SAMSUNG

GSM TELEPHONE
SGH-i750

SERVICE *Manual*

GSM TELEPHONE

CONTENTS

1. Specification

1-1. GSM General Specification

	GSM900 Phase 1	EGSM 900 Phase 2	DCS1800 Phase 1	PCS1900
Freq. Band[MHz] Uplink/Downlink	890~915 935~960	880~915 925~960	1710~1785 1805~1880	1850~1910 1930~1990
ARFCN range	1~124	0~124 & 975~1023	512~885	512~810
Tx/Rx spacing	45MHz	45MHz	95MHz	80MHz
Mod. Bit rate / Bit Period	270.833kbps 3.692us	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	576.9us 4.615ms
Modulation	0.3GMSK	0.3GMSK	0.3GMSK	0.3GMSK
MS Power	33dBm~5dBm	33dBm~5dBm	30dBm~0dBm	30dBm~0dBm
Power Class	5pcl ~ 19pcl	5pcl ~ 19pcl	0pcl ~ 15pcl	0pcl ~ 15pcl
Sensitivity	-102dBm	-102dBm	-100dBm	-100dBm
TDMA Mux	8	8	8	8
Cell Radius	35Km	35Km	2Km	-

1-2. GSM TX power class

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

2. Circuit Description

2-1. SGH-i750 RF Circuit Description

2-1-1. ANTENNA SWITCH (U101:LMG003S-5091A)

→ Switching Tx, Rx path for EGSM900, DCS1800 and PCS1900 by logic controlling.

< Truth Table >

	VC1	VC2	VC3
Tx Mode (GSM900)	L	H	L
Tx Mode (DCS1800/1900)	L	L	H
Rx Mode (GSM900)	L	L	L
Rx Mode (DCS1800)	L	L	L
Rx Mode (PCS1900)	H	L	L

2-1-2. FILTER

To convert Electromagnetic Field Wave to Acoustic Wave and then pass the specific frequency band.

- GSM FILTER (F101) → For filtering the frequency band between 925 and 960 MHz
- DCS FILTER (F103) → For filtering the frequency band between 1805 and 1880 MHz.
- PCS FILTER (F102) → For filtering the frequency band between 1930 and 1990 MHz.

2-1-3. TRANSCEIVER (U102:UAA3587EHN/C2)

This chip is fully integrated GSM GPRS quad-band transceiver with transmit baluns, loop filters and most of the
passive component in it.
And also fully integrated fractional N RF synthesizer with AFC control possibility, RF VCO with integrated supply
regulator. Semi integrated reference oscillator with integrated supply regulator.
RF Receiver front-end amplifies the EGSM900, DCS1800 and PCS1900 aerial signal, convert the chosen channel
down to a low IF of 100kHz.
In IF section, further amplifies the wanted channel output level to the desired value and rejects DC.
The transmitter is fully differential using a direct up conversion architecture. It consists of a signal side band
power up mixer. Gain is controlled by 6 dB via 3-wire serial bus programing. The fully integrated VCO and power
mixer achieve LO suppression, quadrature phase error, quadrature amplitude balance and low noise floor specification.
Output matching/balun components drive a standard 50 ohms single ended load.

2-1-4. Power Amplifier Module (PAM101:BGY290E)

This chip is a GSM/EDGE compliant quad band Power amplifier module (PAM) with integrated power control loop (PCL). The GSM (GMSK) line up is similar to the EDGE line-up, in the EDGE mode the power control loop is disabled and the EDGE biasing (fine-tuning) control is enabled.

In the EDGE mode the device can be considered as a linear constant gain amplifier, the output power adjustment and ramping profiles have to be provided by controlling the output power of the transceiver

2-1-5. TCXO(TCX101:TCO-5871U 26MHz)

This system uses the 26MHz TCXO, TCO-5871U, Toyocom. AFC control signal form PCF5213 controls
frequency from 26MHz x-tal. It generates the clock frequency. This clock is connected to UAA3587.
This module generates the 26MHz reference clock to drive the logic and RF.
It is turned on when the supply voltage Vcc(SYN) is applied.
After buffering a reference clock of 26MHz is supplied to the other parts of the system through the transceiver pin CLKOUT.

2-2. Logic Circuit description of SGH-i750

2-2-1. Power Supply(U204:PCF50603)

8 low-dropout regulators designed specifically for GSM applications power the terminal and help ensure optimal system performance and long battery life. Dedicated SIM supply supports 3.0 V and 1.8 V cards including a power saving ECO mode for the power down mode of the SIM card.
Serial 400 kHz I2C interface to transfer the control data between the PCF50603 and the host controller.
I2C BUS serial interface provides access to control and configuration registers. This interface gives a microprocessor full control of the PCF50603 and enables system designers to maximize both standby and talk times.
Supervisory functions. including a reset generator, an input voltage monitor, and a temperature sensor, support reliable system design. These functions work together to ensure proper system behavior during start-up or in the event of a fault condition(low microprocessor voltage, insufficient battery energy, or excessive die temperature).

The CGU (clock generator unit) generates all internal and external clocks for the PCF50603.
The CGU offers the following features:
A free-running oscillator generating the internal high clock frequency (clkcco). The typical frequency of the high clock frequency is 3.6 MHz.

A 32.768 kHz crystal oscillator which provides an accurate low clock frequency for the PCF50603 and external circuitry.

For the POWER ON, the PHONE_ON pulse signal(logical low) for 200ms from PDA turns on U204(PCF50603).
For the POWER OFF, by pressing POWER KEY of the phone application, the PHONE_ON pulse signal(logical low) for 1s from PDA turns off U204(PCF50603) and all phone device.

The regulated voltage(U204,+VDD_GSM_CORE) is used in Core block of PCF5213.
The regulated voltage(U204,+VDD_IO_HIGH, +VDD_IO_LOW) is used in the digital part of PCF5213.
The regulated voltage(U204,+AVDD, +AVDD_HFA) is used in the analog part of PCF5213.
The regulated volgtage(U204,+VDD_RX_TX) is used in the RX and TX RF part.
The regulated Voltage(U204,+VCC_SYN) is used in the RF part.

2-2-2. Logic Part

The logic part consists of internal CPU of MODEM, Memory.

GSM MODEM(UCP201:PCF5213EL1)

The PCF5213EL1 is mainly composed of embeded DSP and ARM core.The DSP subsystem includes the Saturn DSP core with embedded RAM and ROM, and a set of peripherals. It has 24kx16 bits PRAM, 104k*16 bits, 32k*16 XYRAM and 63k*16 XYROM in the DSP.
The ARM946E-S consists of an ARM9E-S processor core, 8 kbyte instruction cache and 8 kbyte data cache, tightly-coupled ITCM(Instruction Tightly Coupled Memory) and DTCM(Data Tightly Coupled Memory) memories, a memory protection unit, and an AMBA(Advanced Microcontroller Bus Architecture) AHB(Advanced High-performance Bus) bus interface with a write buffer.
HD(0:15), data lines and HA(0:23), address lines are connected to S71WS256NC0(memory). It has 64 kbyte SC RAM (0.5 Mbit) and 32 kbyte SC program ROM for bootstrap loader in the ARM core.
HD(0:15), data lines and HA(0:23), address lines are connected to memory and YMU765 to communicate. OEn, WEn control the access of memory. KROW, and KCOL recognize the key string input status.
It has J-TAG control pins (TDI/TDO/TCK) for ARM and DSP core. J-SEL signal controls different access to ARM and DSP core. ADC(Analog to Digital Convertor) receives battery voltage.

MCP : FLASH ROM and UtRAM (UME201:S71WS256NC0)

This system uses Spansion's memory, S71WS256NC0. The S71WS256NC0 is a Multi Chip Package Memory which combines 256Mbit Synchronous Burst Multi Bank NOR Flash Memory and 64Mbit Synchronous Burst U tRAM. It has 16 bit data line, HD[1~16] which is connected to PCF5213, also has 24 bit address lines, HA[1~24]. There are 2 chip select signals, CS0n_FLASH and CS1n_RAM.

In the Wrting process, WEn is fallen to low and it enables writing process to operate. During reading process, OEn is fallen to low and it enables reading process to operate. Each chip select signals in the PCF5213 choose different memories.

DPRAM Memory(UME401:70P248L55BYI) - 4Kx16 dual port RAM

It is accessed by Phone and PDA, but not accessed simultaneously.
Generally, Instructions and data used by Phone and PDA are stored.

Clock(TCX101:TCO-5871U 26MHz)

This system uses the 26MHz TCXO, TCO-5871U, Toyocom. AFC control signal form PCF5213 controls frequency from 26MHz x-tal. It generates the clock frequency. This clock is connected to PCF5213 (UCP201) and UAA3587(U102).

2-2-3. Audio Part

EAR1 and EAR2 from PCF5213 are connected to the main speaker and receiver via Audio Codec(WM9712). MIC_P and MIC_N are connected to the main MIC as well.

2-2-4. PDA PART

The PDA logic part consists of power supply part, MPU & memory part, LCD part, audio part and all the peripherals.

(1) POWER SUPPLY

When the battery is inserted to the handset,
VBAT makes VCC_BATT, VCORE14, VPLL13, VSRAM11 via U604(MAX1587) which is a CPU voltage

VCC30 via U604(MAX1587) which is CPU & peripheral voltage,
VMODOC30 via U619(AS1352-C0CF) which is a M-DOC memory voltage,
VDPRAM18 via U619(AS1352-C0CF) which is a DPRAM voltage,
VAUDIO30 via U619(AS1352-C0CF) which is a Audio Codec voltage,
VAUDIO30A via U501(R1114D301D) which is a Audio Codec Analog voltage,
VWLAN18,VWLAN30 via U619(AS1352-7BC0) which is a WLAN voltage,
VTV29,VTV25 via U619(AS1352-7BC0) which is a TV-Out voltage,
VMOTOR33 via U619(AS1352-7BC0) which is a vibrator voltage,
VBT30 via U618(XC6401EE27DR) which is a Buletooth voltage,

VBAT33 via U618(XC6401EE27DR) which is a backup battery charging voltage,
VMICBAIS via UCD501(WM9712LEFL) which is a MIC vias voltage,
VCAM15,VCAM-8,VCAM30,VCAM18 via U703(BD6020GU) which is a Camera voltage,
VCAM31 via U701(BH31FB1WHFV) which is a Camera voltage.

Backup Battery(ML1220-TT2)

The SGH-i750 has a back-up battery(ML1220-TT2) that stores data of SDRAM when the battery removed or becomes low battery state that is below 2.8V.
The low battery state is checked by voltage detector or R3111Q281C(U607).
If the battery level is below 2.8V, nPOWER_FAIL signal is asserted. Then the backup DC/DC converter(U603, MAX1676) output path is connected to VDD30 which is MPU, SDRAM voltage.
Backup battery supply main voltage or VDD30. If backup battery voltage is below 2V, discharging path is disabled.

(2) MPU & Memory part

MCP(UCP301:RTPXA270C5C416)

- ARM Architecture
- Built in Memory Controller, LCD Controller, AC97 Controller and MMC Controller
- Intel® PXA270 processor
- Clock and Power Controllers
- It has a variety of different system peripherals and controls all the peripheral circuitry.
- 13x13mm VFBGA package

NAND FLASH Memory(UME402:MD4331-D1G-V3Q18-X)

- M-Systems Mobile Disk On Chip
- NAND-based flash technology that enables high dencity
- 128MByte flash memory is used to store the PDA executable program and necessary data files.

SDRAM Memory(UME403:K4M513233E)

Samsung CMOS technology
- 64MByte capacity Mobile Synchronous Dynamic RAM.
- It is used as a application program execution space, temporary data space to store the internal flag information, timer data, and user data files.

DPRAM Memory(UME401:70P248L55)

4Kx16bit dual port RAM

- It is accessed by Phone and PDA, but not accessed simultaneously.
- Generally, Instructions and data used by Phone and PDA are stored.

(3) LCD part

PXA270 has a LCD controller.

LCD module

- A transmissive type color active matrix TFT
- It is composed of a TFT LCD module(TFT LCD panel, driver ICs), a Backlight unit and a touch screen panel.
- The resolution of 2.4inch contains 240x320 pixels and can display 65K colors.

(4) Audio part

PDA plays audio files via WM9712 and the voice of the phone is connected to the WM9712.

Audio Codec(UCD501:WM9712LEFL)

The WM9712 is a high quality stereo codec with an integrated touch screen controller.
Interfaced to PXA270 via AC'97 protocol.

- AC'97 Rev 2.2 specification
- Headphone outputs
- A complete 4-wire touch screen controller

(5) Wireless Part

Antenna(C1103RS)

Antenna receives signal from AP(Access Point) or other devices.
It is a ISM(industrial, Scientific, Medical frequencies) Band Antenna that covers only 2.4 GHz.

Module(MOD800:LBWA1UDBD7-093)

The Wi-Fi Module which uses Philips Chip is manufactured by MuRata. It only supports 802.11b Specification and communicates with CPU through SPI Interface. The data throughput is up to 11 Mbps in the abstractly but typically supports 4Mbps in the real field.
Modulation method is DSSS(Direct Sequence Spread Spectum).
Its channel spacing is 5MHz and bandwidth is 22 MHz.

(6) Bluetooth Part

Antenna(C1103LJ)

Antenna receives signal from AP(Access Point) or other devices.
It is a ISM(industrial, Scientific, Medical frequencies) Band Antenna that covers only 2.4 GHz.

Module(U801:BTEZ1702SA)

The Bluetooth Module which uses CSR's BC02-Audio is manufactured by SEMCO. It only supports 802.15 Specification(Bluetooth Specification 1.1) and communicates with CPU through UART Interface. The data throughput is up to 1 Mbps in the abstractly but typically supports 723 / 57.6 Kbps in an asynchronous mode and 432.6 kbps in a synchronous mode.
Modulation method is FHSS(Frequency hopping spread spectrum) and it hops 1600 times a second.
Its channel spacing is 1MHz and bandwidth is 1MHz.

(7) All the Peripherals

Camera

A highly integrated single chip CCD color sensor implemented by 2M CCD sensor process realizing high sensitivity and wide dynamic range.
Total pixel array size is 1632x1224.

Memory card

The MultiMediaCard Controller on the Intel PXA270 can communicate with either:

- a MultiMediaCard (MMC)
- a Secure Digital (SD) Memory Card
- a Secure Digital I/O (SDIO) Card

IrDA(HSDL-3002)

IrDA Data Compliant 115.2kbit/s with Remote Control Transmission Infrared Transceiver.

A small form factor single enhanced infrared transceiver module that provides the combination of Interface between logic and IR signals for through-air, serial, half-duplex IR data link, and IR remote control transmission operating at 940nm for universal remote control applications.

USB

There is a USB Client in the Phone part and PDA part each.

The USB signals are switched to the interface connector via MUX(U712, MAX4636).

The USB interface of the Phone part is used for data service.

The USB of the PDA part is used for downloading user files and application programs by ActiveSync to PC.

UART

There is a UART port in the Phone part and PDA part each.

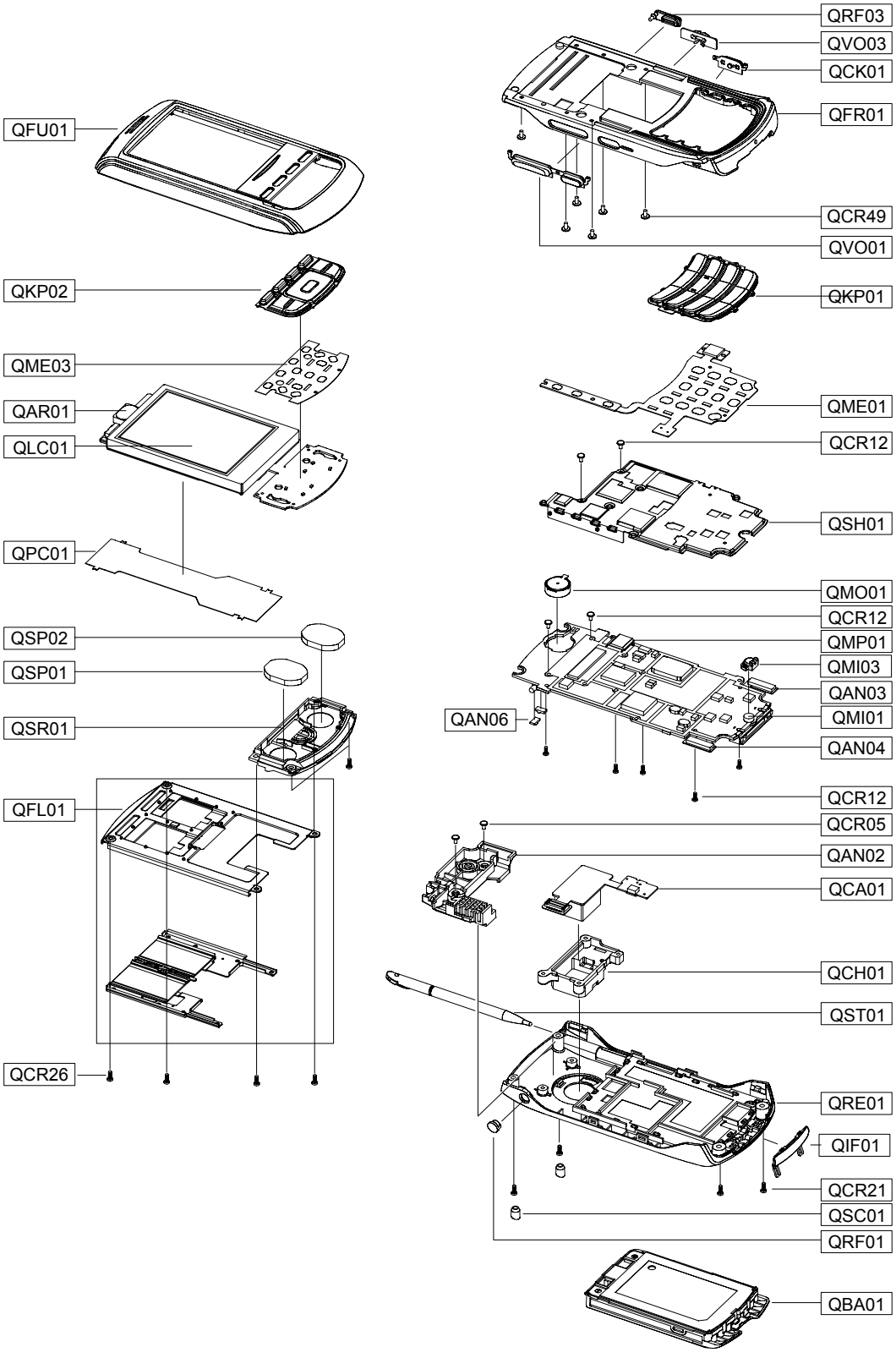
The UART interface of the Phone part is used for downloading.

KEYPAD

For user interface, a keypad is used for function. For key recognition, a key matrix is set up using signals KBC_(0)~(6) and KBR_(0)~(4) of the PXA270.

3. Exploded View and Parts List

3-1. Exploded View



3-2. Parts List

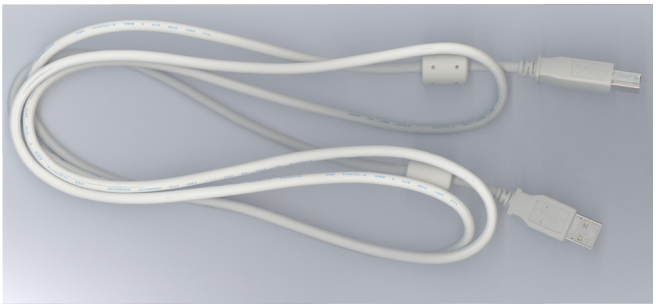
Location No		Description	SEC CODE
QAN02		INTENNA-SGHI750	GH42-00619A
QAN03		INTENNA-CHIP INTENNA	GH42-00621A
QAN04		INTENNA-CHIP INTENNA	GH42-00622A
QAN06		MEC-RUBBER INT CON	GH75-09093A
QAR01		AUDIO-RECEIVER	3009-001158
QBA01		BATTERY-1100MAH,BLK,ENG,M	GH43-02057A
QCA01		UNIT-CAMERA	GH59-02704A
QCH01		MEC-BRACKET CAMERA	GH75-07501A
QCR05		SCREW-MACHINE	6001-001478
QCR12		SCREW-MACHINE	6001-001530
QCR21		SCREW-MACHINE	6001-001507
QCR26		SCREW-MACHINE	6001-001850
QCR49		SCREW-MACHINE	6001-001823
QFL01		MEC-SLIDE LOWER	GH75-09092A
QFU01		MEC-SLIDE UPPER	GH75-07491A
QIF01		PMO-IF COVER	GH72-22903A
QKP01		MEC-KEYPAD MAIN	GH75-07495A
QKP02		MEC-KEYPAD SUB	GH75-07496A
QLC01		LCD-SCHI819 MODULE	GH07-00748A
QME01		UNIT-KEY PAD	GH59-02271A
QME03		UNIT-SUB FPCB	GH59-02270A
QMI01		MICROPHONE-ASSY-SGHE640	GH30-00201A
QMI03		RMO-MIC HOLDER A	GH73-06639A
QMO01		MOTOR DC-SGHI750	GH31-00224A
QMP01		PBA MAIN-SGHI750	GH92-02276A
QPC01		MEA-SLIDE FPCB KIT	GH97-05723A
QRF01		RMO-RF COVER	GH73-04999A
QSC01		PMO-SCREW COVER	GH72-29968A
QSH01		MEC-SHIELD COVER	GH75-07500A
QSP01		0.7W,8OHM	3001-001936
QSP02		0.7W,8OHM	3001-001937
QSR01		MEC-BRACKET SPK	GH75-07497A
QST01		MEC-STYLUS	GH75-06671A
QRE01		MEC-REAR COVER	GH75-07498A
	QCR12	SCREW-MACHINE	6001-001530
QFR01		MEC-FRONT COVER	GH75-07494A
	QCK01	MEC-KEY CAMERA	GH75-09113A
	QRF03	PMO-COVER EAR V2	GH72-28948A
	QVO01	PMO-VOLUME KEY	GH72-26236A
	QVO03	PMO-KEY SLIDE	GH72-27078A

Description	SEC CODE
BAG PE	6902-000634
CBF INTERFACE-AV CABLE	GH39-00410A
CBF INTERFACE-PC DATA LINK CAB	GH39-00567A
CHARGER-BLK DTC	GH44-01153A
CHARGER-SGHI750 TC	GH44-01193A
S/W CD-USER GUIDE CD	GH46-00195A
S/W CD-COMPANION CD(ENG)	GH46-00207A
EARPHONE-STEREO EAR PHONE	GH59-02236A
LABEL(P)-IMEI	GH68-01335D
LABEL(P)-WATER SOAK	GH68-02026A
MANUAL USERS-QRG	GH68-08984A
LABEL(R)-MAIN (EU)	GH68-09316A
MANUAL USERS-BIZCARD LEAFLET	GH68-09551A
CUSHION-CASE MAIN(NEW)	GH69-03631A
BOX(P)-UNIT(EU)	GH69-03666A
RMO-RUBBER WIFI	GH73-06322A
RMO-CUSION RUBBER BT	GH73-07074A
RMO-RUBBER CAMERA UPPER	GH73-07177A
MPR-BOHO VINYL LCD CONN	GH74-15350A
MPR-SPONGE BATTERY	GH74-20583A
MPR-TAPE CONN A	GH74-20584A
MPR-TAPE CONN B	GH74-20585A
MPR-TAPE CONN C	GH74-20586A
MPR-TAPE CONNECTER	GH74-20587A
MPR-TAPE INTENNA	GH74-20589A
MPR-SPONGE KEY CONN	GH74-20591A
MPR-SPONGE CAMERA CONN	GH74-20592A
MPR-VINYL BOHO REAR	GH74-20594A
MPR-VINYL BOHO REAR	GH74-20594A
MPR-VINYL BOHO CAM OUT	GH74-20907A
MPR-VINYL BOHO CAM IN	GH74-20908A
MPR-VINYL BOHO LCD	GH74-21233A
MPR-TAPE BT/WLAN	GH74-21680A
MPR-TAPE GASKET CONNECTOR	GH74-22014A
MPR-SPONGE CAMERA	GH74-22017A
MPR-TAPE CAMERA BASE	GH74-23796A
AS-DOME SHEET	GH81-03692A

3-3. Test Jig

(GH80-03308A)

3-3-1. USB JIG Cable



3-3-2. RF Test Cable

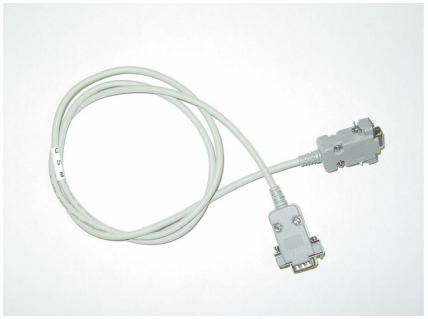
(GH39-00261A)

3-3-3. Test Cable

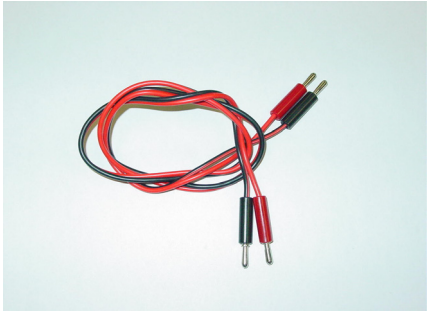
(GH39-00477A)

3-3-4. Serial Cable

(CSA LL64151-A)



3-3-5. Power Supply Cable



3-3-6. DATA CABLE

(GH39-00350A]

3-3-7. TC

(GH44-01193A)

4. Electrical Parts List

Ddsign LOC	Discription	SEC Code	STATUS
BTC601	HEADER-BATTERY	3711-005897	SA
C100	C-CER,CHIP	2203-000233	SA
C104	C-CER,CHIP	2203-000233	SA
C107	C-CER,CHIP	2203-000425	SA
C111	C-CER,CHIP	2203-000233	SA
C114	C-CER,CHIP	2203-000278	SA
C115	C-CER,CHIP	2203-000233	SA
C116	C-CER,CHIP	2203-000233	SA
C117	C-CER,CHIP	2203-000696	SA
C119	C-CER,CHIP	2203-000425	SA
C121	C-CER,CHIP	2203-000386	SA
C123	C-CER,CHIP	2203-006260	SA
C124	C-CER,CHIP	2203-000254	SA
C125	C-CER,CHIP	2203-000812	SA
C127	C-CER,CHIP	2203-000233	SA
C128	C-CER,CHIP	2203-000679	SA
C130	C-CER,CHIP	2203-005446	SA
C131	C-CER,CHIP	2203-000679	SA
C132	C-CER,CHIP	2203-002709	SNA
C134	C-CER,CHIP	2203-000854	SA
C137	C-CER,CHIP	2203-000254	SA
C138	C-CER,CHIP	2203-000854	SA
C140	C-CER,CHIP	2203-000585	SA
C141	C-CER,CHIP	2203-000530	SA
C142	C-CER,CHIP	2203-000585	SA
C143	C-CER,CHIP	2203-000585	SA
C144	C-CER,CHIP	2203-000812	SA
C145	C-CER,CHIP	2203-002677	SA
C148	C-CER,CHIP	2203-000425	SA
C149	C-CER,CHIP	2203-001072	SA
C152	C-CER,CHIP	2203-005234	SA
C154	C-CER,CHIP	2203-000233	SA
C155	C-CER,CHIP	2203-002709	SNA
C201	C-CER,CHIP	2203-006423	SA
C202	C-CER,CHIP	2203-006423	SA
C203	C-CER,CHIP	2203-006423	SA
C204	C-CER,CHIP	2203-006824	SA
C205	C-CER,CHIP	2203-000254	SA
C206	C-CER,CHIP	2203-006423	SA
C208	C-CER,CHIP	2203-006423	SA
C209	C-CER,CHIP	2203-006423	SA
C210	C-CER,CHIP	2203-006423	SA
C211	C-CER,CHIP	2203-000812	SA
C212	C-CER,CHIP	2203-006423	SA
C213	C-CER,CHIP	2203-006423	SA
C214	C-CER,CHIP	2203-005736	SA
C215	C-CER,CHIP	2203-005682	SA
C216	C-CER,CHIP	2203-005683	SA
C217	C-CER,CHIP	2203-006423	SA
C218	C-CER,CHIP	2203-006423	SA

Ddsign LOC	Discription	SEC Code	STATUS
C220	C-CER,CHIP	2203-006048	SA
C221	C-CER,CHIP	2203-006626	SA
C222	C-CER,CHIP	2203-006048	SA
C223	C-CER,CHIP	2203-000278	SA
C224	C-CER,CHIP	2203-006257	SA
C225	C-CER,CHIP	2203-000278	SA
C226	C-CER,CHIP	2203-006048	SA
C227	C-CER,CHIP	2203-006048	SA
C228	C-CER,CHIP	2203-006646	SA
C229	C-CER,CHIP	2203-006646	SA
C230	C-CER,CHIP	2203-000812	SA
C232	C-CER,CHIP	2203-006562	SA
C234	C-CER,CHIP	2203-000812	SA
C235	C-CER,CHIP	2203-006824	SA
C236	C-CER,CHIP	2203-006257	SA
C237	C-CER,CHIP	2203-006824	SA
C238	C-CER,CHIP	2203-006562	SA
C239	C-CER,CHIP	2203-006257	SA
C240	C-CER,CHIP	2203-006824	SA
C241	C-CER,CHIP	2203-006048	SA
C244	C-CER,CHIP	2203-006824	SA
C245	C-CER,CHIP	2203-006257	SA
C246	C-CER,CHIP	2203-006824	SA
C247	C-CER,CHIP	2203-006257	SA
C248	C-CER,CHIP	2203-006646	SA
C249	C-CER,CHIP	2203-006562	SA
C250	C-CER,CHIP	2203-001259	SA
C301	C-CER,CHIP	2203-006562	SA
C303	C-CER,CHIP	2203-006047	SA
C304	C-CER,CHIP	2203-006562	SA
C305	C-CER,CHIP	2203-006626	SA
C306	C-CER,CHIP	2203-006423	SA
C307	C-CER,CHIP	2203-006562	SA
C309	C-CER,CHIP	2203-006423	SA
C310	C-CER,CHIP	2203-006423	SA
C311	C-CER,CHIP	2203-006423	SA
C312	C-CER,CHIP	2203-006423	SA
C313	C-CER,CHIP	2203-006423	SA
C314	C-CER,CHIP	2203-006626	SA
C315	C-CER,CHIP	2203-006562	SA
C316	C-CER,CHIP	2203-006423	SA
C317	C-CER,CHIP	2203-006423	SA
C318	C-CER,CHIP	2203-006423	SA
C319	C-CER,CHIP	2203-006423	SA
C320	C-CER,CHIP	2203-006423	SA
C321	C-CER,CHIP	2203-006423	SA
C322	C-CER,CHIP	2203-006423	SA
C323	C-CER,CHIP	2203-006423	SA
C324	C-CER,CHIP	2203-006423	SA
C325	C-CER,CHIP	2203-006626	SA

Ddsign LOC	Discription	SEC Code	STATUS
C326	C-CER,CHIP	2203-006423	SA
C327	C-CER,CHIP	2203-006423	SA
C328	C-CER,CHIP	2203-006423	SA
C329	C-CER,CHIP	2203-006423	SA
C330	C-CER,CHIP	2203-006423	SA
C331	C-CER,CHIP	2203-006423	SA
C332	C-CER,CHIP	2203-002709	SNA
C333	C-CER,CHIP	2203-002709	SNA
C334	C-CER,CHIP	2203-002709	SNA
C335	C-CER,CHIP	2203-006423	SA
C336	C-CER,CHIP	2203-006423	SA
C339	C-CER,CHIP	2203-006562	SA
C340	C-CER,CHIP	2203-002709	SNA
C341	C-CER,CHIP	2203-006423	SA
C342	C-CER,CHIP	2203-006423	SA
C343	C-CER,CHIP	2203-006423	SA
C401	C-CER,CHIP	2203-006562	SA
C402	C-CER,CHIP	2203-006260	SA
C403	C-CER,CHIP	2203-006562	SA
C404	C-CER,CHIP	2203-002709	SNA
C405	C-CER,CHIP	2203-002709	SNA
C407	C-CER,CHIP	2203-002709	SNA
C408	C-CER,CHIP	2203-006562	SA
C409	C-CER,CHIP	2203-006562	SA
C410	C-CER,CHIP	2203-002709	SNA
C411	C-CER,CHIP	2203-002709	SNA
C412	C-CER,CHIP	2203-006626	SA
C413	C-CER,CHIP	2203-002709	SNA
C414	C-CER,CHIP	2203-006562	SA
C415	C-CER,CHIP	2203-006048	SA
C416	C-CER,CHIP	2203-006048	SA
C418	C-CER,CHIP	2203-002709	SNA
C419	C-CER,CHIP	2203-002709	SNA
C420	C-CER,CHIP	2203-002709	SNA
C423	C-CER,CHIP	2203-002709	SNA
C502	C-CER,CHIP	2203-006048	SA
C508	C-CER,CHIP	2203-000812	SA
C516	C-CER,CHIP	2203-000679	SA
C517	C-CER,CHIP	2203-005050	SA
C521	C-CER,CHIP	2203-000278	SA
C522	C-CER,CHIP	2203-000278	SA
C523	C-CER,CHIP	2203-000812	SA
C524	C-CER,CHIP	2203-000812	SA
C529	C-CER,CHIP	2203-002709	SNA
C531	C-CER,CHIP	2203-000679	SA
C532	C-CER,CHIP	2203-005050	SA
C533	C-CER,CHIP	2203-002709	SNA
C534	C-CER,CHIP	2203-000585	SA
C535	C-CER,CHIP	2203-000278	SA
C536	C-CER,CHIP	2203-000278	SA

Ddsign LOC	Discription	SEC Code	STATUS
C537	C-CER,CHIP	2203-000812	SA
C538	C-CER,CHIP	2203-000812	SA
C539	C-CER,CHIP	2203-000585	SA
C543	C-CER,CHIP	2203-002709	SNA
C549	C-CER,CHIP	2203-006562	SA
C550	C-CER,CHIP	2203-006562	SA
C551	C-CER,CHIP	2203-006048	SA
C552	C-CER,CHIP	2203-001201	SA
C553	C-CER,CHIP	2203-000679	SA
C554	C-CER,CHIP	2203-006048	SA
C555	C-CER,CHIP	2203-006626	SA
C562	C-CER,CHIP	2203-000278	SA
C563	C-CER,CHIP	2203-000278	SA
C571	C-CER,CHIP	2203-002709	SNA
C573	C-CER,CHIP	2203-002709	SNA
C574	C-CER,CHIP	2203-000628	SA
C575	C-CER,CHIP	2203-000628	SA
C577	C-CER,CHIP	2203-002709	SNA
C578	C-TA,CHIP	2404-001366	SA
C579	C-CER,CHIP	2203-006562	SA
C580	C-CER,CHIP	2203-006048	SA
C581	C-CER,CHIP	2203-000585	SA
C582	C-CER,CHIP	2203-001259	SA
C583	C-CER,CHIP	2203-000679	SA
C584	C-CER,CHIP	2203-001259	SA
C585	C-CER,CHIP	2203-002709	SNA
C586	C-CER,CHIP	2203-006562	SA
C589	C-TA,CHIP	2404-001381	SA
C590	C-CER,CHIP	2203-002709	SNA
C591	C-CER,CHIP	2203-002709	SNA
C592	C-TA,CHIP	2404-001381	SA
C593	C-CER,CHIP	2203-002709	SNA
C594	C-CER,CHIP	2203-002709	SNA
C595	C-CER,CHIP	2203-006562	SA
C602	C-CER,CHIP	2203-006626	SA
C603	C-CER,CHIP	2203-006626	SA
C604	C-CER,CHIP	2203-002525	SA
C605	C-CER,CHIP	2203-000654	SA
C606	C-CER,CHIP	2203-006824	SA
C607	C-CER,CHIP	2203-006646	SA
C608	C-CER,CHIP	2203-006824	SA
C609	C-CER,CHIP	2203-006562	SA
C610	C-CER,CHIP	2203-002443	SA
C611	C-CER,CHIP	2203-006646	SA
C612	C-CER,CHIP	2203-006474	SA
C614	C-CER,CHIP	2203-006646	SA
C616	C-CER,CHIP	2203-002443	SA
C617	C-CER,CHIP	2203-006048	SA
C618	C-CER,CHIP	2203-006562	SA
C619	C-CER,CHIP	2203-006646	SA

Ddsign LOC	Discription	SEC Code	STATUS
C620	C-CER,CHIP	2203-000138	SA
C621	C-CER,CHIP	2203-006048	SA
C622	C-CER,CHIP	2203-000254	SA
C625	C-CER,CHIP	2203-006562	SA
C627	C-CER,CHIP	2203-006562	SA
C629	C-CER,CHIP	2203-006824	SA
C630	C-CER,CHIP	2203-006048	SA
C632	C-CER,CHIP	2203-006562	SA
C633	C-CER,CHIP	2203-006646	SA
C634	C-CER,CHIP	2203-006474	SA
C635	C-CER,CHIP	2203-006562	SA
C636	C-CER,CHIP	2203-006562	SA
C639	C-CER,CHIP	2203-006646	SA
C642	C-CER,CHIP	2203-006824	SA
C643	C-CER,CHIP	2203-002709	SNA
C644	C-CER,CHIP	2203-006562	SA
C645	C-CER,CHIP	2203-002709	SNA
C646	C-CER,CHIP	2203-002709	SNA
C647	C-CER,CHIP	2203-006562	SA
C648	C-CER,CHIP	2203-006562	SA
C649	C-CER,CHIP	2203-006562	SA
C650	C-CER,CHIP	2203-006562	SA
C651	C-CER,CHIP	2203-006562	SA
C652	C-CER,CHIP	2203-006562	SA
C653	C-CER,CHIP	2203-006562	SA
C654	C-CER,CHIP	2203-006562	SA
C655	C-CER,CHIP	2203-006562	SA
C656	C-CER,CHIP	2203-006562	SA
C657	C-CER,CHIP	2203-006562	SA
C658	C-CER,CHIP	2203-006562	SA
C659	C-CER,CHIP	2203-006562	SA
C660	C-CER,CHIP	2203-006562	SA
C661	C-CER,CHIP	2203-006257	SA
C662	C-CER,CHIP	2203-006824	SA
C663	C-CER,CHIP	2203-006562	SA
C664	C-TA,CHIP	2404-001381	SA
C665	C-CER,CHIP	2203-006048	SA
C701	C-TA,CHIP	2404-001381	SA
C702	C-CER,CHIP	2203-006824	SA
C703	C-CER,CHIP	2203-006824	SA
C704	C-CER,CHIP	2203-006824	SA
C705	C-CER,CHIP	2203-006348	SA
C706	C-CER,CHIP	2203-006048	SA
C707	C-CER,CHIP	2203-006324	SA
C708	C-CER,CHIP	2203-006562	SA
C713	C-CER,CHIP	2203-002709	SNA
C715	C-CER,CHIP	2203-000192	SA
C716	C-CER,CHIP	2203-006562	SA
C717	C-CER,CHIP	2203-006562	SA
C718	C-CER,CHIP	2203-006562	SA

Ddsign LOC	Discription	SEC Code	STATUS
C719	C-CER,CHIP	2203-006824	SA
C720	C-CER,CHIP	2203-006348	SA
C721	C-CER,CHIP	2203-002709	SNA
C725	C-CER,CHIP	2203-002709	SNA
C726	C-CER,CHIP	2203-006048	SA
C729	C-CER,CHIP	2203-006048	SA
C730	C-CER,CHIP	2203-006562	SA
C731	C-CER,CHIP	2203-002709	SNA
C733	C-CER,CHIP	2203-006562	SA
C737	C-CER,CHIP	2203-006048	SA
C738	C-CER,CHIP	2203-006048	SA
C739	C-CER,CHIP	2203-000812	SA
C747	C-CER,CHIP	2203-006324	SA
C748	C-CER,CHIP	2203-006324	SA
C749	C-CER,CHIP	2203-006324	SA
C750	C-CER,CHIP	2203-006324	SA
C753	C-TA,CHIP	2404-001374	SA
C754	C-TA,CHIP	2404-001374	SA
C801	C-CER,CHIP	2203-000438	SA
C806	C-CER,CHIP	2203-002709	SNA
C807	C-CER,CHIP	2203-002709	SNA
C808	C-CER,CHIP	2203-002709	SNA
C809	C-CER,CHIP	2203-006399	SA
C810	C-CER,CHIP	2203-002709	SNA
C811	C-CER,CHIP	2203-002709	SNA
C812	C-CER,CHIP	2203-000438	SA
C814	C-CER,CHIP	2203-006399	SA
C815	C-TA,CHIP	2404-001381	SA
C816	C-TA,CHIP	2404-001381	SA
C817	C-TA,CHIP	2404-001381	SA
C818	C-CER,CHIP	2203-006048	SA
C819	C-CER,CHIP	2203-006048	SA
C820	C-TA,CHIP	2404-001381	SA
C821	C-CER,CHIP	2203-002709	SNA
C822	C-CER,CHIP	2203-006562	SA
C823	C-CER,CHIP	2203-006562	SA
C824	C-CER,CHIP	2203-002709	SNA
C825	C-CER,CHIP	2203-002709	SNA
C826	C-CER,CHIP	2203-006562	SA
C828	C-CER,CHIP	2203-002709	SNA
C829	C-CER,CHIP	2203-006562	SA
C830	C-CER,CHIP	2203-006457	SA
C831	C-CER,CHIP	2203-006562	SA
C832	C-CER,CHIP	2203-002443	SA
C833	C-CER,CHIP	2203-002443	SA
C834	C-CER,CHIP	2203-006562	SA
C835	C-CER,CHIP	2203-002709	SNA
C836	C-CER,CHIP	2203-002709	SNA
C840	C-CER,CHIP	2203-000233	SA
C843	C-CER,CHIP	2203-006048	SA

Ddsign LOC	Discription	SEC Code	STATUS
C844	C-CER,CHIP	2203-006048	SA
C853	C-CER,CHIP	2203-000812	SA
C855	C-CER,CHIP	2203-000278	SA
C856	C-CER,CHIP	2203-000278	SA
CN603	SWITCH-DETECTOR	3409-001189	SA
CN804	HEADER-BOARD TO BOARD	3711-005646	SA
D200	DIODE-SCHOTTKY	0404-001172	SA
D303	DIODE-TVS	0406-001210	SA
D601	DIODE-SCHOTTKY	0404-001172	SA
D602	DIODE-SCHOTTKY	0404-001172	SA
D603	DIODE-ARRAY	0407-000115	SA
D604	DIODE-TVS	0406-001210	SA
D605	DIODE-TVS	0406-001210	SA
D606	DIODE-SWITCHING	0401-001144	SA
D701	DIODE-TVS	0406-001210	SA
D702	DIODE-SCHOTTKY	0404-001172	SA
D703	DIODE-SCHOTTKY	0404-001172	SA
EAR501	JACK-EAR PHONE	3722-002181	SA
F101	FILTER-SAW	2904-001552	SA
F102	FILTER-SAW	2904-001537	SA
F103	FILTER-SAW	2904-001540	SA
F104	FILTER-SAW	2904-001553	SA
F701	FILTER-EMI/ESD	2901-001347	SA
F702	FILTER-EMI/ESD	2901-001347	SA
F703	FILTER-EMI/ESD	2901-001347	SA
F704	FILTER-EMI SMD	2901-001254	SA
F705	FILTER-EMI/ESD	2901-001396	SA
F706	FILTER-EMI SMD	2901-001254	SA
GSM_ANT	NPR-ANTENNA CONTACT	GH71-04302A	SA
HDC701	HEADER-BOARD TO BOARD	3711-005793	SA
IFC701	SOCKET-INTERFACE	3710-001732	SA
L105	INDUCTOR-SMD	2703-001723	SA
L106	INDUCTOR-SMD	2703-001722	SA
L107	INDUCTOR-SMD	2703-002204	SA
L108	INDUCTOR-SMD	2703-002365	SA
L109	INDUCTOR-SMD	2703-002207	SA
L110	INDUCTOR-SMD	2703-002365	SA
L111	INDUCTOR-SMD	2703-002205	SA
L112	INDUCTOR-SMD	2703-001949	SA
L113	INDUCTOR-SMD	2703-002199	SA
L114	BEAD-SMD	3301-001729	SA
L115	INDUCTOR-SMD	2703-002313	SA
L117	INDUCTOR-SMD	2703-001748	SA
L118	INDUCTOR-SMD	2703-001734	SA
L119	INDUCTOR-SMD	2703-002208	SA
L122	INDUCTOR-SMD	2703-001868	SA
L123	INDUCTOR-SMD	2703-002313	SA
L124	INDUCTOR-SMD	2703-002281	SA
L125	INDUCTOR-SMD	2703-002176	SA
L126	INDUCTOR-SMD	2703-002176	SA

Ddsign LOC	Discription	SEC Code	STATUS
L127	INDUCTOR-SMD	2703-001749	SA
L128	INDUCTOR-SMD	2703-001749	SA
L202	INDUCTOR-SMD	2703-002775	SA
L401	BEAD-SMD	3301-001336	SA
L501	BEAD-SMD	3301-001438	SA
L502	BEAD-SMD	3301-001438	SA
L503	BEAD-SMD	3301-001729	SA
L504	BEAD-SMD	3301-001729	SA
L505	BEAD-SMD	3301-001729	SA
L506	BEAD-SMD	3301-001438	SA
L507	BEAD-SMD	3301-001438	SA
L600	INDUCTOR-SMD	2703-002827	SA
L601	INDUCTOR-SMD	2703-002714	SA
L602	INDUCTOR-SMD	2703-002766	SNA
L603	INDUCTOR-SMD	2703-001285	SA
L604	INDUCTOR-SMD	2703-001285	SA
L605	INDUCTOR-SMD	2703-001285	SA
L606	INDUCTOR-SMD	2703-001285	SA
L700	INDUCTOR-SMD	2703-002782	SA
L701	INDUCTOR-SMD	2703-002782	SA
L800	INDUCTOR-SMD	2703-001239	SA
L801	BEAD-SMD	3301-001342	SA
L802	INDUCTOR-SMD	2703-002767	SA
L804	INDUCTOR-SMD	2703-001734	SA
L805	INDUCTOR-SMD	2703-001949	SA
MOD800	W-LAN MODULE	4709-001392	SA
OSC201	CRYSTAL-SMD	2801-003747	SA
OSC301	CRYSTAL-SMD	2801-003747	SA
OSC302	CRYSTAL-SMD	2801-004189	SA
OSC501	CRYSTAL-SMD	2801-004225	SA
OSC801	OSCILLATOR-CLOCK	2804-001658	SA
PAM101	IC-POWER AMP	1201-002254	SA
Q601	FET-SILICON	0505-001518	SA
R103	R-CHIP	2007-000171	SA
R104	R-CHIP	2007-000171	SA
R105	R-CHIP	2007-000148	SA
R106	R-CHIP	2007-000566	SA
R107	R-CHIP	2007-000172	SA
R108	R-CHIP	2007-000566	SA
R109	R-CHIP	2007-001288	SA
R110	R-CHIP	2007-001313	SNA
R111	R-CHIP	2007-001313	SNA
R112	R-CHIP	2007-000171	SA
R116	R-CHIP	2007-007318	SA
R117	R-CHIP	2007-007318	SA
R118	R-CHIP	2007-007318	SA
R119	R-CHIP	2007-007318	SA
R120	R-CHIP	2007-007318	SA
R202	R-CHIP	2007-000171	SA
R204	R-CHIP	2007-000148	SA

Ddsign LOC	Discription	SEC Code	STATUS
R205	R-CHIP	2007-000162	SA
R206	R-CHIP	2007-000162	SA
R212	R-CHIP	2007-000171	SA
R214	R-CHIP	2007-000162	SA
R216	R-CHIP	2007-007573	SA
R217	R-CHIP	2007-008354	SA
R218	R-CHIP	2007-007107	SA
R222	R-CHIP	2007-007107	SA
R223	R-CHIP	2007-007100	SA
R230	R-CHIP	2007-000242	SA
R231	R-CHIP	2007-000242	SA
R234	R-CHIP	2007-000162	SA
R235	R-CHIP	2007-000162	SA
R237	R-CHIP	2007-000143	SA
R240	R-CHIP	2007-000143	SA
R245	R-CHIP	2007-000171	SA
R301	R-CHIP	2007-000162	SA
R308	R-CHIP	2007-001341	SA
R315	R-CHIP	2007-007014	SA
R317	R-CHIP	2007-001119	SA
R318	R-CHIP	2007-001119	SA
R320	R-CHIP	2007-000148	SA
R321	R-CHIP	2007-007312	SA
R322	R-CHIP	2007-000162	SA
R324	R-CHIP	2007-000162	SA
R326	R-CHIP	2007-000162	SA
R330	R-CHIP	2007-000162	SA
R338	R-CHIP	2007-000148	SA
R341	R-CHIP	2007-000162	SA
R403	R-CHIP	2007-000148	SA
R405	R-CHIP	2007-000162	SA
R406	R-CHIP	2007-000162	SA
R407	R-CHIP	2007-000162	SA
R408	R-CHIP	2007-000162	SA
R409	R-CHIP	2007-000162	SA
R410	R-CHIP	2007-000162	SA
R411	R-CHIP	2007-000162	SA
R412	R-CHIP	2007-000162	SA
R413	R-CHIP	2007-000162	SA
R414	R-CHIP	2007-000162	SA
R415	R-CHIP	2007-000162	SA
R416	R-CHIP	2007-000162	SA
R417	R-CHIP	2007-000162	SA
R420	R-CHIP	2007-000162	SA
R421	R-CHIP	2007-000173	SA
R422	R-CHIP	2007-000173	SA
R426	R-CHIP	2007-000148	SA
R427	R-CHIP	2007-000162	SA
R429	R-CHIP	2007-000168	SA
R430	R-CHIP	2007-000162	SA

Ddsign LOC	Discription	SEC Code	STATUS
R431	R-CHIP	2007-000162	SA
R433	R-CHIP	2007-000171	SA
R516	R-CHIP	2007-007318	SA
R520	R-CHIP	2007-001339	SA
R531	R-CHIP	2007-001308	SA
R532	R-CHIP	2007-002796	SA
R533	R-CHIP	2007-000140	SA
R534	R-CHIP	2007-002796	SA
R535	R-CHIP	2007-000140	SA
R536	R-CHIP	2007-002796	SA
R537	R-CHIP	2007-002796	SA
R538	R-CHIP	2007-007318	SA
R539	R-CHIP	2007-000162	SA
R601	R-CHIP	2007-000170	SA
R603	R-CHIP	2007-001325	SA
R604	R-CHIP	2007-000758	SA
R606	R-CHIP	2007-000144	SA
R607	R-CHIP	2007-000173	SA
R608	R-CHIP	2007-000168	SA
R609	R-CHIP	2007-000168	SA
R610	R-CHIP	2007-000566	SA
R612	R-CHIP	2007-000144	SA
R613	R-CHIP	2007-000566	SA
R616	R-CHIP	2007-000171	SA
R617	R-CHIP	2007-000148	SA
R618	R-CHIP	2007-007592	SA
R620	R-CHIP	2007-000171	SA
R621	R-CHIP	2007-000171	SA
R624	R-CHIP	2007-001308	SA
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R626	R-CHIP	2007-007334	SA
R627	R-CHIP	2007-000566	SA
R628	R-CHIP	2007-000148	SA
R630	R-CHIP	2007-000162	SA
R631	R-CHIP	2007-008516	SA
R635	R-CHIP	2007-000157	SA
R637	R-CHIP	2007-000168	SA
R642	R-CHIP	2007-000148	SA
R644	R-CHIP	2007-000171	SA
R645	R-CHIP	2007-000141	SA
R646	R-CHIP	2007-000566	SA
R648	R-CHIP	2007-000143	SA
R655	R-CHIP	2007-000169	SA
R658	R-CHIP	2007-000169	SA
R659	R-CHIP	2007-000162	SA
R668	R-CHIP	2007-000169	SA
R673	R-CHIP	2007-000162	SA
R675	R-CHIP	2007-000170	SA
R677	R-CHIP	2007-000171	SA
R704	R-CHIP	2007-000172	SA

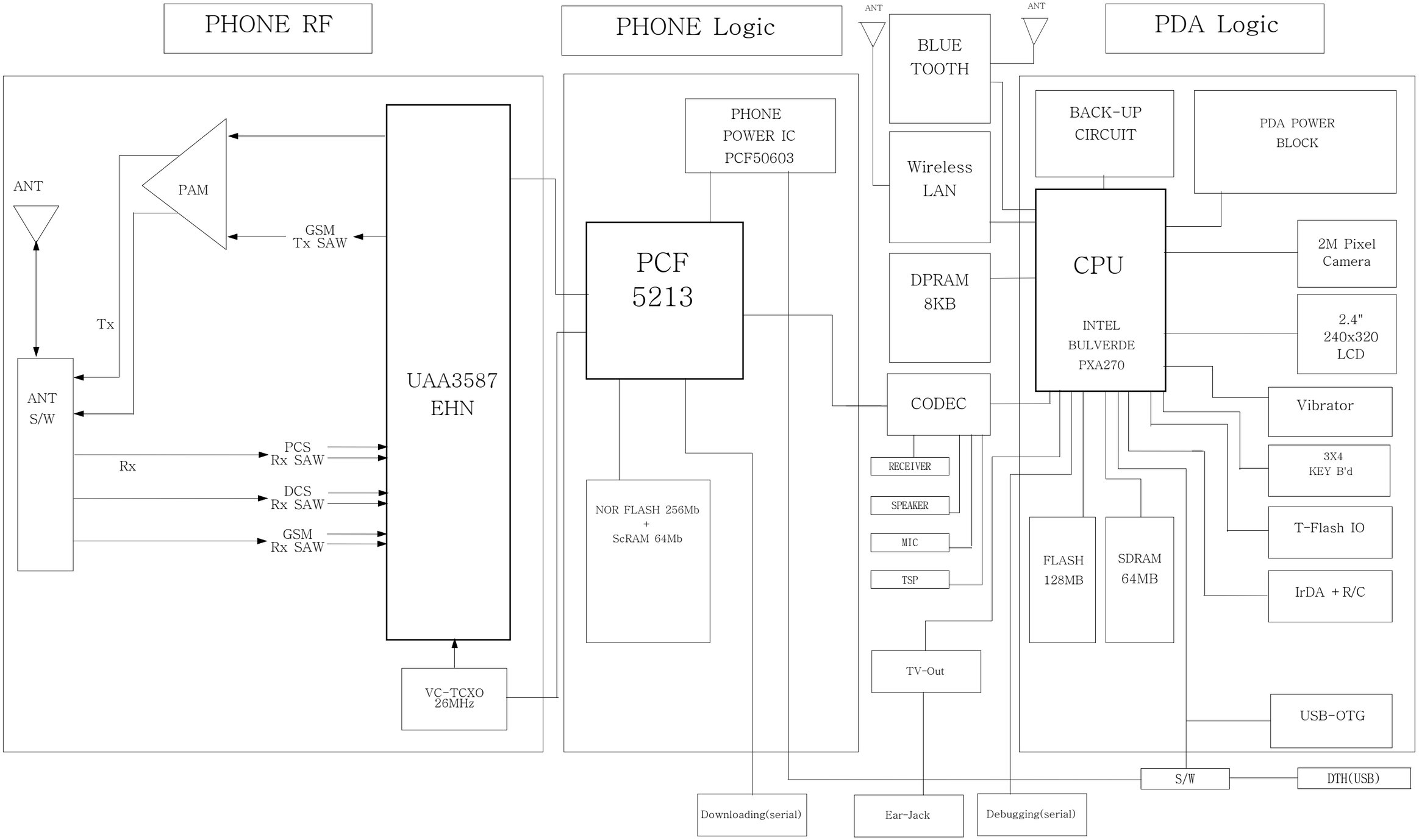
Ddsign LOC	Discription	SEC Code	STATUS
R705	R-CHIP	2007-007192	SA
R707	R-CHIP	2007-000162	SA
R708	R-CHIP	2007-000162	SA
R715	R-CHIP	2007-007528	SA
R716	R-CHIP	2007-007528	SA
R719	R-CHIP	2007-000140	SA
R721	R-CHIP	2007-000140	SA
R722	R-CHIP	2007-000140	SA
R723	R-CHIP	2007-000140	SA
R724	R-CHIP	2007-000172	SA
R729	R-CHIP	2007-000172	SA
R730	R-CHIP	2007-007134	SA
R731	R-CHIP	2007-007107	SA
R732	R-CHIP	2007-000170	SA
R733	R-CHIP	2007-007107	SA
R748	R-CHIP	2007-000162	SA
R749	R-CHIP	2007-000140	SA
R753	R-CHIP	2007-007308	SA
R754	R-CHIP	2007-007313	SA
R756	R-CHIP	2007-007156	SA
R759	R-CHIP	2007-000162	SA
R760	R-CHIP	2007-000162	SA
R802	R-CHIP	2007-000172	SA
R807	R-CHIP	2007-000171	SA
R808	R-CHIP	2007-000171	SA
R816	R-CHIP	2007-000148	SA
R818	R-CHIP	2007-001298	SA
R820	R-CHIP	2007-000148	SA
R822	R-CHIP	2007-000148	SA
R823	R-CHIP	2007-000148	SA
R833	R-CHIP	2007-000148	SA
R834	R-CHIP	2007-000148	SA
R836	R-CHIP	2007-000162	SA
R841	R-CHIP	2007-000148	SA
R844	R-CHIP	2007-002797	SA
R845	R-CHIP	2007-001295	SA
R846	R-CHIP	2007-001306	SA
R848	R-CHIP	2007-007009	SA
R851	R-CHIP	2007-000164	SA
R858	R-CHIP	2007-000162	SA
R859	R-CHIP	2007-000162	SA
R860	R-CHIP	2007-000162	SA
R861	R-CHIP	2007-000162	SA
RFS101	CONNECTOR-COAXIAL	3705-001351	SA
RFS802	CONNECTOR-COAXIAL	3705-001287	SA
SLC701	CONNECTOR-FPC/FFC/PIC	3708-002094	SA
SW601	SWITCH-SLIDE	3408-001117	SA
TA101	C-TA,CHIP	2404-001413	SA
TA201	C-TA,CHIP	2404-001413	SA
TA502	C-TA,CHIP	2404-001381	SA

Ddsign LOC	Discription	SEC Code	STATUS
TA505	C-TA,CHIP	2404-001402	SA
TA507	C-TA,CHIP	2404-001381	SA
TA508	C-TA,CHIP	2404-001381	SA
TA510	C-TA,CHIP	2404-001381	SA
TA511	C-TA,CHIP	2404-001402	SA
TA512	C-TA,CHIP	2404-001381	SA
TA516	C-TA,CHIP	2404-001381	SA
TA517	C-TA,CHIP	2404-001381	SA
TA518	C-TA,CHIP	2404-001381	SA
TA601	C-TA,CHIP	2404-001366	SA
TA602	C-TA,CHIP	2404-001366	SA
TA603	C-TA,CHIP	2404-001366	SA
TA604	C-TA,CHIP	2404-001366	SA
TA605	C-TA,CHIP	2404-001413	SA
TA606	C-TA,CHIP	2404-001402	SA
TA607	C-TA,CHIP	2404-001413	SA
TA701	C-TA,CHIP	2404-001413	SA
TA801	C-TA,CHIP	2404-001366	SA
TAC301	SWITCH-TACT	3404-001152	SA
TCX101	OSCILLATOR-VCTCXO	2809-001294	SA
TH201	THERMISTOR-NTC	1404-001221	SA
TP100	NPR-ANTENNA CONTACT	GH71-04302A	SA
TR201	FET-SILICON	0505-001518	SA
TR301	TR-SMALL SIGNAL	0501-002202	SA
TR303	TR-DIGITAL	0504-000168	SA
TR400	FET-SILICON	0505-001518	SA
TR601	FET-SILICON	0505-001376	SA
TR603	FET-SILICON	0505-001376	SA
TR701	FET-SILICON	0505-001875	SA
TR702	FET-SILICON	0505-001518	SA
TR703	FET-SILICON	0505-001518	SA
TR801	FET-SILICON	0505-001518	SA
TR802	FET-SILICON	0505-001518	SA
TR803	FET-SILICON	0505-001518	SA
U101	DUPLEXER-ASM	2909-001269	SA
U102	IC-TRANSCEIVER	1205-002817	SA
U201	IC-ANALOG SWITCH	1001-001231	SA
U203	IC-DC/DC CONVERTER	1203-003545	SA
U204	IC-POWER SUPERVISOR	1203-003882	SA
U205	IC-POSI.FIXED REG.	1203-003105	SA
U301	IC-VOL. DETECTOR	1203-002789	SA
U302	IC-CMOS LOGIC	0801-002529	SA
U303	IC-CMOS LOGIC	0801-002644	SA
U305	IC-CMOS LOGIC	0801-002529	SA
U306	IC-CMOS LOGIC	0801-002237	SA
U307	IC-CMOS LOGIC	0801-002970	SA
U404	IC-CMOS LOGIC	0801-002970	SA
U405	IC-CMOS LOGIC	0801-002294	SA
U406	IC-CMOS LOGIC	0801-002922	SA
U407	IC-CMOS LOGIC	0801-002294	SA

Ddsign LOC	Discription	SEC Code	STATUS
U408	IC-CMOS LOGIC	0801-002529	SA
U409	IC-CMOS LOGIC	0801-002294	SA
U502	IC-ANALOG MULTIPLEX	1001-001306	SA
U503	IC-ANALOG SWITCH	1001-001343	SA
U504	IC-ANALOG SWITCH	1001-001231	SA
U505	IC-MULTI REG.	1203-002860	SA
U601	FET-SILICON	0505-001462	SA
U603	IC-DC/DC CONVERTER	1203-001702	SA
U604	IC-DC/DC CONVERTER	1203-003500	SA
U605	IC-VOL. DETECTOR	1203-002251	SA
U607	IC-VOL. DETECTOR	1203-002250	SA
U608	IC-CMOS LOGIC	0801-002970	SA
U611	IC-CMOS LOGIC	0801-002294	SA
U614	IC-RESET	1203-002895	SA
U616	IC-MULTI REG.	1203-003846	SA
U617	IC-VOL. DETECTOR	1203-002250	SA
U618	IC-MULTI REG.	1203-003664	SA
U619	IC-MULTI REG.	1203-003872	SA
U620	IC-CMOS LOGIC	0801-002529	SA
U621	IC-SWITCH	1205-002767	SA
U623	IC-CMOS LOGIC	0801-002970	SA
U624	IC-VOL. DETECTOR	1203-002976	SA
U701	IC-POSI.FIXED REG.	1203-003340	SA
U703	IC-MULTI REG.	1203-003342	SA
U704	IC-MULTI REG.	1203-003341	SA
U712	IC-ANALOG SWITCH	1001-001284	SA
U714	IC-OP AMP	1201-001348	SA
U716	IC-CMOS LOGIC	0801-002970	SA
U717	IC-VOL. DETECTOR	1203-002716	SA
U721	IC-ANALOG SWITCH	1001-001231	SA
U722	IC-ANALOG SWITCH	1001-001231	SA
U723	IC-DC/DC CONVERTER	1203-003978	SA
U801	BLUETOOTH MODULE	4709-001354	SA
U804	IC ASIC	GH13-00028A	SA
U805	IC-DC/DC CONVERTER	1203-002850	SA
U807	IC-HALL EFFECT S/W	1009-001010	SA
U808	R-CHIP	2007-000162	SA
UCD501	IC-CODEC	1205-002321	SA
UCP201	IC-COMM. CONTROLLER	1205-002757	SA
UCP301	IC-MICROPROCESSOR	0902-001927	SA
UME201	IC-MCP	1108-000013	SNA
UME401	IC-SRAM	1106-001489	SA
UME402	IC-FLASH MEM. MODULE	1107-001449	SA
UME403	IC-DRAM	1105-001579	SA
VR201	VARISTOR	1405-001082	SA
ZD501	DIODE-TVS	0406-001150	SA
ZD502	DIODE-TVS	0406-001150	SA
ZD503	DIODE-TVS	0406-001197	SA
ZD504	DIODE-TVS	0406-001150	SA
ZD505	DIODE-TVS	0406-001210	SA

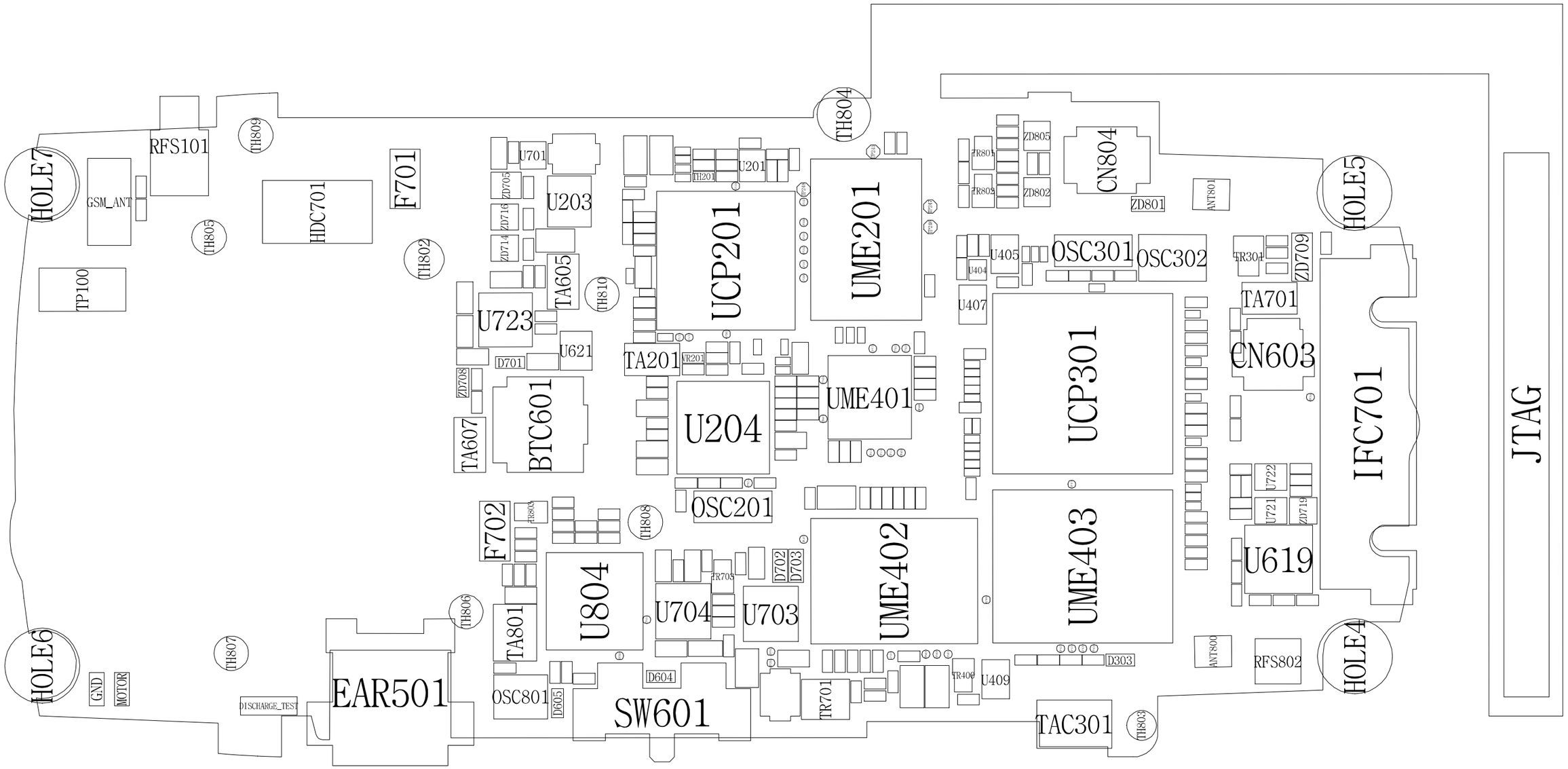
Ddsign LOC	Discription	SEC Code	STATUS
ZD506	DIODE-TVS	0406-001150	SA
ZD601	DIODE-TVS	0406-001150	SA
ZD701	DIODE-TVS	0406-001169	SA
ZD704	DIODE-TVS	0406-001167	SA
ZD705	DIODE-TVS	0406-001169	SA
ZD708	DIODE-TVS	0406-001210	SA
ZD709	DIODE-ZENER	0403-001547	SA
ZD711	DIODE-ZENER	0403-001446	SA
ZD712	DIODE-TVS	0406-001215	SA
ZD714	DIODE-TVS	0406-001215	SA
ZD715	DIODE-TVS	0406-001215	SA
ZD716	DIODE-TVS	0406-001215	SA
ZD717	DIODE-TVS	0406-001215	SA
ZD719	DIODE-TVS	0406-001215	SA
ZD720	DIODE-TVS	0406-001215	SA
ZD801	DIODE-TVS	0406-001150	SA
ZD802	DIODE-TVS	0406-001197	SA
ZD803	DIODE-ZENER	0403-000772	SA
ZD805	DIODE-TVS	0406-001197	SA

5. Block Diagrams

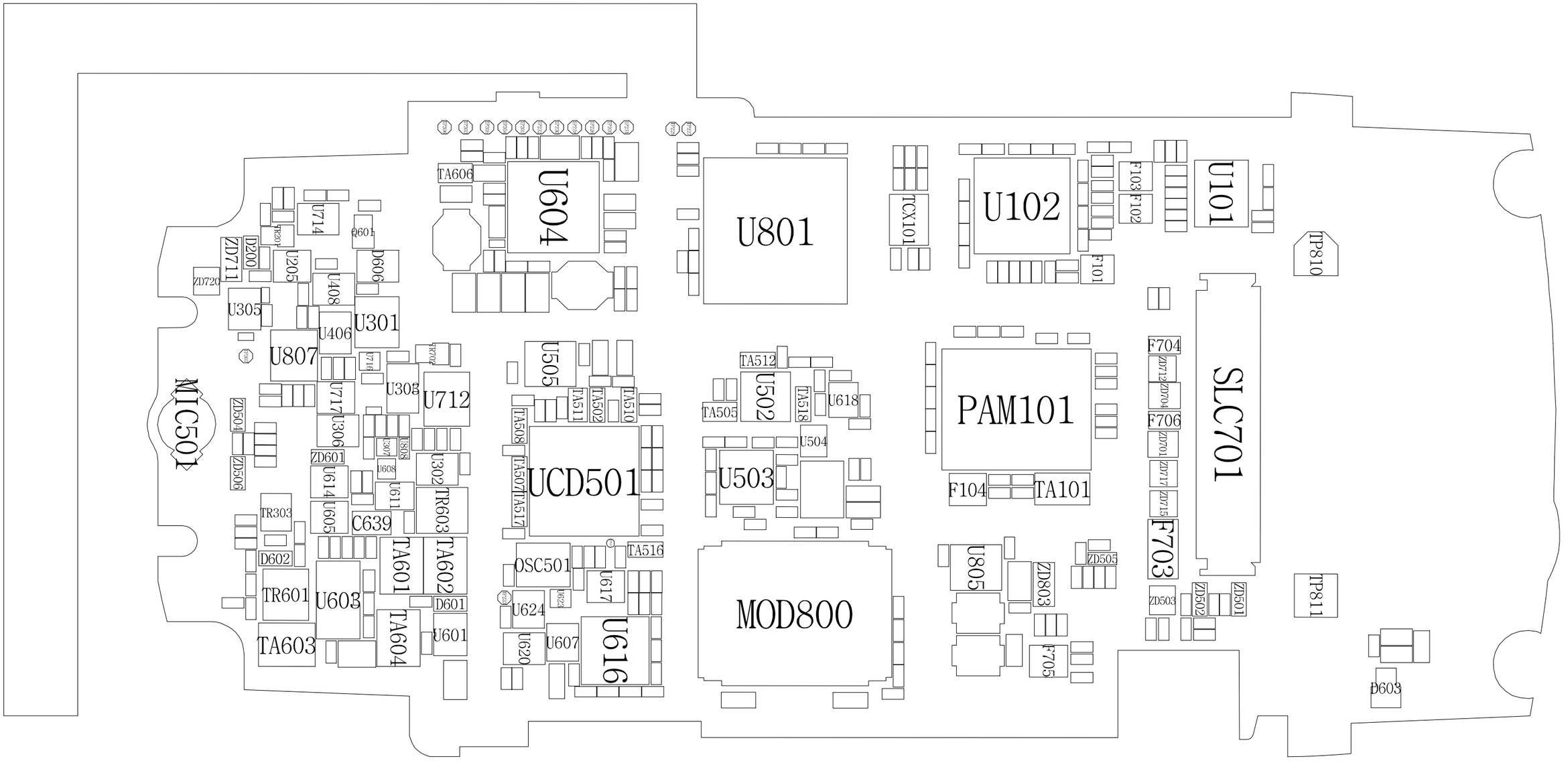


6. PCB Diagrams

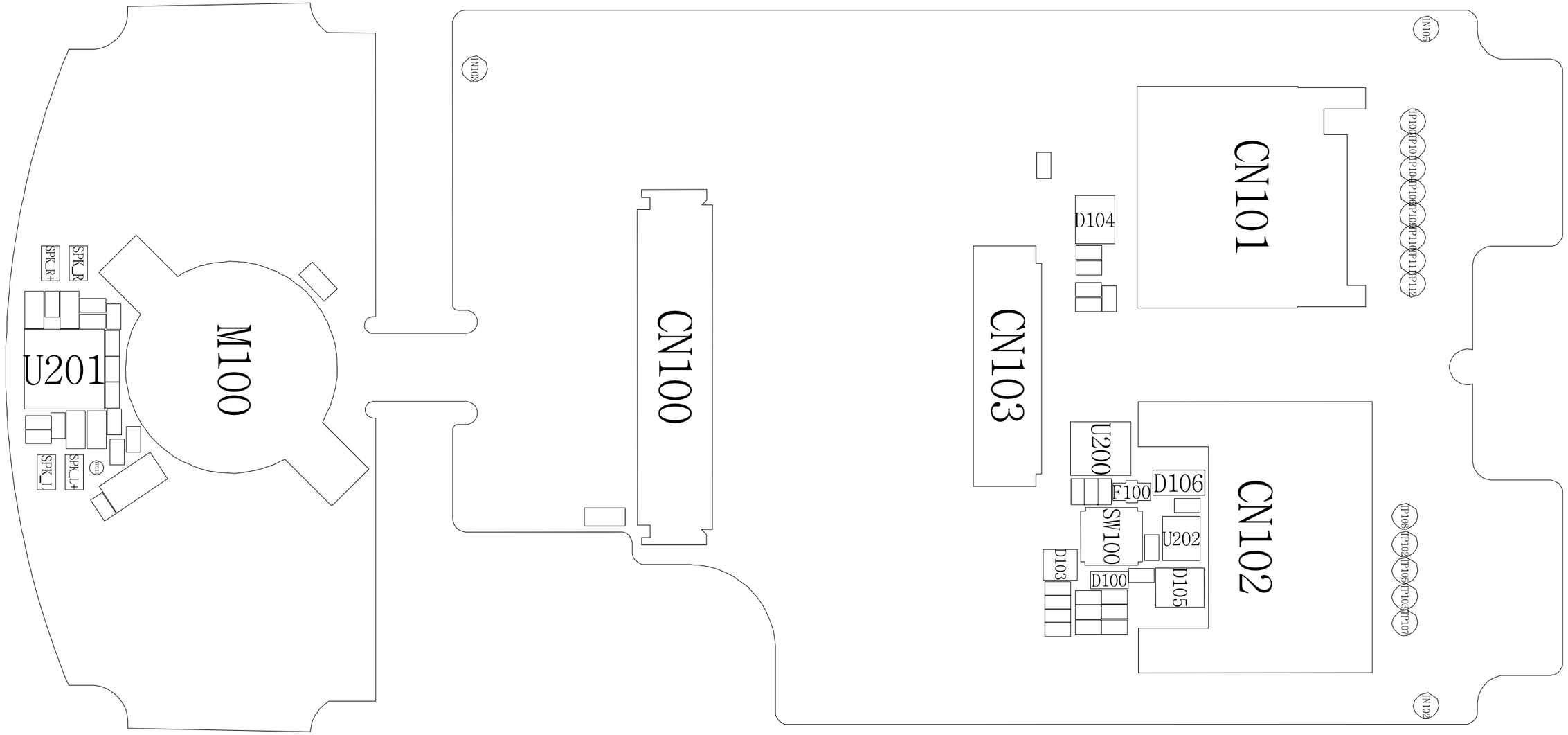
6-1. Main PCB Top Diagram



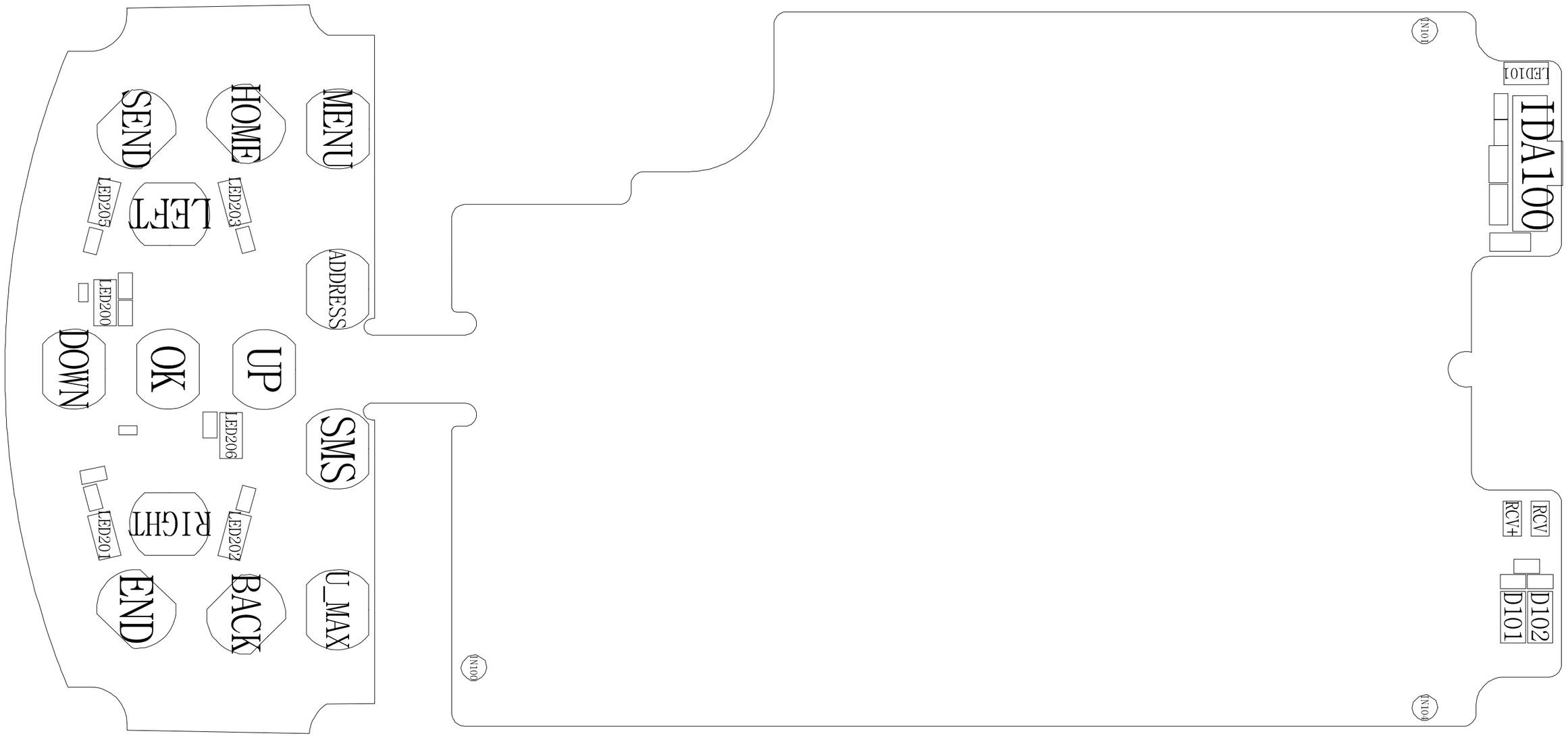
6-2. Main PCB Bottom Diagram



6-3. SUB PCB Top Diagram



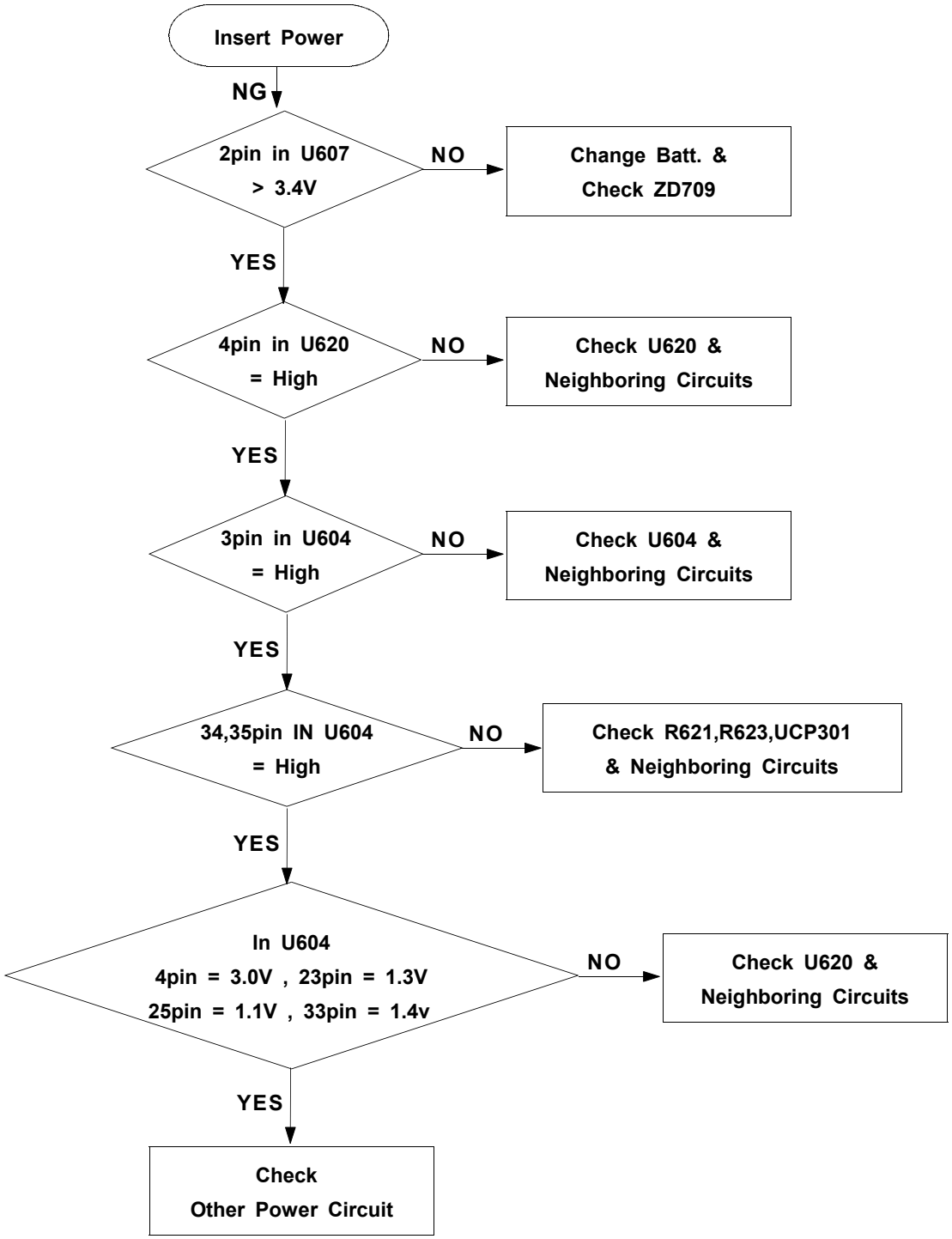
6-4. SUB PCB Bottom Diagram

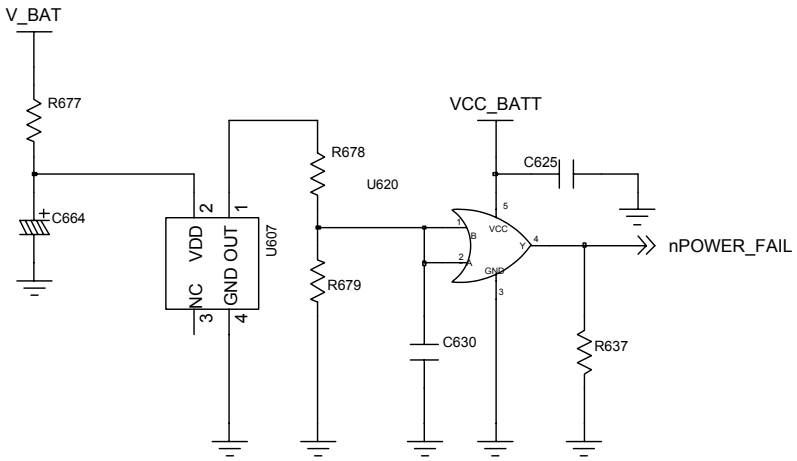


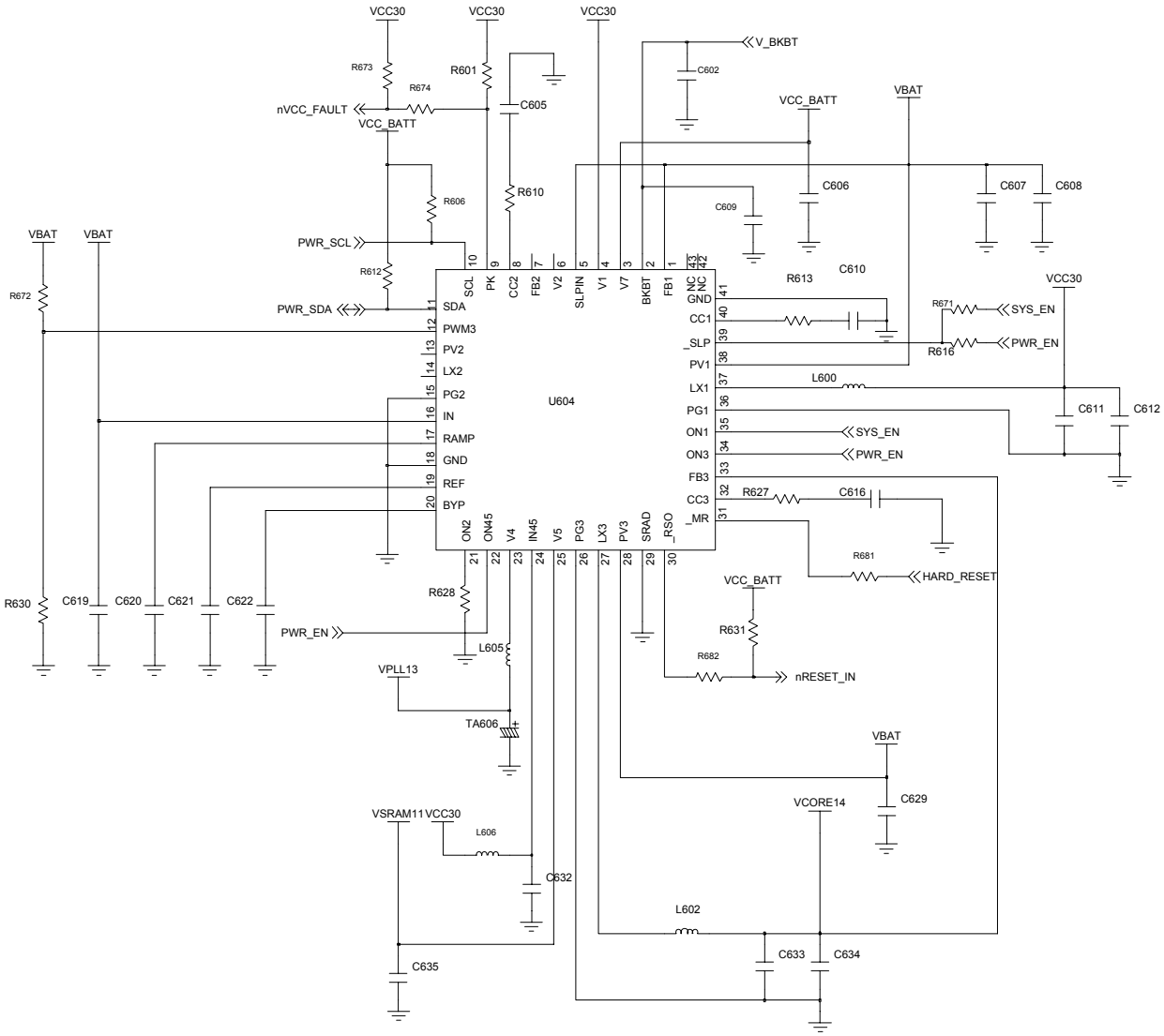
7. Flow Chart of TroubleShooting

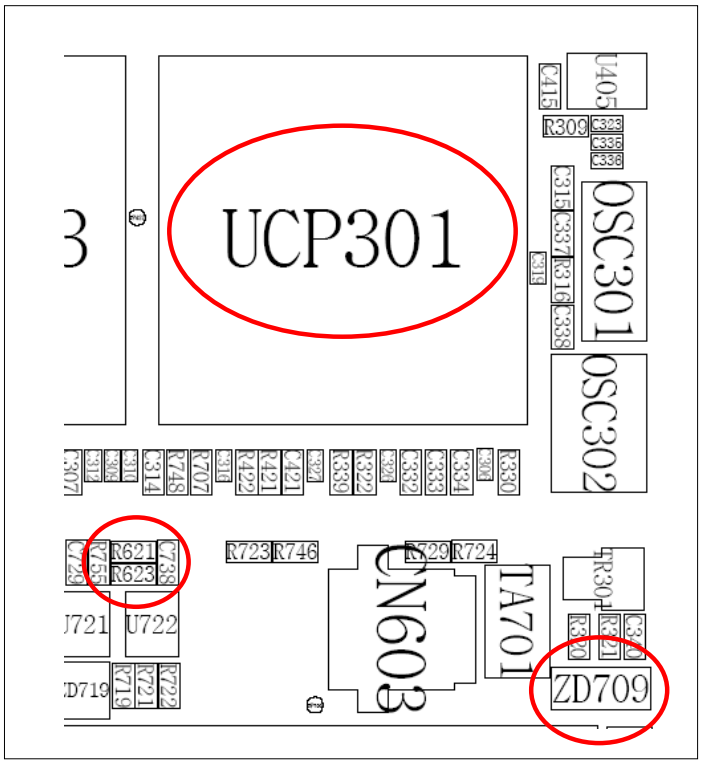
7-1. Power On

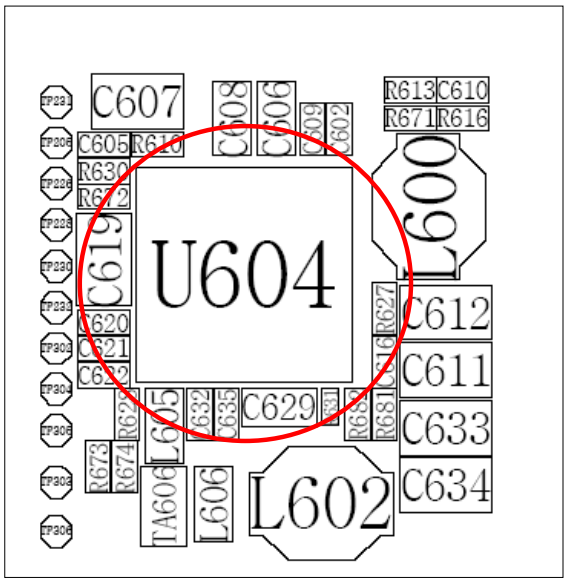
PDA Part

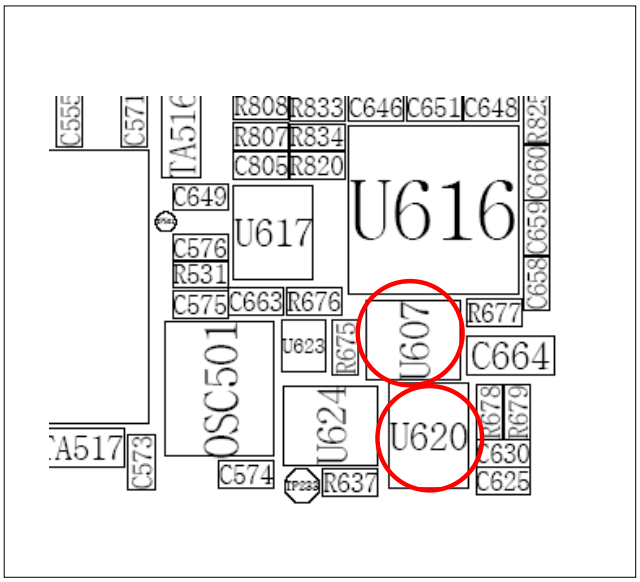




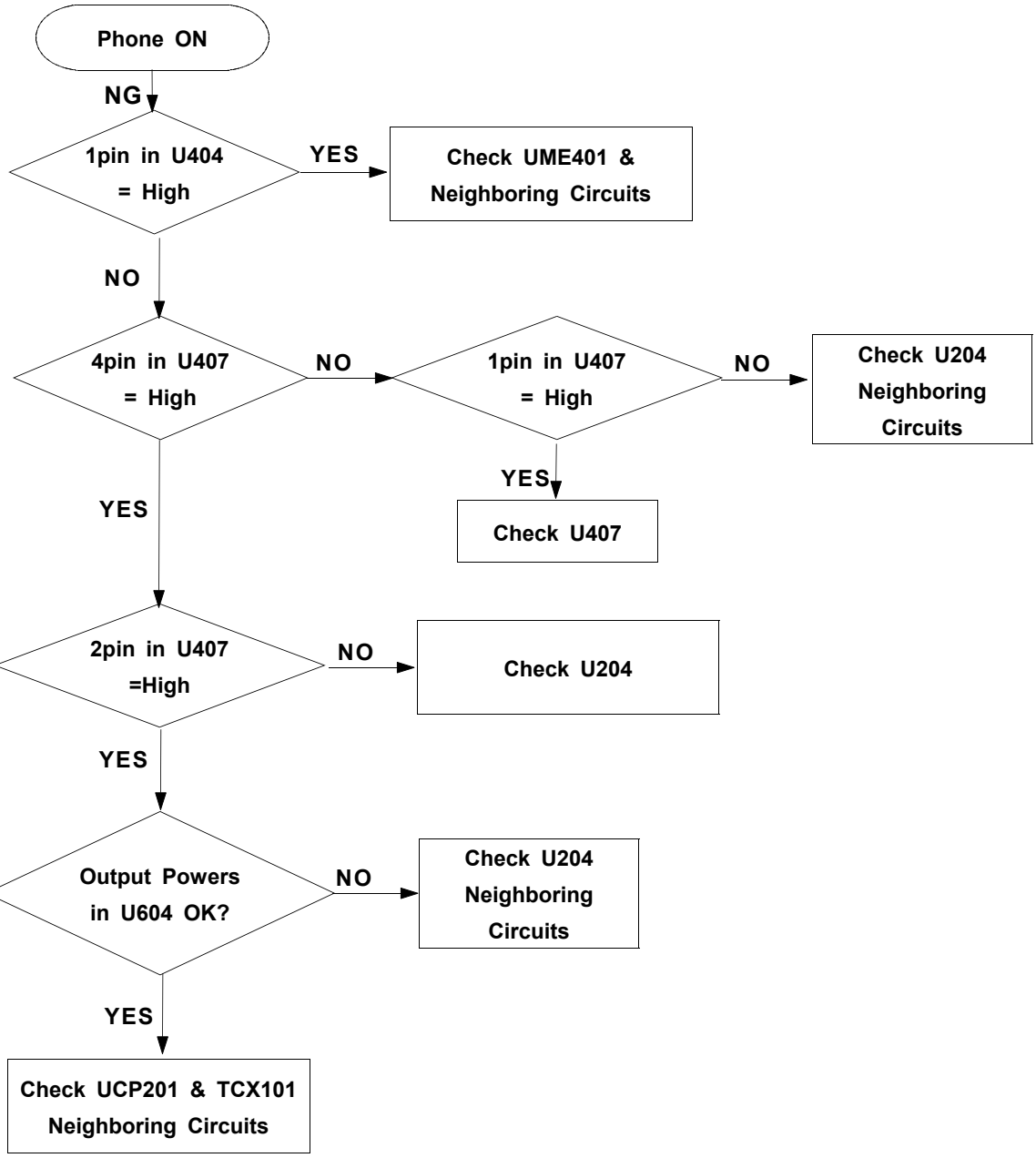


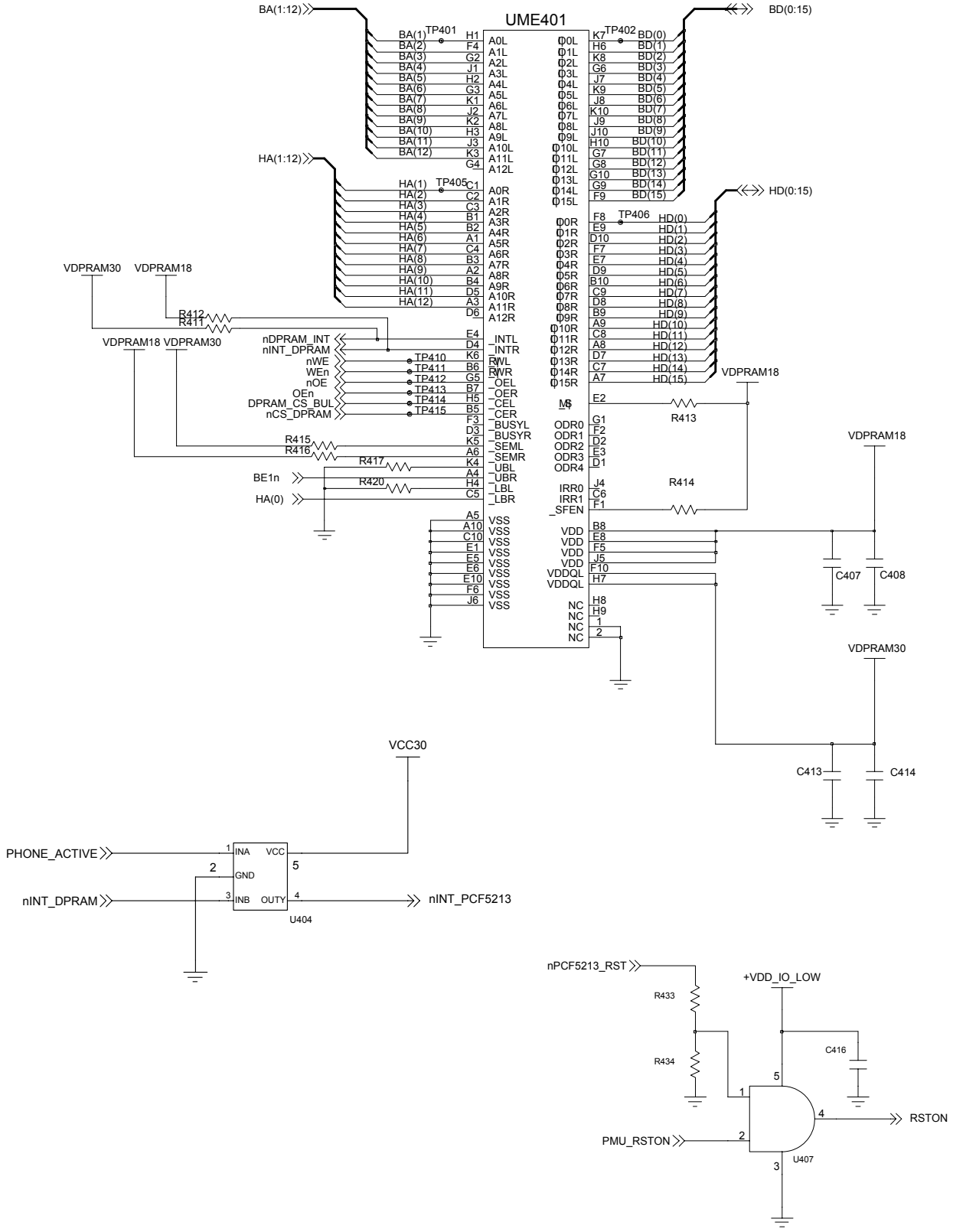


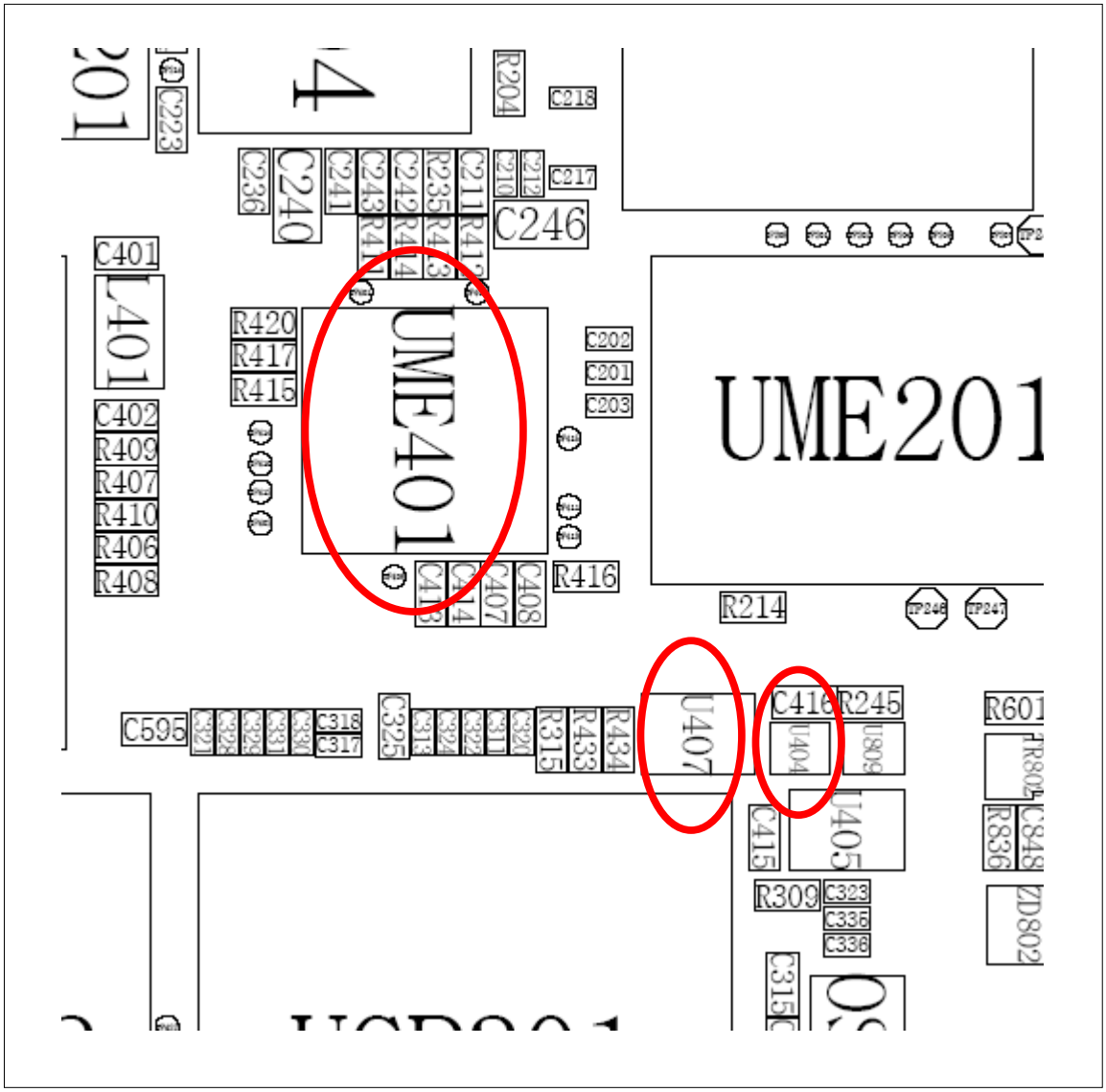


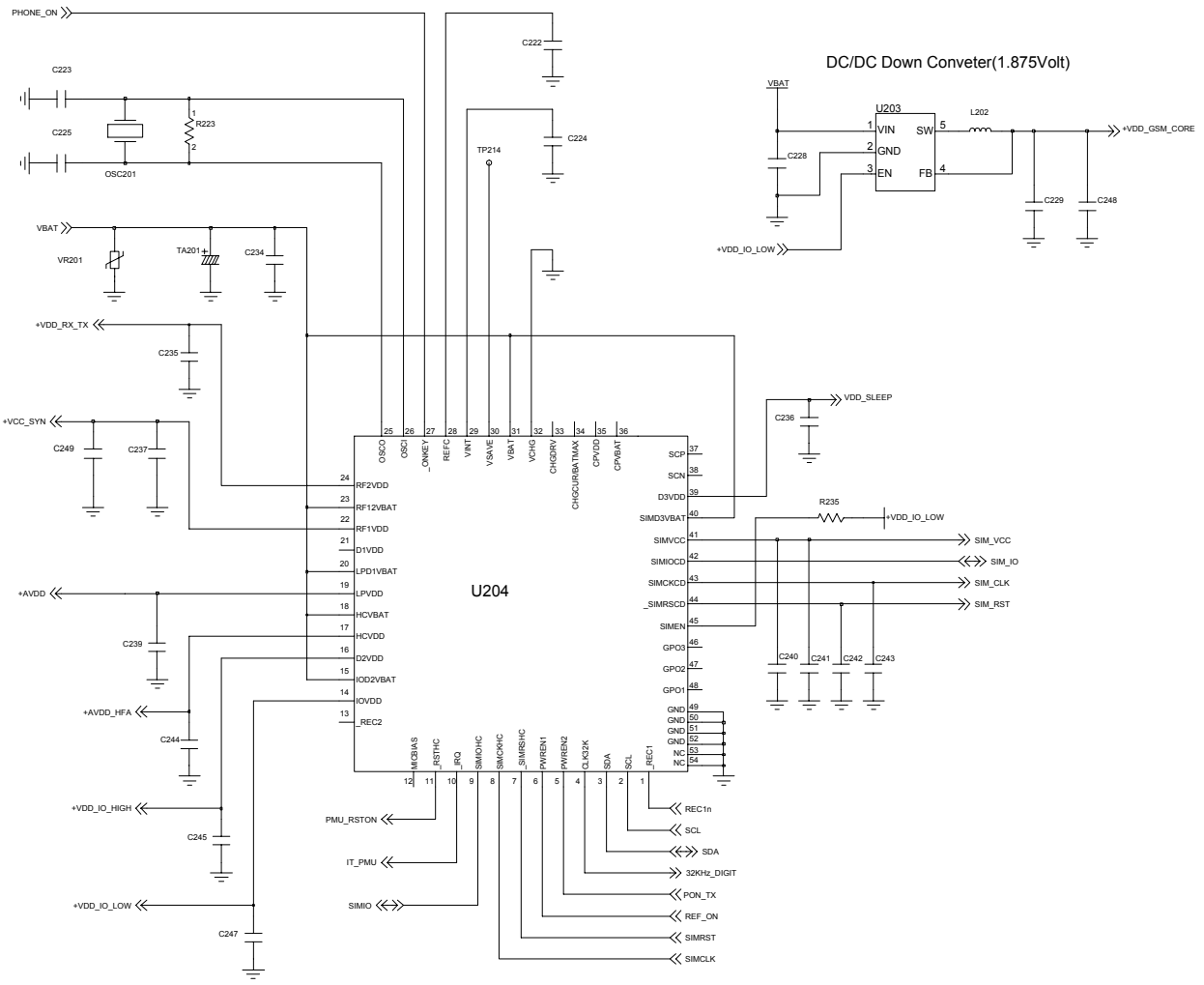


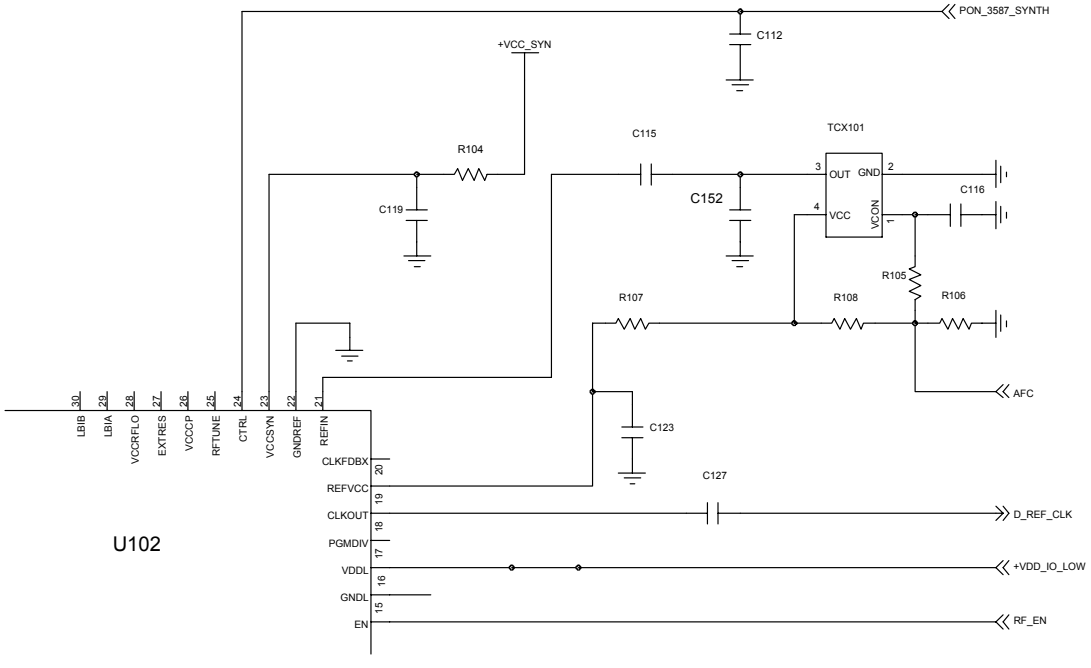
PHONE Part

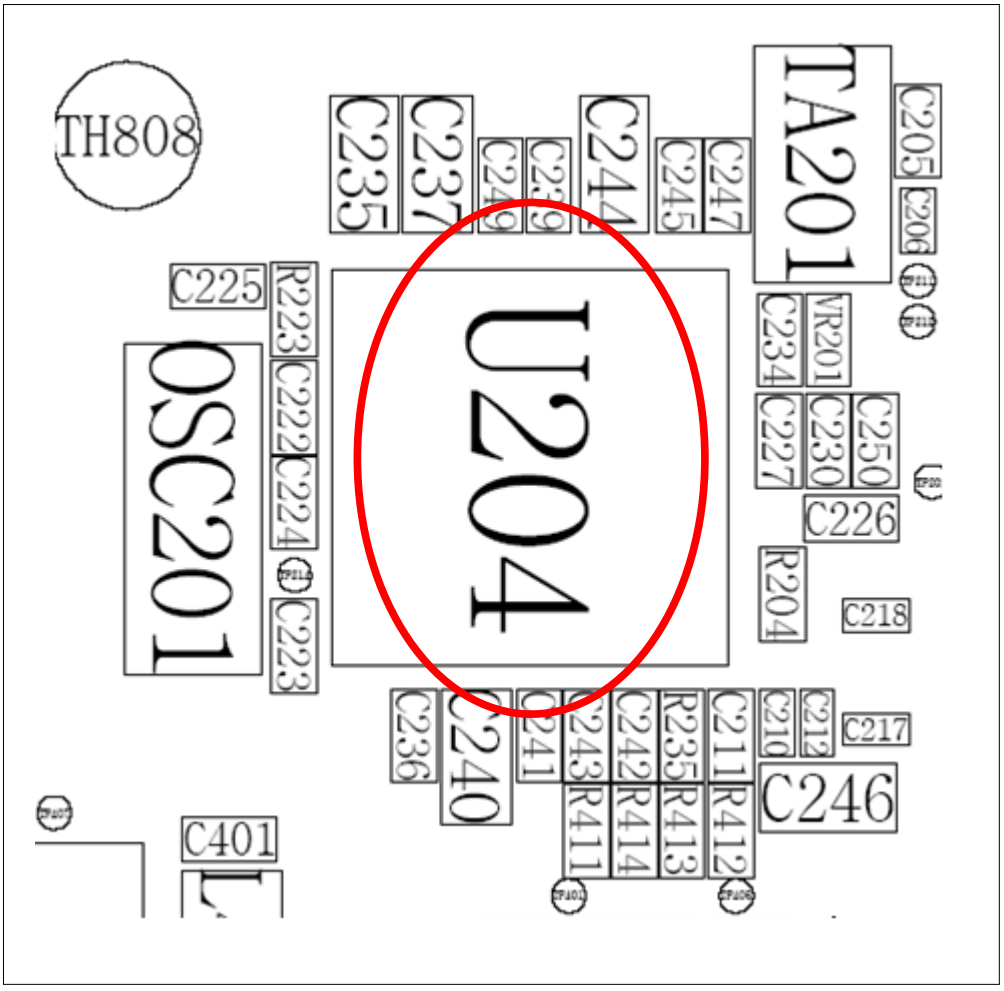


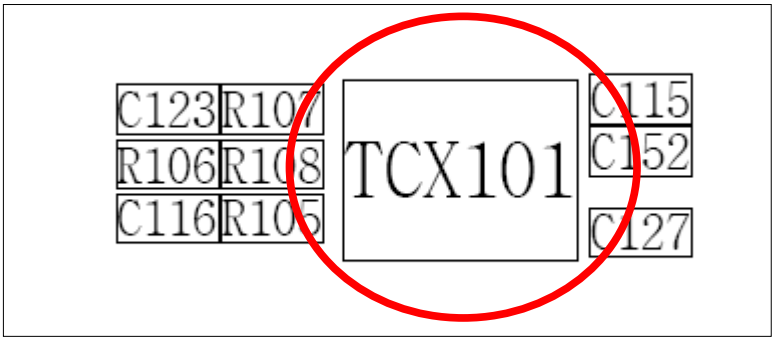




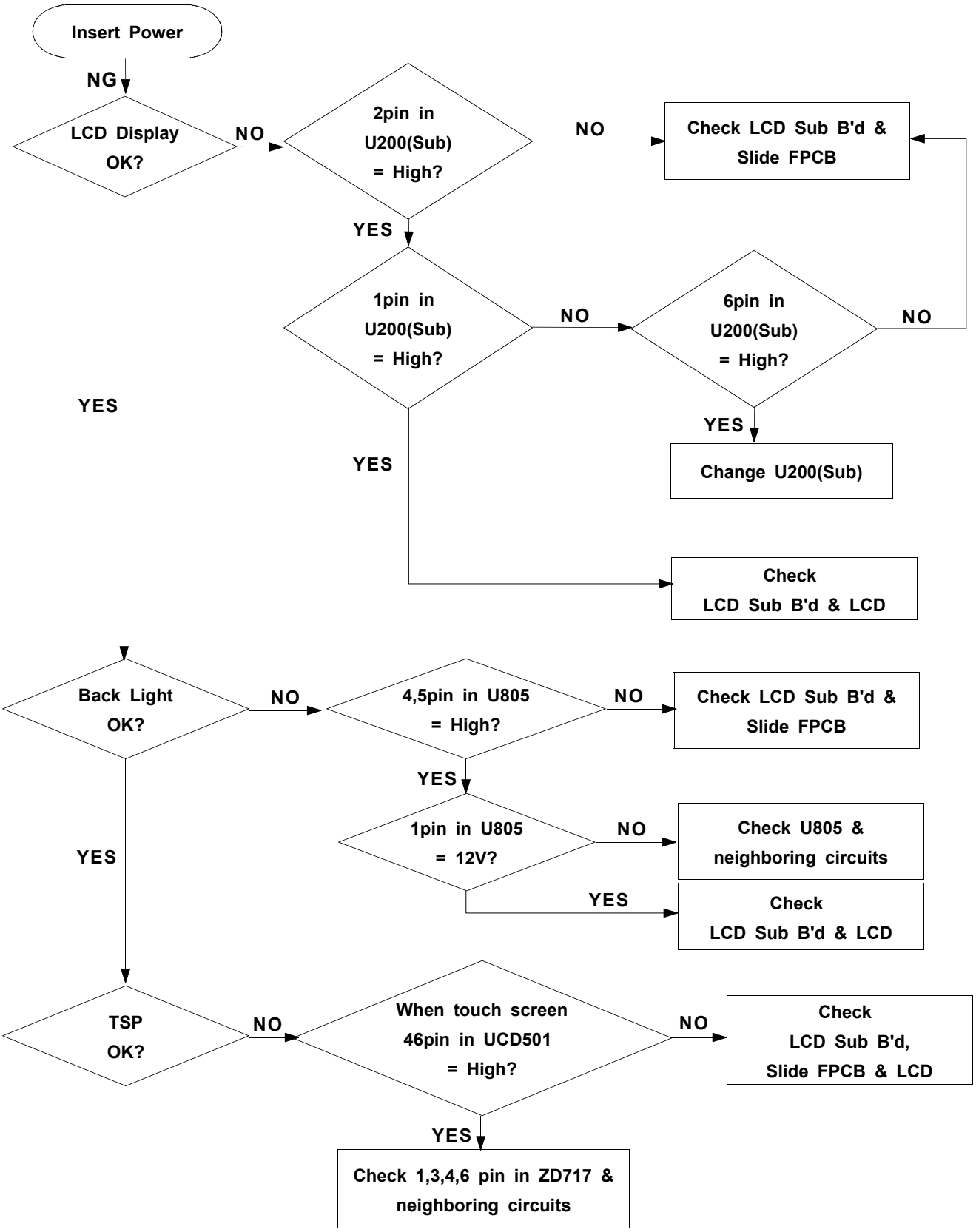


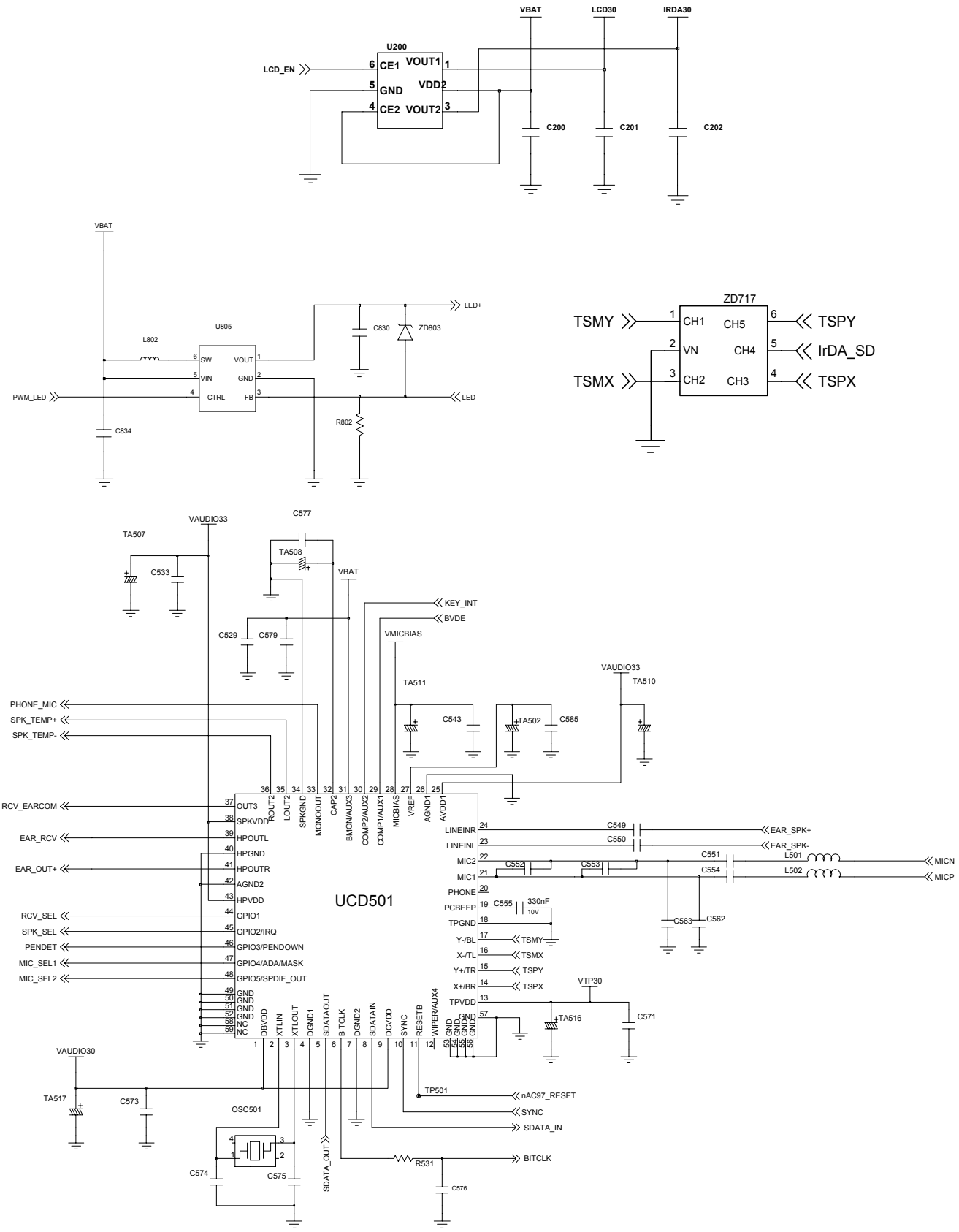


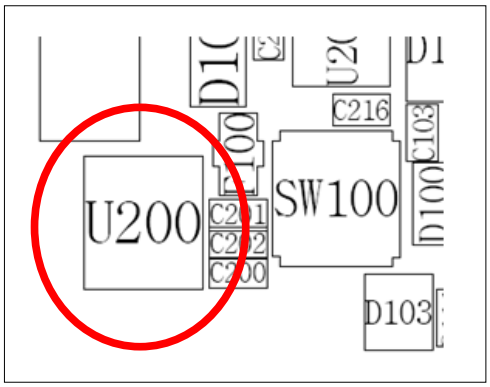


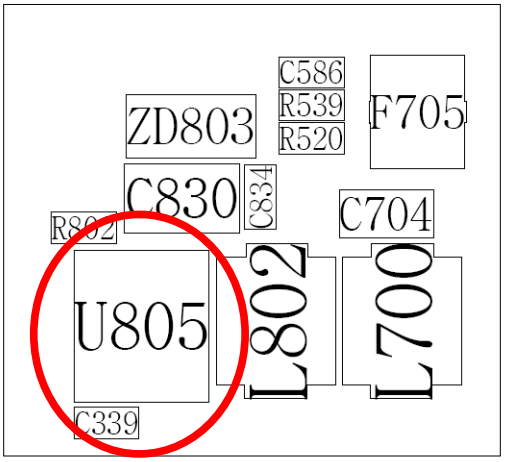


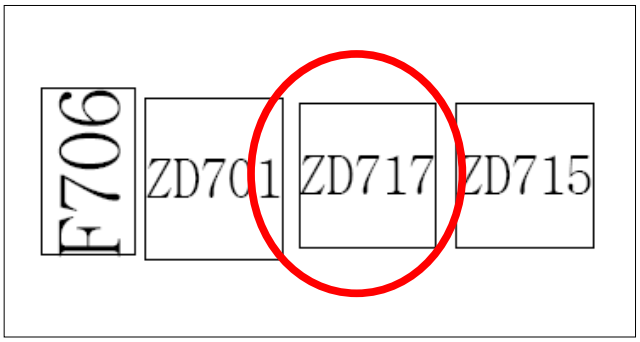
7-2. LCD Working

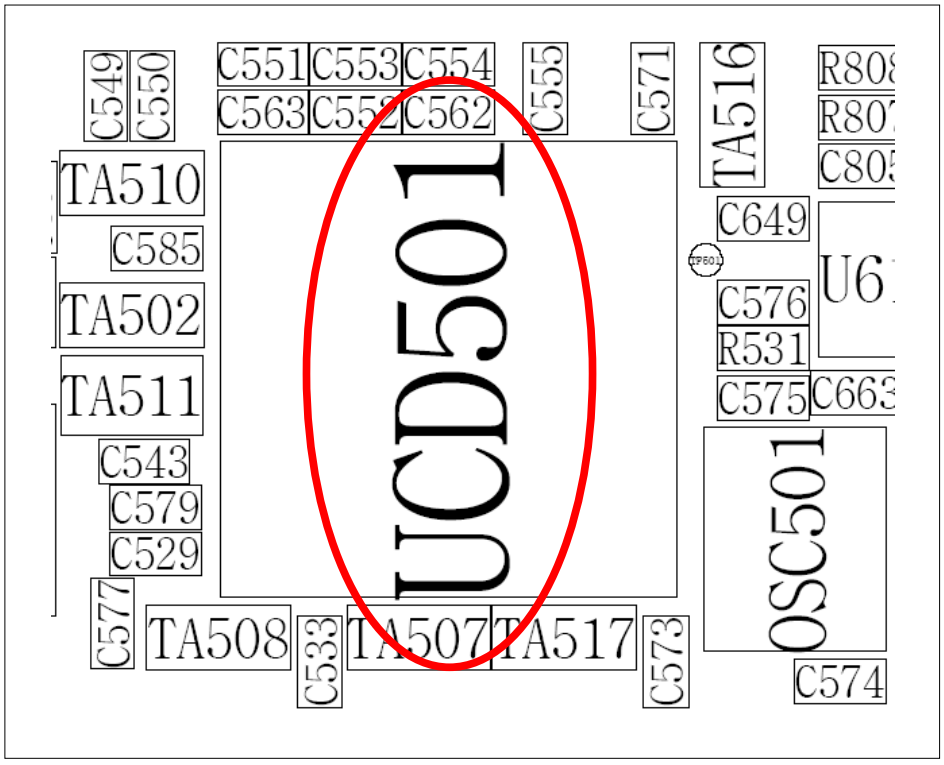






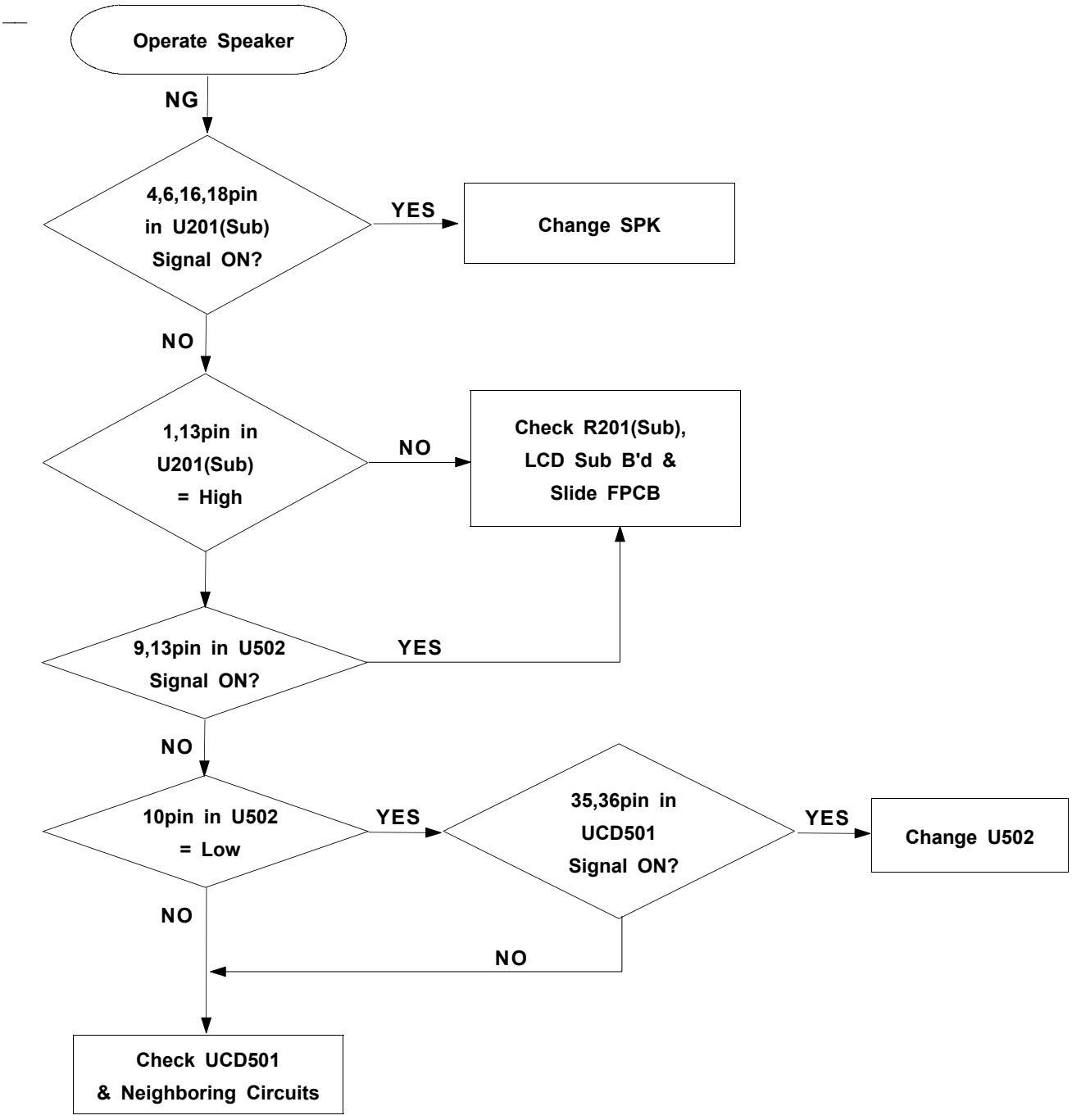


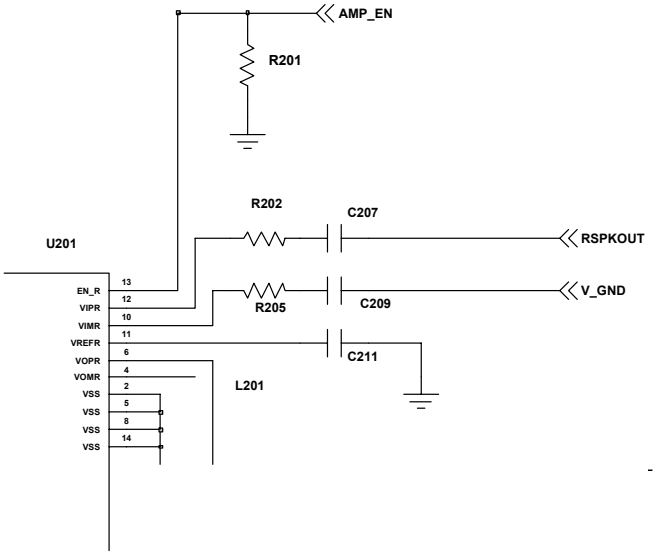


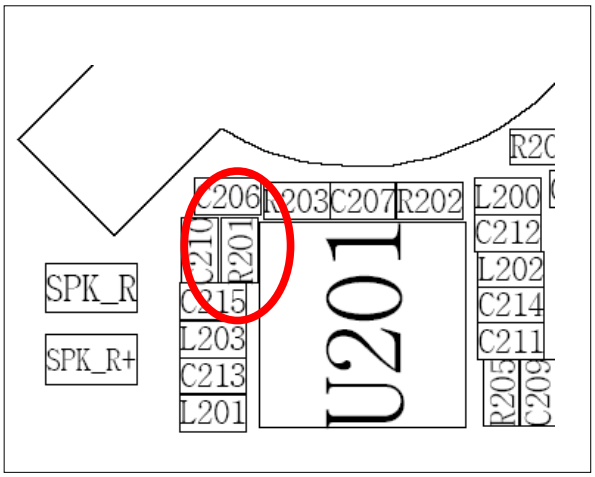


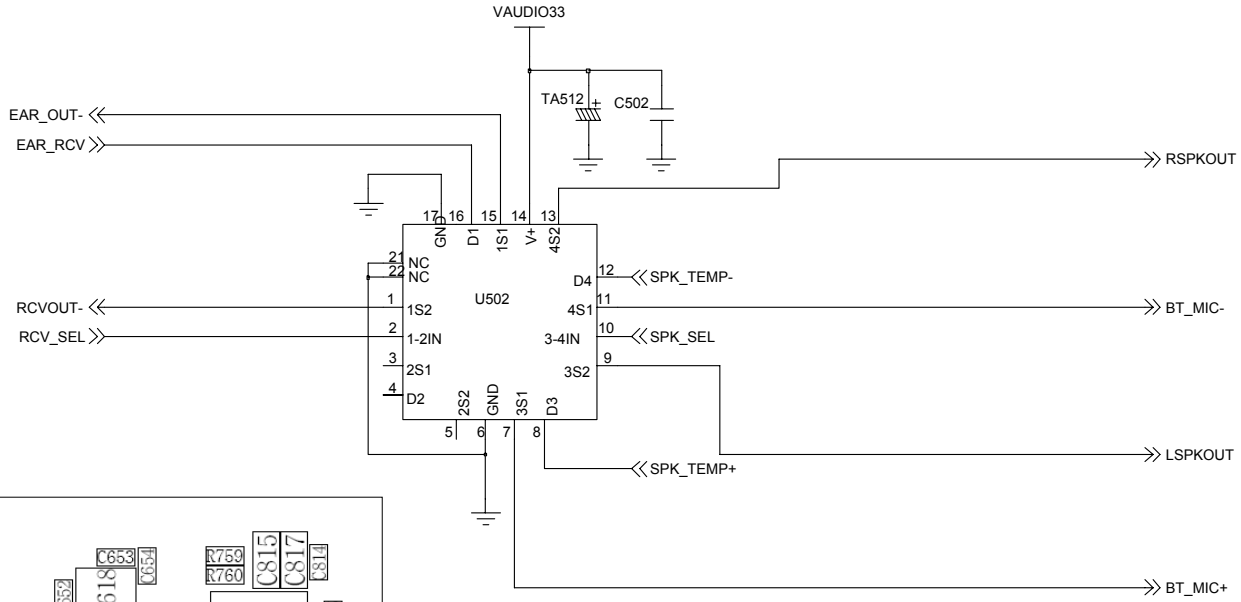
7-3. Audio Working

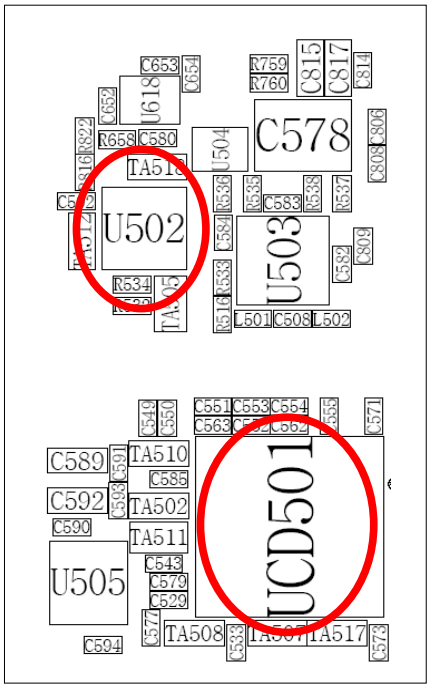
Speaker Working



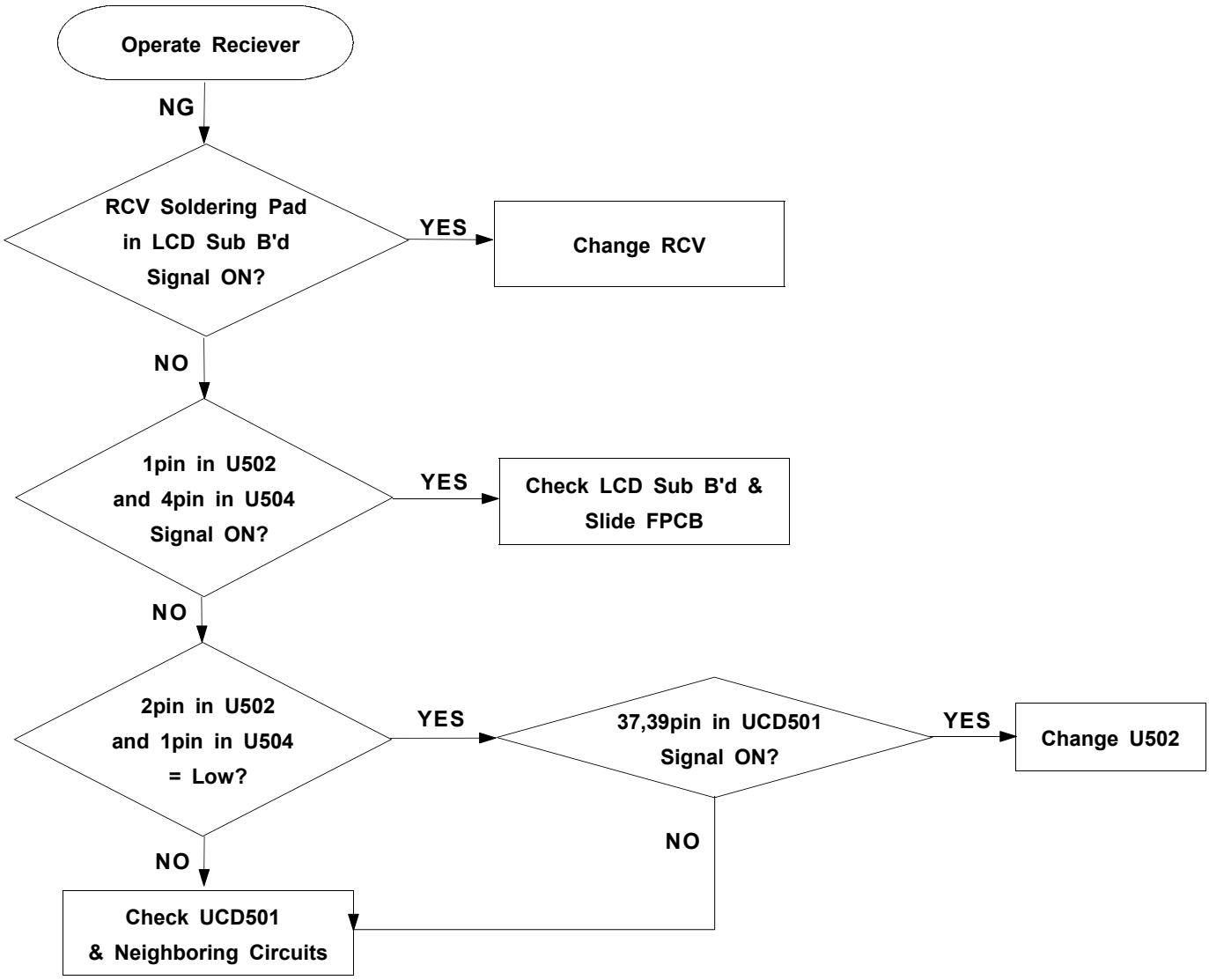




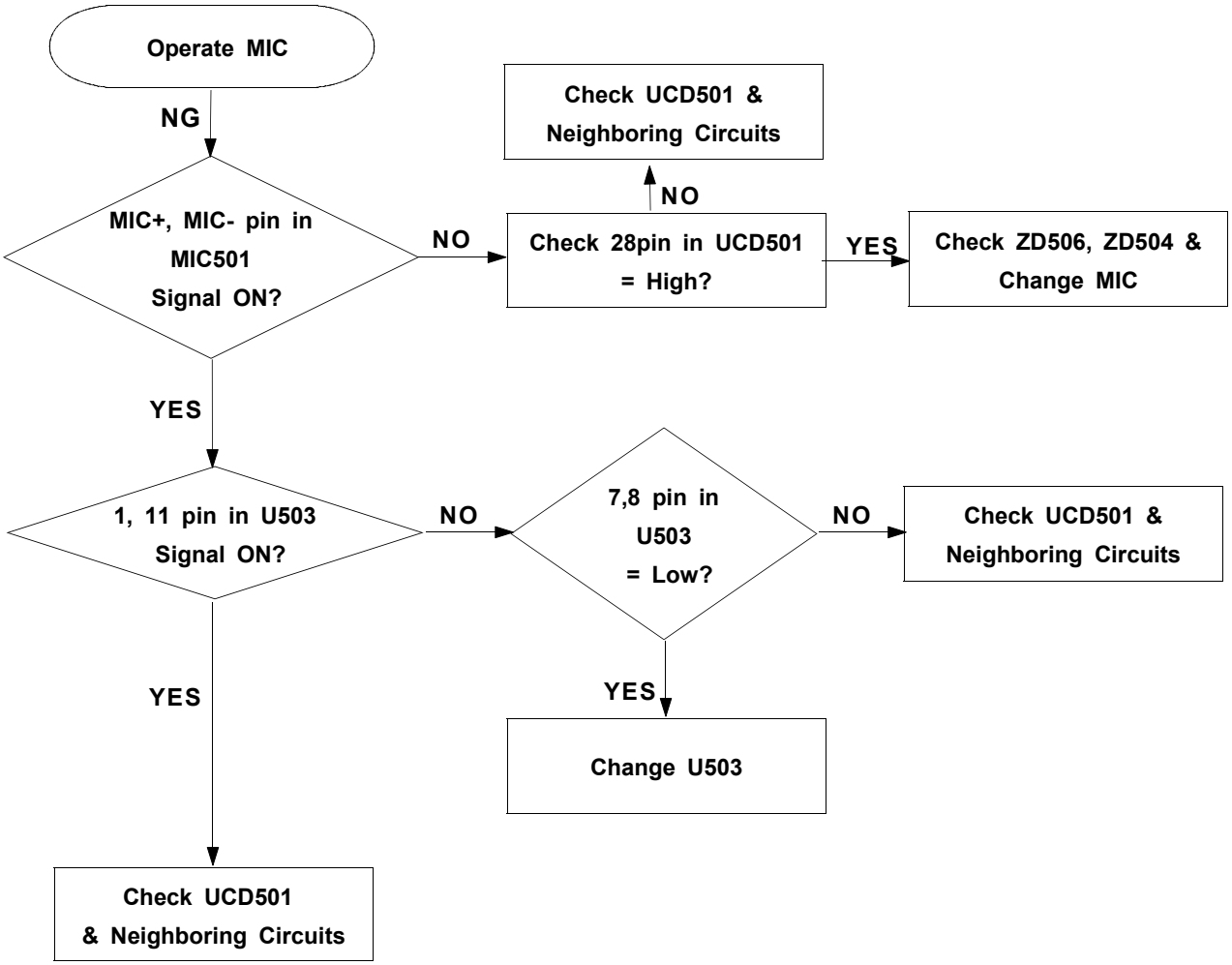


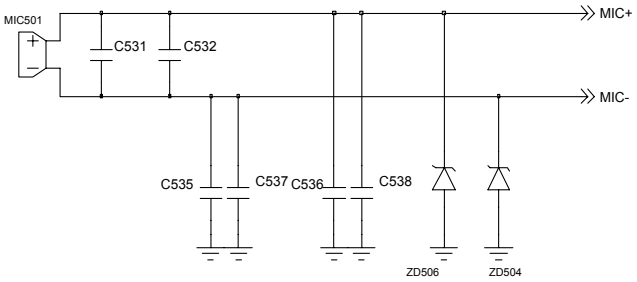


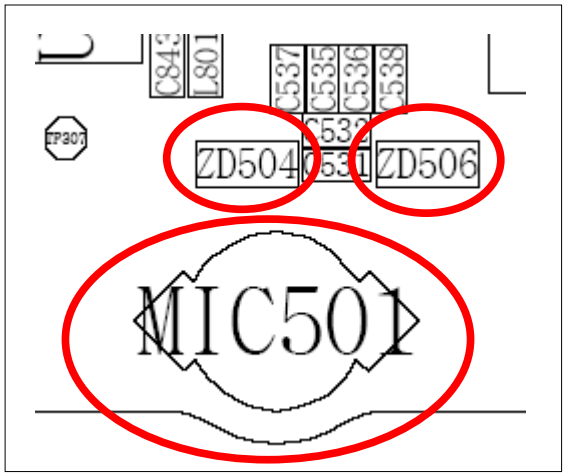
Reciever Working

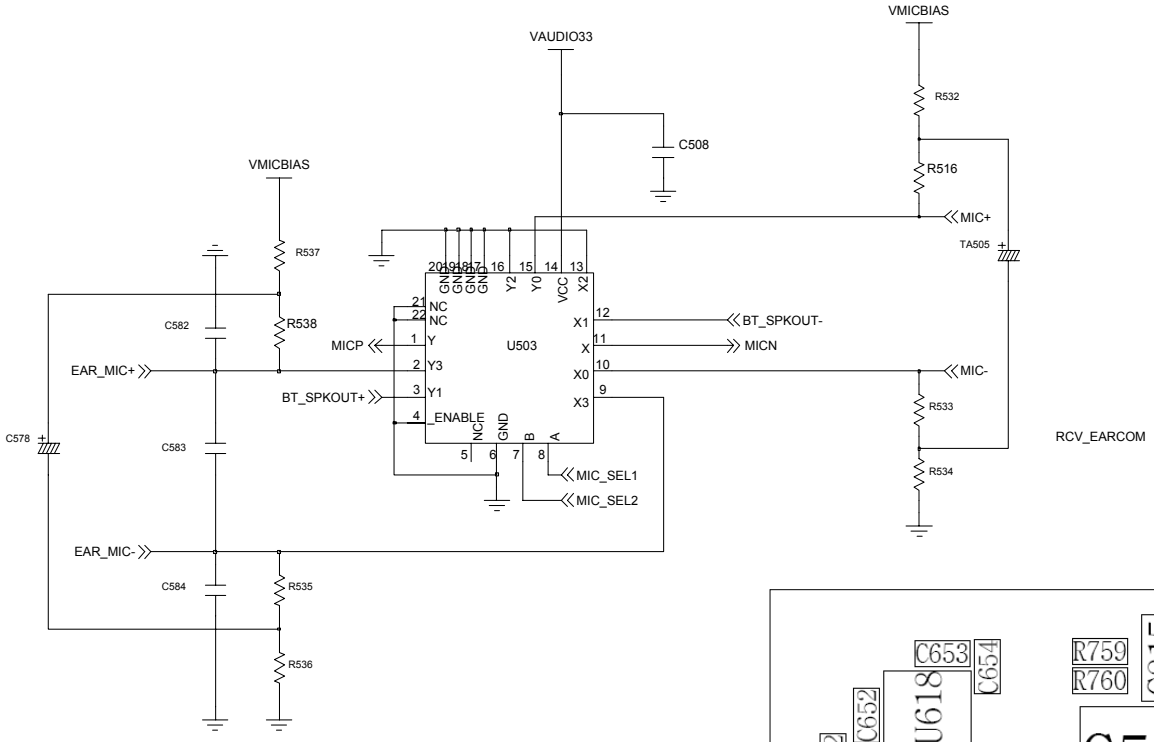


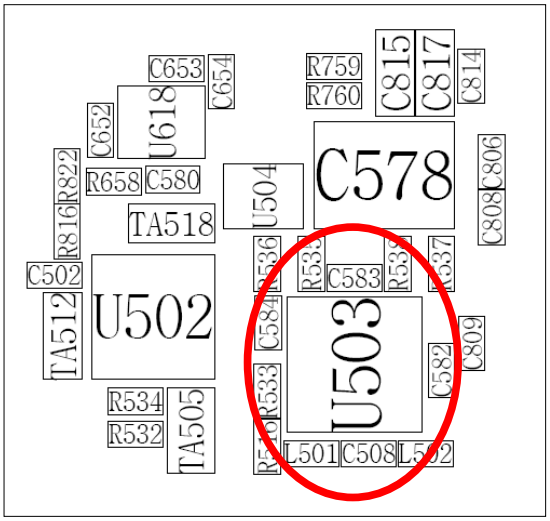
Mic Working



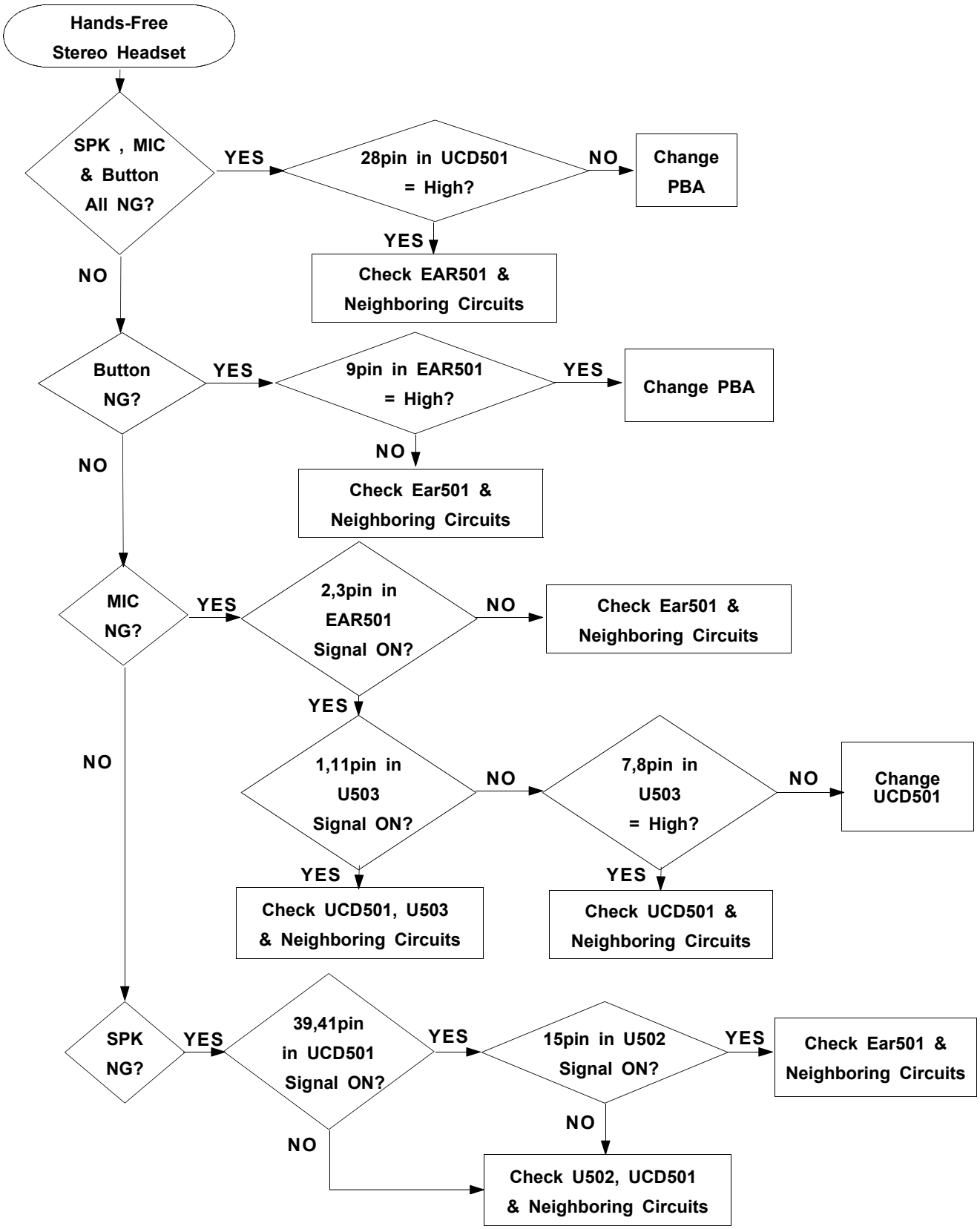


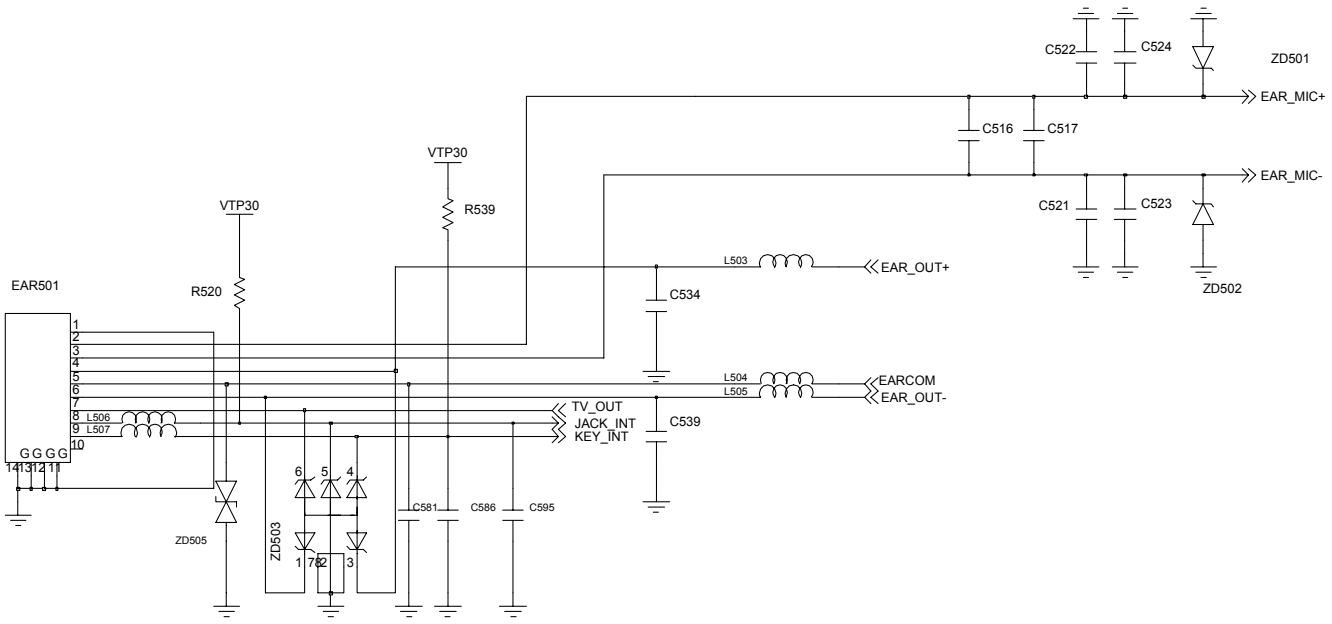


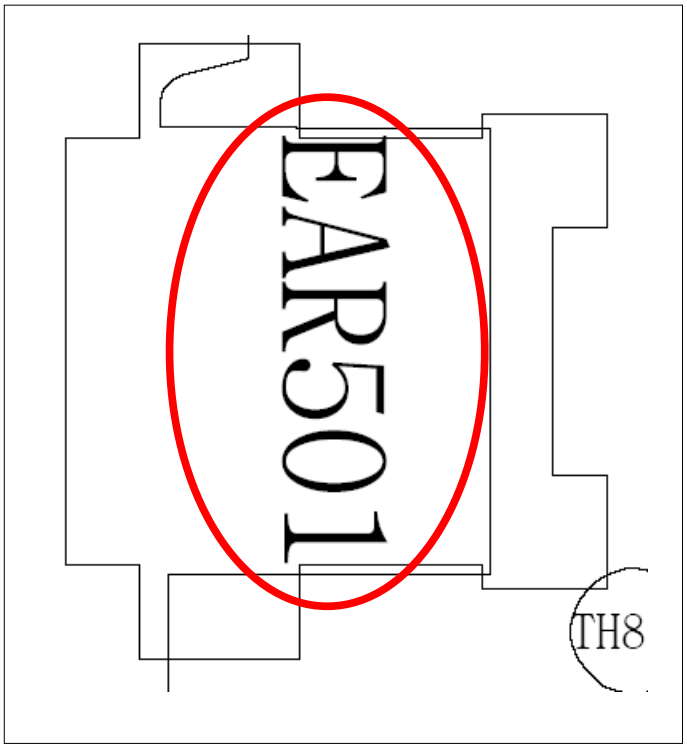




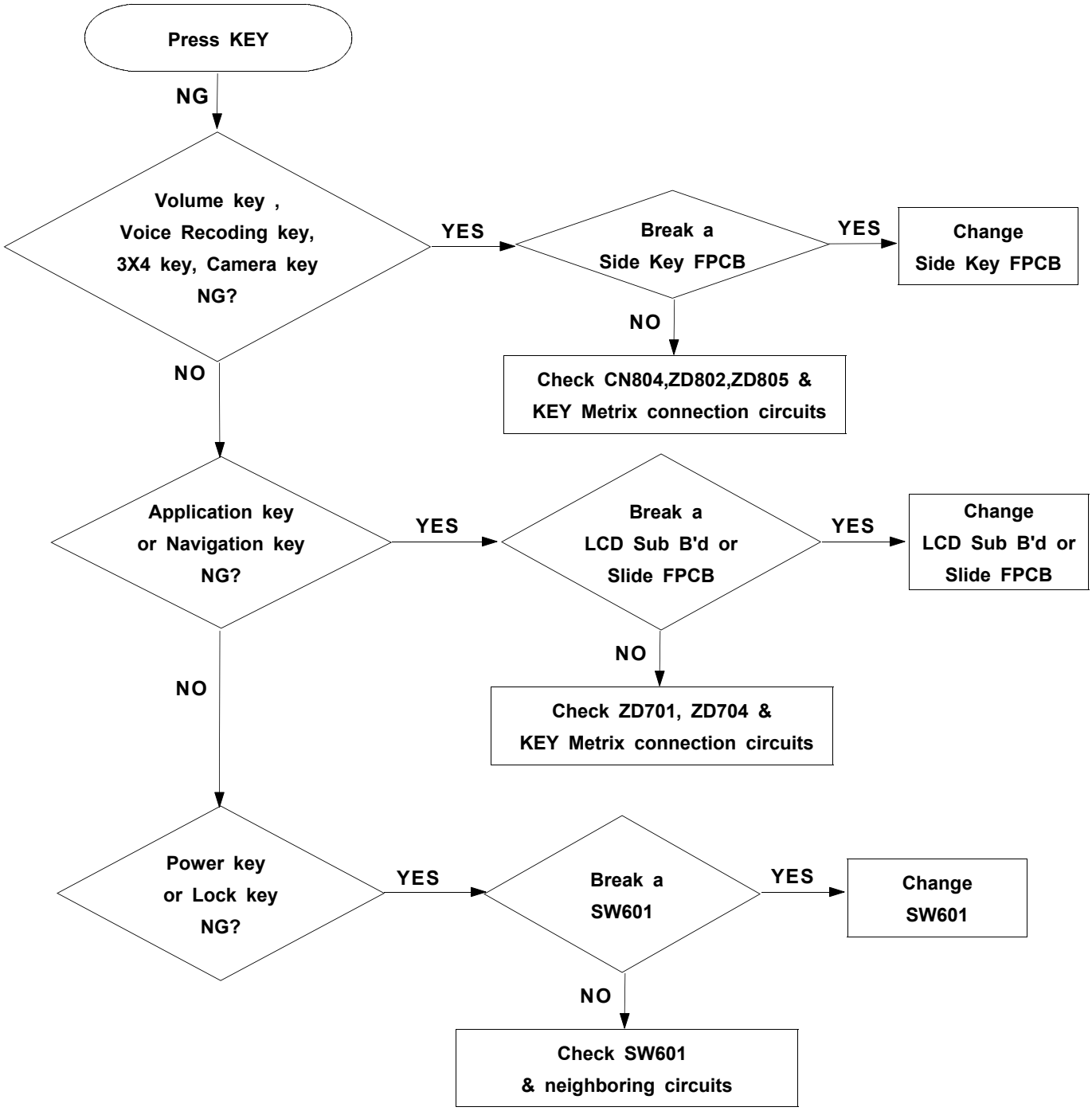
Hands-Free Stereo Headset Working

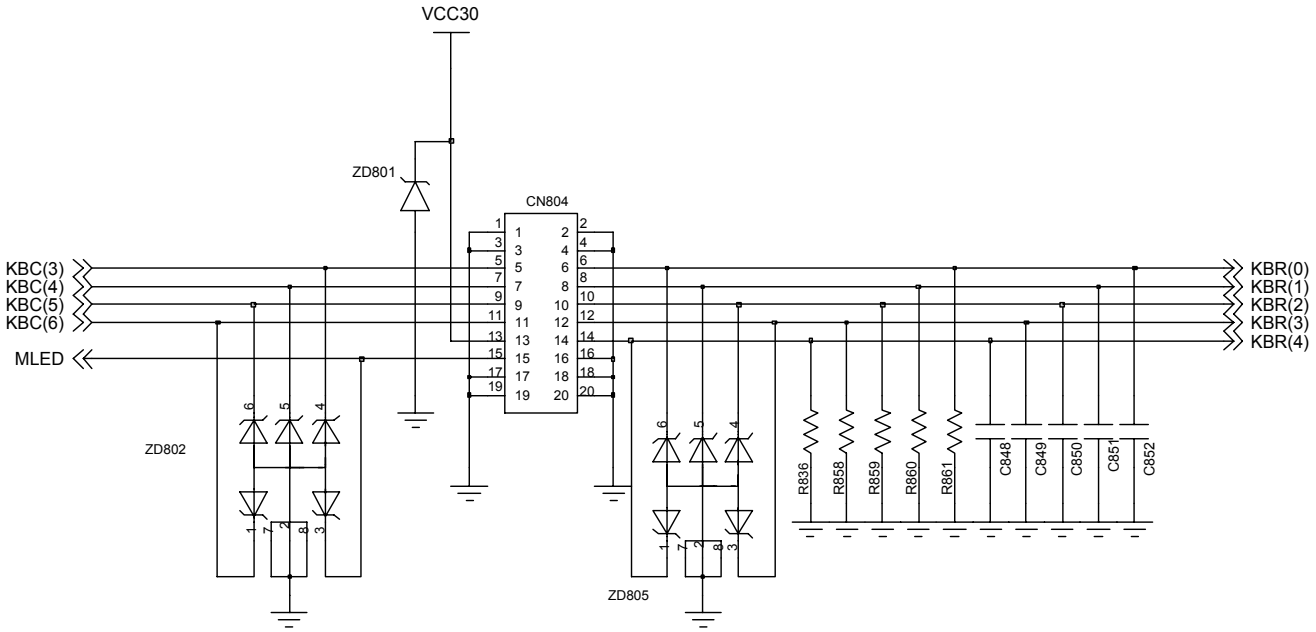


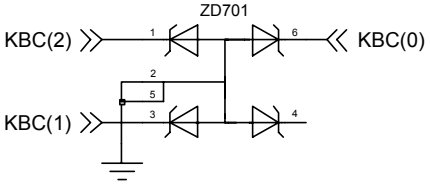


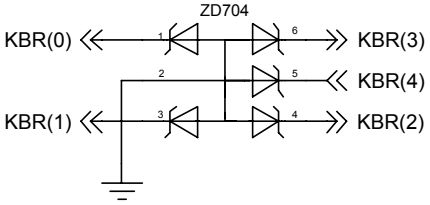


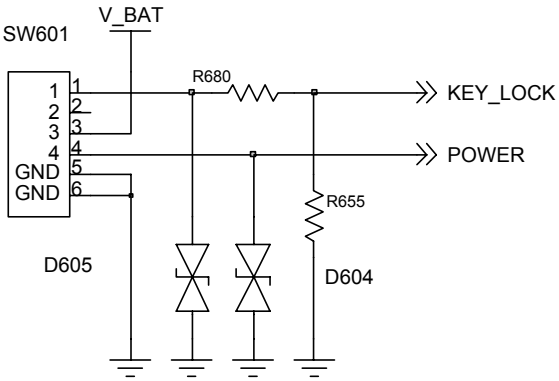
7-4. KEY Working

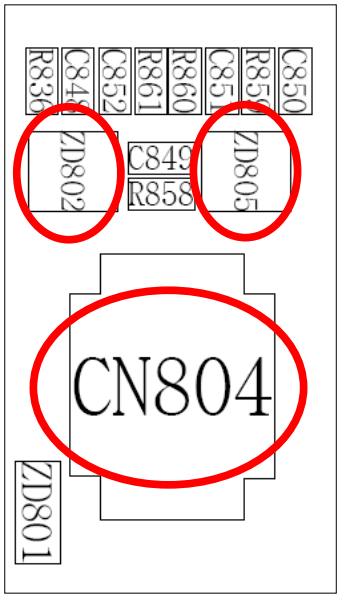


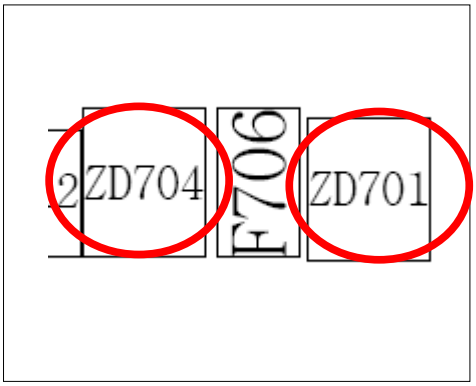


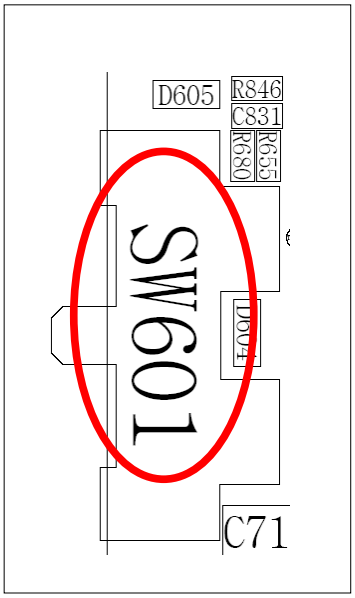




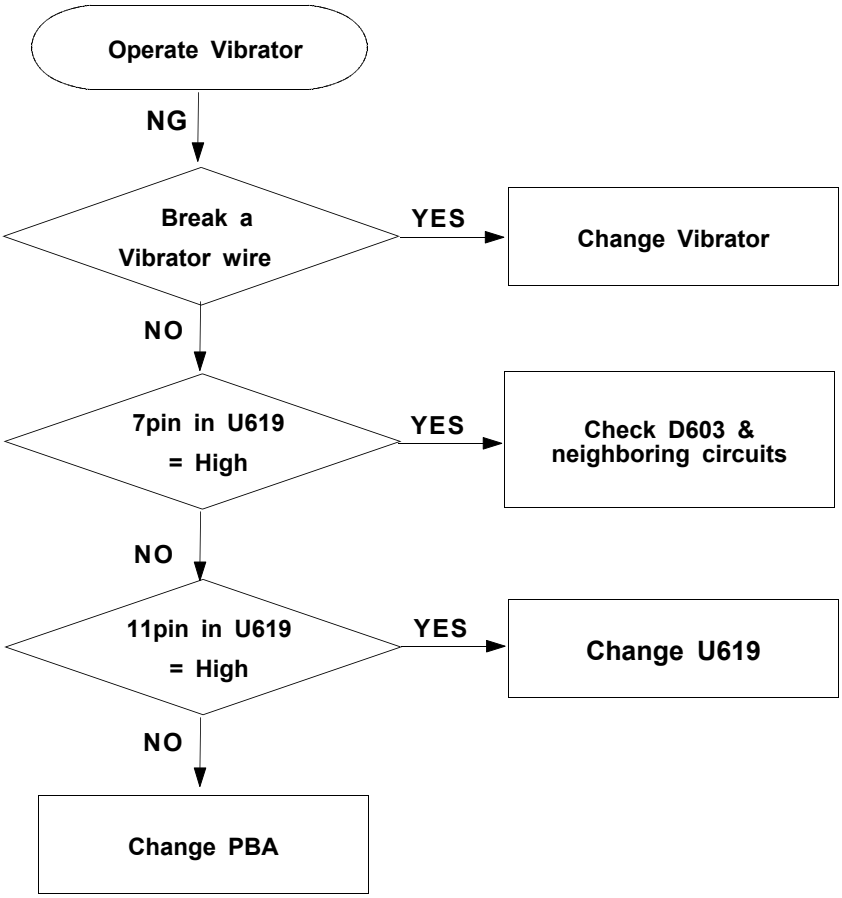


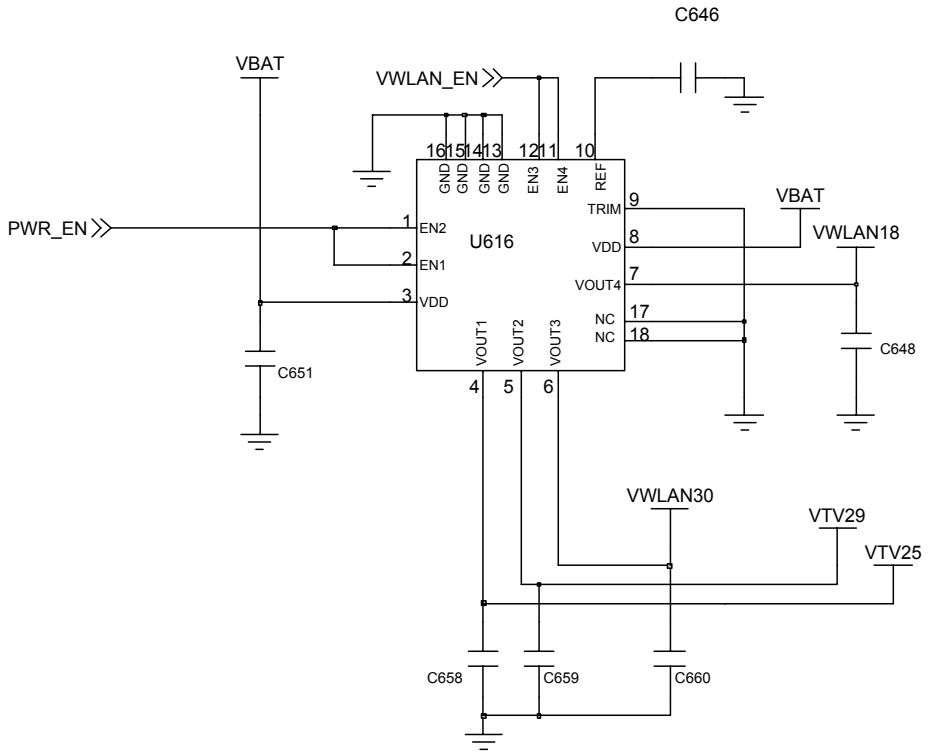


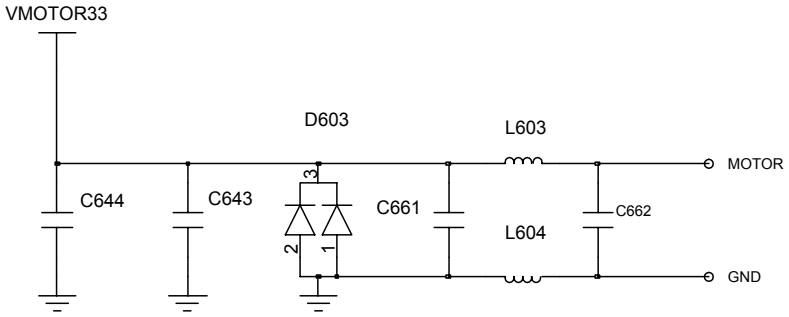


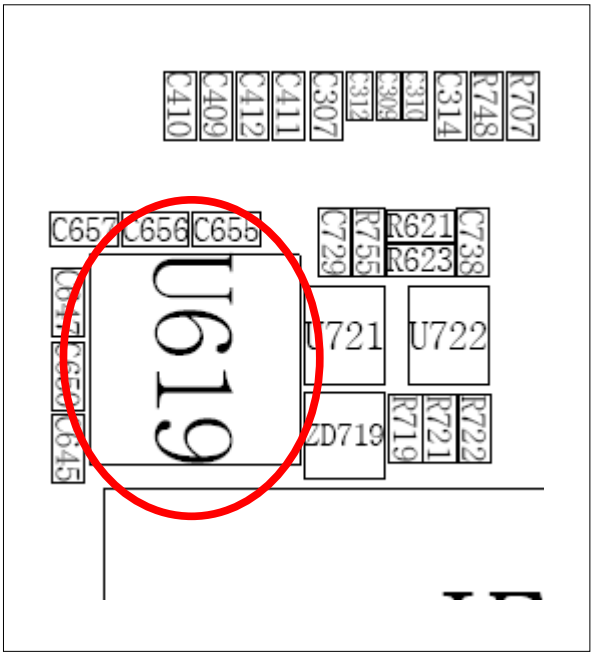


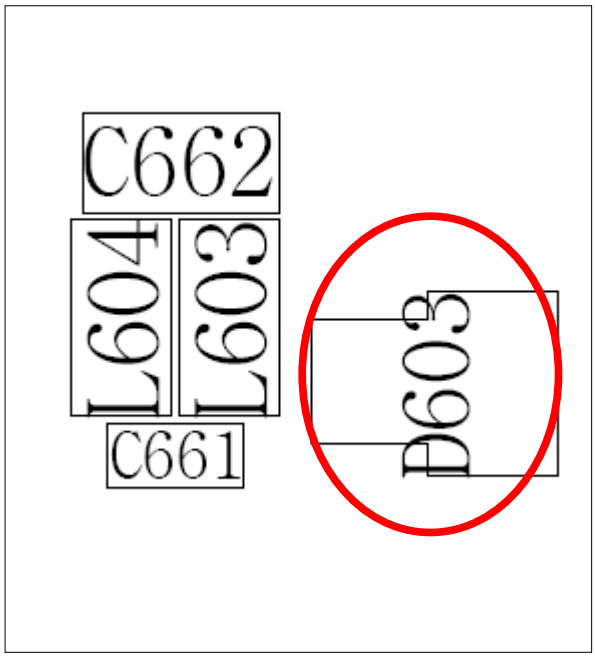
7-5. Vibrator Working



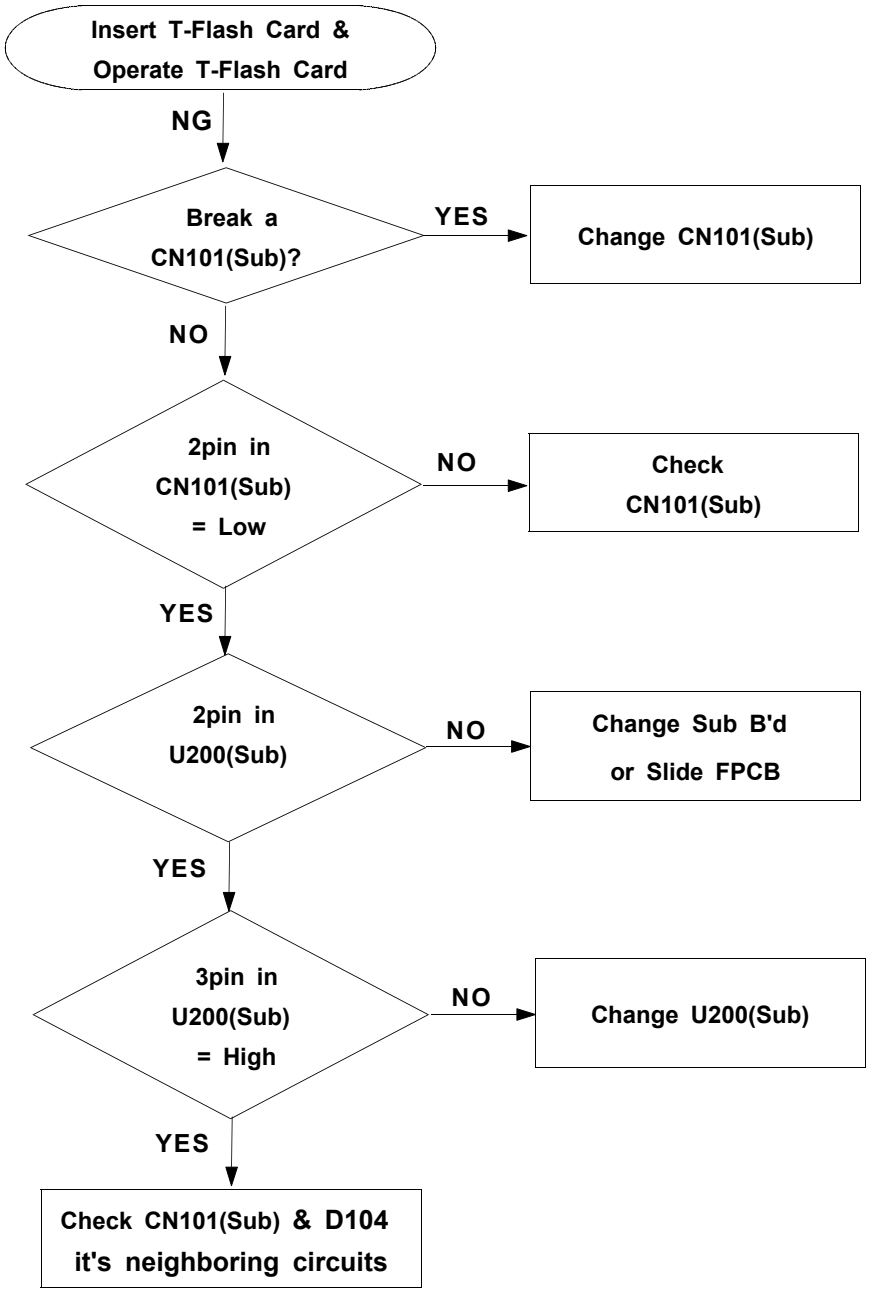


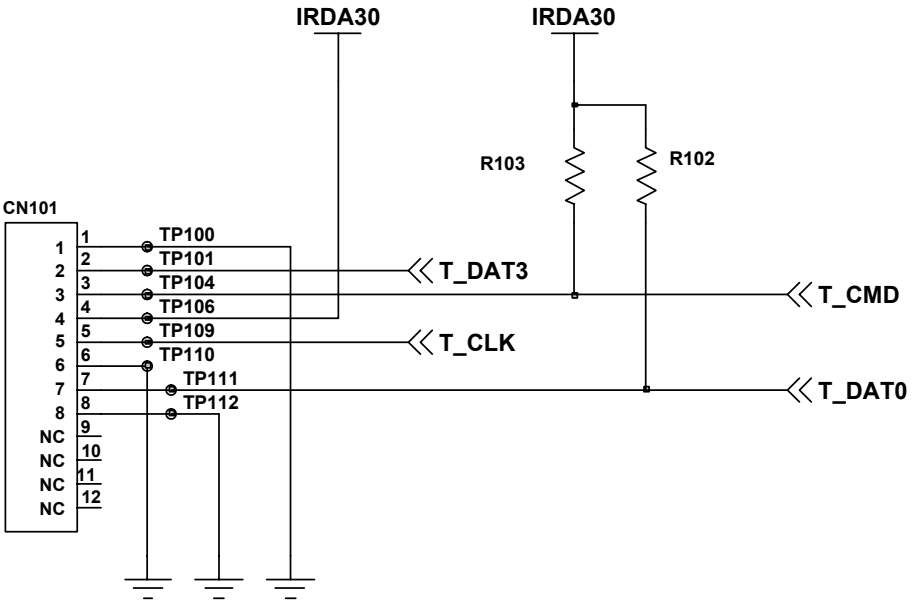


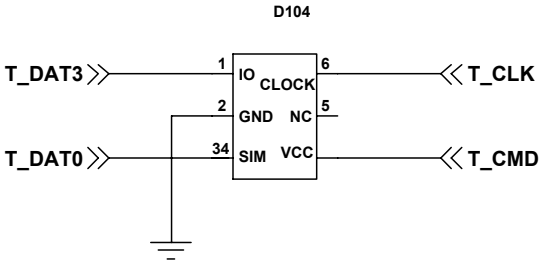


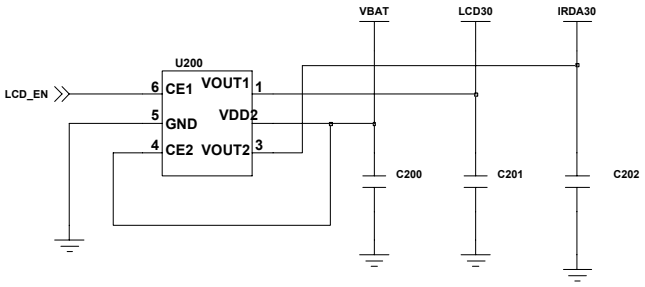


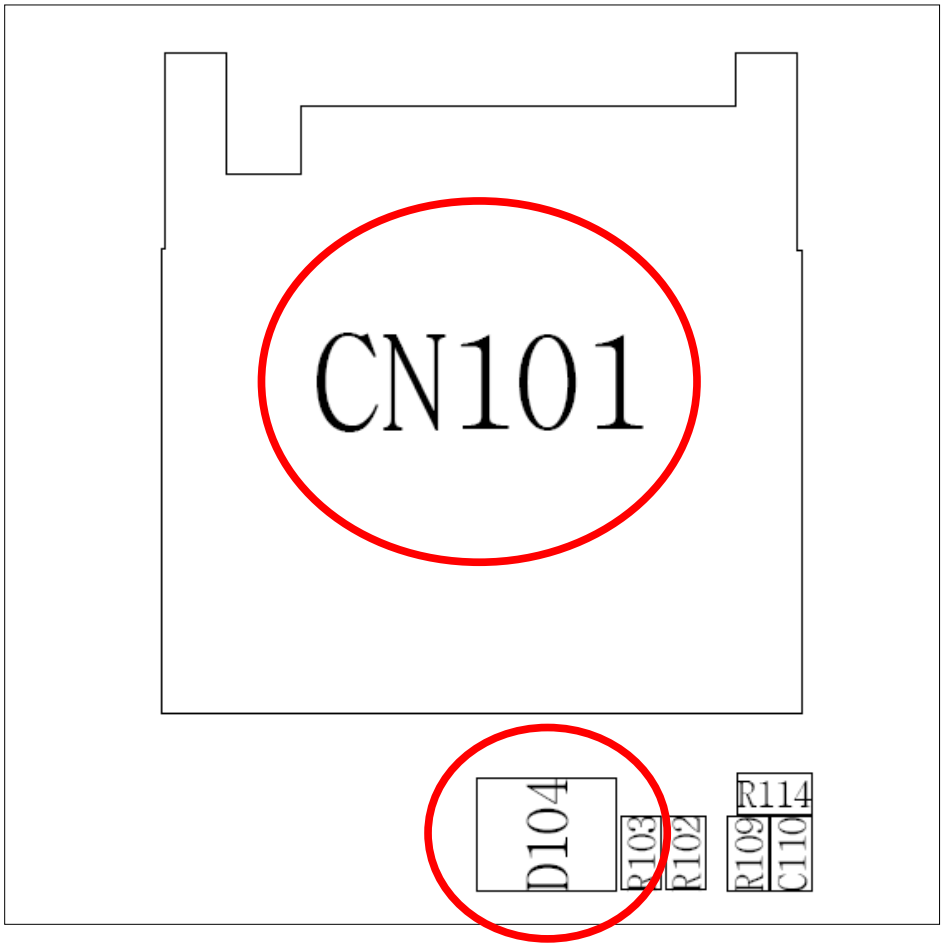
7-6. T-Flash Card Working

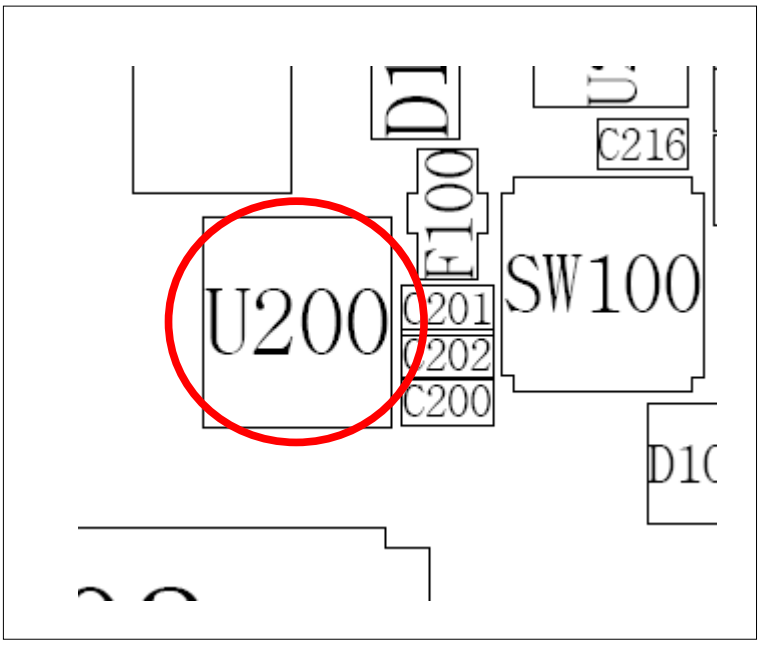




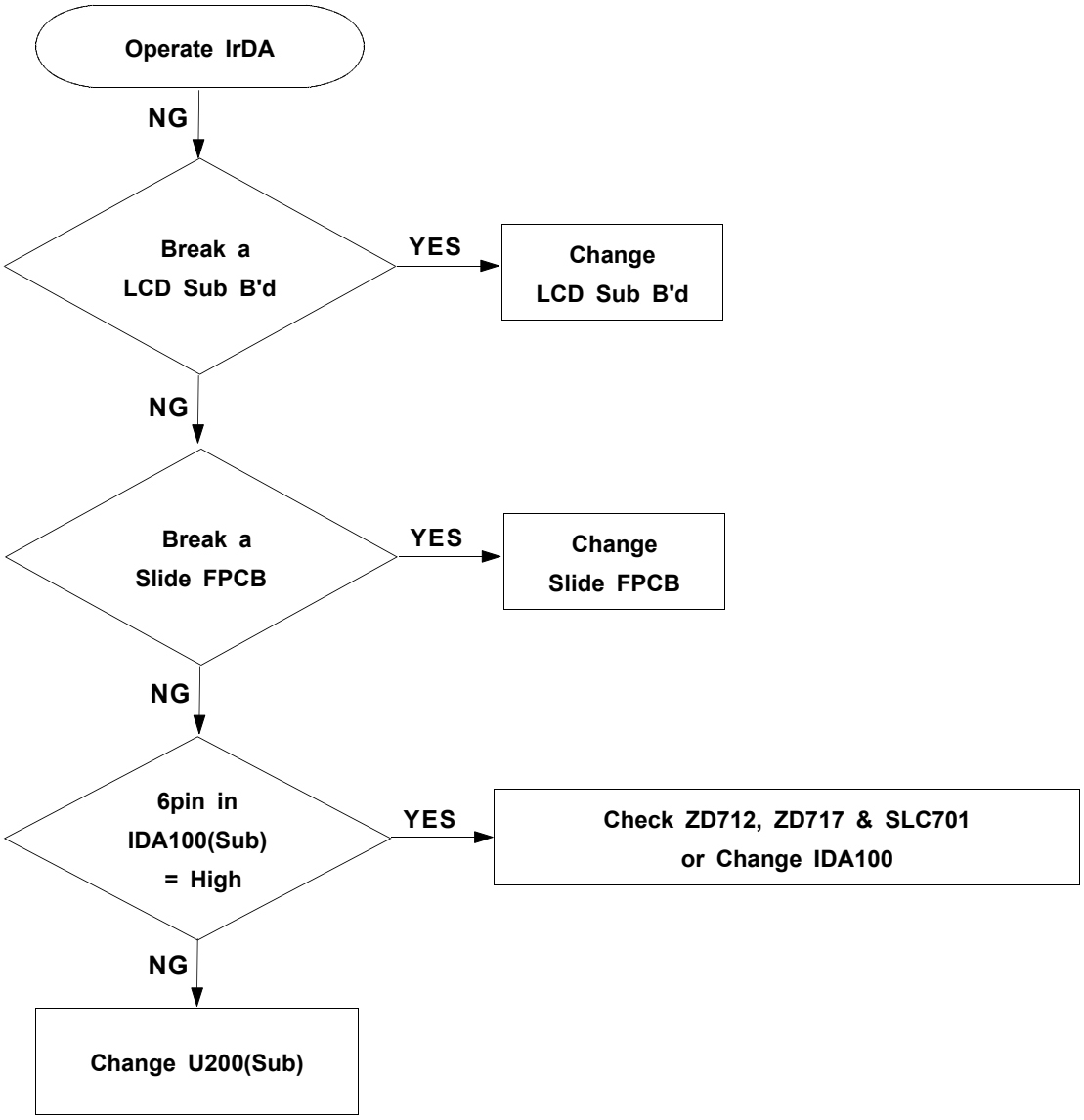


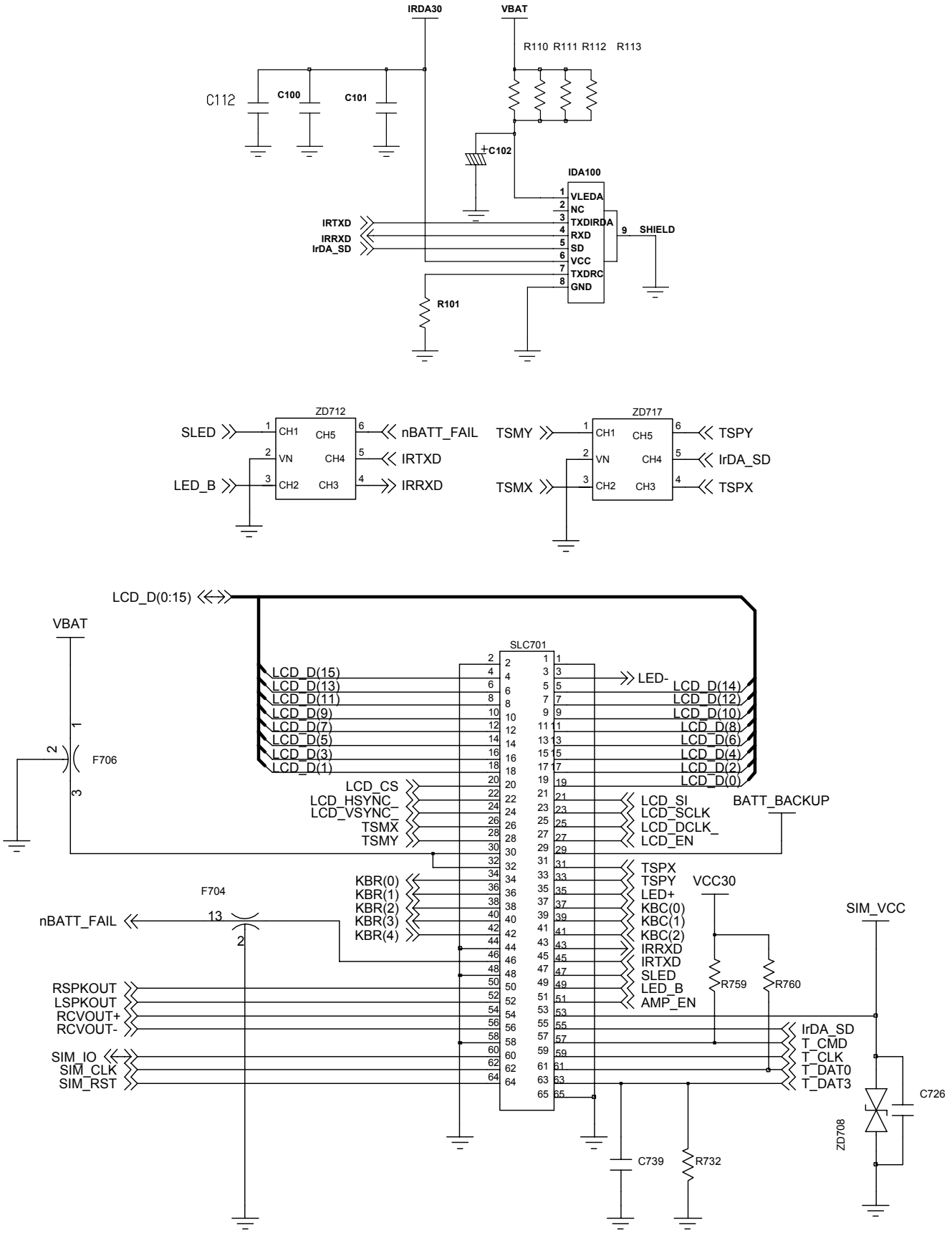


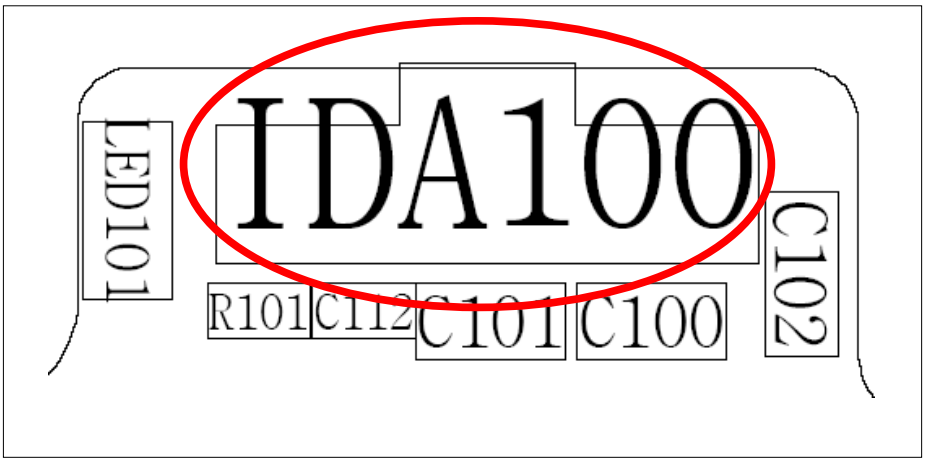


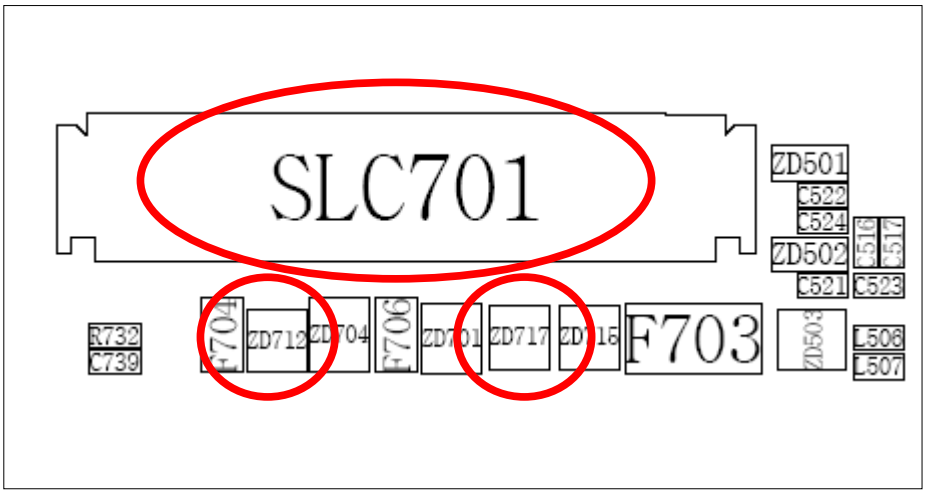


7-7. IrDA Working

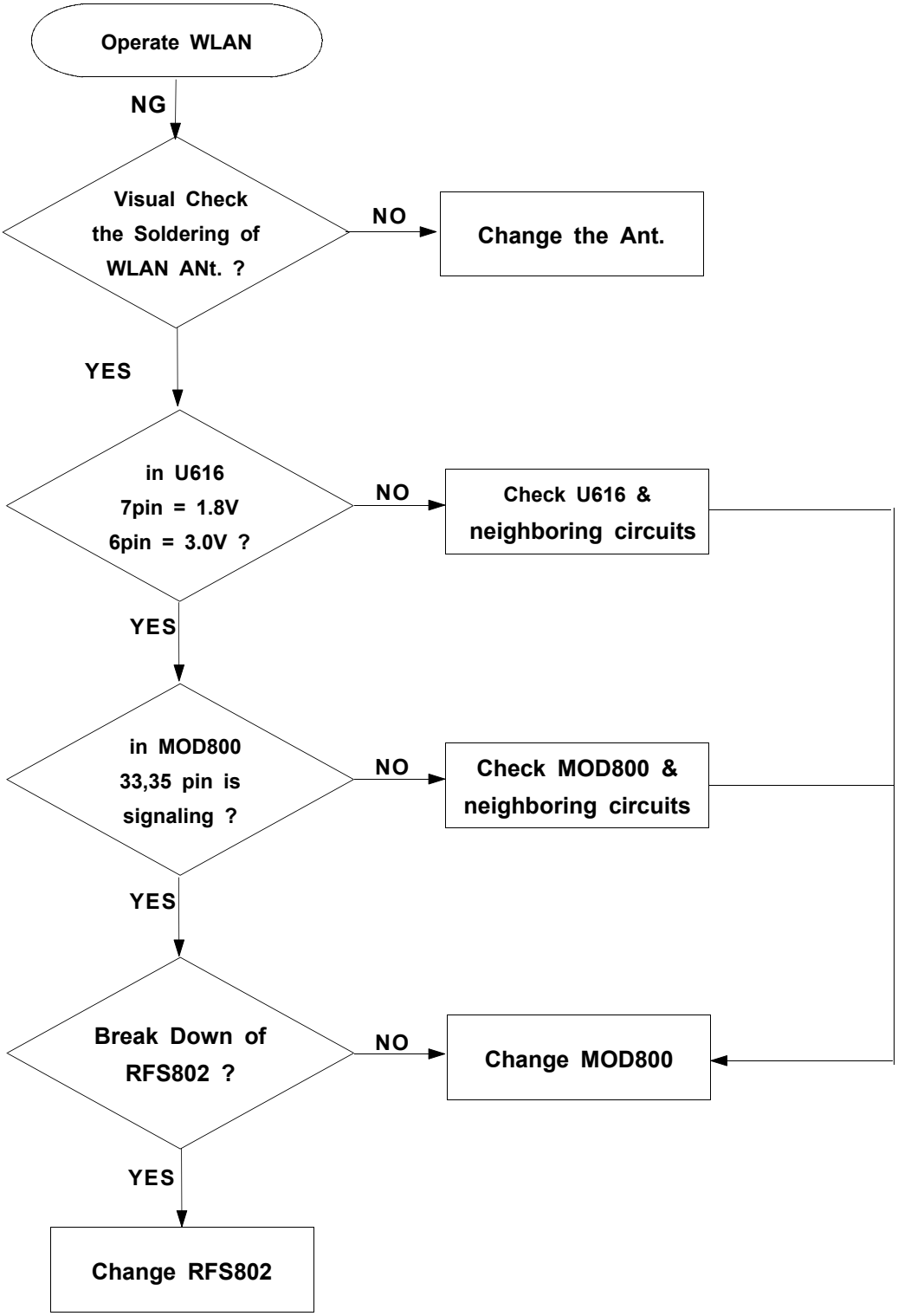


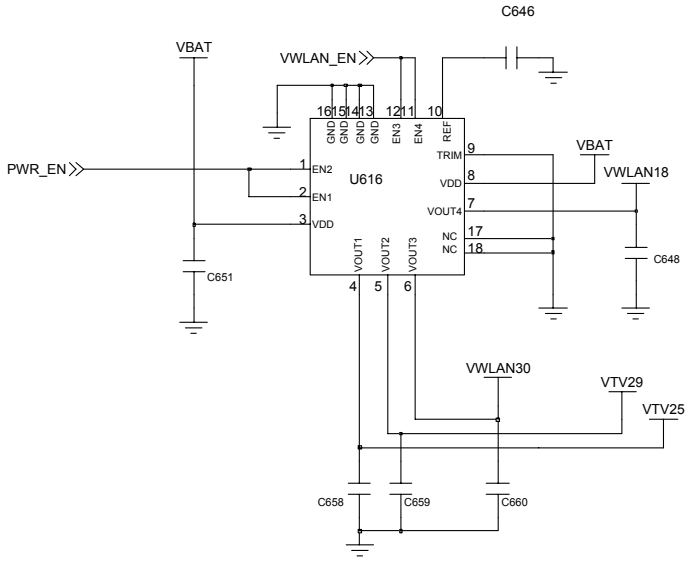


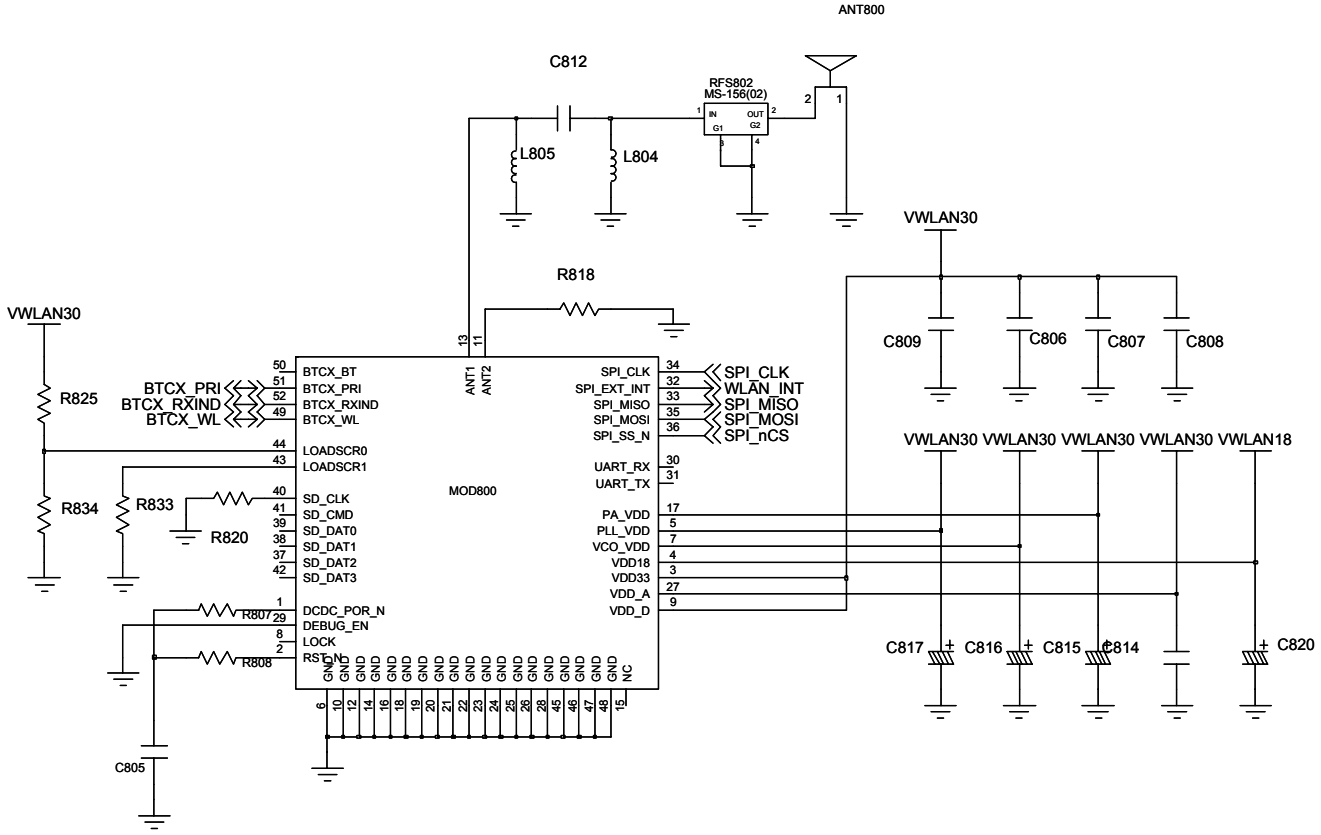


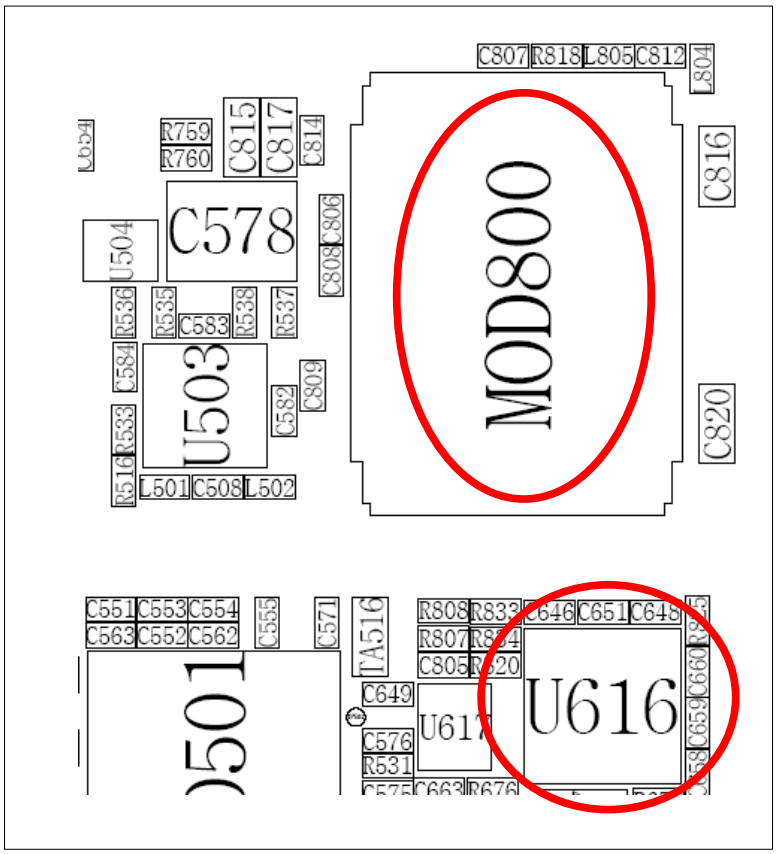


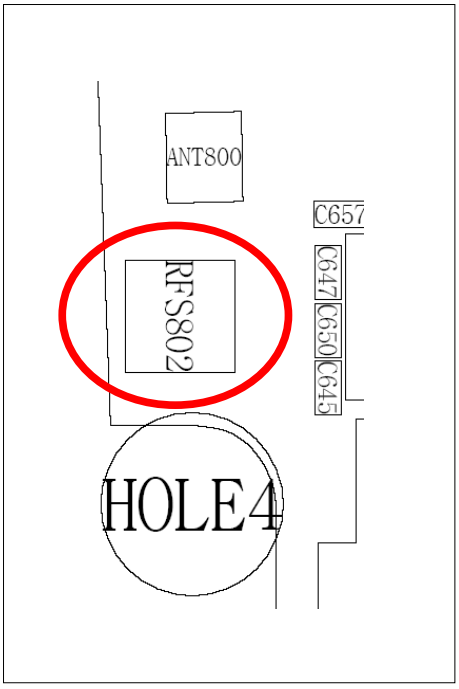
7-8. WLAN Working



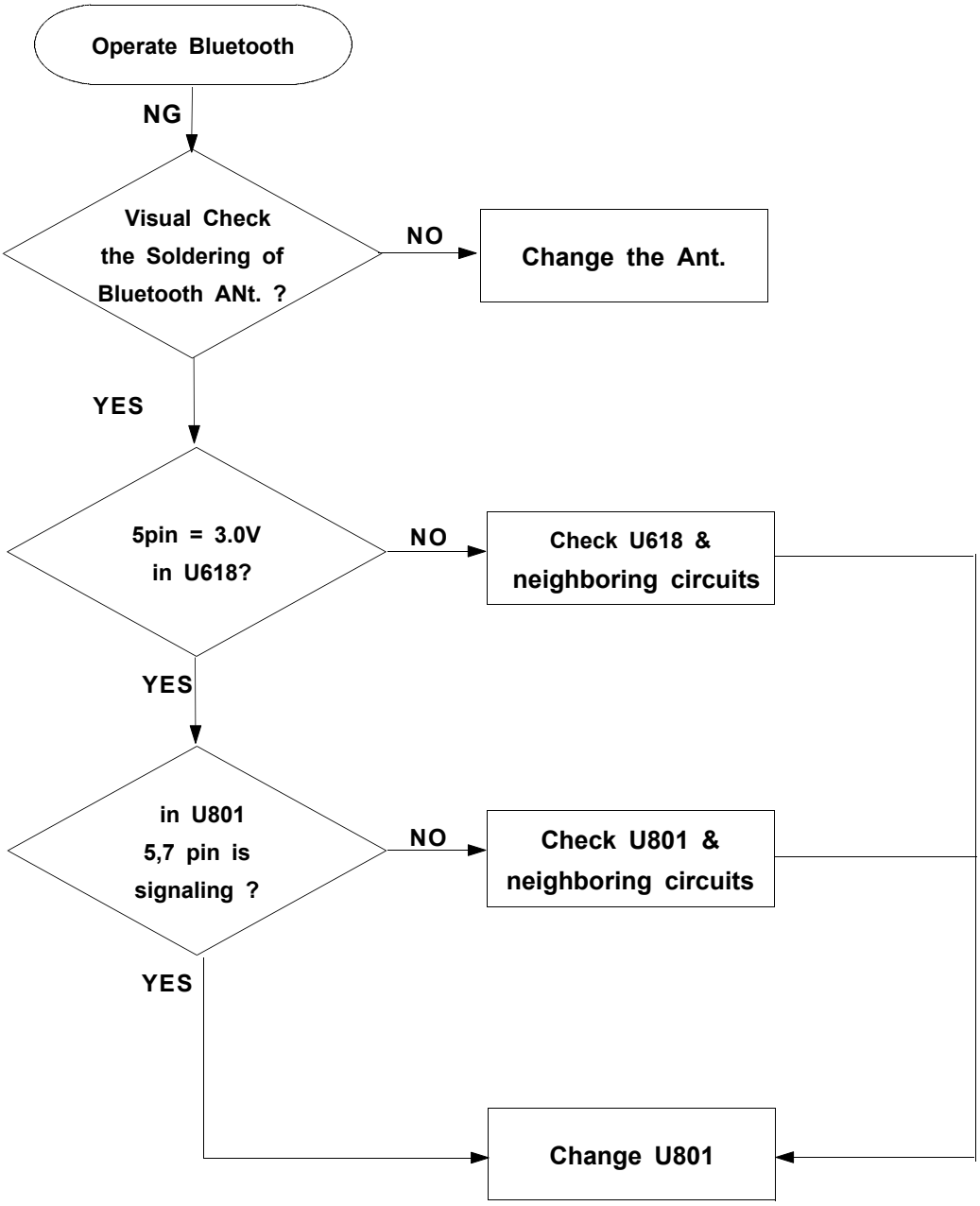


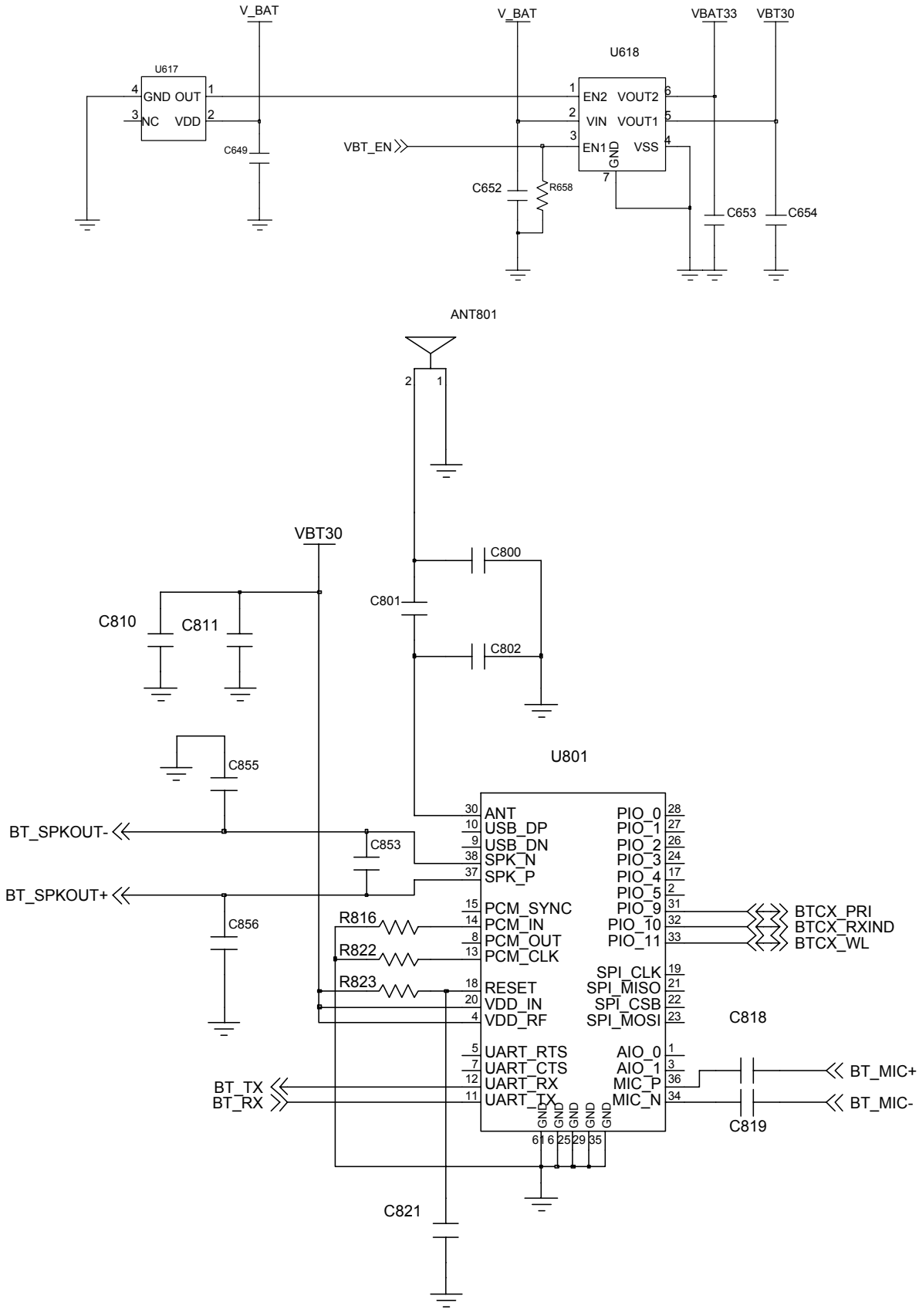


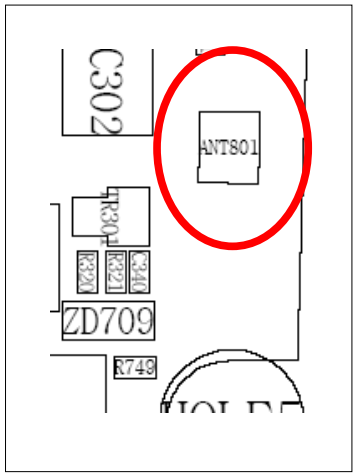


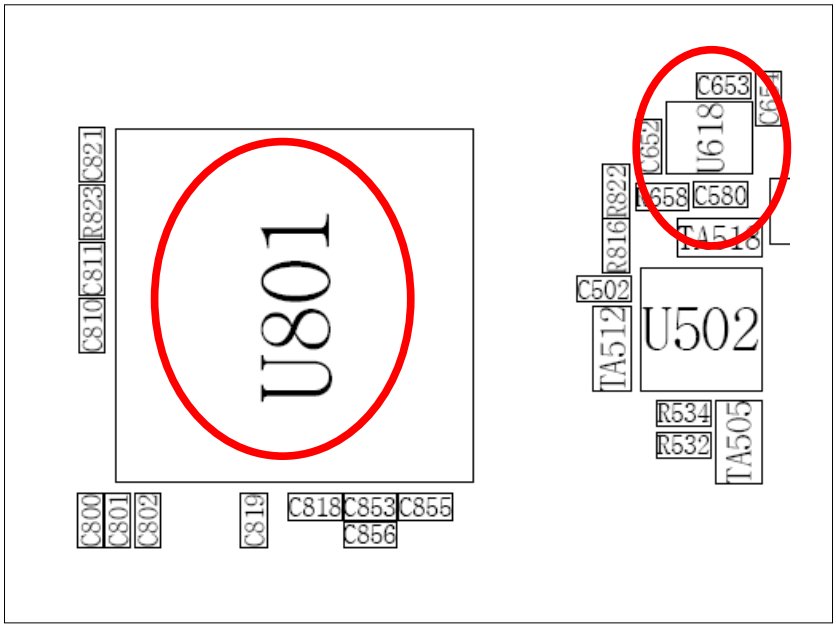


7-9. Bluetooth Working

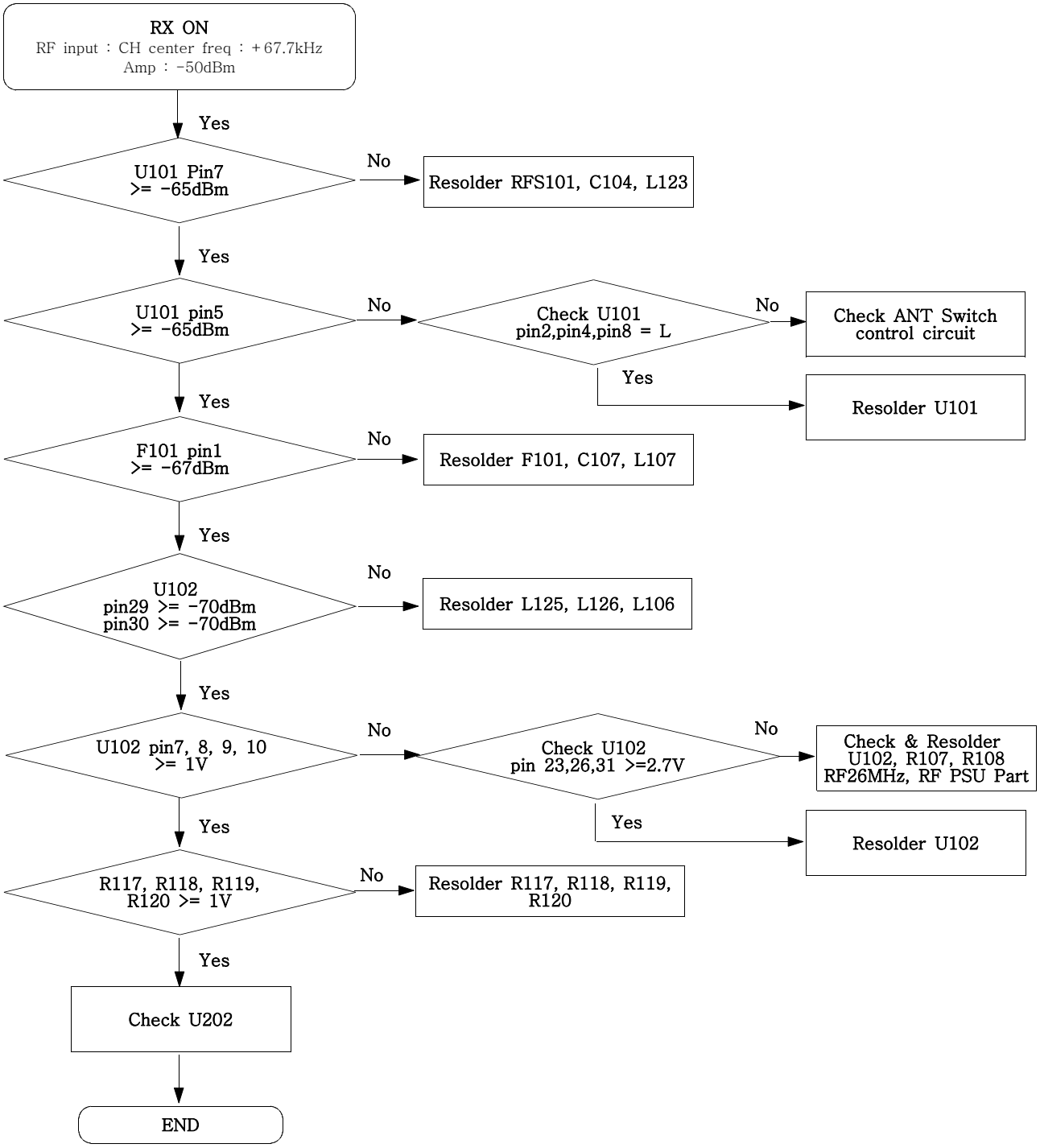




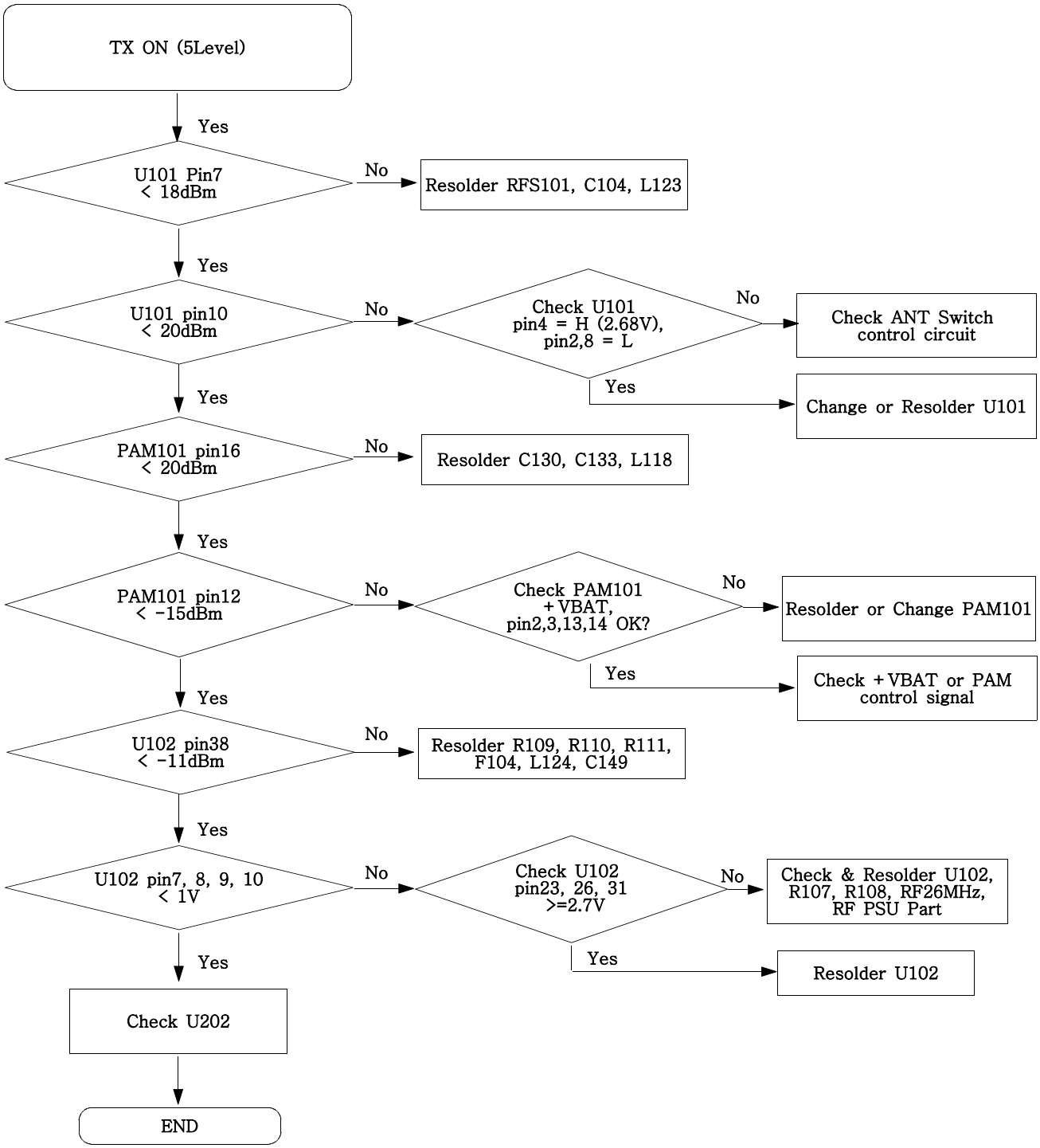




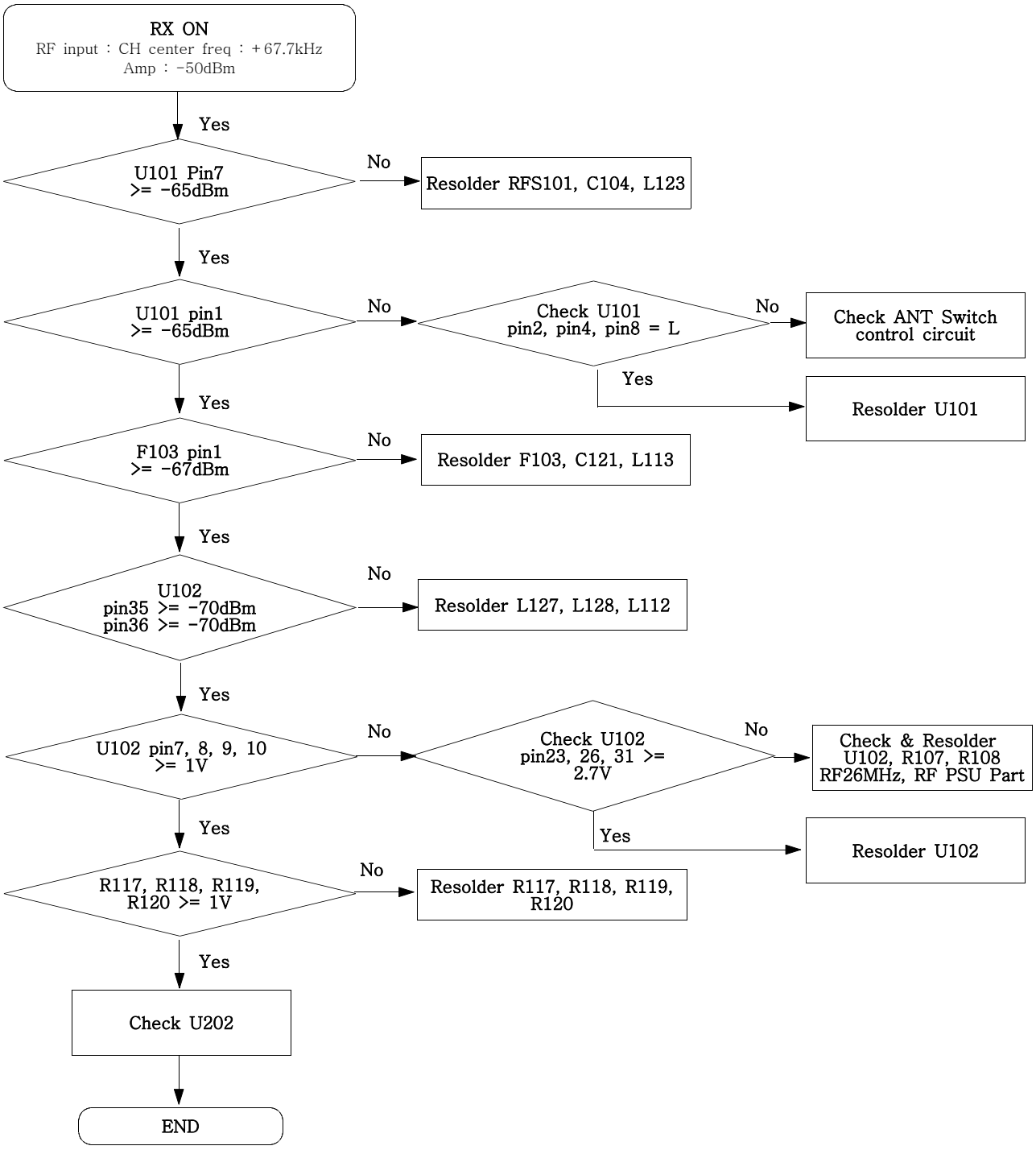
7-10. GSM Receiver



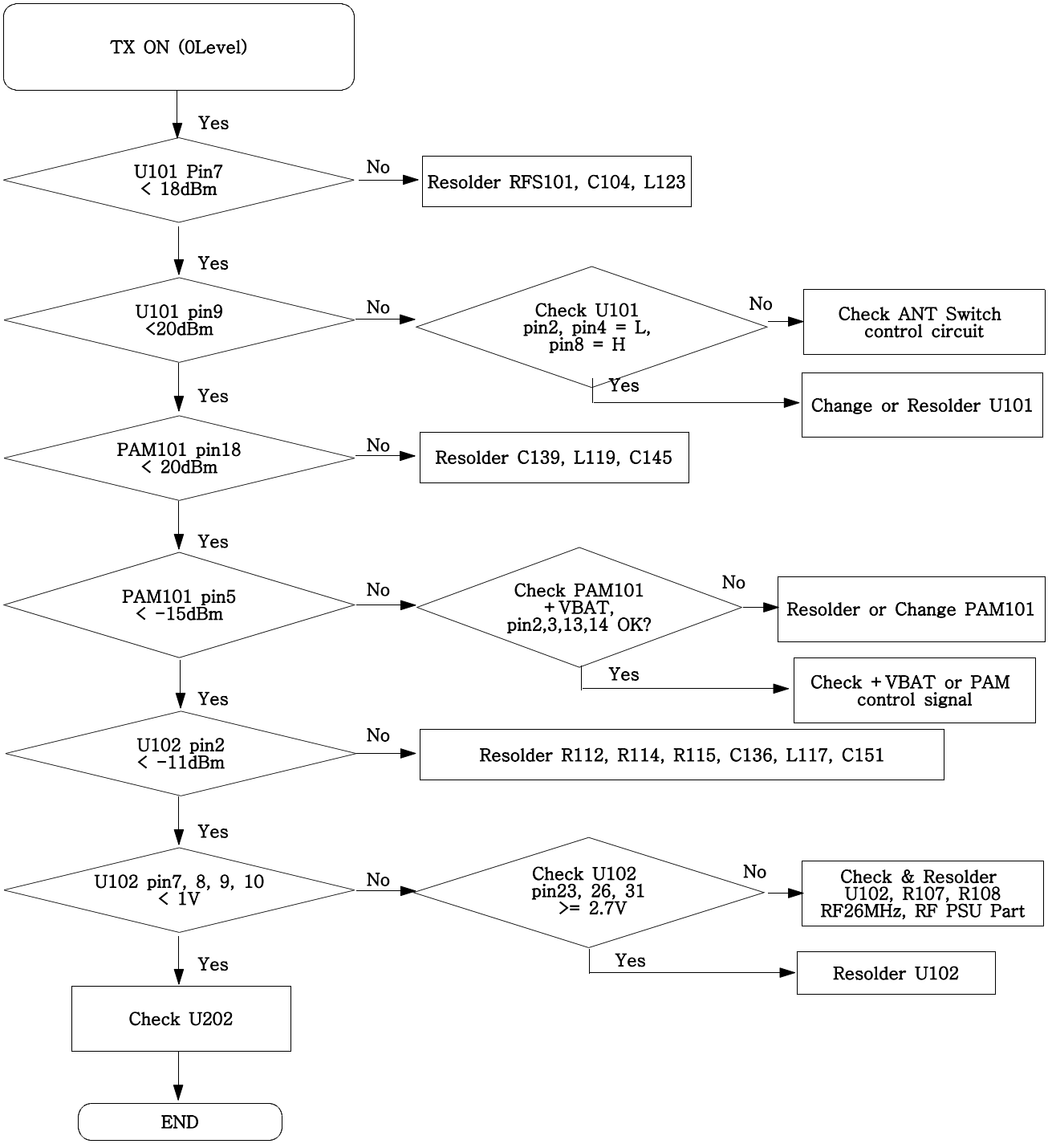
7-11. GSM Transmitter



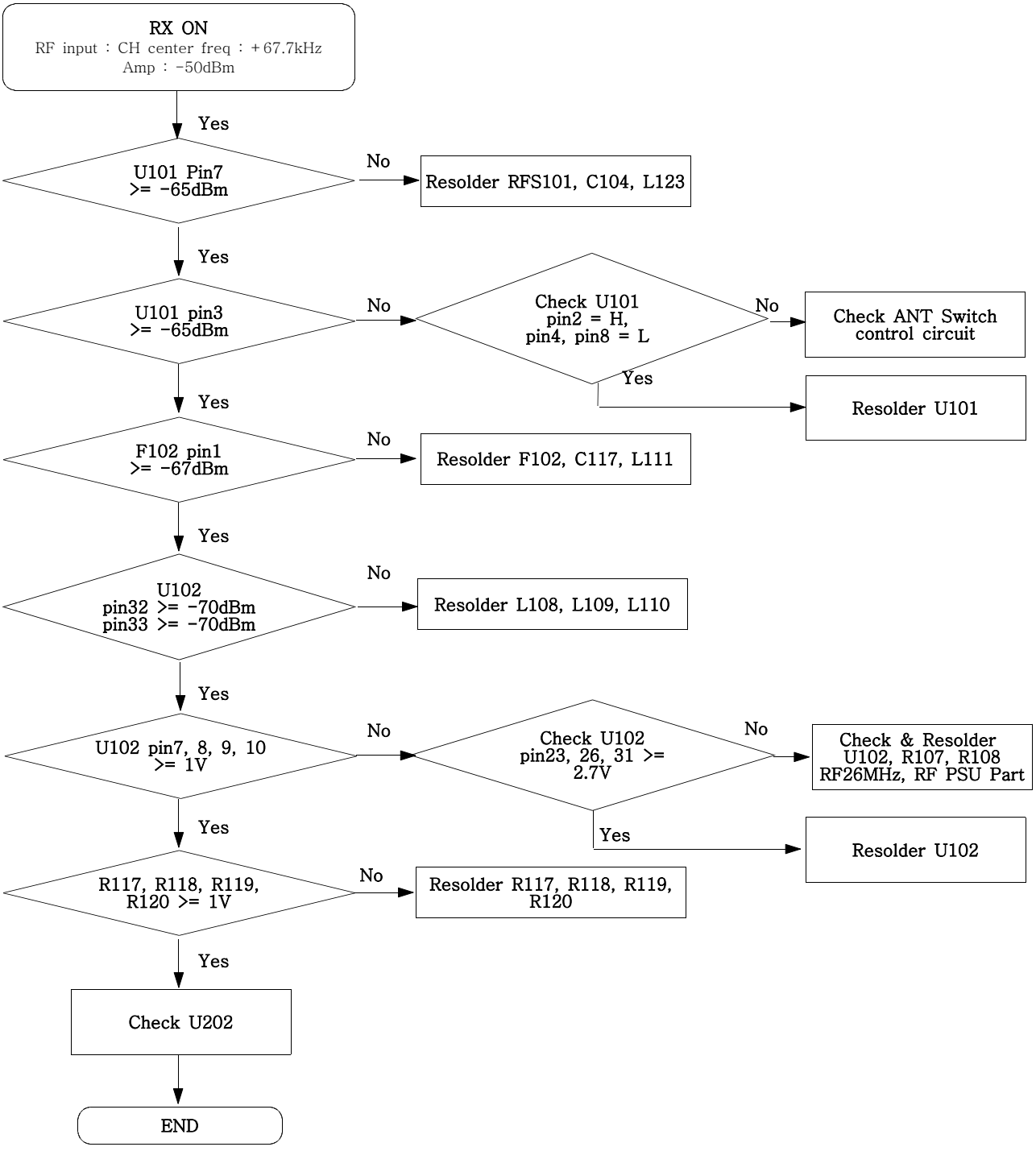
7-12. DCS Receiver



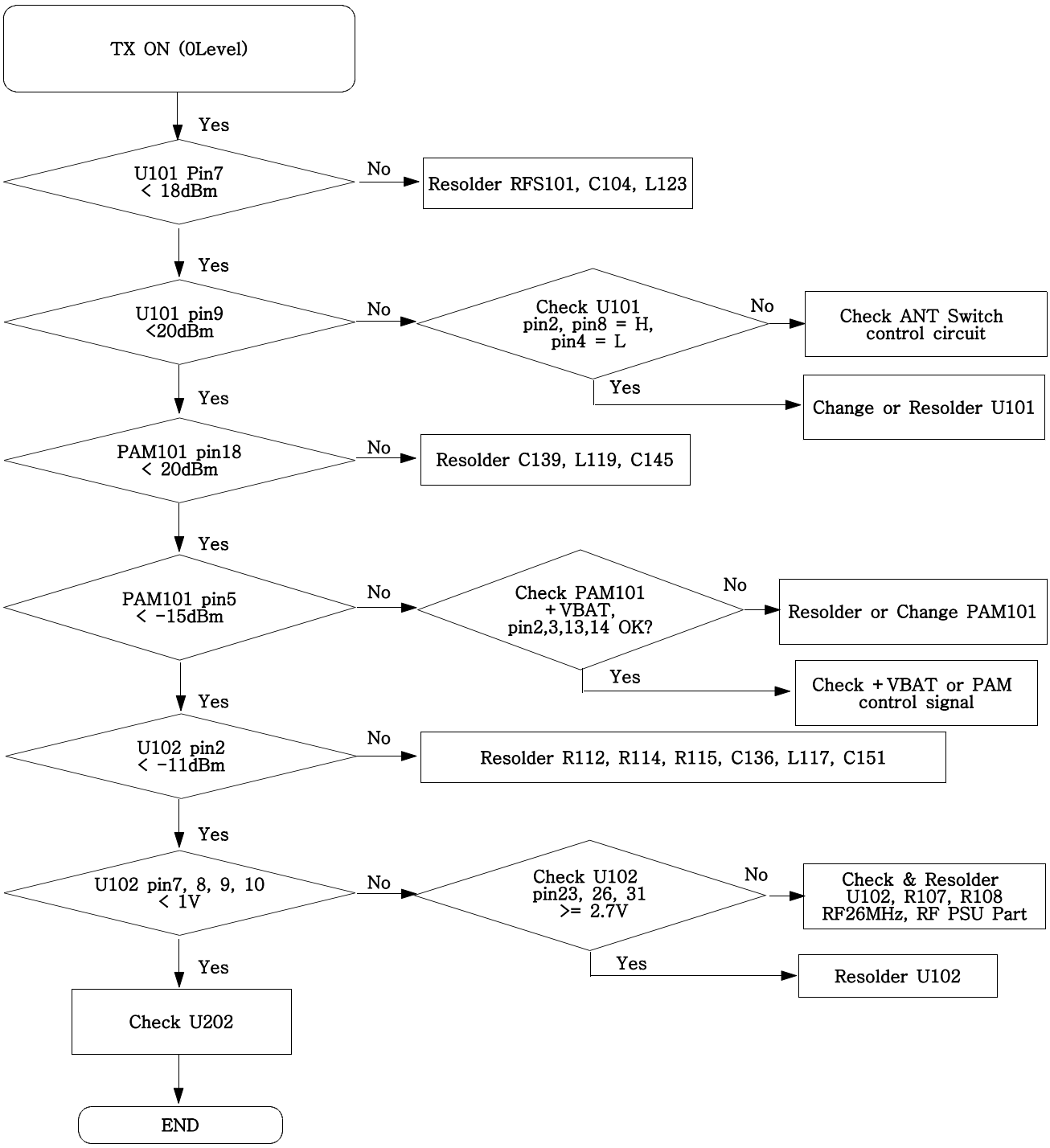
7-13. DCS Transmitter

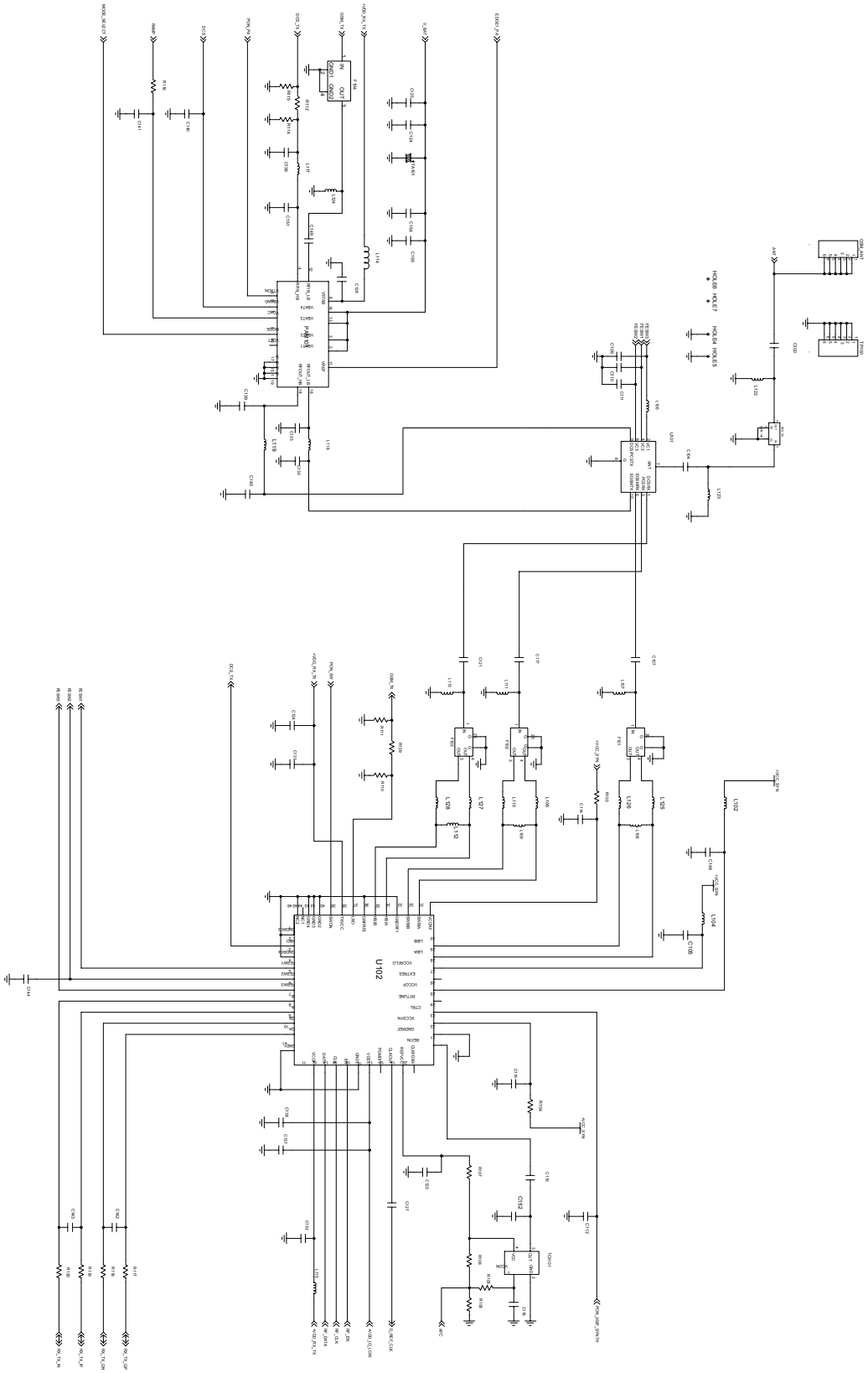


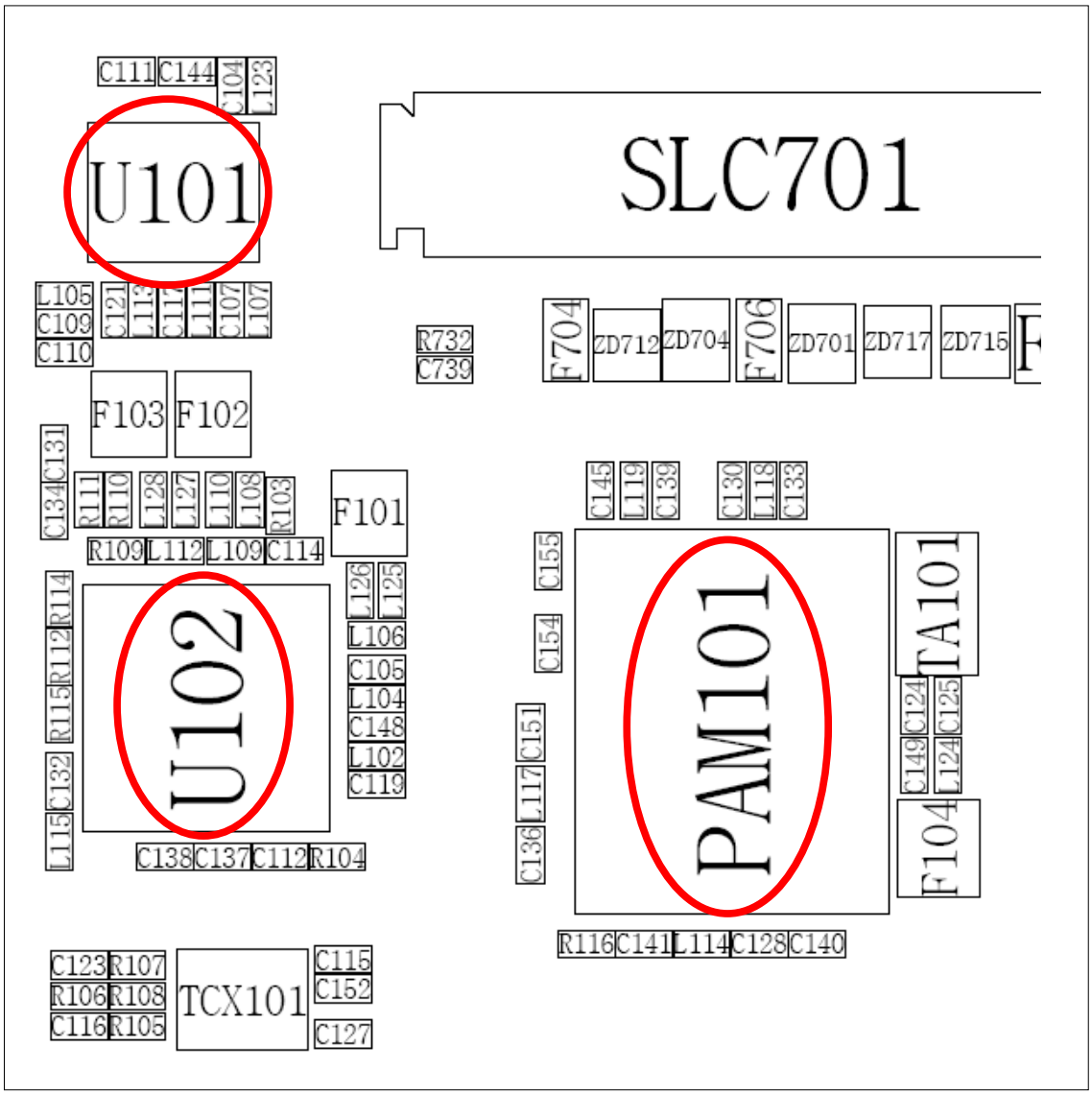
7-14. PCS Receiver



7-15. PCS Transmitter







8. Exploded and assembling View

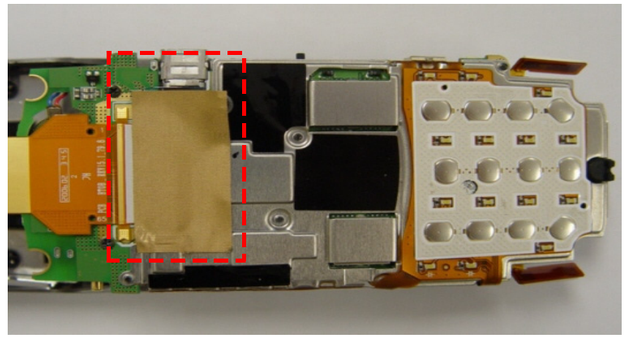
8-1. Disassembly

1

1) After unscrew, Disjoint REAR and FRONT.

1) When you dismantle a mobile phone, be careful about the warp of the framework or damage of the hook.

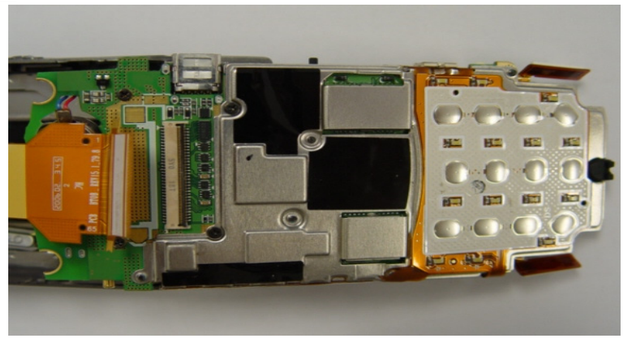
2



1)Remove the GASKET CONNECTOR TAPE with tweezers.

1) When you remove the tape, Be careful drop of a conduction of electricity thrum.
2) When you use tweezers, be careful a damage of component.

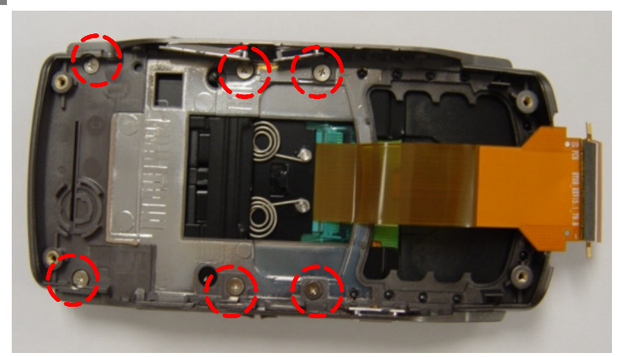
3



1) Open the actuator.
2) Pull out the FPCB carefully.

1) Be careful about the damage of the connector.
2) Take care FPCB that tear at FPCB decomposition.

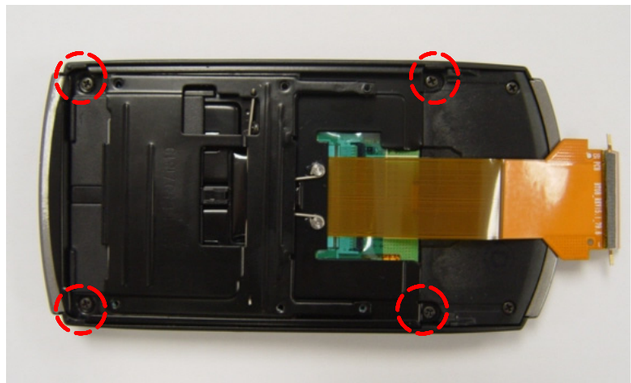
4



1) Remove the key pad.
2) Unscrew 6 points using a screwdriver.
3) Separate the front

1) Be careful not to be scratched framework when you dismantle.

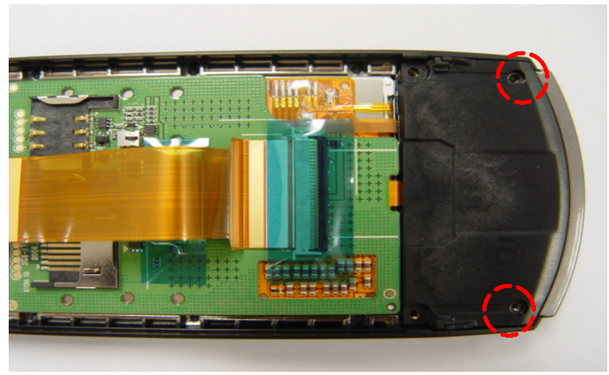
5



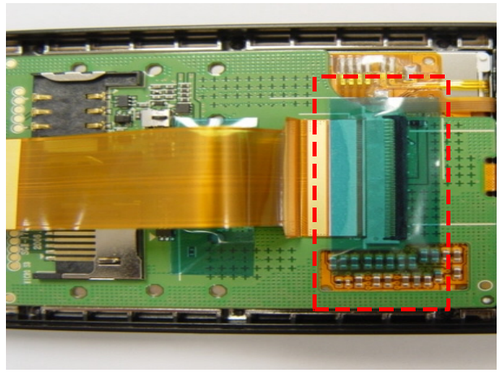
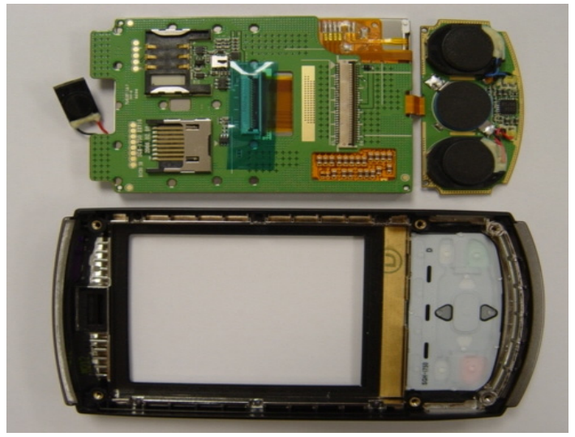
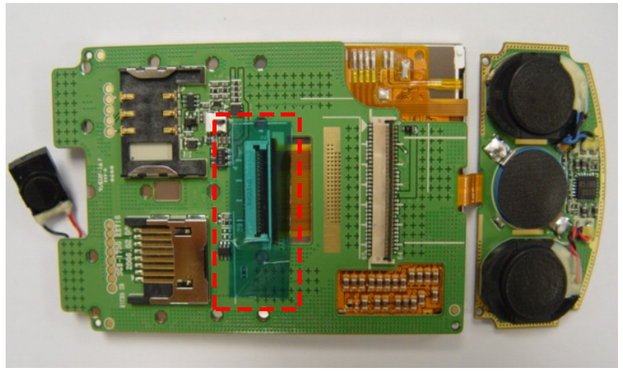
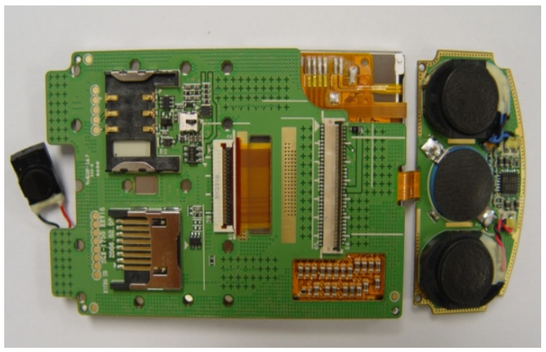
1) Unscrew 4 points using a screwdriver.
2) Disjoint SLIDE LOWER.

1) Be careful not to be scratched framework when you dismantle.

6

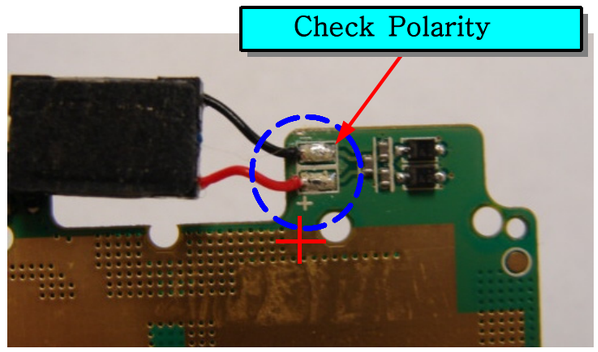


1) Unscrew 2 points using a screwdriver.
2) Disjoint SPEAKER BRACKET.

7  1) Remove conductivity TAPE for FPCB fixing with tweezers 2) Open the actuator. 3) Disjoint the LCD FPCB from the LCD main connector.	8  1) Separate SLIDE UPPER and SUB BOARD ASS' Y.	9  1) Remove LCD FPCB CONTACT TAPE with tweezers. 2) Open the actuator and Disjoint the LCD FPCB from the LCD connector. 3) When you use tweezers, be careful a damage of component.
1) When you dismantle a mobile phone, be careful about the warp of the framework or damage of the hook.		
10  1) Separate SUB BOARD and LCD module. 2) When do it, separate carefully from BOARD upper direction.		
1) When you separate, be careful about the warp of the board or damage of component.		

8-2. Assembly

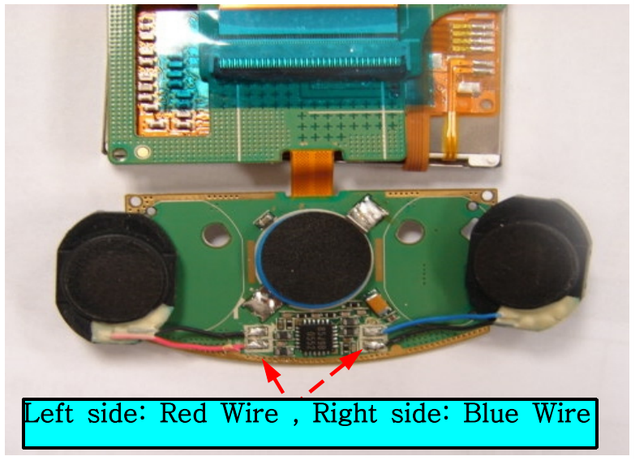
1



1) Solder RECEIVER according to polarity.

1) When you soldering, be careful about damage of component.
2) Bond the soldered part to prevent crack.

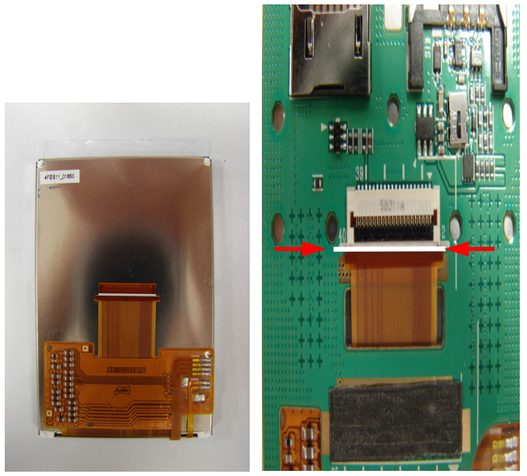
2



1) Solder the SPEAKER WIRE in polarity with picture.

1) Insert depending on SPEAKER's color.
2) Bond the soldered part to prevent crack.

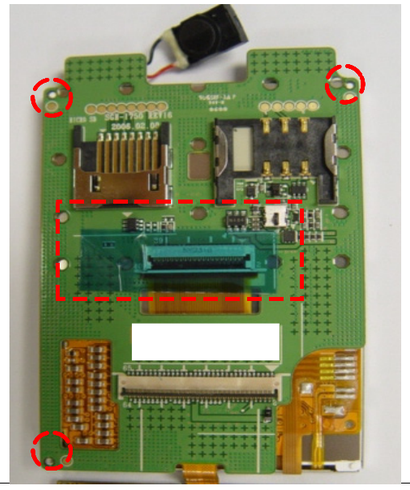
3



1) Remove the white paper on the back of SUB B'D .
2) Insert the LCD FPCB to the CONNECTOR .
3) Check SILK line.

1) Combine carefully, because CONNECTOR can break easily.

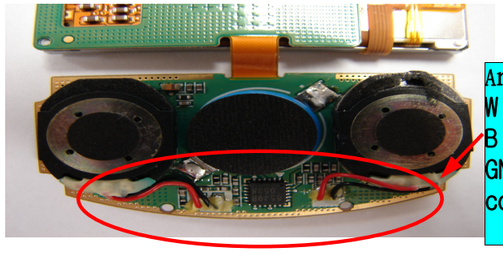
4



1) Combine LCD and PBA ASS'Y homogizing 3points hole.
2) Attach insulation TAPE on connector with tweezers.
3) Attach white two faces TAPE

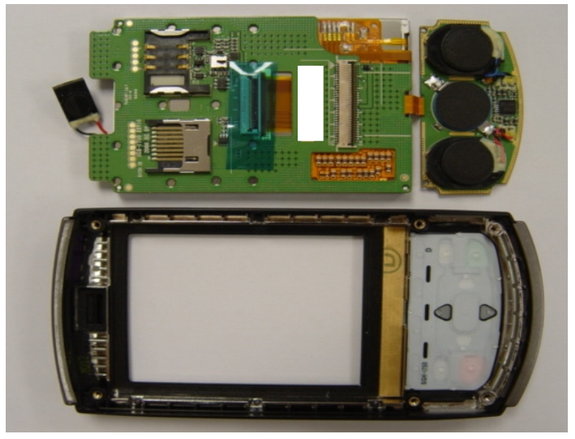
1) Combine carefully, because CONNECTOR can be broken easily.

5



1) Attach SPEAKER according to SUB BOARD's base line after remove SPEAKER white paper.
2) SPEAKER WIRE avoids that blight.
3) Arrange SPEAKER WIRE inside SUB B'D so that GND(gold color)is seen.

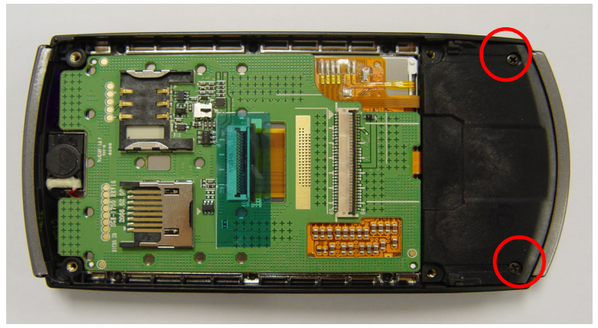
6



1) Put the NAVI' KEY on the SLIDE UPPER.
2) First, Put the top portion department of LCD module on the UPPER, the last lower column department .

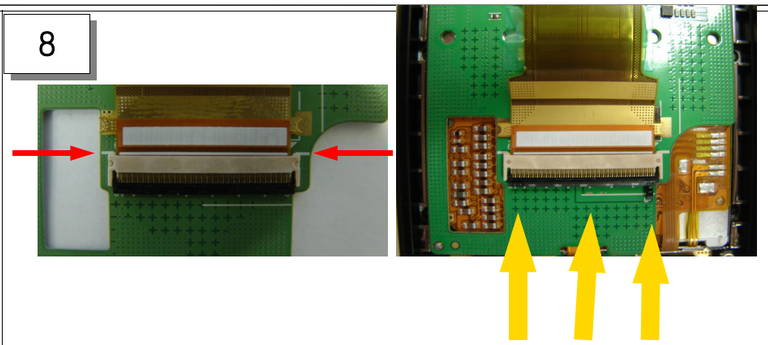
1) Be careful about damage of RECEIVER WIRE and Irda Light.

7



1) Arrange SPEAKER WIRE lest should be chewed and assemble SPEAKER BRACKET .
2) Screw 2 points marked in red circle.

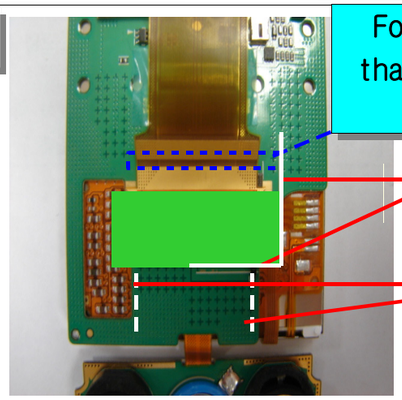
8



1) After remove the whiter paper with tweezers, Insert FPCB to connector.
2) SILK line agreement confirm certainly.

1) SILK line agreement confirm certainly.

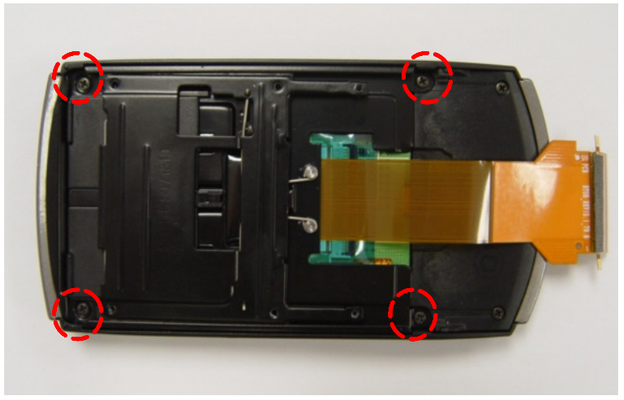
9



1) Attach insulation TAPE on connector with tweezers.
2) When folded FPCB , Confirm whether become side by side with base line
-Confirm whether become side by side with base line.

1) After insert FPCB to connect and attach TAPE, Press CONNECTOR equally.

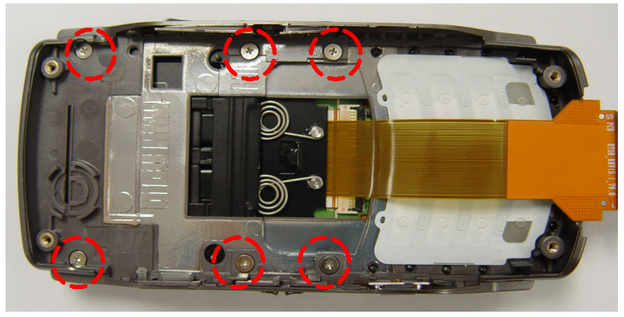
10



1) Screw 4 points marked in red circle.

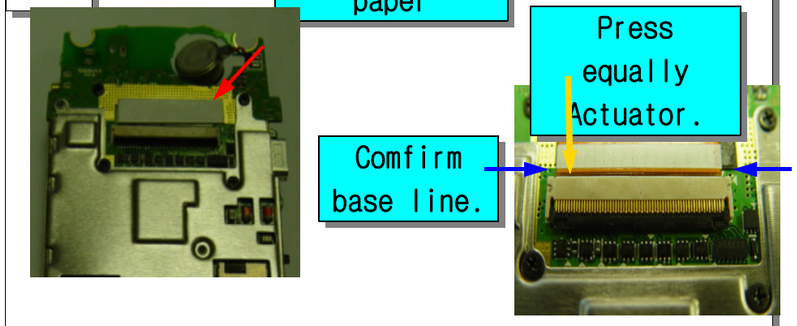
1) After combine SLIDE LOWER, move HINGE up and down and confirm active state of HINGE.

11



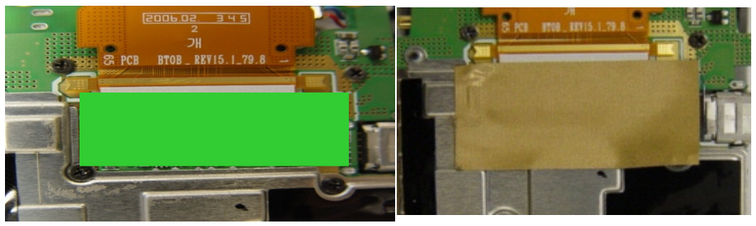
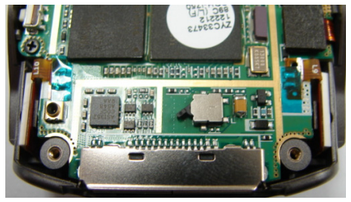
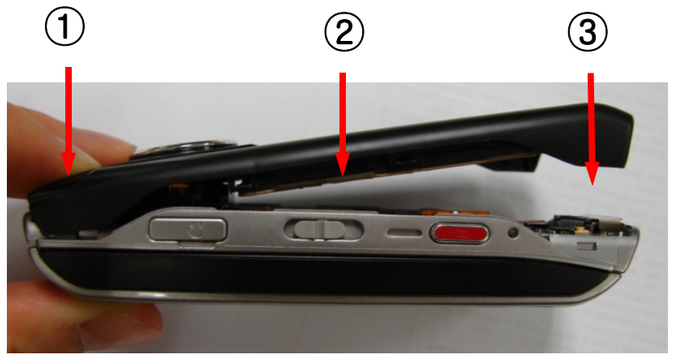
1) After insert FPCB to FRONT's FPCB HOLE, Put the FRONT on slide.
2) After screw 6 points sequentially using a screwdrive, combine 3*4 KEY PAD with FRONT structure.

12



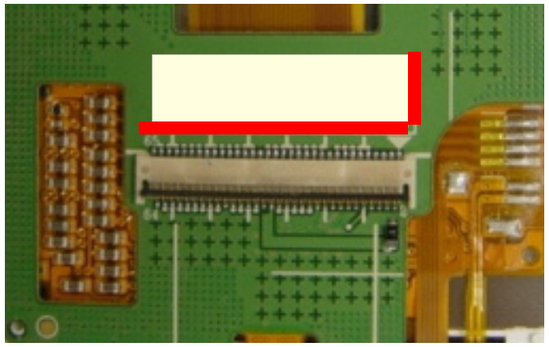
1) After remove white paper, Insert F-PCB to CONNECTOR.
2) When we insert FPCB, must be FPCB silk and PCB silk at one and actuator down.
3) Press equally actuator.

1) Be careful a damage of connector.
2) Press equally actuator.
3) Silk line agreement confirm certainly.

19  1) Attach insulation TAPE on connector via silk line using tweezers. 2) Attach GASKET TAPE on insulation TAPE.	20   1) Put Main PBA on FRONT. 2) Put MOTOR in FRONT MOTOR HOLE and put WIRELESS LAN, BT ANT into each FRONT GROOVE.	21  1) Combine from upside → middle → in below sequence.
1) Press equally TAPE.	1) Fix so that there may not be MAIN PBA move. 2) Confirm whether POWER KEY was put properly.	1) If inflict unreasonable force at work, badness that locker of upper direction is broken happens.
22  1) Screw 4 points marked in red circle.		
1) Confirm SET's assembly condition and whether there is GAP in assembly department side.		

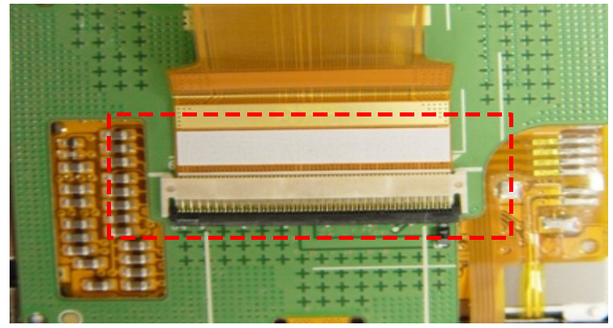
8-3. FPCB KIT Assembly

1



1) After attach conductivity TAPE for FPCB fixing depending on base line, remove the white paper.
※ Notice
When attach, lower SILK line has to be seen.

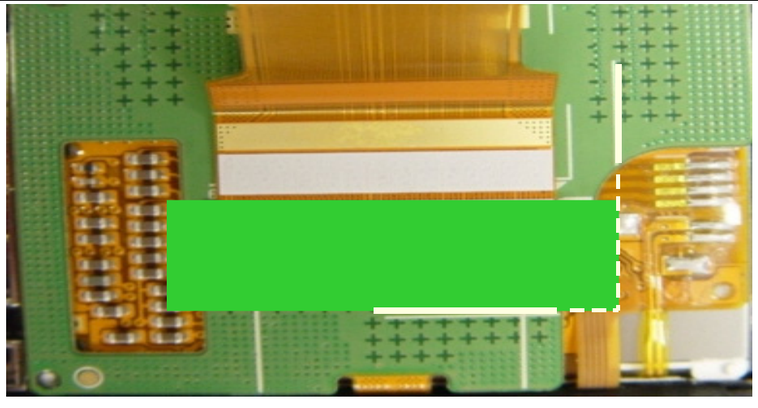
2



1) Slide FPCB inserts to connector.
(When insert, PCB's SILK line should be certainly conformable with FPCB's SILK)
2) After SLIK line agreement confirmation, Presses equally and contracts ACTUATOR.
※ Notice : SILK line agreement confirm certainly.

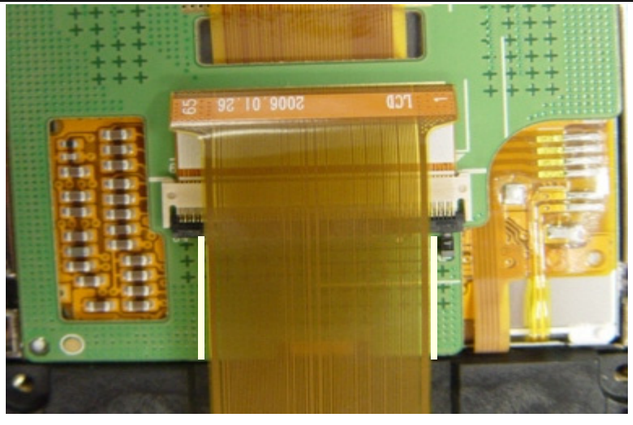
names of goods	CODE	Specification	quantity				
TAPE CONNECTOR	GH74-20587A	5 X 19 X T0.3 (Black)	1				
-	-	-	-	-	-	-	-

3



1) Attach insulation TAPE on connector via PCB right side.
2) Rub by top and bottom,right and left so that can attach perfectly
※ Notice
That do not swerve.

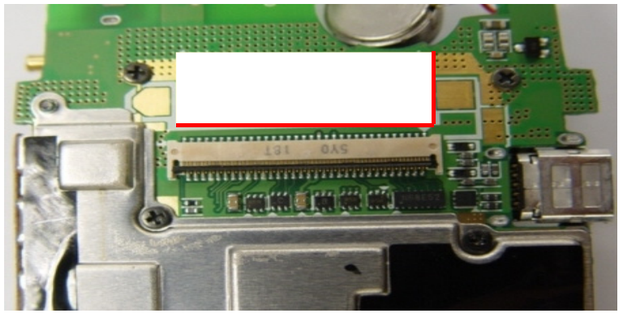
4



1) When folded FPCB , Confirm whether become side by side with base line.
2) "LCD"Typeface should proceed upward.

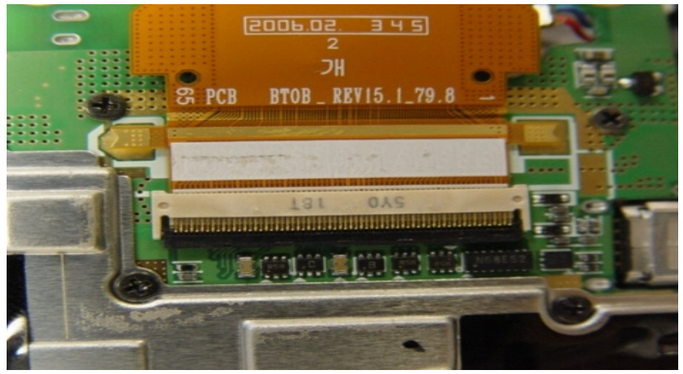
names of goods	CODE	Specification	quantity				
TAPE CONN B	GH74-20585A	30 X 15 X T0.05 (Green)	1				
-	-	-	-				

5



1) After attach conductivity TAPE for FPCB fixing depending on base line, remove the white paper.
※ Notice
When attach, lower SILK line has to be seen.

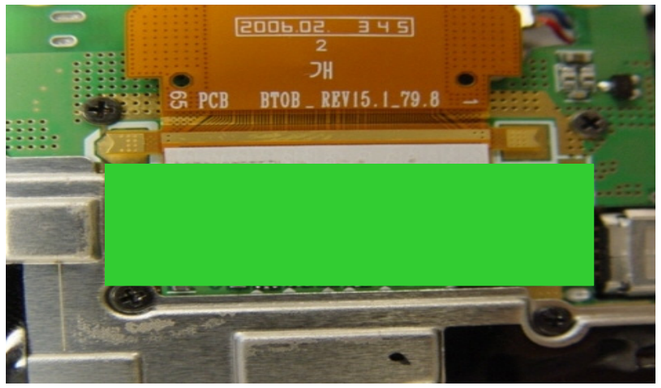
6



1) Insert slide that FPCB silk screen "BTOB" is seen
(when we insert FPCB, must be FPCB silk and PCB silk at one)
2) After check silks(FPCB silk and PCB silk) that be at one, Actuator down.
※ Notice: You must check silks(FPCB silk and PCB silk) that be at one.

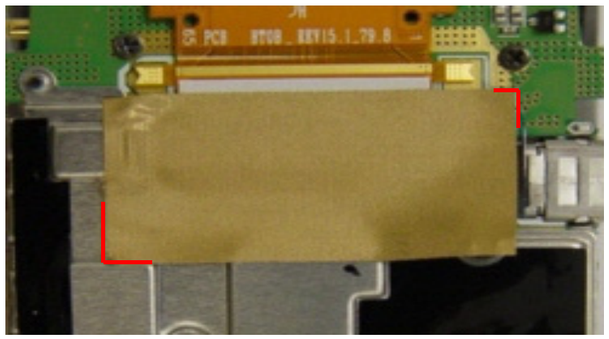
names of goods	CODE	Specification	quantity				
TAPE CONNECTER	GH74-20587A	5 X 19 X T0.3 (Black)	1				
-	-	-	-	-	-	-	-

7



1) Attach insulation TAPE on connector via SILK line.
※ Notice
That do not swerve.

8



1) Attach GASKET CONNECTOR TAPE depending on red base line.
※ Notice
That do not swerve and SHORT may not happen.

names of goods	CODE	Specification	quantity	names of goods	CODE	Specification	quantity
TAPE CONN C	GH74-20586A	30 X 10 X T0.05 (Green)	1	TAPE GASKET CONNECTOR	GH74-22014A	32 X 16 X T0.1 (Gold)	1
-	-	-	-				

SAMSUNG
ELECTRONICS

Code No.: GH68-11275A
BASIC.