

SAMSUNG

GSM TELEPHONE

GT-C3530

SERVICE *Manual*

GSM TELEPHONE



CONTENTS

1. Safety Precautions
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8. Chart of Troubleshooting
9. Reference data

Notice :

All functionality, features, specifications and other product information provided in this document including, but not limited to, the benefits, design, pricing, components, performance, availability, and capabilities of the product are subject to change without notice or obligation. Samsung reserves the right to make changes to this document and the product described herein, at anytime, without obligation on Samsung to provide notification of such change.

**SAMSUNG
ELECTRONICS**

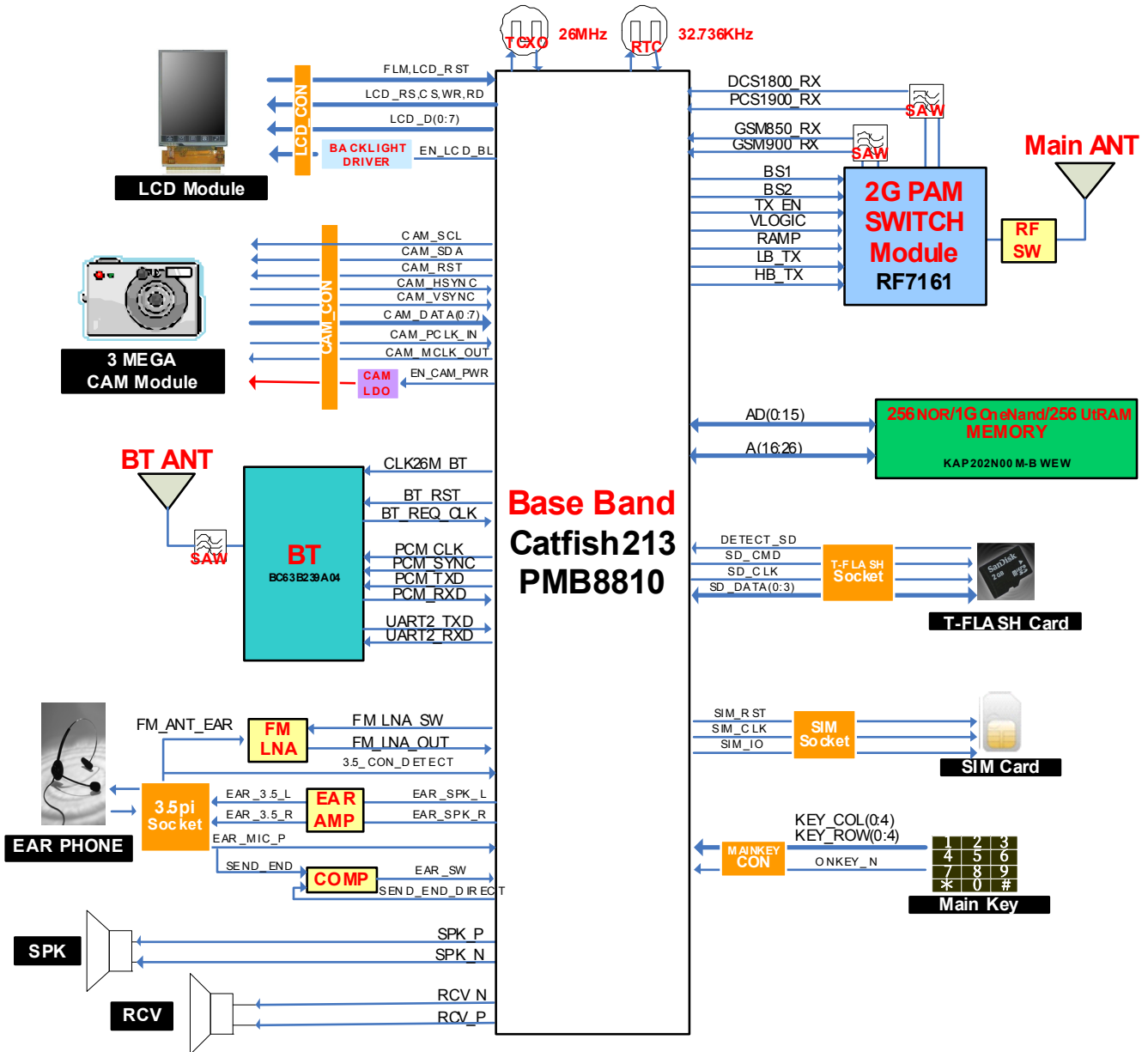


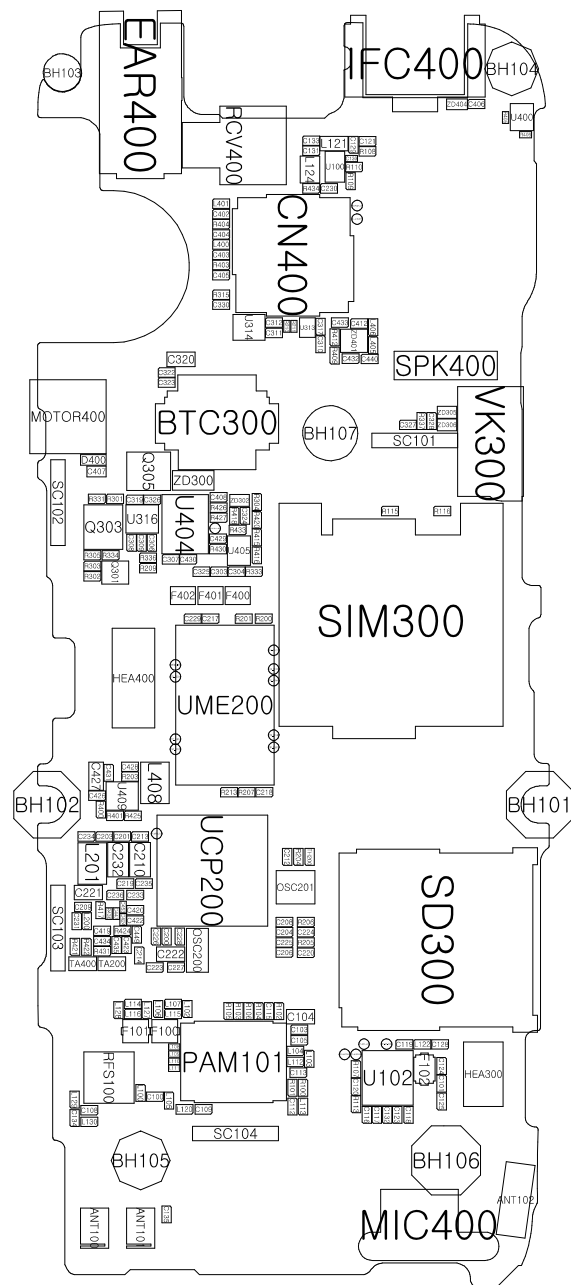
GSPN (Global Service Partner Network)

Country	Web Site
North America	service.samsungportal.com
Latin America	latin.samsungportal.com
CIS	cis.samsungportal.com
Europe	europe.samsungportal.com
China	china.samsungportal.com
Asia	asia.samsungportal.com
Mideast & Africa	mea.samsungportal.com

8. Level 3 Repair

8-1. Block Diagram

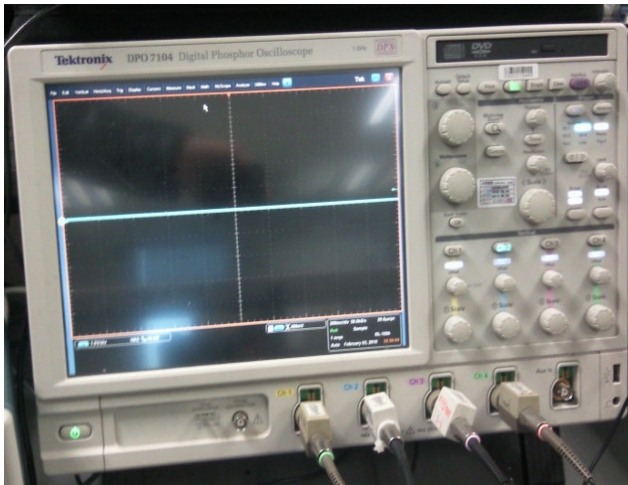




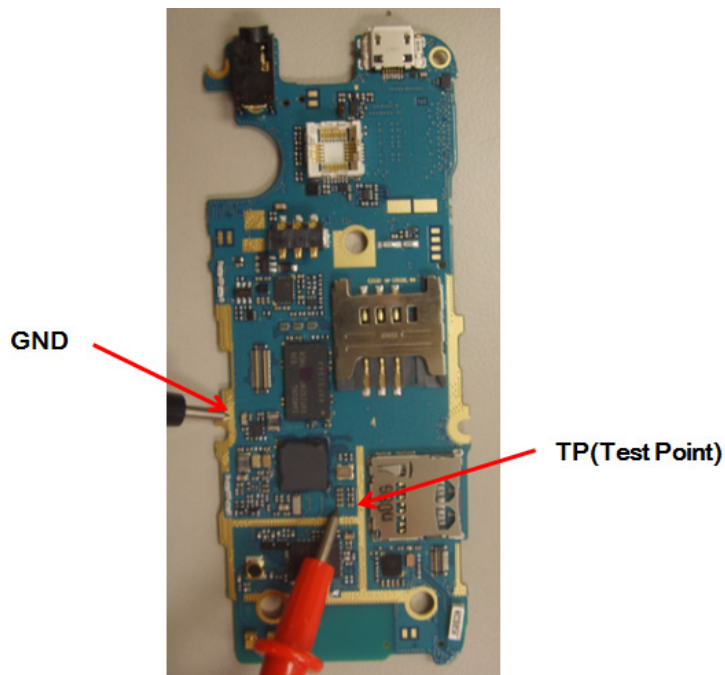
8-3. Flow Chart of Troubleshooting

— presetting methods for checking TP

- GND & TP(exp. VBAT=**C210**, **C210**, **C320**) using Oscilloscope
- look over the coming out signal.

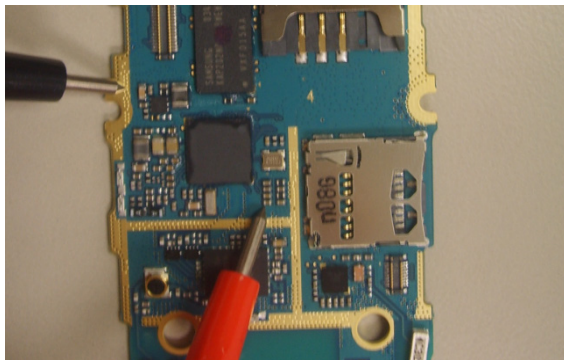


↵ Oscilloscope





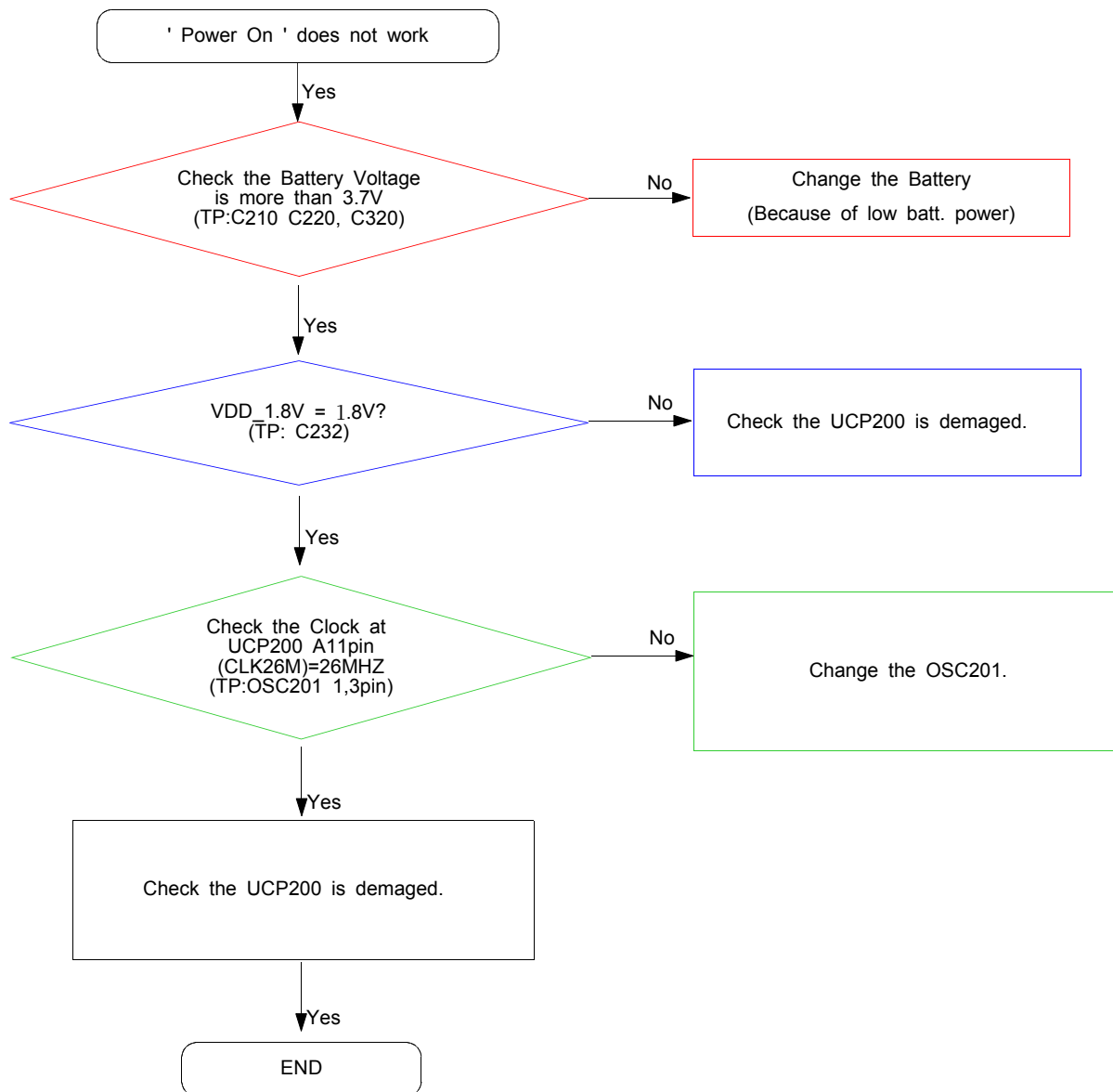
Multi-meter

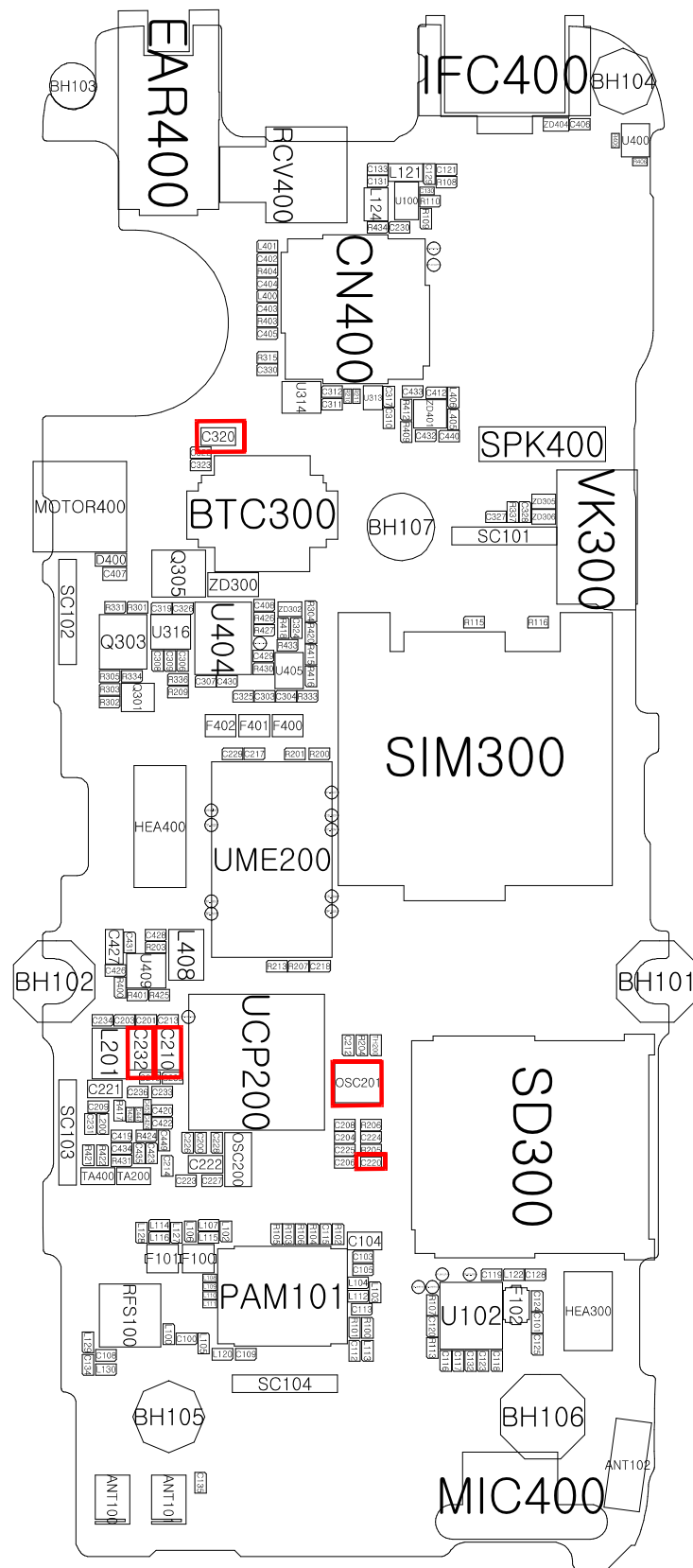


Checking the TP(test point) using Multi-meter

- EX) to look up the TP, shunt Cap. - if checking the GND, you can listen "beep"
if checking the Signal, you can't listen it.

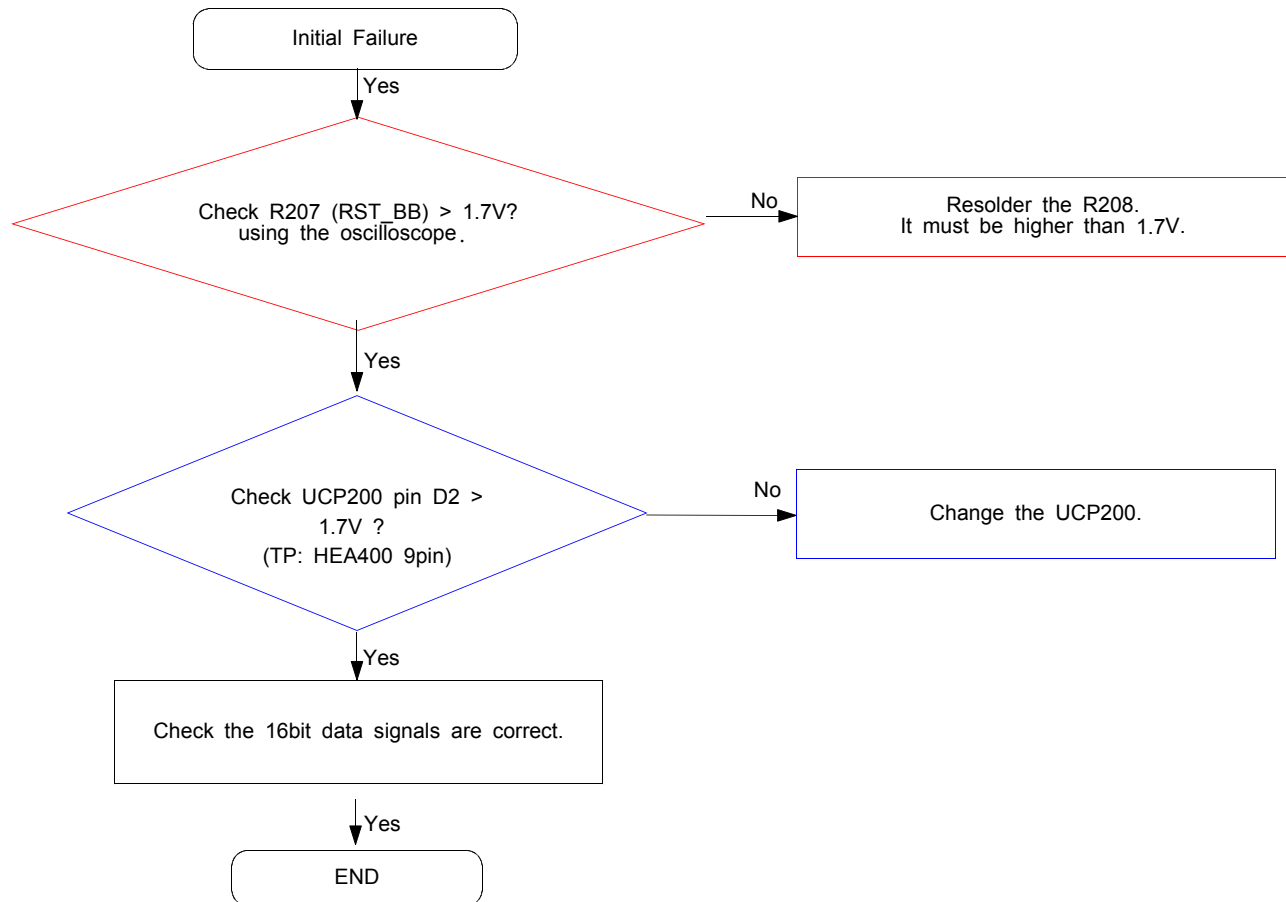
8-3-1. Power On

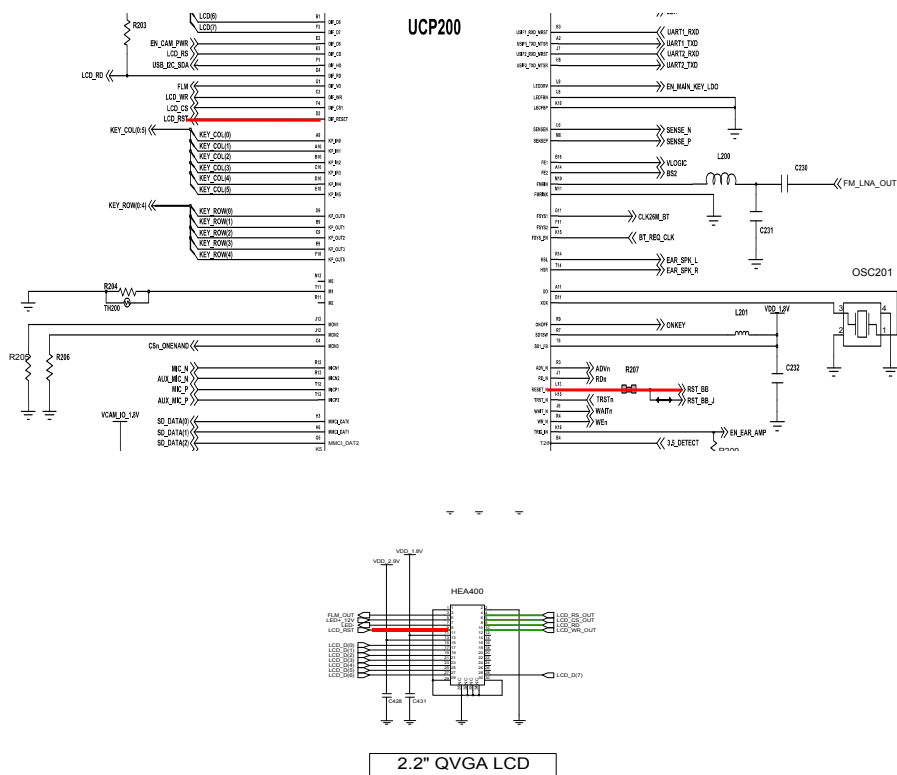
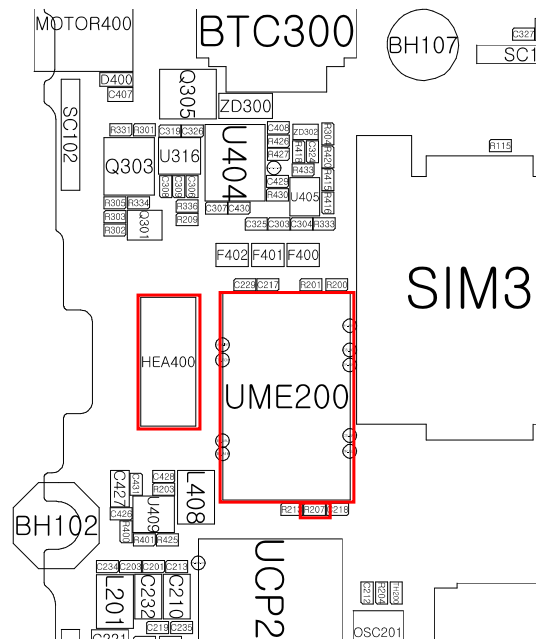




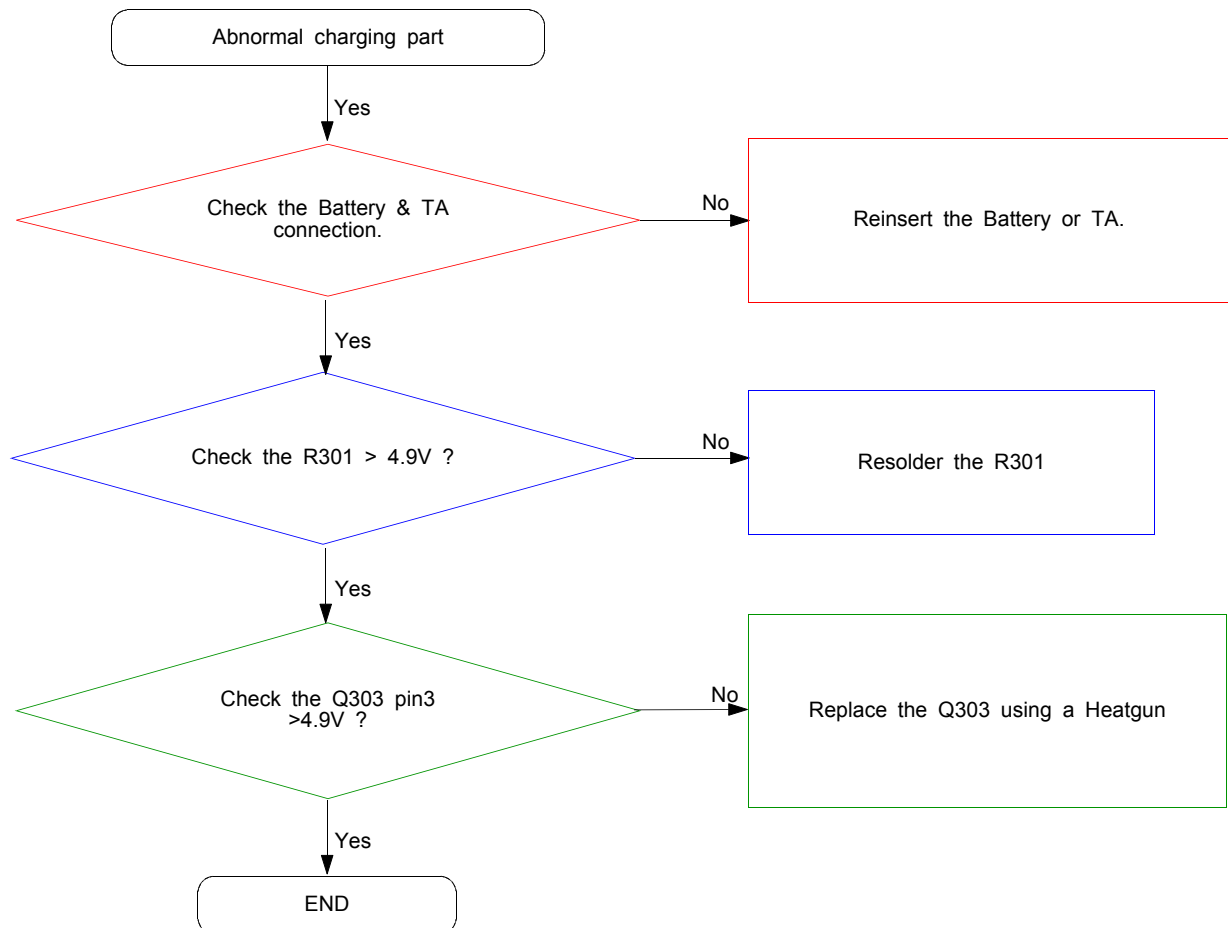


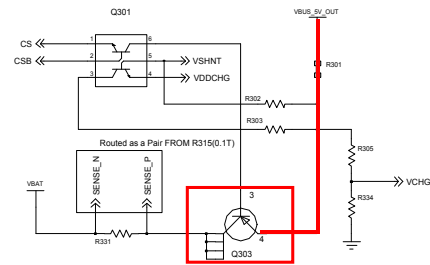
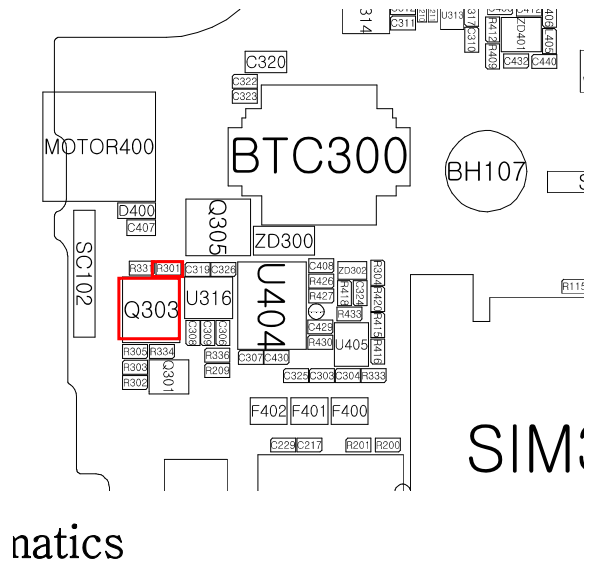
8-3-2. Initial





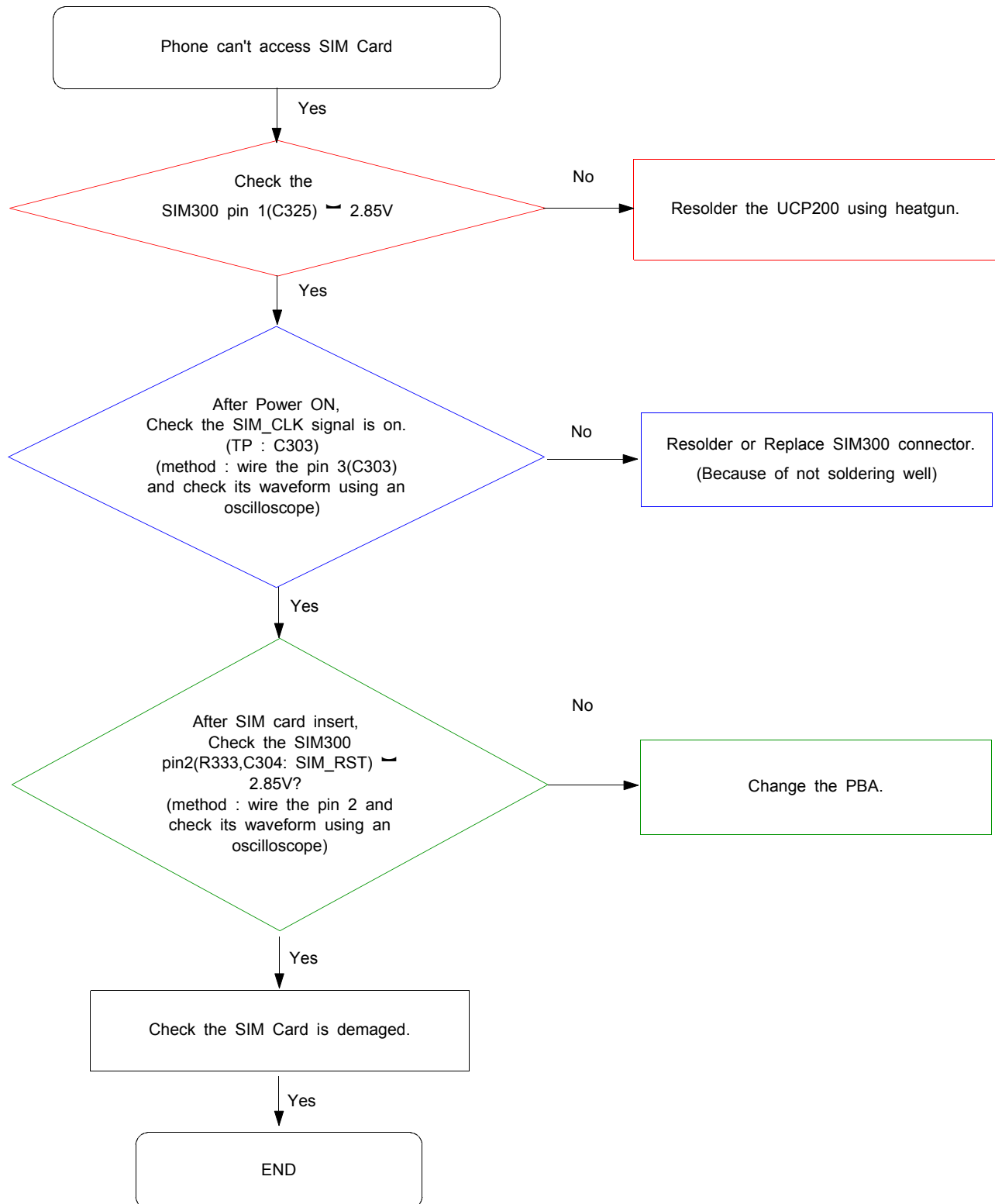
8-3-3. Charging Part

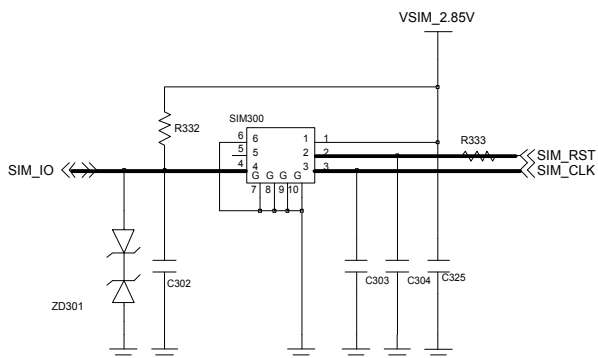
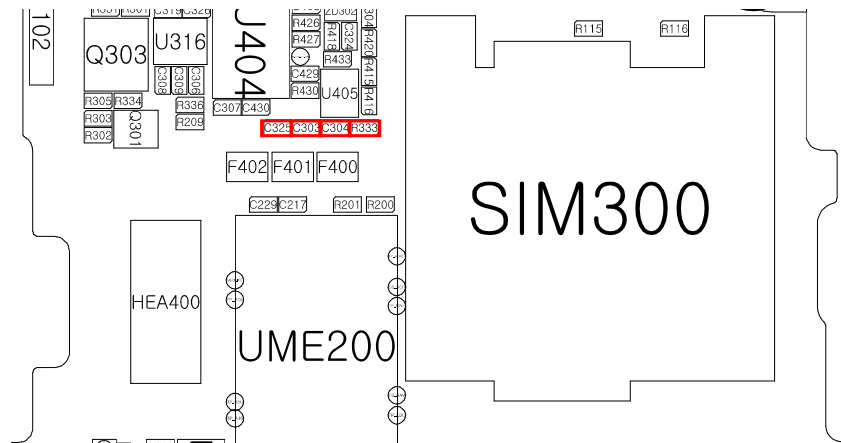




CHARGING CIRCUIT

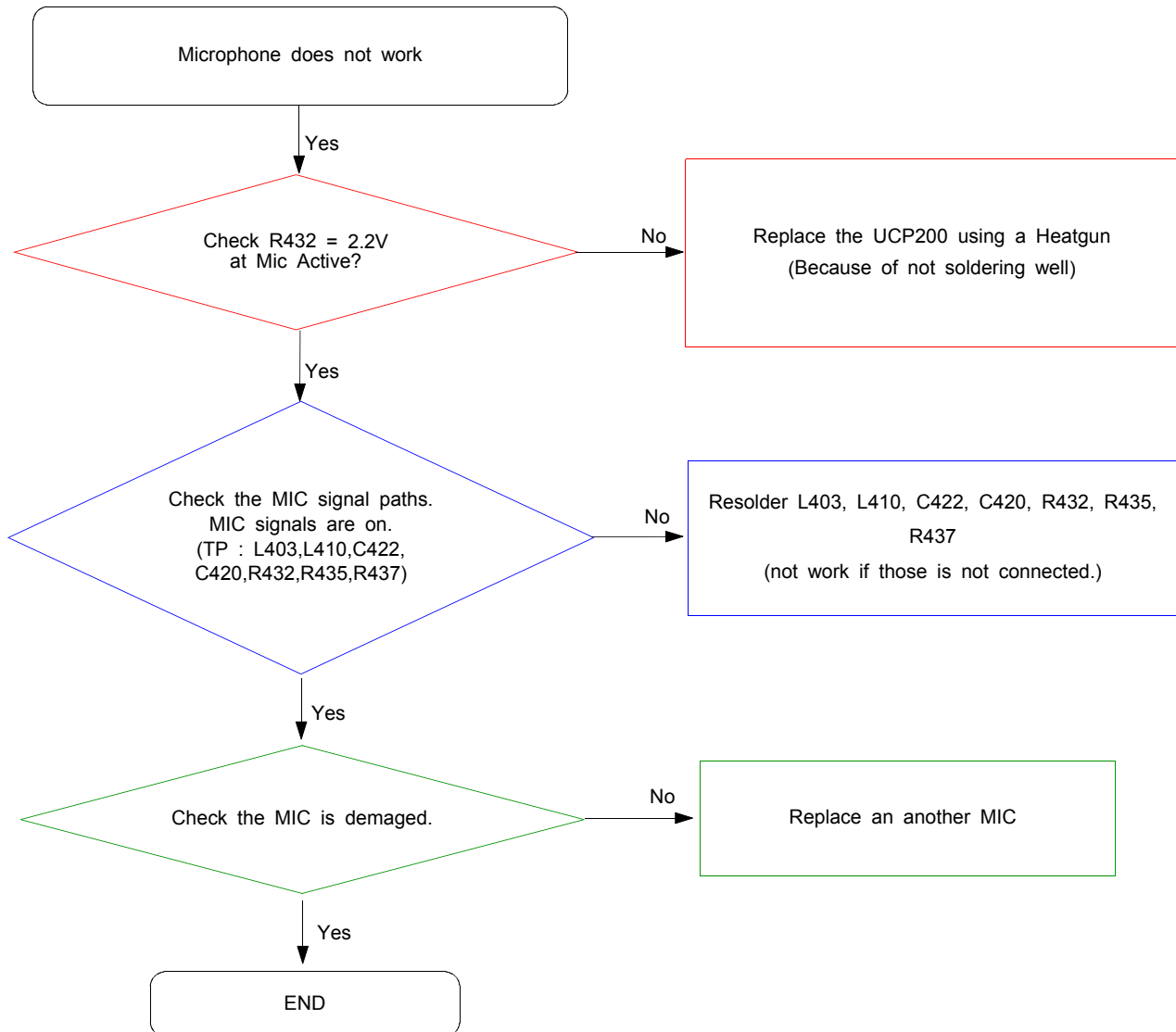
8-3-4. Sim Part

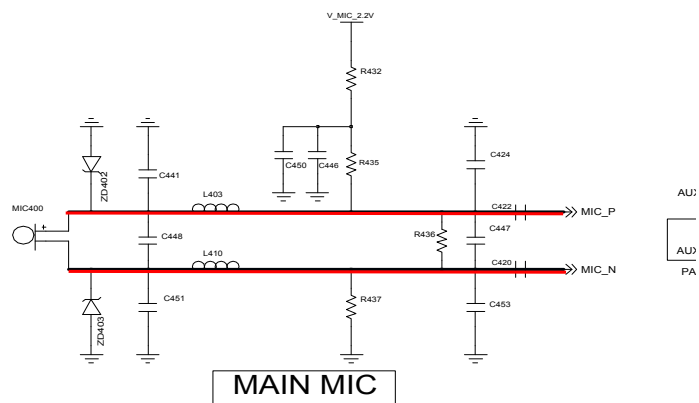




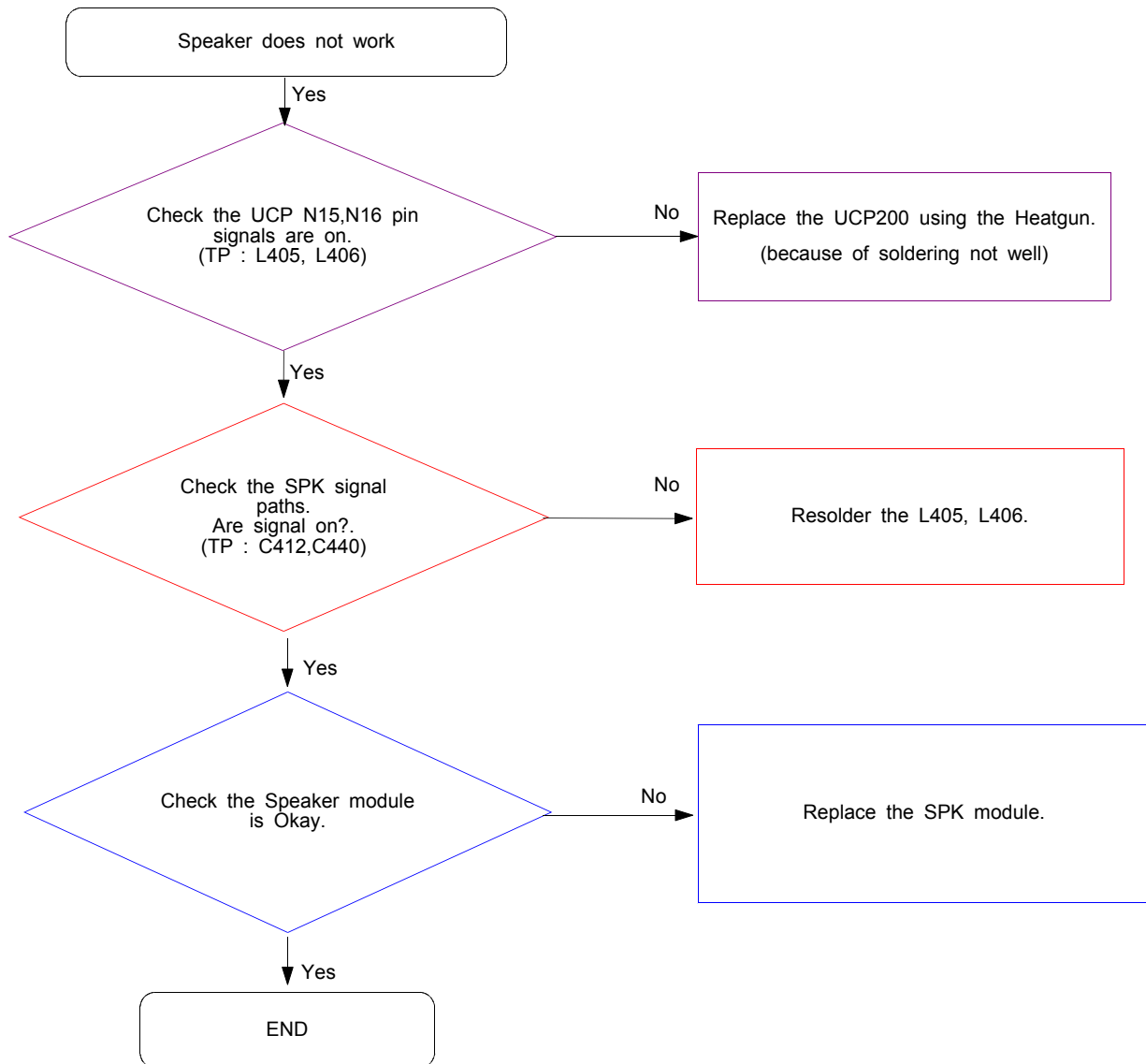
SIM SOCKET

8-3-5. Microphone Part

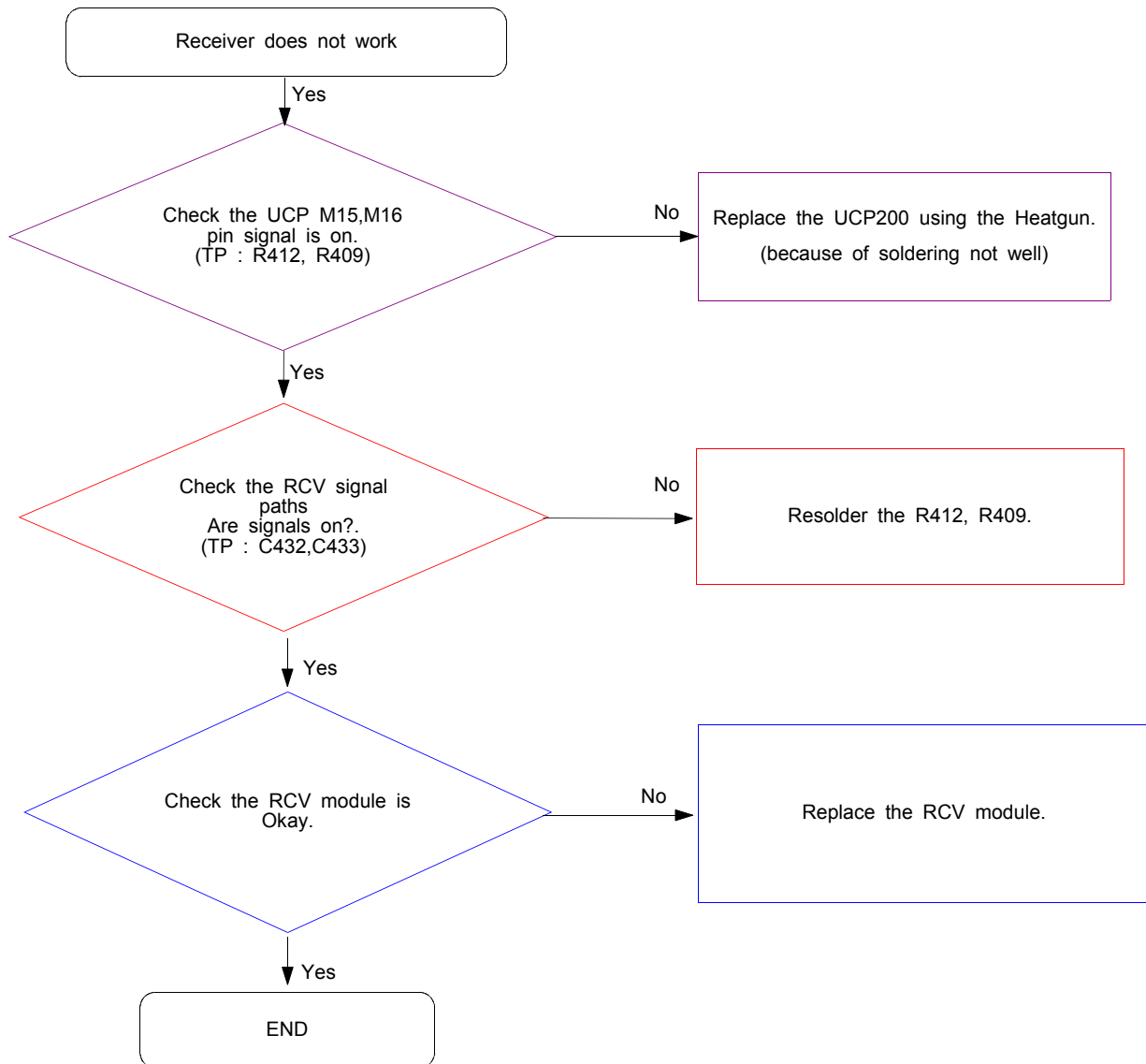


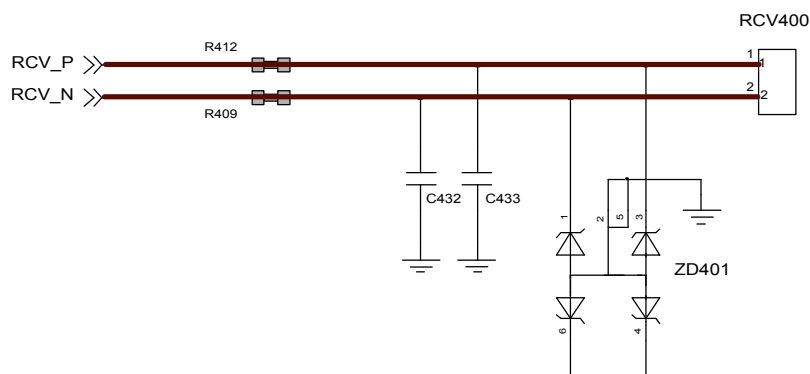
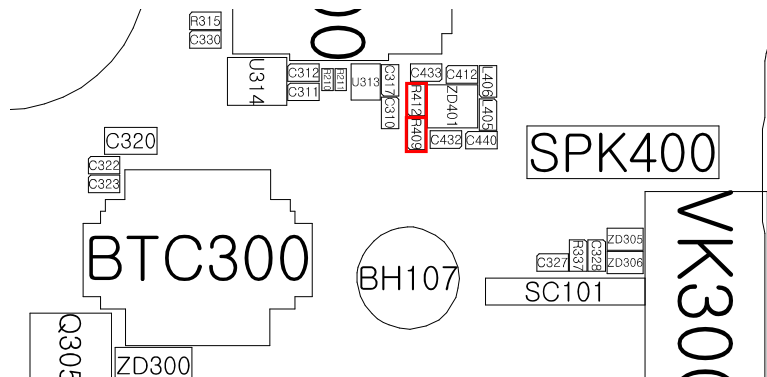


8-3-6. Speaker Part



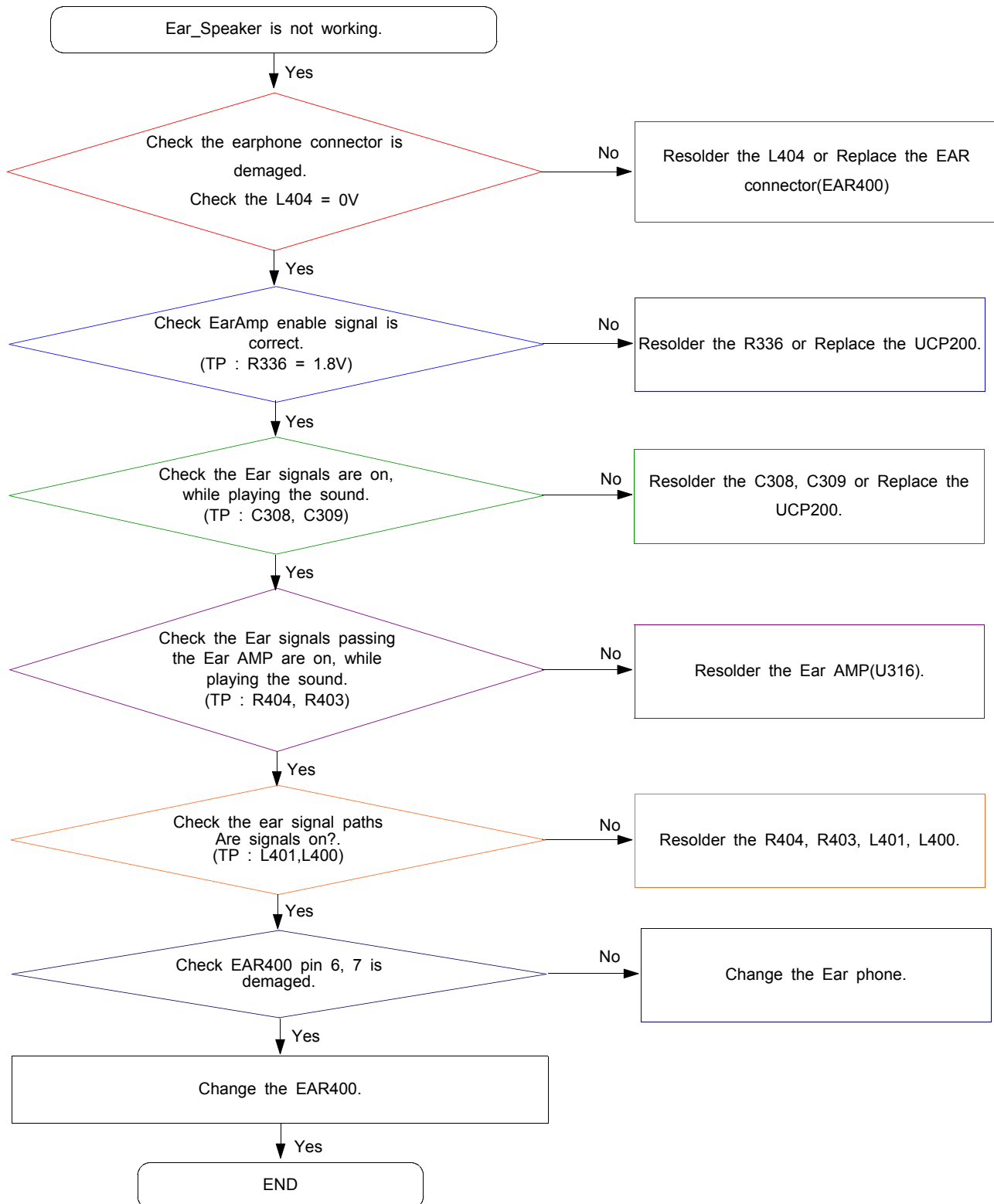
8-3-7. RCV Part

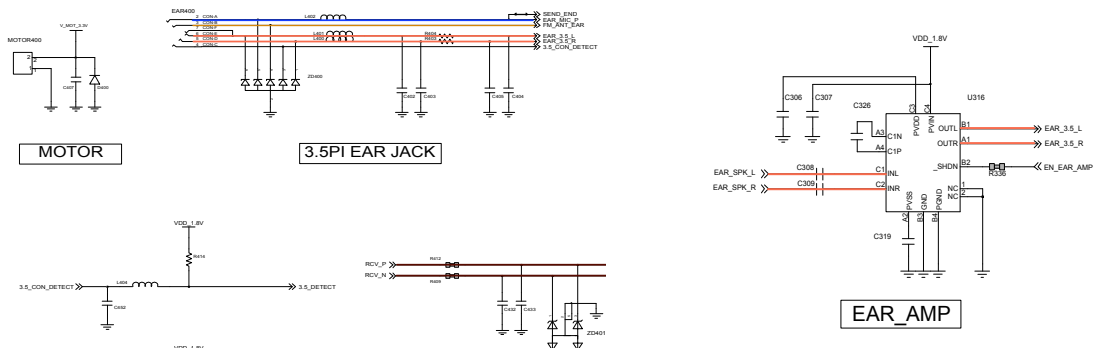
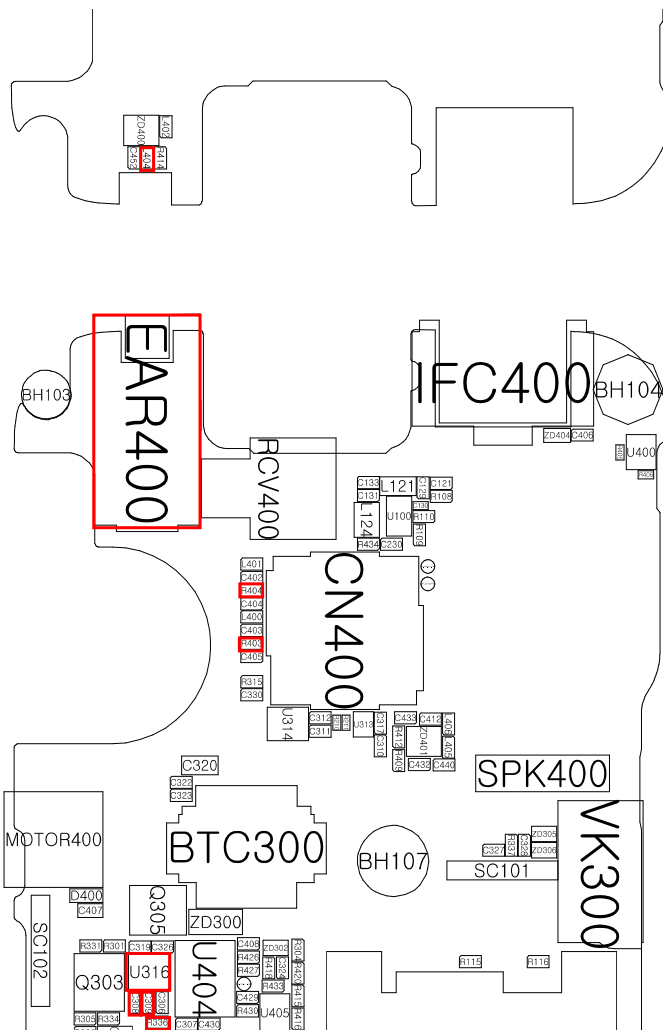




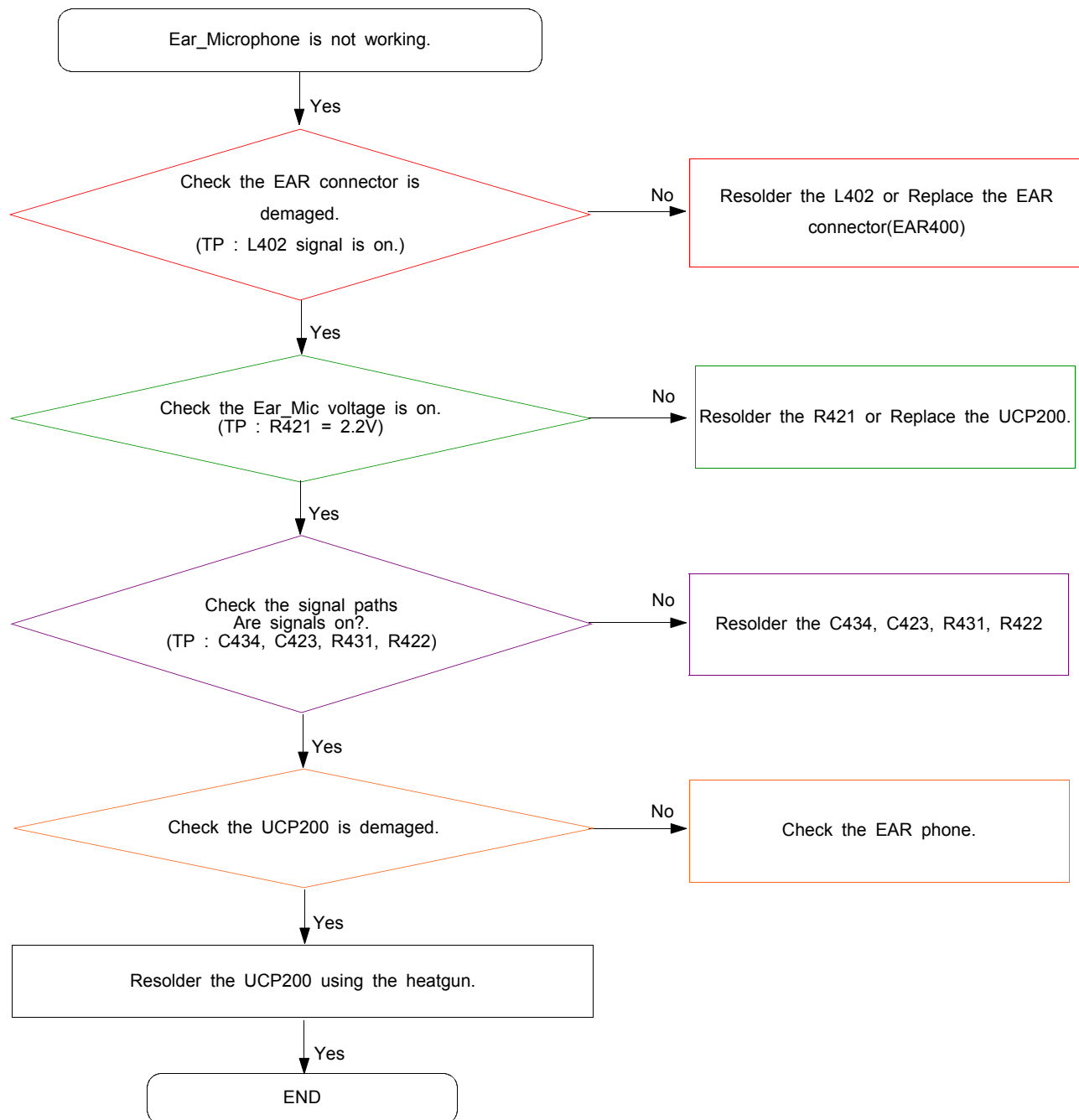
MIC400

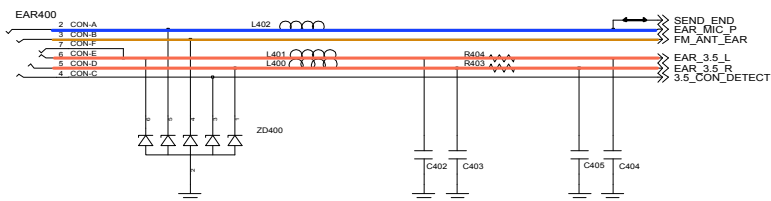
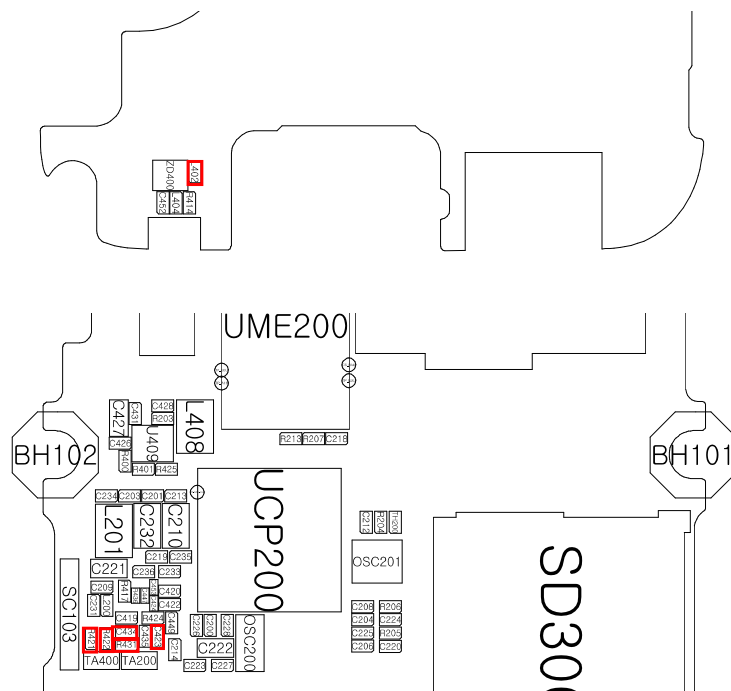
8-3-8. EAR_Speaker Part



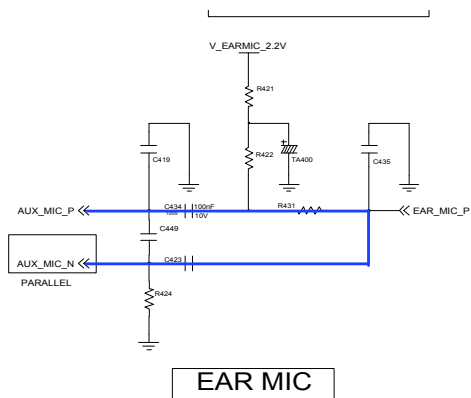


8-3-9. EAR_MIC Part



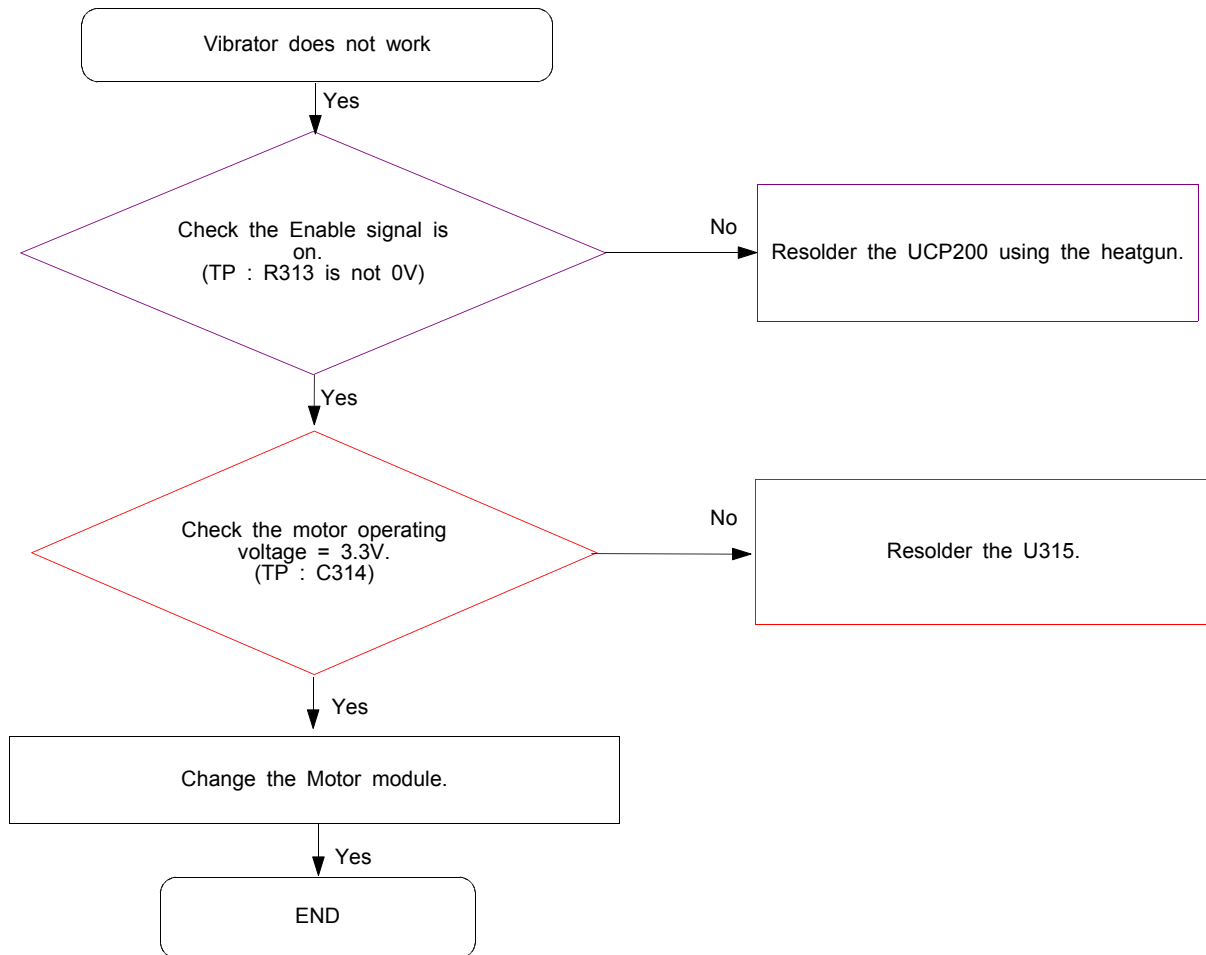


3.5PI EAR JACK



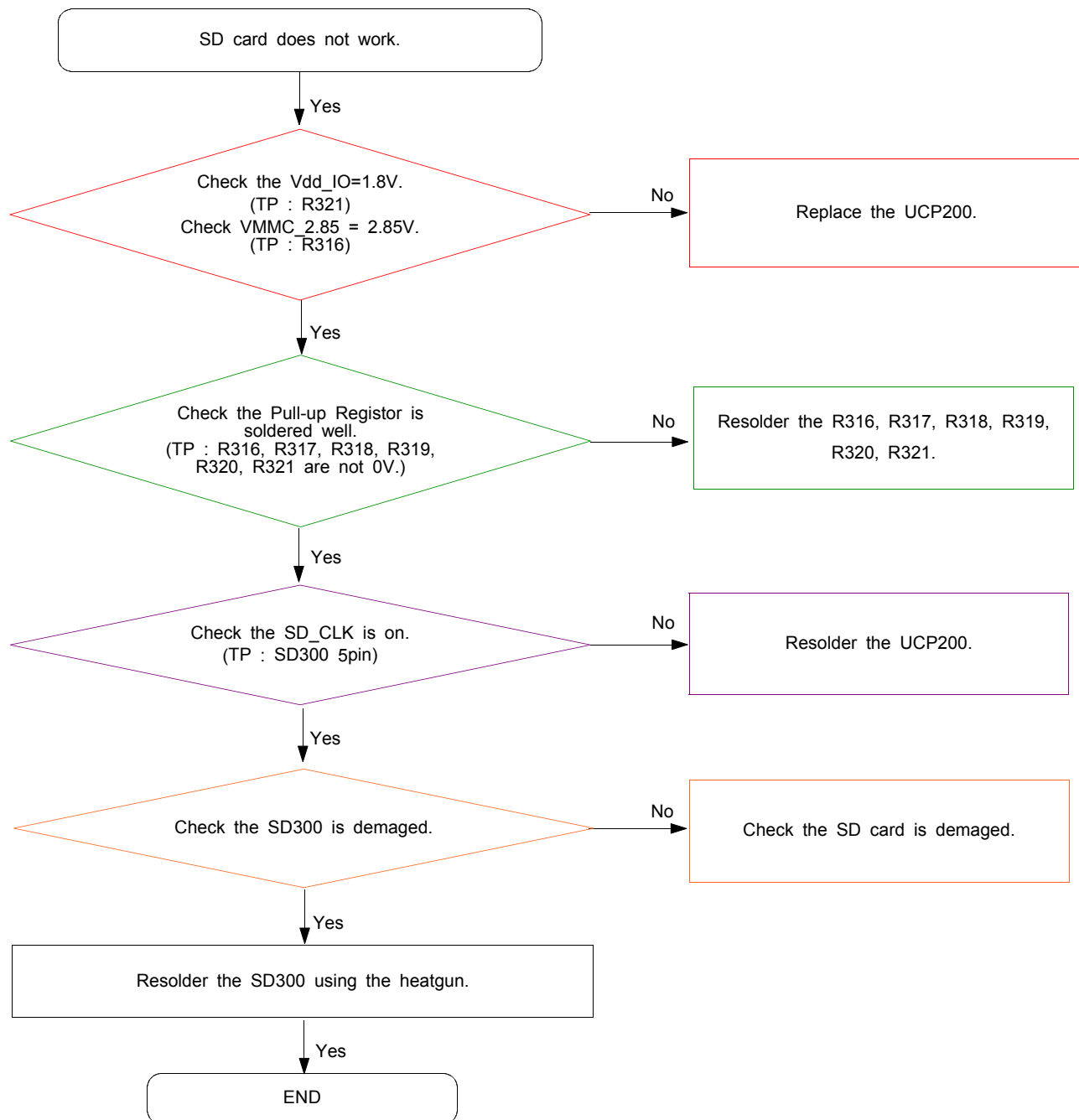
EAR MIC

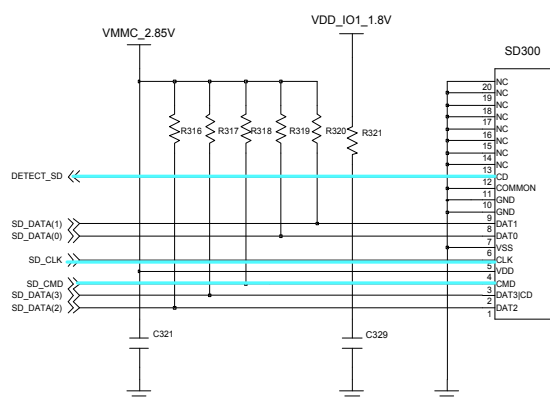
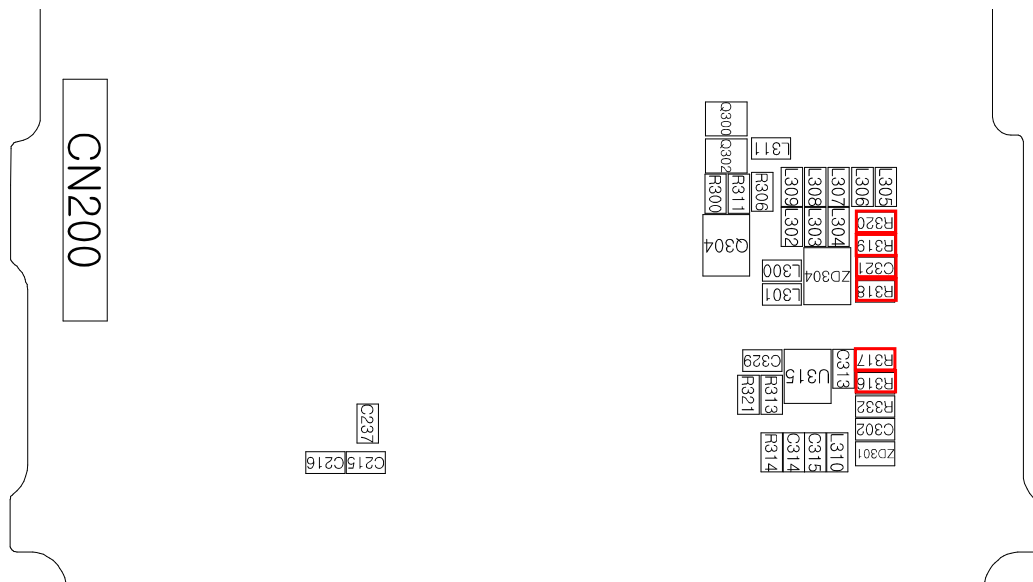
8-3-10. Vibrator Part





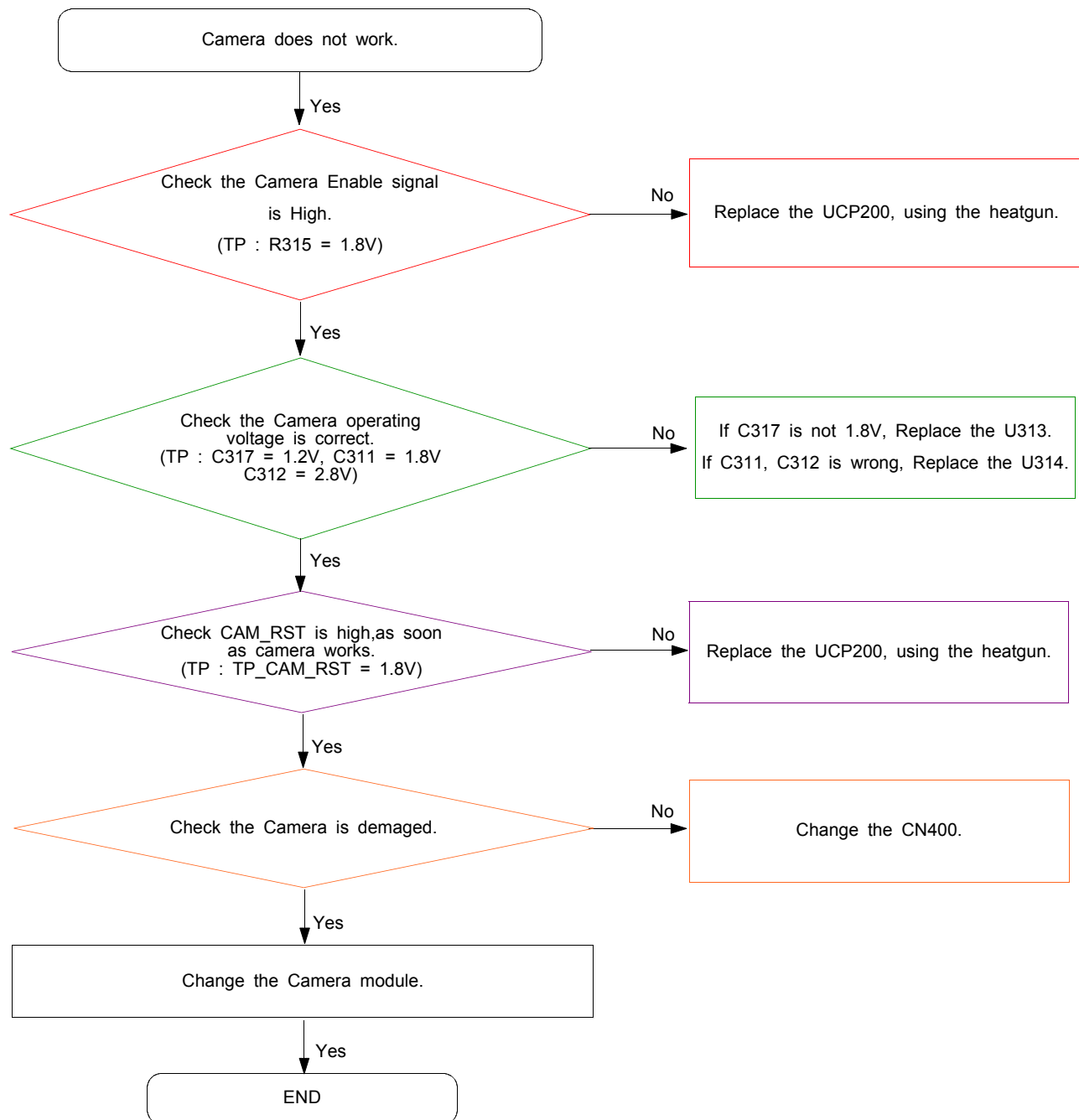
8-3-11. SD_Card Part

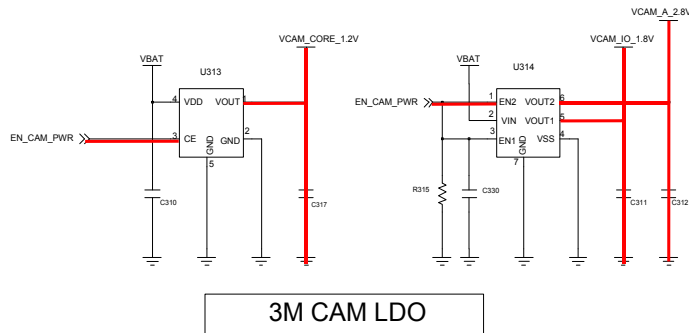
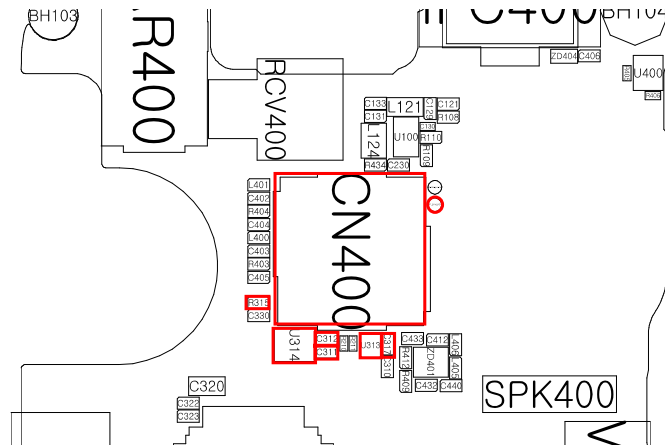




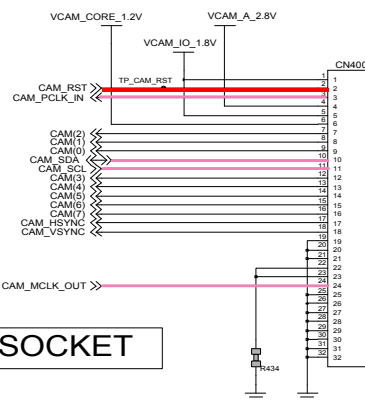
T-FLASH SOCKET

8-3-12. Camera Part

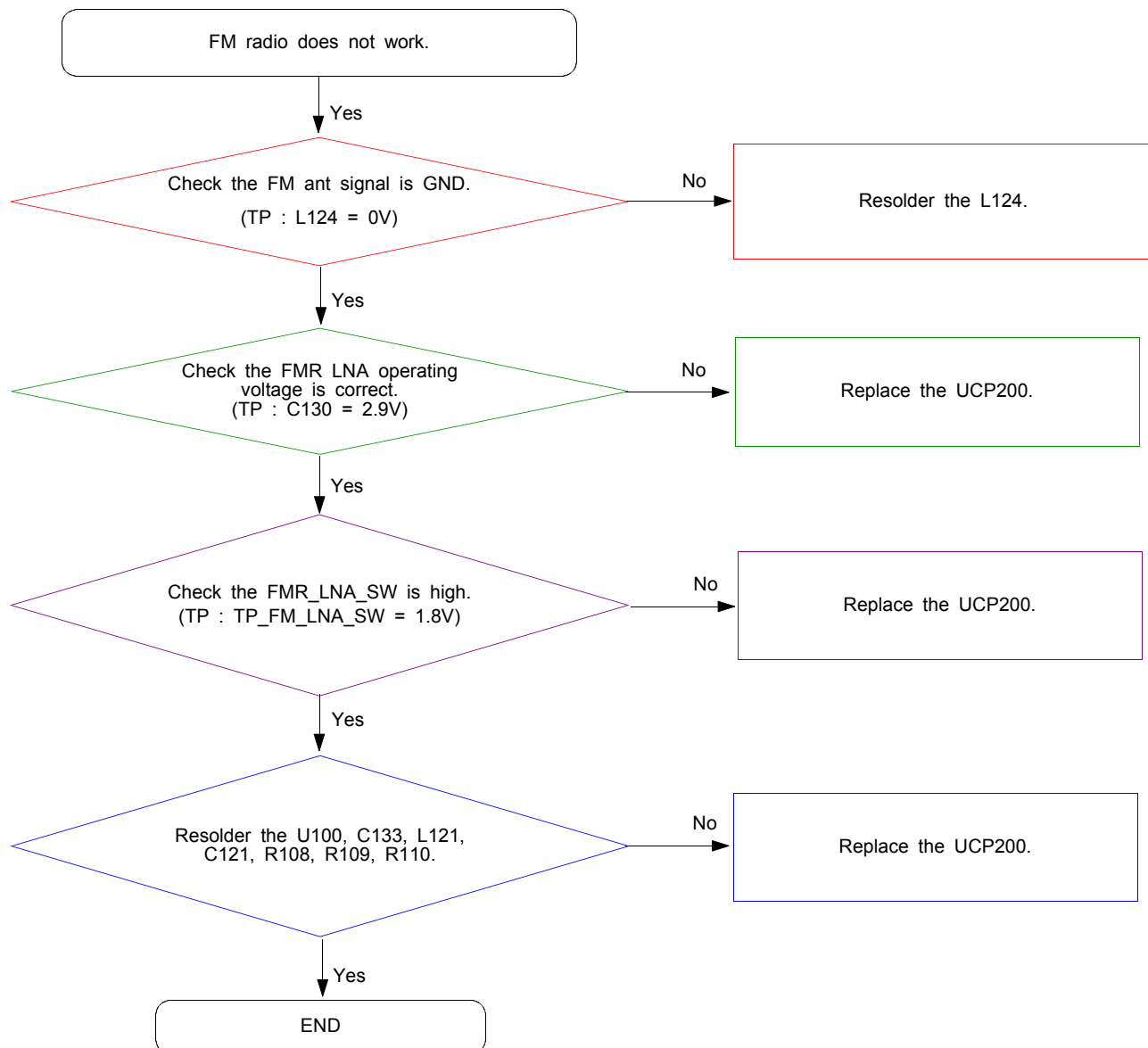




3M CAM SOCKET

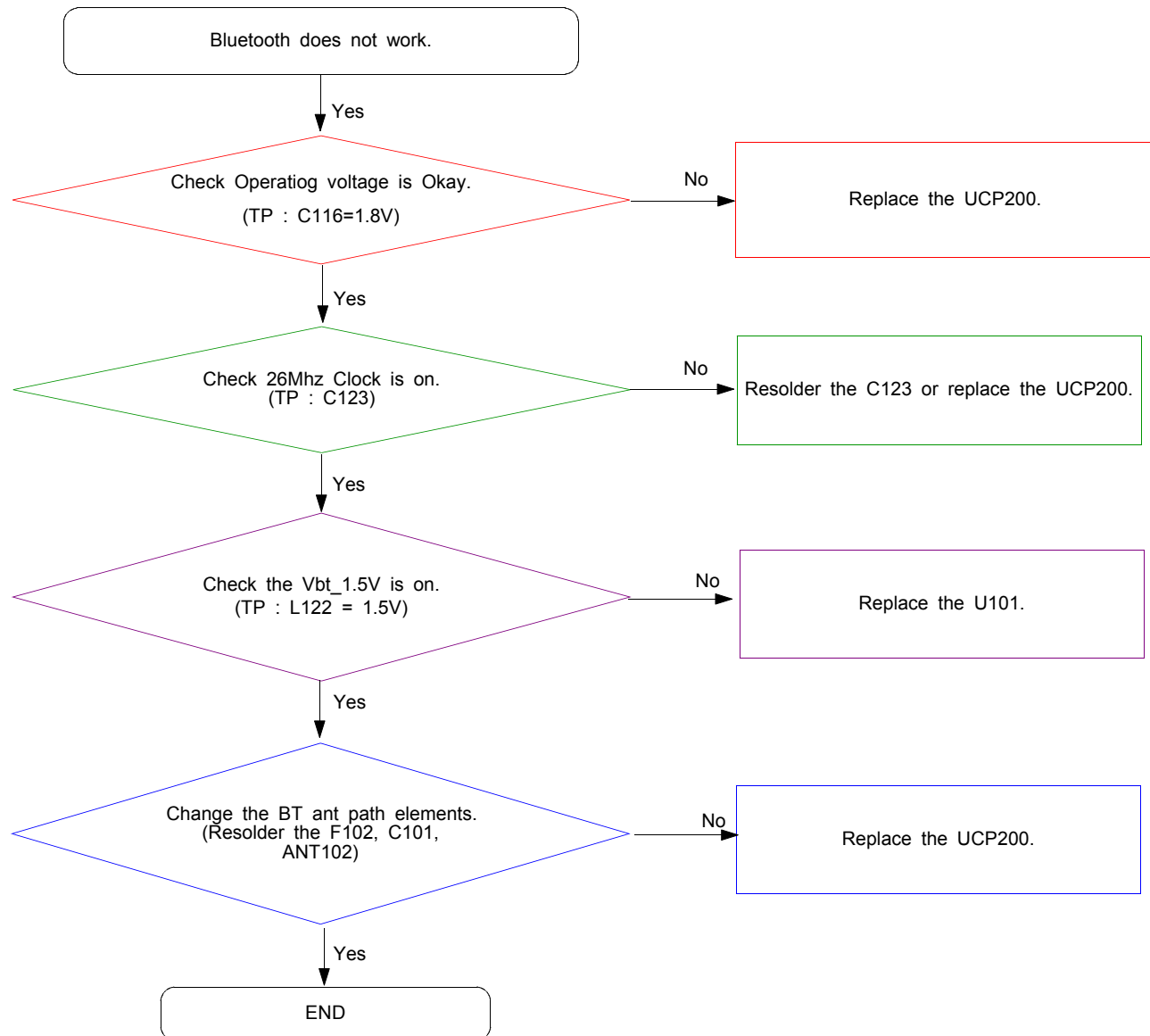


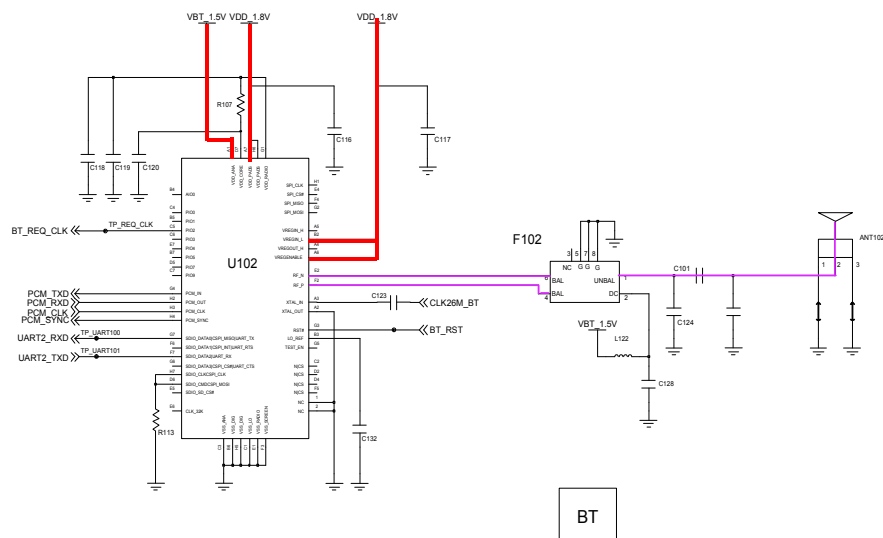
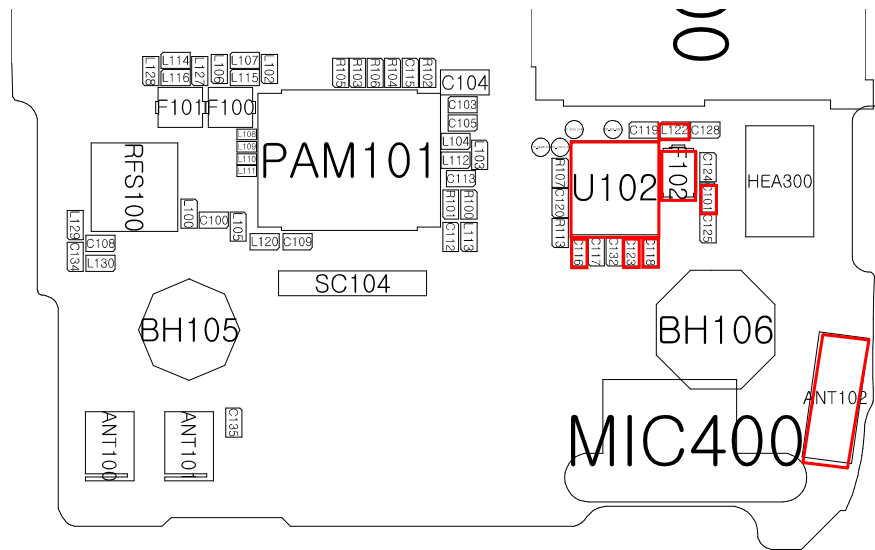
8-3-13. FM Radio Part



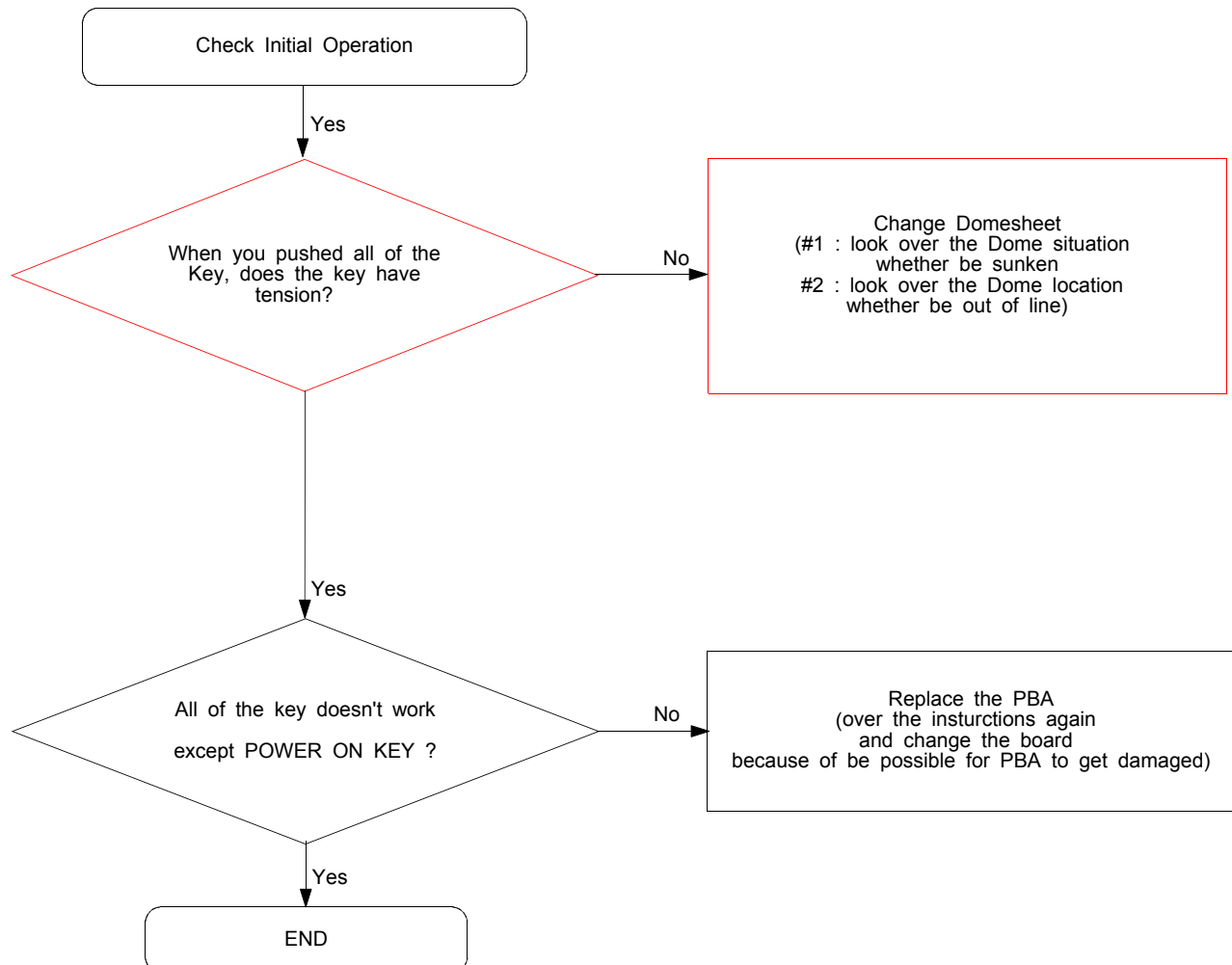


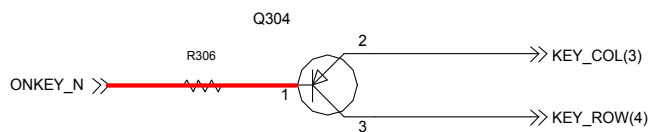
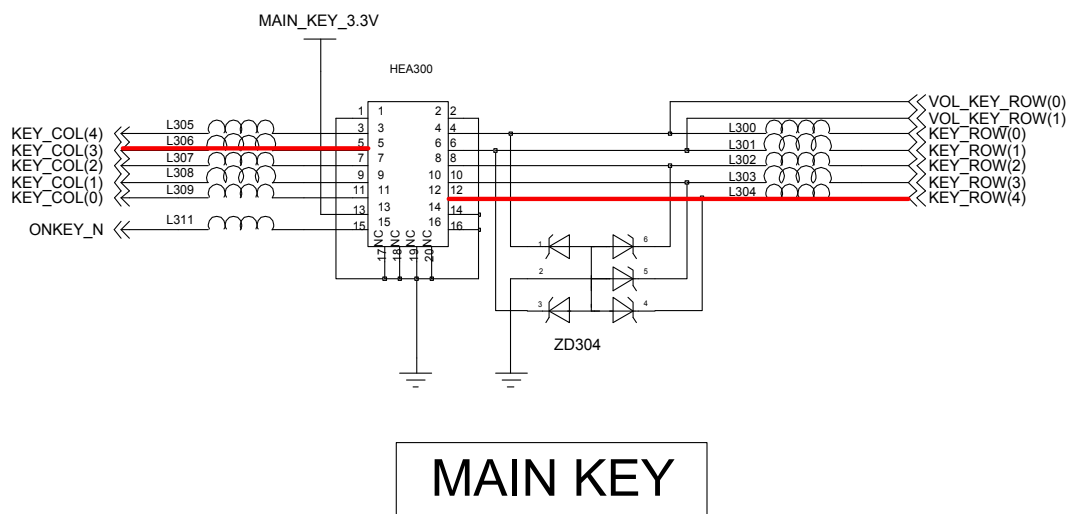
8-3-14. Bluetooth Part



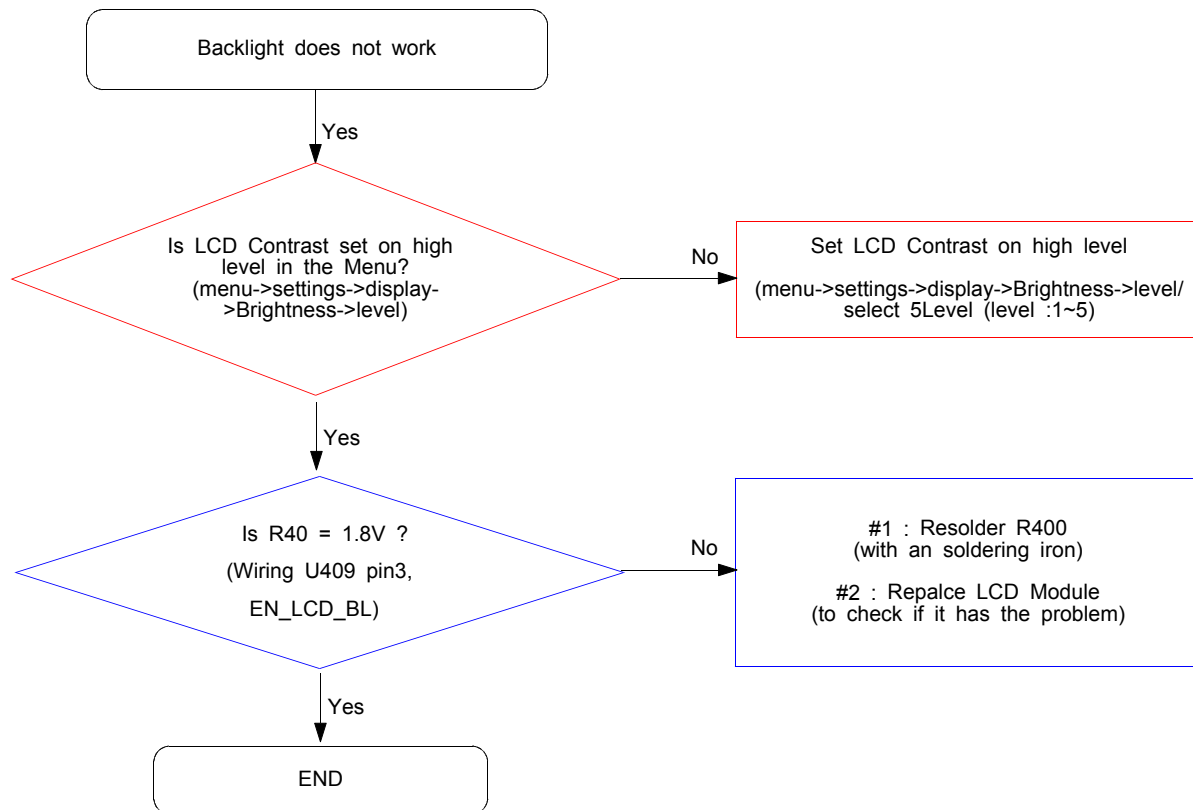


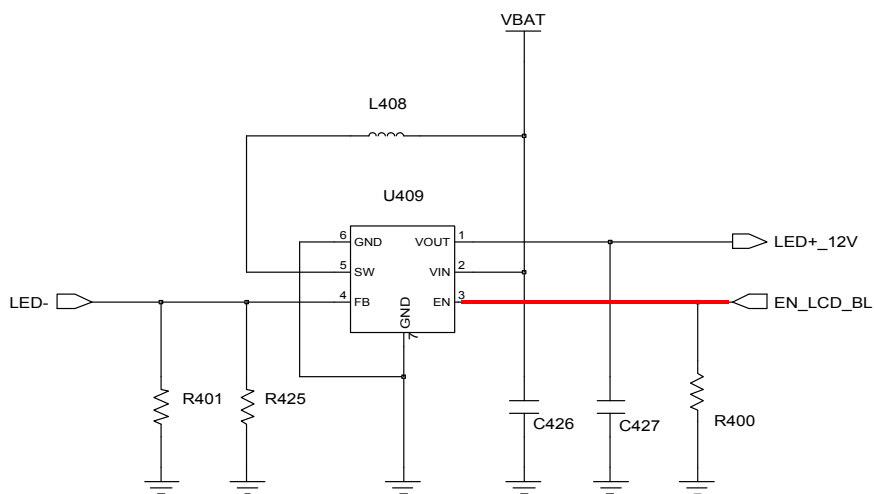
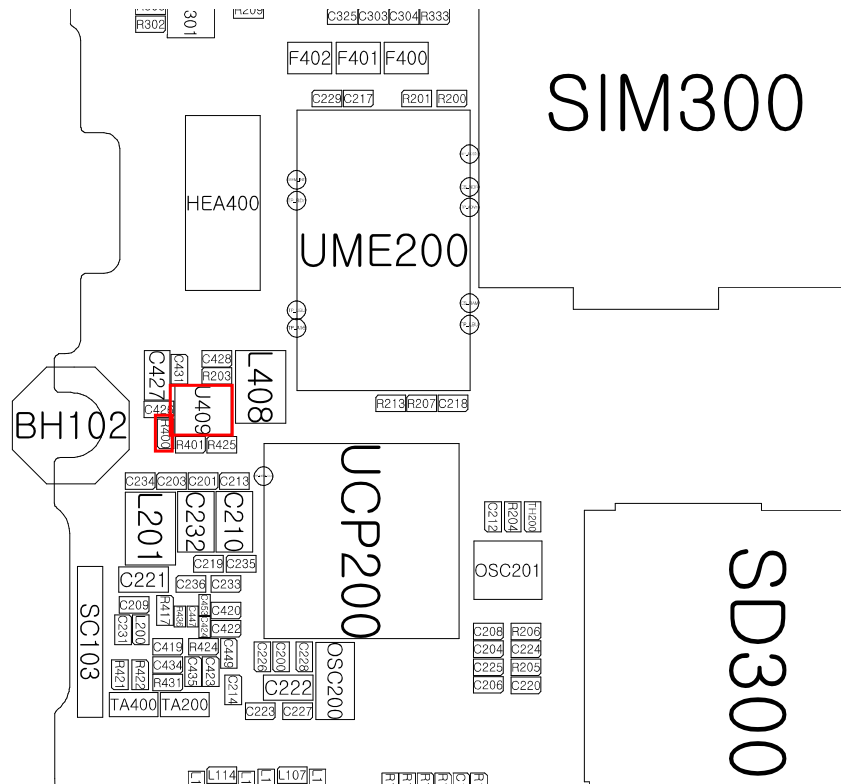
8-3-15. Key Data Input



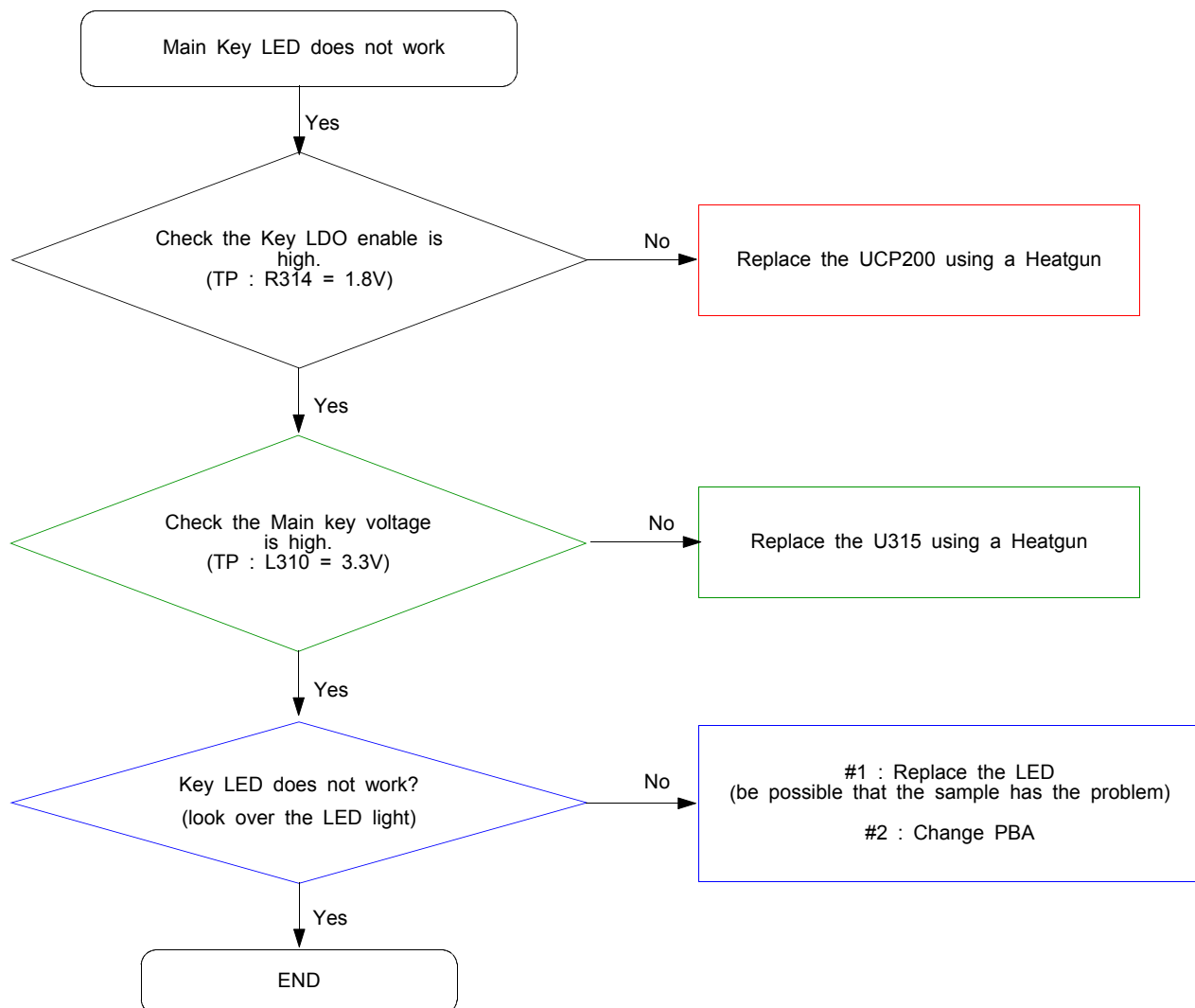


8-3-16. Back Light (for Color Main LCD)





8-3-17. Key Back Light





KEY / MOT LDO

presetting 8960

Call Setup Screen			
Control	Call Setup		Call Params
Operating Mode	DUT Information		BCH Parameters
Active Cell	IMSI: Called Num:	Multislot Class (GPRS): ---- Multislot Class (EGPRS): ----	
Connection Type	Traffic Channel Downlink Power		TCH Parameters
Auto	Burst 1, 2, 3, 4: ----, ----, ----, ---- dBm Unused Bursts: ---- dBm		
Originate Call	Counters		PTCH Parameters
Paging IMSI 001012345678901	Page: 0 DUT IP Tx. RACH: 0 Packets: ---- PRACH: 0 Bytes: ---- Missing Burst: 0 DUT IP Rx. Corrupt Burst: 0 Packets: ---- Decode Error: 0 Bytes: ----		
Handover Setup	Error Reports		Receiver Control
Cell Info	Burst Timing Error: ---- T BLER (Block Error Rate): ---- % over ---- blocks USF BLER: ---- % over ---- blocks		
1 of 2	Active Cell Idle	Sys Type: GPRS	
	InRef Offset		

< 8960장비 초기화면 >

(Rx setting)

- Active Cell
: select GSM or GPRS
- Connction Type
: select Auto(GSM), BLER(GPRS)
- BCH Parameter
: select measuring band (DCS or EGSM)
- Cell power
: -60dBm

Call Setup Screen			
Control	Call Setup		Call Params
Operating Mode	DUT Information for IMEI 01040500000040		BCH Parameters
Active Cell	IMSI: 001010123456789 Called Num: 112	Multislot Class (GPRS): ---- Multislot Class (EGPRS): ----	
Connection Type	Traffic Channel Downlink Power		TCH Parameters
Auto	Burst 1, 2, 3, 4: -60.00, ----, ----, ---- dBm Unused Bursts: ---- dBm		
End Call	Counters		PTCH Parameters
Paging IMSI 001010123456789	Page: 2 DUT IP Tx. RACH: 1 Packets: ---- PRACH: 0 Bytes: ---- Missing Burst: 0 DUT IP Rx. Corrupt Burst: 0 Packets: ---- Decode Error: 0 Bytes: ----		
Handover Setup	Error Reports		Receiver Control
Cell Info	Burst Timing Error: 0.50 T BLER (Block Error Rate): ---- % over ---- blocks USF BLER: ---- % over ---- blocks		
1 of 2	Active Cell Connected	Sys Type: GSM	
	InRef Offset		

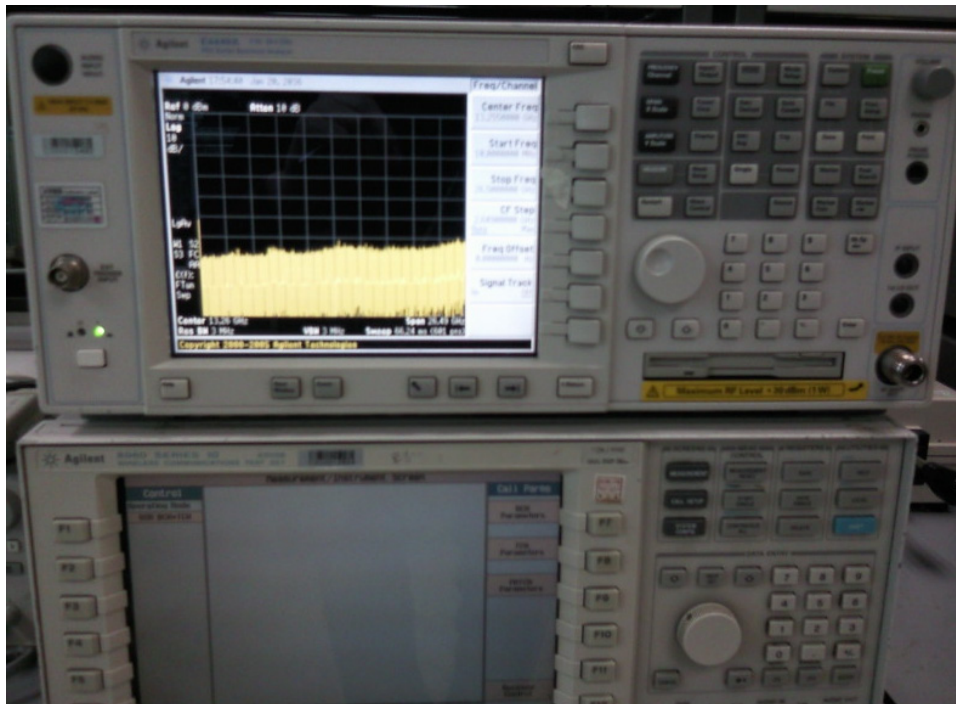
< Call이 연결된 화면 >

(Tx setting)

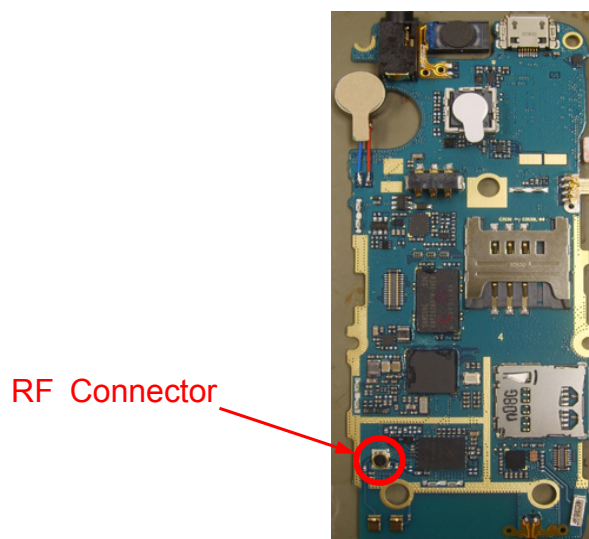
— After setting 8960 (EGSM / DCS)

1. After setting, prepare the call setup Display
2. Using an Originate Call, make a call.
3. Confirm the display "connected"
4. start the measuring

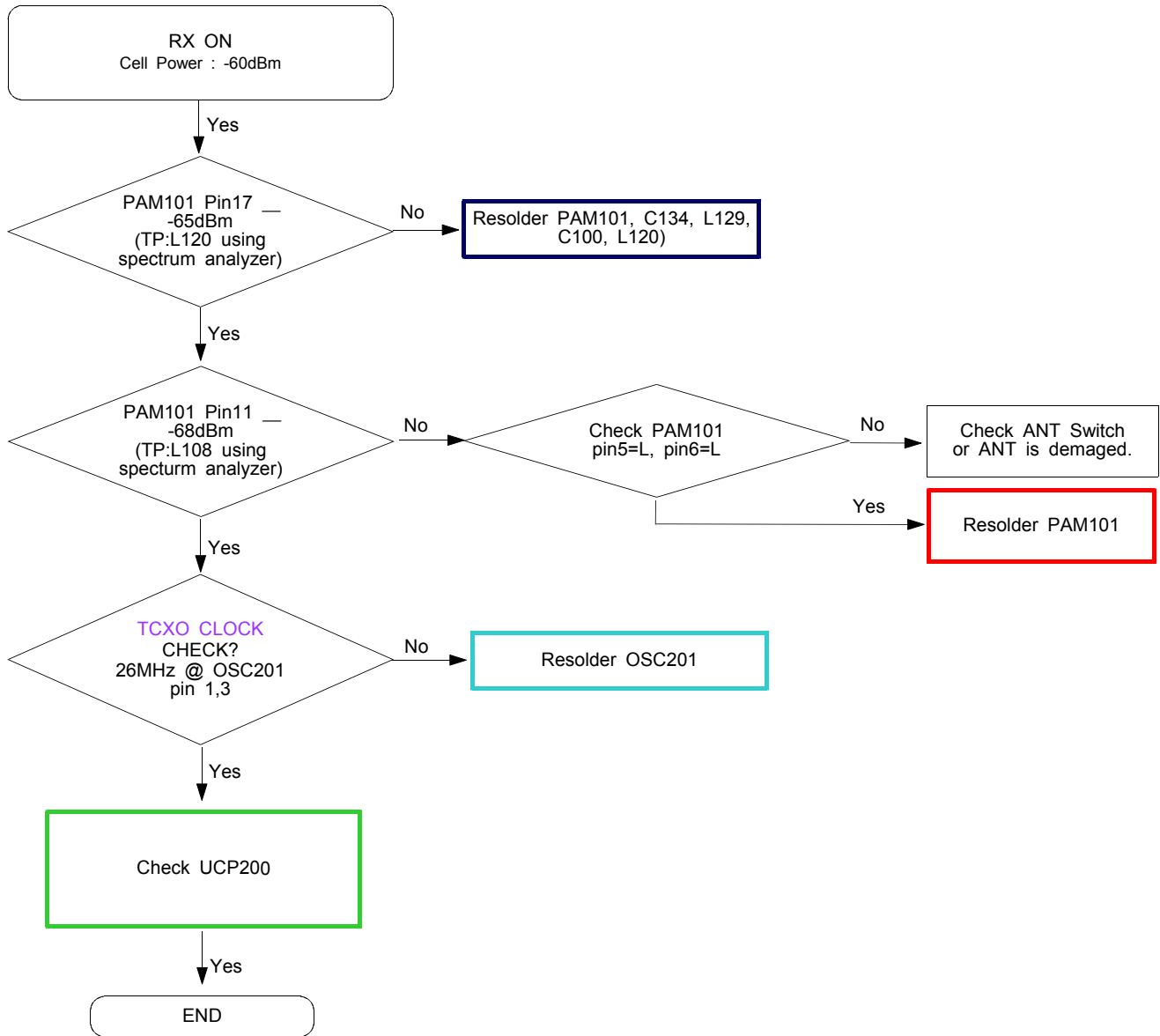
— 8960 & spectrum analyzer (down & up at picture)



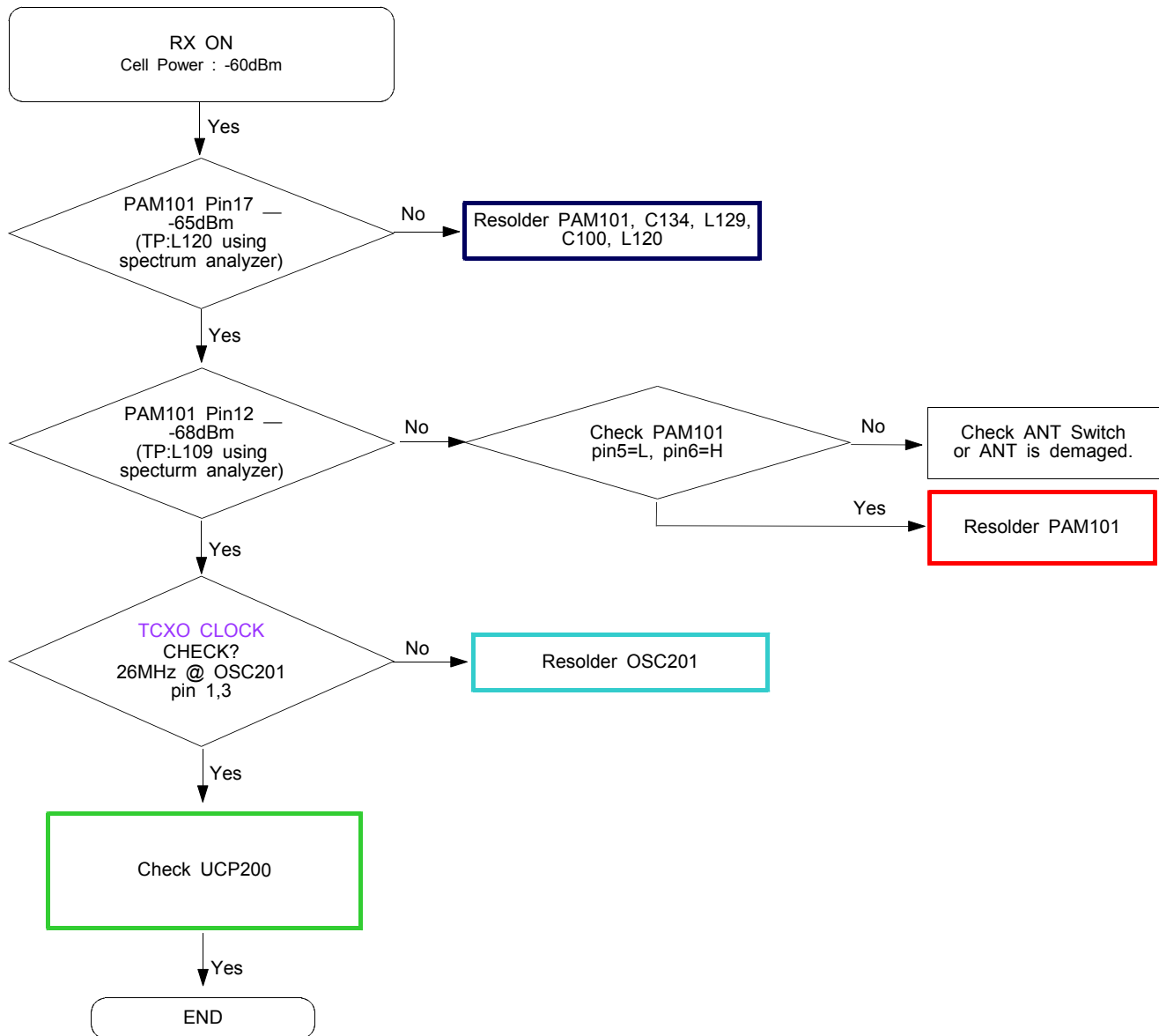
- spectrum analyzer : testing method = the way using an Oscilloscope
- 8960 : connect using RF Cable between 8960 & RF Connector in board.



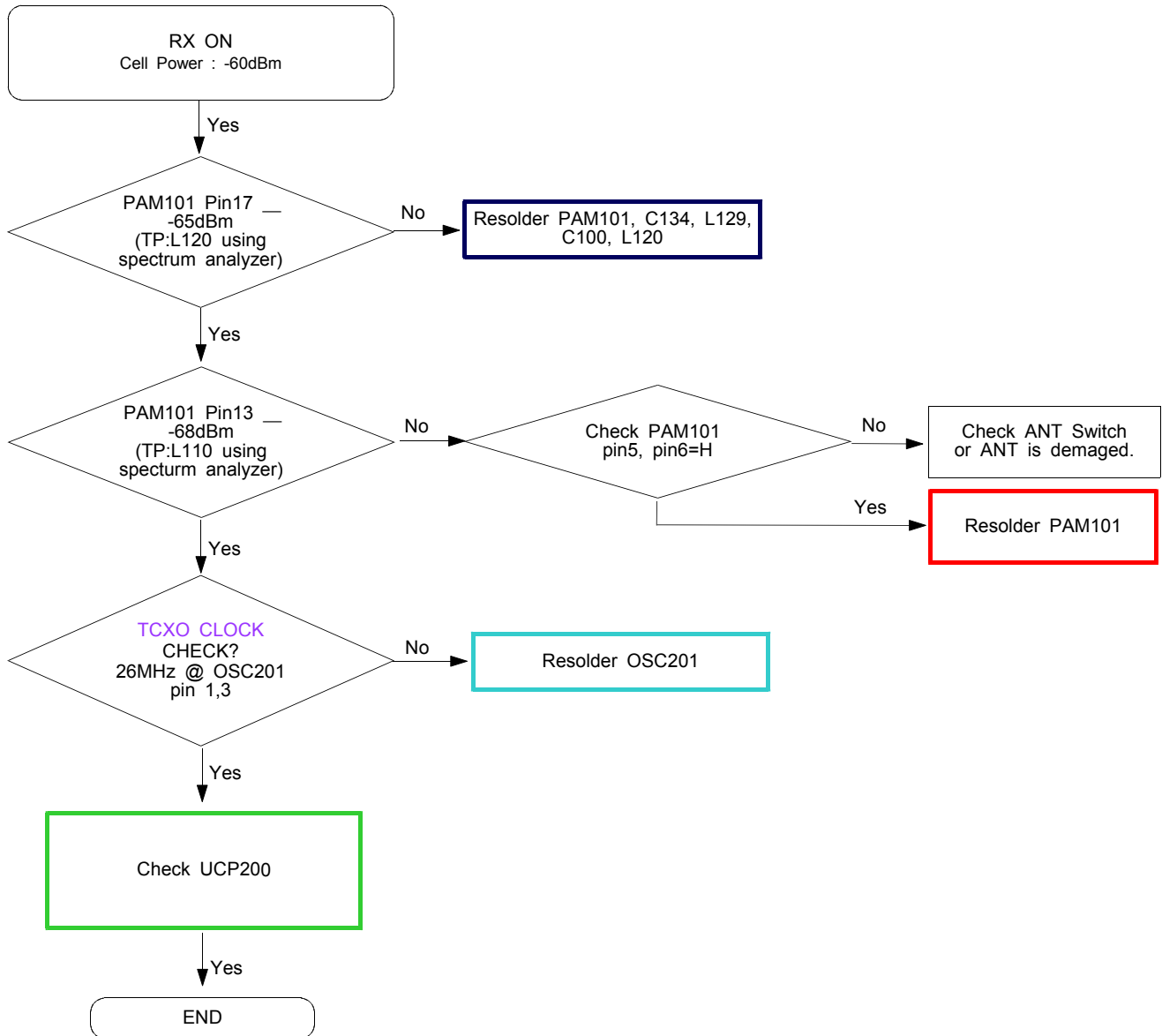
8-3-10. GSM850 Receiver



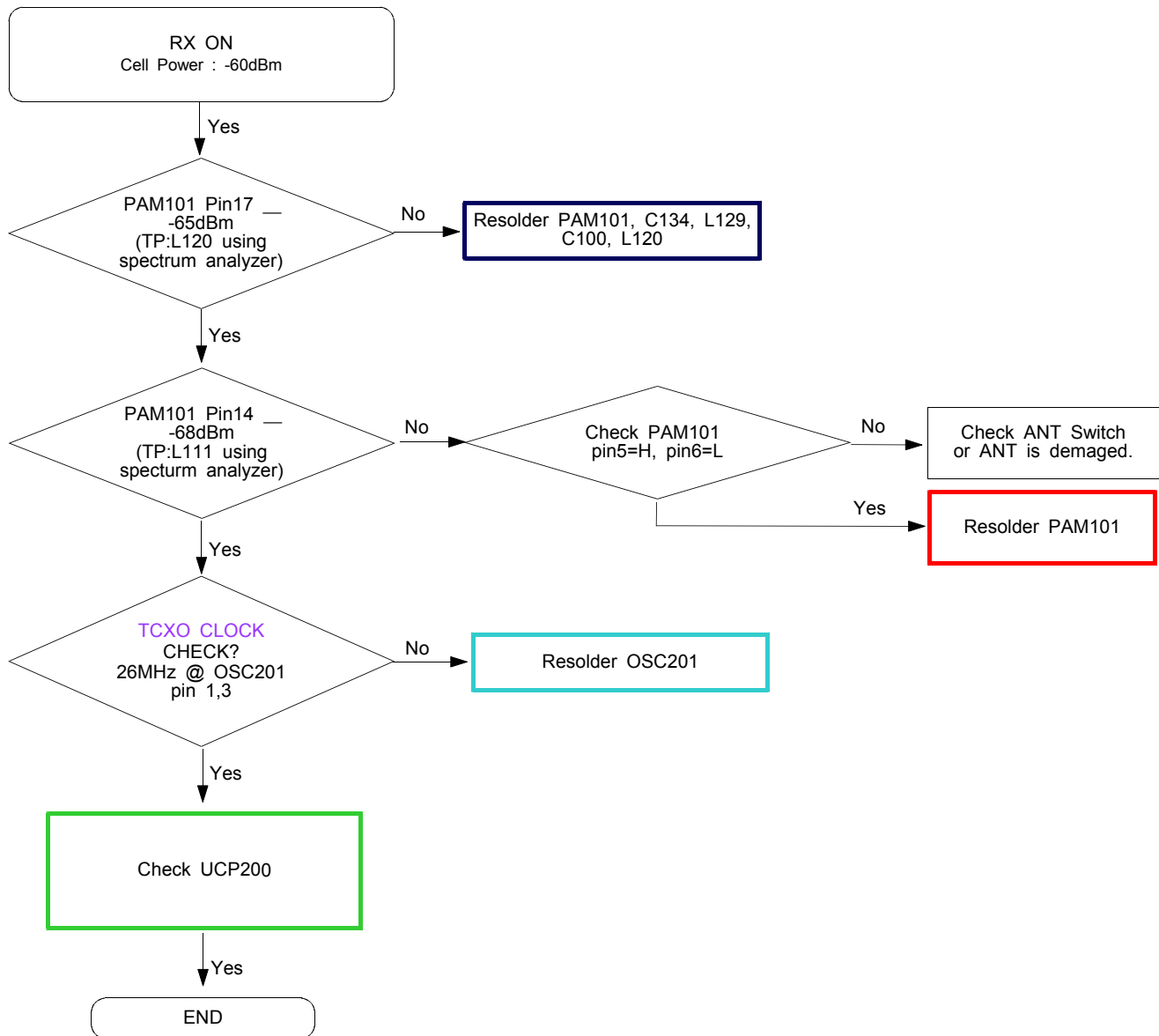
8-3-11. GSM900 Receiver

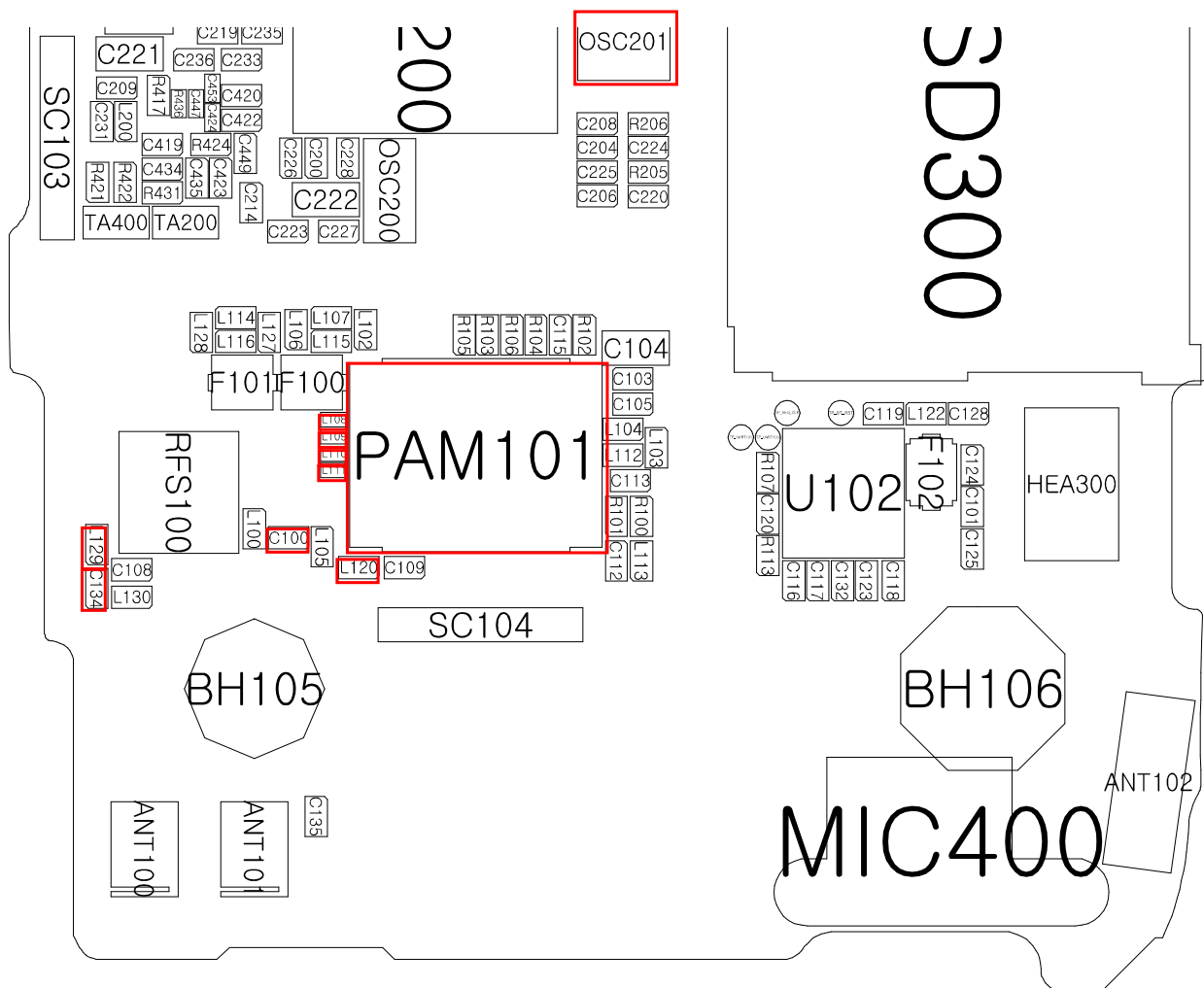


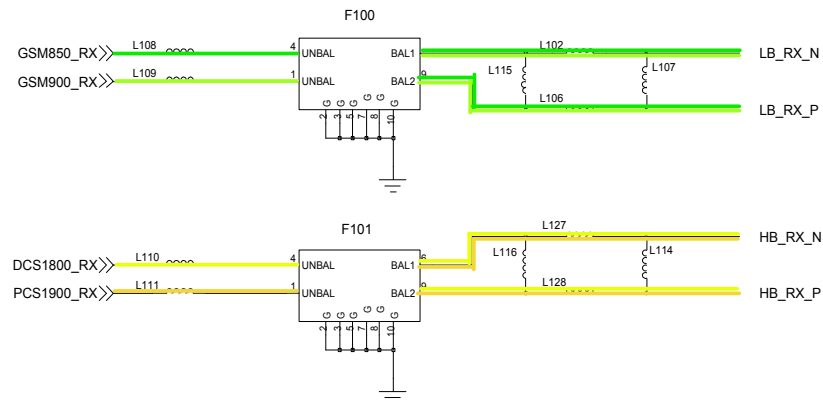
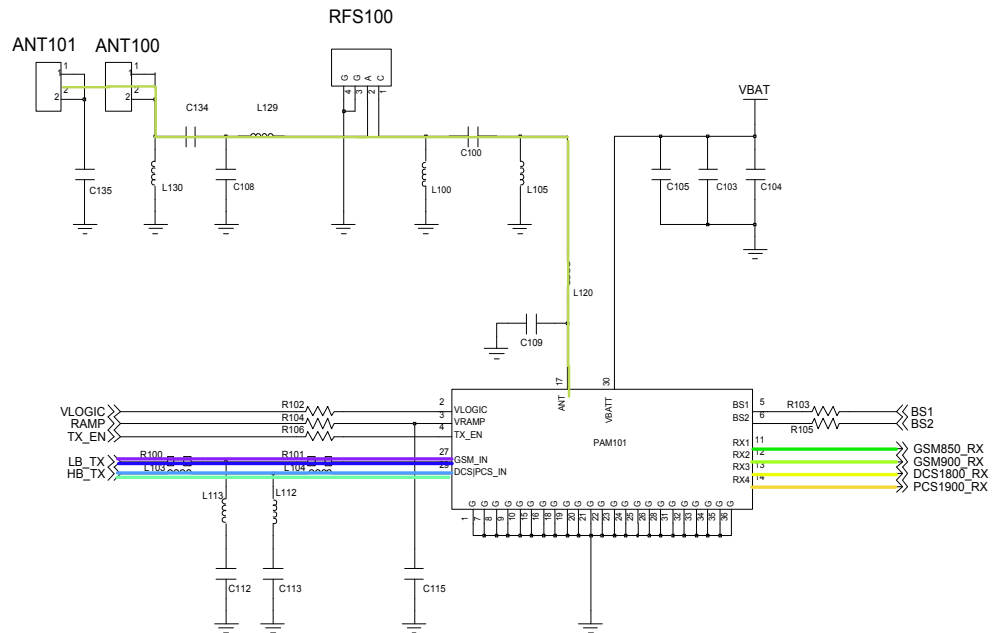
8-3-12. DCS Receiver



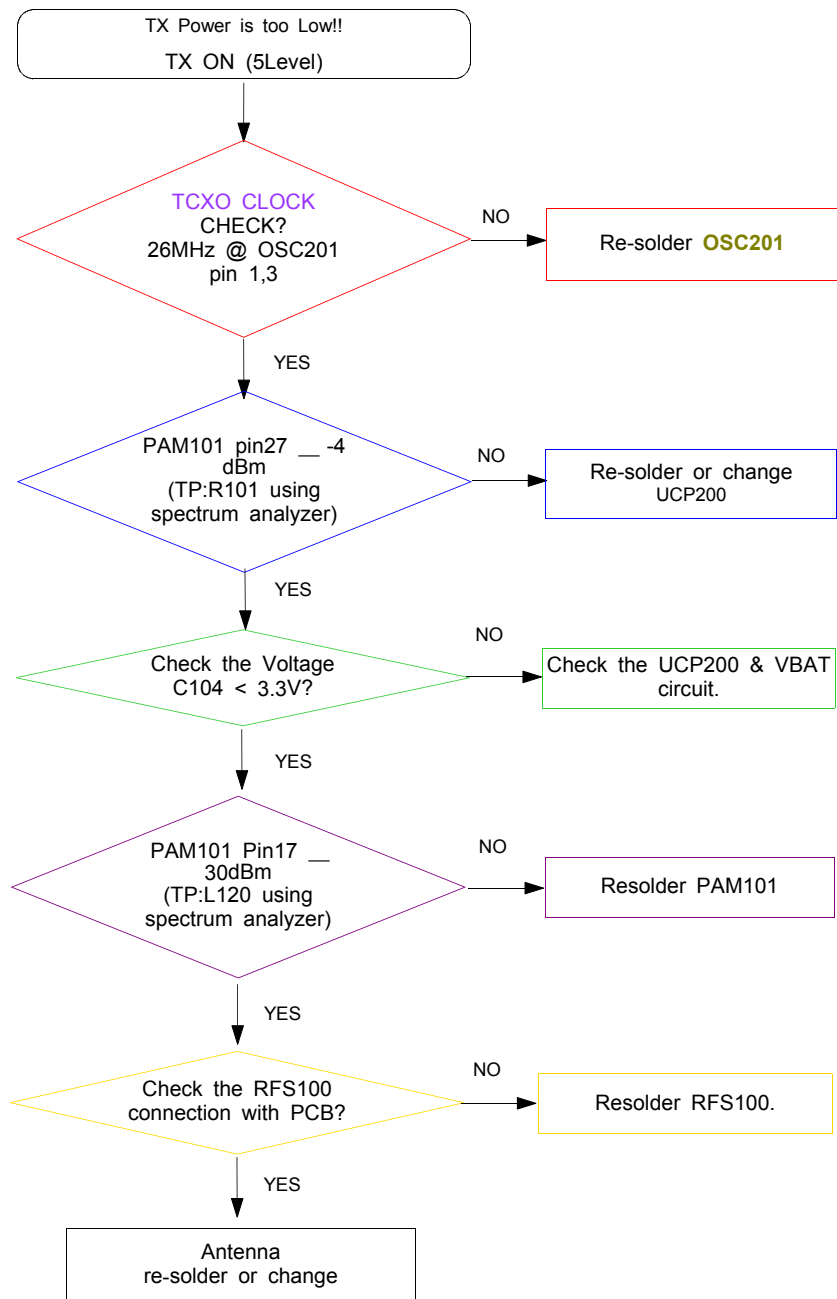
8-3-13. PCS Receiver



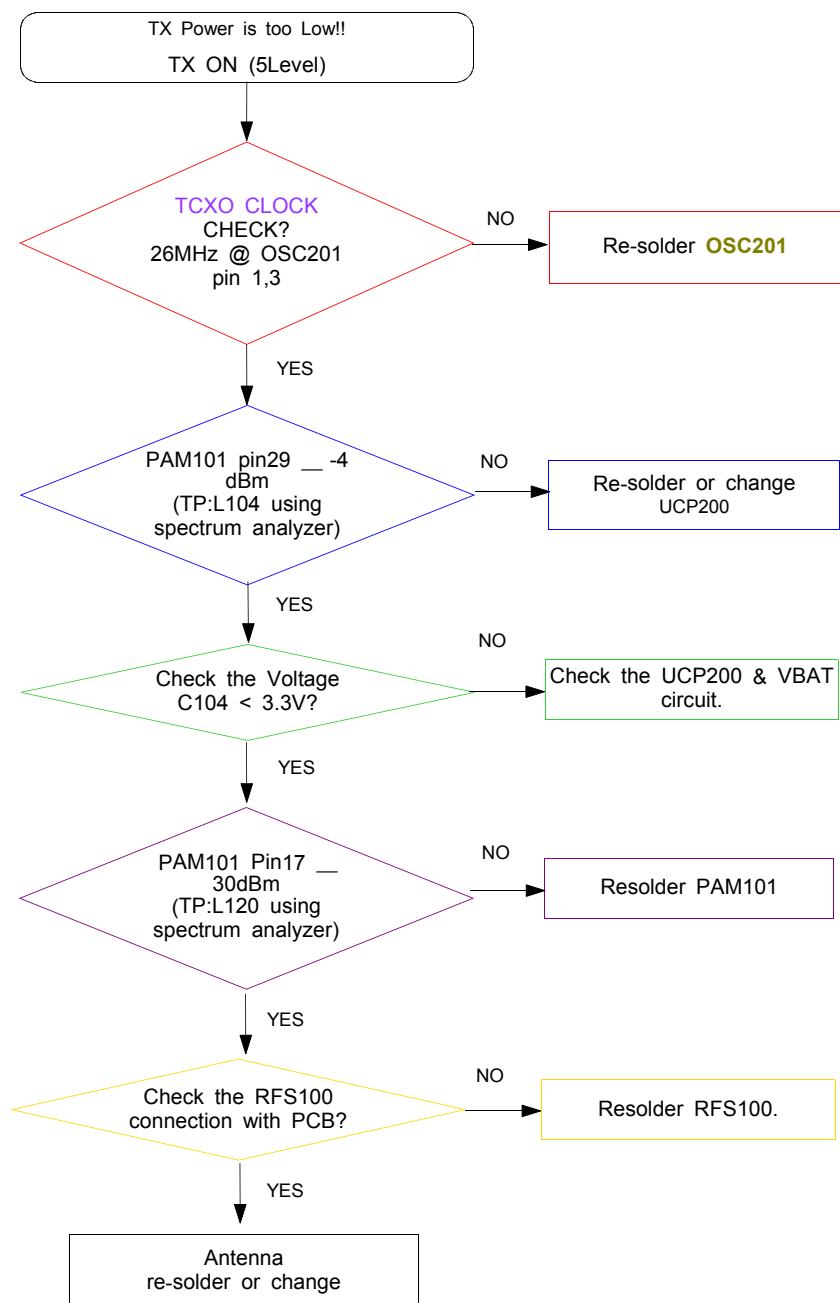


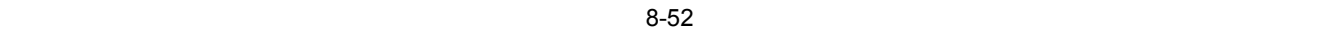


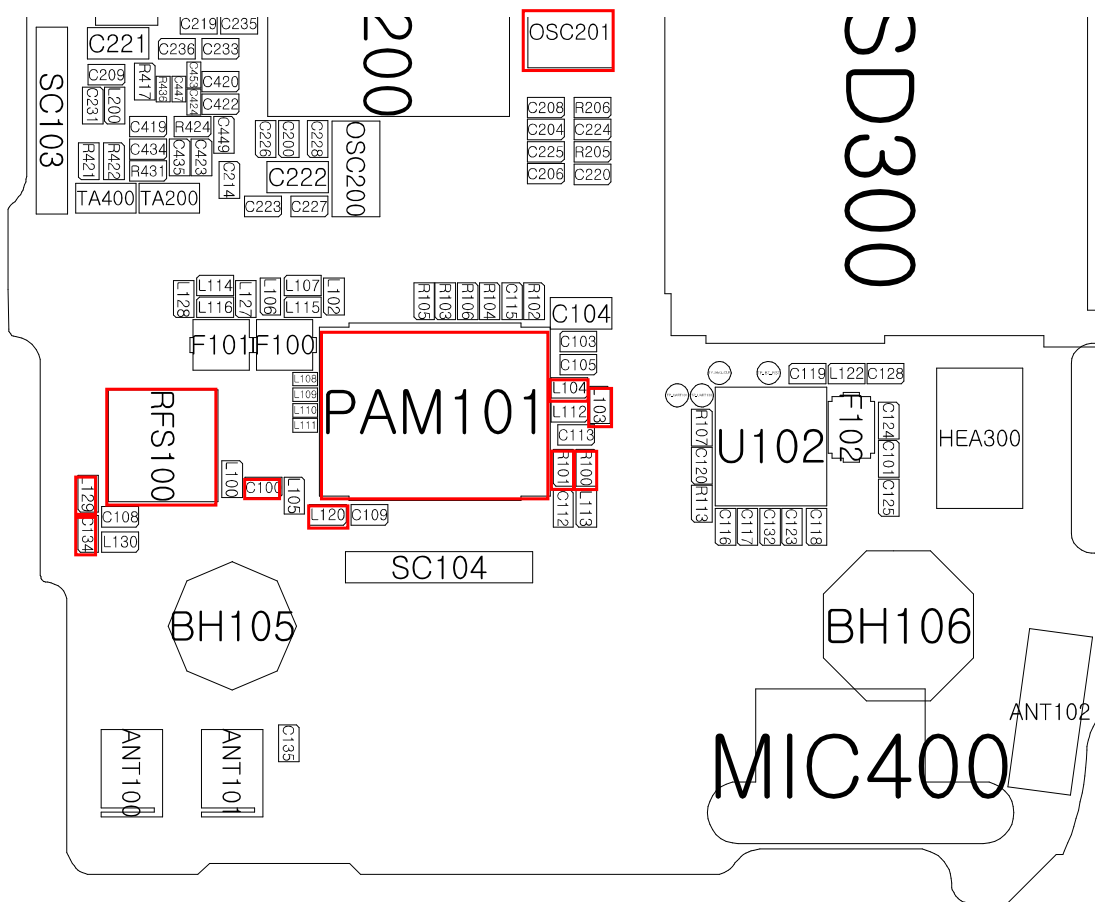
8-3-14. GSM850/GSM900 Transmitter



8-3-15. DCS/PCS Transmitter







8-4. Service Schematics

- NC Point(Top View)

● : NC

U101

	1	2	3	4	5	6	7
A	*	*	*	*	*	*	*
B	●	*	*	*	*	*	*
C	*	*	*	*	*	*	*
D	●	*	●	*	*	*	*
E	*	*	●	*	*	*	*
F	●	*	*	*	*	*	*
G	*	*	*	*	*	*	*
H	*	*	*	*	*	*	*

UME200

	1	2	3	4	5	6	7	8	9	10
A	●	●	●	*	*	*	*	*	●	●
B	*	●	●	*	*	*	*	*	●	●
C	*	●	●	*	*	*	*	●	●	*
D	●	●	●	*	*	●	*	●	●	●
E	●	*	●	*	*	*	●	*	*	●
F	●	●	●					●	●	●
G	●	●	●					●	●	●
H	●	●	●					●	●	●
J	●	●	●					●	●	●
K	●	●	*					●	●	●
L	●	*	*					●	●	●
M	●	*	*					●	●	*
N	●	*	*	*	*	*	*	*	*	*
P	*	*	*	*	*	*	*	*	*	●
R	*	*	*	*	*	*	*	*	*	*
T	*	*	*	*	*	*	*	*	*	*
U	●	*	*	*	*	*	*	*	*	●

UCP200

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
A	●	•	•	•	•	•	•	•	•	•	•	•	•	•	•	●
B	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
C	•	•	•	•	•	•	•	•	•	•	●	•	•	•	•	•
D	•	•	•	•	●	●	●	•	•	•	●	●	●	●	●	•
E	•	•	•	●	●	•	•	•	•	•	•	•	●	●	●	•
F	•	•	•	•	●	•	•	•	•	•	•	•	•	•	•	•
G	•	•	•	•	•	•	•	•	•	•	•	•	•	•	●	•
H	•	•	•	•	●	•	•	•	•	•	•	•	•	●	•	•
J	•	•	•	•	●	•	•	•	•	•	•	•	•	●	•	•
K	•	•	•	•	•	•	•	•	●	•	•	•	●	●	•	•
L	•	•	•	•	●	•	•	•	•	•	●	●	•	•	•	•
M	•	•	•	●	●	•	•	•	•	•	•	●	●	●	•	•
N	•	•	•	•	●	●	●	•	●	●	•	•	●	●	•	•
P	•	•	•	•	•	●	•	•	•	•	•	•	•	•	•	•
R	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
T	●	•	•	•	•	•	•	•	•	•	•	•	•	•	•	●

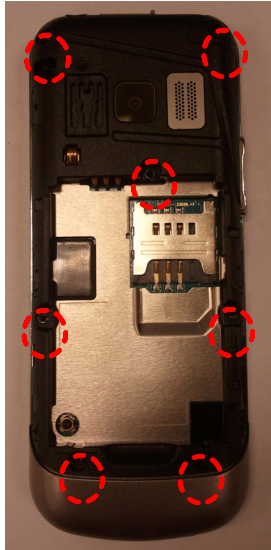
7. Level 2 Repair

7-1. Disassembly and Assembly Instructions

7-1-1. Disassembly

1

1) Unscrew 7 Points.

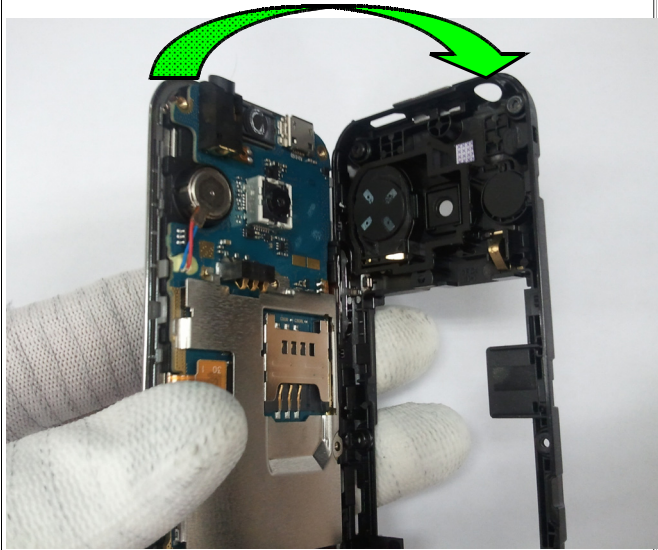


※ **Caution**

1) Torque : 1.1±0.1 kgf.cm

2

1) Disassemble the Rear.

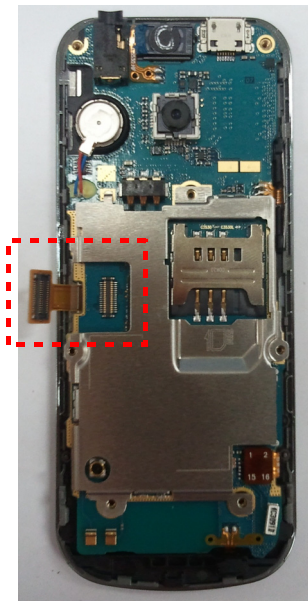


※ **Caution**

1) Be careful Hook on Mech. not to be broken.

3

1) Disassemble LCD FPCB connector.



4

1) 1) Disassemble PBA and Front Ass'y

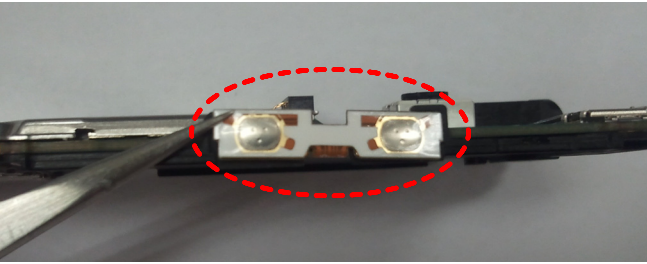
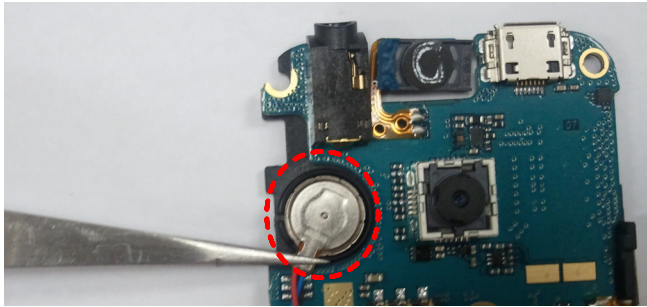


※ **Caution**

1) Be careful Hook on Mech. not to be broken.

5

1) Detach Motor, Volume Key FPCB.

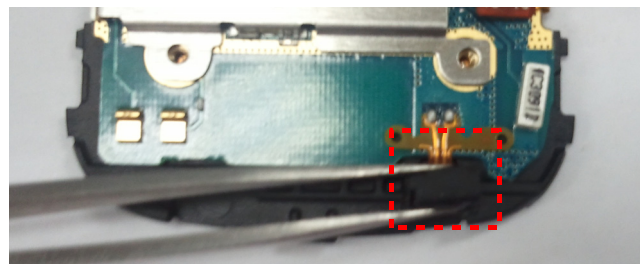
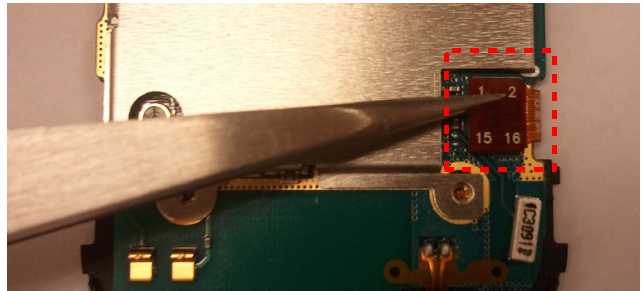


✖ **Caution**

1) Be careful Motor & FPCB not to be damaged.

6

1) Disassemble 3*4 Key FPCB connector, MIC.

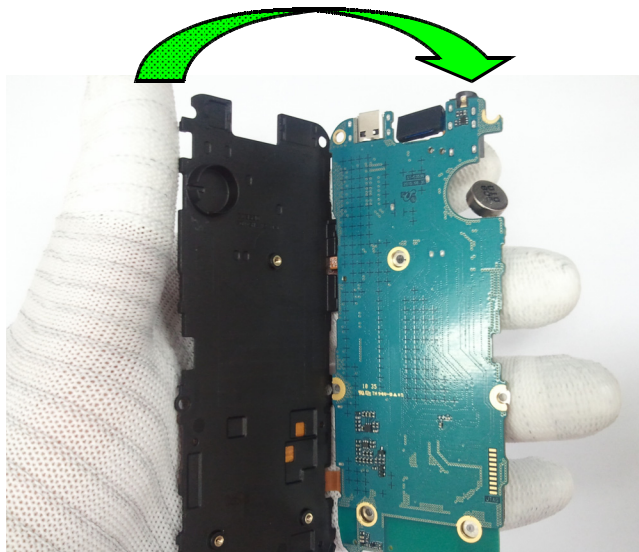


✖ **Caution**

1) Be careful 3*4 Key FPCB connector & MIC module not to be damaged.

7

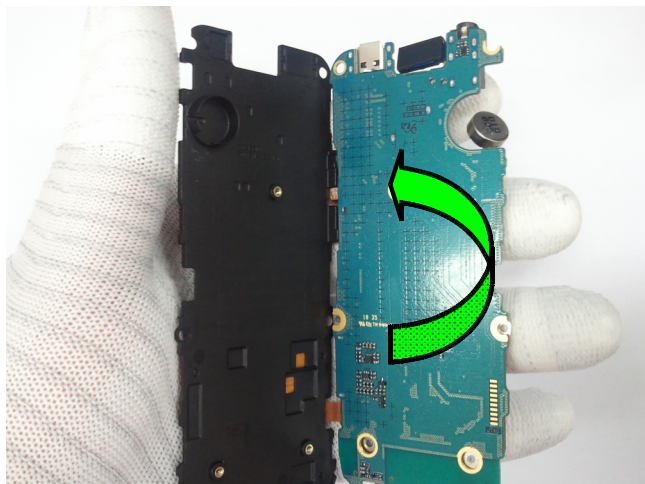
1) Disassemble PBA with Bracket.



7-1-2. Assembly

1

1) Assemble the PBA with the Bracket.

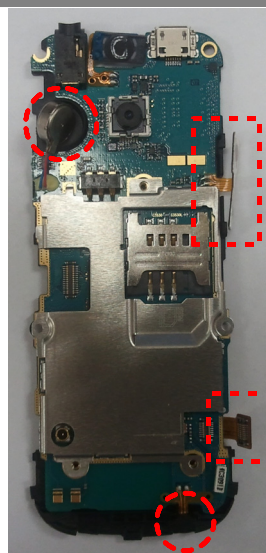


⌘ Caution

1) Assemble following boss hole & guide on the bracket.

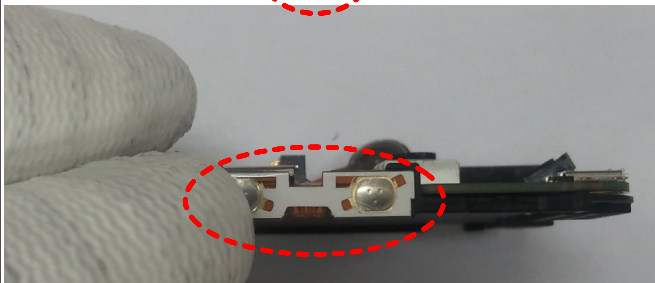
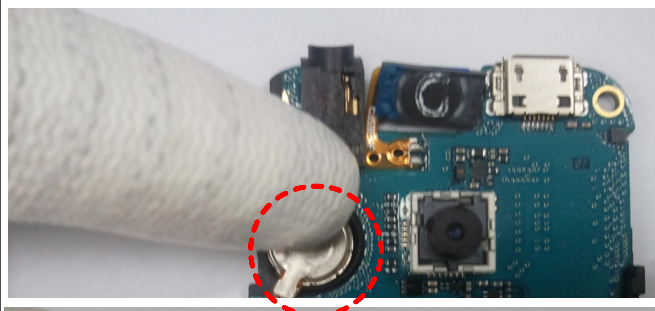
2

1) Attach Motor, Volume Key FPCB, 3*4 Key FPCB, MIC on the Bracket & PBA



3

1) Attach Motor, Volume Key FPCB.

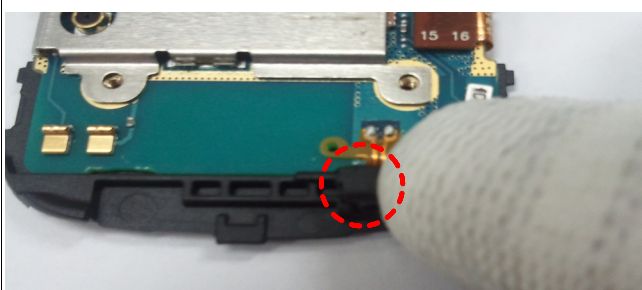
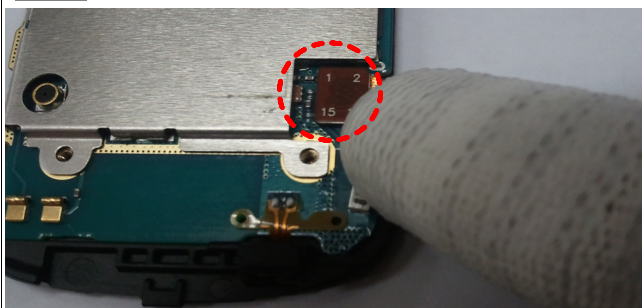


⌘ Caution

1) Check Motor fully settled down in the Bracket.
2) Assemble FPCB following guide on the Bracket.

4

1) Assemble 3*4 Key FPCB connector, MIC.



⌘ Caution

1) Check MIC fully settled down in the Bracket.

5

1) Assemble PBA and Front Ass'y

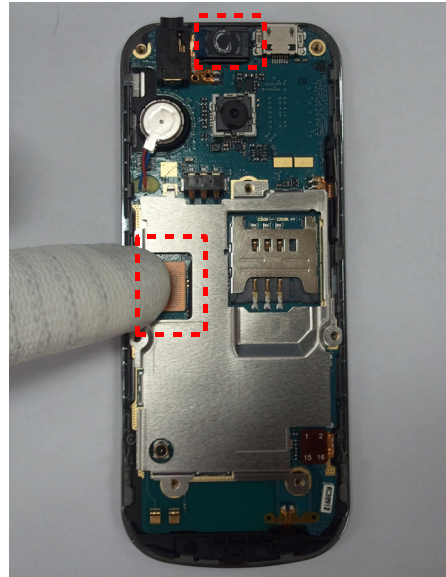


※ Caution

- 1) Assemble following boss hole on the bracket.
- 2) Check 3*4 Keypad assembled at the right place.

6

1) Assemble LCD FPCB connector.



※ Caution

- 1) Check Receiver fully settled down in the Bracket.

7

1) Assemble Rear.

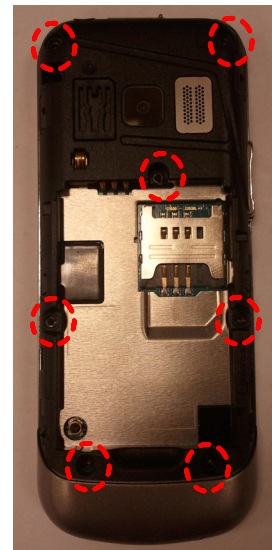


※ Caution

- 1) Be careful Volume Key & SPK module assembled at the right place.

8

1) Screw 7 points.



※ Caution

- 1) Torque : 1.1 ± 0.1 kgf.cm

5. MAIN Electrical Parts List

Design LOC	SEC CODE	Description
D400	0401-001141	DIODE-SWITCHING
ZD300	0403-001688	DIODE-ZENER
ZD304	0406-001167	DIODE-TVS
ZD401	0406-001169	DIODE-TVS
ZD402,ZD403,ZD404	0406-001231	DIODE-TVS
ZD301,ZD302,ZD305	0406-001293	DIODE-TVS
ZD306	0406-001293	DIODE-TVS
ZD400	0406-001361	DIODE-TVS
U400	0406-001369	DIODE-TVS
Q301	0501-002606	TR-SMALL SIGNAL
Q304	0501-002663	TR-SMALL SIGNAL
Q303	0502-001322	TR-POWER
Q300,Q302	0504-001140	TR-DIGITAL
Q305	0505-001165	FET-SILICON
U404	1001-001645	IC
U100	1201-002944	IC
PAM101	1201-003025	IC
U316	1201-003111	IC
U405	1202-001068	IC
U314	1203-003643	IC
U313	1203-005574	IC
U315	1203-005851	IC
U409	1203-006111	IC
U102	1205-003517	IC
UCP200	1205-004030	IC
TH200	1404-001224	THERMISTOR
R102,R103,R105,R106	2007-000138	R-CHIP
R304,R337,R416,R430	2007-000138	R-CHIP
R104,R306,R333	2007-000140	R-CHIP
R109,R315,R332,R400	2007-000143	R-CHIP
R200,R213	2007-000146	R-CHIP
R203,R311,R316,R317	2007-000148	R-CHIP
R318,R319,R320,R426	2007-000148	R-CHIP
R427	2007-000148	R-CHIP
R313,R314,R321	2007-000157	R-CHIP
R113,R205,R206,R209	2007-000162	R-CHIP
R414	2007-000162	R-CHIP
R420	2007-000166	R-CHIP
R418	2007-000168	R-CHIP
R415,R433	2007-000170	R-CHIP

Design LOC	SEC CODE	Description
R403,R404	2007-000174	R-CHIP
R334,R422,R431	2007-000242	R-CHIP
R305	2007-000831	R-CHIP
R303	2007-000932	R-CHIP
R108,R421,R432	2007-001119	R-CHIP
R110	2007-001307	R-CHIP
R401	2007-002965	R-CHIP
R107	2007-003015	R-CHIP
R302	2007-007001	R-CHIP
R300	2007-007015	R-CHIP
R204	2007-007142	R-CHIP
R417	2007-007156	R-CHIP
R210,R211	2007-008052	R-CHIP
R435,R436	2007-008478	R-CHIP
R405,R406	2007-008531	R-CHIP
R437	2007-008588	R-CHIP
R331	2007-008780	R-CHIP
C101,C135	2203-000233	C-CERAMIC,CHIP
C116,C132,C329	2203-000254	C-CERAMIC,CHIP
C105	2203-000278	C-CERAMIC,CHIP
C119,C412,C440,C449	2203-000386	C-CERAMIC,CHIP
C452	2203-000386	C-CERAMIC,CHIP
C404,C405	2203-000425	C-CERAMIC,CHIP
C123,C214,C327,C328	2203-000438	C-CERAMIC,CHIP
C227,C228	2203-000550	C-CERAMIC,CHIP
C131	2203-000679	C-CERAMIC,CHIP
C115,C302,C303,C304	2203-000812	C-CERAMIC,CHIP
C325,C419,C432,C433	2203-000812	C-CERAMIC,CHIP
C435	2203-000854	C-CERAMIC,CHIP
C121,C133,C230	2203-002443	C-CERAMIC,CHIP
C225,C233	2203-002487	C-CERAMIC,CHIP
C231	2203-002668	C-CERAMIC,CHIP
C118,C223	2203-002709	C-CERAMIC,CHIP
C408	2203-002982	C-CERAMIC,CHIP
C100	2203-005057	C-CERAMIC,CHIP
C113	2203-005234	C-CERAMIC,CHIP
C128	2203-005281	C-CERAMIC,CHIP
C108,C109	2203-005288	C-CERAMIC,CHIP
C134	2203-005395	C-CERAMIC,CHIP
C226	2203-005480	C-CERAMIC,CHIP

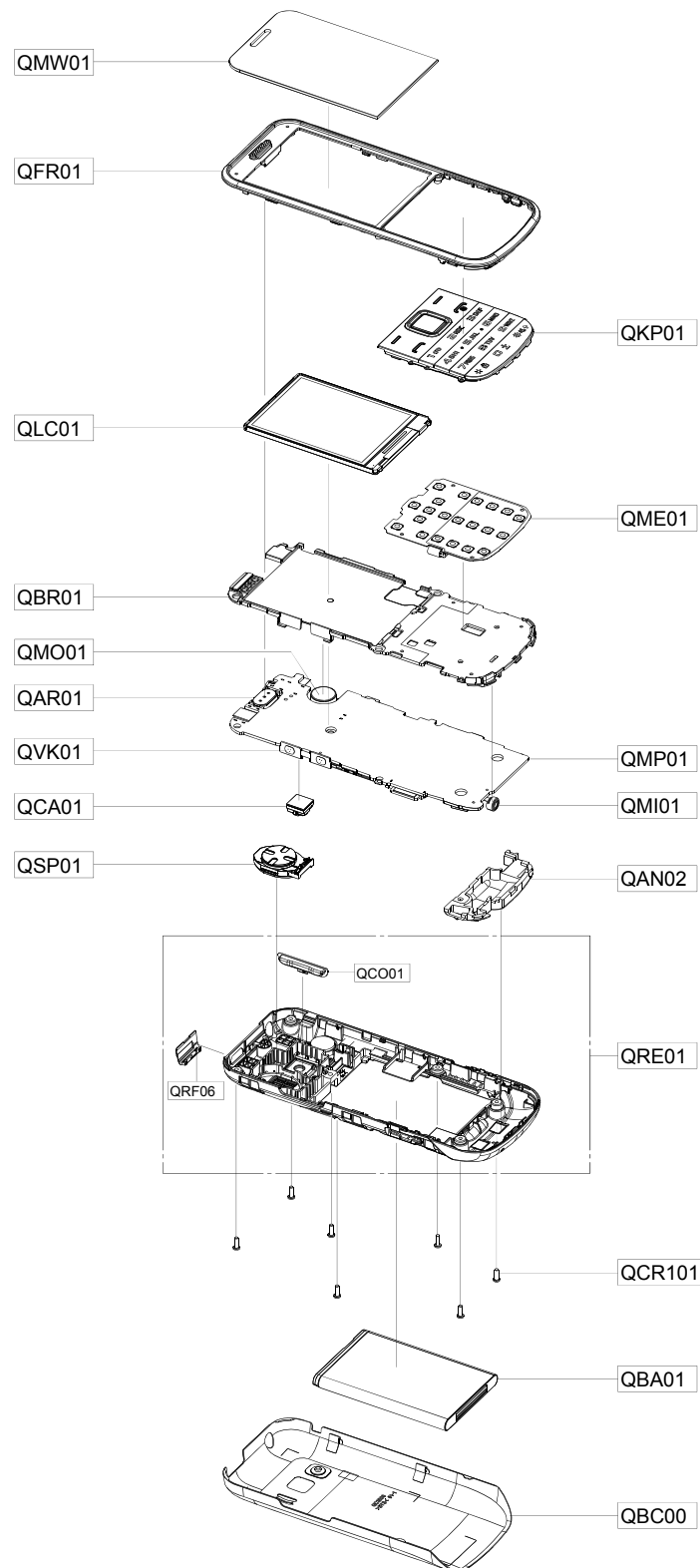
Design LOC	SEC CODE	Description
C129,C206,C224	2203-005481	C-CERAMIC,CHIP
C441,C448,C451	2203-005731	C-CERAMIC,CHIP
C424,C447,C453	2203-005734	C-CERAMIC,CHIP
C103,C200,C203,C209	2203-006048	C-CERAMIC,CHIP
C213,C218,C229,C236	2203-006048	C-CERAMIC,CHIP
C323,C423,C430,C434	2203-006048	C-CERAMIC,CHIP
C204,C420,C422	2203-006190	C-CERAMIC,CHIP
C212,C219	2203-006257	C-CERAMIC,CHIP
C216,C234,C235	2203-006260	C-CERAMIC,CHIP
C221,C222	2203-006324	C-CERAMIC,CHIP
C427	2203-006348	C-CERAMIC,CHIP
C208,C217,C237,C306	2203-006399	C-CERAMIC,CHIP
C307,C310,C311,C314	2203-006399	C-CERAMIC,CHIP
C315,C317,C319,C321	2203-006399	C-CERAMIC,CHIP
C326,C407,C428,C431	2203-006399	C-CERAMIC,CHIP
C220,C313,C322,C426	2203-006562	C-CERAMIC,CHIP
C130	2203-006647	C-CERAMIC,CHIP
C308,C309	2203-006844	C-CERAMIC,CHIP
C117,C120,C312	2203-006872	C-CERAMIC,CHIP
C210	2203-007133	C-CERAMIC,CHIP
C232	2203-007269	C-CERAMIC,CHIP
C429	2203-007271	C-CERAMIC,CHIP
C104,C320	2203-007279	C-CERAMIC,CHIP
C446,C450	2203-007317	C-CERAMIC,CHIP
C406	2203-007393	C-CERAMIC,CHIP
TA200,TA400	2404-001225	C-TA,CHIP
L121	2703-000213	INDUCTOR-SMD
L103,L104	2703-001750	INDUCTOR-SMD
L102,L106	2703-002198	INDUCTOR-SMD
L100,L122,L130	2703-002204	INDUCTOR-SMD
L129	2703-002205	INDUCTOR-SMD
L127,L128	2703-002208	INDUCTOR-SMD
L116	2703-002313	INDUCTOR-SMD
L112,L120	2703-002369	INDUCTOR-SMD
L108,L109	2703-002842	INDUCTOR-SMD
L408	2703-003485	INDUCTOR-SMD
L124	2703-003781	INDUCTOR-SMD
L201	2703-003869	INDUCTOR-SMD
L110,L111	2703-003904	INDUCTOR-SMD
OSC201	2801-004896	CRYSTAL-UNIT

Design LOC	SEC CODE	Description
OSC200	2801-004909	CRYSTAL-UNIT
F400,F401,F402	2901-001408	FILTER-EMI SMD
F101	2904-001923	FILTER-SAW
F100	2904-001924	FILTER-SAW
L400,L401,L402,L404	3301-001812	CORE-FERRITE BEAD
L403,L405,L406,L410	3301-001917	CORE-FERRITE BEAD
L200,L300,L301,L302	3301-002074	CORE-FERRITE BEAD
L303,L304,L305,L306	3301-002074	CORE-FERRITE BEAD
L307,L308,L309,L310	3301-002074	CORE-FERRITE BEAD
L311	3301-002074	CORE-FERRITE BEAD
RFS100	3705-001731	CONNECTOR-COAXIAL
SD300	3709-001575	CONNECTOR-CARD EDGE
SIM300	3709-001645	CONNECTOR-CARD EDGE
CN400	3710-003306	CONNECTOR-SOCKET
HEA400	3711-006882	CONNECTOR-HEADER
HEA300	3711-006923	CONNECTOR-HEADER
BTC300	3711-007393	CONNECTOR-HEADER
IFC400	3722-002871	JACK-PHONE
F102	4709-001615	RF-MODULE
SC101,SC102,SC103	GH70-03349A	IPR SHIELD-CAN CLIP
SC104	GH70-03349A	IPR SHIELD-CAN CLIP
ANT100,ANT101	GH71-08731A	NPR-CONTACT ANT
R115	GH80-03320A	PB-SHORT-1005
R100,R101,R207,R301	GH80-03320A	PB-SHORT-1005
R336,R409,R412,R434	GH80-03320A	PB-SHORT-1005
EAR400	3722-003139	JACK-PHONE
UME200	1108-000355	MEMORY
ANT102	4202-001525	ANTENNA-CHIP

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

4. Exploded View and Parts List

4-1. Cellular phone Exploded View



- This Document can not be used without Samsung's authorization -

5-2. Cellular phone Parts list : GT-C3530HSATUR

Design LOC	Description	SEC CODE
QAN02	ANTENNA-GT-C3530	GH42-02703A
QAR01	AUDIO-RECEIVER	3009-001512
QBA01	INNER BATTERY PACK-AB463651BU,960MAH	GH43-03216A
QBC00	ASSY COVER-BATTERY	GH98-18172A
QBR01	ASSY CASE-BRACKET	GH98-18134A
QCA01	CAMERA MODULE	GH59-09685A
QCO01	PMO KEY-VOLUME V2	GH72-61919A
QCR101	SCREW-MACHINE	6001-002005
QFR01	ASSY CASE-FRONT	GH98-18133A
QKP01	ASSY KEYPAD-MAIN KEY	GH98-18136A
QLC01	ASSY LCD-GT-C3530_2.2",QVGA	GH96-04930A
QME01	KEY FPCB-MAIN KEY PBA(GT-C3530)	GH59-09911A
QMI01	MICROPHONE-ASSY-GT-C3530	GH30-00700A
QMO01	MOTOR DC-SGHT539	GH31-00328A
QMP01	A/S ASSY-PBA MAIN(TURK)GT-C3530	GH82-05330A
QMW01	ASSY COVER-MAIN WINDOW	GH98-18449A
QRE01	ASSY CASE-REAR	GH98-18135A
QRF06	PMO COVER-USB V2	GH72-61917A
QSP01	SPEAKER	3001-002529
QVK01	KEY FPCB-VOLUME KEY(GT-C3530)	GH59-09915A

2. Specification

2-1. GSM General Specification

	GSM900 Phase 1	GSM850 Phase 1	DCS1800 Phase 1	PCS1900
Freq. Band[MHz] Uplink/Downlink	880~915 925~960	824.2~848.8 869.2~893.8	1710~1785 1805~1880	1850~1910 1930~1990
ARFCN range	0~124 & 975~1023	128~251	512~885	512~810
Tx/Rx spacing	45MHz	45MHz	95MHz	80MHz
Mod. Bit rate/ Bit Period	270.833kbps 3.692us	270.833kbps 3.692us	270.833kbps 3.692us	270.833kbps 3.692us
Time Slot Period/Frame Period	576.9us 4.615ms	576.9us 4.615ms	576.9us 4.615ms	576.9us 4.615ms
Modulation	0.3GMSK	0.3GMSK	0.3GMSK	0.3GMSK
MS Power	33dBm~5dBm	33dBm~5dBm	30dBm~0dBm	30dBm~0dBm
Power Class	5pcl ~ 19pcl	5pcl ~ 19pcl	0pcl ~ 15pcl	0pcl ~ 15pcl
Sensitivity	-102dBm	-102dBm	-100dBm	-100dBm
TDMA Mux	8	8	8	8
Cell Radius	35Km	35Km	2Km	-

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±4dBm	11	8±4dBm
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

2-3. GSM EDGE TX power class

Only in Master

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

3. Operation Instruction and Installation

Main Function

- Quad Band 2G(GSM850+EGSM900+DCS1800+PCS1900)
- GPRS Class12, EDGE Class12(Rx only)
- FM Radio
- Bluetooth v2.1 + EDR
- TFT 2.2" 262k Color
- 3M CMOS Camera
- MP3 Player
- 3.5mm EAR-JACK

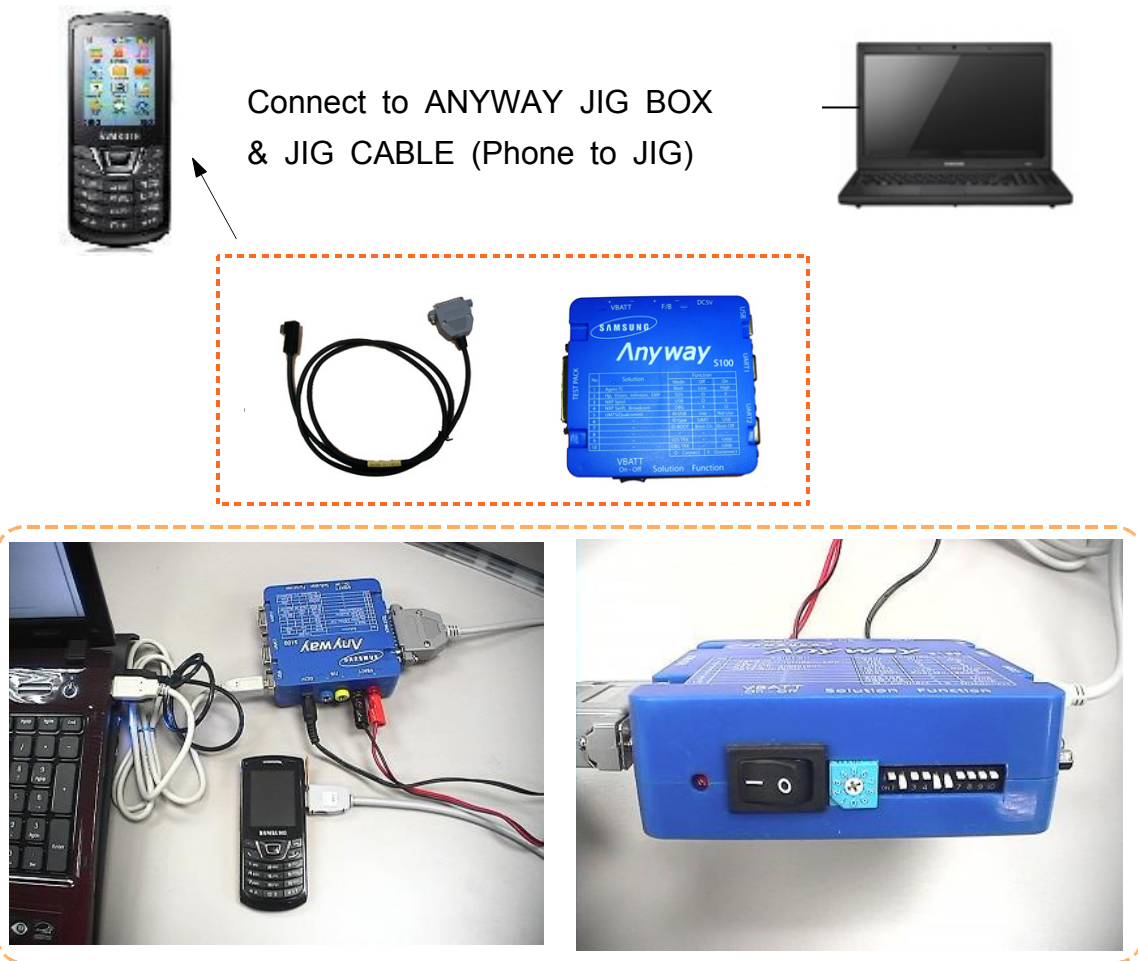
6. Level 1 Repair

6-1. S/W Download

6-1-1. Pre-requisite for S/W Downloading

- Downloader Program ([Flash tool_E2](#))
- GT-C3530 Mobile Phone
- Data Cable
- JIG BOX (GH99-36900A)
- RF Test Cable (GH39-00985A)
- JIG Cable (GH39-01160A)
- Adapter (GH99-38251A)
- Serial Cable
- Binary files

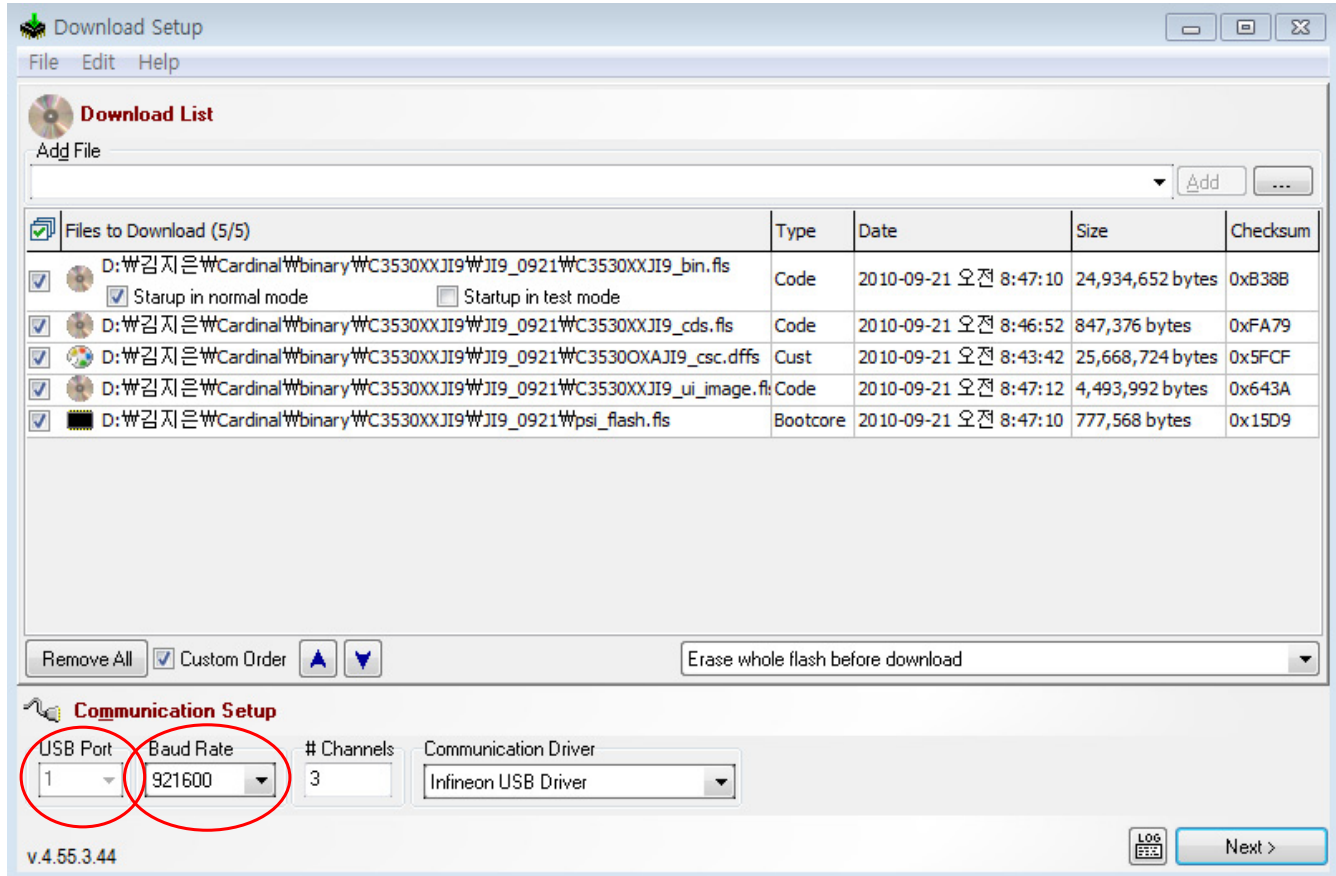
— Settings



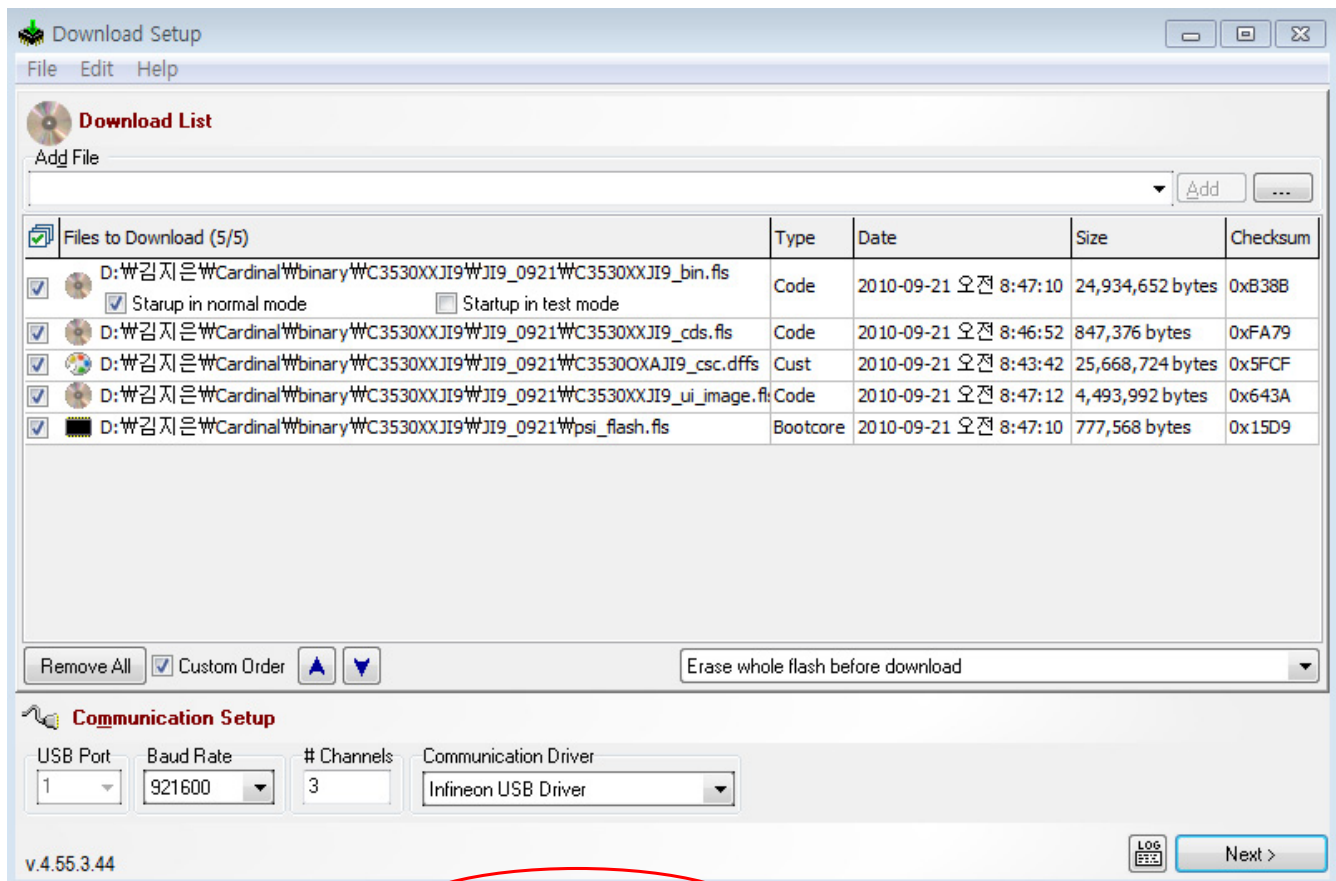
6-1-2. S/W Downloader Program

- ↳ Load the binary download program by executing the
" **Flash tool_E2** " ← enter this file.

1. Select the connected serial port and the rate of speed.

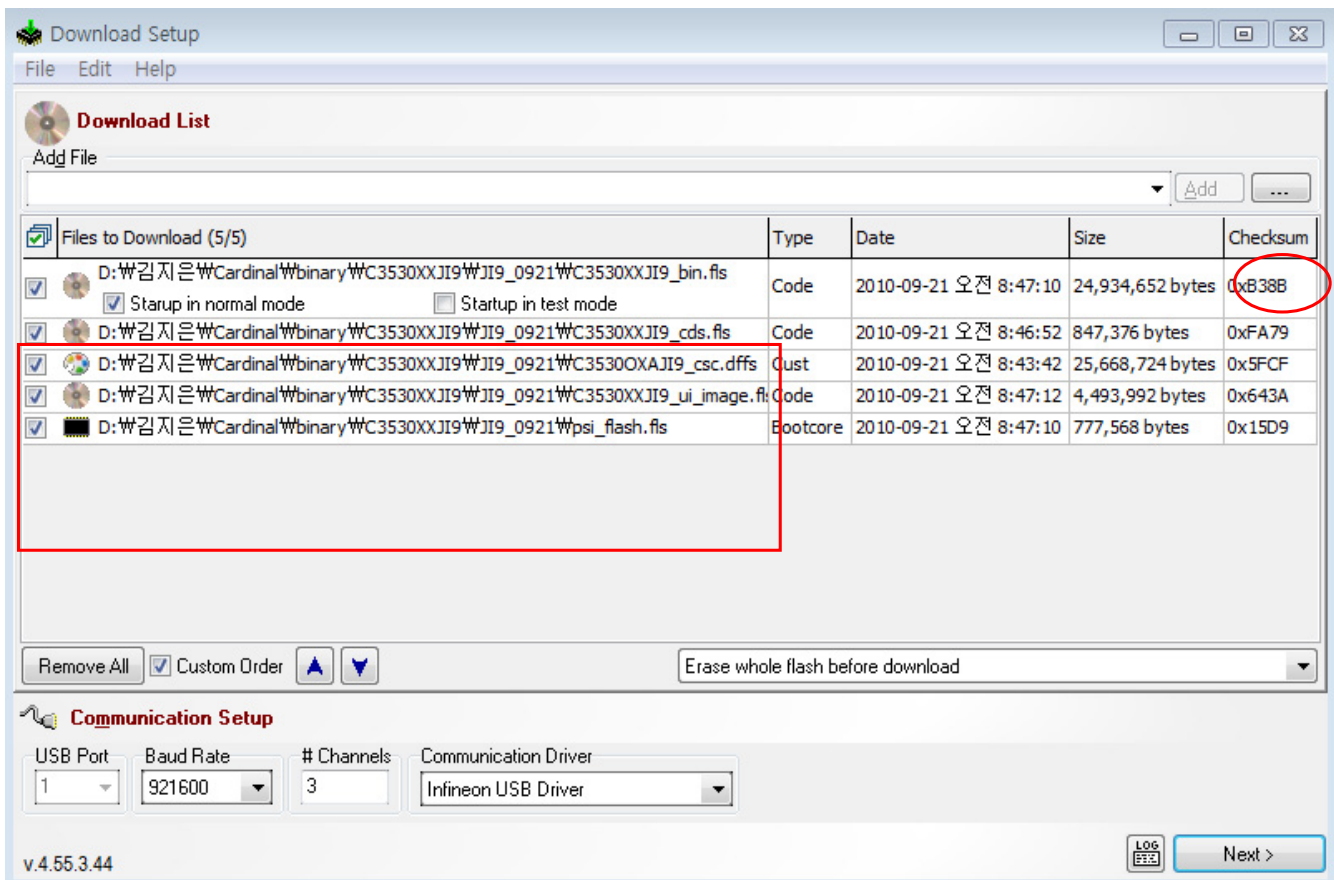


2. Select communication driver as Infineon USB driver.

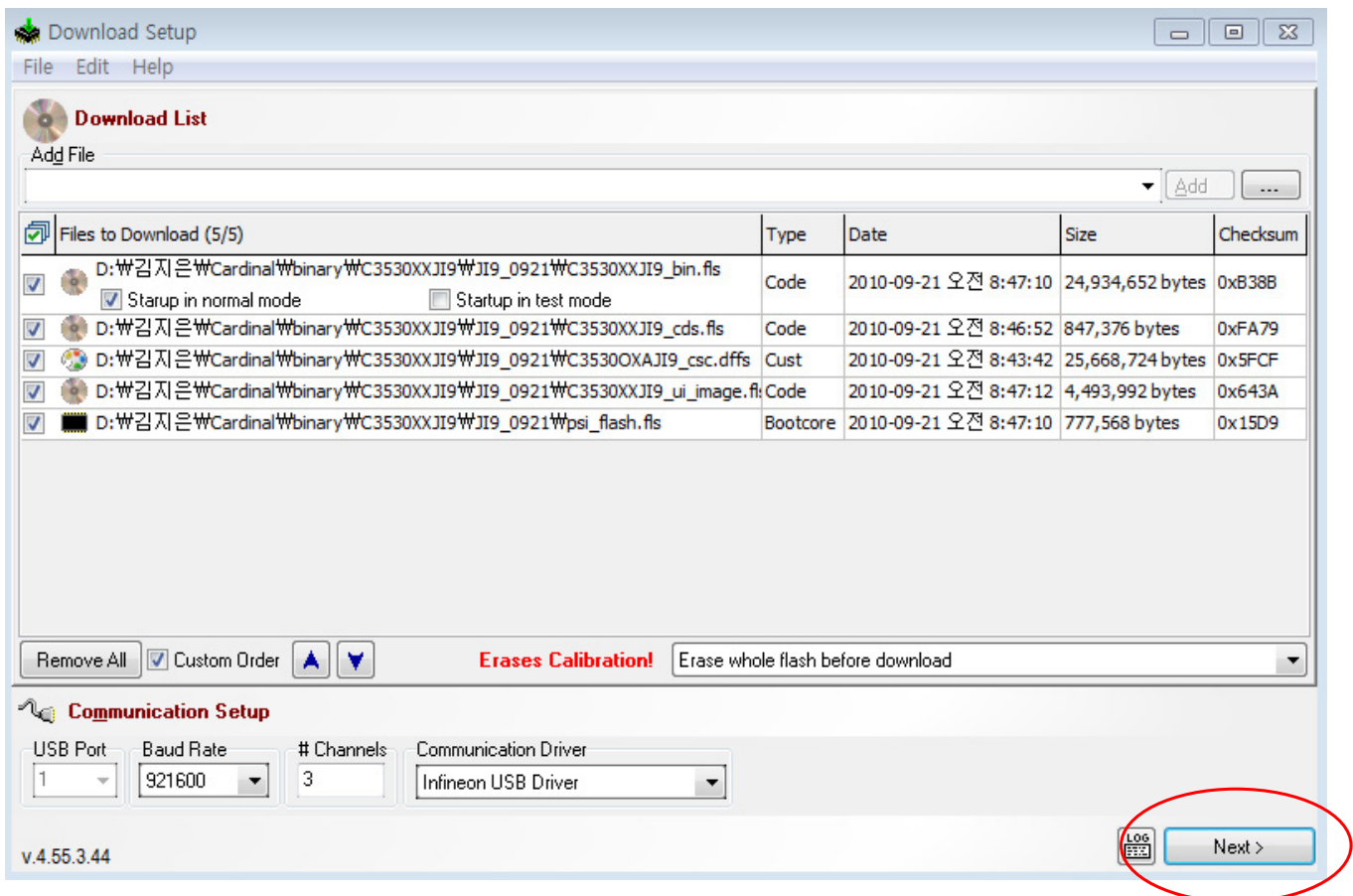


3. Select the Binary in sequence of

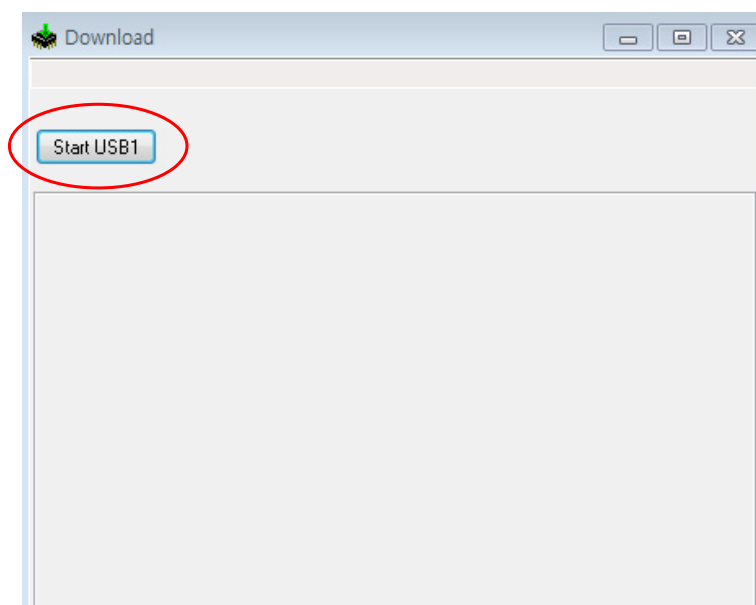
"_bin.flc", "_cds.flc", ".dffc", "_ui_image.flc", "psi_flash.flc"



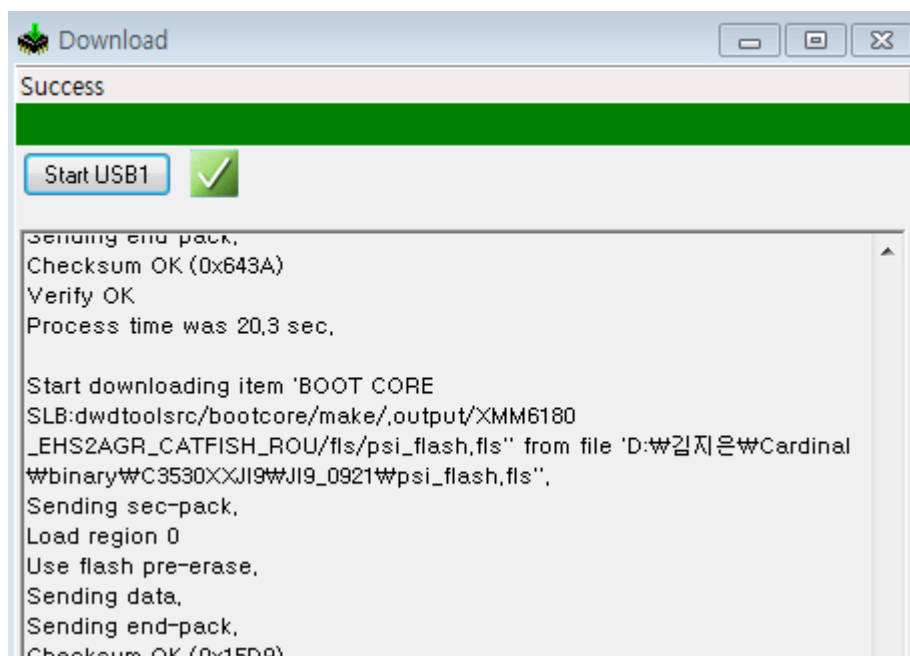
4. Press the "Next" button.



5. Press Start USB1 and connect the Handset.



6. When downloading is complete, you can see green bar.



7. Confirm the downloaded version name and etc. :

***#1234#**

Full Reset :

***2767*3855#**

9. Reference Abbreviate

Reference Abbreviate

- **AAC**: Advanced Audio Coding.
- **AVC** : Advanced Video Coding.
- **BER** : Bit Error Rate
- **BPSK**: Binary Phase Shift Keying
- **CA** : Conditional Access
- **CDM** : Code Division Multiplexing
- **C/I** : Carrier to Interference
- **DMB** : Digital Multimedia Broadcasting
- **EN** : European Standard
- **ES** : Elementary Stream
- **ETSI**: European Telecommunications Standards Institute
- **MPEG**: Moving Picture Experts Group
- **PN** : Pseudo-random Noise
- **PS** : Pilot Symbol
- **QPSK**: Quadrature Phase Shift Keying
- **RS** : Reed-Solomon
- **SI** : Service Information
- **TDM** : Time Division Multiplexing
- **TS** : Transport Stream

1. Safety Precautions

1-1. Repair Precaution

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

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.