

SAMSUNG

GSM TELEPHONE

SGH-T429

SERVICE *Manual*

UMTS TELEPHONE



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9. Flow Chart of Troubleshooting
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**SAMSUNG
ELECTRONICS**



GSPN (Global Service Partner Network)

| Country | Web Site |
|------------------|---------------------------|
| North America | service.samsungportal.com |
| Latin America | latin.samsungportal.com |
| CIS | cis.samsungportal.com |
| Europe | europe.samsungportal.com |
| China | china.samsungportal.com |
| Asia | asia.samsungportal.com |
| Mideast & Africa | mea.samsungportal.com |

1. Safety Precautions

1-1. Repair Precaution

- Repair in Shield Box, during detailed tuning. Take specially care of tuning or test, because specificity of cellular phone is sensitive for surrounding interference(RF noise).
- Be careful to use a kind of magnetic object or tool, because performance of parts is damaged by the influence of magnetic force.
- Surely use a standard screwdriver when you disassemble this product, otherwise screw will be worn away.
- Use a thicken twisted wire when you measure level.
A thicken twisted wire has low resistance, therefore error of measurement is few.
- Repair after separate Test Pack and Set because for short danger (for example an overcurrent and furious flames of parts etc) when you repair board in condition of connecting Test Pack and tuning on.
- Take specially care of soldering, because Land of PCB is small and weak in heat.
- Surely tune on/off while using AC power plug, because a repair of battery charger is dangerous when tuning ON/OFF PBA and Connector after disassembling charger.
- Don't use as you pleases after change other material than replacement registered on SEC System.
Otherwise engineer in charge isn't charged with problem that you don't keep this rules.

1-2. ESD(Electrostatically Sensitive Devices) Precaution

Several semiconductor may be damaged easily by static electricity. Such parts are called by ESD (Electrostatically Sensitive Devices), for example IC,BGA chip etc. Read Precaution below.

You can prevent from ESD damage by static electricity.

- Remove static electricity remained your body before you touch semiconductor or parts with semiconductor. There are ways that you touch an earthed place or wear static electricity prevention string on wrist.
- Use earthed soldering steel when you connect or disconnect ESD.
- Use soldering removing tool to break static electricity. , otherwise ESD will be damaged by static electricity.
- Don't unpack until you set up ESD on product. Because most of ESD are packed by box and aluminum plate to have conductive power,they are prevented from static electricity.
- You must maintain electric contact between ESD and place due to be set up until ESD is connected completely to the proper place or a circuit board.

2. Specification

2-1. GSM General Specification

| | GSM850 Phase 1 | DCS1800 Phase 1 | PCS1900 Phase 1 |
|-------------------------------------|---------------------------|----------------------------|----------------------------|
| Freq. Band[MHz] Uplink/Downlink | 824~849 869~894 | 1710~1785 1805~1880 | 1850~1910 1930~1990 |
| ARFCN range | 128~251 | 512~885 | 512~810 |
| Tx/Rx spacing | 45MHz | 95MHz | 80MHz |
| 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~5dBm | 30dBm~0dBm | 30dBm~0dBm |
| Power Class | 5pcl ~ 19pcl | 0pcl ~ 15pcl | 0pcl ~ 15pcl |
| Sensitivity | -102dBm | -100dBm | -100dBm |
| TDMA Mux | 8 | 8 | 8 |
| Cell Radius | 35Km | 2Km | 2Km |

2-2. GSM Tx Power Class

| TX Power control level | GSM850 |
|-------------------------------|---------------|
| 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 |

| TX Power control level | PCS1900 |
|-------------------------------|----------------|
| 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 |

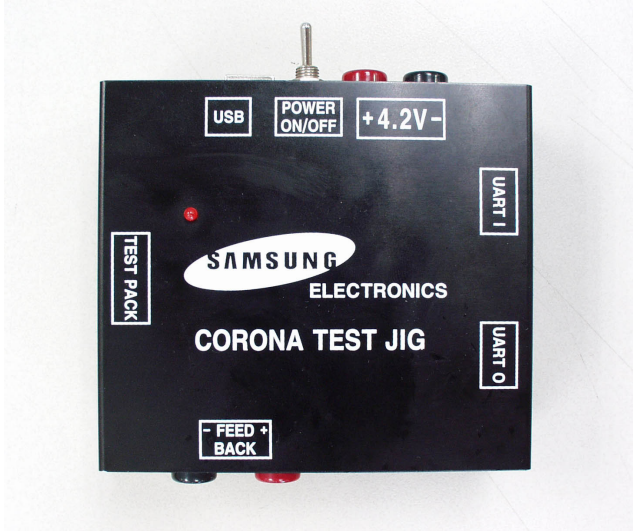
3. Operation Instruction and Installation

Main Function

- VGA Camera
- 128x160,65K TFT, 2.0"
- Global Inbox
- IM (Yahoo, AOL, ICQ,MSN)
- SAIC, Speaker Phone
- Bluetooth
- SyncML DS / NAB
- "myFaves" phase1.5

4. Array course control

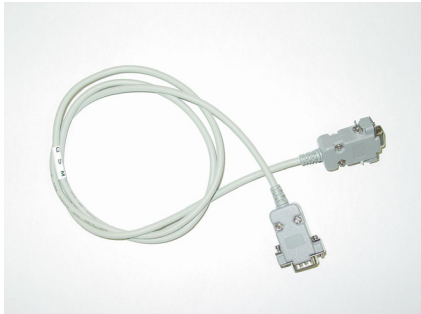
Test Jig (GH80-03306A)



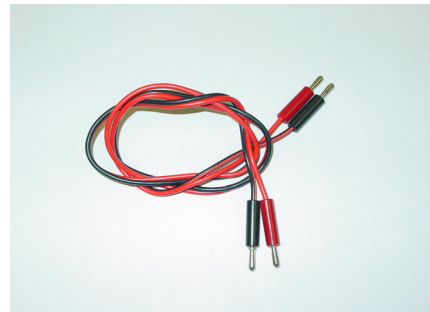
Test Cable (S20)



Serial Cable(CSA LL64151-A)



Power Supply Cable



Software Downloading

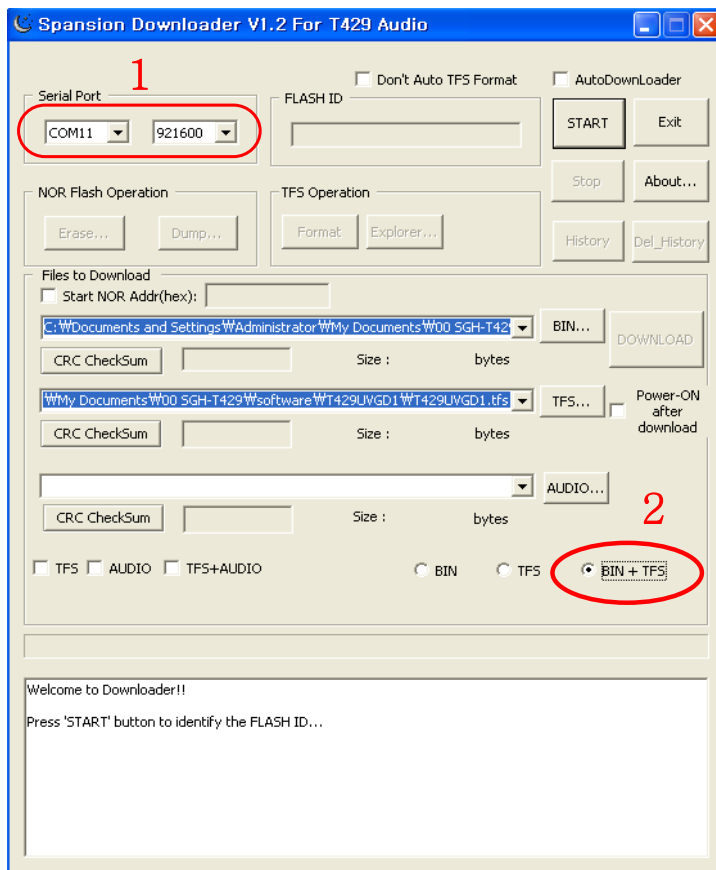
4-1. Pre-requisite for Downloading

- Downloader Program([TFFS Downloader V1.2 For LIME\(T429\).exe](#))
- T429 Mobile Phone
- Data Cable
- Binary file, TFS file

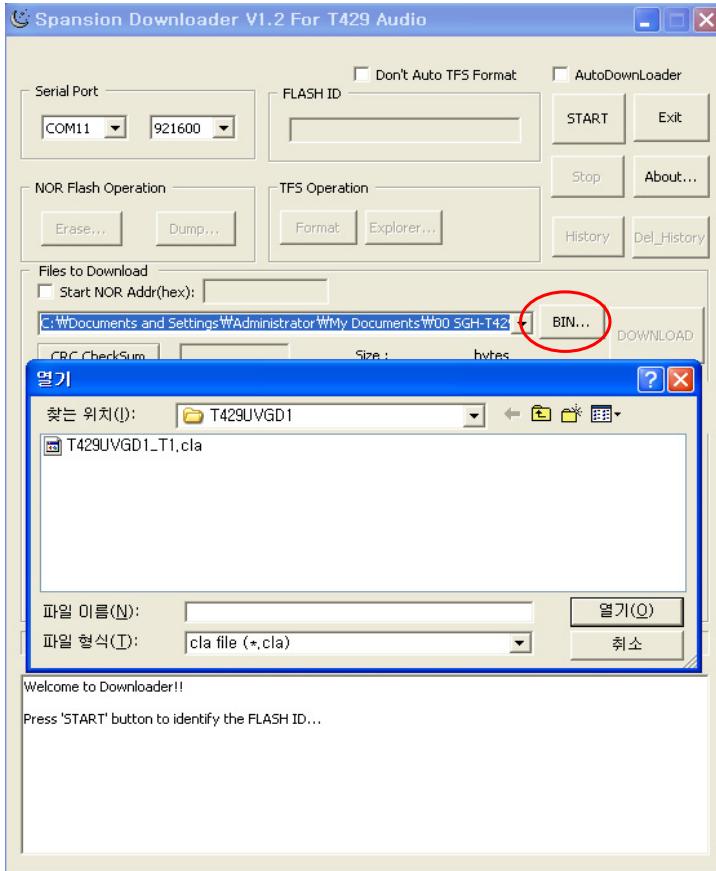
4-2. S/W Downloader Program

■ Load the binary download program by executing the “[TFFS Downloader V1.2 For LIME\(T429\).exe](#)”

1. Select the connected serial port and the rate of speed
2. Select the check box, the mode you want to download.
 - if the binary file wanted, check only 'BIN'
 - if the tfs file wanted, check only 'TFS'
 - if all the files wanted, check 'BIN+TFS'

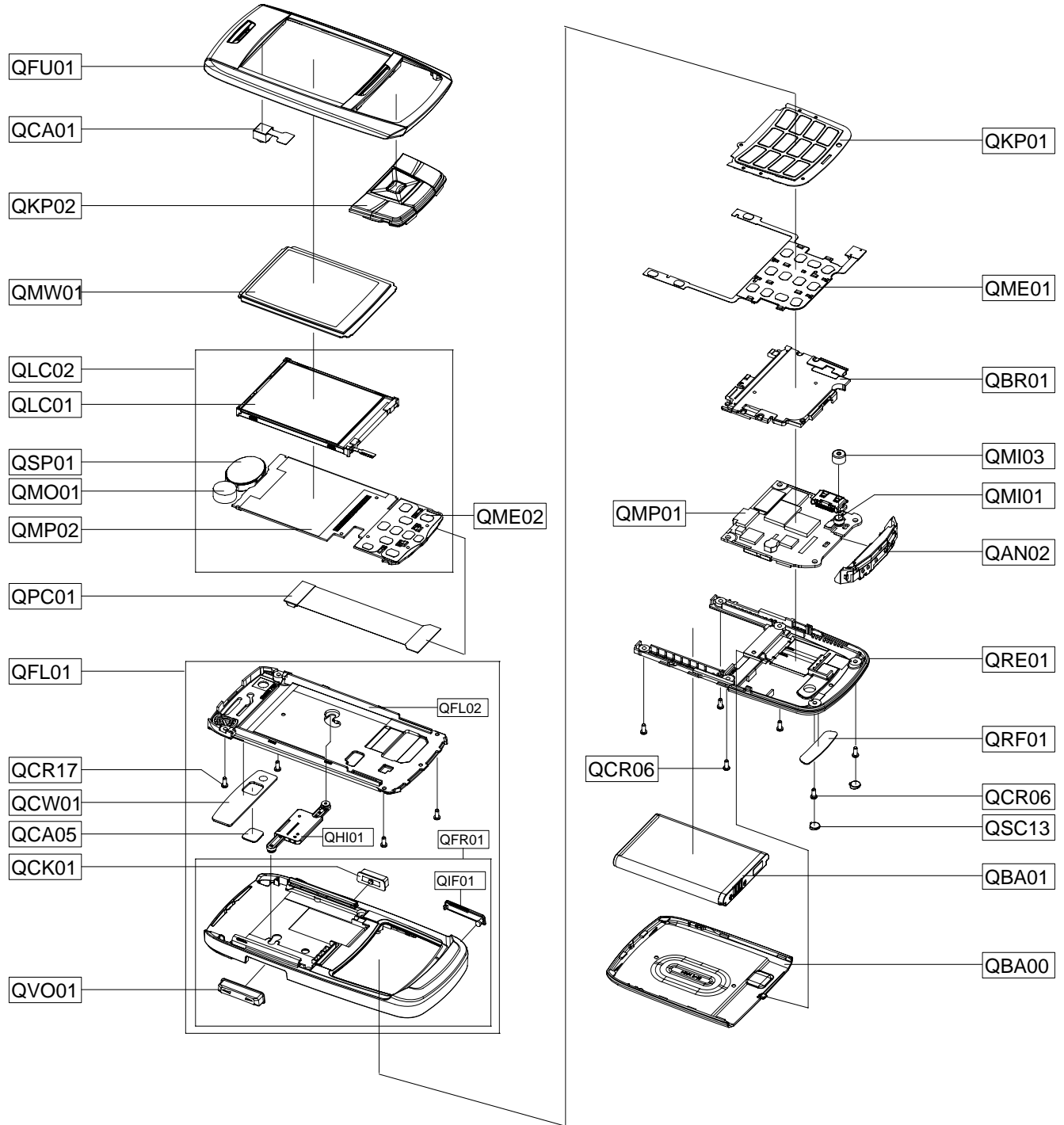


3. Select the file(s) what you want to download



5. Exploded View/Disassembly&Assembly Instructions

5-1. Cellular phone Exploded View



5-2. Cellular phone Parts list

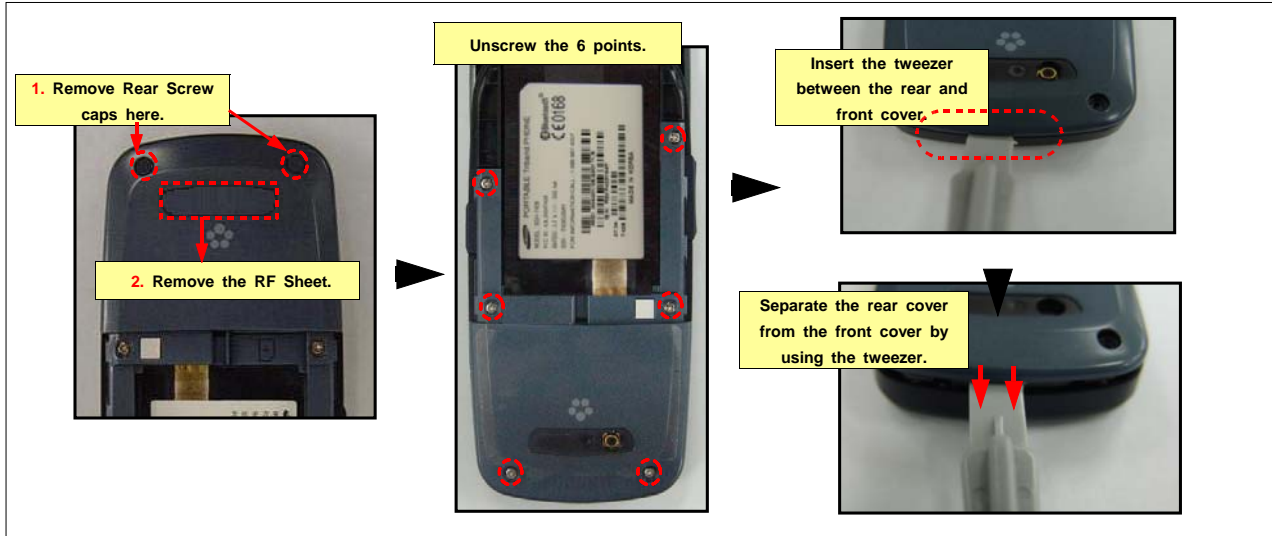
| Design LOC | | Description | SEC CODE |
|------------|-------|--------------------------------|-------------|
| QAN02 | | INTENNA-SGH T429 | GH42-01282A |
| QBA00 | | ASSY COVER-BATTERY | GH98-05674A |
| QBA01 | | INNER BATTERY PACK-800MAH,ENG, | GH43-02648A |
| QBR01 | | ASSY BRACKET-SGHT429(TMO) | GH98-05074A |
| QCA01 | | CAMERA MODULE | GH59-03619A |
| QCA05 | | PMO-DECO MIRROR | GH72-34243A |
| QCK01 | | PMO KEY-CAMERA | GH72-42372A |
| QCR06 | | SCREW-MACHINE | 6001-001155 |
| QCR06 | | SCREW-MACHINE | 6001-001155 |
| QCR17 | | SCREW-MACHINE | 6001-001460 |
| QCW01 | | PCT WINDOW-CAMERA | GH72-42398A |
| QFU01 | | ASSY CASE-SLIDE UPPER | GH98-05075A |
| QKP01 | | ASSY KEYPAD-MAIN(SIL/TMO) | GH98-05675A |
| QKP02 | | ASSY KEYPAD-SUB(TMO/SIL) | GH98-05079A |
| QLC01 | | ELA ETC-E250LCD MODULE | GH96-02628B |
| QLC02 | | ELA ETC-LCD MODULE | GH96-02813A |
| QME01 | | KEY FPCB-KEY FPCB | GH59-04679A |
| QME02 | | DOME SHEET-SUB DOME SHEET | GH59-04712A |
| QMI01 | | MICROPHONE-ASSY | GH30-00309A |
| QMI03 | | RMO-RUBBER MIC | GH73-08308A |
| QMO01 | | MOTOR DC-SCHF509 | GH31-00249A |
| QMP01 | | PBA MAIN-SGH T429 MAIN | GH92-03835A |
| QMP02 | | ASSY ETC-LCD SUB PBA | GH59-04764A |
| QMW01 | | ASSY COVER-WINDOW MAIN | GH98-05297A |
| QPC01 | | MEA-FPCBKIT | GH97-07998A |
| QRE01 | | ASSY CASE-REAR | GH98-05078A |
| QRF01 | | TAPE-RF SHEET | GH74-33818A |
| QSC13 | | RMO COVER-SCREW REAR | GH73-10719A |
| QSP01 | | SPEAKER | 3001-002198 |
| QVO01 | | PMO KEY-VOLUME | GH72-43511A |
| QFL01 | | ASSY CASE-F/C+S/L | GH98-05076A |
| | QFL02 | ASSY CASE-SLIDE LOWER | GH98-05736A |
| | QHI01 | ASSY HINGE-PUSH ROD | GH98-03165A |
| | QFR01 | ASSY CASE-FRONT | GH98-05077A |
| | QIF01 | PMO COVER-IF | GH72-42143A |

| Description | SEC CODE |
|--------------------------------|-------------|
| ADAPTOR-SGH_T419 BLK | GH44-01700A |
| MANUAL USERS-GET START POSTER | GH68-15502A |
| VINYL-BOHO MAIN(STA) | GH74-33819A |
| ICT SHIELD-CAN | GH70-02509A |
| RMO RUBBER-SIM | GH73-10774A |
| MPR-INSU TAPE | GH74-27456A |
| VINYL-BOHO MAIN | GH74-34071A |
| MPR-ELEC TAPE | GH74-27457A |
| MPR-ELEC TAPE | GH74-27495A |
| MPR-GASK TAPE | GH74-28782A |
| TAPE INSU | GH74-29298A |
| MPR-REMOVE TAPE LCD | GH74-13804A |
| MPR-TAPE LED | GH74-17926A |
| MPR-TAPE | GH74-27509A |
| MPR-INSU TAPE | GH74-28241A |
| TAPE-DOME CLEAR | GH74-34796A |
| TAPE-S-UPPER | GH74-34224A |
| TAPE-GASKET S-UPPER | GH74-34225A |
| MPR-SPONGE | GH74-29496A |
| TAPE INSU | GH74-34803A |
| LABEL(R)-WATERSOAK(NEW) | GH68-14285A |
| VINYL-BOHO BATTERY | GH74-34914A |
| BAG PE | 6902-000297 |
| LABEL(R)-MAIN(TMB) | GH68-15188A |
| CUSHION-COVER(TMB) | GH69-02793A |
| CUSHION-CASE(TMB) | GH69-05572A |
| BOX-UNIT(TMB) | GH69-05616A |
| MANUAL USERS-TMB ENGLISH | GH68-15499A |
| MANUAL USERS-TMB SPANISH | GH68-15500A |
| MANUAL USERS-ACCESSORY CARD EN | GH68-15501A |
| LABEL(P)-SEAL UNIT | GH68-04256A |
| PAA ETC-MANUAL LIT BUNDLE(TM30 | GH99-19962A |
| EARPHONE | GH59-04682B |

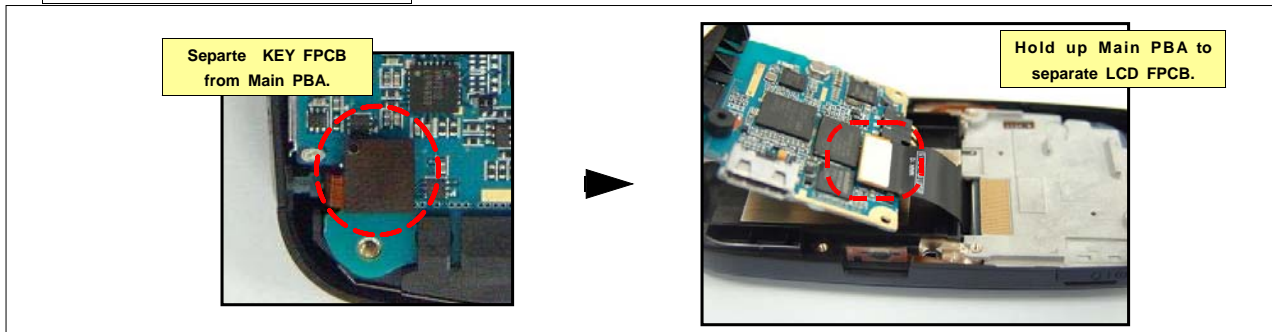
5-3. Disassembly and Assembly Instructions

5-3-1. Disassembly

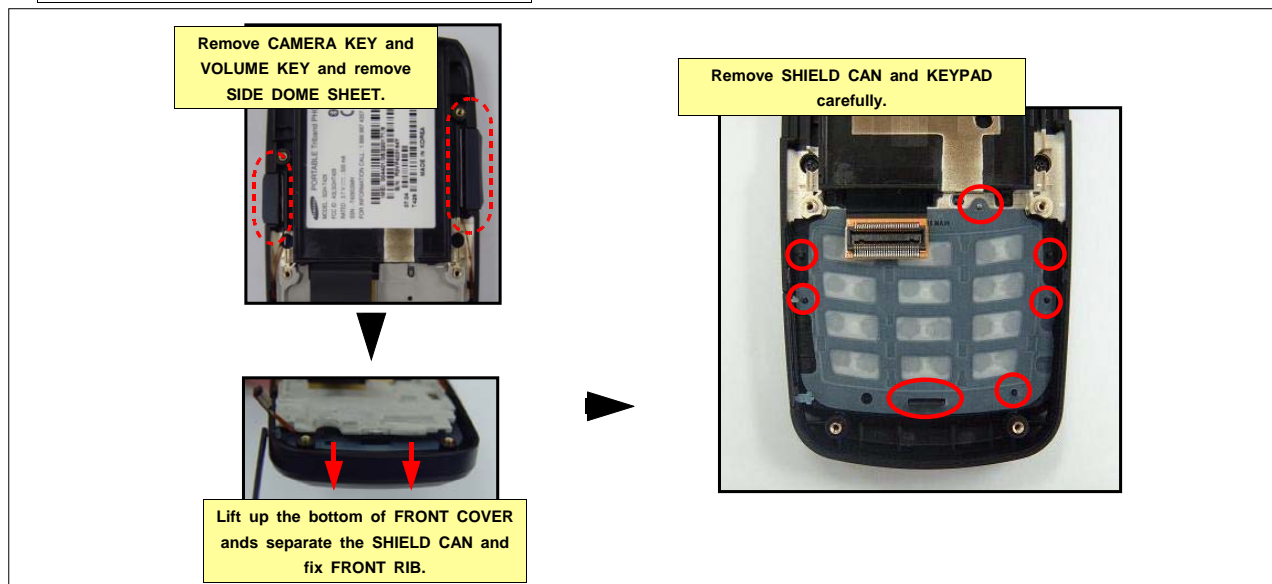
1. Disassembly - Rear cover



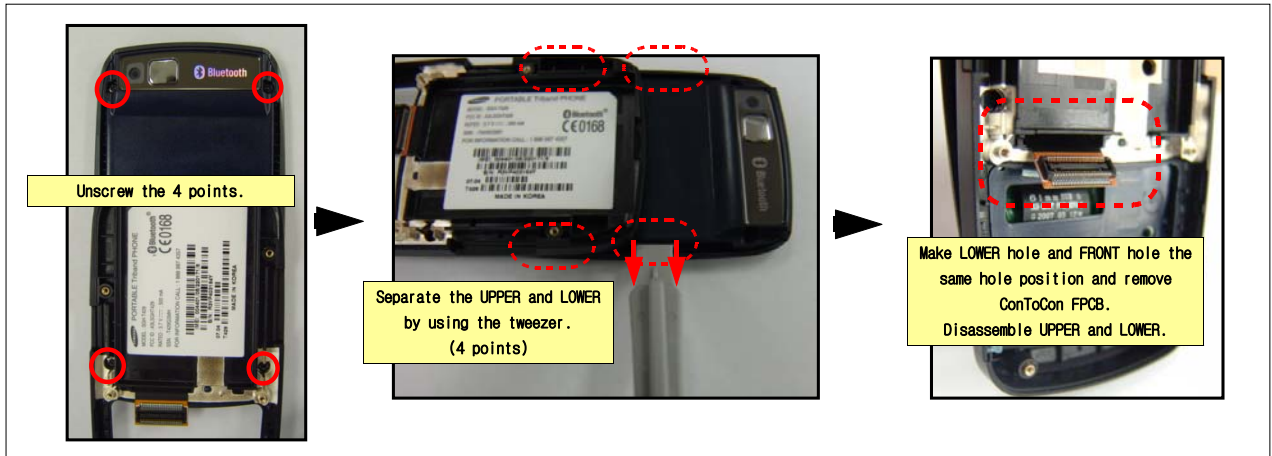
2. Disassembly - Main PBA



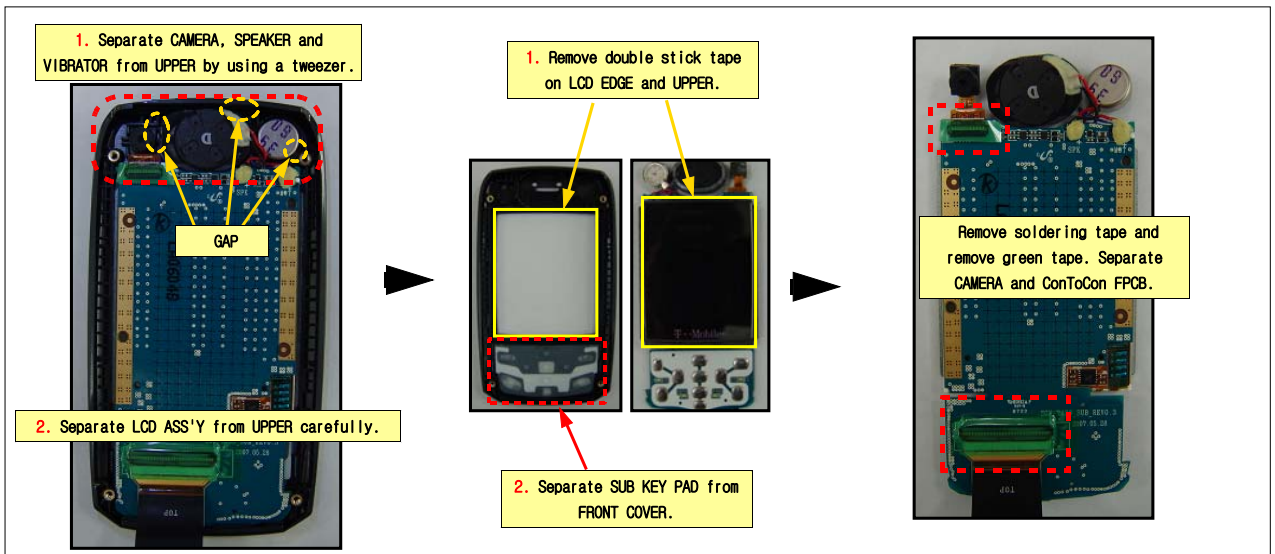
3. Disassembly - SHIELD CAN & KEYPAD



4. Disassembly - SLIDE

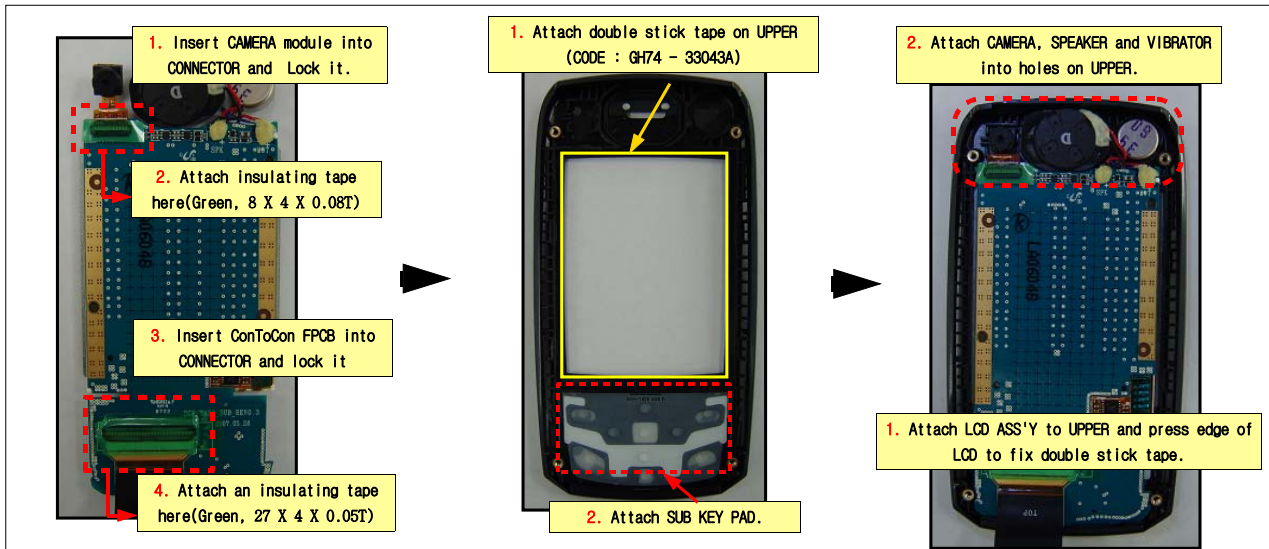


5. Disassembly - LCD

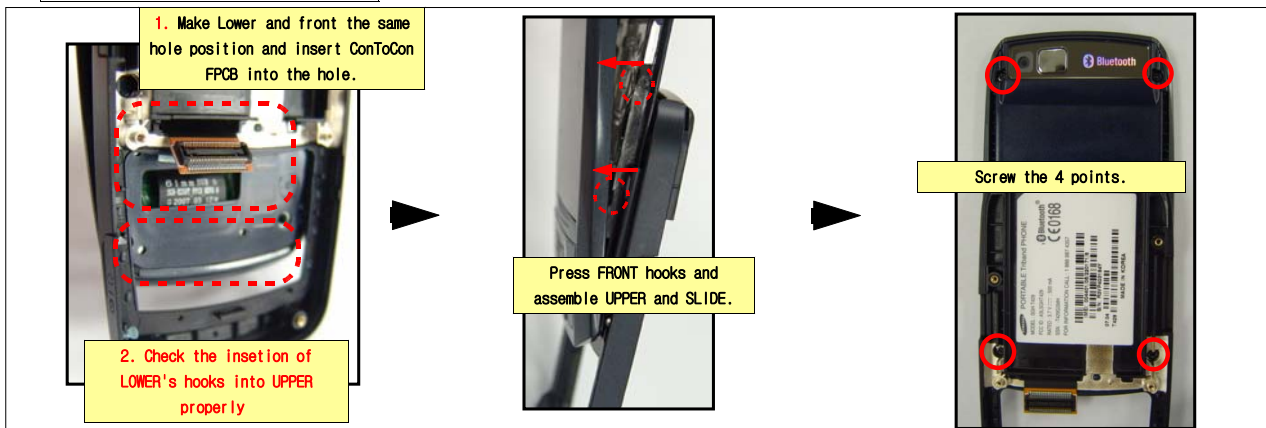


5-3-2. Assembly

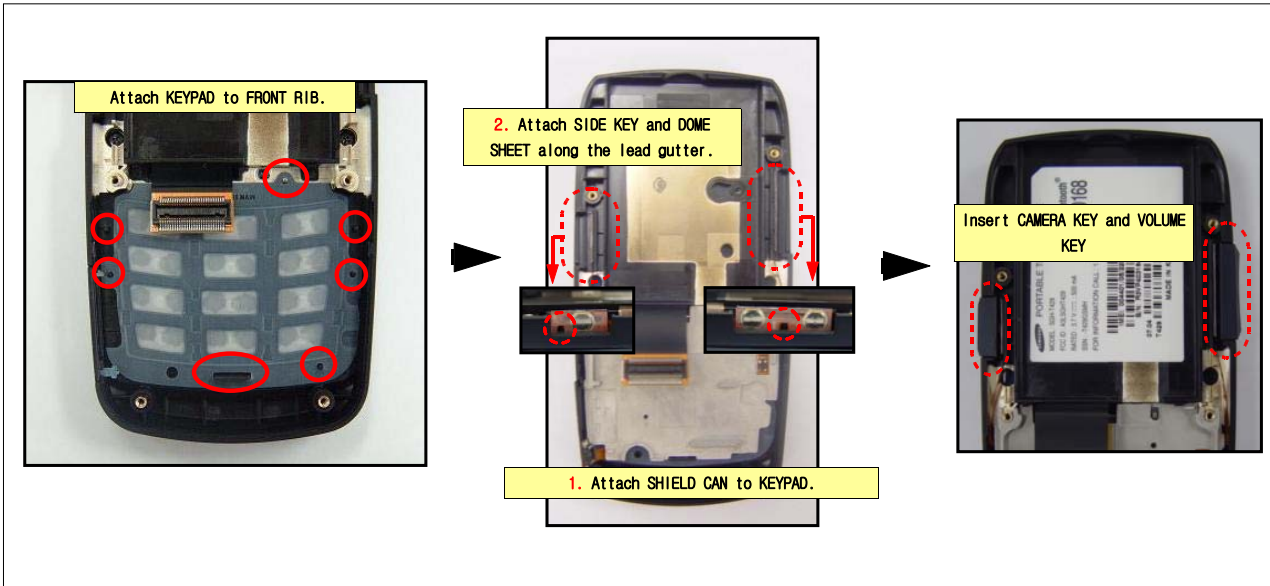
1. Assembly - LCD



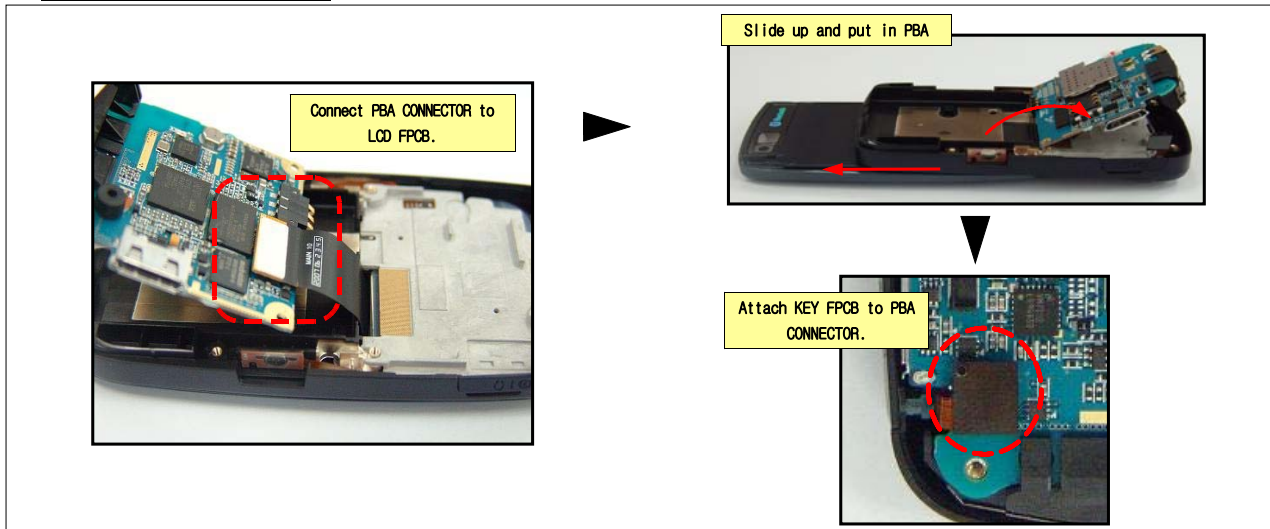
2. Assembly - SLIDE



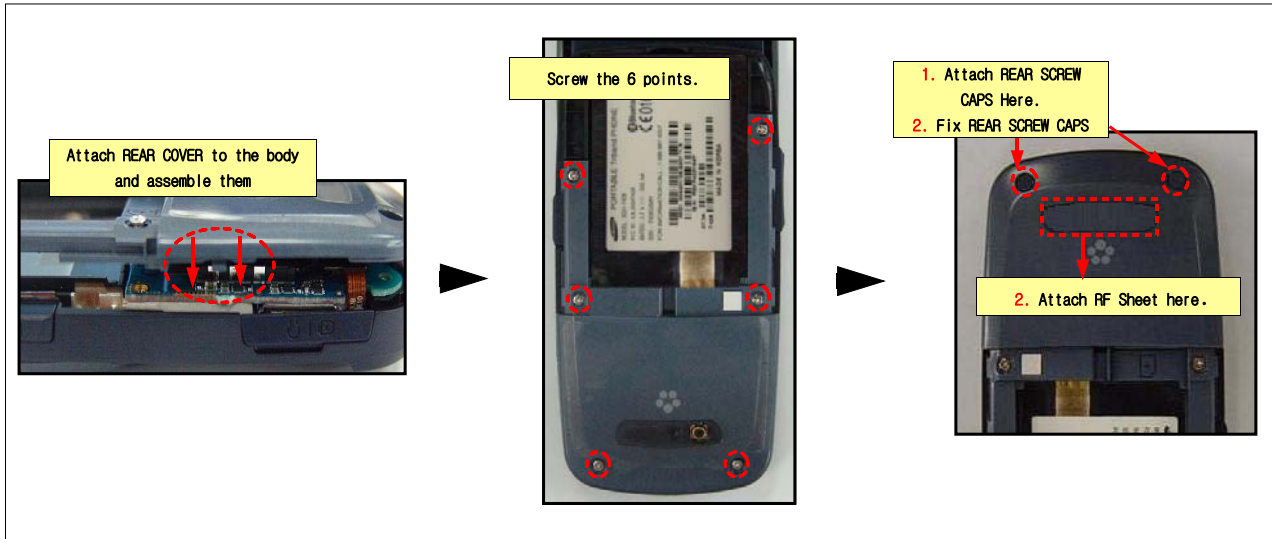
3. Assembly - SHIELDCAN & KEYPAD



4. Assembly - PBA



5. Assembly - REAR



6. MAIN Electrical Parts List

| Design LOC | Description | SEC Code | STATUS |
|------------|-----------------|-------------|--------|
| ANT600 | ANTENNA-CHIP | 4202-001344 | SA |
| BAT300 | BATTERY-LI(2ND) | 4302-001181 | SA |
| BTC500 | HEADER-BATTERY | 3711-006217 | SA |
| C101 | C-CER,CHIP | 2203-000812 | SA |
| C102 | C-CER,CHIP | 2203-005234 | SA |
| C103 | C-CER,CHIP | 2203-005234 | SA |
| C104 | C-CER,CHIP | 2203-000233 | SA |
| C105 | C-CER,CHIP | 2203-000812 | SA |
| C107 | C-CER,CHIP | 2203-005482 | SA |
| C108 | C-CER,CHIP | 2203-005050 | SA |
| C109 | C-CER,CHIP | 2203-005050 | SA |
| C110 | C-CER,CHIP | 2203-002668 | SA |
| C111 | C-CER,CHIP | 2203-000233 | SA |
| C112 | C-CER,CHIP | 2203-000489 | SA |
| C113 | C-CER,CHIP | 2203-000233 | SA |
| C114 | C-CER,CHIP | 2203-000254 | SA |
| C115 | C-CER,CHIP | 2203-000254 | SA |
| C116 | C-CER,CHIP | 2203-001385 | SA |
| C117 | C-CER,CHIP | 2203-000466 | SA |
| C119 | C-CER,CHIP | 2203-001385 | SA |
| C120 | C-CER,CHIP | 2203-005482 | SA |
| C121 | C-CER,CHIP | 2203-005482 | SA |
| C123 | C-CER,CHIP | 2203-006838 | SA |
| C124 | C-CER,CHIP | 2203-005482 | SA |
| C125 | C-CER,CHIP | 2203-000438 | SA |
| C126 | C-CER,CHIP | 2203-006838 | SA |
| C127 | C-CER,CHIP | 2203-000278 | SA |
| C128 | C-CER,CHIP | 2203-002709 | SA |
| C129 | C-CER,CHIP | 2203-005482 | SA |
| C130 | C-CER,CHIP | 2203-000233 | SA |
| C131 | C-CER,CHIP | 2203-006842 | SA |
| C132 | C-CER,CHIP | 2203-005482 | SA |
| C133 | C-CER,CHIP | 2203-000278 | SA |
| C134 | C-CER,CHIP | 2203-000278 | SA |
| C200 | C-CER,CHIP | 2203-005482 | SA |
| C201 | C-CER,CHIP | 2203-005482 | SA |
| C202 | C-CER,CHIP | 2203-005482 | SA |
| C203 | C-CER,CHIP | 2203-006562 | SA |
| C204 | C-CER,CHIP | 2203-005482 | SA |
| C205 | C-CER,CHIP | 2203-000812 | SA |
| C206 | C-CER,CHIP | 2203-005482 | SA |

| Design LOC | Description | SEC Code | STATUS |
|-------------------|--------------------|-----------------|---------------|
| C207 | C-CER,CHIP | 2203-000254 | SA |
| C208 | C-CER,CHIP | 2203-005482 | SA |
| C209 | C-CER,CHIP | 2203-005482 | SA |
| C210 | C-CER,CHIP | 2203-005482 | SA |
| C211 | C-CER,CHIP | 2203-000812 | SA |
| C212 | C-CER,CHIP | 2203-005482 | SA |
| C216 | C-CER,CHIP | 2203-006681 | SA |
| C218 | C-CER,CHIP | 2203-006841 | SA |
| C219 | C-CER,CHIP | 2203-000425 | SA |
| C220 | C-CER,CHIP | 2203-000425 | SA |
| C221 | C-CER,CHIP | 2203-006824 | SA |
| C222 | C-CER,CHIP | 2203-006824 | SA |
| C300 | C-CER,CHIP | 2203-006562 | SA |
| C301 | C-CER,CHIP | 2203-006562 | SA |
| C303 | C-CER,CHIP | 2203-006257 | SA |
| C304 | C-CER,CHIP | 2203-006824 | SA |
| C305 | C-CER,CHIP | 2203-006257 | SA |
| C306 | C-CER,CHIP | 2203-006562 | SA |
| C307 | C-CER,CHIP | 2203-006562 | SA |
| C308 | C-CER,CHIP | 2203-006825 | SA |
| C309 | C-CER,CHIP | 2203-006257 | SA |
| C310 | C-CER,CHIP | 2203-006257 | SA |
| C311 | C-CER,CHIP | 2203-006824 | SA |
| C312 | C-CER,CHIP | 2203-006824 | SA |
| C314 | C-CER,CHIP | 2203-006257 | SA |
| C317 | C-CER,CHIP | 2203-006562 | SA |
| C318 | C-CER,CHIP | 2203-006562 | SA |
| C319 | C-CER,CHIP | 2203-000425 | SA |
| C320 | C-CER,CHIP | 2203-000425 | SA |
| C321 | C-CER,CHIP | 2203-006348 | SA |
| C322 | C-CER,CHIP | 2203-006348 | SA |
| C323 | C-CER,CHIP | 2203-006257 | SA |
| C324 | C-CER,CHIP | 2203-006324 | SA |
| C325 | C-CER,CHIP | 2203-005482 | SA |
| C326 | C-CER,CHIP | 2203-006562 | SA |
| C327 | C-CER,CHIP | 2203-006562 | SA |
| C328 | C-CER,CHIP | 2203-006361 | SA |
| C329 | C-CER,CHIP | 2203-006361 | SA |
| C330 | C-CER,CHIP | 2203-006824 | SA |
| C331 | C-CER,CHIP | 2203-005482 | SA |
| C332 | C-CER,CHIP | 2203-000233 | SA |

| Design LOC | Description | SEC Code | STATUS |
|-------------------|--------------------|-----------------|---------------|
| C333 | C-CER,CHIP | 2203-005482 | SA |
| C401 | C-CER,CHIP | 2203-005395 | SA |
| C402 | C-CER,CHIP | 2203-000278 | SA |
| C403 | C-CER,CHIP | 2203-005444 | SA |
| C404 | C-CER,CHIP | 2203-005482 | SA |
| C405 | C-CER,CHIP | 2203-000679 | SA |
| C406 | C-CER,CHIP | 2203-000330 | SA |
| C407 | C-CER,CHIP | 2203-005050 | SA |
| C408 | C-CER,CHIP | 2203-003054 | SA |
| C409 | C-CER,CHIP | 2203-005482 | SA |
| C410 | C-CER,CHIP | 2203-000278 | SA |
| C411 | C-CER,CHIP | 2203-005444 | SA |
| C412 | C-CER,CHIP | 2203-005395 | SA |
| C414 | C-CER,CHIP | 2203-005395 | SA |
| C415 | C-CER,CHIP | 2203-000386 | SA |
| C416 | C-CER,CHIP | 2203-000386 | SA |
| C417 | C-CER,CHIP | 2203-000254 | SA |
| C418 | C-CER,CHIP | 2203-000278 | SA |
| C419 | C-CER,CHIP | 2203-005393 | SA |
| C420 | C-CER,CHIP | 2203-005482 | SA |
| C421 | C-CER,CHIP | 2203-000679 | SA |
| C422 | C-CER,CHIP | 2203-000330 | SA |
| C423 | C-CER,CHIP | 2203-001259 | SA |
| C424 | C-CER,CHIP | 2203-005050 | SA |
| C425 | C-CER,CHIP | 2203-005482 | SA |
| C427 | C-CER,CHIP | 2203-005393 | SA |
| C428 | C-CER,CHIP | 2203-000278 | SA |
| C429 | C-CER,CHIP | 2203-005395 | SA |
| C431 | C-CER,CHIP | 2203-005482 | SA |
| C432 | C-CER,CHIP | 2203-006260 | SA |
| C433 | C-CER,CHIP | 2203-005344 | SA |
| C434 | C-CER,CHIP | 2203-006260 | SA |
| C435 | C-CER,CHIP | 2203-005344 | SA |
| C500 | C-CER,CHIP | 2203-006562 | SA |
| C501 | C-CER,CHIP | 2203-002709 | SA |
| C502 | C-CER,CHIP | 2203-005482 | SA |
| C503 | C-CER,CHIP | 2203-000812 | SA |
| C505 | C-CER,CHIP | 2203-000812 | SA |
| C506 | C-CER,CHIP | 2203-006562 | SA |
| C507 | C-CER,CHIP | 2203-006562 | SA |
| C508 | C-CER,CHIP | 2203-006562 | SA |

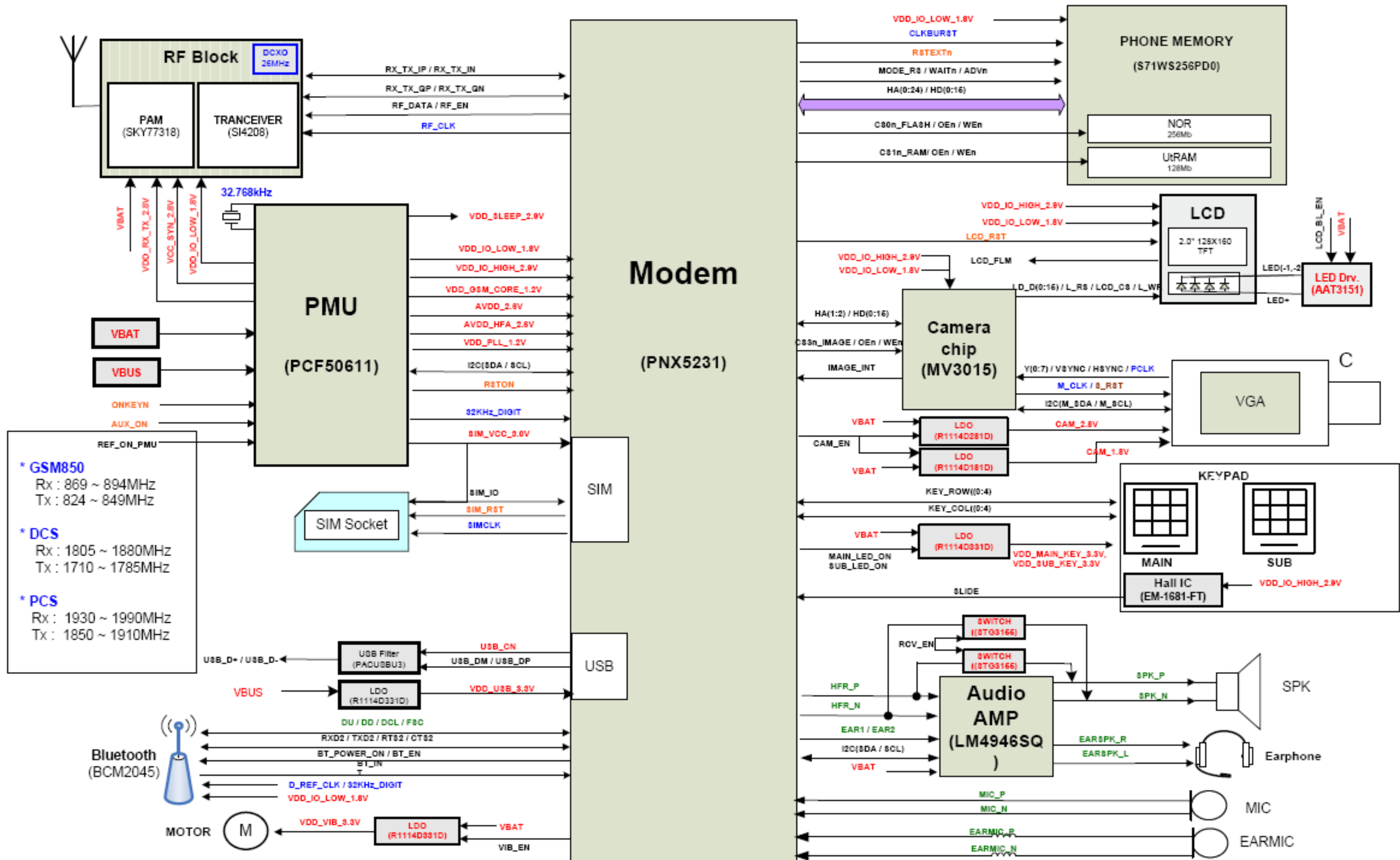
| Design LOC | Description | SEC Code | STATUS |
|-------------------|-----------------------|-----------------|---------------|
| C509 | C-CER,CHIP | 2203-006562 | SA |
| C510 | C-CER,CHIP | 2203-006824 | SA |
| C511 | C-CER,CHIP | 2203-006562 | SA |
| C512 | C-CER,CHIP | 2203-000812 | SA |
| C601 | C-CER,CHIP | 2203-000233 | SA |
| C602 | C-CER,CHIP | 2203-006562 | SA |
| C603 | C-CER,CHIP | 2203-005482 | SA |
| C604 | C-CER,CHIP | 2203-005482 | SA |
| C605 | C-CER,CHIP | 2203-006562 | SA |
| C606 | C-CER,CHIP | 2203-005482 | SA |
| C607 | C-CER,CHIP | 2203-000233 | SA |
| CN100 | CONNECTOR-COAXIAL | 3705-001358 | SA |
| CN500 | HEADER-BOARD TO BOARD | 3711-005578 | SA |
| CN501 | HEADER-BOARD TO BOARD | 3711-005747 | SA |
| F100 | DUPLEXER-FEM | 2911-000071 | SA |
| F101 | FILTER-LC | 2909-001279 | SA |
| F200 | FILTER-EMI SMD | 2901-001316 | SA |
| F400 | FILTER-EMI SMD | 2901-001463 | SA |
| F500 | FILTER-EMI SMD | 2901-001462 | SA |
| F501 | FILTER-EMI SMD | 2901-001462 | SA |
| F502 | FILTER-EMI SMD | 2901-001463 | SA |
| IFC400 | SOCKET-INTERFACE | 3710-002523 | SA |
| L105 | INDUCTOR-SMD | 2703-002369 | SA |
| L106 | C-CER,CHIP | 2203-005450 | SA |
| L107 | INDUCTOR-SMD | 2703-002314 | SA |
| L108 | INDUCTOR-SMD | 2703-002484 | SA |
| L109 | C-CER,CHIP | 2203-000995 | SA |
| L110 | INDUCTOR-SMD | 2703-002170 | SA |
| L112 | INDUCTOR-SMD | 2703-002176 | SA |
| L113 | INDUCTOR-SMD | 2703-001726 | SA |
| L115 | INDUCTOR-SMD | 2703-001728 | SA |
| L116 | BEAD-SMD | 3301-001659 | SA |
| L300 | INDUCTOR-SMD | 2703-003290 | SA |
| L400 | BEAD-SMD | 3301-001729 | SA |
| L401 | BEAD-SMD | 3301-001729 | SA |
| L402 | BEAD-SMD | 3301-001729 | SA |
| L403 | BEAD-SMD | 3301-001729 | SA |
| L404 | INDUCTOR-SMD | 2703-002207 | SA |
| L405 | INDUCTOR-SMD | 2703-002207 | SA |
| OSC100 | CRYSTAL-SMD | 2801-004587 | SA |
| OSC101 | CRYSTAL-SMD | 2801-004589 | SA |

| Design LOC | Description | SEC Code | STATUS |
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| OSC300 | CRYSTAL-SMD | 2801-004339 | SA |
| PAM100 | IC-POWER AMP | 1201-002485 | SA |
| R100 | R-CHIP | 2007-001313 | SA |
| R101 | R-CHIP | 2007-000171 | SA |
| R102 | R-CHIP | 2007-000173 | SA |
| R103 | R-CHIP | 2007-000172 | SA |
| R111 | R-CHIP | 2007-000143 | SA |
| R113 | R-CHIP | 2007-000171 | SA |
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| R115 | R-CHIP | 2007-000171 | SA |
| R116 | R-CHIP | 2007-000148 | SA |
| R117 | R-CHIP | 2007-007489 | SA |
| R118 | R-CHIP | 2007-000170 | SA |
| R200 | R-CHIP | 2007-000170 | SA |
| R201 | R-CHIP | 2007-000170 | SA |
| R206 | R-CHIP | 2007-000171 | SA |
| R207 | R-CHIP | 2007-000758 | SA |
| R209 | R-CHIP | 2007-000171 | SA |
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| R218 | R-CHIP | 2007-000140 | SA |
| R220 | R-CHIP | 2007-000148 | SA |
| R221 | R-CHIP | 2007-001319 | SA |
| R222 | R-CHIP | 2007-001319 | SA |
| R223 | R-CHIP | 2007-000143 | SA |
| R226 | R-CHIP | 2007-002796 | SA |
| R228 | R-CHIP | 2007-000171 | SA |
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| R301 | R-CHIP | 2007-007573 | SA |
| R302 | R-CHIP | 2007-008354 | SA |
| R303 | R-CHIP | 2007-001333 | SA |
| R305 | R-CHIP | 2007-000162 | SA |
| R307 | R-CHIP | 2007-000171 | SA |
| R309 | R-CHIP | 2007-007311 | SA |
| R312 | R-CHIP | 2007-007317 | SA |
| R313 | R-CHIP | 2007-001333 | SA |
| R314 | R-CHIP | 2007-007107 | SA |

| Design LOC | Description | SEC Code | STATUS |
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| R315 | R-CHIP | 2007-000171 | SA |
| R316 | R-CHIP | 2007-000758 | SA |
| R317 | R-CHIP | 2007-001333 | SA |
| R400 | R-CHIP | 2007-007528 | SA |
| R401 | R-CHIP | 2007-001333 | SA |
| R402 | R-CHIP | 2007-007981 | SA |
| R404 | R-CHIP | 2007-001333 | SA |
| R405 | R-CHIP | 2007-007142 | SA |
| R406 | R-CHIP | 2007-007528 | SA |
| R407 | R-CHIP | 2007-007334 | SA |
| R408 | R-CHIP | 2007-002796 | SA |
| R409 | R-CHIP | 2007-000172 | SA |
| R410 | R-CHIP | 2007-000172 | SA |
| R411 | R-CHIP | 2007-007528 | SA |
| R412 | R-CHIP | 2007-007528 | SA |
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| R414 | R-CHIP | 2007-001291 | SA |
| R416 | R-CHIP | 2007-001291 | SA |
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| R418 | R-CHIP | 2007-000171 | SA |
| R501 | R-CHIP | 2007-000148 | SA |
| R502 | R-CHIP | 2007-007107 | SA |
| R503 | R-CHIP | 2007-000152 | SA |
| R504 | R-CHIP | 2007-000162 | SA |
| R505 | R-CHIP | 2007-001333 | SA |
| R507 | R-CHIP | 2007-000162 | SA |
| R508 | R-CHIP | 2007-000162 | SA |
| R600 | R-CHIP | 2007-000171 | SA |
| R601 | R-CHIP | 2007-007014 | SA |
| R602 | R-CHIP | 2007-001303 | SA |
| R603 | R-CHIP | 2007-007014 | SA |
| R604 | R-CHIP | 2007-000171 | SA |
| R605 | R-CHIP | 2007-000171 | SA |
| SC100 | NDC SHIELD-FRAME | GH71-07586A | SA |
| SIM300 | CONNECTOR-CARD EDGE | 3709-001400 | SA |
| TA100 | C-TA,CHIP | 2404-001496 | SA |
| TA300 | C-TA,CHIP | 2404-001430 | SA |
| TA400 | C-TA,CHIP | 2404-001496 | SA |
| TA401 | C-TA,CHIP | 2404-001377 | SA |
| TA402 | C-TA,CHIP | 2404-001377 | SA |
| TA403 | C-TA,CHIP | 2404-001381 | SA |

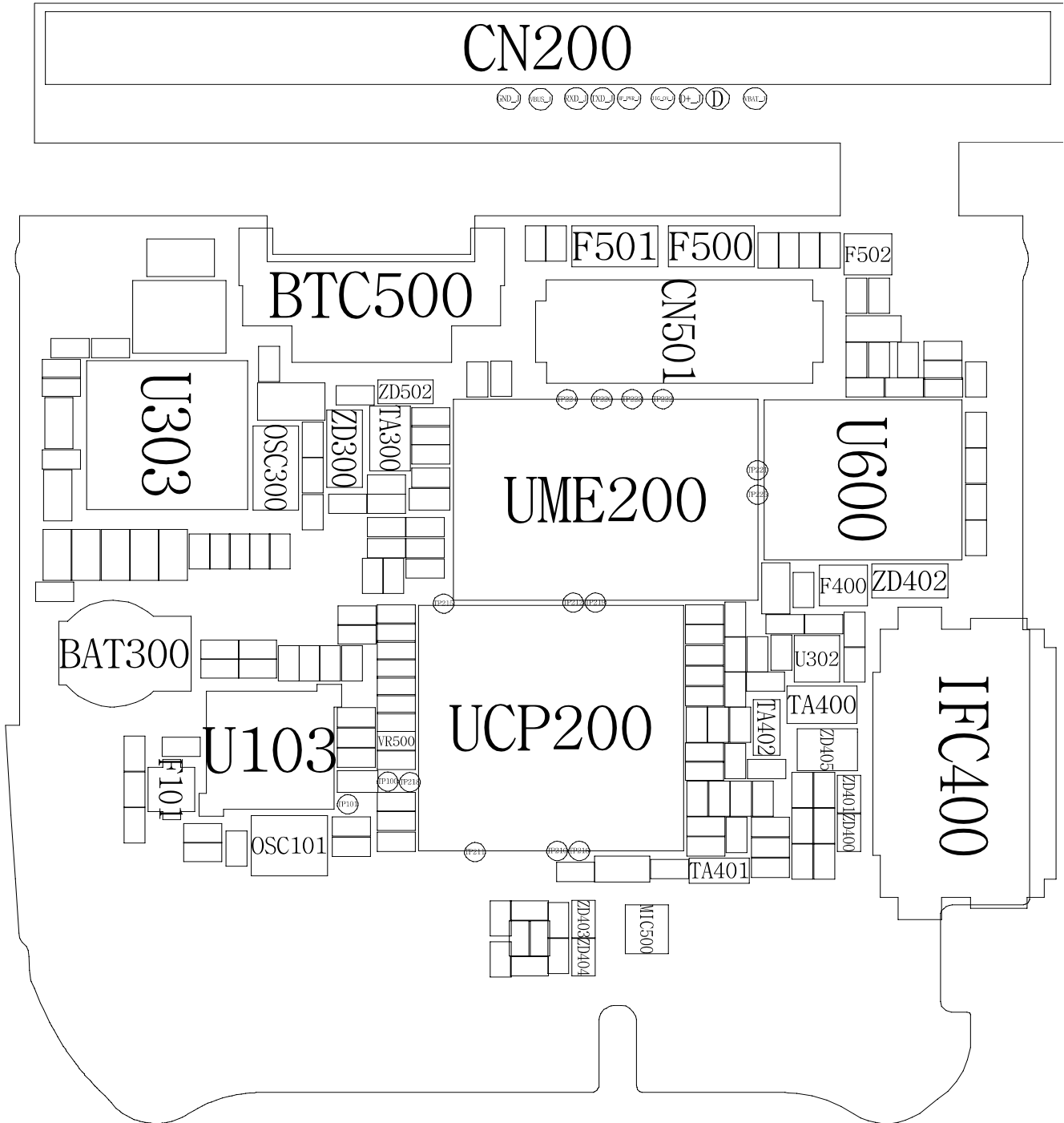
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| TA404 | C-TA,CHIP | 2404-001226 | SA |
| U101 | IC-TRANSCEIVER | 1205-003310 | SA |
| U103 | IC-TRANSCEIVER | 1205-002942 | SA |
| U300 | IC-POSI.FIXED REG. | 1203-003737 | SA |
| U301 | IC-POSI.FIXED REG. | 1203-003737 | SA |
| U302 | IC-POSI.FIXED REG. | 1203-003737 | SA |
| U303 | IC-POWER SUPERVISOR | 1203-004382 | SA |
| U304 | IC-POSI.FIXED REG. | 1203-003737 | SA |
| U402 | IC-AUDIO AMP | 1201-002492 | SA |
| U600 | IC ASIC-SGHE420 | GH13-00042A | SA |
| U601 | IC-CMOS LOGIC | 0801-002237 | SA |
| UCP200 | IC-COMM. CONTROLLER | 1205-003238 | SA |
| UME200 | IC-MCP | 1108-000130 | SA |
| VR500 | THERMISTOR-NTC | 1404-001221 | SA |
| ZD300 | DIODE-ZENER | 0403-001547 | SA |
| ZD400 | DIODE-TVS | 0406-001254 | SA |
| ZD401 | DIODE-TVS | 0406-001254 | SA |
| ZD402 | DIODE-ZENER | 0403-001339 | SA |
| ZD403 | DIODE-TVS | 0406-001254 | SA |
| ZD405 | DIODE-TVS | 0406-001208 | SA |
| ZD500 | DIODE-TVS | 0406-001190 | SA |
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| ZD502 | DIODE-TVS | 0406-001201 | SA |

7. Block Diagrams

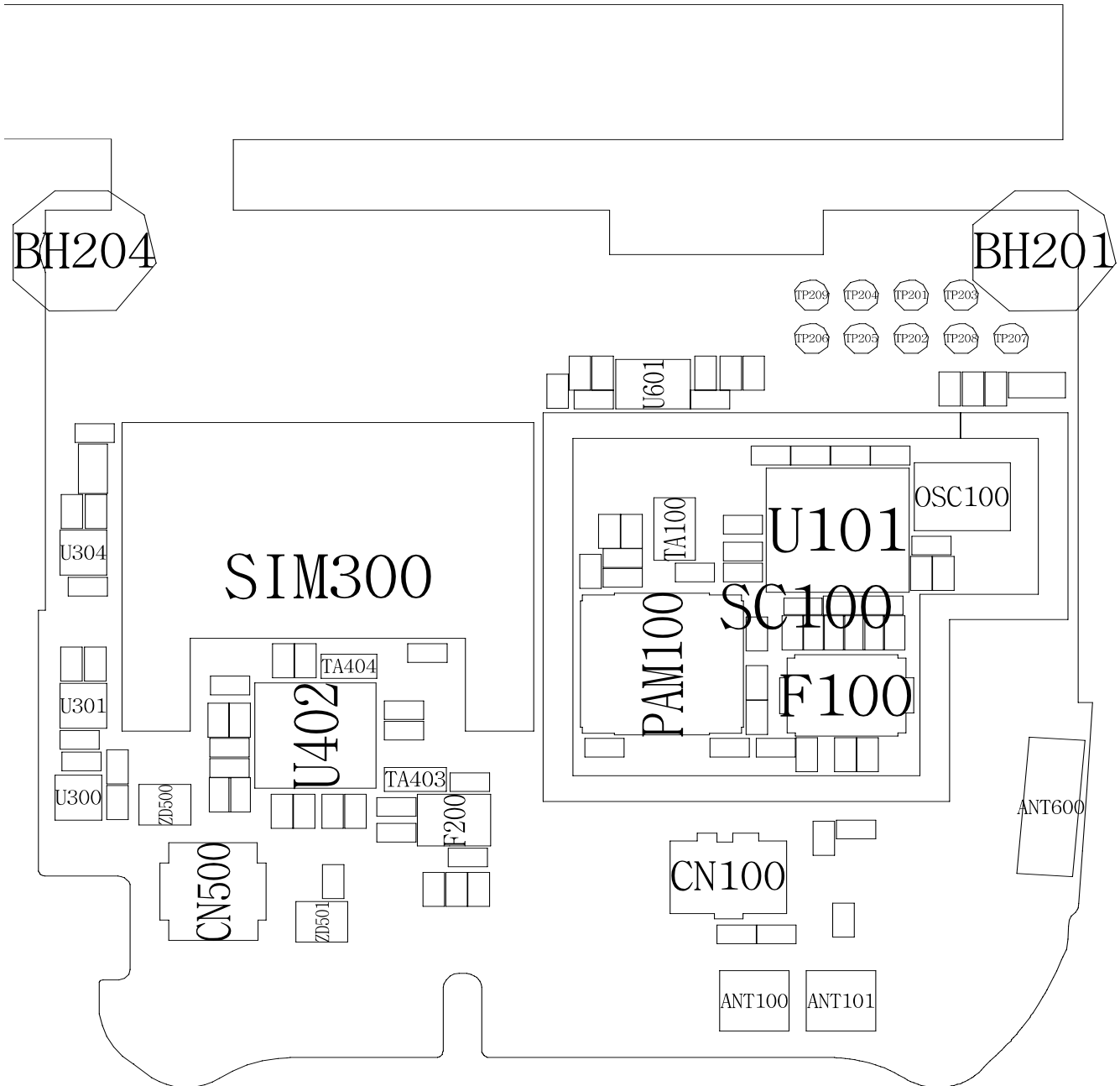


8. PCB Diagrams

Top

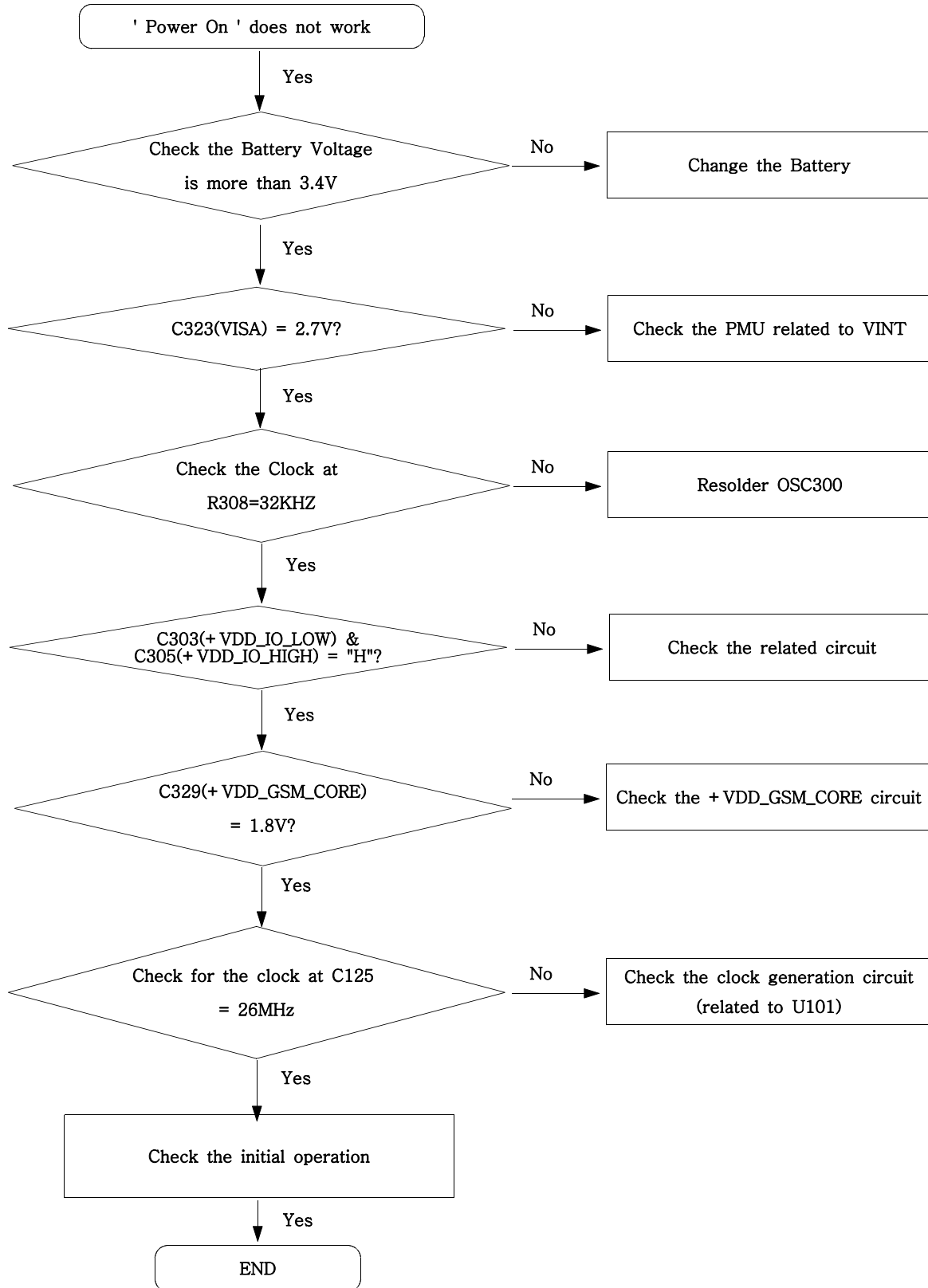


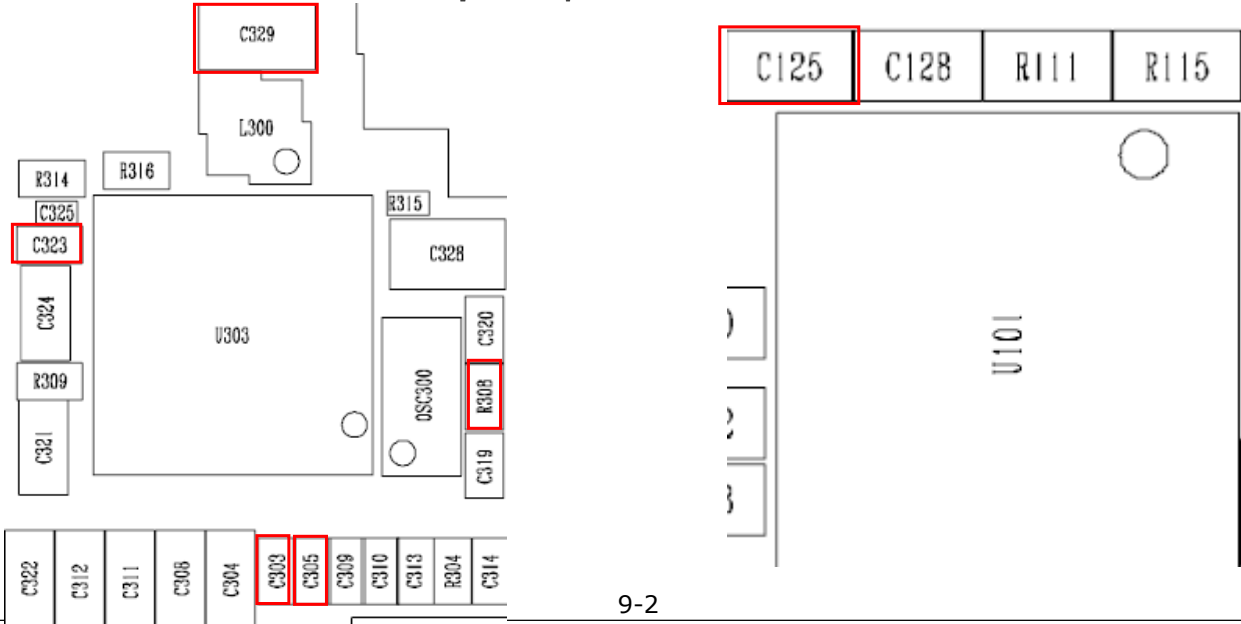
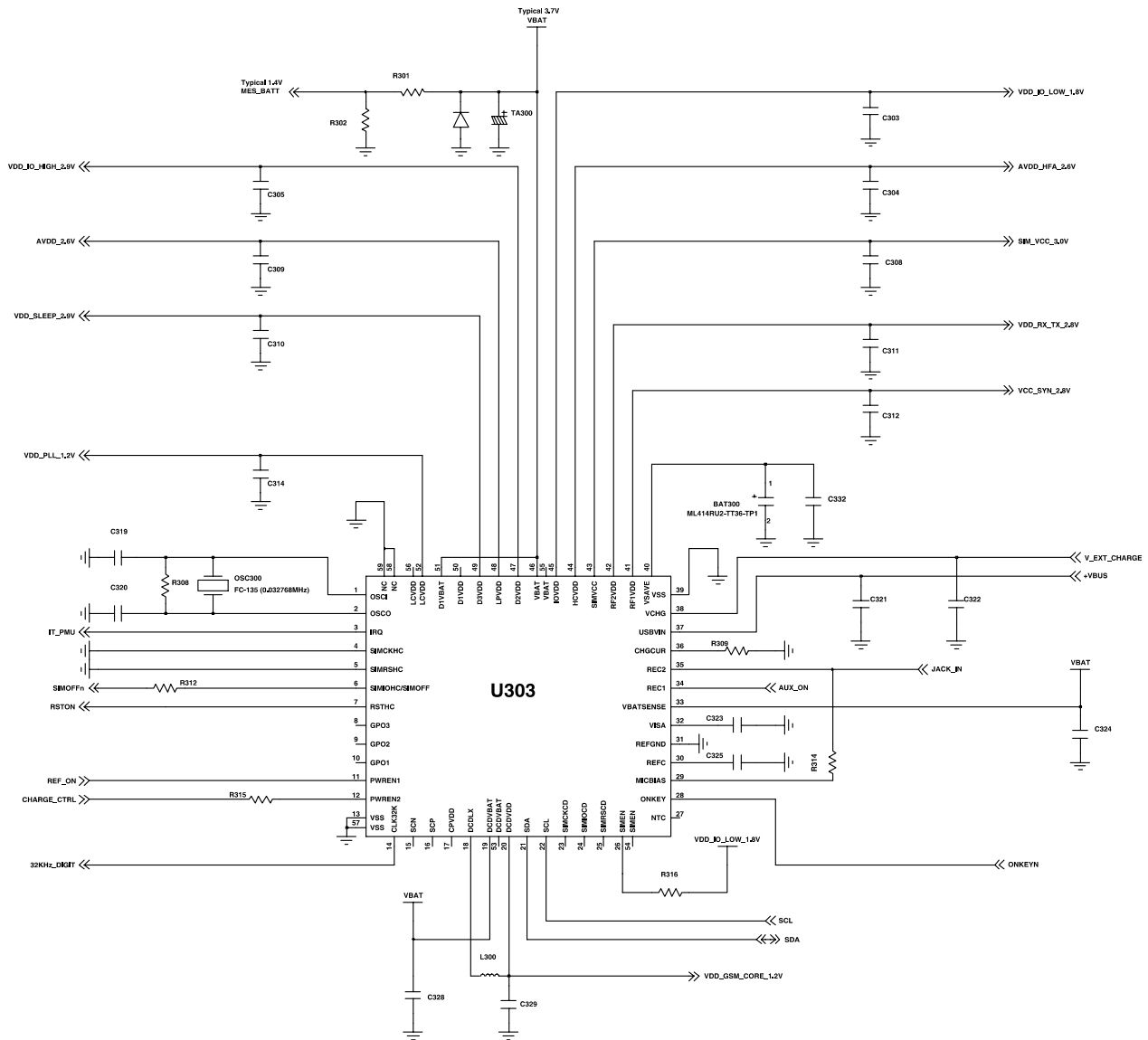
Bottom



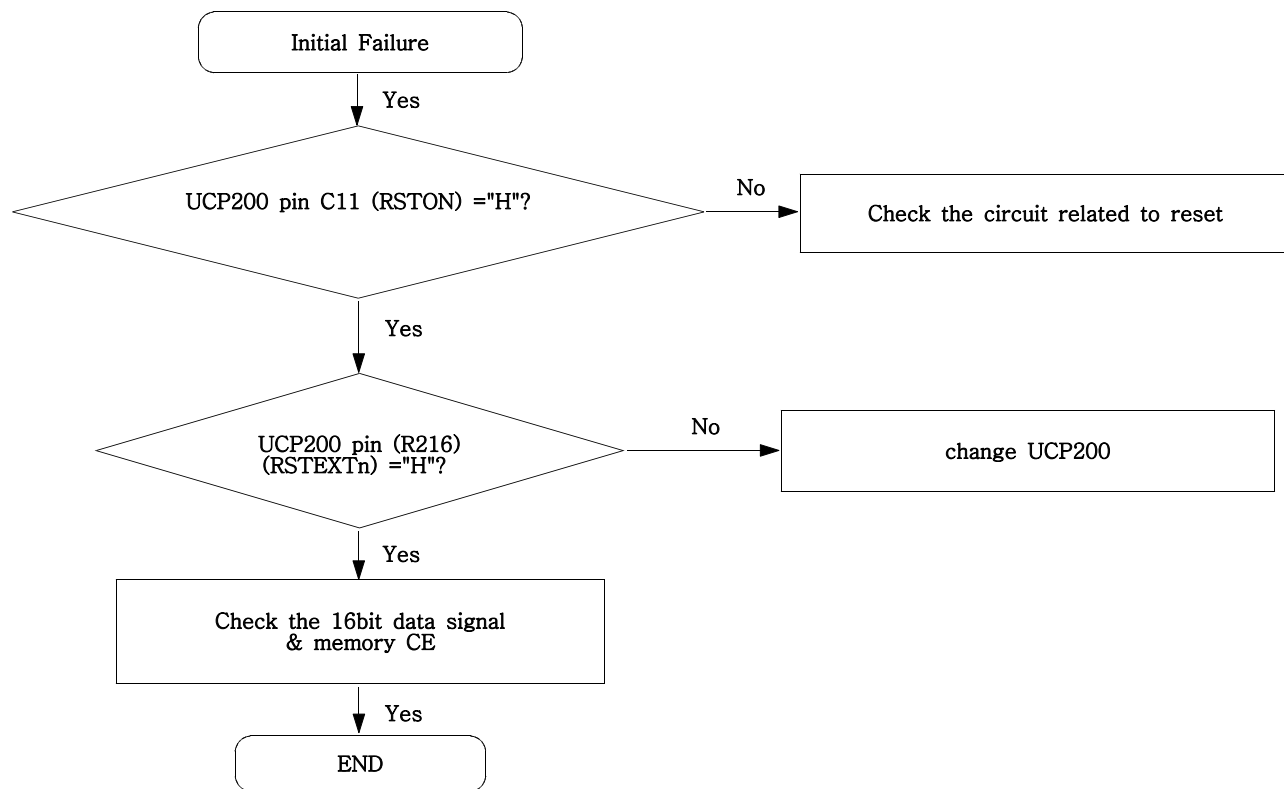
9. Flow Chart of Troubleshooting

9-1. Power On

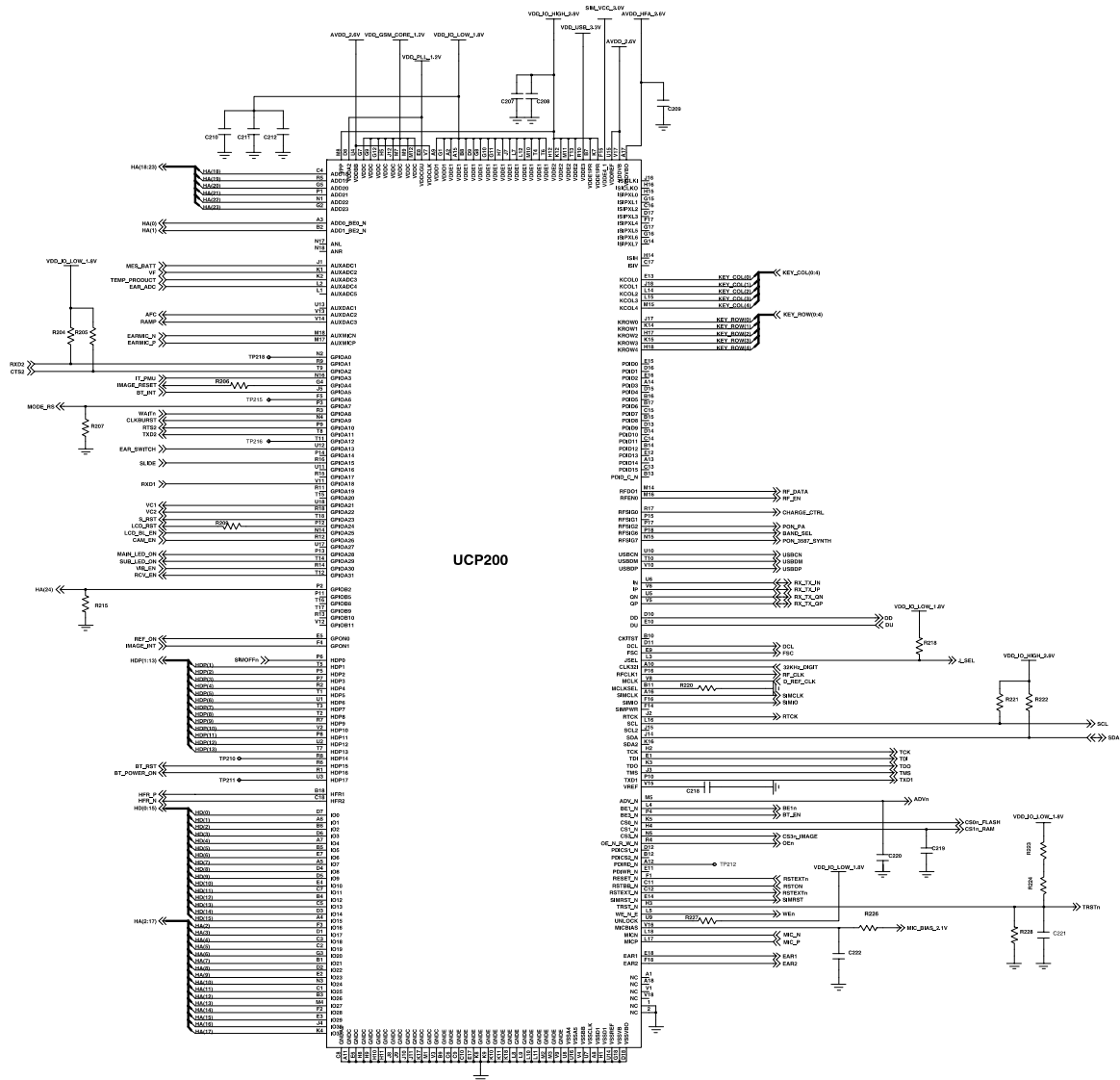




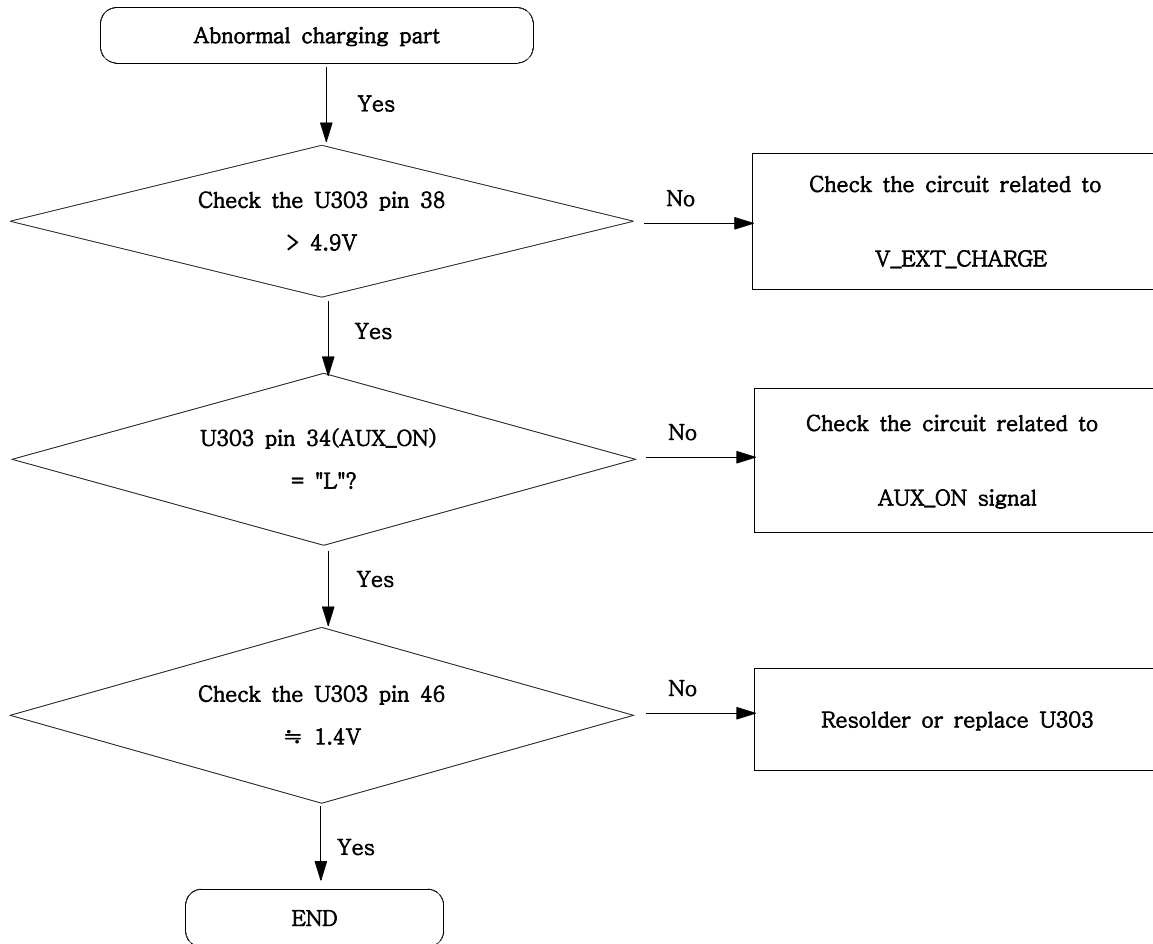
9-2. Initial

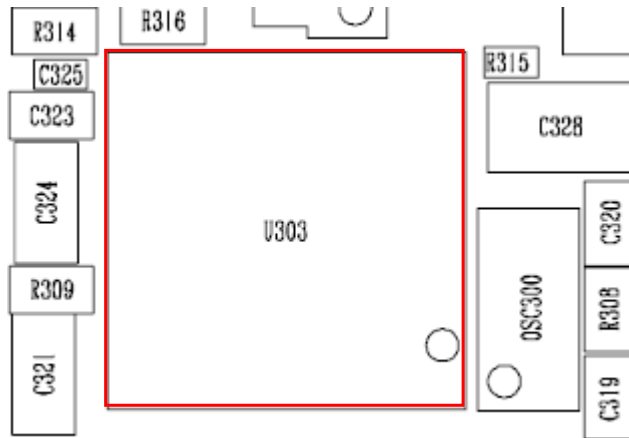
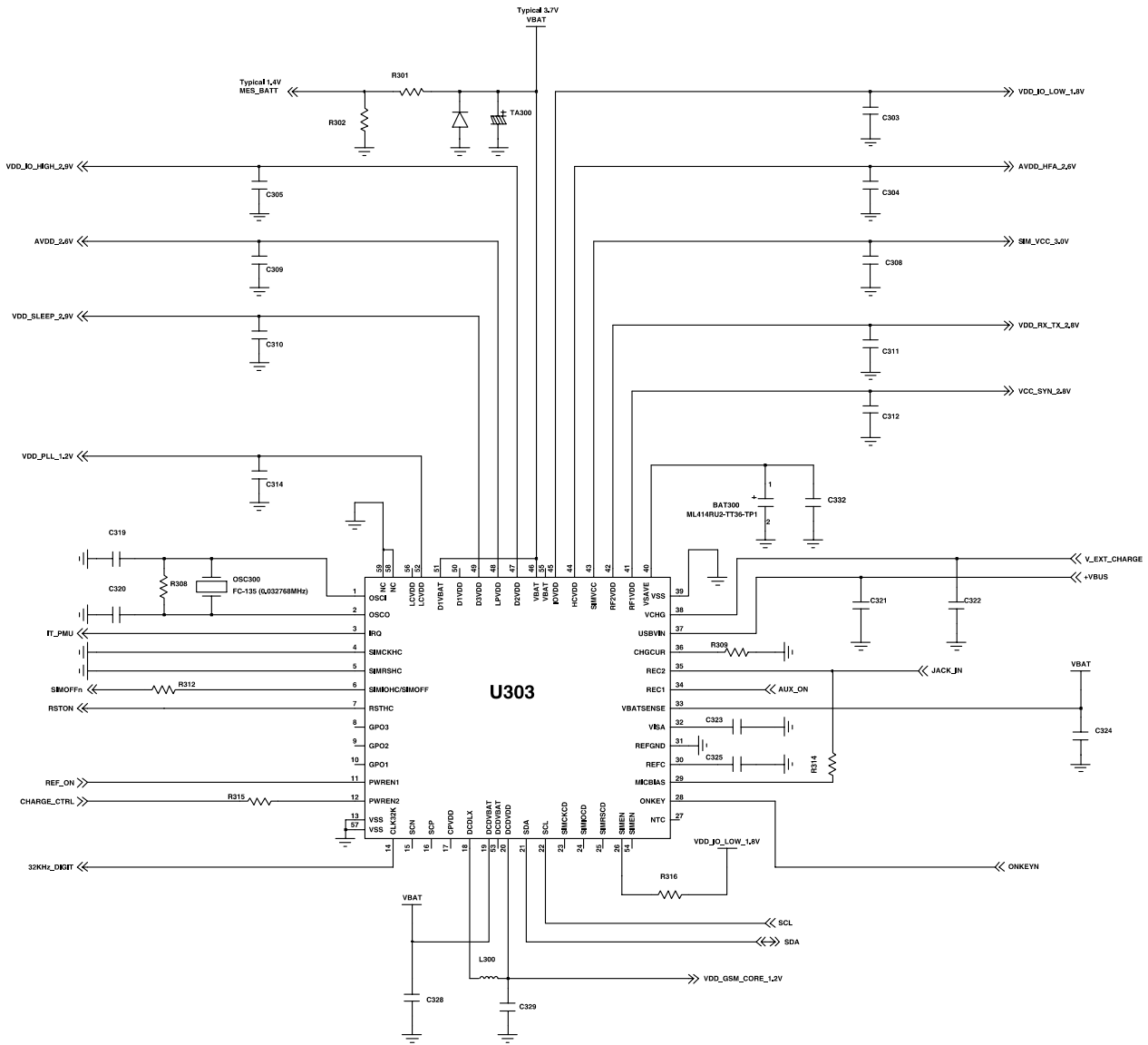


Flow Chart of Troubleshooting

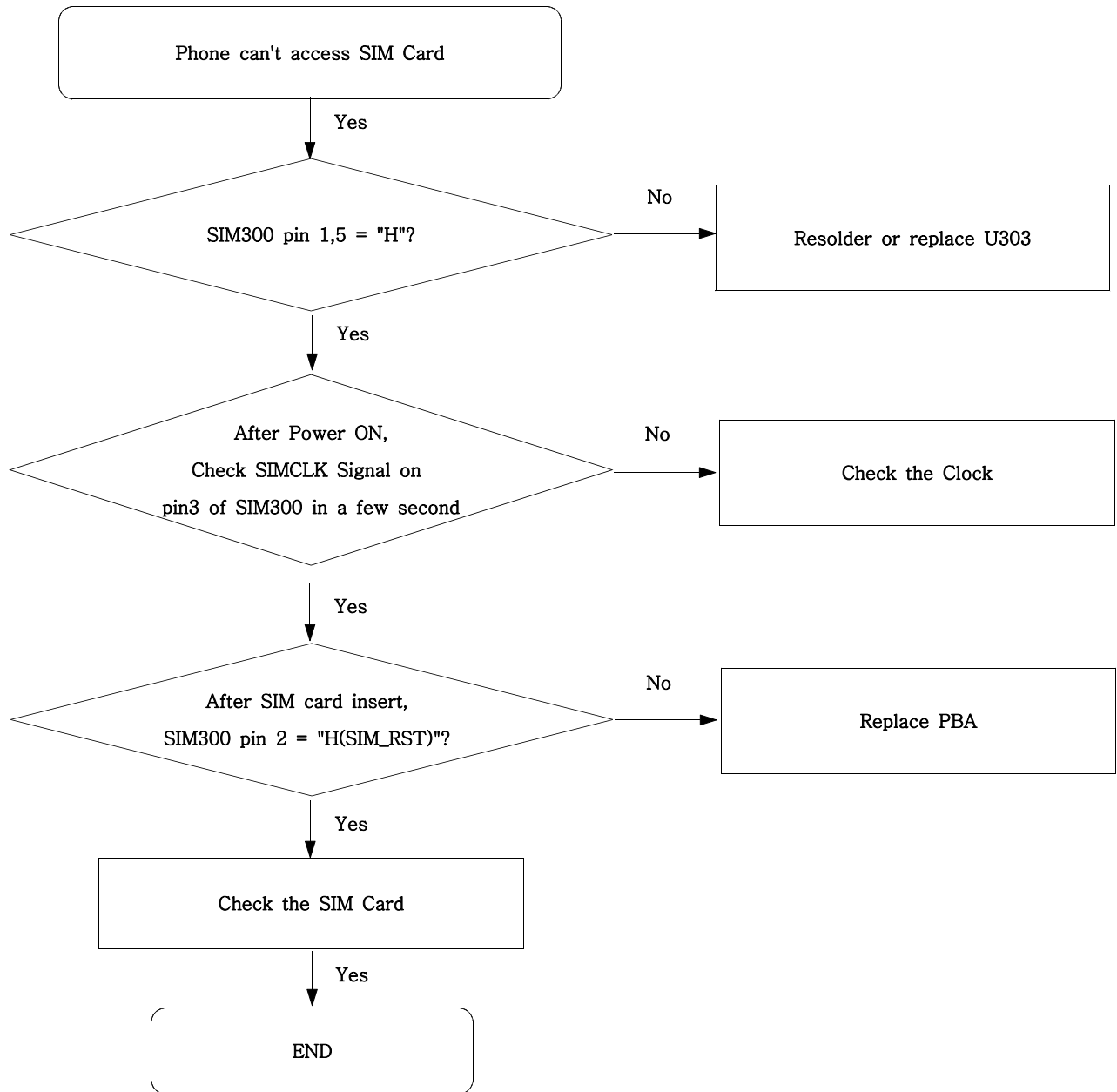


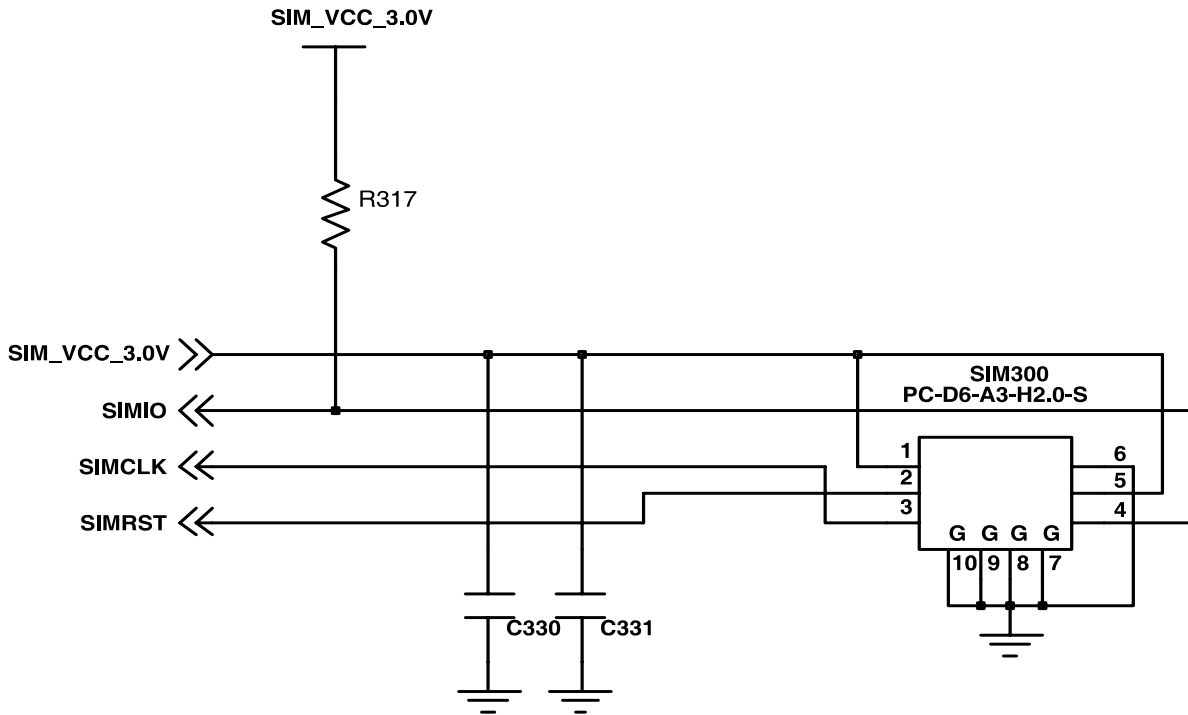
9-3. Charging Part



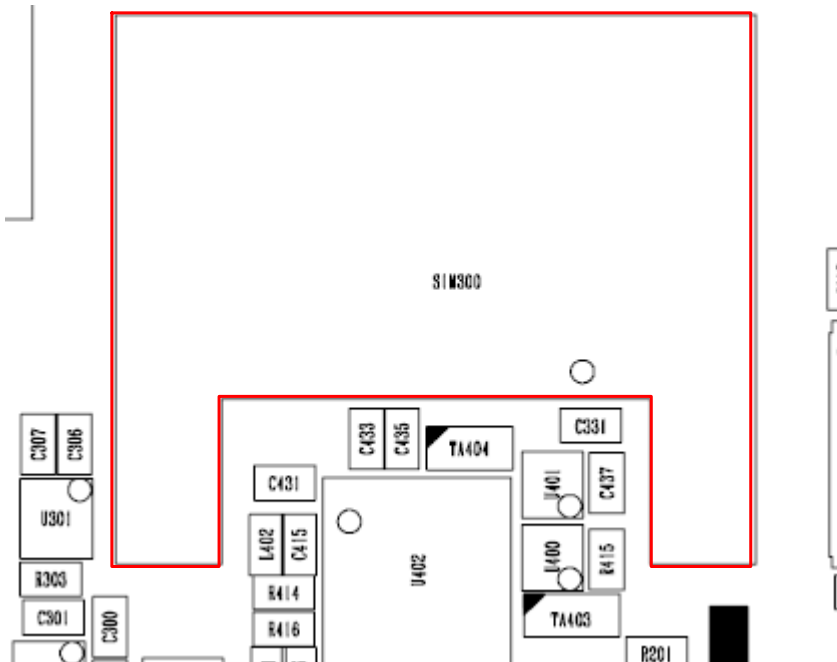


9-4. Sim Part

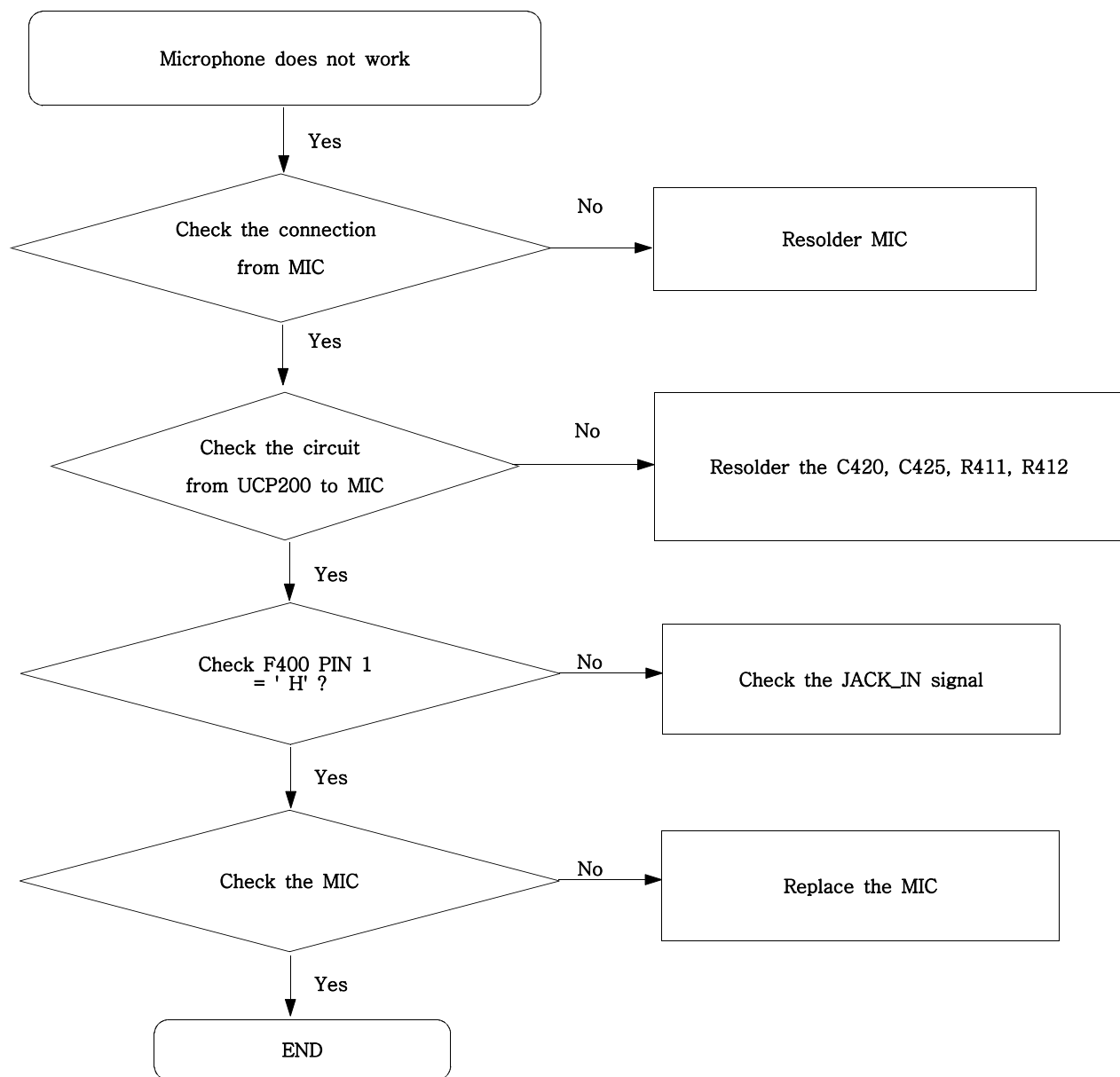


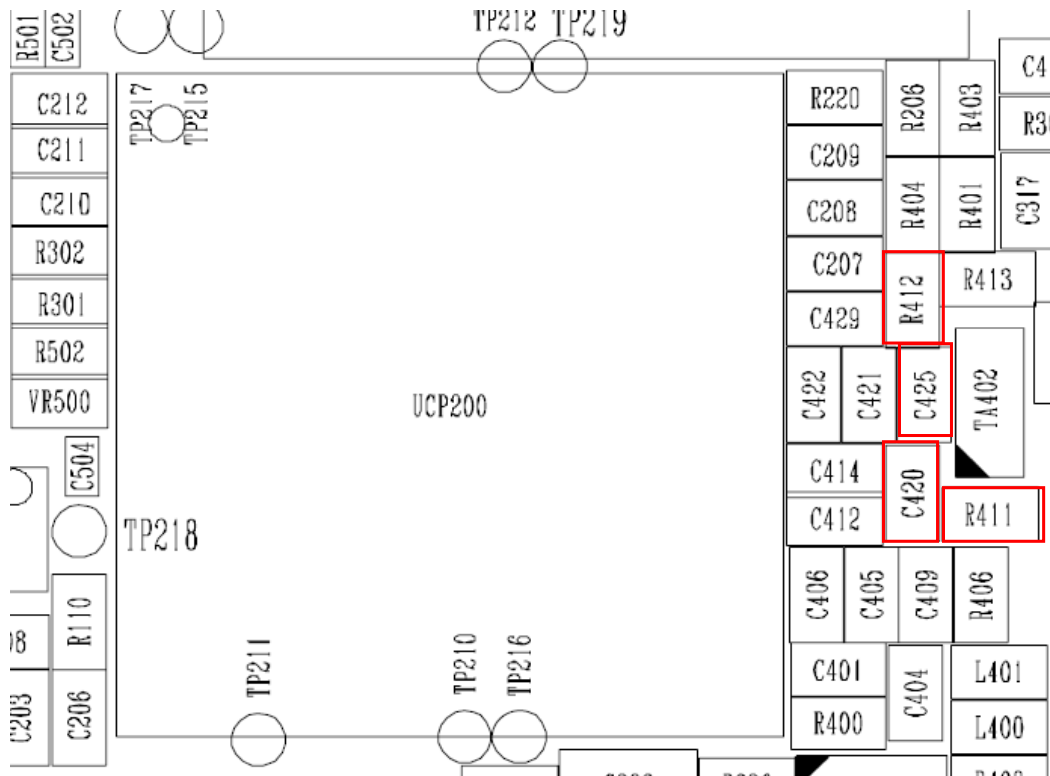
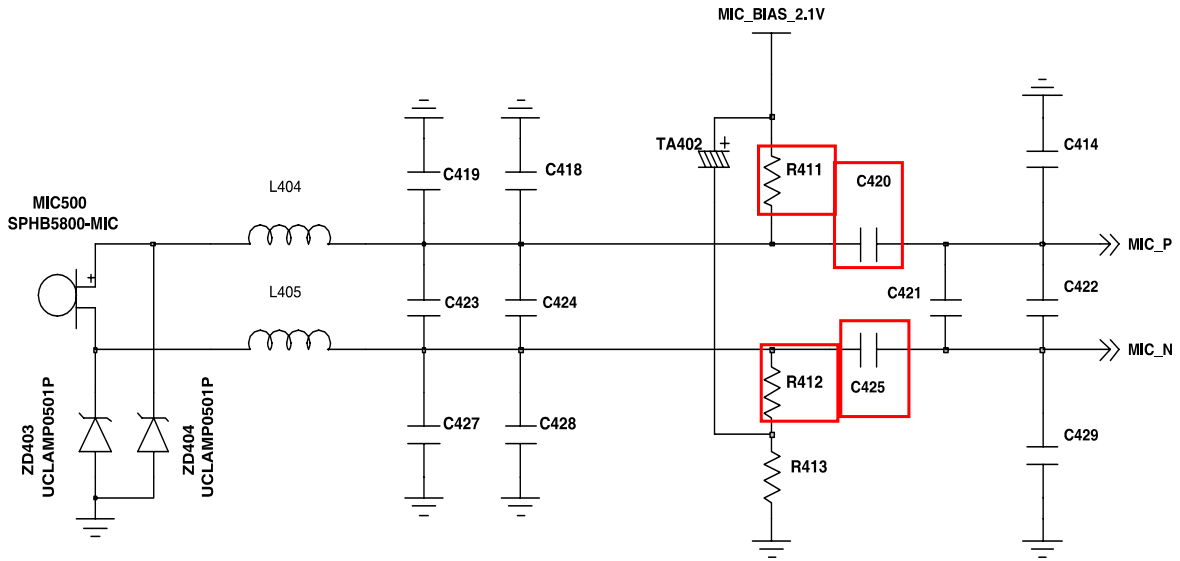


SIM CON

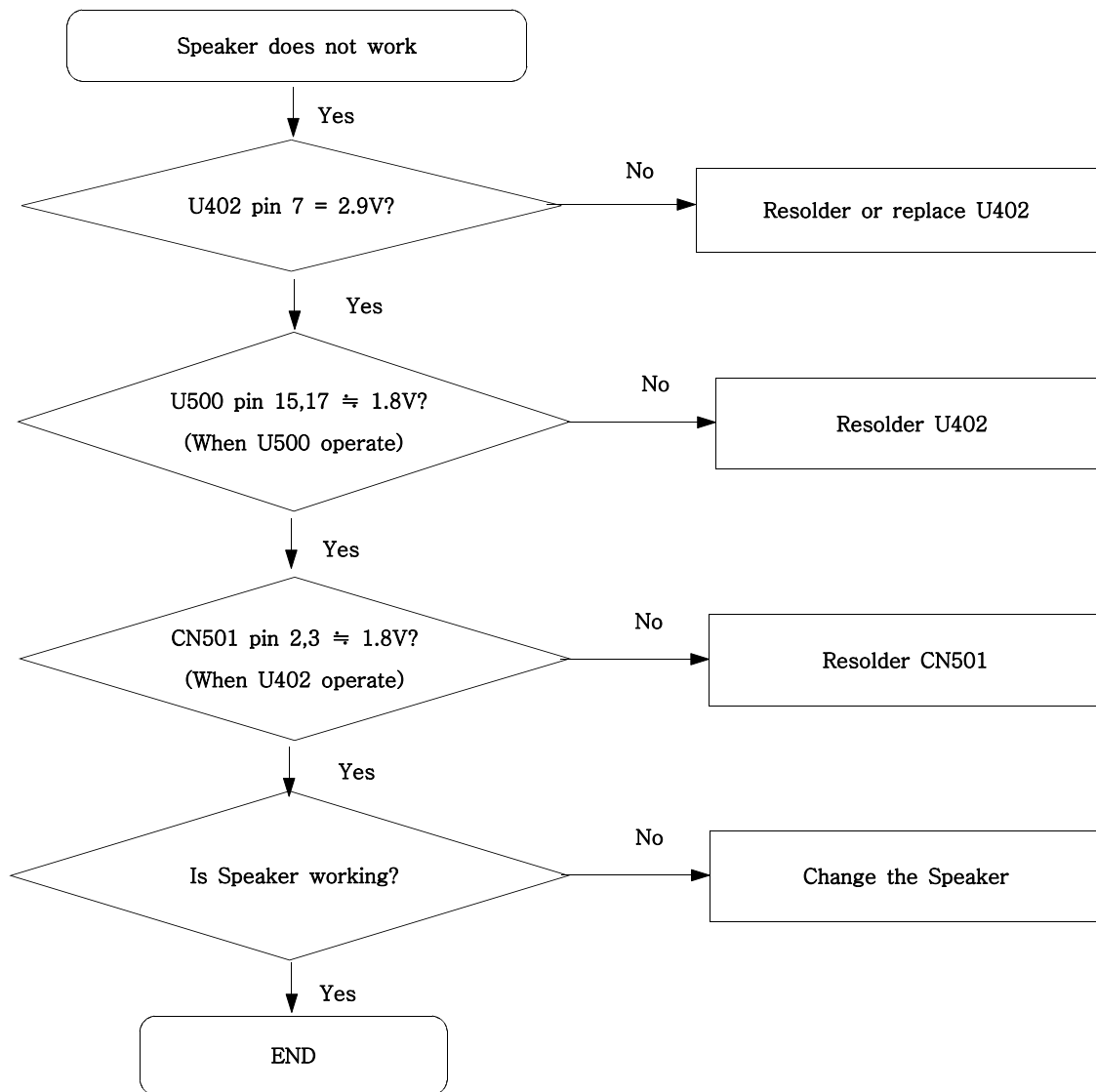


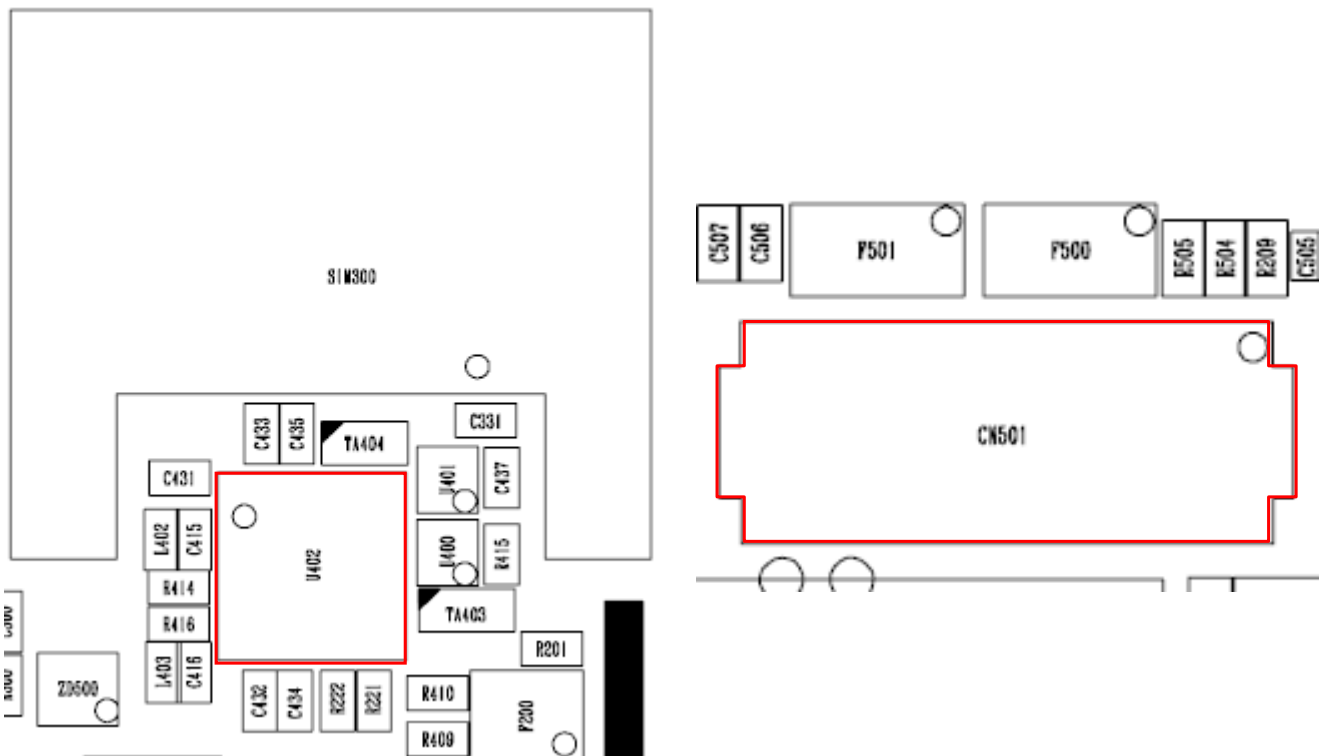
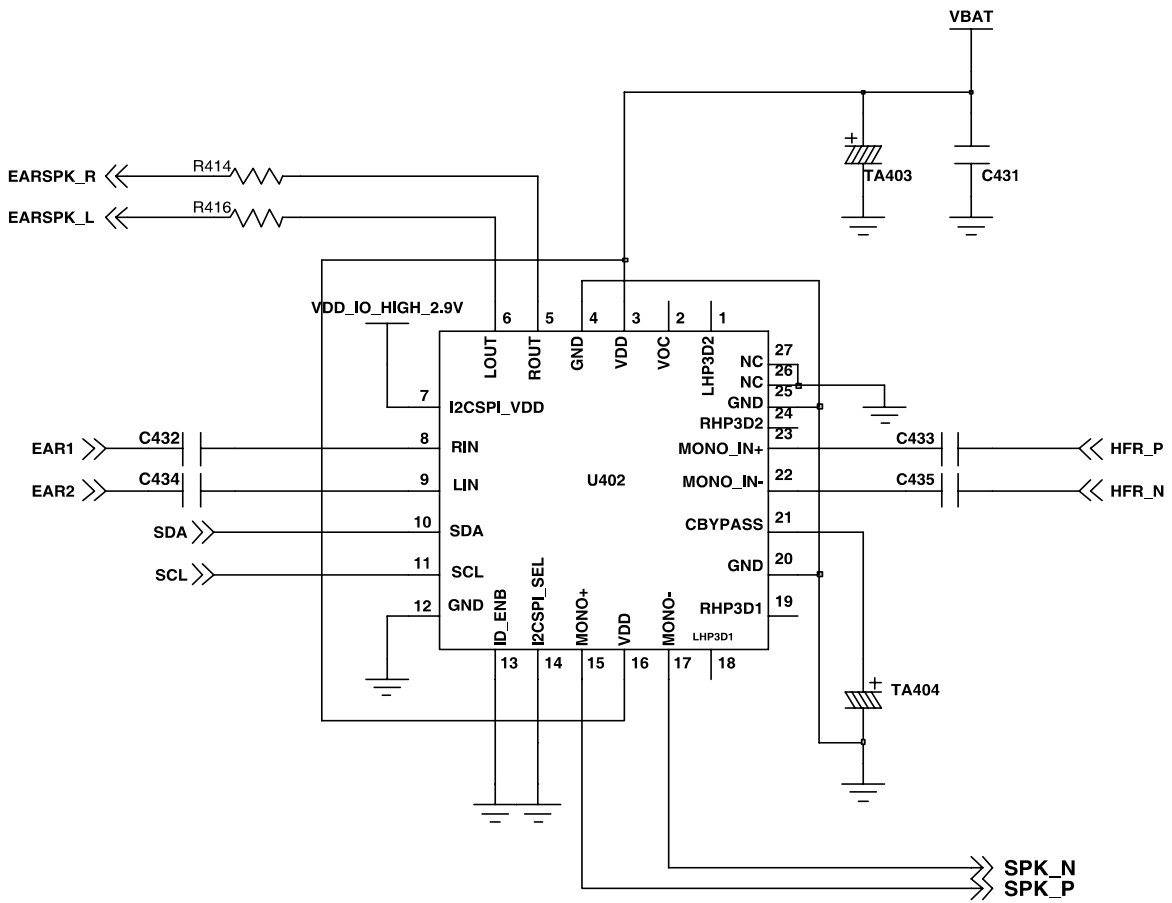
9-5. Microphone Part



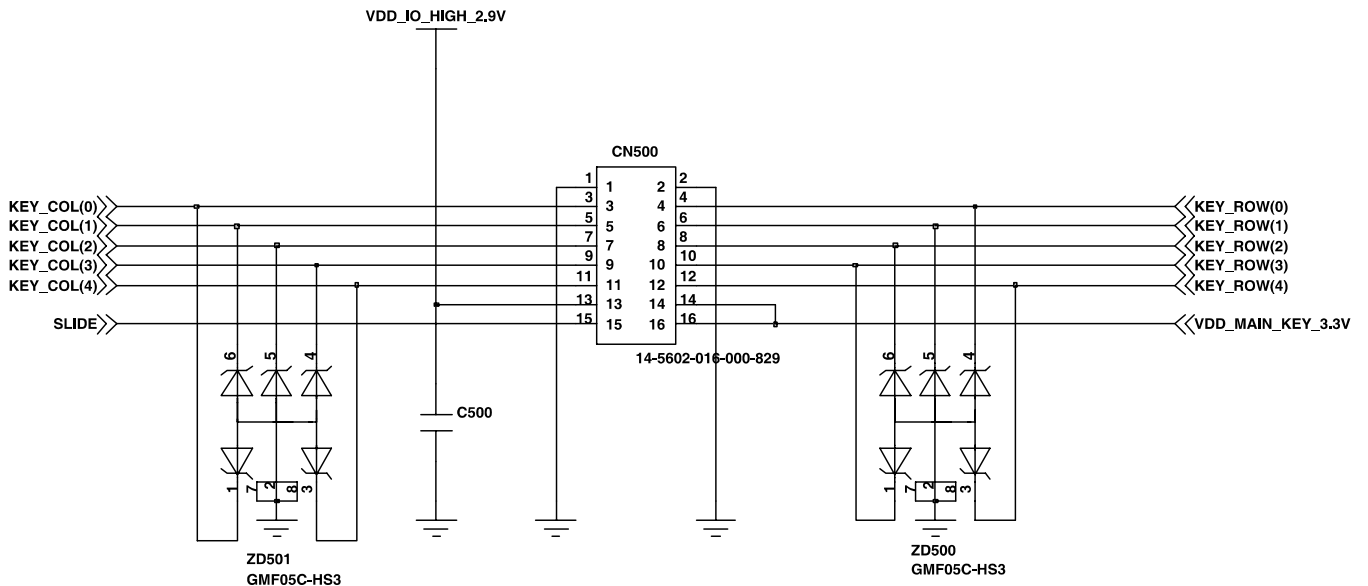
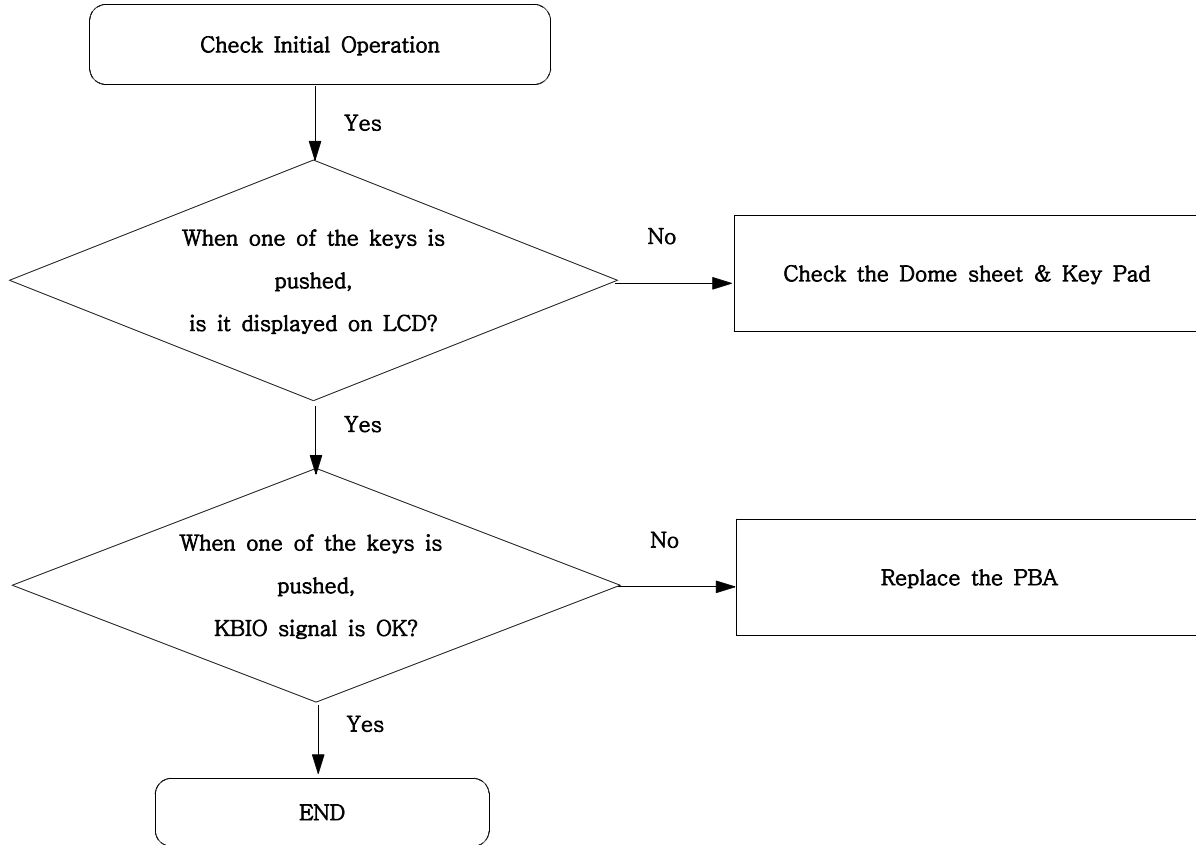


9-6. Speaker Part(Melody)

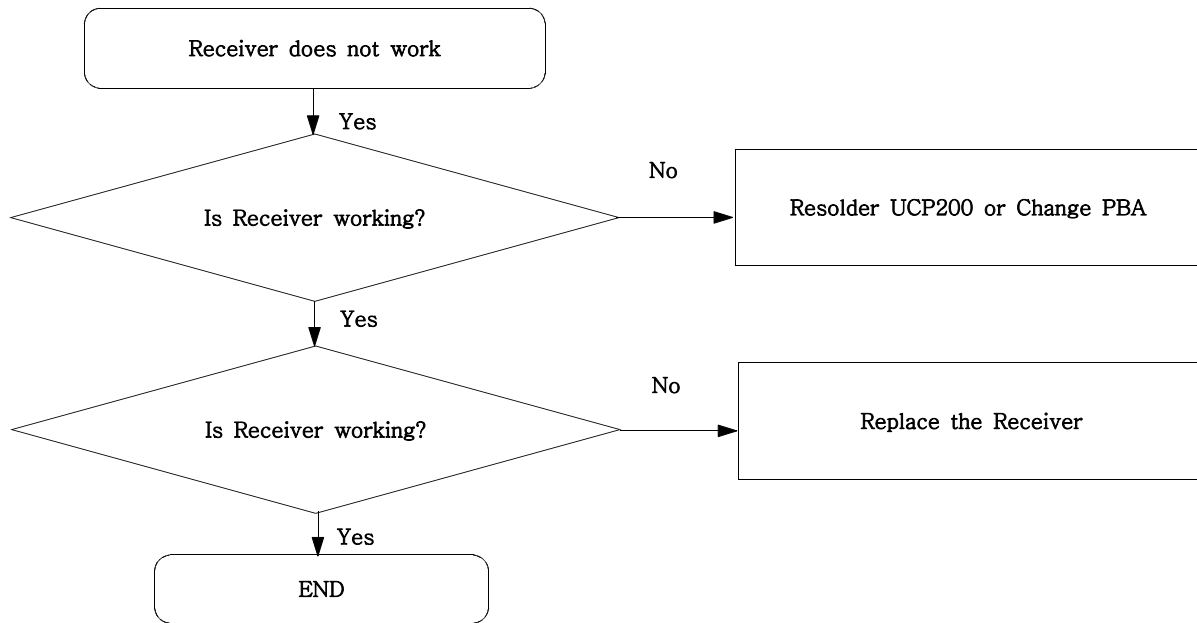




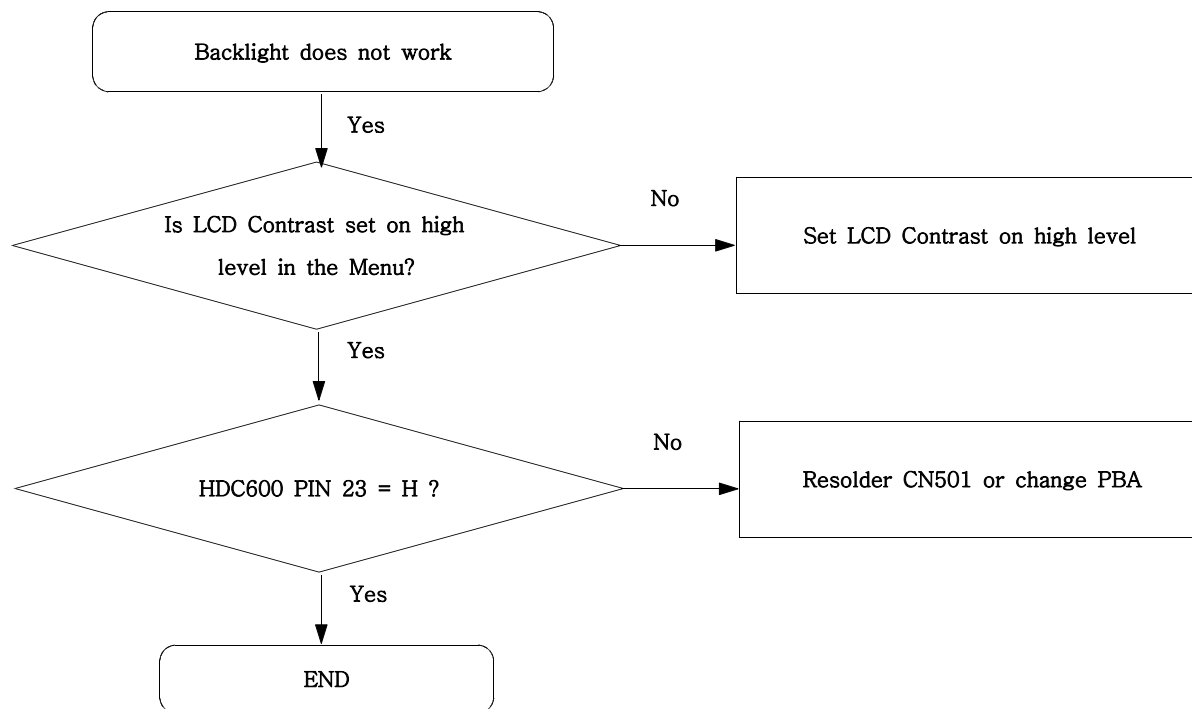
9-7. Key Data Input

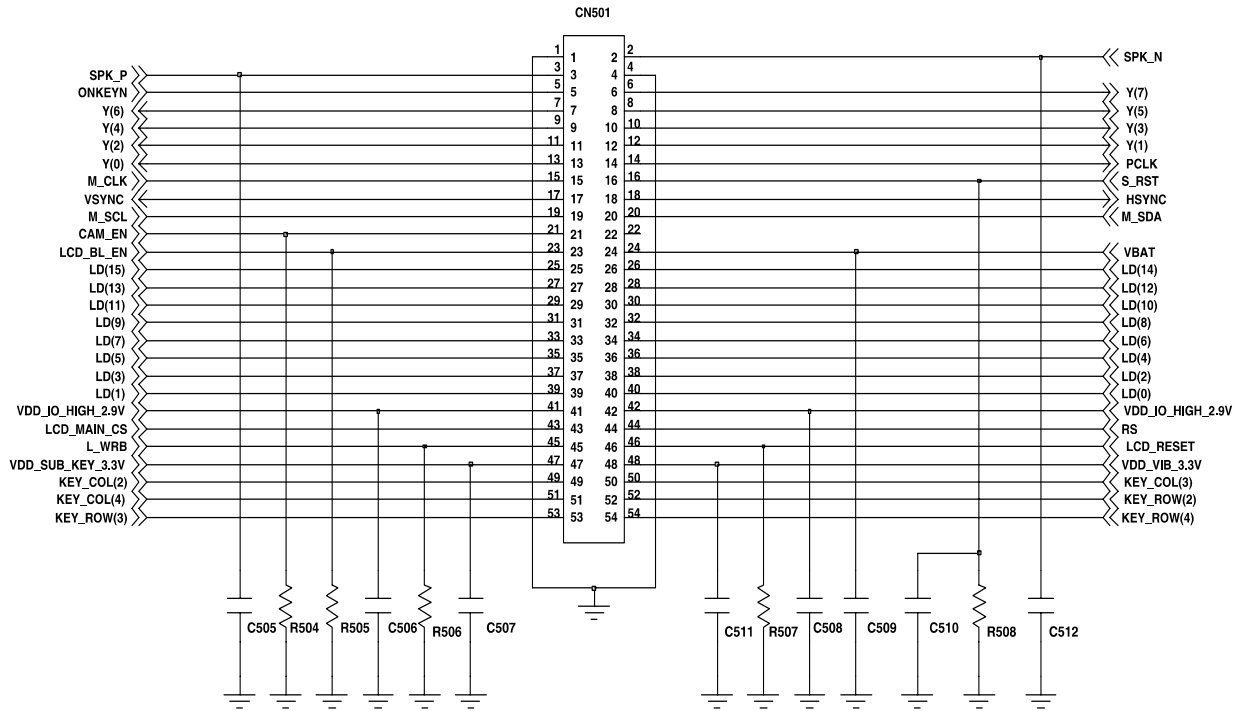


9-8. Receiver Part

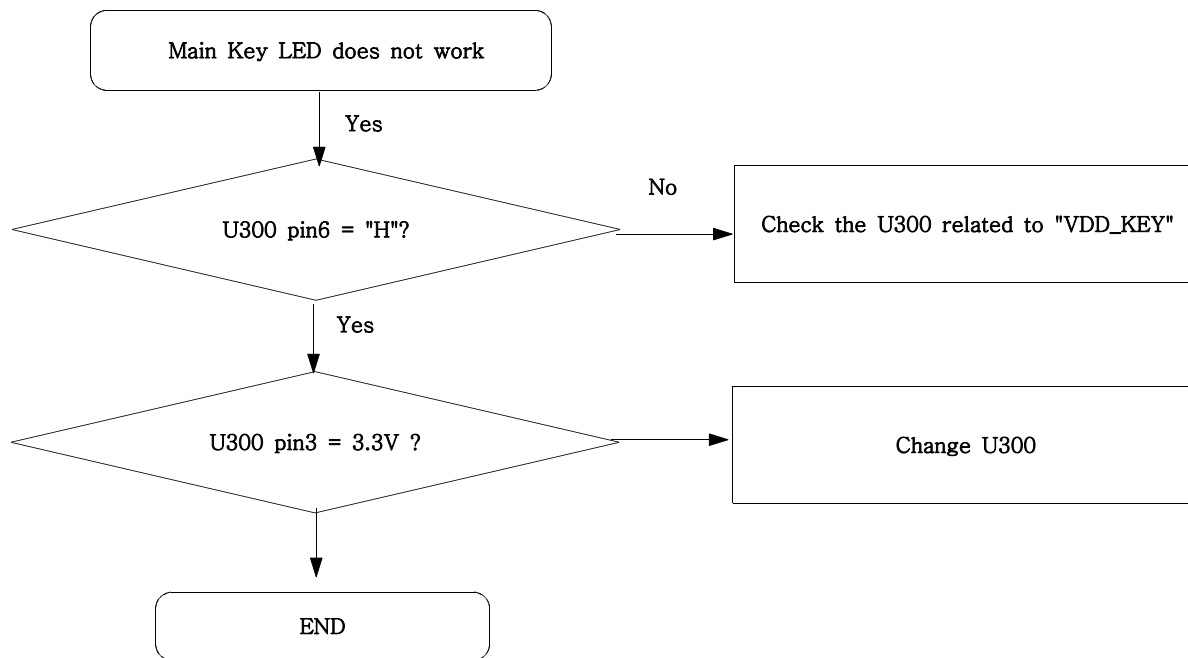


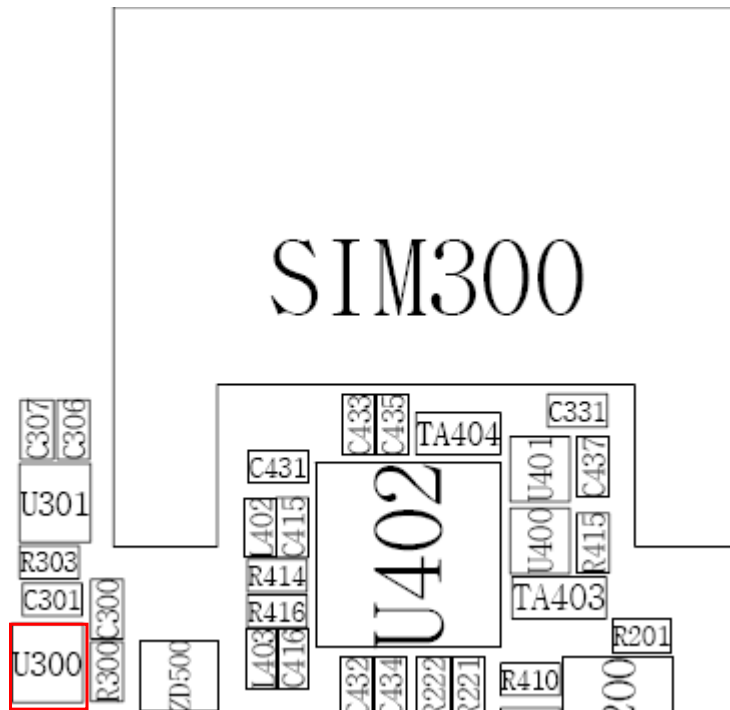
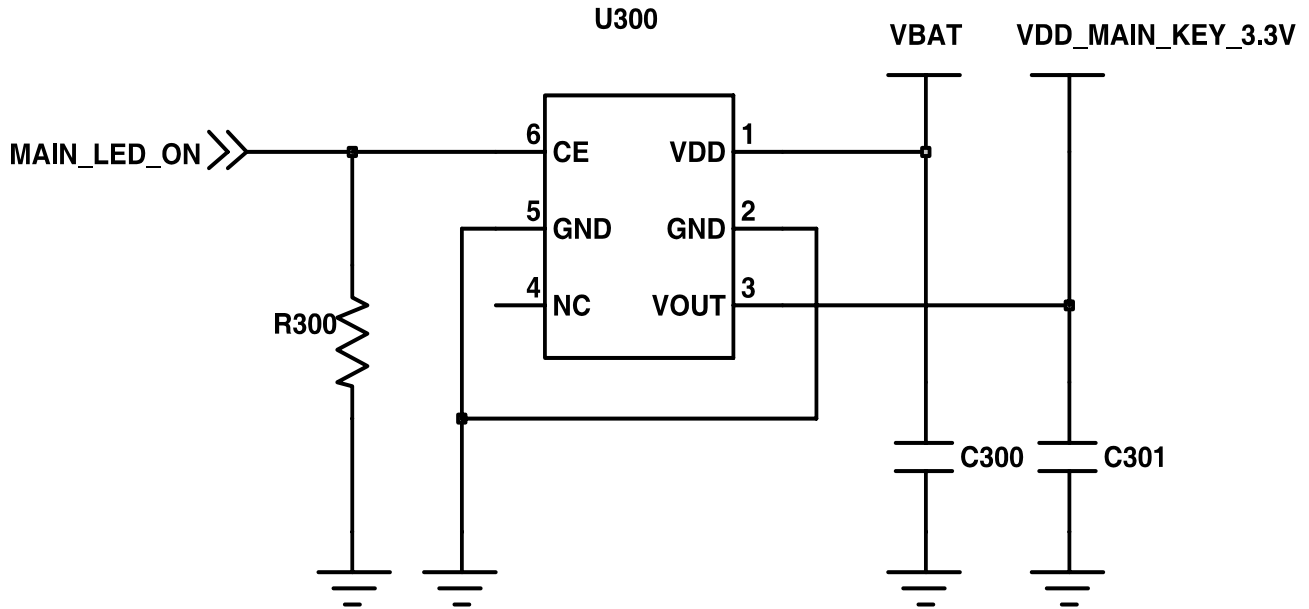
9-9. Back Light (for Color Main LCD)



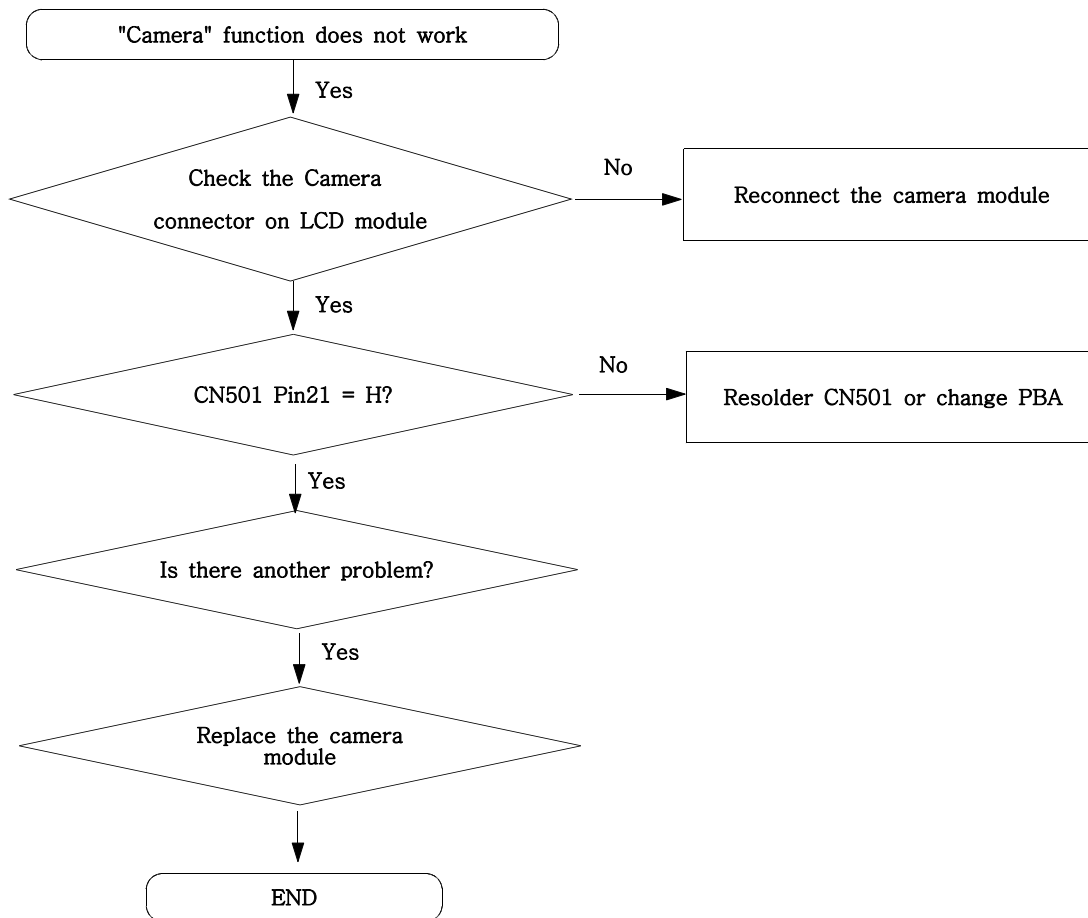


9-10. Key Back Light

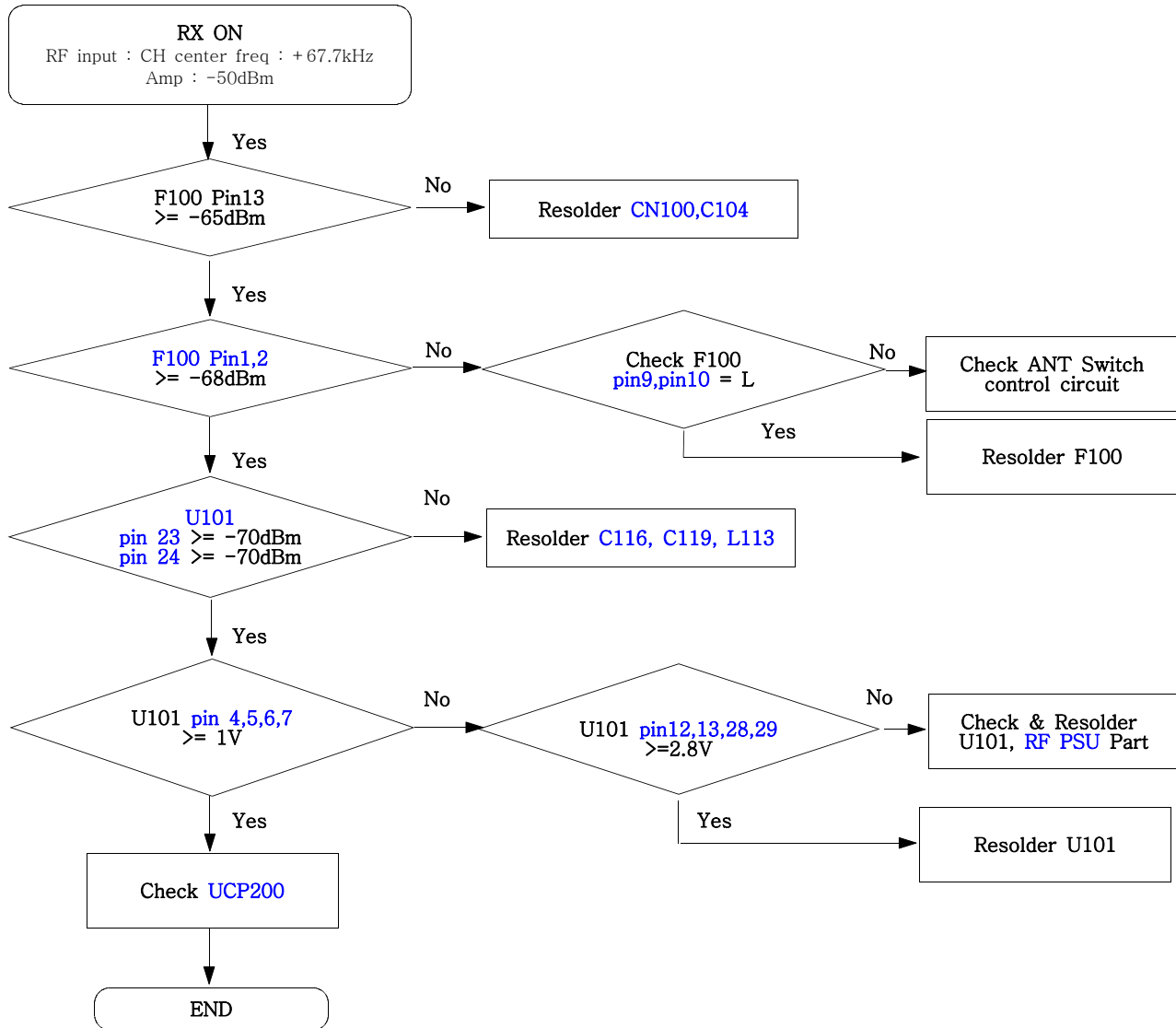




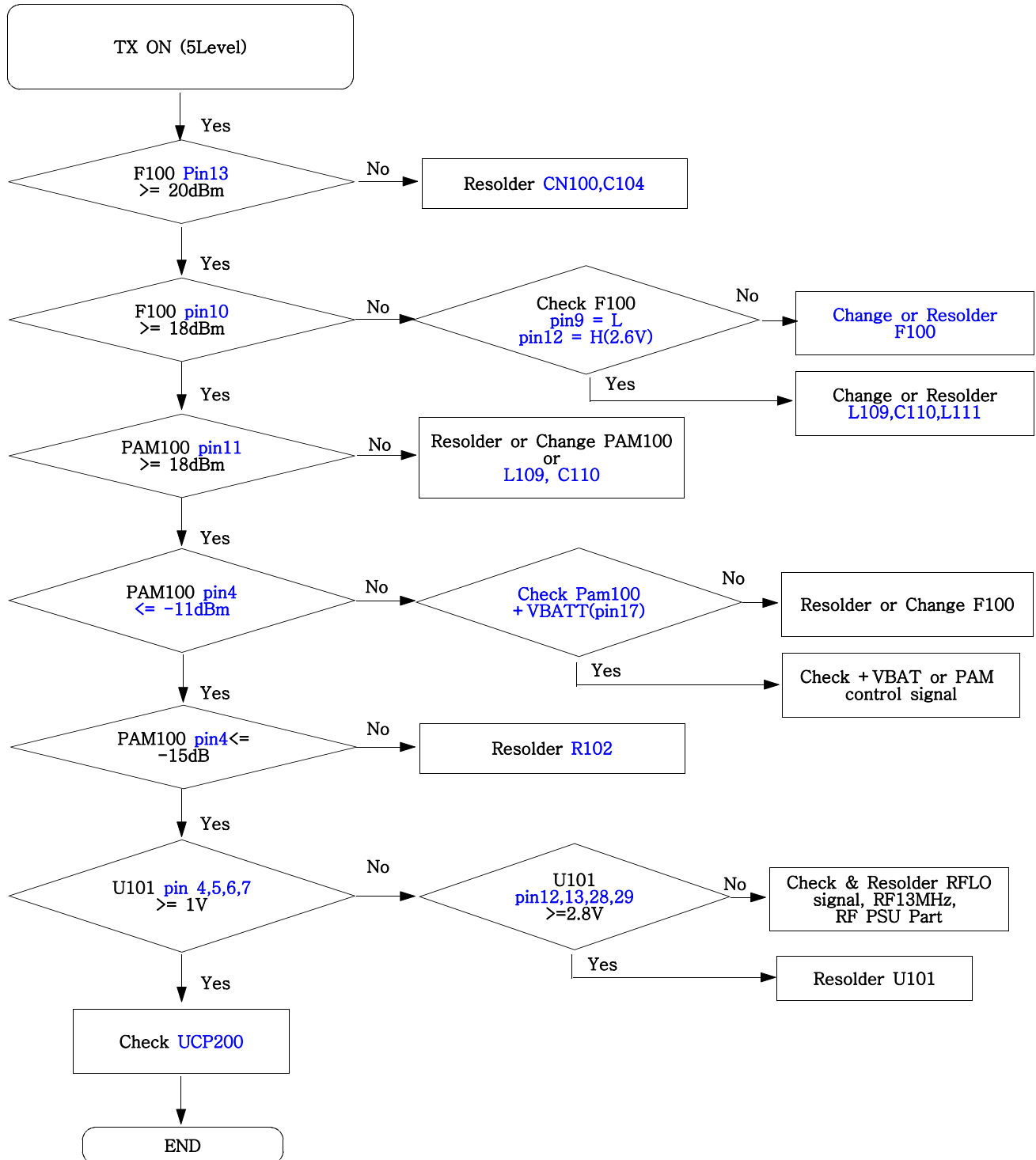
9-11. Camera part

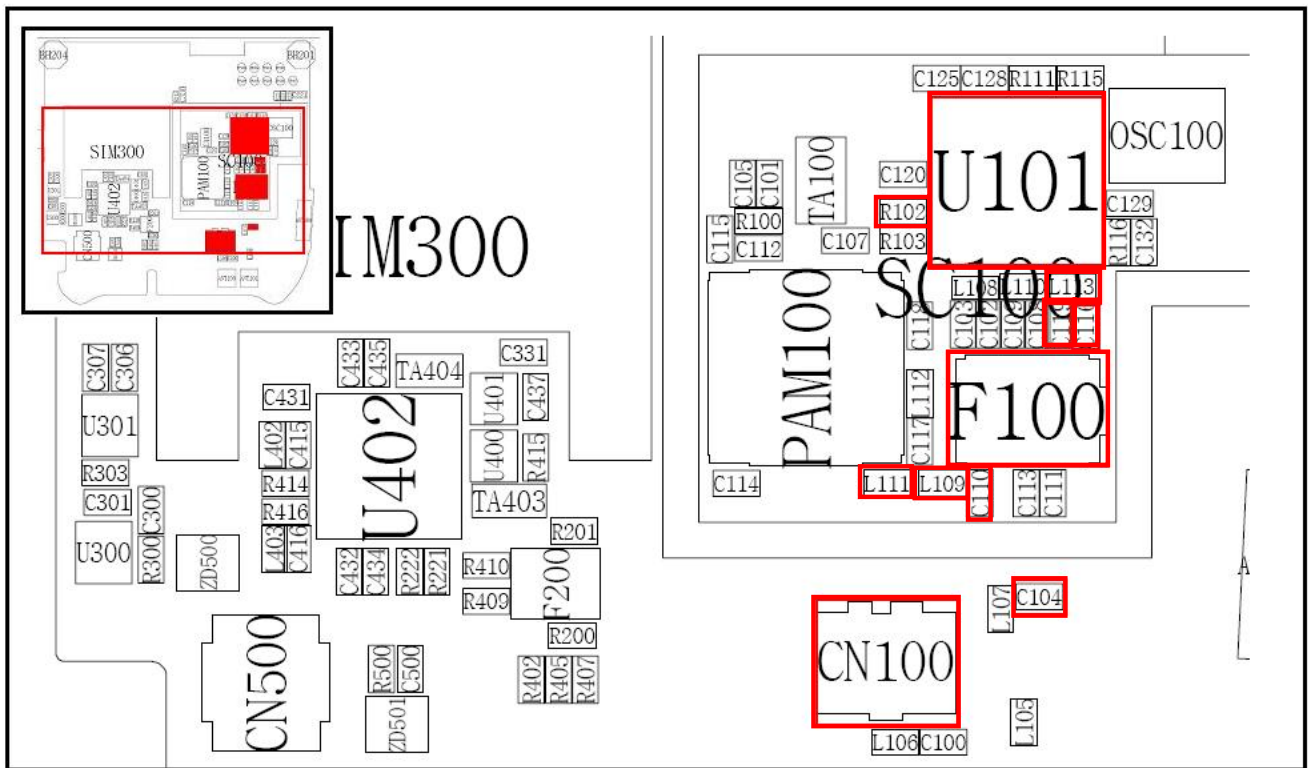
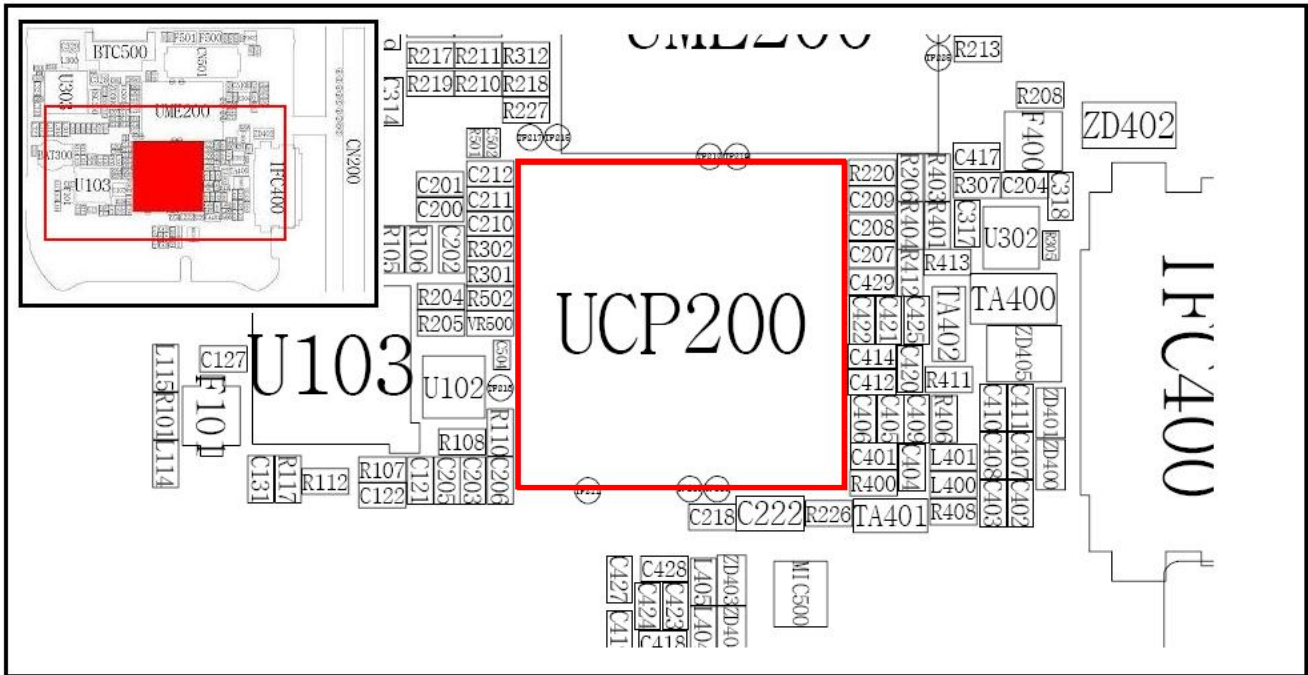


9-12. GSM Receiver

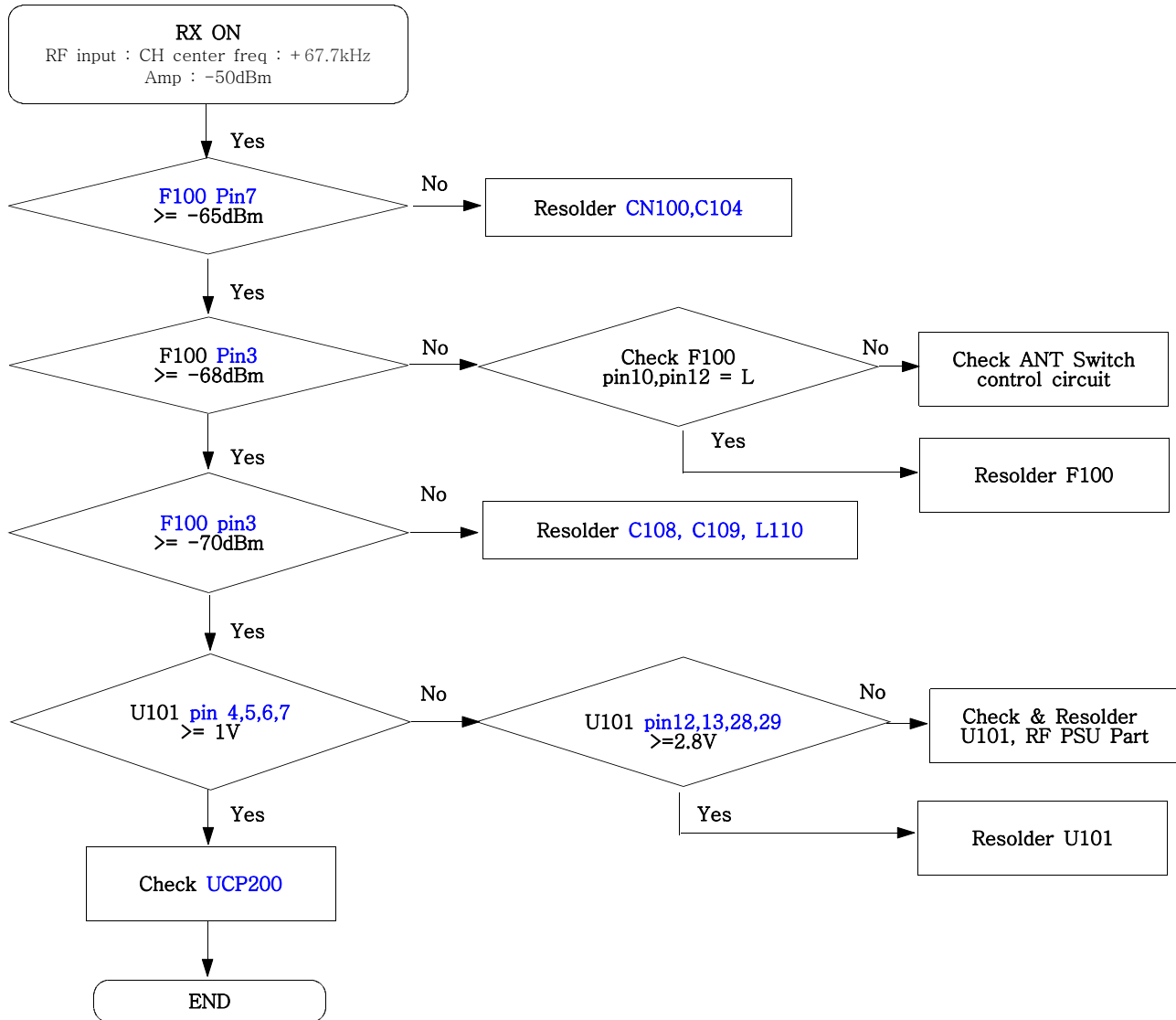


9-13. GSM Transmitter

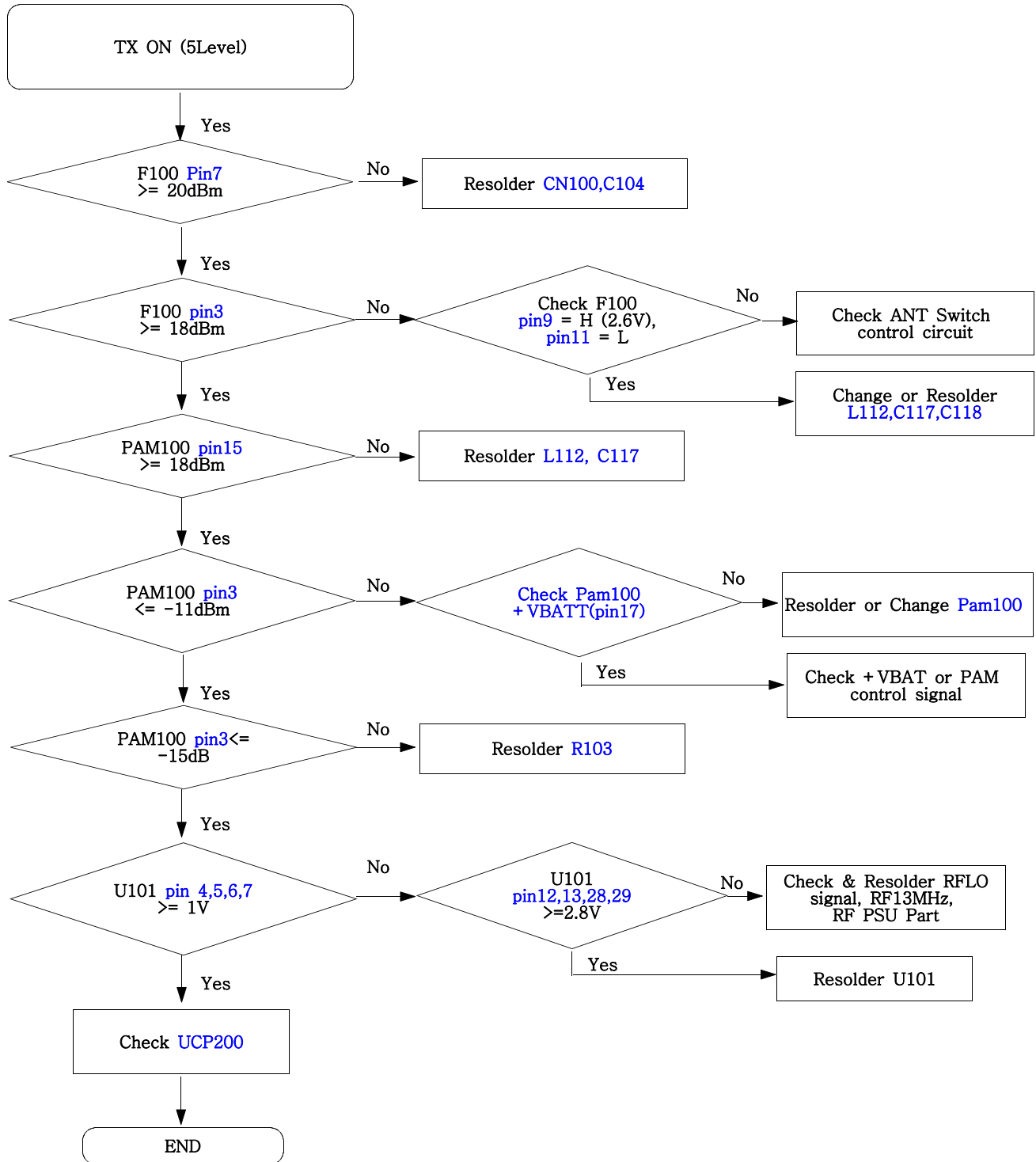


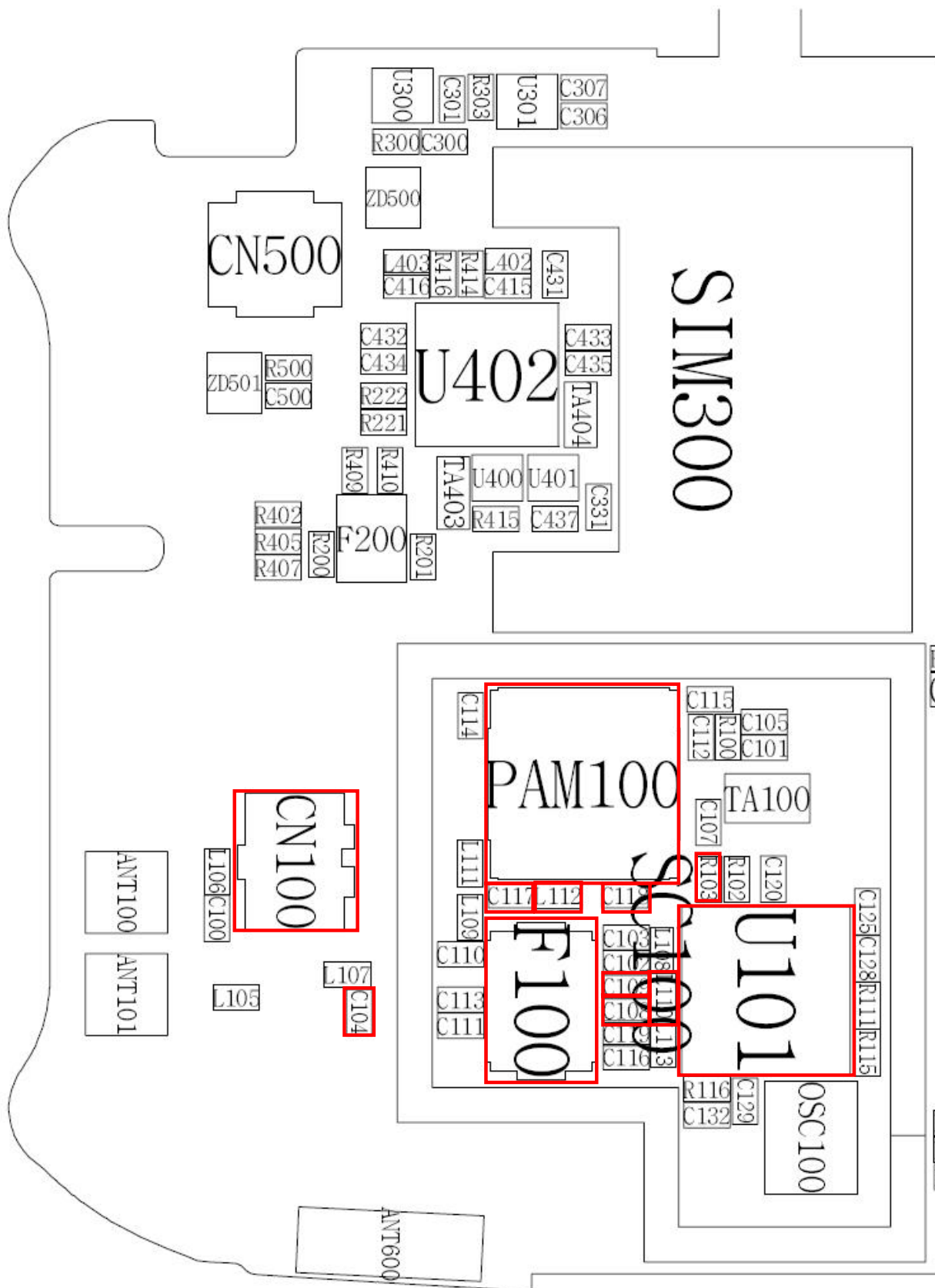


9-14. DCS Receiver

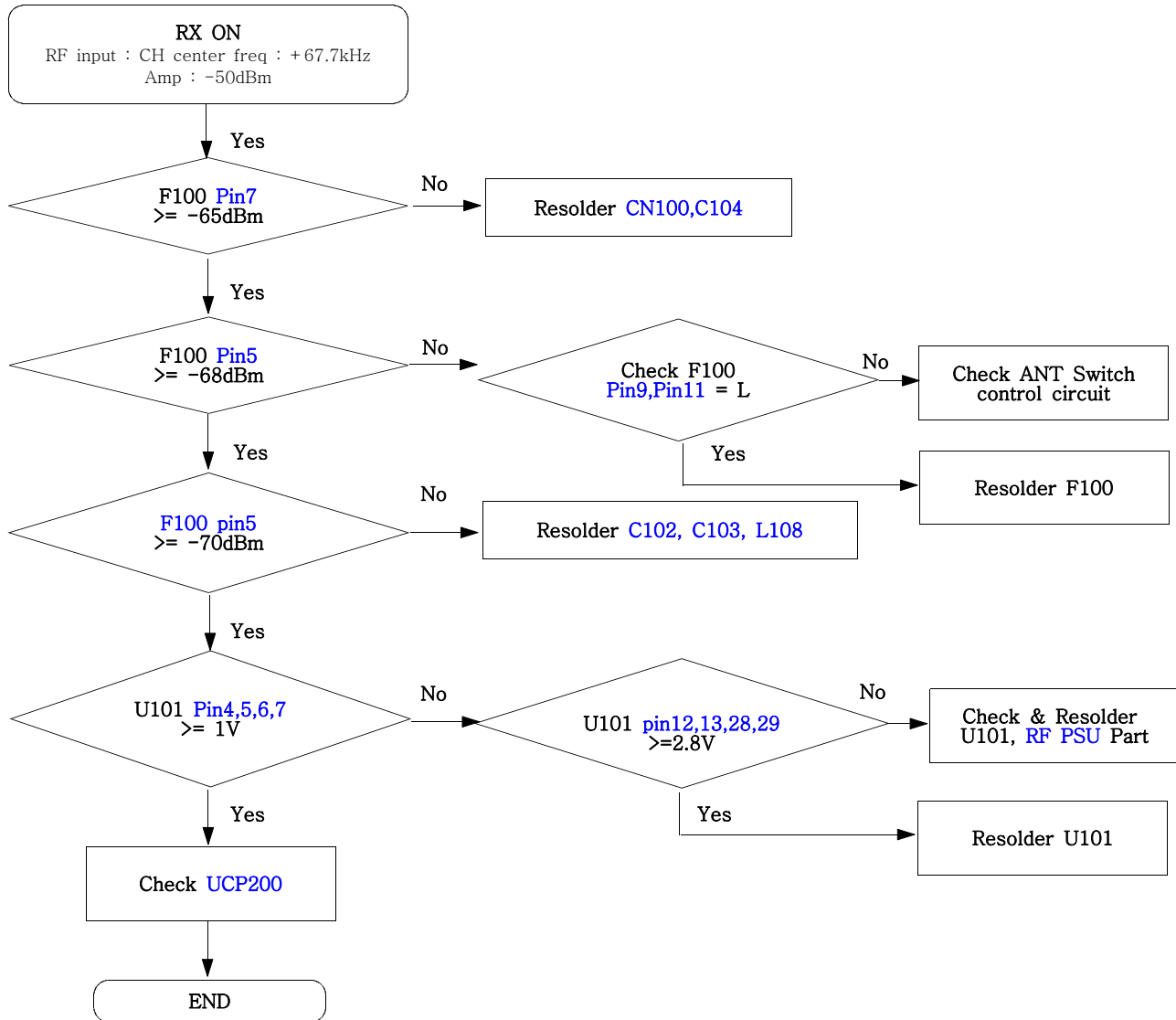


9-15. DCS Transmitter

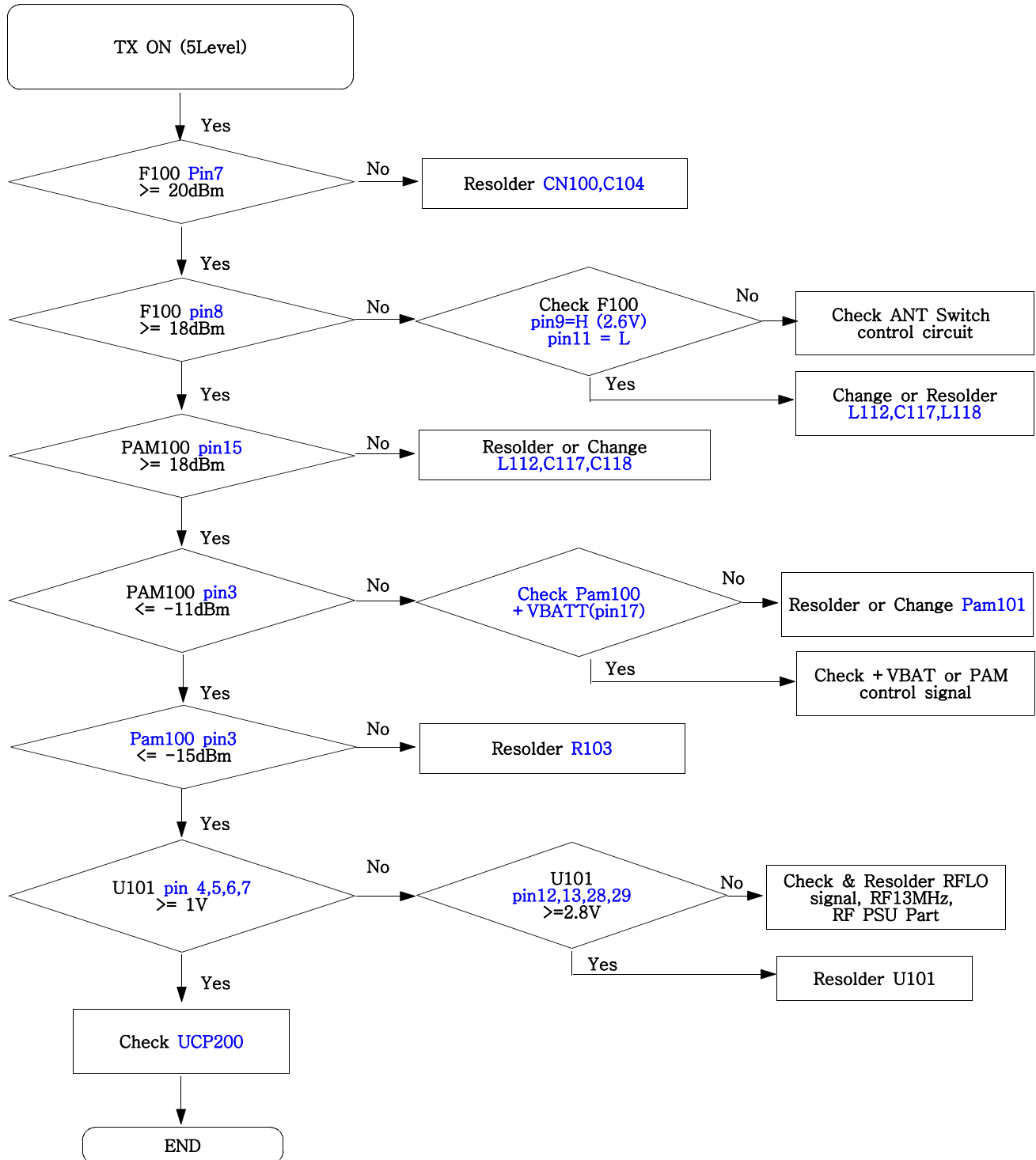


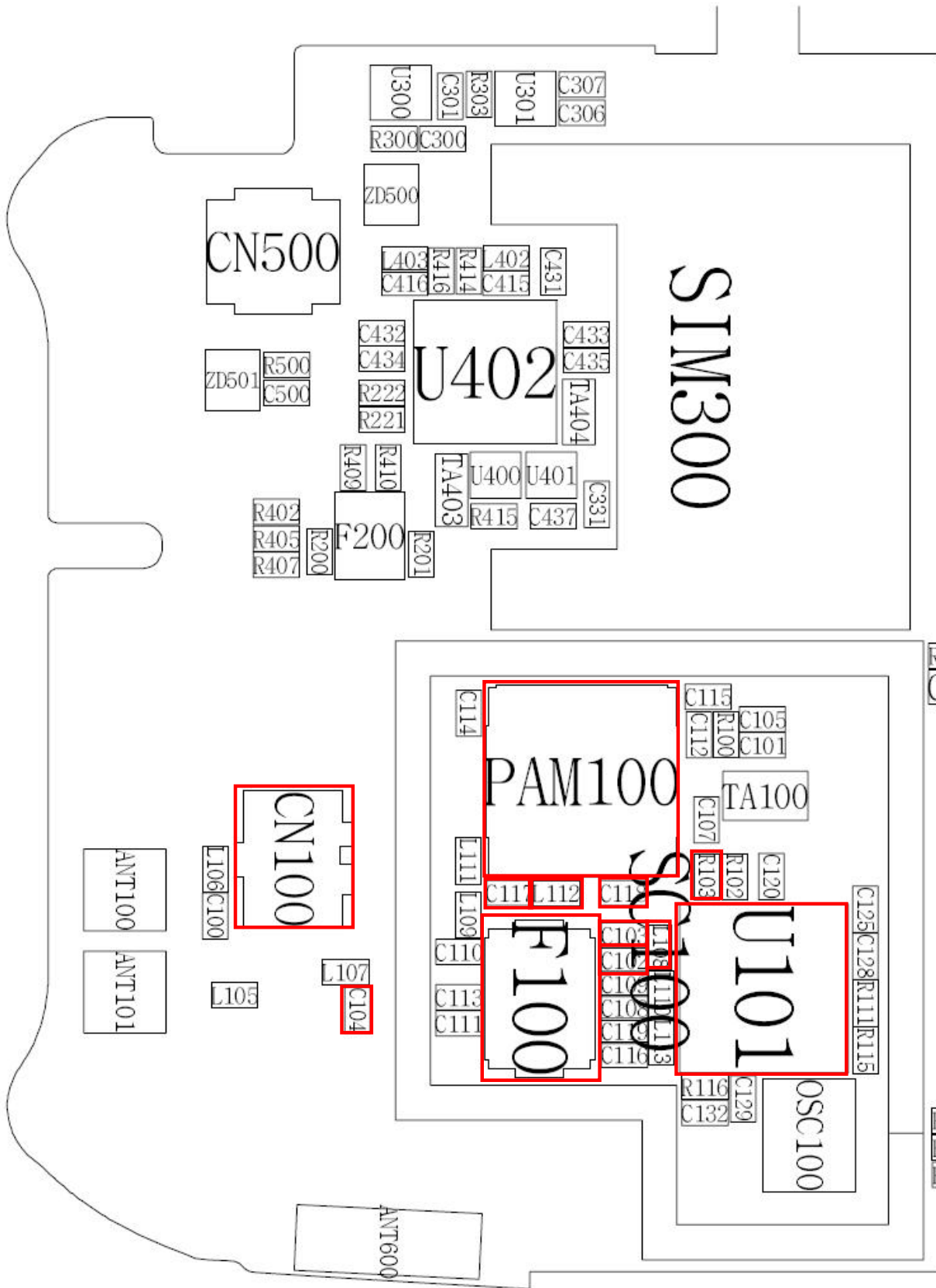


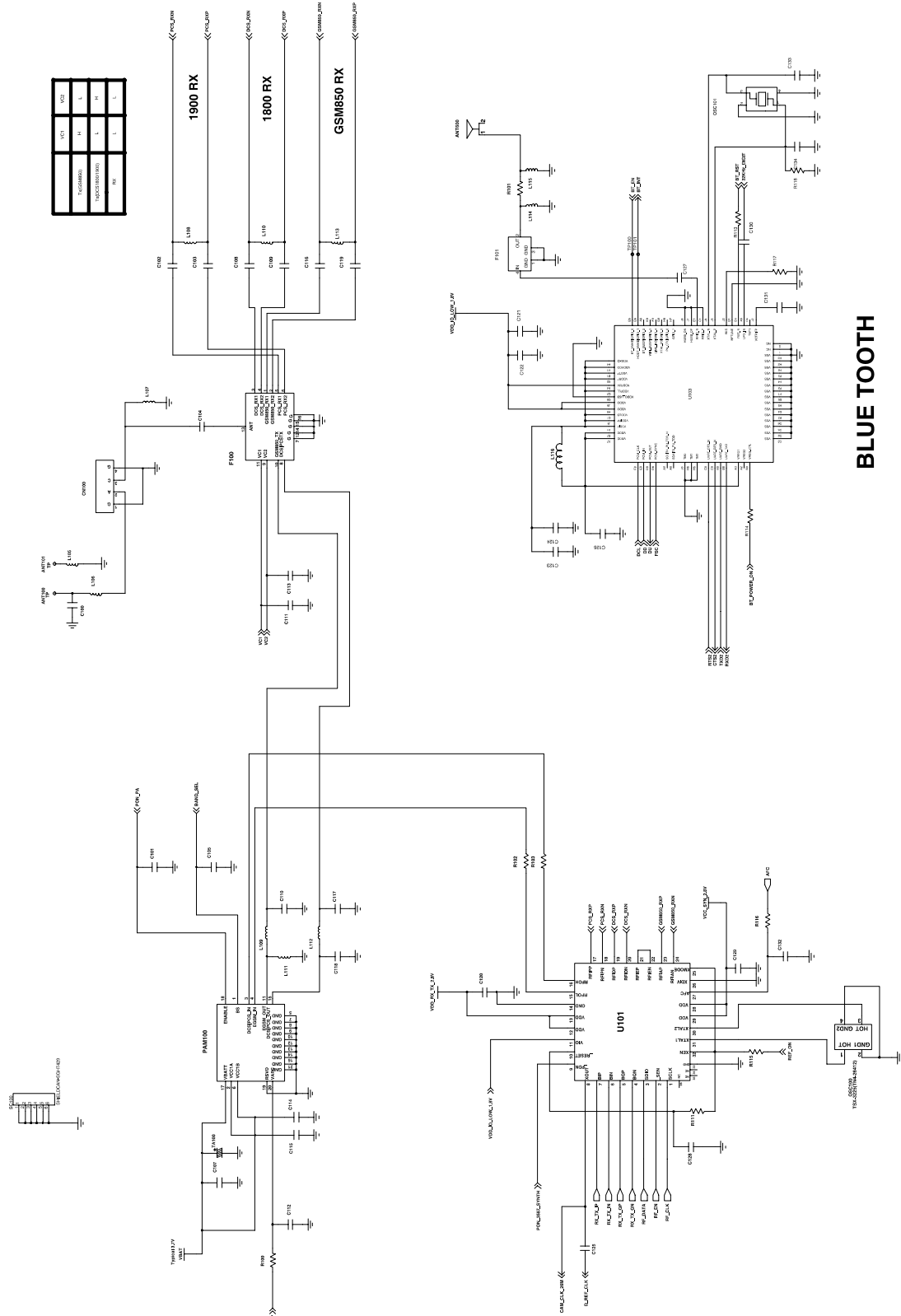
9-16. PCS Receiver



9-17. PCS Transmitter







10. Reference data

Reference Abbreviate

- **AAC**: Advanced Audio Coding.
- **AVC** : Advanced Video Coding.
- **BER** : Bit Error Rate
- **BPSK**: Binary Phase Shift Keying
- **CA** : Conditional Access
- **CDM** : Code Division Multiplexing
- **C/I** : Carrier to Interference
- **DMB** : Digital Multimedia Broadcasting
- **EN** : European Standard
- **ES** : Elementary Stream
- **ETSI**: European Telecommunications Standards Institute
- **MPEG**: Moving Picture Experts Group
- **PN** : Pseudo-random Noise
- **PS** : Pilot Symbol
- **QPSK**: Quadrature Phase Shift Keying
- **RS** : Reed-Solomon
- **SI** : Service Information
- **TDM** : Time Division Multiplexing
- **TS** : Transport Stream

