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Samsung Electronics Co.,Ltd.  
Printed in Korea  
05/2003 Rev 1.0  
GH68-03692A



# DUAL BAND Mobile Cellular Phone SGH-S500

# SERVICE Manual

## DUAL BAND MOBILE CELLULAR PHONE



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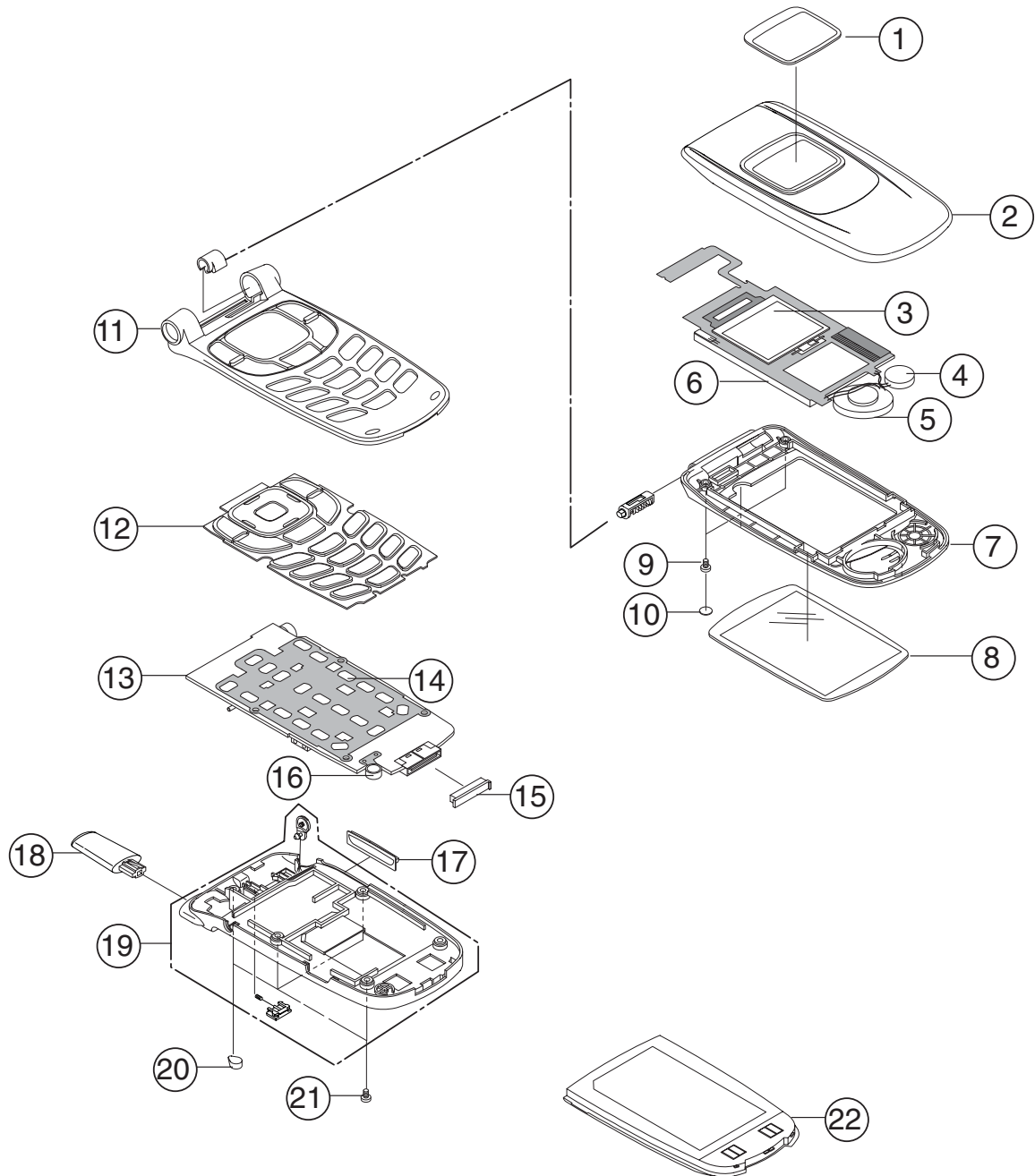
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# 1. SGH-S500 Exploded Views and Parts List

## 1-1 Main



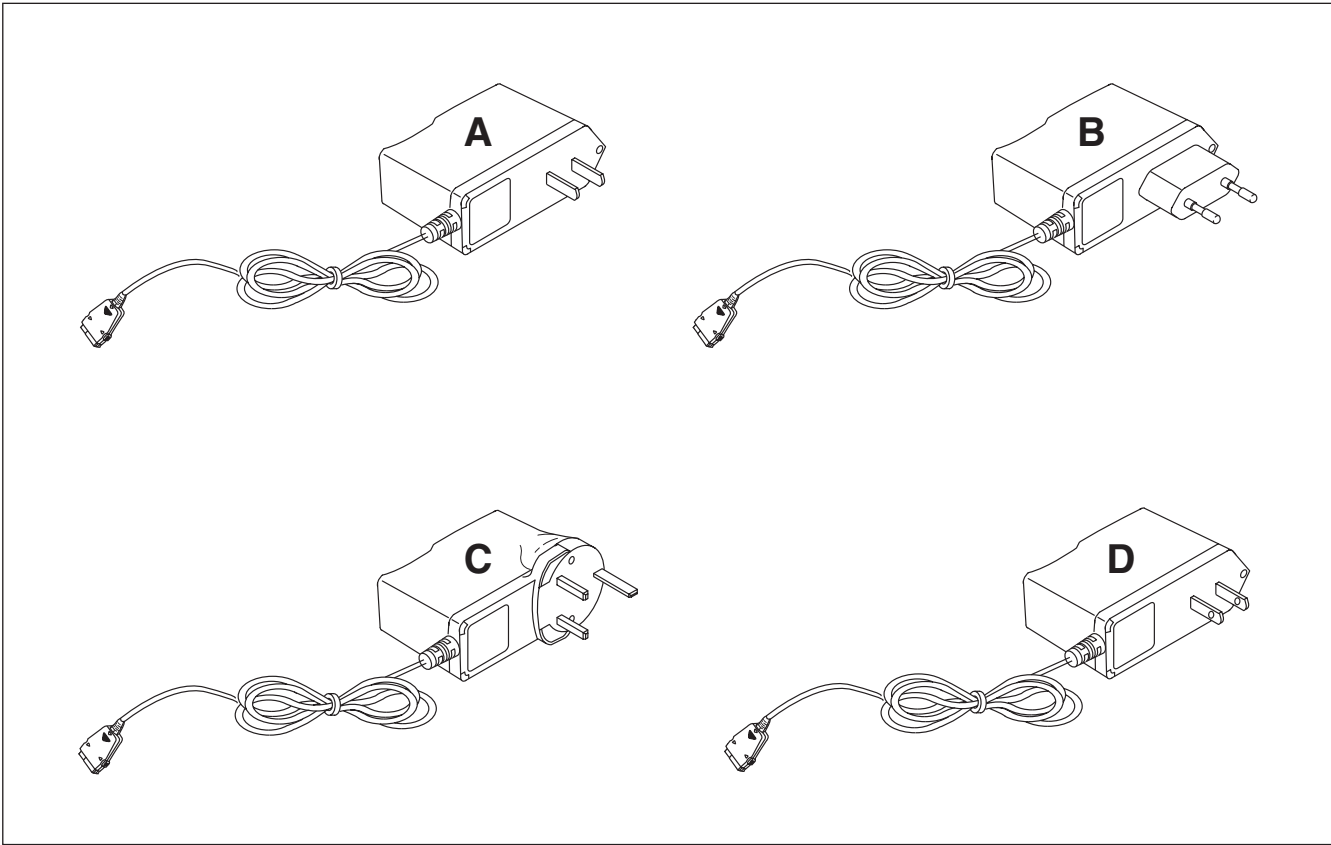
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## 1-2 Main Parts List

---

| Location No. |  | Description     | SEC CODE    | Remark |
|--------------|--|-----------------|-------------|--------|
| 1            |  | SUB WINDOW LCD  | GH72-05977A |        |
| 2            |  | FOLDER UPPER    | GH75-02248A |        |
| 3            |  | LCD             | GH07-00316A |        |
| 4            |  | MOTOR           | 3101-001294 |        |
| 5            |  | SPEAKER         | 3001-001390 |        |
| 6            |  | MAIN LCD        | GH07-00190A |        |
| 7            |  | FOLDER LOWER    | GH75-02249A |        |
| 8            |  | MAIN WINDOW LCD | GH75-02999A |        |
| 9            |  | SCREW           | 6001-001479 |        |
| 10           |  | SCREW CAP       | GH74-03662A |        |
| 11           |  | FRONT COVER     | GH75-02250A |        |
| 12           |  | KEYPAD          | GH75-02247A |        |
| 13           |  | MAIN PBA        | GH92-01368A |        |
| 14           |  | DOME SHEET      | GH59-00727A |        |
| 15           |  | CONNECTOR COVER | GH73-01394A |        |
| 16           |  | MIC             | GH30-00014A |        |
| 17           |  | SIDE KEY        | GH75-02264A |        |
| 18           |  | ANTENNA         | GH42-00292A |        |
| 19           |  | REAR COVER      | GH75-02251A |        |
| 20           |  | RF COVER        | GH73-01553A |        |
| 21           |  | SCREW           | 6001-001479 |        |
| 22           |  | BATTERY         | GH43-00836A |        |

### 1-3 Travel Adapter



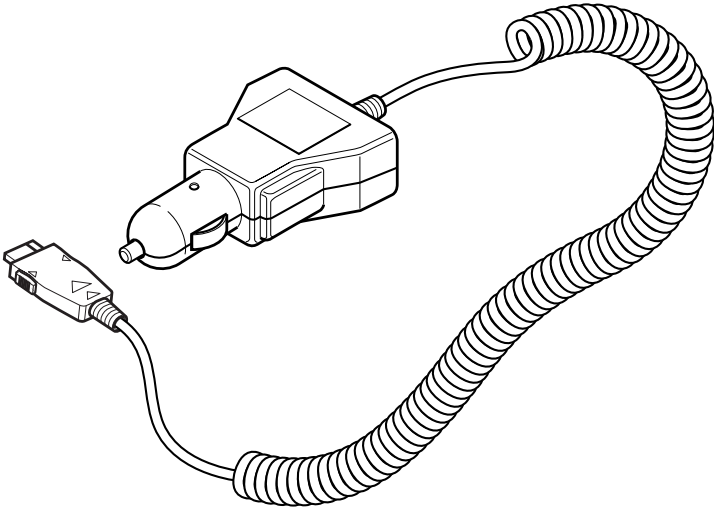
### 1-4 Travel Adapter Parts List

| TYPE | SEC CODE    | REMARK         |
|------|-------------|----------------|
| A    | GH44-00171A | CHINA          |
| B    | GH44-00184A | EUROPE         |
| C    | GH44-00171C | UNITED KINGDOM |
| D    | Gh44-00171E | TAIWAN         |

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# 1-5 Ciger Light Adapter

---

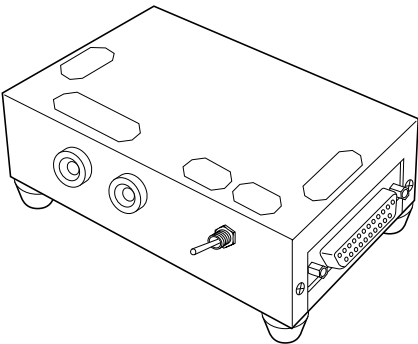


# 1-6 Ciger Light Adapter Parts List

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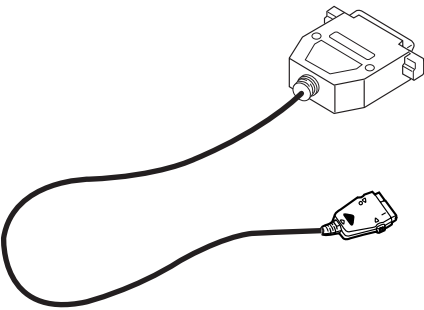
| DESCRIPTION              | SEC CODE    | REMARK |
|--------------------------|-------------|--------|
| Ciger Light Adapter Code | GH44-00170A | BLACK  |

1-7 Test Jig



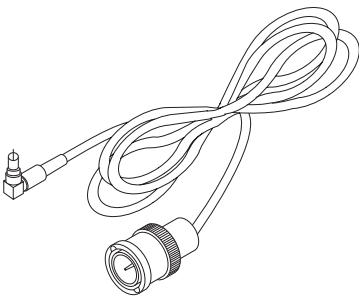
TEST JIG

GH80-01909A



TEST JIG CABLE

GH39-000217A

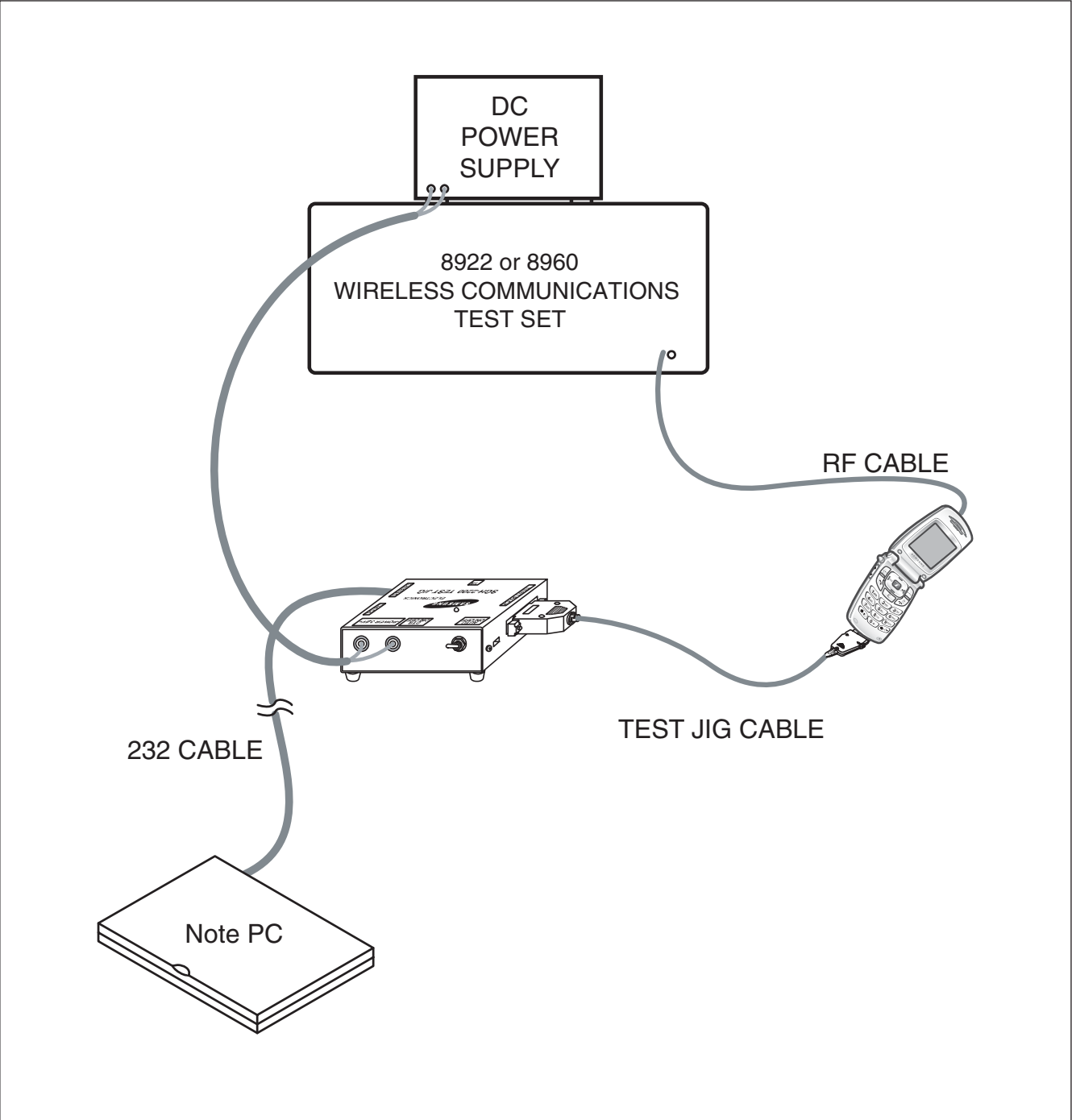


RF CABLE

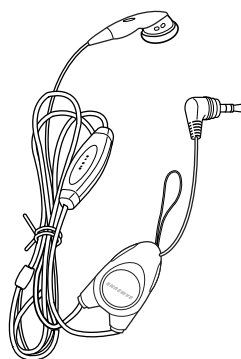
GH39-00172A



1-7-1 Test Jig



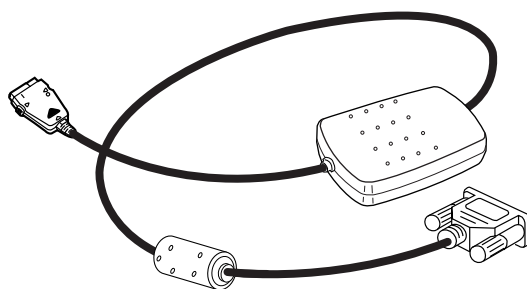
### 1-8 Wearable EAR Microphone



Wearable EAR Microphone

GH59-00394B

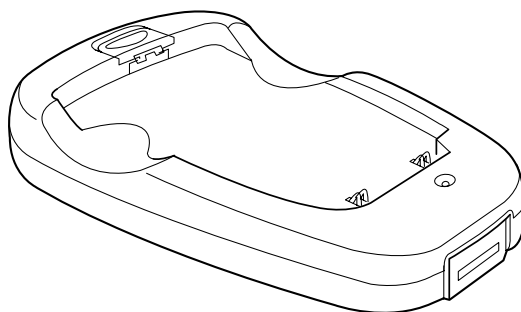
### 1-9 Data Kit



DATA KIT

GH39-00143B

### 1-10 Battery Charger

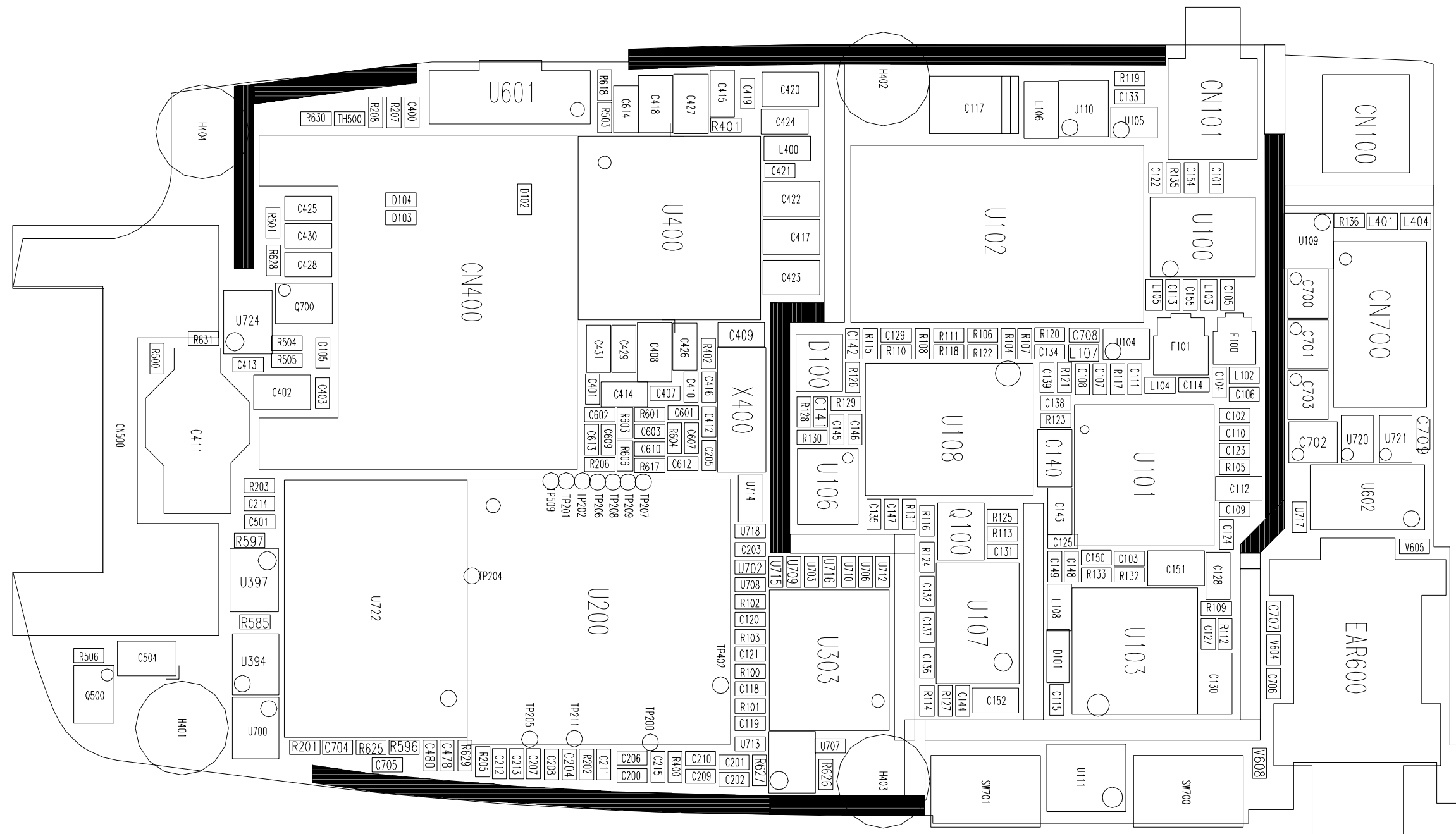


BATTERY CHARGER

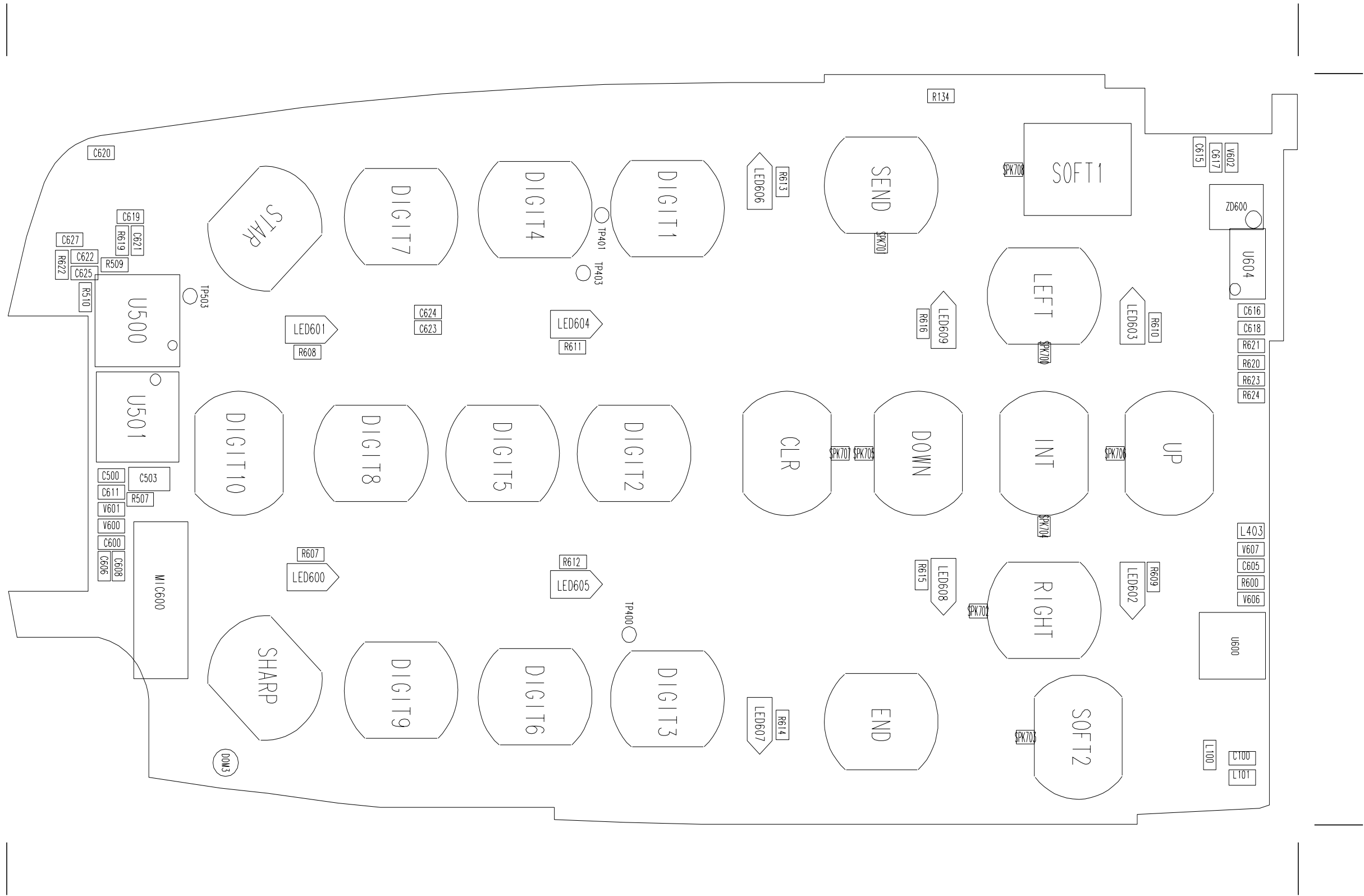
GH44-00279A

## 2. PCB Diagrams

## 2-1 Main Top



2-2 Main Bottom



### 3. Electrical Parts List

| NO | SEC CODE    | DESIGN LOC |
|----|-------------|------------|
| 1  | 0404-001077 | D100       |
| 2  | 0405-001122 | D101       |
| 3  | 0501-002051 | Q100       |
| 4  | 0504-001060 | U109       |
| 5  | 0504-001060 | U110       |
| 6  | 0505-001423 | U397       |
| 7  | 0505-001423 | U724       |
| 8  | 0506-000107 | Q500       |
| 9  | 0506-000107 | Q700       |
| 10 | 0604-001146 | U601       |
| 11 | 0801-002237 | U300       |
| 12 | 0801-002540 | U394       |
| 13 | 0801-002540 | U700       |
| 14 | 1001-001183 | U602       |
| 15 | 1001-001231 | U720       |
| 16 | 1001-001231 | U721       |
| 17 | 1109-001243 | U722       |
| 18 | 1201-001785 | U102       |
| 19 | 1203-002824 | U111       |
| 20 | 1204-001960 | U303       |
| 21 | 1205-002257 | U400       |
| 22 | 1205-002264 | U101       |
| 23 | 1205-002276 | U200       |
| 24 | 1209-001429 | U106       |
| 25 | 1404-001221 | TH500      |
| 26 | 1405-001082 | D102       |
| 27 | 1405-001082 | D103       |
| 28 | 1405-001082 | D104       |
| 29 | 1405-001082 | D105       |
| 30 | 1405-001082 | V604       |
| 31 | 1405-001082 | V605       |
| 32 | 1405-001082 | V608       |
| 33 | 2007-000138 | R105       |
| 34 | 2007-000140 | R126       |
| 35 | 2007-000140 | R128       |
| 36 | 2007-000140 | R401       |
| 37 | 2007-000141 | R207       |
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| 39 | 2007-000141 | U708       |

| NO | SEC CODE    | DESIGN LOC |
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| 45 | 2007-000146 | U709       |
| 46 | 2007-000148 | R130       |
| 47 | 2007-000148 | R135       |
| 48 | 2007-000148 | R136       |
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| 50 | 2007-000148 | R400       |
| 51 | 2007-000148 | R203       |
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| 53 | 2007-000148 | R604       |
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| 55 | 2007-000151 | R116       |
| 56 | 2007-000151 | R109       |
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| 58 | 2007-000162 | R202       |
| 59 | 2007-000162 | R205       |
| 60 | 2007-000162 | R500       |
| 61 | 2007-000162 | R501       |
| 62 | 2007-000162 | R585       |
| 63 | 2007-000162 | R597       |
| 64 | 2007-000162 | R628       |
| 65 | 2007-000162 | R618       |
| 66 | 2007-000162 | R629       |
| 67 | 2007-000162 | R630       |
| 68 | 2007-000162 | R631       |
| 69 | 2007-000171 | R115       |
| 70 | 2007-000171 | R127       |
| 71 | 2007-000171 | R503       |
| 72 | 2007-000171 | R596       |
| 73 | 2007-000171 | R626       |
| 74 | 2007-000171 | R627       |
| 75 | 2007-000171 | U702       |
| 76 | 2007-000173 | R104       |
| 77 | 2007-000173 | R108       |
| 78 | 2007-000242 | R601       |

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| 81  | 2007-000982 | R112       |
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| 84  | 2007-001306 | R106       |
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| 86  | 2007-001306 | R110       |
| 87  | 2007-001306 | R111       |
| 88  | 2007-001313 | R132       |
| 89  | 2007-001313 | U707       |
| 90  | 2007-001319 | U703       |
| 91  | 2007-001323 | R131       |
| 92  | 2007-001325 | U706       |
| 93  | 2007-002797 | R121       |
| 94  | 2007-003030 | R123       |
| 95  | 2007-007001 | R206       |
| 96  | 2007-007009 | R125       |
| 97  | 2007-007100 | R402       |
| 98  | 2007-007334 | R505       |
| 99  | 2007-007573 | R504       |
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| 102 | 2007-007699 | R119       |
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| 112 | 2203-000233 | C149       |
| 113 | 2203-000254 | C144       |
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| 117 | 2203-000254 | C704       |

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| 124 | 2203-000278 | C154       |
| 125 | 2203-000278 | C155       |
| 126 | 2203-000278 | C407       |
| 127 | 2203-000278 | C609       |
| 128 | 2203-000278 | C613       |
| 129 | 2203-000278 | C115       |
| 130 | 2203-000330 | C412       |
| 131 | 2203-000330 | C416       |
| 132 | 2203-000330 | C601       |
| 133 | 2203-000330 | C612       |
| 134 | 2203-000330 | C708       |
| 135 | 2203-000374 | C140       |
| 136 | 2203-000386 | C709       |
| 137 | 2203-000425 | C104       |
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| 139 | 2203-000438 | U710       |
| 140 | 2203-000585 | C118       |
| 141 | 2203-000585 | C119       |
| 142 | 2203-000585 | C120       |
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| 144 | 2203-000628 | C139       |
| 145 | 2203-000679 | C101       |
| 146 | 2203-000812 | C105       |
| 147 | 2203-000812 | C111       |
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| 149 | 2203-000812 | C114       |
| 150 | 2203-000836 | C147       |
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| 161 | 2203-001607 | C128       |
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| 164 | 2203-002687 | U715       |
| 165 | 2203-005056 | C141       |
| 166 | 2203-005057 | C134       |
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| 168 | 2203-005061 | C201       |
| 169 | 2203-005061 | C202       |
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| 182 | 2203-005061 | C400       |
| 183 | 2203-005061 | C401       |
| 184 | 2203-005061 | C403       |
| 185 | 2203-005061 | C480       |
| 186 | 2203-005061 | C501       |
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| 189 | 2203-005061 | U712       |
| 190 | 2203-005061 | U713       |
| 191 | 2203-005065 | C112       |
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| 193 | 2203-005065 | C424       |
| 194 | 2203-005065 | C614       |
| 195 | 2203-005446 | C142       |

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| 198 | 2203-005482 | C413       |
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| 200 | 2203-005496 | U716       |
| 201 | 2203-005664 | C402       |
| 202 | 2203-005664 | C418       |
| 203 | 2203-006053 | C415       |
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| 210 | 2203-006053 | C152       |
| 211 | 2203-006090 | C423       |
| 212 | 2203-006208 | C409       |
| 213 | 2203-006274 | C151       |
| 214 | 2301-001512 | C130       |
| 215 | 2404-001105 | C422       |
| 216 | 2404-001105 | C408       |
| 217 | 2404-001105 | C427       |
| 218 | 2404-001105 | C504       |
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| 220 | 2503-001045 | C700       |
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| 222 | 2503-001045 | C702       |
| 223 | 2503-001045 | C703       |
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| 225 | 2703-002370 | L103       |
| 226 | 2703-002485 | R603       |
| 227 | 2703-002485 | R606       |
| 228 | 2703-002519 | L102       |
| 229 | 2703-002586 | L104       |
| 230 | 2703-002596 | L107       |
| 231 | 2703-002597 | L401       |
| 232 | 2703-002597 | L404       |
| 233 | 2703-002606 | L105       |
| 234 | 2801-004025 | X400       |

| NO  | SEC CODE    | DESIGN LOC |
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| 237 | 2809-001271 | U107       |
| 238 | 2904-001417 | F100       |
| 239 | 2904-001424 | F101       |
| 240 | 2909-001197 | U100       |
| 241 | 3301-001105 | L400       |
| 242 | 3301-001630 | L106       |
| 243 | 3404-001152 | SW700      |
| 244 | 3404-001152 | SW701      |
| 245 | 3705-001242 | CN101      |
| 246 | 3709-001250 | CN400      |
| 247 | 3710-001816 | CN500      |
| 248 | 3711-005078 | CN700      |
| 249 | 3722-001715 | EAR600     |
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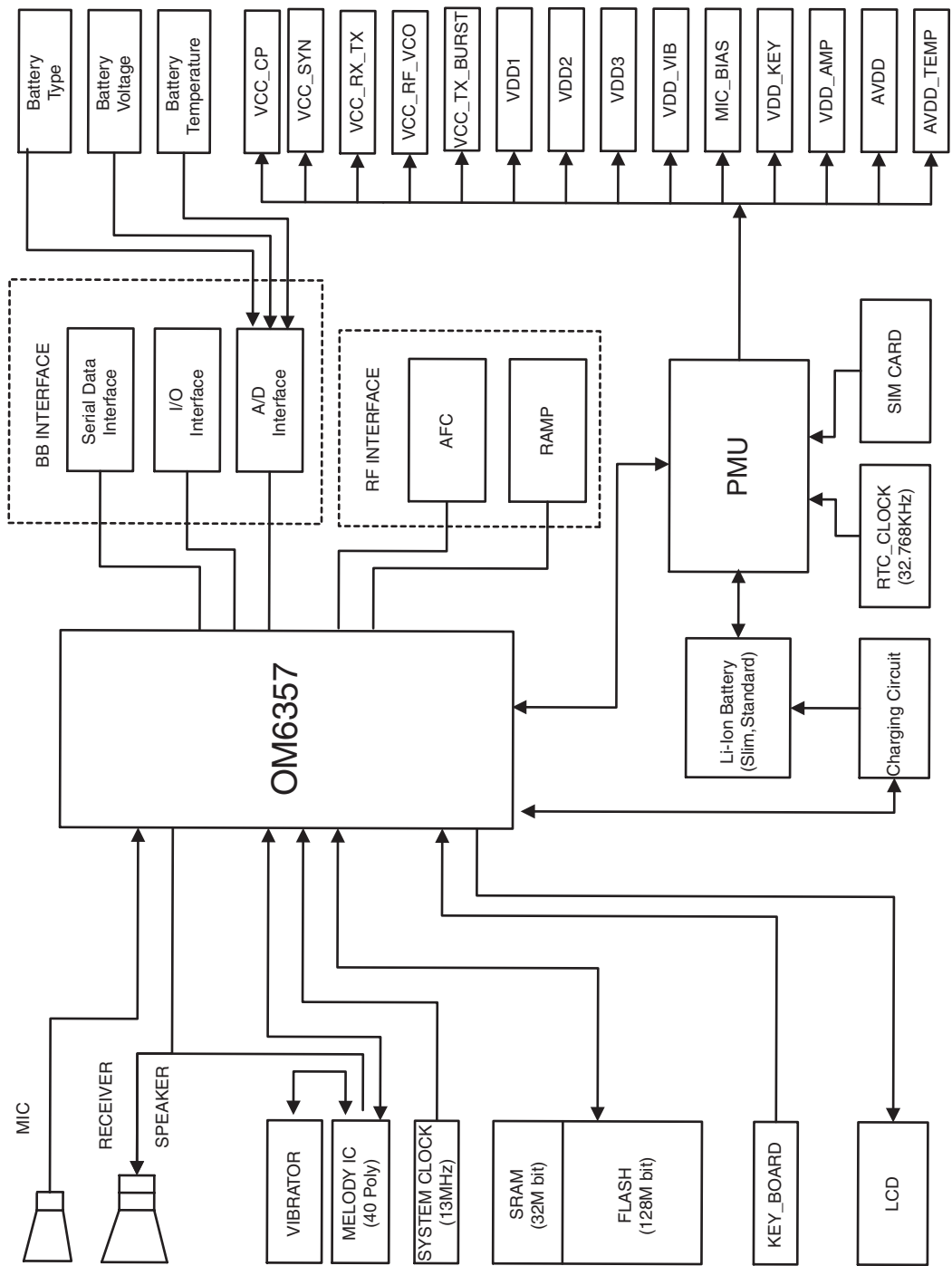
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| 9  | 0601-001647 | LED607     |
| 10 | 0601-001647 | LED608     |
| 11 | 0601-001647 | LED609     |
| 12 | 1009-001010 | U600       |
| 13 | 1202-001036 | U604       |
| 14 | 1203-002764 | U501       |
| 15 | 1405-001082 | V602       |
| 16 | 1405-001082 | V607       |
| 17 | 1405-001082 | V606       |
| 18 | 1405-001082 | V600       |

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| 21 | 2007-000162 | R600       |
| 22 | 2007-000164 | R507       |
| 23 | 2007-000171 | R622       |
| 24 | 2007-001298 | R608       |
| 25 | 2007-001298 | R611       |
| 26 | 2007-001301 | R609       |
| 27 | 2007-001301 | R610       |
| 28 | 2007-001301 | R615       |
| 29 | 2007-001301 | R616       |
| 30 | 2007-003030 | R614       |
| 31 | 2007-003030 | R607       |
| 32 | 2007-003030 | R612       |
| 33 | 2007-003030 | R613       |
| 34 | 2007-007334 | R623       |
| 35 | 2007-007480 | R624       |
| 36 | 2007-007528 | R510       |
| 37 | 2007-007981 | R621       |
| 38 | 2007-008117 | R509       |
| 39 | 2007-008312 | R620       |
| 40 | 2203-000330 | C611       |
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| 45 | 2203-000628 | C606       |
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| 47 | 2203-000995 | C615       |
| 48 | 2203-000995 | C618       |
| 49 | 2203-001383 | C100       |
| 50 | 2203-005061 | C605       |
| 51 | 2203-005281 | L100       |
| 52 | 2203-005482 | C619       |
| 53 | 2203-005482 | C622       |
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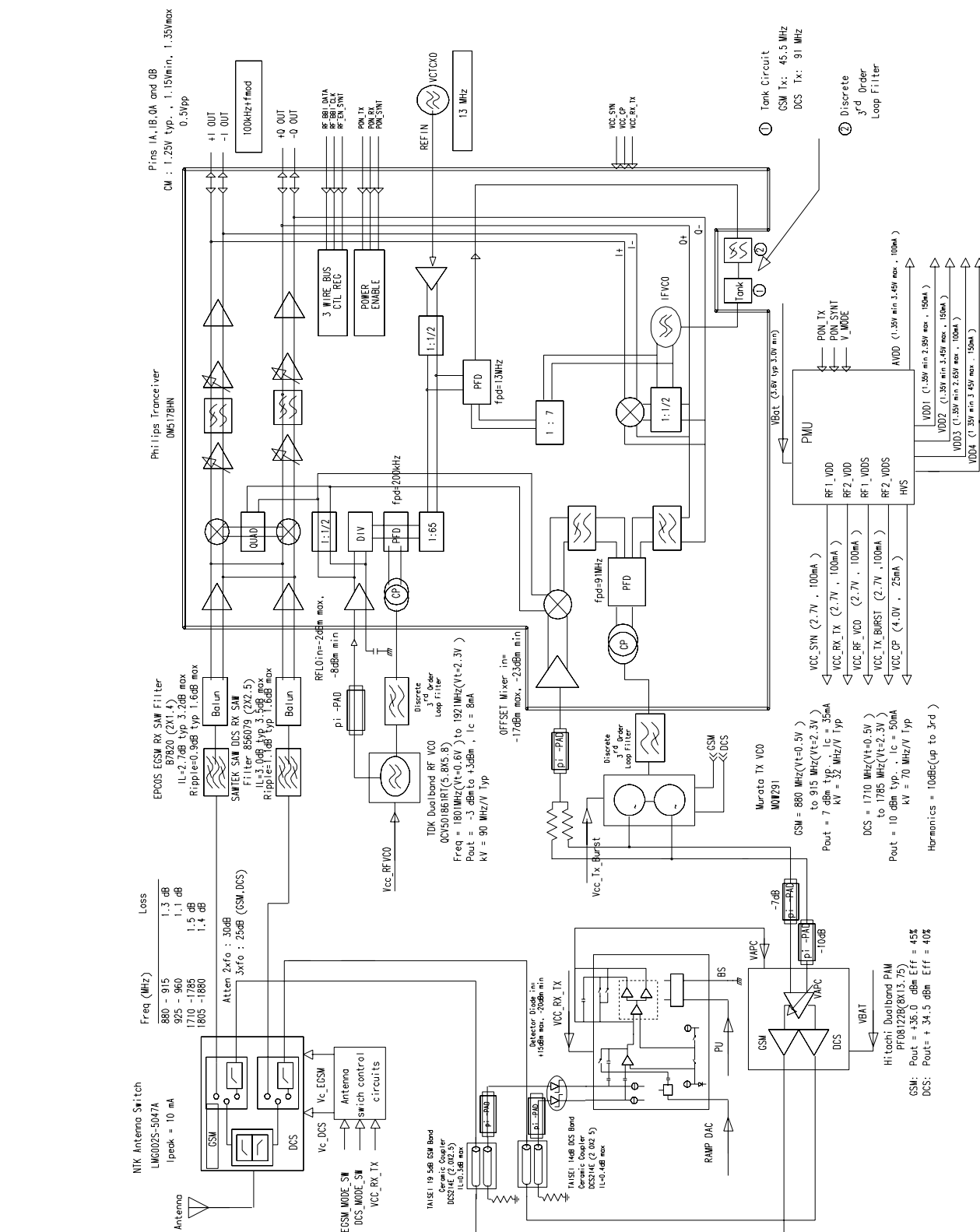


# 4. Block Diagrams

## 4-1 Main Baseband

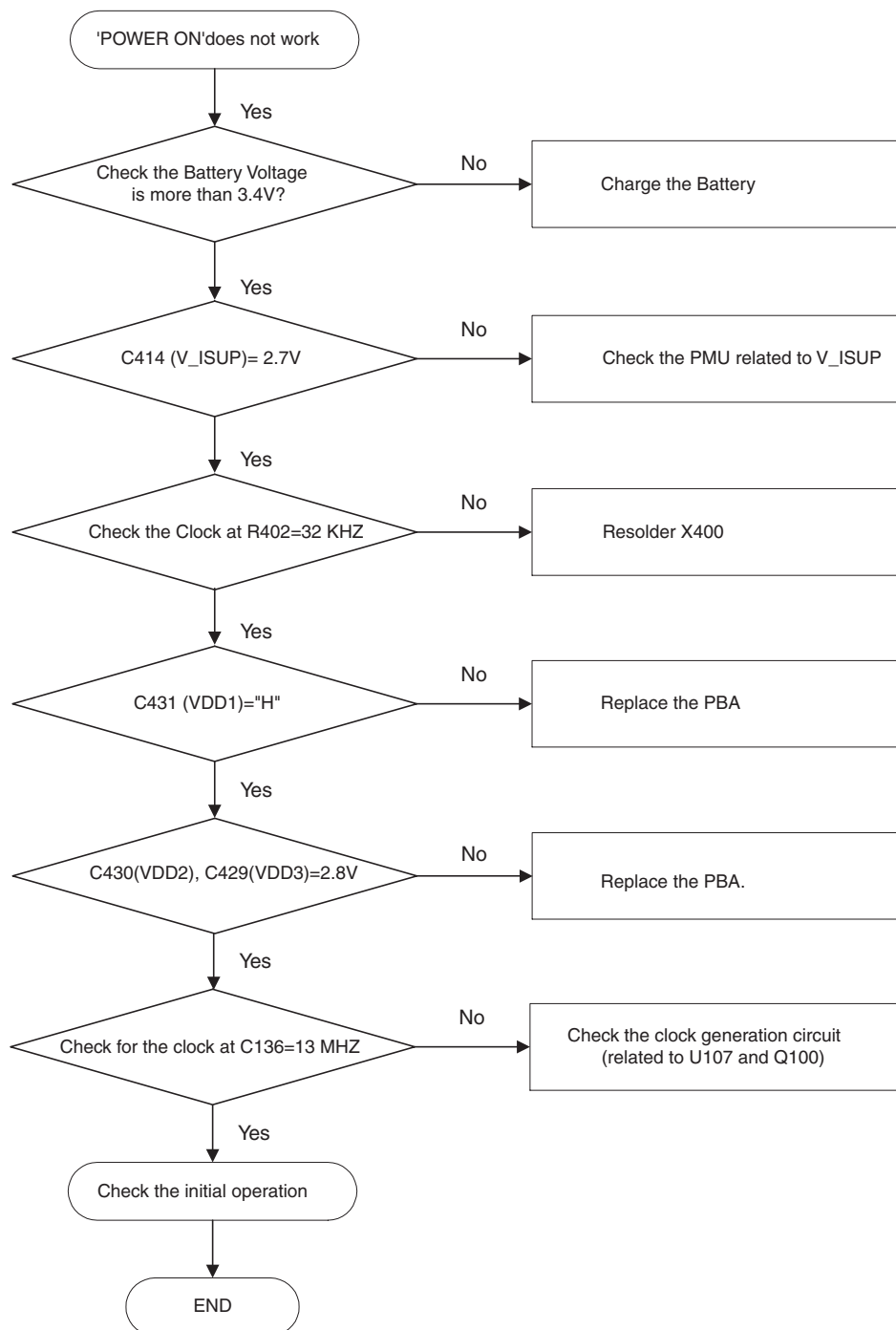


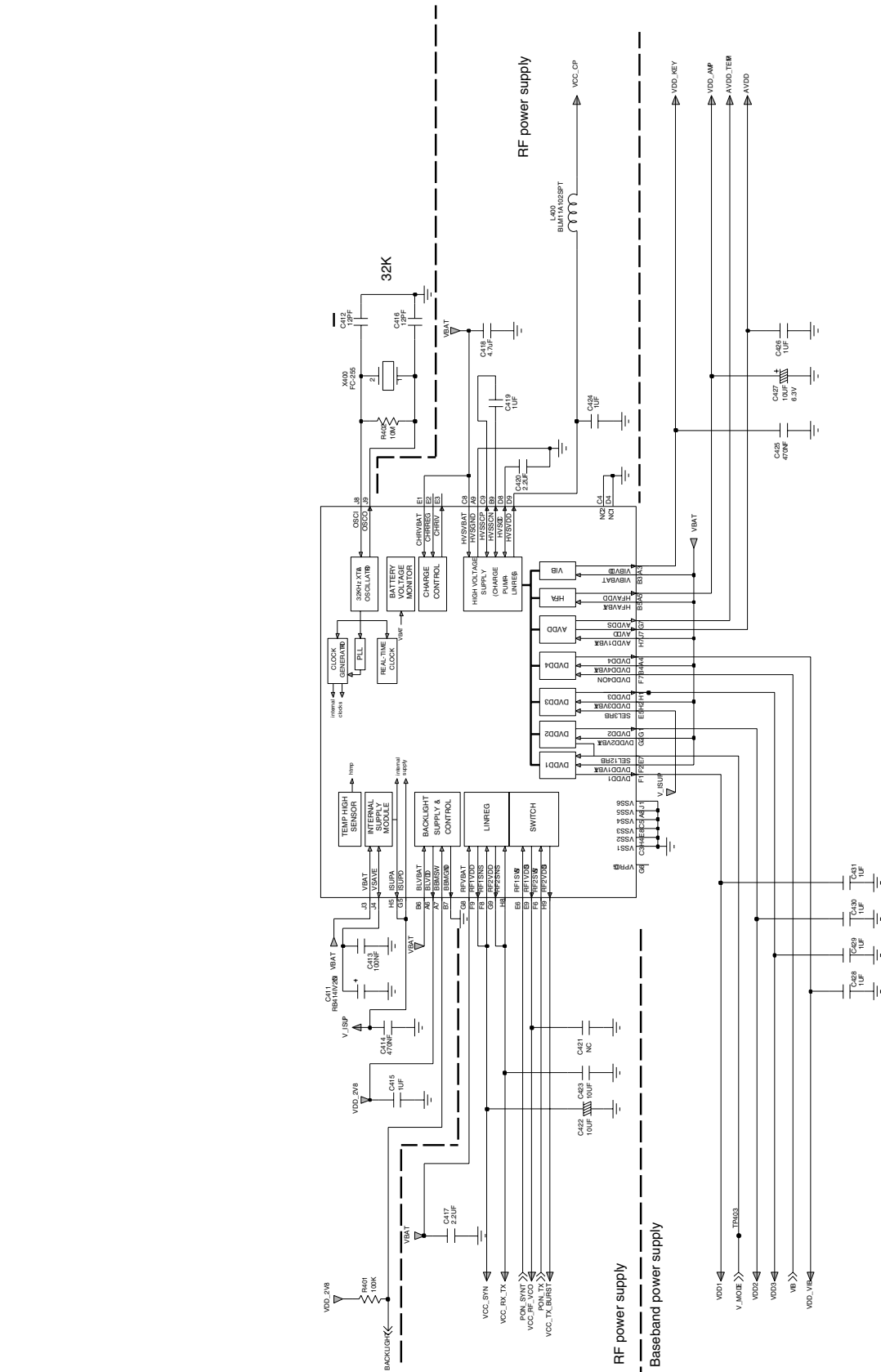
## 4-2 Main RF



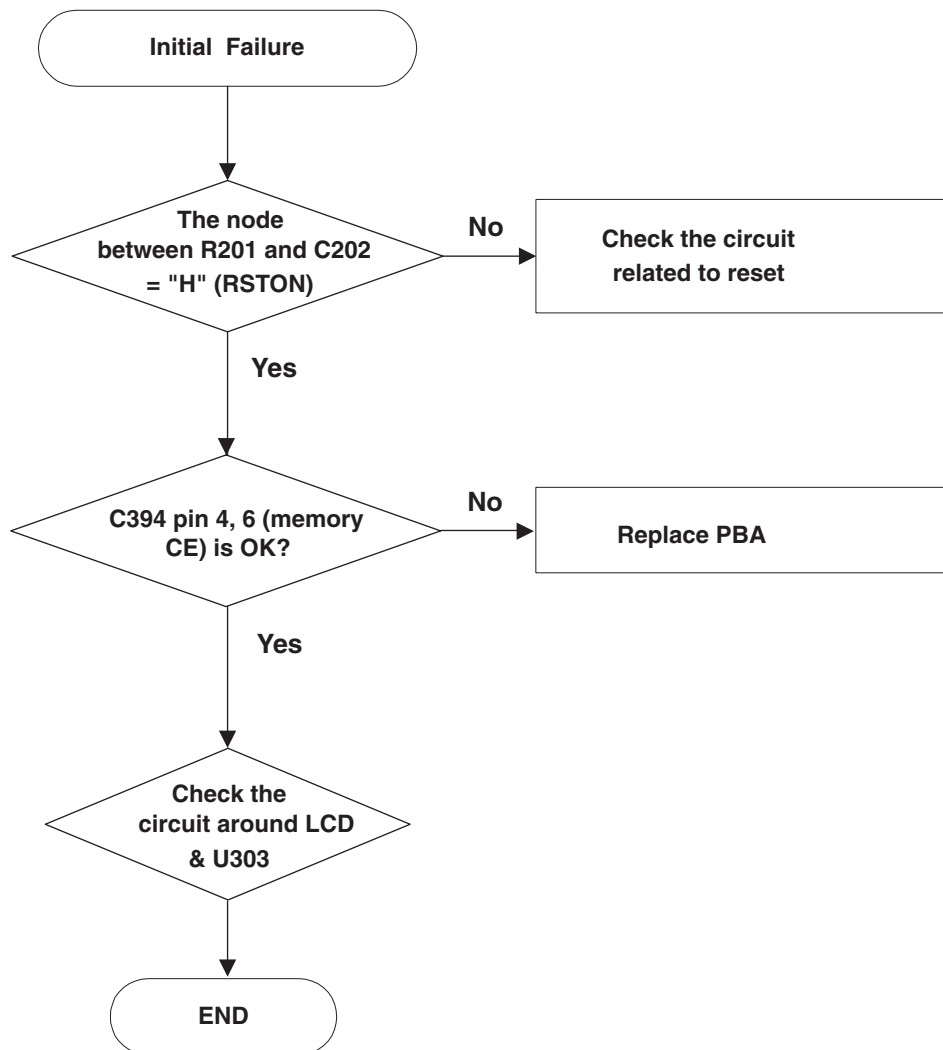
## 5. Flow Chart of Troubleshooting and Circuit Diagrams

### 5-1 Power ON



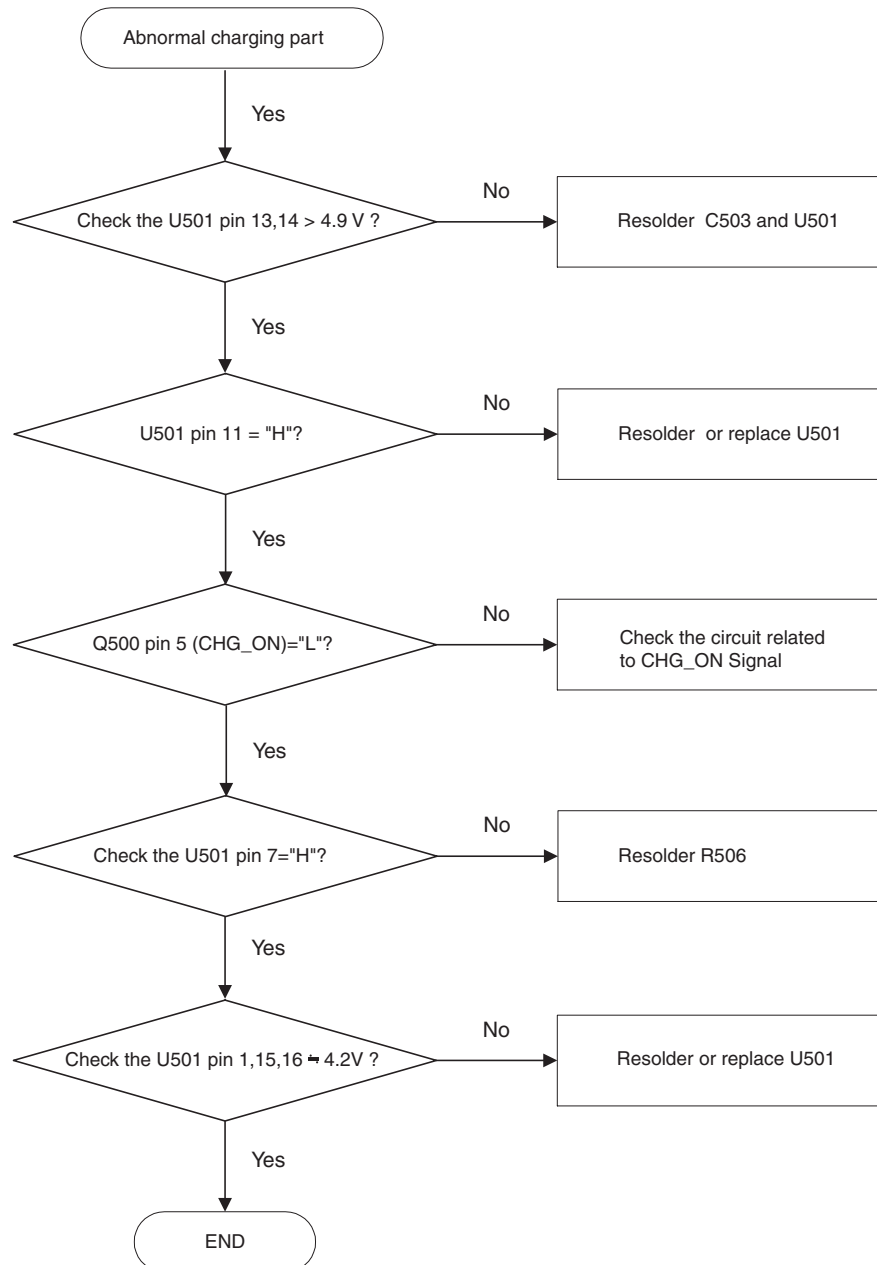


## 5-2 Initial

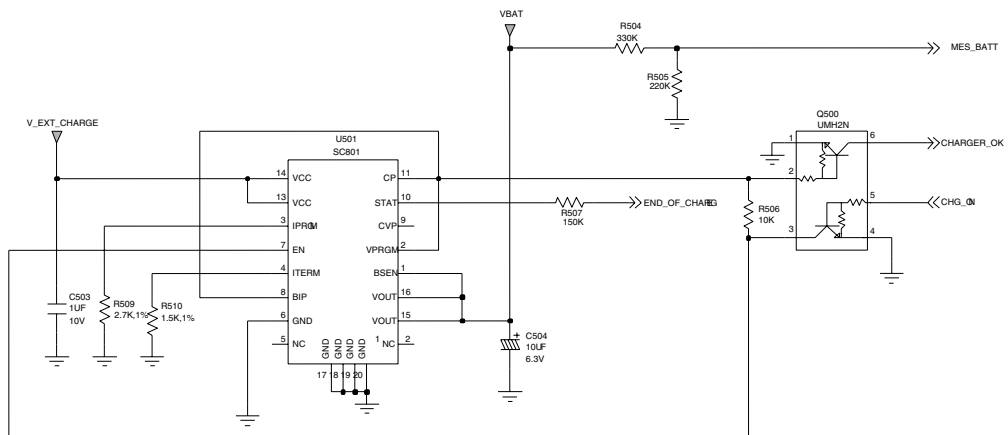




## 5-3 Charging Part

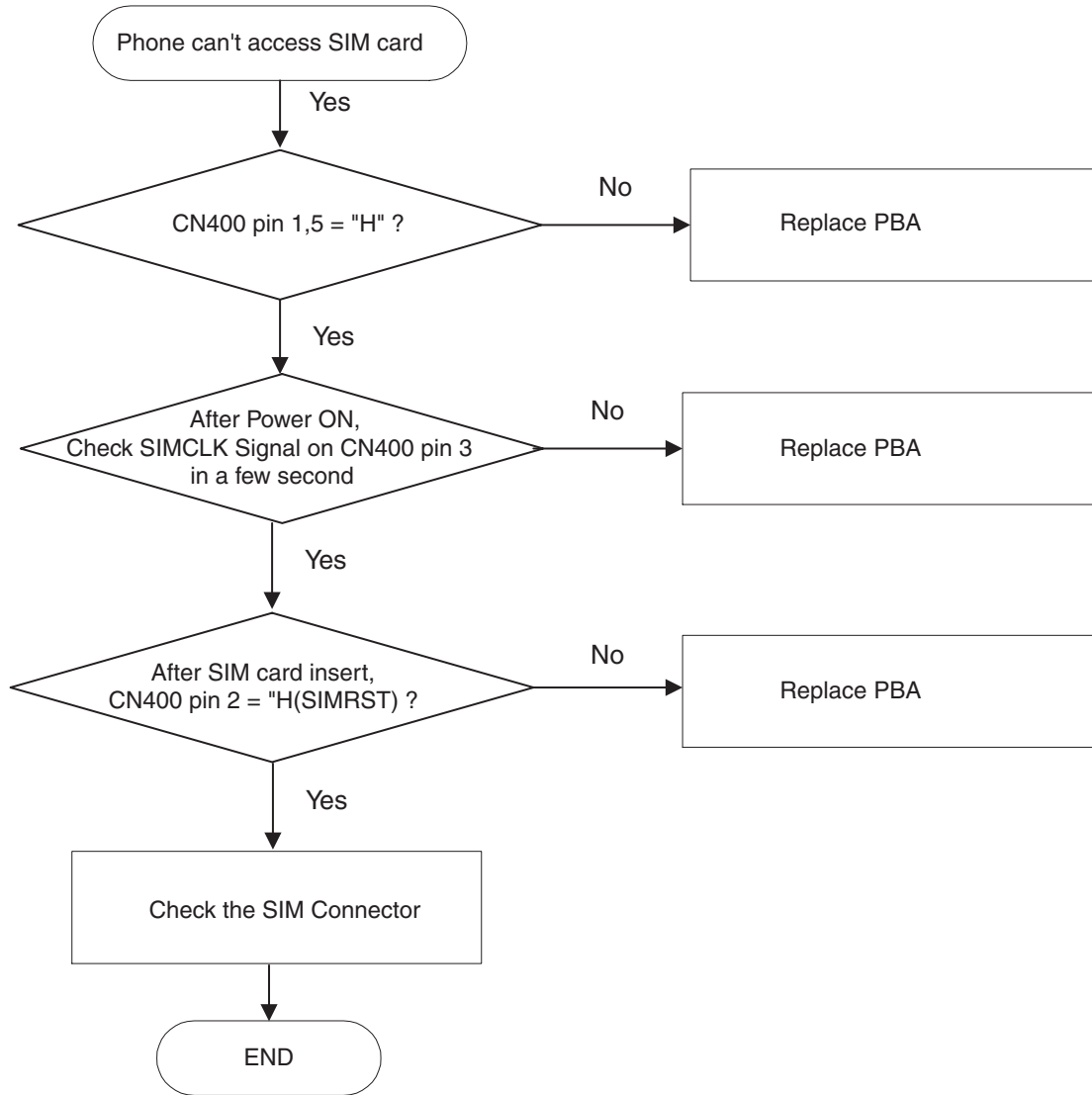


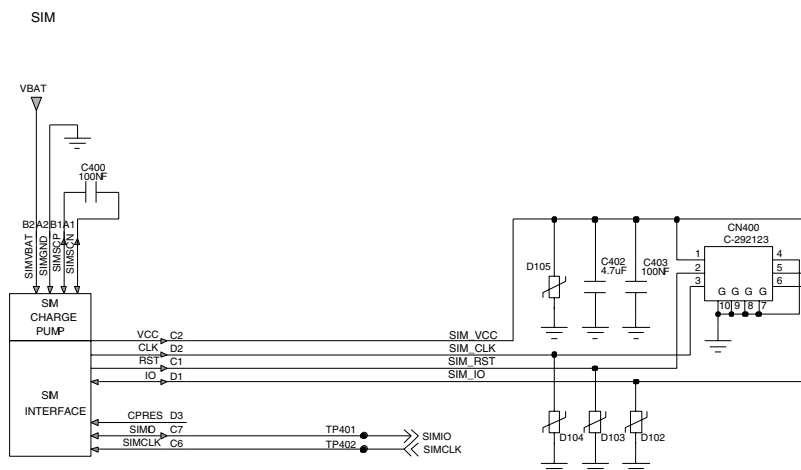
## Charge of Battery





## 5-4 Sim Part

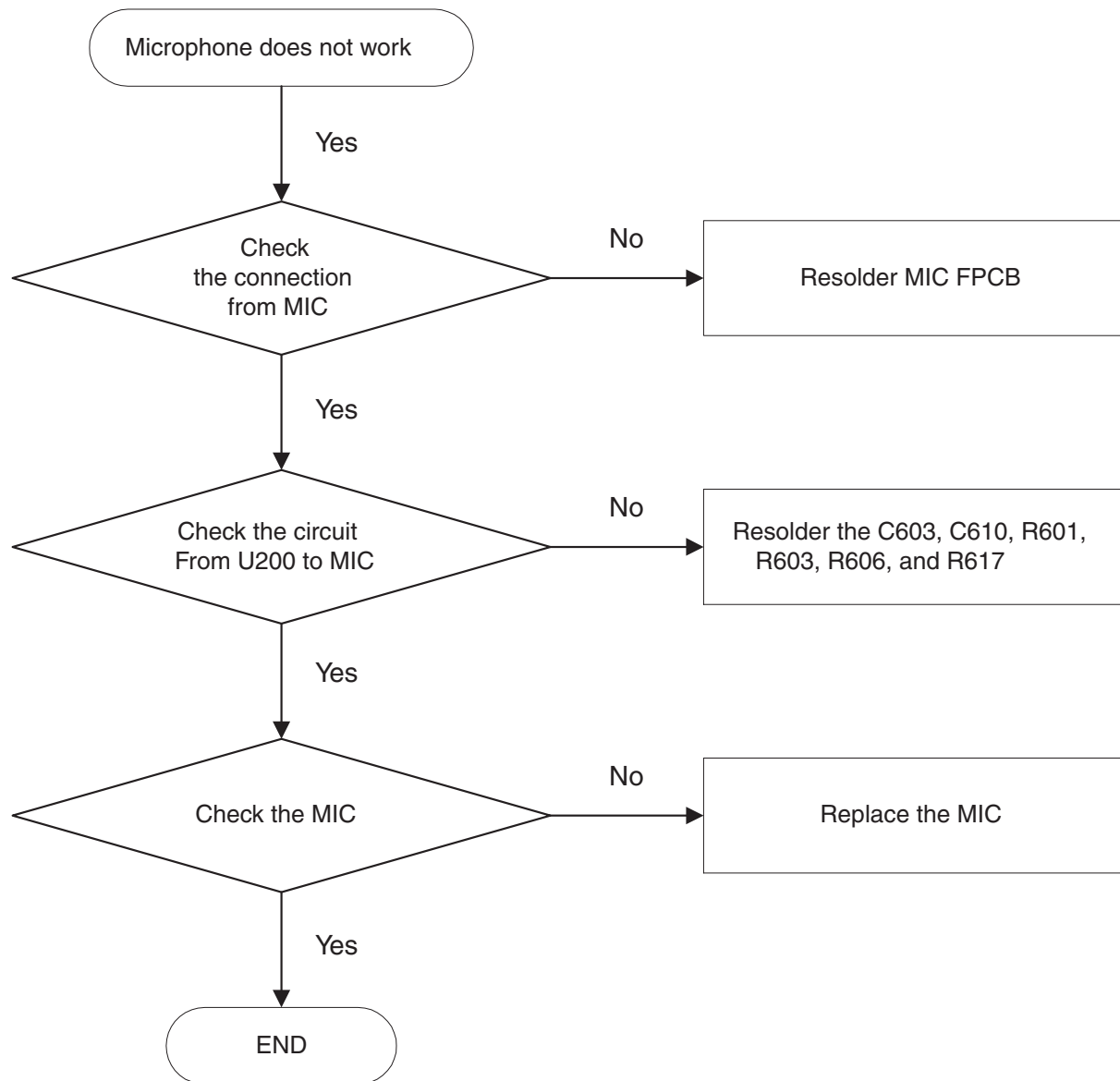


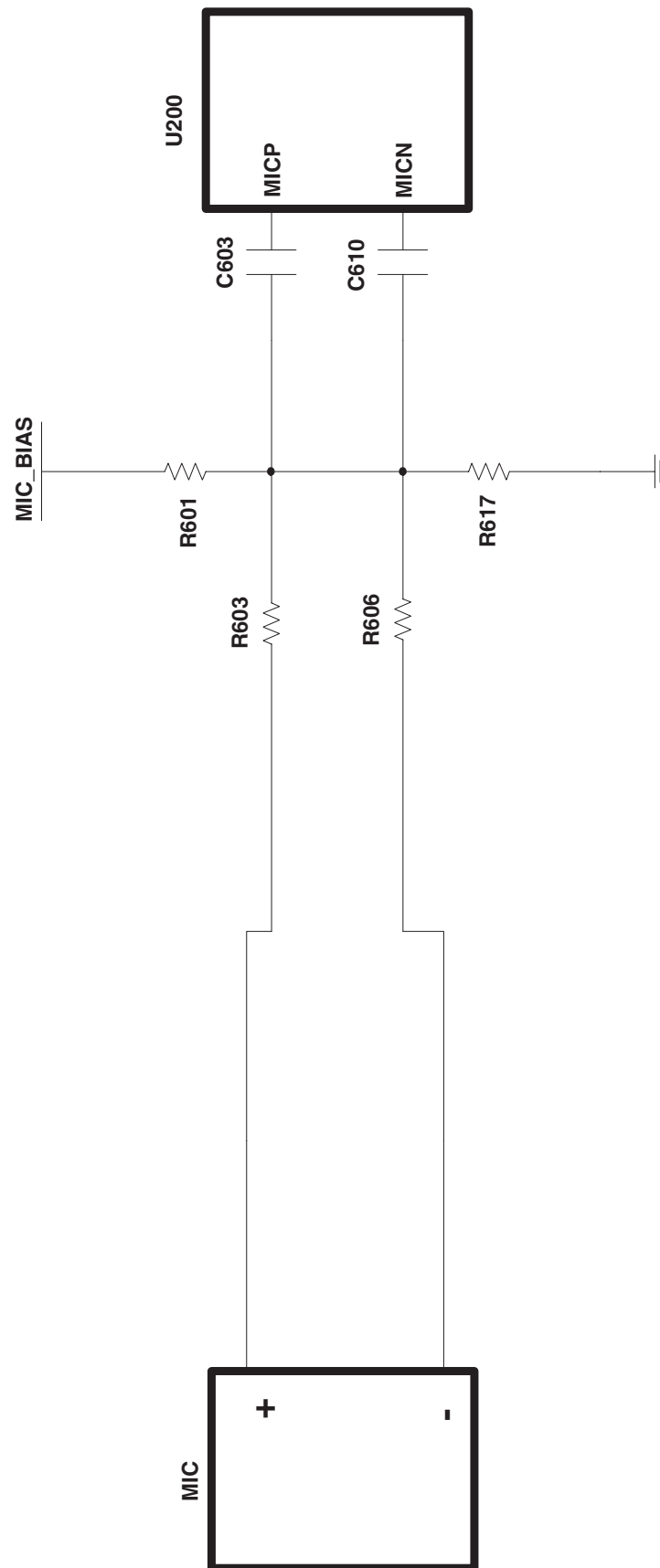


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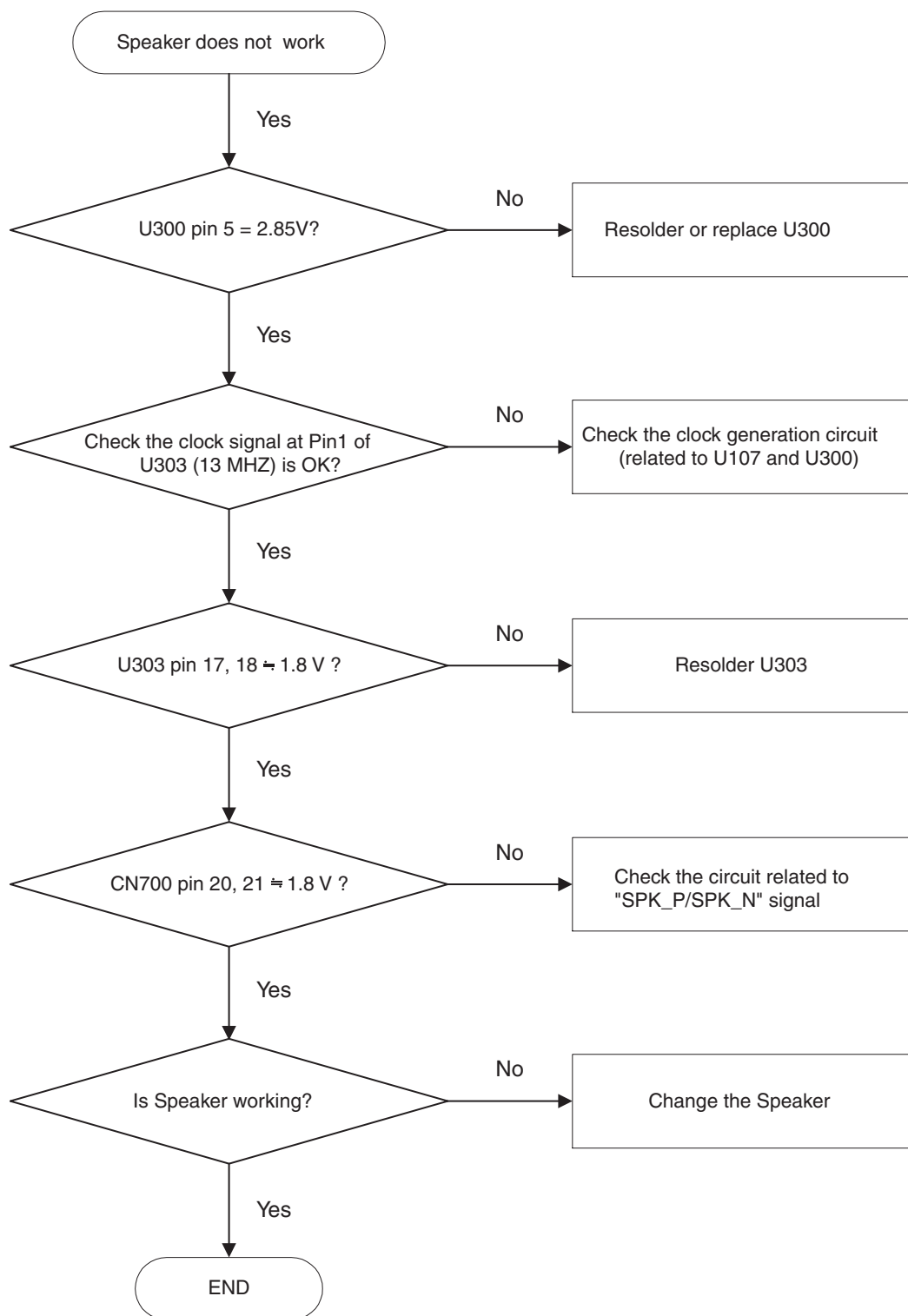
## 5-5 Microphone Part

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## 5-6 Speaker Part (Melody)

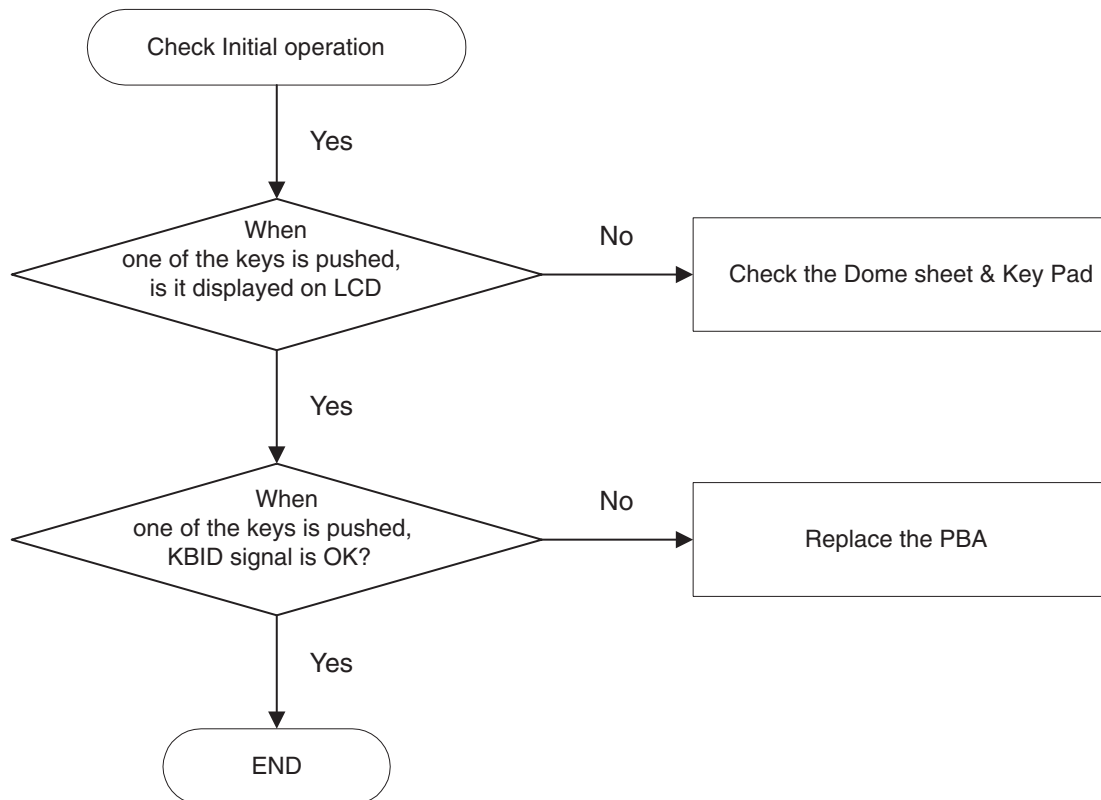




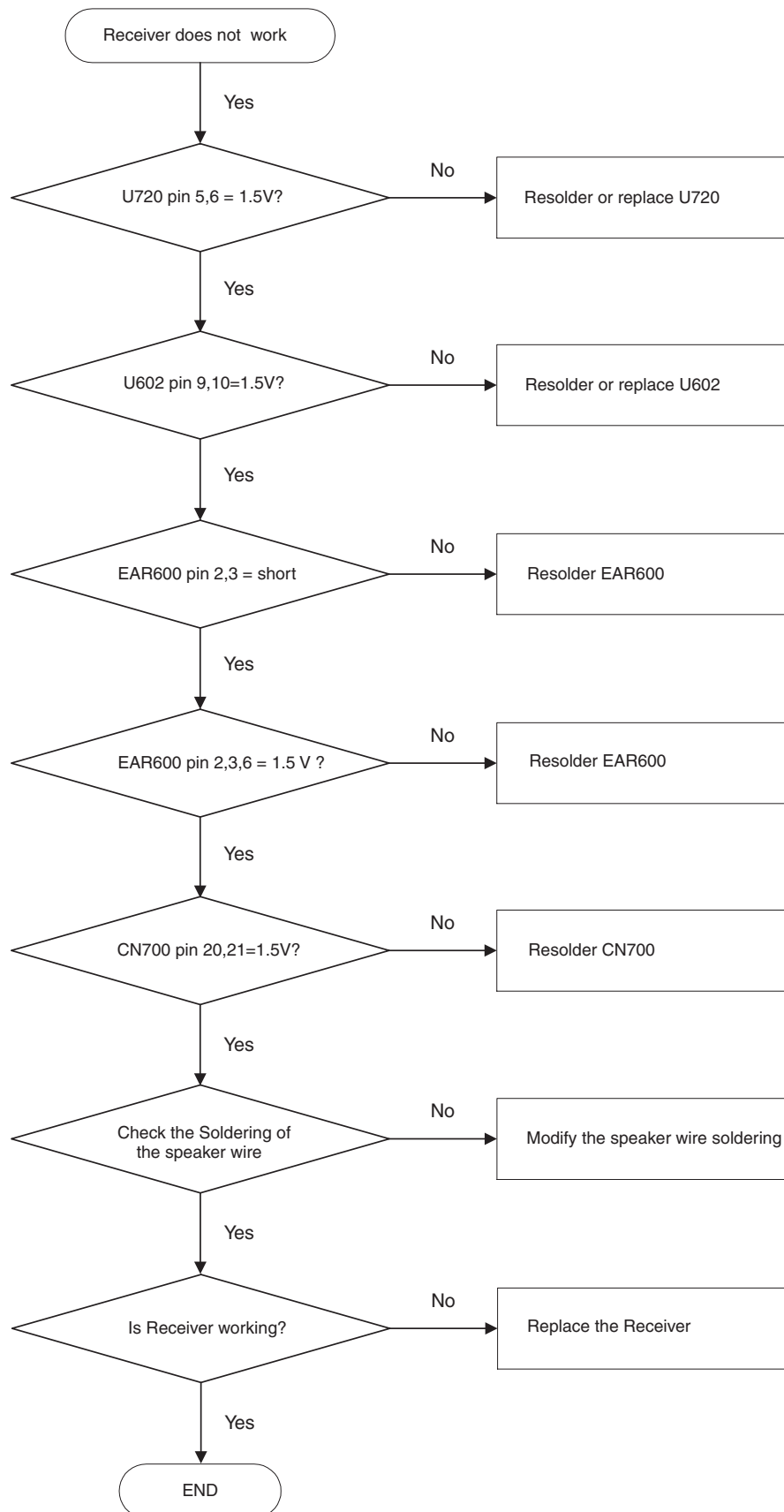
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## 5-7 Key Data Input

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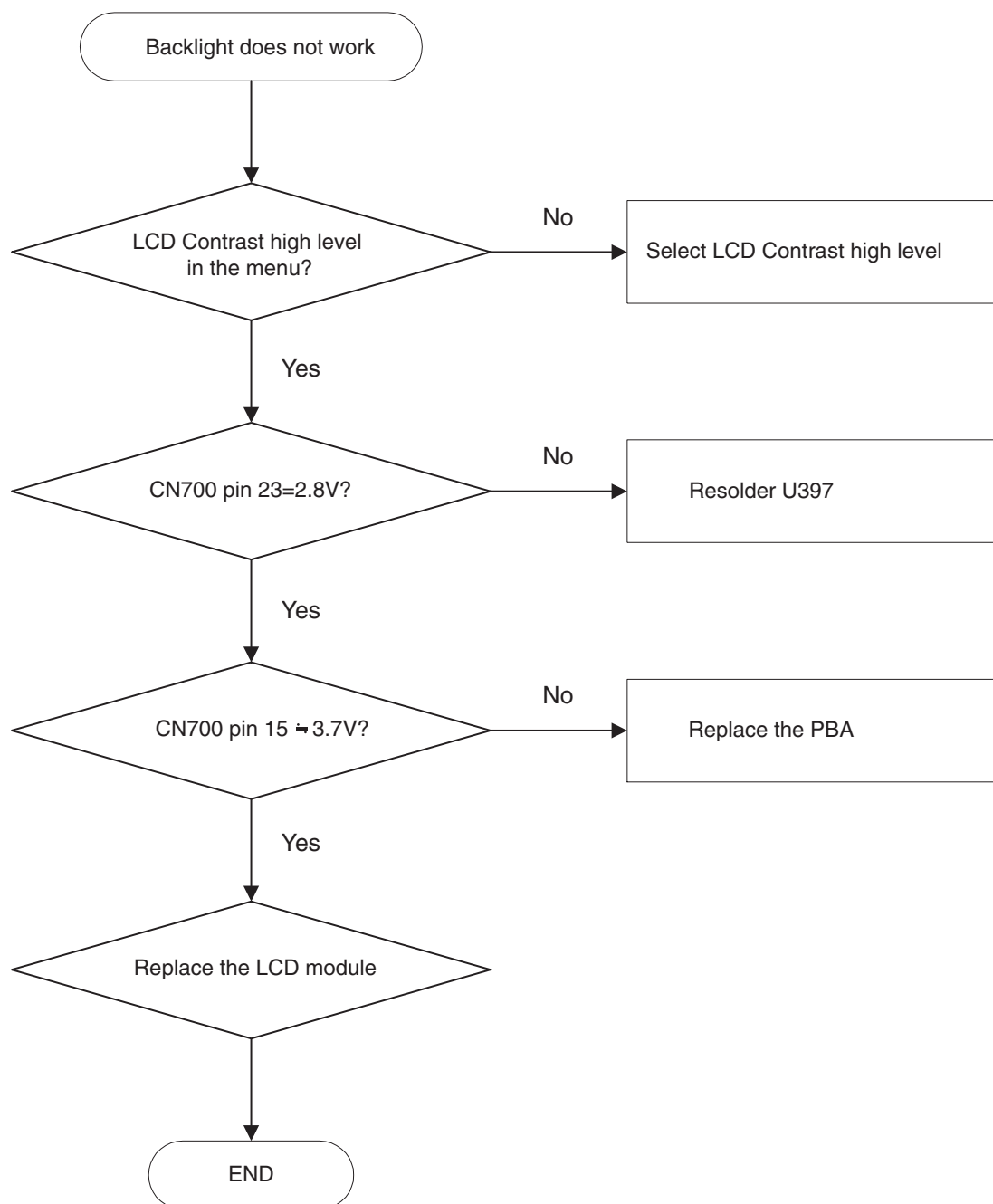


## 5-8 Receiver Part





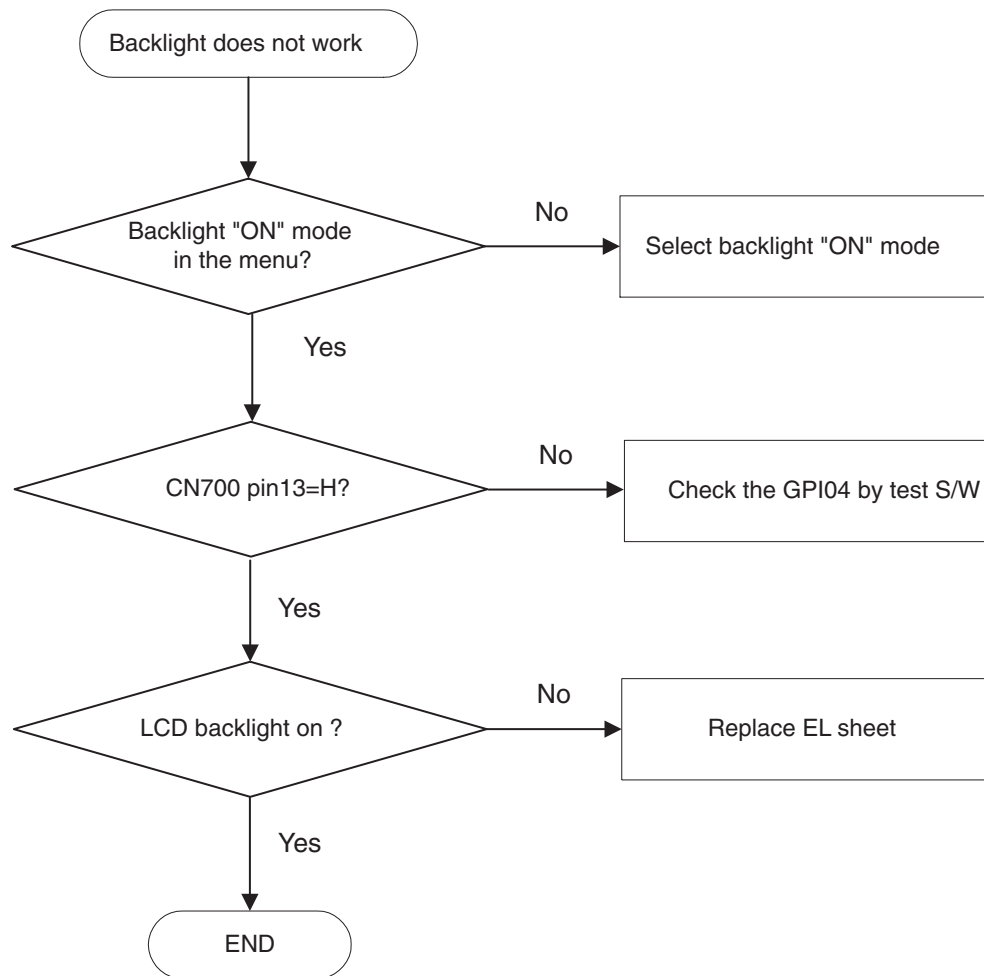
## 5-9 Back Light (for Color Main LCD)



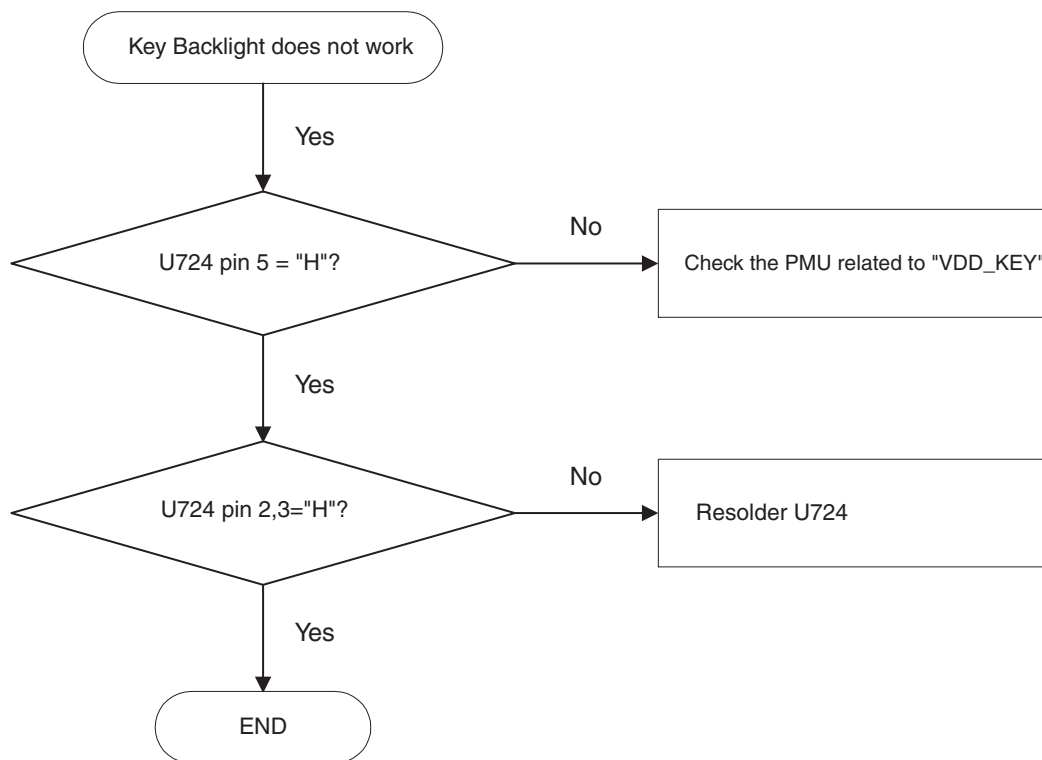
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## 5-10 Back Light (for Sub LCD)

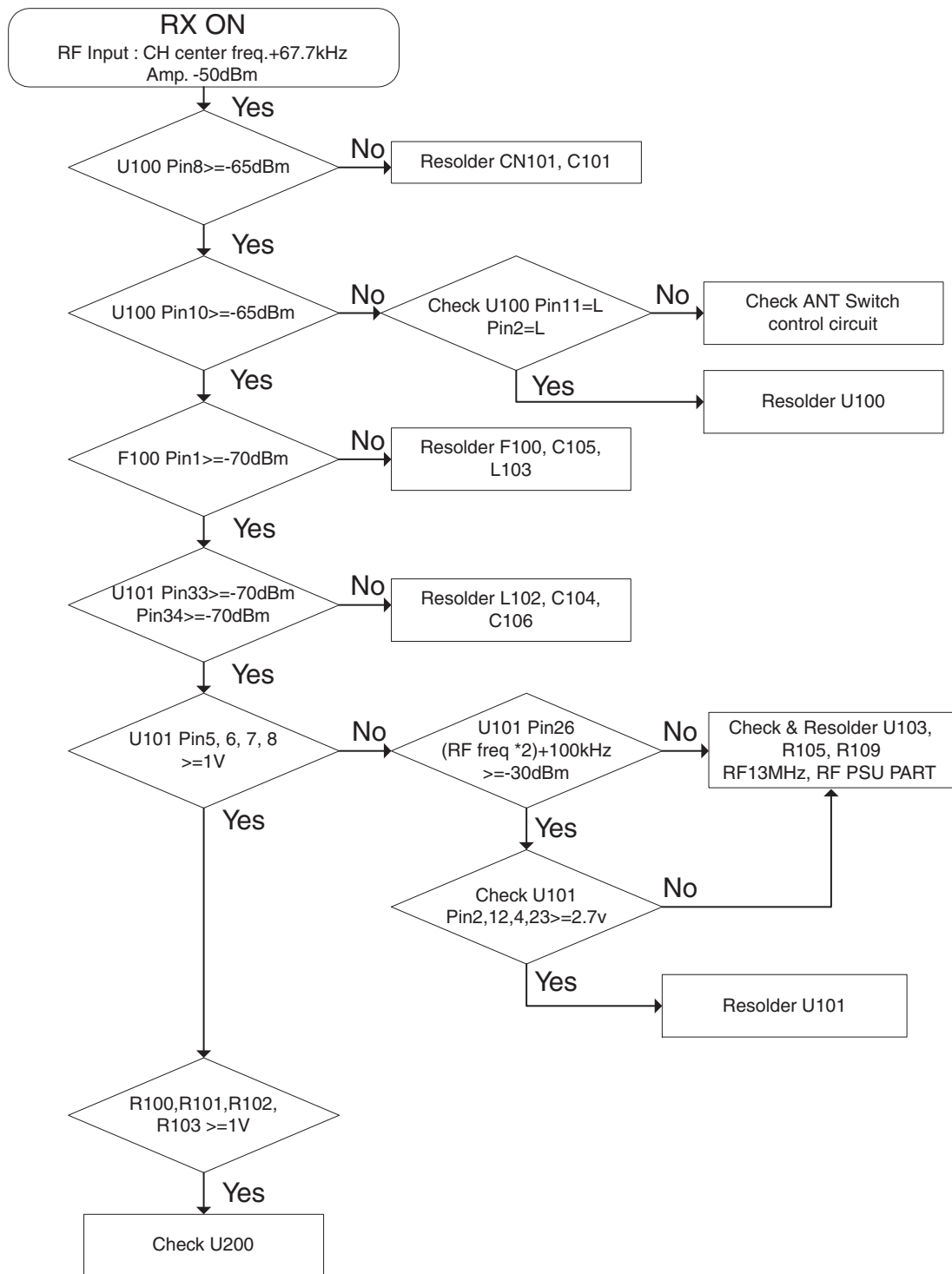
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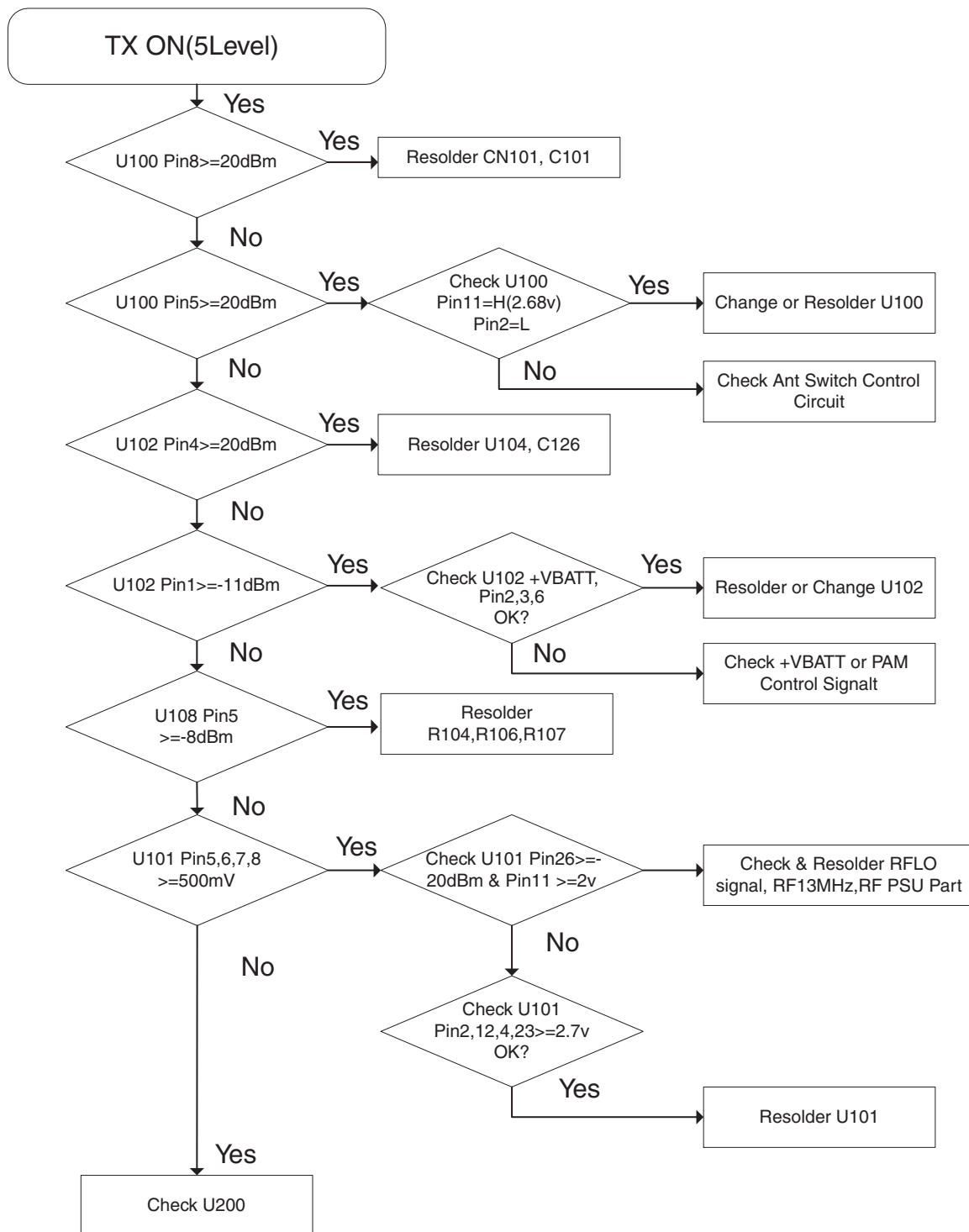
## 5-11 Key Back Light



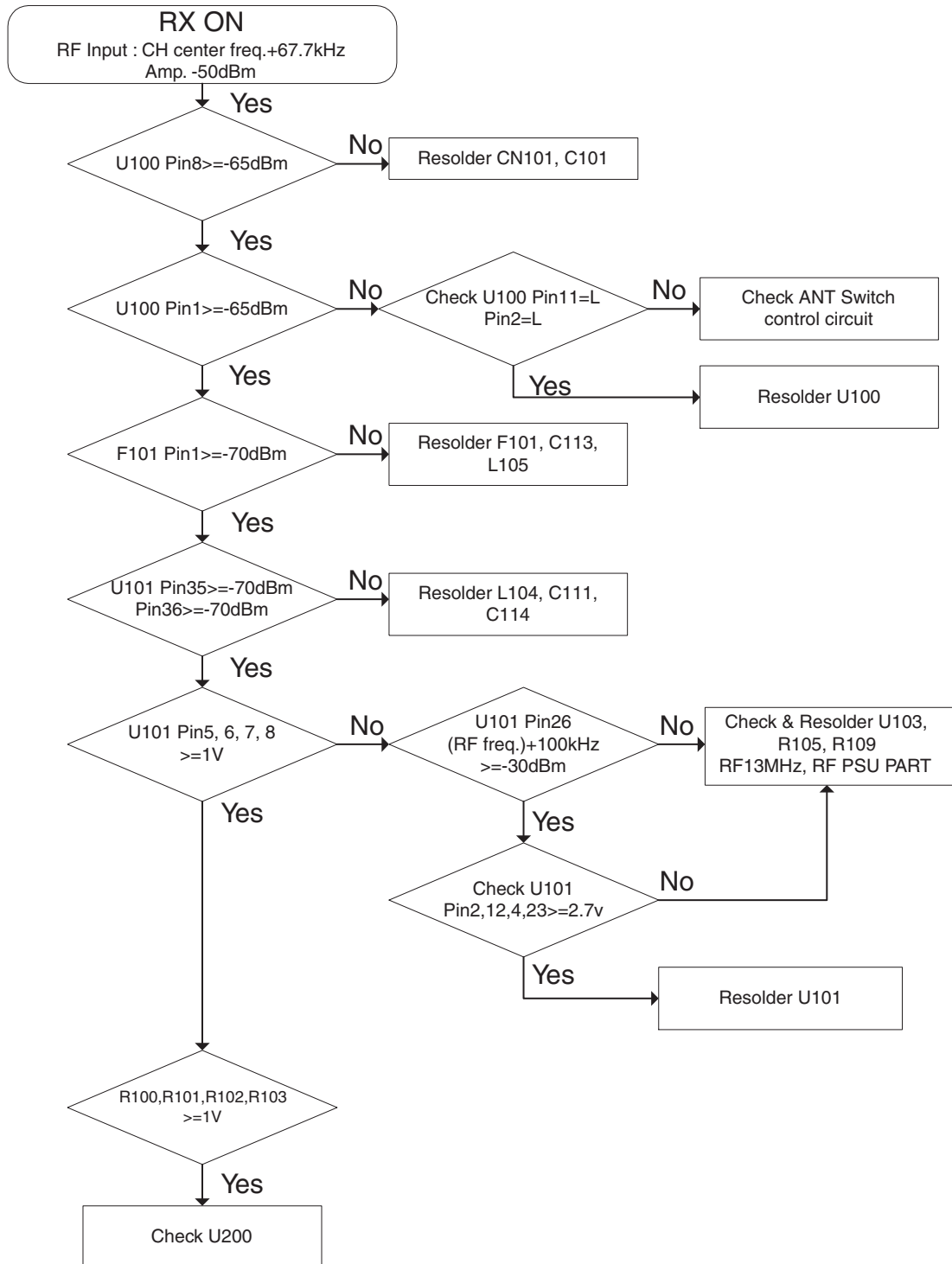
## 5-12 GSM Receiver



## 5-13 GSM Trasmmitter



## 5-14 DCS Receiver



## 5-15 DCS Transmitter

