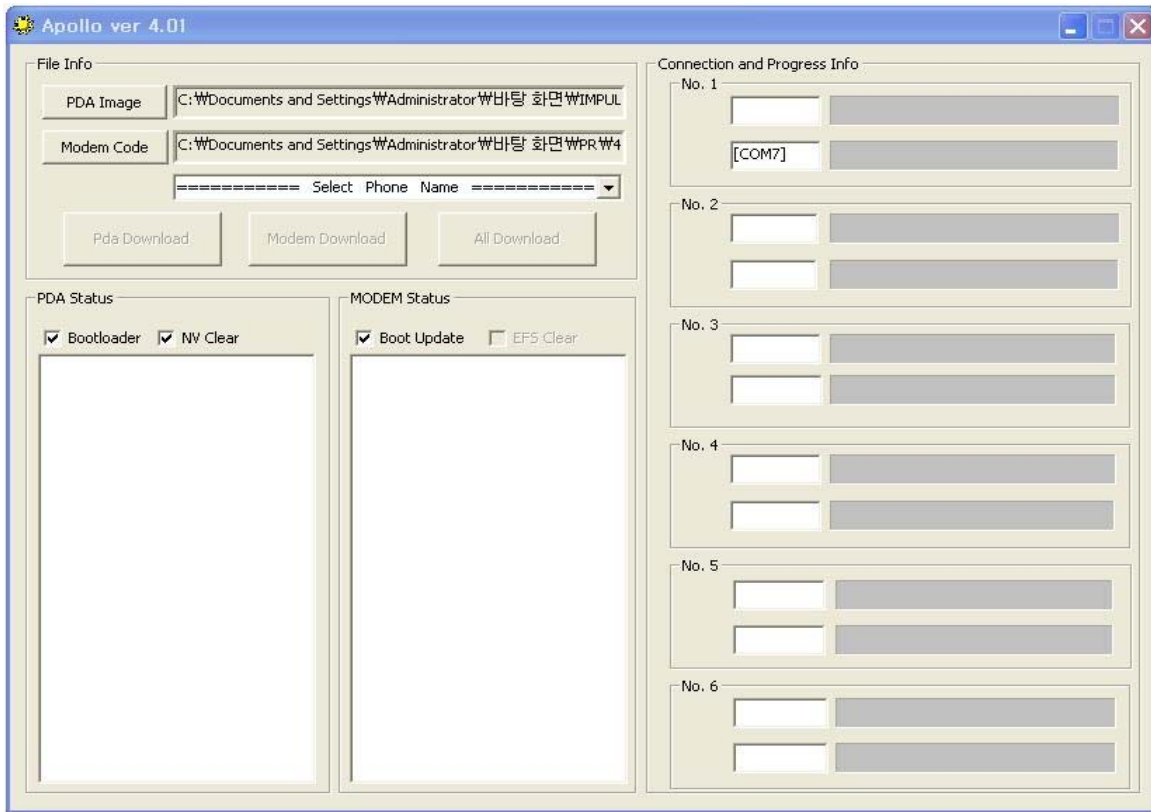


Make sure that phone and host computer connection, click proper download button.

PDA download : Hold 1, 4 keys and power on -> Blue screen with some information.

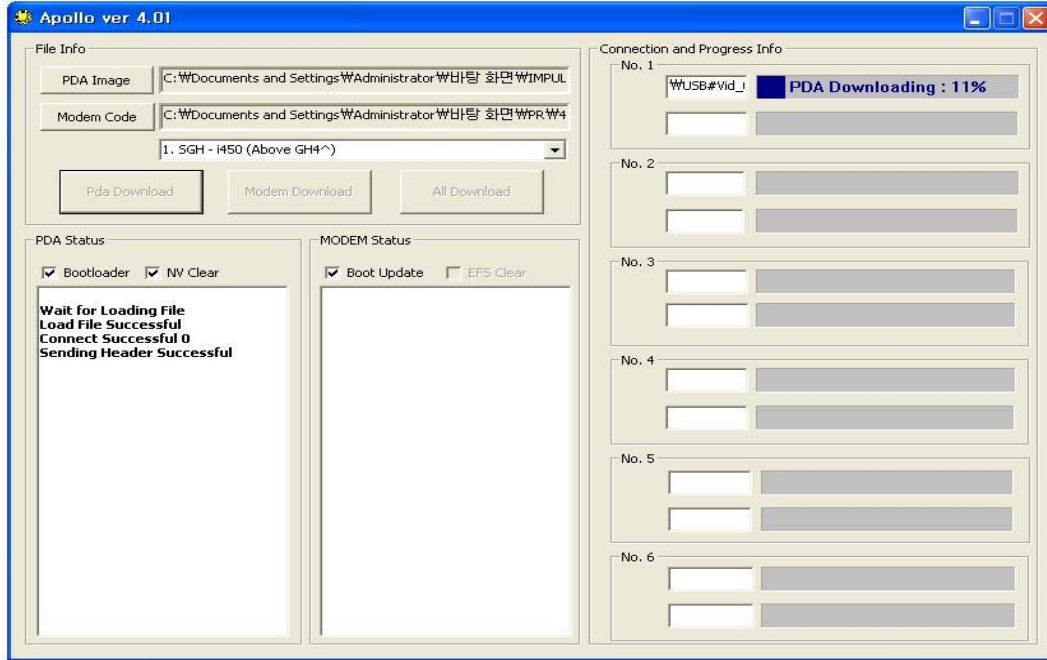
MODEM download : Hold 7, * keys and power on -> Blinking "MODEM DOWNLOAD" on blue screen

All download : Hold 4, 7 keys and power on -> Blinking "ALL DOWNLOAD" on blue screen



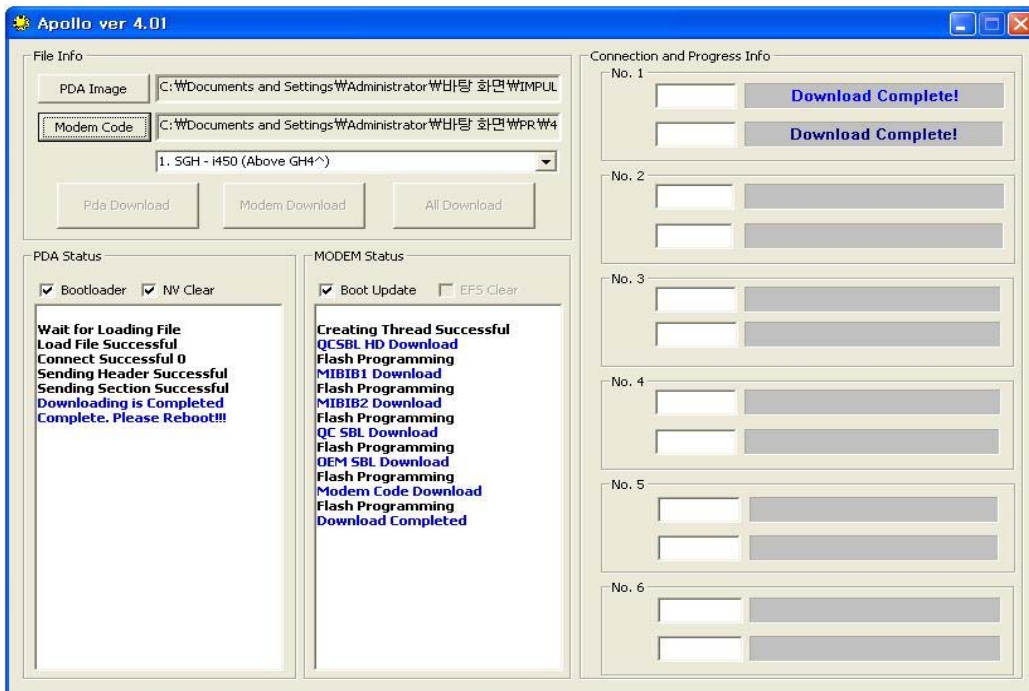
Do NOT interrupt downloading process.

- Pda download time: About 1 min.
- Modem download time : About 2 min.
- All download time: About 3 min.



Confirm Download Complete.

- SGH-i560 will be reboot when PDA download complete.



4-2-7. Troubleshooting

Unable to install USB driver.

Try another Download equipment

Try another SGH-i560.

Consult to R&D team.

Download stops in the middle.

Close and launch Apollo again then try again.

Check the battery is charged enough.

Download doesn't start

Check the connection between Apollo and a SGH-i560.

Check the image that is not damaged.

Select an image and download again.

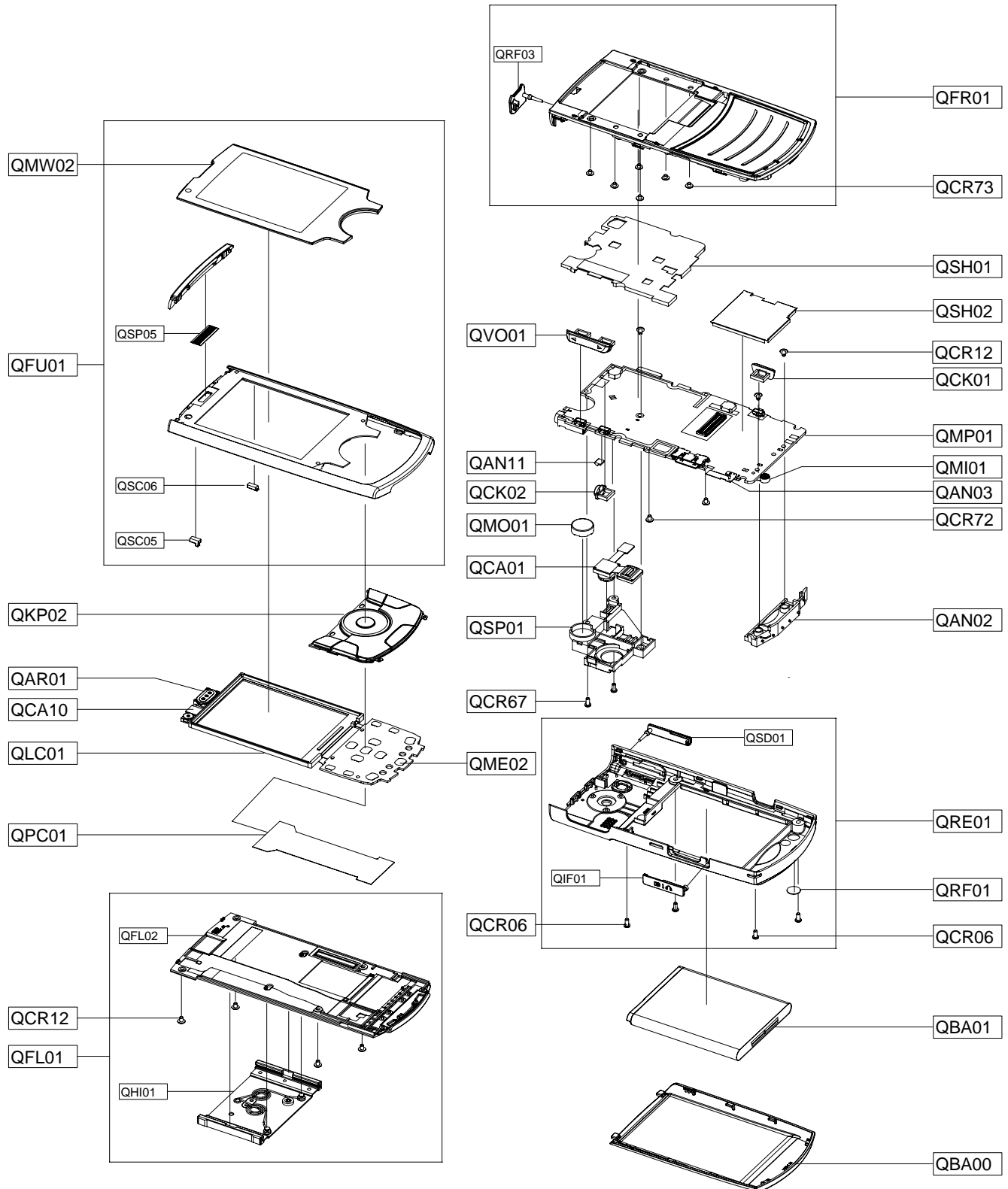
Phone doesn't boot up after downloading.

Check the release version of PDA and MODEM. They should be same.

Make sure that rom image, and then try to download.

5. Exploded View and Parts List

5-1. Cellular phone Exploded View



5-2. Cellular phone Parts List

Design LOC		Description	SEC CODE
QAN02		INTENNA-SGHI560V	GH42-01423A
QAN03		INTENNA-SGHI560V BT FPCB	GH42-01451A
QAN11		ASSY-CUSHION-CUSHION RUBBER IN	GH98-01077A
QAR01		AUDIO-RECEIVER	3009-001300
QBA00		PMO COVER-BATT	GH72-44575A
QBA01		INNER BATTERY PACK-1200MAH , B	GH43-02992A
QCA01		CAMERA MODULE-1/4" 3.1M CMOS	GH59-05024A
QCA10		CAMERA MODULE-1/24" VT CMOS	GH59-05022A
QCK01		PMO KEY-CAMERA	GH72-44572A
QCK02		PMO KEY-POWER	GH72-44573A
QCR06		SCREW-MACHINE	6001-001155
QCR06		SCREW-MACHINE	6001-001155
QCR12		SCREW-MACHINE	6001-001530
QCR12		SCREW-MACHINE	6001-001530
QCR67		SCREW-MACHINE	6001-002083
QCR72		SCREW-MACHINE	6001-002051
QCR73		SCREW-MACHINE	6001-002102
QKP02		ASSY KEYPAD-SUB(VOD/BLK)	GH98-06756A
QLC01		LCD-SGHI560V	GH07-01211A
QME02		DOME SHEET-SGHI560V SUB 12KEY	GH59-05042A
QMI01		MICROPHONE-ASSY-SGHI560V	GH30-00438A
QMO01		MOTOR LINEAR VIBRATION-SGHI560	GH31-00384A
QMP01		PBA MAIN-SGHI560V	GH92-04151A
QMW02		PMO WINDOW-MAIN(VOD)	GH72-44581A
QPC01		MEA-FPCBKIT	GH97-08391A
QRF01		TAPE-RF	GH74-35878A
QSH01		ASSY BRACKET-SHIELD CAN	GH98-06755A
QSH02		ICT BRACKET-SHIELD COVER	GH70-03059A
QSP01		ASSY ETC-SPEAKER MODULE	GH59-05123A

Design LOC		Description	SEC CODE
QVO01		PMO KEY-VOLUME	GH72-44574A
QFL01		ASSY CASE-LOWER	GH98-06414A
	QFL02	ASSY CASE-SLIDE LOWER	GH98-06754A
	QHI01	ASSY HINGE-SLIDE	GH98-06412A
QFR01		ASSY CASE-FRONT	GH98-06417A
	QRF03	PMO COVER-EAR	GH72-44576A
QFU01		ASSY CASE-UPPER(AL)	GH98-07148A
	QSC05	ASSY RUBBER-SLIDE UP L	GH98-06892A
	QSC06	ASSY RUBBER-SLIDE UP R	GH98-06893A
	QSP05	ASSY DECO-SPK	GH98-06757A
QRE01		ASSY CASE-REAR	GH98-06416A
	QIF01	PMO COVER-IF	GH72-44578A
	QSD01	PMO COVER-SD	GH72-44579A

Description	SEC CODE
BAG PE	6902-000634
CBF INTERFACE-DLC APCBS10BBE(S	GH39-00922A
ADAPTOR-ATADS10EBE,BLK,EU	GH44-01702A
S/W CD-SGHI560V SAMSUNG PC 7.0	GH46-00550A
S/W CD-SGHI560V USER GUIDE 1.0	GH46-00560A
EARPHONE-SGHE210,AAEP405MBE,A	GH59-04535A
LABEL(P)-UNIT SEAL	GH68-00518B
LABEL(R)-WATER SOAK	GH68-09361A
MANUAL USERS-VODA SPANISH QRG	GH68-16620A
LABEL(R)-MAIN(EU)	GH68-16810A
CUSHION-CASEVODA)	GH69-06153A
BOX-UNIT(EU)	GH69-06183A
TAPE-PBA	GH74-35879A
TAPE GASK-LCD CON	GH74-36274A
SPONGE-SPK STRUCTURE	GH74-36280A
TAPE-BB ABSORBER	GH74-36305A
TAPE ELEC-FRONT BB	GH74-36306A
TAPE ELEC-FRONT	GH74-36307A
VINYL-BOHO UPPER	GH74-36310A
TAPE INSU-SIM SOKET	GH74-36385A
TAPE INSU-LCD CON	GH74-36393A
TAPE-CK	GH74-36394A
TAPE INSU-FLASH FPCB	GH74-36396A
SPONGE-SUB SLIDE	GH74-36491A
VINYL-BOHO MAIN WINDOW	GH74-36749A

6. Main Electrical Parts List

SEC Code	Design LOC	Description	STATUS
0403-001547	D502	DIODE-ZENER	SA
0406-001150	ZD700	DIODE-TVS	SA
0406-001197	ZD708	DIODE-TVS	SA
0406-001208	ZD802	DIODE-TVS	SA
0406-001208	ZD808	DIODE-TVS	SA
0406-001208	ZD811	DIODE-TVS	SA
0406-001231	ZD600	DIODE-TVS	SA
0406-001231	ZD601	DIODE-TVS	SA
0406-001231	ZD602	DIODE-TVS	SA
0406-001231	ZD603	DIODE-TVS	SA
0406-001254	ZD200	DIODE-TVS	SA
0406-001254	ZD500	DIODE-TVS	SA
0406-001254	ZD505	DIODE-TVS	SA
0406-001254	ZD604	DIODE-TVS	SA
0406-001254	ZD803	DIODE-TVS	SA
0406-001254	ZD804	DIODE-TVS	SA
0406-001254	ZD805	DIODE-TVS	SA
0406-001254	ZD806	DIODE-TVS	SA
0406-001254	ZD807	DIODE-TVS	SA
0406-001254	ZD809	DIODE-TVS	SA
0406-001254	ZD810	DIODE-TVS	SA
0406-001254	ZD812	DIODE-TVS	SA
0406-001256	ZD501	DIODE-TVS	SA
0406-001256	ZD502	DIODE-TVS	SA
0406-001267	ZD1000	DIODE-TVS	SA
0406-001267	ZD1001	DIODE-TVS	SA
0406-001267	ZD1003	DIODE-TVS	SA
0406-001267	ZD1005	DIODE-TVS	SA
0406-001267	ZD1006	DIODE-TVS	SA
0406-001267	ZD300	DIODE-TVS	SA
0406-001267	ZD301	DIODE-TVS	SA
0406-001267	ZD701	DIODE-TVS	SA
0406-001267	ZD702	DIODE-TVS	SA
0406-001267	ZD703	DIODE-TVS	SA
0406-001267	ZD704	DIODE-TVS	SA
0406-001267	ZD705	DIODE-TVS	SA
0406-001267	ZD706	DIODE-TVS	SA
0406-001267	ZD707	DIODE-TVS	SA
0407-000115	D800	DIODE-ARRAY	SA
0407-001002	D500	DIODE-ARRAY	SA
0407-001002	D501	DIODE-ARRAY	SA
0407-001007	D503	DIODE-ARRAY	SA
0504-001113	TR500	TR-DIGITAL	SA
0504-001113	TR501	TR-DIGITAL	SA
0504-001113	TR503	TR-DIGITAL	SA
0505-001165	TR502	FET-SILICON	SA
0801-002294	U401	IC-CMOS LOGIC	SA
0801-002294	U513	IC-CMOS LOGIC	SA
0801-002294	U514	IC-CMOS LOGIC	SA
0801-002321	U1000	IC-CMOS LOGIC	SA
0801-003012	U511	IC-CMOS LOGIC	SA
0801-003013	U402	IC-CMOS LOGIC	SA
0801-003052	U400	IC-CMOS LOGIC	SA
0801-003124	U512	IC-CMOS LOGIC	SA

Main Electrical Parts List

SEC Code	Design LOC	Description	STATUS
0801-003205	U509	IC-CMOS LOGIC	SA
0904-002295	UCP900	IC-DSP	SA
1001-001336	U706	IC-ANALOG SWITCH	SA
1001-001362	U603	IC-ANALOG SWITCH	SA
1001-001401	U1004	IC-ANALOG SWITCH	SA
1001-001436	U1002	IC-ANALOG SWITCH	SA
1001-001461	U601	IC-ANALOG SWITCH	SA
1001-001483	U800	IC-ANALOG SWITCH	SA
1001-001483	U801	IC-ANALOG SWITCH	SA
1001-001483	U802	IC-ANALOG SWITCH	SA
1001-001483	U803	IC-ANALOG SWITCH	SA
1001-001483	U804	IC-ANALOG SWITCH	SA
1001-001483	U805	IC-ANALOG SWITCH	SA
1009-001027	U702	IC-HALL EFFECT S/W	SA
1106-001511	UME1000	IC-SRAM	SA
1108-000127	UME400	IC-MCP	SA
1108-000135	UCP900UP	IC-MCP	SA
1201-002180	U1003	IC-AUDIO AMP	SA
1201-002233	U605	IC-AUDIO AMP	SA
1201-002531	U303	IC-POWER AMP	SA
1201-002570	U202	IC-POWER AMP	SA
1201-002581	F304	IC-RF AMP	SA
1202-001068	U1001	IC-VOLTAGE COMP.	SA
1203-002716	U510	IC-VOL. DETECTOR	SA
1203-003643	U703	IC-MULTI REG.	SA
1203-003643	U705	IC-MULTI REG.	SA
1203-003737	U700	IC-POSI.FIXED REG.	SA
1203-003737	U704	IC-POSI.FIXED REG.	SA
1203-003737	U710	IC-POSI.FIXED REG.	SA
1203-003978	U707	IC-DC/DC CONVERTER	SA
1203-004430	U505	IC-VOL. DETECTOR	SA
1203-004464	U515	IC-VOL. DETECTOR	SA
1203-004607	U701	IC-MULTI REG.	SA
1203-004621	U602	IC-POWER SUPERVISOR	SA
1203-004778	U501	IC-POWER SUPERVISOR	SA
1203-004838	U500	IC-BATTERY	SA
1204-002746	U308	IC-TUNER	SA
1205-002767	U504	IC-SWITCH	SA
1205-003169	MOD200	IC-DATA COMM./GEN.	SA
1205-003281	UCP400	IC-MODEM	SA
1205-003297	U201	IC-TRANSCEIVER	SA
1404-001221	TH400	THERMISTOR-NTC	SA
1405-001138	VR800	VARISTOR	SA
1405-001138	VR801	VARISTOR	SA
1405-001138	VR802	VARISTOR	SA
1405-001138	VR803	VARISTOR	SA
1405-001138	VR804	VARISTOR	SA
1405-001138	VR805	VARISTOR	SA
1405-001138	VR806	VARISTOR	SA
1405-001138	VR807	VARISTOR	SA
1405-001138	VR808	VARISTOR	SA
1405-001138	VR809	VARISTOR	SA
1405-001138	VR810	VARISTOR	SA
1405-001138	VR811	VARISTOR	SA

SEC Code	Design LOC	Description	STATUS
2007-000137	R419	R-CHIP	SA
2007-000138	R1040	R-CHIP	SA
2007-000138	R1043	R-CHIP	SA
2007-000138	R310	R-CHIP	SA
2007-000138	R642	R-CHIP	SA
2007-000138	R643	R-CHIP	SA
2007-000138	R720	R-CHIP	SA
2007-000138	R722	R-CHIP	SA
2007-000140	R1032	R-CHIP	SA
2007-000148	R210	R-CHIP	SA
2007-000148	R405	R-CHIP	SA
2007-000148	R407	R-CHIP	SA
2007-000148	R412	R-CHIP	SA
2007-000148	R523	R-CHIP	SA
2007-000157	R530	R-CHIP	SA
2007-000159	R909	R-CHIP	SA
2007-000161	R305	R-CHIP	SA
2007-000162	R1004	R-CHIP	SA
2007-000162	R1007	R-CHIP	SA
2007-000162	R1019	R-CHIP	SA
2007-000162	R1021	R-CHIP	SA
2007-000162	R500	R-CHIP	SA
2007-000162	R510	R-CHIP	SA
2007-000162	R511	R-CHIP	SA
2007-000162	R527	R-CHIP	SA
2007-000162	R537	R-CHIP	SA
2007-000162	R602	R-CHIP	SA
2007-000162	R701	R-CHIP	SA
2007-000162	R716	R-CHIP	SA
2007-000162	R903	R-CHIP	SA
2007-000164	R700	R-CHIP	SA
2007-000165	R518	R-CHIP	SA
2007-000165	R639	R-CHIP	SA
2007-000169	R1029	R-CHIP	SA
2007-000170	R1026	R-CHIP	SA
2007-000170	R1027	R-CHIP	SA
2007-000170	R1028	R-CHIP	SA
2007-000170	R422	R-CHIP	SA
2007-000170	R519	R-CHIP	SA
2007-000171	R1002	R-CHIP	SA
2007-000171	R205	R-CHIP	SA
2007-000171	R211	R-CHIP	SA
2007-000171	R214	R-CHIP	SA
2007-000171	R221	R-CHIP	SA
2007-000171	R300	R-CHIP	SA
2007-000171	R301	R-CHIP	SA
2007-000171	R304	R-CHIP	SA
2007-000171	R311	R-CHIP	SA
2007-000171	R312	R-CHIP	SA
2007-000171	R313	R-CHIP	SA
2007-000171	R317	R-CHIP	SA
2007-000171	R319	R-CHIP	SA
2007-000171	R538	R-CHIP	SA
2007-000171	R922	R-CHIP	SA

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SEC Code	Design LOC	Description	STATUS
2007-001119	R603	R-CHIP	SA
2007-001119	R604	R-CHIP	SA
2007-001285	R207	R-CHIP	SA
2007-001285	R208	R-CHIP	SA
2007-001290	R418	R-CHIP	SA
2007-001292	R414	R-CHIP	SA
2007-001298	R209	R-CHIP	SA
2007-001298	R215	R-CHIP	SA
2007-001298	R303	R-CHIP	SA
2007-001298	R402	R-CHIP	SA
2007-001306	R212	R-CHIP	SA
2007-001306	R213	R-CHIP	SA
2007-001306	R216	R-CHIP	SA
2007-001306	R217	R-CHIP	SA
2007-001316	R517	R-CHIP	SA
2007-001339	R715	R-CHIP	SA
2007-001339	R806	R-CHIP	SA
2007-007009	R306	R-CHIP	SA
2007-007014	R506	R-CHIP	SA
2007-007014	R520	R-CHIP	SA
2007-007107	R220	R-CHIP	SA
2007-007107	R423	R-CHIP	SA
2007-007107	R425	R-CHIP	SA
2007-007107	R705	R-CHIP	SA
2007-007132	R1013	R-CHIP	SA
2007-007132	R1045	R-CHIP	SA
2007-007136	R625	R-CHIP	SA
2007-007136	R629	R-CHIP	SA
2007-007136	R923	R-CHIP	SA
2007-007139	R624	R-CHIP	SA
2007-007139	R626	R-CHIP	SA
2007-007142	R509	R-CHIP	SA
2007-007190	R902	R-CHIP	SA
2007-007190	R921	R-CHIP	SA
2007-007306	R302	R-CHIP	SA
2007-007306	R307	R-CHIP	SA
2007-007307	R1030	R-CHIP	SA
2007-007307	R1031	R-CHIP	SA
2007-007307	R721	R-CHIP	SA
2007-007307	R726	R-CHIP	SA
2007-007309	R202	R-CHIP	SA
2007-007309	R526	R-CHIP	SA
2007-007315	R516	R-CHIP	SA
2007-007316	R421	R-CHIP	SA
2007-007317	R539	R-CHIP	SA
2007-007317	R900	R-CHIP	SA
2007-007317	R901	R-CHIP	SA
2007-007468	R505	R-CHIP	SA
2007-007528	R610	R-CHIP	SA
2007-007528	R614	R-CHIP	SA
2007-007698	R508	R-CHIP	SA
2007-007766	R515	R-CHIP	SA
2007-007791	R704	R-CHIP	SA
2007-008045	R1044	R-CHIP	SA

SEC Code	Design LOC	Description	STATUS
2007-008045	R749	R-CHIP	SA
2007-008052	R904	R-CHIP	SA
2007-008052	R905	R-CHIP	SA
2007-008052	R906	R-CHIP	SA
2007-008052	R907	R-CHIP	SA
2007-008055	R514	R-CHIP	SA
2007-008055	R601	R-CHIP	SA
2007-008419	R733	R-CHIP	SA
2007-008419	R734	R-CHIP	SA
2007-008419	R737	R-CHIP	SA
2007-008483	R521	R-CHIP	SA
2007-008483	R522	R-CHIP	SA
2007-008483	R524	R-CHIP	SA
2007-008483	R525	R-CHIP	SA
2007-008516	R314	R-CHIP	SA
2007-008516	R640	R-CHIP	SA
2007-008516	R641	R-CHIP	SA
2007-008542	R634	R-CHIP	SA
2007-008542	R735	R-CHIP	SA
2007-008542	R736	R-CHIP	SA
2007-008588	R218	R-CHIP	SA
2007-008806	R507	R-CHIP	SA
2007-008806	R528	R-CHIP	SA
2007-008806	R529	R-CHIP	SA
2007-008806	R532	R-CHIP	SA
2007-008806	R533	R-CHIP	SA
2007-008806	R534	R-CHIP	SA
2007-008806	R535	R-CHIP	SA
2007-008806	R541	R-CHIP	SA
2007-008806	R605	R-CHIP	SA
2007-009157	R1005	R-CHIP	SA
2007-009157	R1006	R-CHIP	SA
2007-009157	R1009	R-CHIP	SA
2007-009157	R1010	R-CHIP	SA
2007-009157	R738	R-CHIP	SA
2007-009793	R1011	R-CHIP	SA
2007-009793	R1012	R-CHIP	SA
2203-000233	C1014	C-CER,CHIP	SA
2203-000233	C207	C-CER,CHIP	SA
2203-000233	C209	C-CER,CHIP	SA
2203-000233	C218	C-CER,CHIP	SA
2203-000233	C220	C-CER,CHIP	SA
2203-000233	C234	C-CER,CHIP	SA
2203-000233	C239	C-CER,CHIP	SA
2203-000233	C247	C-CER,CHIP	SA
2203-000233	C256	C-CER,CHIP	SA
2203-000233	C279	C-CER,CHIP	SA
2203-000233	C325	C-CER,CHIP	SA
2203-000233	C512	C-CER,CHIP	SA
2203-000233	C513	C-CER,CHIP	SA
2203-000233	C520	C-CER,CHIP	SA
2203-000254	C225	C-CER,CHIP	SA
2203-000254	C253	C-CER,CHIP	SA
2203-000254	C276	C-CER,CHIP	SA

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SEC Code	Design LOC	Description	STATUS
2203-000254	C315	C-CER,CHIP	SA
2203-000254	C317	C-CER,CHIP	SA
2203-000254	C321	C-CER,CHIP	SA
2203-000254	C443	C-CER,CHIP	SA
2203-000254	C656	C-CER,CHIP	SA
2203-000254	C658	C-CER,CHIP	SA
2203-000278	C600	C-CER,CHIP	SA
2203-000278	C626	C-CER,CHIP	SA
2203-000278	C633	C-CER,CHIP	SA
2203-000278	C642	C-CER,CHIP	SA
2203-000311	C200	C-CER,CHIP	SA
2203-000311	C202	C-CER,CHIP	SA
2203-000311	C203	C-CER,CHIP	SA
2203-000311	C205	C-CER,CHIP	SA
2203-000330	C268	C-CER,CHIP	SA
2203-000330	C273	C-CER,CHIP	SA
2203-000330	C282	C-CER,CHIP	SA
2203-000330	C283	C-CER,CHIP	SA
2203-000330	C304	C-CER,CHIP	SA
2203-000386	C264	C-CER,CHIP	SA
2203-000386	C306	C-CER,CHIP	SA
2203-000386	C680	C-CER,CHIP	SA
2203-000386	C681	C-CER,CHIP	SA
2203-000386	C682	C-CER,CHIP	SA
2203-000438	C259	C-CER,CHIP	SA
2203-000438	C316	C-CER,CHIP	SA
2203-000438	C464	C-CER,CHIP	SA
2203-000489	C402	C-CER,CHIP	SA
2203-000627	C217	C-CER,CHIP	SNA
2203-000627	C222	C-CER,CHIP	SNA
2203-000627	C224	C-CER,CHIP	SNA
2203-000627	C228	C-CER,CHIP	SNA
2203-000627	C230	C-CER,CHIP	SNA
2203-000627	C232	C-CER,CHIP	SNA
2203-000627	C233	C-CER,CHIP	SNA
2203-000627	C254	C-CER,CHIP	SNA
2203-000627	C260	C-CER,CHIP	SNA
2203-000679	C238	C-CER,CHIP	SA
2203-000679	C244	C-CER,CHIP	SA
2203-000812	C1012	C-CER,CHIP	SA
2203-000812	C1013	C-CER,CHIP	SA
2203-000812	C214	C-CER,CHIP	SA
2203-000812	C236	C-CER,CHIP	SA
2203-000812	C237	C-CER,CHIP	SA
2203-000812	C241	C-CER,CHIP	SA
2203-000812	C243	C-CER,CHIP	SA
2203-000812	C255	C-CER,CHIP	SA
2203-000812	C262	C-CER,CHIP	SA
2203-000812	C275	C-CER,CHIP	SA
2203-000812	C305	C-CER,CHIP	SA
2203-000812	C320	C-CER,CHIP	SA
2203-000812	C328	C-CER,CHIP	SA
2203-000812	C330	C-CER,CHIP	SA
2203-000812	C332	C-CER,CHIP	SA

SEC Code	Design LOC	Description	STATUS
2203-000812	C527	C-CER,CHIP	SA
2203-000812	C528	C-CER,CHIP	SA
2203-000812	C531	C-CER,CHIP	SA
2203-000812	C627	C-CER,CHIP	SA
2203-000812	C635	C-CER,CHIP	SA
2203-000812	C643	C-CER,CHIP	SA
2203-000812	C652	C-CER,CHIP	SA
2203-000812	C653	C-CER,CHIP	SA
2203-000812	C720	C-CER,CHIP	SA
2203-000995	C1008	C-CER,CHIP	SA
2203-000995	C1009	C-CER,CHIP	SA
2203-000995	C300	C-CER,CHIP	SA
2203-000995	C401	C-CER,CHIP	SA
2203-000995	C469	C-CER,CHIP	SA
2203-000995	C663	C-CER,CHIP	SA
2203-000995	C664	C-CER,CHIP	SA
2203-000995	C678	C-CER,CHIP	SA
2203-000995	C751	C-CER,CHIP	SA
2203-000995	C752	C-CER,CHIP	SA
2203-001153	C201	C-CER,CHIP	SA
2203-001153	C204	C-CER,CHIP	SA
2203-001259	C601	C-CER,CHIP	SA
2203-002668	C303	C-CER,CHIP	SA
2203-002668	C334	C-CER,CHIP	SA
2203-002709	C503	C-CER,CHIP	SA
2203-002709	C506	C-CER,CHIP	SA
2203-002709	C515	C-CER,CHIP	SA
2203-002709	C517	C-CER,CHIP	SA
2203-002968	C250	C-CER,CHIP	SA
2203-003054	C1006	C-CER,CHIP	SA
2203-003054	C1007	C-CER,CHIP	SA
2203-005053	C272	C-CER,CHIP	SA
2203-005053	C274	C-CER,CHIP	SA
2203-005056	C291	C-CER,CHIP	SA
2203-005234	C280	C-CER,CHIP	SA
2203-005281	C263	C-CER,CHIP	SA
2203-005281	C265	C-CER,CHIP	SA
2203-005281	C322	C-CER,CHIP	SA
2203-005395	C271	C-CER,CHIP	SA
2203-005480	C463	C-CER,CHIP	SA
2203-005482	C301	C-CER,CHIP	SA
2203-005482	C312	C-CER,CHIP	SA
2203-005482	C326	C-CER,CHIP	SA
2203-005482	C336	C-CER,CHIP	SA
2203-005482	C406	C-CER,CHIP	SA
2203-005482	C413	C-CER,CHIP	SA
2203-005482	C420	C-CER,CHIP	SA
2203-005482	C444	C-CER,CHIP	SA
2203-005482	C450	C-CER,CHIP	SA
2203-005482	C461	C-CER,CHIP	SA
2203-005482	C462	C-CER,CHIP	SA
2203-005482	C941	C-CER,CHIP	SA
2203-005682	C231	C-CER,CHIP	SA
2203-005682	C329	C-CER,CHIP	SA

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SEC Code	Design LOC	Description	STATUS
2203-005682	C611	C-CER,CHIP	SA
2203-005682	C631	C-CER,CHIP	SA
2203-005682	C637	C-CER,CHIP	SA
2203-005682	C644	C-CER,CHIP	SA
2203-005683	C1025	C-CER,CHIP	SA
2203-005725	C211	C-CER,CHIP	SA
2203-005725	C212	C-CER,CHIP	SA
2203-005727	C510	C-CER,CHIP	SA
2203-005729	C508	C-CER,CHIP	SA
2203-005732	C266	C-CER,CHIP	SA
2203-005736	C213	C-CER,CHIP	SA
2203-005736	C816	C-CER,CHIP	SA
2203-005736	C817	C-CER,CHIP	SA
2203-005736	C818	C-CER,CHIP	SA
2203-005736	C819	C-CER,CHIP	SA
2203-005806	C226	C-CER,CHIP	SNA
2203-006048	C277	C-CER,CHIP	SA
2203-006048	C278	C-CER,CHIP	SA
2203-006048	C538	C-CER,CHIP	SA
2203-006048	C700	C-CER,CHIP	SA
2203-006048	C701	C-CER,CHIP	SA
2203-006137	C313	C-CER,CHIP	SA
2203-006194	C439	C-CER,CHIP	SA
2203-006194	C447	C-CER,CHIP	SA
2203-006194	C466	C-CER,CHIP	SA
2203-006194	C468	C-CER,CHIP	SA
2203-006208	C509	C-CER,CHIP	SA
2203-006208	C516	C-CER,CHIP	SA
2203-006208	C519	C-CER,CHIP	SA
2203-006261	C339	C-CER,CHIP	SA
2203-006324	C465	C-CER,CHIP	SA
2203-006324	C500	C-CER,CHIP	SA
2203-006324	C521	C-CER,CHIP	SA
2203-006324	C650	C-CER,CHIP	SA
2203-006324	C736	C-CER,CHIP	SA
2203-006324	C737	C-CER,CHIP	SA
2203-006324	C738	C-CER,CHIP	SA
2203-006348	C535	C-CER,CHIP	SA
2203-006348	C536	C-CER,CHIP	SA
2203-006377	C719	C-CER,CHIP	SA
2203-006399	C1017	C-CER,CHIP	SA
2203-006399	C284	C-CER,CHIP	SA
2203-006399	C285	C-CER,CHIP	SA
2203-006399	C286	C-CER,CHIP	SA
2203-006399	C287	C-CER,CHIP	SA
2203-006399	C288	C-CER,CHIP	SA
2203-006399	C407	C-CER,CHIP	SA
2203-006399	C408	C-CER,CHIP	SA
2203-006399	C409	C-CER,CHIP	SA
2203-006399	C410	C-CER,CHIP	SA
2203-006399	C418	C-CER,CHIP	SA
2203-006399	C617	C-CER,CHIP	SA
2203-006399	C623	C-CER,CHIP	SA
2203-006399	C625	C-CER,CHIP	SA

SEC Code	Design LOC	Description	STATUS
2203-006399	C740	C-CER,CHIP	SA
2203-006399	C805	C-CER,CHIP	SA
2203-006399	C960	C-CER,CHIP	SA
2203-006399	C963	C-CER,CHIP	SA
2203-006423	C1002	C-CER,CHIP	SA
2203-006423	C1003	C-CER,CHIP	SA
2203-006423	C1004	C-CER,CHIP	SA
2203-006423	C1005	C-CER,CHIP	SA
2203-006423	C327	C-CER,CHIP	SA
2203-006423	C417	C-CER,CHIP	SA
2203-006423	C419	C-CER,CHIP	SA
2203-006423	C436	C-CER,CHIP	SA
2203-006423	C440	C-CER,CHIP	SA
2203-006423	C451	C-CER,CHIP	SA
2203-006423	C452	C-CER,CHIP	SA
2203-006423	C539	C-CER,CHIP	SA
2203-006423	C610	C-CER,CHIP	SA
2203-006423	C612	C-CER,CHIP	SA
2203-006423	C674	C-CER,CHIP	SA
2203-006423	C741	C-CER,CHIP	SA
2203-006423	C900	C-CER,CHIP	SA
2203-006423	C901	C-CER,CHIP	SA
2203-006423	C902	C-CER,CHIP	SA
2203-006423	C903	C-CER,CHIP	SA
2203-006423	C904	C-CER,CHIP	SA
2203-006423	C905	C-CER,CHIP	SA
2203-006423	C906	C-CER,CHIP	SA
2203-006423	C907	C-CER,CHIP	SA
2203-006423	C908	C-CER,CHIP	SA
2203-006423	C909	C-CER,CHIP	SA
2203-006423	C910	C-CER,CHIP	SA
2203-006423	C919	C-CER,CHIP	SA
2203-006423	C920	C-CER,CHIP	SA
2203-006423	C921	C-CER,CHIP	SA
2203-006423	C922	C-CER,CHIP	SA
2203-006423	C923	C-CER,CHIP	SA
2203-006423	C924	C-CER,CHIP	SA
2203-006423	C925	C-CER,CHIP	SA
2203-006423	C926	C-CER,CHIP	SA
2203-006423	C955	C-CER,CHIP	SA
2203-006423	C961	C-CER,CHIP	SA
2203-006423	C962	C-CER,CHIP	SA
2203-006474	C522	C-CER,CHIP	SA
2203-006474	C541	C-CER,CHIP	SA
2203-006562	C1000	C-CER,CHIP	SA
2203-006562	C1001	C-CER,CHIP	SA
2203-006562	C1011	C-CER,CHIP	SA
2203-006562	C1018	C-CER,CHIP	SA
2203-006562	C1019	C-CER,CHIP	SA
2203-006562	C1020	C-CER,CHIP	SA
2203-006562	C1021	C-CER,CHIP	SA
2203-006562	C1022	C-CER,CHIP	SA
2203-006562	C1023	C-CER,CHIP	SA
2203-006562	C314	C-CER,CHIP	SA

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SEC Code	Design LOC	Description	STATUS
2203-006562	C400	C-CER,CHIP	SA
2203-006562	C432	C-CER,CHIP	SA
2203-006562	C433	C-CER,CHIP	SA
2203-006562	C434	C-CER,CHIP	SA
2203-006562	C435	C-CER,CHIP	SA
2203-006562	C438	C-CER,CHIP	SA
2203-006562	C442	C-CER,CHIP	SA
2203-006562	C467	C-CER,CHIP	SA
2203-006562	C507	C-CER,CHIP	SA
2203-006562	C511	C-CER,CHIP	SA
2203-006562	C540	C-CER,CHIP	SA
2203-006562	C603	C-CER,CHIP	SA
2203-006562	C604	C-CER,CHIP	SA
2203-006562	C605	C-CER,CHIP	SA
2203-006562	C606	C-CER,CHIP	SA
2203-006562	C607	C-CER,CHIP	SA
2203-006562	C608	C-CER,CHIP	SA
2203-006562	C609	C-CER,CHIP	SA
2203-006562	C613	C-CER,CHIP	SA
2203-006562	C615	C-CER,CHIP	SA
2203-006562	C616	C-CER,CHIP	SA
2203-006562	C622	C-CER,CHIP	SA
2203-006562	C647	C-CER,CHIP	SA
2203-006562	C648	C-CER,CHIP	SA
2203-006562	C649	C-CER,CHIP	SA
2203-006562	C659	C-CER,CHIP	SA
2203-006562	C662	C-CER,CHIP	SA
2203-006562	C666	C-CER,CHIP	SA
2203-006562	C667	C-CER,CHIP	SA
2203-006562	C668	C-CER,CHIP	SA
2203-006562	C702	C-CER,CHIP	SA
2203-006562	C705	C-CER,CHIP	SA
2203-006562	C706	C-CER,CHIP	SA
2203-006562	C709	C-CER,CHIP	SA
2203-006562	C715	C-CER,CHIP	SA
2203-006562	C716	C-CER,CHIP	SA
2203-006562	C729	C-CER,CHIP	SA
2203-006562	C745	C-CER,CHIP	SA
2203-006562	C750	C-CER,CHIP	SA
2203-006562	C810	C-CER,CHIP	SA
2203-006562	C812	C-CER,CHIP	SA
2203-006562	C813	C-CER,CHIP	SA
2203-006562	C814	C-CER,CHIP	SA
2203-006562	C911	C-CER,CHIP	SA
2203-006562	C912	C-CER,CHIP	SA
2203-006562	C927	C-CER,CHIP	SA
2203-006562	C928	C-CER,CHIP	SA
2203-006585	C630	C-CER,CHIP	SA
2203-006585	C636	C-CER,CHIP	SA
2203-006681	C206	C-CER,CHIP	SA
2203-006681	C208	C-CER,CHIP	SA
2203-006681	C210	C-CER,CHIP	SA
2203-006681	C215	C-CER,CHIP	SA
2203-006681	C216	C-CER,CHIP	SA

SEC Code	Design LOC	Description	STATUS
2203-006681	C223	C-CER,CHIP	SA
2203-006681	C227	C-CER,CHIP	SA
2203-006681	C229	C-CER,CHIP	SA
2203-006681	C235	C-CER,CHIP	SA
2203-006681	C240	C-CER,CHIP	SA
2203-006681	C248	C-CER,CHIP	SA
2203-006681	C257	C-CER,CHIP	SA
2203-006681	C261	C-CER,CHIP	SA
2203-006681	C318	C-CER,CHIP	SA
2203-006681	C654	C-CER,CHIP	SA
2203-006712	C657	C-CER,CHIP	SA
2203-006712	C660	C-CER,CHIP	SA
2203-006824	C504	C-CER,CHIP	SA
2203-006824	C505	C-CER,CHIP	SA
2203-006824	C524	C-CER,CHIP	SA
2203-006824	C703	C-CER,CHIP	SA
2203-006824	C704	C-CER,CHIP	SA
2203-006825	C671	C-CER,CHIP	SA
2203-006825	C672	C-CER,CHIP	SA
2203-006825	C673	C-CER,CHIP	SA
2203-006838	C1026	C-CER,CHIP	SA
2203-006838	C514	C-CER,CHIP	SA
2203-006838	C518	C-CER,CHIP	SA
2203-006838	C523	C-CER,CHIP	SA
2203-006838	C545	C-CER,CHIP	SA
2203-006838	C746	C-CER,CHIP	SA
2203-006838	C747	C-CER,CHIP	SA
2203-006838	C748	C-CER,CHIP	SA
2203-006838	C913	C-CER,CHIP	SA
2203-006838	C929	C-CER,CHIP	SA
2203-006841	C529	C-CER,CHIP	SA
2203-006841	C530	C-CER,CHIP	SA
2203-006841	C958	C-CER,CHIP	SA
2203-006890	C707	C-CER,CHIP	SA
2203-006890	C708	C-CER,CHIP	SA
2203-006890	C710	C-CER,CHIP	SA
2203-006890	C711	C-CER,CHIP	SA
2404-001339	TA201	C-TA,CHIP	SA
2404-001339	TA611	C-TA,CHIP	SA
2404-001377	TA609	C-TA,CHIP	SA
2404-001381	TA300	C-TA,CHIP	SA
2404-001381	TA600	C-TA,CHIP	SA
2404-001381	TA604	C-TA,CHIP	SA
2404-001381	TA608	C-TA,CHIP	SA
2404-001381	TA700	C-TA,CHIP	SA
2404-001381	TA808	C-TA,CHIP	SA
2404-001474	TA200	C-TA,CHIP	SA
2404-001492	TA500	C-TA,CHIP	SA
2404-001492	TA502	C-TA,CHIP	SA
2404-001497	TA602	C-TA,CHIP	SA
2703-001180	L205	INDUCTOR-SMD	SA
2703-001231	L702	INDUCTOR-SMD	SNA
2703-001513	L1004	INDUCTOR-SMD	SA
2703-001722	L208	INDUCTOR-SMD	SA

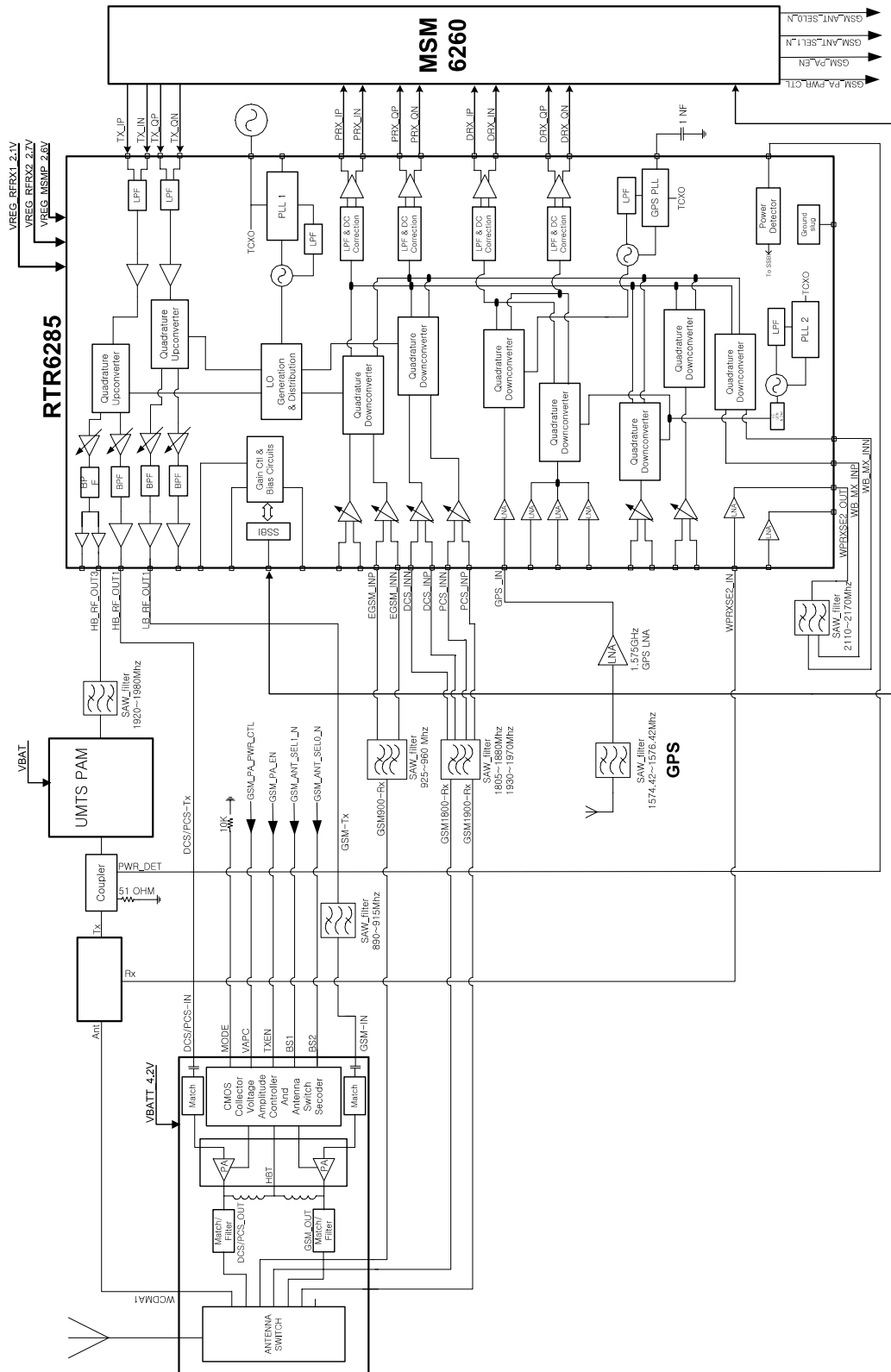
Main Electrical Parts List

SEC Code	Design LOC	Description	STATUS
2703-001749	L218	INDUCTOR-SMD	SA
2703-001750	L315	INDUCTOR-SMD	SA
2703-002170	L220	INDUCTOR-SMD	SA
2703-002170	L221	INDUCTOR-SMD	SA
2703-002170	L308	INDUCTOR-SMD	SA
2703-002203	L206	INDUCTOR-SMD	SA
2703-002204	L201	INDUCTOR-SMD	SA
2703-002207	L303	INDUCTOR-SMD	SA
2703-002208	L312	INDUCTOR-SMD	SA
2703-002314	L202	INDUCTOR-SMD	SA
2703-002314	L203	INDUCTOR-SMD	SA
2703-002314	L316	INDUCTOR-SMD	SA
2703-002365	L304	INDUCTOR-SMD	SA
2703-002367	L219	INDUCTOR-SMD	SA
2703-002369	L215	INDUCTOR-SMD	SA
2703-002506	L310	INDUCTOR-SMD	SA
2703-002596	L210	INDUCTOR-SMD	SA
2703-002782	L500	INDUCTOR-SMD	SA
2703-002782	L501	INDUCTOR-SMD	SA
2703-002782	L502	INDUCTOR-SMD	SA
2703-002906	L200	INDUCTOR-SMD	SA
2703-002918	L306	INDUCTOR-SMD	SA
2703-003103	L212	INDUCTOR-SMD	SA
2703-003298	L600	INDUCTOR-SMD	SA
2703-003298	L608	INDUCTOR-SMD	SA
2801-004339	OSC500	CRYSTAL-SMD	SA
2801-004455	OSC200	CRYSTAL-SMD	SA
2801-004466	OSC600	CRYSTAL-SMD	SA
2804-001748	OSC601	OSCILLATOR-CLOCK	SA
2809-001324	OSC602	OSCILLATOR-VCTCXO	SA
2901-001337	F801	FILTER-EMI/ESD	SA
2901-001337	F804	FILTER-EMI/ESD	SA
2901-001389	F800	FILTER-EMI/ESD	SA
2901-001389	F802	FILTER-EMI/ESD	SA
2901-001389	F803	FILTER-EMI/ESD	SA
2904-001609	F205	FILTER-SAW	SA
2904-001635	F206	FILTER-SAW	SA
2904-001665	F300	FILTER-SAW	SA
2904-001702	F200	FILTER-SAW	SA
2904-001703	F201	FILTER-SAW	SA
2904-001719	F202	FILTER-SAW	SA
2904-001759	F303	FILTER-SAW	SA
2910-000031	DUF300	DUPLEXER-SAW	SA
3301-001342	L700	BEAD-SMD	SA
3301-001534	L607	BEAD-SMD	SA
3301-001534	L609	BEAD-SMD	SA
3301-001534	L610	BEAD-SMD	SA
3301-001729	L1000	BEAD-SMD	SA
3301-001729	L1001	BEAD-SMD	SA
3301-001729	L701	BEAD-SMD	SA
3301-001729	L703	BEAD-SMD	SA
3301-001756	L307	BEAD-SMD	SA
3301-001756	L601	BEAD-SMD	SA
3301-001756	L602	BEAD-SMD	SA

SEC Code	Design LOC	Description	STATUS
3301-001756	L603	BEAD-SMD	SA
3301-001756	L604	BEAD-SMD	SA
3404-001152	TAC500	SWITCH-TACT	SA
3404-001152	TAC800	SWITCH-TACT	SA
3404-001152	TAC801	SWITCH-TACT	SA
3404-001152	TAC802	SWITCH-TACT	SA
3705-001358	RFS200	CONNECTOR-COAXIAL	SA
3709-001453	CD500	CONNECTOR-CARD EDGE	SA
3710-002081	SPK600	SOCKET-BOARD TO BOARD	SA
3710-002568	IFC700	SOCKET-INTERFACE	SA
3711-005643	HEA700	HEADER-BOARD TO BOARD	SA
3711-005945	HEA801	HEADER-BOARD TO BOARD	SA
3711-005976	HEA800	HEADER-BOARD TO BOARD	SA
3711-006025	BTC500	HEADER-BATTERY	SA
3722-002609	EAR1000	JACK-EAR PHONE	SA
4302-001181	BAT501	BATTERY-LI(2ND)	SA
4709-001338	F204	BALUN	SA
4709-001399	F301	COUPLER-DIRECTION	SA
GH71-06262A	ANT301	NPR-ANTENNA CONTACT V2	SA
GH71-07941A	SC300	NPR SHIELD-FRAME	SA

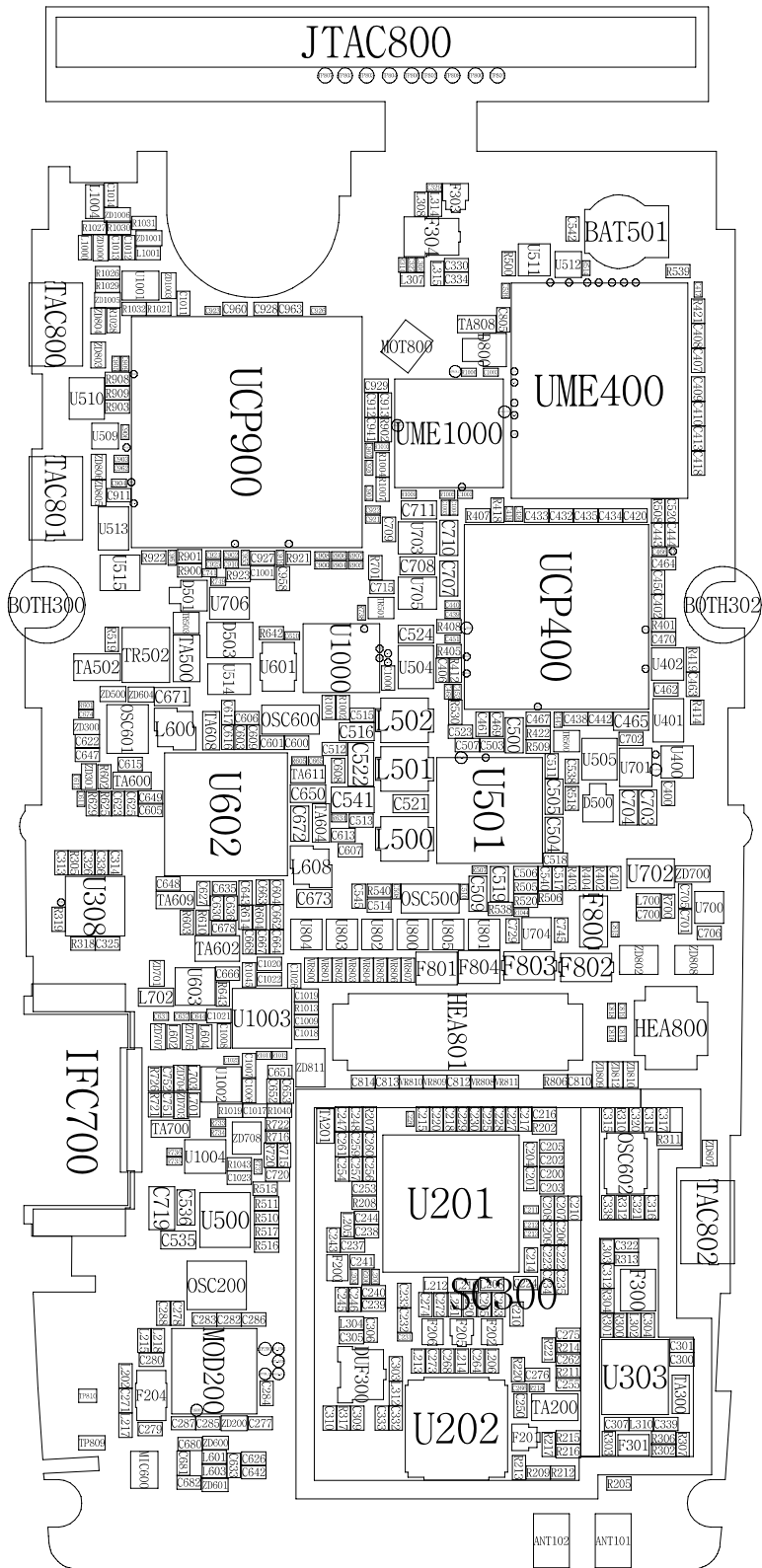
Please consult the GSPN website (Samsung Portal) for the most recent version of the product's part list.

7-2. RF Solution Block Diagram



8. PCB Diagrams

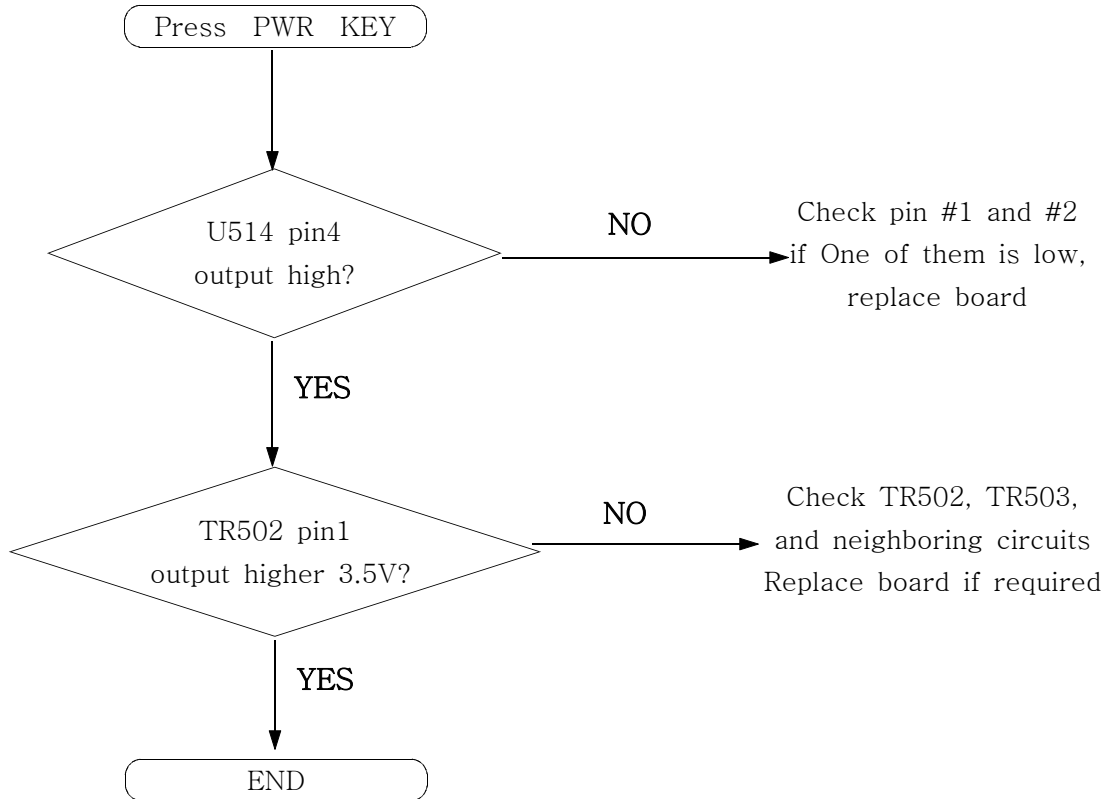
Main top view

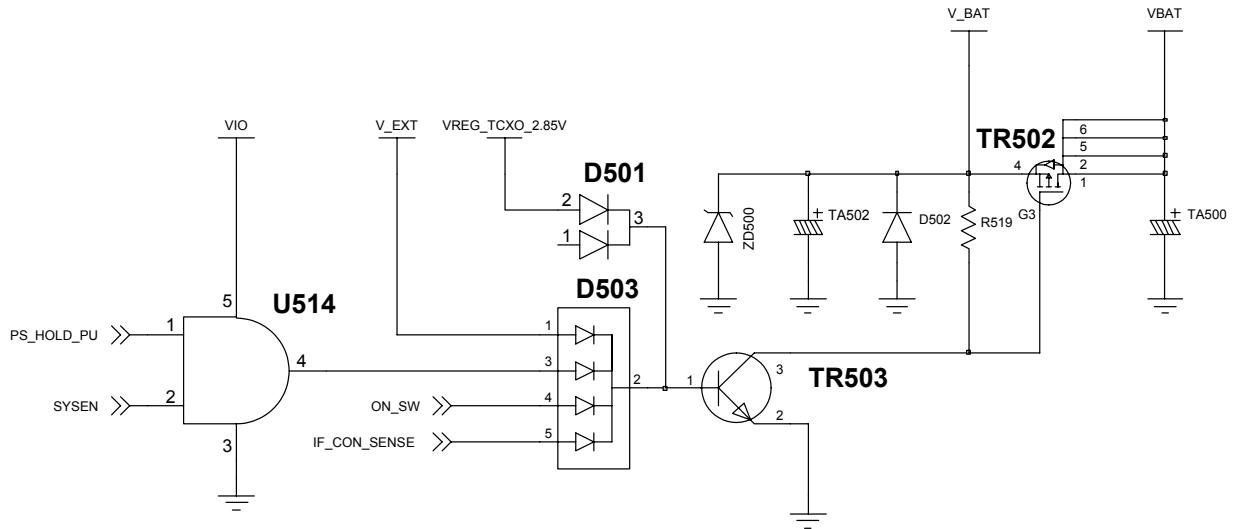


9. Flow Chart of TroubleShooting

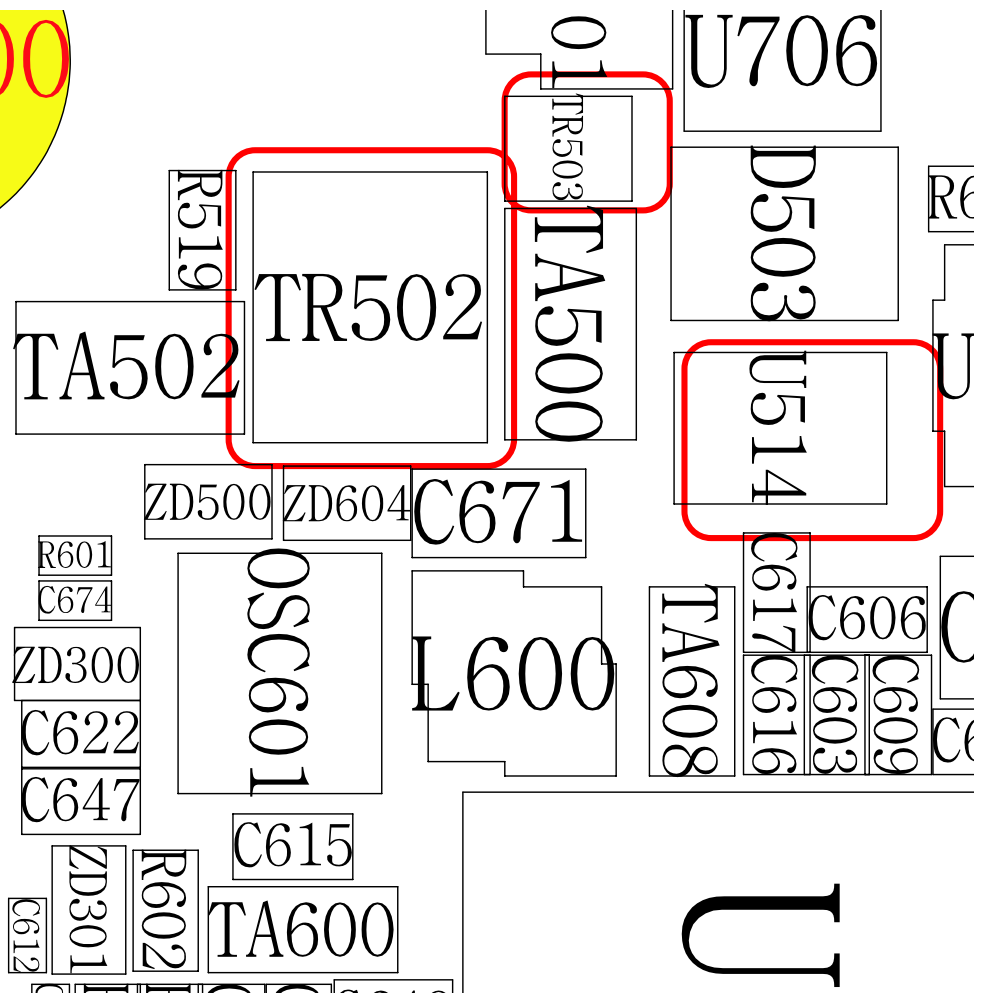
9-1. Logic Section

9-1-1 : No Power

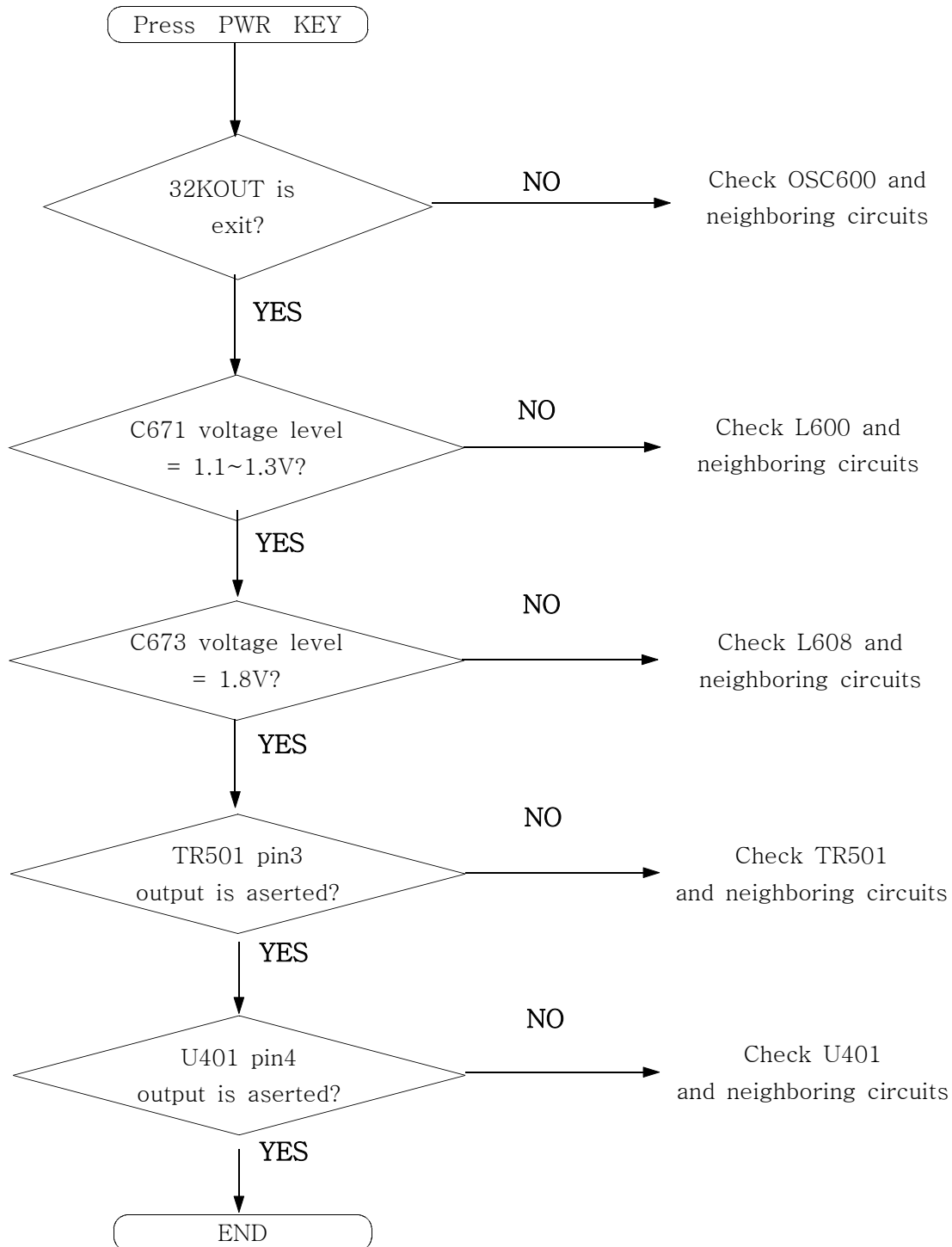


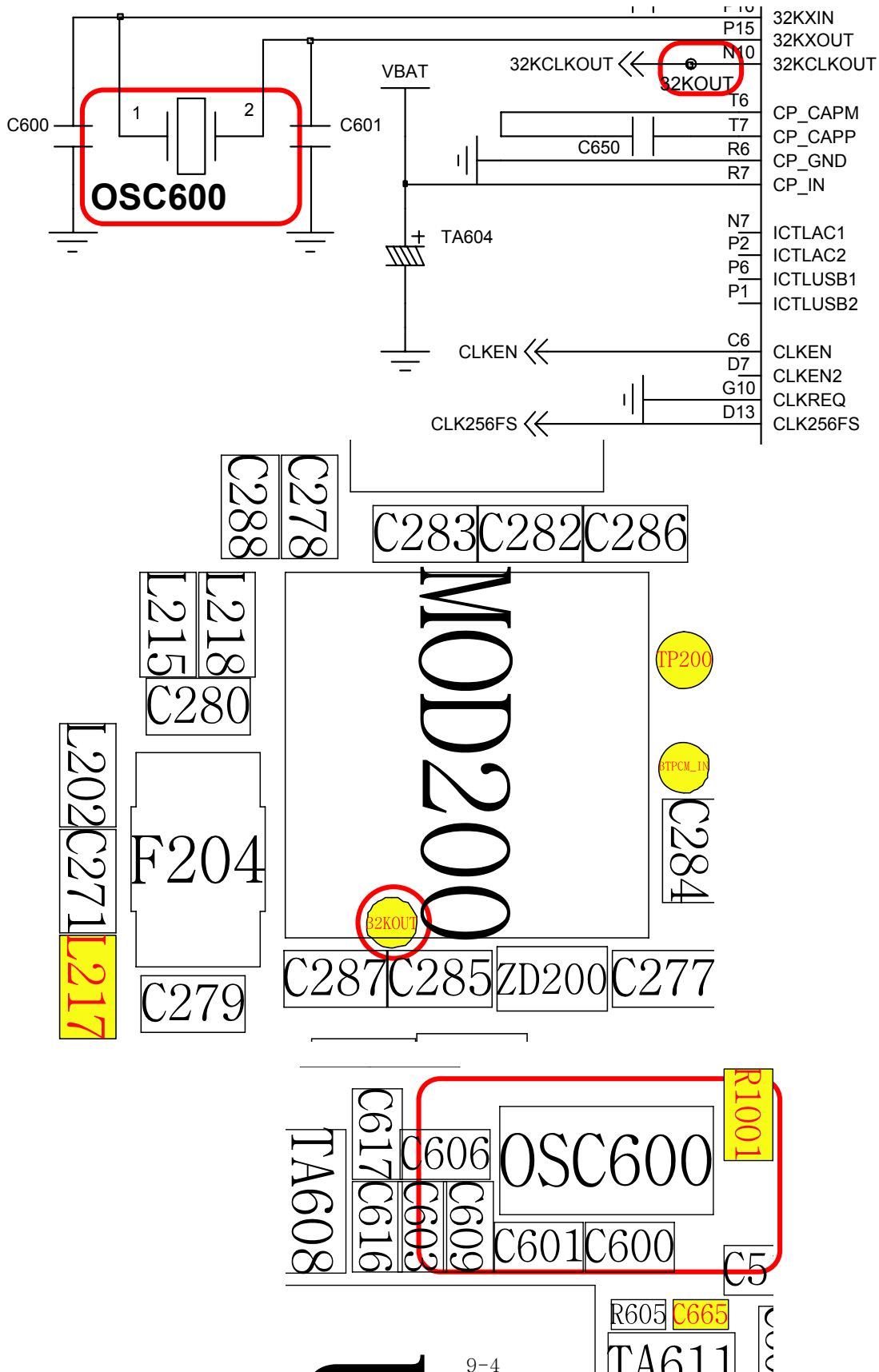


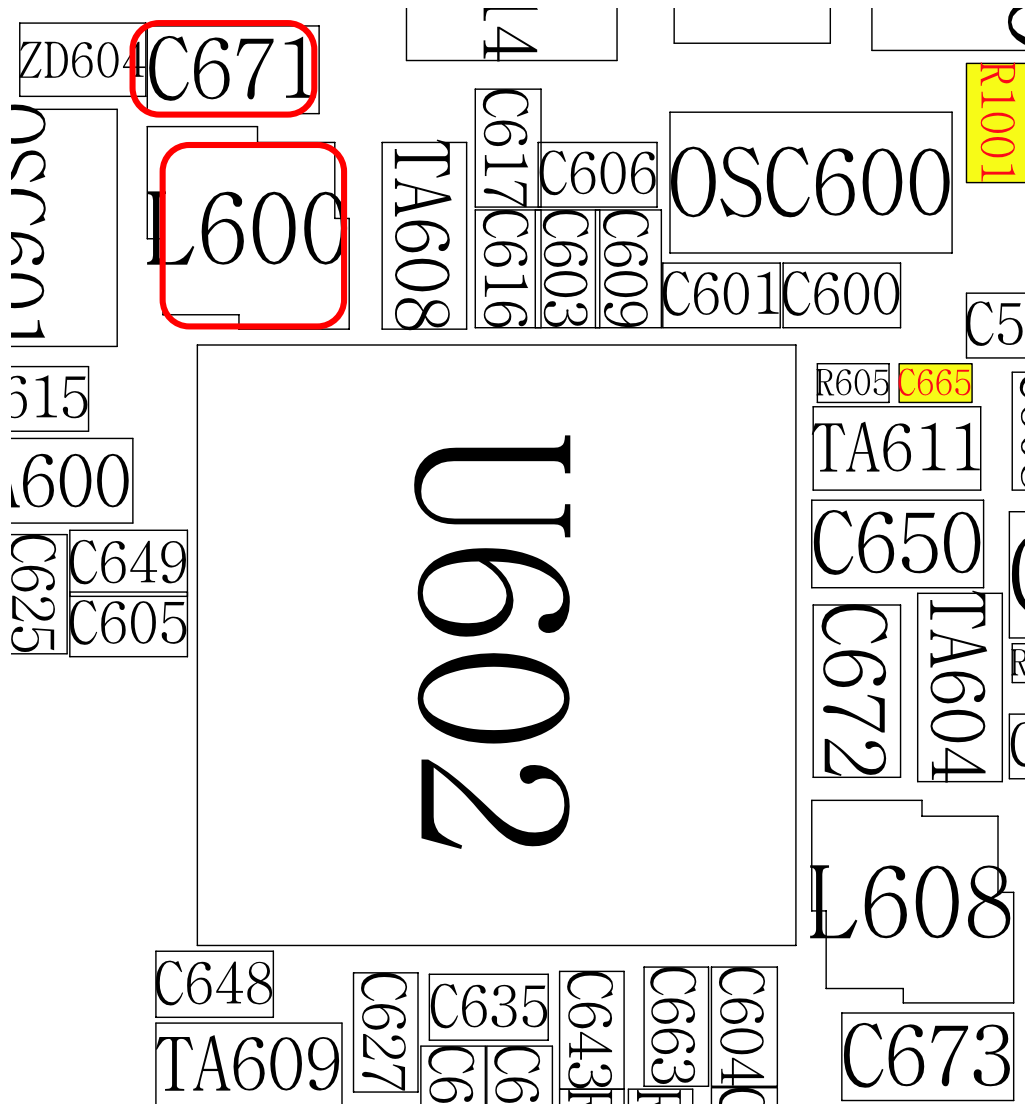
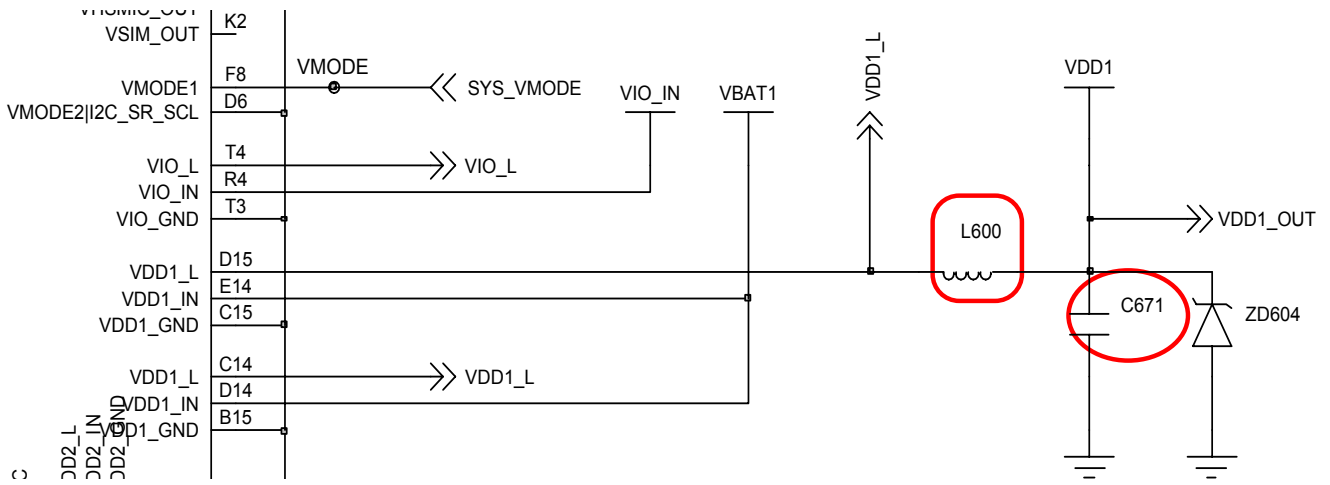
BOTH300

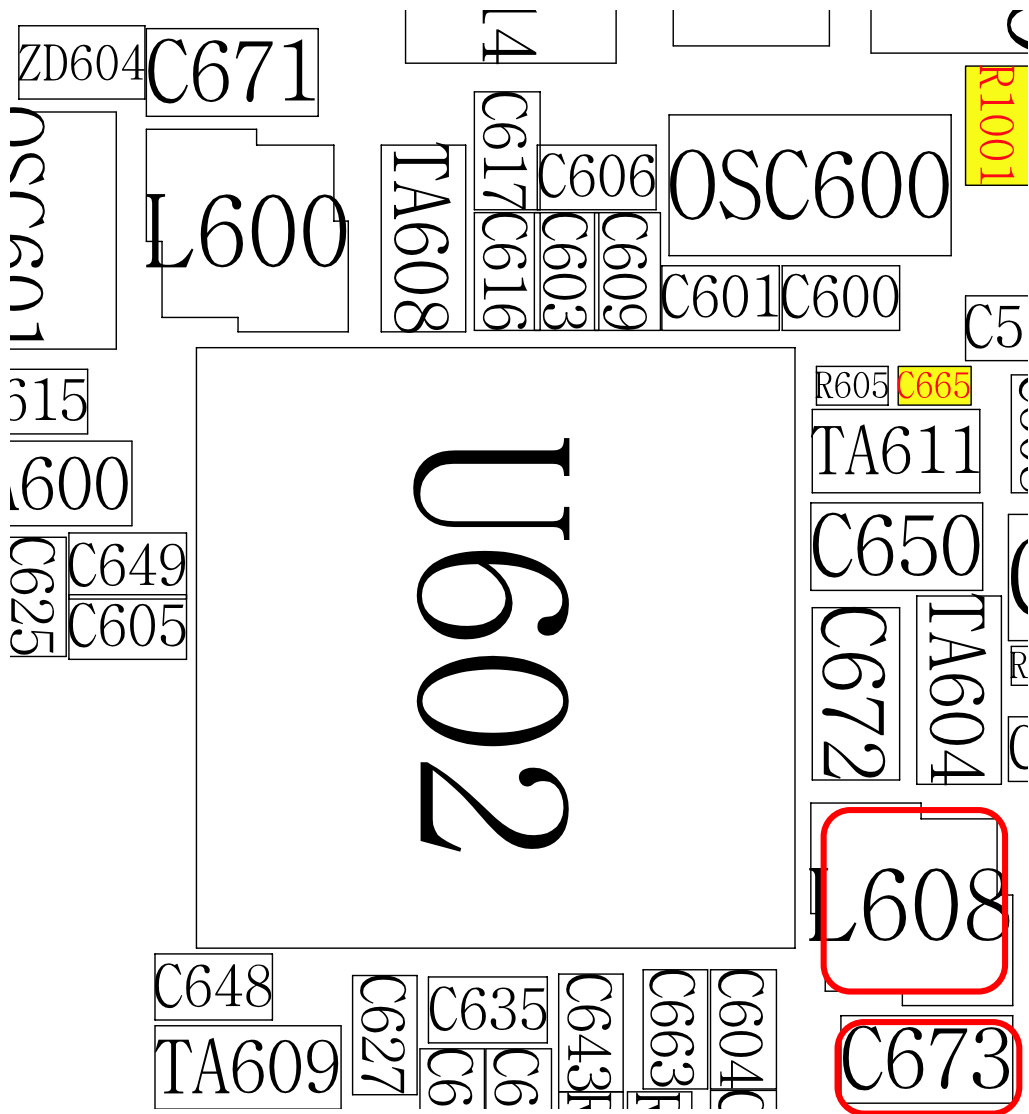
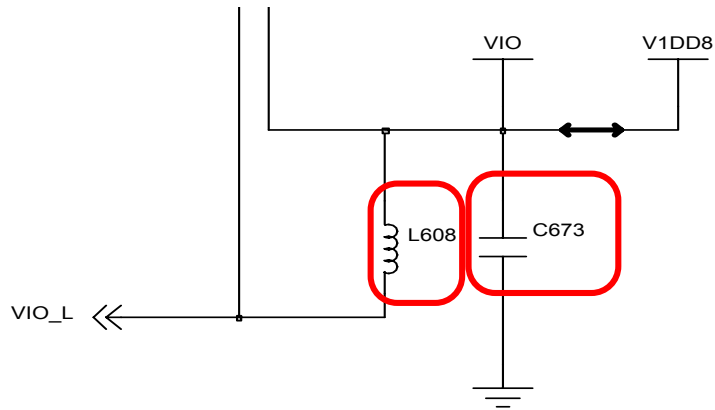


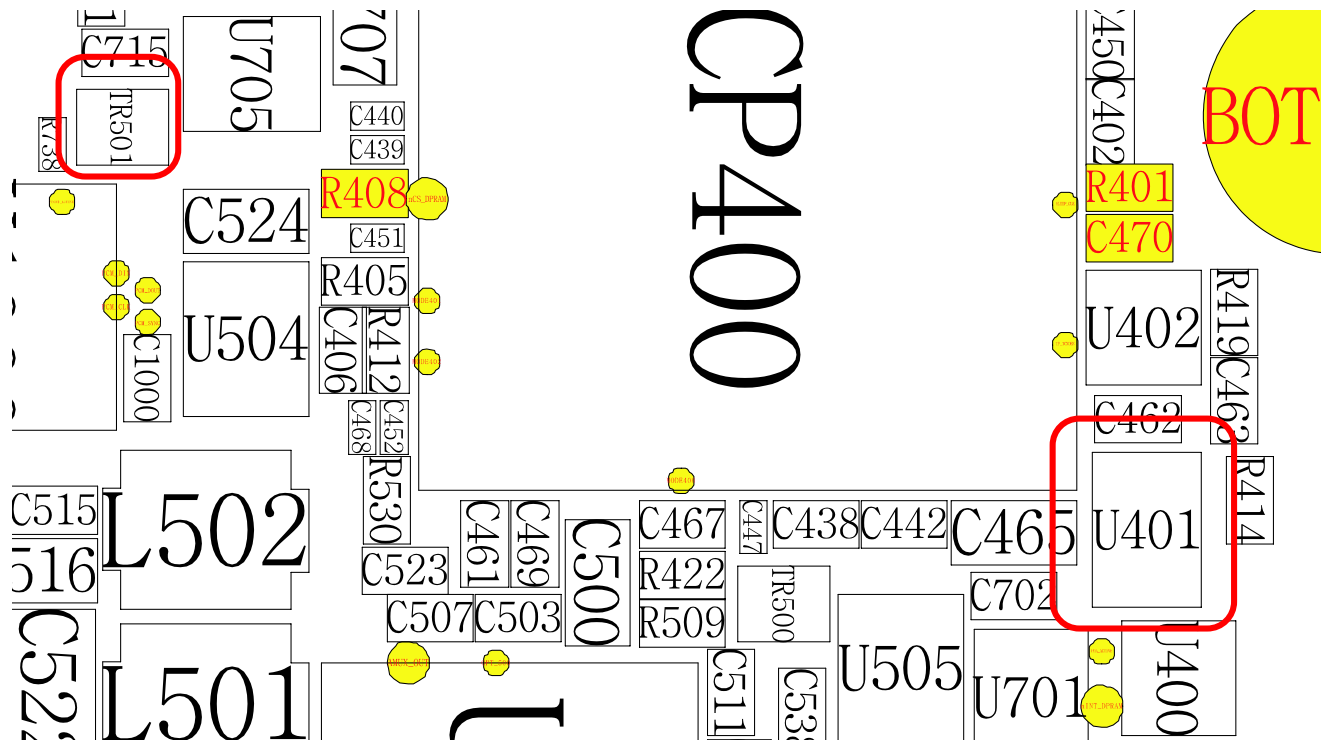
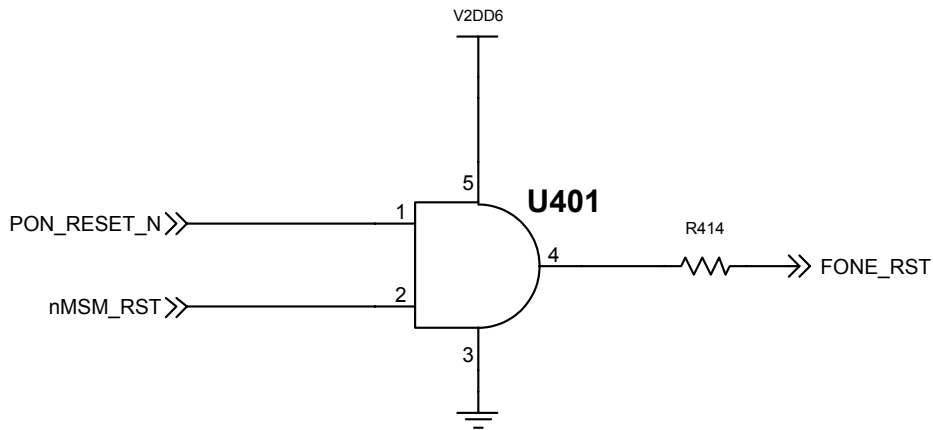
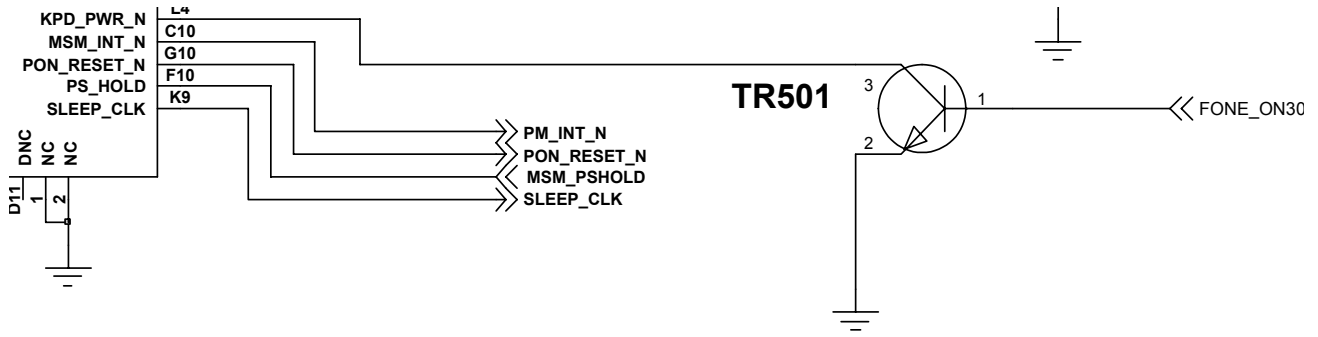
9-1-2 : Abnormal initial operation (Normal +4.0V voltage source)



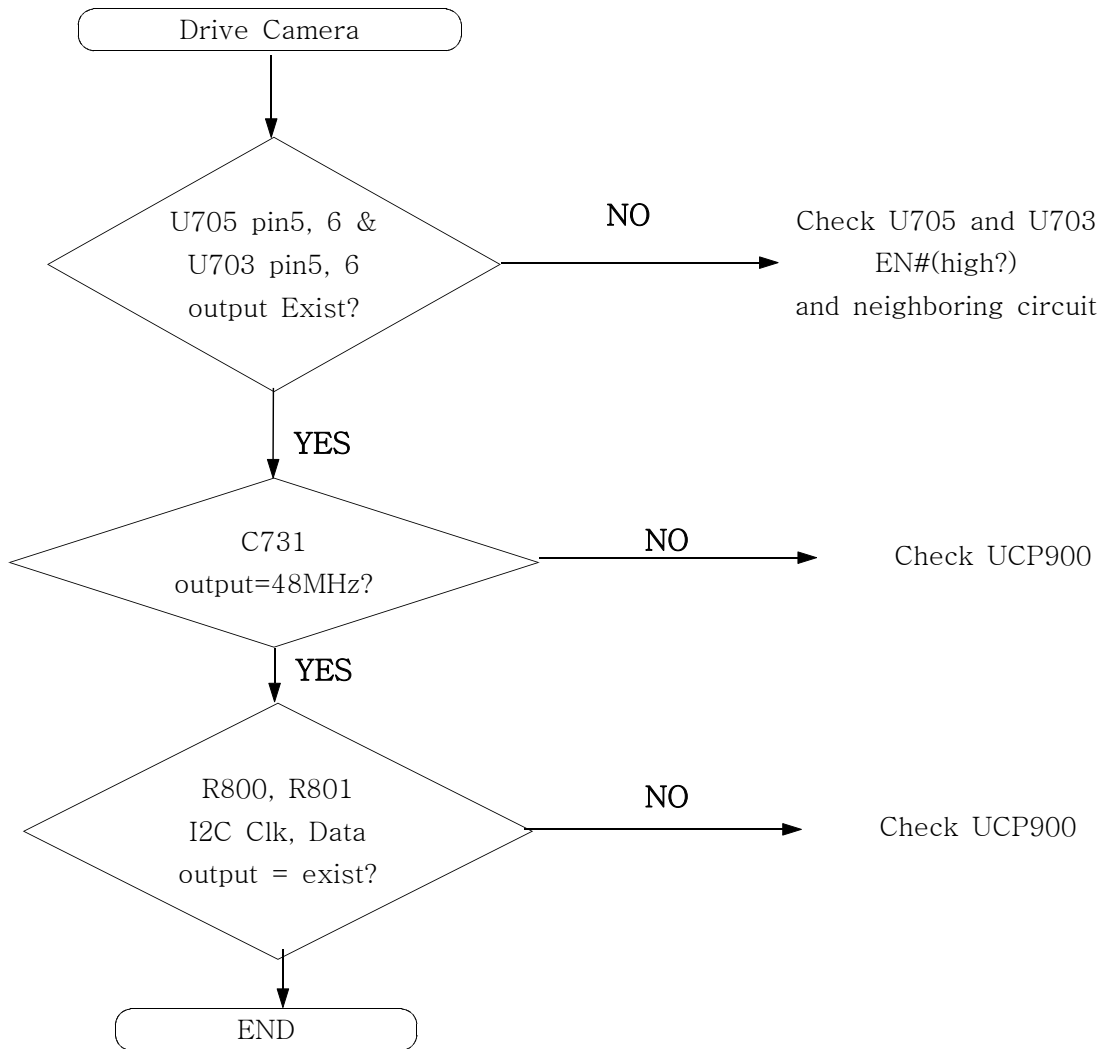


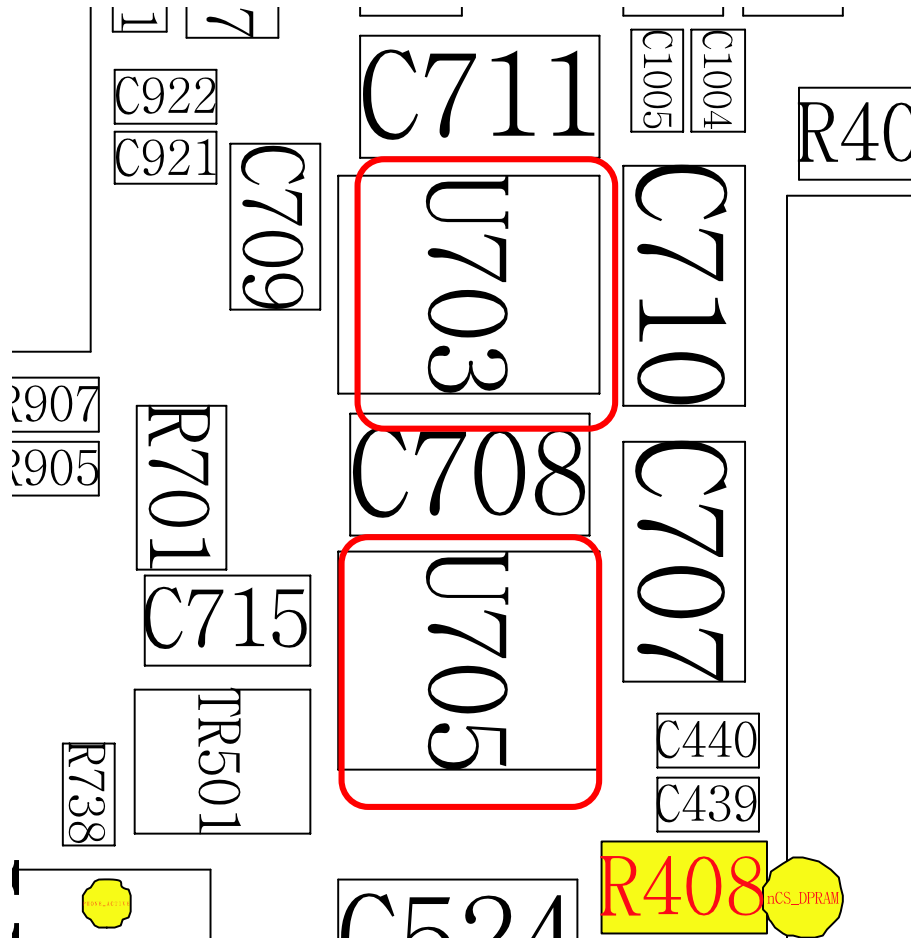
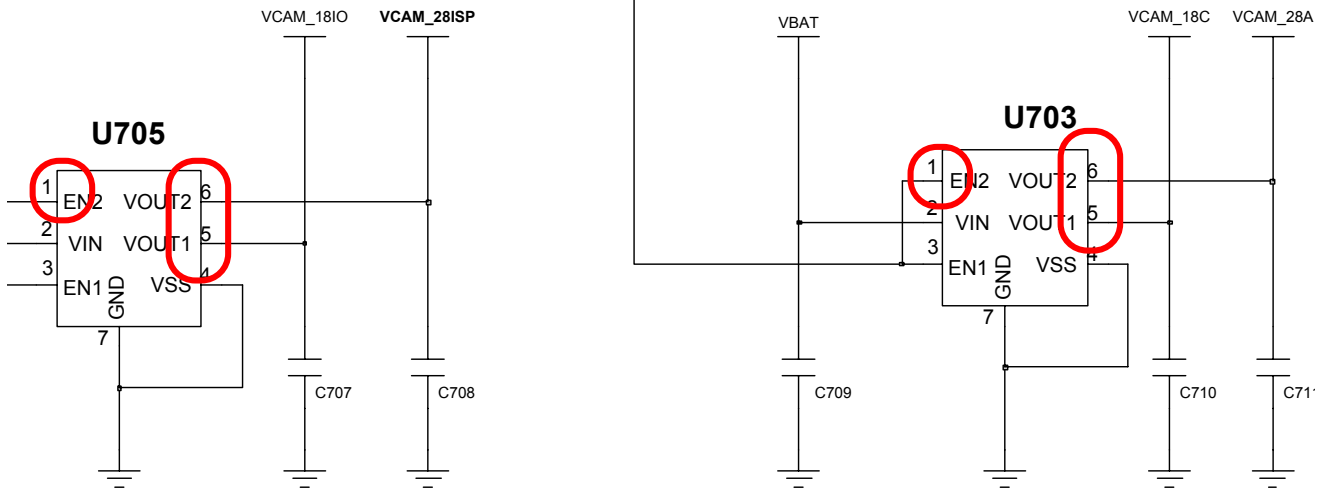


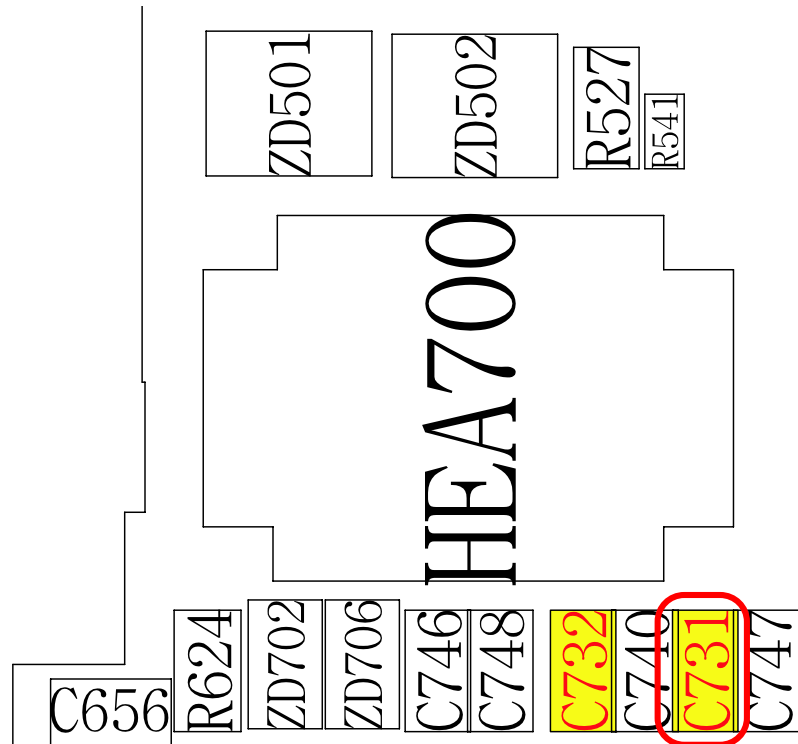
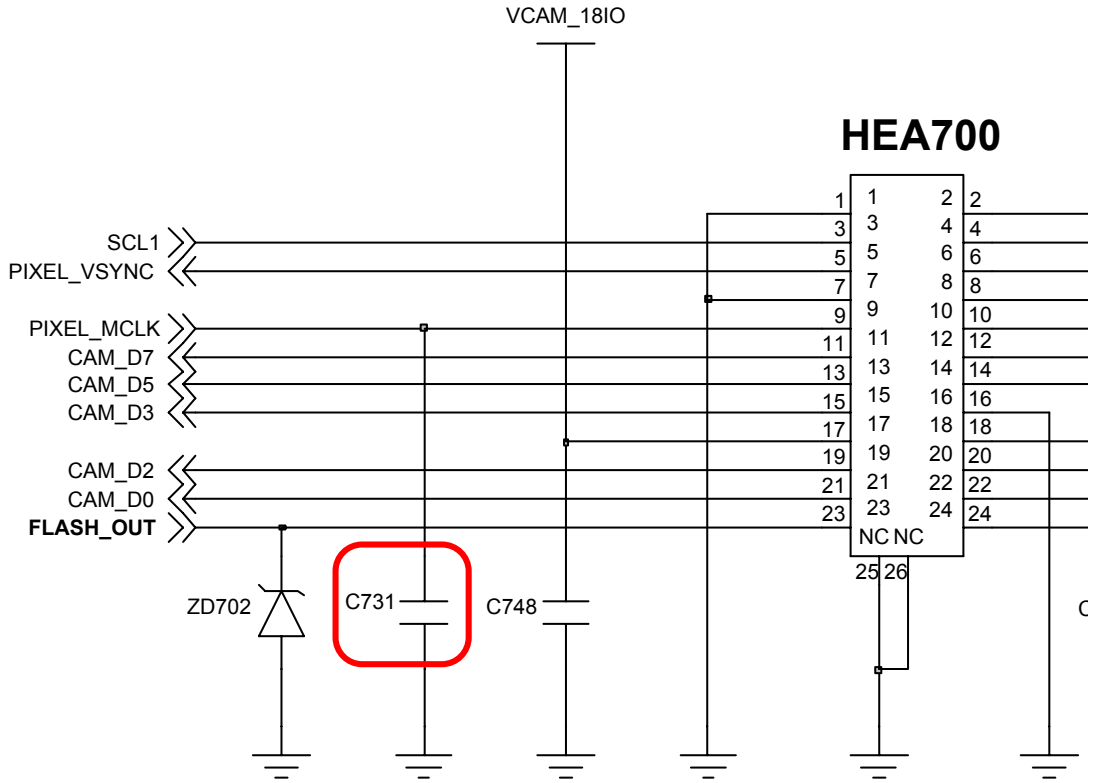


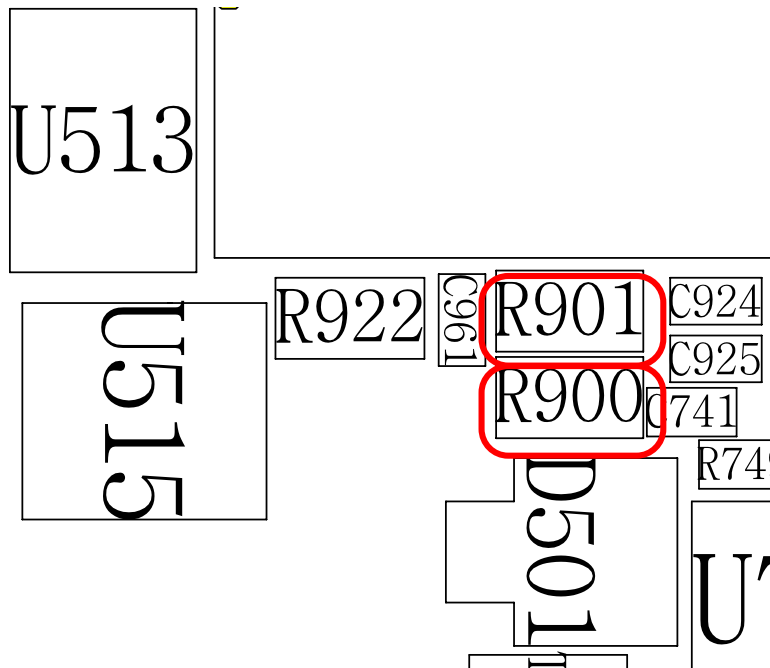
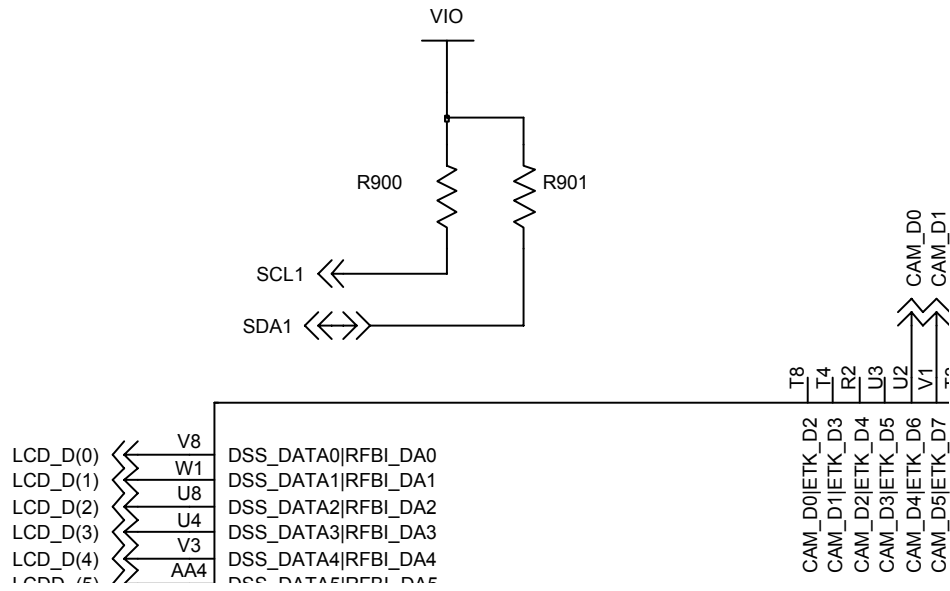


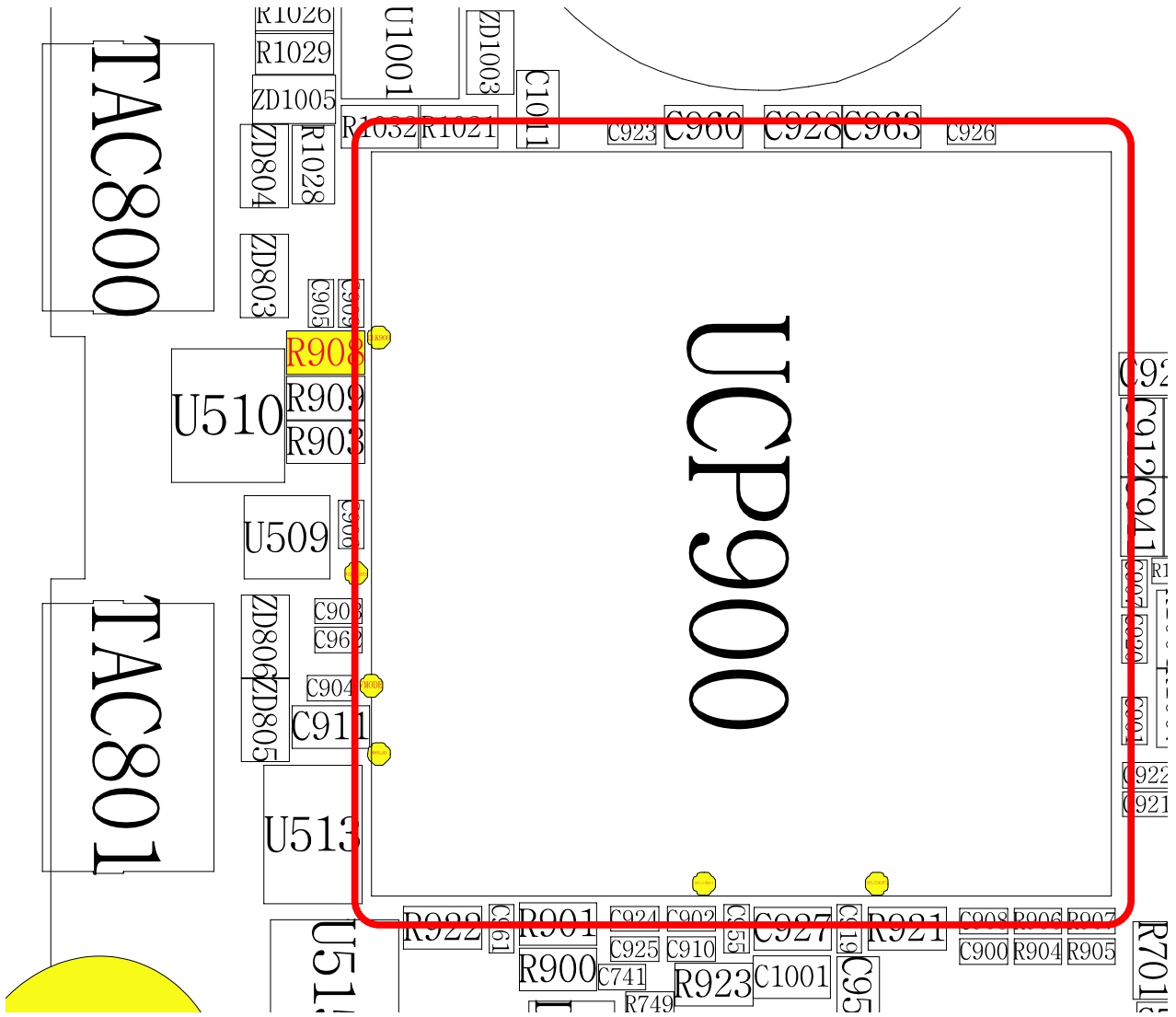
9-1-3 : Abnormal Camera operation



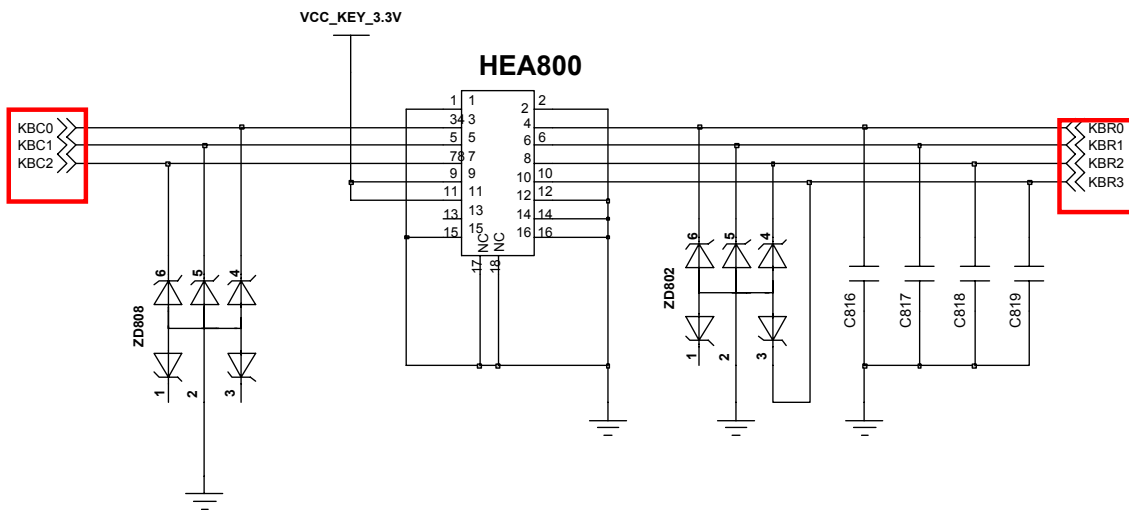
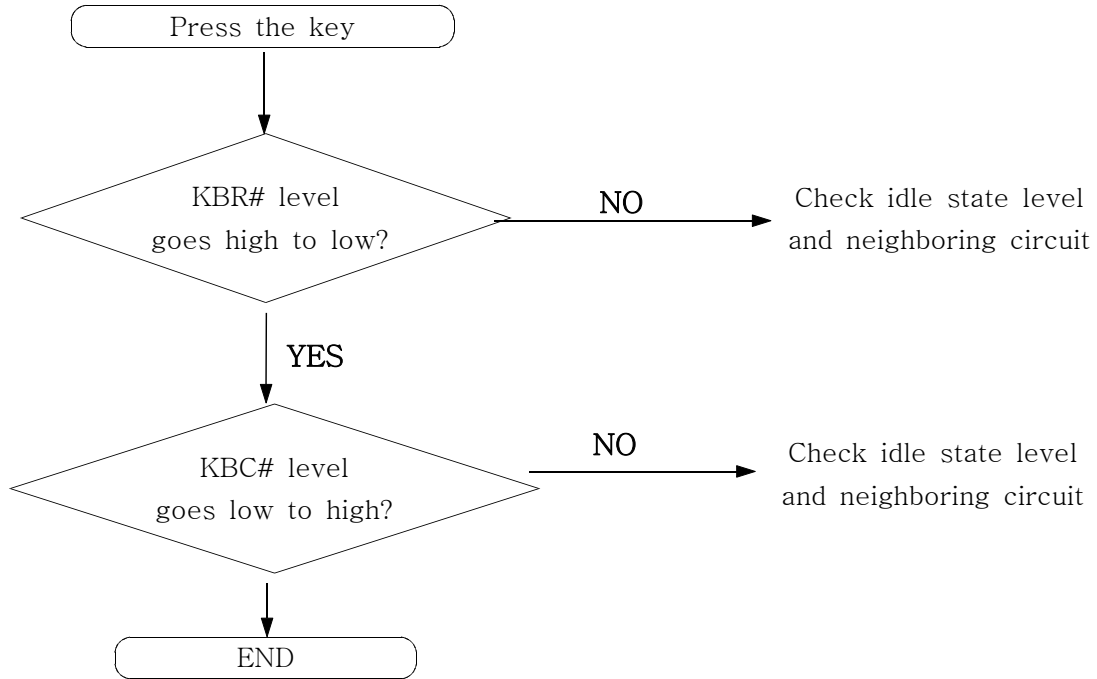






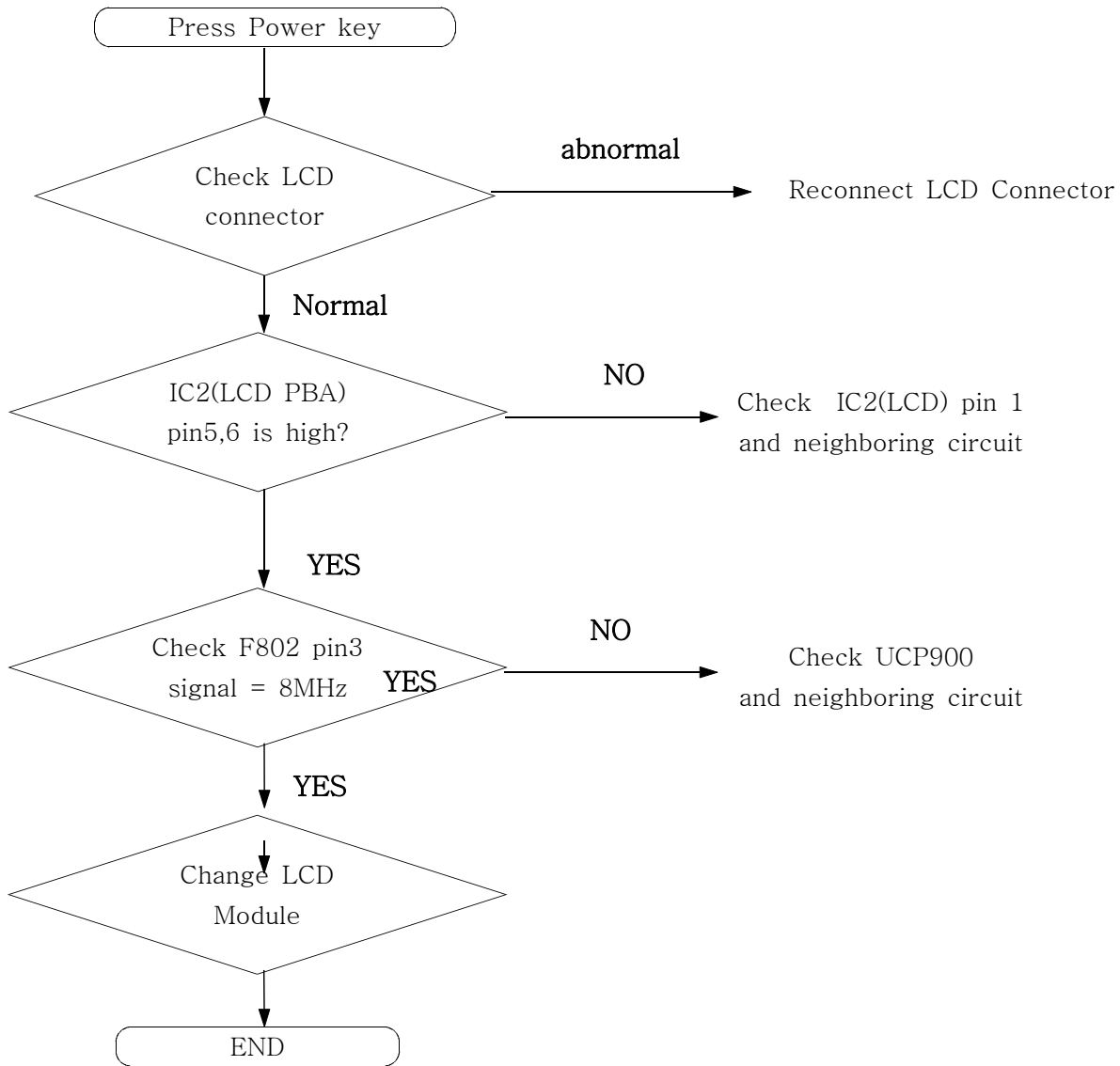


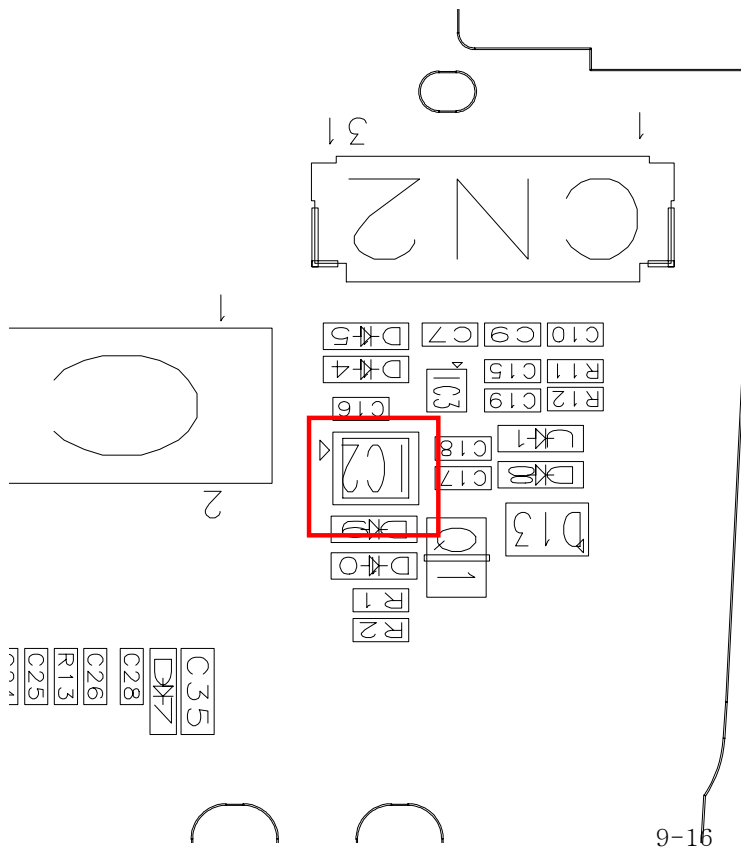
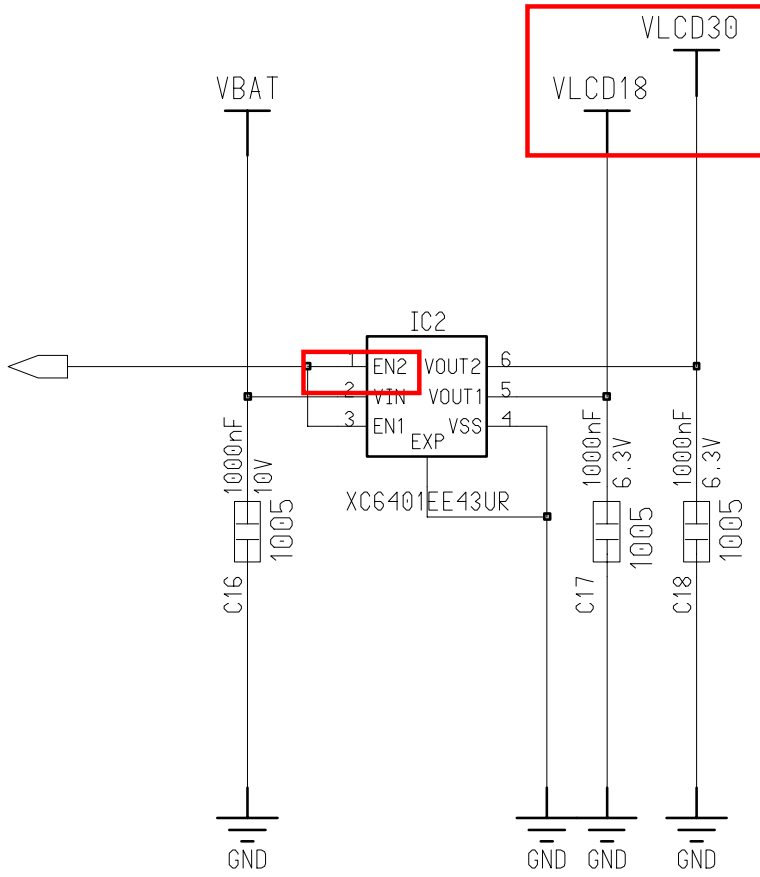
9-1-4 : Abnormal 3X4 KEY operation



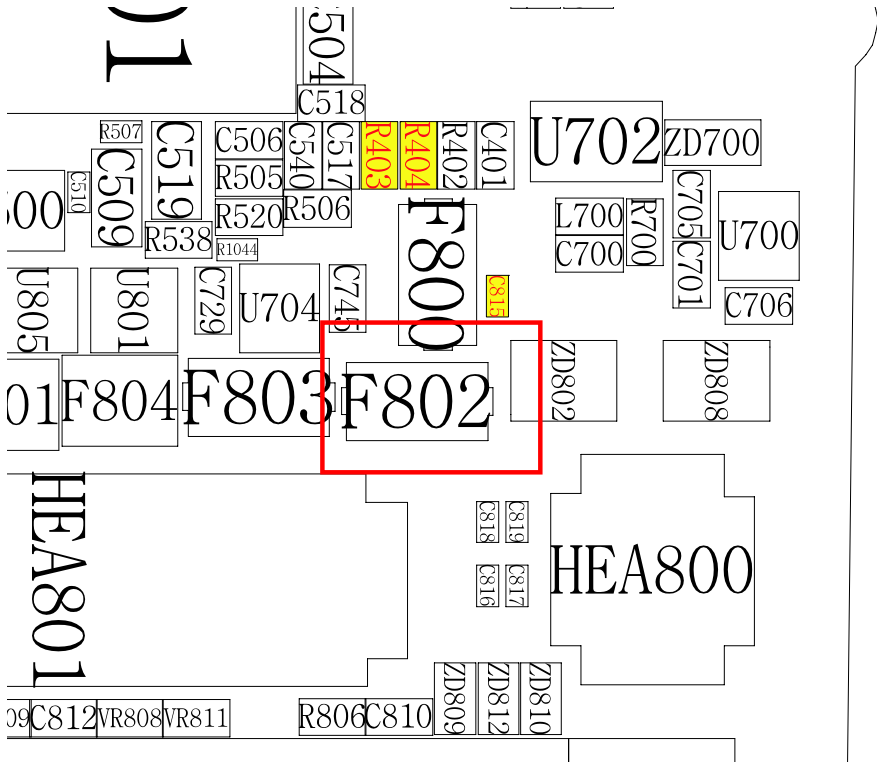
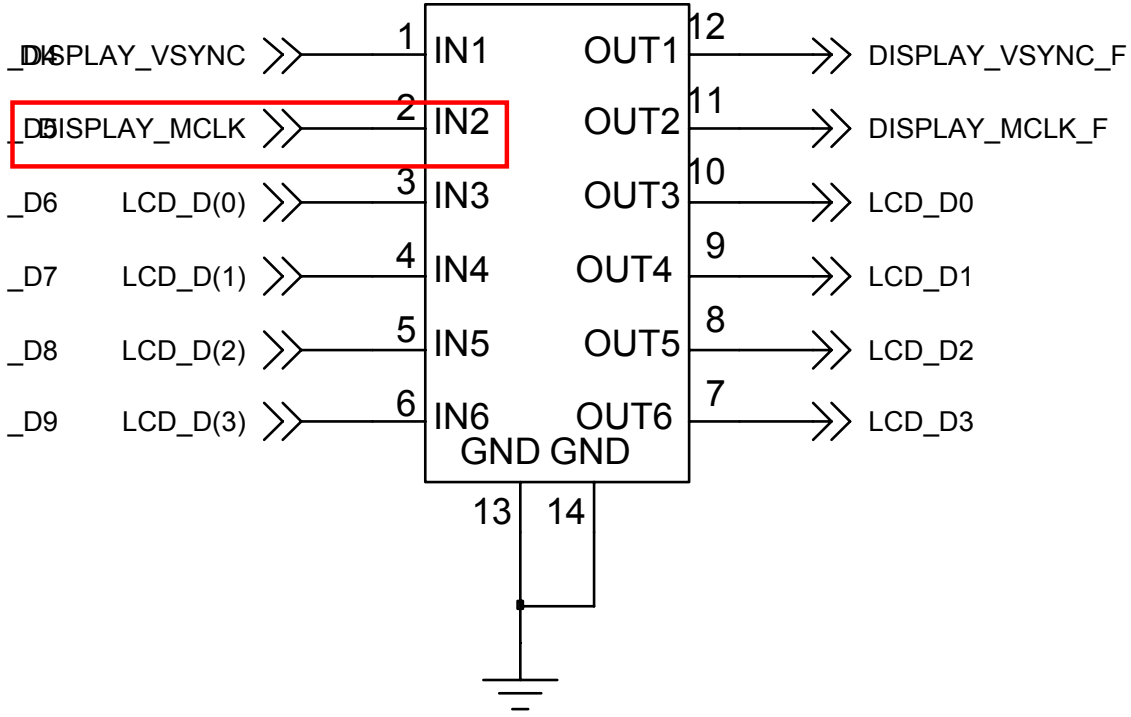


9-1-5 : Abnormal LCD operation

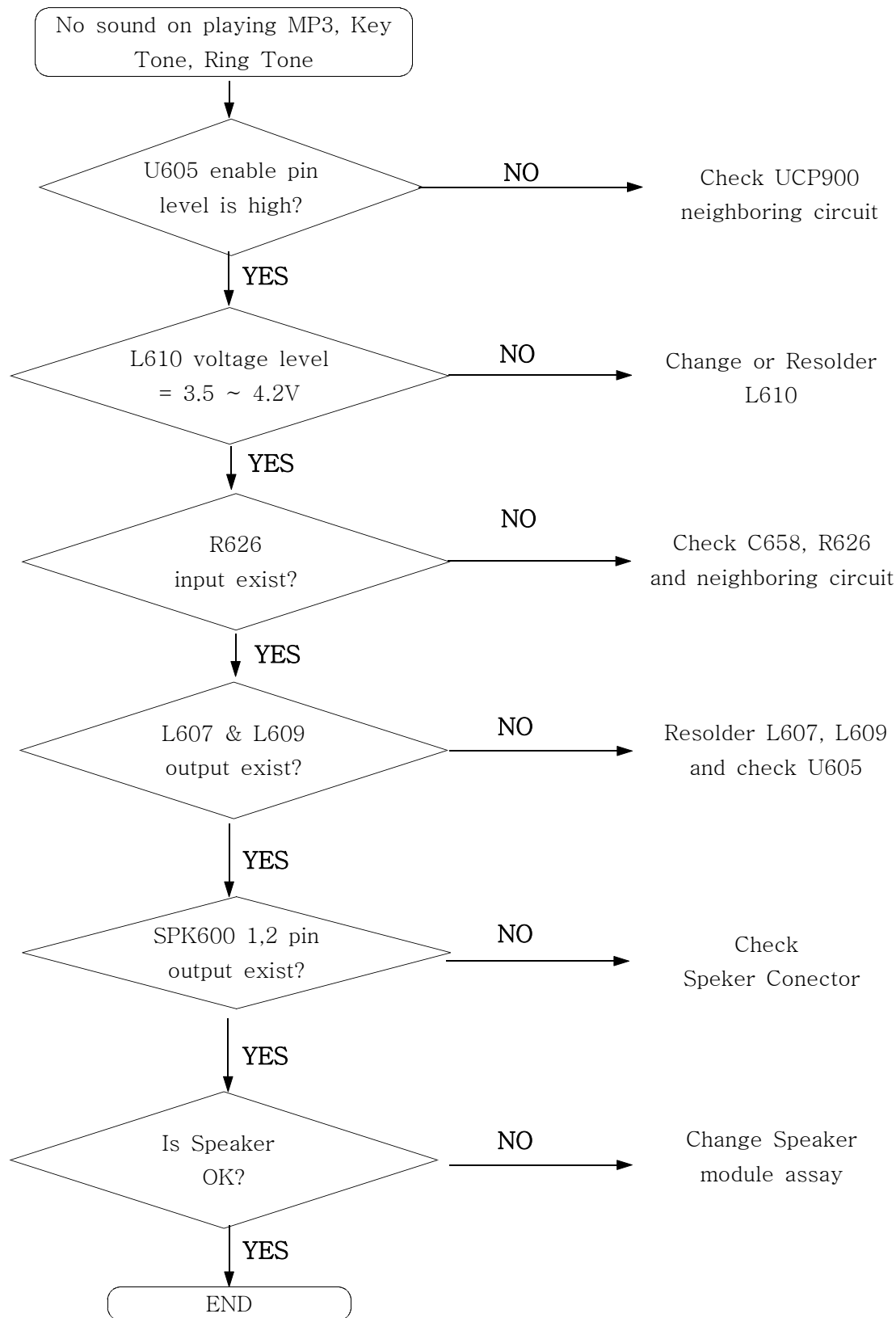


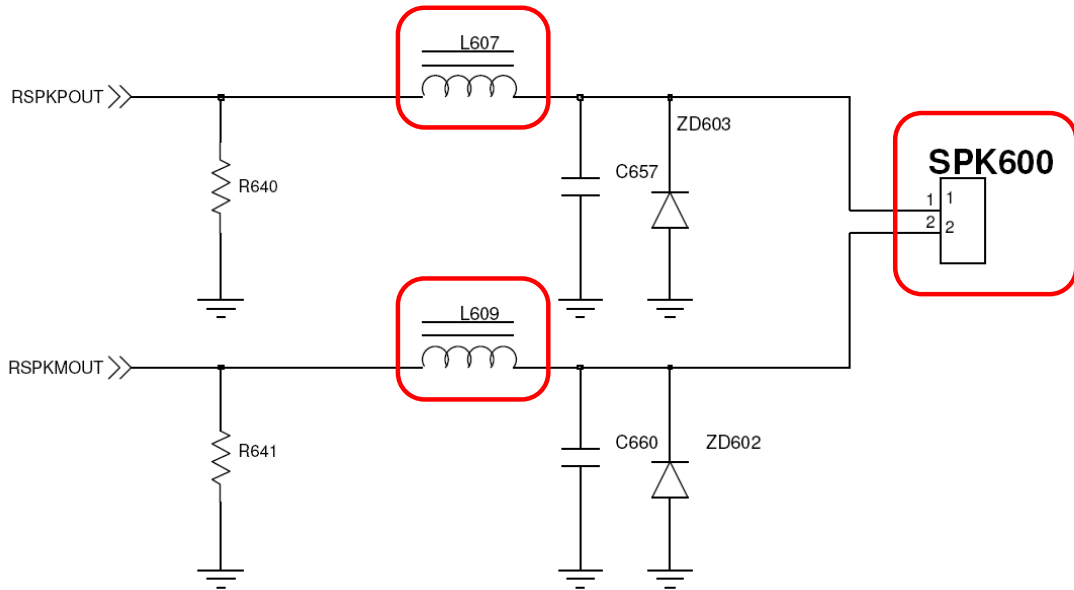
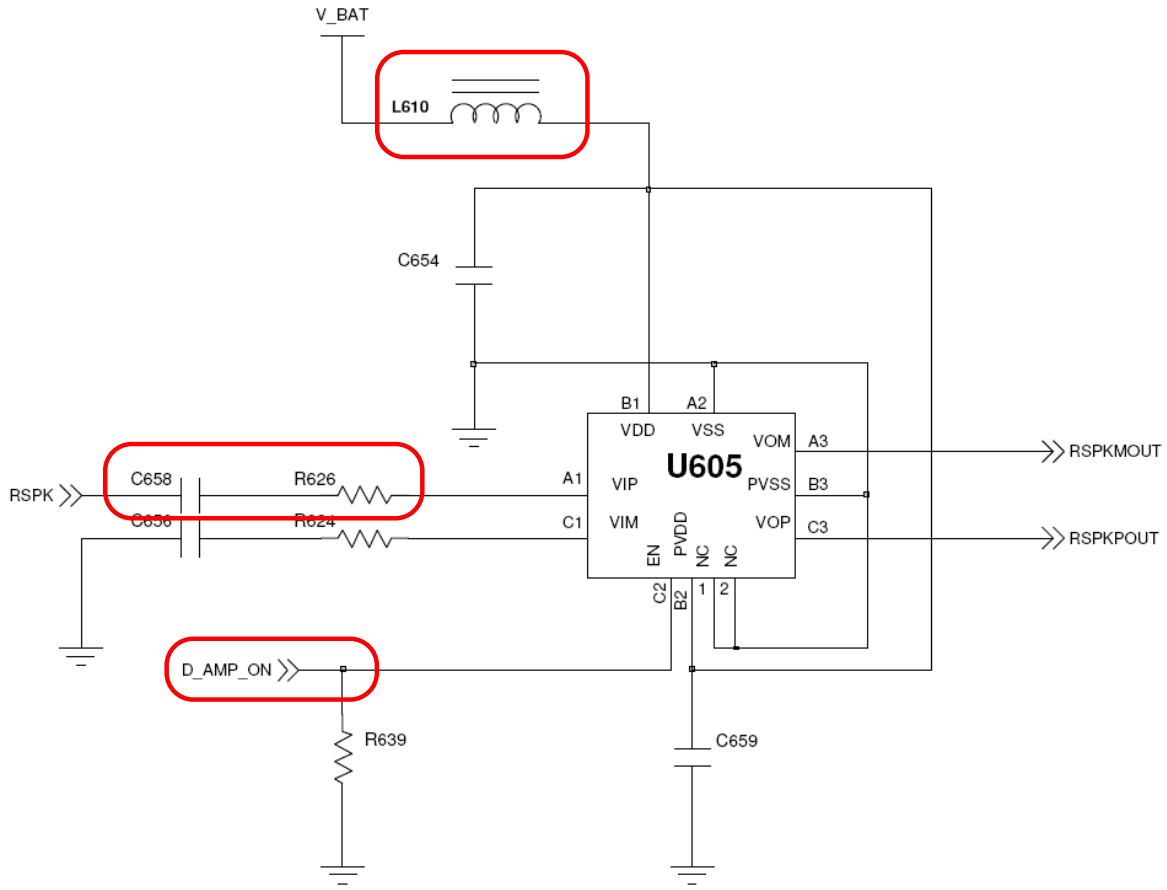


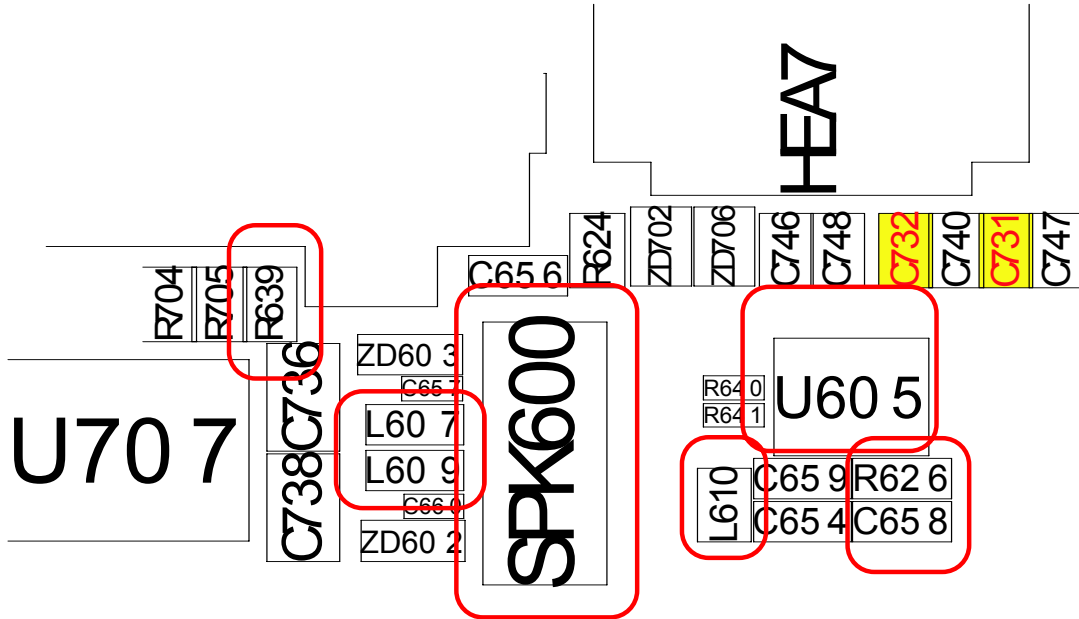
F802



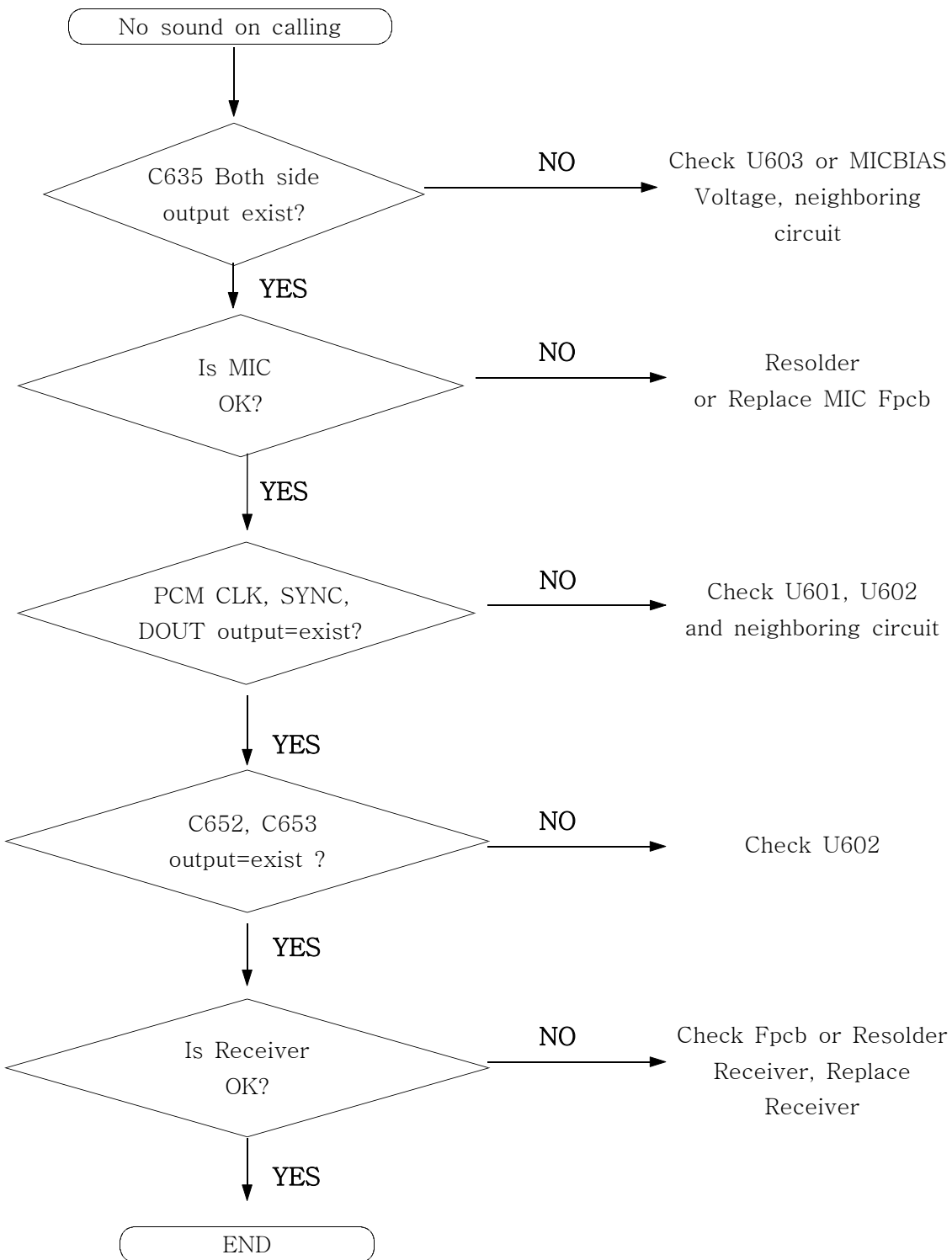
9-1-6 : Abnormal Speaker operation

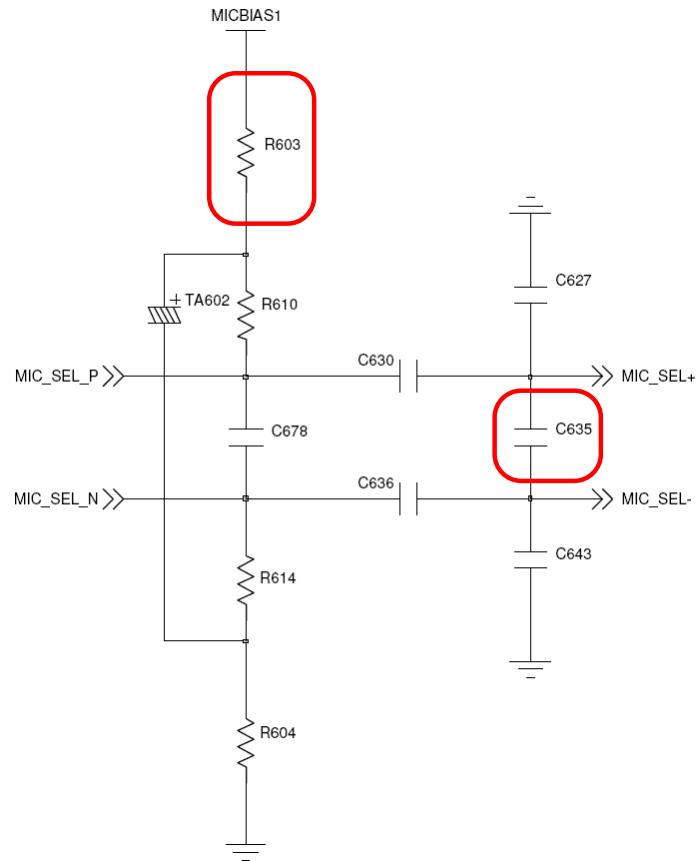
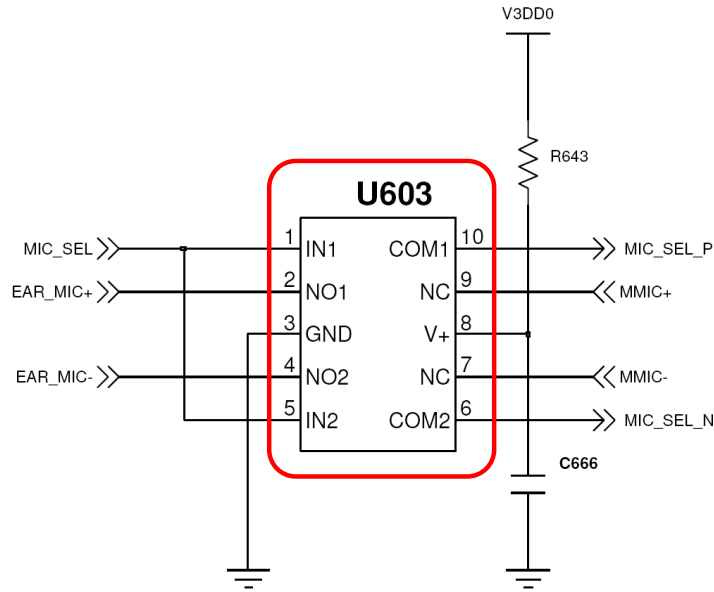


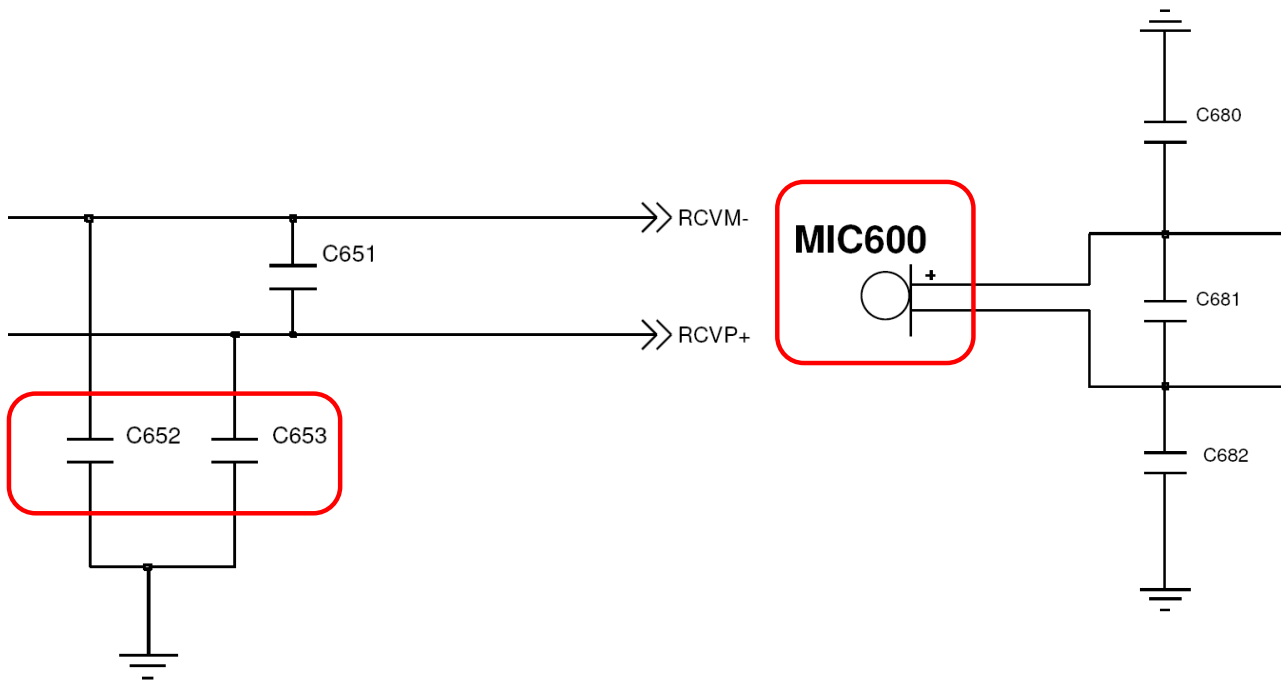
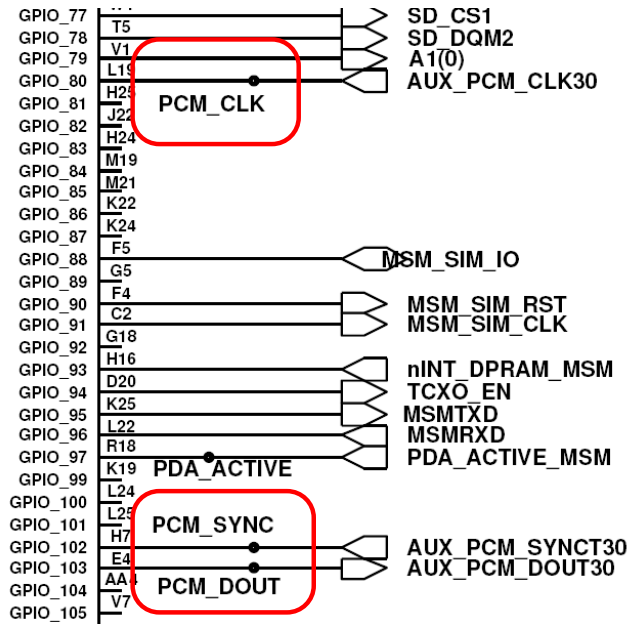


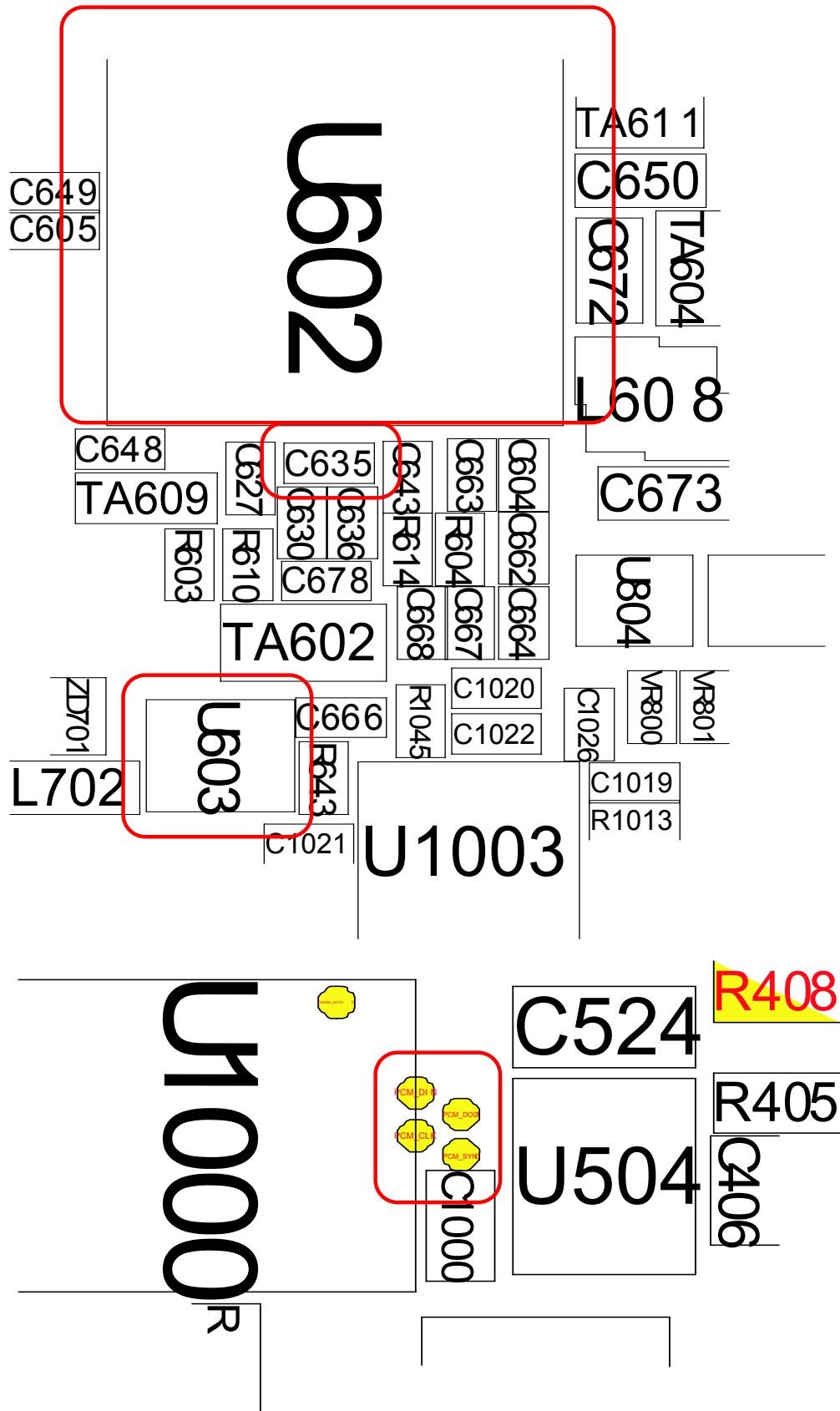


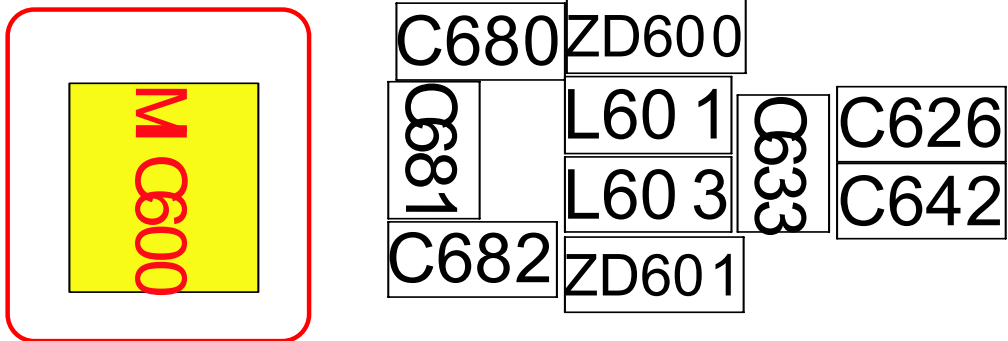
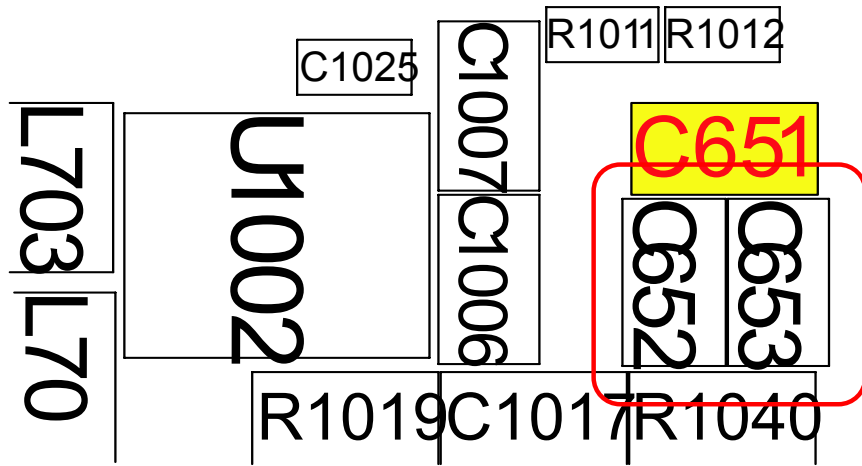
9-1-7 : Abnormal Voice Call operation



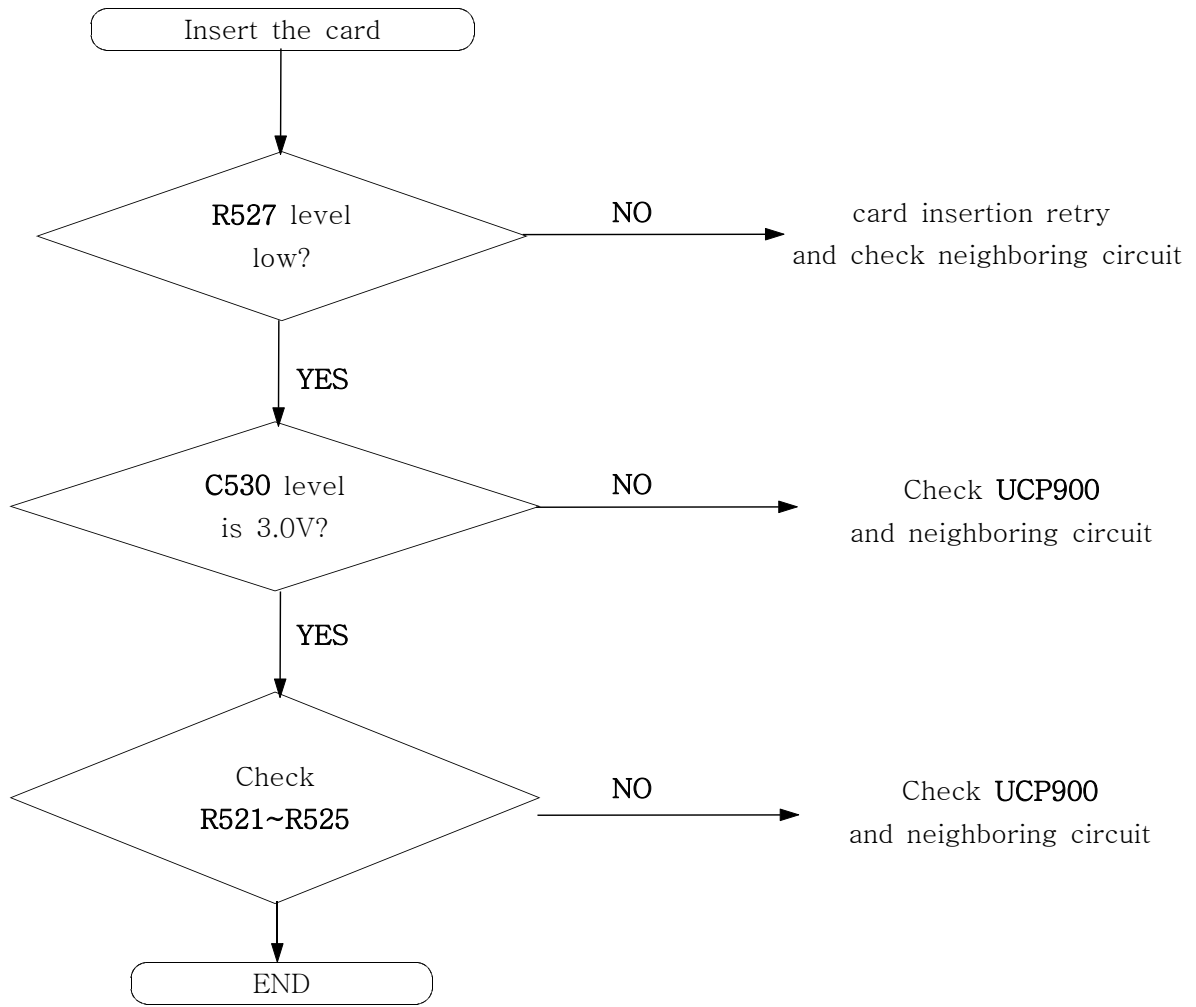


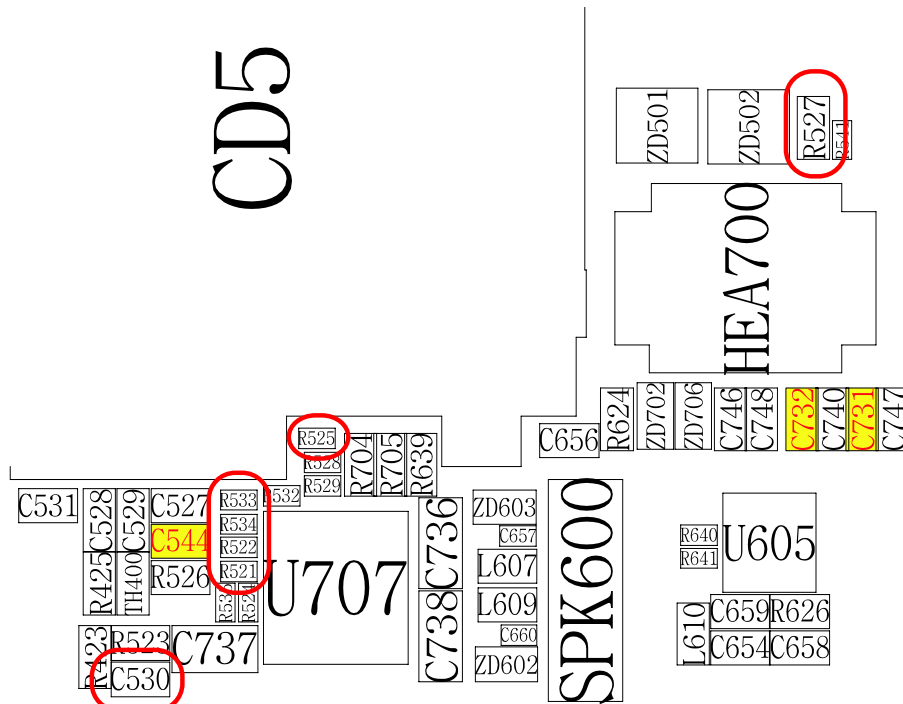
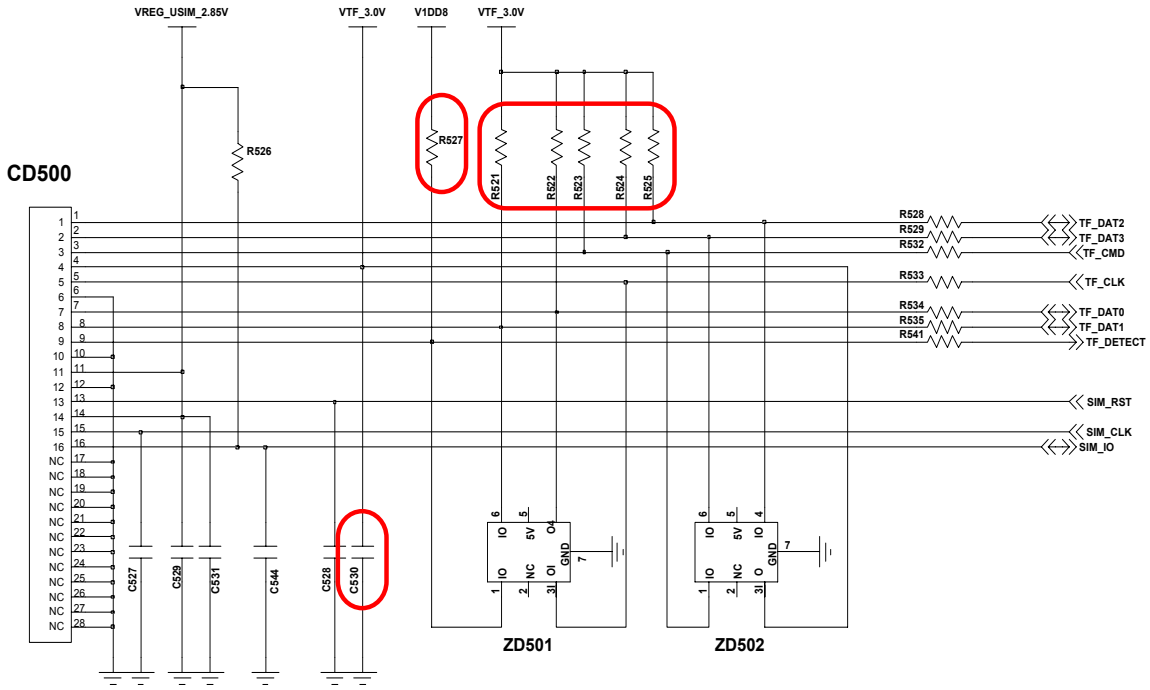




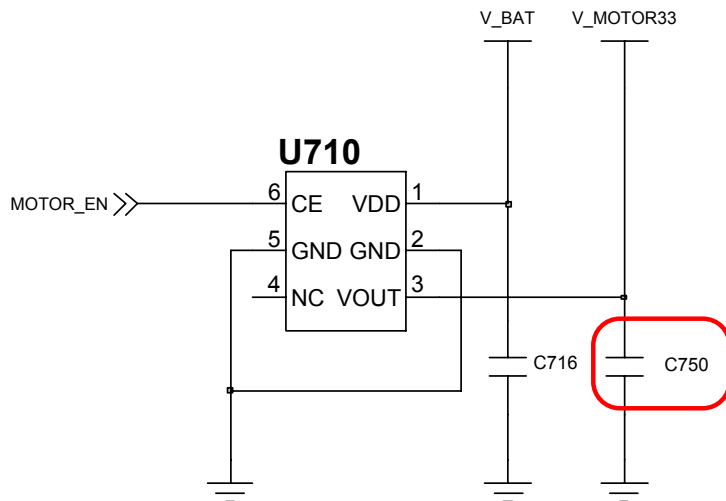
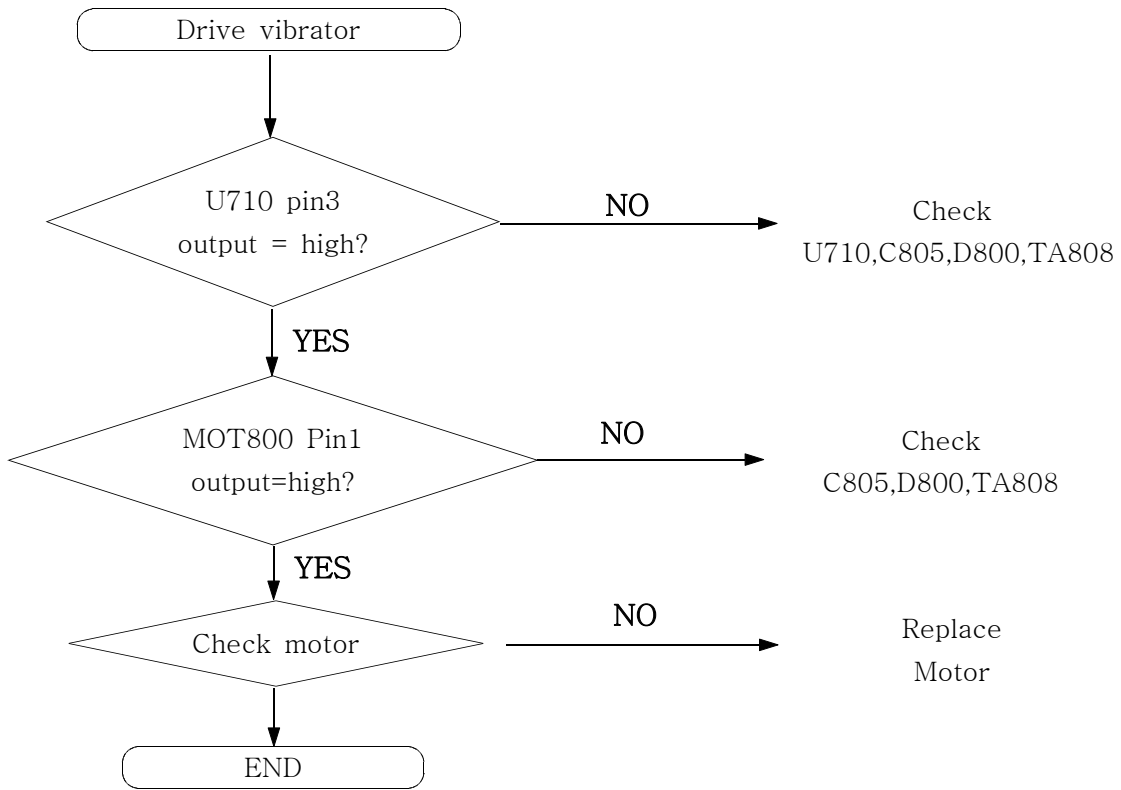


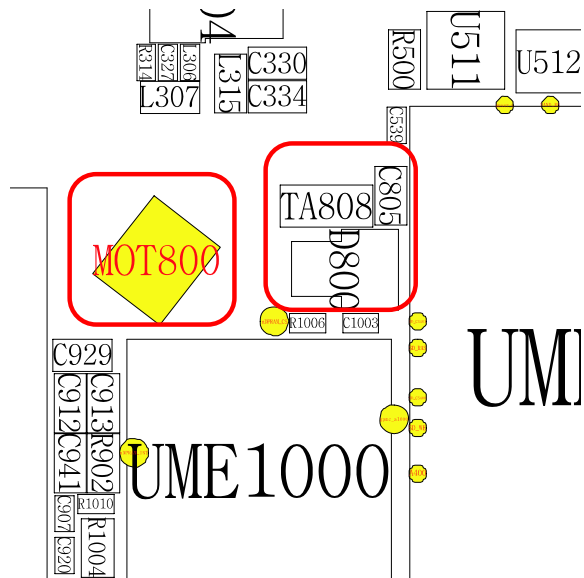
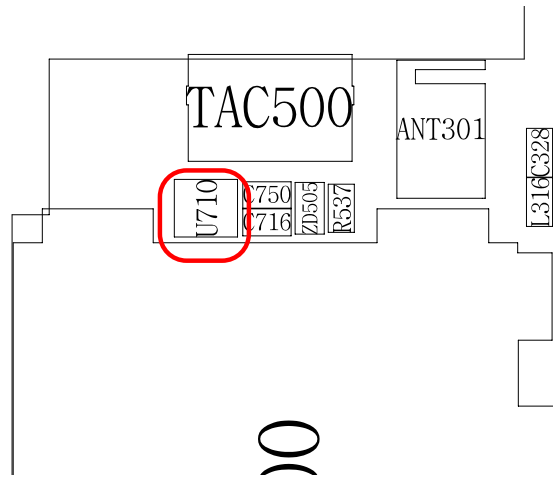
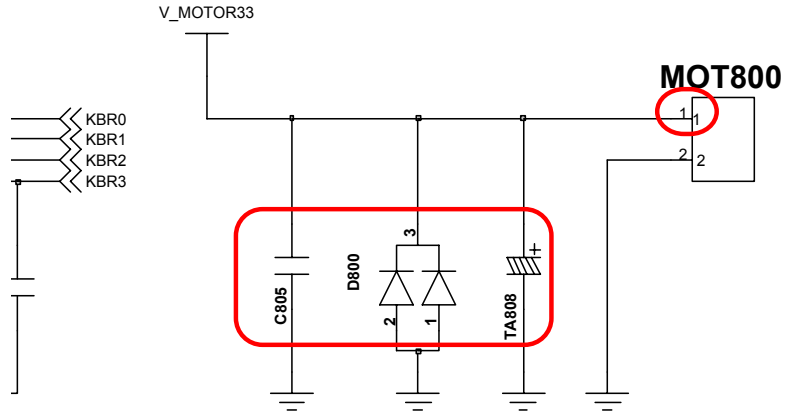
9-1-8 : Abnormal micro-SD operation





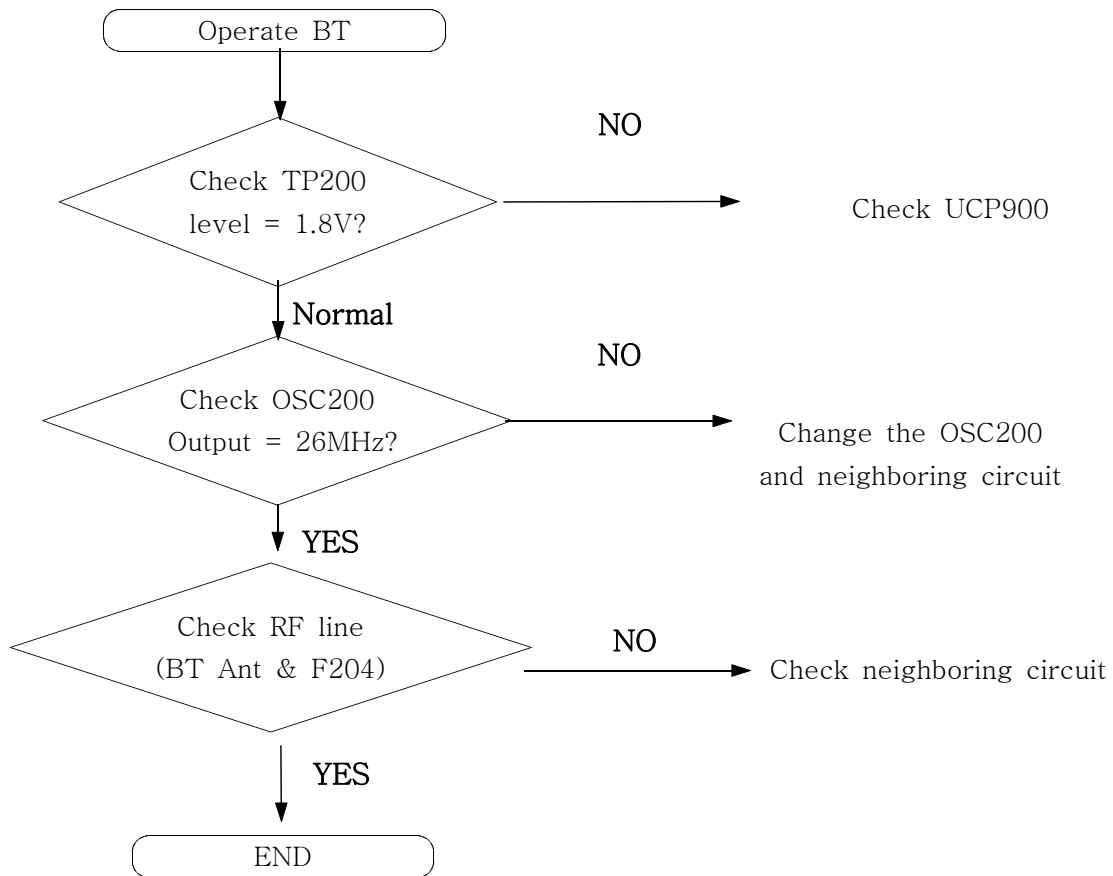
9-1-9 : Abnormal Vibrator operation

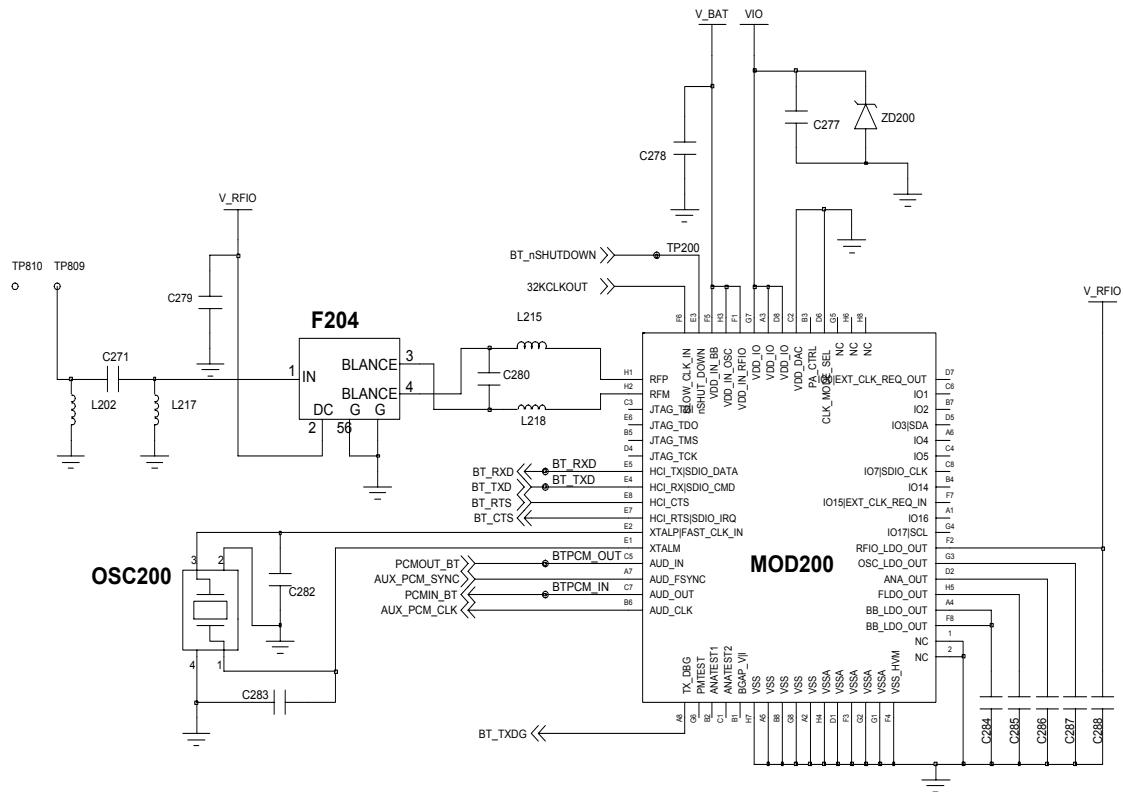


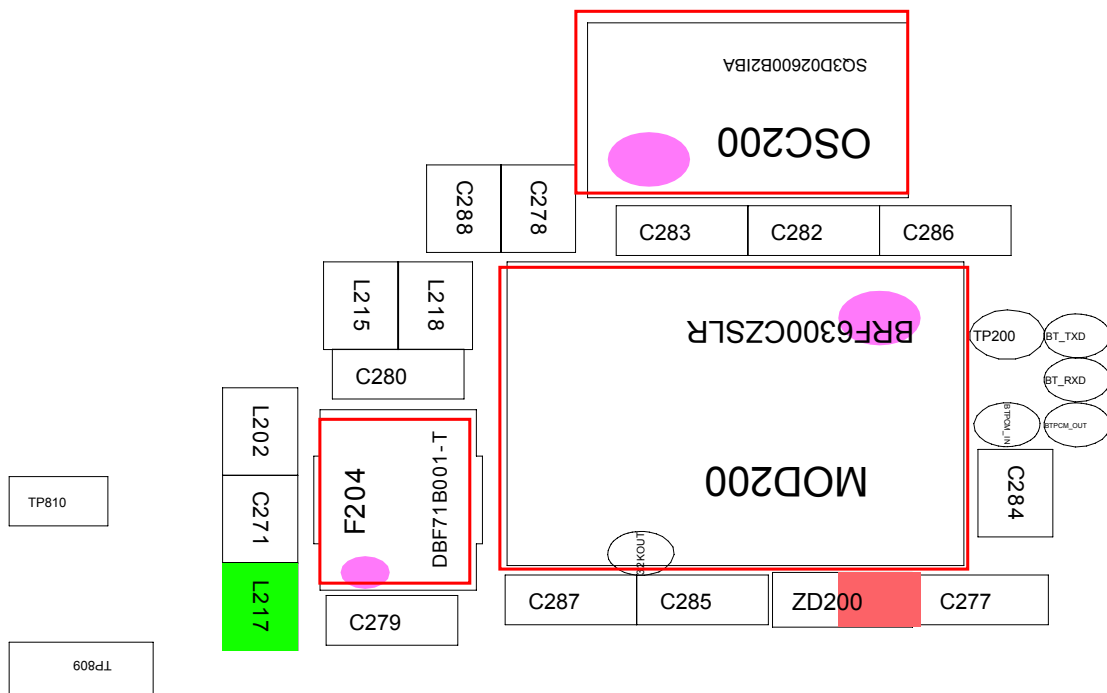


9-2. RF Section

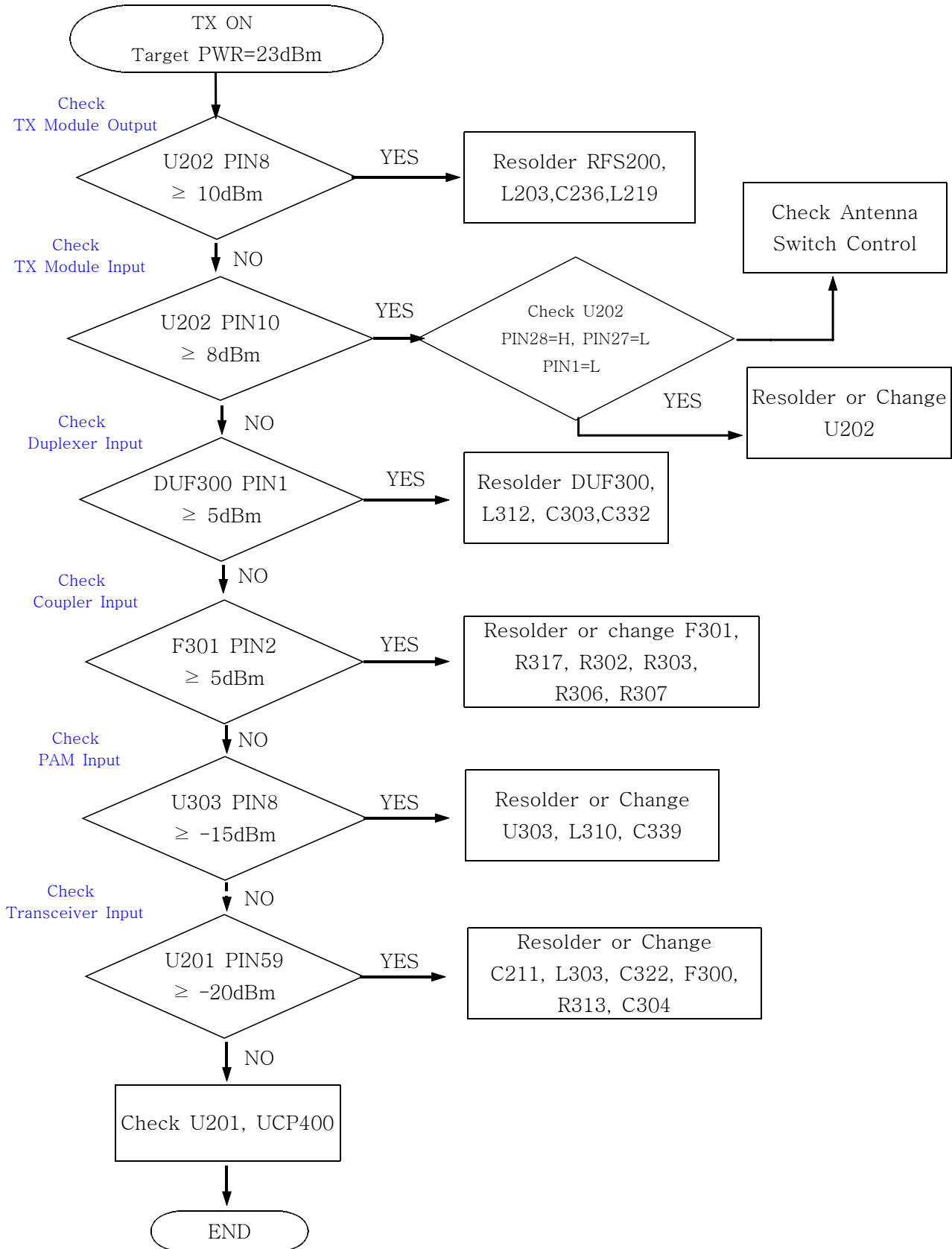
9-2-1. Abnormal Bluetooth Operation



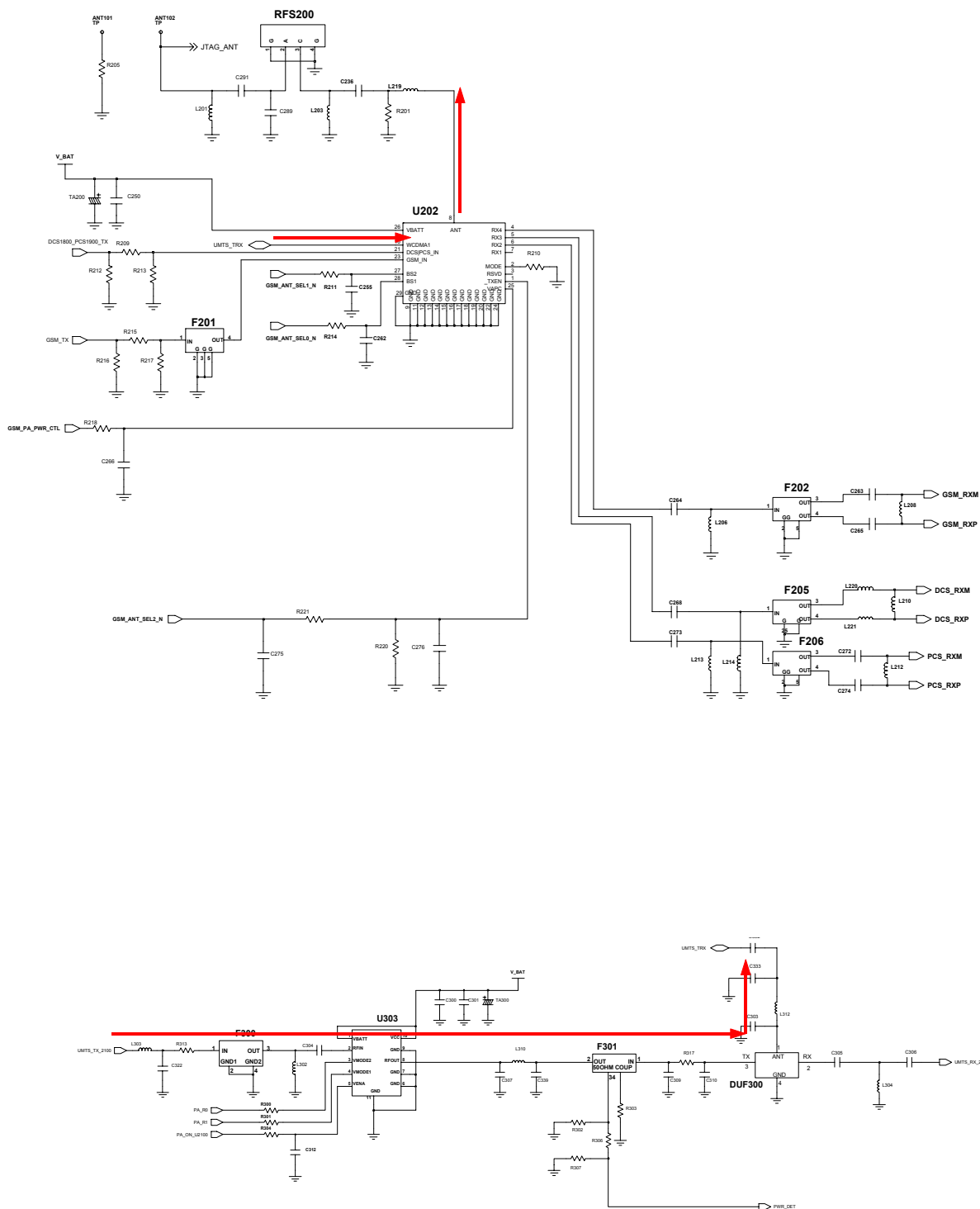


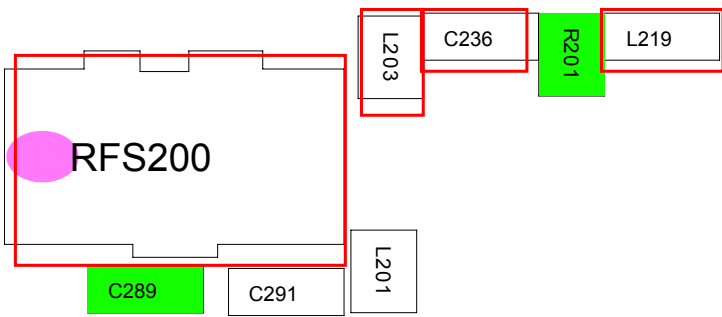
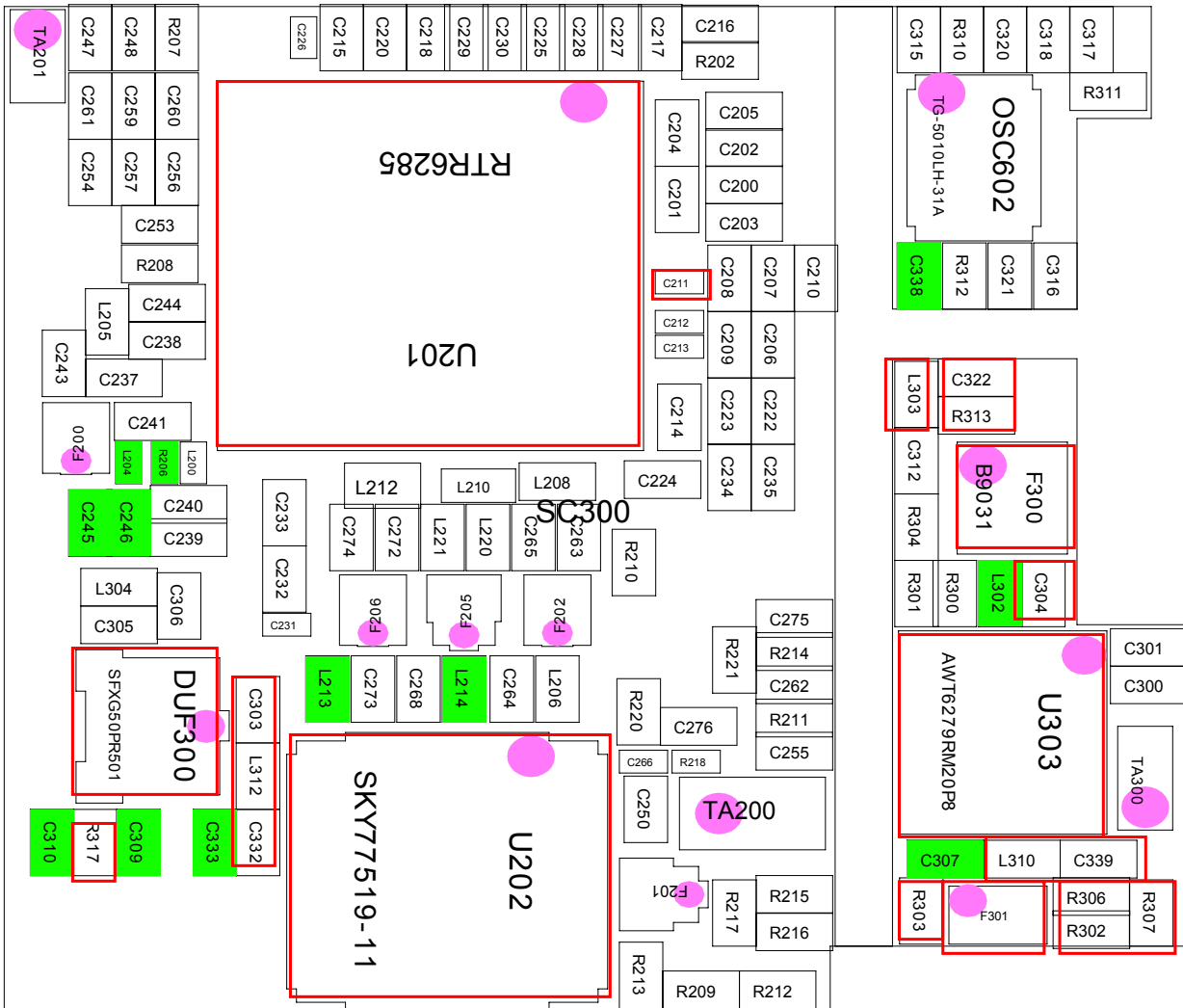


9-2-2. Abnormal WCDMA Tx Operation

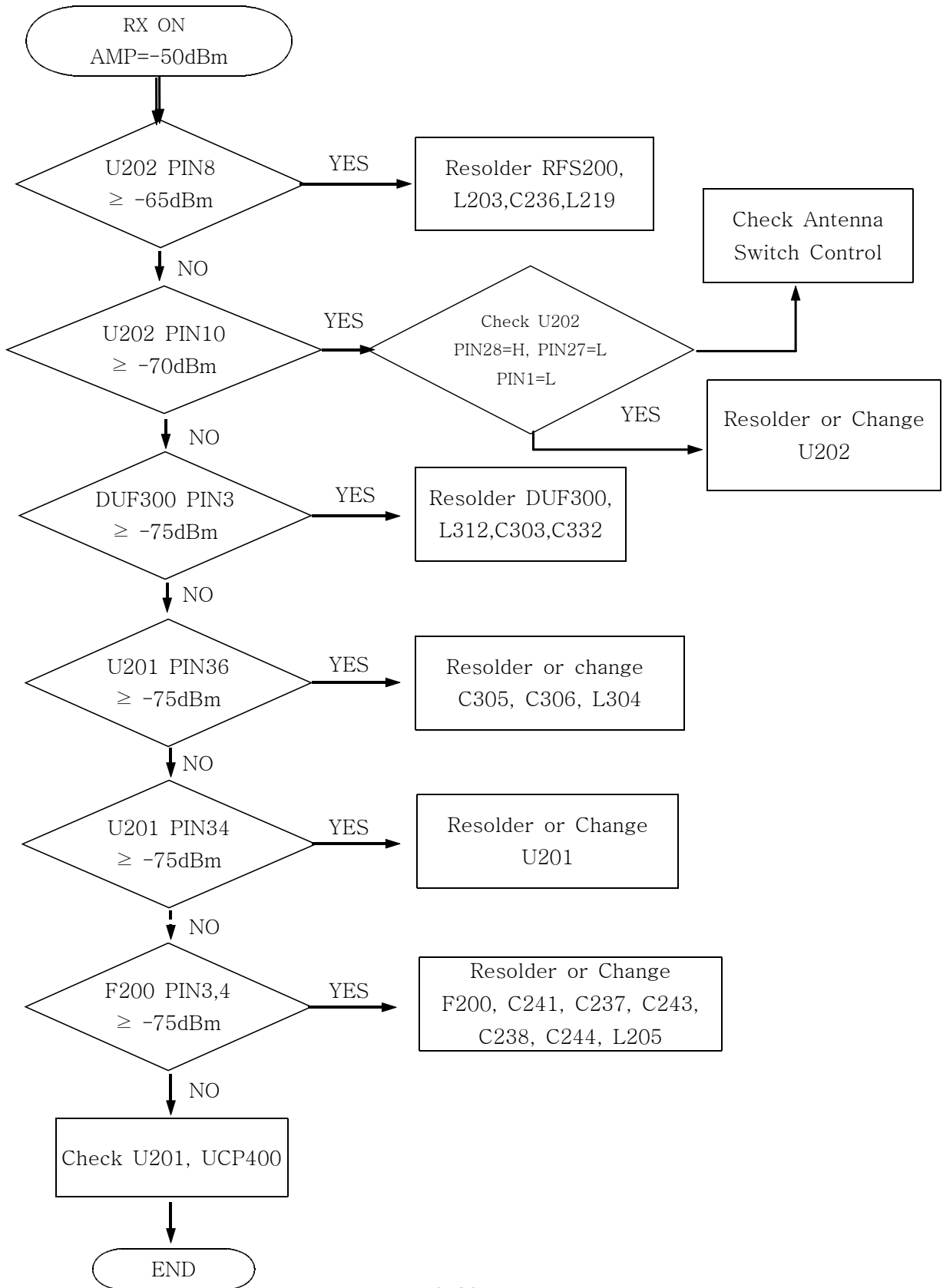


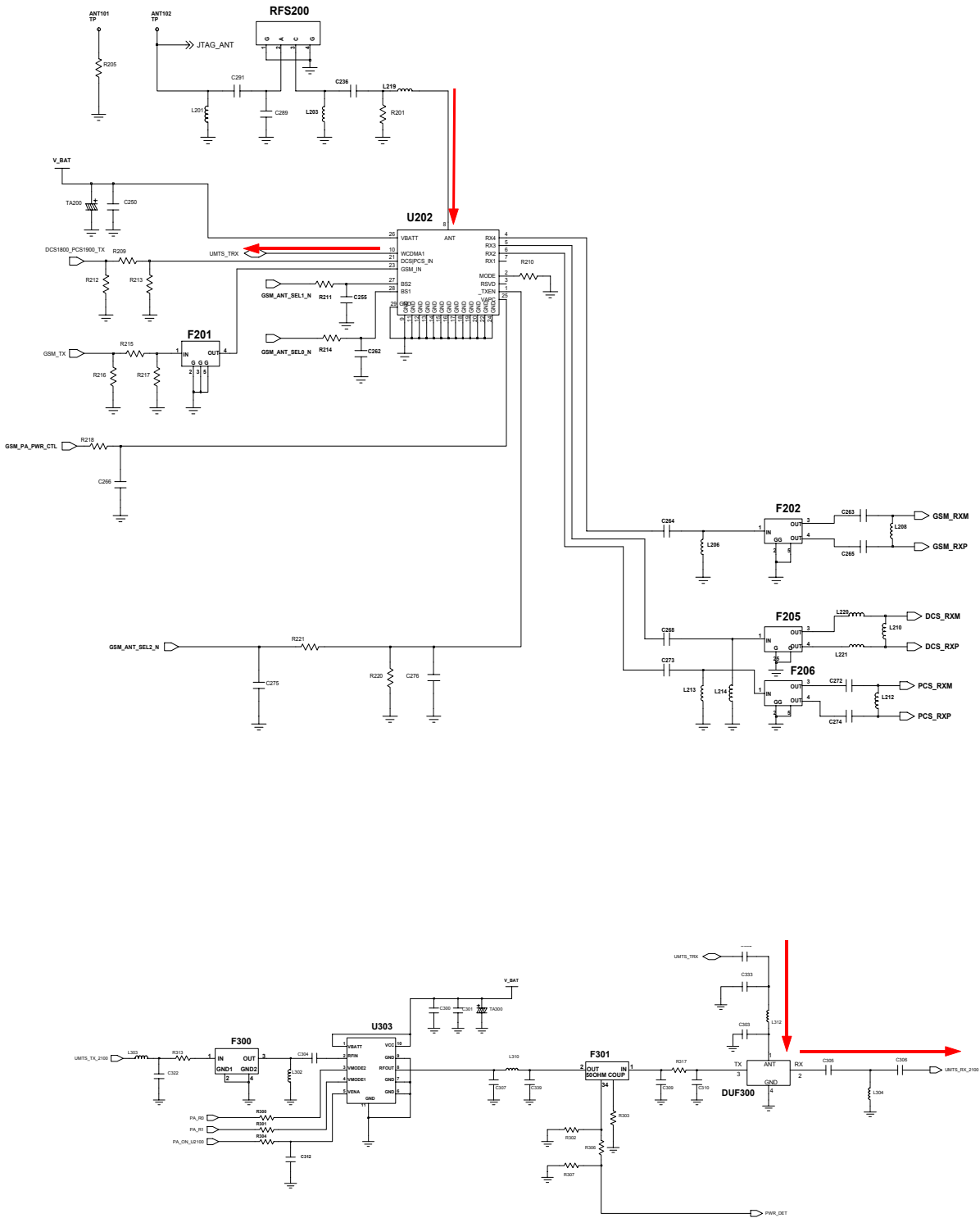
Flow Chart of Troubleshooting



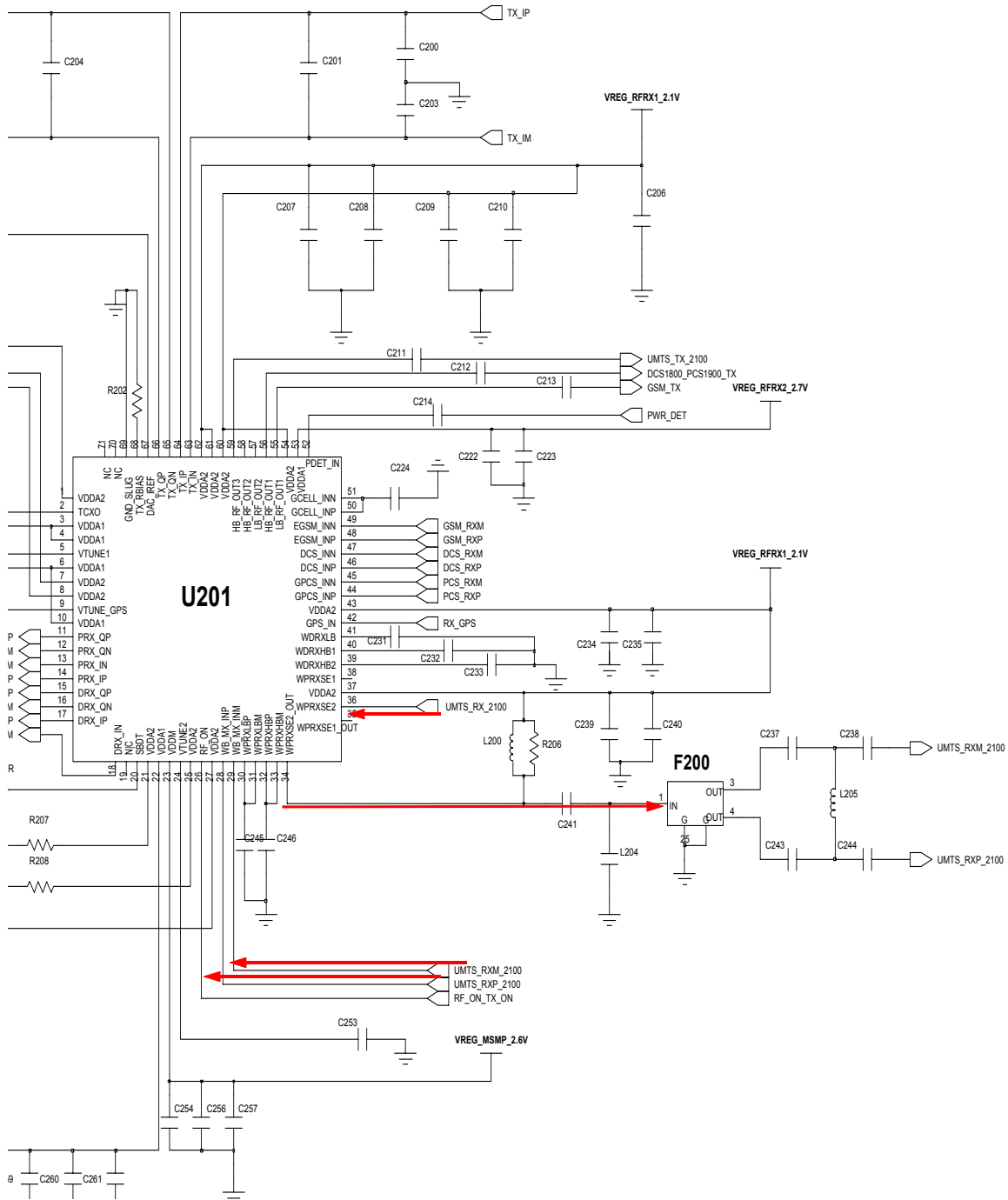


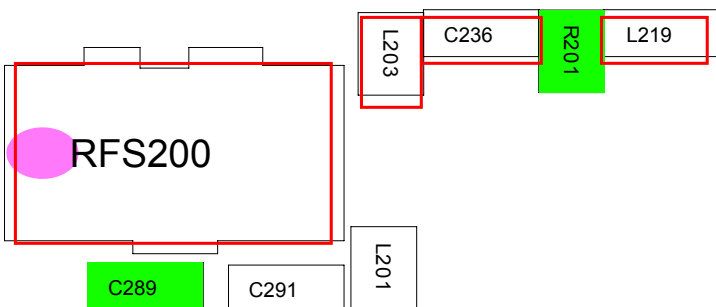
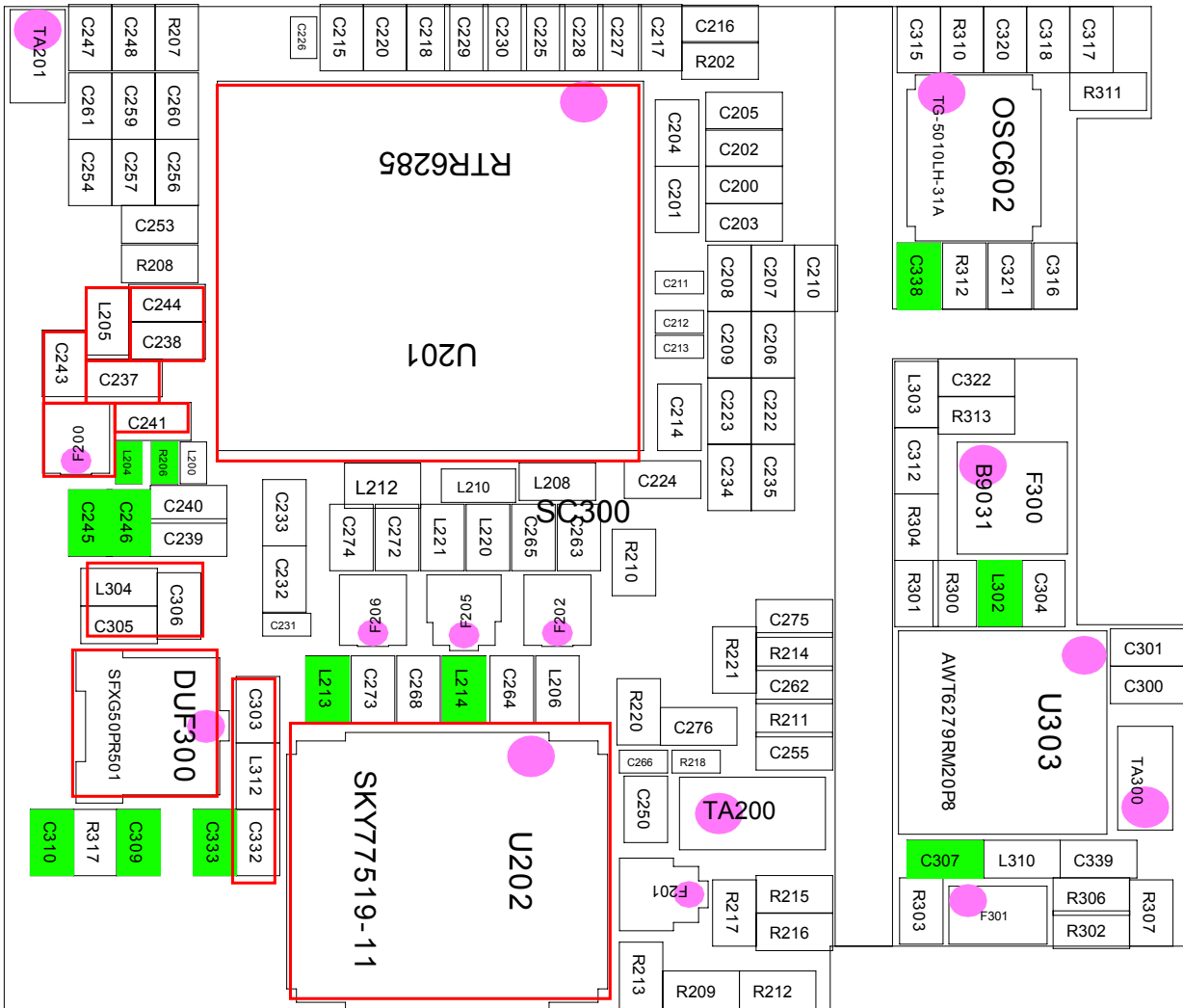
9-2-3. Abnormal WCDMA Rx Operation



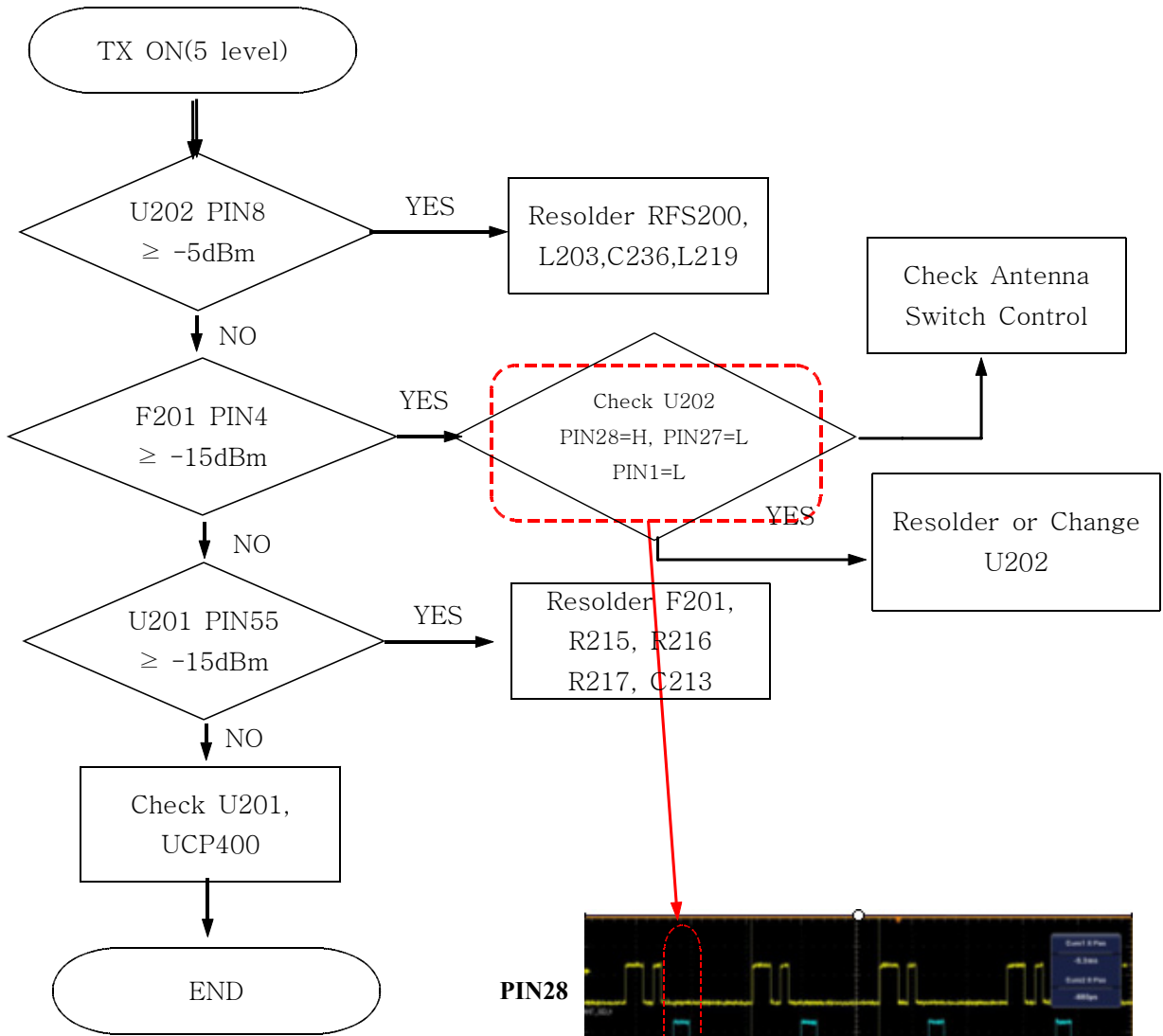


Flow Chart of Troubleshooting



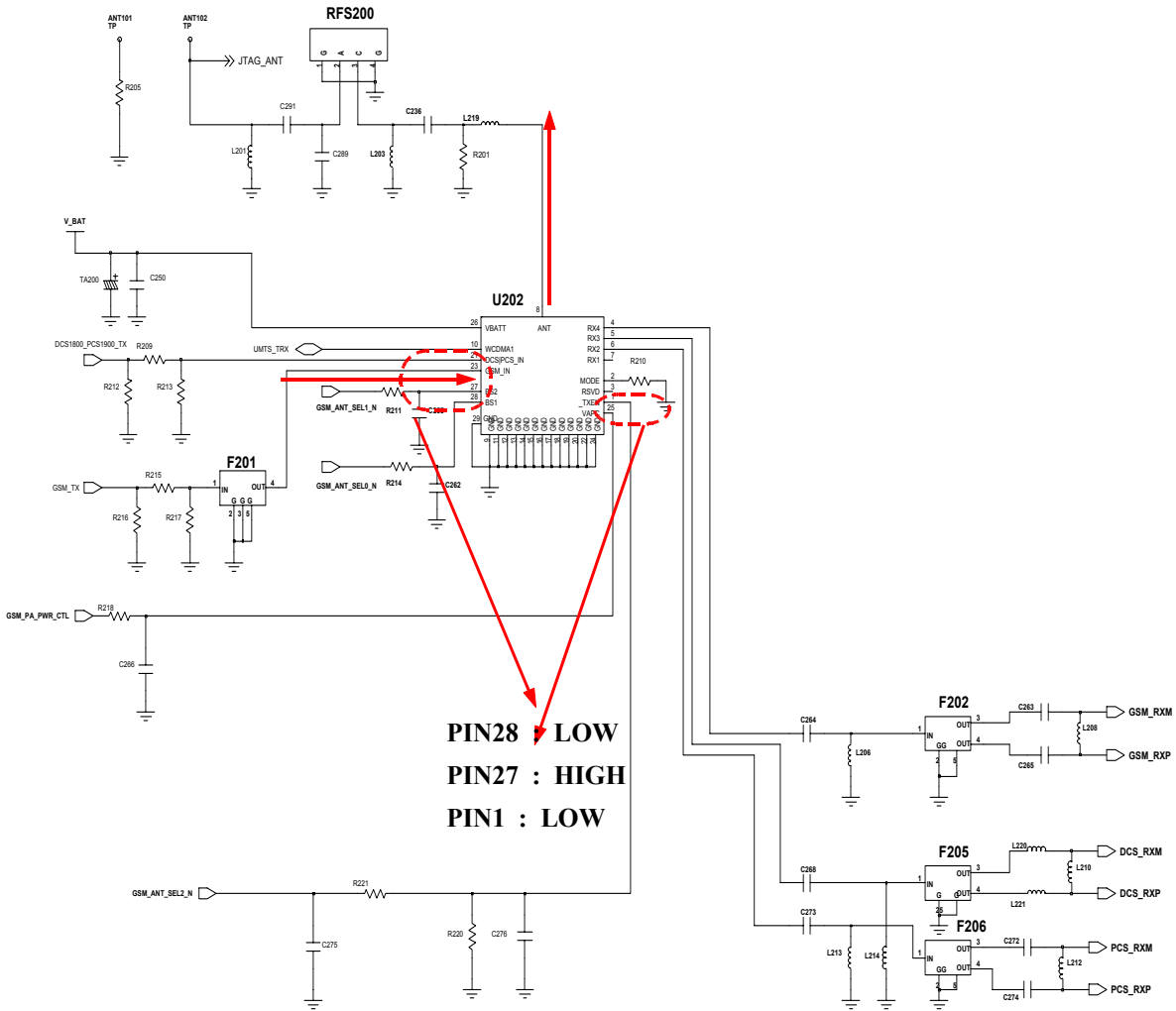


9-2-4. Abnormal EGSM Tx Operation

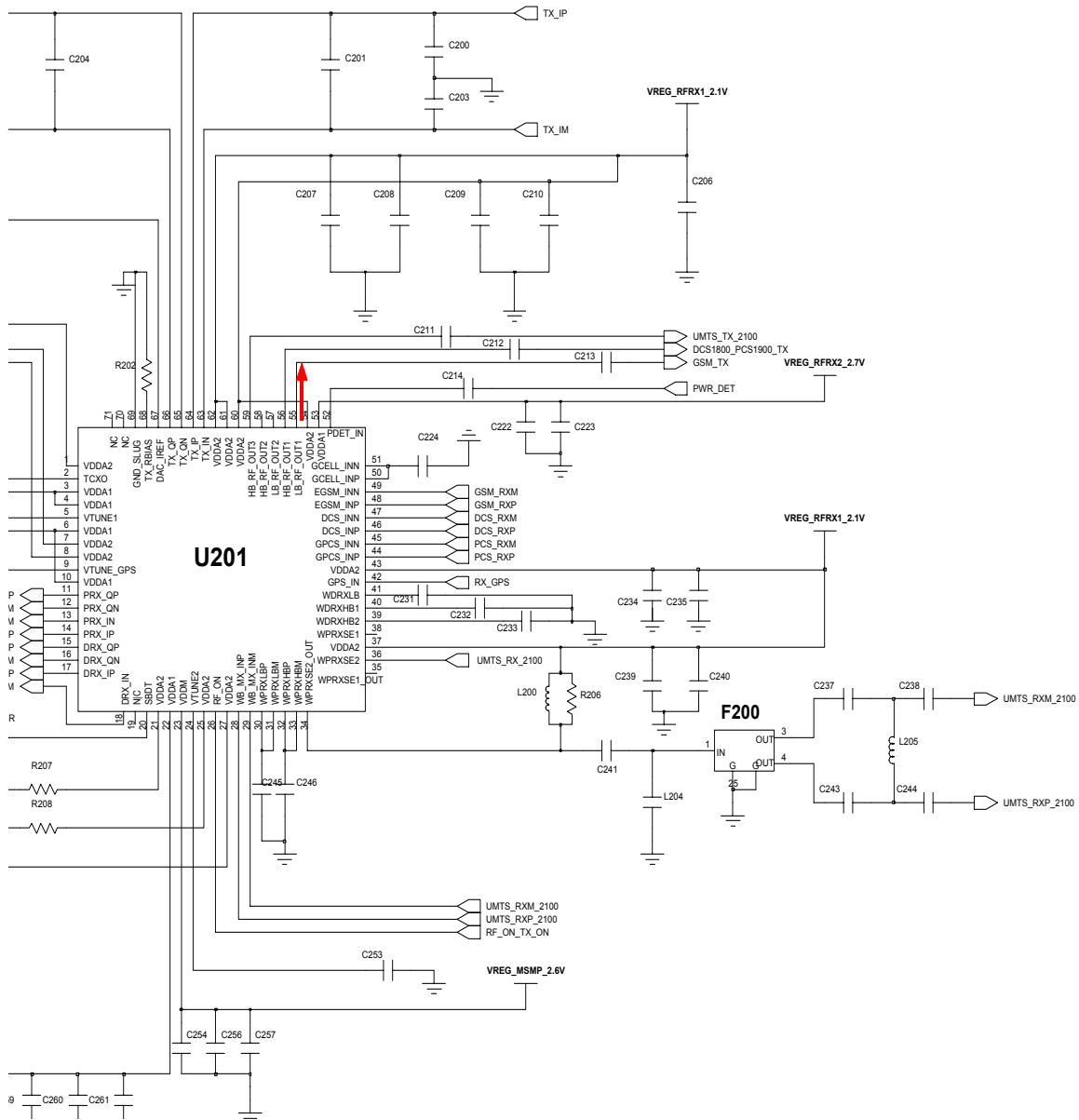


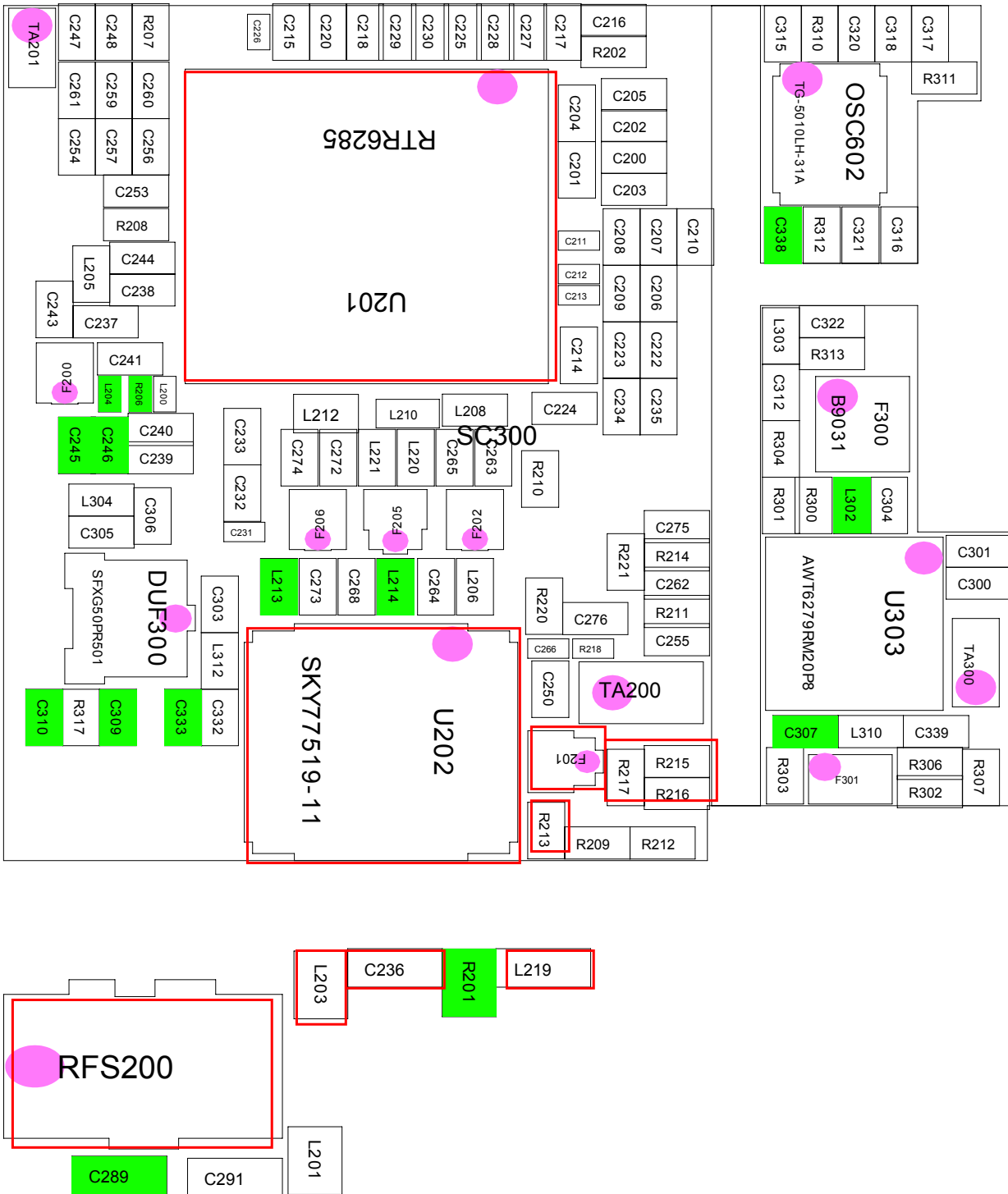
PIN28
PIN27
PIN1



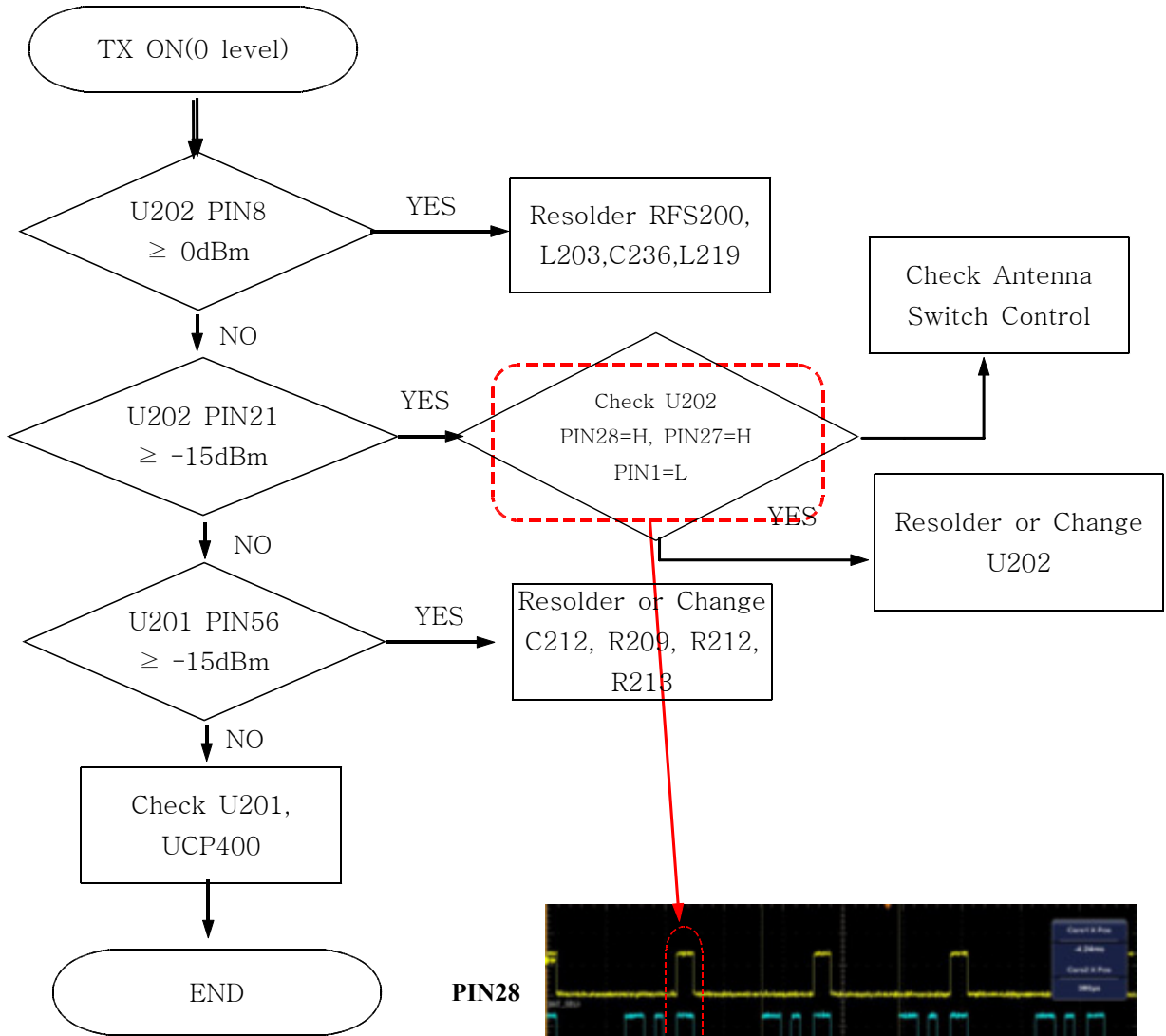


Flow Chart of Troubleshooting



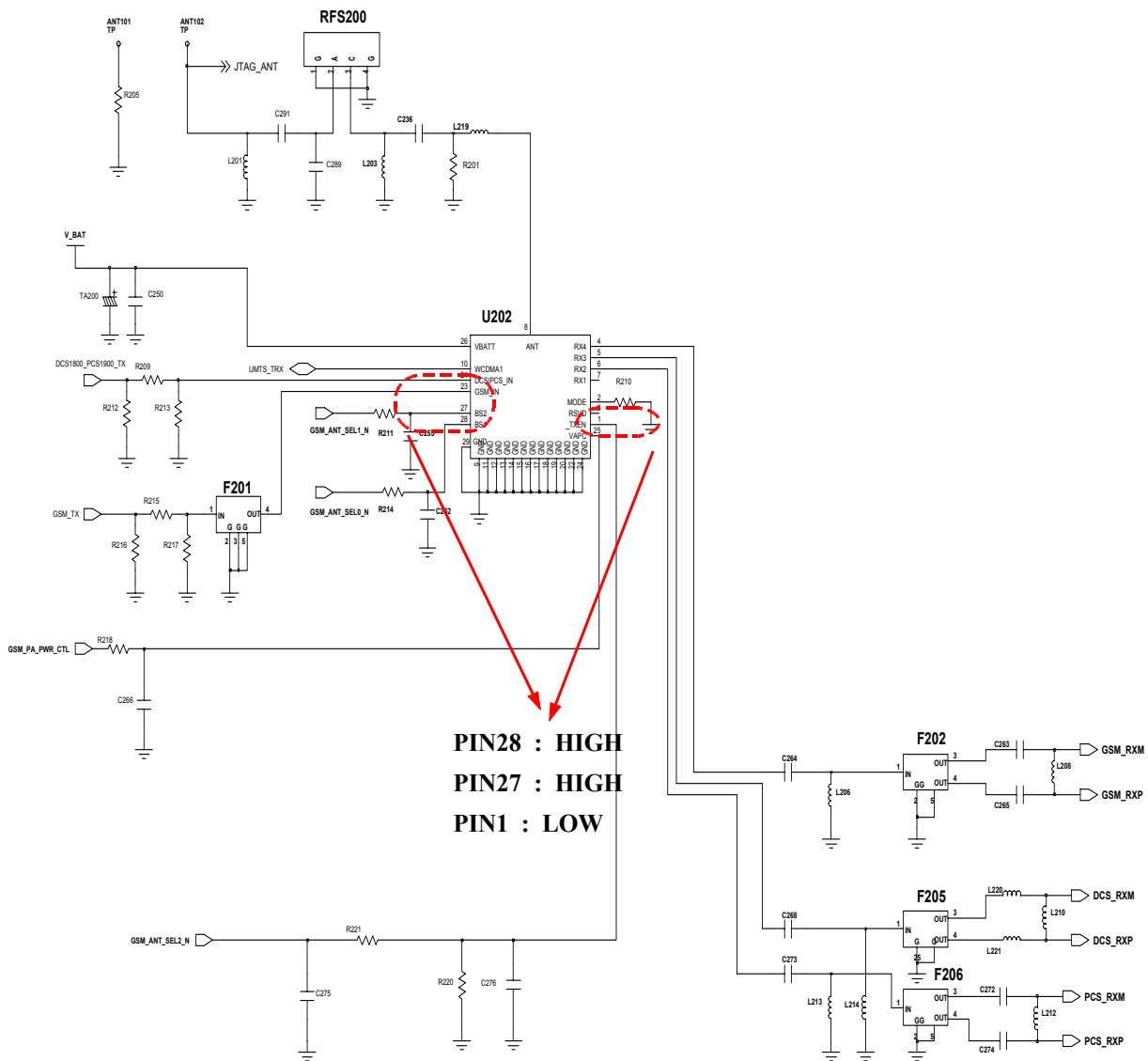


9-2-5. Abnormal DCS/PCS Tx Operation

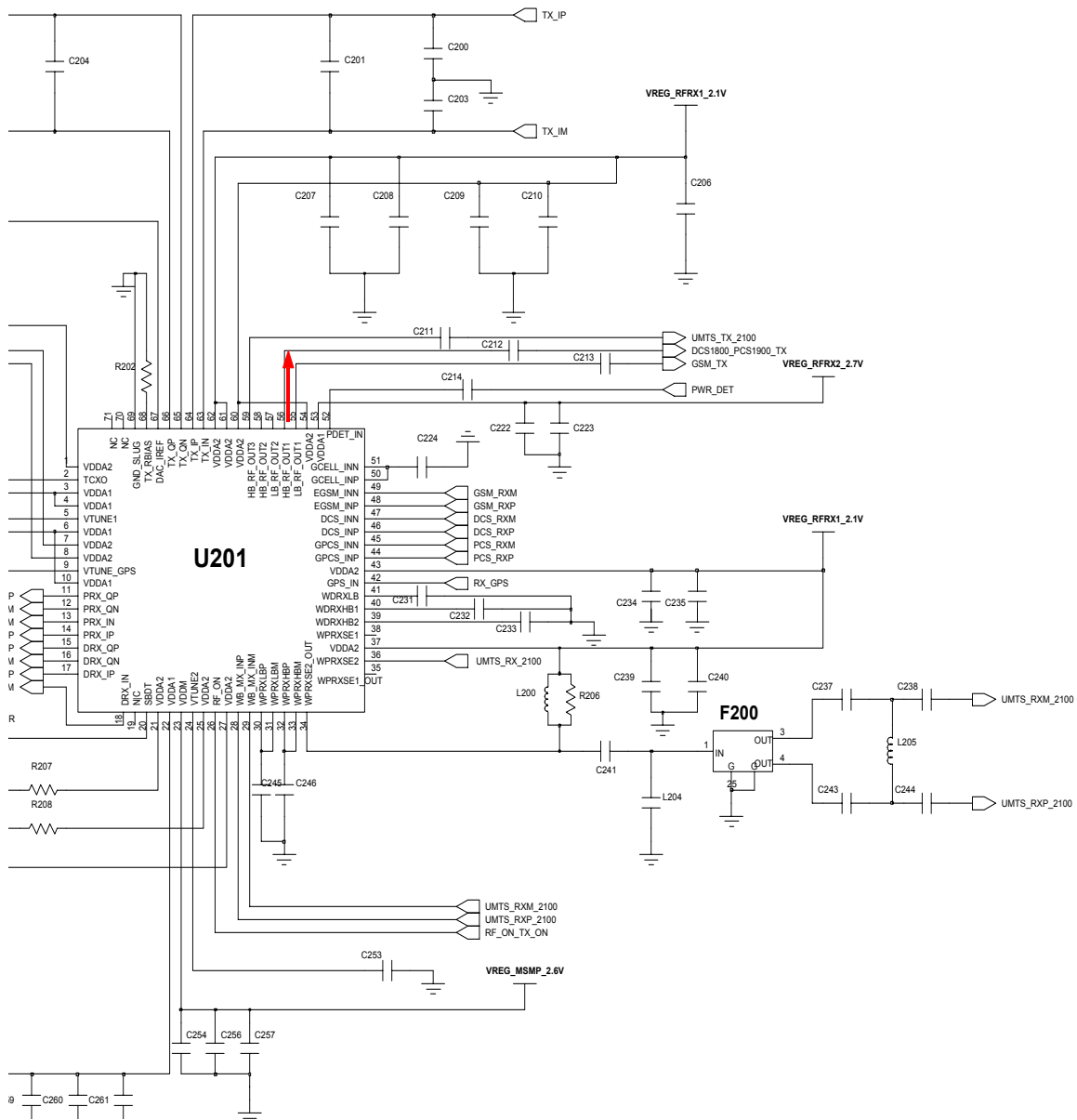


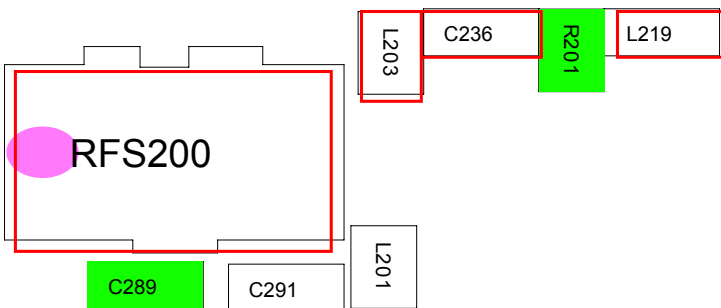
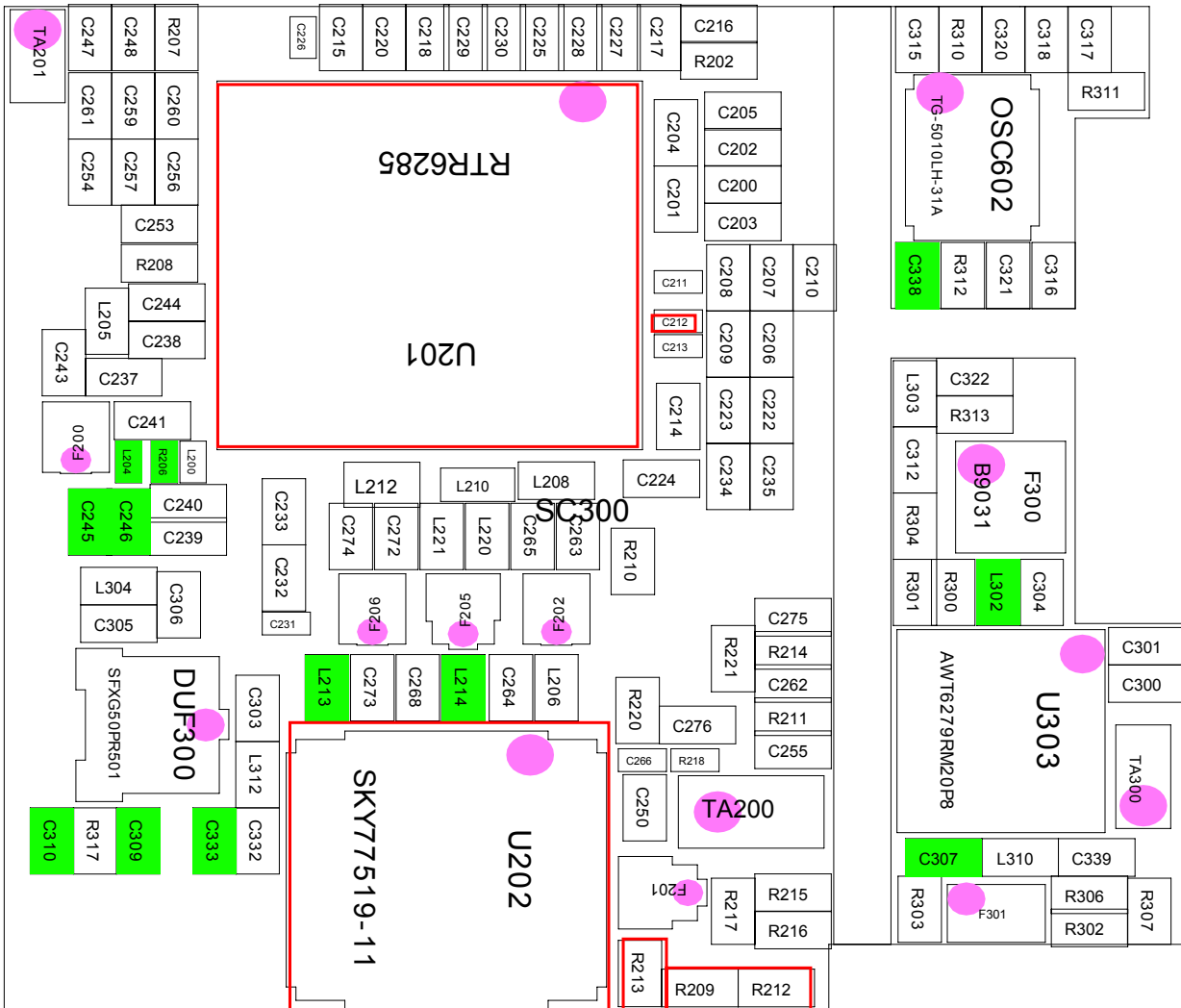
PIN28
PIN27
PIN1



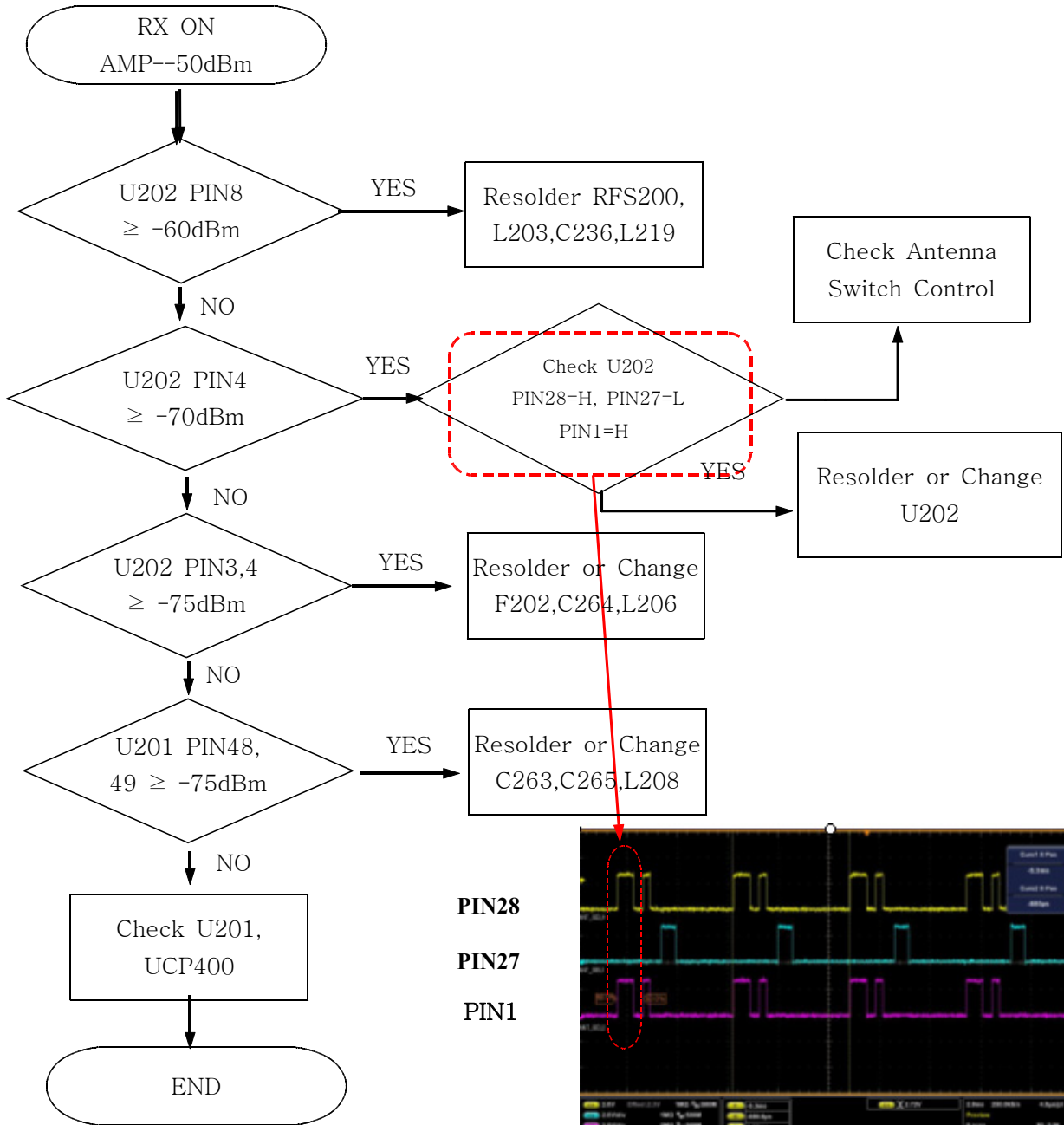


Flow Chart of Troubleshooting

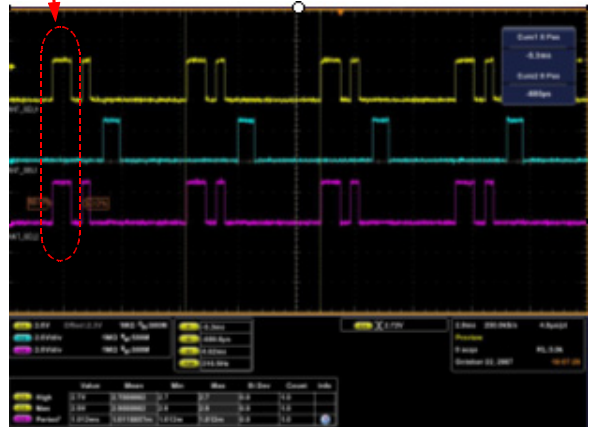


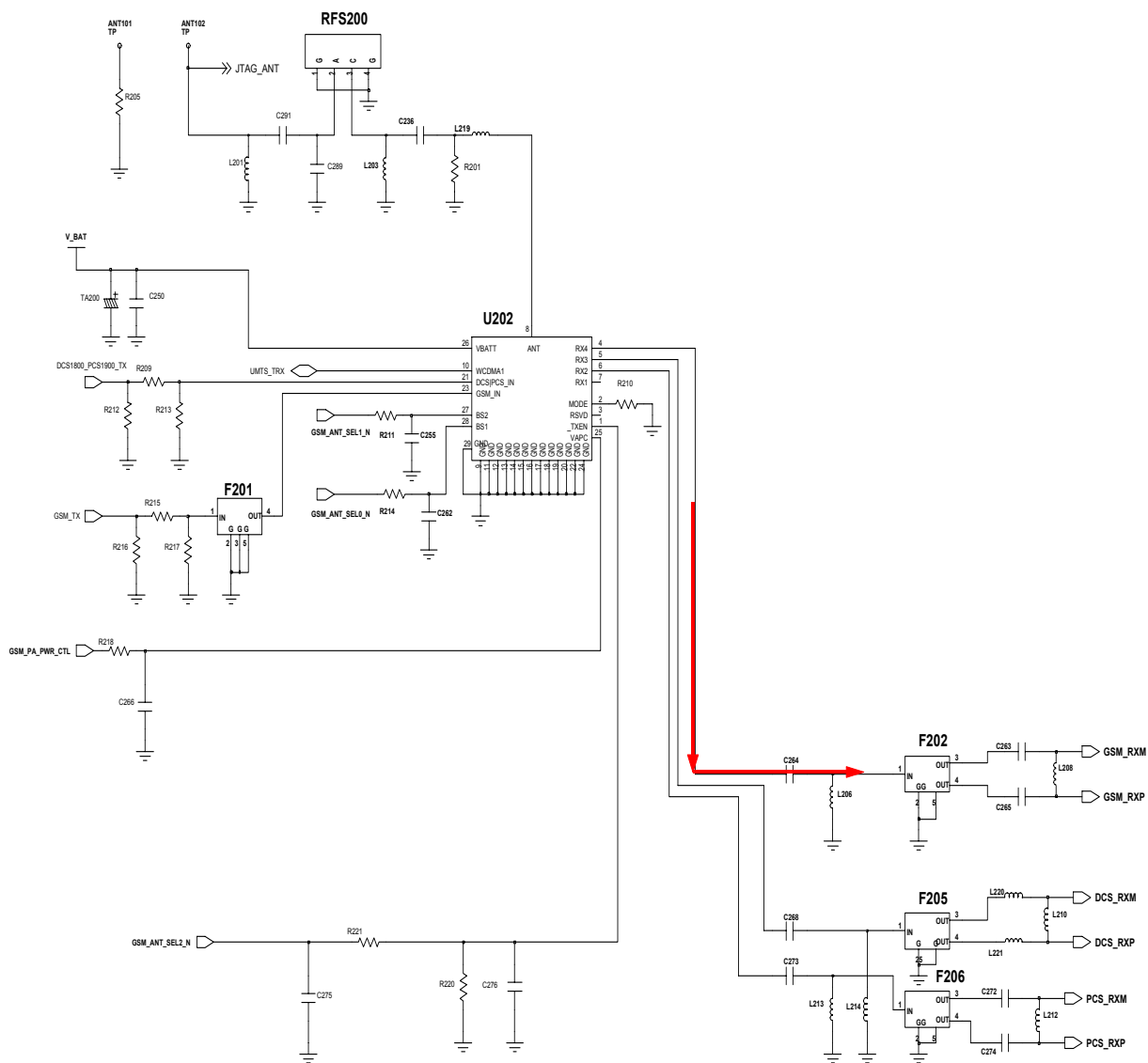


9-2-6. Abnormal EGSM Rx Operation

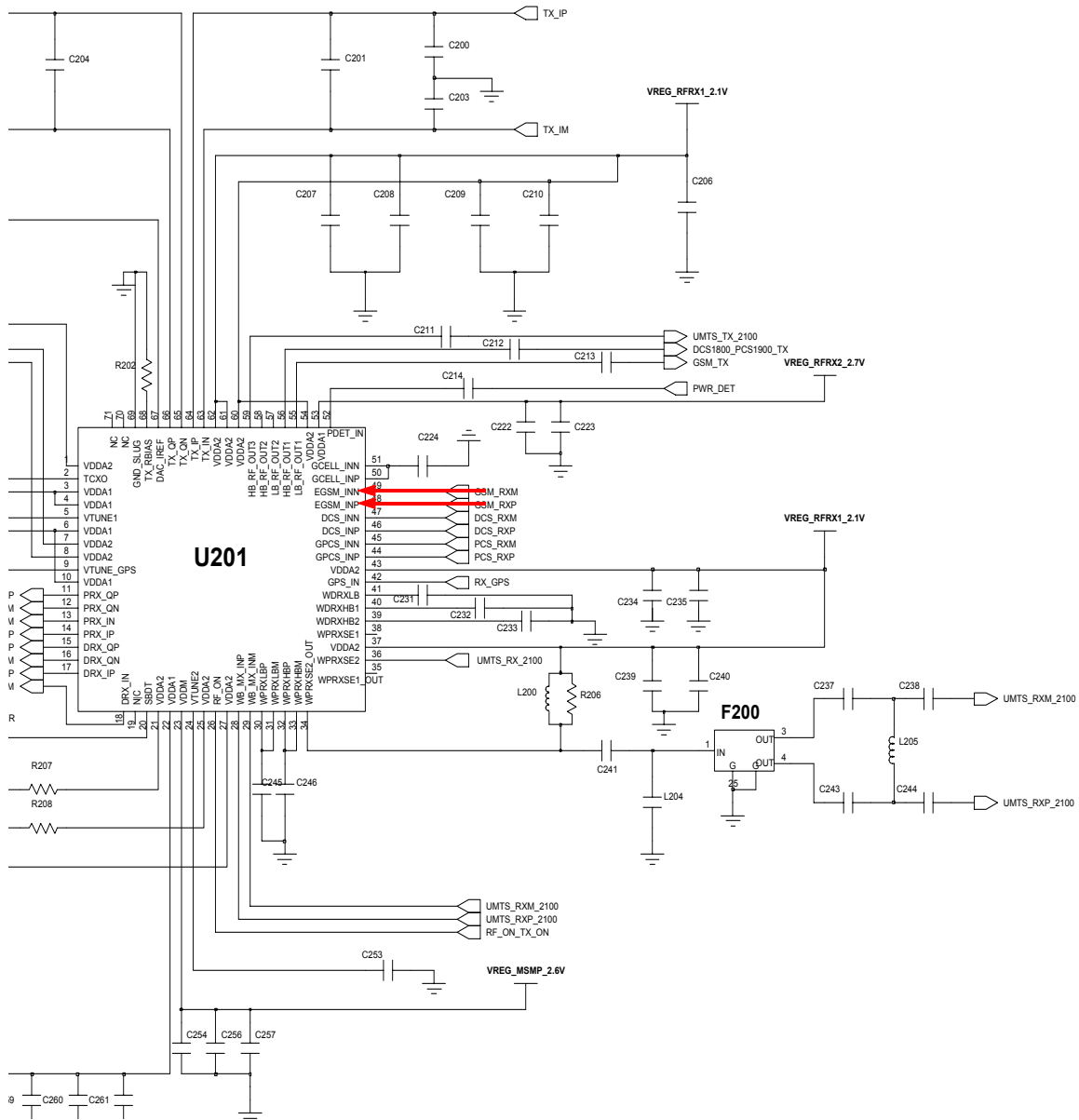


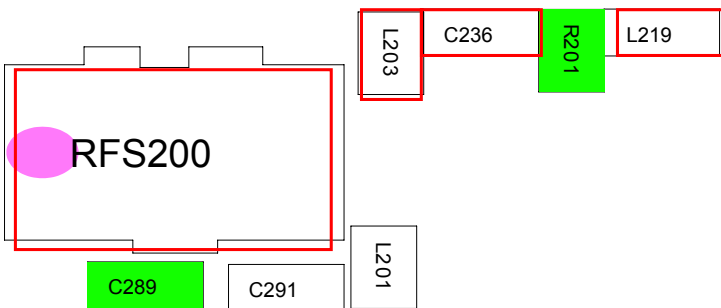
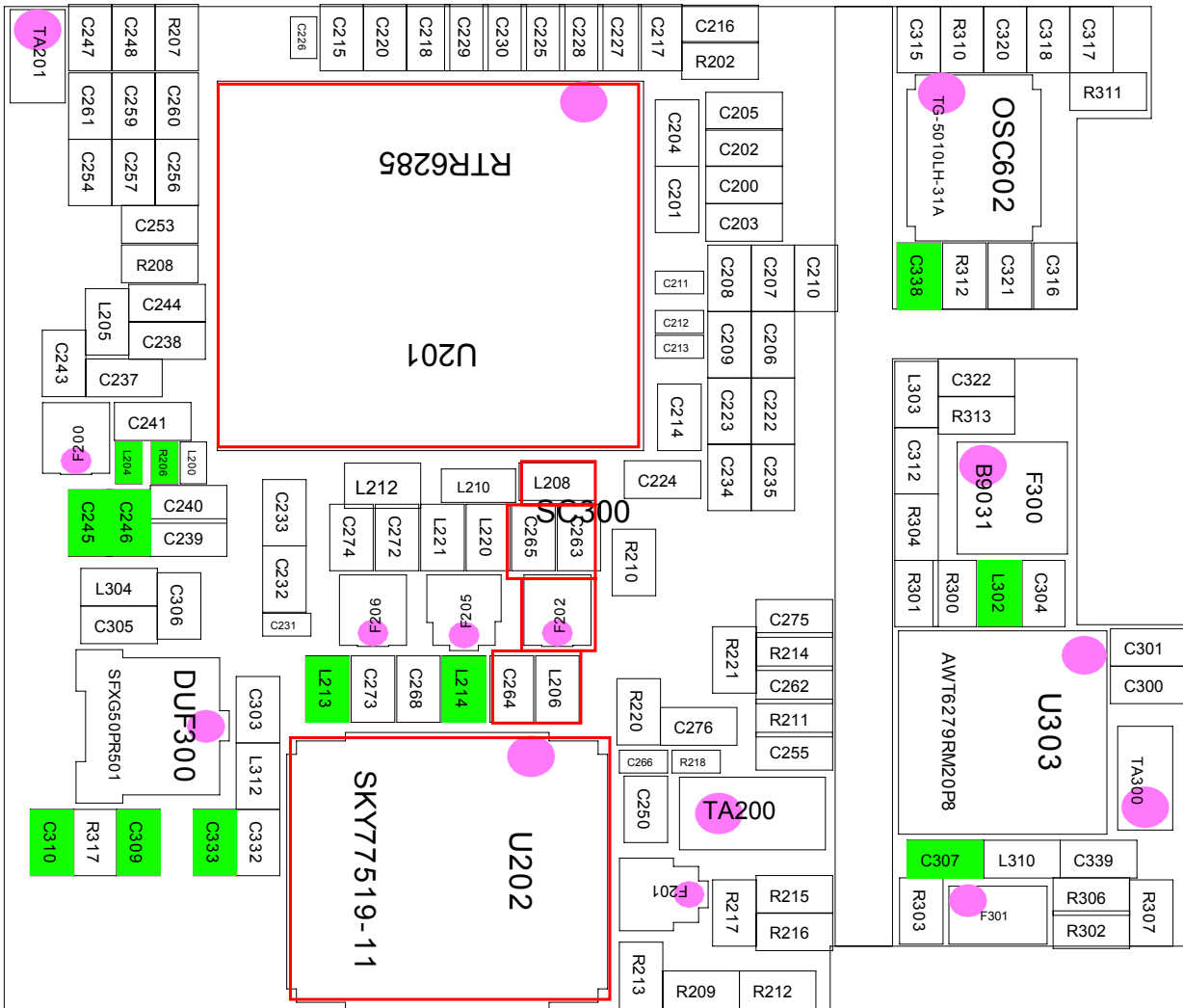
PIN28
PIN27
PIN1



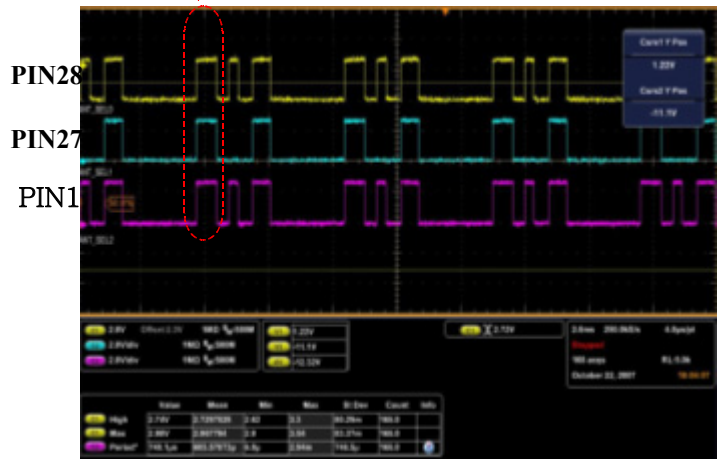
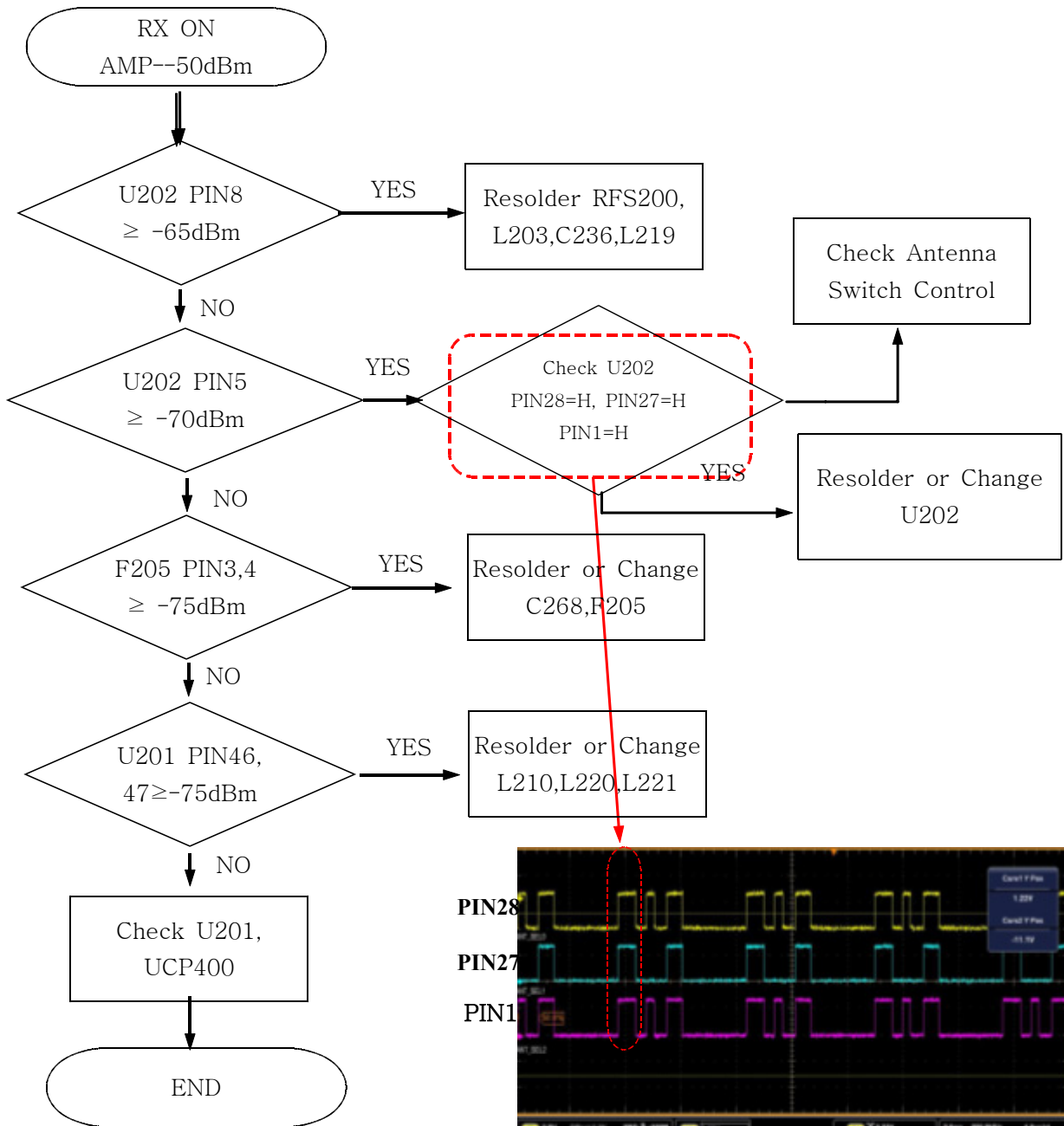


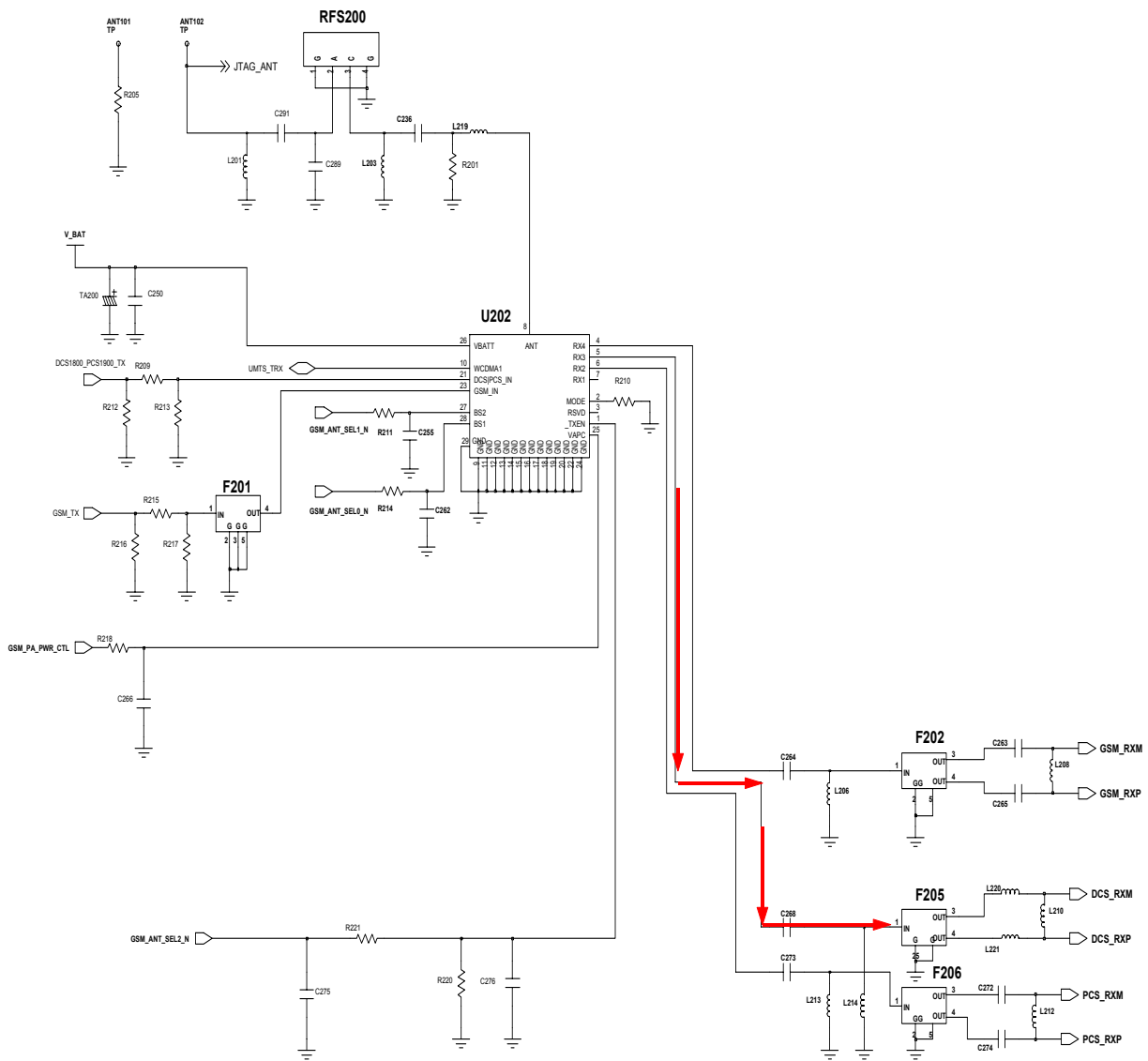
Flow Chart of Troubleshooting

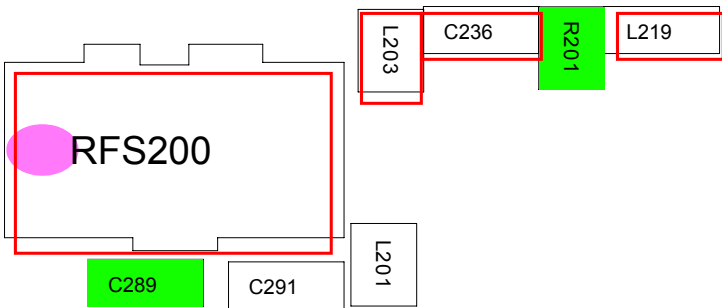
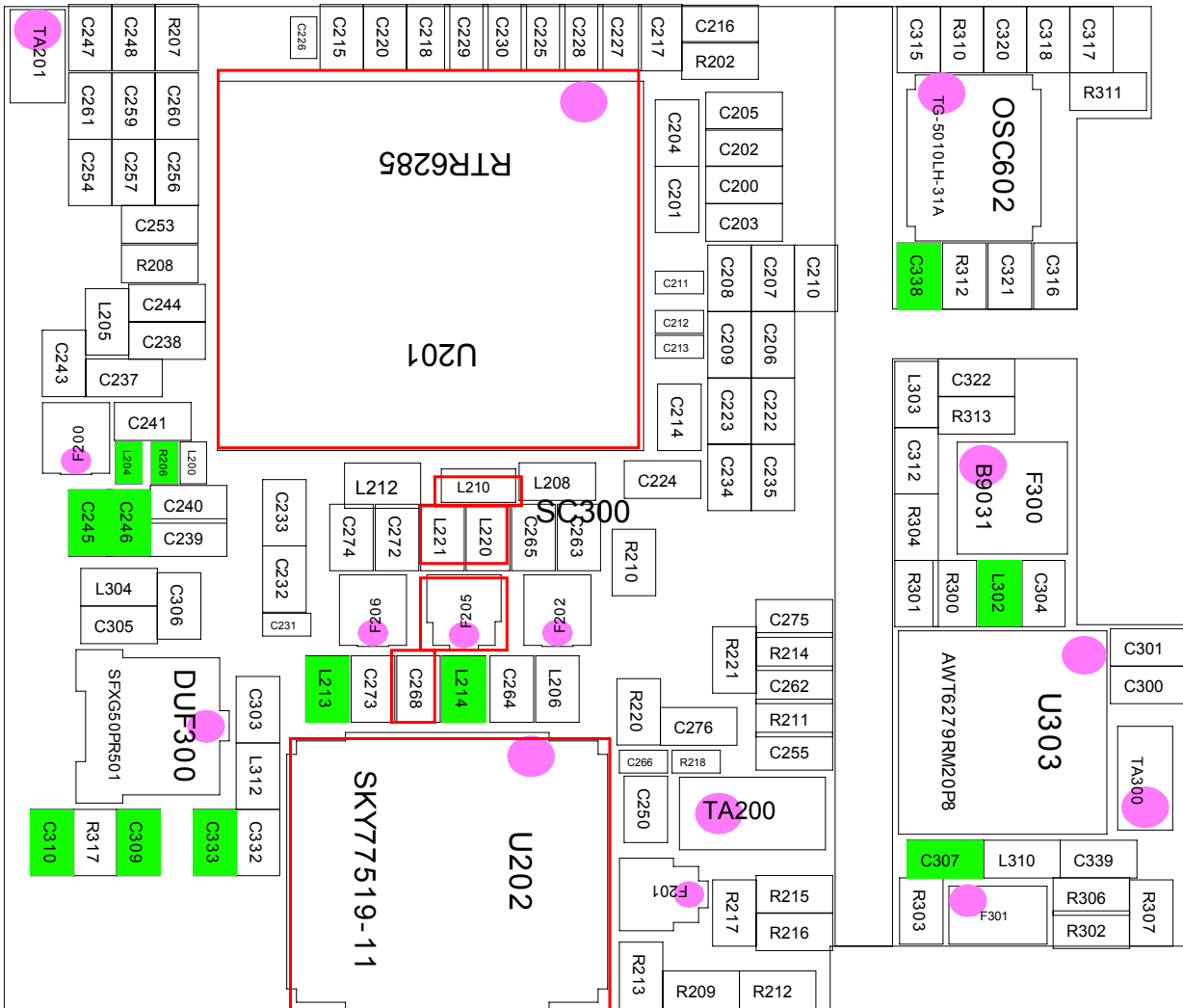




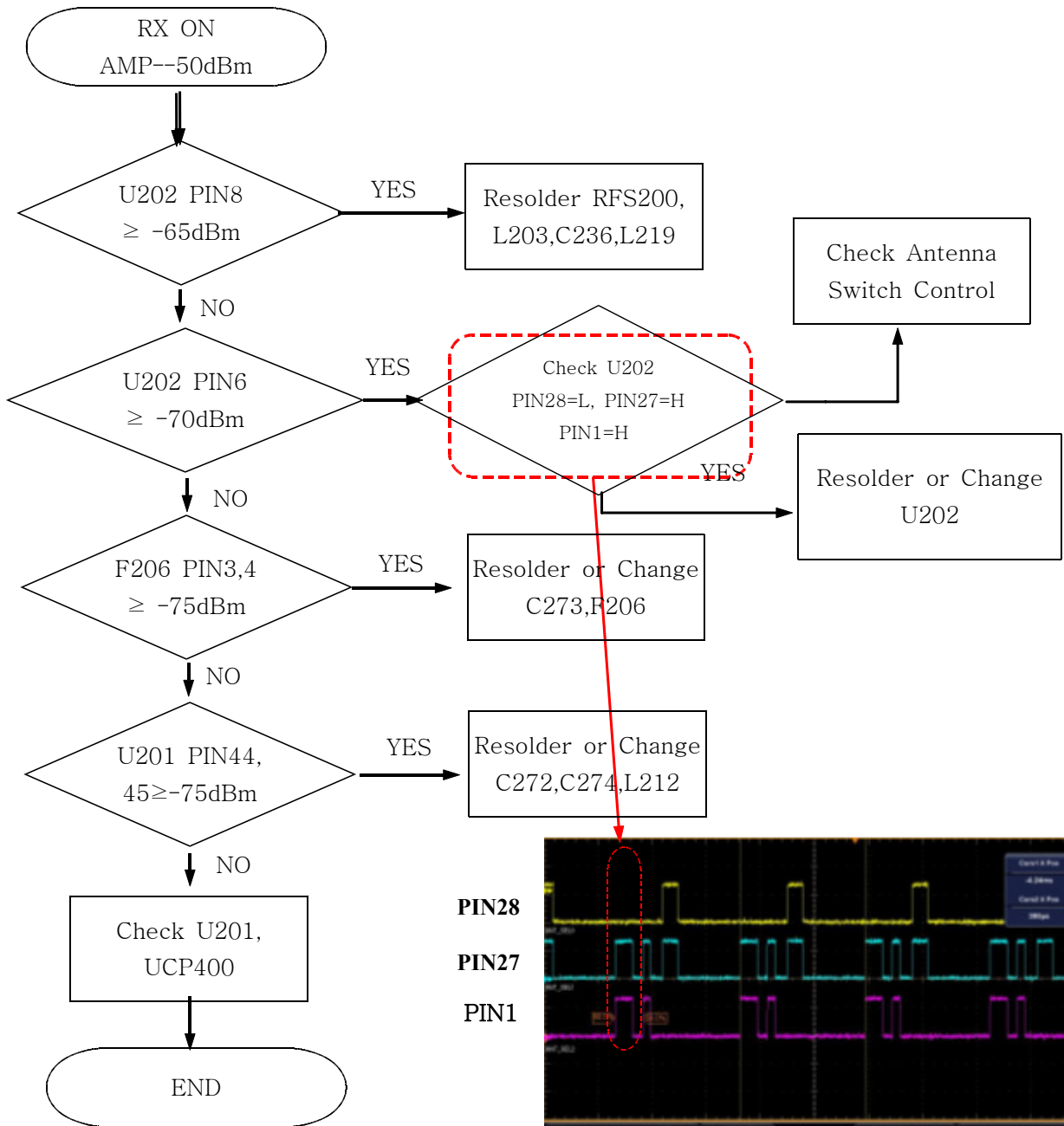
9-2-7. Abnormal DCS Rx Operation



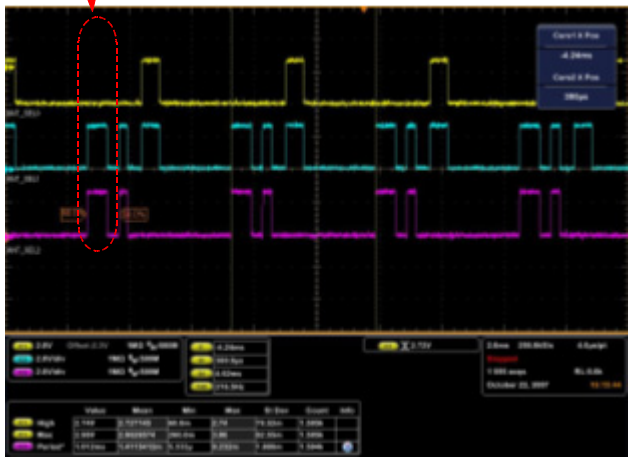


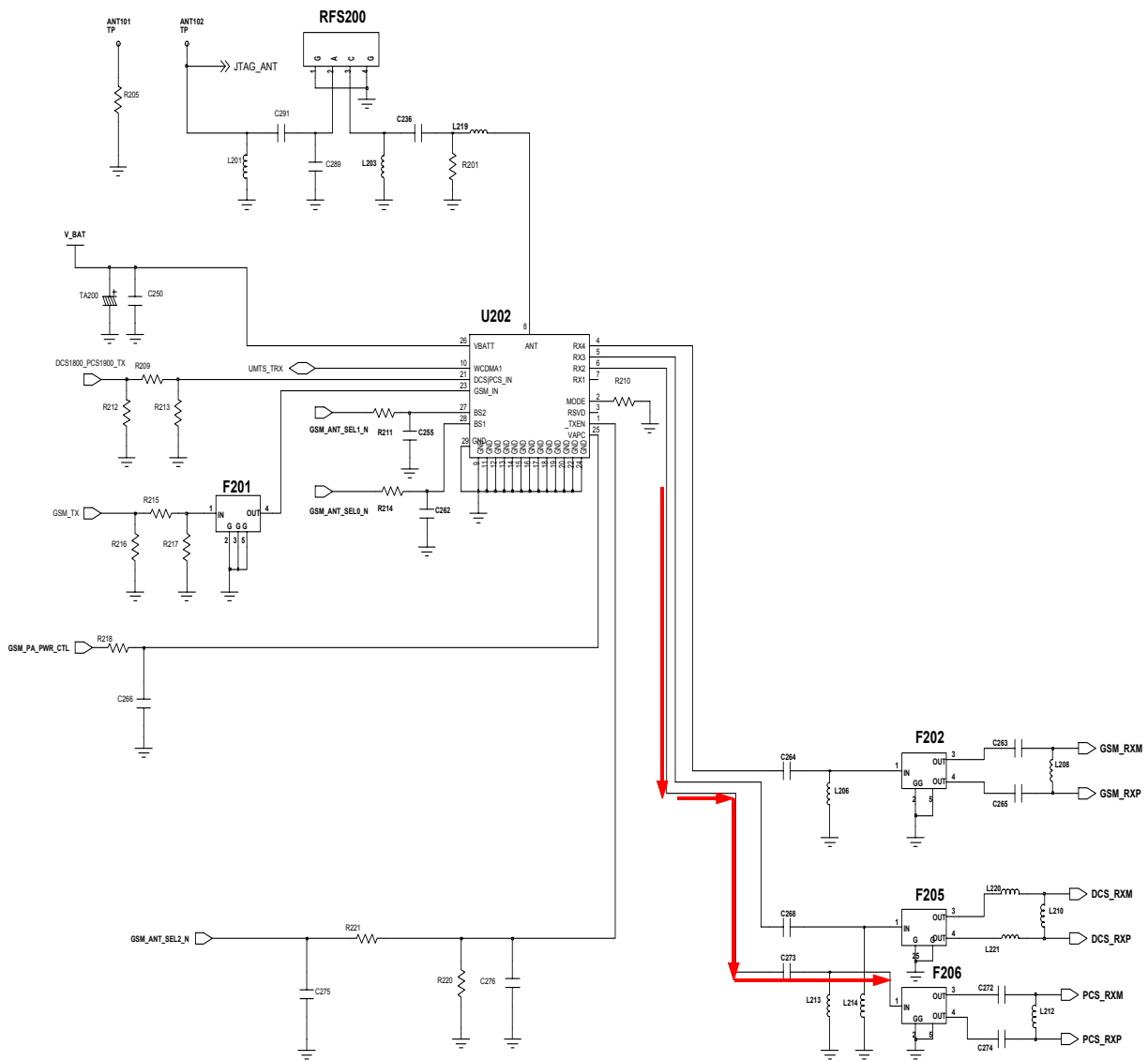


9-2-8. Abnormal PCS Rx Operation

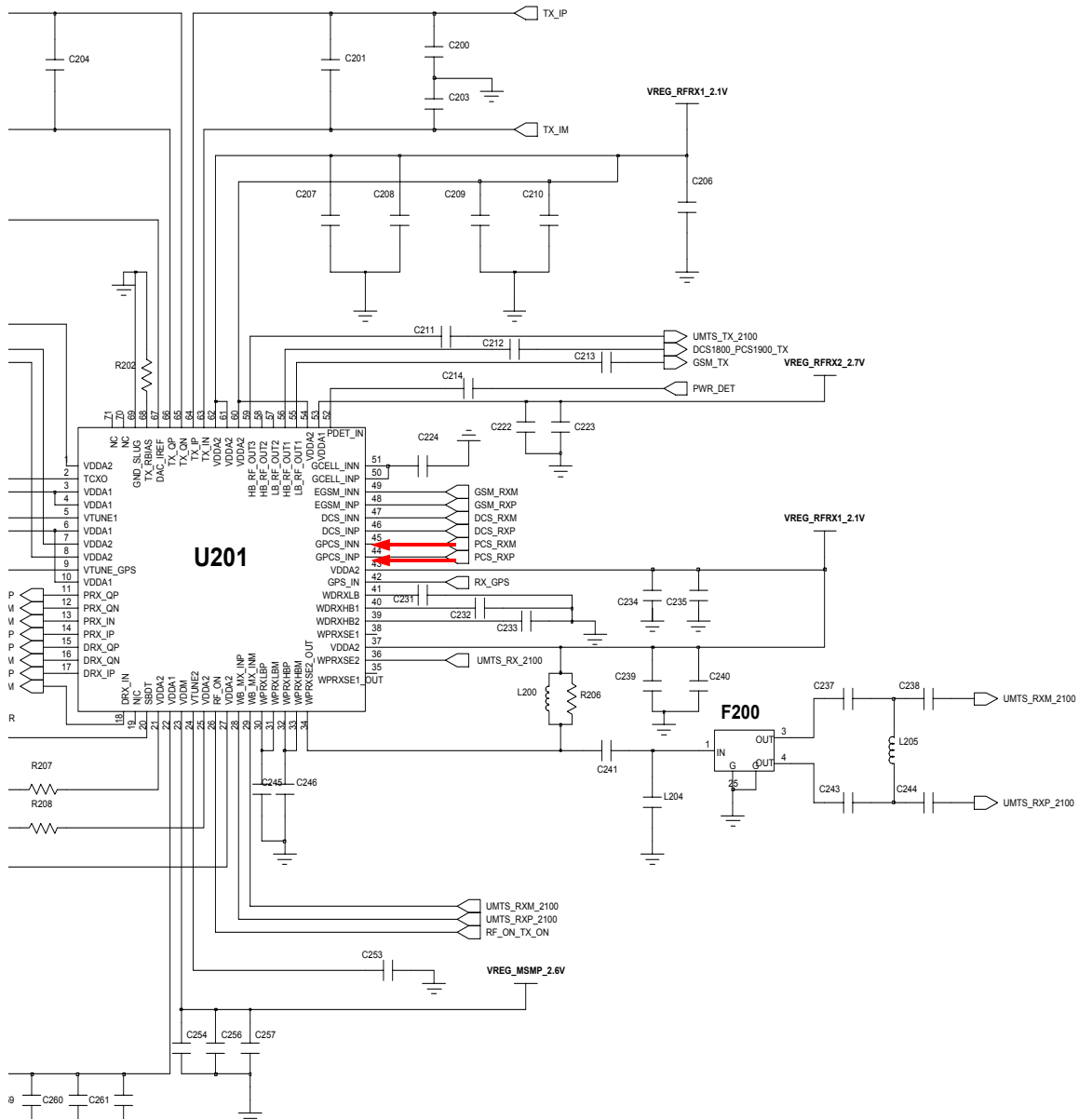


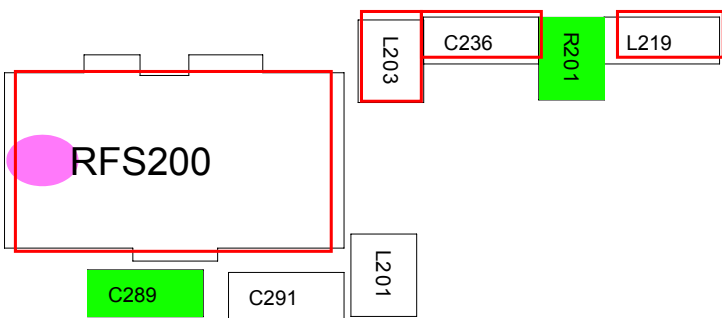
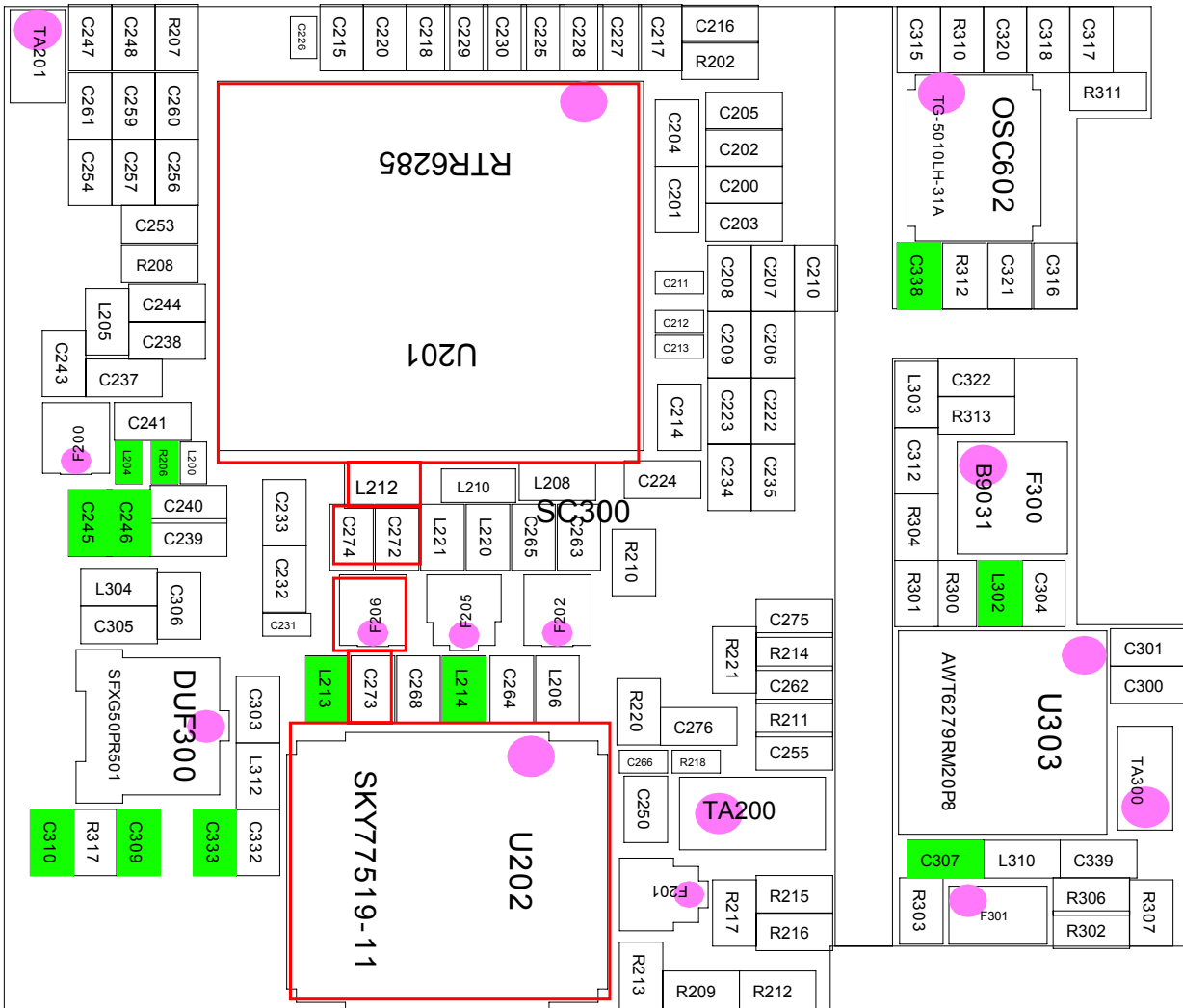
PIN28
PIN27
PIN1



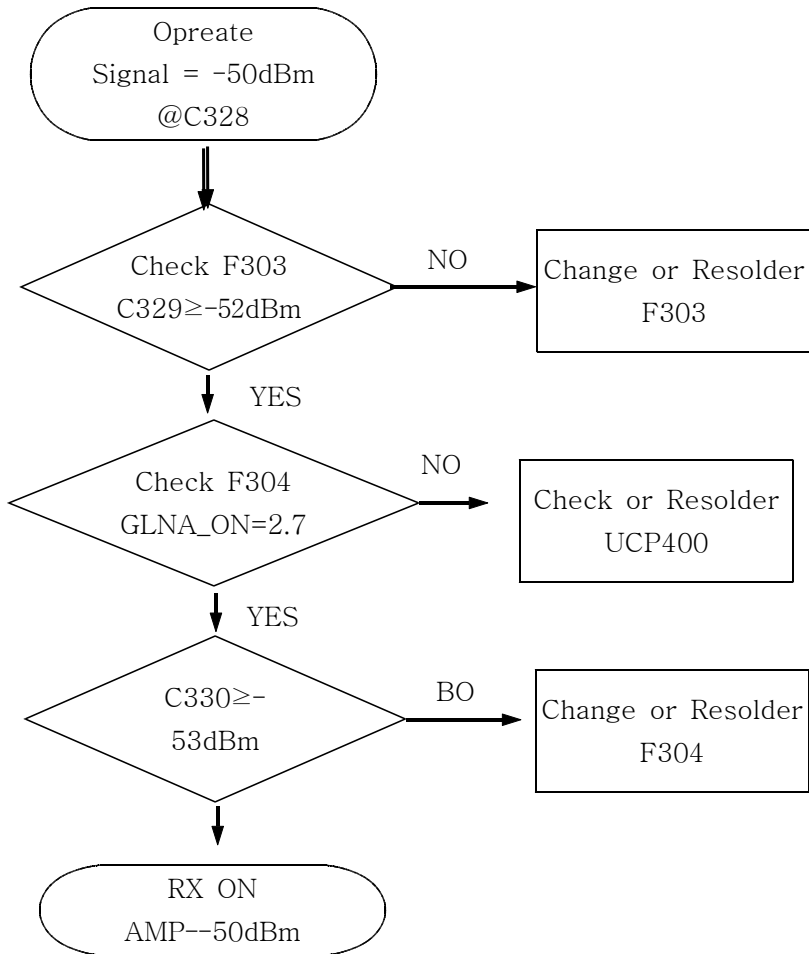


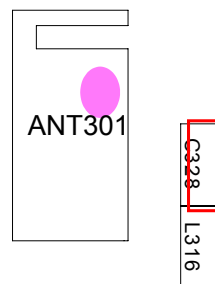
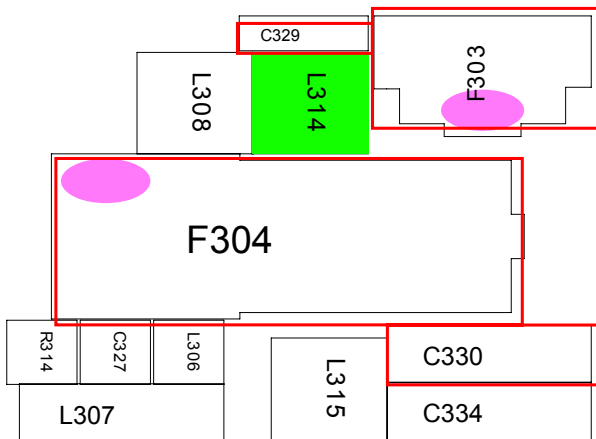
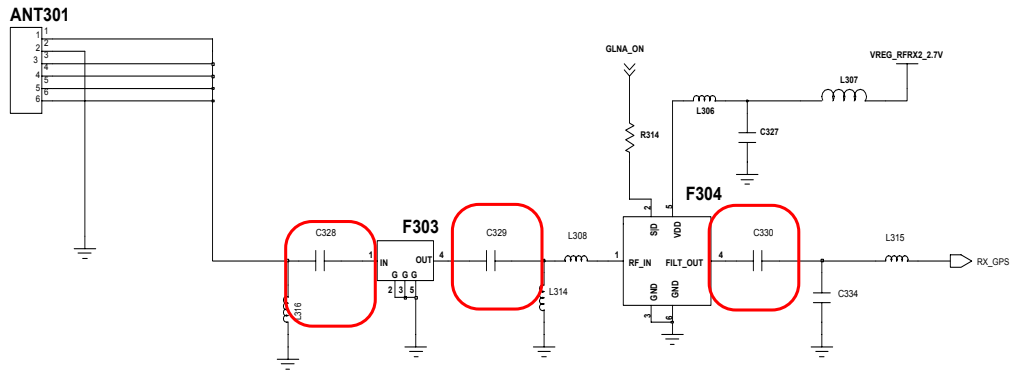
Flow Chart of Troubleshooting





9-2-9. Abnormal GPS Rx Operation








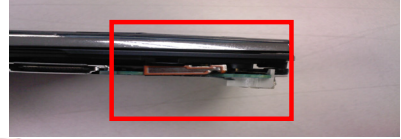
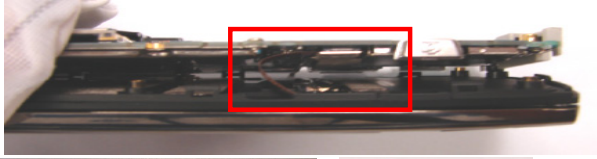
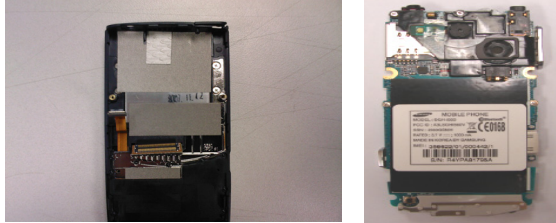
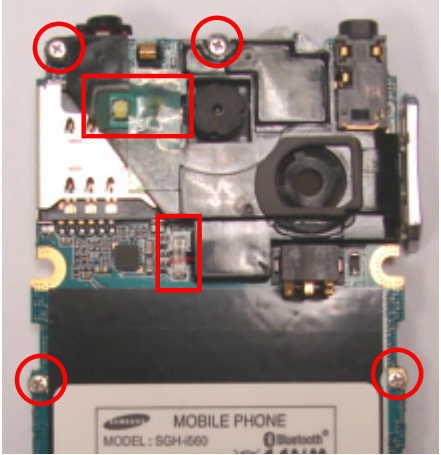
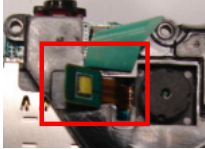
10. Reference data

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

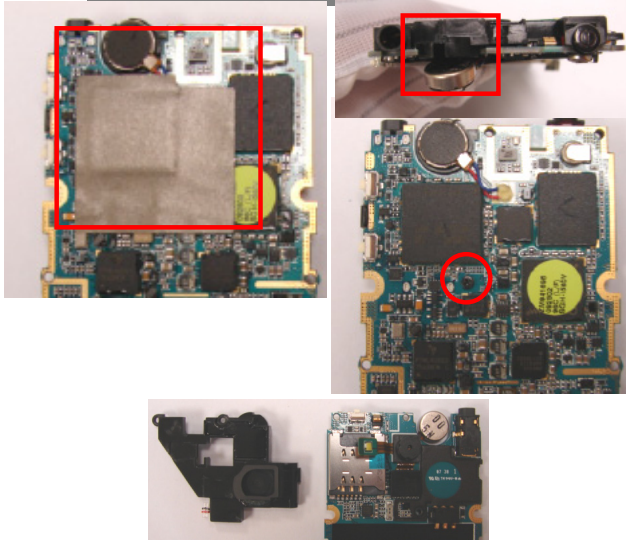
11. Disassembly and Assembly Instructions

11-1. Disassembly Instructions

<p>1) 1) Unscrew at the four points and separate the rear frame and the upper parts.</p>	<p>2) 1) Press the side parts using disassembling tool and unlock the hook.</p>
	 
<p>1) Handle with care not to have scratches and not to be damaged. 2) Watch out the rear frame not to have strains when disassembled. 3) Use the disassembling tool by all means.</p>	
<p>3) 1) Detach BT antenna from the rib. 2) Detach Key FPCB and LCD Connector from Upper slide parts.</p>	<p>4) 1) Unscrew at the four points. 2) Detach the speaker connector from the header. 3) Take off the camera LED and separate the shieldCAN.</p>
  	 
<p>1) Handle with care the FPCB not to be torn or damaged.</p>	<p>1) Do not damage the chip. 2) Do not damage the speaker connector. 3) Do not damage the camera LED FPCB.</p>

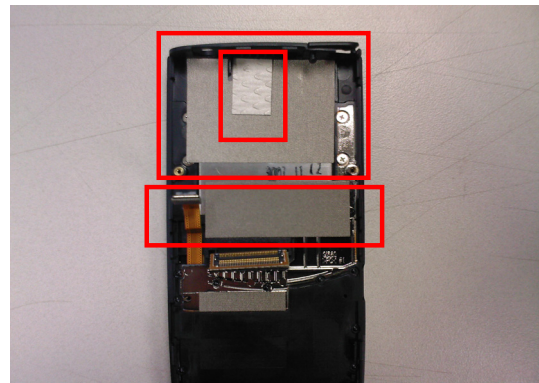
5

- 1) Remove the absorber tape and detach the motor from speaker.
- 2) Unscrew at one point then separate the SPK from the PBA.



6

- 1) Remove the three electric conduction tape

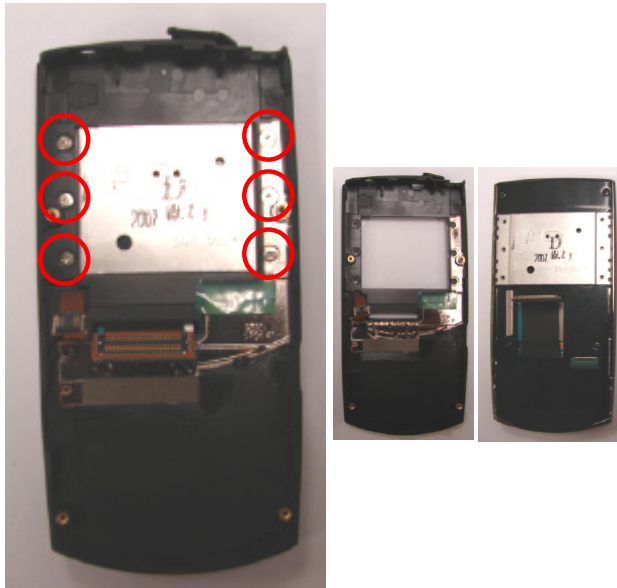


- 1) Do not damage the chip.

- 1) Take care not to be torn of the tape
- 2) Handle with care the FPCB not to be torn or damaged.

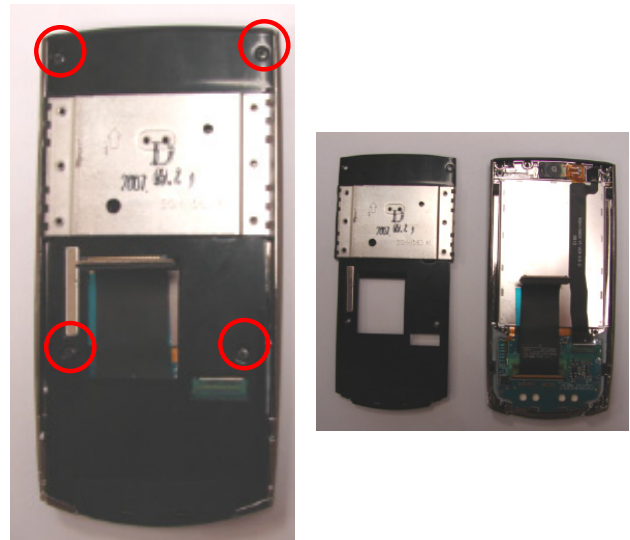
7

- 1) Unscrew at the six points and separate the Front frame from the upper parts.



8

- 1) Unscrew at the four points and separate the Lower frame from the upper parts.



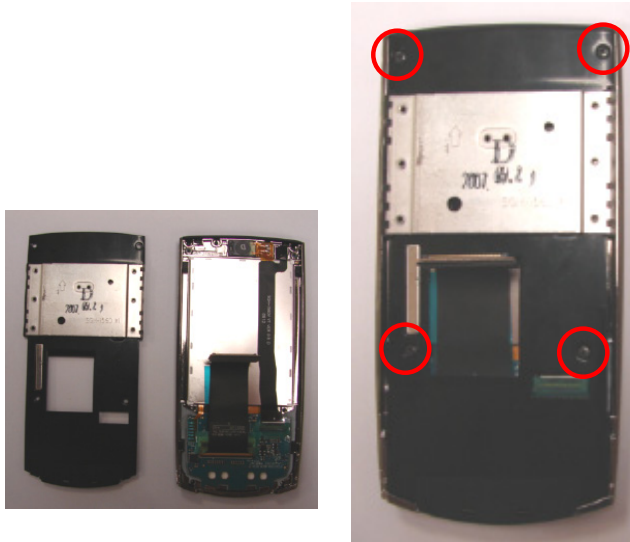
- 1) Handle with care not to have scratches and not to damage the molds.
- 2) Handle with care the FPCB not to be torn or damaged.

- 1) Handle with care not to have scratches and not to damage the molds.
- 2) Handle with care the FPCB not to be torn or damaged.

11-2. Assembly Instructions

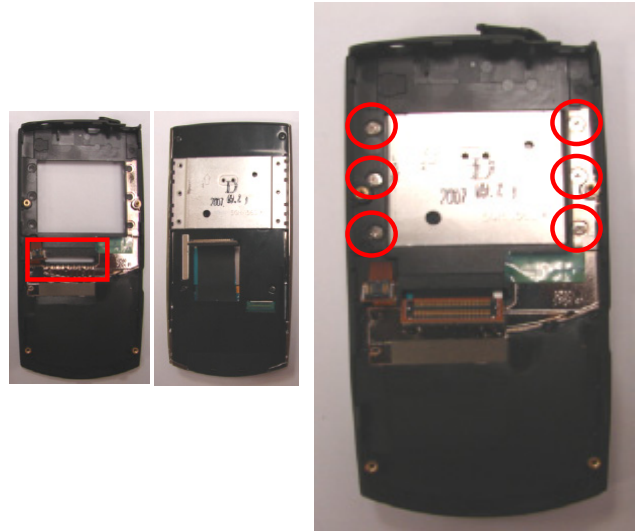
1

- 1) Fit the lower frame to the Upper parts.
- 2) Screw down the lower frame.



2

- 1) Assemble the upper parts and the front frame
- 2) Screw down the front frame at six points.

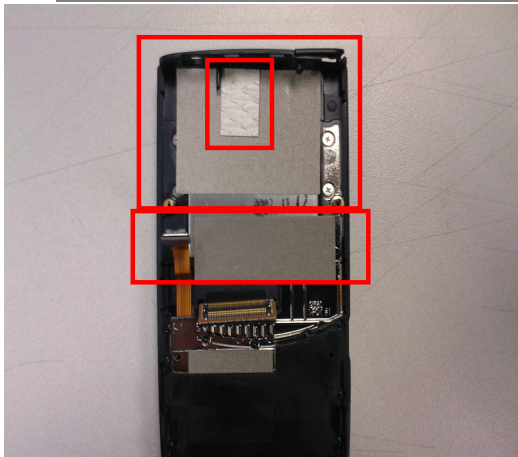


- 1) Handle with care not to have scratches and not to damage the molds.
- 2) Handle with care the FPCB not to be torn or damaged.

- 1) Handle with care not to have scratches and not to damage the molds.
- 2) Handle with care the FPCB not to be torn or damaged.

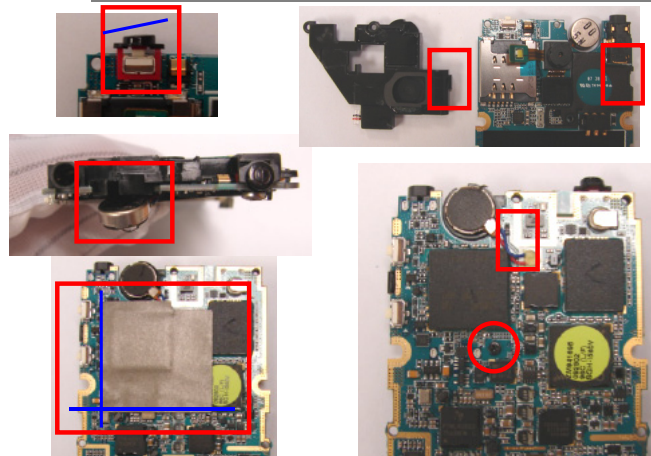
3

- 1) Attach the three electric conduction tape as below.



4

- 1) Fit the Power key to be right part higher.
- 2) Assemble the SPK box the right hooker first.
- 3) Fit the motor to speaker box, and screw down in one point.
- 4) Attach the absorber tape.



- 1) Handle with care the FPCB not to be torn or damaged.

- 1) Assemble the SPK box fit firmly.
- 2) Before fitting the motor, twist the wire twice.
- 3) The wire of the motor should not be above the gold line.
- 4) Handle with care not to damage the camera FPCB and the chip.
- 5) Attach the absorber tape as guided in the picture.

5

1) Attach the camera LED at guide hole.
 2) Attach the insulation tape and fit the SPK Connector to header.
 3) Put the SHIELD CAN at right position and screw down at four points.

1) Watch out not to damage the chip.

6

1) Slide up a little bit and connect the LCD connector first, Key FPCB connector and BT antenna between rib.

1) Watch out not to damage the chip and BT ant.
 2) Watch out the connector to fit firmly.
 3) Handle with care the FPCB not to be torn or damaged.

7

1) Set the PBA on the slide upper parts.
 2) Assemble the Rear frame from the top.

1) Handle with care not to have scratches and not to damage the molds.

8

1) Screw down at four points.

1) Handle with care not to have scratches and not to damage the molds.