

SAMSUNG

UMTS TELEPHONE

SGH-T729

SERVICE ***Manual***

UMTS TELEPHONE



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**SAMSUNG
ELECTRONICS**



GSPN (Global Service Partner Network)

Country	Web Site
North America	service.samsungportal.com
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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 specification of cellular phone is sensitive for surrounding interference(RF noise).
- Be careful to use a kind of magnetic object or tool,
because performance of parts is damaged by the influence of magnetic force.
- Surely use a standard screwdriver when you disassemble this product,
otherwise screw will be worn away.
- Use a thicken twisted wire when you measure level.
A thicken twisted wire has low resistance, therefore error of measurement is few.
- Repair after separate Test Pack and Set because for short danger (for example an overcurrent and furious flames of parts etc) when you repair board in condition of connecting Test Pack and tuning on.
- Take specially care of soldering, because Land of PCB is small and weak in heat.
- Surely tune on/off while using AC power plug, because a repair of battery charger is dangerous when tuning ON/OFF PBA and Connector after disassembling charger.
- Don't use as you pleases after change other material than replacement registered on SEC System.
Otherwise engineer in charge isn't charged with problem that you don't keep this rules.

1-2. ESD(Electrostatically Sensitive Devices) Precaution

Several semiconductor may be damaged easily by static electricity. Such parts are called by ESD (Electrostatically Sensitive Devices), for example IC,BGA chip etc. Read Precaution below.

You can prevent from ESD damage by static electricity.

- Remove static electricity remained your body before you touch semiconductor or parts with semiconductor. There are ways that you touch an earthed place or wear static electricity prevention string on wrist.
- Use earthed soldering steel when you connect or disconnect ESD.
- Use soldering removing tool to break static electricity. , otherwise ESD will be damaged by static electricity.
- Don't unpack until you set up ESD on product. Because most of ESD are packed by box and aluminum plate to have conductive power,they are prevented from static electricity.
- You must maintain electric contact between ESD and place due to be set up until ESD is connected completely to the proper place or a circuit board.

2. Specification

2-1. GSM General Specification

		GSM850	EGSM900	DCS1800	PCS1900
Freq.Band[MHz] Uplink/Downlink		824~849 869~894	880~915 925~960	1710~1785 1805~1880	1850~1910 1930~1990
ARFCN range		128~251	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	GPRS	0.3GMSK	0.3GMSK	0.3GMSK	0.3GMSK
	EDGE	8PSK	8PSK	8PSK	8PSK
MS Power	GPRS	33~5dBm	33~5dBm	30~0dBm	30~0dBm
	EDGE	27~5dBm	27~5dBm	26~0dBm	26~0dBm
Power Class	GPRS	Class 4	Class 4	Class 1	Class 1
	EDGE	Class E2	Class E2	Class E2	Class E2
Sensitivity		-102dBm	-102dBm	-102dBm	-102dBm
TDMA Mux		8	8	8	8
Cell Radius		35Km	35Km	2Km	2Km

2-2. GSM Tx Power Class

TX Power control level	GSM850 /GSM900
5	33±2 dBm
6	31±2 dBm
7	29±2 dBm
8	27±2 dBm
9	25±2 dBm
10	23±2 dBm
11	21±2 dBm
12	19±2 dBm
13	17±2 dBm
14	15±2 dBm
15	13±2 dBm
16	11±3 dBm
17	9±3dBm
18	7±3 dBm
19	5±3 dBm

TX Power control level	DCS1800 /PCS1900
0	30±3 dBm
1	28±3 dBm
2	26±3 dBm
3	24±3 dBm
4	22±3 dBm
5	20±3 dBm
6	18±3 dBm
7	16±3 dBm
8	14±3 dBm
9	12±4 dBm
10	10±4 dBm
11	8±4dBm
12	6±4 dBm
13	4±4 dBm
14	2±5 dBm
15	0±5 dBm

2-3. EDGE Tx Power Class

TX Power control level	GSM850 /GSM900
8	27±3 dBm
9	25±3 dBm
10	23±3 dBm
11	21±3 dBm
12	19±3 dBm
13	17±3 dBm
14	15±3 dBm
15	13±3 dBm
16	11±5 dBm
17	9±5 dBm
18	7±5 dBm
19	5±5 dBm

TX Power control level	DCS1800 /PCS1900
2	26±3 dBm
3	24±3 dBm
4	22±3 dBm
5	20±3 dBm
6	18±3 dBm
7	16±3 dBm
8	14±3 dBm
9	12±4 dBm
10	10±4 dBm
11	8±4dBm
12	6±4 dBm
13	4±4 dBm
14	2±5 dBm
15	0±5 dBm

3. Operation Instruction and Installation

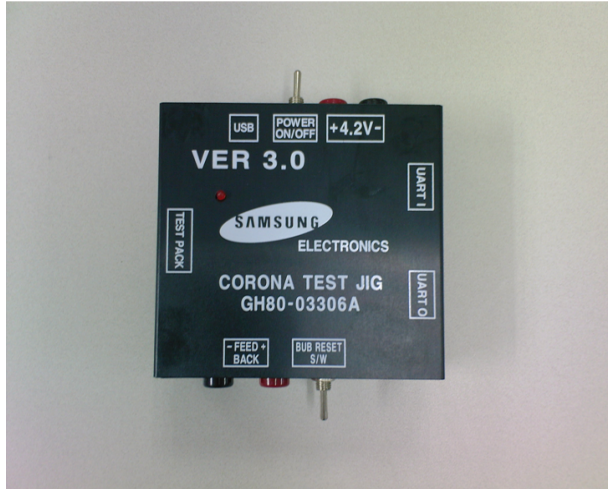
Main Function

- Quad-band(850/900/1800/1900MHz)
- GPRS/EDGE Class 10
- 1.3M Camera
- Bluetooth Wireless Technology V2.0 + EDR
- **SMS/EMS/MMS (300K)**
- 2.1" 176×220 TFT 262K
- JAVA MIDP 2.0/CLDC 1.1
- **64 Poly Melody & MP3 ring-tone**
- WAP2.0
- USB 1.1
- 5X4 Keypad

4. Array course control

4-1. Software Downloading

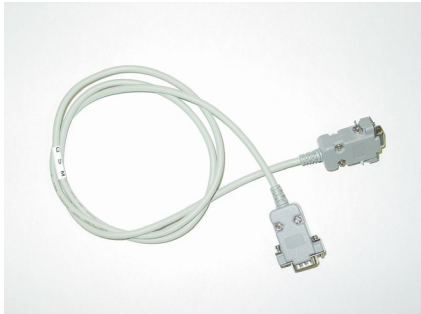
Test Jig(GH80-03306A)



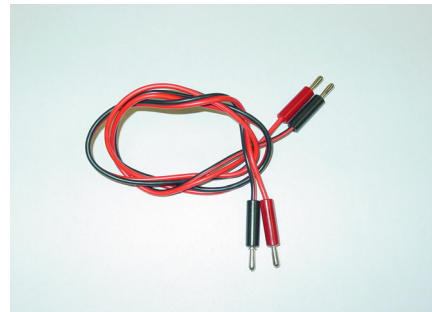
Test Cable(GH39-00835A)



Serial Cable(CSA LL64151-A)



Power Supply Cable



4-2. Software Downloading

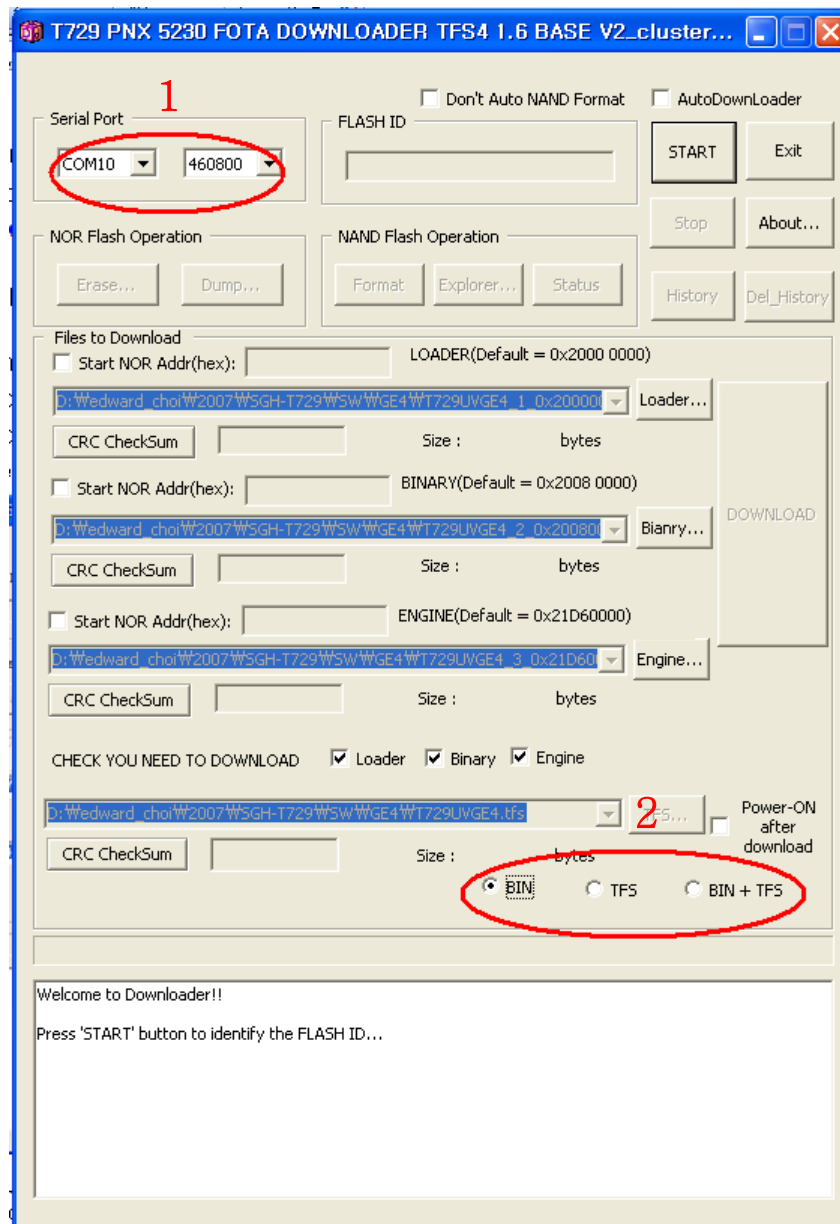
4-2-1. Pre-requisite for Downloading

- Downloader Program([T729 PNX5230 FOTA Downloade\(TFS1.6BASE\) V2_clustersize2.exe](#))
- SGH-T729 Mobile Phone
- Data Cable
- Loader file, Binary file, Engine file, TFS file

4-2-2. S/W Downloader Program

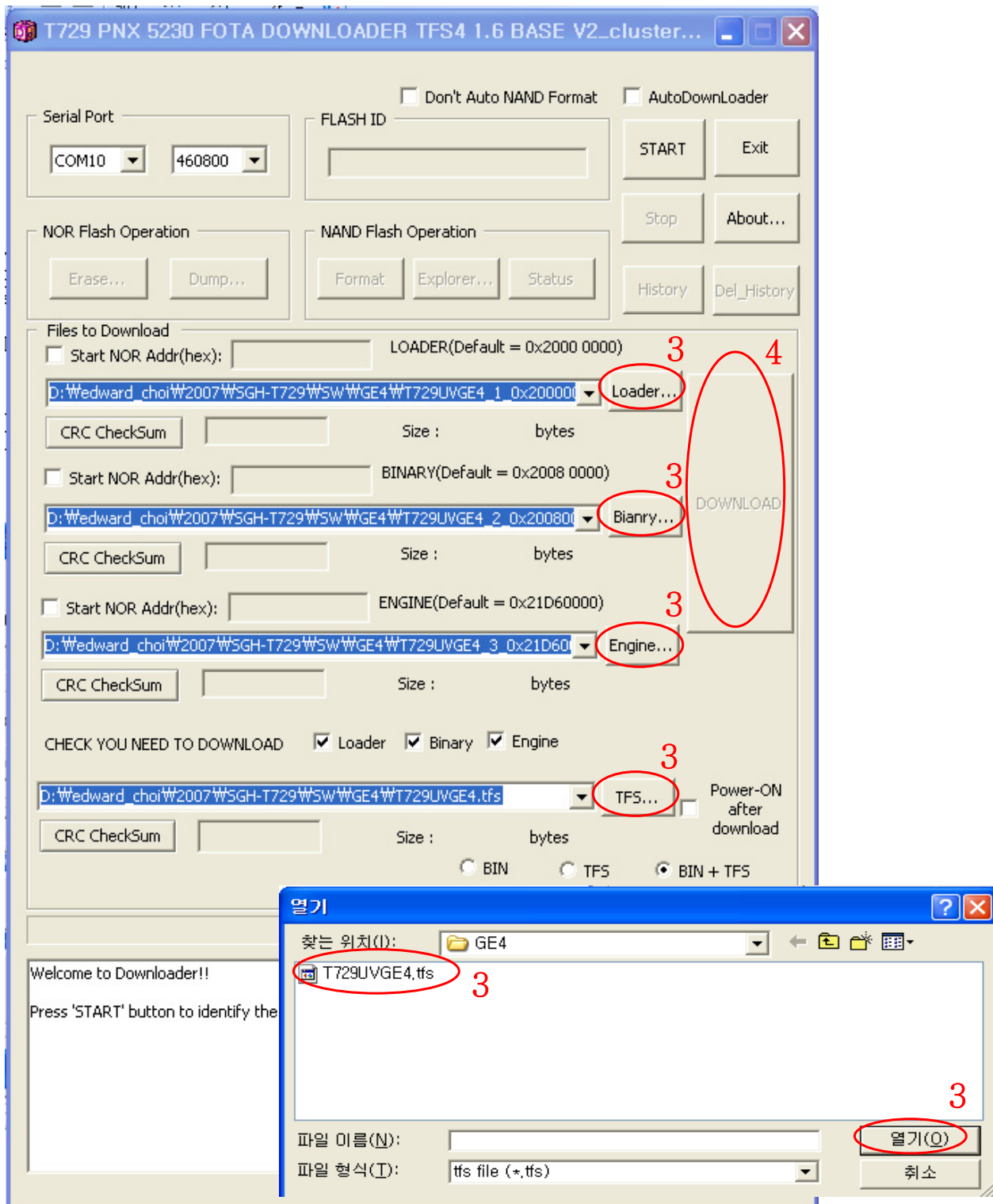
- Load the binary download program by executing the
“[T729 PNX5230 FOTA Downloade\(TFS1.6BASE\) V2_clustersize2.exe](#)”

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

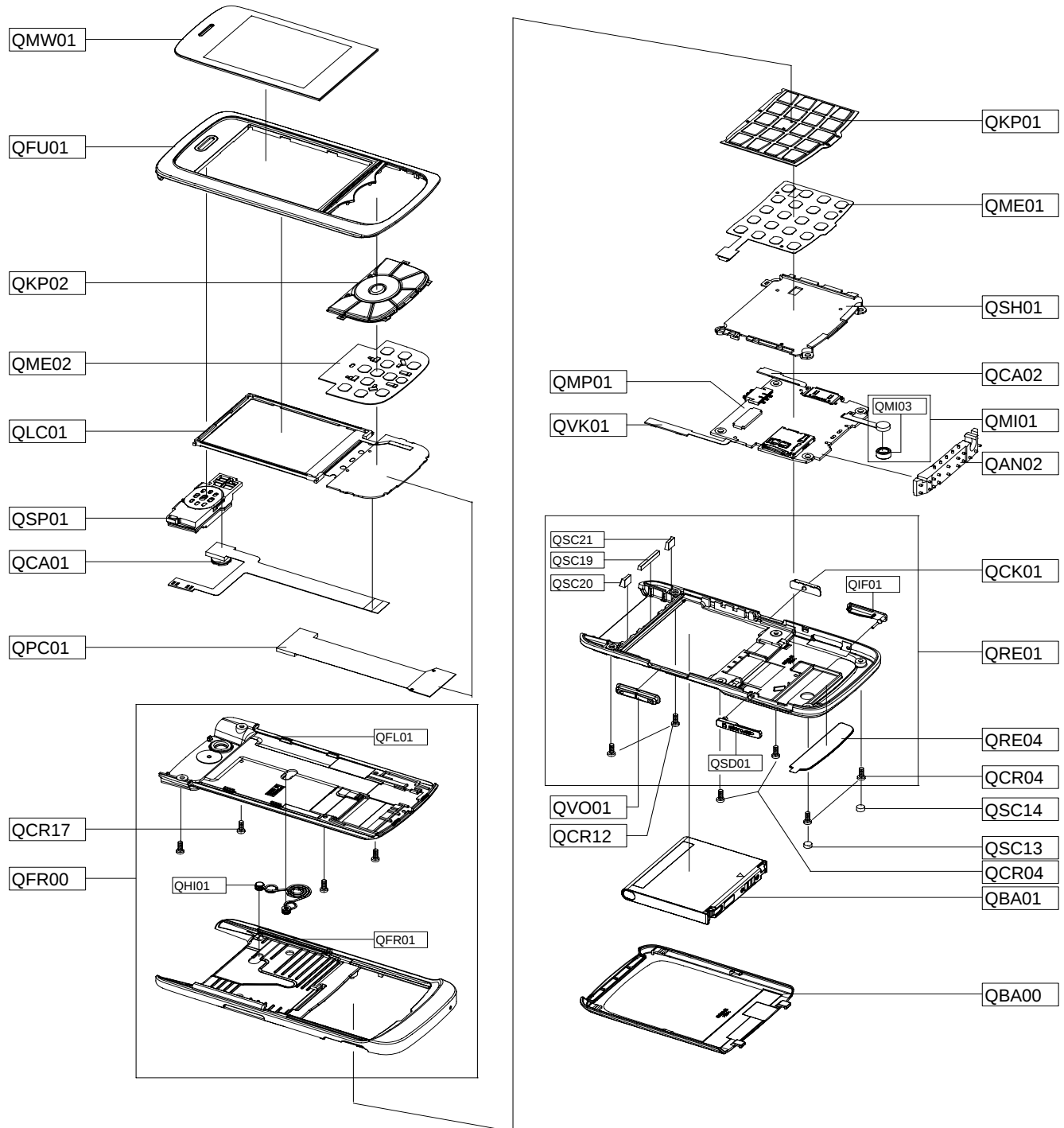
- click 'Loder...' to select a loader file.
- click 'Binary...' to select a binary file.
- click 'Engine...' to select a engine file.
- click 'TFS...' to select a tfs file.



4. Click the 'DOWNLOAD' button to downloading

5. Exploded View/Disassembly&Assembly Instructions

5-1. Cellular phone Exploded View



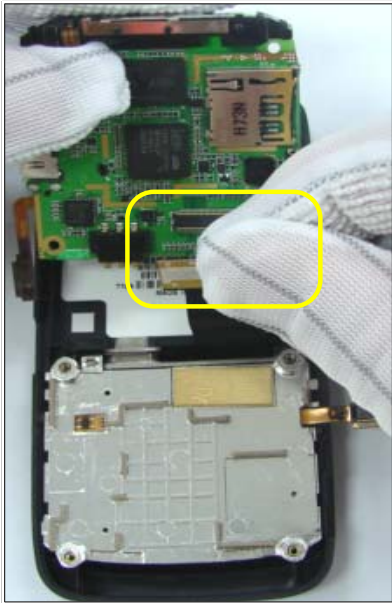
5-2. Cellular phone Parts list

Design	LOC	Description	SEC CODE
QAN02		INTENNA-SGH T729	GH42-01185A
QBA00		PMO-COVER BATTERY	GH72-36275A
QBA01		INNER BATTERY PACK-800MAH,BLK,	GH43-02574A
QCA01		CAMERA MODULE-SGHT729MODULE	GH59-03947A
QCA02		KEY FPCB-CAMERA KEY FPCB	GH59-04014A
QCK01		PMO-CAMERA KEY	GH72-36271A
QCR04		SCREW-MACHINE	6001-001479
QCR04		SCREW-MACHINE	6001-001479
QCR12		SCREW-MACHINE	6001-001530
QCR17		SCREW-MACHINE	6001-001460
QFU01		ASSY CASE-SLIDE UPPER	GH98-04241A
QKP01		ASSY KEYPAD-MAIN(TMB/BLK)	GH98-04825A
QKP02		ASSY KEYPAD-SUB(TMB/BLK)	GH98-04826A
QLC01		ELA ETC-SGHT729 LCD MODULE	GH96-02415A
QME01		KEY FPCB-MAIN KEY PBA	GH59-03946A
QME02		DOME SHEET-METAL DOME(SUB)	GH59-04011A
QMI01		MICROPHONE-ASSY-SGHT729	GH30-00347A
QMI03		AS-SCHS299 MIC RUBBER HOLDER	GH81-06644A
QMP01		PBA MAIN-SGHT729	GH92-03375A
QMW01		ASSY COVER-MAIN WINDOW	GH98-04915A
QPC01		MEA-SLIDE FPCBKIT	GH97-07881A
QRE04		ASSY DECO-REAR	GH98-06036A
QSC13		RMO-COVER REAR SCREW L	GH73-09733A
QSC14		RMO-COVER REAR SCREW R	GH73-09734A
QSH01		ASSY BRACKET-SHIELD CAN	GH98-04916A
QSP01		ASSY ETC-SGHT729,SPK MODULE	GH59-04664A
QVK01		KEY FPCB-VOLUME KEY FPCB	GH59-04010A
QVO01		PMO-VOLUME KEY	GH72-36274A
QRE01		ASSY CASE-CASE REAR	GH98-04239A
	QSD01	PMO-COVER MICRO SD	GH72-36273A
	QIF01	PMO COVER-EAR IF V2	GH72-42347A
	QSC19	ASSY RUBBER-REAR DAMPER C	GH98-04912A
	QSC20	ASSY RUBBER-REAR DAMPER L	GH98-04913A
	QSC21	ASSY RUBBER-REAR DAMPER R	GH98-04914A
QFR00		ASSY CASE-FRONT SLIDE LOWER	GH98-06231A
	QFR01	ASSY CASE-CASE FRONT	GH98-04238A
	QFL01	ASSY CASE-SLIDE LOWER	GH98-04240A
	QHI01	ASSY HINGE-MULTI TORSION SPRIN	GH98-04895A

Description	SEC CODE
BAG PE	6902-000297
ADAPTOR-SGH_T419 BLK	GH44-01700A
UNIT-AWB SIM CARD	GH59-00943A
EARPHONE	GH59-04402A
LABEL(P)-SEAL UNIT	GH68-04256A
LABEL(R)-WATERSOAK(NEW)	GH68-14285A
LABEL(R)-MAIN(TMB)	GH68-14764A
MANUAL USERS-QS_POSTERENGLIS	GH68-14808A
CUSHION-COVER(TMB)	GH69-02793A
CUSHION-CASE(TMB)	GH69-05389A
BOX-UNIT(TMB)	GH69-05390A
RMO RUBBER-PCB PAM	GH73-10795A
RMO RUBBER-KEY IC	GH73-10830A
MPR-REMOVE TAPE LCD	GH74-13804A
TAPE INSU	GH74-17897A
MPR-TAPE LED	GH74-17926A
TAPE GASK	GH74-21989A
MPR-INSU TAPE	GH74-27511A
MPR-INSU TAPE	GH74-28964A
VINYL-BOHO MAIN LCD	GH74-33144A
TAPE INSU-CAMERA/LCD CONN	GH74-33350A
TAPE ELEC-DOMESHEET	GH74-33351A
TAPE ELEC-SUB DOMESHEET R	GH74-33352A
TAPE ELEC-SUB DOMESHEET L	GH74-33353A
TAPE-LCD CONNECTOR	GH74-33354A
TAPE GASK	GH74-34326A
TAPE INSU-J TAG	GH74-34392A
VINYL-BOHO CASE REAR U	GH74-34485A
VINYL-BOHO CASE REAR B	GH74-34486A
AS-SGHT729 CAMERA TAPE	GH81-06795A
PAA ETC-MANUL(TMB)	GH99-23857A

5-3. Disassembly and Assembly Instructions

5-3-1. Disassembly

1 1) Remove 6 screws and 2 screw covers from a rear case 	2 1) Open an I/F cover and a SD card cover 2) Disassemble a rear case by using a disassembly knife. 
1) Be cautious when you remove a screw. It is possible to damage a case or to scratch the one.	1) Be cautious when you use a disassembly knife. It is possible to damage a case or to scratch the one.
3 1) Disassemble a side key and 2 FPCBs 2) Detach a key connector 	4 1) Detach a PBA from a slide ass'y 
1) Be cautious when you detach a side key FPCB. It is possible to be torn or to be crumpled.	1) Be cautious when you detach a slide FPCB. It is possible to be torn or to be crumpled.

5

1) Detach a PBA, a key bracket, and a 5 x4 Key Pad



6

1) Remove 4 lower screws from a lower case



1) Be cautious when you remove a screw. It is possible to damage a case or to scratch the one.

7

1) Disassemble a lower case by using a disassembly knife.



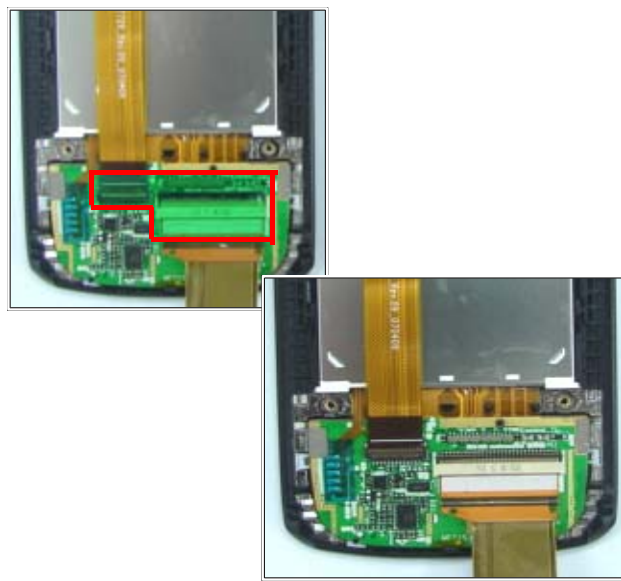
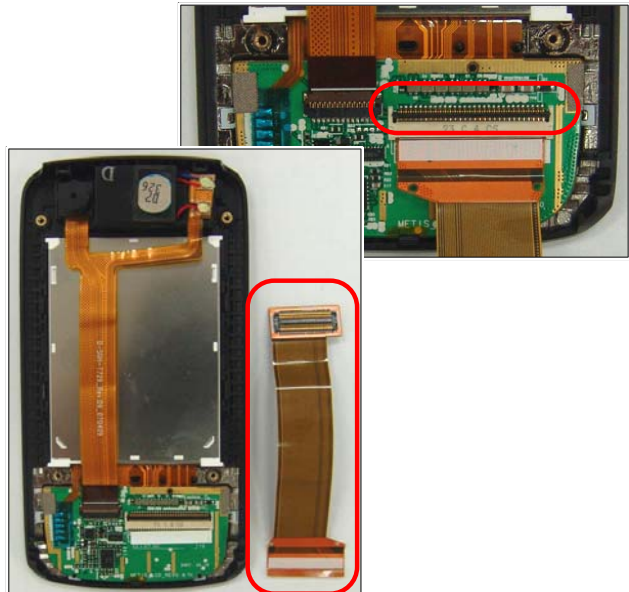
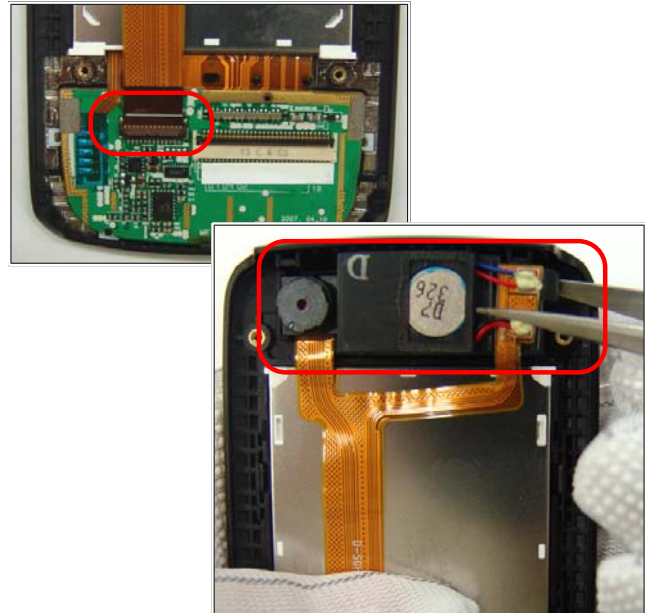
1) Be cautious about a damage of an upper case and a lower case.
2) Be cautious when you use a disassembly knife. It is possible to damage a case or to scratch the one.

8

1) Detach a slide ass'y



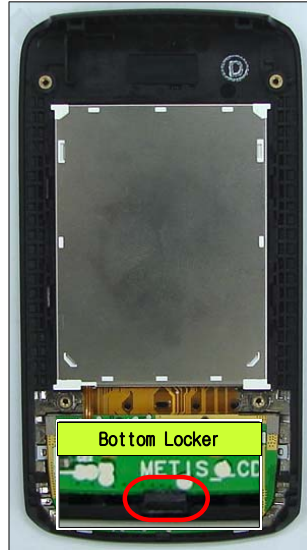
1) Be cautious when you detach a slide ass'y. It is possible for a slide FPCB to be torn or to be crumpled.

9 1) Detach an insulation Tape 	10 1) Detach a slide FPCB 
	1) Be cautious when you detach a slide FPCB. It is possible to be torn or to be crumpled.
11 1)Detach a speaker/camera module 	12 1) Detach a LCD Module and a sub key pad from an upper case 2) Detach a sub Key Pad 
1) Be cautious when you use a tweezers. It is possible to damage a case or to scratch the one. It is possible to be torn or to be crumpled. 3) Be cautious when you detach a LCD FPCB. It is possible to be torn or to be crumpled.	1) Be cautious when you detach a LCD module from an upper case. It is possible that your finger prints will be marked on a LCD module.

5-3-2. Assembly

1

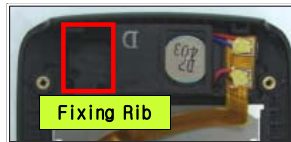
- 1) Attach a sub key pad to an upper case.
- 2) Attach a LCD module to an upper case.



- 1) When you attach a LCD module to an upper case, fix a LCD module to an bottom locker.

2

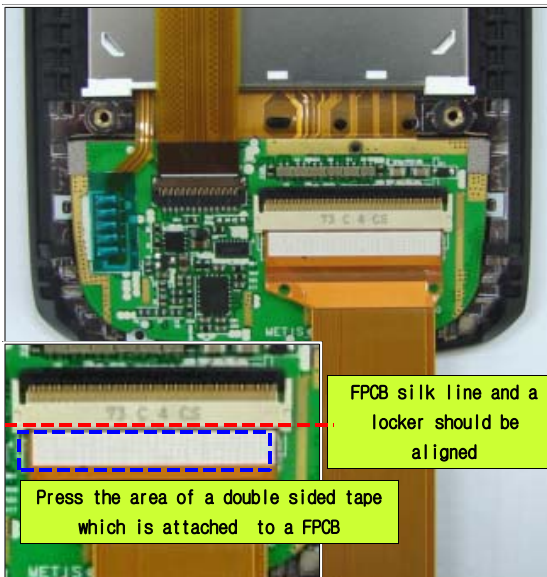
- 1) Attach a speaker module
- 2) Insert a FPCB to a connector



- 1) Be cautious when you detach a slide FPCB. It is possible to be torn or to be crumpled.

3

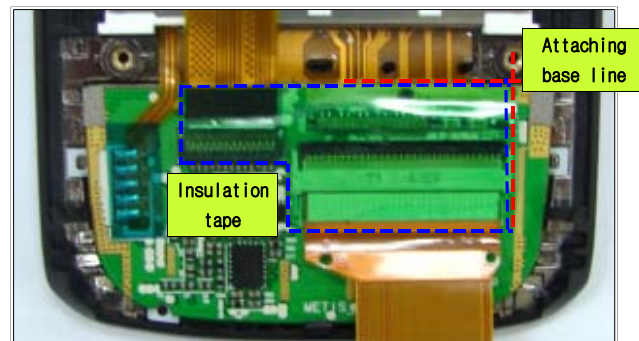
- 1) Insert a slide FPCB to a connector



- 1) Be cautious when you detach a slide FPCB. It is possible to be torn or to be crumpled.

4

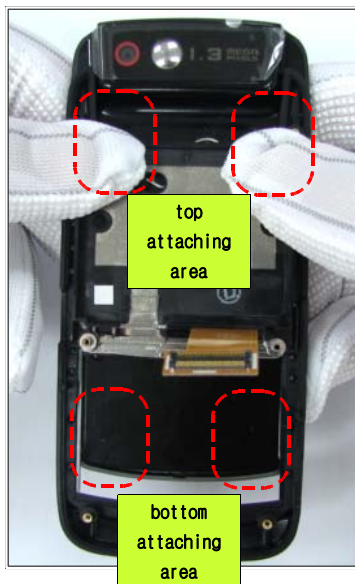
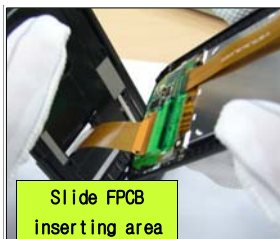
- 1) Attach an insulation tape for fixing a FPCB



- 1) Attach an insulation tape to a PBA

5

1) Assemble a slide ass'y



6

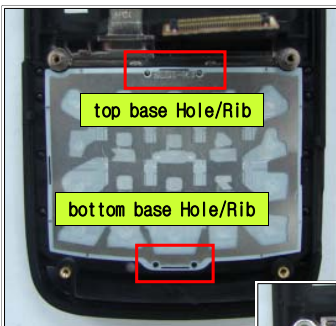
1) Screw on a lower case with 4 screws.



1) Be cautious when you assemble a screw. It is possible to damage a case or to scratch the one.

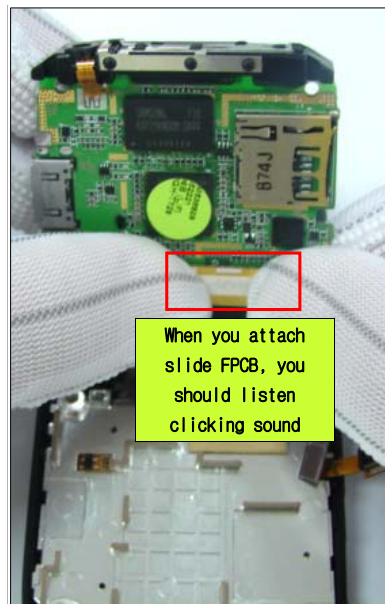
7

1) Attach a 5 x 4 key pad
2) Attach a key bracket



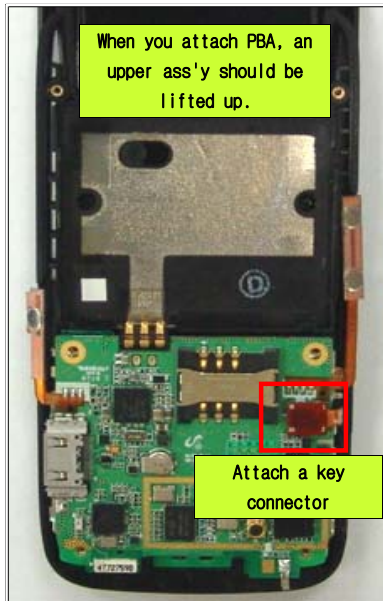
8

1) Attach a slide FPCB



9

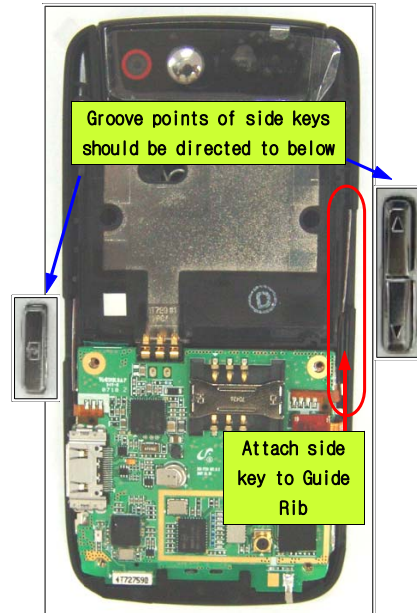
1) Attach a PBA



11) Be cautious when you attach a volume key FPCB and a camera key FPCB. It is possible to be torn or to be crumpled.

10

1) Assemble a volume key and a camera key



1) When you attach a volume key FPCB, it should be in Guide Rib

11

1) Assemble a rear case



12

1) Screw on a rear case with 6 screws
2) Attach a RF cover and 2 screw covers



1) Be cautious when you assemble a screw. It is possible to damage a case or to scratch the one.

6. MAIN Electrical Parts List

Design LOC	Description	SEC Code	STATUS
ANT500	ANTENNA-CHIP	4202-001284	SA
BAT400	BATTERY-LI(2ND)	4302-001181	SA
BTC600	HEADER-BATTERY	3711-006217	SA
C100	C-CER,CHIP	2203-005050	SA
C101	C-CER,CHIP	2203-005552	SA
C103	C-CER,CHIP	2203-005234	SA
C104	C-CER,CHIP	2203-000854	SA
C105	C-CER,CHIP	2203-006215	SA
C107	C-CER,CHIP	2203-005234	SA
C108	C-CER,CHIP	2203-005444	SA
C109	C-CER,CHIP	2203-005050	SA
C110	C-CER,CHIP	2203-005050	SA
C111	C-CER,CHIP	2203-000627	SNA
C112	C-CER,CHIP	2203-006562	SA
C113	C-CER,CHIP	2203-000233	SA
C114	C-CER,CHIP	2203-000233	SA
C115	C-CER,CHIP	2203-005288	SA
C116	C-CER,CHIP	2203-005288	SA
C117	C-CER,CHIP	2203-005288	SA
C118	C-CER,CHIP	2203-000233	SA
C120	C-CER,CHIP	2203-005288	SA
C121	C-CER,CHIP	2203-000278	SA
C122	C-CER,CHIP	2203-000233	SA
C123	C-CER,CHIP	2203-006048	SA
C124	C-CER,CHIP	2203-000530	SNA
C125	C-CER,CHIP	2203-006048	SA
C126	C-CER,CHIP	2203-005482	SA
C127	C-CER,CHIP	2203-000278	SA
C128	C-CER,CHIP	2203-000438	SA
C200	C-CER,CHIP	2203-005482	SA
C201	C-CER,CHIP	2203-000812	SA
C202	C-CER,CHIP	2203-005482	SA
C203	C-CER,CHIP	2203-000254	SA
C204	C-CER,CHIP	2203-005482	SA
C205	C-CER,CHIP	2203-005482	SA
C206	C-CER,CHIP	2203-005482	SA
C207	C-CER,CHIP	2203-005482	SA
C208	C-CER,CHIP	2203-005482	SA

Design LOC	Description	SEC Code	STATUS
C209	C-CER,CHIP	2203-005482	SA
C210	C-CER,CHIP	2203-005482	SA
C211	C-CER,CHIP	2203-000812	SA
C212	C-CER,CHIP	2203-005482	SA
C213	C-CER,CHIP	2203-005482	SA
C214	C-CER,CHIP	2203-005482	SA
C215	C-CER,CHIP	2203-000425	SA
C216	C-CER,CHIP	2203-000425	SA
C300	C-CER,CHIP	2203-005482	SA
C301	C-CER,CHIP	2203-006562	SA
C302	C-CER,CHIP	2203-006562	SA
C303	C-CER,CHIP	2203-005482	SA
C304	C-CER,CHIP	2203-005482	SA
C305	C-CER,CHIP	2203-005482	SA
C306	C-CER,CHIP	2203-005482	SA
C307	C-CER,CHIP	2203-005482	SA
C308	C-CER,CHIP	2203-000438	SA
C309	C-CER,CHIP	2203-000233	SA
C310	C-CER,CHIP	2203-006562	SA
C311	C-CER,CHIP	2203-006562	SA
C312	C-CER,CHIP	2203-000330	SA
C313	C-CER,CHIP	2203-000330	SA
C314	C-CER,CHIP	2203-006562	SA
C315	C-CER,CHIP	2203-006562	SA
C316	C-CER,CHIP	2203-006562	SA
C317	C-CER,CHIP	2203-000330	SA
C318	C-CER,CHIP	2203-000330	SA
C319	C-CER,CHIP	2203-006562	SA
C320	C-CER,CHIP	2203-006562	SA
C321	C-CER,CHIP	2203-006562	SA
C400	C-CER,CHIP	2203-000812	SA
C401	C-CER,CHIP	2203-006257	SA
C402	C-CER,CHIP	2203-006257	SA
C403	C-CER,CHIP	2203-007165	SA
C404	C-CER,CHIP	2203-006890	SA
C405	C-CER,CHIP	2203-006257	SA
C406	C-CER,CHIP	2203-006399	SA
C407	C-CER,CHIP	2203-006257	SA

Design LOC	Description	SEC Code	STATUS
C408	C-CER,CHIP	2203-007165	SA
C409	C-CER,CHIP	2203-006257	SA
C410	C-CER,CHIP	2203-007165	SA
C411	C-CER,CHIP	2203-006257	SA
C412	C-CER,CHIP	2203-000233	SA
C413	C-CER,CHIP	2203-000386	SA
C414	C-CER,CHIP	2203-006562	SA
C416	C-CER,CHIP	2203-006348	SA
C417	C-CER,CHIP	2203-000386	SA
C419	C-CER,CHIP	2203-006324	SA
C420	C-CER,CHIP	2203-006257	SA
C421	C-CER,CHIP	2203-005482	SA
C422	C-CER,CHIP	2203-007165	SA
C424	C-CER,CHIP	2203-006048	SA
C425	C-CER,CHIP	2203-005571	SA
C426	C-CER,CHIP	2203-006474	SA
C500	C-CER,CHIP	2203-006838	SA
C501	C-CER,CHIP	2203-006260	SA
C502	C-CER,CHIP	2203-005482	SA
C503	C-CER,CHIP	2203-005482	SA
C504	C-CER,CHIP	2203-000278	SA
C505	C-CER,CHIP	2203-006838	SA
C506	C-CER,CHIP	2203-005482	SA
C507	C-CER,CHIP	2203-000278	SA
C510	C-CER,CHIP	2203-000233	SA
C511	C-CER,CHIP	2203-000278	SA
C512	C-CER,CHIP	2203-006842	SA
C513	C-CER,CHIP	2203-000278	SA
C514	C-CER,CHIP	2203-006562	SA
C515	C-CER,CHIP	2203-006562	SA
C600	C-CER,CHIP	2203-001437	SA
C601	C-CER,CHIP	2203-001259	SA
C602	C-CER,CHIP	2203-001437	SA
C603	C-CER,CHIP	2203-003054	SA
C604	C-CER,CHIP	2203-003054	SA
C605	C-CER,CHIP	2203-006979	SA
C606	C-CER,CHIP	2203-005482	SA
C607	C-CER,CHIP	2203-000812	SA

Design LOC	Description	SEC Code	STATUS
C608	C-CER,CHIP	2203-000812	SA
C609	C-CER,CHIP	2203-000330	SA
C611	C-CER,CHIP	2203-005288	SA
C612	C-CER,CHIP	2203-005482	SA
C613	C-CER,CHIP	2203-005482	SA
C615	C-CER,CHIP	2203-000278	SA
C616	C-CER,CHIP	2203-000278	SA
C617	C-CER,CHIP	2203-005482	SA
C618	C-CER,CHIP	2203-005482	SA
C619	C-CER,CHIP	2203-000812	SA
C620	C-CER,CHIP	2203-005288	SA
C621	C-CER,CHIP	2203-000330	SA
C700	C-CER,CHIP	2203-006562	SA
C701	C-CER,CHIP	2203-006562	SA
C702	C-CER,CHIP	2203-006562	SA
C703	C-CER,CHIP	2203-000627	SNA
C704	C-CER,CHIP	2203-006562	SA
C705	C-CER,CHIP	2203-006562	SA
C706	C-CER,CHIP	2203-006626	SA
C707	C-CER,CHIP	2203-000627	SNA
C708	C-CER,CHIP	2203-000627	SNA
C709	C-CER,CHIP	2203-000627	SNA
C710	C-CER,CHIP	2203-005053	SA
C711	C-CER,CHIP	2203-005053	SA
C712	C-CER,CHIP	2203-005053	SA
C713	C-CER,CHIP	2203-005053	SA
C714	C-CER,CHIP	2203-000627	SNA
C715	C-CER,CHIP	2203-006187	SA
C716	C-CER,CHIP	2203-006187	SA
C717	C-CER,CHIP	2203-006187	SA
C718	C-CER,CHIP	2203-006187	SA
C719	C-CER,CHIP	2203-005725	SA
C720	C-CER,CHIP	2203-005725	SA
C721	C-CER,CHIP	2203-005725	SA
C722	C-CER,CHIP	2203-006562	SA
C723	C-CER,CHIP	2203-006562	SA
CD400	CONNECTOR-CARD EDGE	3709-001344	SA
D400	DIODE-TVS	0406-001200	SA

Design LOC	Description	SEC Code	STATUS
D600	DIODE-TVS	0406-001208	SA
D601	DIODE-TVS	0406-001208	SA
D602	DIODE-TVS	0406-001150	SA
DUF500	FILTER-LC	2909-001279	SA
F100	DUPLEXER-FEM	2911-000076	SA
F500	FILTER-EMI SMD	2901-001315	SA
F600	FILTER-EMI SMD	2901-001463	SA
F700	FILTER-EMI/ESD	2901-001450	SA
F701	FILTER-EMI/ESD	2901-001450	SA
F702	FILTER-EMI/ESD	2901-001450	SA
F703	FILTER-EMI/ESD	2901-001450	SA
F704	FILTER-EMI/ESD	2901-001450	SA
HDC700	HEADER-BOARD TO BOARD	3711-005456	SA
IFC600	SOCKET-INTERFACE	3710-002534	SA
L100	INDUCTOR-SMD	2703-002176	SA
L101	INDUCTOR-SMD	2703-002314	SA
L102	INDUCTOR-SMD	2703-002608	SA
L103	INDUCTOR-SMD	2703-002176	SA
L104	INDUCTOR-SMD	2703-002207	SA
L105	INDUCTOR-SMD	2703-002608	SA
L106	INDUCTOR-SMD	2703-002558	SA
L107	INDUCTOR-SMD	2703-002558	SA
L400	INDUCTOR-SMD	2703-003113	SA
L401	BEAD-SMD	3301-001120	SA
L501	BEAD-SMD	3301-001659	SA
L600	INDUCTOR-SMD	2703-002155	SA
L601	BEAD-SMD	3301-001729	SA
L602	BEAD-SMD	3301-001438	SA
L603	BEAD-SMD	3301-001438	SA
L604	INDUCTOR-SMD	2703-002155	SA
L605	BEAD-SMD	3301-001729	SA
L606	BEAD-SMD	3301-001438	SA
L607	BEAD-SMD	3301-001438	SA
OSC100	CRYSTAL-SMD	2801-004587	SA
OSC400	CRYSTAL-SMD	2801-004339	SA
OSC500	CRYSTAL-SMD	2801-004659	SA
PAM100	IC-POWER AMP	1201-002556	SA
R100	R-CHIP	2007-000171	SA

Design LOC	Description	SEC Code	STATUS
R101	R-CHIP	2007-000171	SA
R102	R-CHIP	2007-000171	SA
R103	R-CHIP	2007-000171	SA
R104	R-CHIP	2007-000171	SA
R105	R-CHIP	2007-000140	SA
R106	R-CHIP	2007-007141	SA
R107	R-CHIP	2007-000171	SA
R108	R-CHIP	2007-000143	SA
R200	R-CHIP	2007-000171	SA
R201	R-CHIP	2007-000148	SA
R202	R-CHIP	2007-000758	SA
R204	R-CHIP	2007-000758	SA
R205	R-CHIP	2007-000140	SA
R206	R-CHIP	2007-000148	SA
R208	R-CHIP	2007-000157	SA
R209	R-CHIP	2007-000157	SA
R210	R-CHIP	2007-000242	SA
R211	R-CHIP	2007-000242	SA
R212	R-CHIP	2007-000758	SA
R213	R-CHIP	2007-000758	SA
R214	R-CHIP	2007-000758	SA
R215	R-CHIP	2007-000171	SA
R216	R-CHIP	2007-000148	SA
R217	R-CHIP	2007-000171	SA
R300	R-CHIP	2007-000171	SA
R301	R-CHIP	2007-000170	SA
R302	R-CHIP	2007-000171	SA
R303	R-CHIP	2007-000162	SA
R304	R-CHIP	2007-000171	SA
R305	R-CHIP	2007-000148	SA
R306	R-CHIP	2007-000171	SA
R307	R-CHIP	2007-000162	SA
R309	R-CHIP	2007-000165	SA
R310	R-CHIP	2007-001303	SA
R311	R-CHIP	2007-000165	SA
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R313	R-CHIP	2007-000162	SA
R314	R-CHIP	2007-000171	SA

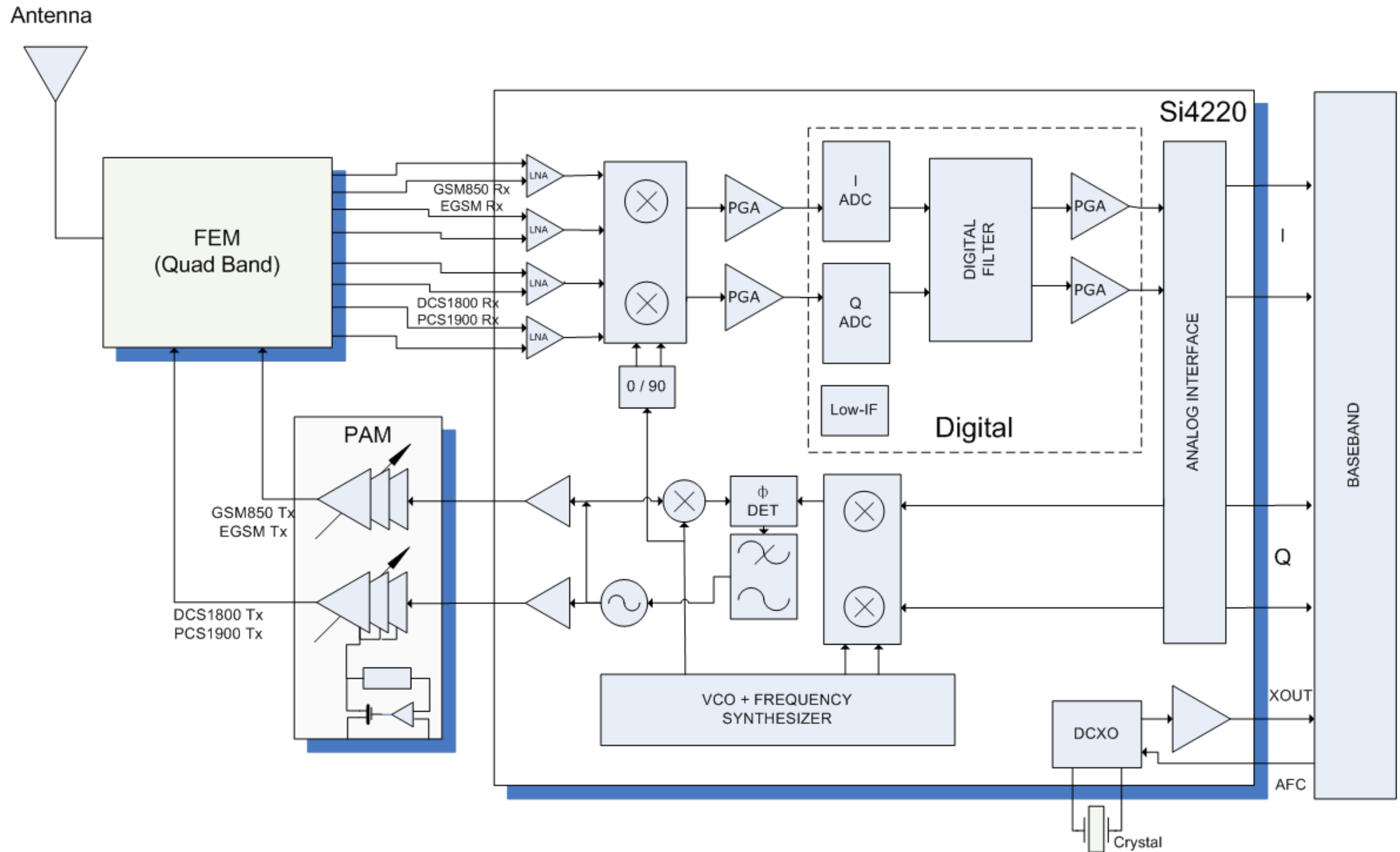
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R319	R-CHIP	2007-000171	SA
R400	R-CHIP	2007-007573	SA
R401	R-CHIP	2007-008354	SA
R402	R-CHIP	2007-001333	SA
R403	R-CHIP	2007-000159	SA
R404	R-CHIP	2007-000140	SA
R405	R-CHIP	2007-008055	SA
R406	R-CHIP	2007-008055	SA
R407	R-CHIP	2007-000166	SA
R408	R-CHIP	2007-000171	SA
R409	R-CHIP	2007-007100	SA
R410	R-CHIP	2007-000153	SA
R412	R-CHIP	2007-000141	SA
R414	R-CHIP	2007-000148	SA
R415	R-CHIP	2007-000162	SA
R505	R-CHIP	2007-008542	SA
R506	R-CHIP	2007-007489	SA
R507	R-CHIP	2007-000170	SA
R508	R-CHIP	2007-000162	SA
R509	R-CHIP	2007-000162	SA
R510	R-CHIP	2007-000170	SA
R511	R-CHIP	2007-000170	SA
R512	R-CHIP	2007-000171	SA
R600	R-CHIP	2007-009112	SNA
R601	R-CHIP	2007-008055	SA
R602	R-CHIP	2007-009112	SNA
R603	R-CHIP	2007-001333	SA
R604	R-CHIP	2007-001301	SA
R605	R-CHIP	2007-001301	SA
R606	R-CHIP	2007-007741	SA
R607	R-CHIP	2007-008486	SA
R609	R-CHIP	2007-008542	SA
R610	R-CHIP	2007-000148	SA
R611	R-CHIP	2007-000171	SA

Design LOC	Description	SEC Code	STATUS
R612	R-CHIP	2007-007107	SA
R613	R-CHIP	2007-000152	SA
R615	R-CHIP	2007-000242	SA
R616	R-CHIP	2007-000242	SA
R617	R-CHIP	2007-000148	SA
R618	R-CHIP	2007-000148	SA
R619	R-CHIP	2007-000242	SA
R620	R-CHIP	2007-000242	SA
R700	R-CHIP	2007-000162	SA
R701	R-CHIP	2007-001291	SA
R702	R-CHIP	2007-001291	SA
R703	R-CHIP	2007-001333	SA
R704	R-CHIP	2007-001291	SA
R705	R-CHIP	2007-001291	SA
R706	R-CHIP	2007-000171	SA
R707	R-CHIP	2007-000171	SA
R708	R-CHIP	2007-000171	SA
R709	R-CHIP	2007-000162	SA
R710	R-CHIP	2007-000162	SA
R711	R-CHIP	2007-001333	SA
RFS100	CONNECTOR-COAXIAL	3705-001358	SA
SIM400	CONNECTOR-CARD EDGE	3709-001447	SA
SLC700	HEADER-BOARD TO BOARD	3711-005933	SA
TA100	C-TA,CHIP	2404-001496	SA
TA600	C-TA,CHIP	2404-001381	SA
TA601	C-TA,CHIP	2404-001474	SA
TA602	C-TA,CHIP	2404-001339	SA
TA603	C-TA,CHIP	2404-001377	SA
TR500	TR-DIGITAL	0504-001151	SA
TR700	FET-SILICON	0505-001325	SA
U100	IC-TRANSCIEVER	1205-003093	SA
U300	IC-CMOS LOGIC	0801-003025	SA
U301	IC-CMOS LOGIC	0801-003025	SA
U302	IC-ANALOG SWITCH	1001-001362	SA
U303	IC-AUDIO AMP	1201-002511	SA
U400	FET-SILICON	0505-002111	SA
U401	IC-POWER SUPERVISOR	1203-004382	SA
U501	IC-TRANSCIEVER	1205-002942	SA

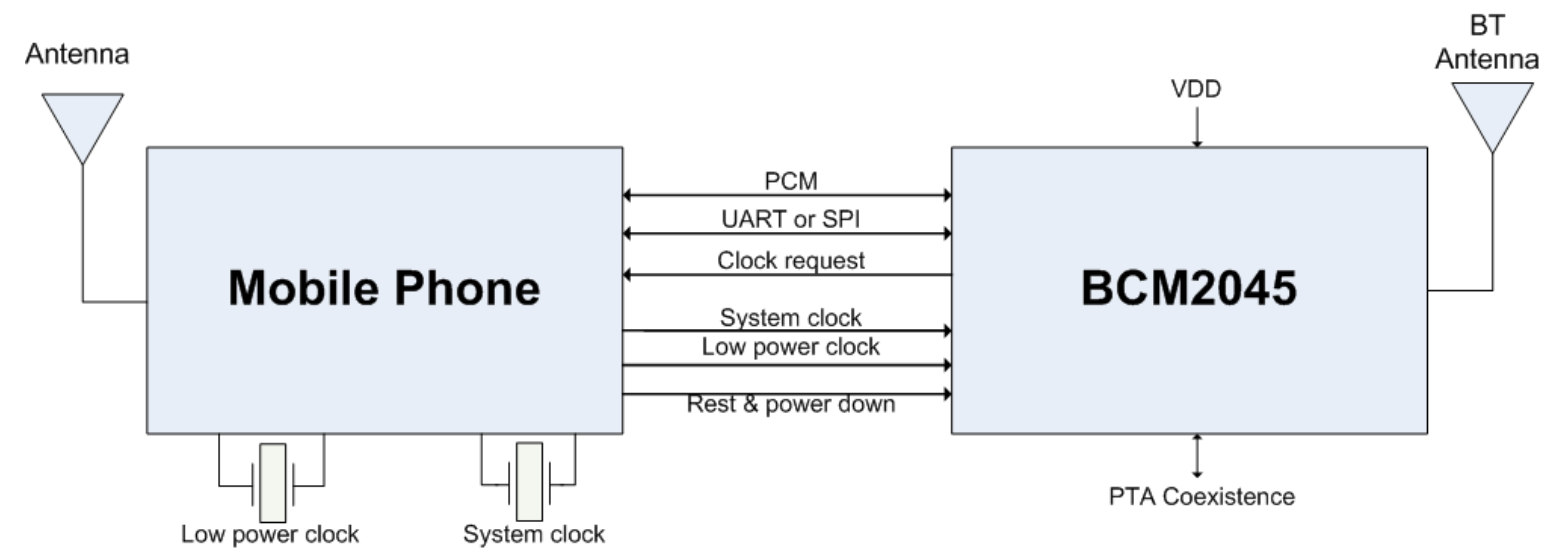
Design LOC	Description	SEC Code	STATUS
U502	IC-POSI.FIXED REG.	1203-003737	SA
U700	IC-SWITCH	1205-003193	SA
U701	IC-POSI.FIXED REG.	1203-003737	SA
UCD300	IC ASIC-SGHE490	GH13-00044A	SA
UCP200	IC-COMM. CONTROLLER	1205-003082	SA
UME300	IC-MCP	1108-000104	SA
VR600	THERMISTOR-NTC	1404-001221	SA
VR700	VARISTOR	1405-001082	SA
VR701	VARISTOR	1405-001082	SA
VR702	VARISTOR	1405-001082	SA
VR703	VARISTOR	1405-001082	SA
VR704	VARISTOR	1405-001082	SA
VR705	VARISTOR	1405-001082	SA
VR706	VARISTOR	1405-001082	SA
VR707	VARISTOR	1405-001082	SA
ZD300	DIODE-TVS	0406-001254	SA
ZD600	DIODE-TVS	0406-001254	SA
ZD601	DIODE-TVS	0406-001254	SA
ZD700	DIODE-TVS	0406-001223	SA
ZD701	DIODE-TVS	0406-001223	SA
ZD702	DIODE-TVS	0406-001223	SA
ZD703	DIODE-TVS	0406-001190	SA
ZD704	DIODE-TVS	0406-001190	SA
ZD705	DIODE-TVS	0406-001190	SA
ZD706	DIODE-TVS	0406-001223	SA
ZD707	DIODE-TVS	0406-001223	SA
ZD708	DIODE-TVS	0406-001223	SA
ZD709	DIODE-TVS	0406-001223	SA

7. Block Diagrams

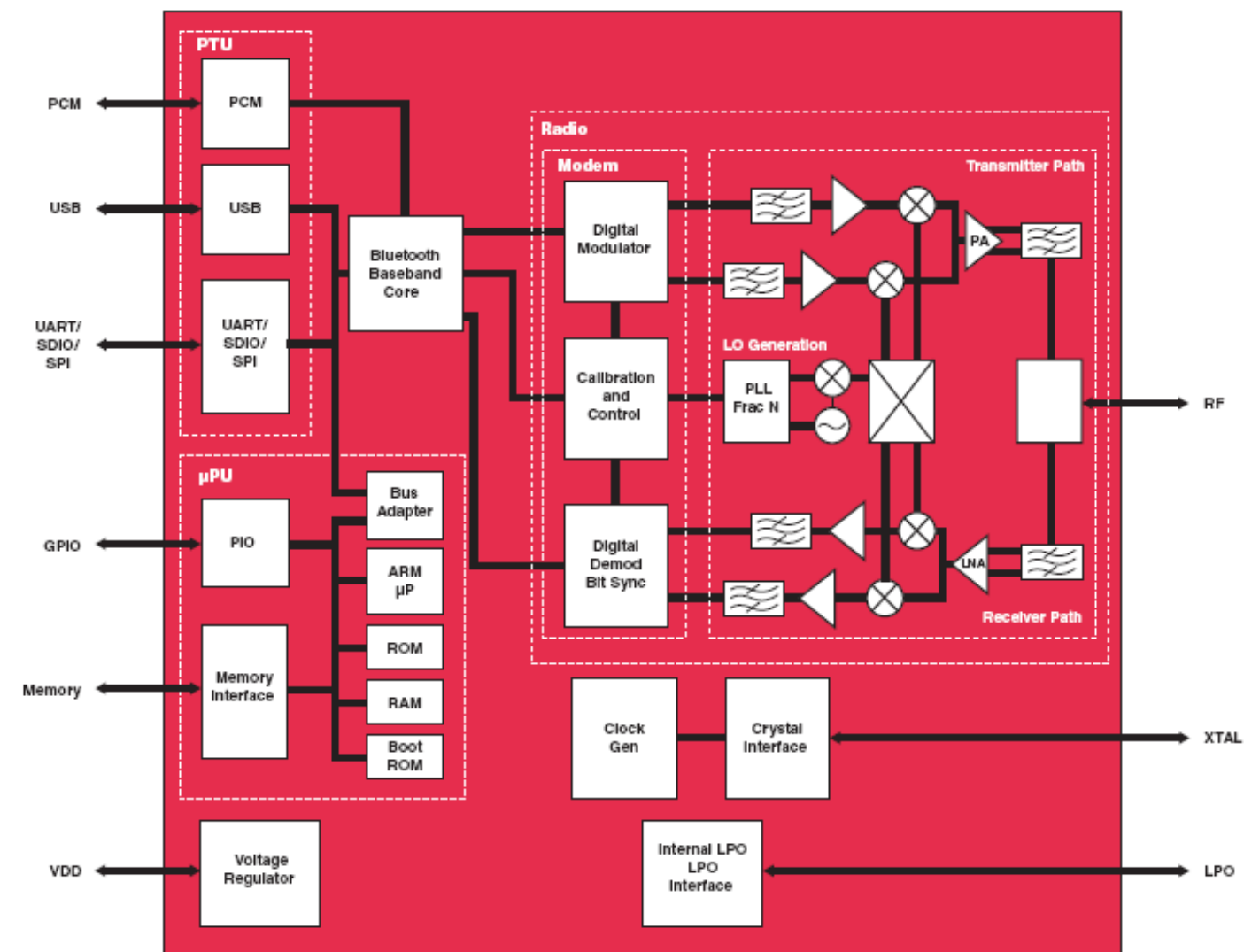
7-1. RF Solution Block Diagram



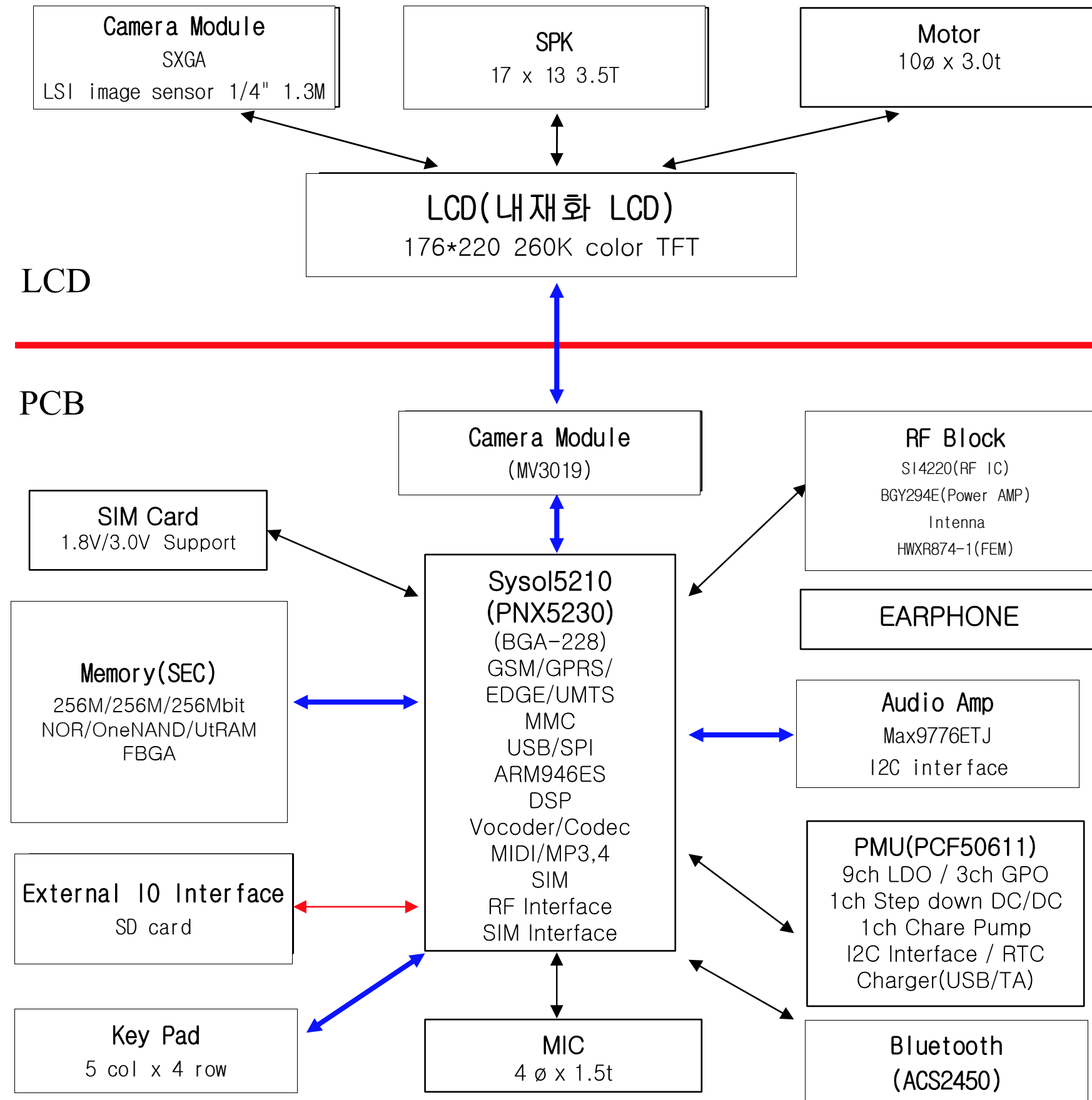
7-2. BT Solution Block Diagram



[BCM2045 BLOCK DIAGRAM]

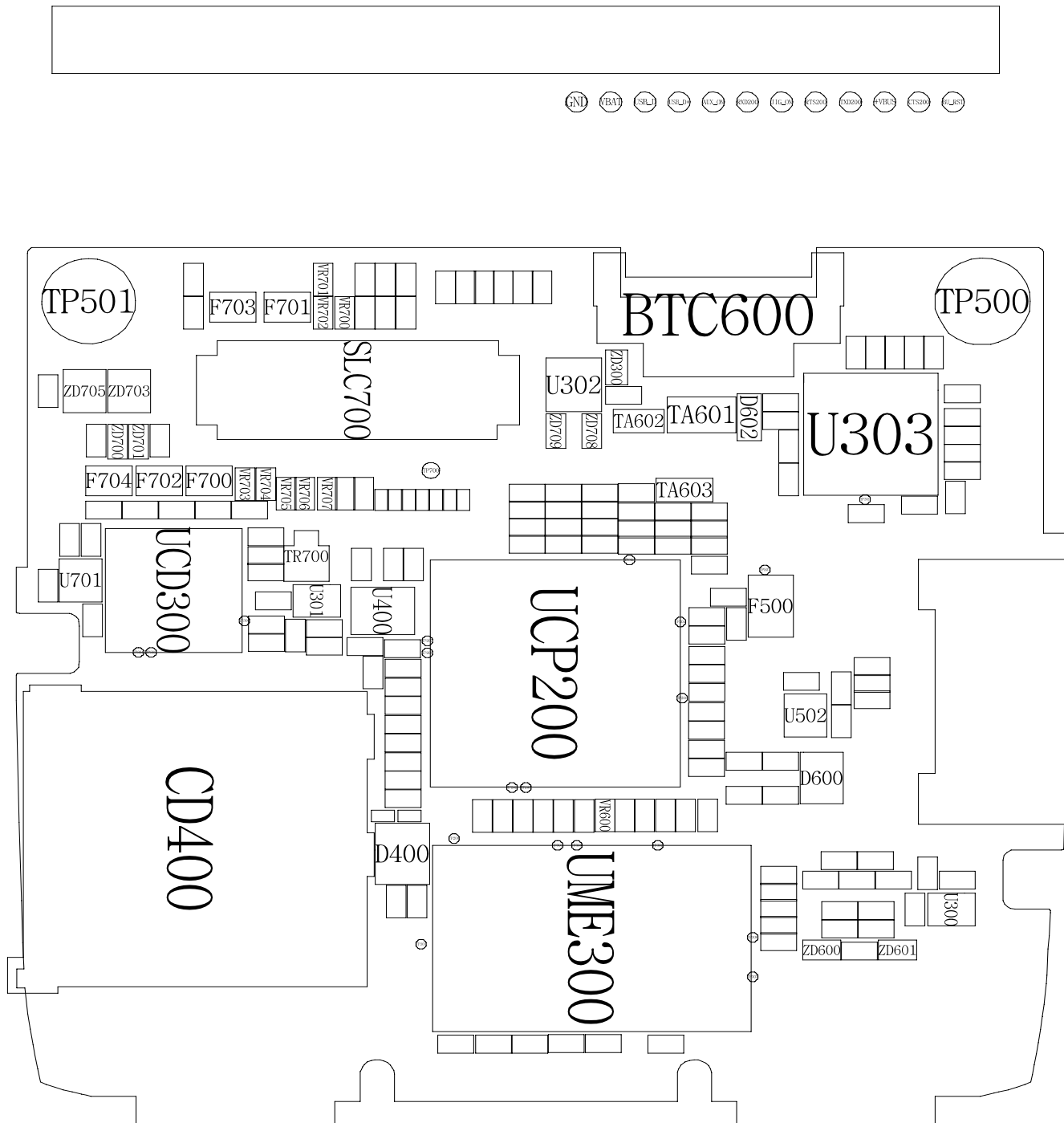


7-3. Base Band Solution Block Diagram

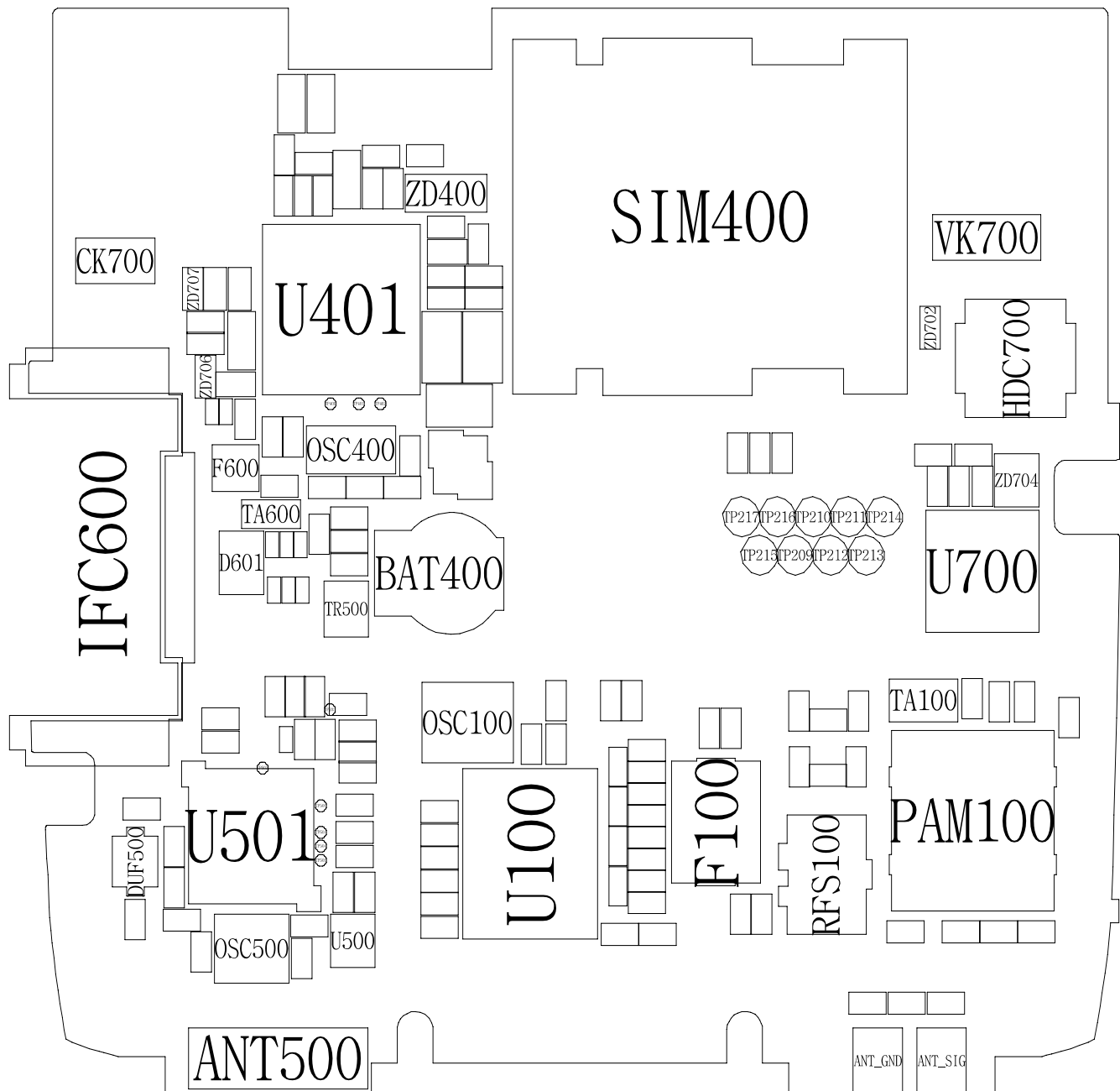


8. PCB Diagrams

Top

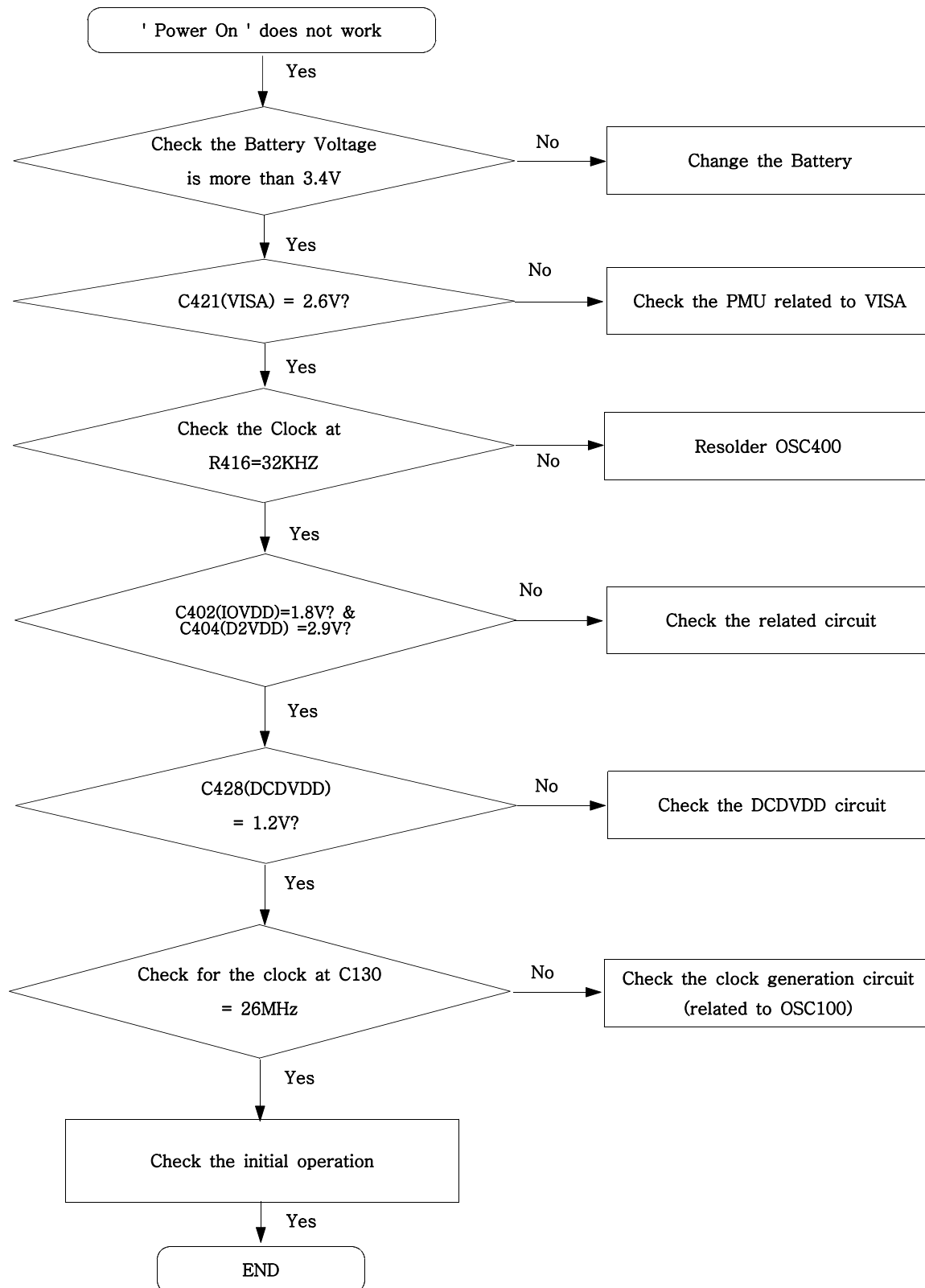


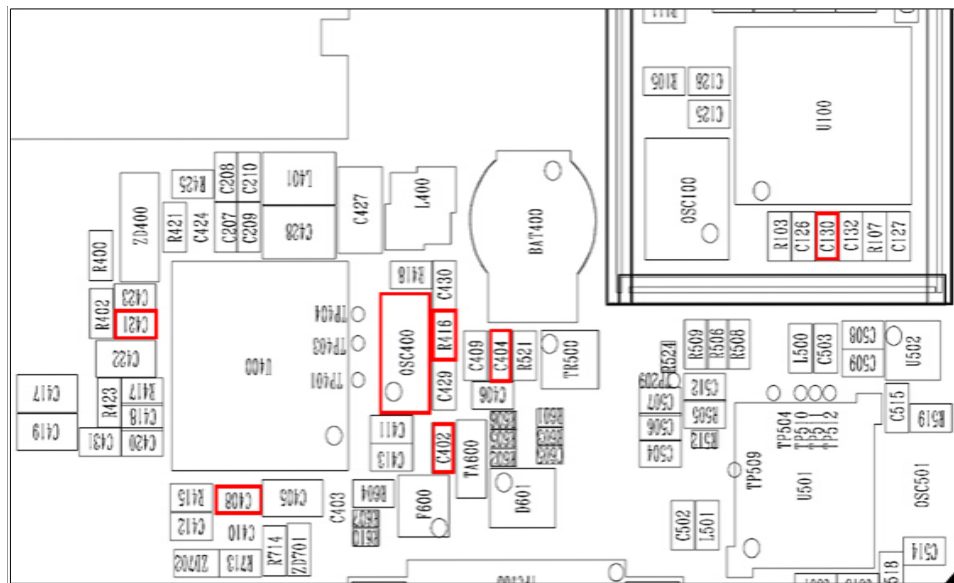
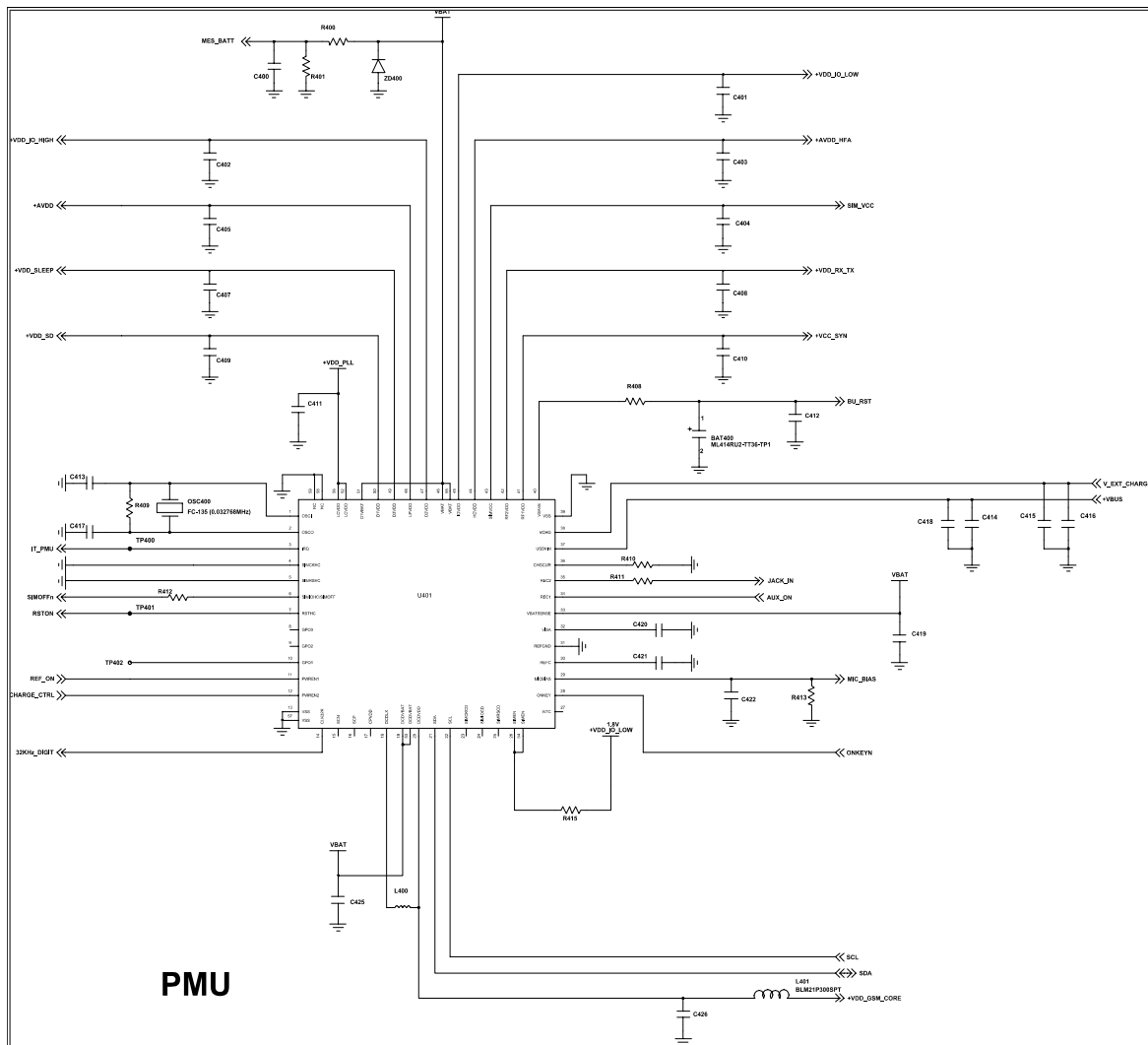
Bottom



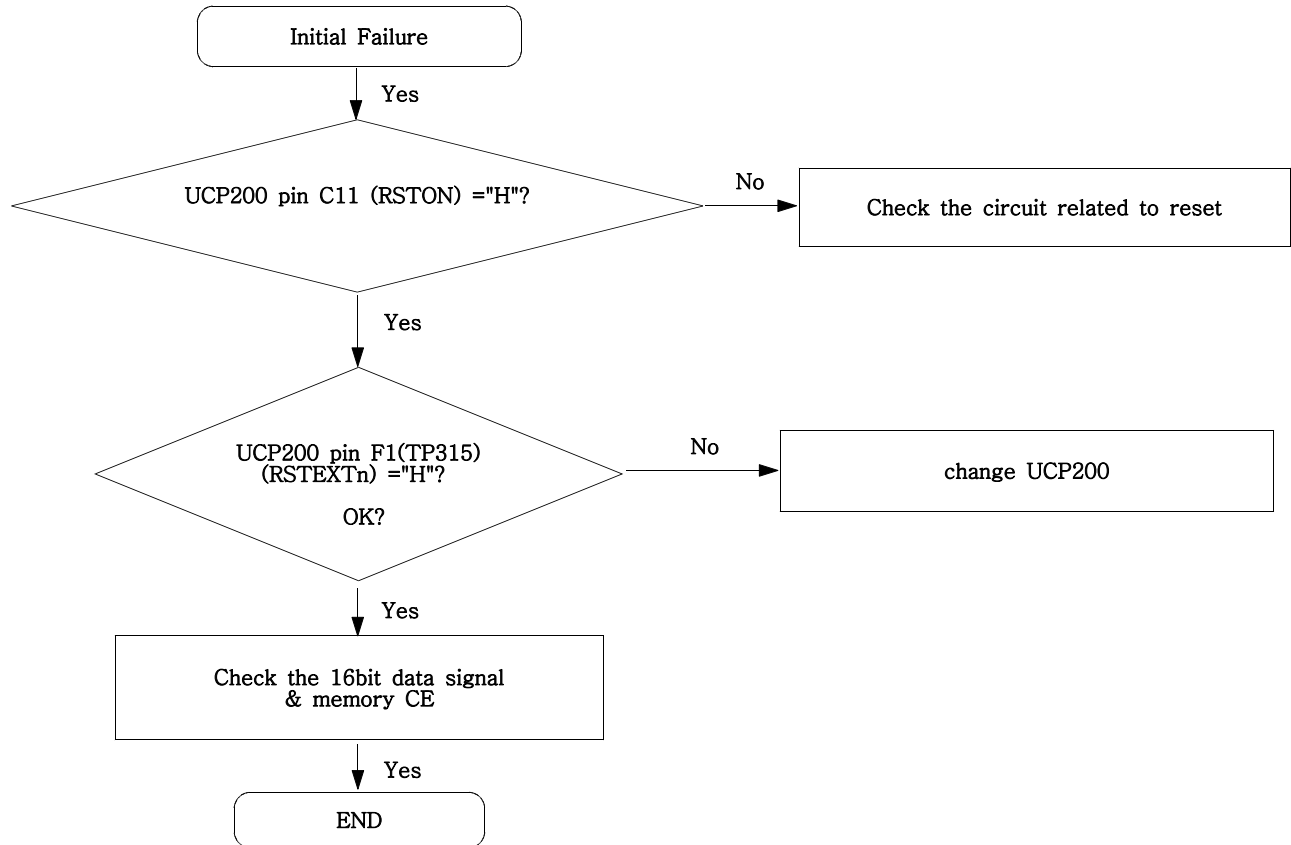
9. Flow Chart of Troubleshooting

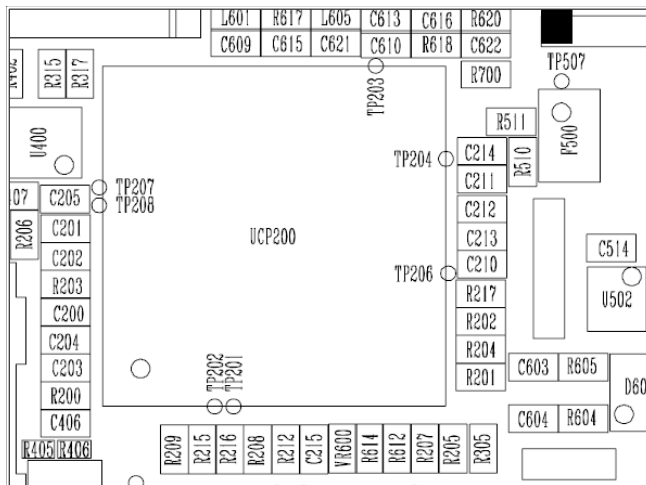
9-1. Power On



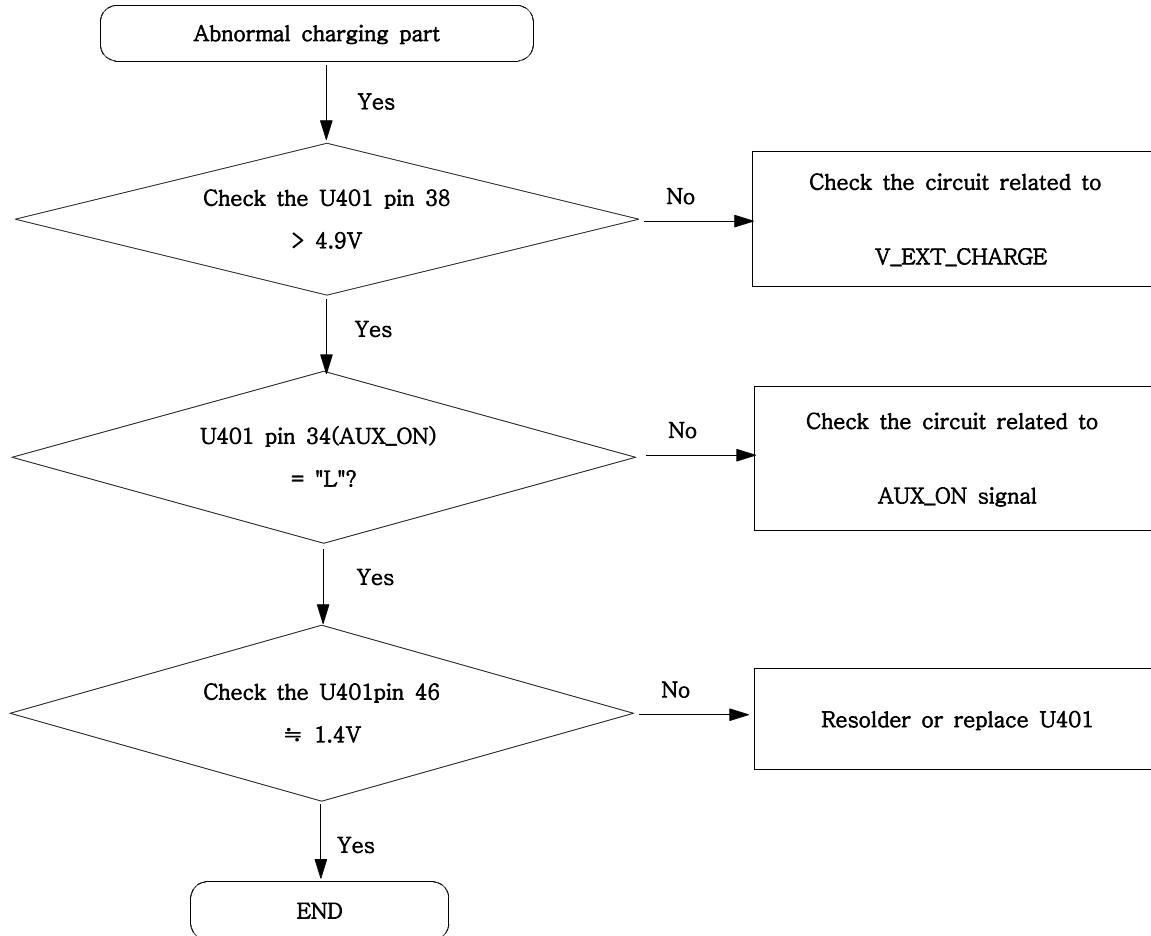


9-2. Initial



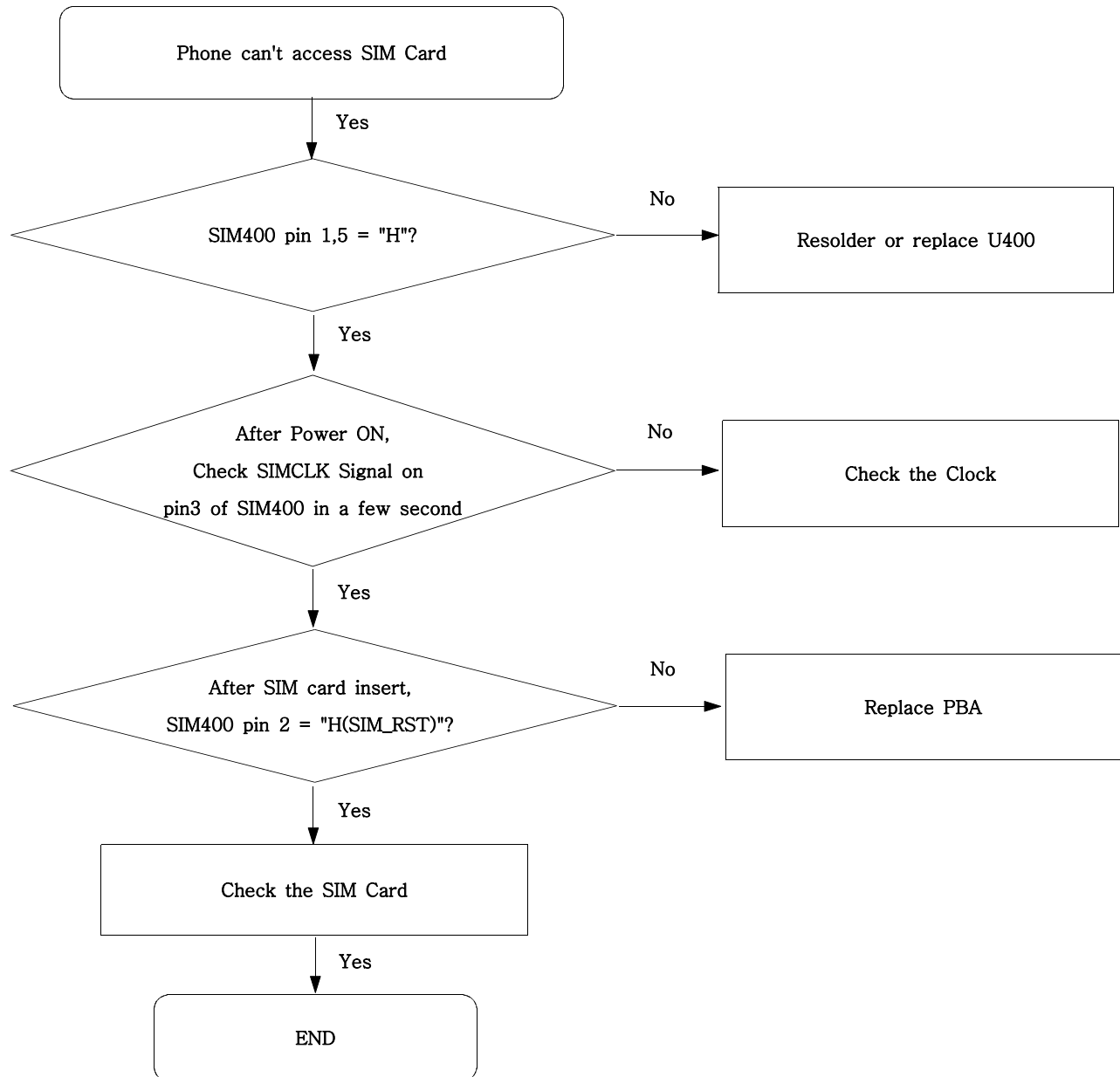


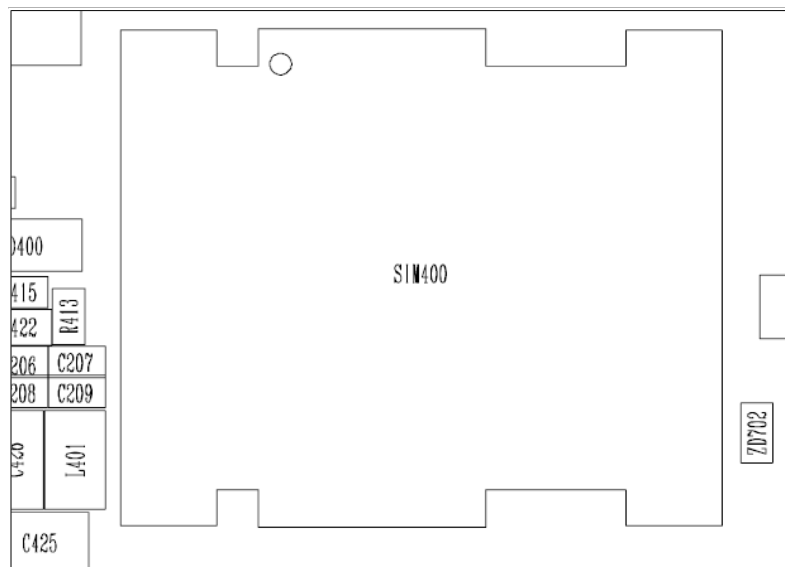
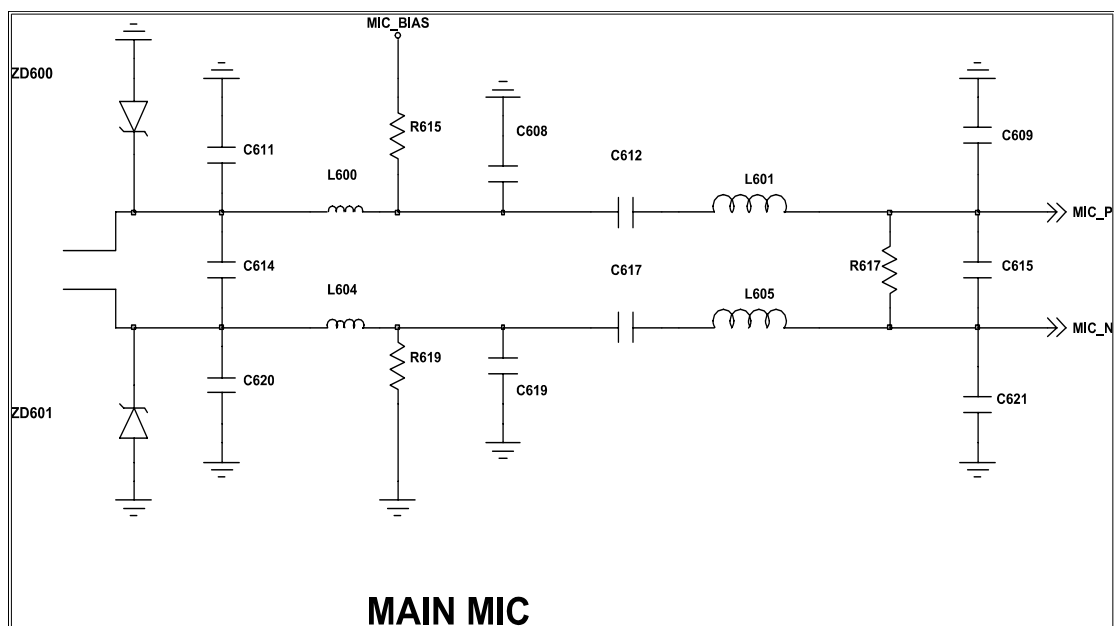
9-3. Charging Part



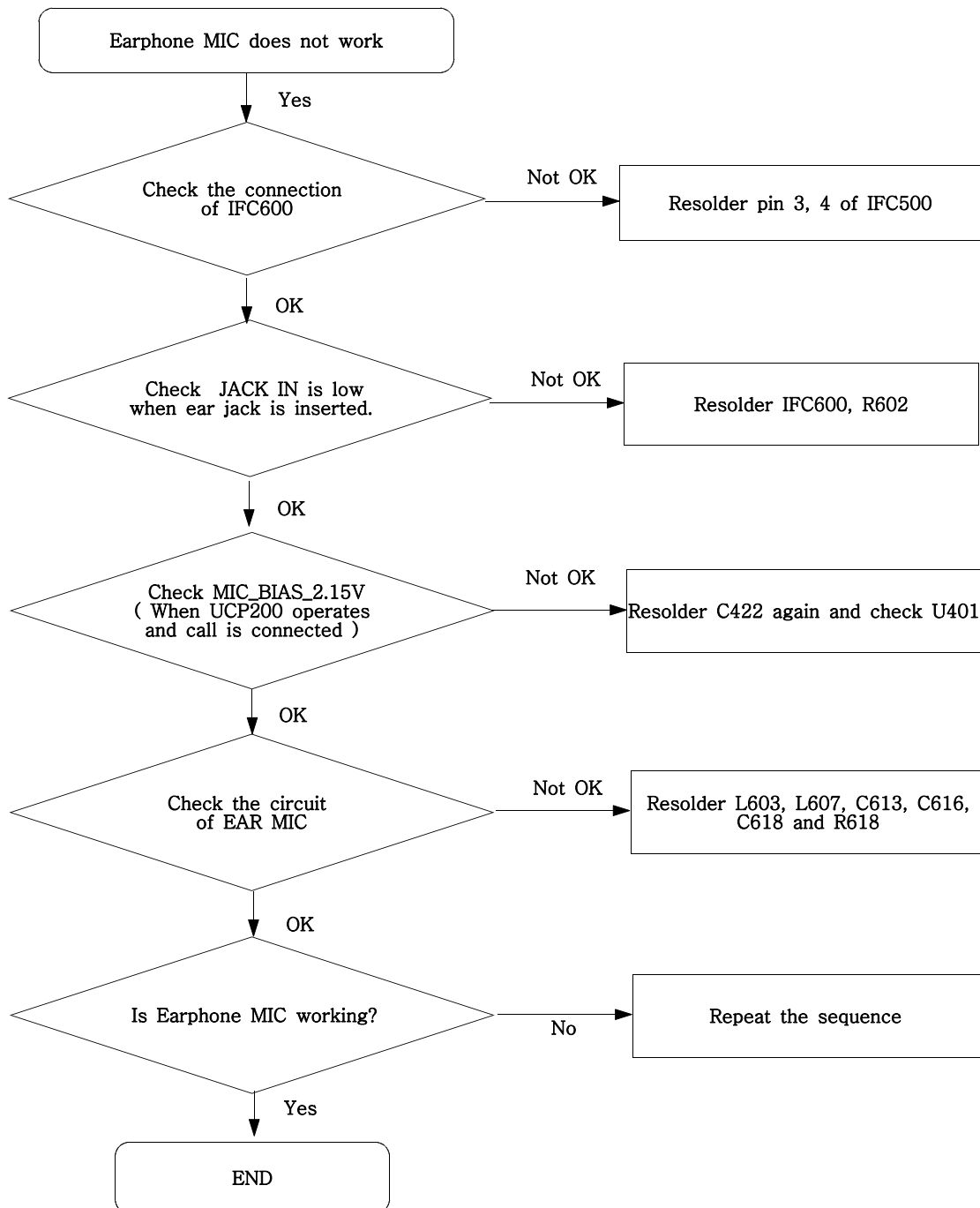


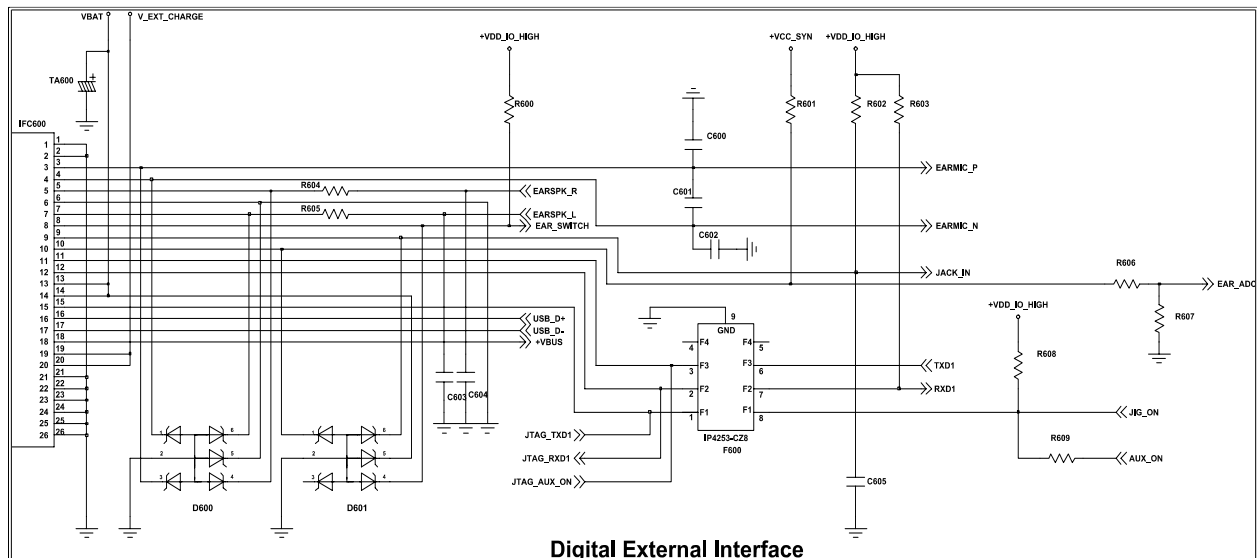
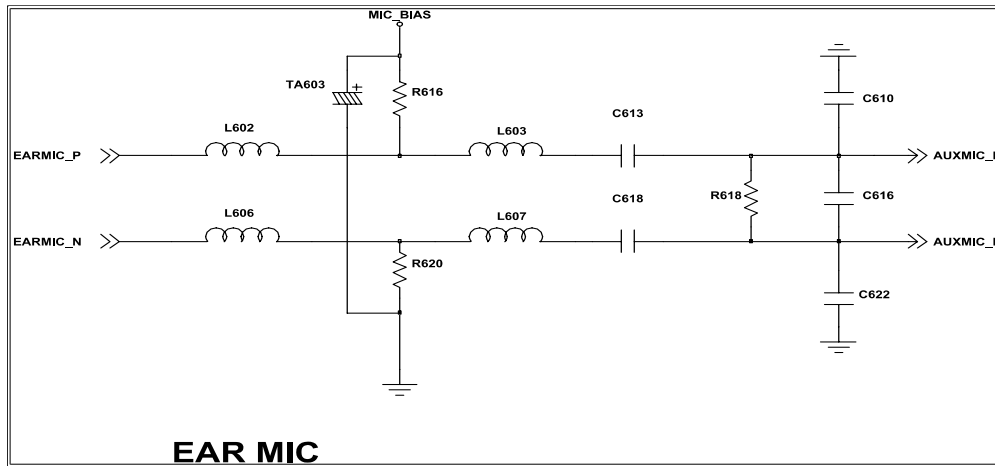
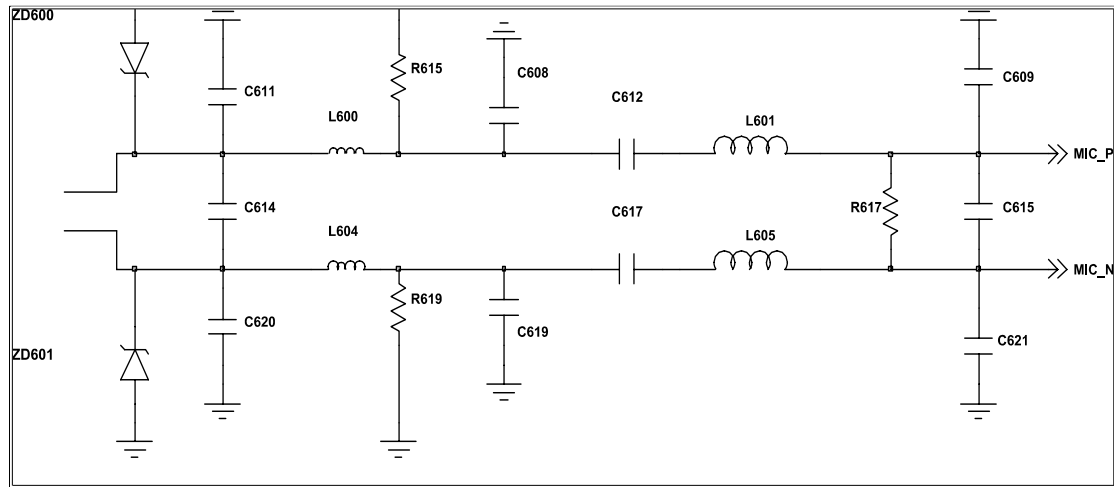
9-4. Sim Part



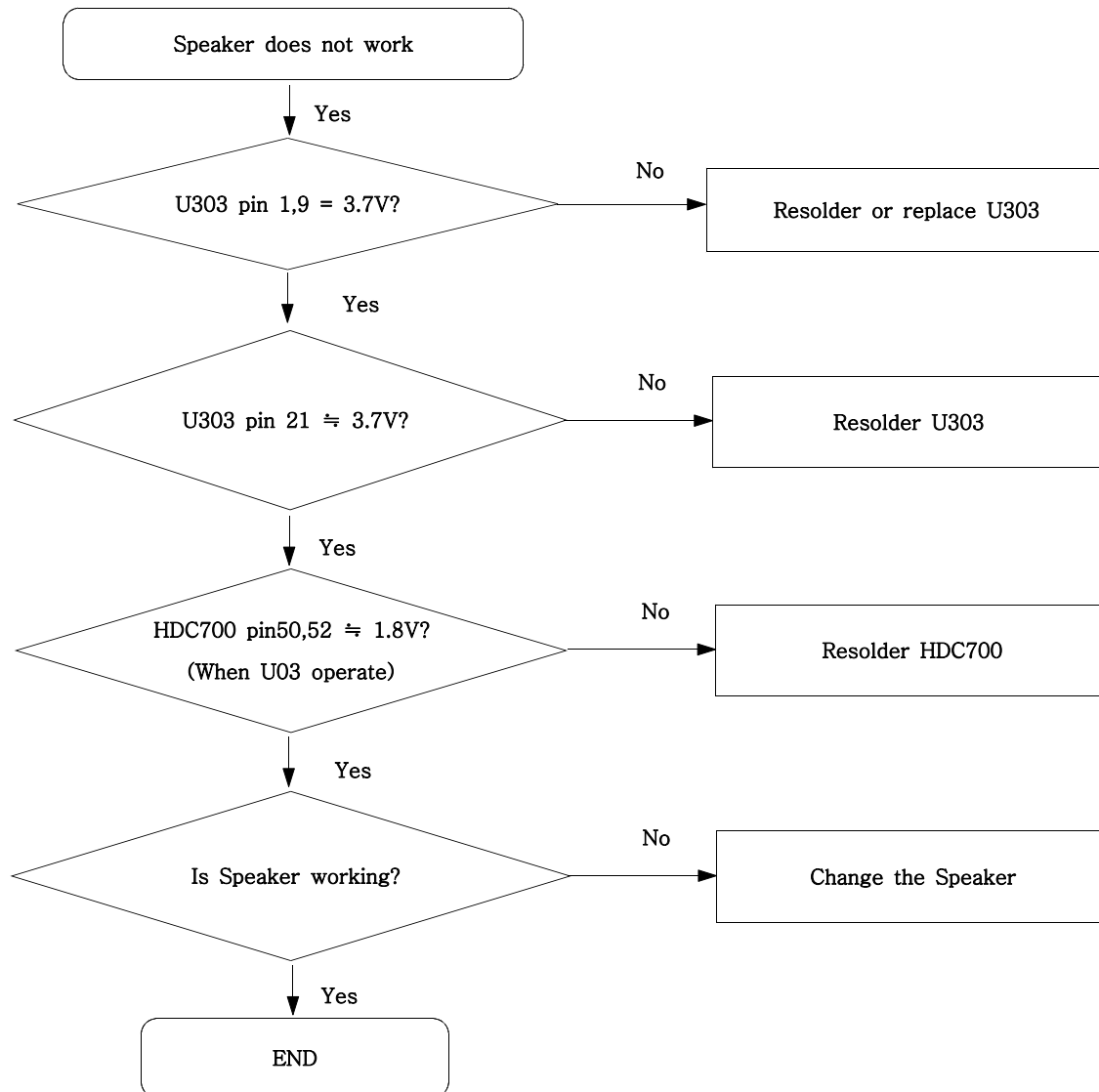


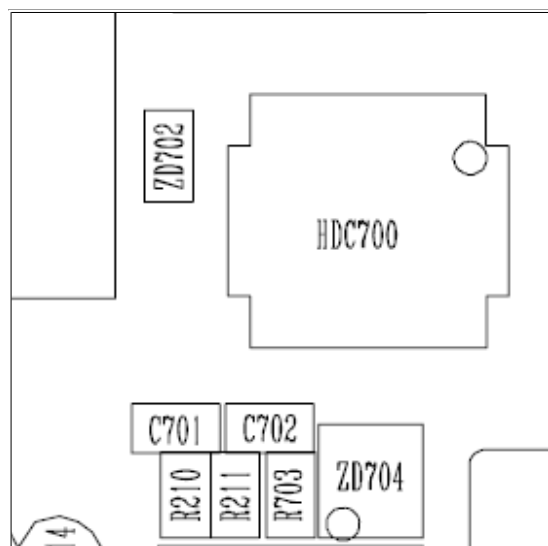
9-5. Microphone Part - Earphone MIC



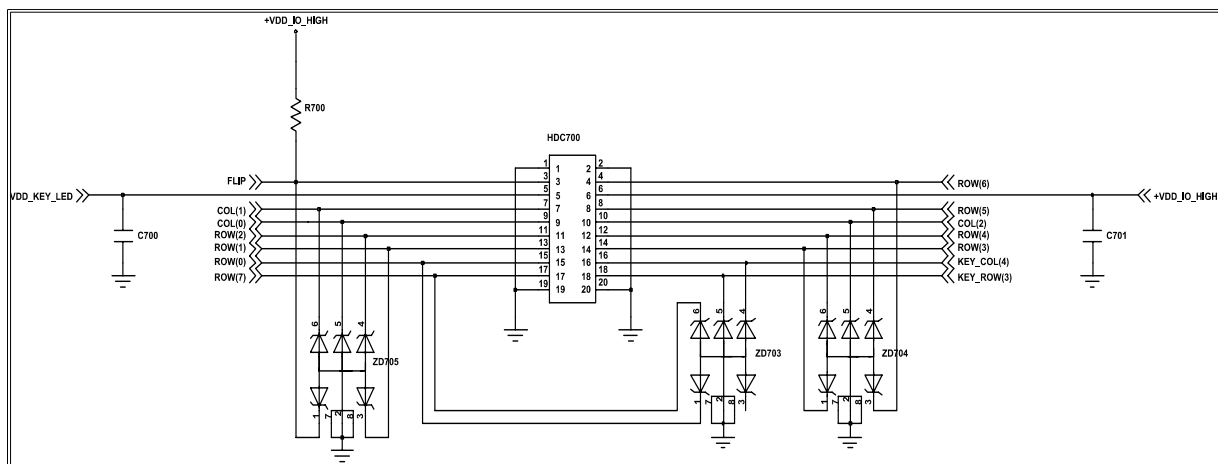
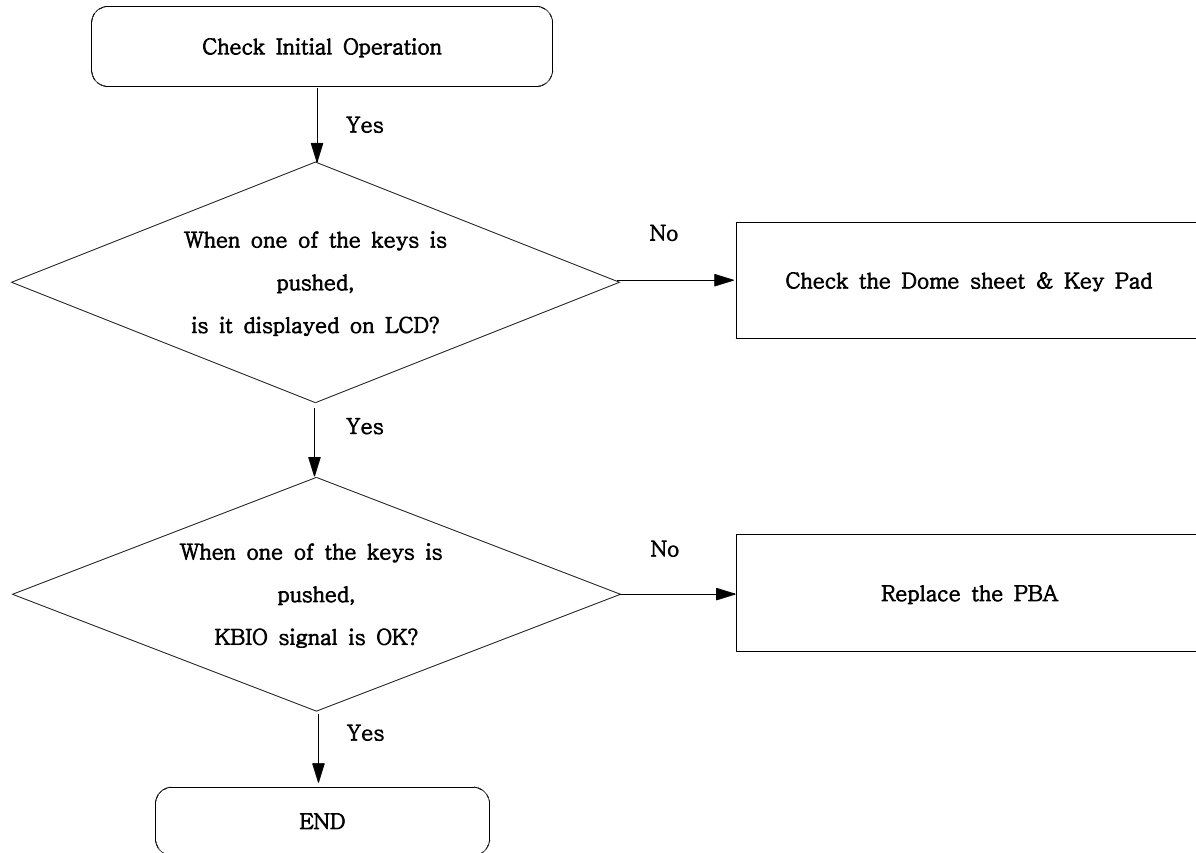


9-6. Speaker & Receiver Part

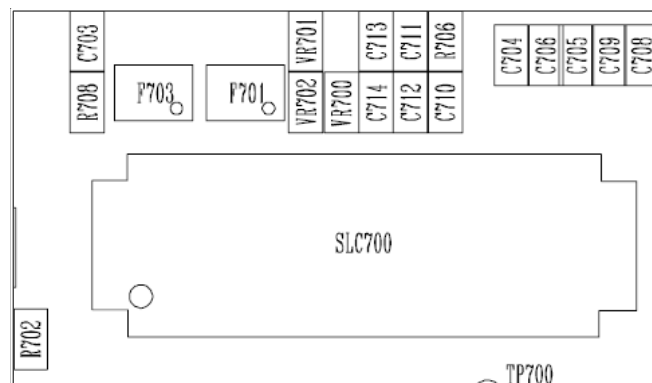
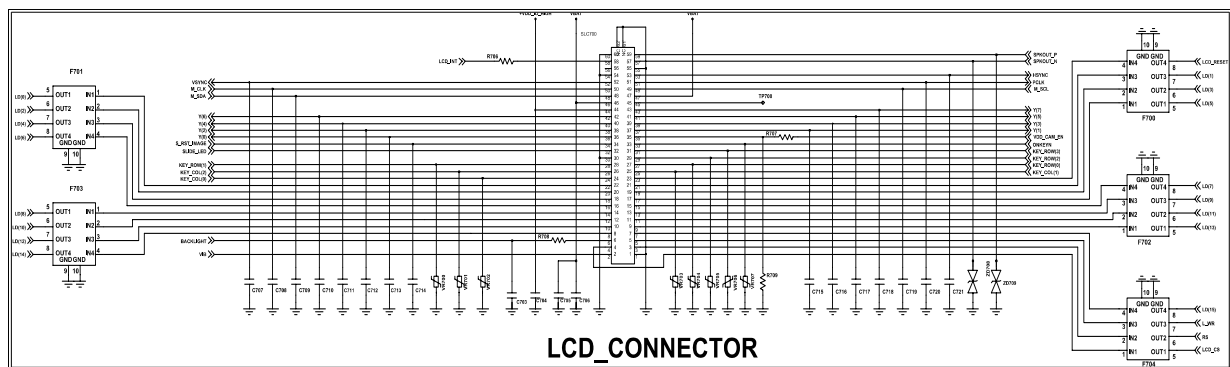
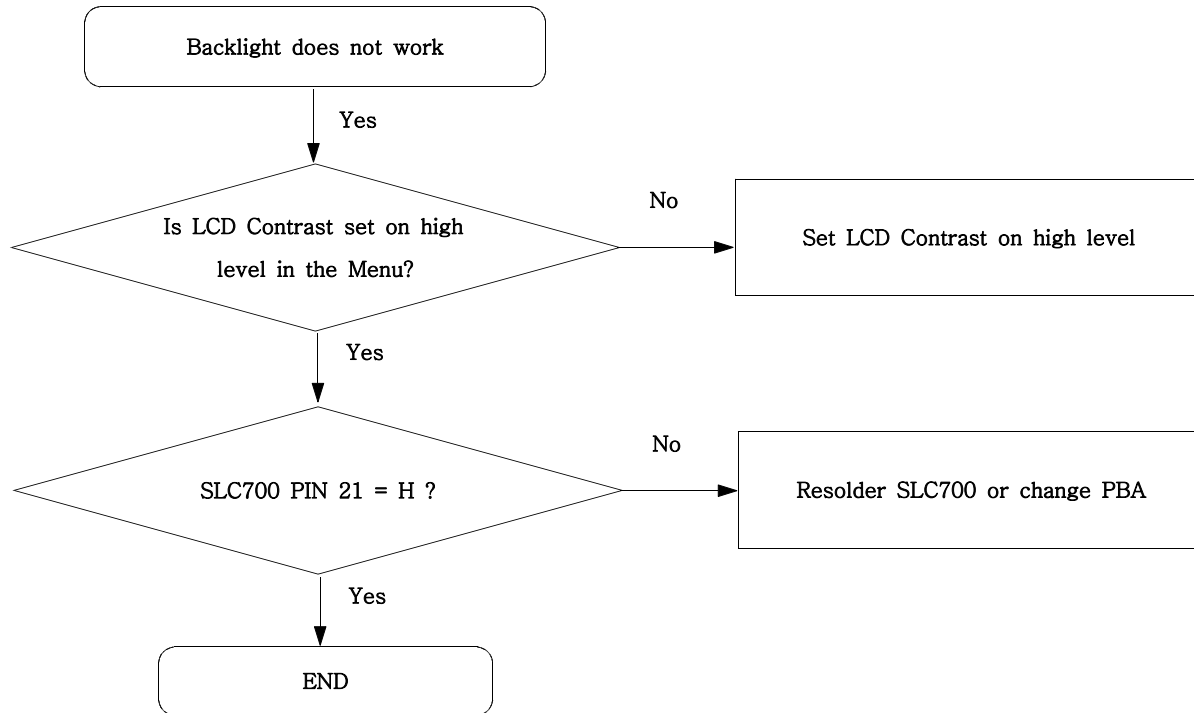




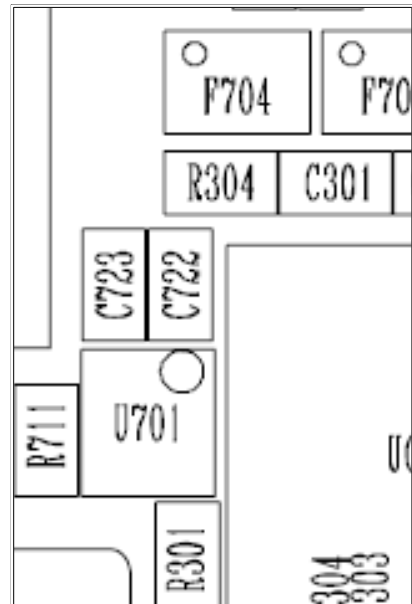
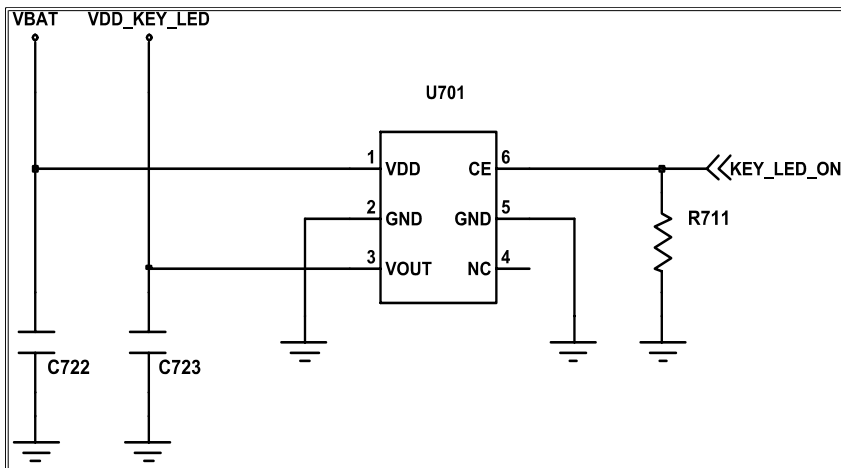
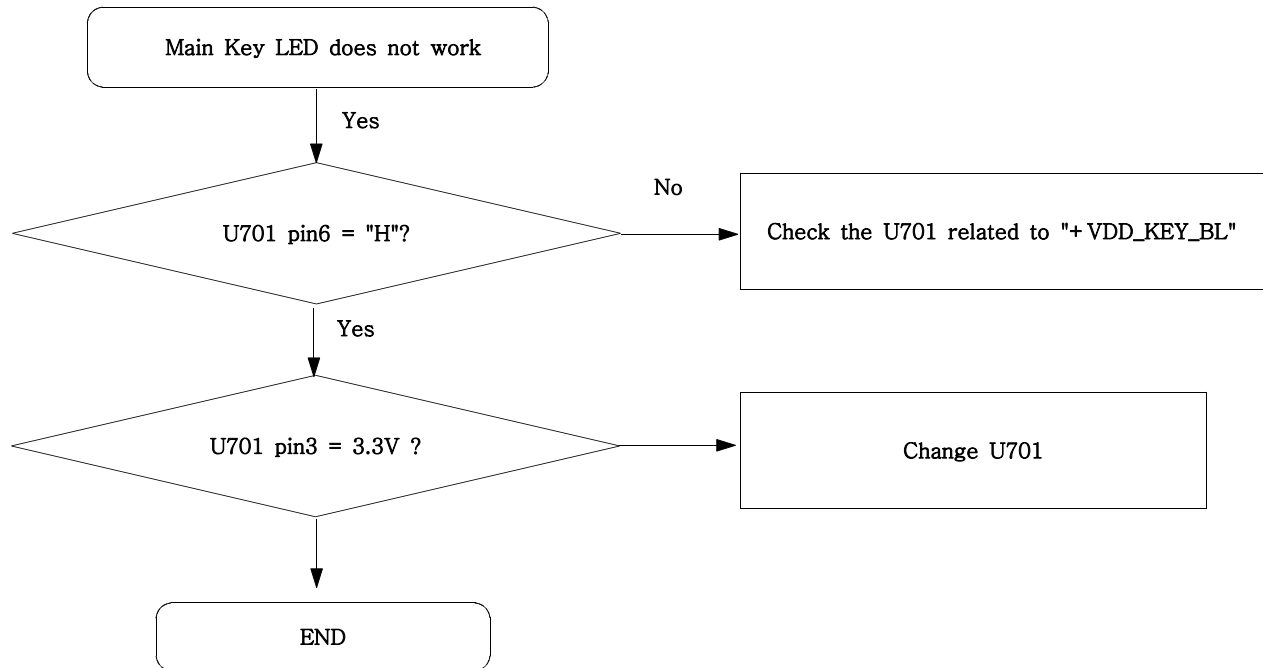
9-7. Key Data Input



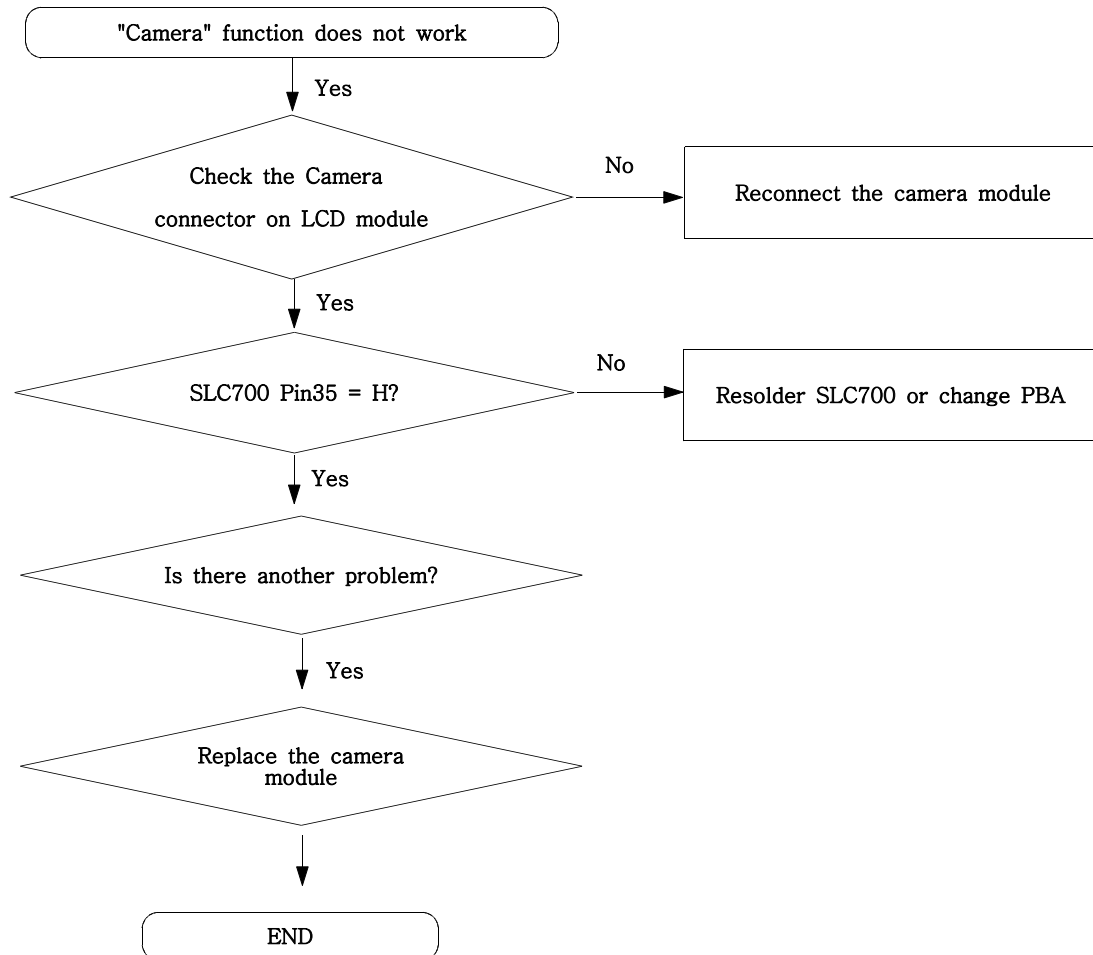
9-8. Back Light (for Color Main LCD)

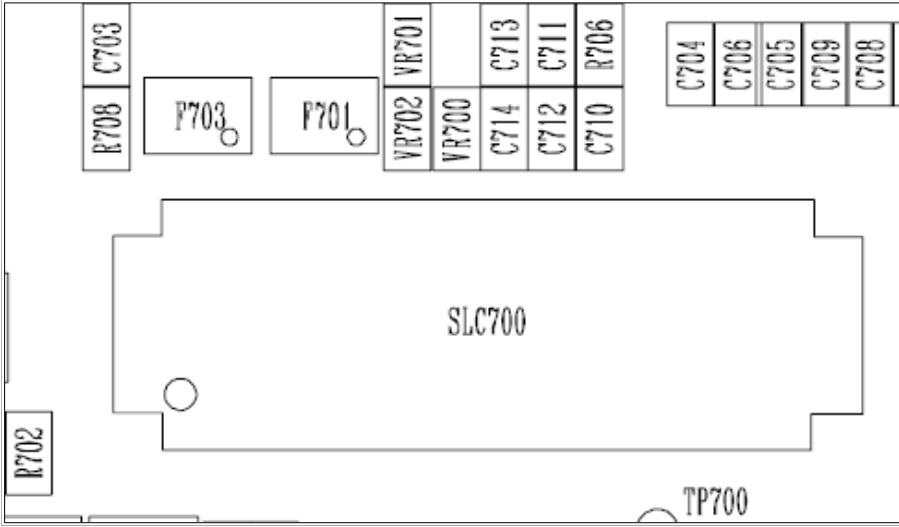
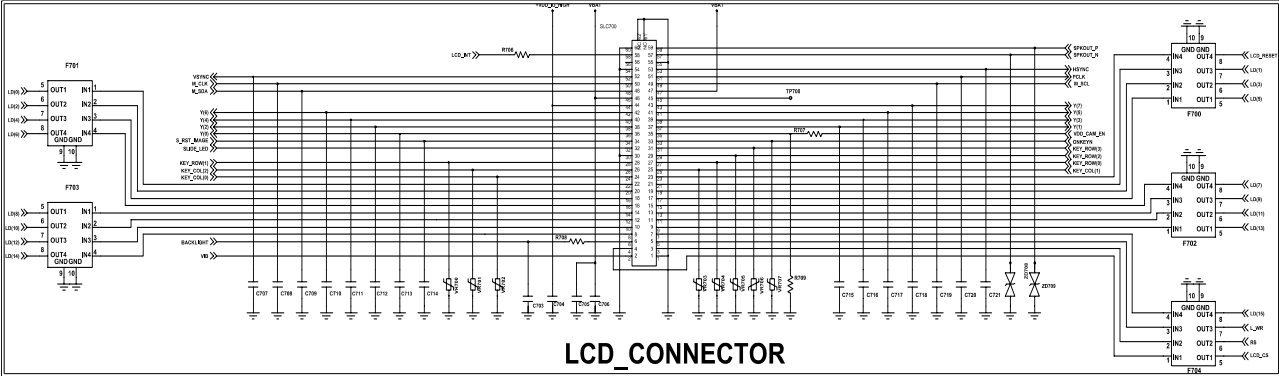


9-9. Key Back Light

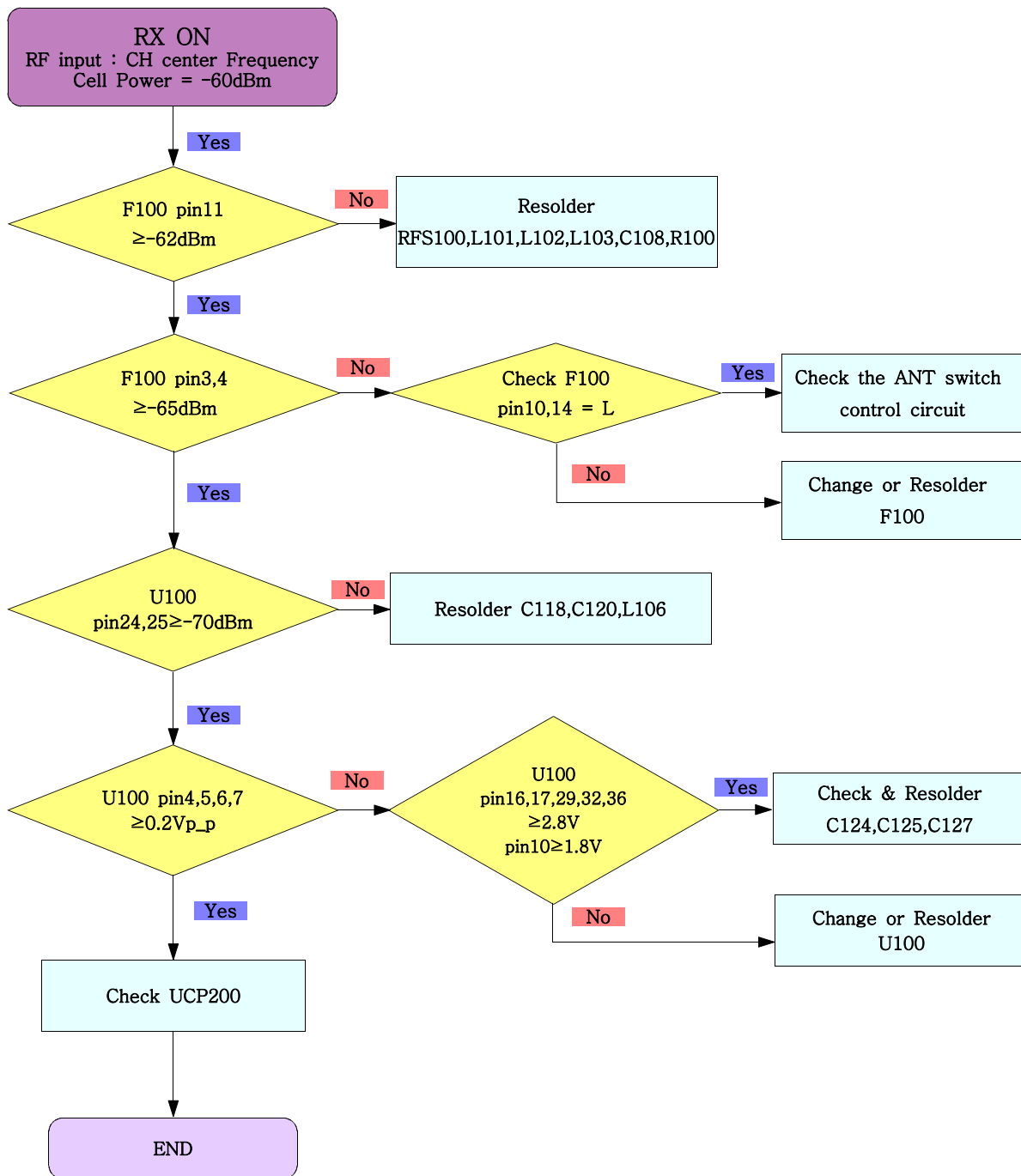


9-10. Camera part

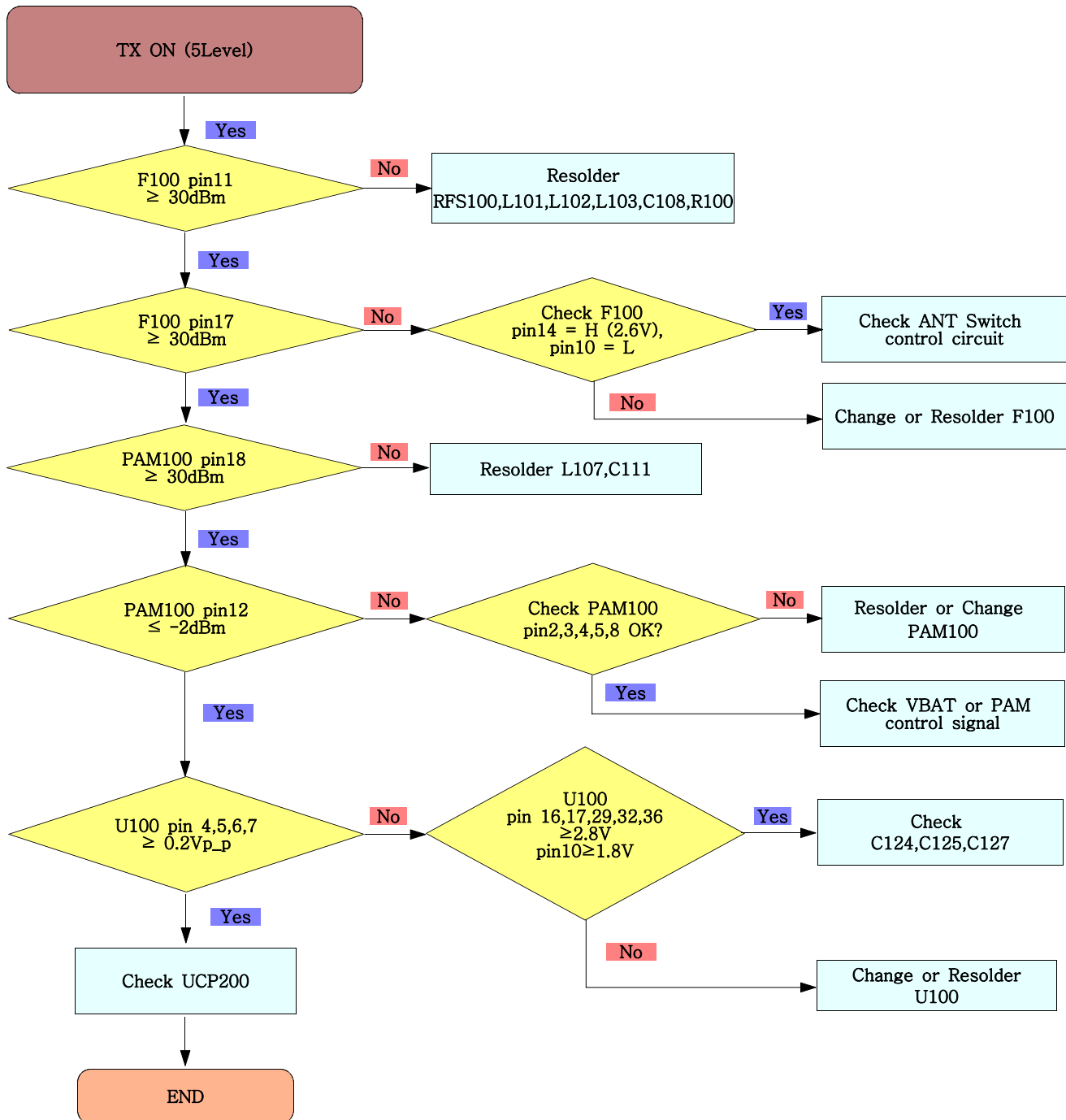




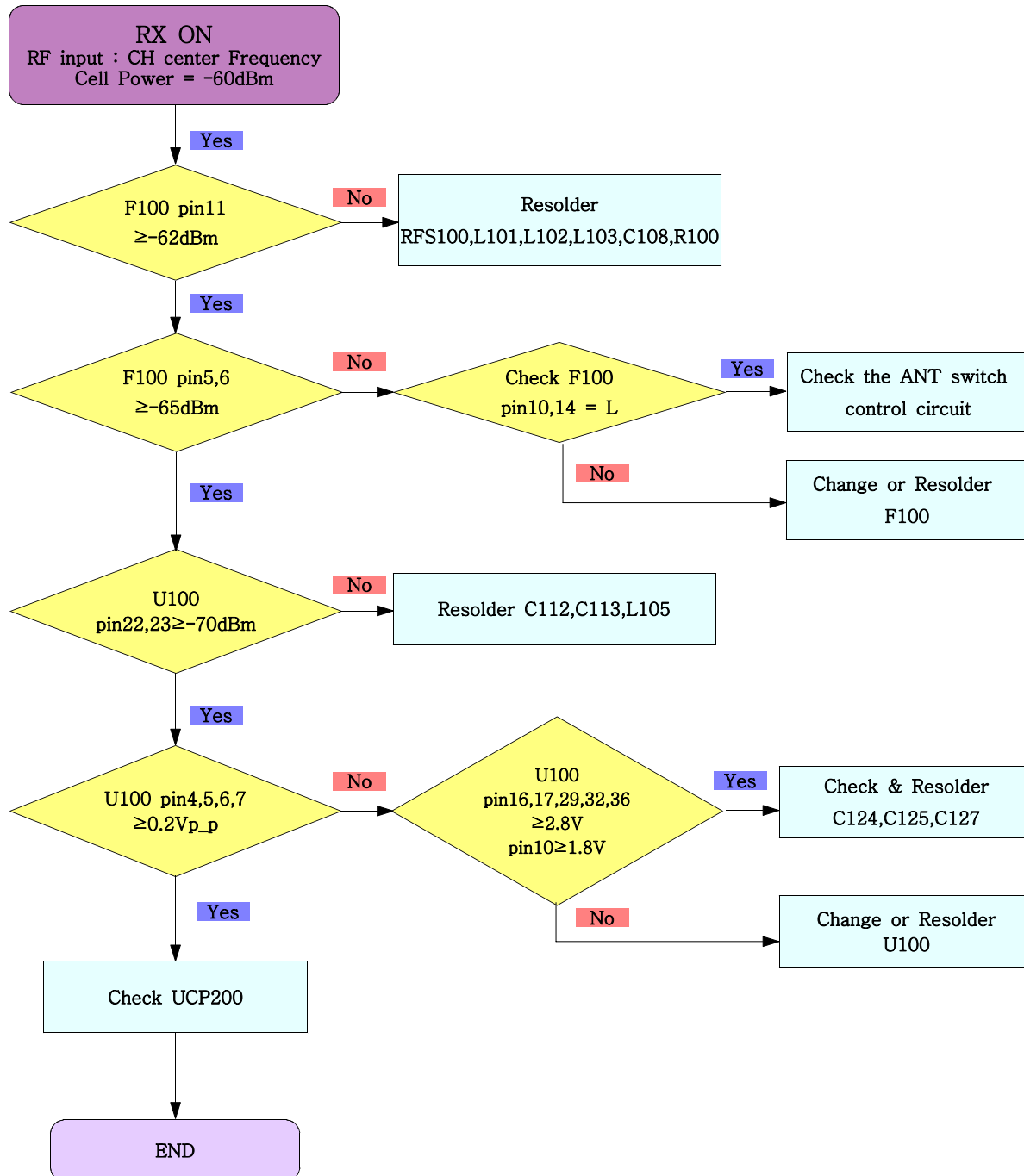
9-11. GSM Receiver



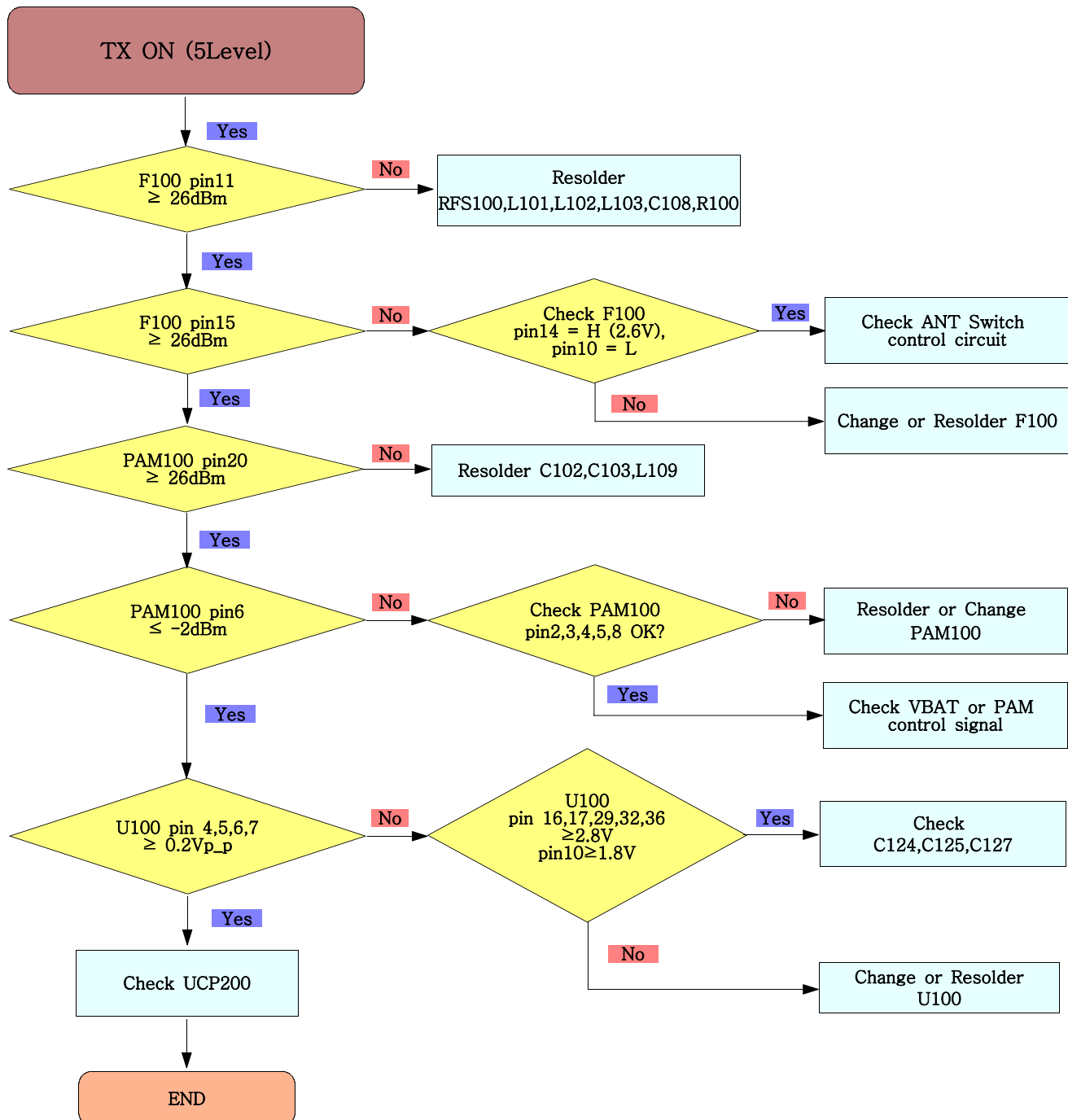
9-12. GSM Transmitter



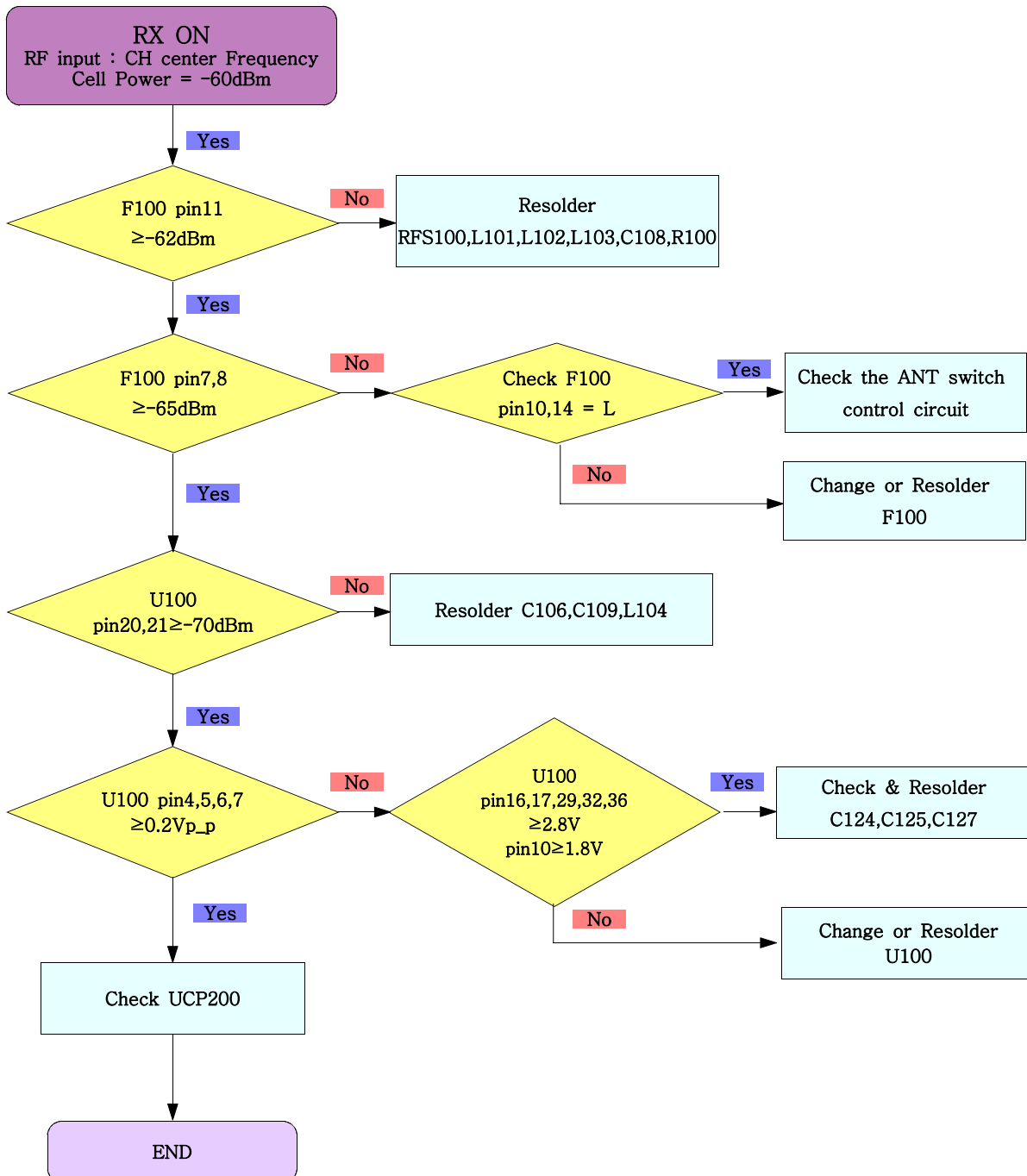
9-13. DCS Receiver



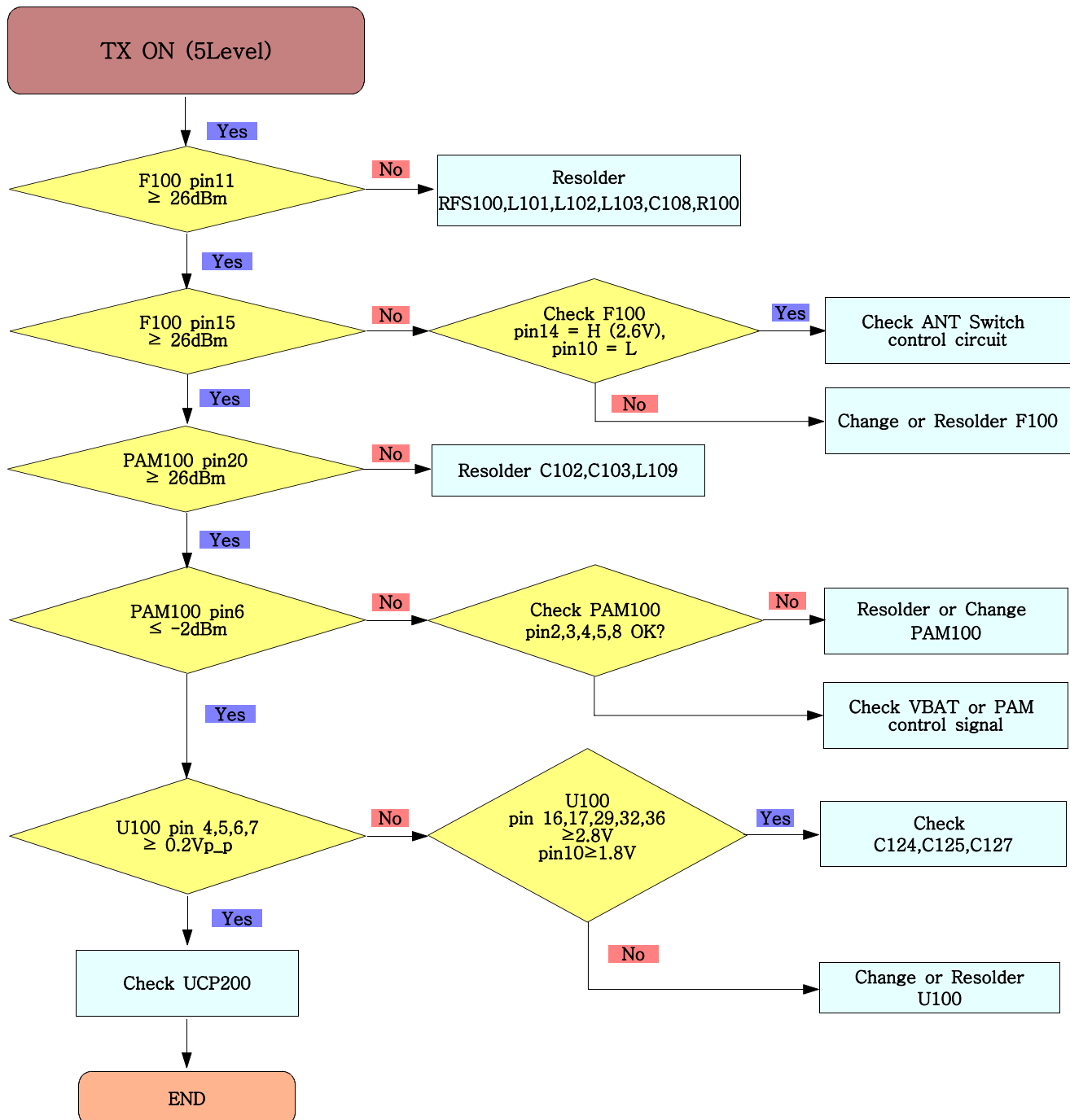
9-14. DCS Transmitter

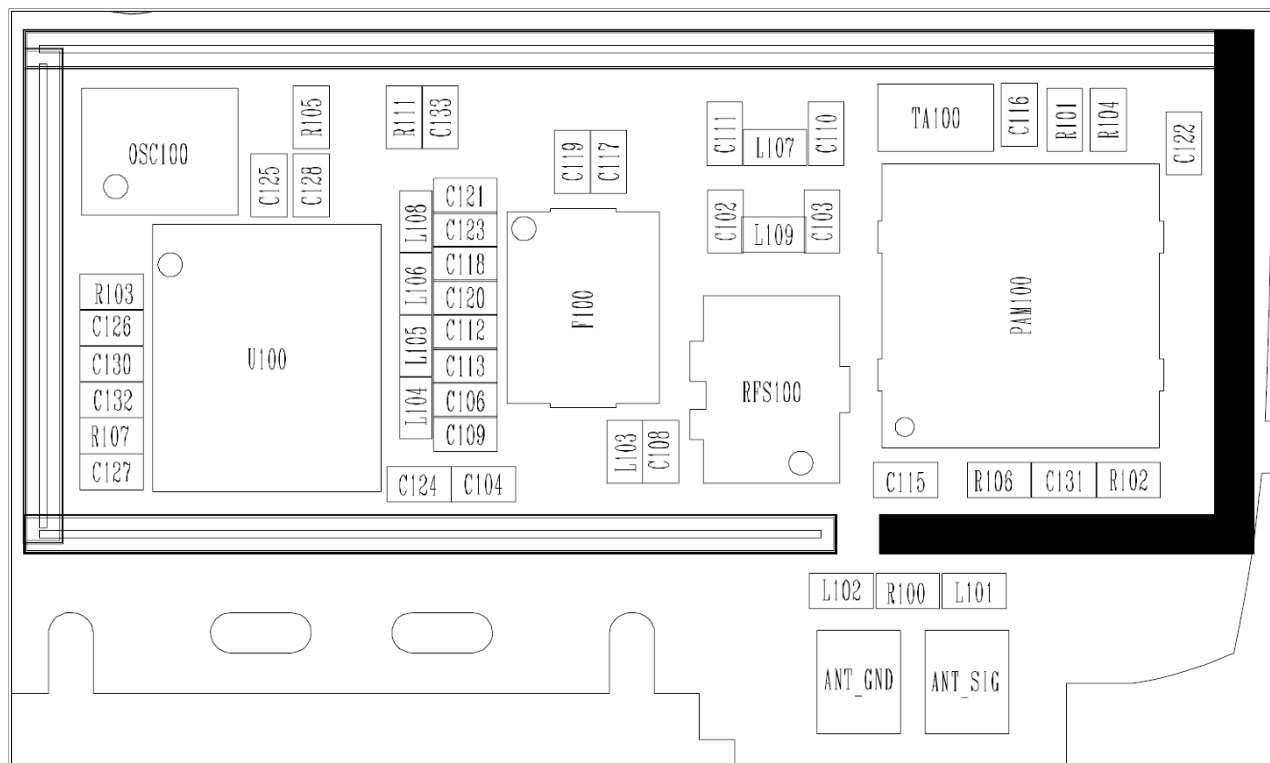
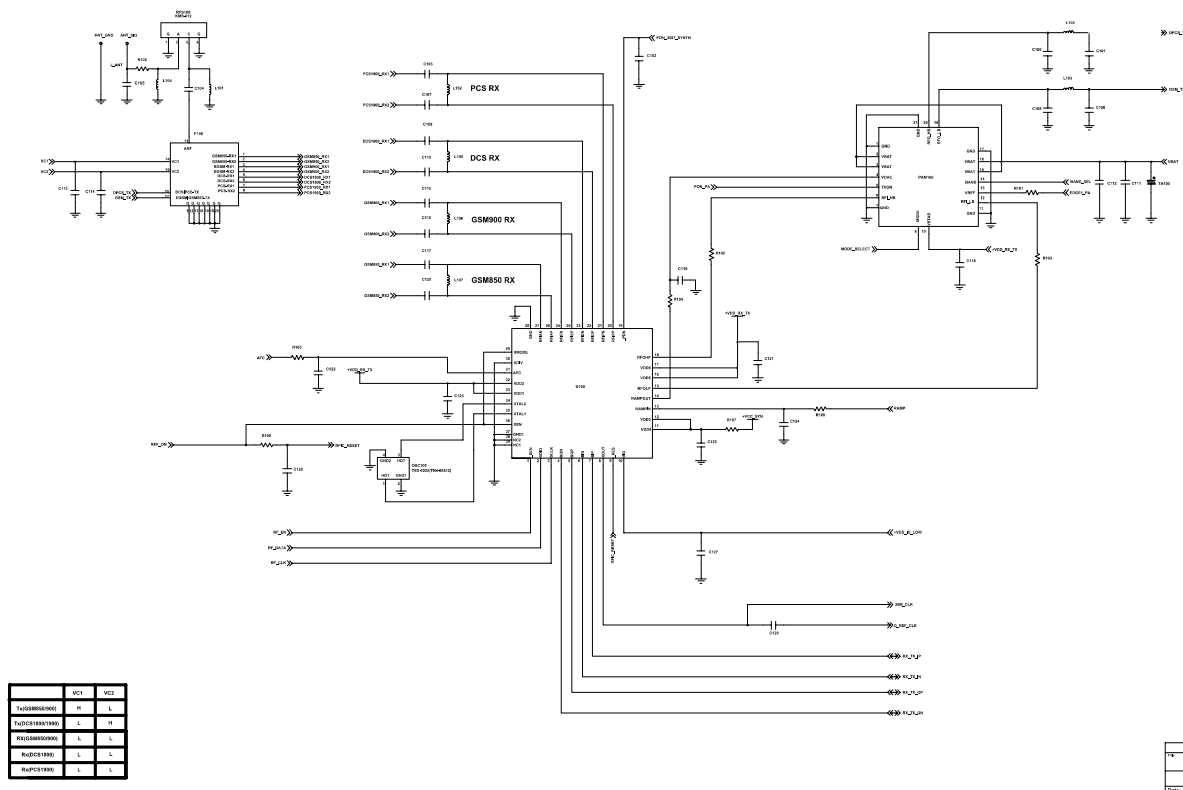


9-15. PCS Receiver

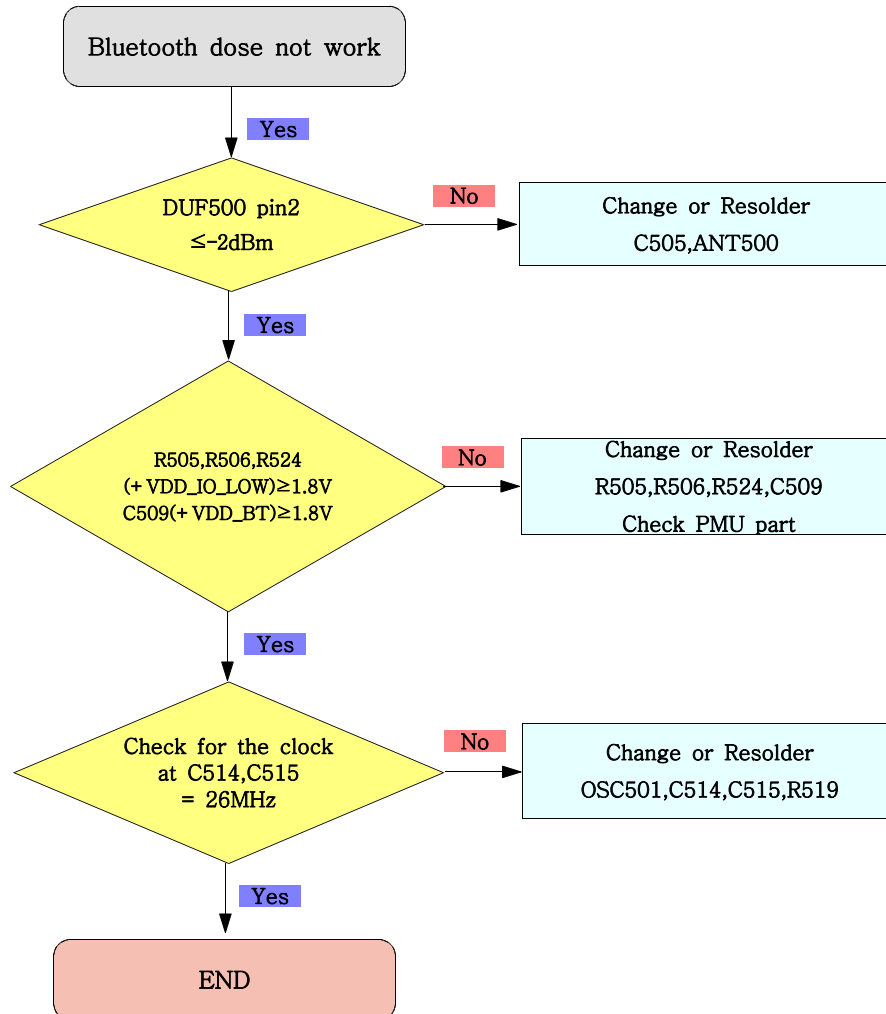


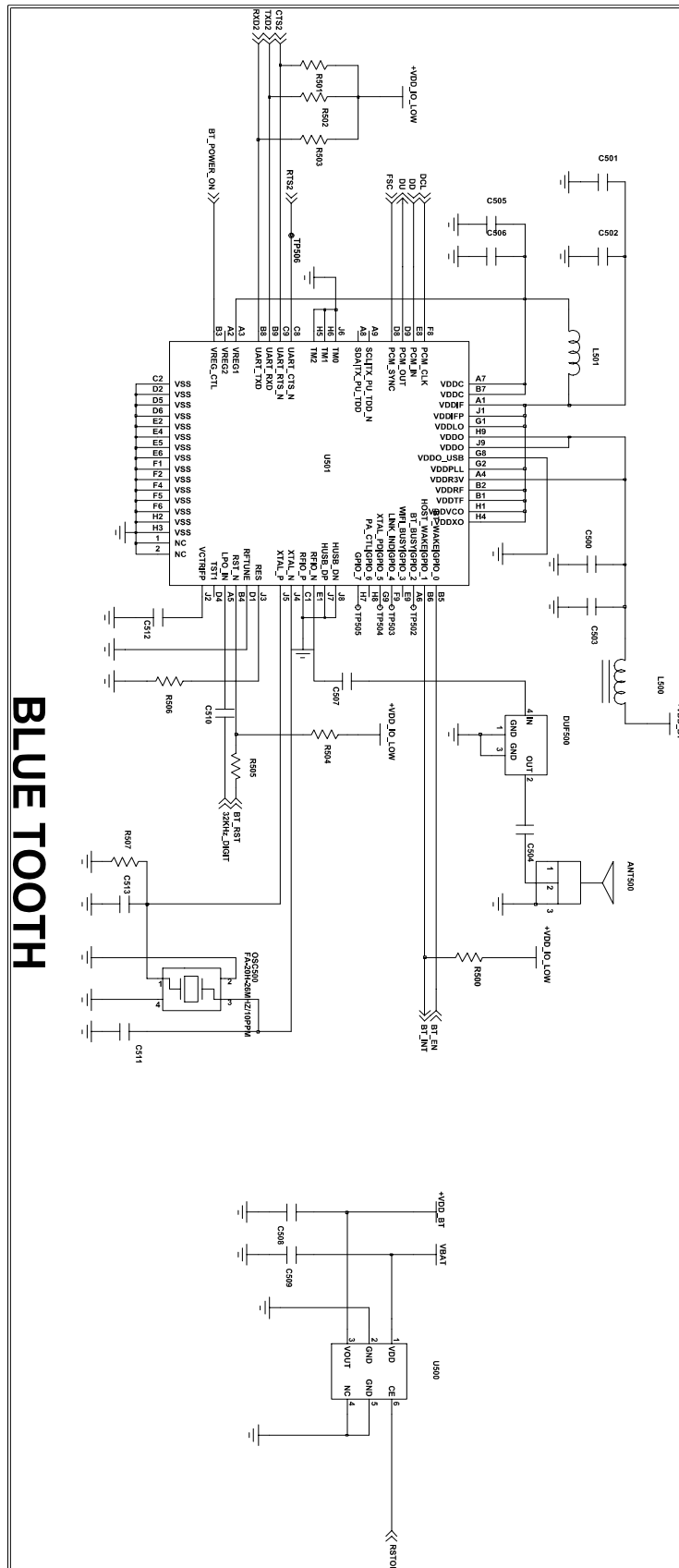
9-16. PCS Transmitter

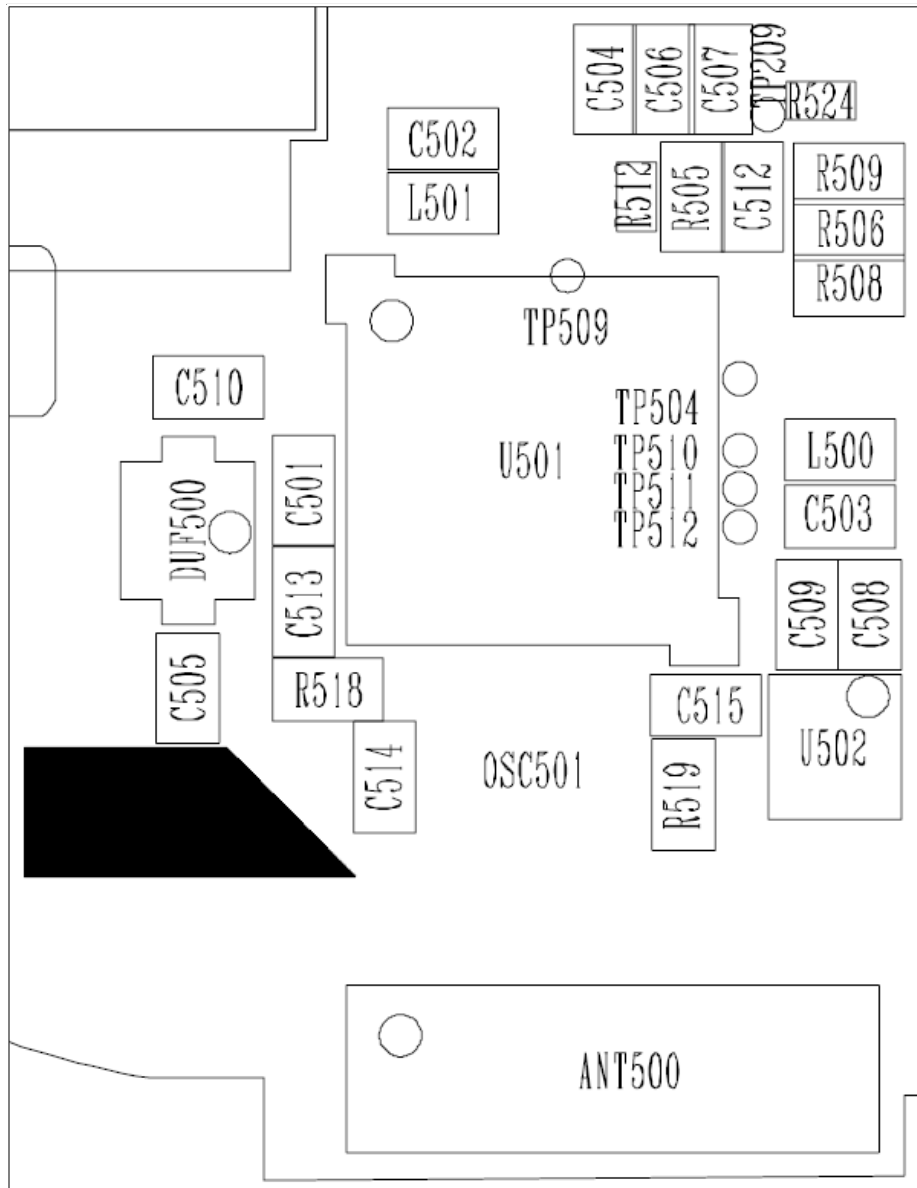




9-17. Bluetooth part







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

