GSM TELEPHONE

SGH-E830

SERVICE Manual

GSM TELEPHONE

CONTENTS

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.

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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.

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2. Specification

2-1. GSM General Specification

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

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2-2. GSM TX power class

TX Power control level	GSM900
5	33±2 dBm
6	31±3 dBm
7	29±3 dBm
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
0	30±2 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

TX Power control level	PCS1900
0	30±2 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

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2-3. GSM EDGE TX power class

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

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

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3. Product Function

Main Function

-2 Megapixel Camera

-262K Color TFT QCIF Screen (2.0" 176×220)

-Video Recording & Messaging

-Mp3, USB 2.0

-Bluetooth Wireless Technology

-Multimedia Message Service (MMS)

-External Memory

-E-mail

-Voice recorder

-Java / WAP2.0

-Tri-band(900/1800/1900MHz)

-FM Radio

-Stereo / Speaker Phone

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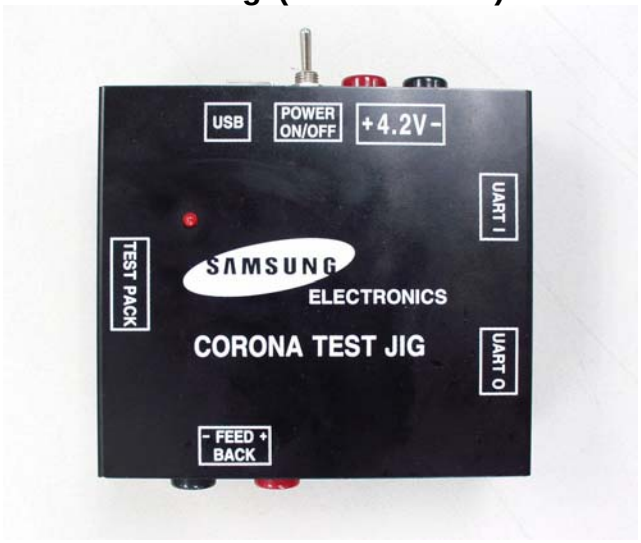
4. Array course control

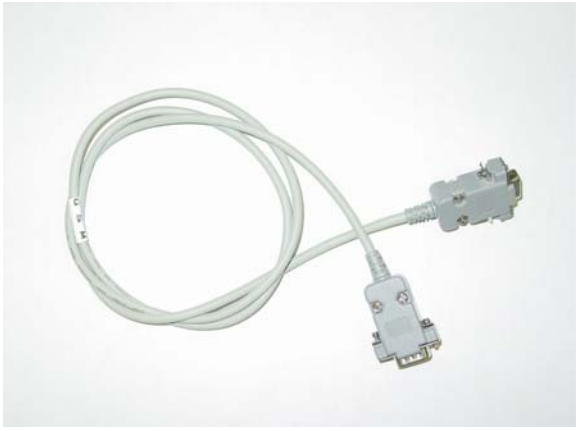
4-1. Software Adjustments

Test Jig (GH80-03306A)

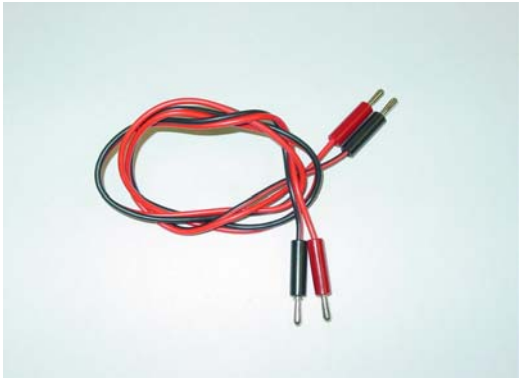


Test Cable (GH39-00499A)

Serial Cable(CSA LL64151-A)



Power Supply Cable



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4-2. Software Downloading

4-2-1. Pre-requsite for Downloading

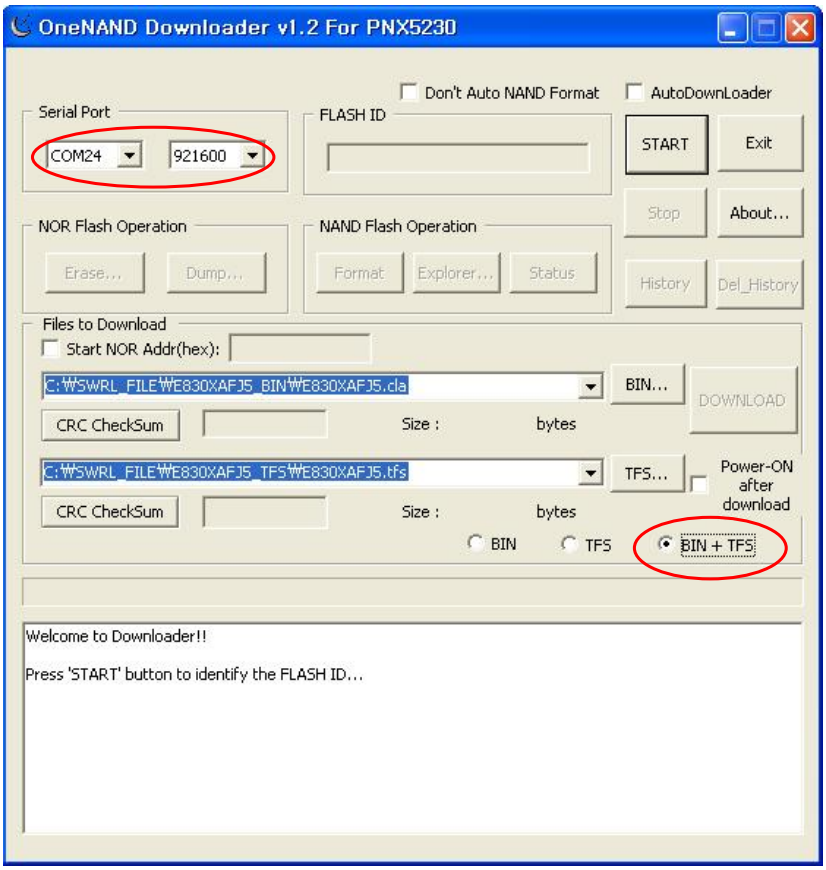
- Downloader Program(OneNAND Downloader v1.2 For PNX5230)
- E830 Mobile Phone
- Data Cable
- Binary file, TFS file

4-2-2. S/W Downloader Program

■ Load the binary download program by executing the "OneNAND Downloader v1.2 For PNX5230"

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'



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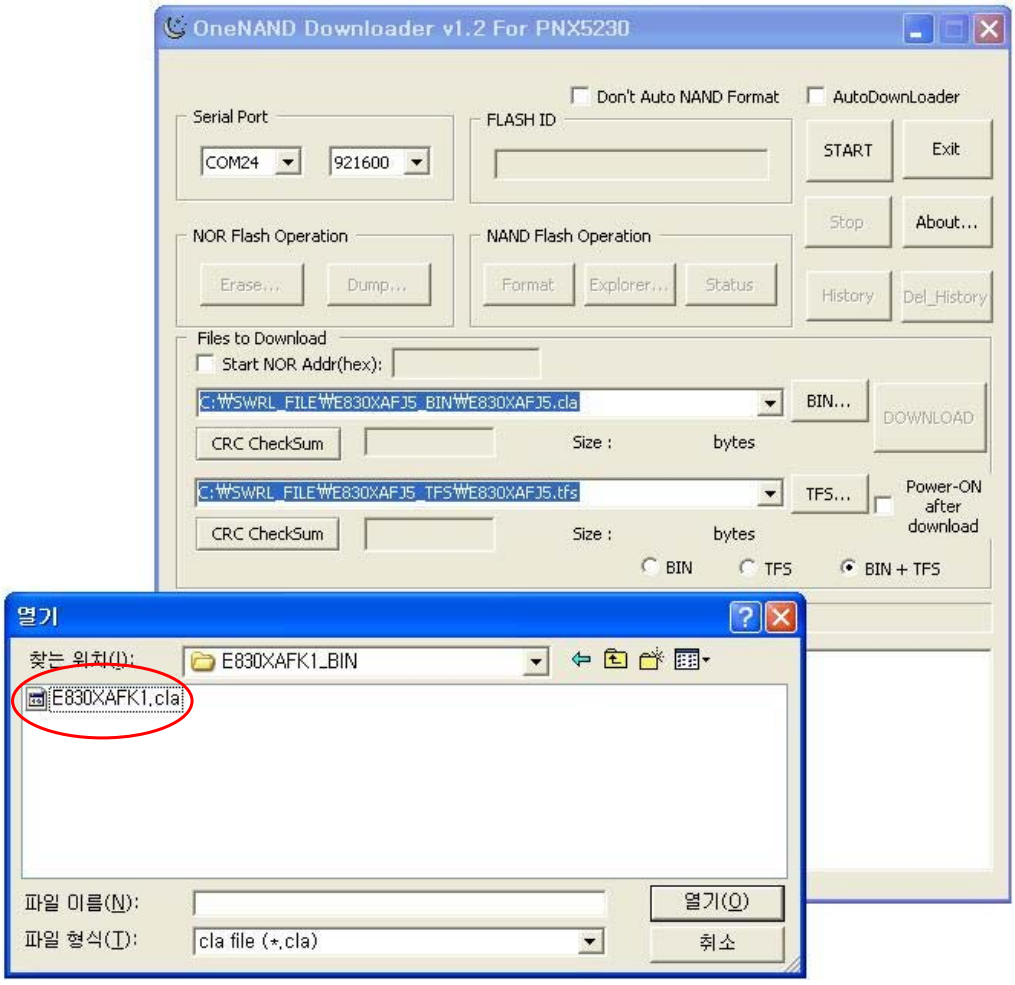
3. Select the file(s) what you want to download



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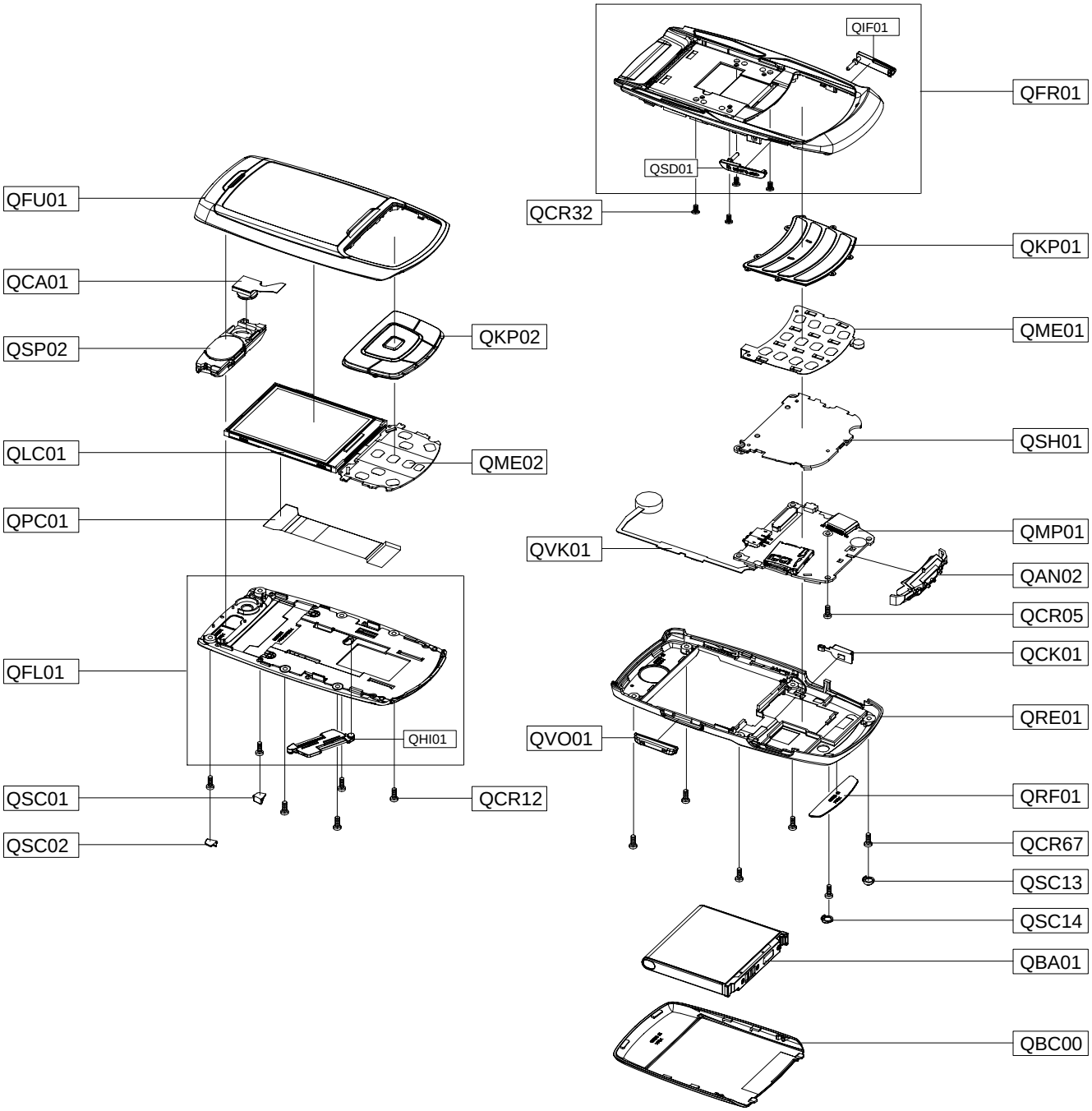
5. Exploded View/Disassembly&Assembly Instructions

5-1. Cellular phone Exploded View



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5-2. Cellular phone Parts list

Design LOC		Description	SEC CODE
QAN02		INTENNA-SGHE830	GH42-01092A
QBA01		INNER BATTERY PACK-800MAH,BLK,	GH43-02747A
QBC00		ASSY COVER-BATTERY	GH98-03567B
QCA01		UNIT-SGHE830 CAMERA MODULE	GH59-03877A
QCK01		PMO-CAMERA KEY	GH72-35696B
QCR05		SCREW-MACHINE	6001-001478
QCR12		SCREW-MACHINE	6001-001530
QCR32		SCREW-MACHINE	6001-001700
QCR67		SCREW-MACHINE	6001-002083
QFU01		ASSY CASE-SLIDE UPPER	GH98-02928B
QKP01		ASSY KEYPAD-MAIN(EU/TI_SIL)	GH98-02945B
QKP02		ASSY KEYPAD-SUB(EU/TI_SIL)	GH98-02946B
QLC01		LCD-LCD MODULE	GH07-01038A
QME01		UNIT-MAIN KEY PBA	GH59-03859A
QME02		UNIT-SUB KEY PBA	GH59-03860A
QMP01		PBA MAIN-SGHE830	GH92-03369A
QPC01		MEA-SLIDER FPCB KIT	GH97-07407A
QRE01		ASSY CASE-REAR	GH98-02929B
QRF01		PMO-COVER RF	GH72-35692B
QSC01		RMO-RUBBER SCREW LOWER L	GH73-08511B
QSC02		RMO-RUBBER SCREW LOWER R	GH73-08512B
QSC13		RMO-RUBBER SCREW REAR L	GH73-08509B
QSC14		RMO-RUBBER SCREW REAR R	GH73-08510B
QSH01		ASSY BRACKET-SHIELD KEY	GH98-02976A
QSP02		UNIT-MODULE SPEAKER	GH59-03957A
QVK01		UNIT-VOLUME KEY MOT FPCB	GH59-03855A
QVO01		PMO-VOL KEY	GH72-35697B
QFR01		ASSY CASE-FRONT	GH98-02926B
	QSD01	PMO-COVER SD	GH72-35698B
	QIF01	PMO-COVER IF	GH72-35699B
QFL01		ASSY CASE-SLIDE LOWER	GH98-02930B
	QHI01	ASSY HINGE-ACTUATOR BODY	GH98-04447A

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Description	SEC CODE
BAG PE	6902-000634
CBF INTERFACE-DATA LINK CABLE	GH39-00444A
ADAPTOR-SGHE690,BLK,EU,A_TYPE	GH44-01361A
S/W CD-SGHE830 PC LINK CD	GH46-00409A
UNIT-20P,EARPHONE,BLK,B-TYPE	GH59-04029A
LABEL(P)-UNIT SOUTH AFRICA	GH68-01335J
LABEL(R)-WATER SOAK	GH68-09361A
LABEL(R)-MAIN(XFA)	GH68-14022B
MANUAL USERS-EU ENGLISH	GH68-14025A
MANUAL USERS-EU PORTUGUESE	GH68-14371A
BOX-UNIT BOX(CEN)	GH69-05107A
CUSHION-CASE(EU)	GH69-05218A
MPR-BOHO VINYL MAIN WIN	GH74-15426A
MPR-INSU TAPE	GH74-28277A
MPR-TAPE	GH74-28490A
MPR-TAPE	GH74-28491A
MPR-TAPE	GH74-28491A
MPR-TAPE	GH74-28492A
MPR-INSU TAPE	GH74-28493A
MPR-INSU TAPE	GH74-29128A
MPR-INSU TAPE	GH74-31113A
MPR-GASK TAPE	GH74-31489A

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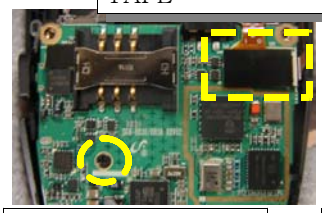
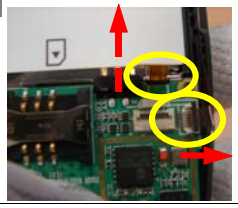
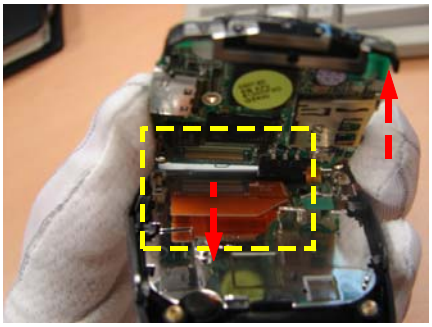
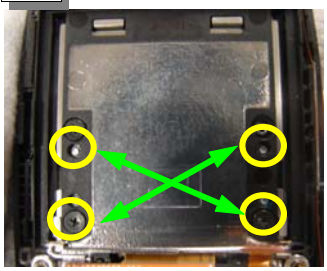
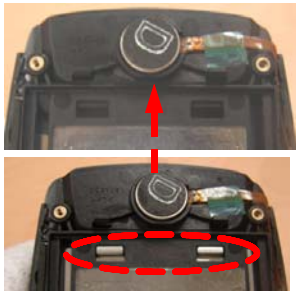
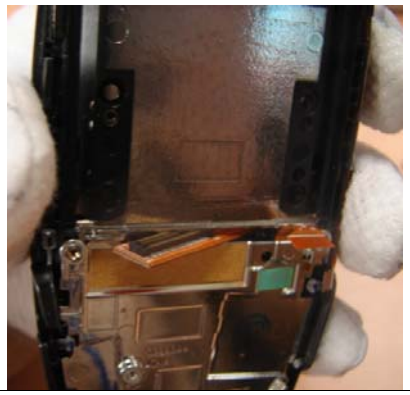
5-3. Disassembly and Assembly Instructions

5-3-1. Disassembly

<table>
<tr>
<td>1
 
1)Remove 6 screws</td>
<td>2
 
1) Untie side hooks using JIG separator. (same left, right)
 
2) Push rear cover to right a little and Separating a rear case when separating top hook.</td>
</tr>
<tr>
<td>1) Remove 6POINT SCREWS</td>
<td>1) Don't damage a structure carefully when separating rear case.</td>
</tr>
<tr>
<td>3
1)Eleminating a connector of top TAPE
 
2) Eliminating a PBA SCREW
 
1) Extract KEY FPCB/ VOL/MOT to right..</td>
<td>4
 
1) Raise a PBA and Eliminate a SLIDE FPCB</td>
</tr>
<tr>
<td>1)When eleminting a KEY FPCB and a VOLUME / MOT FPCB, don't damage a FPCB carefully.</td>
<td></td>
</tr>
<tr>
<td>5
 
 
1) Eleminte SCREW 4POINT of SLIDE HINGE PLATE
2) Untie hooks raising top of FRONT.</td>
<td>6
 
1) After folding FPCB CON, extract to ass'y hole of Front.</td>
</tr>
<tr>
<td>1) Don't damage a Slide FPCB carefully while raising structure higher.</td>
<td>1) Don't damage a FPCB carefully</td>
</tr>
</table>

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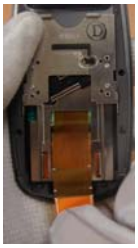

1) Hold a end of FPCB and raising to upper part.
2) Hold a lower of FPCB and down.

1)Eleminte SCREW 6POINTs

1) Don't damege FPCB carefully

8

1) Eleminte a slide lower raising from top part.

1) Don't damege FPCB carefully for entangling FPCB when separating structure.

1)Raise a speaker using a tweezers

1) Hold and raising a LCD module with sub key FPCB.

1) Don't separate fabric of speaker carefully.

1) photograph f Completing seperating Slide ass'y

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5-3-2. Assembly

1

2) After eleminating speaker tape, combine camera to lower part of upper.

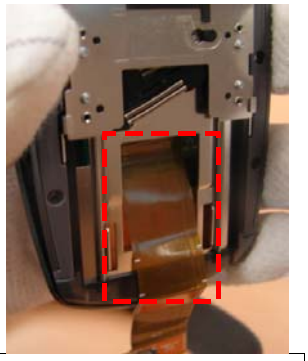
1) After assembling LCD module to lower structure, combine SUB FPCB.

1) While assembling a LCD ass'y, Don't separate FPCB carefully.

2

1) Press SPK and CAMERA again.

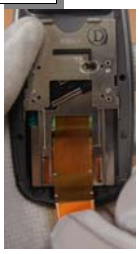
3

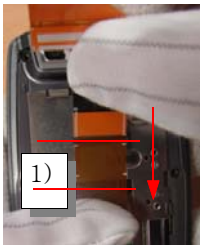


1) After assembling SLIDE LOWER from lower part, assemble upper part.

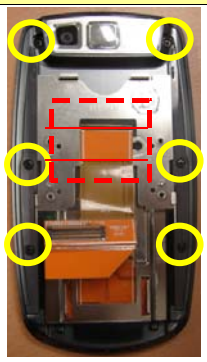
1)When assembling structure, don't chew and damage FPCB carefully.

4





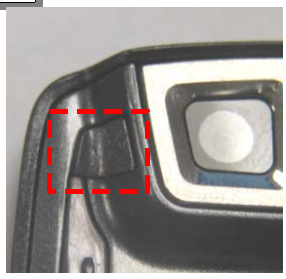
1) Hold a end of FPCB and fold to silk line once.
2) Hold a end of FPCB and down to silk line again.



1)Combine screw 6points

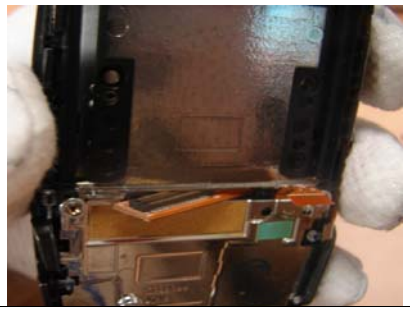
1) Attach to silk line certainly
2) Press after fixing Slide FPCB.

5



1) Insert screw rubber dividing by left and right.

6



1) After fold a FPCB con, Insert it to ass'y hole.

1)Don't fold and damage FPCB carefully.

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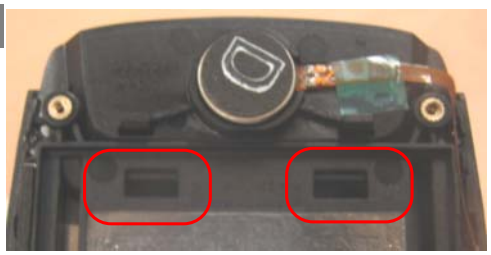


1) Combine PBA to FPCB extracting after push Front to top while don't hang top hook

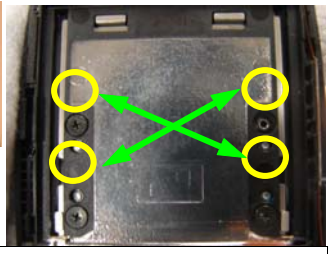
1) When state of FPCB is short, happen to damage and break FPCB carefully.

8

1) Combine PBA to FPCB extracting after push Front to top while don't hang top hook

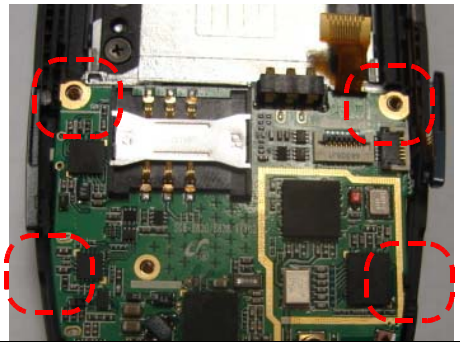
1) Don't damage FPCB while at work.

9



1) Hang hook downing to lower front.
2) Combine screw 4points of slide hinge plate.

10

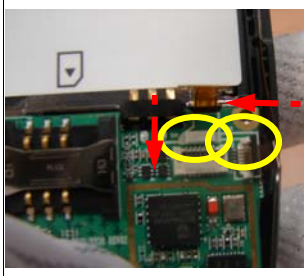


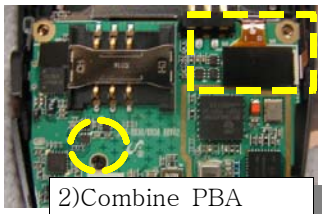
1) When reaching PBA, hang to screw bosses of 2point and left, right 2point hook of Front.

1) As reaching PBA inacurracy

11

1) Attach to tape of top connector.





2)Combine PBA SCREW

12

1)Insert VOLUME KEY direction carefully.

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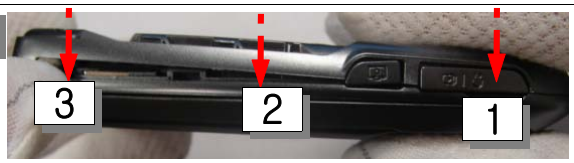
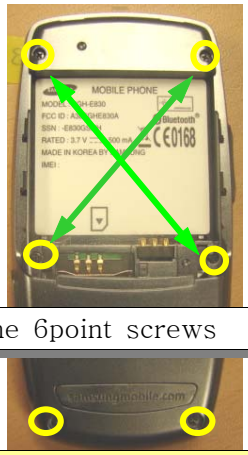
<table>
<tr>
<td>13
 


1)Combine Locker from lower of set to middle to top.
3)Assemble hook of top set pushing hands.</td>
<td>14
 
1)Combine 6point screws</td>
</tr>
<tr>
<td>1) Check combination state of left, right locker after assembly completed.</td>
<td></td>
</tr>
</table>

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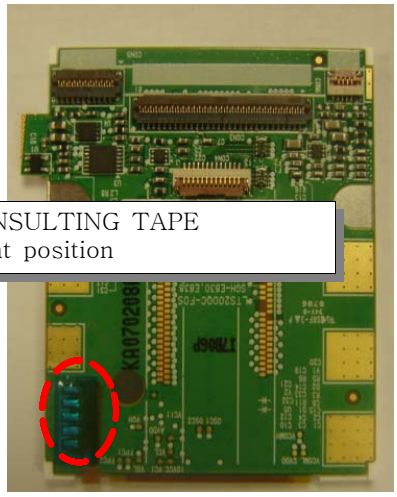
- LCD KIT Assembly

1



1) LCD INSULTING TAPE attachment position

NO	PART NAME	CODE	MODEL NAME	Quantity
1	LCD MODULE	GH07-01038A	SGH-E830	1

1) Check the tapes of LCD

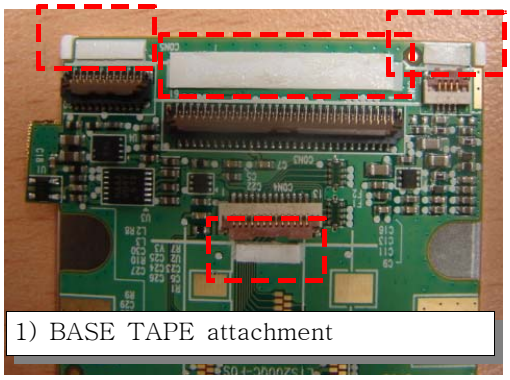
2

1) LCD GOLD GASKIT attachment position

NO	PART NAME	CODE	MODEL NAME	Quantity
1	GASK TAPE	GH74-31489A	SGH-E830	1

1) It attachs a tape to a LCD.

3

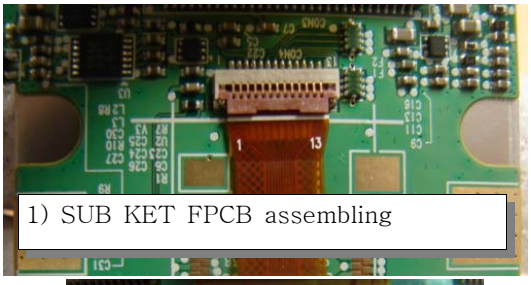


1) BASE TAPE attachment

NO	PART NAME	CODE	MODEL NAME	Quantity
1	BASE TAPE	GH74-28490A	SGH-E830	1
	BASE TAPE	GH74-28491A	SGH-E830	2
	BASE TAPE	GH74-28492A	SGH-E830	1

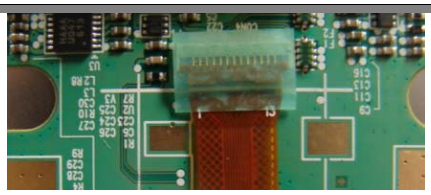
1) The BASE TAPE attaches above the SILK.

4



1) SUB KET FPCB assembling

2) SUB KET FPCB CON TAPE



NO	PART NAME	CODE	MODEL NAME	Quantity
1	INSU TAPE 1	GH74-23224A	SGH-E830	1

1) To insert the A to the B and assemble, It presses the FPCB with the finger.

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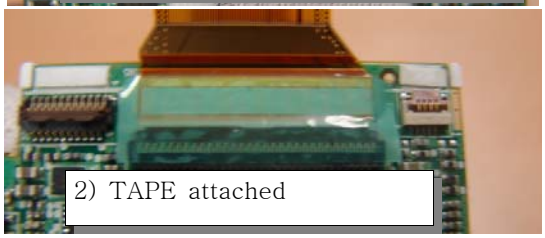
5

1) The FPCB inserts in the connector and check on line.



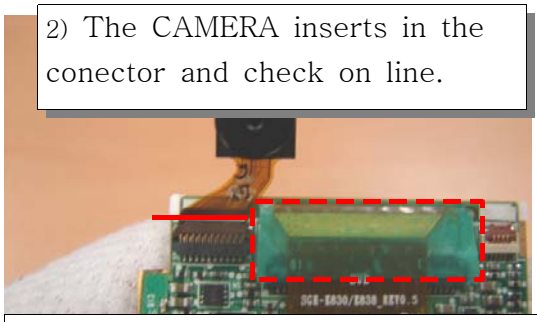
2) TAPE attached

NO	PART NAME	CODE	MODEL NAME	Quant ity
1	INSU TAPE 3	GH74-28493A	SGH-E830	1

1) It presses with the finger while the FPCB is fixed.
2) The TAPE attaches to becomes horizontal.

6

2) The CAMERA inserts in the conector and check on line.

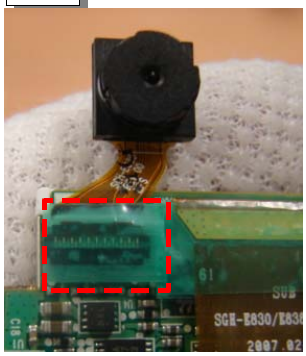


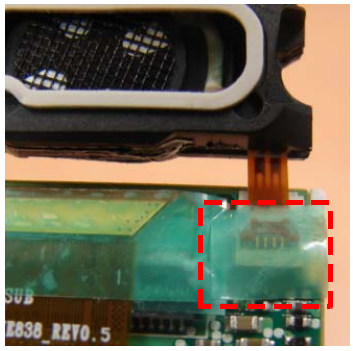
1) After folding the FPCB in lower part, it attaches a fixation tape

NO	PART NAME	CODE	MODEL NAME	Quant ity
1	INSU TAPE 3	GH74-28493A	SGH-E830	1

1) It presses with the finger while the FPCB is fixed.
2) The TAPE attaches to become horizontal.

7

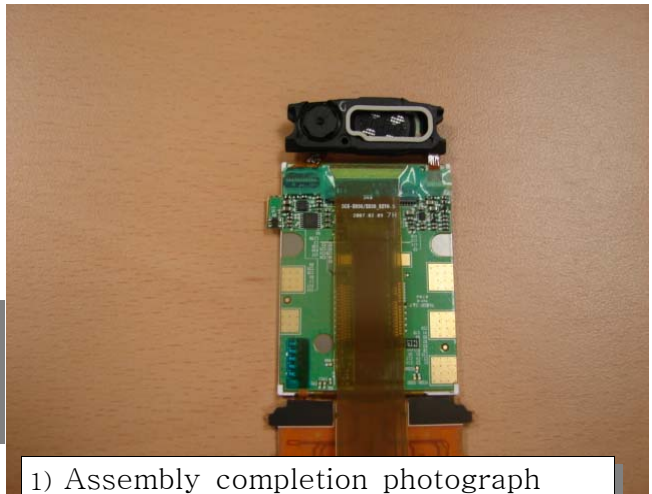




1) It attaches a fixation tape above the camera connector. 2) After SPK inserting, a fixation tape attach above connector.

NO	PART NAME	CODE	MODEL NAME	Quant ity
1	INSU TAPE 1	GH74-23224A	SGH-E830	1
2	INSU TAPE 2	GH74-28277A	SGH-E830	1

1) When inserting, check the SILK line.
2) It presses with the finger while the FPCB is fixed.



1) Assembly completion photograph

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6. MAIN Electrical Parts List

Design LOC	Description	SEC Code	STATUS
ANT500	ANTENNA-CHIP	4202-001257	SA
BAT400	BATTERY-LI(2ND)	4302-001181	SA
BTC600	HEADER-BATTERY	3711-006108	SA
C100	C-CER,CHIP	2203-000233	SA
C101	C-CER,CHIP	2203-005288	SA
C102	C-CER,CHIP	2203-000233	SA
C103	C-CER,CHIP	2203-005288	SA
C104	C-CER,CHIP	2203-005281	SA
C105	C-CER,CHIP	2203-005281	SA
C106	C-CER,CHIP	2203-006562	SA
C108	C-CER,CHIP	2203-000278	SA
C109	C-CER,CHIP	2203-000812	SA
C112	C-CER,CHIP	2203-005682	SA
C113	C-CER,CHIP	2203-005288	SA
C114	C-CER,CHIP	2203-005288	SA
C120	C-CER,CHIP	2203-006305	SA
C122	C-CER,CHIP	2203-006423	SA
C123	C-CER,CHIP	2203-006638	SA
C124	C-CER,CHIP	2203-006423	SA
C127	C-CER,CHIP	2203-000438	SA
C128	C-CER,CHIP	2203-005736	SA
C129	C-CER,CHIP	2203-005736	SA
C130	C-CER,CHIP	2203-005444	SA
C131	C-CER,CHIP	2203-005288	SA
C132	C-CER,CHIP	2203-005736	SA
C133	C-CER,CHIP	2203-006423	SA
C200	C-CER,CHIP	2203-006123	SA
C201	C-CER,CHIP	2203-005717	SA
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C203	C-CER,CHIP	2203-005717	SA
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C215	C-CER,CHIP	2203-006562	SA
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C303	C-CER,CHIP	2203-006562	SA
C304	C-CER,CHIP	2203-006423	SA

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Design LOC	Description	SEC Code	STATUS
C305	C-CER,CHIP	2203-006562	SA
C306	C-CER,CHIP	2203-006562	SA
C307	C-CER,CHIP	2203-006423	SA
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C319	C-CER,CHIP	2203-005482	SA
C325	C-CER,CHIP	2203-005729	SA
C326	C-CER,CHIP	2203-005729	SA
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C509	C-CER,CHIP	2203-006562	SA

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Design LOC	Description	SEC Code	STATUS
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C518	C-CER,CHIP	2203-006681	SA
C519	C-CER,CHIP	2203-006423	SA
C520	C-CER,CHIP	2203-006648	SA
C522	C-CER,CHIP	2203-006123	SA
C523	C-CER,CHIP	2203-006123	SA
C602	C-CER,CHIP	2203-001153	SA
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C606	C-CER,CHIP	2203-005736	SA
C607	C-CER,CHIP	2203-005736	SA
C608	C-CER,CHIP	2203-005682	SA
C609	C-CER,CHIP	2203-006423	SA
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C616	C-CER,CHIP	2203-001153	SA
C618	C-CER,CHIP	2203-005482	SA
C619	C-CER,CHIP	2203-005682	SA
C620	C-CER,CHIP	2203-002968	SA
C623	INDUCTOR-SMD	2703-002313	SA
C625	C-CER,CHIP	2203-005482	SA
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C753	C-CER,CHIP	2203-005717	SA
C758	C-CER,CHIP	2203-005736	SA
C759	C-CER,CHIP	2203-006648	SA
CD400	CONNECTOR-CARD EDGE	3709-001344	SA
D700	DIODE-ARRAY	0407-001002	SA
F100	DUPLEXER-FEM	2911-000072	SA
F500	FILTER-LC	2909-001279	SA
F600	FILTER-EMI SMD	2901-001408	SA
HDC700	HEADER-BOARD TO BOARD	3711-006278	SA
IFC600	SOCKET-INTERFACE	3710-002465	SA
L102	INDUCTOR-SMD	2703-002314	SA
L103	INDUCTOR-SMD	2703-002608	SA
L104	INDUCTOR-SMD	2703-002608	SA
L105	INDUCTOR-SMD	2703-002558	SA
L106	INDUCTOR-SMD	2703-002205	SA
L400	INDUCTOR-SMD	2703-002829	SA
L500	BEAD-SMD	3301-001534	SA
L501	BEAD-SMD	3301-001659	SA
L600	BEAD-SMD	3301-001534	SA
L601	BEAD-SMD	3301-001534	SA
L602	BEAD-SMD	3301-001729	SA
L603	BEAD-SMD	3301-001729	SA
L604	BEAD-SMD	3301-001729	SA
L605	BEAD-SMD	3301-001729	SA
L606	BEAD-SMD	3301-001729	SA
OSC100	CRYSTAL-SMD	2801-004587	SA
OSC400	CRYSTAL-SMD	2801-004339	SA
OSC500	CRYSTAL-SMD	2801-004560	SA
PAM100	IC-POWER AMP	1201-002460	SA
PAM300	IC-AUDIO AMP	1201-002492	SA
R100	R-CHIP	2007-000171	SA
R101	R-CHIP	2007-000171	SA
R102	R-CHIP	2007-001313	SA
R103	R-CHIP	2007-000171	SA
R106	INDUCTOR-SMD	2703-001749	SA
R107	R-CHIP	2007-008419	SA
R109	R-CHIP	2007-008542	SA
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R111	R-CHIP	2007-008542	SA
R200	R-CHIP	2007-008516	SA
R201	R-CHIP	2007-009314	SA
R202	R-CHIP	2007-008542	SA
R206	R-CHIP	2007-009314	SA
R208	R-CHIP	2007-008419	SA
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R212	R-CHIP	2007-008548	SA
R220	R-CHIP	2007-008516	SA

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Design LOC	Description	SEC Code	STATUS
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R301	R-CHIP	2007-008542	SA
R302	R-CHIP	2007-008542	SA
R303	R-CHIP	2007-008542	SA
R304	R-CHIP	2007-008055	SA
R306	R-CHIP	2007-008055	SA
R311	R-CHIP	2007-009171	SA
R312	R-CHIP	2007-008045	SA
R313	R-CHIP	2007-009171	SA
R318	R-CHIP	2007-000171	SA
R319	R-CHIP	2007-000171	SA
R320	R-CHIP	2007-008542	SA
R321	R-CHIP	2007-000171	SA
R322	R-CHIP	2007-008542	SA
R323	R-CHIP	2007-008542	SA
R324	R-CHIP	2007-008785	SNA
R325	R-CHIP	2007-008785	SNA
R326	R-CHIP	2007-008785	SNA
R327	R-CHIP	2007-000171	SA
R400	R-CHIP	2007-008542	SA
R401	R-CHIP	2007-007573	SA
R402	R-CHIP	2007-008055	SA
R403	R-CHIP	2007-008354	SA
R404	R-CHIP	2007-008542	SA
R405	R-CHIP	2007-008055	SA
R406	R-CHIP	2007-008542	SA
R407	R-CHIP	2007-008542	SA
R408	R-CHIP	2007-009112	SNA
R409	R-CHIP	2007-007100	SA
R410	R-CHIP	2007-008648	SA
R411	R-CHIP	2007-008588	SA
R412	R-CHIP	2007-002796	SA
R413	R-CHIP	2007-008055	SA
R414	R-CHIP	2007-009314	SA
R415	R-CHIP	2007-009168	SA
R416	R-CHIP	2007-008055	SA
R417	R-CHIP	2007-008419	SA
R418	R-CHIP	2007-008542	SA
R419	R-CHIP	2007-009314	SA
R421	R-CHIP	2007-008542	SA
R428	R-CHIP	2007-009112	SNA
R503	R-CHIP	2007-007489	SA
R504	R-CHIP	2007-008055	SA
R505	R-CHIP	2007-000170	SA
R506	R-CHIP	2007-008516	SA
R507	R-CHIP	2007-008516	SA
R508	R-CHIP	2007-008055	SA
R509	R-CHIP	2007-008542	SA
R510	R-CHIP	2007-000172	SA

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Design LOC	Description	SEC Code	STATUS
R511	R-CHIP	2007-009112	SNA
R516	R-CHIP	2007-008542	SA
R517	R-CHIP	2007-008542	SA
R600	R-CHIP	2007-009112	SNA
R601	R-CHIP	2007-009170	SA
R602	R-CHIP	2007-009112	SNA
R603	R-CHIP	2007-009112	SNA
R604	R-CHIP	2007-007142	SA
R605	R-CHIP	2007-007334	SA
R608	R-CHIP	2007-007741	SA
R609	R-CHIP	2007-009157	SA
R610	R-CHIP	2007-008800	SA
R611	R-CHIP	2007-000170	SA
R612	R-CHIP	2007-000170	SA
R613	R-CHIP	2007-000141	SA
R617	R-CHIP	2007-000141	SA
R619	R-CHIP	2007-008483	SA
R620	R-CHIP	2007-002796	SA
R621	R-CHIP	2007-008055	SA
R700	R-CHIP	2007-009112	SNA
R701	R-CHIP	2007-009112	SNA
R706	R-CHIP	2007-009112	SNA
R707	R-CHIP	2007-008054	SA
R708	R-CHIP	2007-009112	SNA
R721	R-CHIP	2007-008057	SA
R739	R-CHIP	2007-008516	SA
RFS100	CONNECTOR-COAXIAL	3705-001421	SA
SIM401	CONNECTOR-CARD EDGE	3709-001447	SA
SLC700	CONNECTOR-FPC/FFC/PIC	3708-002338	SA
SLC701	CONNECTOR-FPC/FFC/PIC	3708-002015	SA
TA100	C-TA,CHIP	2404-001496	SA
TA300	C-TA,CHIP	2404-001430	SA
TA301	C-TA,CHIP	2404-001226	SA
TA400	C-TA,CHIP	2404-001430	SA
TA600	C-TA,CHIP	2404-001381	SA
TA601	C-TA,CHIP	2404-001465	SA
TA602	C-TA,CHIP	2404-001430	SA
TAC700	SWITCH-TACT	3404-001303	SA
TR401	FET-SILICON	0505-002111	SA
TR500	TR-DIGITAL	0504-001151	SA
U102	IC-TRANSCEIVER	1205-003093	SA
U301	IC-CMOS LOGIC	0801-003022	SA
U302	IC ASIC-SPHA800	GH13-00030A	SA
U304	IC-CMOS LOGIC	0801-003079	SA
U400	IC-POWER SUPERVISOR	1203-004382	SA
U401	IC-POSI.FIXED REG.	1203-003737	SA
U500	IC-TUNER	1204-002700	SA
U501	IC-POSI.FIXED REG.	1203-003688	SA
U502	IC-TRANSCEIVER	1205-002942	SA
U600	IC-ANALOG SWITCH	1001-001410	SA

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Design LOC	Description	SEC Code	STATUS
U601	FILTER-EMI SMD	2901-001316	SA
U700	IC-POSI.FIXED REG.	1203-003737	SA
U701	IC-POSI.FIXED REG.	1203-003737	SA
U702	DIODE-TVS	0406-001215	SA
UCP200	IC-COMM. CONTROLLER	1205-003082	SA
UME300	IC-MCP	1108-000102	SA
V700	VARISTOR	1405-001183	SA
VR600	THERMISTOR-NTC	1404-001221	SA
ZD400	DIODE-ZENER	0403-001547	SA
ZD401	DIODE-TVS	0406-001256	SA
ZD600	DIODE-ZENER	0403-001339	SA
ZD601	DIODE-TVS	0406-001215	SA
ZD602	DIODE-TVS	0406-001215	SA
ZD603	DIODE-TVS	0406-001150	SA
ZD700	DIODE-TVS	0406-001215	SA
ZD701	DIODE-TVS	0406-001215	SA

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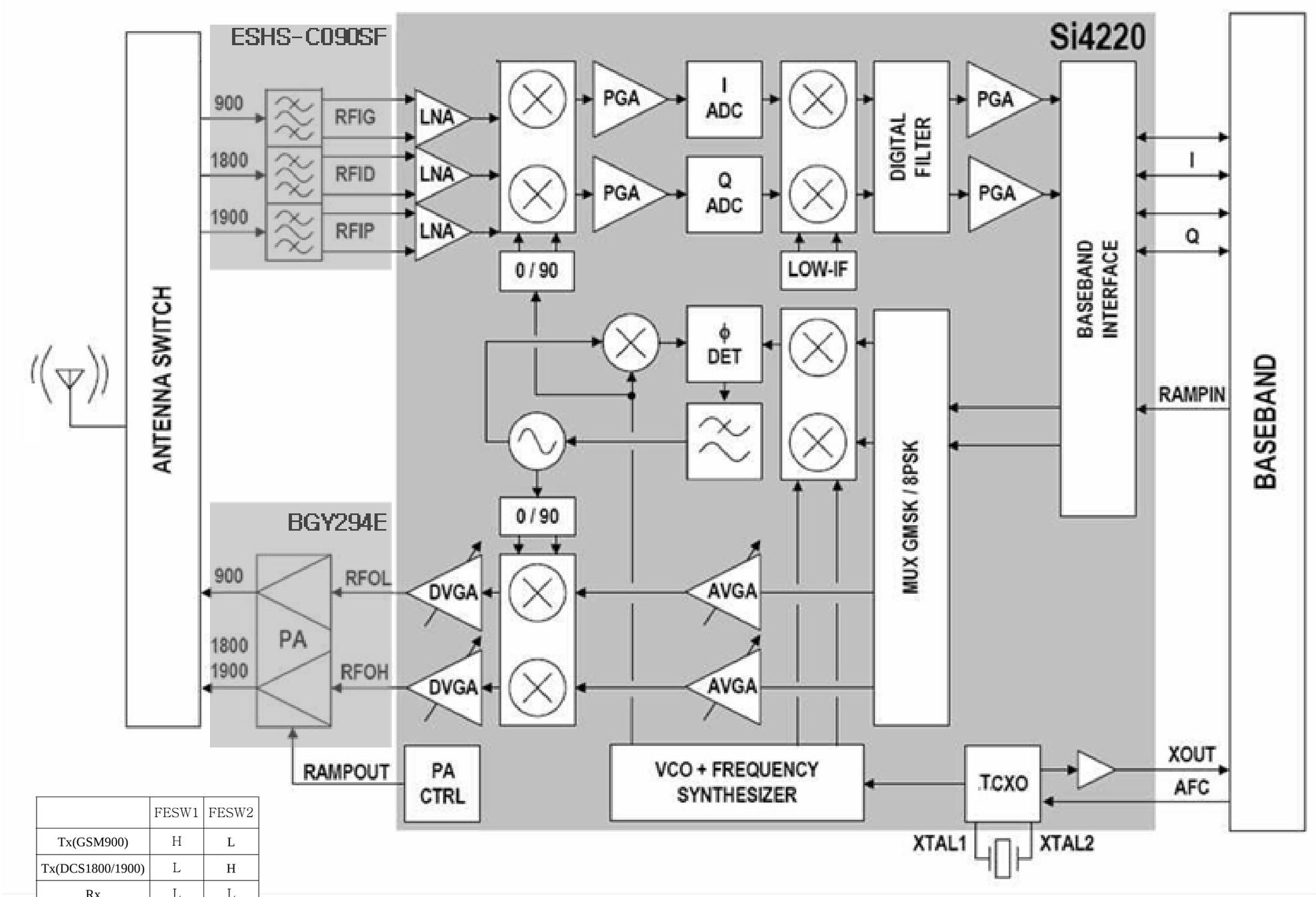
7. Block Diagrams

7-1. RF Solution Block Diagram



	FESW1	FESW2
Tx(GSM900)	H	L
Tx(DCS1800/1900)	L	H
Rx	L	L

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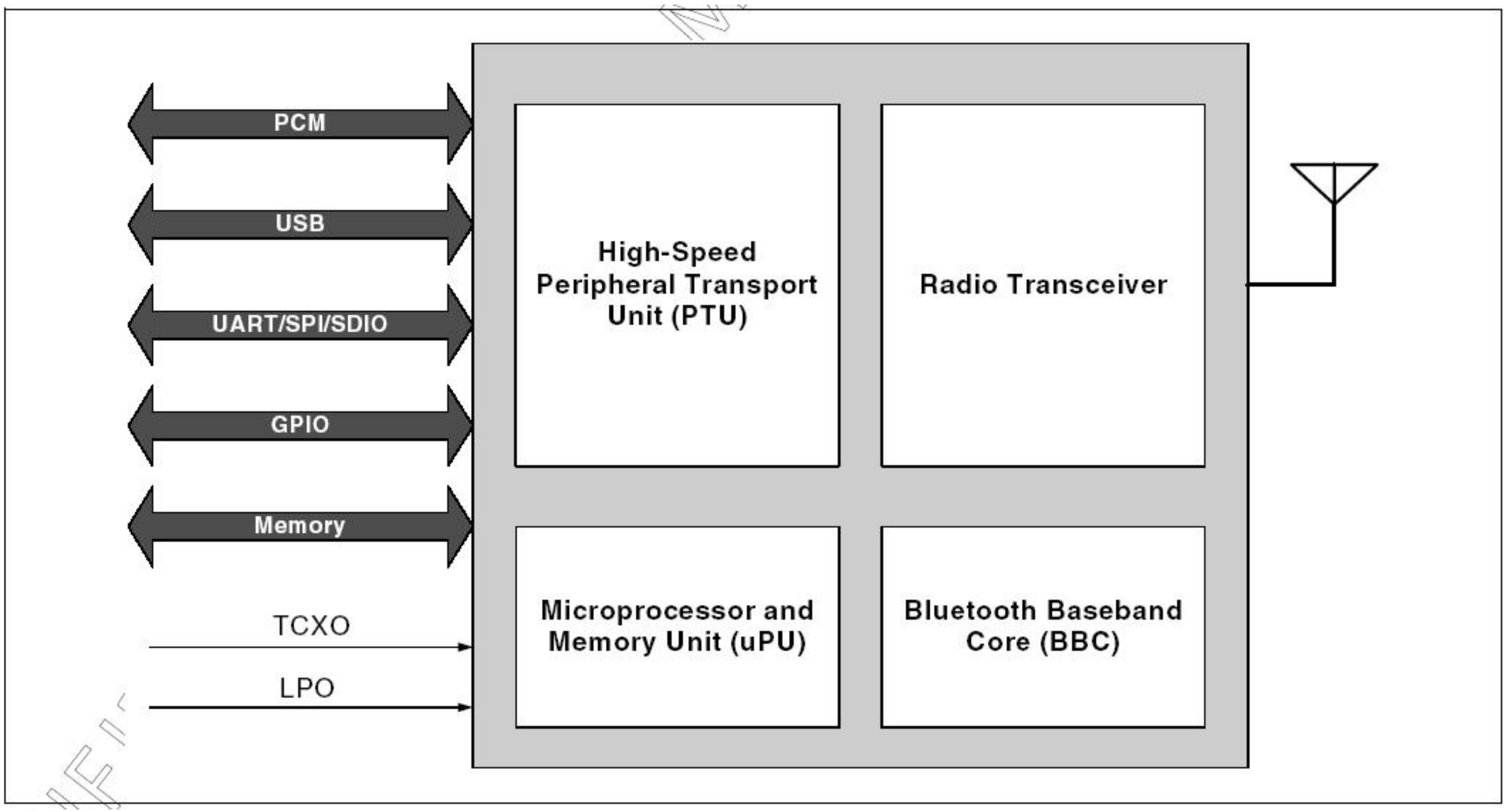
7-2. BT Solution Block Diagram



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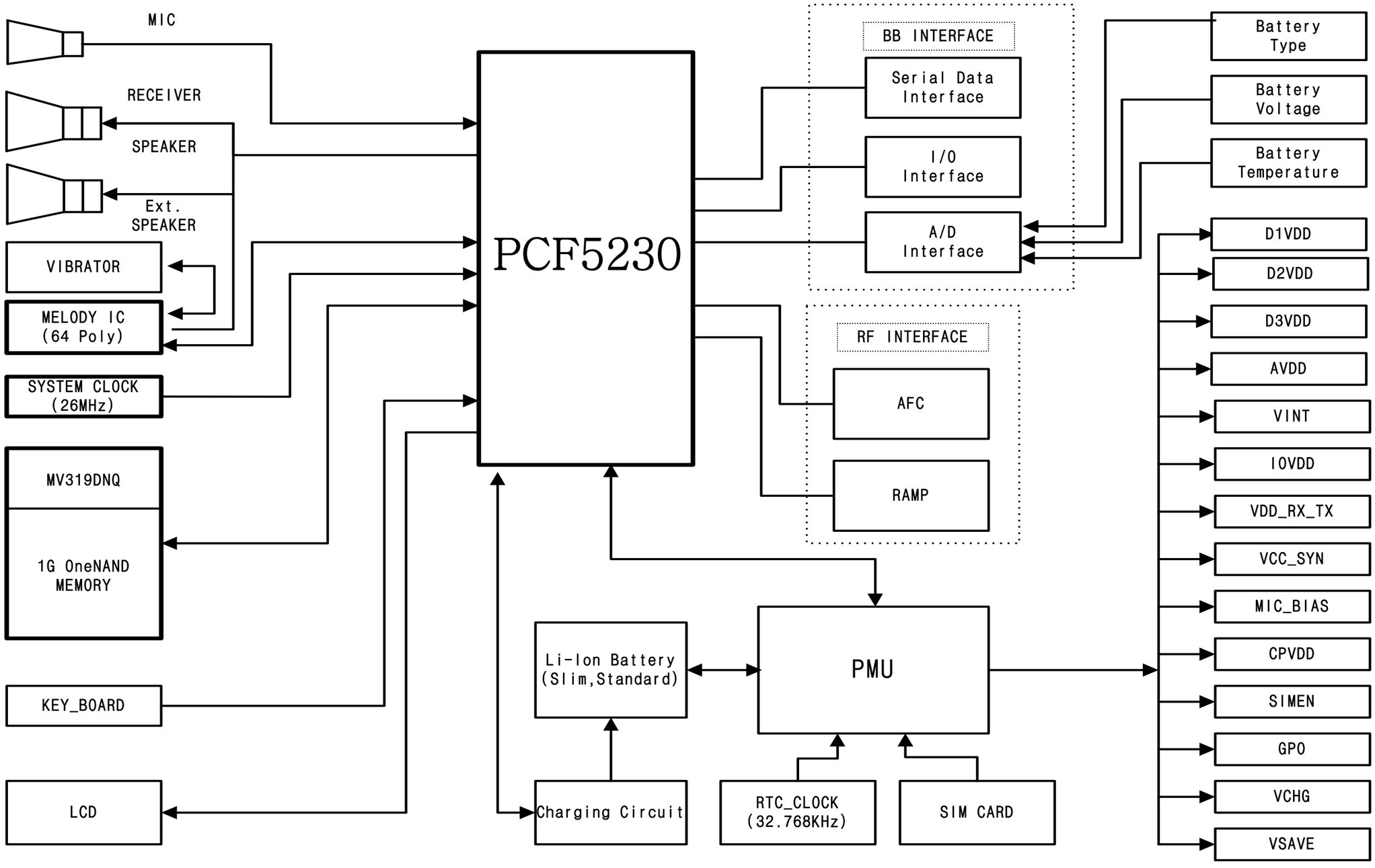
7-3. Base Band Solution Block Diagram



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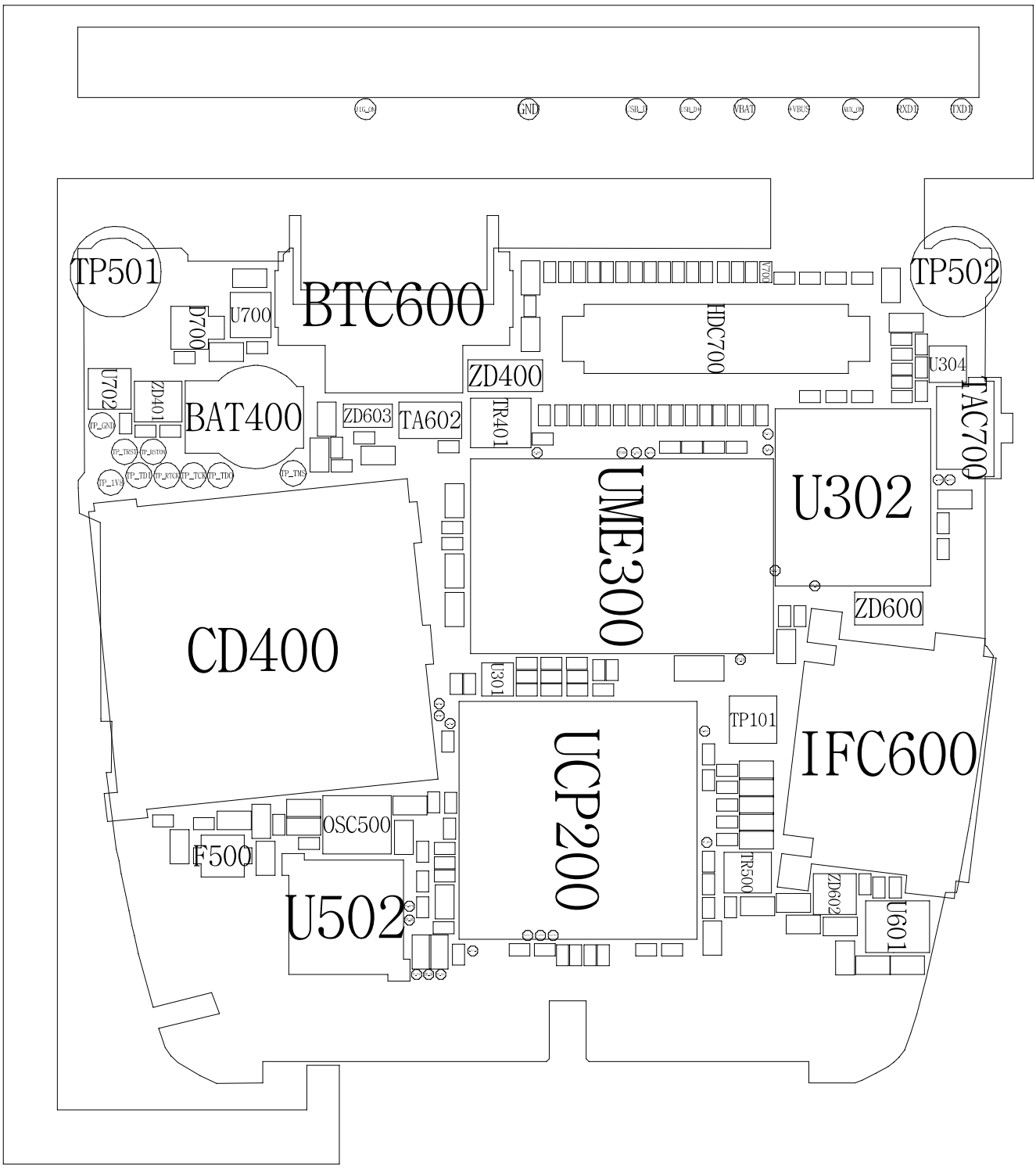
8. PCB Diagrams

Top



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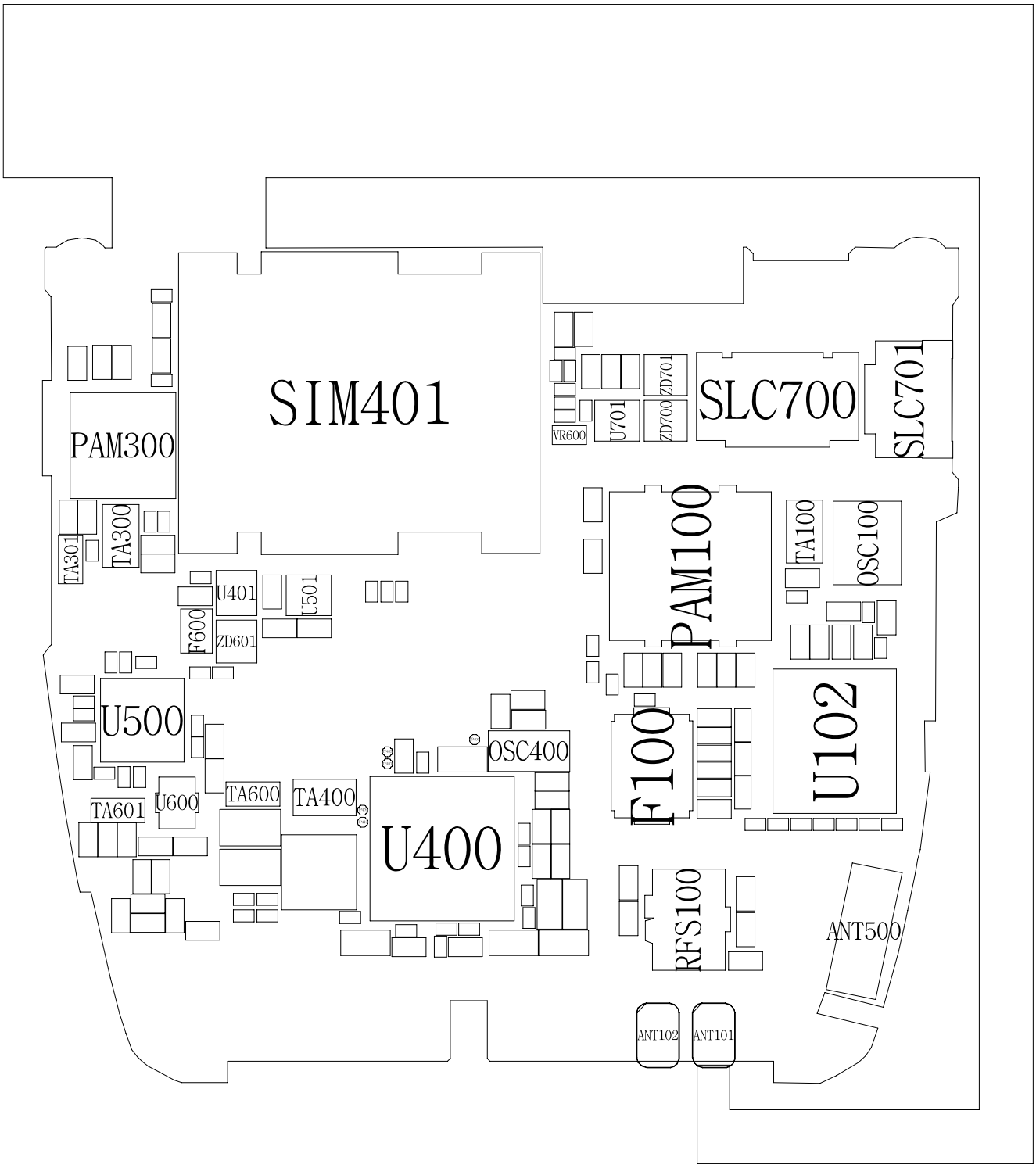

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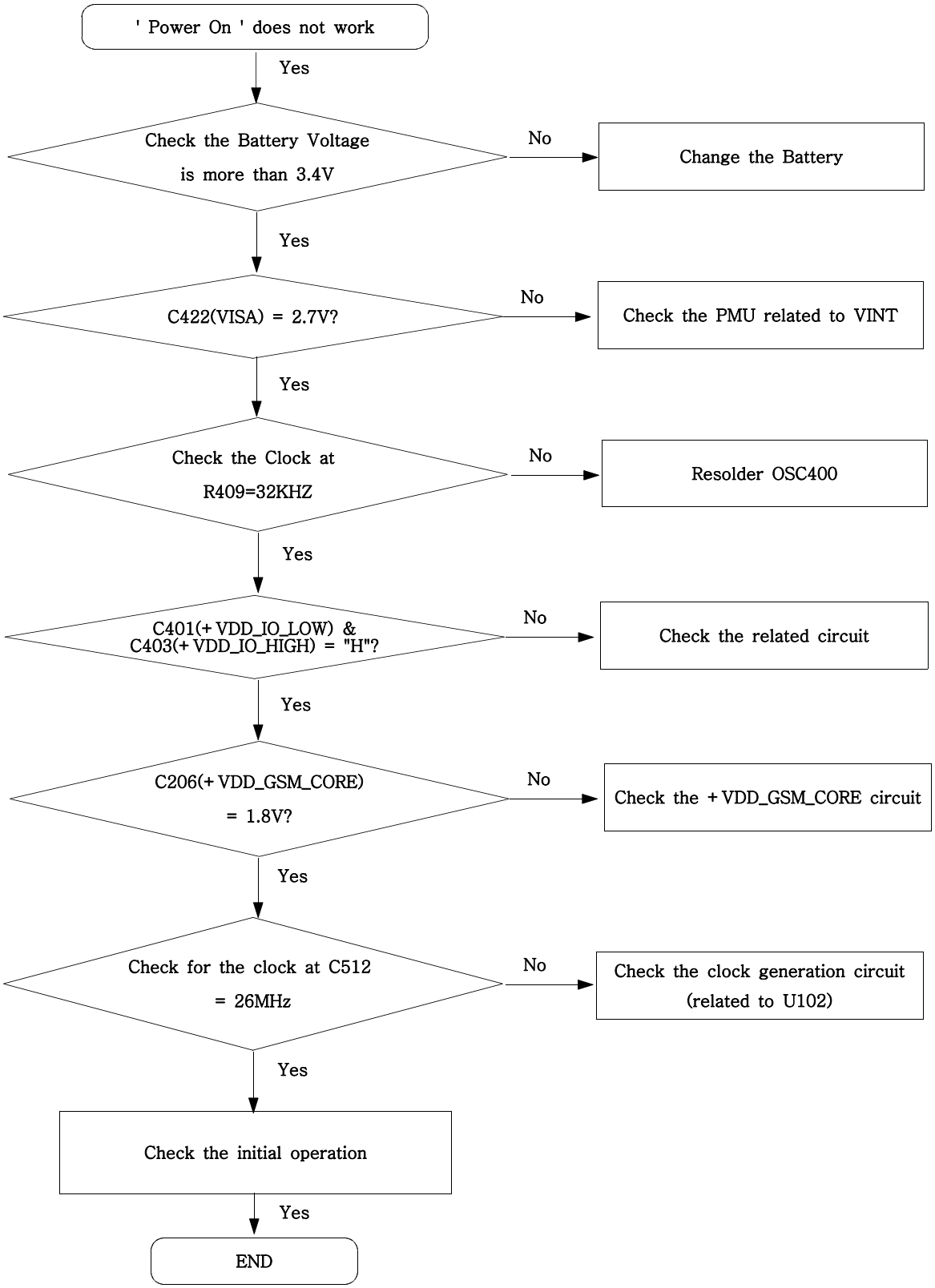
9. Flow Chart of Troubleshooting

9-1. Power On



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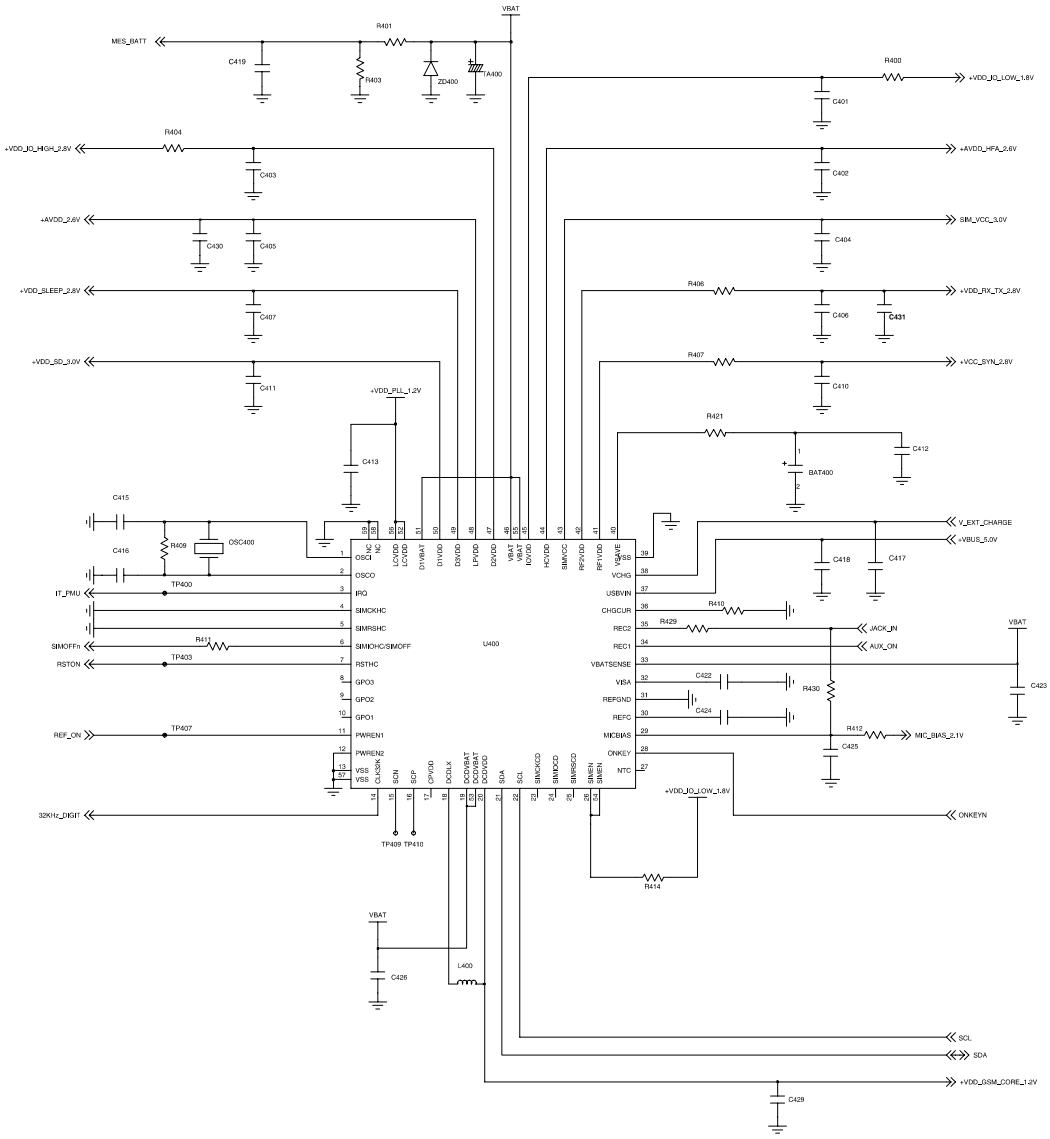

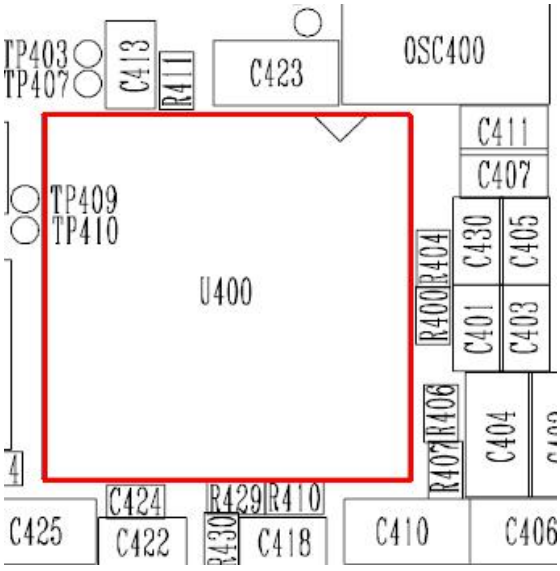

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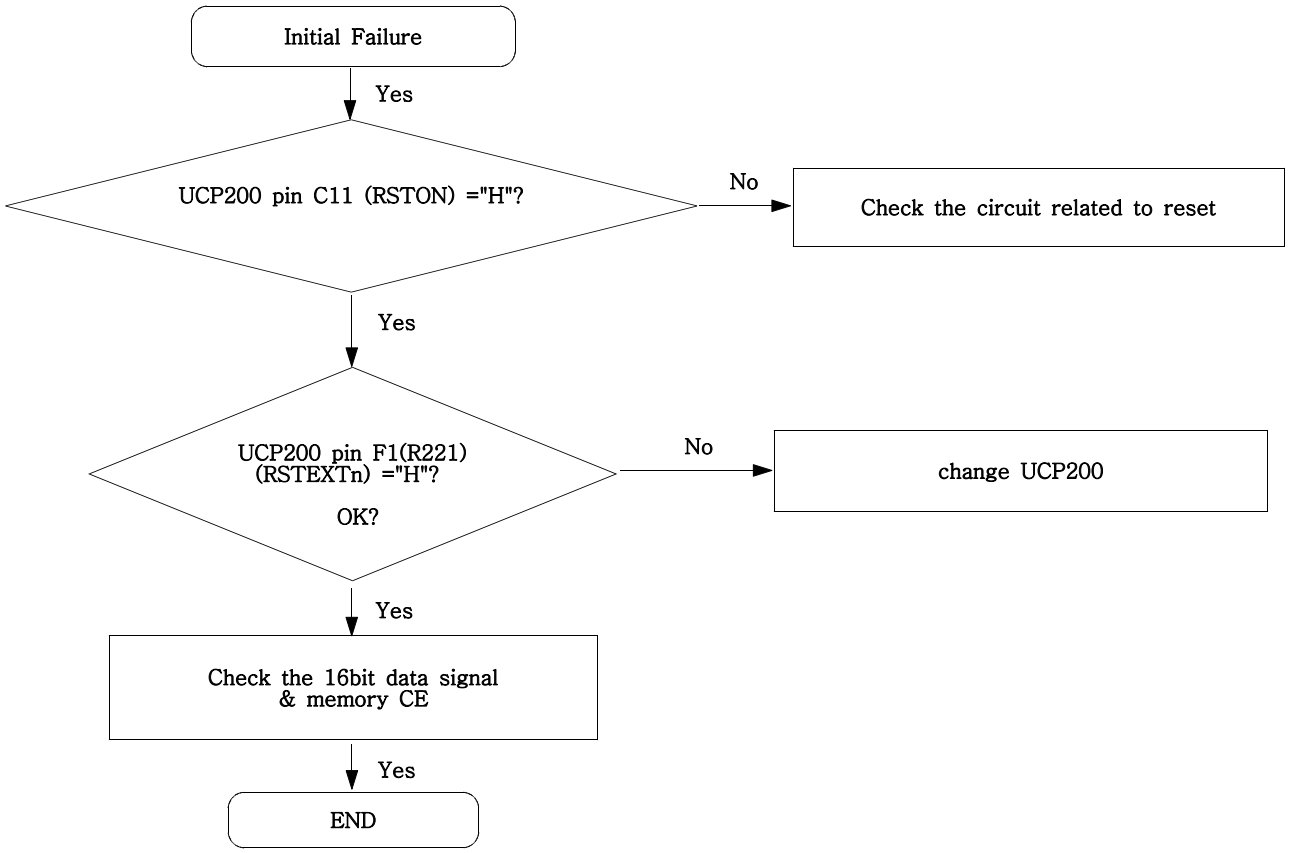
9-2. Initial



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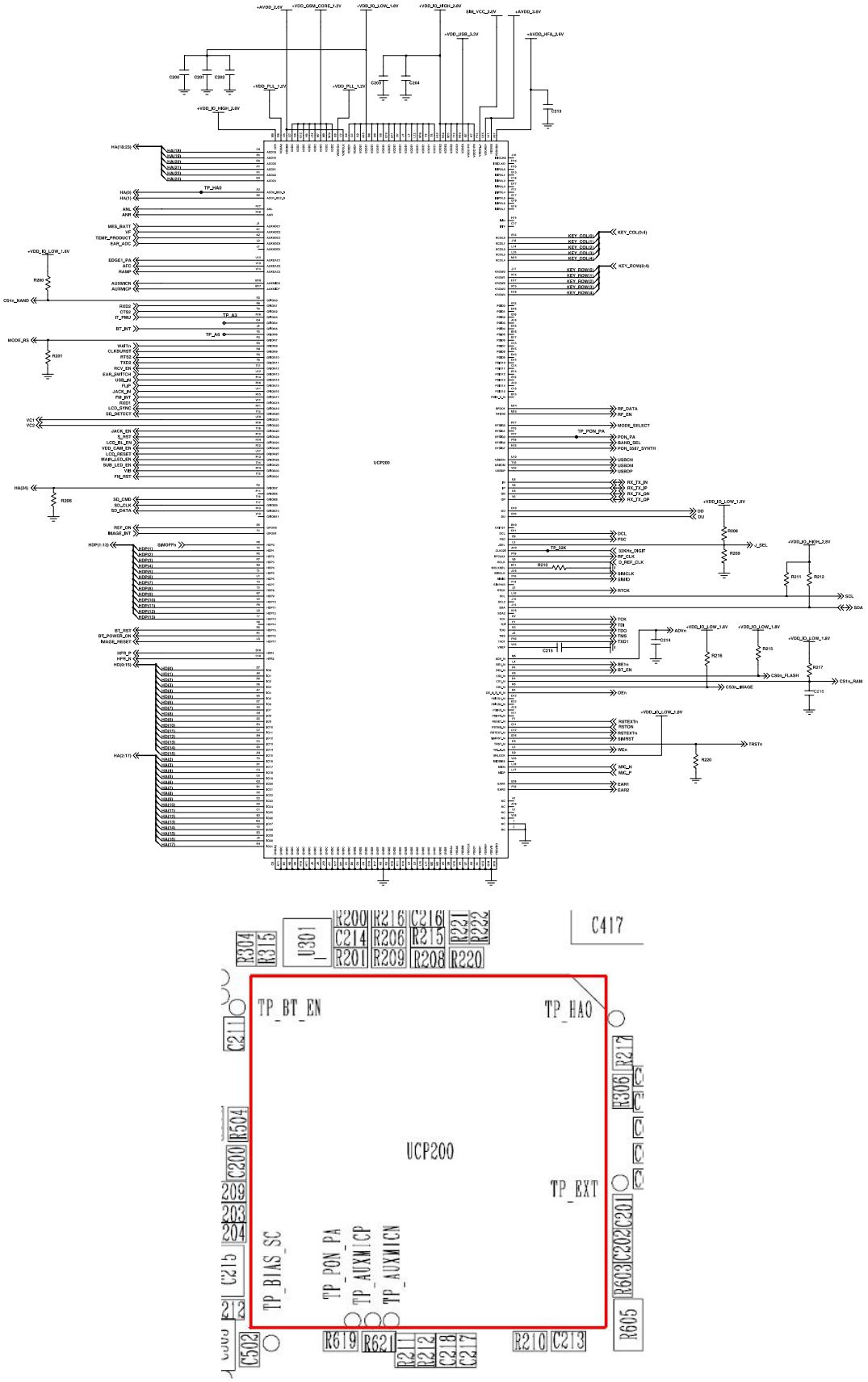

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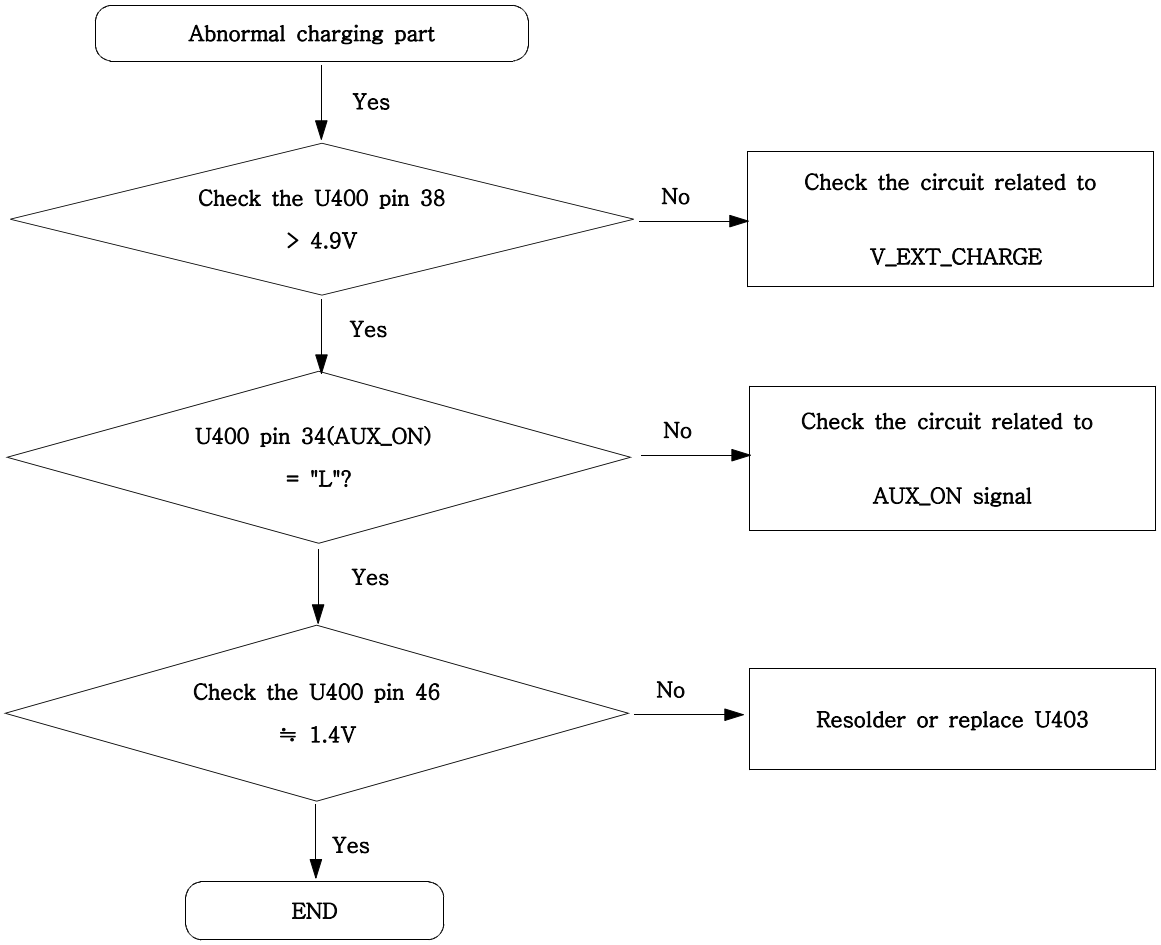
9-3. Charging Part



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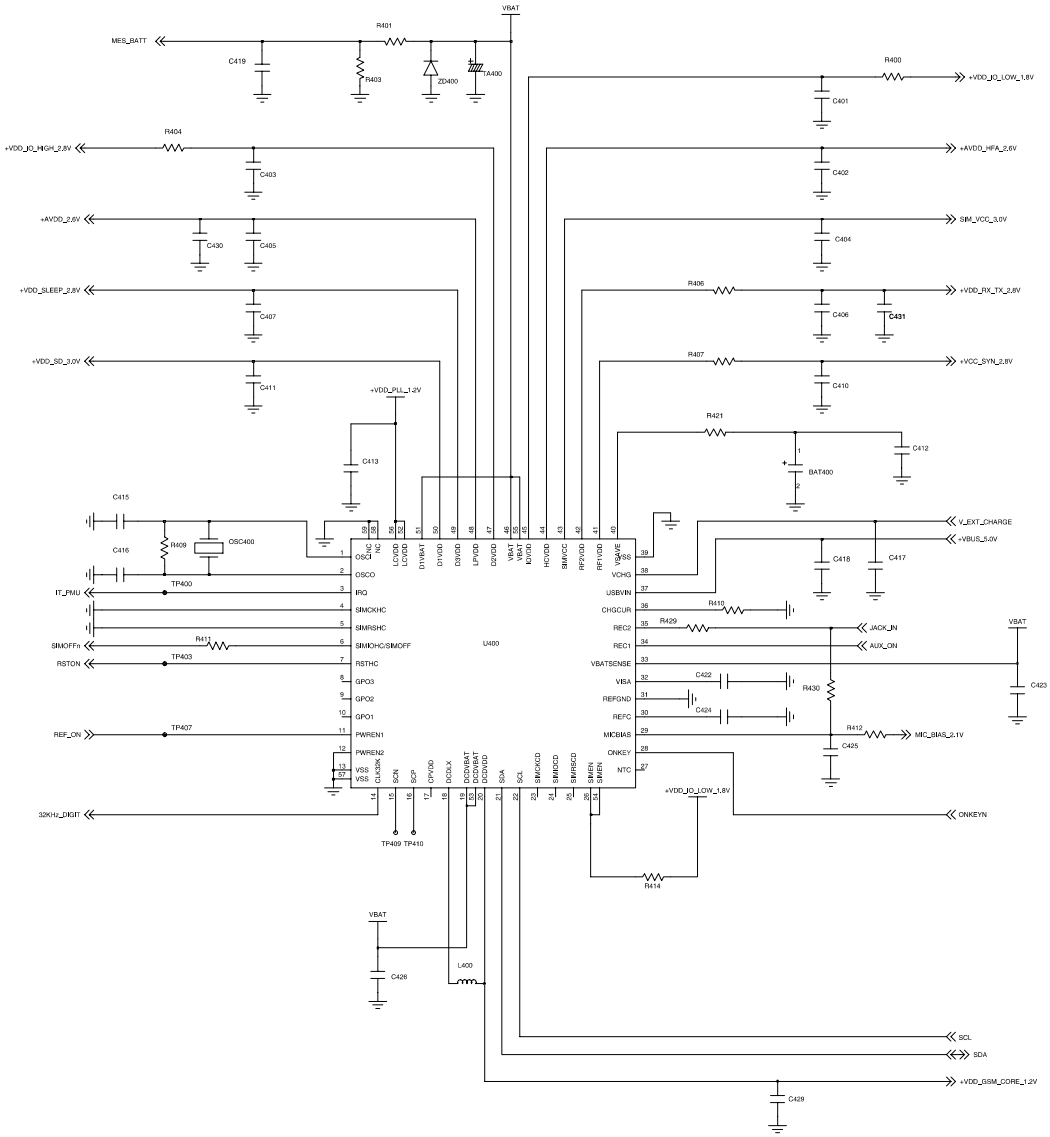

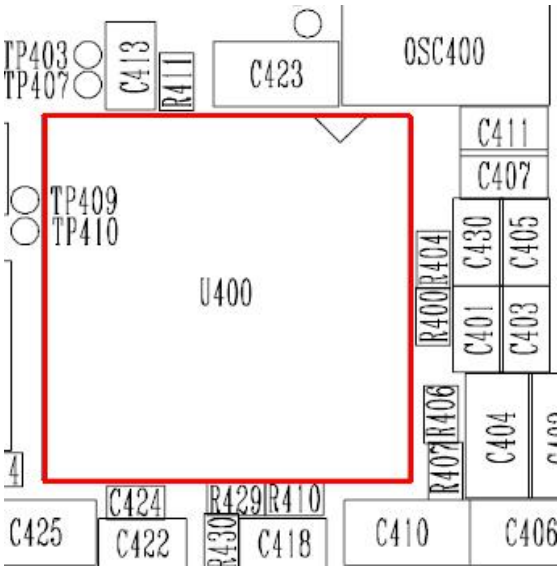

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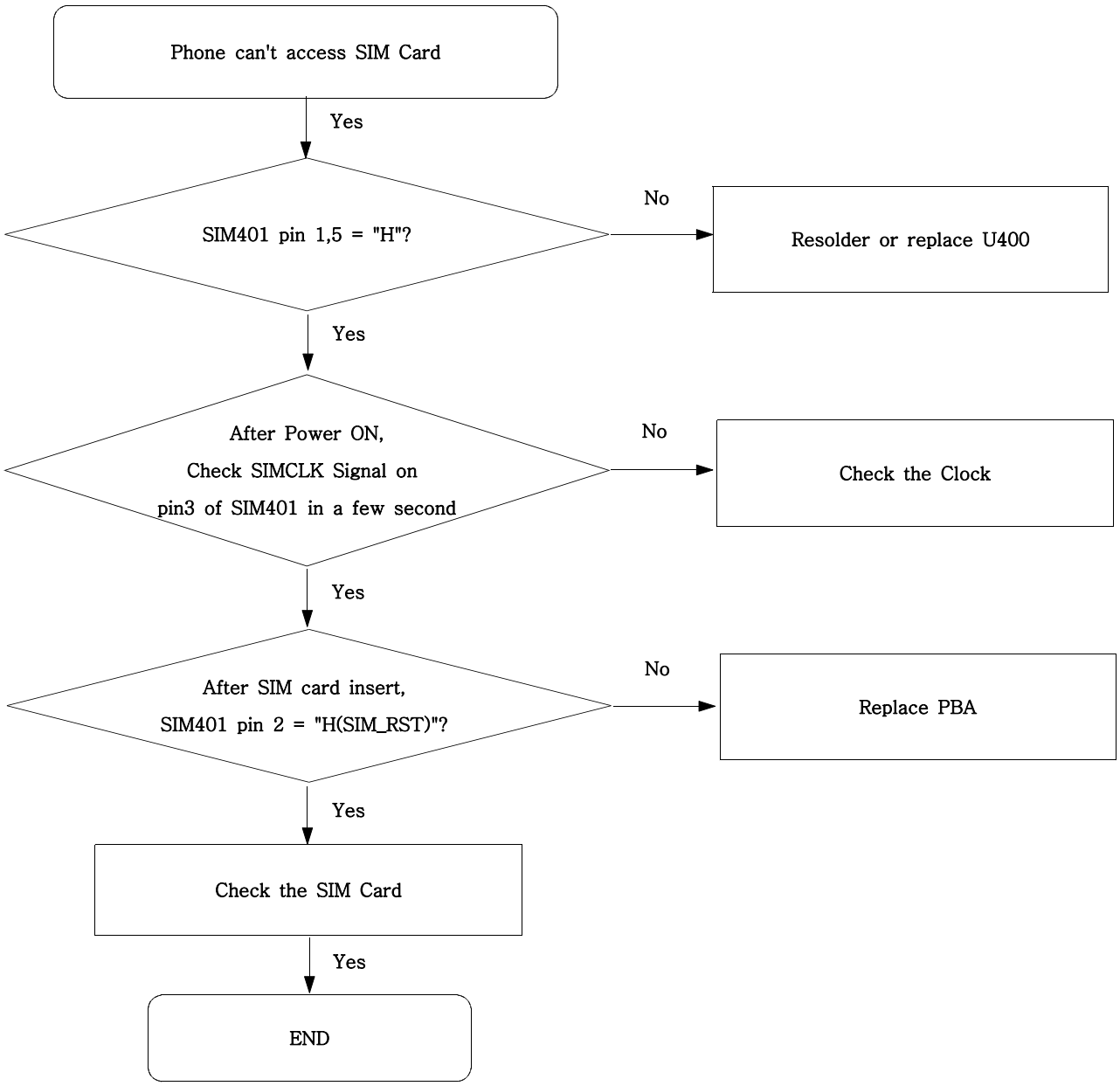
9-4. Sim Part



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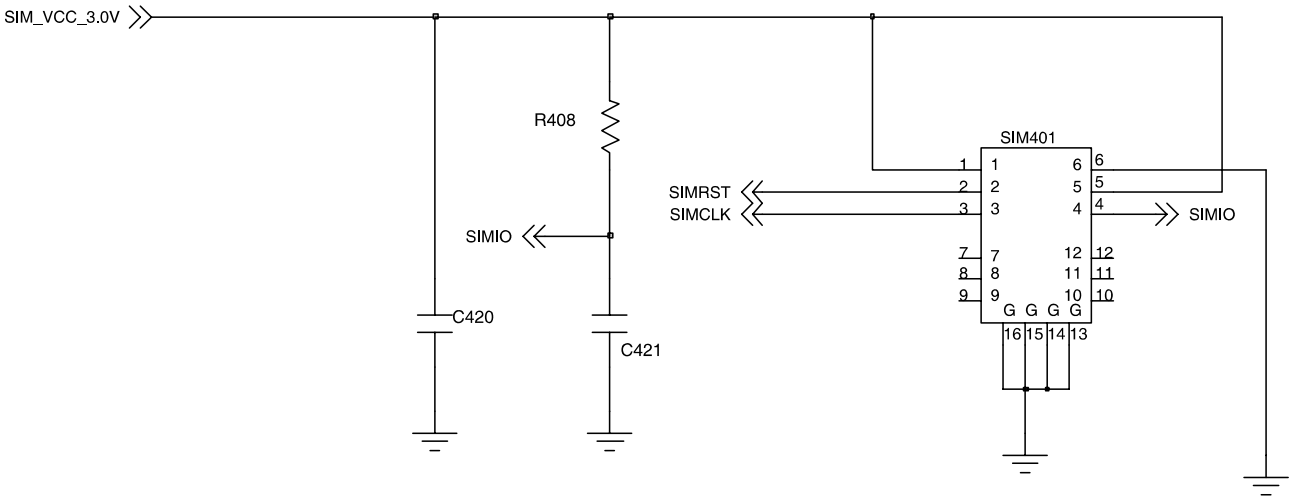

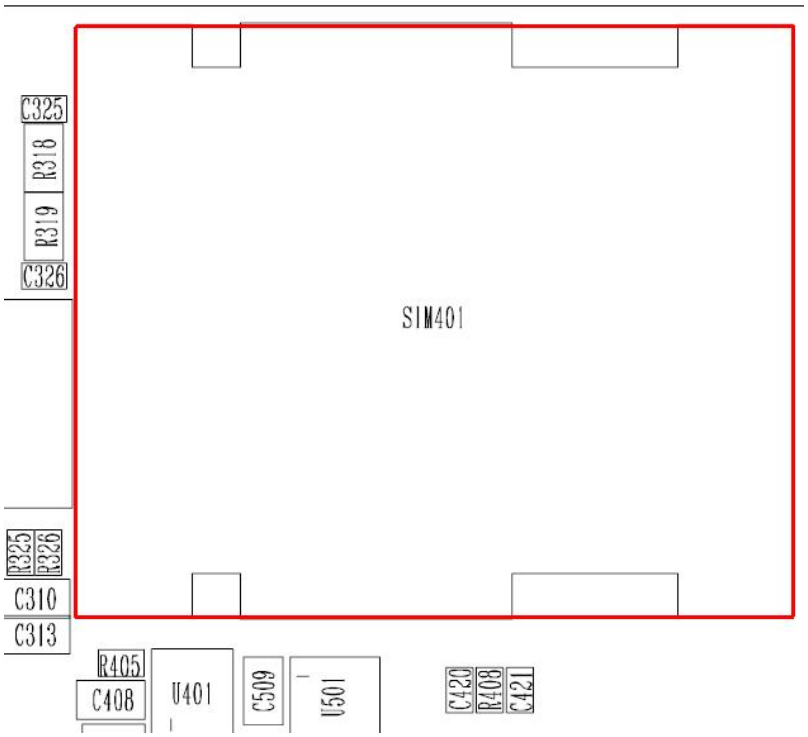

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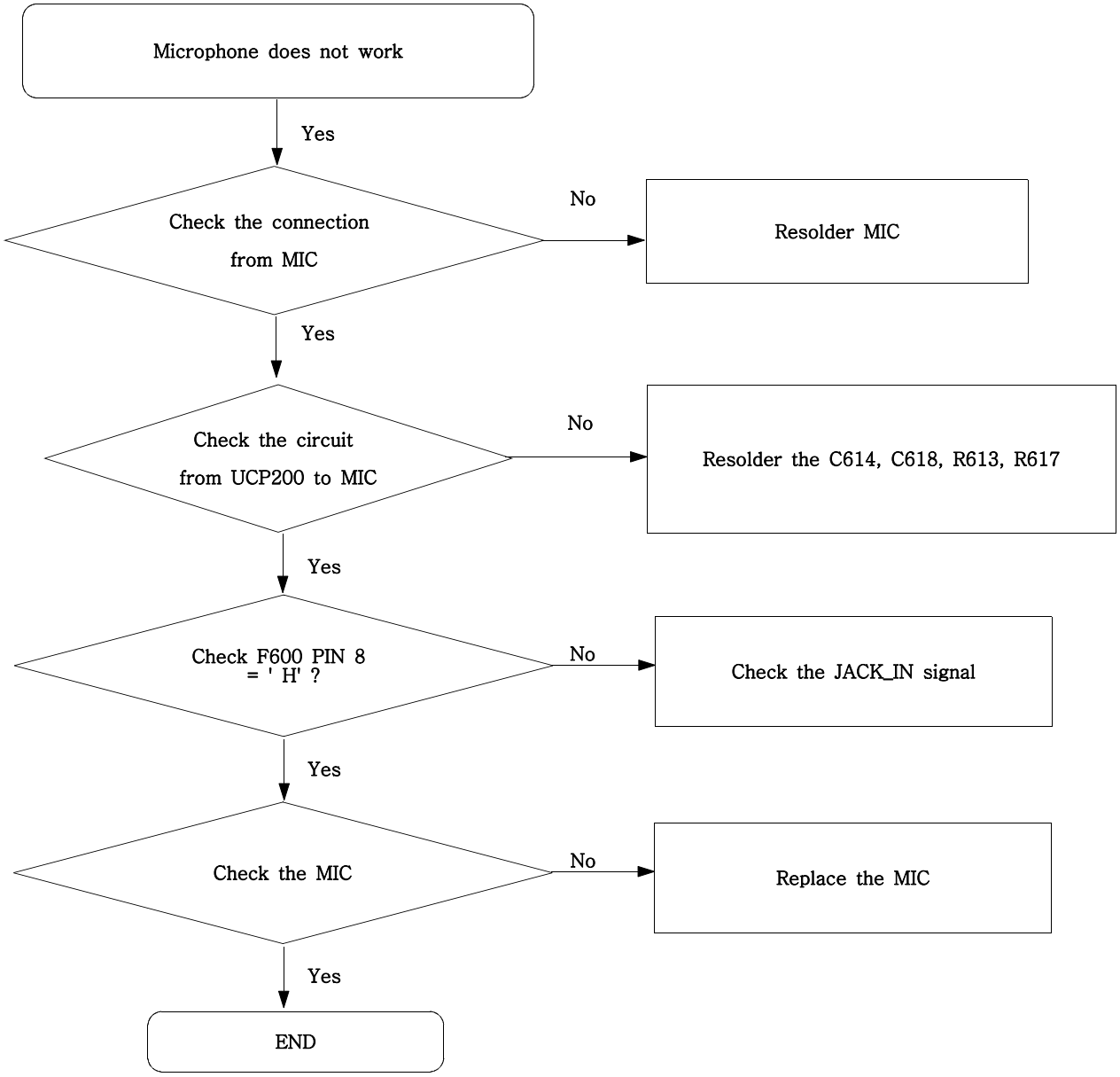
9-5. Microphone Part



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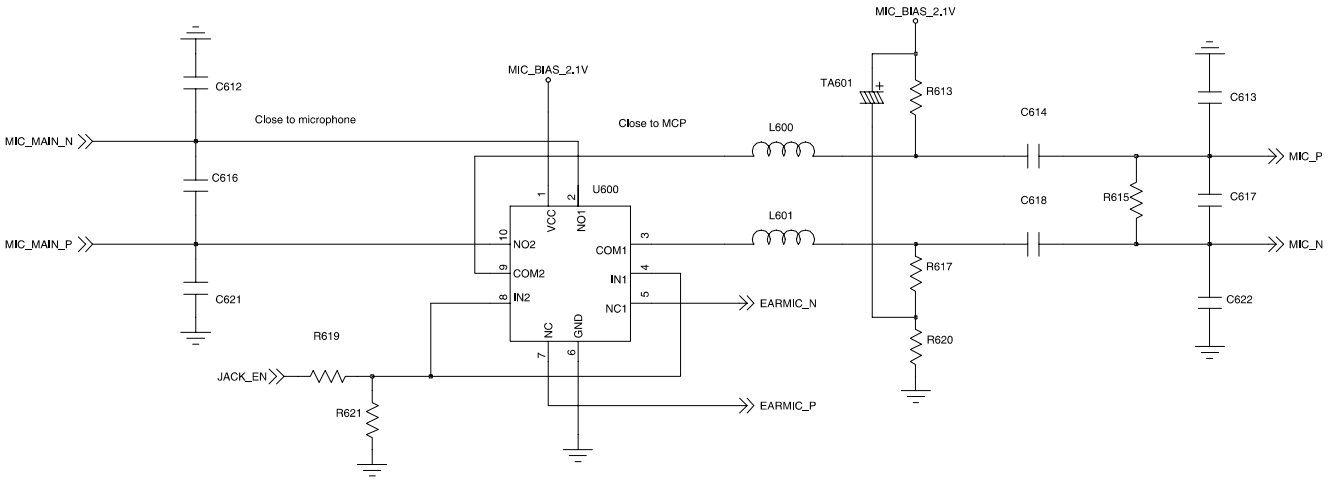

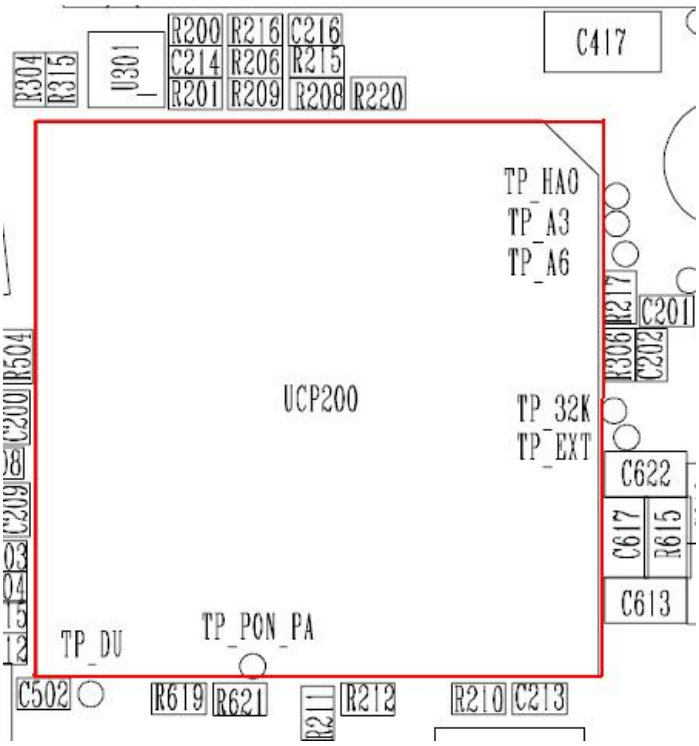

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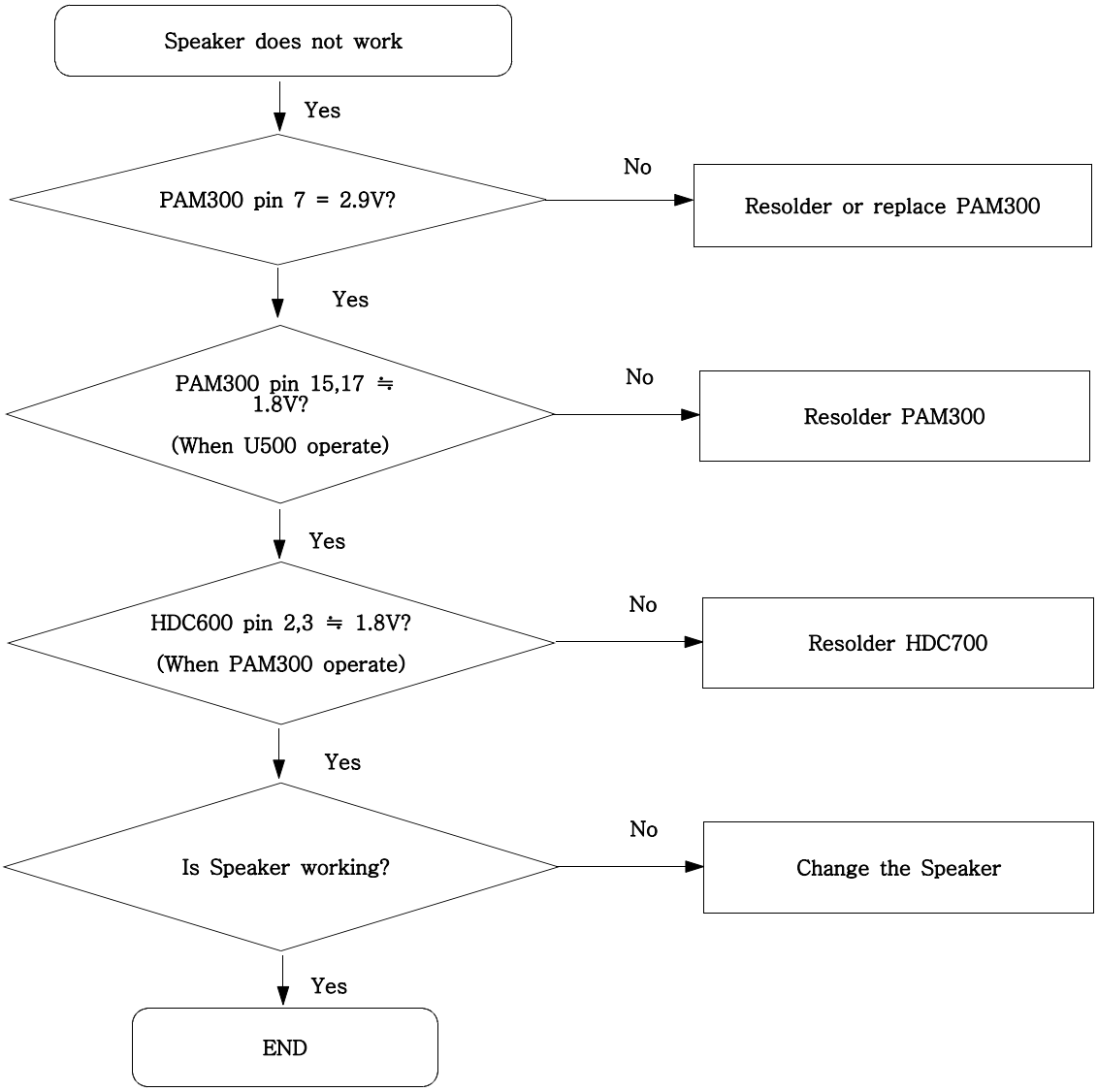
9-6. Speaker Part(Melody)



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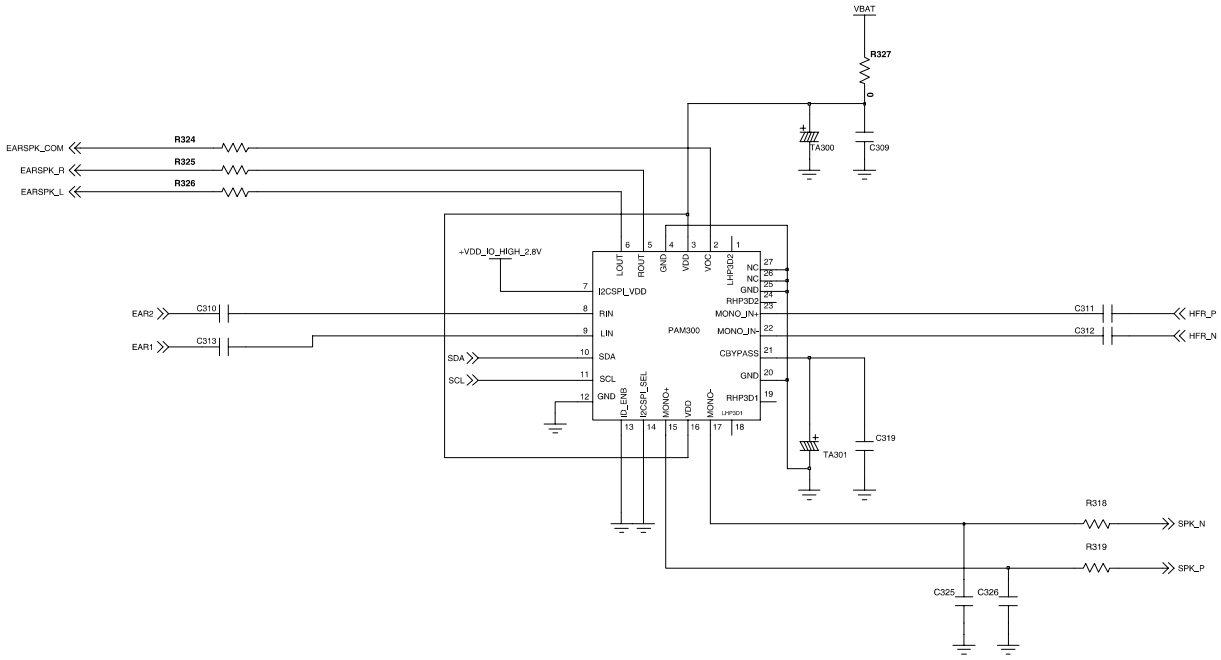

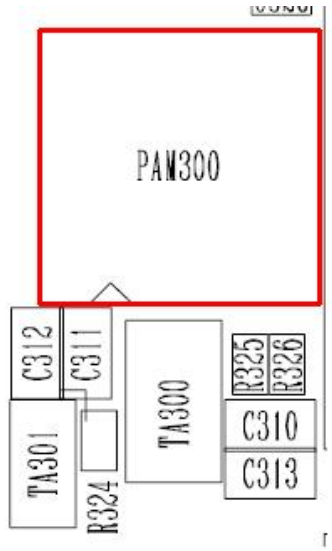

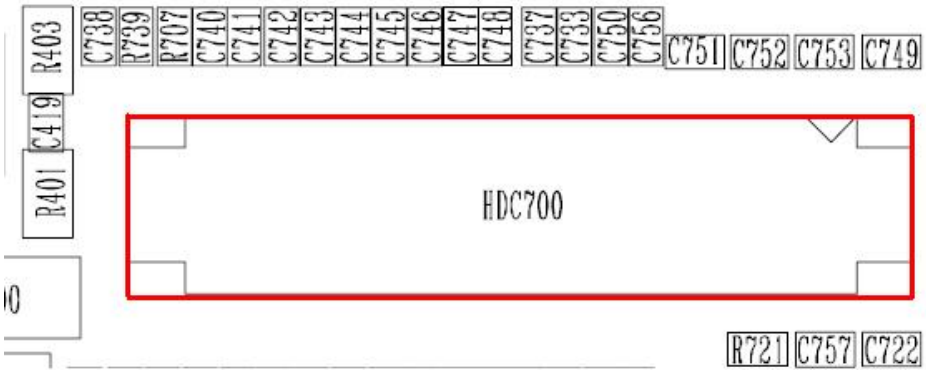

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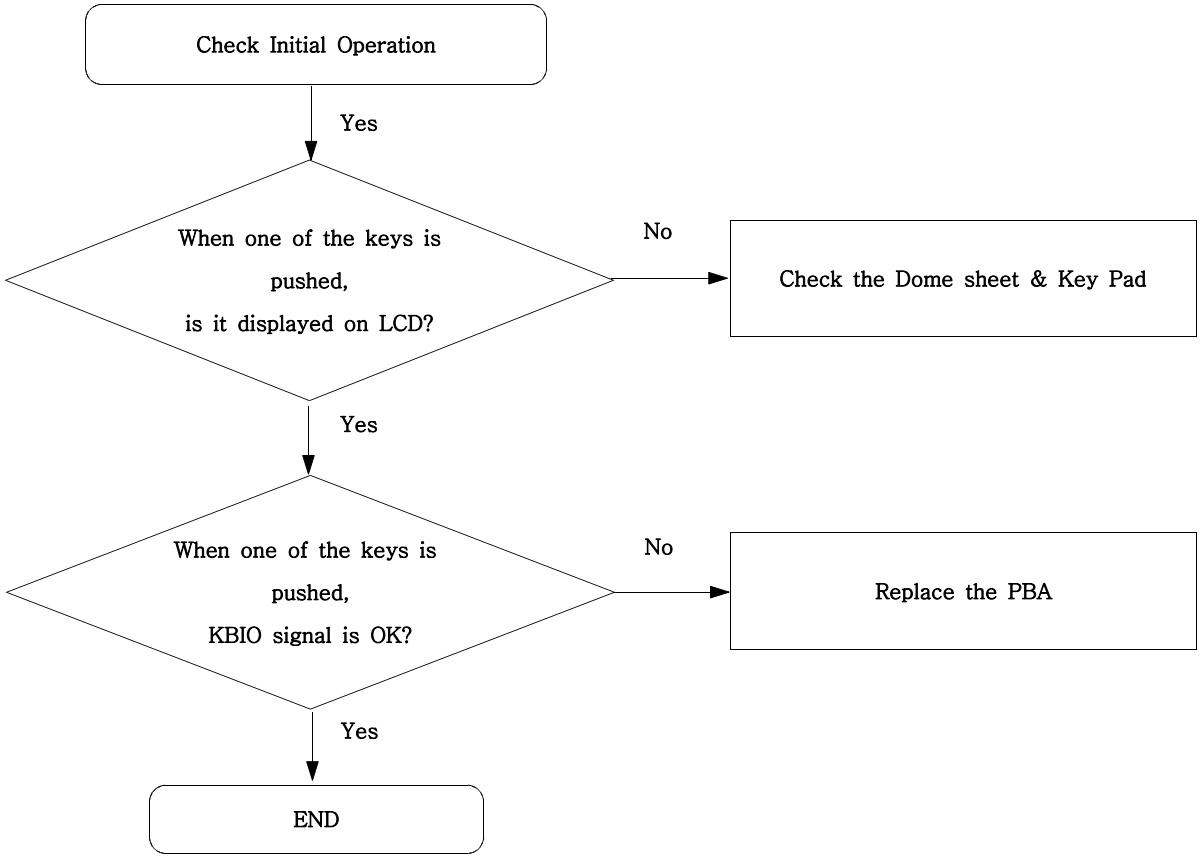
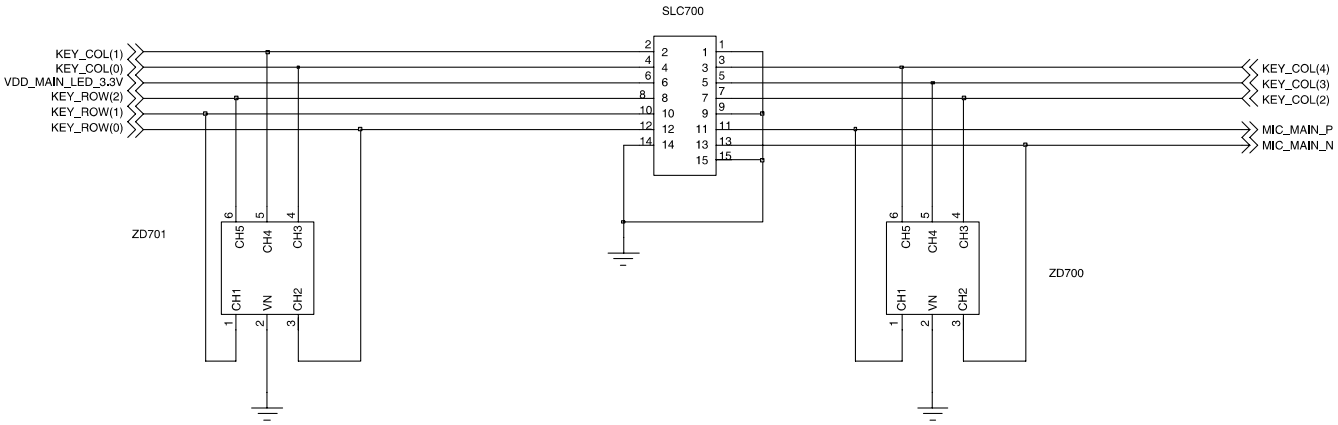
9-7. Key Data Input





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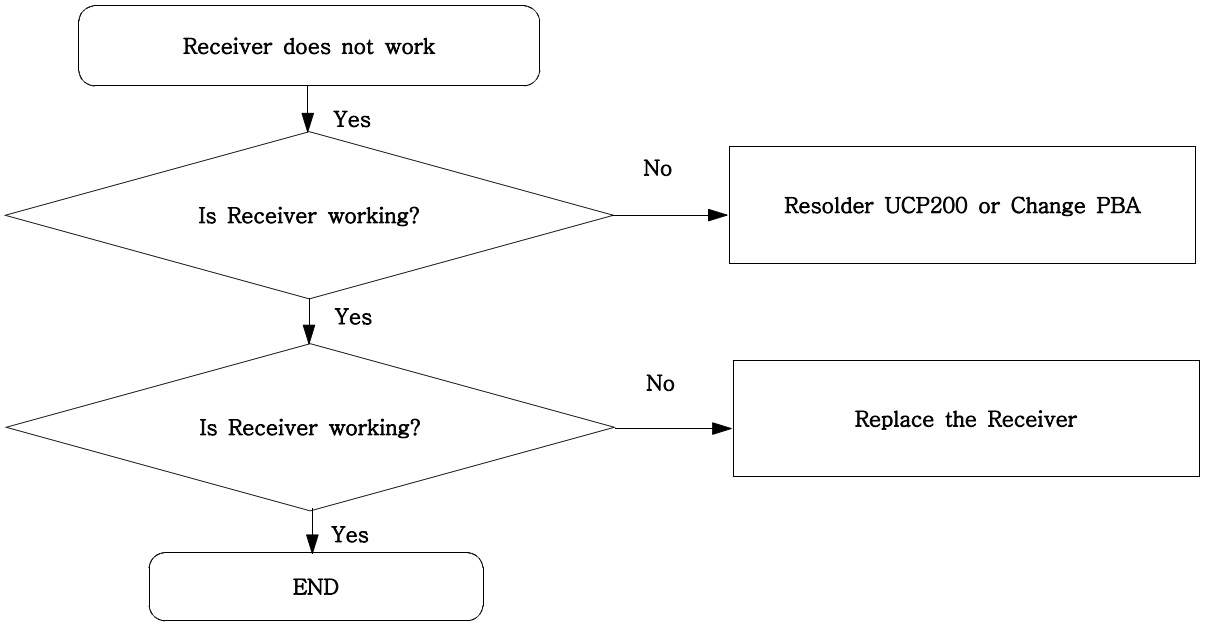
9-8. Receiver Part



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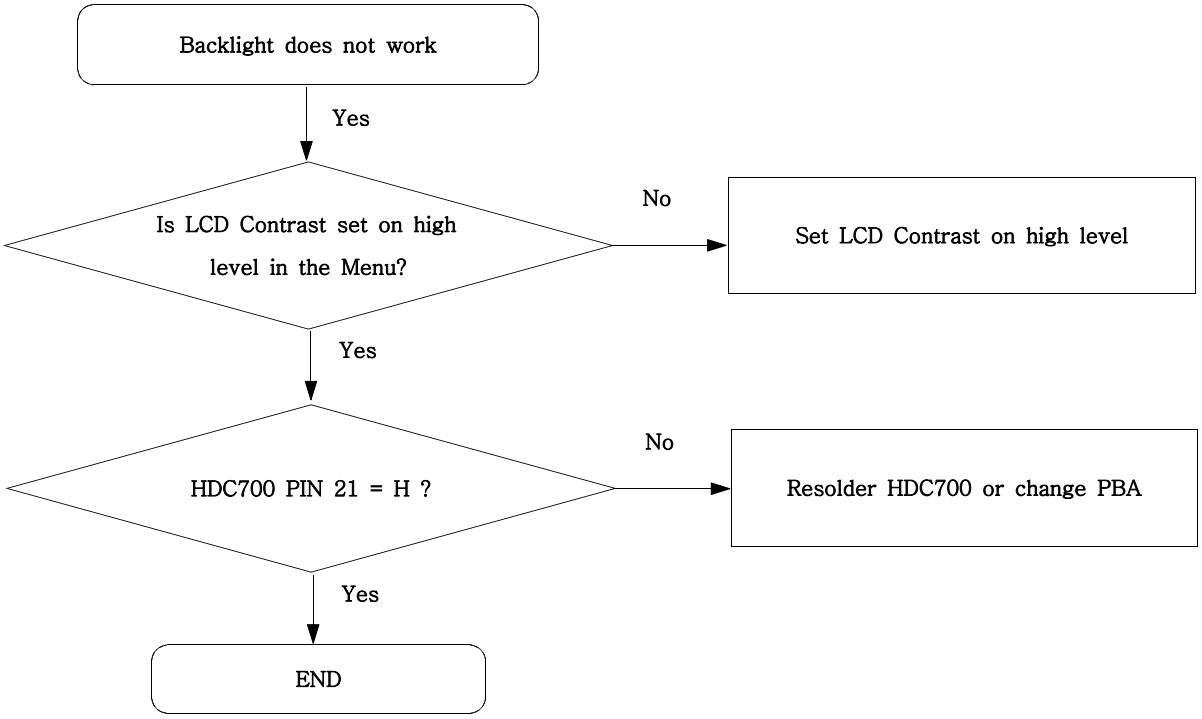
9-9. Back Light (for Color Main LCD)



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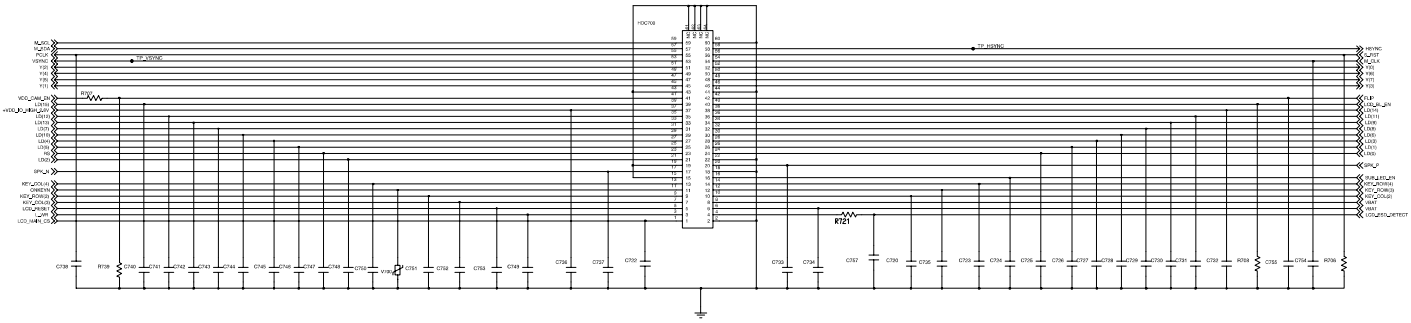

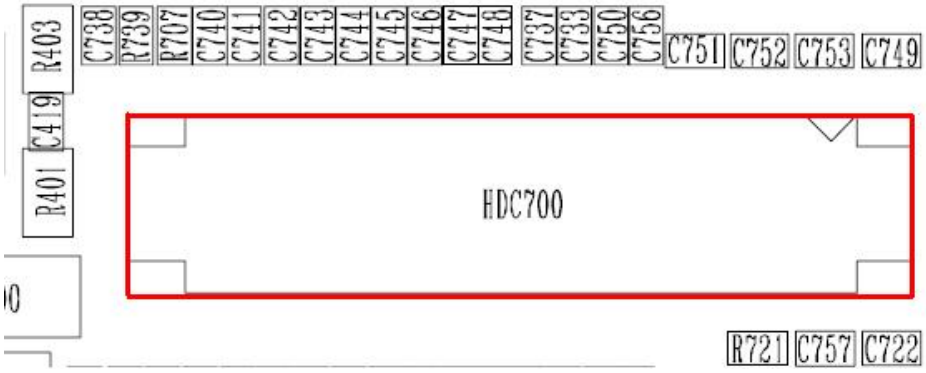

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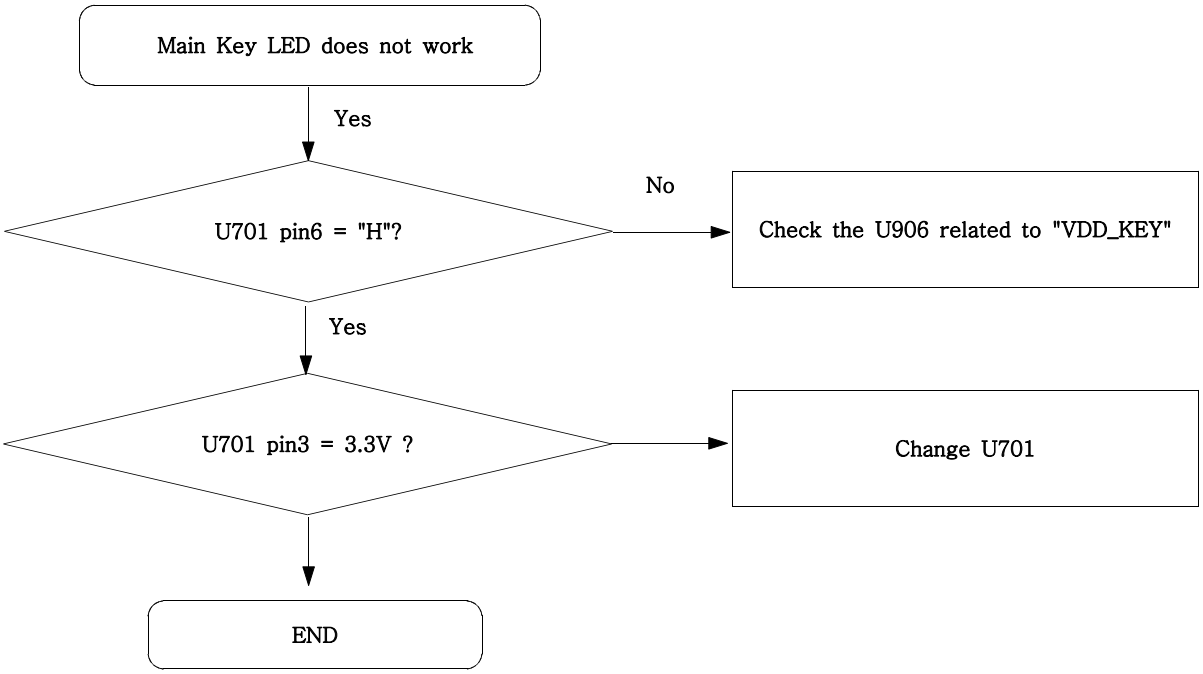
9-10. Key Back Light



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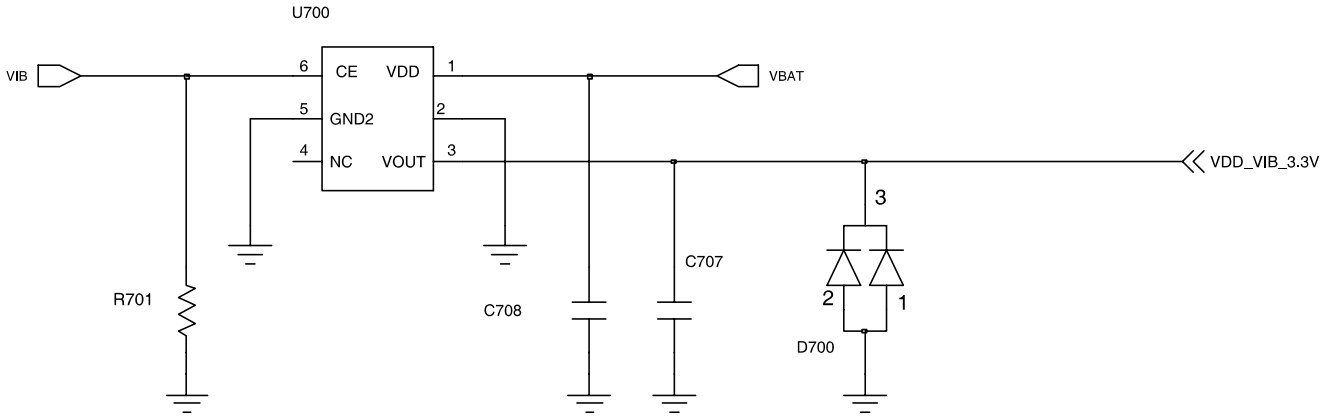

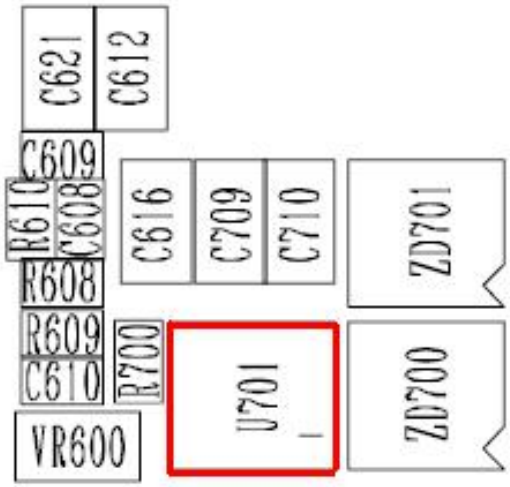

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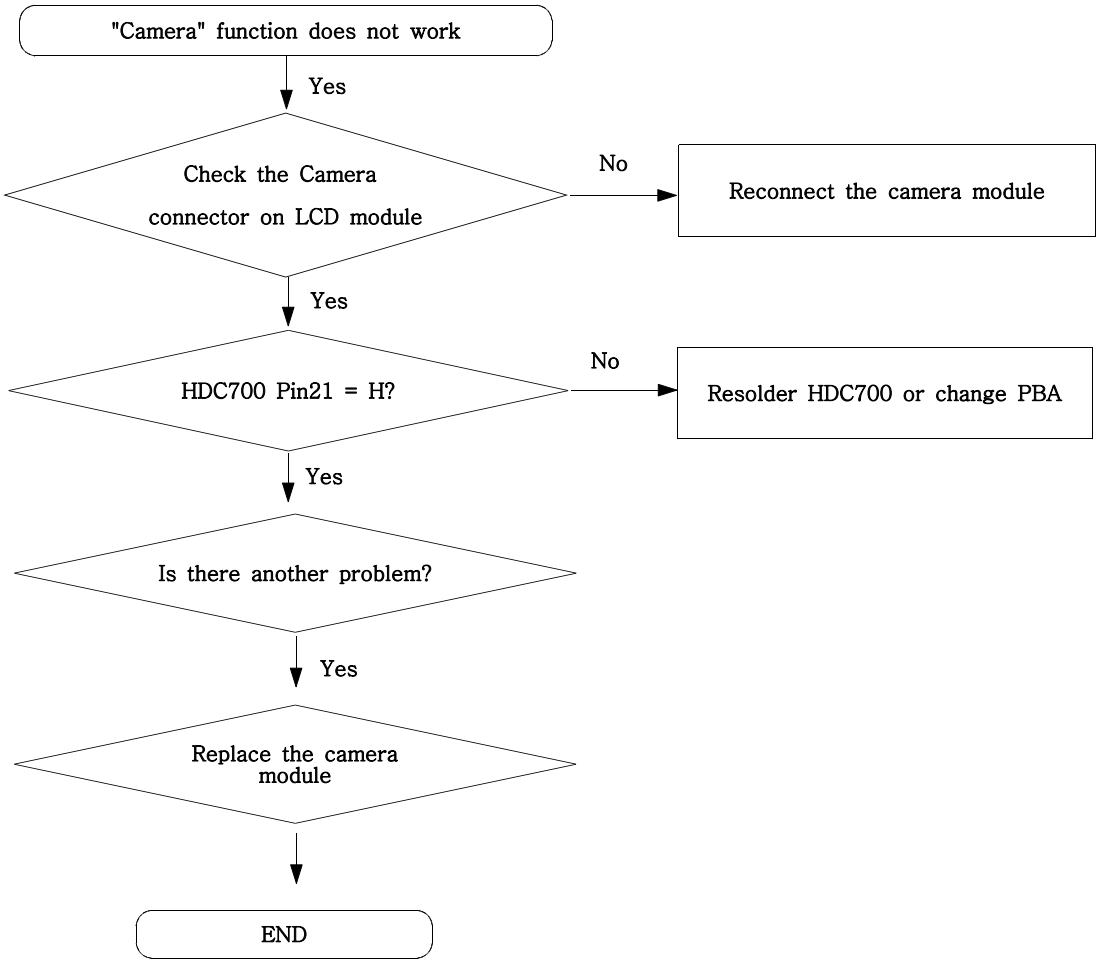
9-11. Camera part



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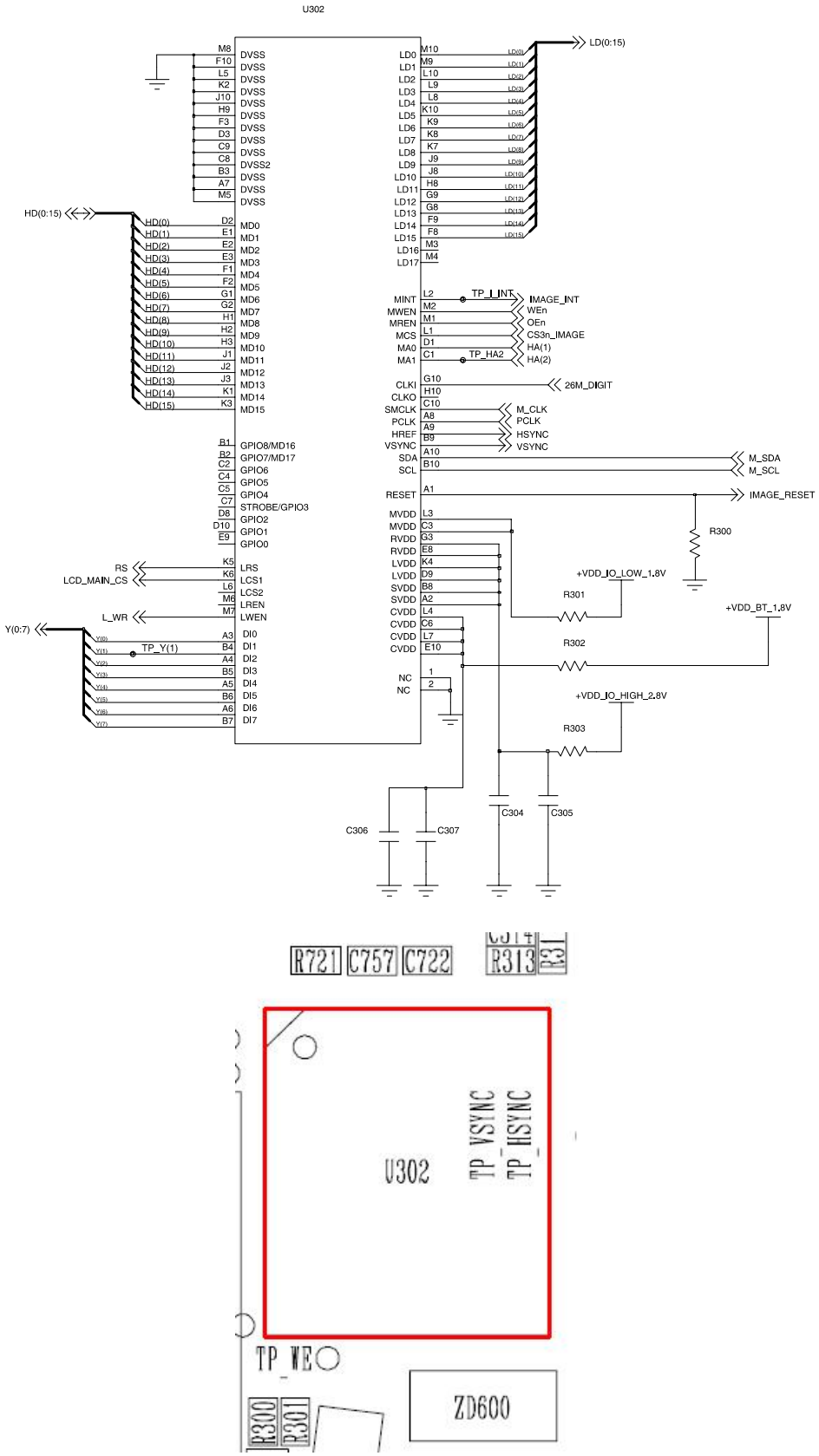

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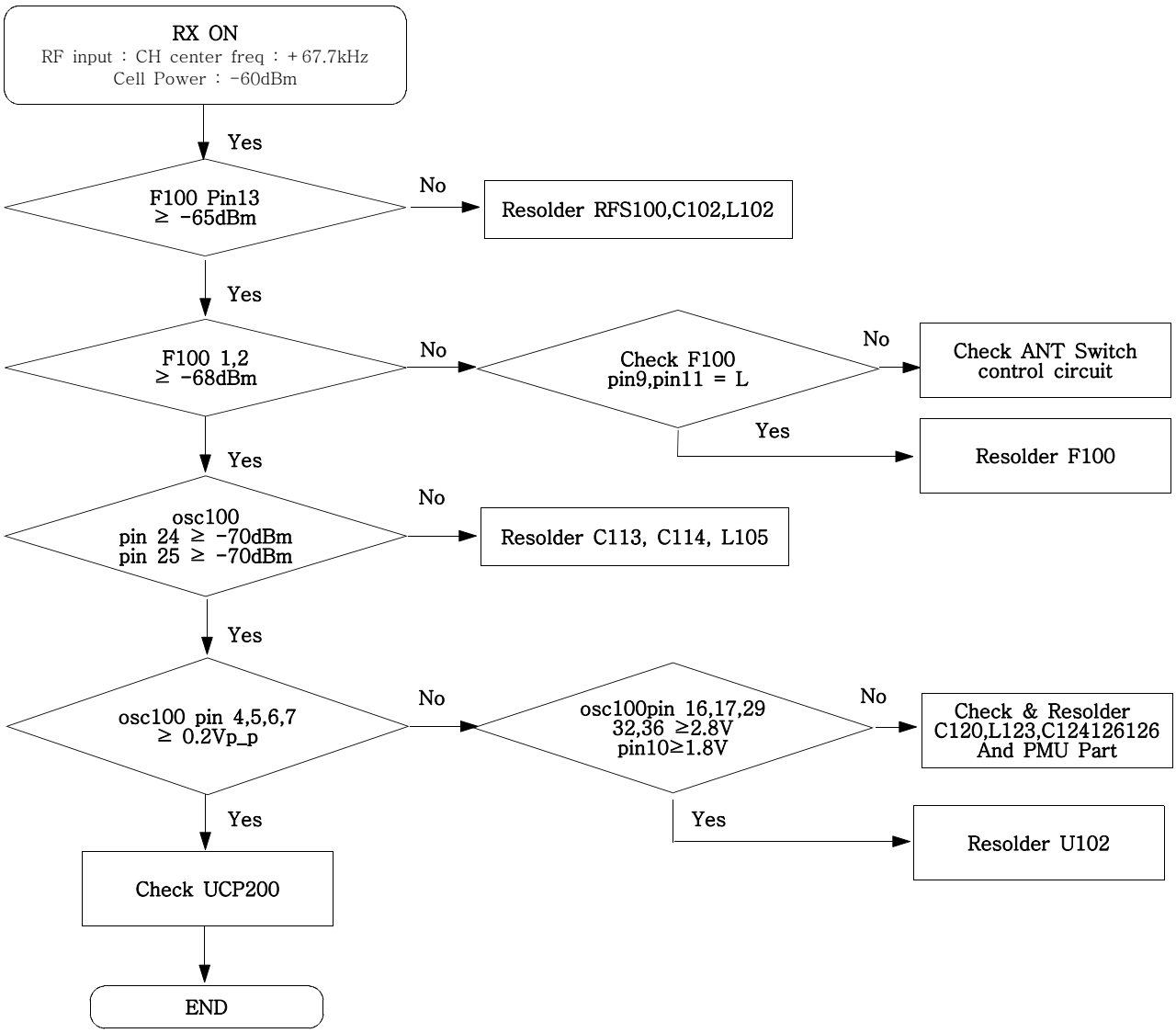
9-12. GSM Receiver



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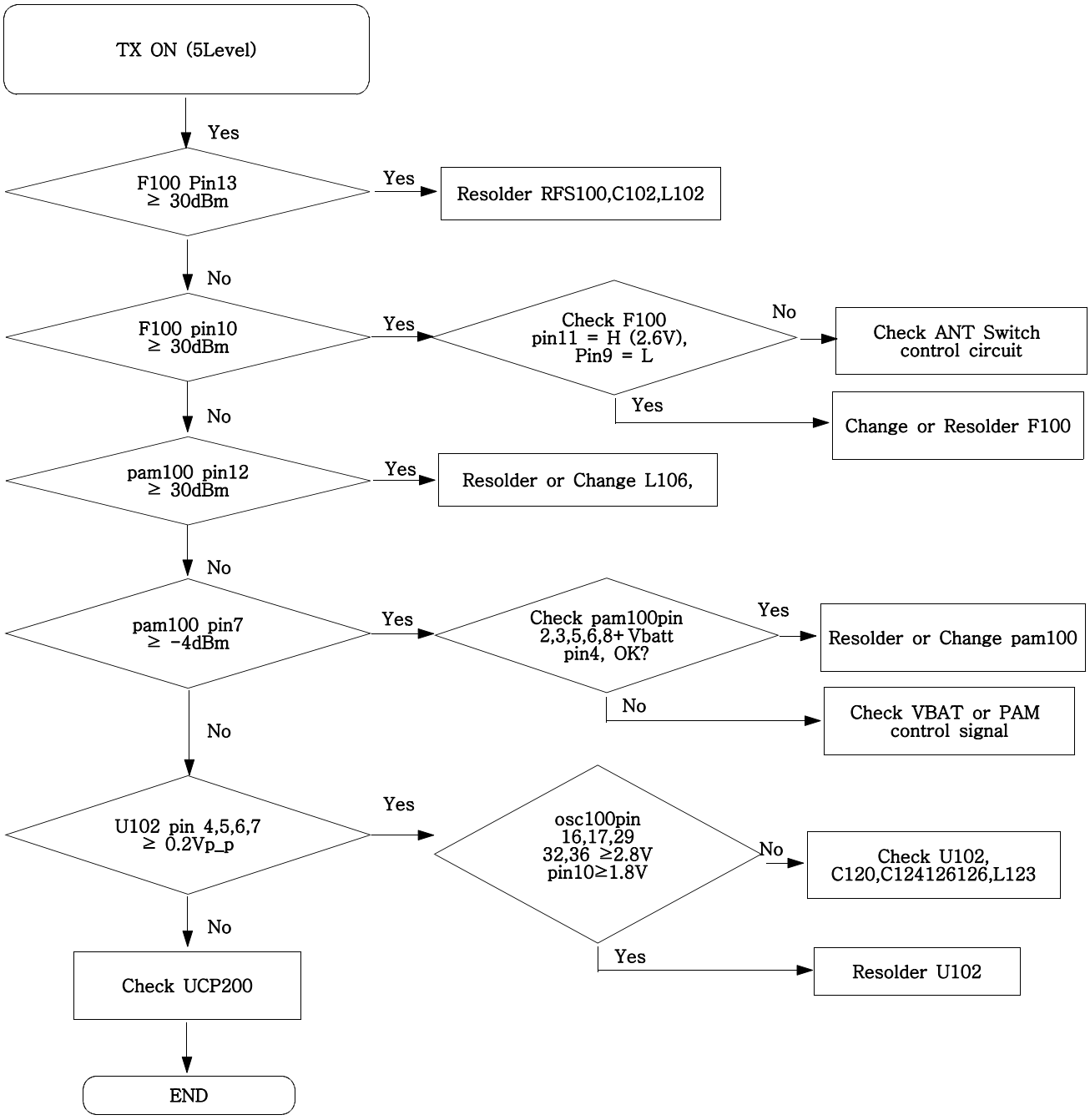
9-13. GSM Transmitter



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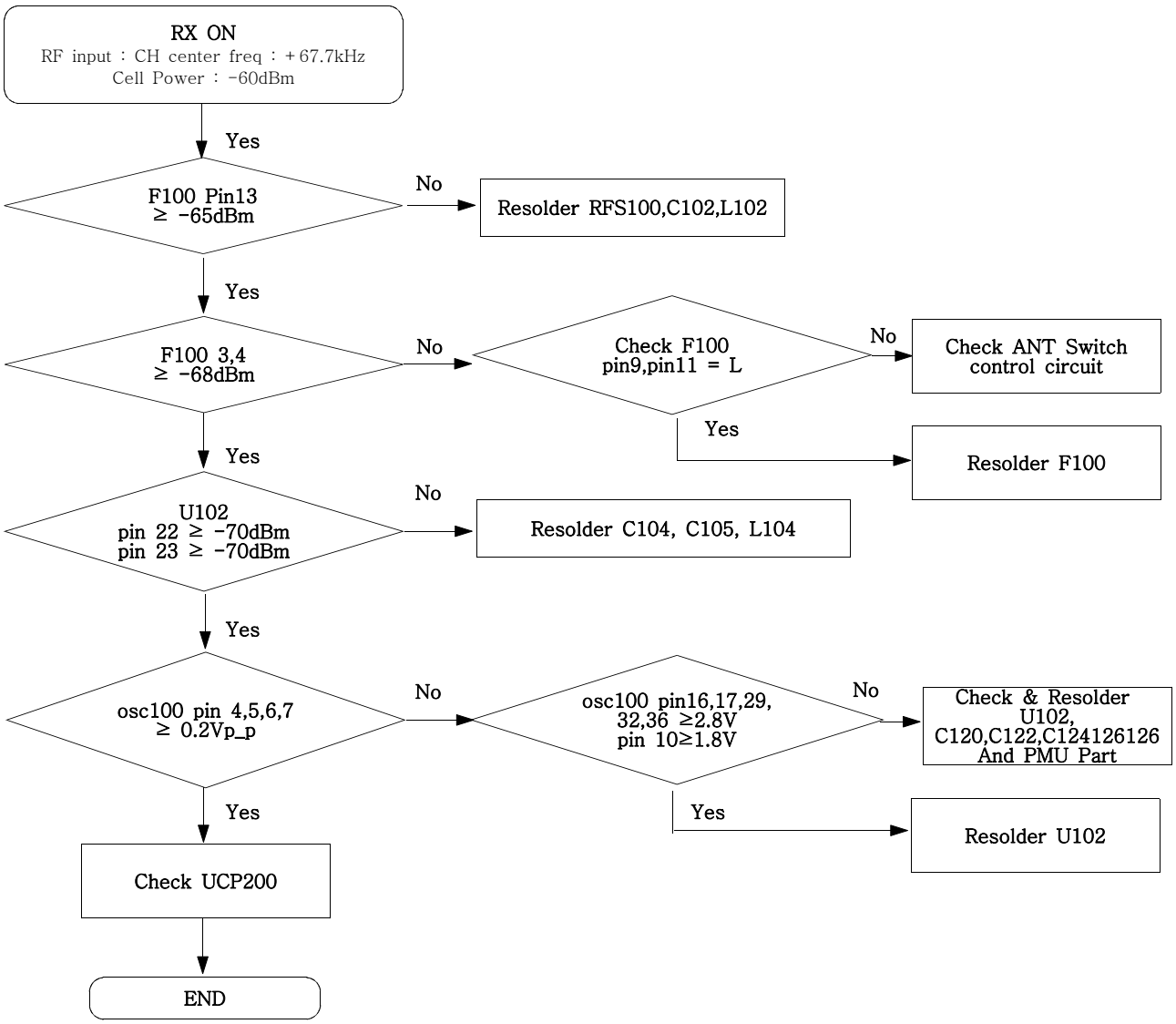
9-14. DCS Receiver



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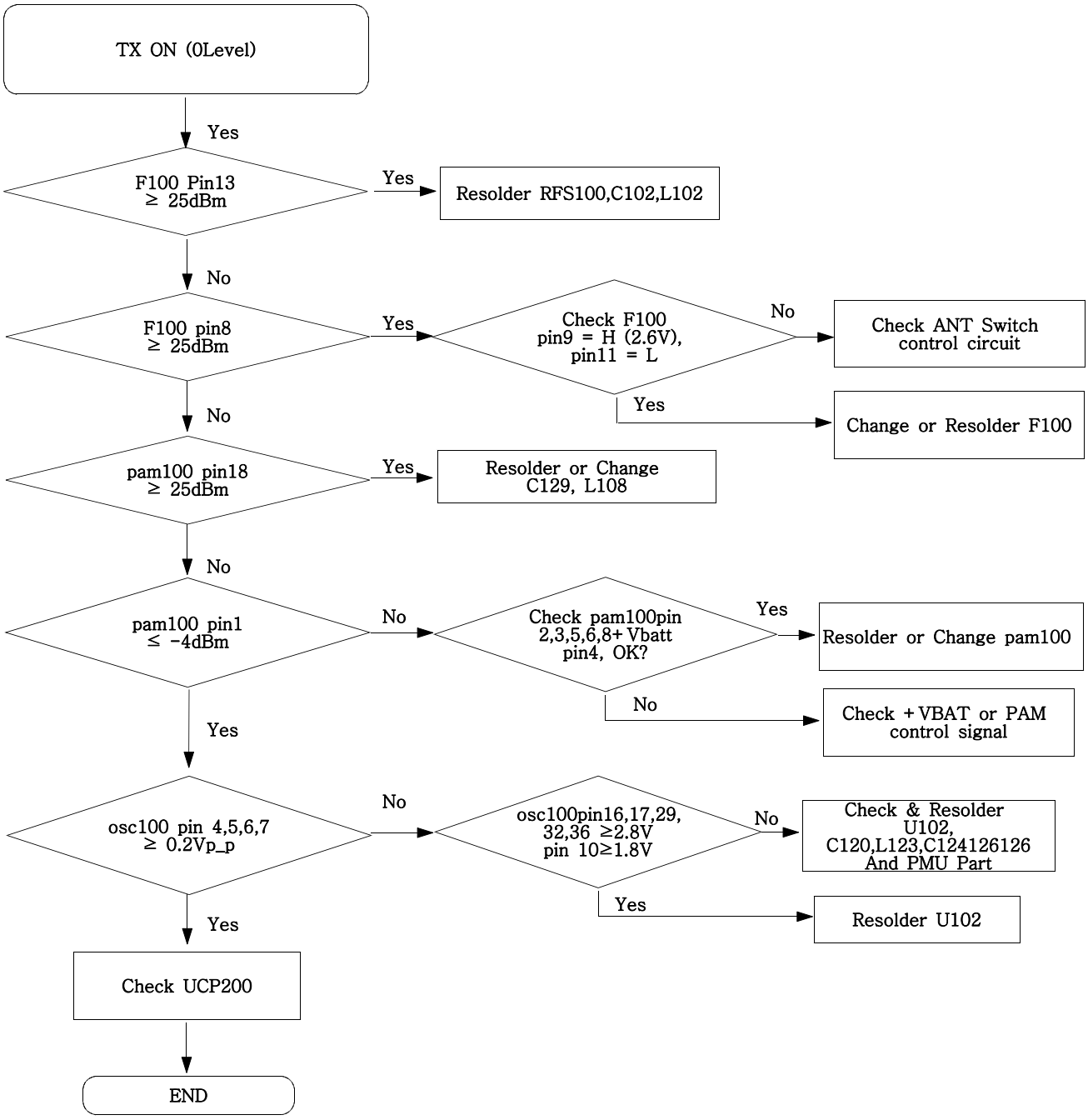
9-15. DCS Transmitter



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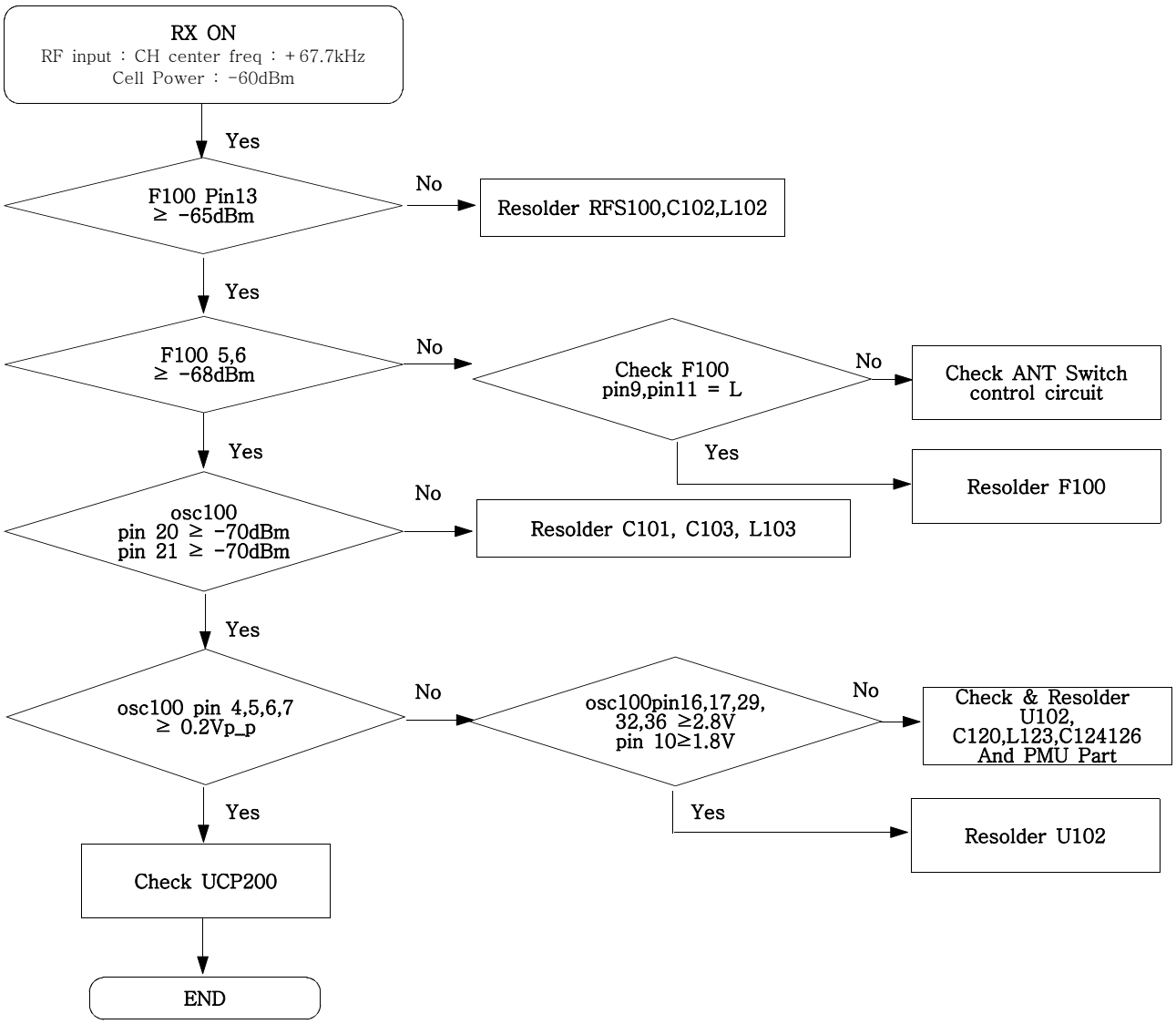
9-16. PCS Receiver



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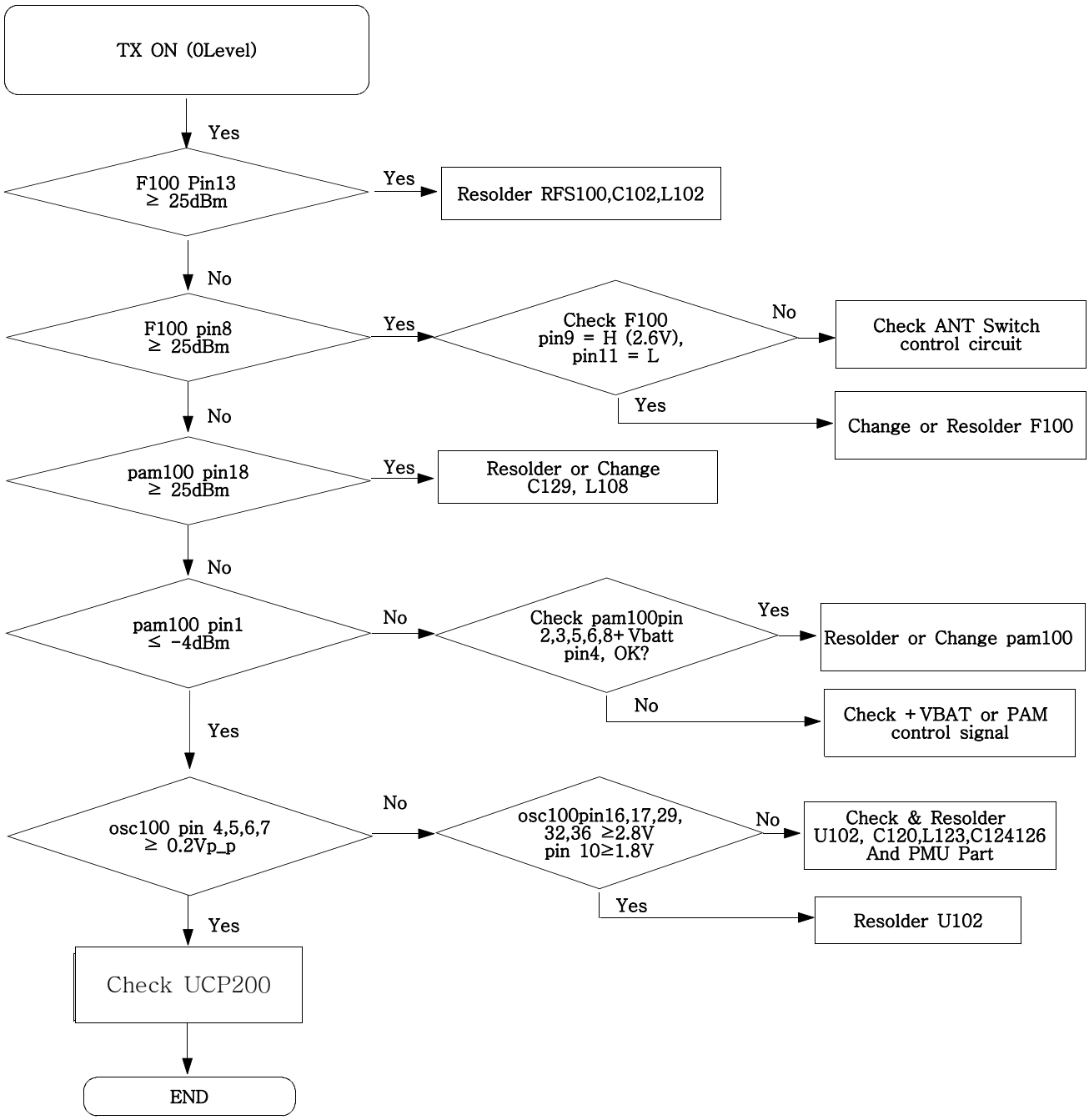
9-17. PCS Transmitter



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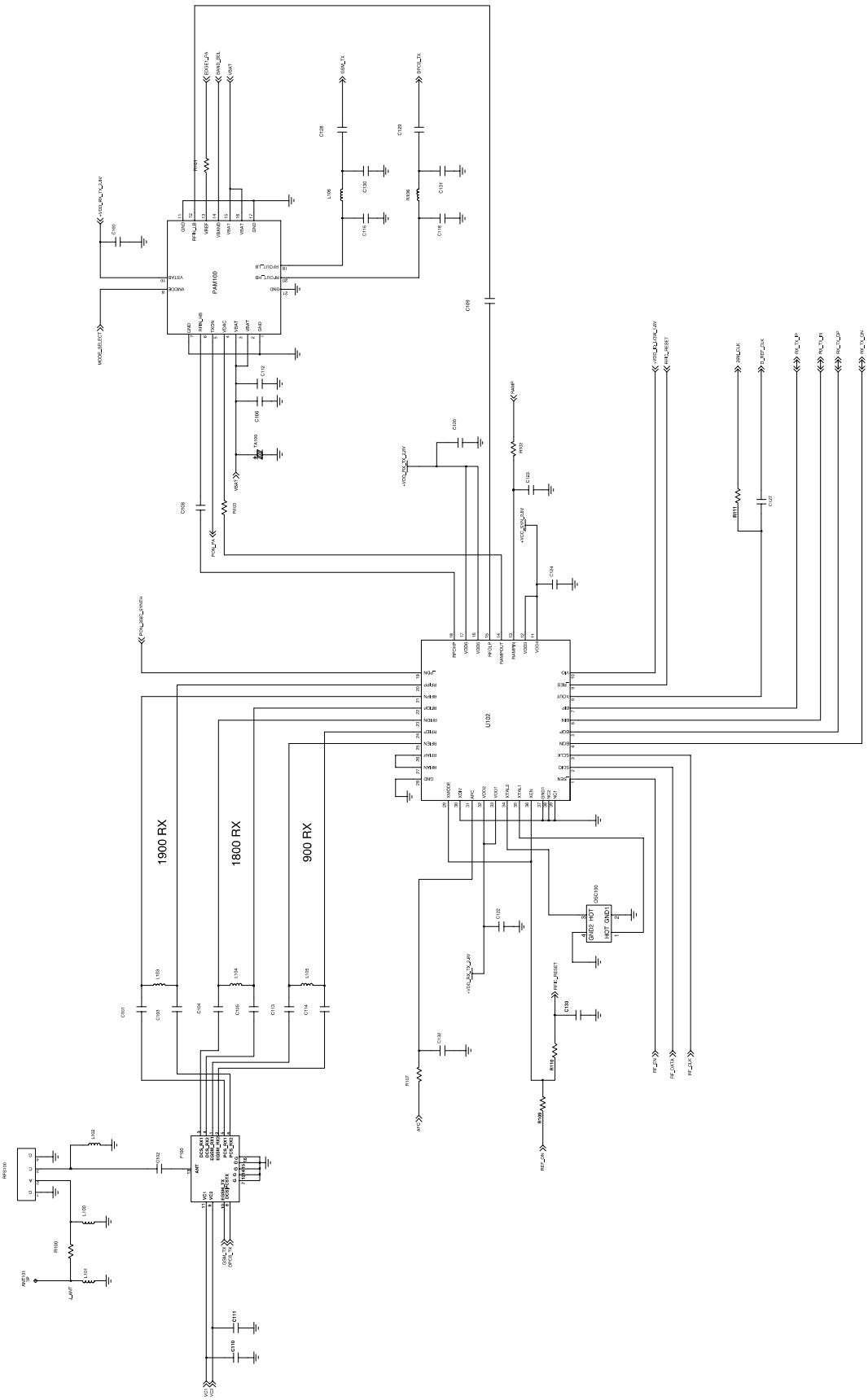

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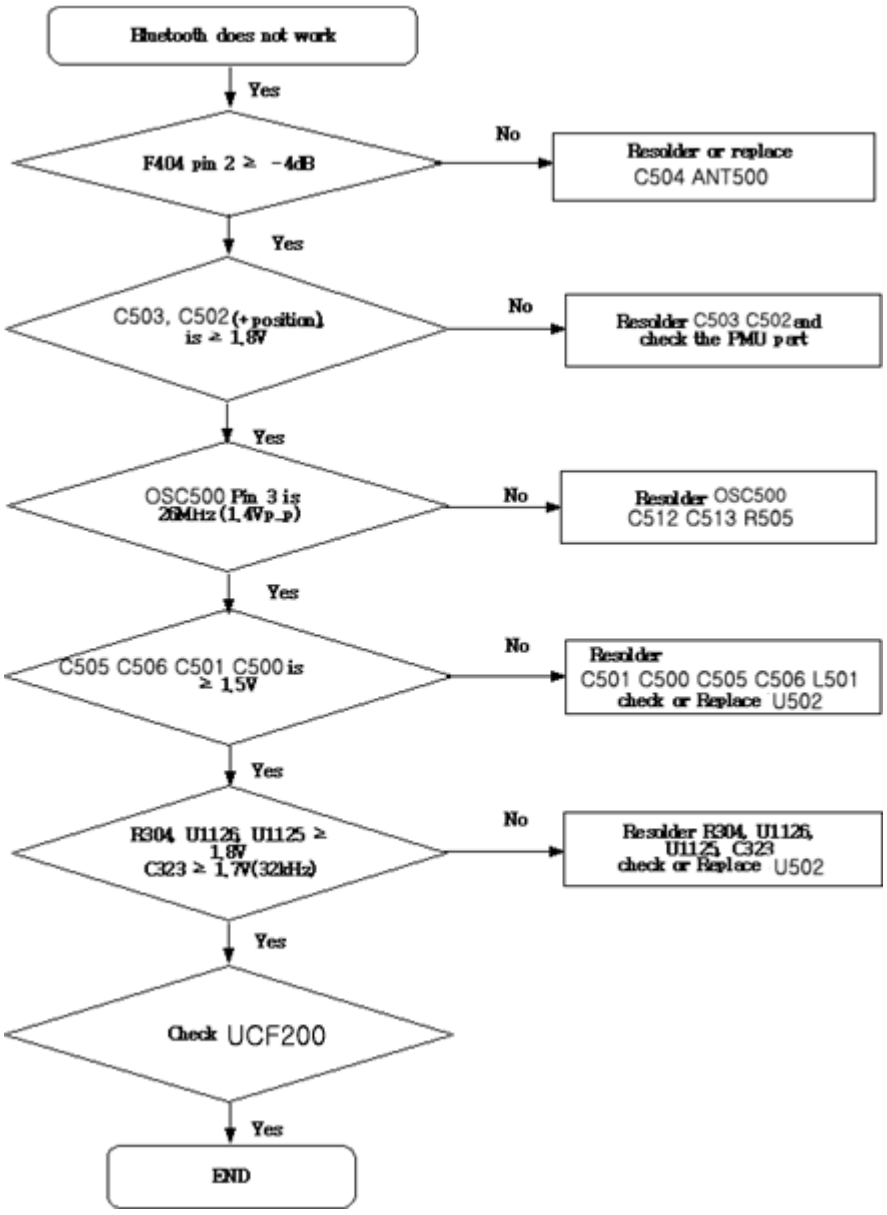
9-18. Bluetooth part



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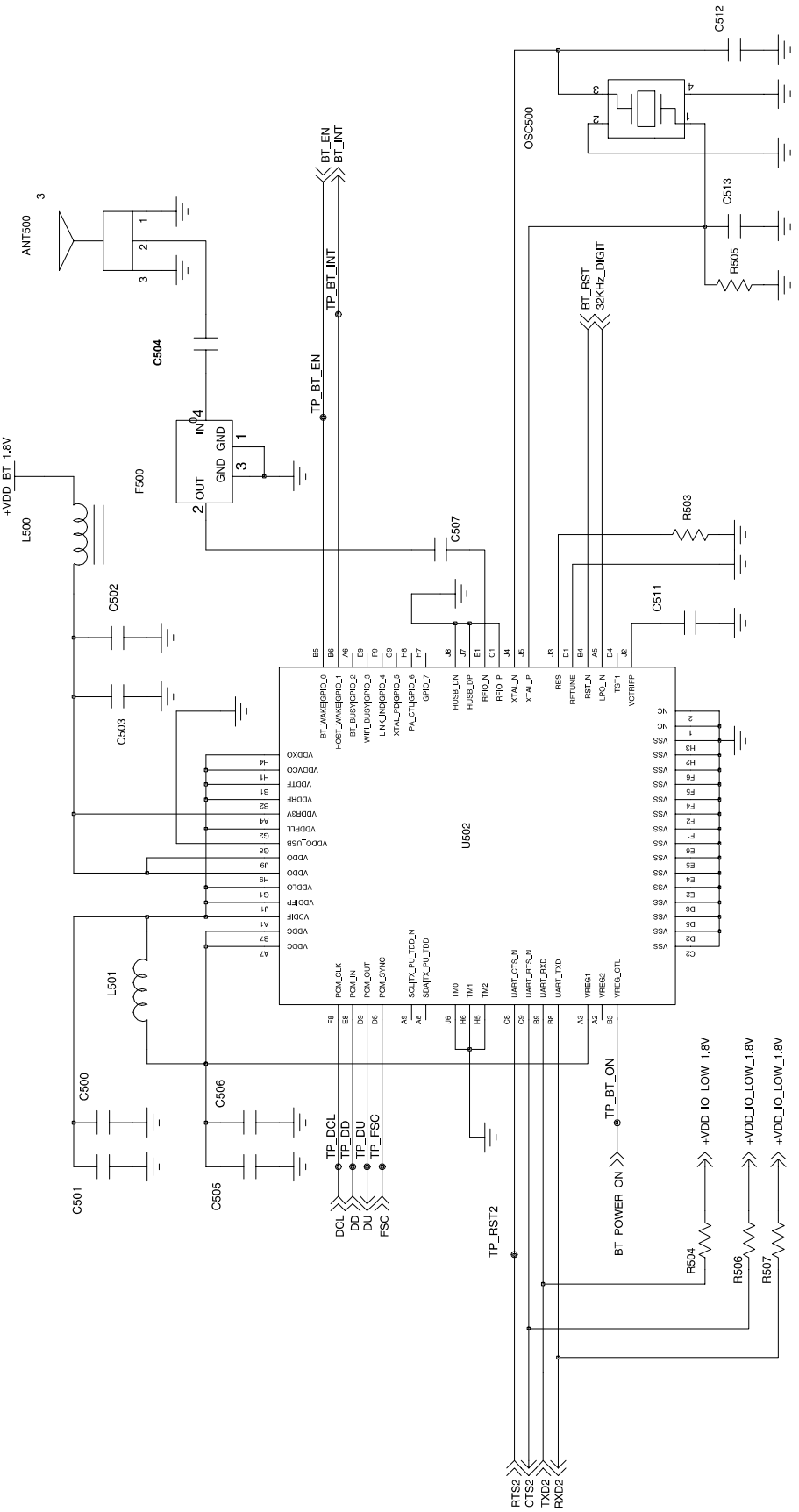

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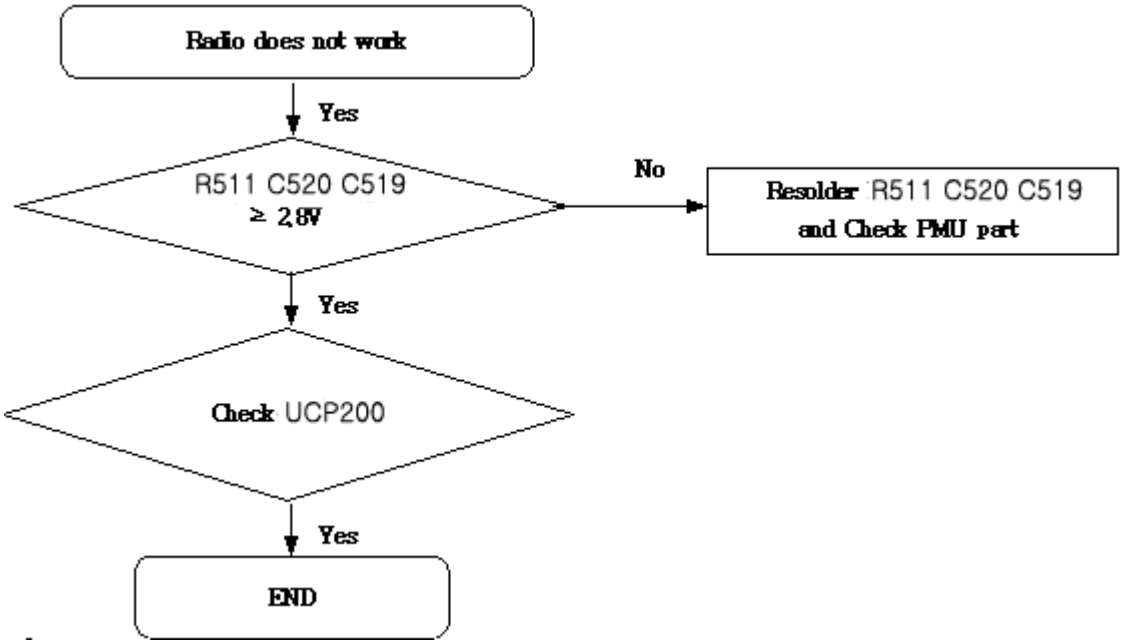
9-19. Radio part



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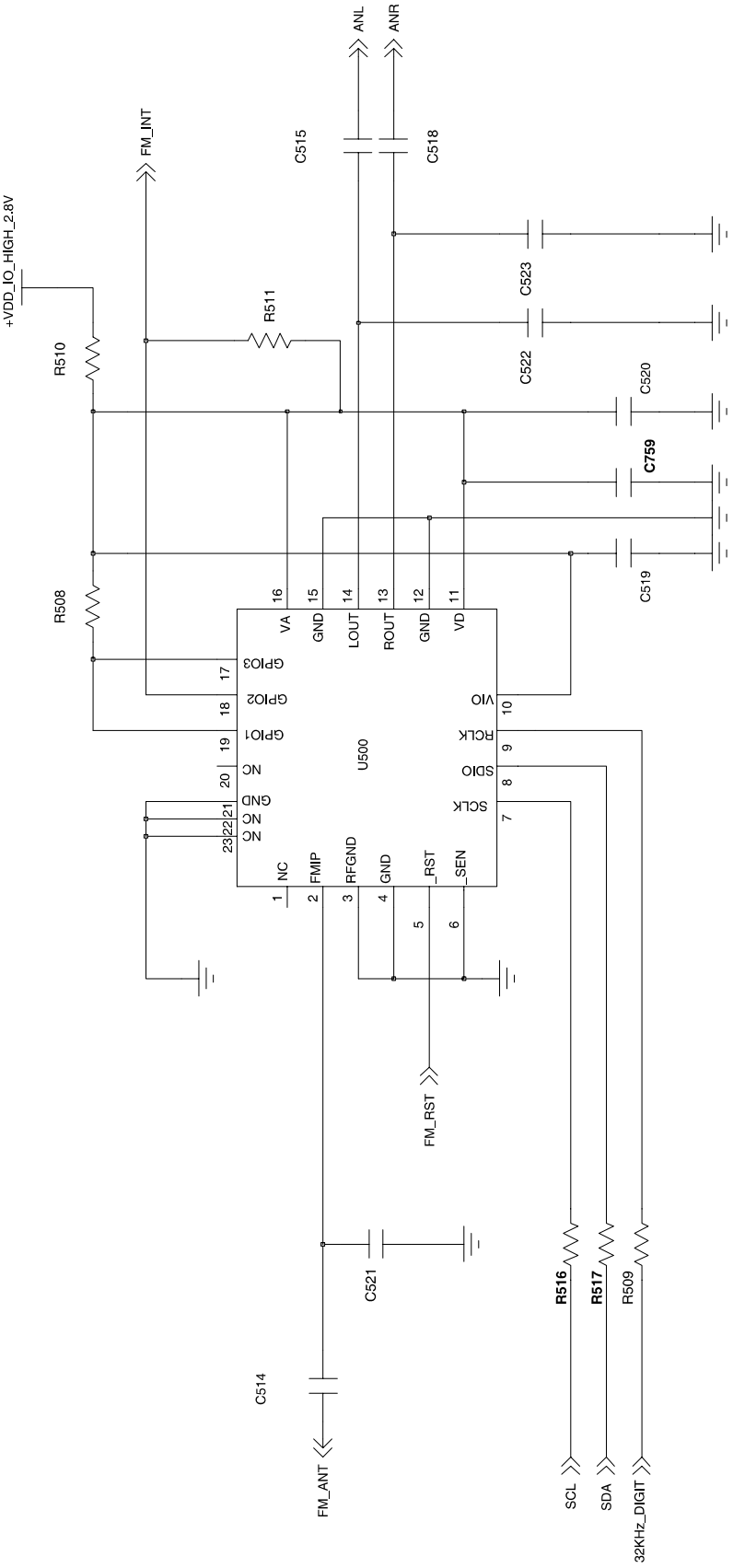

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