

**SAMSUNG**

# GSM TELEPHONE

## SGH-E850

# **SERVICE** *Manual*

### GSM TELEPHONE



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# 1. SGH-E850 Specification

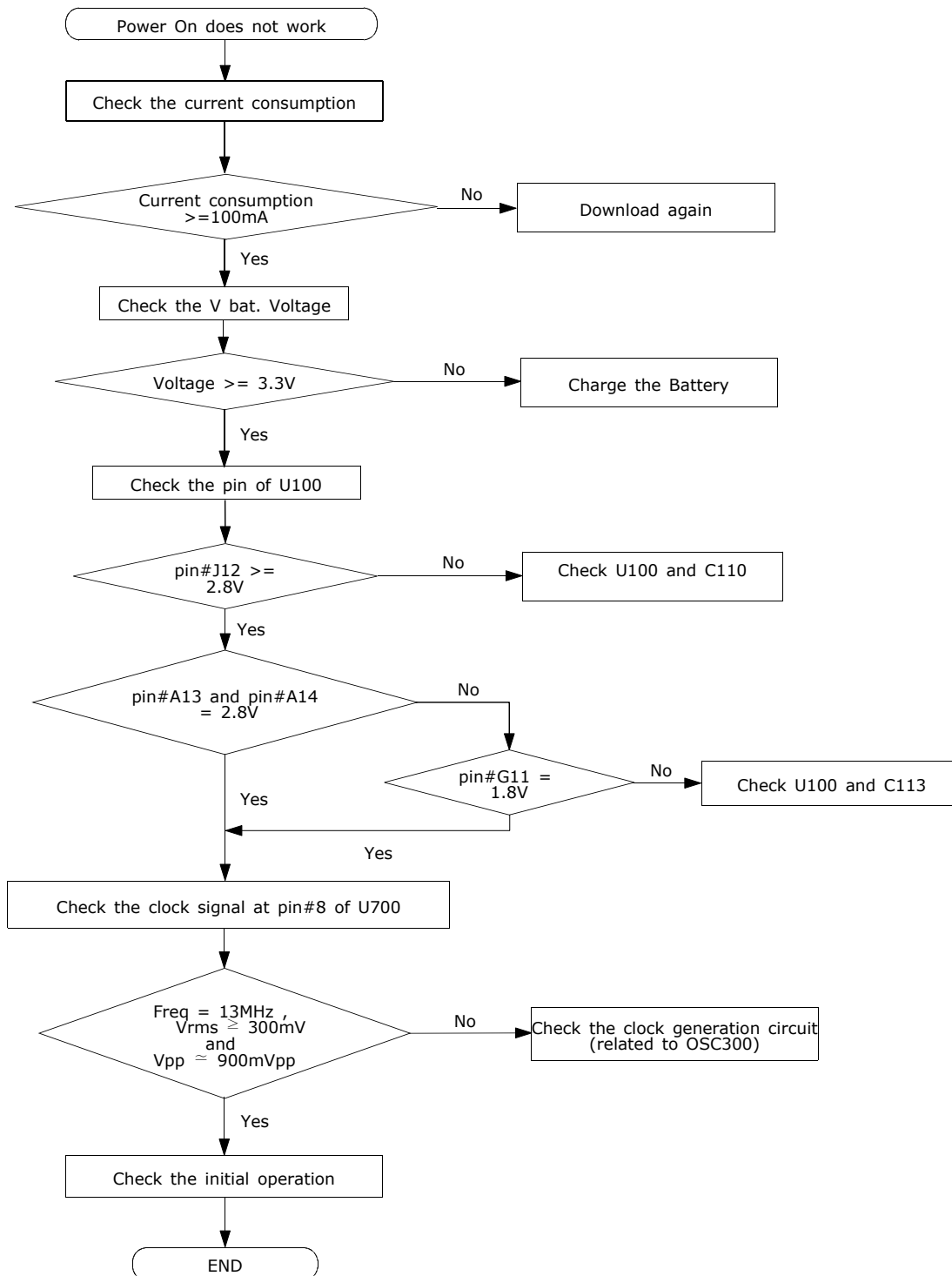
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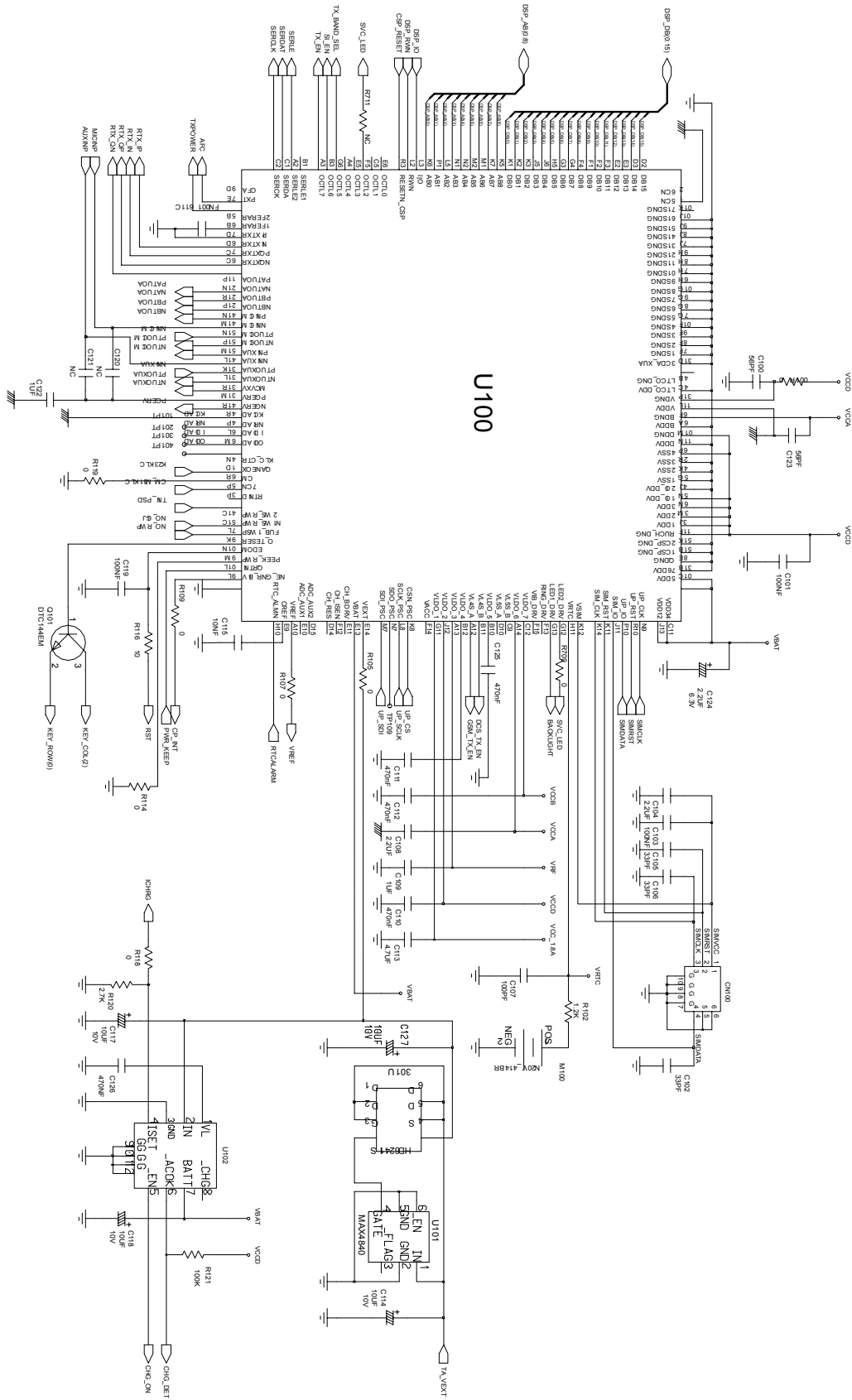
	GSM900	DCS1800
Freq. Band[MHz] Uplink/Downlink	880~915 925~960	1710~1785 1805~1880
ARFCN range	975~1023 0~124	512~885
Tx/Rx spacing	45MHz	95MHz
Mod. Bit rate/ Bit Period	270.833kbps 3.692us	270.833kbps 3.692us
Time Slot Period/Frame Period	576.9us 4.615ms	576.9us 4.615ms
Modulation	0.3GMSK	0.3GMSK
MS Power	33dBm~5dBm	30dBm~0dBm
Power Class	5pcl~19pcl	0pcl ~ 15pcl
Sensitivity	-102dBm	-100dBm
TDMA Mux	8	8
Cell Radius	35km	-

## 2. SGH-E850 Flow Chart of Troubleshooting

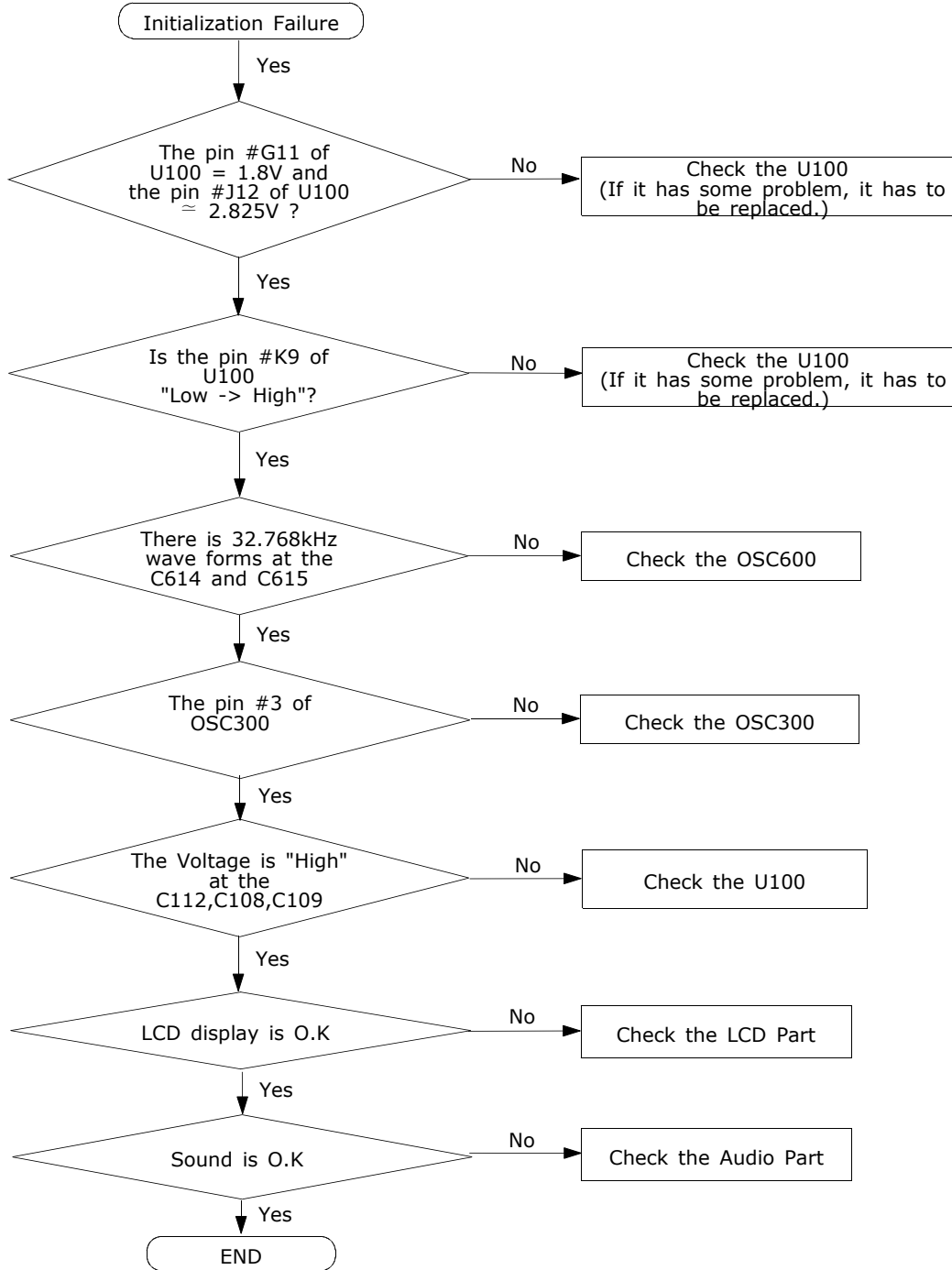
### 1.Baseband

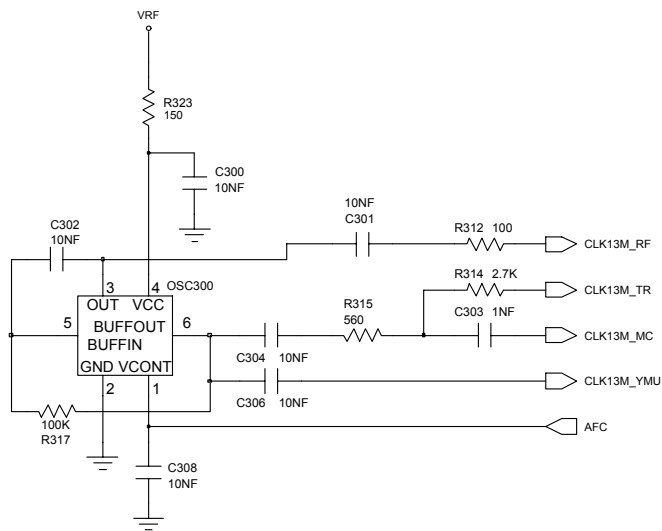
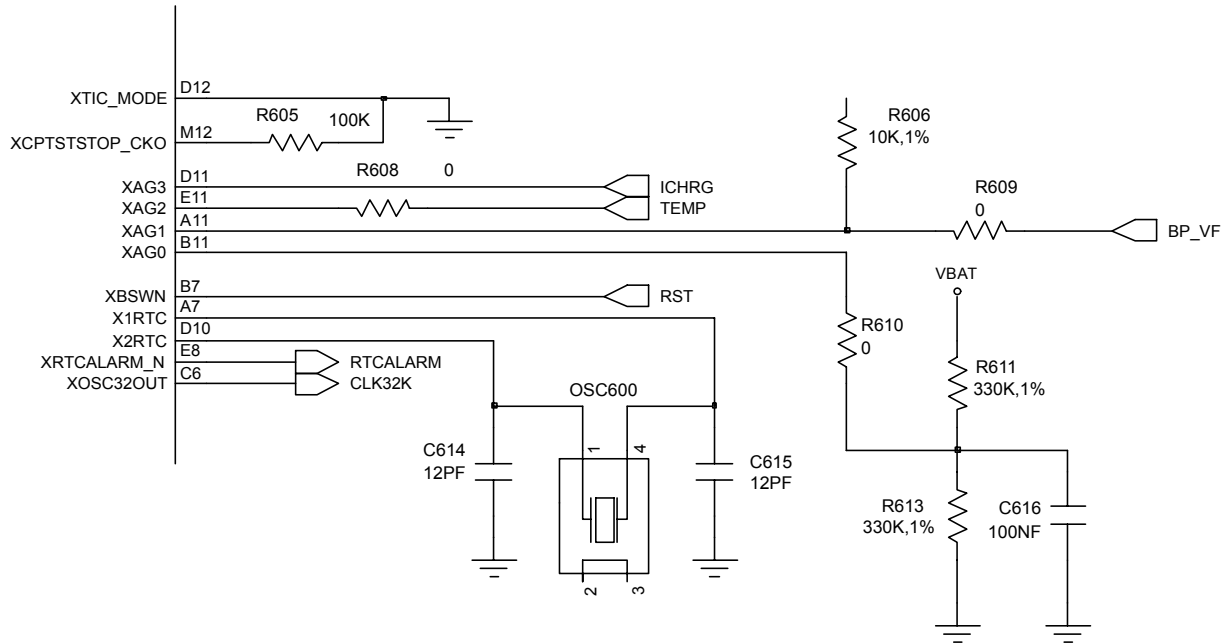
#### 1. Power ON





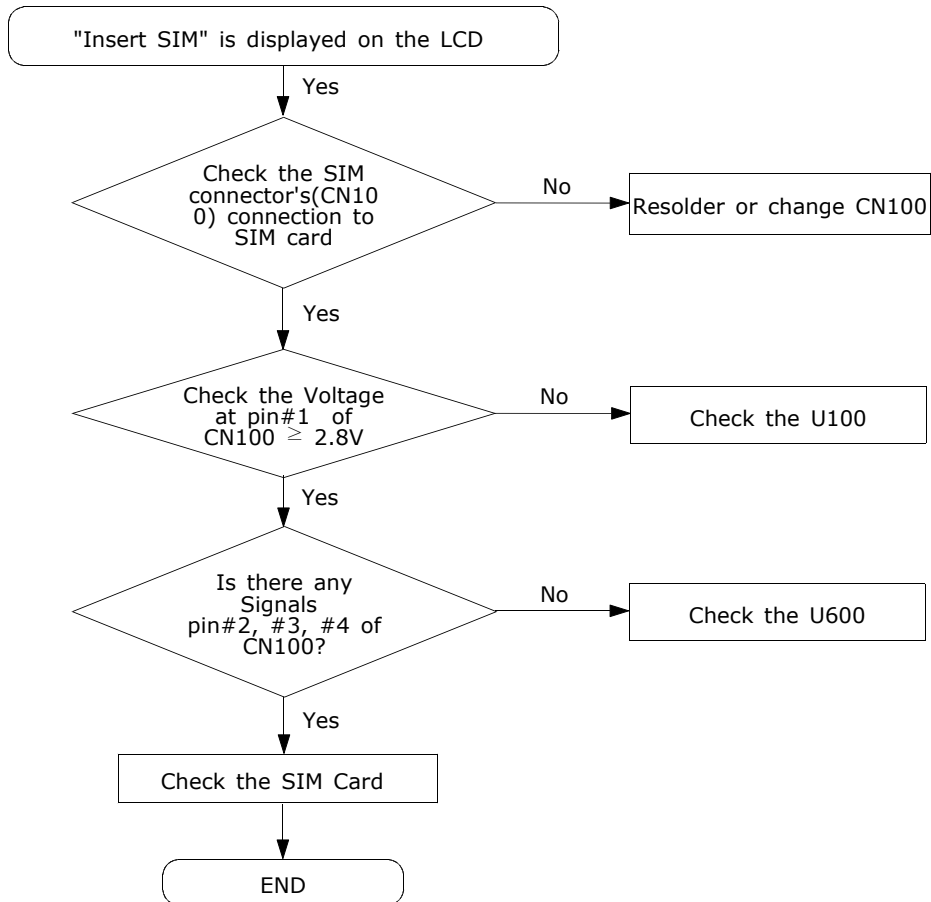
## 2. Initial



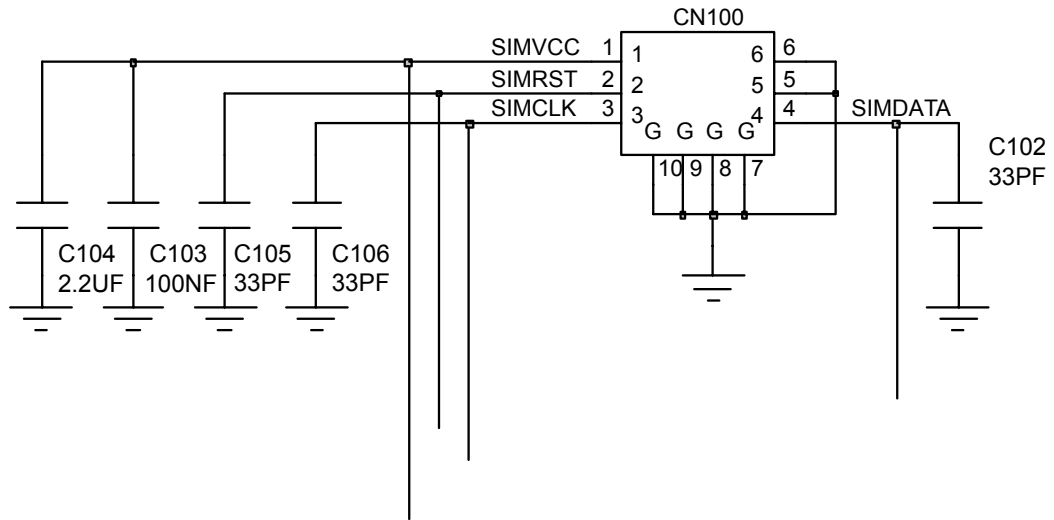




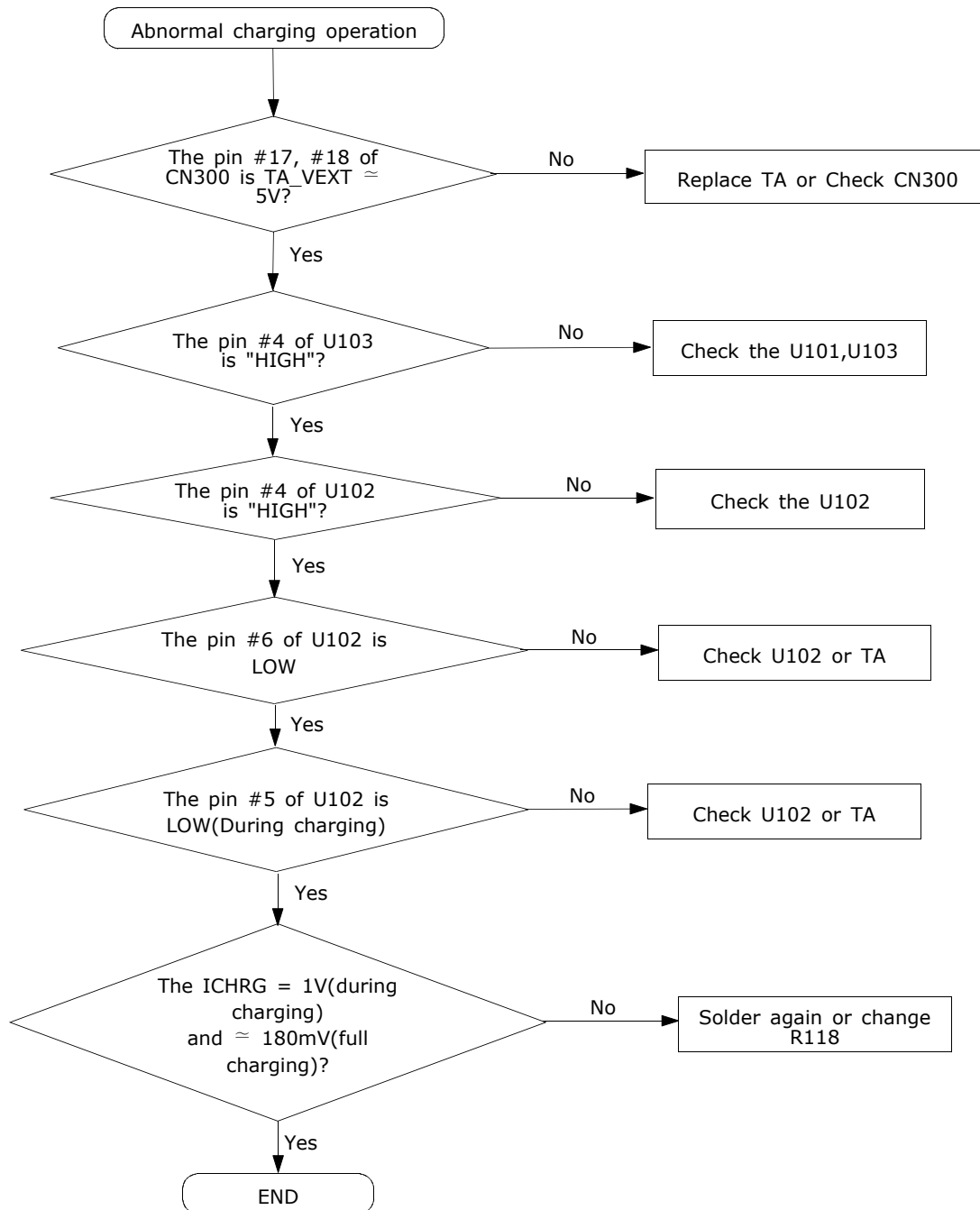
### 3. Sim Part



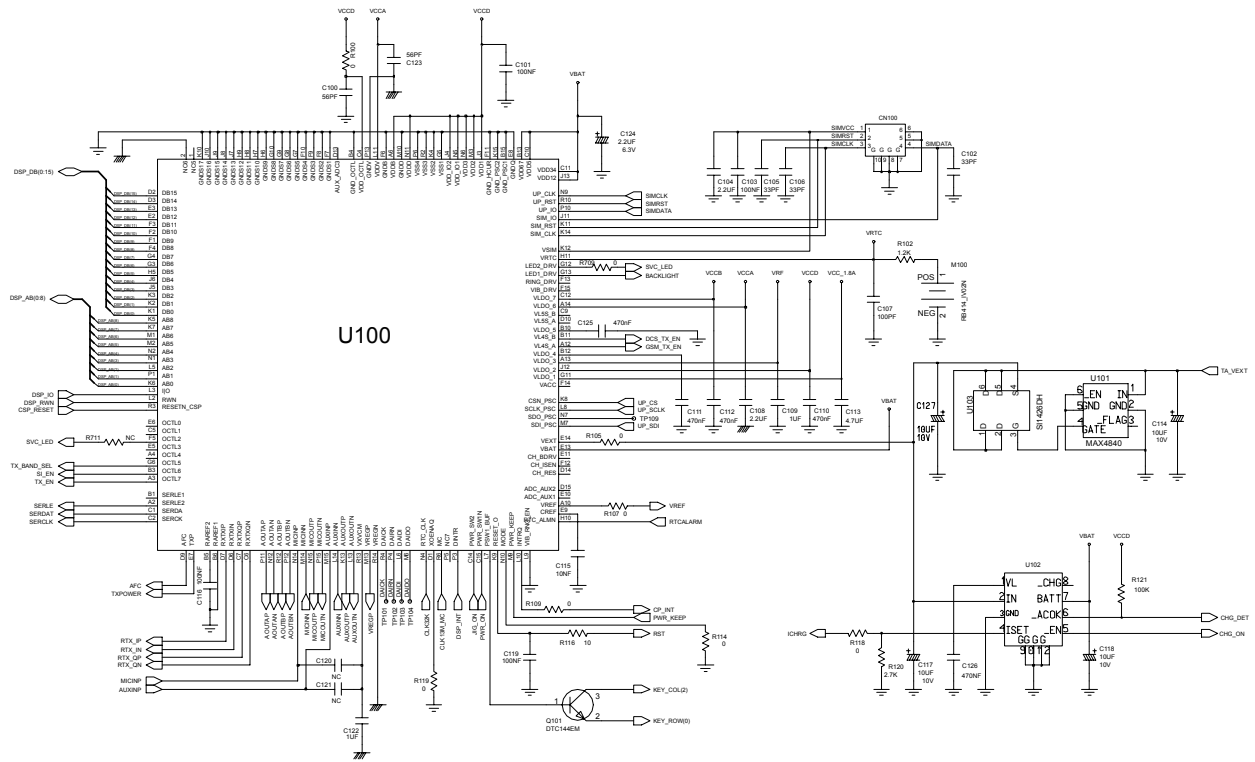




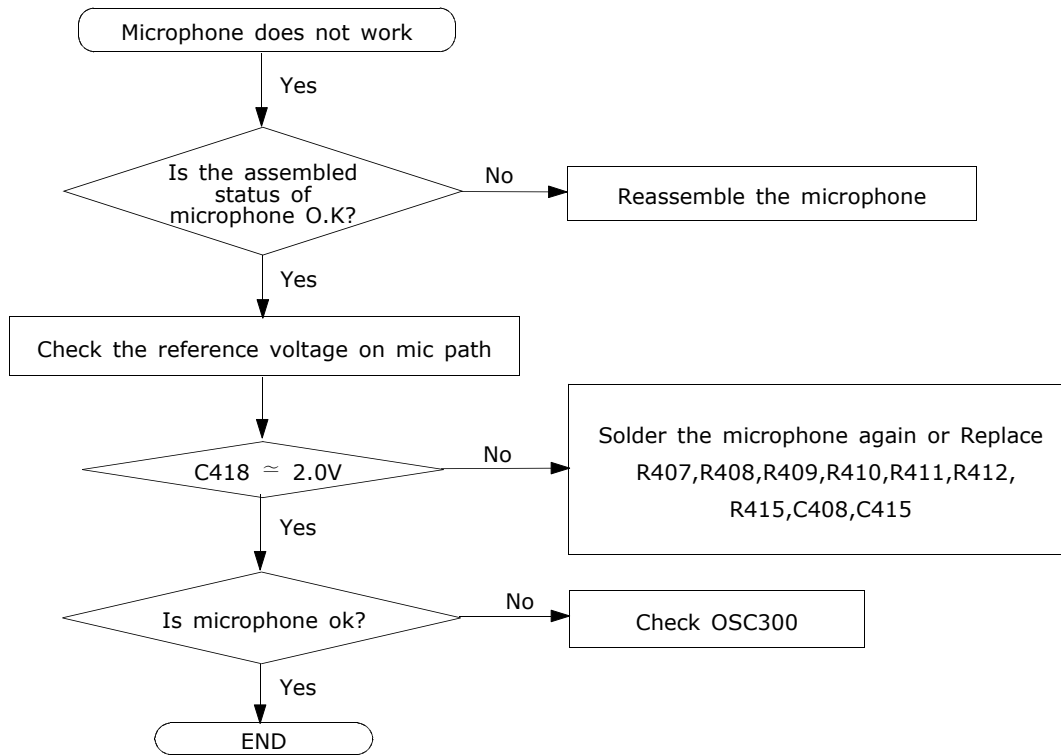
## 4. Charging Part

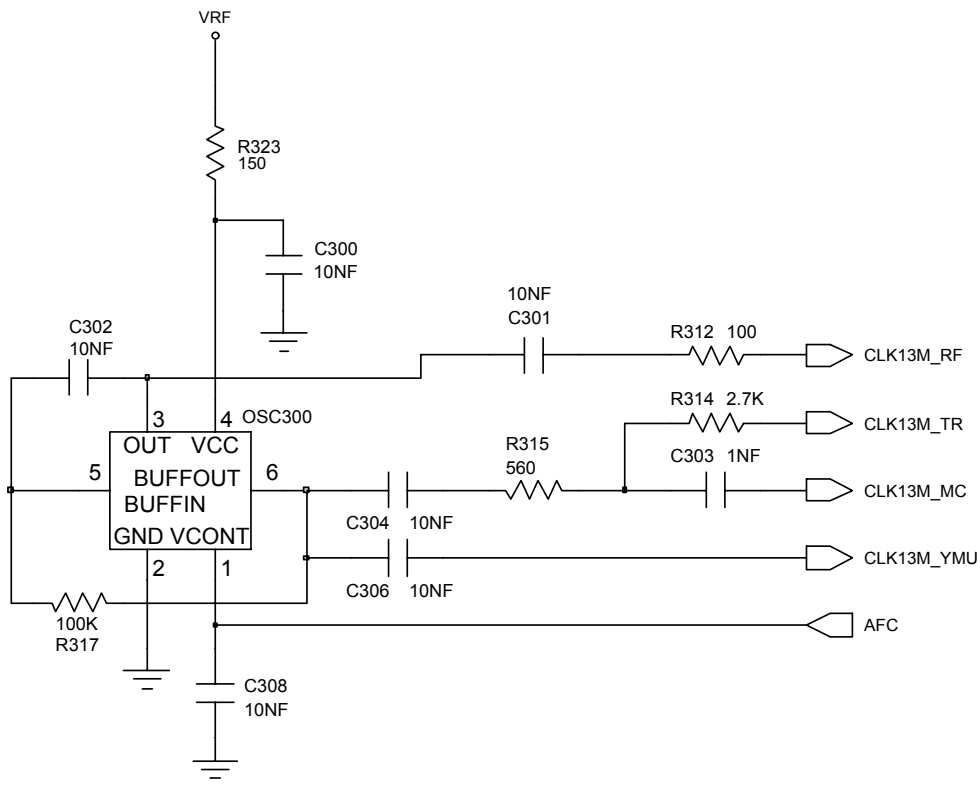
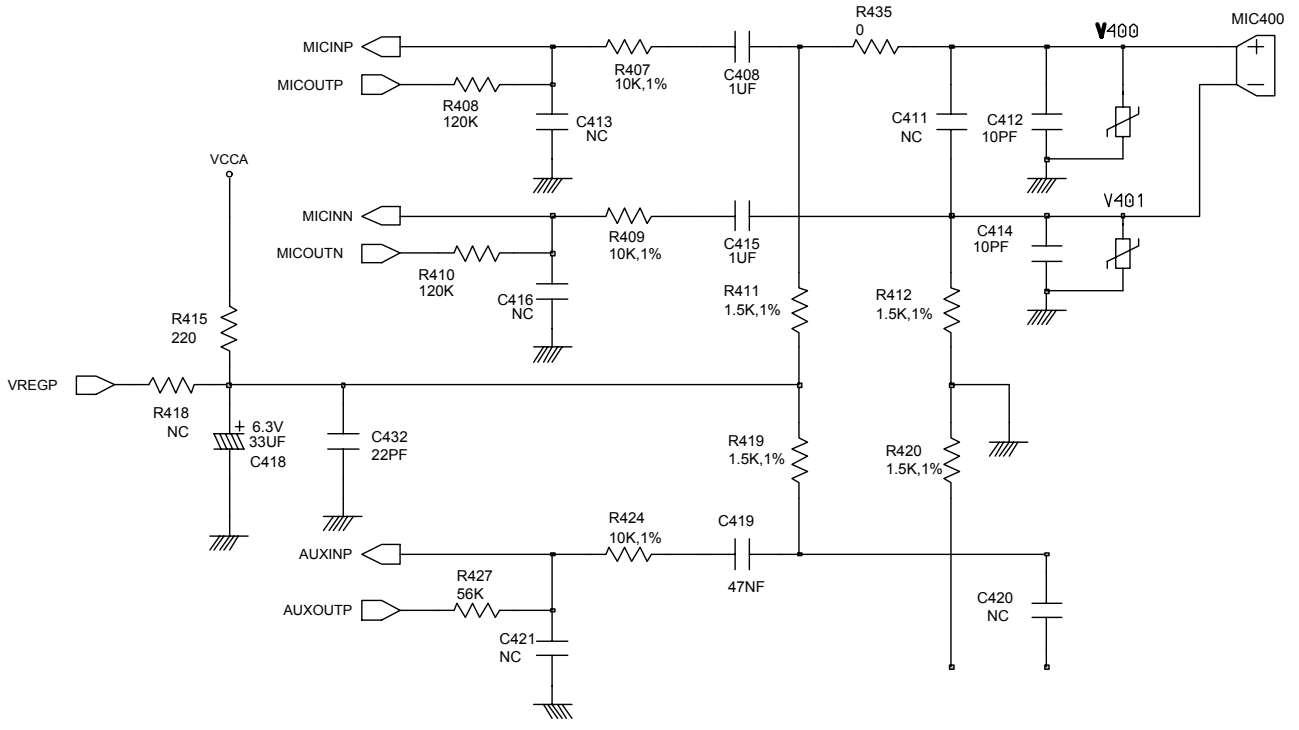


# SGH-E850 Flow Chart of Troubleshooting

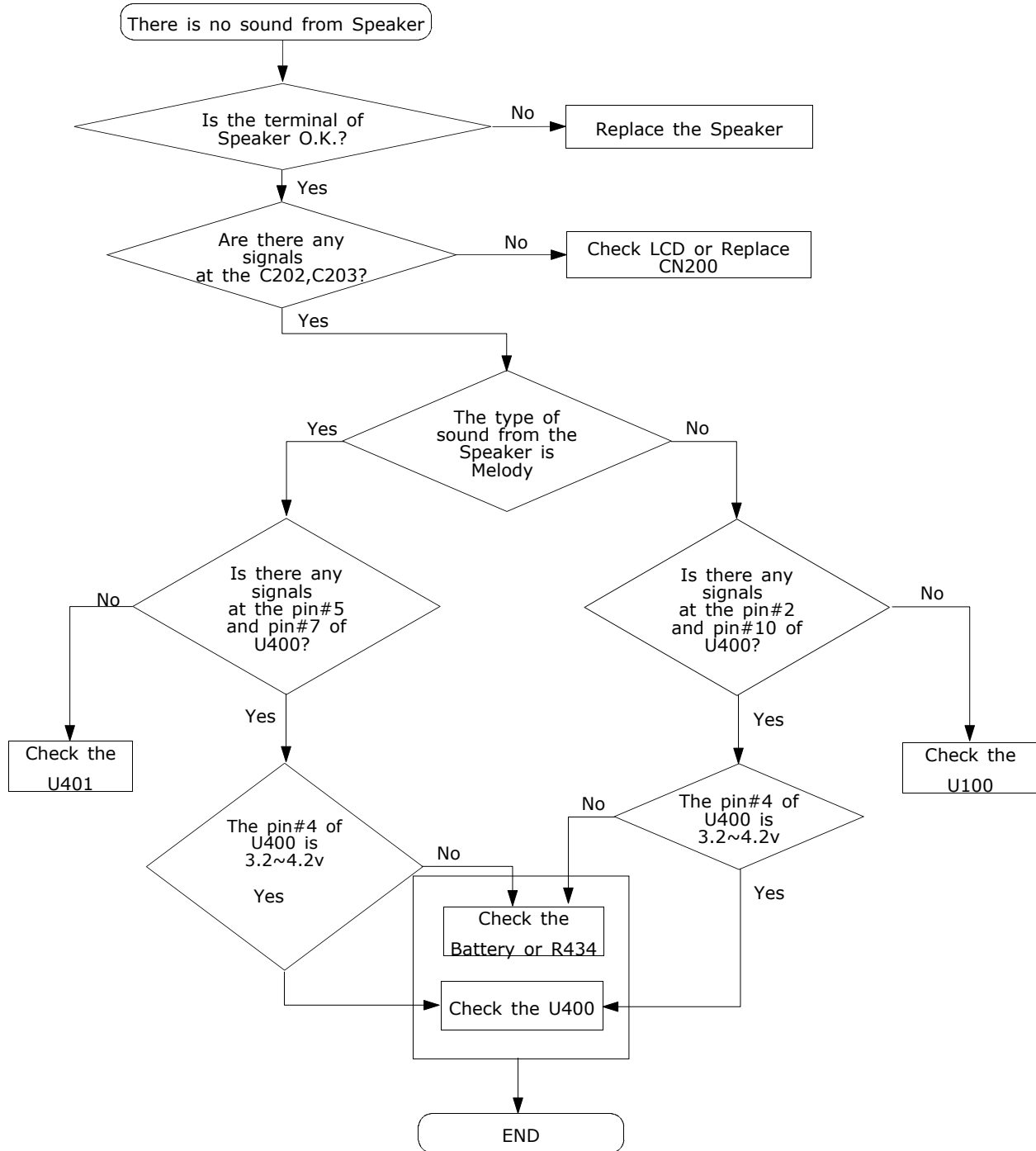


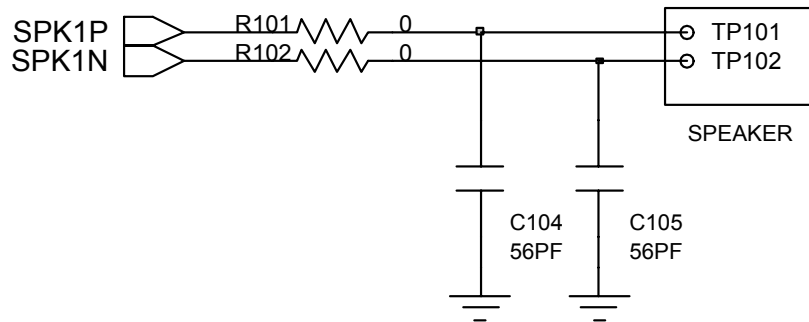
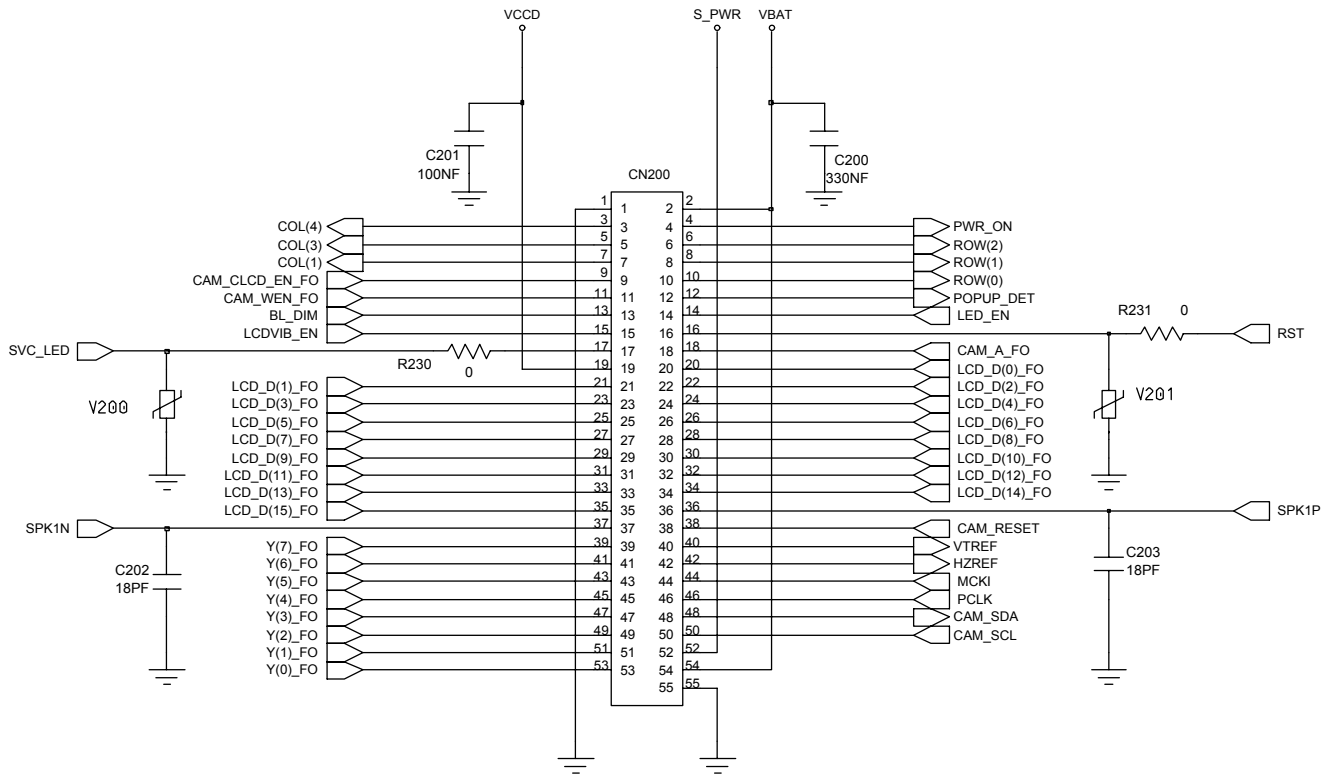
## 5. Microphone Part

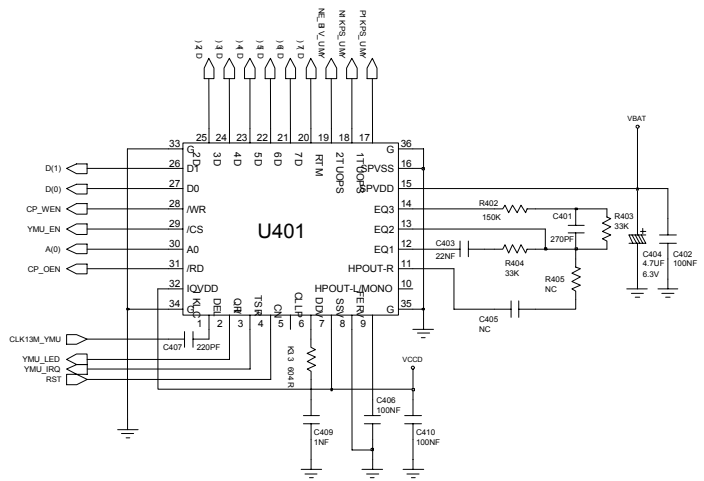
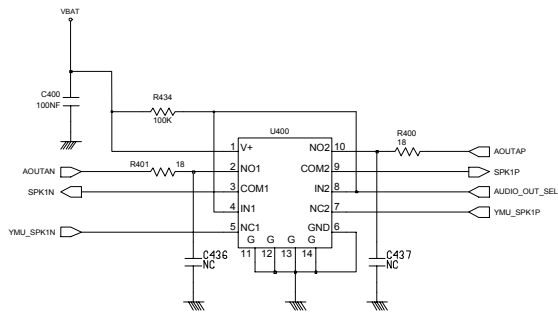




## 6. Speaker Part



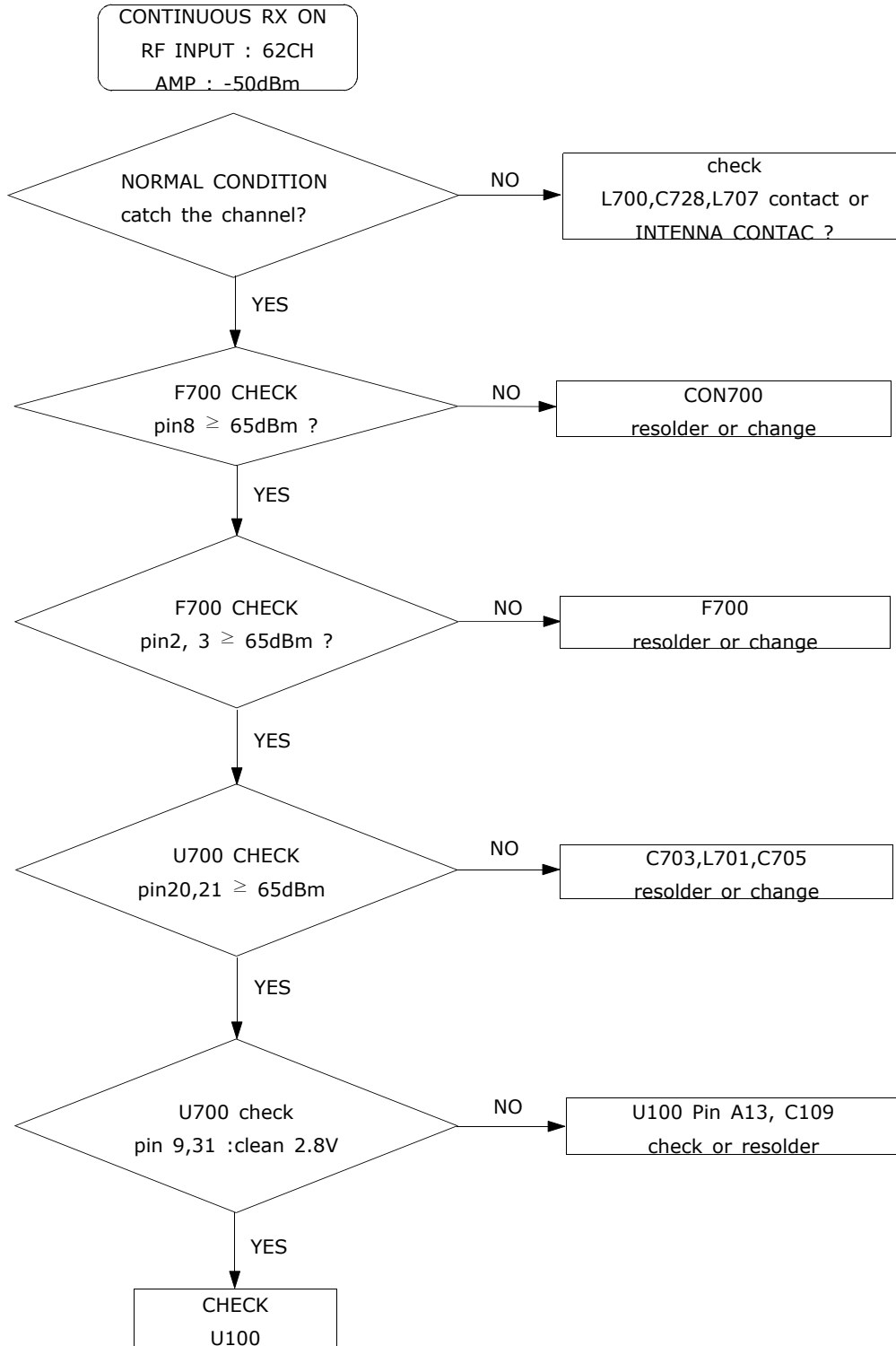




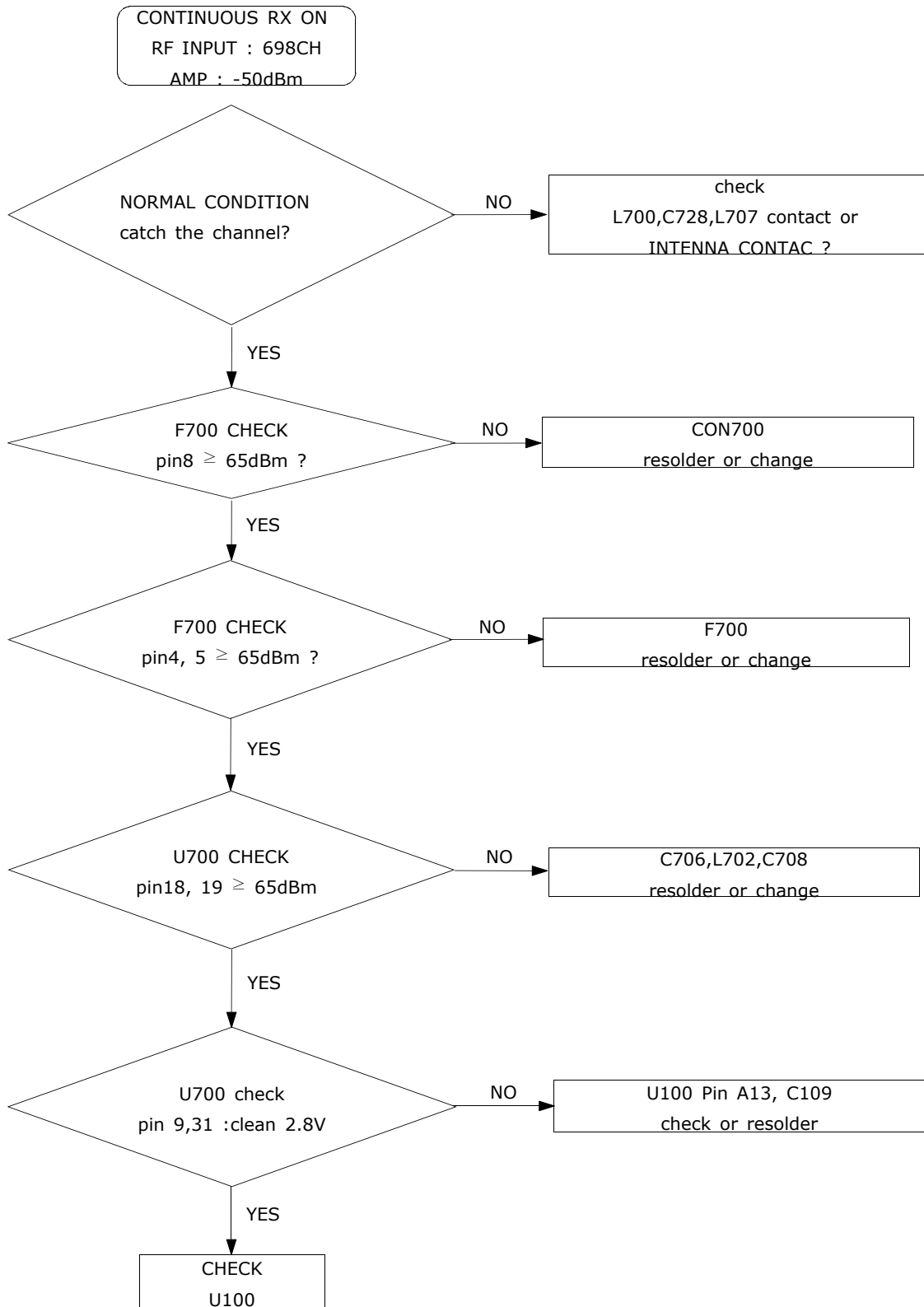


## 2.RF

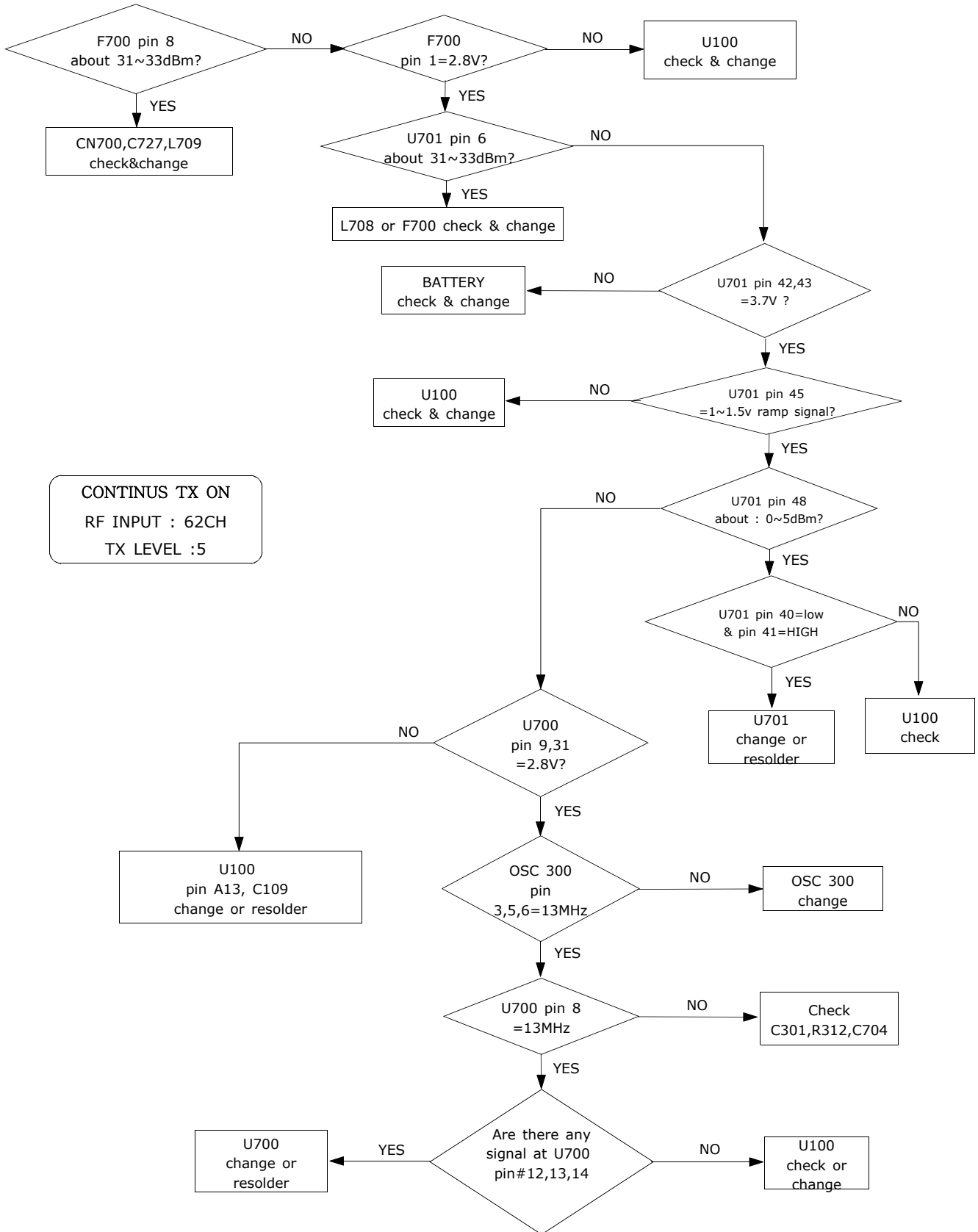
### 1. GSM RX



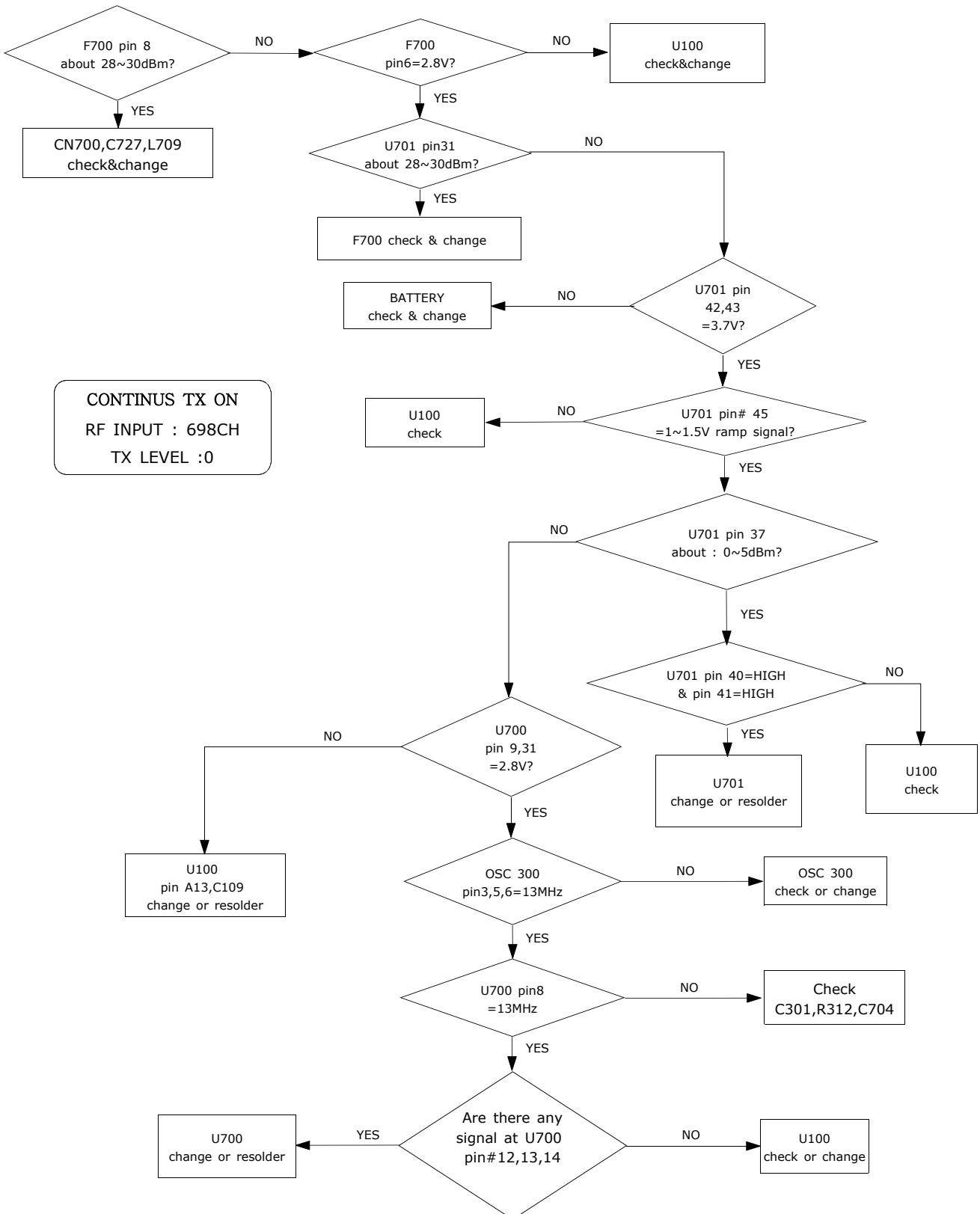
## 2. DCS RX



### 3. GSM TX

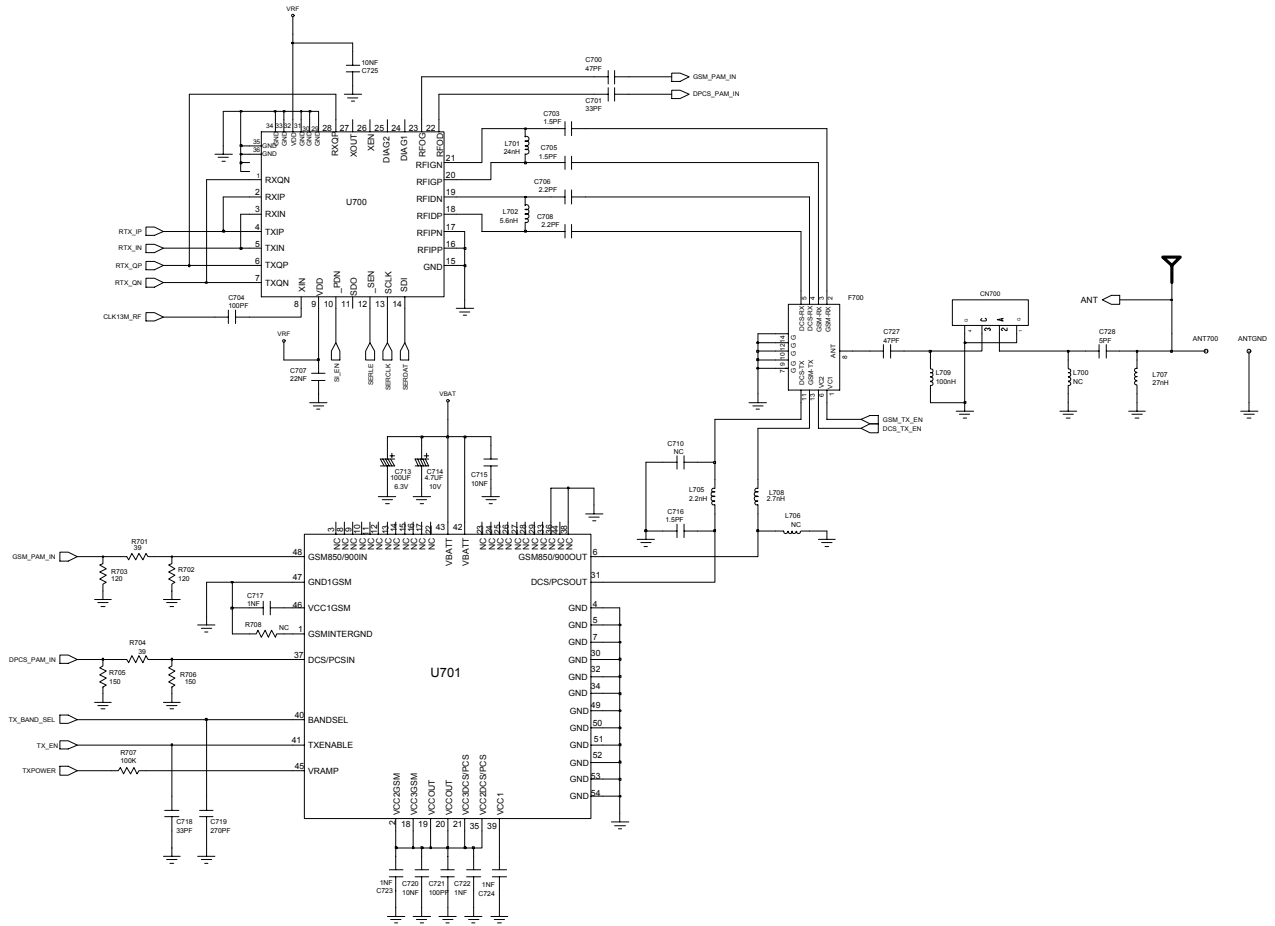


### 4. DCS TX



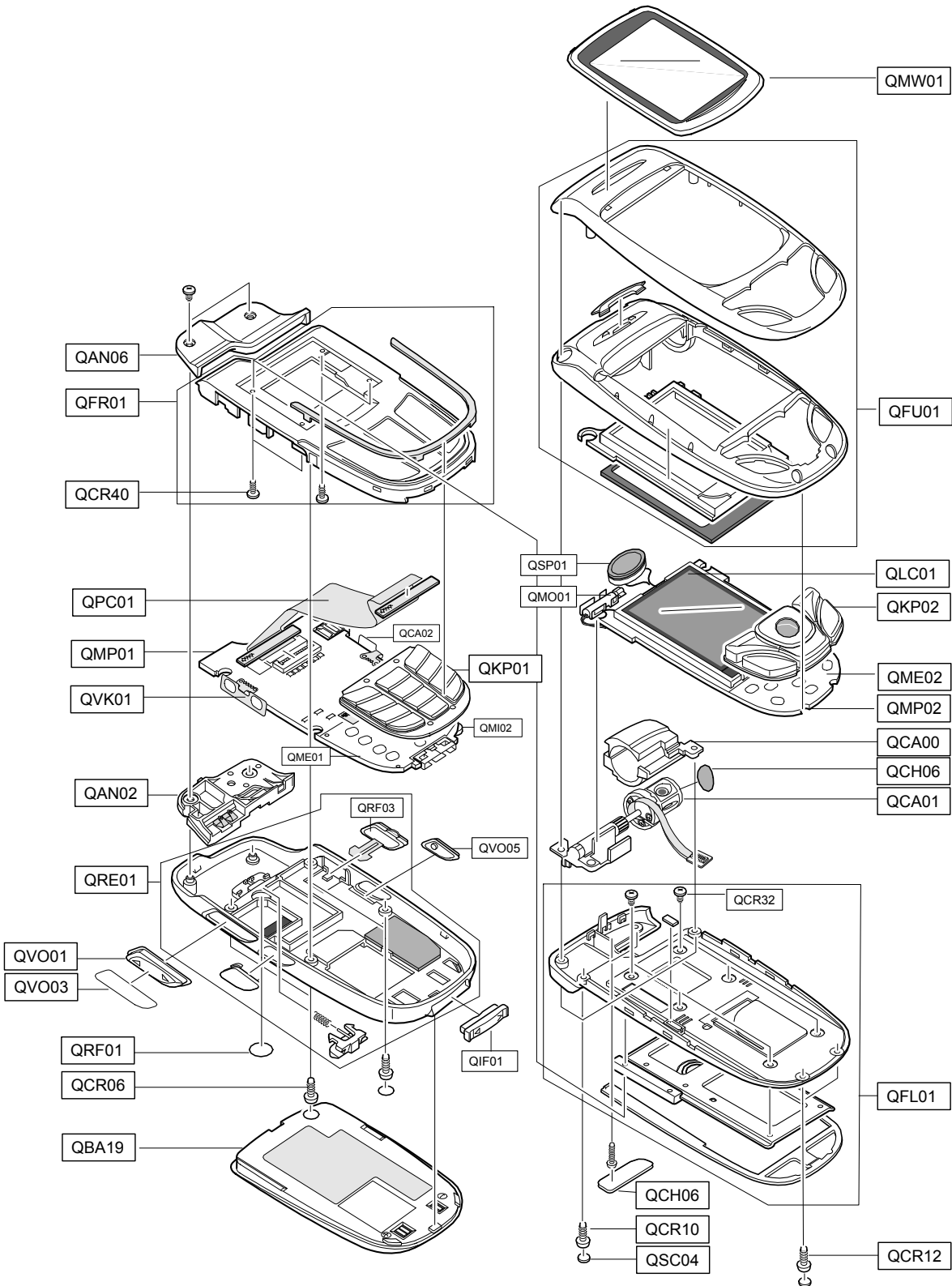
CONTINUS TX ON  
RF INPUT : 698CH  
TX LEVEL :0

# SGH-E850 Flow Chart of Troubleshooting



# 3. SGH-E850 Exploded View and its Parts list

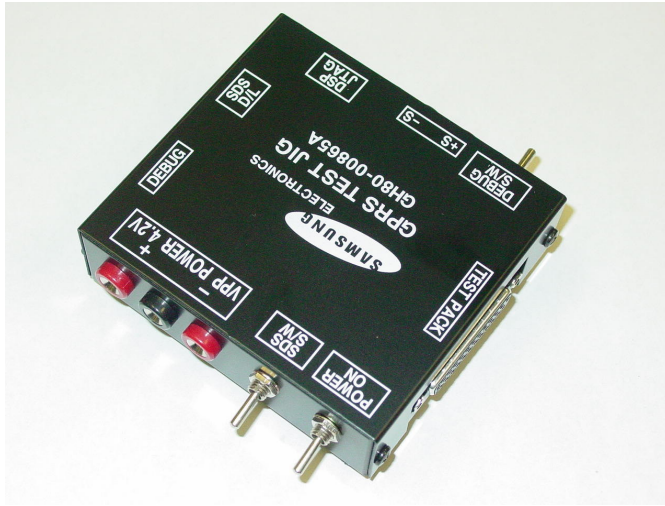
## 1. Cellular phone Exploded View



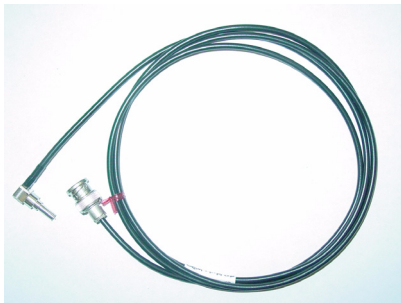
## 2. Cellular phone Parts list

Location NO.		Description	SEC CODE	Remark
QMW01		MAIN WINDOW	GH75-05056B	
QFU01		S/UPPER	GH75-04365B	
QLC01		LCD	GH07-00621A	
QKP02		KEYPAD SUB	GH75-04369B	
QME02		UNIT METAL DOME	GH59-01554A	
QMP02		SUB PBA	GH92-01776A	
QCA00		CAMERA GUIDE	GH72-13737A	
QCA01		UNIT CAMERA	GH59-01522A	
QFL01		S/LOWER	GH75-05392A	
	QCR32	SCREW	6001-001700	
QCH06		CAMERA SIDE DUMMY	GH73-02951B	
QSP01		SPEAKER	3001-001610	
QMO01		MOTOR DC	3101-001413	
QCR40		SCREW	6001-001853	
QAN06		INTENNA DUMMY	GH72-14289B	
QFR01		FRONT COVER	GH75-04364B	
QPC01		PCB-FPCB	GH41-00632A	
QMP01		PBA MAIN	GH92-01769A	
QKP01		KEYPAD MAIN	GH75-04370A	
QCA02		UNIT CAMERA KEY	GH59-01557A	
QVK01		UNIT VOLUME EKY	GH59-01556A	
QME01		UNIT METAL DOME	GH59-01555A	
QMI02		UNIT MIC ASSY	GH59-00595A	
QAN02		INTENNA	GH42-00474A	
QRE01		SUB REAR COVER	GH75-04367A	
	QRF03	EAR JACK COVER	GH72-13805A	
QVO05		KEY SHOT	GH71-04447A	
QVO01		KEY VOL	GH71-04446A	
QRF01		RF SHEET	GH74-09518A	
QCR06		SCREW	6001-001155	
QIF01		IF COVER	GH72-13739A	
QBA19		BATTERY	GH43-01445B	
QVO03		SIDE KEY TAPE	GH74-09136A	
QSC04		SLDIE SCREW CAP	GH73-03501A	
QCR12		SCREW	6001-001530	
QCR10		SCREW	6001-001633	

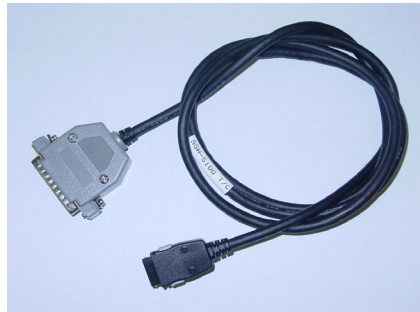
### 3. Test Jig (GH80-00865A)



3-1. RF Test Cable  
(GH39-00283A)



3-2. Test Cable  
(GH39-00206A)



3-3. Serial Cable



3-4. Power Supply Cable



3-5. DATA CABLE  
(GH39-00203A)



3-6. TA  
(GH44-00482A)





## 4. SGH-E850 MAIN Electrical Parts List

Design LOC	SEC Code
ZD101	0403-001446
ZD100	0404-001172
D100	0407-000115
Q100	0505-001518
LED100,LED101,LED102	0601-001790
LED103	0601-001790
U100	1203-002633
V101	1405-001082
V102,V103,V104,V105	1405-001108
V106,V107,V108	1405-001108
R108	2007-000143
R103	2007-000162
R101,R102	2007-000171
R104,R105,R110,R111	2007-000174
R112,R113,R114,R115	2007-000174
U103,U104	2007-000174
R107	2007-002970
R106	2007-000172
R116	2007-000140
C112,C113	2203-000278
C109,C110,C111	2203-000438
C104,C105	2203-001072
C106,C107	2203-001598
C100,C103	2203-005482
C102	2203-005509
C114	2203-006090
C101	2203-006093
C108	2203-006105
L100	2703-002339
F1,F2	3301-001342
CN100	3708-001890
CN102	3708-001982
CN101	3711-005646
U101	1209-001585
ZD314	0403-001387

Design LOC	SEC Code
R701,R704	2007-001295
R205,R206	2007-001301
R702,R703	2007-001305
R323,R705,R706	2007-001306
R102	2007-001319
R406	2007-001325
R315	2007-002797
R436,R437	2007-003006
R502,R503	2007-007136
R407,R409,R424,R428	2007-007142
R606	2007-007142
R411,R412,R419,R420	2007-007528
R611,R613	2007-007573
R120	2007-008117
C107,C507,C613,C704	2203-000233
C721	2203-000233
C300,C301,C302,C304	2203-000254
C306,C308,C509,C515	2203-000254
C516,C519,C602,C603	2203-000254
C604,C605,C606,C610	2203-000254
C715,C720,C725	2203-000254
C412,C414	2203-000278
C614,C615	2203-000330
C202,C203	2203-000425
C303,C409,C426,C427	2203-000438
C717,C722,C723,C724	2203-000438
C407	2203-000585
C432	2203-000628
C401,C719	2203-000654
C609	2203-000679
C102,C105,C106,C701	2203-000812
C718	2203-000812
C523	2203-000885
C514	2203-000940
C307,C612,C700,C727	2203-000995

Design LOC	SEC Code
ZD305	0406-001150
ZD306,ZD313	0406-001201
Q400	0501-000225
Q101	0504-001113
U103	0505-001889
LED201,LED202,LED203	0601-001790
LED204,LED205,LED206	0601-001790
LED200	0604-001261
U400	1001-001261
U601	1009-001018
U500	1109-001281
U701	1201-002075
U300	1203-001720
U102	1203-003109
U100	1203-003304
U101	1203-003409
U502	1203-003459
U401	1204-002138
U602	1209-001219
V200,V201,ZD400	1405-001082
ZD401,ZD402,ZD403	1405-001082
ZD404	1405-001082
V400,V401,ZD200	1405-001108
ZD201,ZD202,ZD203	1405-001108
ZD204,ZD205,ZD206	1405-001108
ZD207,ZD208,ZD209	1405-001108
ZD210	1405-001108
R312	2007-000138
R415	2007-000139
R303,R304,R305,R306	2007-000140
R307,R308,R309,R310	2007-000140
R319,R320,R321,R322	2007-000140
R432	2007-000140
R314	2007-000142
R504	2007-000148

Design LOC	SEC Code
C100,C123	2203-001072
C424	2203-001153
C403,C601	2203-001405
C419,C422	2203-001432
C728	2203-001437
C104	2203-001598
C204	2203-001652
C126	2203-002494
C101,C103,C115,C116	2203-005061
C119,C400,C402,C406	2203-005061
C410,C500,C501,C502	2203-005061
C503,C505,C506,C513	2203-005061
C600	2203-005061
C703,C705,C716	2203-005281
C201,C309,C425,C428	2203-005482
C520,C521,C611,C616	2203-005482
C607,C608	2203-005496
C429	2203-005503
C200	2203-005509
C706,C708	2203-005552
C109,C122,C504,C518	2203-006053
C522	2203-006053
C205	2203-006090
C408,C415	2203-006093
C707	2203-006137
C113	2203-006208
C110,C111,C112,C125	2203-006257
C433	2203-006257
C108	2203-006324
C404	2404-001086
C124	2404-001088
C713	2404-001134
C114,C117,C118,C127	2404-001268
C430,C431	2404-001268
C418	2404-001282

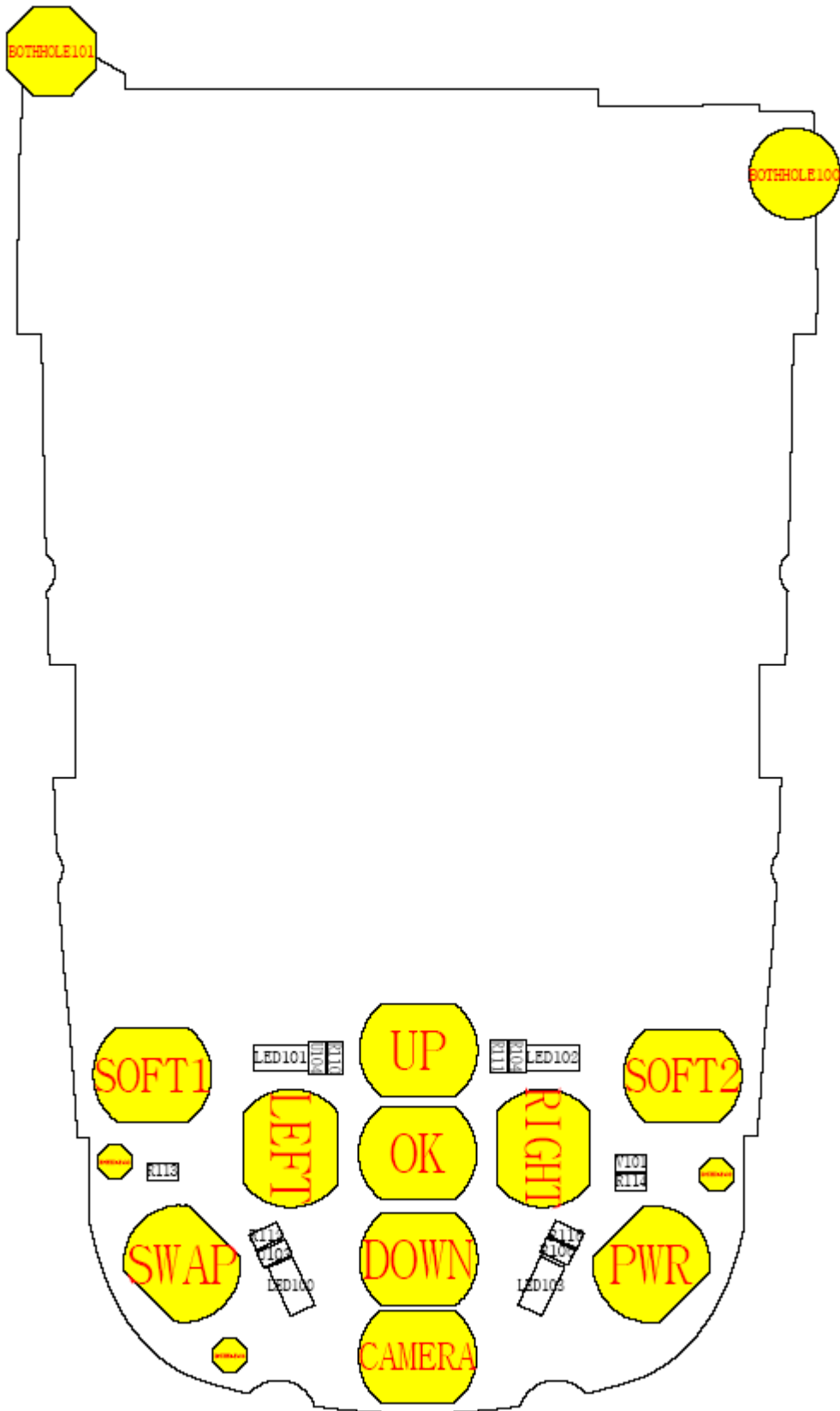
Design LOC	SEC Code
R301,R302,R507,R600	2007-000157
R601,R604	2007-000157
R427,R430	2007-000159
R121,R317,R429,R434	2007-000162
R605,R607,R614,R707	2007-000162
R408,R410	2007-000163
R402	2007-000164
R413	2007-000165
R602	2007-000170
R100,R105,R107,R109	2007-000171
R114,R118,R119,R230	2007-000171
R231,R416,R417,R421	2007-000171
R422,R426,R431,R435	2007-000171
R440,R501,R506,R508	2007-000171
R608,R609,R610,R615	2007-000171
R709,R710	2007-000171
R116,R509	2007-000172
R201,R203,R204,R207	2007-000174
R209,R210,R211,R212	2007-000174
R213,R214,R215,R216	2007-000174
R217,R218,R219,R226	2007-000174
R423	2007-000758
R403,R404	2007-000775
R414	2007-001244
R400,R401	2007-001288

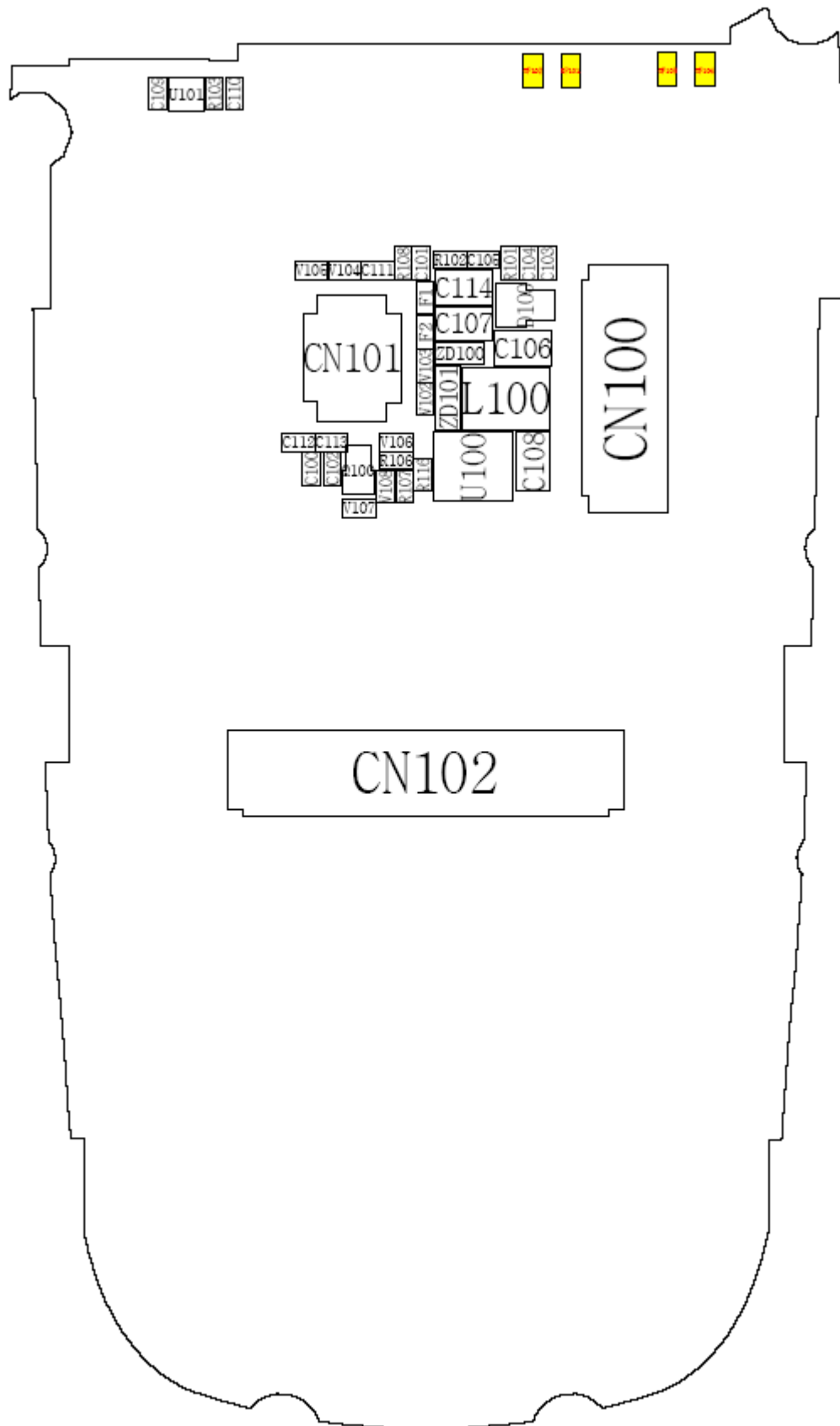
Design LOC	SEC Code
C714	2404-001339
L708	2703-002176
L707	2703-002202
L705	2703-002208
L701	2703-002287
L709	2703-002313
L702	2703-002665
OSC600	2801-003856
OSC500	2804-001577
OSC300	2809-001284
F200,F201,F202,F203	2901-001260
F204,F205,F206	2901-001260
F700	2909-001225
F500,F600	3301-001342
CN700	3705-001355
CN200	3708-001982
CN100	3709-001298
CN300	3710-002017
CN400	3722-002181
M100	4302-001130
U600	GH09-00029A
U501	GH13-00020A
ZD315,ZD316	0406-001208
U700	1205-002433

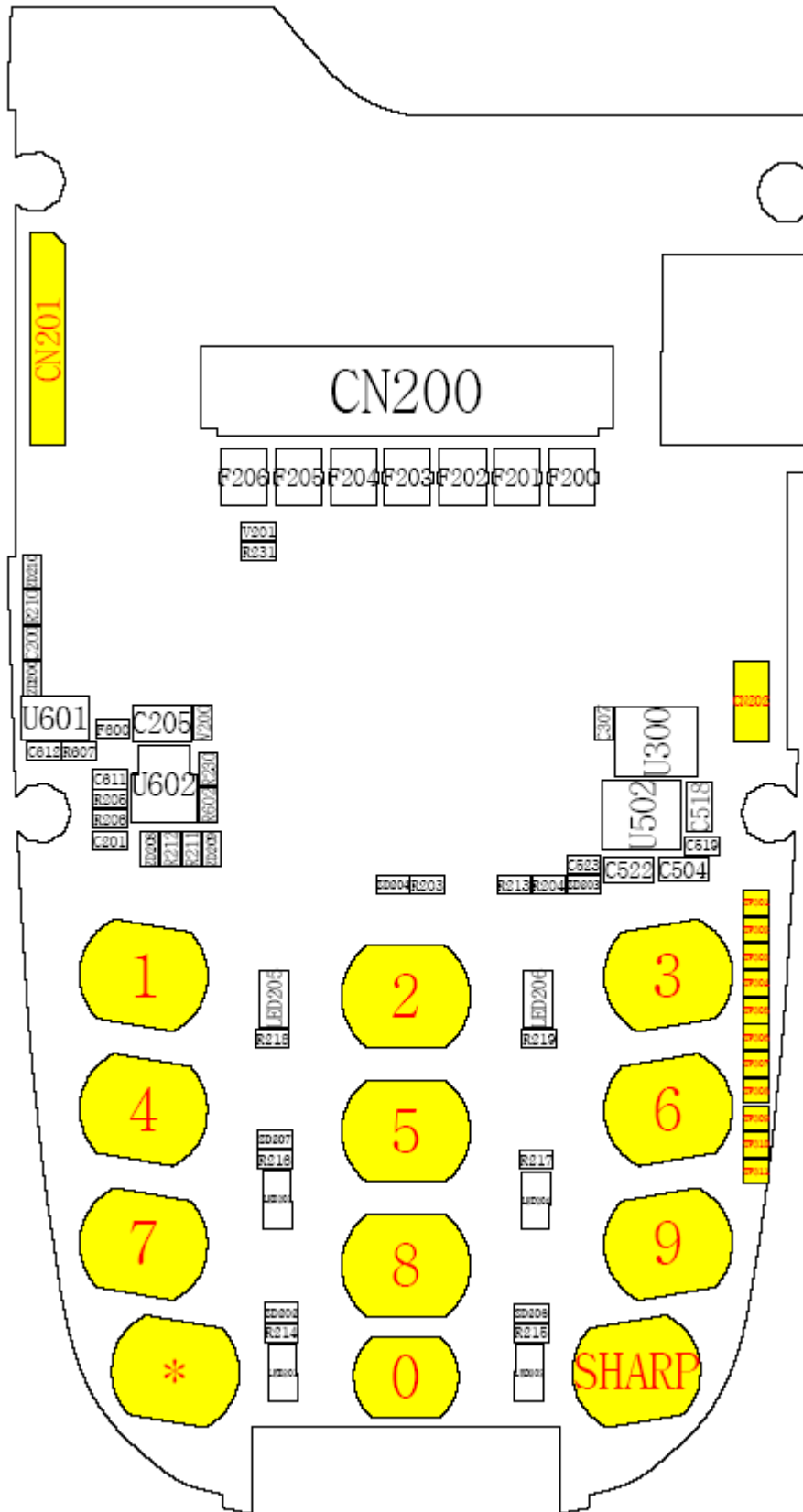
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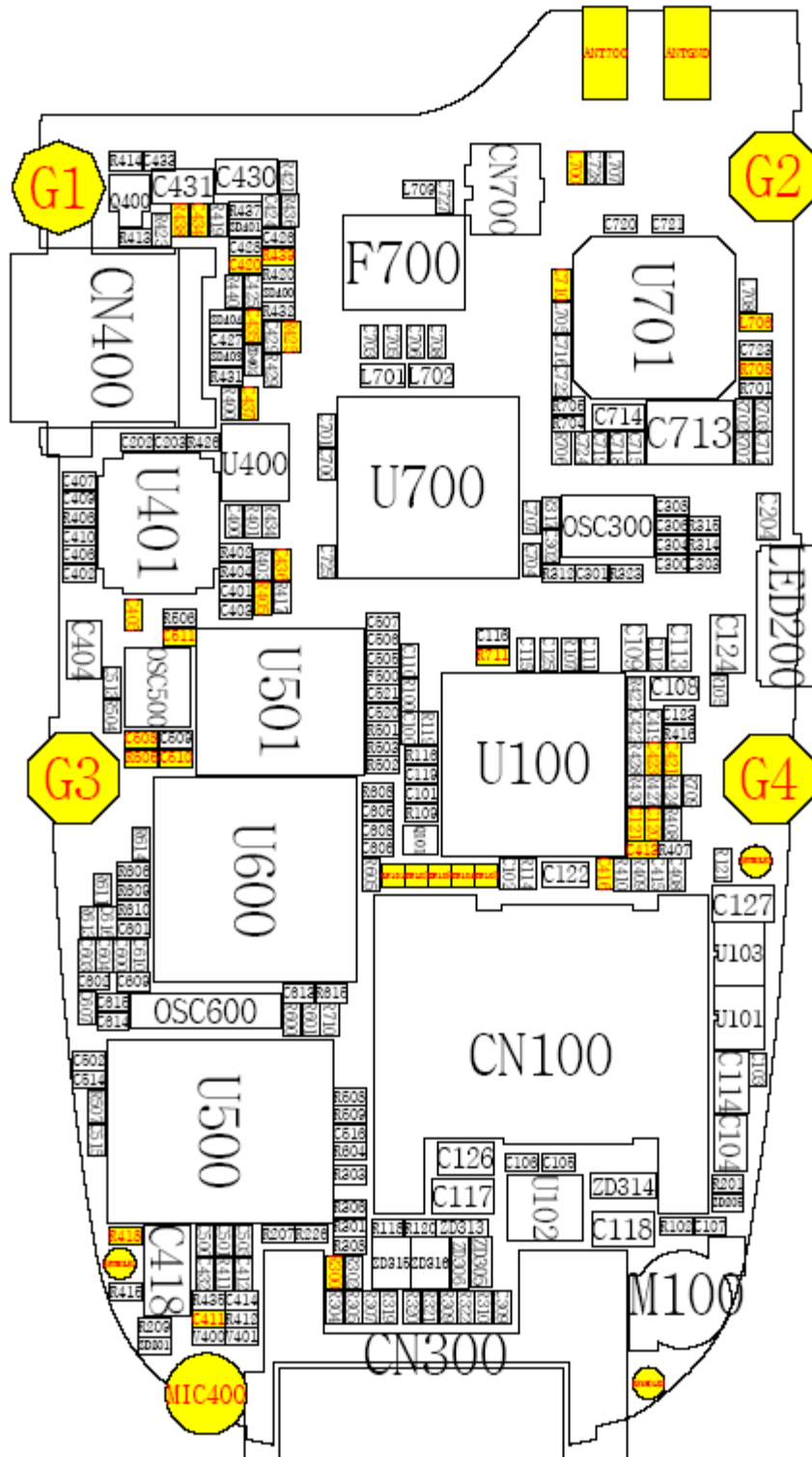
## 5. SGH-E850 PCB Diagrams

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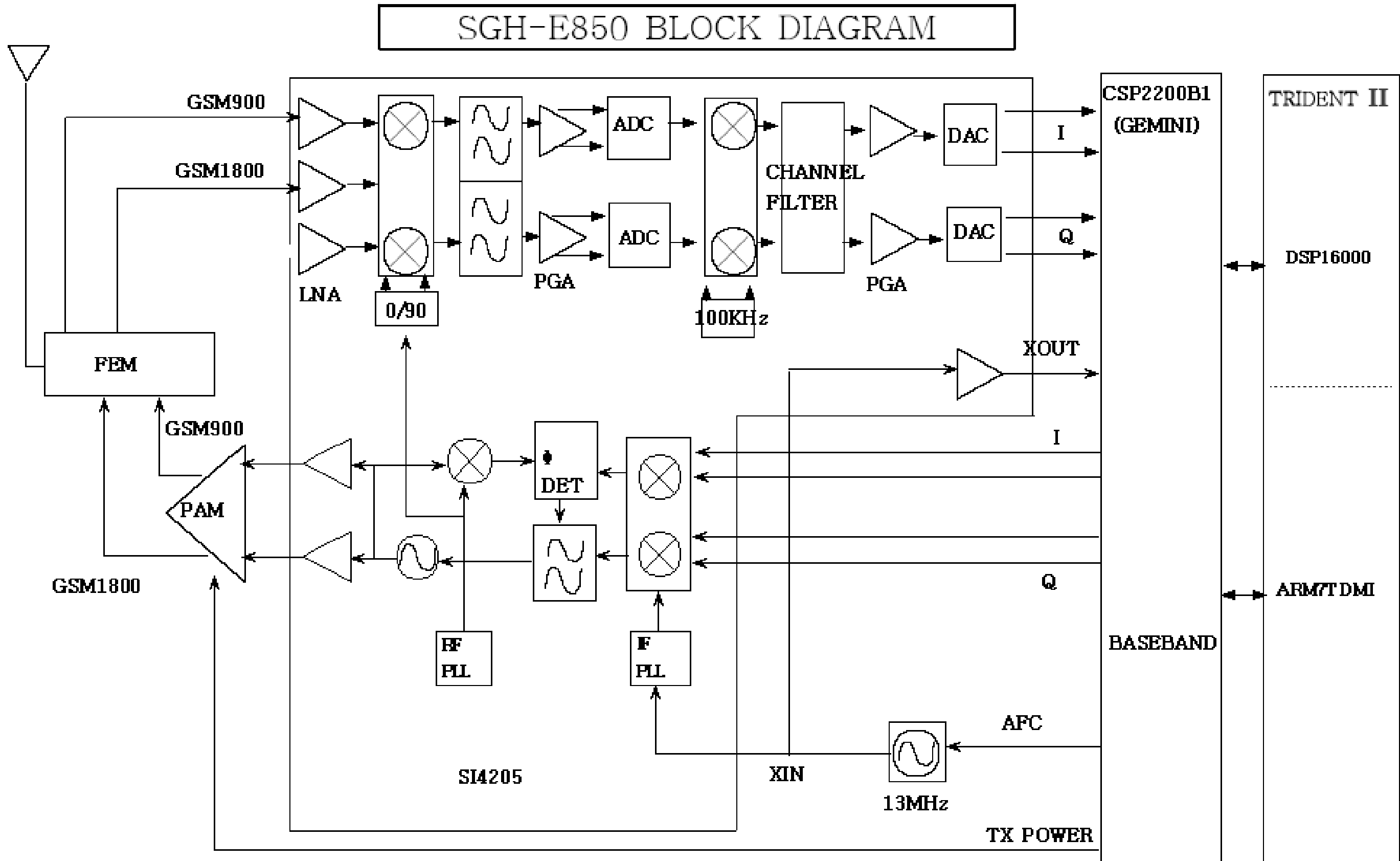






## 6. SGH-E850 Block Diagrams

### 1. RF Solution Block Diagram





## 2. Base Band Solution Block Diagram

