

**SAMSUNG**

# UMTS TELEPHONE SGH-J750

# **SERVICE** *Manual*

## UMTS TELEPHONE



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**SAMSUNG  
ELECTRONICS**



GSPN (Global Service Partner Network)

<b>Country</b>	<b>Web Site</b>
North America	service.samsungportal.com
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# 1. Safety Precautions

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## 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

	<b>GSM900 Phase 1</b>	<b>EGSM 900 Phase 2</b>	<b>DCS1800 Phase 1</b>	<b>PCS1900</b>	<b>WCDMA 2100</b>
Freq. Band[MHz] Uplink/Downlink	890~915 935~960	880~915 925~960	1710~1785 1805~1880	1850~1910 1930~1990	1922 ~ 1977 2112 ~ 2167
ARFCN range	1~124	0~124 & 975~1023	512~885	512~810	UL : 9612 ~ 9888 DL : 10562 ~ 10838
Tx/Rx spacing	45MHz	45MHz	95MHz	80MHz	190MHz
Mod. Bit rate/ Bit Period	270.833kbps 3.692us	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	576.9us 4.615ms	Frame Length :10ms Slot length :0.667ms
Modulation	0.3GMSK	0.3GMSK	0.3GMSK	0.3GMSK	QPSK HQPSK
MS Power	33dBm~13dBm	33dBm~5dBm	30dBm~0dBm	30dBm~0dBm	24dBm ~ -50 dBm
Power Class	5pcl ~ 15pcl	5pcl ~ 19pcl	0pcl ~ 15pcl	0pcl ~ 15pcl	<sup>3</sup> (max + 24dBm)
Sensitivity	-102dBm	-102dBm	-100dBm	-100dBm	-106.7 dBm
TDMA Mux	8	8	8	8	
Cell Radius	35Km	35Km	2Km	-	2Km

## 2-2. GSM TX power class

TX Power control level	GSM900	TX Power control level	DCS1800	TX Power control level	PCS1900
5	33±2 dBm	0	30±2 dBm	0	30±2 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±4dBm	11	8±4dBm
17	9±3dBm	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

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## 3. Product Function

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### Main Function

- Mobile Instant Messaging
- Built-In Digital Camera with flash and Video Capture
- MP3 Player, and Java Games
- Hands-free speaker phone
- Bluetooth Wireless Technology
- Organizer feature provides Calendar, Alarms, Calculator, and Converter
- Multimedia Messaging Service-send and receive text messages with animation and sound
- Text Messaging Service-send and receive alphanumeric messages and Email
- Media Net Internet browsing
- Support 64 note polyphonic ringtones, MP3 ringtones, and AAC ringtones
- Tripple band(900/1800/1900MHz), WCDMA2100
- VGA Camera
- GPRS Class 10
- EGPRS Class E2





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## 4. Array course control

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### 4-1. Software Adjustments



1. JIG: Download, Trace, Calibration, etc [GH39-03306A ]
2. RF test cable: RF test [GH39-00397A ]
3. Test cable: JIG to phone [GH39-00838A]
4. TA (Travel Adaptor - S20pin ) [GH44-01702A]
5. Data Link Cable : USB cable (S20) [ GH39-00922A ]
6. Serial cable: PC to JIG

## 4-2. Software Downloading

### 4-2-1. Downloading Binary Files

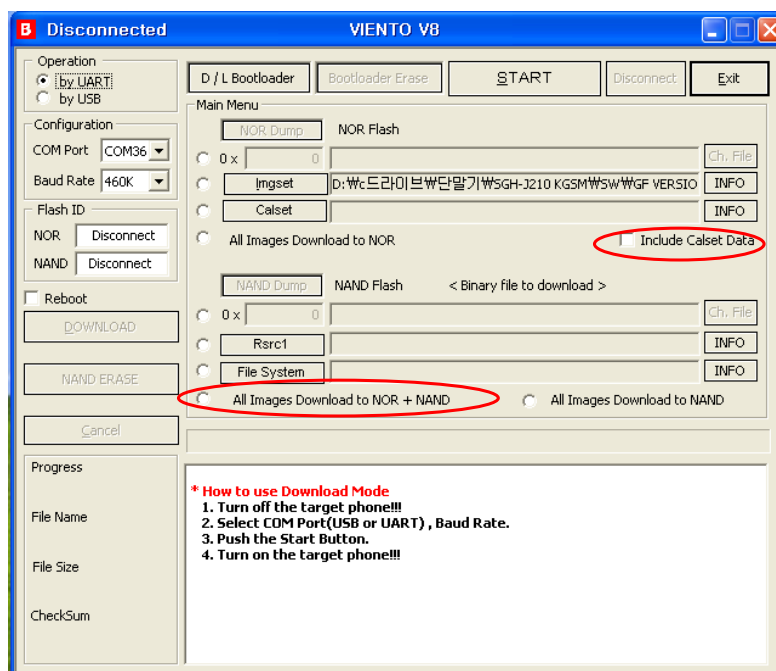
- Five binary files for downloading J750
  - J750XAGF3.img : Modem binary for communication function  
& Mocha binary for user interface and various application
  - J750XAGF3.\_calset.img : Dependent Parameter Set
  - J750XAGF3.rc1: Files need for each application, Power on/off & Back charging animation
  - J750XAGF3.tfs : Default file system to be put into in initial production

### 4-2-2. Pre-requisite for Downloading

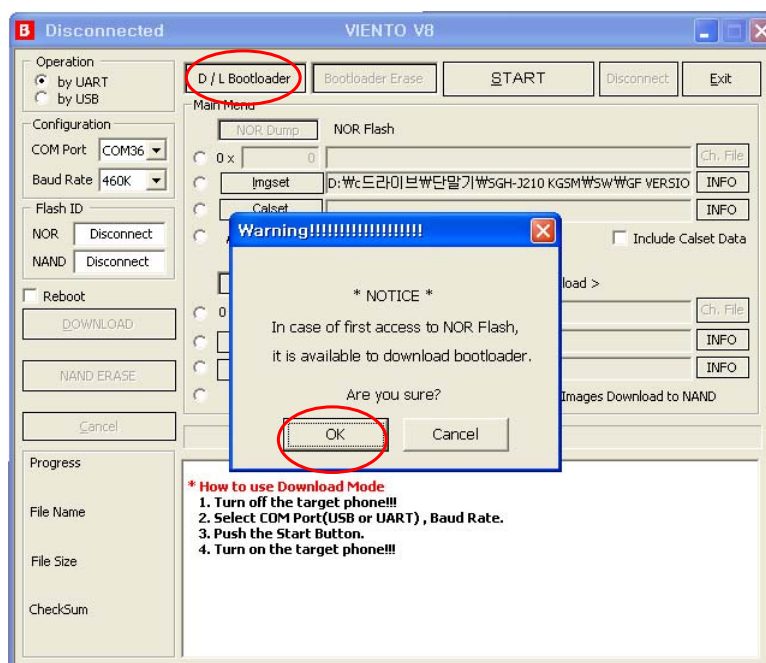
- Downloader Program([J750 Downloader V8.exe](#))
- SGH-J750 Mobile Phone
- USB Data Link Cable
- Binary files

### 4-2-3. S/W Downloader Program

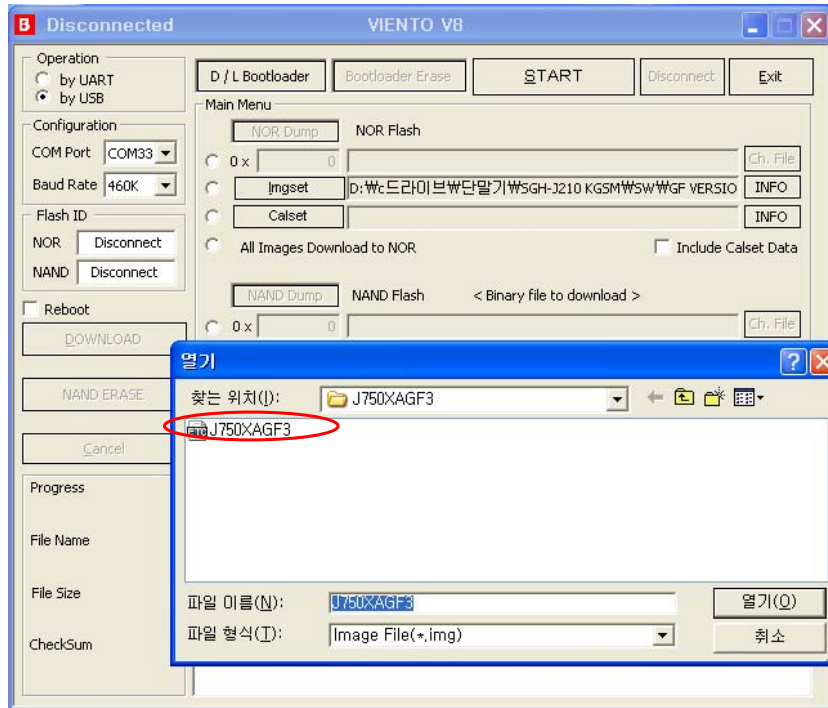
1. Load the binary download program by executing the "J750 Downloader V8.exe" and initially check Include "Calset Data" and "All Images Download to NOR + NAND"



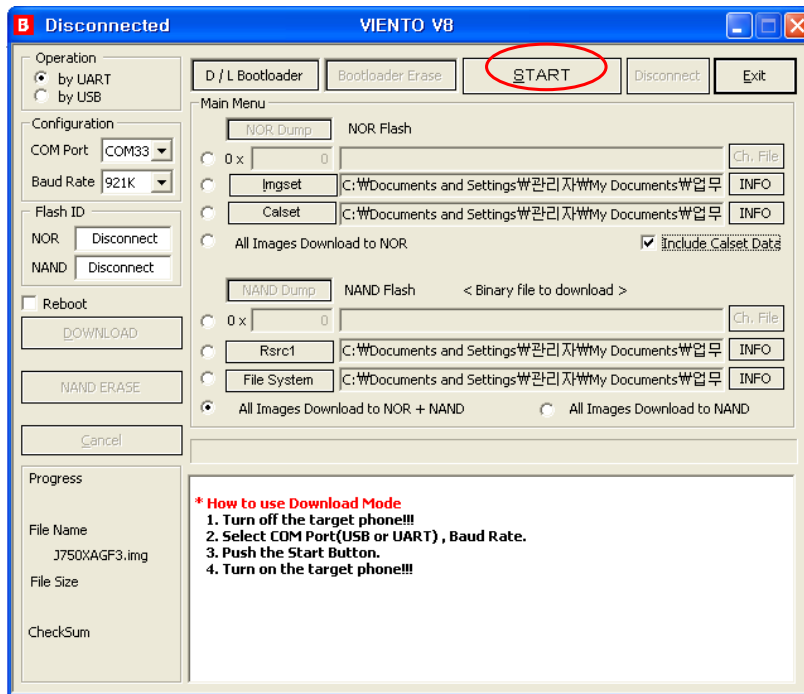
2. Press the button "D/L Bootloader" and then check "OK" for downloading Bootloader.



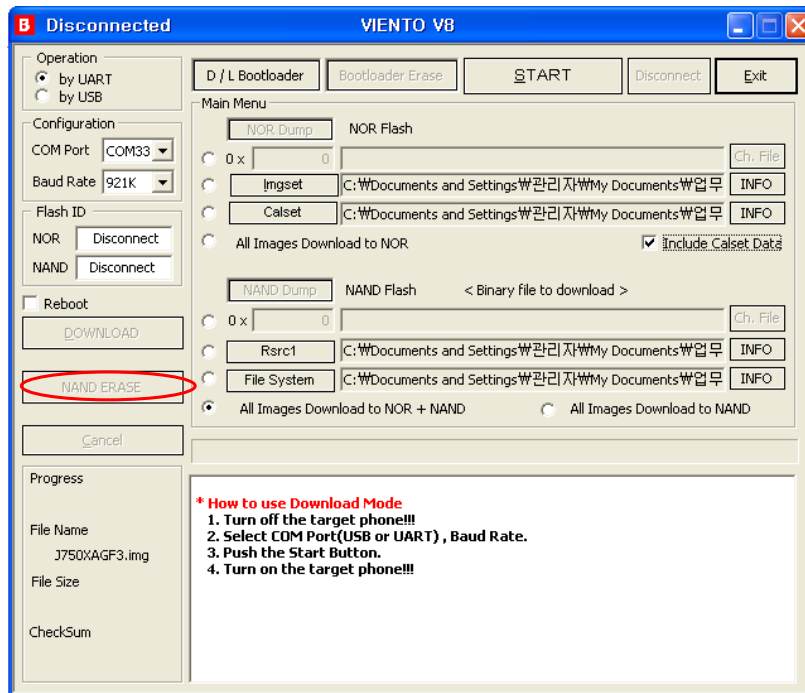
3. Select the binary file what you want to download



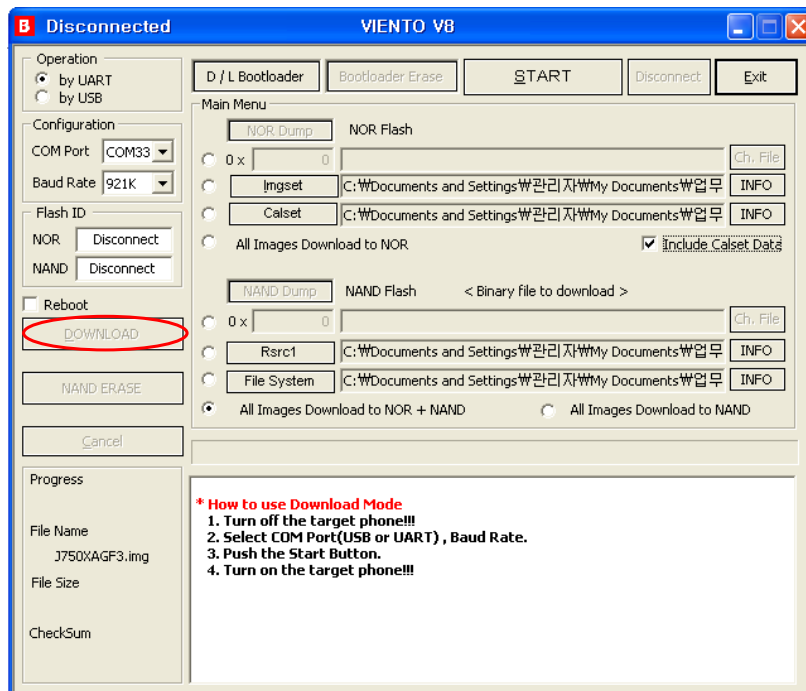
4. Now press the button 'START' and SGH-J750 connects with cable



5. When checking is completed, Press Nand Erase.

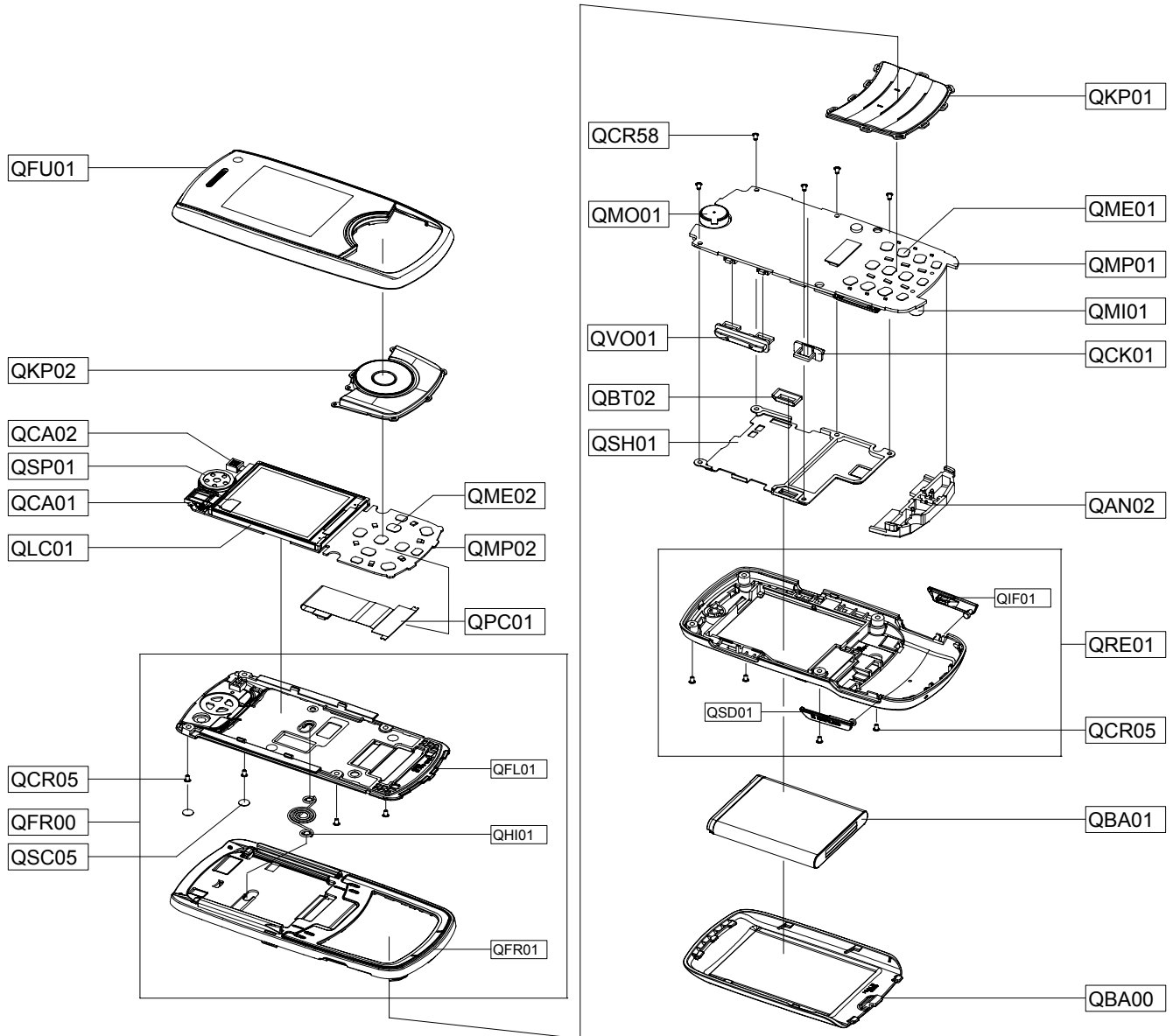


6. Now press the button 'Download'.



# 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-SGHJ750	GH42-01284A
QBA00		ASSY COVER-BATTERY	GH98-06709A
QBA01		INNER BATTERY PACK-880MAH , BL	GH43-02772A
QBT02		ASSY RUBBER-BT CAP	GH98-05345A
QCA01		CAMERA MODULE-1.3MEGA	GH59-04621A
QCA02		CAMERA MODULE-QCIF	GH59-04622A
QCK01		PMO KEY-CAMEARA	GH72-42448A
QCR05		SCREW-MACHINE	6001-001478
QCR05		SCREW-MACHINE	6001-001478
QCR58		SCREW-MACHINE	6001-001870
QFU01		ASSY CASE-SLIDE UPPER	GH98-05283A
QKP01		ASSY KEYPAD-MAIN(OPEN/BLK)	GH98-05285A
QKP02		ASSY KEYPAD-SUB(OPEN/BLK)	GH98-05286A
QLC01		MEA-LCD MODULE KIT(J750)	GH97-08112A
QME01		DOME SHEET-DOME SHEET 12KEY	GH59-04659A
QME02		DOME SHEET-DOME SHEET SUB 10 K	GH59-04660A
QMI01		MICROPHONE-ASSY	GH30-00393A
QMO01		MOTOR DC	GH31-00088A
QMP01		PBA MAIN-SGHJ750	GH92-03930A
QMP02		PBA SUB-SGHJ750	GH92-03870A
QPC01		MEA-SLIDER FPCB KIT(J750)	GH97-08113A
QSC05		TAPE-COVER SCREW LOWER L	GH74-32974A
QSH01		ASSY BRACKET-SHIELD CAN	GH98-05287A
QSP01		MICRO SPEAKER	3001-002190
QVO01		PMO KEY-VOLUME	GH72-42447A
QFR00		ASSY CASE-FRONT/SLIDE LOWER	GH98-06674A
	QFR01	ASSY CASE-FRONT	GH98-05281A
	QFL01	ASSY CASE-SLIDE LOWER	GH98-05282A
	QHI01	ASSY HINGE-MULTI TORSION SPRIN	GH98-05822A
QRE01		ASSY CASE-REAR	GH98-05284A
	QIF01	PMO COVER-IF	GH72-42445A
	QSD01	PMO COVER-MICRO SD	GH72-42446A

<b>Description</b>	<b>SEC CODE</b>
BAG PE	6902-000634
ADAPTOR-ATADS10EBE,BLK,EU	GH44-01702A
S/W CD-SGH-J750 SAMSUNG PC STU	GH46-00498A
EARPHONE	GH59-04556A
LABEL(P)-UNIT SEAL	GH68-00518B
LABEL(P)-UNIT SOUTH AFRICA	GH68-01335J
MANUAL USERS-EU ENGLISH	GH68-15740A
LABEL(R)-MAIN(XFA)	GH68-15752A
BOX-UNIT(EU)	GH69-05765A
CUSHION-CASE(EU)	GH69-05766A
RMO RUBBER-PCB	GH73-10871A
TAPE INSU	GH74-23930A
TAPE INSU	GH74-34610A
TAPE INSU	GH74-34611A
TAPE INSU	GH74-34612A
TAPE GASK	GH74-34613A
TAPE GASK-LCD LOWER 2	GH74-34670A
TAPE GASK-PCB CONN	GH74-34671A
TAPE ELEC-PCB LCD 1	GH74-34775A
TAPE ELEC-PCB LCD 2	GH74-34776A
TAPE GASK-LCD LOWER 1	GH74-34777A
VINYL-BOHO REAR	GH74-35375A
TAPE INSU-SUB PCB	GH74-35446A
TAPE-COVER RF	GH74-35492A
VINYL-BOHO UPPER MAIN	GH74-35608A





## 6. MAIN Electrical Parts List

Design LOC	Description	SEC Code	STATUS
ANT301	ANTENNA-CHIP	4202-001333	SA
BAT400	BATTERY-LI(2ND)	4302-001181	SA
BTC800	HEADER-BATTERY	3711-006249	SA
C10	C-CER,CHIP	2203-006399	SA
C100	C-CER,CHIP	2203-006562	SA
C101	C-CER,CHIP	2203-005682	SA
C102	C-CER,CHIP	2203-002677	SA
C103	C-CER,CHIP	2203-005682	SA
C11	C-CER,CHIP	2203-006048	SA
C11	C-CER,CHIP	2203-006399	SA
C111	C-CER,CHIP	2203-005682	SA
C112	C-CER,CHIP	2203-005682	SA
C113	C-CER,CHIP	2203-005736	SA
C116	C-CER,CHIP	2203-000812	SA
C117	C-CER,CHIP	2203-000330	SA
C118	C-CER,CHIP	2203-000330	SA
C12	C-CER,CHIP	2203-006423	SA
C12	C-CER,CHIP	2203-006824	SA
C120	C-CER,CHIP	2203-000438	SA
C121	C-CER,CHIP	2203-000438	SA
C122	C-CER,CHIP	2203-005736	SA
C127	C-CER,CHIP	2203-000438	SA
C128	C-CER,CHIP	2203-000438	SA
C129	C-CER,CHIP	2203-001153	SA
C13	C-CER,CHIP	2203-006048	SA
C130	C-CER,CHIP	2203-000812	SA
C131	C-CER,CHIP	2203-000812	SA
C132	C-CER,CHIP	2203-006399	SA
C14	C-CER,CHIP	2203-006562	SA
C15	C-CER,CHIP	2203-006048	SA
C16	C-CER,CHIP	2203-006423	SA
C17	C-CER,CHIP	2203-006399	SA
C18	C-CER,CHIP	2203-006399	SA
C2	C-CER,CHIP	2203-006562	SA
C200	C-CER,CHIP	2203-006423	SA
C201	C-CER,CHIP	2203-006423	SA
C202	C-CER,CHIP	2203-000254	SA
C203	C-CER,CHIP	2203-005682	SA
C204	C-CER,CHIP	2203-006423	SA
C206	C-CER,CHIP	2203-006423	SA
C207	C-CER,CHIP	2203-005053	SA
C208	C-CER,CHIP	2203-005053	SA
C21	C-CER,CHIP	2203-006399	SA
C210	C-CER,CHIP	2203-005682	SA
C211	C-CER,CHIP	2203-006423	SA
C212	C-CER,CHIP	2203-006423	SA
C214	C-CER,CHIP	2203-006979	SA
C215	C-CER,CHIP	2203-006423	SA
C219	C-CER,CHIP	2203-006305	SA
C22	C-CER,CHIP	2203-006399	SA
C220	C-CER,CHIP	2203-006399	SA
C221	C-CER,CHIP	2203-006423	SA
C222	C-CER,CHIP	2203-000254	SA

<b>Design LOC</b>	<b>Description</b>	<b>SEC Code</b>	<b>STATUS</b>
C224	C-CER,CHIP	2203-006305	SA
C225	C-CER,CHIP	2203-006399	SA
C226	C-CER,CHIP	2203-005552	SA
C228	C-CER,CHIP	2203-006260	SA
C229	C-CER,CHIP	2203-005552	SA
C230	C-CER,CHIP	2203-006305	SA
C232	C-CER,CHIP	2203-005054	SA
C233	C-CER,CHIP	2203-000254	SA
C234	C-CER,CHIP	2203-005054	SA
C236	C-CER,CHIP	2203-000254	SA
C237	C-CER,CHIP	2203-005288	SA
C239	C-CER,CHIP	2203-005288	SA
C240	C-CER,CHIP	2203-000254	SA
C241	C-CER,CHIP	2203-000812	SA
C244	C-CER,CHIP	2203-000330	SA
C245	C-CER,CHIP	2203-000438	SA
C246	C-CER,CHIP	2203-005682	SA
C247	C-CER,CHIP	2203-005682	SA
C248	C-CER,CHIP	2203-005682	SA
C249	C-CER,CHIP	2203-000254	SA
C3	C-CER,CHIP	2203-006562	SA
C310	C-CER,CHIP	2203-005158	SA
C311	C-CER,CHIP	2203-005158	SA
C312	C-CER,CHIP	2203-001383	SA
C313	C-CER,CHIP	2203-000995	SA
C317	C-CER,CHIP	2203-006872	SA
C319	C-CER,CHIP	2203-000995	SA
C320	C-CER,CHIP	2203-000278	SA
C334	C-CER,CHIP	2203-000233	SA
C335	C-CER,CHIP	2203-006048	SA
C336	C-CER,CHIP	2203-005444	SA
C337	C-CER,CHIP	2203-006121	SA
C338	C-CER,CHIP	2203-006121	SA
C348	C-CER,CHIP	2203-006872	SA
C349	C-CER,CHIP	2203-005552	SA
C350	C-CER,CHIP	2203-000995	SA
C352	C-CER,CHIP	2203-001383	SA
C353	C-CER,CHIP	2203-005736	SA
C356	C-CER,CHIP	2203-005736	SA
C357	C-CER,CHIP	2203-006681	SA
C358	C-CER,CHIP	2203-000995	SA
C360	C-CER,CHIP	2203-006872	SA
C361	C-CER,CHIP	2203-000438	SA
C362	C-CER,CHIP	2203-006048	SA
C365	C-CER,CHIP	2203-000233	SA
C366	C-CER,CHIP	2203-000940	SA
C4	C-CER,CHIP	2203-006562	SA
C400	C-CER,CHIP	2203-006824	SA
C401	C-CER,CHIP	2203-006399	SA
C403	C-CER,CHIP	2203-006562	SA
C404	C-CER,CHIP	2203-006399	SA
C405	C-CER,CHIP	2203-006399	SA
C406	C-CER,CHIP	2203-006399	SA

<b>Design LOC</b>	<b>Description</b>	<b>SEC Code</b>	<b>STATUS</b>
C407	C-CER,CHIP	2203-006824	SA
C408	C-CER,CHIP	2203-006399	SA
C409	C-CER,CHIP	2203-006194	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	2203-006361	SA
C414	C-CER,CHIP	2203-006399	SA
C415	C-CER,CHIP	2203-001017	SA
C416	C-CER,CHIP	2203-006562	SA
C417	C-CER,CHIP	2203-006399	SA
C418	C-CER,CHIP	2203-001017	SA
C419	C-CER,CHIP	2203-006361	SA
C420	C-CER,CHIP	2203-006399	SA
C421	C-CER,CHIP	2203-000233	SA
C423	C-CER,CHIP	2203-006562	SA
C424	C-CER,CHIP	2203-006399	SA
C425	C-CER,CHIP	2203-006872	SA
C426	C-CER,CHIP	2203-006824	SA
C427	C-CER,CHIP	2203-006872	SA
C428	C-CER,CHIP	2203-006399	SA
C429	C-CER,CHIP	2203-006824	SA
C430	C-CER,CHIP	2203-006824	SA
C431	C-CER,CHIP	2203-006348	SA
C432	C-CER,CHIP	2203-006399	SA
C433	C-CER,CHIP	2203-006824	SA
C434	C-CER,CHIP	2203-006562	SA
C435	C-CER,CHIP	2203-006824	SA
C436	C-CER,CHIP	2203-006399	SA
C437	C-CER,CHIP	2203-006399	SA
C5	C-CER,CHIP	2203-006562	SA
C500	C-CER,CHIP	2203-006872	SA
C501	C-CER,CHIP	2203-006423	SA
C502	C-CER,CHIP	2203-006423	SA
C503	C-CER,CHIP	2203-006423	SA
C504	C-CER,CHIP	2203-006423	SA
C505	C-CER,CHIP	2203-006872	SA
C506	C-CER,CHIP	2203-006423	SA
C507	C-CER,CHIP	2203-006423	SA
C508	C-CER,CHIP	2203-006399	SA
C509	C-CER,CHIP	2203-006399	SA
C510	C-CER,CHIP	2203-006423	SA
C511	C-CER,CHIP	2203-006399	SA
C512	C-CER,CHIP	2203-006626	SA
C513	C-CER,CHIP	2203-006423	SA
C514	C-CER,CHIP	2203-000812	SA
C515	C-CER,CHIP	2203-000812	SA
C516	C-CER,CHIP	2203-000812	SA
C517	C-CER,CHIP	2203-006423	SA
C518	C-CER,CHIP	2203-006423	SA
C519	C-CER,CHIP	2203-006399	SA
C520	C-CER,CHIP	2203-006423	SA
C521	C-CER,CHIP	2203-006194	SA

<b>Design LOC</b>	<b>Description</b>	<b>SEC Code</b>	<b>STATUS</b>
C522	C-CER,CHIP	2203-000254	SA
C523	C-CER,CHIP	2203-006562	SA
C524	C-CER,CHIP	2203-000812	SA
C526	C-CER,CHIP	2203-006423	SA
C6	C-CER,CHIP	2203-006399	SA
C600	C-CER,CHIP	2203-006399	SA
C601	C-CER,CHIP	2203-006399	SA
C602	C-CER,CHIP	2203-006048	SA
C603	C-CER,CHIP	2203-006399	SA
C604	C-CER,CHIP	2203-006048	SA
C605	C-CER,CHIP	2203-006399	SA
C606	C-CER,CHIP	2203-006423	SA
C607	C-CER,CHIP	2203-006423	SA
C608	C-CER,CHIP	2203-006423	SA
C609	C-CER,CHIP	2203-006399	SA
C610	C-CER,CHIP	2203-006423	SA
C611	C-CER,CHIP	2203-006423	SA
C612	C-CER,CHIP	2203-000254	SA
C613	C-CER,CHIP	2203-006399	SA
C614	C-CER,CHIP	2203-006423	SA
C615	C-CER,CHIP	2203-006399	SA
C616	C-CER,CHIP	2203-006423	SA
C617	C-CER,CHIP	2203-006194	SA
C618	C-CER,CHIP	2203-006423	SA
C619	C-CER,CHIP	2203-006194	SA
C620	C-CER,CHIP	2203-006399	SA
C621	C-CER,CHIP	2203-006048	SA
C622	C-CER,CHIP	2203-000254	SA
C623	C-CER,CHIP	2203-000679	SA
C624	C-CER,CHIP	2203-000254	SA
C7	C-CER,CHIP	2203-006399	SA
C700	C-CER,CHIP	2203-006825	SA
C701	C-CER,CHIP	2203-006681	SA
C702	C-CER,CHIP	2203-000812	SA
C703	C-CER,CHIP	2203-006825	SA
C704	C-CER,CHIP	2203-006048	SA
C705	C-CER,CHIP	2203-006872	SA
C706	C-CER,CHIP	2203-006423	SA
C708	C-CER,CHIP	2203-006399	SA
C709	C-CER,CHIP	2203-000425	SA
C710	C-CER,CHIP	2203-000995	SA
C713	C-CER,CHIP	2203-000812	SA
C715	C-CER,CHIP	2203-006423	SA
C716	C-CER,CHIP	2203-006194	SA
C718	C-CER,CHIP	2203-003054	SA
C719	C-CER,CHIP	2203-006048	SA
C720	C-CER,CHIP	2203-000995	SA
C721	C-CER,CHIP	2203-006048	SA
C723	C-CER,CHIP	2203-003054	SA
C724	C-CER,CHIP	2203-001259	SA
C725	C-CER,CHIP	2203-006048	SA
C726	C-CER,CHIP	2203-006048	SA
C727	C-CER,CHIP	2203-001259	SA

<b>Design LOC</b>	<b>Description</b>	<b>SEC Code</b>	<b>STATUS</b>
C728	C-CER,CHIP	2203-006048	SA
C729	C-CER,CHIP	2203-006048	SA
C730	C-CER,CHIP	2203-000995	SA
C8	C-CER,CHIP	2203-006562	SA
C801	C-CER,CHIP	2203-000438	SA
C802	C-CER,CHIP	2203-000995	SA
C806	C-CER,CHIP	2203-006048	SA
C808	C-CER,CHIP	2203-006048	SA
C809	C-CER,CHIP	2203-001405	SA
C810	C-CER,CHIP	2203-003054	SA
C811	C-CER,CHIP	2203-003054	SA
C812	C-CER,CHIP	2203-003054	SA
C813	C-CER,CHIP	2203-006399	SA
C815	C-CER,CHIP	2203-000812	SA
C816	C-CER,CHIP	2203-006562	SA
C828	C-CER,CHIP	2203-006423	SA
C834	C-CER,CHIP	2203-005682	SA
C9	C-CER,CHIP	2203-006399	SA
C900	C-CER,CHIP	2203-005382	SA
C901	C-CER,CHIP	2203-006399	SA
C902	C-CER,CHIP	2203-006824	SA
C903	C-CER,CHIP	2203-006048	SA
C905	C-CER,CHIP	2203-002443	SA
C906	C-CER,CHIP	2203-006399	SA
C908	C-CER,CHIP	2203-005717	SA
C909	C-CER,CHIP	2203-006562	SA
C910	C-CER,CHIP	2203-005719	SA
C911	C-CER,CHIP	2203-005719	SA
C912	C-CER,CHIP	2203-005719	SA
C913	C-CER,CHIP	2203-005719	SA
C914	C-CER,CHIP	2203-005719	SA
C915	C-CER,CHIP	2203-005719	SA
C916	C-CER,CHIP	2203-005719	SA
C917	C-CER,CHIP	2203-005719	SA
C918	C-CER,CHIP	2203-005719	SA
C919	C-CER,CHIP	2203-005719	SA
D1	DIODE-SWITCHING	0401-000164	SA
D1	DIODE-TVS	0406-001254	SA
D2	DIODE-TVS	0406-001254	SA
D3	DIODE-TVS	0406-001231	SA
D4	DIODE-TVS	0406-001231	SA
D400	DIODE-SCHOTTKY	0404-001245	SA
D600	DIODE-SCHOTTKY	0404-001172	SA
D800	DIODE-TVS	0406-001190	SA
D803	DIODE-ZENER	0403-001547	SA
D804	DIODE-ZENER	0403-001547	SA
D808	DIODE-TVS	0406-001275	SA
D900	DIODE-TVS	0406-001231	SA
D901	DIODE-TVS	0406-001231	SA
D902	DIODE-TVS	0406-001231	SA
D903	DIODE-TVS	0406-001231	SA
D904	DIODE-TVS	0406-001231	SA
D905	DIODE-TVS	0406-001231	SA

<b>Design LOC</b>	<b>Description</b>	<b>SEC Code</b>	<b>STATUS</b>
D906	DIODE-TVS	0406-001256	SA
DUF302	DUPLEXER-SAW	2910-000034	SA
F202	FILTER-SAW	2904-001769	SA
F300	FILTER-LC	2909-001279	SA
F303	FILTER-SAW	2904-001788	SA
F800	FILTER-EMI SMD	2901-001408	SA
F801	FILTER-EMI SMD	2901-001286	SA
F802	FILTER-EMI SMD	2901-001286	SA
F803	FILTER-EMI SMD	2901-001286	SA
F804	FILTER-EMI SMD	2901-001286	SA
F805	FILTER-EMI SMD	2901-001286	SA
HDC801	HEADER-BOARD TO BOARD	3711-006323	SA
IFC800	SOCKET-INTERFACE	3710-002499	SA
L1	BEAD-SMD	3301-001534	SA
L101	INDUCTOR-SMD	2703-001748	SA
L103	INDUCTOR-SMD	2703-002314	SA
L106	INDUCTOR-SMD	2703-001749	SA
L107	INDUCTOR-SMD	2703-002314	SA
L2	BEAD-SMD	3301-001534	SA
L200	BEAD-SMD	3301-001756	SA
L201	BEAD-SMD	3301-001756	SA
L203	INDUCTOR-SMD	2703-002199	SA
L206	INDUCTOR-SMD	2703-001747	SA
L208	INDUCTOR-SMD	2703-001751	SA
L209	INDUCTOR-SMD	2703-001178	SA
L210	INDUCTOR-SMD	2703-001178	SA
L213	BEAD-SMD	3301-001756	SA
L214	BEAD-SMD	3301-001756	SA
L3	BEAD-SMD	3301-001534	SA
L300	BEAD-SMD	3301-001659	SA
L301	INDUCTOR-SMD	2703-002369	SA
L304	INDUCTOR-SMD	2703-002199	SA
L308	INDUCTOR-SMD	2703-002203	SA
L309	INDUCTOR-SMD	2703-002203	SA
L311	INDUCTOR-SMD	2703-002281	SA
L331	INDUCTOR-SMD	2703-002199	SA
L332	INDUCTOR-SMD	2703-002204	SA
L334	INDUCTOR-SMD	2703-002313	SA
L335	INDUCTOR-SMD	2703-002205	SA
L336	INDUCTOR-SMD	2703-002506	SA
L400	INDUCTOR-SMD	2703-003182	SA
L401	INDUCTOR-SMD	2703-003182	SA
L700	BEAD-SMD	3301-001438	SA
L703	BEAD-SMD	3301-001438	SA
L704	BEAD-SMD	3301-001438	SA
L800	BEAD-SMD	3301-001438	SA
L801	BEAD-SMD	3301-001438	SA
L802	BEAD-SMD	3301-001438	SA
L803	BEAD-SMD	3301-001534	SA
L804	BEAD-SMD	3301-001534	SA
L901	INDUCTOR-SMD	2703-001990	SA
L902	BEAD-SMD	3301-001812	SA
LED1	LED	0601-002258	SA

Design LOC	Description	SEC Code	STATUS
LED2	LED	0601-002258	SA
LED3	LED	0601-002258	SA
LED4	LED	0601-002258	SA
LED5	LED	0601-002258	SA
LED6	LED	0601-002258	SA
LED904	LED	0601-002258	SA
LED909	LED	0601-002258	SA
LED910	LED	0601-002258	SA
LED911	LED	0601-002258	SA
LED912	LED	0601-002258	SA
LED916	LED	0601-002258	SA
LED917	LED	0601-002258	SA
LED918	LED	0601-002258	SA
OSC400	CRYSTAL-SMD	2801-003856	SA
PAM100	IC-POWER AMP	1201-002576	SA
PAM303	IC-POWER AMP	1201-002305	SA
Q600	FET-SILICON	0505-001332	SA
R1	R-CHIP	2007-001294	SA
R112	R-CHIP	2007-001288	SA
R114	R-CHIP	2007-007008	SA
R115	R-CHIP	2007-007008	SA
R116	R-CHIP	2007-001288	SA
R117	R-CHIP	2007-007008	SA
R118	R-CHIP	2007-007008	SA
R119	R-CHIP	2007-000070	SA
R121	R-CHIP	2007-000148	SA
R122	R-CHIP	2007-000171	SA
R2	R-CHIP	2007-001294	SA
R210	R-CHIP	2007-000171	SA
R211	R-CHIP	2007-000171	SA
R212	R-CHIP	2007-000172	SA
R213	R-CHIP	2007-000171	SA
R216	R-CHIP	2007-008542	SA
R217	R-CHIP	2007-000171	SA
R218	R-CHIP	2007-008542	SA
R219	R-CHIP	2007-008542	SA
R220	R-CHIP	2007-008542	SA
R222	R-CHIP	2007-001316	SA
R223	R-CHIP	2007-000171	SA
R3	R-CHIP	2007-001294	SA
R300	R-CHIP	2007-000070	SA
R302	R-CHIP	2007-000171	SA
R311	R-CHIP	2007-007489	SA
R312	R-CHIP	2007-000145	SA
R313	R-CHIP	2007-008542	SA
R314	R-CHIP	2007-000171	SA
R4	R-CHIP	2007-001294	SA
R400	R-CHIP	2007-000171	SA
R402	R-CHIP	2007-000171	SA
R403	R-CHIP	2007-000171	SA
R404	R-CHIP	2007-000148	SA
R405	R-CHIP	2007-000171	SA
R407	R-CHIP	2007-000171	SA



<b>Design LOC</b>	<b>Description</b>	<b>SEC Code</b>	<b>STATUS</b>
R408	R-CHIP	2007-000171	SA
R409	R-CHIP	2007-000171	SA
R410	R-CHIP	2007-000171	SA
R411	R-CHIP	2007-007100	SA
R412	R-CHIP	2007-000171	SA
R413	R-CHIP	2007-000171	SA
R414	R-CHIP	2007-007869	SA
R415	R-CHIP	2007-000171	SA
R416	R-CHIP	2007-000171	SA
R417	R-CHIP	2007-000171	SA
R418	R-CHIP	2007-000140	SA
R420	R-CHIP	2007-000242	SA
R421	R-CHIP	2007-000242	SA
R423	R-CHIP	2007-000171	SA
R424	R-CHIP	2007-000148	SA
R425	R-CHIP	2007-000162	SA
R426	R-CHIP	2007-000162	SA
R5	R-CHIP	2007-001294	SA
R500	R-CHIP	2007-000242	SA
R501	R-CHIP	2007-007981	SA
R502	R-CHIP	2007-000171	SA
R503	R-CHIP	2007-007489	SA
R504	R-CHIP	2007-000170	SA
R505	R-CHIP	2007-000170	SA
R506	R-CHIP	2007-008401	SA
R507	R-CHIP	2007-008354	SA
R508	R-CHIP	2007-000140	SA
R509	R-CHIP	2007-000171	SA
R510	R-CHIP	2007-008516	SA
R511	R-CHIP	2007-008055	SA
R512	R-CHIP	2007-008516	SA
R513	R-CHIP	2007-008516	SA
R514	R-CHIP	2007-008055	SA
R515	R-CHIP	2007-008055	SA
R516	R-CHIP	2007-008055	SA
R517	R-CHIP	2007-008055	SA
R518	R-CHIP	2007-008055	SA
R519	R-CHIP	2007-008055	SA
R520	R-CHIP	2007-008055	SA
R521	R-CHIP	2007-008055	SA
R522	R-CHIP	2007-008055	SA
R523	R-CHIP	2007-008055	SA
R524	R-CHIP	2007-008516	SA
R525	R-CHIP	2007-008516	SA
R526	R-CHIP	2007-000171	SA
R527	R-CHIP	2007-000171	SA
R528	R-CHIP	2007-000171	SA
R529	R-CHIP	2007-000171	SA
R531	R-CHIP	2007-008581	SNA
R532	R-CHIP	2007-008581	SNA
R533	R-CHIP	2007-008581	SNA
R534	R-CHIP	2007-008581	SNA
R535	R-CHIP	2007-008581	SNA

<b>Design LOC</b>	<b>Description</b>	<b>SEC Code</b>	<b>STATUS</b>
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R537	R-CHIP	2007-008581	SNA
R538	R-CHIP	2007-008581	SNA
R539	R-CHIP	2007-008581	SNA
R540	R-CHIP	2007-008581	SNA
R541	R-CHIP	2007-008581	SNA
R6	R-CHIP	2007-001294	SA
R600	R-CHIP	2007-000171	SA
R601	R-CHIP	2007-000171	SA
R602	R-CHIP	2007-000171	SA
R603	R-CHIP	2007-000162	SA
R604	R-CHIP	2007-000162	SA
R606	R-CHIP	2007-000162	SA
R607	R-CHIP	2007-000148	SA
R608	R-CHIP	2007-000170	SA
R610	R-CHIP	2007-000148	SA
R611	R-CHIP	2007-000162	SA
R701	R-CHIP	2007-000171	SA
R702	R-CHIP	2007-000171	SA
R703	R-CHIP	2007-000171	SA
R704	R-CHIP	2007-000171	SA
R706	R-CHIP	2007-007137	SA
R708	R-CHIP	2007-000148	SA
R709	R-CHIP	2007-007137	SA
R710	R-CHIP	2007-007318	SA
R711	R-CHIP	2007-003019	SA
R712	R-CHIP	2007-007137	SA
R713	R-CHIP	2007-000148	SA
R715	R-CHIP	2007-007137	SA
R716	R-CHIP	2007-007318	SA
R717	R-CHIP	2007-000171	SA
R718	R-CHIP	2007-000172	SA
R719	R-CHIP	2007-000172	SA
R801	R-CHIP	2007-001339	SA
R802	R-CHIP	2007-000170	SA
R804	R-CHIP	2007-000162	SA
R805	R-CHIP	2007-000171	SA
R806	R-CHIP	2007-003006	SA
R807	R-CHIP	2007-003006	SA
R809	R-CHIP	2007-003006	SA
R810	R-CHIP	2007-003006	SA
R811	R-CHIP	2007-000156	SA
R816	R-CHIP	2007-000148	SA
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R818	R-CHIP	2007-001339	SA
R819	R-CHIP	2007-000162	SA
R820	R-CHIP	2007-000162	SA
R822	R-CHIP	2007-009108	SA
R823	R-CHIP	2007-007573	SA
R824	R-CHIP	2007-007489	SA
R900	R-CHIP	2007-009168	SA
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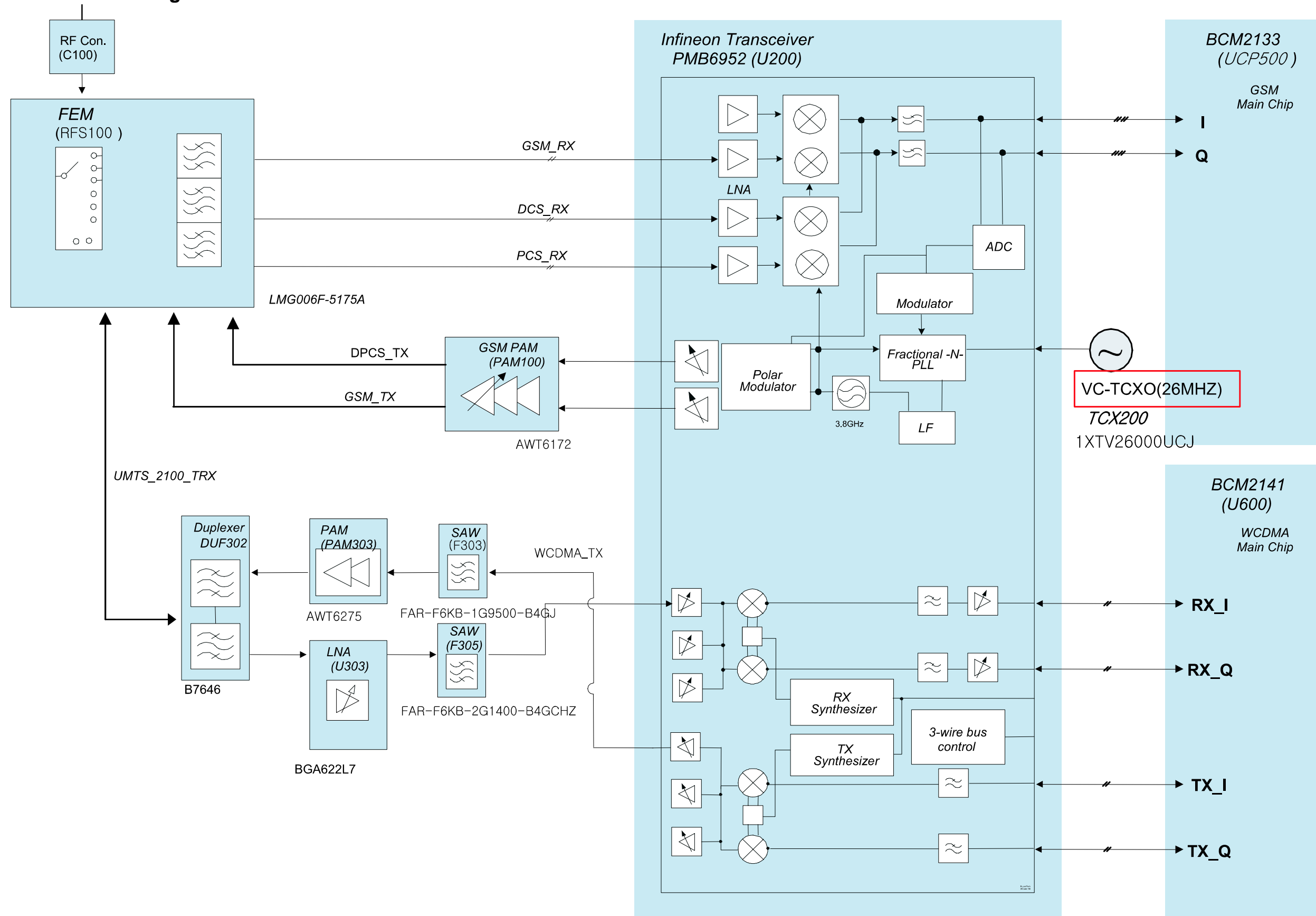
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R904	R-CHIP	2007-007148	SA
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R906	R-CHIP	2007-009168	SA
R907	R-CHIP	2007-008516	SA
R908	R-CHIP	2007-009361	SA
R911	R-CHIP	2007-001294	SA
R914	R-CHIP	2007-001294	SA
R915	R-CHIP	2007-001294	SA
R916	R-CHIP	2007-001294	SA
R917	R-CHIP	2007-001294	SA
R918	R-CHIP	2007-001294	SA
R919	R-CHIP	2007-001294	SA
R920	R-CHIP	2007-001294	SA
RFC100	CONNECTOR-COAXIAL	3705-001358	SA
RFS100	DUPLEXER-FEM	2911-000089	SA
SLC1	CONNECTOR-FPC/FFC/PIC	3708-002222	SA
SLC2	CONNECTOR-FPC/FFC/PIC	3708-002222	SA
SLC5	CONNECTOR-FPC/FFC/PIC	3708-002194	SA
SLC6	CONNECTOR-FPC/FFC/PIC	3708-002202	SA
TA115	C-TA,CHIP	2404-001496	SA
TA700	C-TA,CHIP	2404-001465	SA
TA701	C-TA,CHIP	2404-001465	SA
TA800	C-TA,CHIP	2404-001381	SA
TA801	C-TA,CHIP	2404-001430	SA
TAC900	SWITCH-TACT	3404-001152	SA
TAC901	SWITCH-TACT	3404-001152	SA
TAC902	SWITCH-TACT	3404-001152	SA
TFLASH900	CONNECTOR-CARD EDGE	3709-001453	SA
TR400	TR-POWER	0502-001201	SA
TR402	FET-SILICON	0505-001464	SA
TXO200	OSCILLATOR-VCTCXO	2809-001327	SA
U1	IC-POSI.FIXED REG.	1203-004683	SA
U101	IC-CMOS LOGIC	0801-003140	SA
U102	IC-CMOS LOGIC	0801-003058	SA
U2	IC-DC/DC CONVERTER	1203-004765	SA
U200	IC-TRANSCEIVER	1205-003099	SA
U301	IC-RF AMP	1201-002323	SA
U302	IC-TRANSCEIVER	1205-002942	SA
U303	IC-CMOS LOGIC	0801-003022	SA
U304	IC-CMOS LOGIC	0801-003140	SA
U400	IC-POSI.FIXED REG.	1203-004792	SA
U401	IC-POSI.FIXED REG.	1203-004792	SA
U402	IC-POWER SUPERVISOR	1203-004799	SA
U403	IC-POSI.FIXED REG.	1203-004792	SA
U404	TR-DIGITAL	0504-001151	SA
U405	IC-CMOS LOGIC	0801-003016	SA
U406	IC-CMOS LOGIC	0801-003016	SA
U600	IC-MODEM	1205-003103	SA
U601	IC-CMOS LOGIC	0801-003016	SA
U700	IC-AUDIO AMP	1201-002606	SA
U800	IC-CMOS LOGIC	0801-003016	SA
U801	IC-ANALOG SWITCH	1001-001394	SA

<b>Design LOC</b>	<b>Description</b>	<b>SEC Code</b>	<b>STATUS</b>
U802	IC-ANALOG SWITCH	1001-001394	SA
U900	IC-CMOS LOGIC	0801-003130	SA
U901	IC-HALL EFFECT S/W	1009-001020	SA
U903	IC-POSI.FIXED REG.	1203-004793	SA
UCP500	IC-COMM. CONTROLLER	1205-003104	SA
UME600	IC-MCP	1108-000104	SA
V1	VARISTOR	1405-001108	SA
V2	VARISTOR	1405-001108	SA
V3	VARISTOR	1405-001108	SA
V4	VARISTOR	1405-001108	SA
V5	VARISTOR	1405-001108	SA
V500	THERMISTOR-NTC	1404-001221	SA
V6	VARISTOR	1405-001108	SA
V7	VARISTOR	1405-001108	SA
V801	VARISTOR	1405-001108	SA
V804	VARISTOR	1405-001108	SA
V908	VARISTOR	1405-001108	SA
V909	VARISTOR	1405-001108	SA
V910	VARISTOR	1405-001108	SA
V911	VARISTOR	1405-001108	SA
V913	VARISTOR	1405-001108	SA
V914	VARISTOR	1405-001108	SA
V915	VARISTOR	1405-001108	SA
V916	VARISTOR	1405-001108	SA
V917	VARISTOR	1405-001108	SA
ZD1	DIODE-TVS	0406-001210	SA
ZD700	DIODE-TVS	0406-001254	SA
ZD701	DIODE-TVS	0406-001254	SA
ZD800	DIODE-TVS	0406-001208	SA
ZD804	DIODE-TVS	0406-001254	SA
ZD805	DIODE-TVS	0406-001254	SA
ZD806	DIODE-TVS	0406-001254	SA
ZD807	DIODE-TVS	0406-001254	SA
ZD900	DIODE-TVS	0406-001254	SA
ZD901	DIODE-TVS	0406-001254	SA
ZD902	DIODE-TVS	0406-001254	SA

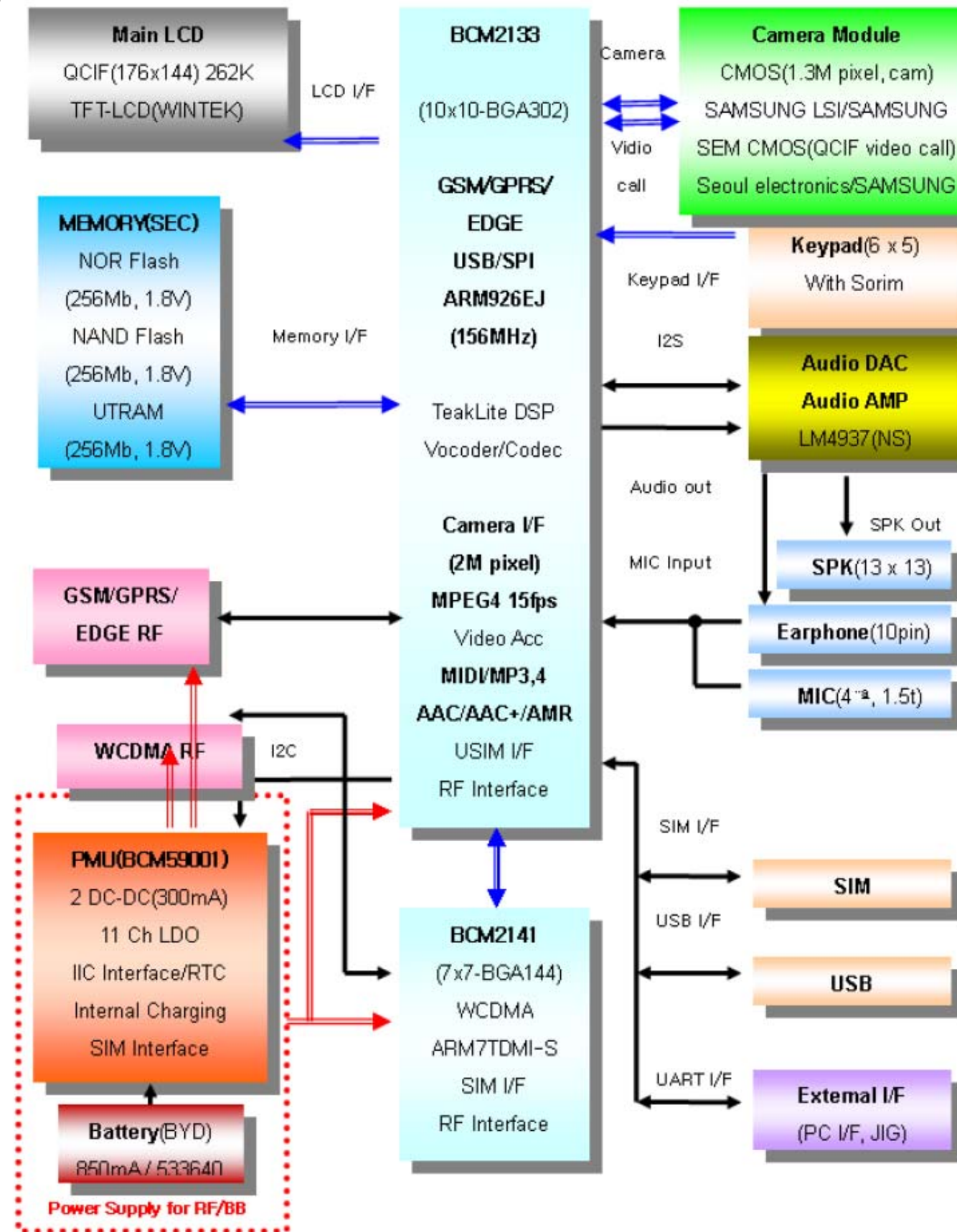


# 7. Block Diagrams

## 7-1. RF Solution Block Diagram

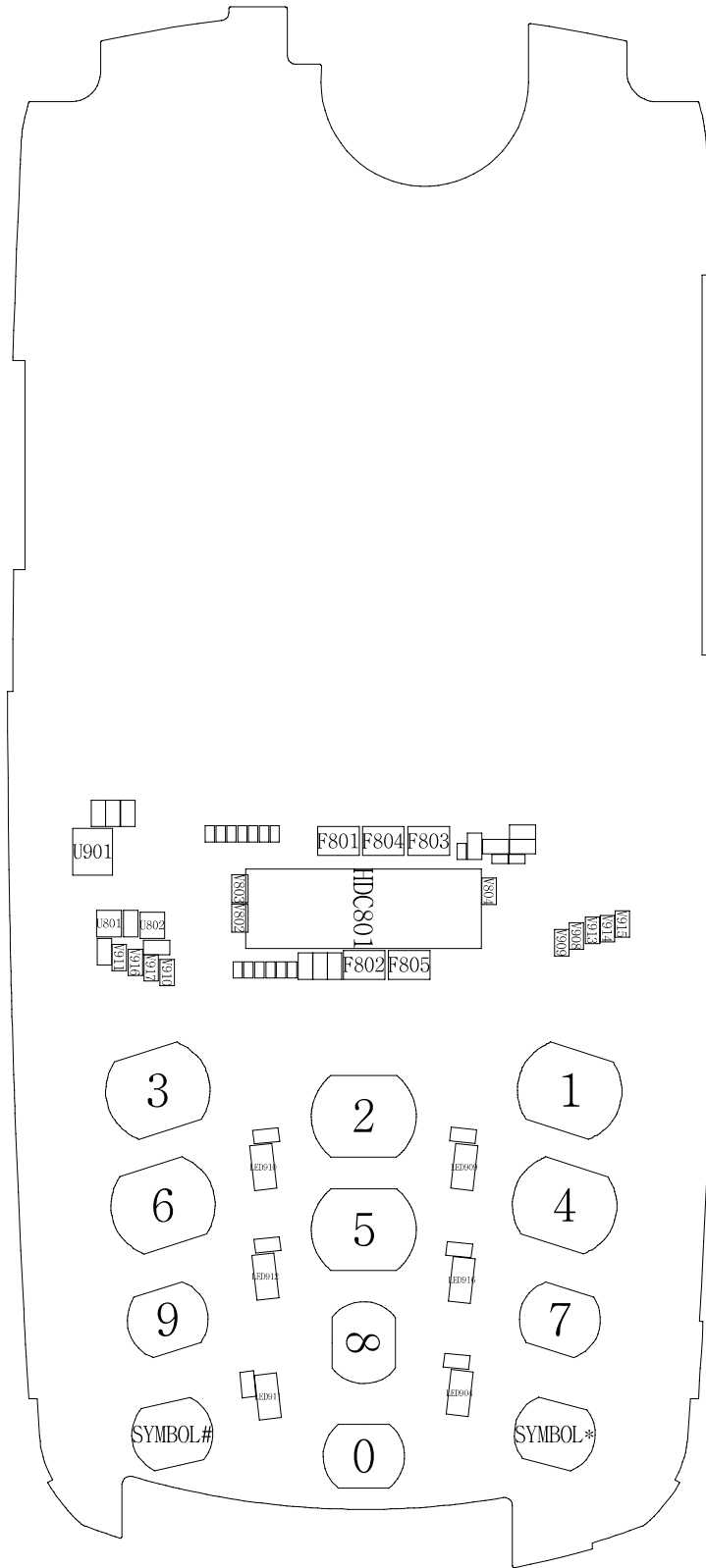


7-2. Base Band Solution Block Diagram



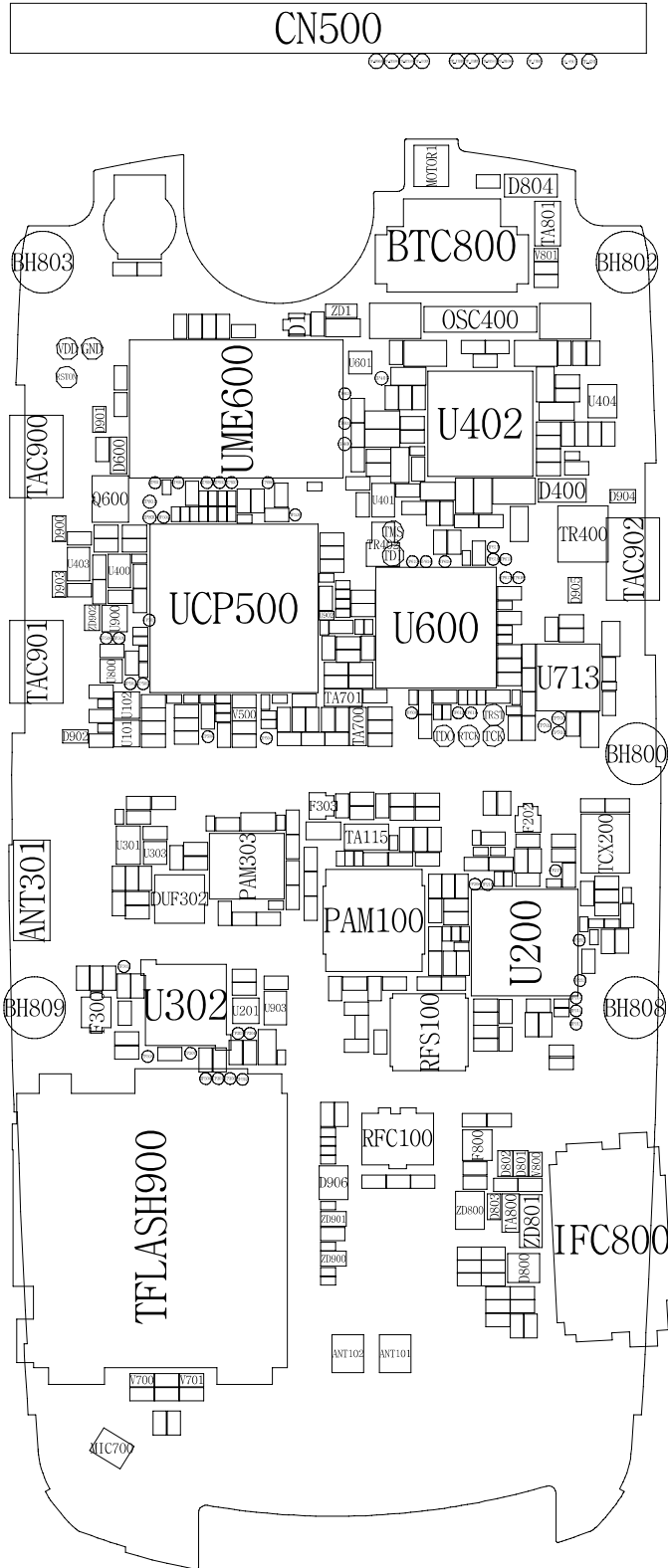
# 8. PCB Diagrams

Top





Bottom

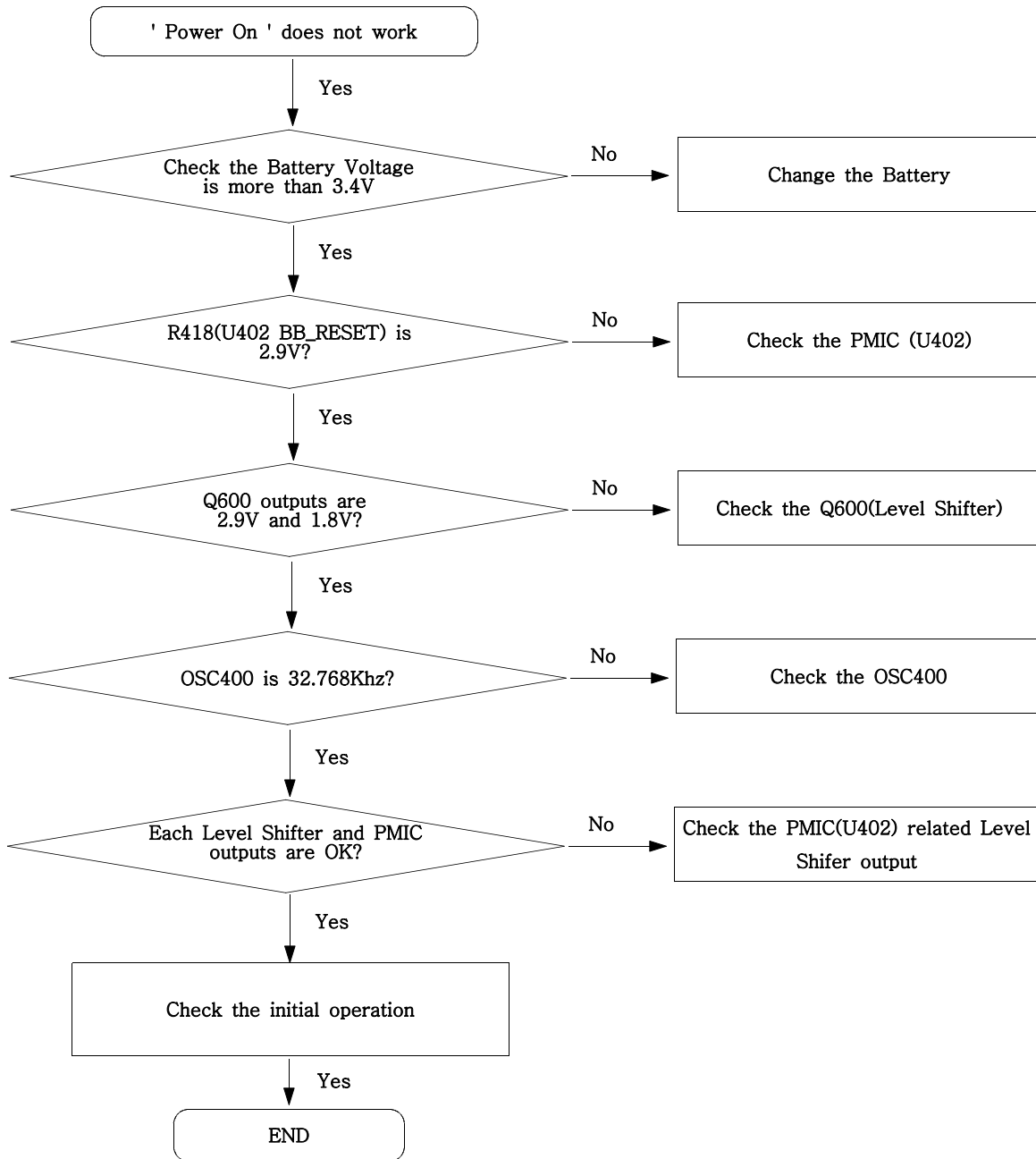


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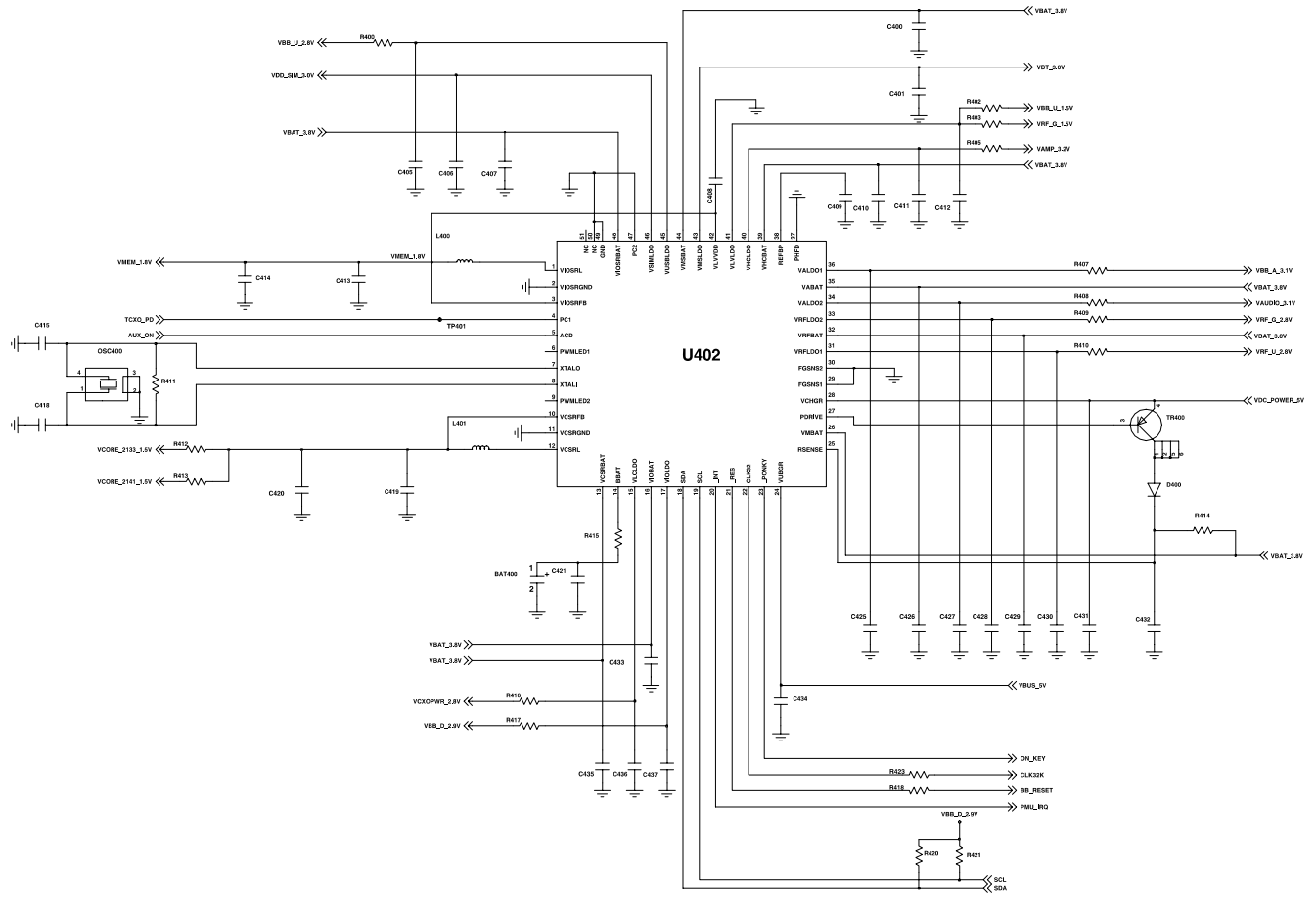
## 9. Flow Chart of Troubleshooting

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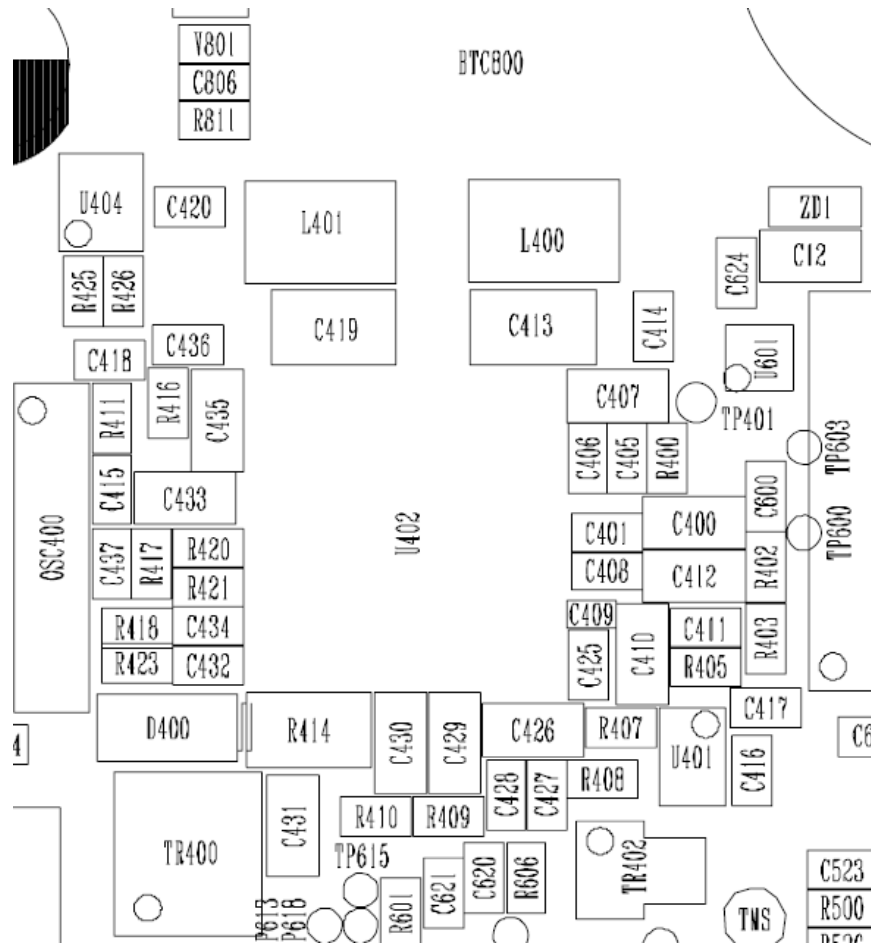
### 9-1. Power On



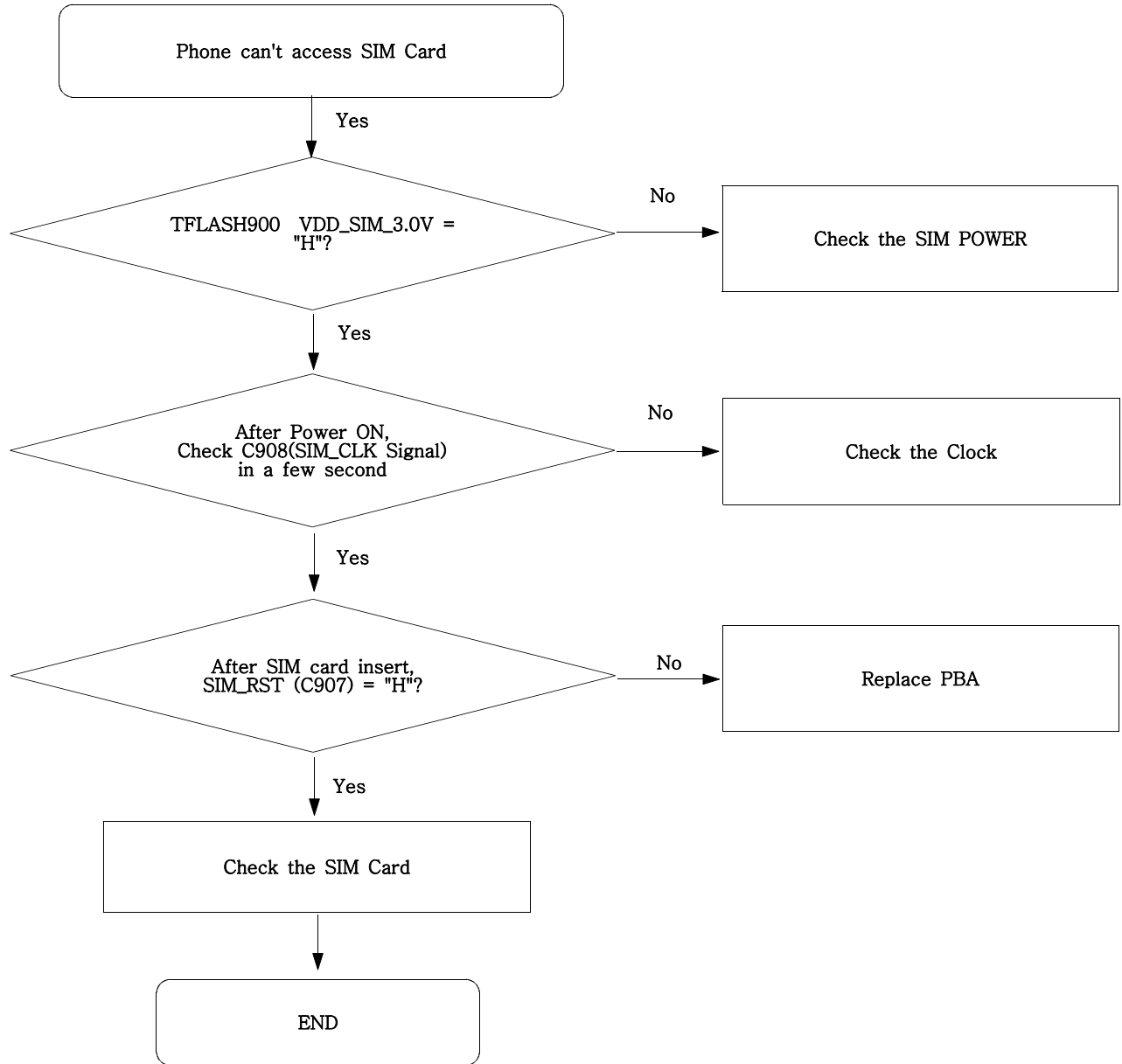
# Flow Chart of Troubleshooting

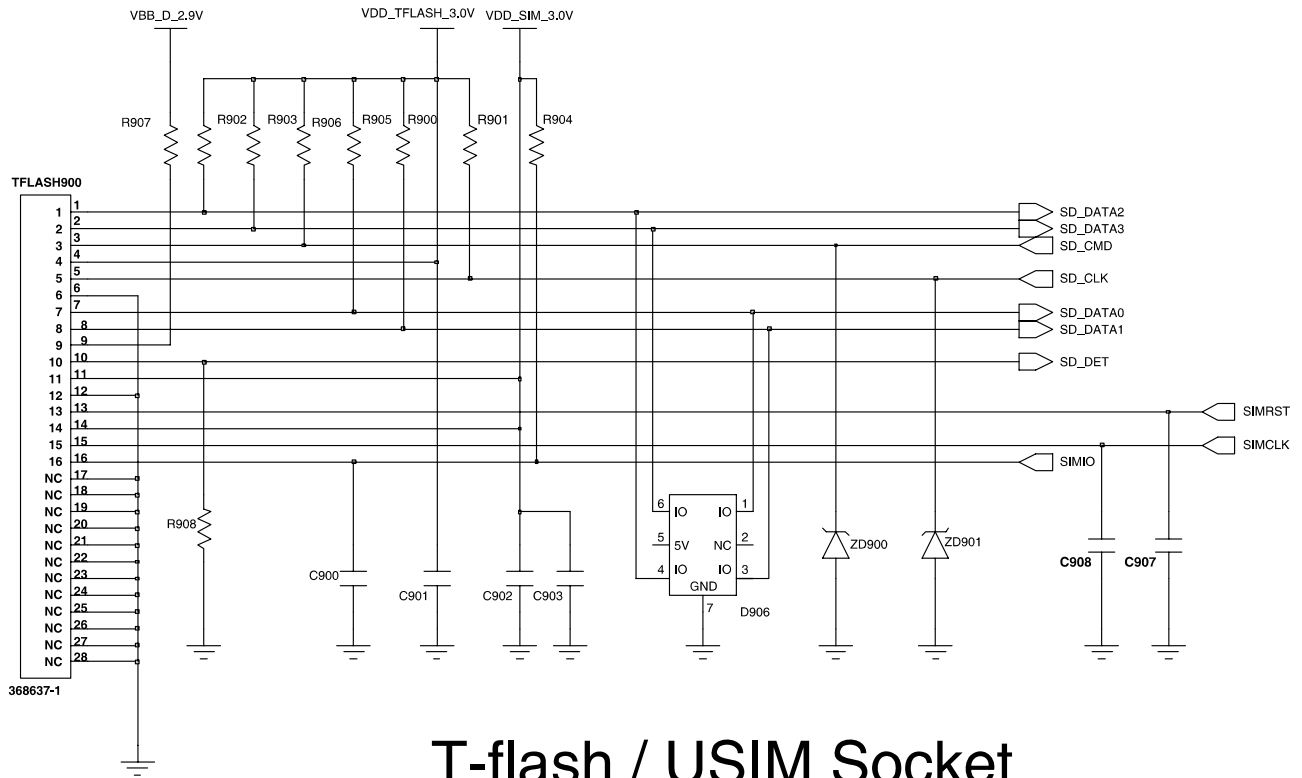


Power Management IC

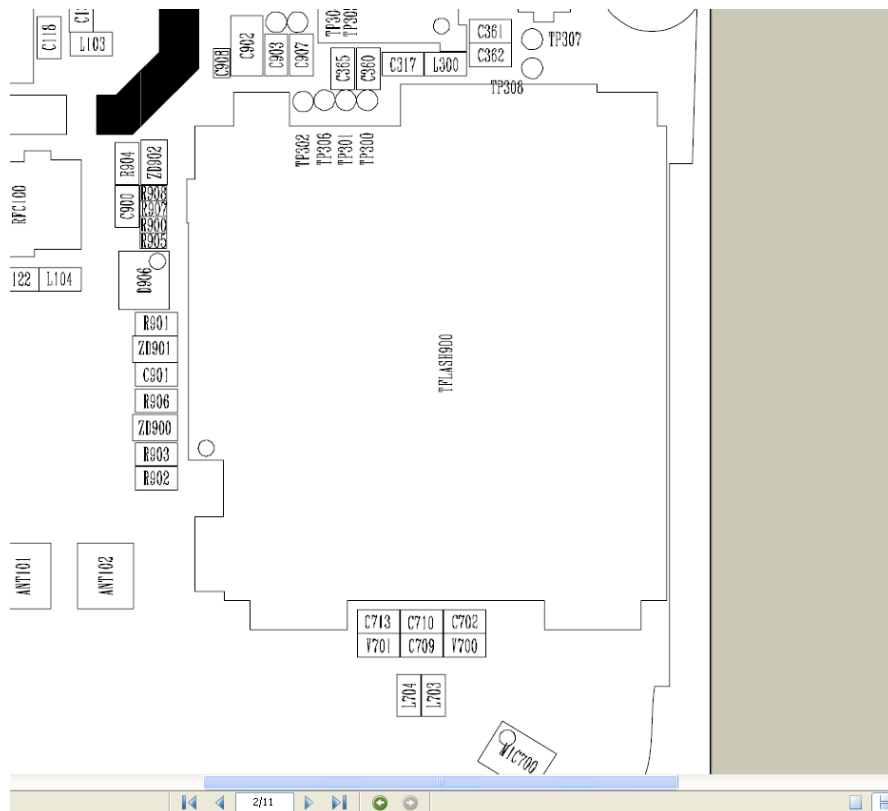


9-2. Sim Part

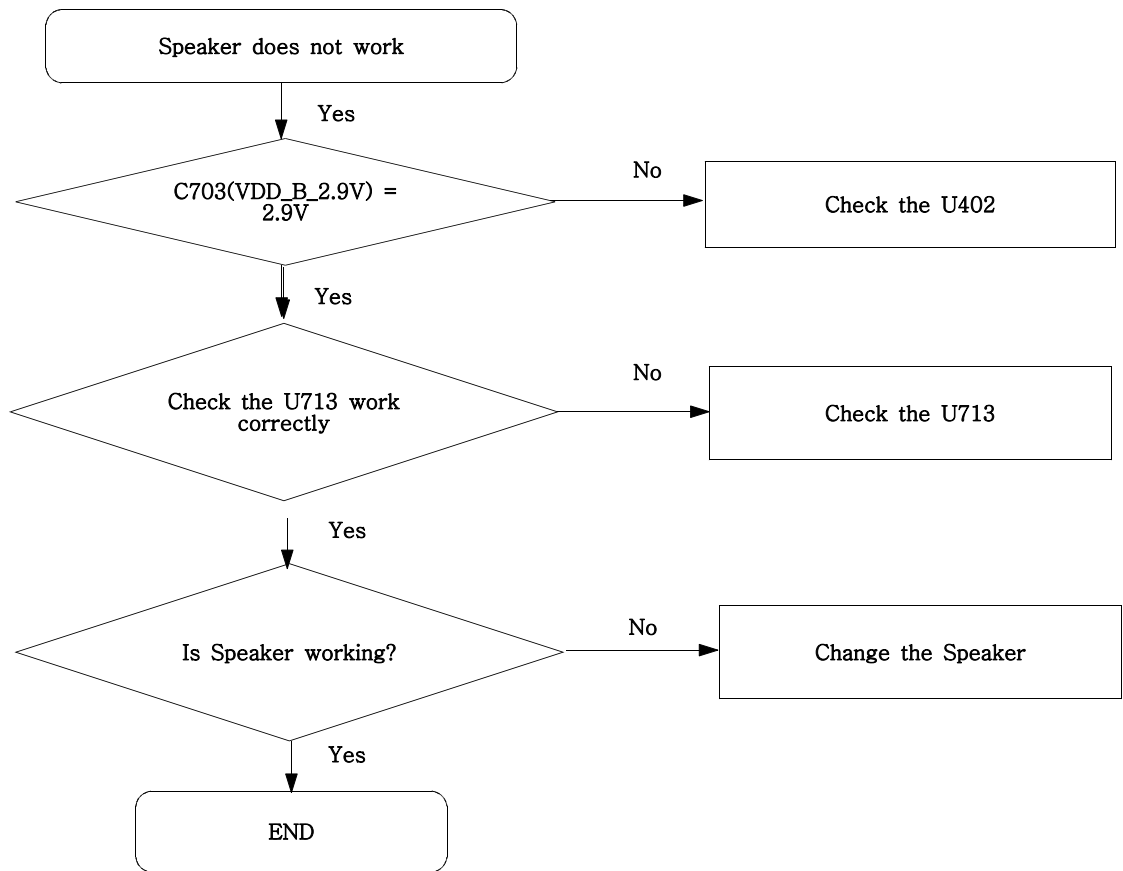


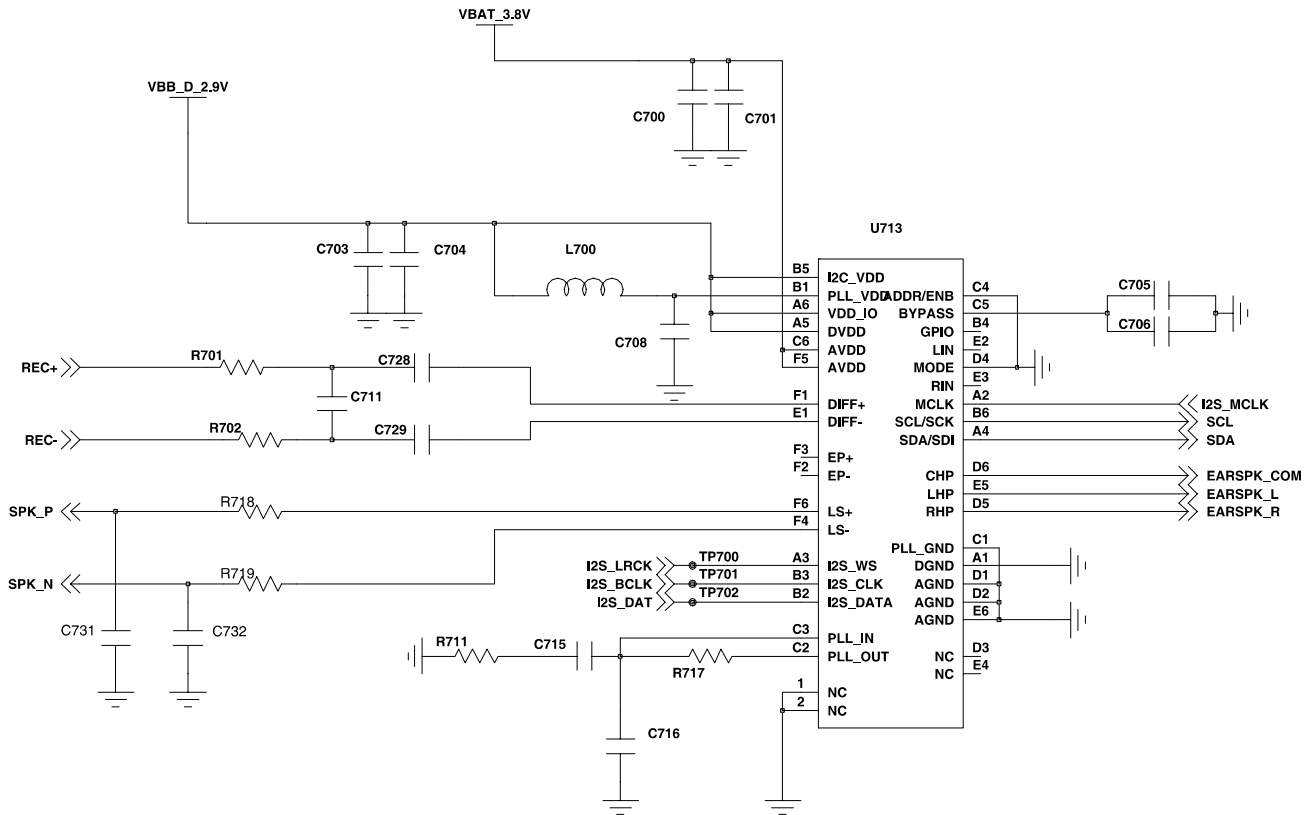


## T-flash / USIM Socket

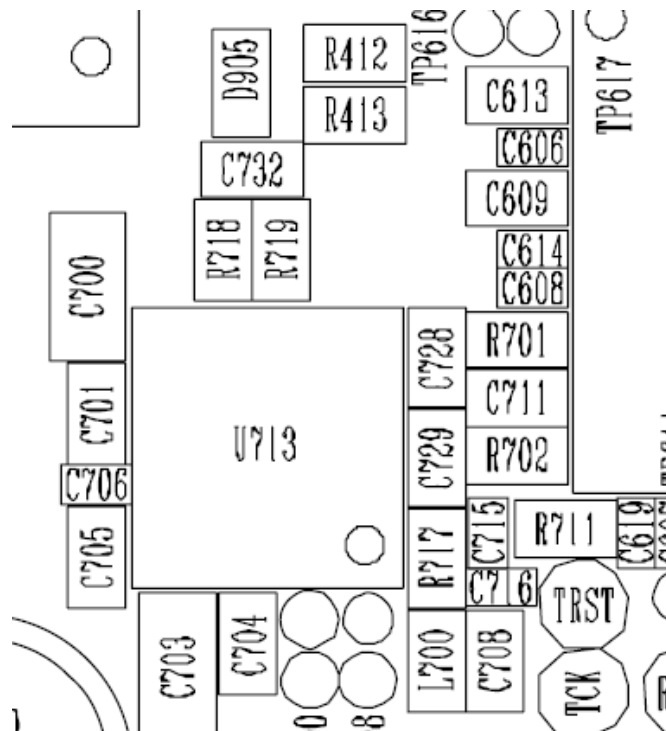


### 9-3. Speaker Part



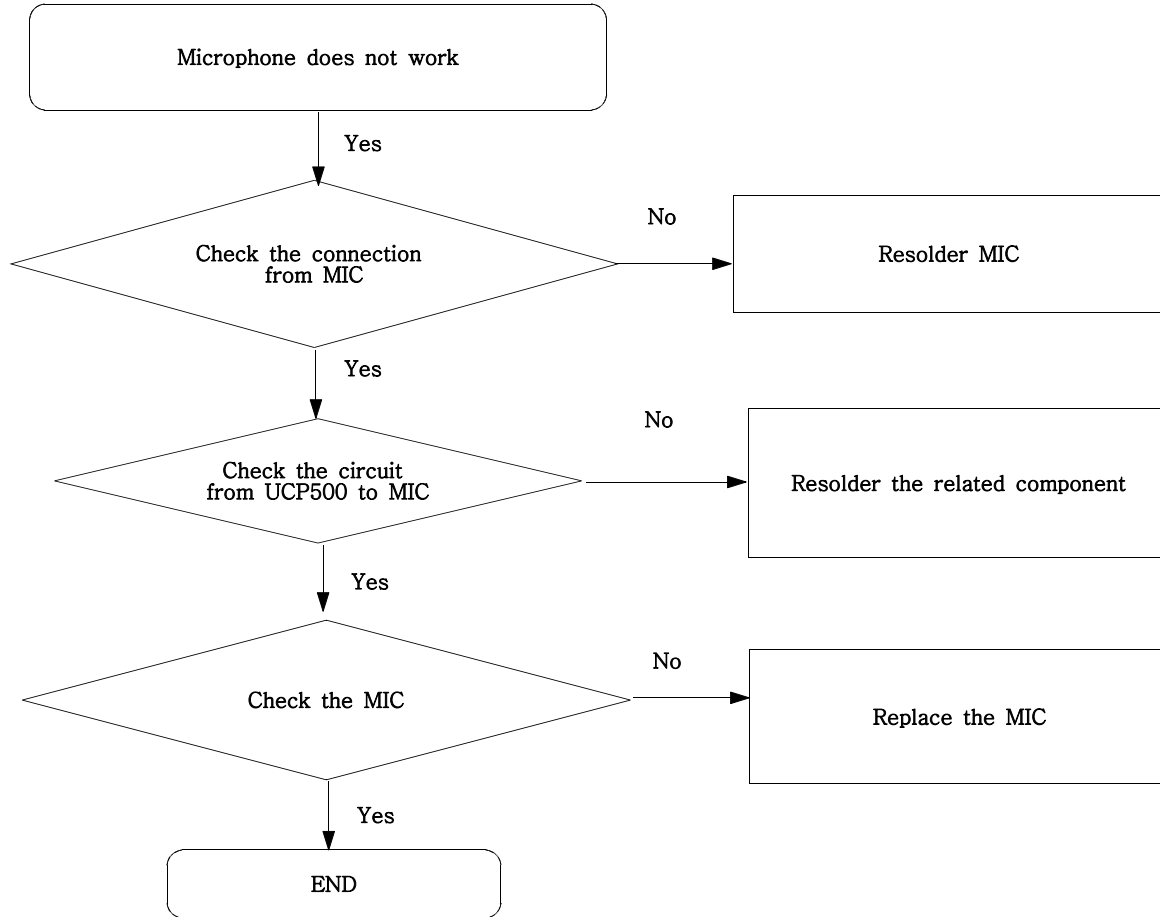


**AUDIO DAC/AMP**



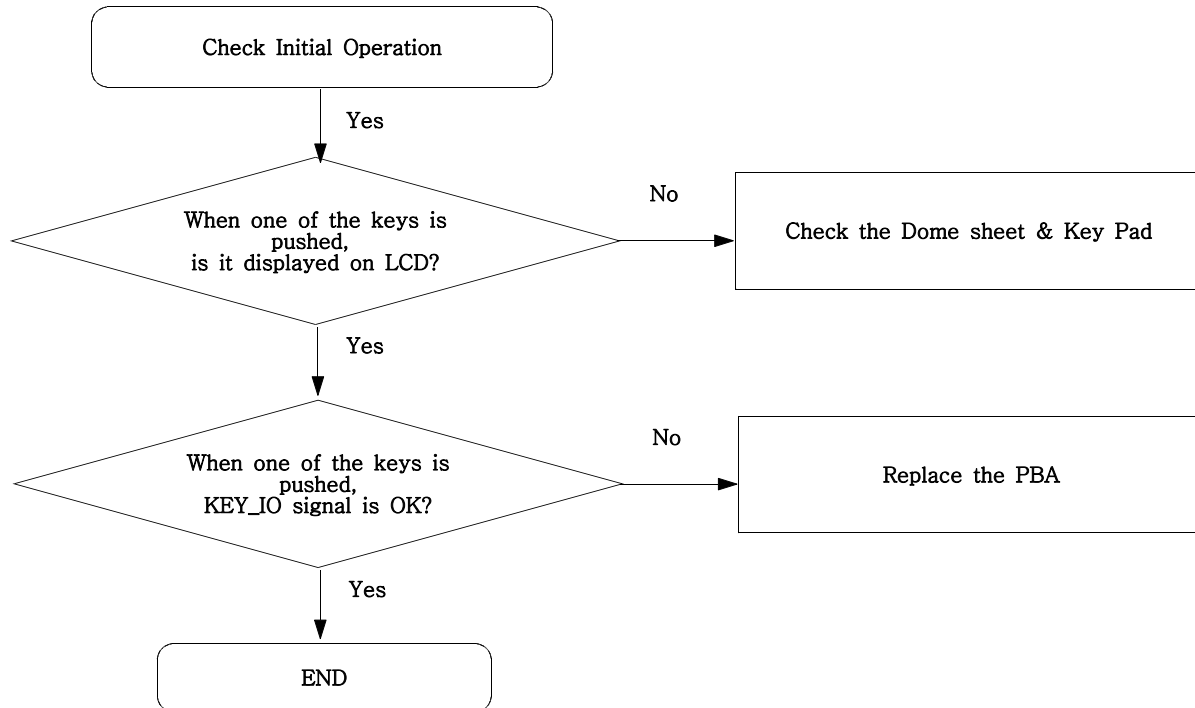


### 9-4. Microphone Part

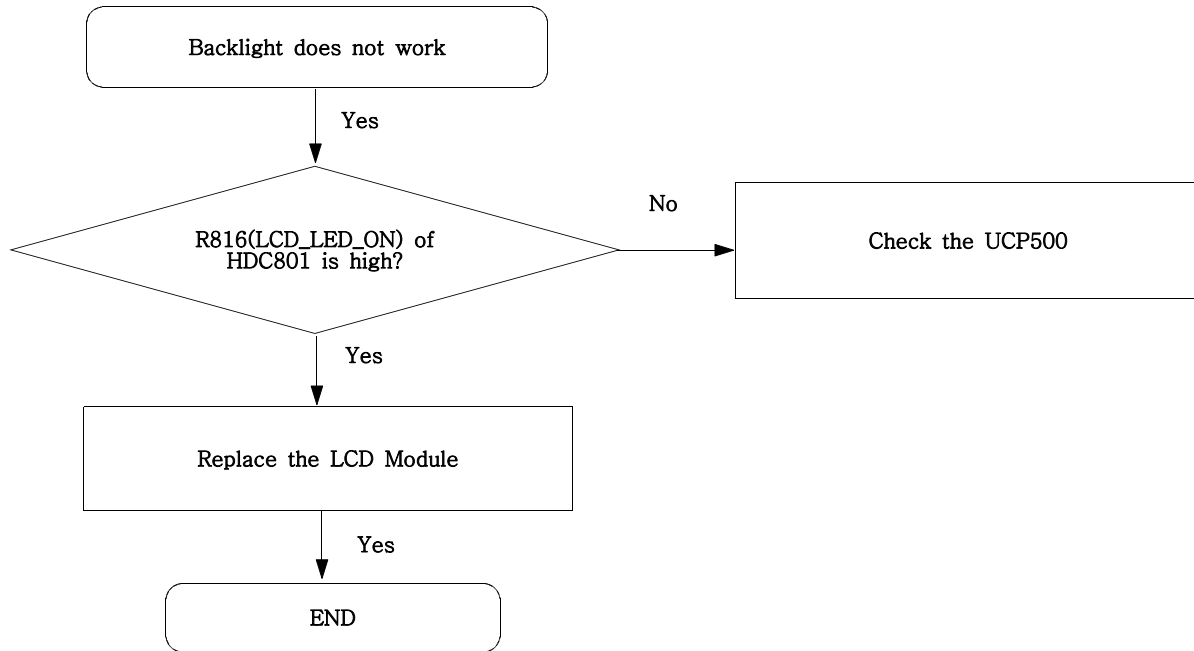




### 9-5. Key Data Input

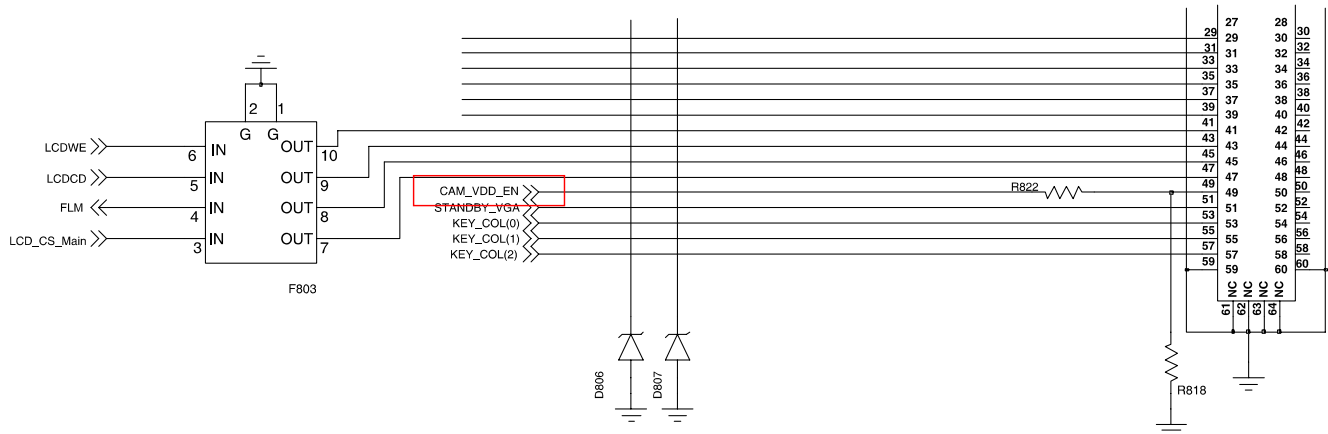
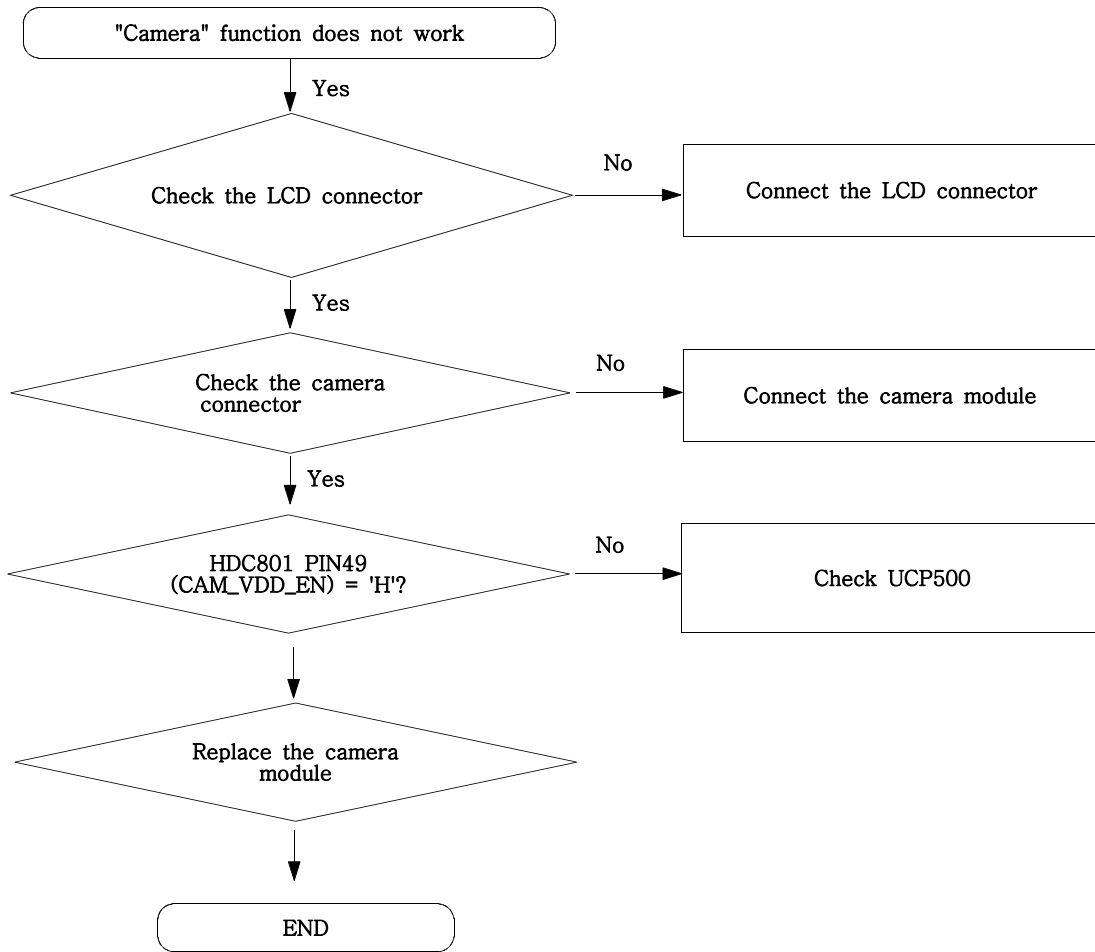


### 9-6. LCD Back Light

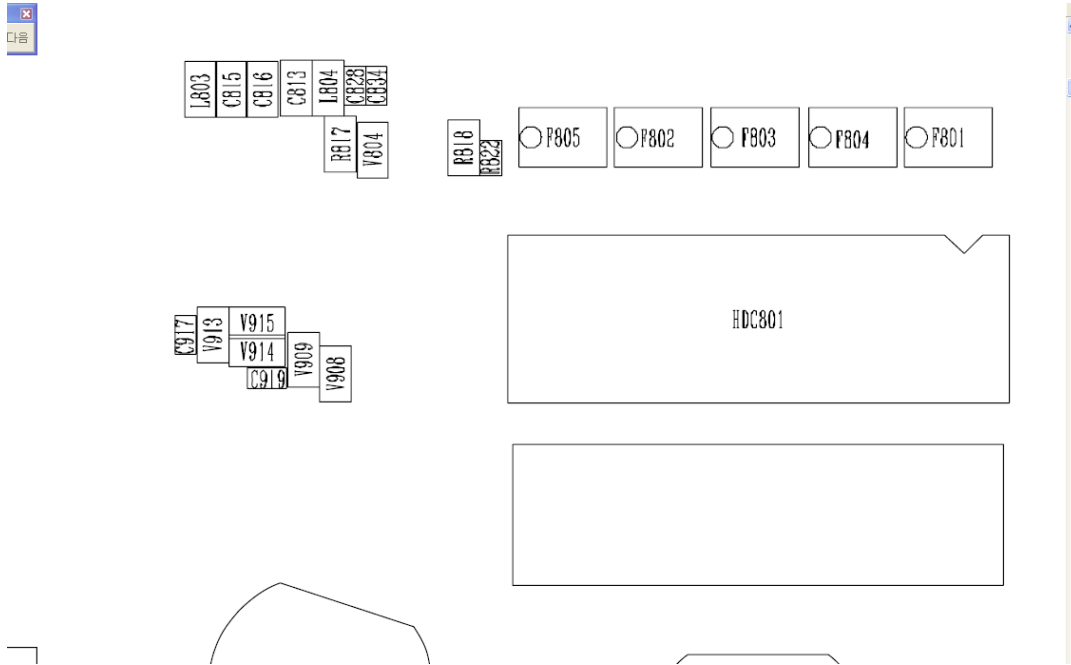




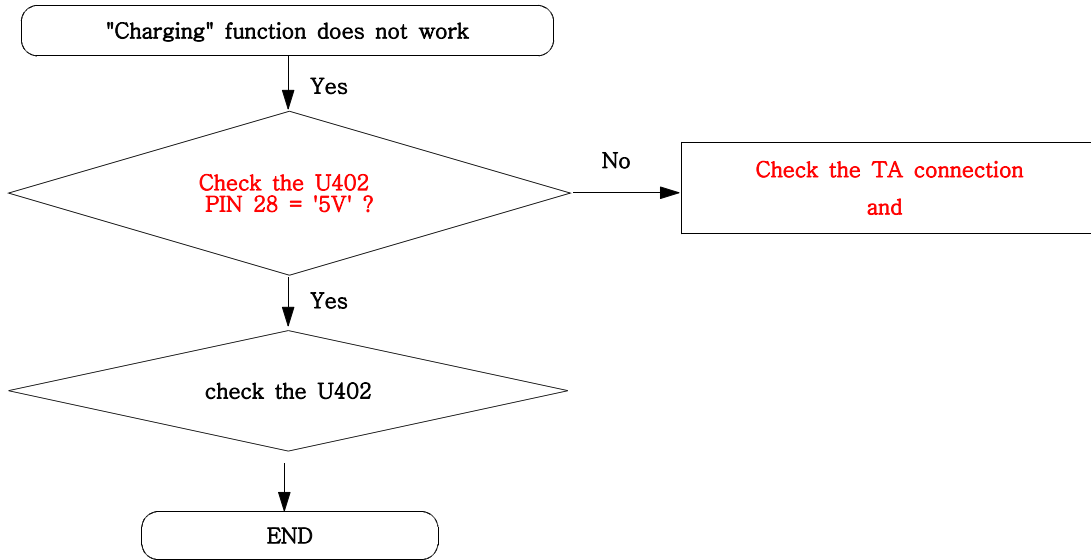
### 9-7. CAMERA PART



# Flow Chart of Troubleshooting

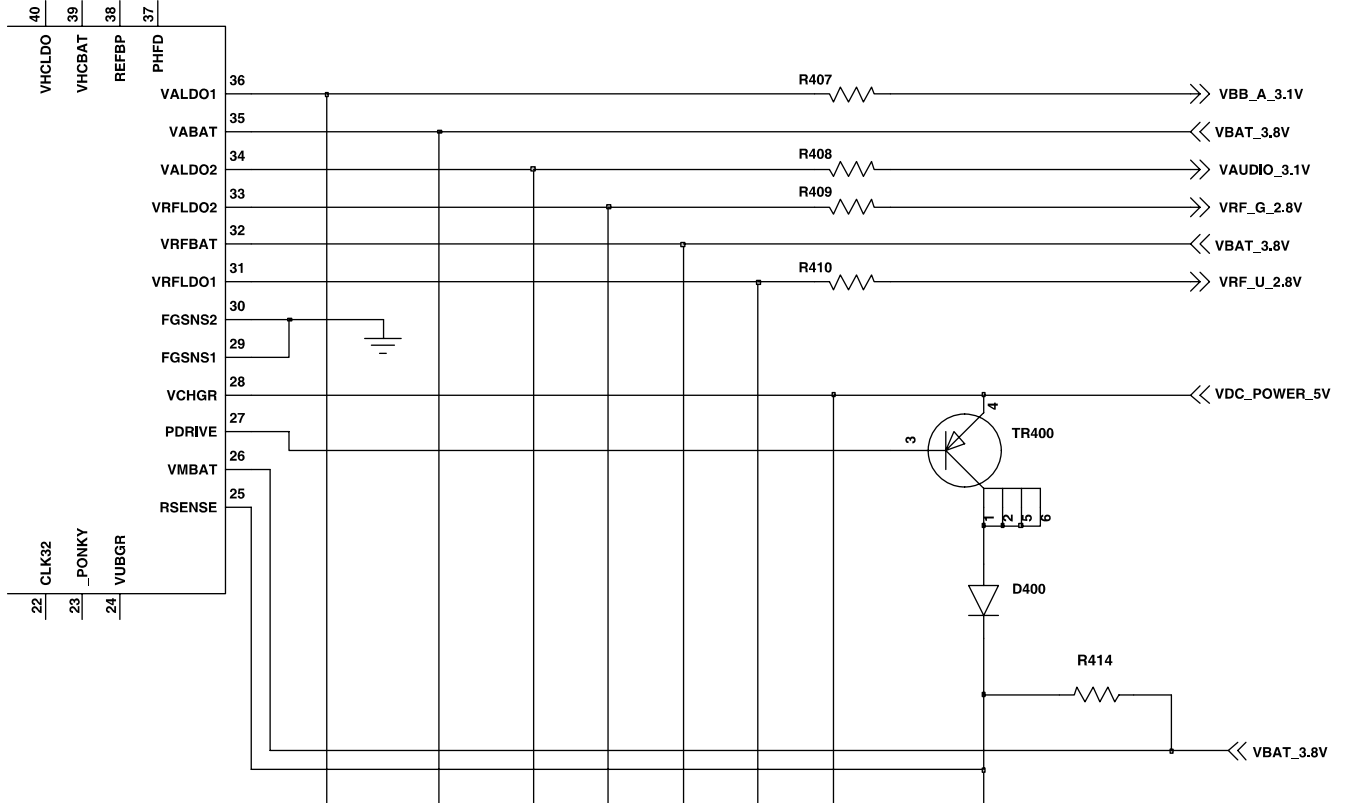


9-8. Charging Part

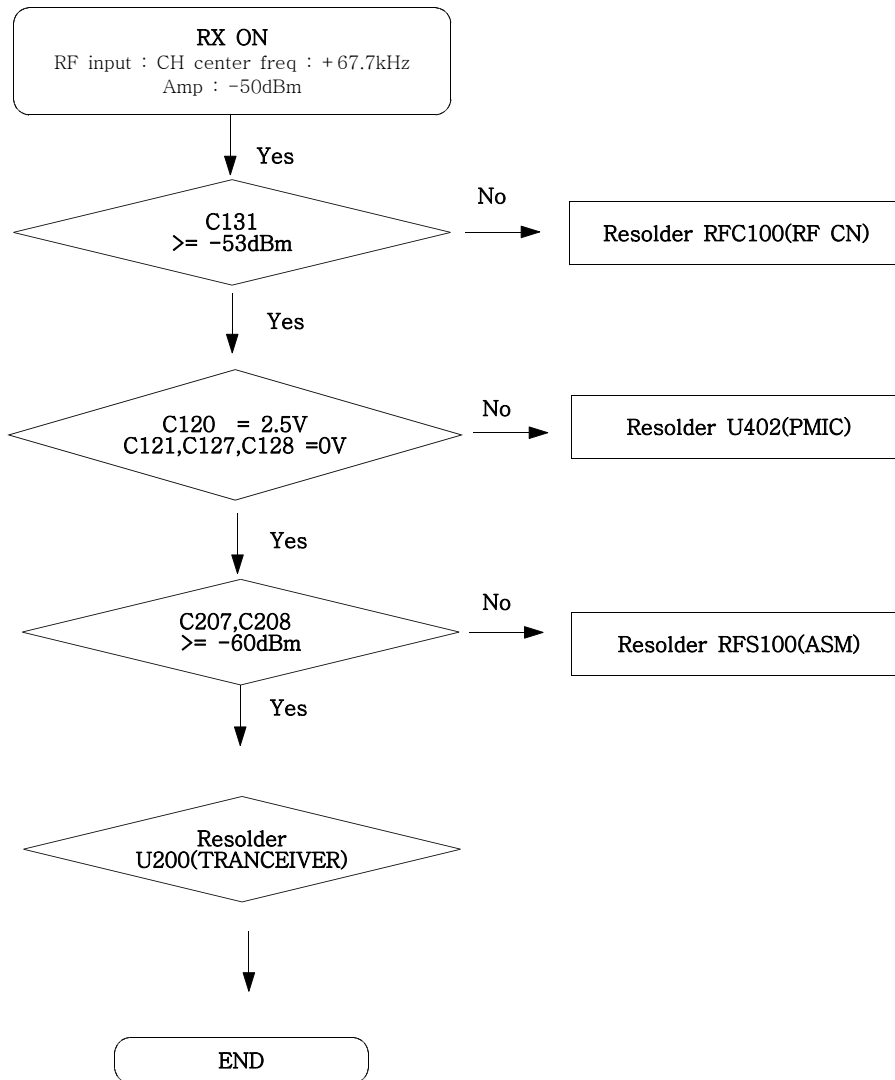




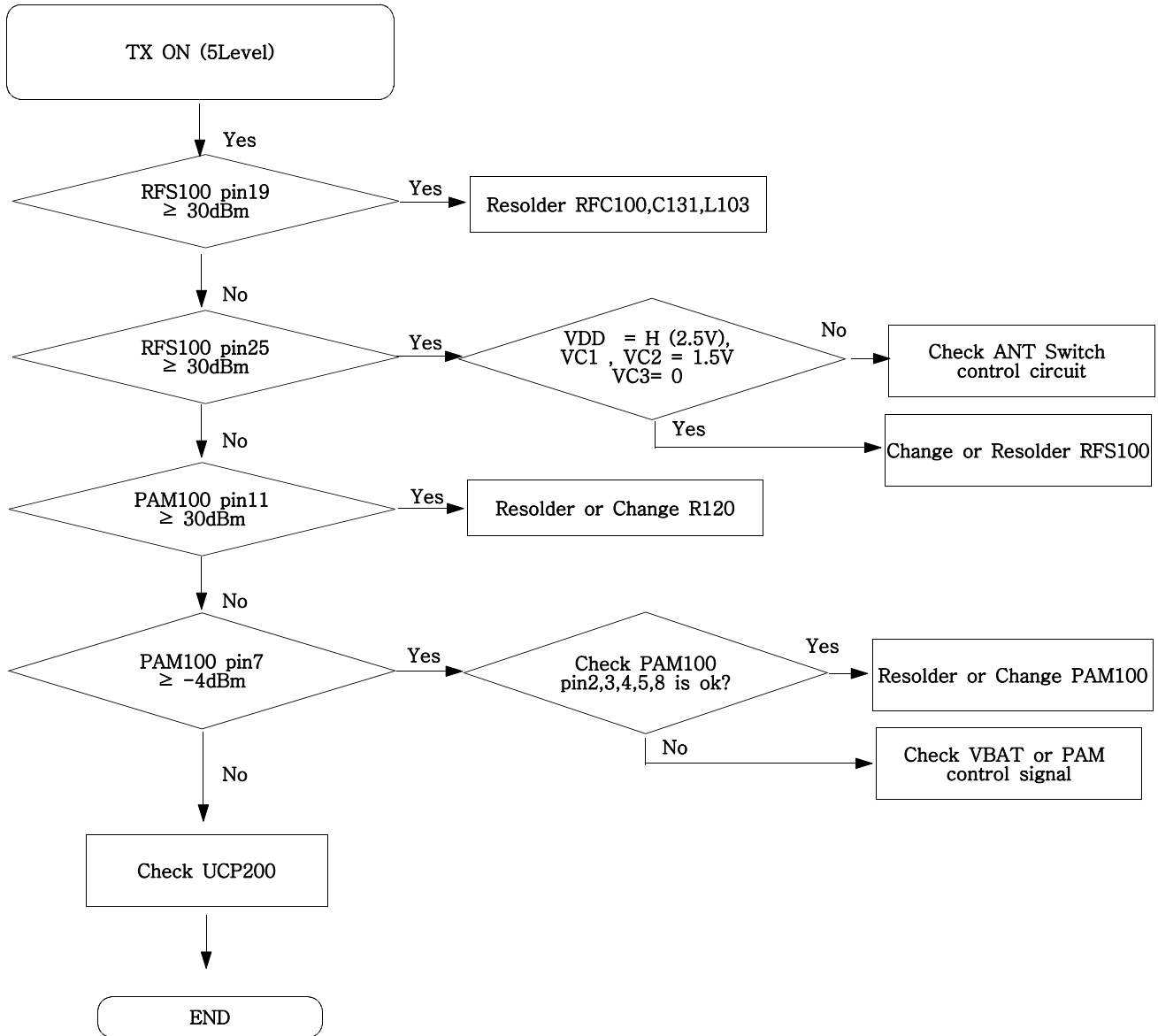
# Flow Chart of Troubleshooting



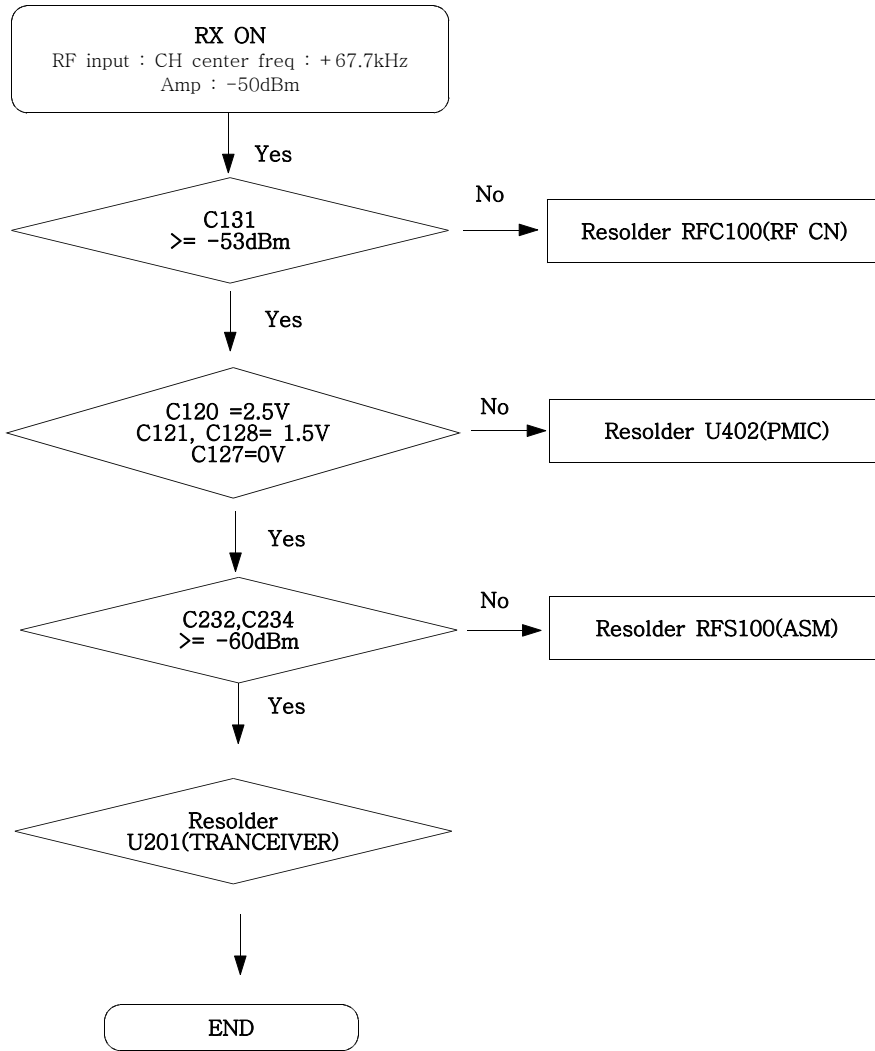
9-9. GSM Receiver



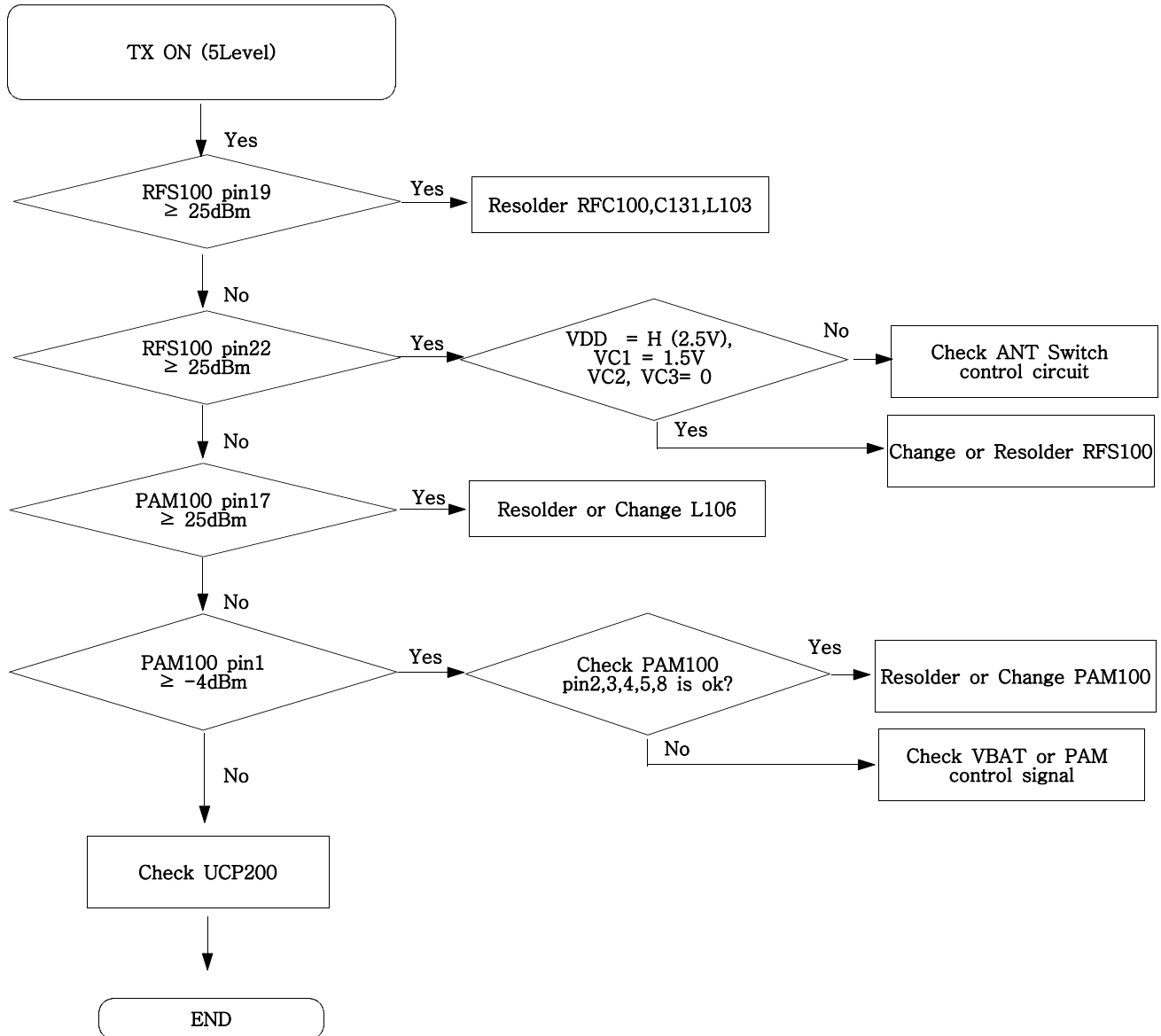
9-10. GSM Transmitter



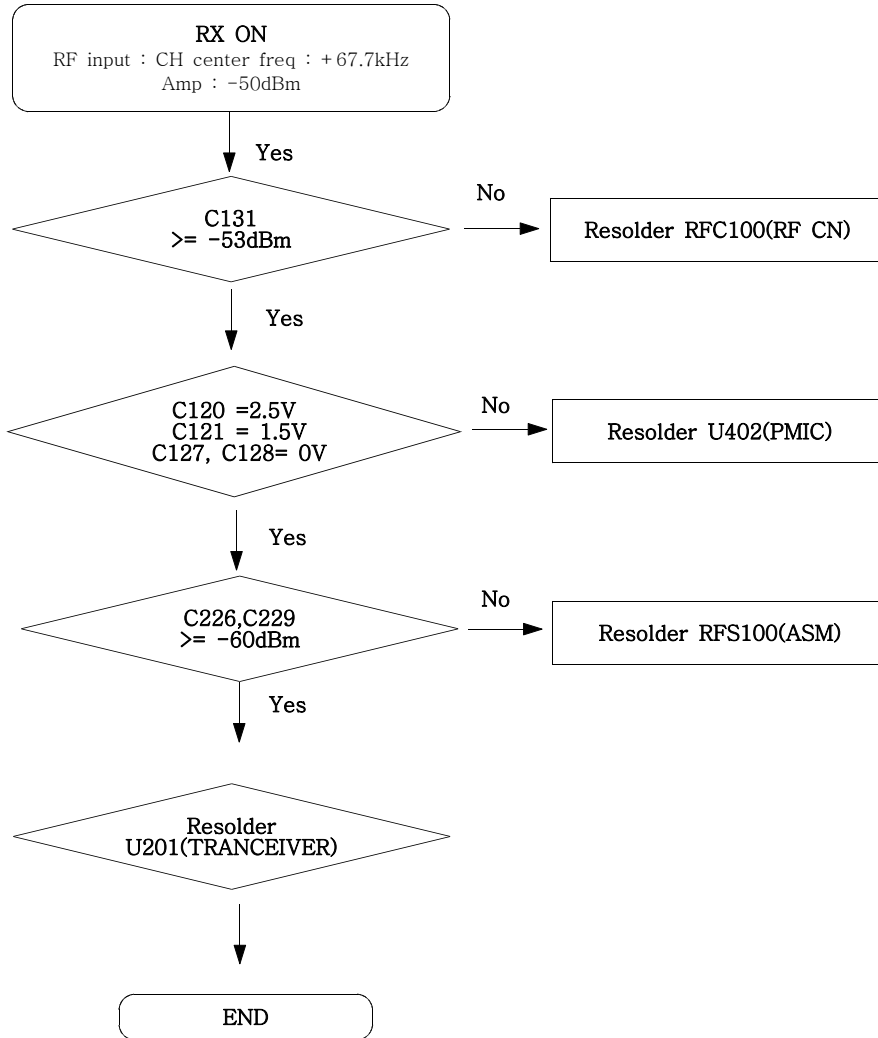
9-11. DCS Receiver



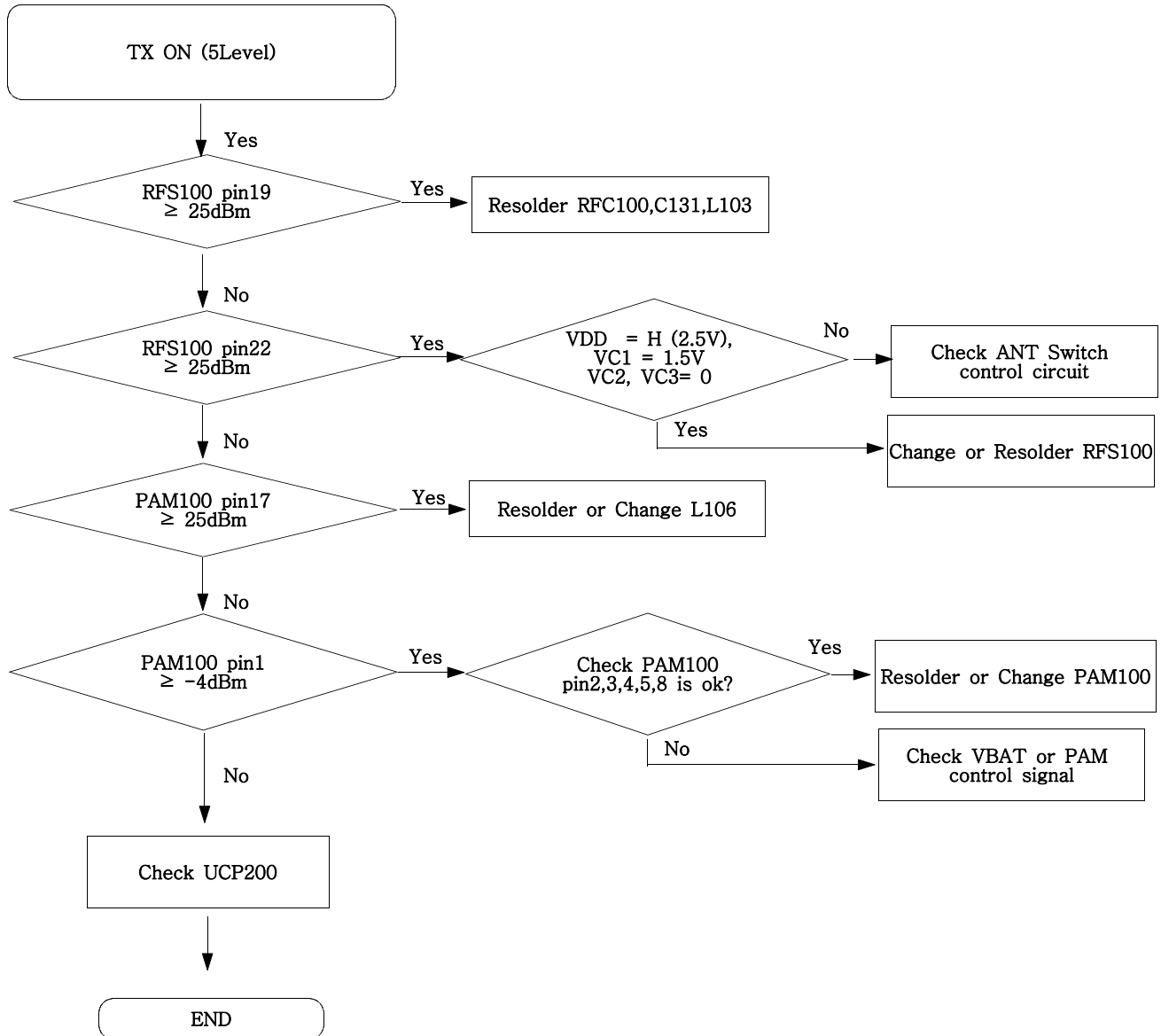
9-12. DCS Transmitter



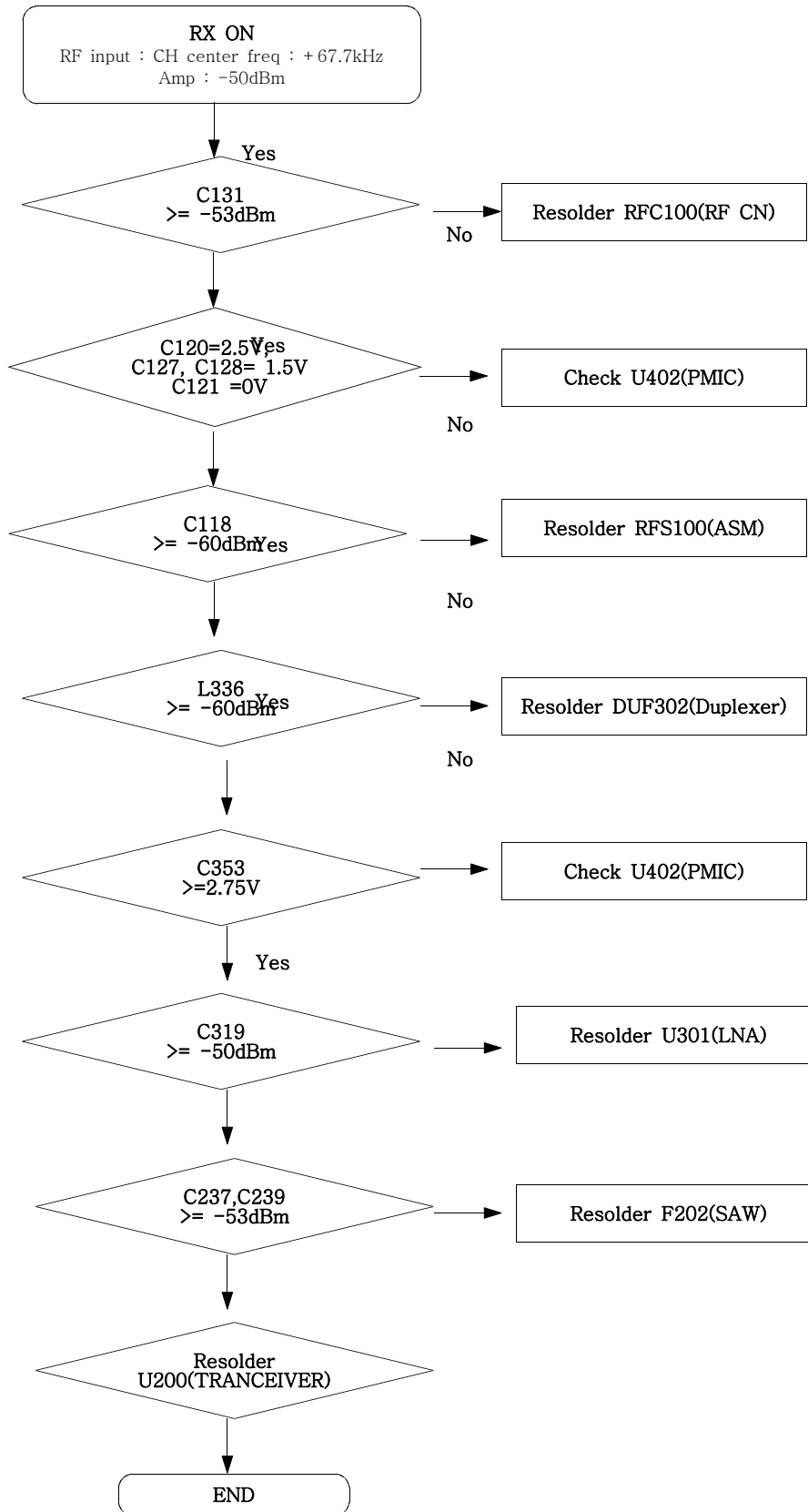
9-13. PCS Receiver



9-14. PCS Transmitter

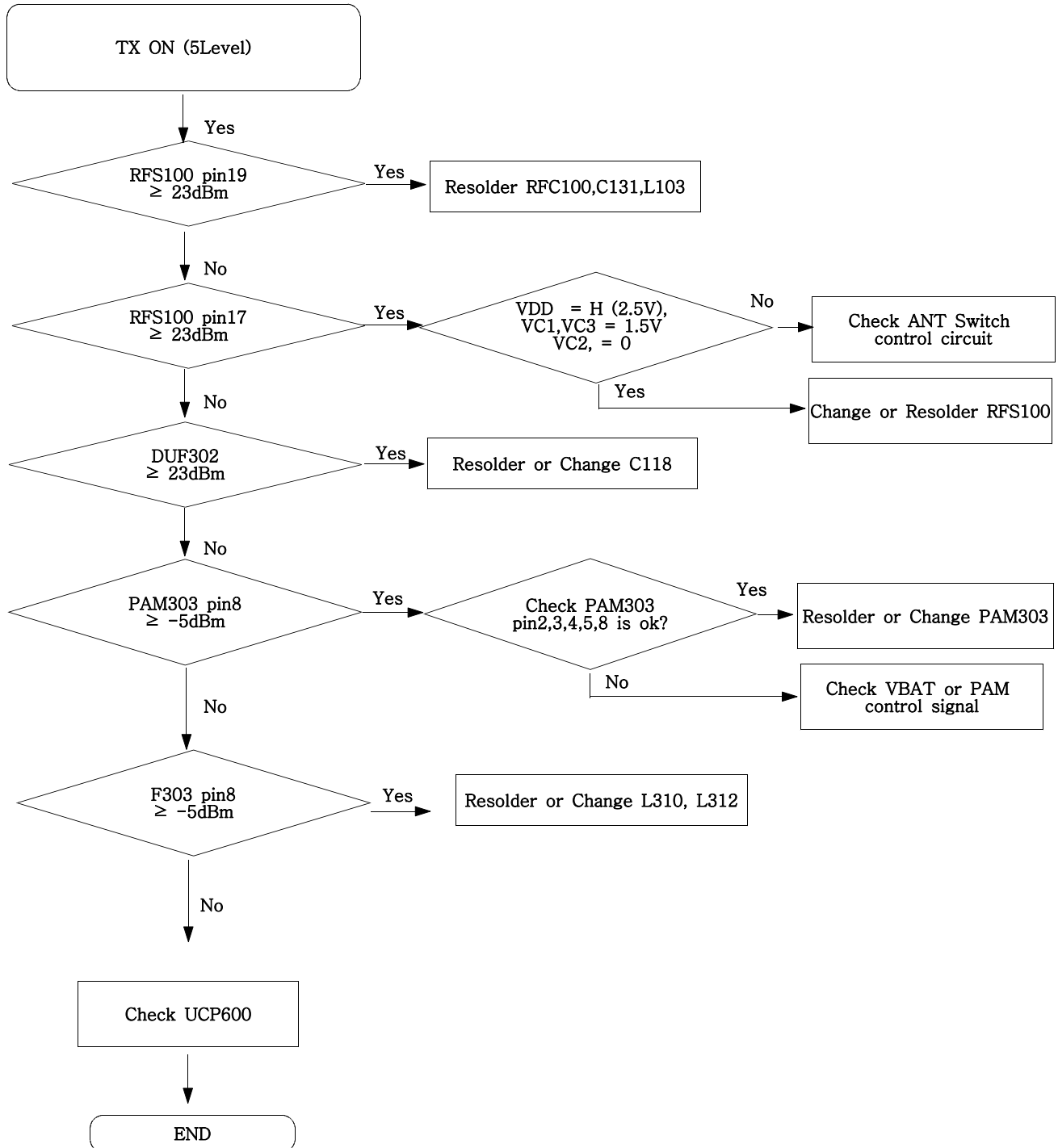


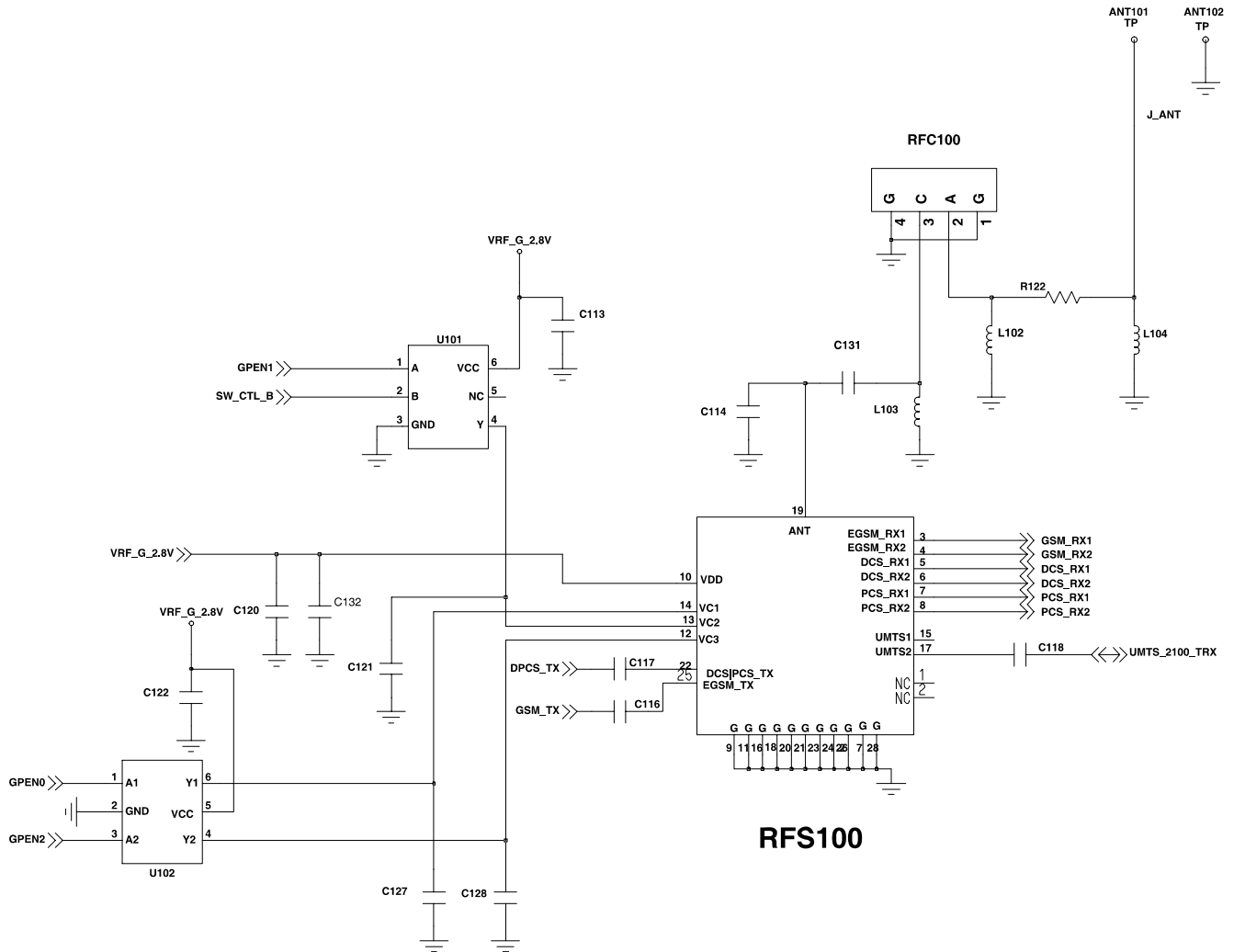
9-15. WCDMA Receiver



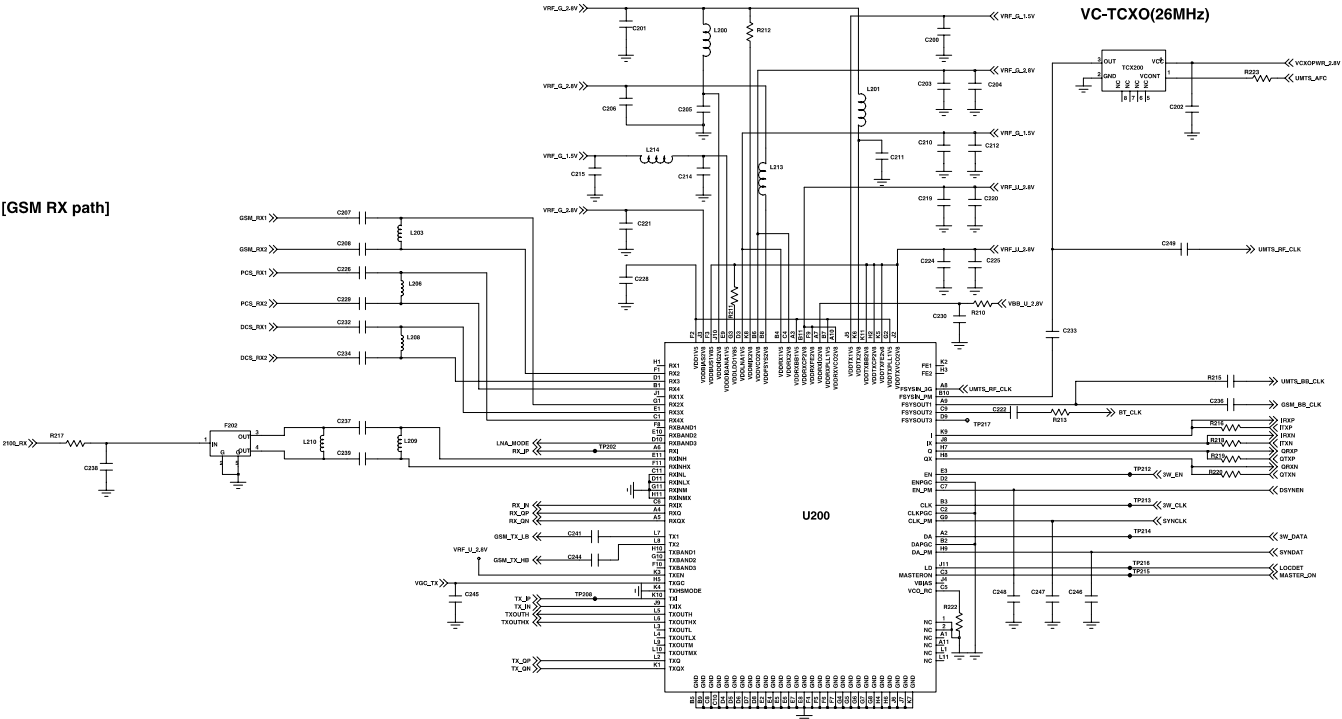
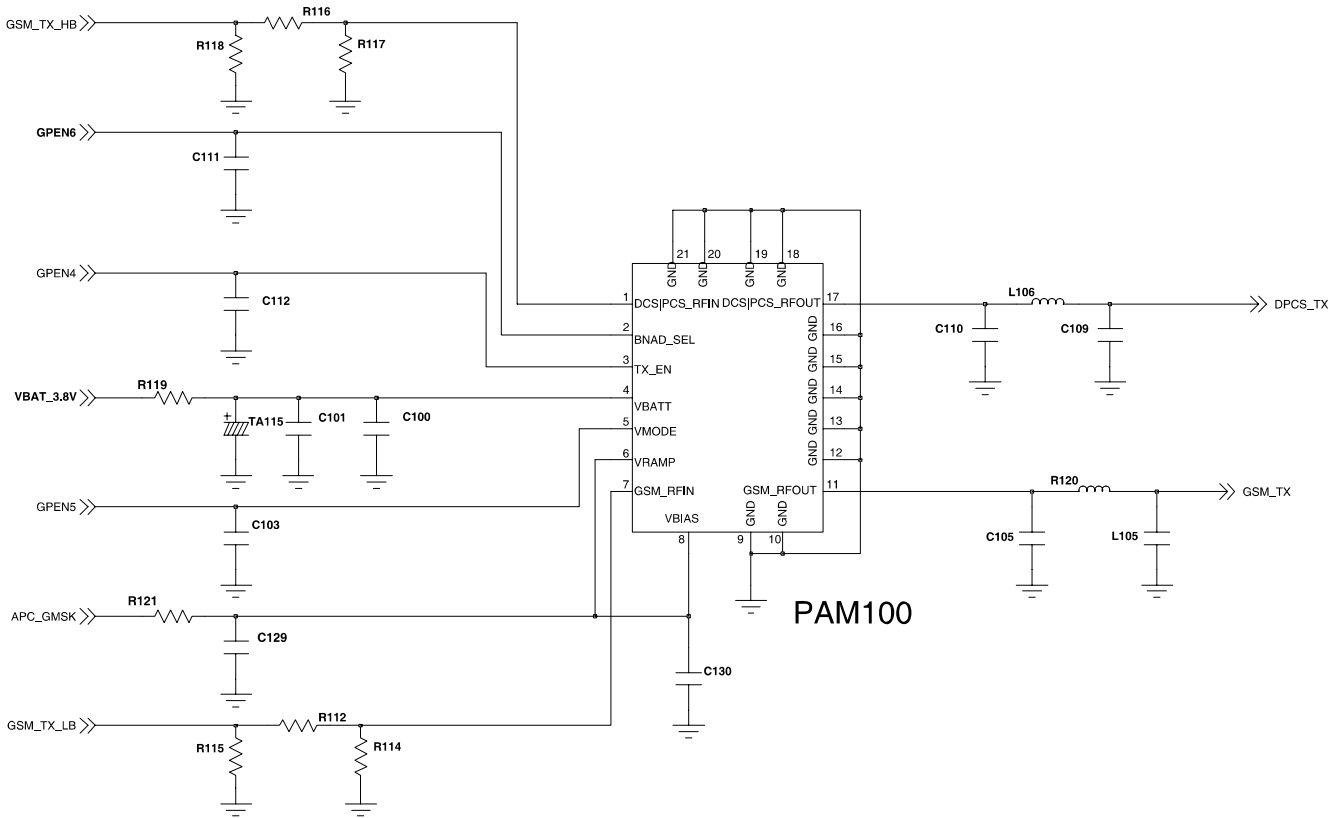


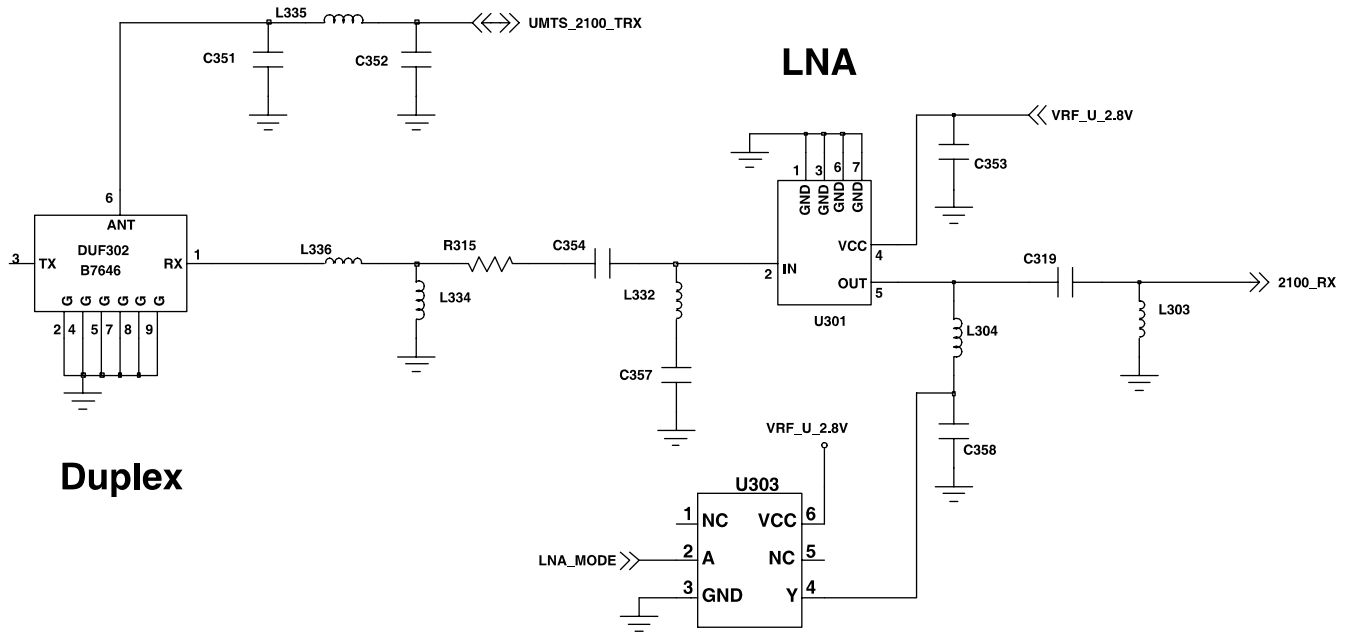
9-16. WCDMA Transmitter



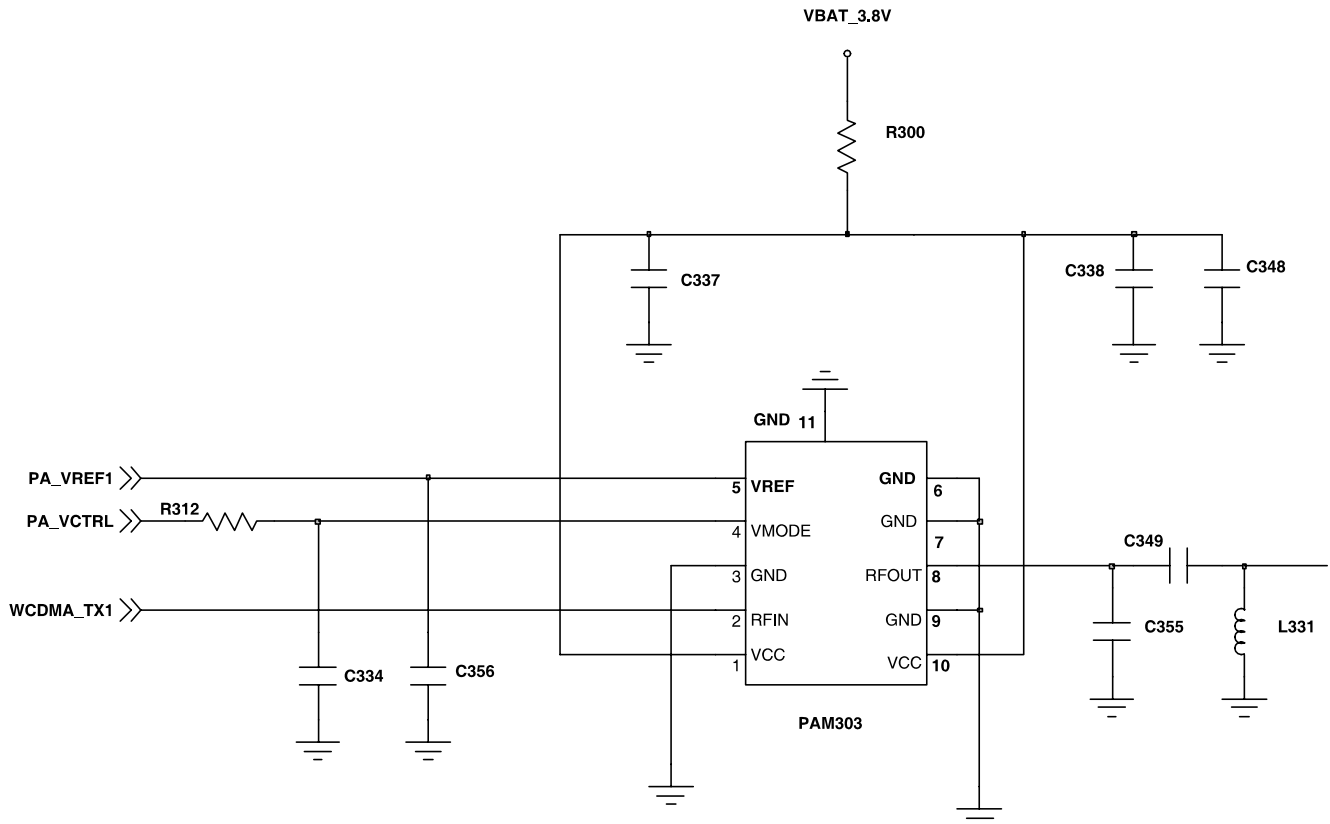


# Flow Chart of Troubleshooting

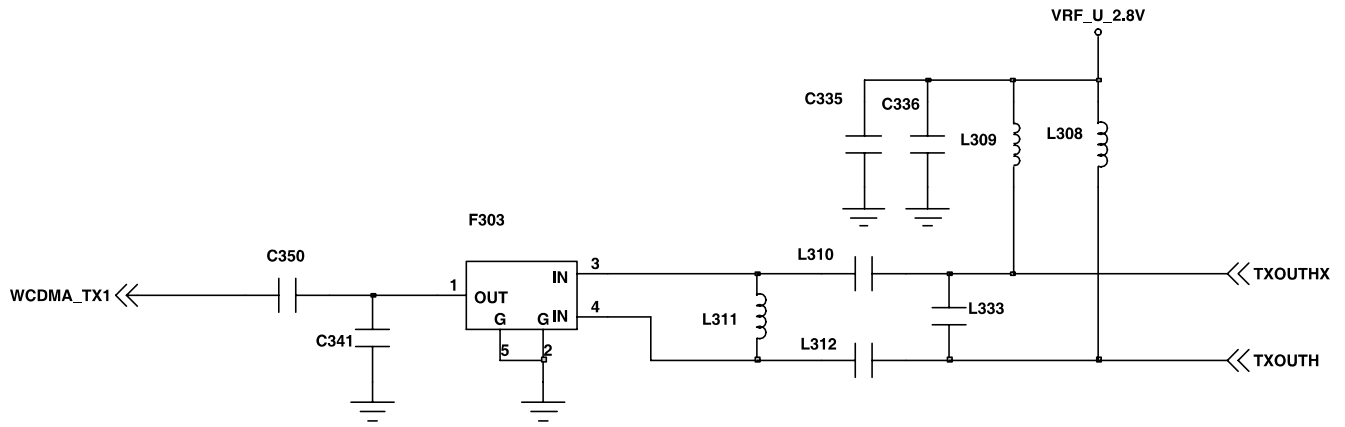




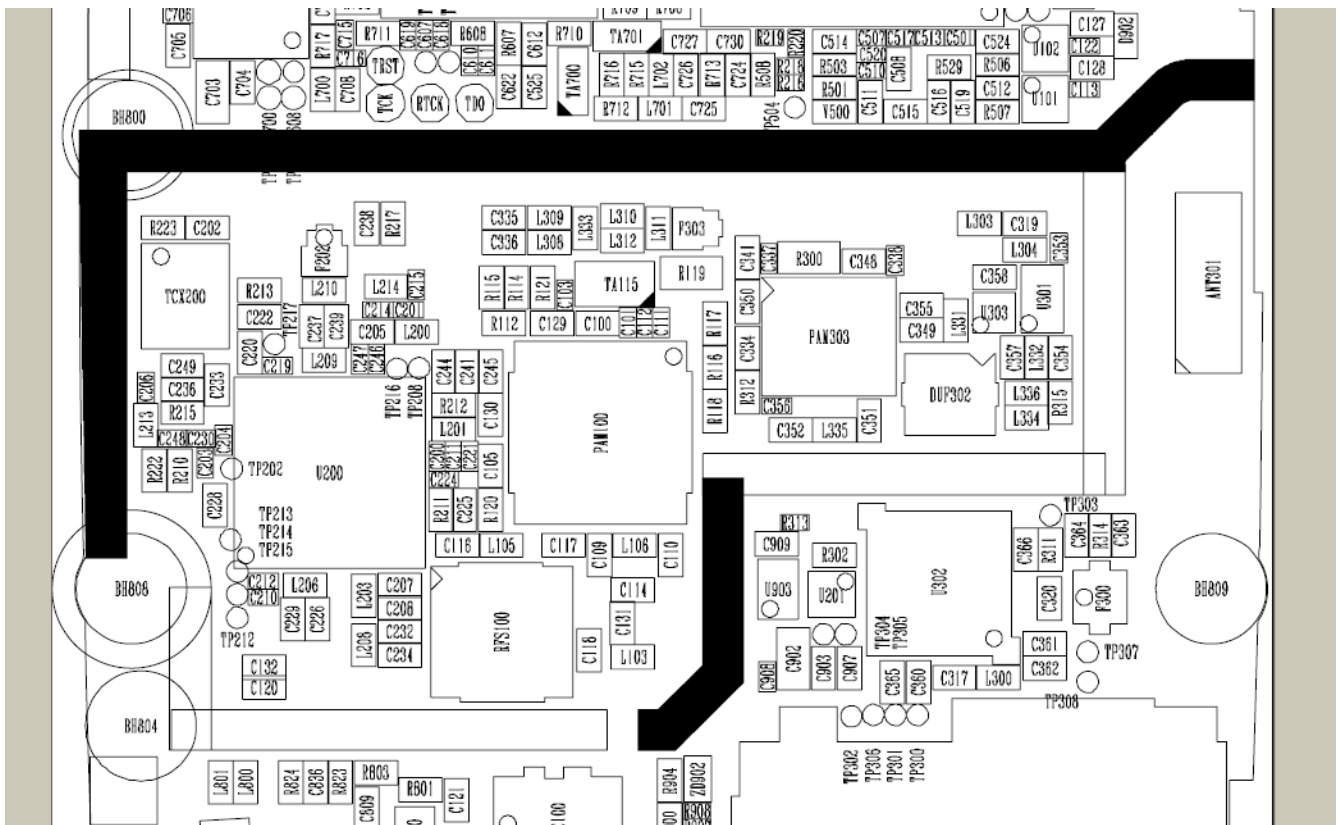
Duplex



[ PAM (UMTS 2100) ]



[ UMTS TX path ]



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## 10. Reference data

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### 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

### 1. FRONT & REAR

1

Detach the two SCREW SHEETS.



2

Unscrew down 4 points in the red circles.



1) Be care of scratch.

1) Be care of scratch.

3

Remove REAR Case.



4

Detach the MOTOR to the FRONT.  
Separate the PBA from the FRONT.



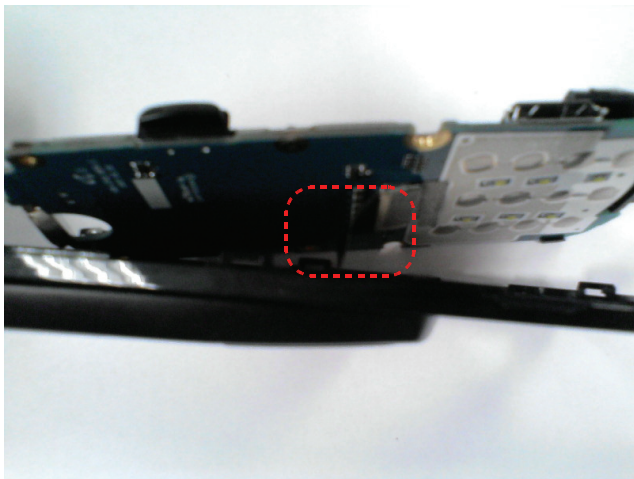
1) Be care of scratch.

1) Be care of scratch.



5

Disjoin the CONNECTOR from the PBA.



1) Be care of damage to the SLIDE FPCB.

6

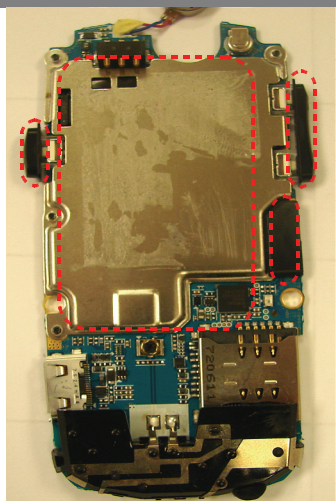
Unscrew the designated point.s(5 points)



1) Be care of the scratch.

7

Detach the SHIELD CAN, BT COVER, VOLUME KEY, CAMERA KEY.



1) Be care of the scratch.

8

Detach the KEY PAD.



1) Be care of scratch.

5

Detach the INTENNA soldering parts.



1) Be care of damage to the INTENNA PATTERN

## 2. SLIDE

<p>1</p> <p>Unscrew the 4 points.</p> 	<p>2</p> <p>Separate the LOWER from the UPPER ass'y.</p> 
<p>1) Be care of scratch..</p>	<p>1) Be care of damage to the SLIDE FPCB.</p>
<p>3</p> <p>Detach the SPEAKER, QCIF CAMERA, 1.3 MEGA CAMERA,</p> 	<p>4</p> <p>Separate the LCD MODULE from the UPPER ass'y.</p> 
<p>1) Be care of scratch and molding damage.</p>	<p>1) Be care of damage to the LCD MODULE.</p>

**3. LCD**

1

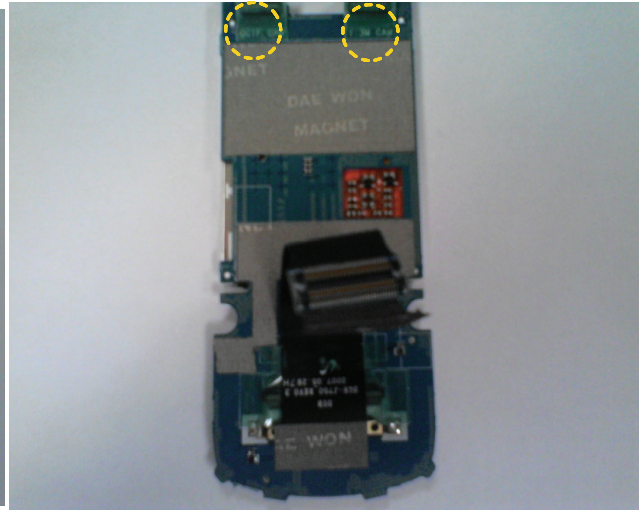
Detach the KEY PAD.



1) Be care of the scratch.

2

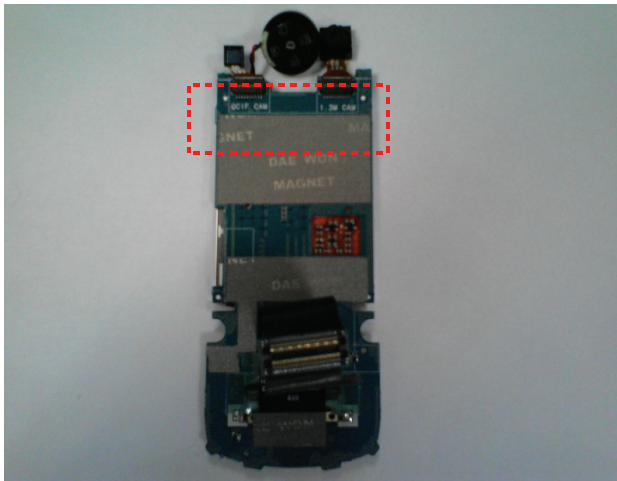
Detach the TAPES..



1) Be care of damage to the SLIDE FPCB.

3

Disjoin the SPEAKER CONNECTORS, QCIF CAMERA, 1.3 MEGA CAMERA of the PBA.



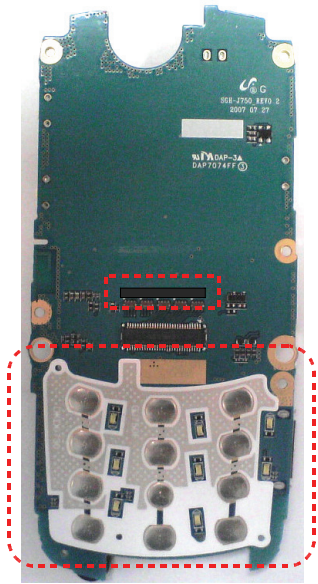
1) Be care of damage to the SPEAKER WIRES.

## 11-2. Assembly Instructions

### 1. MAIN PBA

1

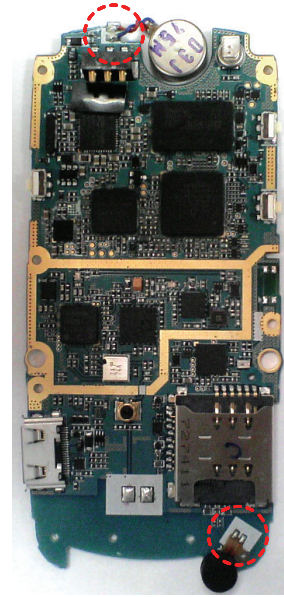
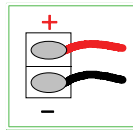
Attach the DOM SHEET



1) Be care of scratch.

2

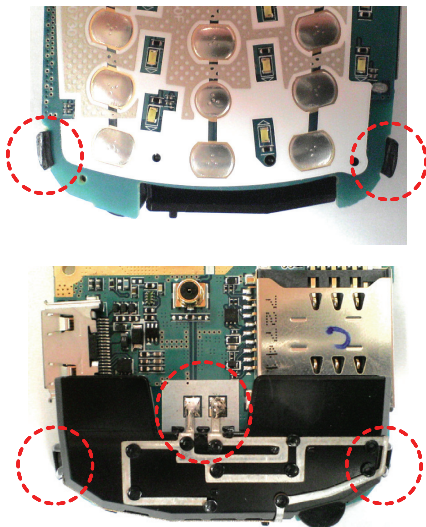
Soldering the MOTOR and MIC



1) Be care of damage to the PBA.

3

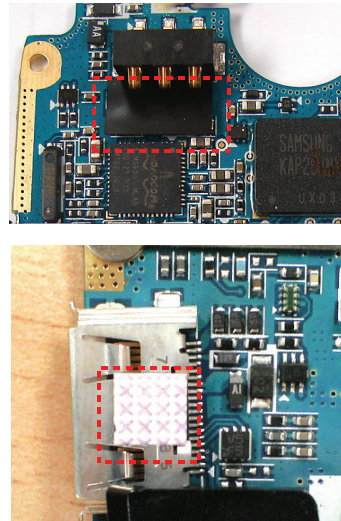
Attach the INTENNA and soldering.



1) Contracting the HOOK first before soldering.

4

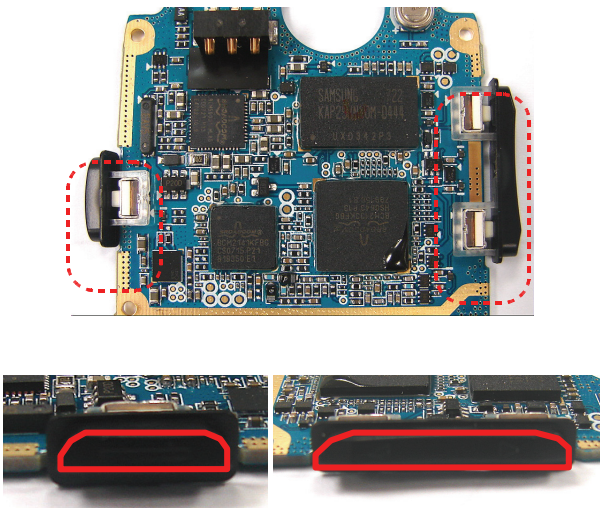
Attach the ELECTRIC TAPE, FLOODING LABEL.



1) Be care of the scratch.

5

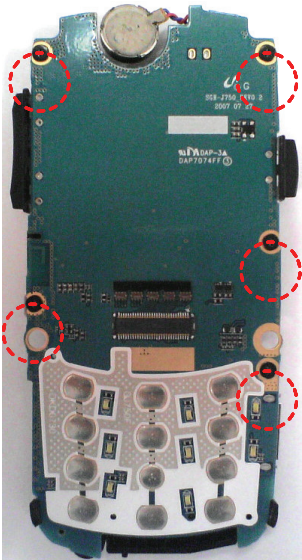
Attach the CAMERA KEY, VOLUME KEY.



1)Before attach be care of direction.

6

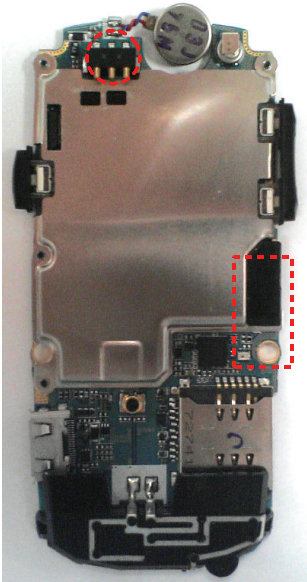
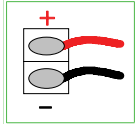
Screw the five points.



1)Be care of the scratch.

7

Bolding the MOTOR wire.

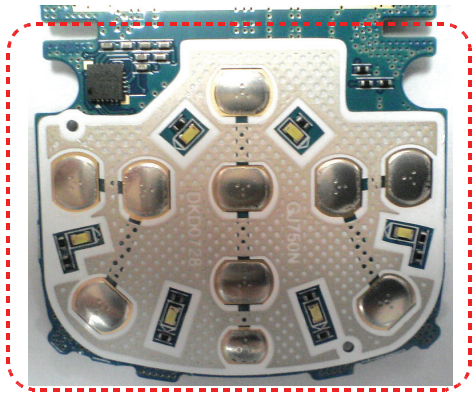


1)Don't forget to attach the rubber.

## 2. SUB PBA

1

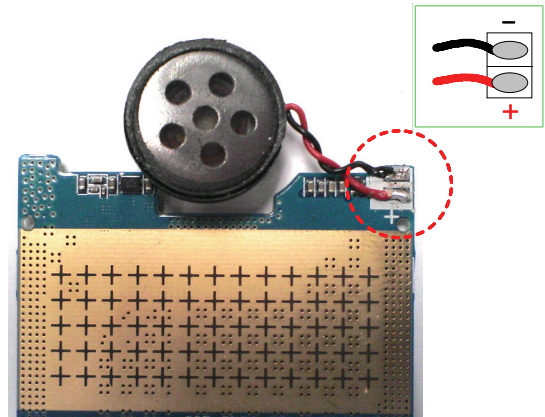
Attach the DOM SHEET.



1) Be careful of scratches.

2

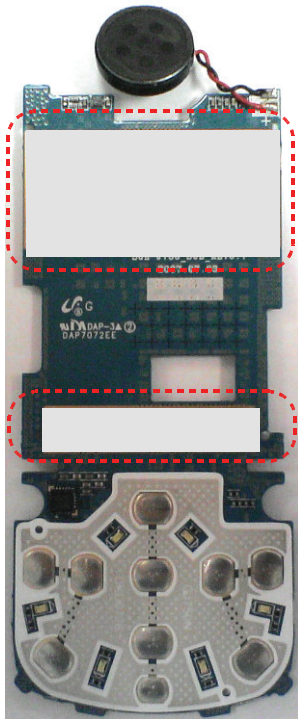
Soldering the SPEAKER.



1) Be careful of damage to the PBA.

3

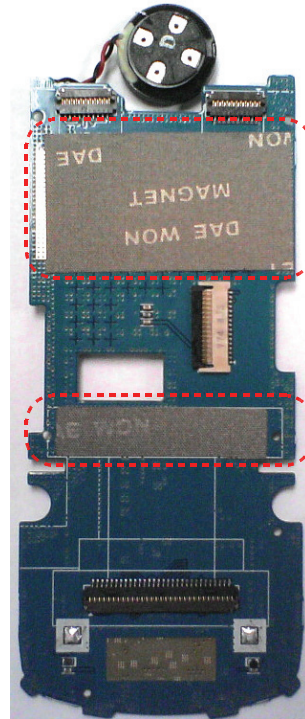
Attach the both faces TAPES.



1) Don't forget to detach the label.

4

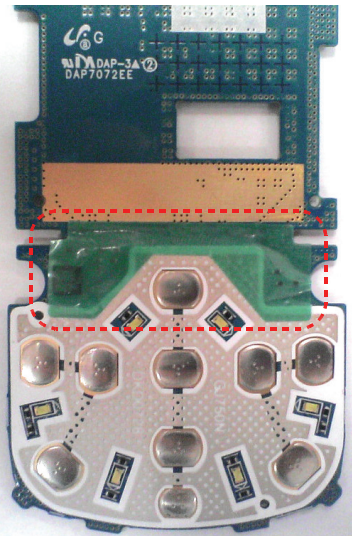
Attach the electric conduction TAPES.



1) Attach straightly.

5

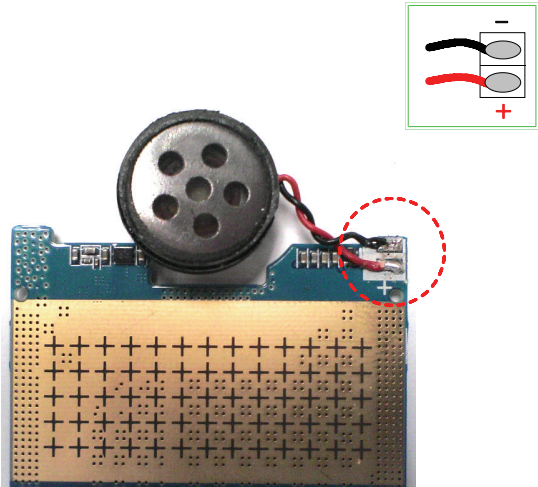
Attach the electric TAPES.



1)Be care of scratch.

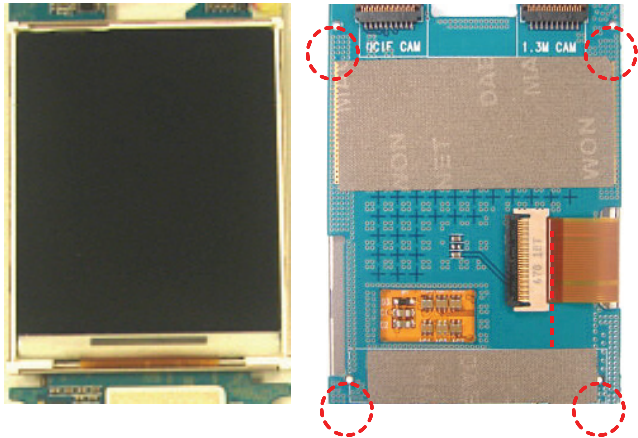
6

Bonding the SPEAKER.



1)Be care of damage to the PBA.

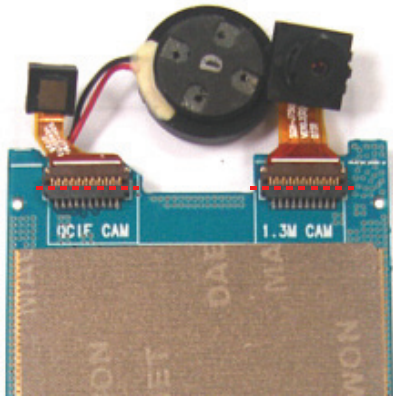
7



1)Be care of damage to the PBA.

8

Join the VGA CAMERA, 1.3 MEGA CAMERA and SPEAKER.

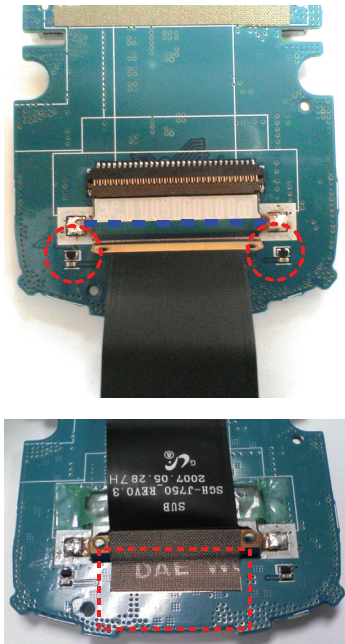


1)Be care of damage to the PBA.



9

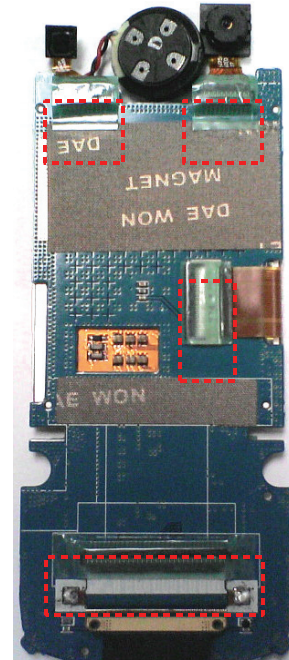
Join the SLIDE FPCB into SUB PBA CONNECTOR.



1) Attach the electric conduction TAPE.

10

Attach the electric TAPE.



1) Be care of scratch.

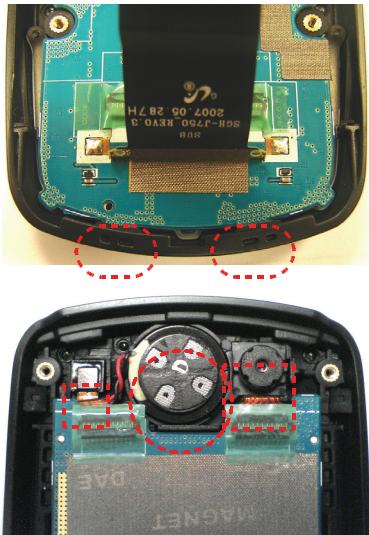
**3. SLIDE**

1 Attach the SUB KEY PAD.



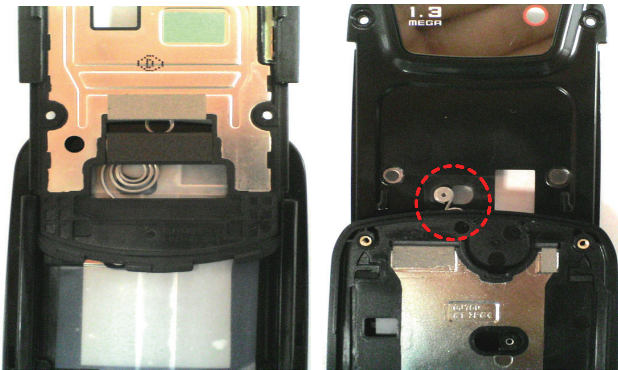
1)Be care of scratch.

2 Join the SUB PBA into SLIDE UPPER.



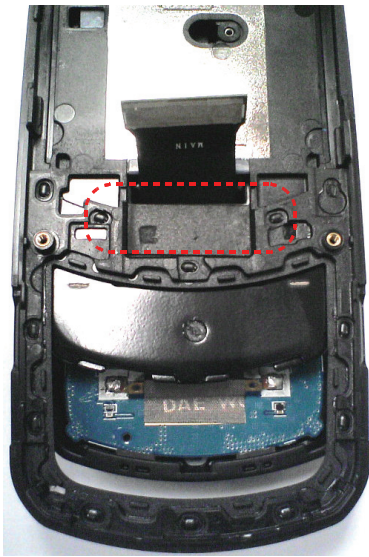
1)Attach the VGA CAMERA, 1.3 MEGA CAMERA and SPEAKER.

3 Combine the FRONT with the LOWER.



1)Move left the SPRING.

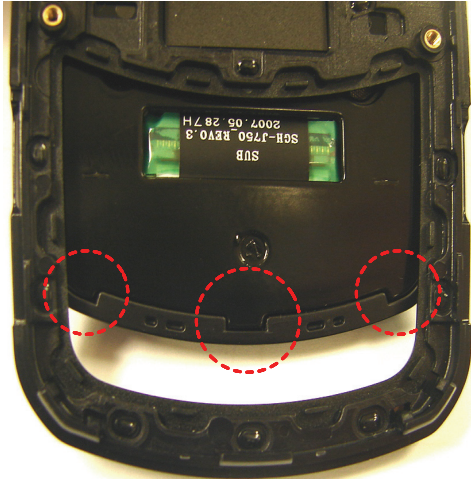
4 Pull out the FPCB into hall.



1)Be care of damage to the FPCB.

5

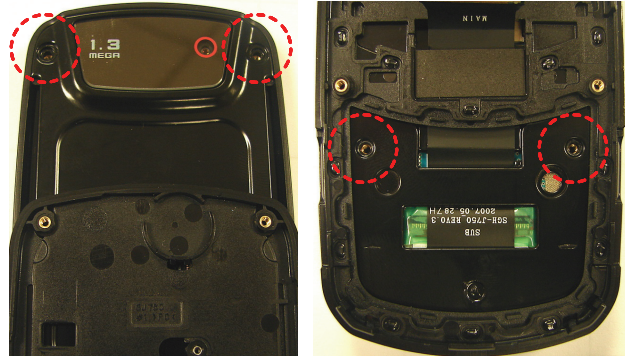
Assemble the LOWER into UPPER.



1) Assemble bottom first.

6

Screw up 4 points in the red circle.



1) Be care of scratch.

7

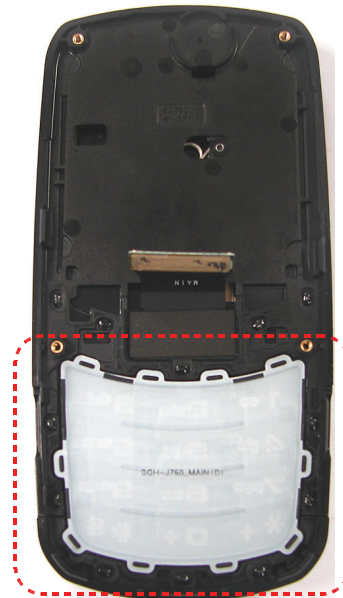
Screw up 2 points in the red circle.



1) Be care of the scratch.

8

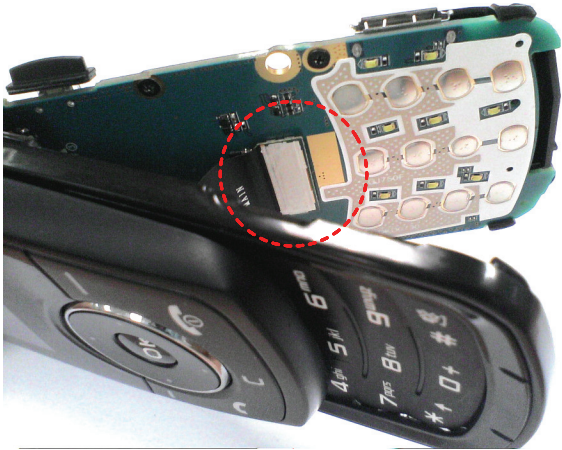
Attach the MAIN KEY PAD.



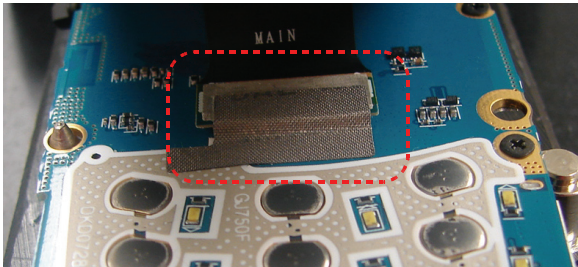
1) Be care of scratch.

**4. REAR**

1 Attach the FPCB into PBA.

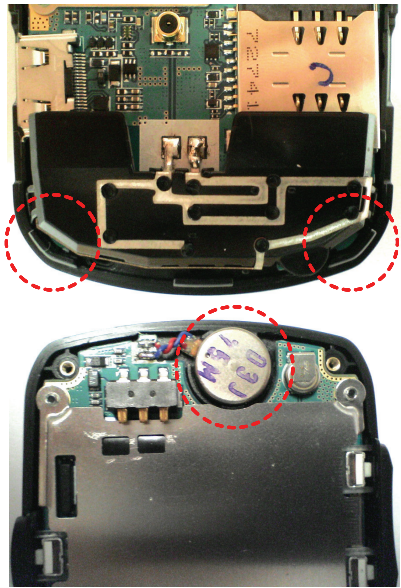


2 Attach the electric conduction TAPE.

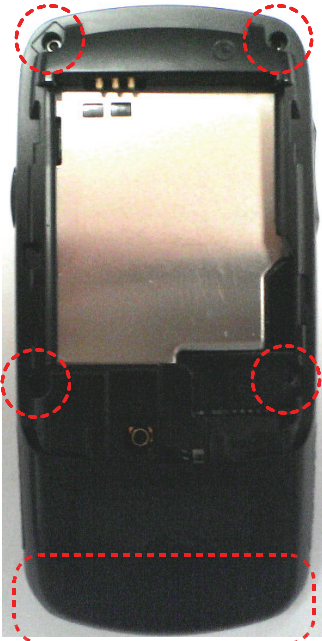


1)Be care of damage to the FPCB.

3 Attach the PBA,MOTOR into FRONT.



4 Screw up 4 points in the red circle..



1)Be care of damage to the MOTOR wire.

1)Assemble bottom first.

