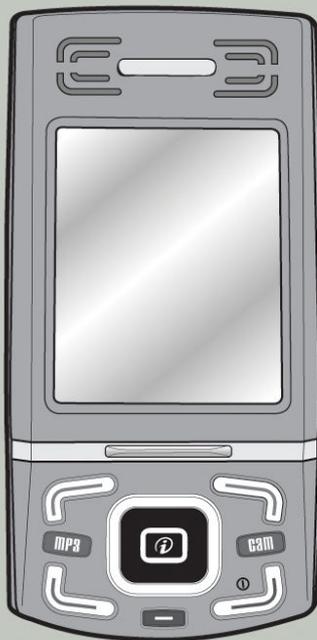


# GPRS PHONE SERVICE MANUAL





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# 1. Introduction

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This model is a Slide type mobile phone operated in the GPRS Digital Cellular Mobile Radio System, which is the Pan-European mobile cellular standard. This model has the operation band of GSM 900, DCS 1800 and PCS1900. GPRS Class 10 II features are fully supported and parts of the GSM Phase II+ features are also supported. About the SIM Toolkit, This model supports up to Class 3 including Class 1, 2. For speech communication, This model supports Full Rate(FR), Enhanced Full Rate(EFR) and Half Rate(HR). For easy text, eZi Text is implemented and WAP protocol is adopted for internet connection. Bluetooth module is built, it's able to use Bluetooth headset.

## Memo

## 2. Specification

---

### 2.1 HW Features

---

Item	Description	Remark
Supporting standard	GSM900/DCS1800/PCS1900 Triple Band Phase2 and Phase 2+ SIM Toolkit : Class 1,2,3 GPRS Class 10	
Frequency range	EGSM Tx : 880-915MHz EGSM Rx : 925-960MHz DCS1800 Tx : 1710-1785MHz DCS1800 Rx : 1805-1880MHz PCS1900 Tx : 1850-1910MHz PCS1900 Rx : 1930-1990MHz	
Battery	Capacity Standard : Li-ion, 860 mAh	
Display	Full graphic type Main 260k TFT Color LCD Pixels : 176 x 220	
Camera	CMOS type 2M Pixels, UXGA(1600*1200)	
Antenna	Fixed type	
PC synchronization	Applied	
Speech coding	FR, EFR, HR	
Data & Fax	Built-in	
Vibrator	Built-in	
Dual Stereo Speaker	Applied (64 poly Stereo Sound)	
Portable Handsfree (Ear-Phone)	Built-in	
Travel charger	Built-in	
Bluetooth	Built-in	

## 2.2 SW Features

---

Main menu	Sub menu	Detail item
Message	Write Message	SMS/MMS
	Inbox	SMS/MMS
	Outbox	SMS/MMS
	Draft	SMS/MMS
	Template	Thank you very much!!
		See you later.
		Where are you?
		When can we meet?
		Please call me back.
	Voice Mail	Call Voice Mail
		Voice Center
	Info Message	Read
		Receive
		Topics
		Languages
		Alert
	Settings	SMS
		EMS
		MMS
		Memory Status
Call Register	Call History	Missed No.
		Received No.
		Dialed No.
	Call Duration	Last Incoming
		Last Outgoing
		Total Incoming
		Total Outgoing
		Reset

Main menu	Sub menu	Detail item	
Call Register	GPRS Counter	Last Sent	
		Last Received	
		Total Sent	
		Total Received	
		Reset	
Profile	General	Activate	
		Personalize	
		Rename	
	Silent	Activate	
		Personalize	
		Rename	
	Vibration Only	Activate	
		Personalize	
		Rename	
	Outdoor	Activate	
		Personalize	
		Rename	
	Other 1	Activate	
		Personalize	
		Rename	
	Other 2	Activate	
		Personalize	
		Rename	
	Other 3	Activate	
		Personalize	
		Rename	
	Setting	Time/Date Set	Time Set
			Date Set
		Alarm Set	Set Alarm
Alarm Sound			
Power Off Alarm			

Main menu	Sub menu	Detail item
Setting	Call Setting	Call Divert
		Call Waiting
		Send My Caller ID
		Answer Mode
		Min Minder
		Auto Redial
		Auto Answer
		Data Transfer Mode
	Phone Setting	Language
		Main LCD
		External Key
		Key Back Light
		Screen Saver
	Security Setting	PIN Code
		Phone Lock
		Call Barring
		Fixed Dial Number
		Change Codes
	Network Select	Automatic
		Manual
		Preferred List
Bluetooth	Discover	
	Paired Devices	
	Settings	
Factory Set		
Organizer	Phonebook	Name Search
		Group Search
		Add Entry
		Speed Dials
		Caller Groups
		PB Manage

Main menu	Sub menu	Detail item
Organizer	Scheduler	Daily view
		Weekly view
		Monthly view
		Make
		Delete All
		Setting
		To Do
	File Manager	Memory Status
		File List
		Connect USB To Computer
Format Memory		
Camera	Take Photo	Option
		Mode
	Record Video	Option
		Mode
	Photo Album	Internal Memory
		External Memory
	Video Album	Internal Memory
		External Memory
	Phonebook Album	View
		Delete
		Rename
	Configuration	Shutter Sound
		Auto Save
		Album Lock
		Set Save Storage
	Application	MP3
Configuration		
Othello		
Calculator		
Unit Converter		Length
		Weight

Main menu	Sub menu	Detail item
Application	Unit Converter	Volumes
		Surface
		User Define
	World Time	
	Voice Memo	Record
		Play
Application	Voice Memo	Set Save Storage
Java	Downloads	
	Memory status	
	Network	APN
		User Name
Password		
Internet	Homepage	
	Bookmarks	Add Bookmark
		Create new folder
	Recent Pages	
	Enter address	
	Resume	
	Settings	Edit Homepage
		Select Profile
		Connection
		Rename Profile
Cache		
	Clear Recent Page List	
Push	Inbox	
SIM AT		

## 3. Disassembly Instruction

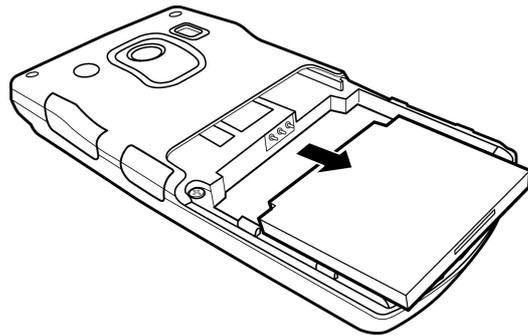
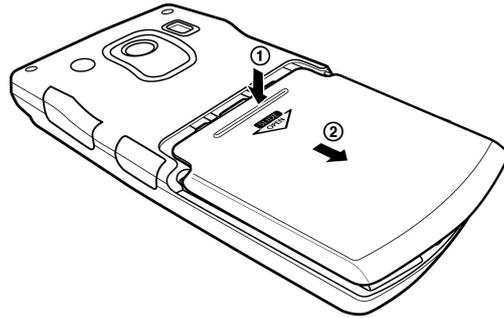
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### 3.1 Before Disassembly

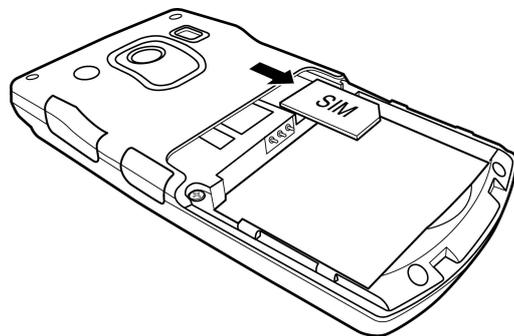
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1. Remove the battery. To do so:

- ① Pull down the back cover and open it.
- ② Lift up the back the battery and pull it out.



2. Remove the SIM card. To do so:

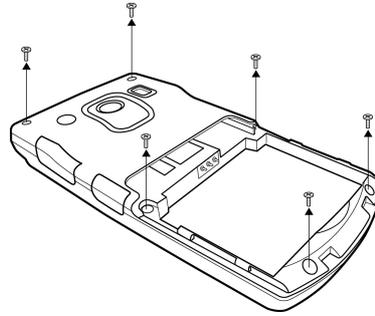


## 3.2 Main Frame

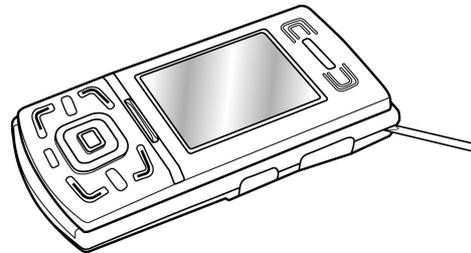
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1. Remove screws. To do so:

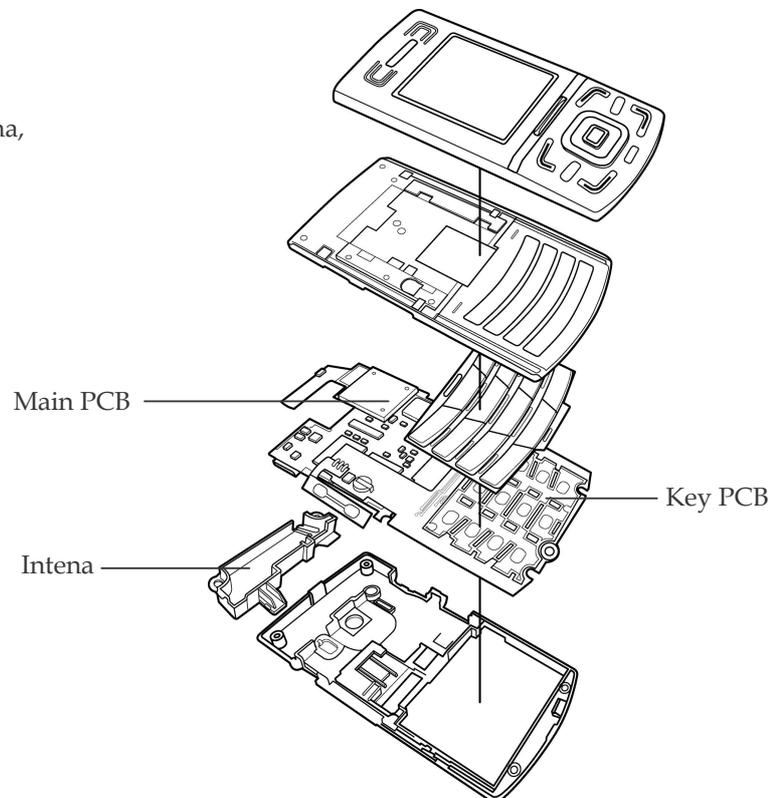
- ① Remove the Deco rear as shown.
- ② Remove Six screws on the back of the phone.



2. Insert a small ' - ' type driver between the front case the rear case, and lift up the front case.



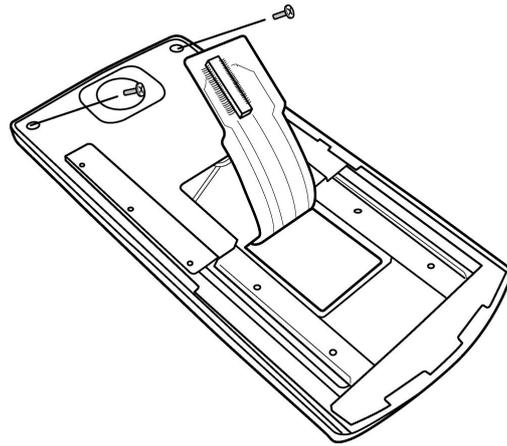
3. Now remove the rear case, intena, Main PCB and Key PCB in order.



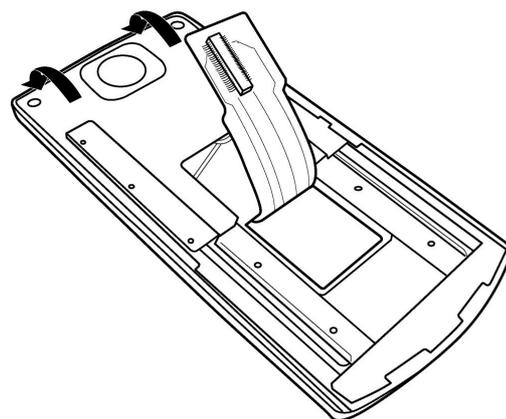
### 3.3 Slide upper

---

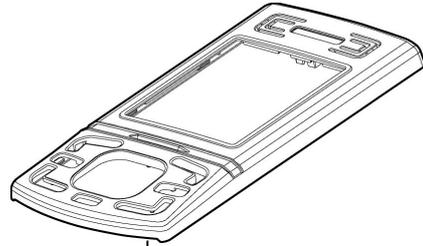
1. Remove the rear case as described at Steps 1 and 2 under Main Frame Disassembly on page 3-2.



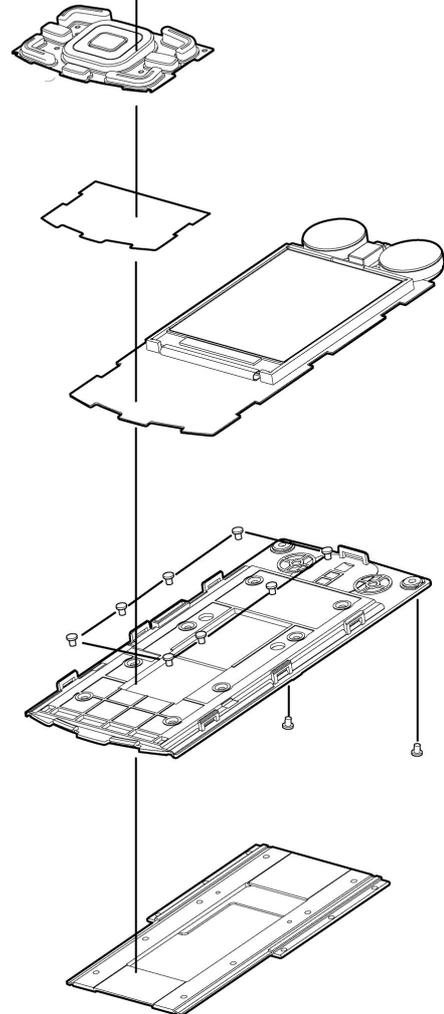
2. Unplug the connector shown at the right from the LCD module.



3. Insert a small ' - ' type driver between the slide A-cover and the slide B-cover, and lift up the slide A-cover.



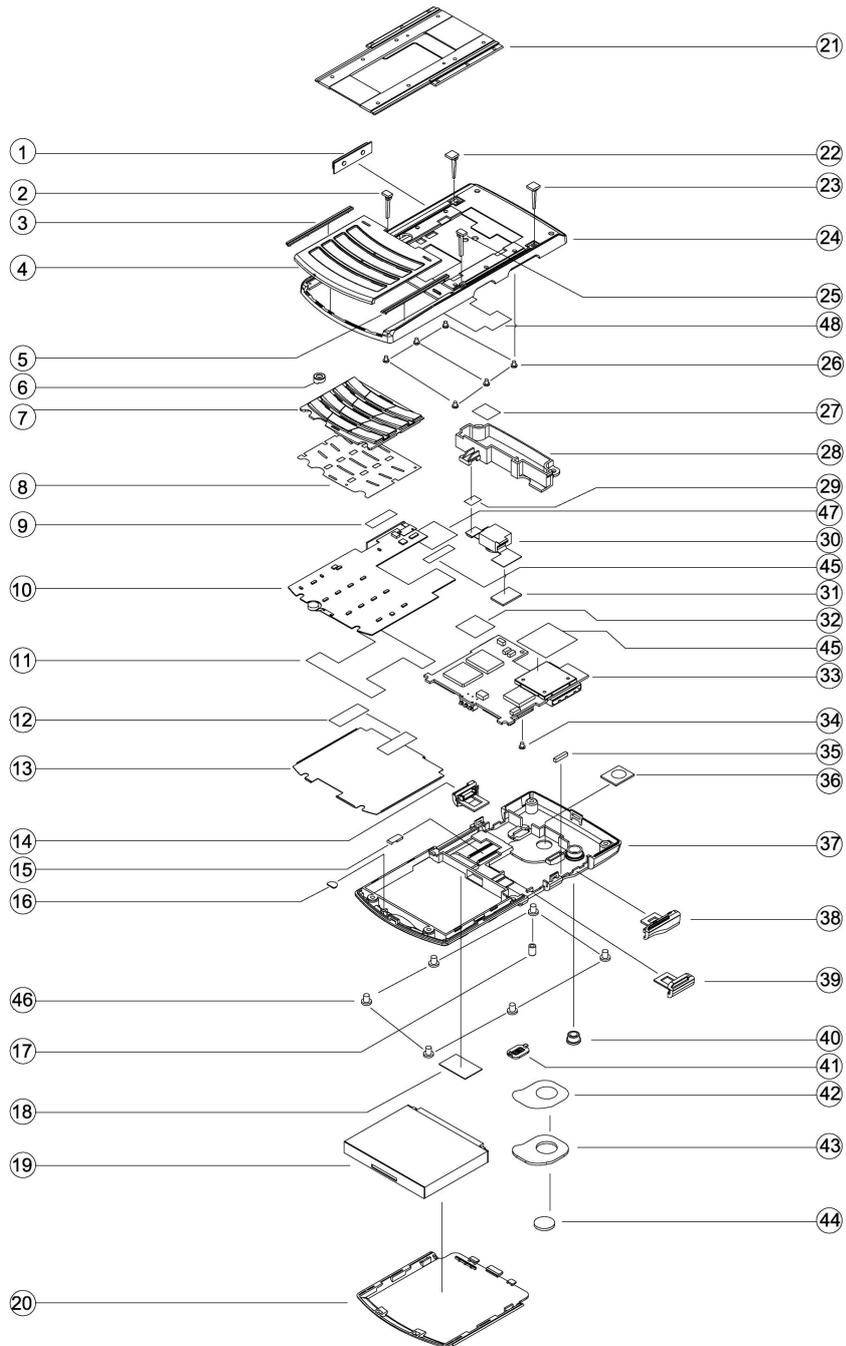
4. Now, you can remove the LCD ass'y and the other components.



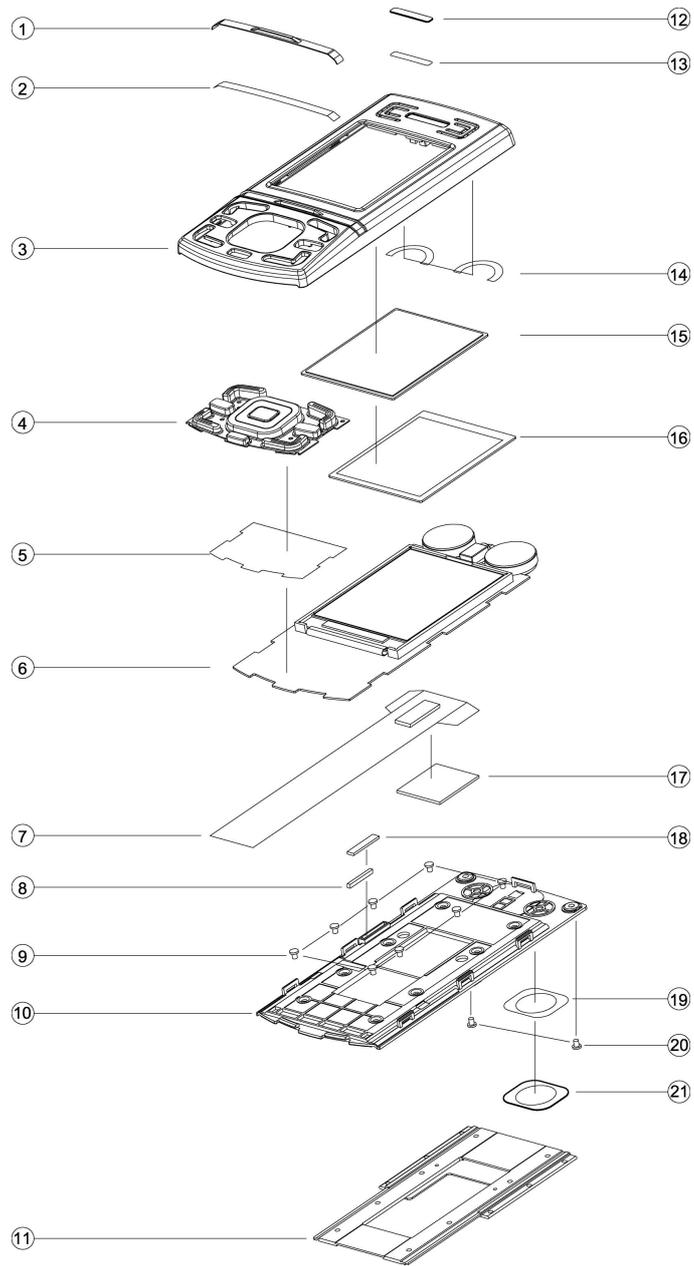
### 3.4 Exploded View and Parts List

---

#### 3.4.1 Exploded View – Main Frame



### 3.4.2 Exploded View – Slide upper



## 3.4.3 Mechanical Parts List

NO.	DESCRIPTION_ Main Frame	Q'TY	NO.	DESCRIPTION-Slide upper	Q'TY
1	SIDE KEY	1	1	DECO BELT	1
2	RUBBER STOPPER BOTTOM-L	1	2	TAE DECO BELT	1
3	SPACER-L	1	3	CASE UPPER	1
4	DECO FRONT	1	4	KEYPAD ASSY	1
5	SPACER-R	1	5	METAL DOME SHEET(UPPER)	1
6	RUBBER MIC	1	6	LCD MODULE	1
7	KEYPAD(MAIN)	1	7	MAIN FPC	1
8	METAL DOME SHEET(MAIN)	1	8	MAGNET	1
9	SHIELD KEY PCB-L	1	9	SLIDE SCREW A	8
10	KEY PCB MODULE	1	10	CASE LOWER	1
11	TAPE BATTERY SUPPORT	1	11	SLIDING HINGE	1
12	SHIELD BATTERY COVER	2	12	DECO RECIVER	1
13	BATTERY SUPPORT	1	13	TAPE DECO RECIVER	1
14	EAR COVER	1	14	TAPE SPEAKER	1
15	CUSHION SIM	1	15	WINDOW LCD	1
16	CUSHION MIC	1	16	CUSHION LCD	1
17	RUBBER SCREW	1	17	SHIELD FOAM LCD CONNECTOR	1
18	SIM COVER	1	18	CUSHION MAGNET	1
19	BATTERY ASSY	1	19	TAPE DECO MIRROR	1
20	BATTERY UPPER	1	20	SCREW UPPER	2
21	SLIDING HINGE MODULE	1	21	DECO MIRROR	1
22	RUBBER STOPPER TOP-L	1			
23	RUBBER STOPPER TOP-R	1			
24	CASE FRONT	1			
25	RUBBER STOPPER BOTTOM-R	1			
26	SLIDE SCREW-B	6			
27	SHIELD FOAM CAMERA	1			
28	INTENNA	1			
29	TAPE FLASH	1			
30	CAMERA MODULE	1			
31	CUSHION CAMERA CONNECTOR	1			
32	MAIN FPC PROTECT TAPE	1			
33	MAIN PCB MODULE	1			
34	SCREW PCB	1			
35	SHIELD FOAM -IO	1			
36	CUSHION CAMERA	1			
37	CASE REAR	1			
38	IO COVER	1			
39	T-FLASH COVER	1			
40	RF COVER	1			
41	FLASH COVER	1			
42	TAPE DECO CAMERA	1			
43	DECO CAMERA	1			
44	CAMERA WINDOW	1			
45	SHIELD FOAM SHIELD CAN	1			
46	SCREW MAIN	6			
47	SHIELD PCB	1			
48	SHIELD FOAM FRONT	1			

## 4. Data Kit & Download Procedure

---

### 4.1 Data Kit

---

#### 4.1.1 Download Equipment

Data Kit & Download Procedure

1. Download Cable
2. Desktop or Notebook PC
3. Download Fluid Program
4. Mobile Phone

#### 4.1.2 Download Procedure

##### DOWNLOAD ENVIRONMENT

To download software of this model, the following environments should be

Prepared:

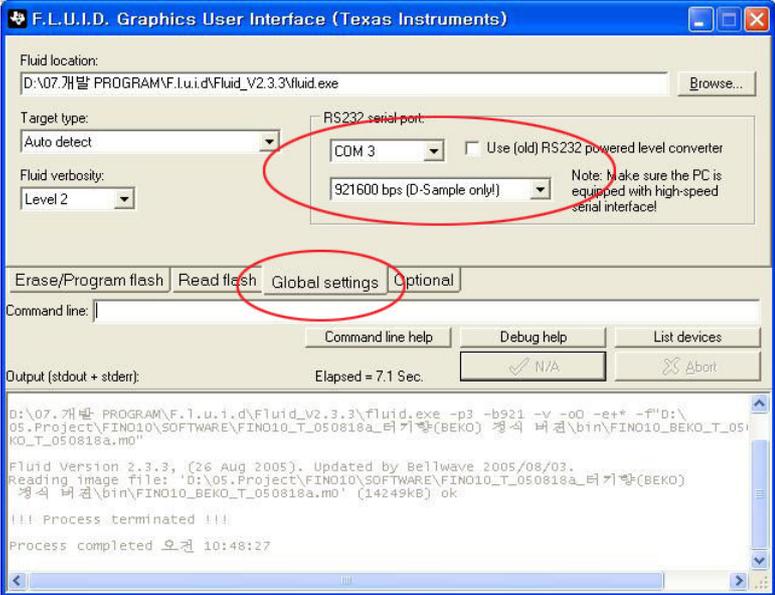
- Download cable, Interface JIG, is connected to serial port of the desktop or notebook PC.
- Download fluid program is copied to the desktop or notebook PC.
- Target software is downloaded to this mobile phone.

##### **Warning**

You must use the download cable kit (Interface JIG) and UART download monitor program. Otherwise, downloading process won't work properly.

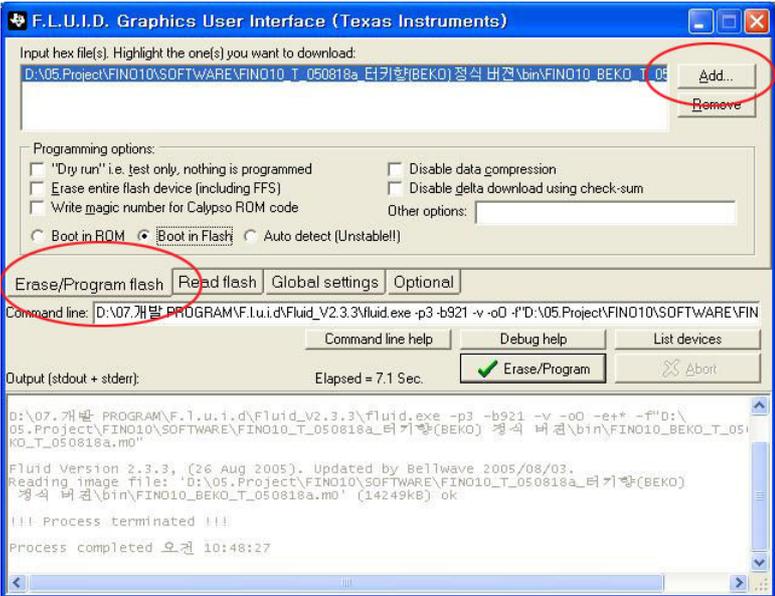
**DOWNLOAD PROCEDURE**

- 1. Unzip the model download fluid program (fluid2.11.zip) in the PC.
- 2. Execute **fluid\_gui.exe**. And then select "Global settings" tab. Then choose a correct serial port in the RS232 serial port Box. <Figure 1>



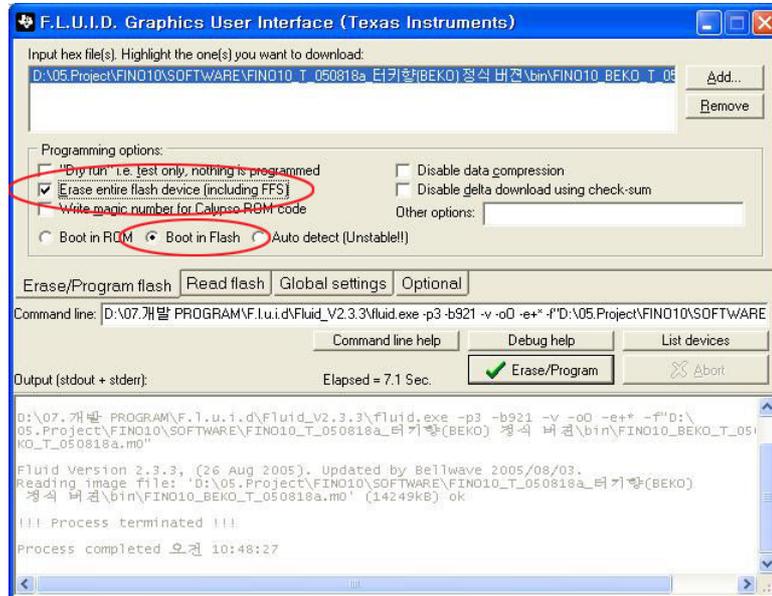
<Figure 1>

- 3. To download software, you must add the target software in the "Erase/Program flash" tab. So, push the "Add" button, then choose the target software that you want to download.



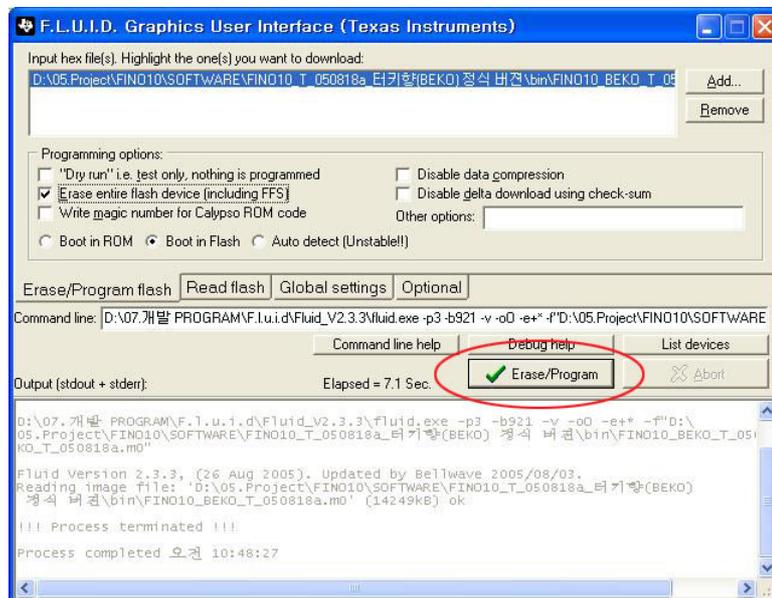
<Figure 2>

4. Select the "Boot in flash" in the "Programming options" box.



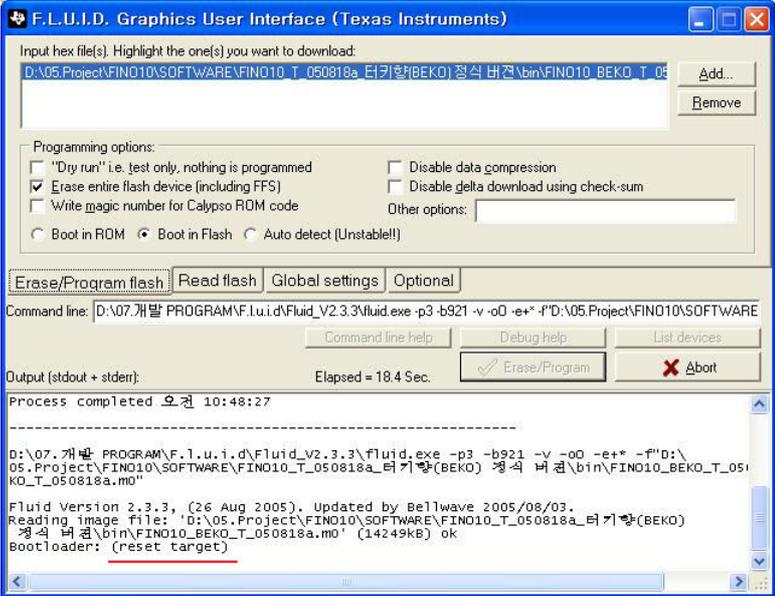
<Figure 3>

5. Push the "Erase/Program" button to download.

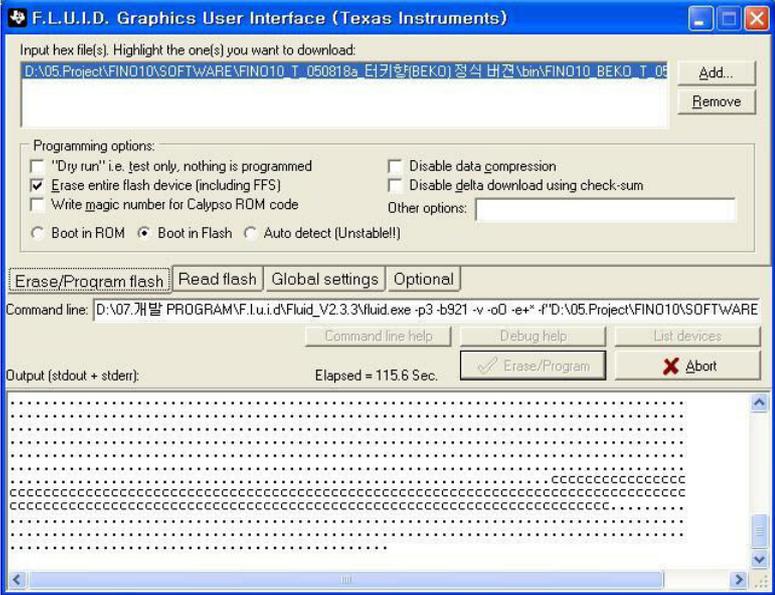


<Figure 4>

6. As the following window show in <Figure 5> is displayed, connect this phone to the download cable, (Interface JIG) and press power on key of the phone. If the connection succeeded, the following screen will show the contents as shown in <Figure 6>.

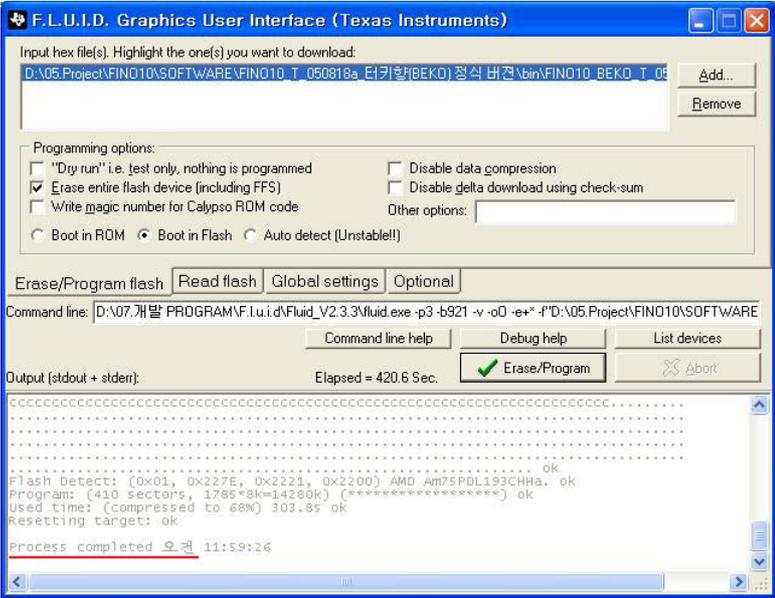


<Figure 5>



<Figure 6>

7. If the downloading procedure is succeeded, then the following window is shown.



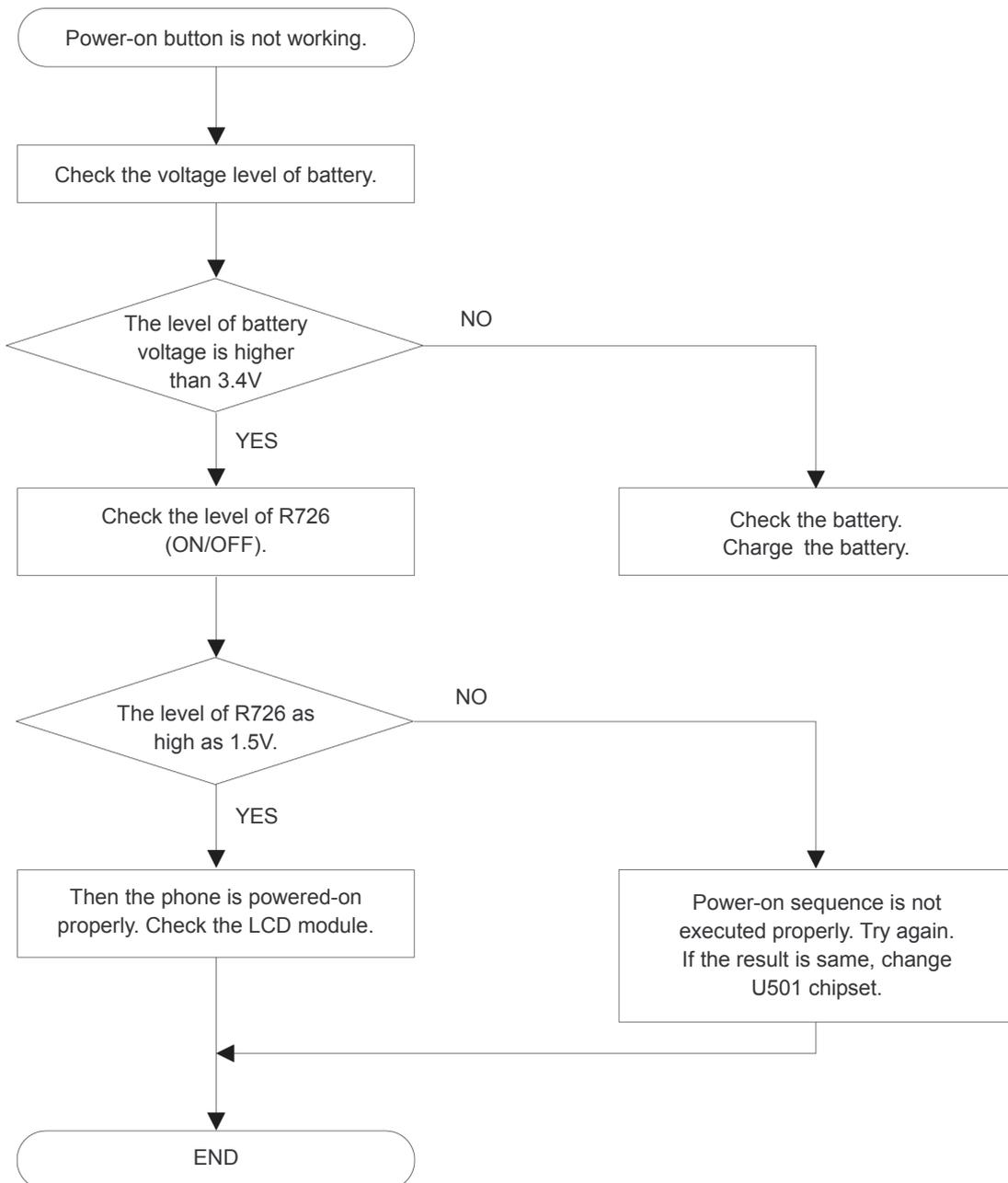
<Figure 7>

# 5. Troubleshooting

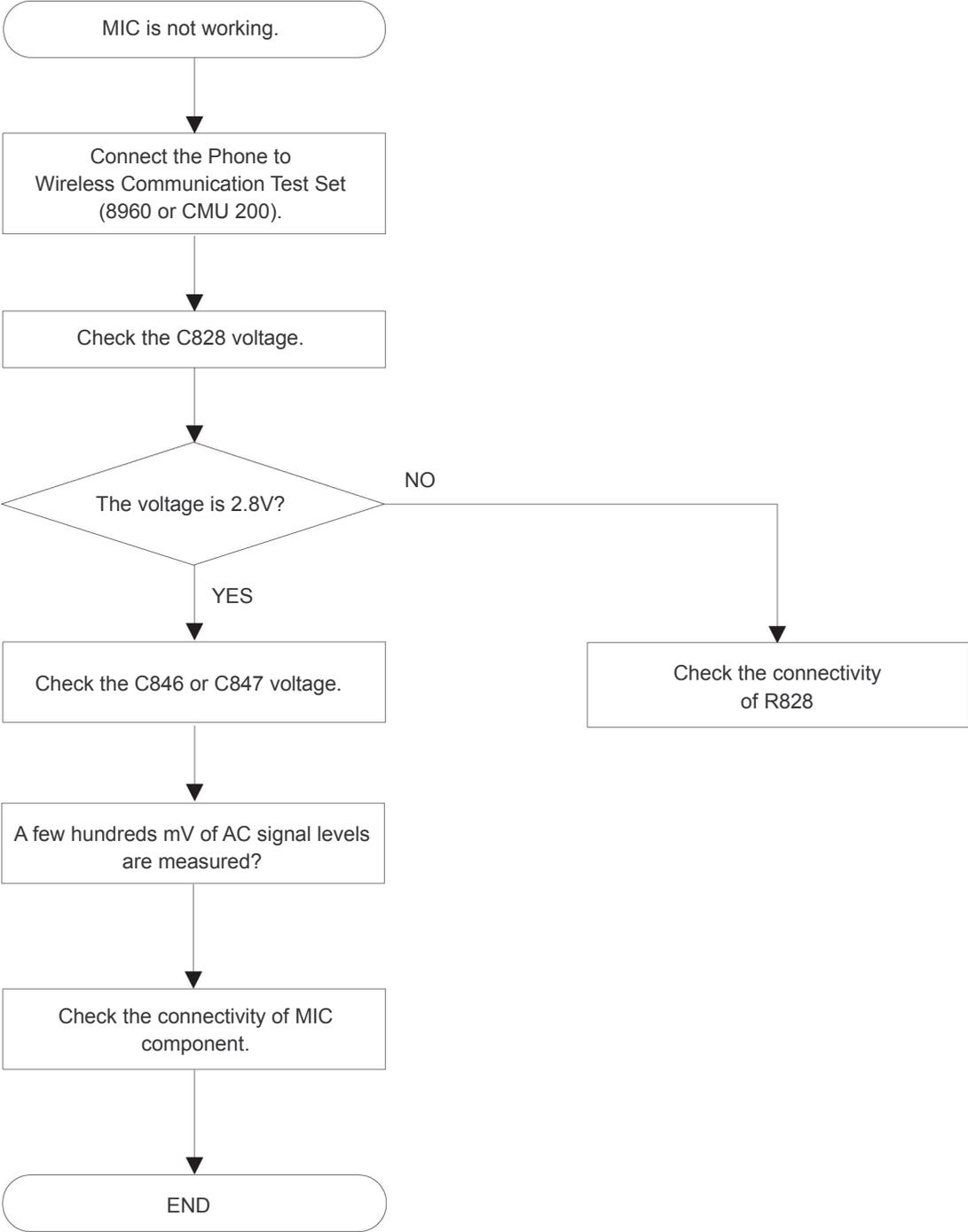
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## 5.1 Power-on Trouble

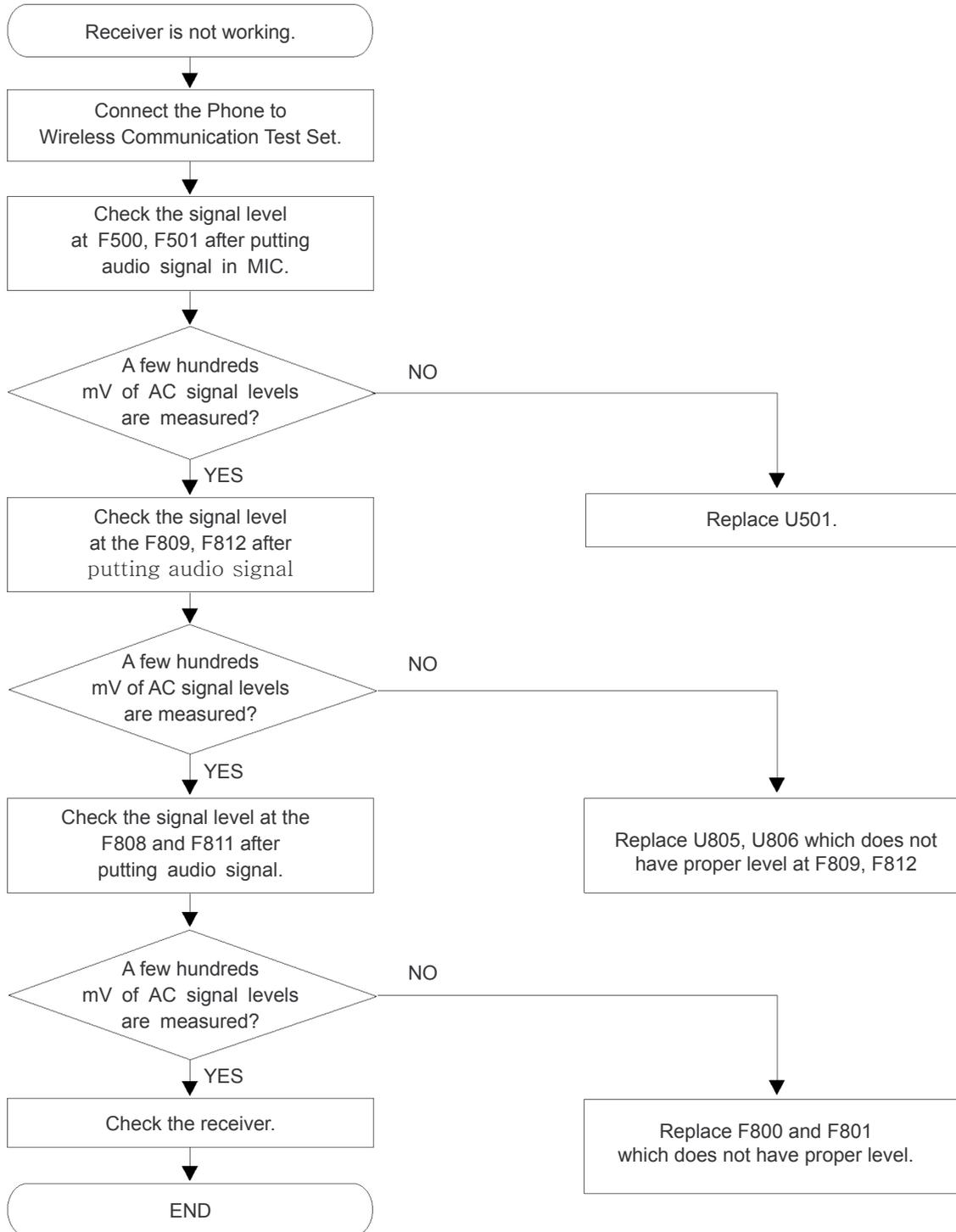
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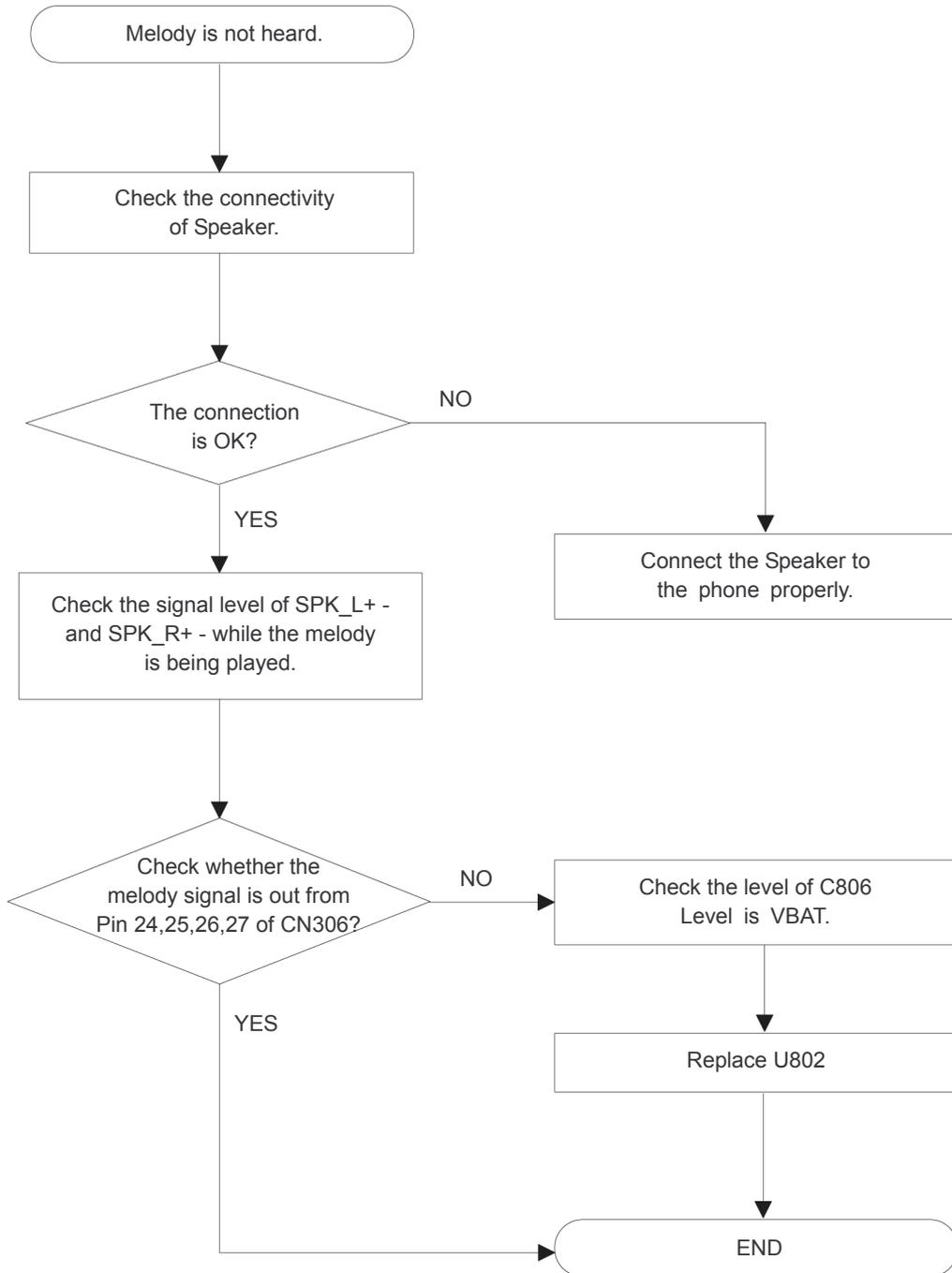
## 5.2 MIC Trouble



### 5.3 Receiver Trouble

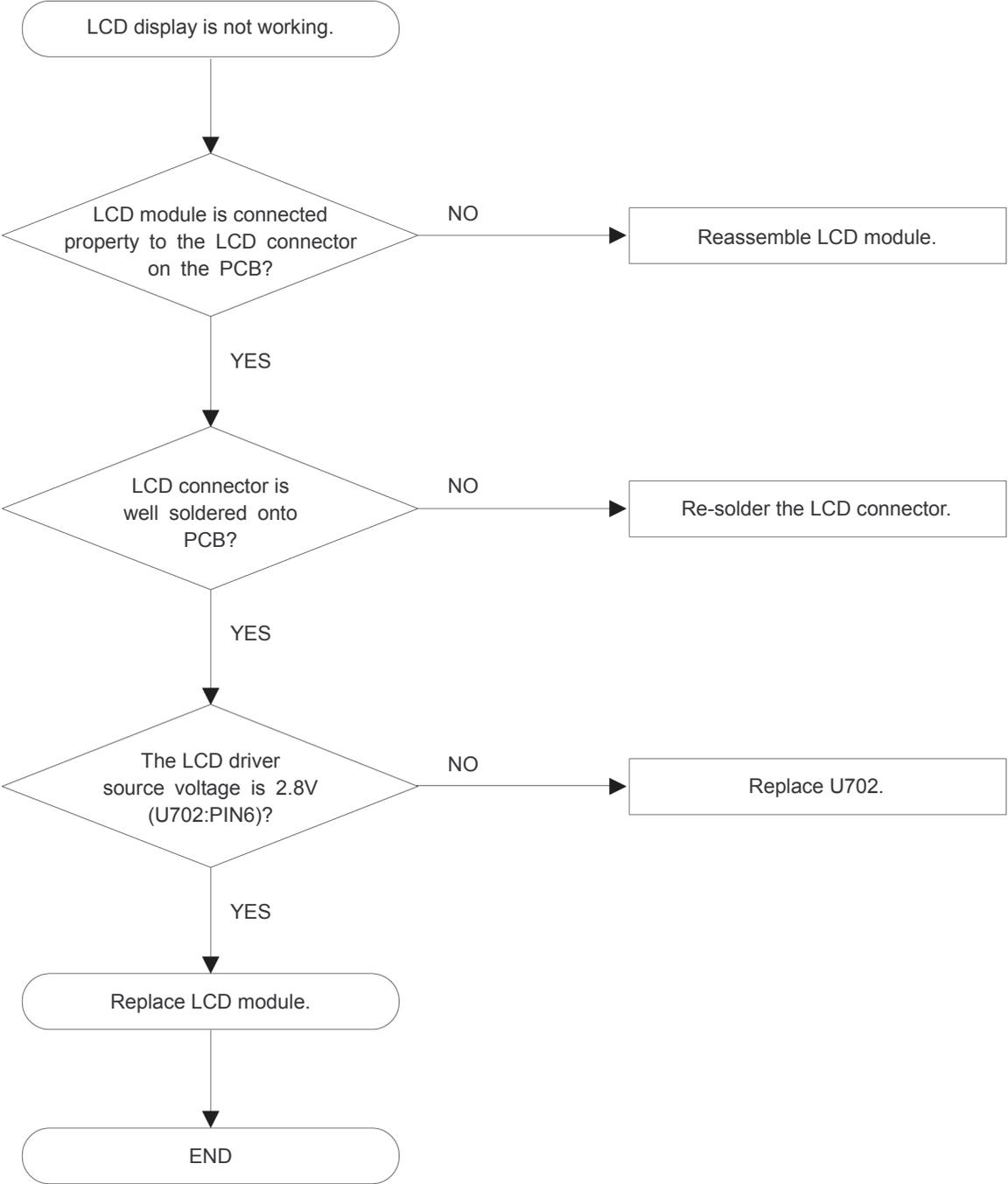


### 5.4 Melody & MP3 Trouble (Handset Speaker)

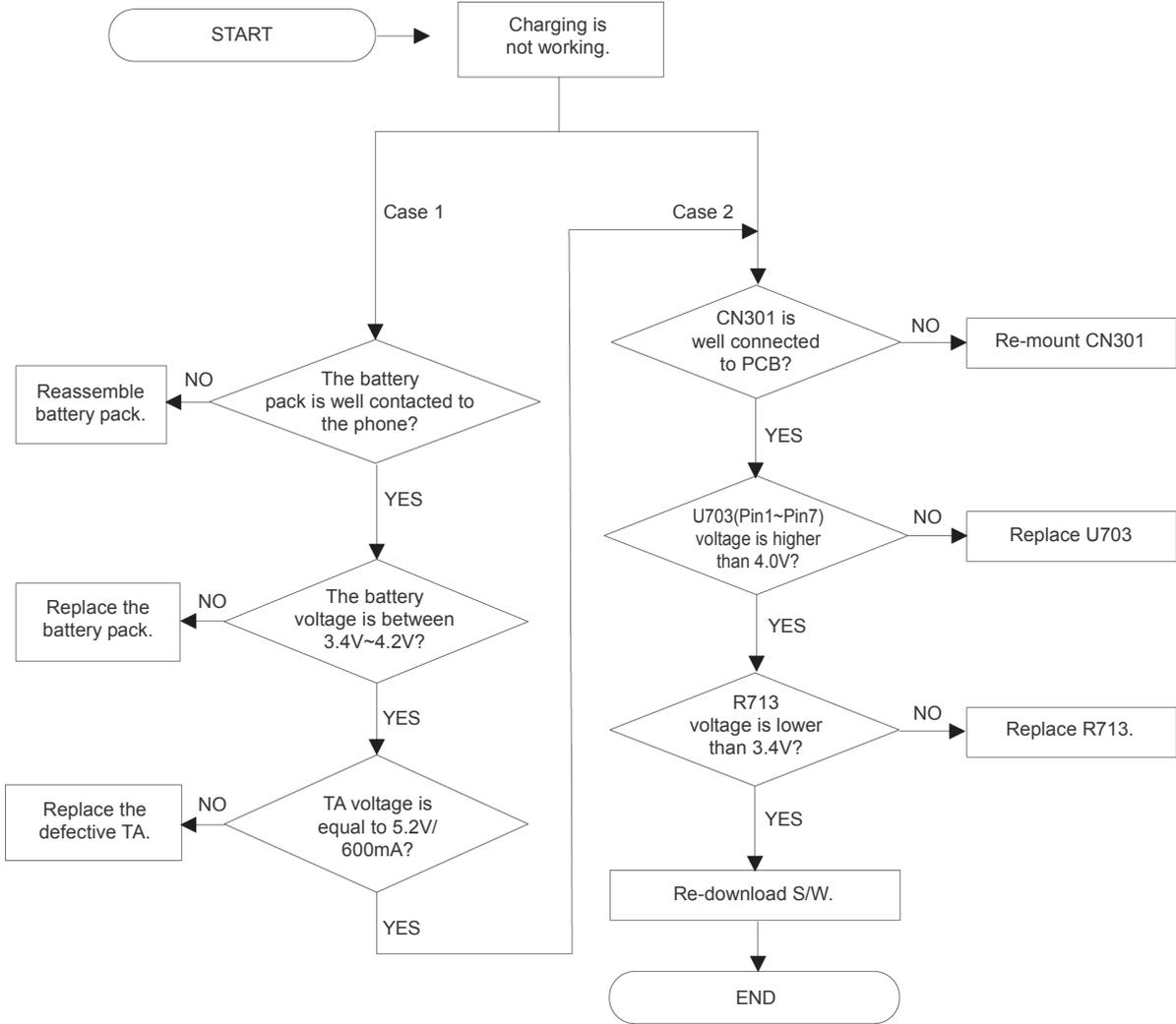


### 5.5 LCD Trouble

---

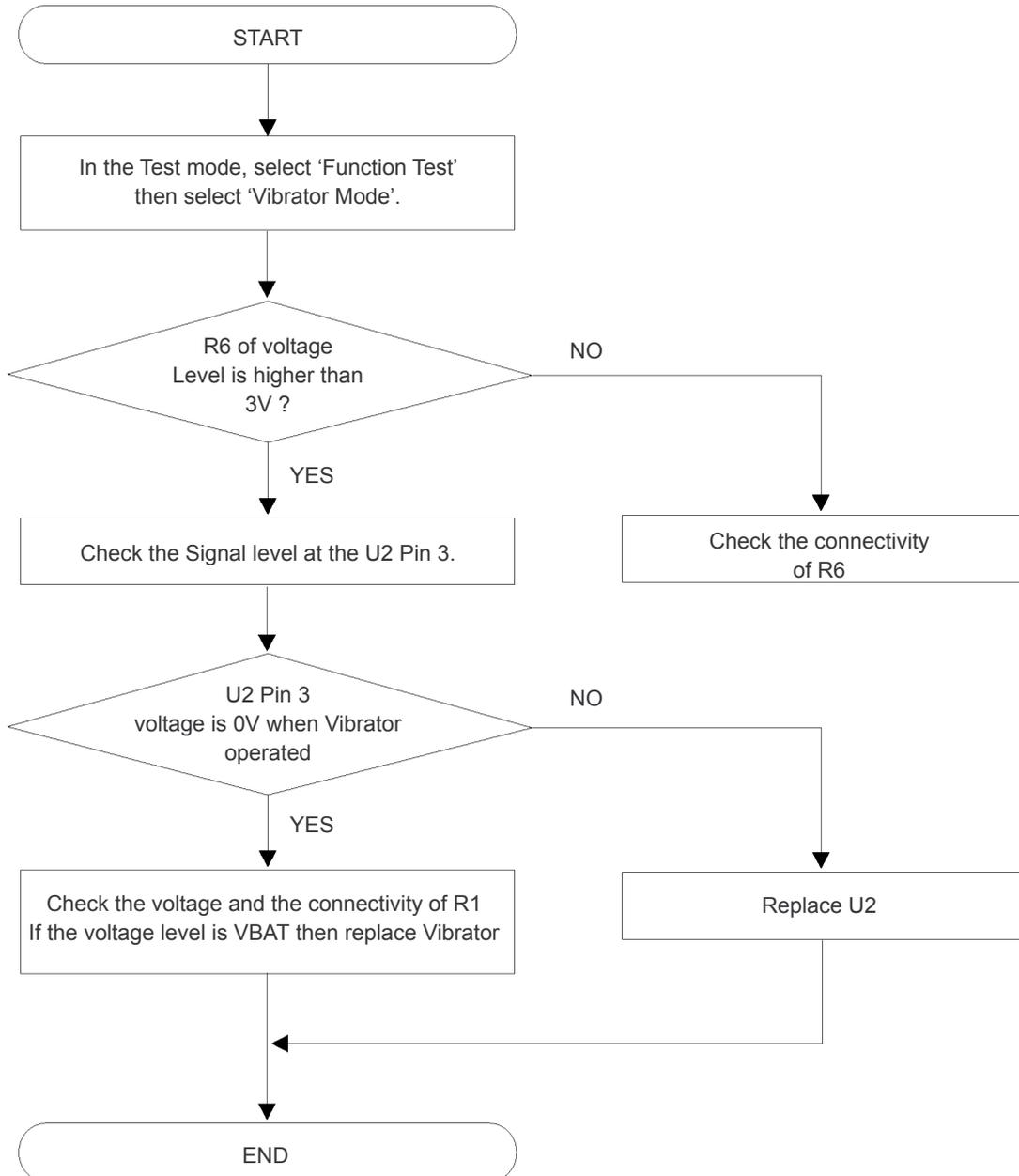


### 5.6 Charge Trouble

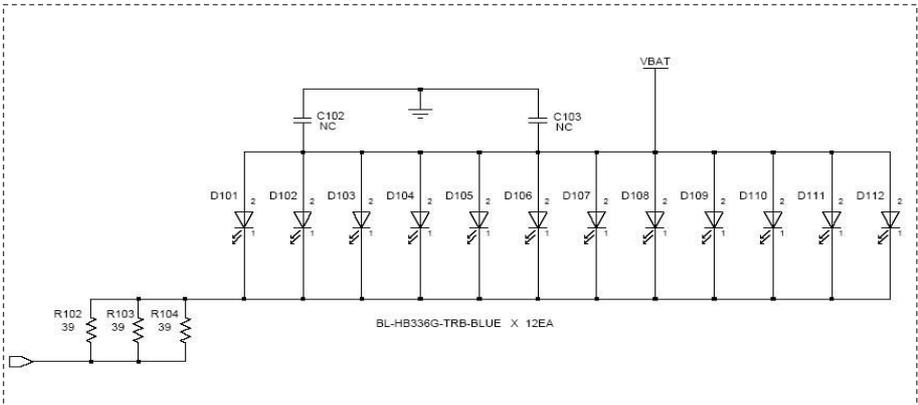
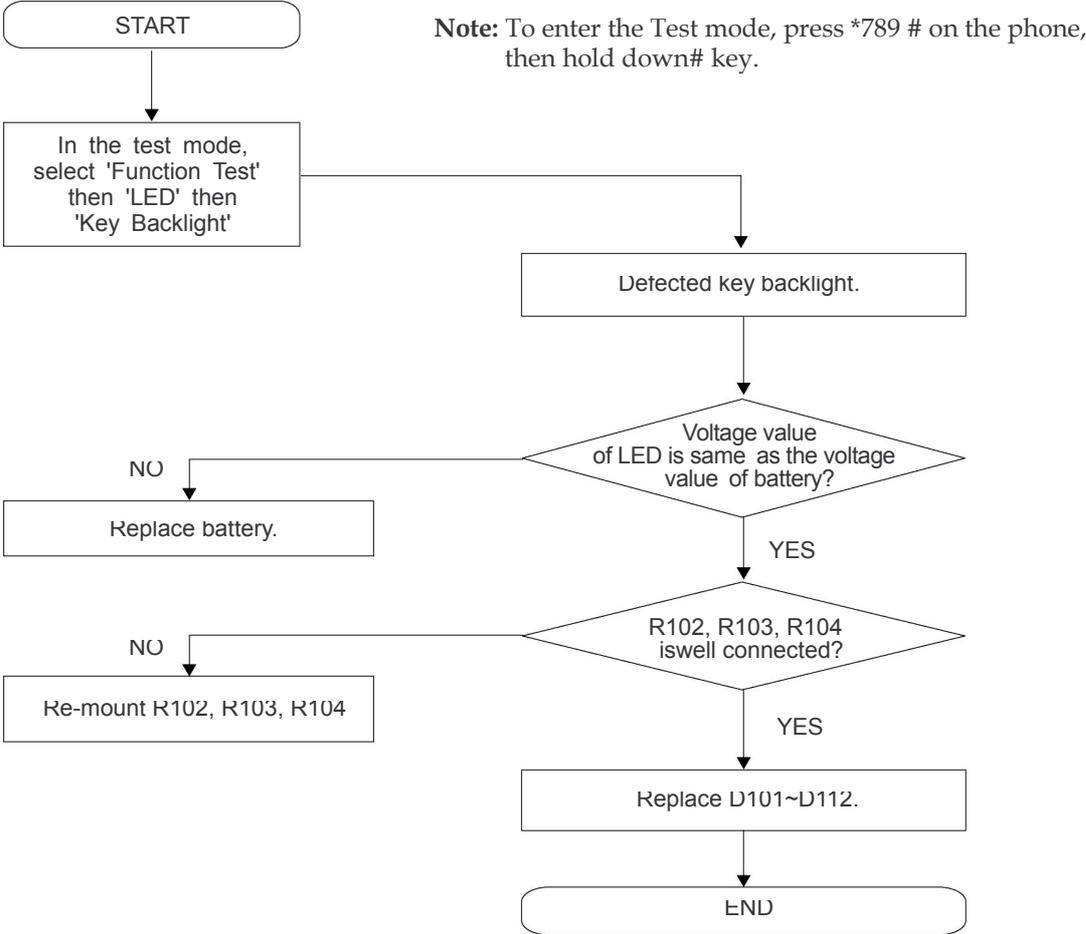


## 5.7 Vibrator Trouble

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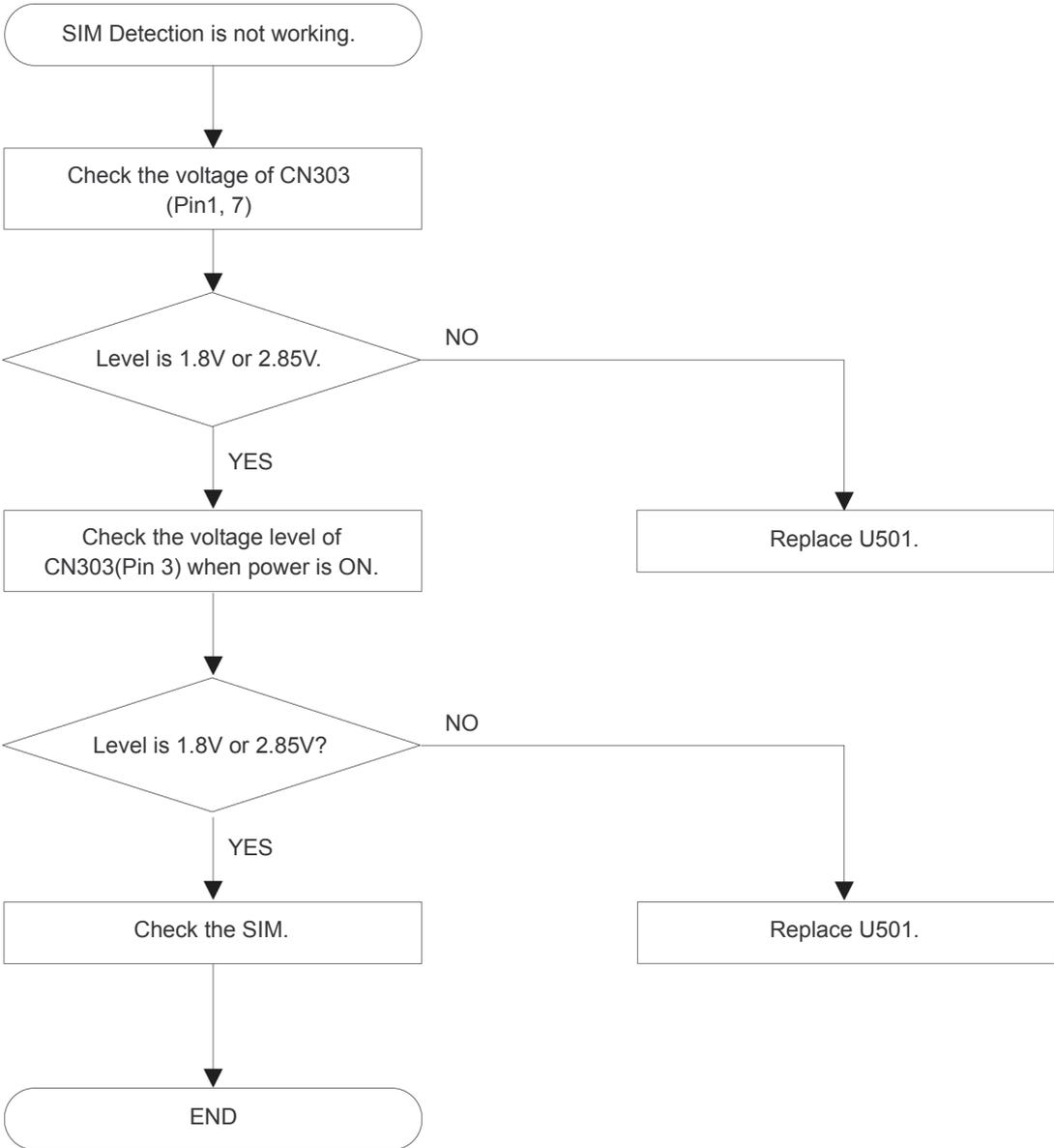


### 5.8 Key Backlight Trouble



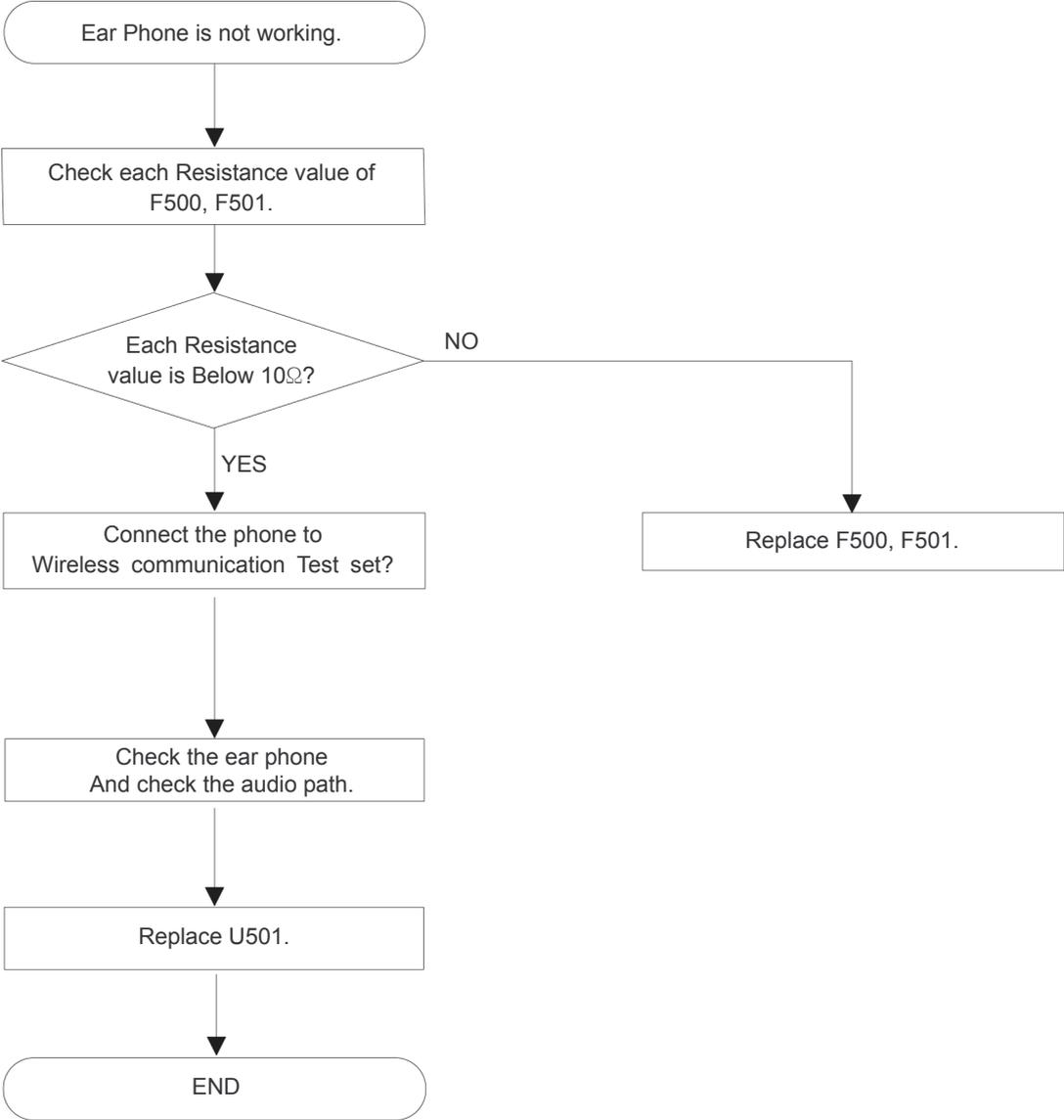
### 5.9 SIM Detection Trouble

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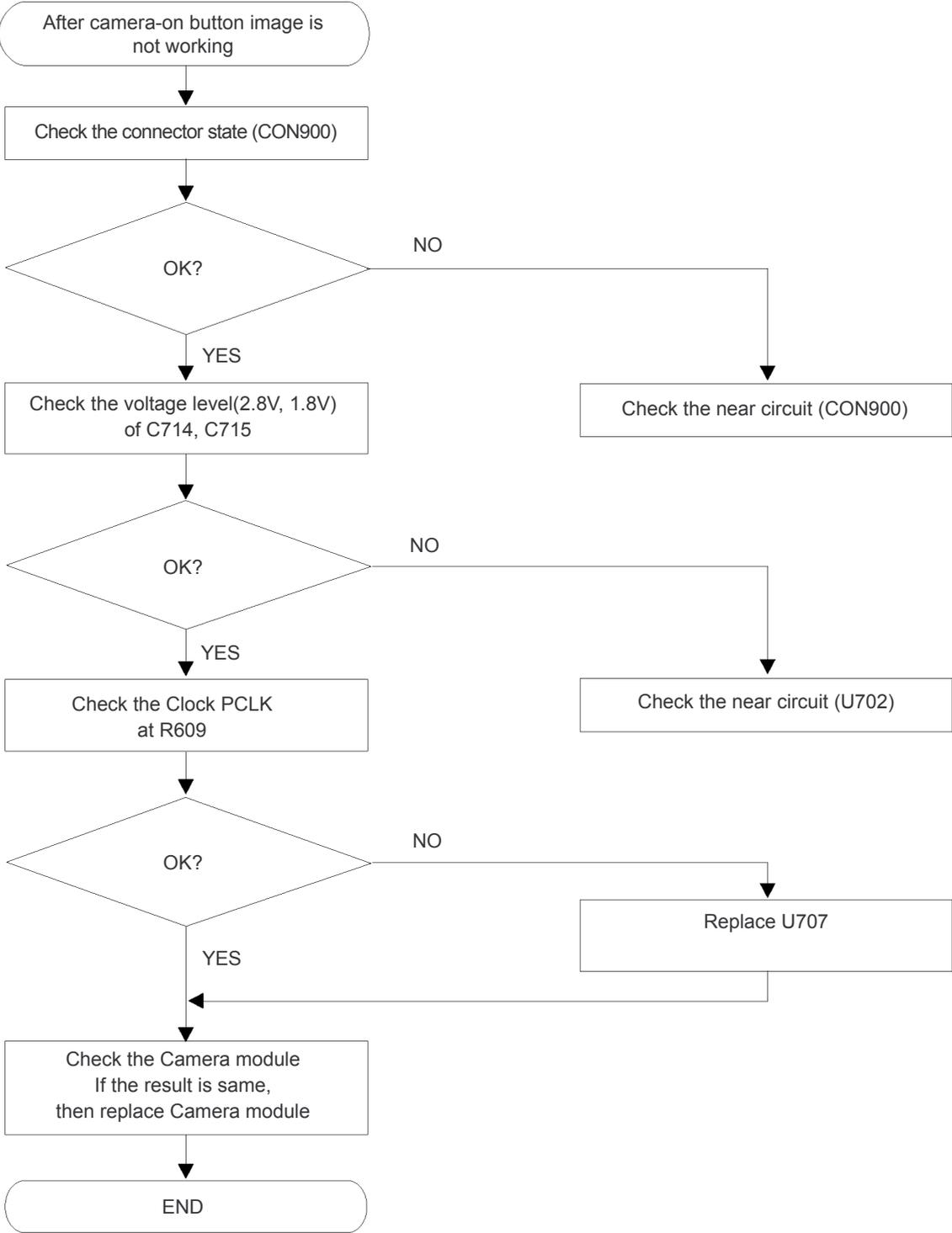


### 5.10 Ear Phone Receiver Trouble

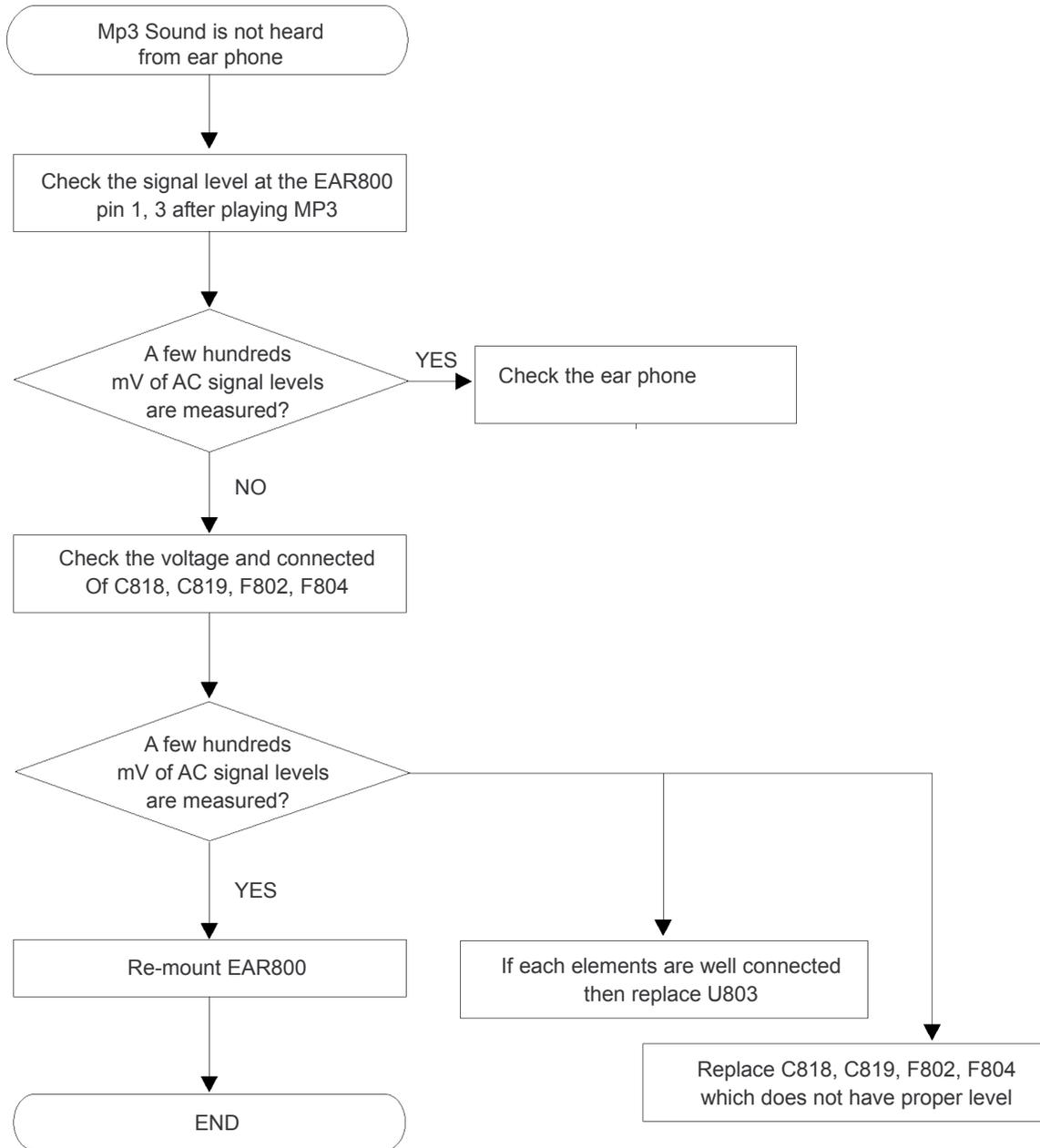
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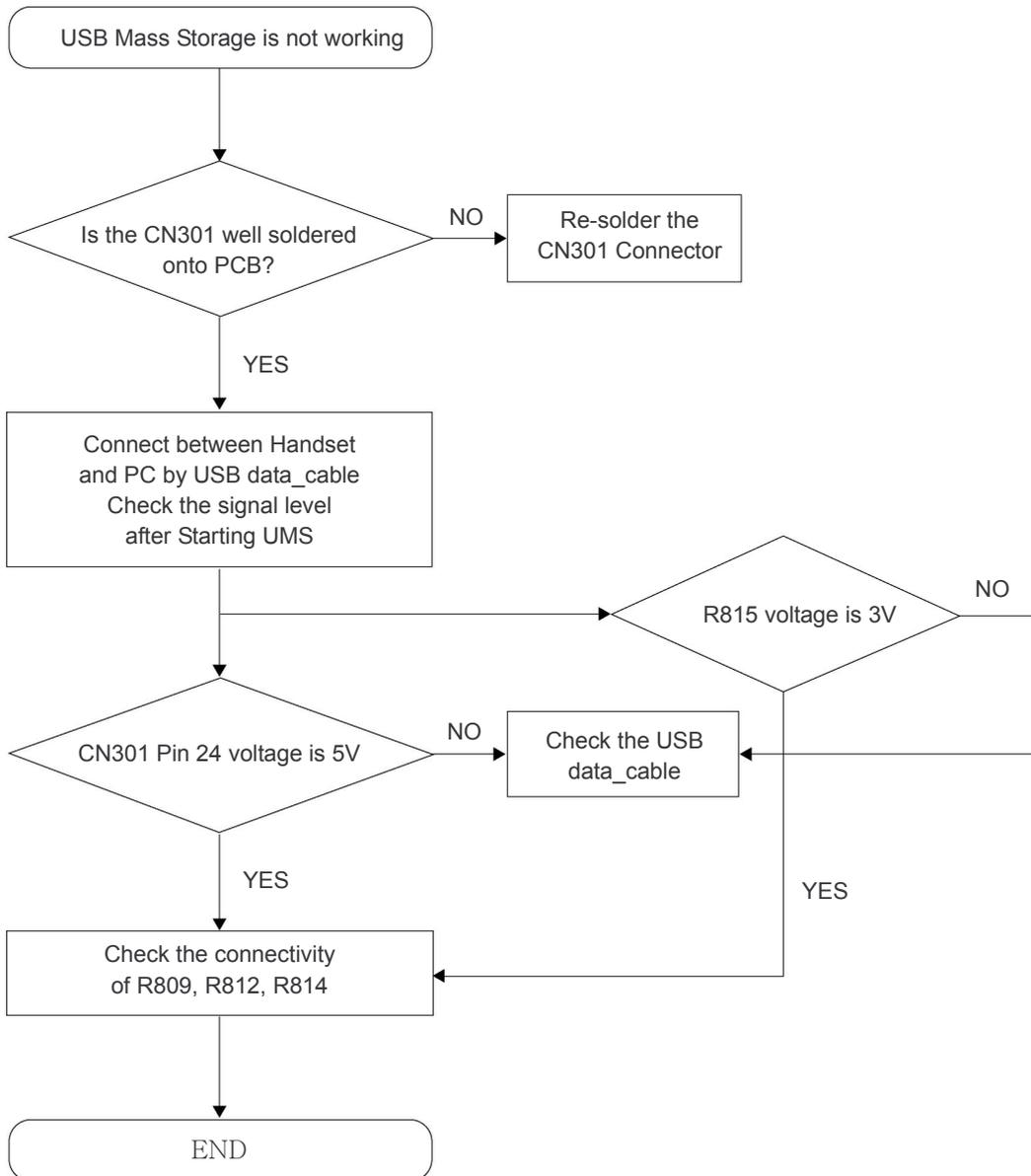
### 5.11 Camera Image Trouble



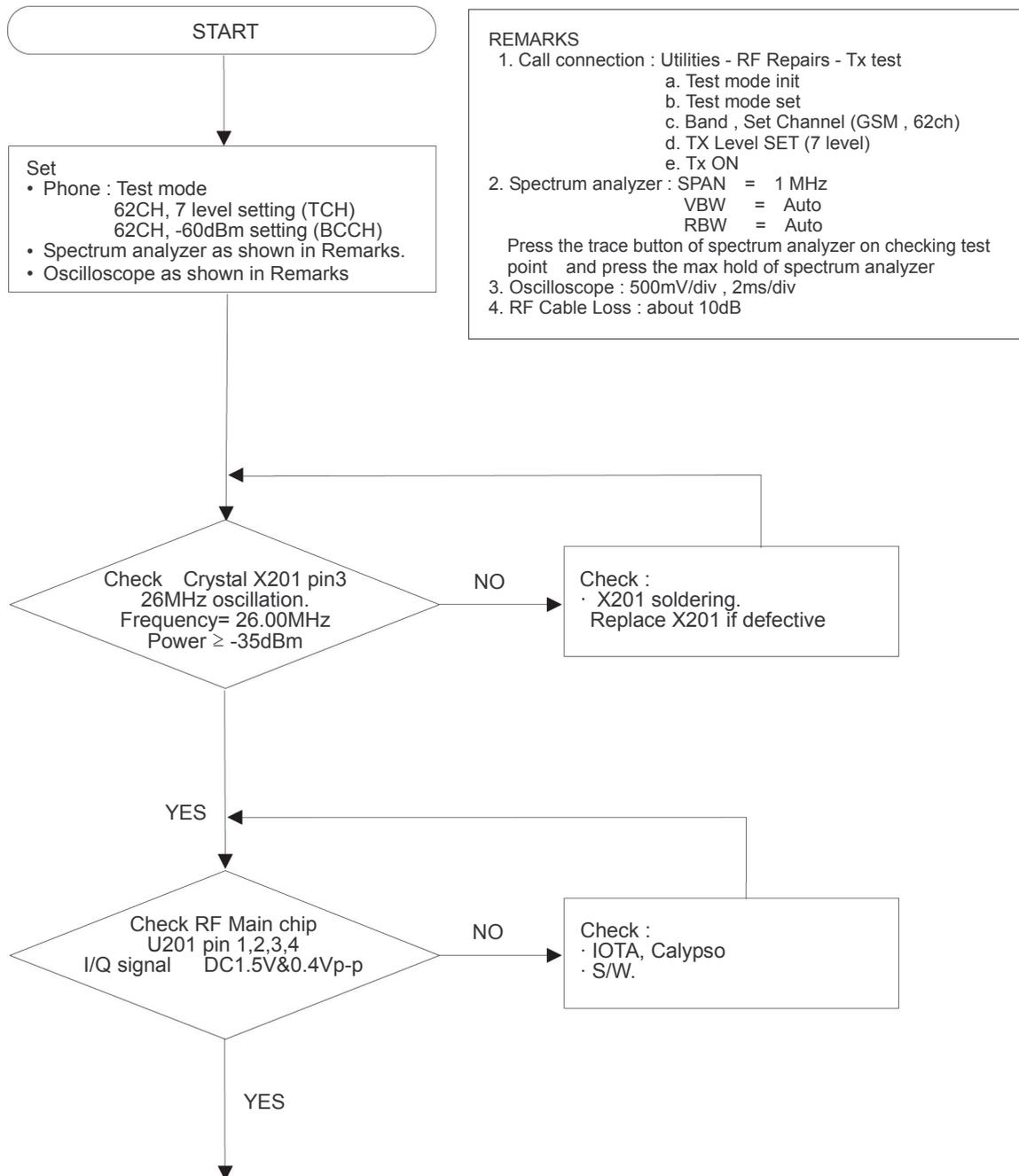
## 5.12 Ear Phone MP3 trouble

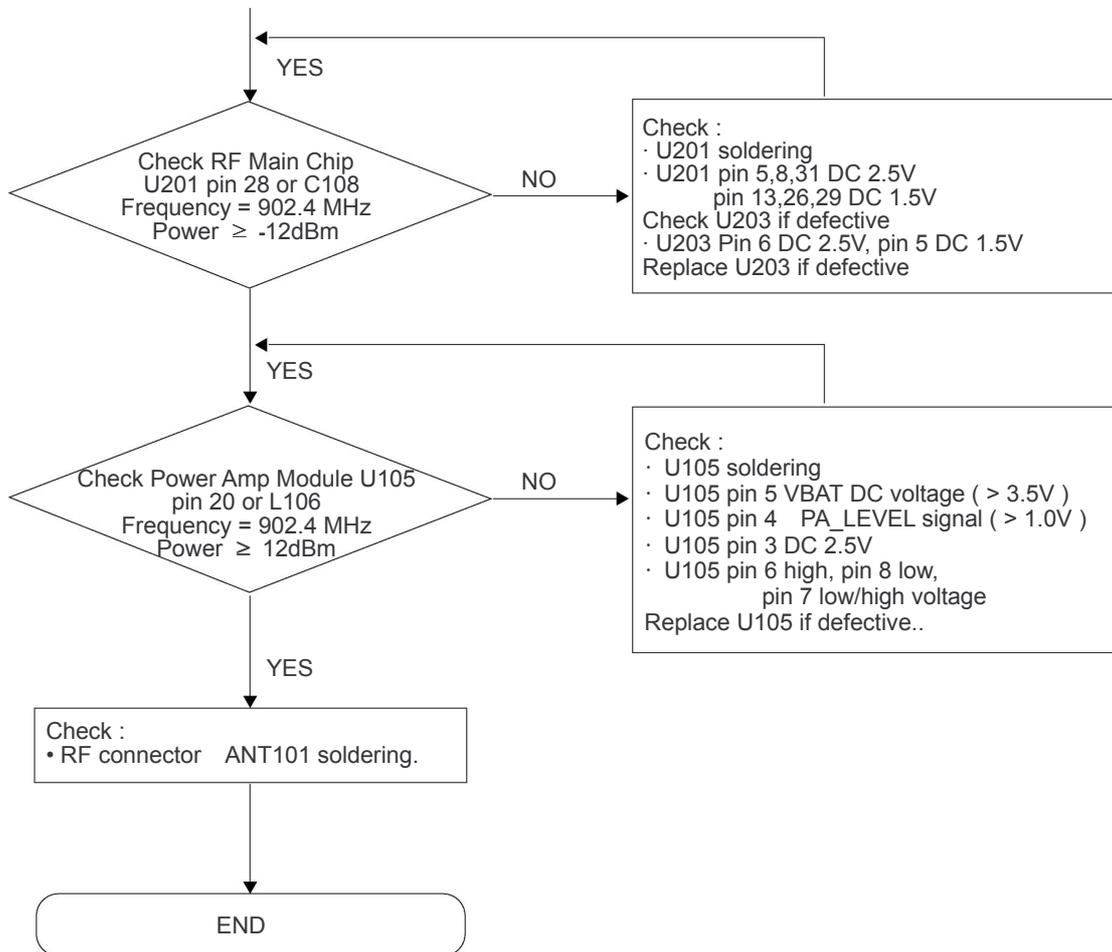


### 5.13 UMS Mass Storage trouble

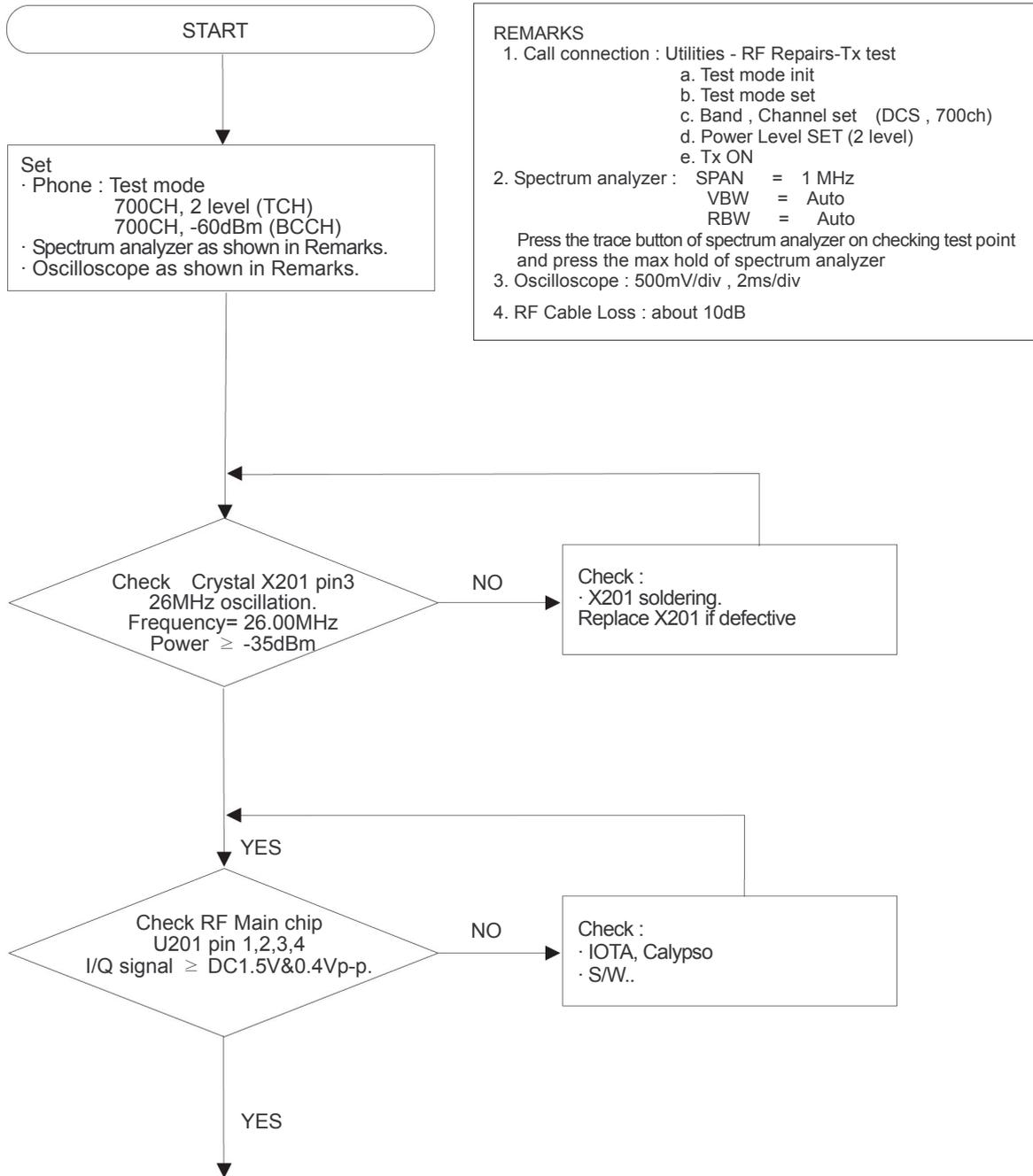


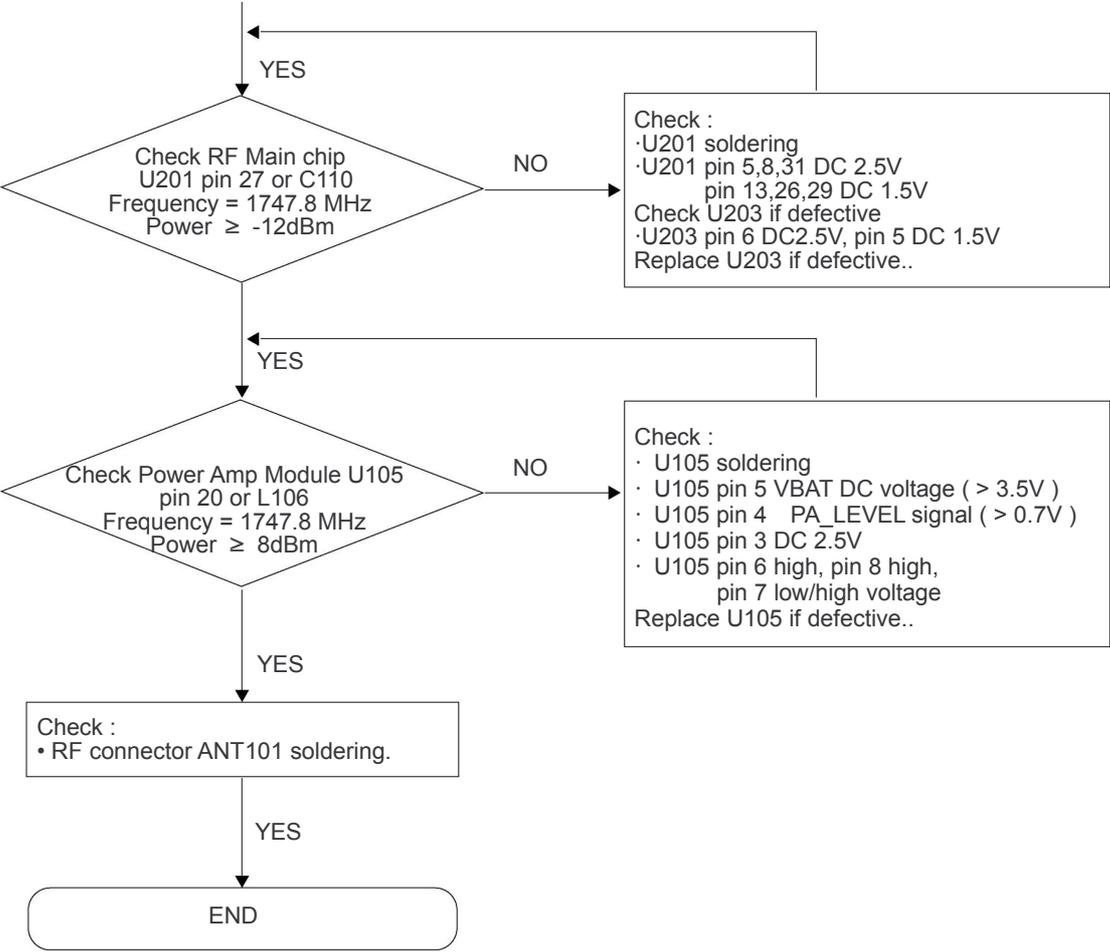
## 5.14 TX Power Trouble (E-GSM)



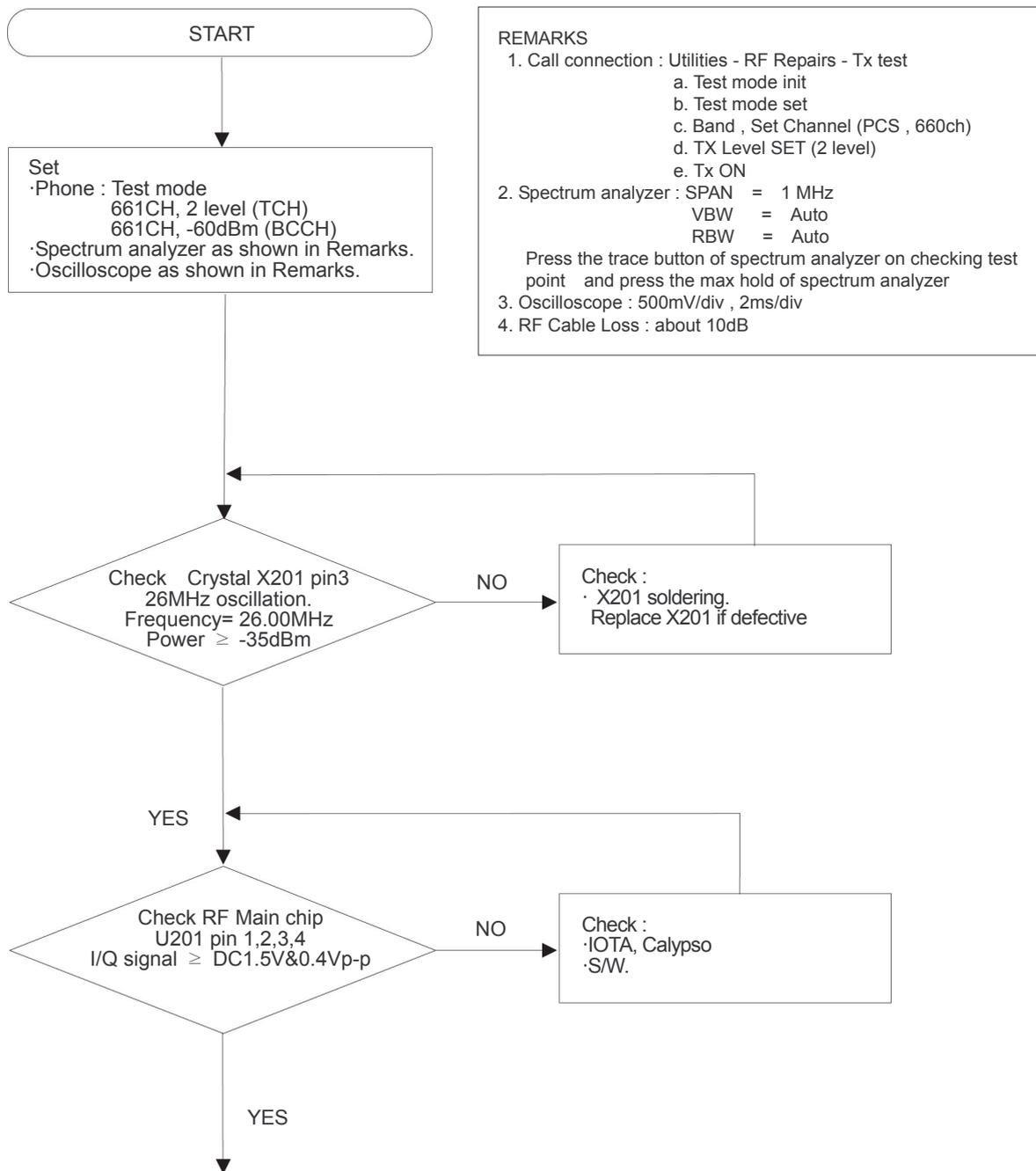


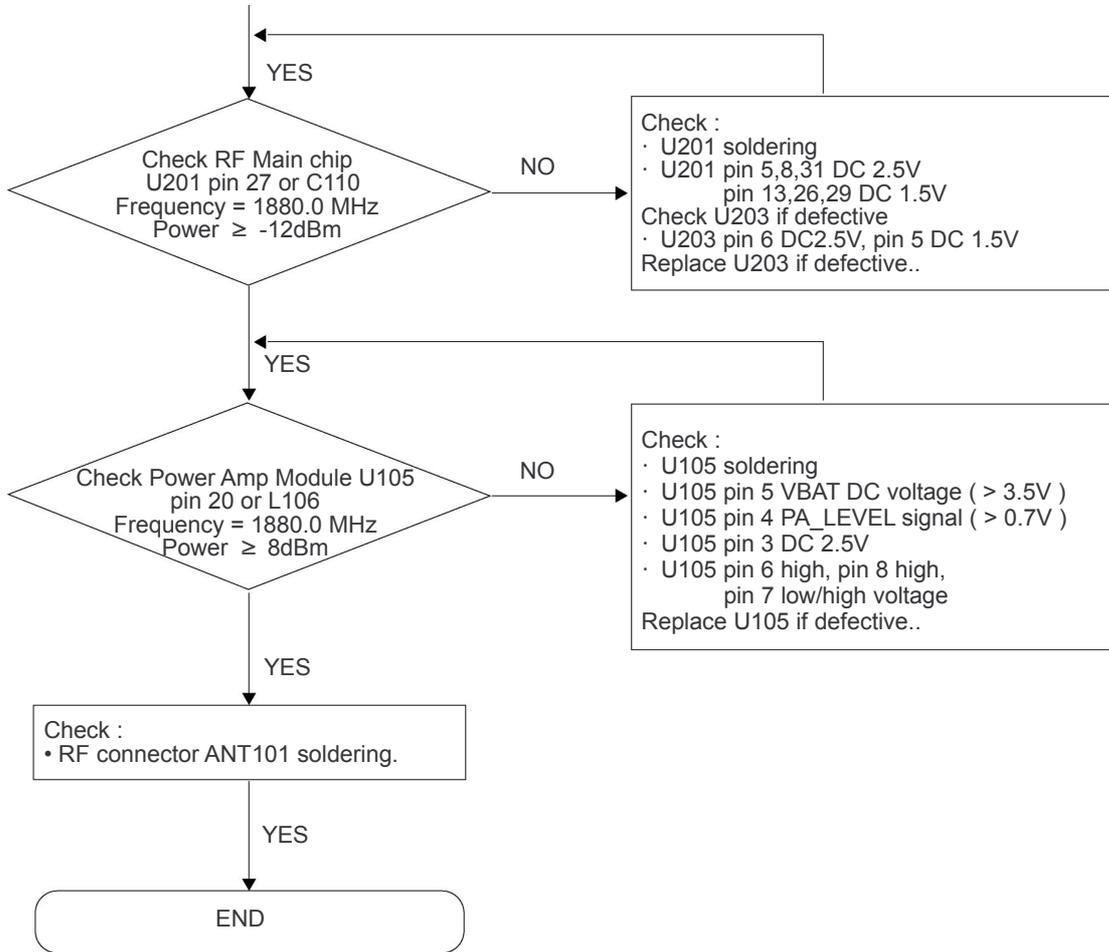
### 5.15 TX Power Trouble (DCS)



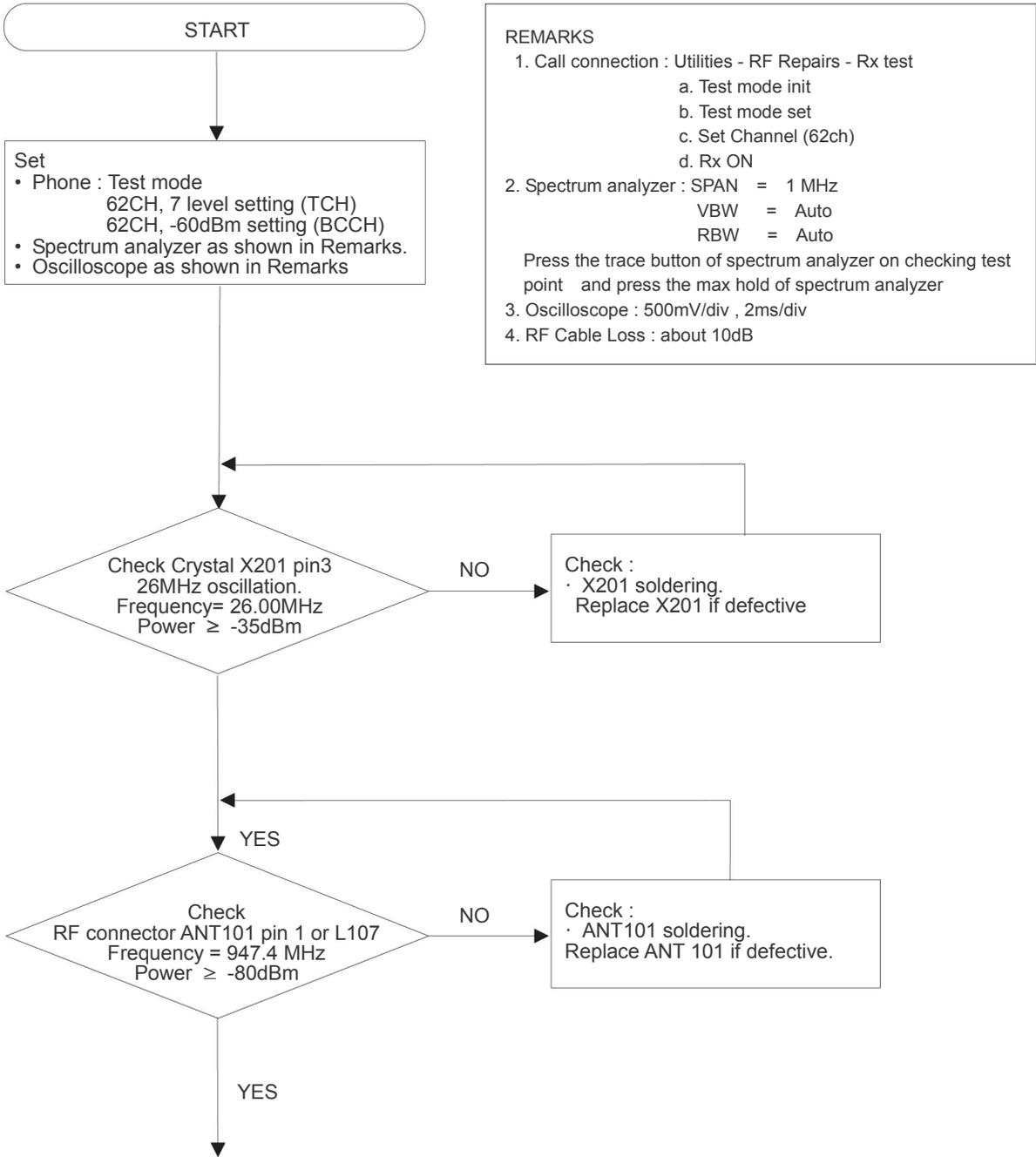


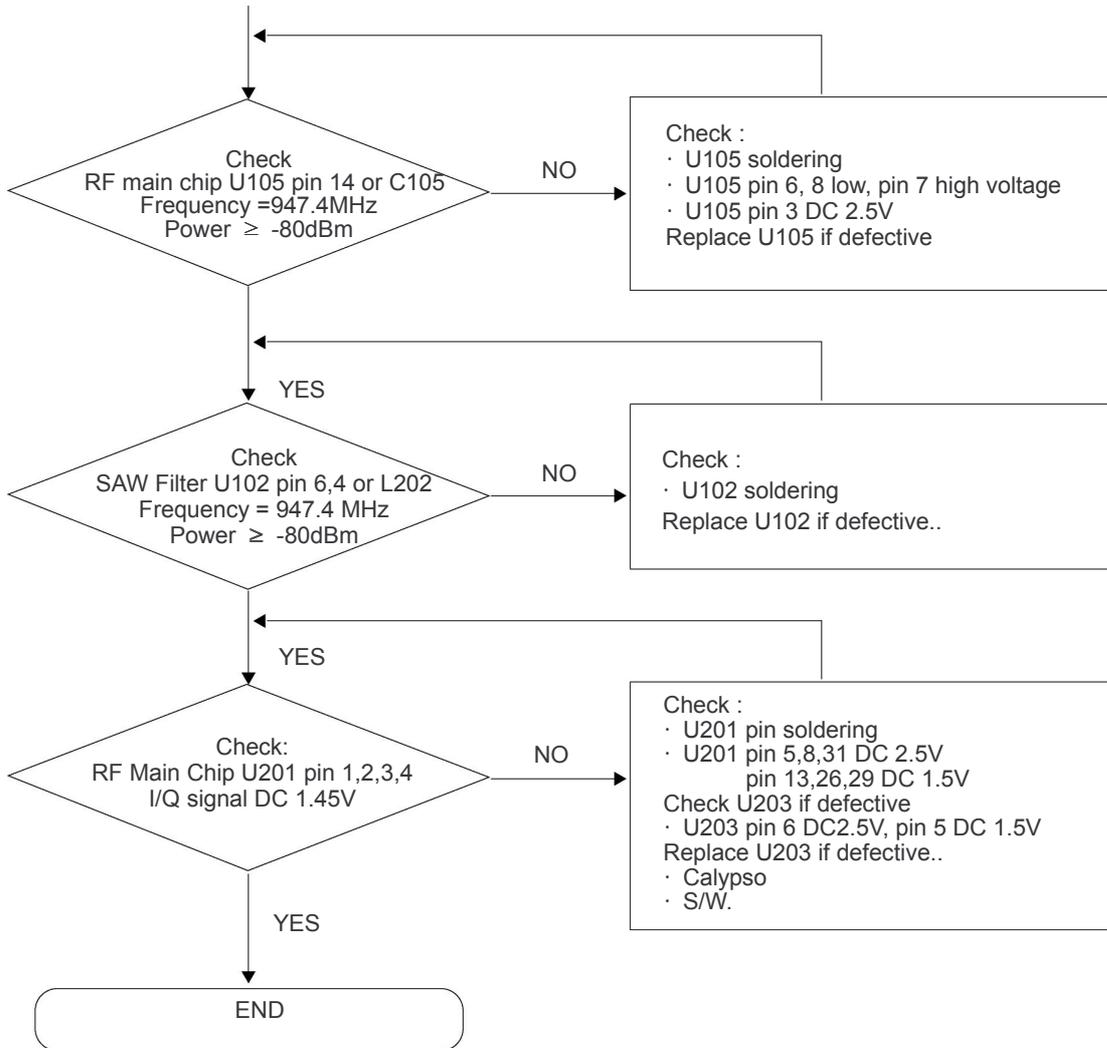
## 5.16 TX Power Trouble (PCS)



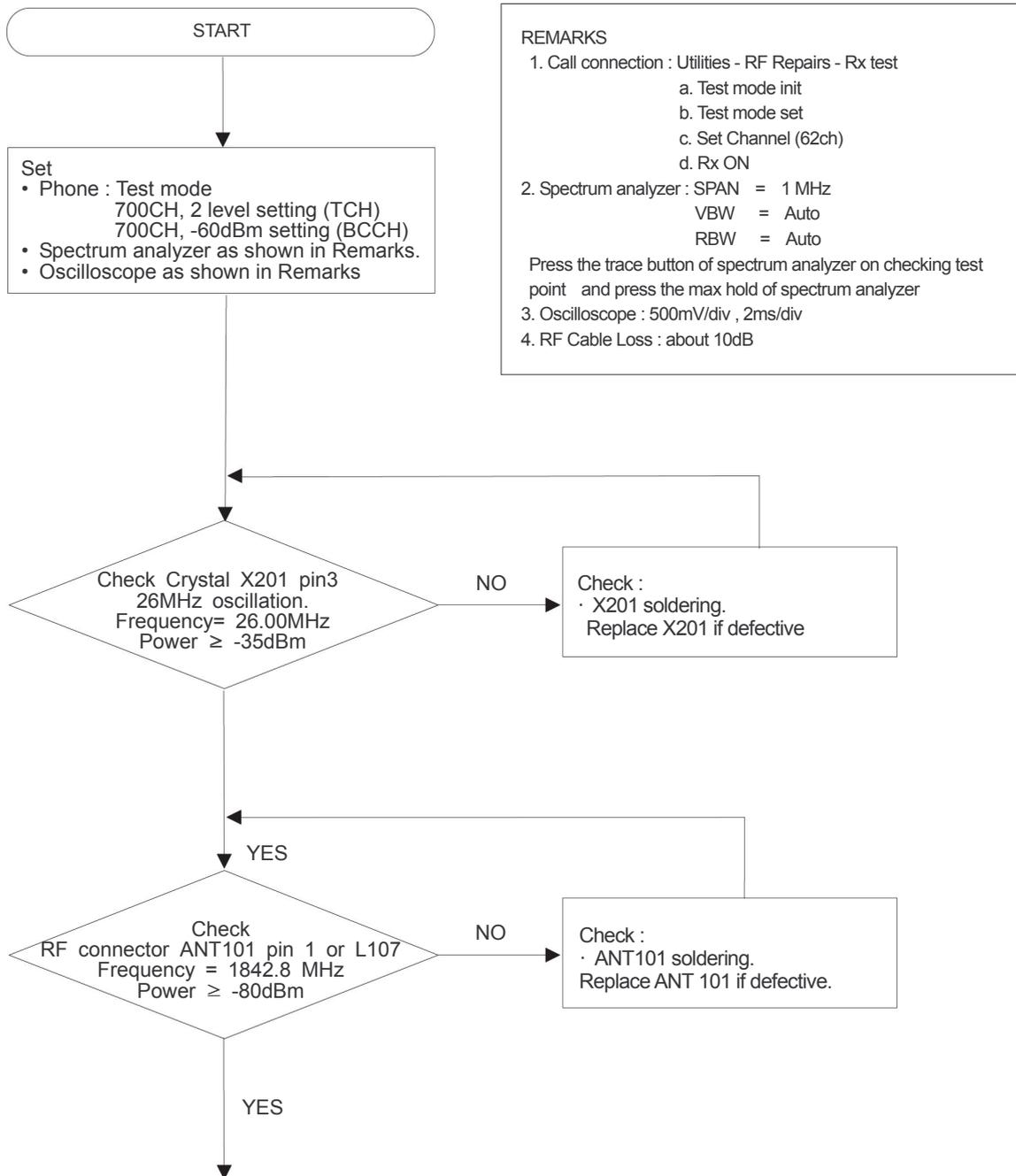


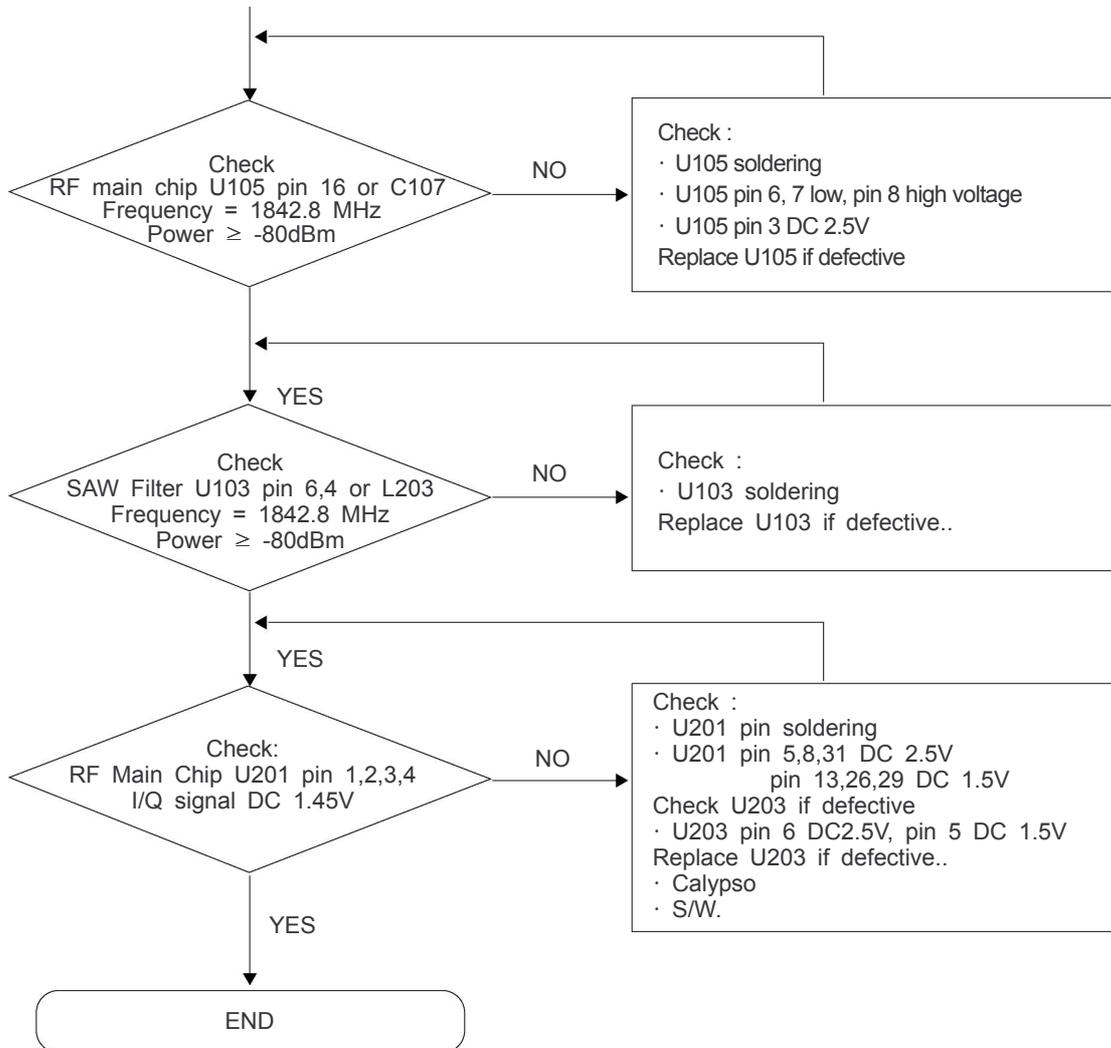
### 5.17 RX Sensitivity Trouble (E-GSM)



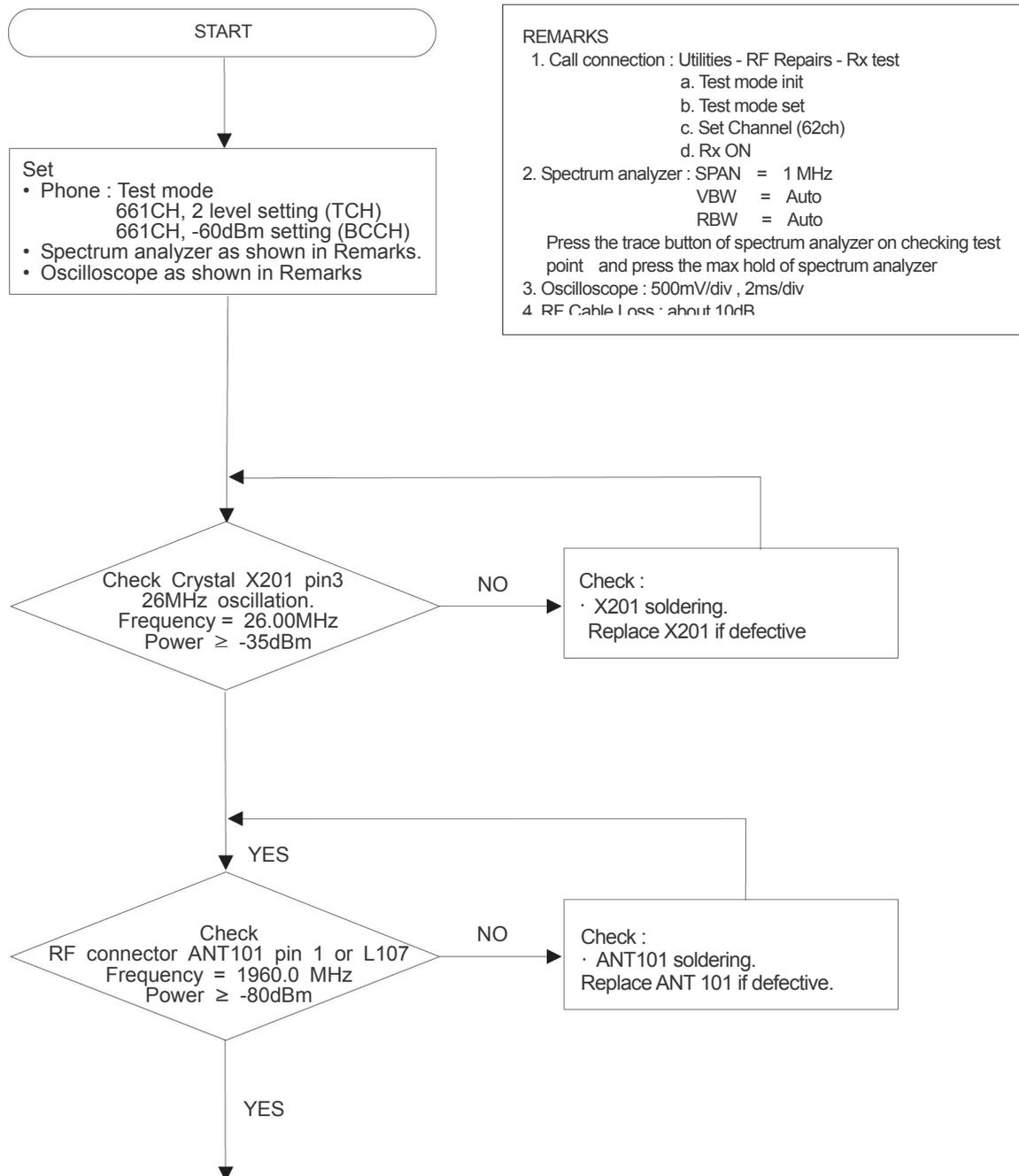


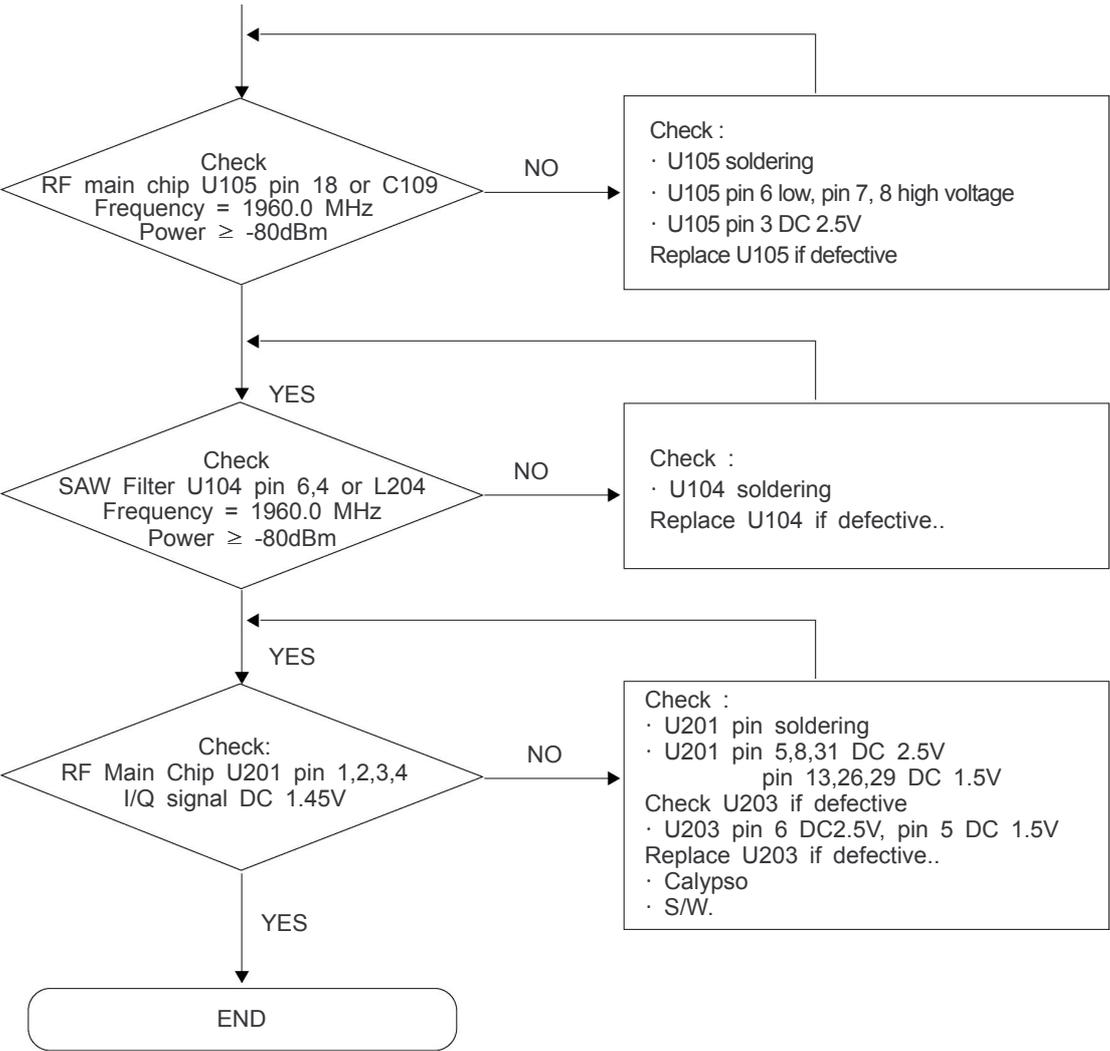
## 5.18 RX Sensitivity Trouble (DCS)



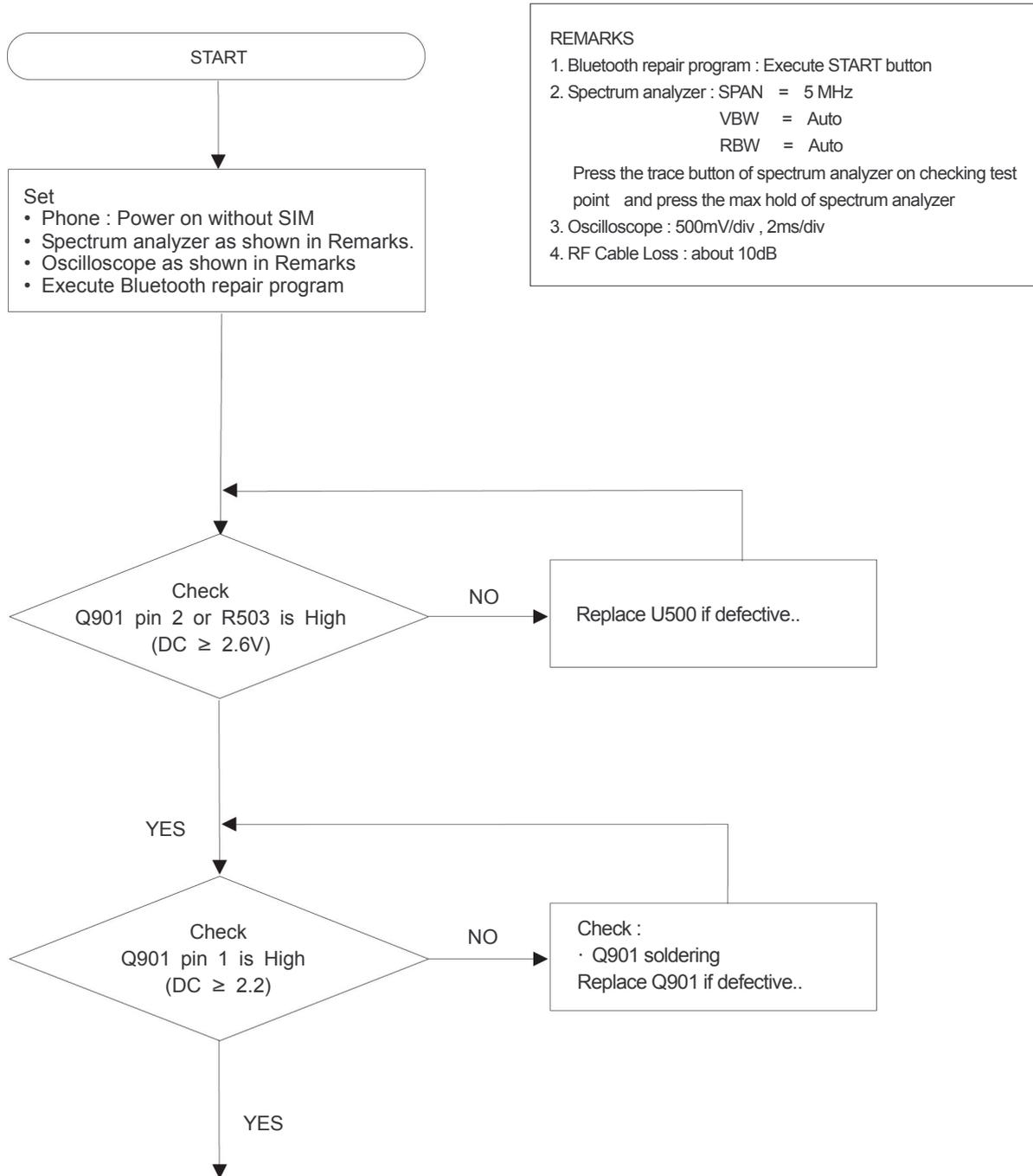


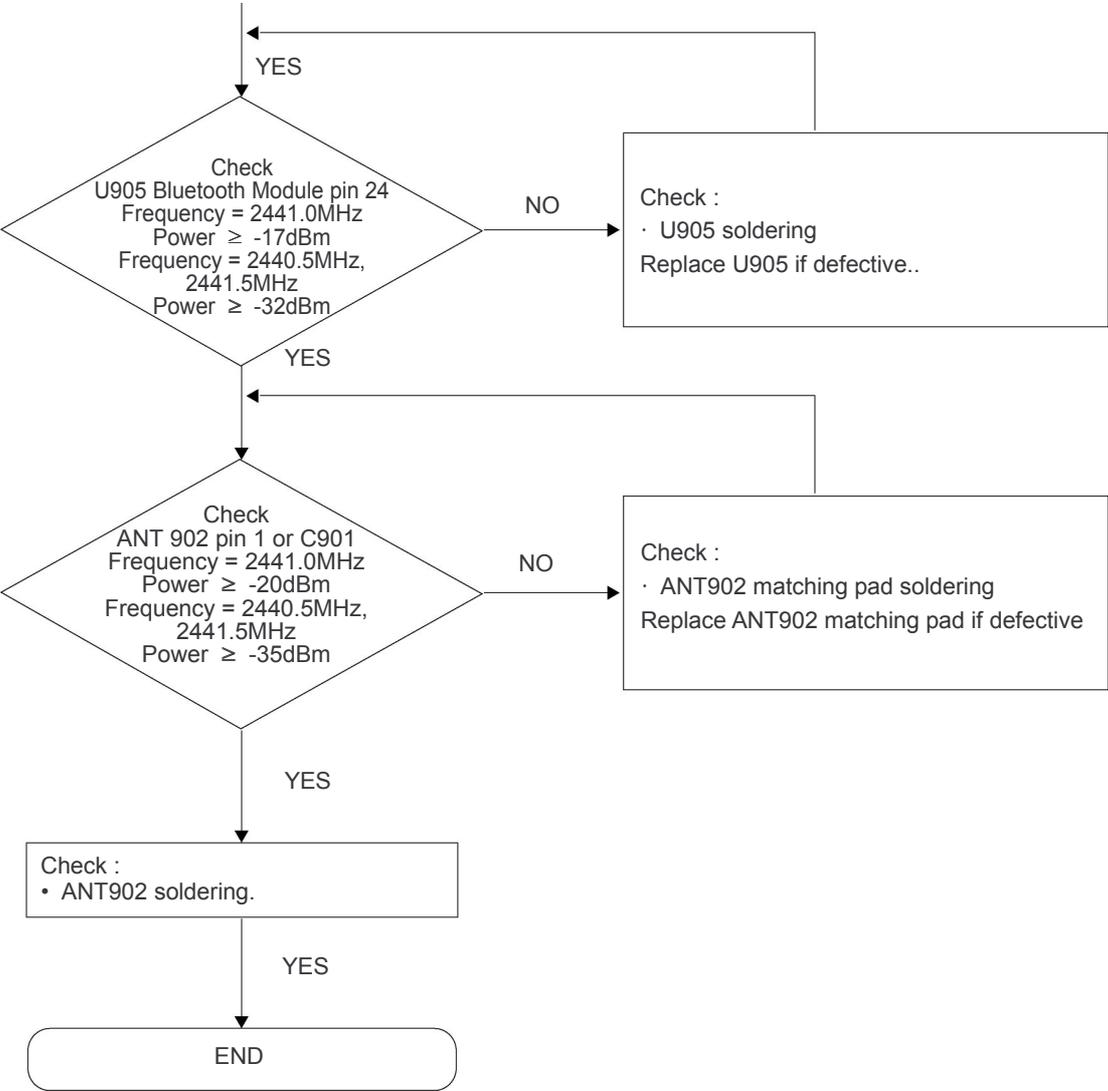
## 5.19 RX Sensitivity Trouble (PCS)





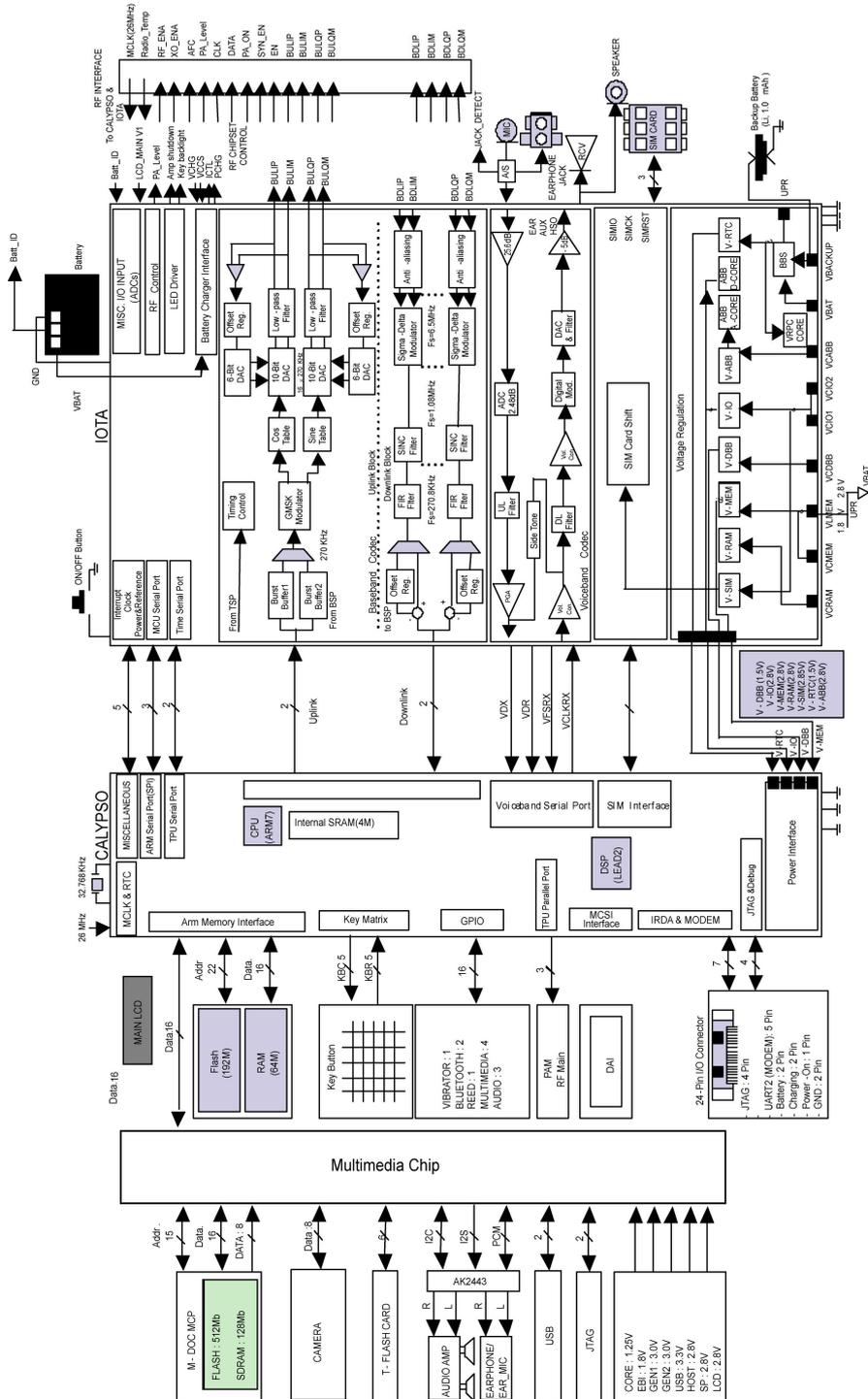
## 5.20 Bluetooth Trouble





# 6. Block Diagram

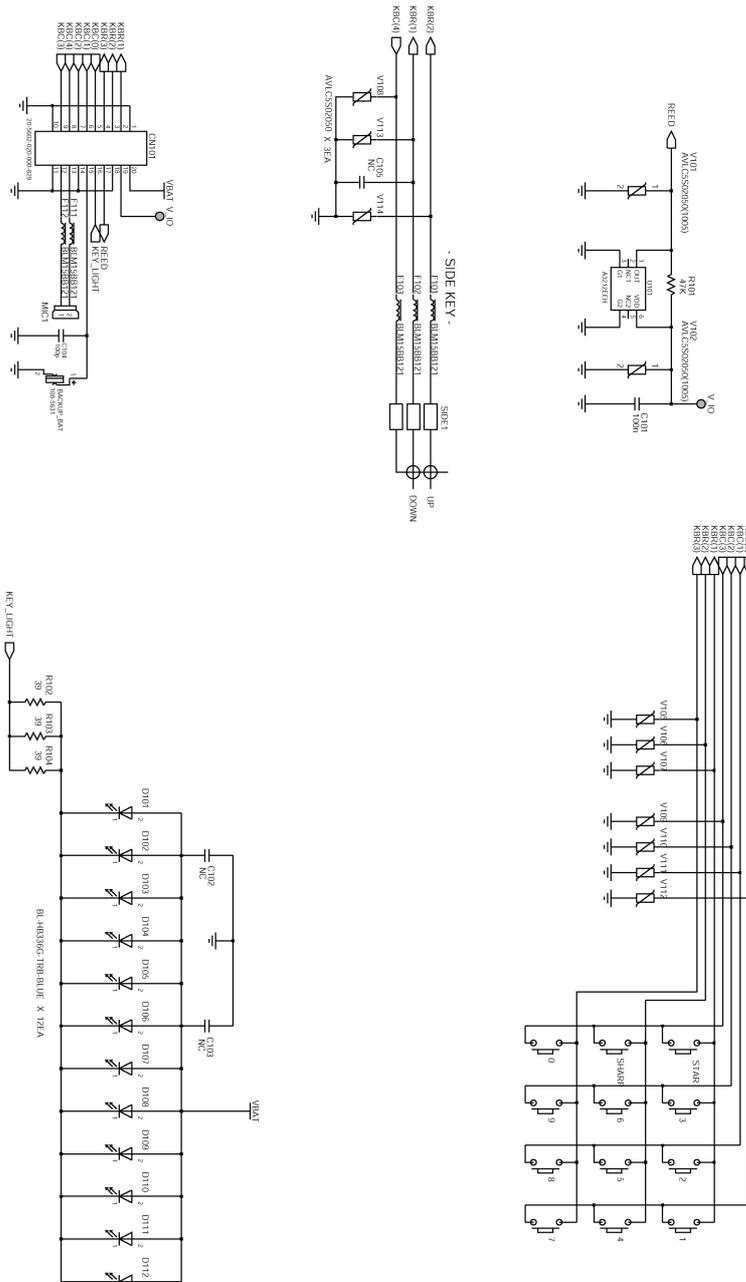
## 6.1 BaseBand Block Diagram





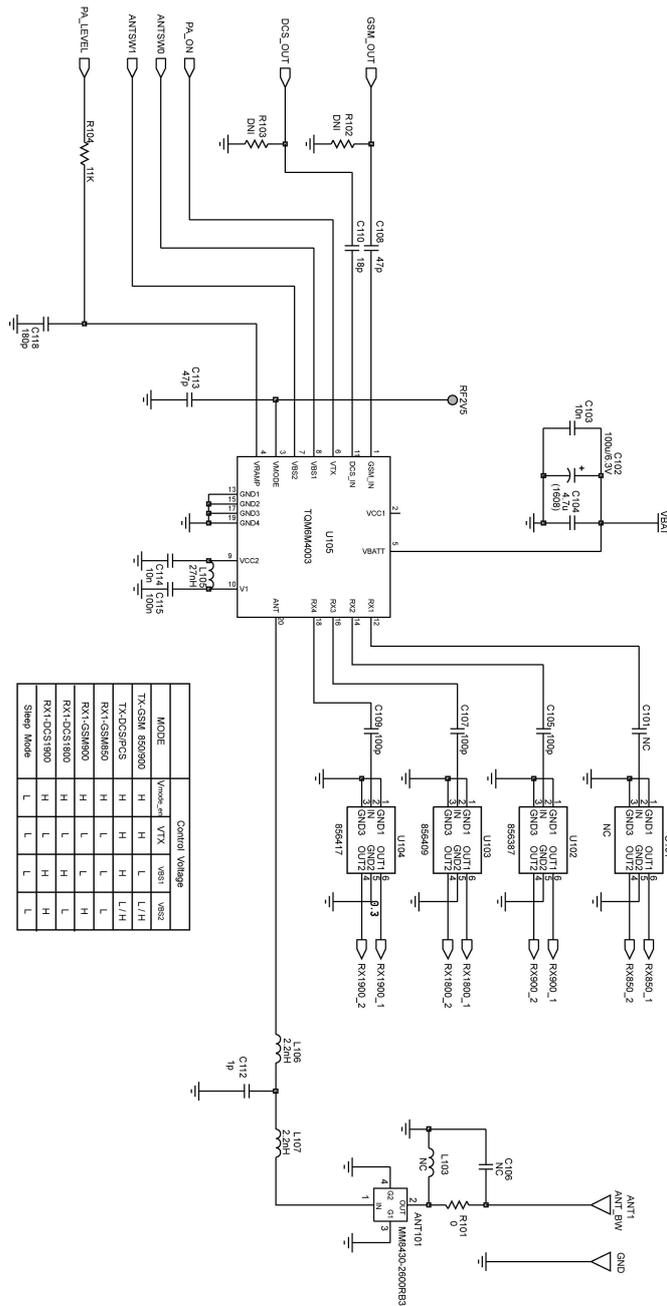
# 7. Schematic Diagram

## 7.1 KEY Pcb



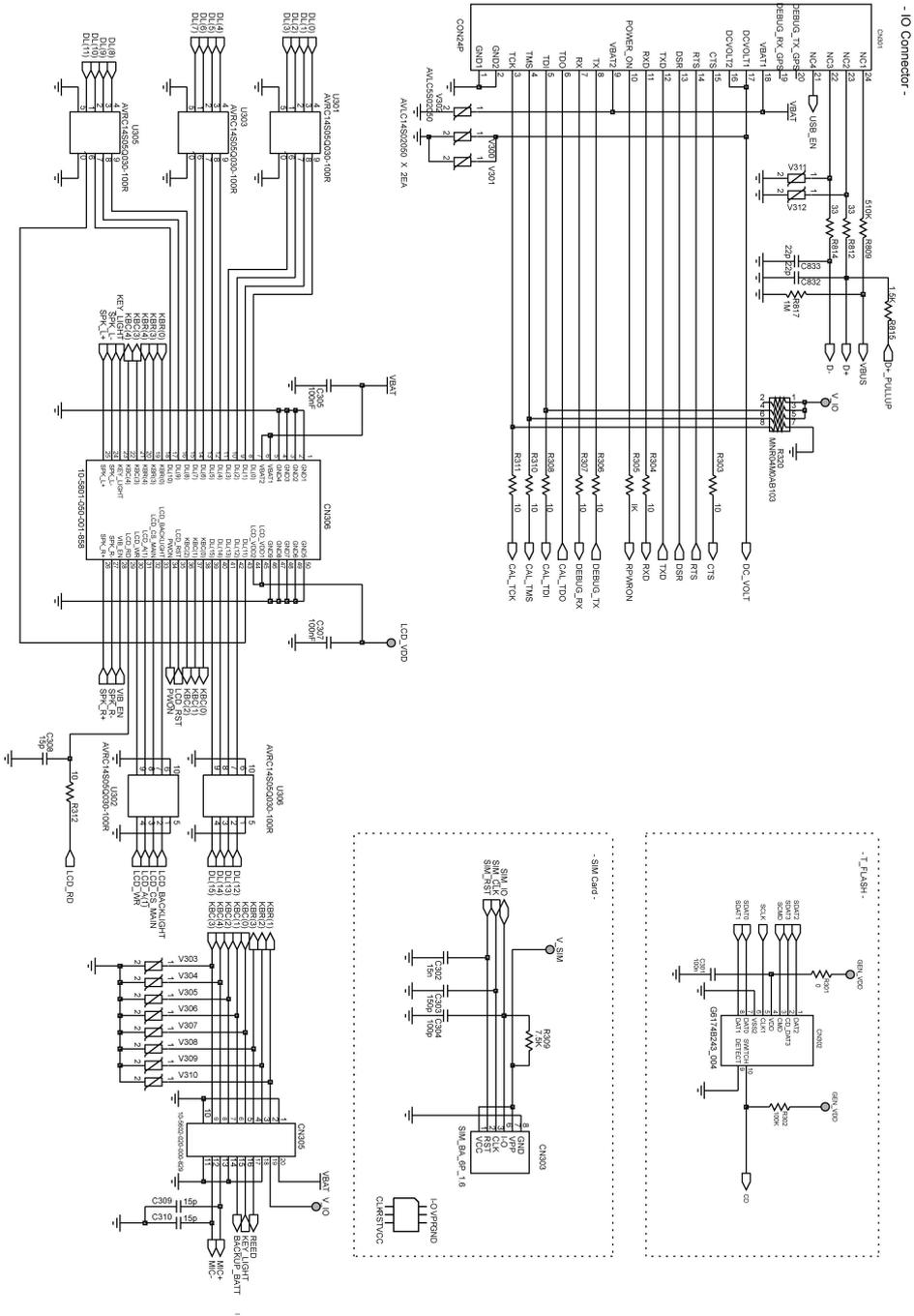
## 7.2 Main pcb

### 7.2.1 RF PAM



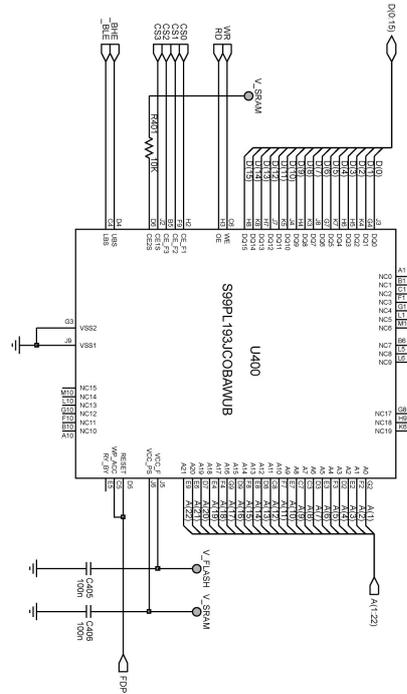


### 7.2.3 CONNECTOR

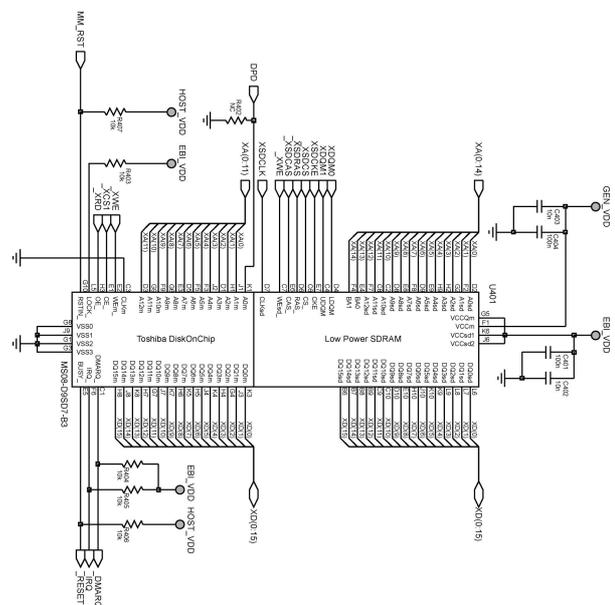


### 7.2.4 MEMORY

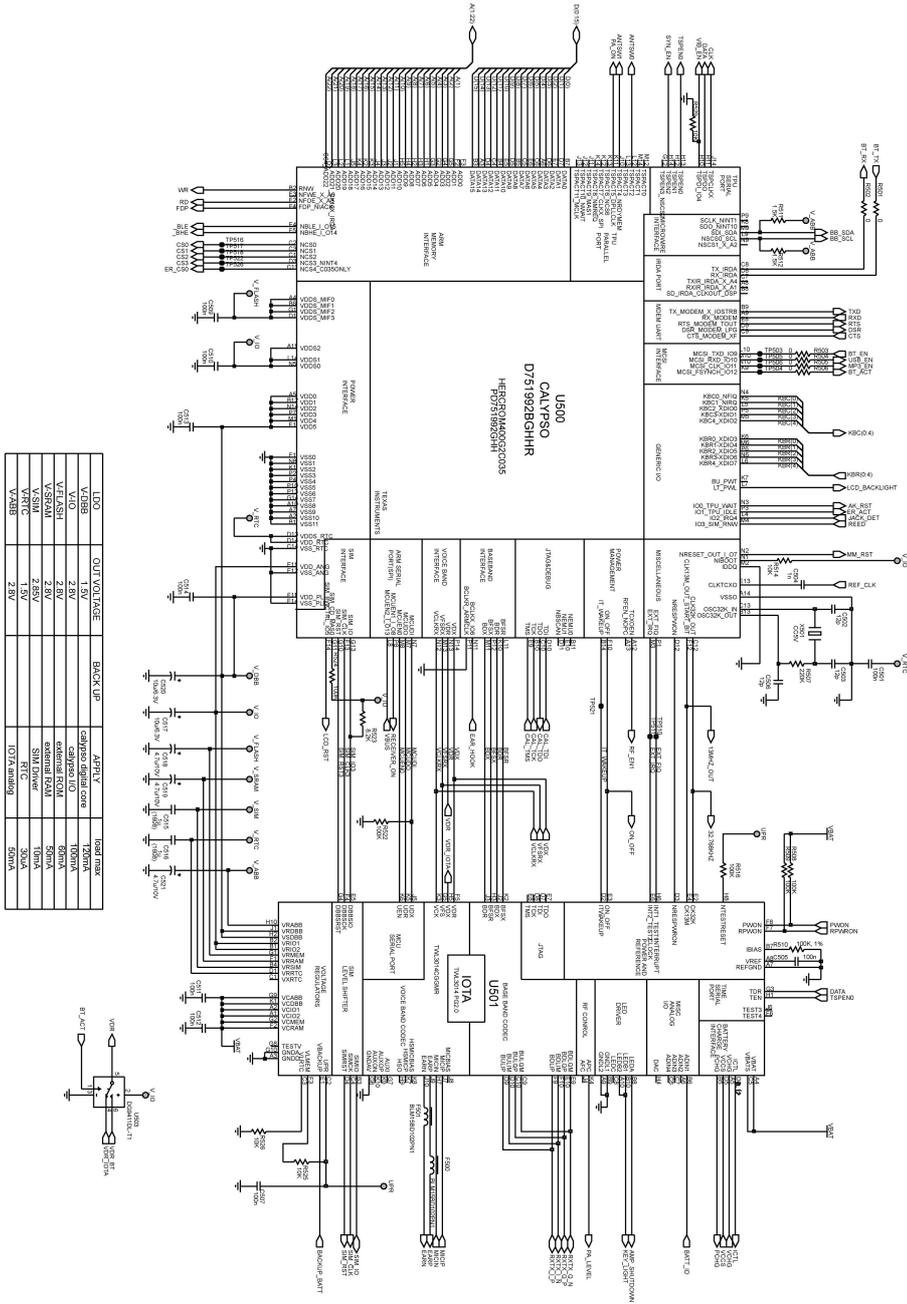
- MEMORY -



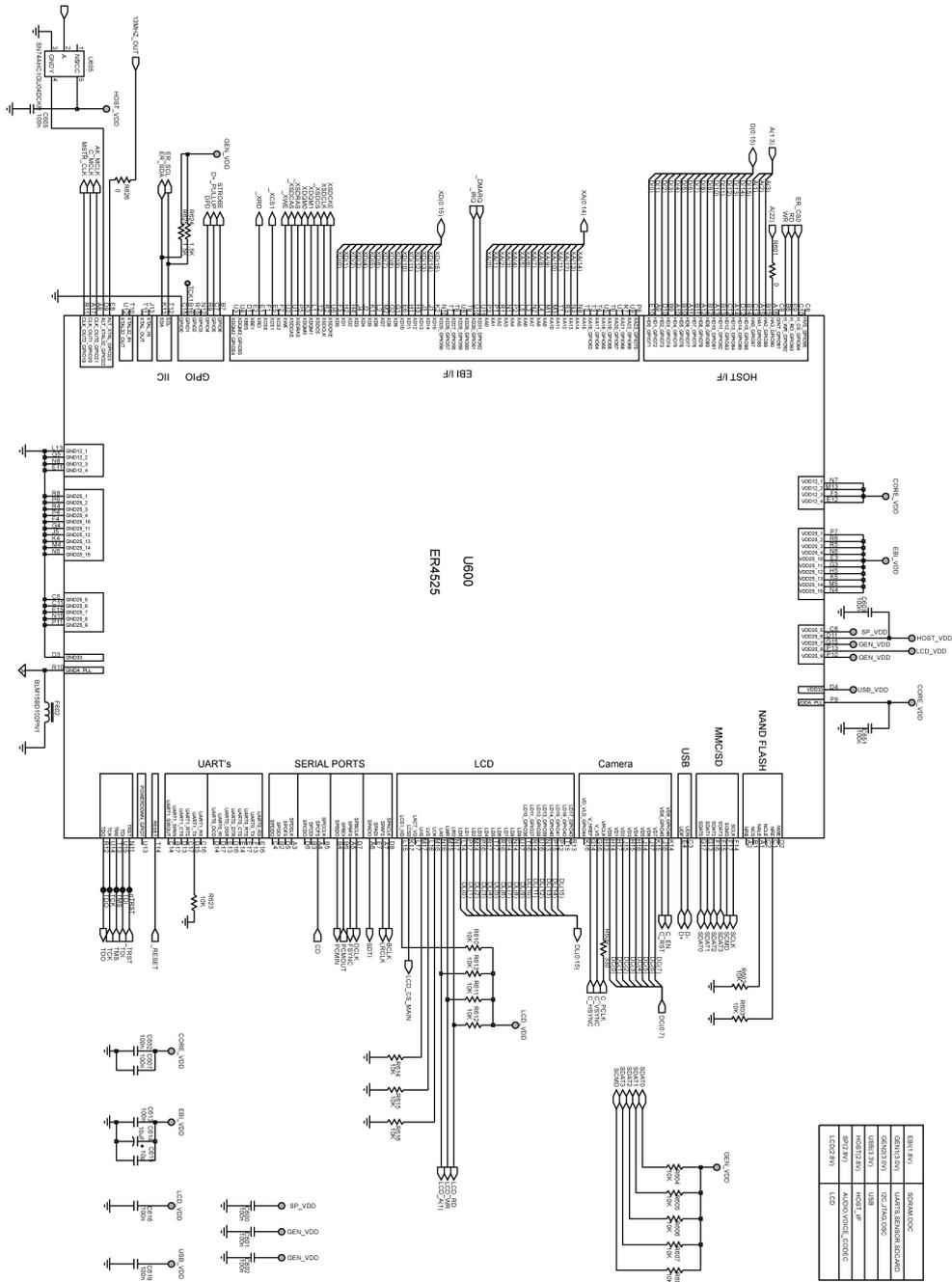
- MDOC+SDRAM -



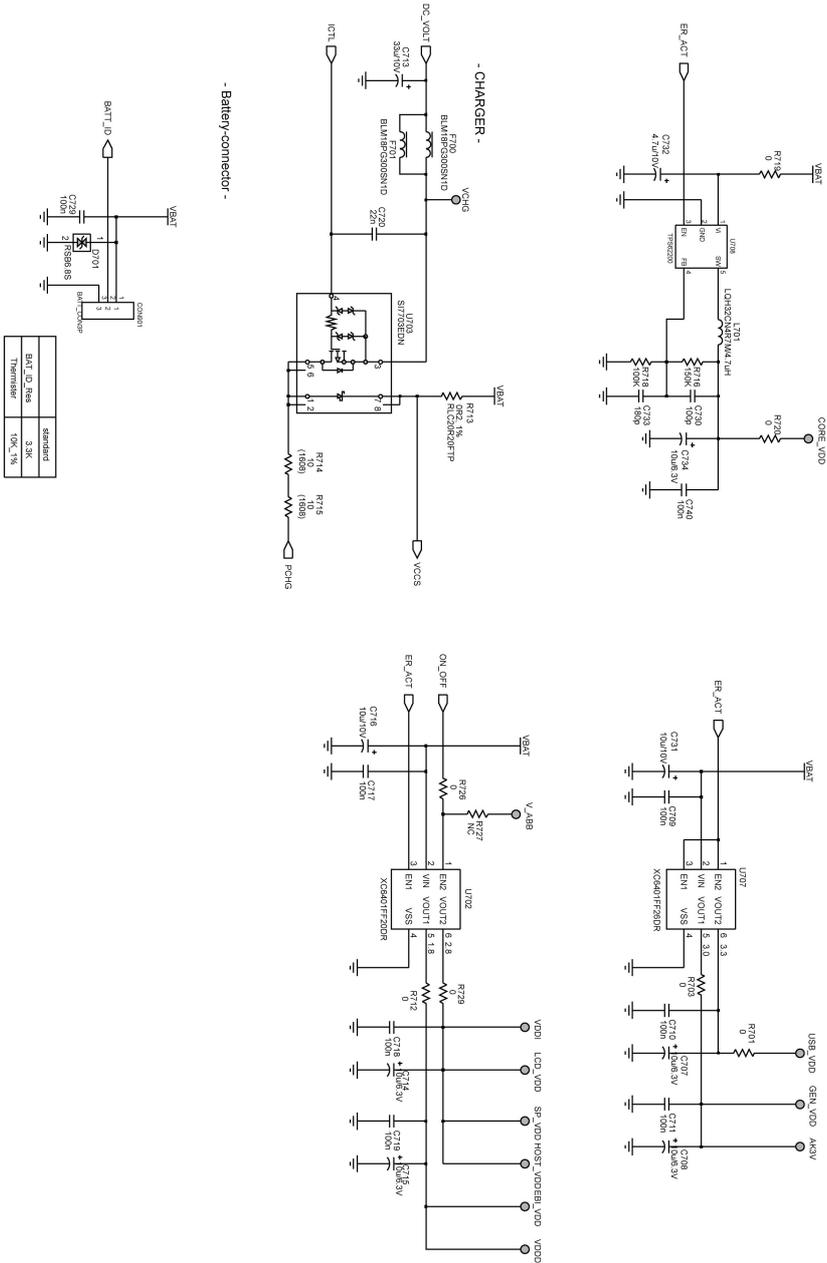
### 7.2.5 TI CHIPSET



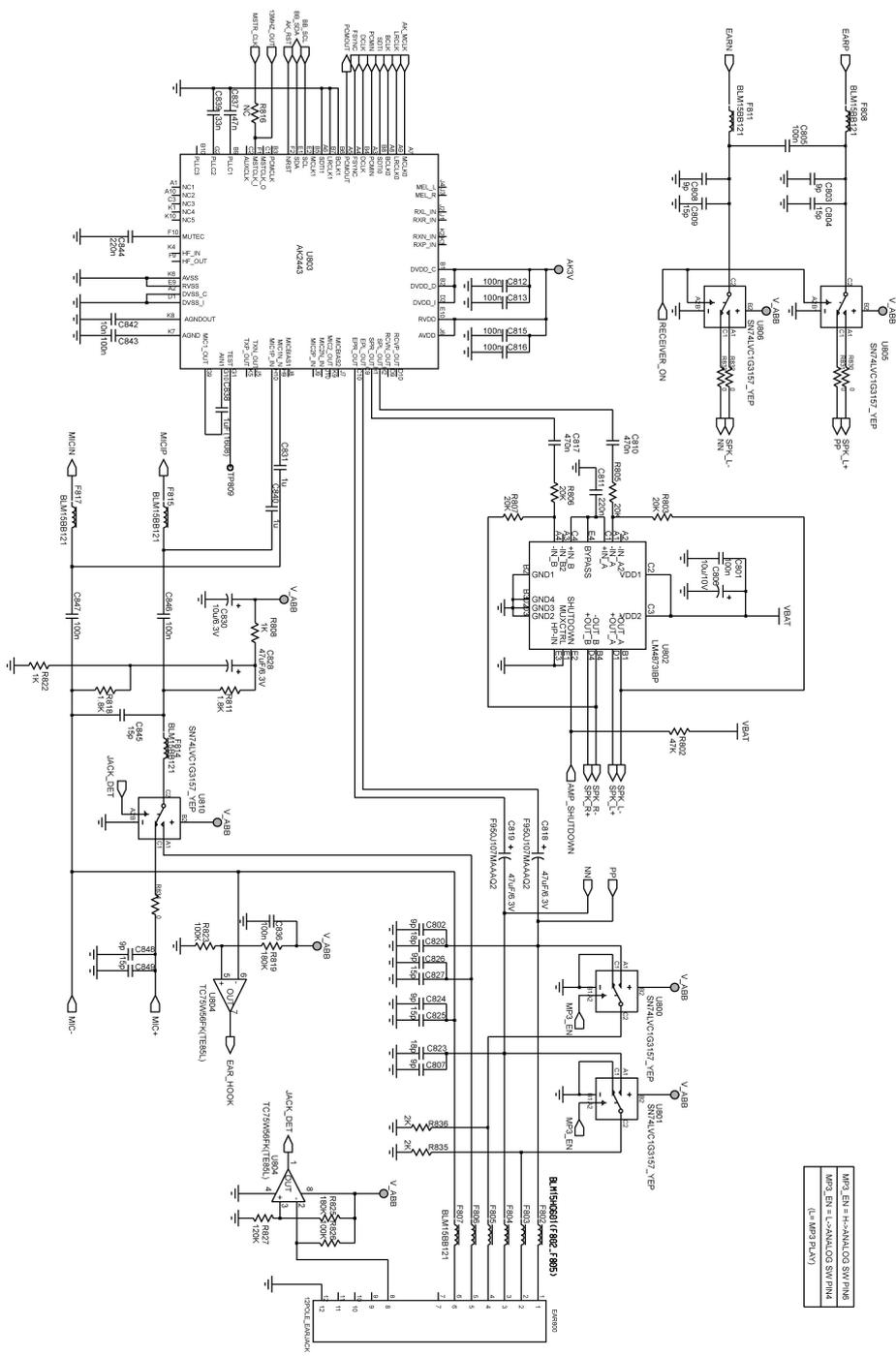
### 7.2.6 Multimedia CHIPSET (Emblaze)



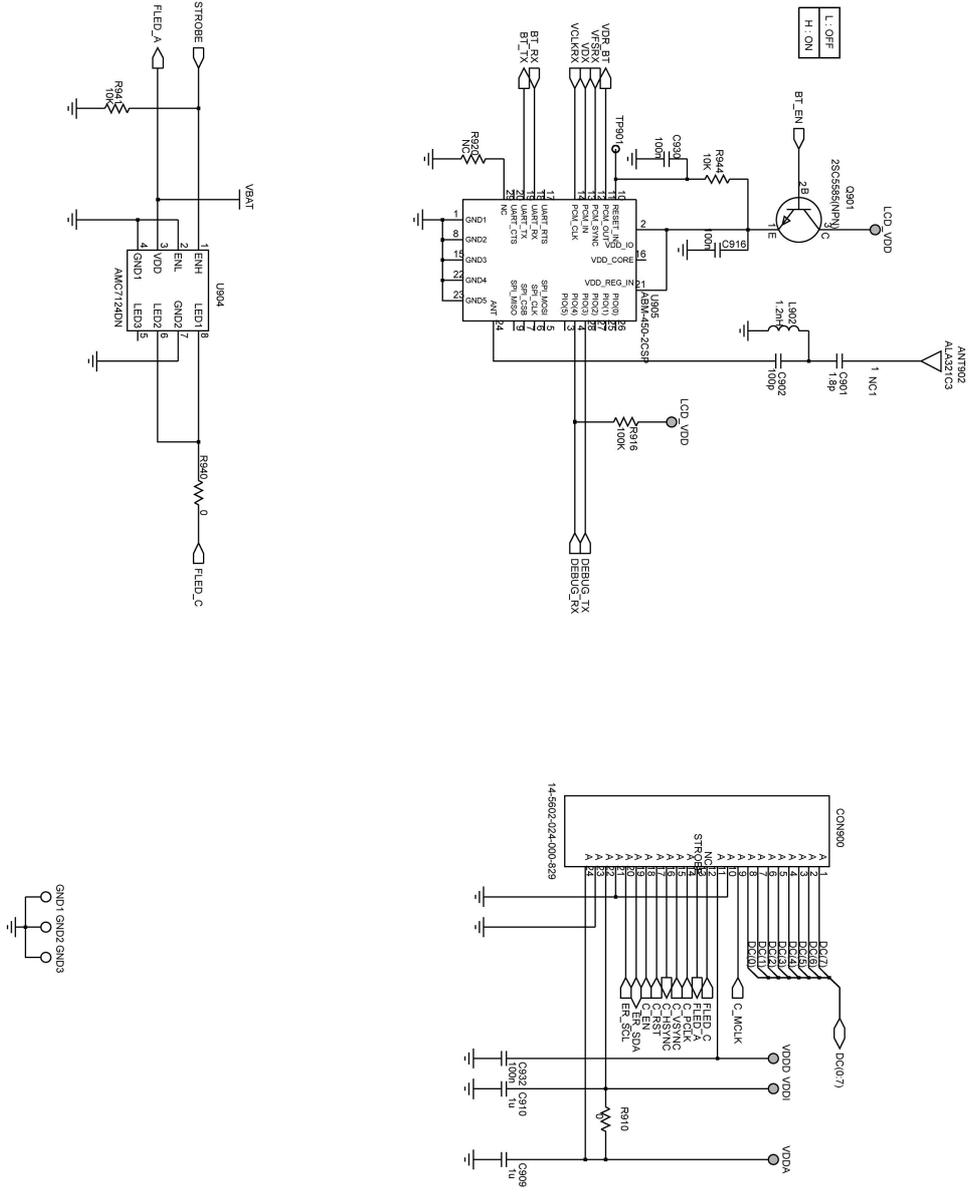
### 7.2.7 Power Management & Charger



### 7.2.8 AUDIO & MP3



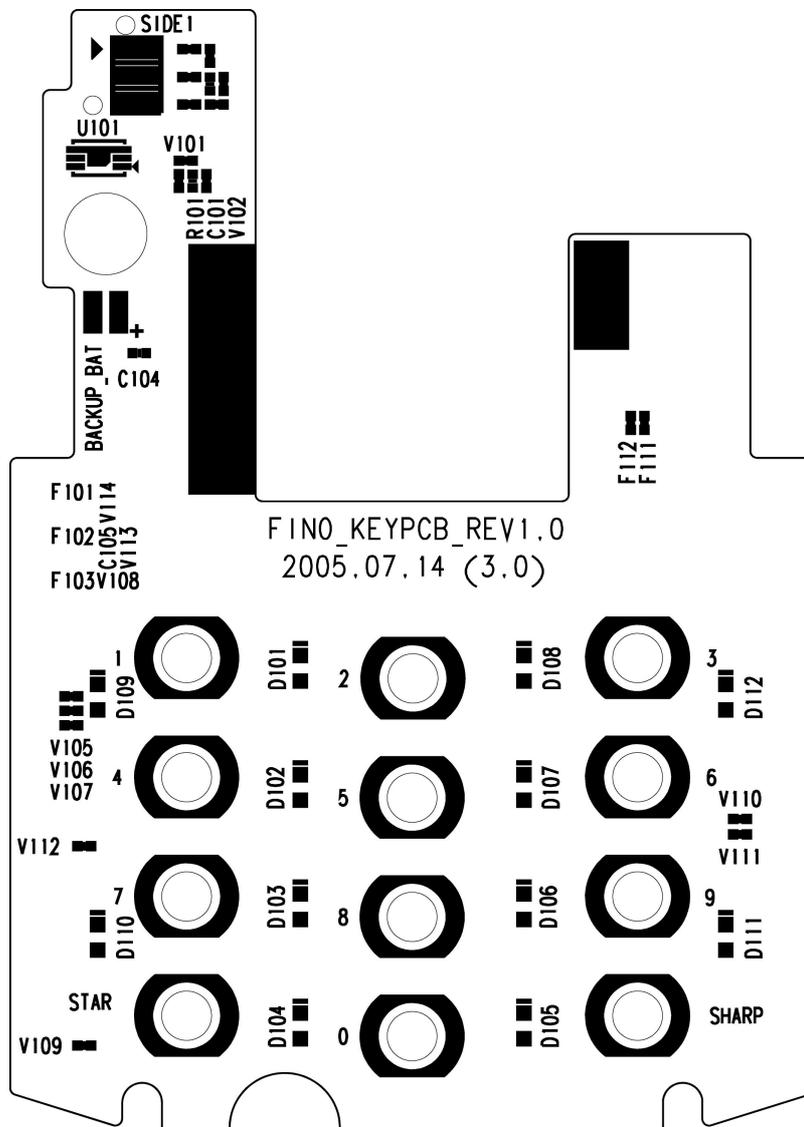
### 7.2.9 CAMERA



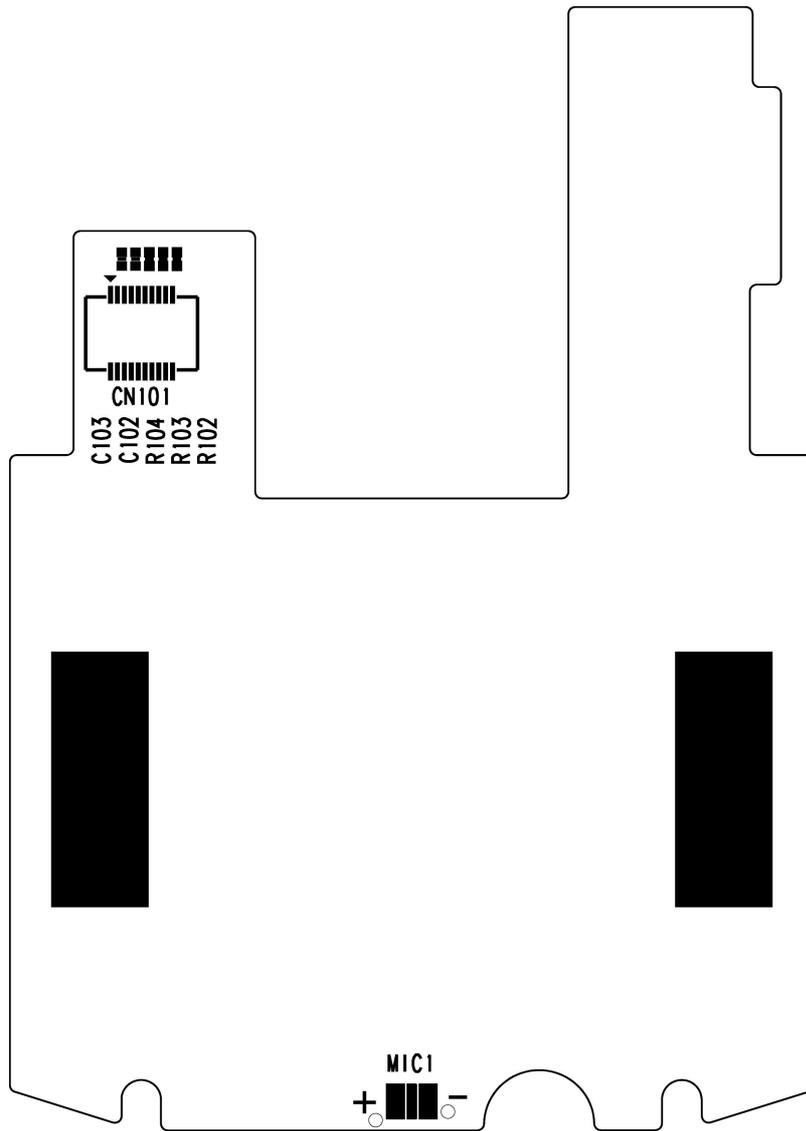
# 8. PCB Diagram

## 8.1 Key PCB

Top View

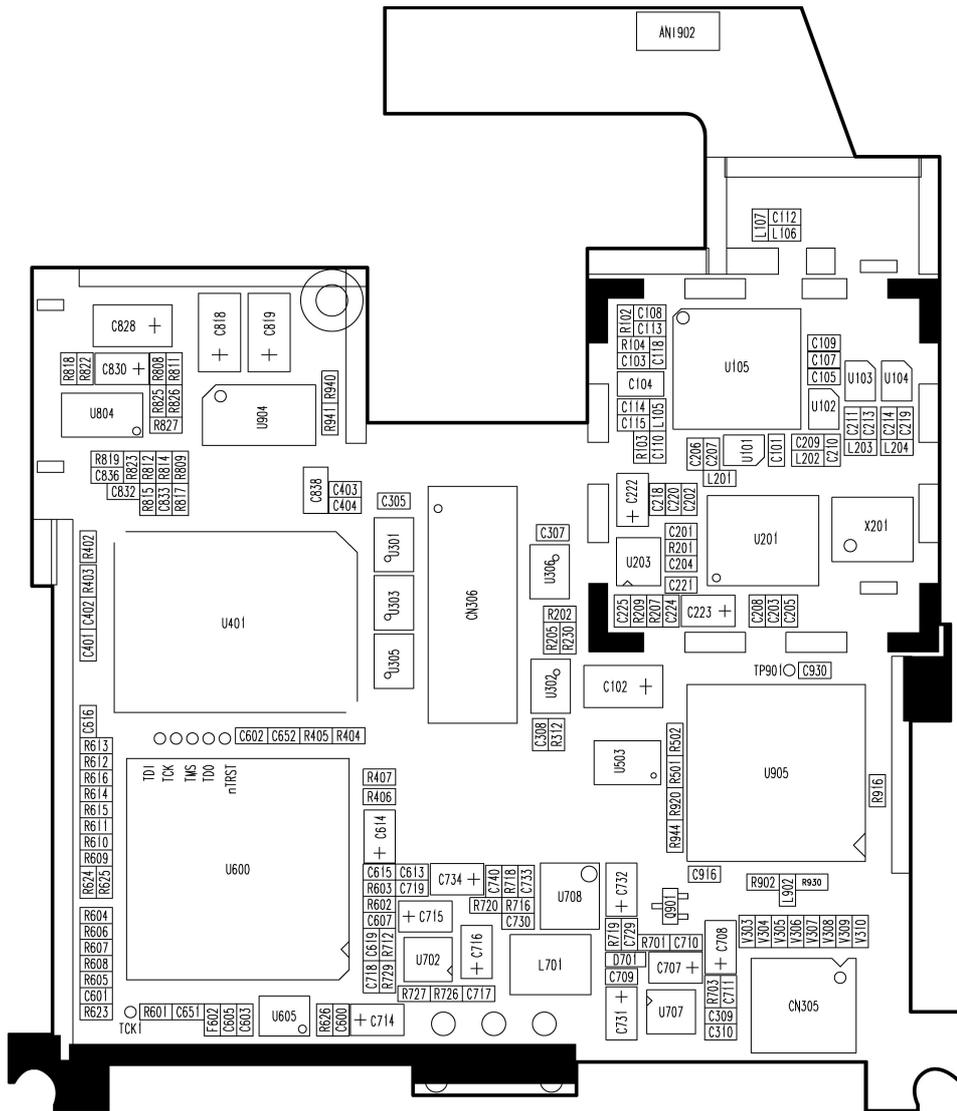


Bottom View

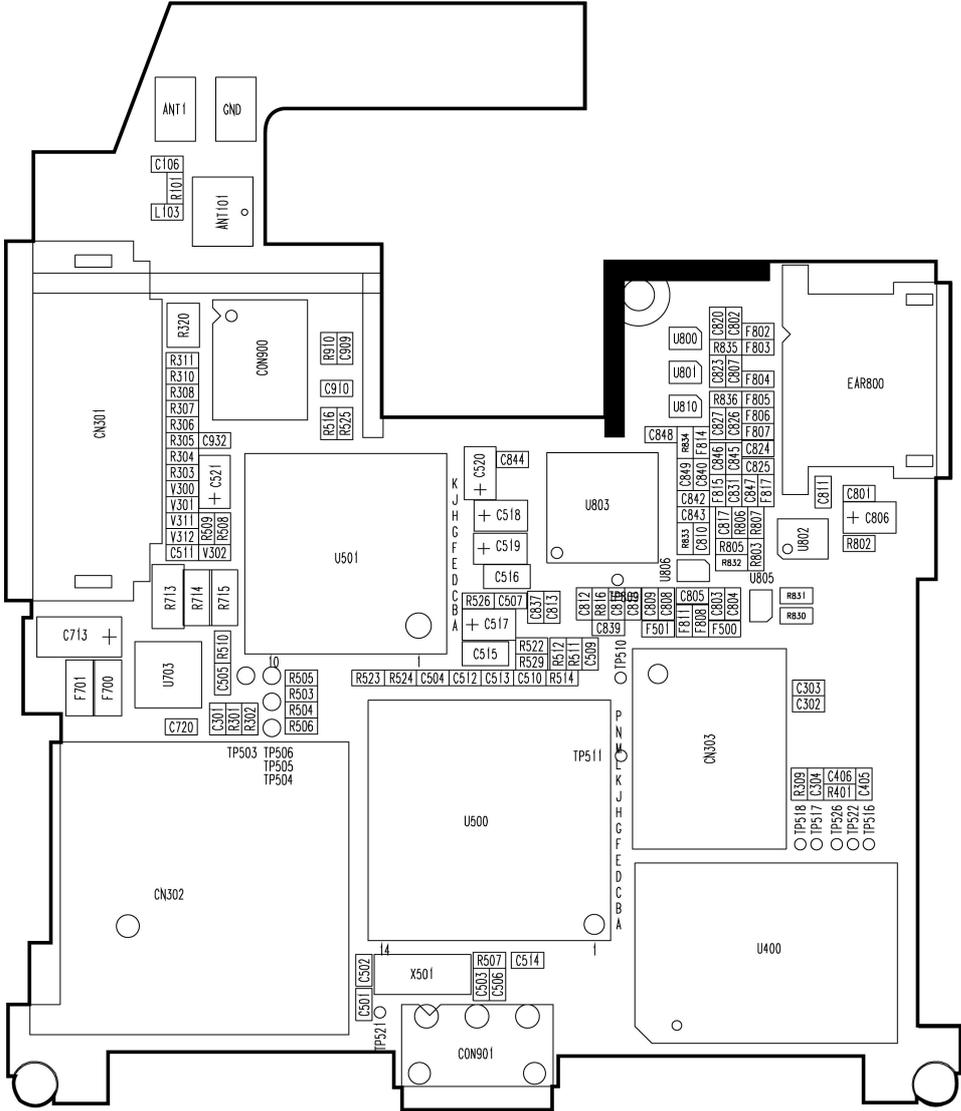


## 8.2 Main PCB

Top View



Bottom View



## 9. Parts List

### 9.1.1 Electrical Parts List (Main PCB)

Electrical Parts List

REF NO.	DESCRIPTION	PART NUMBER
U500	BASEBAND MAIN CHIP 1 (Calypso C035)	D751992GHHR
U501	BASEBAND MAIN CHIP 2 (IOTA_A07)	TWL3025BGGMR
U400	192 X 64 FLASH MEMORY (J VERSION)	S99PL193JCOBAWUB
U401	M-DOC, 1.8V	MS07-D9SD7-B3
U600	MULTI MEDIA CHIP	ER4525
U803	AUDIO CODEC	AK2443
U201	RF MAIN CHIP(SMARTISD2)	PMB6271
U105	POWER AMP MODULE	TQM6M4003
U102	942.5MHz SAW filter	856387
U103	1842.5MHz SAW filter	856409
U104	1960MHz SAW filter	856417
ANT101	COXIOL CONNECTOR	MM8430-2600RB3
U301 U302 U303 U305 U306	CHIP EMI FILTER LC COMBINED ARRAY TYPE	AVRC14S05Q030-100R
U203	DUAL LDO (1.5V / 2.5V)	XC6401FF50DR
U702	DUAL LDO (1.8V / 2.8V)	XC6401FF20DR
U707	DUAL LDO (3.0V / 3.3V)	XC6401FF26DR
U503	ANALOG SWITCH	DG9411DL-T1

## Electrical Parts List

REF NO.	DESCRIPTION	PART NUMBER
U800 U801 U805 U806 U810	ANALOG SWITCH	SN74LVC1G3157_YEP
U804	COMPARATOR DUAL	TC75W56FK(TE85L)
U703	CHARGER IC	SI7703EDN
U605	INVERTOR	SN74AHC1GU04DCKR
U708	STEP DOWN, DC-DC CONVERTER	TPS62200
U904	LED-Driver IC	AMC7124DN
U802	STEREO AUDIO AMP	LM4873IBP
U905	BLUETOOTH IC	ABM-450-2CSP
X201	X-TAL 26MHz	NX3225DA
X501	X-TAL	CC5V-T1
ANT902	BLUETOOTH ANTENA	ALA321C3
CN301	SYSTEM I/O CONNECTOR, 24Pin	4624R-21A00
CN305	B2B CONNECTOR, 20Pin(MALE), 1.5t	14-5602-020-000-829
CN303	SIM_CONNECTOR	SIM-BA-6p-1.6-E1500
CN306	B2B CONNECTOR, 50Pin (MALE), 1.5t	14-5602-050-000-829
CN302	T-Flash CONNECTOR	G6174B243-004
CON900	CAMERA CONNECTOR, 24Pin (MALE), 1.5t	14-5602-024-000-829
CN901	BATTERY CONNECTOR, 3Pin	HB3P0220-H000
EAR800	12 POLE EAR JACK	1746716-1
F500 F501 F602 F806 F807 F808 F811 F814 F815 F817	FERRITE BEADS (1005)	BLM15BD102PN1 BLM15BD102SN1D

## Electrical Parts List

REF NO.	DESCRIPTION	PART NUMBER
F802 F803 F804 F805	FERRITE BEADS (1005)	BLM15HG601
F700 F701	FERRITE BEADS (1608)	BLM11P300SPT BLM18PG300SN1D
V300 V301	VARISTOR 1005 SIZE (50pF)	AVLC14S02050
V302 V303 V304 V305 V306 V307 V308 V309 V310 V311 V312	VARISTOR 1005 SIZE (50pF)	AVLC5S02050
D701	TVS DIODE	RSB6.8S
Q901	N-CH Low Frequency Transistor(12V,0.5A)	2SC5585
C518 C519 C521 C732	TAN_CAP 4.7uF/10V(P)	F921A475MPAAH3
C222 C223 C517 C520 C614 C707 C708 C714 C715 C734 C830	TAN_CAP 10uF/6.3V(P)	F920J106MPAAH3
C716 C731 C806	TAN_CAP 10uF/10V(P)	TMCP1A106MTRF
C713	TAN_CAP 33uF/10V	F951A336MAAQ2
C818 C819 C828	TAN_CAP 47uF/6.3V(A)	F950J476MAAAQ2
C102	TAN_CAP 100uF/6.3V	572D107X96R3A2T
L701	power INDUCTOR 4.7uH	LQH32CN4R7M
L902	CHIP INDUCTOR (1005) 1.2nH	HK1005 1N2S
L106 L107	CHIP INDUCTOR (1005) 2.2nH	HK1005 2N2S
L204	CHIP INDUCTOR (1005) 3.9nH	0402CS_3N9XJBW
L203	CHIP INDUCTOR (1005) 4.7nH	0402CS_4N7XJBW
L202	CHIP INDUCTOR (1005) 18nH	O402CS_18NXJBW

## Electrical Parts List

REF NO.	DESCRIPTION	PART NUMBER
L105	CHIP INDUCTOR (1005) 27nH	HK1005 27NJ
C112	CAP. CERAMIC CHIP 1.0pF	GRM36C0G 1R0C 50PN GRP1555C1H1R0CZ01E
C901	CAP. CERAMIC CHIP 1.8pF	GRM36C0G 1R8C 50PN GRP1555C1H1R8CZ01E
C209 C210	CAP. CERAMIC CHIP 2.7pF	GRM36C0G 2R7C 50PN GRP1555C1H2R7CZ01E
C802 C803 C807 C808 C824 C826 C848	CAP. CERAMIC CHIP 9pF	GRM36C0G 090D 50PN GRP1555C1H9R0DZ01E
C615	CAP. CERAMIC CHIP 10pF	GRM36C0G 100D 50PN GRP1555C1H100JZ01E
C211 C213 C502 C503 C506	CAP. CERAMIC CHIP 12pF	GRM36C0G 120J 50PN GRP1555C1H120JZ01E
C308 C309 C310 C804 C809 C825 C827 C845 C849	CAP. CERAMIC CHIP 15pF	GRM36C0G 150J 50PN GRP1555C1H150JZ01E
C110 C820 C823	CAP. CERAMIC CHIP 18pF	GRM36C0G 180J 50PN GRP1555C1H180JZ01E
C832 C833	CAP. CERAMIC CHIP 22pF	GRM36C0G 220J 50PN GRP1555C1H220JZ01E
C214 C219	CAP. CERAMIC CHIP 27pF	GRM36C0G 270J 50PN GRP1555C1H270JZ01E
C108 C113	CAP. CERAMIC CHIP 47pF	GRM36C0G 470J 50PN GRP1555C1H470JZ01E
C105 C107 C109 C304 C730 C902	CAP. CERAMIC CHIP 100pF	GRM36C0G 101J 50PN GRP1555C1H101JD01E
C303	CAP. CERAMIC CHIP 150pF	GRM36C0G 151J 50PN GRP1555C1H151JD01E
C118 C733	CAP. CERAMIC CHIP 180pF	GRM36C0G 181J 50PN GRP1556C1E181JD01E

## Electrical Parts List

REF NO.	DESCRIPTION	PART NUMBER
C204	CAP. CERAMIC CHIP 12nF	GRM36X7R 123K 16PN GRP155R71C123KA01E
C302	CAP. CERAMIC CHIP 15nF	GRM36X7R 153K 16PN GRP155R71C153KA01E
C720	CAP. CERAMIC CHIP 22nF	GRM36X7R 223K 16PN GRP155R71C223KA01E
C839	CAP. CERAMIC CHIP 33nF	GRM36X7R 333K 16PN GRP155R71A333KA01E
C837	CAP. CERAMIC CHIP 47nF	GRM36X7R 473K 10PN GRP155R71A473KA01E
C115 C202 C218 C301 C305 C307 C401 C404 C405 C406 C501 C505 C507 C509 C510 C511 C512 C513 C514 C600 C601 C602 C603 C605 C607 C613 C616 C619 C651 C652 C709 C710 C711 C717 C718 C719 C729 C740 C801 C805 C812 C813 C815 C816 C836 C843 C846 C847 C916 C930 C932	CAP. CERAMIC CHIP 100nF	GRM36Y5V 104Z 16PN GRP155F51C104ZA01E
C811 C844	CAP. CERAMIC CHIP 220nF	GRM36Y5V 224Z 16PN GRP155F51A224ZD02E
C810 C817	CAP. CERAMIC CHIP 470nF	GRM36Y5V 474Z 16PN GRP155F51A474ZD02E
C831 C840 C909 C910	CAP. CERAMIC CHIP 1uF (1005)	GRM36Y5V 105Z 6.3PN GRM155F50J105ZD02E

## Electrical Parts List

REF NO.	DESCRIPTION	PART NUMBER
C515 C516 C838	CAP. CERAMIC CHIP 1uF (1608)	GRM39Y5V 105Z 10PT GRM188F51A105ZC01D
C104	CAP. CERAMIC CHIP 4.7uF (1608)	GRM188R60J475KE19D
R101 R209 R230 R301 R501 R502 R503 R504 R505 R506 R601 R626 R701 R703 R712 R719 R720 R726 R729 R830 R831 R832 R833 R834 R910 R940	RES. CHIP 0 ohm +-5%(J) 1/16W 1005(0402)	MCR01MZSJ000 MCR01MZPJ000
R713	RES. CHIP 0.2 ohm +-1%	RLC20R20FTP CS05FTGR200
R303 R304 R306 R307 R308 R310 R311 R312	RES. CHIP 10 ohm +-5%(J) 1/16W 1005(0402)	MCR01MZSJ100 MCR01MZPJ100
R812 R814	RES. CHIP 33 ohm +-5%(J) 1/16W 1005(0402)	MCR01MZSJ330 MCR01MZPJ330
R201	RES. CHIP 220 ohm +-1%(F) 1/16W 1005(0402)	MCR01MZSF2200 MCR01MZPF2200
R202	RES. CHIP 300 ohm +-5%(J) 1/16W 1005(0402)	MCR01MZSJ301 MCR01MZPJ301
R609	RES. CHIP 330 ohm +-5%(J) 1/16W 1005(0402)	MCR01MZSJ331 MCR01MZPJ331

## Electrical Parts List

REF NO.	DESCRIPTION	PART NUMBER
R305 R808 R822	RES. CHIP 1 Kohm +-5%(J) 1/16W 1005(0402)	RES. CHIP 1 Kohm +- 5%(J) 1/16W 1005(0402)
R511 R512 R624 R625 R815	RES. CHIP 1.5 Kohm +-5%(J) 1/16W 1005(0402)	RES. CHIP 1.5 Kohm +- 5%(J) 1/16W 1005(0402)
R811 R818	RES. CHIP 1.8 Kohm +-5%(J) 1/16W 1005(0402)	RES. CHIP 1.8 Kohm +- 5%(J) 1/16W 1005(0402)
R835 R836	RES. CHIP 2 Kohm +-5%(J) 1/16W 1005(0402)	RES. CHIP 2 Kohm +- 5%(J) 1/16W 1005(0402)
R309	RES. CHIP 7.5 Kohm +-5%(J) 1/16W 1005(0402)	RES. CHIP 7.5 Kohm +- 5%(J) 1/16W 1005(0402)
R523	RES. CHIP 8.2 Kohm +-5%(J) 1/16W 1005(0402)	RES. CHIP 8.2 Kohm +- 5%(J) 1/16W 1005(0402)
R401 R403 R404 R405 R406 R407 R514 R525 R526 R529 R602 R603 R604 R605 R606 R607 R608 R610 R611 R612 R613 R614 R615 R616 R623 R941 R944	RES. CHIP 10 Kohm +-5%(J) 1/16W 1005(0402)	RES. CHIP 10 Kohm +- 5%(J) 1/16W 1005(0402)
R104	RES. CHIP 11 Kohm +-5%(J) 1/16W 1005(0402)	RES. CHIP 11 Kohm +- 5%(J) 1/16W 1005(0402)
R803 R805 R806 R807	RES. CHIP 20 Kohm +-5%(J) 1/16W 1005(0402)	RES. CHIP 20 Kohm +- 5%(J) 1/16W 1005(0402)
R802	RES. CHIP 47 Kohm +-5%(J) 1/16W 1005(0402)	RES. CHIP 47 Kohm +- 5%(J) 1/16W 1005(0402)
R510	RES. CHIP 100 Kohm +-1%(F) 1/16W 1005(0402)	RES. CHIP 100 Kohm +- 1%(F) 1/16W 1005(0402)
R207 R302 R508 R509 R516 R522 R524 R718 R823 R826 R916	RES. CHIP 100 Kohm +-5%(J) 1/16W 1005(0402)	RES. CHIP 100 Kohm +- 5%(J) 1/16W 1005(0402)

## Electrical Parts List

REF NO.	DESCRIPTION	PART NUMBER
R827	RES. CHIP 120 Kohm +-5%(J) 1/16W 1005(0402)	MCR01MZSJ124 MCR01MZPJ124
R716	RES. CHIP 150 Kohm +-5%(J) 1/16W 1005(0402)	MCR01MZSJ154 MCR01MZPJ154
R819 R825	RES. CHIP 180 Kohm +-5%(J) 1/16W 1005(0402)	MCR01MZSJ184 MCR01MZPJ184
R507	RES. CHIP 220 Kohm +-5%(J) 1/16W 1005(0402)	MCR01MZSJ224 MCR01MZPJ224
R809	RES. CHIP 510 Kohm +-5%(J) 1/16W 1005(0402)	MCR01MZSJ514 MCR01MZPJ514
R817	RES. CHIP 1 Mohm +-5%(J) 1/16W 1005(0402)	MCRO1MZSJ105
R714 R715	RES. CHIP 10 ohm,+-5%(J) 1/10W 1608	MCR03EZPJ100 MCR03EZJH100
R320	4-RESISTOR ARRAY (10 Kohm +-5%)	MNR04M0ABJ103
U101	881.5MHz SAW filter	N.C
C101 C106 C206 C207	CAP. CERAMIC CHIP	N.C
R102 R103	RESISTOR, DNI	N.C
R205 R402 R727 R816 R920	RES. CHIP	N.C
L103 L201	INDUCTOR	N.C
	VIBRATOR/SPEAKER - LCD	
	CAMERA MODULE	
	LCD MODULE	
	SPEAKER(15파이)	
	BACKUP BAT	MS412F
	MIC (pin type, Ø4/1.2T)	OBG-412L44-C1533
	EAR_MIC(12극)	
	MAIN PCB	Fino20

## 9.1.2 Electrical Parts List (KEY PCB)

Electrical Parts List

REF NO.	DESCRIPTION	PART NUMBER
U101	HALL SWITCH	A3212EEHLT
CN101	B to B 20 pin Connector(Female), 1.5t	24-5602-020-000-829
V101 V102 V105 V106 V107 V108 V109 V110 V111 V112 V113 V114	VARISTOR 1005 SIZE (50pF)	AVLC5S02050
D101 D102 D103 D104 D105 D106 D107 D108 D109 D110 D111 D112	KEY LED (WHITE) (0603)	MCW-10-1608-XA
C104	CAP CERAMIC CHIP 100pF	GRM1555C1H101JZ01E GRP1555C1H101JZ01E
C101	CAP. CERAMIC CHIP 100nF	GRM36Y5V 104Z 16PN GRP155F51C104ZA01E
R102 R103 R104	RES. CHIP 39 ohm +-5%(J) 1/16W 1005(0402)	MCR01MZSJ390 MCR01MZPJ390
R101	RES. CHIP 47 Kohm +-5%(J) 1/16W 1005(0402)	MCR01MZSJ473 MCR01MZPJ473
F101 F102 F103 F111 F112	FERRITE BEADS (1005)	BLM15BB121
C102 C103 C105	N.C	
	KEY PCB	Fino20

## 9.2 Mechanical Part List

Mechanical Part List

CODE NO.	DESCRIPTION	SPECIFICATION
BH900005301	TOTAL ASS'Y	
BH800038901	ASS'Y FRONT-COVER	
BH800039101	ASS'Y SLIDE	
BH850029401	SUB SLIDE-UPPER	
BH720045701	SLIDE-UPPER	PC
BH750038401	MAIN-WINDOW TAPE (A)	3M HK9448
BH750038501	MAIN-WINDOW TAPE (B)	3M HK9448
BH850029501	SUB SLIDE-LOWER	
BH720045801	SLIDE-LOWER	PC
BH730018701	STOPPER-R	URETHANE
BH730018801	STOPPER-L	URETHANE
BH710022501	MAGNET	10X2X1,Nd-Fe-B
BH750039301	TAPE-MIRROR	3M HK9448
BH710022201	MIRROR	
BH850029601	SUB MAIN-WINDOW	
BH720045901	MAIN-WINDOW	inmold
BH750038601	TAPE DECO-SPEAKER	3M HK9448
BH750038701	TAPE-SPEAK-FILTER	3M HK9448
BH710022001	DECO-SPEAKER	
BH710022301	SPEAK-FILTER	
BH710022401	SLIDE MODULE	SUS
BS61211420S	SCREW	M1.4X1.5, 0.3P, +
BH720046001	SLIDE KEYPAD	
BH710022701	SLIDE DOME	Ø5.0 , 170gf
BS63111730B	SCREW	T1.7X3,0.35P,+,NI
BH750038801	SCREW-COVER	PC SHEET 0.3T
BH740031401	LCD-CUSHION(A)	SRS PORON

## Mechanical Part List

CODE NO.	DESCRIPTION	SPECIFICATION
BH740031501	LCD-CUSHION(B)	SRS PORON
BH850029701	SUB FRONT-CASE	
BH720046101	FRONT-CASE	PC
BH720046201	EAR-COVER	PC,URETHANE
BH750039401	TAPE-DUMMY-FRONT	3M HK9448
BH720046301	DUMMY-FRONT	POM
BH720046401	SIDE-KEY	ABS+URETHANE
BH850029801	SUB REAR-CASE	
BH720046501	REAR-CASE	PC
BH750038901	TAPE-DECO-CAMERA	3M HK9448
BH750039001	TAPE-CAMERA-WINDOW	3M HK9448
BH720046601	IO-COVER	PC,URETHANE
BH720046701	T_FLASH-COVER	PC,URETHANE
BH740031601	CUSHION-CAMERA	SRS PORON
BH740031701	SHIELDFOAM-IO	
BH710022101	DECO-CAMERA	
BH720046801	BATT-CASE	PC
BS61111415B	SCREW	M1.4X1.5, 0.3P, +
BH720046901	KEY-PAD-MAIN	
BH730018901	RUBBER-MIC	SILICON RUBBER
BH740031801	SPONGE-MIC	SRS PORON
BH730019001	RF-COVER	SILICON RUBBER
BS61111440B	SCREW	M1.4X4,0.3P,+
BH720047001	WINDOW-CAMERA	ACRYL FILTER
BH730019101	SCREW-COVER	SILICON RUBBER
BH720047101	SIDE KEY-F/PCB	Ø5.0 , 170gf
BH710022601	MAIN-DOME	Ø5.0 , 170gf
BH750039101	CAPTON-KEYPCB	
BH750039201	CONDUCTIVE SHEET-KEYPCB	
BH740031901	SHIELDFOAM-FRONT	

Mechanical Part List

<b>CODE NO.</b>	<b>DESCRIPTION</b>	<b>SPECIFICATION</b>
BH740032001	SHIELDFOAM-FEM	
BH740032101	SHIELDFOAM-EARJACK	