

SAMSUNG

# GSM TELEPHONE

## SAMSUNG S7330

# SERVICE *Manual*

GSM TELEPHONE

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**SAMSUNG  
ELECTRONICS**



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## 2. Specification

### 2-1. GSM General Specification

	<b>EGSM 850 Phase 2</b>	<b>EGSM 900 Phase 2</b>	<b>DCS1800</b>	<b>PCS1900</b>	<b>WCDMA</b>
Freq. Band[MHz] Uplink/Downlink	824~915 869~894	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	-100 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 / EGSM900
5	33±2 dBm
6	31±2 dBm
7	29±2 dBm
8	27±2 dBm
9	25±2 dBm
10	23±2 dBm
11	21±2 dBm
12	19±2 dBm
13	17±2 dBm
14	15±2 dBm
15	13±2 dBm
16	11±3 dBm
17	9±3 dBm
18	7±3 dBm
19	5±3 dBm

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

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

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### **3. Product Function**

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#### **Main Function**

- Bluetooth Class 2
- Extended GSM 850 & 900MHz & DCS1800MHz & PCS1900MHz &WCDMA 2100MHz  
FIVE Band
- Slide type
- Color LCD (2.22" QVGA 38.43×54.31×1.85t\_max)
- Sub LCD (1.11" CSTN 26.24×24.4×1.4t\_max)
- DACP TOUCH PANNEL
- Built-in AF 3 Mega pixel and CIF Camera
- Built-in MP3 Player
- GPRS Multi-slot Class 12
- Downloadable Game via JAVA
- Sending Photo & Video by MMS or E-Mail
- External Memory Card Socket (T-flash)
- 880mAh Battery

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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

---

## 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 thicker twisted wire when you measure level.  
A thicker 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.

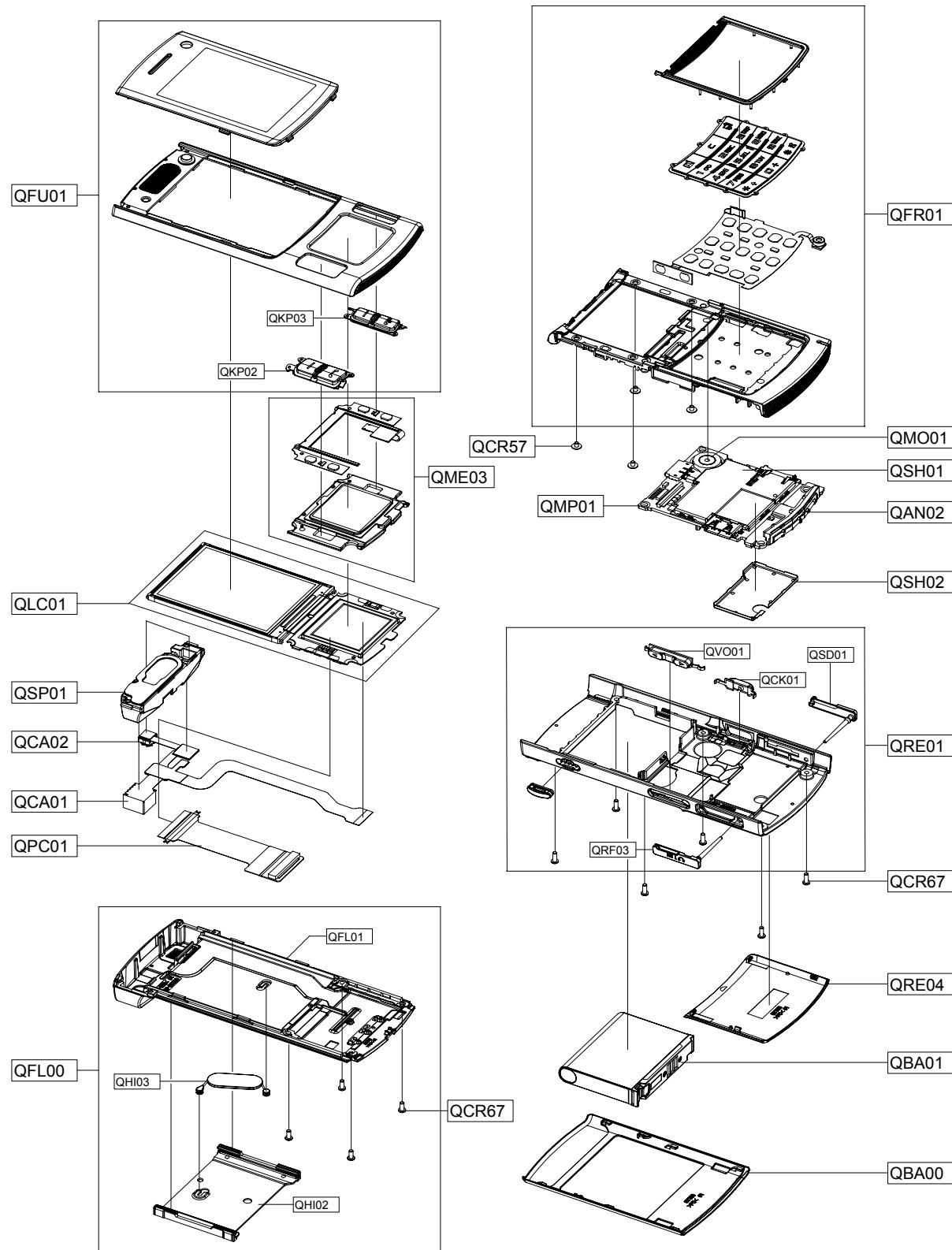
## 1-2. ESD(Electrostatically Sensitive Devices) Precaution

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_S7330	GH42-01605A
QBA00		ASSY COVER-BATT UPPER	GH98-09403A
QBA01		INNER BATTERY PACK-880MAH , BL	GH43-02666A
QCA01		ELA UNIT-CAMERA ASSY(3M S7330)	GH96-03207A
QCA02		ELA UNIT-CAMERA ASSY(CIF S7330)	GH96-03208A
QCR57		SCREW-MACHINE	6001-002001
QCR67		SCREW-MACHINE	6001-002083
QCR67		SCREW-MACHINE	6001-002083
QFR01		ASSY CASE-FRONT	GH98-08487A
QLC01		ELA UNIT-GT_S7330 LCD ASSY	GH96-03338A
QME03		KEY FPCB-GT_S7330 TOUCH KEY	GH59-05897A
QMO01		MOTOR LINEAR VIBRATION-GT_S733	GH31-00449A
QMP01		A/S ASSY-GT_S7330 PBA MAIN	GH82-03098A
QPC01		FPC-GT_S7330 SLIDE FPCB	GH41-02179A
QRE04		ASSY DECO-REAR	GH98-10034A
QSH01		ASSY COVER-SHIELD CAN BTM	GH98-09621A
QSH02		ASSY COVER-SHIELD CAN TOP	GH98-10276A
QSP01		UNIT-GT_S7330 SPK MODULE	GH59-05889A
QFL00		ASSY CASE-S/LOWER HINGE	GH98-08484A
	QFL01	ASSY CASE-S/LOWER	GH98-08617A
	QHI02	ASSY HINGE-PLATE	GH98-08490A
	QHI03	ASSY HINGE-LINK PNTEL 43ANS V2	GH98-09739A
QFU01		ASSY CASE-SLIDE UPPER	GH98-08485A
	QKP02	ASSY KEYPAD-SUB L(XEN/LS)	GH98-08491A
	QKP03	ASSY KEYPAD-SUB R(XEN/LS)	GH98-08616A
QRE01		ASSY CASE-REAR	GH98-08488A
	QCK01	PMO KEY-CAM	GH72-47969A
	QRF03	PMO COVER-EARJACK	GH72-47976A
	QSD01	PMO COVER-MICRO SD	GH72-47975A
	QVO01	PMO KEY-VOLUME	GH72-47970A

## 7. Disassembly and Assembly Instructions

### 7-1. Disassembly

1

1) Remove REAR COVER



2

1) Remove Screw (6 point) of Rear



1) Be careful not to make any scratch on mechanical parts during removing rear cover.

1) Be careful not to make any scratch on mechanical parts during removing process.

3

1) Remove Rear side part by using disassemble knife



4

1) Remove Rear side part by using disassemble knife



1) Be careful not to make any scratch on mechanical parts during removing process.

1) Be careful not to make any scratch on mechanical parts during removing process.

## Exploded View and Parts List

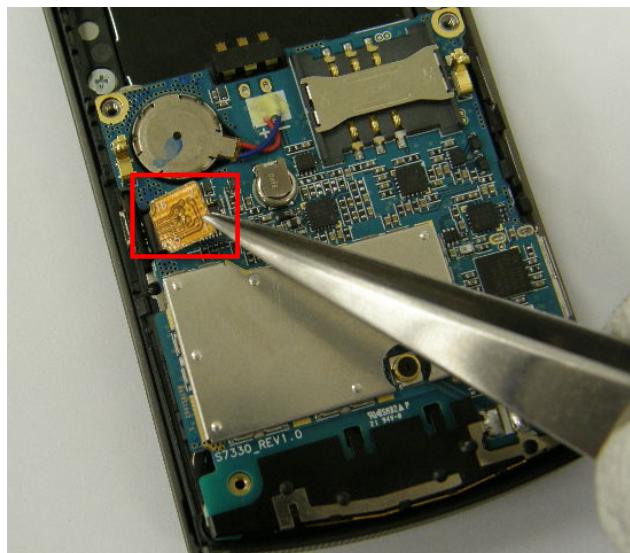
5

1) Disassemble Front Assay and Rear



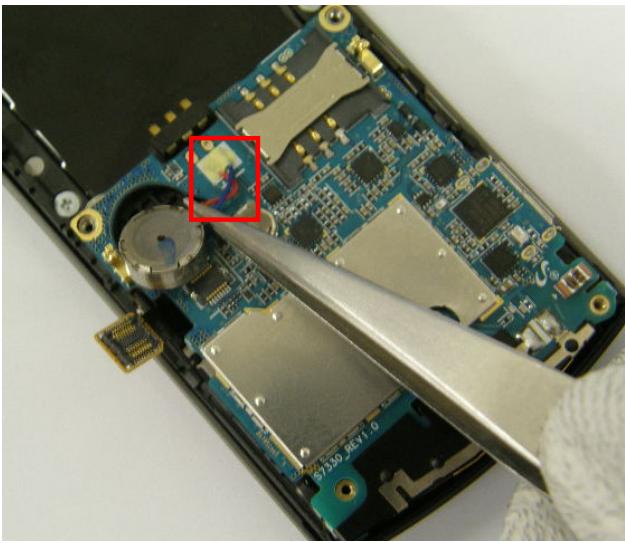
6

1) Remove KEY Connector using tweezers



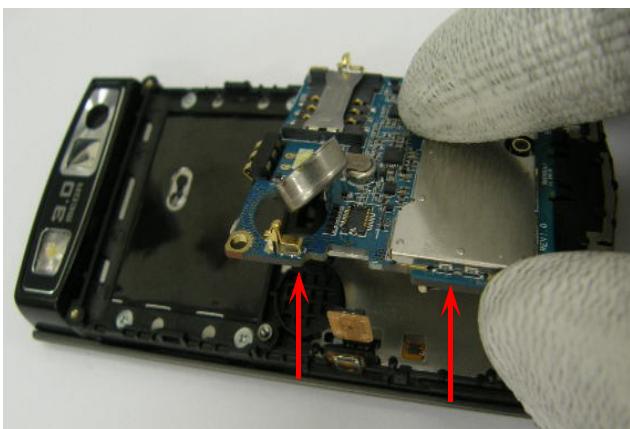
7

1) Detach motor using tweezers



8

1) Raise PBA up the left of FRONT

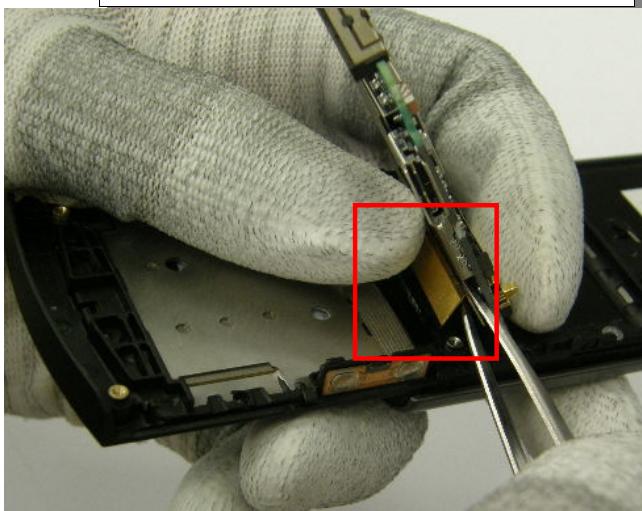


1) Be careful not to make damage of any mechanical parts

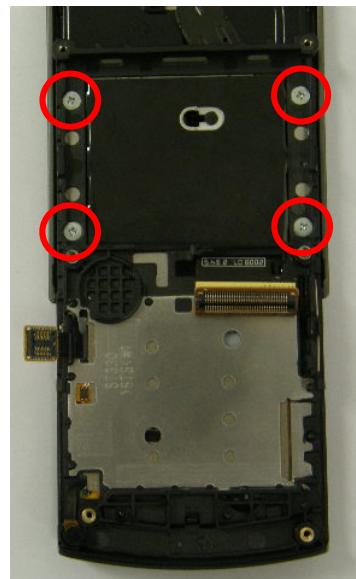
1) Be careful not to make any damage of connector

**9**

- 1) Detach slide FPCB connector using tweezers

**10**

- 1) Remove Screw (4 point) of front

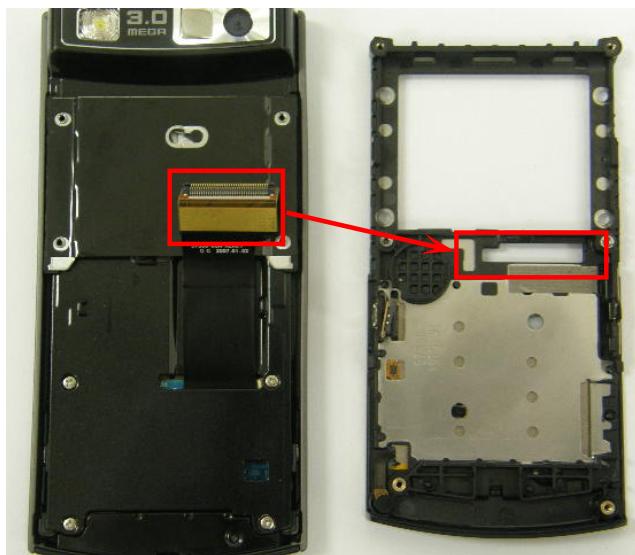


- 1) Be careful not to make any damage of connector

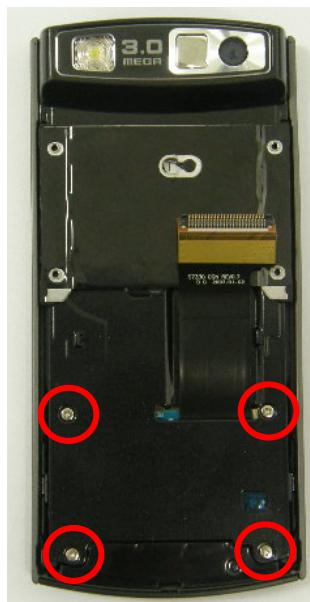
- 1) Be careful not to make any scratch on mechanical parts during removing process.

**11**

- 1) Disassemble slide Assay and front

**12**

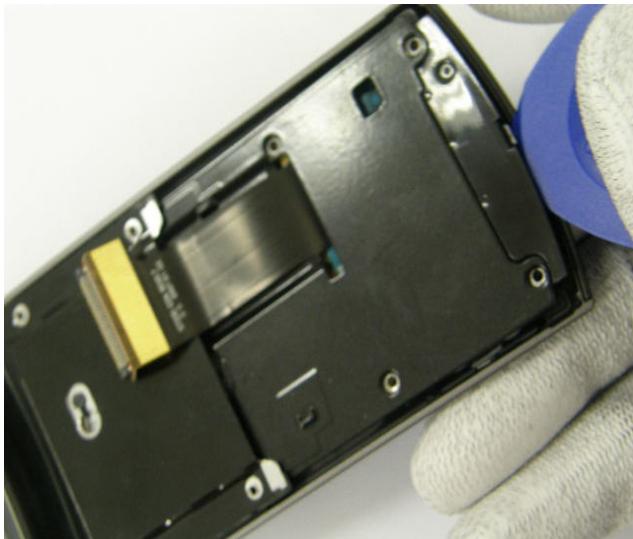
- 1) Remove Screw (4 point) of rower



- 1) Be careful not to make any scratch on mechanical parts during removing process.

13

- 1) Remove Rower under part by using disassemble knife.



14

- 1) Disassemble upper and rower



- 1) Be careful not to make any scratch on mechanical parts during removing rower

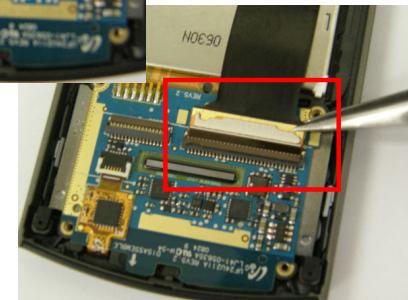
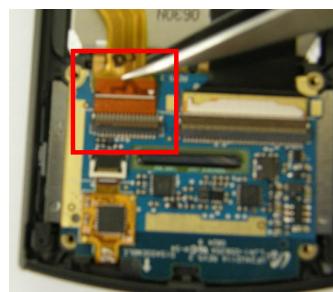
15

- 1) Detach SPK module



16

- 1) Remove SPK module FPCB using tweezers  
2) Remove Slide FPCB using tweezers



- 1) Be careful not to make any damage of FPCB

- 1) Be careful not to make any damage of FPCB

17

1) Disassemble LCD module and upper window.



18

1) Disassemble upper and LCD module



1) Be careful not to make any damage of upper window and LCD module

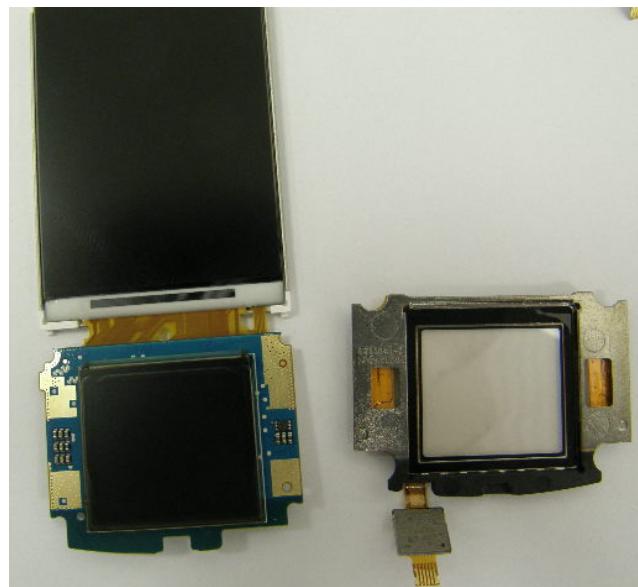
19

1) Remove touch window FPCB using tweezers



20

1) Disassemble sub LCD and Touch window



1) Be careful not to make any damage of FPCB

## Exploded View and Parts List

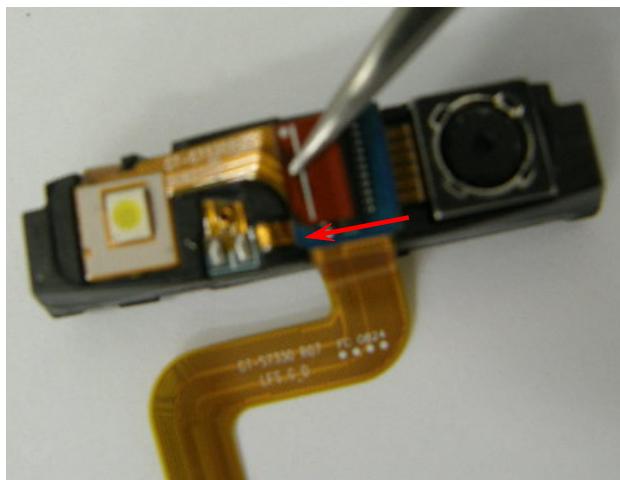
21

1) Remove shield can from PBA



22

1) Remove CIF FPCB using tweezers

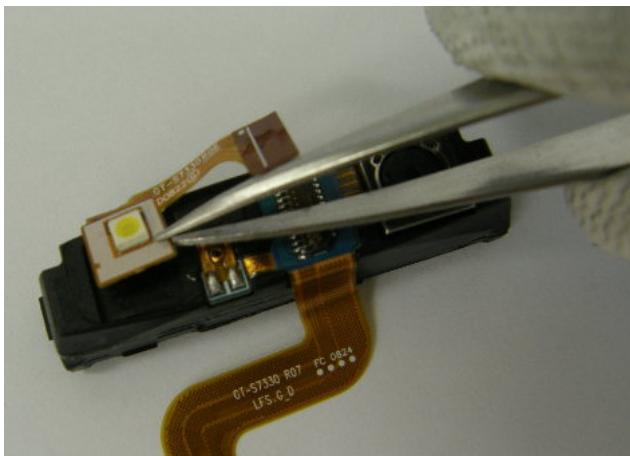


1) Be careful not to make any damage of shield can.

1) Be careful not to make any damage of FPCB

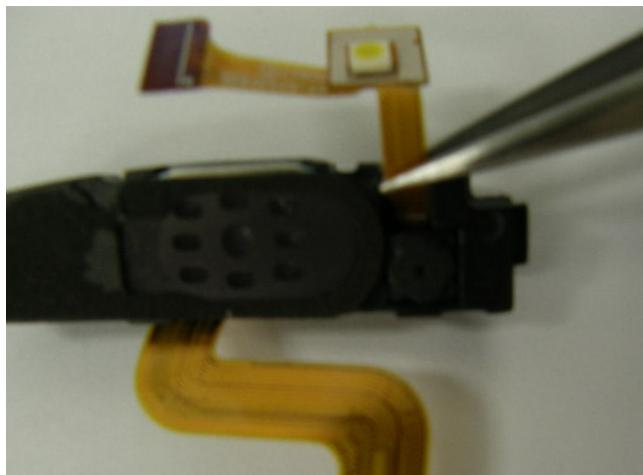
23

1) Remove CIF FPCB using tweezers



24

1) Remove CIF camera using tweezers

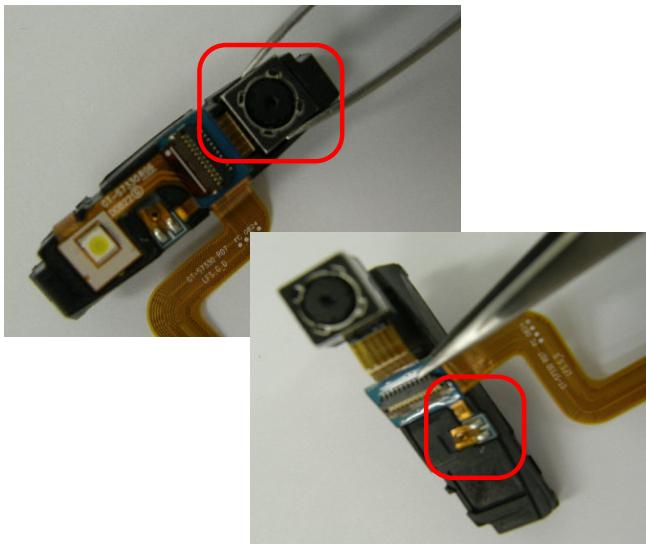


1) Be careful not to make any damage of FPCB

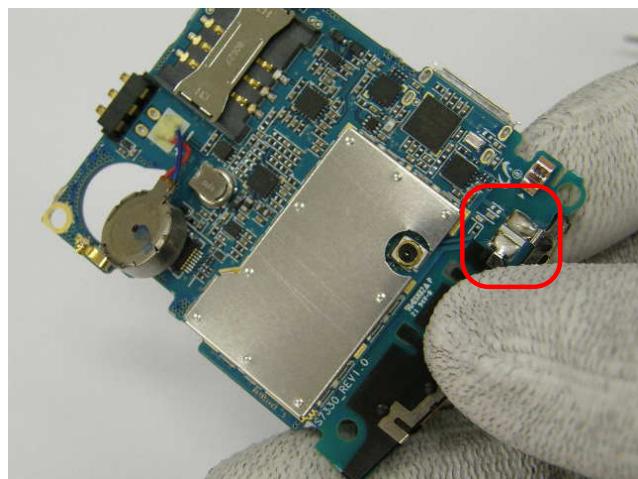
1) Be careful not to make any damage of FPCB

**25**

- 1) Remove 3mega camera and connector using tweezers

**26**

- 1) Remove inettena from PBA



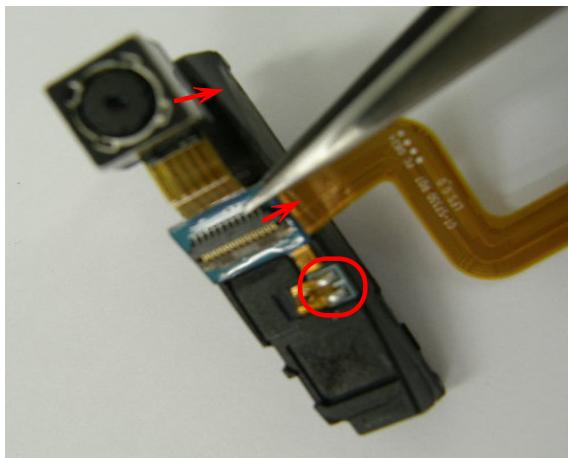
1) Be careful not to make any damage of FPCB

1) Be careful not to make any damage of PBA

## 7-2. Assembly

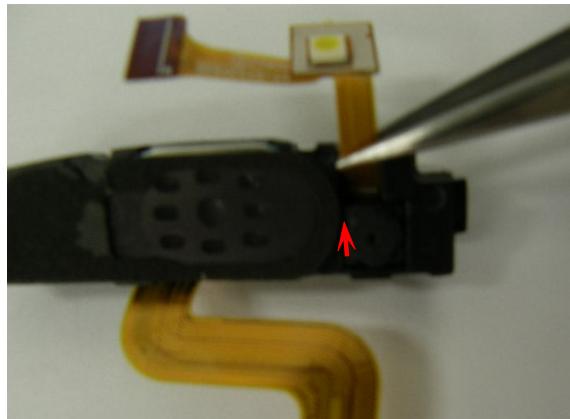
1

- 1) Attach 3M camera and connector on SPK module
- 2) Soldering SPK module and FPCB



2

- 1) Attach CIF camera and flash on SPK module

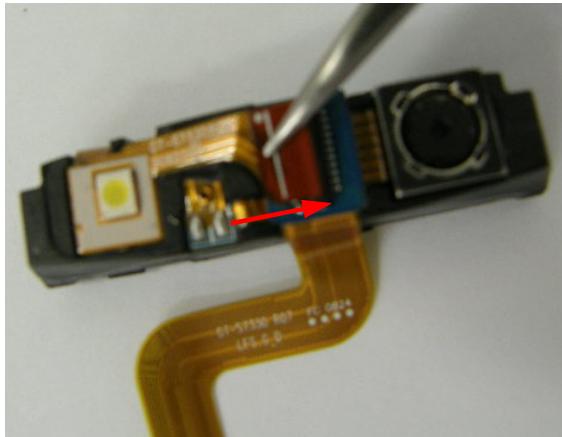


- 1) Be careful not to make any damage of connector  
Check connector attaching , Press again

- 1) Be careful not to make any damage of connector  
Check CIF camera attaching , Press again

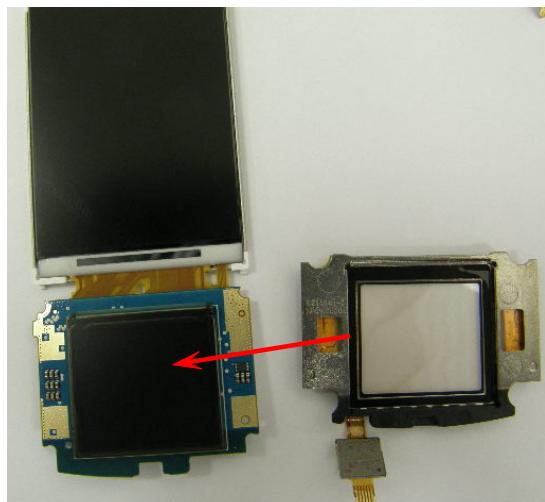
3

- 1) Attach CIF FPCB on 3M camera connector



4

- 1) Attach touch window on sub PCB



- 1) Be careful not to make any damage of connector

- 1) Check touch window attaching , Press again

## Exploded View and Parts List

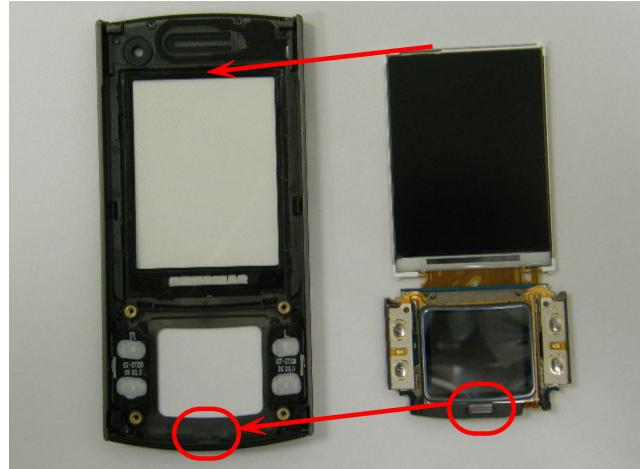
5

1) Attach touch FPCB on sub PCB



6

1) Assemble LCD module from the down to up

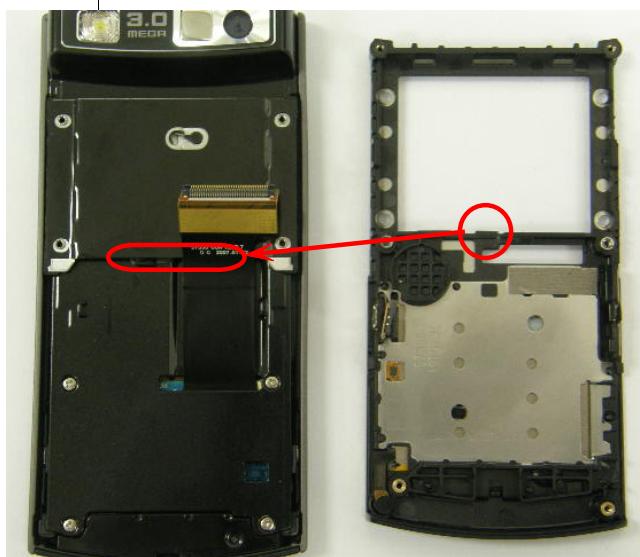


1) Be careful not to make any damage of connector  
Attach after align Guide silk line

1) Assemble SUB LCD hook after attach MAIN LCD module  
2) Be careful not to make any damage of LCD

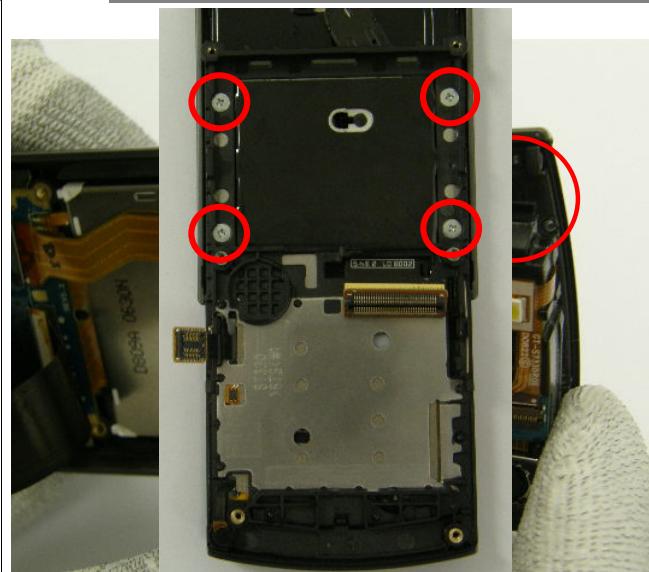
11

1) Assemble Front



12

1) Attach SPK module on upper

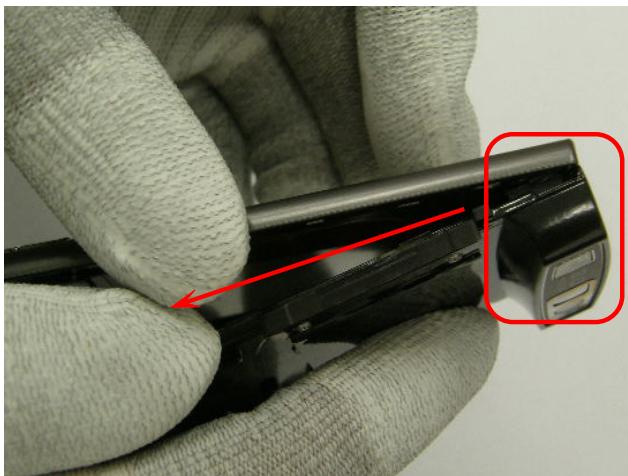


1) Be careful not to make any damage of connector  
Attach after align Guide silk line

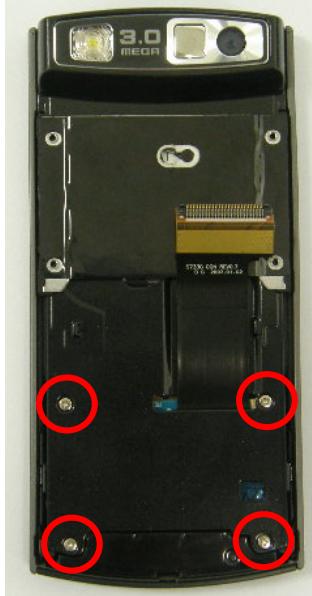
1) Attach after align Guide rib

**9**

1) Assemble UPPER and ROWER

**10**

1) Assemble Screw 4 point rower

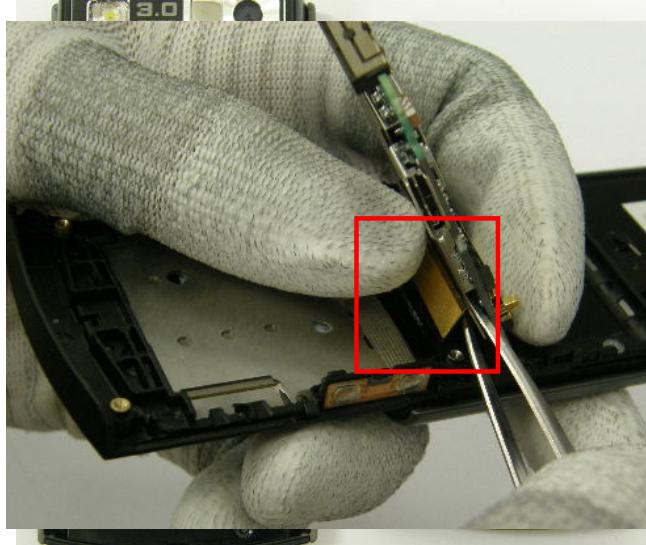


1) Assemble rower from the up to down

- 1) Be careful not to make any scratch on mechanical parts during assembling screw
- 2) Screw size : M1.4\*L3.5  
TORQUE : 1.0~1.2 Kgf · cm

**15**

1) Attach Slide FPCB on PBA

**12**

1) Assemble PBA on the front



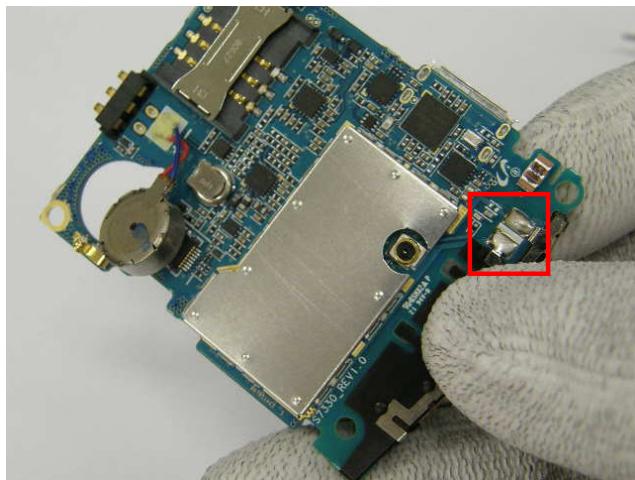
1) Be careful not to make any damage of FPCB

- 1) Be careful not to make any scratch on mechanical parts during assembling screw
- 2) Screw size : M1.4\*L1.5  
TORQUE : 1.0~1.2 Kgf · cm

## Exploded View and Parts List

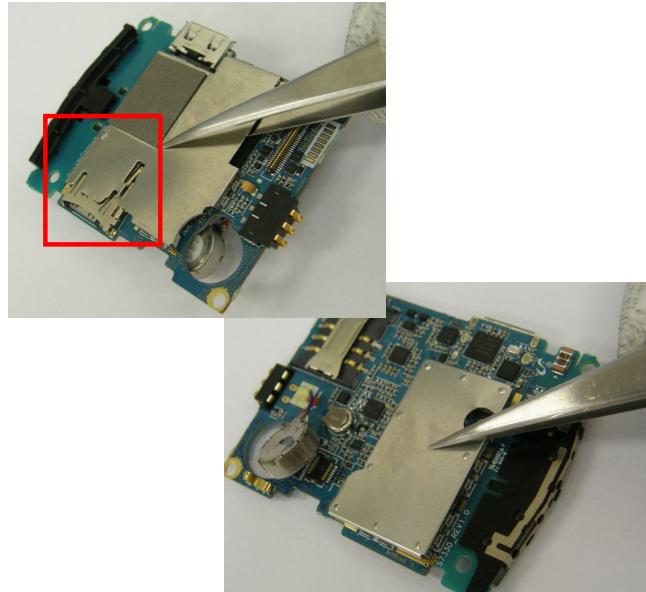
13

1) Attach intenna on PBA



14

1) Attach shield can on PBA

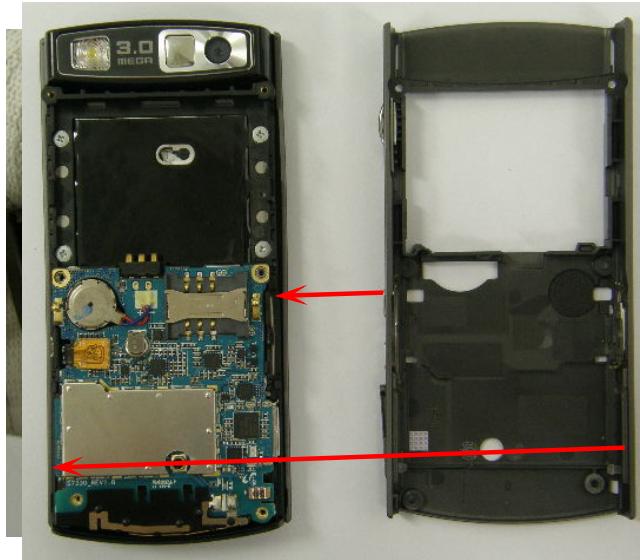


1) Check intenna attaching

1) Be careful not to make any damage of shield can, clip and SD socket

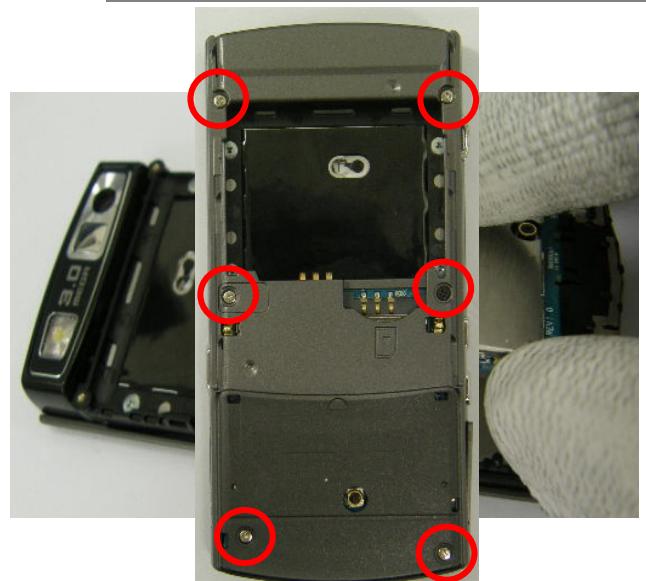
19

1) Assemble rear from the right to left



20

1) Assemble Screw 6 point rear

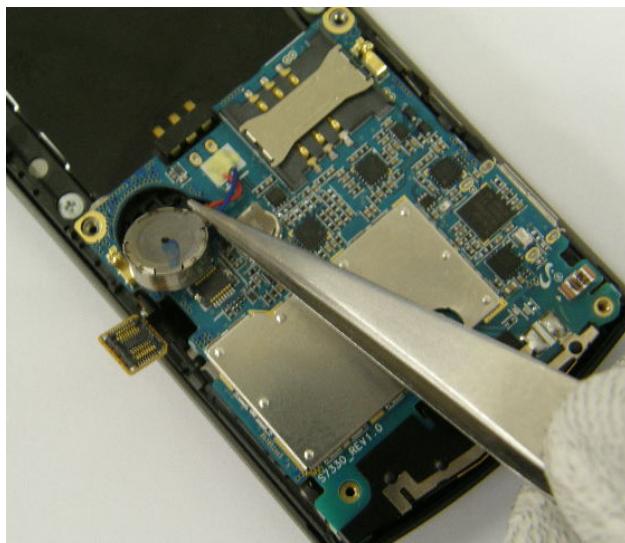


1) Be careful not to make any damage of connector

1) Assemble PBA from the right to left

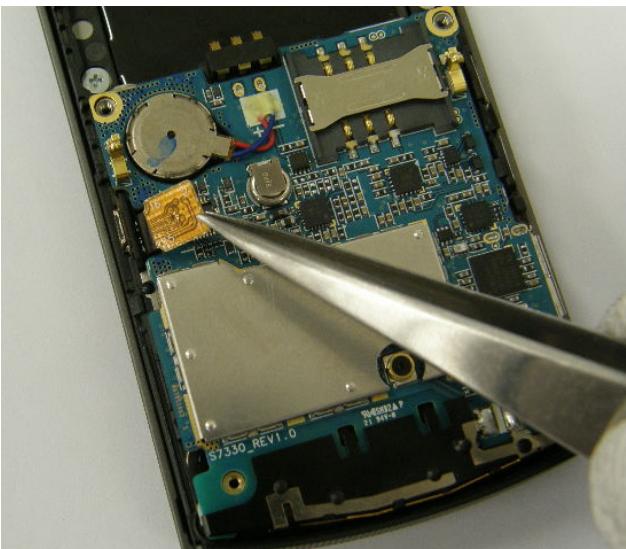
17

1) Attach motor



18

1) Attach key connector on the PBA

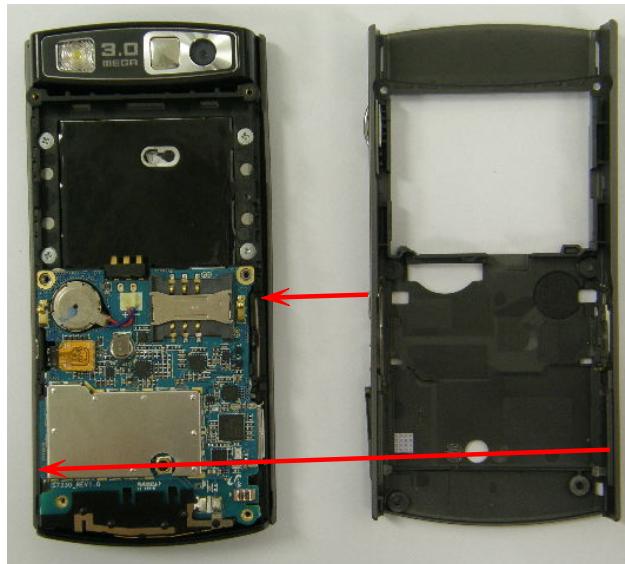


1) Be careful not to make any damage of wire

1) Be careful not to make any damage of connector

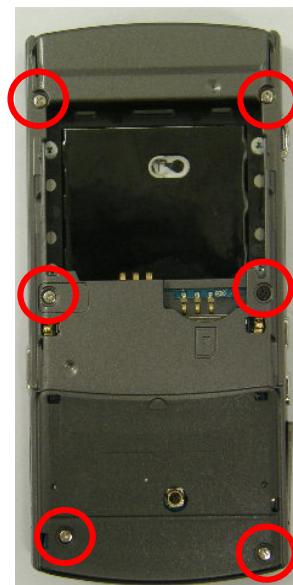
19

1) Assemble rear from the right to left



20

1) Assemble Screw 6 point rear



1) Be careful not to make any damage of PBA

1) Be careful not to make any scratch on mechanical parts during assembling screw

2) Screw size : M1.4\*L3.5

TORQUE : 1.0~1.2 Kgf · cm

17

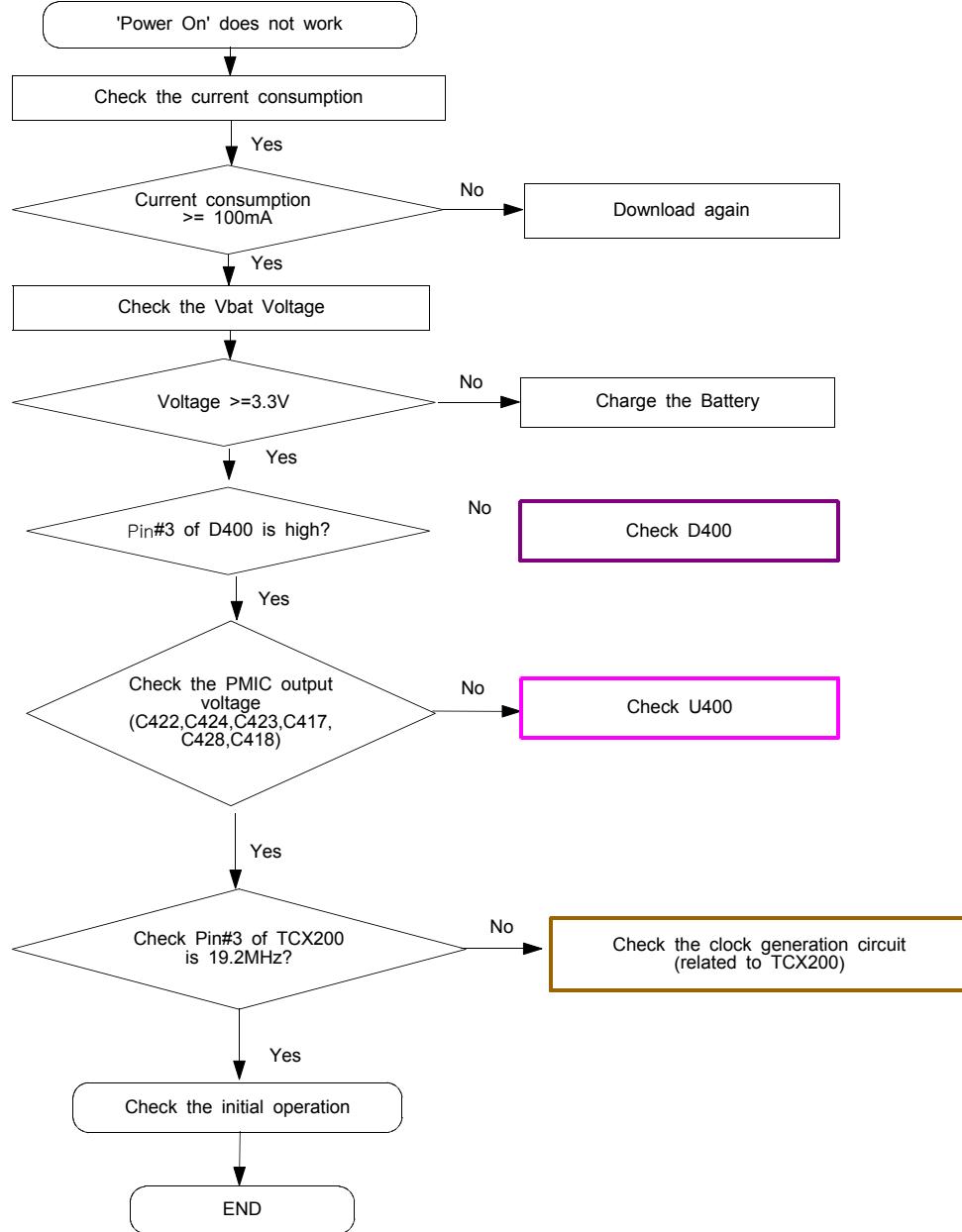
1) Attach rear cover

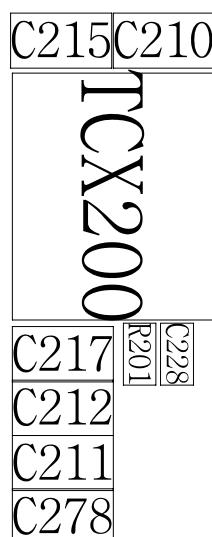
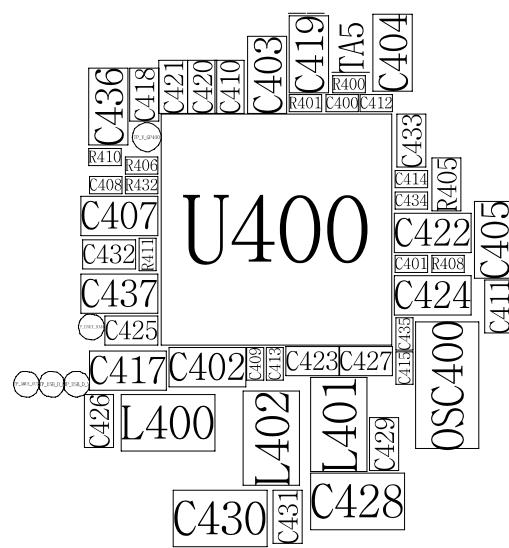
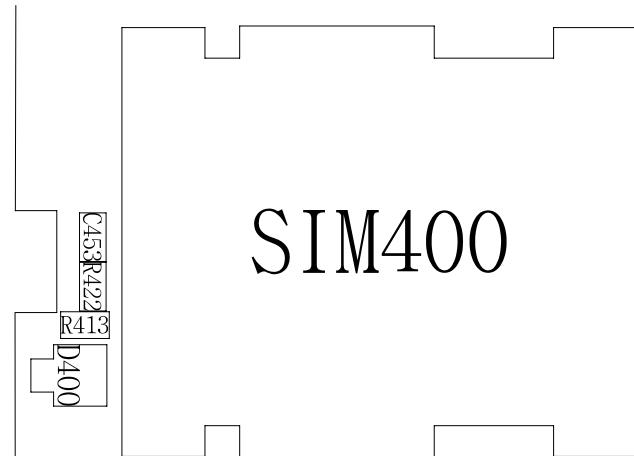


1) Be careful not to make any scratch on mechanical parts during attach rear cover.

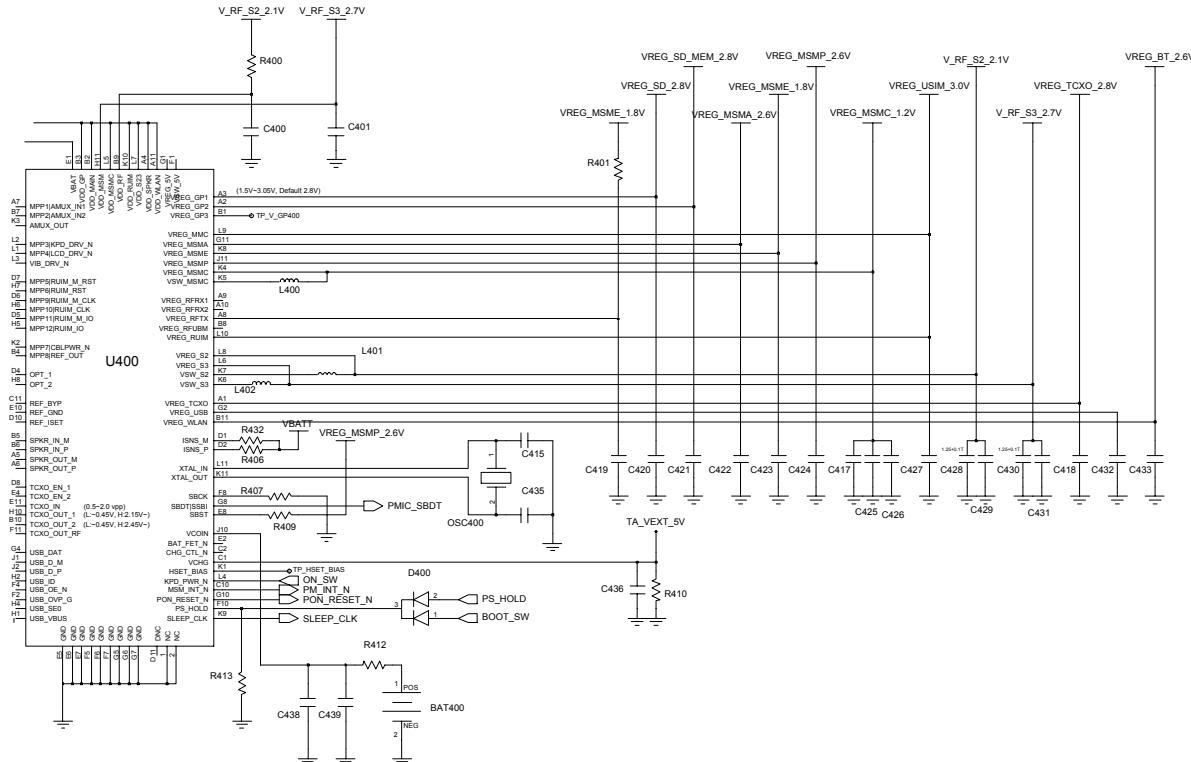
## 10. Flow Chart of Troubleshooting

### 10-1-1. Power ON

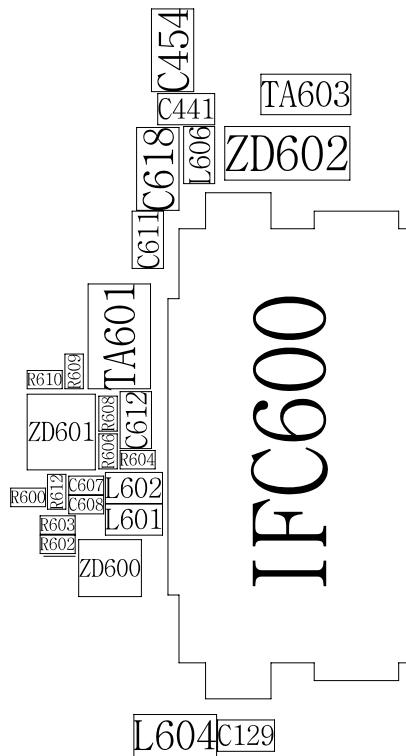
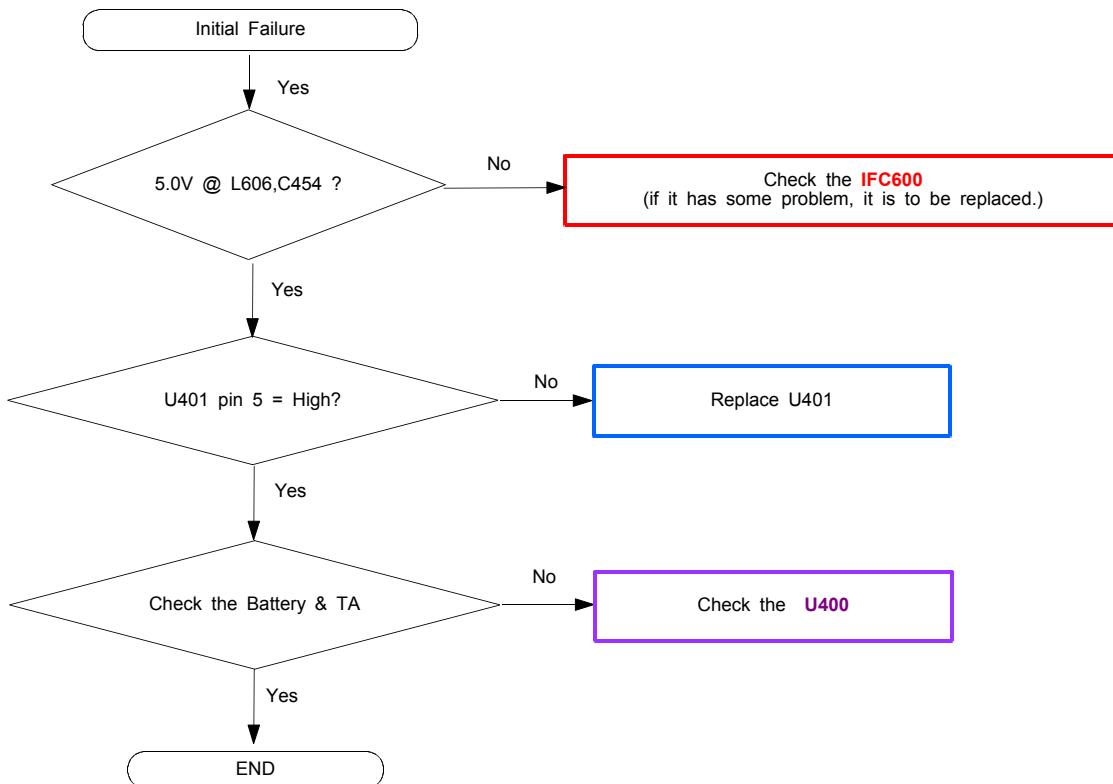


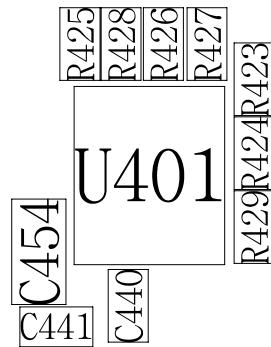


# < Power Management IC >

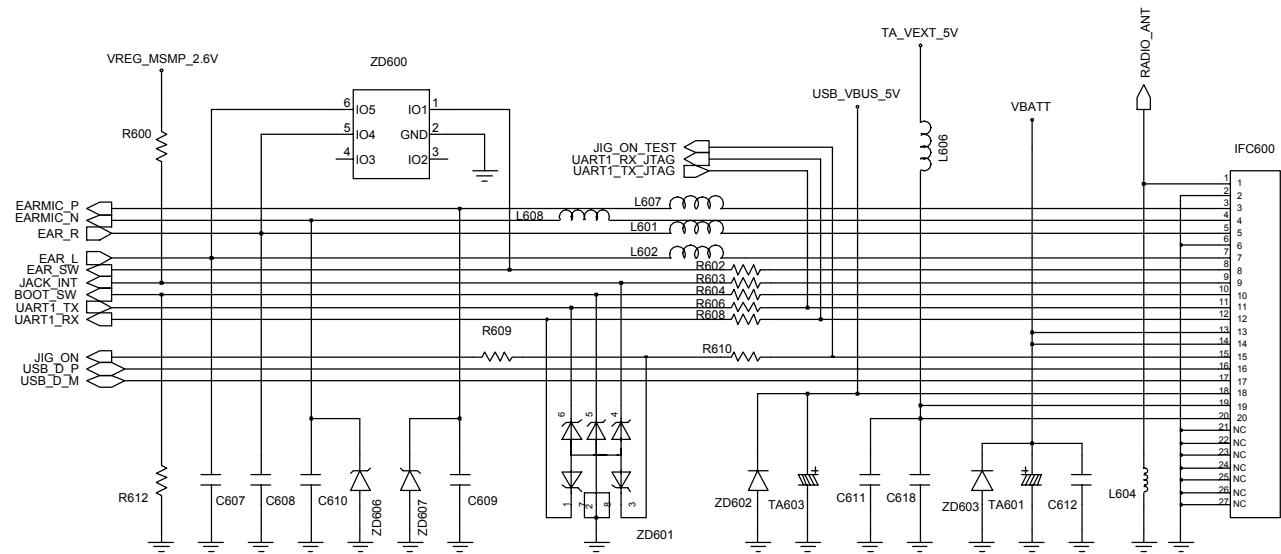


### 10-1-2. Charging Part

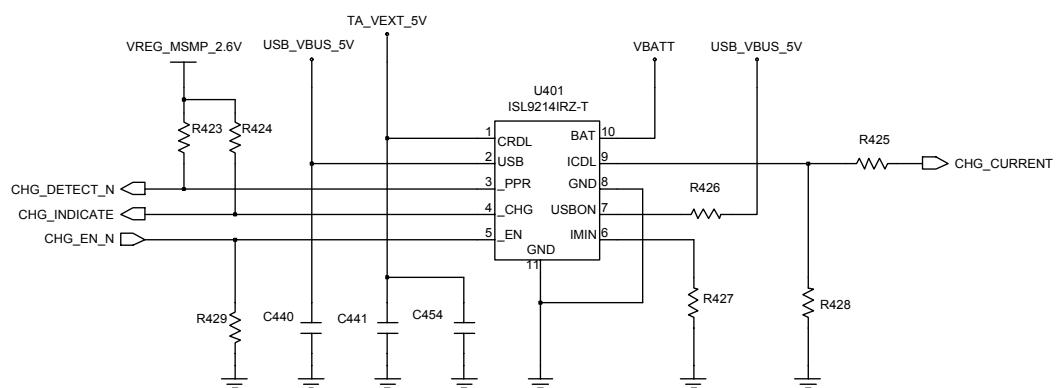




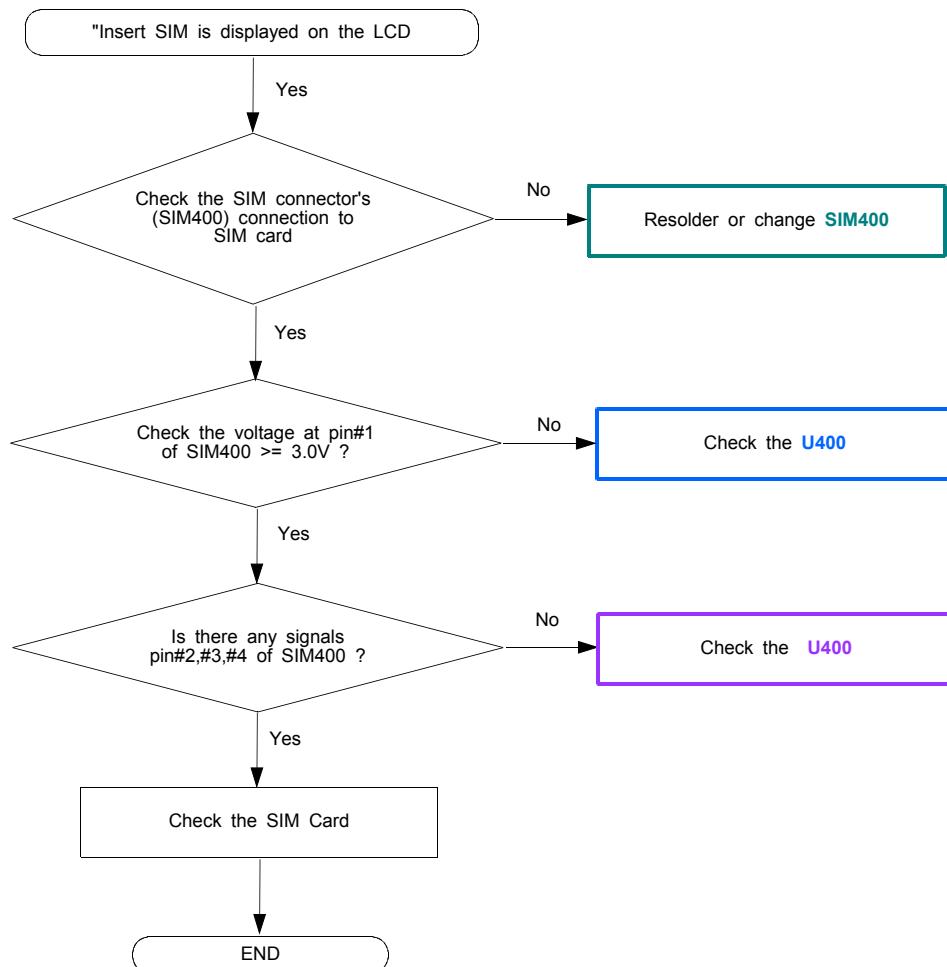
### < IF CONNECTOR >

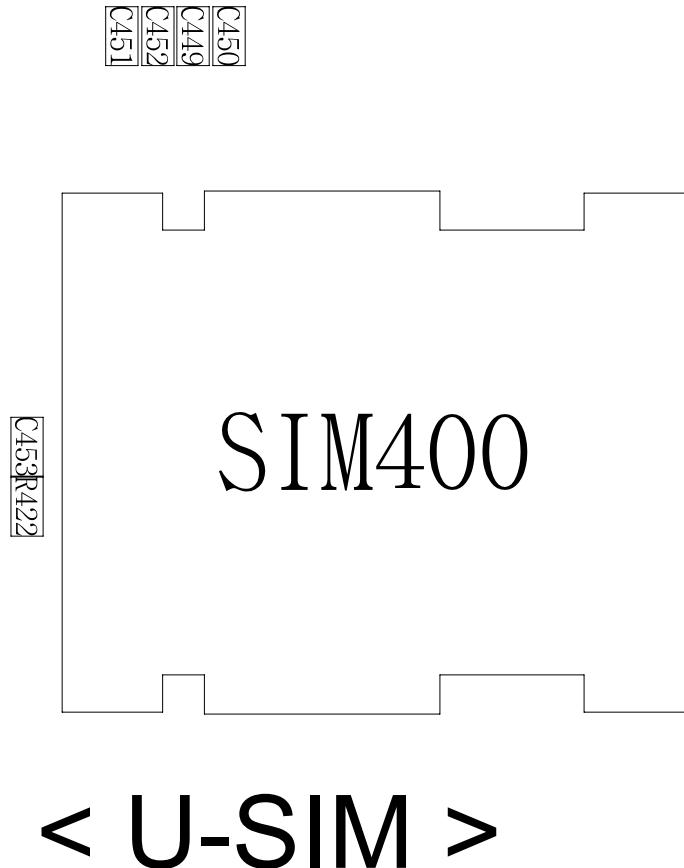


### < CHARGER >

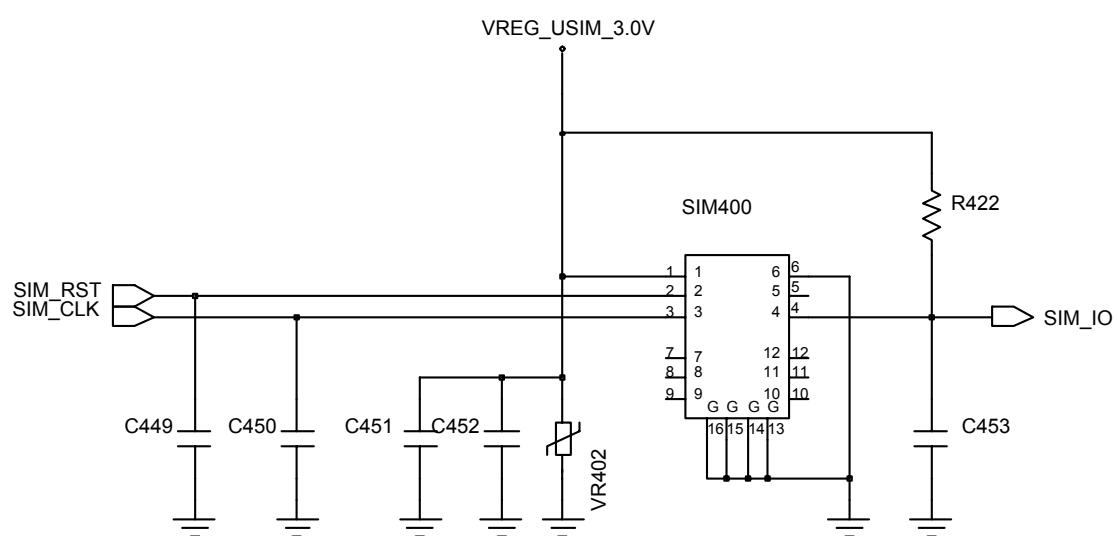


### 10-1-3. Sim Part

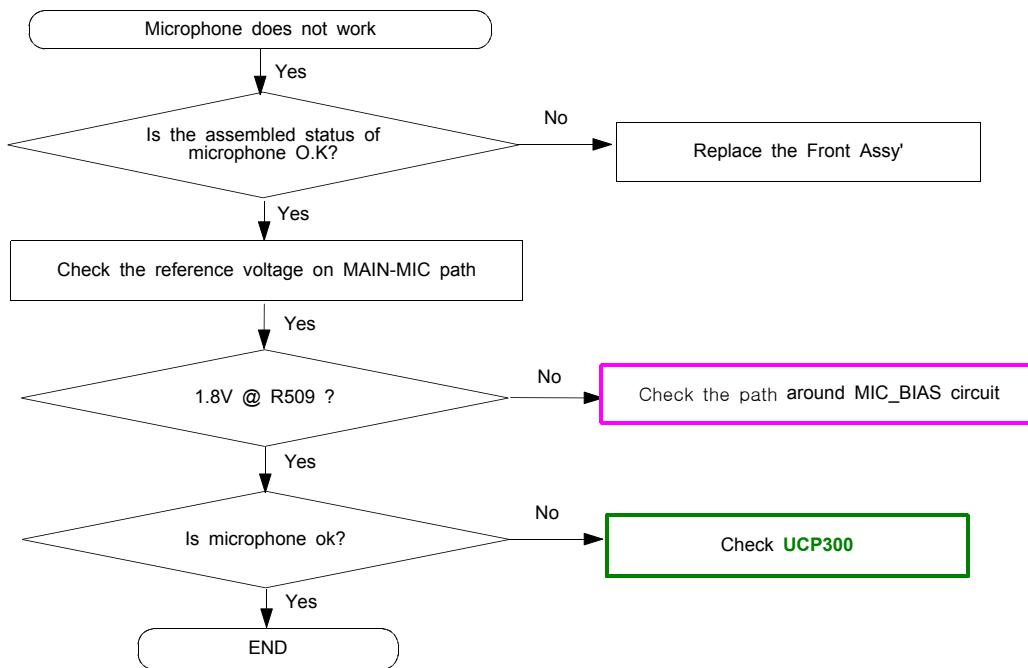




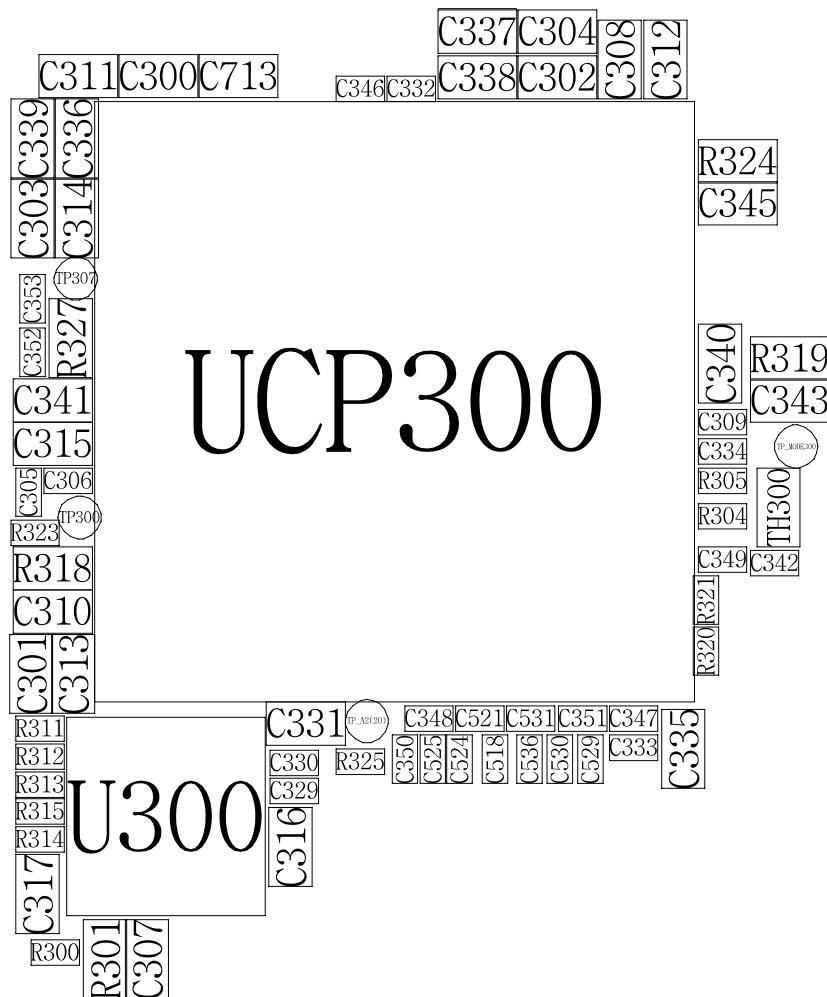
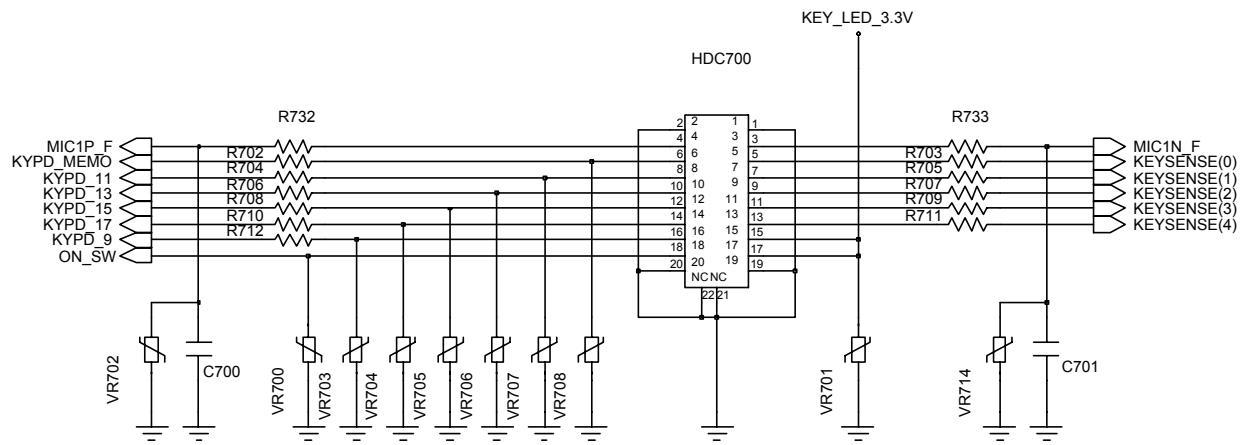
< U-SIM >



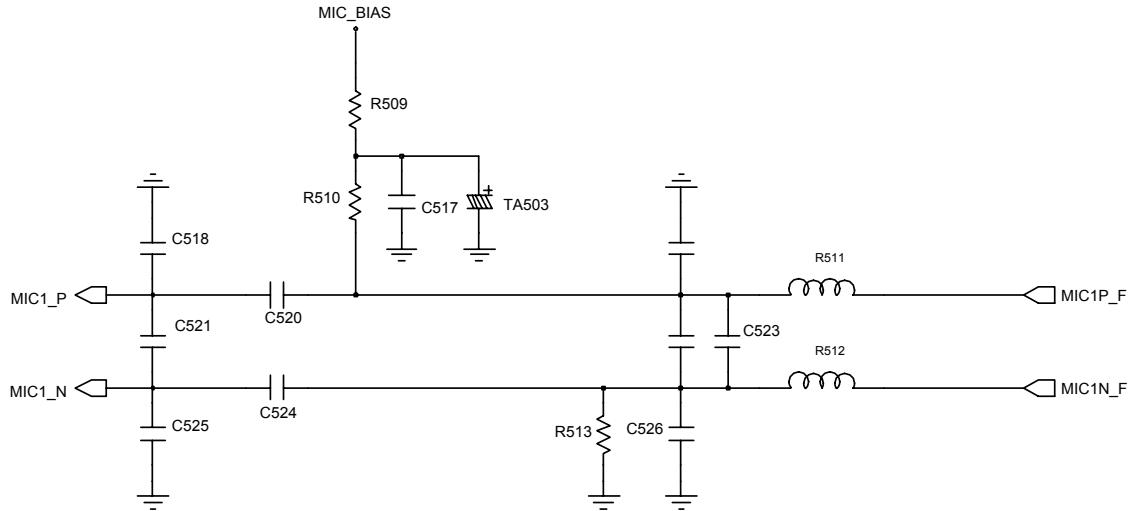
#### 10-1-4. Microphone Part



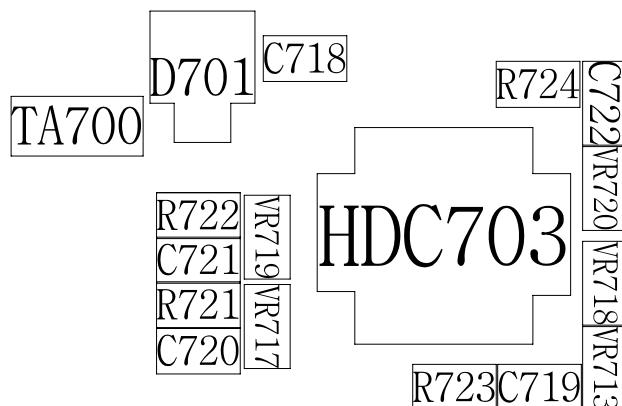
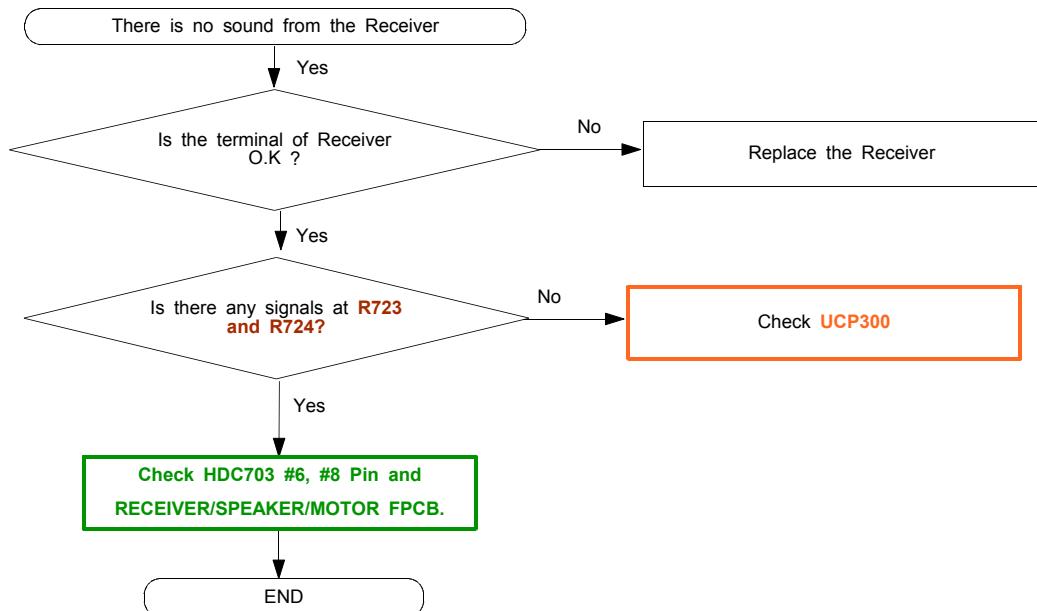
# <KEY CONNECTOR>



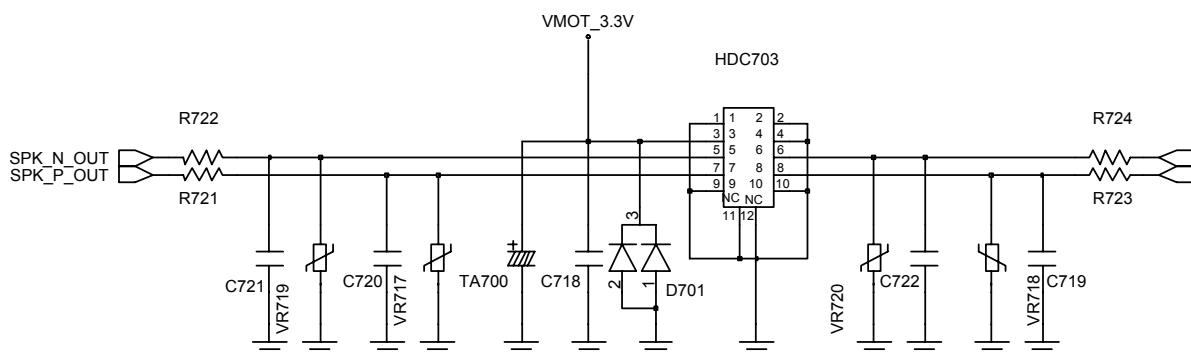
## <MAIN-MIC PATH>



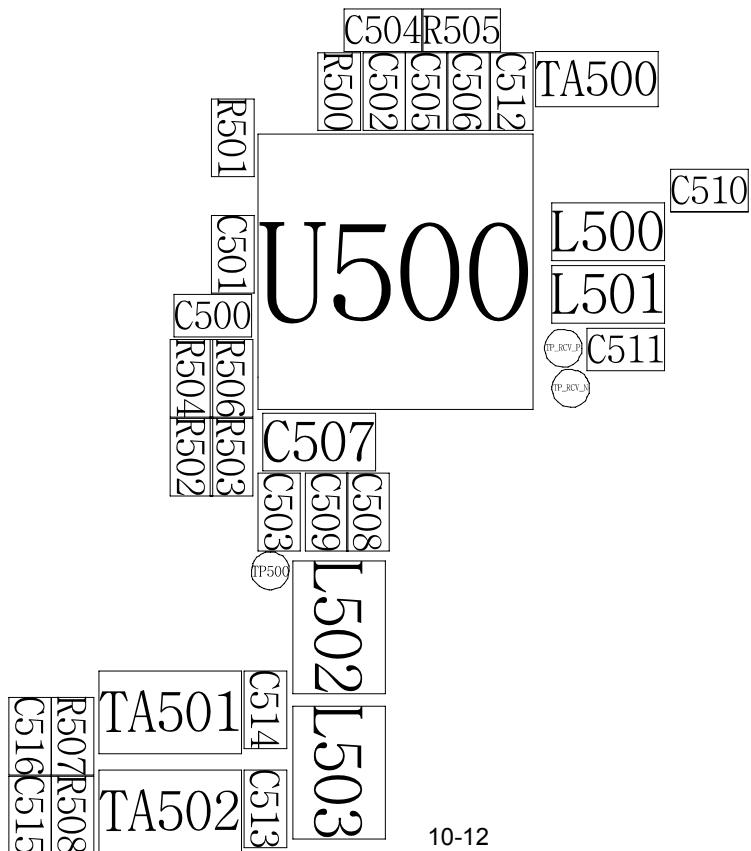
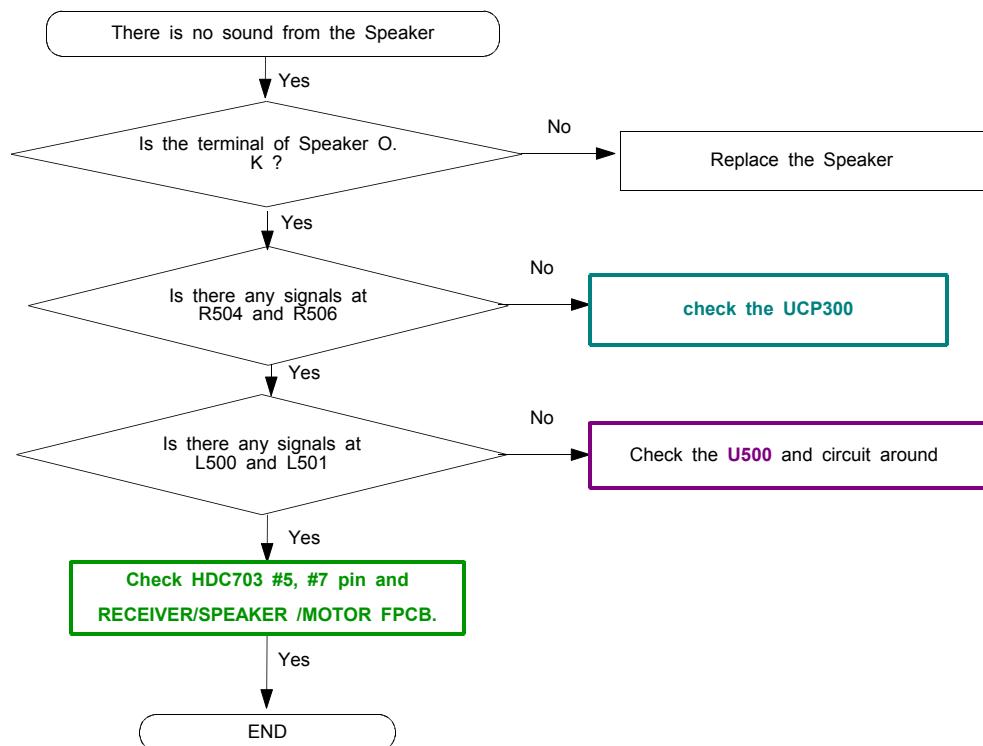
### 10-1-5. Receiver Part



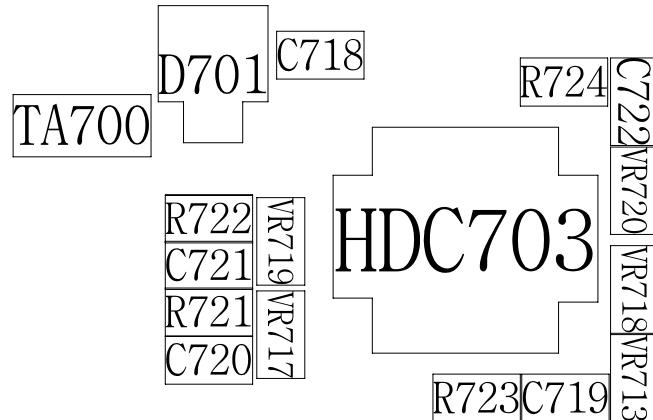
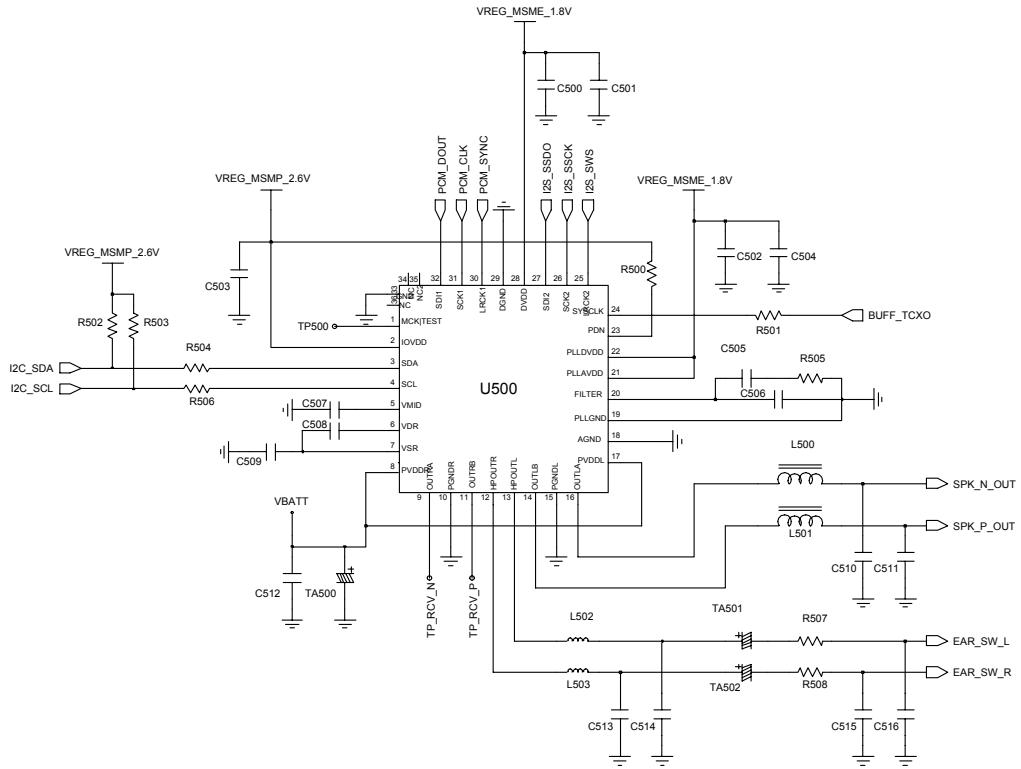
## <SPK/RCV/MTR CONNECTOR>



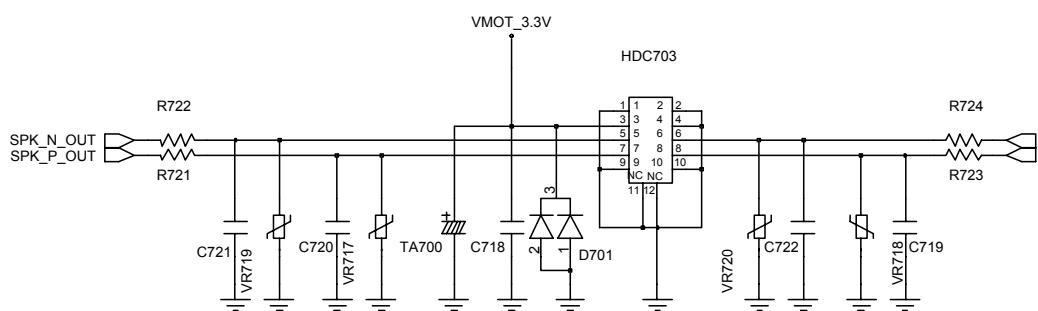
### 10-1-6. Speaker Part



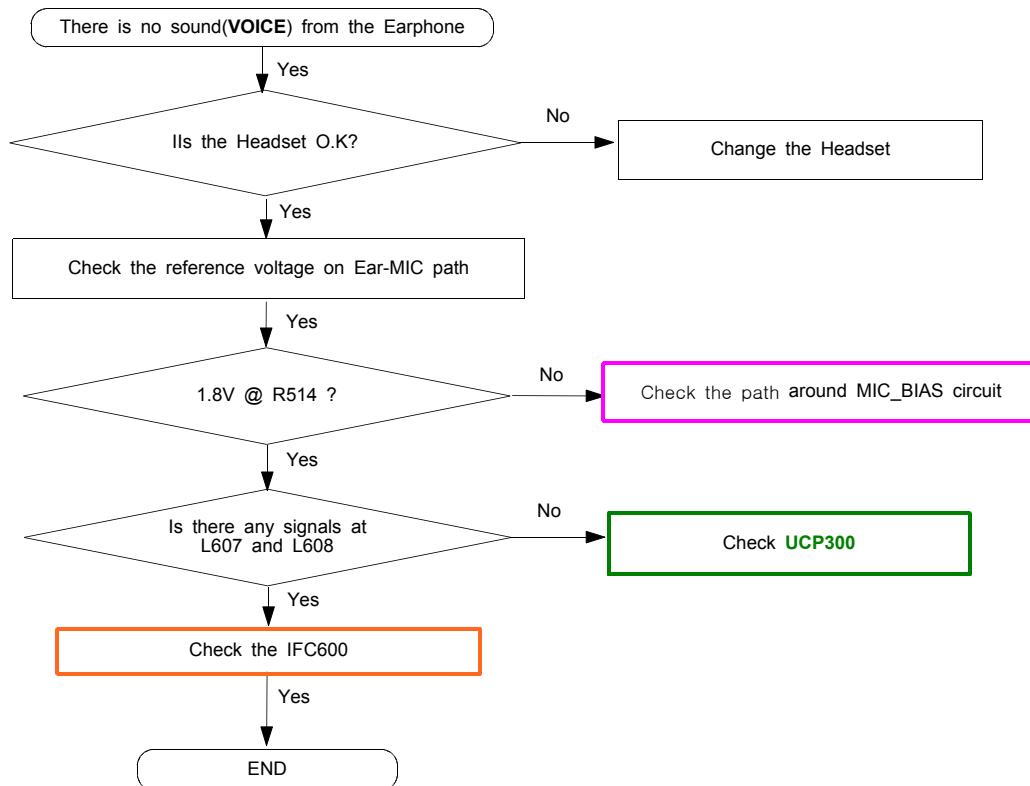
## <AUDIO AMP (SAPA2)>



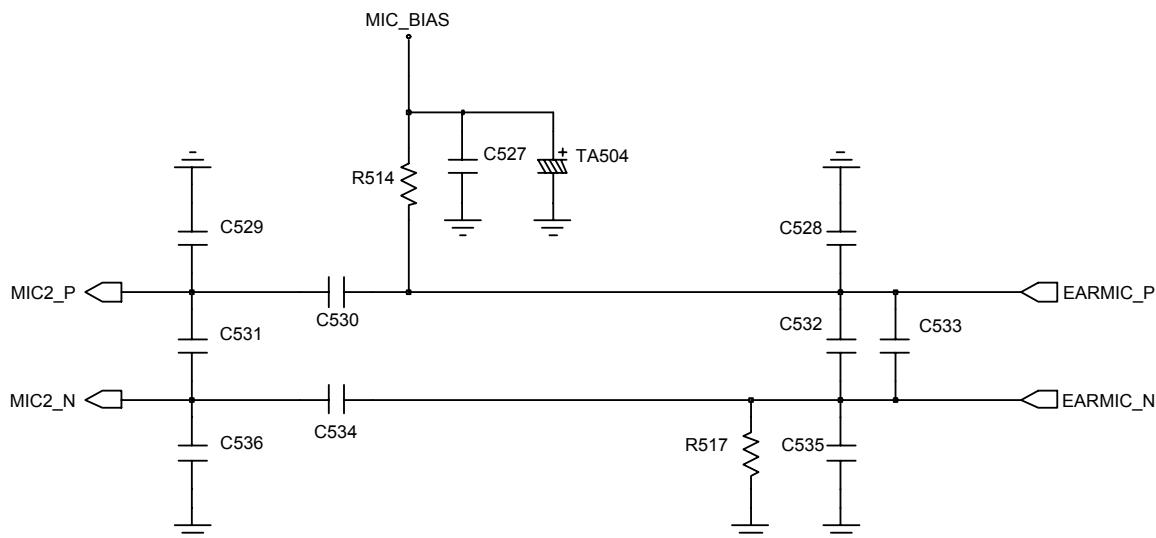
## <SPK/RCV/MTR CONNECTOR>



## 10-1-7. EARPHONE Part

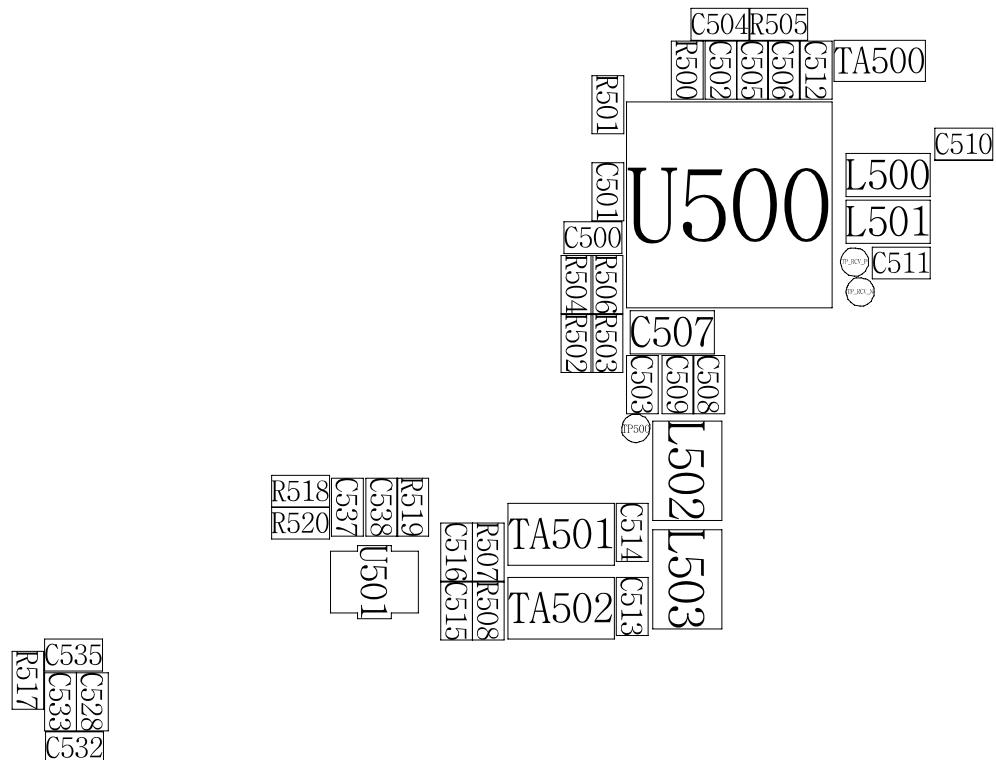
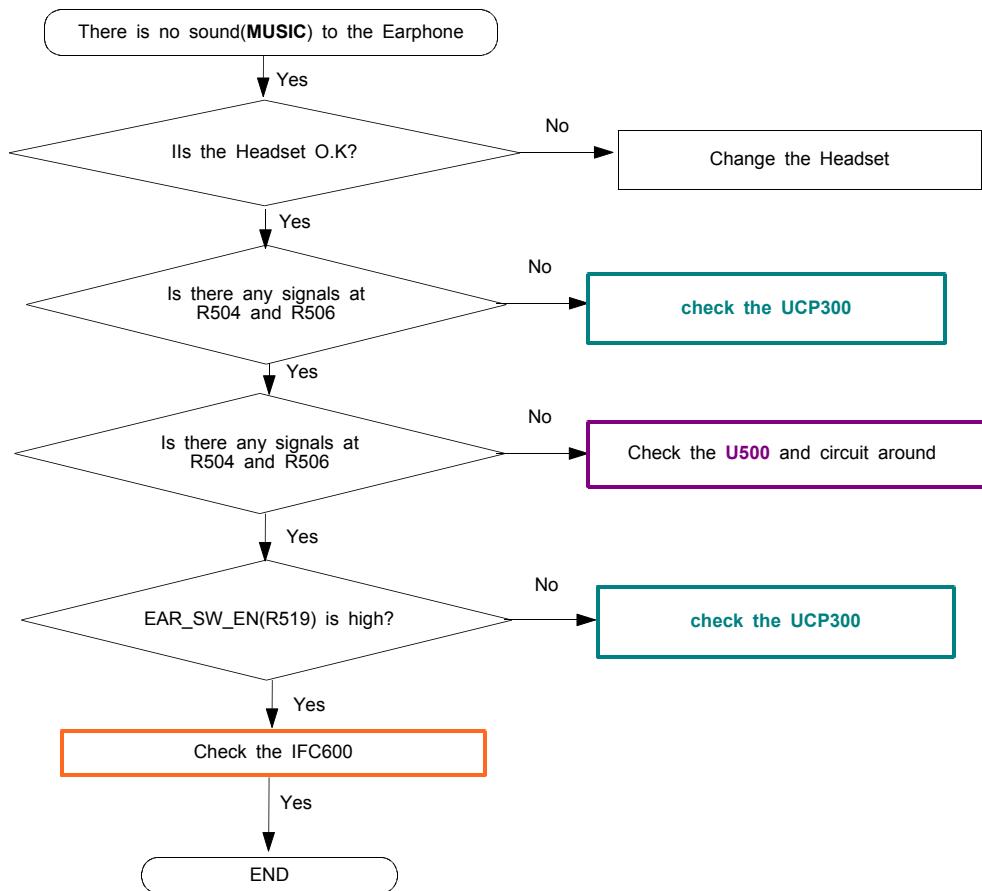


## <EAR-MIC PATH>

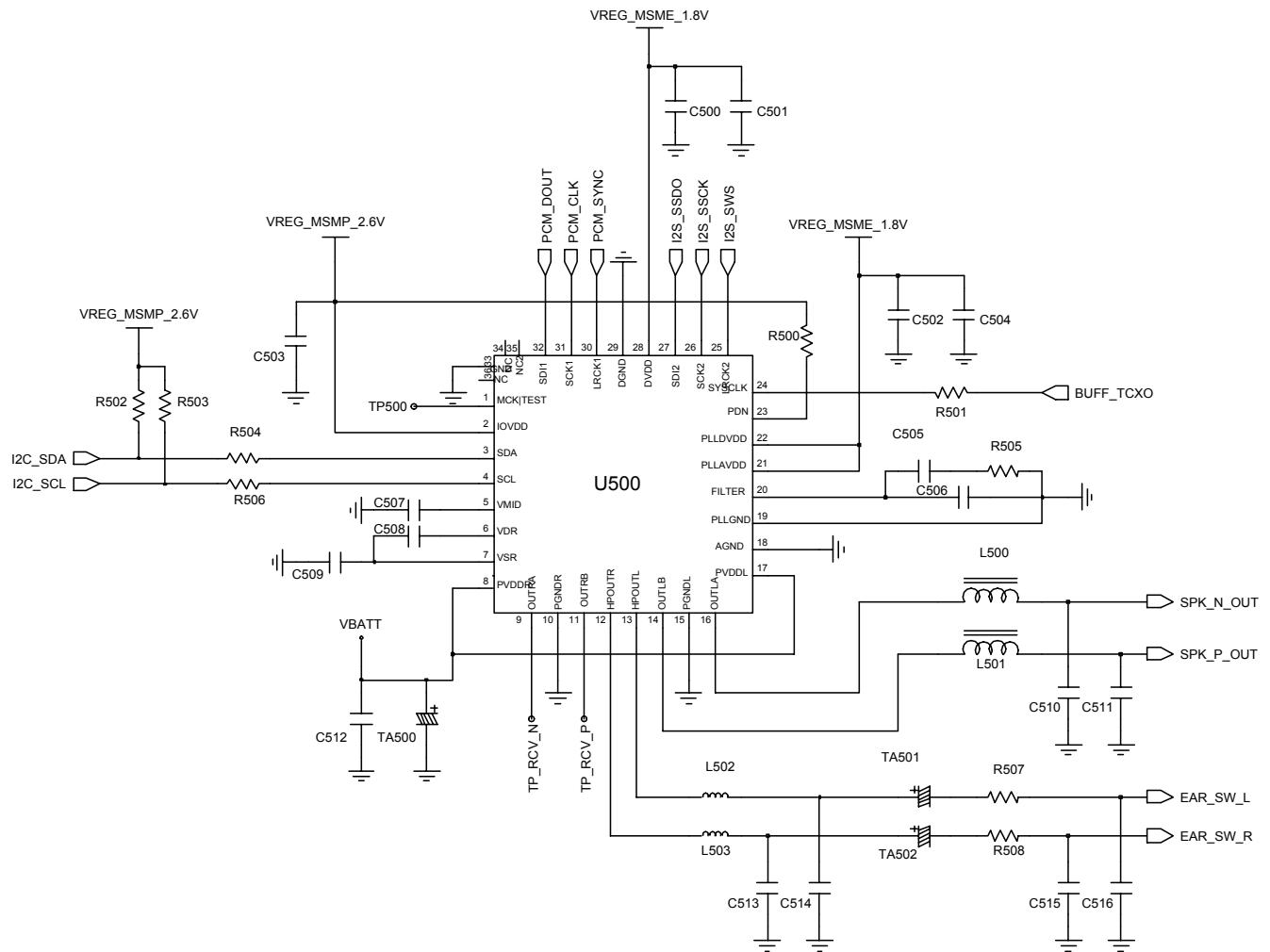


## Flow Chart of Troubleshooting

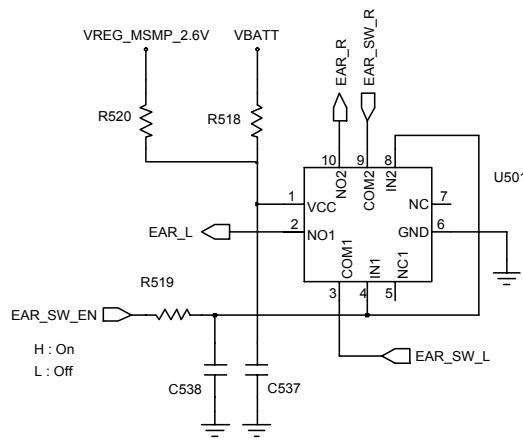
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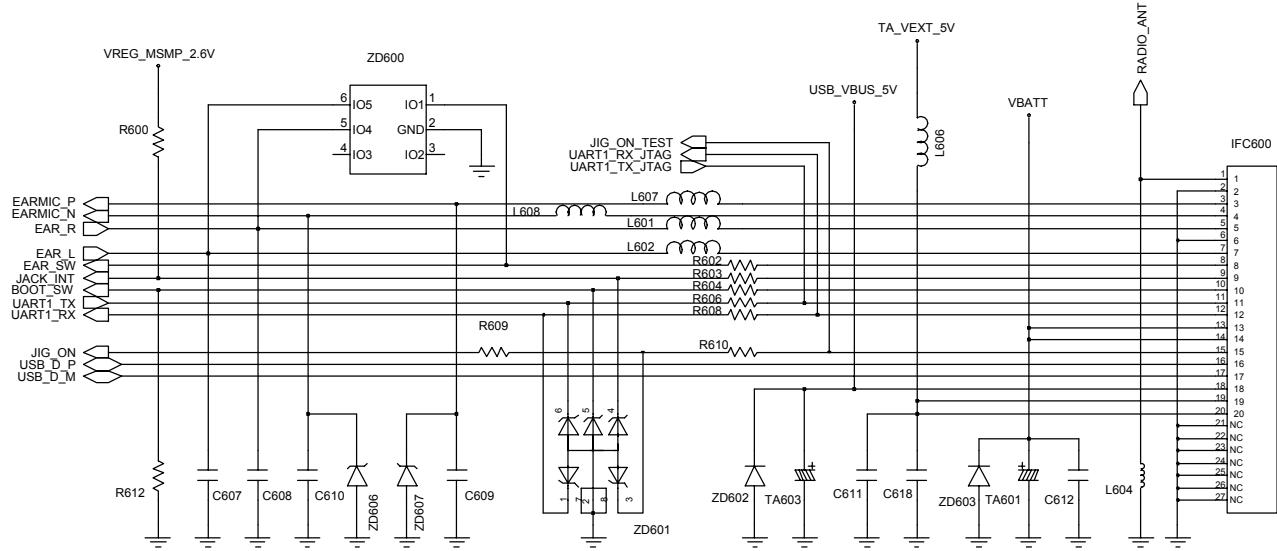
# <AUDIO AMP (SAPA2)>



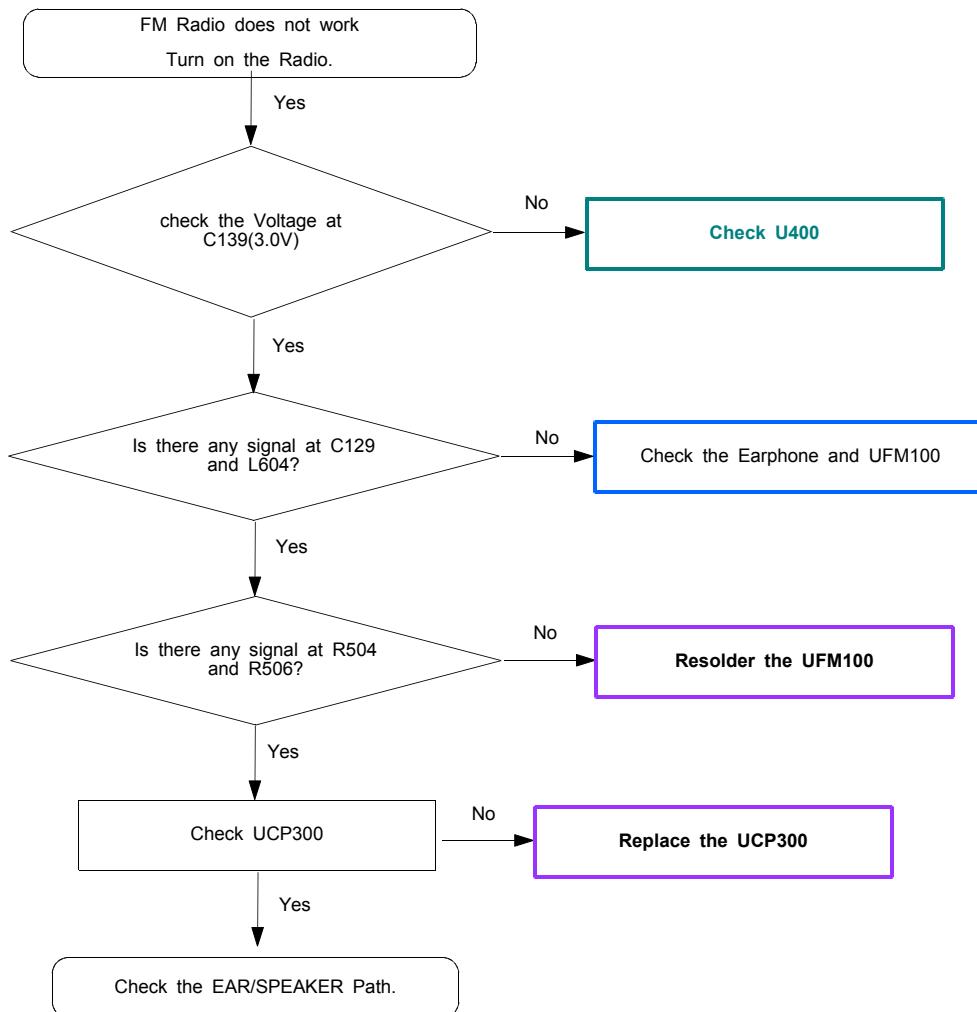
# <EAR SWITCH>



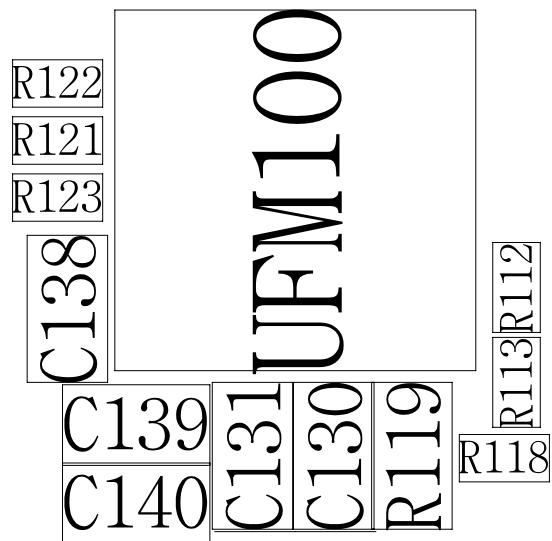
## < IF CONNECTOR >



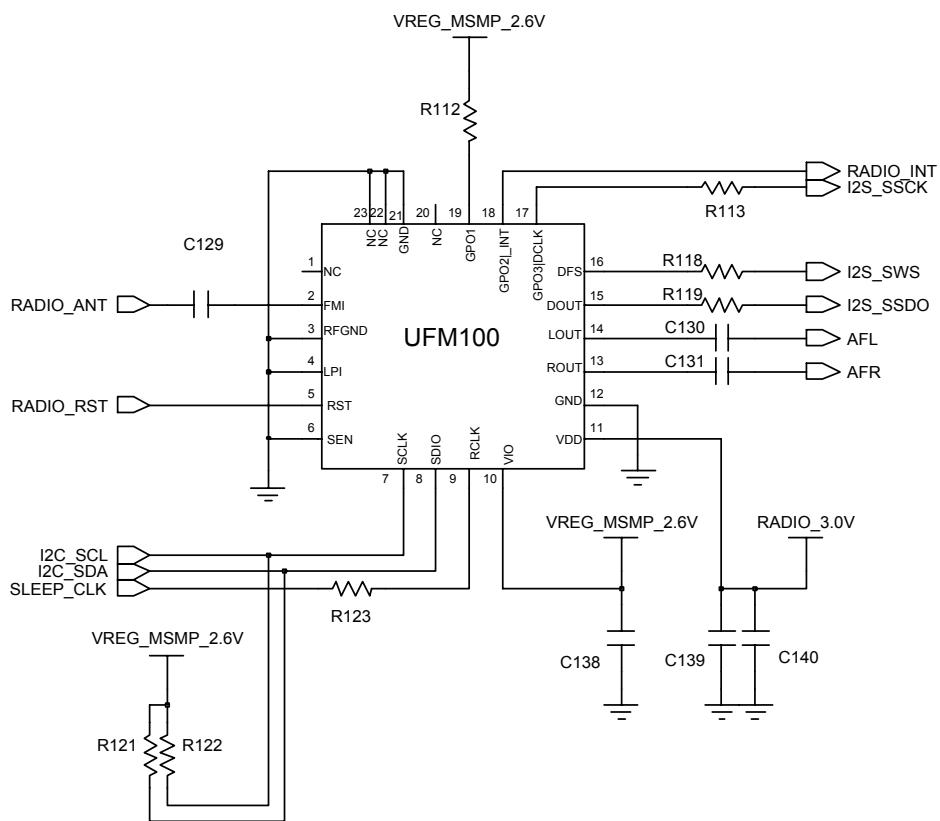
### 10-1-8. FM RADIO Part



C129

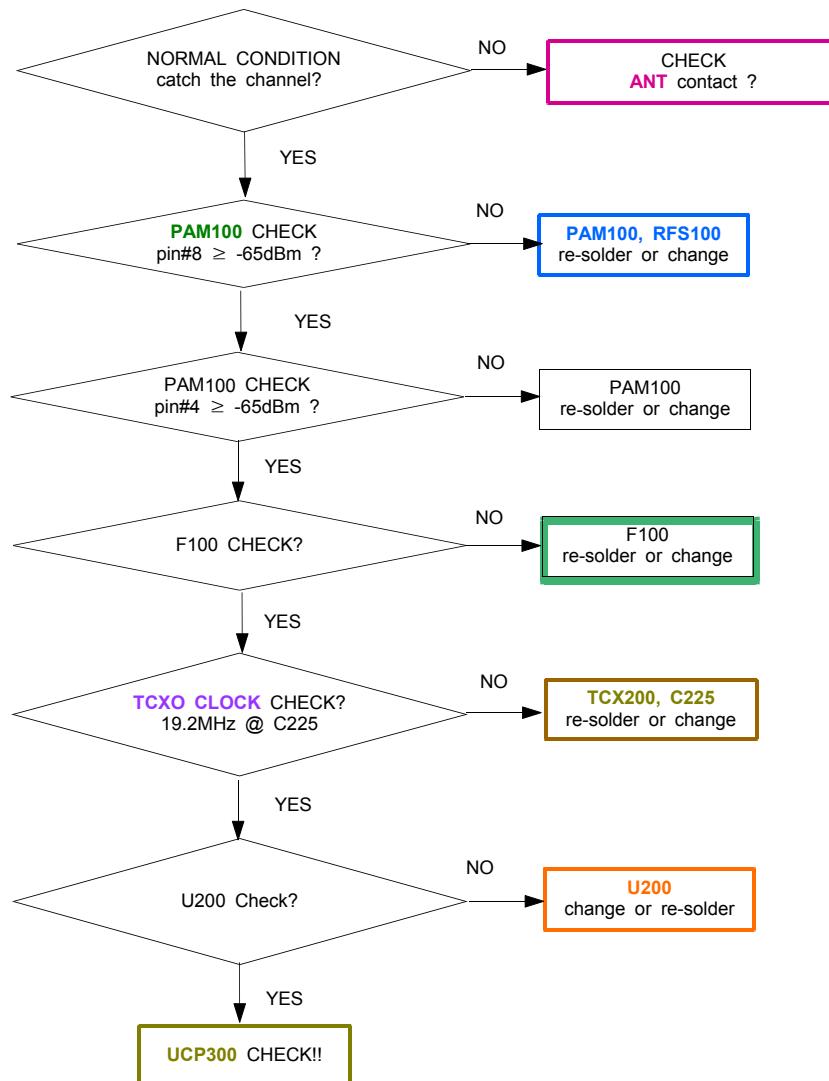


## < FM RADIO >

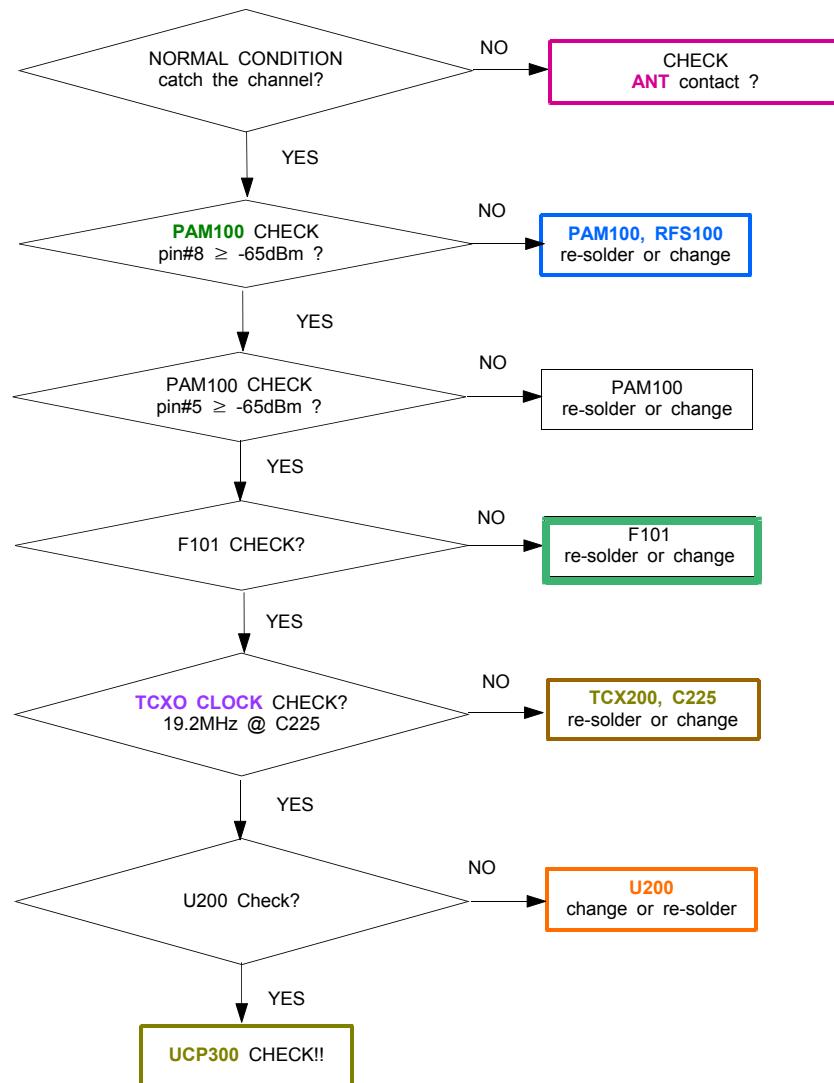


## 10-2-1. EGSM850 RX

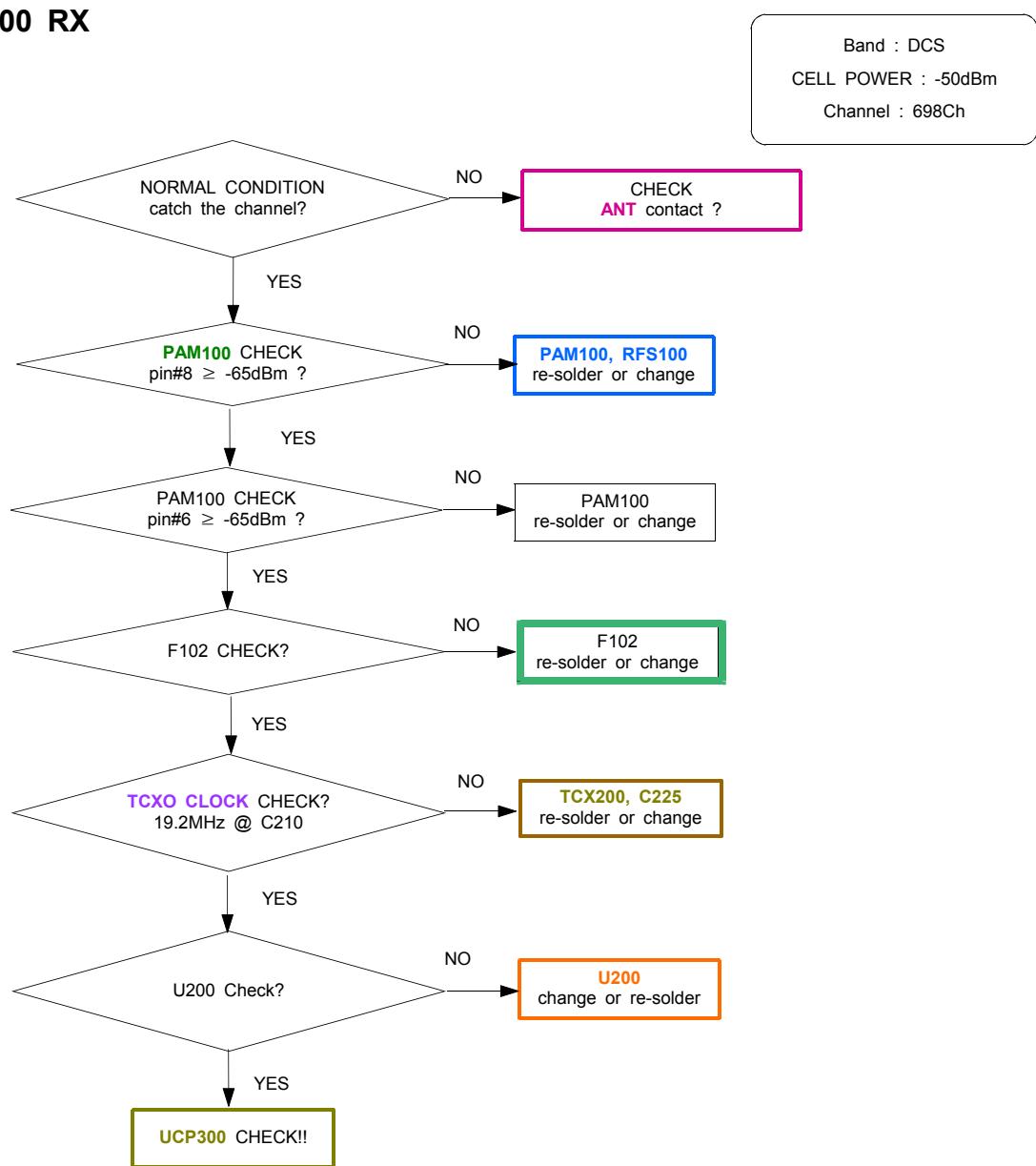
Band : GSM850  
 CELL POWER : -50dBm  
 Channel : 190Ch



## 10-2-2. EGSM900 RX

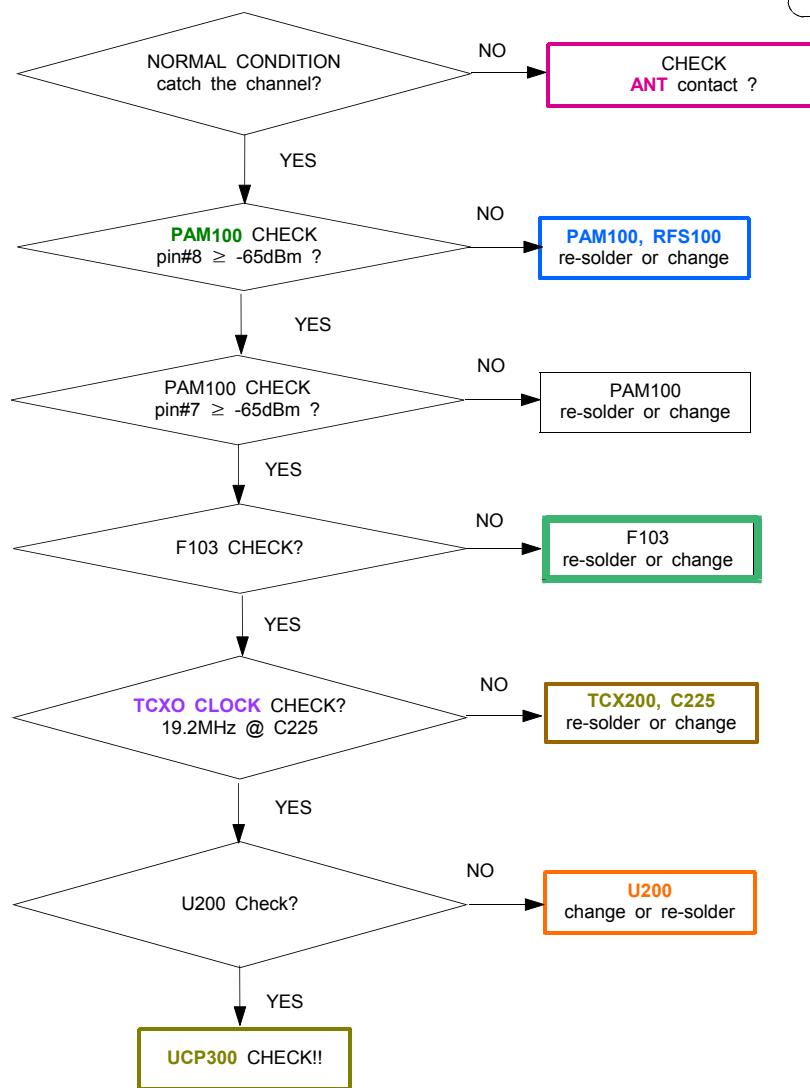


## 10-2-3. DCS1800 RX

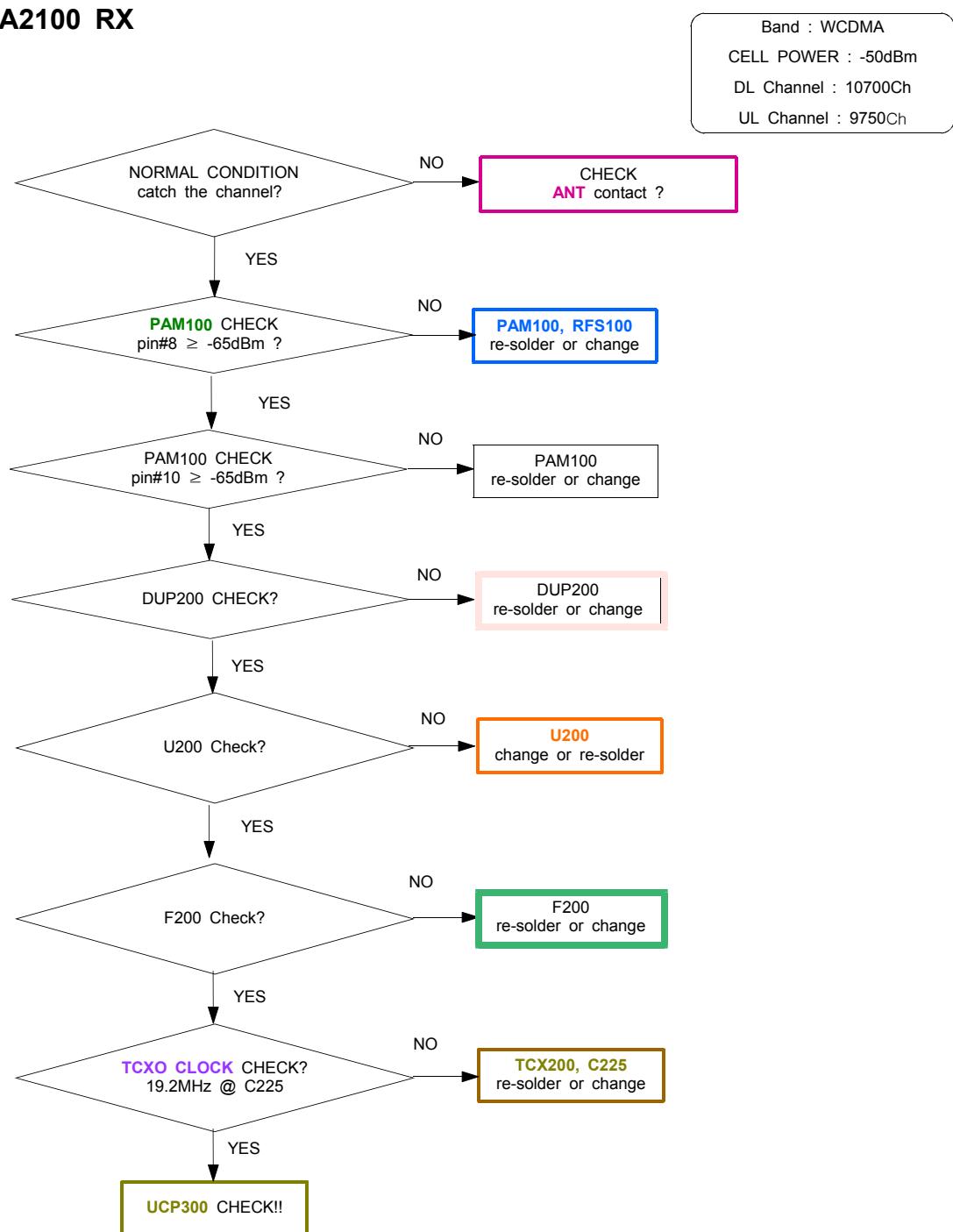


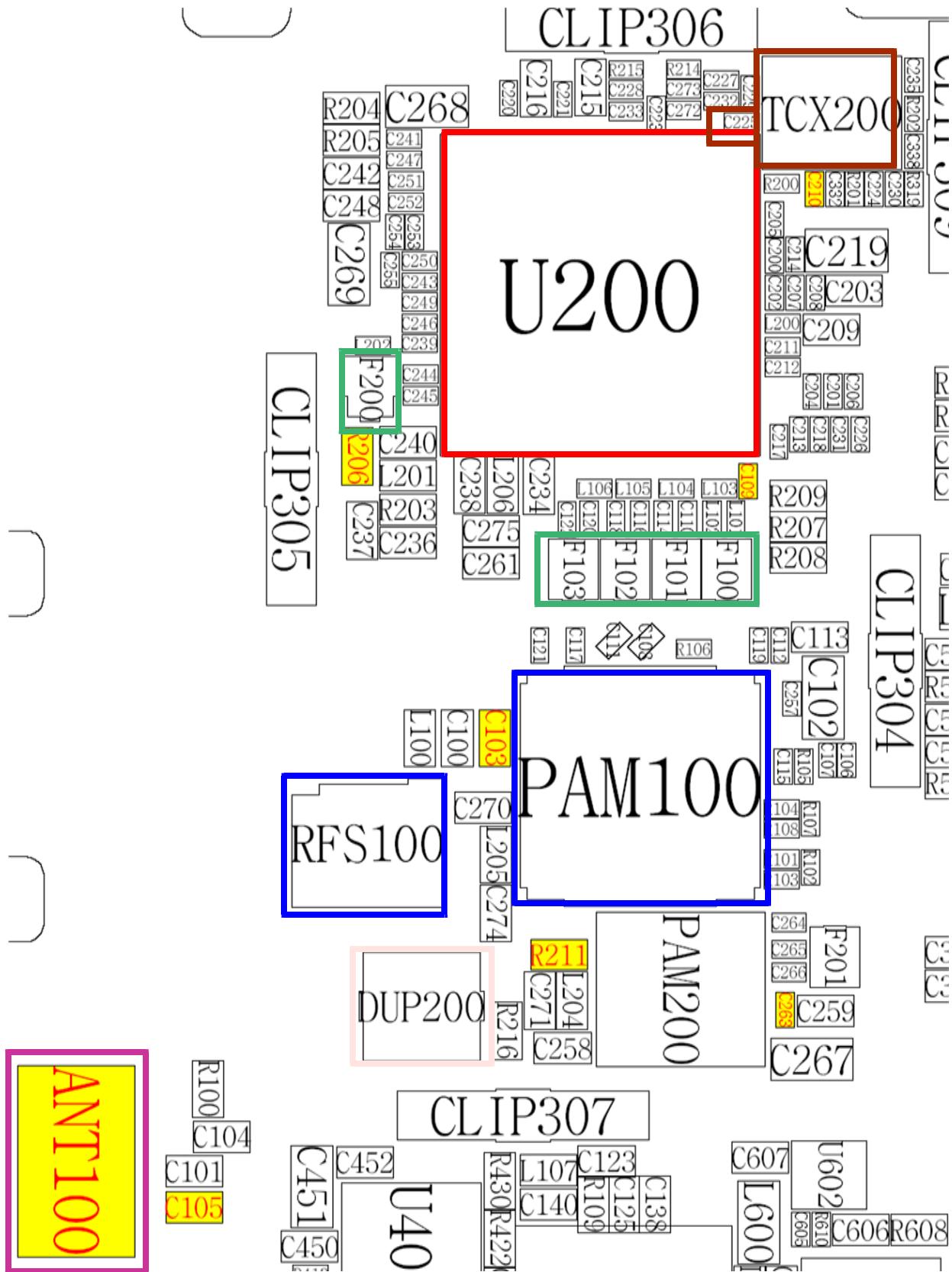
### 10-2-4. PCS1900 RX

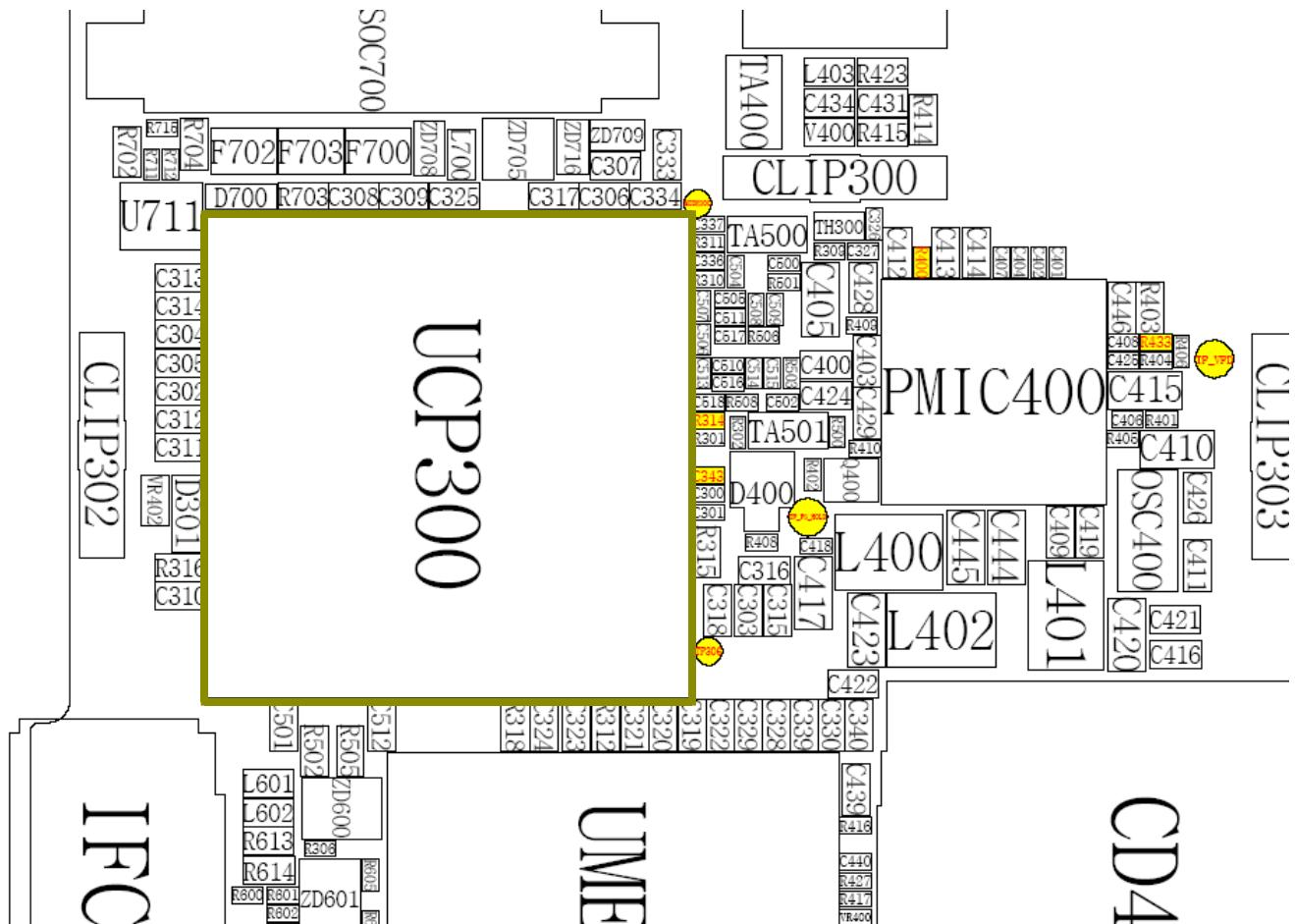
Band : PCS  
CELL POWER : -50dBm  
Channel : 661Ch



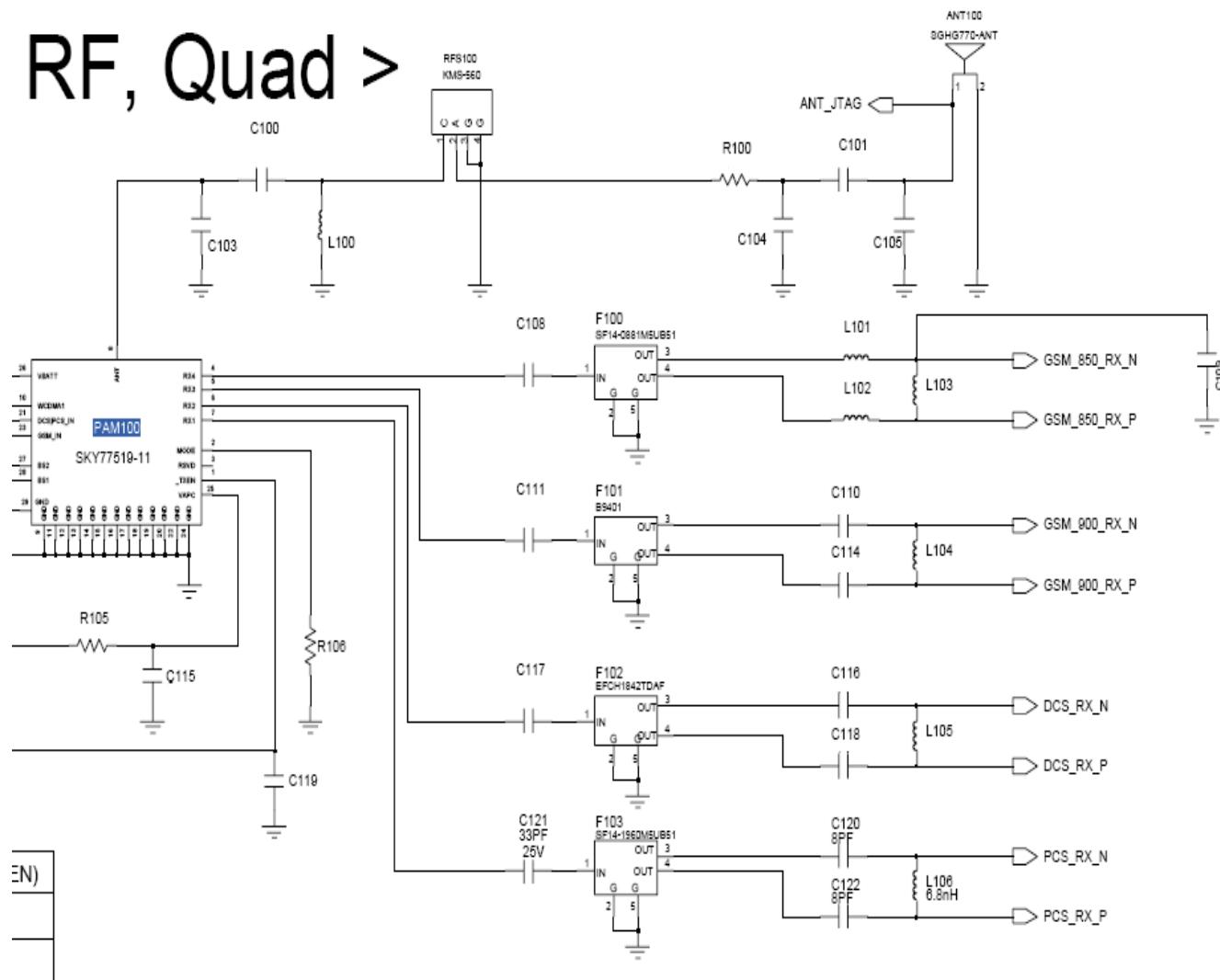
## 10-2-5. WCDMA2100 RX



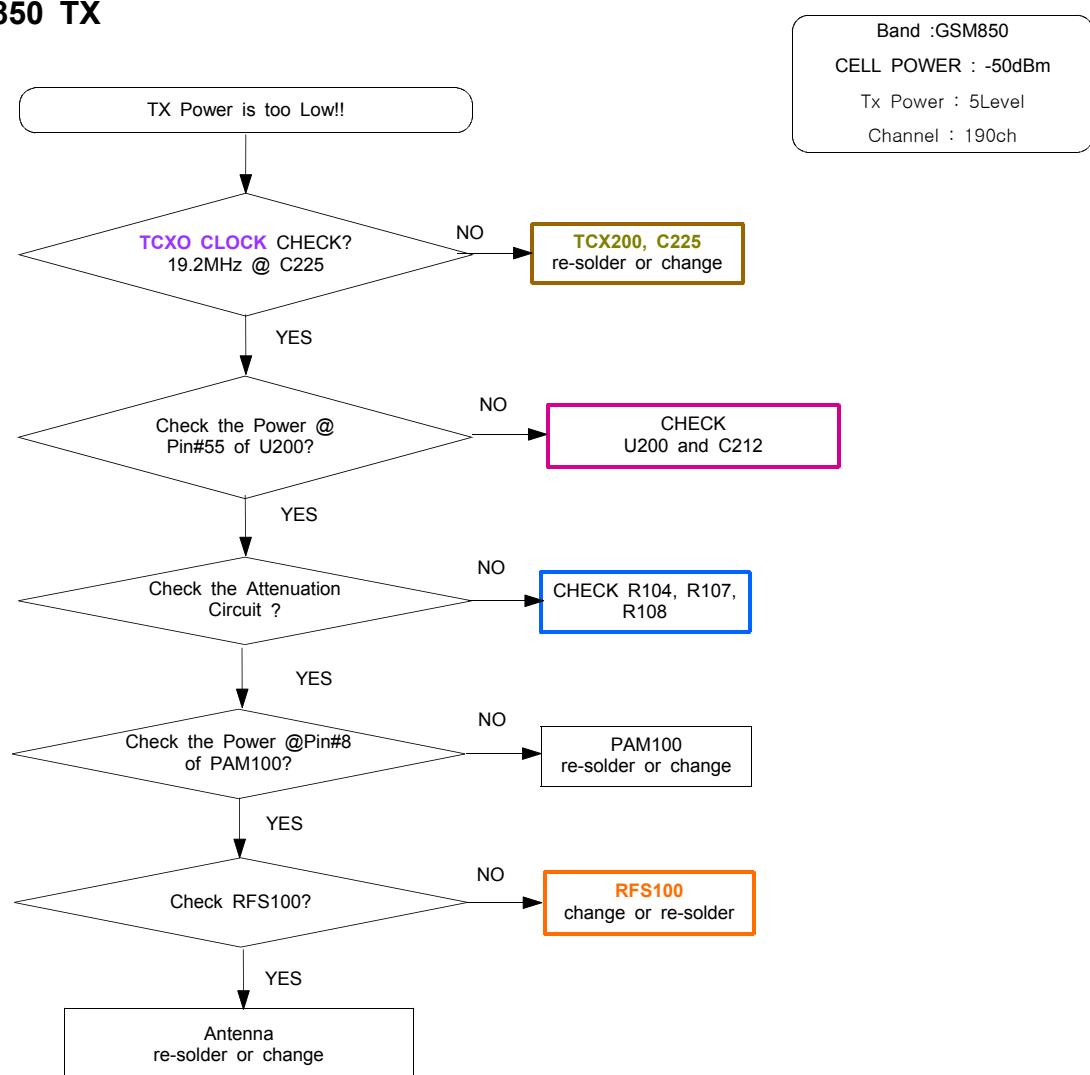




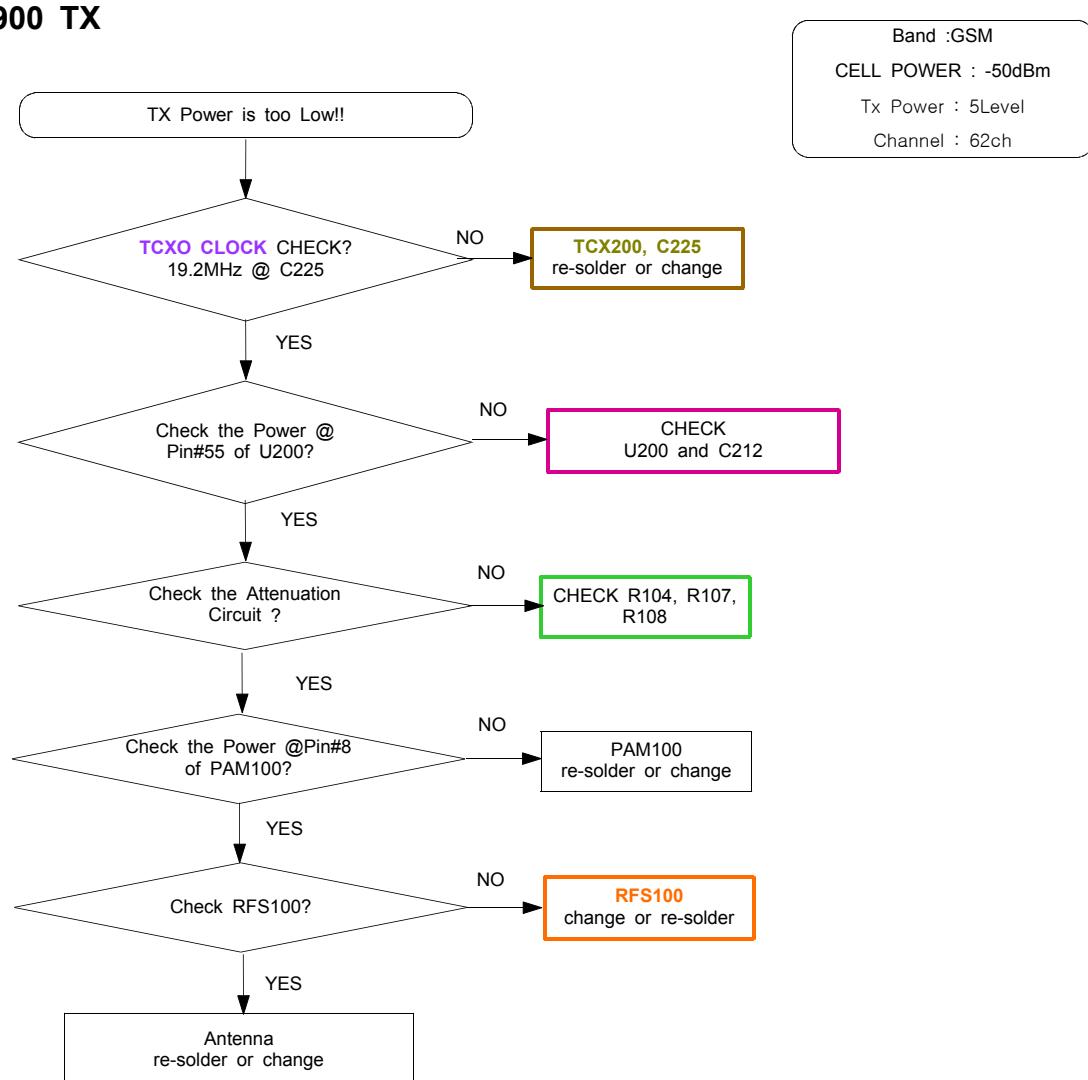
# RF, Quad >



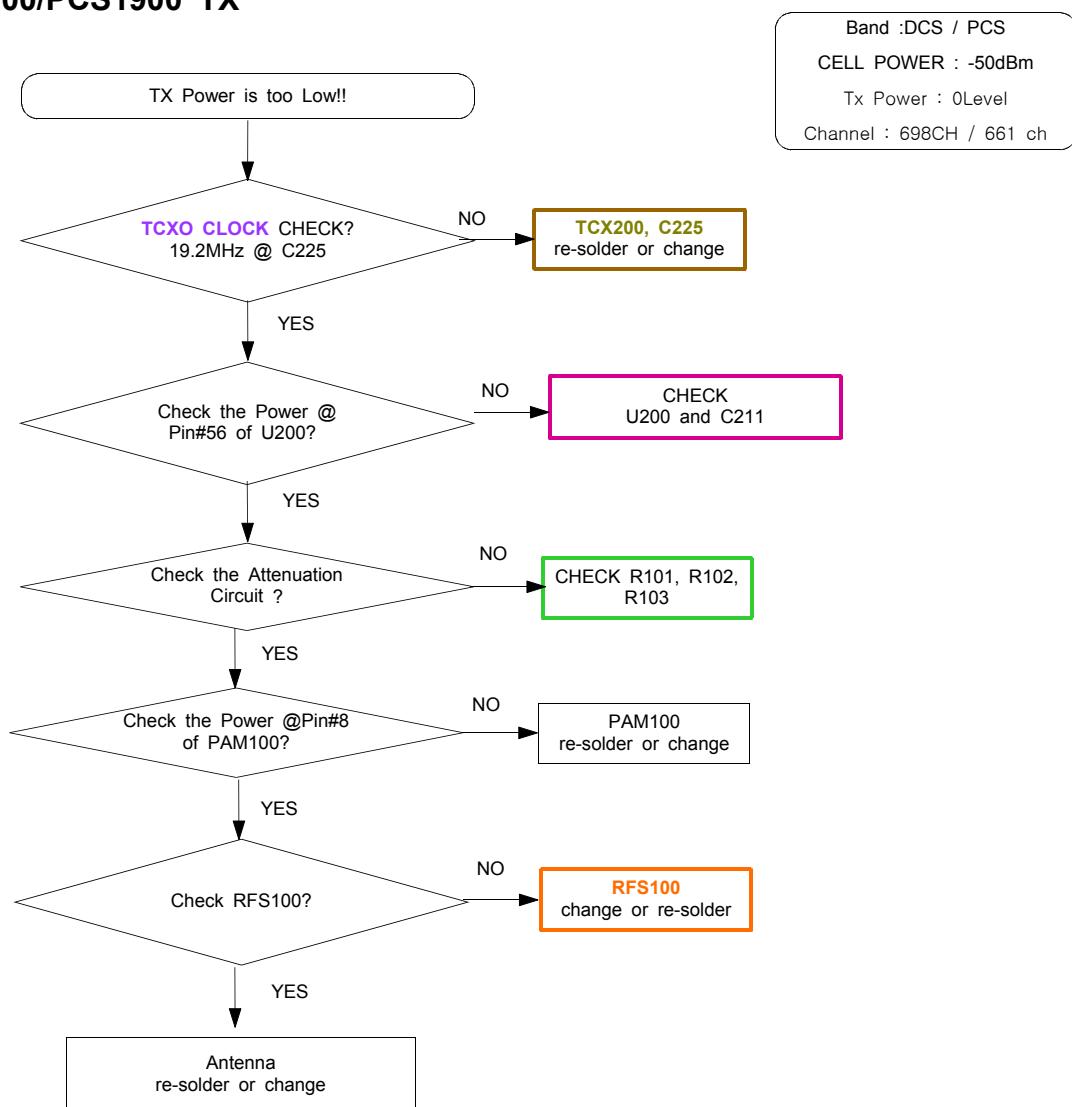
## 10-2-5. EGSM850 TX



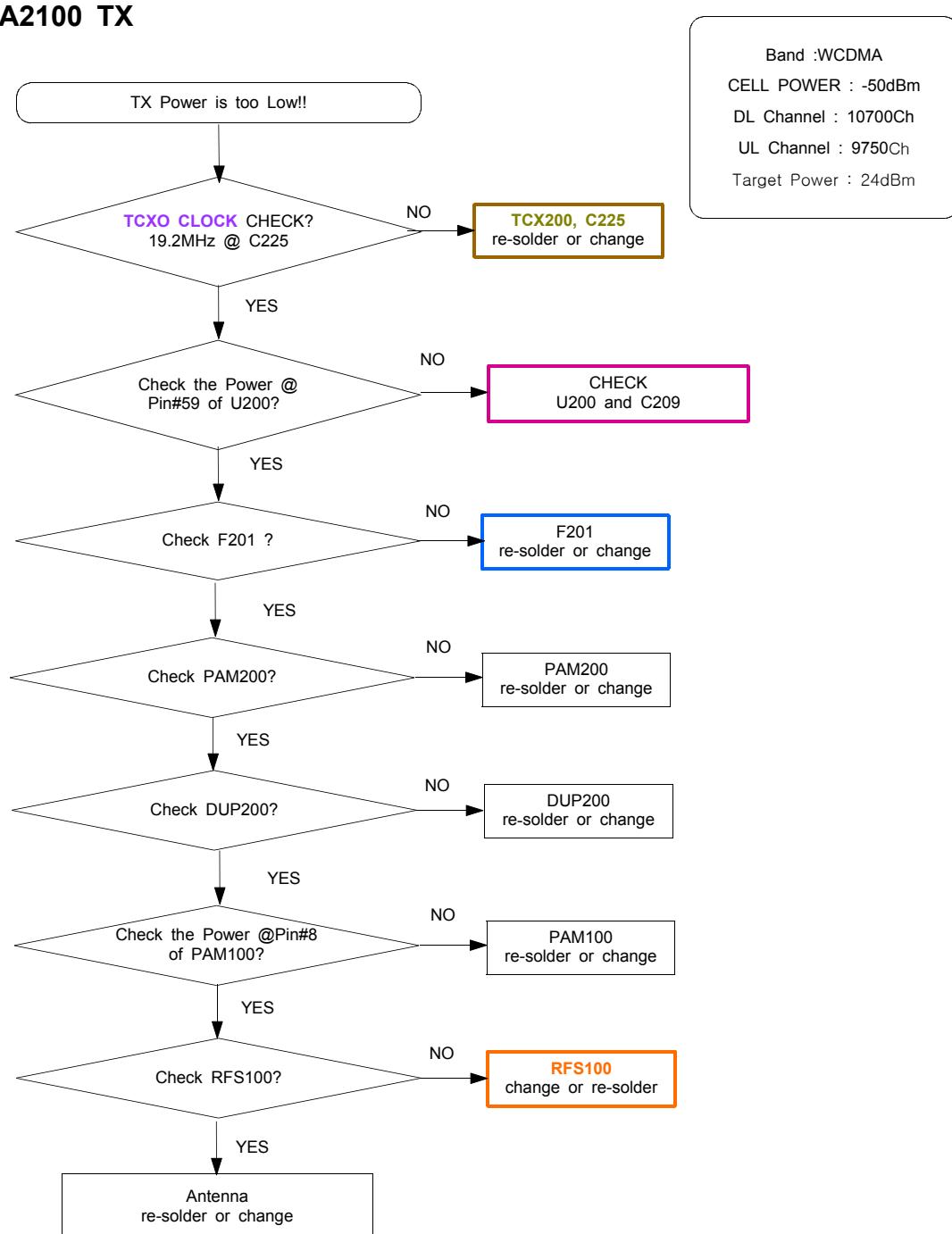
### 10-2-5. EGSM900 TX

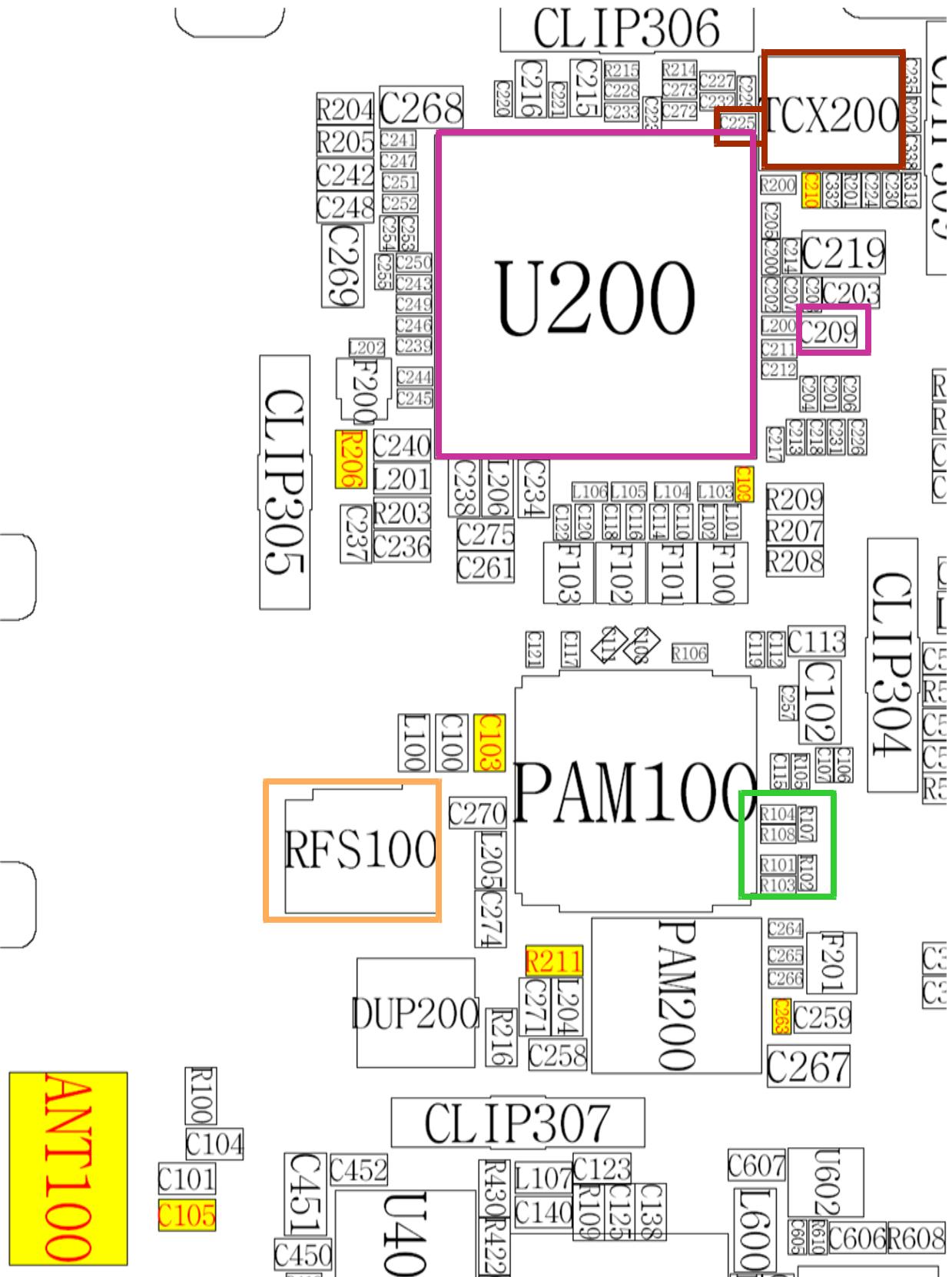


## 10-2-6. DCS1800/PCS1900 TX

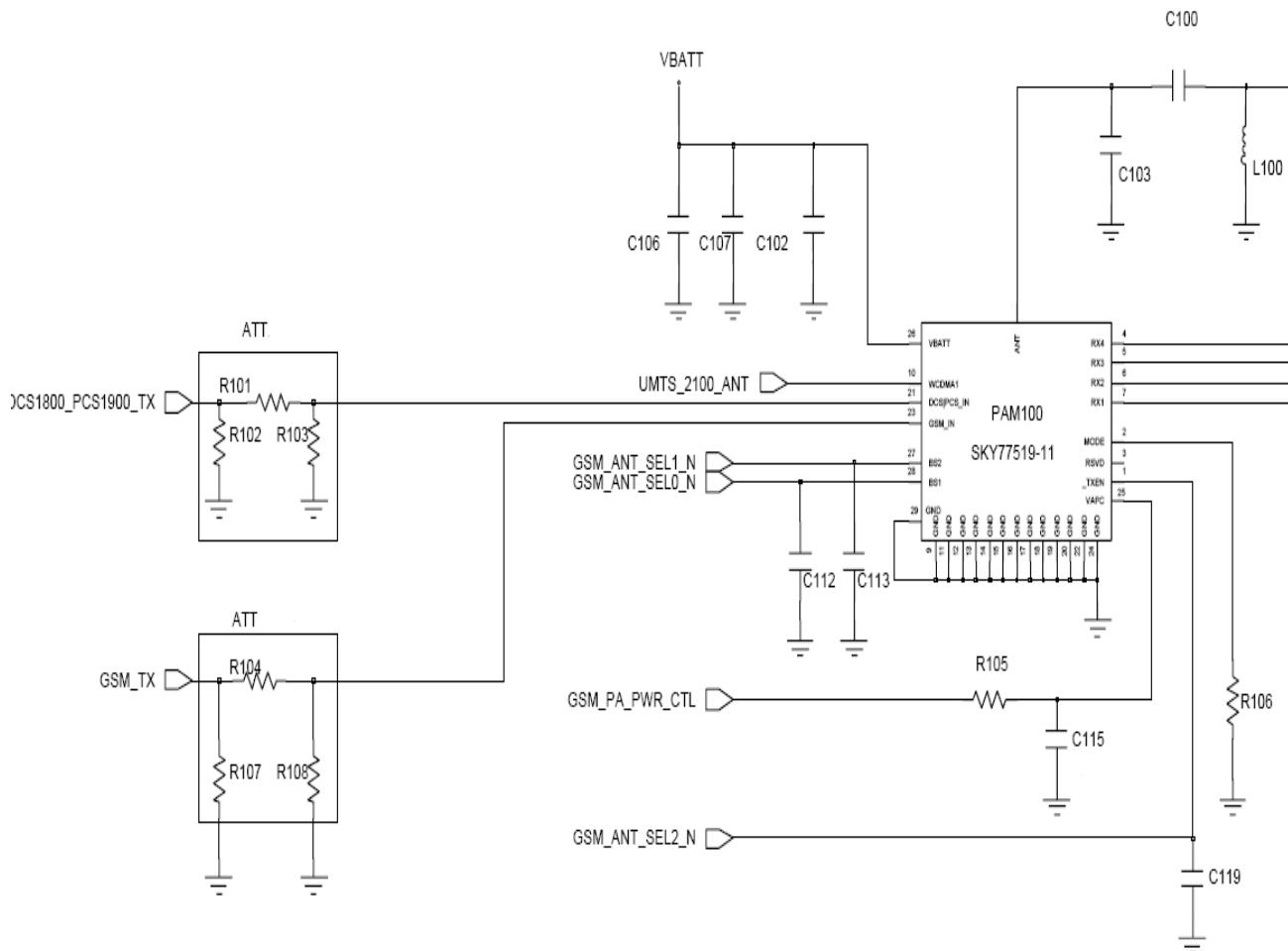


## 10-2-7. WCDMA2100 TX

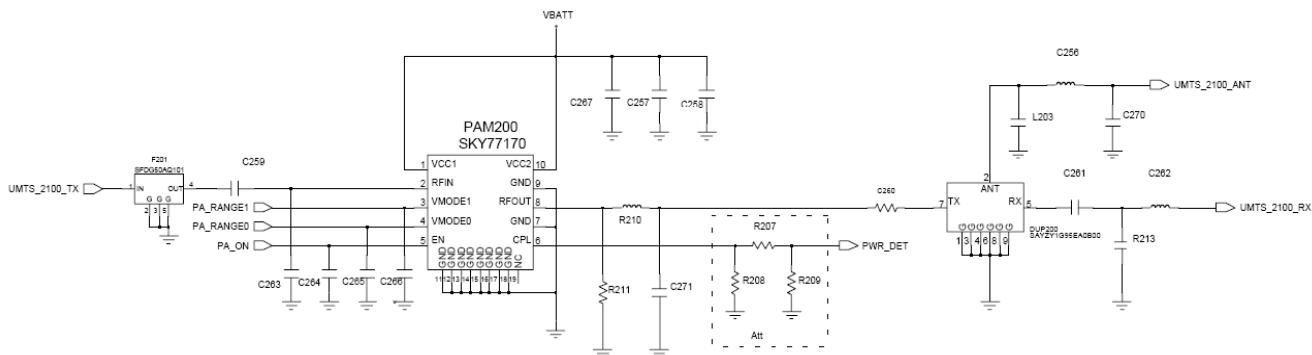


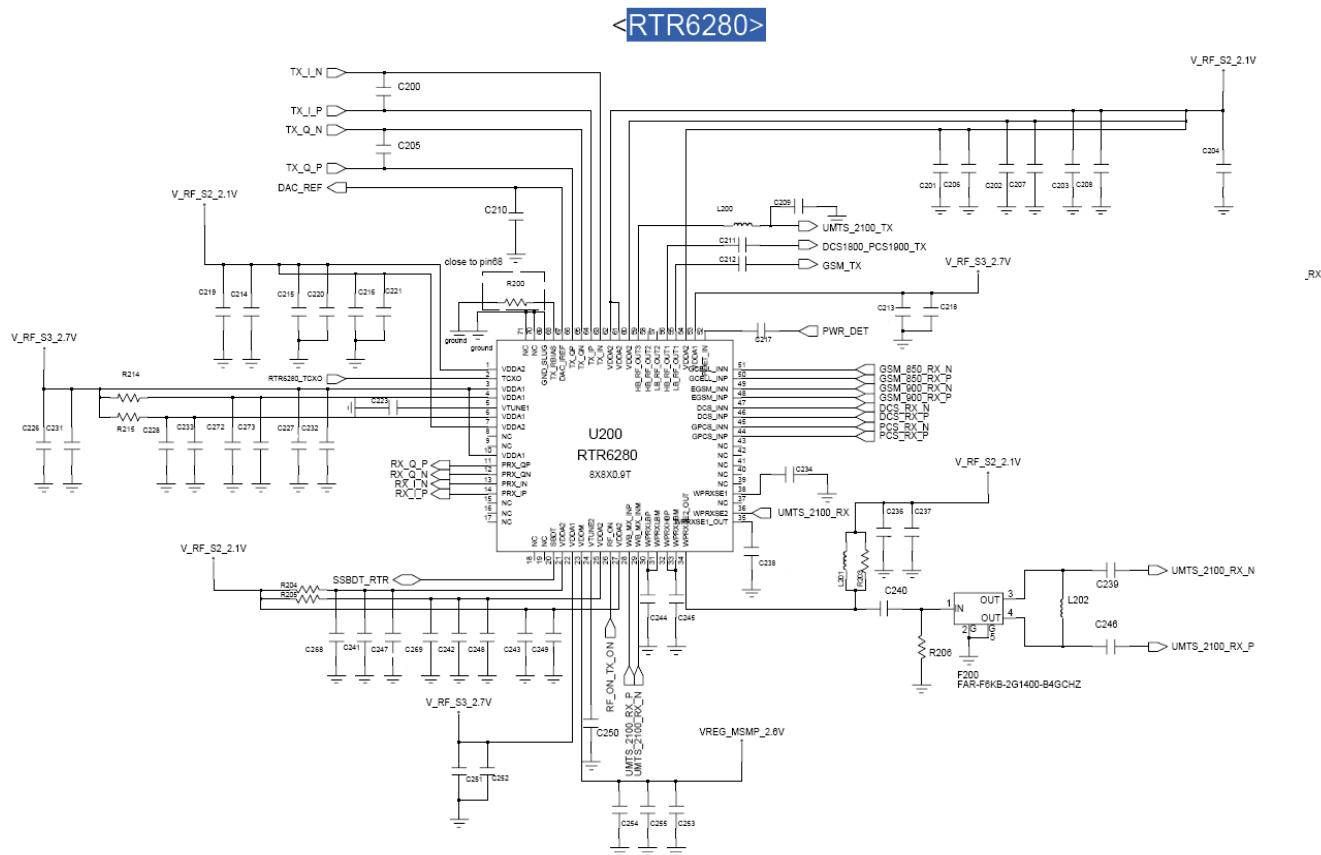


Flow Chart of Troubleshooting

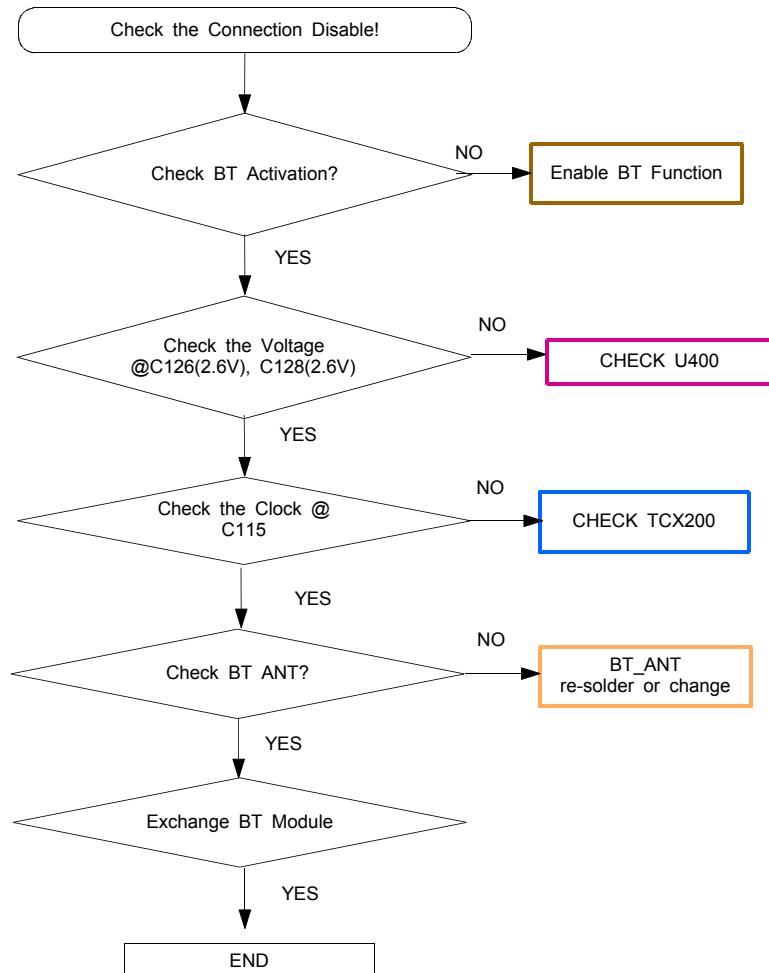


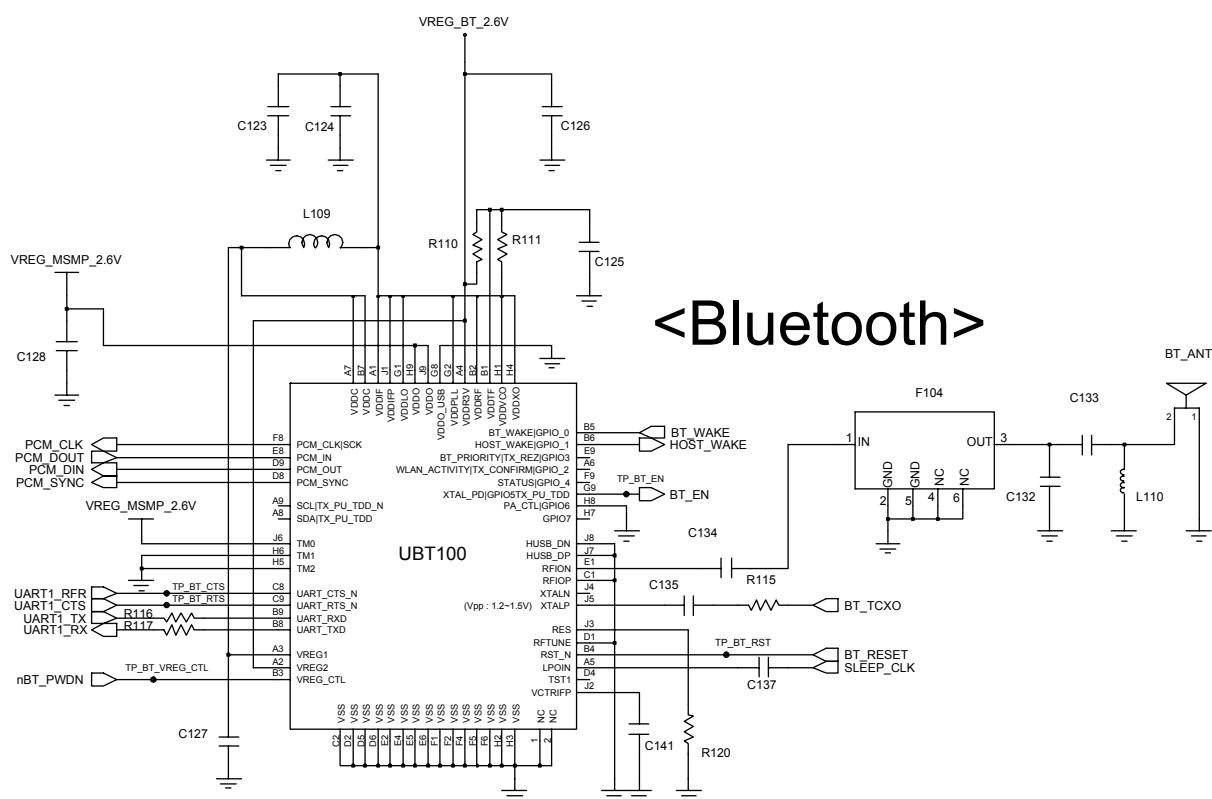
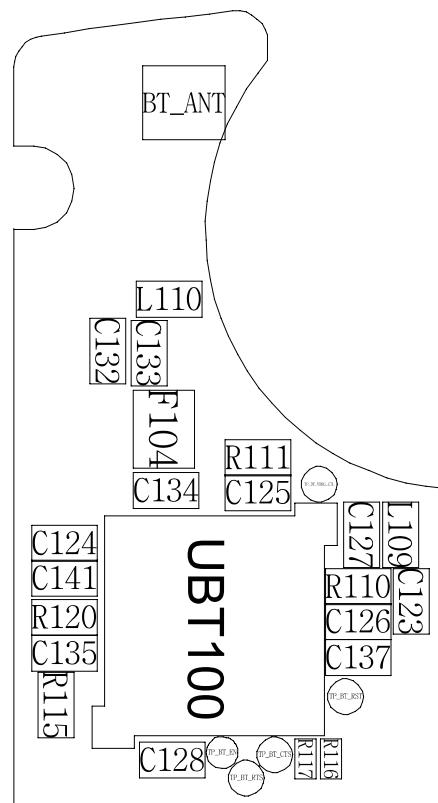
<3G RF>





### 10-2-8. Bluetooth Part





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## 4. Array course control

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### 4-1. Software Adjustments

1. JIG(GH80-03308A): Download, Trace, Calibration, etc



2. 0.4M Test cable(GH39-00886A): JIG to phone



3. 1.5M Test cable(GH39-00890A): JIG to phone



**4.Travel Adaptor(GH44-01702A)**



**5.Data Link Cable(GH39-00922A): USB cable**



**6.Serial cable(LJ39-00013A) : PC to JIG**



**7. RF test cable(GH39-00985A): RF test**



## 4-2. Software Downloading

### 4-2-1. Downloading Binary Files

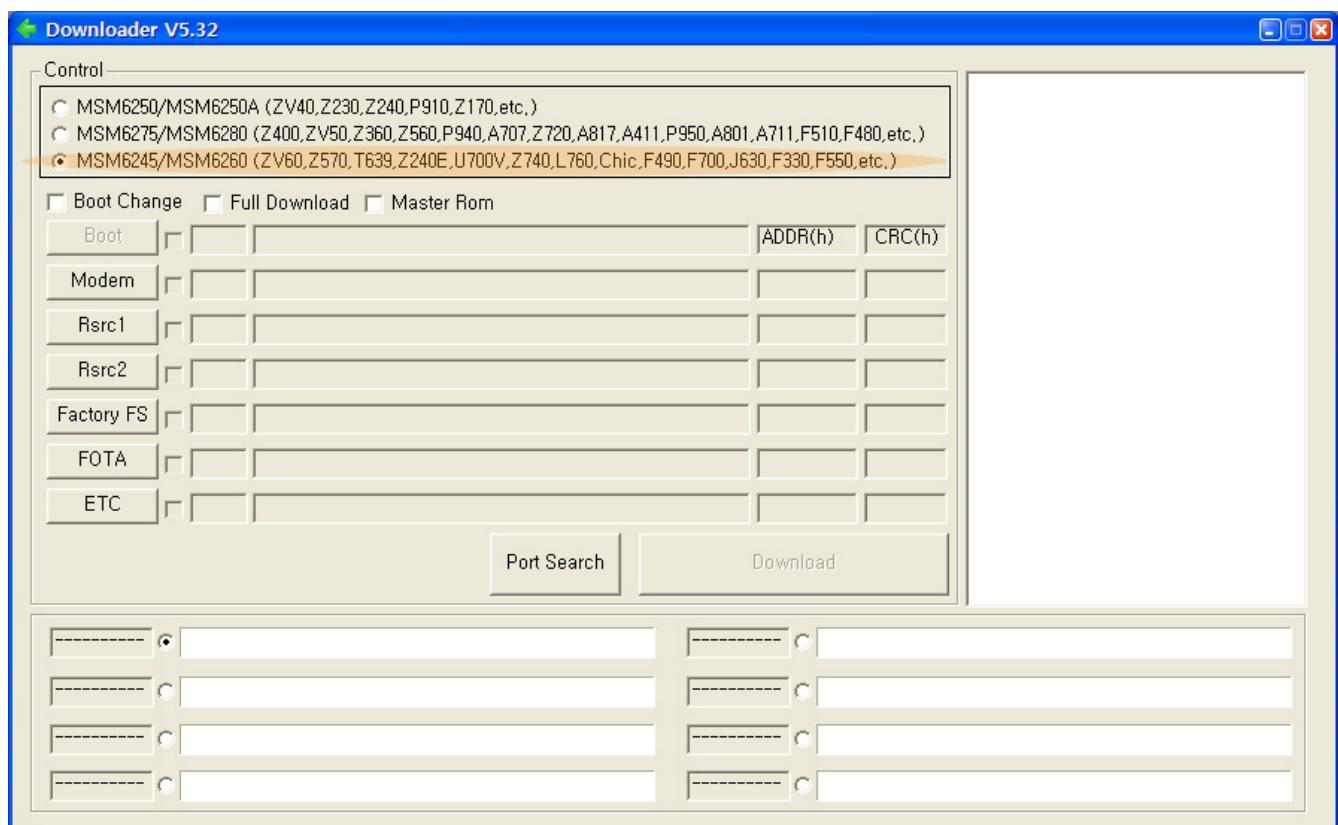
- Four binary files for downloading S7330
  - amss\_compressed.bin : Modem binary for communication function and user interface and various application
  - Rsrc\_S7330\_Open\_Europe\_Common.rc1 : Files need for each application
  - Rsrc2\_S7330(Low).rc2 : Power on/off animation
  - FactoryFs\_S7330\_Open\_Europe\_Common.ffd : Default file system to be put into in initial production

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

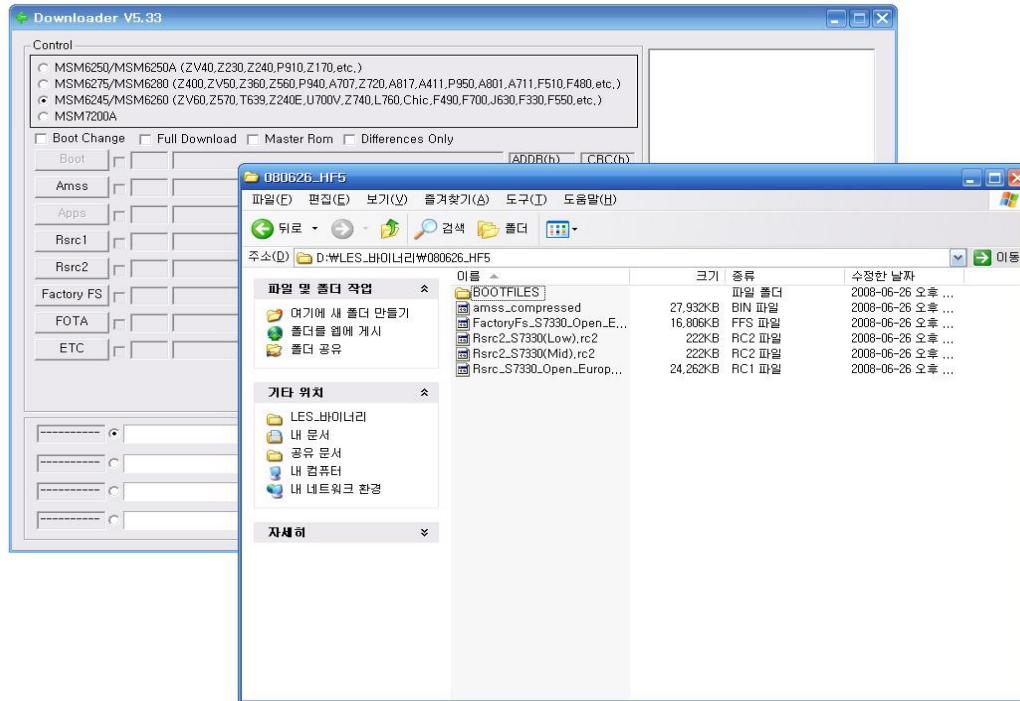
- Downloader Program ([MultiLoader V5.33.exe](#))
- S7330 Mobile Phone
- USB Data Link Cable
- Binary files

#### 4-2-3. S/W Downloader Program

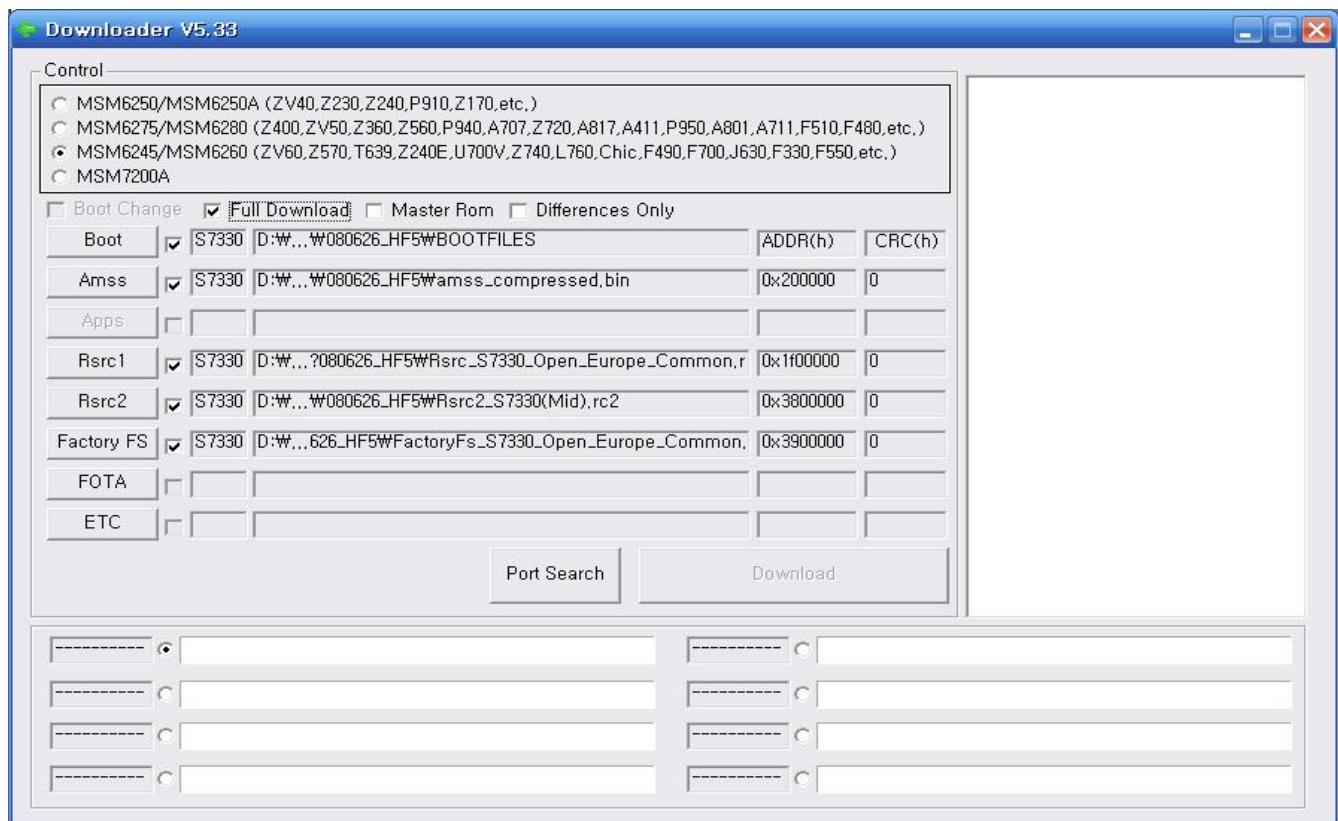
1. Boot the S7330 by pressing 'power ON' + 'star(\*)' at the same time.  
If you do properly, you can see the following message on Main LCD "Download"
2. Load the binary download program by executing the "**MultiLoader V5.33.exe**".  
And the Check the **MSM6245/MSM6260**



3. Select the binary file what you want to download and drag all

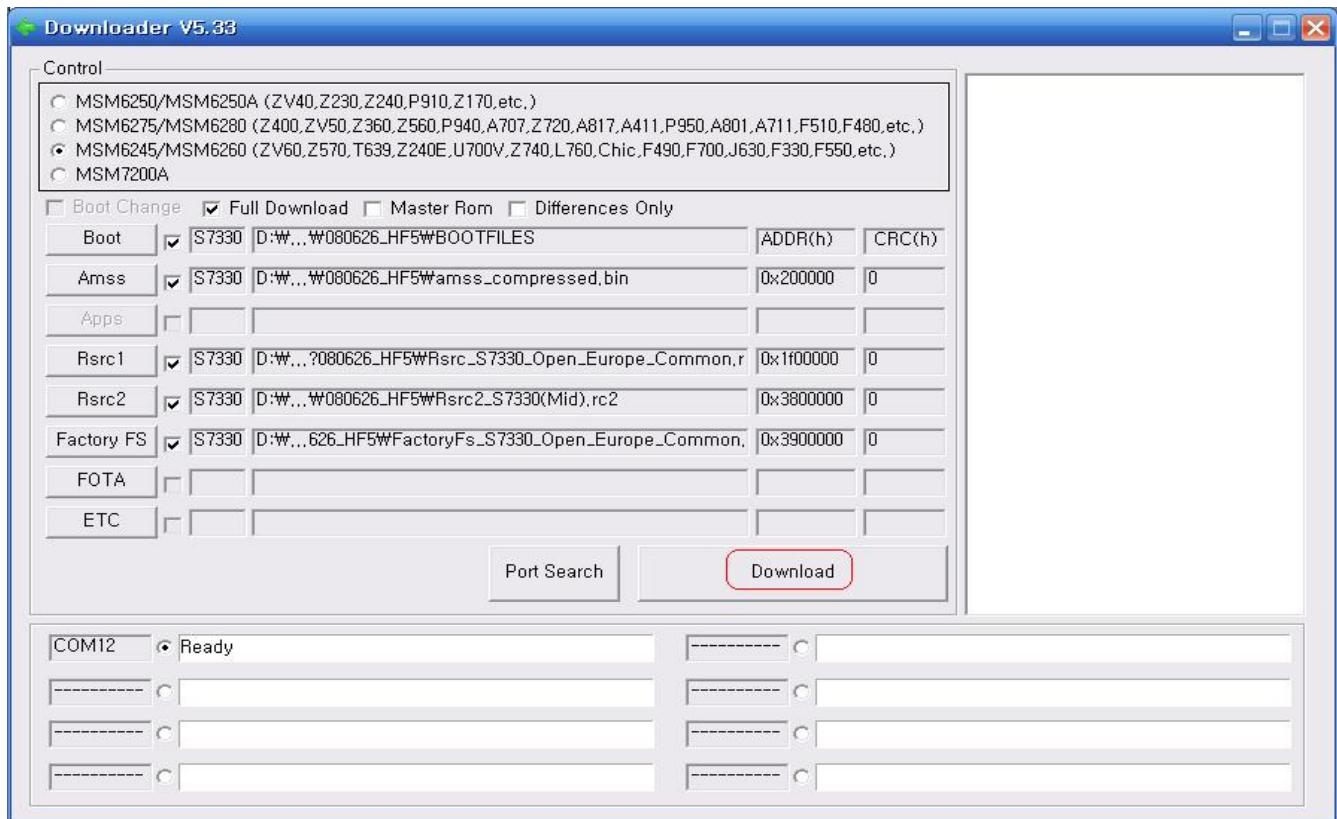


4. Select the check box what you want to download.



\* Up to eight ports are supported.

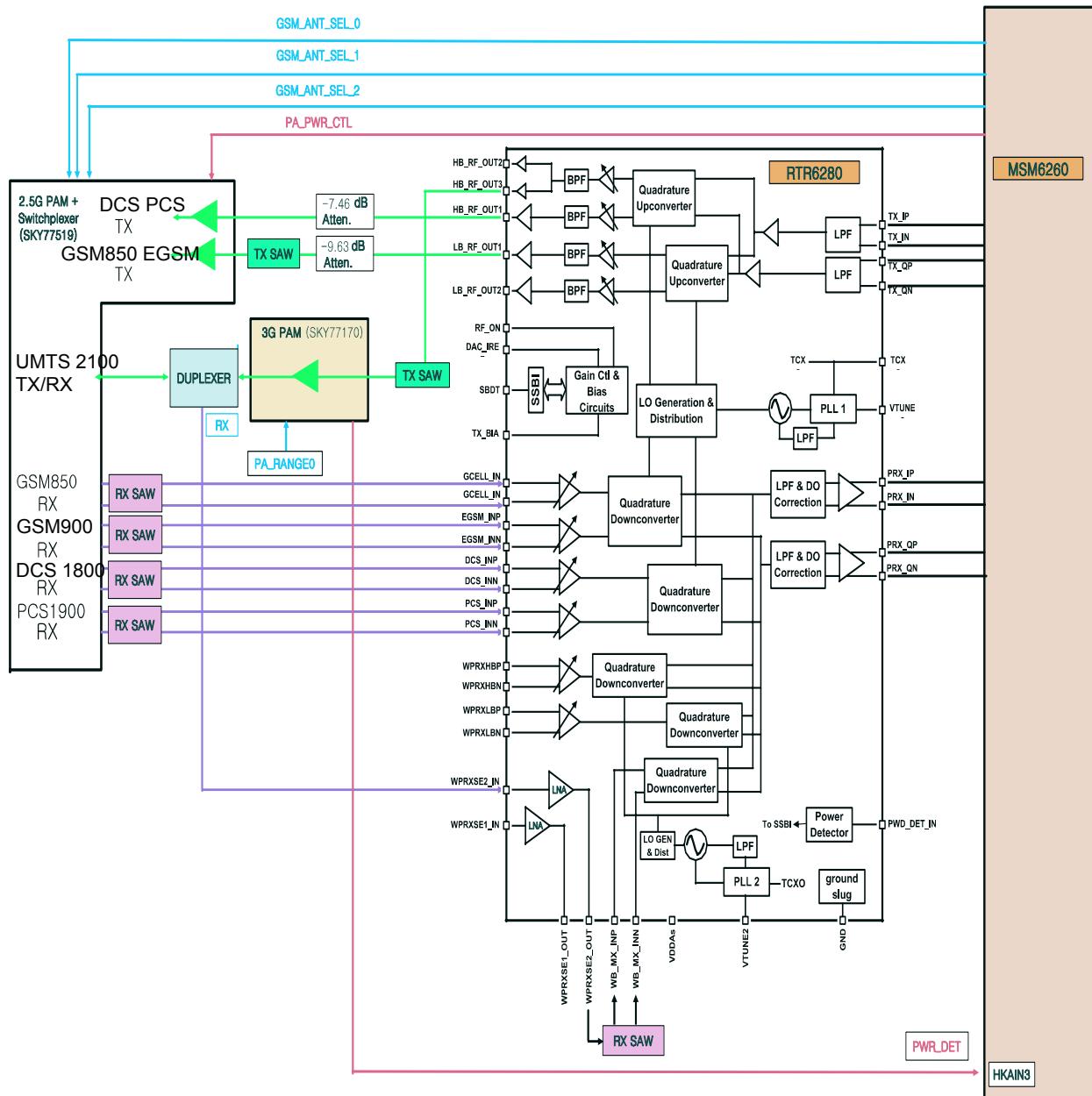
5. Now press the button 'DownLoad'.



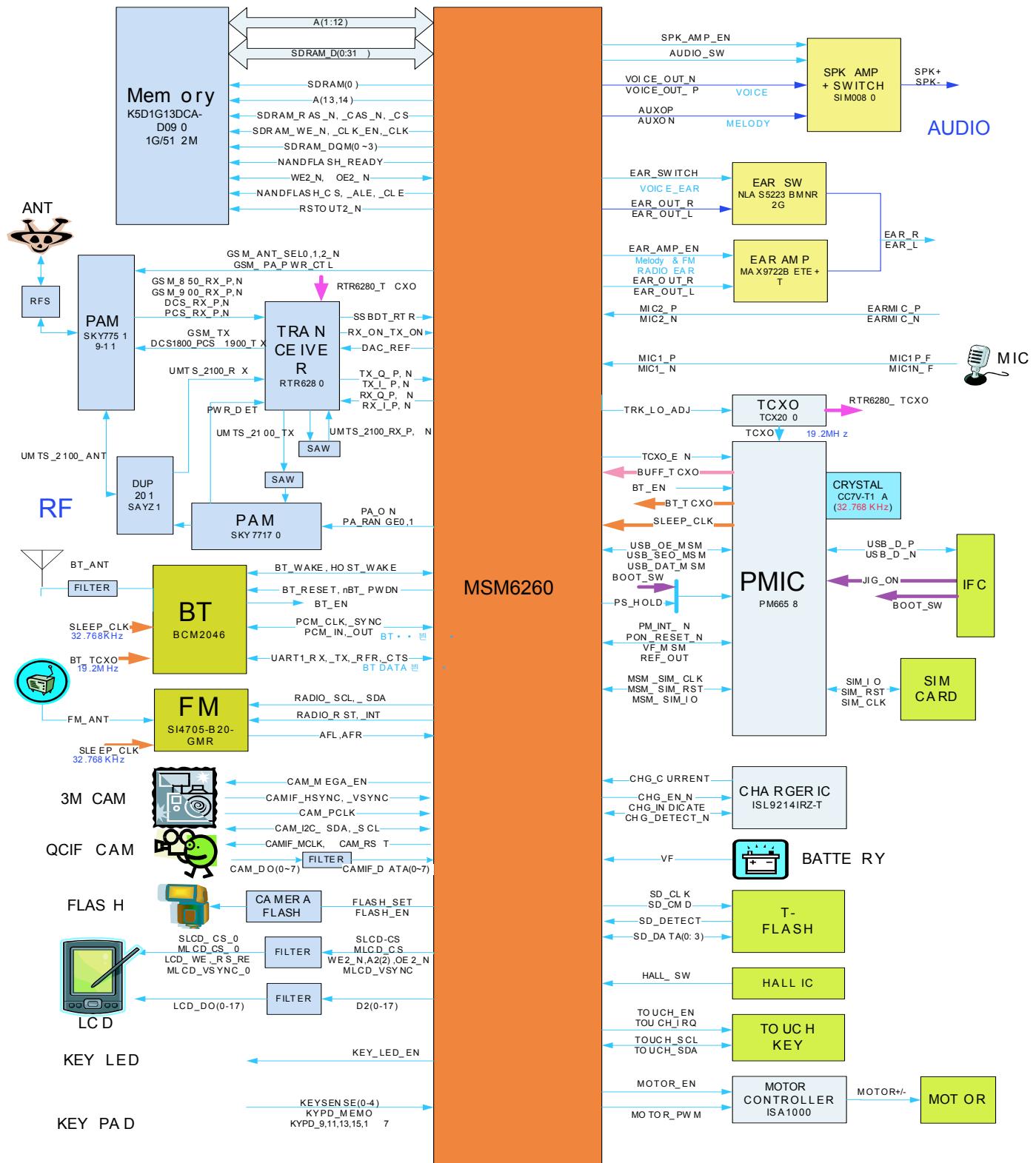
-If there is difference in FactoryFS.bin, UE will format file system automatically.

## 8. Block Diagrams

### S7330 RF Block Diagram



## S7330 BLOCK DIAGRAM



## 6. MAIN Electrical Parts List

Design LOC	SEC CODE	Description
ZD602,ZD603	0403-001547	TDZ5.6
D700	0404-001153	SDB310Q
D300,D301	0404-001172	RB520S-30
ZD600,ZD601	0406-001208	uClamp0505A
ZD400,ZD700,ZD701	0406-001254	UCLAMP0501P
ZD710,ZD711,ZD712	0406-001254	UCLAMP0501P
ZD713,ZD714,ZD715	0406-001254	UCLAMP0501P
ZD702,ZD703,ZD705	0406-001256	RCLAMP0504P.TCT
ZD708,ZD709,ZD716	0406-001303	UCLAMP3301P
D400	0407-001002	DAN222TL
Q400	0504-001113	DTC144EM
U711	1001-001336	FSA2267AL10X
U500	1001-001410	NLAS5223BMNR2G
U601	1003-002047	ISA1000
UME300	1108-000159	K5D1G13DCA-D090
U502	1201-002195	MAX9722BETE+T
PAM100	1201-002570	SKY77519-11
U501	1201-002597	S1M0080X01-P070
PAM200	1201-002703	SKY77170
U602	1203-003815	R1114D301D-TR-F
U400	1203-004518	ISL9214IRZ-T
U600	1203-004682	MIC5320-SMYMT
PMIC400	1203-004778	PM6658
UFM100	1204-002924	SI4705-B20-GMR
UCP300	1205-003215	MSM6260
U200	1205-003341	RTR6280
UBT100	1205-003419	BCM2046SB1KUFBXG
TH300	1404-001224	NCP15XH103E04RC
V700	1405-001082	VC040205X150R
V400	1405-001110	AVLC-14S-02-050
V401,VR402	1405-001133	AVLC-18S-02-015
VR400,VR401	1405-001177	AVLC-5S-01-015
R208,R209,R509,R702	2007-000138	RC1005J101CS
R203	2007-000140	RC1005J102CS
R407	2007-000144	RC1005J512CS
R312,R315,R316,R513	2007-000148	RC1005J103CS
R515,R703,R704	2007-000148	RC1005J103CS

Design LOC	SEC CODE	Description
R420	2007-000151	RC1005J153CS
R608,R611	2007-000157	RC1005J473CS
R421	2007-000169	TSR16GJ514V
R100,R109,R216,R502	2007-000171	WR0402X000JT
R504,R505,R507,R521	2007-000171	WR0402X000JT
R522,R523,R529,R531	2007-000171	WR0402X000JT
R533,R606,R613,R614	2007-000171	WR0402X000JT
R615,R700,R701	2007-000171	WR0402X000JT
R112	2007-000172	RC1005J100CS
R516,R517,R519,R527	2007-000173	RC1005J220CS
R612	2007-000636	RC1005J274CS
R607	2007-000831	RC1005J393CS
R518,R520	2007-000982	RC1005J562CS
R205	2007-001285	ERJ2GEJ5R6X
R318	2007-001290	RC1005J240CS
R526,R530	2007-001295	RC1005J390CS
R313	2007-001298	RC1005J510CS
R511,R512	2007-001301	MCR01MZP5J680
R524	2007-001333	MCR01MZP5J183
R207	2007-007009	MCR01MZP5J750
R423	2007-007107	RC1005F1003CS
R430	2007-007132	RC1005F153CS
R414	2007-007142	RC1005F103CS
R422	2007-007314	MCR01MZP5F5601
R415	2007-007318	MCR01MZP5F1001
R403	2007-007468	RK73H1ETP1213F
R115	2007-007489	RK73H1ETP1503F
R302,R309	2007-007741	M5534204B10E0R
R104	2007-008044	MCR006MZPJ680
R202	2007-008045	ERJ1GEJ101C
R102,R103	2007-008046	RC0603J121CS
R319	2007-008049	MCR006YZPJ202
R113,R114	2007-008052	ERJ1GENJ472X
R306,R402,R412,R426	2007-008055	ERJ1GENJ104X
R711	2007-008055	ERJ1GENJ104X
R600,R601,R603,R604	2007-008419	ERJ1GEJ102C
R503	2007-008478	RMC1/20152JPA

Design LOC	SEC CODE	Description
R410,R609	2007-008483	RMC1/20473JPA
R408,R413,R712	2007-008486	ERJ1GEJ204C
R106,R310,R311,R409	2007-008516	ERJ1GEJ103C
R416,R417,R418,R419	2007-008516	ERJ1GEJ103C
R427,R605,R610	2007-008516	ERJ1GEJ103C
R215	2007-008531	MCR006MZPJ0100
R111,R201,R401,R715	2007-008542	ERJ1GEJ000C
R500	2007-008544	ERJ1GEJ681C
R602	2007-008548	ERJ1GEJ122C
R501	2007-008588	MCR006YZPJ222
R204	2007-008672	RK73H1ETP47R0F
R214	2007-008774	ERJ1GEJ2R2C
R101,R405	2007-008806	RC0603J510CS
R301	2007-009084	MCR006YZPJ105
R424	2007-009169	MCR006MZPJ243
R303,R304,R305,R307	2007-009171	MCR006YZPJ513
R308,R404,R406	2007-009171	MCR006YZPJ513
R105,R506,R508	2007-009408	ERJ1GEF222C
R200	2007-009420	RK73H1HTTC1202F
R107,R108	2007-009801	MCR006YZPF1000
C127,C138,C236,C421	2203-000233	GRP1555C1H101J
C422,C427	2203-000233	GRP1555C1H101J
C306,C309,C311,C313	2203-000254	GRP155R71C103K
C315,C320,C323,C330	2203-000254	GRP155R71C103K
C340,C344,C431	2203-000254	GRP155R71C103K
C133,C134	2203-000278	GRP1555C1H100D
C259	2203-000330	GRP1555C1H120J
C411,C426	2203-000425	GRP1555C1H180J
C123,C258,C303,C304	2203-000438	GRP155R71H102K
C319,C322,C339,C400	2203-000438	GRP155R71H102K
C529,C530	2203-000438	GRP155R71H102K
C234,C238,C248	2203-000627	GRM1555C1H220J
C601	2203-000725	GRP155R71H392KA01E
C100,C113,C240,C435	2203-000812	GRP1555C1H330J
C436,C439,C447,C501	2203-000812	GRP1555C1H330J
C503,C512,C519,C701	2203-000812	GRP1555C1H330J
C703	2203-000812	GRP1555C1H330J

Design LOC	SEC CODE	Description
C331,C434	2203-000995	GRP1555C1H470J
C261	2203-001072	GRP1555C1H560JD01E
C325	2203-001259	GRP1555C1H8R0DZ01E
C104	2203-002677	CL05CR75BBNC
C602	2203-002709	C1005Y5V1C104ZT
C526,C527	2203-002759	GRP155F51H153ZD01E
C270,C274,C275	2203-005234	GRP1555C1H1R2CZ01E
C209	2203-005281	GRP1555C1H1R5BZ01E
C271	2203-005288	GRP1555C1H1R0BZ01E
C101	2203-005446	GRP1555C1H2R7BZ01E
C108,C111,C112,C117	2203-005682	GRP0335C1E330JD01E
C119,C121,C217,C230	2203-005682	GRP0335C1E330JD01E
C438,C440,C441,C442	2203-005682	GRP0335C1E330JD01E
C443,C504,C506,C508	2203-005682	GRP0335C1E330JD01E
C515,C517,C518,C705	2203-005682	GRP0335C1E330JD01E
C706	2203-005682	GRP0335C1E330JD01E
C110,C114,C116,C118	2203-005683	GRP0335C1E8R0DD01E
C120,C122	2203-005683	GRP0335C1E8R0DD01E
C115	2203-005719	GRP0335C1E390JD01E
C211,C218,C220,C232	2203-005725	GRP0335C1E220JD01E
C233,C244,C245,C252	2203-005725	GRP0335C1E220JD01E
C254,C265,C266,C273	2203-005725	GRP0335C1E220JD01E
C200,C205	2203-005732	GRP0335C1E680JD01E
C206,C207,C208,C212	2203-005736	GRP0335C1E101JD01E
C221,C231,C247,C249	2203-005736	GRP0335C1E101JD01E
C255,C264,C418,C425	2203-005736	GRP0335C1E101JD01E
C239,C246	2203-005792	CL03C1R5CA3GNNC
C225,C605	2203-005806	GRP033R71C102KD01E
C128,C203,C215,C216	2203-006048	GRM155R71A104K
C237,C242,C302,C305	2203-006048	GRM155R71A104K
C307,C308,C310,C312	2203-006048	GRM155R71A104K
C314,C316,C321,C324	2203-006048	GRM155R71A104K
C329,C333,C334,C335	2203-006048	GRM155R71A104K
C345,C403,C437	2203-006048	GRM155R71A104K
C136	2203-006137	CL05B223KONC
C224,C229,C301,C341	2203-006194	GRP033R70J103KA01E
C500,C502	2203-006194	GRP033R70J103KA01E

Design LOC	SEC CODE	Description
C268,C269	2203-006208	CM105X5R475M06AT
C521,C524	2203-006257	GRM155R60J474KE19E
C507,C509,C513,C514	2203-006305	CM03CG100J25AH
C451	2203-006348	CV105X5R105K25AT
C129,C130,C317,C318	2203-006399	GRM155R60J105KE19D
C135,C201,C202,C204	2203-006423	GRM33X5R104K6.3
C213,C214,C226,C227	2203-006423	GRM33X5R104K6.3
C228,C241,C243,C251	2203-006423	GRM33X5R104K6.3
C253,C272,C300,C326	2203-006423	GRM33X5R104K6.3
C327,C336,C337,C342	2203-006423	GRM33X5R104K6.3
C408,C505,C510,C511	2203-006423	GRM33X5R104K6.3
C516	2203-006423	GRM33X5R104K6.3
C338	2203-006462	GRM033R60J333K
C107	2203-006556	GRM0335C1E470JD01D
C124,C137,C450,C523	2203-006562	CV05X5R105K10AH
C540,C541,C603	2203-006562	CV05X5R105K10AH
C531,C532	2203-006626	GRM155R61A334KE15D
C257	2203-006642	GRM033R71E331KA01D
C332	2203-006668	GRM033R61A222K
C428,C452,C525,C533	2203-006681	GRM155F51E104ZA01D
C405,C410,C415,C417	2203-006824	CV105X5R475K10AT
C444,C445	2203-006824	CV105X5R475K10AT
C420,C423	2203-006825	JMK107BJ106KA-T
C126,C328,C430,C604	2203-006838	CL05A225KQ5NSNC
C106,C401,C402,C404	2203-006839	CL03A104KP3NNNC
C406,C407,C520	2203-006839	CL03A104KP3NNNC
C412,C424,C429,C522	2203-006841	CV05X5R105K16AH
C528,C534,C535,C536	2203-006841	CV05X5R105K16AH
C537,C538,C539,C606	2203-006841	CV05X5R105K16AH
C607	2203-006841	CV05X5R105K16AH
C139	2203-006842	CL05C471JB5NNNC
C125,C140,C409,C413	2203-006872	GRM155R60J225ME15D
C414,C416,C419,C446	2203-006872	GRM155R60J225ME15D
C102,C219,C267	2203-006890	CV105X5R106M06AT
C600	2203-006978	GMK107BJ105KA-T
C223,C235,C250	2203-006979	CL03B103KP3NNNC
TA500,TA501,TA502	2404-001377	F980J226MMA

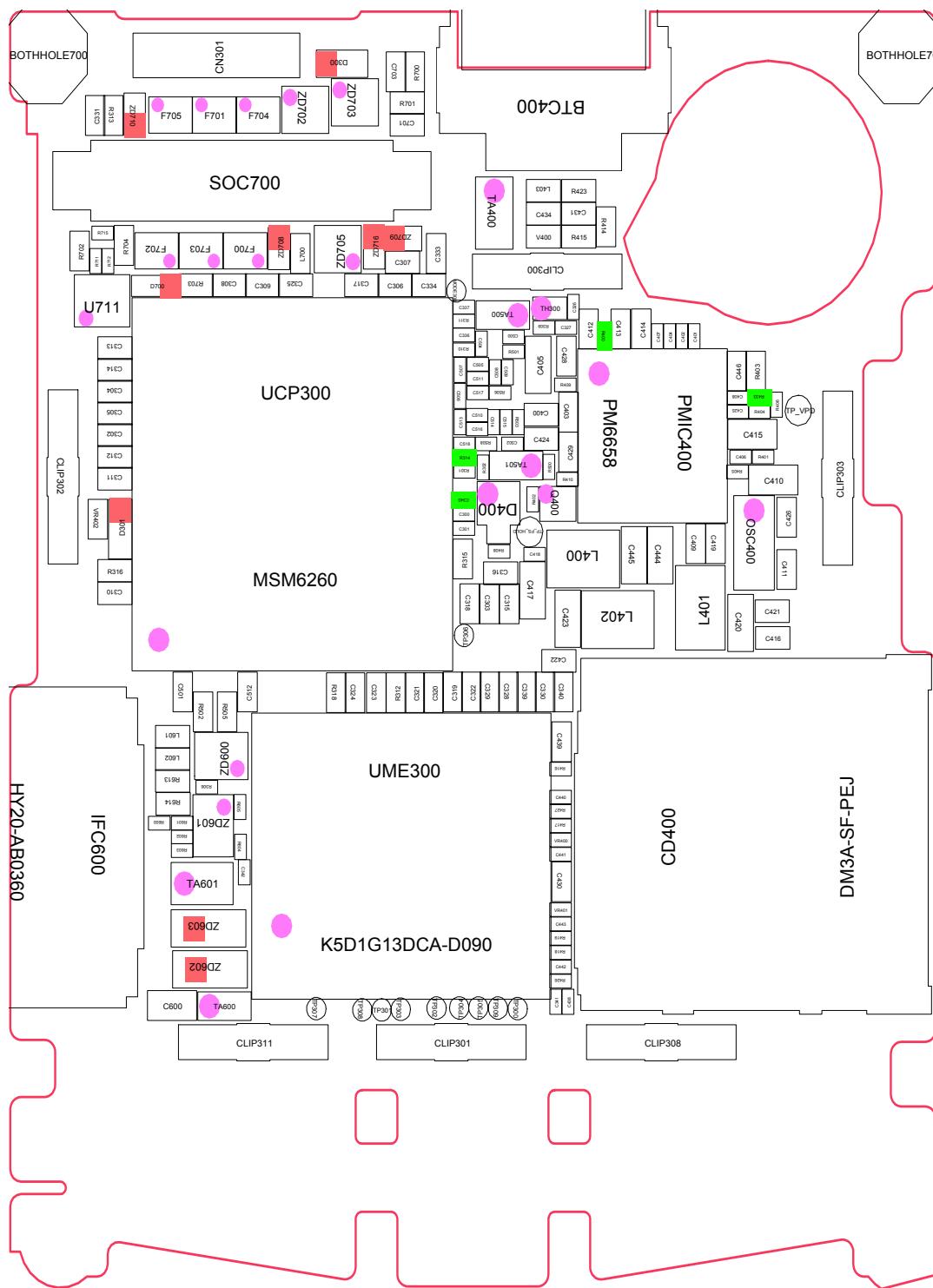
Design LOC	SEC CODE	Description
TA504	2404-001377	F980J226MMA
TA503,TA600	2404-001381	F981A106MMA
TA400	2404-001411	TLCR476M010HTA
TA601	2404-001516	TLJN226M010R3800
L108,L109	2703-001747	LL1005-FH4N7S
L201	2703-001750	LL1005-FH2N2S
L205	2703-002176	CIH05T2N7SNC
L206	2703-002207	CIH05T3N3SNC
L204	2703-002208	CIH05T2N2SNC
L100	2703-002314	CIH05T47NJNC
L600	2703-002557	CIH10TR27JNC
L106	2703-002649	LLV0603-F6N8J
L105	2703-002793	LQP03TN5N6J00D
L101,L102,L200	2703-002906	LQP03TN2N7B04D
L202	2703-002918	LQP03TN3N3B00D
L104	2703-002953	CIH03T18NJNC
L103	2703-002955	MLG0603S33NJT
L400,L401,L402	2703-003297	CIG22L4R7MNE
OSC400	2801-004373	CC7V-T1A
TCX200	2809-001280	KT3225R19200DCV28LEA
F700,F701,F702,F703	2901-001409	ICVE10054E250R101FR
F704,F705	2901-001409	ICVE10054E250R101FR
F103	2904-001600	SF14-1960M5UB51
F102	2904-001604	EFCH1842TDAF
F101	2904-001628	B9401
F201	2904-001658	SFDG50AQ101
F200	2904-001769	FAR-F6KB-2G1400-B4GCHZ
F100	2904-001773	SF14-0881M5UB51
DUF100	2909-001279	LFB212G45SG8A166
DUP200	2910-000024	SAYZY1G95EA0B00
L500,L501	3301-001158	BLM18PG300SN1D
L403	3301-001534	BLM15AG121SN1D
L107	3301-001659	BLM15AG601SN1
L601,L602	3301-001729	BLM15AG102SN1D
L700	3301-001809	MMZ1005D241CT
L604	3301-001970	BLM15BA330SN1
RFS100	3705-001503	KMS-560

Design LOC	SEC CODE	Description
SIM400	3709-001447	5000-6P-1.9S
CD400	3709-001464	DM3A-SF-PEJ
IFC600	3710-002681	HY20-AB0360
HDC700	3711-005976	AXK8L16125S
BTC400	3711-006256	2005-03-247B
SOC700	3711-006593	AXT470164AW2
BT_ANT	4202-001442	ACS2450HDW5
BAT400	4302-001180	ML-414RM/F9ME
CLIP300,CLIP301	GH70-03276A	ONBOARD-CLIP-4
CLIP302,CLIP303	GH70-03276A	ONBOARD-CLIP-4
CLIP304,CLIP305	GH70-03276A	ONBOARD-CLIP-4
CLIP306,CLIP307	GH70-03276A	ONBOARD-CLIP-4
CLIP308,CLIP309	GH70-03276A	ONBOARD-CLIP-4
CLIP310,CLIP311	GH70-03276A	ONBOARD-CLIP-4
CLIP312,CLIP313	GH70-03276A	ONBOARD-CLIP-4
BAT600,BAT601	GH70-03626A	GTS7330-BATT

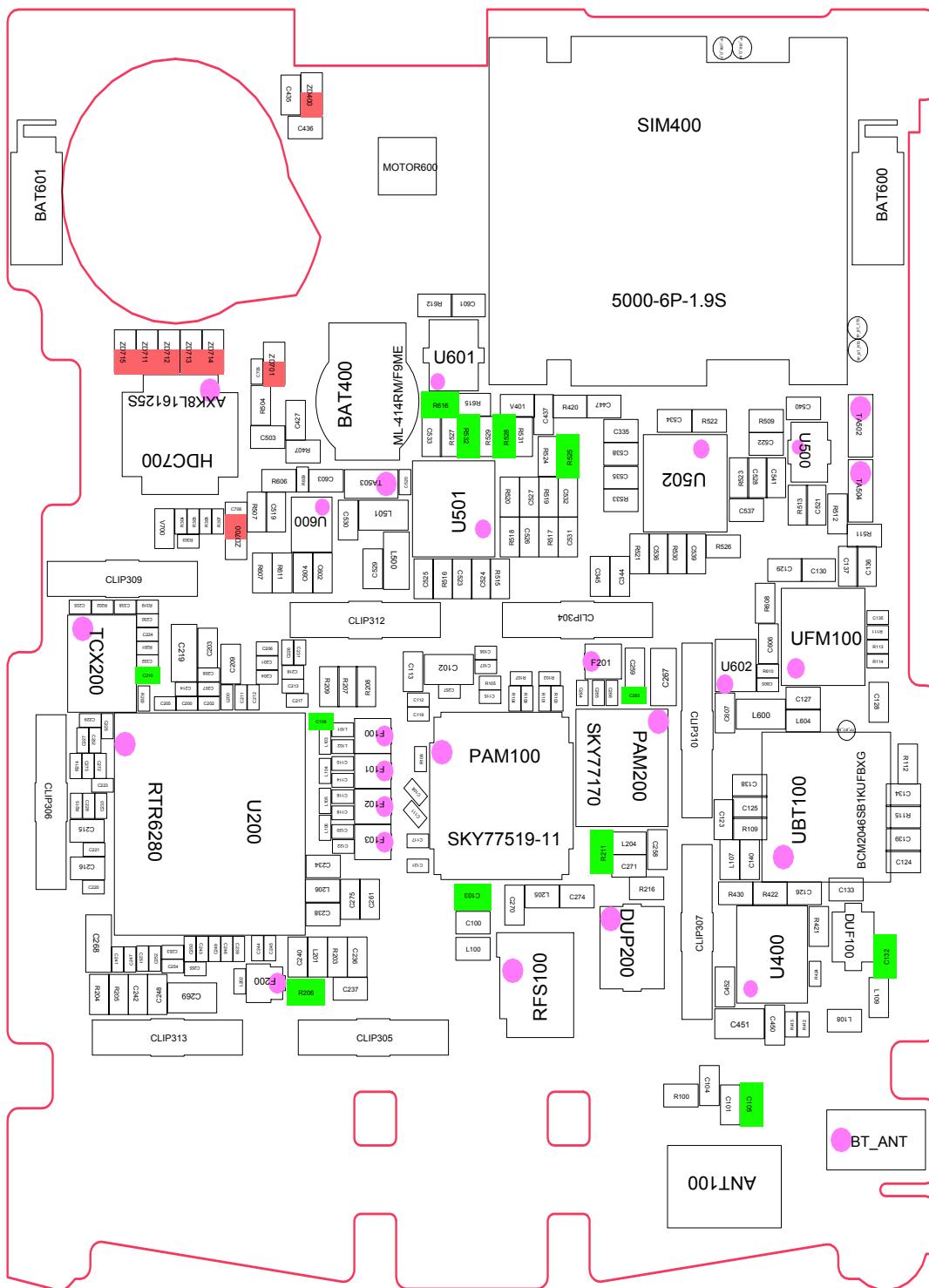
Please consult the GSPN website (Samsung Portal) for the most recent version of the product's part list.

## 9. PCB Diagrams

## 1. Main top



## 2. Main bottom



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