

**SAMSUNG**

**GSM TELEPHONE  
SGH-E600/E608**

# ***SERVICE*** *Manual*

**GSM TELEPHONE**



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3. Exploded Views and Parts List
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# 1. SGH-E600/E608 Specification

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## 1. GSM General Specification

	GSM900 Phase 1	EGSM 900 Phase 2	DCS1800 Phase 1	PCS1900
Freq. Band[MHz] Uplink/Downlink	890~915 935~960	880~915 925~960	1710~1785 1805~1880	1850~1910 1930~1990
ARFCN range	1~124	0~124 & 975~1023	512~885	512~810
Tx/Rx spacing	45MHz	45MHz	95MHz	80MHz
Mod. Bit rate/ Bit Period	270.833kbps 3.692us	270.833kbps 3.692us	270.833kbps 3.692us	270.833kbps 3.692us
Time Slot Period/Frame Period	576.9us 4.615ms	576.9us 4.615ms	576.9us 4.615ms	576.9us 4.615ms
Modulation	0.3GMSK	0.3GMSK	0.3GMSK	0.3GMSK
MS Power	33dBm~13dBm	33dBm~5dBm	30dBm~0dBm	30dBm~0dBm
Power Class	5pcl ~ 15pcl	5pcl ~ 19pcl	0pcl ~ 15pcl	0pcl ~ 15pcl
Sensitivity	-102dBm	-102dBm	-100dBm	-100dBm
TDMA Mux	8	8	8	8
Cell Radius	35Km	35Km	2Km	-

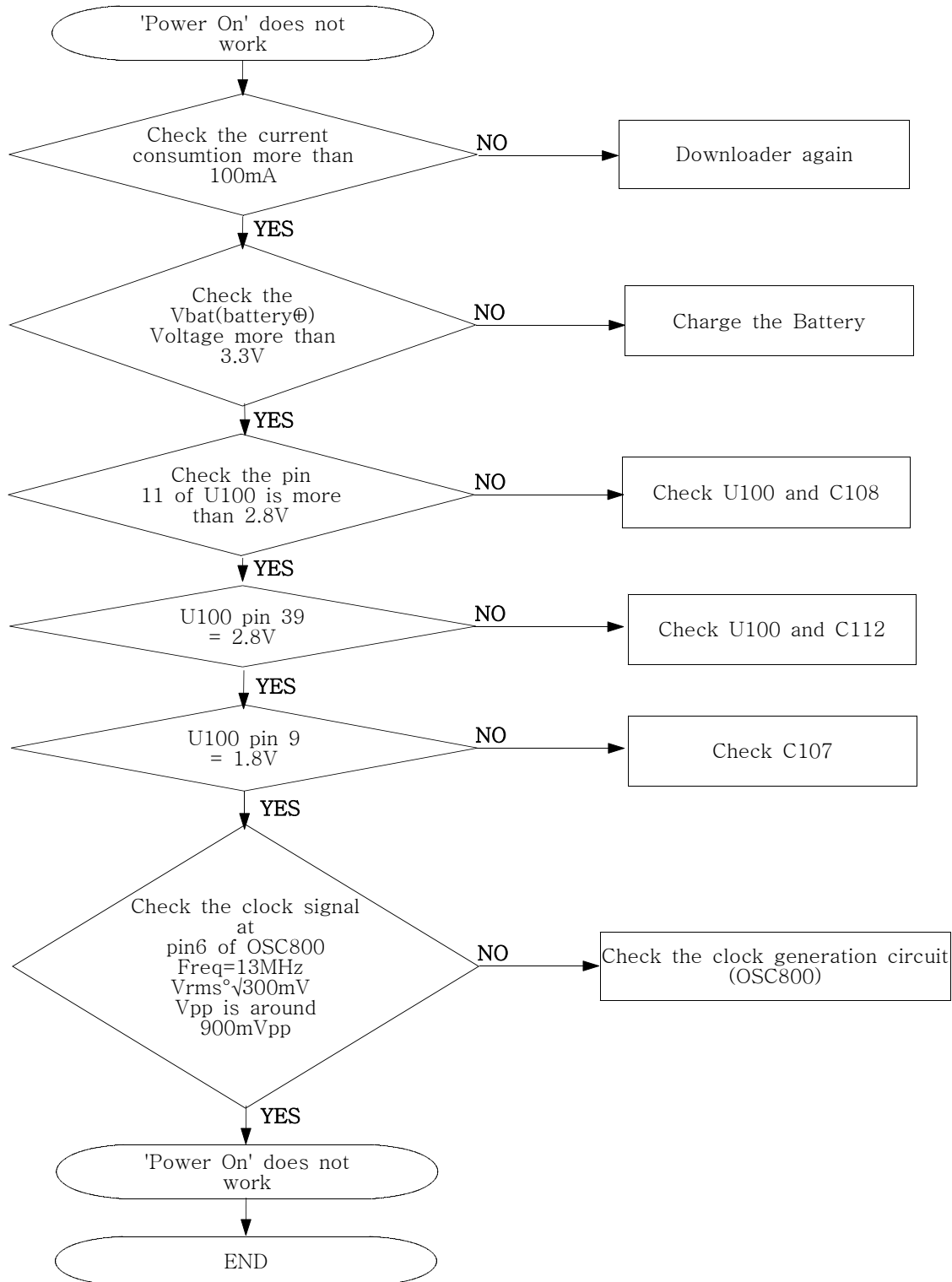
2. GSM TX power class

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

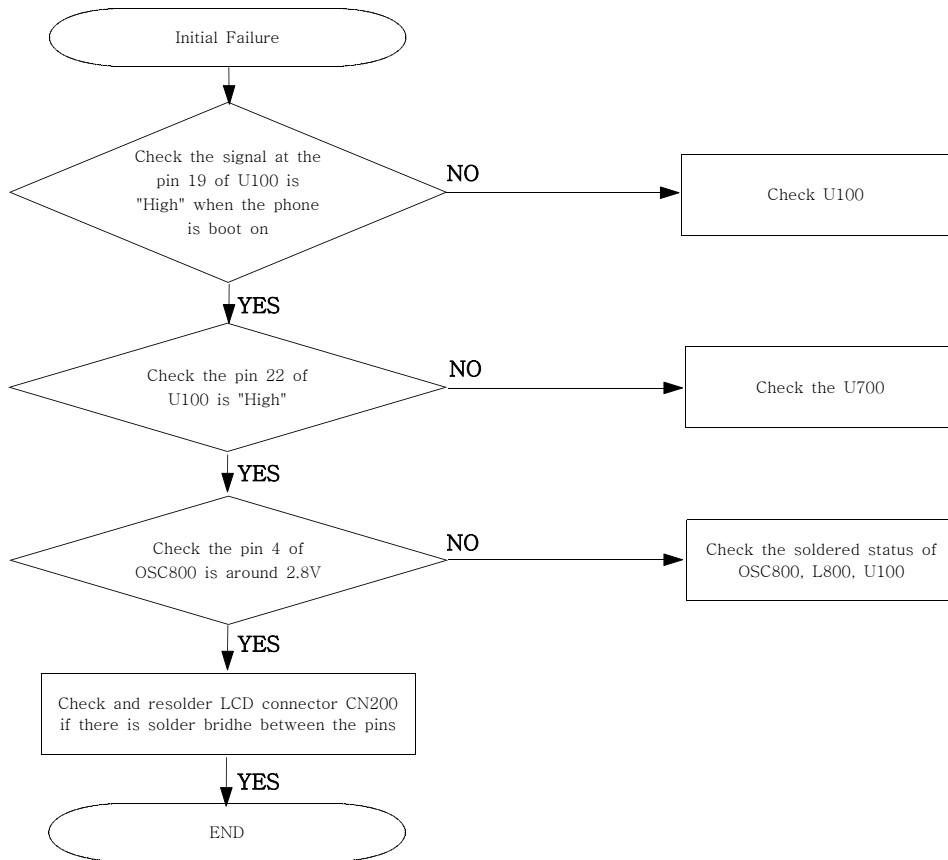
## 2. SGH-E600/E608 Flow Chart of Troubleshooting and Circuit Diagrams

### 1. Baseband

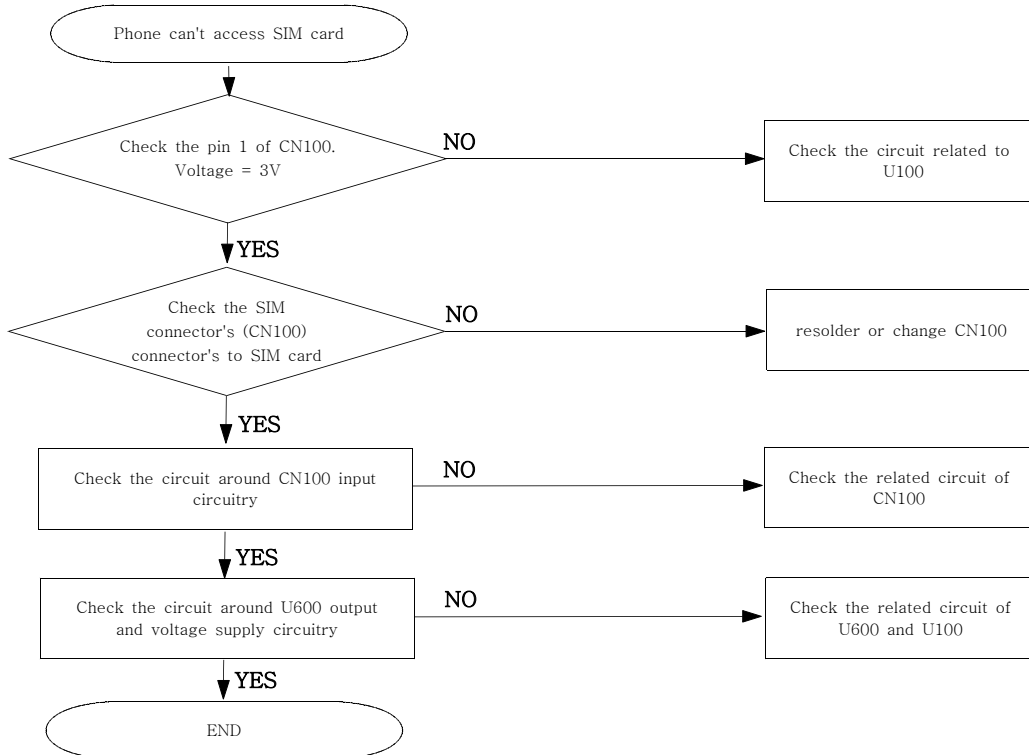
#### 1. Power ON

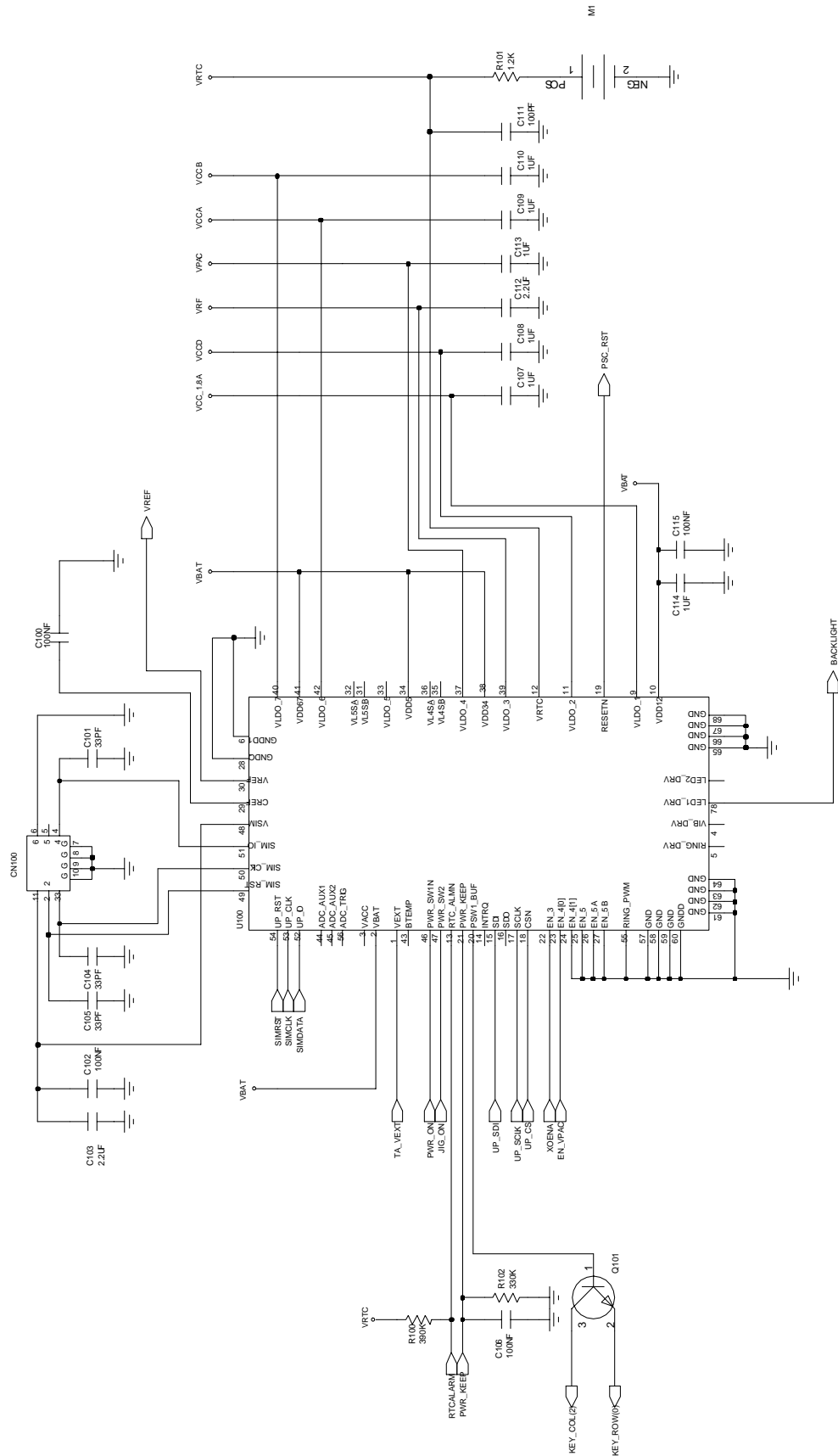


**2. Initial**

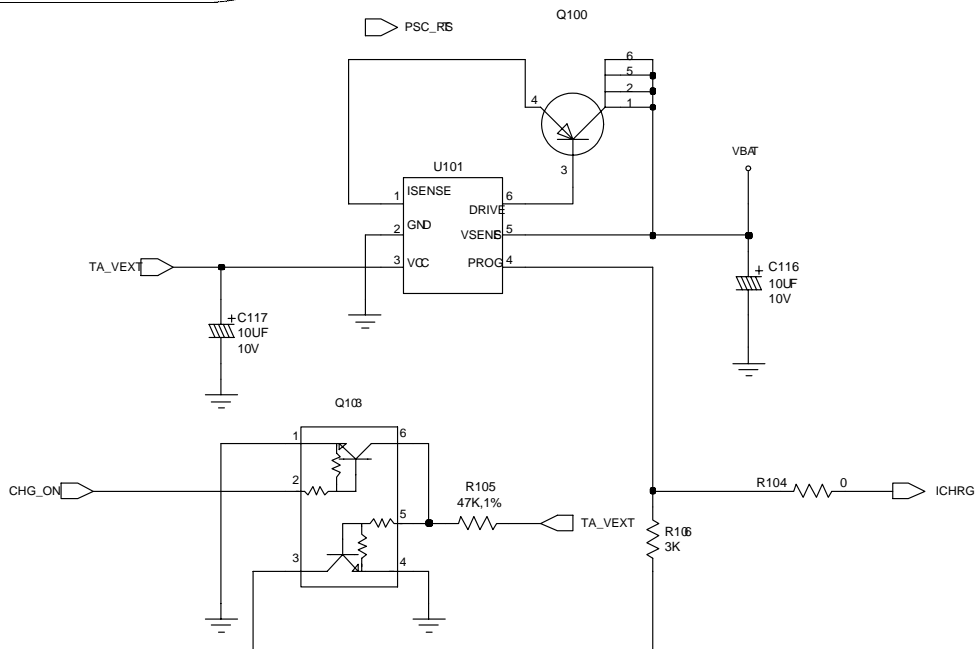
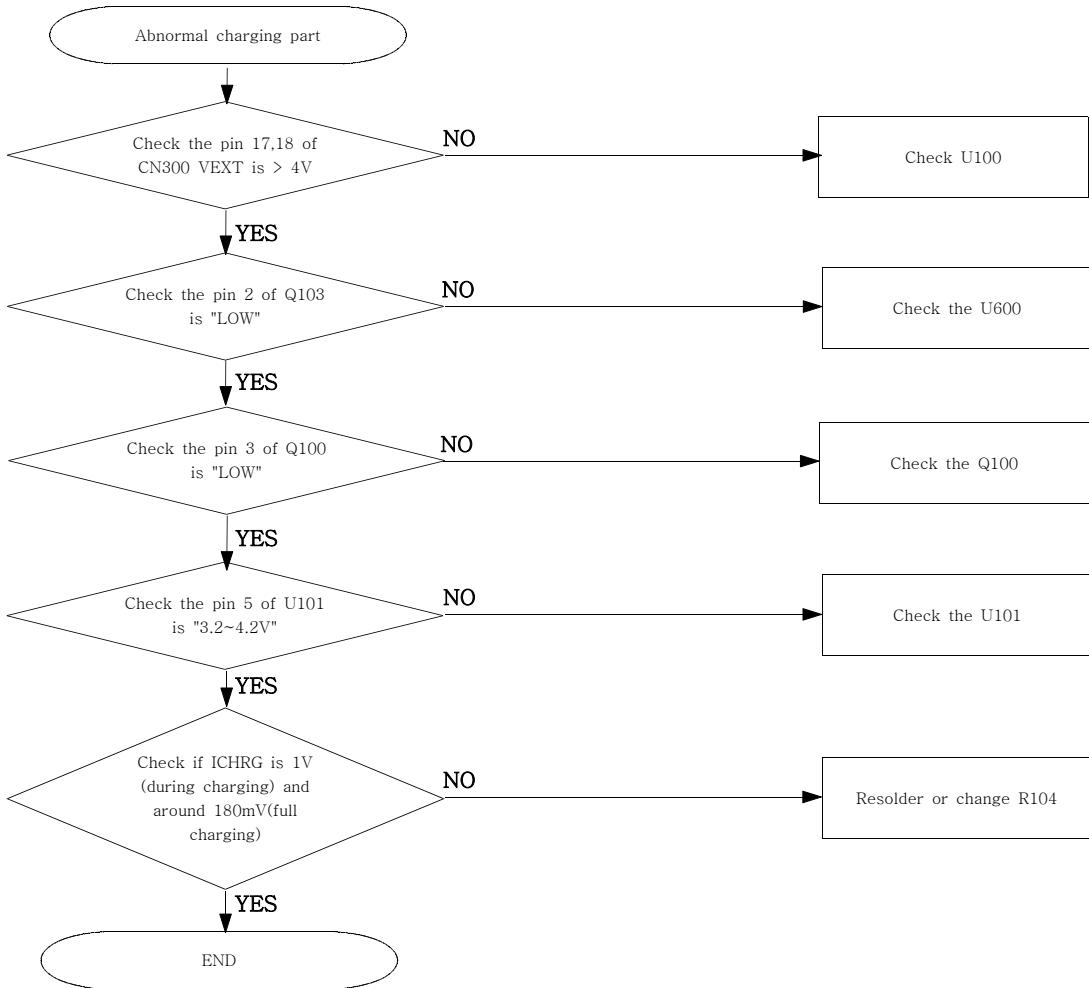


**3. Sim Part**

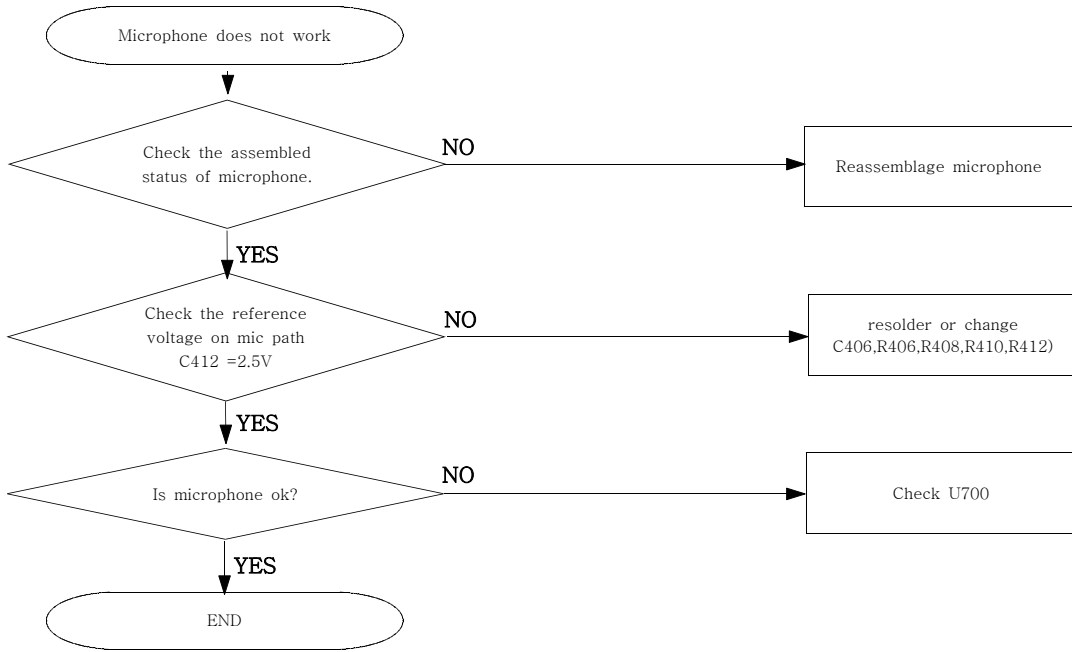




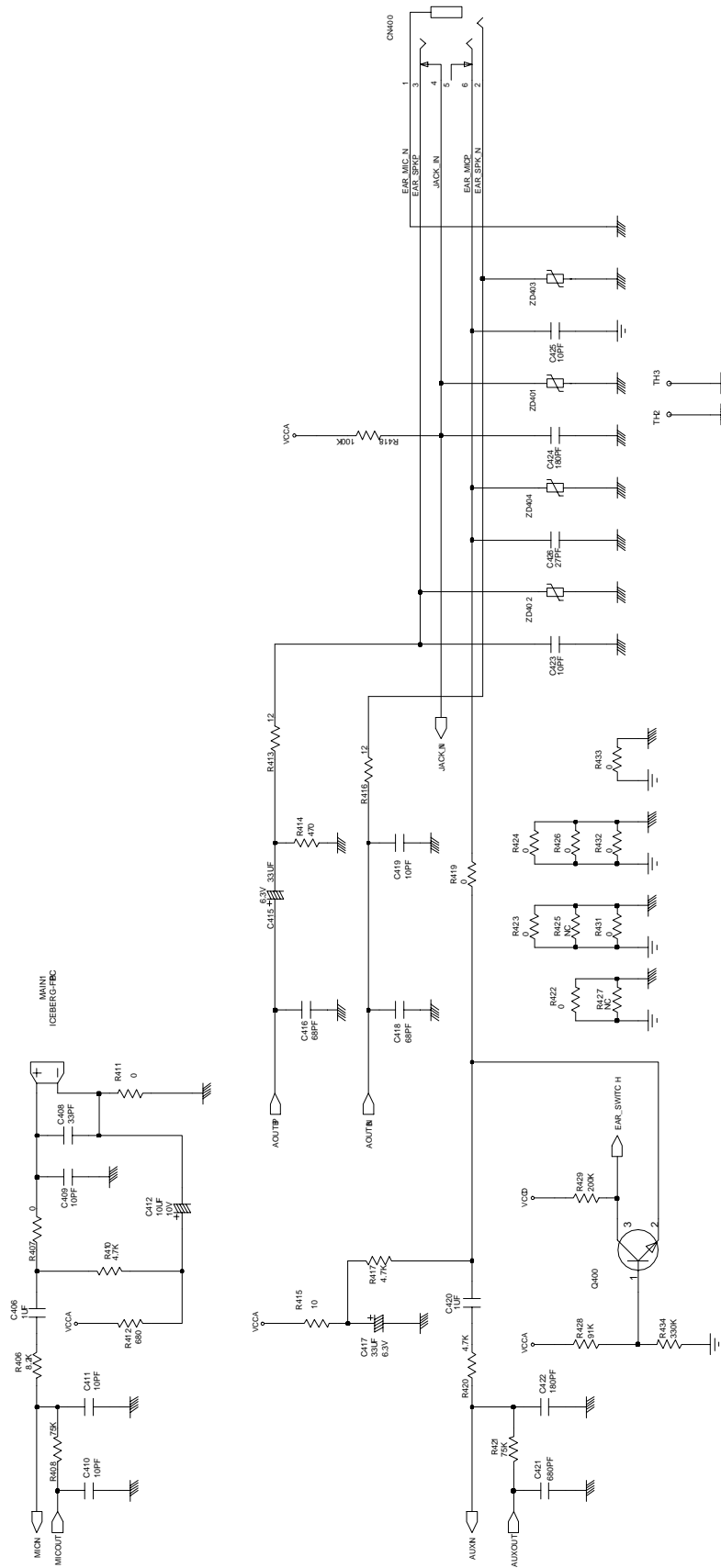
### 4. Charging Part



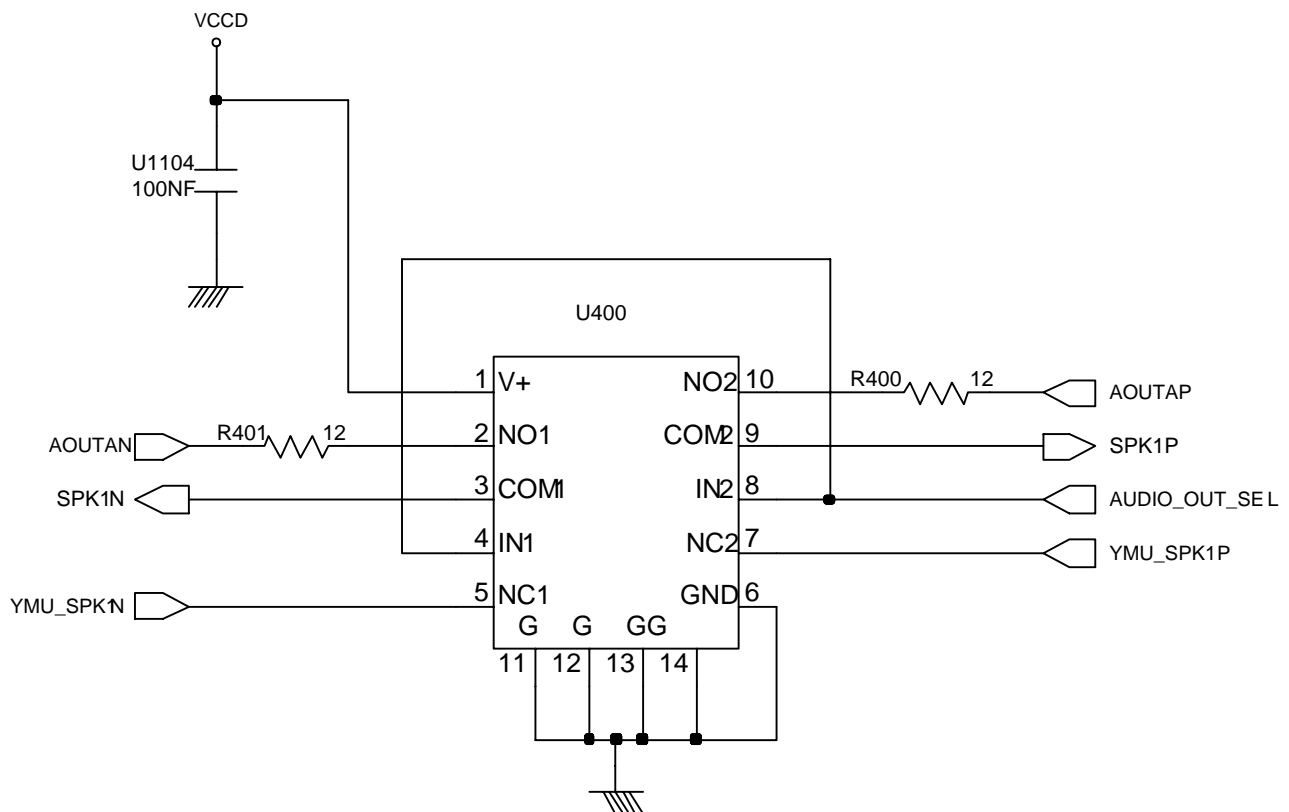
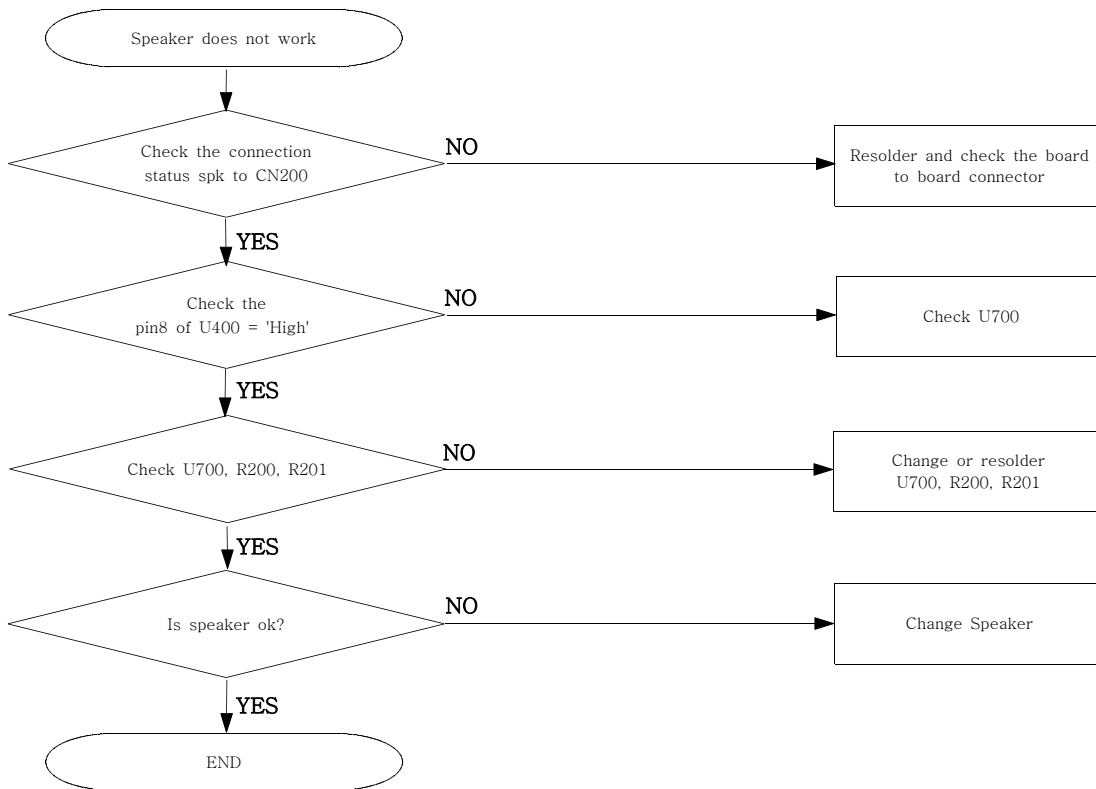
## 5. Microphone Part



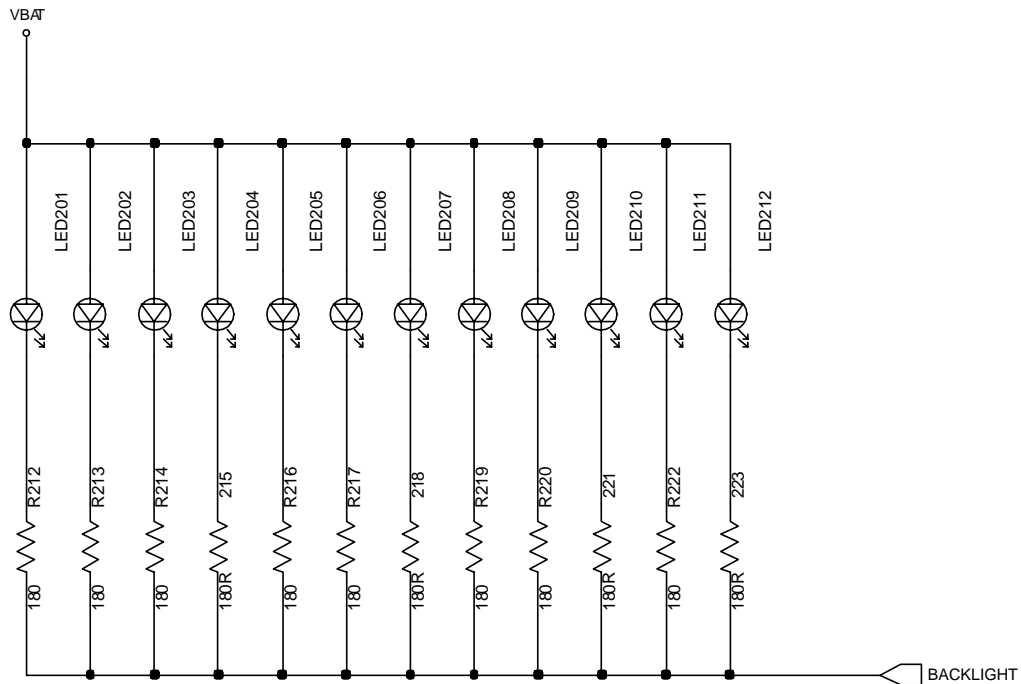
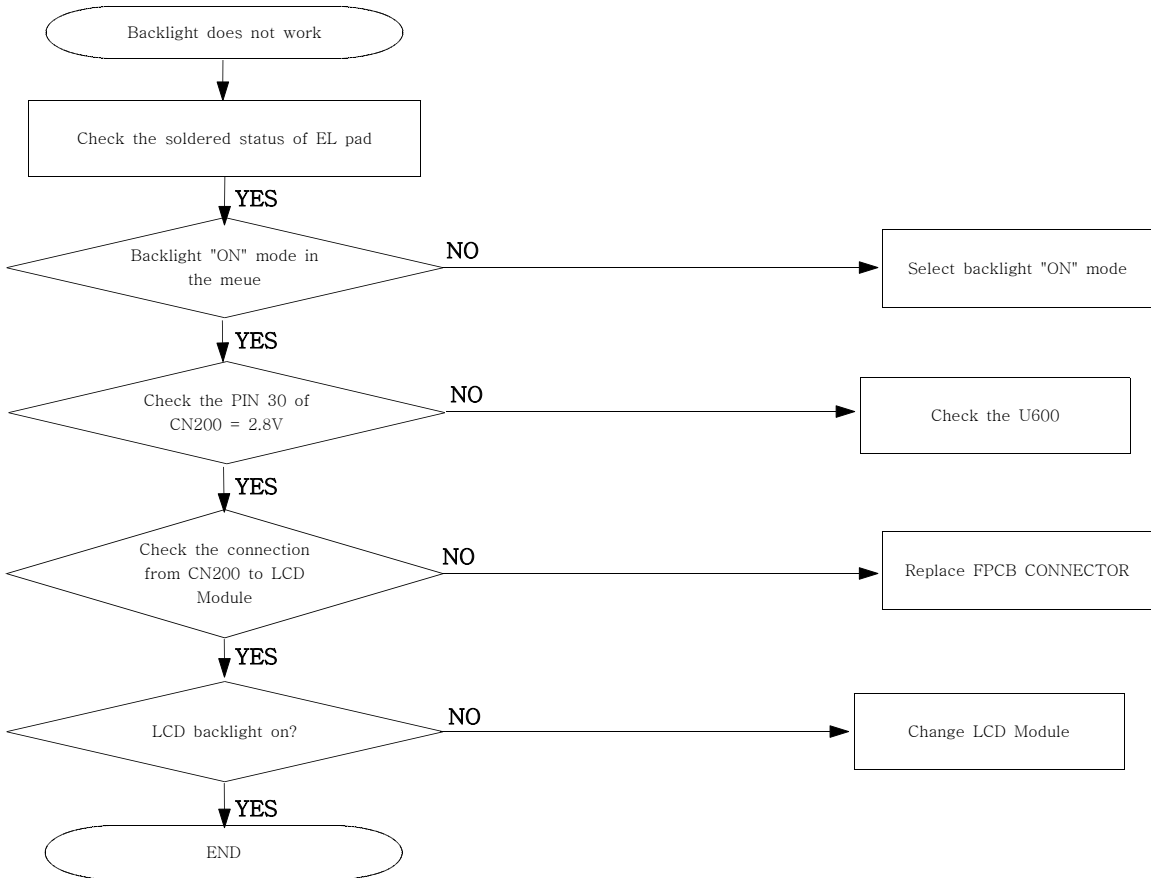




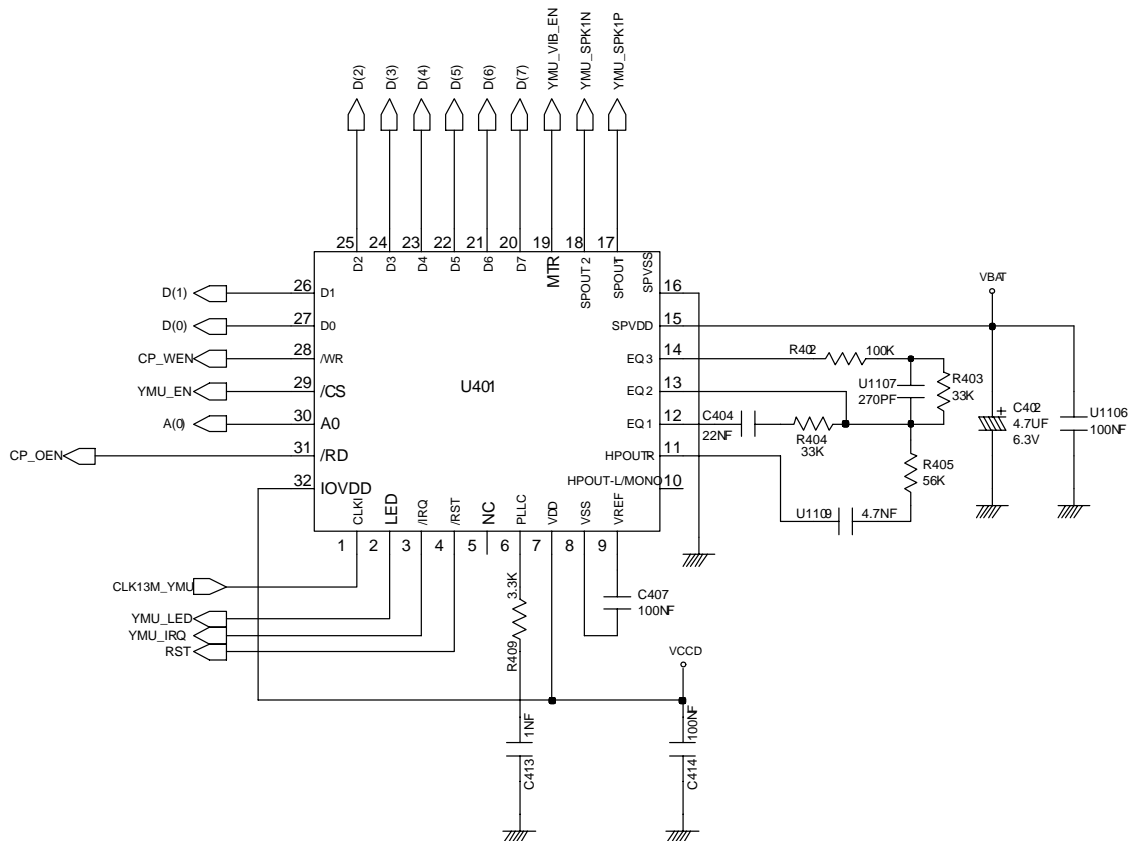
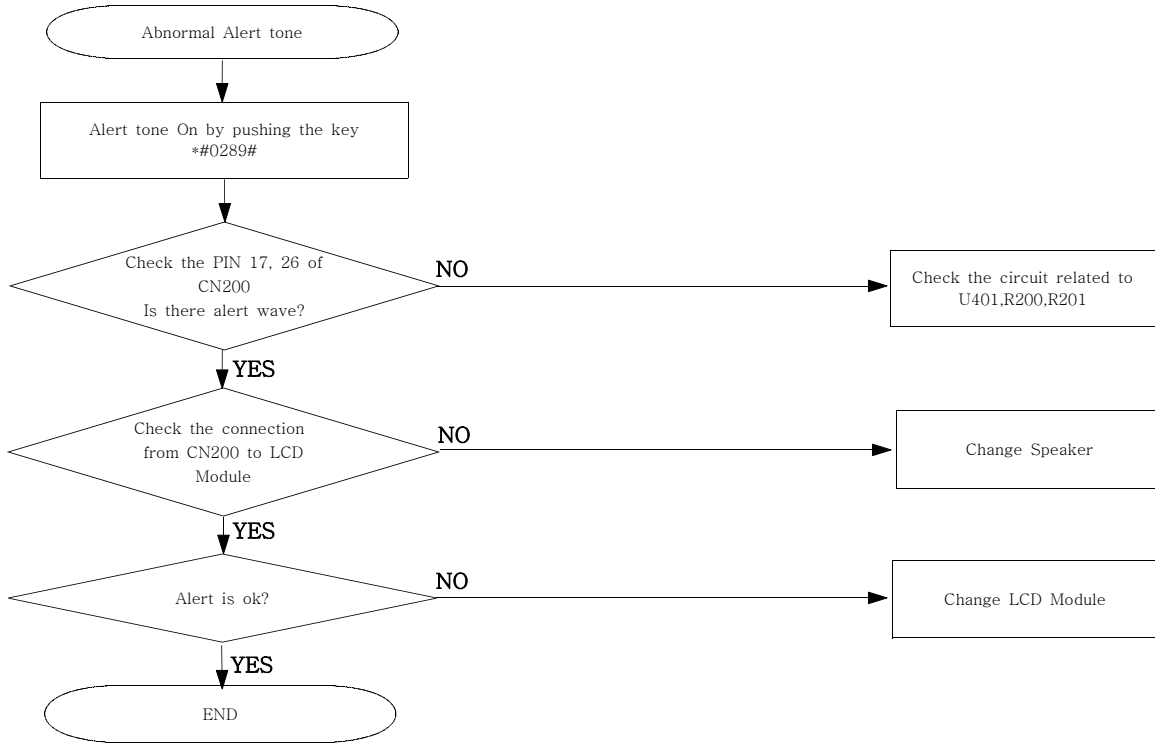
## 6. Speaker Part



### 7. Back Light

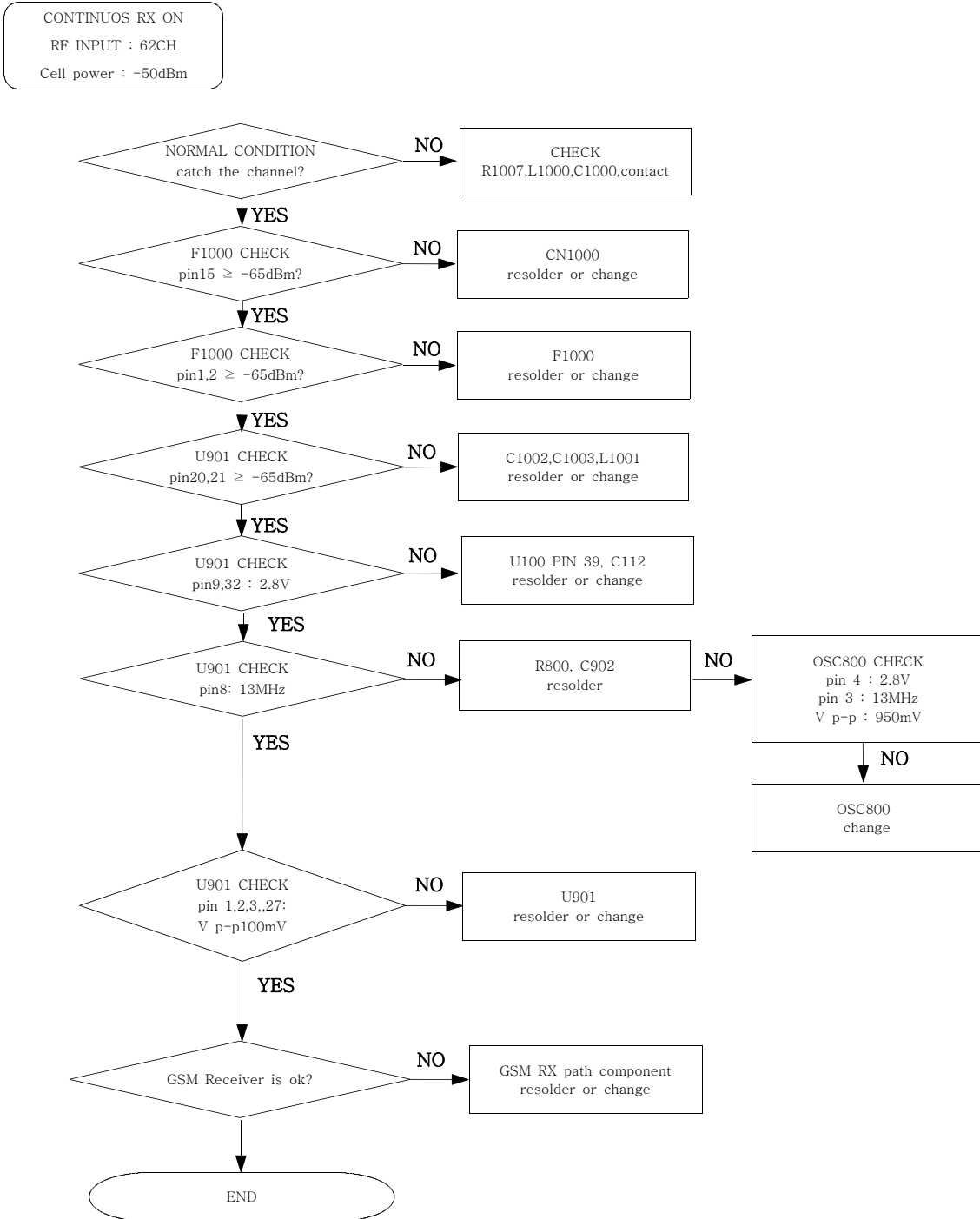


### 8.Alert Tone



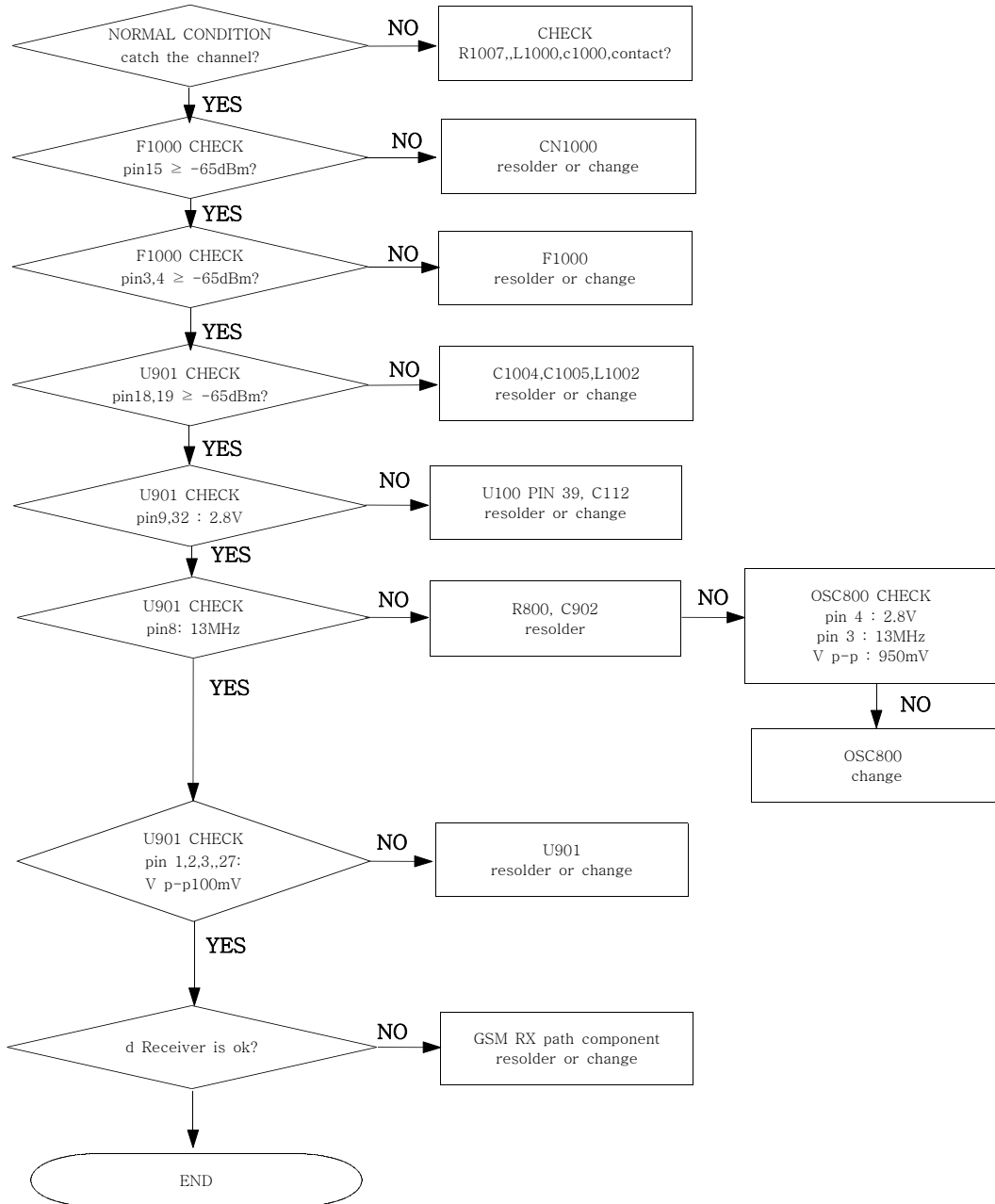
## 2.RF

### 1. GSM Receiver



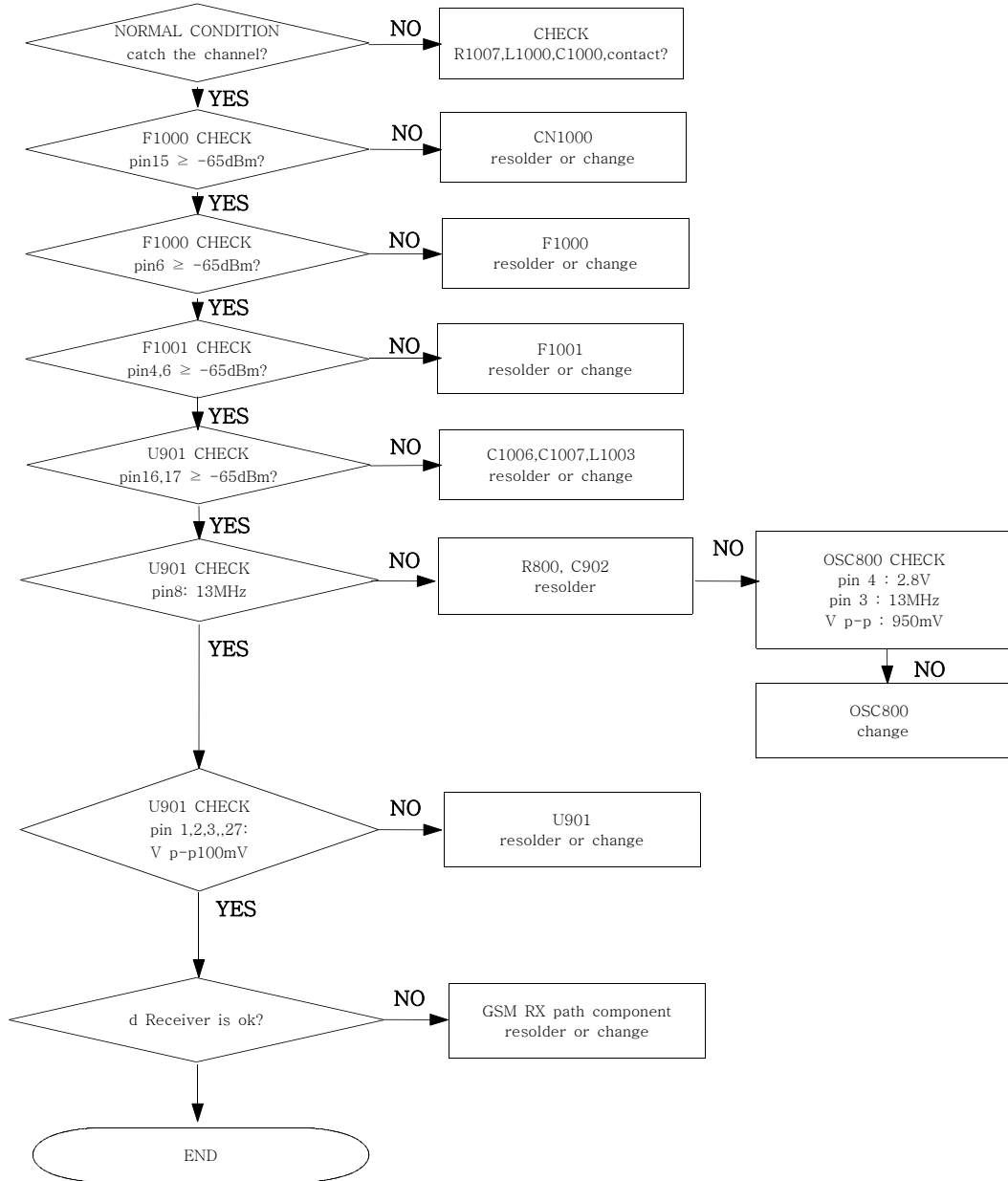
2. DCS Receiver

CONTINUOUS RX ON  
 RF INPUT : 698CH  
 Cell power : -50dBm

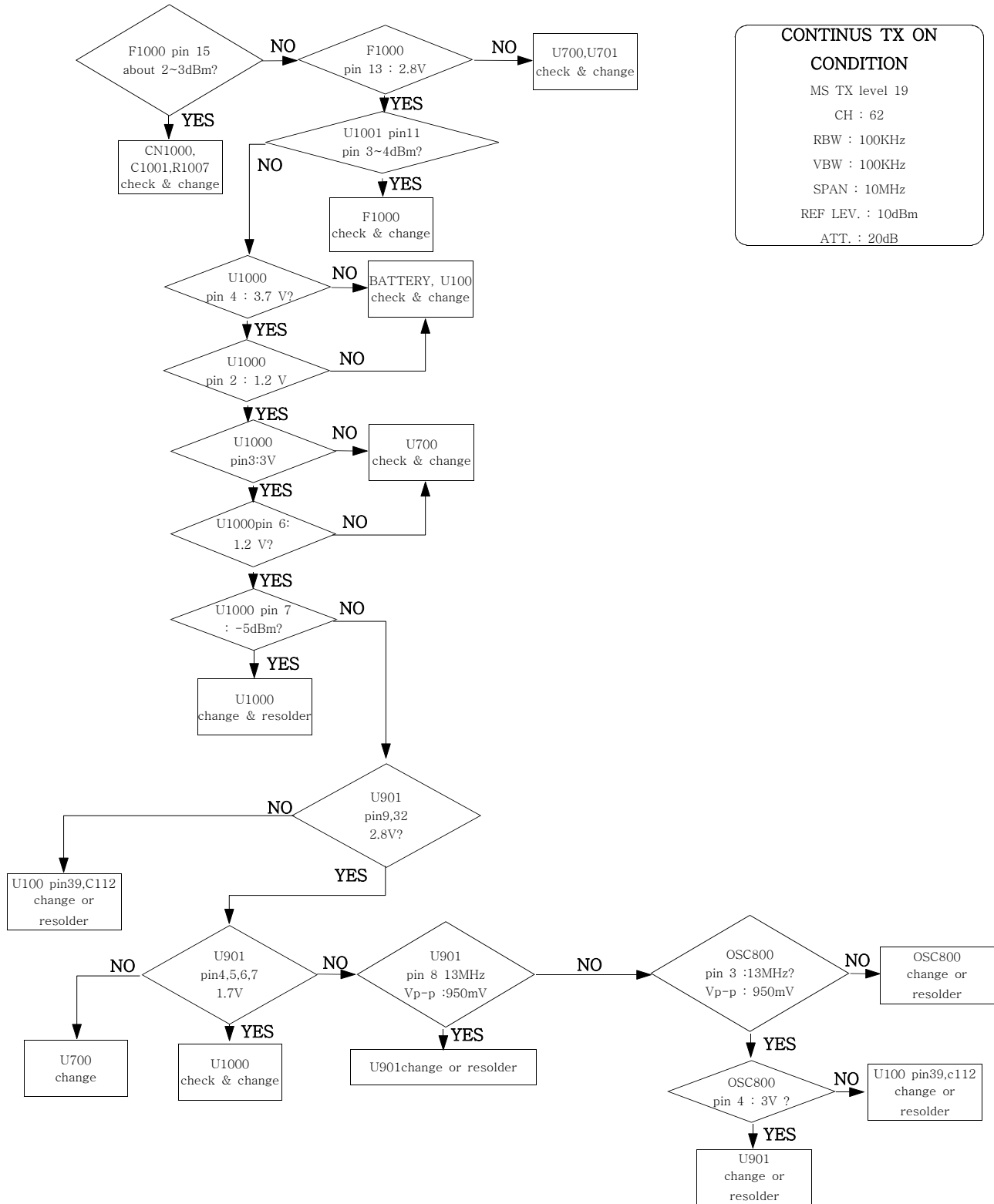


### 3. PCS Receiver

CONTINUOUS RX ON  
 RF INPUT : 698CH  
 Cell power : -50dBm



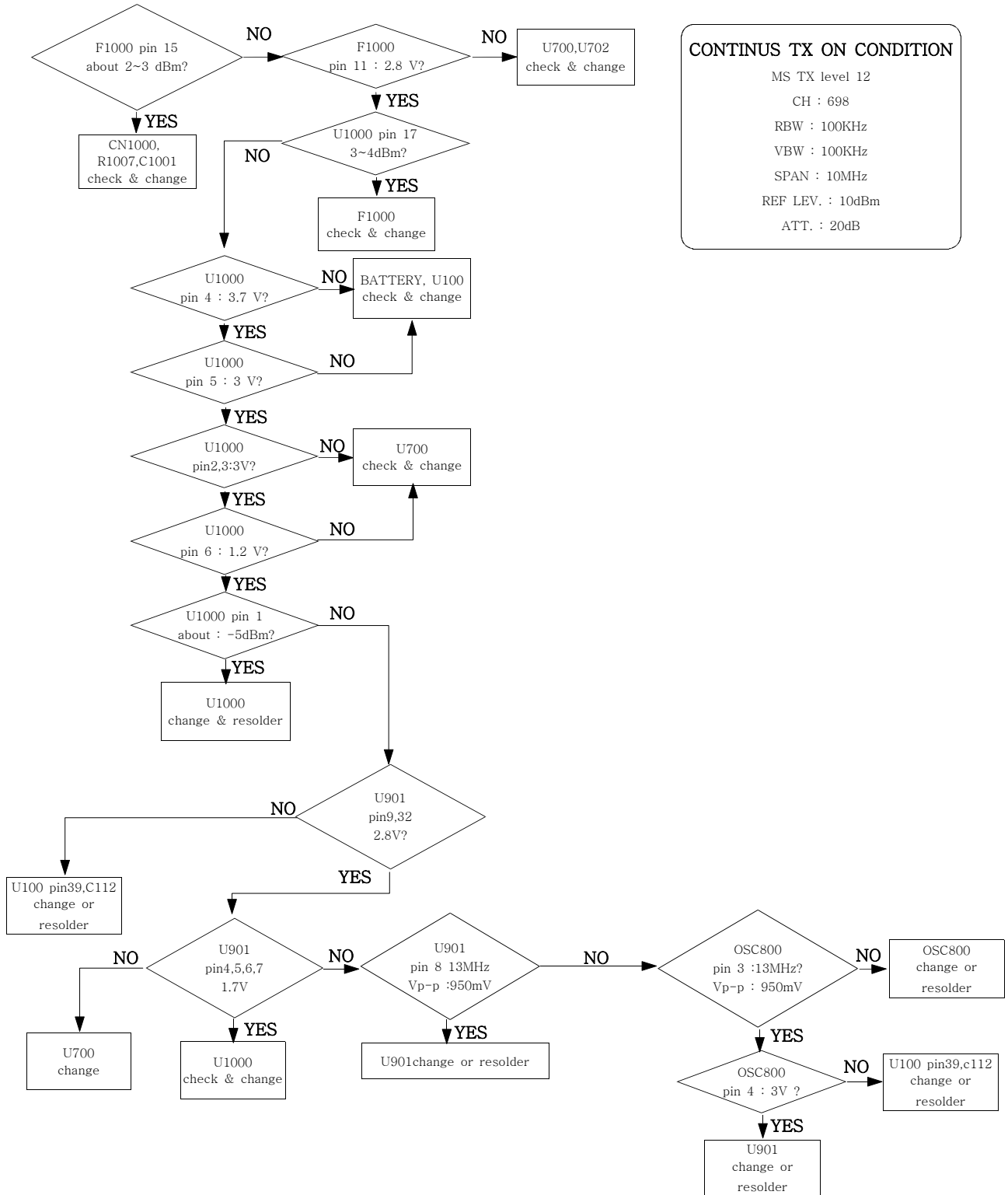
4. GSM Transmitter



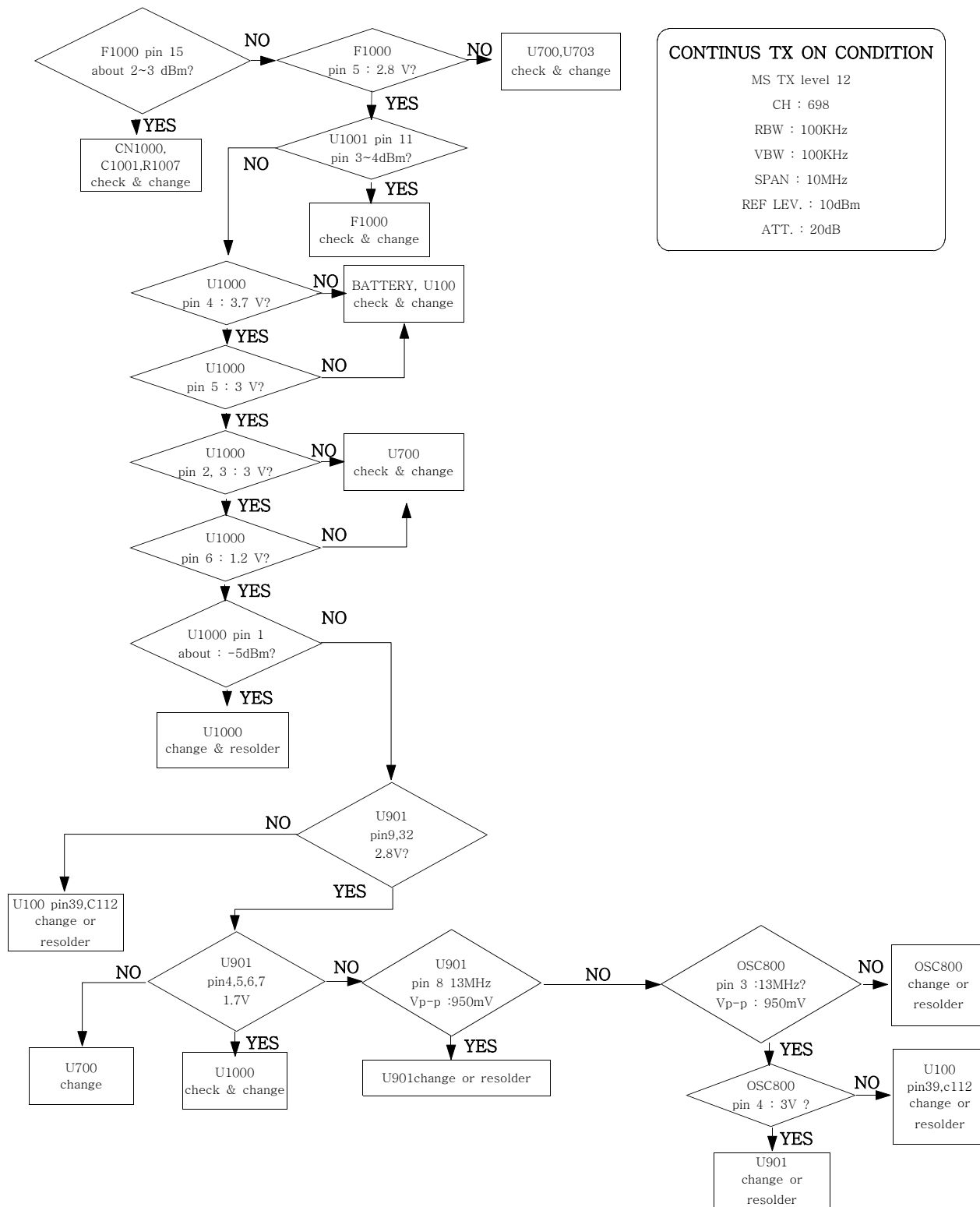
**CONTINUS TX ON**  
**CONDITION**  
 MS TX level 19  
 CH : 62  
 RBW : 100KHz  
 VBW : 100KHz  
 SPAN : 10MHz  
 REF LEV. : 10dBm  
 ATT. : 20dB

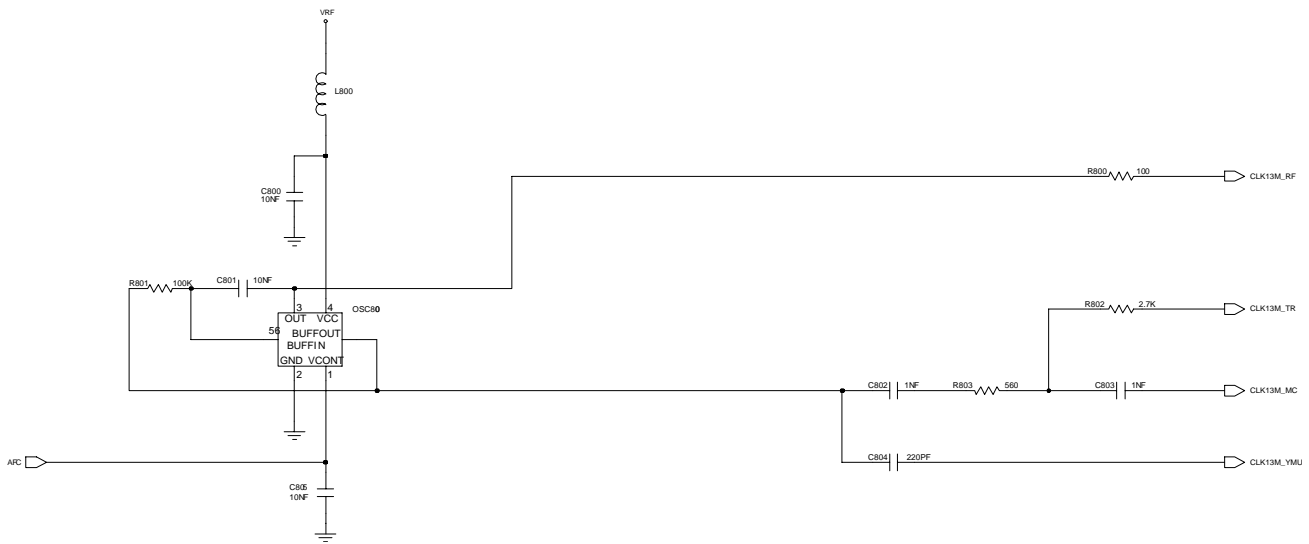


5. DCS Transmitter

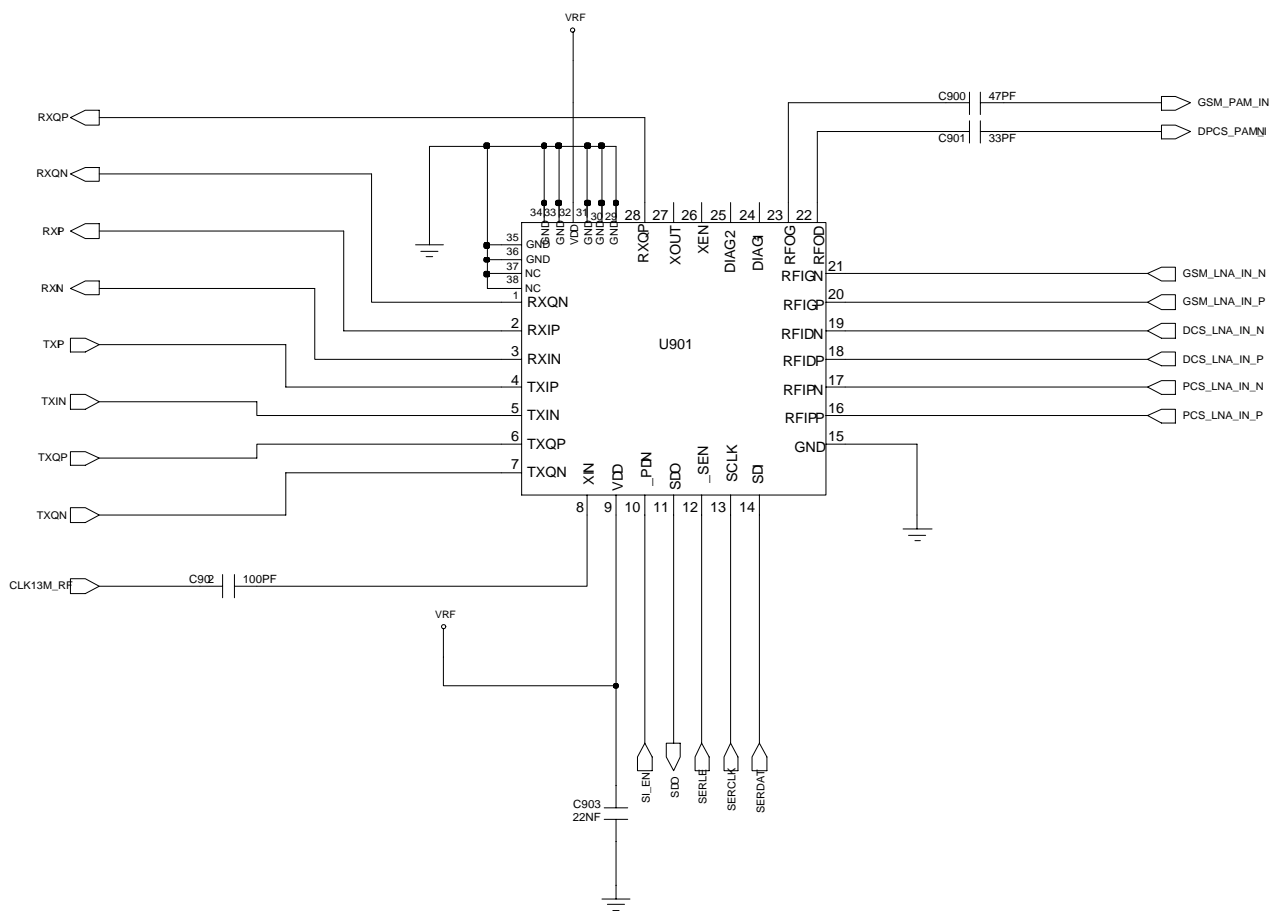


6. PCS Transmitter





(Picture 1)

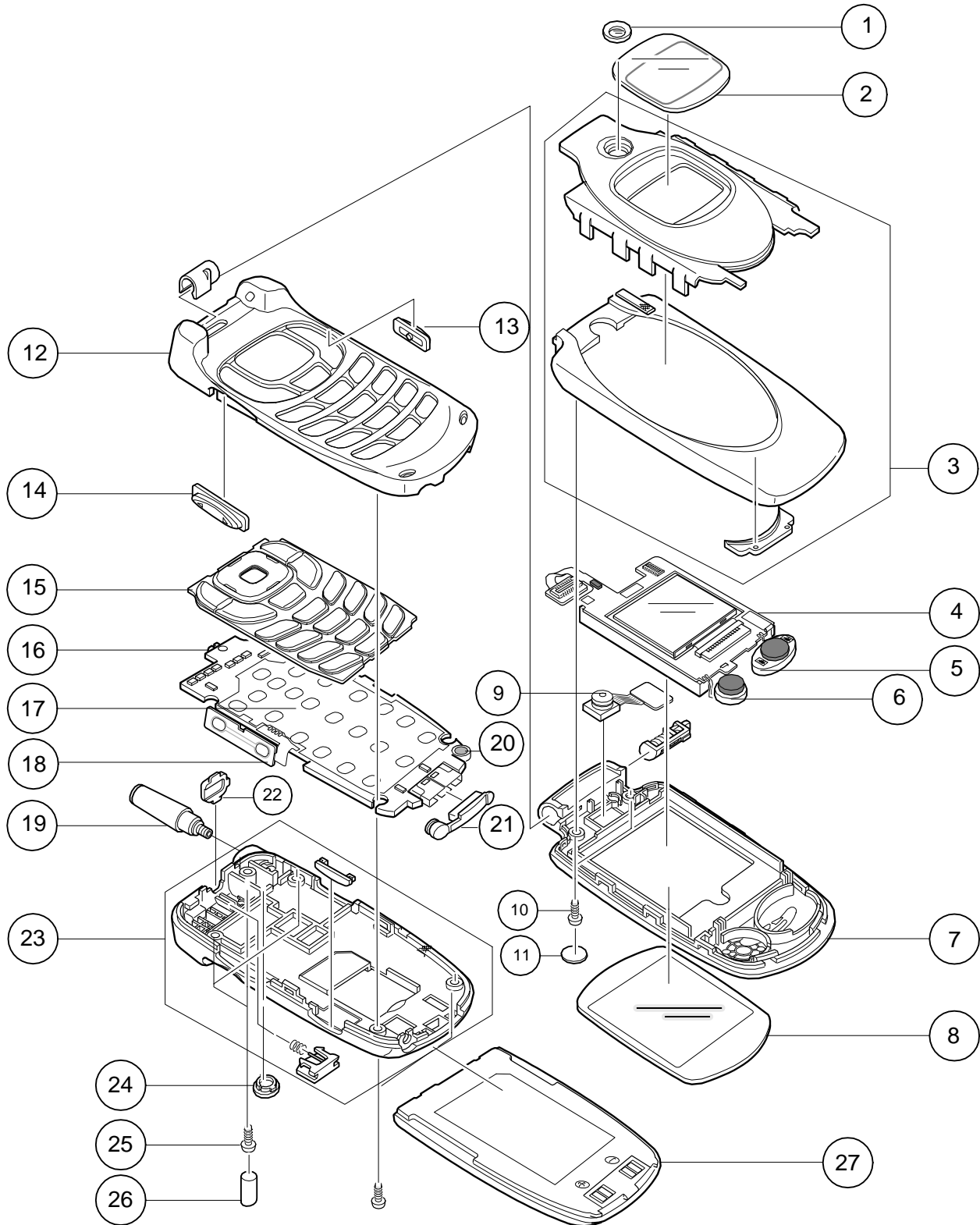


(Picture 2)



# 3. SGH-E600/E608 Exploded View and its Part list

## 1. Cellular phone Exploded View



## 2. Cellular phone Parts list

Location NO.	Description	SEC CODE (SGH-E600)	SEC CODE (SGH-E608)	Remark
1	MEC CAMERA RING ASS'Y	GH75-03822A		
2	PMO DUAL WINDOW	GH72-10580A	GH72-10580B	
3	MEC F/UPPER	GH75-03801A		
4	LCD	GH07-00471A		
5	MICRO SPEAKER	3001-001481		
6	MOTOR	GH31-00075A		
7	MEC F/LOWER	GH75-03817A		
8	MEC MAIN WINDOW	GH75-03820A		
9	UNIT CAMERA	GH59-01175A		
10	SCREW	6001-001479		
11	LABEL SCREW HOLE COVER	GH68-02948A		
12	MEC FRONT COVER	GH75-03800A		
13	MEC CAMERA KEY ASS'Y	GH75-03825A		
14	MEC VOL KEY ASS'Y	GH75-03824A		
15	MEC KEYPAD ASS'Y	GH75-03821A	GH75-03821B	
16	MAIN PBA	GH92-01608A	GH92-01714A	
17	UNIT METAL DOME	GH59-01145A		
18	UNIT VOL KEY	GH59-01147A		
19	ANTENNA	GH42-00365A		
20	MICROPHONE ASS'Y	GH30-00075A		
21	IF COVER	GH72-10589A		
22	EAR JACK COVER	GH72-10587A		
23	MEC REAR COVER	GH75-03823A	GH75-04277A	
24	R/F COVER	GH72-11998A		
25	SCREW	6001-001478		
26	REAR SCREW CAP	GH72-11991A		
27	BATTERY	GH43-01138A	GH43-01238A	700MAH
		GH43-01139A	GH43-01239A	900MAH

**3. Test Jig (GH80-00865A)**



**3-1. RF Test Cable  
(GH39-00090A)**



**3-2. Test Cable  
(GH39-00127A)**



**3-3. Serial Cable**



**3-4. Power Supply Cable**



**3-5. DATA CABLE  
(GH39-00159A)**



**3-6. TA (GH44-00482A)-E600  
(GH44-00483A)-E608**



## 4. SGH-E600/E608 MAIN Electrical Parts List

SEC Code	Design LOC
GH71-00734A	ANT1000
2203-005061	C100
2703-002267	C1000
2203-000995	C1001
2203-002677	C1002
2203-002677	C1003
2203-005288	C1004
2203-005288	C1005
2203-005234	C1006
2203-005234	C1007
2404-001134	C1008
2404-001087	C1009
2203-000812	C101
2203-000254	C1010
2203-000812	C1011
2203-000425	C1012
2203-000654	C1013
2203-002525	C1015
2203-000438	C1016
2203-005061	C102
2203-001598	C103
2203-000812	C104
2203-000812	C105
2203-005061	C106
2203-005171	C107
2203-005171	C108
2203-005171	C109
2203-005171	C110
2203-005061	C1101
2203-005061	C1102
2203-000233	C1103
2203-005061	C1105
2404-001268	C1106
2203-000254	C1107
2203-000940	C1108
2203-000233	C111
2404-001268	C1111

SEC Code	Design LOC
2203-005061	C1112
2404-001268	C1113
2203-000940	C1114
2203-001598	C112
2203-005171	C113
2203-005171	C114
2203-005061	C115
2404-001268	C116
2404-001268	C117
2203-000995	C118
2404-001268	C119
2203-005509	C200
2203-005482	C201
2203-000359	C202
2203-000359	C203
2203-001652	C204
2404-001086	C205
2203-005061	C300
2203-005061	C400
2203-005061	C401
2404-001086	C402
2203-005061	C403
2203-001405	C404
2203-000254	C405
2203-006093	C406
2203-005061	C407
2203-000812	C408
2203-000278	C409
2203-000278	C410
2203-000278	C411
2404-001268	C412
2203-000438	C413
2203-005061	C414
2404-001100	C415
2404-001100	C417
2203-000278	C419
2203-006093	C420

SEC Code	Design LOC
2203-000438	C421
2203-002443	C422
2203-000278	C423
2203-005503	C424
2203-000278	C425
2203-000679	C426
2203-005496	C600
2203-005496	C601
2203-000254	C602
2203-000254	C603
2203-000254	C604
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2203-000679	C609
2203-000254	C610
2203-005482	C611
2203-000995	C612
2203-000233	C613
2203-000628	C614
2203-005480	C615
2203-000628	C616
2203-000628	C700
2203-002443	C701
2203-000233	C702
2203-005496	C703
2203-005450	C704
2203-005065	C705
2203-005061	C706
2203-000233	C707
2203-000254	C708
2203-000254	C709
2203-000254	C710
2203-000254	C711
2203-000254	C712
2203-000254	C713



**SGH-E600/E608 Electrical Parts List**

SEC Code	Design LOC
2203-005052	C714
2203-000233	C715
2203-000254	C800
2203-000254	C801
2203-000438	C802
2203-000438	C803
2203-000585	C804
2203-000254	C805
2203-000995	C900
2203-000812	C901
2203-000233	C902
2203-006137	C903
3404-001152	CAM
3705-001226	CN1000
3711-005159	CN200
3722-001880	CN400
2909-001191	F1000
2904-001410	F1001
2901-001260	F200
2901-001260	F201
2901-001260	F202
2901-001260	F203
2901-001260	F204
2901-001260	F205
2901-001260	F206
2703-001907	L1001
2703-002165	L1002
2703-001543	L1004
2703-001180	L1006
2703-001943	L1007
3301-001105	L800
0604-001261	LED200
0601-001790	LED201
0601-001790	LED202
0601-001790	LED203
0601-001790	LED204
0601-001790	LED205

SEC Code	Design LOC
0601-001790	LED206
0601-001790	LED207
0601-001790	LED208
0601-001790	LED209
0601-001790	LED210
0601-001790	LED211
0601-001790	LED212
4302-001130	M1
2801-003747	OSC600
0502-001201	Q100
0504-001113	Q101
0504-001113	Q102
0506-001052	Q103
0504-000168	Q400
0504-000167	Q701
0504-000167	Q702
0504-000167	Q703
2007-000167	R100
2007-001295	R1000
2007-001306	R1001
2007-001306	R1002
2007-000174	R1003
2007-001305	R1004
2007-001305	R1005
2007-000137	R1006
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2007-000171	R1008
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2007-000758	R102
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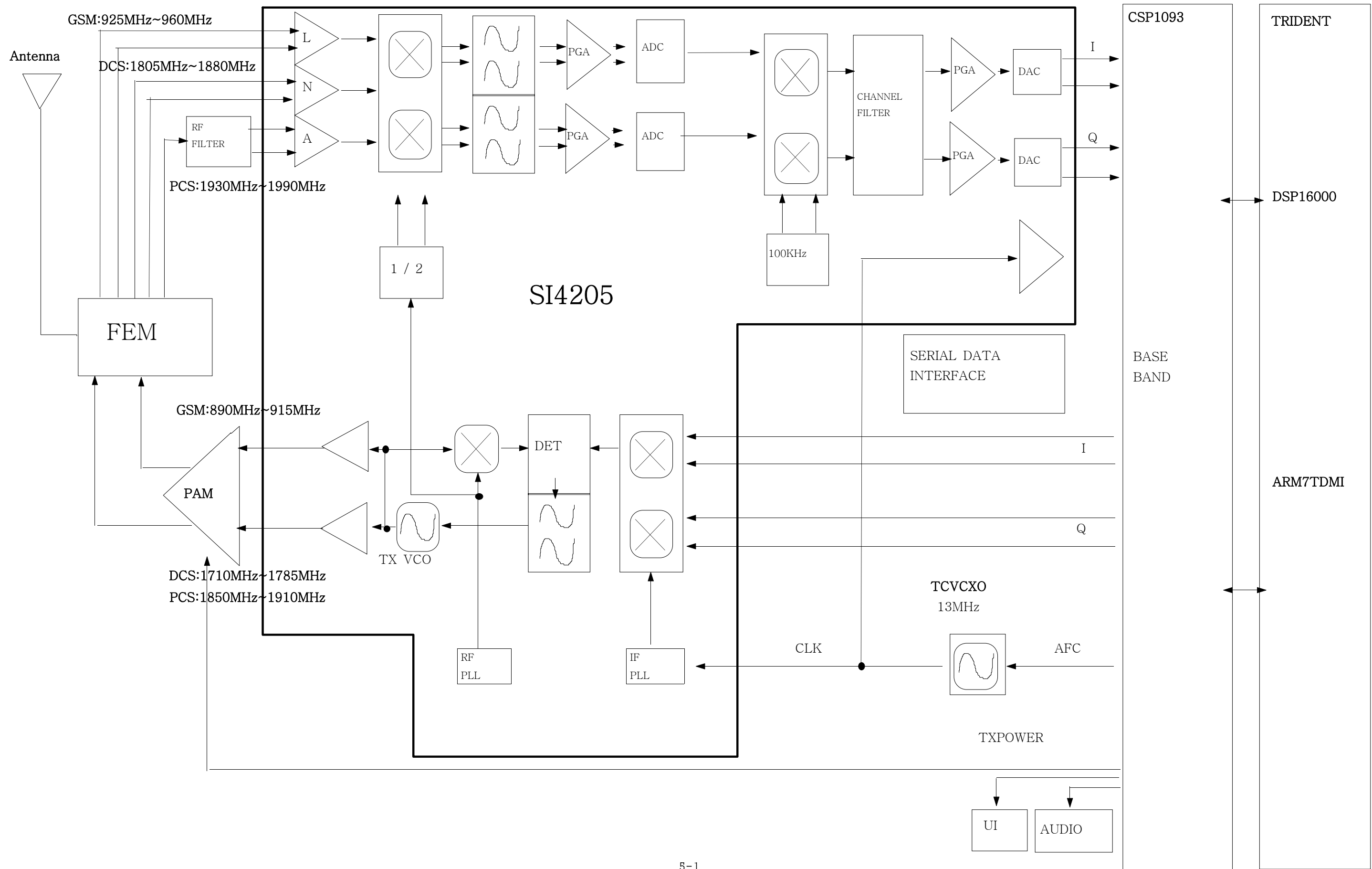
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2007-000157	R300
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2007-000140	R307

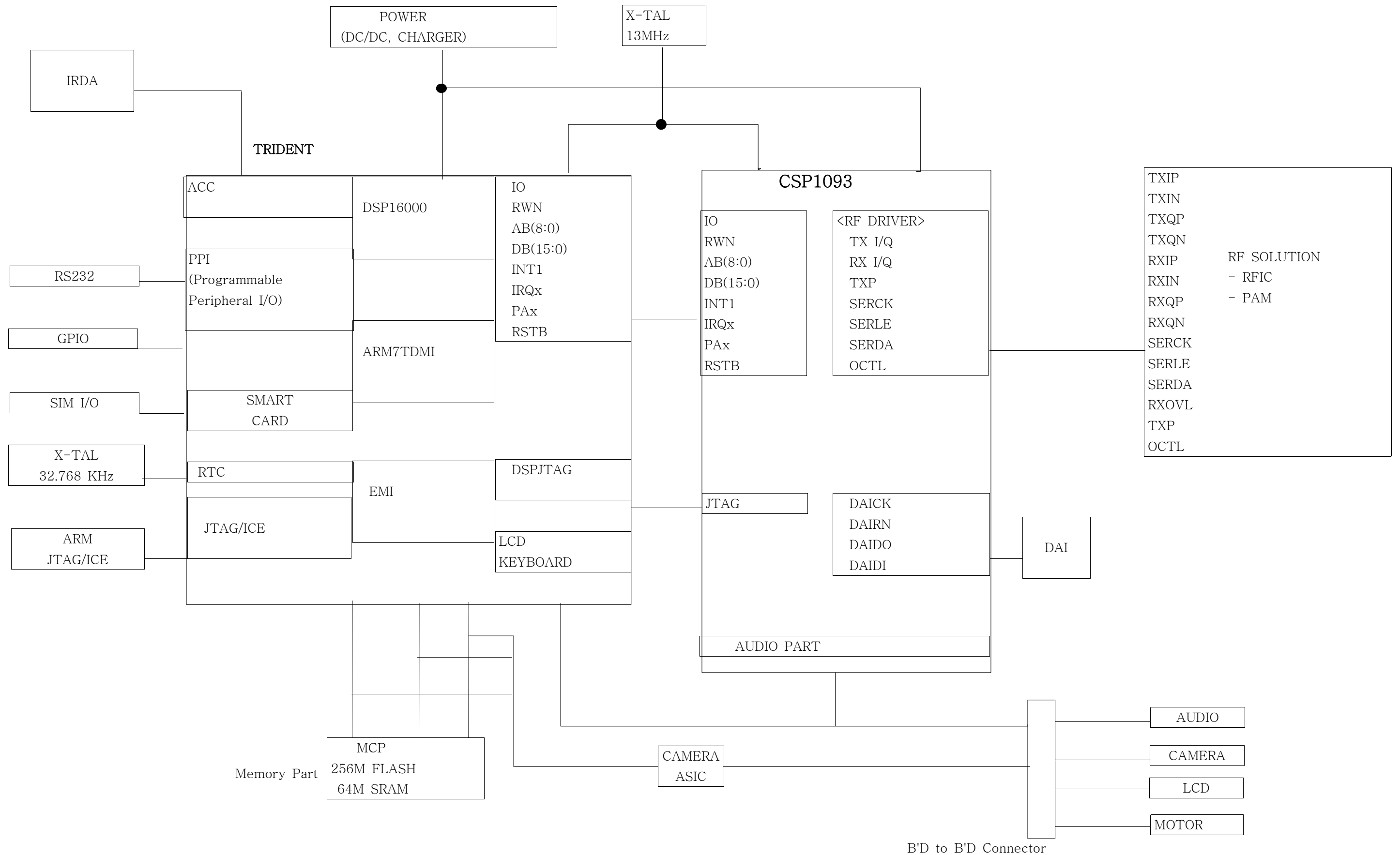
SEC Code	Design LOC
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2007-000775	R403
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2007-000159	R405
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2007-000172	R407
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2007-001325	R409
2007-000143	R410
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2007-003001	R413
2007-000932	R414
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2007-000162	R418
2007-001284	R419
2007-000144	R420
2007-000162	R421
2007-000171	R422
2007-000171	R423
2007-000171	R424
2007-000171	R426
2007-001244	R428
2007-000165	R429
2007-000171	R431
2007-000171	R432
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2007-000758	R434

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2007-000171	R501
2007-000157	R600
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2007-000157	R603
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2007-007200	R703
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1203-002902	U100
1203-002127	U101
1203-001720	U102
1203-002113	U1101
1203-002099	U1102
2804-001492	U1103
2203-005061	U1104
2203-005061	U1105
2203-005061	U1106
2203-000654	U1107
2203-000940	U1108
2203-000885	U1109
0801-002294	U300
1204-002138	U401
1109-001281	U500
GH09-00023A	U600
1009-001010	U601

SEC Code	Design LOC
1209-001219	U602
1204-001984	U700
0504-001042	U701
0504-001042	U702
0504-001042	U703
1405-001018	V201
1405-001018	V202
1405-001082	ZD201
1405-001082	ZD202
1405-001082	ZD203
1405-001082	ZD204
1405-001082	ZD205
1405-001082	ZD206
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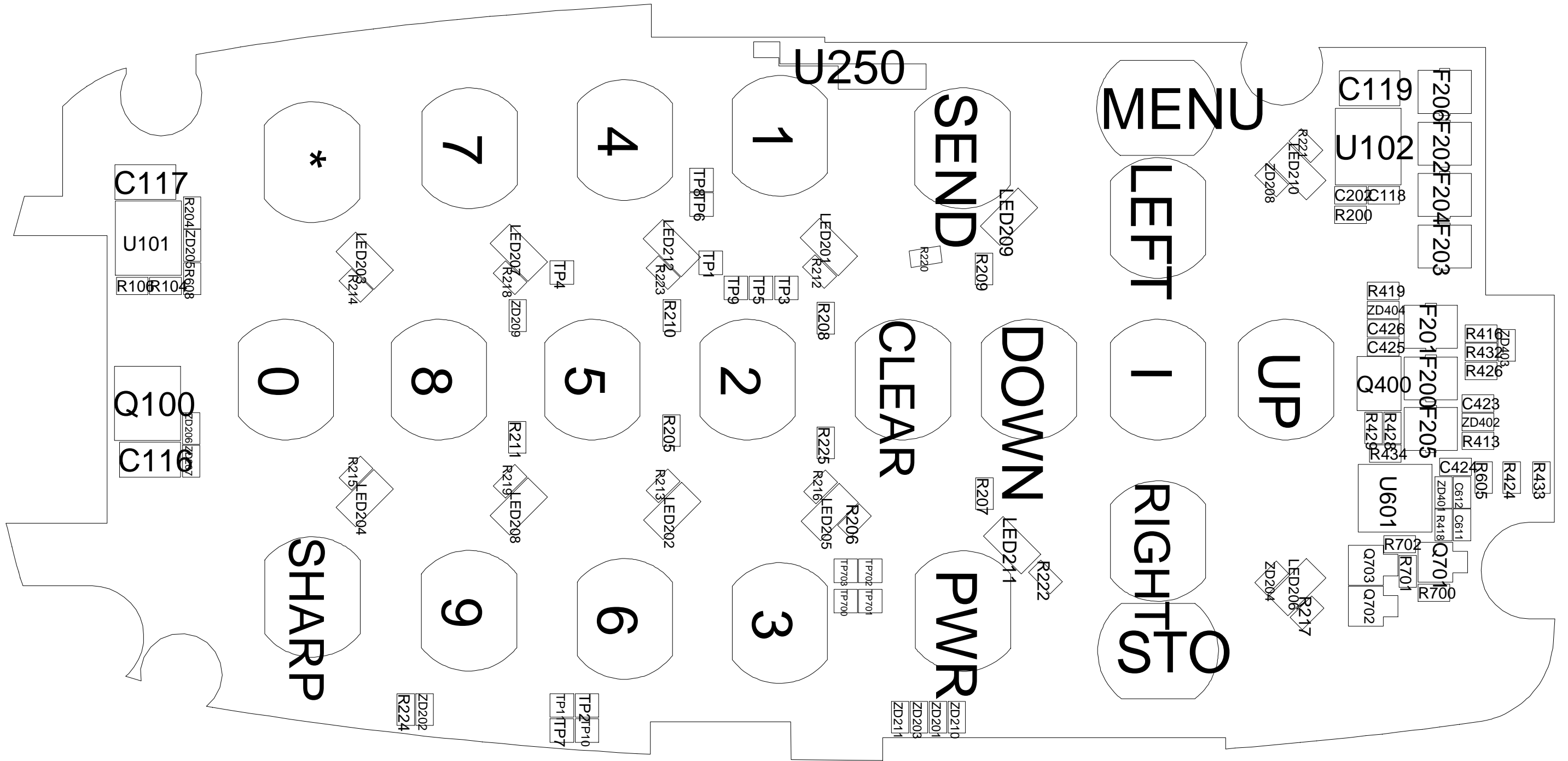
# 5. SGH-E600/E608 Block Diagrams







2. Main PCB Bottom Diagram





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