

# **GSM TELEPHONE** SGH-C110

# SERVICE Manual

#### **GSM TELEPHONE**



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- Flow Chart of Troubleshooting
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# 1. SGH-C110 Specification

### 1. GSM General Specification

	GSM900 Phase 1	EGSM 900 Phase 2	DCS1800 Phase 1
Freq. Band[MHz] Uplink/Downlink	890~915 935~960	880~915 925~960	1710~1785 1805~1880
ARFCN range	1~124	0~124 & 975~1023	512~885
Tx/Rx spacing	45MHz	45MHz	95MHz
Mod. Bit rate/ Bit Period	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
Modulation	0.3GMSK	0.3GMSK	0.3GMSK
MS Power	33dBm~13dBm	33dBm~5dBm	30dBm~0dBm
Power Class	5pcl ~ 15pcl	5pcl ~ 19pcl	0pcl ~ 15pcl
Sensitivity	-102dBm	-102dBm	-100dBm
TDMA Mux	8	8	8
Cell Radius	35Km	35Km	2 K m

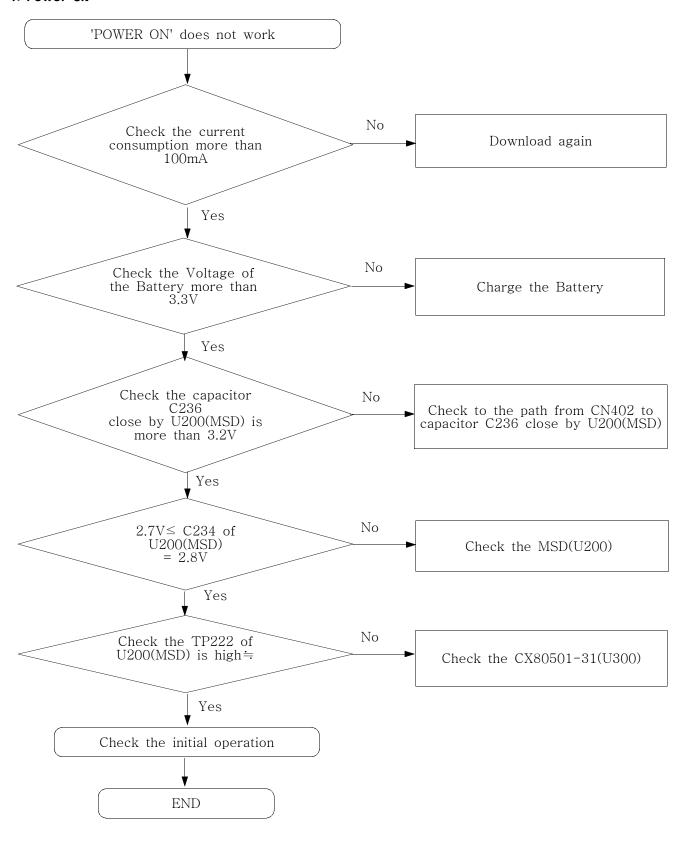
#### 2. GSM TX power class

TX Power control level	GSM900
5	33±2 dBm
6	31±2 dBm
7	29±2 dBm
8	27±2 dBm
9	25±2 dBm
10	23±2 dBm
11	21±2 dBm
12	19±2 dBm
13	17±2 dBm
14	15±2 dBm
15	13±2 dBm
16	11±3 dBm
17	9±3dBm
18	7±3 dBm
19	5±3 dBm

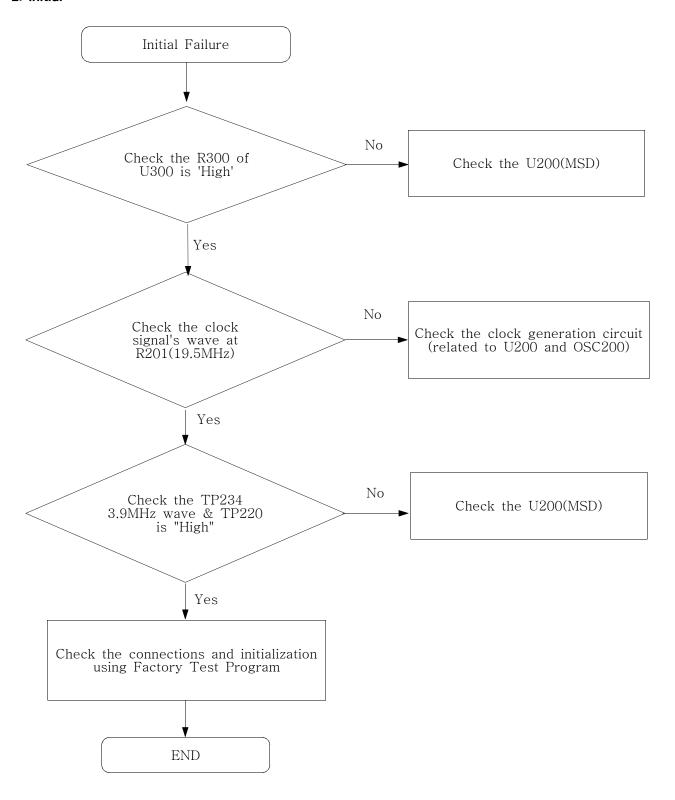
TX Power control level	DCS1800
0	30±3 dBm
1	28±3 dBm
2	26±3 dBm
3	24±3 dBm
4	22±3 dBm
5	20±3 dBm
6	18±3 dBm
7	16±3 dBm
8	14±3 dBm
9	12±4 dBm
10	10±4 dBm
11	8±4dBm
12	6±4 dBm
13	4±4 dBm
14	2±5 dBm
15	0±5 dBm

# 2. SGH-C110 Flow Chart of Troubleshooting

#### 1. Power ON

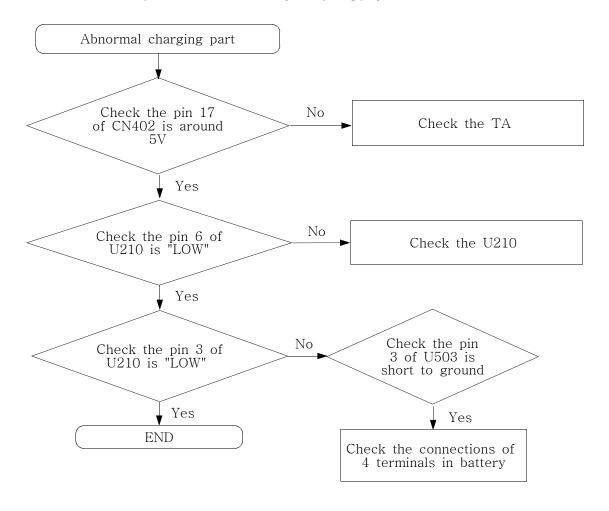


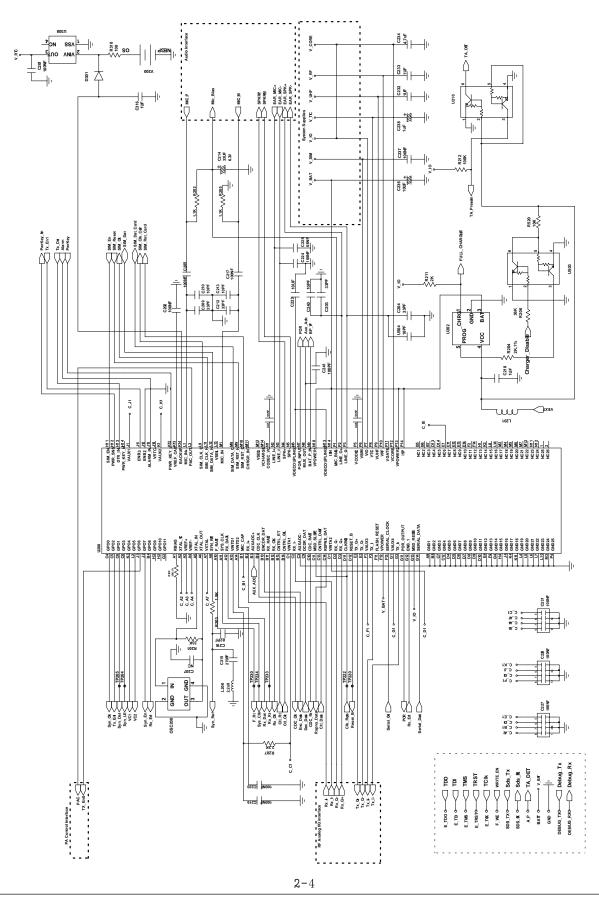
#### 2. Initial



#### 3. Charging

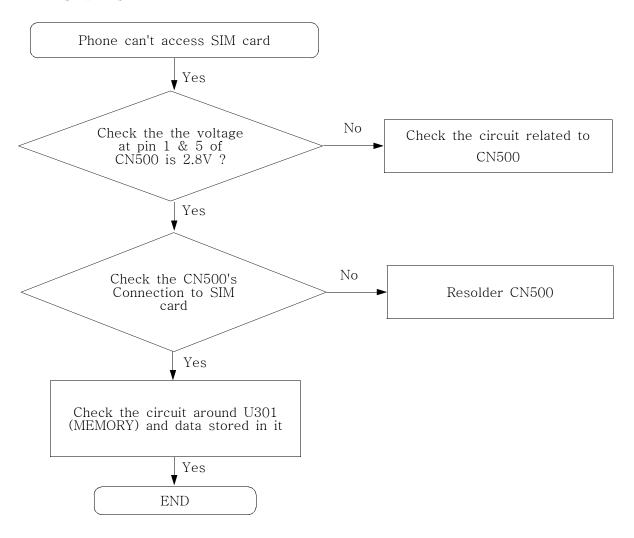
- \* Test after connecting with Battery
- : All 4 terminals in battery should be connected to the phone by using jump-wires.

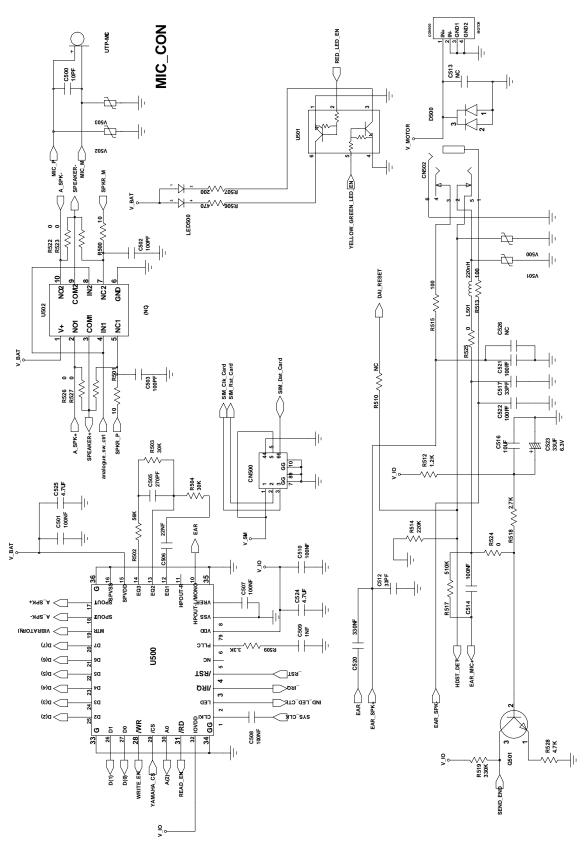




#### 4. Sim

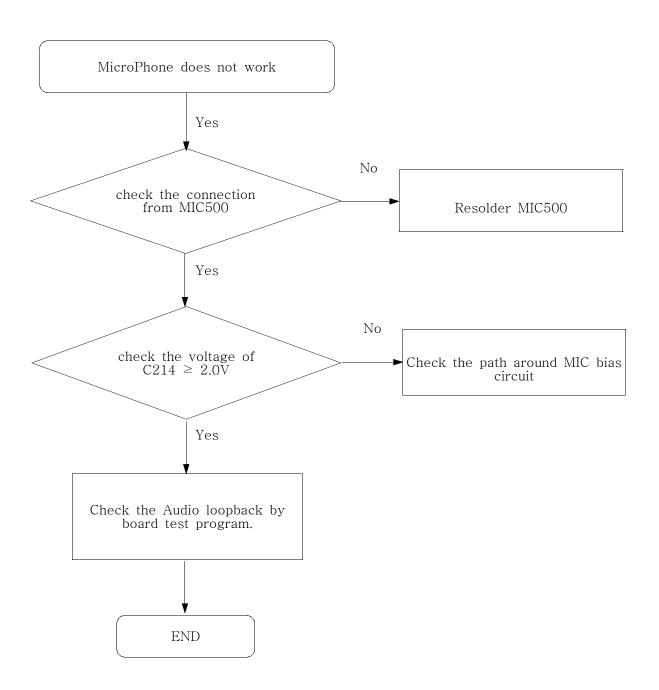
\* Test with Sim

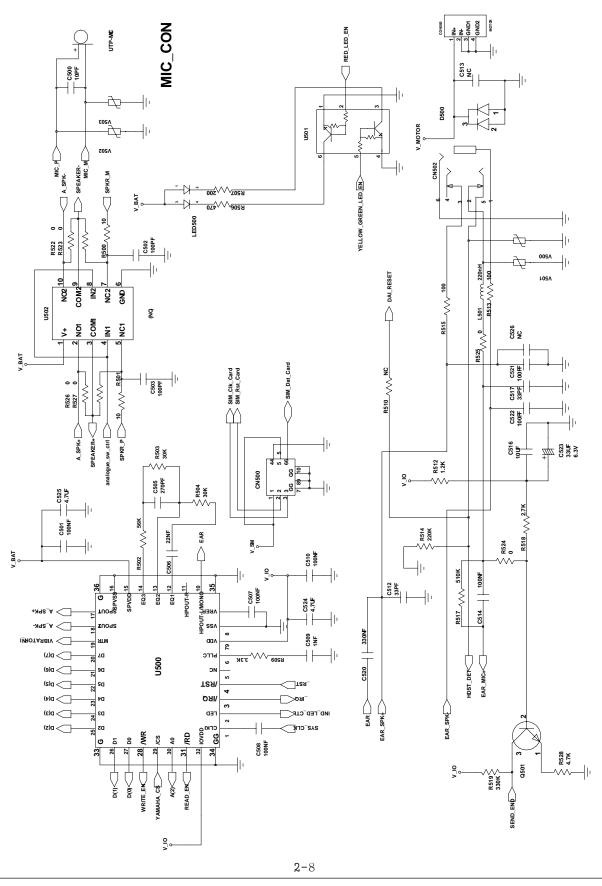




#### 5. Microphone Part

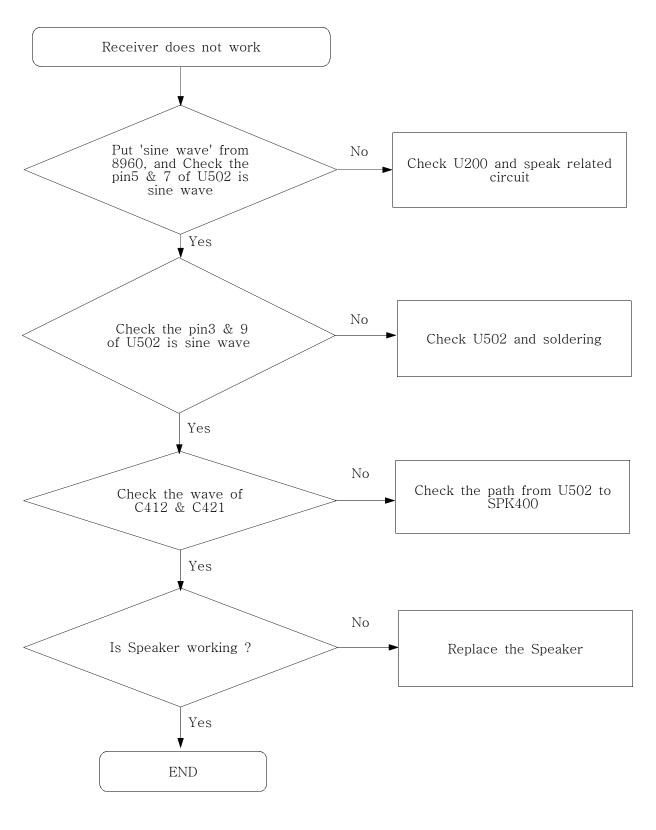
\* Call with Sim before testing.





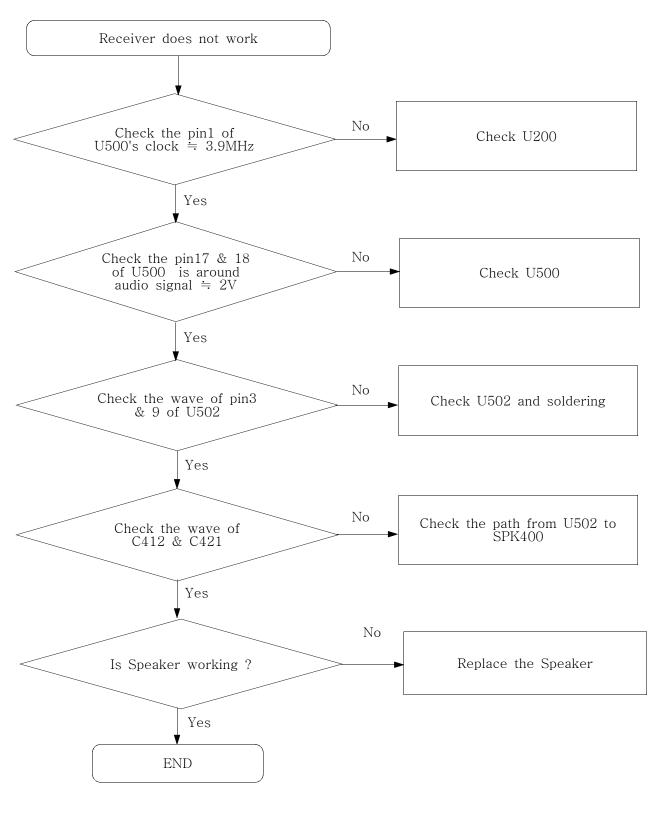
#### 6. Receiver

\* Call before testing.

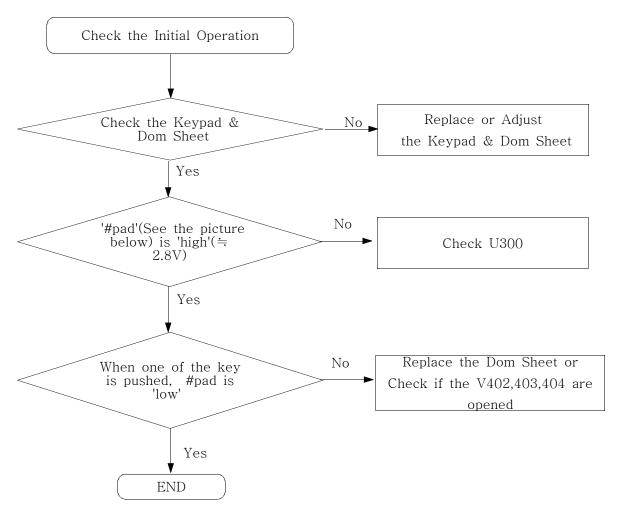


#### 7. Speaker

\* Play on 16-poly melody before testing.

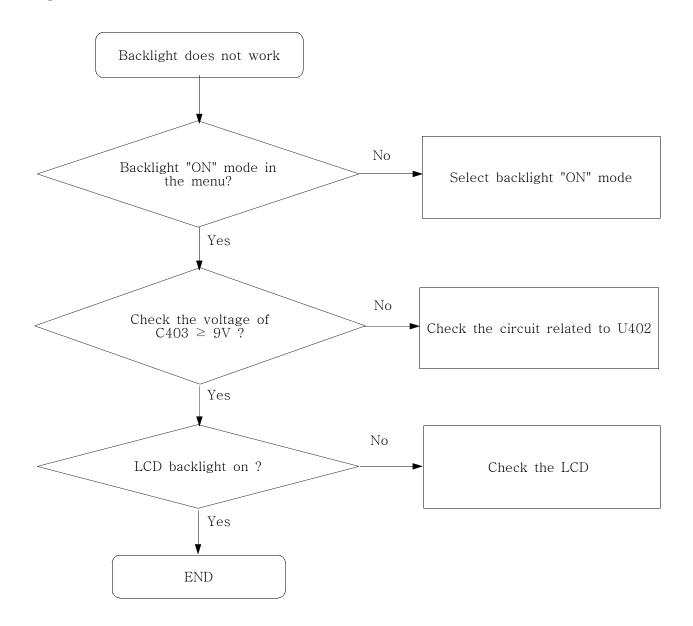


#### 8. Key Data Input

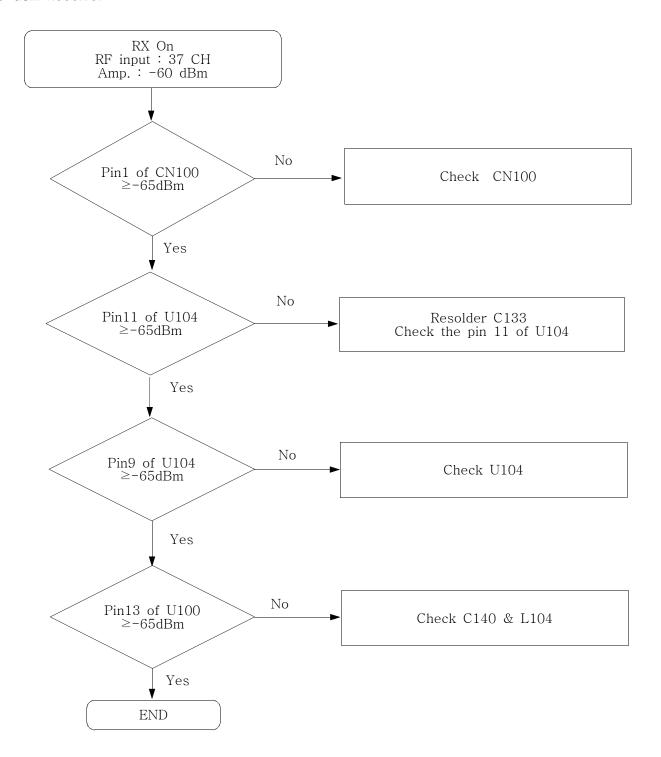




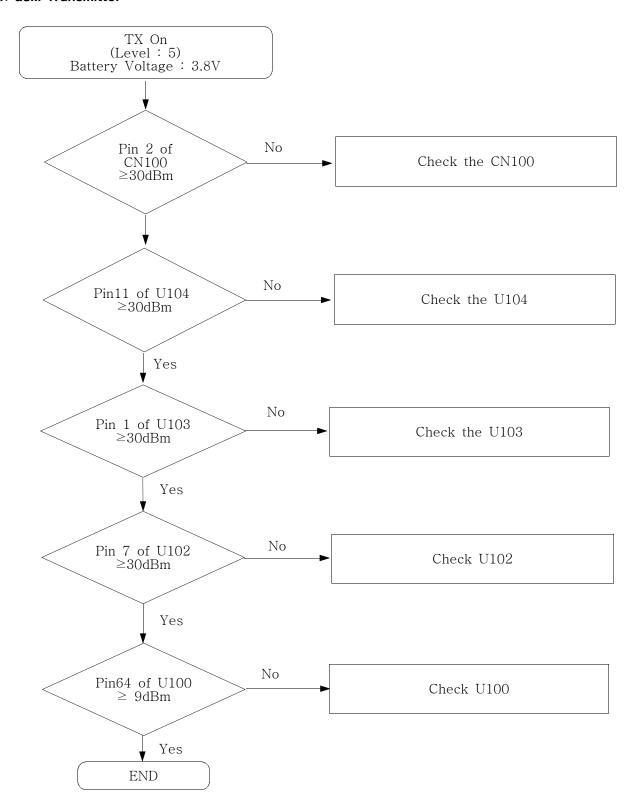
#### 9. Light



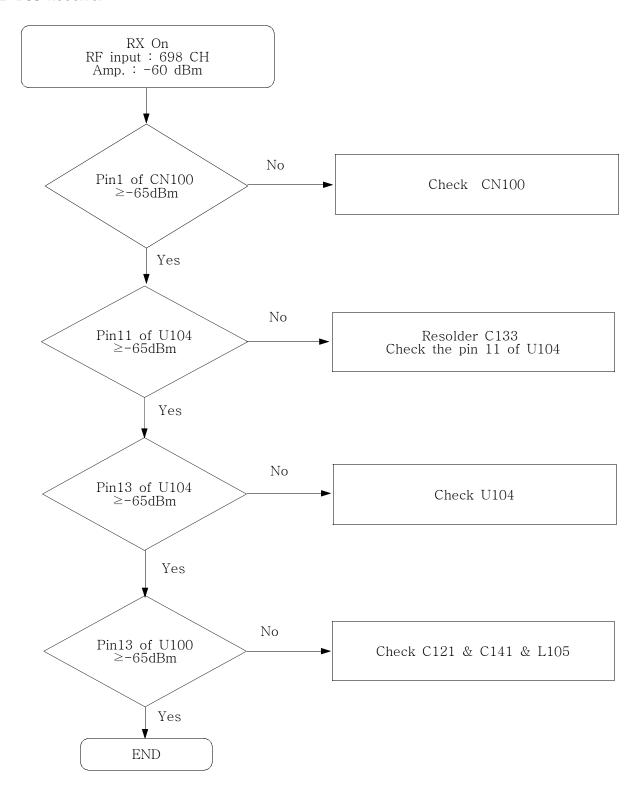
#### 10. GSM Receiver



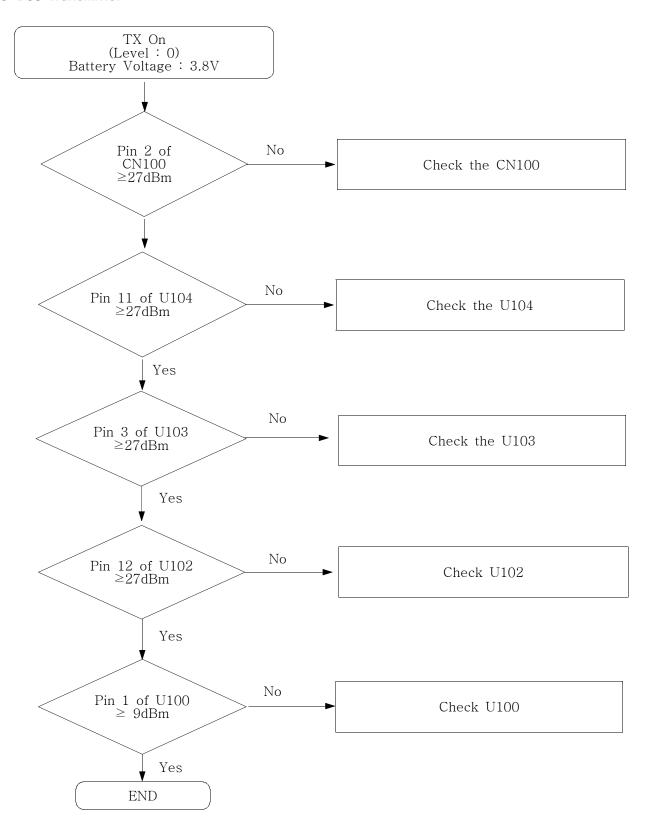
#### 11. GSM Transmitter

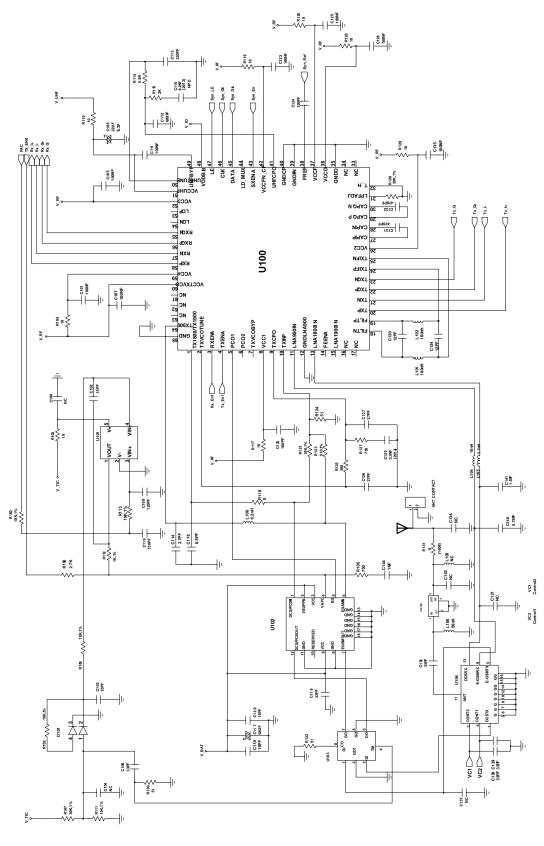


#### 12. DCS Receiver



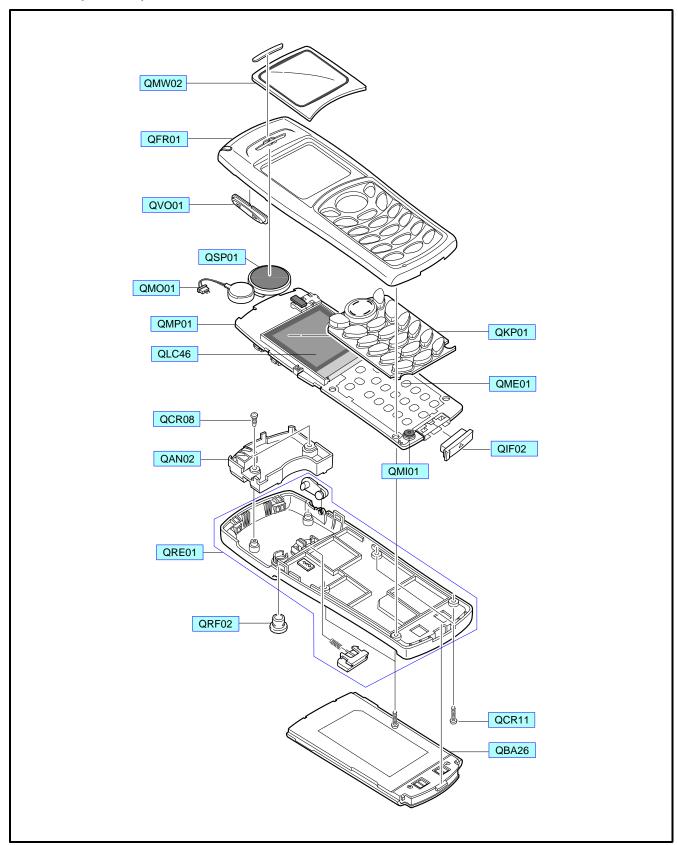
#### 13. DCS Transmitter





# 3. SGH-C110 Exploded View and Parts List

#### 1. Cellular phone Exploded View



#### 2. Cellular phone Parts list

Location NO.	Description	SEC CODE	Remark
QMW02	WINDOW LCD	GH72-13027A	
QFR01	FRONT COVER	GH75-04167A	
QVO01	VOLUME KEY	GH75-02934A	
QMO01	MOTOR	GH31-00063A	
QSP01	SPEAKER	3001-001408	
QMP01	MAIN PBA	GH92-01731A	
QLC46	LCD	GH07-00506A	
QKP01	KEYPAD	GH75-04169A	
QME01	UNIT DOME	GH59-01254A	
QMI01	MICROPHONE	GH30-00110A	
QIF02	IF COVER	GH73-03018A	
QCR08	SCREW	6001-000464	
QAN02	INTENNA	GH42-00384A	
QRE01	REAR COVER	GH75-04168A	
QRF02	RF COVER	GH73-03073A	
QCR11	SCREW	6001-001654	
QBA26	BATTERY	GH43-01268A	

#### 3. Test Jig (GH80-01809A)



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



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)



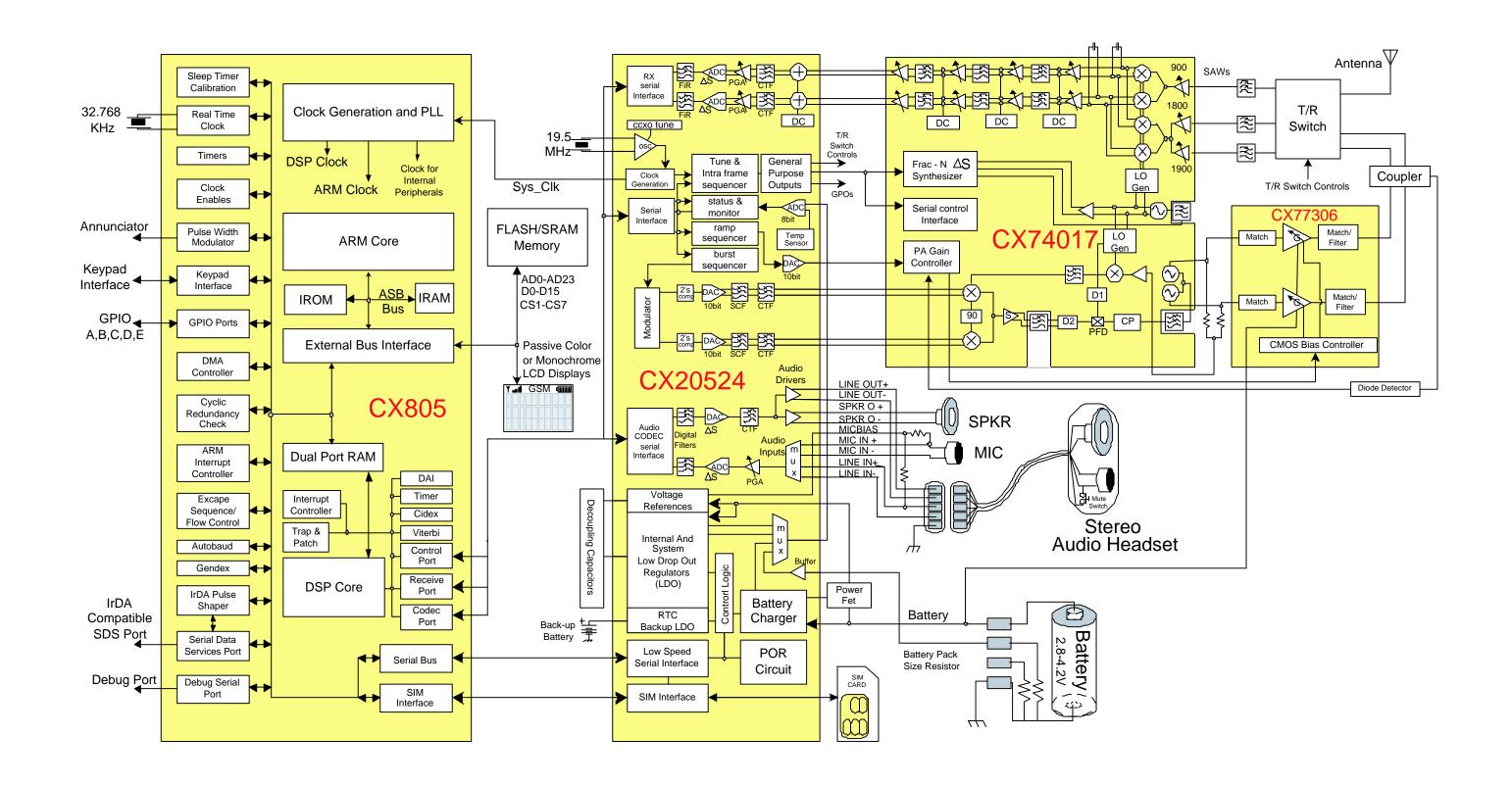
# 4. SGH-C110 MAIN Electrical Parts List

SEC Code     Design LOC       2203-005482     C101,C105,C107,C111       2203-00086     C102,C119,C120       2203-000812     C103,C108,C118,C133       2404-001281     C106       2203-000359     C110,C304       2203-001124     C112       2203-005446     C114       2301-001419     C115       2203-001383     C116       2404-001306     C117       2203-005482     C123,C124,C241,C502       2203-005482     C123,C125,C128,C135       2203-000679     C126,C127,C310,C311       2301-001512     C129       2203-000330     C130,C134       2203-000940     C131,C132       2203-000438     C144,C2417,C509       2203-000438     C144,C417,C509       2203-005482     C202,C224,C306,C450       2203-005482     C201,C205,C217,C219       2203-005482     C201,C205,C217,C219       2203-005482     C202,C224,C306,C450       2203-005482     C202,C224,C306,C450       2203-005482     C202,C221,C204,C500       2203-005661     C201,C205,C221,C226,C237	050.0.1.	D 1.00
2203-000386     C102,C119,C120       2203-000812     C103,C108,C118,C133       2404-001281     C106       2203-000311     C109       2203-001124     C112       2203-002443     C113       2203-005446     C114       2301-001419     C115       2203-00233     C122,C124,C241,C502       2203-000233     C122,C124,C241,C502       2203-005482     C123,C125,C128,C135       2203-00679     C126,C127,C310,C311       2301-001512     C129       2203-00030     C130,C134       2203-00940     C131,C132       2203-00940     C131,C132       2203-00941     C140       2203-004812     C138,C139,C203,C204       2203-005661     C201,C205,C217,C219       2203-005482     C202,C224,C306,C450       2203-005482     C202,C224,C306,C450       2203-005482     C202,C224,C306,C450       2203-005482     C202,C221,C404,C405       2203-005482     C202,C221,C404,C405       2203-005482     C202,C221,C404,C405       2203-005483     C216,C237  <		Design LOC
2203-000386     C102,C119,C120       2203-000812     C103,C108,C118,C133       2404-001281     C106       2203-000311     C109       2203-001124     C112       2203-002443     C113       2203-005446     C114       2301-001419     C115       2203-00233     C122,C124,C241,C502       2203-000233     C122,C124,C241,C502       2203-005482     C123,C125,C128,C135       2203-00679     C126,C127,C310,C311       2301-001512     C129       2203-00030     C130,C134       2203-00940     C131,C132       2203-00940     C131,C132       2203-00941     C140       2203-004812     C138,C139,C203,C204       2203-005661     C201,C205,C217,C219       2203-005482     C202,C224,C306,C450       2203-005482     C202,C224,C306,C450       2203-005482     C202,C224,C306,C450       2203-005482     C202,C221,C404,C405       2203-005482     C202,C221,C404,C405       2203-005482     C202,C221,C404,C405       2203-005483     C216,C237  <	2203-005482	C101,C105,C107,C111
2203-000812     C103,C108,C118,C133       2404-001281     C106       2203-000311     C109       2203-000124     C112       2203-002443     C113       2203-005446     C114       2301-001419     C115       2203-001383     C116       2404-001306     C117       2203-005482     C123,C125,C128,C135       2203-005482     C123,C127,C310,C311       2301-001512     C129       2203-000330     C130,C134       2203-000812     C138,C139,C203,C204       2203-000812     C138,C139,C203,C204       2203-005482     C120,C224,C306,C450       2203-005482     C201,C205,C217,C219       2203-005482     C202,C224,C306,C450       2203-005482     C202,C224,C306,C450       2203-005482     C202,C224,C306,C450       2203-005482     C202,C224,C306,C450       2203-005482     C202,C224,C306,C450       2203-005482     C202,C221,C26,C23       2203-00548     C216,C23       2203-00548     C216,C23       2203-00548     C220,C221,C26,C23	2203-000386	
2404-001281     C106       2203-000311     C109       2203-000359     C110,C304       2203-001244     C112       2203-005446     C114       2301-001419     C115       2203-001383     C116       2404-01306     C117       2203-005482     C123,C125,C124,C310,C311       2301-001512     C129       2203-000330     C130,C134       2203-000340     C131,C132       2203-000812     C138,C139,C203,C204       2203-001385     C141       2203-001385     C141       2203-00438     C144,C417,C509       2203-00561     C201,C205,C217,C219       2203-00561     C201,C205,C217,C219       2203-005482     C202,C224,C306,C450       2203-005482     C202,C224,C306,C450       2203-00548     C210,C213,C240,C500       2404-001151     C214,C523       2203-00564     C215,C505       2203-00565     C218,C323,C33,C316       2203-00566     C223,C516       2203-005664     C223,C516       2203-005664     C223,C516 <td></td> <td></td>		
2203-000311     C109       2203-000124     C112       2203-002443     C113       2203-005446     C114       2301-001419     C115       2203-001383     C116       2404-001306     C117       2203-005482     C123,C125,C128,C135       2203-005482     C123,C125,C128,C135       2203-000679     C126,C127,C310,C311       2301-001512     C129       2203-000940     C131,C132       2203-000940     C131,C132       2203-000812     C138,C139,C203,C204       2203-001385     C141       2203-00561     C201,C205,C217,C219       2203-005482     C202,C224,C306,C450       2203-005482     C202,C224,C306,C450       2203-005482     C202,C221,C404,C405       2203-005482     C202,C224,C306,C450       2203-005482     C202,C224,C306,C450       2203-005482     C202,C221,C404,C405       2203-00564     C215,C505       2203-00565     C218,C232,C33,C316       2203-00566     C218,C232,C233,C316       2203-005661     C220,C221,C228,C231	2404 001001	
2203-000359     C110,C304       2203-001124     C112       2203-002443     C113       2203-005446     C114       2301-001419     C115       2203-001383     C116       2404-001306     C117       2203-005482     C123,C125,C128,C135       2203-000679     C126,C127,C310,C311       2301-001512     C129       2203-000940     C131,C132       2203-000812     C138,C139,C203,C204       2203-001385     C141       2203-00438     C144,C417,C509       2203-00561     C201,C205,C217,C219       2203-005482     C202,C224,C306,C450       2203-005482     C202,C224,C306,C450       2203-005482     C202,C224,C306,C450       2203-005482     C202,C224,C306,C450       2203-00561     C201,C212,C404,C405       2203-00562     C210,C212,C404,C405       2203-00565     C218,C232,C233,C316       2203-00566     C218,C232,C233,C316       2203-005661     C220,C221,C226,C237       2203-005664     C223,C516       2203-005664     C234		
2203-001124     C112       2203-002443     C113       2203-005446     C114       2301-001419     C115       2203-001383     C116       2404-001306     C117       2203-000233     C122,C124,C241,C502       2203-000679     C126,C127,C310,C311       2301-001512     C129       2203-000330     C130,C134       2203-000940     C131,C132       2203-001385     C140       2203-001385     C141       2203-00438     C144,C417,C509       2203-00561     C201,C205,C217,C219       2203-005482     C202,C224,C306,C450       2203-005482     C202,C224,C306,C450       2203-000812     C203,C212,C404,C405       2203-005482     C209,C212,C404,C500       2404-001151     C214,C523       2203-00564     C215,C505       2203-005065     C218,C232,C233,C316       2203-005483     C225       2203-005483     C225       2203-005483     C225       2203-00565     C218,C232,C233,C316       2203-005483     C225		
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2203-002443     C113       2203-005446     C114       2301-001419     C115       2203-001383     C116       2404-001306     C117       2203-005482     C123,C125,C128,C135       2203-005482     C123,C125,C128,C135       2203-000679     C126,C127,C310,C311       2301-001512     C129       2203-000330     C130,C134       2203-000812     C138,C139,C203,C204       2203-001385     C141       2203-00438     C144,C417,C509       2203-005482     C202,C224,C306,C450       2203-005482     C202,C224,C306,C450       2203-005482     C209,C212,C404,C405       2203-000548     C210,C213,C240,C500       2404-001151     C214,C523       2203-005065     C218,C323,C33,C316       2203-005061     C220,C221,C226,C237       2203-005483     C225       2203-005483     C225       2203-005061     C220,C221,C226,C237       2203-005063     C218,C232,C531       2203-005483     C225       2203-005483     C225       2203-00566	2203-001124	C112
2203-005446     C114       2301-001419     C115       2203-001383     C116       2404-001306     C117       2203-005482     C123,C125,C128,C135       2203-000679     C126,C127,C310,C311       2301-001512     C129       2203-000330     C130,C134       2203-000940     C131,C132       2203-000812     C138,C139,C203,C204       2203-001385     C141       2203-005061     C201,C205,C217,C219       2203-005482     C202,C224,C306,C450       2203-000278     C210,C213,C240,C500       2404-001151     C214,C523       2203-00654     C215,C505       2203-00565     C218,C232,C233,C316       2203-005661     C220,C221,C226,C237       2203-005664     C220,C221,C226,C237       2203-005664     C220,C221,C226,C237       2203-005664     C220,C221,C226,C237       2203-005664     C234       2404-001268     C236,C400       2404-001240     C238       2203-005061     C31,C303,C305,C307       2203-005061     C31,C418,C501,C507		
2301-001419     C115       2203-001383     C116       2404-001306     C117       2203-005482     C123,C125,C128,C135       2203-000679     C126,C127,C310,C311       2301-001512     C129       2203-000940     C131,C132       2203-000812     C138,C139,C203,C204       2203-001385     C141       2203-005061     C201,C205,C217,C219       2203-005482     C202,C224,C306,C450       2203-005482     C202,C224,C306,C450       2203-005482     C202,C224,C306,C450       2203-005482     C202,C224,C306,C450       2203-005061     C210,C213,C240,C500       2404-001151     C214,C523       2203-00565     C218,C232,C233,C316       2203-005065     C218,C232,C233,C316       2203-005061     C220,C221,C226,C237       2203-005664     C223,C516       2203-005664     C234       2404-001268     C236,C400       2404-001240     C38       2203-005061     C301,C303,C305,C307       2203-005061     C312,C418,C501,C507       2203-005061     C312,C418,C501,C		
2203-001383     C116       2404-001306     C117       2203-000233     C122,C124,C241,C502       2203-005482     C123,C125,C128,C135       2203-000679     C126,C127,C310,C311       2301-001512     C129       2203-000330     C130,C134       2203-000812     C138,C139,C203,C204       2203-002677     C140       2203-001385     C141       2203-005061     C201,C205,C217,C219       2203-005482     C202,C224,C306,C450       2203-005482     C202,C224,C306,C450       2203-000812     C209,C212,C404,C405       2203-000812     C209,C212,C404,C500       2404-001151     C214,C523       2203-000654     C215,C505       2203-005065     C218,C232,C233,C316       2203-005061     C220,C221,C226,C237       2203-005061     C220,C221,C226,C237       2203-005061     C220,C221,C226,C37       2203-005061     C220,C221,C226,C33       2203-005061     C220,C221,C226,C33       2203-005061     C301,C303,C305,C307       2203-005061     C301,C303,C305,C307       2203-0		0114
2404-001306     C117       2203-000233     C122,C124,C241,C502       2203-005482     C123,C125,C128,C135       2203-000679     C126,C127,C310,C311       2301-001512     C129       2203-000330     C130,C134       2203-000812     C138,C139,C203,C204       2203-002677     C140       2203-001385     C141       2203-005061     C201,C205,C217,C219       2203-005482     C202,C224,C306,C450       2203-005482     C202,C224,C306,C450       2203-000812     C209,C212,C404,C405       2203-000812     C209,C212,C404,C500       2404-001151     C214,C523       2203-000654     C215,C505       2203-005065     C218,C232,C233,C316       2203-005061     C220,C221,C226,C237       2203-005061     C220,C221,C226,C37       2203-005061     C220,C221,C226,C37       2203-005061     C220,C221,C226,C37       2203-005061     C220,C221,C228,C231       2203-005061     C301,C303,C305,C307       2203-005061     C301,C303,C305,C307       2203-005061     C312,C418,C501,C507		
2203-000233     C122,C124,C241,C502       2203-005482     C123,C125,C128,C135       2203-000679     C126,C127,C310,C311       2301-001512     C129       2203-000330     C130,C134       2203-000812     C138,C139,C203,C204       2203-002677     C140       2203-001385     C141       2203-005061     C201,C205,C217,C219       2203-005482     C202,C224,C306,C450       2203-005482     C202,C224,C306,C450       2203-000278     C210,C213,C240,C500       2404-001151     C214,C523       2203-005065     C218,C232,C233,C316       2203-005065     C218,C232,C233,C316       2203-005061     C220,C221,C226,C237       2203-005064     C223,C516       2203-005065     C218,C232,C233,C316       2203-005061     C220,C221,C226,C231       2203-005064     C234       2404-001268     C236,C400       2404-001268     C236,C400       2404-001240     C238       2203-005061     C312,C418,C501,C507       2203-005061     C312,C418,C501,C507       2203-005061		
2203-005482     C123,C125,C128,C135       2203-000679     C126,C127,C310,C311       2301-001512     C129       2203-000330     C130,C134       2203-000812     C138,C139,C203,C204       2203-002677     C140       2203-001385     C141       2203-005061     C201,C205,C217,C219       2203-005482     C202,C224,C306,C450       2203-00812     C209,C212,C404,C405       2203-000278     C210,C213,C240,C500       2404-001151     C214,C523       2203-005065     C218,C32,C233,C316       2203-005065     C218,C32,C233,C316       2203-005061     C220,C221,C226,C237       2203-005061     C220,C221,C226,C237       2203-005065     C218,C32,C33,C316       2203-005061     C220,C221,C226,C231       2203-005483     C225       2203-005664     C234       2404-001268     C236,C400       2404-001240     C238       2203-005061     C301,C303,C305,C307       2203-005061     C312,C418,C501,C507       2203-005061     C312,C418,C501,C507       2203-006053	2404-001306	C117
2203-005482     C123,C125,C128,C135       2203-000679     C126,C127,C310,C311       2301-001512     C129       2203-000330     C130,C134       2203-000812     C138,C139,C203,C204       2203-002677     C140       2203-001385     C141       2203-005061     C201,C205,C217,C219       2203-005482     C202,C224,C306,C450       2203-00812     C209,C212,C404,C405       2203-000278     C210,C213,C240,C500       2404-001151     C214,C523       2203-005065     C218,C32,C233,C316       2203-005065     C218,C32,C233,C316       2203-005061     C220,C221,C226,C237       2203-005061     C220,C221,C226,C237       2203-005065     C218,C32,C33,C316       2203-005061     C220,C221,C226,C231       2203-005483     C225       2203-005664     C234       2404-001268     C236,C400       2404-001240     C238       2203-005061     C301,C303,C305,C307       2203-005061     C312,C418,C501,C507       2203-005061     C312,C418,C501,C507       2203-006053	2203-000233	C122.C124.C241.C502
2203-000679     C126,C127,C310,C311       2301-001512     C129       2203-000330     C130,C134       2203-000812     C138,C139,C203,C204       2203-002677     C140       2203-001385     C141       2203-005061     C201,C205,C217,C219       2203-005482     C202,C224,C306,C450       2203-000278     C210,C213,C240,C500       2404-001151     C214,C523       2203-005065     C215,C505       2203-005065     C218,C232,C233,C316       2203-005065     C218,C232,C231,C226,C237       2203-005061     C220,C221,C226,C237       2203-00564     C223,C516       2203-005664     C234       2404-001240     C234       2404-001240     C238       2203-005061     C301,C303,C305,C307       2203-005061     C312,C418,C501,C507       2203-005061     C312,C418,C501,C507       2203-005061     C312,C418,C501,C507       2203-005061     C312,C418,C501,C507       2203-006053     C403,C412       2203-006158     C406,C407,C408,C412       2203-006105     C416<		
2301-001512     C129       2203-000330     C130,C134       2203-000812     C138,C139,C203,C204       2203-002677     C140       2203-001385     C141       2203-005061     C201,C205,C217,C219       2203-005482     C202,C224,C306,C450       2203-000278     C210,C213,C240,C500       2404-001151     C214,C523       2203-005065     C218,C232,C233,C316       2203-005065     C218,C232,C233,C316       2203-005065     C218,C232,C233,C316       2203-005061     C220,C221,C226,C237       2203-005064     C223,C516       2203-005065     C218,C232,C233,C316       2203-005061     C220,C221,C226,C237       2203-005061     C220,C221,C226,C237       2203-005064     C234       2404-001240     C238       2203-005061     C301,C303,C305,C307       2203-005061     C312,C418,C501,C507       2203-005061     C312,C418,C501,C507       2203-005061     C312,C418,C501,C507       2203-006053     C403,C412,C422,C423       2203-006105     C416       2203-00812		
2203-000330     C130,C134       2203-000940     C131,C132       2203-002677     C140       2203-001385     C141       2203-005061     C201,C205,C217,C219       2203-005482     C202,C224,C306,C450       2203-000812     C209,C212,C404,C405       2203-000278     C210,C213,C240,C500       2404-001151     C214,C523       2203-00654     C215,C505       2203-005065     C218,C232,C233,C316       2203-005061     C220,C221,C226,C237       2203-005063     C218,C232,C233,C316       2203-005064     C220,C221,C226,C237       2203-005643     C225       2503-001042     C227,C228,C231       2203-005664     C234       2404-001268     C236,C400       2404-001240     C238       2203-005061     C301,C303,C305,C307       2203-005061     C312,C418,C501,C507       2203-005061     C312,C418,C501,C507       2203-005061     C312,C418,C501,C507       2203-005061     C312,C418,C501,C507       2203-006053     C406,C407,C408,C412       2203-006053		C120,C121,C310,C311
2203-000940     C131,C132       2203-000812     C138,C139,C203,C204       2203-002677     C140       2203-001385     C141       2203-005061     C201,C205,C217,C219       2203-005482     C202,C224,C306,C450       2203-000812     C209,C212,C404,C405       2203-000278     C210,C213,C240,C500       2404-001151     C214,C523       2203-000654     C215,C505       2203-005065     C218,C232,C233,C316       2203-005061     C220,C221,C226,C237       2203-005483     C225       2203-005644     C234       2404-001268     C236,C400       2404-001268     C236,C400       2404-001240     C238       2203-005061     C301,C303,C305,C307       2203-005061     C301,C303,C305,C307       2203-005061     C312,C418,C501,C507       2203-005061     C312,C418,C501,C507       2203-005061     C312,C418,C501,C507       2203-005061     C312,C418,C501,C507       2203-006053     C406,C407,C408,C412       2203-006053     C406,C407,C408,C412       2203-00812		
2203-000812     C138,C139,C203,C204       2203-002677     C140       2203-001385     C141       2203-005061     C201,C205,C217,C219       2203-005482     C202,C224,C306,C450       2203-000812     C209,C212,C404,C405       2203-000278     C210,C213,C240,C500       2404-001151     C214,C523       2203-005065     C218,C232,C233,C316       2203-005065     C218,C232,C233,C316       2203-005061     C220,C221,C226,C237       2203-005483     C225       2503-001042     C227,C228,C231       2203-005664     C234       2404-001268     C236,C400       2404-001240     C238       2203-005061     C301,C303,C305,C307       2203-005061     C312,C418,C501,C507       2203-005061     C301,C303,C305,C307       2203-005061     C301,C303,C305,C307       2203-005061     C312,C418,C501,C507       2203-005061     C312,C418,C501,C507       2203-005061     C312,C418,C501,C507       2203-006053     C406,C407,C408,C412       2203-006105     C416       2203-000812 </td <td>2203-000330</td> <td>C130,C134</td>	2203-000330	C130,C134
2203-000812     C138,C139,C203,C204       2203-002677     C140       2203-001385     C141       2203-005061     C201,C205,C217,C219       2203-005482     C202,C224,C306,C450       2203-000812     C209,C212,C404,C405       2203-000278     C210,C213,C240,C500       2404-001151     C214,C523       2203-005065     C218,C232,C233,C316       2203-005065     C218,C232,C233,C316       2203-005061     C220,C221,C226,C237       2203-005483     C225       2503-001042     C227,C228,C231       2203-005664     C234       2404-001268     C236,C400       2404-001240     C238       2203-005061     C301,C303,C305,C307       2203-005061     C312,C418,C501,C507       2203-005061     C301,C303,C305,C307       2203-005061     C301,C303,C305,C307       2203-005061     C312,C418,C501,C507       2203-005061     C312,C418,C501,C507       2203-005061     C312,C418,C501,C507       2203-006053     C406,C407,C408,C412       2203-006105     C416       2203-000812 </td <td>2203-000940</td> <td></td>	2203-000940	
2203-002677     C140       2203-001385     C141       2203-005061     C201,C205,C217,C219       2203-005482     C202,C224,C306,C450       2203-000812     C209,C212,C404,C405       2203-000278     C210,C213,C240,C500       2404-001151     C214,C523       2203-001239     C216       2203-005065     C218,C232,C233,C316       2203-005061     C220,C221,C226,C237       2203-005483     C225       2203-005644     C234       2203-005645     C227,C228,C231       2203-0056464     C234       2404-001268     C236,C400       2404-001240     C238       2203-005061     C301,C303,C305,C307       2203-005061     C312,C418,C501,C507       2203-005061     C312,C418,C501,C507       2203-005061     C312,C418,C501,C507       2203-005061     C312,C418,C501,C507       2203-006053     C406,C407,C408,C412       2203-006053     C409,C410,C411       2203-00812     C413,C414,C415,C419       2203-00812     C420,C421,C425,C426,C427		
2203-001385     C141       2203-005061     C201,C205,C217,C219       2203-005482     C202,C224,C306,C450       2203-000812     C209,C212,C404,C405       2203-000278     C210,C213,C240,C500       2404-001151     C214,C523       2203-000654     C215,C505       2203-001239     C216       2203-005065     C218,C232,C233,C316       2203-005061     C220,C221,C226,C237       2203-005483     C225       2203-005644     C234       2404-001268     C236,C400       2404-001268     C236,C400       2404-001240     C238       2203-005061     C301,C303,C305,C307       2203-005061     C312,C418,C501,C507       2203-005061     C312,C418,C501,C507       2203-005061     C312,C418,C501,C507       2203-005061     C312,C418,C501,C507       2203-006053     C403,C433       2203-00812     C406,C407,C408,C412       2203-00812     C413,C414,C415,C419       2203-00812     C420,C421,C422,C423       2203-000812     C420,C421,C425,C426,C427		C1/10
2203-000438     C144,C417,C509       2203-005061     C201,C205,C217,C219       2203-005482     C202,C224,C306,C450       2203-000812     C209,C212,C404,C405       2203-000278     C210,C213,C240,C500       2404-001151     C214,C523       2203-000654     C215,C505       2203-001239     C216       2203-005065     C218,C232,C233,C316       2203-005061     C220,C221,C226,C237       2203-005483     C225       2503-001042     C227,C228,C231       2203-005664     C234       2404-001268     C236,C400       2404-001240     C238       2203-005061     C301,C303,C305,C307       2203-005061     C312,C418,C501,C507       2203-005061     C312,C418,C501,C507       2203-001598     C403,C433       2203-000812     C406,C407,C408,C412       2203-006053     C409,C410,C411       2203-006105     C416       2203-000812     C420,C421,C422,C423       2203-000812     C420,C421,C425,C426,C427		
2203-005061     C201,C205,C217,C219       2203-005482     C202,C224,C306,C450       2203-000812     C209,C212,C404,C405       2203-000278     C210,C213,C240,C500       2404-001151     C214,C523       2203-000654     C215,C505       2203-005065     C218,C232,C233,C316       2203-005061     C220,C221,C226,C237       2203-005483     C225       2203-00564     C234       2404-001268     C236,C400       2404-001240     C238       2203-005061     C301,C303,C305,C307       2203-005061     C301,C303,C305,C307       2203-005061     C312,C418,C501,C507       2203-005061     C312,C418,C501,C507       2203-005061     C312,C418,C501,C507       2203-001598     C403,C433       2203-00812     C406,C407,C408,C412       2203-00812     C406,C407,C408,C412       2203-00812     C413,C414,C415,C419       2203-000812     C420,C421,C422,C423       2203-000812     C420,C421,C425,C426,C427		
2203-005482     C202,C224,C306,C450       2203-000812     C209,C212,C404,C405       2203-000278     C210,C213,C240,C500       2404-001151     C214,C523       2203-000654     C215,C505       2203-005065     C218,C232,C233,C316       2203-005061     C220,C221,C226,C237       2203-005483     C225       2203-005664     C234       2404-001268     C236,C400       2404-001240     C238       2203-005061     C301,C303,C305,C307       2203-005061     C312,C418,C501,C507       2203-005061     C312,C418,C501,C507       2203-001598     C403,C433       2203-001598     C403,C433       2203-00812     C406,C407,C408,C412       2203-006053     C409,C410,C411       2203-006105     C416       2203-000812     C420,C421,C422,C423       2203-000812     C420,C421,C425,C426,C427		
2203-000812     C209,C212,C404,C405       2203-000278     C210,C213,C240,C500       2404-001151     C214,C523       2203-000654     C215,C505       2203-005065     C218,C232,C233,C316       2203-005061     C220,C221,C226,C237       2203-005483     C225       2203-005664     C234       2404-001268     C236,C400       2404-001240     C238       2203-005061     C301,C303,C305,C307       2203-005061     C301,C303,C305,C307       2203-005061     C312,C418,C501,C507       2203-001412     C401,C402       2203-001598     C403,C433       2203-000812     C406,C407,C408,C412       2203-000812     C409,C410,C411       2203-006105     C416       2203-000812     C420,C421,C422,C423       2203-000812     C420,C421,C425,C426,C427		
2203-000812     C209,C212,C404,C405       2203-000278     C210,C213,C240,C500       2404-001151     C214,C523       2203-000654     C215,C505       2203-005065     C218,C232,C233,C316       2203-005061     C220,C221,C226,C237       2203-005483     C225       2203-005664     C234       2404-001268     C236,C400       2404-001240     C238       2203-005061     C301,C303,C305,C307       2203-005061     C301,C303,C305,C307       2203-005061     C312,C418,C501,C507       2203-001412     C401,C402       2203-001598     C403,C433       2203-000812     C406,C407,C408,C412       2203-000812     C409,C410,C411       2203-006105     C416       2203-000812     C420,C421,C422,C423       2203-000812     C420,C421,C425,C426,C427	2203-005482	C202.C224.C306.C450
2404-001151     C214,C523       2203-000654     C215,C505       2203-001239     C216       2203-005065     C218,C232,C233,C316       2203-005061     C220,C221,C226,C237       2203-006090     C223,C516       2203-005483     C225       2503-001042     C227,C228,C231       2203-005664     C234       2404-001268     C236,C400       2404-001240     C238       2203-005061     C301,C303,C305,C307       2203-005061     C312,C418,C501,C507       2203-001412     C401,C402       2203-001598     C403,C433       2203-000812     C406,C407,C408,C412       2203-000812     C409,C410,C411       2203-006105     C416       2203-000812     C420,C421,C422,C423       2203-000812     C424,C425,C426,C427		
2404-001151     C214,C523       2203-000654     C215,C505       2203-001239     C216       2203-005065     C218,C232,C233,C316       2203-005061     C220,C221,C226,C237       2203-006090     C223,C516       2203-005483     C225       2503-001042     C227,C228,C231       2203-005664     C234       2404-001268     C236,C400       2404-001240     C238       2203-005061     C301,C303,C305,C307       2203-005061     C312,C418,C501,C507       2203-001412     C401,C402       2203-001598     C403,C433       2203-000812     C406,C407,C408,C412       2203-000812     C409,C410,C411       2203-006105     C416       2203-000812     C420,C421,C422,C423       2203-000812     C424,C425,C426,C427		C210 C213 C240 C500
2203-000654     C215,C505       2203-001239     C216       2203-005065     C218,C232,C233,C316       2203-005061     C220,C221,C226,C237       2203-006090     C223,C516       2203-005483     C225       2503-001042     C227,C228,C231       2203-005664     C234       2404-001268     C236,C400       2404-001240     C238       2203-005061     C301,C303,C305,C307       2203-005061     C312,C418,C501,C507       2203-001412     C401,C402       2203-001598     C403,C433       2203-000812     C406,C407,C408,C412       2203-000812     C409,C410,C411       2203-006105     C416       2203-000812     C420,C421,C422,C423       2203-000812     C424,C425,C426,C427		0214,0500
2203-001239     C216       2203-005065     C218,C232,C233,C316       2203-005061     C220,C221,C226,C237       2203-006090     C223,C516       2203-005483     C225       2503-001042     C227,C228,C231       2203-005664     C234       2404-001268     C236,C400       2404-001240     C238       2203-005061     C301,C303,C305,C307       2203-005061     C312,C418,C501,C507       2203-001412     C401,C402       2203-001598     C403,C433       2203-000812     C406,C407,C408,C412       2203-006053     C409,C410,C411       2203-006105     C416       2203-000812     C420,C421,C422,C423       2203-000812     C420,C421,C425,C426,C427		
2203-005065     C218,C232,C233,C316       2203-005061     C220,C221,C226,C237       2203-006090     C223,C516       2203-005483     C225       2503-001042     C227,C228,C231       2203-005664     C234       2404-001268     C236,C400       2404-001240     C238       2203-005061     C301,C303,C305,C307       2203-005061     C312,C418,C501,C507       2203-001412     C401,C402       2203-001598     C403,C433       2203-000812     C406,C407,C408,C412       2203-000812     C413,C414,C415,C419       2203-006105     C416       2203-000812     C420,C421,C422,C423       2203-000812     C424,C425,C426,C427		
2203-005061     C220,C221,C226,C237       2203-006090     C223,C516       2203-005483     C225       2503-001042     C227,C228,C231       2203-005664     C234       2404-001240     C238       2203-005061     C301,C303,C305,C307       2203-005061     C312,C418,C501,C507       2203-001412     C401,C402       2203-001598     C403,C433       2203-000812     C406,C407,C408,C412       2203-000812     C413,C414,C415,C419       2203-006105     C416       2203-000812     C420,C421,C422,C423       2203-000812     C424,C425,C426,C427		C216
2203-005061     C220,C221,C226,C237       2203-006090     C223,C516       2203-005483     C225       2503-001042     C227,C228,C231       2203-005664     C234       2404-001240     C238       2203-005061     C301,C303,C305,C307       2203-005061     C312,C418,C501,C507       2203-001412     C401,C402       2203-001598     C403,C433       2203-000812     C406,C407,C408,C412       2203-000812     C413,C414,C415,C419       2203-006105     C416       2203-000812     C420,C421,C422,C423       2203-000812     C424,C425,C426,C427	2203-005065	C218.C232.C233.C316
2203-005483     C225       2503-001042     C227,C228,C231       2203-005664     C234       2404-001268     C236,C400       2404-001240     C238       2203-005061     C301,C303,C305,C307       2203-005061     C312,C418,C501,C507       2203-001412     C401,C402       2203-001598     C403,C433       2203-000812     C406,C407,C408,C412       2203-006053     C409,C410,C411       2203-006105     C416       2203-000812     C420,C421,C422,C423       2203-000812     C424,C425,C426,C427		C220 C221 C226 C237
2203-005483     C225       2503-001042     C227,C228,C231       2203-005664     C234       2404-001268     C236,C400       2404-001240     C238       2203-005061     C301,C303,C305,C307       2203-005061     C312,C418,C501,C507       2203-001412     C401,C402       2203-001598     C403,C433       2203-000812     C406,C407,C408,C412       2203-006053     C409,C410,C411       2203-006105     C416       2203-000812     C420,C421,C422,C423       2203-000812     C424,C425,C426,C427		C223 C516
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2203-005664     C234       2404-001268     C236,C400       2404-001240     C238       2203-005061     C301,C303,C305,C307       2203-005061     C312,C418,C501,C507       2203-001412     C401,C402       2203-001598     C403,C433       2203-000812     C406,C407,C408,C412       2203-006053     C409,C410,C411       2203-006105     C416       2203-000812     C420,C421,C422,C423       2203-000812     C424,C425,C426,C427		
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2404-001240     C238       2203-005061     C301,C303,C305,C307       2203-005061     C312,C418,C501,C507       2203-001412     C401,C402       2203-001598     C403,C433       2203-000812     C406,C407,C408,C412       2203-006053     C409,C410,C411       2203-000812     C413,C414,C415,C419       2203-006105     C416       2203-000812     C420,C421,C422,C423       2203-000812     C424,C425,C426,C427		C234
2404-001240     C238       2203-005061     C301,C303,C305,C307       2203-005061     C312,C418,C501,C507       2203-001412     C401,C402       2203-001598     C403,C433       2203-000812     C406,C407,C408,C412       2203-006053     C409,C410,C411       2203-000812     C413,C414,C415,C419       2203-006105     C416       2203-000812     C420,C421,C422,C423       2203-000812     C424,C425,C426,C427	2404-001268	C236,C400
2203-005061     C301,C303,C305,C307       2203-005061     C312,C418,C501,C507       2203-001412     C401,C402       2203-001598     C403,C433       2203-000812     C406,C407,C408,C412       2203-006053     C409,C410,C411       2203-000812     C413,C414,C415,C419       2203-000812     C420,C421,C422,C423       2203-000812     C424,C425,C426,C427	2404-001240	C238
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2203-001412     C401,C402       2203-001598     C403,C433       2203-000812     C406,C407,C408,C412       2203-006053     C409,C410,C411       2203-000812     C413,C414,C415,C419       2203-006105     C416       2203-000812     C420,C421,C422,C423       2203-000812     C424,C425,C426,C427		
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	2203-000812	C428,C512,C517
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2203-000233 C503,C521,C522		
2203-001405 C506		
2203-005061 C508,C510		
2203-005148 C514		
2203-005509 C520		C520
2203-006208 C524,C525	2203-006208	C524,C525
3705-001287 CN100		
3710-001673 CN402		
3709-001187 CN500	3/09-00118/	CNOUU

SEC Code	Design LOC
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3710-001436	CON500
0404-001189	D101
0401-001033	D301
0407-000115	D500
2703-002268	L100
2703-002200	L101,L102
2703 002313	L104
2703 002437	L105
2703 002372	L106
2703 002203	L200
3301-001208	L201
2703-002339	L400
2703-002333	L501
0601-001856	LED400,LED401,LED405
0601-001856	LED406,LED407,LED408
0601-001856	LED400,LED407,LED408
0601-001856	LED409,LED410,LED411
0601-001863	LED412,LED413,LED414 LED500
2801-004191	OSC200
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0505-001518	Q400
0501-000225	Q501
2007-007142	
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2007-000172 2007-001156	R103,R104,R110,R116 R105,R127
2007-001136	
	R106,R518
2007-008275	R107,R200
2007-007132	R111 R112
2007-007318 2007-000982	R114
2007-000982	
2007-000137	R115,R211
2007-000172	R117,R120,R126,R129 R118,R522,R523,R524
2007-000171	R121
2007-007319 2007-001298	R122,R124,R130
2007-001298	R123
2007-007364	R125
2007-007008	R128
0007 000070	
2007-000070	R131 R201
2007-000775 2007-007092	
2007-007092	R202,R205 R203
2007-000242	R204
2007-007766	R206
2007-001333	R207
2007-000141	R212,R461,R521
2007-000162	R300,R509
2007-001323	R304
2007-000170	R310,R400,R406,R513
2011-001344	R401
2007-001295	R402
2007-001293	R402 R403
2007-007189	R405,R430,R431
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2007-001308	R408,R409,R413,R414 R415,R416,R417,R418
2007-001308 2007-001308	R415,R416,R417,R418 R419,R420,R421,R422
2007-001308	R419,R420,R421,R422 R423
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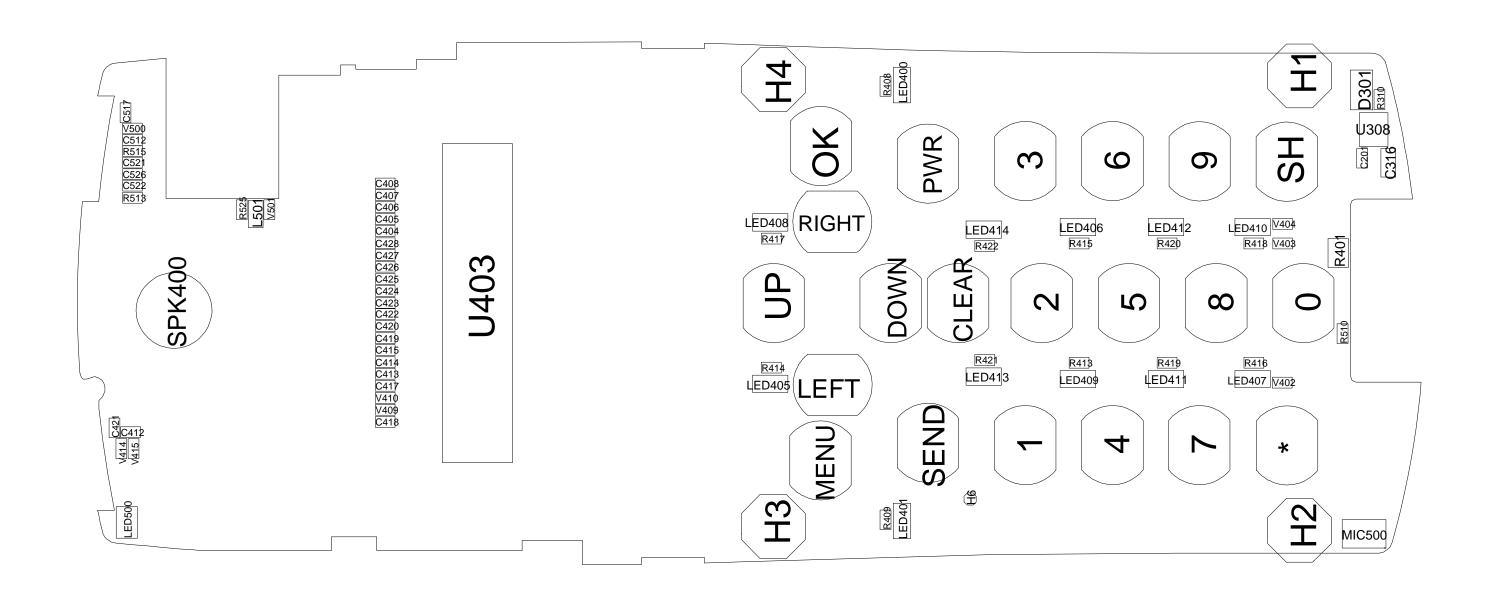
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2007-000932	R506
2007-001308	R507
2007-001319	R512
2007-000566	R514
2007-000138	R515
2007-000169	R517
2007-000758	R519
2007-000148	R520
2007-000171	R525,R526,R527
2007-000143	R528
1205-002218	U100
1201-002009	U101
1201-002017	U102
4709-001144	U103
2909-001234	U104
1204-002158	U200
1209-001497	U202
0504-001162	U210,U501,U503
1205-002365	U300
1109-001274	U301
1203-002689	U308
1203-002860	U401
1203-002633	U402
1204-002161	U500
2203-000278	U504
4302-001130	V200
1405-001082	V402,V403,V404,V406
1405-001082	V407,V409,V410,V413
1405-001082	V414,V415,V500,V501
1405-001082	V502,V503
3404-001152	VOL_DN,VOL_UP
0406-001169	ZD400,ZD401,ZD410
0404-001153	ZD403
0403-001427	ZD411
0403-001446	ZD412
GH41-00556A	PCB
GH42-00384A	INTENNA

## 5. SGH-C110 Block Diagram

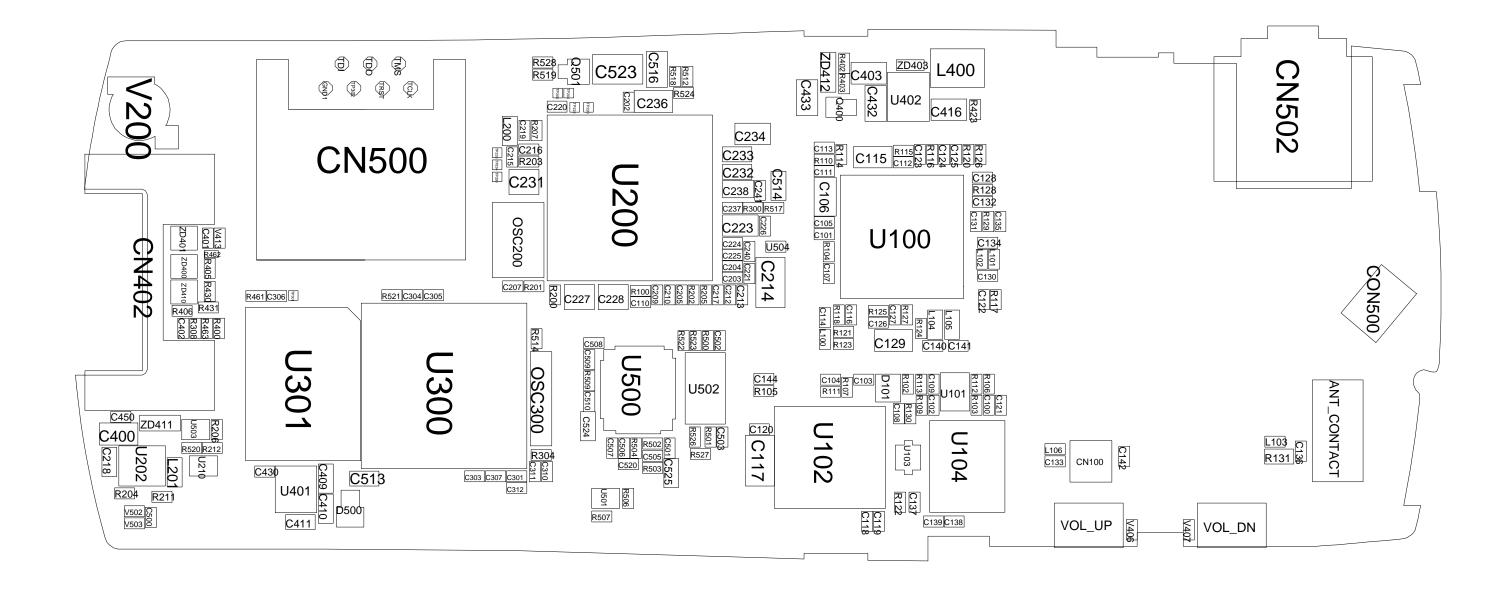


# 6. SGH-C110 PCB Diagrams

#### 1. Main PCB Top Diagram



#### 2. Main PCB Bottom Diagram





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Code No.: GH68-05515A

BASIC.