

SAMSUNG

GSM TELEPHONE

SGH-E250D_W

SERVICE *Manual*

GSM TELEPHONE



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**SAMSUNG
ELECTRONICS**



GSPN (Global Service Partner Network)

Country	Web Site
North America	service.samsungportal.com
Latin America	latin.samsungportal.com
CIS	cis.samsungportal.com
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Mideast & Africa	mea.samsungportal.com

1. Safety Precautions

1-1. Repair Precaution

- Repair in Shield Box, during detailed tuning. Take specially care of tuning or test, because specificity 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

	GSM900 Phase 1	EGSM 900 Phase 2	DCS1800 Phase 1	PCS1900
Freq. Band[MHz] Uplink/Downlink	890~915 935~960	880~915 925~960	1710~1785 1805~1880	1850~1910 1930~1990
ARFCN range	1~124	0~124 & 975~1023	512~885	512~810
Tx/Rx spacing	45MHz	45MHz	95MHz	80MHz
Mod. Bit rate/ Bit Period	270.833kbps 3.692us	270.833kbps 3.692us	270.833kbps 3.692us	270.833kbps 3.692us
Time Slot Period/Frame Period	576.9us 4.615ms	576.9us 4.615ms	576.9us 4.615ms	576.9us 4.615ms
Modulation	0.3GMSK	0.3GMSK	0.3GMSK	0.3GMSK
MS Power	33dBm~5dBm	33dBm~5dBm	30dBm~0dBm	30dBm~0dBm
Power Class	5pcl ~ 19pcl	5pcl ~ 19pcl	0pcl ~ 15pcl	0pcl ~ 15pcl
Sensitivity	-102dBm	-102dBm	-100dBm	-100dBm
TDMA Mux	8	8	8	8
Cell Radius	35Km	35Km	2Km	-

2-2. GSM Tx Power Class

TX Power control level	GSM900	TX Power control level	DCS1800	TX Power control level	PCS1800
5	33±2 dBm	0	30±3 dBm	0	30±3 dBm
6	31±2 dBm	1	28±3 dBm	1	28±3 dBm
7	29±2 dBm	2	26±3 dBm	2	26±3 dBm
8	27±2 dBm	3	24±3 dBm	3	24±3 dBm
9	25±2 dBm	4	22±3 dBm	4	22±3 dBm
10	23±2 dBm	5	20±3 dBm	5	20±3 dBm
11	21±2 dBm	6	18±3 dBm	6	18±3 dBm
12	19±2 dBm	7	16±3 dBm	7	16±3 dBm
13	17±2 dBm	8	14±3 dBm	8	14±3 dBm
14	15±2 dBm	9	12±4 dBm	9	12±4 dBm
15	13±2 dBm	10	10±4 dBm	10	10±4 dBm
16	11±3 dBm	11	8±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

3. Product Function

Main Function

- SlimSlide Design Intenna
- VGA Camera
- Bluetooth V.2.0
- Stereo Bluetooth Headset
- Mobile Tracker & SOS Messaging
- Large 2.0" 65K Color TFT Display
- SMS/MMS/E-Mail
- WAP 2.0 / Java MIDP 2.0
- MP3, AAC, MP4, 3GPP Decoding
- Video Recording and Messaging
- GSM/GPRS Class 10
- Triple Band(GSM900/DCS,PCS)
- 64 Poly
- Speaker Phone
- Voice Clarity

4. Array course control

Software Adjustments

Test Jig (GH80-03306A)



Test Cable (GH39-00499A)



Serial Cable(CSA LL64151-A)



Power Supply Cable



RF CABLE (GH39-00397A)



Software Downloading

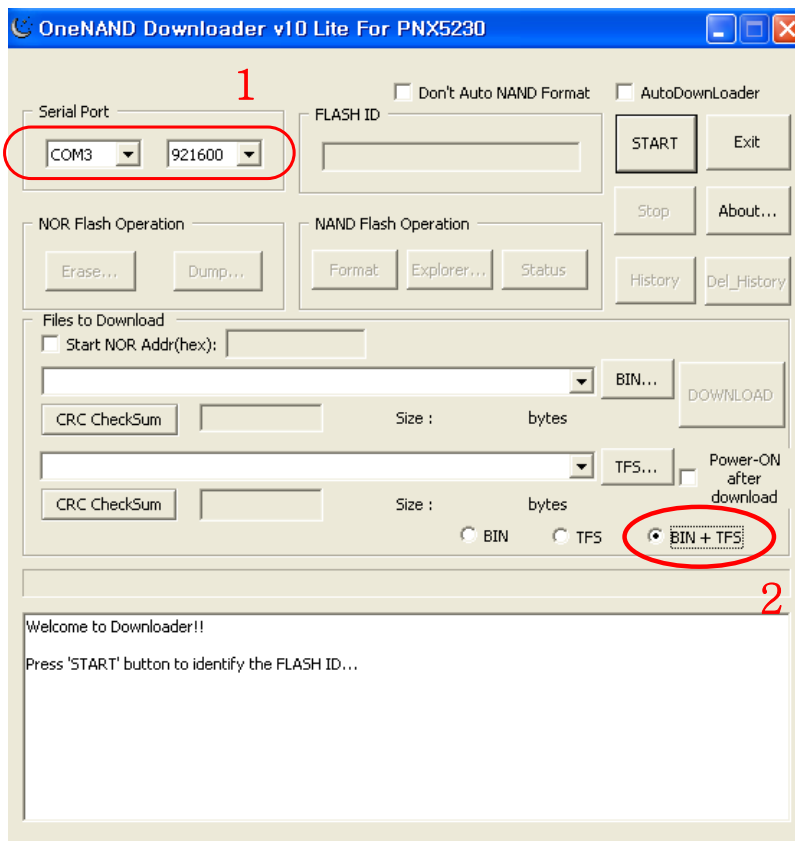
4-1. Pre-requisite for Downloading

- Downloader Program([OneNAND Downloader V1.0 Lite For PN5230.exe](#))
- E250 Mobile Phone
- Data Cable
- Binary file, TFS file

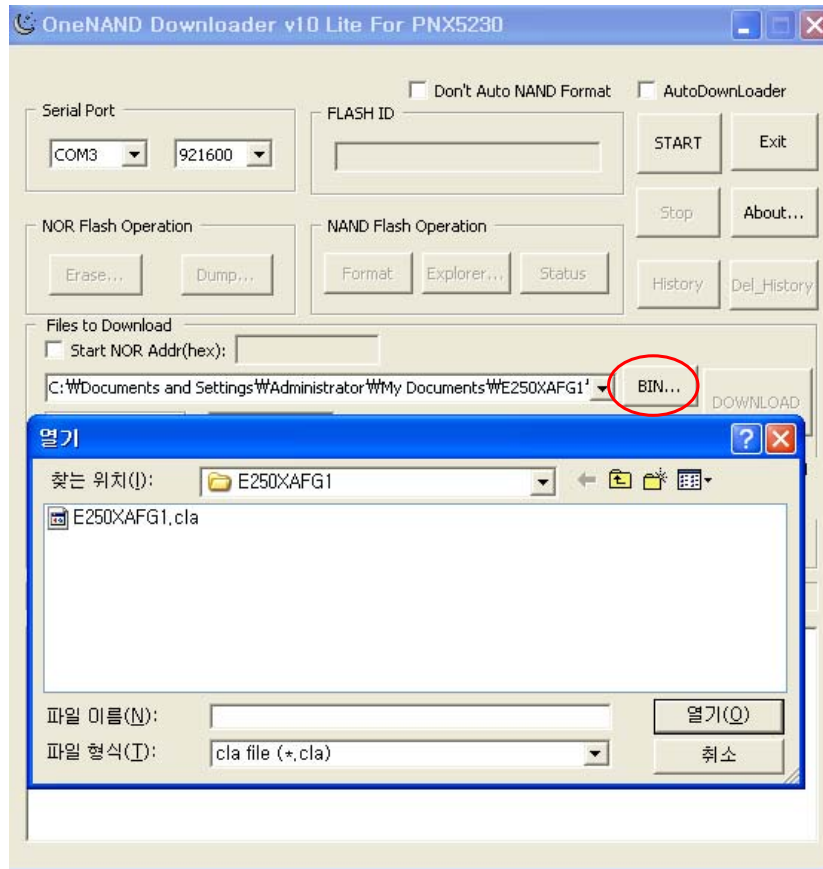
4-2. S/W Downloader Program

- Load the binary download program by executing the
“[OneNAND Downloader V1.0 Lite For PN5230.exe](#)”

1. Select the connected serial port and the rate of speed
2. Select the check box, the mode you want to download.
 - if the binary file wanted, check only 'BIN'
 - if the tfs file wanted, check only 'TFS'
 - if all the files wanted, check 'BIN+TFS'

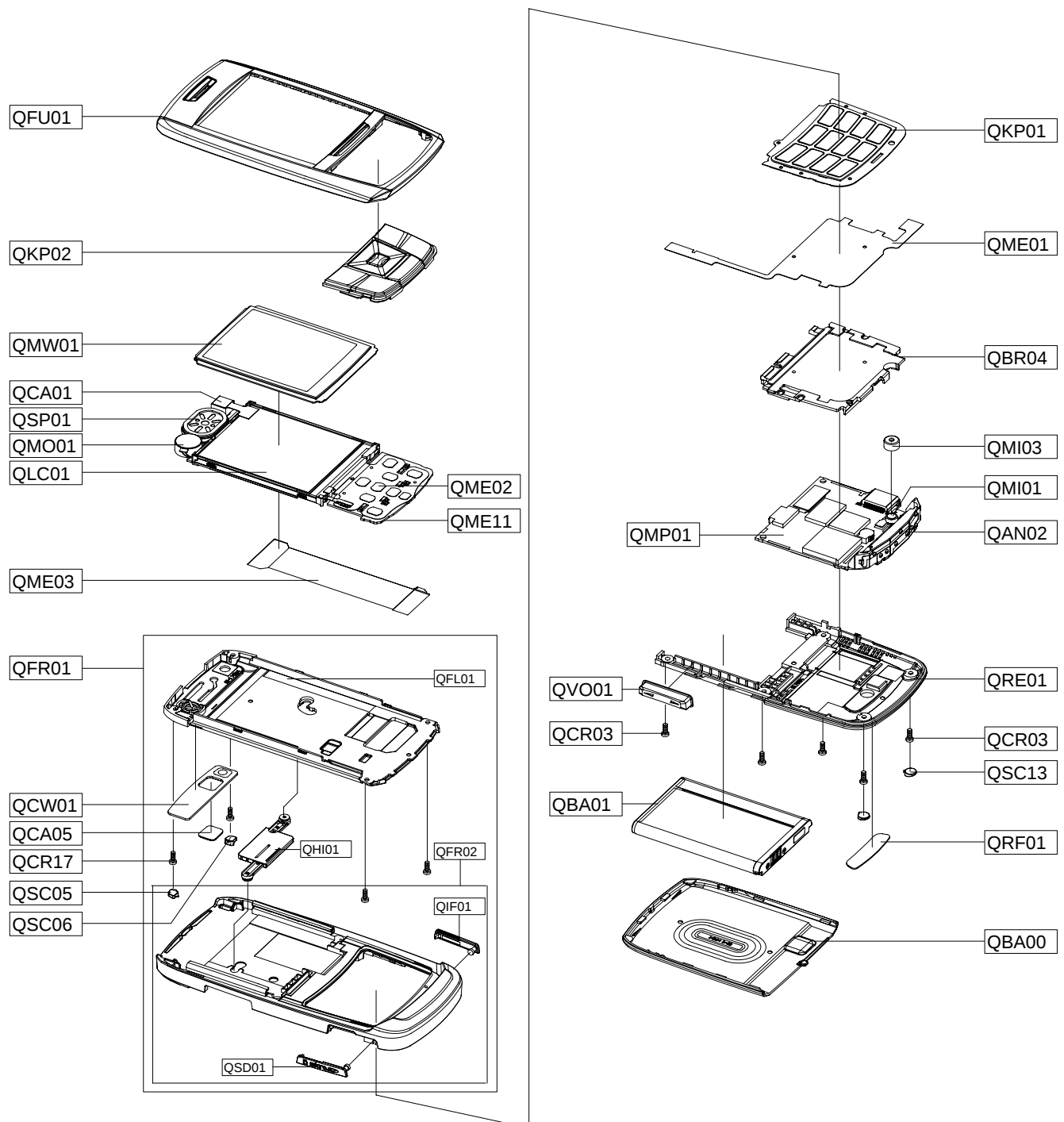


3. Select the file(s) what you want to download



5. Exploded View and Parts List

5-1. Cellular phone Exploded View



5-2. Cellular phone Parts List

Design LOC	Description	SEC CODE
QAN02	INTENNA-SGH E250	GH42-00985A
QBA00	ASSY CASE-BATTERY	GH98-03586A
QBA01	INNER BATTERY PACK-750MAH,BLK,	GH43-02483A
QBR04	ASSY BRACKET-KEYPAD	GH98-05531A
QCA01	CAMERA MODULE	GH59-03619A
QCA05	PMO-DECO MIRROR	GH72-34243A
QCR03	SCREW-MACHINE	6001-001811
QCR03	SCREW-MACHINE	6001-001811
QCR17	SCREW-MACHINE	6001-001460
QCW01	PCT-COVER WINDOW CAMERA	GH72-34247A
QFL01	ASSY CASE-SLIDE LOWER	GH98-02260A
QFR01	ASSY CASE-F/C+S/L	GH98-02261A
QFR02	ASSY CASE-FRONT	GH98-03548A
QFU01	ASSY CASE-SLIDE UPPER(VOD)	GH98-03300A
QHI01	ASSY HINGE-PUSH ROD	GH98-03165A
QIF01	PMO-COVER IF	GH72-34244A
QKP01	ASSY KEYPAD-MAIN(EU/SIL)	GH98-02264A
QKP02	ASSY KEYPAD-SUB(VOD/SIL)	GH98-03535A
QLC01	ELA ETC-E250LCD MODULE	GH96-02628B
QME01	KEY FPCB-MAIN KEY PBA	GH59-04760A
QME02	DOME SHEET-10KEY(SUB)	GH59-05007A
QME03	MEA-SLIDER FPCB KIT(E250D)	GH97-08172A
QME11	ASSY ETC-LCD SUB PBA	GH59-04854A
QMI01	MICROPHONE-ASSY	GH30-00309A
QMI03	RMO-RUBBER MIC	GH73-08308A
QMO01	MOTOR DC-SGHZV30	GH31-00177A
QMP01	PBA MAIN-SGHE250W	GH92-04085A
QMW01	ASSY COVER-WINDOW MAIN(VODA)	GH98-03536A
QRE01	ASSY CASE-REAR	GH98-05532A
QRF01	MPR-TAPE RF SHEET	GH74-27453A
QSC05	RMO-RUBBER SCREW SLIDE L	GH73-08309A
QSC06	RMO-RUBBER SCREW SLIDE R	GH73-08310A
QSC13	RMO-RUBBER SCREW REAR	GH73-08311A
QSD01	PMO-COVER M SD	GH72-34245A
QSP01	SPEAKER	3001-002213
QVO01	ASSY KEY-VOLUME	GH98-03940A

Description	SEC CODE
ADAPTOR-SGHE690,SIL,EU,A_TYPE	GH44-01361B
EARPHONE-20P,EARPHONE,SIL,B-TY	GH59-03848B
LABEL(R)-WATER SOAK	GH68-09361A
LABEL(R)-WATER SOAK	GH68-09361A
RMO-RUBBER SIM	GH73-08686A
ICT SHIELD-COVER RF	GH70-02506A
MPR-INSU TAPE	GH74-27455A
MPR-INSU TAPE	GH74-27456A
MPR-TAPE LABEL	GH74-28874A
MPR-SPONGE	GH74-29496A
MPR-VINYL BOHO MAIN	GH74-30340A
MPR-VINYL BOHO SUB KEYPAD	GH74-31218A
TAPE-S-UPPER	GH74-34678A
MPR-ELEC TAPE	GH74-27495A
MPR-GASK TAPE	GH74-28782A
MPR-REMOVE TAPE LCD	GH74-13804A
MPR-TAPE	GH74-27509A
MPR-ELEC TAPE	GH74-27457A
TAPE GASK	GH74-18462A
LABEL(R)-WATER SOAK	GH68-09361A
MANUAL USERS-VODA GERMAN	GH68-13908A
MANUAL USERS-QSG VODA GERMAN	GH68-14004A
BAG PE	6902-000634
LABEL(P)-UNIT SEAL	GH68-00518B
LABEL(R)-MAIN(VODA_W)	GH68-17334A
CUSHION-CASE(VODA)	GH69-05067A
BOX-UNIT(VOD)	GH69-05072A

6. MAIN Electrical Parts List

SEC Code	Design LOC	Description	STATUS
0403-001547	ZD401	DIODE-ZENER	SA
0406-001190	ZD302	DIODE-TVS	SA
0406-001201	ZD600	DIODE-TVS	SA
0406-001208	ZD500	DIODE-TVS	SA
0406-001235	ZD201	DIODE-TVS	SA
0406-001240	ZD601	DIODE-TVS	SA
0406-001254	ZD402	DIODE-TVS	SA
0406-001254	ZD501	DIODE-TVS	SA
0406-001254	ZD502	DIODE-TVS	SA
0406-001254	ZD505	DIODE-TVS	SA
0406-001254	ZD506	DIODE-TVS	SA
0406-001254	ZD602	DIODE-TVS	SA
0406-001254	ZD603	DIODE-TVS	SA
0801-002237	U302	IC-CMOS LOGIC	SA
0801-002237	U601	IC-CMOS LOGIC	SA
0801-003185	U600	IC-CMOS LOGIC	SA
1108-000080	UME301	IC-MCP	SA
1201-002576	U103	IC-POWER AMP	SA
1201-002689	U500	IC-AUDIO AMP	SA
1203-003737	U401	IC-POSI.FIXED REG.	SA
1203-003737	U402	IC-POSI.FIXED REG.	SA
1203-003737	U404	IC-POSI.FIXED REG.	SA
1203-003737	U405	IC-POSI.FIXED REG.	SA
1203-004382	U403	IC-POWER SUPERVISOR	SA
1204-002688	U501	IC-DEMODULATOR	SA
1205-002942	U102	IC-TRANSCIEVER	SA
1205-003082	UCP200	IC-COMM. CONTROLLER	SA
1205-003283	U106	IC-TRANSCIEVER	SA
1404-001221	VR600	THERMISTOR-NTC	SA
2007-000140	R103	R-CHIP	SA
2007-000140	R209	R-CHIP	SA
2007-000143	R110	R-CHIP	SA
2007-000143	R201	R-CHIP	SA
2007-000148	R101	R-CHIP	SA
2007-000148	R204	R-CHIP	SA
2007-000148	R205	R-CHIP	SA
2007-000148	R208	R-CHIP	SA
2007-000148	R213	R-CHIP	SA
2007-000148	R525	R-CHIP	SA
2007-000152	R603	R-CHIP	SA
2007-000162	C615	R-CHIP	SA
2007-000162	R301	R-CHIP	SA
2007-000162	R523	R-CHIP	SA
2007-000162	R610	R-CHIP	SA
2007-000162	R611	R-CHIP	SA
2007-000162	R612	R-CHIP	SA
2007-000170	R104	R-CHIP	SA
2007-000170	R212	R-CHIP	SA
2007-000170	R214	R-CHIP	SA
2007-000171	L100	R-CHIP	SA
2007-000171	R202	R-CHIP	SA
2007-000171	R228	R-CHIP	SA
2007-000171	R304	R-CHIP	SA

SEC Code	Design LOC	Description	STATUS
2007-000172	R506	R-CHIP	SA
2007-000172	R509	R-CHIP	SA
2007-000758	R218	R-CHIP	SA
2007-000758	R223	R-CHIP	SA
2007-000758	R416	R-CHIP	SA
2007-000758	R608	R-CHIP	SA
2007-001292	R511	R-CHIP	SA
2007-001292	R512	R-CHIP	SA
2007-001303	R308	R-CHIP	SA
2007-001319	R215	R-CHIP	SA
2007-001319	R217	R-CHIP	SA
2007-001333	R402	R-CHIP	SA
2007-001333	R403	R-CHIP	SA
2007-001333	R501	R-CHIP	SA
2007-001333	R514	R-CHIP	SA
2007-001333	R529	R-CHIP	SA
2007-001339	R503	R-CHIP	SA
2007-002796	R206	R-CHIP	SA
2007-002796	R507	R-CHIP	SA
2007-002796	R508	R-CHIP	SA
2007-003001	R524	R-CHIP	SA
2007-007014	R303	R-CHIP	SA
2007-007014	R309	R-CHIP	SA
2007-007107	R418	R-CHIP	SA
2007-007107	R602	R-CHIP	SA
2007-007142	R415	R-CHIP	SA
2007-007142	R419	R-CHIP	SA
2007-007142	R505	R-CHIP	SA
2007-007142	R613	R-CHIP	SA
2007-007317	R413	R-CHIP	SA
2007-007318	R408	R-CHIP	SA
2007-007334	R502	R-CHIP	SA
2007-007489	R105	R-CHIP	SA
2007-007528	R513	R-CHIP	SA
2007-007528	R516	R-CHIP	SA
2007-007528	R518	R-CHIP	SA
2007-007528	R519	R-CHIP	SA
2007-007573	R400	R-CHIP	SA
2007-008055	R302	R-CHIP	SA
2007-008055	R604	R-CHIP	SA
2007-008055	R606	R-CHIP	SA
2007-008137	R411	R-CHIP	SA
2007-008354	R401	R-CHIP	SA
2007-008516	R601	R-CHIP	SA
2007-008542	R409	R-CHIP	SA
2007-009157	R407	R-CHIP	SA
2007-009168	R605	R-CHIP	SA
2007-009212	R607	R-CHIP	SA
2203-000233	C106	C-CER,CHIP	SA
2203-000233	C107	C-CER,CHIP	SA
2203-000233	C114	C-CER,CHIP	SA
2203-000233	C115	C-CER,CHIP	SA
2203-000233	C116	C-CER,CHIP	SA

SEC Code	Design LOC	Description	STATUS
2203-000233	C125	C-CER,CHIP	SA
2203-000233	C128	C-CER,CHIP	SA
2203-000233	C129	C-CER,CHIP	SA
2203-000233	C310	C-CER,CHIP	SA
2203-000233	C311	C-CER,CHIP	SA
2203-000233	U603	C-CER,CHIP	SA
2203-000254	C211	C-CER,CHIP	SA
2203-000254	C501	C-CER,CHIP	SA
2203-000254	C532	C-CER,CHIP	SA
2203-000278	C105	C-CER,CHIP	SA
2203-000278	C110	C-CER,CHIP	SA
2203-000278	C113	C-CER,CHIP	SA
2203-000278	C117	C-CER,CHIP	SA
2203-000278	C540	C-CER,CHIP	SA
2203-000278	C544	C-CER,CHIP	SA
2203-000278	C546	C-CER,CHIP	SA
2203-000278	C551	C-CER,CHIP	SA
2203-000330	C517	C-CER,CHIP	SA
2203-000330	C518	C-CER,CHIP	SA
2203-000386	C508	C-CER,CHIP	SA
2203-000386	C541	C-CER,CHIP	SA
2203-000386	C542	C-CER,CHIP	SA
2203-000425	C215	C-CER,CHIP	SA
2203-000425	C222	C-CER,CHIP	SA
2203-000425	C416	C-CER,CHIP	SA
2203-000425	C417	C-CER,CHIP	SA
2203-000425	C605	C-CER,CHIP	SA
2203-000628	C537	C-CER,CHIP	SA
2203-000679	C515	C-CER,CHIP	SA
2203-000679	C516	C-CER,CHIP	SA
2203-000679	C538	C-CER,CHIP	SA
2203-000812	C119	C-CER,CHIP	SA
2203-000812	C202	C-CER,CHIP	SA
2203-000812	C213	C-CER,CHIP	SA
2203-000812	C604	C-CER,CHIP	SA
2203-001239	C132	C-CER,CHIP	SA
2203-001259	C548	C-CER,CHIP	SA
2203-002443	C539	C-CER,CHIP	SA
2203-002668	L108	C-CER,CHIP	SA
2203-002709	C123	C-CER,CHIP	SA
2203-002709	C126	C-CER,CHIP	SA
2203-002709	C135	C-CER,CHIP	SA
2203-002709	C602	C-CER,CHIP	SA
2203-003054	C543	C-CER,CHIP	SA
2203-005050	C104	C-CER,CHIP	SA
2203-005050	C122	C-CER,CHIP	SA
2203-005050	C509	C-CER,CHIP	SA
2203-005050	C549	C-CER,CHIP	SA
2203-005288	C101	C-CER,CHIP	SA
2203-005288	C108	C-CER,CHIP	SA
2203-005288	C109	C-CER,CHIP	SA
2203-005288	C120	C-CER,CHIP	SA
2203-005393	C547	C-CER,CHIP	SA

SEC Code	Design LOC	Description	STATUS
2203-005393	C550	C-CER,CHIP	SA
2203-005395	C511	C-CER,CHIP	SA
2203-005395	C512	C-CER,CHIP	SA
2203-005395	C521	C-CER,CHIP	SA
2203-005395	C522	C-CER,CHIP	SA
2203-005395	L107	C-CER,CHIP	SA
2203-005444	C507	C-CER,CHIP	SA
2203-005444	C545	C-CER,CHIP	SA
2203-005482	C118	C-CER,CHIP	SA
2203-005482	C127	C-CER,CHIP	SA
2203-005482	C134	C-CER,CHIP	SA
2203-005482	C201	C-CER,CHIP	SA
2203-005482	C203	C-CER,CHIP	SA
2203-005482	C204	C-CER,CHIP	SA
2203-005482	C205	C-CER,CHIP	SA
2203-005482	C206	C-CER,CHIP	SA
2203-005482	C208	C-CER,CHIP	SA
2203-005482	C209	C-CER,CHIP	SA
2203-005482	C212	C-CER,CHIP	SA
2203-005482	C214	C-CER,CHIP	SA
2203-005482	C221	C-CER,CHIP	SA
2203-005482	C307	C-CER,CHIP	SA
2203-005482	C309	C-CER,CHIP	SA
2203-005482	C312	C-CER,CHIP	SA
2203-005482	C428	C-CER,CHIP	SA
2203-005482	C513	C-CER,CHIP	SA
2203-005482	C514	C-CER,CHIP	SA
2203-005482	C519	C-CER,CHIP	SA
2203-005482	C520	C-CER,CHIP	SA
2203-005482	C531	C-CER,CHIP	SA
2203-005483	C502	C-CER,CHIP	SA
2203-005717	C612	C-CER,CHIP	SA
2203-005717	C613	C-CER,CHIP	SA
2203-005736	C412	C-CER,CHIP	SA
2203-006048	C130	C-CER,CHIP	SA
2203-006048	C536	C-CER,CHIP	SA
2203-006208	C216	C-CER,CHIP	SA
2203-006208	C304	C-CER,CHIP	SA
2203-006208	C404	C-CER,CHIP	SA
2203-006208	C409	C-CER,CHIP	SA
2203-006208	C410	C-CER,CHIP	SA
2203-006208	C427	C-CER,CHIP	SA
2203-006208	C614	C-CER,CHIP	SA
2203-006257	C400	C-CER,CHIP	SA
2203-006257	C405	C-CER,CHIP	SA
2203-006257	C407	C-CER,CHIP	SA
2203-006257	C408	C-CER,CHIP	SA
2203-006257	C411	C-CER,CHIP	SA
2203-006257	C413	C-CER,CHIP	SA
2203-006257	C420	C-CER,CHIP	SA
2203-006260	C503	C-CER,CHIP	SA
2203-006260	C505	C-CER,CHIP	SA
2203-006260	C534	C-CER,CHIP	SA

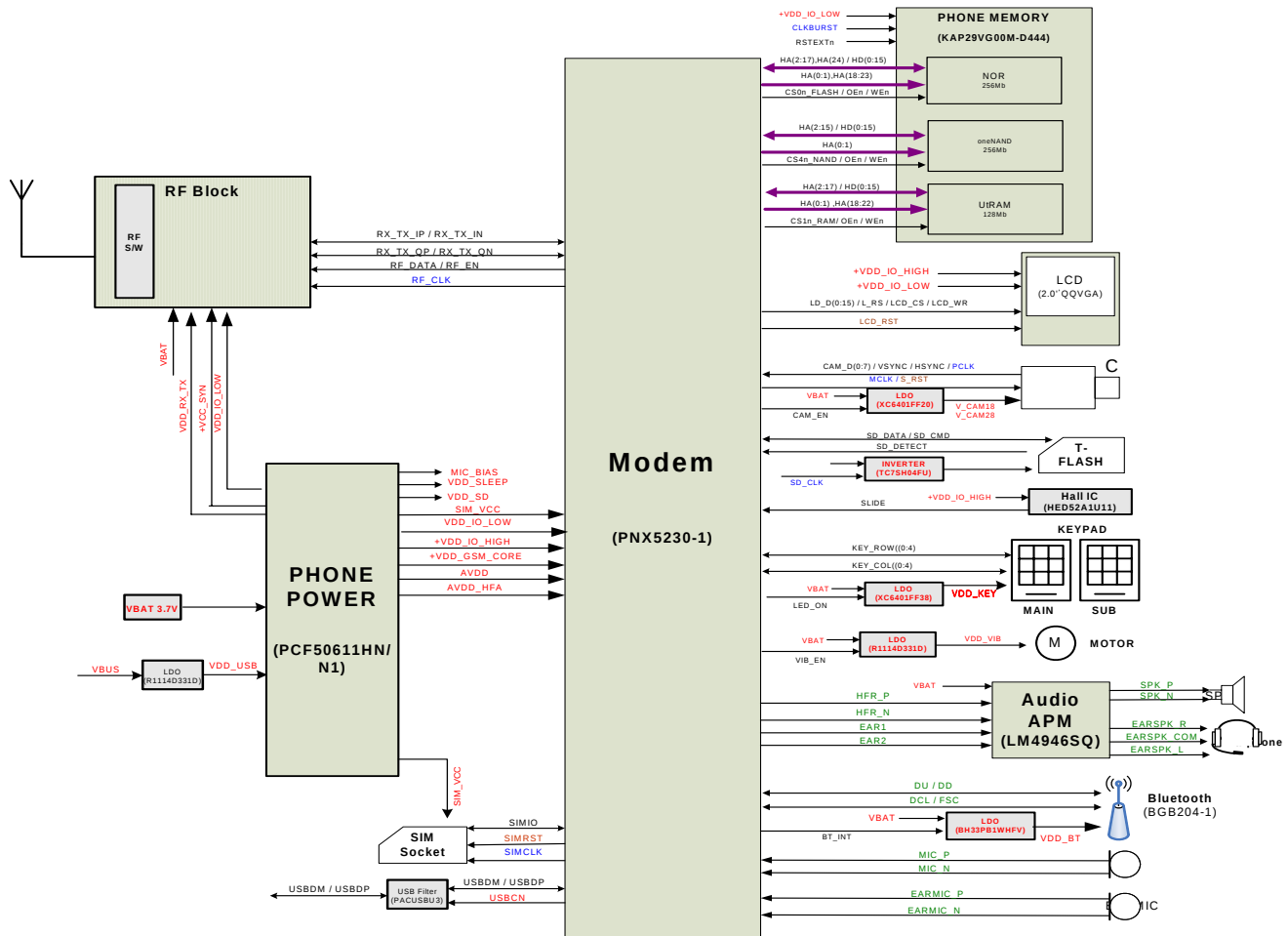
SEC Code	Design LOC	Description	STATUS
2203-006260	C535	C-CER,CHIP	SA
2203-006324	C421	C-CER,CHIP	SA
2203-006361	C425	C-CER,CHIP	SA
2203-006361	C426	C-CER,CHIP	SA
2203-006423	C301	C-CER,CHIP	SA
2203-006423	C302	C-CER,CHIP	SA
2203-006423	C305	C-CER,CHIP	SA
2203-006423	C422	C-CER,CHIP	SA
2203-006423	C533	C-CER,CHIP	SA
2203-006423	C603	C-CER,CHIP	SA
2203-006562	C210	C-CER,CHIP	SA
2203-006562	C303	C-CER,CHIP	SA
2203-006562	C306	C-CER,CHIP	SA
2203-006562	C308	C-CER,CHIP	SA
2203-006562	C401	C-CER,CHIP	SA
2203-006562	C402	C-CER,CHIP	SA
2203-006562	C403	C-CER,CHIP	SA
2203-006562	C406	C-CER,CHIP	SA
2203-006562	C414	C-CER,CHIP	SA
2203-006562	C415	C-CER,CHIP	SA
2203-006562	C424	C-CER,CHIP	SA
2203-006562	C429	C-CER,CHIP	SA
2203-006562	C430	C-CER,CHIP	SA
2203-006562	C504	C-CER,CHIP	SA
2203-006562	C506	C-CER,CHIP	SA
2203-006562	C606	C-CER,CHIP	SA
2203-006824	C131	C-CER,CHIP	SA
2203-006825	C432	C-CER,CHIP	SA
2203-006838	C100	C-CER,CHIP	SA
2203-006838	C102	C-CER,CHIP	SA
2203-006838	C103	C-CER,CHIP	SA
2203-006842	C111	C-CER,CHIP	SA
2203-006901	C431	C-CER,CHIP	SA
2404-001226	TA503	C-TA,CHIP	SA
2404-001377	TA500	C-TA,CHIP	SA
2404-001377	TA501	C-TA,CHIP	SA
2404-001381	TA502	C-TA,CHIP	SA
2404-001430	TA400	C-TA,CHIP	SA
2404-001496	TA100	C-TA,CHIP	SA
2404-001506	TA504	C-TA,CHIP	SA
2703-001231	L504	INDUCTOR-SMD	SNA
2703-001285	L505	INDUCTOR-SMD	SA
2703-001673	L506	INDUCTOR-SMD	SA
2703-001726	L105	INDUCTOR-SMD	SA
2703-001749	C112	INDUCTOR-SMD	SA
2703-001749	L110	INDUCTOR-SMD	SA
2703-002208	L101	INDUCTOR-SMD	SA
2703-002208	L106	INDUCTOR-SMD	SA
2703-002314	L102	INDUCTOR-SMD	SA
2703-002608	L103	INDUCTOR-SMD	SA
2703-002608	L104	INDUCTOR-SMD	SA
2703-003113	L400	INDUCTOR-SMD	SA
2801-004339	OSC400	CRYSTAL-SMD	SA

SEC Code	Design LOC	Description	STATUS
2801-004587	U101	CRYSTAL-SMD	SA
2801-004589	OSC100	CRYSTAL-SMD	SA
2901-001316	U202	FILTER-EMI SMD	SA
2901-001370	F602	FILTER-EMI/ESD	SA
2901-001370	F603	FILTER-EMI/ESD	SA
2901-001376	F500	FILTER-EMI/ESD	SA
2901-001376	F604	FILTER-EMI/ESD	SA
2909-001299	U107	FILTER-LC	SA
2911-000093	F100	DUPLEXER-FEM	SA
3301-001659	L111	BEAD-SMD	SA
3301-001729	L500	BEAD-SMD	SA
3301-001729	L501	BEAD-SMD	SA
3301-001729	L507	BEAD-SMD	SA
3301-001729	L508	BEAD-SMD	SA
3301-001729	L509	BEAD-SMD	SA
3705-001358	CN101	CONNECTOR-COAXIAL	SA
3709-001344	CD600	CONNECTOR-CARD EDGE	SA
3709-001400	SIM400	CONNECTOR-CARD EDGE	SA
3710-002465	IFC500	SOCKET-INTERFACE	SA
3711-005578	HEA300	HEADER-BOARD TO BOARD	SA
3711-005747	HDC600	HEADER-BOARD TO BOARD	SA
3711-006217	BTC600	HEADER-BATTERY	SA
4202-001373	ANT100	ANTENNA-CHIP	SA
4302-001180	BAT400	BATTERY-LI(2ND)	SA
GH13-00057A	U301	IC ASIC-SGHC420	SA
GH70-02505A	U104	ICT SHIELD-FRAME RF	SA

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

7. Block Diagrams

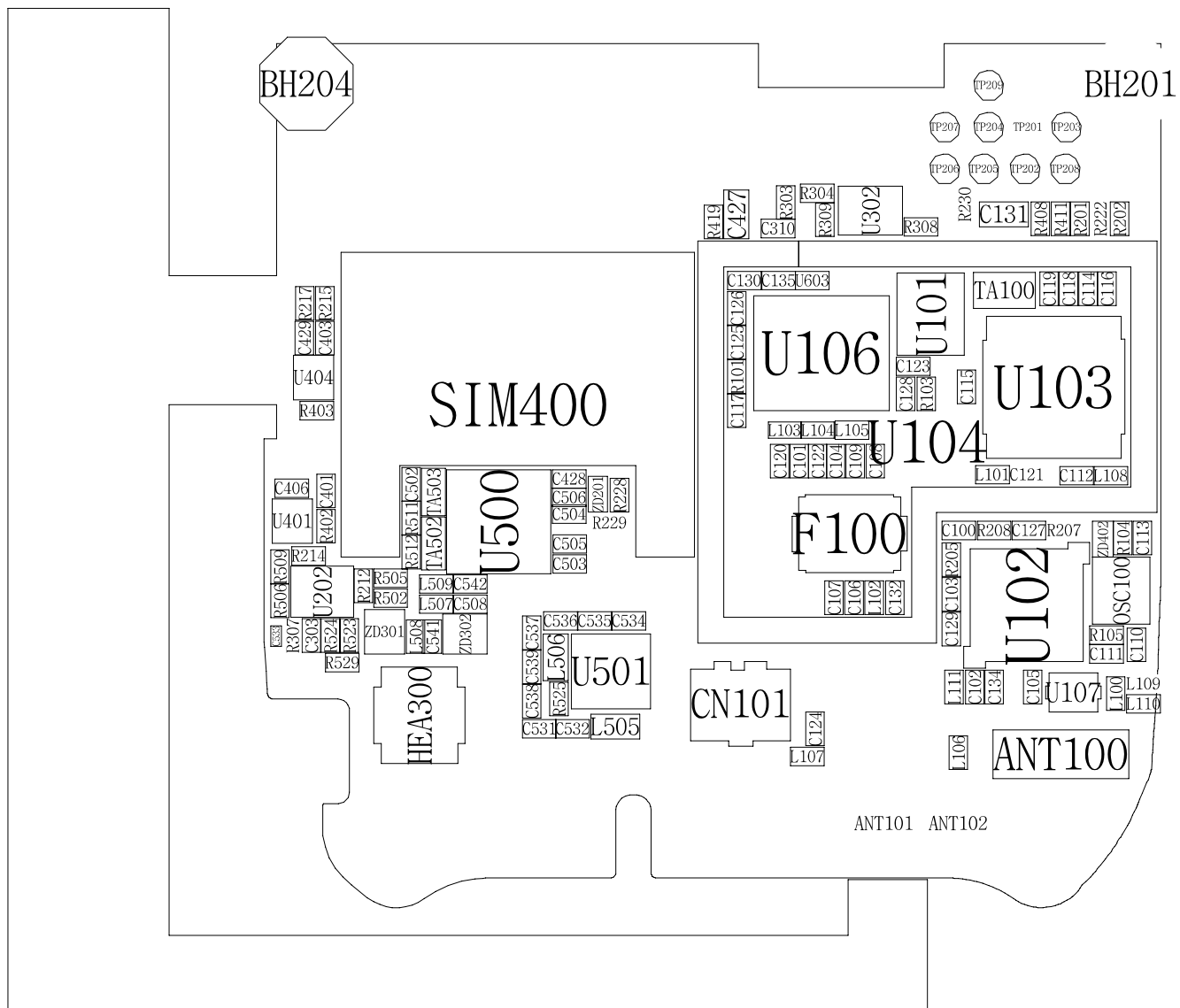
7-1. BaseBand Solution Block Diagram



- Top

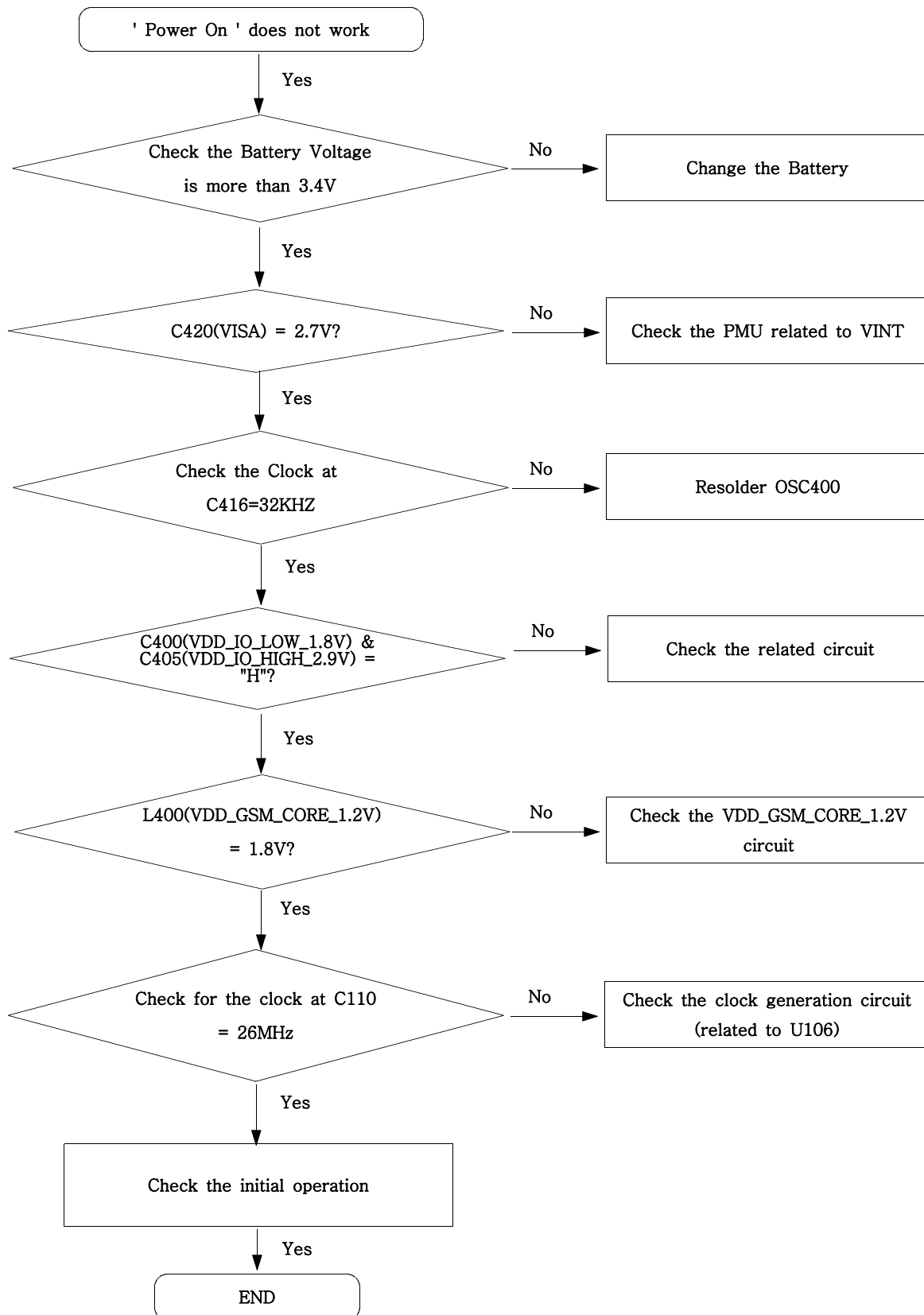


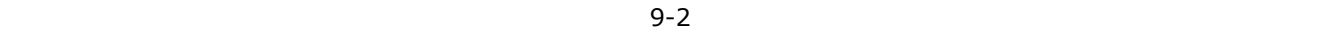
- Bottom



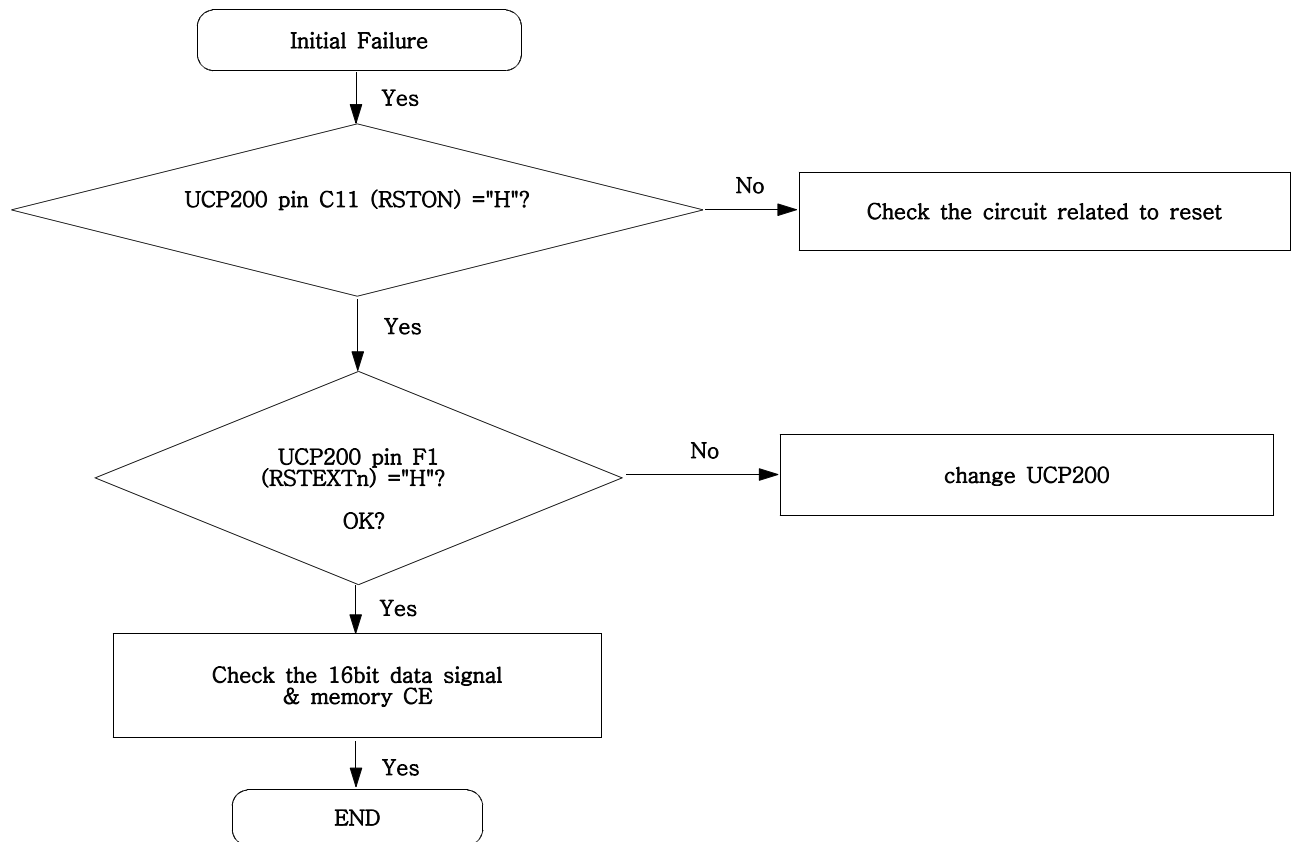
9. Flow Chart of Troubleshooting

9-1. Power On



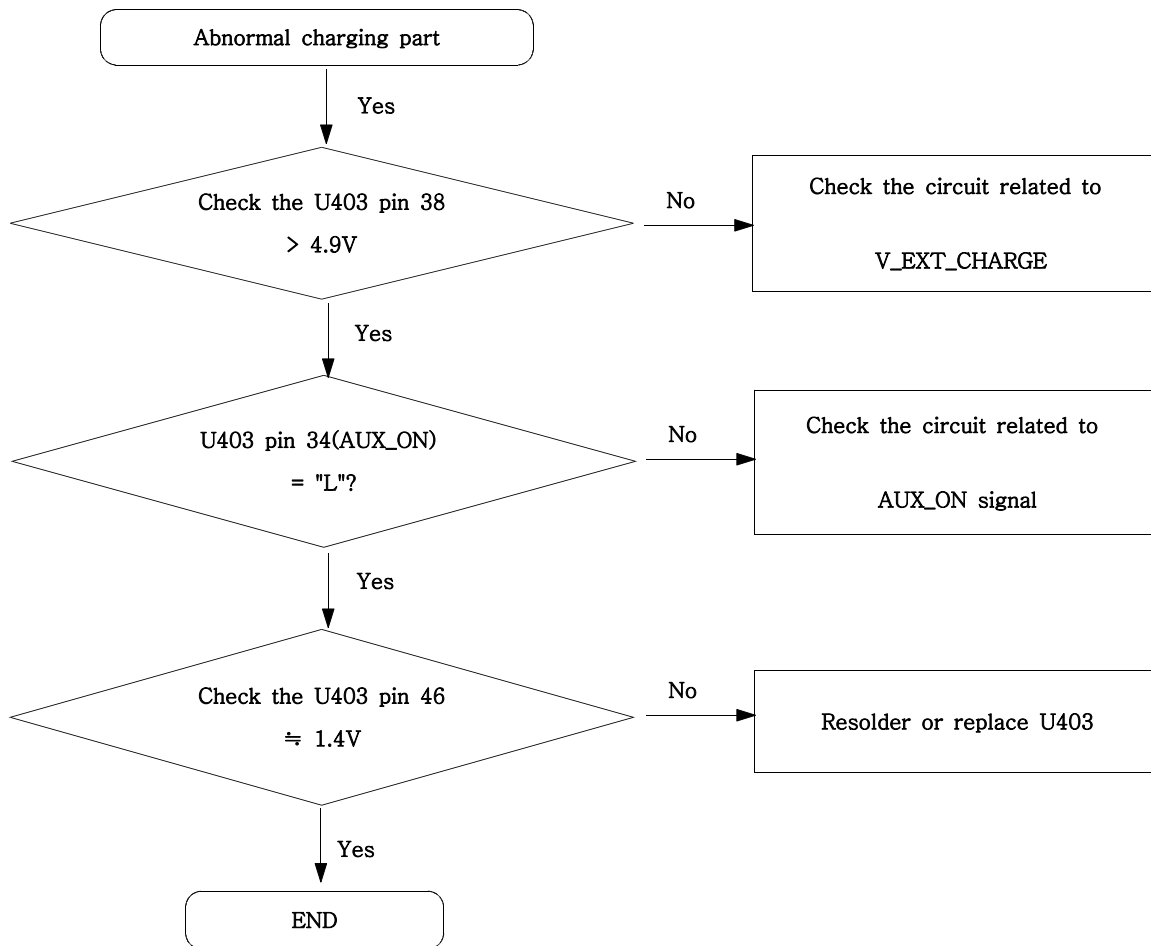


9-2. Initial

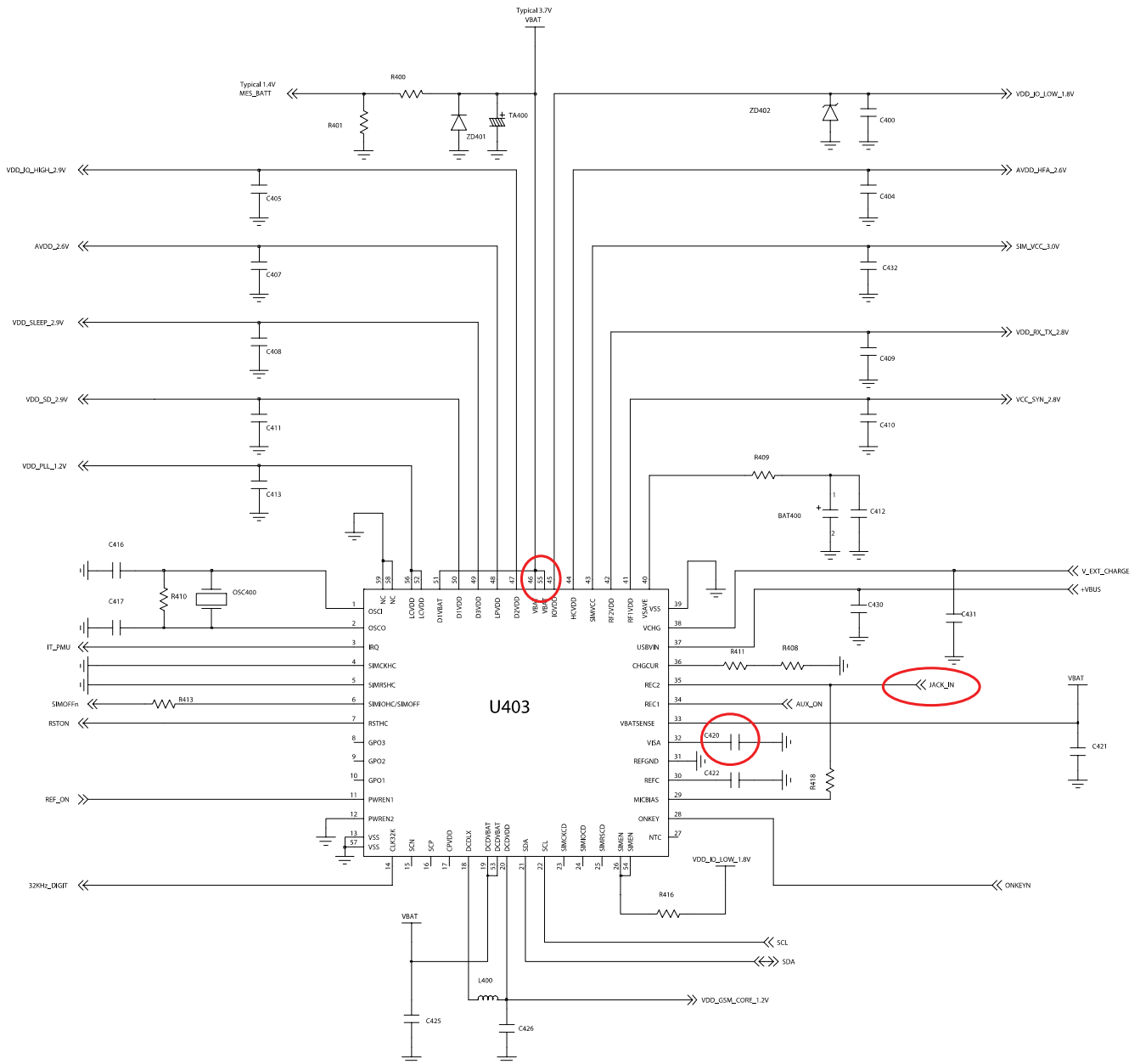




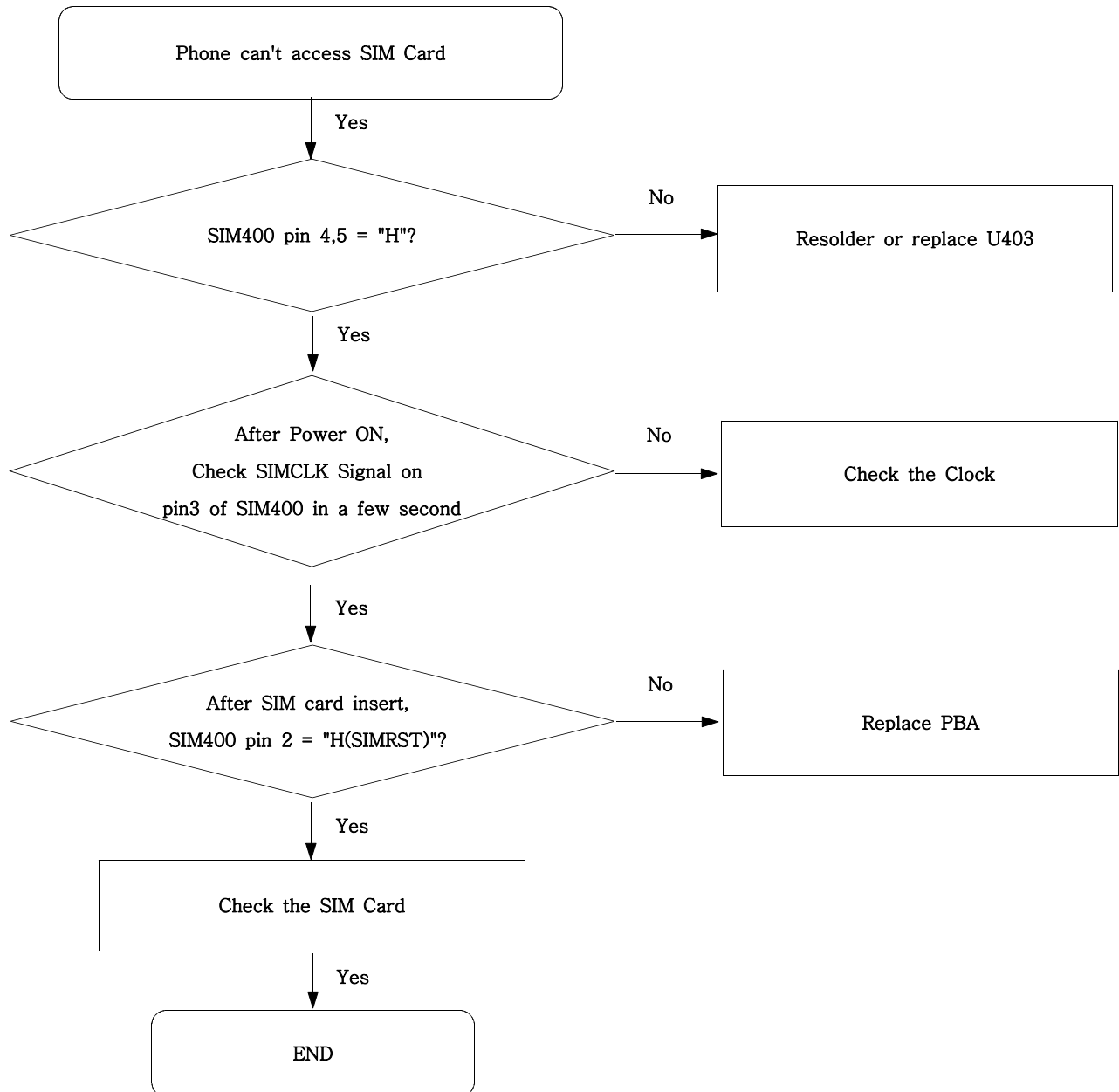
9-3. Charging Part

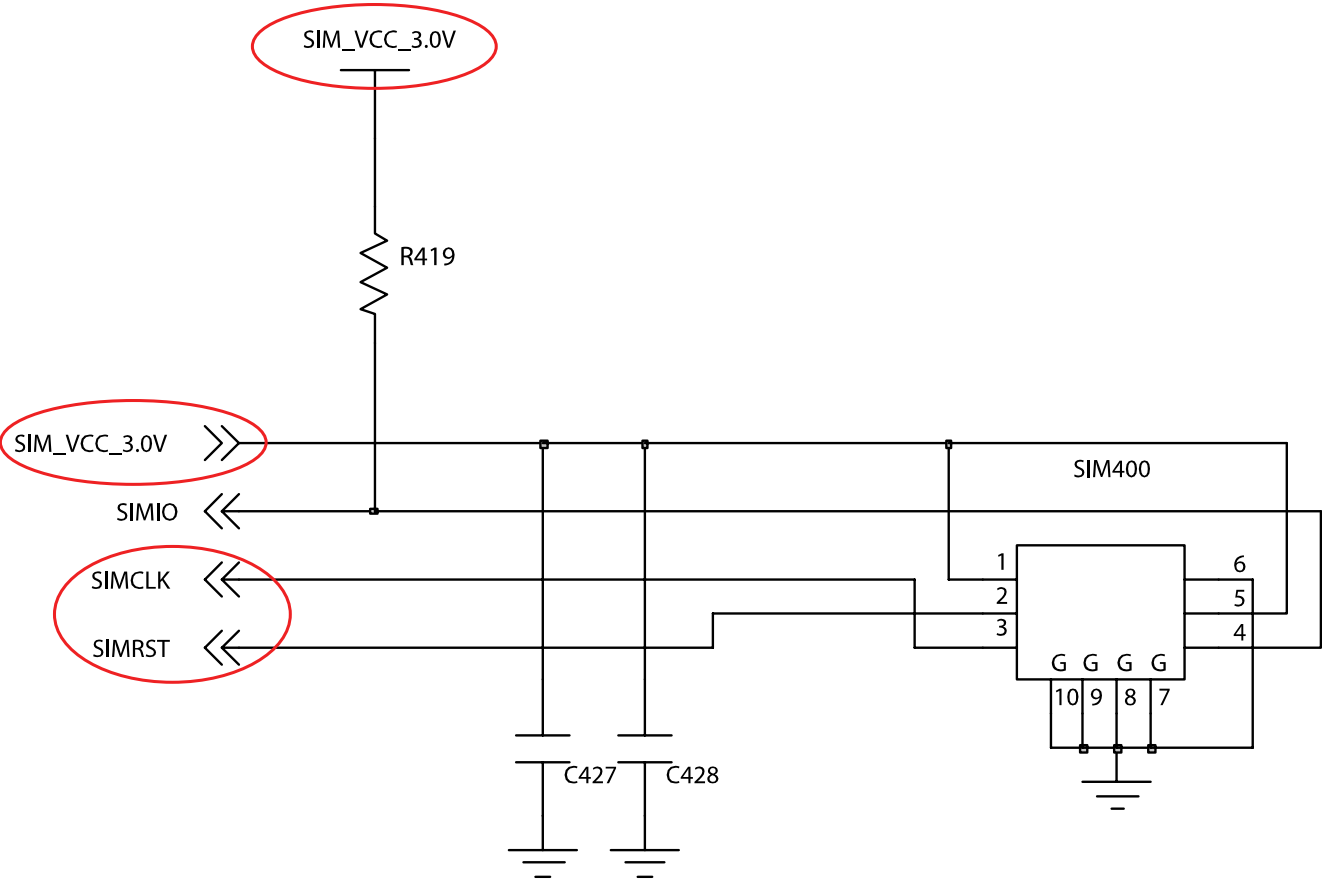


Flow Chart of Troubleshooting

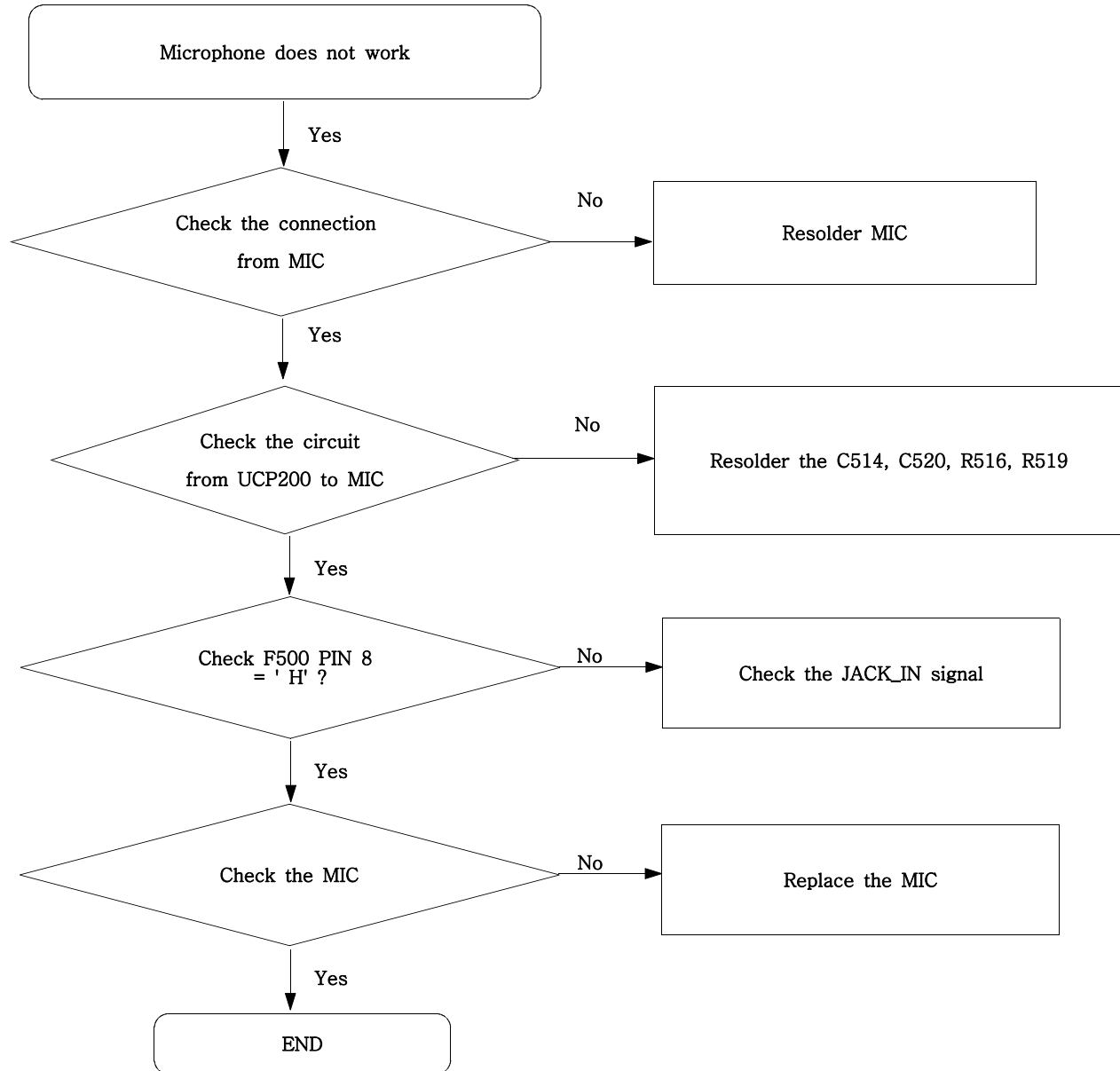


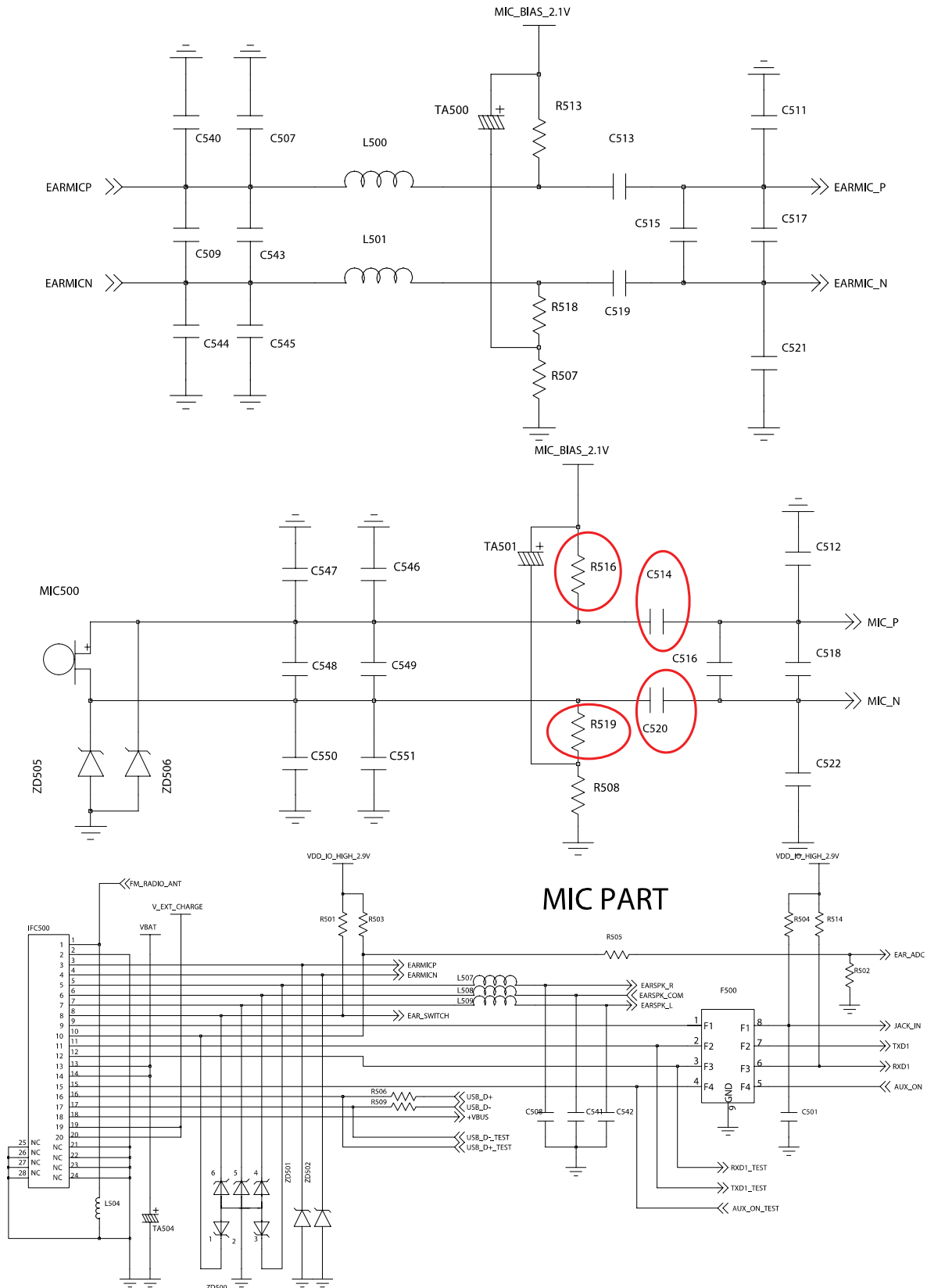
9-4. Sim Part





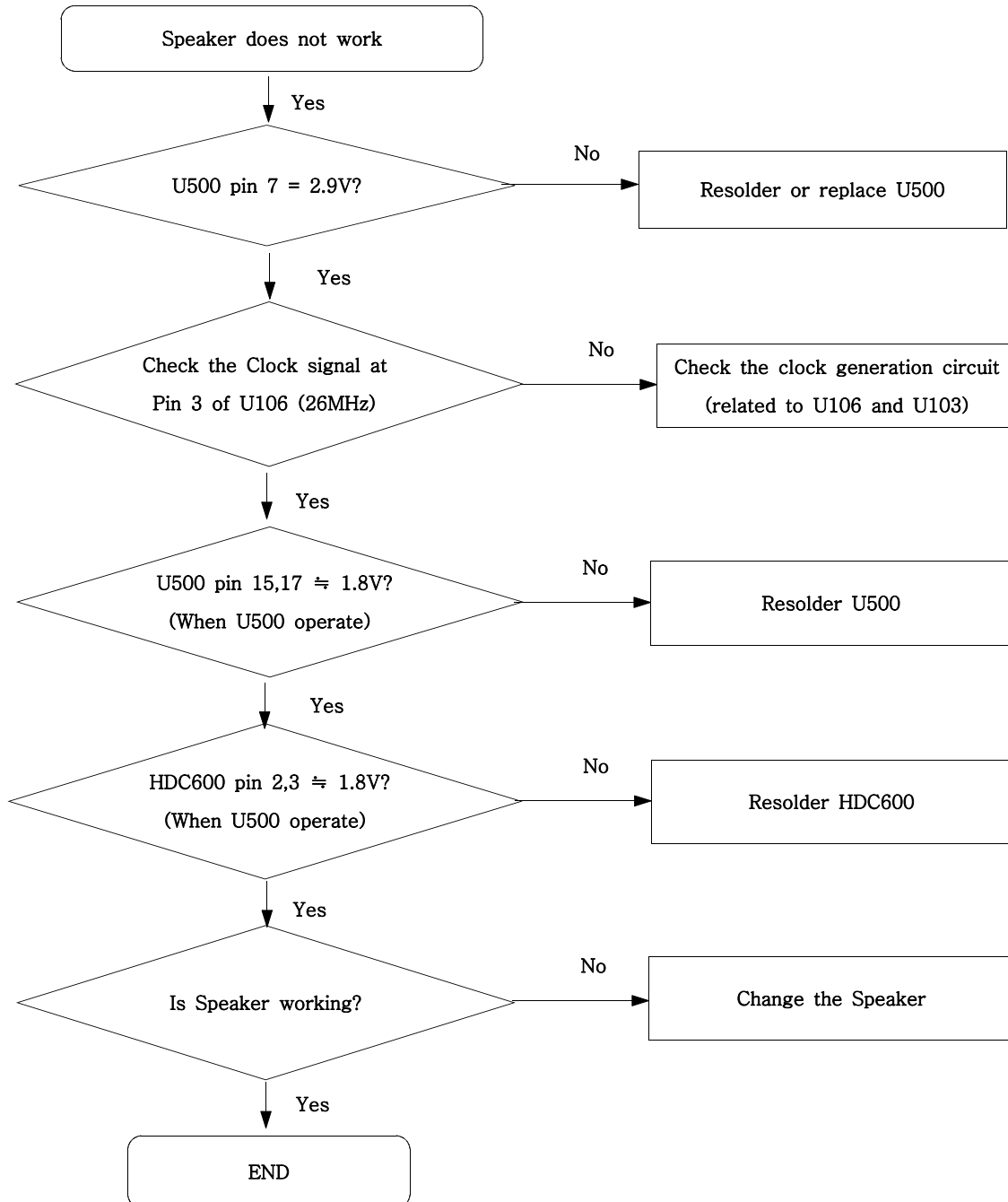
9-5. Microphone Part

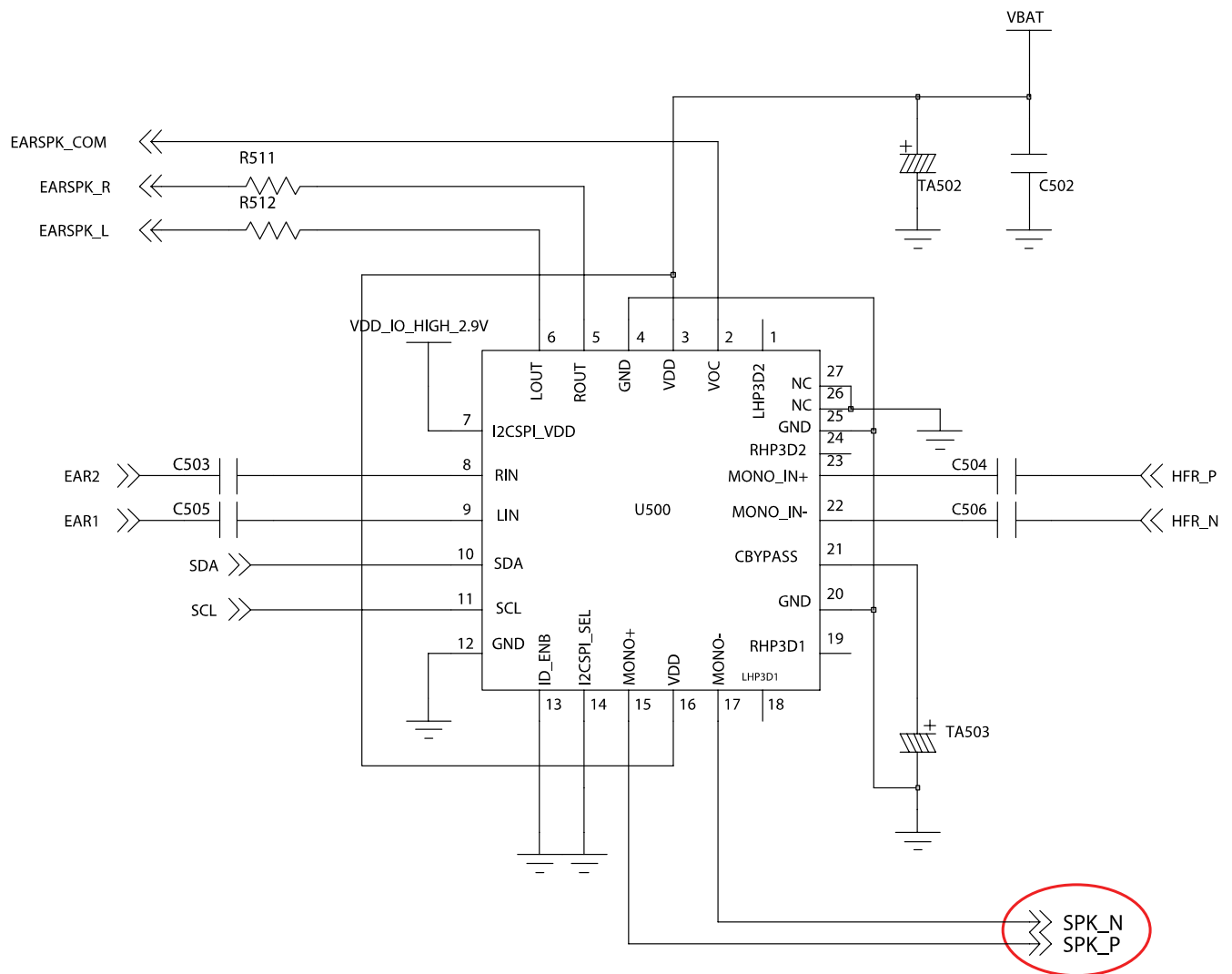




IF CON & EARJACK

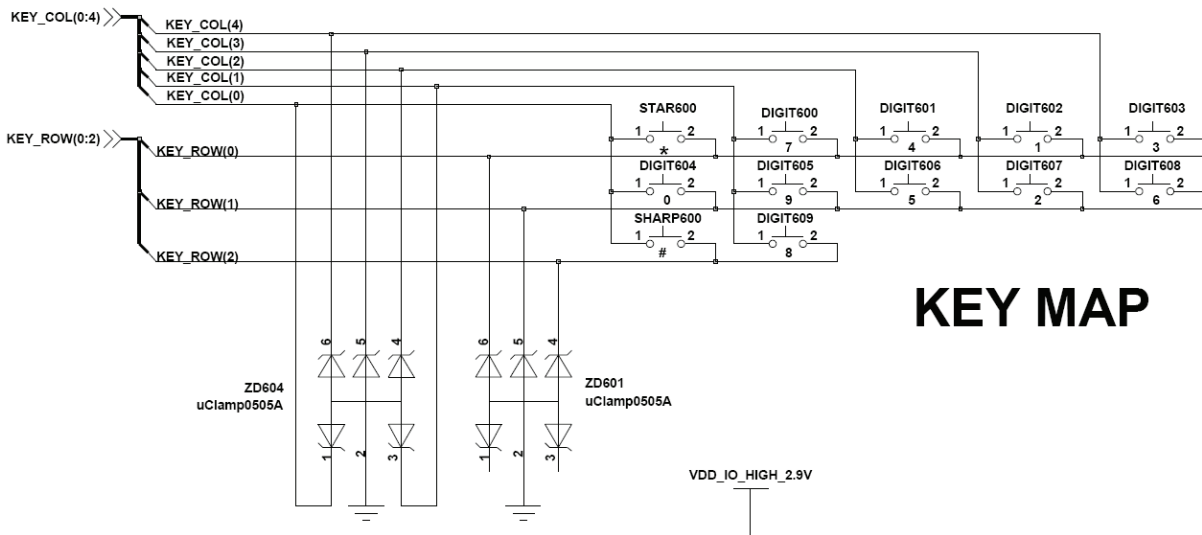
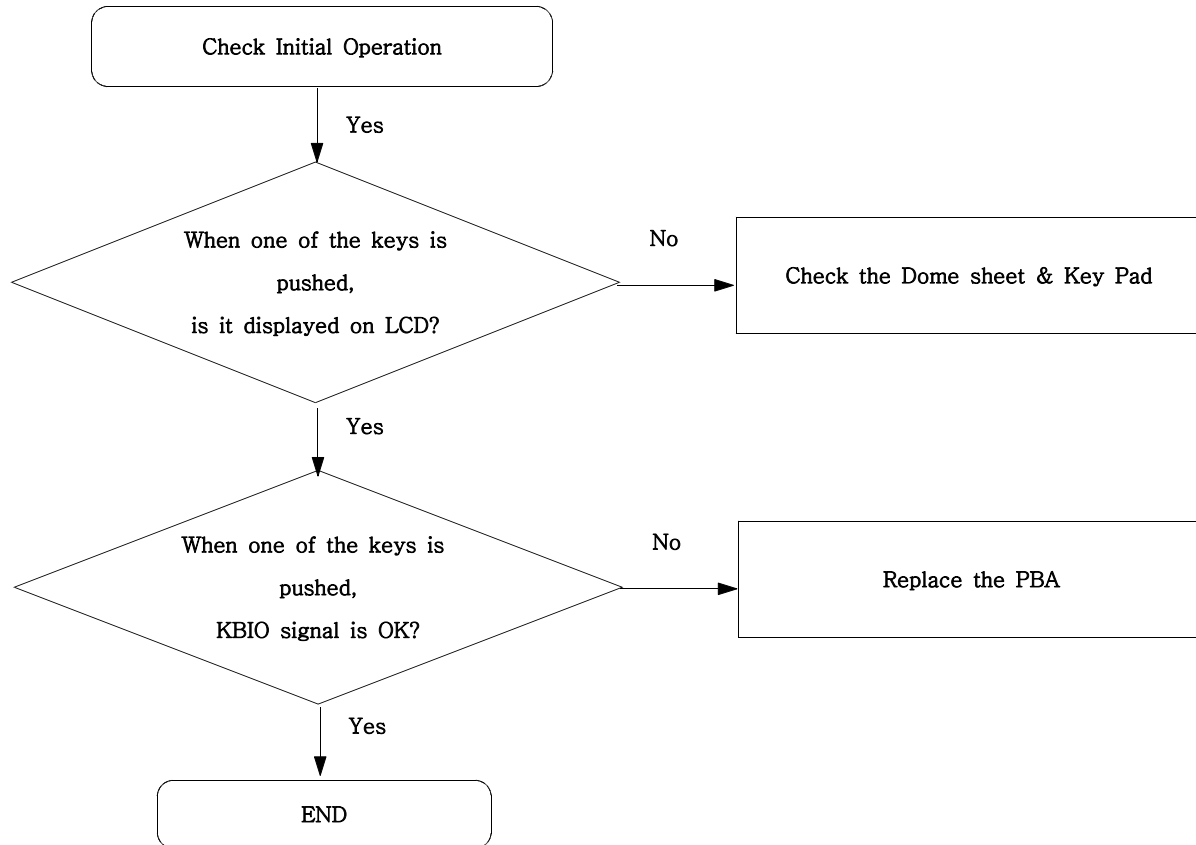
9-6. Speaker Part(Melody)



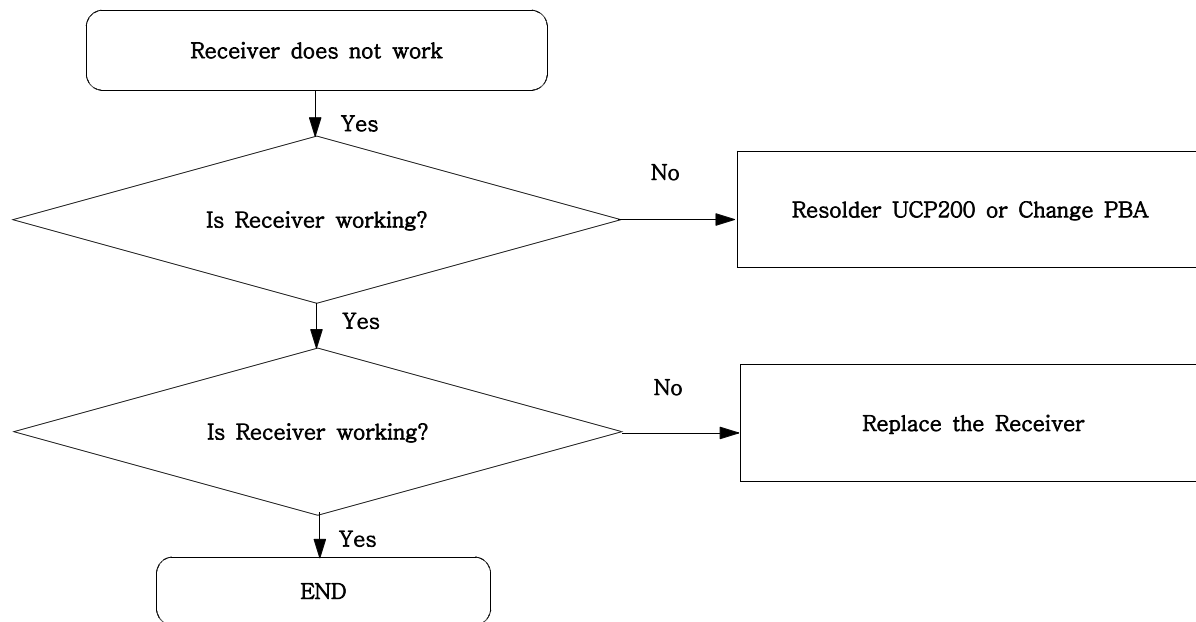


AUDIO AMP

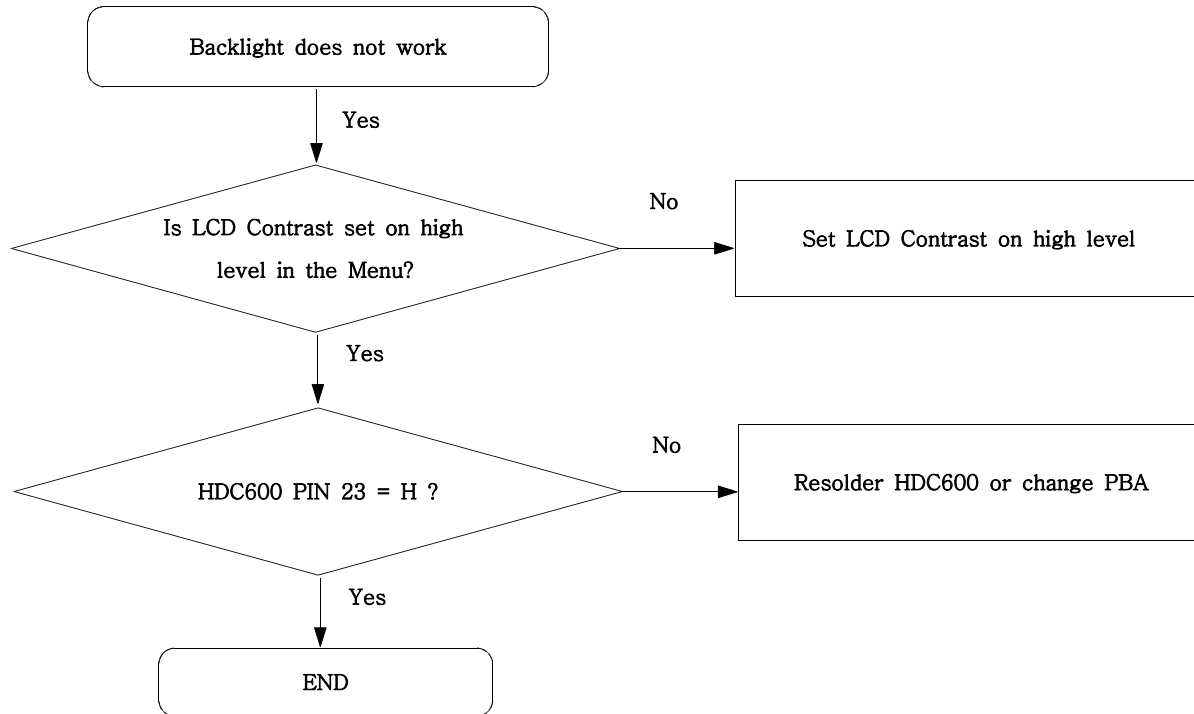
9-7. Key Data Input

**KEY MAP**

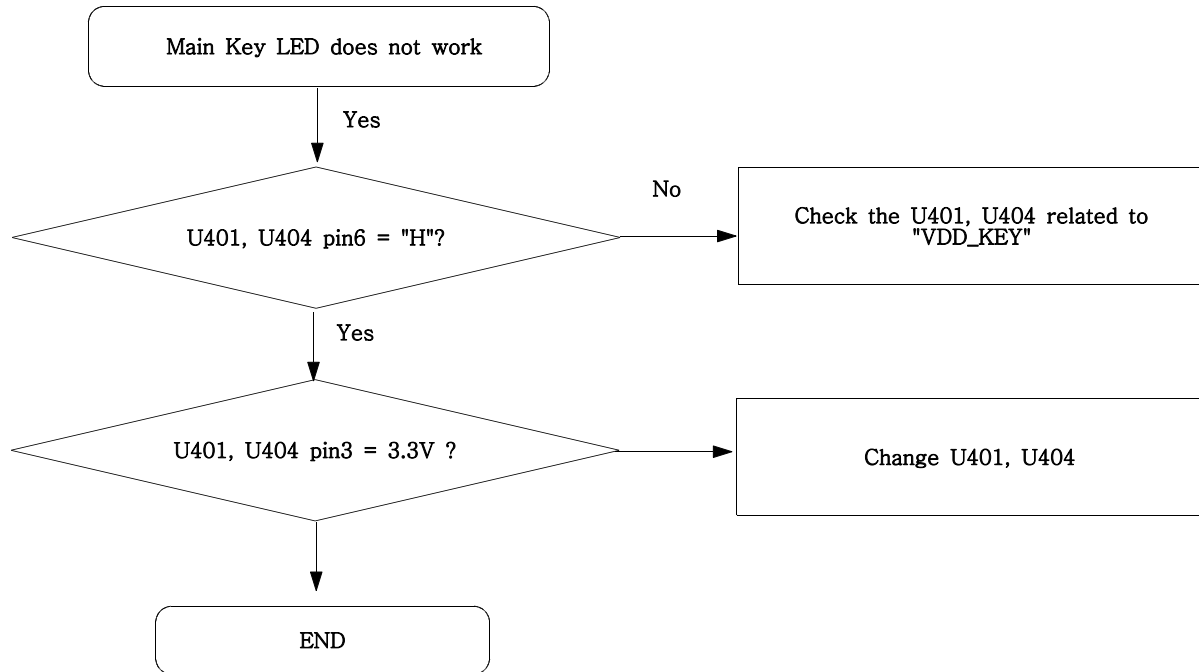
9-8. Receiver Part

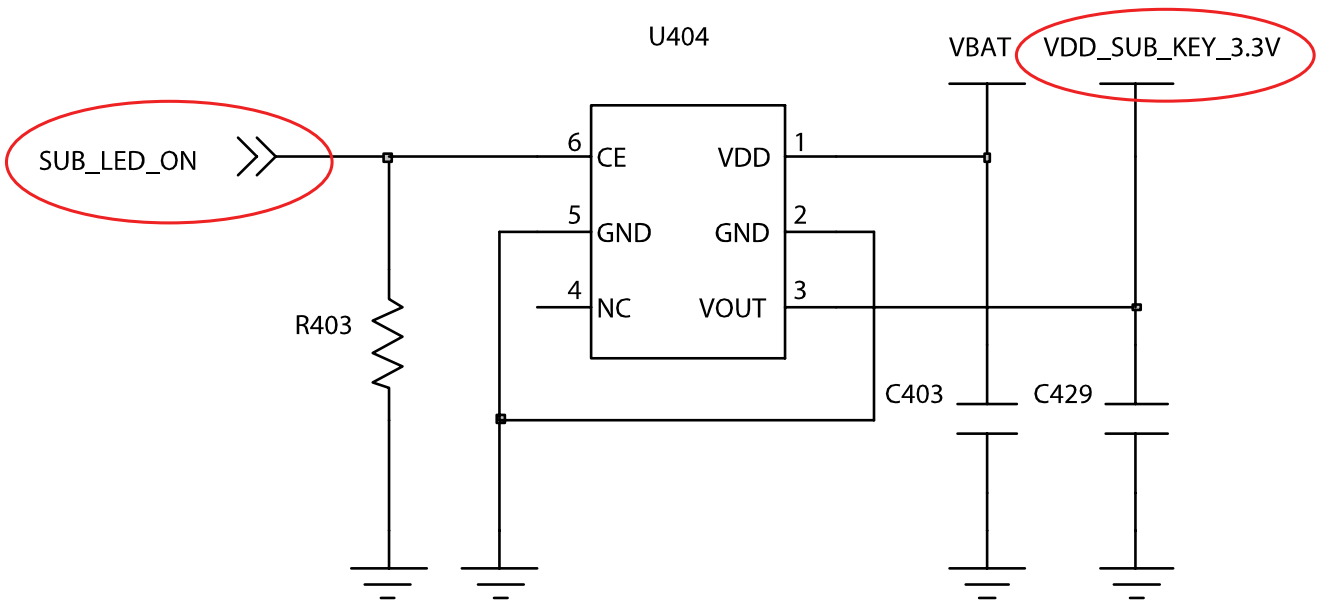
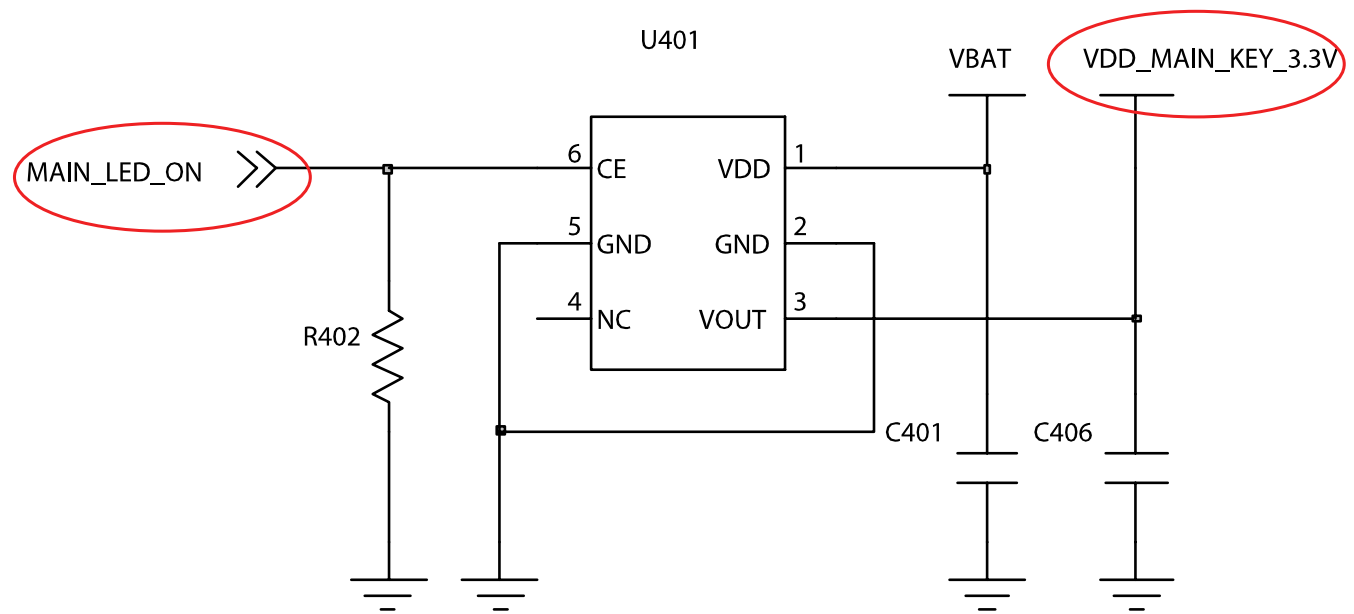


9-9. Back Light (for Color Main LCD)

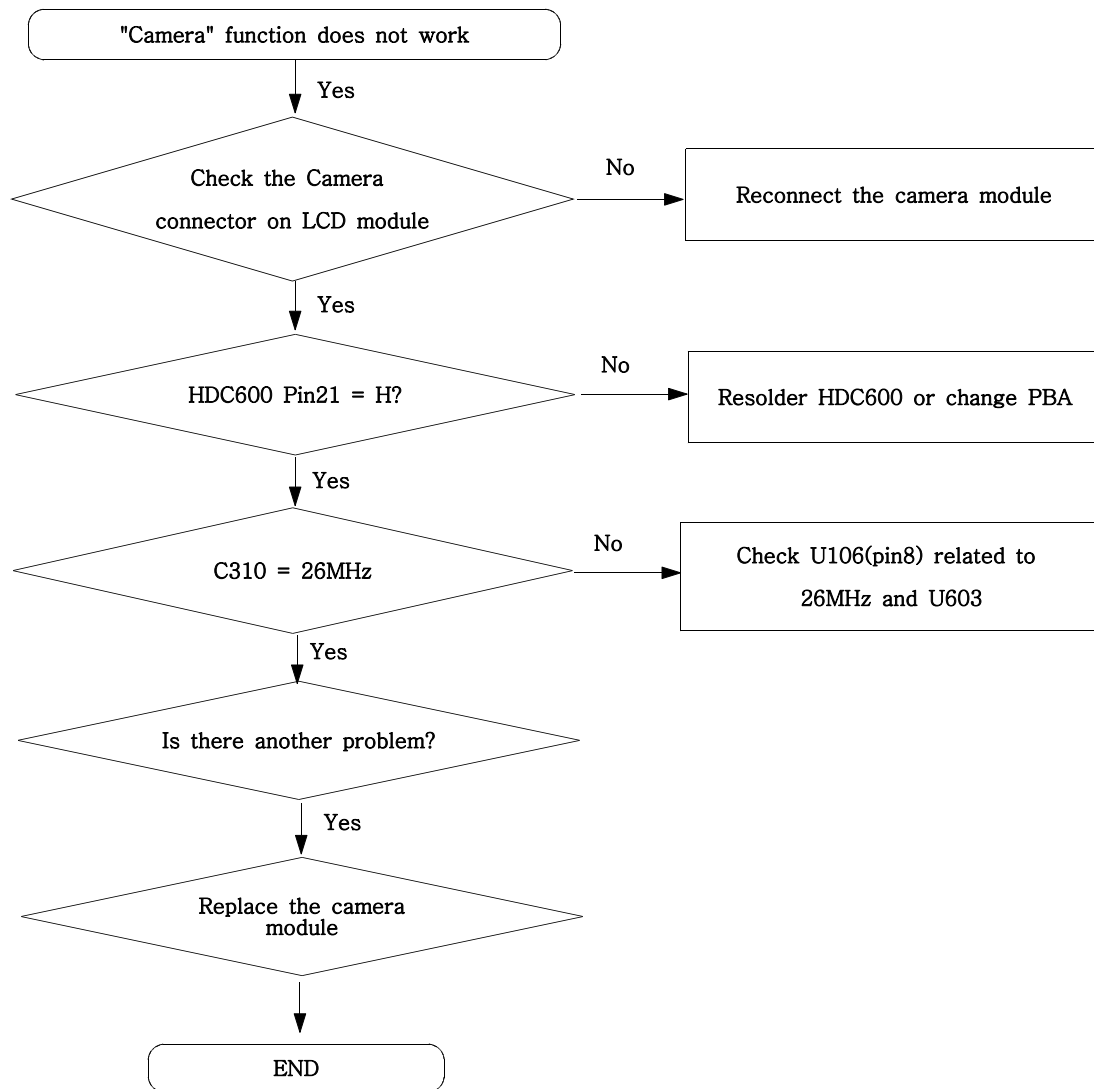


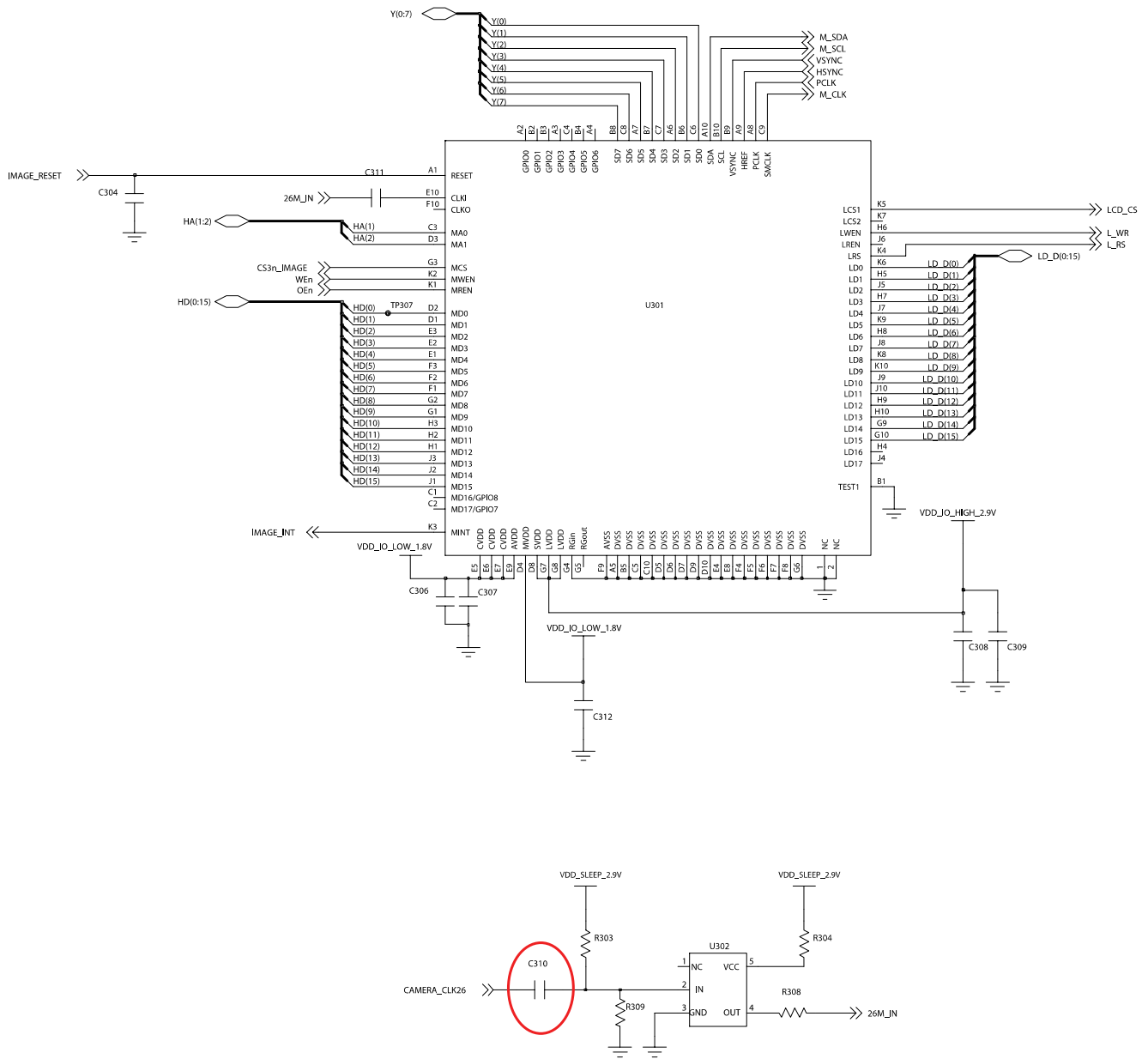
9-10. Key Back Light



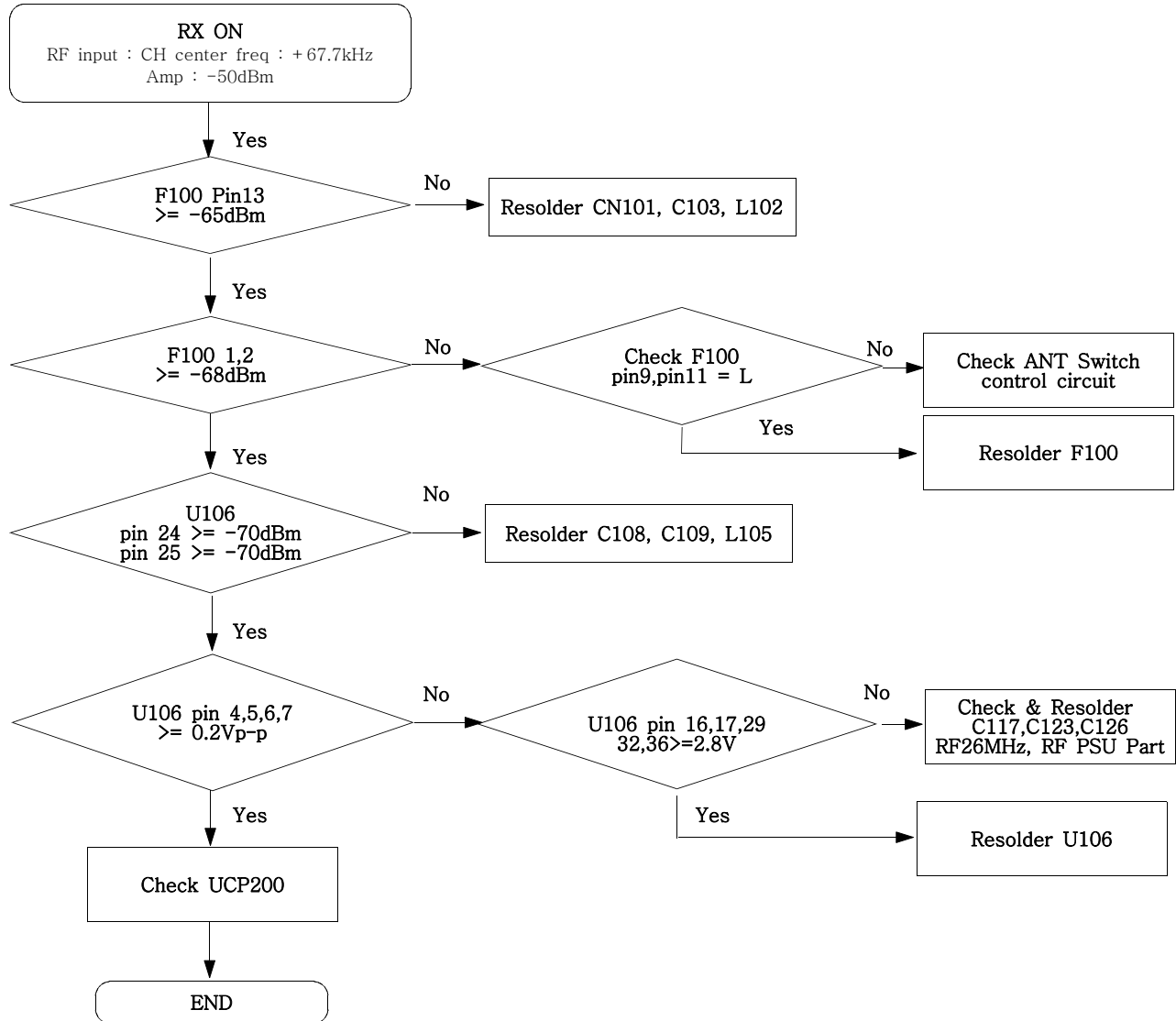


9-11. Camera part

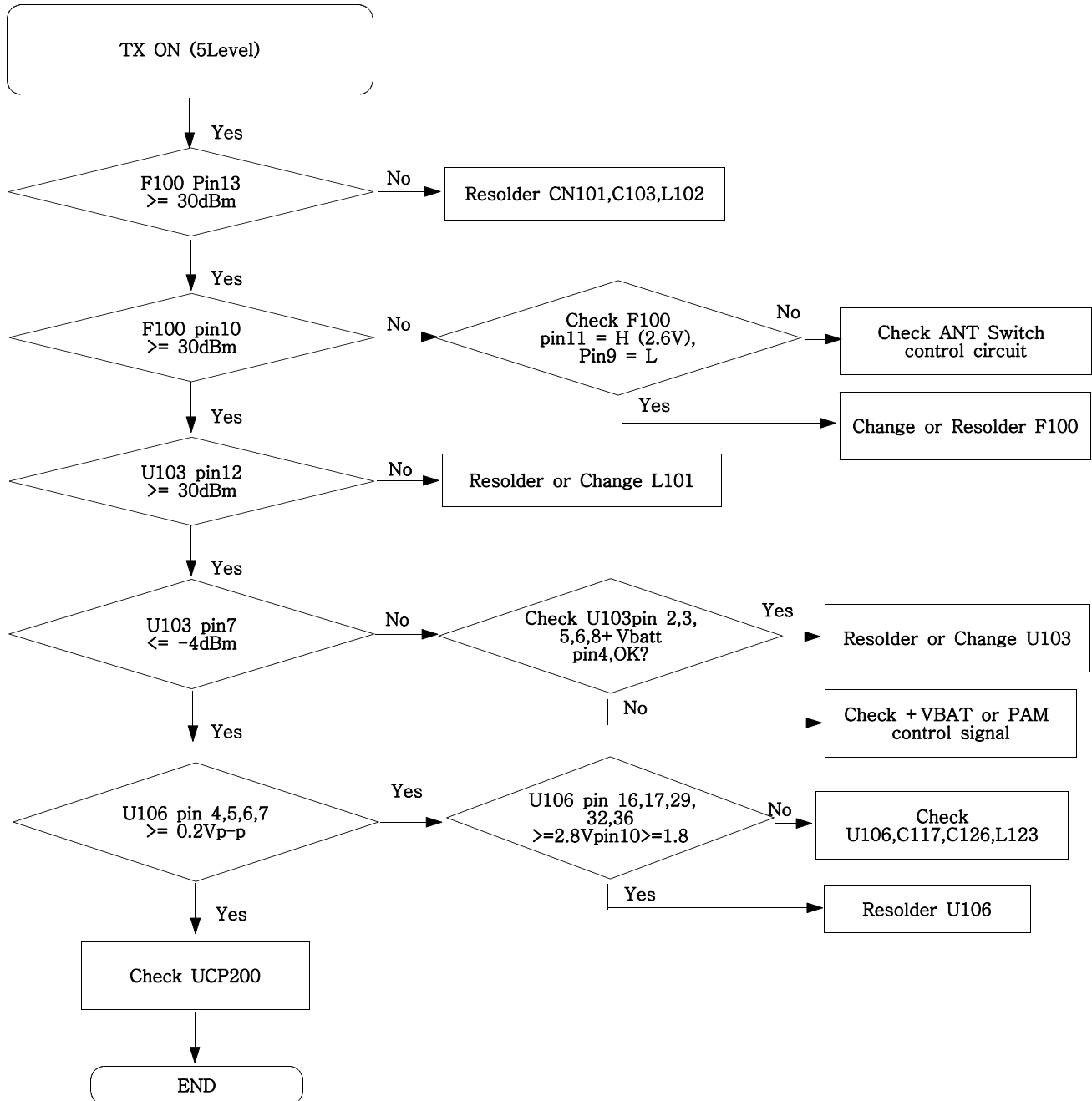




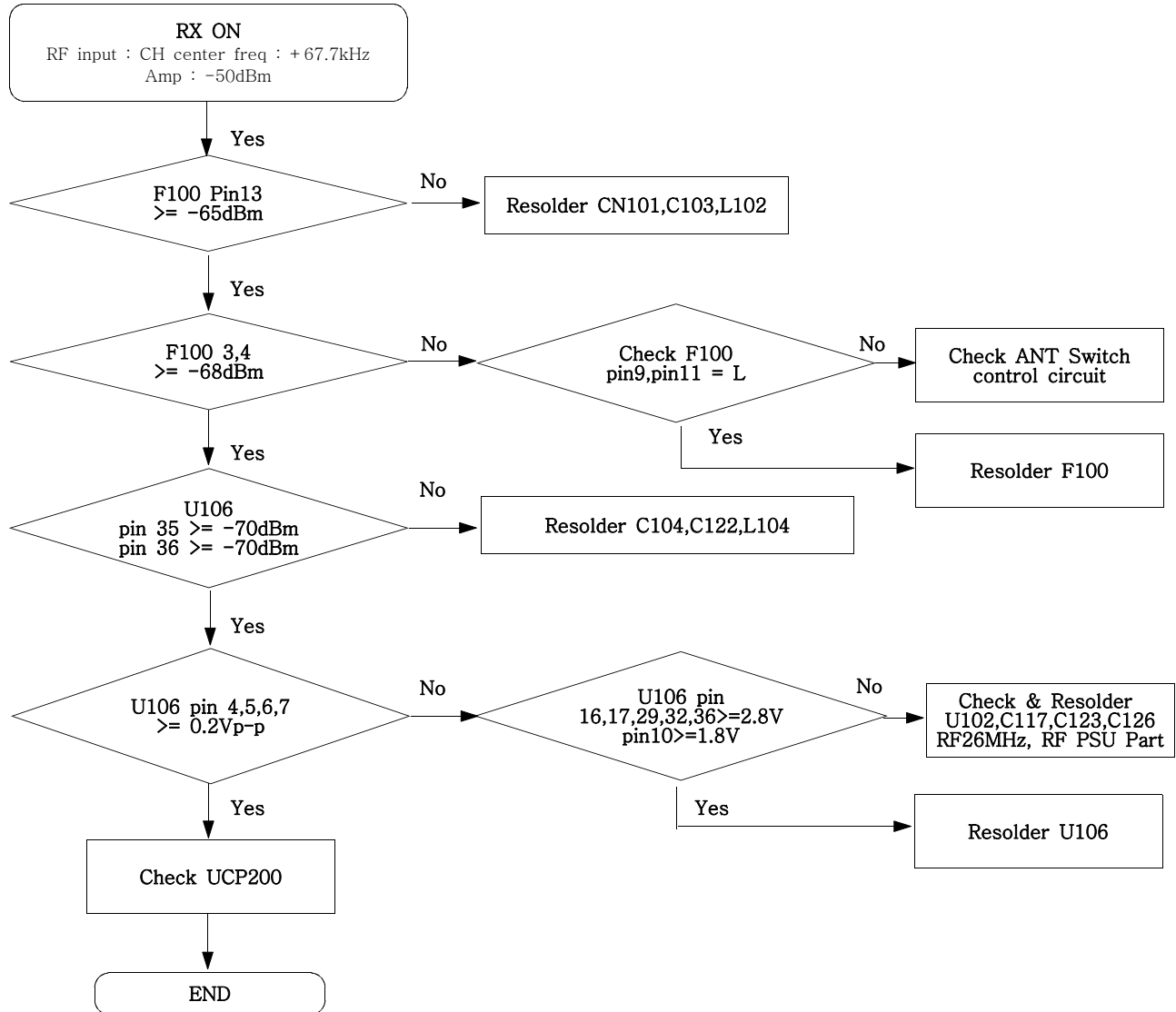
9-12. GSM Receiver



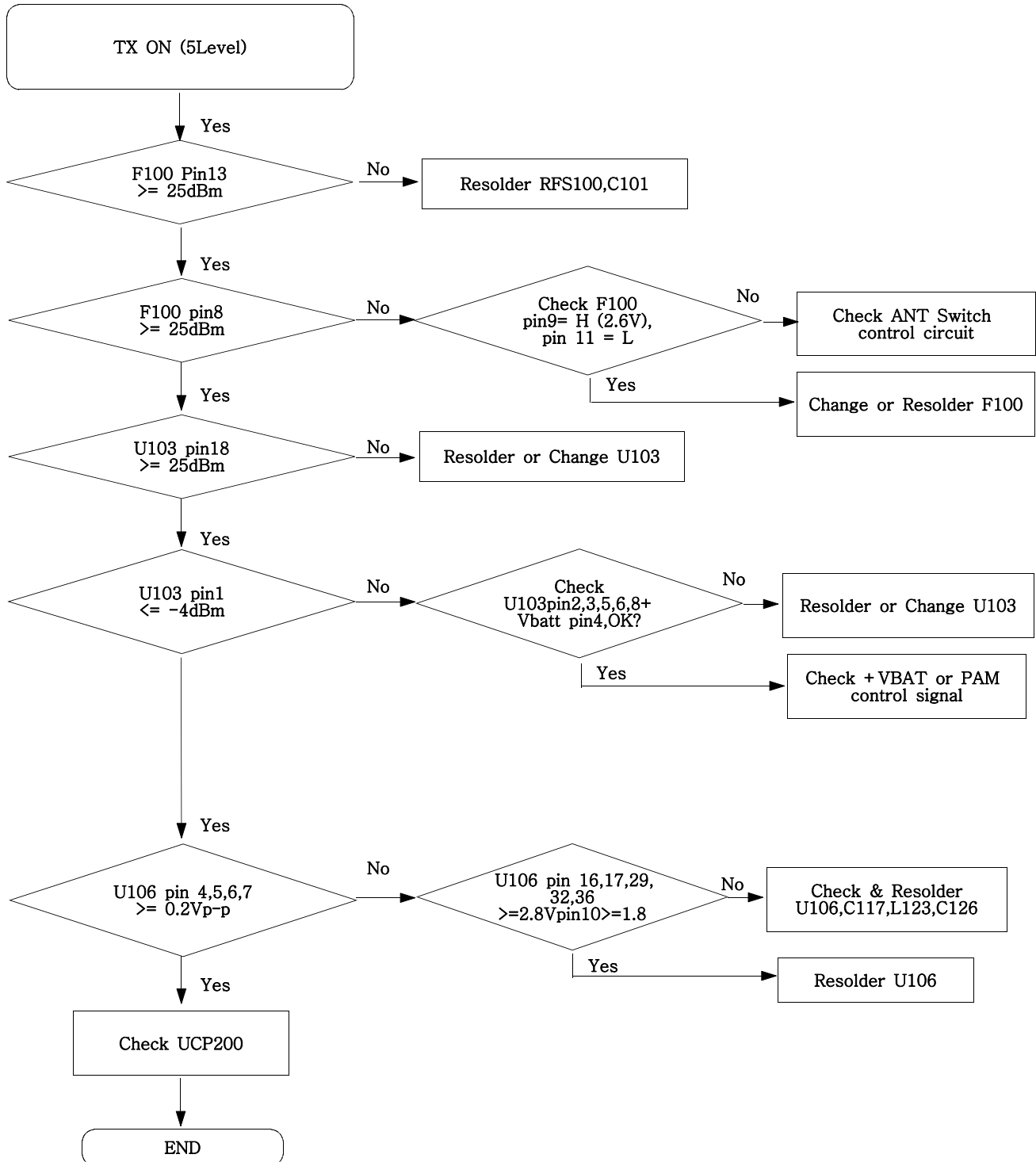
9-13. GSM Transmitter



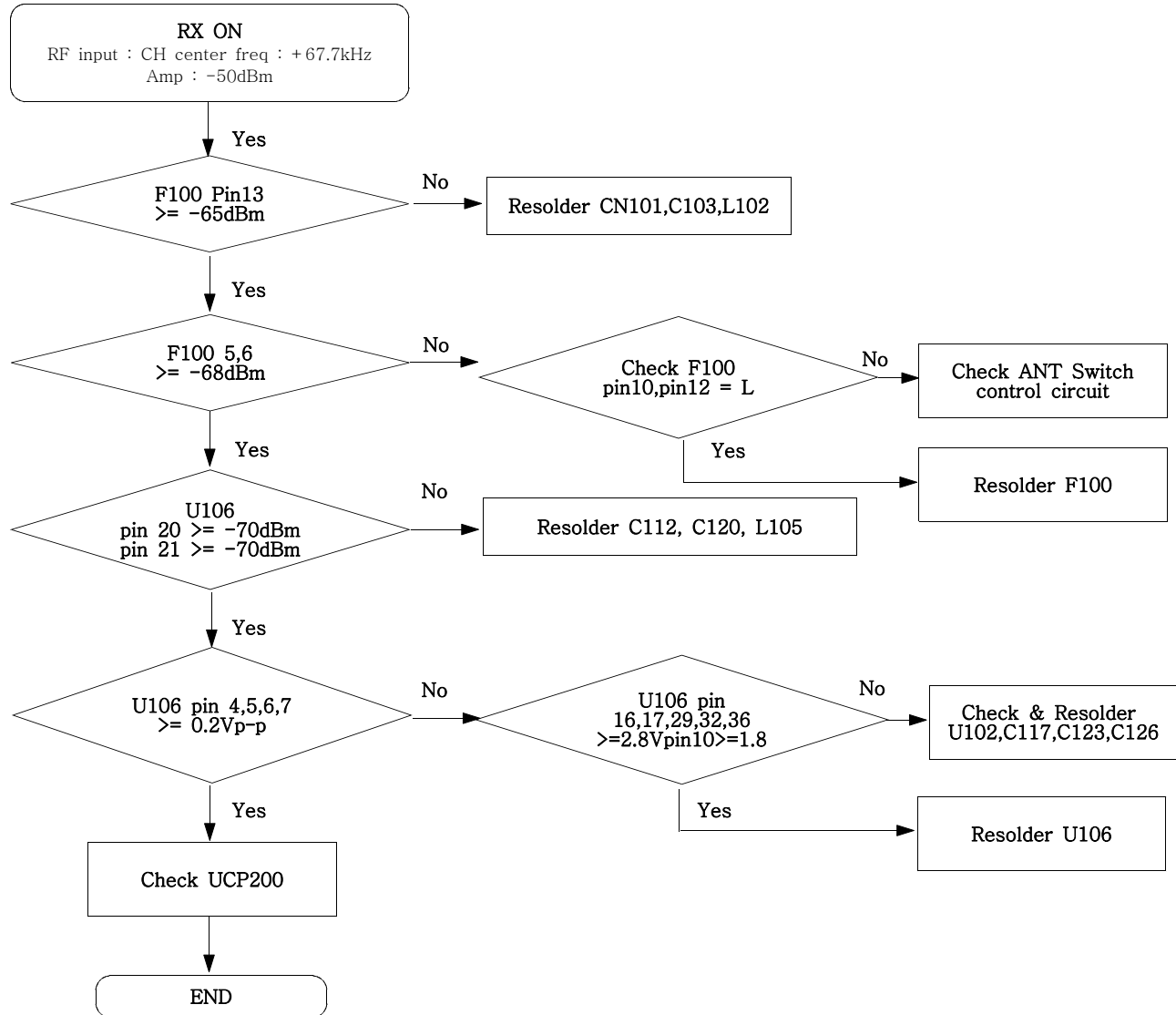
9-14. DCS Receiver



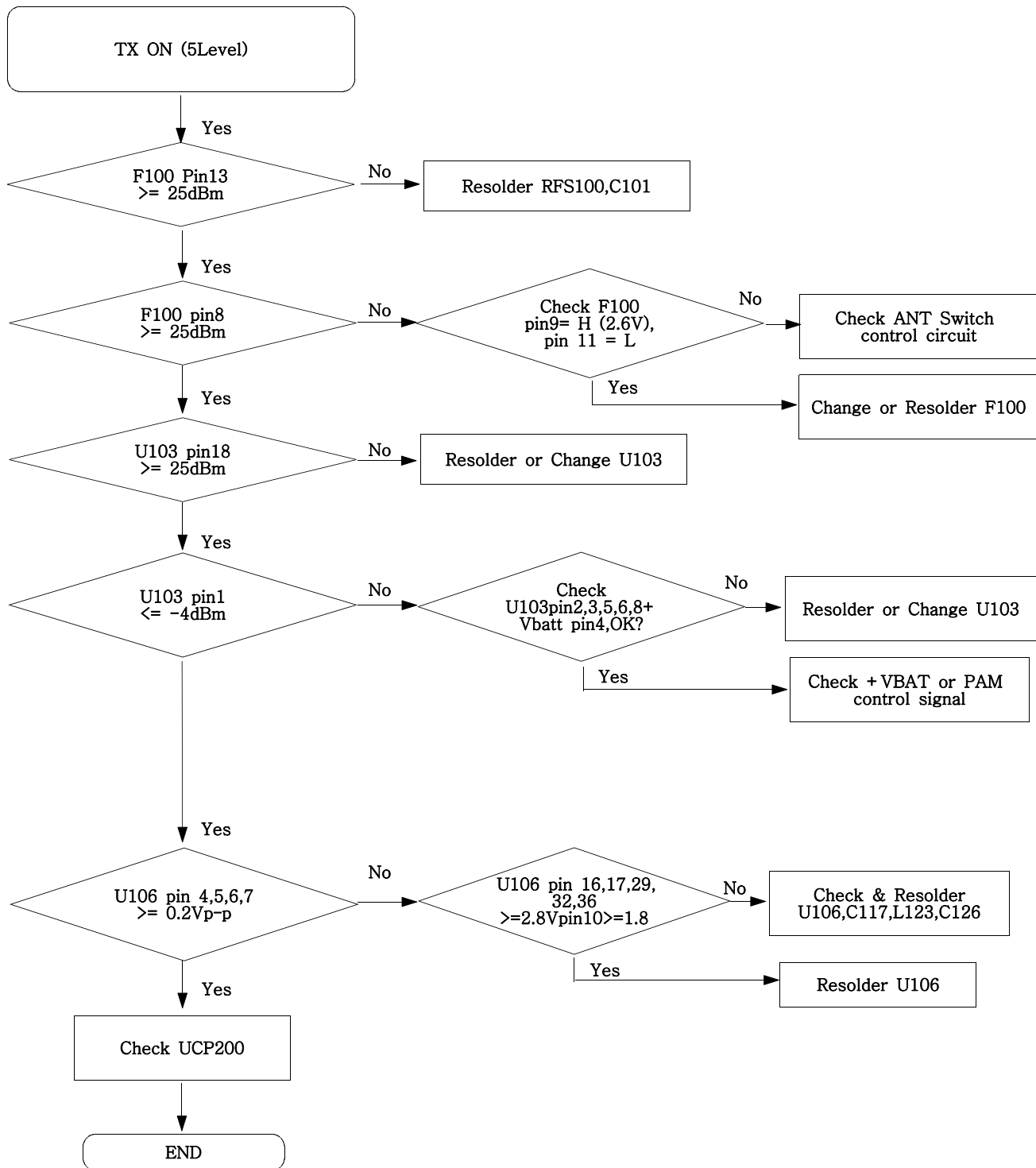
9-15. DCS Transmitter

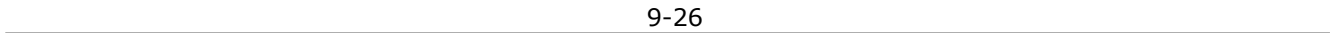


9-16. PCS Receiver



9-17. PCS Transmitter





10. Reference data

Reference Abbreviate

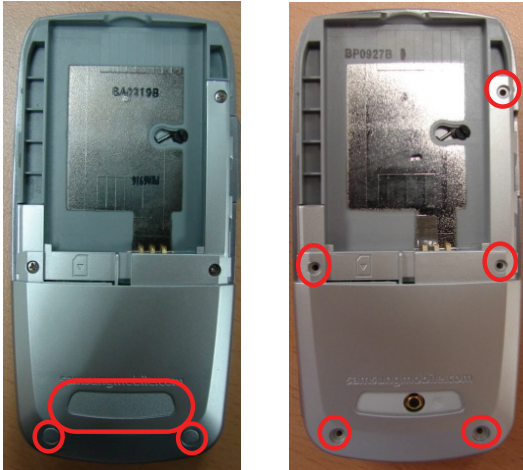
- **AAC**: Advanced Audio Coding.
- **AVC** : Advanced Video Coding.
- **BER** : Bit Error Rate
- **BPSK**: Binary Phase Shift Keying
- **CA** : Conditional Access
- **CDM** : Code Division Multiplexing
- **C/I** : Carrier to Interference
- **DMB** : Digital Multimedia Broadcasting
- **EN** : European 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

11. Disassembly and Assembly Instructions

11-1. Disassembly Instructions

1

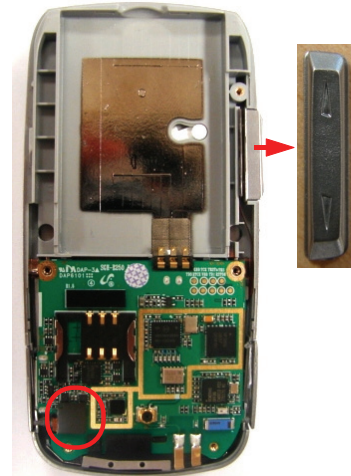
- 1) Remove the RF Sheet, SCREW Cover of rear
- 2) Unscrew 5 screws



- 1) Be careful of body damage and scratch
- 2) Be careful of transforming the rear cover

2

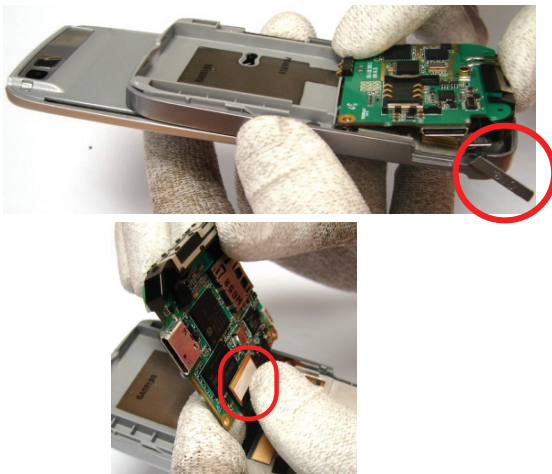
- 1) Remove the volume Key
- 2) Disassemble the connector



- 1) Be careful of body damage and scratch

3

- 1) Open the T-Flash, power cover
- 2) Lift main board
- 3) Detach the LCD Connector after slide down



- 1) Be careful of damaging F-PCB

4

- 1) Separate board from the set

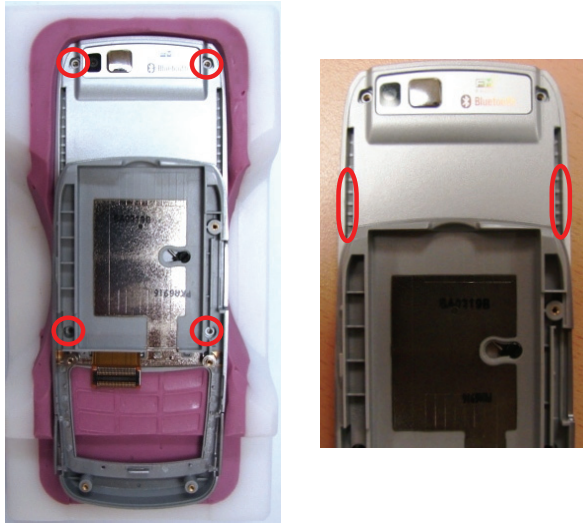


- 1) Be careful of damaging components

5 1) Remove the EMI tape	6 1) Detach the Volume Key Fpcb 2) Disassemble key-can from the point of the picture
	1) Be careful of damaging FPCB detaching Volume Key Fpcb 2) Be careful of body damage and scratch
7 1) Disassemble the key-pad	8 1) Unscrew 2 screws
	1) Be careful of body damage and scratch

9

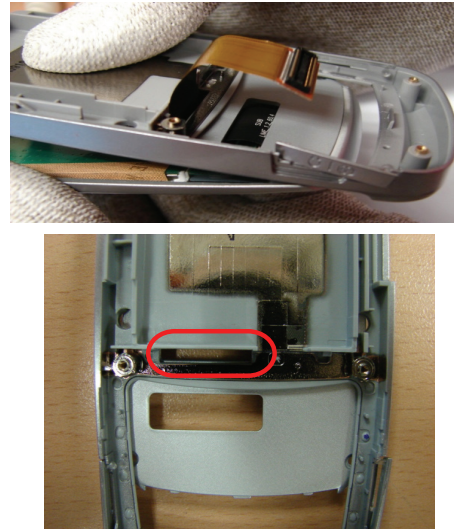
- 1) Unscrew 4 screws
- 2) Disassemble the upper with a couple of thumbs pressing the point of picture



- 1) Be careful of body damage and scratch

10

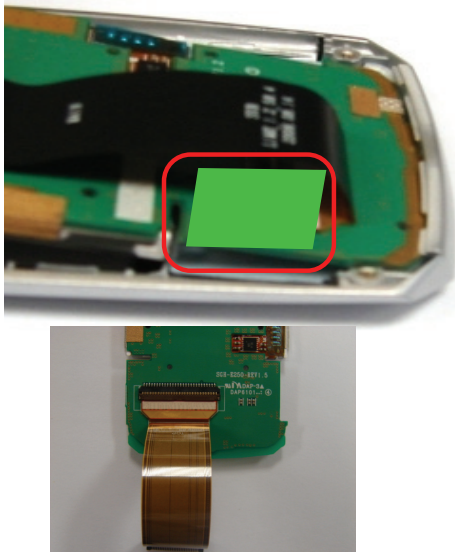
- 1) Match the hole of LOWER and FRONT holding up the slide
- 2) Draw out the FPCB from the hole



- 1) Be careful of cutting wire
- 2) Be careful of body damage and scratch

11

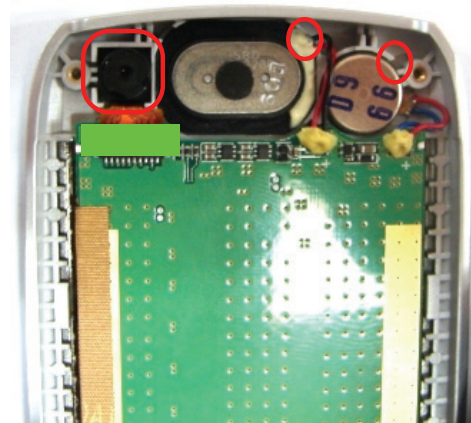
- 1) Remove the tape covering FPCB Connector
- 2) Disassemble FPCB after lifting Connector



- 1) Be careful of body damage and scratch
- 2) Be careful of damaging F-PCB

12

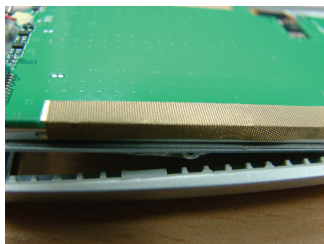
- 1) Disassemble Speaker, Motor
- 2) Remove the tape on the Camera Connector
- 3) Disassemble the Camera taking down the top of the camera



- 1) Be careful of body damage and scratch
- 2) Be careful of damaging camera F-PCB

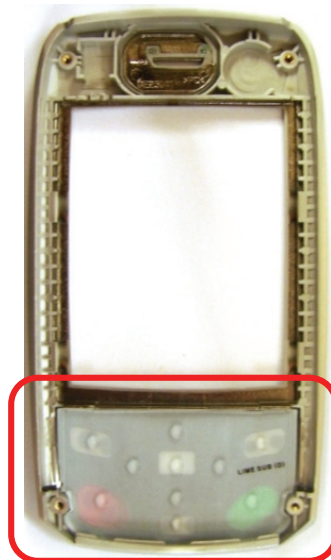
13

- 1) Disassemble from upper after lifting lightly the upside of the Sub PBA
- 2) Disassemble SPK, MOT, CAMERA



15

- 1) Disassemble Sub Key Pad

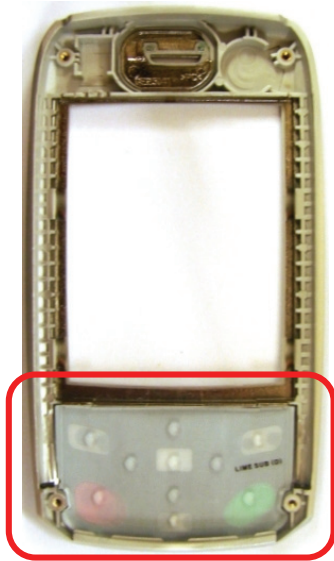


- 1) Be careful of body damage and scratch
- 2) Be careful of sticking between two sides tape and LCD

11-2. Assembly Instructions

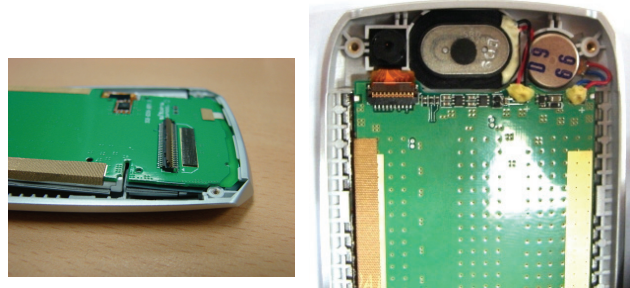
1

1) Joint the Sub Key Pad



2

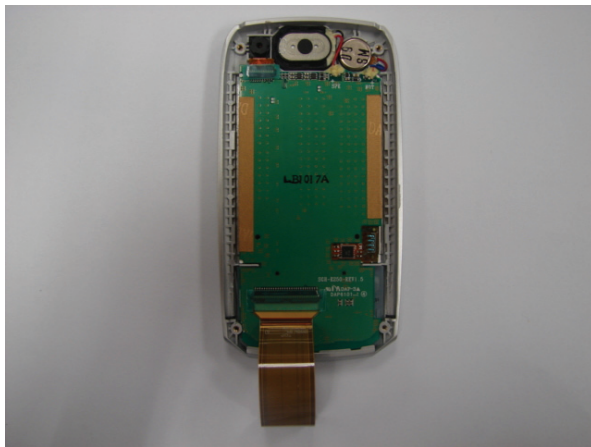
1) Assemble Sub PBA inserting the bottom of the board
 2) Assemble CAMERA, SPK, MOT after inserting camera FPCB



1) Be careful of damaging CAMERA FPCB

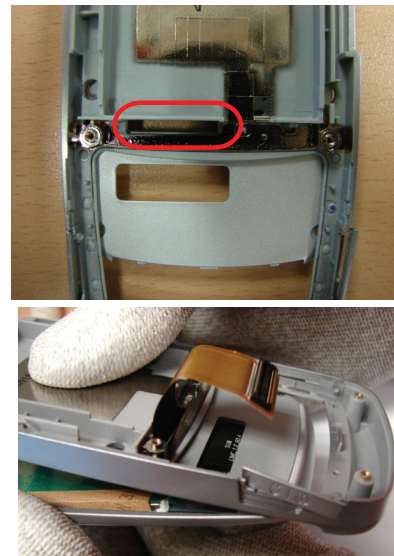
3

1) Insert FPCB(CON TO CON)
 2) Attach conserving TAPE



4

1) Match the hole pulling down lightly the SLIDE ASSY like picture
 2) Insert FPCB



1) Be careful of body damage and scratch
 2) Be careful of damaging F-PCB

1) Be careful of damaging F-PCB

7

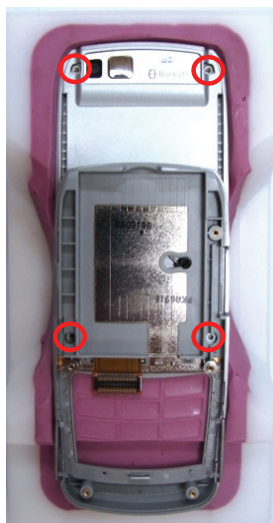
- 1) Assemble SLIDE ASSY part
- 2) Assemble from the bottom side



1) Be careful of body damage and scratch

8

- 1) Screw down 4 screws



1) Be careful of body damage and scratch

7

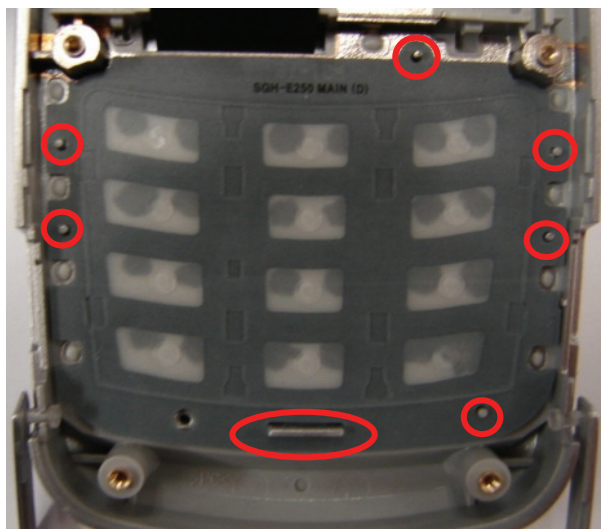
- 1) Insert both screw caps in each direction



1) Be careful of body damage and scratch

8

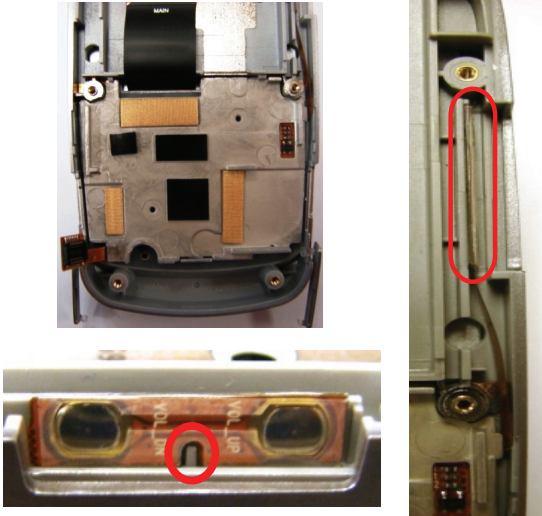
- 1) Assemble the key pad in FRONT



1) Check up the fitting between key pad and REAR

9

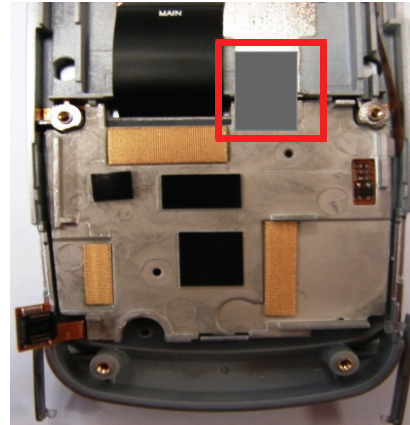
- 1) Assemble the key can
- 2) Check up the attaching FPCB in Volume Key side



- 1) Be careful of damaging F-PCB

10

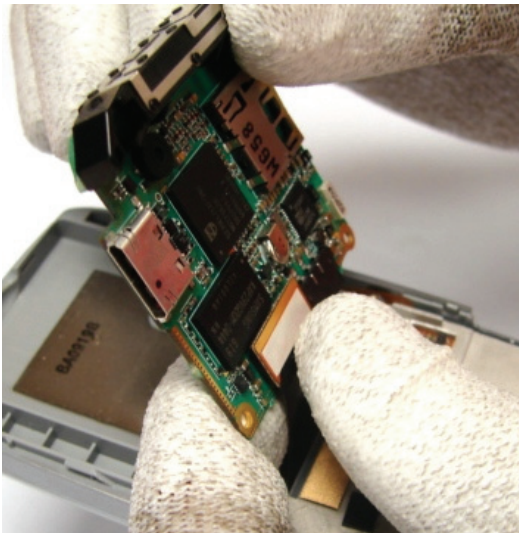
- 1) Attach the EMI tape



- 1) Check up whether tape color is same with SET color or not

11

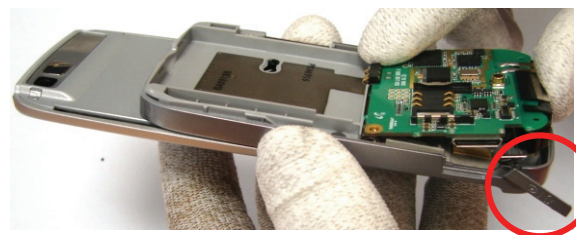
- 1) Assemble the FPCB with main board



- 1) Be careful of damaging BGA components

12

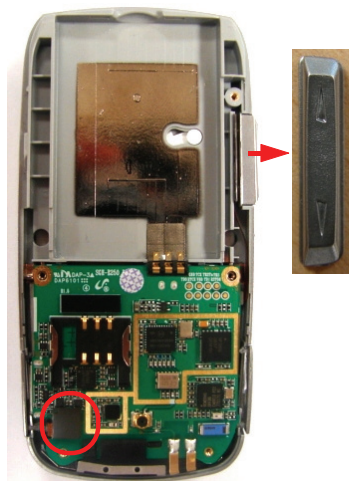
- 1) Open the T-Flash, Power Cover
- 2) Assemble the main board



- 1) Be careful of body damage and scratch

13

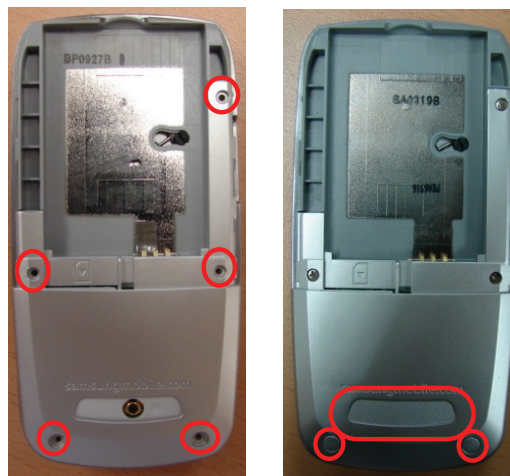
- 1) Insert the Volume Key
- 2) Assemble the Key Connector



1) Be careful of damaging BGA components

14

- 1) Screw down 5screws
- 2) Attach RF Sheet,SCREW Cover of rear



1) Be careful of body damage and scratch