UMTS TELEPHONE
SGH-A801

SERVICE Manual

UMTS 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

2007. 05. Rev.1.0

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

	EGSM900	DCS1800	PCS1900	W-CDMA
Freq. Band[MHz] Uplink/Downlink	890~915 935~960	1710~1785 1805~1880	1850~1910 1930~1990	826.4~846.6 871.8~892
ARFCN range	0~124 & 975~1023	512~885	512~810	UL:4132~4233 DL:4357~4458
Tx/Rx spacing	45MHz	95MHz	80MHz	190MHz
Mod. Bit rate/ Bit Period	270.833kbps 3.692us	270.833kbps 3.692us	270.833kbps 3.692us	3.84Mcps
Time Slot Period/Frame Period	576.9us 4.615ms	576.9us 4.615ms	576.9us 4.615ms	Frame length : 10ms
Modulation	0.3GMSK	0.3GMSK	0.3GMSK	QPSK HQPSK
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	GSM900
5	33±2 dBm
6	31±2 dBm
7	29±2 dBm
8	27±2 dBm
9	25±2 dBm
10	23±2 dBm
11	21±2 dBm
12	19±2 dBm
13	17±2 dBm
14	15±2 dBm
15	13±2 dBm
16	11±3 dBm
17	9±3dBm
18	7±3 dBm
19	5±3 dBm

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

TX Power control level	PCS1800
0	30±3 dBm
1	28±3 dBm
2	26±3 dBm
3	24±3 dBm
4	22±3 dBm
5	20±3 dBm
6	18±3 dBm
7	16±3 dBm
8	14±3 dBm
9	12±4 dBm
10	10±4 dBm
11	8±4dBm
12	6±4 dBm
13	4±4 dBm
14	2±5 dBm
15	0±5 dBm

3. Operation Instruction and Installation

Main Function

- Built-in Digital Cameras(CMOS 3 Mega with Auto Focus, CMOS VGA)
- 2.1" LCD (QVGA 262K TFT)
- Video Telephony / Streaming
- Bluetooth V2.0 Wireless Technology
- USB 1.1
- MP3 player
- Downloadable Game via JAVA
- Sending Photo & Video by MMS or E-Mail
- Supporting 64 Polyphonic Ring Tone
- WAP 2.0 Browser (Including xHTML/WCSS MP, w/HTTP)
- External Memory Card Socket(T-flash)
- GSM 900MHz & DCS1800MHz & 1900MHz & WCDMA 2100
- GPRS Class 10
- EGPRS Class E2

4. Array course control

4-1. Software Adjustments

1. JIG: Download, Trace, Calibration, etc
2. RF test cable: RF test
3. Test cable: JIG to phone
4. TA (Travel Adaptor)
5. Data Link Cable : USB cable
6. Serial cable: PC to JIG

4-2. Software Downloading

4-2-1. Downloading Binary Files

- Four binary files for downloading A801.
  - amss.bin : Modem binary for communication function
    & Mocha binary for user interface and various application
  - Rsrc_A801_○○○.rc1: Files need for each application
  - Rsrc2_A801(Low).rc2 : Power on/off animation
  - FactoryFS_A801_○○○.ffs : Default file system to be put into in initial production

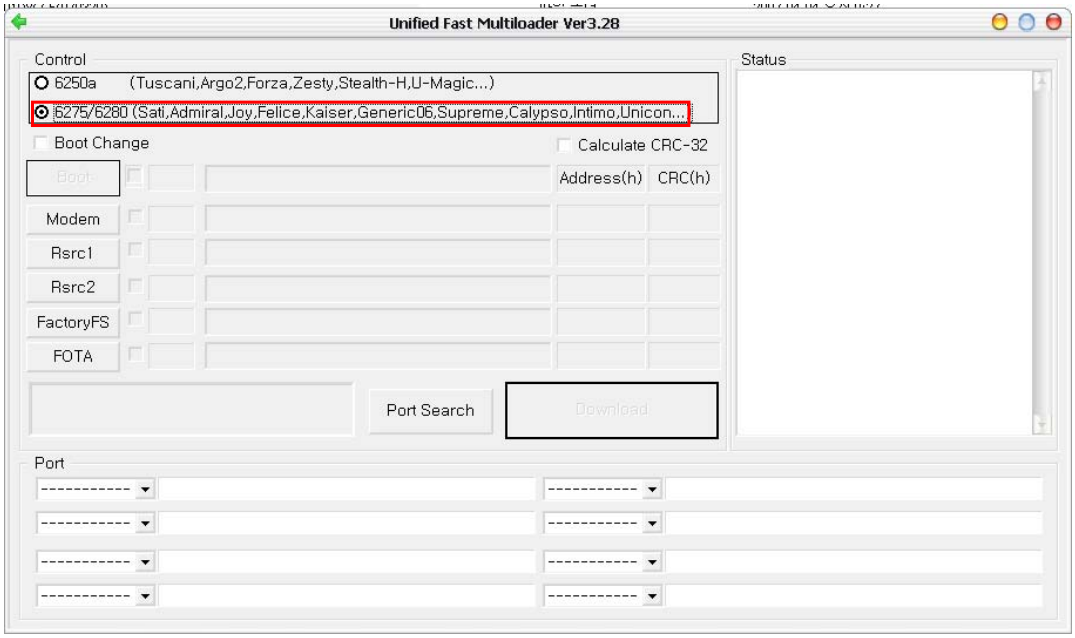
4-2-2. Pre-requsite for Downloading

- Downloader Program(FastMultiLoader V3.28.exe)
- SGH-A801 Mobile Phone
- USB Data Link Cable
- Binary files

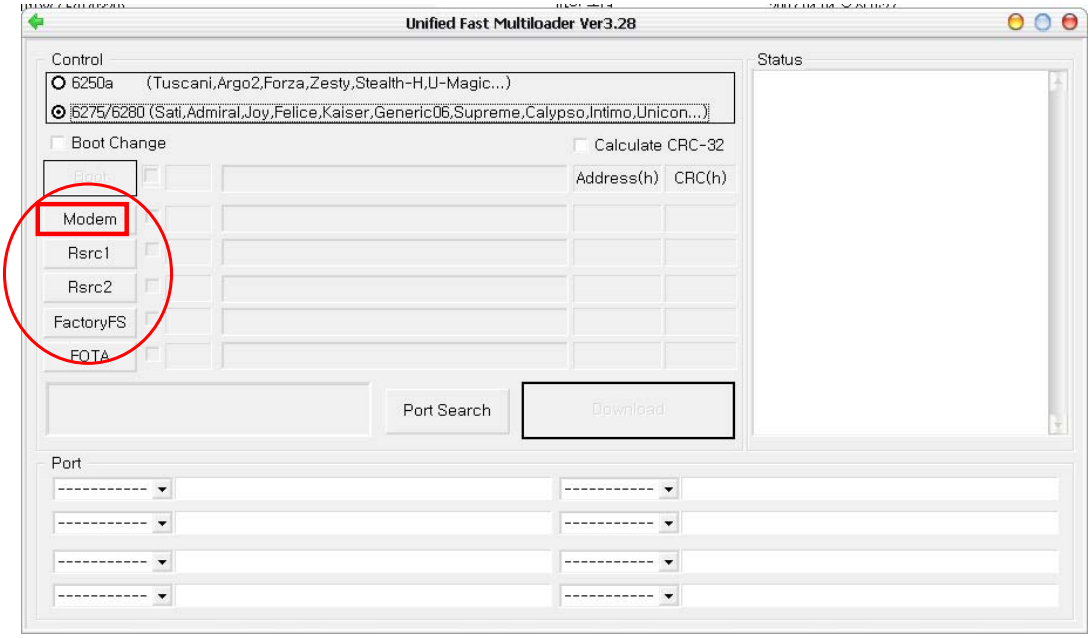
4-2-3. S/W Downloader Program

1. Boot the A801 by pressing ‘Power ON key’ + ‘Number 9 key’ at the same time- If you do properly, you can see the following message on LCD “DOWNLOAD”

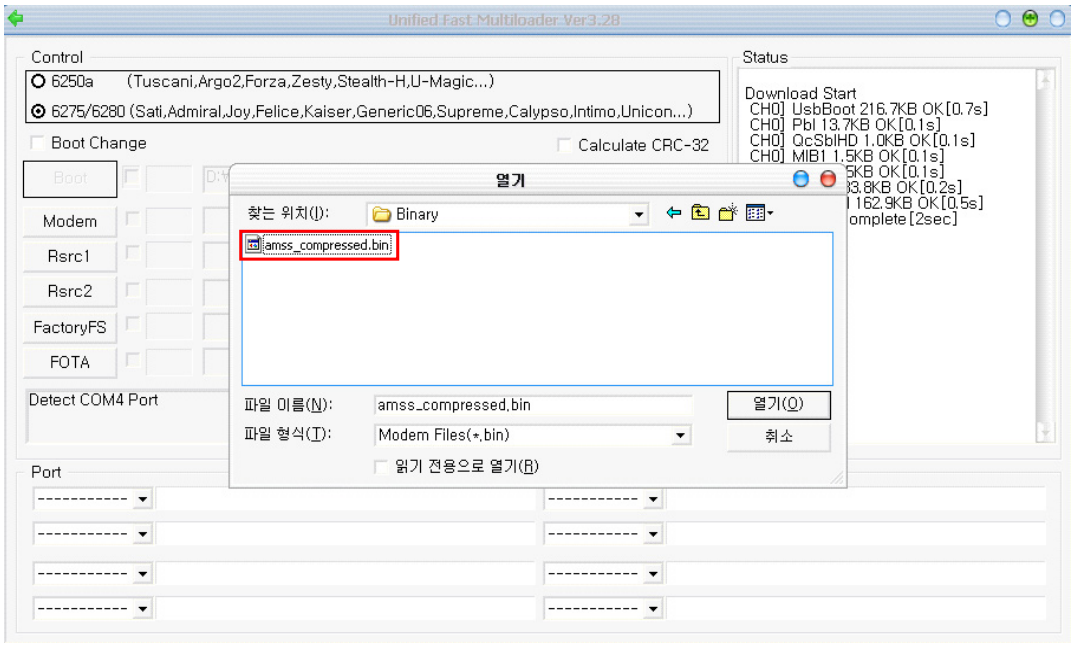
2. Load the binary download program by executing the “**FastMultiLoader V3.28.exe**”. And then Check the SMP6280.



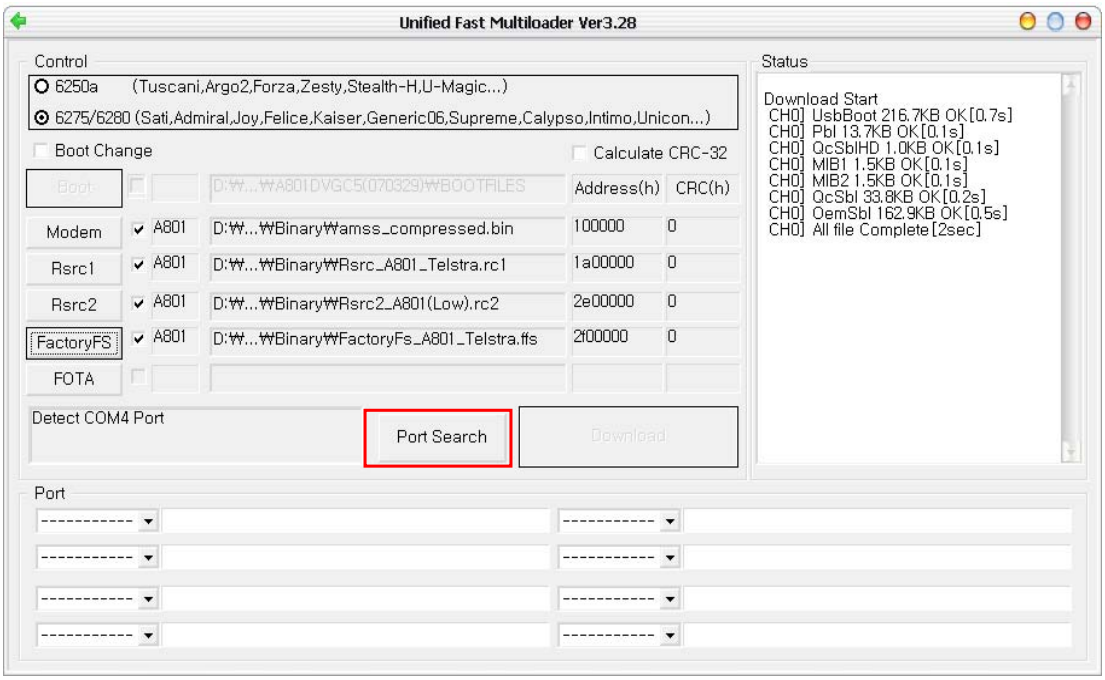
3. Select the check box what you want to download.



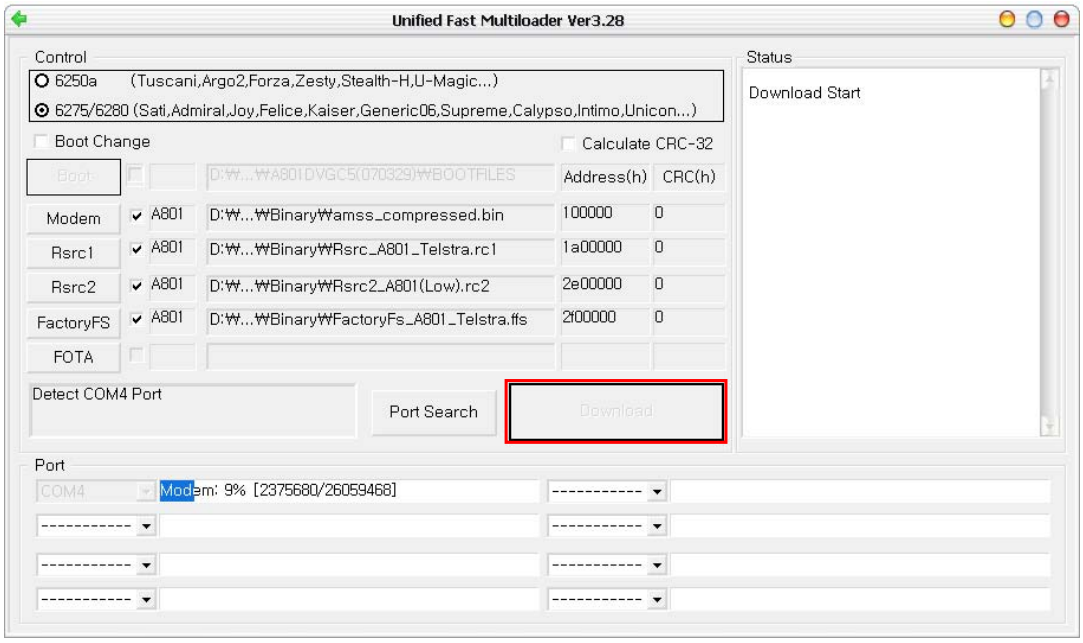
4. Select the binary file what you want to download



5. Now press the button ‘Port Search’



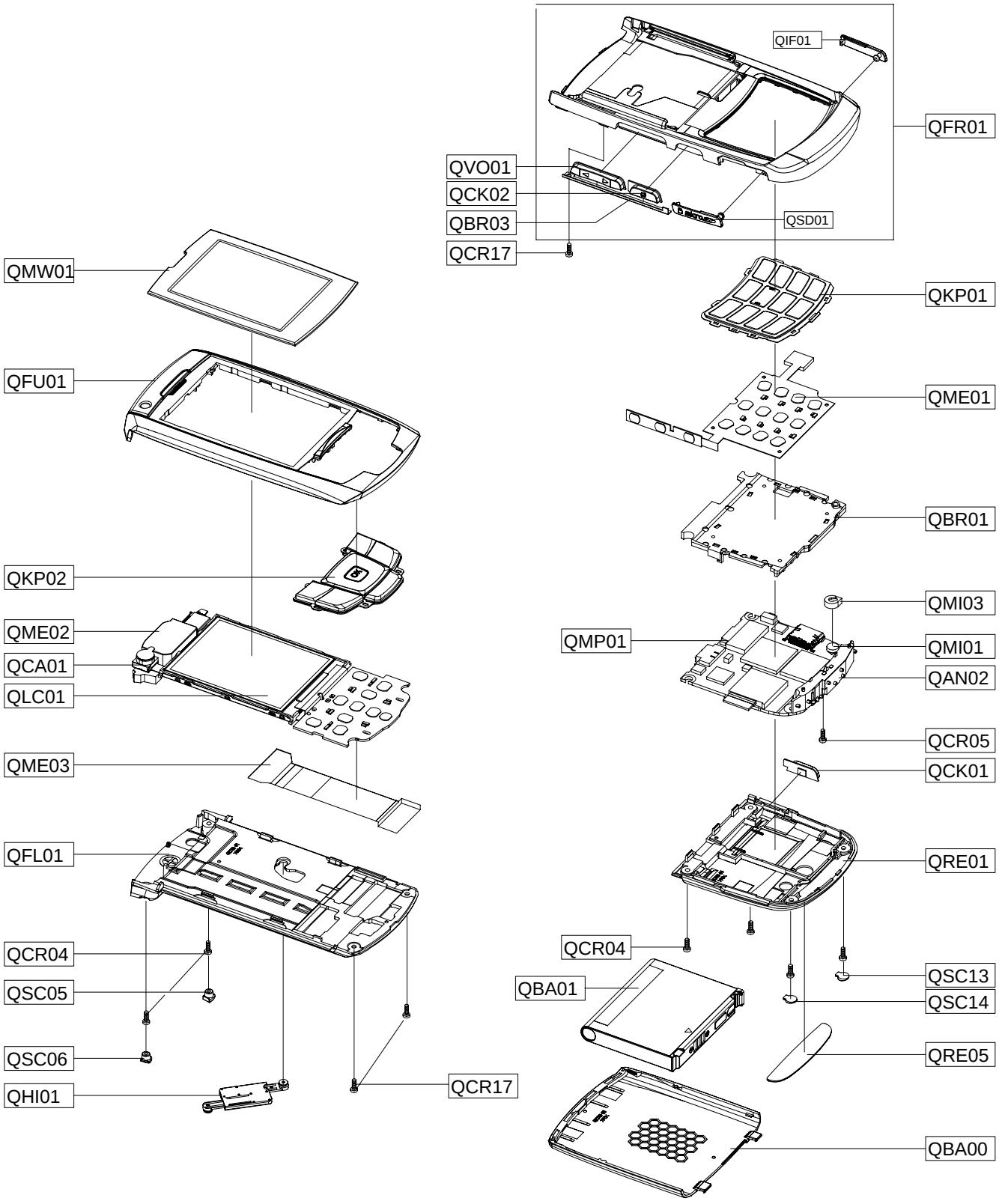
6. Now press the button ‘Download’



7. When downloading is complete, UE reboot automatically.
- If there is difference in FactoryFs.bin, UE will format file system automatically.

5. Exploded View/Disassembly&Assembly Instructions

5-1. Cellular phone Exploded View



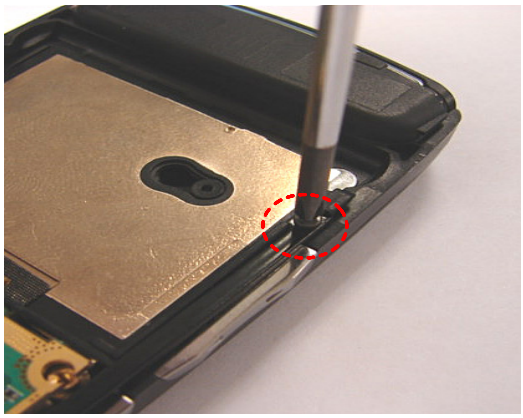
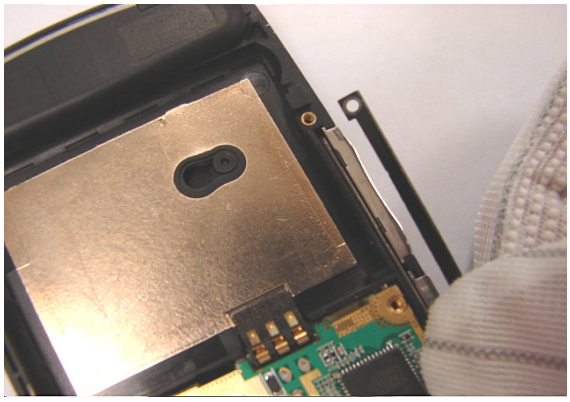
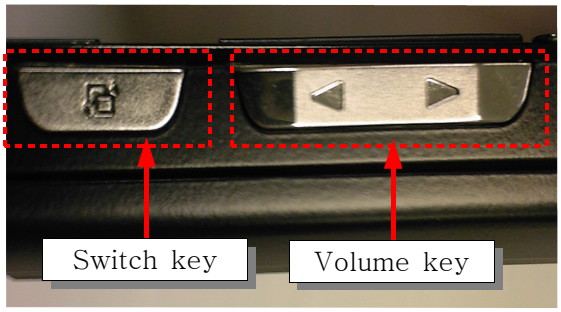
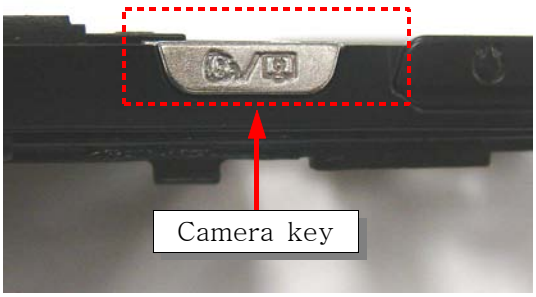
5-2. Cellular phone Parts list

Design LOC		Description	Sec Code
QAN02		INTENNA-SGH A801	GH42-01131A
QBA00		ASSY COVER-BATTERY	GH98-03308A
QBA01		INNER BATTERY PACK-900MAH, BLA	GH43-02544A
QBR01		ASSY BRACKET-MAIN KEY	GH98-05181A
QBR03		ICT-BRACKET VOL KEY	GH70-01550A
QCA01		UNIT-CAMERA MODULE	GH59-04310A
QCK01		ASSY KEY-CAM V2	GH98-04961A
QCK02		PMO-SWITCH KEY	GH72-33032A
QCR04		SCREW-MACHINE	6001-001479
QCR04		SCREW-MACHINE	6001-001479
QCR05		SCREW-MACHINE	6001-001478
QCR17		SCREW-MACHINE	6001-001460
QFL01		ASSY CASE-SLIDE LOWER	GH98-01730A
QFU01		ASSY CASE-SLIDE UPPER	GH98-01729A
QHI01		ASSY HINGE-PUSH ROD	GH98-03808A
QKP01		ASSY KEYPAD-MAIN(EU/BLK)	GH98-02672A
QKP02		ASSY KEYPAD-SUB(EU/BLK)	GH98-02671A
QLC01		LCD-MAINSGH Z720	GH07-00963A
QME01		UNIT-KEY FPCB	GH59-03394A
QME02		UNIT-MODULE SPEAKER	GH59-03789A
QME03		MEA-SLIDE FPCB KIT	GH97-06865A
QMI01		MICROPHONE-ASSY-SGHE340	GH30-00199A
QMI03		RMO-RUBBERMIC HOLDER	GH73-08696A
QMP01		PBA MAIN-SGH A801	GH92-03534A
QMW01		ASSY COVER-MAIN WINDOW	GH98-04611A
QRE01		ASSY CASE-REAR	GH98-04230A
QRE05		PMO-DECO REAR	GH72-33041A
QSC05		RMO-RUBBER SCREW LOWER L	GH73-07948A
QSC06		RMO-RUBBER SCREW LOWER R	GH73-07949A
QSC13		RMO-RUBBER SCREW REAR L	GH73-07940A
QSC14		RMO-RUBBER SCREW REAR R	GH73-07947A
QVO01		PMO-VOLUME KEY	GH72-33030A
QFR01		ASSY CASE-FRONT	GH98-01731A
	QSD01	PMO-COVER MSD	GH72-33038A
	QIF01	PMO-COVER IF	GH72-33039A

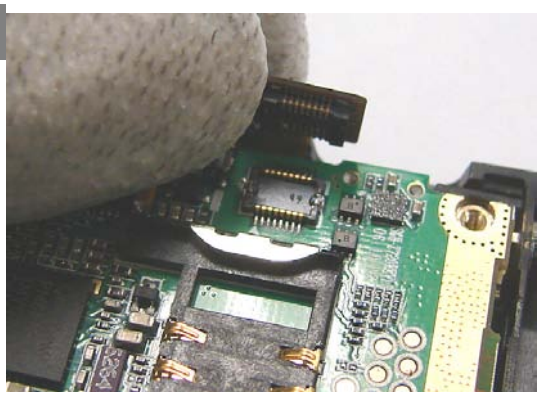
Description	Sec Code
BAG PE	6902-000634
CBF INTERFACE-DATA LINK CABLE	GH39-00444A
ADAPTOR-SGHE690,BLK,AUTL,A_TYP	GH44-01391A
S/W CD-PC STUDIO	GH46-00428A
UNIT-EARPHONE,20P,B-TYPE	GH59-03883A
LABEL(P)-IMEI	GH68-01335D
LABEL(R)-WATER SOAK	GH68-09361A
MANUAL USERS-EU TELSTRA	GH68-14014A
LABEL(R)-MAIN(XSA)	GH68-14804A
CUSHION-CASE(EU-TA3)	GH69-04727A
BOX-UNIT(XSA)	GH69-05401A
MPR-VINYL BOHO MAIN WINDOW V2	GH74-26156A
MPR-INSU TAPE	GH74-27529A
MPR-TAPE	GH74-27536A
MPR-TAPE	GH74-27537A
MPR-ELEC TAPE LCD CONN BOT	GH74-27539A
MPR-TAPE WIN MAIN	GH74-27546A
MPR-INSU TAPE	GH74-27610A
MPR-VINYL BOHO UPPER	GH74-27635A
MPR-SPONGE LCD	GH74-28793A
MPR-TAPE LCD ACRYL	GH74-28801A
MPR-GASK TAPE	GH74-29409A
MPR-VINYL BOHO SUB KEYPAD	GH74-31218A
AS-DOME SHEET SVC	GH81-05987A

5-3. Disassembly and Assembly Instructions

– Disassembly

1  Screw Removal - Remove 2 screw caps and 4 screws	2  Rear cover Removal - Open the rear cover from the lower with ease
3  Volume key Bracket Screw Removal - Remove the volume key bracket screw	4  Volume key Bracket Removal - Remove the volume key bracket without getting bent.
5  Side key Removal 1. Remove the volume key 2. Remove the Switch key	6  Camera key Removal - Remove the camera key

7

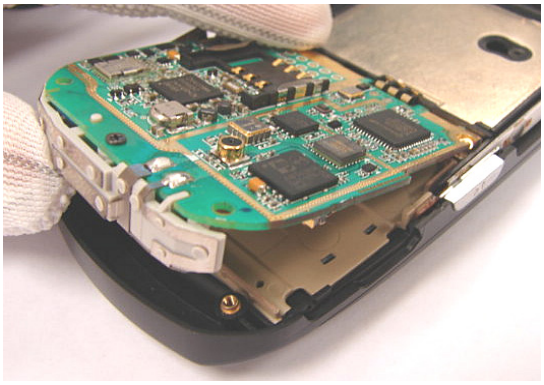


Key connector Removal

- Detach the key Connector from the PBA

※ Be careful not to damage it When removing the key Connector.

8

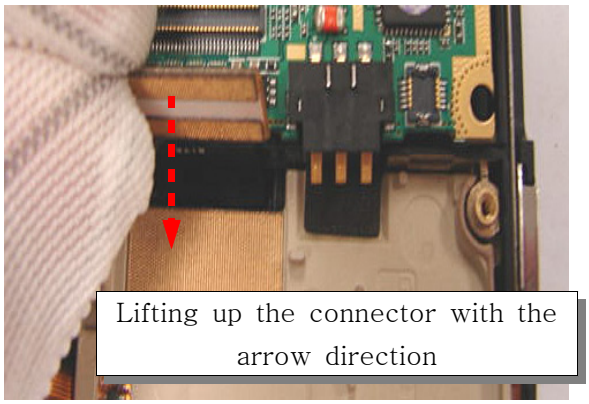


MAIN PBA Removal

- Separate the main PBA from the front by lifting up.

※ Please handle the main PBA with care not too much force on it.

9

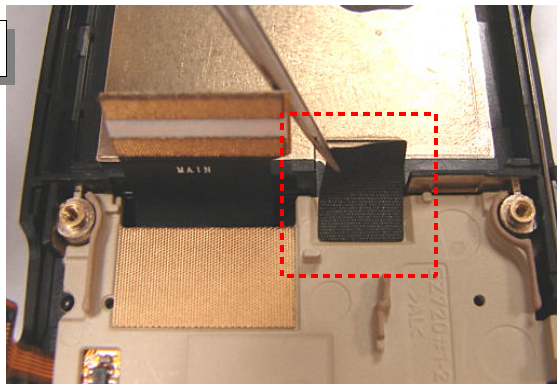


MAIN F-PCB Connector Removal

- Lift up the main F-PCB connector with the arrow direction like the picture.

※ Be careful not to rumple and tear it When handling F-PCB.

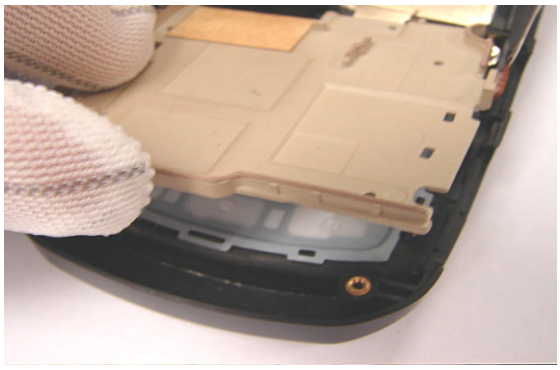
10



Front Conduction Tape Removal

- Remove the front conduction Tape.

11



Shield Cover Removal

- Remove the shield cover by lifting up.

※ Be careful not to rumple and tear the Gasket When removing the shield cover.

12

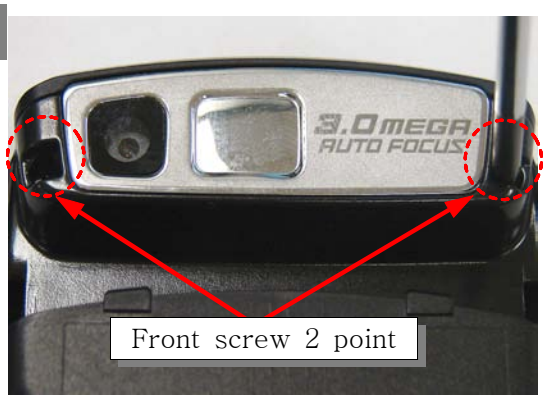
3*4 Key Removal

- Remove 3*4 Key from the Front.

13

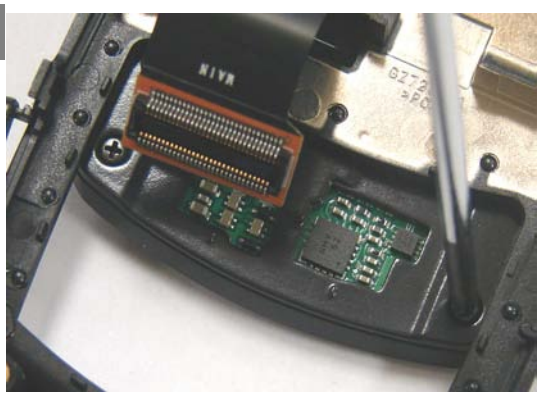
Screw cover Removal
- Remove the left and right screw covers.

14



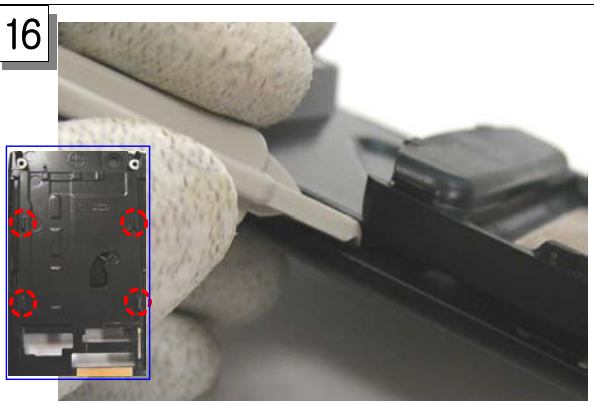
Slide Ass'y Screw Removal
1. Push up the slide a little bit.
2. Remove the slide Ass'y screw 2 points.

15



Slide Lower Screw Removal
1. Slide up only half of 3*4 Key part like the picture.
2. Remove two unconcealed screws

16

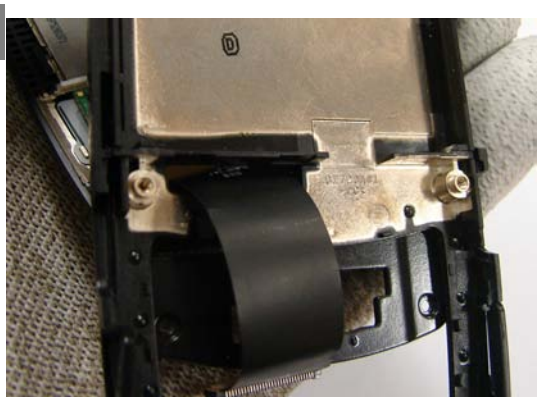


Slide Ass'y & Front Unlocking
- Unlock the 4 locking points with an unlocking stick.

17

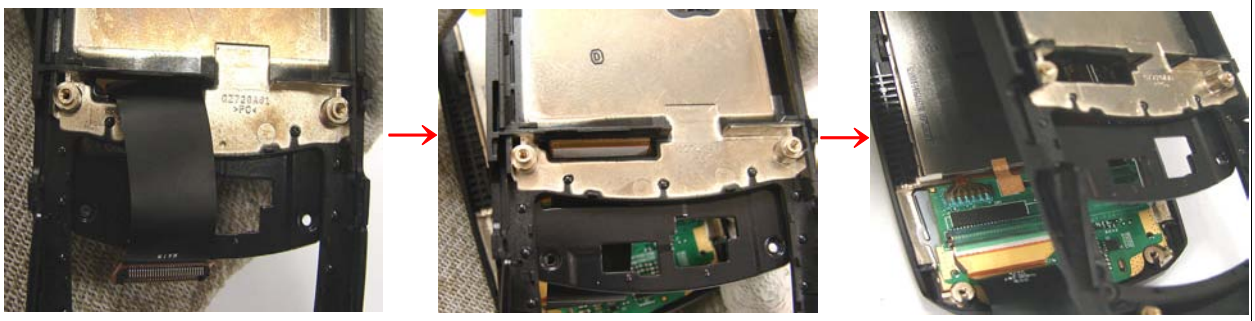
Slide Ass'y & Front Separation
- Separate the slide upper and the slide lower after unlocking.

18



Front Hole Adjustment
- Adjust the slide lower hole to the front hole to draw out from the hole.

19 ① ② ③

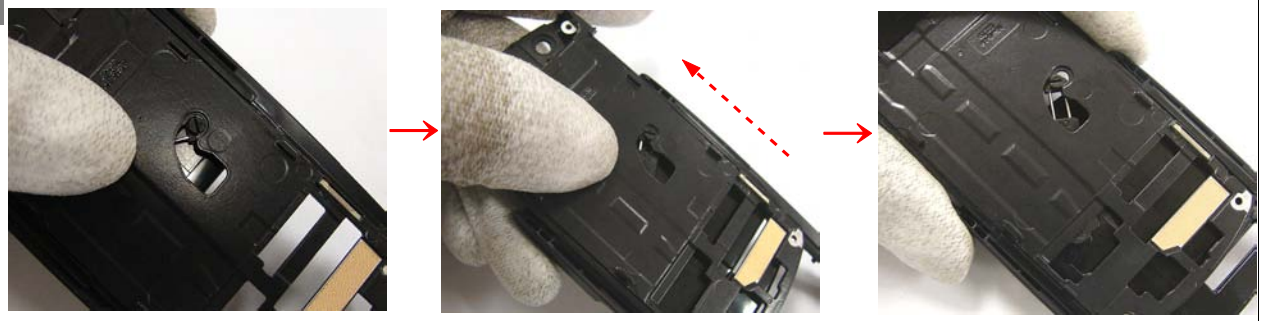


Main F-PCB Removal

- Draw out the main F-PCB from the hole.

※ Be careful not to rumple and tear it When handling F-PCB.

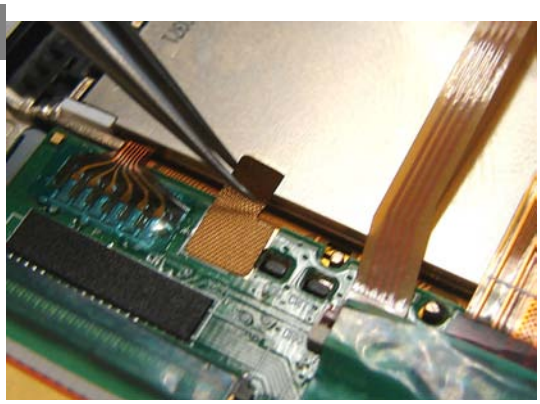
20 ① ② ③



Slide Lower & Front Separation

- Lift up the lower like pictures when the slide lower and the front is combined.

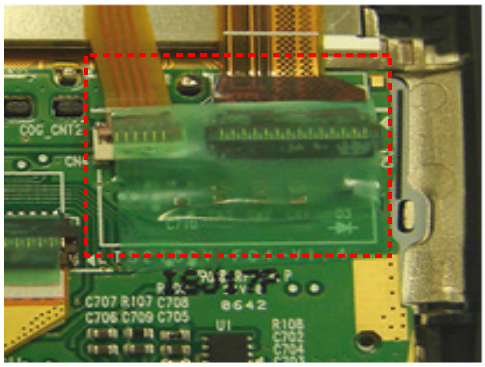
21



Conduction Tape Removal

- Remove the conduction tape between the LCD module and the menu key.

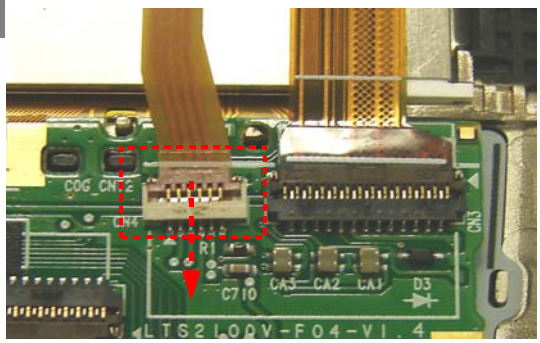
22



Untied-Prevention Tape Removal

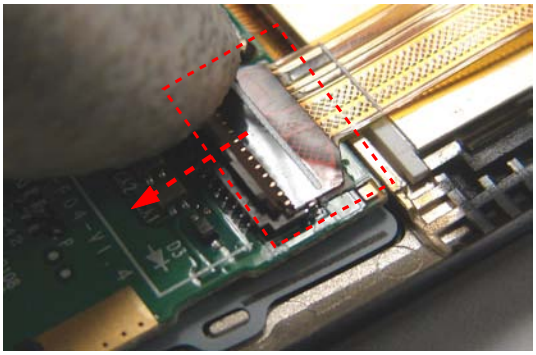
- Remove the untied-prevention tape from the speaker connector and the camera connector.

23



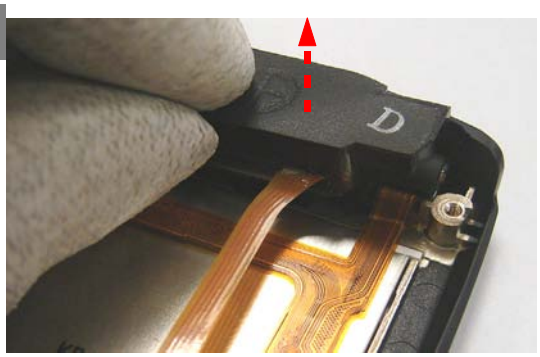
Speaker F-PCB Separation
- Open the speaker connector with the arrow direction and then draw out the speaker F-PCB.

24



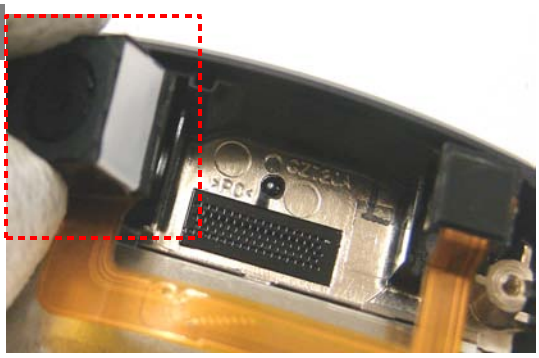
Camera F-PCB Separation
- Open the camera connector with an arrow direction and then draw out the Camera F-PCB.
  ※ Be careful with the base tape drawing out the camera F-PCB.

25



Speaker Module Separation
- Separate the speaker module from the slide upper by lifting up with the arrow direction.

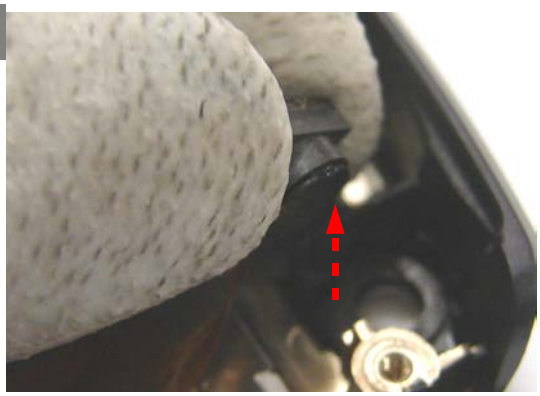
26



3 Mega Camera Module Separation
- Separate the 3M camera module from the slide upper by lifting up with the arrow direction.

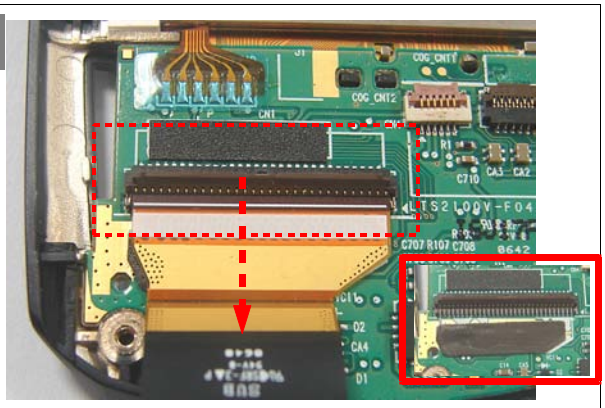
※ Be careful not to touch or damage the Camera lens when pulling out the 3 Mega Camera.

27



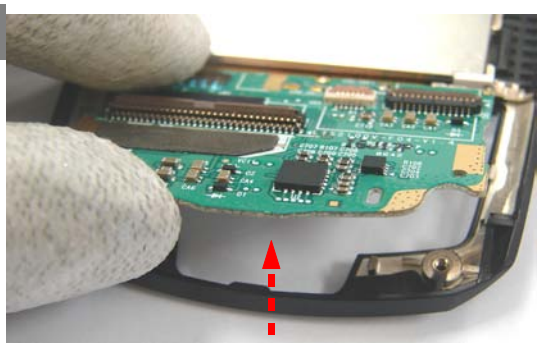
VGA Camera Module Separation
- Separate the VGA camera module from the slide upper by lifting up with the arrow direction.

28



Main F-PCB Separation
- Open the main F-PCB connector and then draw out the main F-PCB with the arrow direction.

29



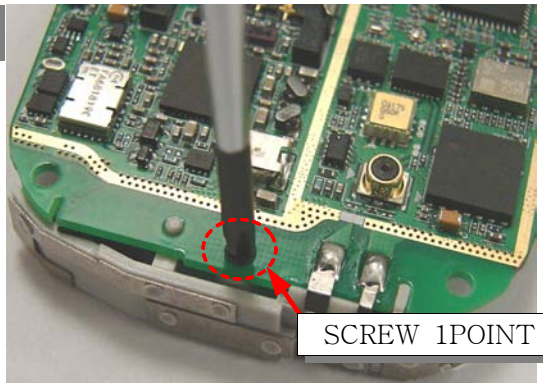
Menu key PCB Separation
- Separate the menu key PCB from the upper like the picture.

30

LCD Module Separation
- Separate the LCD module from the upper like the picture.
※ Be careful not to lift it up suddenly with too much force!! That could cause LCD crack.

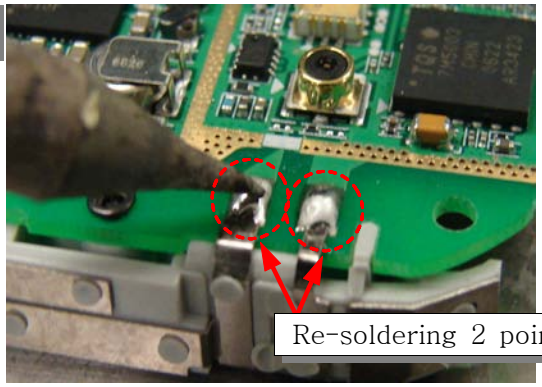
PBA & INTENNA Saperation

1



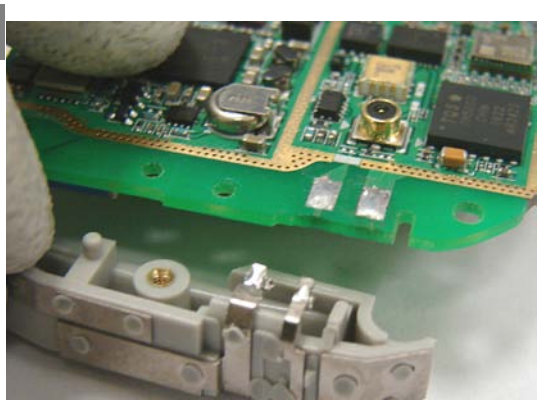
Intenna Screw Removal
- Remove the intenna screw from the PBA.

2

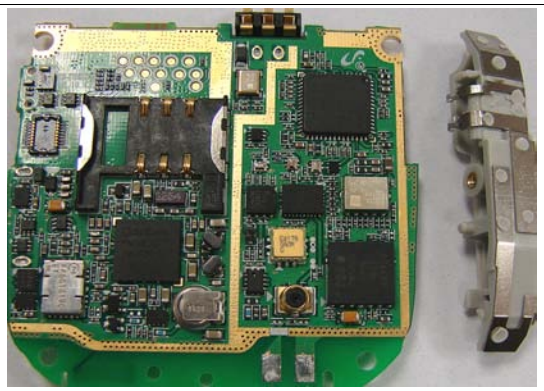


Intenna Contact Re-soldering
- Solder the intenna contact points.

3



Intenna Removal
- Separate the intenna body from the PBA with melting - lead state.
※ Be careful not to break or bend the intenna contact.

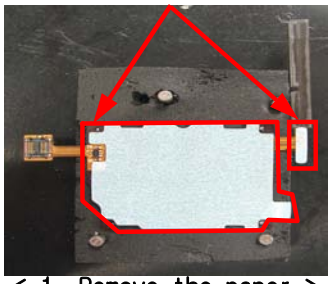


Completely separated state.

– Assembly

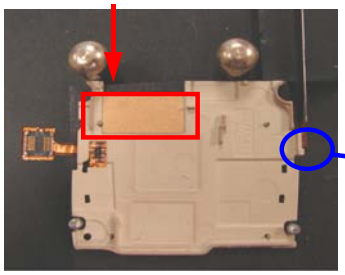
1

(Remove the paper)

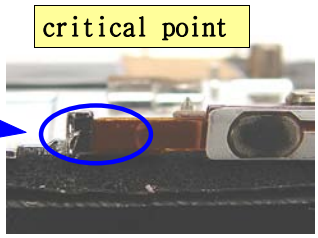


< 1. Remove the paper >

(Check one extraneous matter)



< 2. Attach the Key FPCB >

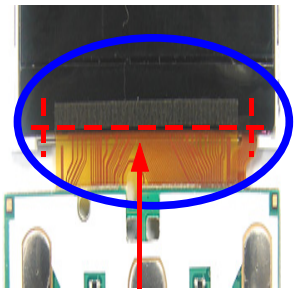


< 3. Check FPCB attachment >

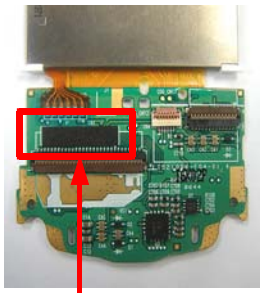
Shield Can Check & Key FPCB Attachment

1. Remove the protection paper on the back side of Key FPCB.
2. Attach the Key PCB on the shield can set to the hole. -> Check the 1 extraneous matter before attaching the shield can.
3. Check the position of volume key part FPCB properly.

2



< 1. LCD Sponge >

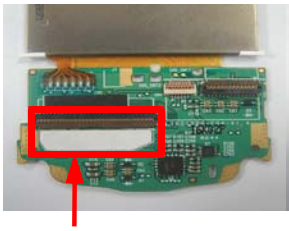


< 2. LCD Acrilic Tape>

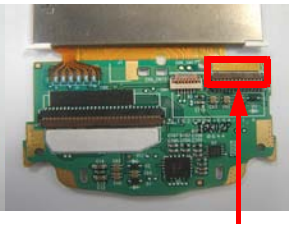
LCD Sponge & LCD Acrylic Tape Attachment

1. Attach the LCD sponge to the width of LCD FPCB.
2. Attach the LCD acrylic tape within the silk line.

3



< 1. Slide FPCB Fixing Tape >

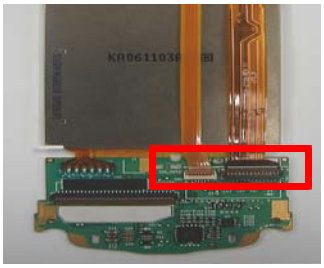


< 2.Camera FPCB Fixing Tape >

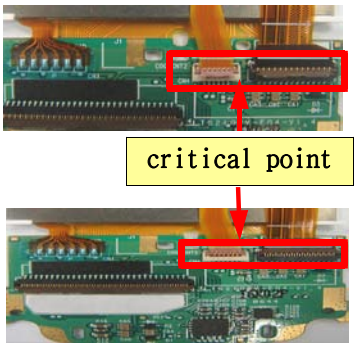
Slide/Camera FPCB Tape Attachment

1. Attach the fixing tape of slide FPCB within the silk line.
2. Attach the fixing tape of camera FPCB within the silk line.

4



< Assemble Camera/Speaker >



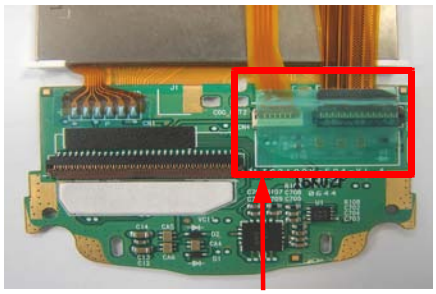
< Check Guide Line >

< Close the Locker >

Camera/Speaker Assembling

1. Remove the protection paper of camera FPCB fixing tape.
2. Insert the FPCB up to the guide line With regard to the insertion direction of camera and then close the locker.
3. Insert the FPCB up to the guide line With regard to the insertion direction of speaker and then close the locker.

5

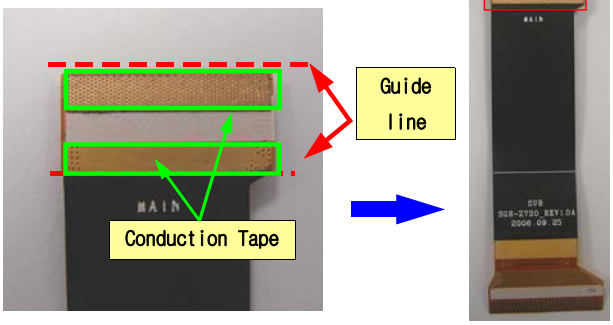


< Untied- Prevention Tape >

Untied - Prevention Tape Attachment

- Attach the untied - prevention tape within the silk line.

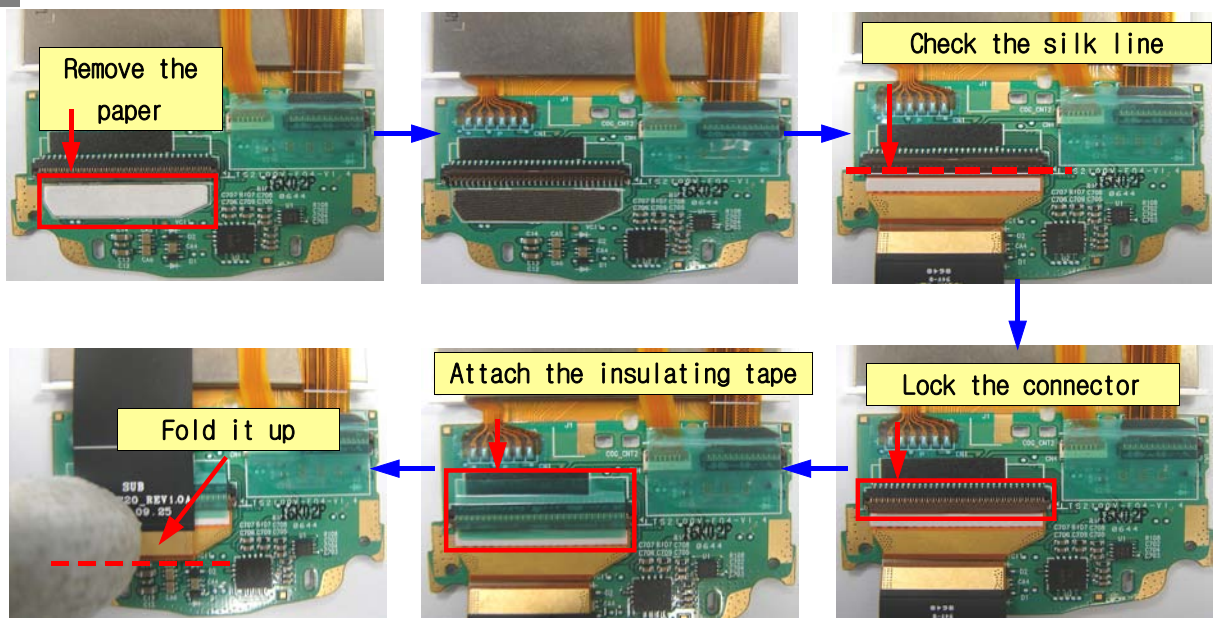
6



Conduction Tape Attachment

- Attach the conduction tape on the two points of slide FPCB.

7



Slide FPCB Assembling

1. Remove the protection paper from the double fixing tape of slide FPCB.
2. Insert the slide FPCB into the connector within the silk guide line on PBA.
3. Hook up the connector.
4. Attach the insulating tape to prevent the loosing of connector within the silk guide line.
5. Fold up the edge by using your fingers.

※ Attach the untied - prevention tape without bubble.

※ Attach the extraneous matters at the right position within guide line.

8

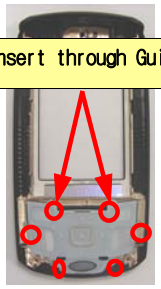
< Attach MAIN WINDOW >

MAIN WINDOW attachment

- Attach the MAIN WINDOW starting from the upper point of the WINDOW.

9

< Remove Protection paper and vinyl >

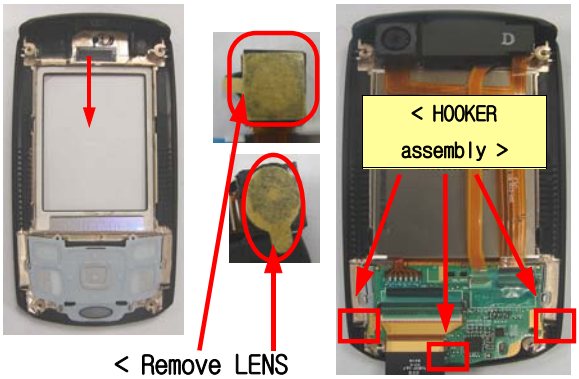


< KEY PAD Assembly >

Removing protection tape and vinyl Sub key pad assembly

1.Remove the MEGA CAMERA fixing tape, protection tape and VGA CAMERA WINDOW protection vinyl.
2.Place the SUB KEYPAD at the SLIDE UPPER.

10

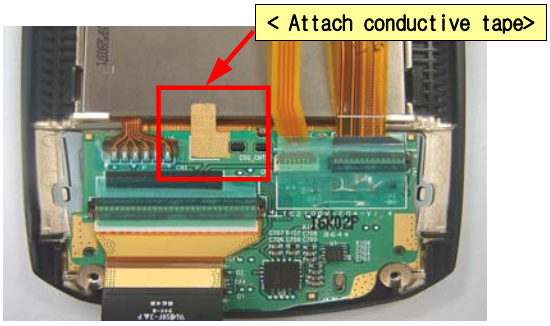


< Remove LENS protection vinyl>

LCD Module Assembly

1.Remove VGA CAMERA LENS protection vinyl.
2.Remove the LCD protection vinyl.
3.Remove the Backside Window protection vinyl.
4.Place the LCD at SLIDE UPPER, then hook the SUB PBA to the HOOKER and push the side part of SUB PBA to assemble SLIDE UPPER.
5.Assemble 3MEGA CAMERA, VGA CAMERA
6.Assemble SPEAKER
7.Remove 3MEGA CAMERA LENS protection vinyl.
※ Assemble CAMERA prior to SPEAKER assembly

11

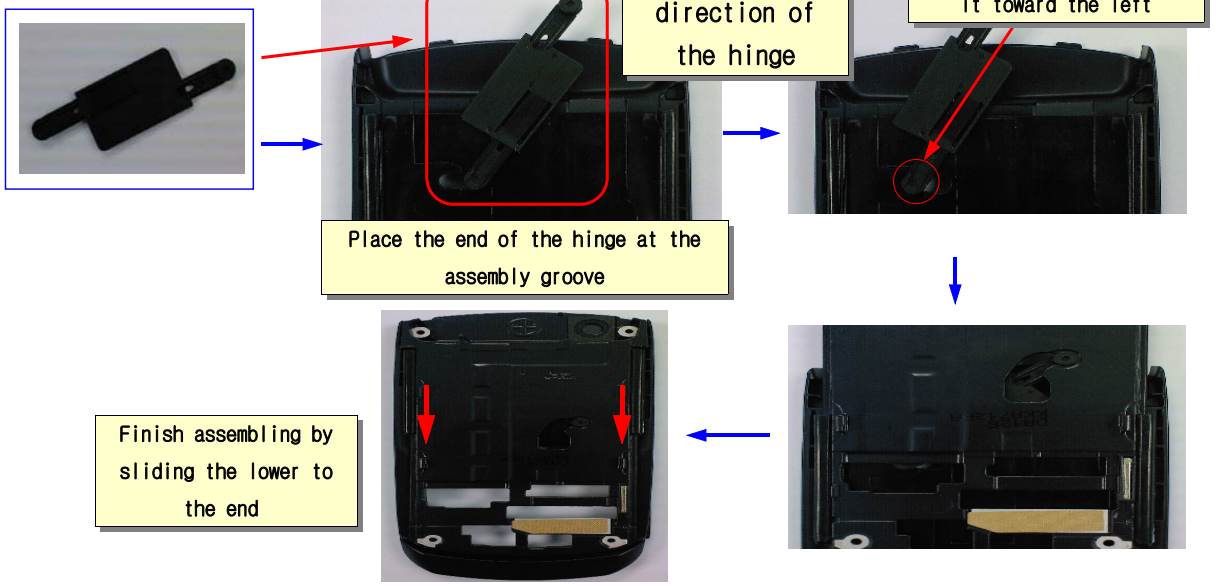


< Attach conductive Tape >

Attach LCD conductive TAPE

- Attach LCD conductive TAPE following the silk guide LINE.

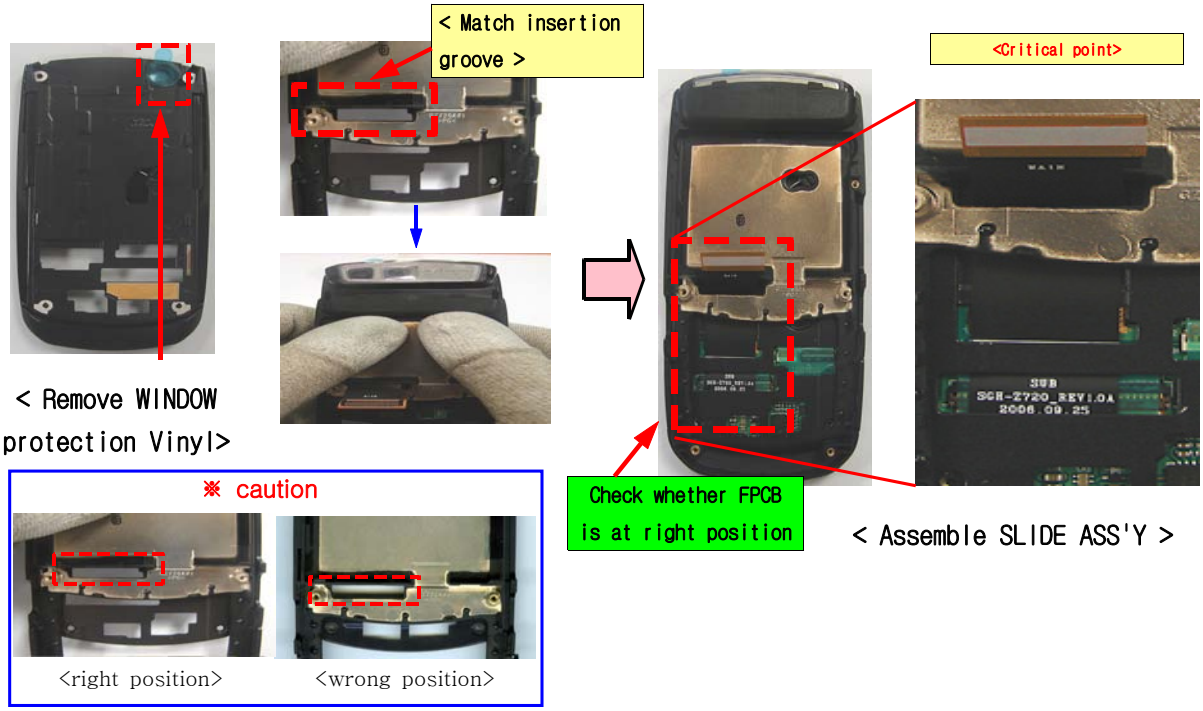
12



FRONT SLIDE Hinge Assembly

1.Locate the SLIDE hinge at the groove of the Front, then slide it toward the left to fix it.
2.Tilt the fixed SLIDE hinge to 45 degrees.
3.Move the SLIDE LOWER down to 1/2 position following the FRONT rail.
4.Slot the end of the hinge to the assembly groove of the LOWER, then bring Lower to the end to fix hinge

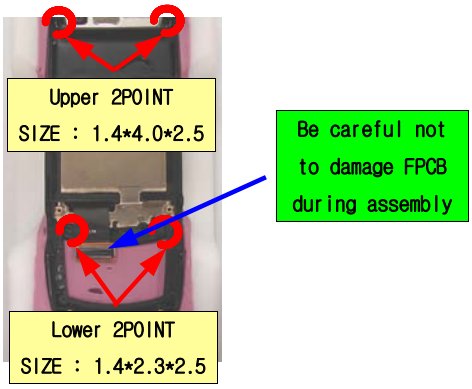
13



Removing 3Mega CAMERA WINDOW protection vinyl and SLIDE ASS'Y Assembly

1.Remove 3MEGA CAMERA WINDOW protection vinyl.
2.Match the FPCB insertion hole of both SLIDE LOWER and FRONT.
3.Insert the FPCB through insertion hole to assemble SLIDE UPPER and FRONT
4.Push FRONT up to where it was

14



Screwing the screw

1.Screw the upper 2 point of the SLIDE LOWER using SCREW Assmebly JIG → SCREW SIZE:1.4*4.0*2.5

2.Screw the lower 2 point of the SLIDE LOWER using SCREW Assmebly JIG → SCREW SIZW:1.4*2.3*2.5

15

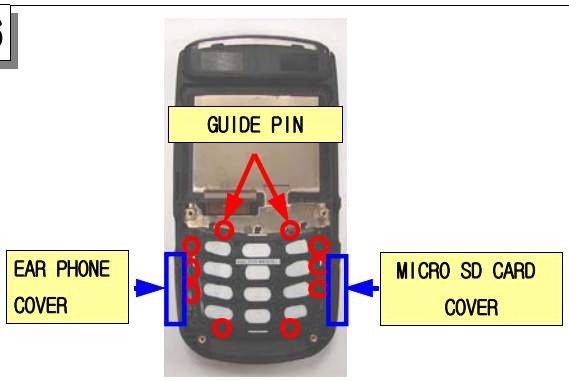
Screw Cap Insertion

1.Insert Left SCREW CAP.

2.Insert Right SCREW CAP.

3.Press the SCREW CAP with Screw Cap JIG

16



Placing the Main key pad

1. Check the printed condition of the MAIN KEYPAD.

2. Place the MAIN KEYPAD. View <Fig. 1>

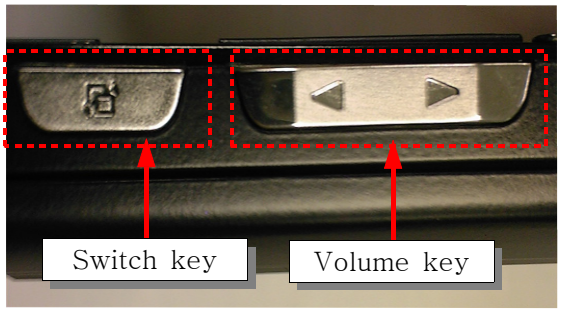
17

Shield Can Assembly

- Assemble the Shield Can just like in the picture above.

※ Be careful not to rumple and tear the Gasket When assembling the shield cover.

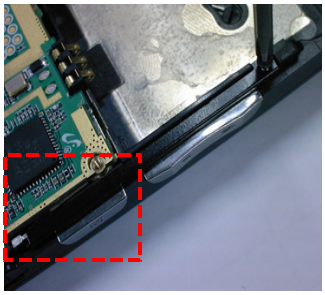
18



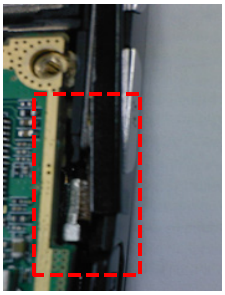
Place VOLUME KEY, SWITCH KEY

-Place both VOLUME KEY and SWITCH KEY.

19



<right position>



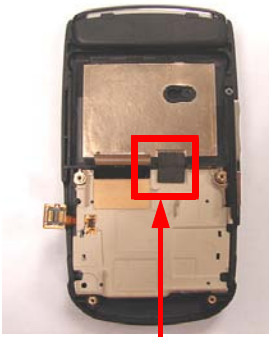
<wrong position >

VOL KEY BRACKET

-Assemble VOL KEY BRACKET using SCREW JIG → SCREW SIZE:1.4*2.3*2.5

※ Be careful to assemble the BRACKET right position.

20

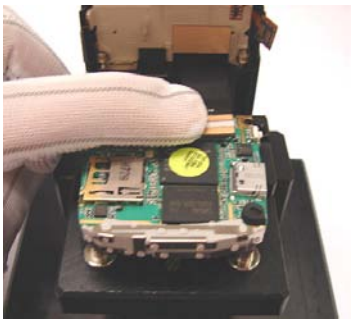


< Conduction Tape >

Conduction Tape Attachment

- Attach the conduction tape like a picture.

21

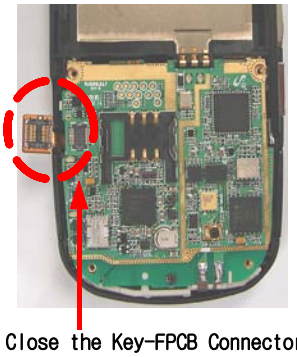


< FPCB Connector Assembling >

PBA Assembling

1. Open the slide ASS'Y only half and then put the PBA on the PBA JIG.
2. drive the slide FPCB connector.

22

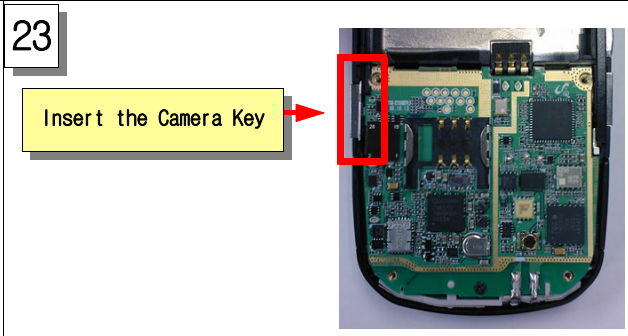


< Close the Key-FPCB Connector >

Key F-PCB Assembling

1. Put the PBA on the FRONT.
2. Close the Key - FPCB connector.

23

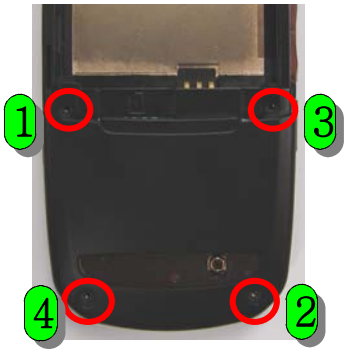


< Camera Key Assembling >

Camera key Assembling

- Insert the camera key into the hole.

24



Assembling the Rear

- Put this on the screw JIG and then drive the Screw in order.
  → SCREW SIZE:1.4*4.0*2.5

25

Rear Screw Cap Insertion

1.Insert the screw cap of left side.
2.Insert the screw cap of right side.
3. Press the screw caps by using screw cap JIG.

6. MAIN Electrical Parts List

Design LOC	Description	SEC Code	STATUS
ANT100	ANTENNA-CHIP	4202-001031	SA
BAT400	BATTERY-LI(2ND)	4302-001180	SA
BTC600	HEADER-BATTERY	3711-006217	SA
C100	C-CER,CHIP	2203-005659	SA
C101	C-CER,CHIP	2203-005659	SA
C102	C-CER,CHIP	2203-005659	SA
C103	C-CER,CHIP	2203-005659	SA
C105	C-CER,CHIP	2203-005727	SA
C106	C-CER,CHIP	2203-005382	SA
C108	C-CER,CHIP	2203-005390	SA
C110	C-CER,CHIP	2203-005725	SA
C112	C-CER,CHIP	2203-005682	SA
C114	C-CER,CHIP	2203-000438	SA
C115	C-CER,CHIP	2203-006872	SA
C116	C-CER,CHIP	2203-005682	SA
C118	C-CER,CHIP	2203-006423	SA
C119	C-CER,CHIP	2203-006423	SA
C120	C-CER,CHIP	2203-000330	SA
C121	C-CER,CHIP	2203-002668	SA
C122	C-CER,CHIP	2203-006994	SA
C124	C-CER,CHIP	2203-006423	SA
C125	C-CER,CHIP	2203-005736	SA
C126	C-CER,CHIP	2203-006423	SA
C127	C-CER,CHIP	2203-005725	SA
C128	C-CER,CHIP	2203-005682	SA
C129	C-CER,CHIP	2203-005682	SA
C130	C-CER,CHIP	2203-005682	SA
C132	C-CER,CHIP	2203-005682	SA
C134	C-CER,CHIP	2203-005806	SNA
C135	C-CER,CHIP	2203-006423	SA
C138	C-CER,CHIP	2203-006423	SA
C139	C-CER,CHIP	2203-006423	SA
C140	C-CER,CHIP	2203-006423	SA
C141	INDUCTOR-SMD	2703-002958	SA
C142	C-CER,CHIP	2203-006194	SA
C143	C-CER,CHIP	2203-005725	SA
C144	C-CER,CHIP	2203-005806	SNA
C145	C-CER,CHIP	2203-005725	SA
C146	C-CER,CHIP	2203-000233	SA
C149	C-CER,CHIP	2203-006305	SA
C150	C-CER,CHIP	2203-006562	SA
C151	C-CER,CHIP	2203-000854	SA
C152	C-CER,CHIP	2203-005683	SA
C155	C-CER,CHIP	2203-006838	SA
C156	C-CER,CHIP	2203-006838	SA
C157	C-CER,CHIP	2203-006838	SA
C159	C-CER,CHIP	2203-005725	SA
C162	C-CER,CHIP	2203-000233	SA
C163	C-CER,CHIP	2203-002968	SA
C164	C-CER,CHIP	2203-005736	SA
C166	C-CER,CHIP	2203-005736	SA
C169	C-CER,CHIP	2203-005725	SA
C170	C-CER,CHIP	2203-005736	SA

Design LOC	Description	SEC Code	STATUS
C172	C-CER,CHIP	2203-006423	SA
C173	C-CER,CHIP	2203-006648	SA
C174	C-CER,CHIP	2203-005683	SA
C200	C-CER,CHIP	2203-000233	SA
C201	C-CER,CHIP	2203-006824	SA
C202	C-CER,CHIP	2203-001239	SA
C203	C-CER,CHIP	2203-000812	SA
C208	C-CER,CHIP	2203-005736	SA
C211	C-CER,CHIP	2203-006194	SA
C212	C-CER,CHIP	2203-000438	SA
C213	C-CER,CHIP	2203-005806	SNA
C215	C-CER,CHIP	2203-006423	SA
C216	C-CER,CHIP	2203-005682	SA
C217	C-CER,CHIP	2203-006194	SA
C220	C-CER,CHIP	2203-000489	SA
C221	C-CER,CHIP	2203-000359	SA
C223	C-CER,CHIP	2203-005682	SA
C224	C-CER,CHIP	2203-005682	SA
C225	C-CER,CHIP	2203-005682	SA
C228	C-CER,CHIP	2203-006423	SA
C229	C-CER,CHIP	2203-006423	SA
C231	C-CER,CHIP	2203-005682	SA
C232	C-CER,CHIP	2203-006423	SA
C233	C-CER,CHIP	2203-006423	SA
C234	C-CER,CHIP	2203-005682	SA
C236	C-CER,CHIP	2203-005483	SA
C238	C-CER,CHIP	2203-005736	SA
C239	C-CER,CHIP	2203-006423	SA
C240	C-CER,CHIP	2203-005736	SA
C241	C-CER,CHIP	2203-005682	SA
C242	C-CER,CHIP	2203-005682	SA
C243	C-CER,CHIP	2203-006423	SA
C244	C-CER,CHIP	2203-005736	SA
C247	C-CER,CHIP	2203-005727	SA
C249	C-CER,CHIP	2203-005736	SA
C250	C-CER,CHIP	2203-005395	SA
C251	C-CER,CHIP	2203-005395	SA
C252	C-CER,CHIP	2203-006423	SA
C254	C-CER,CHIP	2203-005725	SA
C255	C-CER,CHIP	2203-005725	SA
C256	C-CER,CHIP	2203-006979	SA
C257	C-CER,CHIP	2203-006674	SNA
C301	C-CER,CHIP	2203-005725	SA
C302	C-CER,CHIP	2203-005725	SA
C304	C-CER,CHIP	2203-006824	SA
C307	C-CER,CHIP	2203-006423	SA
C308	C-CER,CHIP	2203-006423	SA
C309	C-CER,CHIP	2203-006423	SA
C310	C-CER,CHIP	2203-006423	SA
C315	C-CER,CHIP	2203-006423	SA
C316	C-CER,CHIP	2203-006423	SA
C318	C-CER,CHIP	2203-006423	SA
C319	C-CER,CHIP	2203-006423	SA
C324	C-CER,CHIP	2203-006423	SA

Design LOC	Description	SEC Code	STATUS
C325	C-CER,CHIP	2203-000254	SA
C327	C-CER,CHIP	2203-006423	SA
C328	C-CER,CHIP	2203-000812	SA
C329	C-CER,CHIP	2203-000438	SA
C330	C-CER,CHIP	2203-000438	SA
C331	C-CER,CHIP	2203-006194	SA
C332	C-CER,CHIP	2203-006194	SA
C333	C-CER,CHIP	2203-006194	SA
C334	C-CER,CHIP	2203-006194	SA
C335	C-CER,CHIP	2203-006194	SA
C336	C-CER,CHIP	2203-006194	SA
C337	C-CER,CHIP	2203-006562	SA
C338	C-CER,CHIP	2203-000438	SA
C339	C-CER,CHIP	2203-000438	SA
C340	C-CER,CHIP	2203-000438	SA
C341	C-CER,CHIP	2203-006194	SA
C342	C-CER,CHIP	2203-006423	SA
C343	C-CER,CHIP	2203-000438	SA
C344	C-CER,CHIP	2203-006194	SA
C345	C-CER,CHIP	2203-006194	SA
C346	C-CER,CHIP	2203-006194	SA
C347	C-CER,CHIP	2203-006194	SA
C348	C-CER,CHIP	2203-006423	SA
C349	C-CER,CHIP	2203-006423	SA
C350	C-CER,CHIP	2203-006423	SA
C351	C-CER,CHIP	2203-006194	SA
C352	C-CER,CHIP	2203-006423	SA
C353	C-CER,CHIP	2203-006194	SA
C354	C-CER,CHIP	2203-006423	SA
C355	C-CER,CHIP	2203-006194	SA
C356	C-CER,CHIP	2203-006423	SA
C357	C-CER,CHIP	2203-006423	SA
C358	C-CER,CHIP	2203-006423	SA
C359	C-CER,CHIP	2203-006423	SA
C360	C-CER,CHIP	2203-006423	SA
C363	C-CER,CHIP	2203-005482	SA
C364	C-CER,CHIP	2203-006423	SA
C365	C-CER,CHIP	2203-000995	SA
C366	C-CER,CHIP	2203-000489	SA
C367	C-CER,CHIP	2203-005480	SA
C401	C-CER,CHIP	2203-006824	SA
C402	C-CER,CHIP	2203-006824	SA
C403	C-CER,CHIP	2203-006562	SA
C404	C-CER,CHIP	2203-006423	SA
C405	C-CER,CHIP	2203-005736	SA
C406	C-CER,CHIP	2203-005736	SA
C407	C-CER,CHIP	2203-006562	SA
C408	C-CER,CHIP	2203-006562	SA
C409	C-CER,CHIP	2203-006562	SA
C410	C-CER,CHIP	2203-006824	SA
C411	C-CER,CHIP	2203-006872	SA
C412	C-CER,CHIP	2203-006824	SA
C413	C-CER,CHIP	2203-006423	SA
C414	C-CER,CHIP	2203-000386	SA

Design LOC	Description	SEC Code	STATUS
C415	C-CER,CHIP	2203-000386	SA
C416	C-CER,CHIP	2203-005682	SA
C417	C-CER,CHIP	2203-006305	SA
C418	C-CER,CHIP	2203-006305	SA
C419	C-CER,CHIP	2203-006305	SA
C420	C-CER,CHIP	2203-006305	SA
C421	C-CER,CHIP	2203-007165	SA
C422	C-CER,CHIP	2203-006562	SA
C423	C-CER,CHIP	2203-006824	SA
C424	C-CER,CHIP	2203-006305	SA
C425	C-CER,CHIP	2203-006562	SA
C426	C-CER,CHIP	2203-006562	SA
C427	C-CER,CHIP	2203-006824	SA
C428	C-CER,CHIP	2203-000438	SA
C429	C-CER,CHIP	2203-006824	SA
C430	C-CER,CHIP	2203-000438	SA
C431	C-CER,CHIP	2203-000438	SA
C432	C-CER,CHIP	2203-006824	SA
C433	C-CER,CHIP	2203-006824	SA
C434	C-CER,CHIP	2203-006048	SA
C435	C-CER,CHIP	2203-006048	SA
C436	C-CER,CHIP	2203-006048	SA
C437	C-CER,CHIP	2203-006048	SA
C438	C-CER,CHIP	2203-006048	SA
C439	C-CER,CHIP	2203-006048	SA
C440	C-CER,CHIP	2203-006423	SA
C441	C-CER,CHIP	2203-005682	SA
C442	C-CER,CHIP	2203-005682	SA
C446	C-CER,CHIP	2203-006562	SA
C447	C-CER,CHIP	2203-006048	SA
C448	C-CER,CHIP	2203-005682	SA
C449	C-CER,CHIP	2203-005682	SA
C450	C-CER,CHIP	2203-005682	SA
C500	C-CER,CHIP	2203-006305	SA
C501	C-CER,CHIP	2203-005682	SA
C502	C-CER,CHIP	2203-005731	SA
C503	C-CER,CHIP	2203-005731	SA
C504	C-CER,CHIP	2203-000254	SA
C505	C-CER,CHIP	2203-000854	SA
C506	C-CER,CHIP	2203-006423	SA
C507	C-CER,CHIP	2203-006681	SA
C508	C-CER,CHIP	2203-005482	SA
C509	C-CER,CHIP	2203-006305	SA
C510	C-CER,CHIP	2203-000278	SA
C511	C-CER,CHIP	2203-006423	SA
C512	C-CER,CHIP	2203-000854	SA
C513	C-CER,CHIP	2203-006840	SA
C514	C-CER,CHIP	2203-005496	SA
C515	C-CER,CHIP	2203-006840	SA
C516	C-CER,CHIP	2203-005496	SA
C517	C-CER,CHIP	2203-006257	SA
C518	C-CER,CHIP	2203-000254	SA
C519	C-CER,CHIP	2203-006423	SA
C520	C-CER,CHIP	2203-006305	SA

Design LOC	Description	SEC Code	STATUS
C521	C-CER,CHIP	2203-000812	SA
C522	C-CER,CHIP	2203-000278	SA
C523	C-CER,CHIP	2203-006423	SA
C524	C-CER,CHIP	2203-005682	SA
C525	C-CER,CHIP	2203-005682	SA
C526	C-CER,CHIP	2203-005682	SA
C527	C-CER,CHIP	2203-005682	SA
C528	C-CER,CHIP	2203-000854	SA
C529	C-CER,CHIP	2203-000854	SA
C530	C-CER,CHIP	2203-006423	SA
C531	C-CER,CHIP	2203-006137	SA
C532	C-CER,CHIP	2203-006137	SA
C600	C-CER,CHIP	2203-006562	SA
C601	C-CER,CHIP	2203-006562	SA
C602	C-CER,CHIP	2203-006562	SA
C603	C-CER,CHIP	2203-005683	SA
C604	C-CER,CHIP	2203-005682	SA
C605	C-CER,CHIP	2203-005682	SA
C606	C-CER,CHIP	2203-005682	SA
C607	C-CER,CHIP	2203-005682	SA
C608	C-CER,CHIP	2203-006562	SA
C609	C-CER,CHIP	2203-006562	SA
C610	C-CER,CHIP	2203-005725	SA
C611	C-CER,CHIP	2203-005725	SA
C612	C-CER,CHIP	2203-005725	SA
C613	C-CER,CHIP	2203-005682	SA
C614	C-CER,CHIP	2203-006562	SA
C615	C-CER,CHIP	2203-006562	SA
C616	C-CER,CHIP	2203-006562	SA
C617	C-CER,CHIP	2203-006562	SA
C618	C-CER,CHIP	2203-005682	SA
C619	C-CER,CHIP	2203-005682	SA
C620	C-CER,CHIP	2203-005682	SA
C700	C-CER,CHIP	2203-006562	SA
CD400	CONNECTOR-CARD EDGE	3709-001344	SA
CPL201	COUPLER-DIRECTION	4709-001405	SA
D400	DIODE-ARRAY	0407-001002	SA
D600	DIODE-ARRAY	0407-001002	SA
D601	DIODE-TVS	0406-001254	SA
D602	DIODE-TVS	0406-001254	SA
DUF100	DUPLEXER-FEM	2911-000079	SA
DUF200	DUPLEXER-SAW	2909-001250	SA
F101	FILTER-SAW	2904-001703	SA
F202	FILTER-SAW	2904-001538	SA
F203	FILTER-SAW	2904-001621	SA
F300	FILTER-EMI SMD	2901-001283	SA
F603	FILTER-EMI SMD	2901-001413	SA
F604	FILTER-EMI SMD	2901-001413	SA
F605	FILTER-EMI SMD	2901-001413	SA
F606	FILTER-EMI SMD	2901-001413	SA
F700	BEAD-SMD	3301-001534	SA
HDC600	HEADER-BOARD TO BOARD	3711-005367	SA
HDC700	HEADER-BOARD TO BOARD	3711-005976	SA
IFC600	SOCKET-INTERFACE	3710-002465	SA

Design LOC	Description	SEC Code	STATUS
L102	INDUCTOR-SMD	2703-002155	SA
L103	INDUCTOR-SMD	2703-002793	SA
L105	INDUCTOR-SMD	2703-002793	SA
L106	INDUCTOR-SMD	2703-003003	SA
L107	INDUCTOR-SMD	2703-002919	SA
L108	INDUCTOR-SMD	2703-003003	SA
L109	INDUCTOR-SMD	2703-002900	SA
L110	INDUCTOR-SMD	2703-002900	SA
L111	INDUCTOR-SMD	2703-002958	SA
L114	R-CHIP	2007-008542	SA
L115	INDUCTOR-SMD	2703-002958	SA
L117	INDUCTOR-SMD	2703-003125	SA
L118	INDUCTOR-SMD	2703-002901	SNA
L119	INDUCTOR-SMD	2703-002958	SA
L120	INDUCTOR-SMD	2703-002793	SA
L200	INDUCTOR-SMD	2703-001749	SA
L201	INDUCTOR-SMD	2703-002365	SA
L202	INDUCTOR-SMD	2703-002907	SNA
L204	INDUCTOR-SMD	2703-003004	SA
L205	INDUCTOR-SMD	2703-002314	SA
L207	INDUCTOR-SMD	2703-002309	SA
L208	INDUCTOR-SMD	2703-002795	SNA
L209	INDUCTOR-SMD	2703-002365	SA
L211	INDUCTOR-SMD	2703-001180	SA
L212	INDUCTOR-SMD	2703-001180	SA
L213	INDUCTOR-SMD	2703-002368	SA
L400	INDUCTOR-SMD	2703-002840	SA
L401	INDUCTOR-SMD	2703-002840	SA
L601	BEAD-SMD	3301-001438	SA
L602	BEAD-SMD	3301-001438	SA
L603	BEAD-SMD	3301-001438	SA
MOD100	BLUETOOTH MODULE	4709-001398	SA
OSC300	RESONATOR-CERAMIC	2802-001182	SA
OSC400	CRYSTAL-SMD	2801-004339	SA
PAM100	IC-POWER AMP	1201-002534	SA
PAM200	IC-POWER AMP	1201-002350	SA
R104	R-CHIP	2007-008542	SA
R105	R-CHIP	2007-001285	SA
R107	R-CHIP	2007-007309	SA
R108	R-CHIP	2007-008419	SA
R109	R-CHIP	2007-008419	SA
R110	R-CHIP	2007-008419	SA
R111	R-CHIP	2007-001119	SA
R112	R-CHIP	2007-008045	SA
R113	R-CHIP	2007-008531	SA
R114	R-CHIP	2007-009201	SA
R115	R-CHIP	2007-008046	SA
R116	R-CHIP	2007-008046	SA
R117	R-CHIP	2007-008588	SA
R118	R-CHIP	2007-008806	SA
R119	R-CHIP	2007-008045	SA
R120	R-CHIP	2007-008045	SA
R121	R-CHIP	2007-008542	SA
R122	R-CHIP	2007-008055	SA

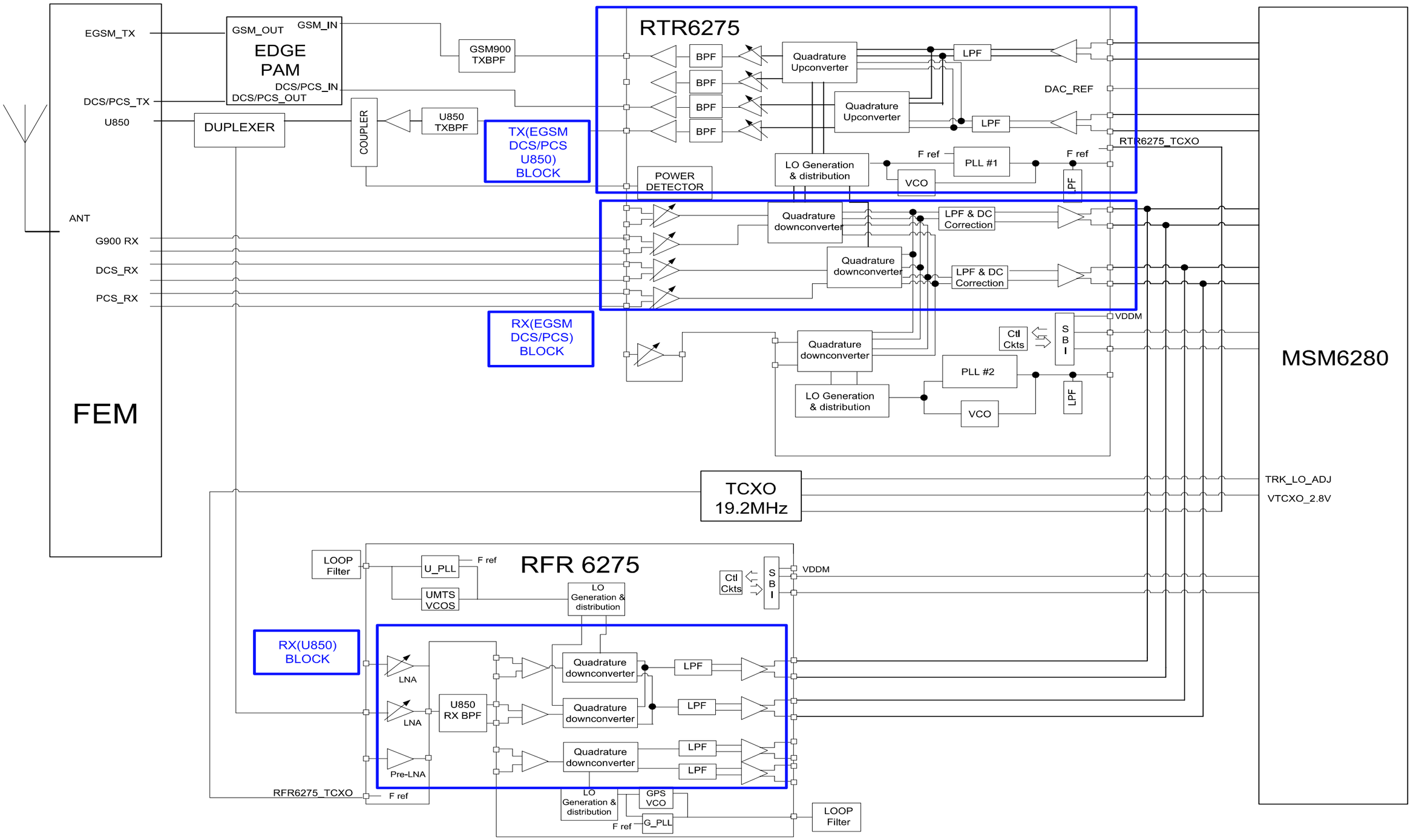
Design LOC	Description	SEC Code	STATUS
R123	R-CHIP	2007-009171	SA
R124	R-CHIP	2007-003015	SA
R125	R-CHIP	2007-009315	SA
R201	R-CHIP	2007-008045	SA
R202	R-CHIP	2007-001298	SA
R203	R-CHIP	2007-008015	SA
R204	R-CHIP	2007-008045	SA
R205	R-CHIP	2007-008045	SA
R207	R-CHIP	2007-000172	SA
R208	R-CHIP	2007-009315	SA
R209	R-CHIP	2007-008211	SNA
R210	R-CHIP	2007-007142	SA
R211	R-CHIP	2007-008542	SA
R213	R-CHIP	2007-009410	SA
R215	R-CHIP	2007-001298	SA
R216	R-CHIP	2007-008542	SA
R217	R-CHIP	2007-008478	SA
R218	R-CHIP	2007-007314	SA
R300	R-CHIP	2007-007741	SA
R301	R-CHIP	2007-007741	SA
R306	R-CHIP	2007-000137	SA
R307	R-CHIP	2007-008542	SA
R308	R-CHIP	2007-007318	SA
R309	R-CHIP	2007-008052	SA
R310	R-CHIP	2007-007314	SA
R311	R-CHIP	2007-008542	SA
R312	R-CHIP	2007-009171	SA
R313	R-CHIP	2007-009171	SA
R314	R-CHIP	2007-009171	SA
R315	R-CHIP	2007-009171	SA
R316	R-CHIP	2007-008055	SA
R318	R-CHIP	2007-008055	SA
R319	R-CHIP	2007-008588	SA
R320	R-CHIP	2007-008588	SA
R321	R-CHIP	2007-000148	SA
R323	R-CHIP	2007-008806	SA
R324	R-CHIP	2007-009111	SA
R369	R-CHIP	2007-009171	SA
R370	R-CHIP	2007-007135	SA
R400	R-CHIP	2007-000157	SA
R401	R-CHIP	2007-007586	SA
R402	R-CHIP	2007-000162	SA
R403	R-CHIP	2007-008516	SA
R404	R-CHIP	2007-007698	SA
R405	R-CHIP	2007-008806	SA
R406	R-CHIP	2007-007468	SA
R407	R-CHIP	2007-008648	SA
R408	R-CHIP	2007-000151	SA
R409	R-CHIP	2007-007334	SA
R412	R-CHIP	2007-000162	SA
R413	R-CHIP	2007-007316	SA
R414	R-CHIP	2007-007318	SA
R415	R-CHIP	2007-007588	SA
R416	R-CHIP	2007-008516	SA

Design LOC	Description	SEC Code	STATUS
R417	R-CHIP	2007-008516	SA
R418	R-CHIP	2007-008516	SA
R419	R-CHIP	2007-000166	SA
R420	R-CHIP	2007-009171	SA
R421	R-CHIP	2007-009171	SA
R422	R-CHIP	2007-008055	SA
R423	R-CHIP	2007-000162	SA
R502	R-CHIP	2007-008588	SA
R505	R-CHIP	2007-007317	SA
R507	R-CHIP	2007-008588	SA
R508	R-CHIP	2007-007317	SA
R509	R-CHIP	2007-008531	SA
R510	R-CHIP	2007-008531	SA
R602	R-CHIP	2007-008542	SA
R603	R-CHIP	2007-008542	SA
R604	R-CHIP	2007-008548	SA
R605	R-CHIP	2007-008419	SA
R606	R-CHIP	2007-008419	SA
R607	R-CHIP	2007-000159	SA
R608	R-CHIP	2007-008486	SA
R609	R-CHIP	2007-008486	SA
R610	R-CHIP	2007-008486	SA
R611	R-CHIP	2007-008542	SA
R612	R-CHIP	2007-008542	SA
R614	R-CHIP	2007-008055	SA
R615	R-CHIP	2007-007529	SA
R616	R-CHIP	2007-007529	SA
R617	R-CHIP	2007-007529	SA
R700	R-CHIP	2007-008055	SA
R704	R-CHIP	2007-008055	SA
RFS100	CONNECTOR-COAXIAL	3705-001358	SA
SIM400	CONNECTOR-CARD EDGE	3709-001400	SA
TA100	C-TA,CHIP	2404-001474	SA
TA300	C-TA,CHIP	2404-001377	SA
TA400	C-TA,CHIP	2404-001381	SA
TA401	C-TA,CHIP	2404-001381	SA
TA500	C-TA,CHIP	2404-001240	SA
TA600	C-TA,CHIP	2404-001381	SA
TA601	C-TA,CHIP	2404-001381	SA
TA602	C-TA,CHIP	2404-001474	SA
TA603	C-TA,CHIP	2404-001406	SA
TAC700	SWITCH-TACT	3404-001152	SA
TCX200	OSCILLATOR-VCTCXO	2809-001280	SA
TR200	TR-DIGITAL	0504-001151	SA
TR400	TR-DIGITAL	0504-000168	SA
TR600	FET-SILICON	0505-001423	SA
U101	IC-TRANSCEIVER	1205-003198	SA
U202	IC-RECEIVER	1205-003202	SA
U300	IC-MCP	1108-000105	SA
U302	IC-ANALOG SWITCH	1001-001336	SA
U400	IC-VOL. DETECTOR	1203-004045	SA
U401	IC-POWER SUPERVISOR	1203-004101	SA
U402	IC-BATTERY	1203-003823	SA
U501	IC-AUDIO AMP	1201-002492	SA

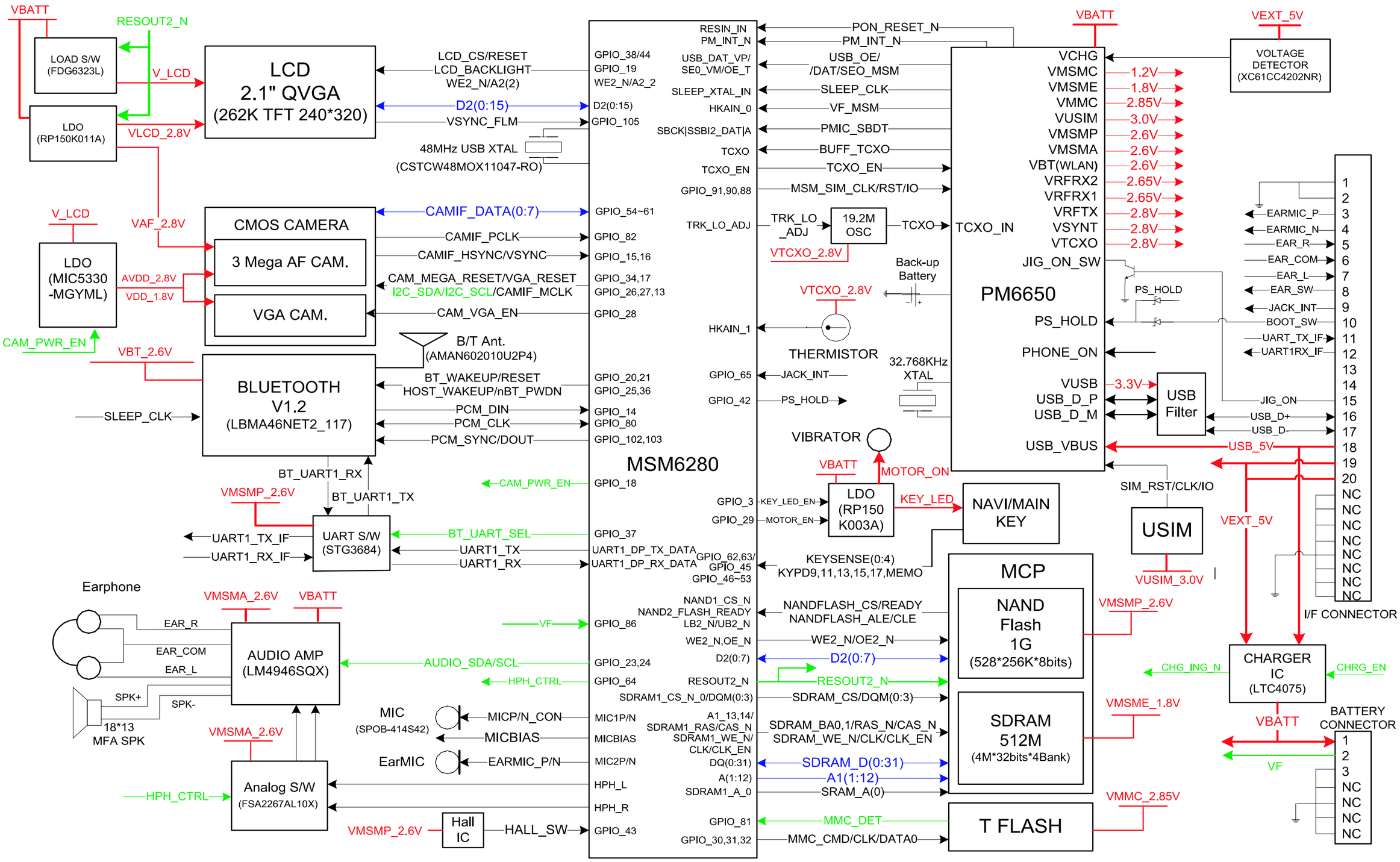
Design LOC	Description	SEC Code	STATUS
U502	IC-ANALOG SWITCH	1001-001336	SA
U600	IC-MULTI REG.	1203-004524	SA
U601	IC-MULTI REG.	1203-004330	SA
U700	IC-ANALOG SWITCH	1001-001336	SA
UCP300	IC-MODEM	1205-003207	SA
VR300	THERMISTOR-NTC	1404-001224	SA
VR401	VARISTOR	1405-001177	SA
VR600	VARISTOR	1405-001177	SA
VR601	VARISTOR	1405-001177	SA
VR602	VARISTOR	1405-001177	SA
VR603	VARISTOR	1405-001177	SA
VR604	VARISTOR	1405-001177	SA
VR605	VARISTOR	1405-001177	SA
VR606	VARISTOR	1405-001177	SA
VR607	VARISTOR	1405-001177	SA
VR608	VARISTOR	1405-001177	SA
VR609	VARISTOR	1405-001177	SA
VR610	VARISTOR	1405-001177	SA
VR611	VARISTOR	1405-001177	SA
VR612	VARISTOR	1405-001177	SA
VR613	VARISTOR	1405-001177	SA
VR614	VARISTOR	1405-001177	SA
VR616	VARISTOR	1405-001177	SA
VR700	VARISTOR	1405-001177	SA
ZD400	DIODE-TVS	0406-001215	SA
ZD500	DIODE-TVS	0406-001254	SA
ZD501	DIODE-TVS	0406-001254	SA
ZD600	DIODE-TVS	0406-001208	SA
ZD601	DIODE-ZENER	0403-001427	SA
ZD602	DIODE-TVS	0406-001208	SA
ZD603	DIODE-ZENER	0403-001547	SA
ZD700	DIODE-TVS	0406-001208	SA
ZD701	DIODE-TVS	0406-001208	SA

7. Block Diagrams

7-1. RF Solution Block Diagram



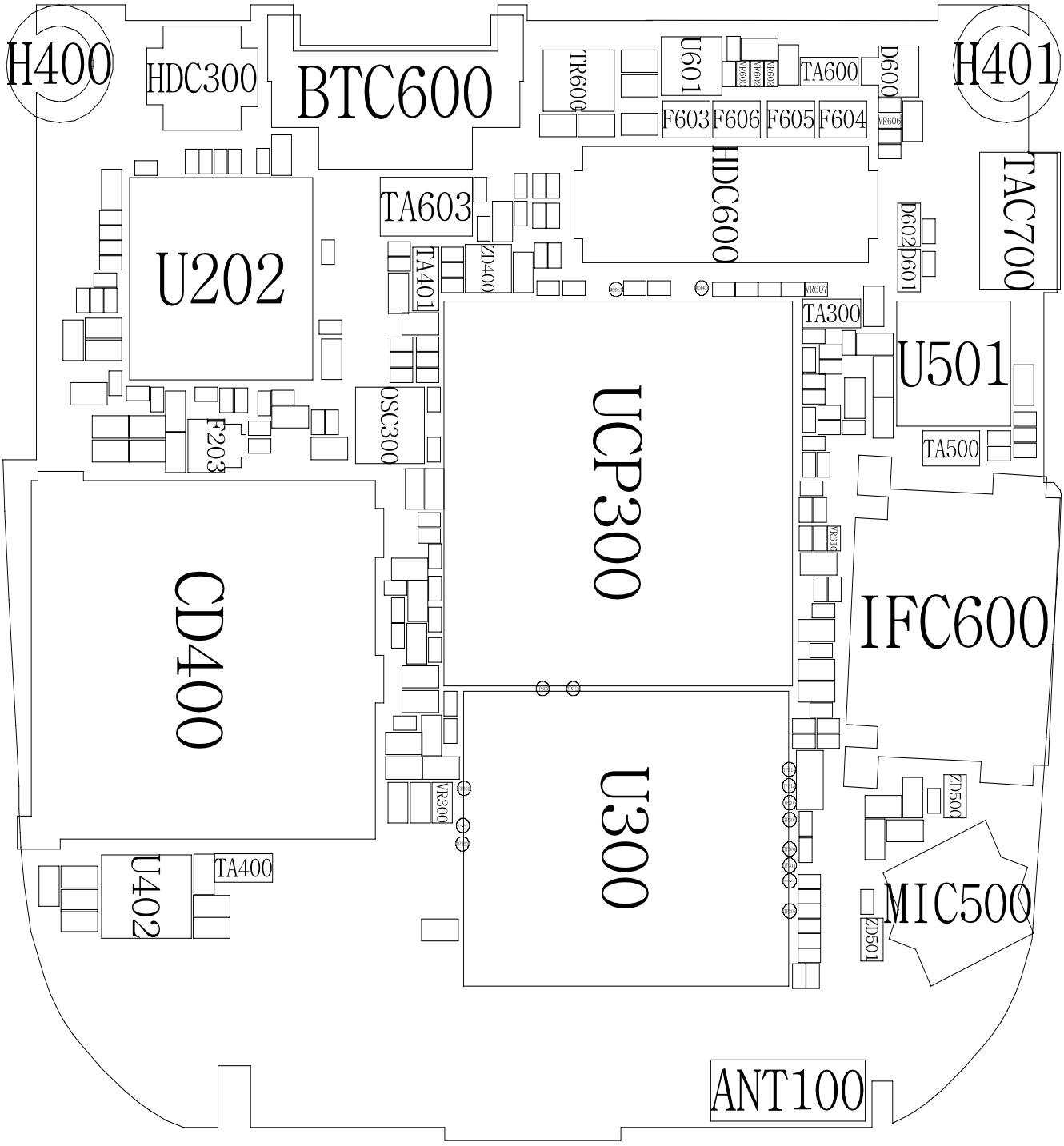
7-2. Logic Block Diagram



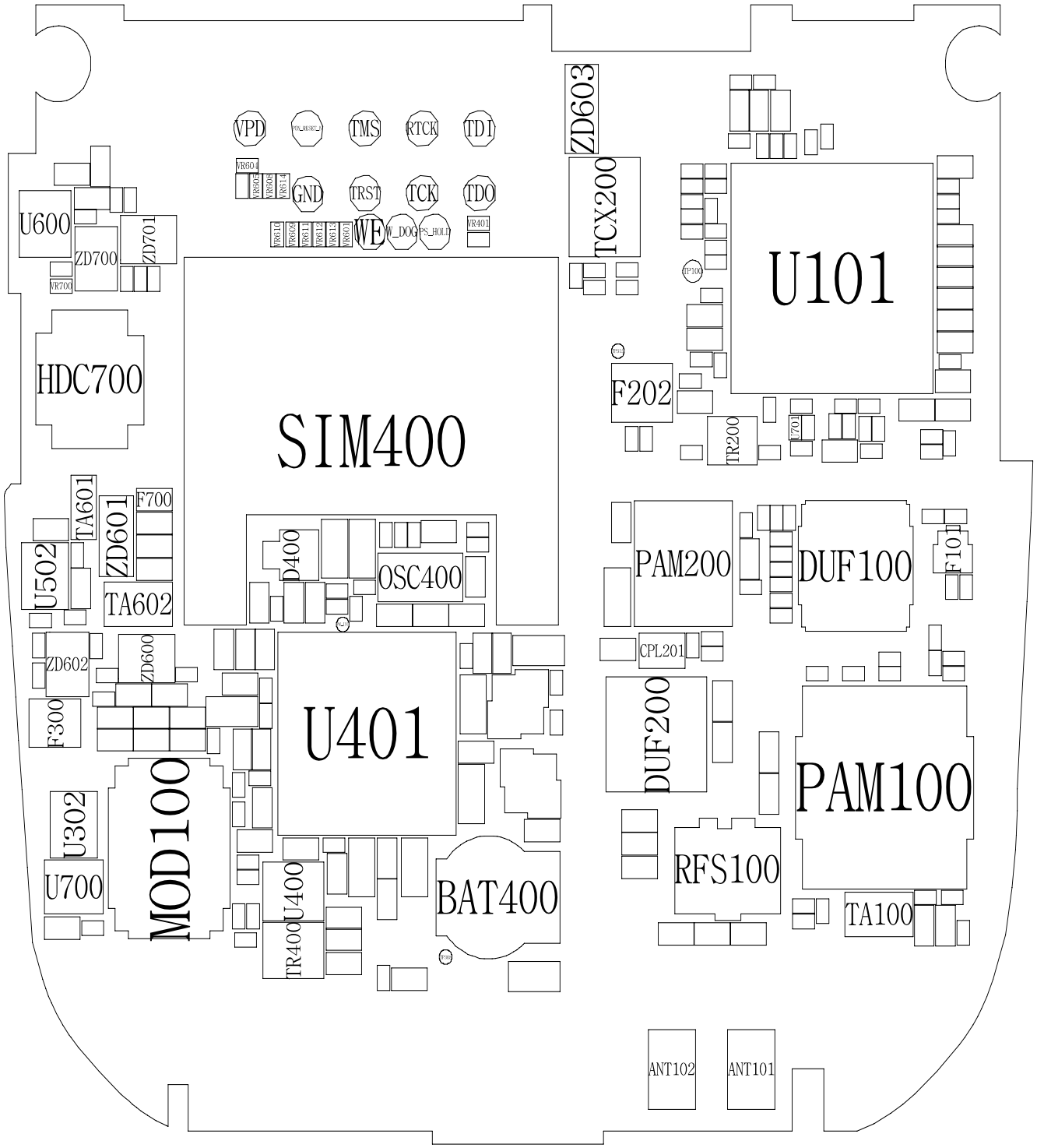
8. PCB Diagrams

8-1. Main PCB Diagram

Top

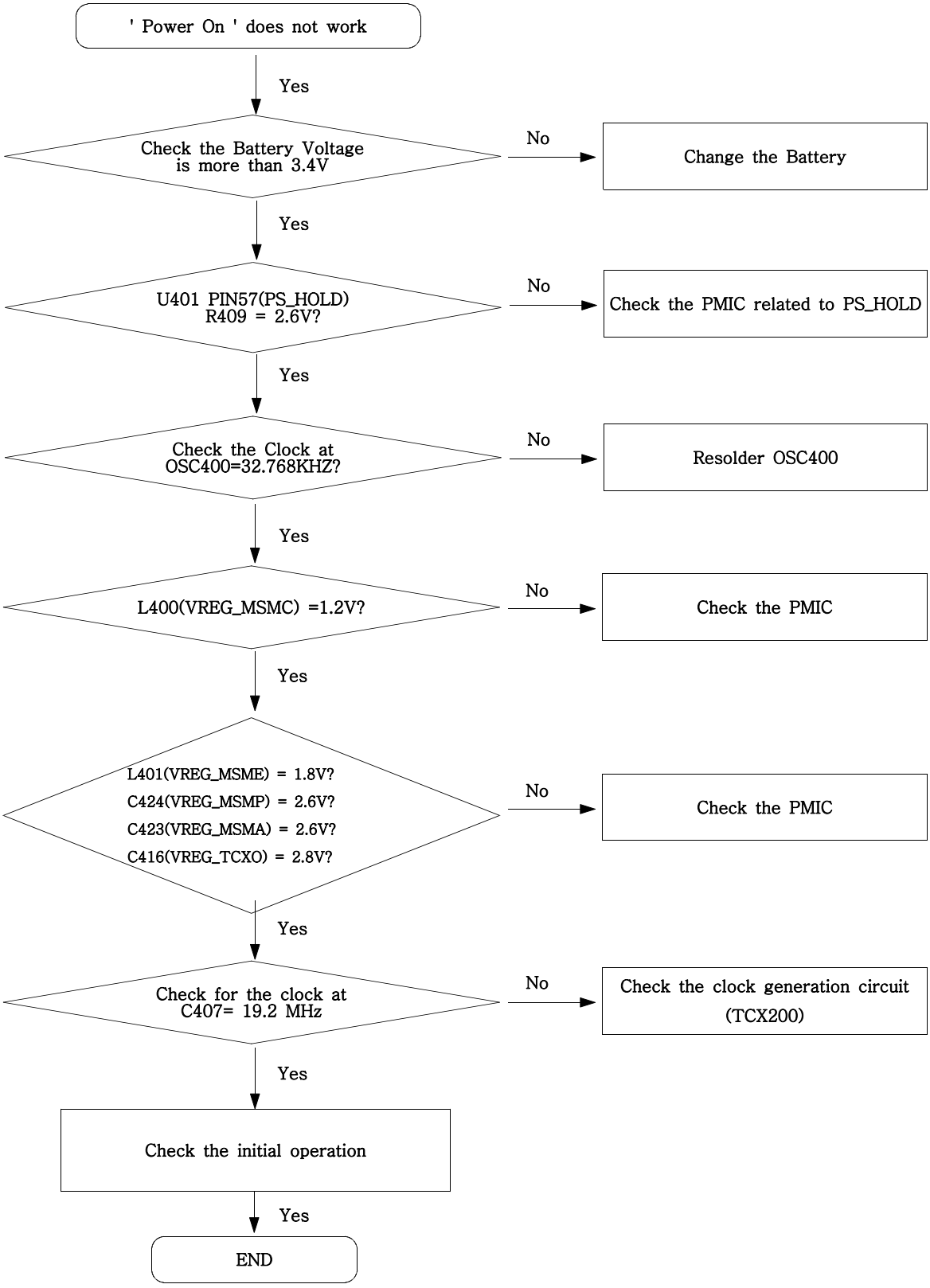


Bottom

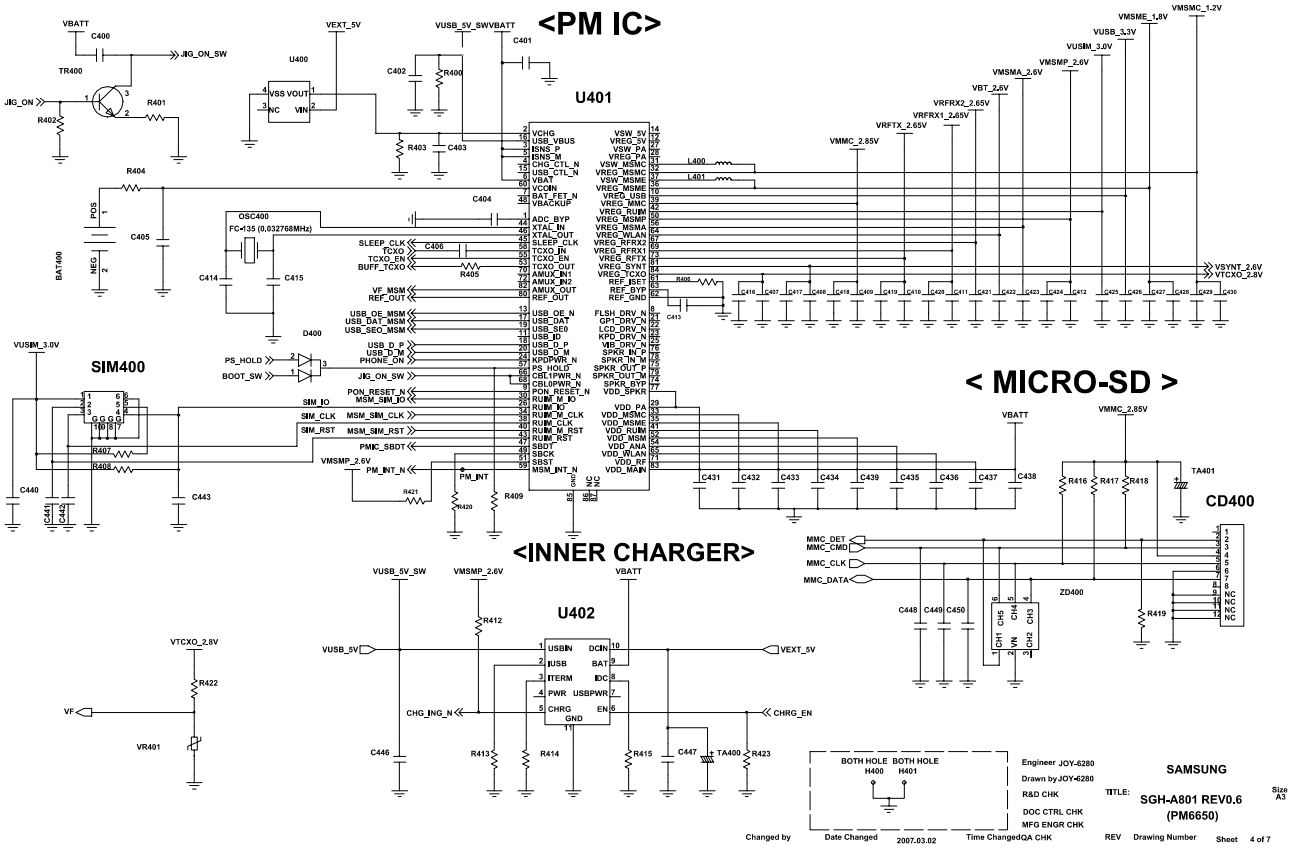


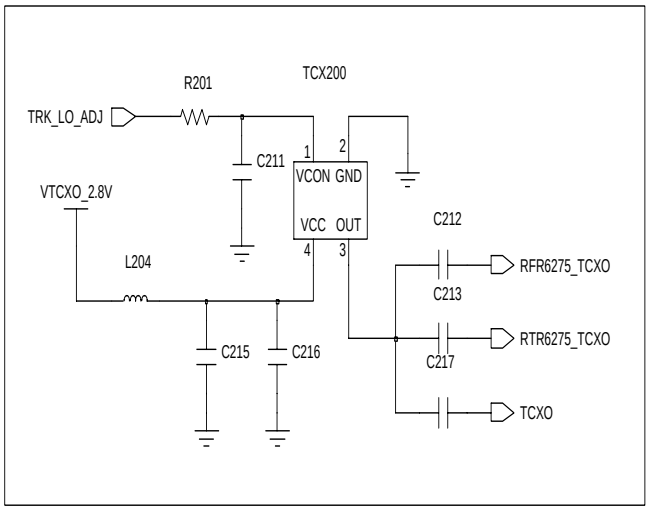
9. Flow Chart of Troubleshooting

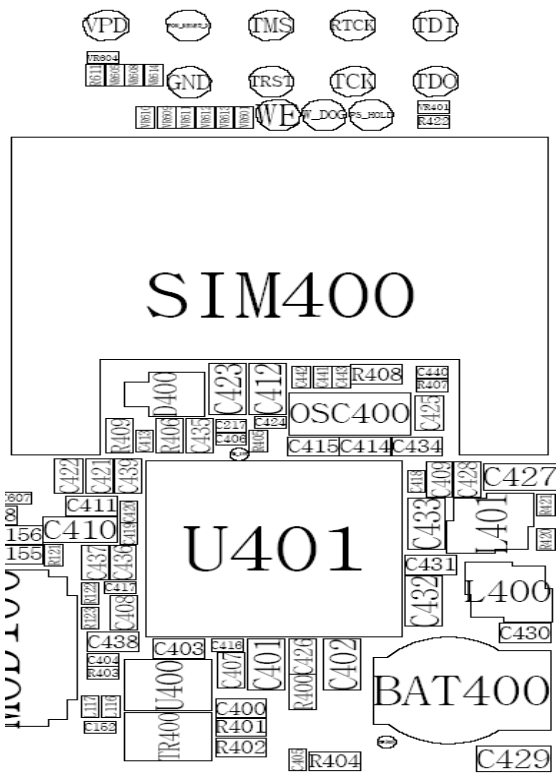
9-1. Power On



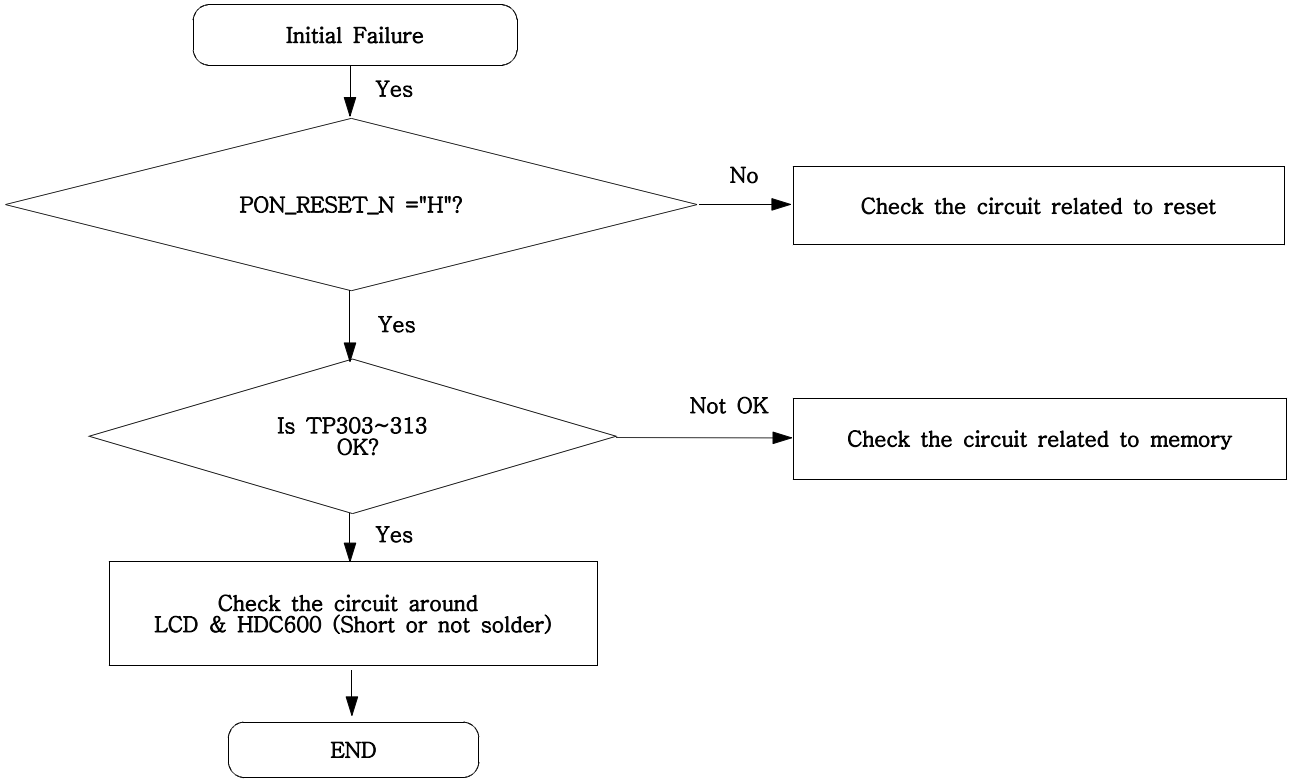
Power On

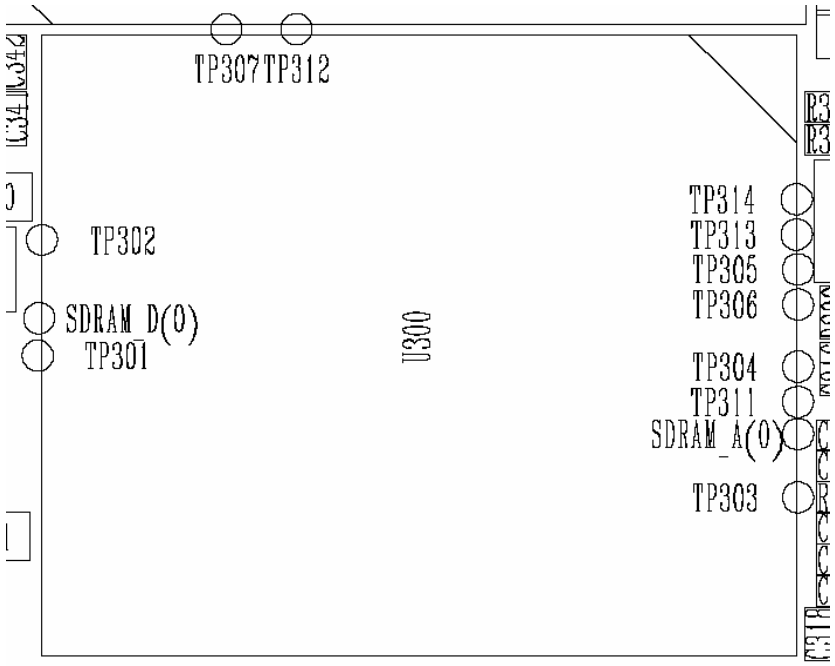




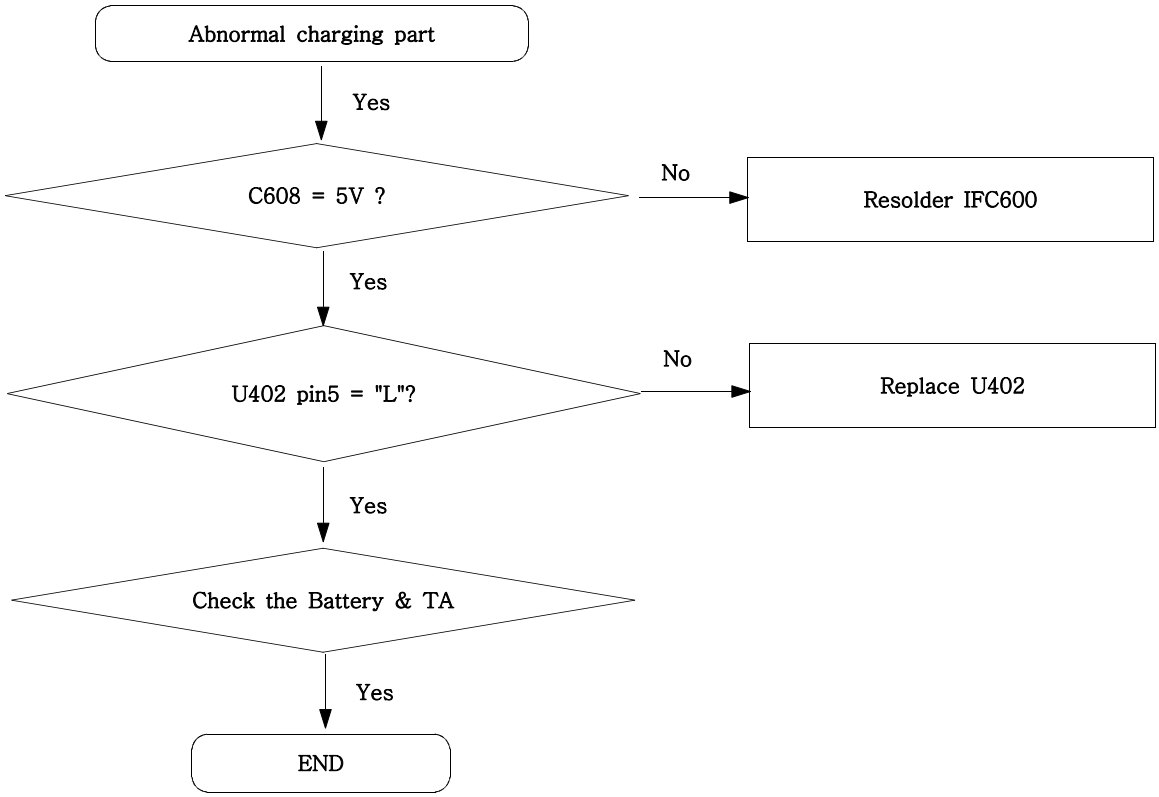


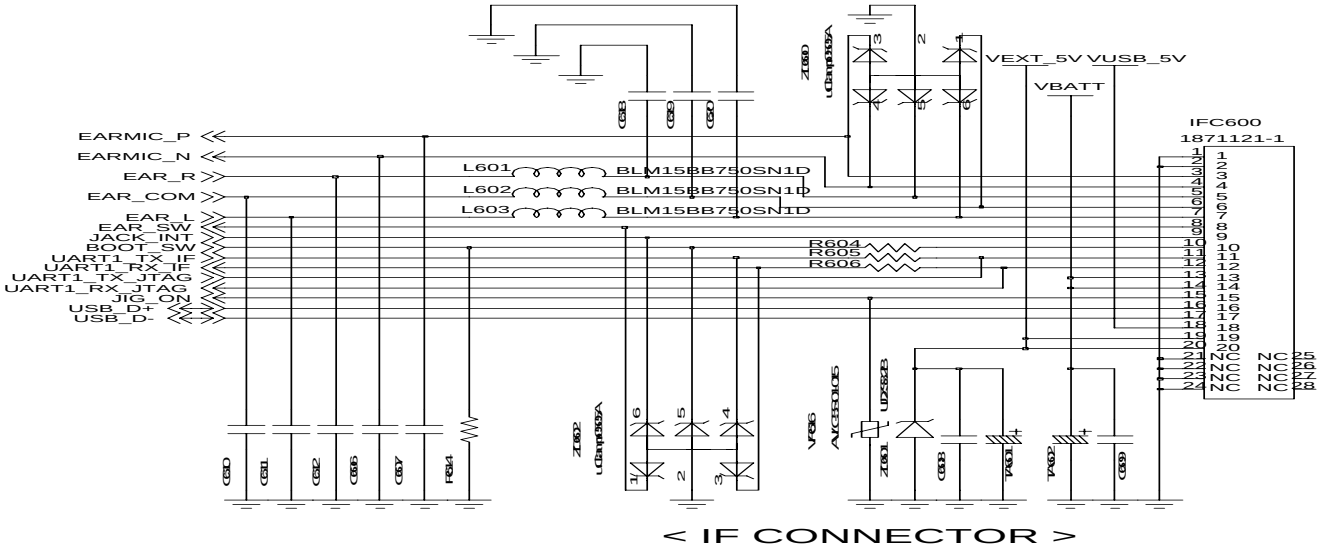
9-2. Initial





9-3. Charging Part





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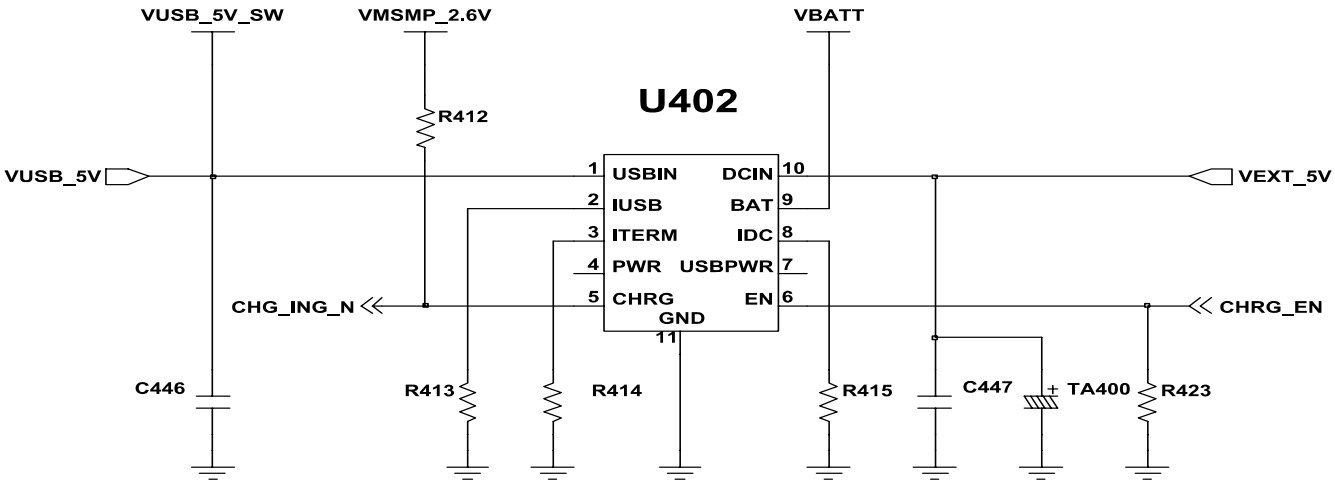
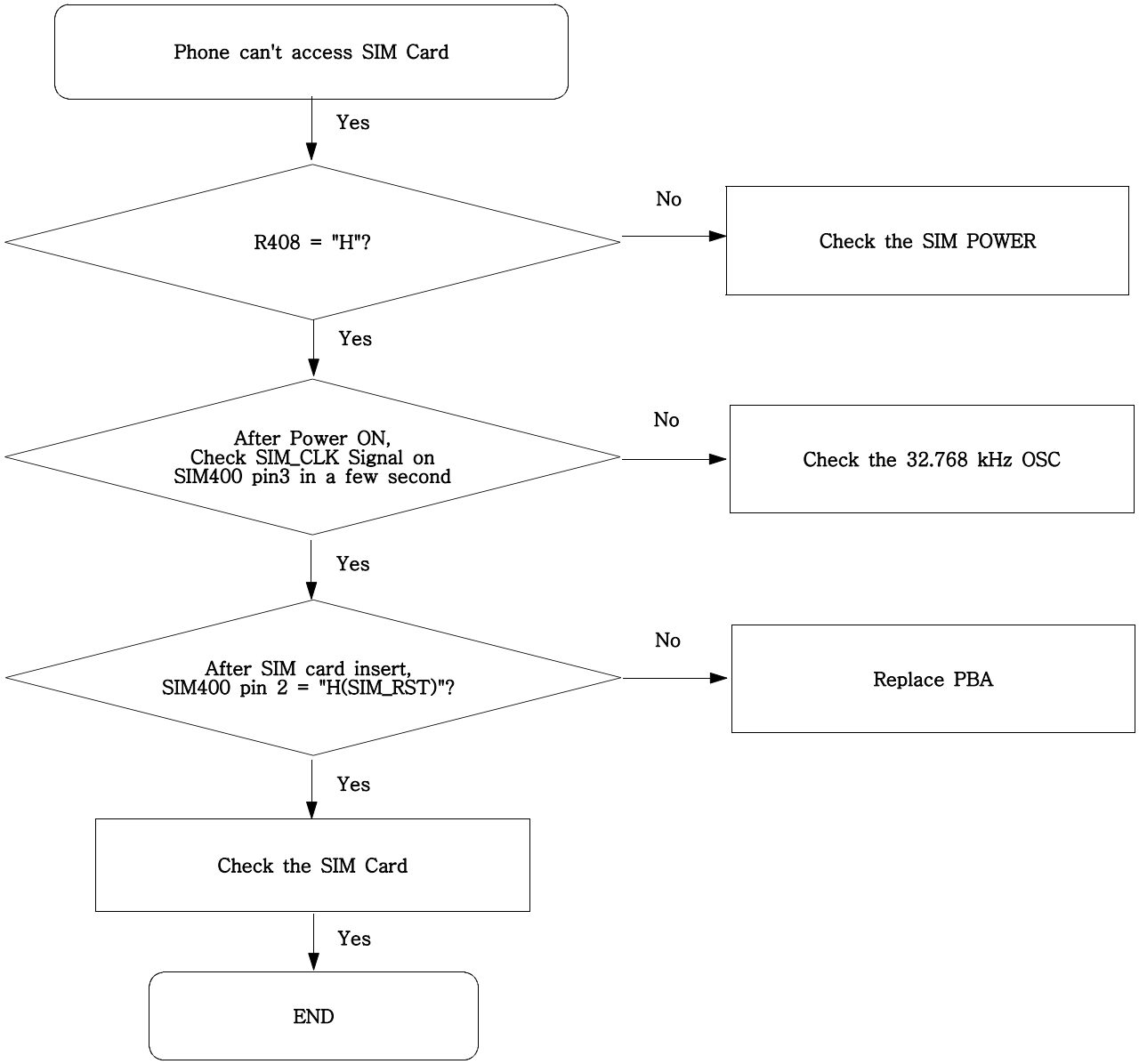
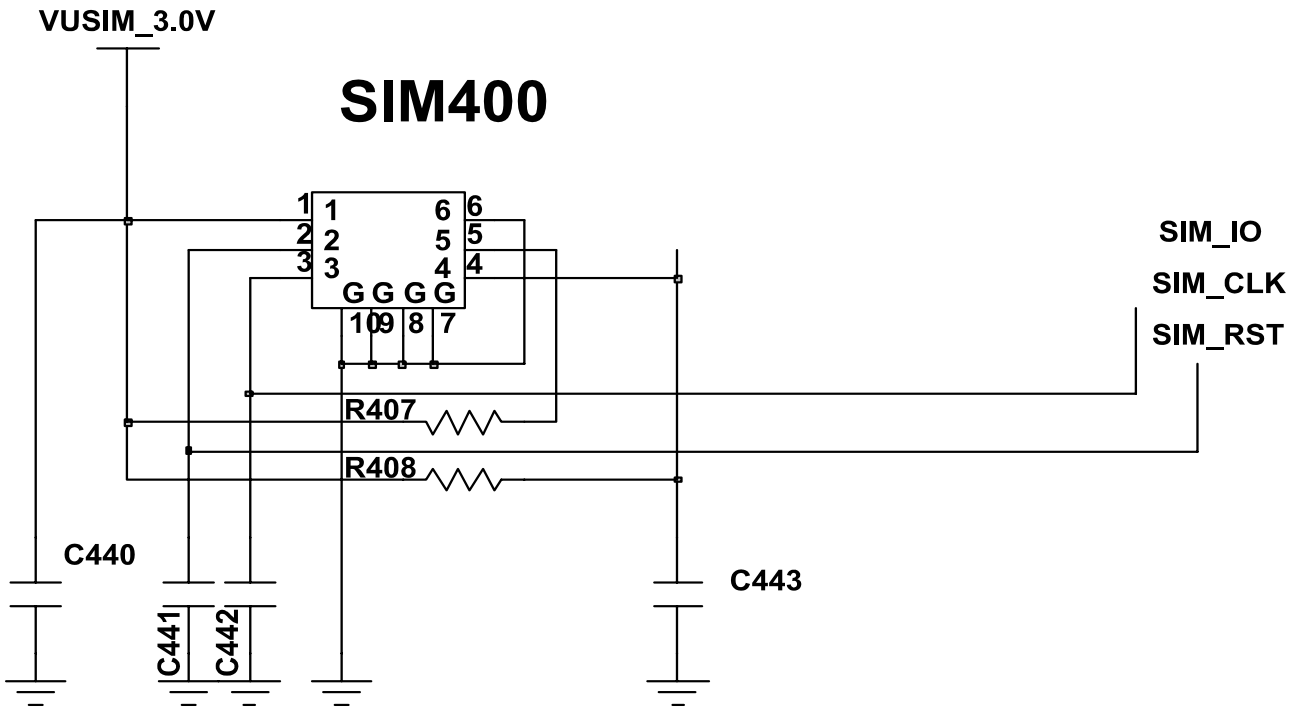
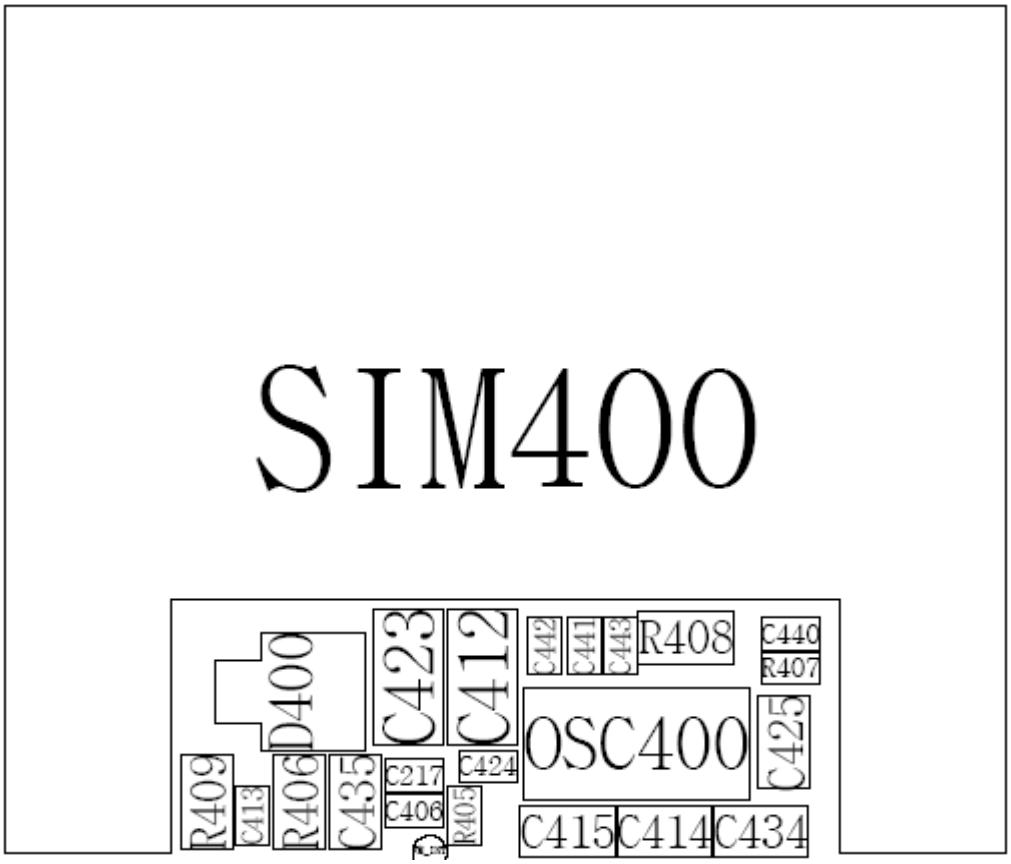


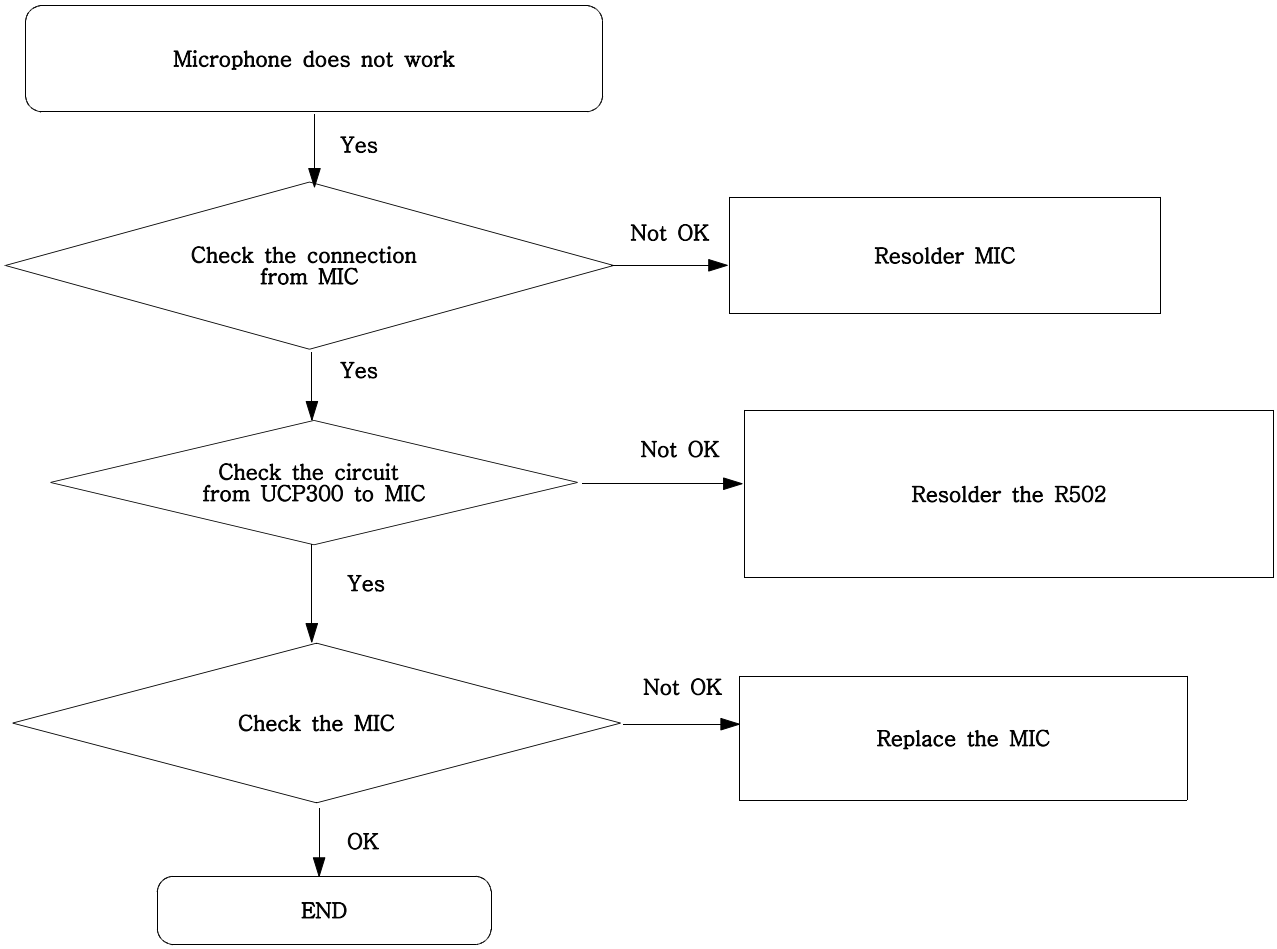
9-4. SIM Part

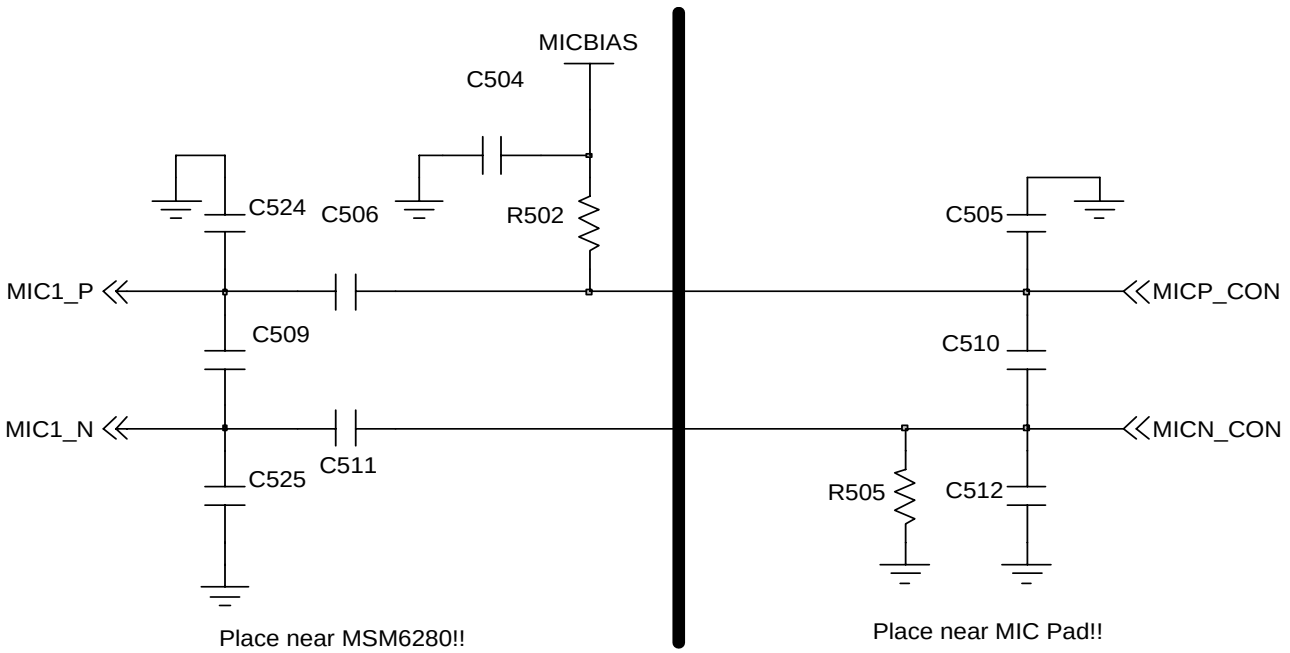


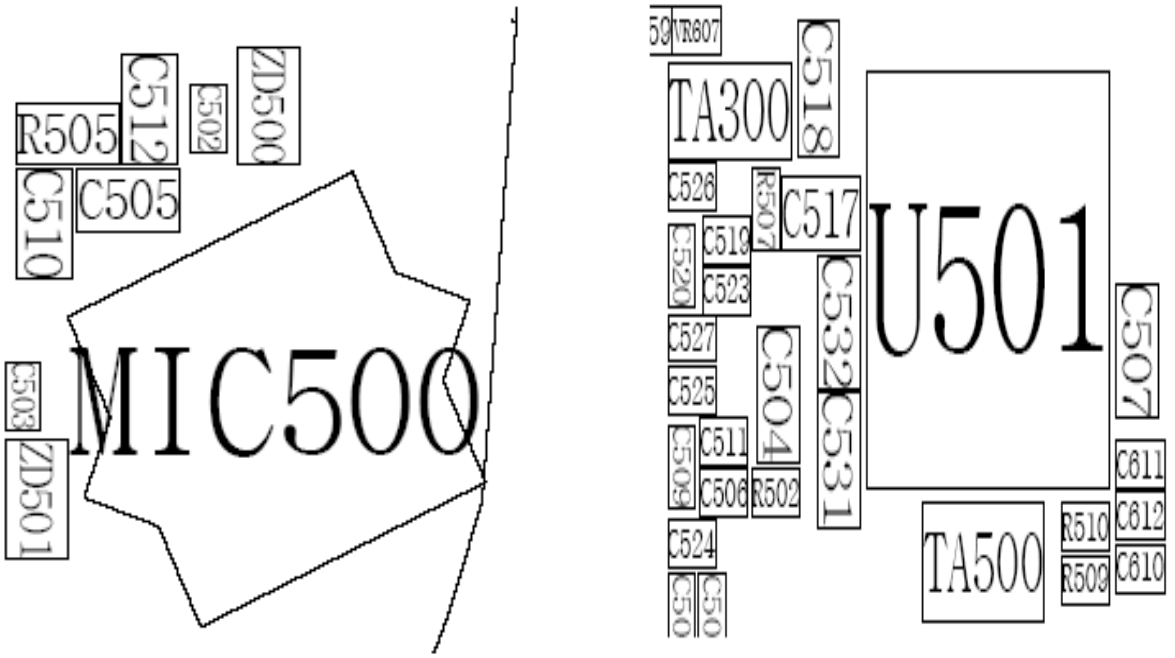




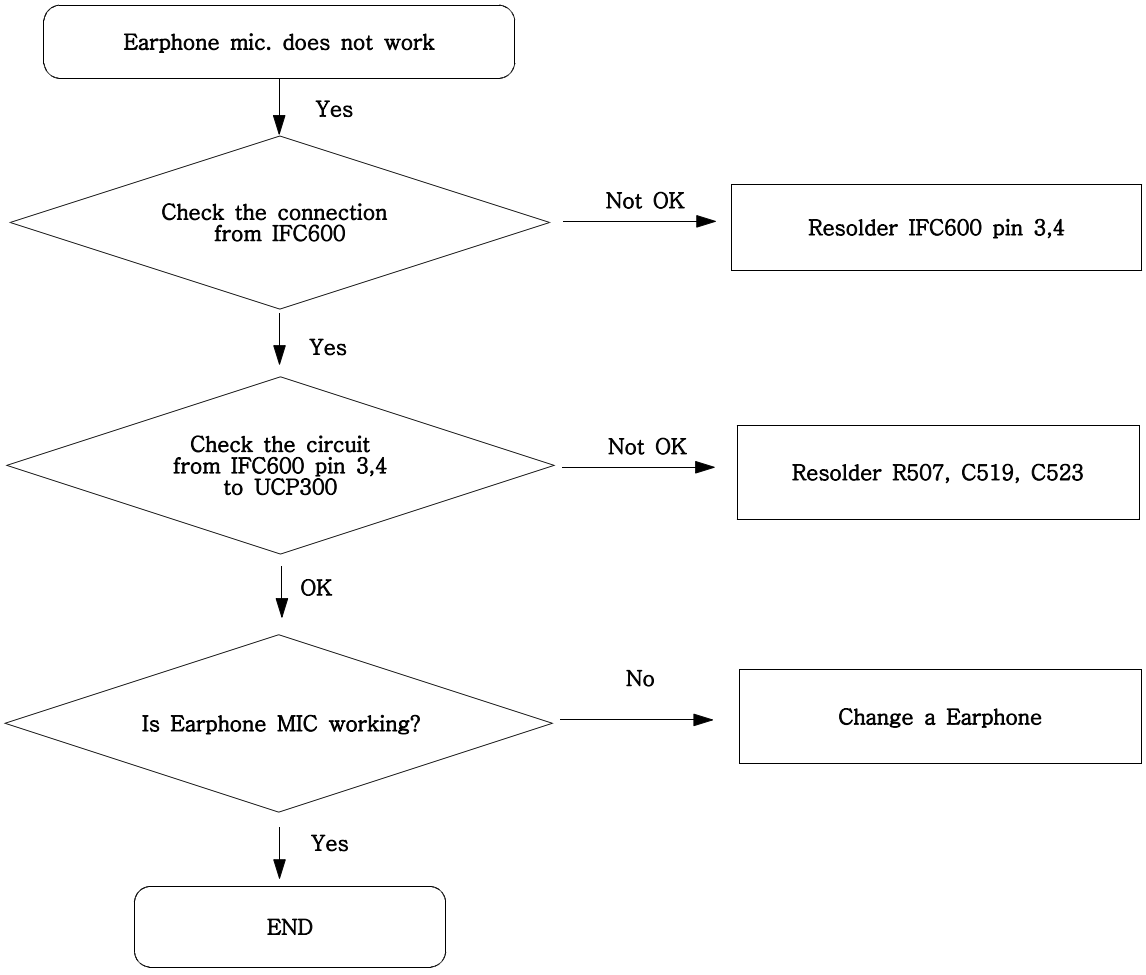
9-5. Microphone Part - Phone MIC

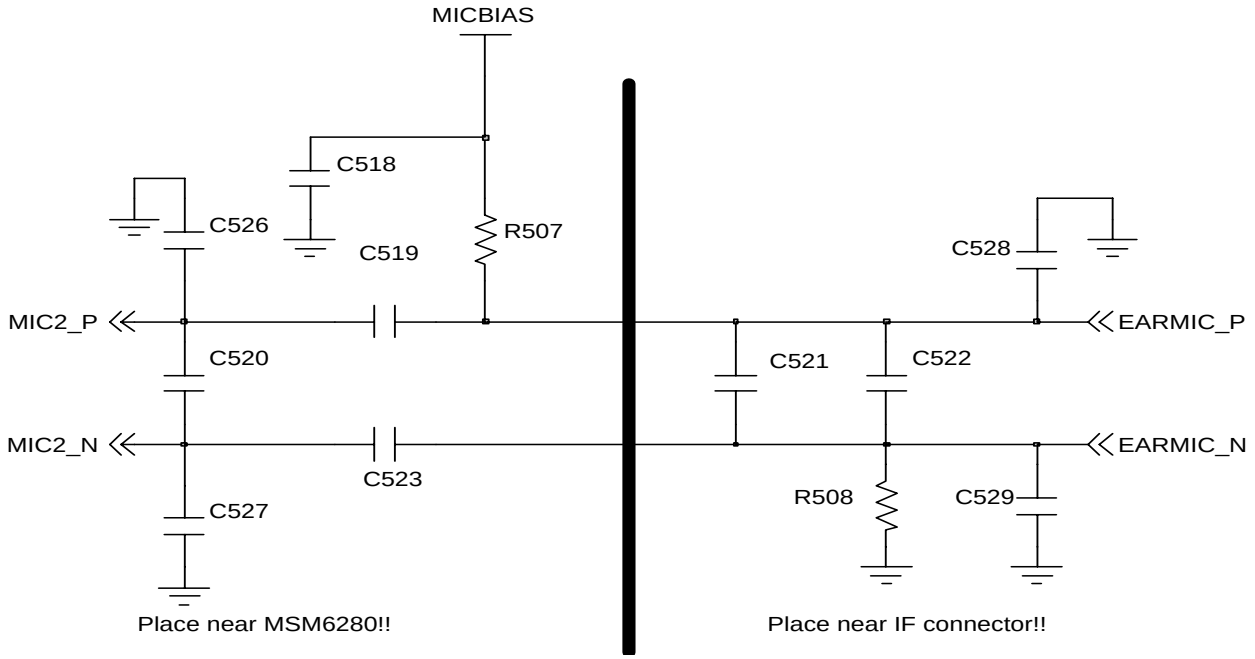


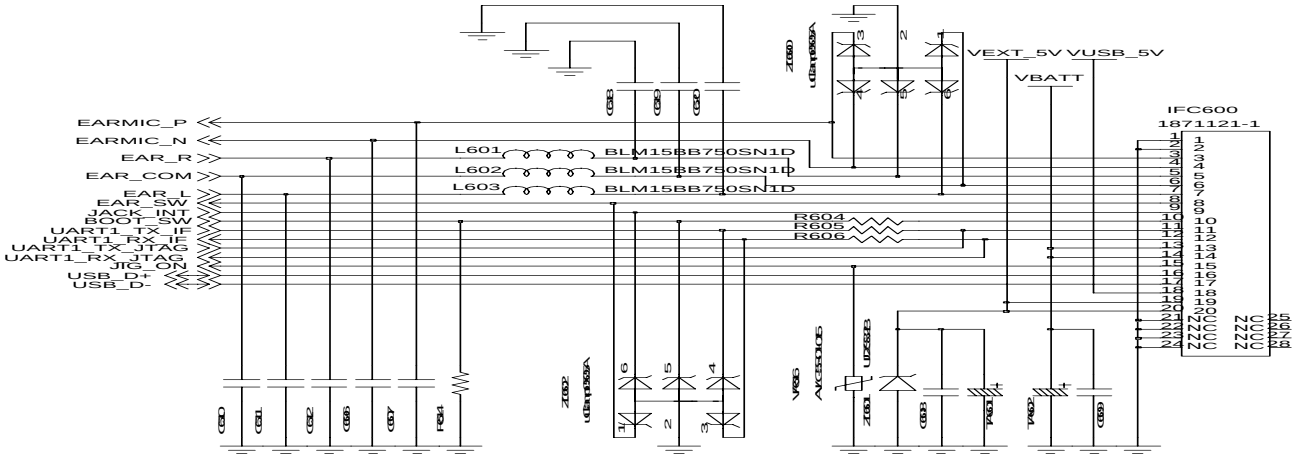




9-6 Microphone Part - Earphone MIC







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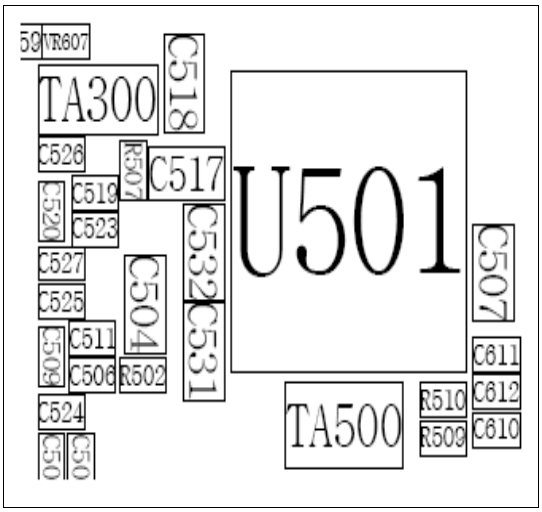
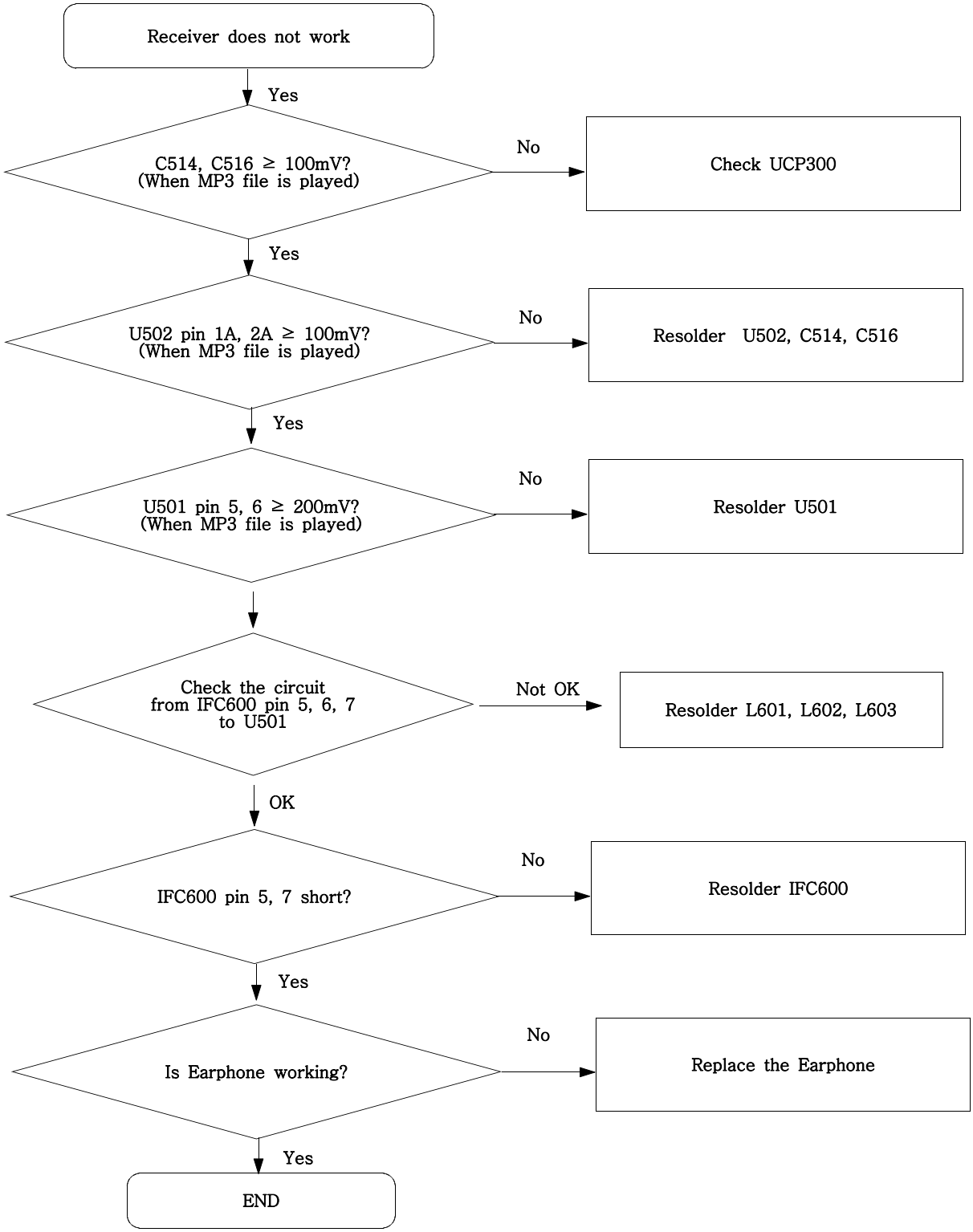
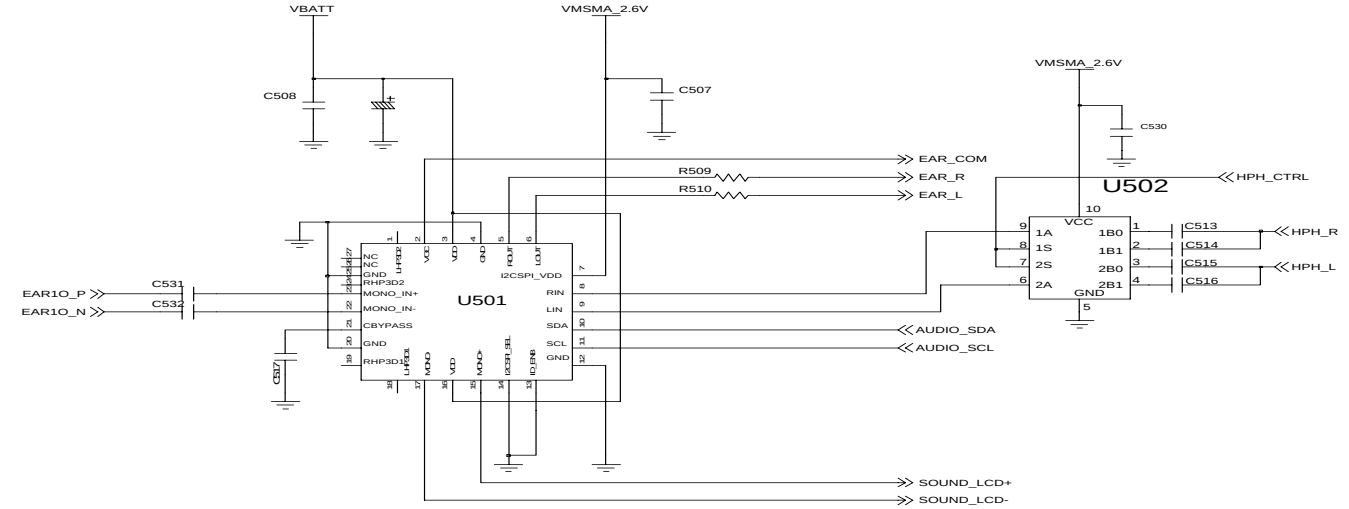
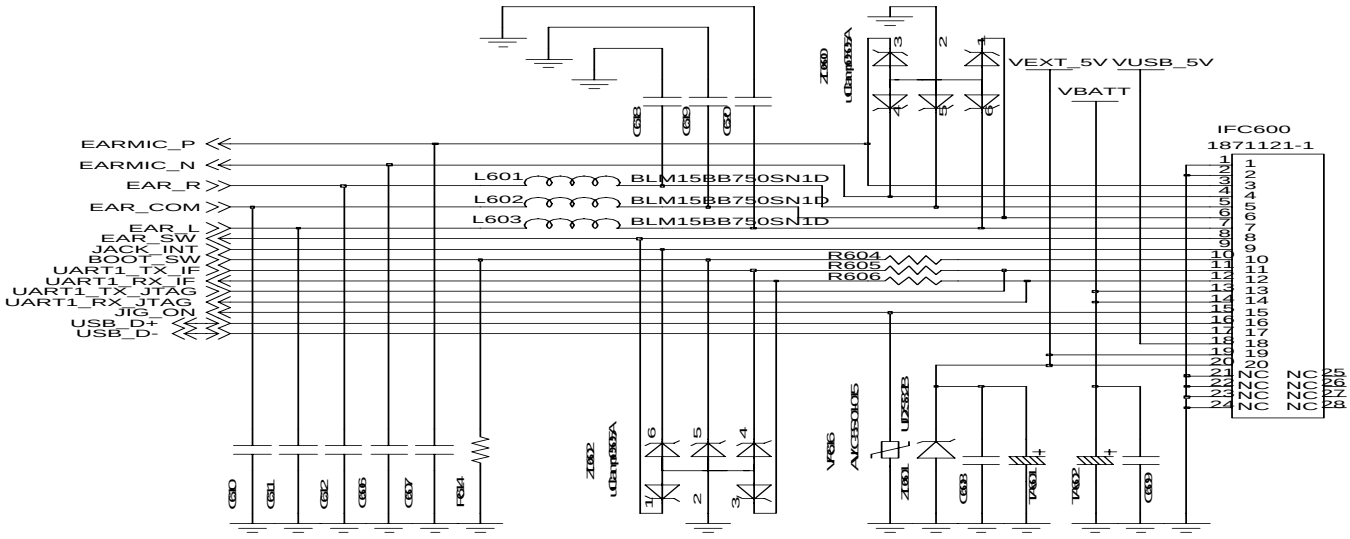


9-7. Earphone Part







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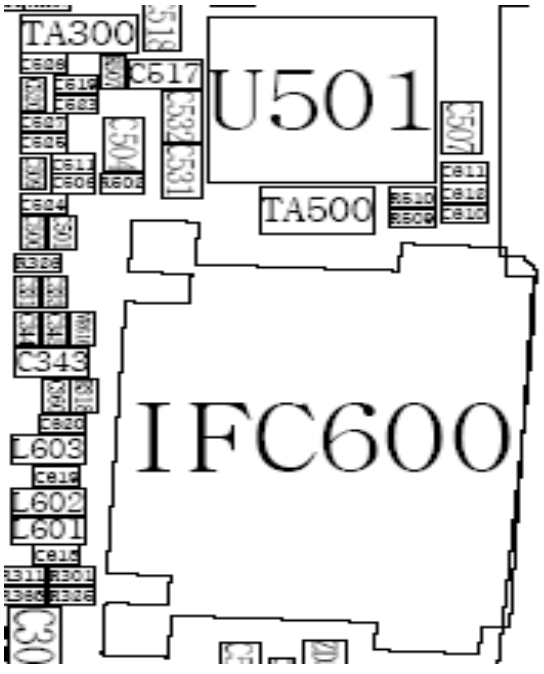
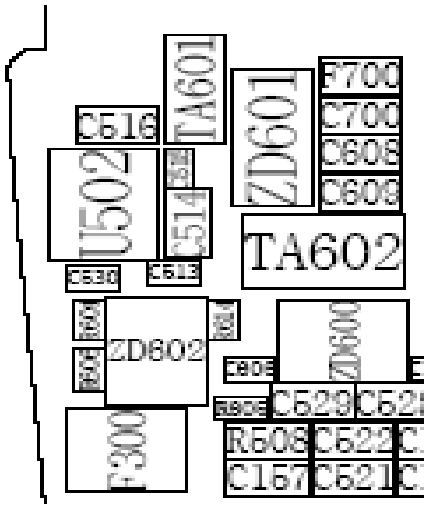
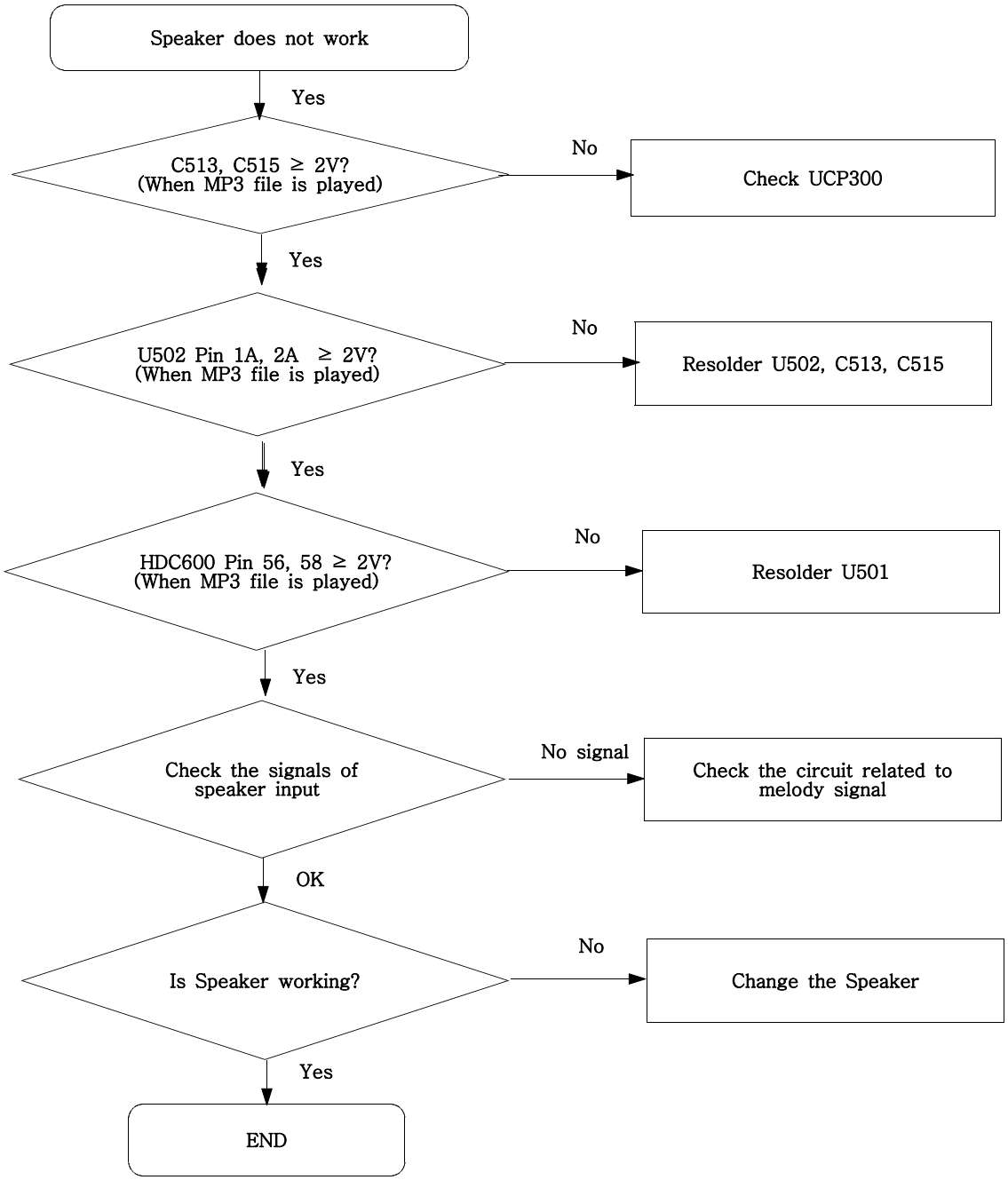
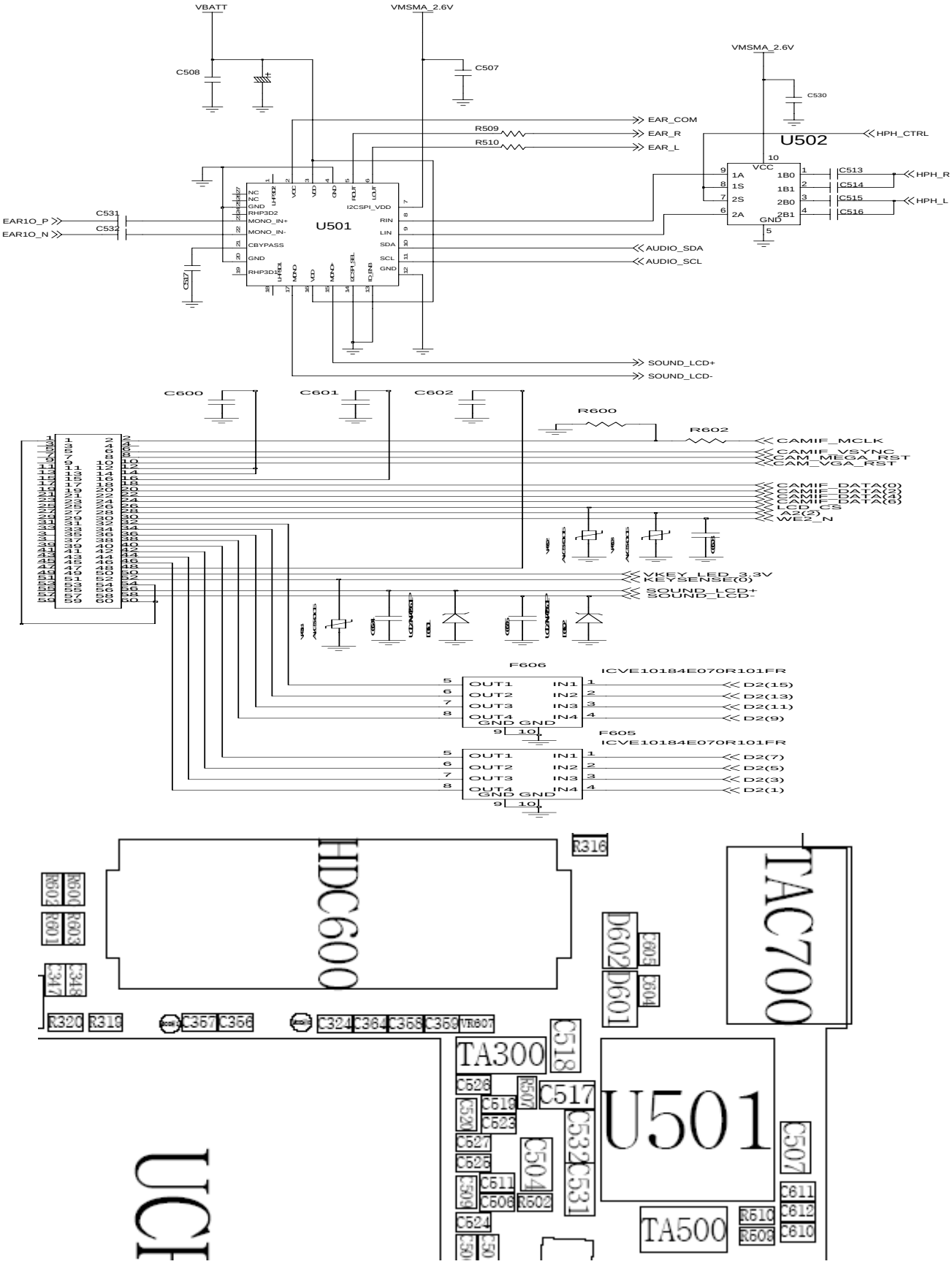


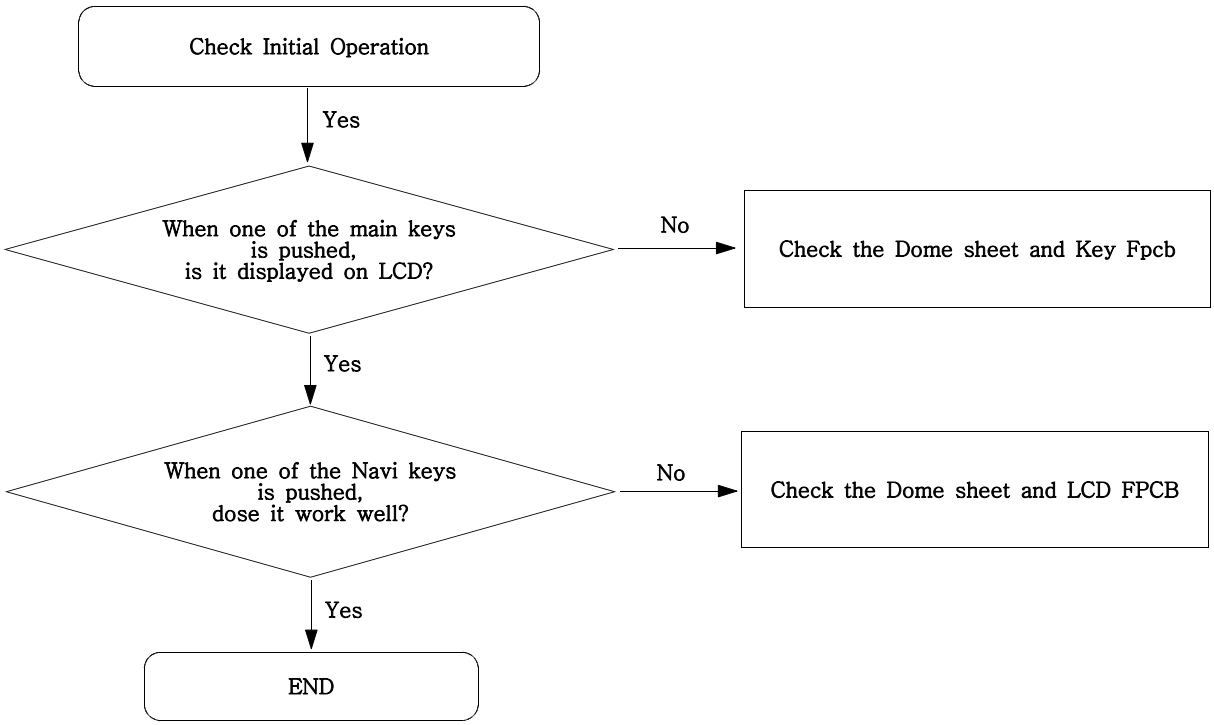


9-8. Speaker Part

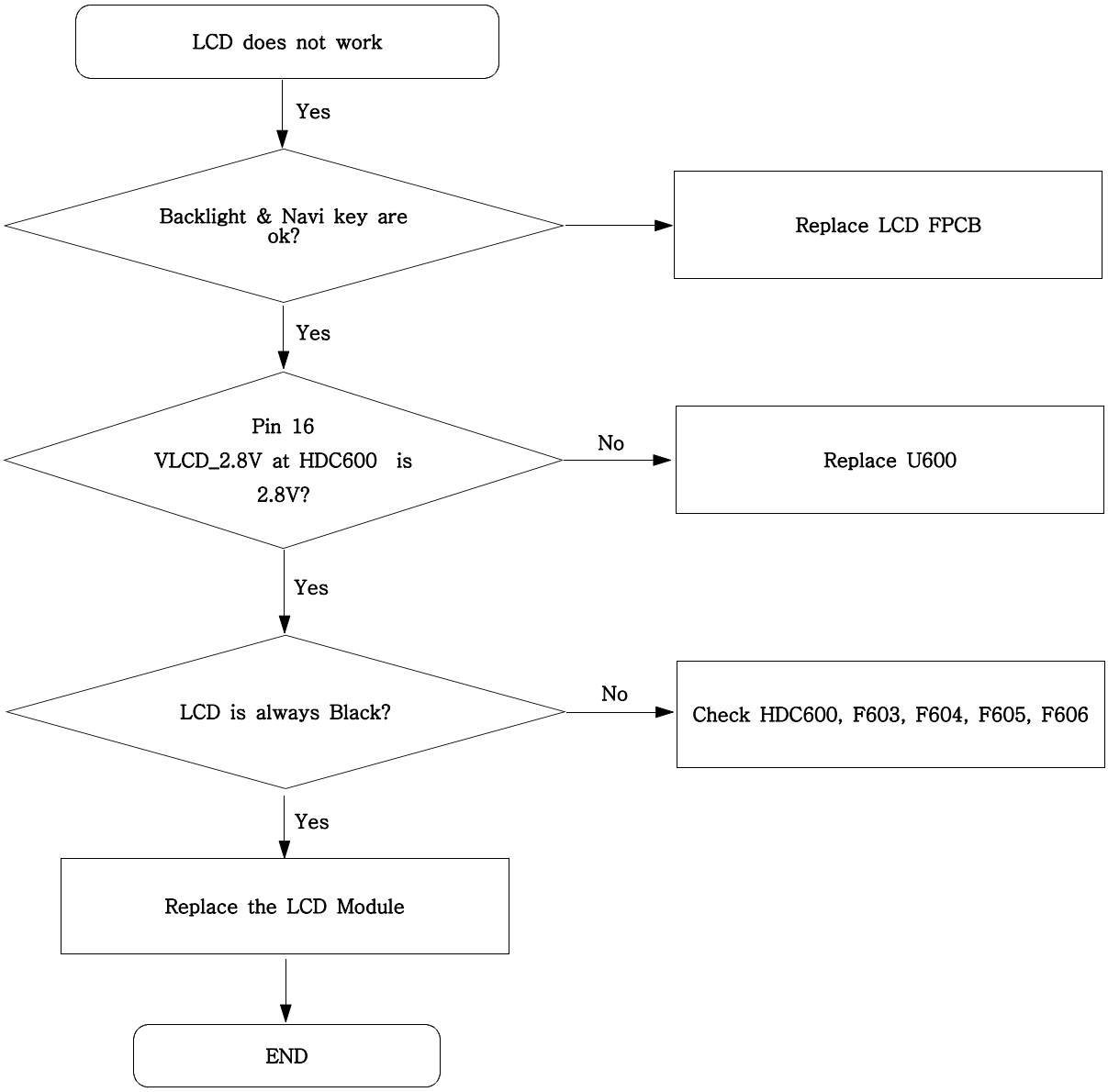


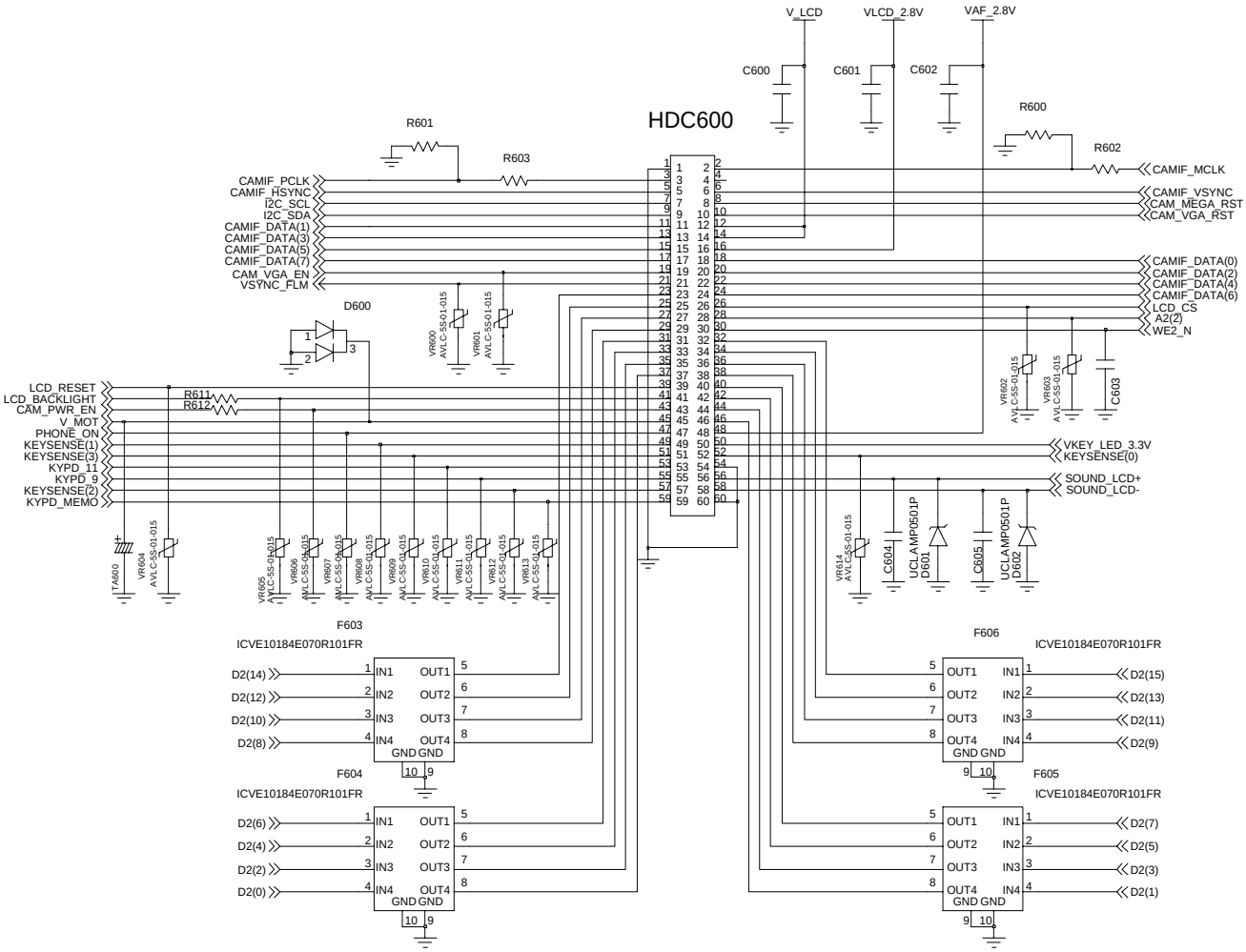


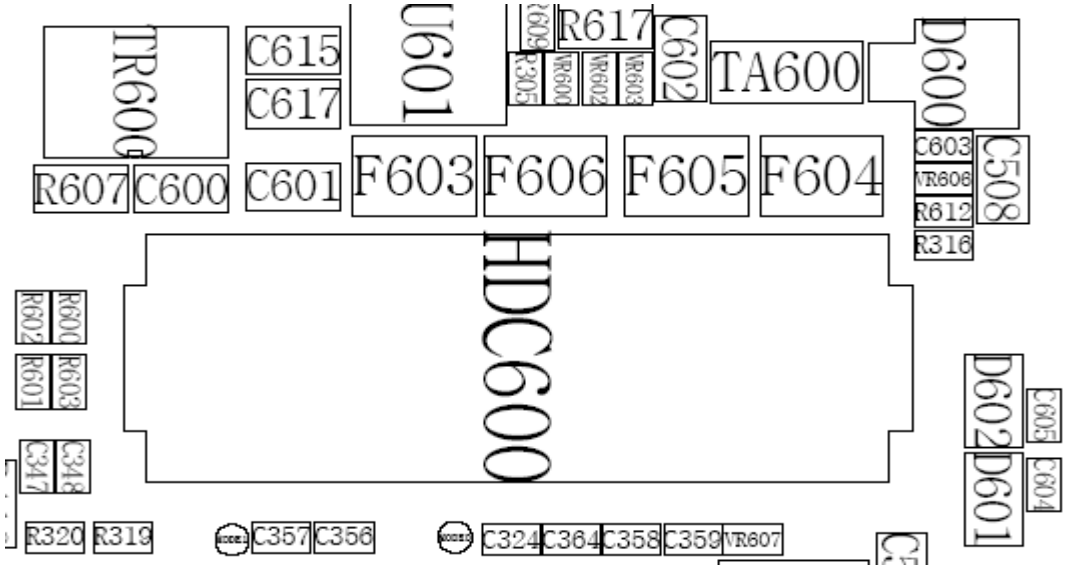
9-9. Key Data Input



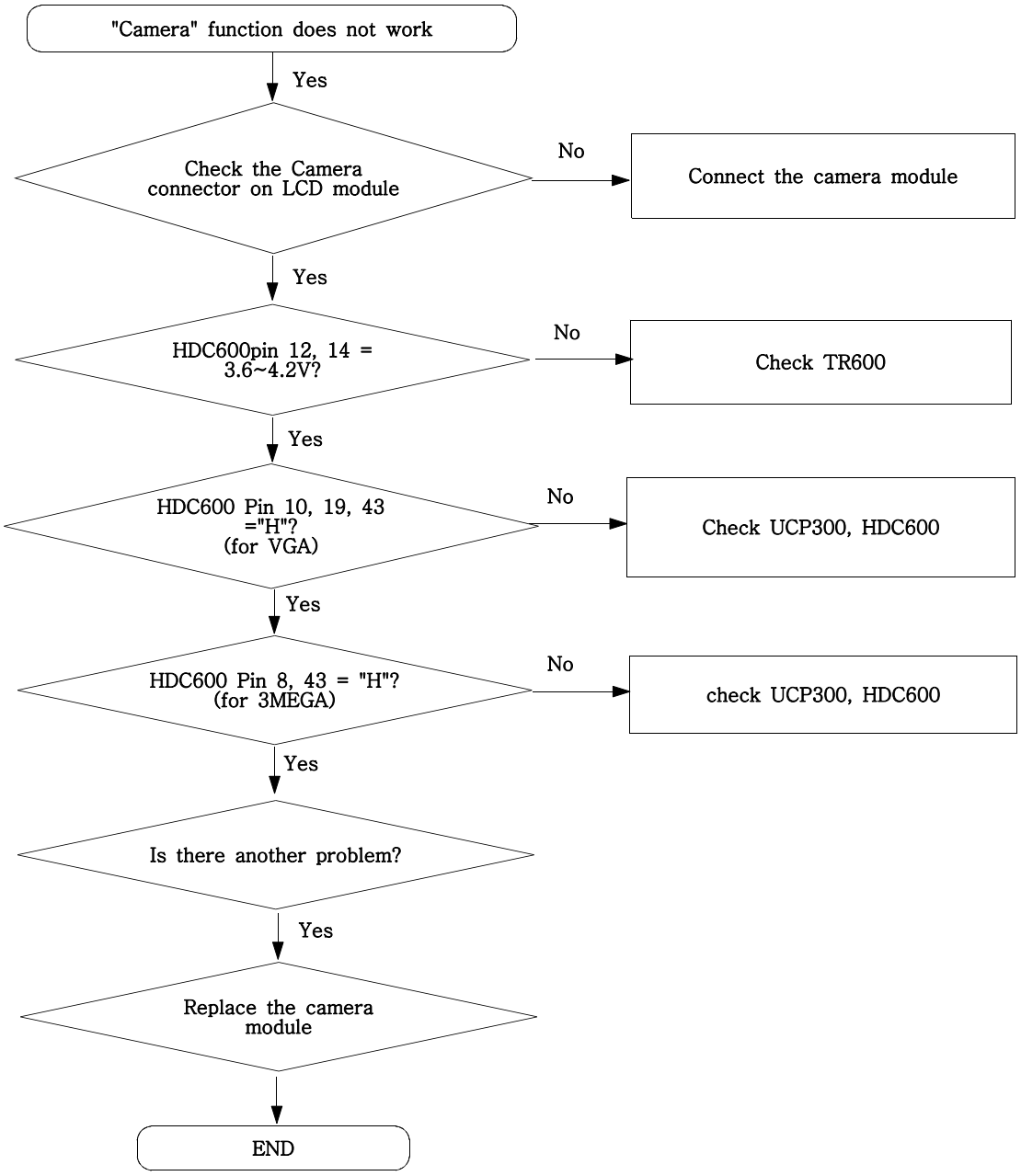
9-10. LCD part

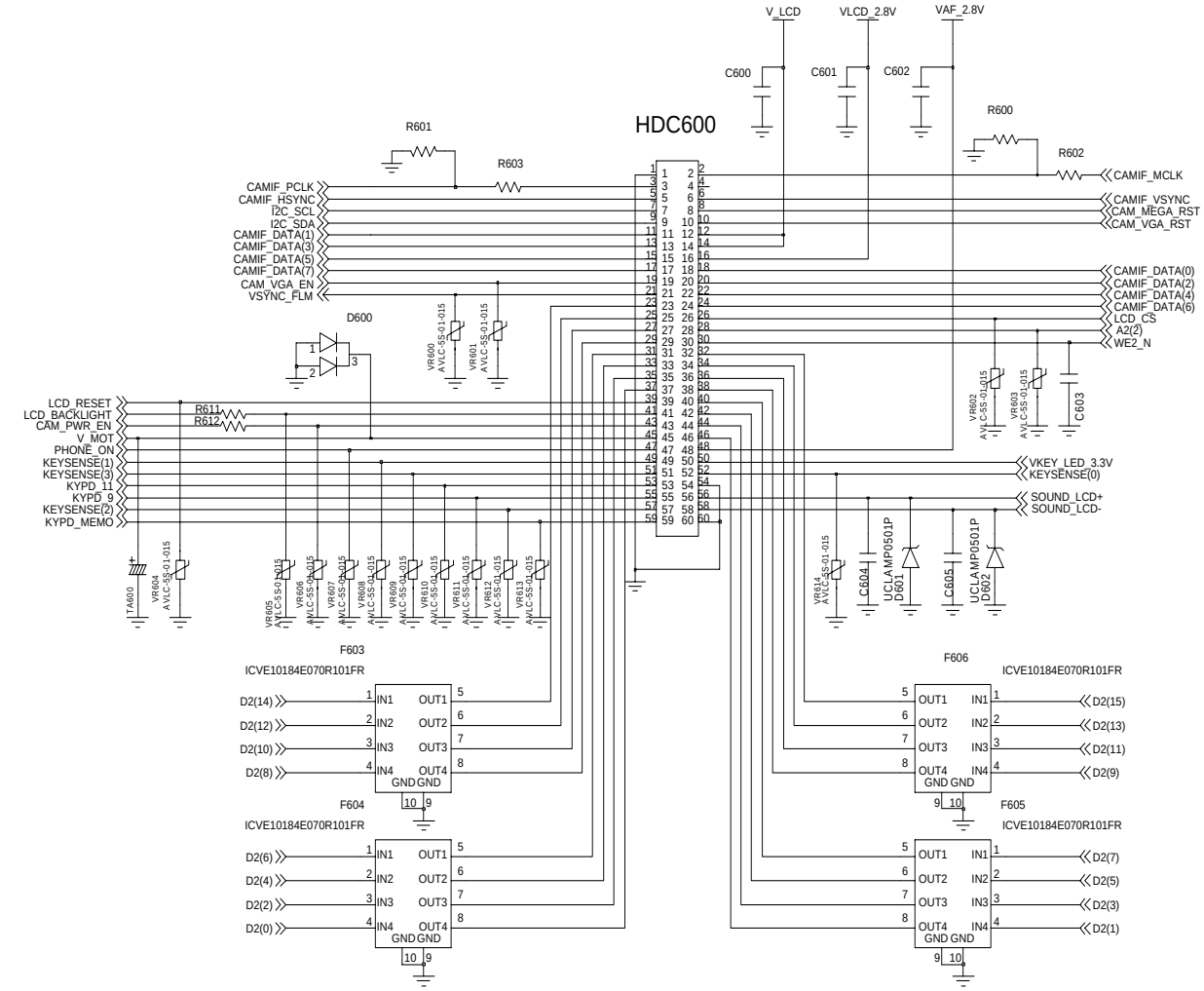


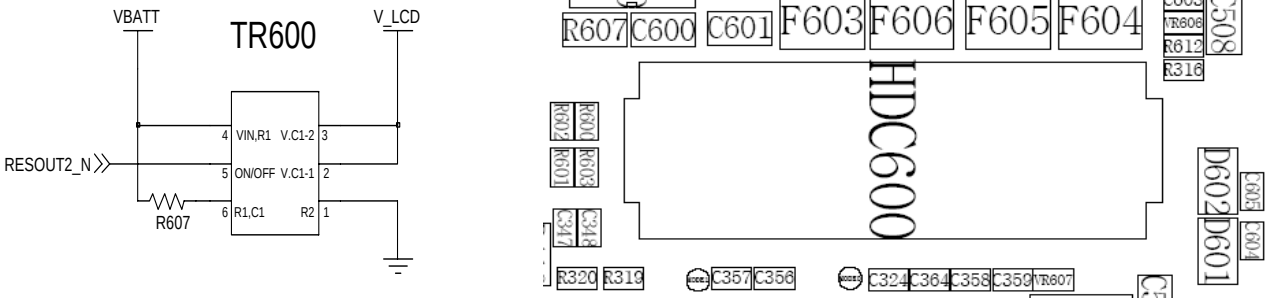




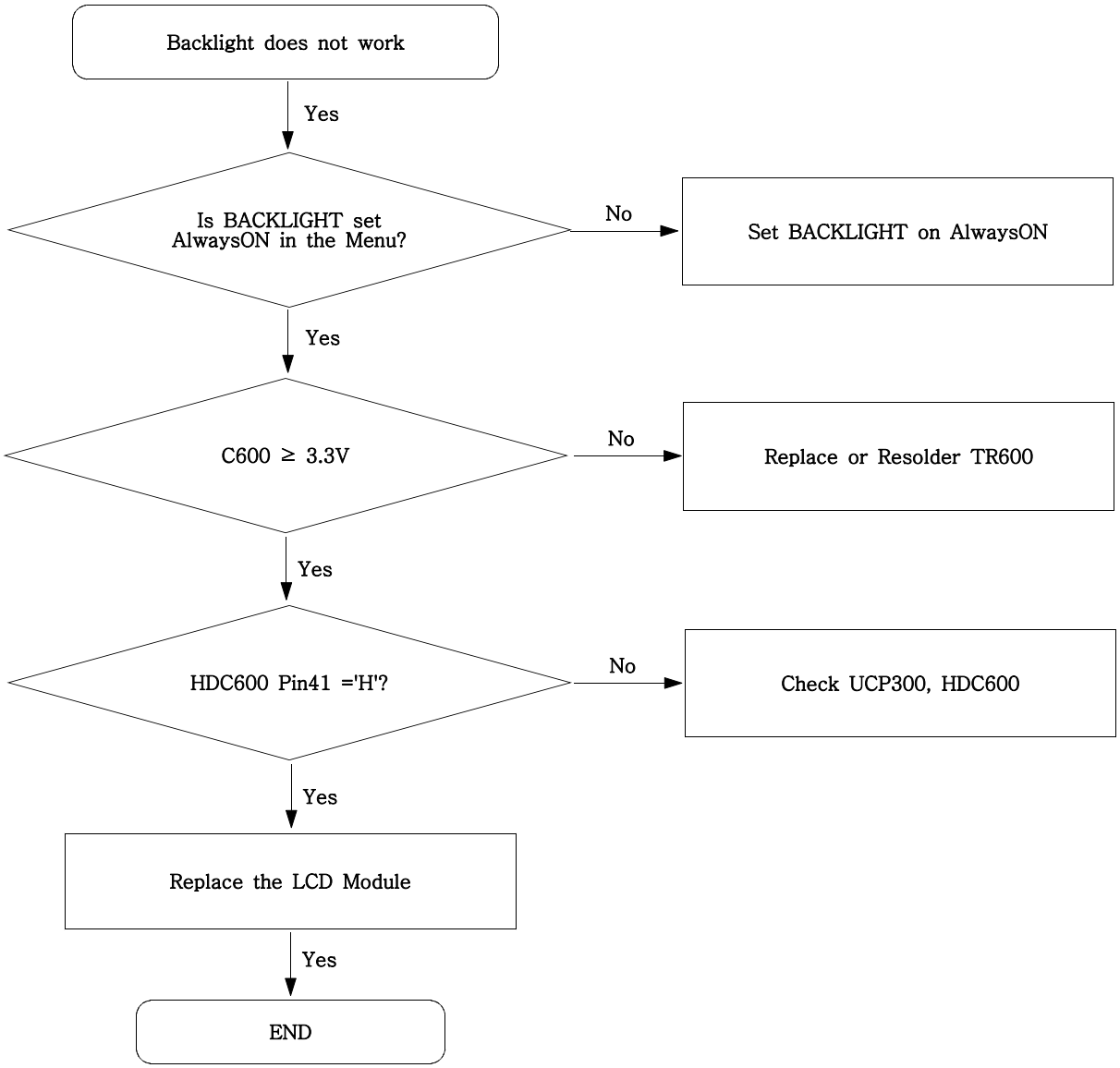
9-11. Camera part

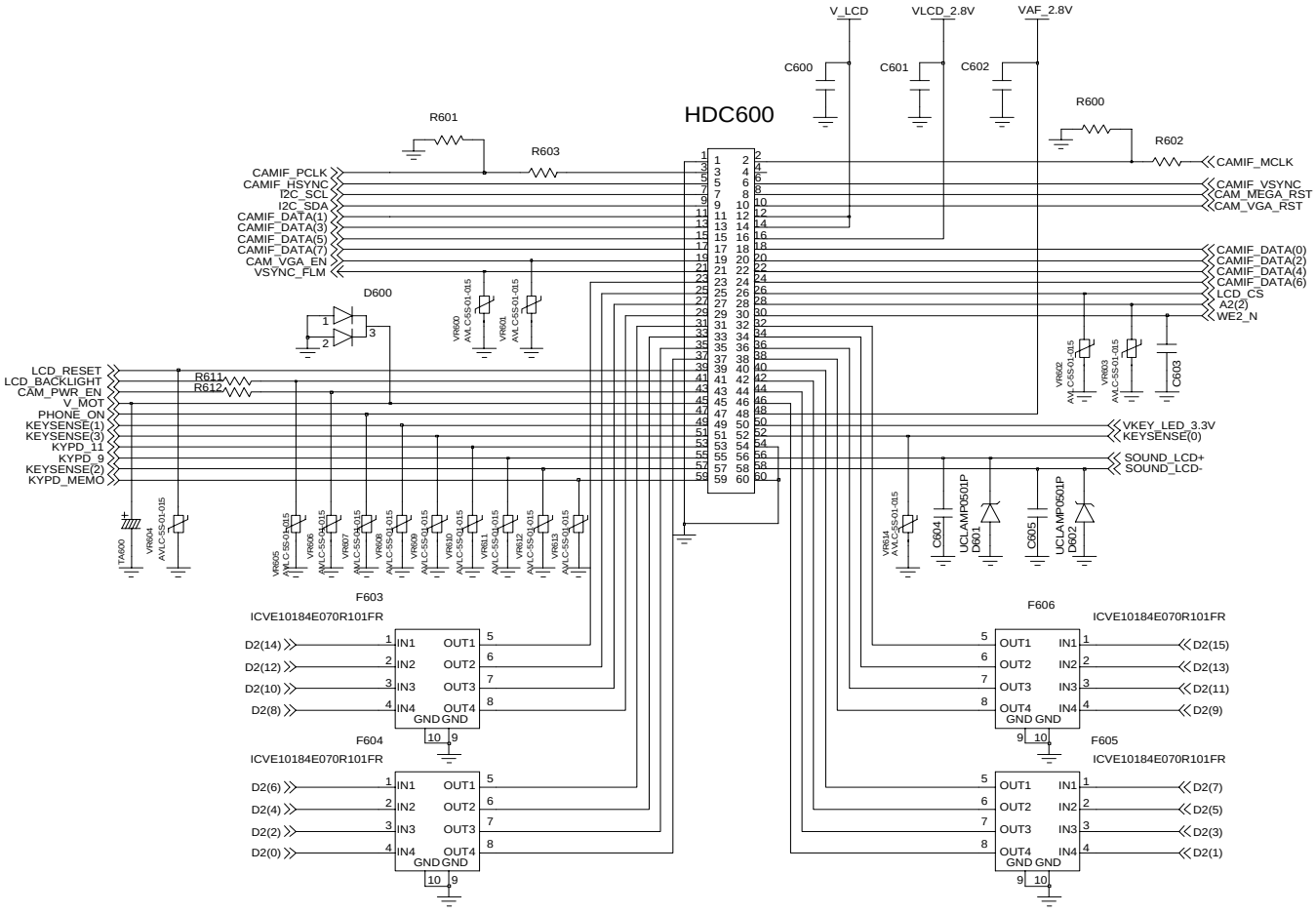


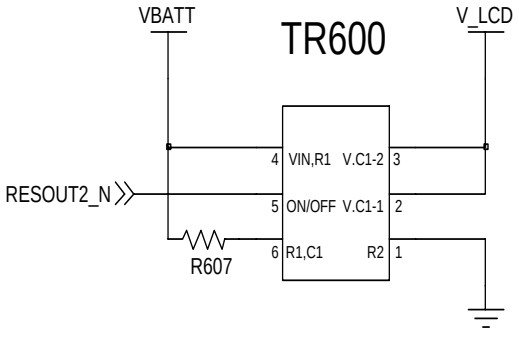


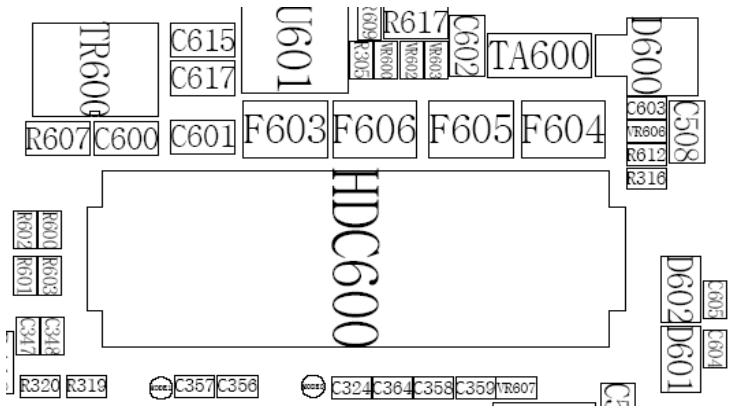


9-12. LCD Back Light

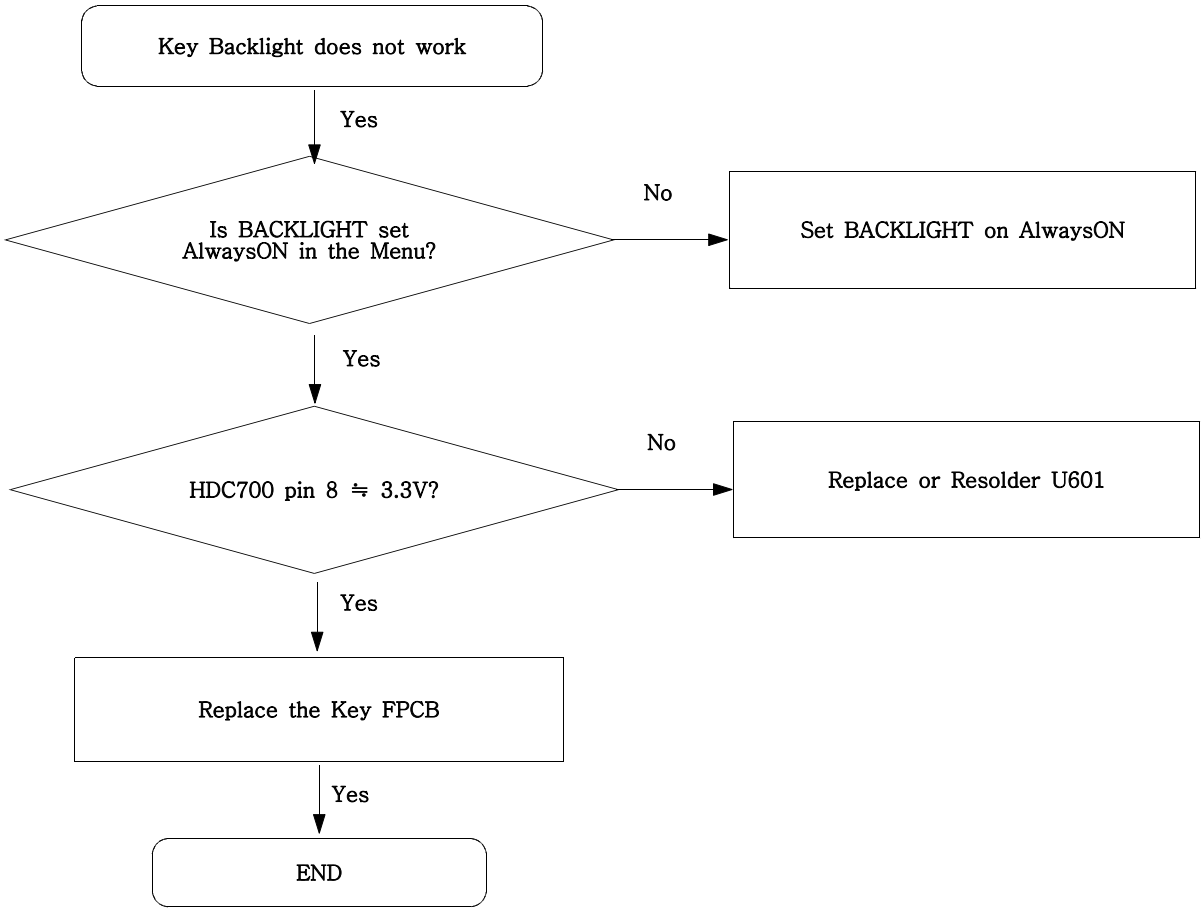








9-13. Key Back Light



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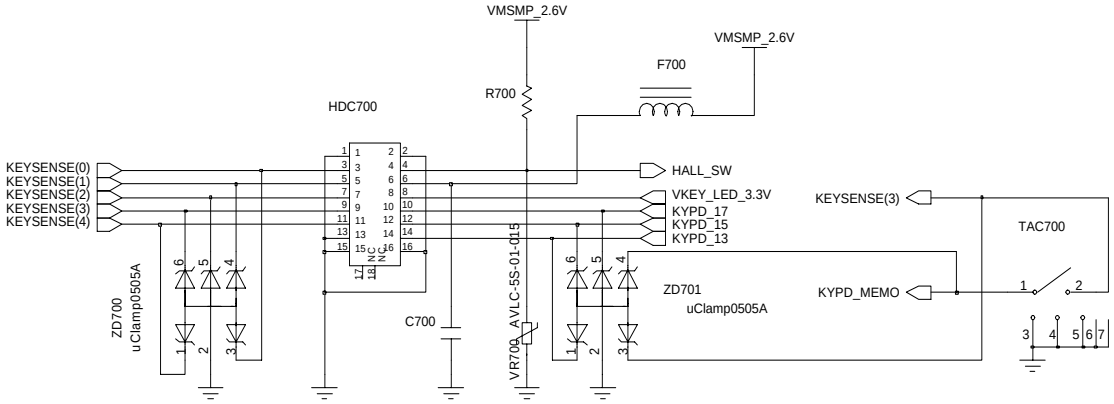

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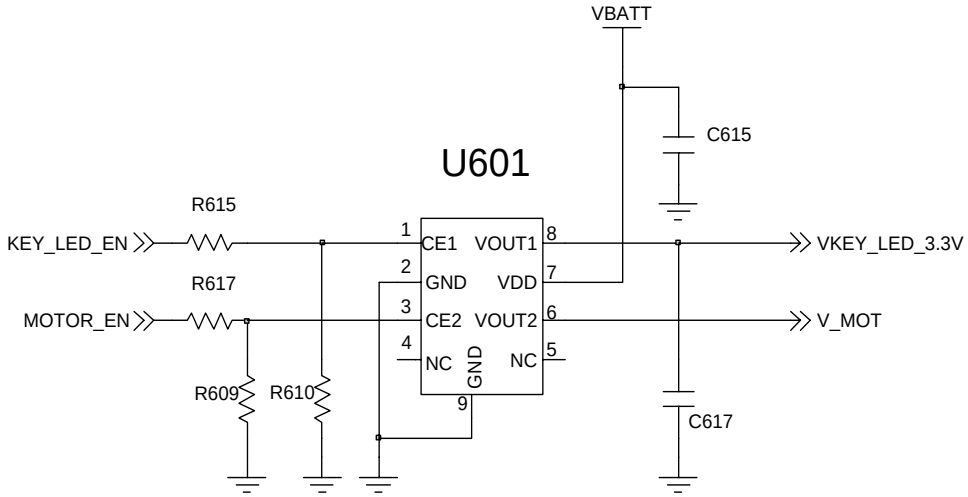
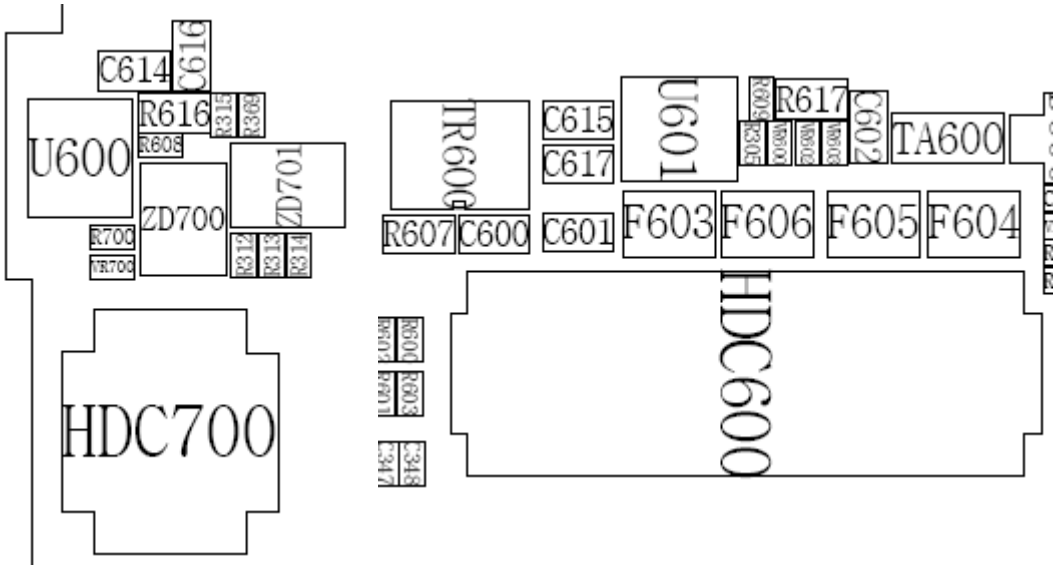
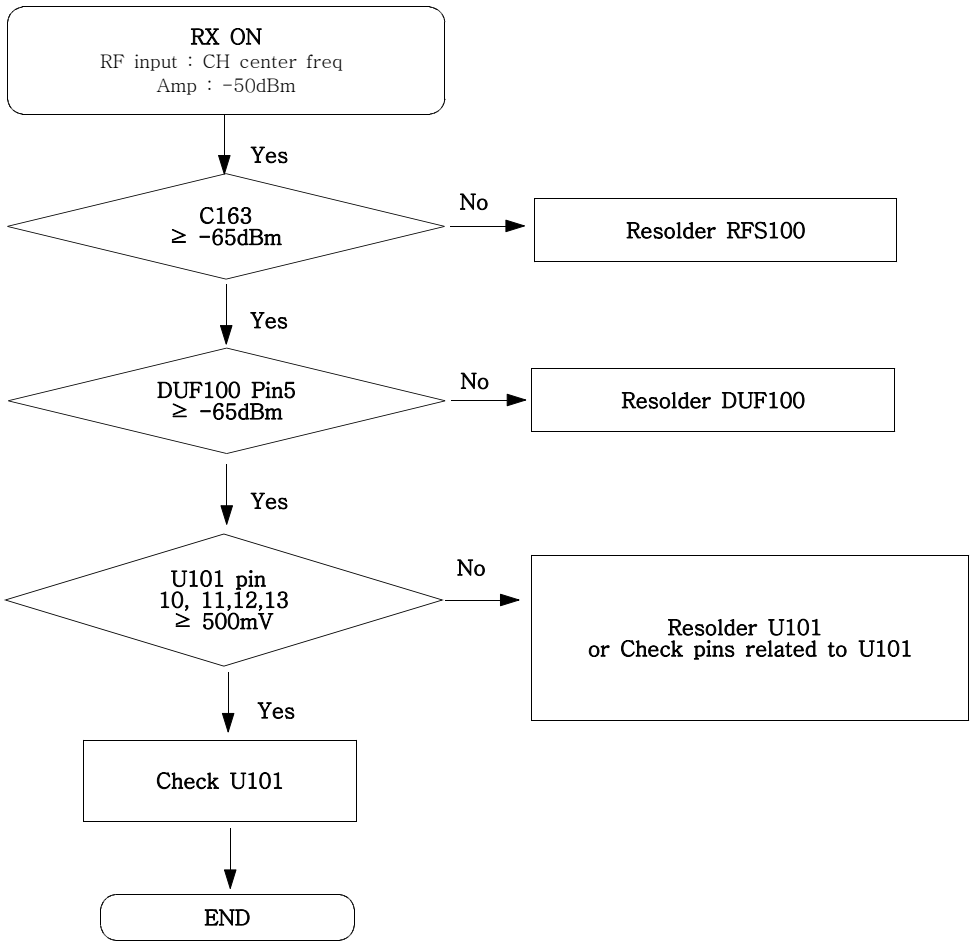
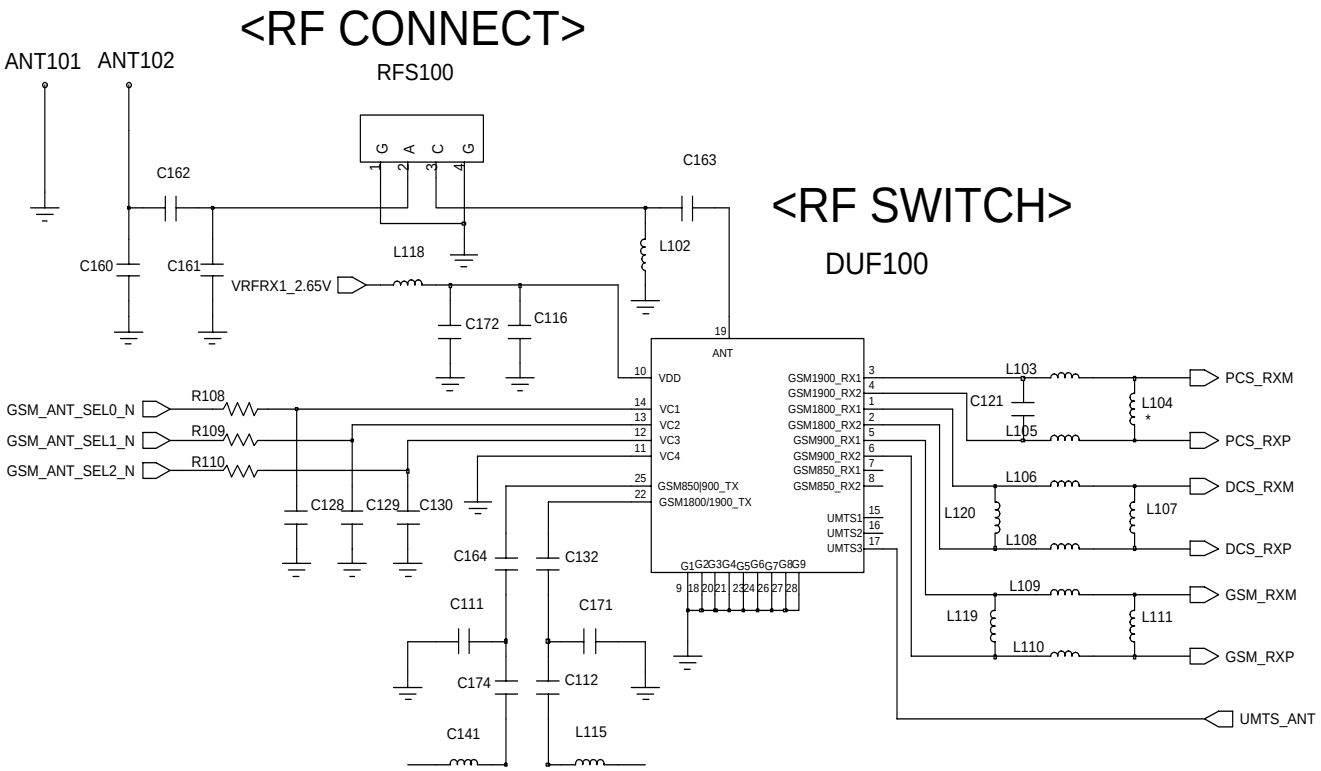
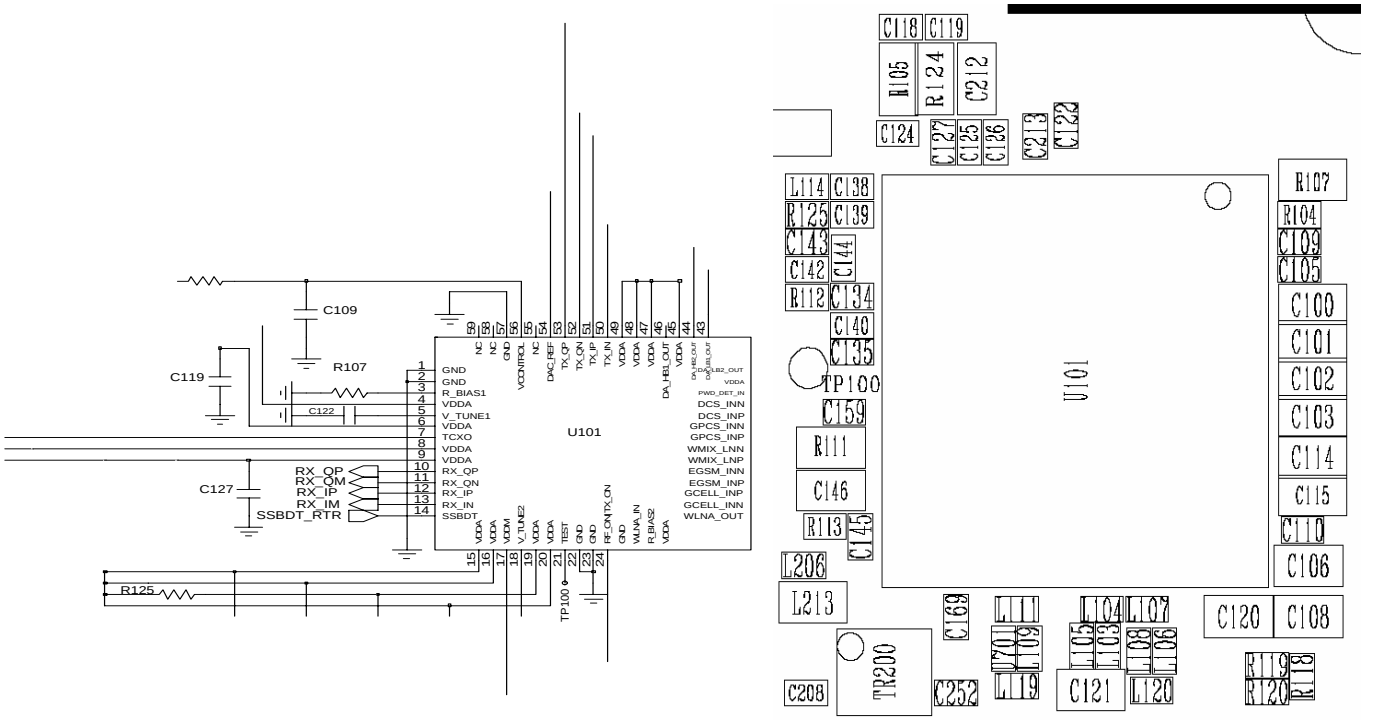




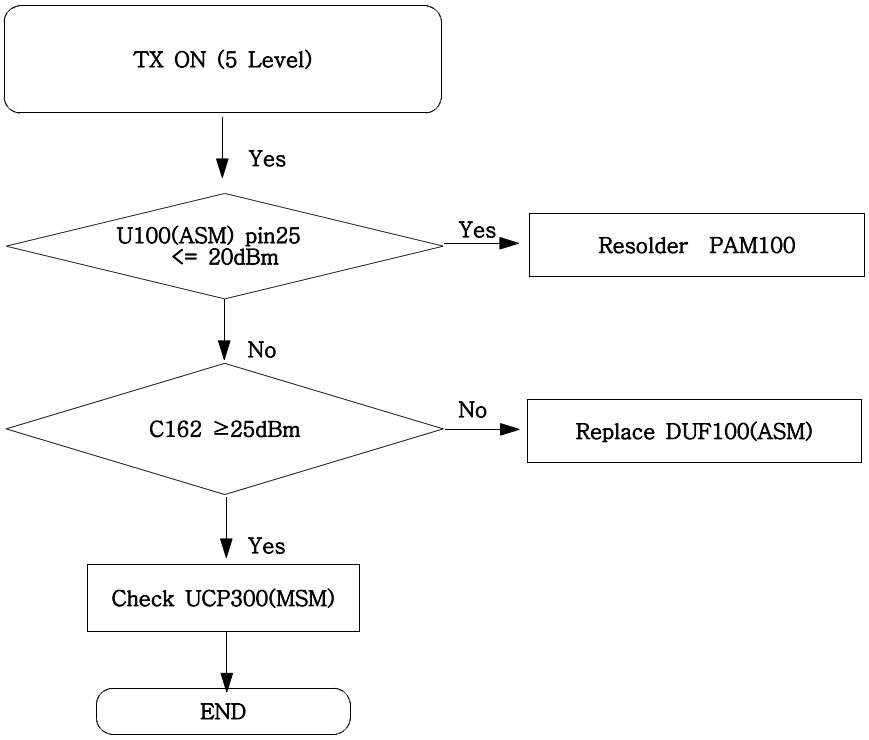
9-14. GSM Receiver

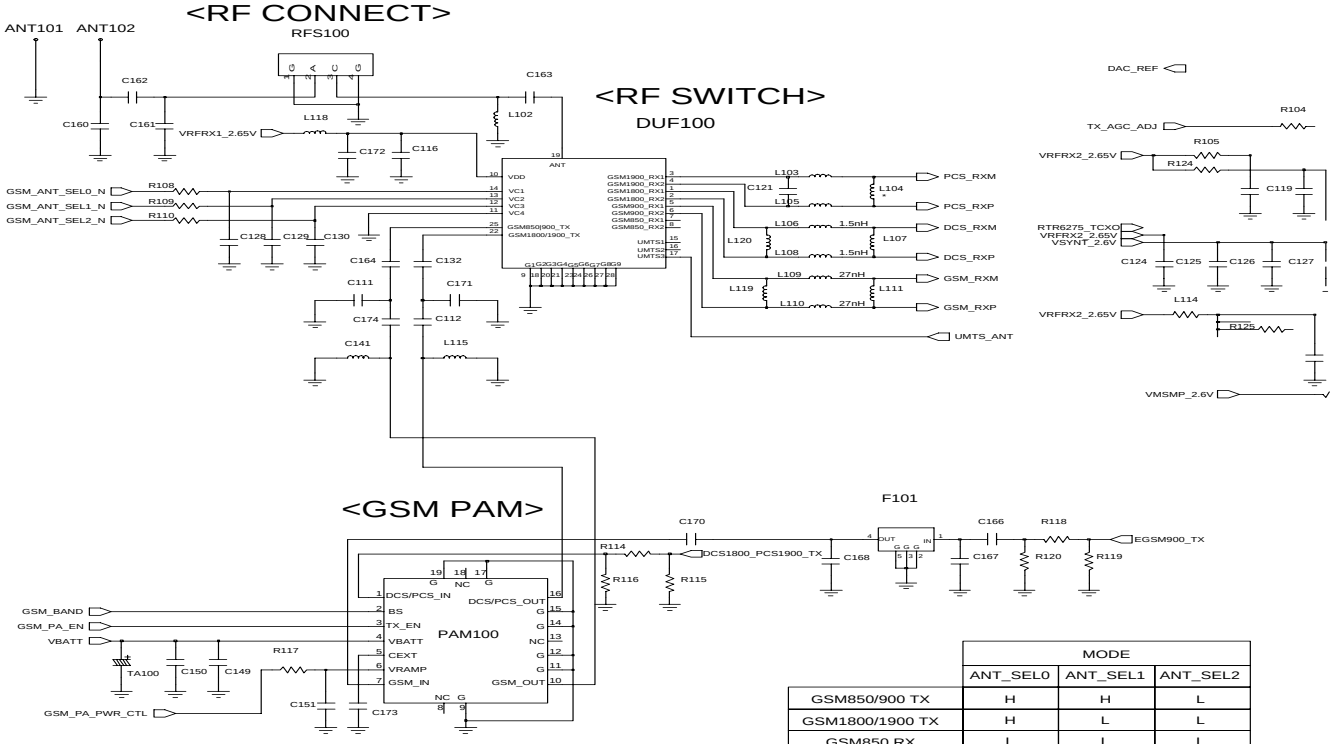




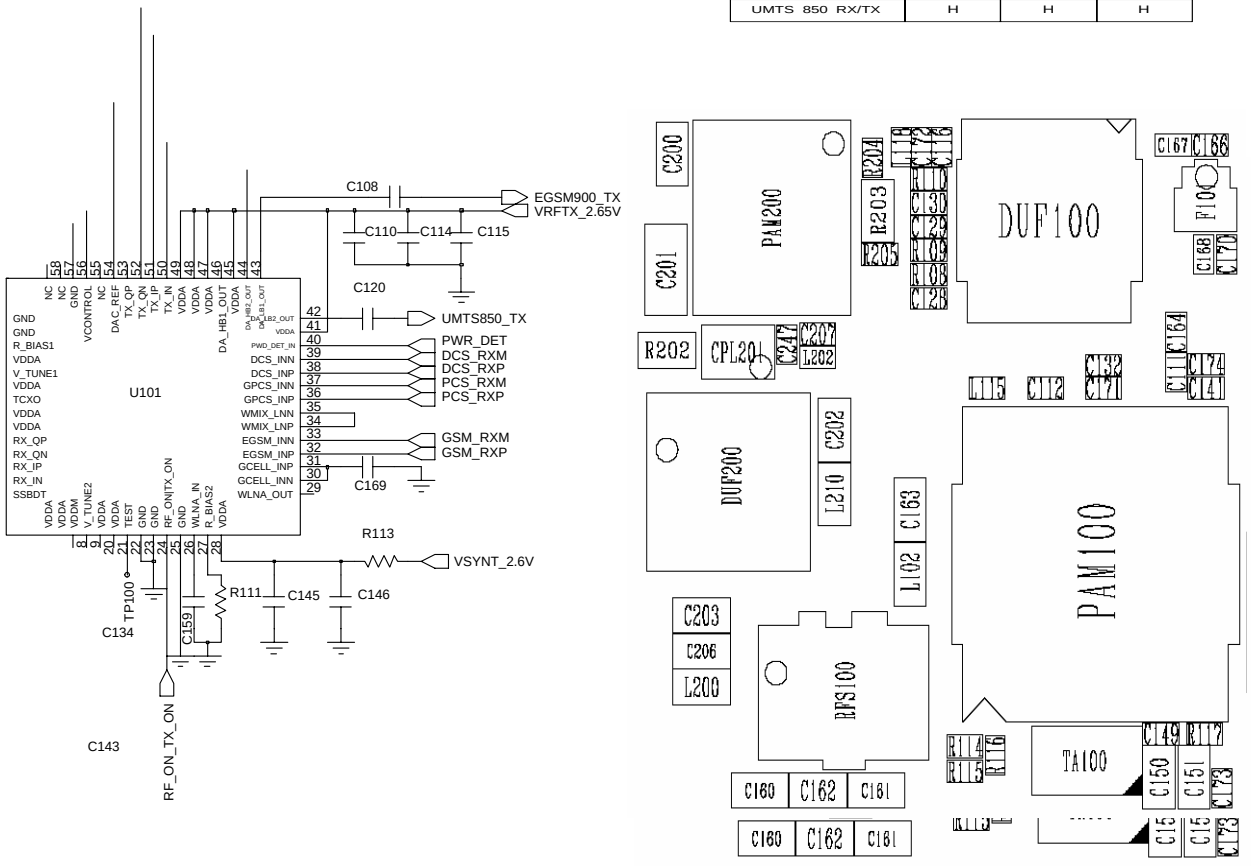


9-15. GSM Transmitter

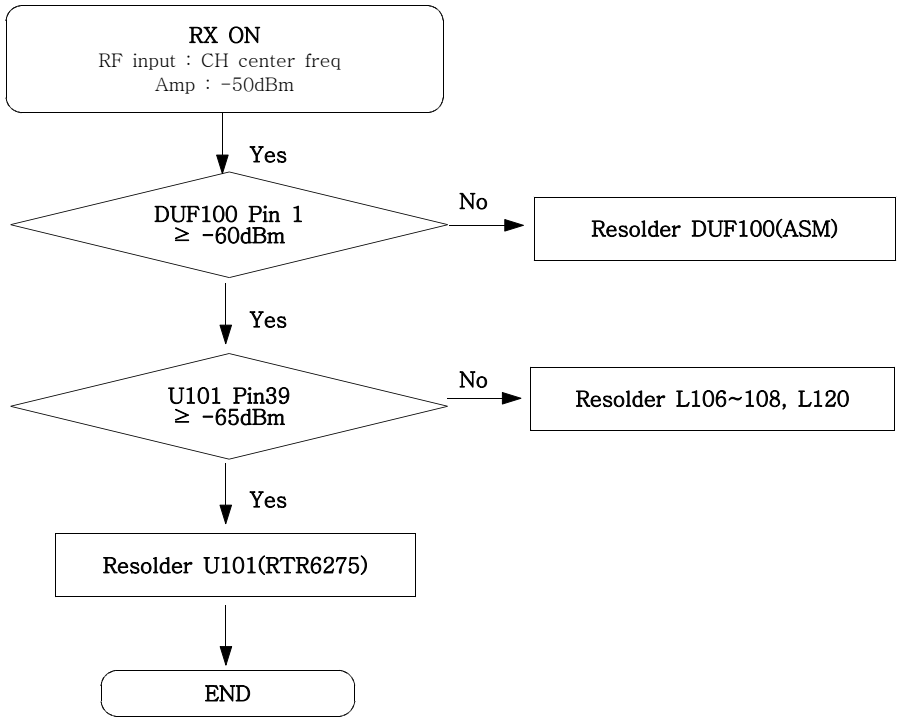


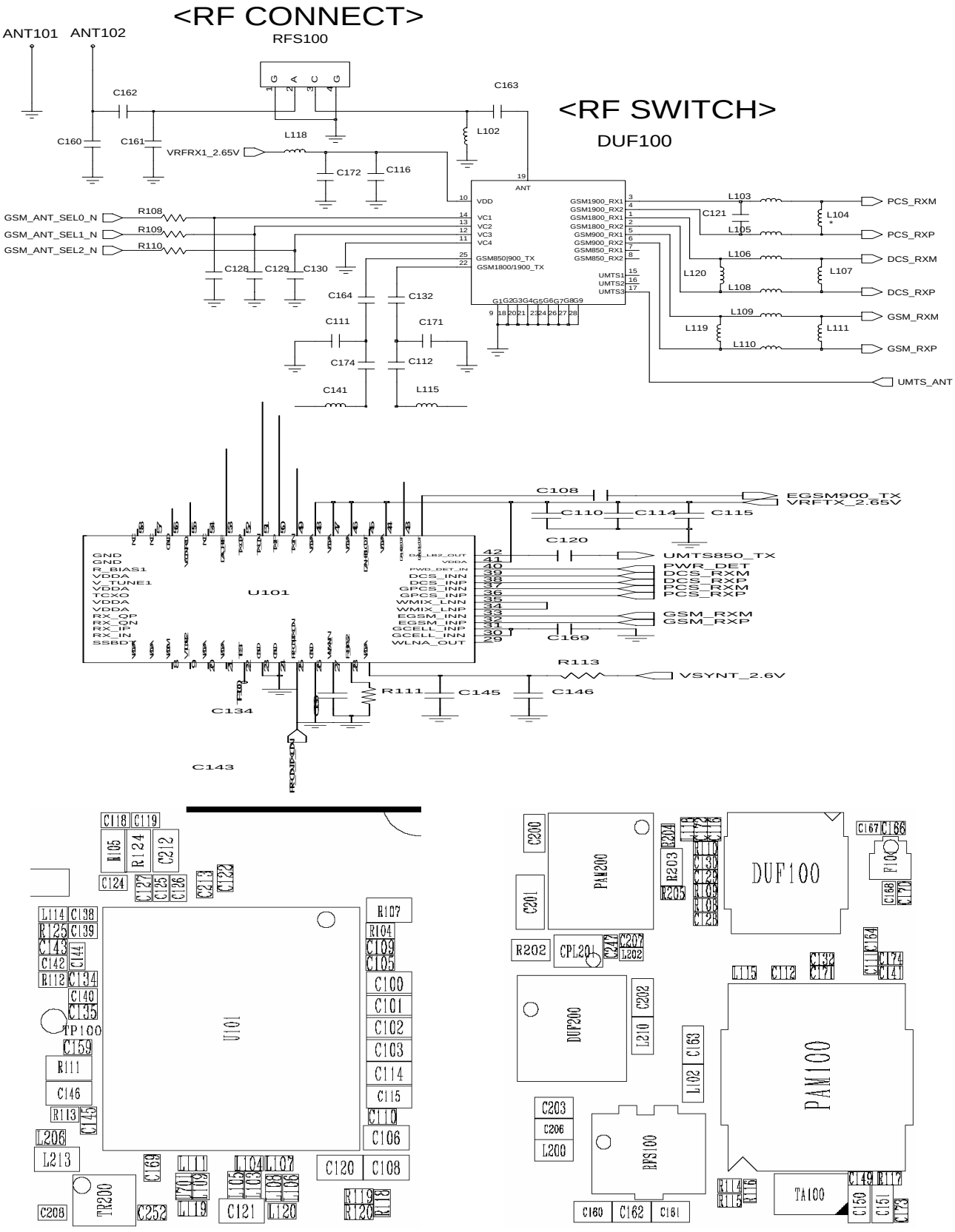


	MODE		
	ANT_SEL0	ANT_SEL1	ANT_SEL2
GSM850/900 TX	H	H	L
GSM1800/1900 TX	H	L	L
GSM850 RX	L	L	L
GSM900 RX	L	L	H
GSM1800 RX	L	H	H
GSM1900 RX	L	H	L
UMTS 850 RX/TX	H	H	H

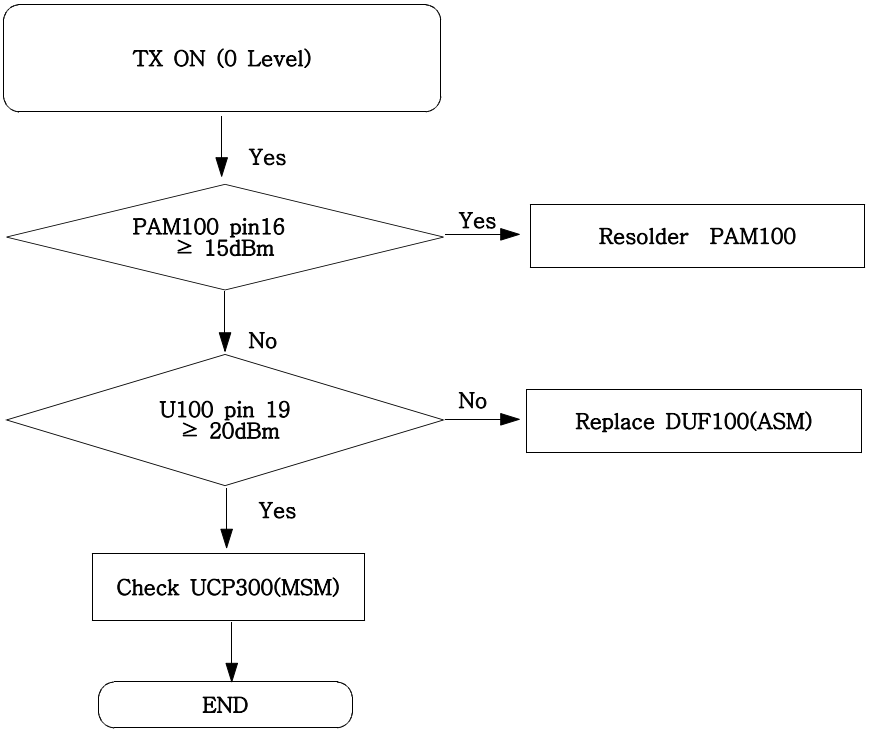


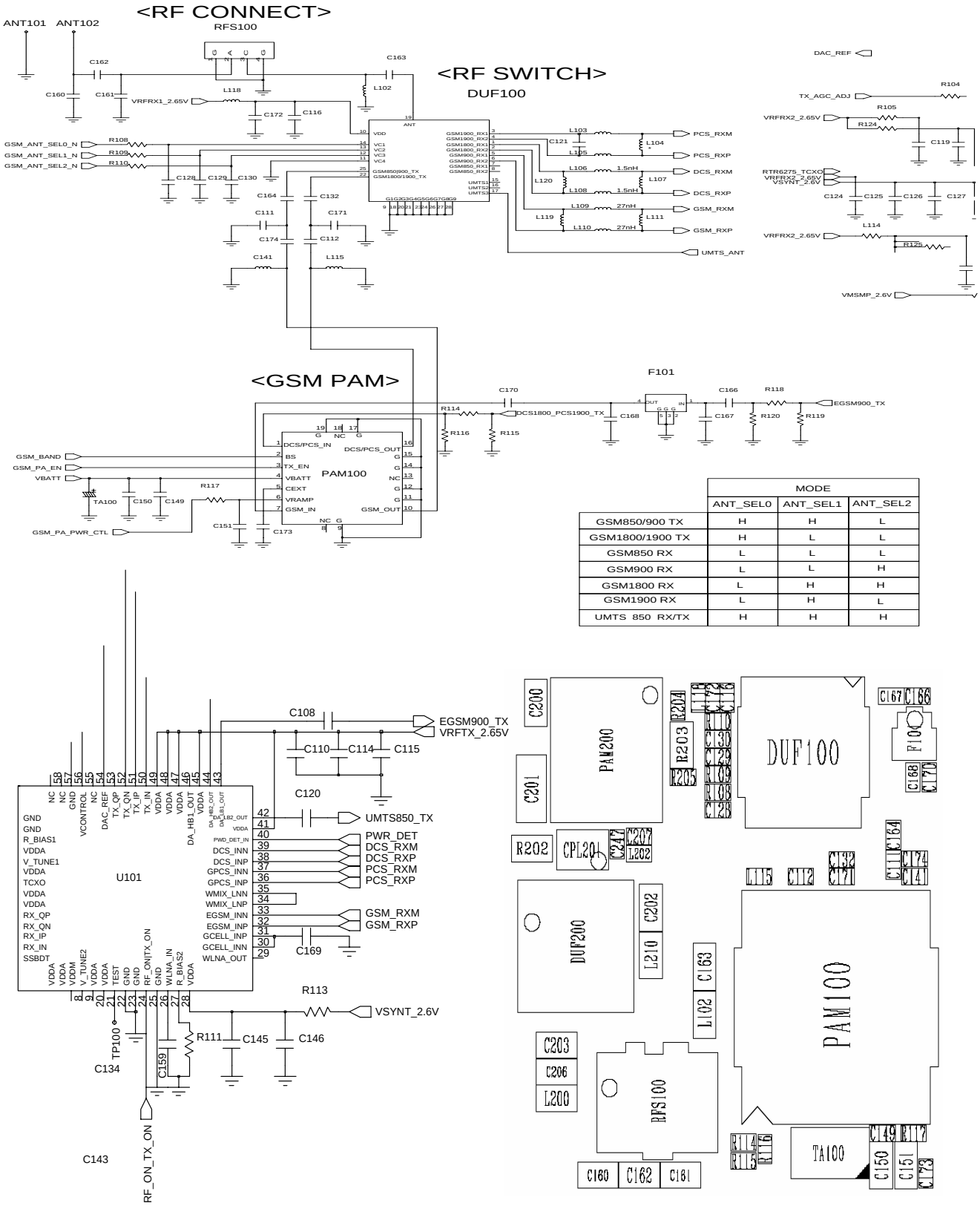
9-16. DCS Receiver





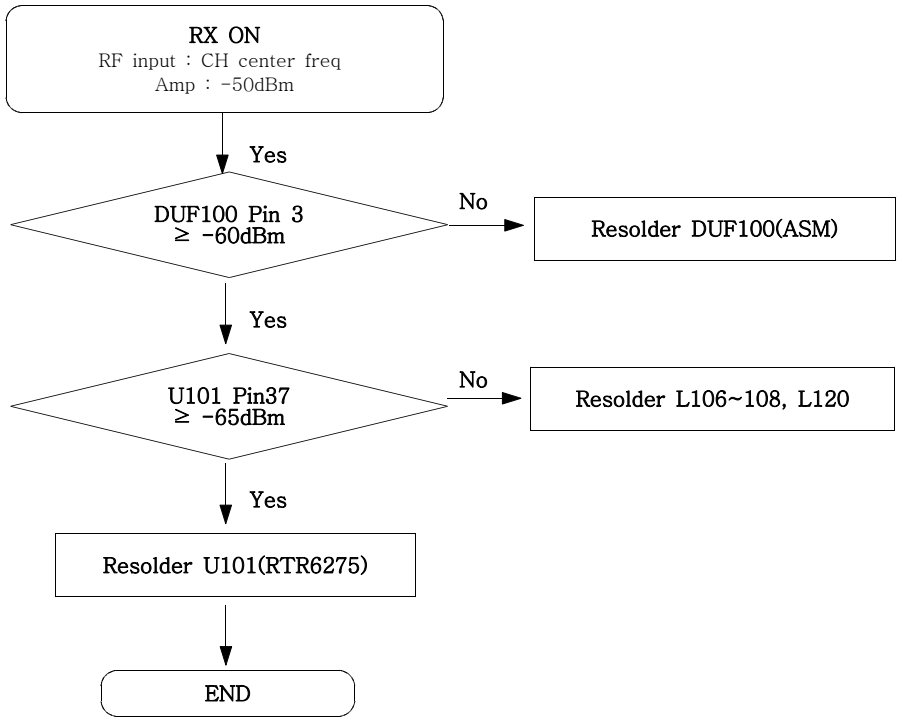
9-17. DCS Transmitter

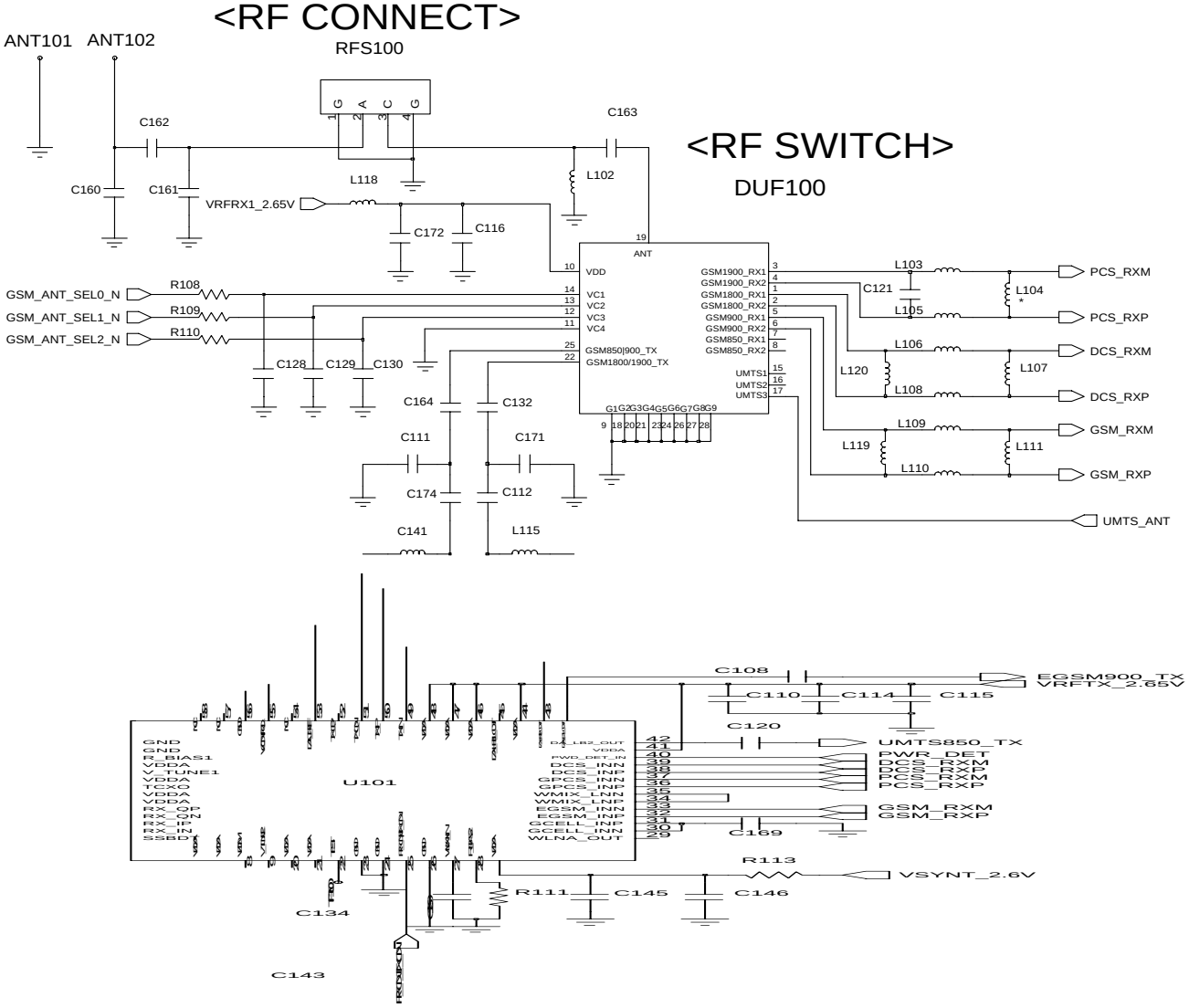




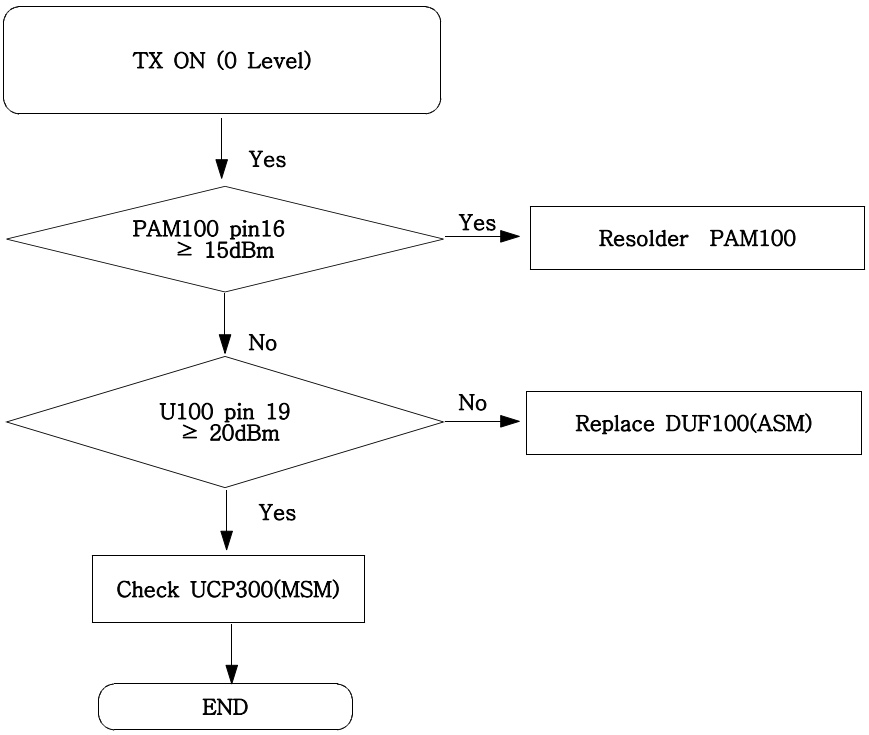
	MODE		
	ANT_SEL0	ANT_SEL1	ANT_SEL2
GSM850/900 TX	H	H	L
GSM1800/1900 TX	H	L	L
GSM850 RX	L	L	L
GSM900 RX	L	L	H
GSM1800 RX	L	H	H
GSM1900 RX	L	H	L
UMTS 850 RX/TX	H	H	H

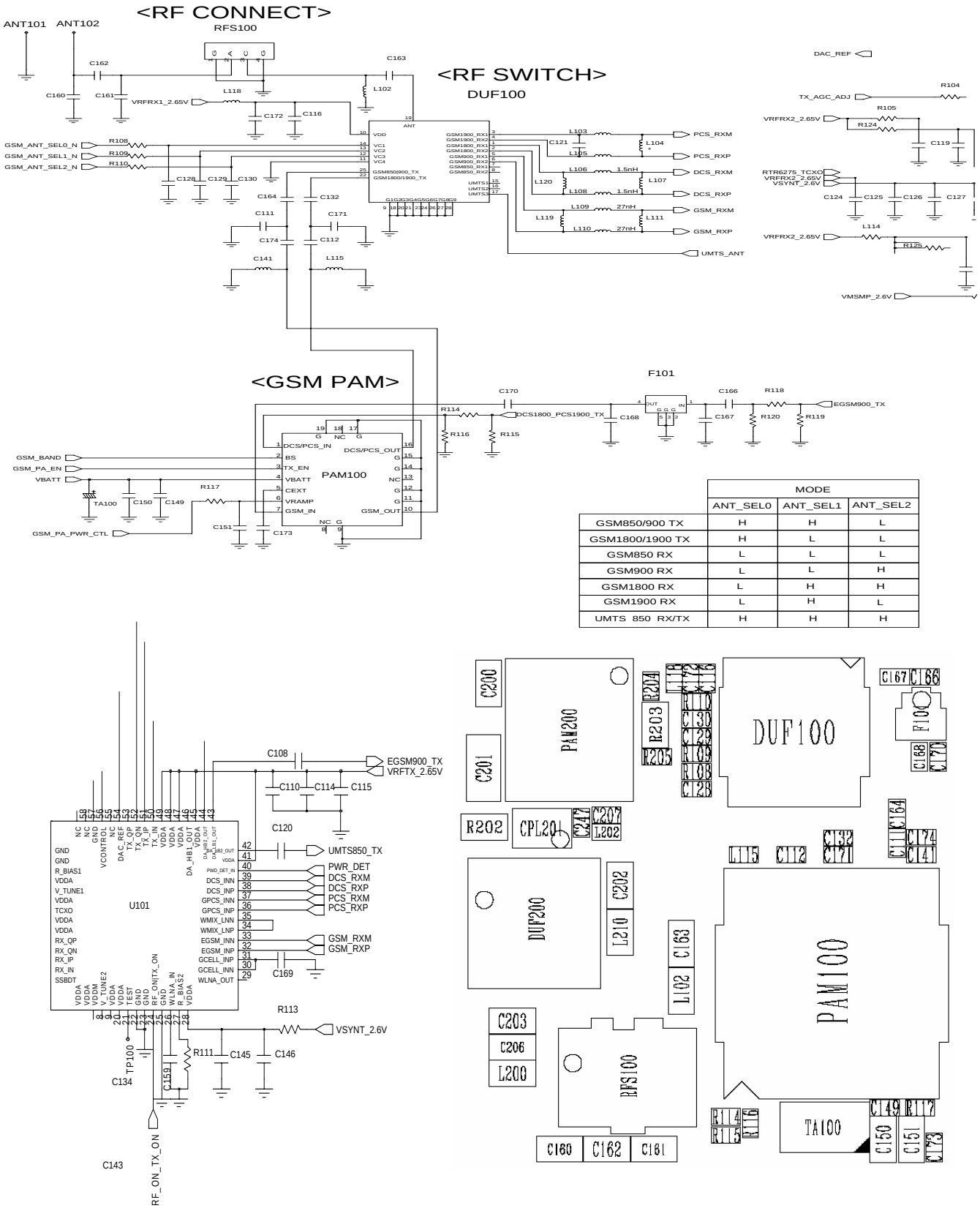
9-18. PCS Receiver





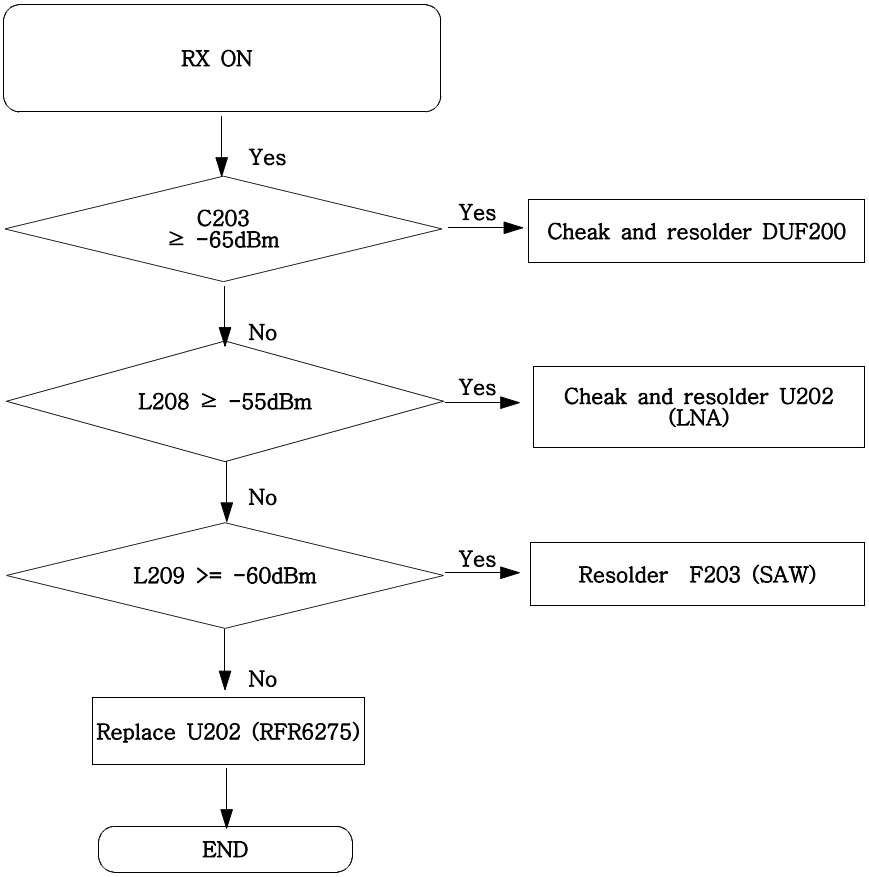
9-19. PCS Transmitter

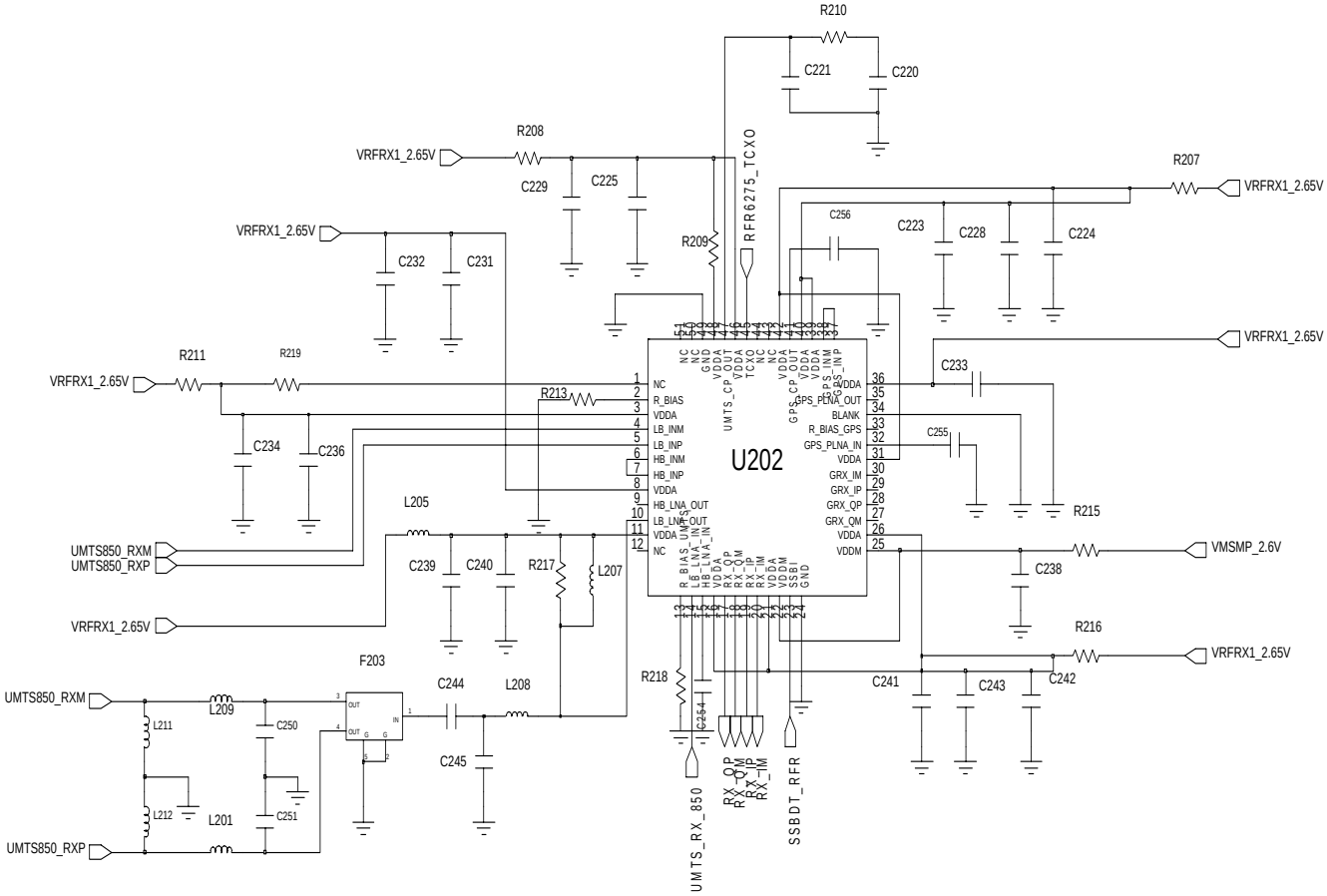


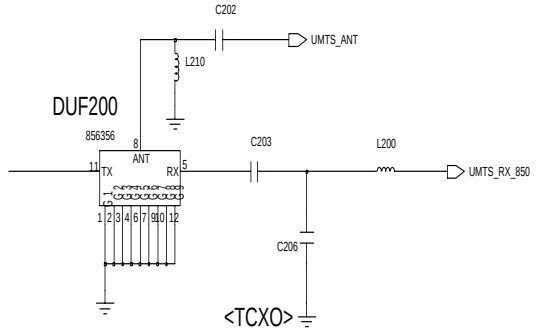


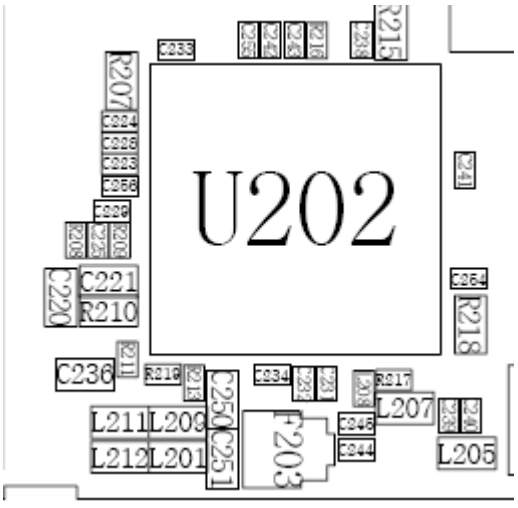
	MODE		
	ANT_SEL0	ANT_SEL1	ANT_SEL2
GSM850/900 TX	H	H	L
GSM1800/1900 TX	H	L	L
GSM850 RX	L	L	L
GSM900 RX	L	L	H
GSM1800 RX	L	H	H
GSM1900 RX	L	H	L
UMTS 850 RX/TX	H	H	H

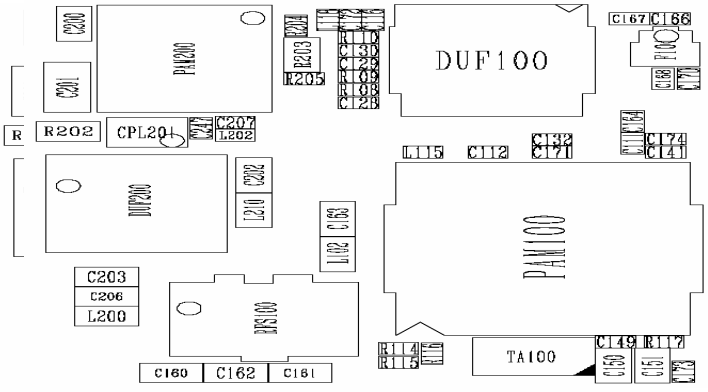
9-20. WCDMA Receiver



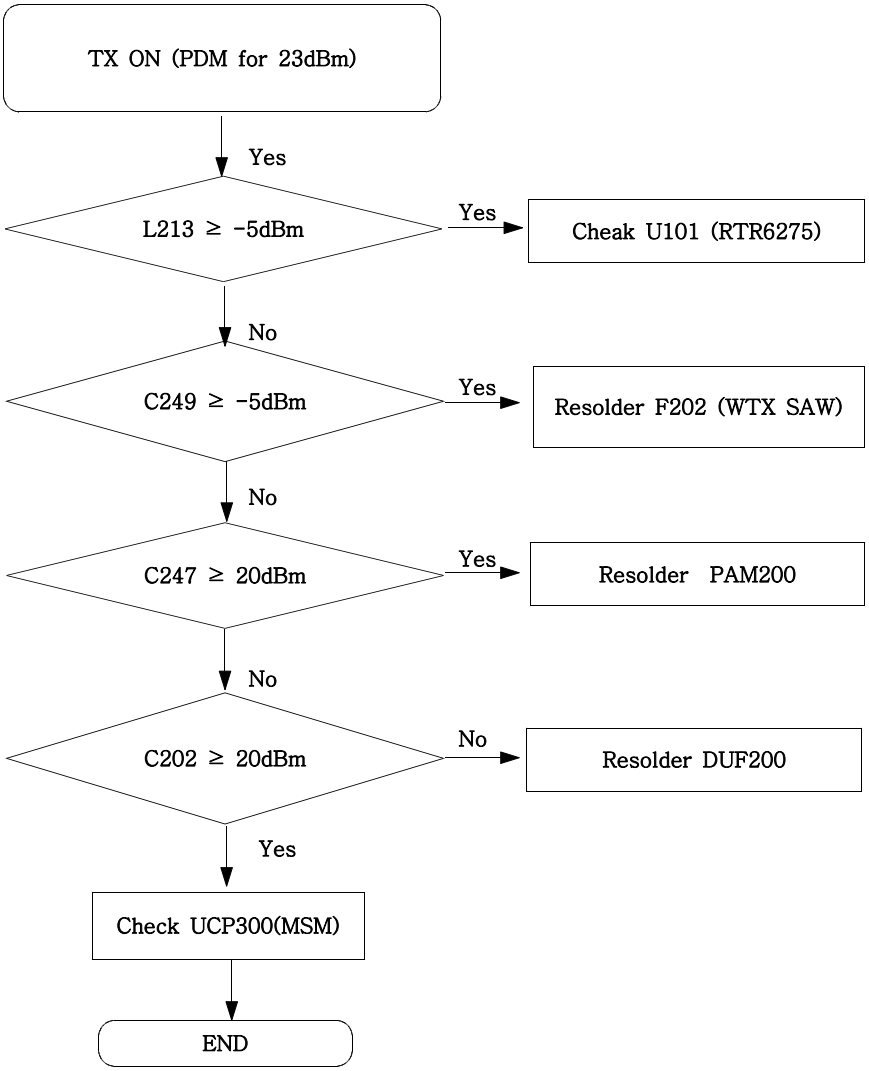


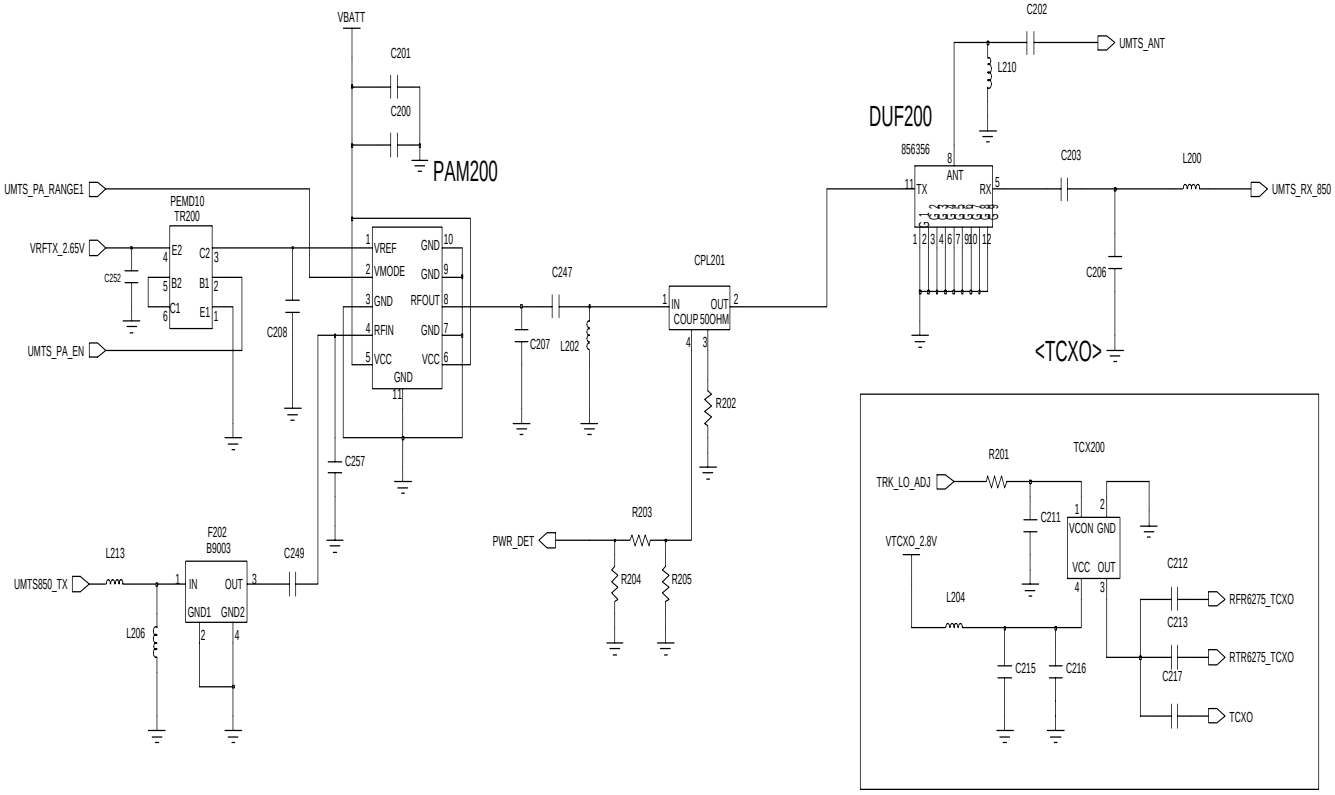


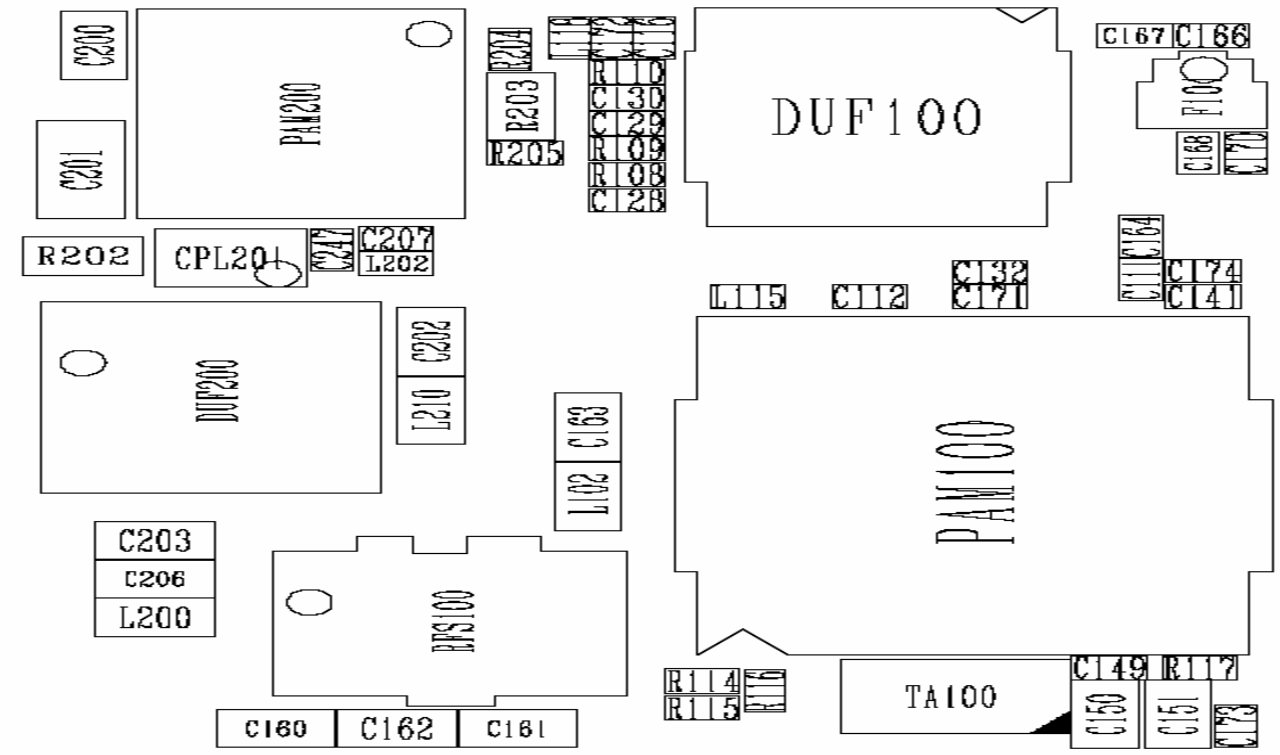




9-21. WCDMA Transmitter







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