

SAMSUNG

# GSM TELEPHONE

## Samsung B2700

# SERVICE *Manual*

GSM TELEPHONE

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**SAMSUNG  
ELECTRONICS**



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## 2. Specification

### 2-1. GSM General Specification

	GSM850	EGSM 900 Phase 2	DCS1800	PCS1900	WCDMA
Freq. Band[MHz] Uplink/Downlink	824~849 869~894	880~915 925~960	1710~1785 1805~1880	1850~1910 1930~1990	1920~1980 2110~2170
ARFCN range	128~251	0~124 & 975~1023	512~885	512~810	10562~10838
Tx/Rx spacing	45 MHz	45 MHz	95 MHz	80MHz	190MHz
Mod. Bit rate/ Bit Period	270.833 Kbps 3.692 us	270.833 Kbps 3.692 us	270.833 Kbps 3.692 us	270.833 Kbps 3.692 us	3.84Mcps/s
Time Slot Period/ Frame Period	576.9 us 4.615 ms	576.9 us 4.615 ms	576.9 us 4.615 ms	576.9 us 4.615 ms	10ms
Modulation	0.3 GMSK	0.3 GMSK	0.3 GMSK	0.3 GMSK	Up Link:2BPSK Down Link:QPSK
MS Power	33 dBm~5 dBm	33 dBm~5 dBm	30 dBm~0 dBm	30 dBm~0 dBm	MAX:24(+1,-3)dBm MIN:<-50dBm
Power Class	5 pcl ~ 19 pcl	5 pcl ~ 19 pcl	0 pcl ~ 15 pcl	0 pcl ~ 15 pcl	CLASS 3
Sensitivity	-102 dBm	-102 dBm	-100 dBm	-102 dBm	-106.7 dBm
TDMA Mux	8	8	8	8	-
Cell Radius	35 Km	35 Km	2 Km	-	-

## 2-2. GSM TX power class

TX Power control level	GSM850 GSM900	TX Power control level	DCS1800	TX Power control level	PCS1900
5	33±3 dBm	0	30±3 dBm	0	30±3 dBm
6	31±3 dBm	1	28±3 dBm	1	28±3 dBm
7	29±3 dBm	2	26±3 dBm	2	26±3 dBm
8	27±3 dBm	3	24±3 dBm	3	24±3 dBm
9	25±3 dBm	4	22±3 dBm	4	22±3 dBm
10	23±3 dBm	5	20±3 dBm	5	20±3 dBm
11	21±3 dBm	6	18±3 dBm	6	18±3 dBm
12	19±3 dBm	7	16±3 dBm	7	16±3 dBm
13	17±3 dBm	8	14±3 dBm	8	14±3 dBm
14	15±3 dBm	9	12±4 dBm	9	12±4 dBm
15	13±3 dBm	10	10±4 dBm	10	10±4 dBm
16	11±5 dBm	11	8±4 dBm	11	8±4 dBm
17	9±5 dBm	12	6±4 dBm	12	6±4 dBm
18	7±5 dBm	13	4±4 dBm	13	4±4 dBm
19	5±5 dBm	14	2±5 dBm	14	2±5 dBm
		15	0±5 dBm	15	0±5 dBm

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### **3. Product Function**

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#### **Main Function**

- Pedometer
- Compass
- Torch Light
- 2M AF CMOS Camera
- Music Player
- FM Radio
- Bluetooth 2.0
- USB 2.0 Highspeed

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## 11. Reference data

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### Reference Abbreviation

- **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

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# 1. Safety Precautions

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## 1-1. Repair Precaution

- Repair in Shield Box, during detailed tuning.  
Take specially care of tuning or test,  
because specificity of cellular phone is sensitive for surrounding interference(RF noise).
- Be careful to use a kind of magnetic object or tool,  
because performance of parts is damaged by the influence of magnetic force.
- Surely use a standard screwdriver when you disassemble this product,  
otherwise screw will be worn away.
- Use a thick twisted wire when you measure level.  
A thick 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 please 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.

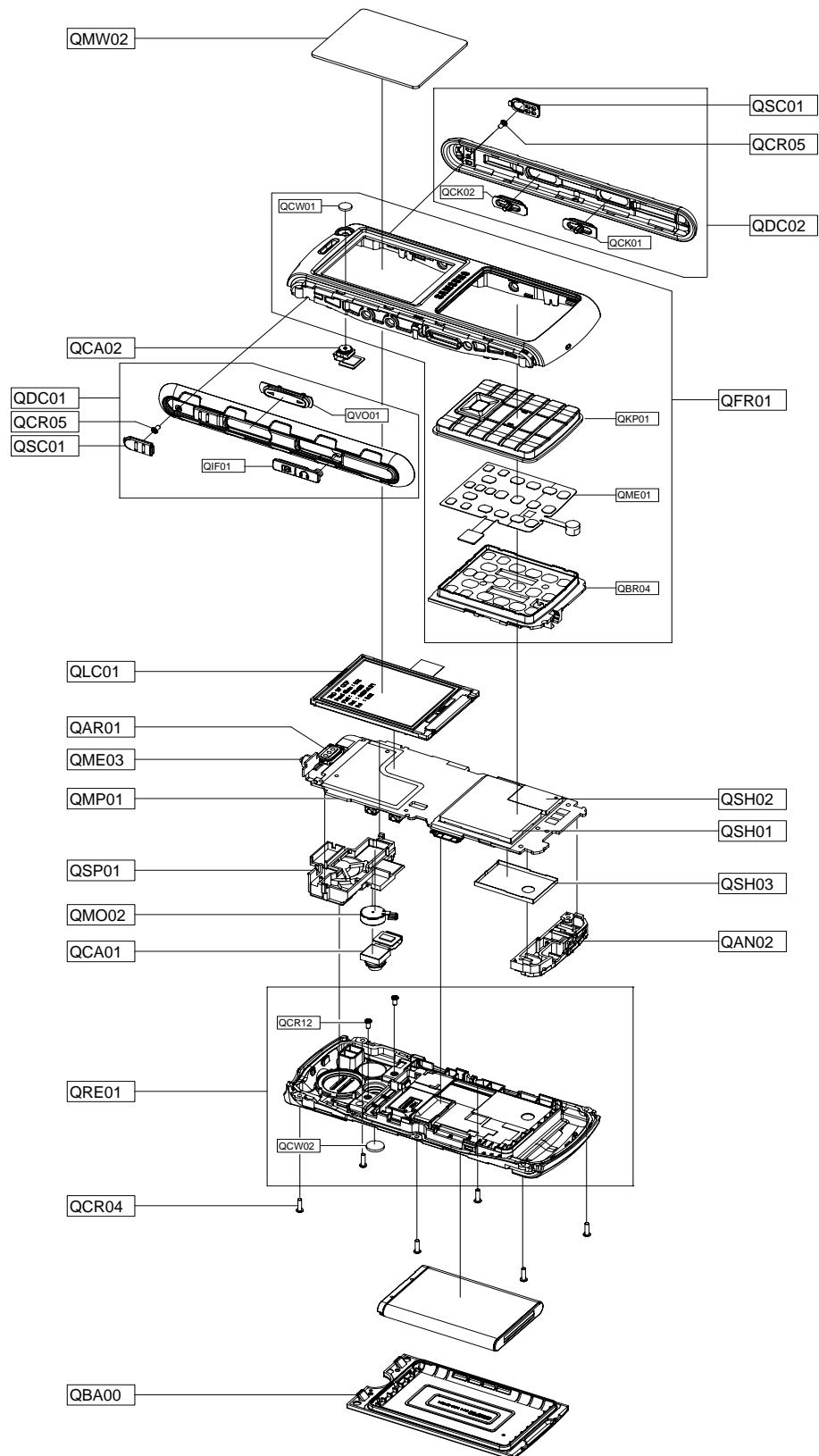
## 1-2. ESD(Electrostatically Sensitive Devices) Precaution

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.

## 5. Exploded View and Parts List

### 5-1. Cellular phone Exploded View



## 5-2. Cellular phone Parts list

Design LOC	Description	SEC CODE
QAN02	INTENNA-GT-B2700	GH42-01644A
QAR01	AUDIO-RECEIVER	3009-001328
QBA00	PMO COVER-BATTERY	GH72-48195A
QCA01	ELA UNIT-MEGA CAMERA MODULE AS	GH96-03187A
QCA02	ASSY CAMERA-CIF CAMERA GT_B270	GH96-03291A
QCR05	SCREW-MACHINE	6001-001478
QCR04	SCREW-MACHINE	6001-001479
QLC01	ELA ETC-LCD MODULE	GH96-03339A
QME03	UNIT-FLASH FPCB	GH59-05928A
QMO02	MOTOR-DC	3101-001315
QMP01	A/S ASSY-GT_B2700	GH82-03159A
QMW02	PCT WINDOW-MAIN	GH72-48197A
QSC01	ASSY COVER-SCREW CAP	GH98-09899A
QSH01	ICT SHIELD-CAN TOP 1	GH70-04145A
QSH02	ICT SHIELD-CAN TOP 2	GH70-04146A
QSH03	ICT SHIELD-CAN BTM	GH70-04147A
QSP01	UNIT-MODULE SPEAKER(B2700)	GH59-05950A
QFR01	ASSY CASE-FRONT	GH98-08719A
QBR04	PMO BRACKET-KEY	GH72-48190A
QCW01	PCT WINDOW-SUB CAMERA	GH72-49741A
QKP01	ASSY KEYPAD-(EU/BLACK)	GH98-08723A
QME01	KEY FPCB-GT-B2700KEY PAD FPC	GH59-05948A
QRE01	ASSY CASE-REAR	GH98-08720A
QCR12	SCREW-MACHINE	6001-001530
QCW02	PCT WINDOW-CAMERA	GH72-48196A
QDC01	ASSY DECO-SIDE L	GH98-08721A
QIF01	PMO COVER-IF	GH72-48198A
QVO01	PMO KEY-VOLUME	GH72-48201A
QDC02	ASSY DECO-SIDE R	GH98-08722A
QCK01	PMO KEY-CAMERA	GH72-48202A
QCK02	PMO KEY-SOFT	GH72-48203A

## 7. Disassembly and Assembly Instructions

### 7-1. Disassembly

1

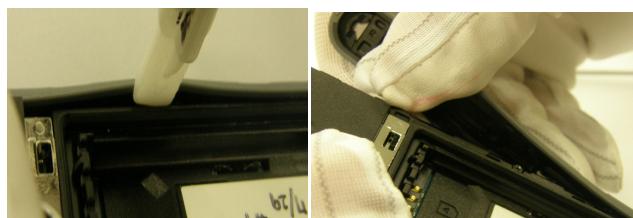


< Figure 1 >

< Figure 2 >

- 1) Remove left and right SCREW CAP by using tweezers.[Figure 1]
  - 2) Disjoint left and right screws that are each one point.[Figure 2]
- \* caution
- 1) When disjoint screws, be careful not to make a scratch of the case.

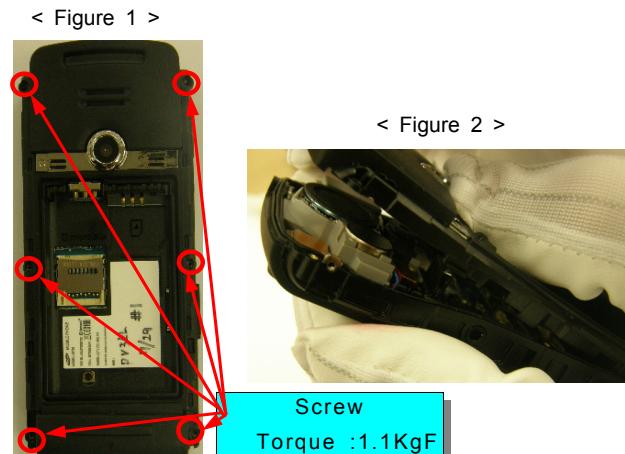
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< Figure 1 >

< Figure 2 >

3

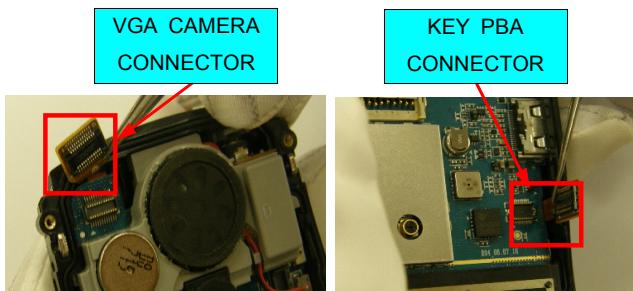


< Figure 1 >

< Figure 2 >

- 1) Disjoint rear screws that are 6 points.[Figure 1]
- 2) Disassemble rear case from front by lifting it at the top of rear case.[Figure 2]

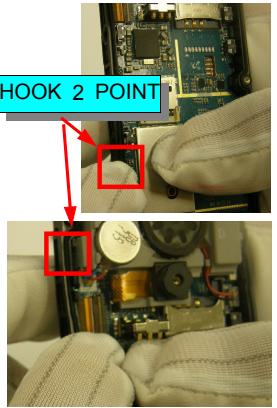
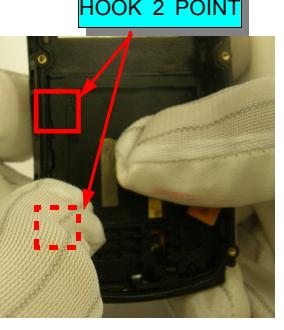
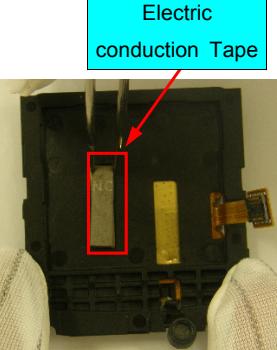
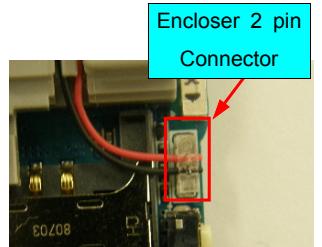
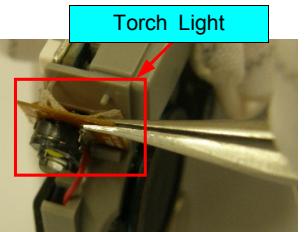
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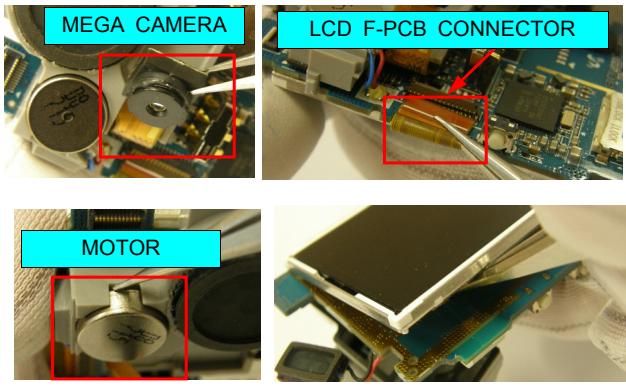
< Figure 1 >

< Figure 2 >

- 1) Disassemble VGA CAMERA CONNECTOR by tweezers.[Figure 1]
  - 2) Disassemble KEY PBA CONNECTOR by tweezers.[Figure 2]
- \* caution
- 1) Be careful not to get a damage of the FPCB

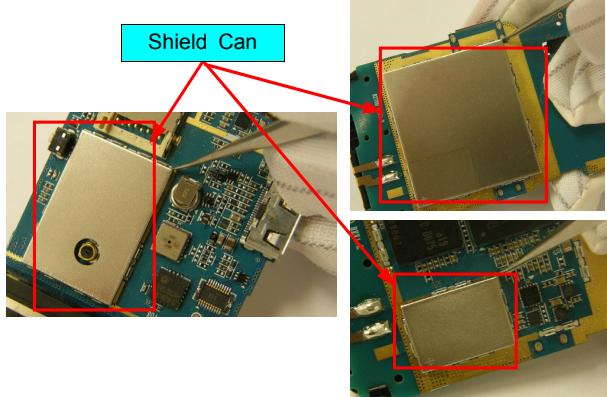
<p><b>5</b></p>  <p>&lt; Figure 1 &gt;</p>  <p>&lt; Figure 2 &gt;</p>	<p><b>6</b></p>  <p>&lt; Figure 1 &gt;</p>  <p>&lt; Figure 2 &gt;</p>
<p>1) Push the left FRONT HOOK 2 POINTS to left then separate from PBA.[Figure 1]</p> <p>2) Detach PBA From FRONT.[Figure 2]</p> <p>* caution</p> <p>1) Be careful not to get a damage of LCD FPCB and ENCLOSER.</p>	<p>1) When removing a KEY BRACKET from a Front, push the left HOOK(2 POINT) to the left side, then push the other side to right.[Figure 1]</p> <p>2) lifting KEY PAD to detach from KEY BRACKET.[Figure 2]</p>
<p><b>7</b></p>  <p>&lt; Figure 1 &gt;</p>  <p>&lt; Figure 2 &gt;</p>	<p><b>8</b></p>  <p>&lt; Figure 1 &gt;</p>  <p>&lt; Figure 2 &gt;</p>
<p>1) Detach electric conduction tape form key bracket by tweezers. [Figure 1]</p> <p>2) Detach KEY PBA from KEY BRACKET. [Figure 2]</p> <p>* caution</p> <p>1) Don't detach KEY PBA from KEY BRACKET not for exchanging Key bracket. KEY PBA is difficult to recycle.</p>	<p>1) Remove Encloser which is 2 pins Connector from PBA. [Figure 1]</p> <p>2) detach Torch Light by using tweezers. [Figure 2]</p> <p>* caution</p> <p>1) Be careful not to make a damage of wire.</p> <p>2) Be careful not to make a damage of FPCB .</p>

**9**



< Figure 1 >

**10**

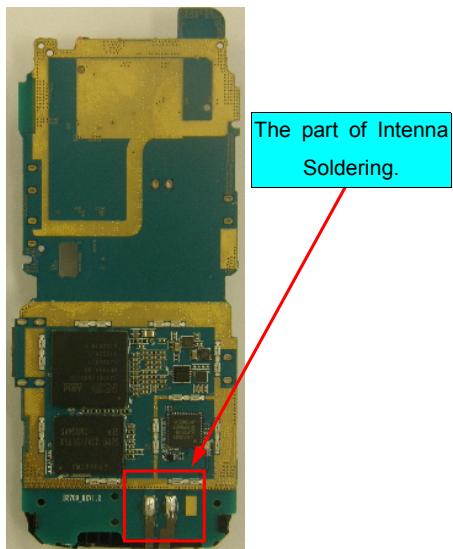


< Figure 1 >

- 1) Detach MEGA CAMERA and MOTOR by using disassemble hole.[Figure 1]
- 2) At first, seperate LCD FPCB CONNECTOR from PBA, then detaching LCD form PBA.[Figure 2]  
※ caution
  - 1) Be careful not to make a damage of MEGA CAMERA, FPCB of MOROT and wire.
  - 2) Be careful,LCD FPCB, LCD module, PBA.

- 1)When you remove Shield Can, using tweezers.  
[Figure 1]  
※ caution
  - 1) Be careful,near chips, shield cans and PBA.

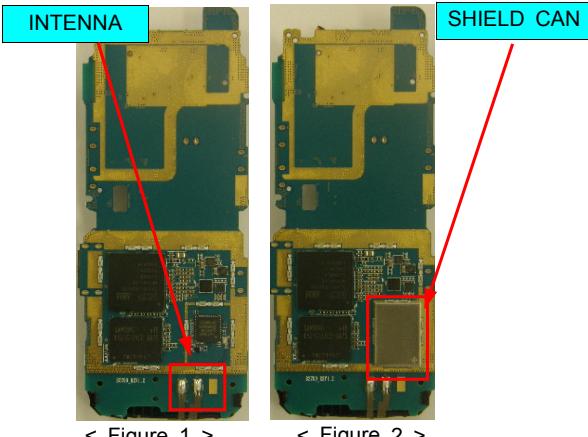
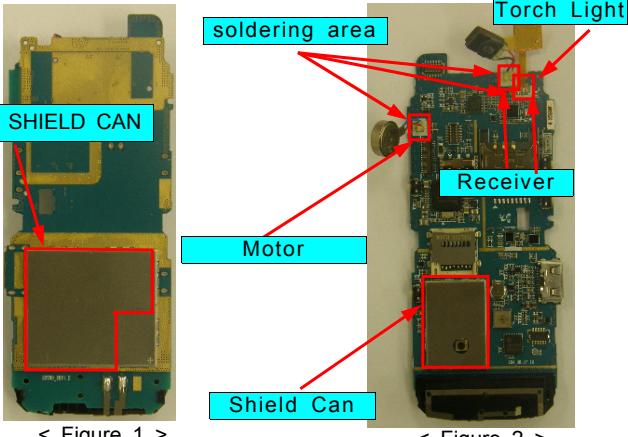
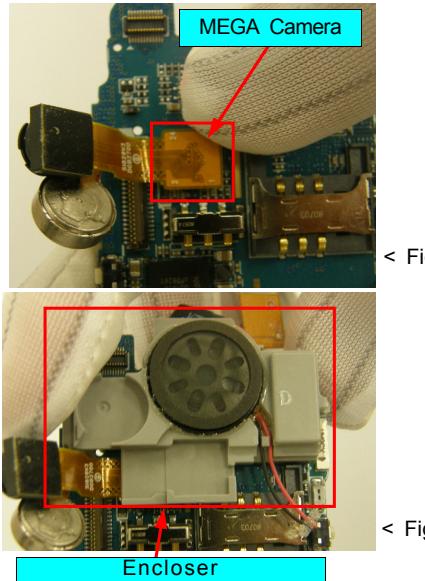
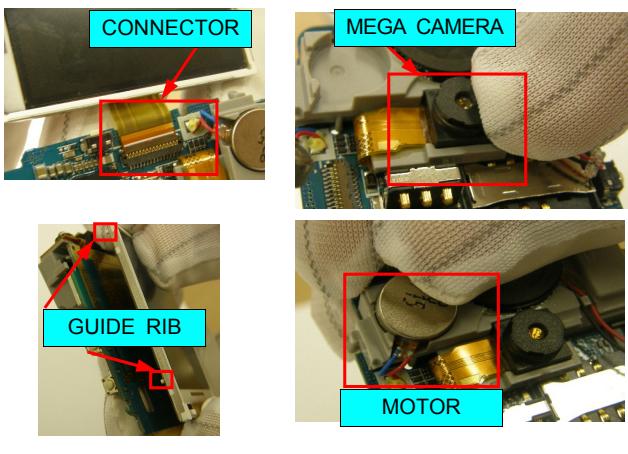
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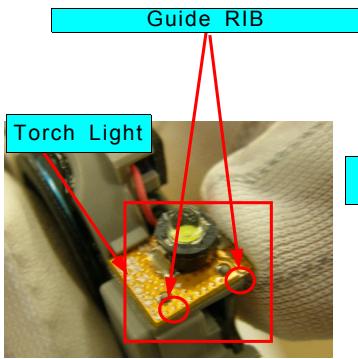
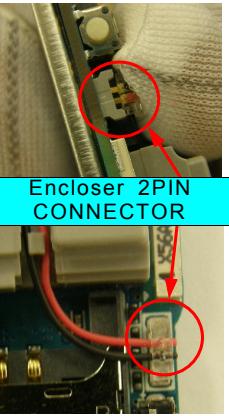
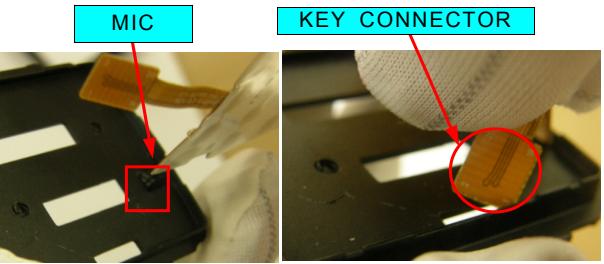
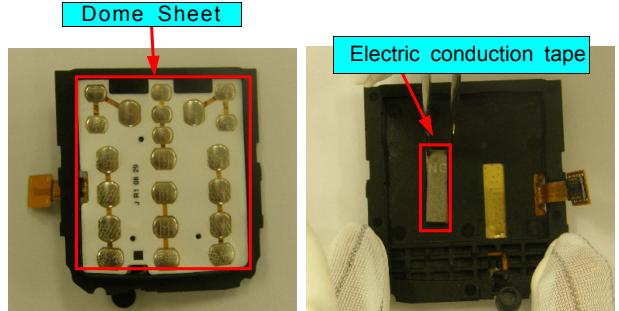
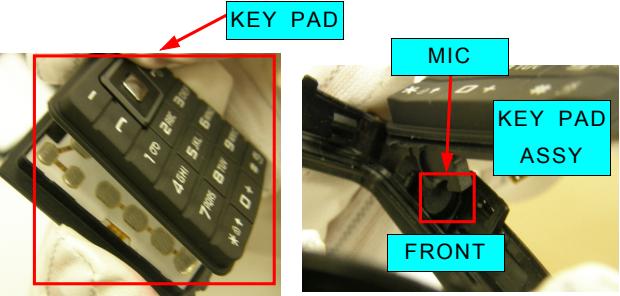


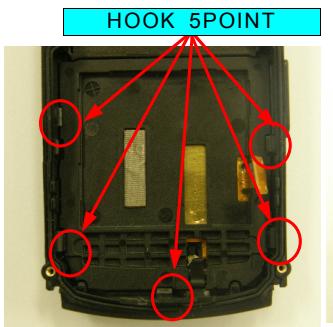
< Figure 1 >

- 1) After melting soldering, remove intenna from PBA  
※ caution
  - 1) there are not screws on the PBA. Don't assemble screws

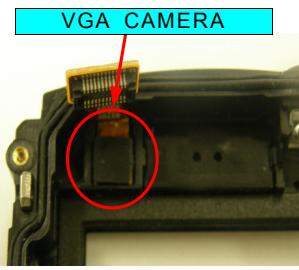
## 7-2. Assembly

<p><b>1</b></p>  <p>INTENNA      SHIELD CAN</p> <p>&lt; Figure 1 &gt;      &lt; Figure 2 &gt;</p>	<p><b>2</b></p>  <p>soldering area      Torch Light SHIELD CAN      Receiver Motor      Shield Can</p> <p>&lt; Figure 1 &gt;      &lt; Figure 2 &gt;</p>
<p>1) Assemble an intenna on PBA then soldeing on pads.[Figure 1] 2) Assemble shield can correct direction. [Figure 2] ※ caution 1) Do not joint screws of the intenna on PBA. 2) be careful, direction of shield can</p>	<p>1) Asseble shield can on correct position.[Figure 1] 2) soldering MOTOR,Torch Light,Receiver on pads.[Figure 2] ※ caution 1) Be careful not to get a damage of WIRE , FPCB DAMAGE. 2) Be careful of +/- polarity.</p>
<p><b>3</b></p>  <p>MEGA Camera      Encloser</p> <p>&lt; Figure 1 &gt;      &lt; Figure 2 &gt;</p> <p>1) Contact MEGA Camera to connector.[Figure 1] 2) Assemble Encloser on PBA .[Figure 2]</p>	<p><b>4</b></p>  <p>CONNECTOR      MEGA CAMERA GUIDE RIB      MOTOR</p> <p>&lt; Figure 1 &gt;      &lt; Figure 2 &gt;</p> <p>1) Attach FPCB of LCD to PBA connector, then attaching LCD to right Guide Rib on board. [Figure 1] 2) Remove a tape which is the bottom MEGA Camera, Motor and attach it on encloser. [Figure 2] ※ caution 1)Be careful not to get a damage of FPCB WIRE.</p>

<p><b>5</b></p>   <p>Guide RIB</p> <p>Torch Light</p> <p>Encloser 2PIN CONNECTOR</p> <p>&lt; Figure 1 &gt;</p> <p>&lt; Figure 2 &gt;</p>	<p><b>6</b></p>  <p>MIC</p> <p>KEY CONNECTOR</p> <p>&lt; Figure 1 &gt;</p> <p>&lt; Figure 2 &gt;</p>
<p>1) Attach Torch Light which is removed a cover of adhesive tape on encloser.[Figure 1]</p> <p>2) Insert 2PIN Connector of Encloser into connector.[Figure 2]</p> <p>* caution</p> <p>1) GUIDE RIB 2POINT에 맞춰서 안착한다.</p> <p>2) Be careful of the polarity of 2PIN CONNCETOR.</p>	<p>1) Insert the MIC of KEY PBA into the hole of KEY BRACKET.[Figure 1]</p> <p>2) Insert KEY CONNECTOR into KEY BRACKET hole.[Figure 2]</p> <p>* caution</p> <p>1) Mind the order of assembly.</p>
<p><b>7</b></p>  <p>Dome Sheet</p> <p>Electric conduction tape</p> <p>&lt; Figure 1 &gt;</p> <p>&lt; Figure 2 &gt;</p>	<p><b>8</b></p>  <p>KEY PAD</p> <p>MIC</p> <p>KEY PAD ASSY</p> <p>FRONT</p> <p>&lt; Figure 1 &gt;</p> <p>&lt; Figure 2 &gt;</p>
<p>1) Attach the DOME SHEET following the wall.[Figure 1]</p> <p>2) Attach electric conduction tape(1EA) on rear side of BRACKET. [Figure 2]</p> <p>* caution</p> <p>1) Be careful of the position electric conduction tape.</p>	<p>1) Assemble KEY PAD to KEY BRACKET. [Figure 1 ]</p> <p>2) Firstly,Insert MIC into the MIC rib of FRONT. [Figure 2 ]</p> <p>* caution</p> <p>1) Be careful not to make a mistake.</p>

**9**

&lt; Figure 1 &gt;

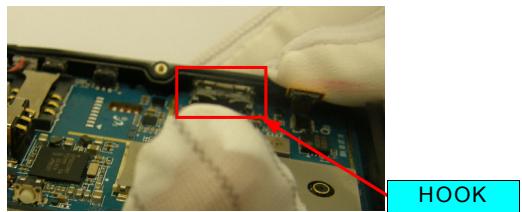


&lt; Figure 2 &gt;

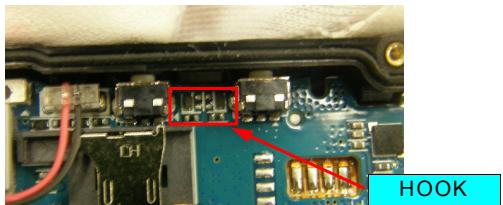
- 1) Lock the KEY BRACKET on front by using 5 hooks.[Figure 1]
- 2) Insert VGA CAMERA into the hole of Front.[Figure 2 ]

**\* caution**

- 1) When the KEY BRACKET is correctly assembled, it makes the sound such as "tick".

**10**

&lt; Figure 1 &gt;

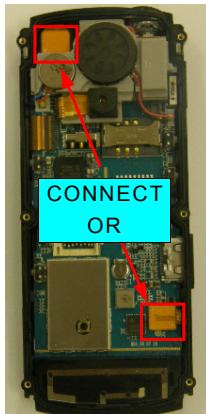


&lt; Figure 2 &gt;

- 1) Firstly, insert IF connector to front. [Figure 1]
  - 2) Secondly, lock the PBA by using the hook which is located at the center of TACT switches.[Figure 2 ]
- \* caution**
- 1) When assemble PBA, you must assemble priority to right side

**11**

&lt; Figure 1 &gt;



&lt; Figure 2 &gt;

- 1) Push the left side of PBA for fixing it into the front.[Figure 1]
  - 2) Attach VGA CAMERA,KET PBA CONNECTOR on PBA.[Figure 2 ]
- \* caution**
- 1) Verify the state of PBA.

**12**

&lt; Figure 1 &gt;



&lt; Figure 2 &gt;

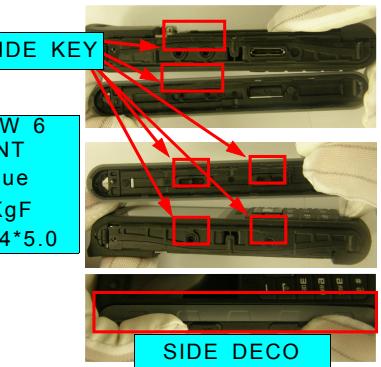
- 1) Assemble the rear cove at left side in a standard front.[Figure 1]
  - 2) Assemble the right side.[Figure 2 ]
- \* caution**
- 1) Lock the Front and rear by pushing powerfully.

13



**SCREW 6  
POINT  
Torque  
:1.1KgF  
Size:1.4\*5.0**

< Figure 1 >



< Figure 2 >

14



**SCREW 2  
POINT  
Torque  
:1.1KgF  
Size:1.4\*3.0**



< Figure 1 >

**SCREW  
CAP**



< Figure 2 >

1) Joint screws(6 POINT).[Figure 1]

2) Asseble SIDE DECO.[Figure 2]

\* caution

1) Check the screw torque and size.

1) Joint screws of side deco.[Figure 1 ]

2) Attach SCREW CAP on side deco.[Figure 2]

\* caution

1) The screw cap can be shared both side.

15

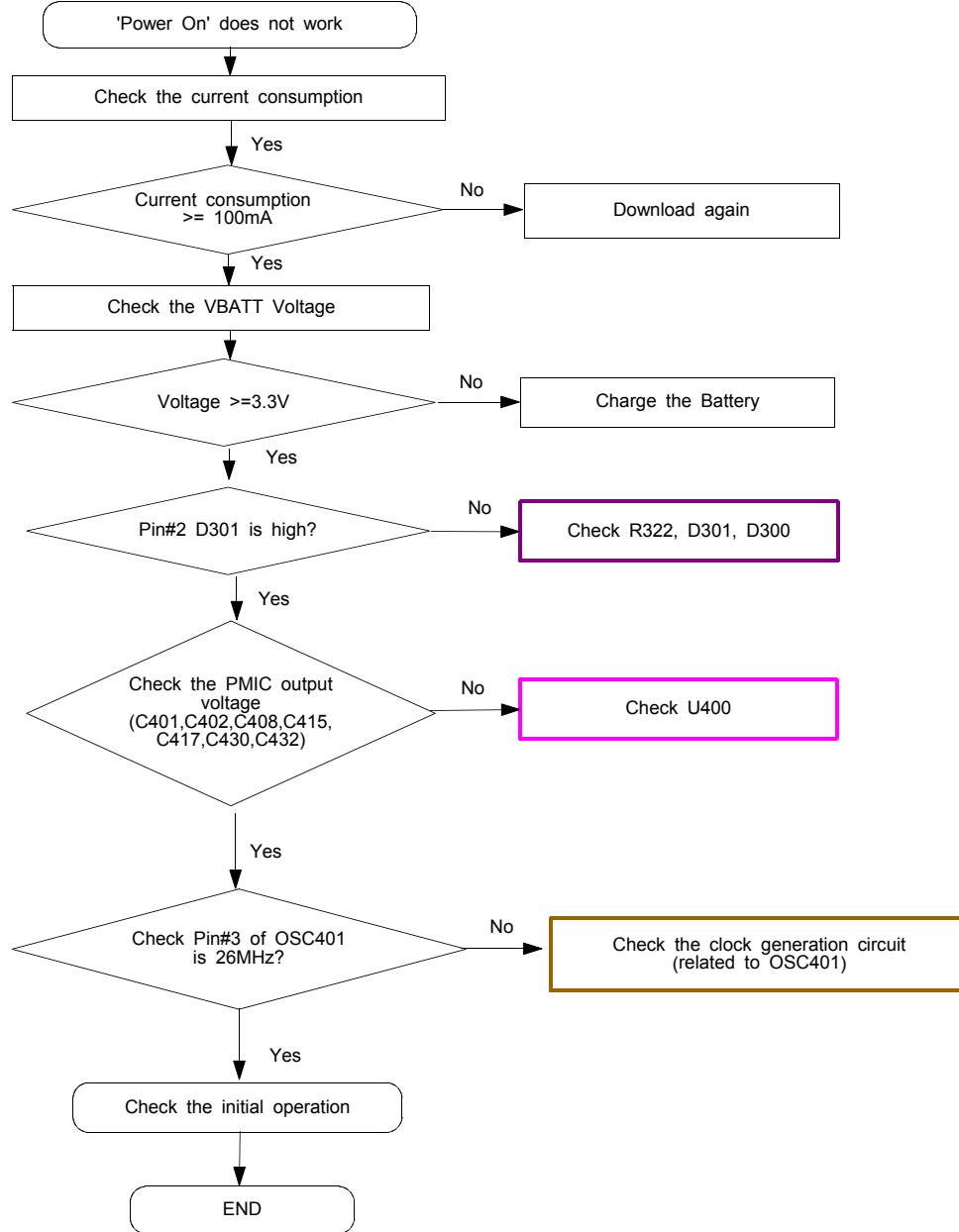


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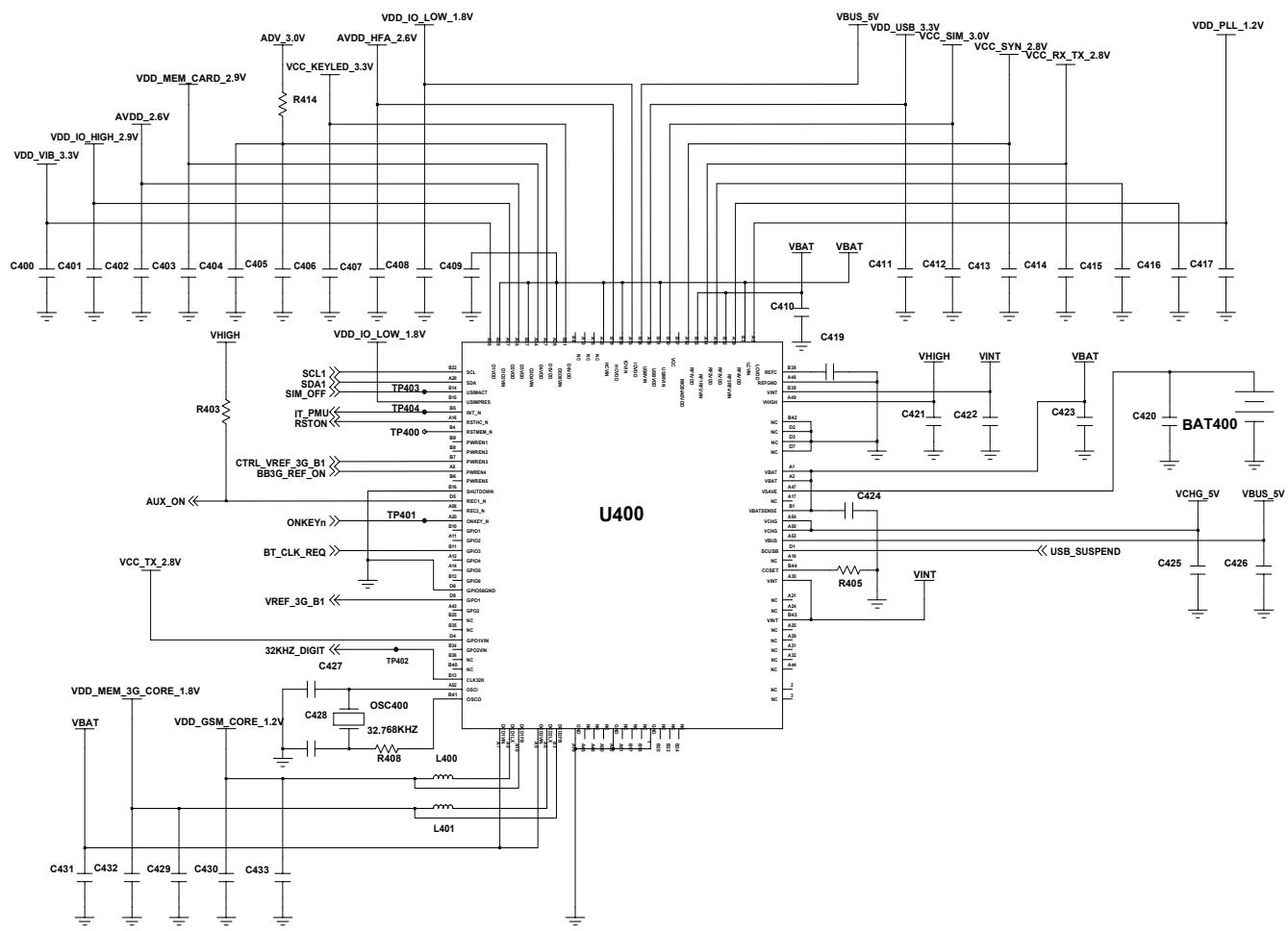
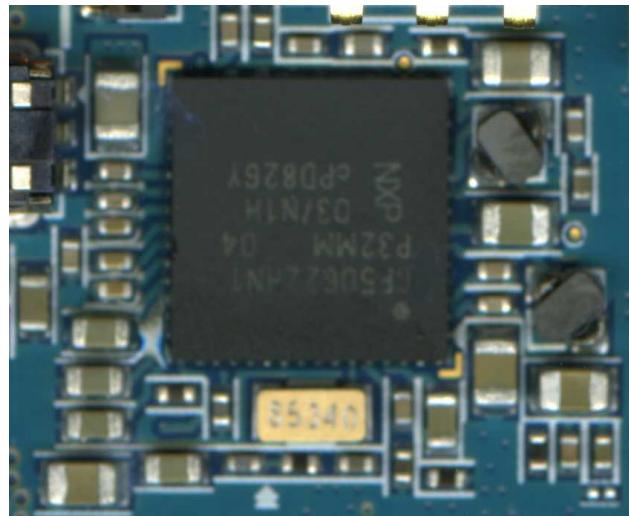
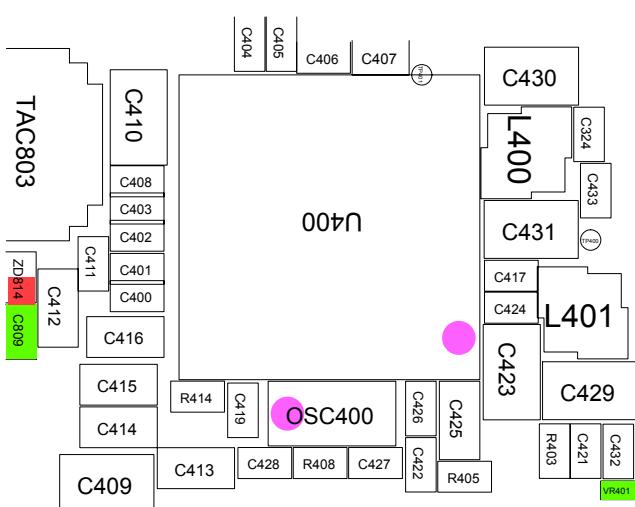
1) Verify the SET.[Figure 1]

## 10. Flow Chart of Troubleshooting

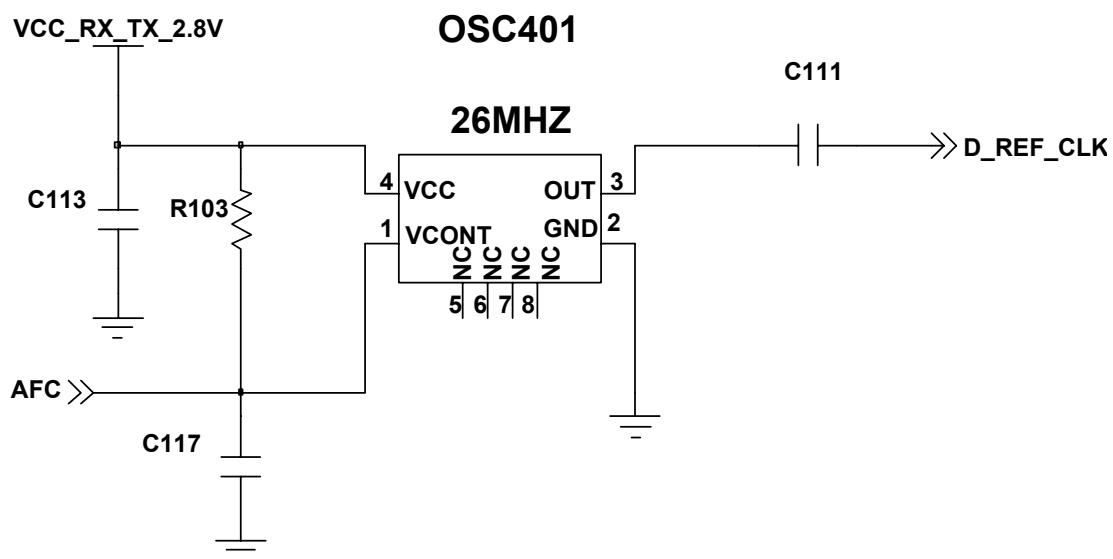
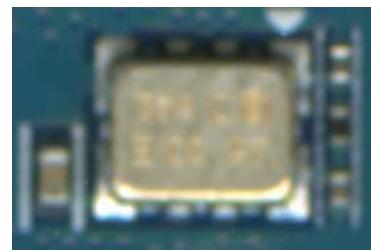
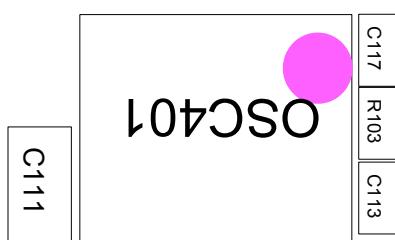
### 10-1-1. Power ON



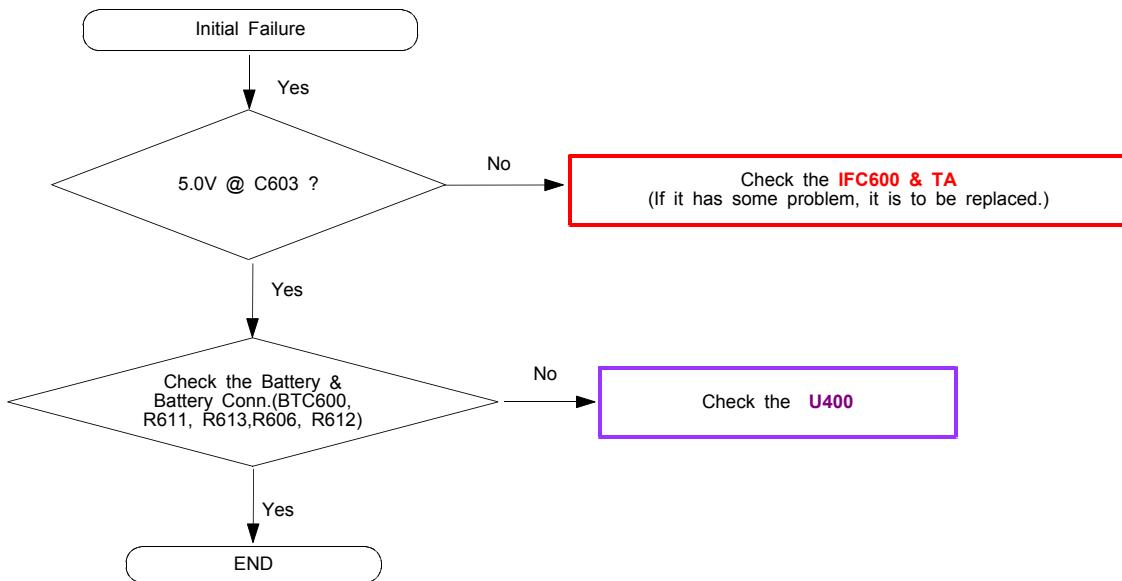
<PMIC>



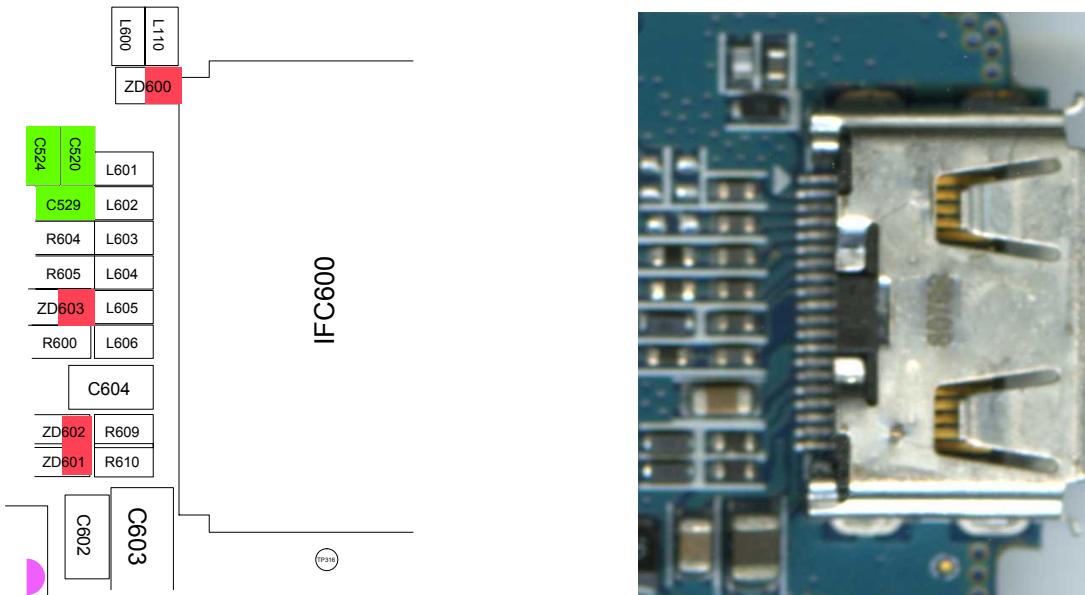
## &lt;TCXO&gt;

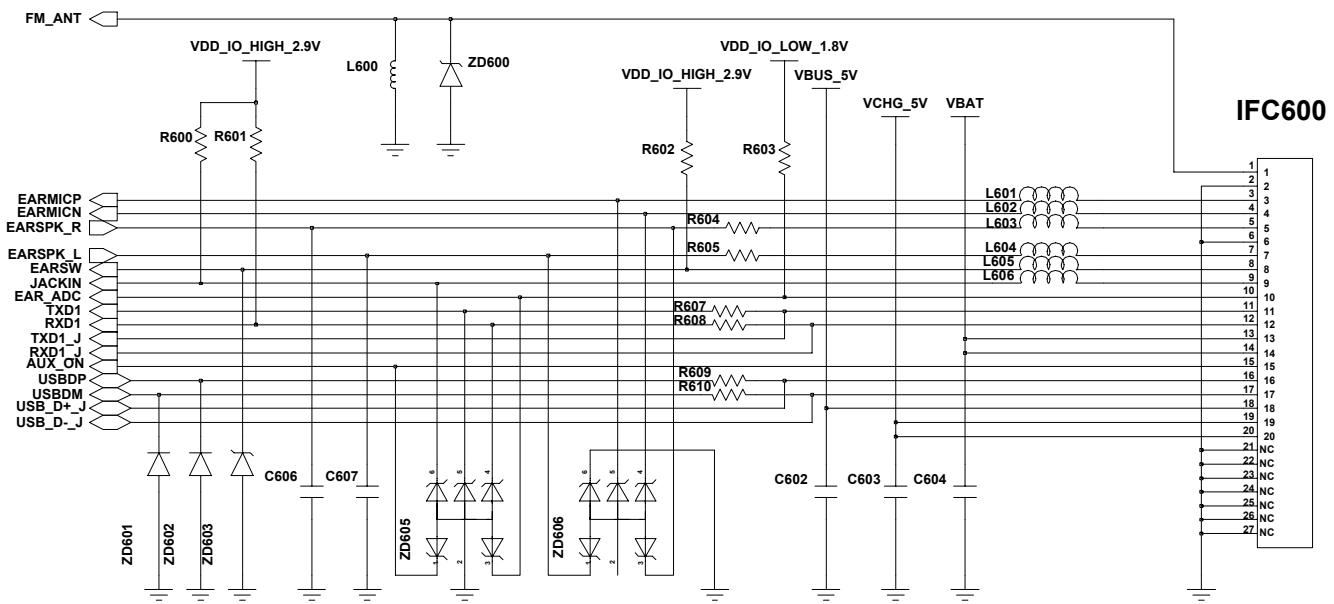


### 10-1-2. Charging Part

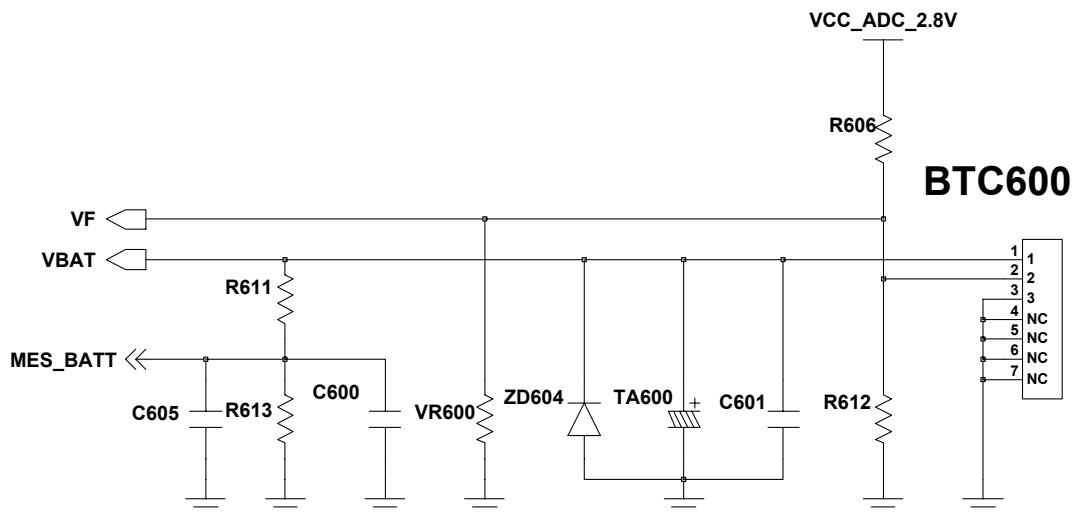
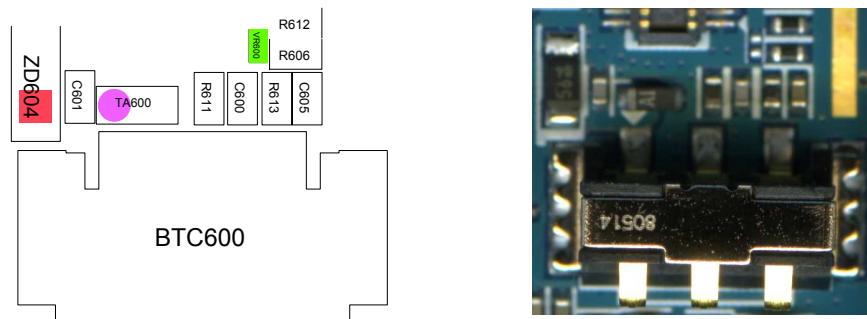


#### <IF CONN.>

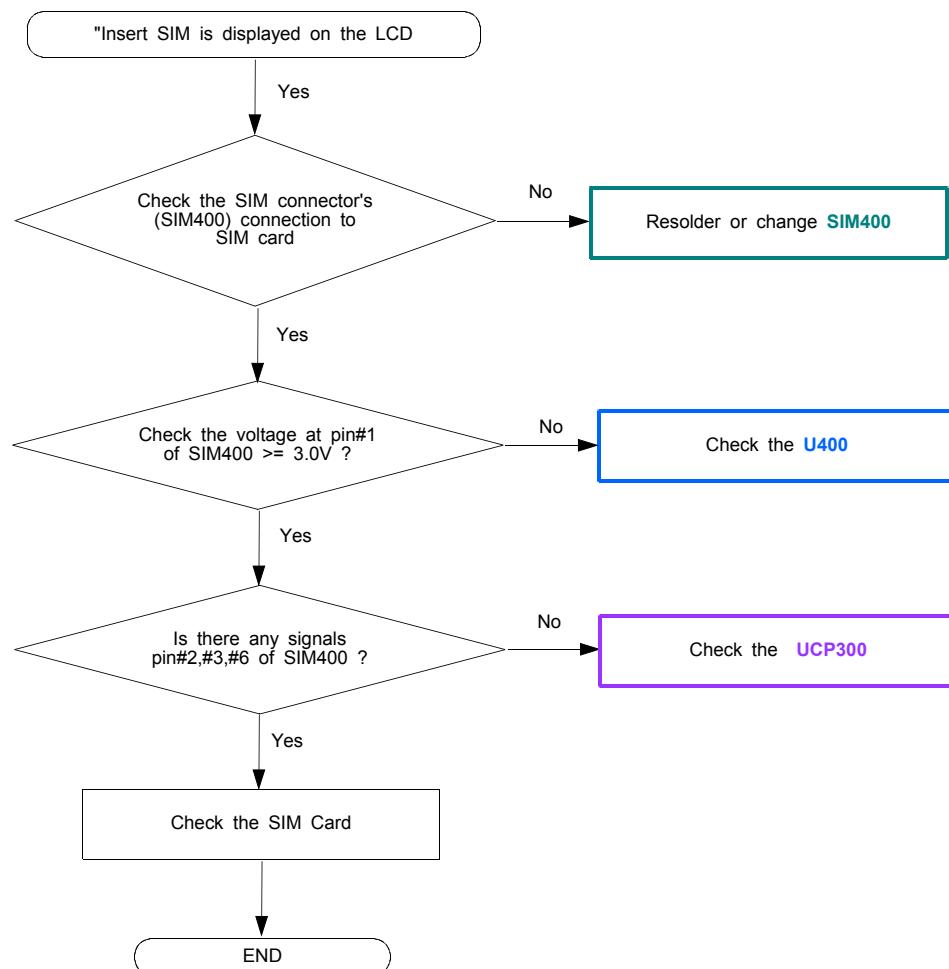




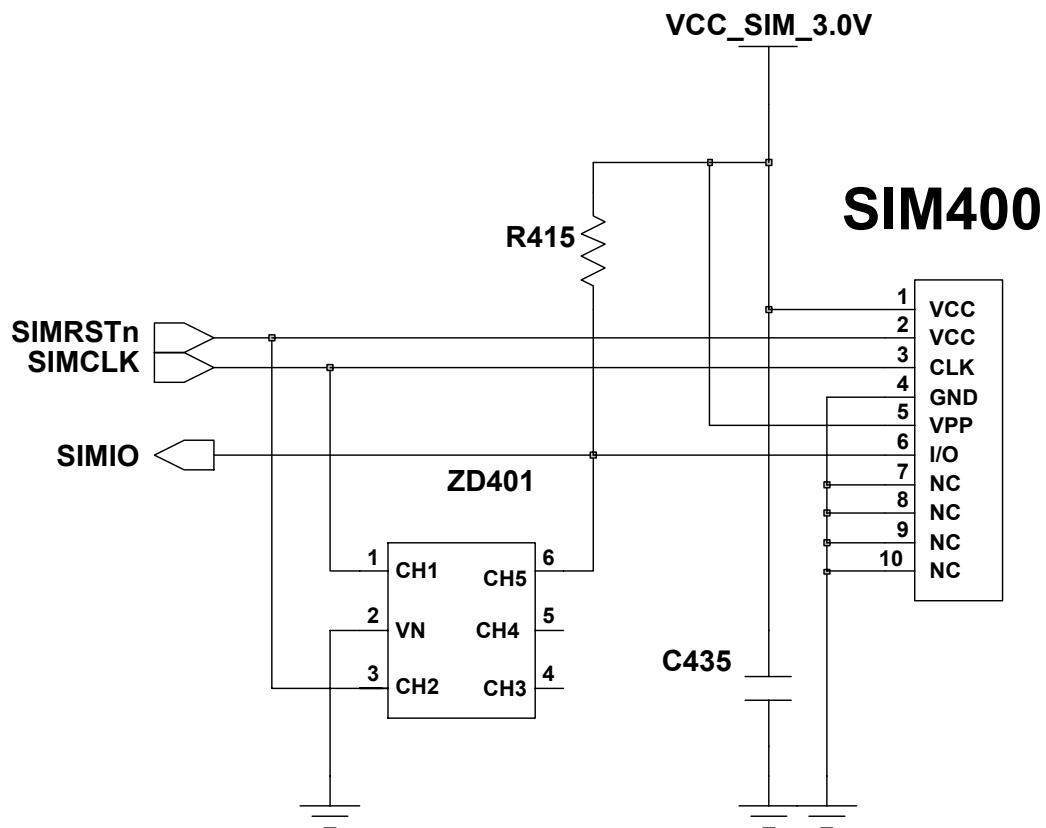
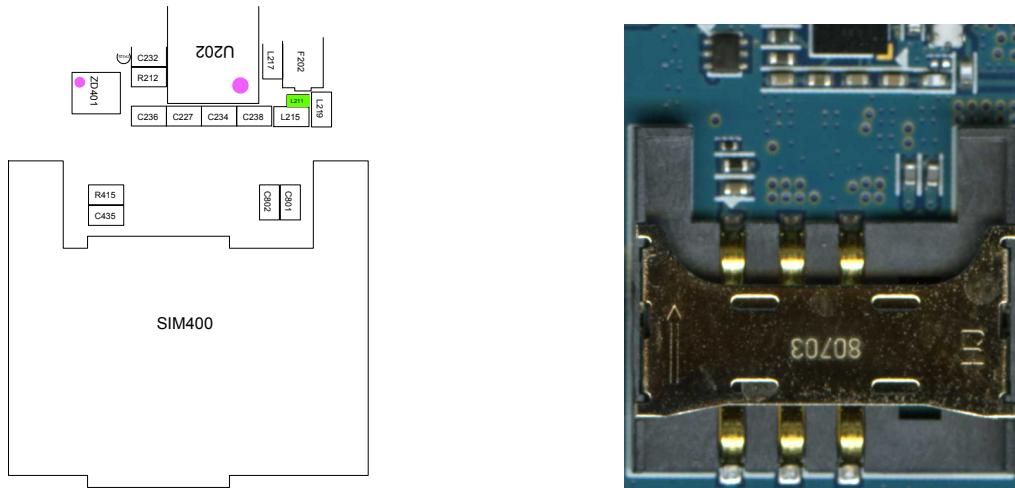
### <BAT CON>



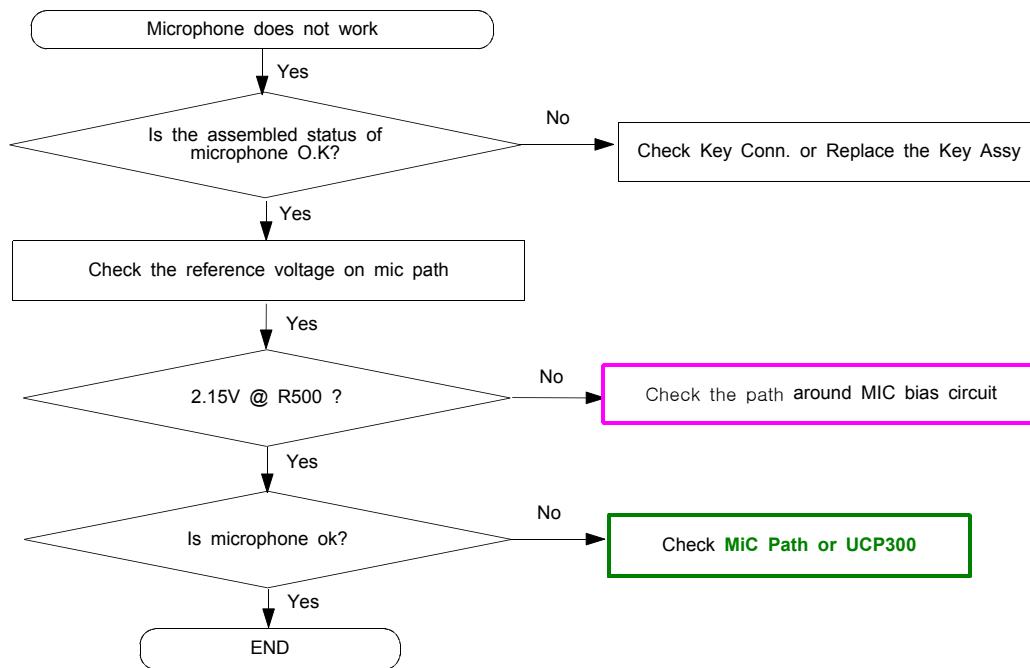
### 10-1-3. Sim Part



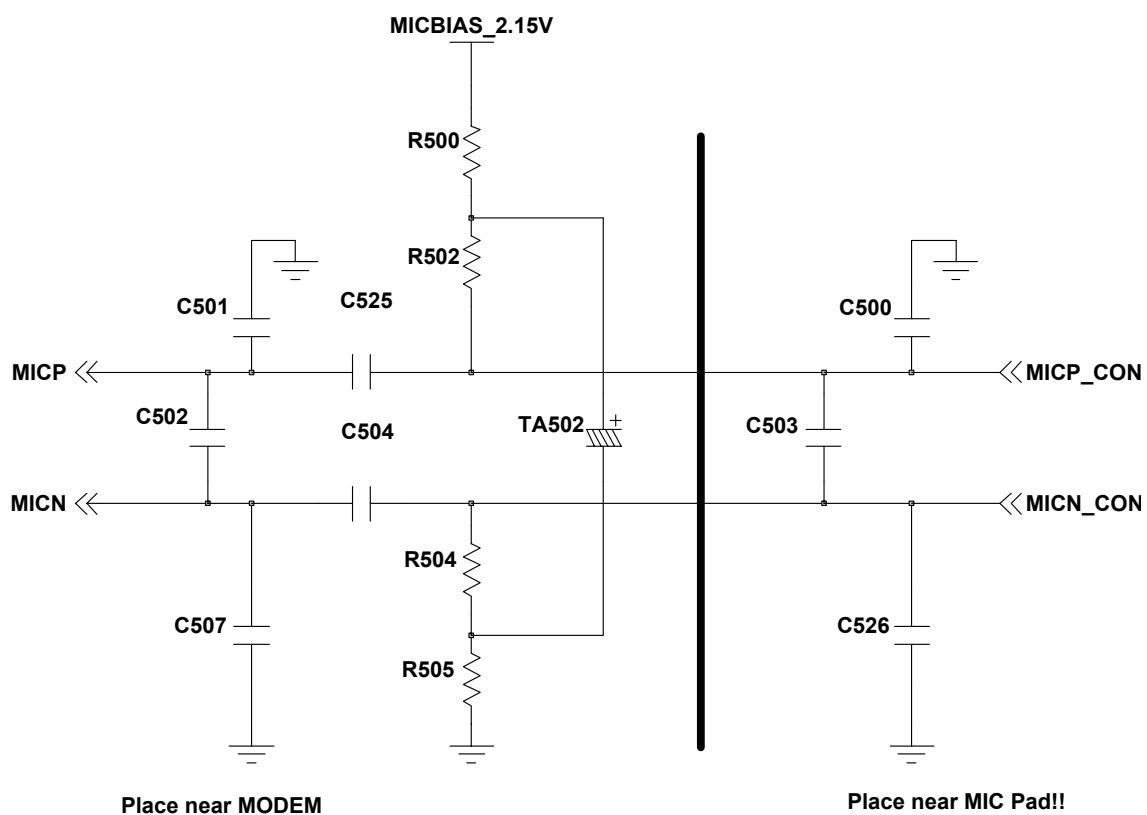
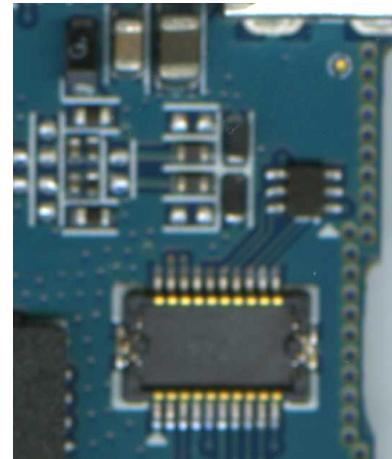
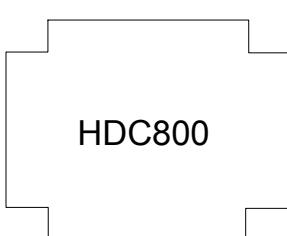
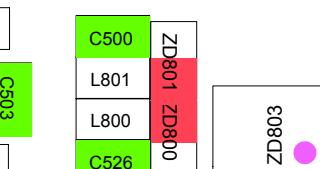
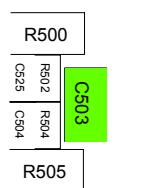
**<SIM Conn.>**



#### 10-1-4. Microphone Part



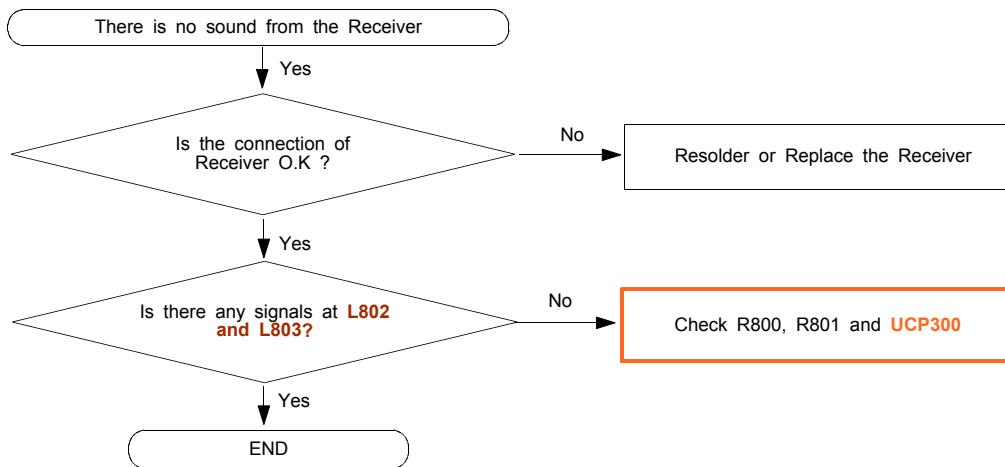
## &lt;Key Conn.&gt;



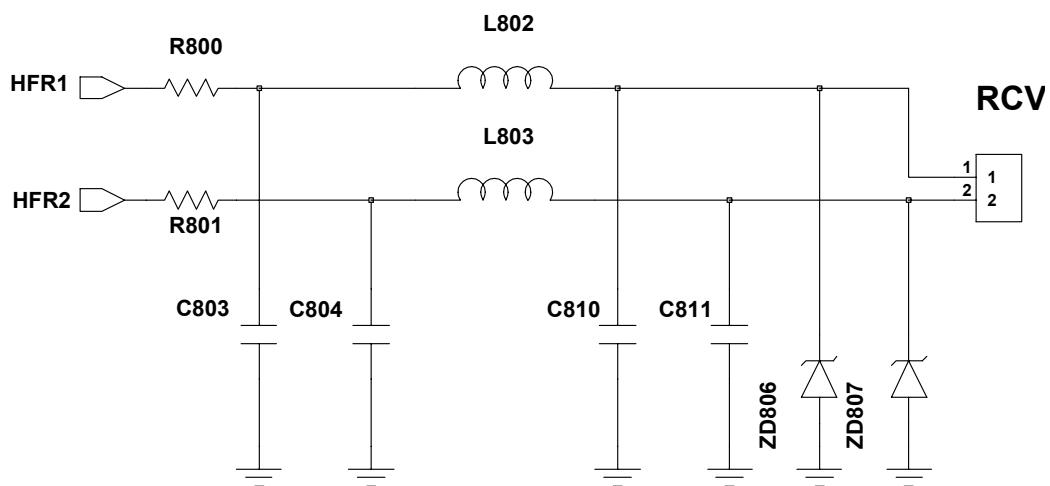
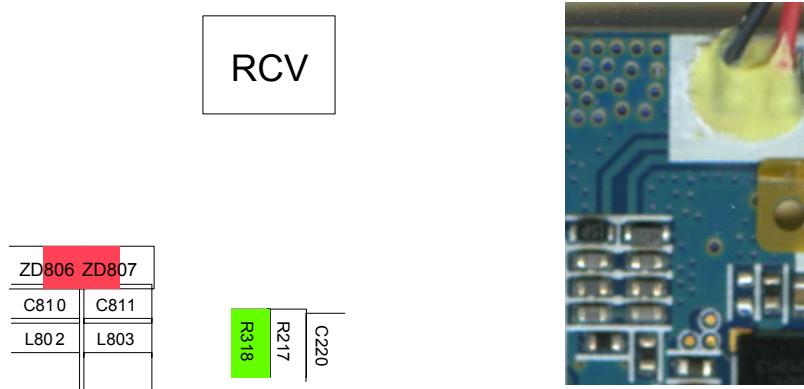
Place near MODEM

Place near MIC Pad!!

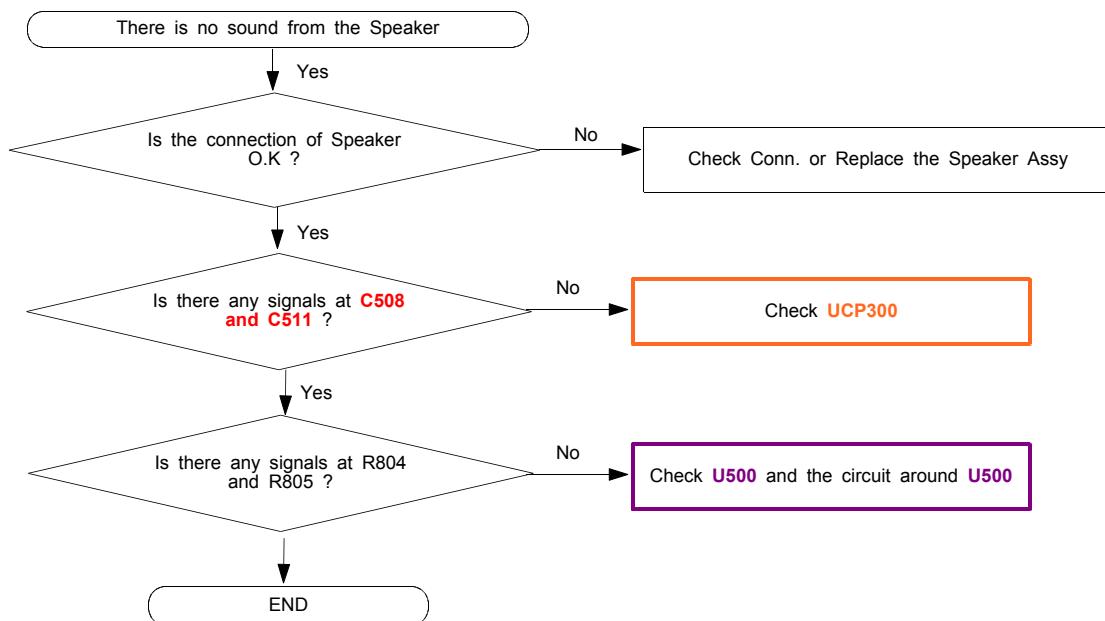
### 10-1-5. Receiver Part



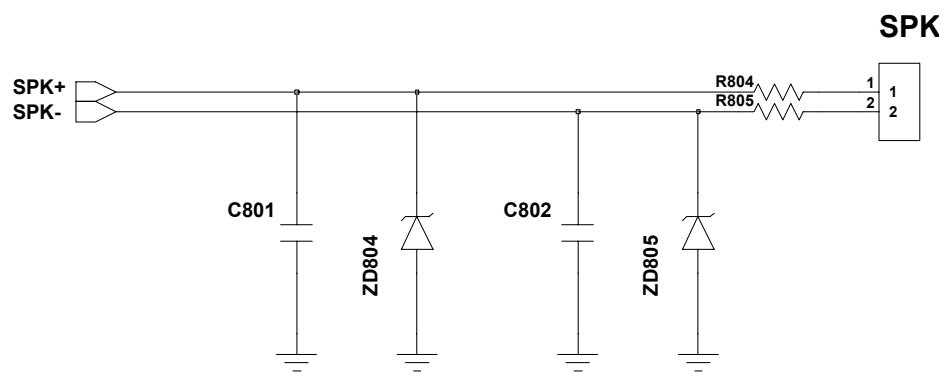
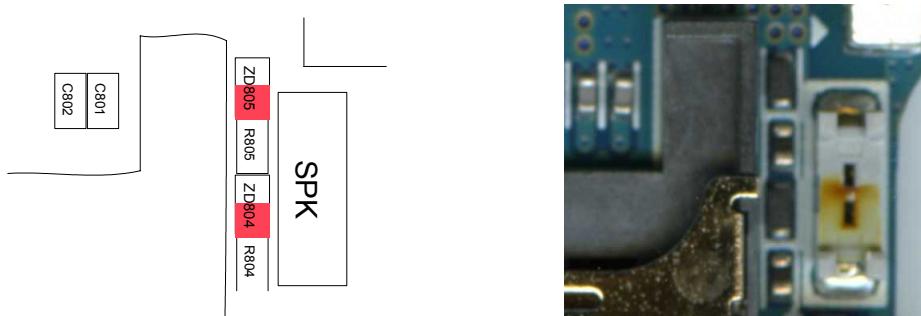
#### <Receiver Conn.>



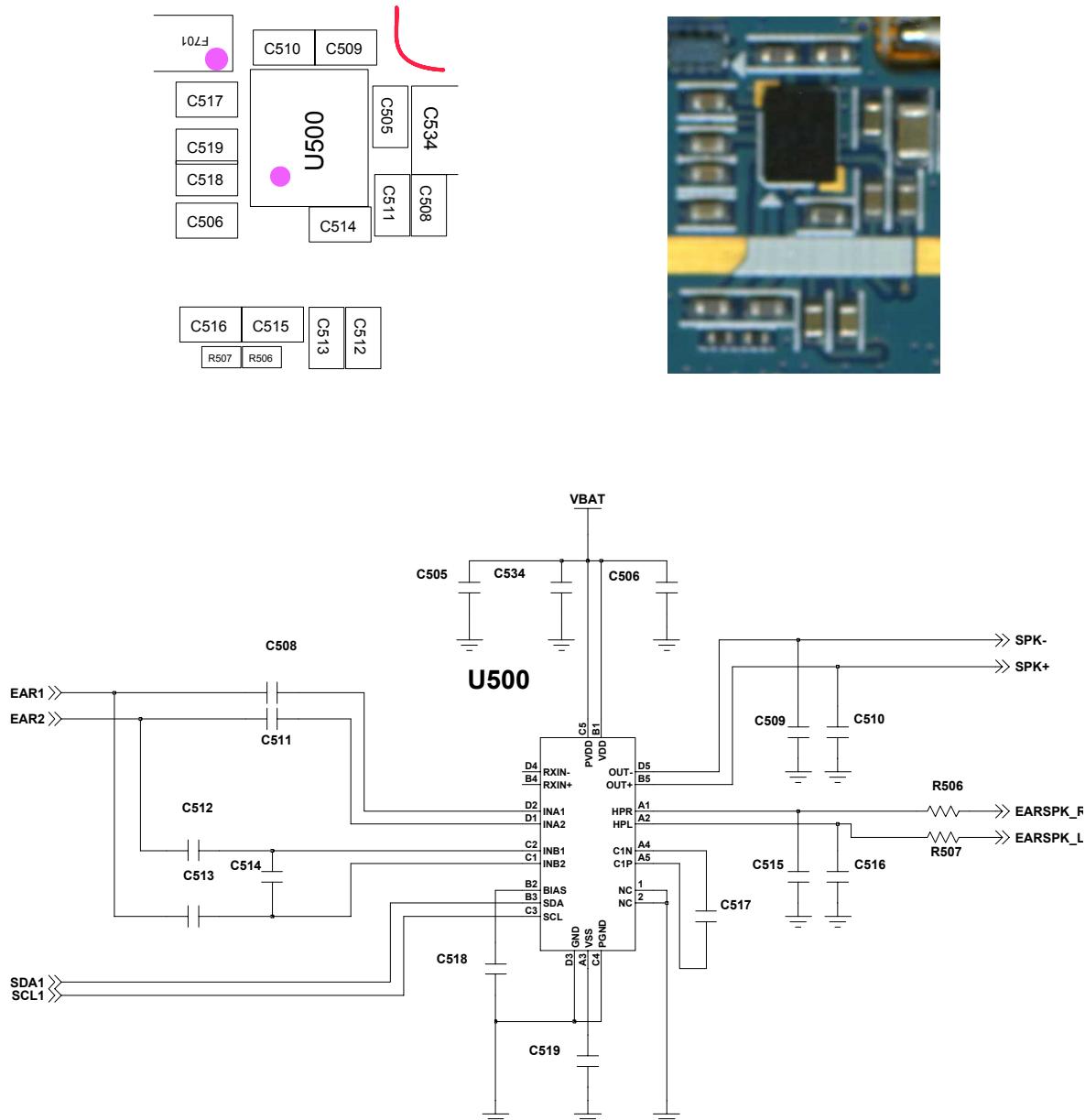
### 10-1-6. Speaker Part



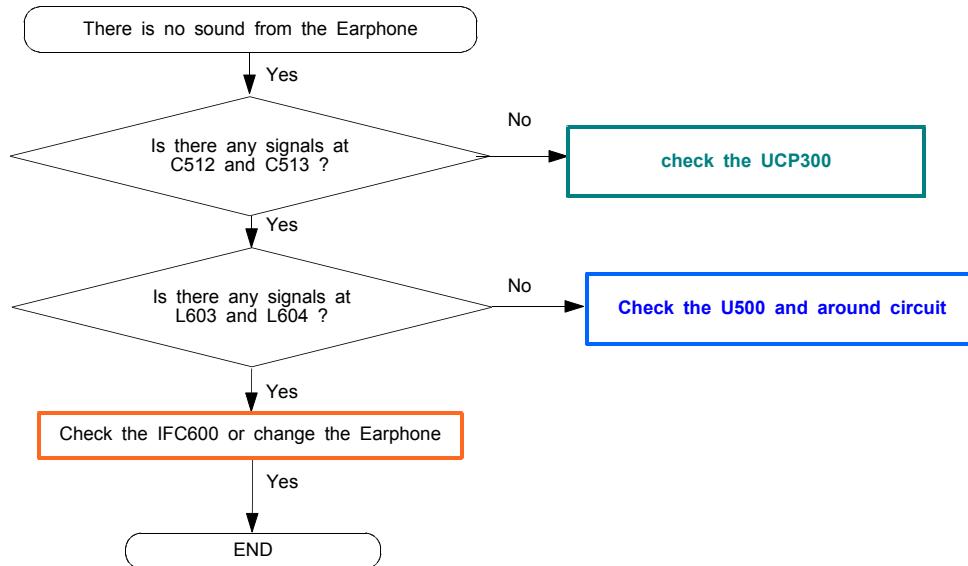
#### < Speaker Conn.>



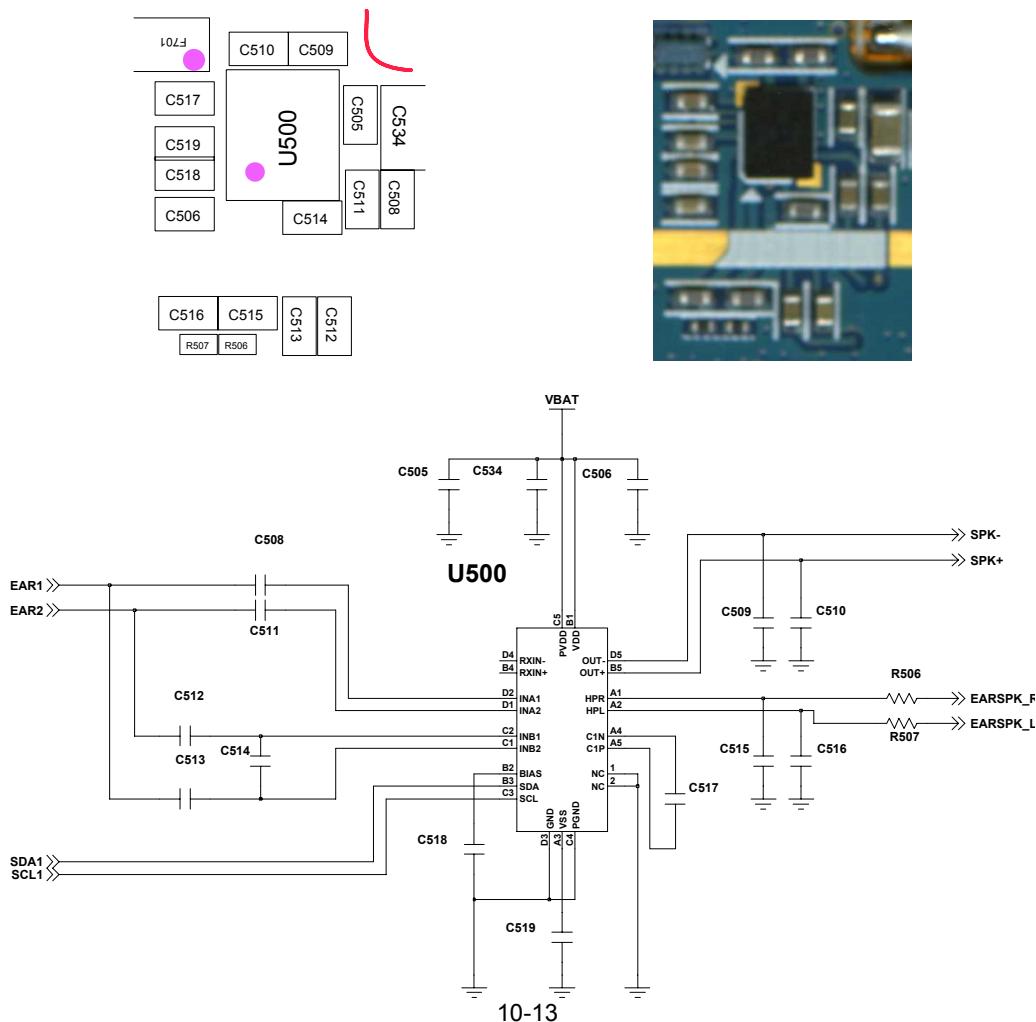
< Audio AMP>



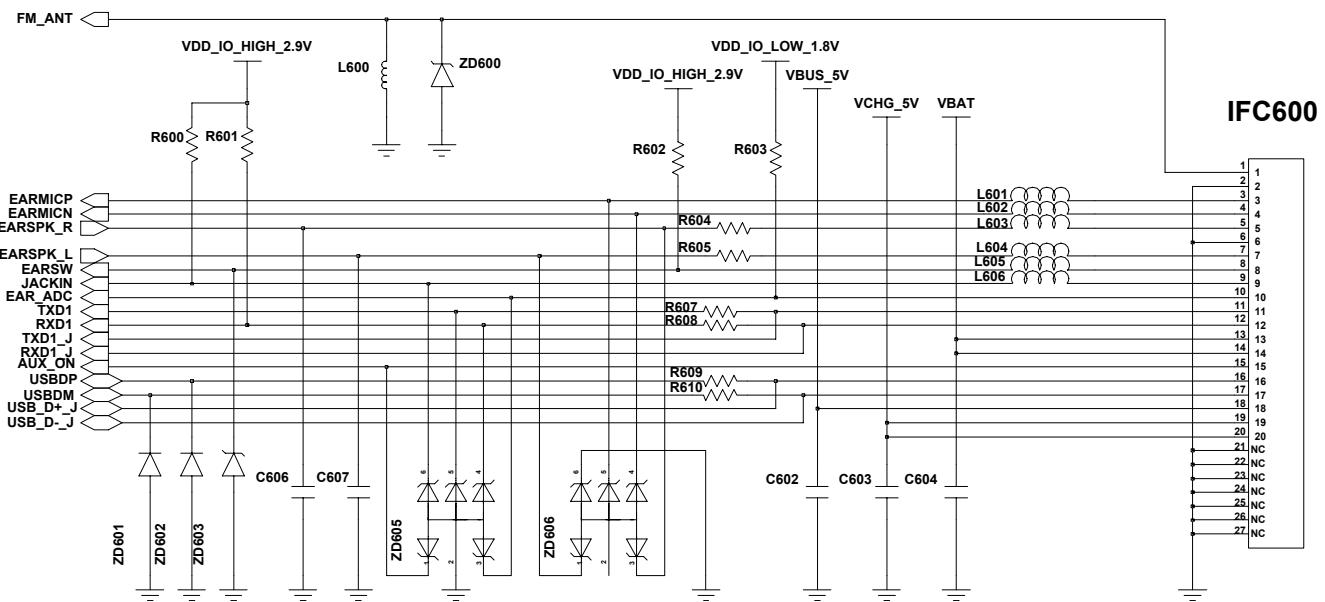
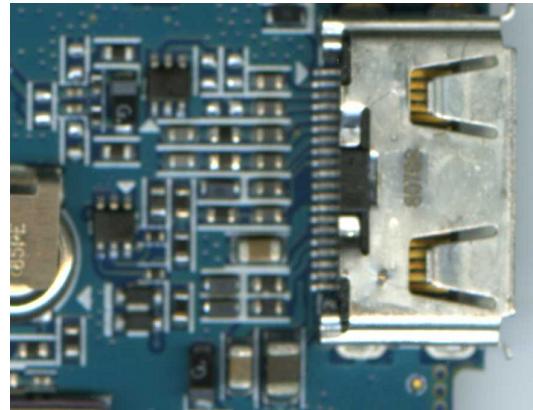
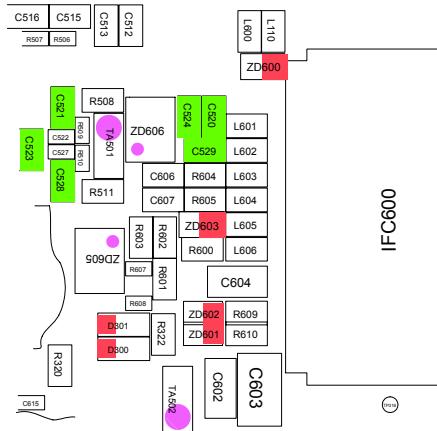
## **10-1-7. EARPHONE Part**



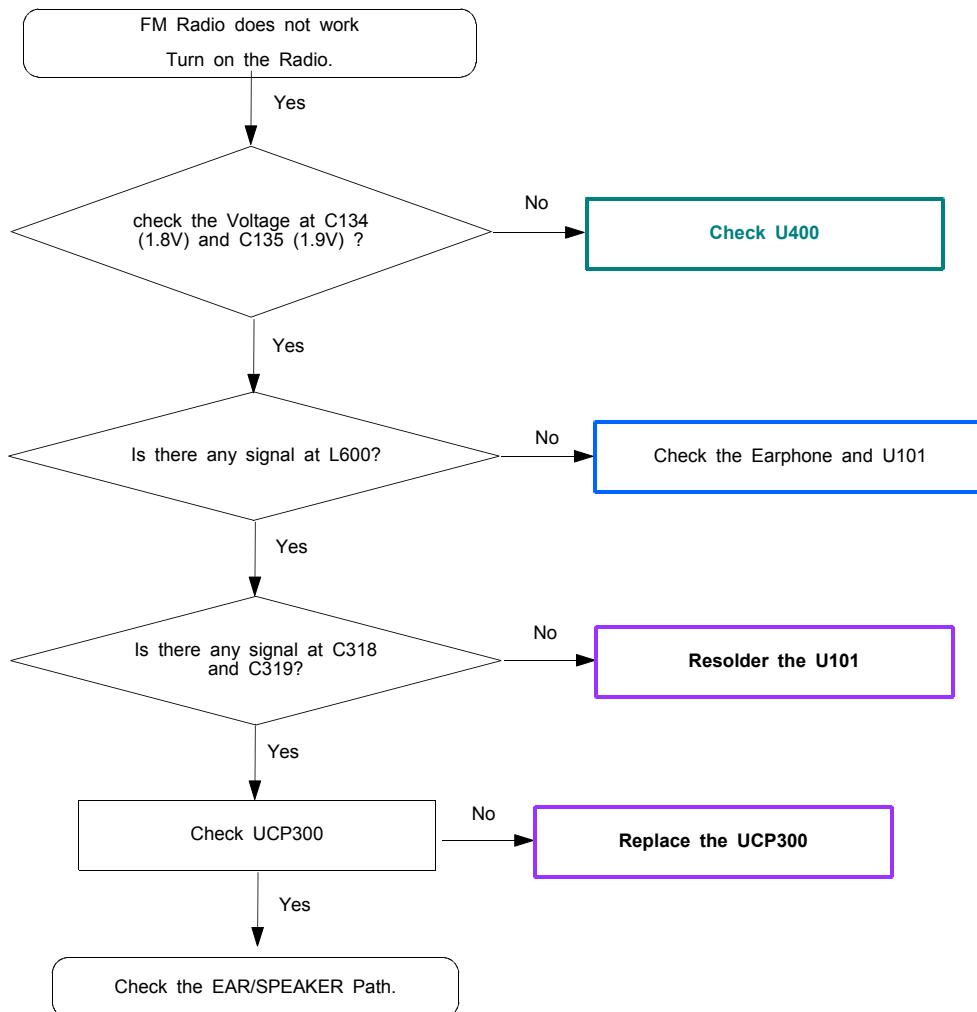
< Audio AMP>



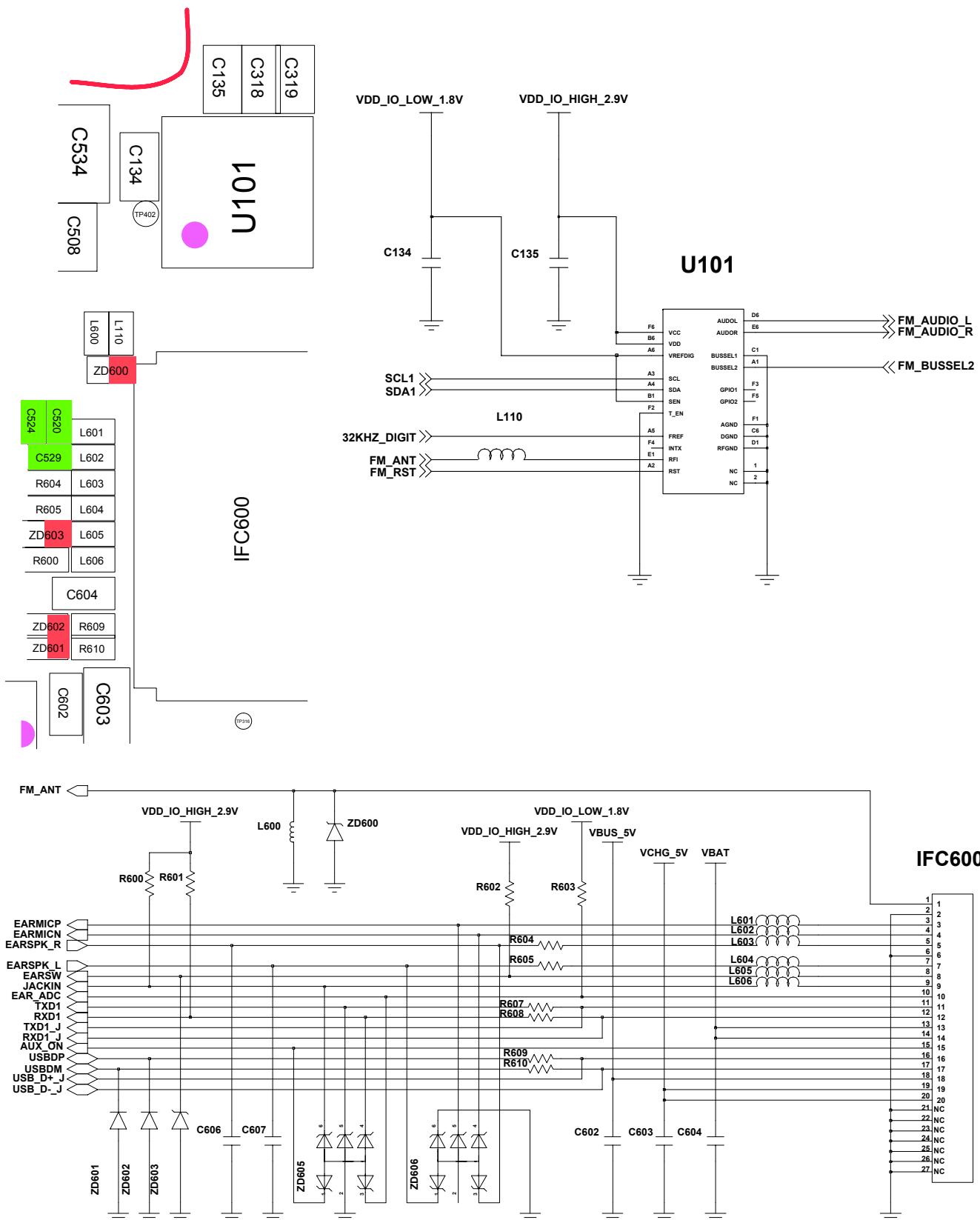
<IF Conn.>



## 10-1-8. FM RADIO Part

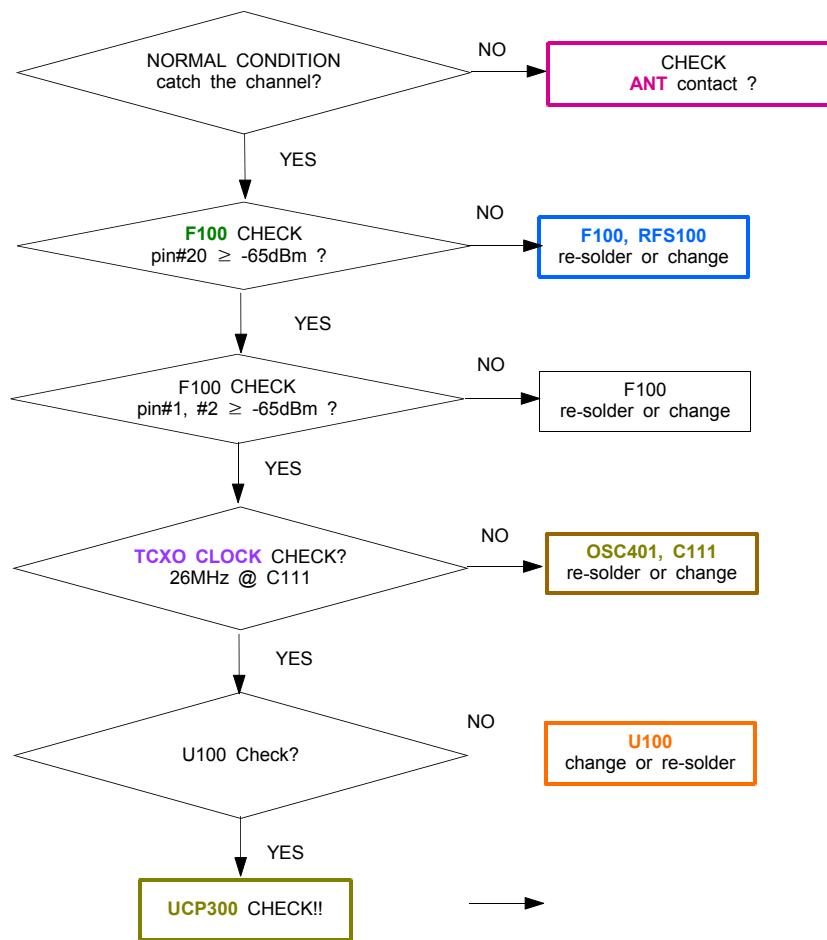


Flow Chart of Troubleshooting



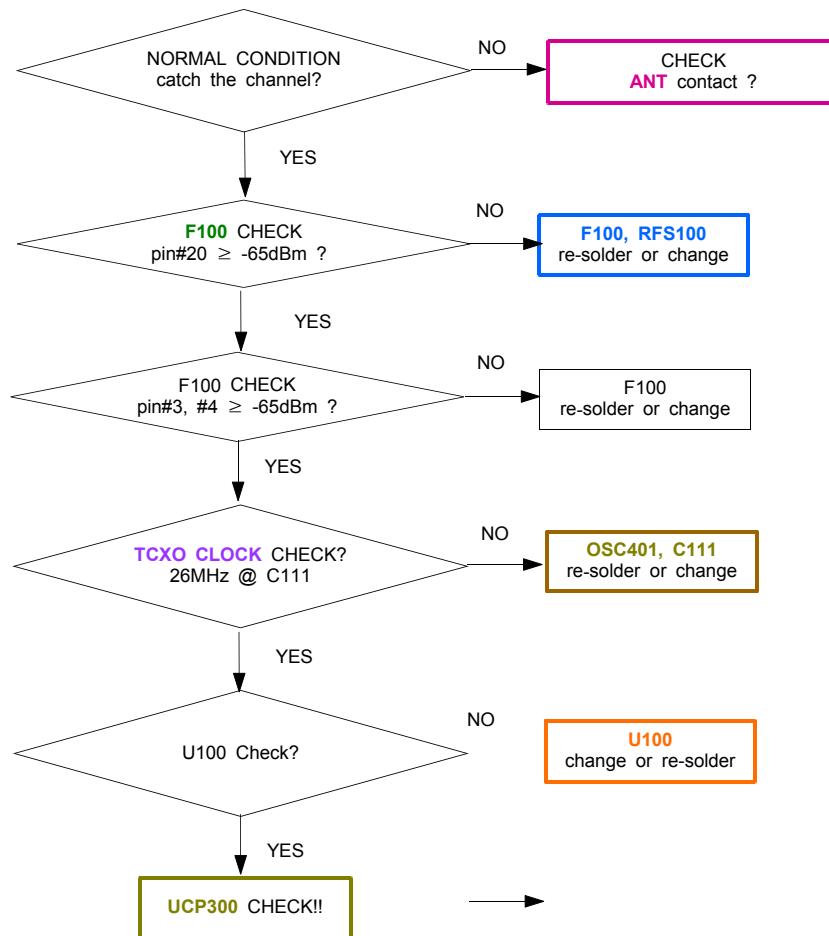
## 10-2-1. GSM850 RX

Band : GSM850  
 CELL POWER : -50dBm  
 Channel : 190Ch



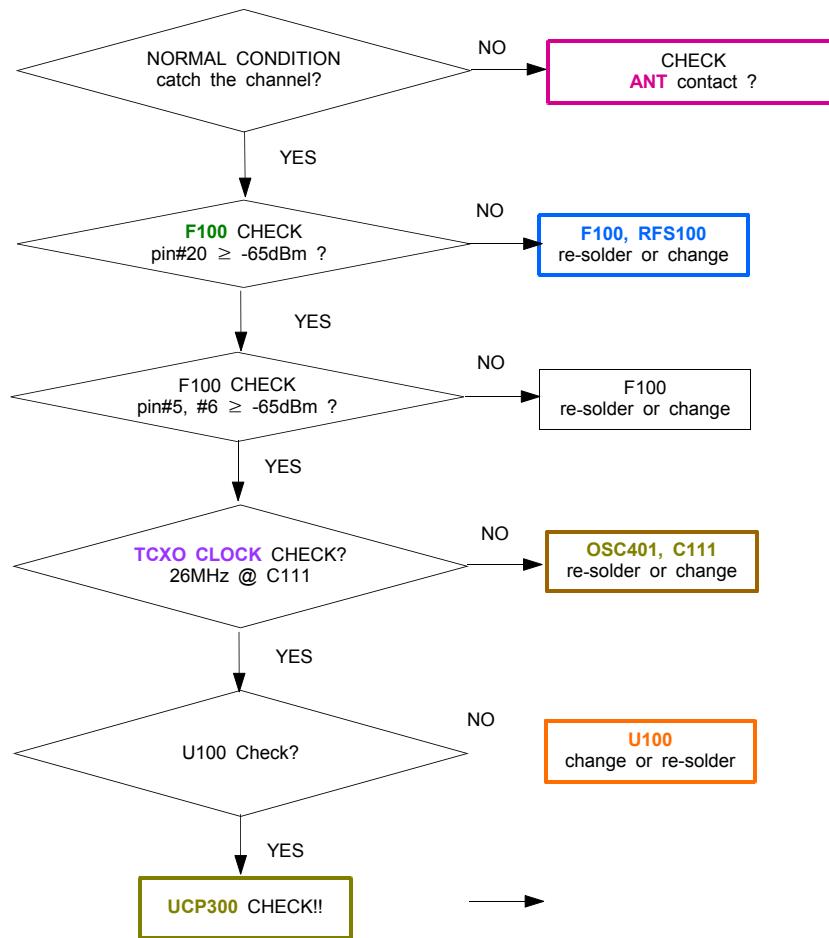
## 10-2-2. EGSM900 RX

Band : EGSM  
CELL POWER : -50dBm  
Channel : 62Ch



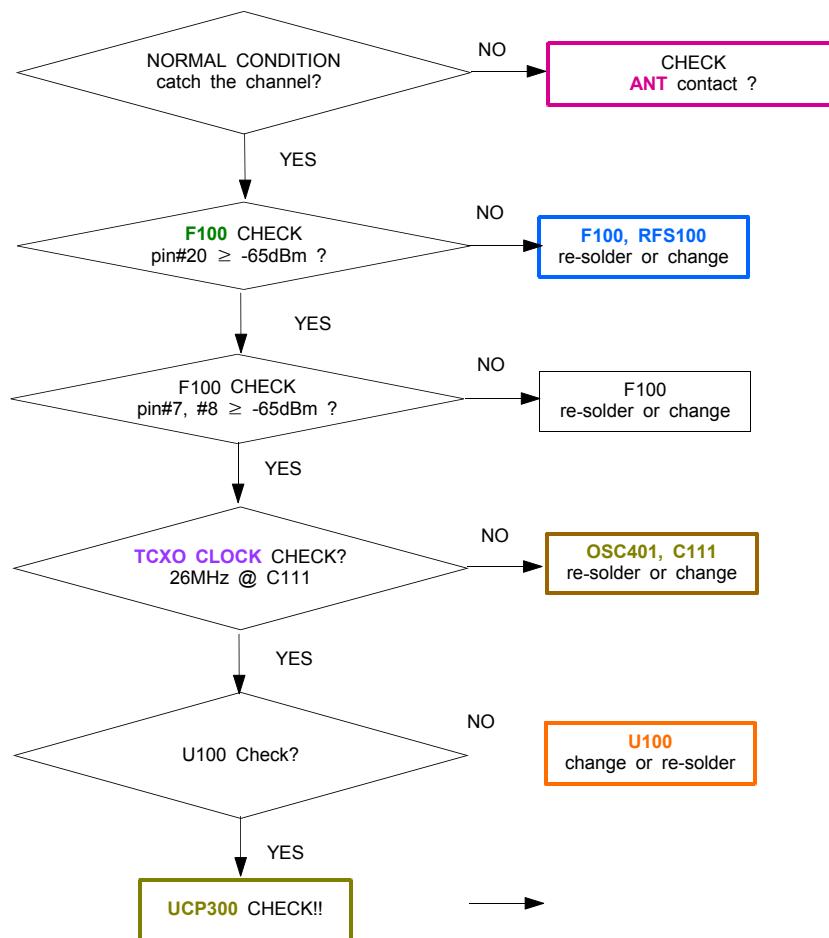
## 10-2-3. DCS1800 RX

Band : DCS  
 CELL POWER : -50dBm  
 Channel : 698Ch

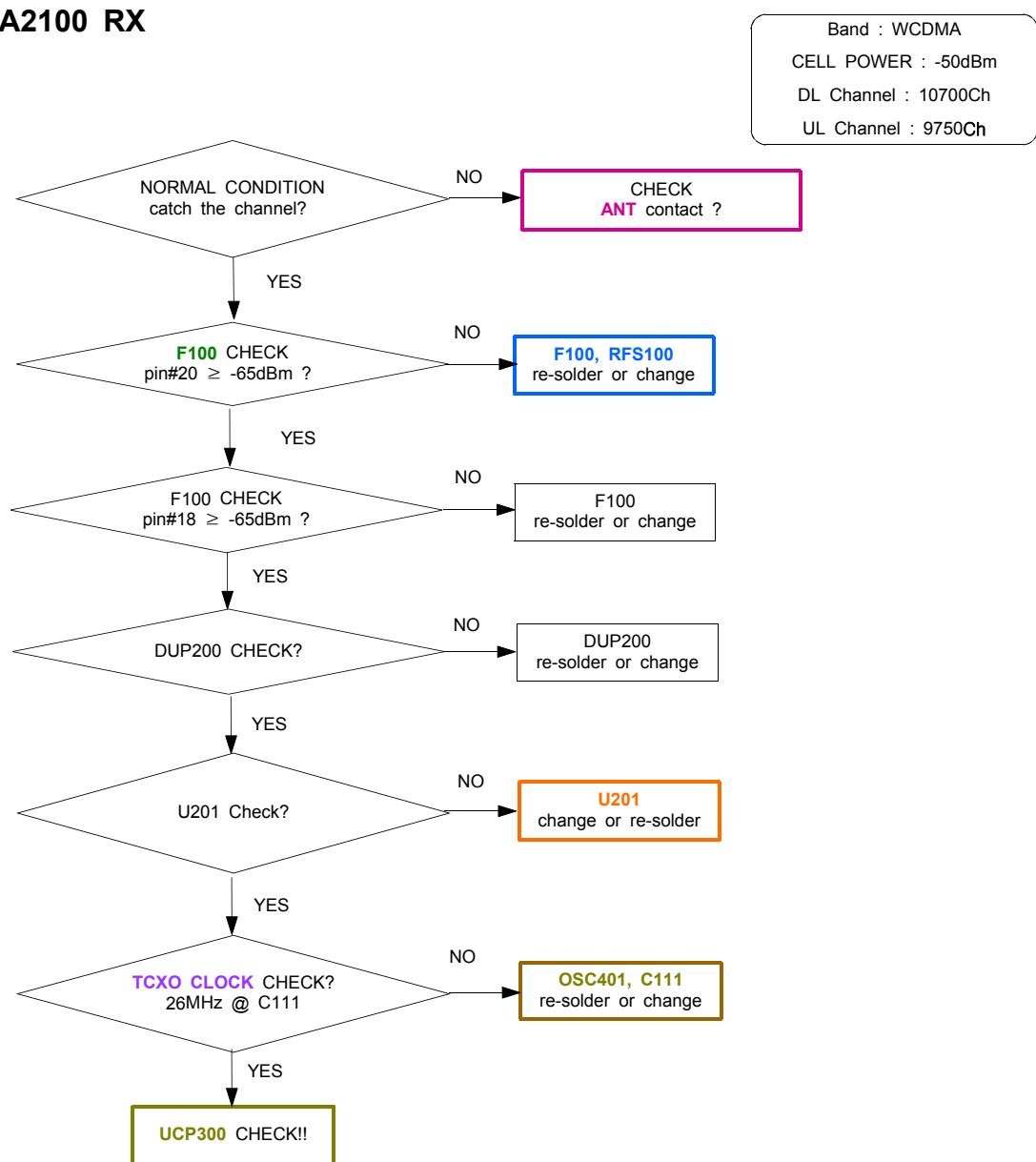


### 10-2-4. PCS1900 RX

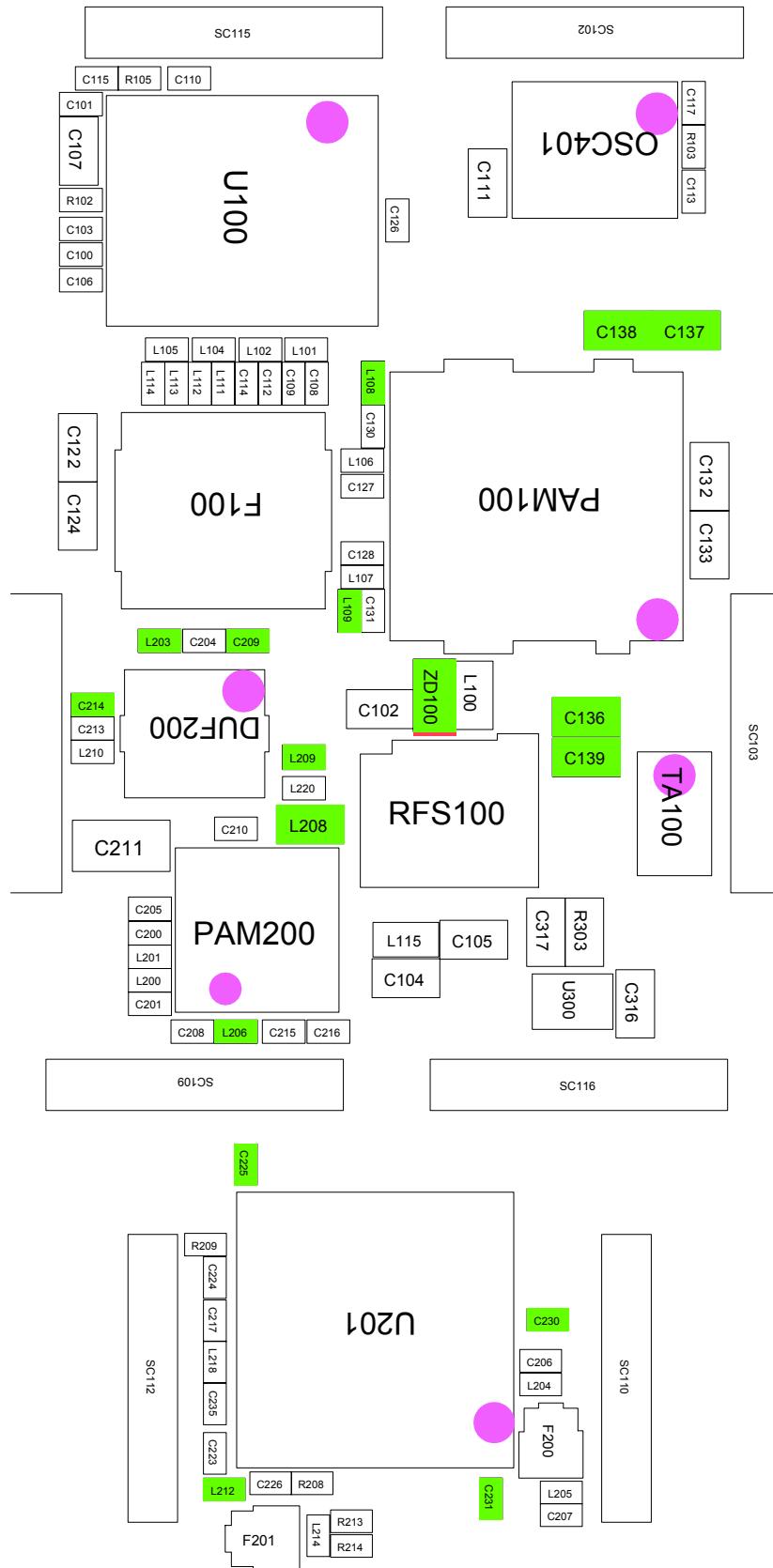
Band : PCS  
CELL POWER : -50dBm  
Channel : 661Ch

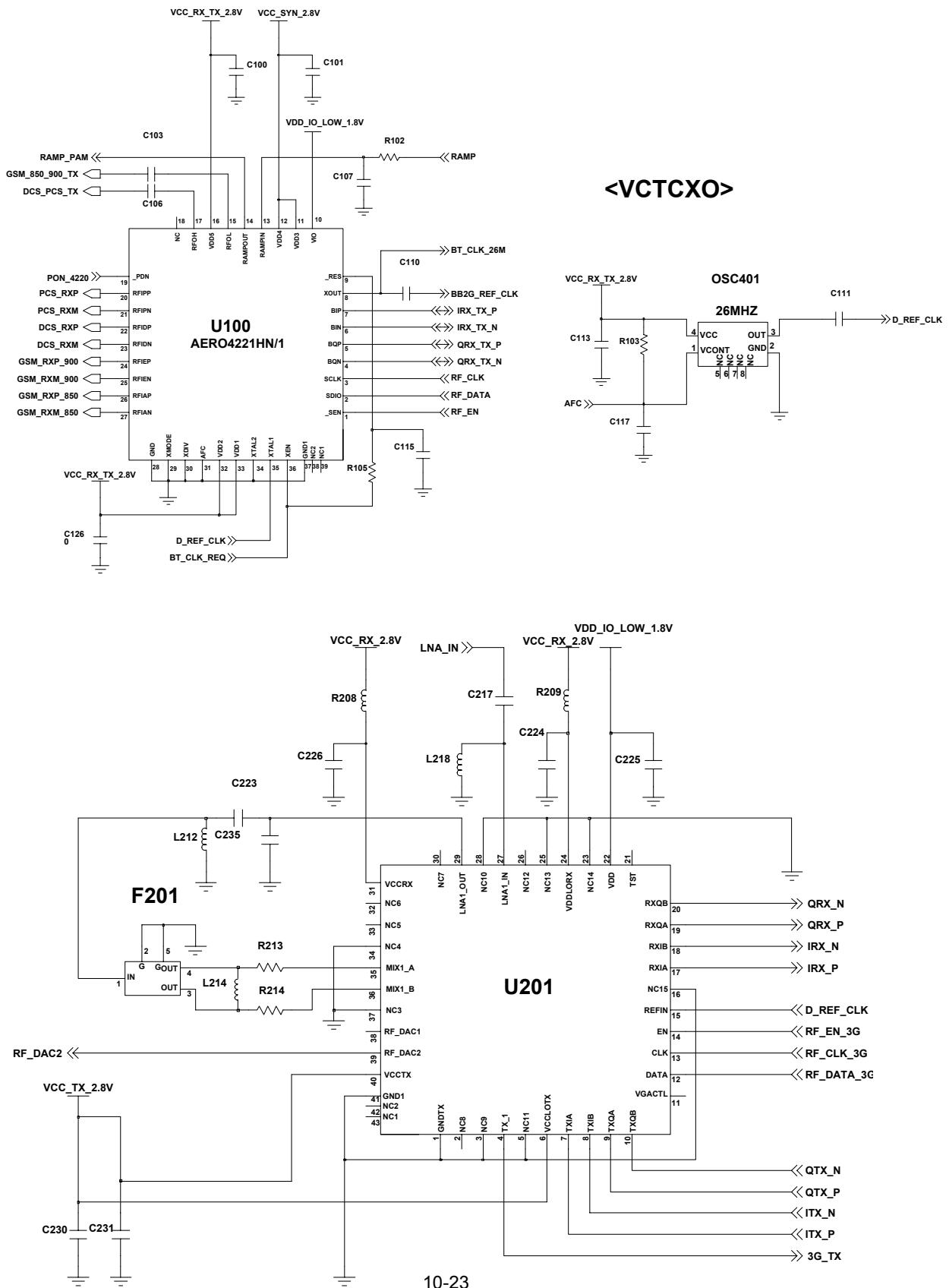


## 10-2-5. WCDMA2100 RX

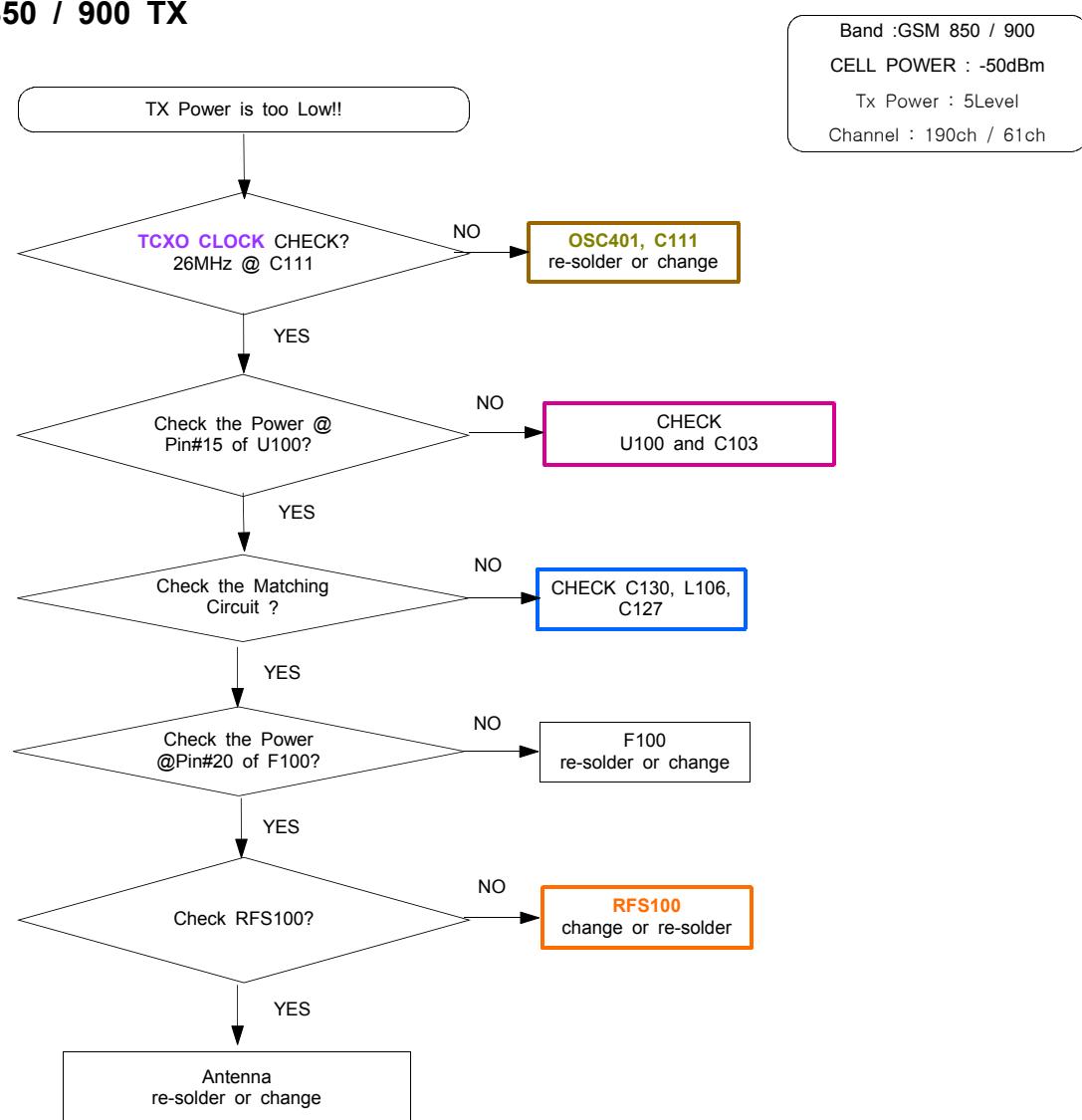


Flow Chart of Troubleshooting

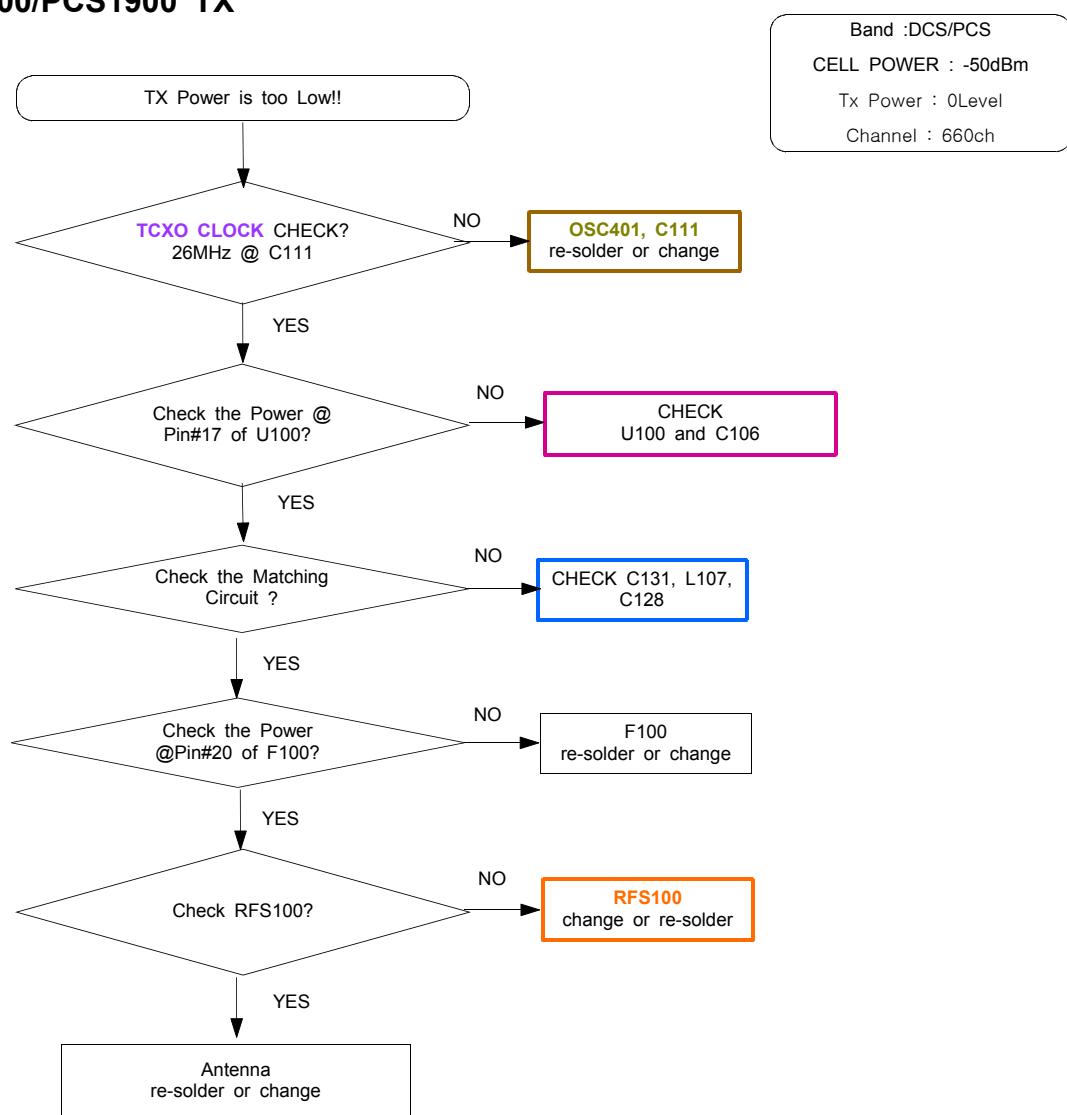




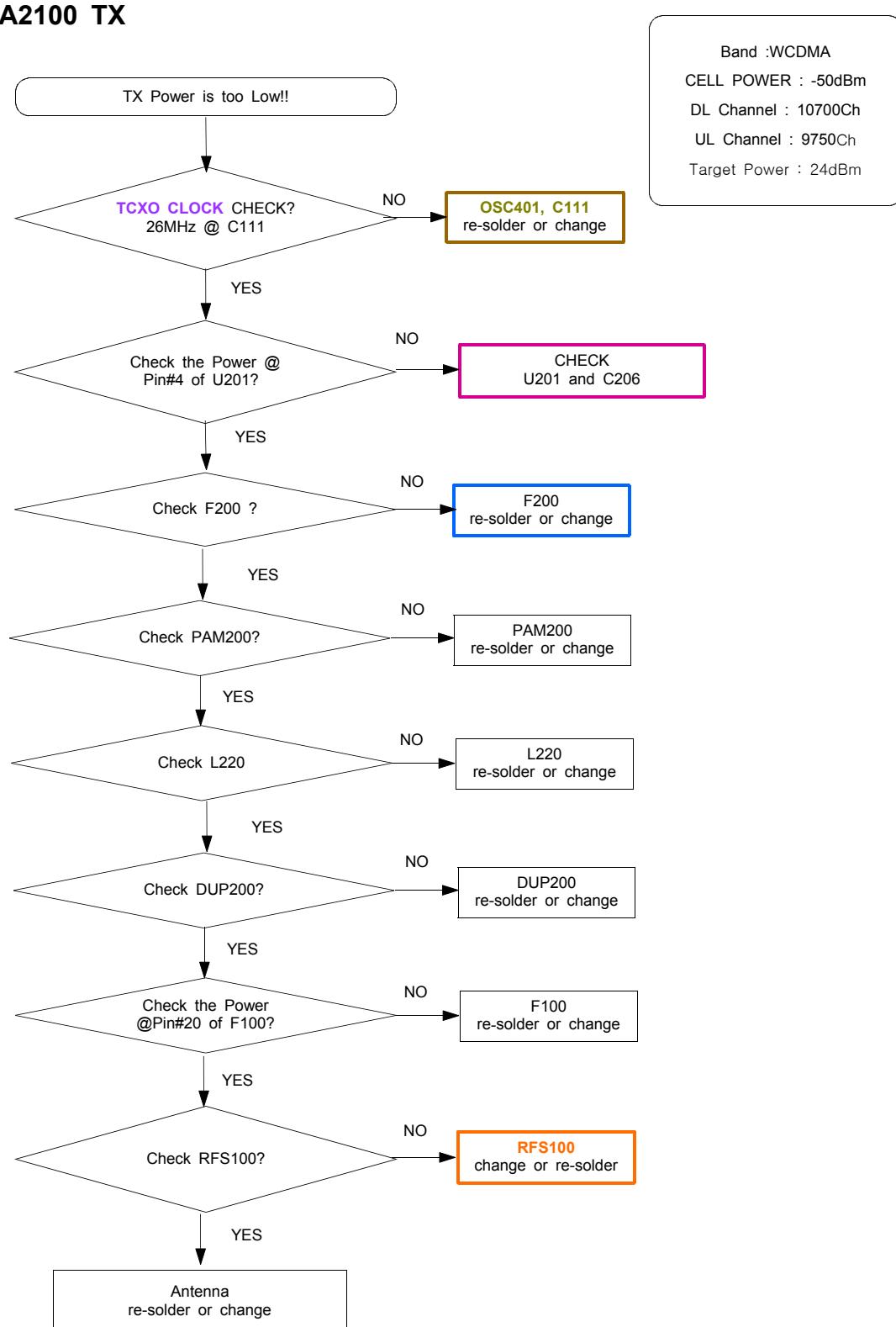
## 10-2-6. GSM 850 / 900 TX

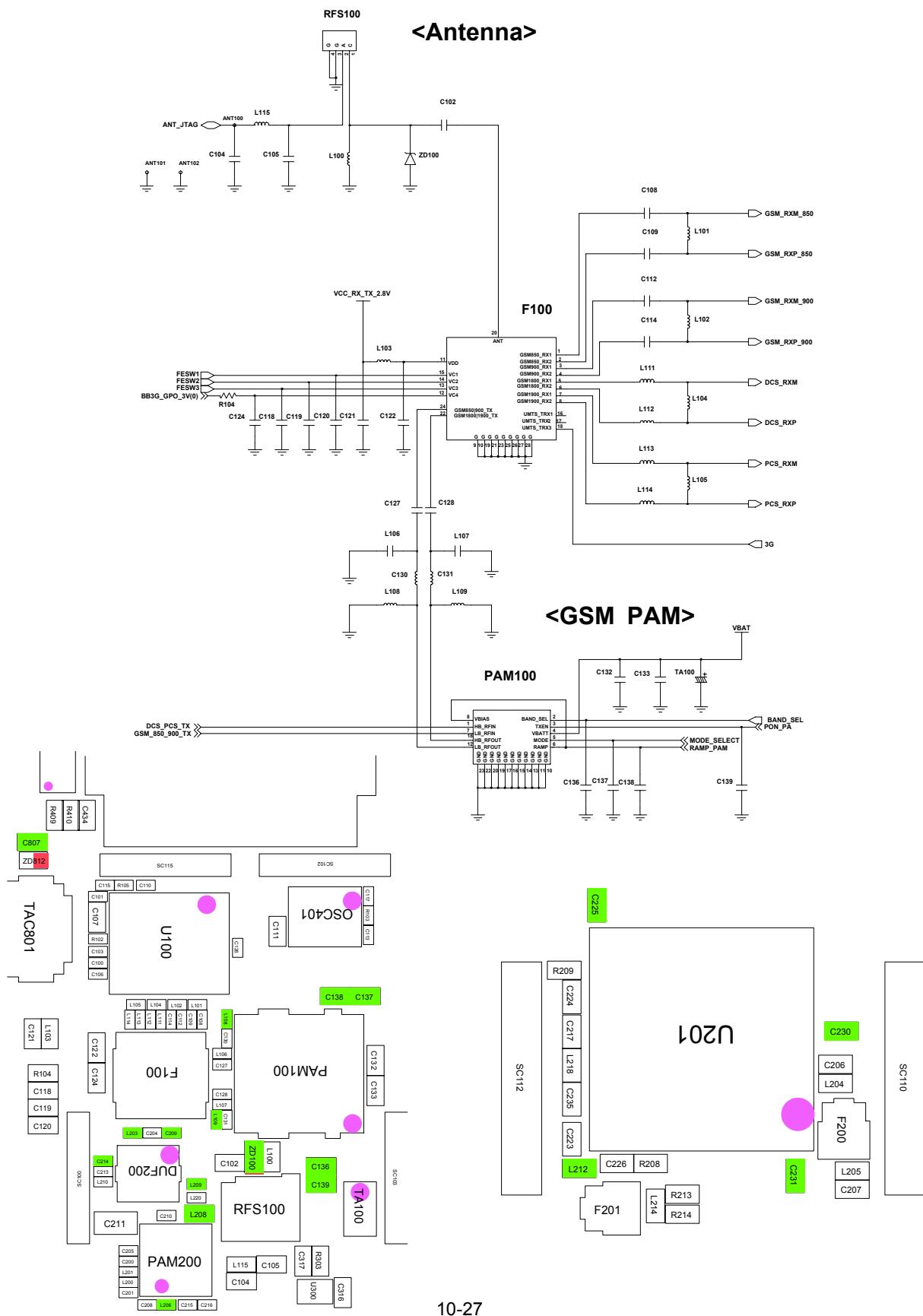


## 10-2-7. DCS1800/PCS1900 TX



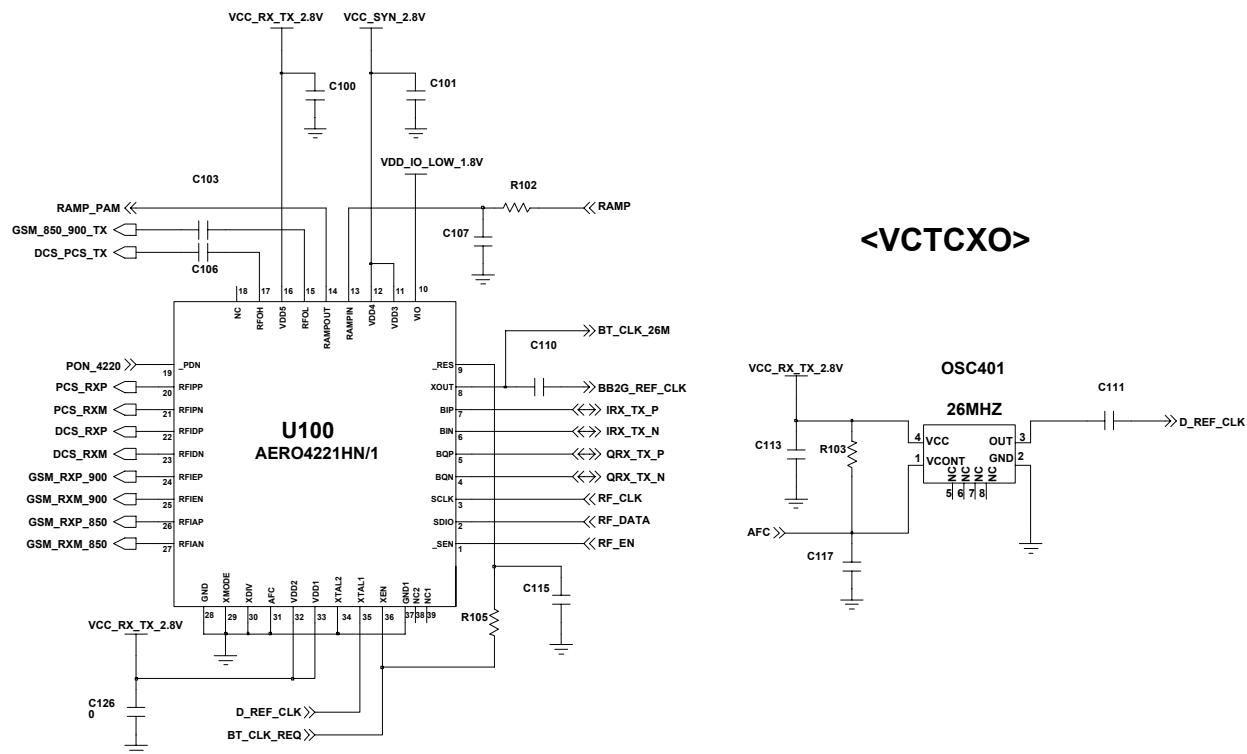
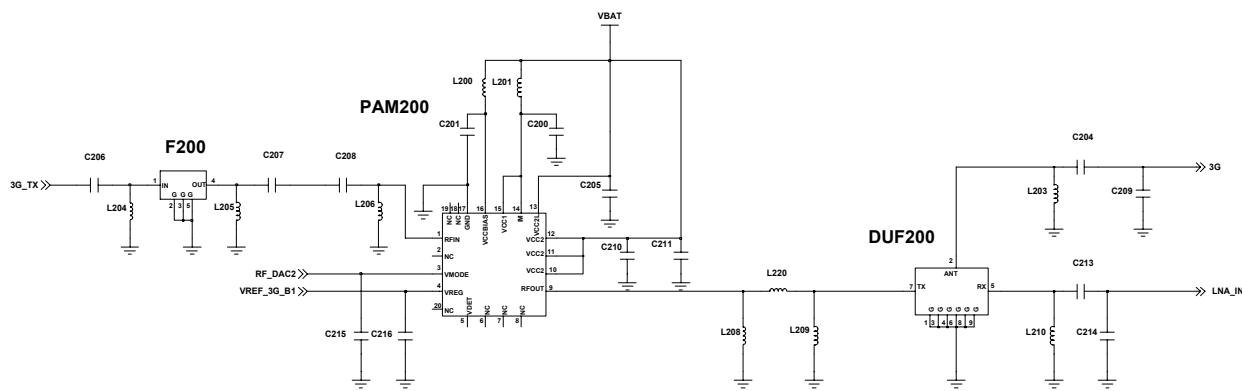
## 10-2-8. WCDMA2100 TX

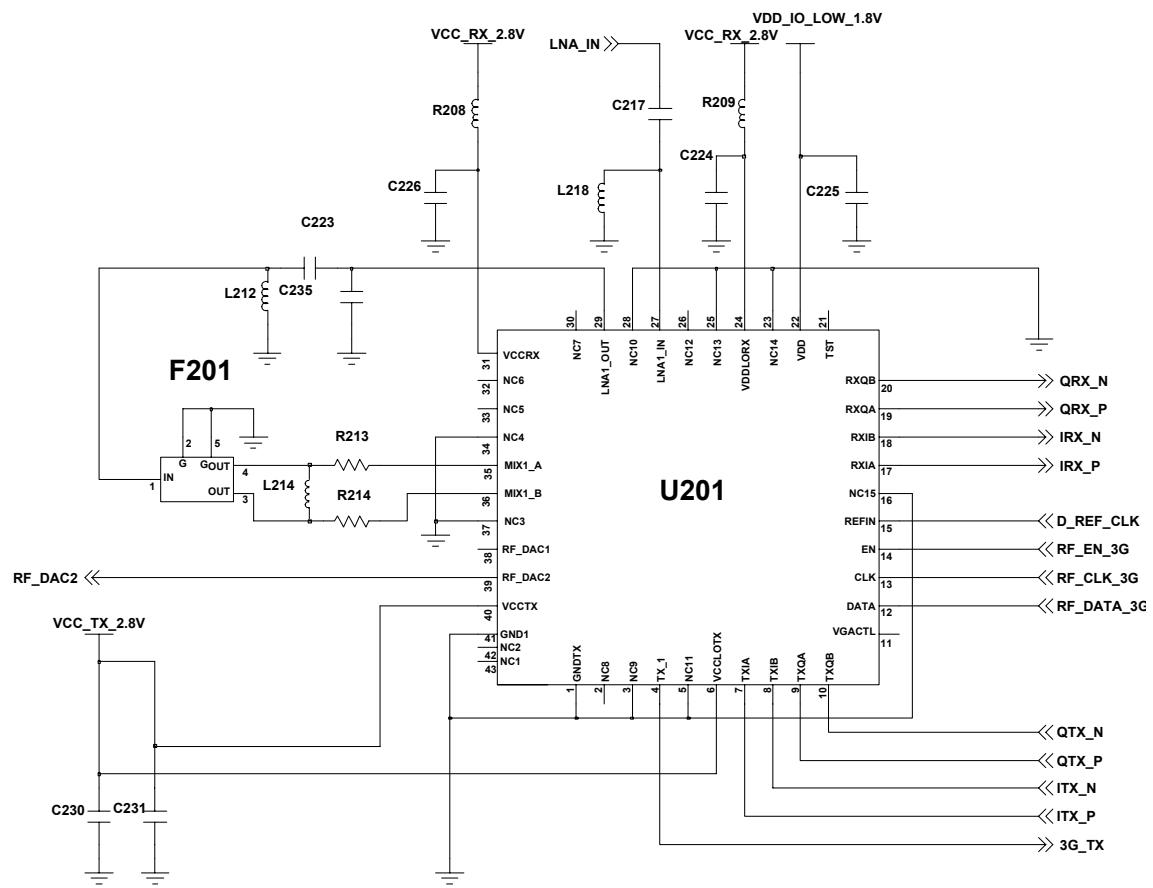


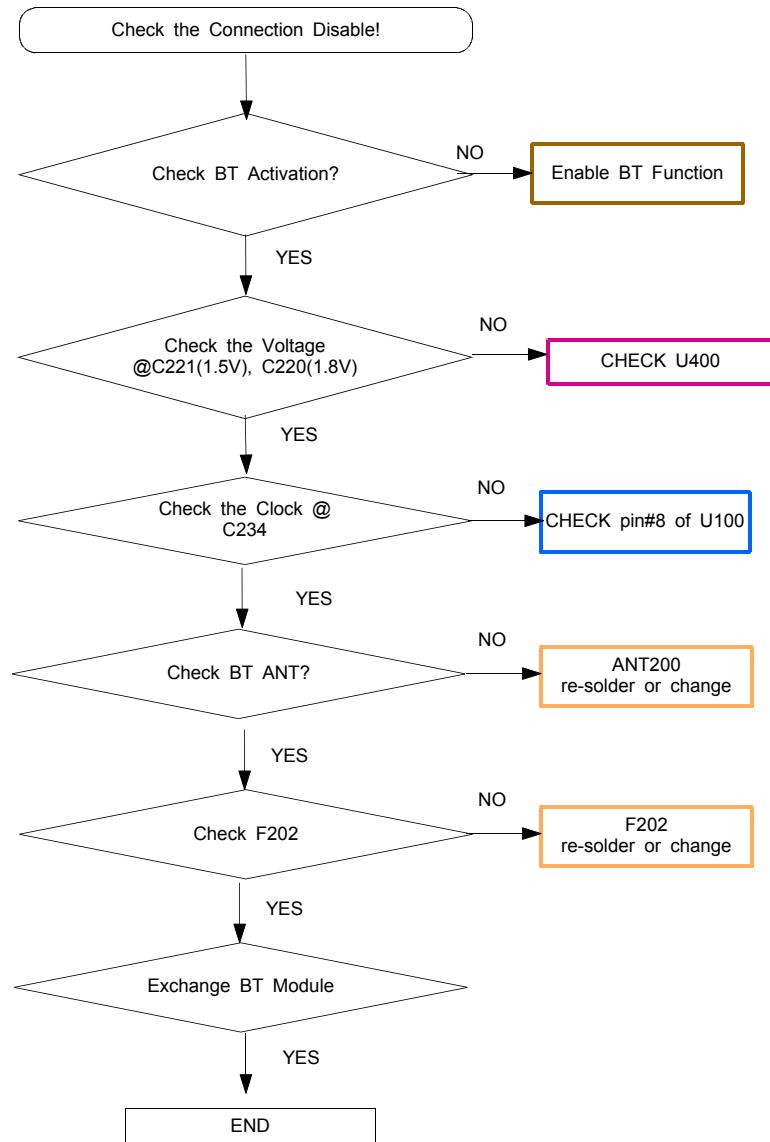


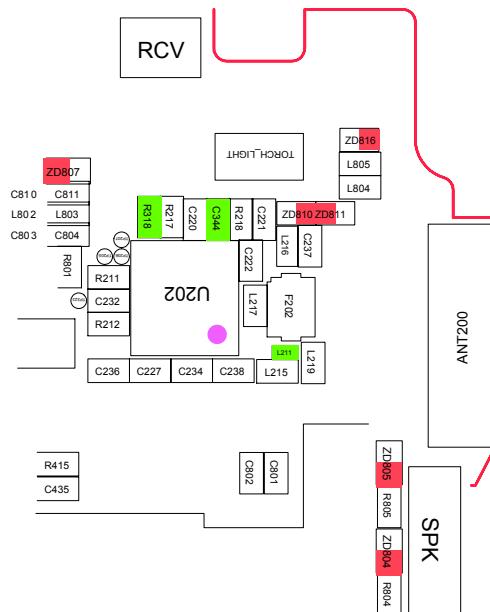
## Flow Chart of Troubleshooting

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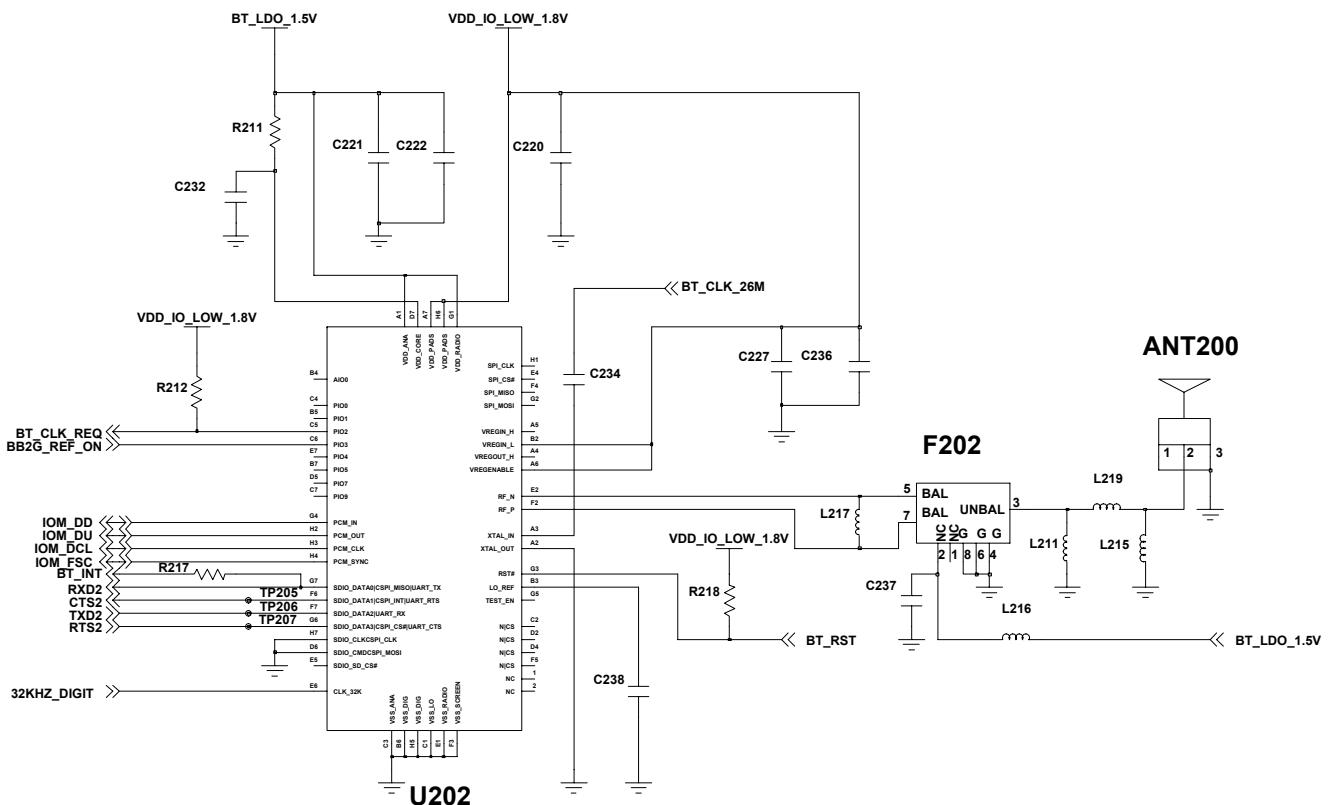




**10-2-9. Bluetooth Part**



## <BLUETOOTH>



## 4. Array course control

### 4-1. Software Adjustments



Test Jig (GH99-36900A)



Test Cable (GH39-01160A)



RF Test Cable (GH39-00985A)



RF Test Cable (GH99-38251A)

## Software Downloading

### 4-1. Downloading Binary Files

- Binary Version can be changed.

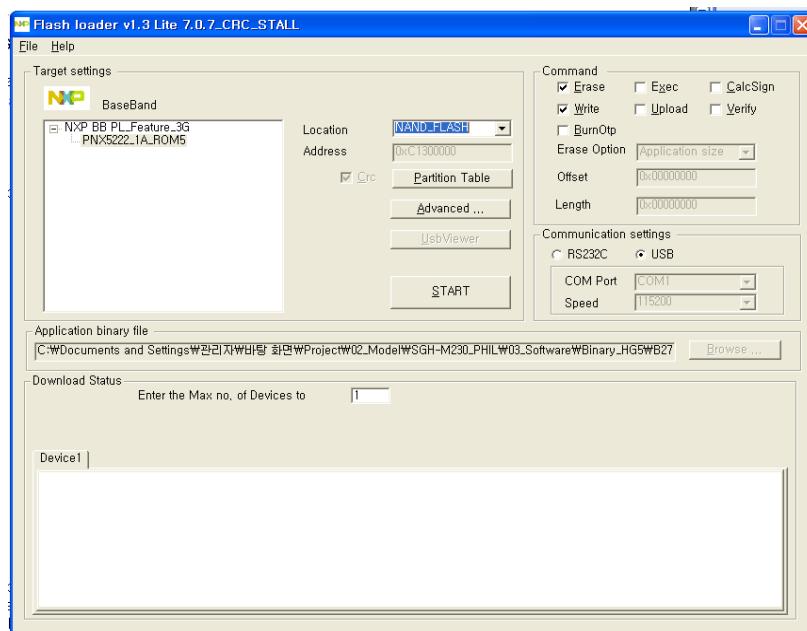
File	Comments
B2700XXHG5_Open_Europe_Common_Comp.ppt	Binary files

### 4-2. Pre-requisite for Downloading

- Downloader Program([Flash loader v1.3 Lite 7.0.7\\_CRC\\_STALL.exe](#))
- SAMSUNG B2700 Mobile Phone
- Data Cable
- ZIG Box(GH80-03306A)
- Binary files

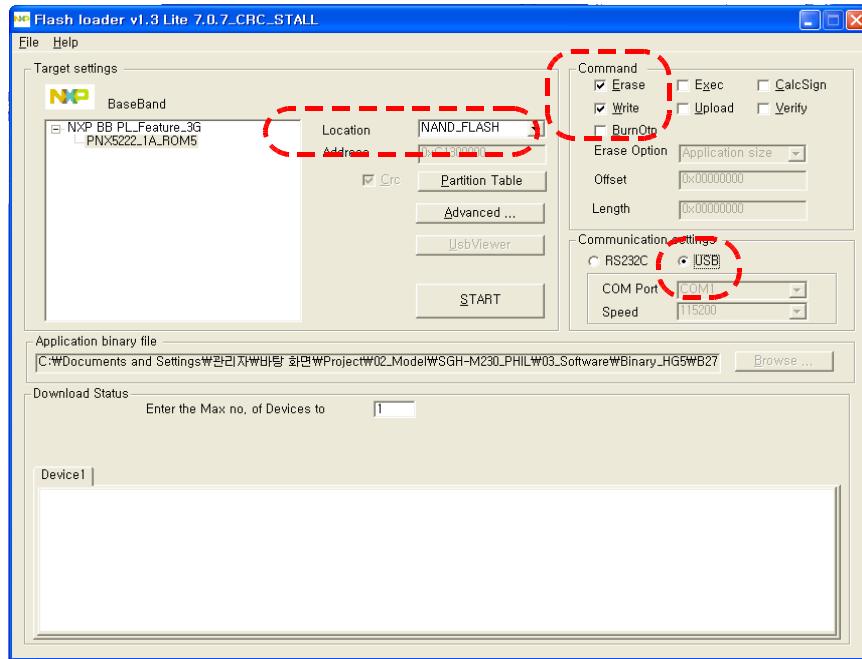
### 4-3. S/W Downloader Program

- Load the binary download program by executing the "[Flash loader v1.3 Lite 7.0.7\\_CRC\\_STALL.exe](#)".

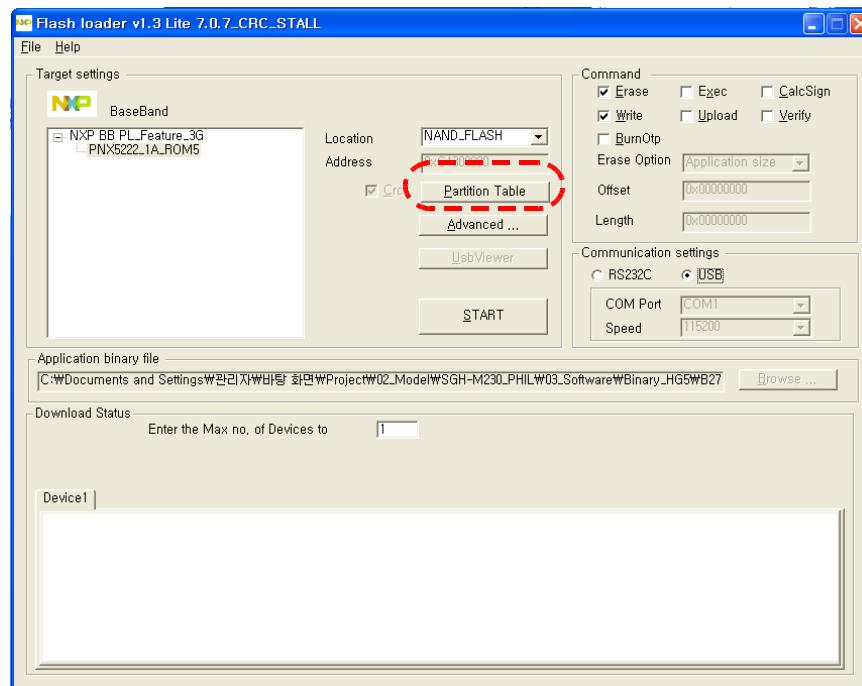


[Program main window]

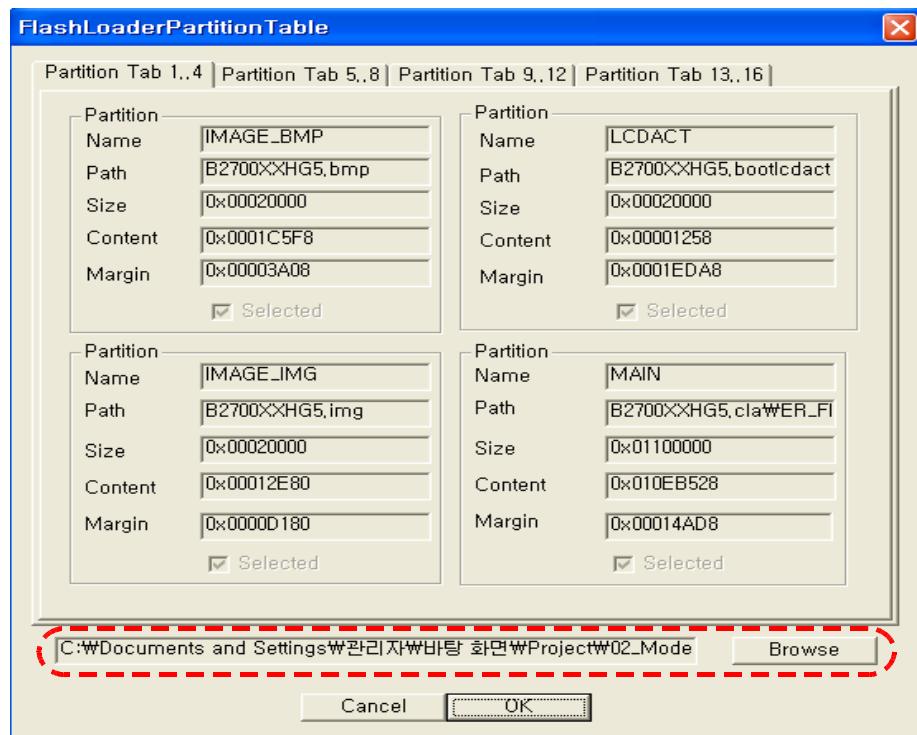
2. · Click "**NAND\_FLASH**" to select type of memory chip of SAMSUNG B2700 on the location menu.  
 · Check "**Erase and Write**" to select option on Command.  
 · Check "**USB**" on Communication Settings.



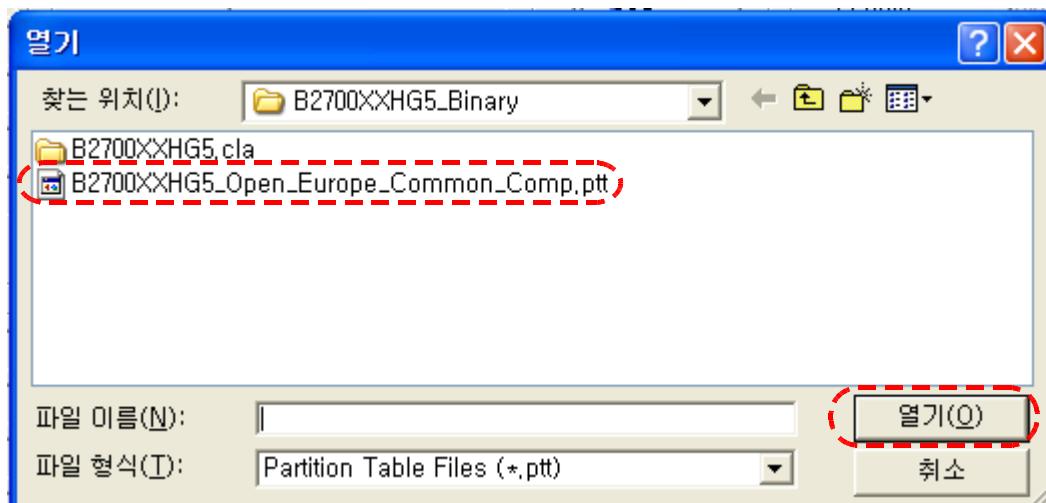
3. Click "**Partition Table**" to load Binary folder.



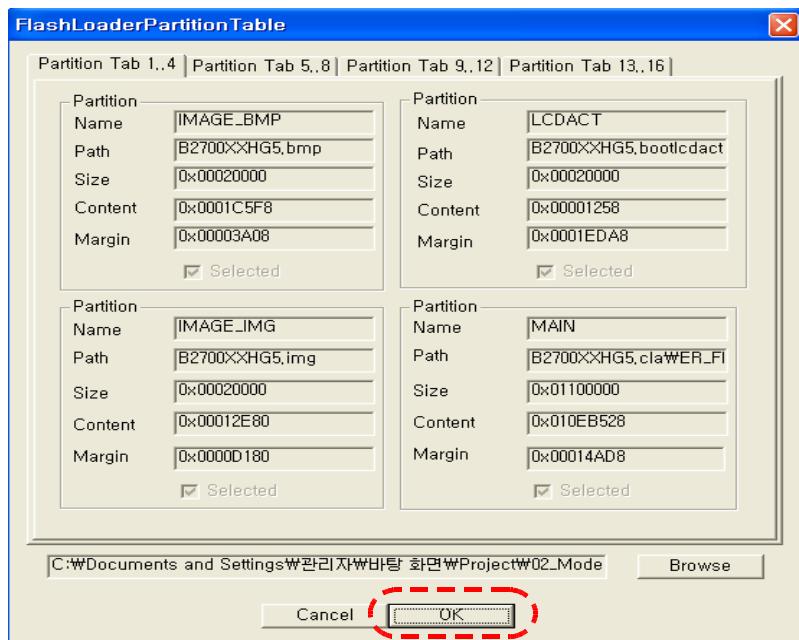
If the previous processes were successful, you can find new window as below.



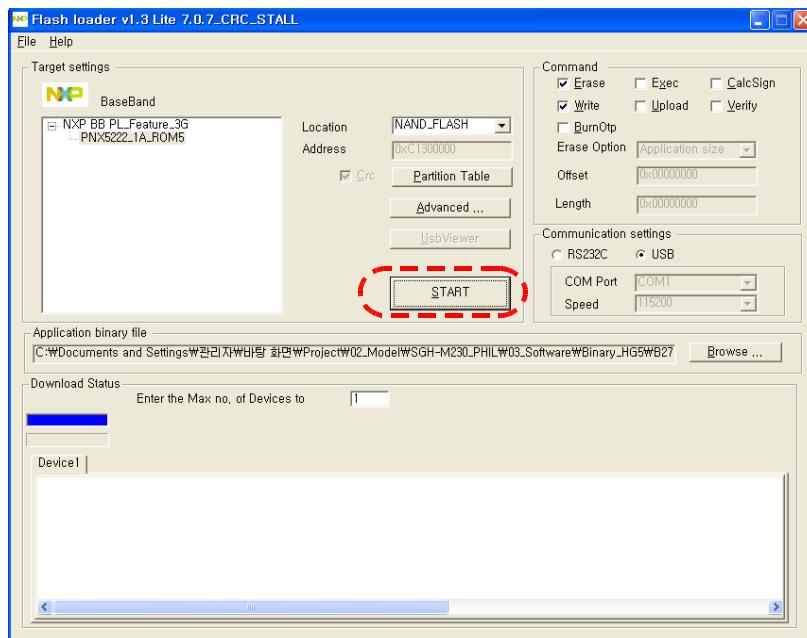
- Click "Browse" button to load Binary file.  
 Find a directory that binary files are saved.  
 Select ".ppt" file and click "열기(OPEN)"



5. If you choose the correct binary then press "OK".

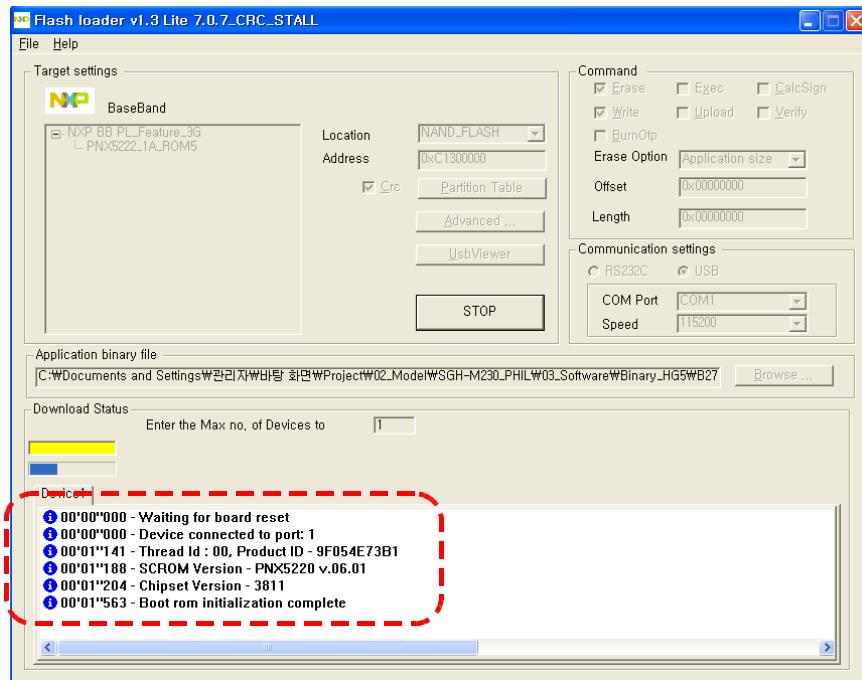


5 Press "START".

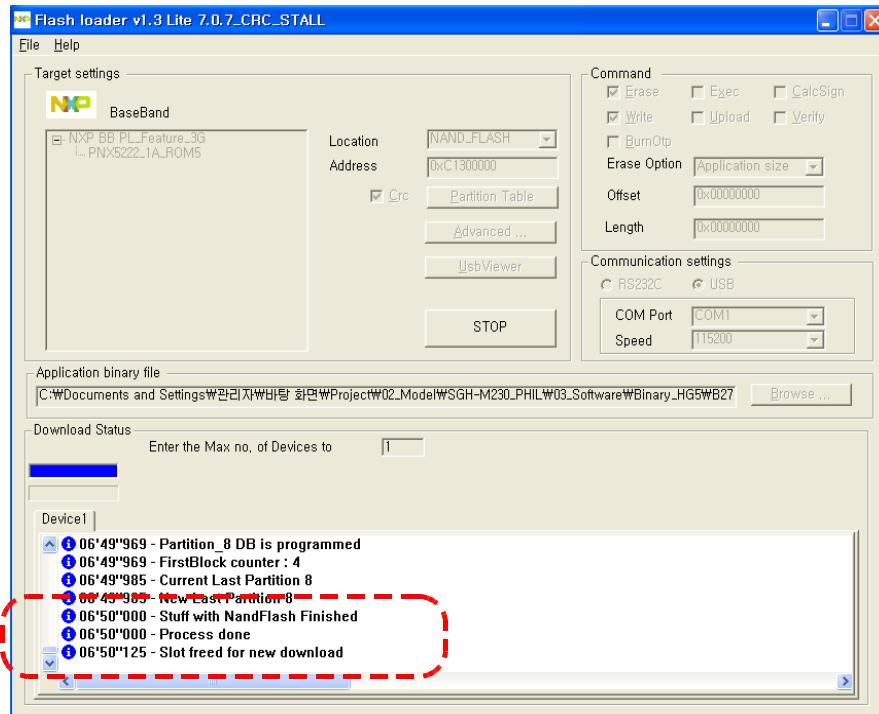


6. Connect **SAMSUNG B2700** mobile phone to computer via data cable.

And Press number keys at the same time "**1 and 7**" or "**Navi down key and Right soft key**". You must keep the this state until turn on the power of switch on a zig box then you find the message below.



7. If Binary is downloaded successively, you can find below message.



## 8. Recommendations

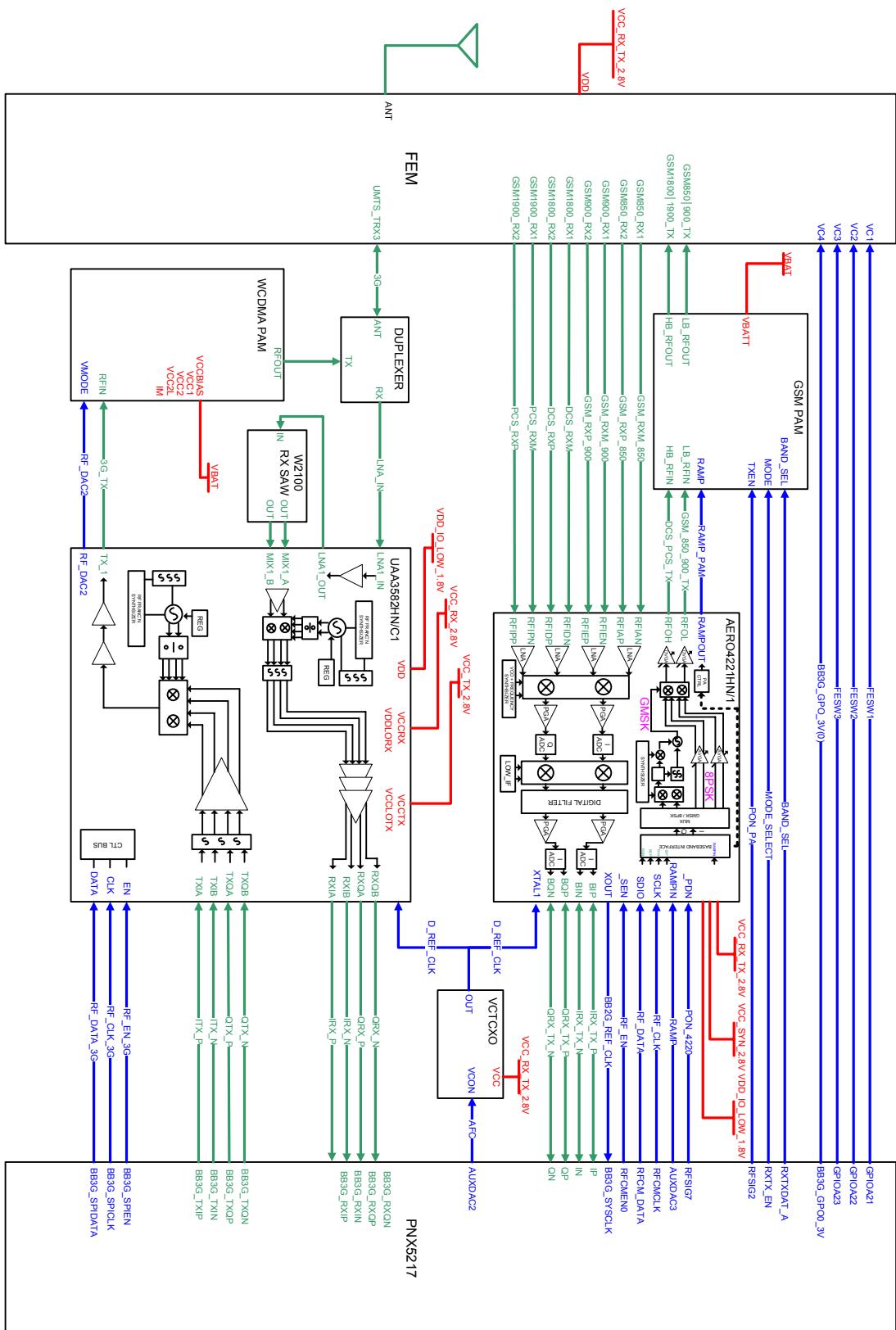
Don't touch the mobile phone while downloading to prevent disconnecting.  
Disconnection while downloading is critical to phone condition.  
Main PBA would be damaged by disconnection while downloading.

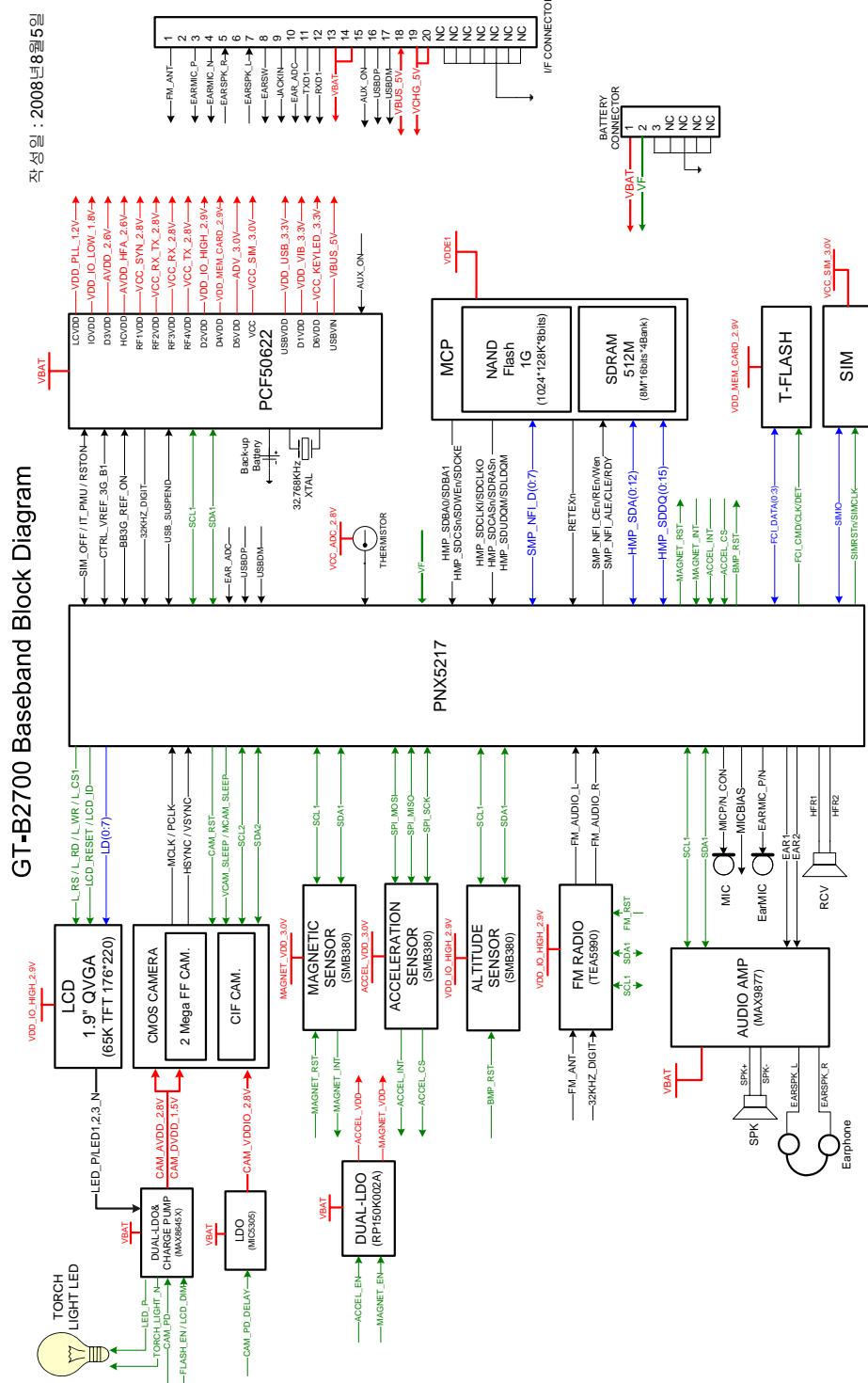
If all files are downloaded, it is recommended to do full reset.

**Full reset : \*2767\*3855#**

## 8. Block Diagrams

B2700 RF Block Diagram





## 6. MAIN Electrical Parts List

SEC CODE	Design LOC	Description
0403-001547	ZD604	DIODE-ZENER
0404-001250	D300	DIODE-SCHOTTKY
0404-001250	D301	DIODE-SCHOTTKY
0406-001208	ZD605	DIODE-TVS
0406-001208	ZD606	DIODE-TVS
0406-001208	ZD803	DIODE-TVS
0406-001254	ZD800	DIODE-TVS
0406-001254	ZD801	DIODE-TVS
0406-001254	ZD804	DIODE-TVS
0406-001254	ZD805	DIODE-TVS
0406-001254	ZD806	DIODE-TVS
0406-001254	ZD807	DIODE-TVS
0406-001267	ZD600	DIODE-TVS
0406-001267	ZD603	DIODE-TVS
0406-001281	VR701	DIODE-TVS
0406-001281	VR703	DIODE-TVS
0406-001281	VR704	DIODE-TVS
0406-001281	VR705	DIODE-TVS
0406-001281	ZD601	DIODE-TVS
0406-001281	ZD602	DIODE-TVS
0406-001281	ZD810	DIODE-TVS
0406-001281	ZD811	DIODE-TVS
0406-001281	ZD812	DIODE-TVS
0406-001281	ZD813	DIODE-TVS
0406-001281	ZD814	DIODE-TVS
0406-001281	ZD815	DIODE-TVS
0406-001281	ZD816	DIODE-TVS
0406-001306	ZD400	DIODE-TVS
0406-001306	ZD401	DIODE-TVS
0407-001002	D800	DIODE-ARRAY
1108-000157	UME300	IC-MCP
1201-002423	PAM100	IC-POWER AMP
1201-002461	PAM200	IC-POWER AMP
1201-002733	U500	IC-AUDIO AMP
1203-004358	U700	IC-DC/DC CONVERTER
1203-004571	U602	IC-MULTI REG.
1203-005254	U400	IC-POWER SUPERVISOR

SEC CODE	Design LOC	Description
1203-005362	U701	IC-POSI.FIXED REG.
1203-005408	U200	IC-DC/DC CONVERTER
1204-002906	U101	IC-DEMODULATOR
1205-003283	U100	IC-TRANSCEIVER
1205-003494	U201	IC-TRANSCEIVER
1205-003517	U202	IC-BLUETOOTH
1205-003601	UCP300	IC-MODEM
1209-001712	U300	IC-SENSOR
1209-001766	U600	IC-SENSOR
1209-001818	U603	IC-SENSOR
1209-001819	U601	IC-SENSOR
1405-001177	VR700	VARISTOR
1405-001177	VR702	VARISTOR
2007-000140	R104	R-CHIP
2007-000140	R308	R-CHIP
2007-000140	R500	R-CHIP
2007-000140	R505	R-CHIP
2007-000140	R508	R-CHIP
2007-000140	R511	R-CHIP
2007-000143	R411	R-CHIP
2007-000144	R700	R-CHIP
2007-000146	R701	R-CHIP
2007-000148	R306	R-CHIP
2007-000148	R310	R-CHIP
2007-000148	R322	R-CHIP
2007-000148	R415	R-CHIP
2007-000148	R601	R-CHIP
2007-000148	R606	R-CHIP
2007-000148	R703	R-CHIP
2007-000148	R708	R-CHIP
2007-000148	R709	R-CHIP
2007-000149	R311	R-CHIP
2007-000152	R612	R-CHIP
2007-000157	R218	R-CHIP
2007-000159	R409	R-CHIP
2007-000159	R410	R-CHIP
2007-000159	R412	R-CHIP

SEC CODE	Design LOC	Description
2007-000159	R413	R-CHIP
2007-000162	R403	R-CHIP
2007-000162	R600	R-CHIP
2007-000162	R602	R-CHIP
2007-000171	R217	R-CHIP
2007-000171	R309	R-CHIP
2007-000171	R320	R-CHIP
2007-000171	R324	R-CHIP
2007-000171	R325	R-CHIP
2007-000171	R408	R-CHIP
2007-000171	R414	R-CHIP
2007-000171	R800	R-CHIP
2007-000171	R801	R-CHIP
2007-000171	R804	R-CHIP
2007-000171	R805	R-CHIP
2007-000566	R613	R-CHIP
2007-000758	R212	R-CHIP
2007-000758	R611	R-CHIP
2007-000775	R323	R-CHIP
2007-001292	R609	R-CHIP
2007-001292	R610	R-CHIP
2007-001319	R314	R-CHIP
2007-001319	R315	R-CHIP
2007-001319	R316	R-CHIP
2007-001319	R317	R-CHIP
2007-001339	R603	R-CHIP
2007-002965	R604	R-CHIP
2007-002965	R605	R-CHIP
2007-003015	R211	R-CHIP
2007-007090	R405	R-CHIP
2007-007133	R326	R-CHIP
2007-007586	R303	R-CHIP
2007-008048	R607	R-CHIP
2007-008048	R608	R-CHIP
2007-008052	R105	R-CHIP
2007-008056	R102	R-CHIP
2007-008419	R502	R-CHIP

SEC CODE	Design LOC	Description
2007-008419	R504	R-CHIP
2007-008419	R509	R-CHIP
2007-008419	R510	R-CHIP
2007-008542	R213	R-CHIP
2007-008542	R214	R-CHIP
2007-008542	R307	R-CHIP
2007-008816	R103	R-CHIP
2007-009208	R506	R-CHIP
2007-009208	R507	R-CHIP
2203-000233	C124	C-CER,CHIP
2203-000233	C339	C-CER,CHIP
2203-000254	C220	C-CER,CHIP
2203-000254	C238	C-CER,CHIP
2203-000254	C333	C-CER,CHIP
2203-000254	C421	C-CER,CHIP
2203-000254	C703	C-CER,CHIP
2203-000278	C132	C-CER,CHIP
2203-000278	C515	C-CER,CHIP
2203-000278	C516	C-CER,CHIP
2203-000386	C222	C-CER,CHIP
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2203-000425	C427	C-CER,CHIP
2203-000425	C810	C-CER,CHIP
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2203-000438	C111	C-CER,CHIP
2203-000438	C234	C-CER,CHIP
2203-000550	C202	C-CER,CHIP
2203-000550	C203	C-CER,CHIP
2203-000550	C239	C-CER,CHIP
2203-000812	C102	C-CER,CHIP
2203-000812	C118	C-CER,CHIP
2203-000812	C119	C-CER,CHIP
2203-000812	C120	C-CER,CHIP
2203-000812	C122	C-CER,CHIP
2203-000812	C514	C-CER,CHIP

SEC CODE	Design LOC	Description
2203-000812	C600	C-CER,CHIP
2203-000812	C601	C-CER,CHIP
2203-000812	C606	C-CER,CHIP
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2203-000812	C801	C-CER,CHIP
2203-000812	C802	C-CER,CHIP
2203-000812	C803	C-CER,CHIP
2203-000812	C804	C-CER,CHIP
2203-000870	C237	C-CER,CHIP
2203-000995	C805	C-CER,CHIP
2203-001221	C107	C-CER,CHIP
2203-001259	C347	C-CER,CHIP
2203-001259	C348	C-CER,CHIP
2203-002677	C104	C-CER,CHIP
2203-002709	C121	C-CER,CHIP
2203-002709	C133	C-CER,CHIP
2203-002709	C334	C-CER,CHIP
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2203-002709	C336	C-CER,CHIP
2203-002709	C337	C-CER,CHIP
2203-002709	C343	C-CER,CHIP
2203-002709	C419	C-CER,CHIP
2203-002709	C420	C-CER,CHIP
2203-002709	C422	C-CER,CHIP
2203-005281	C105	C-CER,CHIP
2203-005344	C221	C-CER,CHIP
2203-005344	C512	C-CER,CHIP
2203-005344	C513	C-CER,CHIP
2203-005481	C227	C-CER,CHIP
2203-005682	C103	C-CER,CHIP
2203-005682	C128	C-CER,CHIP
2203-005682	C204	C-CER,CHIP
2203-005682	C208	C-CER,CHIP
2203-005682	C223	C-CER,CHIP
2203-005729	C706	C-CER,CHIP
2203-005732	C127	C-CER,CHIP
2203-005736	C117	C-CER,CHIP

SEC CODE	Design LOC	Description
2203-005777	C112	C-CER,CHIP
2203-005777	C114	C-CER,CHIP
2203-005789	L107	C-CER,CHIP
2203-005792	C108	C-CER,CHIP
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2203-005806	C200	C-CER,CHIP
2203-005806	C201	C-CER,CHIP
2203-005806	C205	C-CER,CHIP
2203-005806	C210	C-CER,CHIP
2203-005806	C215	C-CER,CHIP
2203-005806	C216	C-CER,CHIP
2203-006048	C300	C-CER,CHIP
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2203-006048	C302	C-CER,CHIP
2203-006048	C303	C-CER,CHIP
2203-006048	C304	C-CER,CHIP
2203-006048	C305	C-CER,CHIP
2203-006048	C306	C-CER,CHIP
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2203-006048	C314	C-CER,CHIP
2203-006048	C315	C-CER,CHIP
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2203-006048	C317	C-CER,CHIP
2203-006048	C318	C-CER,CHIP
2203-006048	C319	C-CER,CHIP
2203-006048	C320	C-CER,CHIP
2203-006048	C321	C-CER,CHIP
2203-006048	C327	C-CER,CHIP
2203-006048	C329	C-CER,CHIP
2203-006048	C330	C-CER,CHIP
2203-006048	C405	C-CER,CHIP

SEC CODE	Design LOC	Description
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2203-006048	C505	C-CER,CHIP
2203-006048	C605	C-CER,CHIP
2203-006048	C708	C-CER,CHIP
2203-006048	C800	C-CER,CHIP
2203-006183	C603	C-CER,CHIP
2203-006187	C206	C-CER,CHIP
2203-006257	C400	C-CER,CHIP
2203-006257	C401	C-CER,CHIP
2203-006257	C402	C-CER,CHIP
2203-006257	C403	C-CER,CHIP
2203-006257	C404	C-CER,CHIP
2203-006257	C406	C-CER,CHIP
2203-006257	C408	C-CER,CHIP
2203-006257	C411	C-CER,CHIP
2203-006257	C417	C-CER,CHIP
2203-006260	C322	C-CER,CHIP
2203-006260	C323	C-CER,CHIP
2203-006260	C324	C-CER,CHIP
2203-006260	C325	C-CER,CHIP
2203-006260	C326	C-CER,CHIP
2203-006260	C328	C-CER,CHIP
2203-006260	C433	C-CER,CHIP
2203-006260	C508	C-CER,CHIP
2203-006260	C511	C-CER,CHIP
2203-006305	C100	C-CER,CHIP
2203-006305	C106	C-CER,CHIP
2203-006305	C110	C-CER,CHIP
2203-006305	C224	C-CER,CHIP
2203-006305	C226	C-CER,CHIP
2203-006318	L106	C-CER,CHIP
2203-006324	C602	C-CER,CHIP
2203-006324	C604	C-CER,CHIP
2203-006324	C711	C-CER,CHIP
2203-006324	C712	C-CER,CHIP
2203-006361	C409	C-CER,CHIP

SEC CODE	Design LOC	Description
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2203-006361	C423	C-CER,CHIP
2203-006361	C431	C-CER,CHIP
2203-006423	C504	C-CER,CHIP
2203-006423	C522	C-CER,CHIP
2203-006423	C525	C-CER,CHIP
2203-006423	C527	C-CER,CHIP
2203-006474	C342	C-CER,CHIP
2203-006474	C429	C-CER,CHIP
2203-006474	C430	C-CER,CHIP
2203-006562	C426	C-CER,CHIP
2203-006562	C434	C-CER,CHIP
2203-006562	C506	C-CER,CHIP
2203-006562	C517	C-CER,CHIP
2203-006562	C518	C-CER,CHIP
2203-006562	C519	C-CER,CHIP
2203-006562	C608	C-CER,CHIP
2203-006562	C609	C-CER,CHIP
2203-006562	C610	C-CER,CHIP
2203-006562	C611	C-CER,CHIP
2203-006562	C707	C-CER,CHIP
2203-006604	C217	C-CER,CHIP
2203-006665	C213	C-CER,CHIP
2203-006681	C134	C-CER,CHIP
2203-006681	C135	C-CER,CHIP
2203-006707	C207	C-CER,CHIP
2203-006824	C211	C-CER,CHIP
2203-006824	C413	C-CER,CHIP
2203-006824	C414	C-CER,CHIP
2203-006824	C415	C-CER,CHIP
2203-006824	C416	C-CER,CHIP
2203-006825	C412	C-CER,CHIP
2203-006838	C232	C-CER,CHIP
2203-006838	C236	C-CER,CHIP
2203-006839	C101	C-CER,CHIP
2203-006839	C113	C-CER,CHIP
2203-006839	C115	C-CER,CHIP

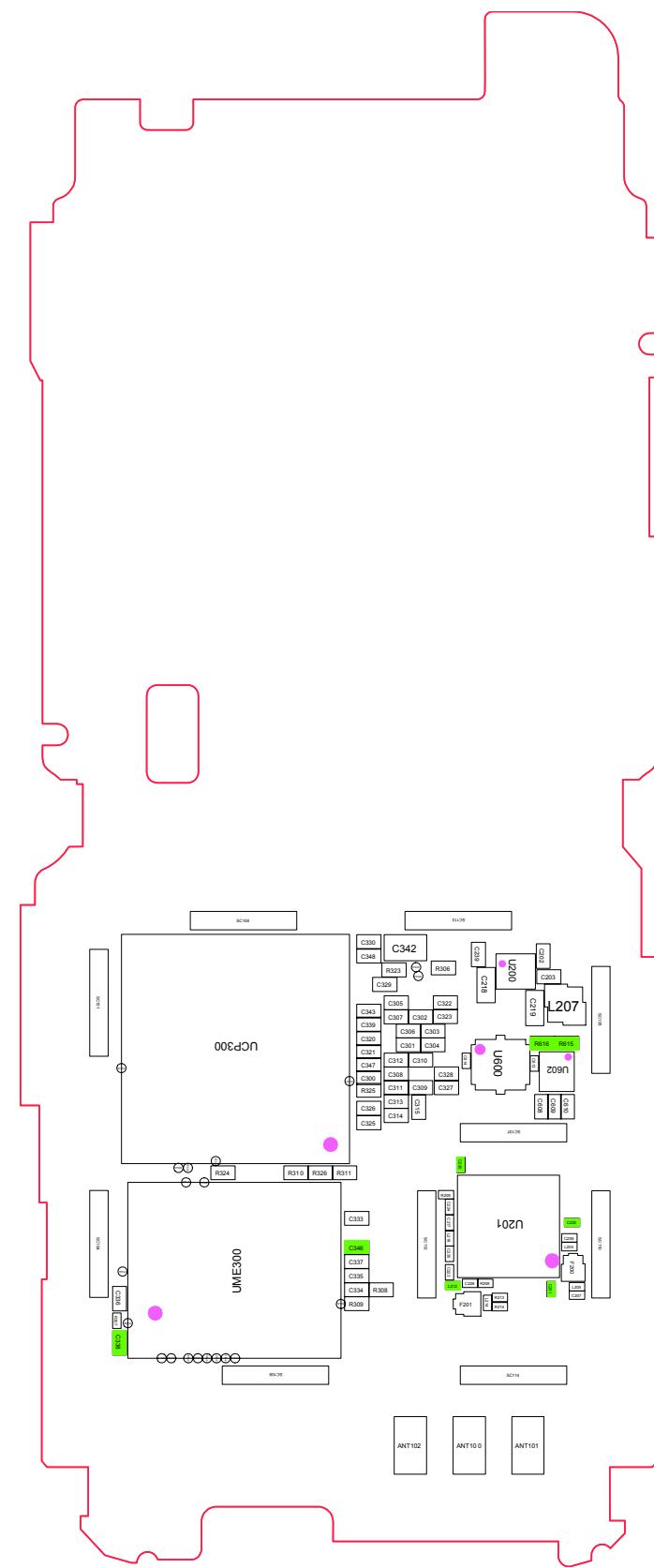
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2203-006839	C612	C-CER,CHIP
2203-006839	C613	C-CER,CHIP
2203-006839	C614	C-CER,CHIP
2203-006839	C615	C-CER,CHIP
2203-006841	C424	C-CER,CHIP
2203-006841	C700	C-CER,CHIP
2203-006841	C701	C-CER,CHIP
2203-006841	C704	C-CER,CHIP
2203-006841	C705	C-CER,CHIP
2203-006901	C425	C-CER,CHIP
2203-007165	C407	C-CER,CHIP
2203-007170	C235	C-CER,CHIP
2203-007195	C702	C-CER,CHIP
2203-007195	C716	C-CER,CHIP
2203-007270	C218	C-CER,CHIP
2203-007270	C219	C-CER,CHIP
2203-007270	C534	C-CER,CHIP
2404-001381	TA600	C-TA,CHIP
2404-001381	TA800	C-TA,CHIP
2404-001411	TA100	C-TA,CHIP
2404-001465	TA501	C-TA,CHIP
2404-001465	TA502	C-TA,CHIP
2703-002155	L100	INDUCTOR-SMD
2703-002198	L217	INDUCTOR-SMD
2703-002201	L804	INDUCTOR-SMD
2703-002201	L805	INDUCTOR-SMD
2703-002203	L103	INDUCTOR-SMD
2703-002207	L215	INDUCTOR-SMD
2703-002267	L115	INDUCTOR-SMD
2703-002313	L600	INDUCTOR-SMD
2703-002365	L219	INDUCTOR-SMD
2703-002593	L216	INDUCTOR-SMD
2703-002793	L204	INDUCTOR-SMD
2703-002793	L210	INDUCTOR-SMD
2703-002798	C131	INDUCTOR-SMD
2703-002798	L220	INDUCTOR-SMD

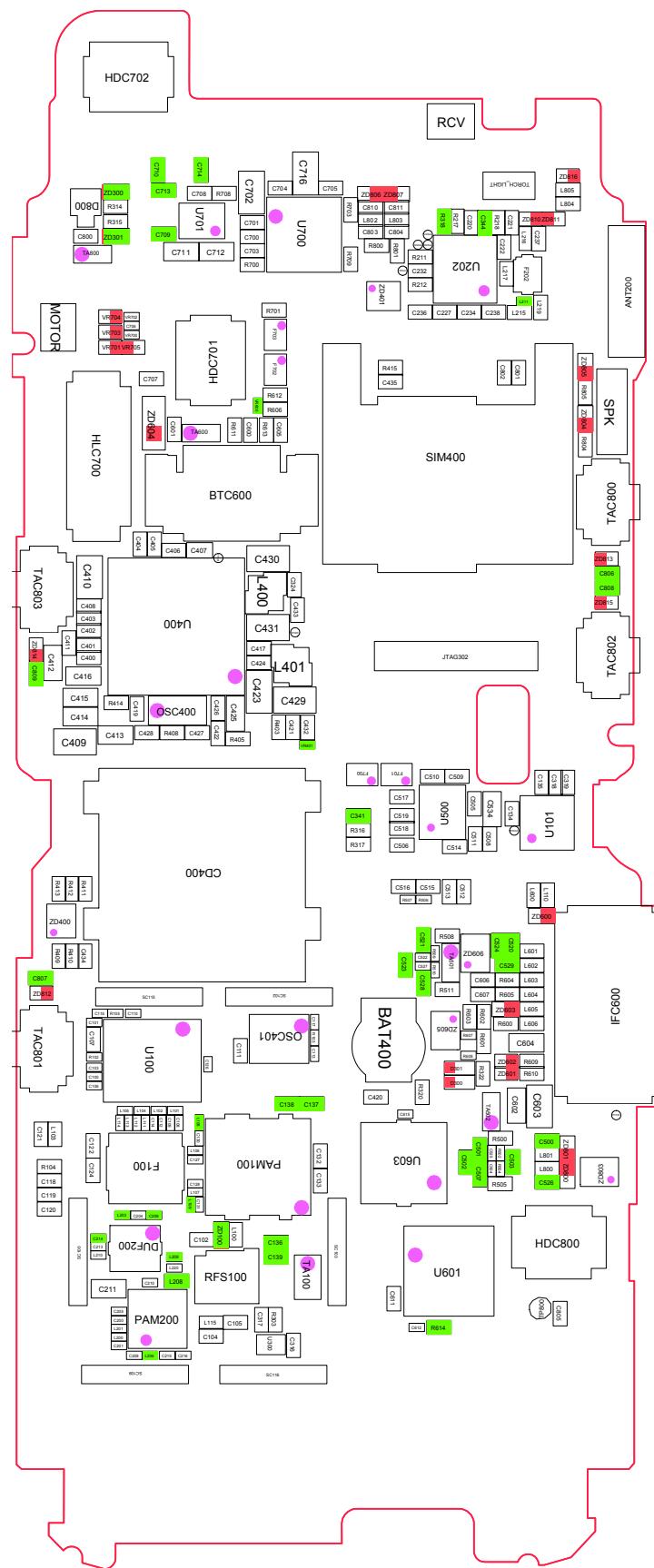
SEC CODE	Design LOC	Description
2703-002840	L400	INDUCTOR-SMD
2703-002858	L205	INDUCTOR-SMD
2703-002900	L101	INDUCTOR-SMD
2703-002900	L102	INDUCTOR-SMD
2703-002900	L105	INDUCTOR-SMD
2703-002903	L111	INDUCTOR-SMD
2703-002903	L112	INDUCTOR-SMD
2703-002906	L218	INDUCTOR-SMD
2703-002907	L113	INDUCTOR-SMD
2703-002907	L114	INDUCTOR-SMD
2703-002907	L200	INDUCTOR-SMD
2703-002907	L201	INDUCTOR-SMD
2703-002955	L104	INDUCTOR-SMD
2703-002961	R208	INDUCTOR-SMD
2703-002961	R209	INDUCTOR-SMD
2703-003003	C130	INDUCTOR-SMD
2703-003113	L207	INDUCTOR-SMD
2703-003127	L214	INDUCTOR-SMD
2703-003194	L401	INDUCTOR-SMD
2801-004466	OSC400	CRYSTAL-SMD
2809-001315	OSC401	OSCILLATOR-VCTCXO
2901-001418	F700	FILTER-EMI/ESD
2901-001418	F701	FILTER-EMI/ESD
2901-001469	F702	FILTER-EMI/ESD
2901-001469	F703	FILTER-EMI/ESD
2904-001756	F201	FILTER-SAW
2904-001789	F200	FILTER-SAW
2909-001283	F202	FILTER-LC
2910-000024	DUF200	DUPLEXER-SAW
2911-000096	F100	DUPLEXER-FEM
3301-001438	L800	BEAD-SMD
3301-001438	L801	BEAD-SMD
3301-001787	L601	CORE-FERRITE BEAD
3301-001787	L602	CORE-FERRITE BEAD
3301-001787	L603	CORE-FERRITE BEAD
3301-001787	L604	CORE-FERRITE BEAD
3301-001787	L605	CORE-FERRITE BEAD

SEC CODE	Design LOC	Description
3301-001787	L606	CORE-FERRITE BEAD
3301-001820	L802	BEAD-SMD
3301-001820	L803	BEAD-SMD
3301-001970	L110	BEAD-SMD
3404-001351	TAC800	SWITCH-TACT
3404-001351	TAC801	SWITCH-TACT
3404-001351	TAC802	SWITCH-TACT
3404-001351	TAC803	SWITCH-TACT
3705-001503	RFS100	CONNECTOR-COAXIAL
3708-002162	HLC700	CONNECTOR-FPC/FFC/PIC
3709-001384	SIM400	CONNECTOR-CARD EDGE
3709-001394	CD400	CONNECTOR-CARD EDGE
3710-002081	SPK	SOCKET-BOARD TO BOARD
3710-002683	IFC600	SOCKET-INTERFACE
3711-005296	HDC701	HEADER-BOARD TO BOARD
3711-005296	HDC702	HEADER-BOARD TO BOARD
3711-005659	HDC800	HEADER-BOARD TO BOARD
3711-006084	BTC600	HEADER-BATTERY
4202-001153	ANT200	ANTENNA-CHIP
4302-001180	BAT400	BATTERY-LI(2ND)
GH70-03349A	SC100	IPR SHIELD-CAN CLIP
GH70-03349A	SC101	IPR SHIELD-CAN CLIP
GH70-03349A	SC102	IPR SHIELD-CAN CLIP
GH70-03349A	SC103	IPR SHIELD-CAN CLIP
GH70-03349A	SC104	IPR SHIELD-CAN CLIP
GH70-03349A	SC105	IPR SHIELD-CAN CLIP
GH70-03349A	SC106	IPR SHIELD-CAN CLIP
GH70-03349A	SC107	IPR SHIELD-CAN CLIP
GH70-03349A	SC108	IPR SHIELD-CAN CLIP
GH70-03349A	SC109	IPR SHIELD-CAN CLIP
GH70-03349A	SC110	IPR SHIELD-CAN CLIP
GH70-03349A	SC112	IPR SHIELD-CAN CLIP
GH70-03349A	SC113	IPR SHIELD-CAN CLIP
GH70-03349A	SC114	IPR SHIELD-CAN CLIP
GH70-03349A	SC115	IPR SHIELD-CAN CLIP
GH70-03349A	SC116	IPR SHIELD-CAN CLIP

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

## 9. PCB Diagrams





[www.s-manuals.com](http://www.s-manuals.com)