

SAMSUNG

UMTS TELEPHONE

SGH-Z560

SERVICE *Manual*

UMTS TELEPHONE



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1. Safety Precautions

1-1. Repair Precaution

- Repair in Shield Box, during detailed tuning.
Take specially care of tuning or test,
because specipcty 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	1920~1980 2110~2170
ARFCN range	0~124 & 975~1023	512~885	512~810	UL:9612~9888 DL:10562~10838
Tx/Rx spacing	45MHz	95MHz	80MHz	190MHz
Mod. Bit rate/ Bit Period	270.833kbps 3.692us	270.833kbps 3.692us	270.833kbps 3.692us	3.84Mcps
Time Slot Period/Frame Period	576.9us 4.615ms	576.9us 4.615ms	576.9us 4.615ms	Frame length : 10ms
Modulation	0.3GMSK	0.3GMSK	0.3GMSK	QPSK HQPSK
MS Power	33dBm~5dBm	30dBm~0dBm	30dBm~0dBm	24dBm ~ - 50dBm
Power Class	4 (max +33dBm)	1 (max +30dBm)	1 (max +30dBm)	3 (max +24dBm)
Sensitivity	-102dBm	-100dBm	-100dBm	-106.7dBm
TDMA Mux	8	8	8	
Cell Radius	35Km	2Km	2Km	2Km

2-2. GSM Tx Power Class

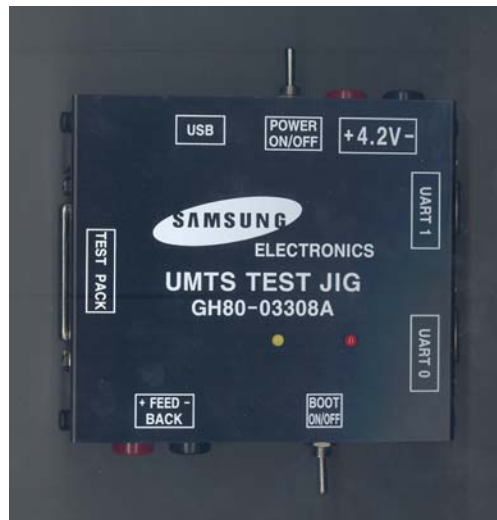
TX Power control level	GSM900	TX Power control level	DCS1800	TX Power control level	PCS1800
5	33±2 dBm	0	30±3 dBm	0	30±3 dBm
6	31±2 dBm	1	28±3 dBm	1	28±3 dBm
7	29±2 dBm	2	26±3 dBm	2	26±3 dBm
8	27±2 dBm	3	24±3 dBm	3	24±3 dBm
9	25±2 dBm	4	22±3 dBm	4	22±3 dBm
10	23±2 dBm	5	20±3 dBm	5	20±3 dBm
11	21±2 dBm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

- 2 Mega with Auto Focus & VGA Dual Camera
- camcorder
- Image editor
- MP3 player
- Phonebook
- Name card
- Multimedia Message Service (MMS)
- E-mail
- Voice recorder
- Bluetooth
- Get personal with photo caller ID
- Web browser
- Java
- Calendar
- External Memory (microSD)

4. Array course control



Test Jig (GH80-03308A)



**Test Cable (GH39-00558A)
(GH39-00559A)
(GH39-00560A)**



RF Test Cable (GH39-00397A)

Software Downloading

4-1. Downloading Binary Files

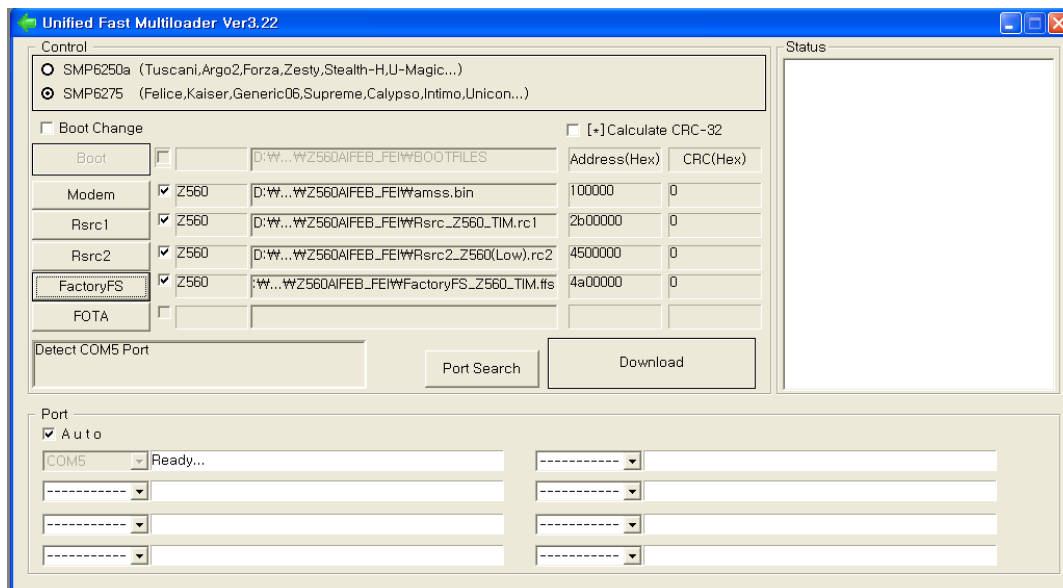
- four binary files for downloading Z560.
 - amss/bin : Modem binary for communication function
 & Mocha binary for user interface and various application
 - Rsrc_Z560_TIM.rc1 : Files need for each application
 - Rsrc2_Z560(Low).rc2 : Power on/off animation
 - FactoryFs_Z560_TIM.ffs : Default file system to be put into in
initial production

4-2. Pre-requisite for Downloading

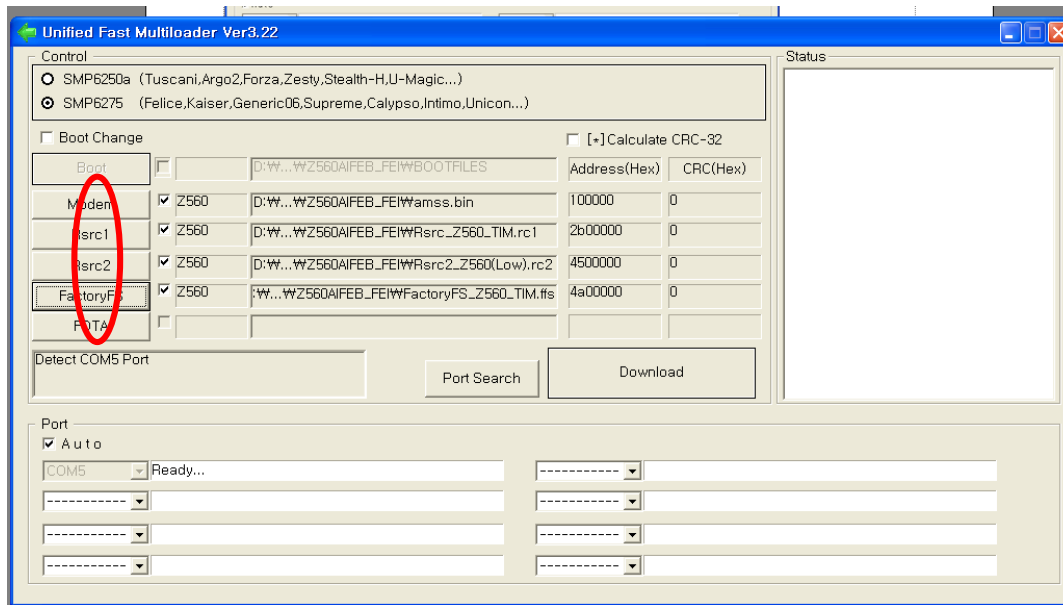
- Downloader Program([FastMultiloader3.22.exe](#))
- Z560 Mobile Phone
- Data Cable
- Binary files

4-3. S/W Downloader Program

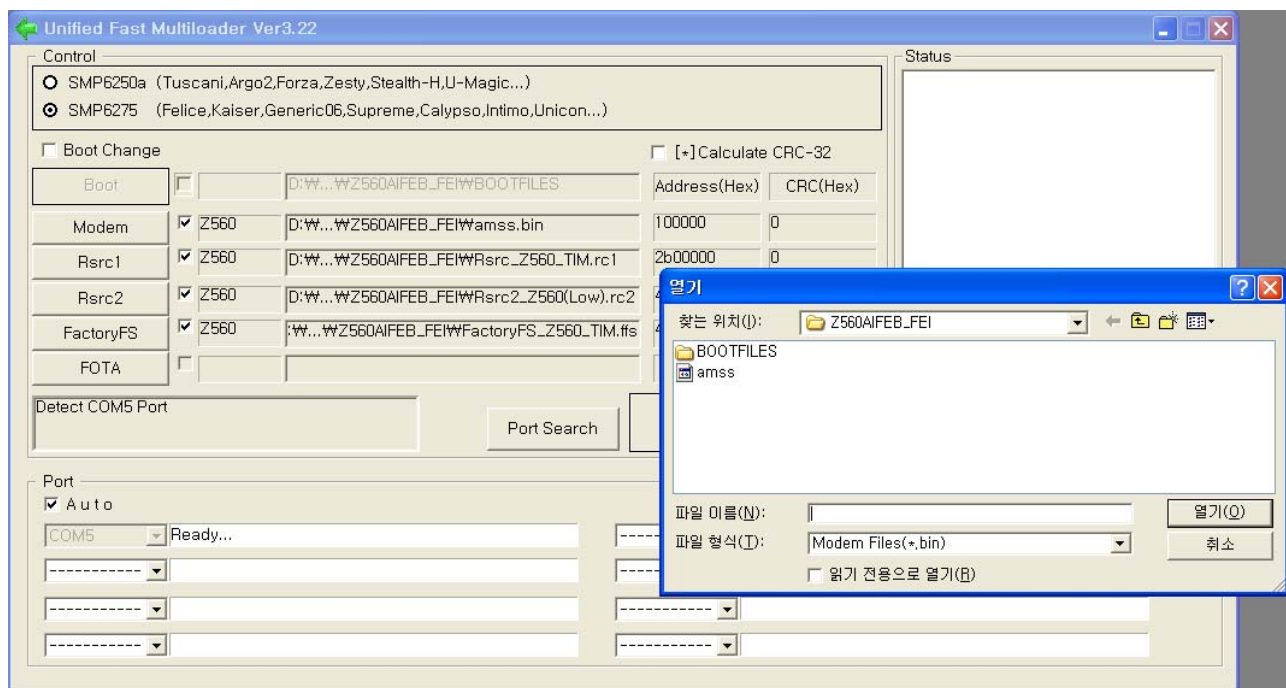
1. Boot the Z560 by pressing 'Power ON key' after set "boot On key"
If you do properly, you can see the following message on sub LCD "DOWNLOAD INTIMO"
2. Execute the "**FastMultiloader3.25.exe**" and **select "SMP6275"**



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



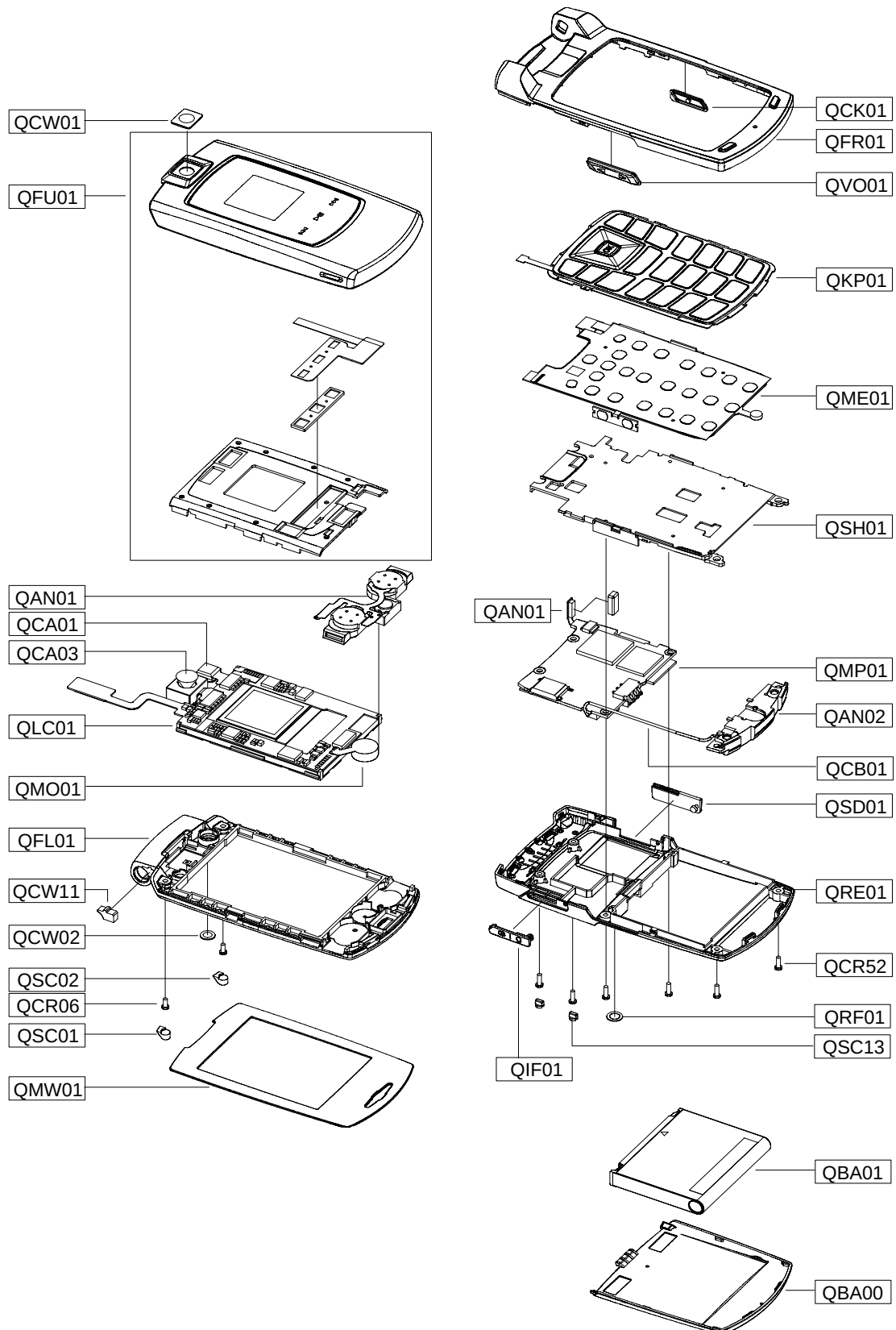
4. Select the binary file what you want to download



5. Now press the button 'DownLoad'.
6. When downloading is complete, you repower on after set "Boot s/w OFF".
 - Z560 will format file system automatically and restart.

5. Exploded View and Parts List

5-1. Cellular Phone Exploded View



5-2. Cellular Phone Parts list

Design LOC		Description	SEC CODE
QAN01		FPCB ANTENNA CHIP	GH42-00794A
QAN02		INTENNA-SGHZ560	GH42-00830A
QBA00		PMO-COVER BATT	GH72-30605A
QBA01		INNER BATTERY PACK-900MAH	GH43-02398A
QCA01		UNIT-CAMERA(SELF)	GH59-03025A
QCA03		UNIT-CAMERA(REC)	GH59-03050A
QCB01		CBF COAXIAL CABLE	GH39-00469A
QCK01		PMO-KEY CAM	GH72-30606A
QCR06		SCREW-MACHINE	6001-001155
QCR52		SCREW-MACHINE	6001-001300
QCW01		PCT-WINDOW CAM AF	GH72-30593A
QCW02		PCT-WINDOW CAM VGA	GH72-30597A
QCW11		PMO-DECO CASE LOWER	GH72-30594A
QFL01		ASSY ACCE-LOWER	GH98-01186A
QFR01		ASSY ACCE-FRONT	GH98-01187A
QFU01		MEA-FOLDER UPPER KIT(BLACK TIM	GH97-06075A
QKP01		ASSY KEYPAD-(TIM/ZKA)	GH98-01196A
QLC01		MEA-LCD MODULE KIT	GH97-06072A
QME01		UNIT-MAIN KEY FPCB	GH59-03049A
QME06		UNIT-SPK,RCV FPCB ASSY	GH59-03126A
QMO01		MOTOR DC-SGH-Z560	GH31-00245A
QMP01		PBA MAIN-SGH-Z560(A)	GH92-02726A
QMW01		ASSY COVER-WINDOW MAIN(TIM)	GH98-01198A
QRF01		MPR-COVER RF	GH74-23919A
QSC01		RMO-COVER SCREW LOWER L	GH73-07209A
QSC02		RMO-COVER SCREW LOWER R	GH73-07210A
QSC13		PMO-COVER SCREW REAR	GH72-31652A
QSH01		ASSY BRACKET-SHIELD	GH98-01536A
QVO01		PMO-KEY VOL	GH72-30608A
QRE01		ASSY ACCE-REAR	GH98-01194A
	QIF01	PMO-COVER IF	GH72-30601A
	QSD01	PMO-COVER SD	GH72-30603A

Description	SEC CODE
CARD-WARRANTY	6801-001501
BAG PE	6902-000634
CBF INTERFACE-DATA LINK CABLE	GH39-00444A
ADAPTOR-SGHD800 TA(EU)	GH44-01060A
S/W CD-PC STUDIO	GH46-00252A
UNIT-EARPHONE(BLK)	GH59-02499A
LABEL(P)-WATER SOAK	GH68-02026A
LABEL(P)-WATER SOAK	GH68-02026A
LABEL(P)-MASTER(TIM_BLK)	GH68-09314J
LABEL(R)-MAIN(TIM)	GH68-09857B
MANUAL USERS-TIMITALIAN	GH68-11149A
MANUAL USERS-MPET CARD ITALIAN	GH68-11379A
CUSHION-CASE(EU)	GH69-03847A
BOX-UNIT(TIM)	GH69-03911B
RMO-RUBBER B/T	GH73-07213A
MPR-BOHO VINYL LCD CONN	GH74-15350A
MPR-TAPE WINDOW SUB	GH74-23885A
MPR-CUSHION SPONGE LCD	GH74-23900A
MPR-CUSHION SPONGE CONDUCT LCD	GH74-23905A
MPR-TAPE CONDUCT LCD	GH74-23906A
MPR-TAPE INSULATE LCD 1	GH74-23907A
MPR-TAPE INSULATE LCD 2	GH74-23909A
MPR-TAPE INSULATE LCD 3	GH74-23911A
MPR-TAPE CASE SHIELD	GH74-23912A
MPR-TAPE INSULATE KEYPAD	GH74-23913A
MPR-TAPE INSULATE J-TAG	GH74-23920A
MPR-VINYL BOHO CASE LOWER	GH74-23924A
MPR-VINYL BOHO WINDOW SUB	GH74-23925A
MPR-VINYL BOHO INNER SUB	GH74-24431A
MPR-VINYL BOHO INNER MAIN	GH74-24472A
MPR-TAPE INSULATION REAR	GH74-24750A
MPR-TAPE COVER SHIELD L	GH74-24751A
MPR-TAPE COVER SHIELD R	GH74-24752A
MPR-TAPE LCD TOUCHPAD	GH74-24753A
MPR-TAPE CONDUCT UPPER BRK	GH74-24754A
MPR-SPONGE SIM	GH74-24755A
MPR-SPONGE SPK R	GH74-24756A
MPR-SPONGE SPK L	GH74-24757A
MPR-GASKET PBA	GH74-24759A
MPR-TAPE ABSORBER PCB	GH74-25402A
MEC-HANGER	GH75-03673H

6. MAIN Electrical Parts List

Design LOC	Discription	SEC Code	STATUS
ANT401	CONNECTOR-COAXIAL	3705-001225	SA
BAT200	BATTERY-LI(2ND)	4302-001180	SA
BTC300	CONNECTOR-BATTERY	3711-006003	SA
C100	C-CER,CHIP	2203-006423	SA
C101	C-CER,CHIP	2203-006423	SA
C102	C-CER,CHIP	2203-006423	SA
C103	C-CER,CHIP	2203-006423	SA
C104	C-CER,CHIP	2203-006423	SA
C105	C-CER,CHIP	2203-000489	SA
C106	C-CER,CHIP	2203-000628	SA
C107	C-CER,CHIP	2203-006423	SA
C108	C-CER,CHIP	2203-006423	SA
C109	C-CER,CHIP	2203-006423	SA
C110	C-CER,CHIP	2203-000628	SA
C111	C-CER,CHIP	2203-006562	SA
C112	C-CER,CHIP	2203-006423	SA
C113	C-CER,CHIP	2203-005480	SA
C114	C-CER,CHIP	2203-006194	SA
C115	C-CER,CHIP	2203-006423	SA
C116	C-CER,CHIP	2203-006617	SA
C117	C-CER,CHIP	2203-006423	SA
C118	C-CER,CHIP	2203-006423	SA
C119	C-CER,CHIP	2203-006617	SA
C120	C-CER,CHIP	2203-006423	SA
C121	C-CER,CHIP	2203-005482	SA
C122	C-CER,CHIP	2203-005682	SA
C123	C-CER,CHIP	2203-006194	SA
C124	C-CER,CHIP	2203-000233	SA
C125	C-CER,CHIP	2203-006194	SA
C126	C-CER,CHIP	2203-000233	SA
C127	C-CER,CHIP	2203-006562	SA
C128	C-CER,CHIP	2203-006423	SA
C129	C-CER,CHIP	2203-006423	SA
C130	C-CER,CHIP	2203-006423	SA
C131	C-CER,CHIP	2203-006423	SA
C132	C-CER,CHIP	2203-006194	SA
C133	C-CER,CHIP	2203-006194	SA
C134	C-CER,CHIP	2203-006194	SA
C135	C-CER,CHIP	2203-006194	SA
C136	C-CER,CHIP	2203-005806	SA
C137	C-CER,CHIP	2203-005806	SA
C138	C-CER,CHIP	2203-005806	SA
C139	C-CER,CHIP	2203-005806	SA
C140	C-CER,CHIP	2203-006208	SA
C141	C-CER,CHIP	2203-006399	SA
C142	C-CER,CHIP	2203-005806	SA
C143	C-CER,CHIP	2203-005806	SA
C144	C-CER,CHIP	2203-005806	SA
C145	C-CER,CHIP	2203-006194	SA
C146	C-CER,CHIP	2203-006194	SA
C147	C-CER,CHIP	2203-006194	SA
C148	C-CER,CHIP	2203-006423	SA
C149	C-CER,CHIP	2203-006423	SA

Design LOC	Discription	SEC Code	STATUS
C150	C-CER,CHIP	2203-006423	SA
C151	C-CER,CHIP	2203-006423	SA
C152	C-CER,CHIP	2203-006194	SA
C153	C-CER,CHIP	2203-006423	SA
C154	C-CER,CHIP	2203-006194	SA
C155	C-CER,CHIP	2203-006423	SA
C156	C-CER,CHIP	2203-006194	SA
C157	C-CER,CHIP	2203-006423	SA
C158	C-CER,CHIP	2203-006194	SA
C159	C-CER,CHIP	2203-006423	SA
C160	C-CER,CHIP	2203-006194	SA
C161	C-CER,CHIP	2203-006194	SA
C162	C-CER,CHIP	2203-005806	SA
C163	C-CER,CHIP	2203-006194	SA
C164	C-CER,CHIP	2203-005806	SA
C165	C-CER,CHIP	2203-006562	SA
C166	C-CER,CHIP	2203-006423	SA
C167	C-CER,CHIP	2203-006423	SA
C168	C-CER,CHIP	2203-006423	SA
C169	C-CER,CHIP	2203-006423	SA
C170	C-CER,CHIP	2203-006423	SA
C171	C-CER,CHIP	2203-006208	SA
C172	C-CER,CHIP	2203-005482	SA
C173	C-CER,CHIP	2203-000233	SA
C200	C-CER,CHIP	2203-006838	SA
C201	C-CER,CHIP	2203-006562	SA
C202	C-CER,CHIP	2203-005138	SA
C203	C-CER,CHIP	2203-006562	SA
C204	C-CER,CHIP	2203-005138	SA
C205	C-CER,CHIP	2203-006208	SA
C206	C-CER,CHIP	2203-005736	SA
C207	C-CER,CHIP	2203-006423	SA
C208	C-CER,CHIP	2203-006423	SA
C209	C-CER,CHIP	2203-005729	SA
C210	C-CER,CHIP	2203-005729	SA
C211	C-CER,CHIP	2203-006562	SA
C212	C-CER,CHIP	2203-006305	SA
C213	C-CER,CHIP	2203-006305	SA
C214	C-CER,CHIP	2203-006208	SA
C215	C-CER,CHIP	2203-006305	SA
C216	C-CER,CHIP	2203-006838	SA
C217	C-CER,CHIP	2203-006305	SA
C218	C-CER,CHIP	2203-006838	SA
C219	C-CER,CHIP	2203-006838	SA
C220	C-CER,CHIP	2203-006208	SA
C221	C-CER,CHIP	2203-006838	SA
C222	C-CER,CHIP	2203-005482	SA
C223	C-CER,CHIP	2203-006208	SA
C224	C-CER,CHIP	2203-006838	SA
C225	C-CER,CHIP	2203-006838	SA
C226	C-CER,CHIP	2203-006562	SA
C227	C-CER,CHIP	2203-006208	SA
C228	C-CER,CHIP	2203-005806	SA

Design LOC	Discription	SEC Code	STATUS
C229	C-CER,CHIP	2203-006208	SA
C230	C-CER,CHIP	2203-005806	SA
C231	C-CER,CHIP	2203-006423	SA
C232	C-CER,CHIP	2203-005682	SA
C233	C-CER,CHIP	2203-006423	SA
C234	C-CER,CHIP	2203-005682	SA
C235	C-CER,CHIP	2203-005682	SA
C236	C-CER,CHIP	2203-006562	SA
C237	C-CER,CHIP	2203-006824	SA
C238	C-CER,CHIP	2203-006824	SA
C239	C-CER,CHIP	2203-006824	SA
C240	C-CER,CHIP	2203-006423	SA
C241	C-CER,CHIP	2203-006423	SA
C242	C-CER,CHIP	2203-006423	SA
C243	C-CER,CHIP	2203-006423	SA
C244	C-CER,CHIP	2203-006423	SA
C245	C-CER,CHIP	2203-006824	SA
C246	C-CER,CHIP	2203-006562	SA
C248	C-CER,CHIP	2203-000870	SA
C249	C-CER,CHIP	2203-006824	SA
C250	C-CER,CHIP	2203-006562	SA
C251	C-CER,CHIP	2203-006562	SA
C252	C-CER,CHIP	2203-006824	SA
C253	C-CER,CHIP	2203-005736	SA
C254	C-CER,CHIP	2203-006562	SA
C255	C-CER,CHIP	2203-006562	SA
C256	C-CER,CHIP	2203-006562	SA
C300	C-CER,CHIP	2203-006305	SA
C301	C-CER,CHIP	2203-005682	SA
C302	C-CER,CHIP	2203-005819	SA
C303	C-CER,CHIP	2203-006423	SA
C304	C-CER,CHIP	2203-006423	SA
C308	C-CER,CHIP	2203-005779	SA
C309	C-CER,CHIP	2203-005682	SA
C310	C-CER,CHIP	2203-005682	SA
C311	C-CER,CHIP	2203-005682	SA
C312	C-CER,CHIP	2203-005682	SA
C313	C-CER,CHIP	2203-005682	SA
C314	C-CER,CHIP	2203-005682	SA
C315	C-CER,CHIP	2203-005682	SA
C316	C-CER,CHIP	2203-005682	SA
C317	C-CER,CHIP	2203-005682	SA
C318	C-CER,CHIP	2203-005682	SA
C319	C-CER,CHIP	2203-005682	SA
C320	C-CER,CHIP	2203-005779	SA
C321	C-CER,CHIP	2203-005779	SA
C322	C-CER,CHIP	2203-005779	SA
C323	C-CER,CHIP	2203-005682	SA
C324	C-CER,CHIP	2203-005682	SA
C325	C-CER,CHIP	2203-005482	SA
C326	C-CER,CHIP	2203-005482	SA
C328	C-CER,CHIP	2203-000812	SA
C329	C-CER,CHIP	2203-000812	SA

Design LOC	Discription	SEC Code	STATUS
C332	C-CER,CHIP	2203-005683	SA
C333	C-CER,CHIP	2203-005682	SA
C334	C-CER,CHIP	2203-006562	SA
C335	C-CER,CHIP	2203-006562	SA
C336	C-CER,CHIP	2203-006562	SA
C337	C-CER,CHIP	2203-006562	SA
C339	C-CER,CHIP	2203-003054	SA
C340	C-CER,CHIP	2203-005395	SA
C341	C-CER,CHIP	2203-006648	SA
C343	C-CER,CHIP	2203-005482	SA
C346	C-CER,CHIP	2203-003054	SA
C347	C-CER,CHIP	2203-000812	SA
C348	C-CER,CHIP	2203-005779	SA
C349	C-CER,CHIP	2203-000679	SA
C350	C-CER,CHIP	2203-000627	SNA
C351	C-CER,CHIP	2203-005779	SA
C352	C-CER,CHIP	2203-006648	SA
C353	C-CER,CHIP	2203-005482	SA
C354	C-CER,CHIP	2203-006324	SA
C355	C-CER,CHIP	2203-006562	SA
C356	C-CER,CHIP	2203-006562	SA
C359	C-CER,CHIP	2203-003054	SA
C360	C-CER,CHIP	2203-005395	SA
C361	C-CER,CHIP	2203-006562	SA
C365	C-CER,CHIP	2203-006423	SA
C400	C-CER,CHIP	2203-005682	SA
C401	C-CER,CHIP	2203-006423	SA
C402	C-CER,CHIP	2203-005390	SA
C403	C-CER,CHIP	2203-000812	SA
C404	C-CER,CHIP	2203-006194	SA
C405	C-CER,CHIP	2203-005682	SA
C406	C-CER,CHIP	2203-005806	SA
C409	C-FILM,SMD-PPS	2301-001213	SA
C410	C-CER,CHIP	2203-001124	SA
C411	C-CER,CHIP	2203-006194	SA
C412	C-CER,CHIP	2203-006423	SA
C413	C-CER,CHIP	2203-005682	SA
C414	C-CER,CHIP	2203-005482	SA
C415	C-CER,CHIP	2203-000812	SA
C416	C-CER,CHIP	2203-005682	SA
C417	C-CER,CHIP	2203-006423	SA
C418	C-CER,CHIP	2203-006379	SA
C419	C-CER,CHIP	2203-006556	SA
C420	C-CER,CHIP	2203-000995	SA
C421	C-CER,CHIP	2203-006423	SA
C422	C-CER,CHIP	2203-005806	SA
C423	C-CER,CHIP	2203-005682	SA
C424	C-CER,CHIP	2203-006194	SA
C425	C-CER,CHIP	2203-005736	SA
C426	C-CER,CHIP	2203-006556	SA
C427	C-CER,CHIP	2203-000995	SA
C428	C-CER,CHIP	2203-006194	SA
C429	C-CER,CHIP	2203-006556	SA

Design LOC	Discription	SEC Code	STATUS
C430	C-CER,CHIP	2203-006423	SA
C431	C-FILM,SMD-PPS	2301-001512	SA
C432	C-CER,CHIP	2203-000836	SA
C433	C-CER,CHIP	2203-002668	SA
C434	C-CER,CHIP	2203-006423	SA
C436	C-CER,CHIP	2203-005682	SA
C437	C-CER,CHIP	2203-006423	SA
C438	INDUCTOR-SMD	2703-002208	SA
C439	INDUCTOR-SMD	2703-002369	SA
C440	C-CER,CHIP	2203-000995	SA
C441	C-CER,CHIP	2203-006838	SA
C442	C-CER,CHIP	2203-005806	SA
C443	C-CER,CHIP	2203-005682	SA
C444	C-CER,CHIP	2203-006208	SA
C445	C-CER,CHIP	2203-006423	SA
C446	C-CER,CHIP	2203-006194	SA
C447	C-CER,CHIP	2203-006194	SA
C448	C-CER,CHIP	2203-002443	SA
C449	C-CER,CHIP	2203-000233	SA
C451	C-CER,CHIP	2203-001033	SA
C452	C-CER,CHIP	2203-006556	SA
C453	C-CER,CHIP	2203-006423	SA
C454	C-CER,CHIP	2203-001153	SA
C455	C-CER,CHIP	2203-005682	SA
C456	C-CER,CHIP	2203-005729	SA
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C500	C-CER,CHIP	2203-006423	SA
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C502	C-CER,CHIP	2203-005736	SA
C503	C-CER,CHIP	2203-006423	SA
C504	C-CER,CHIP	2203-005552	SA
C505	C-CER,CHIP	2203-005806	SA
C506	C-CER,CHIP	2203-006423	SA
C507	C-CER,CHIP	2203-000854	SA
C509	C-CER,CHIP	2203-005552	SA
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C511	C-CER,CHIP	2203-006423	SA
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C514	C-CER,CHIP	2203-006423	SA
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C516	C-CER,CHIP	2203-001124	SA
C517	C-CER,CHIP	2203-000438	SA
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C519	C-CER,CHIP	2203-000233	SA
C520	C-CER,CHIP	2203-000330	SA
C521	INDUCTOR-SMD	2703-002176	SA
C522	C-CER,CHIP	2203-005288	SA
C524	R-CHIP	2007-000171	SA
C525	C-CER,CHIP	2203-005234	SA
C529	C-CER,CHIP	2203-006194	SA
C530	C-CER,CHIP	2203-000438	SA
C531	C-CER,CHIP	2203-000438	SA

Design LOC	Discription	SEC Code	STATUS
C532	C-CER,CHIP	2203-006194	SA
C533	C-CER,CHIP	2203-005736	SA
C534	C-CER,CHIP	2203-006194	SA
C535	C-CER,CHIP	2203-006423	SA
CN1	CONNECTOR-CARD EDGE	3709-001452	SA
D200	DIODE-ARRAY	0407-001002	SA
D300	DIODE-TVS	0406-001190	SA
D301	DIODE-TVS	0406-001190	SA
D305	DIODE-TVS	0406-001208	SA
F300	FILTER-EMI/ESD	2901-001320	SA
F301	FILTER-EMI/ESD	2901-001320	SA
F302	FILTER-EMI/ESD	2901-001320	SA
F303	FILTER-EMI/ESD	2901-001320	SA
F304	FILTER-EMI/ESD	2901-001353	SA
F305	FILTER-EMI/ESD	2901-001353	SA
F400	DUPLEXER-FEM	2911-000042	SA
F500	FILTER-SAW	2904-001623	SA
F501	FILTER-SAW	2904-001629	SA
F502	DUPLEXER-FBAR	2910-000004	SA
HDC300	HEADER-BOARD TO BOARD	3711-005367	SA
HDC301	HEADER-BOARD TO BOARD	3711-005456	SA
IFC300	SOCKET-INTERFACE	3710-002306	SA
L200	INDUCTOR-SMD	2703-002840	SA
L201	INDUCTOR-SMD	2703-002840	SA
L400	INDUCTOR-SMD	2703-002314	SA
L401	INDUCTOR-SMD	2703-002201	SA
L402	INDUCTOR-SMD	2703-002170	SA
L403	INDUCTOR-SMD	2703-002203	SA
L405	INDUCTOR-SMD	2703-002200	SA
L406	INDUCTOR-SMD	2703-002819	SA
L407	BEAD-SMD	3301-001756	SA
L408	INDUCTOR-SMD	2703-002819	SA
L409	INDUCTOR-SMD	2703-002819	SA
L410	INDUCTOR-SMD	2703-002819	SA
L411	INDUCTOR-SMD	2703-002314	SA
L412	INDUCTOR-SMD	2703-002314	SA
L415	INDUCTOR-SMD	2703-002368	SA
L416	INDUCTOR-SMD	2703-002368	SA
L500	INDUCTOR-SMD	2703-002314	SA
L501	INDUCTOR-SMD	2703-002207	SA
L502	INDUCTOR-SMD	2703-002207	SA
L503	INDUCTOR-SMD	2703-002207	SA
L504	INDUCTOR-SMD	2703-002207	SA
L505	INDUCTOR-SMD	2703-002314	SA
L506	INDUCTOR-SMD	2703-002870	SA
L507	INDUCTOR-SMD	2703-002314	SA
L508	INDUCTOR-SMD	2703-002202	SA
L509	INDUCTOR-SMD	2703-002268	SA
L510	C-CER,CHIP	2203-000995	SA
L511	INDUCTOR-SMD	2703-002176	SA
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OSC100	RESONATOR-CERAMIC	2802-001182	SA

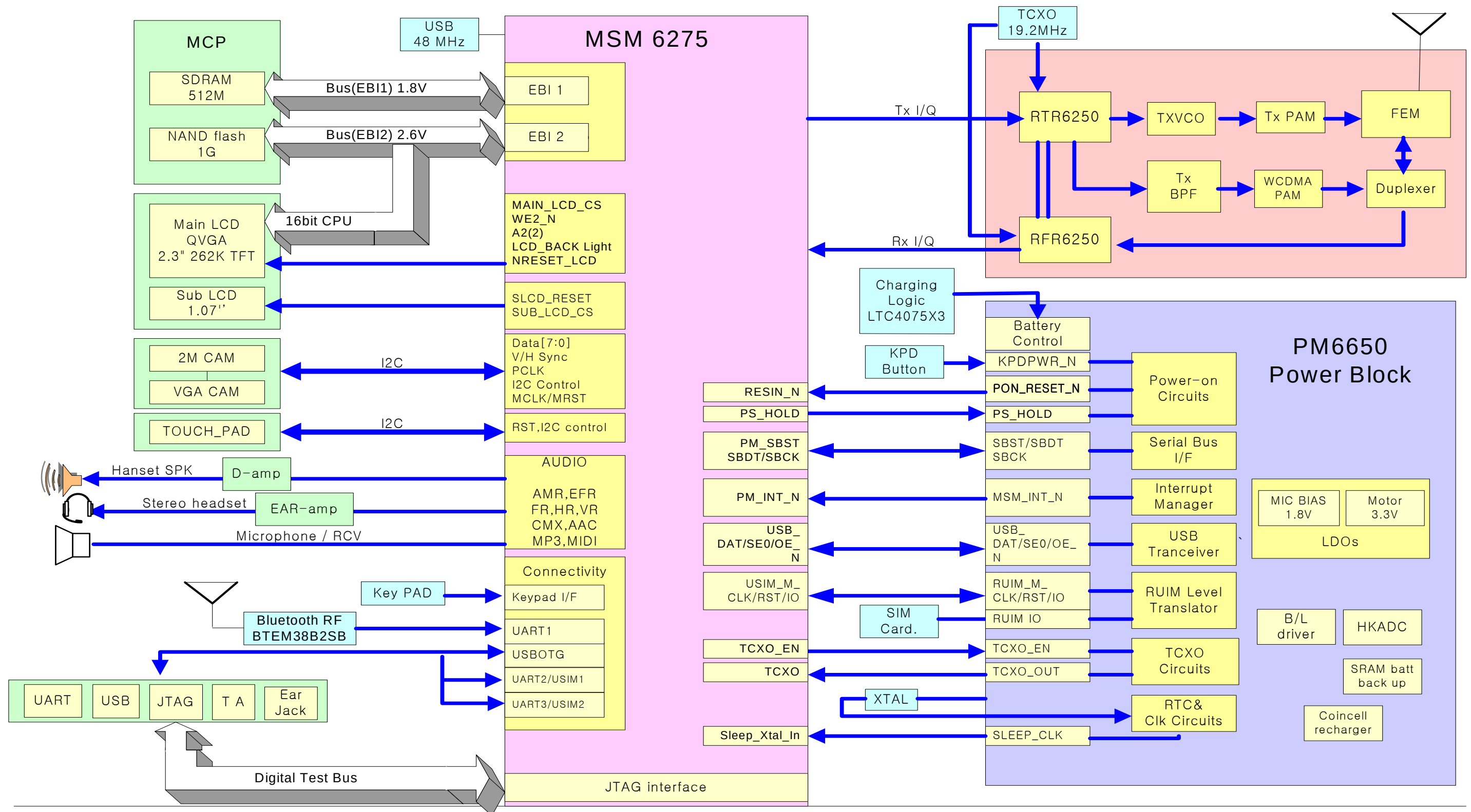
Design LOC	Discription	SEC Code	STATUS
OSC200	CRYSTAL-SMD	2801-004466	SA
PAM401	IC-POWER AMP	1201-002288	SA
PAM501	IC-POWER AMP	1201-002404	SA
Q500	TR-DIGITAL	0504-001151	SA
R100	R-CHIP	2007-008516	SA
R103	R-CHIP	2007-008516	SA
R104	R-CHIP	2007-008516	SA
R105	R-CHIP	2007-000137	SA
R106	R-CHIP	2007-000140	SA
R110	R-CHIP	2007-008542	SA
R111	R-CHIP	2007-008542	SA
R113	R-CHIP	2007-008055	SA
R114	R-CHIP	2007-008516	SA
R115	R-CHIP	2007-009170	SA
R116	R-CHIP	2007-008964	SA
R117	R-CHIP	2007-009170	SA
R118	R-CHIP	2007-008516	SA
R119	R-CHIP	2007-008964	SA
R120	R-CHIP	2007-007318	SA
R121	R-CHIP	2007-008542	SA
R123	R-CHIP	2007-007135	SA
R125	R-CHIP	2007-007314	SA
R126	R-CHIP	2007-007741	SA
R127	R-CHIP	2007-008483	SA
R128	R-CHIP	2007-008483	SA
R129	R-CHIP	2007-008483	SA
R130	R-CHIP	2007-008483	SA
R131	R-CHIP	2007-008483	SA
R141	R-CHIP	2007-008516	SA
R142	R-CHIP	2007-009170	SA
R143	R-CHIP	2007-008052	SA
R146	R-CHIP	2007-008516	SA
R200	R-CHIP	2007-008516	SA
R201	R-CHIP	2007-003015	SA
R202	R-CHIP	2007-003015	SA
R204	R-CHIP	2007-008483	SA
R205	R-CHIP	2007-008806	SA
R208	R-CHIP	2007-008055	SA
R209	R-CHIP	2007-008516	SA
R210	R-CHIP	2007-008516	SA
R211	R-CHIP	2007-008516	SA
R212	R-CHIP	2007-008516	SA
R213	R-CHIP	2007-008516	SA
R214	R-CHIP	2007-008964	SA
R215	R-CHIP	2007-007468	SA
R216	R-CHIP	2007-008648	SA
R217	R-CHIP	2007-008542	SA
R218	R-CHIP	2007-008055	SA
R219	R-CHIP	2007-008542	SA
R221	R-CHIP	2007-008055	SA
R222	R-CHIP	2007-008055	SA
R223	R-CHIP	2007-008587	SA
R224	R-CHIP	2007-008055	SA

Design LOC	Discription	SEC Code	STATUS
R226	R-CHIP	2007-008542	SA
R227	R-CHIP	2007-007316	SA
R228	R-CHIP	2007-007318	SA
R229	R-CHIP	2007-007588	SA
R230	R-CHIP	2007-008052	SA
R300	R-CHIP	2007-008542	SA
R302	R-CHIP	2007-009111	SA
R303	R-CHIP	2007-009111	SA
R304	R-CHIP	2007-008548	SA
R305	R-CHIP	2007-008419	SA
R306	R-CHIP	2007-008419	SA
R307	R-CHIP	2007-008419	SA
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R314	R-CHIP	2007-008548	SA
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R320	R-CHIP	2007-009111	SA
R322	R-CHIP	2007-008542	SA
R400	R-CHIP	2007-007491	SA
R401	R-CHIP	2007-000171	SA
R402	R-CHIP	2007-000138	SA
R403	R-CHIP	2007-007136	SA
R404	R-CHIP	2007-000143	SA
R405	R-CHIP	2007-000171	SA
R406	R-CHIP	2007-000171	SA
R407	R-CHIP	2007-000141	SA
R408	R-CHIP	2007-008045	SA
R409	R-CHIP	2007-000140	SA
R410	R-CHIP	2007-008542	SA
R411	R-CHIP	2007-000171	SA
R412	R-CHIP	2007-000171	SA
R413	R-CHIP	2007-008542	SA
R414	R-CHIP	2007-008542	SA
R415	R-CHIP	2007-000171	SA
R416	R-CHIP	2007-007316	SA
R417	R-CHIP	2007-000145	SA
R418	R-CHIP	2007-000172	SA
R419	R-CHIP	2007-007306	SA
R420	R-CHIP	2007-000171	SA
R421	R-CHIP	2007-001292	SA
R422	R-CHIP	2007-001305	SA
R423	R-CHIP	2007-001301	SA
R424	R-CHIP	2007-008045	SA
R500	R-CHIP	2007-008045	SA
R501	R-CHIP	2007-007491	SA
R502	R-CHIP	2007-000171	SA

Design LOC	Discription	SEC Code	STATUS
R503	R-CHIP	2007-000171	SA
R504	R-CHIP	2007-007766	SA
R505	R-CHIP	2007-008809	SNA
R506	R-CHIP	2007-000138	SA
RFS400	CONNECTOR-COAXIAL	3705-001358	SA
TA247	C-TA,CHIP	2404-001381	SA
TA300	C-TA,CHIP	2404-001396	SA
TA301	C-TA,CHIP	2404-001381	SA
TA302	C-TA,CHIP	2404-001381	SA
TA303	C-TA,CHIP	2404-001411	SA
TA304	C-TA,CHIP	2404-001381	SA
TA330	C-TA,CHIP	2404-001396	SA
TA331	C-TA,CHIP	2404-001396	SA
TA450	C-TA,CHIP	2404-001413	SA
TA528	C-TA,CHIP	2404-001381	SA
TCX400	OSCILLATOR-VCO	2806-001377	SA
TCX500	OSCILLATOR-VCTCXO	2809-001280	SA
TR200	TR-DIGITAL	0504-000168	SA
TR201	FET-SILICON	0505-001889	SA
U101	IC-SWITCH	1205-002568	SA
U102	IC-CMOS LOGIC	0801-003076	SA
U103	IC-ANALOG SWITCH	1001-001408	SA
U104	IC-ANALOG SWITCH	1001-001408	SA
U200	IC-VOL. DETECTOR	1203-004045	SNA
U201	IC-POWER SUPERVISOR	1203-004102	SA
U202	IC-VOL. DETECTOR	1203-003728	SA
U203	IC-POSI.FIXED REG.	1203-003754	SA
U204	IC-BATTERY	1203-003823	SA
U205	IC-ANALOG SWITCH	1001-001336	SA
U206	DIODE-ARRAY	0407-001038	SA
U207	BLUETOOTH MODULE	4709-001445	SA
U300	IC-SWITCH	1205-002686	SA
U301	IC-POSI.FIXED REG.	1203-003208	SA
U302	IC-AUDIO AMP	1201-002195	SA
U400	IC-TRANSCIEVER	1205-002645	SA
U402	R-NETWORK	2011-001532	SA
U403	R-NETWORK	2011-001532	SA
U404	R-NETWORK	2011-001533	SA
U500	IC-RECEIVER	1205-002781	SA
UCP100	IC-MODEM	1205-002790	SA
UME100	IC-MCP	1108-000041	SA
V100	THERMISTOR-NTC	1404-001224	SA
V300	VARISTOR	1405-001177	SA
V301	VARISTOR	1405-001177	SA
V302	VARISTOR	1405-001177	SA
V303	VARISTOR	1405-001177	SA
V304	VARISTOR	1405-001177	SA
V305	VARISTOR	1405-001177	SA
V306	VARISTOR	1405-001177	SA
ZD300	DIODE-TVS	0406-001201	SA
ZD302	DIODE-ZENER	0403-001427	SA
ZD303	DIODE-ZENER	0403-001547	SA
ZD306	DIODE-ZENER	0403-001547	SA

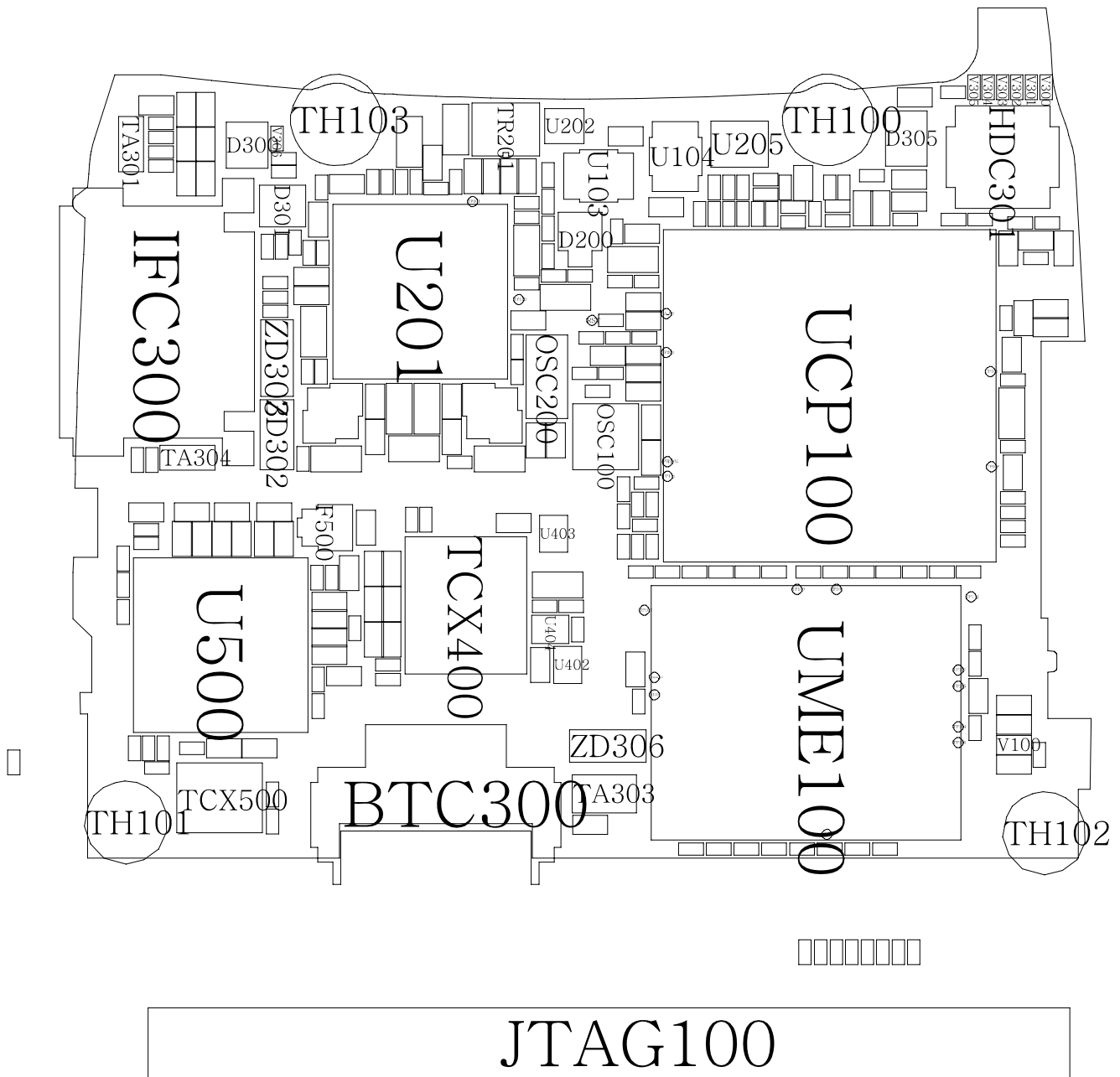
7. Block Diagrams

SGH-Z560 BLOCK DIAGRAM

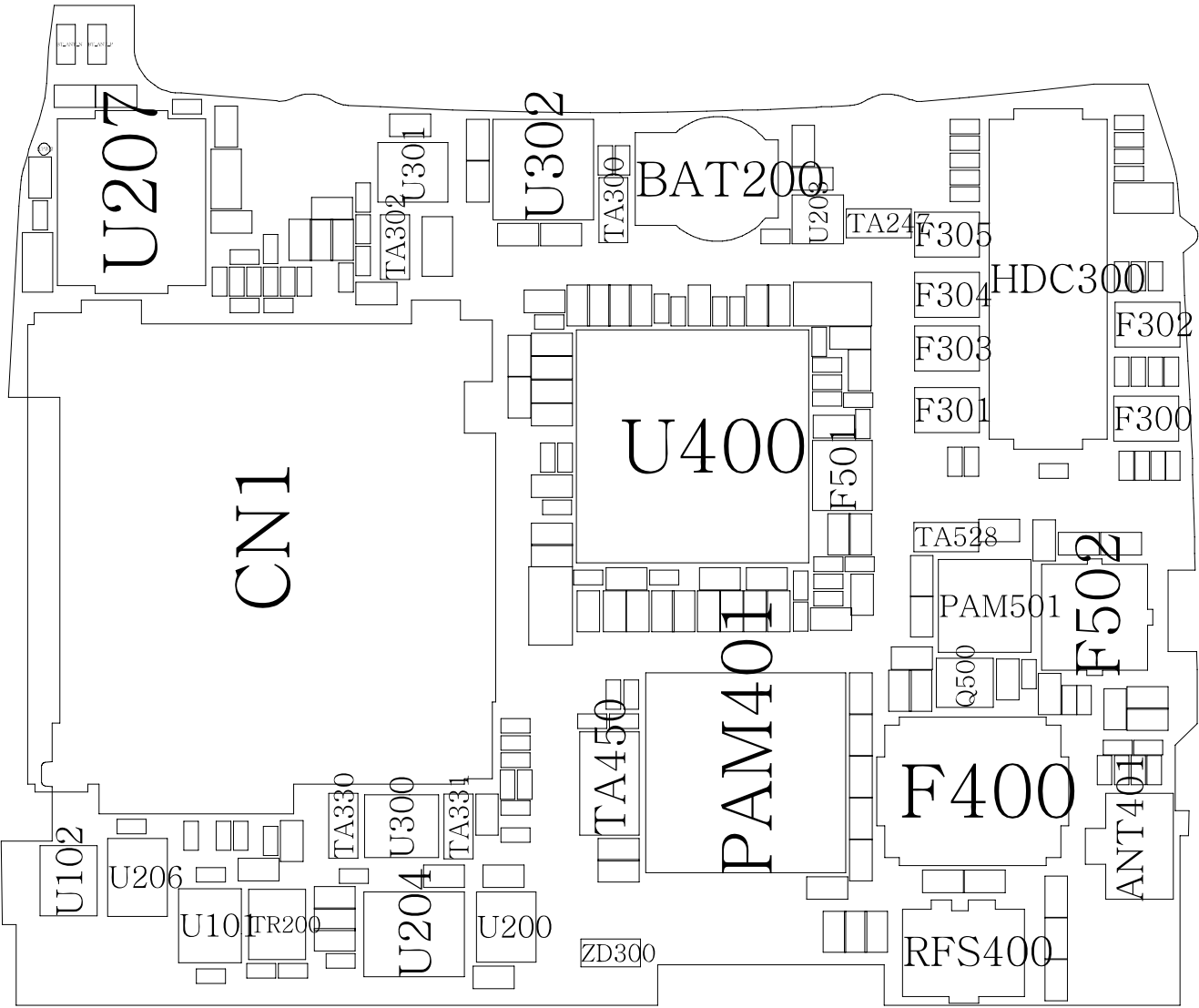


8. PCB Diagrams

Top

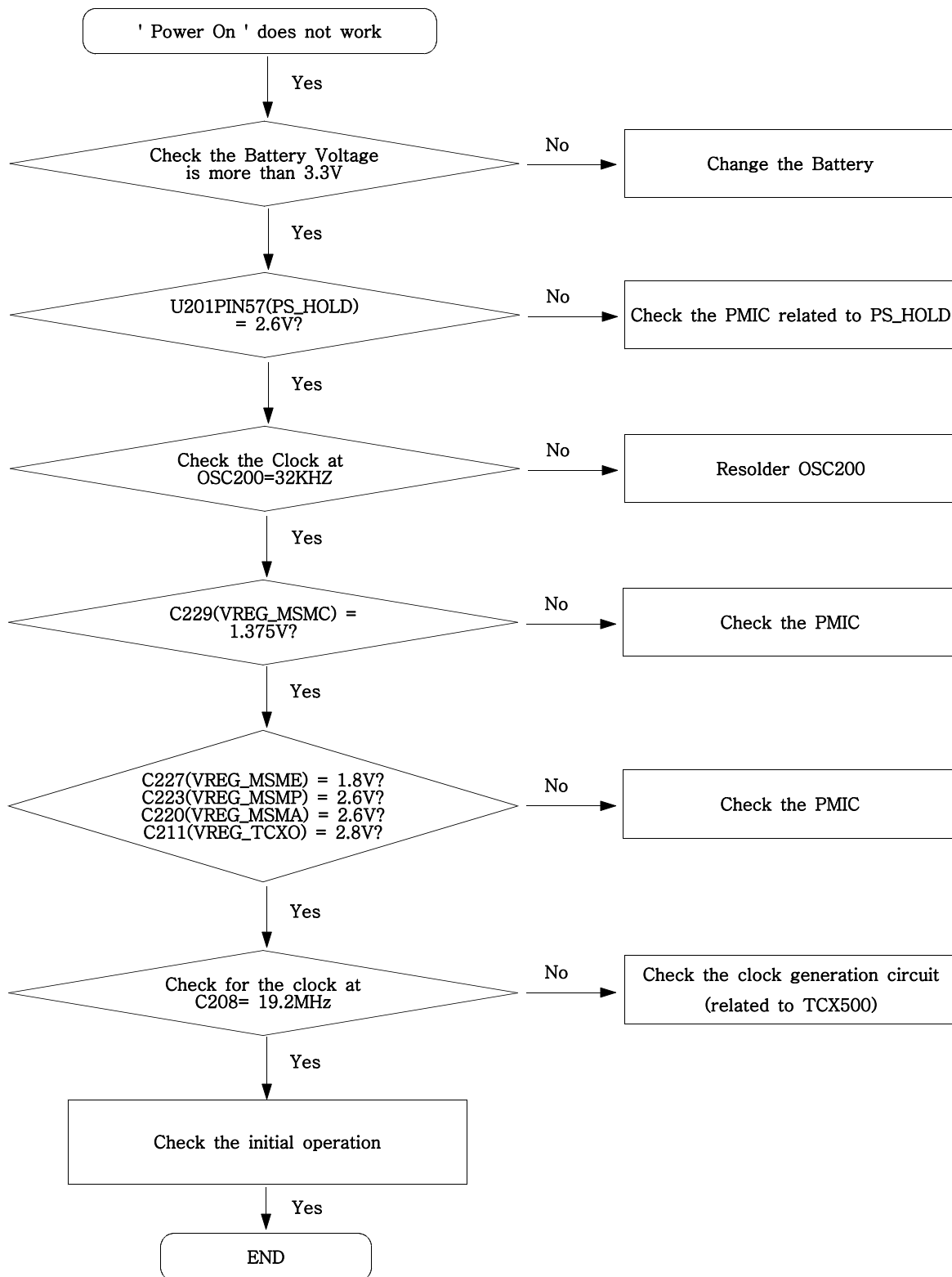


Bottom

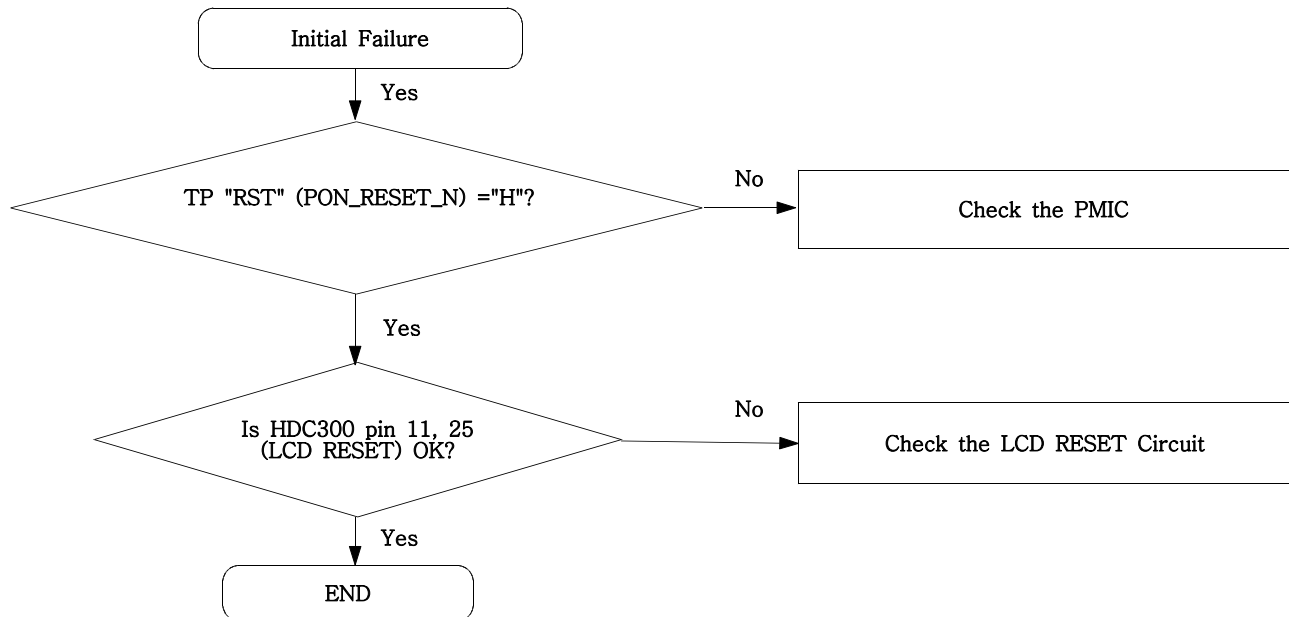


9. Flow Chart of Troubleshooting

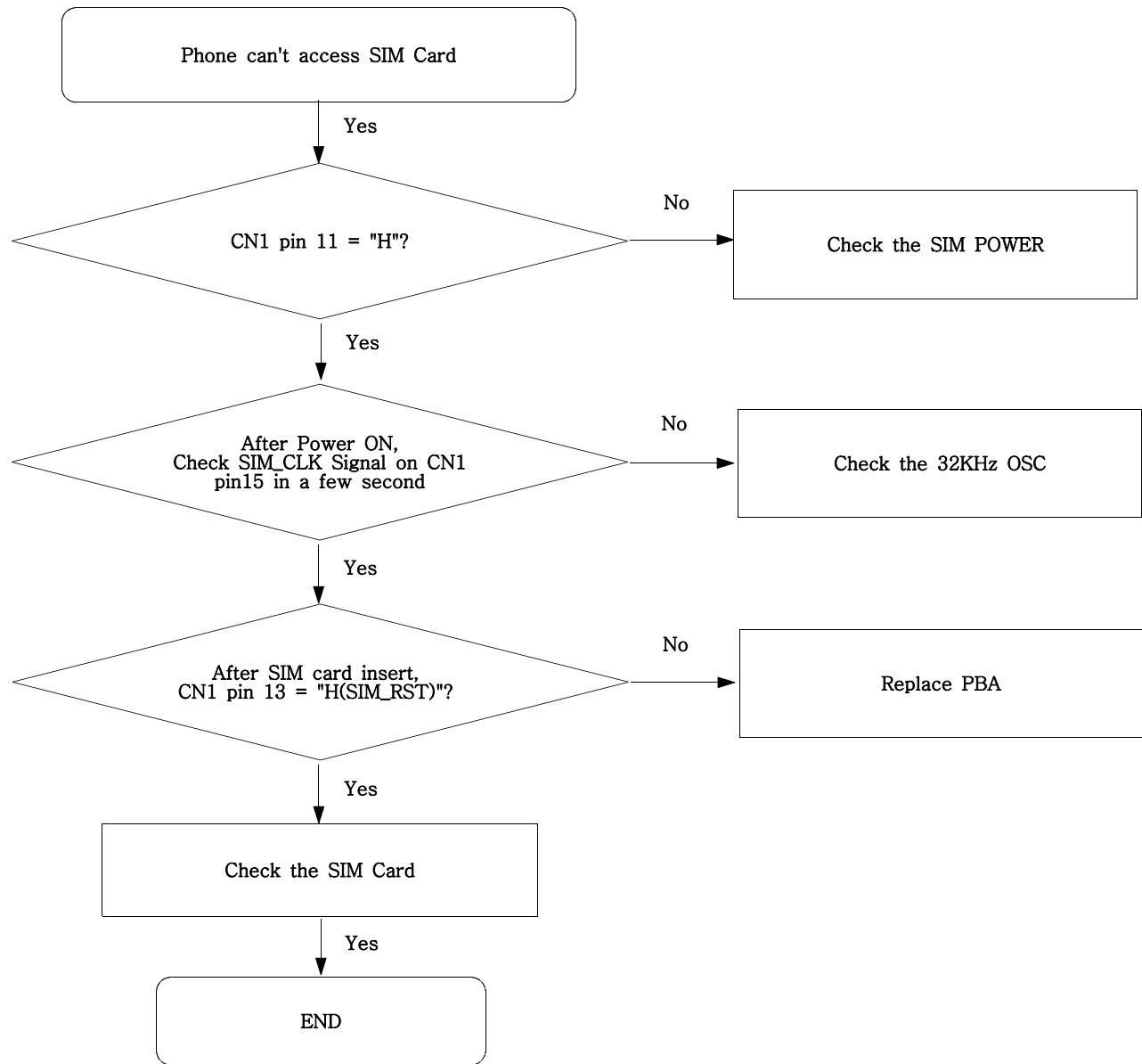
9-1. Power On



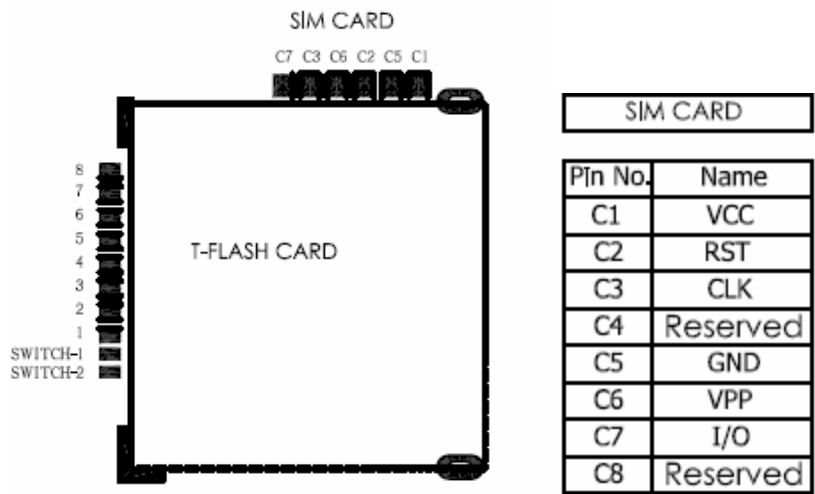
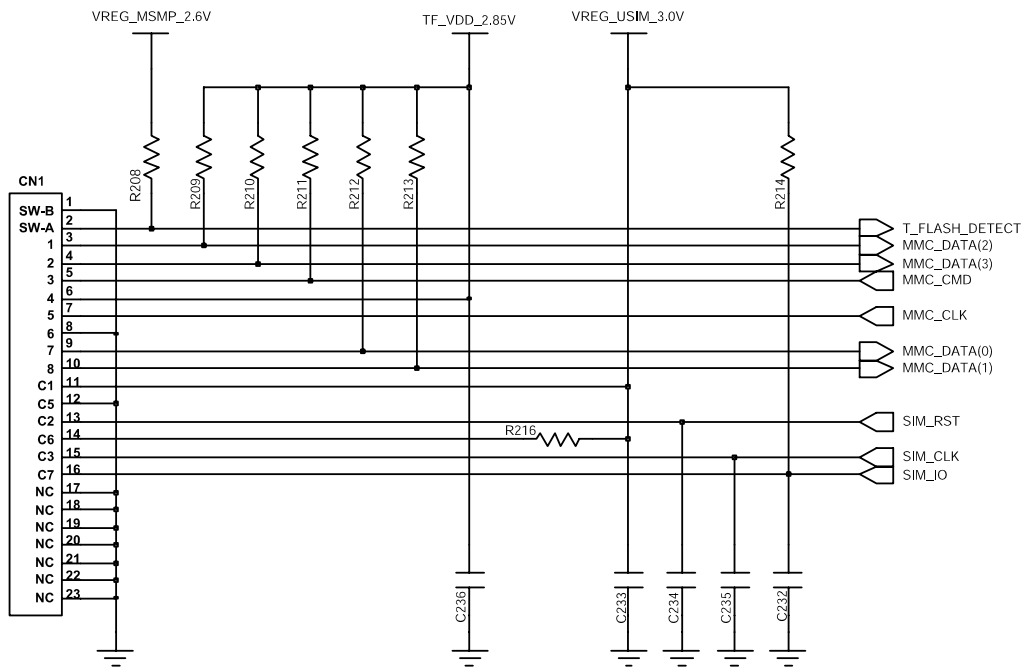
9-2. Initial



9-3. Sim Part



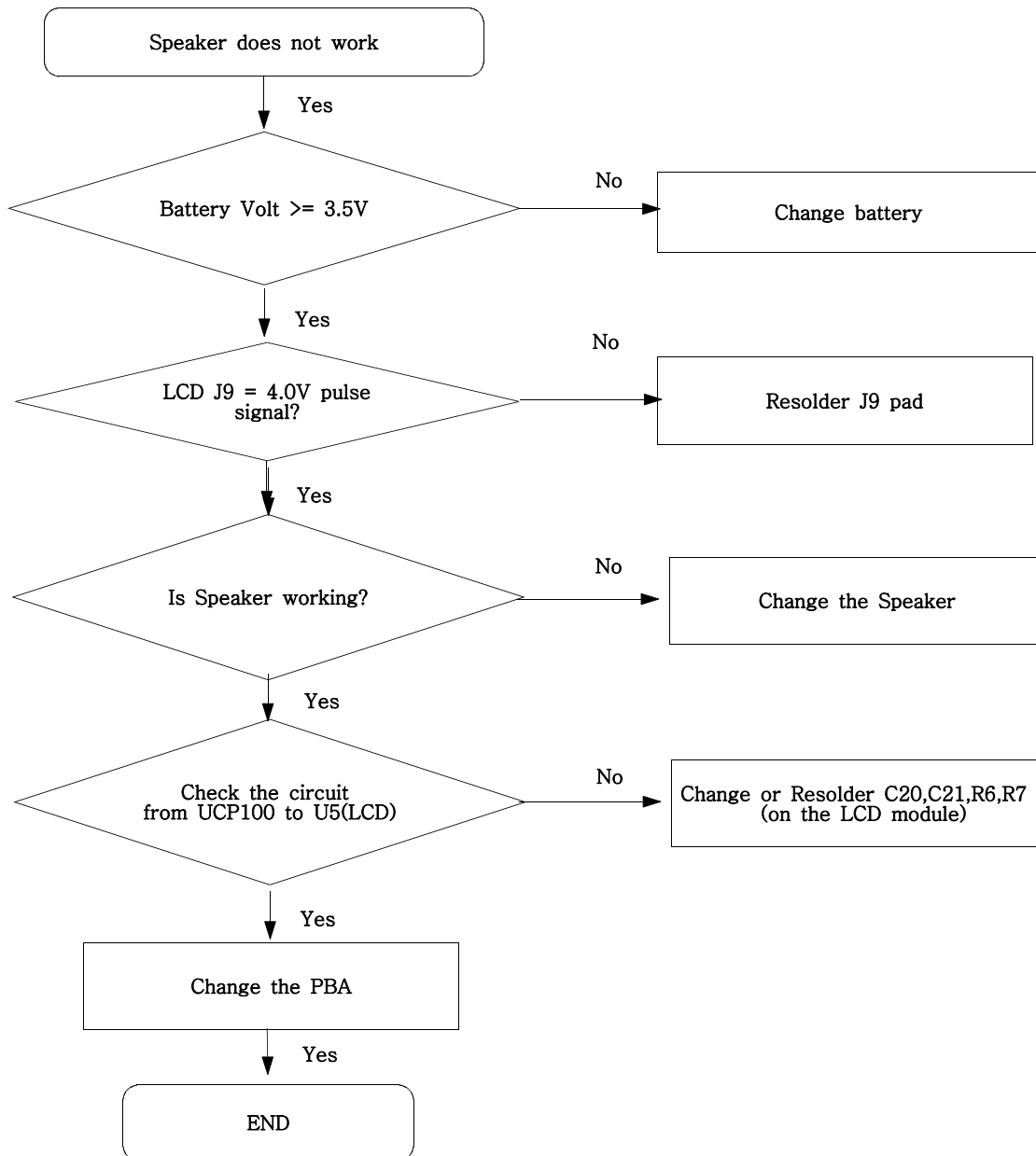
SIM



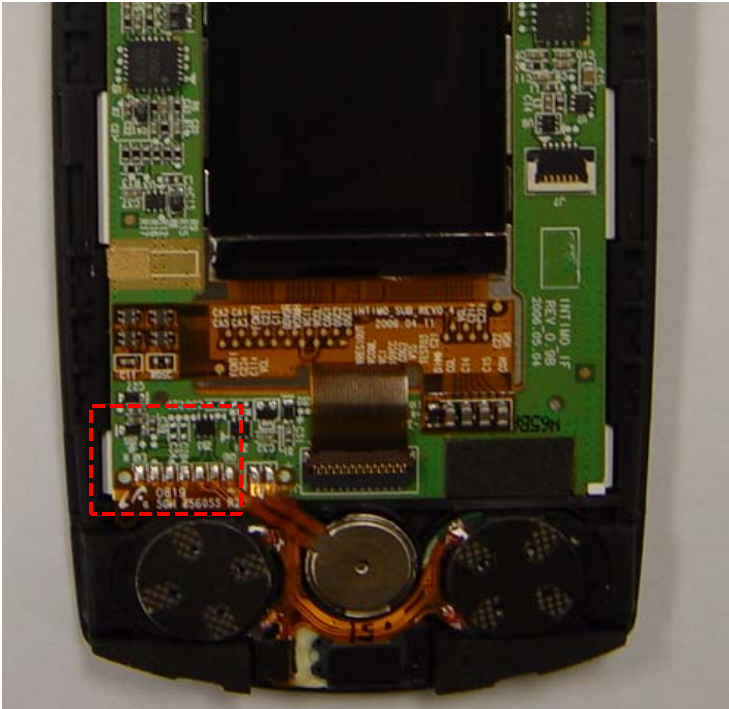
- Pin map (Circuit & SIM SOKET componet)

	Pin No.		Name	TYPE	Description
	LMS	SPEC			
T-Flash	1	Switch-2	-	-	-
	2	Switch-1	-	-	-
	3	1	DAT2	I/O/PP	DATA Line [bit2]
	4	2	DAT3	I/O/PP	Card Detect Data Line [bit3]
	5	3	CMD	PP	Cammand Response
	6	4	VDD	S	Supply Voltage
	7	5	CLK	I	Clock
	8	6	VSS	S	Supply Voltage Ground
	9	7	DAT0	I/O/PP	DATA Line [bit0]
	10	8	DAT1	I/O/PP	DATA Line [bit1]
SIM	11	C1	VCC	S	
	12	C5	GND	S	
	13	C2	RST	I	
	14	C6	VPP	S	
	15	C3	CLK	I	
	16	C7	I/O	I/O	
	NC	C4,C8	Reserved		

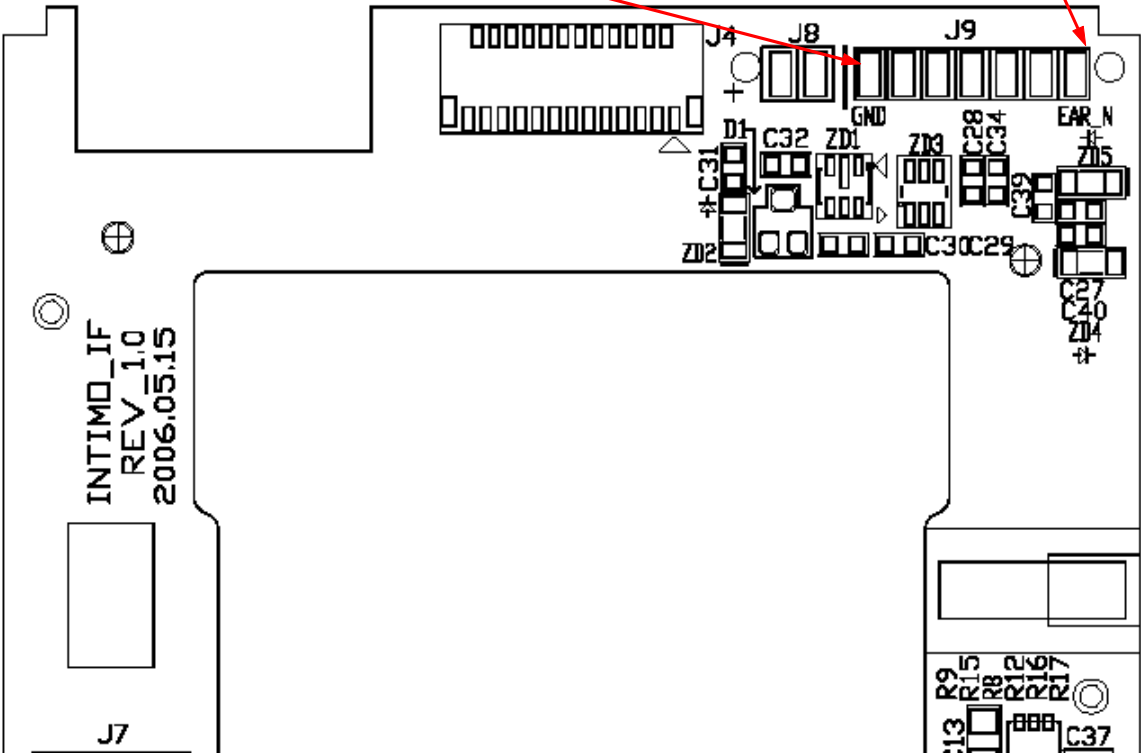
9-4. Speaker Part (Melody)



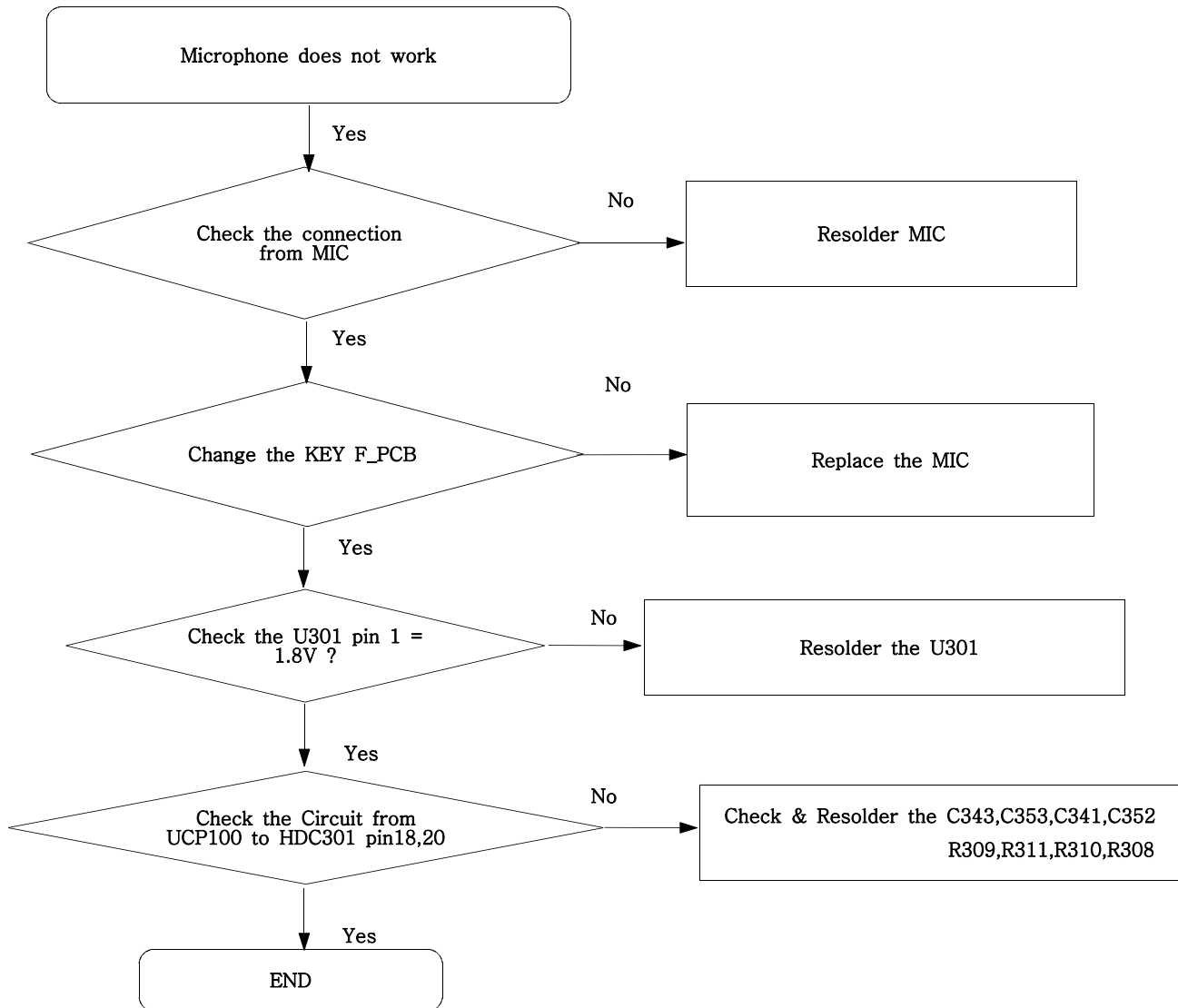
Speaker



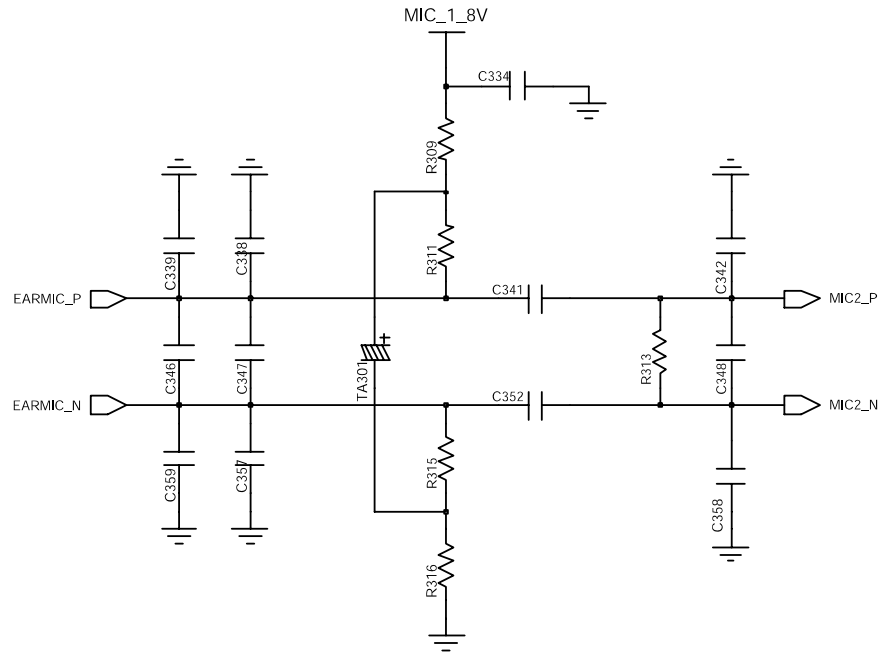
GND	SPK_R+	SPK_R-	SPK_+	SPK_L-	EAR10_P	EAR10_N
-----	--------	--------	-------	--------	---------	---------



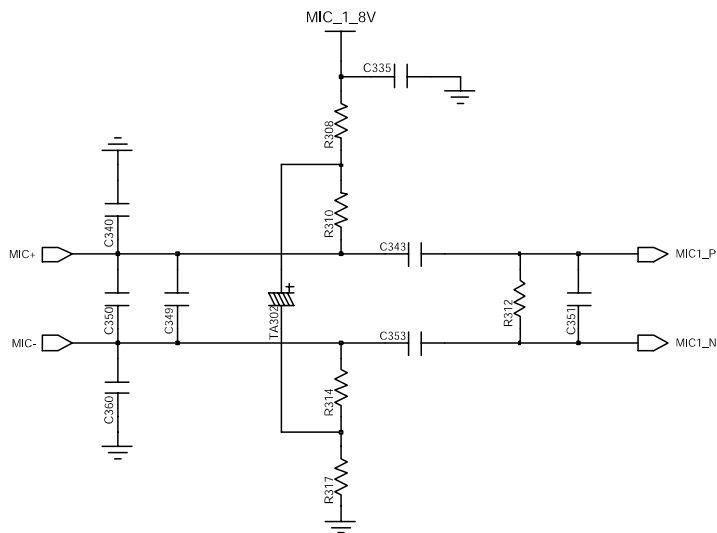
9-5. Microphone Part



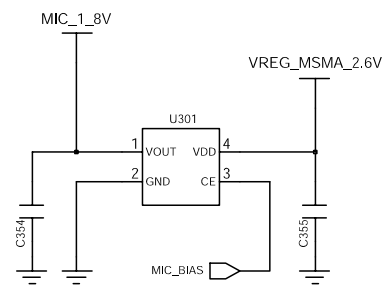
Microphone



EARMIC PATH

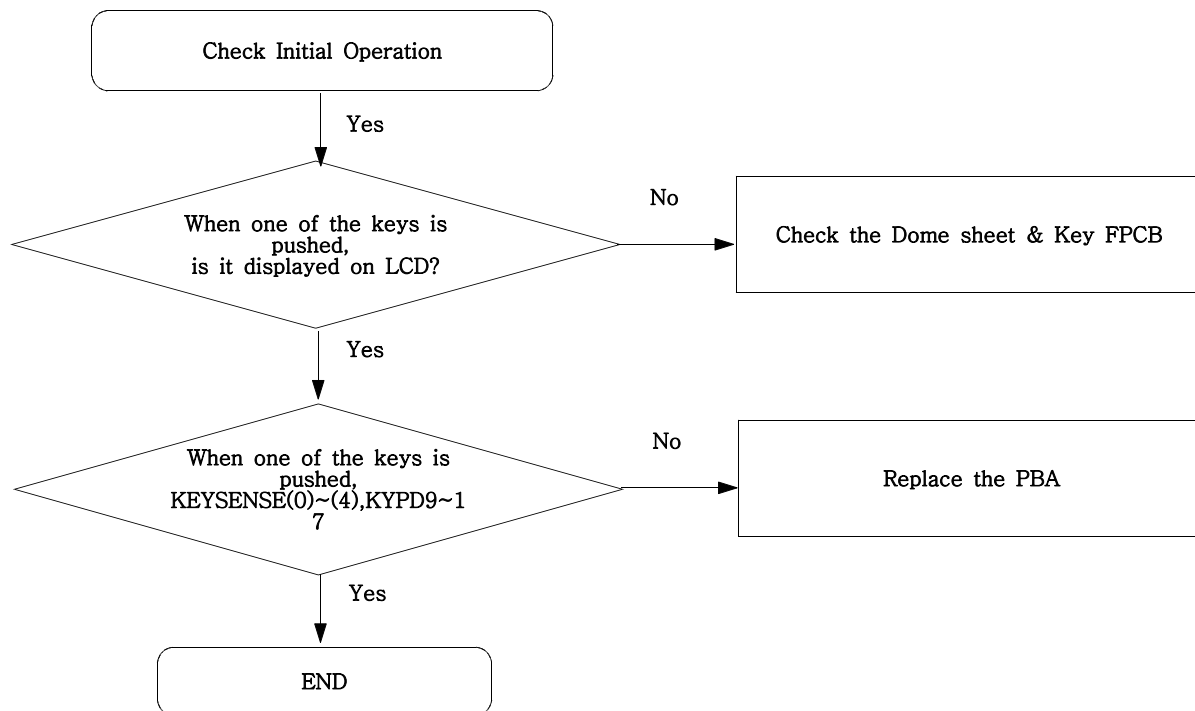


MAIN MIC PATH

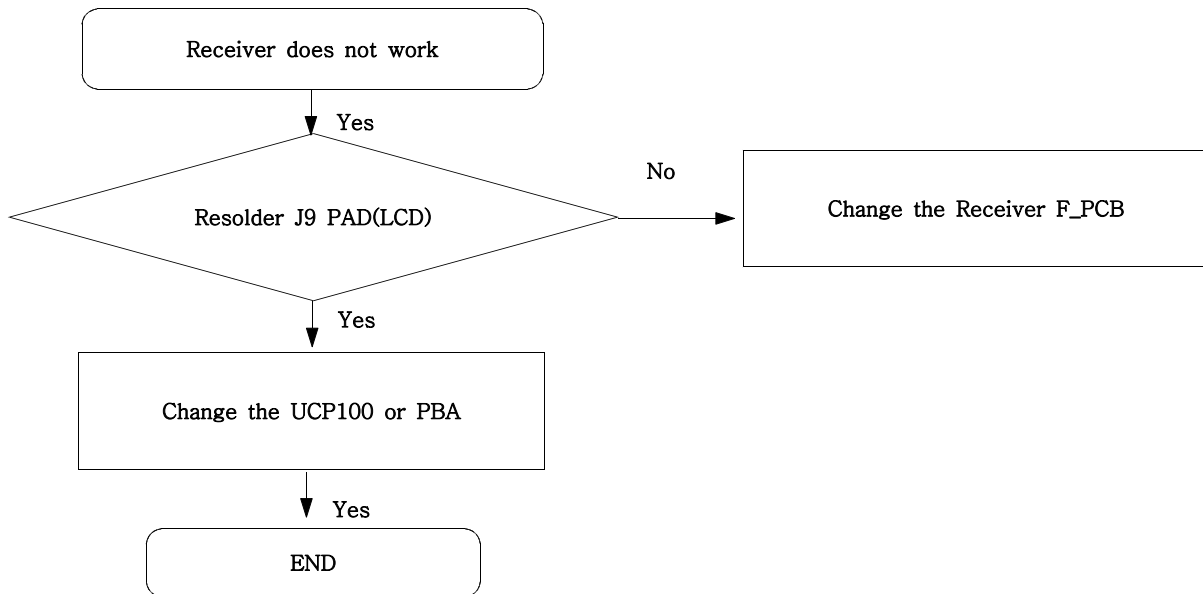


MIC BIAS PWR

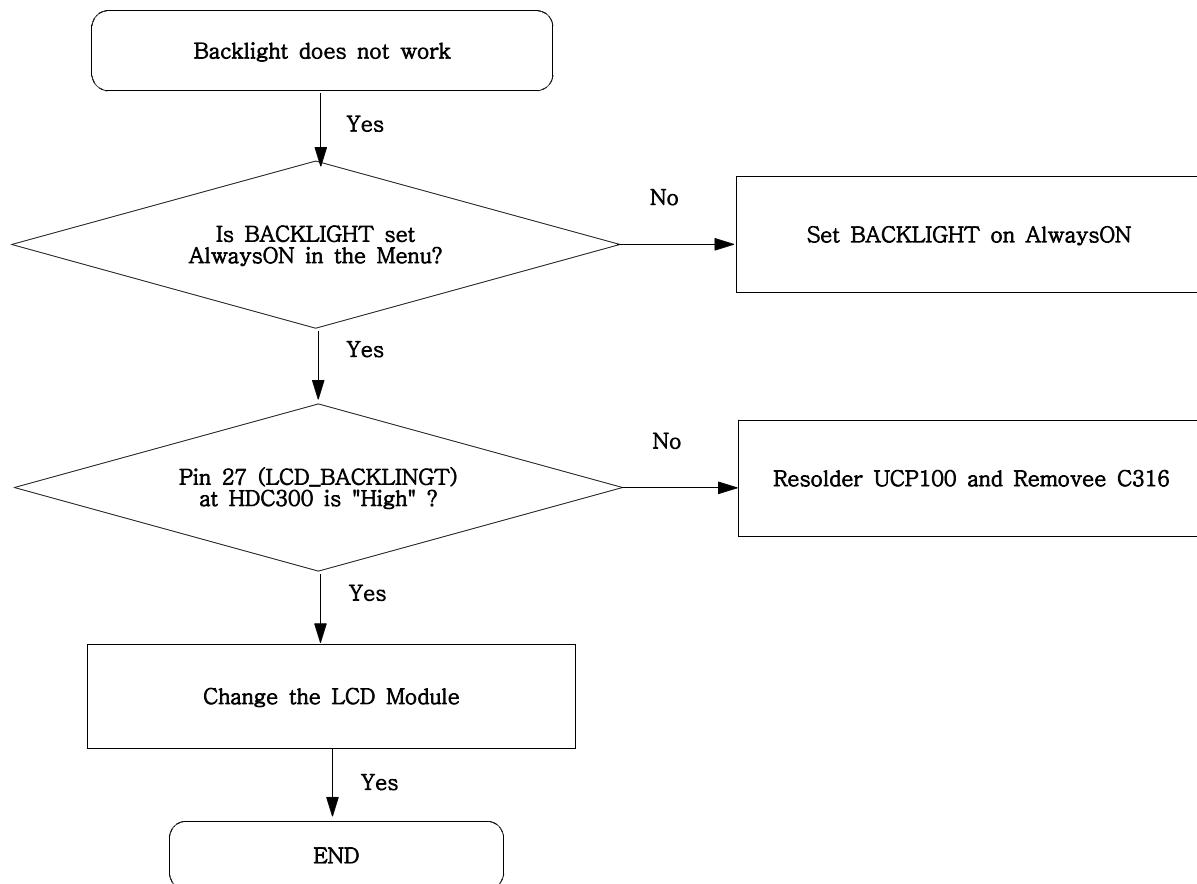
9-6. Key Data Input



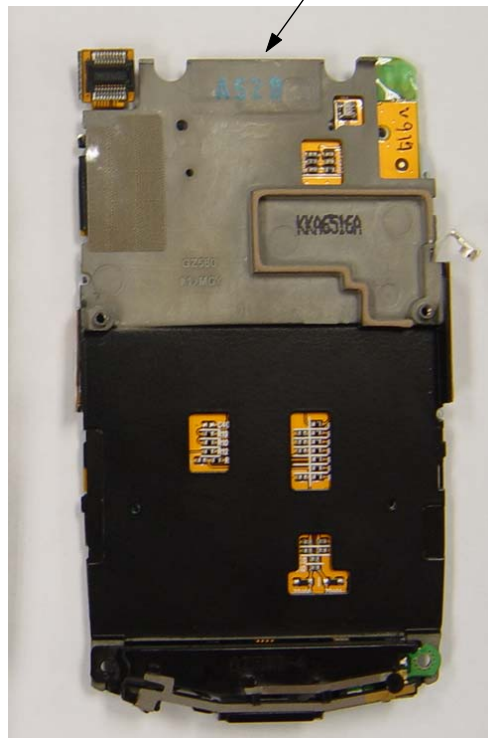
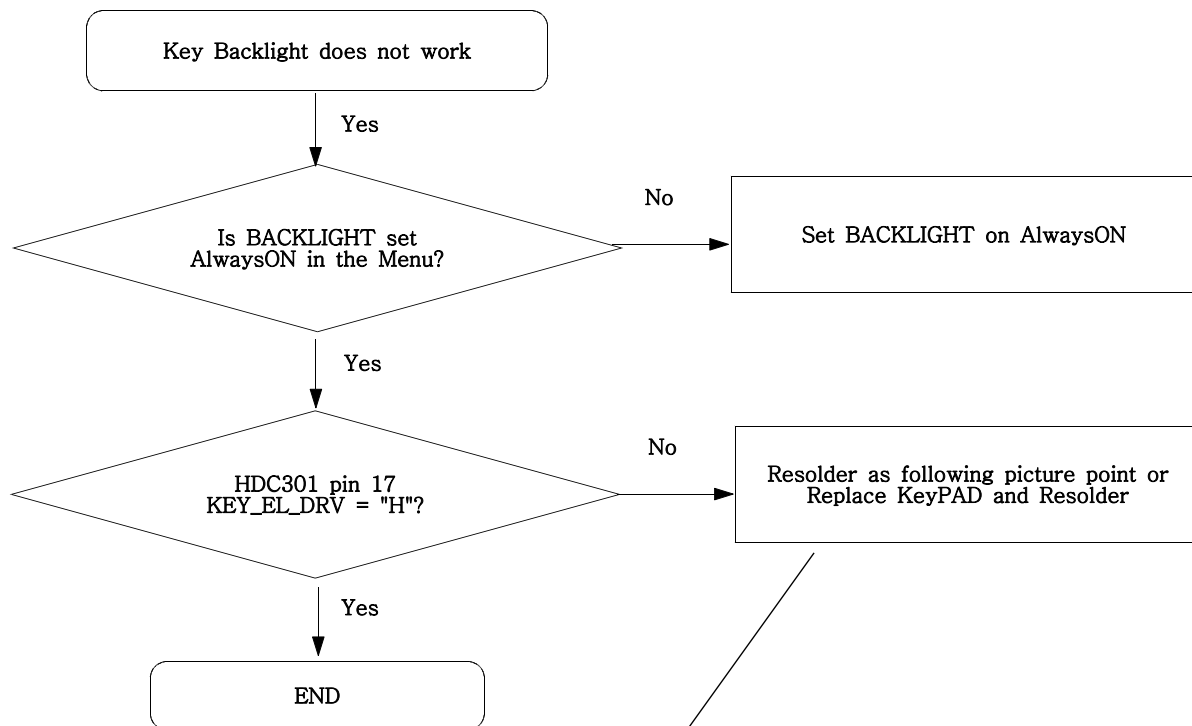
9-7. Receiver Part



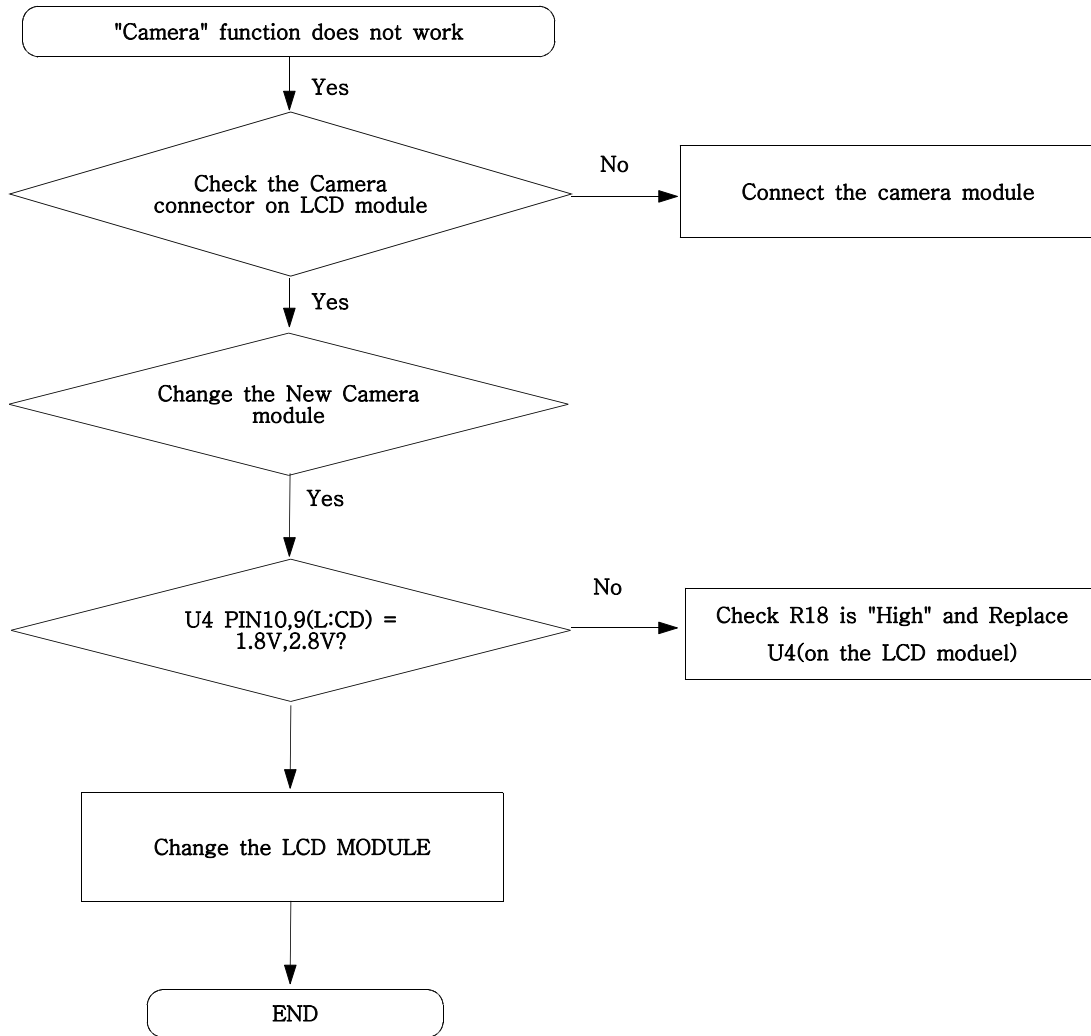
9-8. Back Light (for Color Main LCD)



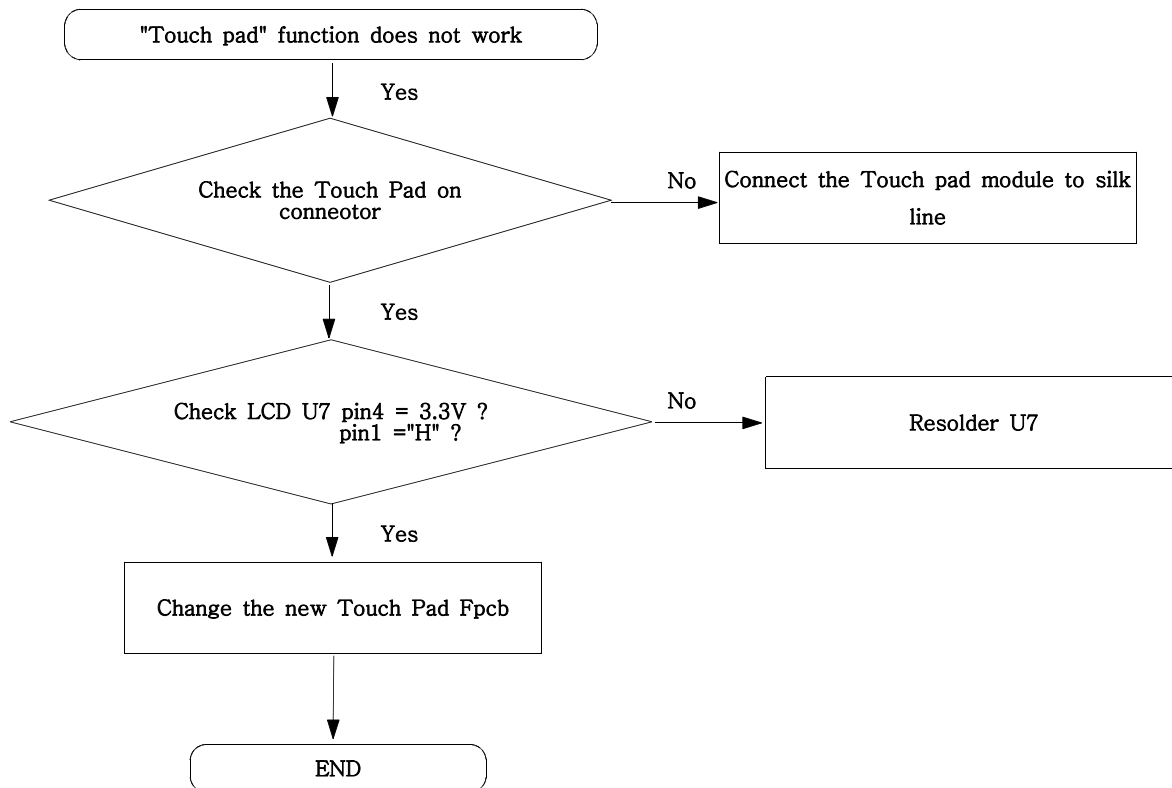
9-9. Key Back Light

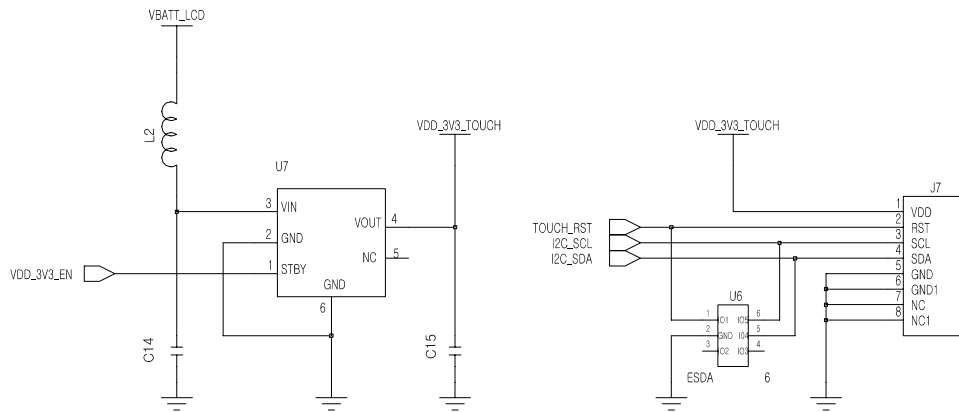


9-10. Camera part

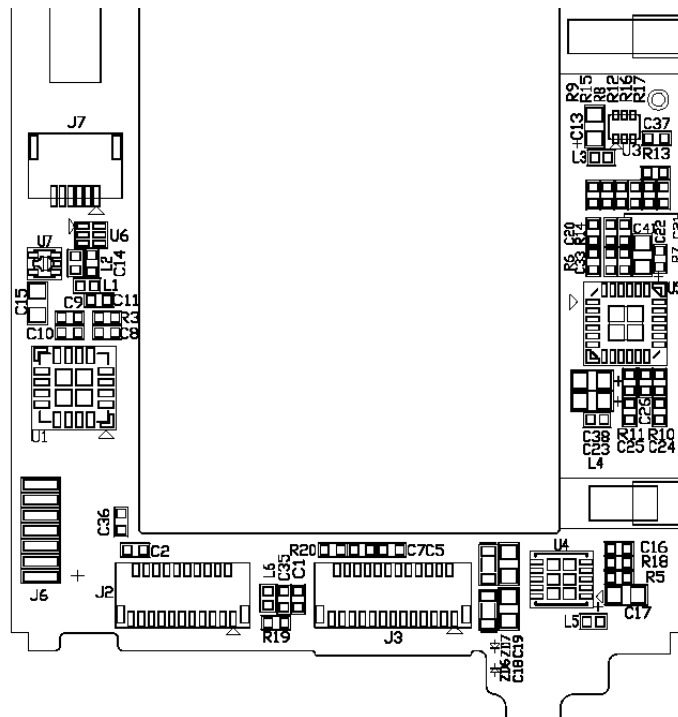


9-11. Touch PAD

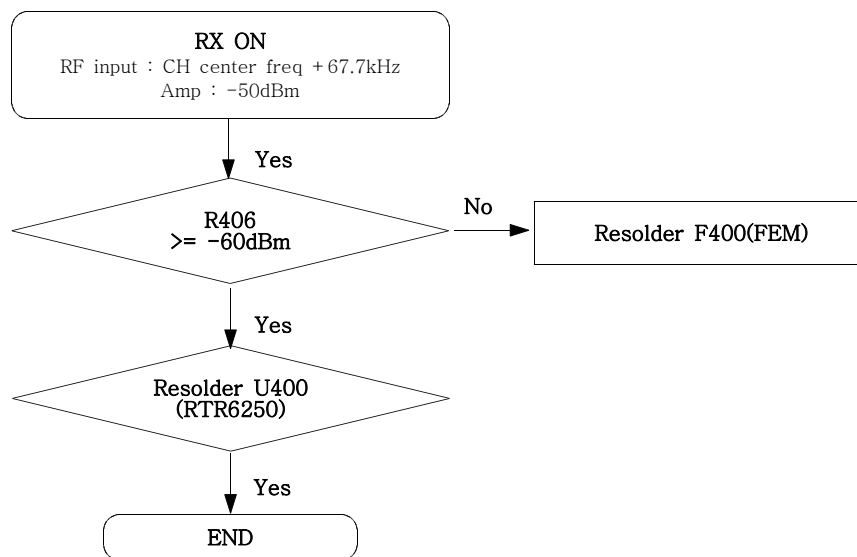


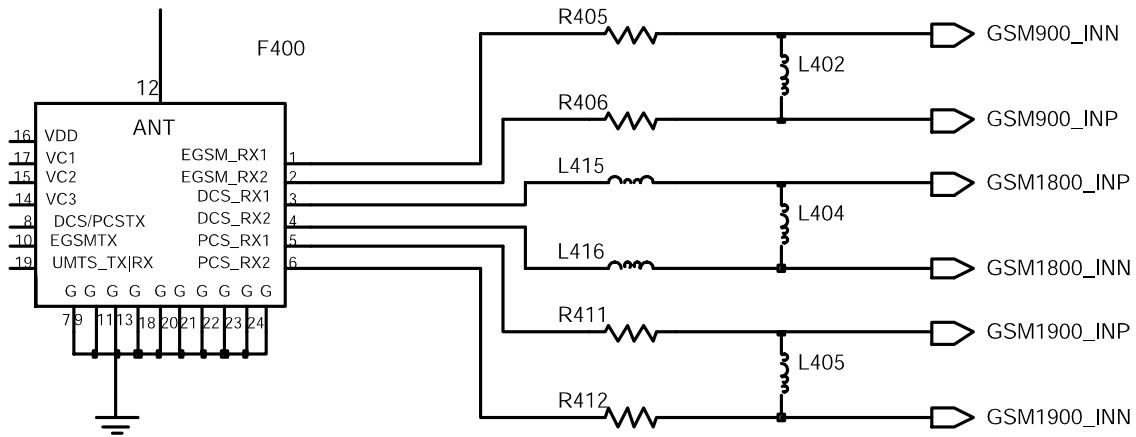


MELFAS_Touch_PAD

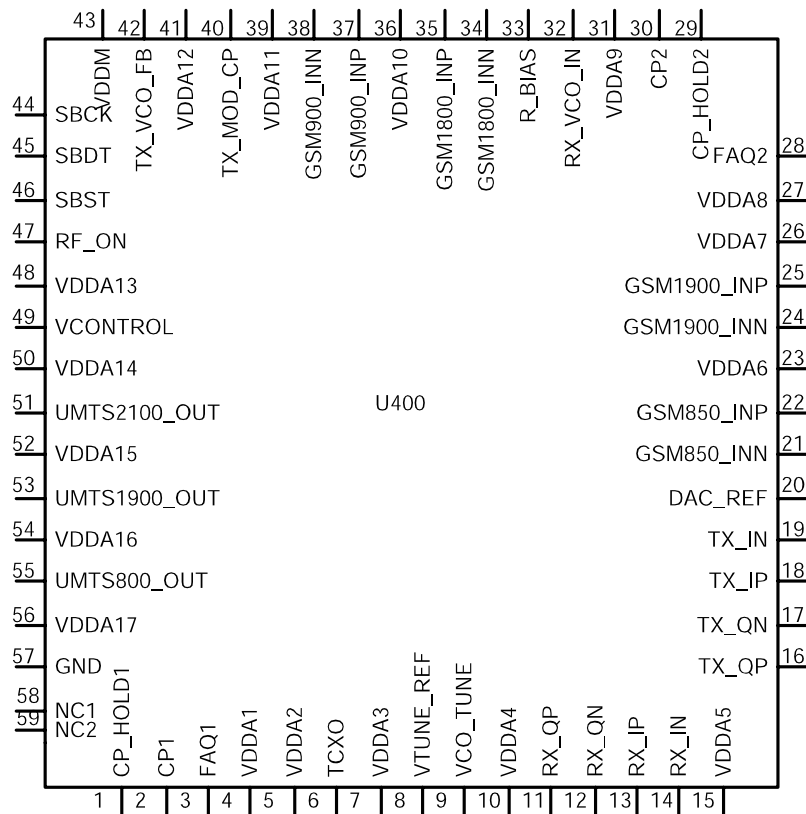


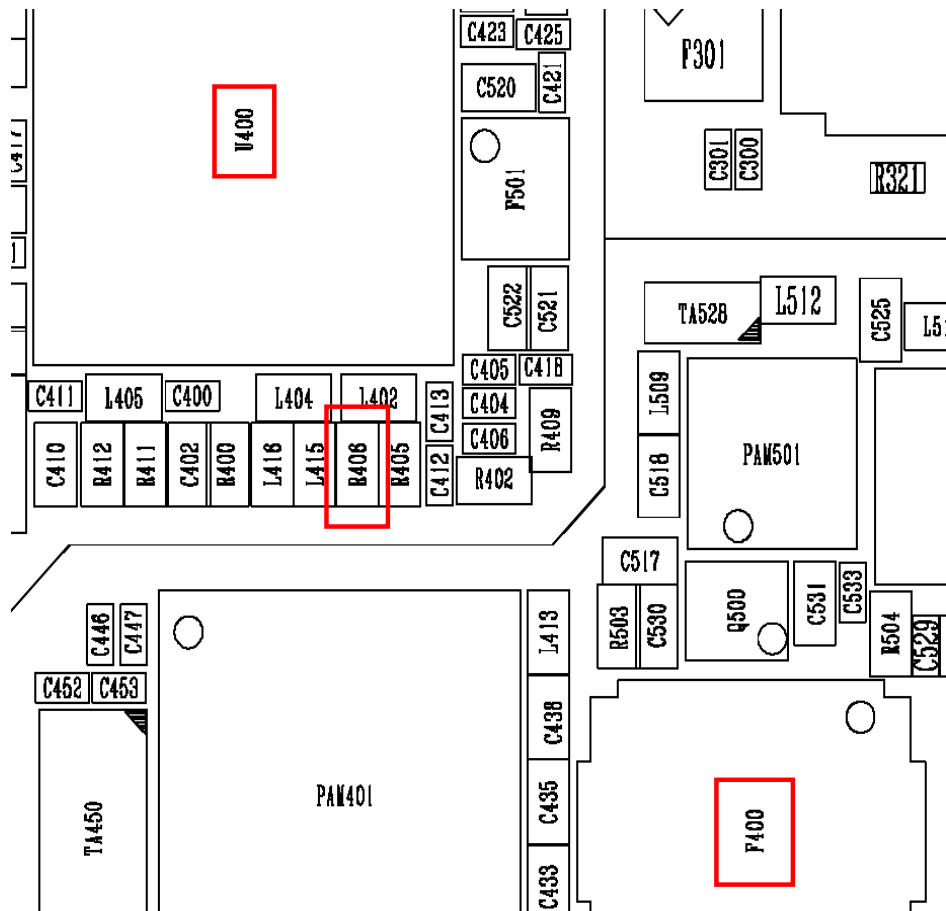
9-12. GSM Receiver



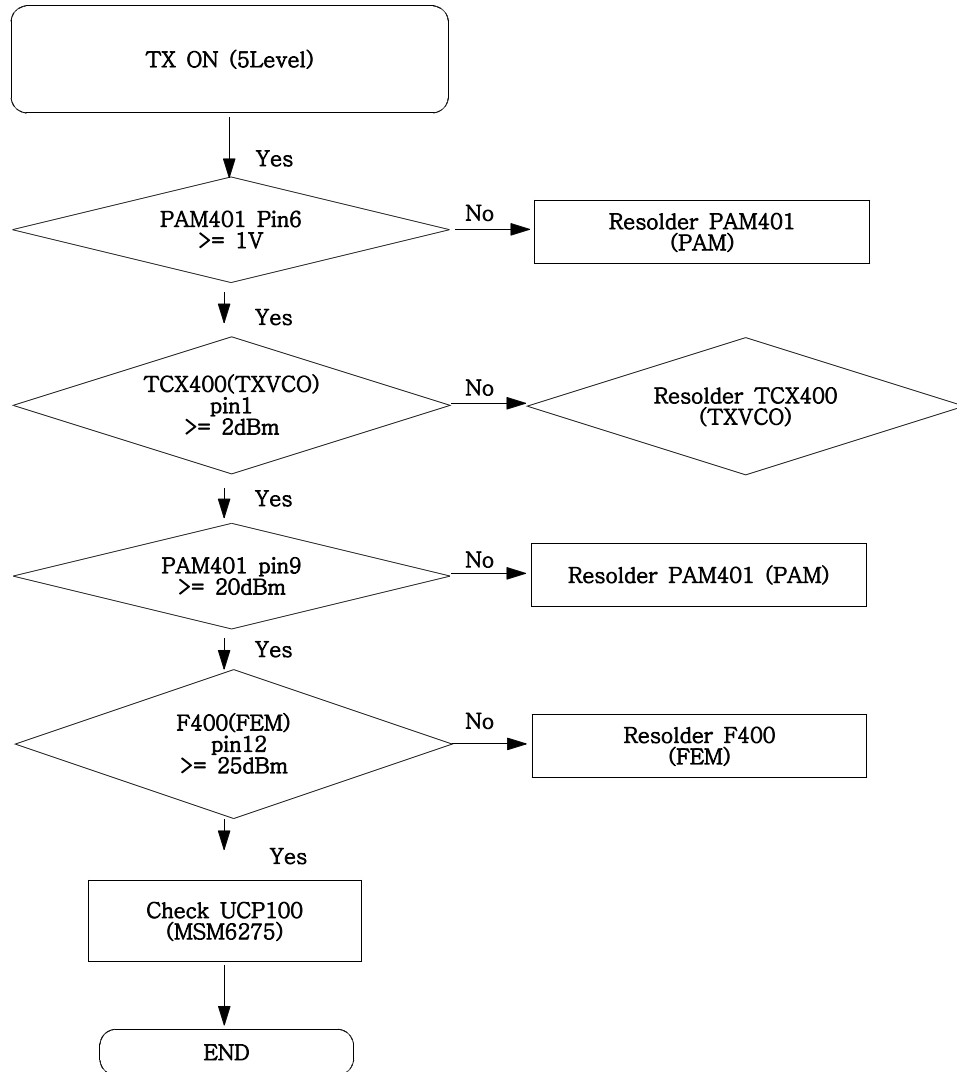


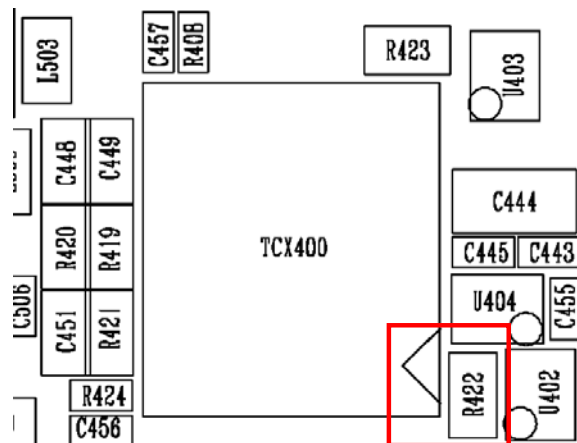
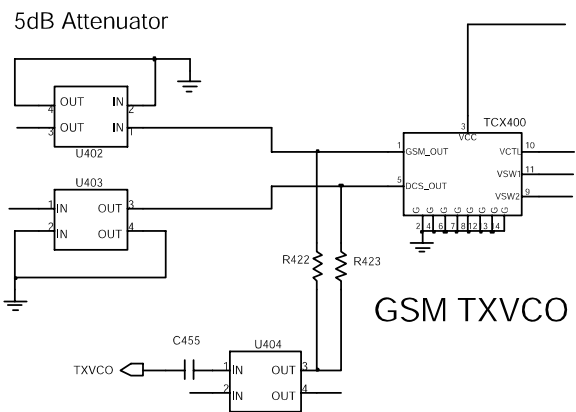
FEM



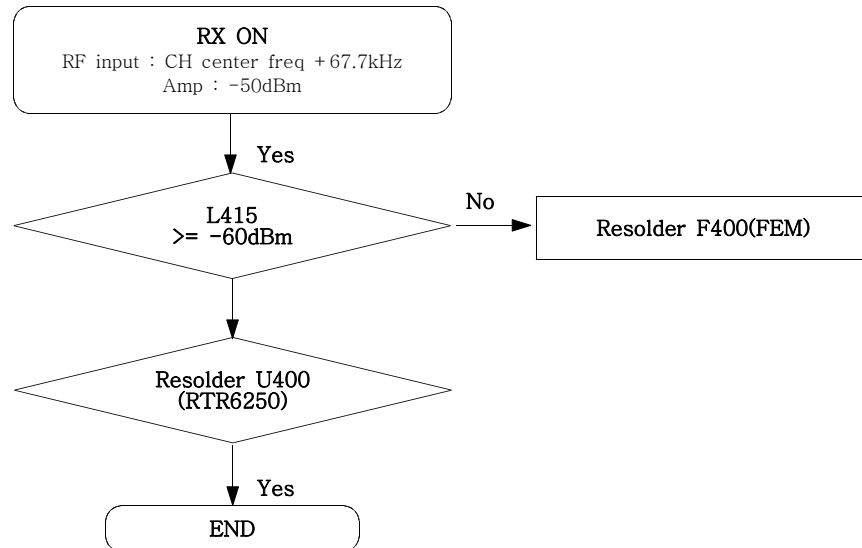


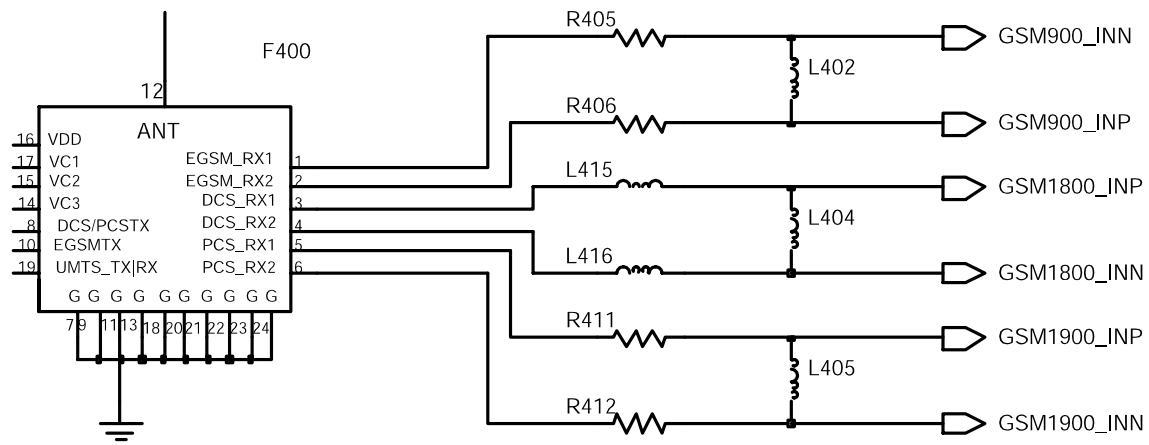
9-13. GSM Transmitter



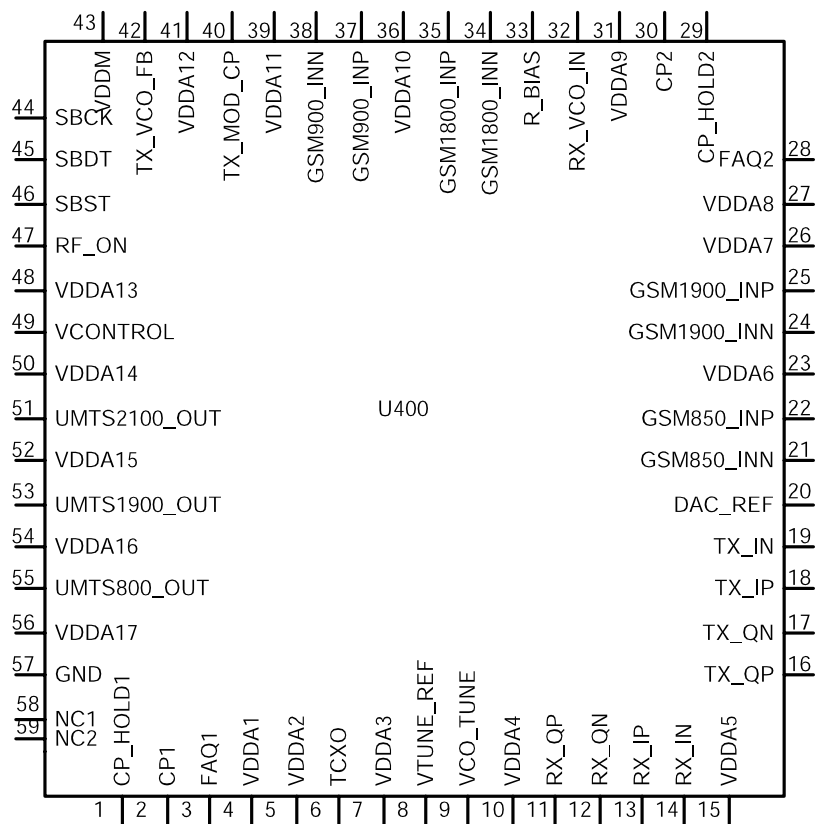


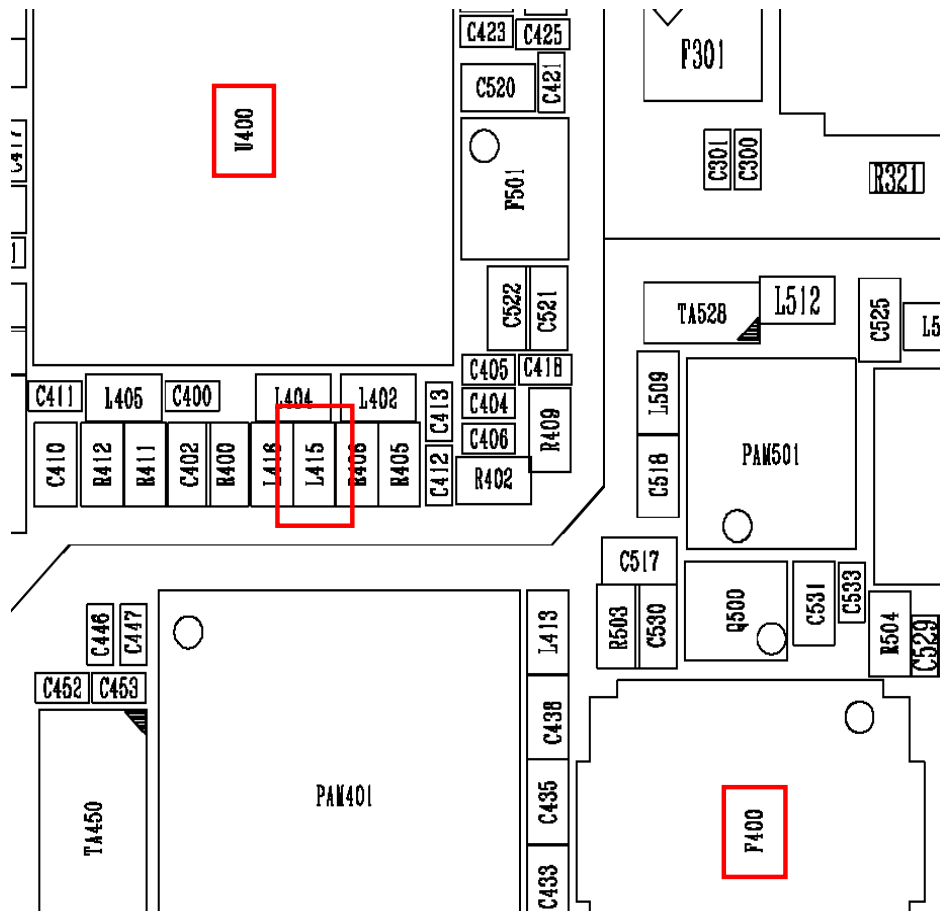
9-14. DCS Receiver



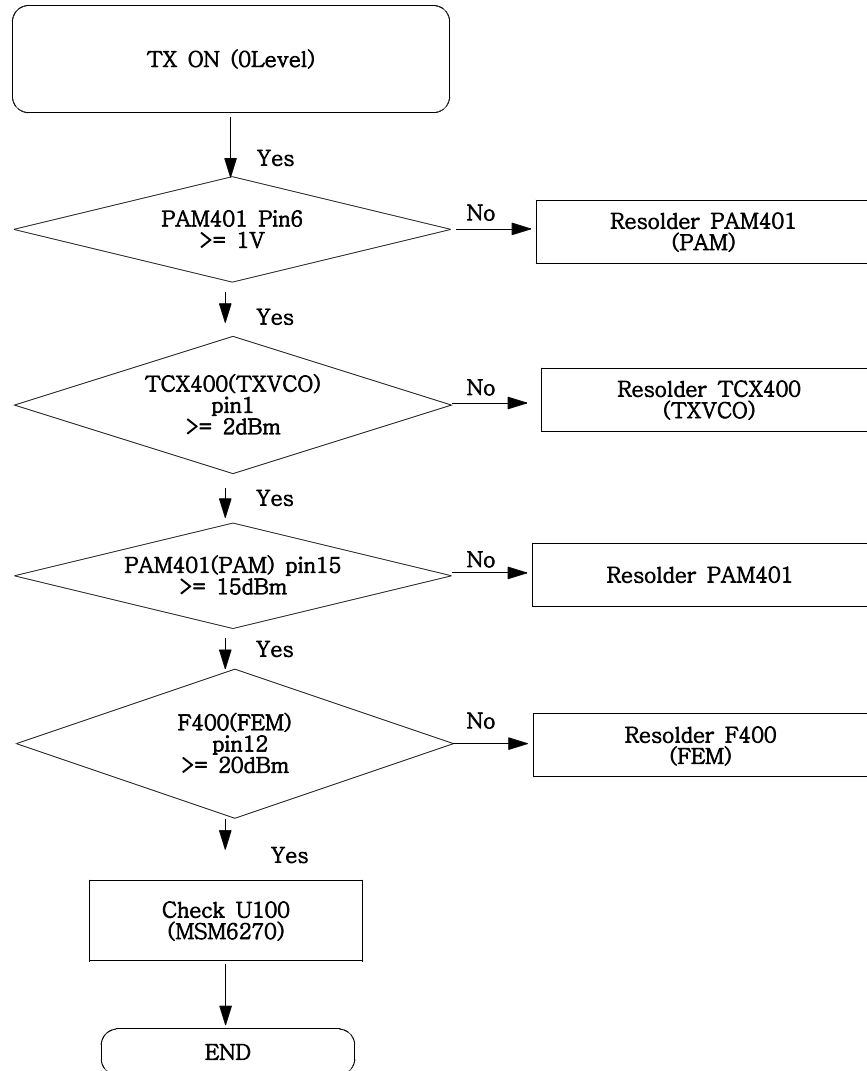


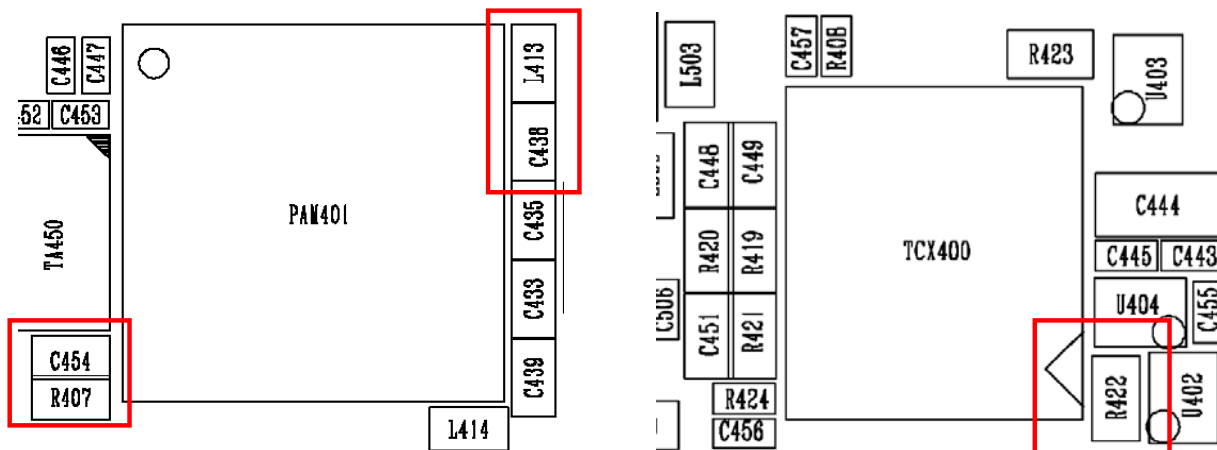
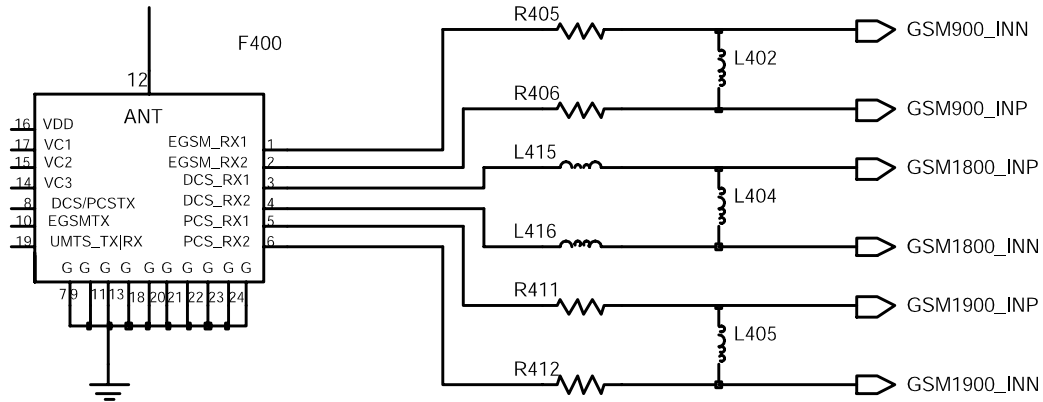
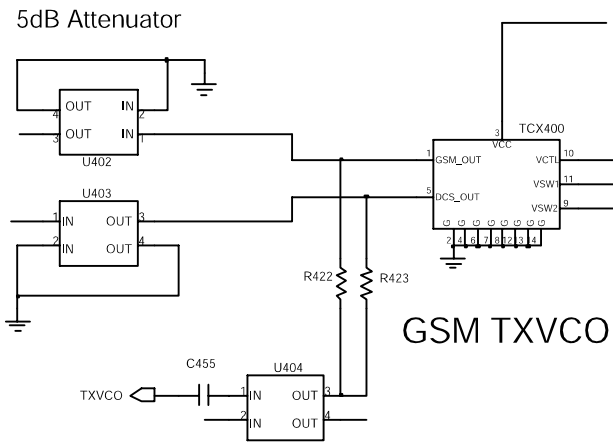
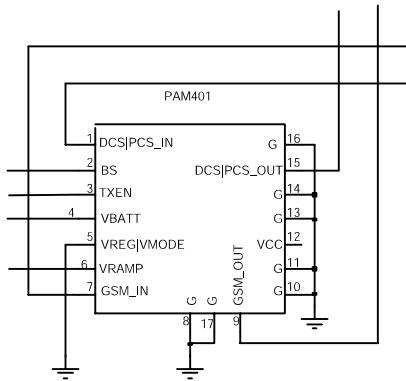
FEM



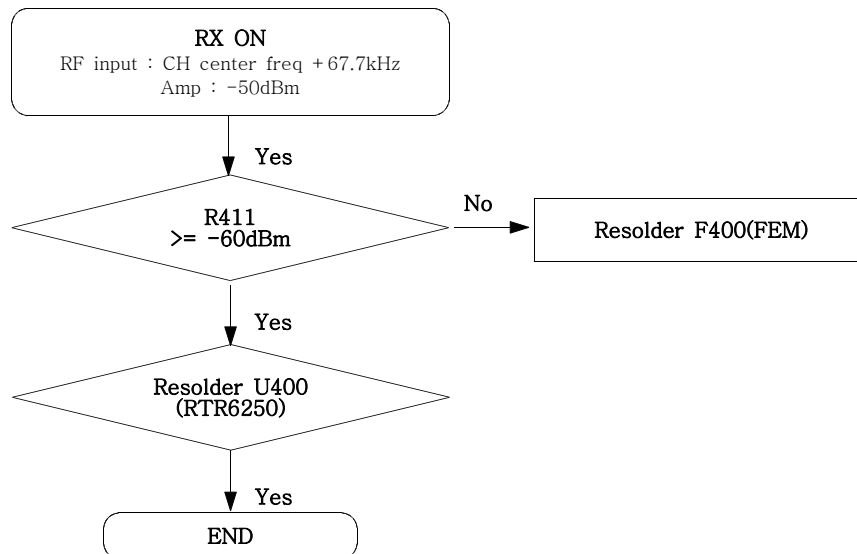


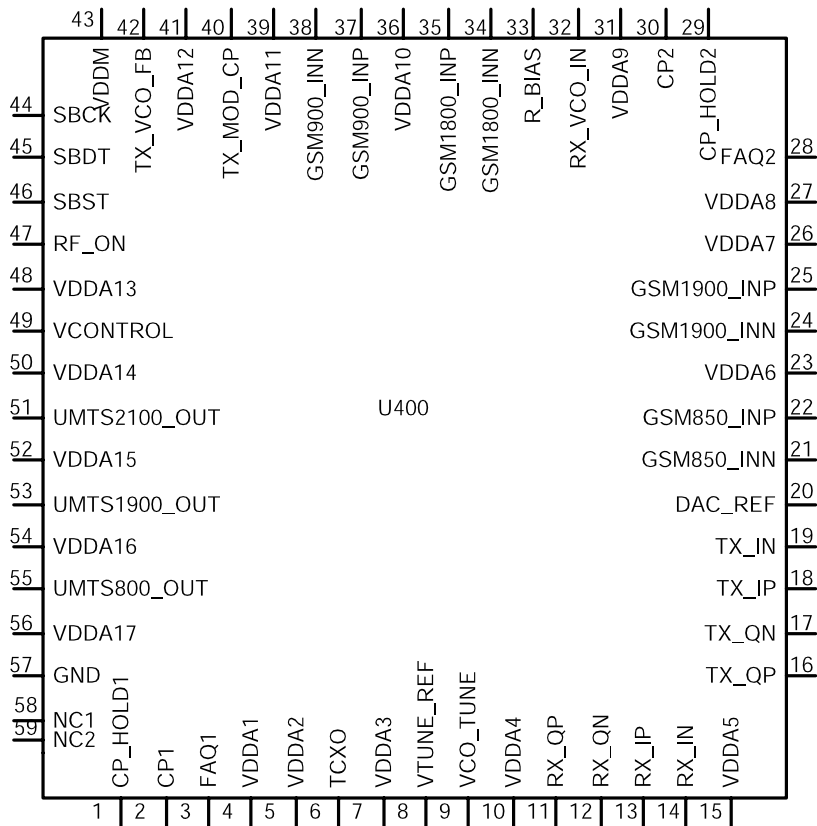
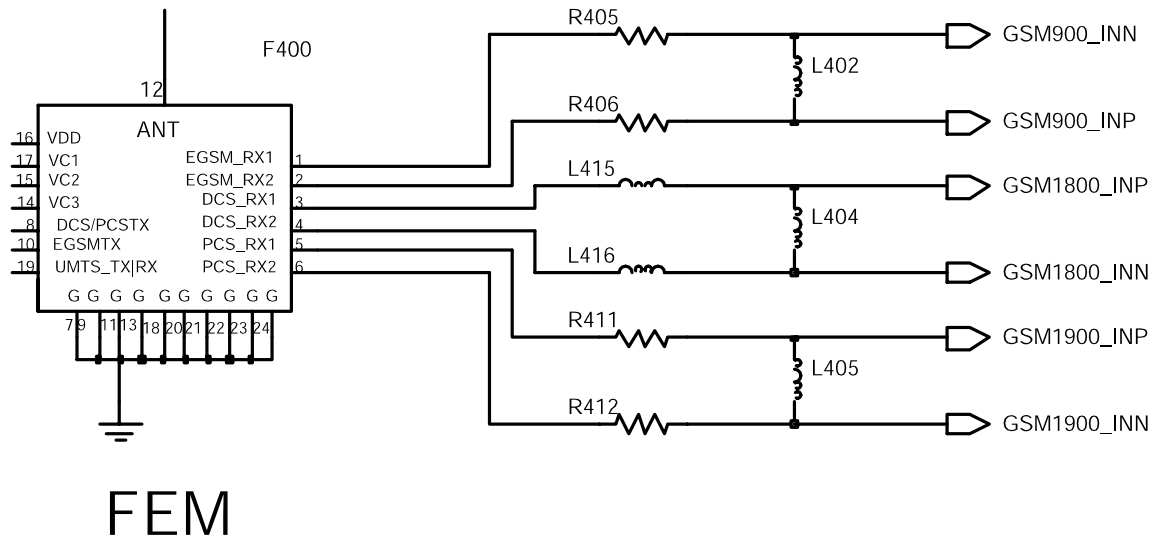
9-15. DCS Transmitter

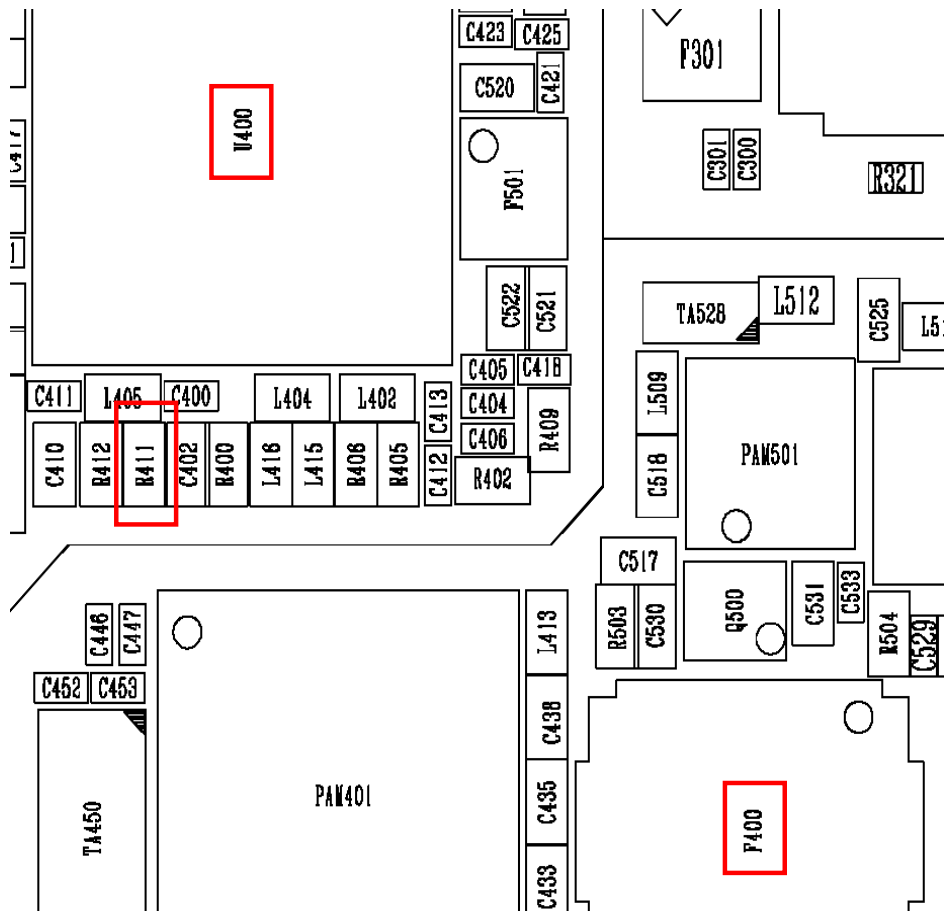




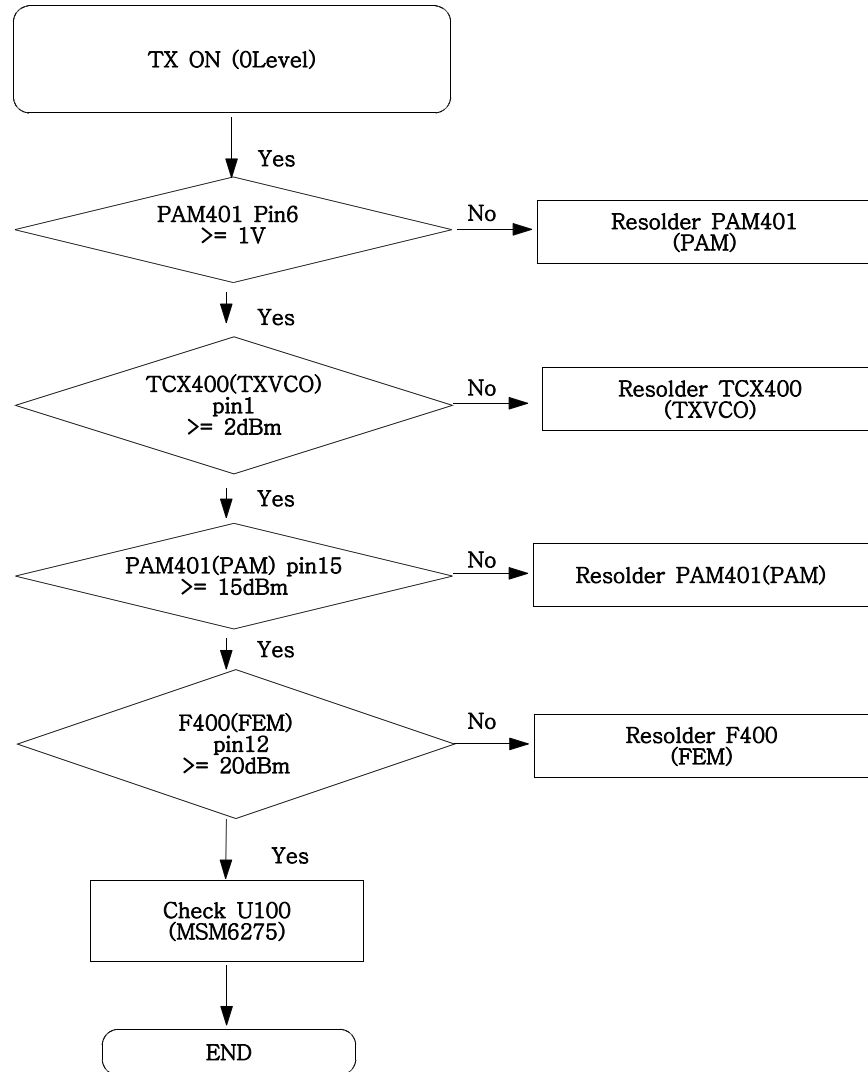
9-16. PCS Receiver

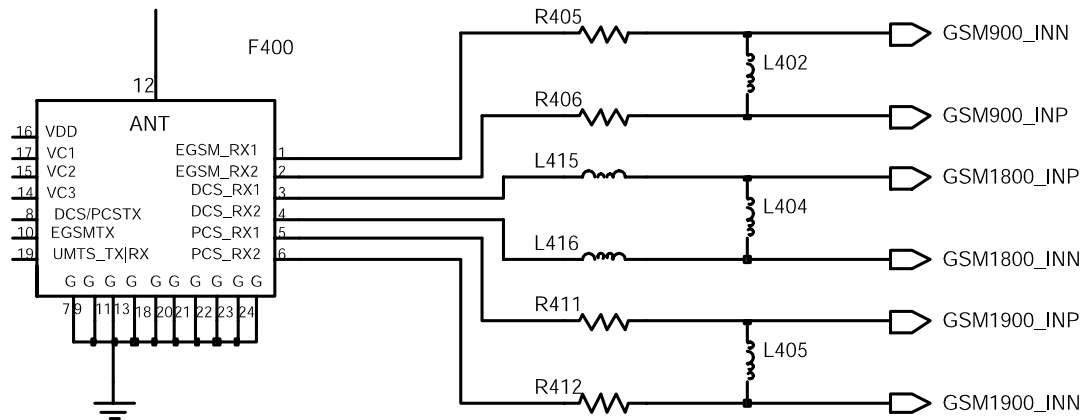
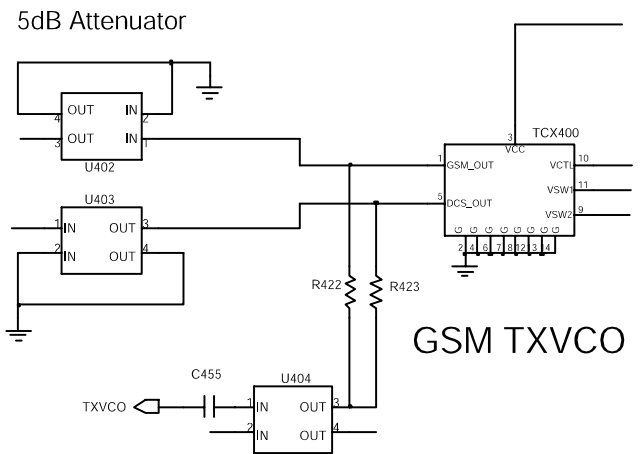
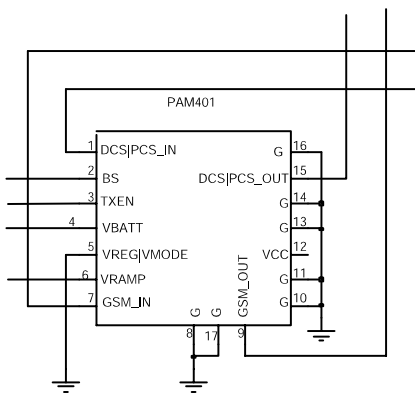




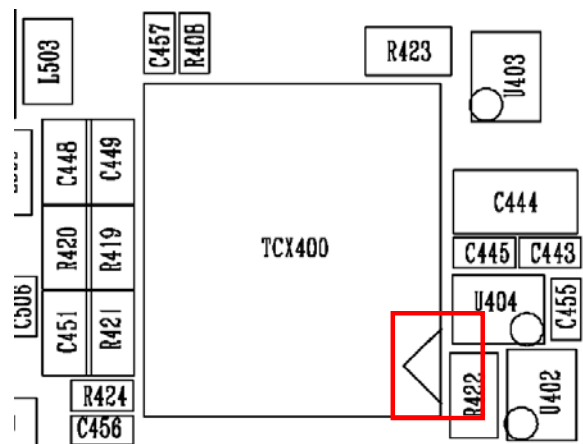
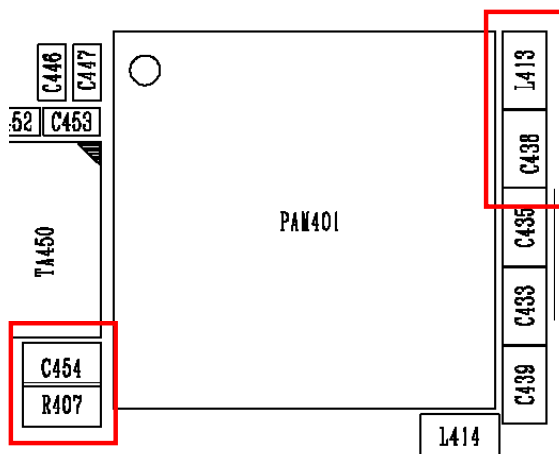


9-17. PCS Transmitter

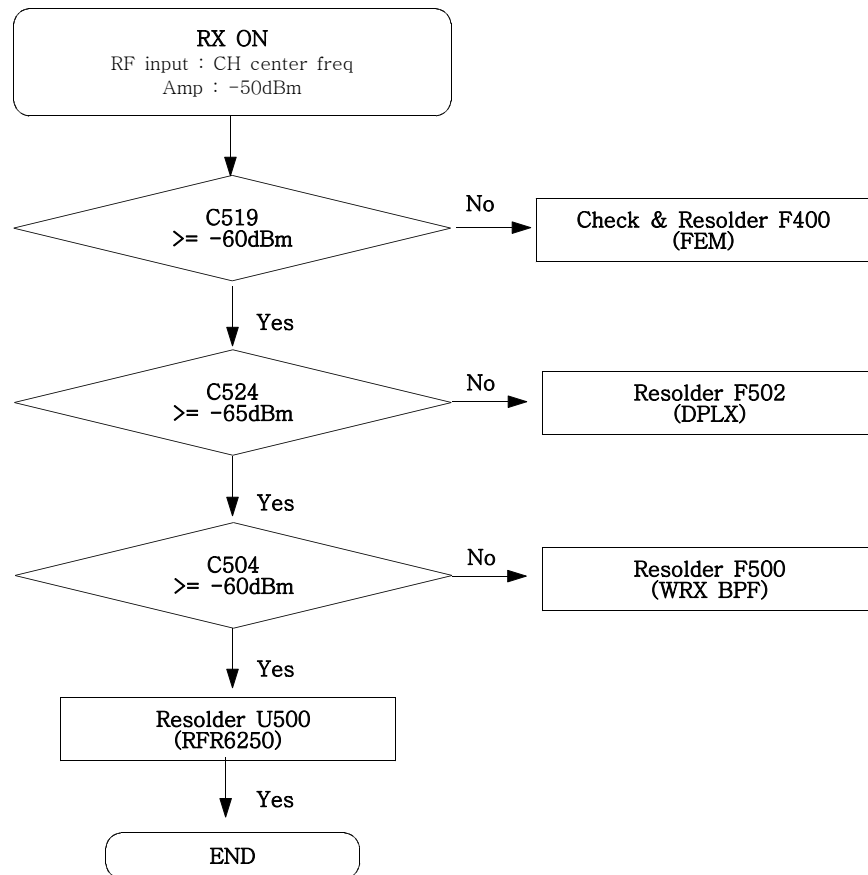


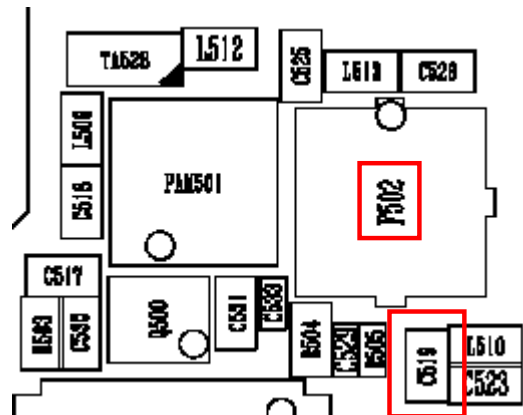
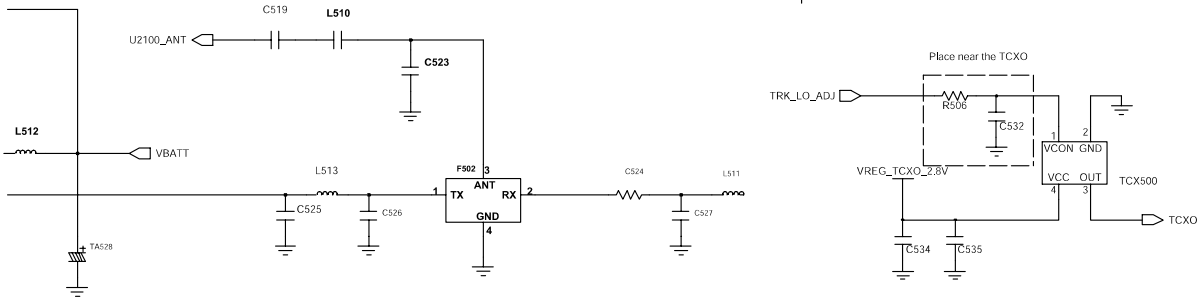


FEM

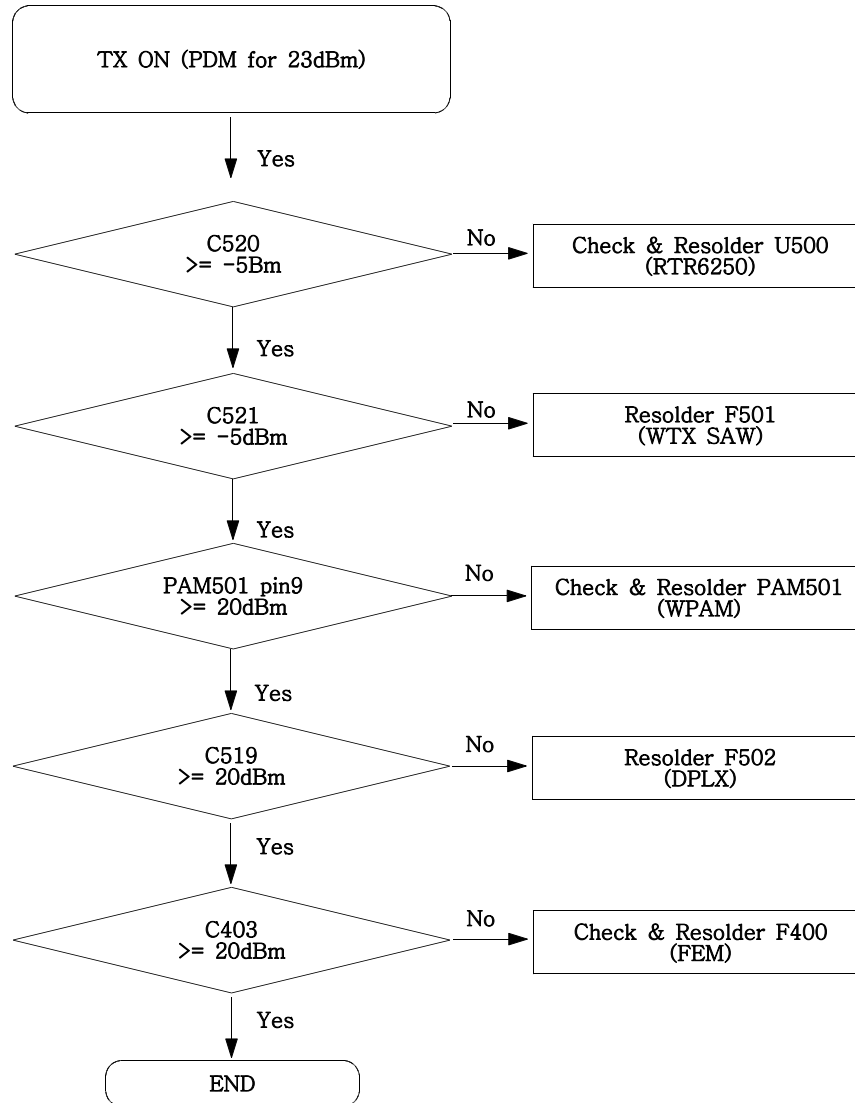


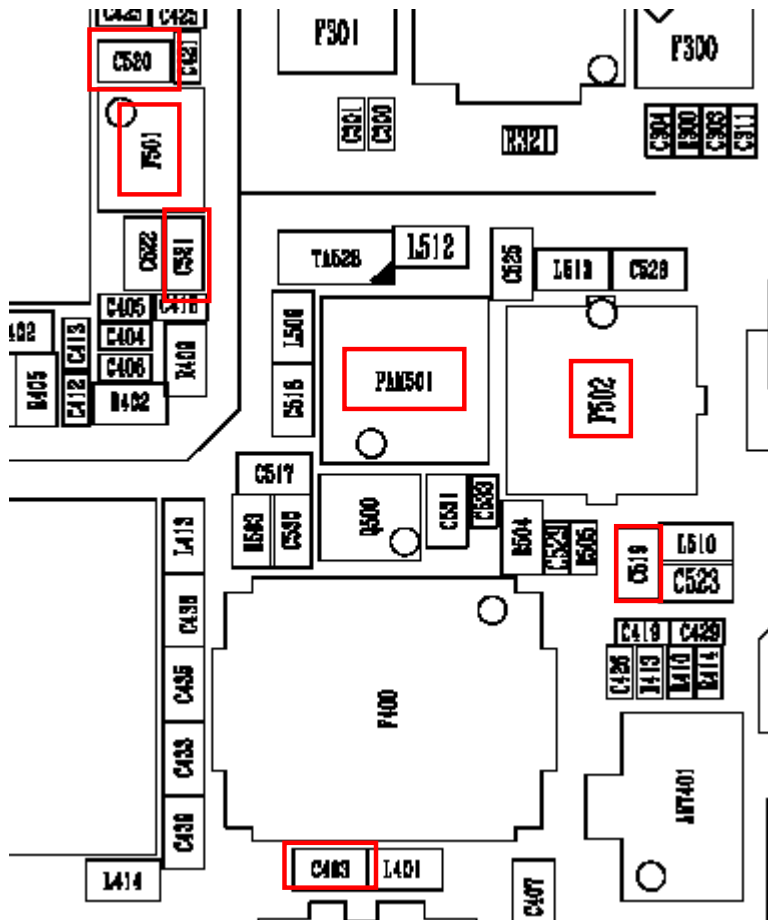
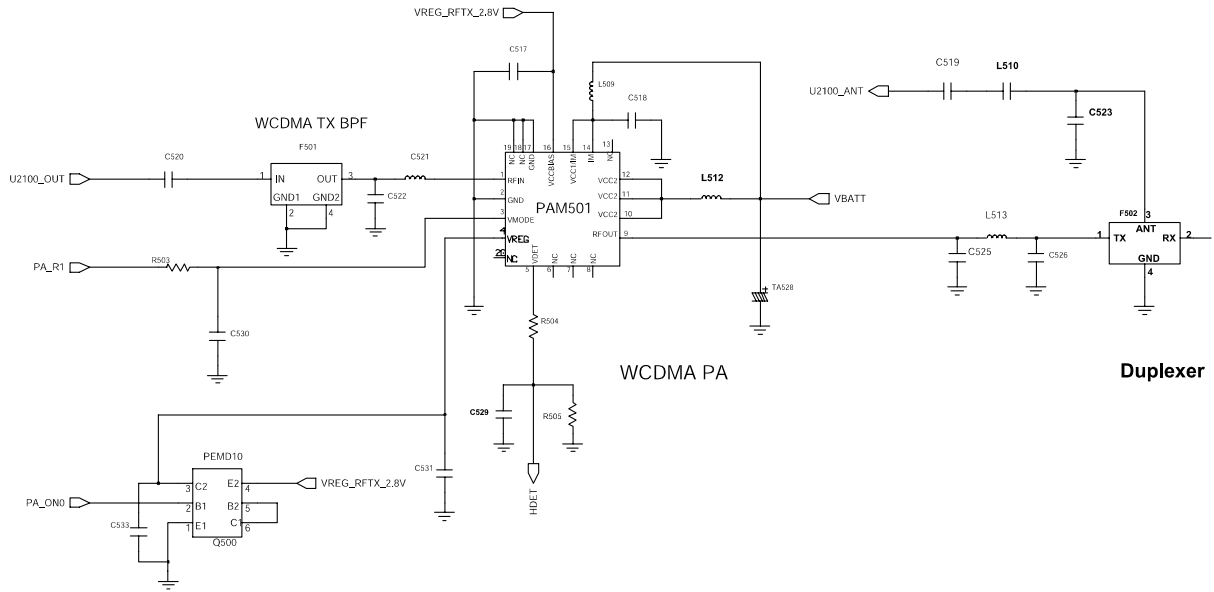
9-18. WCDMA Receiver





9-19. WCDMA Transmitter





10. Reference data

10-1. 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

1



1) Disassemble the BATTERY COVER.



2) Remove the RF SHEET, SCREW COVER and six SCREWS.

2

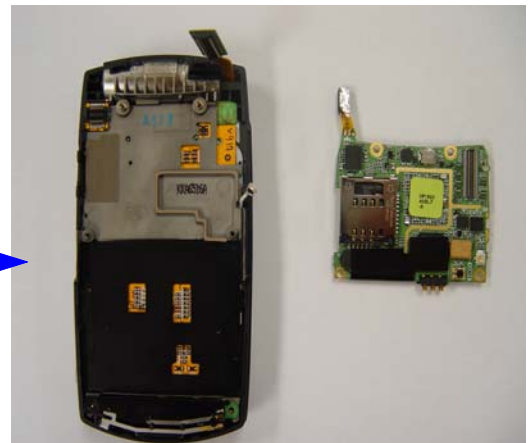
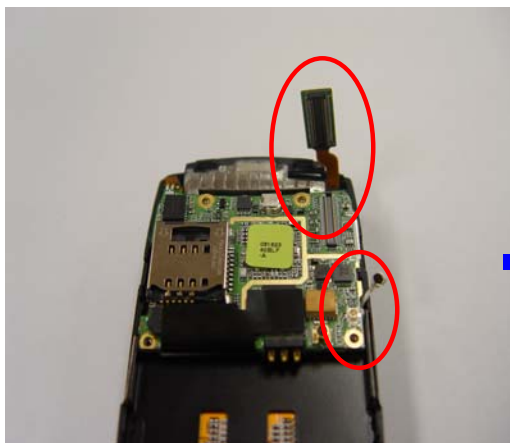


1) Be careful not to break the LOCKERS.



1) Disassemble the REAR from the downside.

3



1) Disassemble the LCD CONNECTOR and RF CABLE before separating the PBA from the KEY PAD ASS'Y.

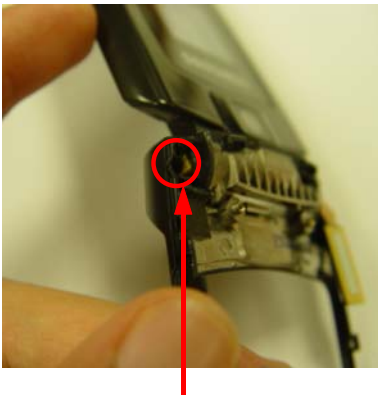
4



1) Disassemble the KEY PAD ASS'Y.



5



Push the YELLOW HINGE. Then Disassemble FRONT from FOLDER.(Be careful not to damage.)

1) Disassemble the FOLDER and FRONT.

6



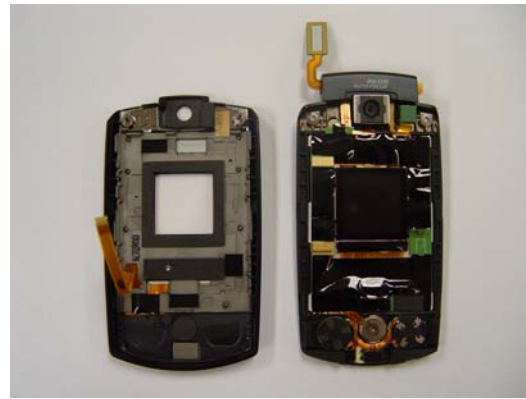
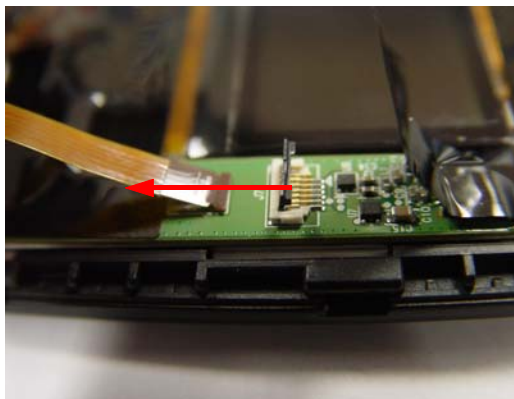
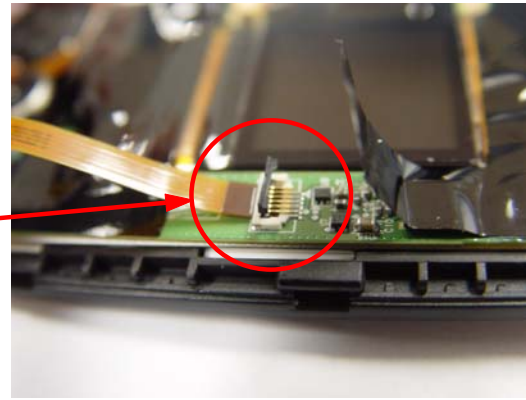
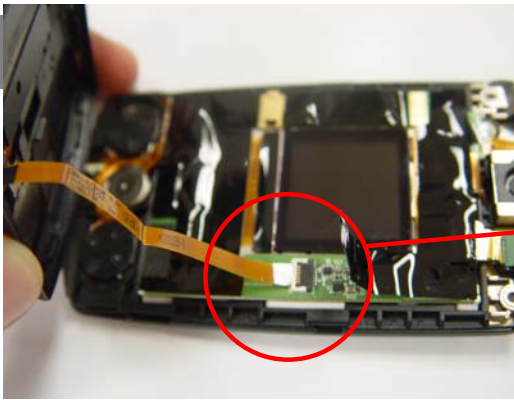
1) Remove SCREW CAPS and unscrew the FOLDER UPPER.

7



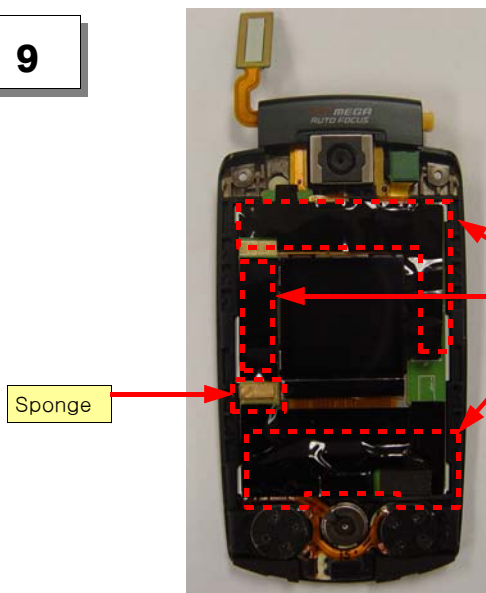
1) Disassemble from the Camera side.

8



1) Lift up the TOUCH PAD CONNECTOR and disassemble the UPPER.

9



Sponge

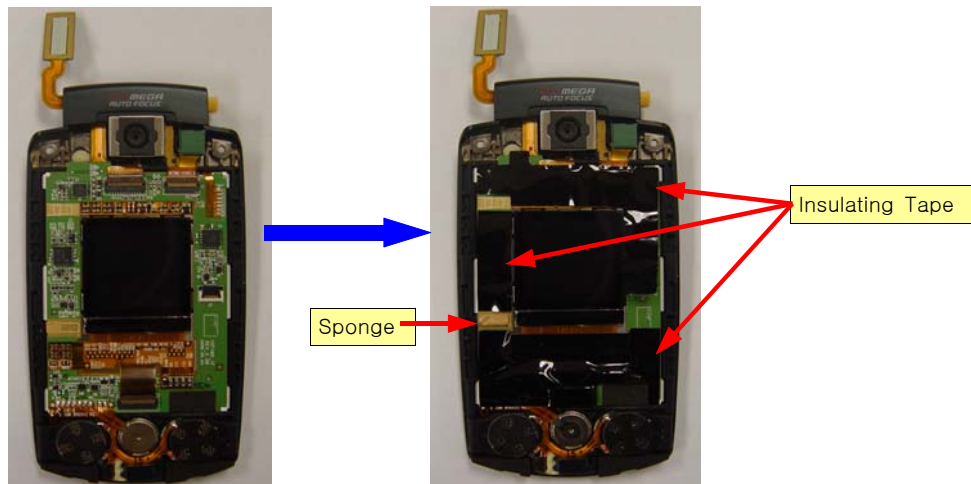
Insulating Tape



1) Remove the Sponge and Insulating Tape.

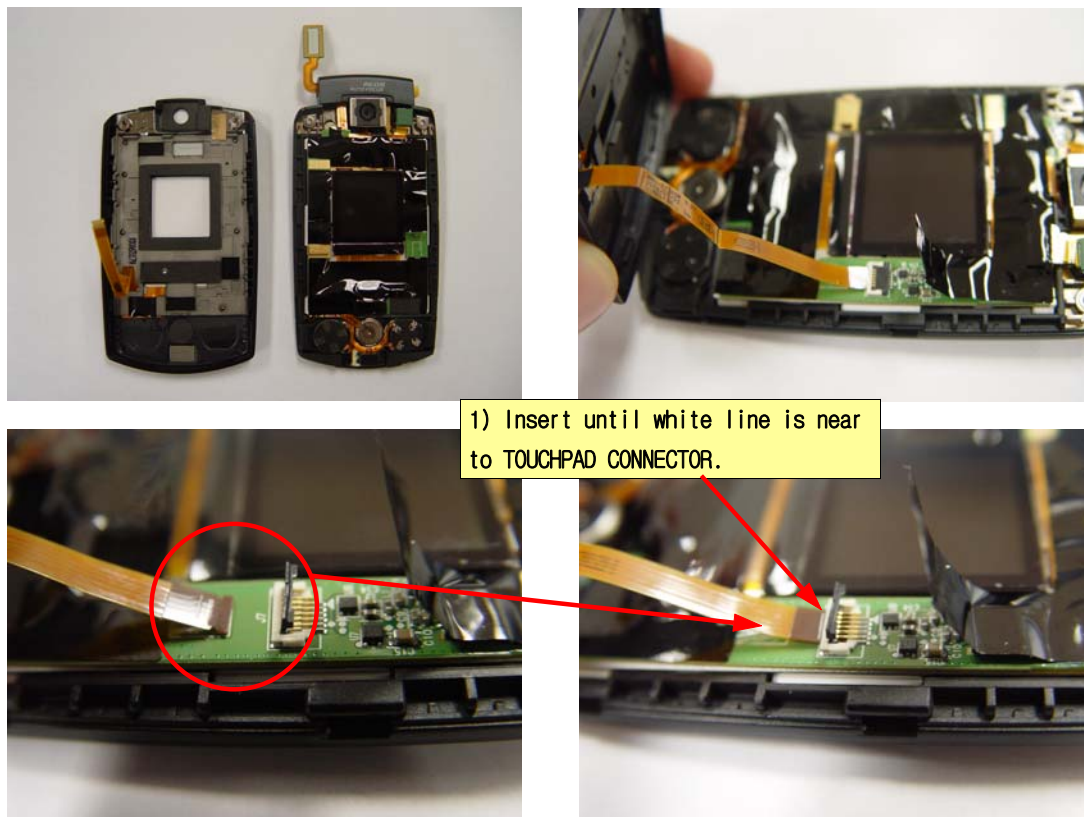
11-2. Assembly

1



1) Attach the Sponge and Insulating Tape to the LCD PBA.

2



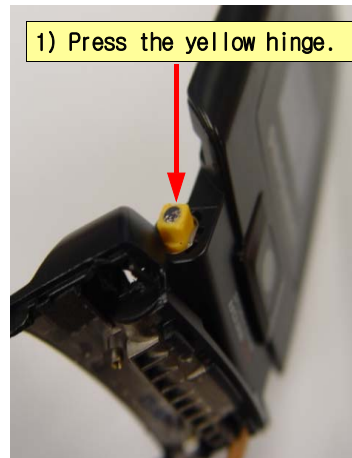
1) Insert into the TOUCHPAD CONNECTOR.

3



1) Assemble from the lower side.

4



1) Insert the LCD CONNECTOR to the FRONT as shown above, then assemble the FRONT pressing YELLOW HINGE.

5



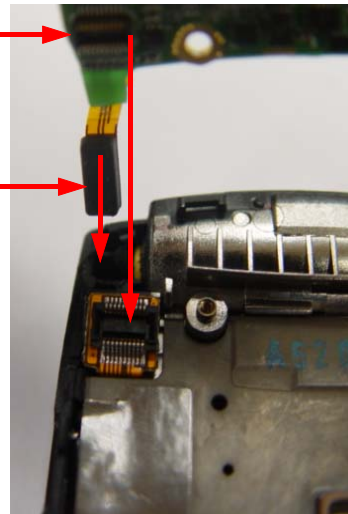
1) Assemble the KEY PAD ASS'Y to the FRONT ASS'Y.

6



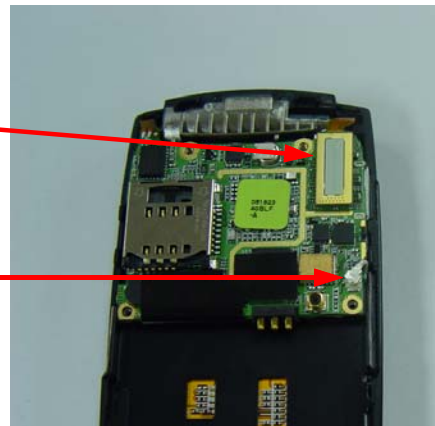
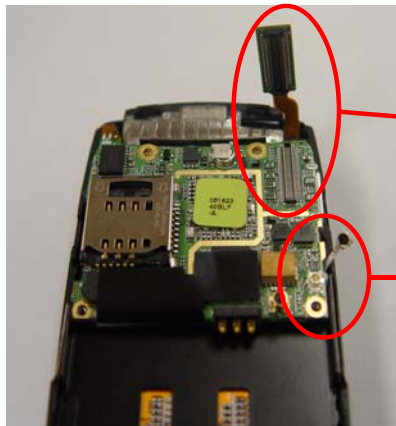
KEY Connector

BT ANTENNA



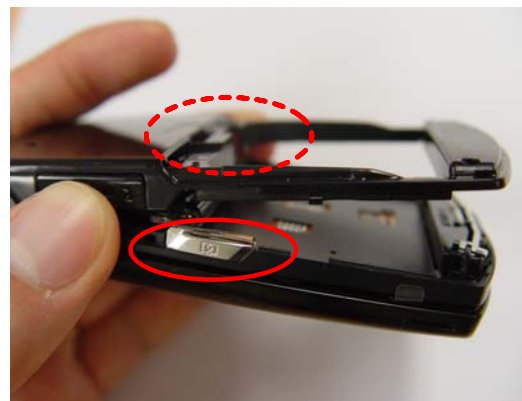
- 1) Insert BT ANTENNA to the hole.
- 2) Combine KEY CONNECTOR to the KEY PAD ASS'Y

7



- 1) Assemble LCD CONNECTOR and RF CABLE to the PBA.

8



- 1) Assemble the REAR following the direction of red arrow as shown above.
- 2) Insert CAMERA KEY and VOLUME KEY before assembling.

9



- 1) Screw up the six points.
- 2) Put in SCREW COVER, and attach RF SHEET.
- 3) Assemble the BATTERY COVER.

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