

SAMSUNG

UMTS TELEPHONE

SGH-F330

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

1. Safety Precautions

1-1. Repair Precaution

- Repair in Shield Box, during detailed tuning. Take specially care of tuning or test, because specipicty of cellular phone is sensitive for surrounding interference(RF noise).
- Be careful to use a kind of magnetic object or tool, because performance of parts is damaged by the influence of 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	1920~1990 2110~2170
ARFCN range	0~124 & 975~1023	512~885	512~810	UL:9600~9900 DL:10550~10850
Tx/Rx spacing	45MHz	95MHz	80MHz	120MHz
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	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

- Built-in Digital Cameras(CMOS 2 Mega with Auto Focus, CMOS VGA)
- 2.1" LCD (QVGA 262K TFT)
- Video Telephony / Streaming
- Bluetooth V2.0 Wireless Technology
- USB 2.0
- 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

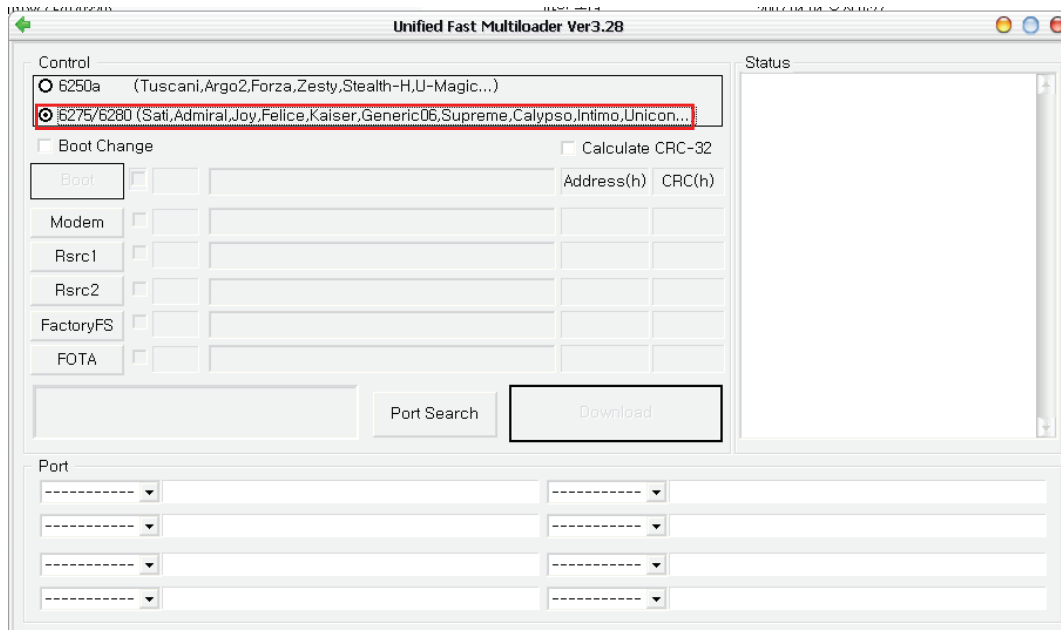
- Four binary files for downloading F330.
 - amss.bin : Modem binary for communication function
 & Mocha binary for user interface and various application
 - Rsrc_F330_○○○○.rc1: Files need for each application
 - Rsrc2_F330(Low).rc2 : Power on/off animation
 - FactoryFS_F330_○○○○.ffs : Default file system to be put into in initial production

4-2-2. Pre-requisite for Downloading

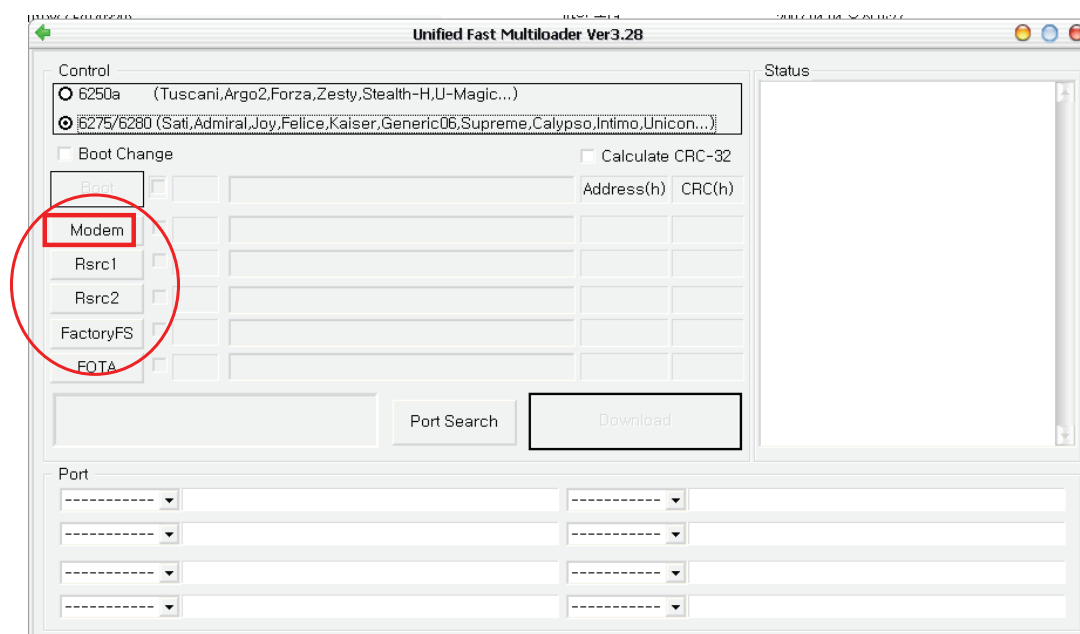
- Downloader Program([MultiLoader V5.30 .exe](#))
- SGH-F330 Mobile Phone
- USB Data Link Cable
- Binary files

4-2-3. S/W Downloader Program

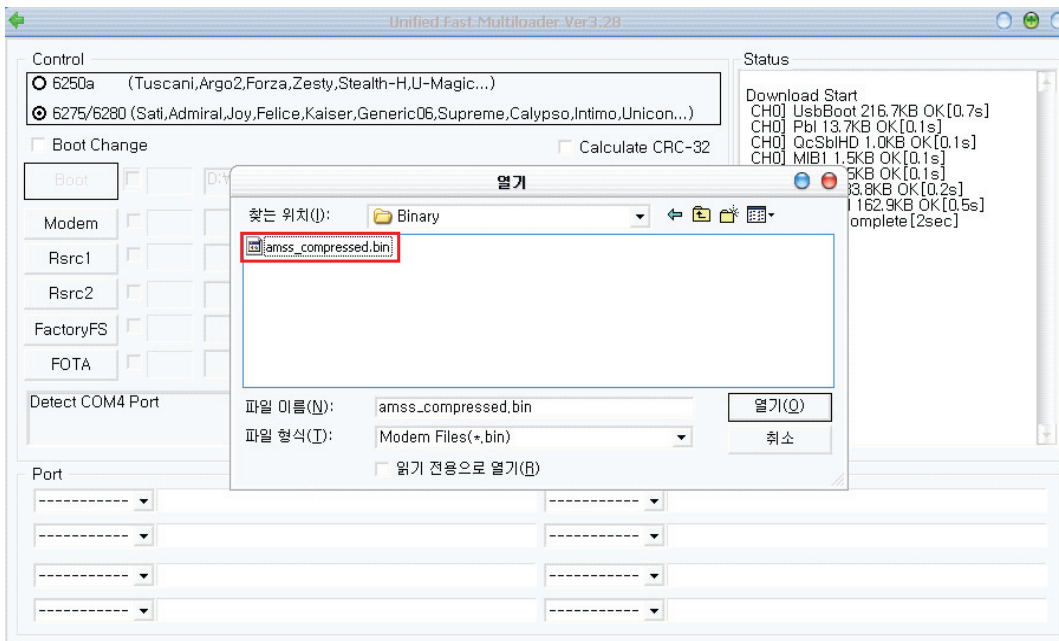
1. Boot the F330 by pressing 'Power ON key' + 'Number 9 key' at the same time-
If you do properly, you can see the following message on LCD "DOWNLOAD"
2. Load the binary download program by executing the "MultiLoader V5.30.exe". And then Check the MSM6260.



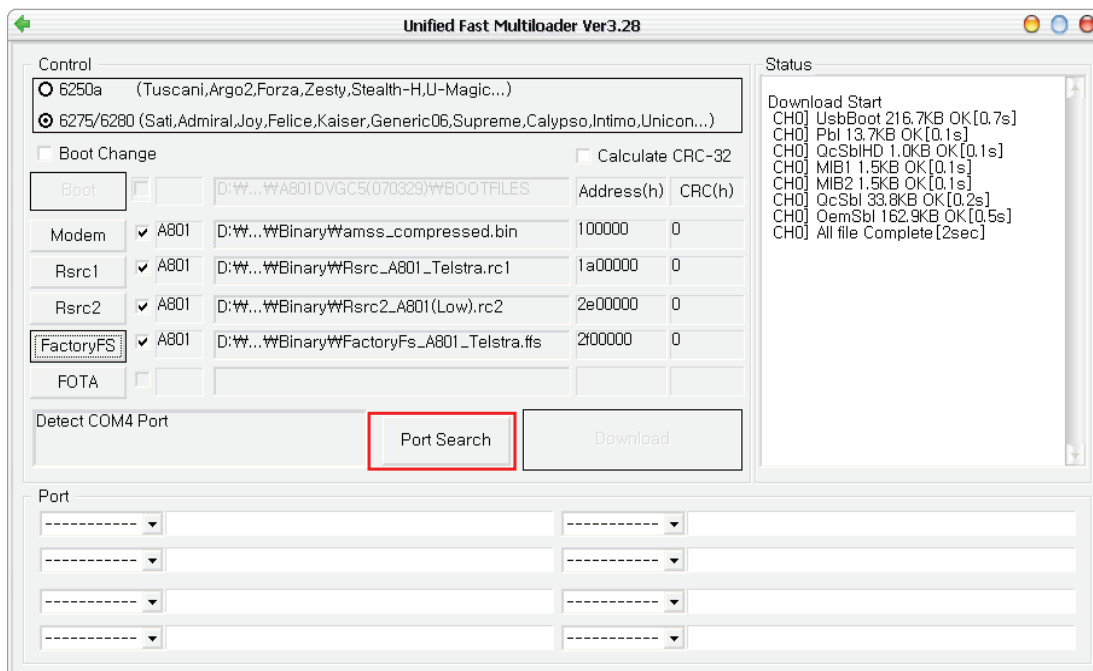
3. Select the check box what you want to download.



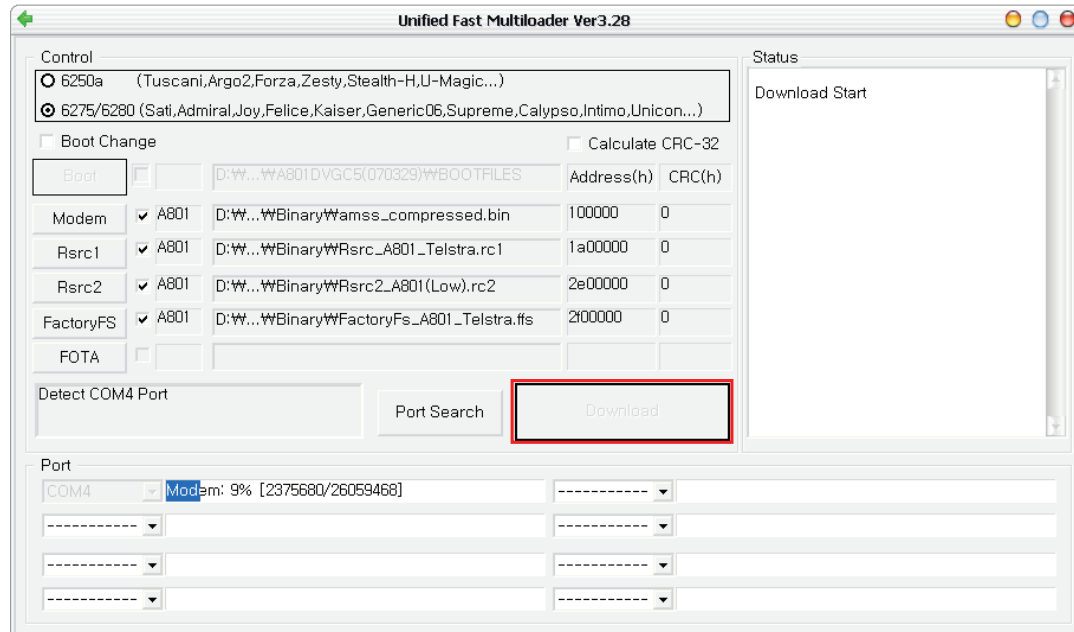
4. Select the binary file what you want to download



5. Now press the button 'Port Search'



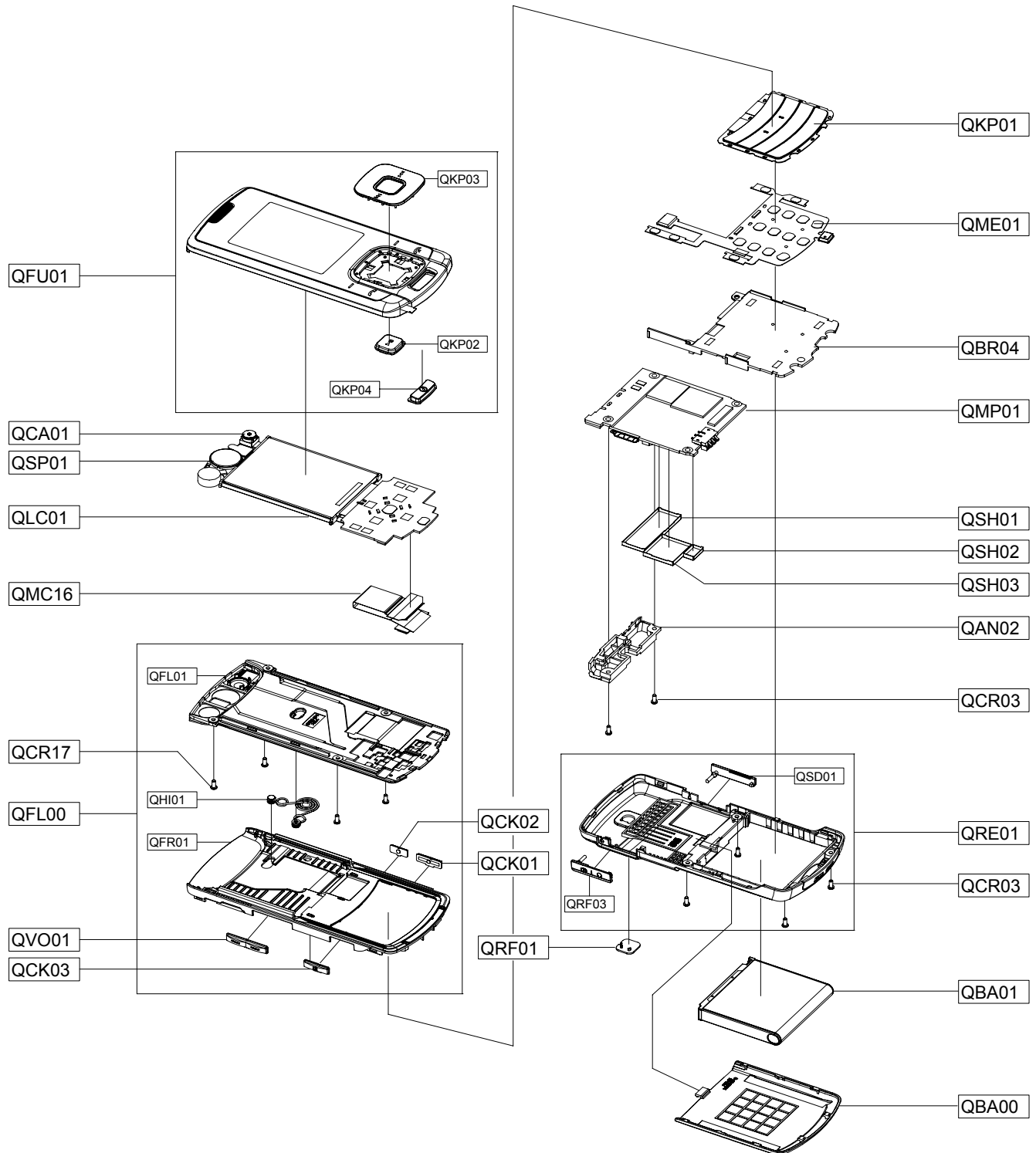
6. Now press the button 'Download'



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

5. Exploded View and Parts List

5-1. Cellular phone Exploded View



5-2. Cellular phone Parts List

Design LOC		Description	SEC CODE
QAN02		INTENNA-SGH F330	GH42-01302A
QBA00		PMO-COVER BATTERY	GH72-39764A
QBA01		INNER BATTERY PACK-880MAH,BLK,	GH43-02934A
QBR04		ASSY BRACKET-MAIN KEYPAD	GH98-06060A
QCA01		CAMERA MODULE	GH59-04669A
QCK01		PMO KEY-CAMERA V2	GH72-42569A
QCK02		PMO-POWER KEY	GH72-39773A
QCK03		PMO KEY-SWITCH	GH72-42570A
QCR03		SCREW-MACHINE	6001-001811
QCR03		SCREW-MACHINE	6001-001811
QCR17		SCREW-MACHINE	6001-001460
QKP01		ASSY KEYPAD-MAIN(EU/BLK)	GH98-04721A
QLC01		LCD-MODULE	GH07-01163A
QMC16		ASSY ETC-CON TO CON FPCB	GH59-04670A
QME01		KEY FPCB-KEY FPCB	GH59-04771A
QMP01		PBA MAIN-SGH F330	GH92-03967A
QRF01		PMO-COVER RF	GH72-39763A
QSH01		ICT SHIELD-CAN 1	GH70-02803A
QSH02		ICT SHIELD-CAN 2	GH70-02804A
QSH03		ICT SHIELD-CAN 3	GH70-02805A
QSP01		ASSY ETC-SPK MOTOR FPC ASSY	GH59-04770A
QVO01		ASSY KEY-VOLUME	GH98-06062A
QRE01		ASSY CASE-REAR	GH98-04718A
	QRF03	PMO-COVER EAR IF	GH72-39774A
	QSD01	PMO-COVER MICRO SD	GH72-39775A
QFL00		ASSY CASE-SLIDE LOWER/FRONT	GH98-06227A
	QFL01	ASSY CASE-SLIDE LOWER	GH98-06226A
	QFR01	ASSY CASE-FRONT	GH98-04717A
	QHI01	ASSY HINGE-MULTI TORSION SPRIN	GH98-06612A
QFU01		ASSY CASE-SLIDE UPPER(TMO)	GH98-06663A
	QKP02	ASSY KEYPAD-FOLD(EU/WHITE)	GH98-06155A
	QKP03	ASSY KEYPAD-NAVI(EU/WHITE)	GH98-06154A
	QKP04	ASSY KEYPAD-MUSIC(EU/SIL)	GH98-06156A

Description	SEC CODE
BAG PE	6902-000634
CBF INTERFACE-MIC CABLE,BLK,S2	GH39-00727A
CBF INTERFACE-DLC APCBS10BBE(S	GH39-00922A
ADAPTOR-ATADS10EBE,BLK,EU	GH44-01702A
S/W CD-SGHF330 PC LINK CD	GH46-00480A
UNIT-EARPHONE(BLK)	GH59-02261A
LABEL(P)-UNIT SEAL	GH68-00518B
LABEL(P)-IMEI DI	GH68-03060A
LABEL(R)-WATER SOAK	GH68-09361A
LABEL(R)-WATER SOAK	GH68-09361A
MANUAL USERS-TMO GERMAN QSG	GH68-11562A
MANUAL USERS-DTM GERMAN	GH68-16025A
LABEL(R)-MAIN(EU)	GH68-16048A
MANUAL USERS-TMO TMU ENGLISH	GH68-16066A
CUSHION-CASE(2TA)	GH69-05912A
BOX-UNIT(EU)	GH69-05962A
BOX-SLIP(DTM)	GH69-06030A
MPR-ELEC TAPE	GH74-19116A
TAPE INSU-PCB	GH74-34824A
TAPE-BRACKET	GH74-34946A
TAPE GASK-LCD 2	GH74-34979A
TAPE GASK-LCD 3	GH74-34980A
TAPE GASK-LCD 4	GH74-35023A
SPONGE-PBA	GH74-35175A
TAPE GASK-BRACKET	GH74-35360A
VINYL-BOHO MAIN WINDOW	GH74-35625A

6. MAIN Electrical Parts List

Design LOC	Description	SEC Code	STATUS
ANT102	ANTENNA-CHIP	4202-001031	SA
BAT400	BATTERY-LI(2ND)	4302-001180	SA
L501	BEAD-SMD	3301-001438	SA
L502	BEAD-SMD	3301-001438	SA
L601	BEAD-SMD	3301-001438	SA
L602	BEAD-SMD	3301-001438	SA
L603	BEAD-SMD	3301-001438	SA
L604	BEAD-SMD	3301-001438	SA
L605	BEAD-SMD	3301-001438	SA
F704	BEAD-SMD	3301-001534	SA
L127	BEAD-SMD	3301-001659	SA
L207	BEAD-SMD	3301-001756	SA
C145	C-CER,CHIP	2203-000138	SA
C404	C-CER,CHIP	2203-000233	SA
C405	C-CER,CHIP	2203-000233	SA
C501	C-CER,CHIP	2203-000254	SA
C106	C-CER,CHIP	2203-000278	SA
C420	C-CER,CHIP	2203-000278	SA
C523	C-CER,CHIP	2203-000278	SA
C525	C-CER,CHIP	2203-000278	SA
C416	C-CER,CHIP	2203-000386	SA
C417	C-CER,CHIP	2203-000386	SA
C606	C-CER,CHIP	2203-000425	SA
C607	C-CER,CHIP	2203-000425	SA
C137	C-CER,CHIP	2203-000438	SA
C325	C-CER,CHIP	2203-000438	SA
C332	C-CER,CHIP	2203-000438	SA
C422	C-CER,CHIP	2203-000438	SA
C424	C-CER,CHIP	2203-000438	SA
C216	C-CER,CHIP	2203-000466	SA
C300	C-CER,CHIP	2203-000489	SA
C150	C-CER,CHIP	2203-000679	SA
C433	C-CER,CHIP	2203-000812	SA
C434	C-CER,CHIP	2203-000812	SA
C436	C-CER,CHIP	2203-000812	SA
C507	C-CER,CHIP	2203-000812	SA
C514	C-CER,CHIP	2203-000812	SA
C167	C-CER,CHIP	2203-000854	SA
C506	C-CER,CHIP	2203-000854	SA
C509	C-CER,CHIP	2203-000854	SA
C351	C-CER,CHIP	2203-000995	SA
C133	C-CER,CHIP	2203-001383	SA
C437	C-CER,CHIP	2203-002709	SA
C302	C-CER,CHIP	2203-005480	SA
C526	C-CER,CHIP	2203-005480	SA
C527	C-CER,CHIP	2203-005480	SA
C154	C-CER,CHIP	2203-005482	SA
C349	C-CER,CHIP	2203-005482	SA
C502	C-CER,CHIP	2203-005482	SA
C505	C-CER,CHIP	2203-005482	SA
C100	C-CER,CHIP	2203-005659	SA
C101	C-CER,CHIP	2203-005659	SA
C102	C-CER,CHIP	2203-005659	SA

Design LOC	Description	SEC Code	STATUS
C104	C-CER,CHIP	2203-005659	SA
C126	C-CER,CHIP	2203-005682	SA
C127	C-CER,CHIP	2203-005682	SA
C138	C-CER,CHIP	2203-005682	SA
C139	C-CER,CHIP	2203-005682	SA
C140	C-CER,CHIP	2203-005682	SA
C146	C-CER,CHIP	2203-005682	SA
C439	C-CER,CHIP	2203-005682	SA
C440	C-CER,CHIP	2203-005682	SA
C441	C-CER,CHIP	2203-005682	SA
C442	C-CER,CHIP	2203-005682	SA
C443	C-CER,CHIP	2203-005682	SA
C500	C-CER,CHIP	2203-005682	SA
C608	C-CER,CHIP	2203-005682	SA
C609	C-CER,CHIP	2203-005682	SA
C610	C-CER,CHIP	2203-005682	SA
C611	C-CER,CHIP	2203-005682	SA
C612	C-CER,CHIP	2203-005682	SA
C705	C-CER,CHIP	2203-005682	SA
C708	C-CER,CHIP	2203-005682	SA
C709	C-CER,CHIP	2203-005682	SA
C112	C-CER,CHIP	2203-005725	SA
C114	C-CER,CHIP	2203-005725	SA
C116	C-CER,CHIP	2203-005725	SA
C123	C-CER,CHIP	2203-005725	SA
C141	C-CER,CHIP	2203-005725	SA
C144	C-CER,CHIP	2203-005725	SA
C172	C-CER,CHIP	2203-005725	SA
C208	C-CER,CHIP	2203-005725	SA
C103	C-CER,CHIP	2203-005727	SA
C155	C-CER,CHIP	2203-005727	SA
C214	C-CER,CHIP	2203-005727	SA
C702	C-CER,CHIP	2203-005729	SA
C142	C-CER,CHIP	2203-005736	SA
C156	C-CER,CHIP	2203-005736	SA
C171	C-CER,CHIP	2203-005736	SA
C217	C-CER,CHIP	2203-005736	SA
R106	C-CER,CHIP	2203-005736	SA
C148	C-CER,CHIP	2203-005779	SA
C128	C-CER,CHIP	2203-005789	SA
C147	C-CER,CHIP	2203-005789	SA
C205	C-CER,CHIP	2203-005789	SA
R111	C-CER,CHIP	2203-005789	SA
C169	C-CER,CHIP	2203-005806	SNA
C212	C-CER,CHIP	2203-005806	SNA
C427	C-CER,CHIP	2203-006048	SA
C428	C-CER,CHIP	2203-006048	SA
C429	C-CER,CHIP	2203-006048	SA
C511	C-CER,CHIP	2203-006048	SA
C513	C-CER,CHIP	2203-006048	SA
C613	C-CER,CHIP	2203-006048	SA
C107	C-CER,CHIP	2203-006123	SA
C108	C-CER,CHIP	2203-006123	SA

Design LOC	Description	SEC Code	STATUS
C111	C-CER,CHIP	2203-006123	SA
C215	C-CER,CHIP	2203-006123	SA
R109	C-CER,CHIP	2203-006187	SA
C143	C-CER,CHIP	2203-006194	SA
C209	C-CER,CHIP	2203-006194	SA
C320	C-CER,CHIP	2203-006194	SA
C321	C-CER,CHIP	2203-006194	SA
C322	C-CER,CHIP	2203-006194	SA
C323	C-CER,CHIP	2203-006194	SA
C324	C-CER,CHIP	2203-006194	SA
C330	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
C340	C-CER,CHIP	2203-006194	SA
C342	C-CER,CHIP	2203-006194	SA
C344	C-CER,CHIP	2203-006194	SA
C529	C-CER,CHIP	2203-006257	SA
C161	C-CER,CHIP	2203-006305	SA
C165	C-CER,CHIP	2203-006305	SA
C303	C-CER,CHIP	2203-006305	SA
C504	C-CER,CHIP	2203-006305	SA
C512	C-CER,CHIP	2203-006305	SA
C115	C-CER,CHIP	2203-006423	SA
C117	C-CER,CHIP	2203-006423	SA
C119	C-CER,CHIP	2203-006423	SA
C121	C-CER,CHIP	2203-006423	SA
C125	C-CER,CHIP	2203-006423	SA
C132	C-CER,CHIP	2203-006423	SA
C134	C-CER,CHIP	2203-006423	SA
C135	C-CER,CHIP	2203-006423	SA
C136	C-CER,CHIP	2203-006423	SA
C162	C-CER,CHIP	2203-006423	SA
C210	C-CER,CHIP	2203-006423	SA
C305	C-CER,CHIP	2203-006423	SA
C306	C-CER,CHIP	2203-006423	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
C311	C-CER,CHIP	2203-006423	SA
C312	C-CER,CHIP	2203-006423	SA
C313	C-CER,CHIP	2203-006423	SA
C314	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
C331	C-CER,CHIP	2203-006423	SA
C337	C-CER,CHIP	2203-006423	SA
C338	C-CER,CHIP	2203-006423	SA
C339	C-CER,CHIP	2203-006423	SA
C341	C-CER,CHIP	2203-006423	SA

Design LOC	Description	SEC Code	STATUS
C343	C-CER,CHIP	2203-006423	SA
C345	C-CER,CHIP	2203-006423	SA
C346	C-CER,CHIP	2203-006423	SA
C347	C-CER,CHIP	2203-006423	SA
C348	C-CER,CHIP	2203-006423	SA
C350	C-CER,CHIP	2203-006423	SA
C403	C-CER,CHIP	2203-006423	SA
C412	C-CER,CHIP	2203-006423	SA
C415	C-CER,CHIP	2203-006423	SA
C600	C-CER,CHIP	2203-006423	SA
C601	C-CER,CHIP	2203-006423	SA
L201	C-CER,CHIP	2203-006439	SNA
C410	C-CER,CHIP	2203-006474	SA
C105	C-CER,CHIP	2203-006556	SA
C151	C-CER,CHIP	2203-006556	SA
C153	C-CER,CHIP	2203-006556	SA
C113	C-CER,CHIP	2203-006562	SA
C122	C-CER,CHIP	2203-006562	SA
C159	C-CER,CHIP	2203-006562	SA
C160	C-CER,CHIP	2203-006562	SA
C166	C-CER,CHIP	2203-006562	SA
C327	C-CER,CHIP	2203-006562	SA
C402	C-CER,CHIP	2203-006562	SA
C406	C-CER,CHIP	2203-006562	SA
C407	C-CER,CHIP	2203-006562	SA
C431	C-CER,CHIP	2203-006562	SA
C432	C-CER,CHIP	2203-006562	SA
C435	C-CER,CHIP	2203-006562	SA
C438	C-CER,CHIP	2203-006562	SA
C517	C-CER,CHIP	2203-006562	SA
C519	C-CER,CHIP	2203-006562	SA
C528	C-CER,CHIP	2203-006562	SA
C602	C-CER,CHIP	2203-006562	SA
C603	C-CER,CHIP	2203-006562	SA
C604	C-CER,CHIP	2203-006562	SA
C605	C-CER,CHIP	2203-006562	SA
C614	C-CER,CHIP	2203-006562	SA
C617	C-CER,CHIP	2203-006562	SA
C618	C-CER,CHIP	2203-006562	SA
C700	C-CER,CHIP	2203-006562	SA
C701	C-CER,CHIP	2203-006562	SA
C704	C-CER,CHIP	2203-006562	SA
C149	C-CER,CHIP	2203-006611	SA
C200	C-CER,CHIP	2203-006611	SA
C168	C-CER,CHIP	2203-006648	SA
C328	C-CER,CHIP	2203-006668	SA
C124	C-CER,CHIP	2203-006674	SNA
C130	C-CER,CHIP	2203-006674	SNA
C400	C-CER,CHIP	2203-006824	SA
C401	C-CER,CHIP	2203-006824	SA
C413	C-CER,CHIP	2203-006824	SA
C419	C-CER,CHIP	2203-006824	SA
C421	C-CER,CHIP	2203-006824	SA

Design LOC	Description	SEC Code	STATUS
C423	C-CER,CHIP	2203-006824	SA
C425	C-CER,CHIP	2203-006824	SA
C426	C-CER,CHIP	2203-006824	SA
C430	C-CER,CHIP	2203-006824	SA
C408	C-CER,CHIP	2203-006838	SA
C409	C-CER,CHIP	2203-006838	SA
C418	C-CER,CHIP	2203-006838	SA
C213	C-CER,CHIP	2203-006839	SA
C352	C-CER,CHIP	2203-006839	SA
C353	C-CER,CHIP	2203-006839	SA
C354	C-CER,CHIP	2203-006839	SA
C355	C-CER,CHIP	2203-006839	SA
C414	C-CER,CHIP	2203-006841	SA
C703	C-CER,CHIP	2203-006841	SA
C510	C-CER,CHIP	2203-006872	SA
C170	C-CER,CHIP	2203-006890	SA
C411	C-CER,CHIP	2203-006890	SA
C152	C-CER,CHIP	2203-006978	SA
C201	C-CER,CHIP	2203-006979	SA
C202	C-CER,CHIP	2203-006979	SA
C211	C-CER,CHIP	2203-006979	SA
C120	C-CER,CHIP	2203-006994	SA
C131	C-CER,CHIP	2203-007165	SA
SIM400	CONNECTOR-CARD EDGE	3709-001453	SA
RFS100	CONNECTOR-COAXIAL	3705-001358	SA
HDC700	CONNECTOR-HEADER	3711-006521	SA
CPL200	COUPLER-DIRECTION	4709-001399	SA
OSC400	CRYSTAL-SMD	2801-004339	SA
OSC600	CRYSTAL-SMD	2801-004458	SA
TA300	C-TA,CHIP	2404-001377	SA
TA200	C-TA,CHIP	2404-001381	SA
TA400	C-TA,CHIP	2404-001381	SA
TA600	C-TA,CHIP	2404-001381	SA
TA700	C-TA,CHIP	2404-001406	SA
TA100	C-TA,CHIP	2404-001411	SA
TA601	C-TA,CHIP	2404-001411	SA
D400	DIODE-ARRAY	0407-001002	SA
D401	DIODE-ARRAY	0407-001002	SA
ZD600	DIODE-TVS	0406-001208	SA
ZD602	DIODE-TVS	0406-001208	SA
ZD702	DIODE-TVS	0406-001208	SA
ZD703	DIODE-TVS	0406-001208	SA
ZD700	DIODE-TVS	0406-001254	SA
ZD701	DIODE-TVS	0406-001254	SA
ZD705	DIODE-TVS	0406-001254	SA
ZD706	DIODE-TVS	0406-001254	SA
ZD707	DIODE-TVS	0406-001254	SA
D600	DIODE-TVS	0406-001267	SA
D601	DIODE-TVS	0406-001267	SA
D602	DIODE-TVS	0406-001267	SA
ZD601	DIODE-ZENER	0403-001427	SA
ZD704	DIODE-ZENER	0403-001547	SA
F101	DUPLEXER-FEM	2911-000079	SA

Design LOC	Description	SEC Code	STATUS
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TR600	FET-SILICON	0505-001423	SA
F700	FILTER-EMI/ESD	2901-001418	SA
F701	FILTER-EMI/ESD	2901-001418	SA
F702	FILTER-EMI/ESD	2901-001418	SA
F703	FILTER-EMI/ESD	2901-001418	SA
F102	FILTER-LC	2909-001279	SA
F100	FILTER-SAW	2904-001623	SA
F200	FILTER-SAW	2904-001658	SA
F103	FILTER-SAW	2904-001703	SA
BTC700	HEADER-BATTERY	3711-006108	SA
HDC300	HEADER-BOARD TO BOARD	3711-005550	SA
HDC701	HEADER-BOARD TO BOARD	3711-005659	SA
U502	IC-ANALOG MULTIPLEX	1001-001405	SA
U300	IC-ANALOG SWITCH	1001-001336	SA
U700	IC-ANALOG SWITCH	1001-001336	SA
U701	IC-ANALOG SWITCH	1001-001394	SA
U500	IC-ANALOG SWITCH	1001-001436	SA
U301	IC-ANALOG SWITCH	1001-001438	SA
U501	IC-AUDIO AMP	1201-002494	SA
U402	IC-BATTERY	1203-003823	SA
UME300	IC-MCP	1108-000105	SA
UCP300	IC-MODEM	1205-003215	SA
U601	IC-MULTI REG.	1203-004339	SA
PAM200	IC-POWER AMP	1201-002305	SA
U101	IC-POWER AMP	1201-002534	SA
U401	IC-POWER SUPERVISOR	1203-004101	SA
U302	IC-SENSOR	1209-001712	SA
SC300	ICT-ON-BOARD CLIP	GH70-02367A	SA
SC301	ICT-ON-BOARD CLIP	GH70-02367A	SA
SC302	ICT-ON-BOARD CLIP	GH70-02367A	SA
SC303	ICT-ON-BOARD CLIP	GH70-02367A	SA
SC304	ICT-ON-BOARD CLIP	GH70-02367A	SA
SC305	ICT-ON-BOARD CLIP	GH70-02367A	SA
SC306	ICT-ON-BOARD CLIP	GH70-02367A	SA
SC307	ICT-ON-BOARD CLIP	GH70-02367A	SA
SC308	ICT-ON-BOARD CLIP	GH70-02367A	SA
SC309	ICT-ON-BOARD CLIP	GH70-02367A	SA
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SC311	ICT-ON-BOARD CLIP	GH70-02367A	SA
SC312	ICT-ON-BOARD CLIP	GH70-02367A	SA
SC313	ICT-ON-BOARD CLIP	GH70-02367A	SA
SC314	ICT-ON-BOARD CLIP	GH70-02367A	SA
SC315	ICT-ON-BOARD CLIP	GH70-02367A	SA
SC316	ICT-ON-BOARD CLIP	GH70-02367A	SA
SC317	ICT-ON-BOARD CLIP	GH70-02367A	SA
SC318	ICT-ON-BOARD CLIP	GH70-02367A	SA
SC319	ICT-ON-BOARD CLIP	GH70-02367A	SA
SC320	ICT-ON-BOARD CLIP	GH70-02367A	SA
SC321	ICT-ON-BOARD CLIP	GH70-02367A	SA
U102	IC-TRANSCIEVER	1205-003216	SA
U100	IC-TRANSCIEVER	1205-003285	SA
U600	IC-USC	0904-002262	SA

Design LOC	Description	SEC Code	STATUS
U400	IC-VOL. DETECTOR	1203-004045	SA
C110	INDUCTOR-SMD	2703-001722	SA
L203	INDUCTOR-SMD	2703-001724	SA
L112	INDUCTOR-SMD	2703-001729	SA
L600	INDUCTOR-SMD	2703-001838	SA
L128	INDUCTOR-SMD	2703-001938	SA
L125	INDUCTOR-SMD	2703-002313	SA
L101	INDUCTOR-SMD	2703-002551	SNA
L124	INDUCTOR-SMD	2703-002649	SNA
L202	INDUCTOR-SMD	2703-002793	SA
L118	INDUCTOR-SMD	2703-002795	SNA
L119	INDUCTOR-SMD	2703-002795	SNA
L106	INDUCTOR-SMD	2703-002798	SNA
L111	INDUCTOR-SMD	2703-002798	SNA
L400	INDUCTOR-SMD	2703-002840	SA
L401	INDUCTOR-SMD	2703-002840	SA
L402	INDUCTOR-SMD	2703-002840	SA
L107	INDUCTOR-SMD	2703-002858	SA
L113	INDUCTOR-SMD	2703-002858	SA
L114	INDUCTOR-SMD	2703-002858	SA
L117	INDUCTOR-SMD	2703-002858	SA
L200	INDUCTOR-SMD	2703-002858	SA
L120	INDUCTOR-SMD	2703-002870	SA
L105	INDUCTOR-SMD	2703-002901	SNA
L123	INDUCTOR-SMD	2703-002901	SNA
L110	INDUCTOR-SMD	2703-002906	SA
L108	INDUCTOR-SMD	2703-002919	SA
L126	INDUCTOR-SMD	2703-003249	SA
TCX200	OSCILLATOR-VCTCXO	2809-001280	SA
R307	R-CHIP	2007-000137	SA
R104	R-CHIP	2007-000138	SA
R204	R-CHIP	2007-000138	SA
R505	R-CHIP	2007-000145	SA
R607	R-CHIP	2007-000145	SA
R422	R-CHIP	2007-000148	SA
R609	R-CHIP	2007-000148	SA
R610	R-CHIP	2007-000159	SA
R309	R-CHIP	2007-000162	SA
R123	R-CHIP	2007-000171	SA
R606	R-CHIP	2007-000171	SA
R608	R-CHIP	2007-000171	SA
R704	R-CHIP	2007-000171	SA
R105	R-CHIP	2007-001119	SA
R120	R-CHIP	2007-001285	SA
R126	R-CHIP	2007-001285	SA
R503	R-CHIP	2007-001290	SA
R504	R-CHIP	2007-001290	SA
R600	R-CHIP	2007-001292	SA
R602	R-CHIP	2007-001292	SA
R200	R-CHIP	2007-001298	SA
R319	R-CHIP	2007-001329	SA
R703	R-CHIP	2007-002970	SA
R121	R-CHIP	2007-003015	SA

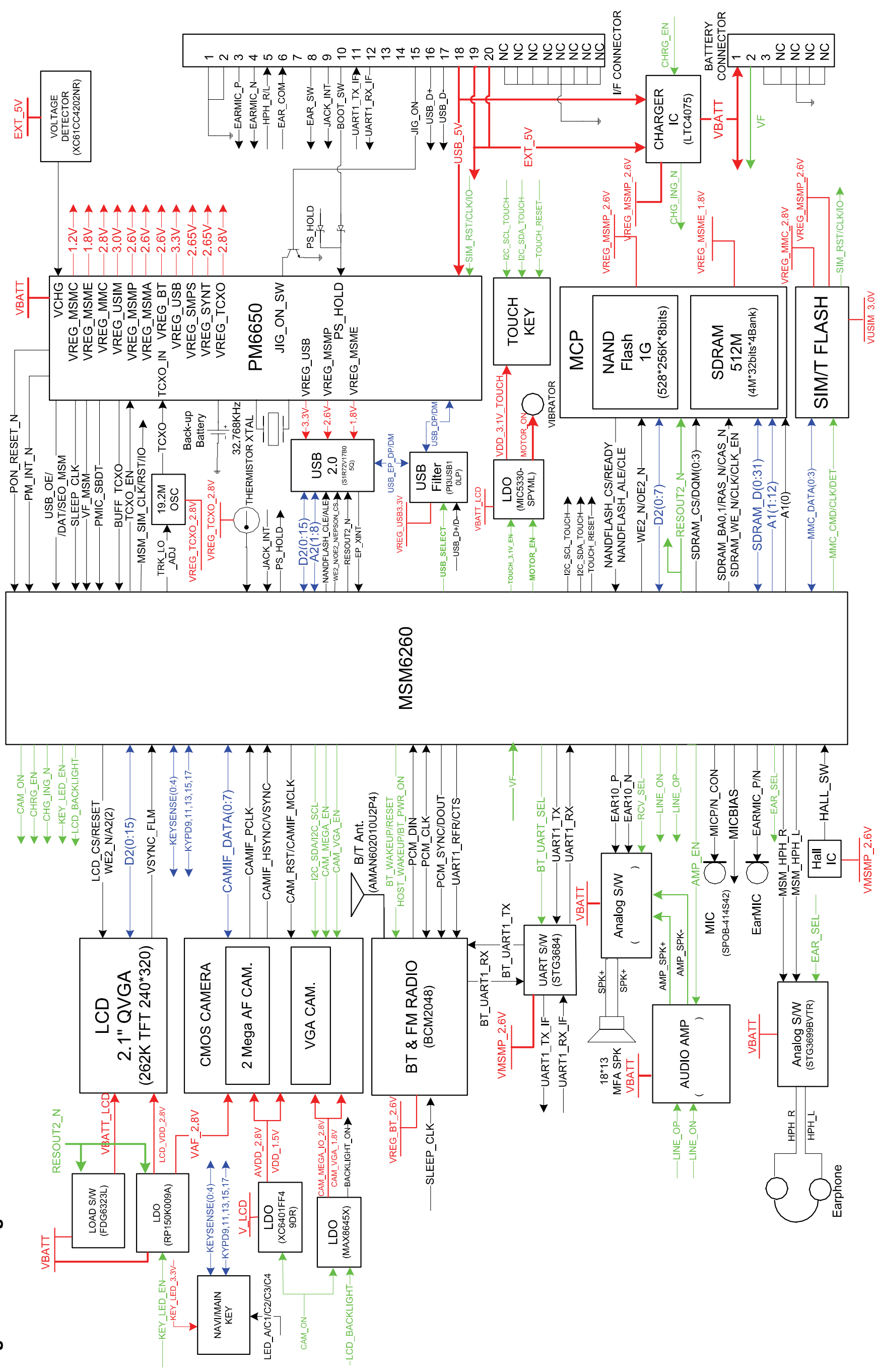
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R415	R-CHIP	2007-007014	SA
R707	R-CHIP	2007-007107	SA
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R410	R-CHIP	2007-007142	SA
R411	R-CHIP	2007-007142	SA
R412	R-CHIP	2007-007142	SA
R413	R-CHIP	2007-007142	SA
R414	R-CHIP	2007-007142	SA
R100	R-CHIP	2007-007309	SA
R420	R-CHIP	2007-007317	SA
R502	R-CHIP	2007-007317	SA
R406	R-CHIP	2007-007468	SA
R312	R-CHIP	2007-007586	SA
R401	R-CHIP	2007-007586	SA
R507	R-CHIP	2007-007627	SA
R508	R-CHIP	2007-007627	SA
R404	R-CHIP	2007-007698	SA
R301	R-CHIP	2007-007741	SA
R302	R-CHIP	2007-007741	SA
R323	R-CHIP	2007-007741	SA
R511	R-CHIP	2007-007861	SA
R512	R-CHIP	2007-007861	SA
R201	R-CHIP	2007-008015	SA
R115	R-CHIP	2007-008040	SA
R202	R-CHIP	2007-008045	SA
R203	R-CHIP	2007-008045	SA
R113	R-CHIP	2007-008046	SA
R114	R-CHIP	2007-008046	SA
R116	R-CHIP	2007-008046	SA
R117	R-CHIP	2007-008046	SA
R418	R-CHIP	2007-008051	SA
R320	R-CHIP	2007-008055	SA
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R402	R-CHIP	2007-008055	SA
R700	R-CHIP	2007-008055	SA
R708	R-CHIP	2007-008055	SA
R101	R-CHIP	2007-008419	SA
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R400	R-CHIP	2007-008483	SA
R506	R-CHIP	2007-008483	SA
R407	R-CHIP	2007-008486	SA
R416	R-CHIP	2007-008486	SA
R423	R-CHIP	2007-008486	SA
R300	R-CHIP	2007-008516	SA
R403	R-CHIP	2007-008516	SA
R124	R-CHIP	2007-008531	SA
R601	R-CHIP	2007-008531	SA
R324	R-CHIP	2007-008542	SA
R119	R-CHIP	2007-008588	SA

Design LOC	Description	SEC Code	STATUS
R603	R-CHIP	2007-008648	SA
R421	R-CHIP	2007-008798	SNA
R112	R-CHIP	2007-008806	SA
R326	R-CHIP	2007-008806	SA
R405	R-CHIP	2007-008806	SA
R308	R-CHIP	2007-009111	SA
R108	R-CHIP	2007-009158	SA
R314	R-CHIP	2007-009171	SA
R315	R-CHIP	2007-009171	SA
R316	R-CHIP	2007-009171	SA
R317	R-CHIP	2007-009171	SA
R318	R-CHIP	2007-009171	SA
R408	R-CHIP	2007-009171	SA
R409	R-CHIP	2007-009171	SA
R419	R-CHIP	2007-009212	SA
R501	R-CHIP	2007-009212	SA
IFC600	SOCKET-INTERFACE	3710-002499	SA
TR400	TR-DIGITAL	0504-000168	SA
TR200	TR-DIGITAL	0504-001151	SA
V400	VARISTOR	1405-001177	SA
VR600	VARISTOR	1405-001177	SA
VR700	VARISTOR	1405-001177	SA
VR701	VARISTOR	1405-001177	SA
VR702	VARISTOR	1405-001177	SA
VR703	VARISTOR	1405-001177	SA
VR704	VARISTOR	1405-001177	SA
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VR711	VARISTOR	1405-001177	SA
VR712	VARISTOR	1405-001177	SA
VR713	VARISTOR	1405-001177	SA
VR714	VARISTOR	1405-001177	SA
VR715	VARISTOR	1405-001177	SA
VR716	VARISTOR	1405-001177	SA
VR717	VARISTOR	1405-001177	SA
VR718	VARISTOR	1405-001177	SA
VR719	VARISTOR	1405-001177	SA
VR720	VARISTOR	1405-001177	SA
VR721	VARISTOR	1405-001177	SA
VR722	VARISTOR	1405-001177	SA
VR723	VARISTOR	1405-001177	SA

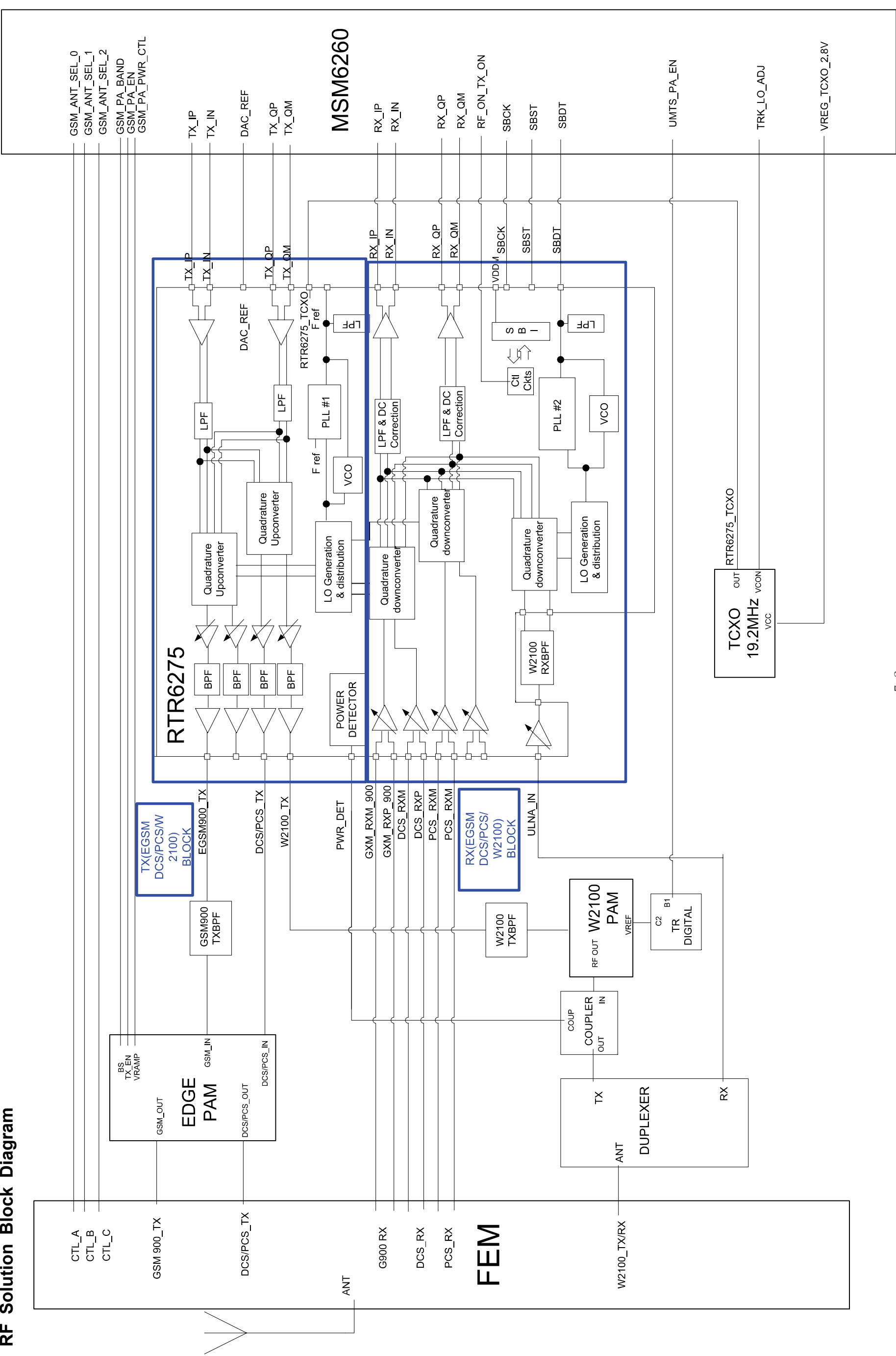
Please consult the GSPN website (Samsung Portal) for the most recent version of the product's part list.

7. Block Diagrams

7-1. Logic Block Diagram



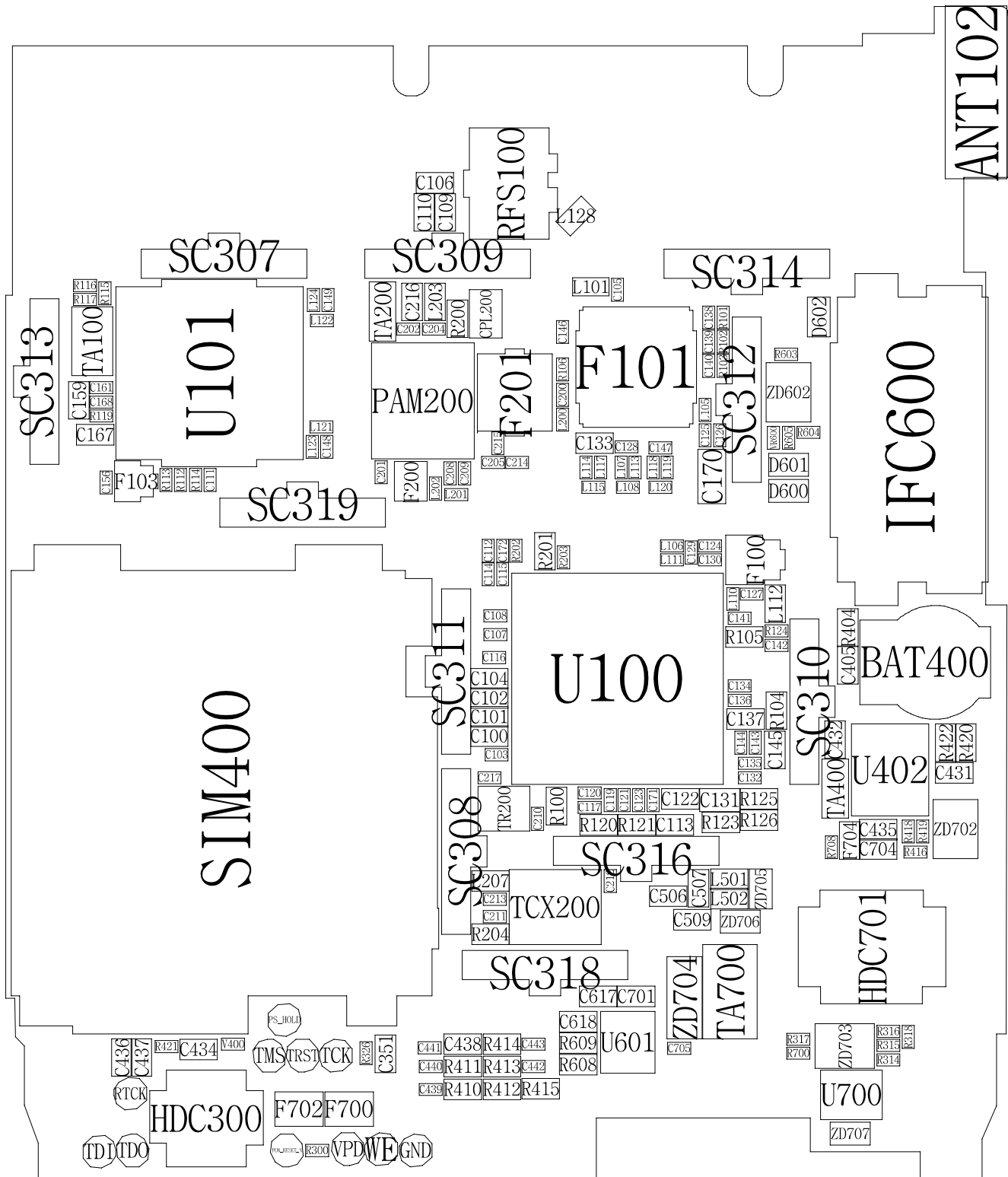
7-2. RF Solution Block Diagram



Top

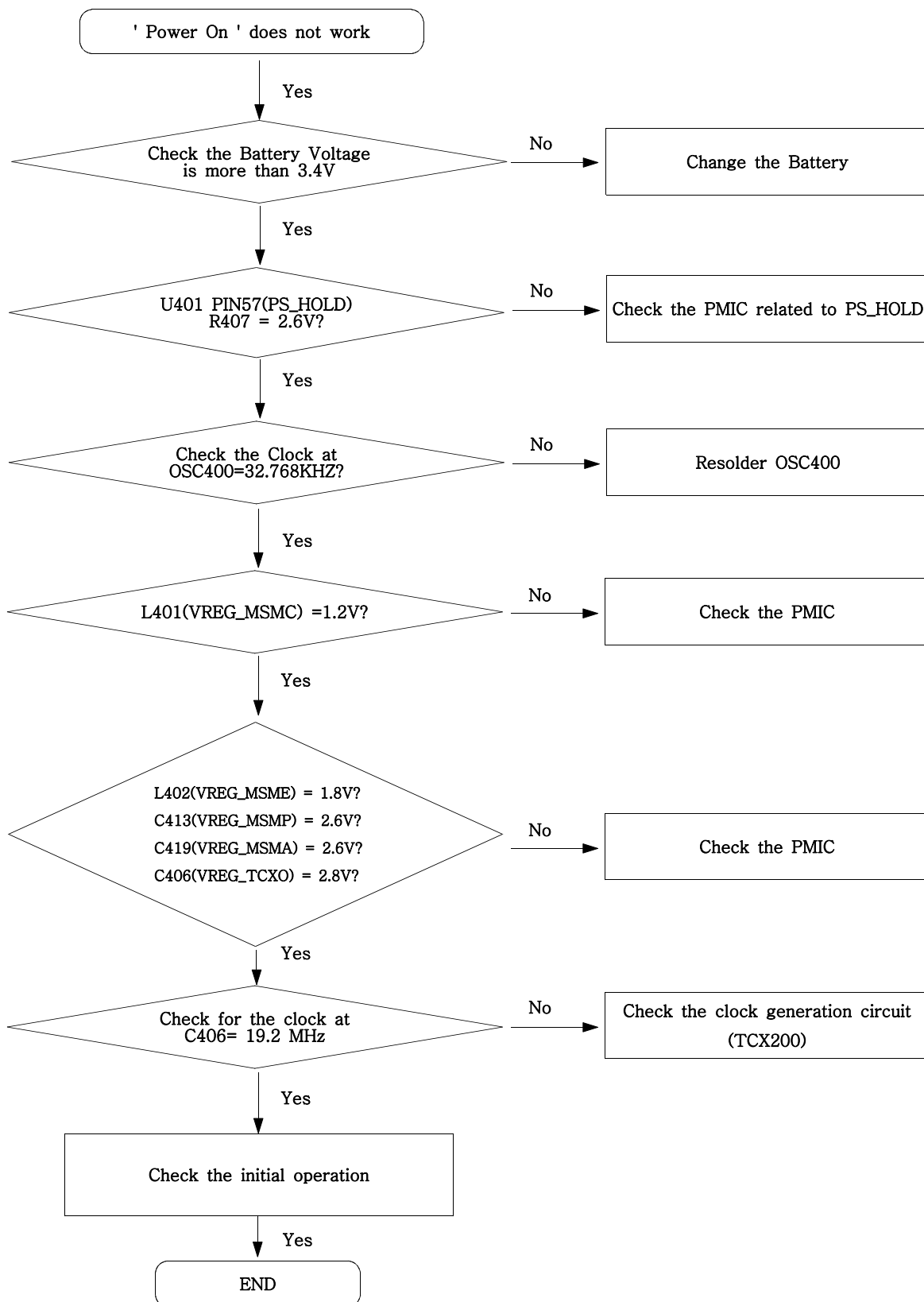


Bottom

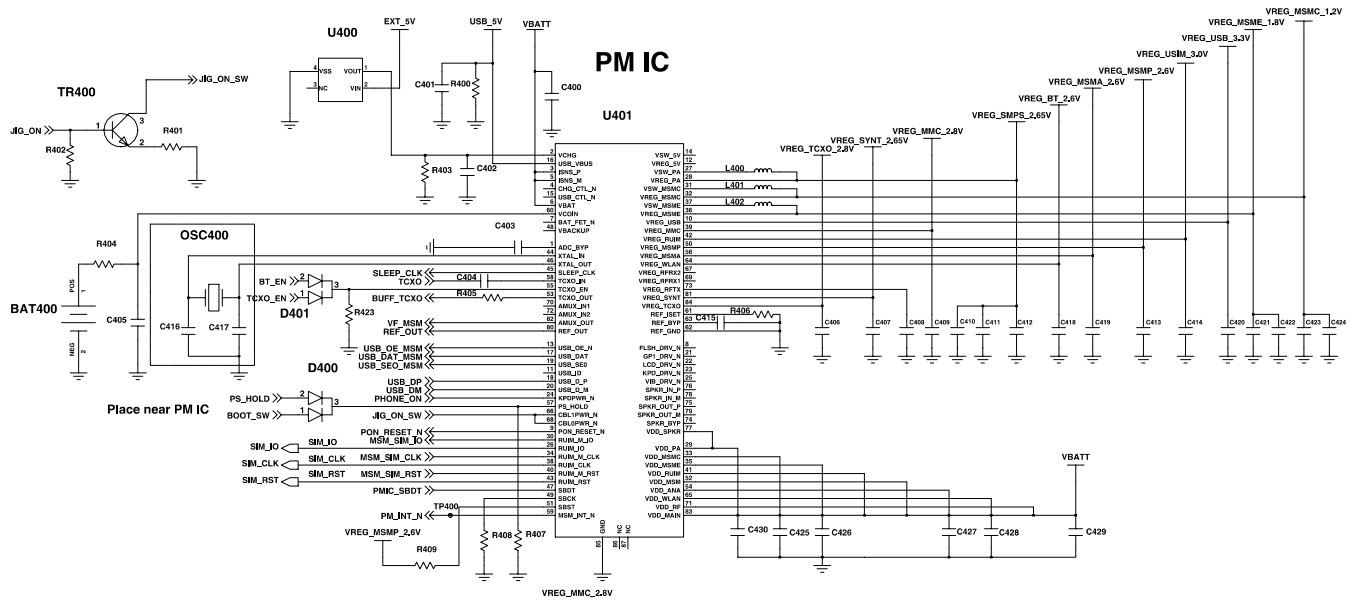


9. Flow Chart of Troubleshooting

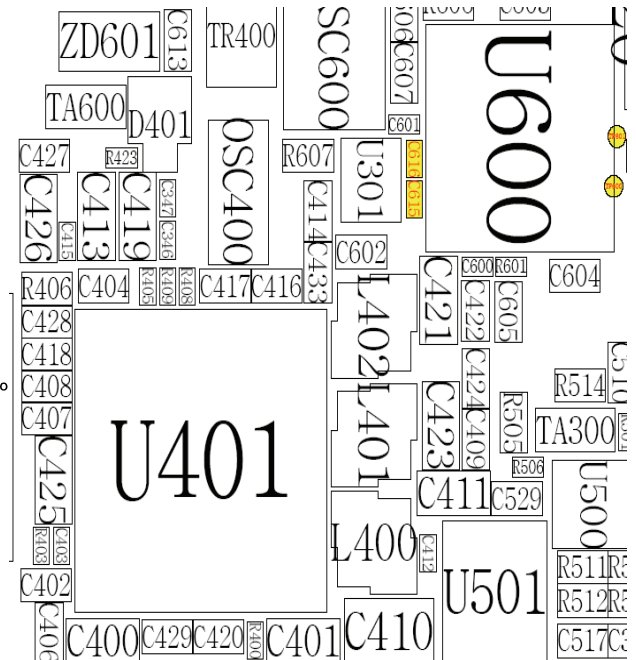
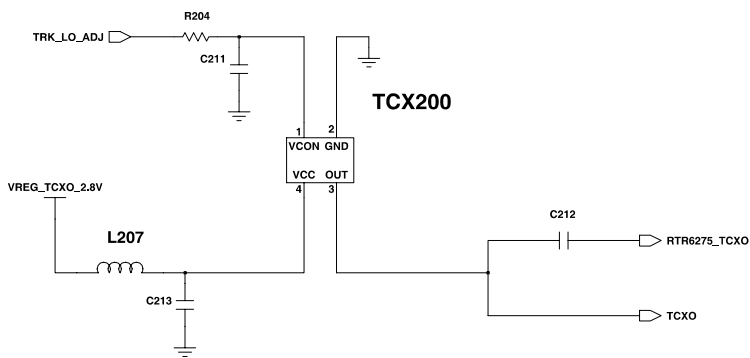
9-1. Power On



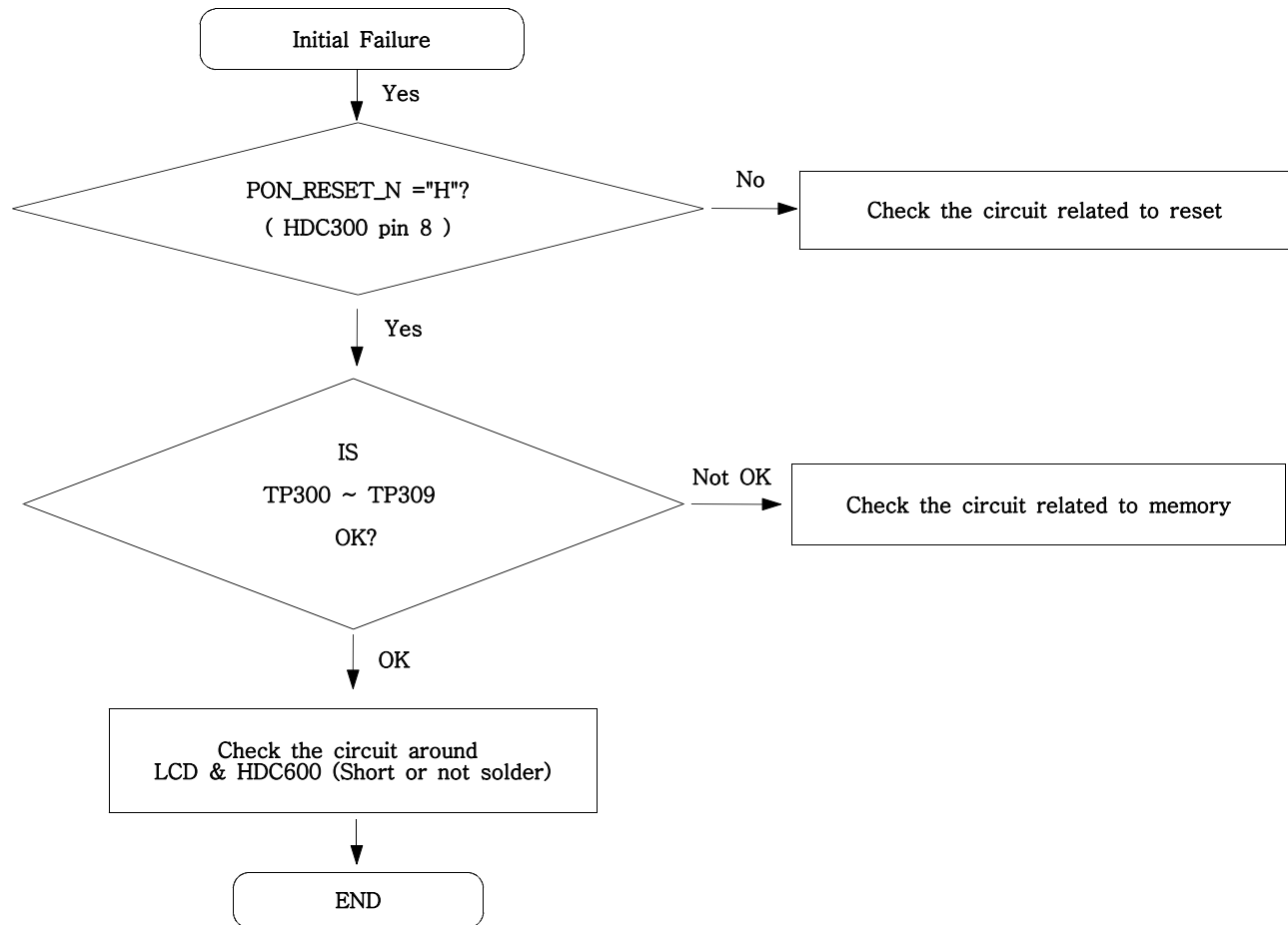
Power On



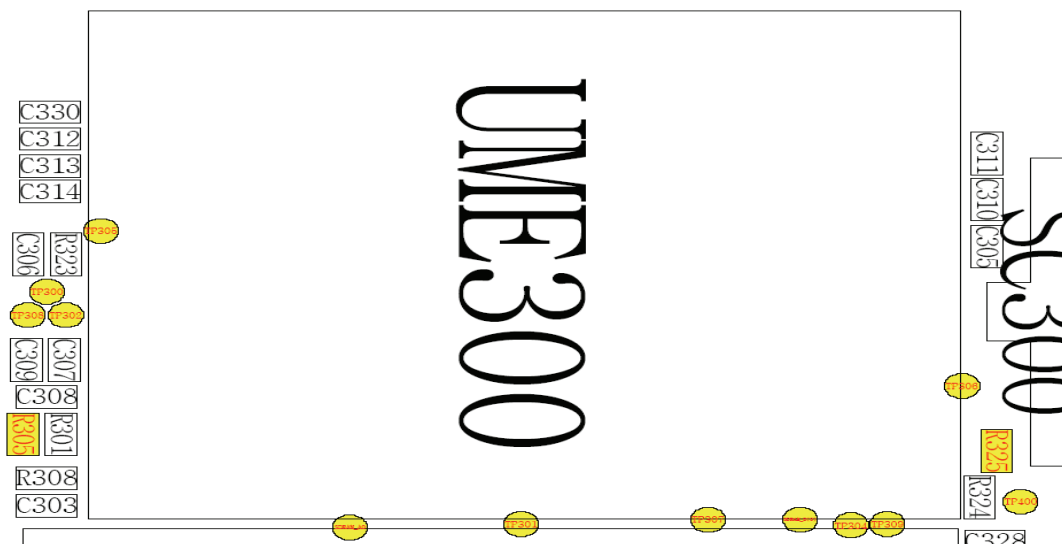
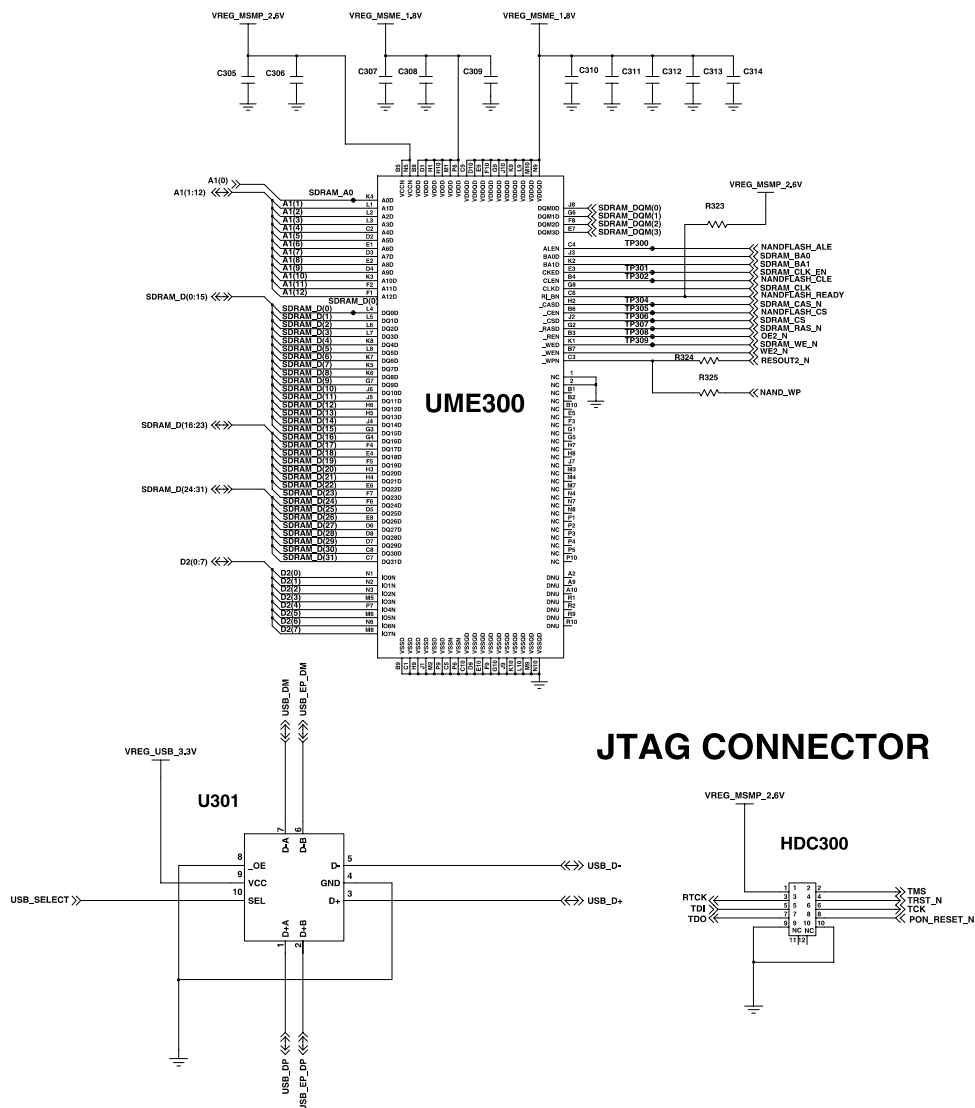
TCXO



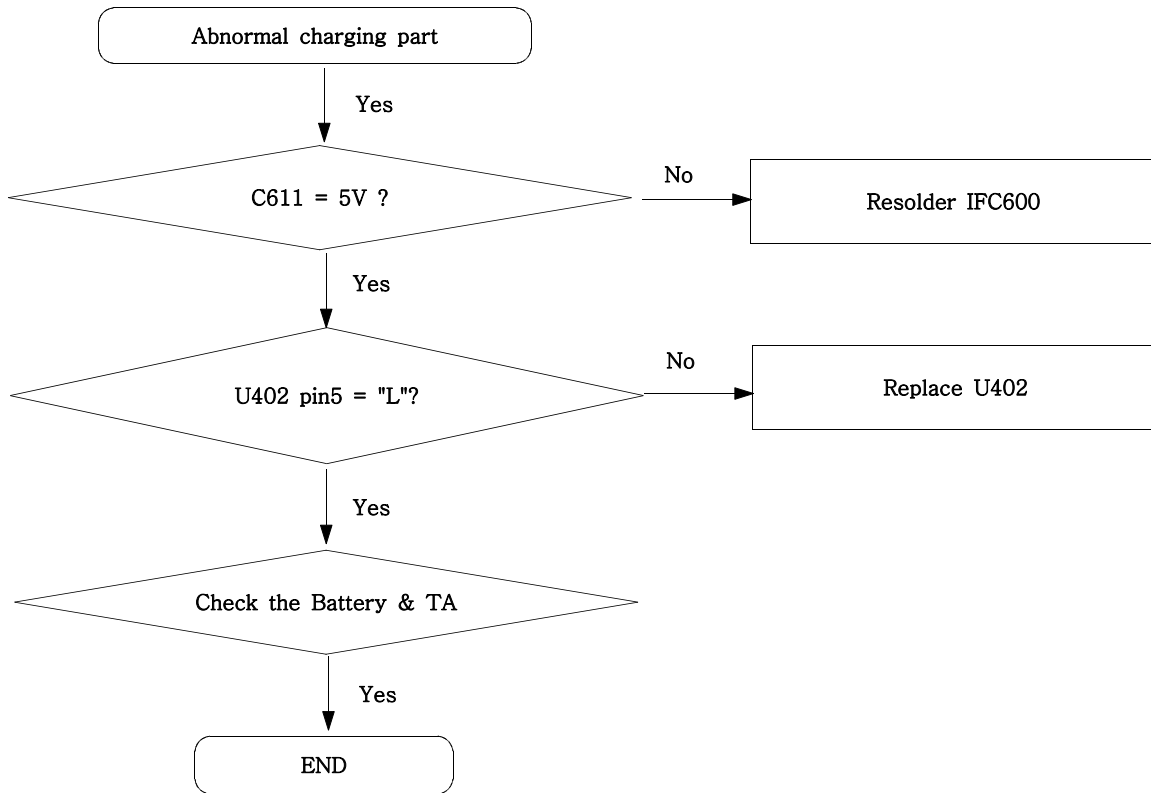
9-2. Initial



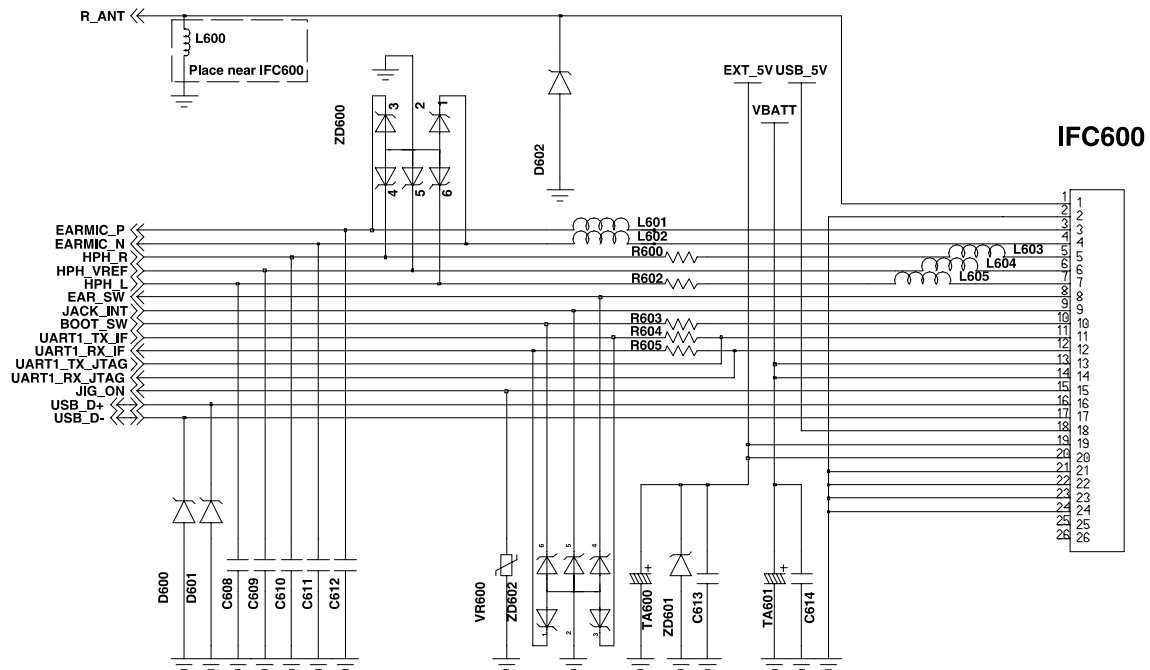
MEMORY



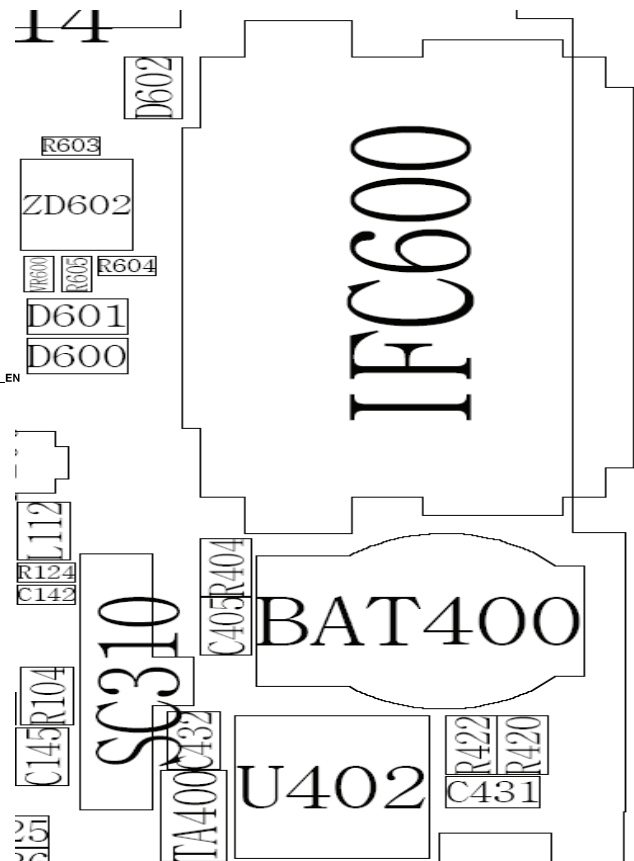
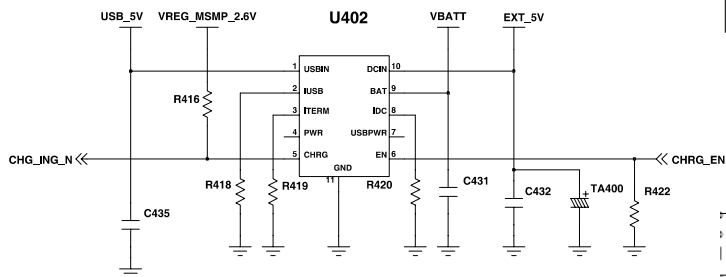
9-3. Charging Part



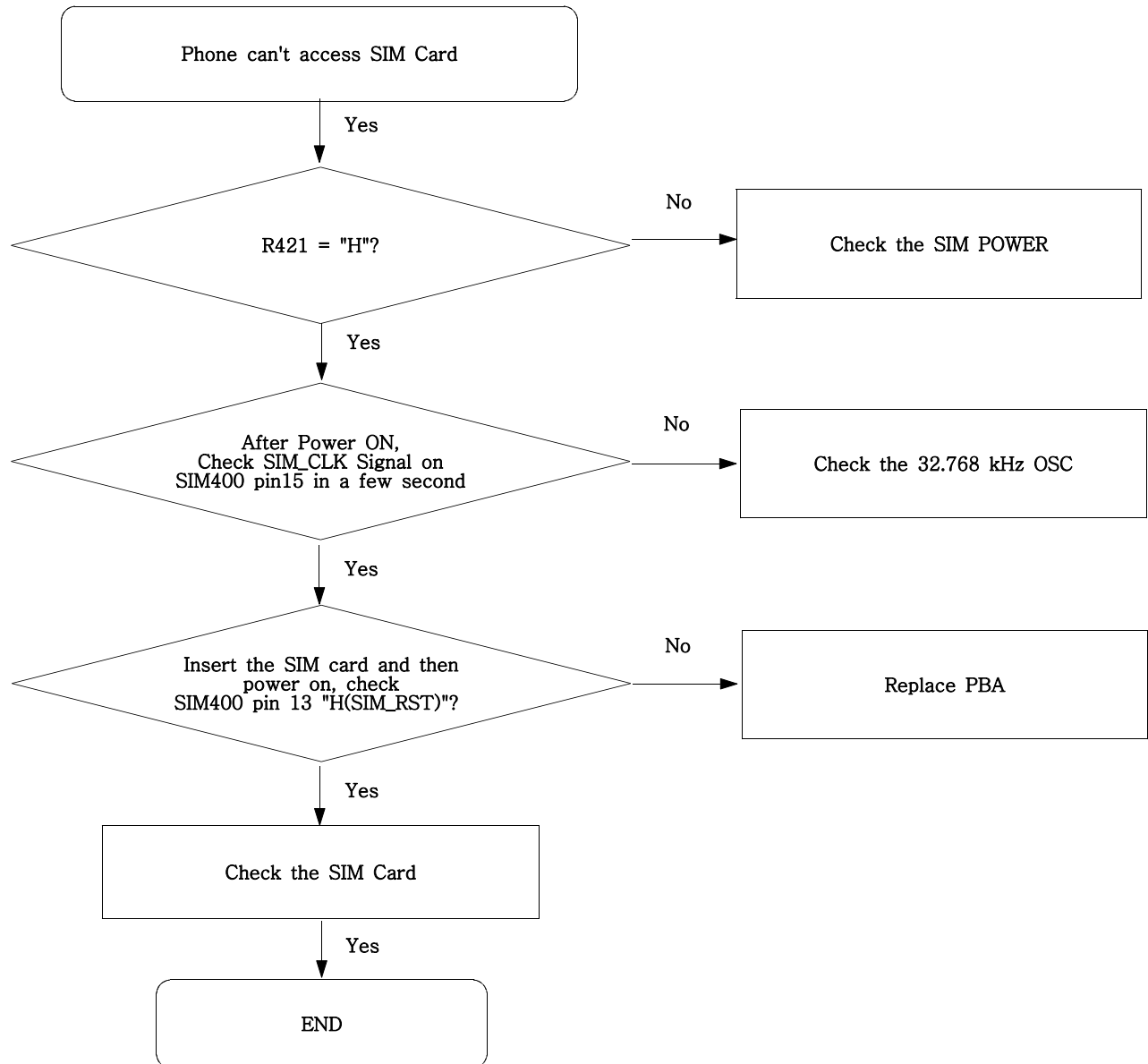
IF CONNECTOR

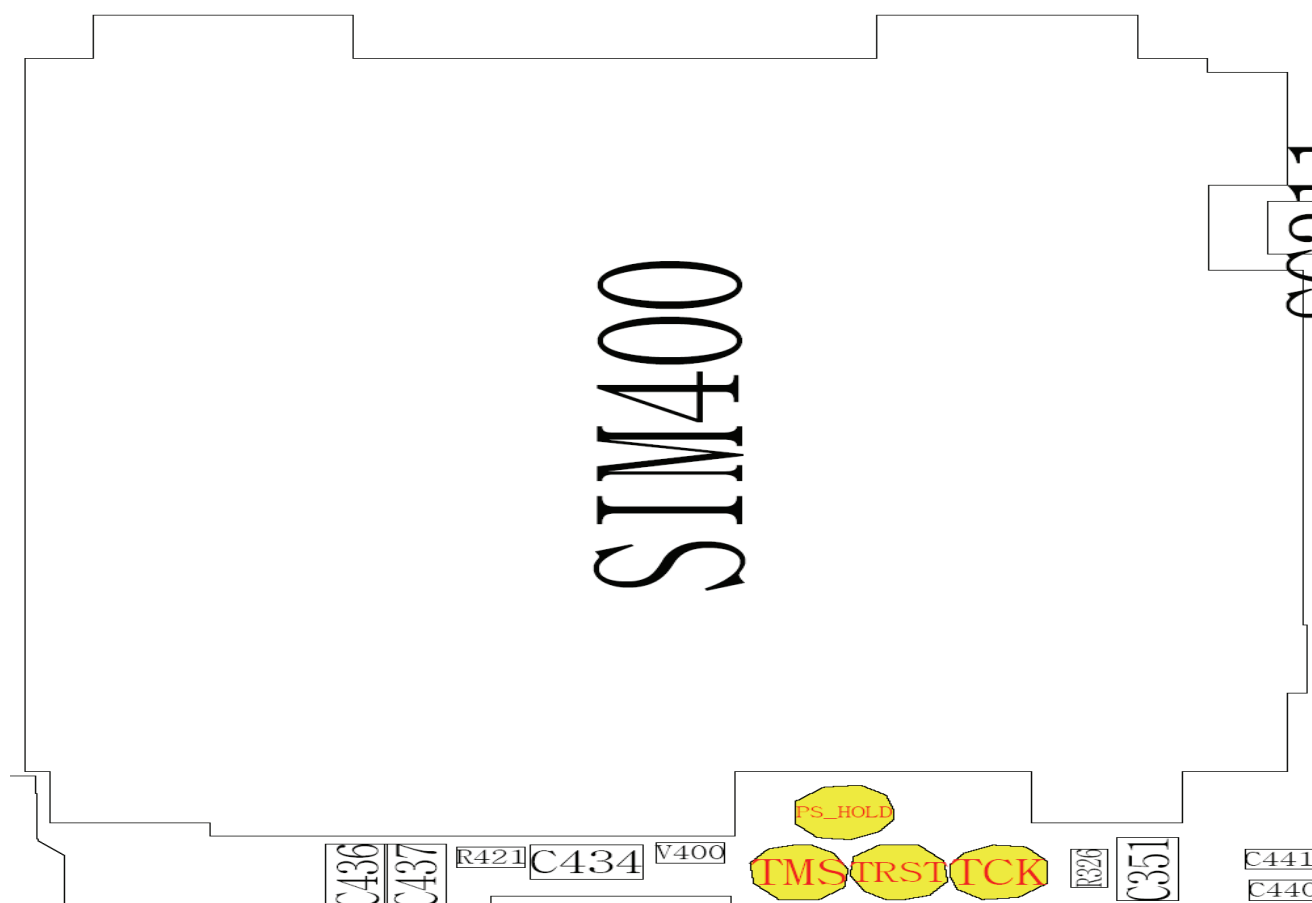
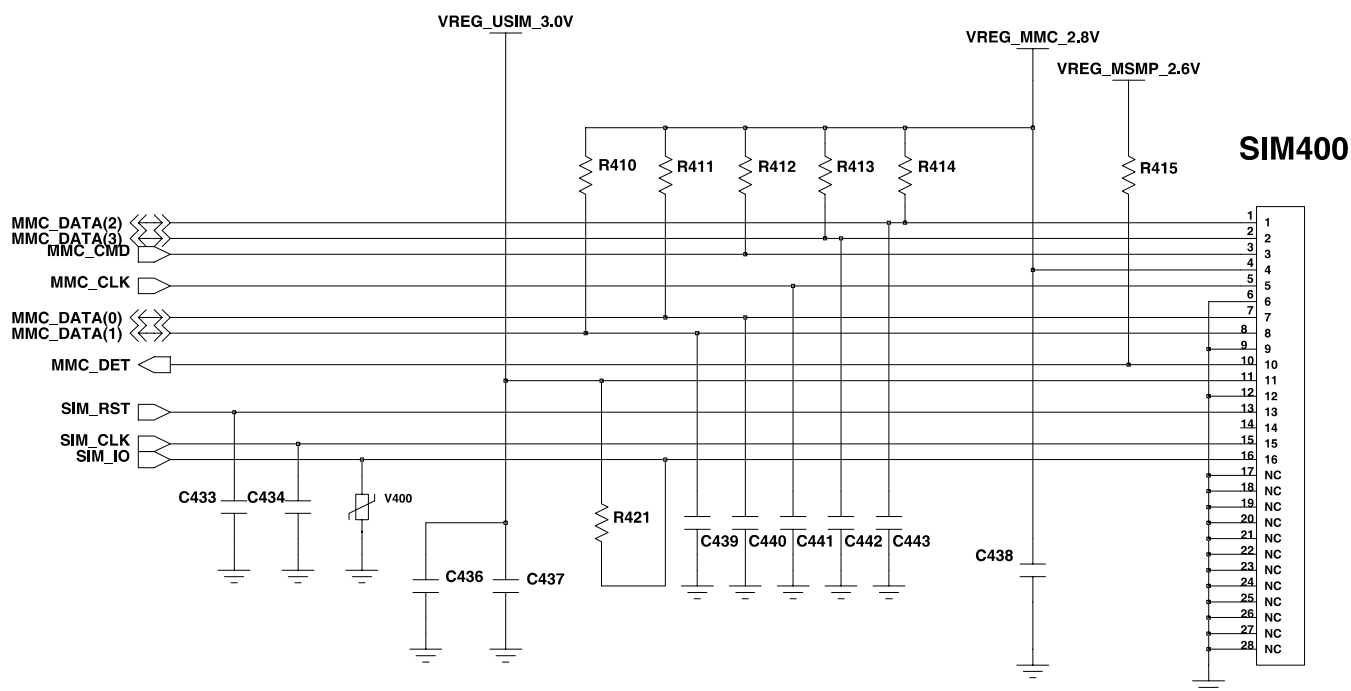


INNER CHARGER

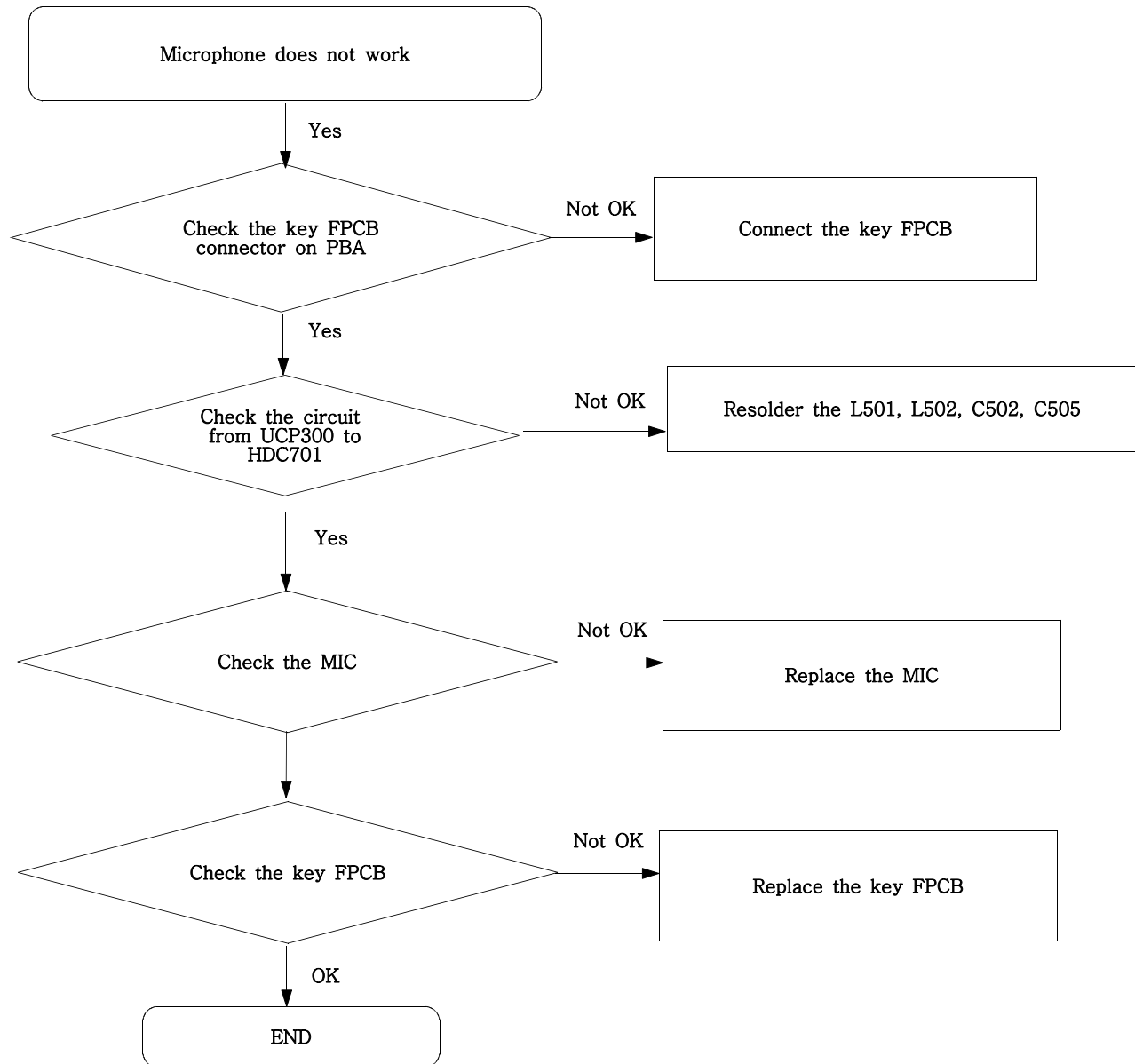


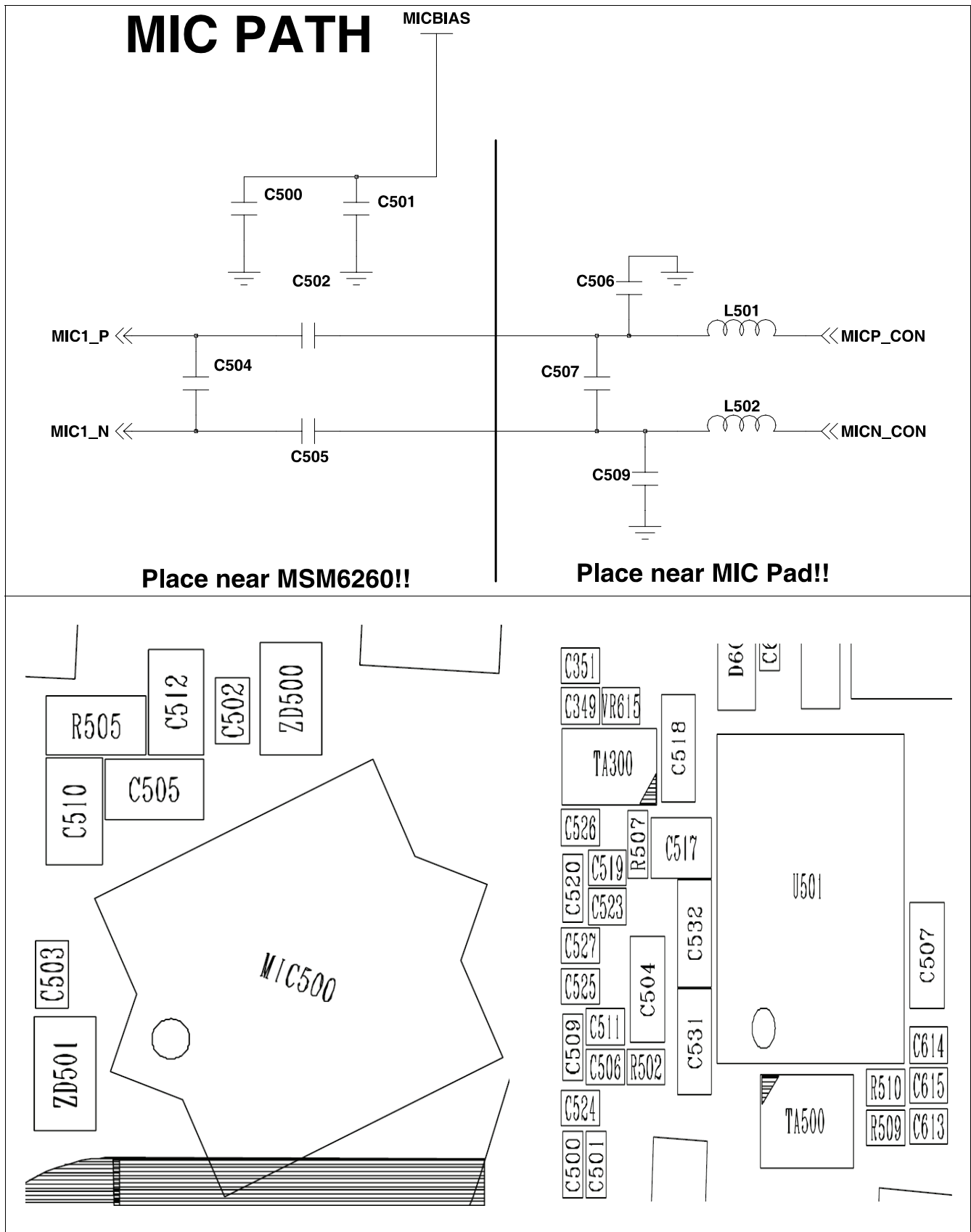
9-4. SIM Part



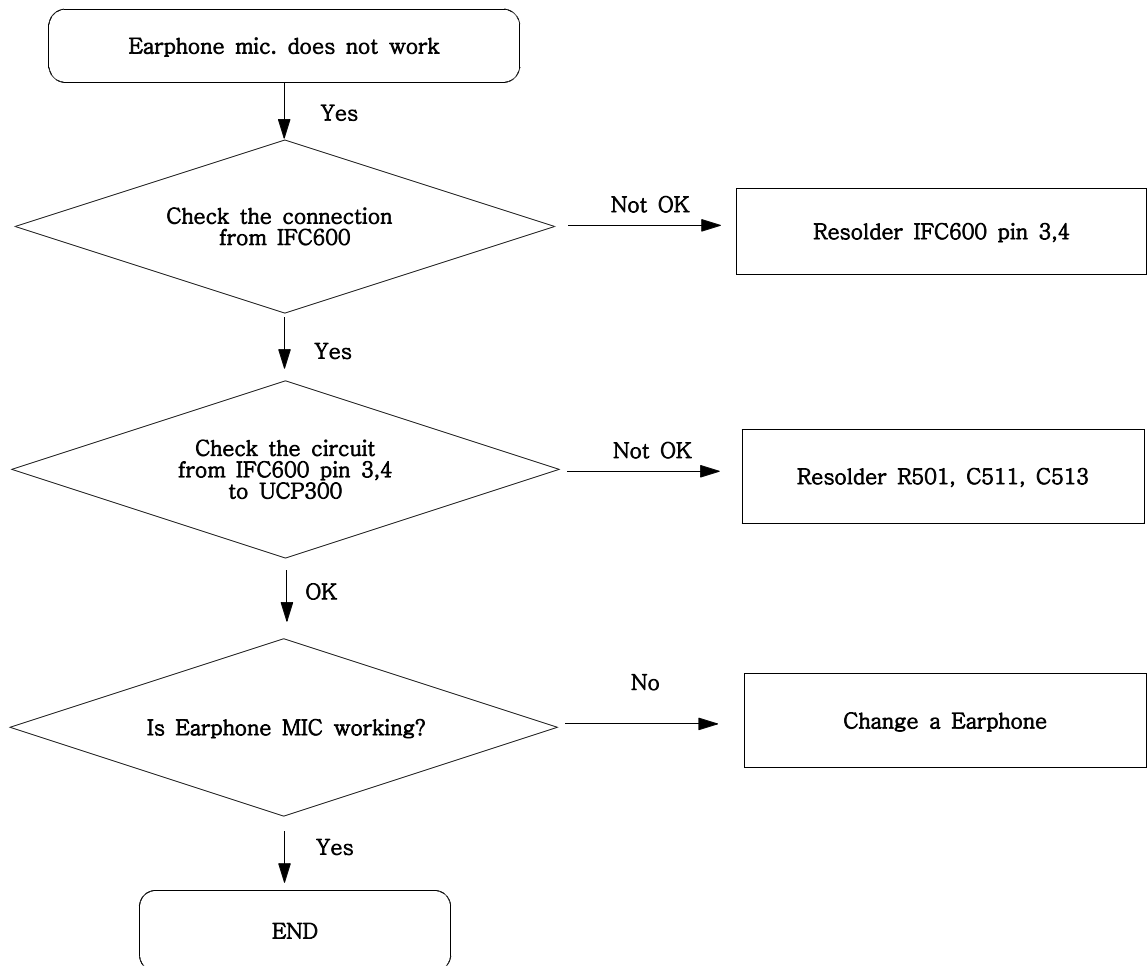


9-5. Microphone Part – Phone MIC

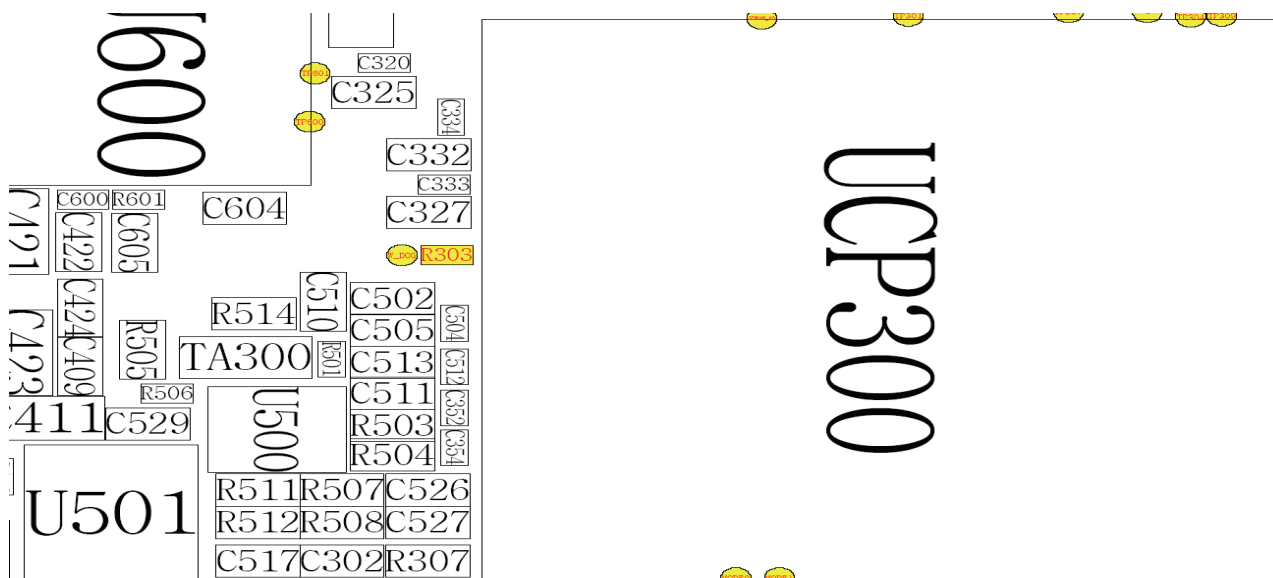
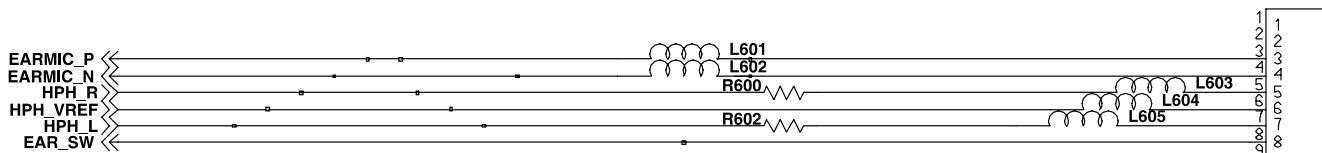
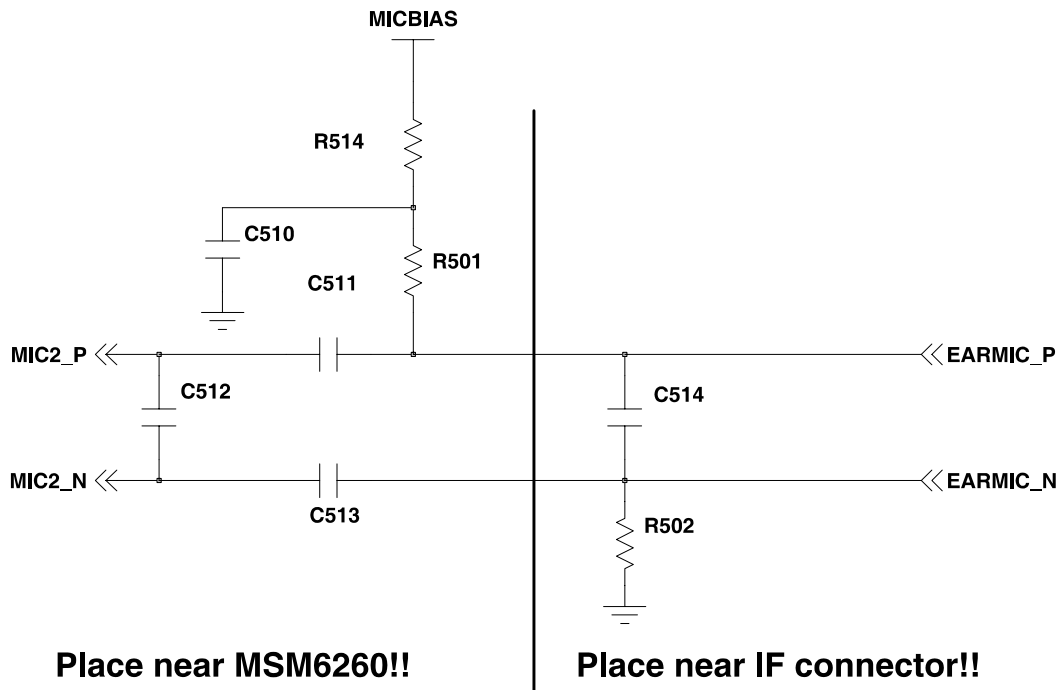




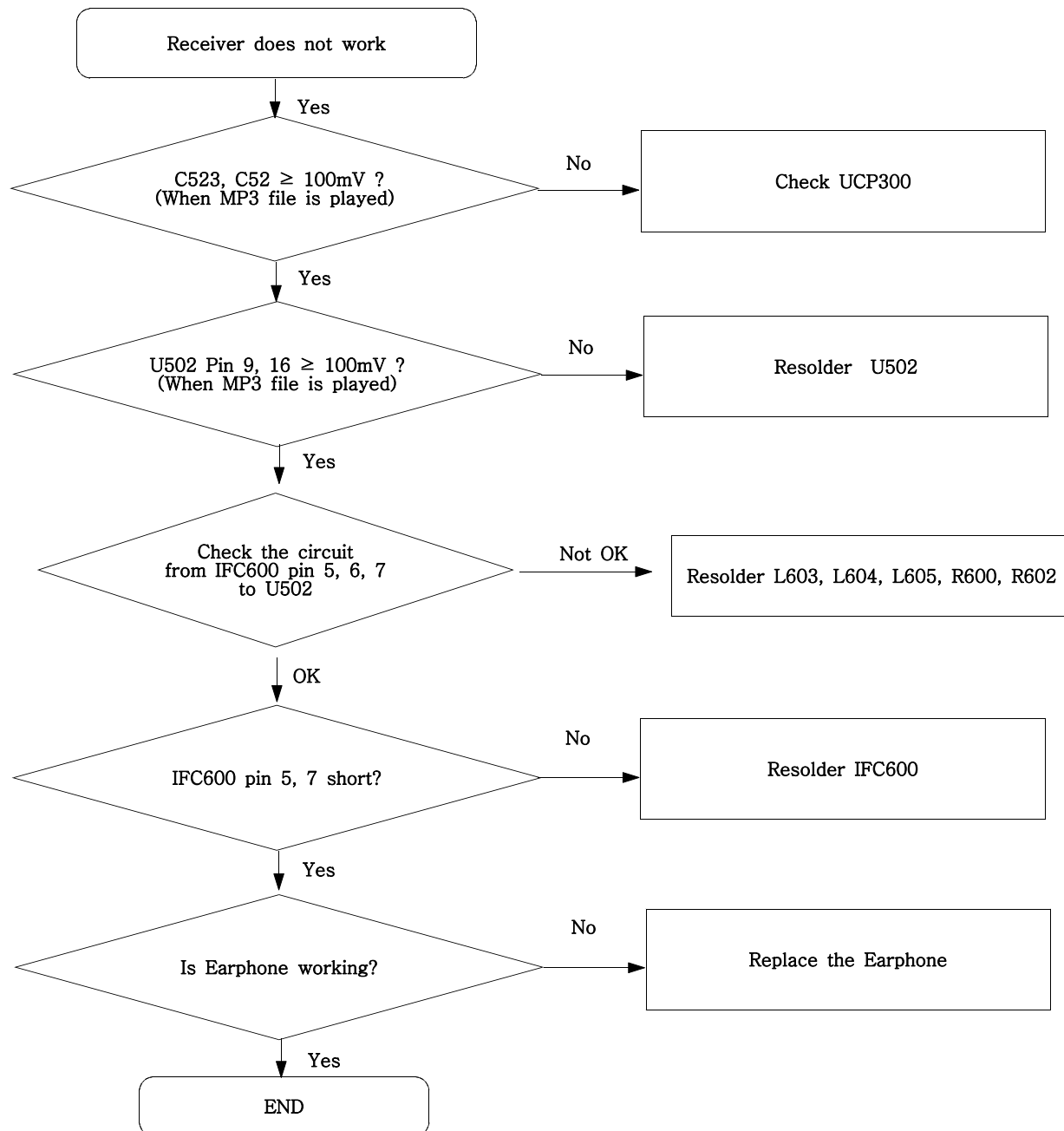
9-6 Microphone Part – Earphone MIC



EARPHONE MIC PATH



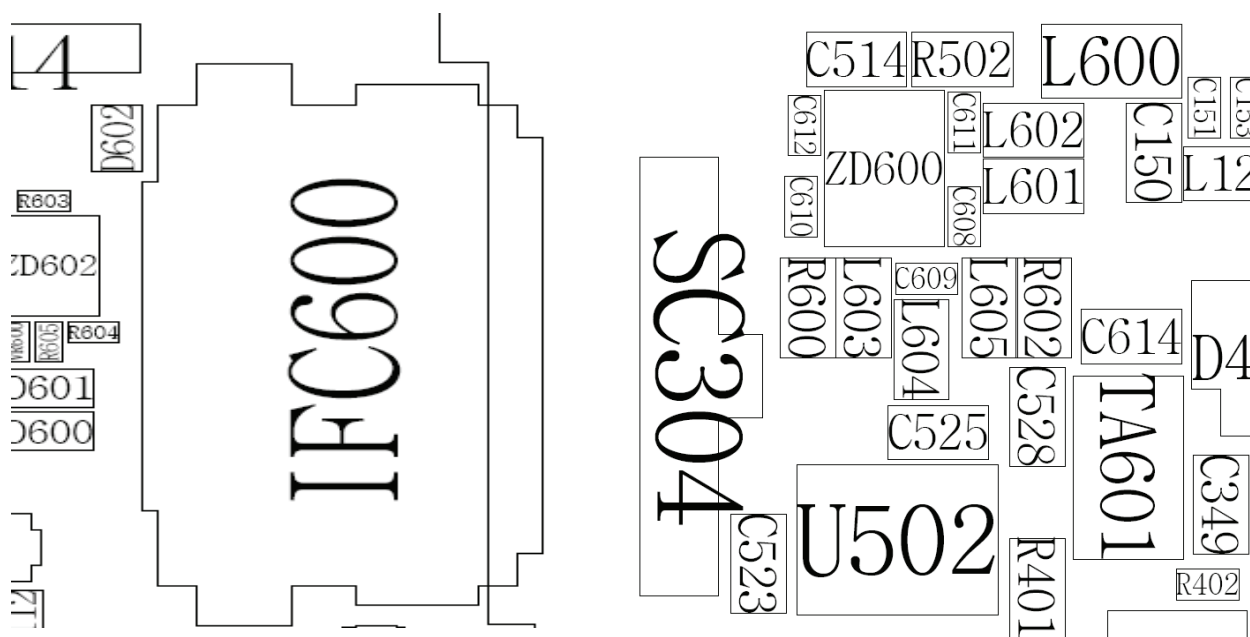
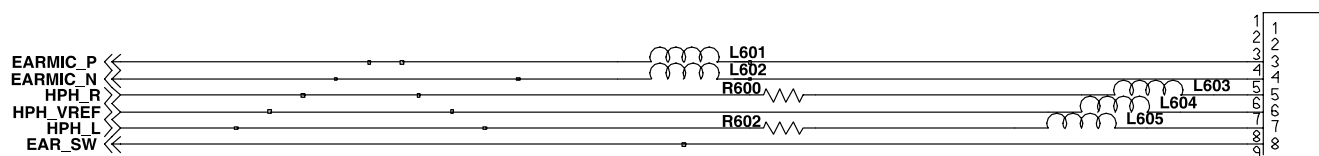
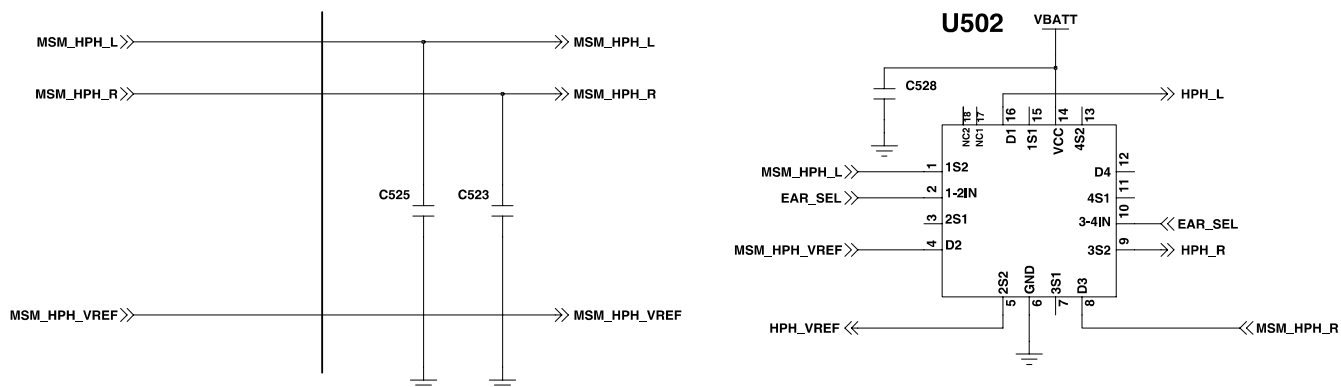
9-7. Earphone Part



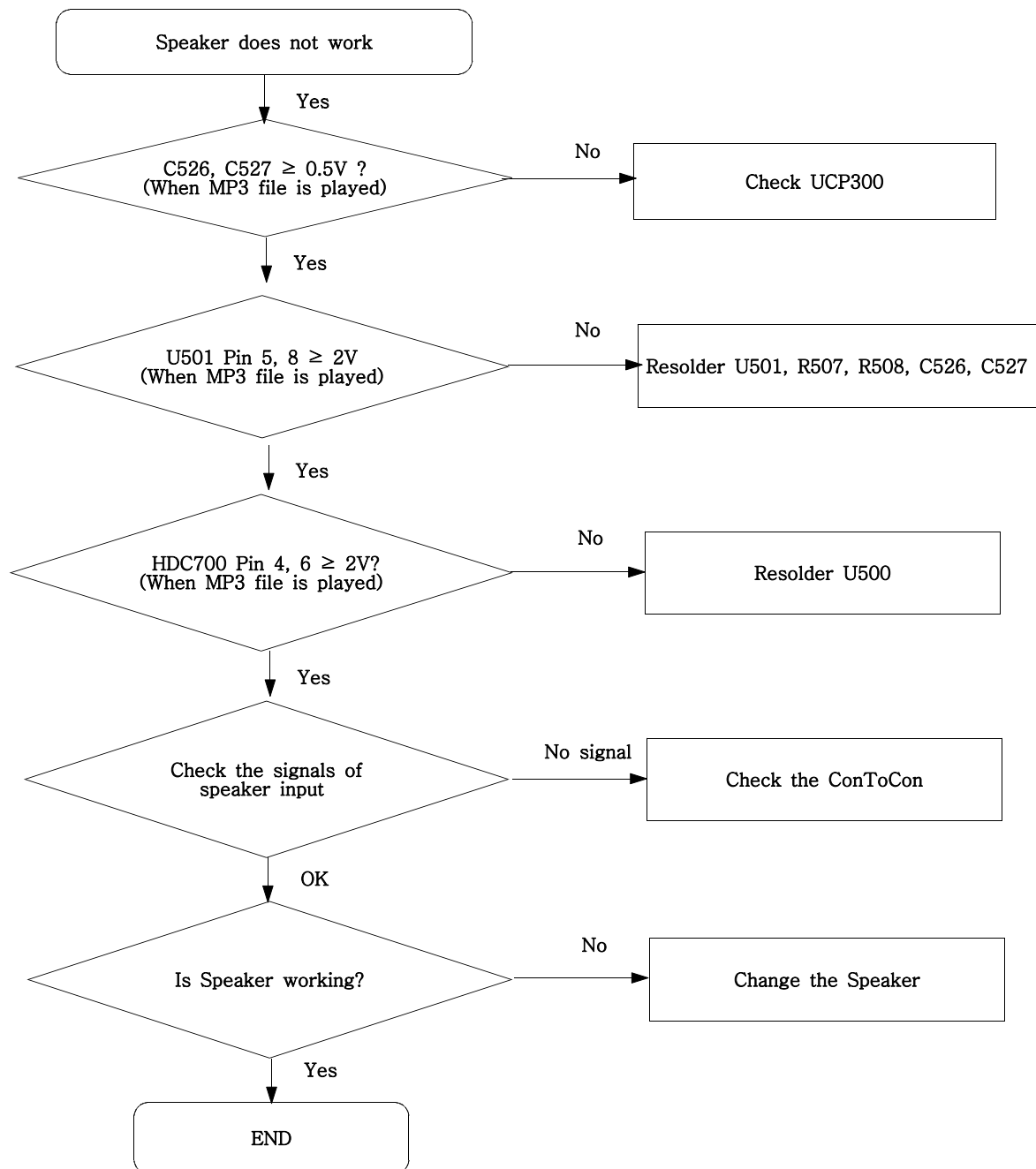
EARPHONE RX PATH

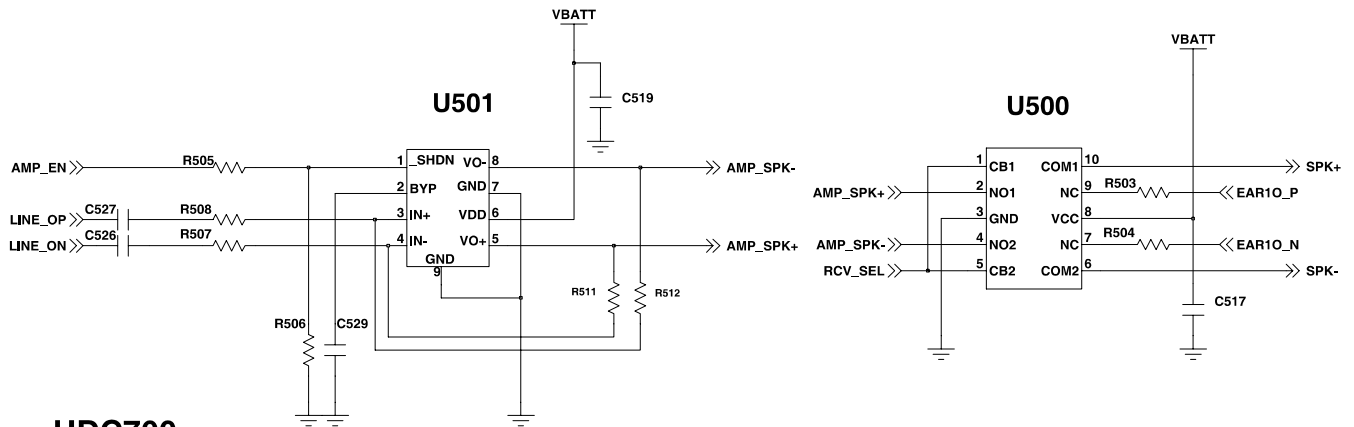
HPH PATH SELECT

MODE	EAR_SEL
EAR OFF	H
EAR ON	L

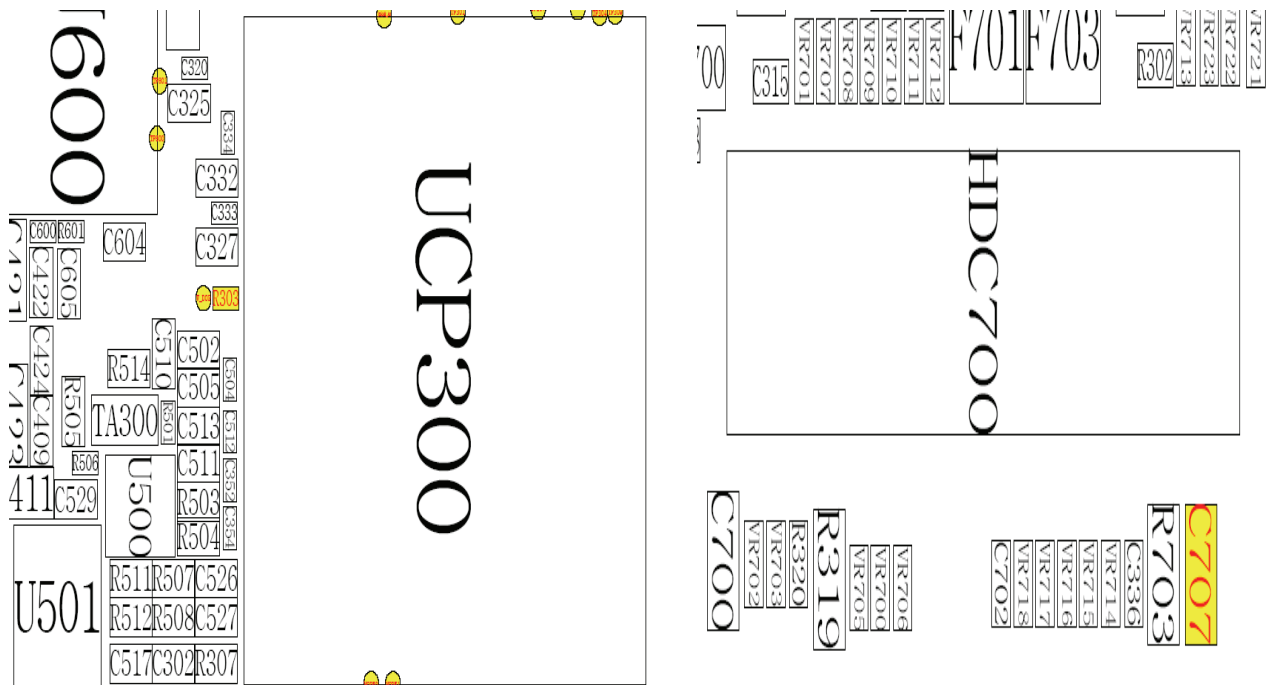
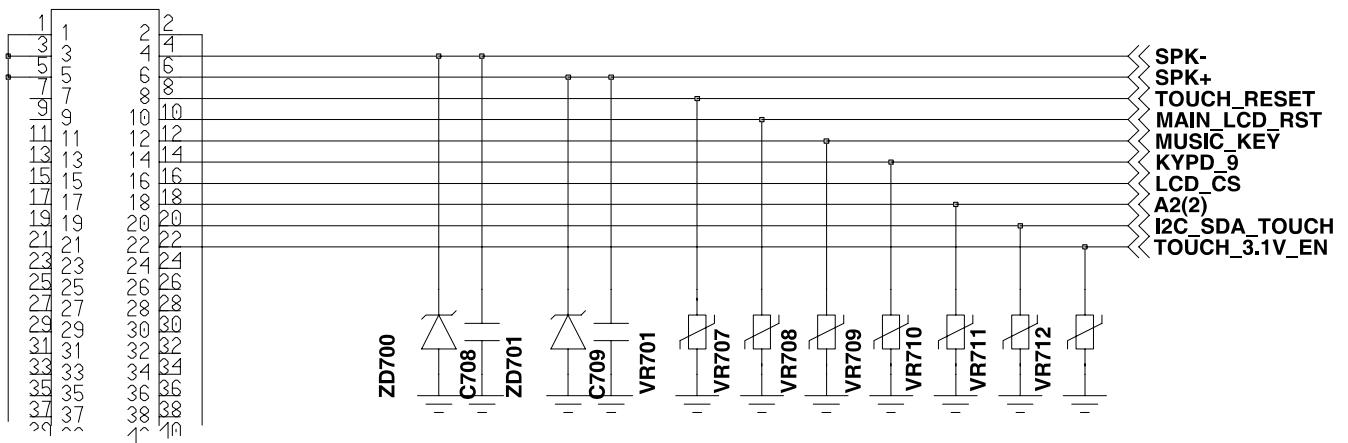


9-8. Speaker Part

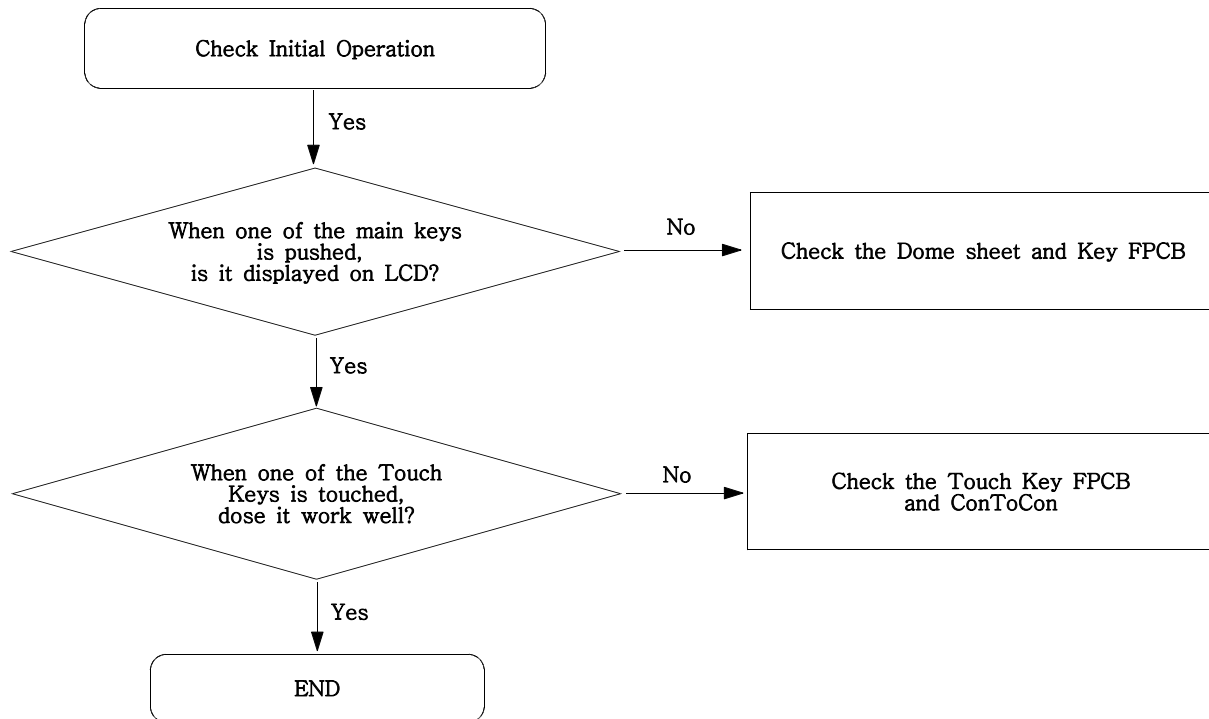




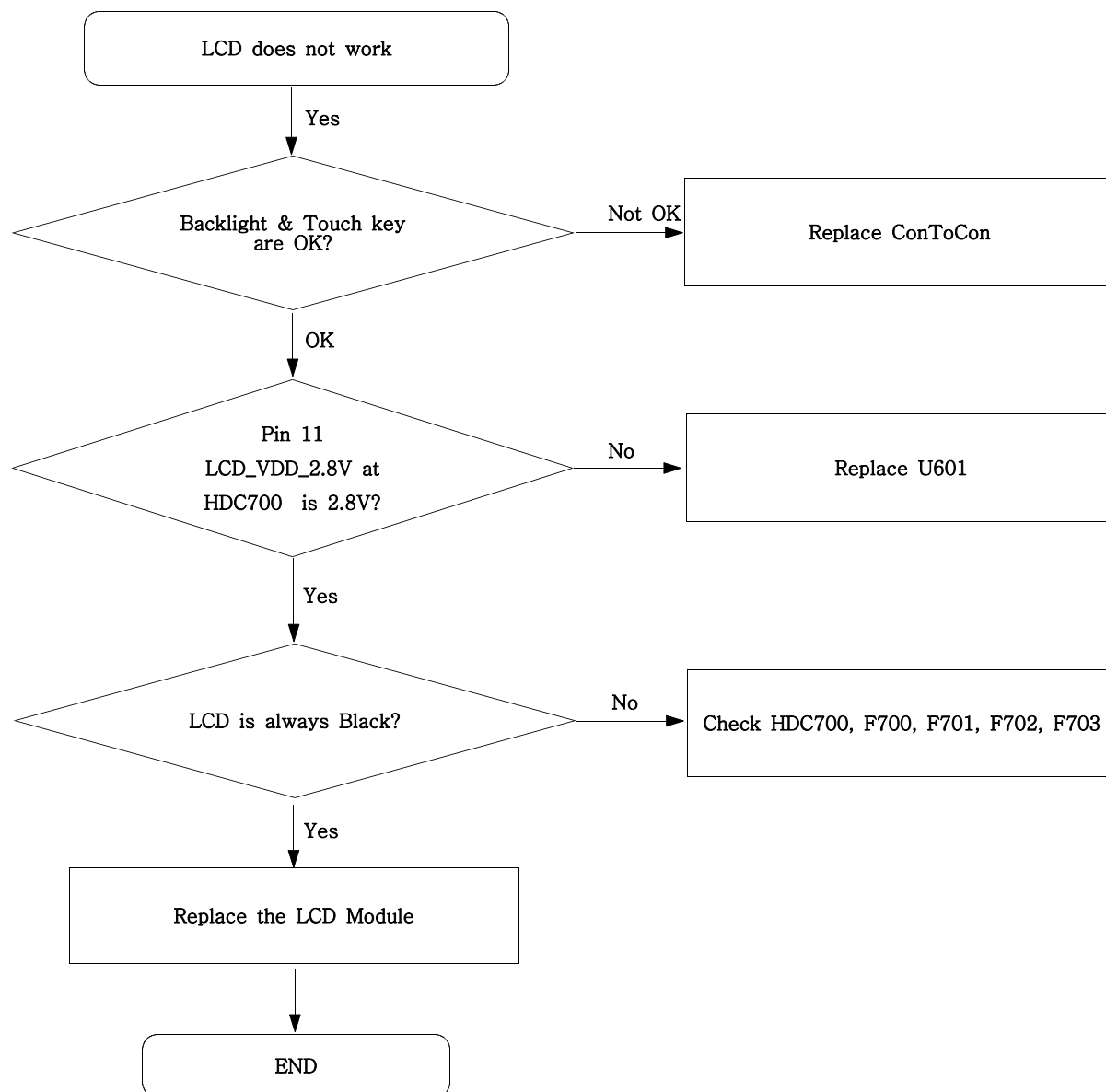
HDC700

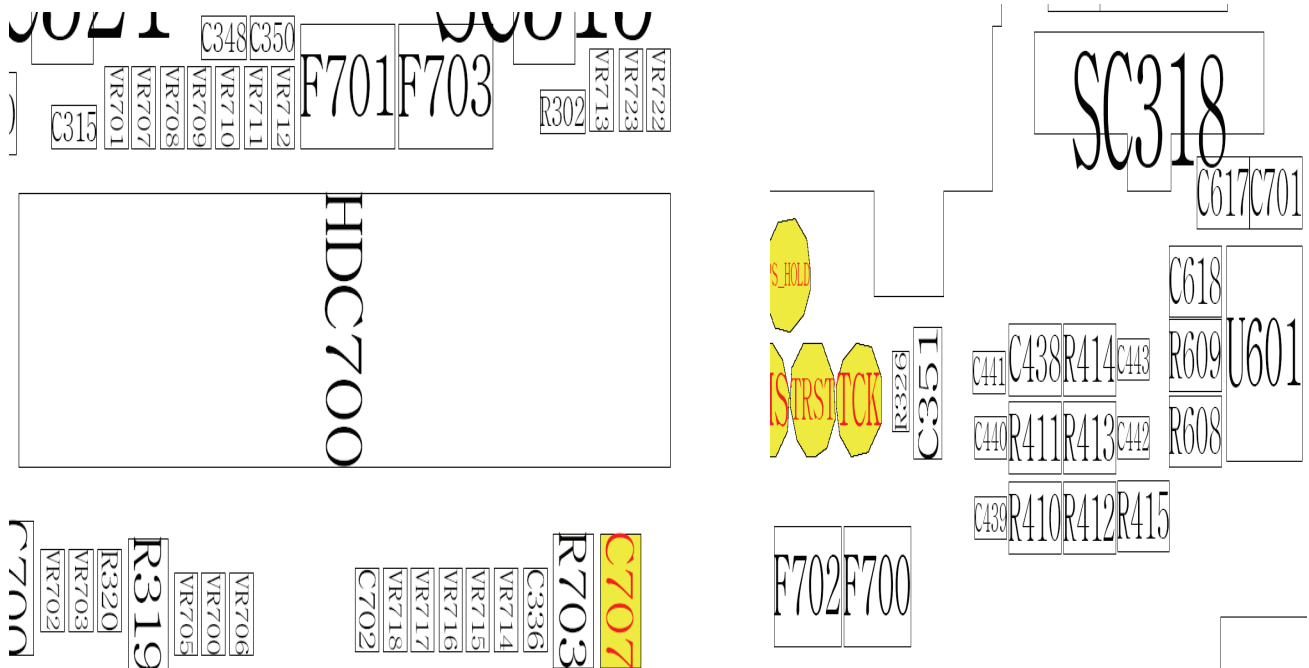
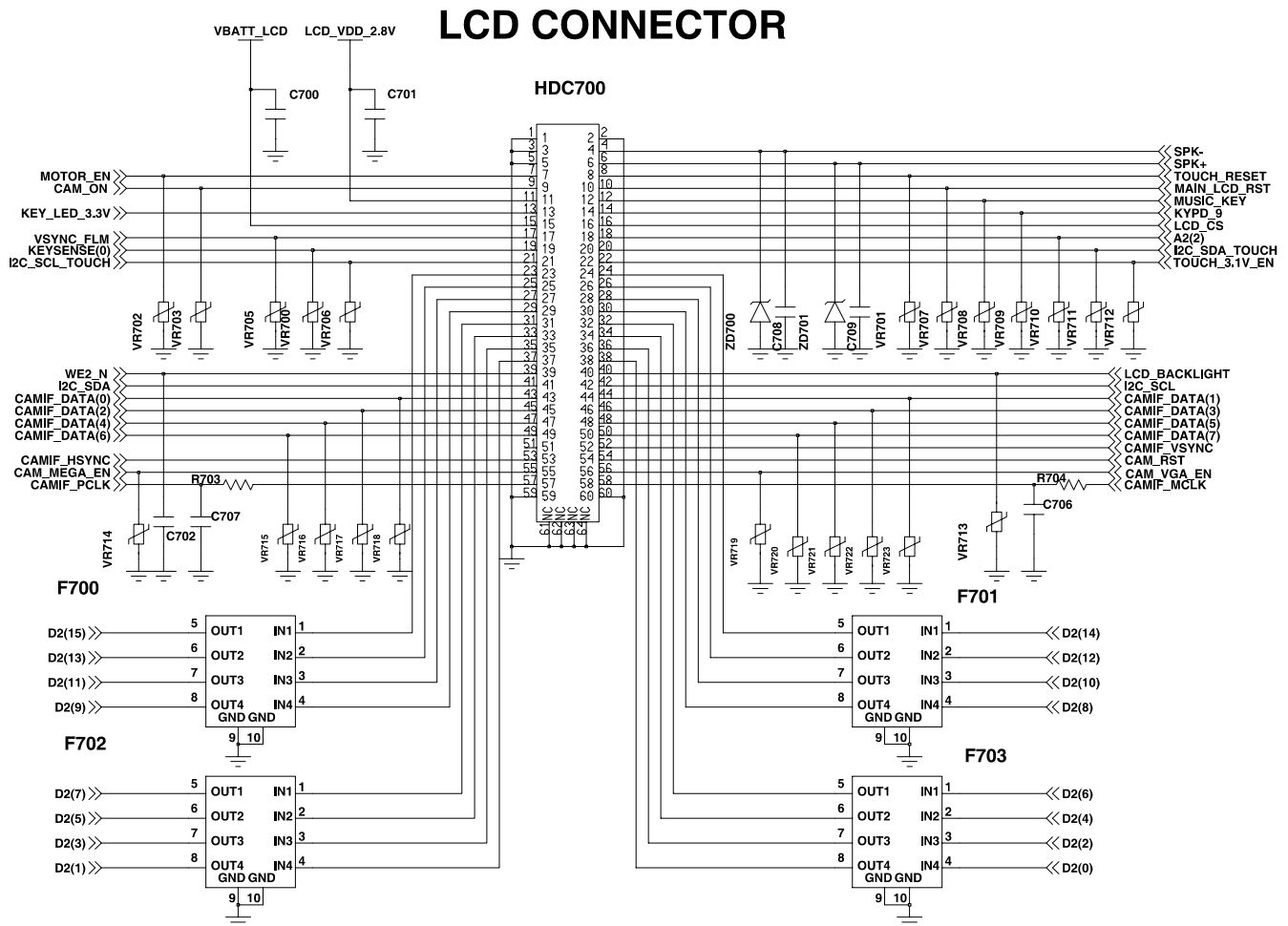


9-9. Key Data Input

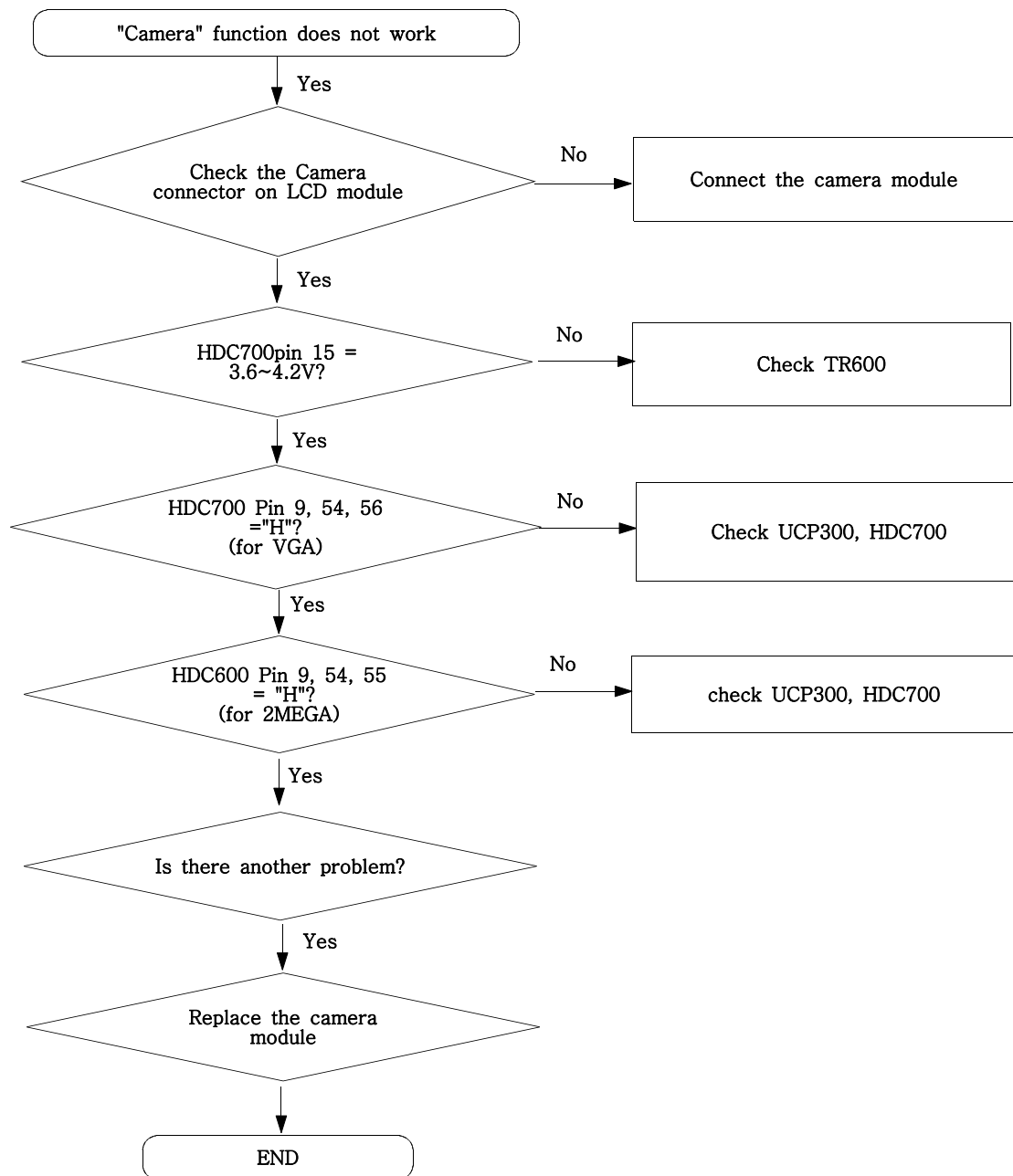


9-10. LCD part

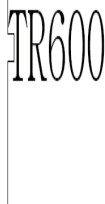




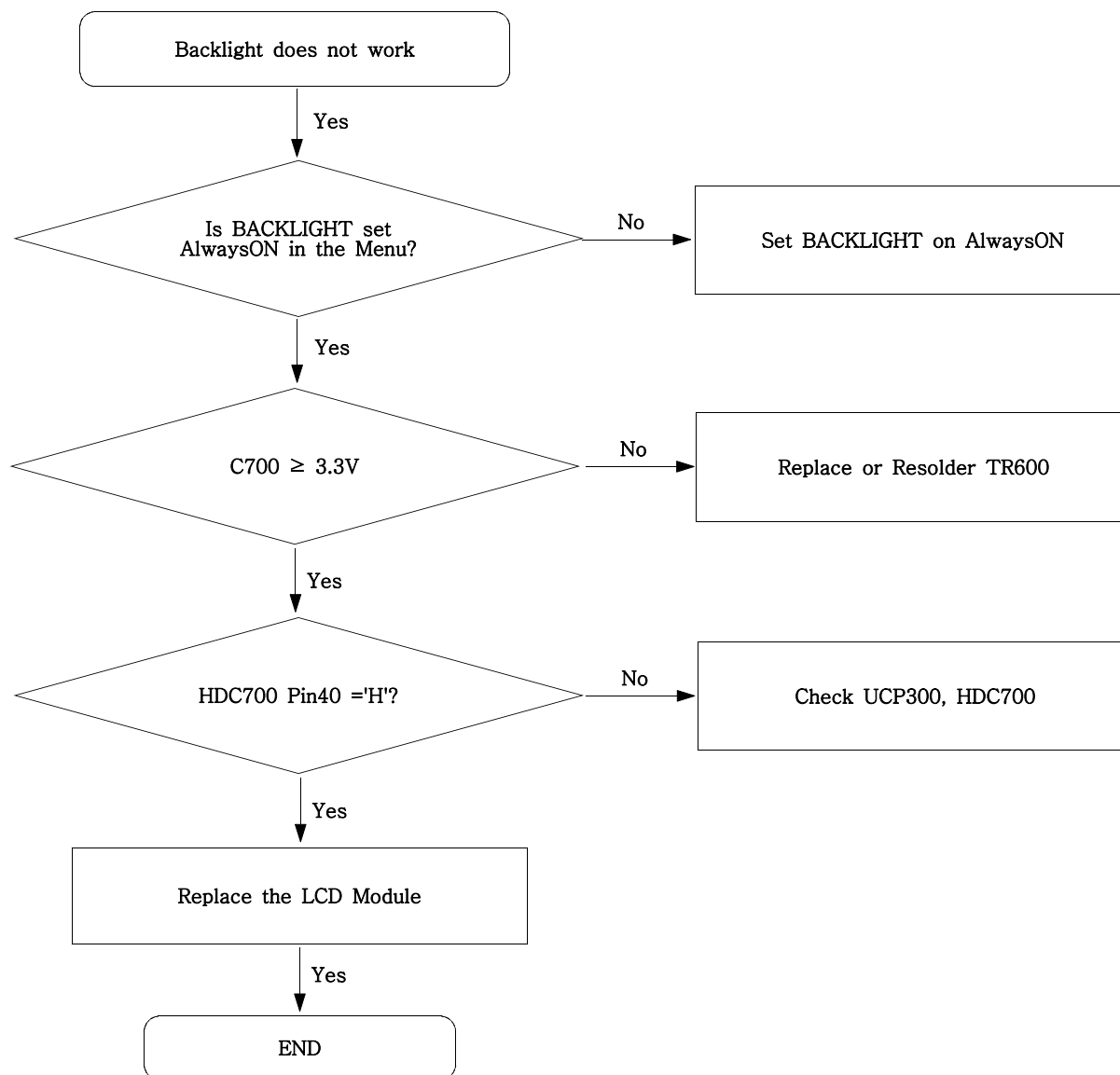
9-11. Camera part



002

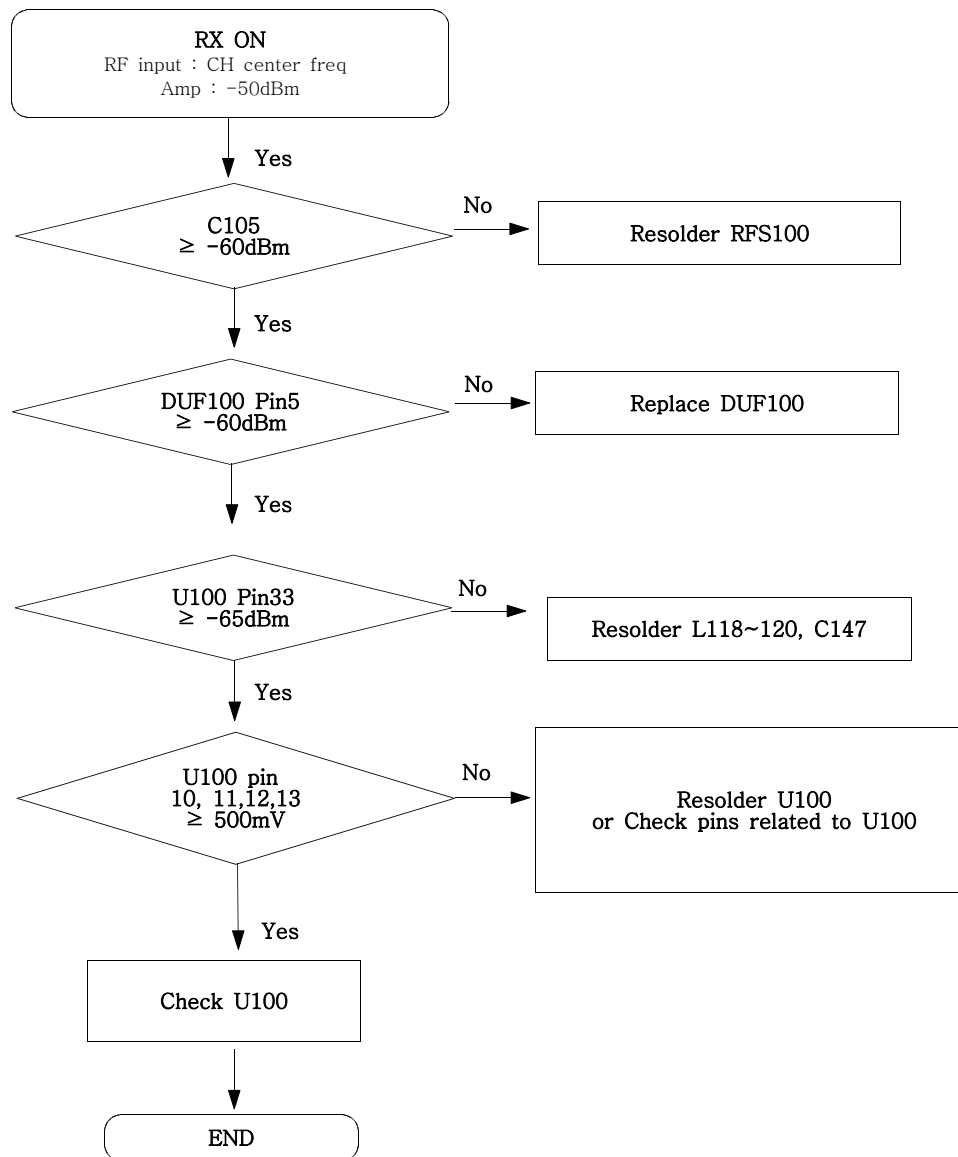


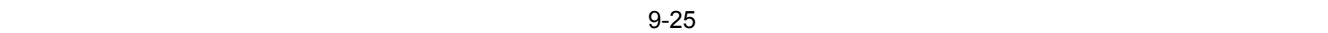
9-12. LCD Back Light

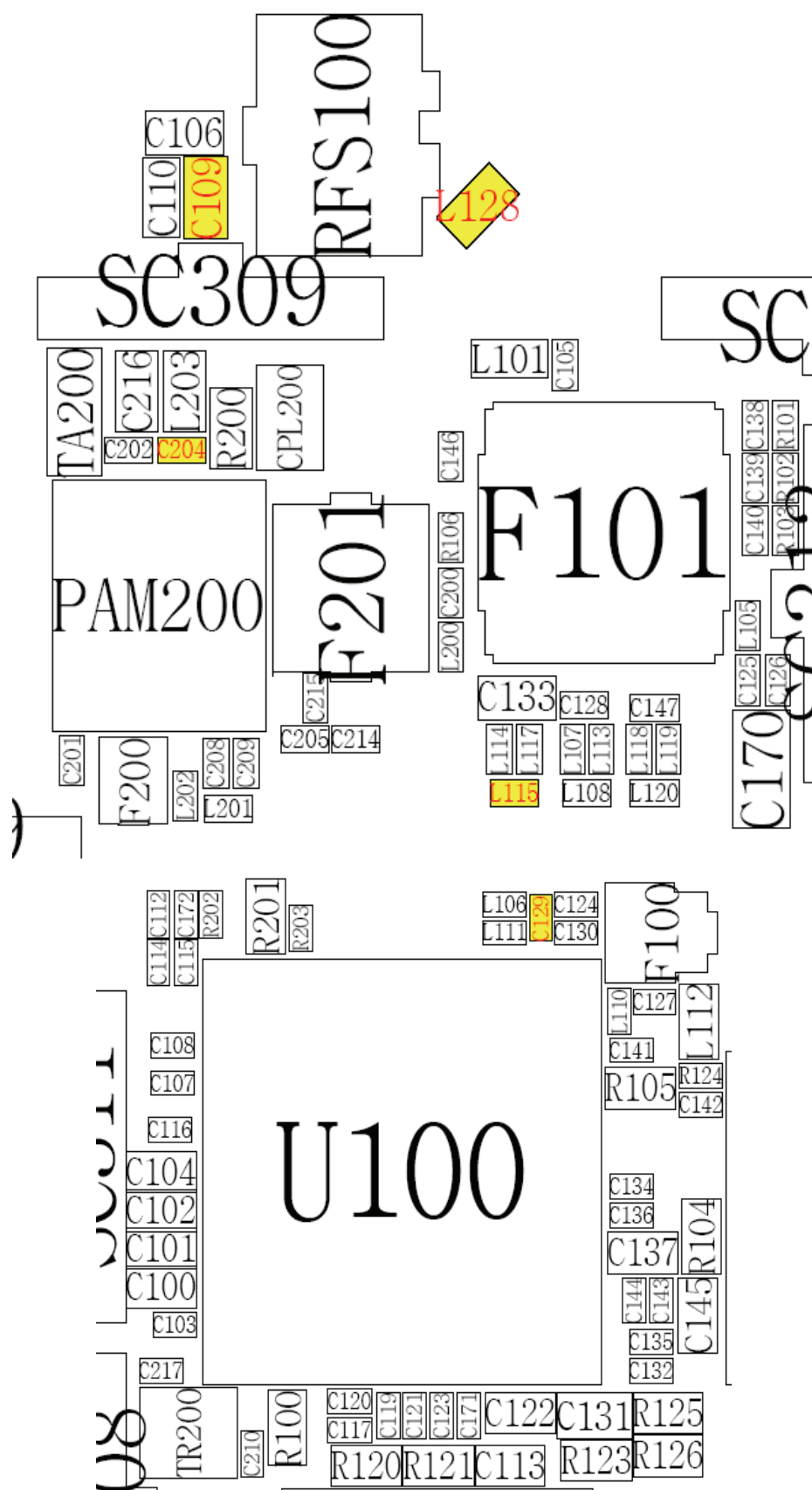


TR600 ☐

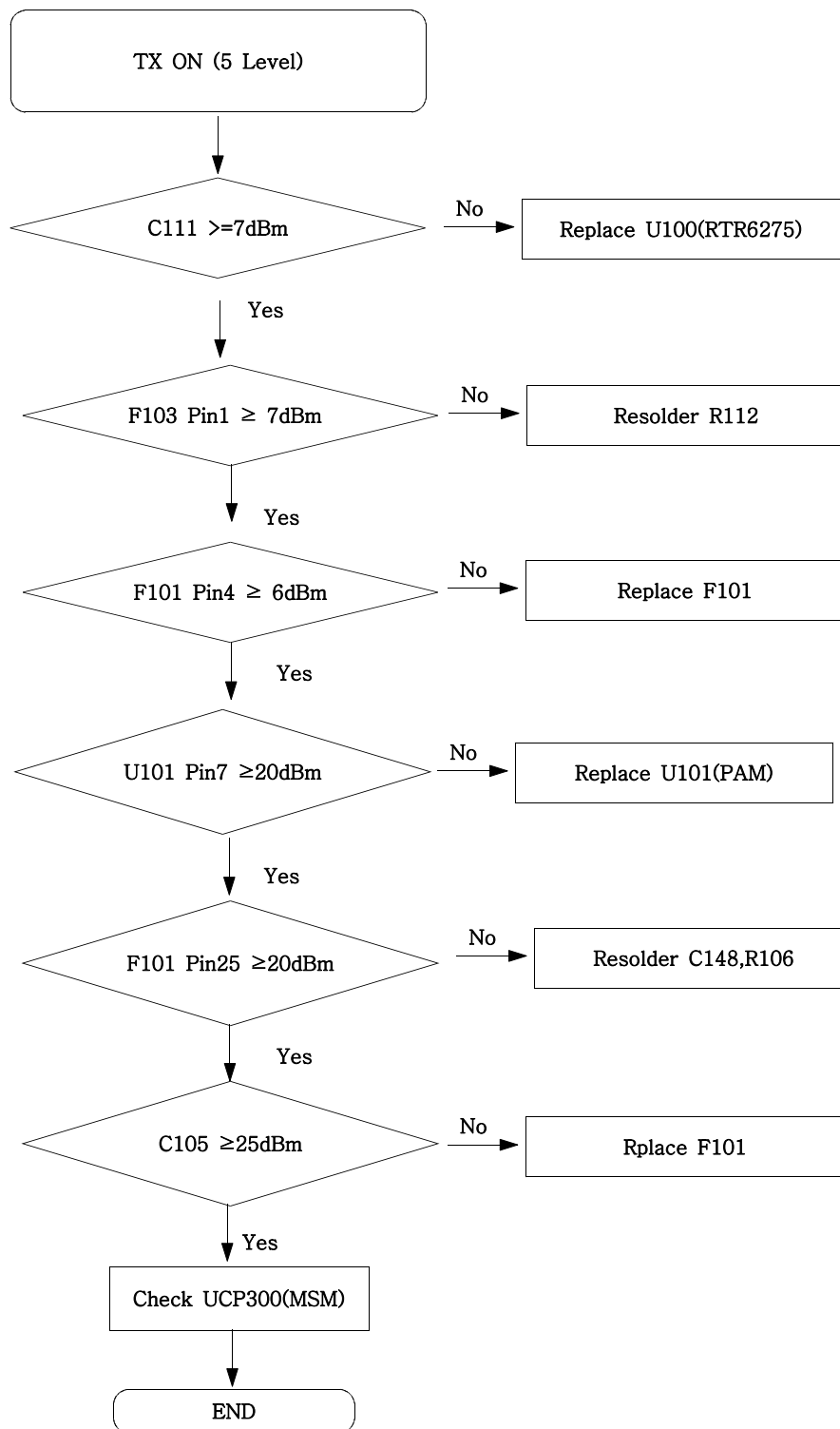
9-13. GSM Receiver

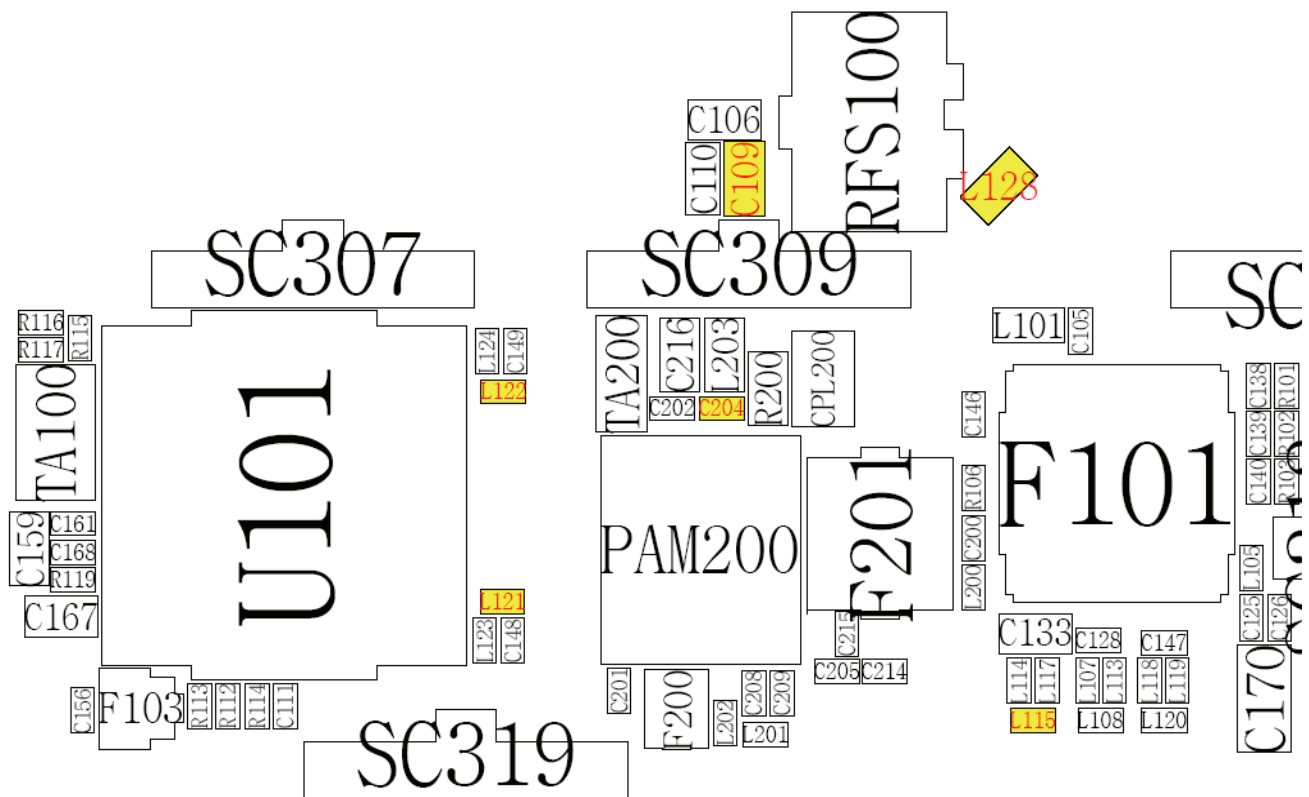




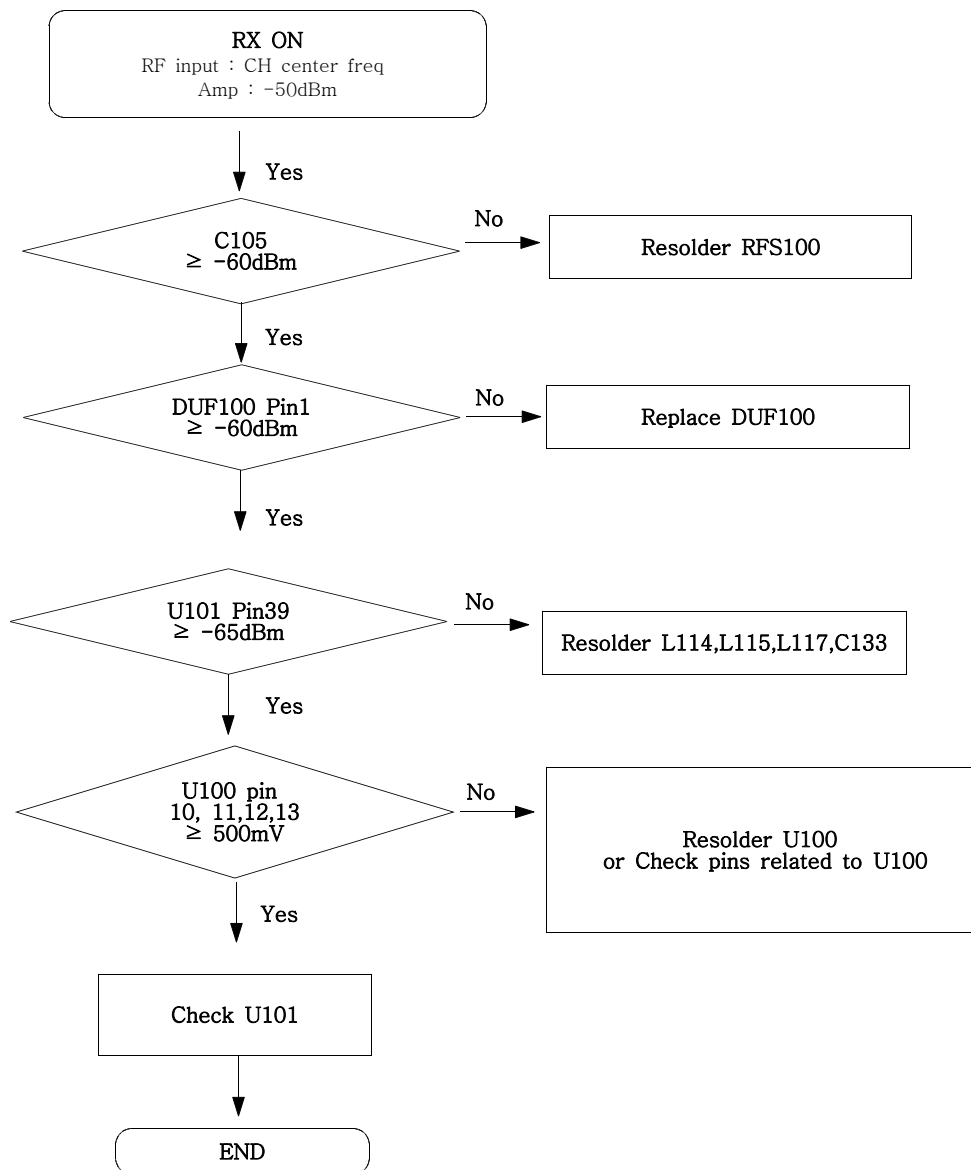


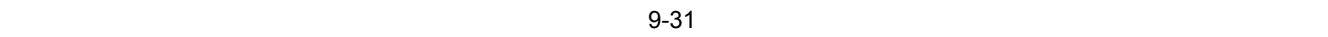
9-14. GSM Transmitter

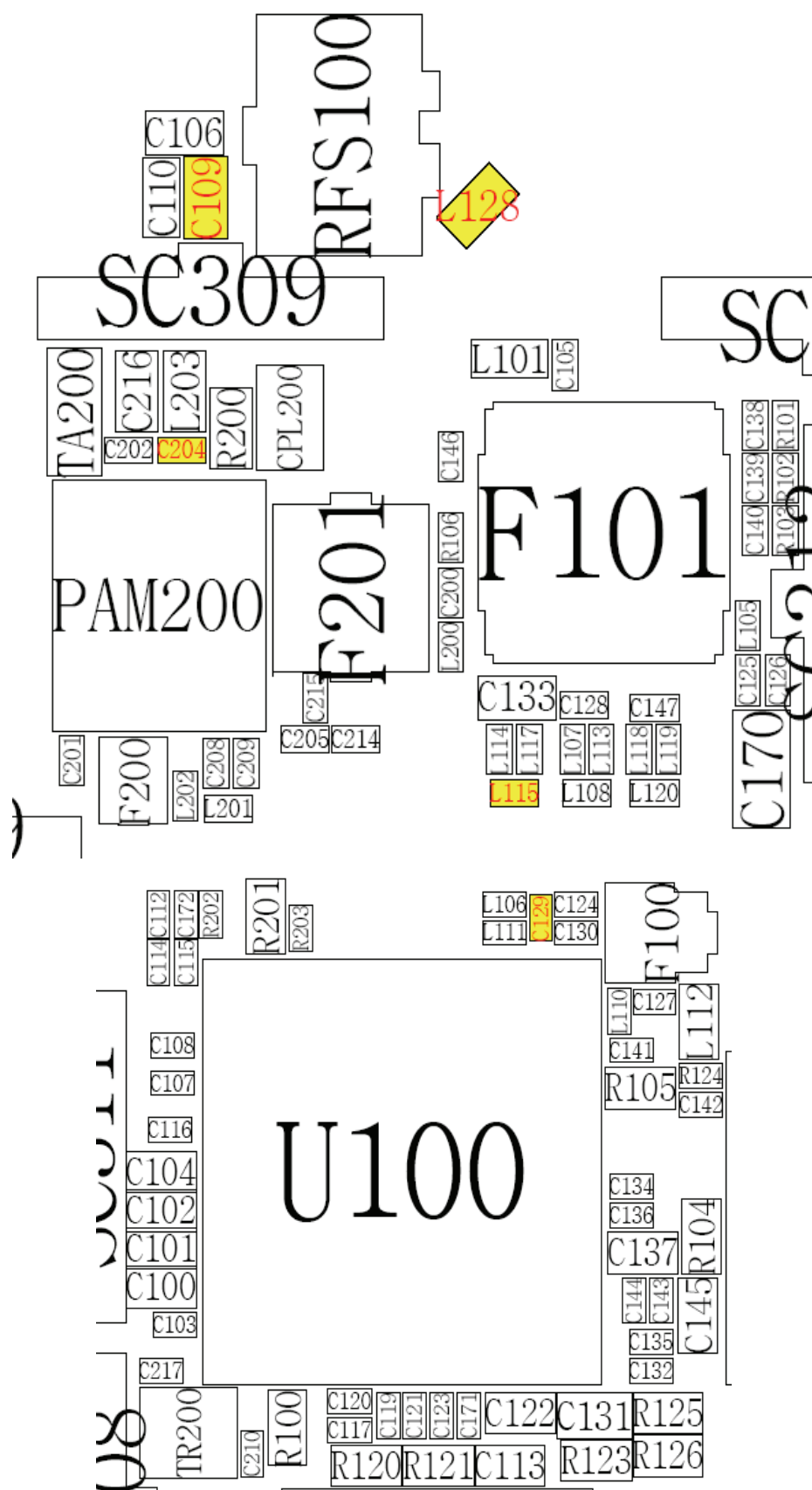




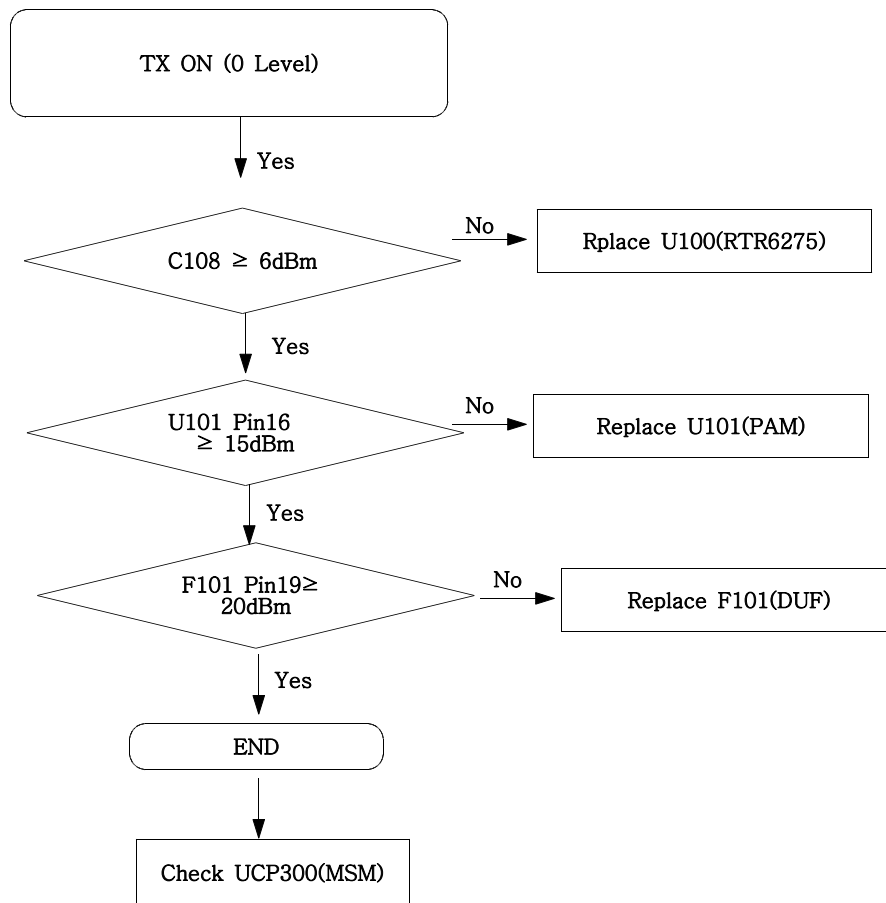
9-15. DCS Receiver



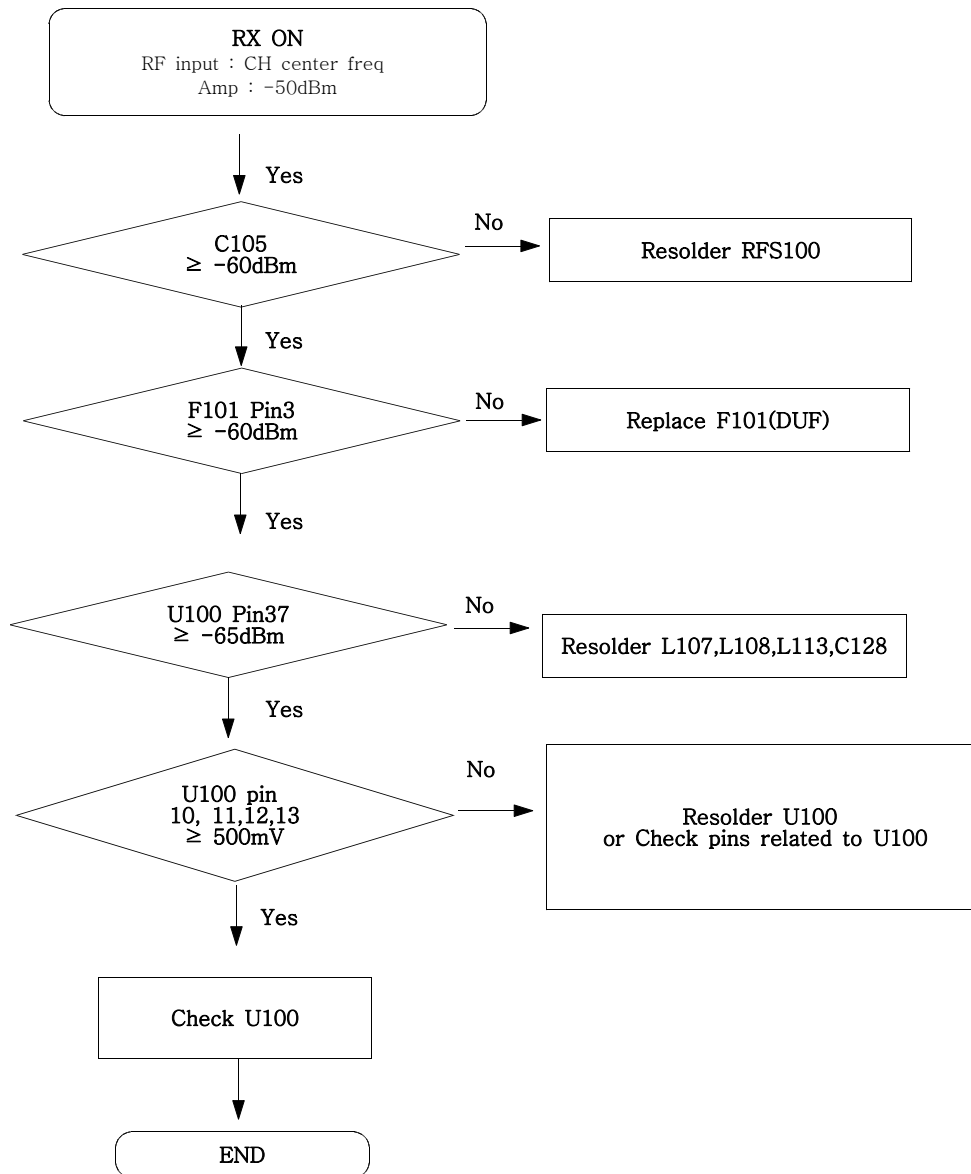


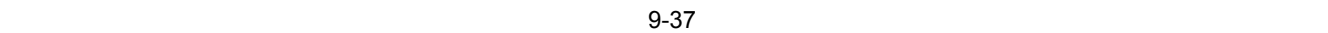


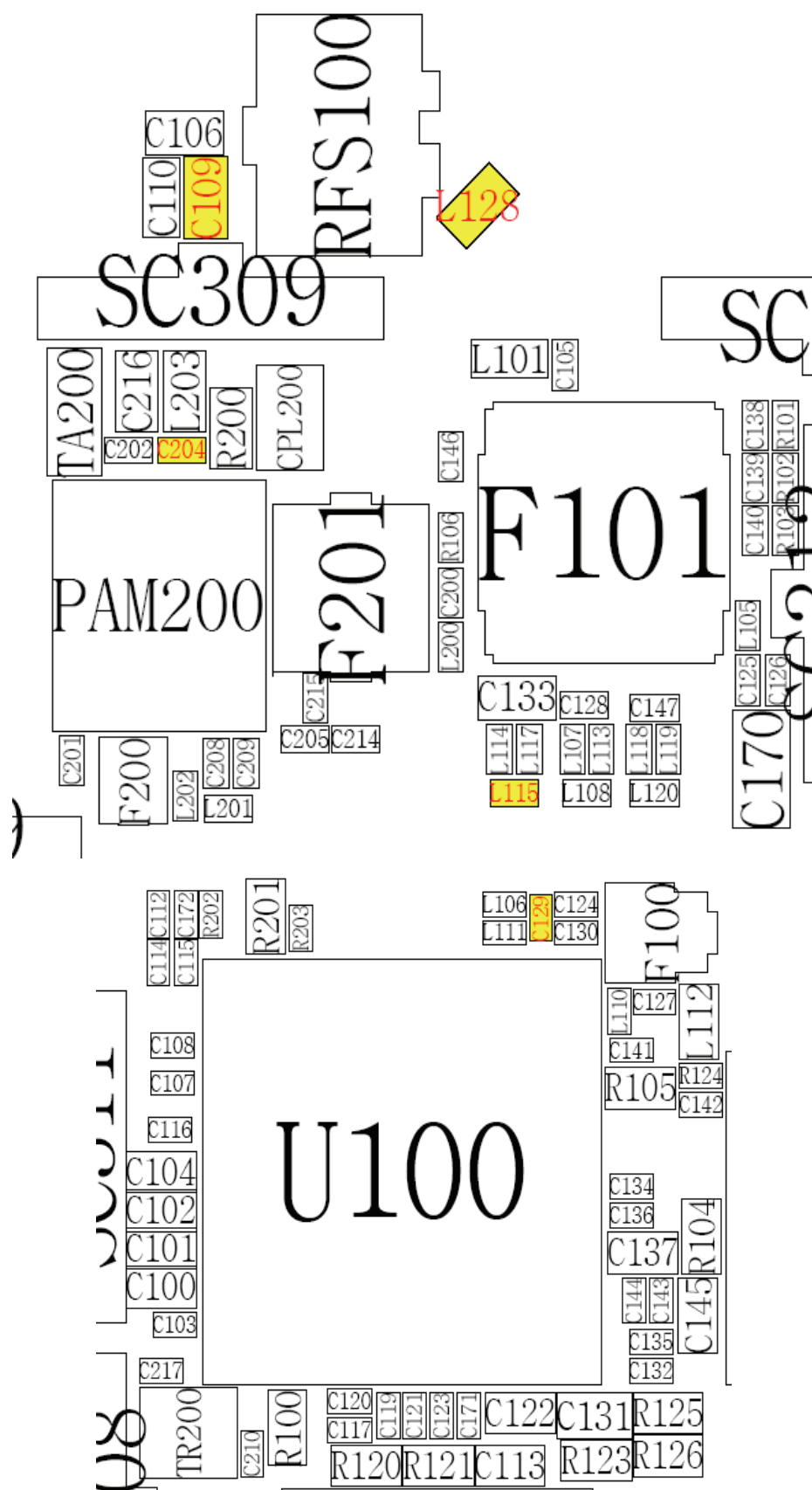
9-16. DCS Transmitter



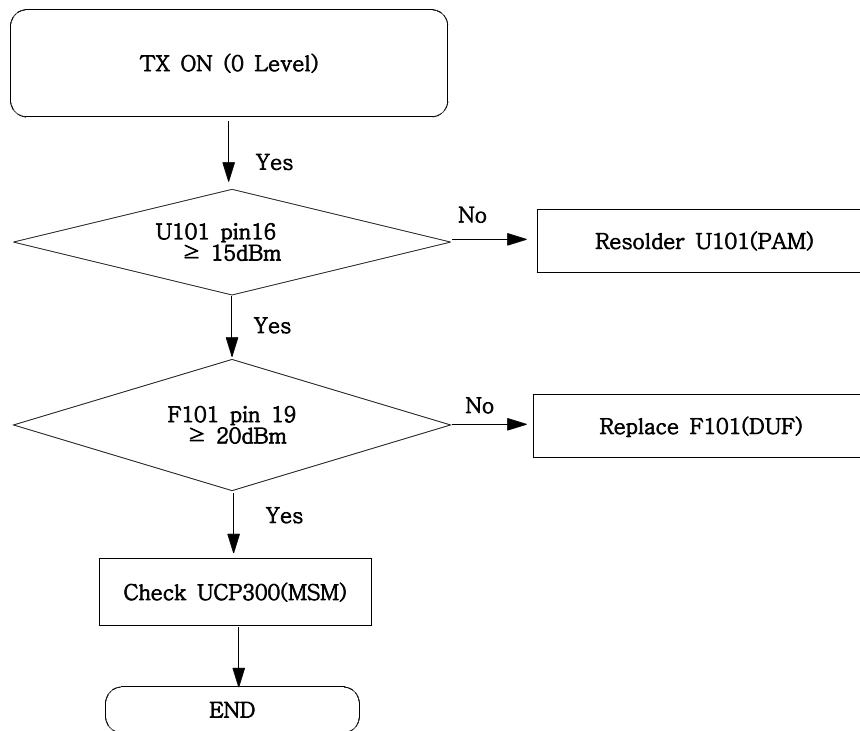
9-17. PCS Receiver

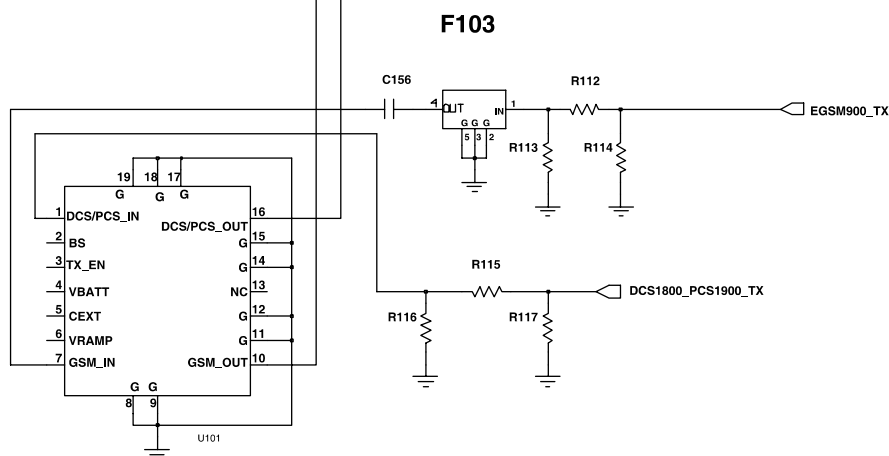
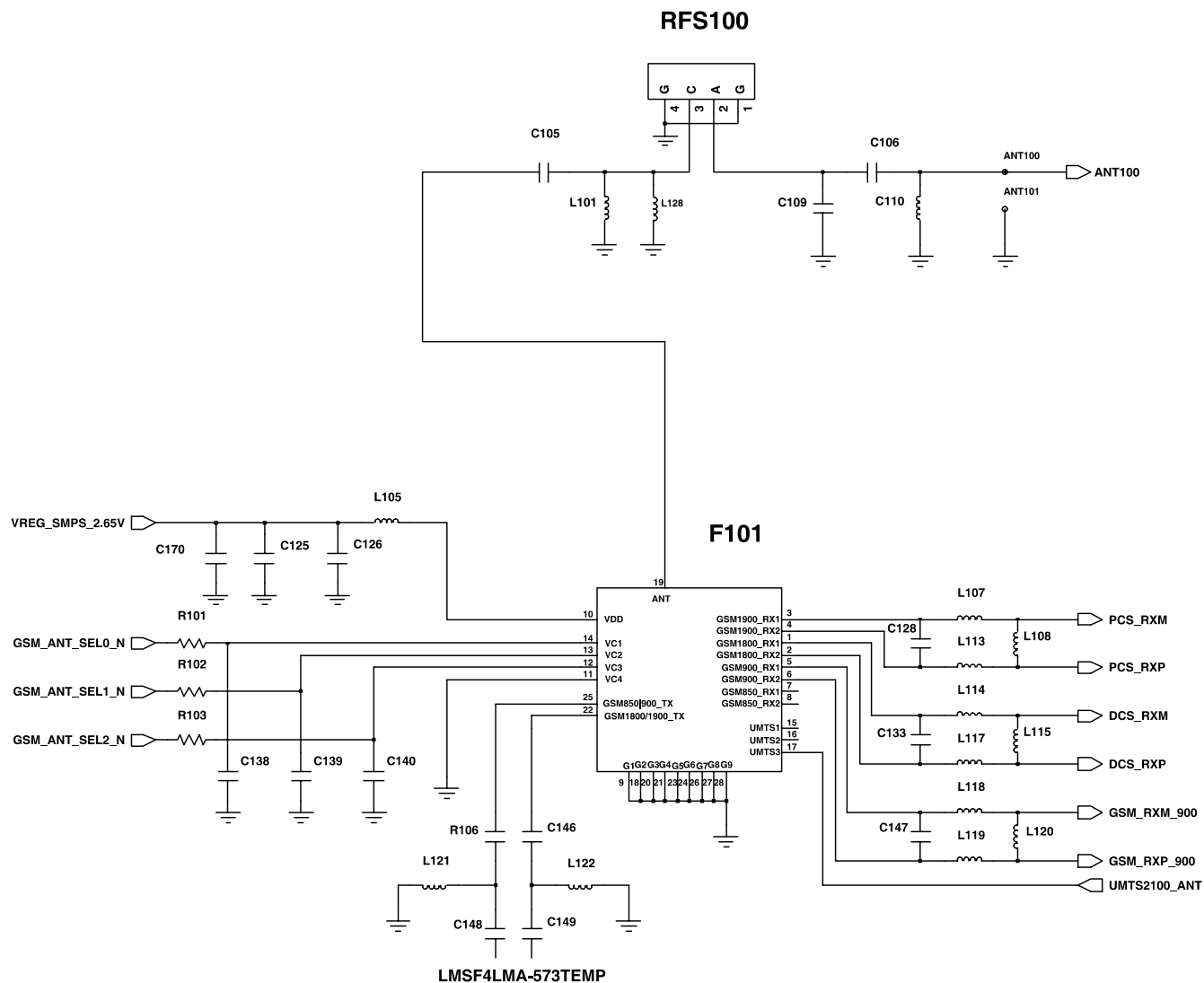


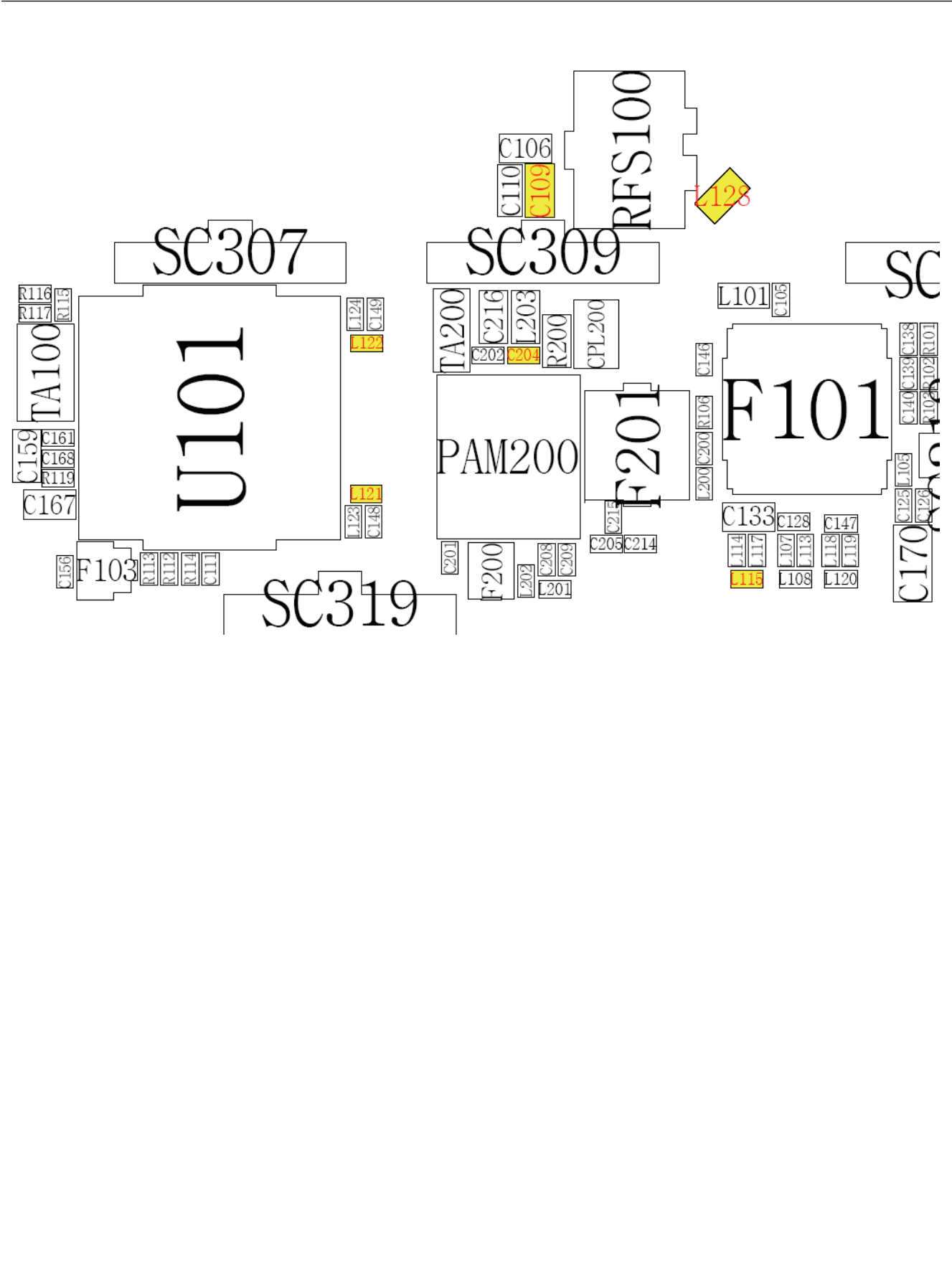




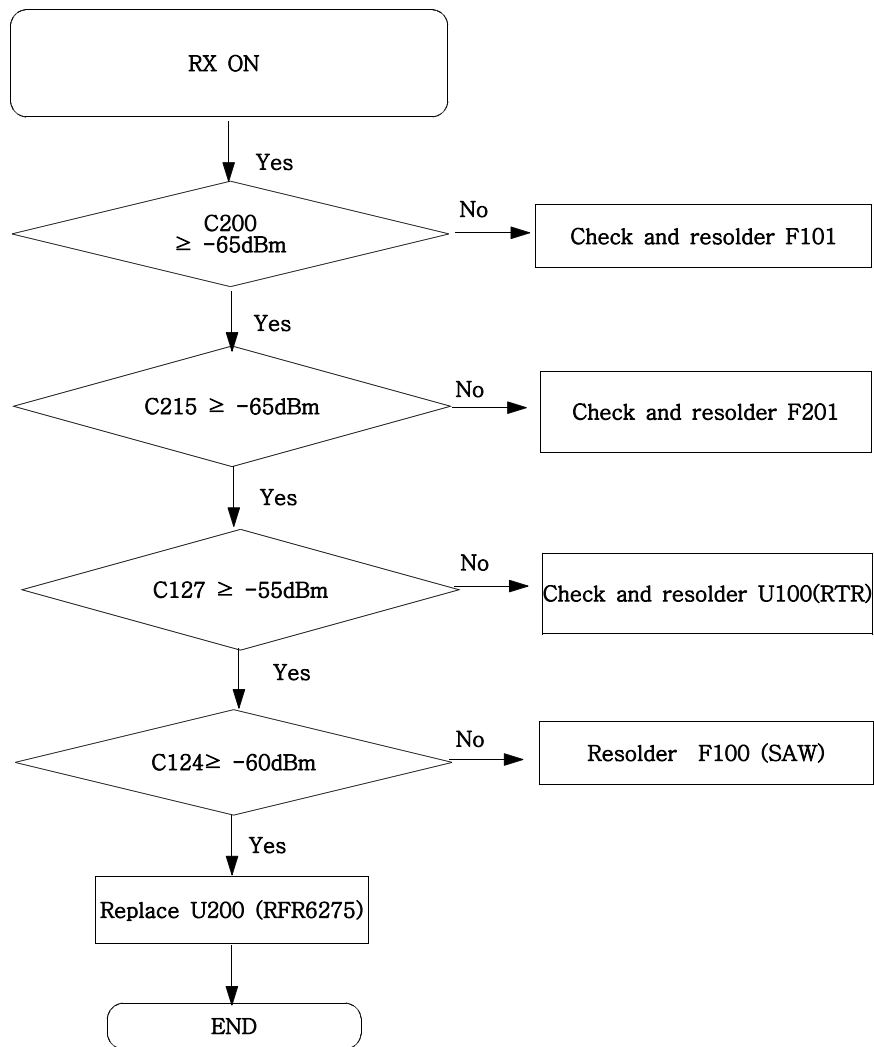
9-18. PCS Transmitter

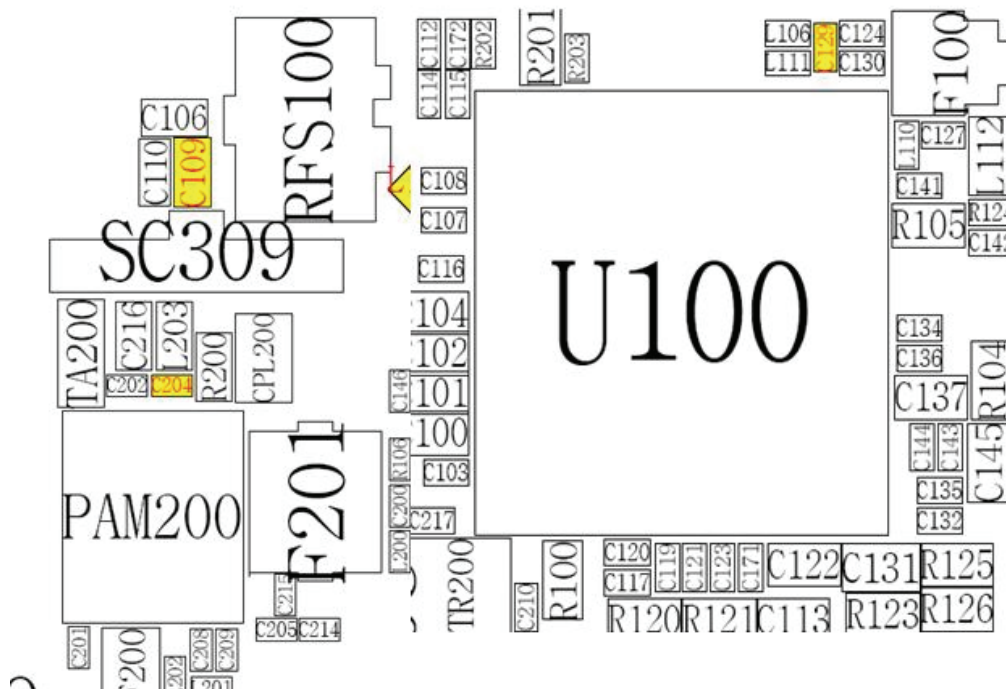
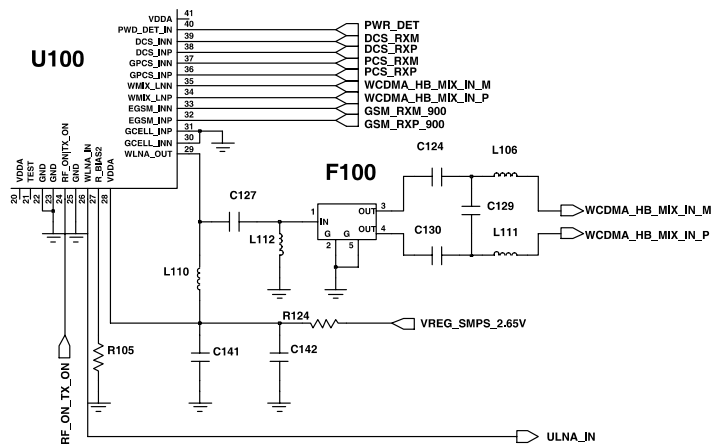
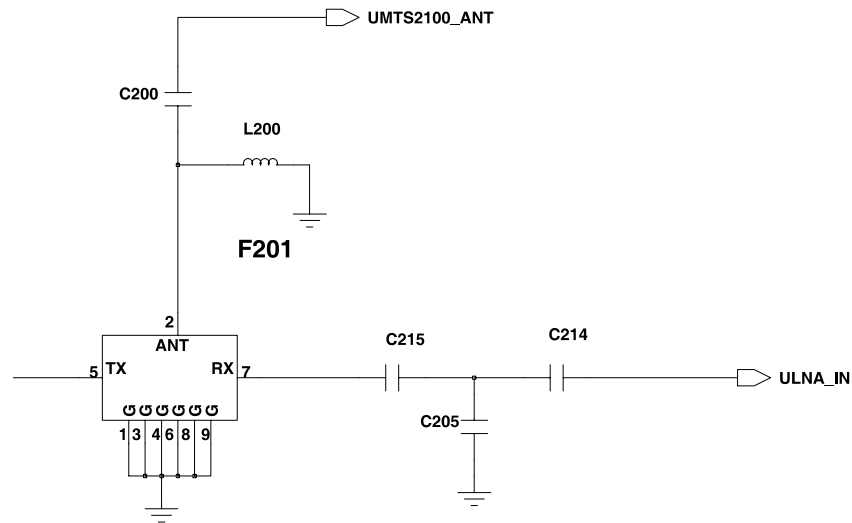




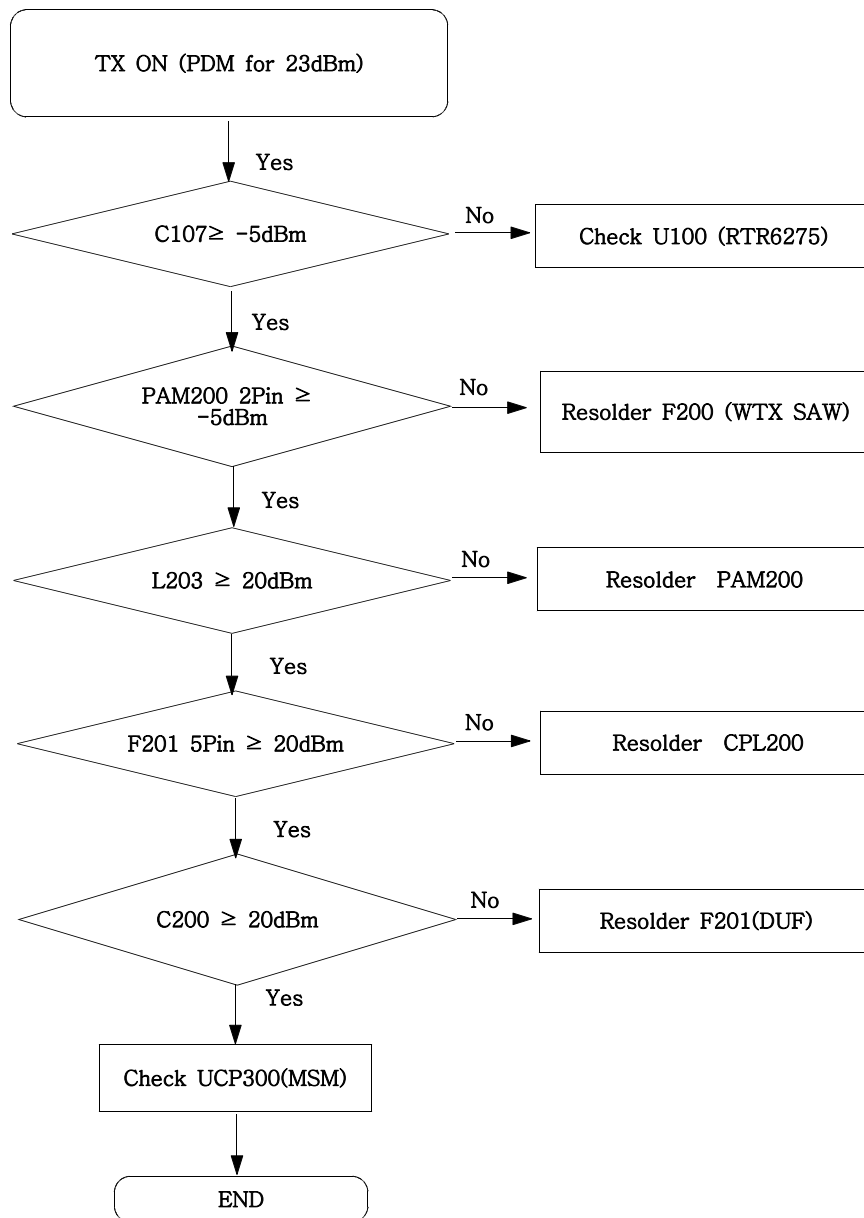


9-19. WCDMA Receiver





9-20. WCDMA Transmitter



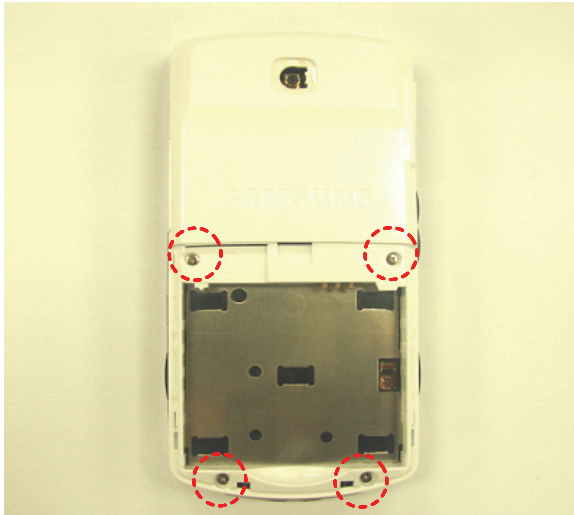
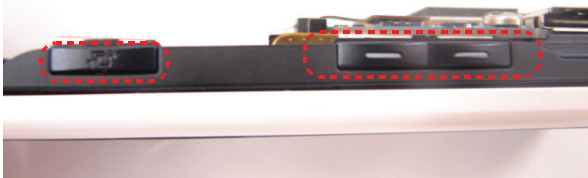
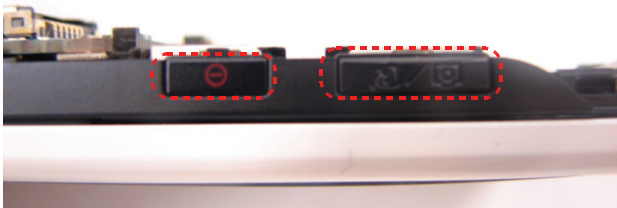
10. Reference data

Reference Abbreviate

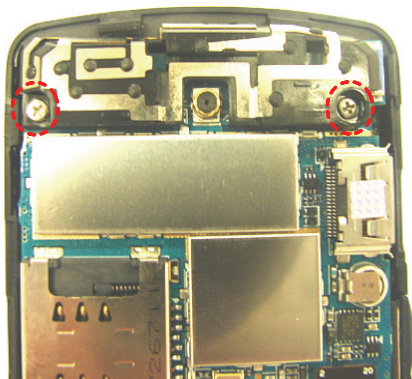
- **AAC**: Advanced Audio Coding.
- **AVC** : Advanced Video Coding.
- **BER** : Bit Error Rate
- **BPSK**: Binary Phase Shift Keying
- **CA** : Conditional Access
- **CDM** : Code Division Multiplexing
- **C/I** : Carrier to Interference
- **DMB** : Digital Multimedia Broadcasting
- **EN** : European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

11. Disassembly and Assembly Instructions

11-1. Disassembly Instructions

1 	2 
Screw Removal -Remove 4 screws.	Rear cover Removal -Open the rear cover from the lower with case.
3 	4 
Side key Removal 1.Remove the volume key. 2.Remove the switch key.	Side key Removal 1.Remove the power key. 2.Remove the camera key.

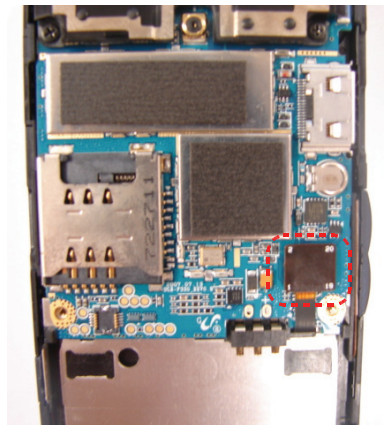
5



Intenna screw Removal

-Remove the intenna 2 screws.

6

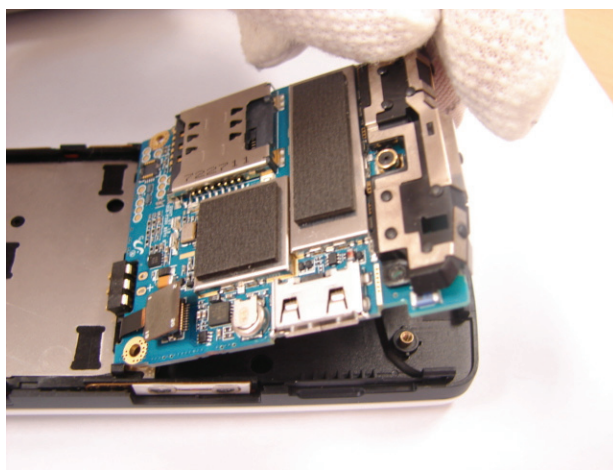


Key connector Removal

-Detach the key connector from the PBA.

※ Be careful not to damage it when removing the key connector

7



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.

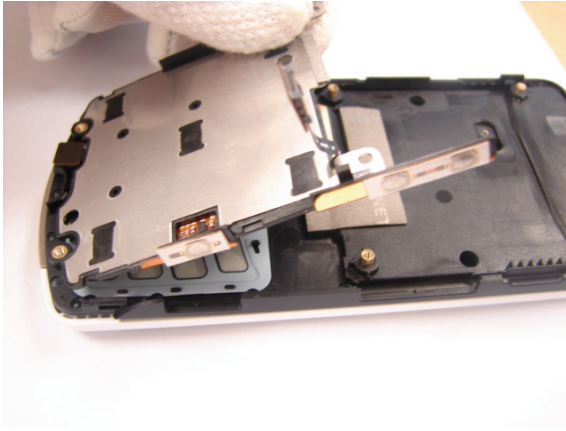
8



Main F-PCB connector Removal

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

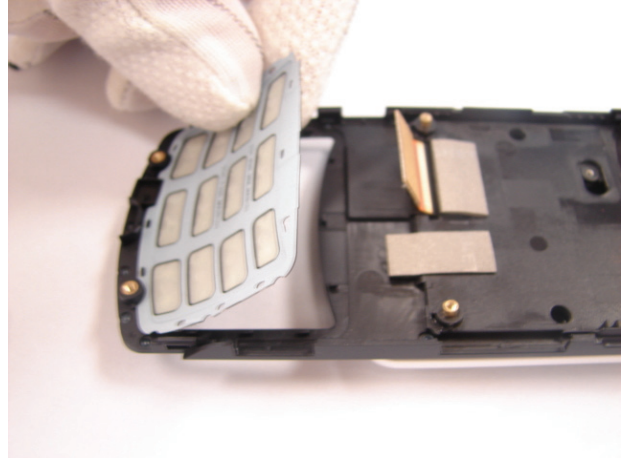
9



Shield Cover Removal

- Remove the shield cover by lifting up.
- ※ Be careful not to rumple and tear the Gasket When removing the shield cover.

10



3*4 Key Removal

- Remove 3*4 Key from the Front.

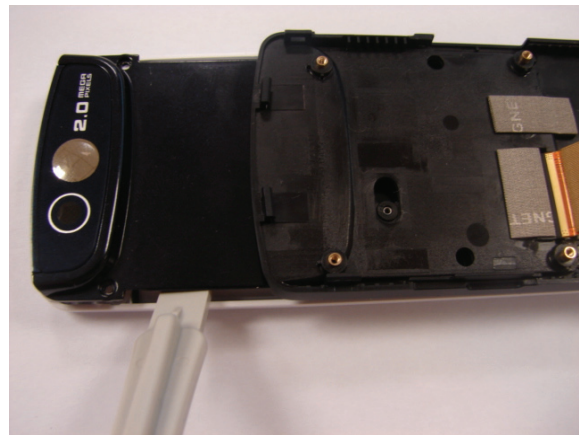
11



Slide Ass'y Screw Removal

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

12



Slide Ass'y & Front Unlocking

- Unlock the locking points with an unlocking stick.

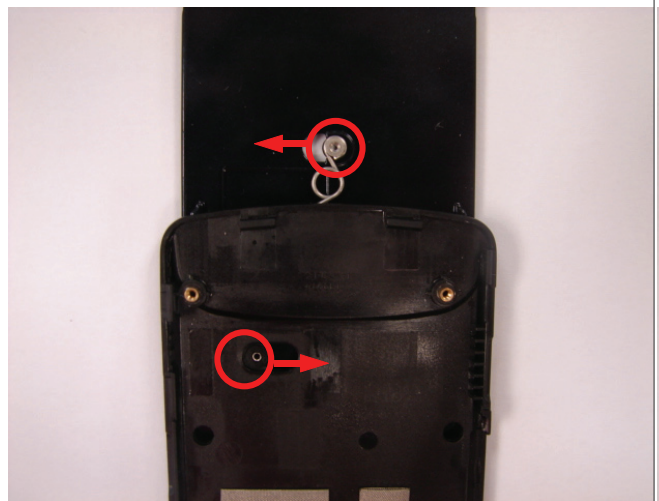
13



Slide Ass'y & Front Separation

- Separate the slide upper and the slide lower after unlocking.

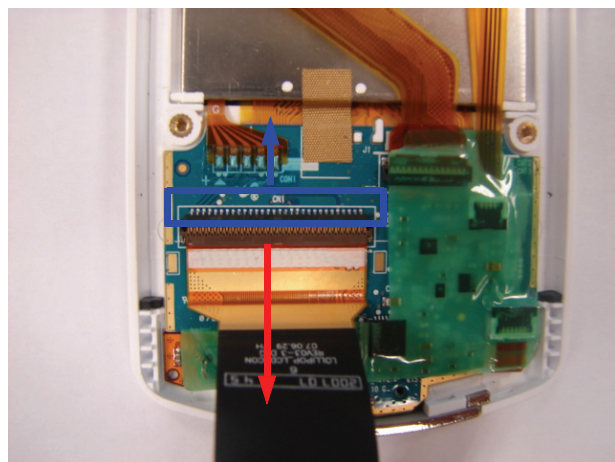
14



Slide Lower & Front Separation

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

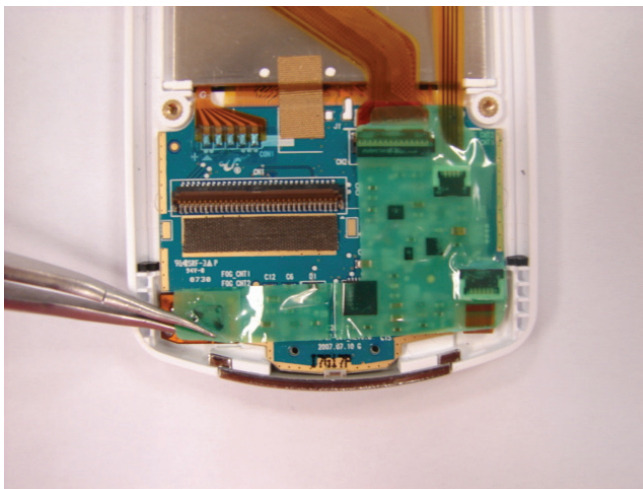
15



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.

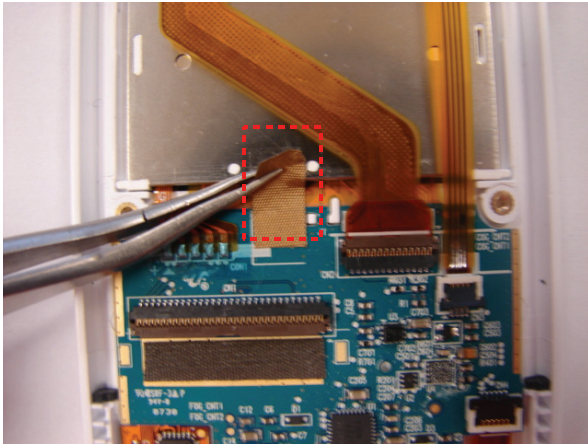
16



Untied-Prevention Tape Removal

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

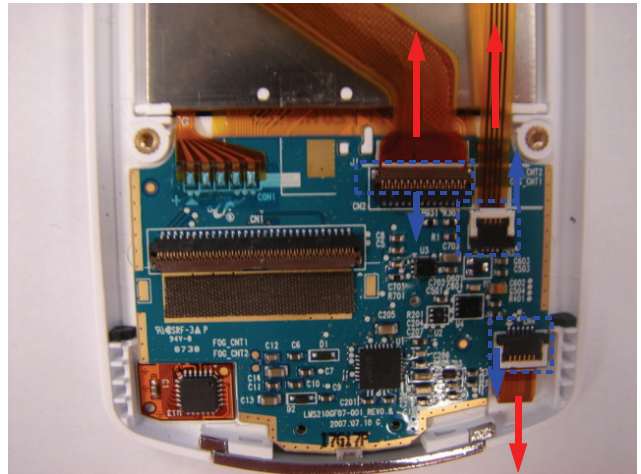
17



Conduction Tape Removal

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

18



F-PCB Separation

- Open the connector with the arrow direction and then draw out the F-PCBs.

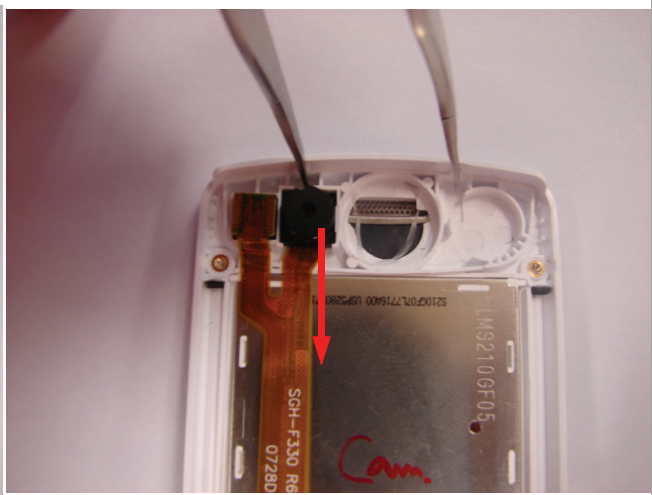
19



Speaker Module Separation

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

20



Camera Module Separation

- Separate the 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 Camera.

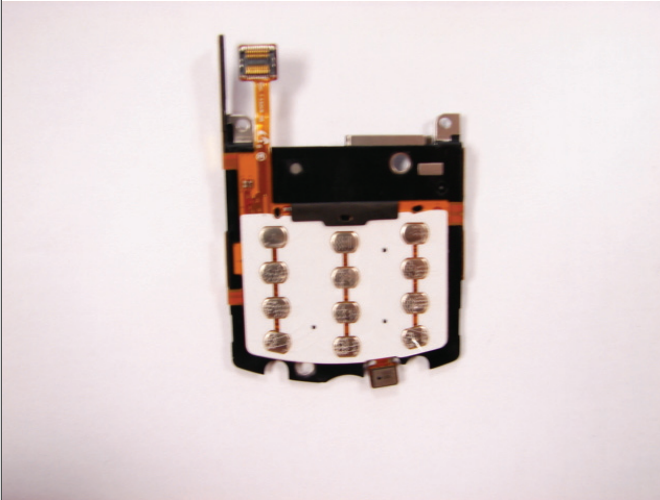
21



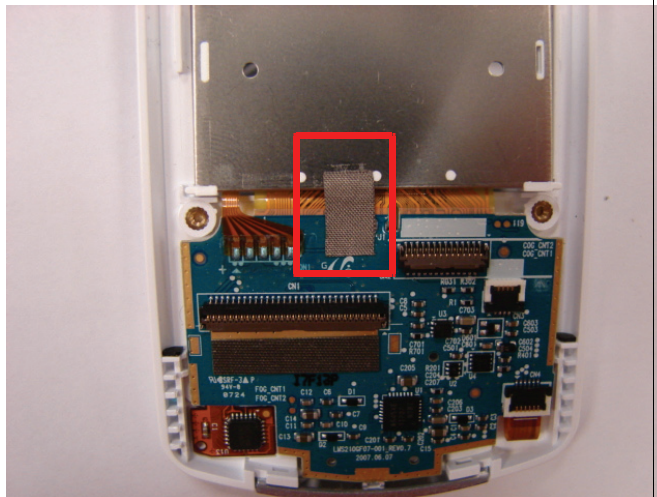
LCD Module Separation

- 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.

11-2. Assembly Instructions

1 	2 
Shield Can Check & Key FPCB Attachment	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 MEGA CAMERA, VGA CAMERA 6.Assemble SPEAKER 7.Remove 3MEGA CAMERA LENS protection vinyl.

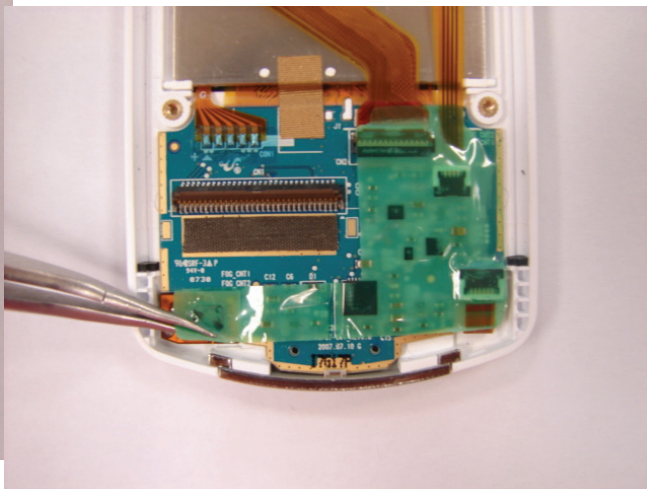
3



Attach LCD conductive TAPE

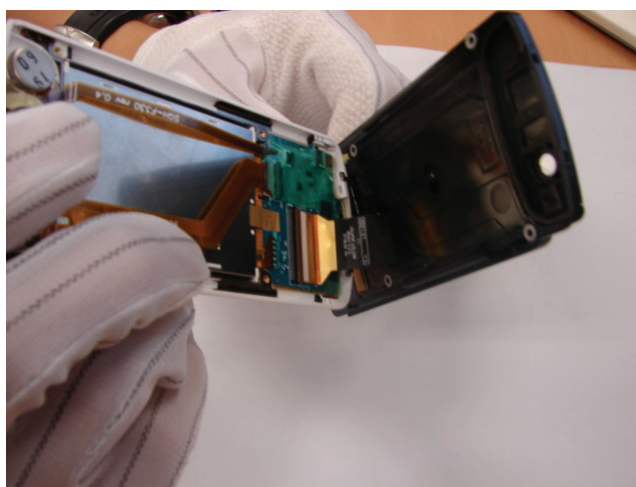
- Attach LCD conductive TAPE following the silk guide LINE.

4



Attach Untied-Prevention Tape

5



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

- 1.Remove MEGA 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

6



Screwing the screw

1. Screw the upper 2 point of the SLIDE LOWER using SCREW Assmbley JIG

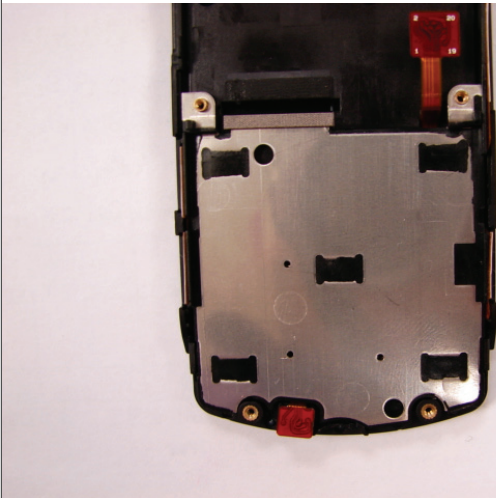
7



Placing the Main key pad

1. Check the printed condition of the MAIN KEYPAD.
2. Place the MAIN KEYPAD.

8



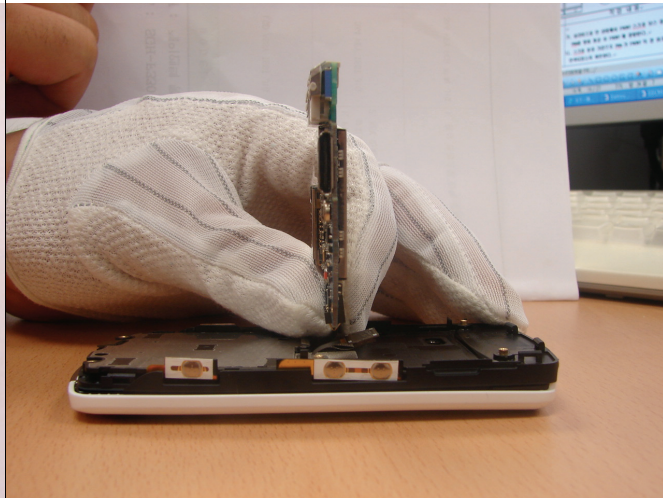
Shield Can Assembly

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

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

9

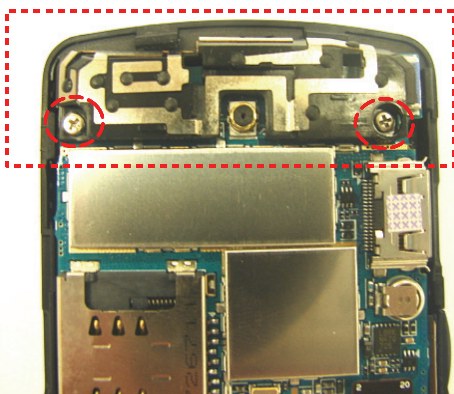
Attach the electric conduction TAPES.



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.

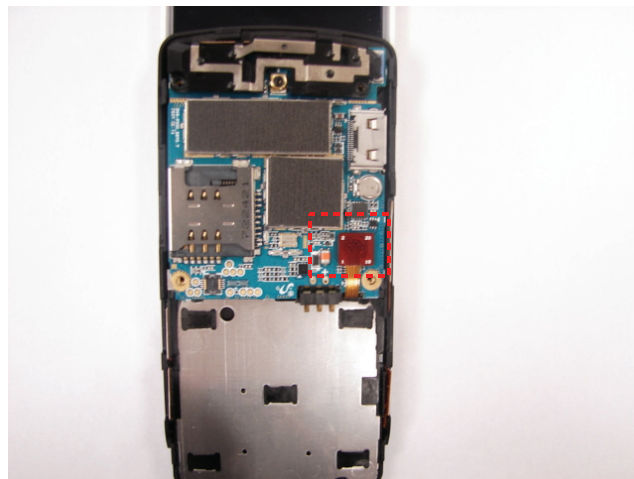
10



Antenna assembly and Screwing screw

1. Assemble Antenna
2. Screwing screw (2 Point)

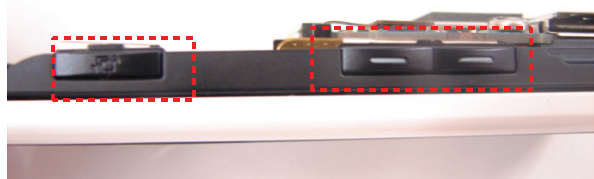
11



Key F-PCB Assembling

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

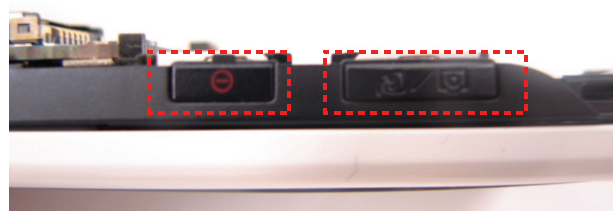
12



Place VOLUME KEY, SWITCH KEY

-Place both VOLUME KEY and SWITCH KEY.

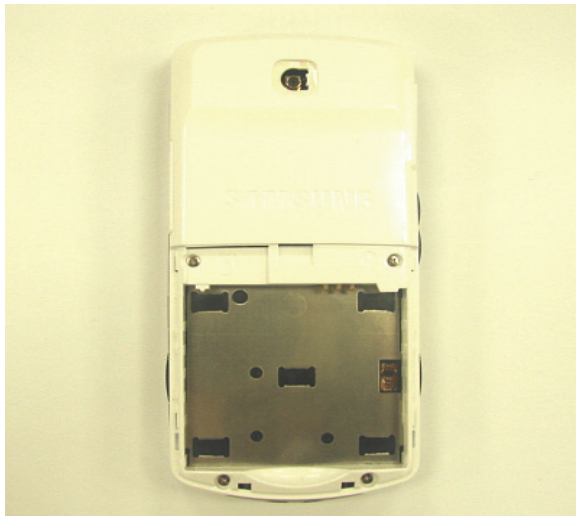
13



Place POWER KEY, CAMERA KEY

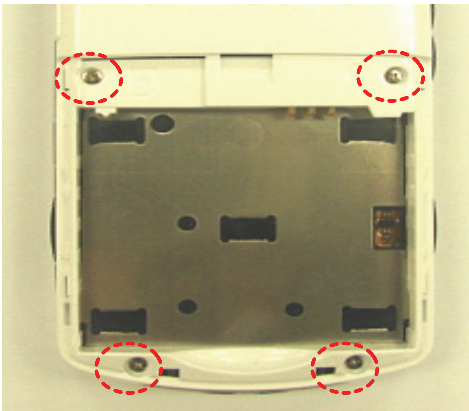
-Place both POWER KEY and CAMERA KEY.

14



Assembling the Rear

15



Screwing the screw

16



RF Cap Insertion