

SAMSUNG

**GSM TELEPHONE
SGH-E710**

SERVICE *Manual*

GSM TELEPHONE



CONTENTS

1. Specification
2. Flow Chart of Troubleshooting
3. Exploded Views and Parts List
4. Electrical Parts List
5. Block Diagrams
6. PCB Diagrams

1. SGH-E710 Specification

1. GSM General Specification

	GSM900 Phase 1	EGSM900 Phase 2	DCS1800 Phase 1
Freq. Band[MHz]	890~915	880~915	1710~1785
Uplink/Downlink	935~960	925~960	1805~1880
ARFCN Range	1~124	0~124 & 975~1023	512~885
Tx/Rx Spacing	45MHz	45MHz	95MHz
Mod. Bit Rate/ Bit Period	270.833KHz 3.692us	270.833KHz 3.692us	270.833KHz 3.692us
Time Slot Period /Frame Period	576.9us 4.615ms	576.9us 4.615ms	576.9us 4.615ms
Modulation	0.3GMSK	0.3GMSK	0.3GMSK
MS Power	33dBm~13dBm	33dBm~13dBm	33dBm~13dBm
Power Class	5pcl~15pcl	5pcl~19pcl	0pcl~15pcl
Sensitivity	-102dBm	-102dBm	-100dBm
TDMA Mux	8	8	8
Cell Radius	35Km	35Km	2Km

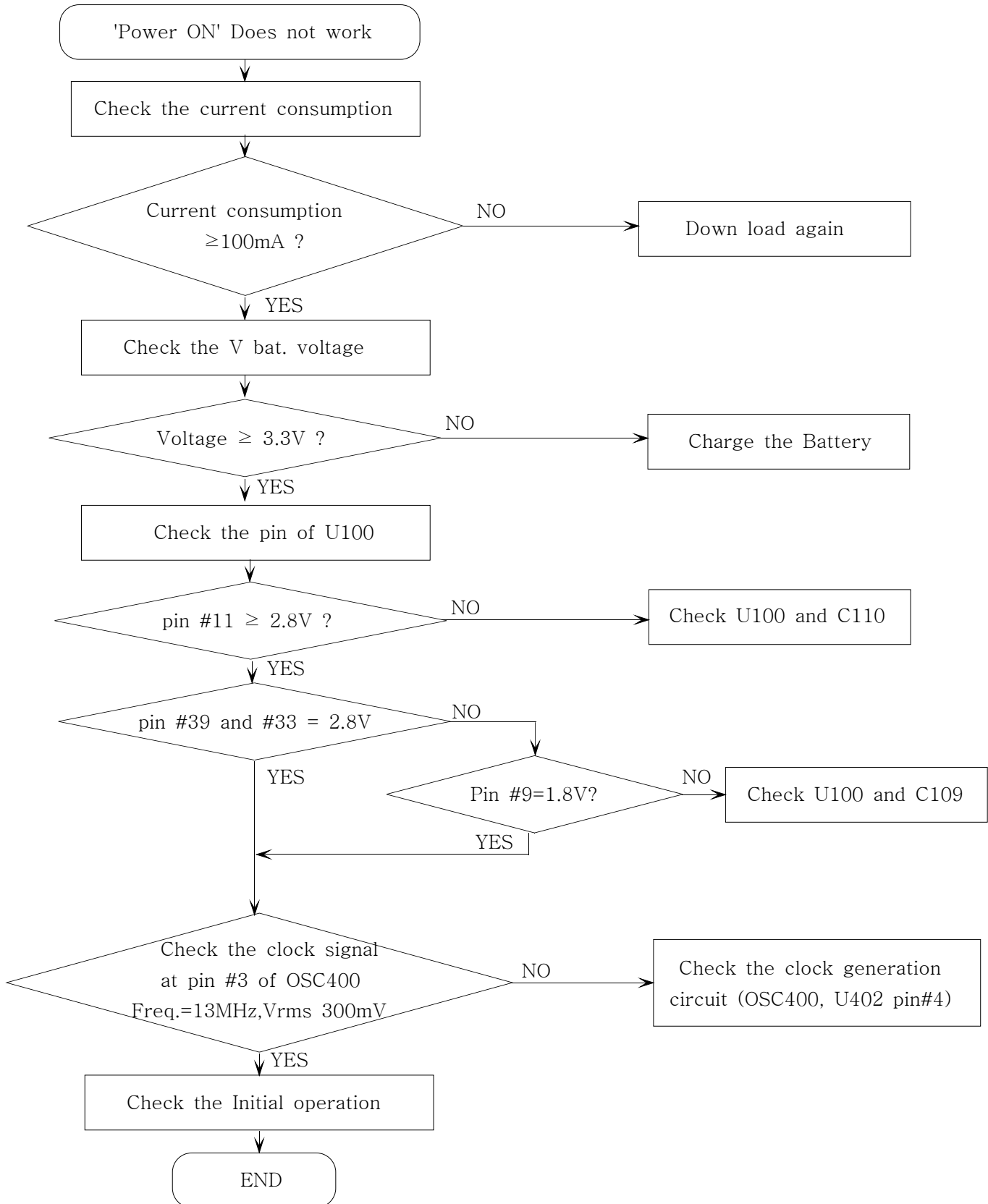
2. GSM TX power class

TX Power Control Level	GSM900
5	33±2dBm
6	29±2dBm
7	27±2dBm
8	25±2dBm
9	23±2dBm
10	21±2dBm
11	19±2dBm
12	17±2dBm
13	15±2dBm
14	13±2dBm
15	11±2dBm
16	9±3dBm
17	7±3dBm
18	5±3dBm
19	3±3dBm

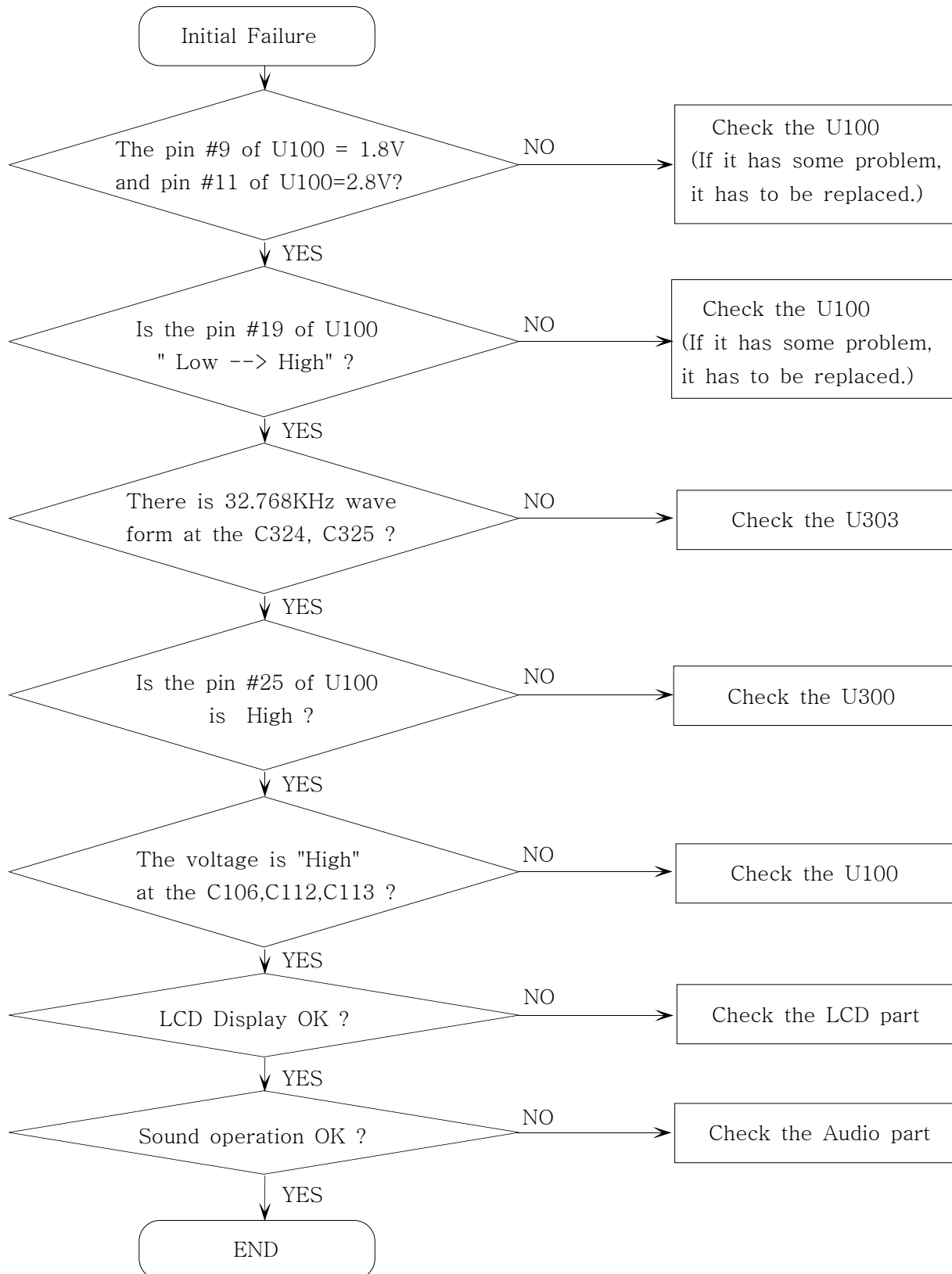
TX Power Control Level	DCS1800
0	30±3dBm
1	28±3dBm
2	26±3dBm
3	24±3dBm
4	22±3dBm
5	20±3dBm
6	18±3dBm
7	16±3dBm
8	14±3dBm
9	12±4dBm
10	10±4dBm
11	8±4dBm
12	6±4dBm
13	4±4dBm
14	2±5dBm
15	0±5dBm

2. SGH-E710 Flow Chart of Troubleshooting

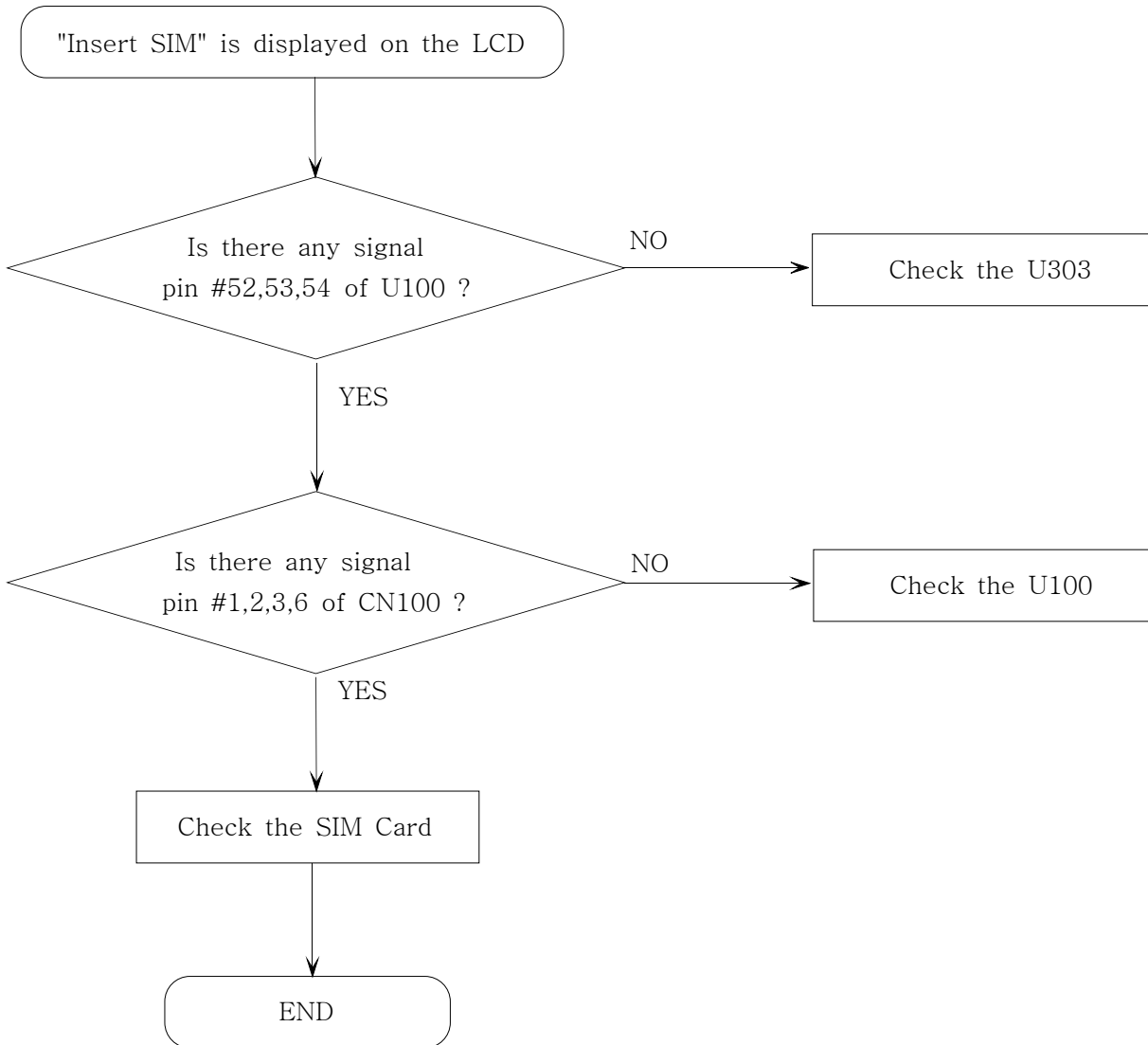
1. Power ON



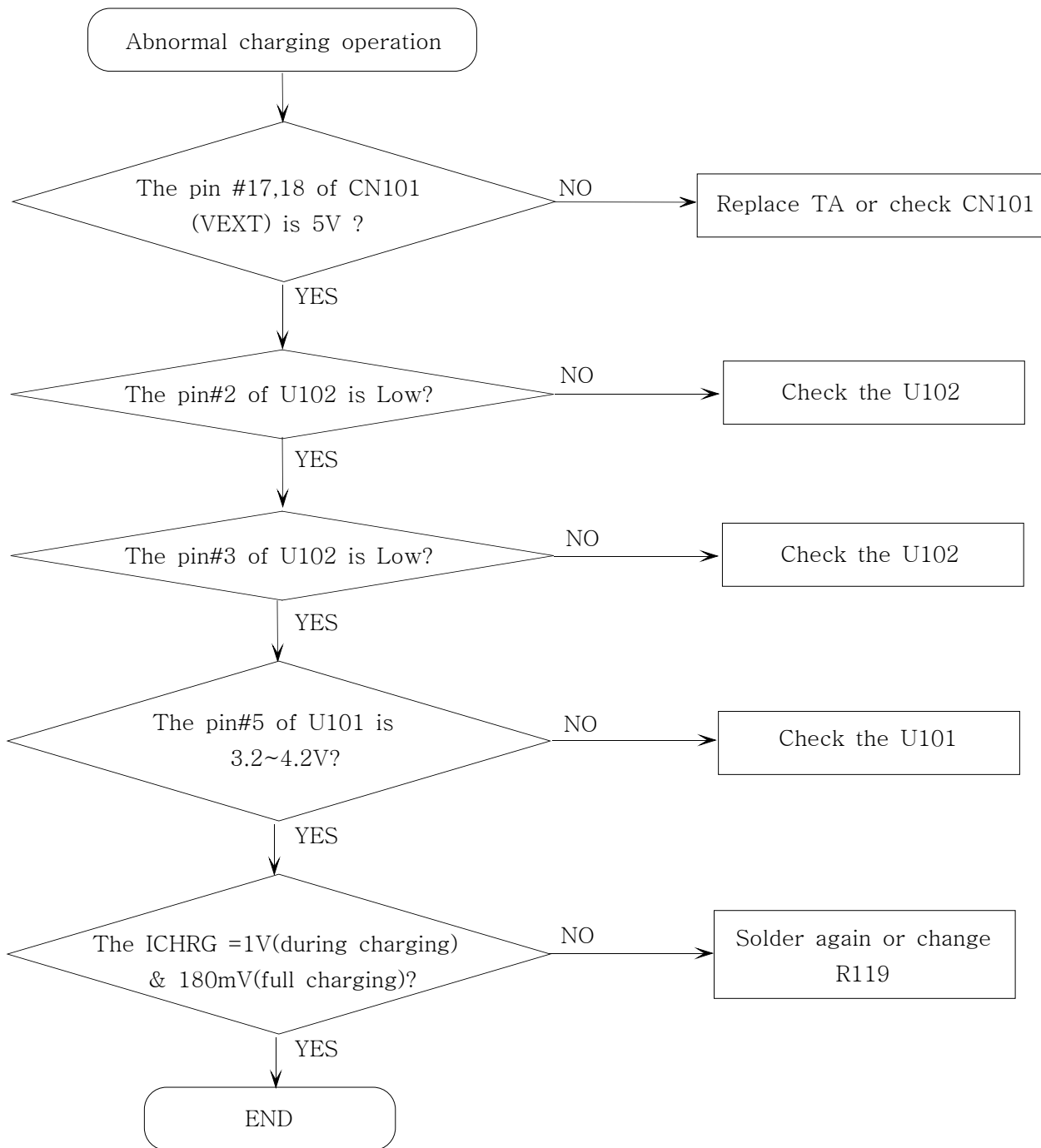
2. System Initial



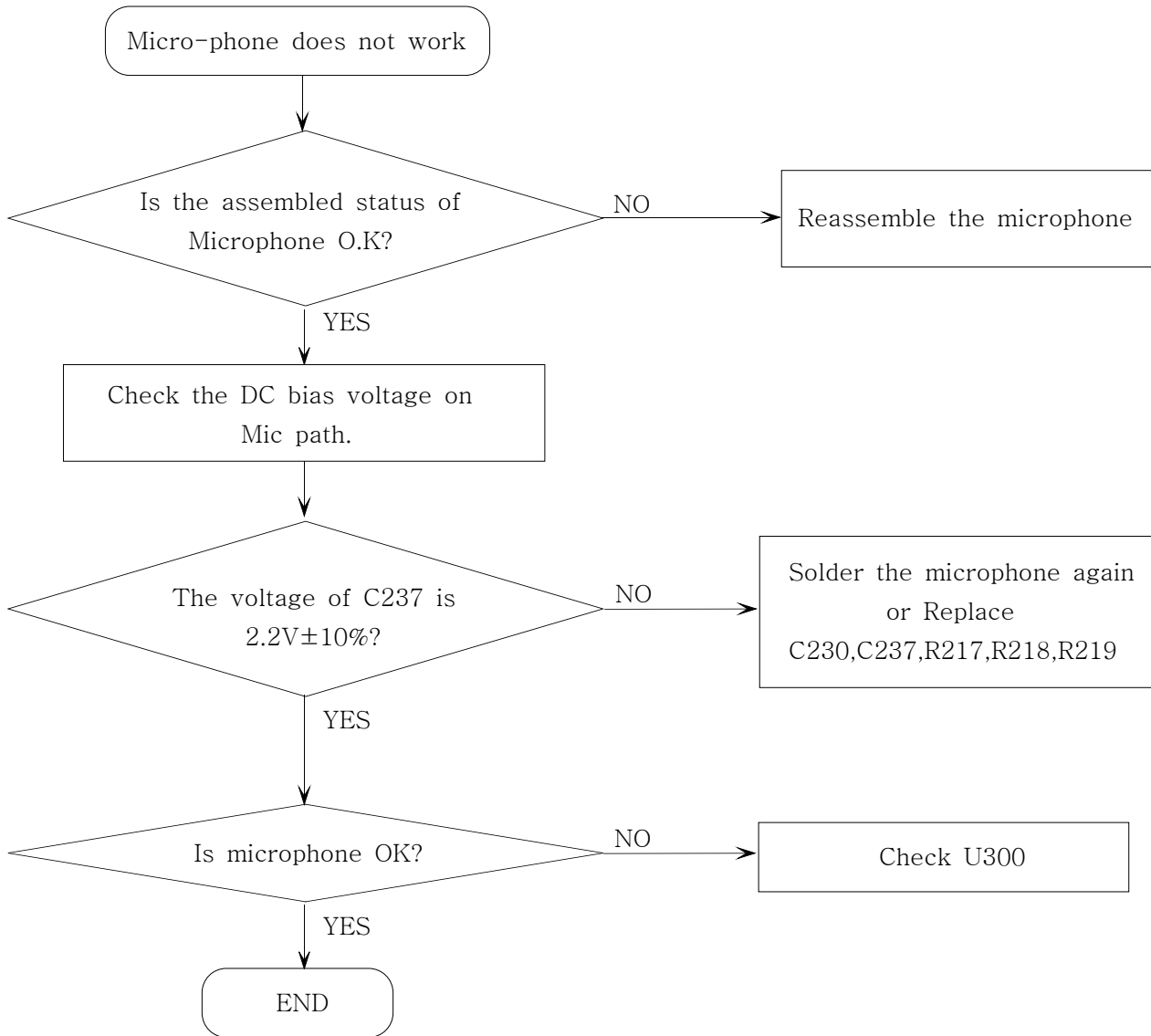
3. SIM Part



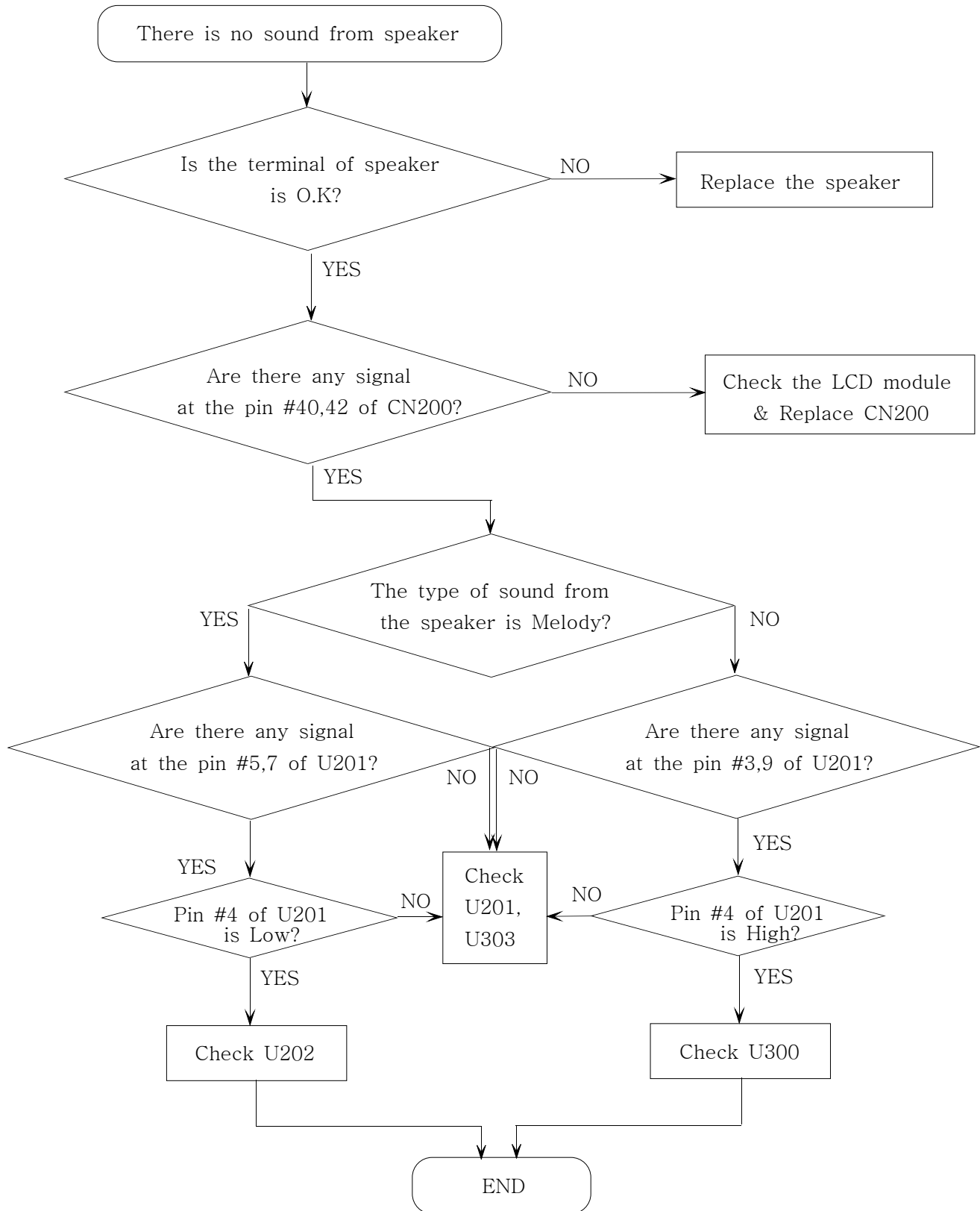
4. Charging Part



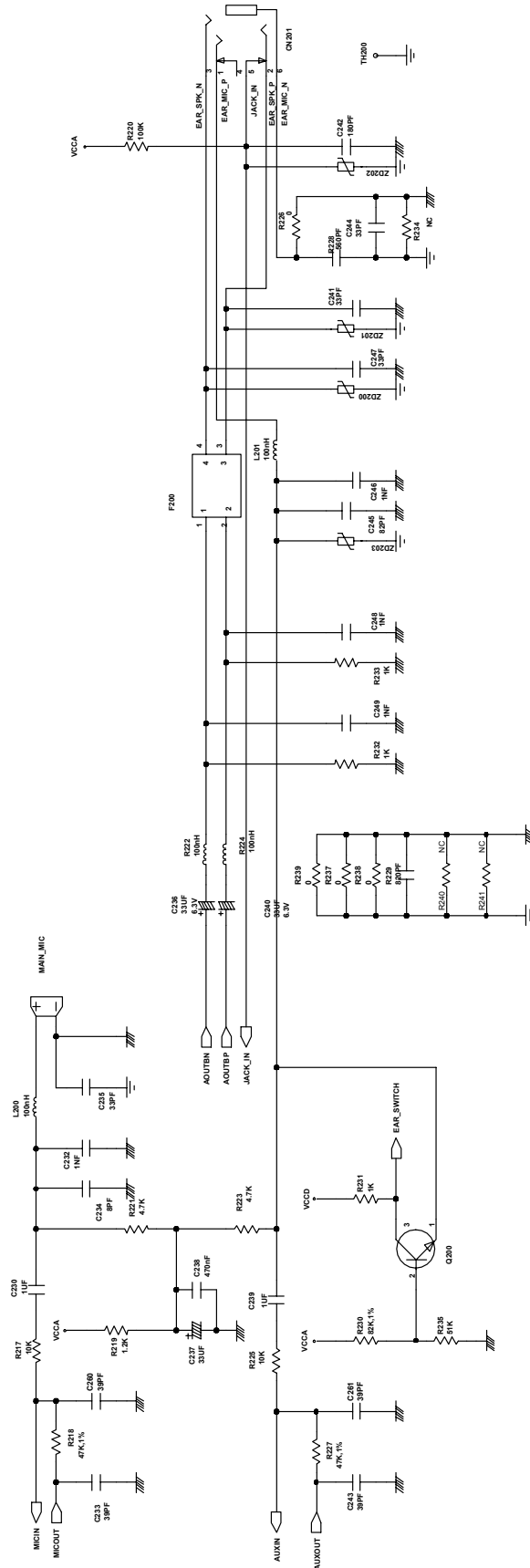
5. Microphone Part



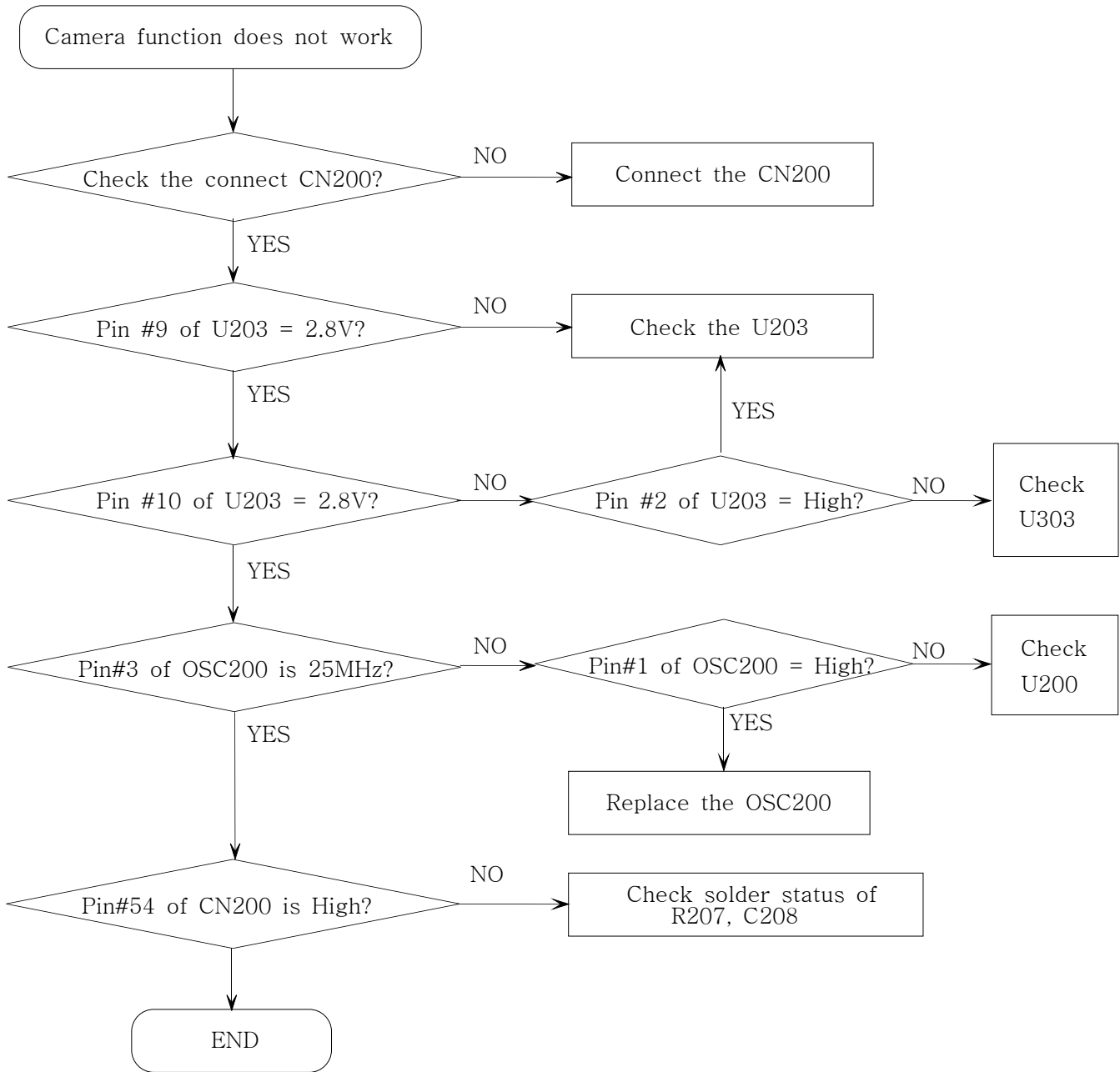
6. Speaker Part



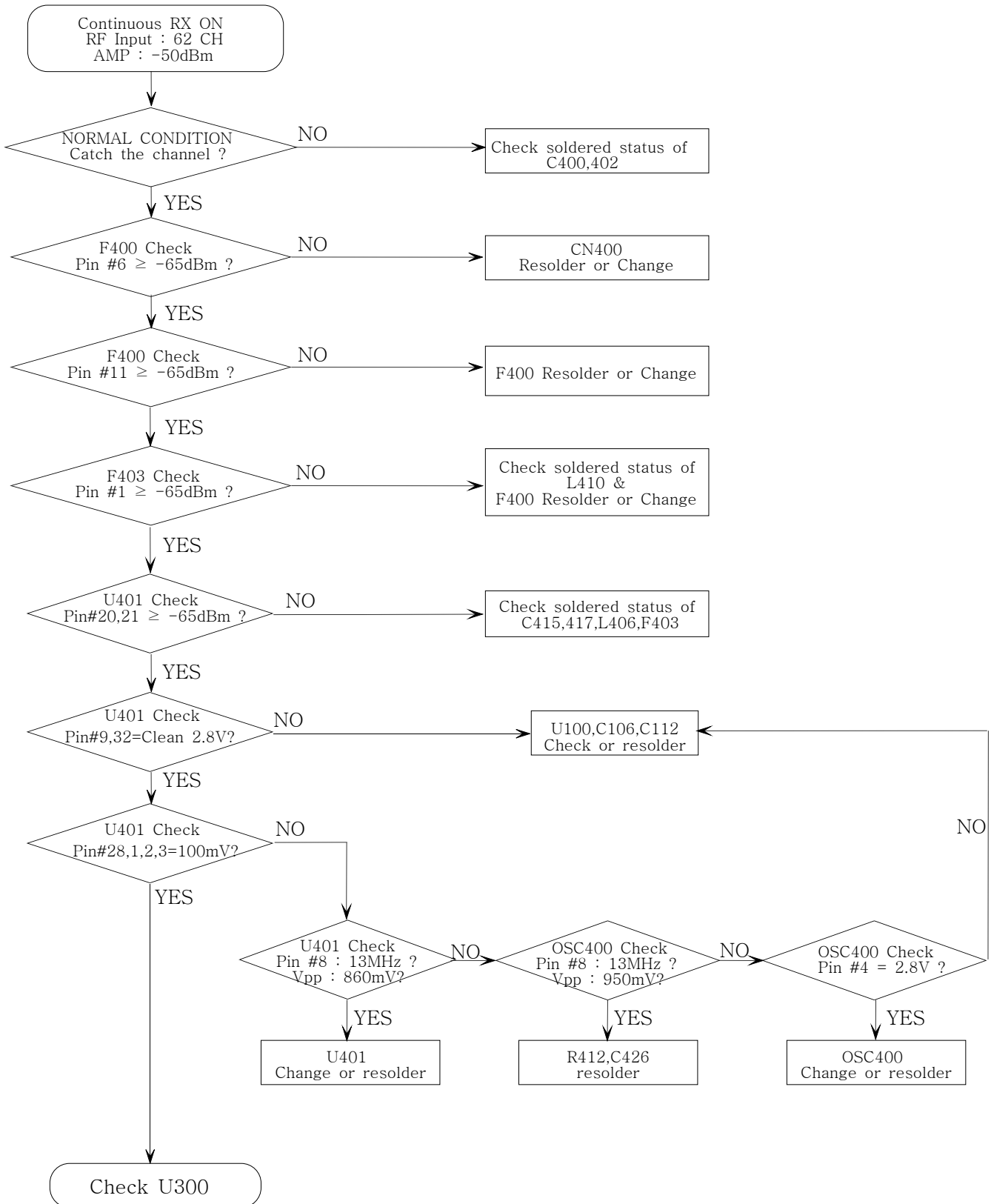
SGH-E710 Flow Chart of Troubleshooting and Circuit Diagrams



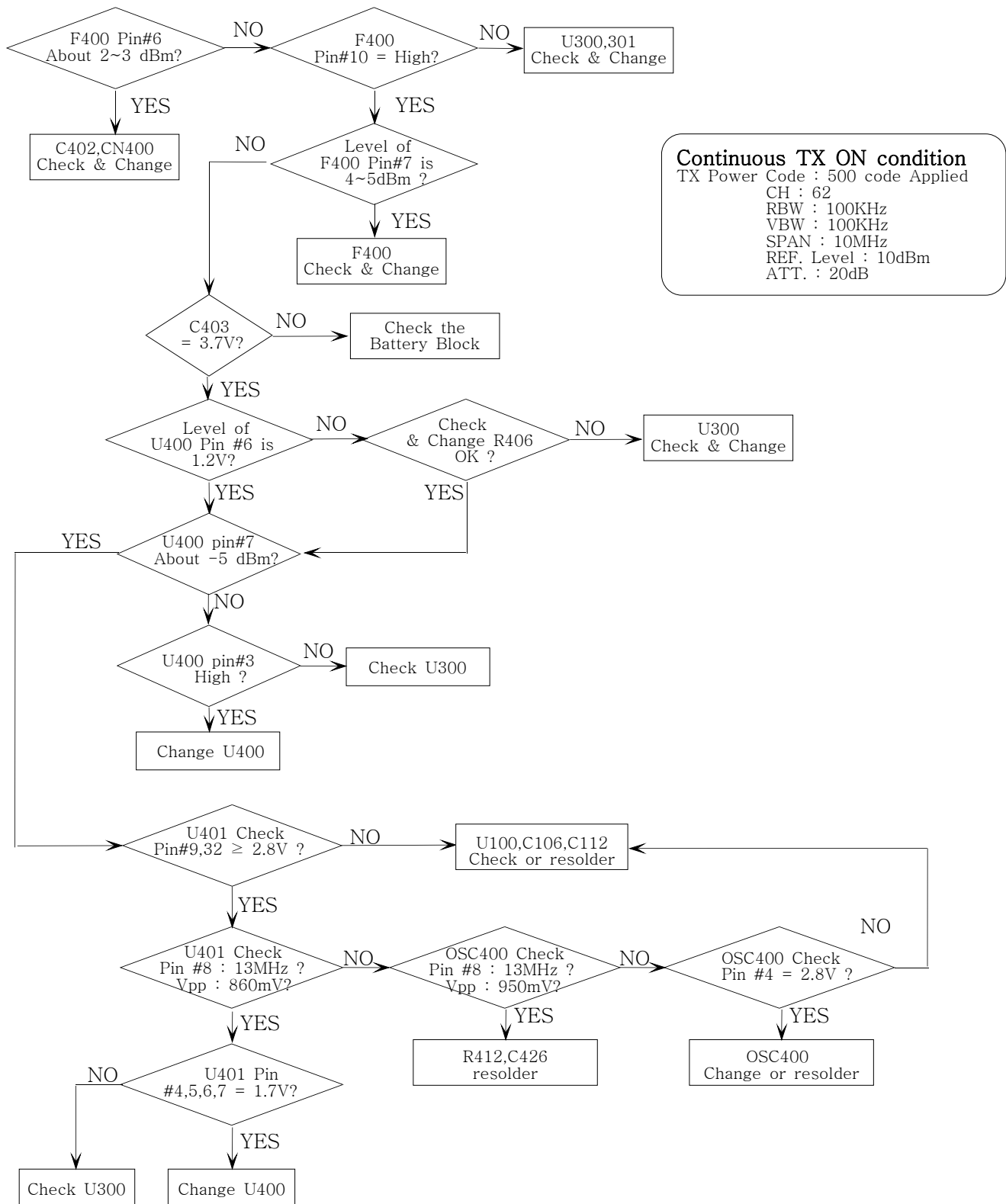
7. Camera Part



8. EGSM Receiver

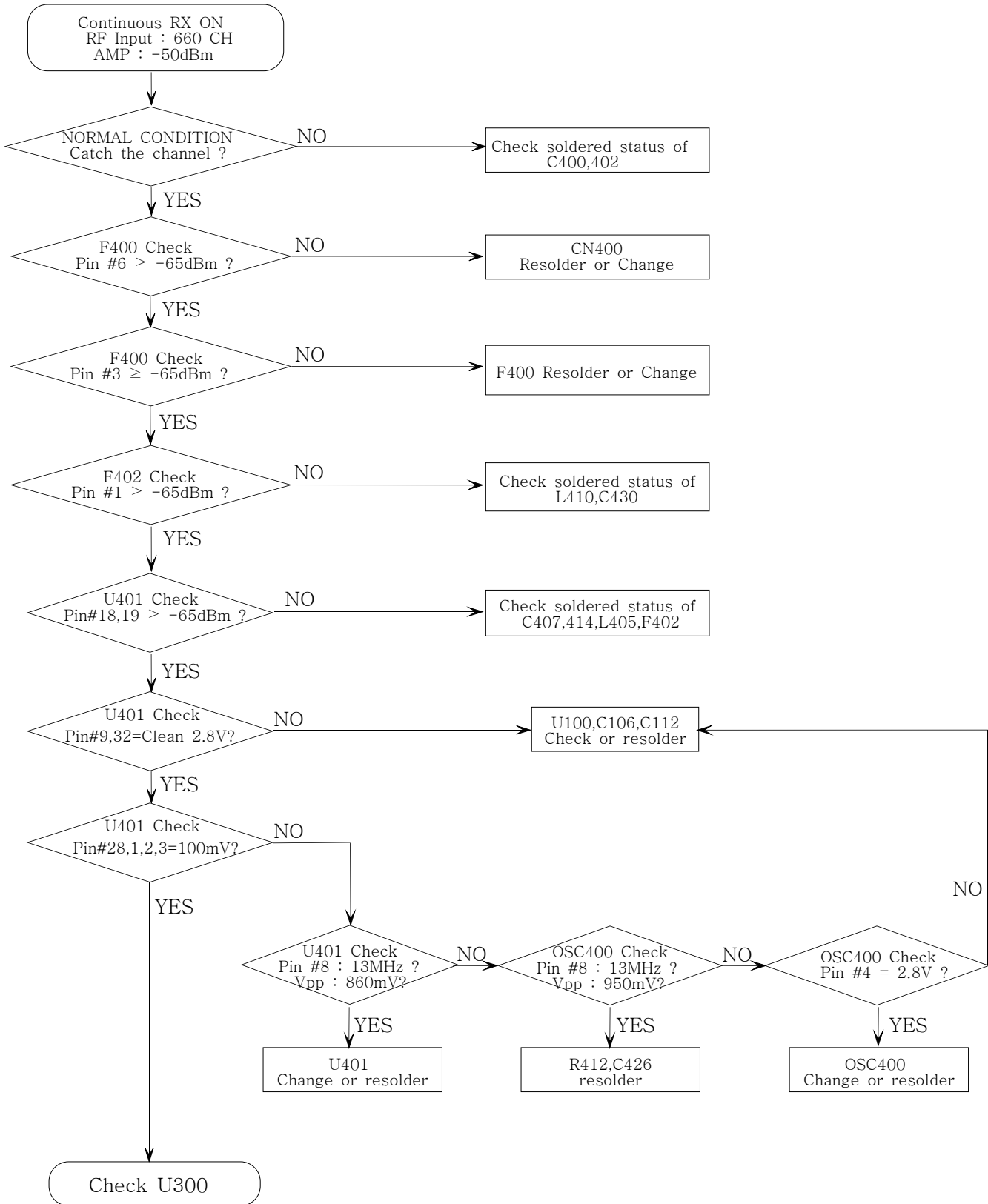


9. EGSM Transmitter

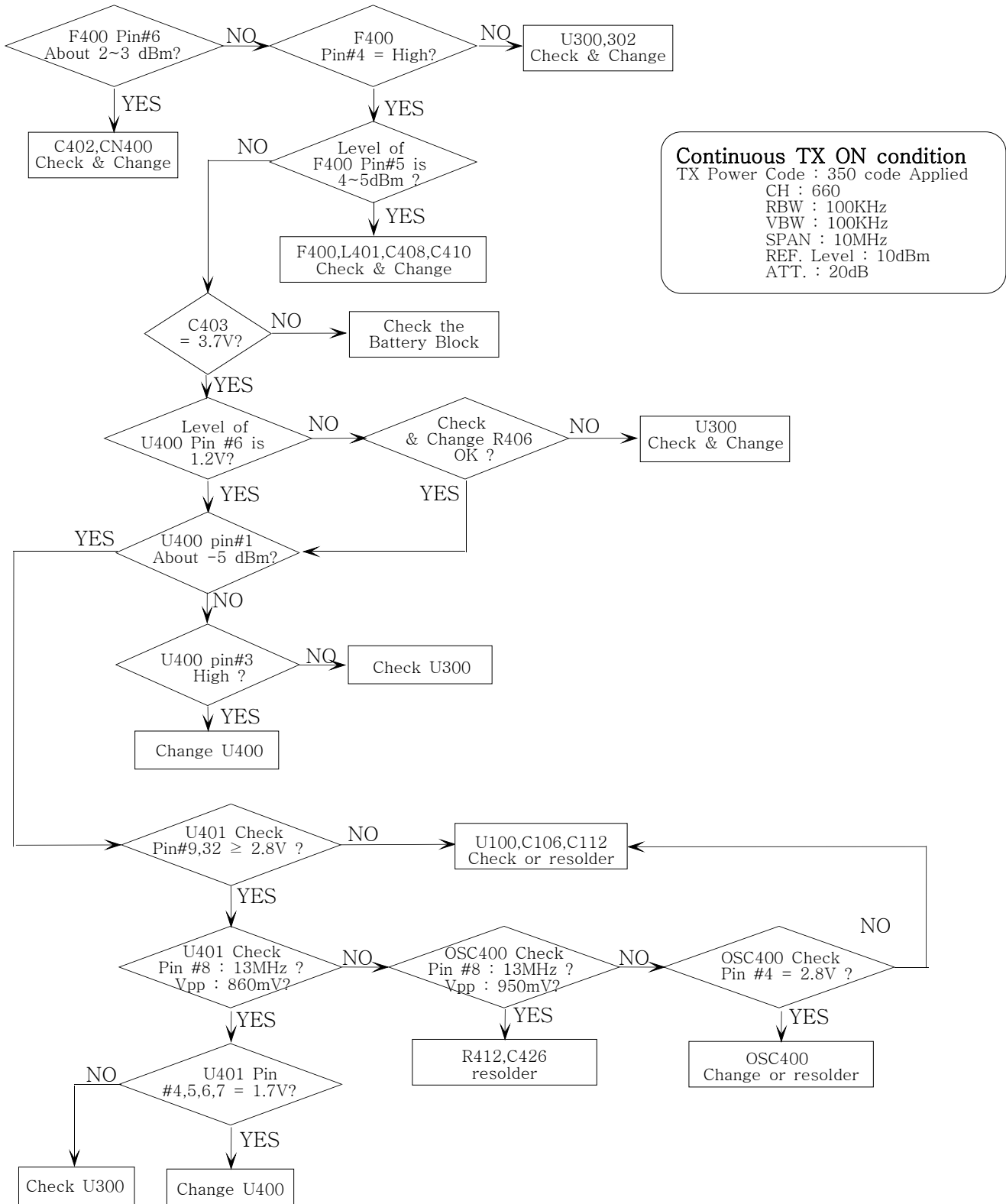


Continuous TX ON condition
 TX Power Code : 500 code Applied
 CH : 62
 RBW : 100KHz
 VBW : 100KHz
 SPAN : 10MHz
 REF. Level : 10dBm
 ATT. : 20dB

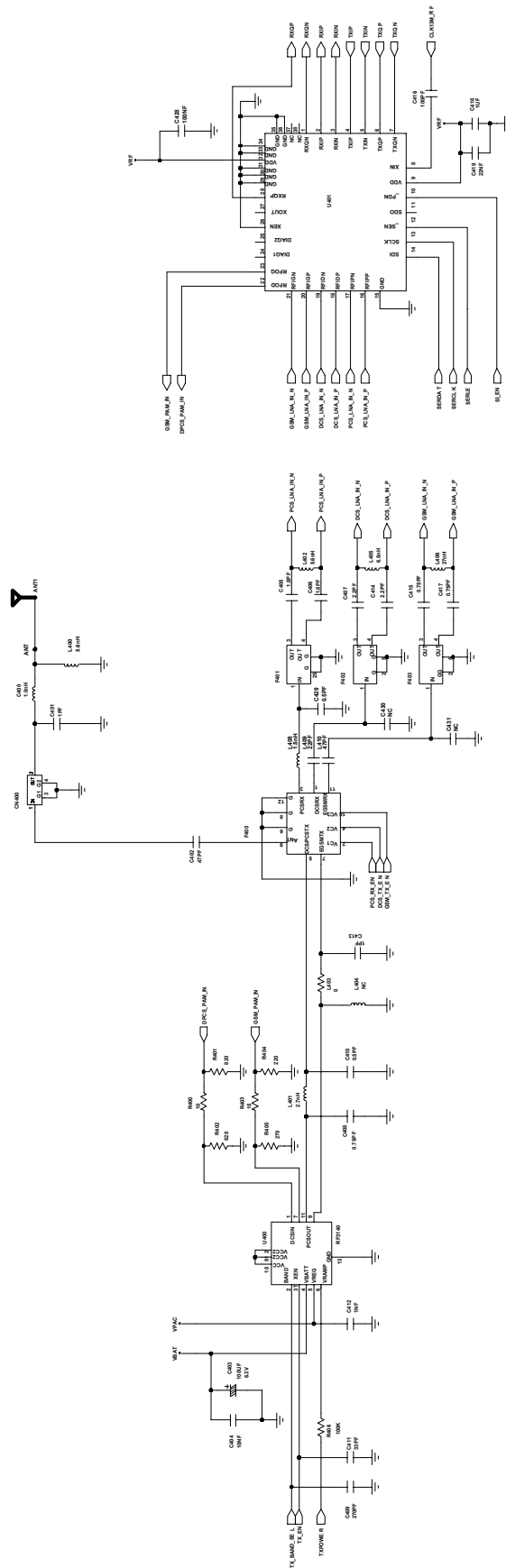
10. DCS Receiver



11. DCS Transmitter

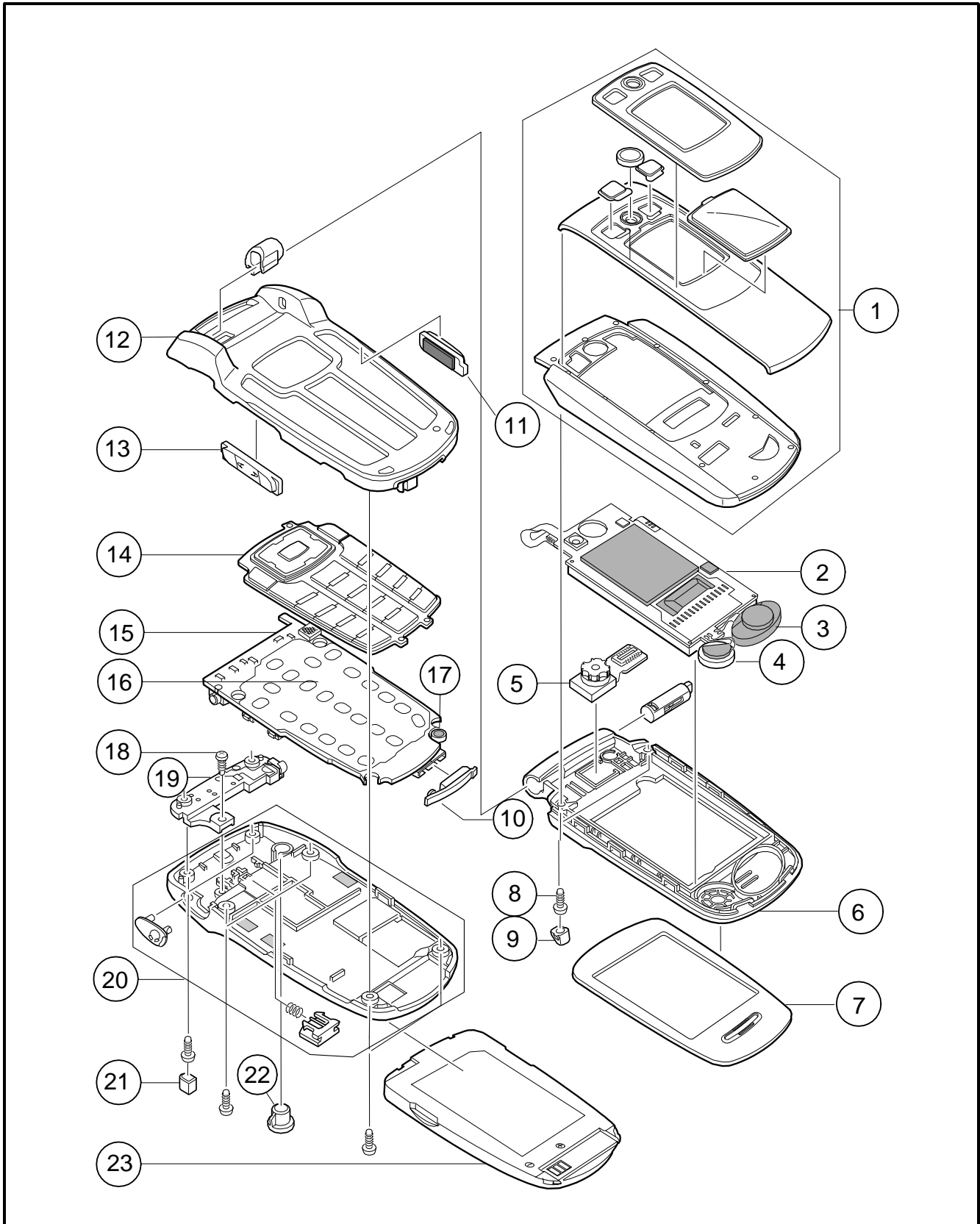


SGH-E710 Flow Chart of Troubleshooting and Circuit Diagrams



3. SGH-E710 Exploded View and its Parts list

1. Cellular phone Exploded View



2. Cellular phone Parts list

Location NO.	Description	SEC.CODE	Remark
1	FOLDER UPPER ASS'Y	GH75-03786D	
2	LCD	GH07-00406A	
3	SPEAKER	3001-001446	
4	MOTOR	3101-001370	
5	CAMERA	GH59-00959A	
6	FOLDER LOWER	GH75-03263A	
7	WINDOW LCD	GH75-03785A	
8	SCREW	6001-001478	
9	FOLDER LOWER SCREW CAP LEFT	GH73-02160A	
	FOLDER LOWER SCREW CAP RIGHT	GH73-02161A	
10	IF COVER	GH72-08382A	
11	CAMERA KEY	GH75-03586A	
12	FRONT COVER	GH75-03261F	
13	VOLUME KEY	GH75-03256A	
14	KEYPAD	GH75-03688D	
15	MAIN PBA	GH92-01592A	
16	DOME SHEET	GH59-00895A	
17	MIC	GH30-00032A	
18	SCREW	6001-001478	
19	INTENNA	GH42-00317A	
20	REAR COVER	GH75-03264A	
21	REAR SCREW COVER	GH73-02152A	
22	RF COVER	GH73-02524A	
23	BATTERY	GH43-01026B	

3. Test Jig (GH80-00865A)



3-1. RF Test Cable
(GH39-00182A)



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)



4. SGH-E710 MAIN Electrical Parts List

SEC Code	Design LOC
GH92-01592A	
GH41-00451A	
GH96-01380A	
GH30-00032A	
GH59-00895A	
GH68-02026A	
GH73-02484A	
GH74-06321A	
GH74-06775A	
2203-000812	C100
2203-000812	C101
2203-000812	C102
2203-001652	C103
2203-005061	C104
2203-005061	C105
2203-006201	C106
2404-001268	C107
2203-001652	C108
2203-006201	C109
2203-006201	C110
2203-005796	C111
2203-006201	C112
2404-001268	C113
2203-006201	C114
2203-000233	C115
2404-001268	C116
2404-001268	C117
2203-005065	C118
2203-005061	C119
2203-000995	C120
2203-006090	C121
2203-006208	C131
2203-005061	G200
2203-005061	C206
2203-005509	C207
2203-005496	C208
2203-000812	C210
2203-005061	C211
2203-000254	C212

SEC Code	Design LOC
2203-000233	C213
2203-000254	C214
2203-005061	C215
2203-006093	C216
2203-000233	C217
2203-006201	C218
2203-000233	C219
2203-000654	C220
2404-001086	C221
2203-005061	C222
2203-001405	C223
2203-005061	C224
2203-006090	C225
2203-006090	C226
2203-000254	C227
2404-001086	C228
2203-005061	C229
2203-006093	C230
2203-000438	C231
2203-000438	C232
2203-000995	C233
2203-001259	C234
2203-000812	C235
2404-001151	C236
2404-001151	C237
2203-006257	C238
2203-005065	C239
2404-001151	C240
2203-000812	C241
2203-005503	C242
2203-000854	C243
2203-000812	C244
2203-001239	C245
2203-000438	C246
2203-000812	C247
2203-000438	C248
2203-000438	C249
2503-001045	C250
2503-001045	C251

SEC Code	Design LOC
2503-001045	C252
2503-001045	C253
2503-001045	C254
2503-001045	C255
2203-006093	C256
2203-000812	C257
2203-000812	C258
2203-000812	C259
2203-000995	C260
2203-000854	C261
2203-005061	C300
2203-001405	C301
2203-000254	C302
2203-000254	C303
2203-005496	C304
2203-000679	C305
2203-000254	C306
2203-005061	C307
2203-000233	C308
2203-006093	C309
2203-005450	C310
2203-005496	C311
2203-000254	C312
2203-000254	C313
2203-005061	C314
2203-000233	C315
2203-000254	C316
2203-000254	C317
2203-000254	C318
2203-000254	C319
2203-005052	C320
2203-000995	C321
2203-000233	C322
2203-005482	C323
2203-000628	C324
2203-000628	C325
2203-000233	C326
2203-000233	C327
2203-000254	C328

SGH-E710 Electrical Parts List

SEC Code	Design LOC
2203-005061	C329
2203-000254	C330
2203-005061	C331
2203-005496	C332
2203-005480	C333
2203-000940	C334
2203-000254	C335
2203-005061	C336
2203-000679	C337
2203-000679	C338
2203-000233	C339
2703-001749	C400
2203-001385	C401
2203-000995	C402
2404-001134	C403
2203-000254	C404
2203-005050	C405
2203-005050	C406
2203-005552	C407
2203-002677	C408
2203-000654	C409
2203-002668	C410
2203-000812	C411
2203-000438	C412
2203-000466	C413
2203-005552	C414
2203-002677	C415
2203-000233	C416
2203-002677	C417
2203-006093	C418
2203-006137	C419
2203-000278	C420
2203-000438	C421
2203-000438	C422
2203-000233	C423
2203-000233	C424
2203-000254	C425
2203-000254	C426
2203-000254	C427

SEC Code	Design LOC
2203-005061	C428
2203-002668	C429
3709-001187	CN100
3710-001866	CN1006
3710-001611	CN101
3711-005397	CN200
3722-002067	CN201
3705-001287	CN400
2901-001271	F200
2909-001213	F400
2904-001450	F401
2904-001419	F402
2904-001417	F403
2703-002313	L200
2703-002313	L201
2703-001748	L400
2703-001737	L401
2703-002665	L402
2007-000171	L403
2703-002547	L405
2703-001907	L406
3301-001105	L407
2703-002369	L408
2203-000628	L409
2203-000995	L410
0604-001261	LED100
0601-001790	LED101
0601-001790	LED102
0601-001790	LED103
0601-001790	LED104
0601-001790	LED105
0601-001790	LED106
0601-001790	LED107
0601-001790	LED108
0601-001790	LED109
0601-001790	LED110
0601-001790	LED111
0601-001790	LED112
4302-001130	M1

SEC Code	Design LOC
2804-001577	OSC200
2801-004025	OSC300
2809-001260	OSC400
0504-001113	Q100
0502-001201	Q101
0504-001113	Q102
0501-000225	Q200
0504-001141	Q300
0504-001141	Q301
0504-001141	Q302
2007-000157	R100
2007-000157	R101
2007-000157	R102
2007-000157	R103
2007-000140	R104
2007-000140	R105
2007-000140	R106
2007-000140	R107
2007-000140	R108
2007-000140	R109
2007-000167	R110
2007-000140	R111
2007-000140	R112
2007-000140	R113
2007-000758	R114
2007-001319	R115
2007-001301	R116
2007-001291	R117
2007-007142	R118
2007-007142	R119
2007-007139	R120
2007-001323	R121
2007-000171	R122
2007-000171	R123
2007-000171	R124
2007-000171	R125
2007-000171	R126
2007-000171	R127
2007-000171	R128

SEC Code	Design LOC
2007-000171	R129
2007-001294	R130
2007-001301	R131
2007-001294	R132
2007-001294	R133
2007-001294	R134
2007-001301	R135
2007-001301	R136
2007-001301	R137
2007-001301	R138
2007-000171	R139
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2007-000171	R141
2007-001301	R142
2007-001301	R143
2007-000140	R144
2007-000140	R145
2007-000140	R146
2007-000148	R200
2007-000148	R201
2007-000171	R202
2007-000171	R203
2007-000171	R204
2007-000171	R205
2007-000171	R206
2007-007139	R207
2007-002965	R208
2007-000162	R209
2007-002965	R210
2007-000171	R212
2007-007489	R213
2007-000775	R214
2007-000775	R215
2007-001325	R216
2007-000148	R217
2007-007139	R218
2007-001319	R219
2007-000162	R220
2007-000143	R221

SEC Code	Design LOC
2703-002313	R222
2007-000143	R223
2703-002313	R224
2007-000148	R225
2007-000171	R226
2007-007139	R227
2203-002525	R228
2203-001221	R229
2007-007590	R230
2007-000140	R231
2007-000140	R232
2007-000140	R233
2007-007014	R235
2007-000162	R236
2007-000171	R237
2007-000171	R238
2007-000171	R239
2203-000438	R241
2007-002796	R300
2007-000157	R301
2007-007319	R302
2007-000139	R303
2007-000162	R304
2007-007200	R309
2007-007200	R310
2007-000170	R311
2007-000162	R312
2007-000157	R313
2007-000162	R314
2007-007142	R315
2007-000162	R316
2007-007573	R317
2007-007573	R319
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2007-007139	R321
2007-000157	R323
2007-000171	R324
2007-000144	R326
2007-000171	R327

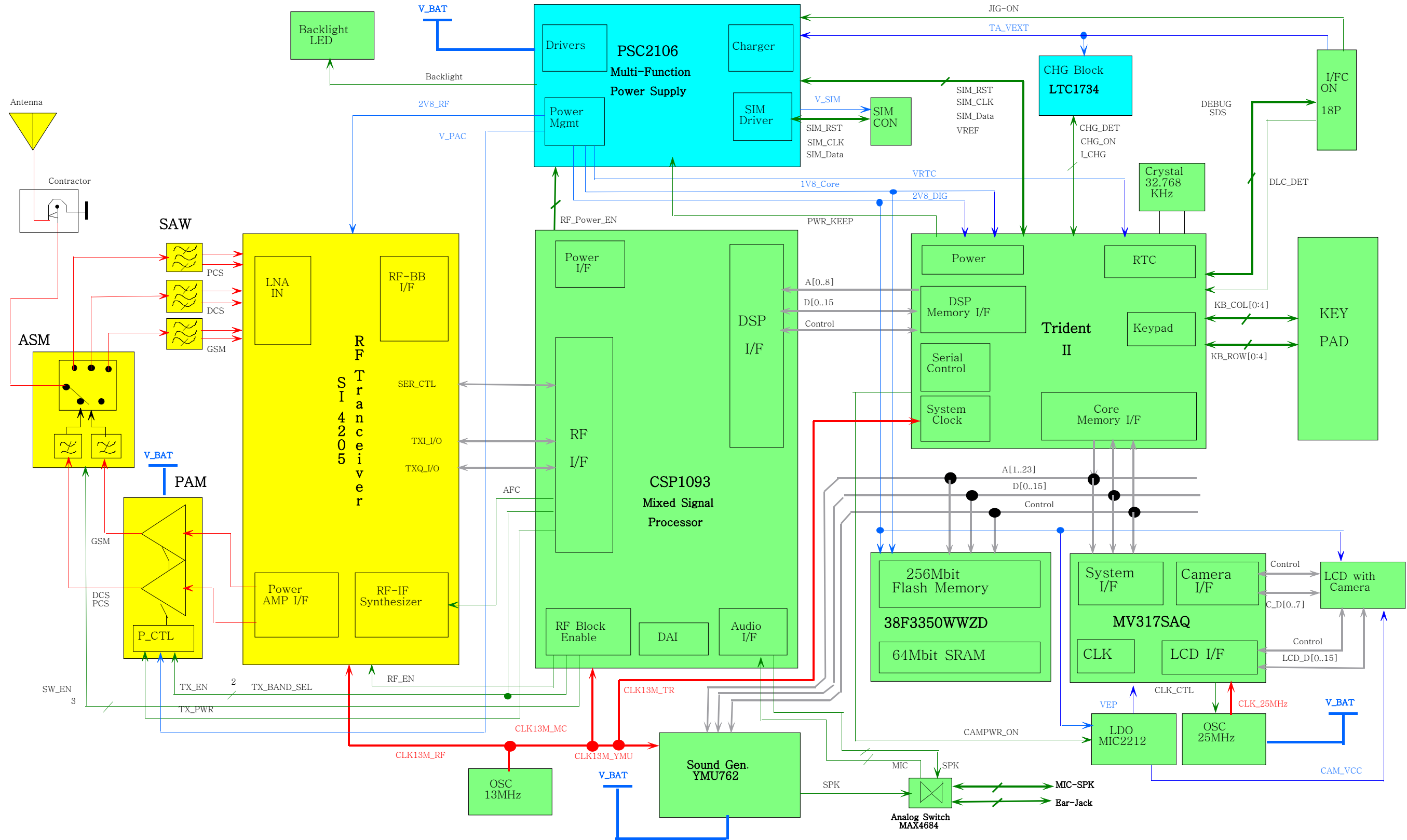
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2007-002965	R403
2007-000139	R404
2007-001311	R405
2007-000162	R406
2007-000172	R408
2007-000242	R409
2007-002797	R410
2007-000148	R411
2007-000138	R412
2007-000148	R413
3404-001152	SW1
3404-001152	SW2
3404-001152	SW3
1203-002902	U100
1203-002127	U101
1203-001720	U102
0506-001052	U103
GH13-00020A	U200
1001-001183	U201
1204-002161	U202
1203-002861	U203
1204-001984	U300
0504-001042	U301
0504-001042	U302
GH09-00025A	U303
1209-001219	U304
0504-001042	U305
1009-001010	U306
1109-001281	U307
1201-001954	U400
1205-002384	U401
0801-000306	U402
1405-001018	ZD100
1405-001082	ZD101
1405-001082	ZD102

SGH-E710 Electrical Parts List

SEC Code	Design LOC
1405-001082	ZD103
1405-001082	ZD104
1405-001018	ZD105
1405-001082	ZD106
1405-001082	ZD107
1405-001082	ZD108
1405-001082	ZD109
1405-001082	ZD110
1405-001082	ZD111
1405-001082	ZD112
1405-001082	ZD113
1405-001082	ZD114
1405-001082	ZD115
1405-001082	ZD116
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1405-001082	ZD122
1405-001082	ZD123
1405-001082	ZD124
1405-001082	ZD125
1405-001082	ZD126
1405-001082	ZD127
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1405-001082	ZD200
1405-001082	ZD201
1405-001082	ZD202
1405-001082	ZD203

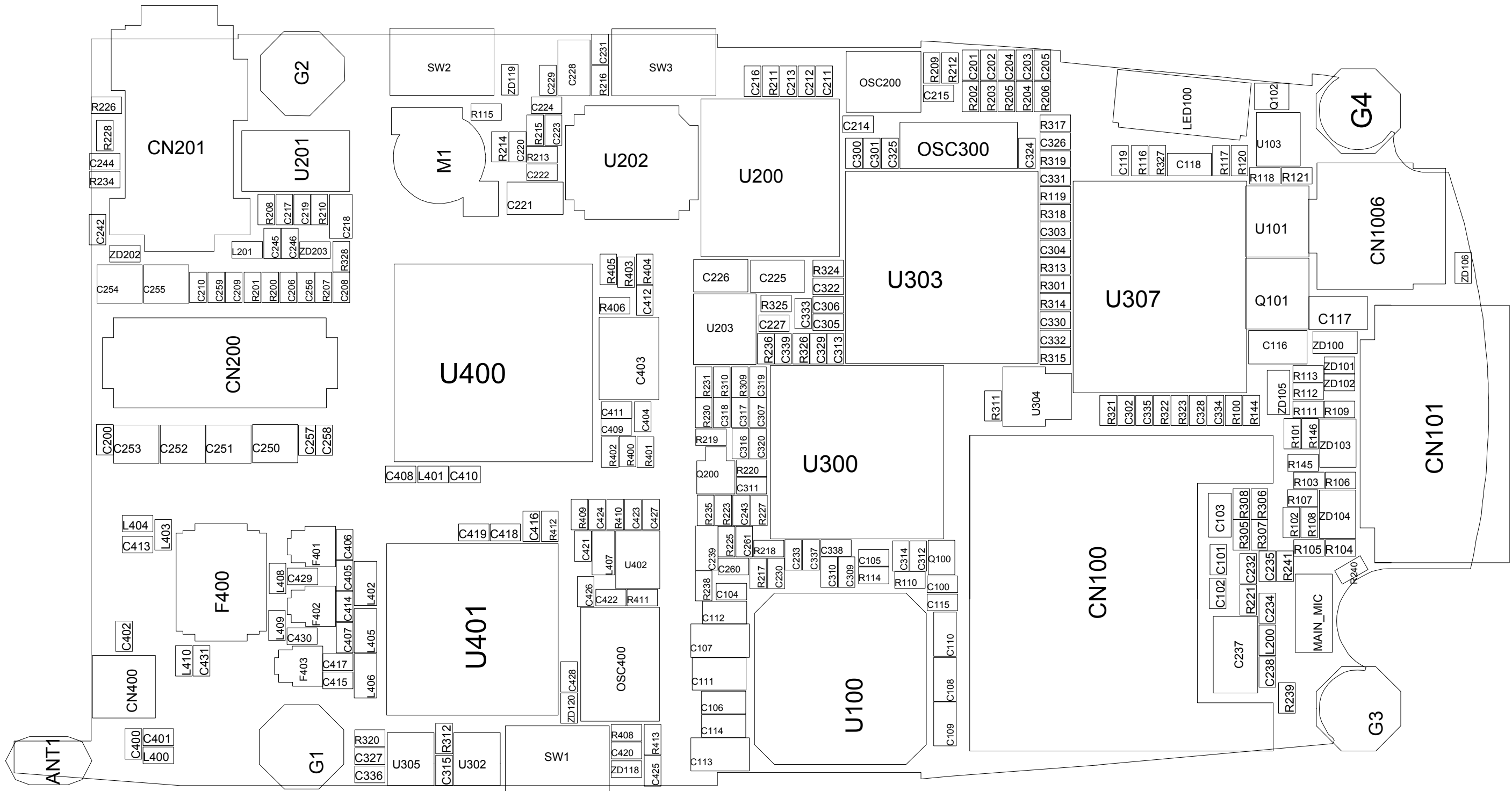
5. SGH-E710 Block Diagrams

1. RF Solution Block Diagram

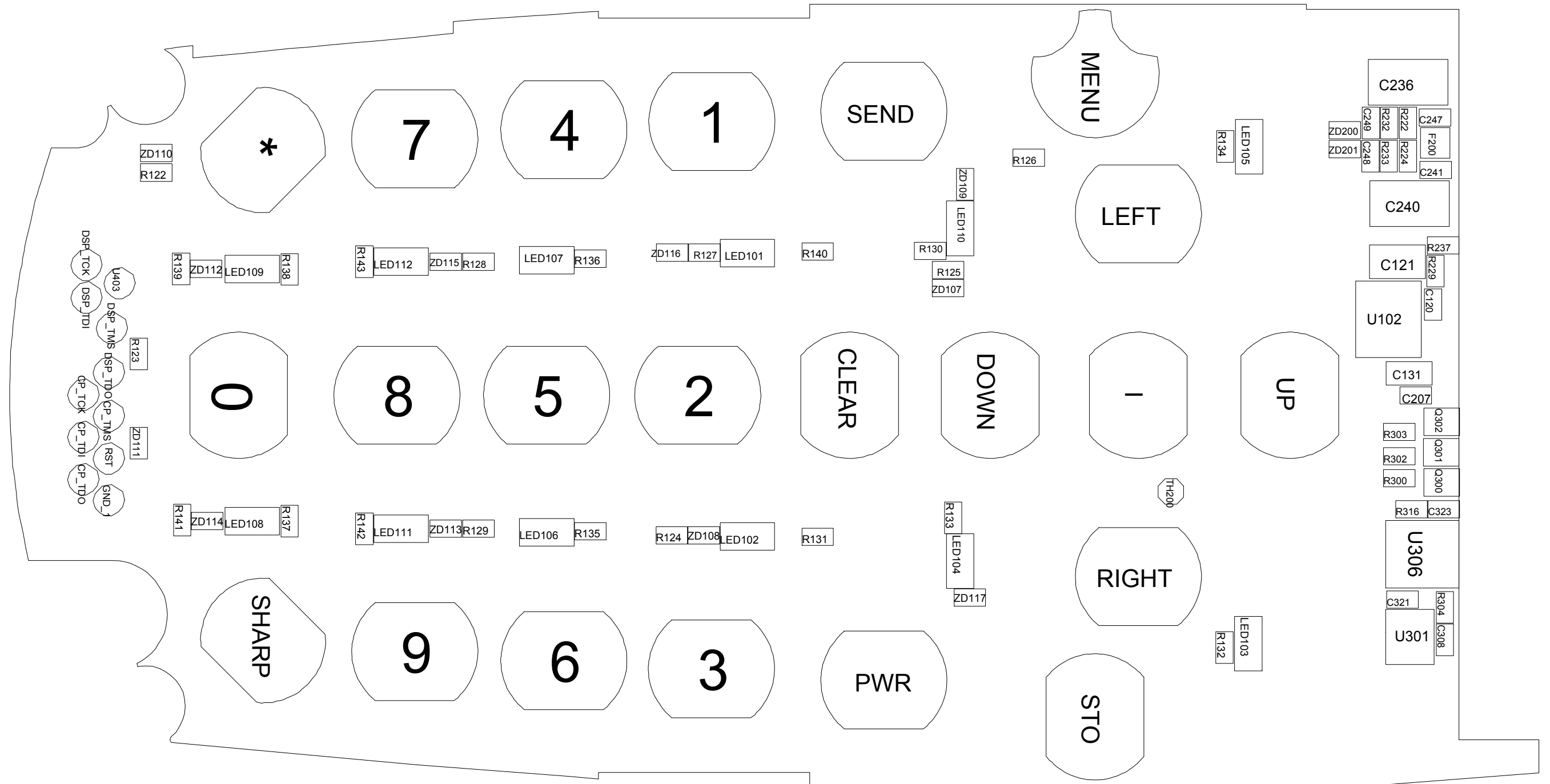


6. SGH-E710 PCB Diagrams

1.Main TOP Diagram



2. Main Bottom Diagram





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