

**SAMSUNG**

# GSM TELEPHONE

## SGH-S342i

# ***SERVICE*** *Manual*

### GSM TELEPHONE



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# 1. SGH-S342i Specification

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## 1. GSM General Specification

|                                     | <b>GSM900<br/>Phase 1</b> | <b>EGSM 900<br/>Phase 2</b> | <b>DCS1800<br/>Phase 1</b> | <b>PCS1900</b>         |
|-------------------------------------|---------------------------|-----------------------------|----------------------------|------------------------|
| Freq. Band[MHz]<br>Uplink/Downlink  | 890~915<br>935~960        | 880~915<br>925~960          | 1710~1785<br>1805~1880     | 1850~1910<br>1930~1990 |
| ARFCN range                         | 1~124                     | 0~124 &<br>975~1023         | 512~885                    | 512~810                |
| Tx/Rx spacing                       | 45MHz                     | 45MHz                       | 95MHz                      | 80MHz                  |
| Mod. Bit rate/<br>Bit Period        | 270.833kbps<br>3.692us    | 270.833kbps<br>3.692us      | 270.833kbps<br>3.692us     | 270.833kbps<br>3.692us |
| Time Slot<br>Period/Frame<br>Period | 576.9us<br>4.615ms        | 576.9us<br>4.615ms          | 576.9us<br>4.615ms         | 576.9us<br>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<br/>control level</b> | <b>GSM900</b> | <b>TX Power<br/>control level</b> | <b>DCS1800</b> | <b>TX Power<br/>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±4 dBm        | 11                                | 8±4 dBm        |
| 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        |

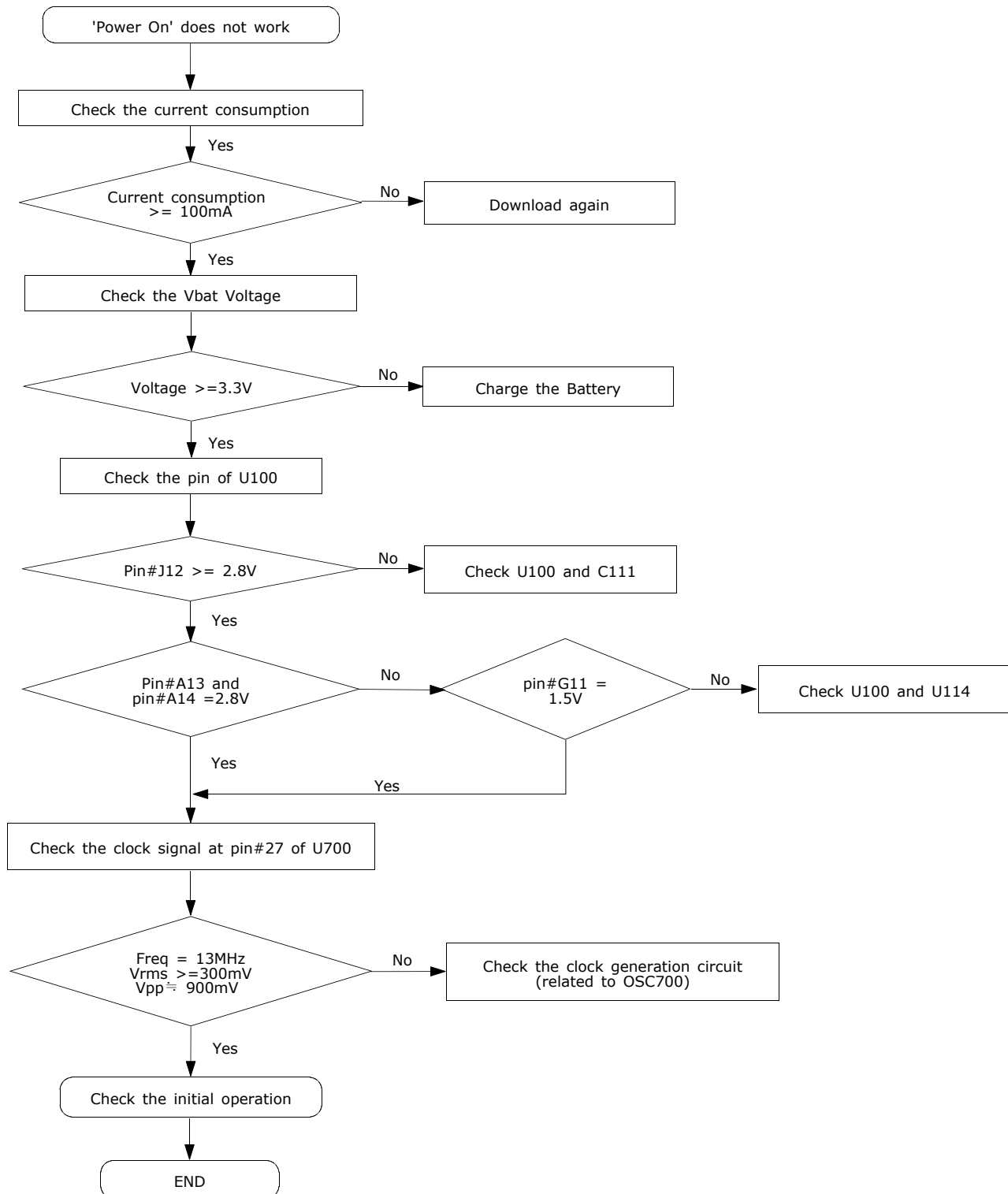
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## 2. SGH-S342i Flow Chart of Troubleshooting

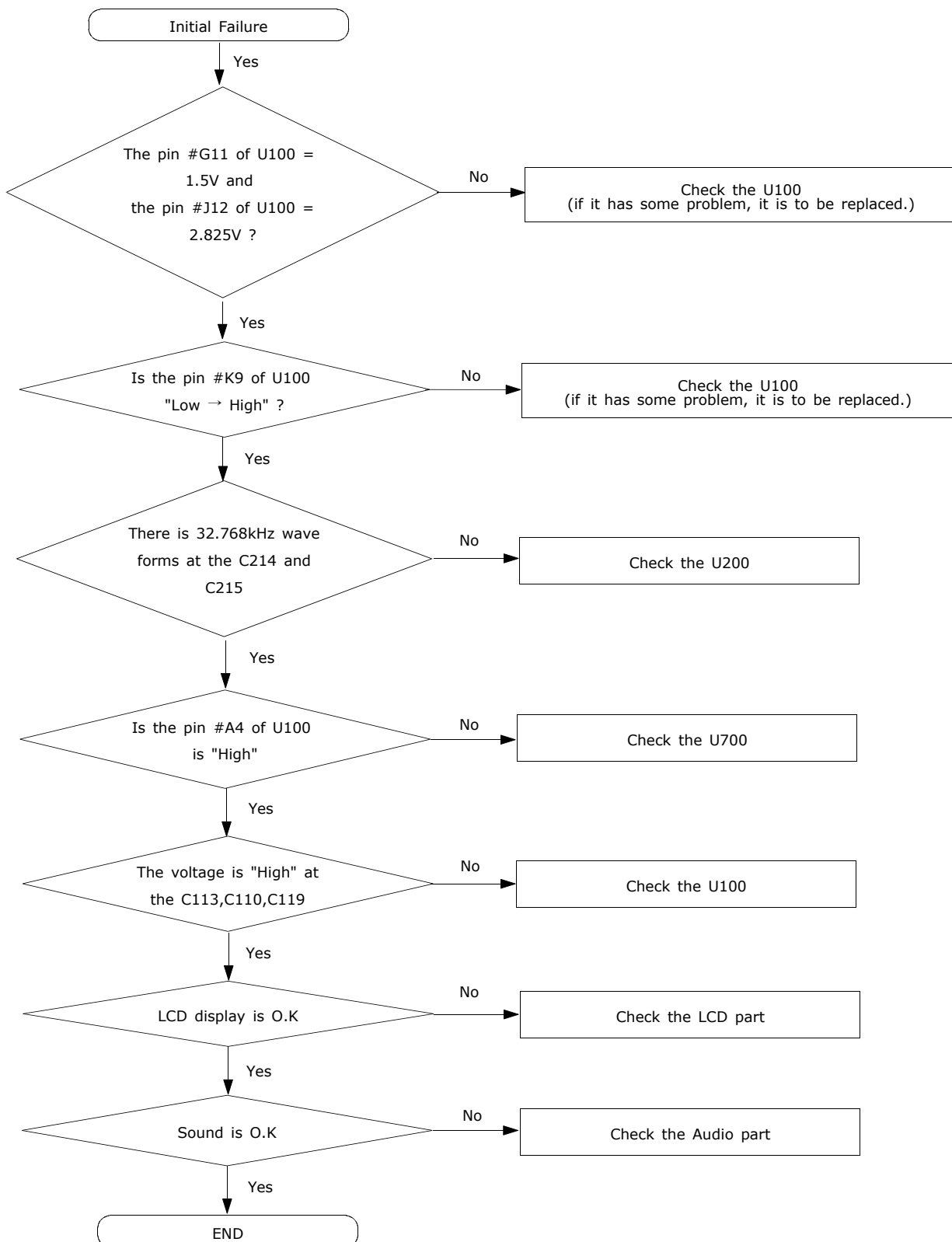
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### 1.Baseband

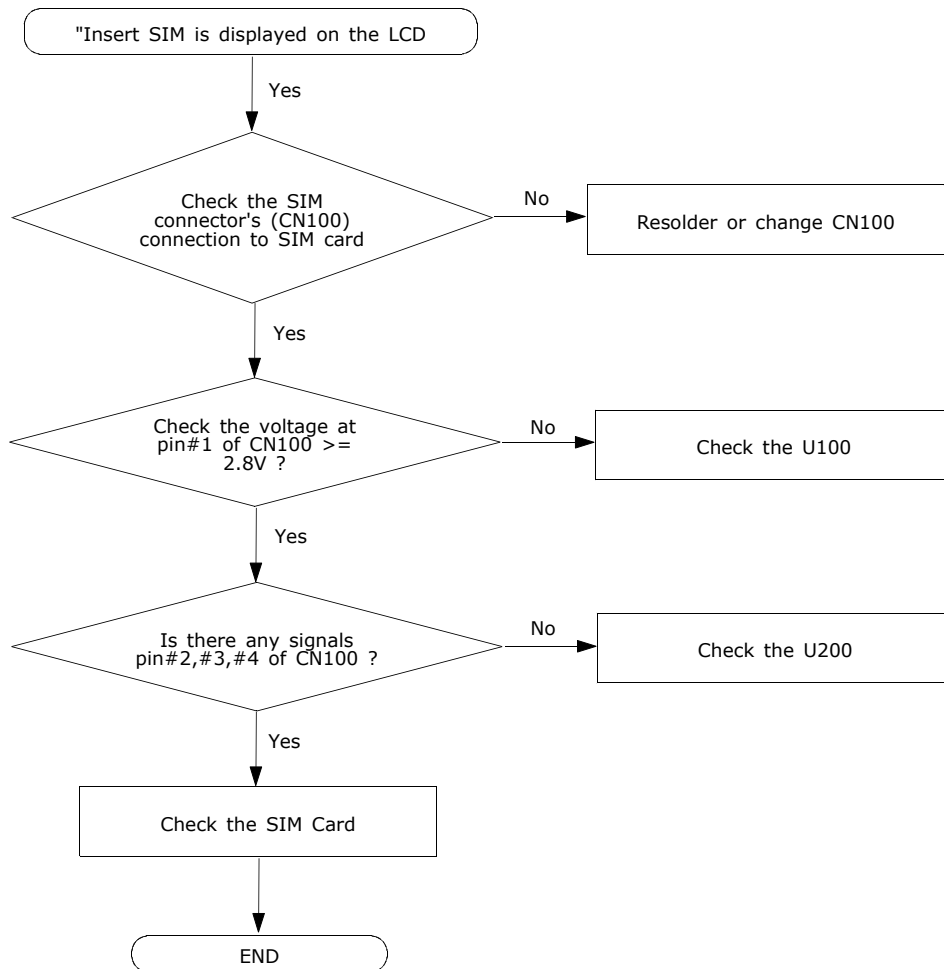
#### 1. Power ON



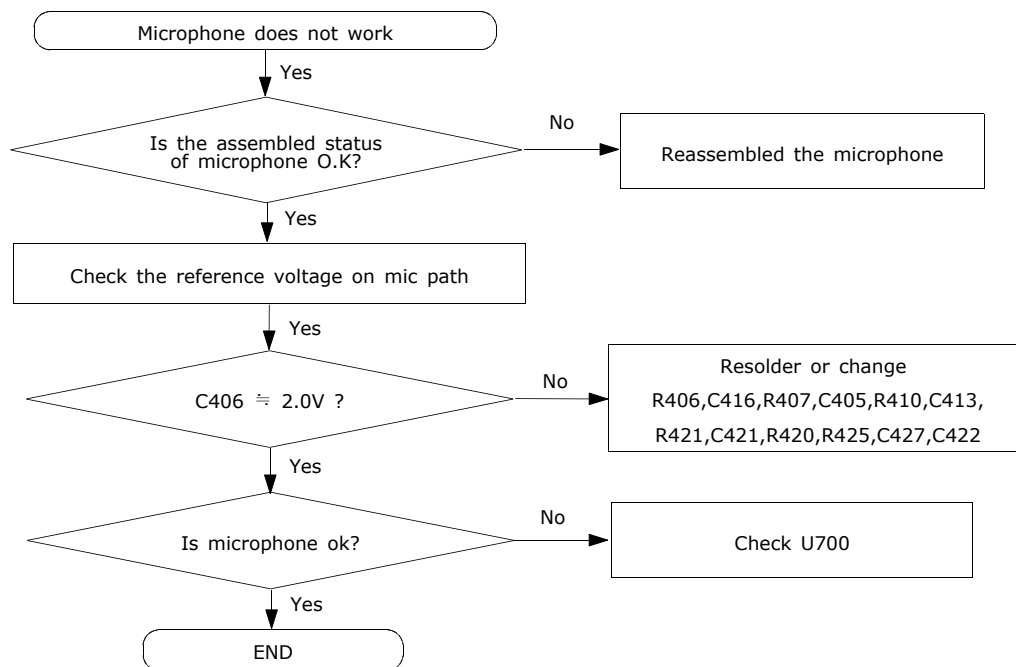
## 2. Initial



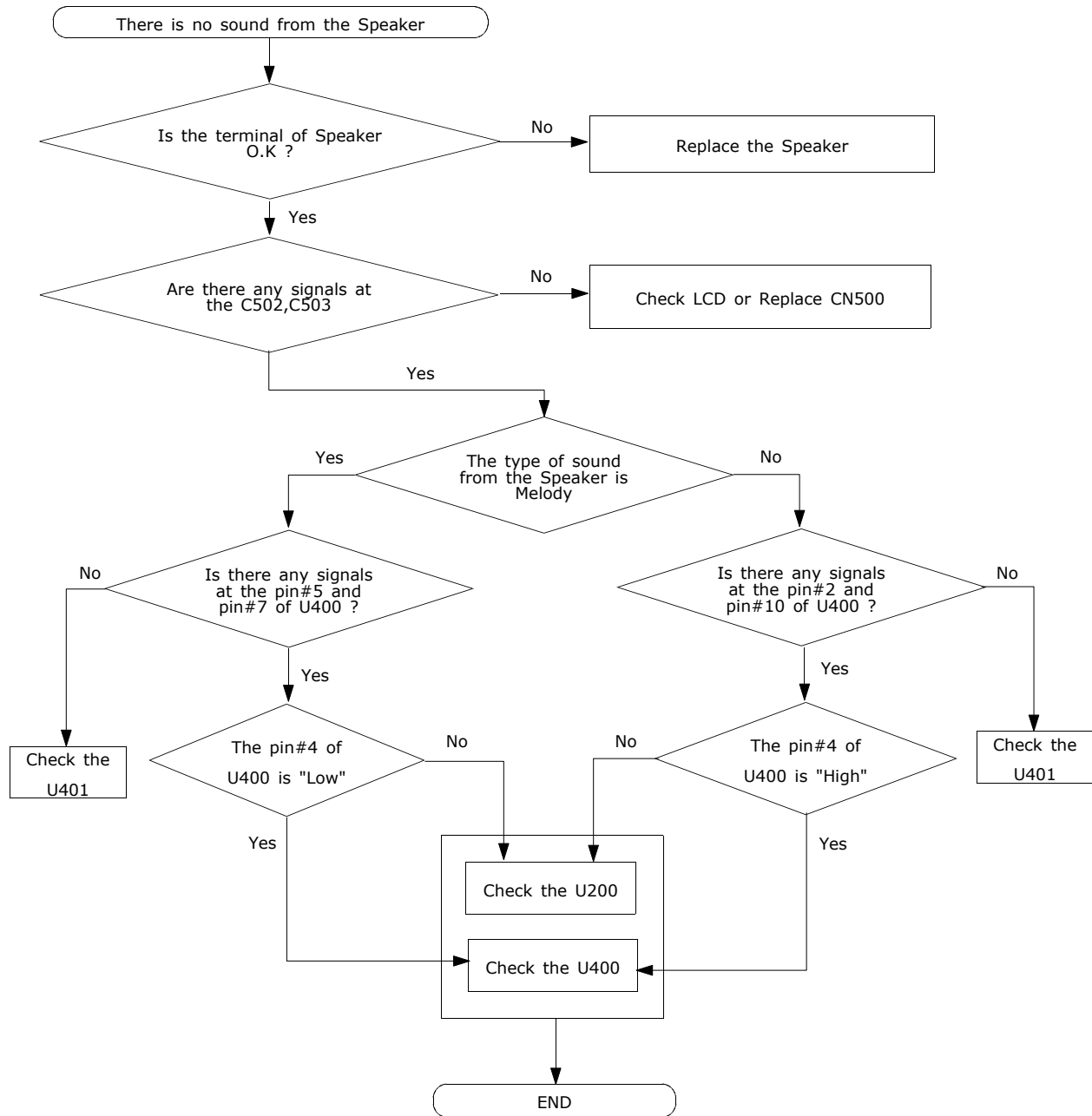
### 3. Sim Part



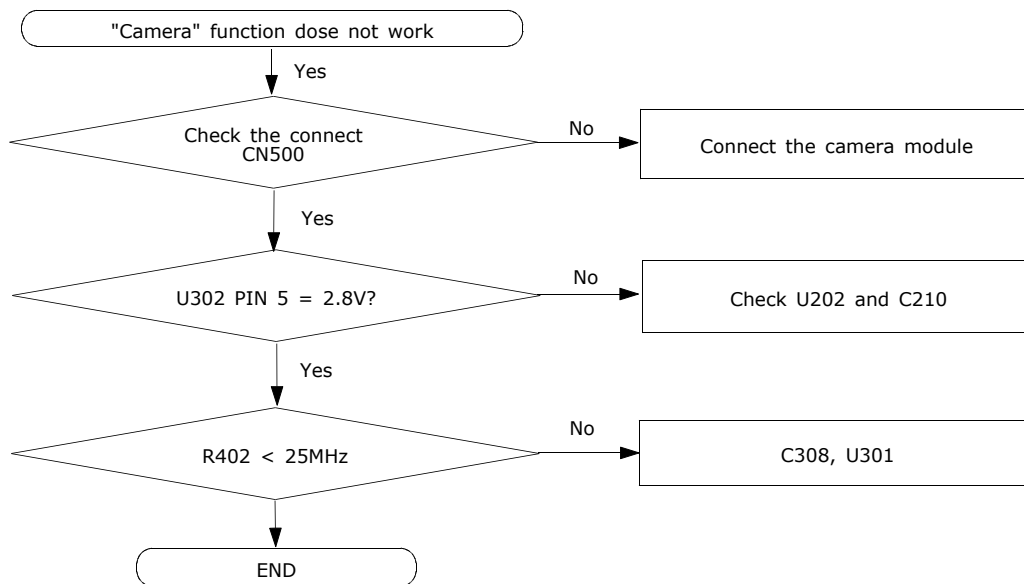
## 4. Microphone Part



## 5. Speaker Part



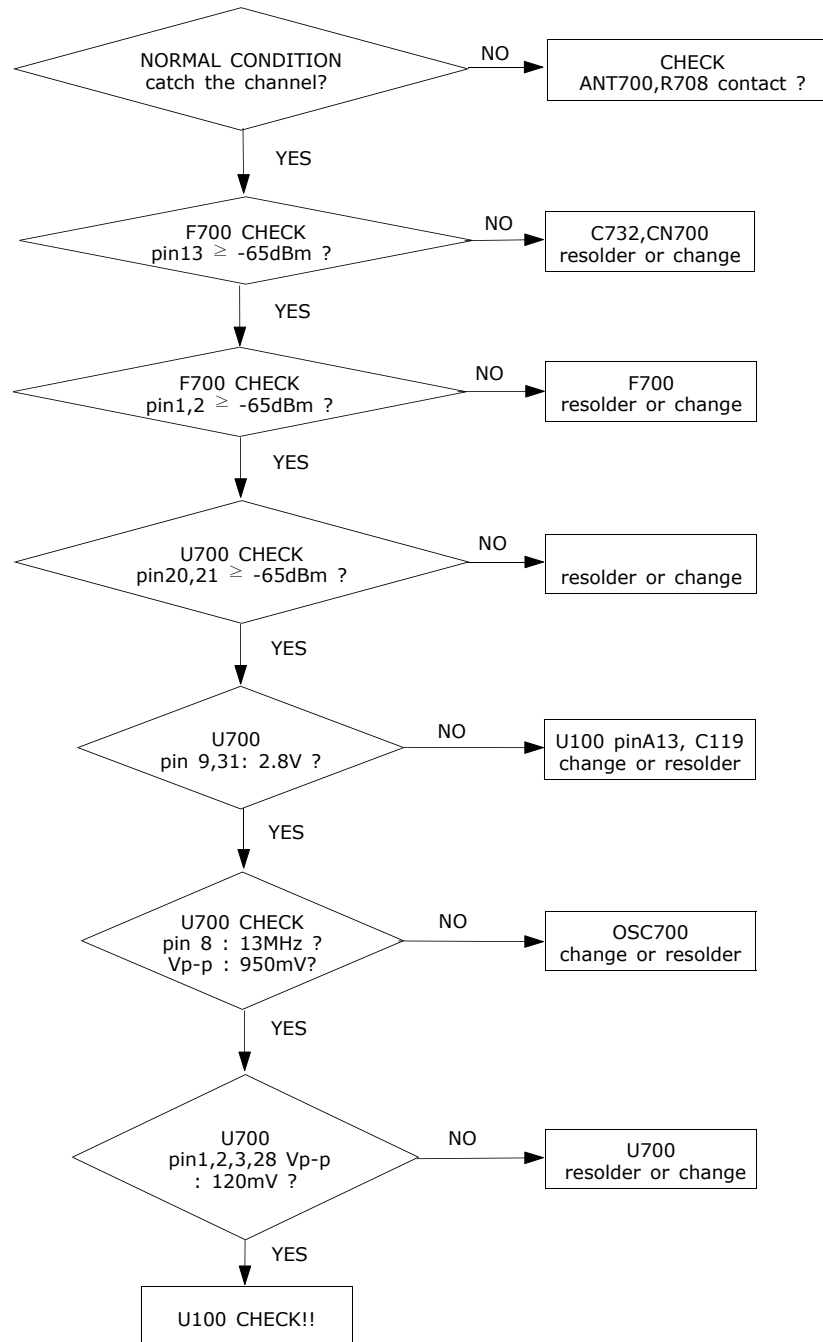
## 6. Camera Part



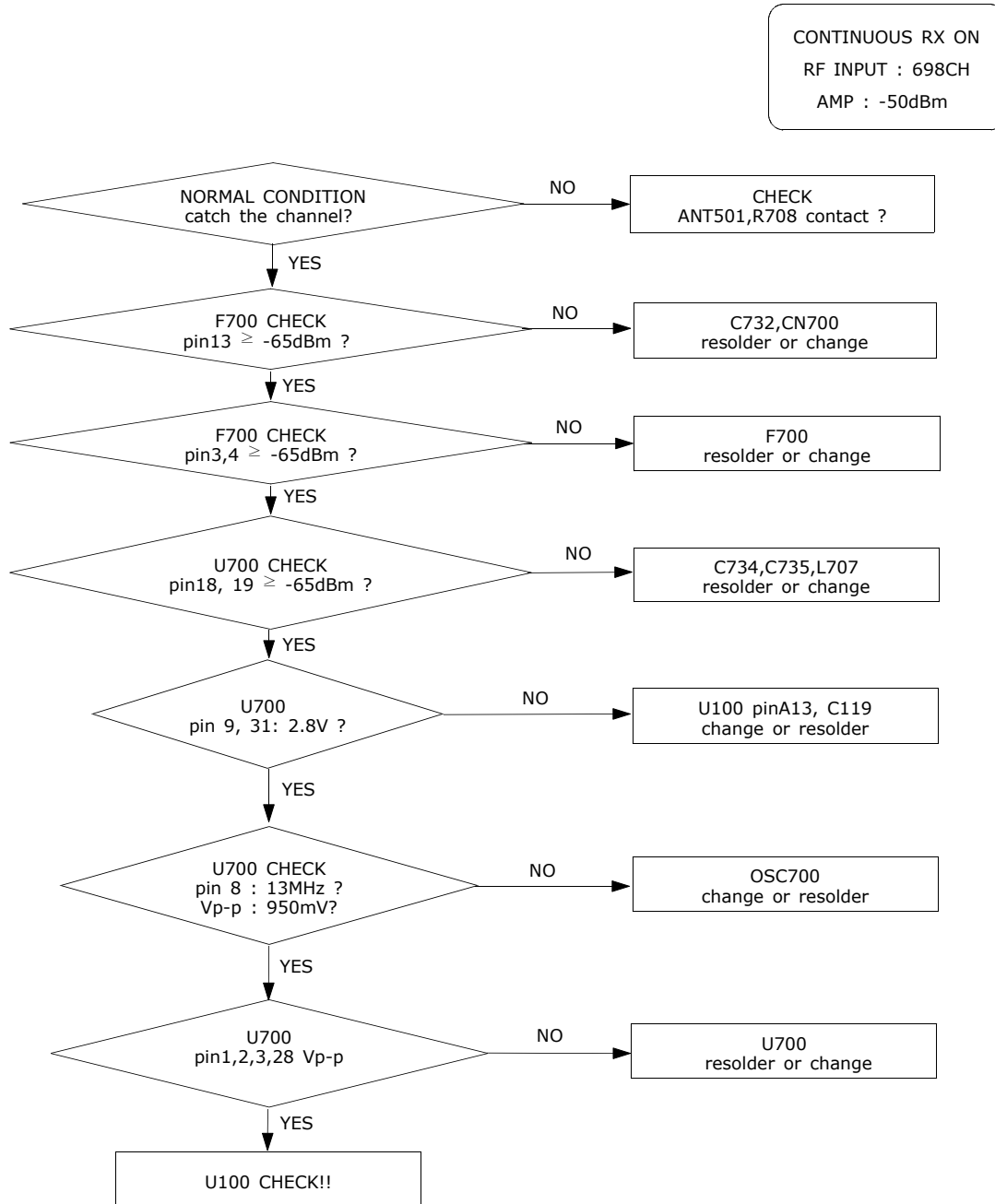
## 2.RF

### 1. EGSM RX

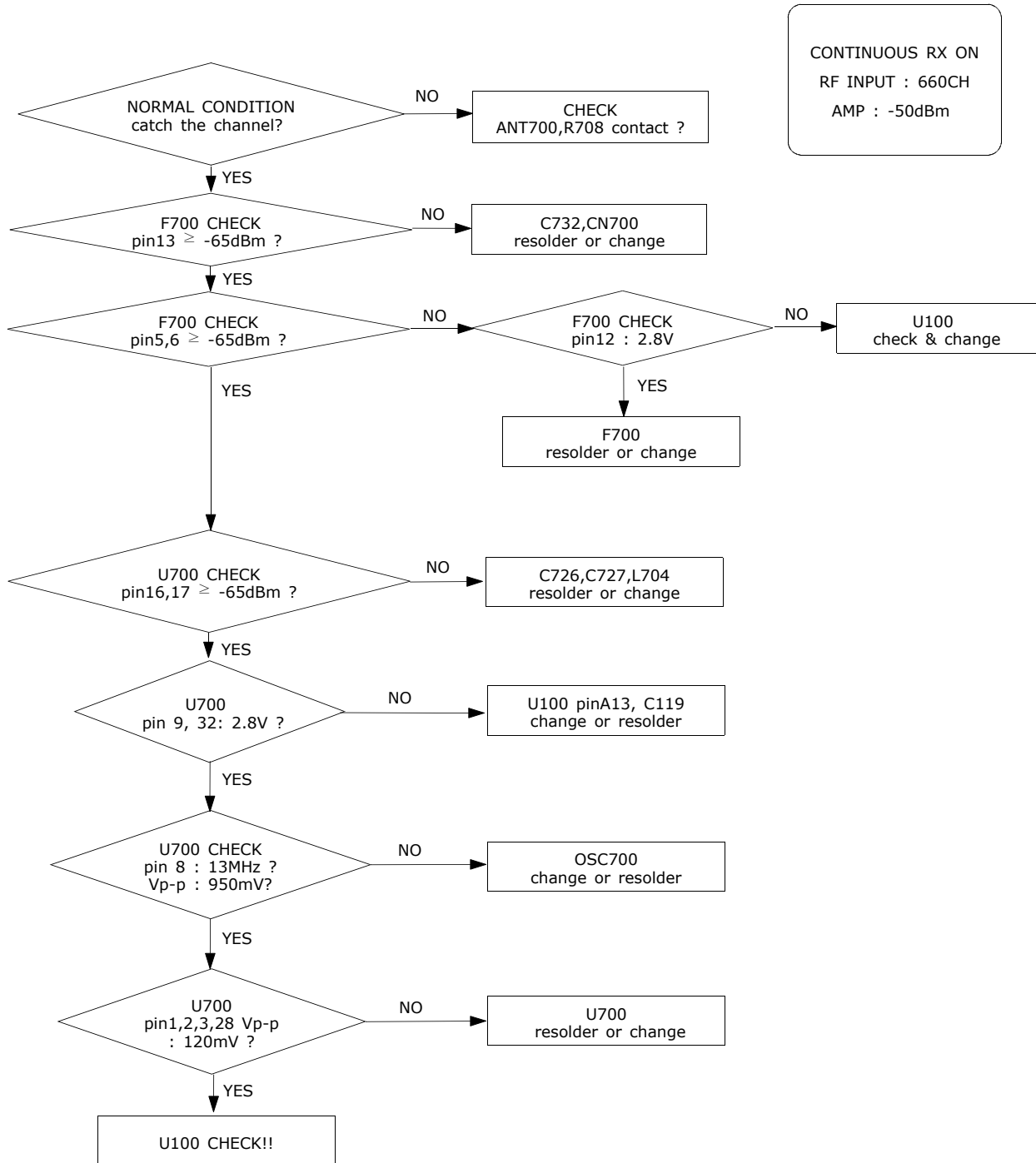
CONTINUOUS RX ON  
RF INPUT : 62CH  
AMP : -50dBm



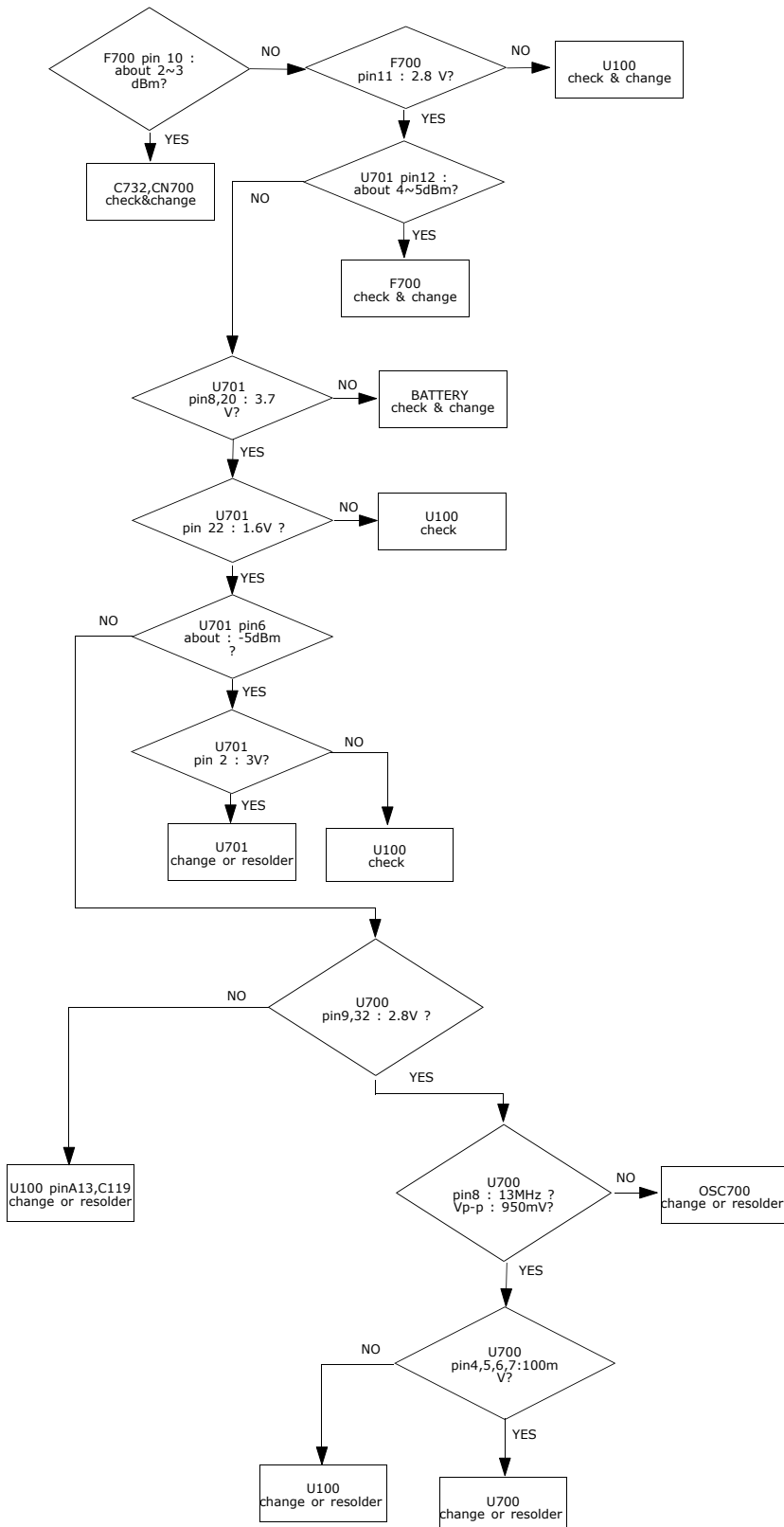
## 2. DCS RX



### 3. PCS RX

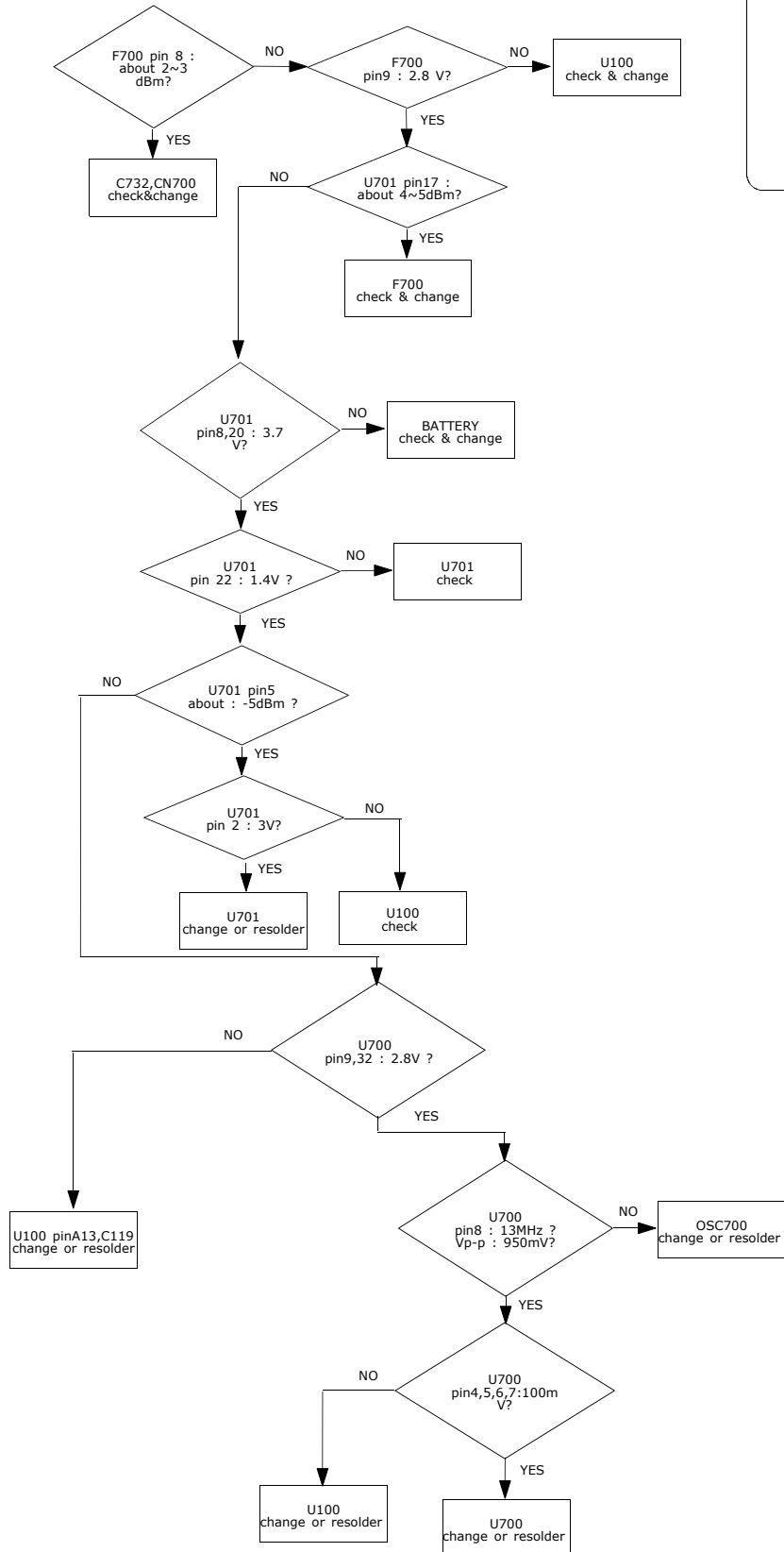


## 4. EGSM TX

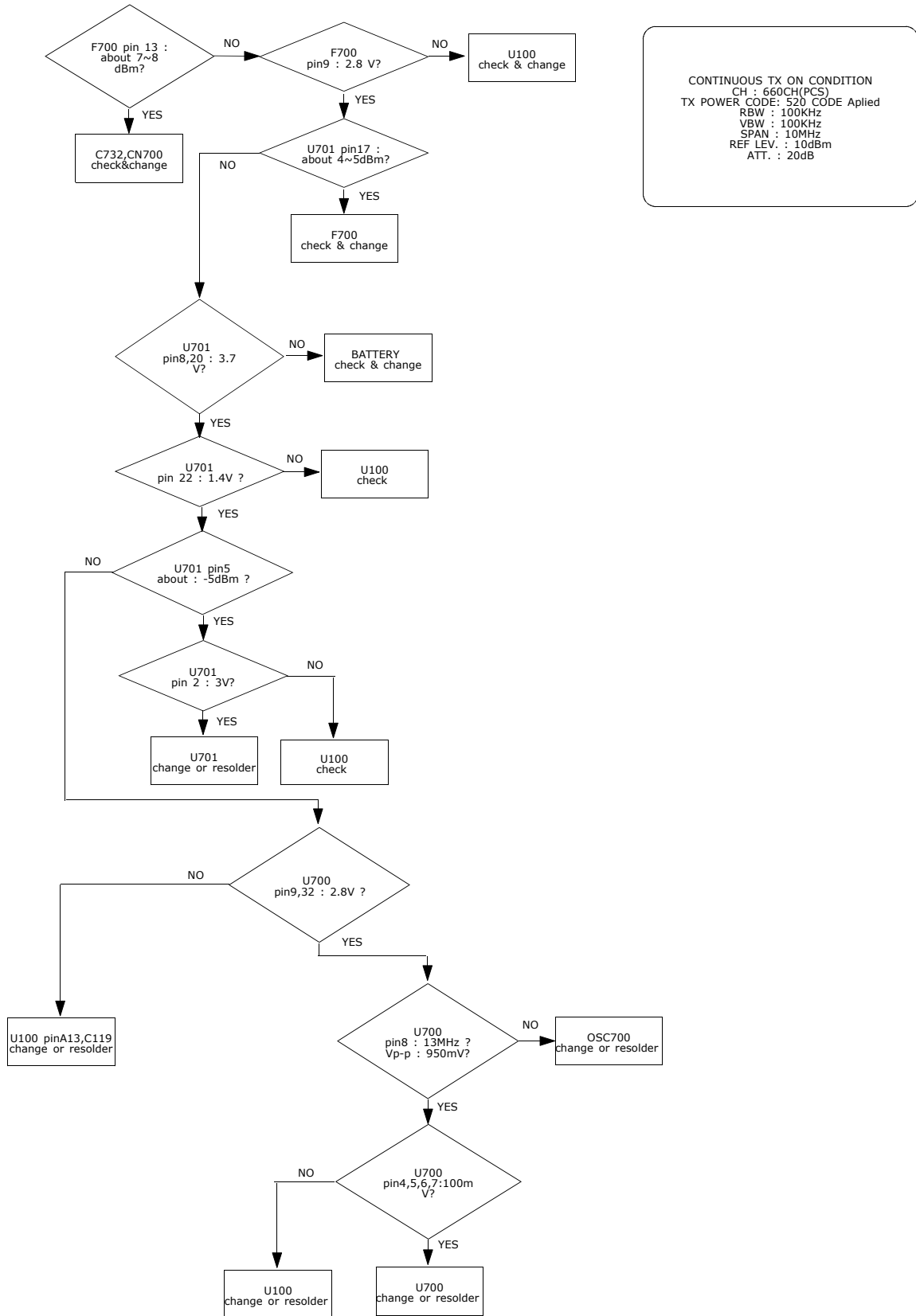


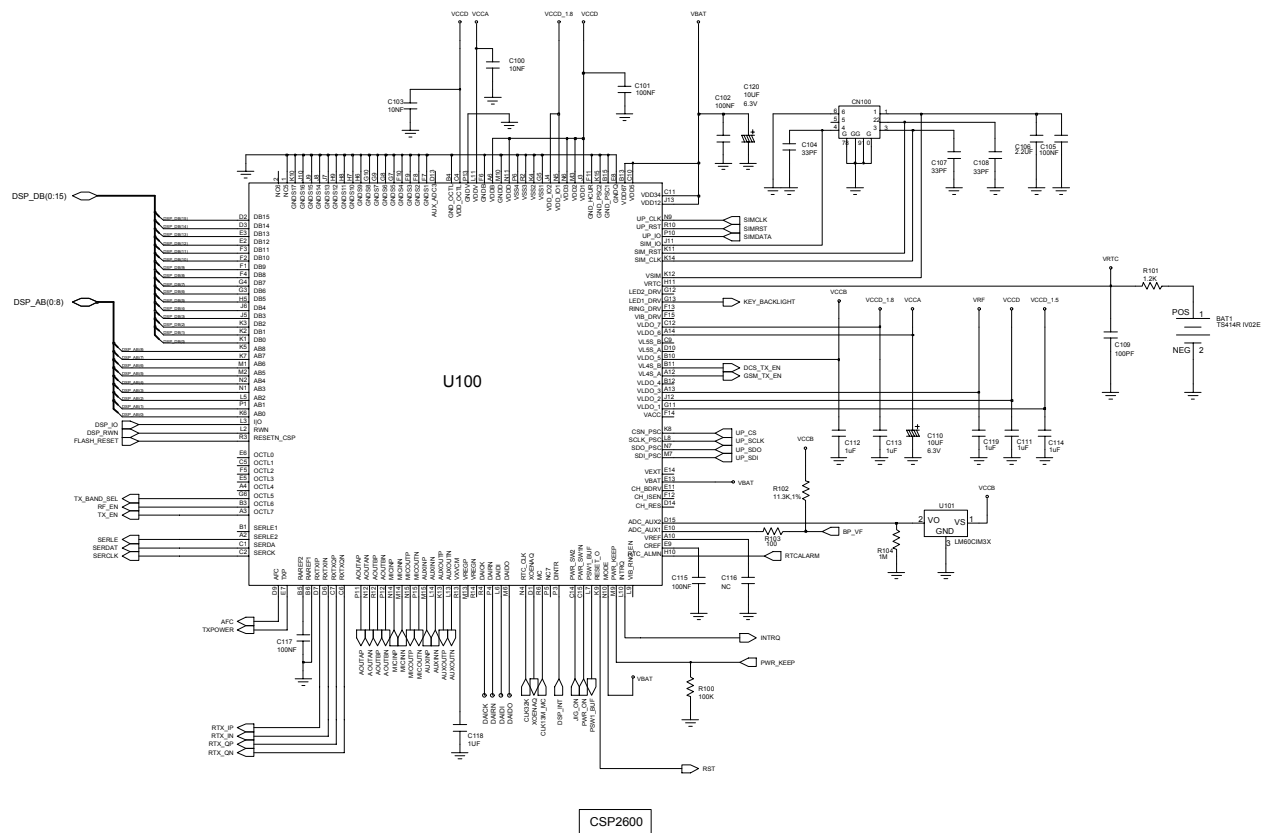
CONTINUOUS TX ON CONDITION  
TX POWER DAC: 600 CODE APPLIED  
CH : 62  
RBW : 100KHz  
VBW : 100KHz  
SPAN : 10MHz  
REF LEV. : 10dBm  
ATT. : 20dB

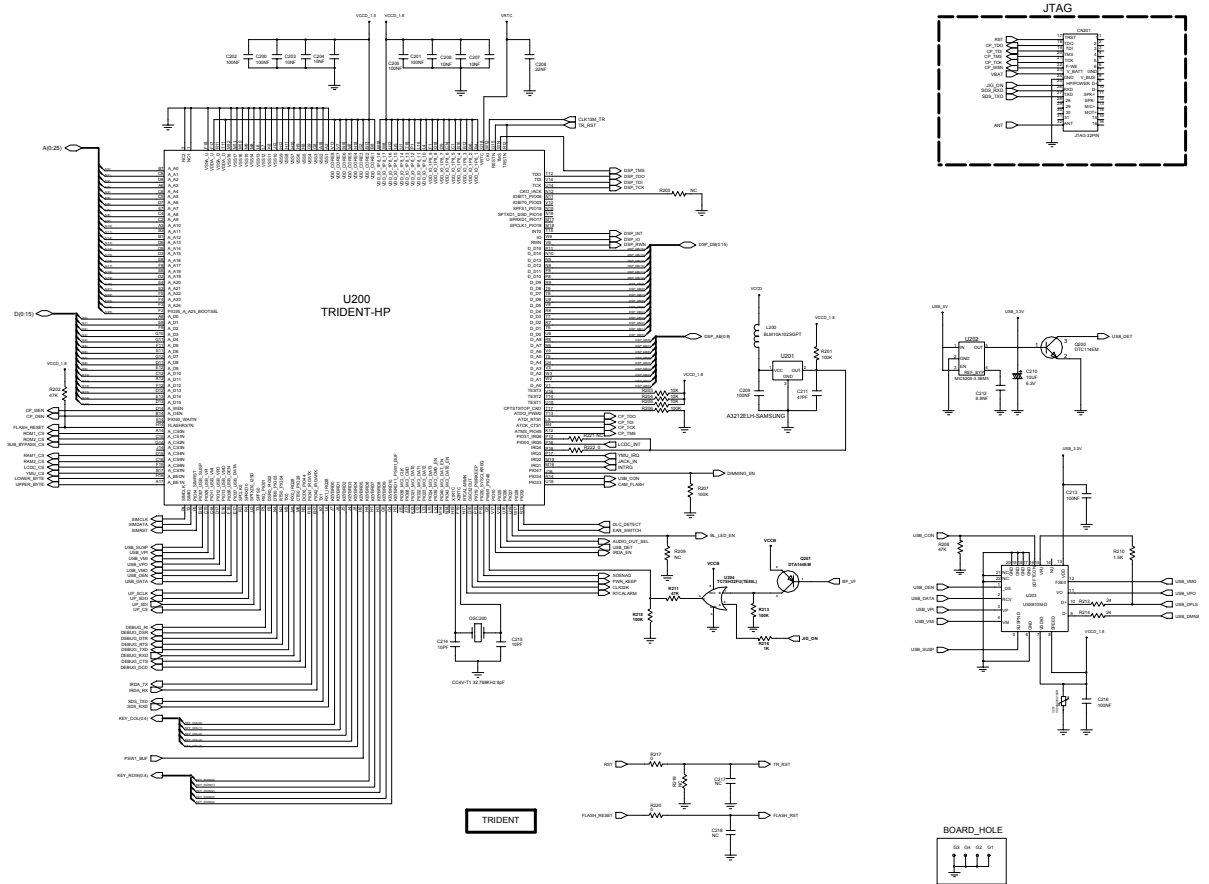
## 5. DCS TX

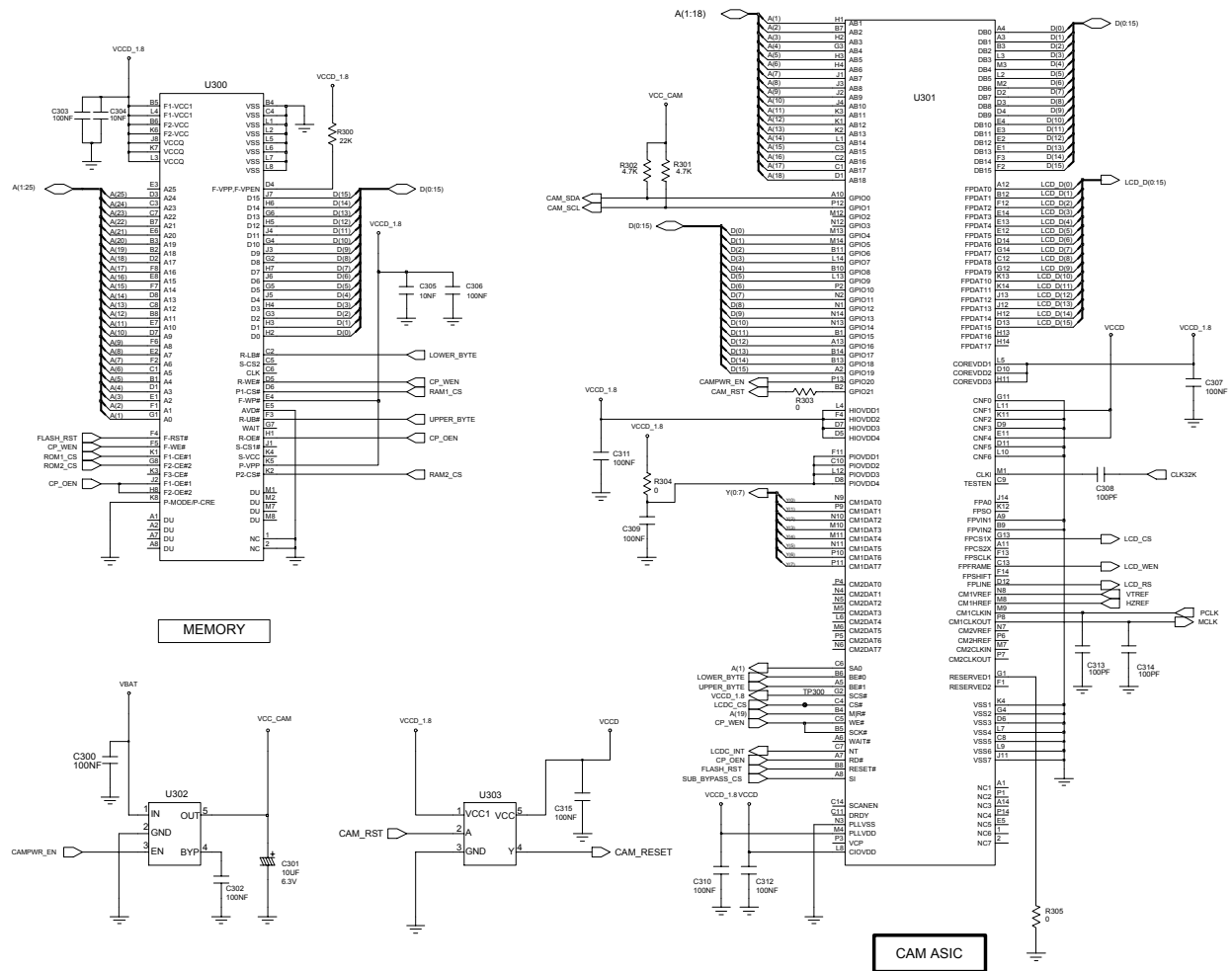


## 6. PCS TX

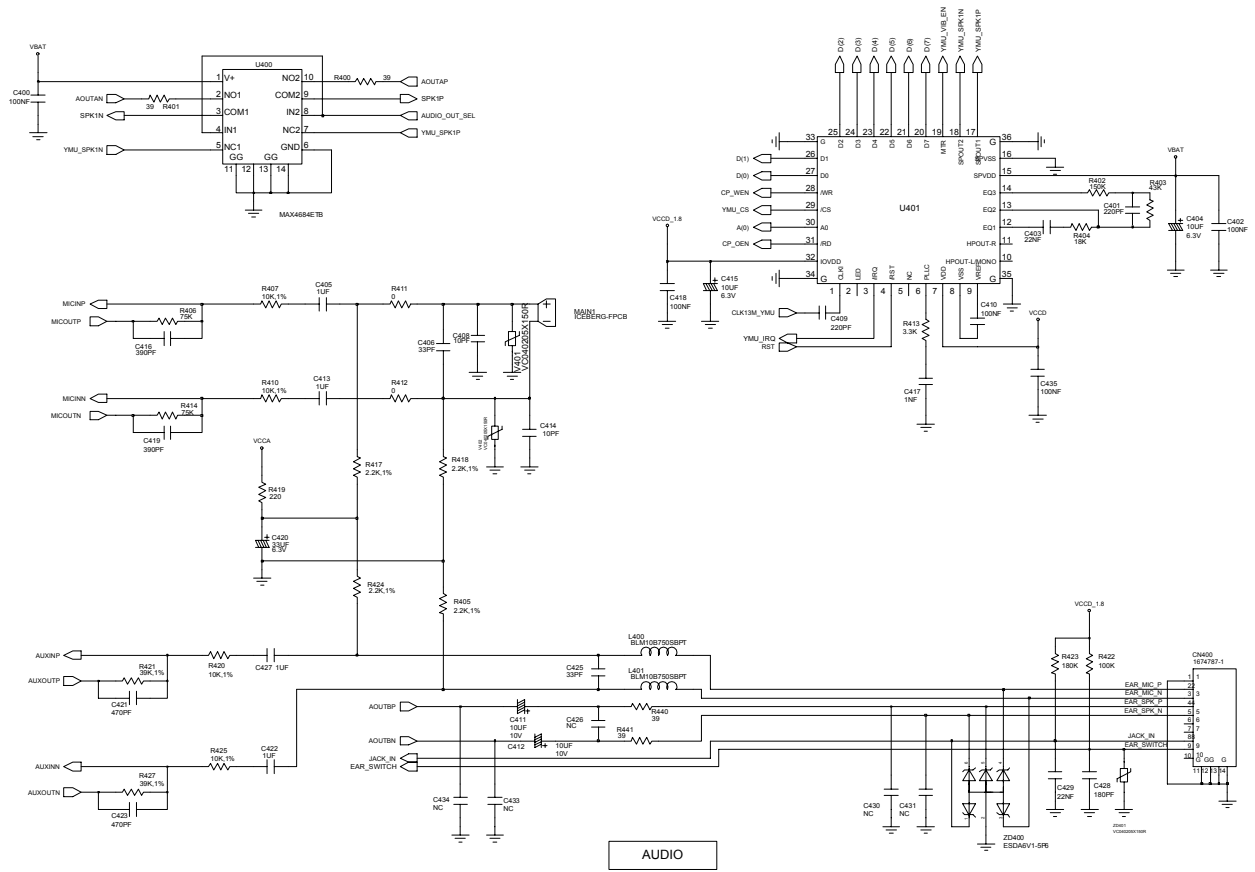


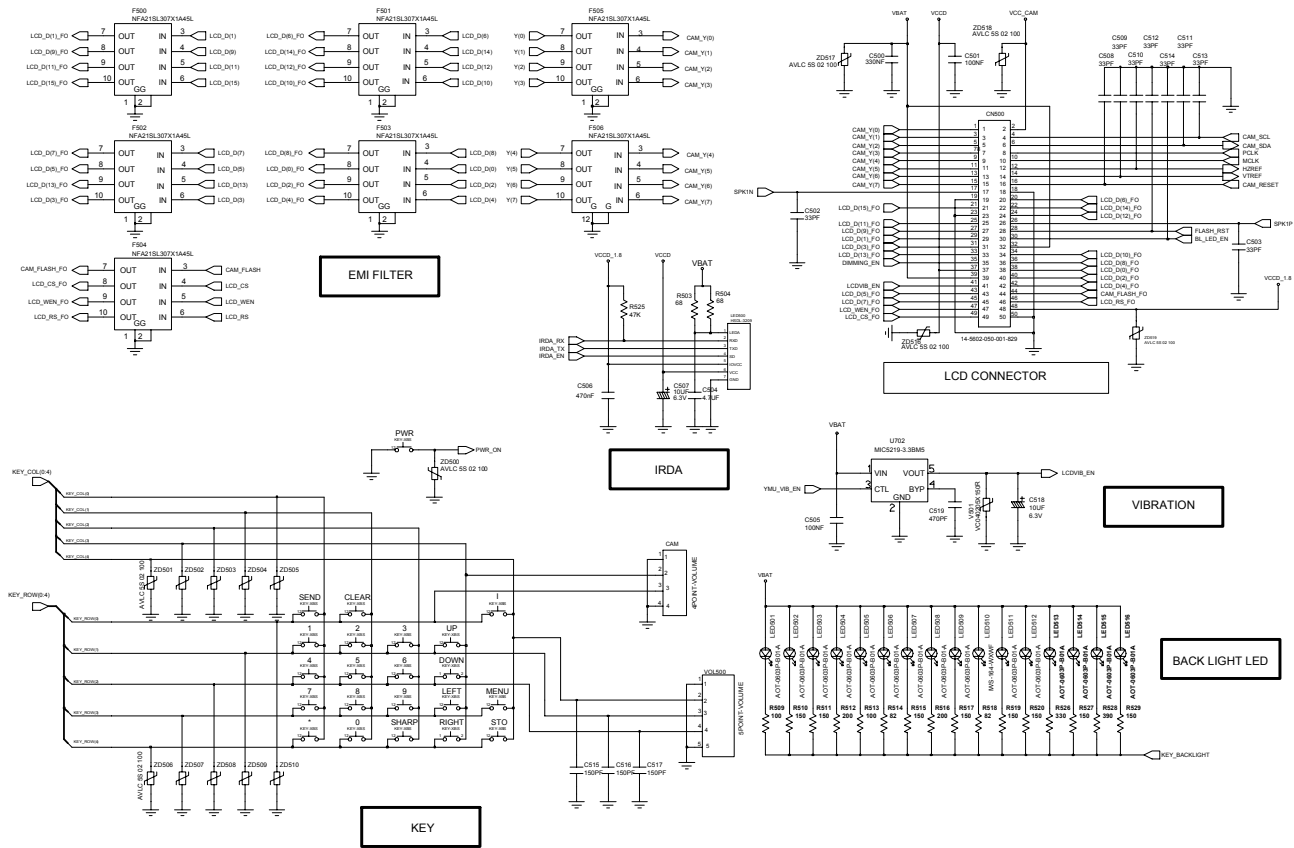


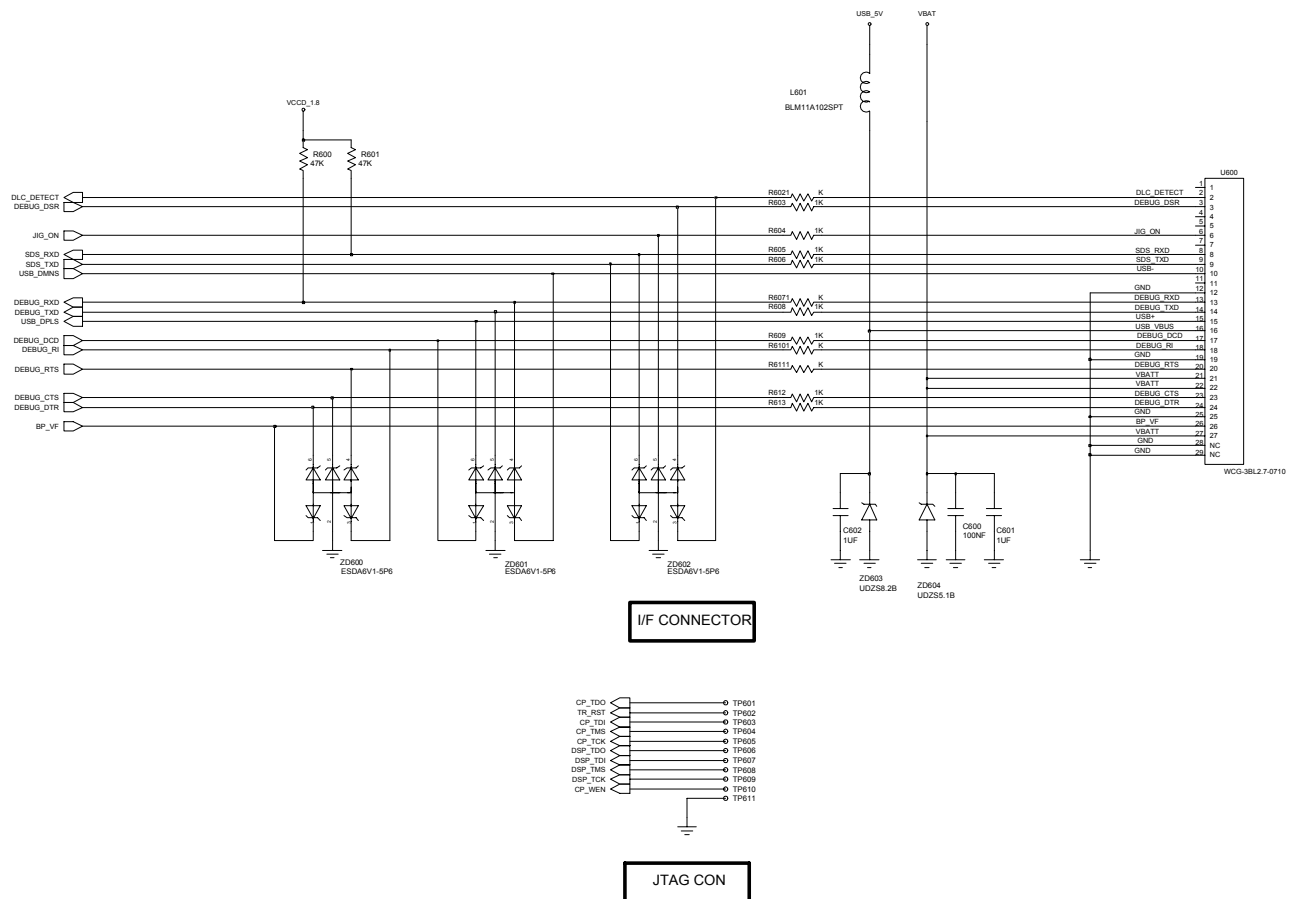


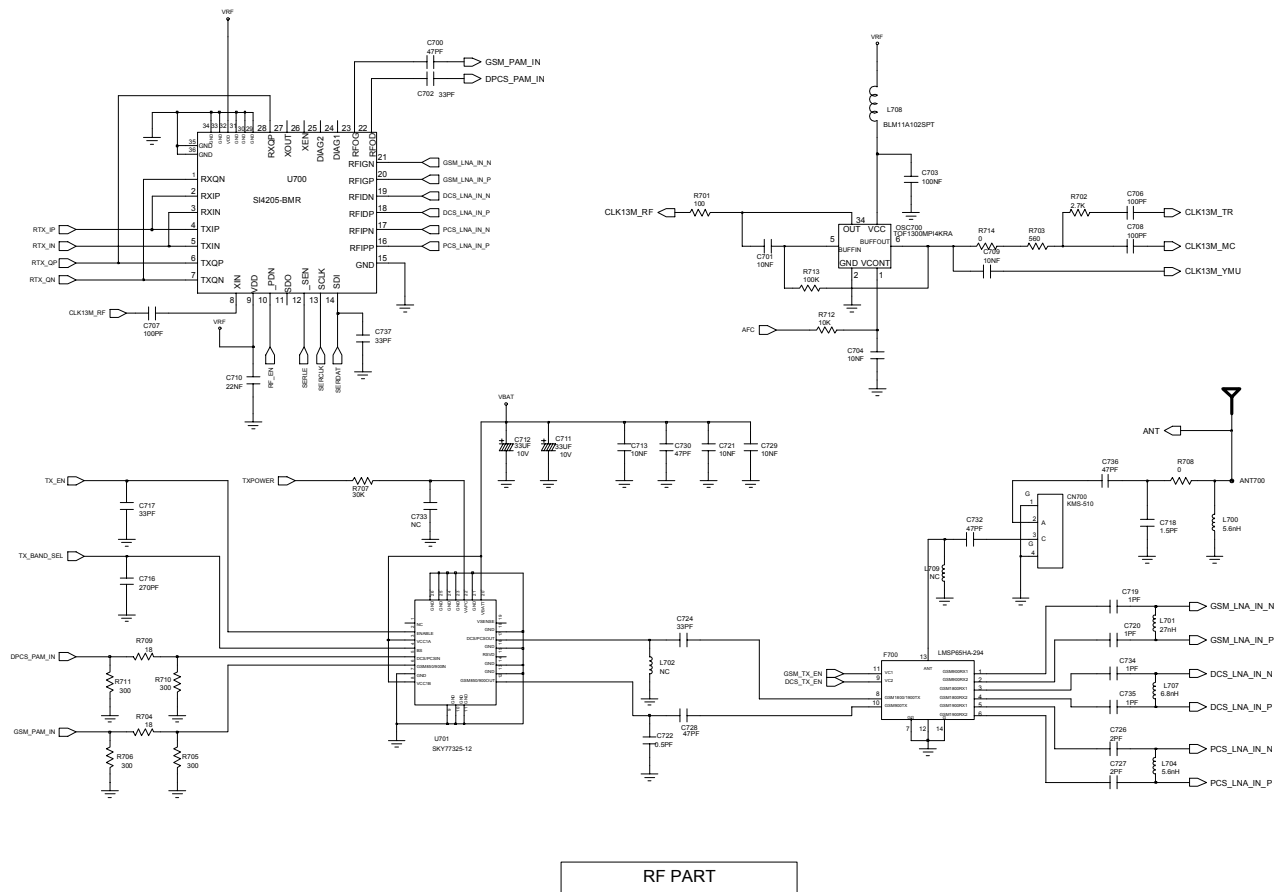


## SGH-S342i Flow Chart of Troubleshooting



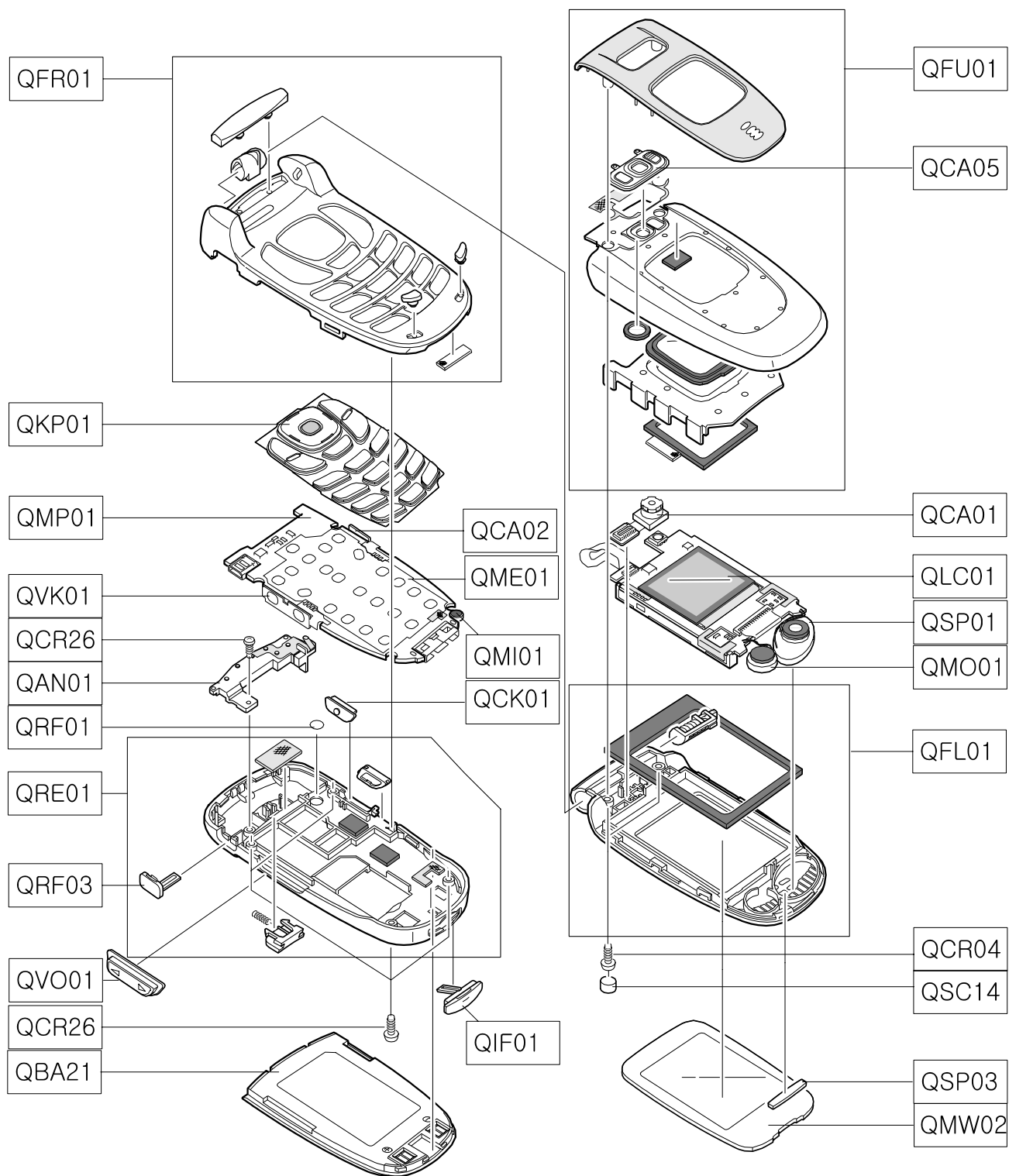






### 3. SGH-S342i Exploded View and Parts List

#### 1. Cellular phone Exploded View



## 2. Cellular phone Parts list

| Location NO. |       | Description          | SEC CODE    | Remark |
|--------------|-------|----------------------|-------------|--------|
| QFU01        |       | MEC-F/UPPER          | GH75-05597A |        |
|              | QCA05 | MEC-CAMERA DECO      | GH75-05606A |        |
| QCA01        |       | UNIT-CAMERA          | GH59-01722A |        |
| QLC01        |       | LCD-SGHS342I         | GH07-00620A |        |
| QSP01        |       | MICRO SPEAKER        | 3001-001644 |        |
| QMO01        |       | MOTOR DC             | GH31-00119A |        |
| QFL01        |       | MEC-F/LOWER          | GH75-05599A |        |
| QCR04        |       | SCREW-MACHINE        | 6001-001479 |        |
| QSC14        |       | PMO-FOLDER SCREW CAP | GH72-17045A |        |
| QSP03        |       | PMO-SPK DUMMY        | GH72-16842A |        |
| QMW02        |       | PMO-MAIN WINDOW      | GH72-16844A |        |
| QFR01        |       | MEC-FRONT COVER      | GH75-05600A |        |
| QKP01        |       | MEC-KEY PAD          | GH75-05602A |        |
| QCA02        |       | UNIT-CAMERA KEY      | GH59-01730A |        |
| QMP01        |       | PBA MAIN             | GH92-01913A |        |
| QMI01        |       | MICROPHONE-ASSY      | GH30-00154A |        |
| QVK01        |       | UNIT-VOLUME KEY      | GH59-01729A |        |
| QRF01        |       | MPR-RF SHEET         | GH74-11166A |        |
| QME01        |       | UNIT-METAL DOM       | GH59-01728A |        |
| QCR26        |       | SCREW-MACHINE        | 6001-001850 |        |
| QAN01        |       | ANTENNA              | GH42-00481A |        |
| QCK01        |       | MEC-KEY CAMERA       | GH75-05709A |        |
| QRE01        |       | MEC-REAR COVER       | GH75-05601A |        |
|              | QRF03 | PMO-EAR COVER        | GH72-16841A |        |
| QVO01        |       | MEC-KEY VOLUME       | GH75-05708A |        |
| QIF01        |       | PMO-IF COVER         | GH72-17092A |        |
| QBA21        |       | BATTERY-820MAH       | GH43-01549A |        |

### 3. Test Jig (GH80-03307A)



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



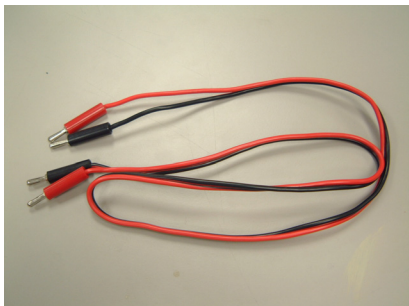
3-2. Test Cable  
(GH39-00304A)



3-3. Serial Cable



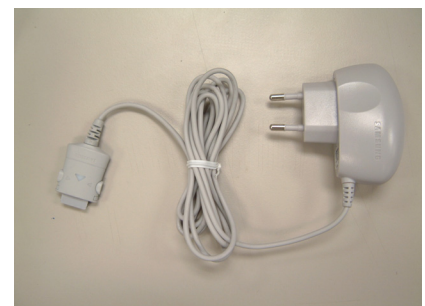
3-4. Power Supply Cable



3-5. DATA CABLE  
(GH39-00305A)



3-6. TC  
(GH44-00701A)



## 4. SGH-S342i MAIN Electrical Parts List

| SEC Code    | Design LOC |
|-------------|------------|
| GH92-01913A | PBA        |
| 0403-001387 | ZD604      |
| 0403-001427 | ZD603      |
| 0406-001167 | ZD400      |
| 0406-001167 | ZD600      |
| 0406-001167 | ZD601      |
| 0406-001167 | ZD602      |
| 0504-001140 | Q201       |
| 0504-001141 | Q200       |
| 0601-001790 | LED501     |
| 0601-001790 | LED502     |
| 0601-001790 | LED503     |
| 0601-001790 | LED504     |
| 0601-001790 | LED505     |
| 0601-001790 | LED506     |
| 0601-001790 | LED507     |
| 0601-001790 | LED508     |
| 0601-001790 | LED509     |
| 0601-001790 | LED511     |
| 0601-001790 | LED512     |
| 0601-001790 | LED513     |
| 0601-001790 | LED514     |
| 0601-001790 | LED515     |
| 0601-001790 | LED516     |
| 0601-001919 | LED510     |
| 0604-001291 | LED500     |
| 0801-002529 | U204       |
| 0801-002975 | U303       |
| 0904-001849 | U301       |
| 1001-001261 | U400       |
| 1006-001313 | U203       |
| 1009-001010 | U201       |
| 1109-001310 | U300       |
| 1201-002171 | U701       |
| 1203-001256 | U202       |

| SEC Code    | Design LOC |
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| 2203-000233 | C313       |
| 2203-000233 | C314       |
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| 2203-000654 | C716       |
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| 2203-000812 | C104       |

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| 1203-001518 | U702       |
| 1203-002099 | U302       |
| 1203-003472 | U100       |
| 1204-002138 | U401       |
| 1205-002433 | U700       |
| 1209-001219 | U101       |
| 1405-001082 | V201       |
| 1405-001082 | V401       |
| 1405-001082 | V402       |
| 1405-001082 | V501       |
| 1405-001082 | ZD401      |
| 1405-001108 | ZD500      |
| 1405-001108 | ZD501      |
| 1405-001108 | ZD502      |
| 1405-001108 | ZD503      |
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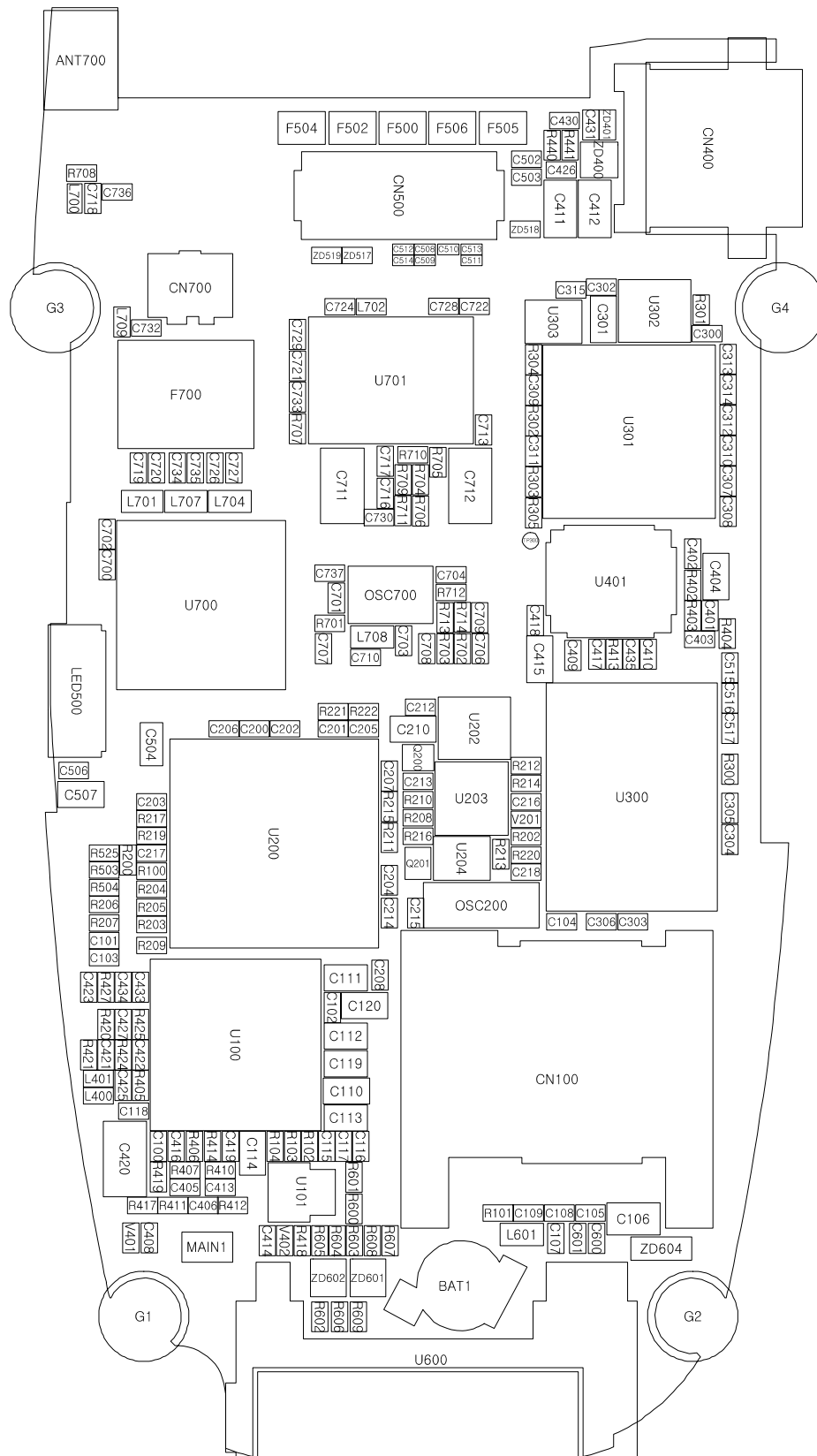
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| 2203-006208 | C504       |
| 2203-006257 | C506       |
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| 2404-001268 | C411       |
| 2404-001268 | C412       |
| 2404-001274 | C711       |
| 2404-001274 | C712       |
| 2404-001305 | C420       |
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| 2703-002547 | L707       |
| 2703-002586 | L700       |
| 2703-002665 | L704       |
| 2801-003747 | OSC200     |
| 2809-001284 | OSC700     |
| 2901-001286 | F500       |

| SEC Code    | Design LOC |
|-------------|------------|
| 2007-001333 | R404       |
| 2007-001339 | R423       |
| 2007-002797 | R703       |
| 2007-007008 | R705       |
| 2007-007008 | R706       |
| 2007-007008 | R710       |
| 2007-007008 | R711       |
| 2007-007021 | R406       |
| 2007-007021 | R414       |
| 2007-007095 | R528       |
| 2007-007101 | R403       |
| 2007-007134 | R421       |
| 2007-007134 | R427       |
| 2007-007142 | R407       |
| 2007-007142 | R410       |
| 2007-007142 | R420       |
| 2007-007142 | R425       |
| 2007-007317 | R405       |
| 2007-007317 | R417       |
| 2007-007317 | R418       |
| 2007-007317 | R424       |
| 2007-007491 | R102       |
| 2203-000233 | C109       |
| 2203-000233 | C308       |

| SEC Code    | Design LOC      |
|-------------|-----------------|
| 2901-001286 | F501            |
| 2901-001286 | F502            |
| 2901-001286 | F503            |
| 2901-001286 | F504            |
| 2901-001286 | F505            |
| 2901-001286 | F506            |
| 2909-001249 | F700            |
| 3301-001105 | L601            |
| 3301-001105 | L708            |
| 3301-001362 | L200            |
| 3301-001438 | L400            |
| 3301-001438 | L401            |
| 3705-001355 | CN700           |
| 3709-001298 | CN100           |
| 3710-002189 | U600            |
| 3711-005159 | CN500           |
| 3722-002181 | CN400           |
| 4302-001158 | BAT1            |
| GH09-00031A | U200            |
| GH30-00154A | MICROPHONE ASSY |
| GH59-01728A | METAL DOME      |
| GH59-01729A | VOLUME KEY      |
| GH59-01730A | CAMERA KEY      |

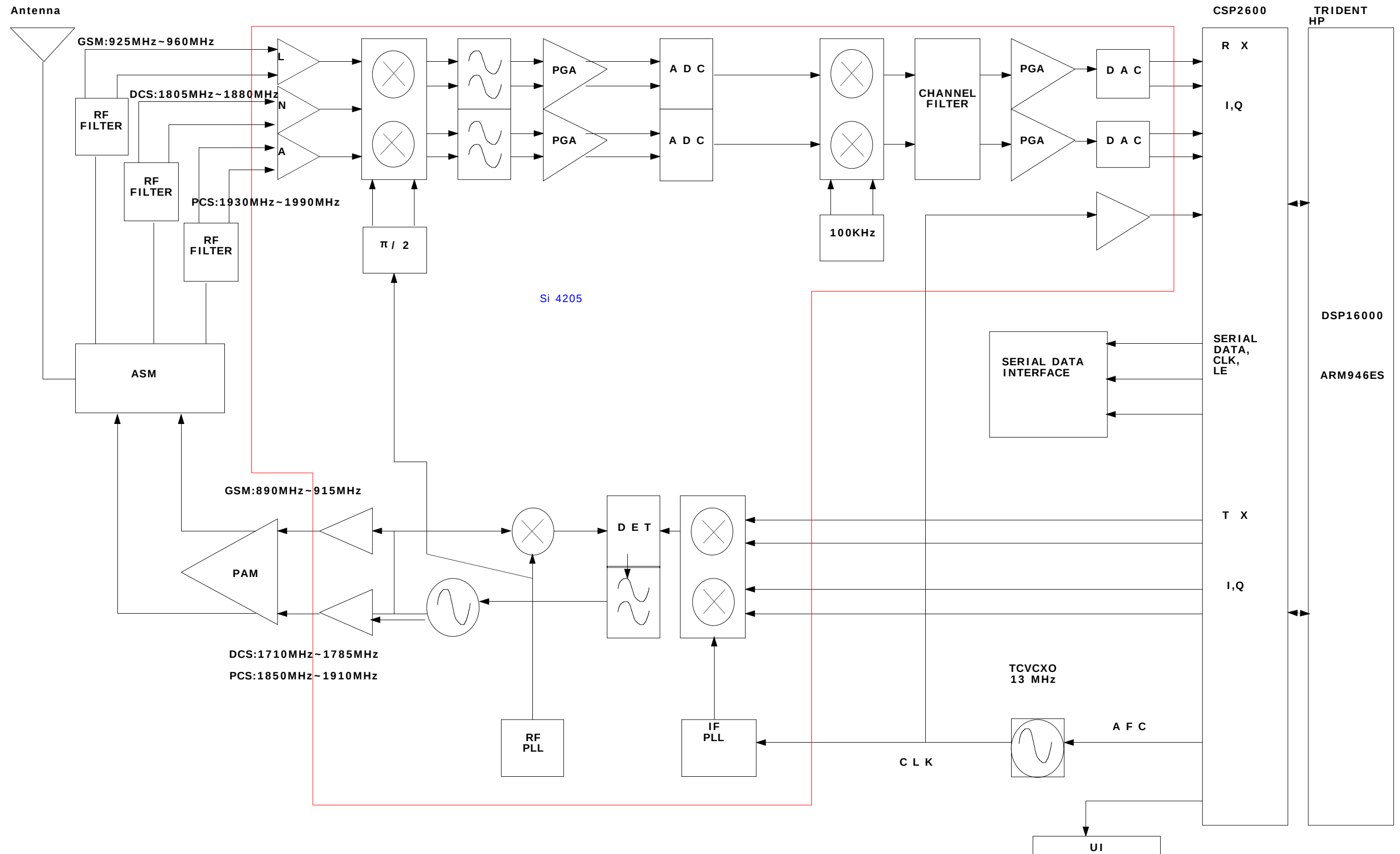
## 5. SGH-S342i PCB Diagrams





## 6. SGH-S342i Block Diagrams

## 1. RF Solution Block Diagram



## 2. Base Band Solution Block Diagram

