

# Technology Document

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Mode Handset Maintenance Manual  
(level 1)

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**ZTE CORPORATION**

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# CONTENT

|                                                                          |           |
|--------------------------------------------------------------------------|-----------|
| <b>1. SUMMARIZE .....</b>                                                | <b>2</b>  |
| <b>2. BLOCK DIAGRAM &amp; BASIC DEVICE DISTRIBUTING .....</b>            | <b>2</b>  |
| 2.1 BLOCK DIAGRAM .....                                                  | 2         |
| 2.2 BASIC DEVICE DISTRIBUTING .....                                      | 3         |
| <b>3. DISMANTLE FLOW .....</b>                                           | <b>3</b>  |
| <b>4. HANDSET TEST DICTATE .....</b>                                     | <b>9</b>  |
| <b>5. BASIC FLOW CHART OF FAMILIAR TROUBLESHOOTING ( LEVEL 1 ) .....</b> | <b>10</b> |
| 5.1 OUTER DEVICES FAILURE .....                                          | 10        |
| 5.2 SWITCHING ON FAILURE .....                                           | 10        |
| 5.3 RING AND VIBRATION FAILURE .....                                     | 11        |
| 5.4 DISPLAY FAILURE .....                                                | 12        |
| 5.5 CAMERA FAILURE .....                                                 | 12        |
| 5.6 CAN NOT DETECT CARD .....                                            | 13        |
| 5.7 KEY-PRESS FAILURE .....                                              | 13        |
| <b>6. SCHEMATIC AND MATERIAL LIST .....</b>                              | <b>14</b> |
| 6.1 TOP SCHEMATIC .....                                                  | 14        |
| 6.2 BOTTOM SCHEMATIC .....                                               | 15        |
| 6.3 MATERIAL LIST .....                                                  | 16        |

## 1. Summarize

This handbook is P601B2 WCDMA GSM GPRS Double Mode Handset Maintenance Manual. It is composed of five parts including block diagram & basic device distributing, dismantling flow, handset test dictate, basic flow chart of familiar troubleshooting (level 1) and material list.

## 2. Block Diagram & Basic Device Distributing

### 2.1 Block Diagram

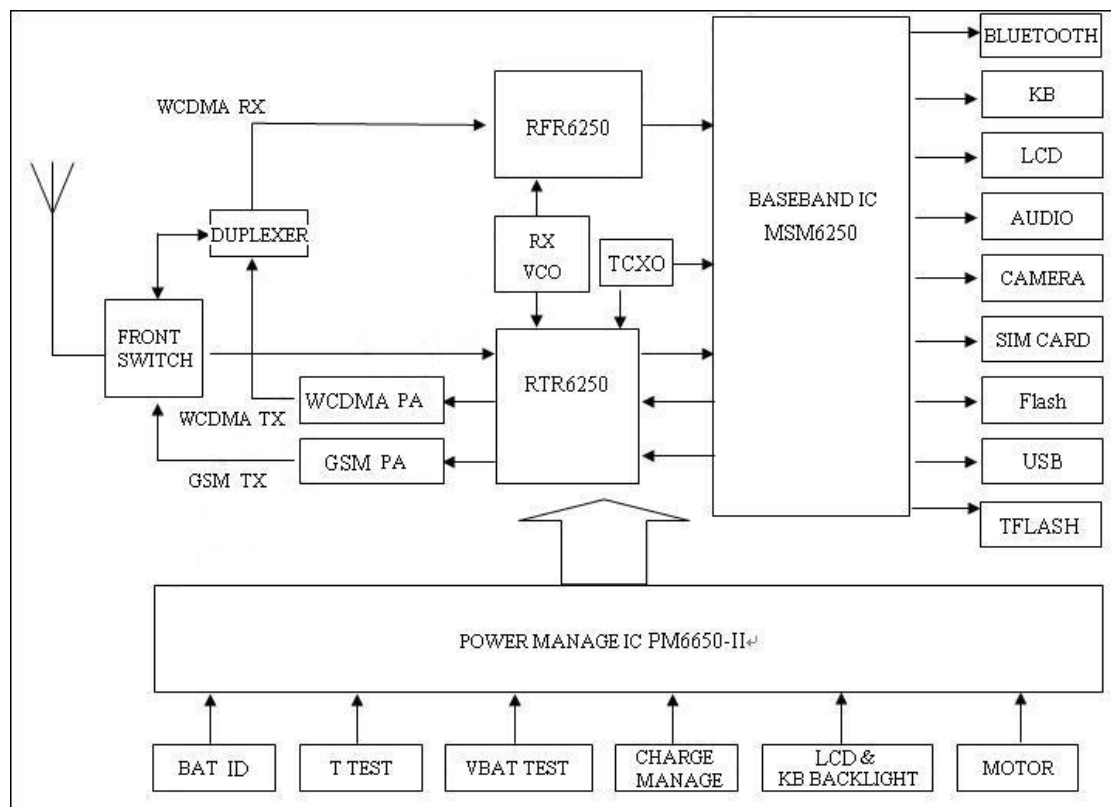


Fig. 1 P601B2 (V820) Block Diagram

## 2.2 Basic Device Distributing

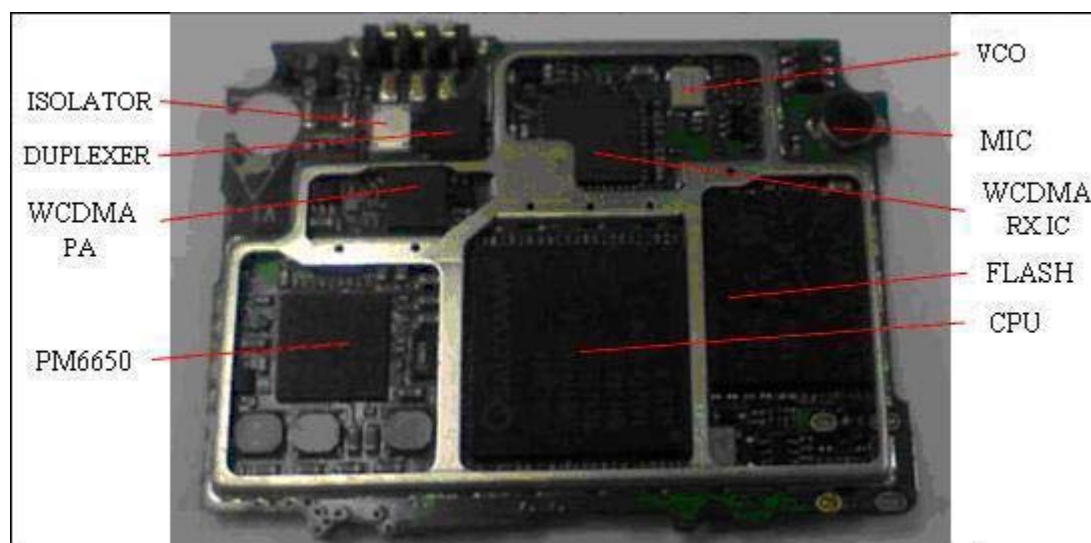


Fig. 2 P601B2 mainboard up distributing

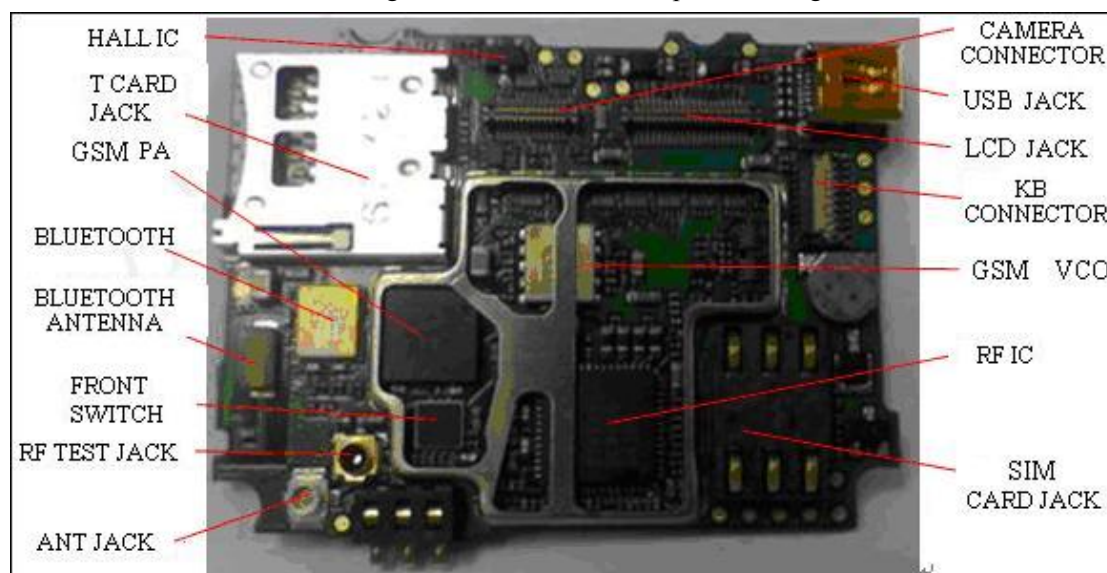


Fig. 3 P601B2 mainboard down distributing

## 3. Dismantle Flow



Handset disassembly needs these tools (from left to right):  
Anti-electrostatic glove,  
Anti-electrostatic wrist,  
Screwdriver,  
Tweezers,  
Dismantle rind implement.

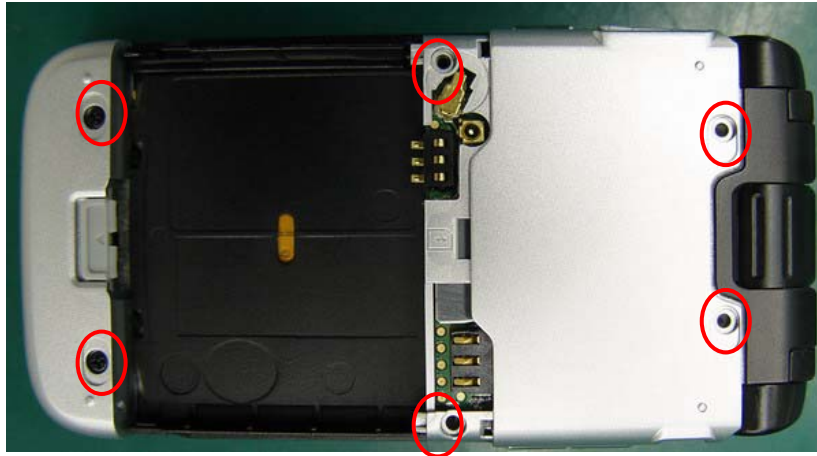
Take out the back cover.



Take out the battery.



Pay attention to the positions of six screws.



The front and back covers after dismantling. Pay attention to the installing position of FPC.



Take out the camera.



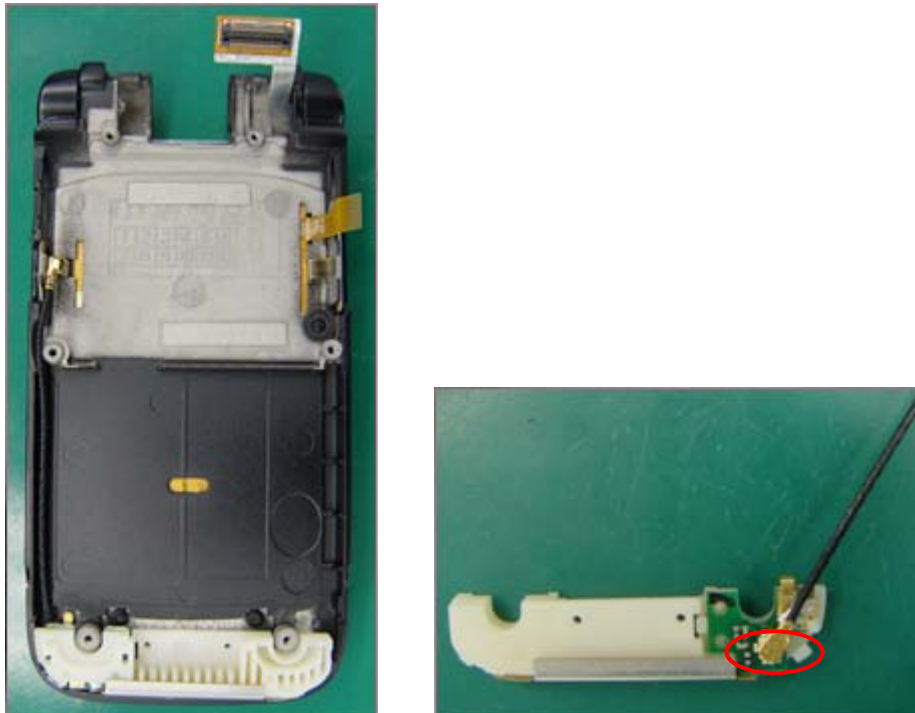
**Pay attention to the ways of camera assembling and FPC winding.**



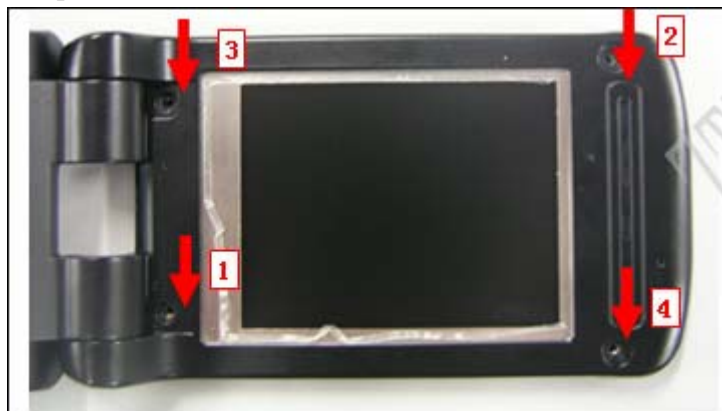
**Pay attention to the positions of keyboard, FPC and RF line .**



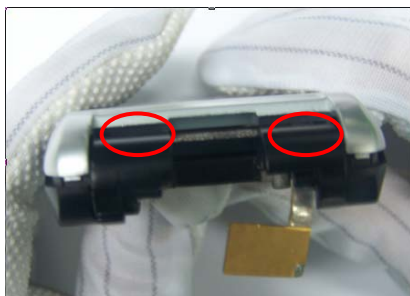
**Pay attention to the position of assembling antenna.**



**Pay attention to the positions of four screws.**



**Pay attention to the positions of six locks.**



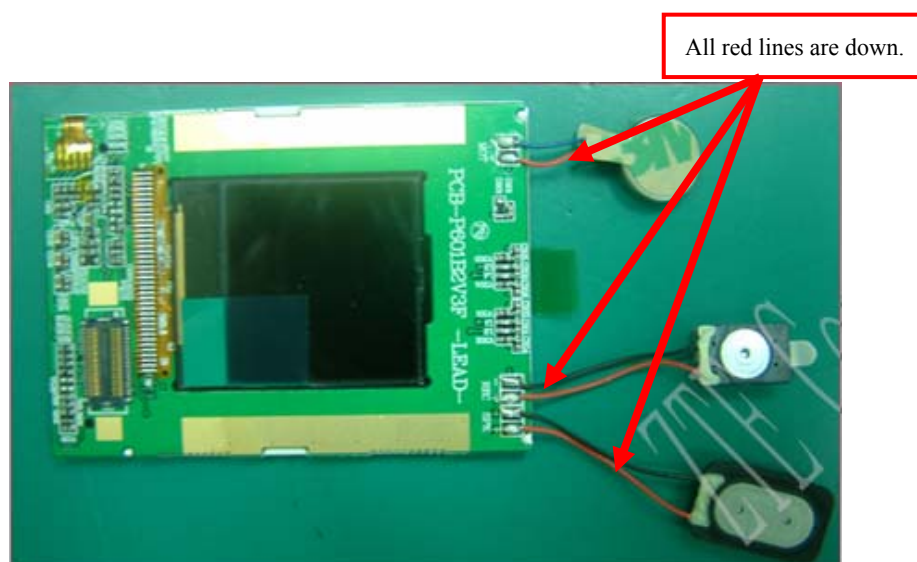
**Dismantle the up front cover with dismantle rind implement.**



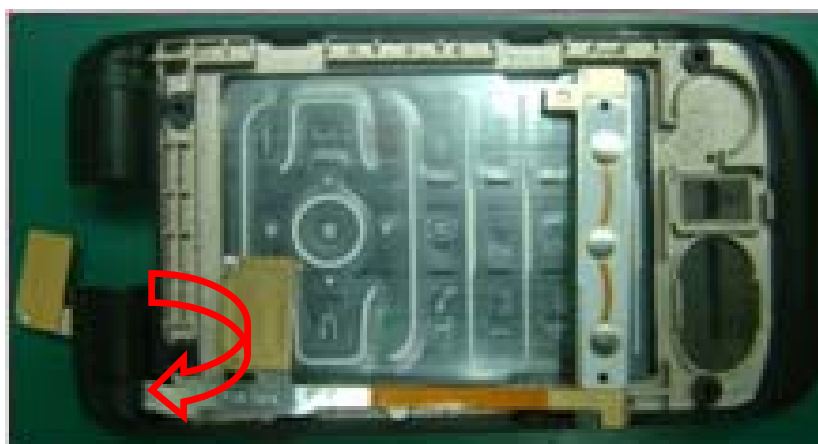
**Pay attention to the positions of LCD, motor and speaker.**



**Pay attention to the weld position of LCD, motor and speaker.**



**Pay attention to the position of assembling FPC. And pay attention to FPC connector.**



Separate the keyboard.



Pay attention to FPC and camera FPC. Fold the rest FPC.



## 4. Handset Test Dictate

- ◆ Edition test dictate: 983\*8371#
- ◆ Check ESN No. dictate: \*#06#
- ◆ Function test dictate: \*983\*0#

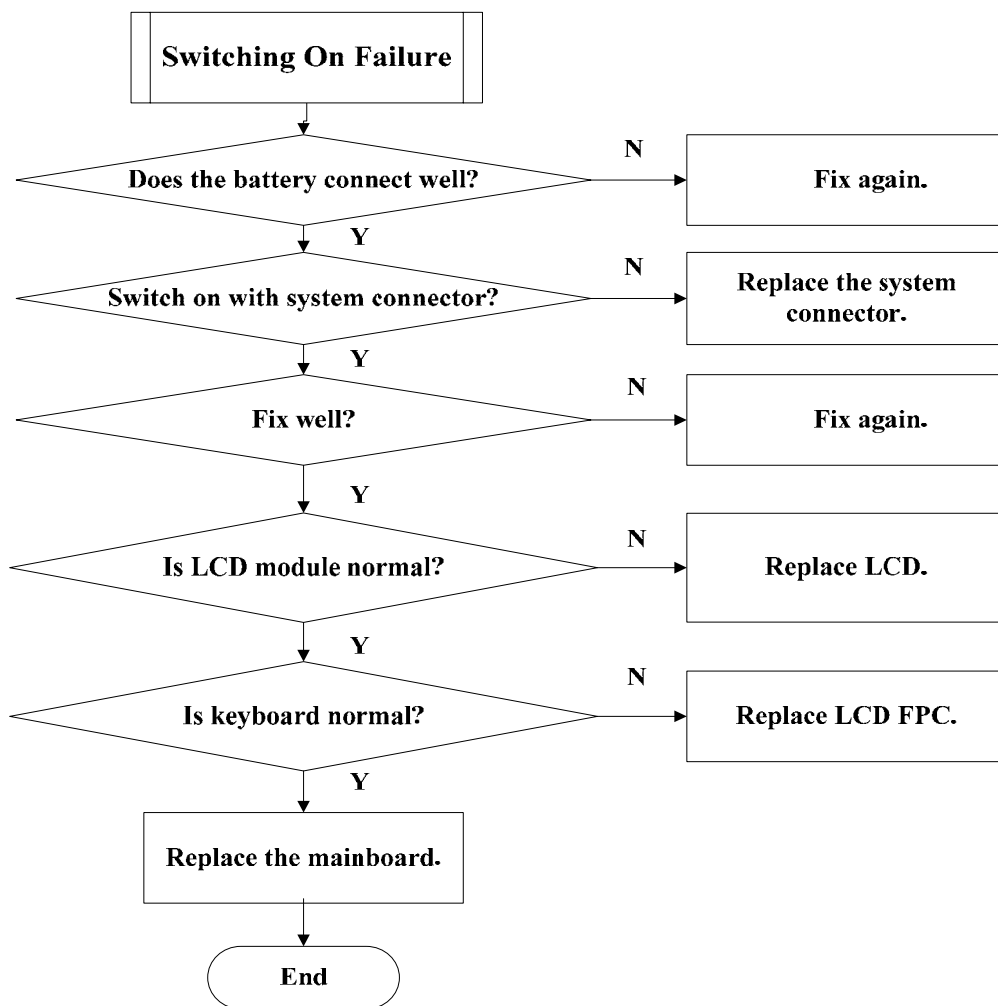
Function automatic test includes: LCD → vibrator → ringing→ keyboard → camera → audio frequency loop

## 5. Basic flow chart of familiar troubleshooting ( level 1 )

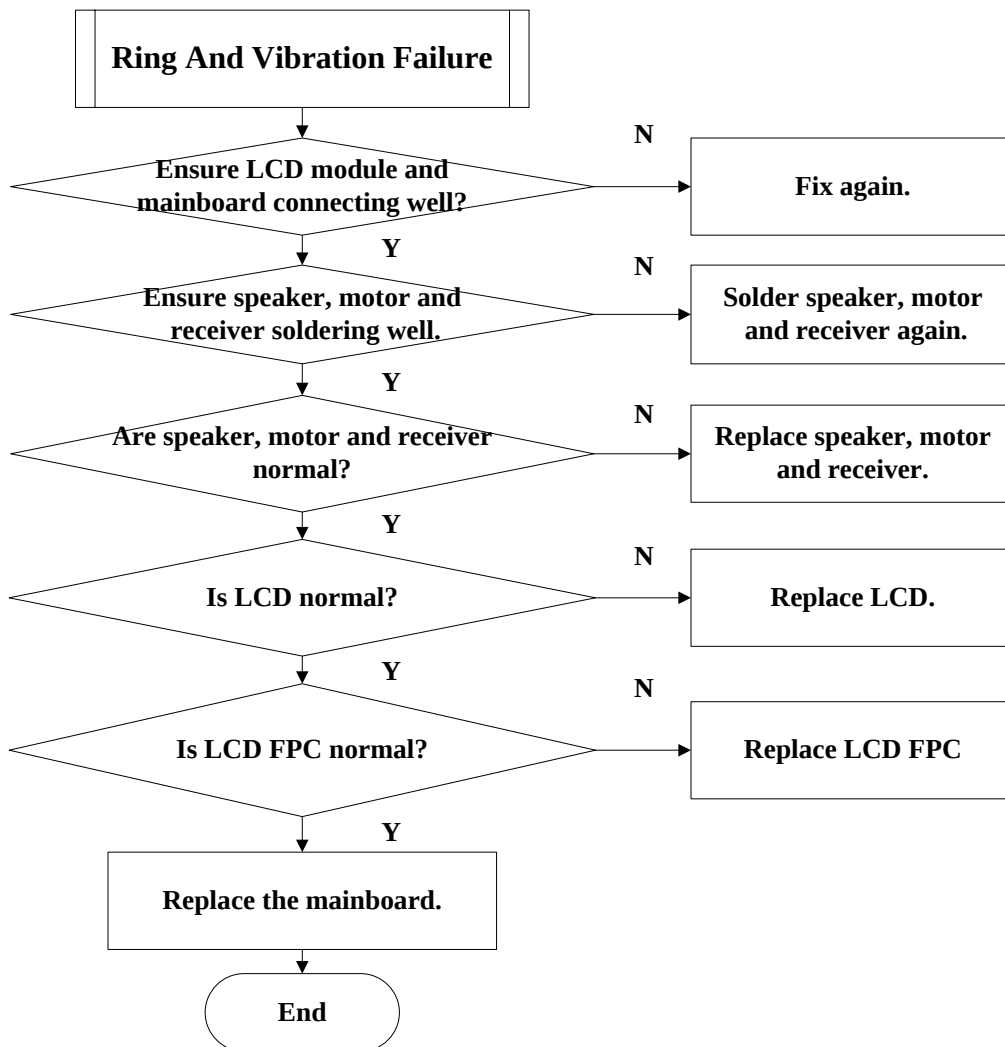
### 5.1 Outer Devices Failure

Outer devices failure according to the dismantling flow.

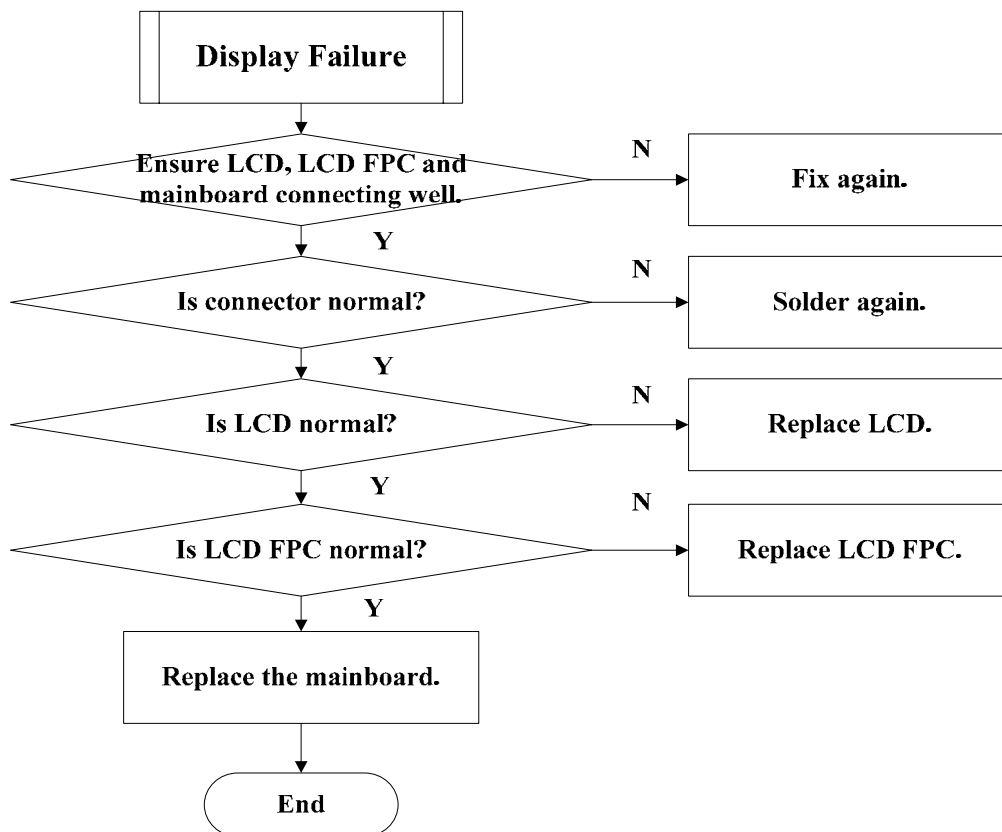
### 5.2 Switching On Failure



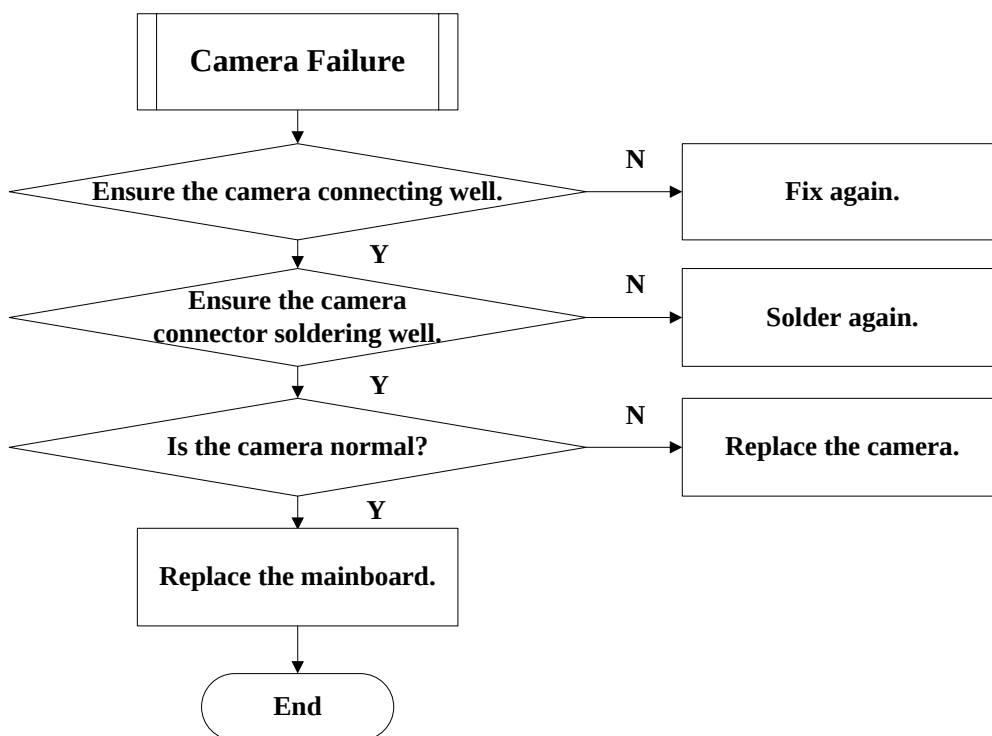
### 5.3 Ring and Vibration Failure



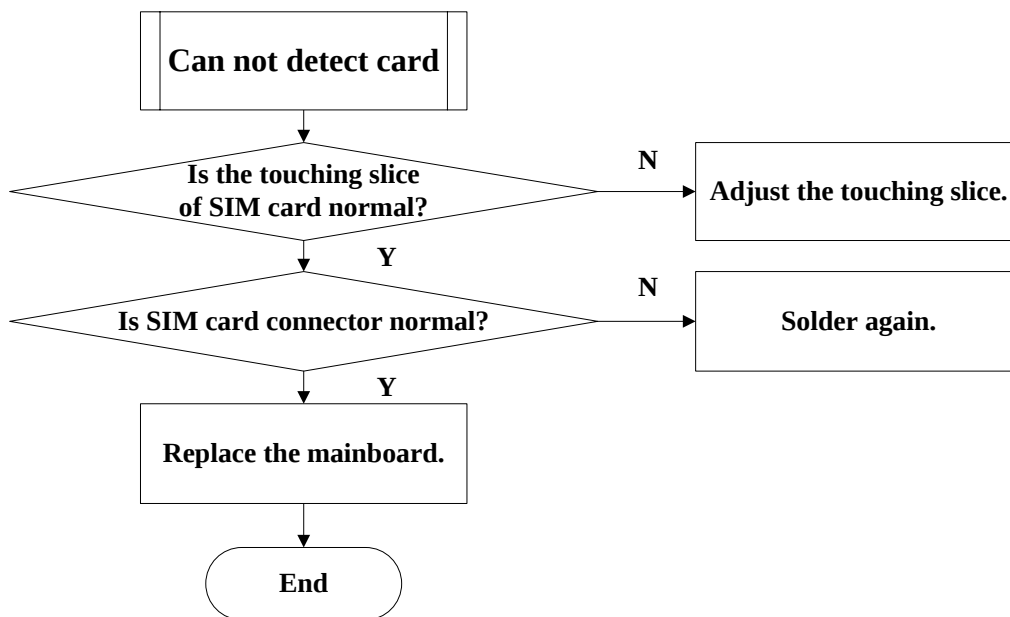
## 5.4 Display Failure



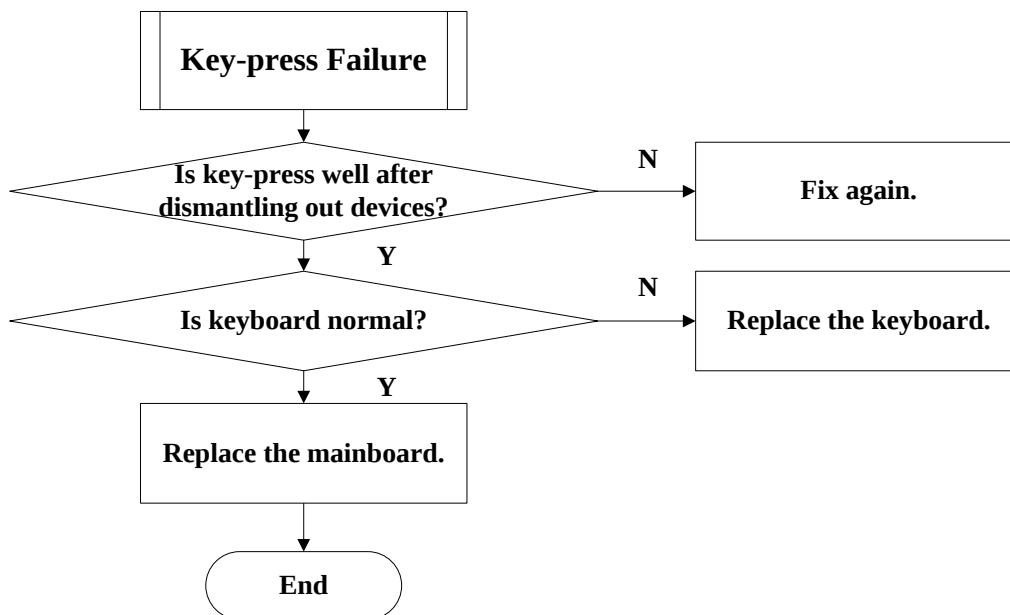
## 5.5 Camera Failure



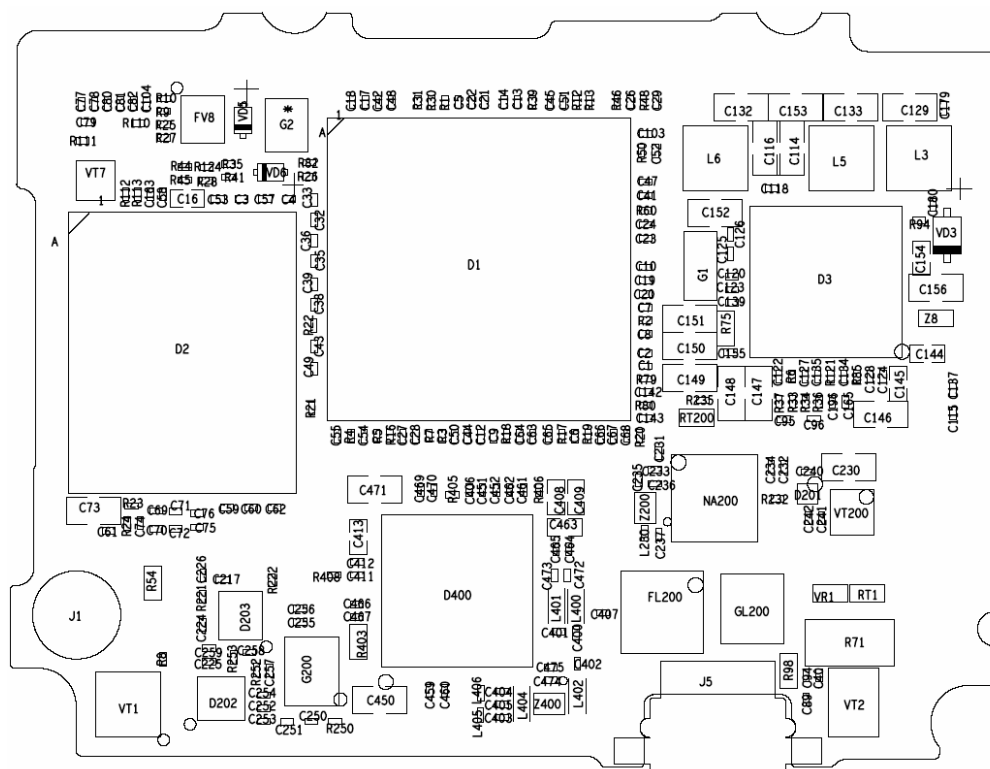
## 5.6 Can not detect card



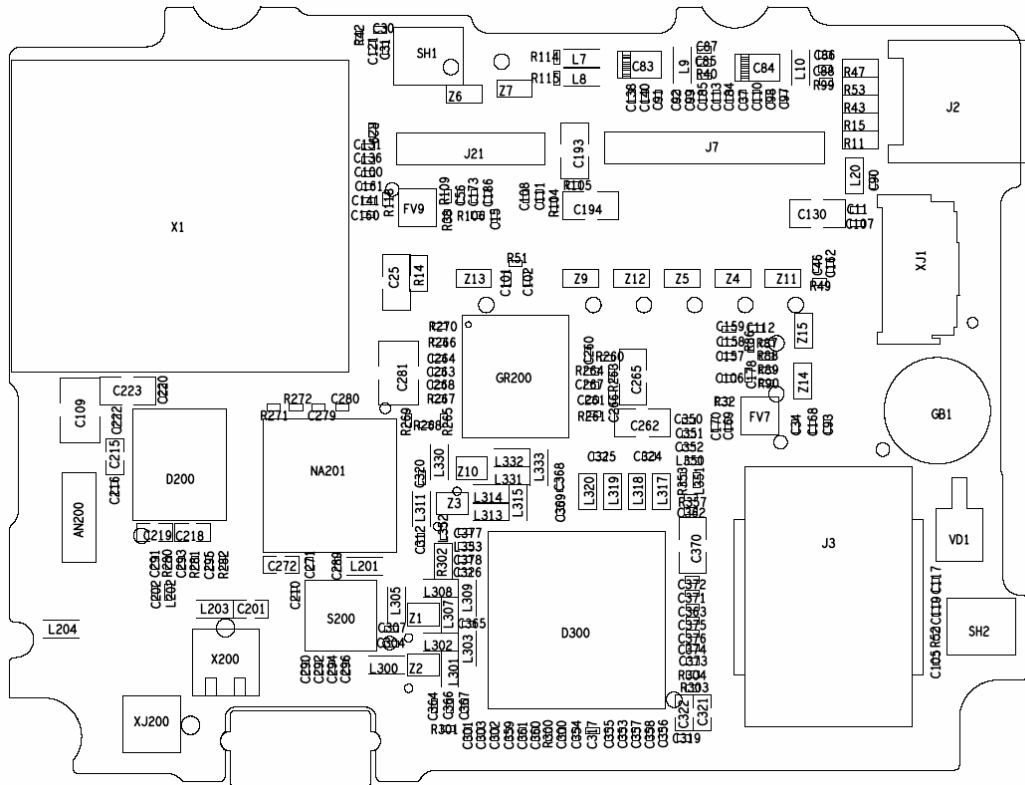
## 5.7 Key-press Failure



## 6.1 Top Schematic



## 6.2 Bottom Schematic



## 6.3 Material List

| 料单代码 | 126761650001E | 研发                        | P601B2 WCDMA/GSM/GPRS双模移动电话机   |     |    | 型号规格     | P601B2       |
|------|---------------|---------------------------|--------------------------------|-----|----|----------|--------------|
| 料单名称 | P601B2 MB     |                           | 主板 P601B2 MB 料单                |     |    | PCB版本    | 060403(w35C) |
| 序号   | 物料代码          | 物料名称                      | 规格型号                           | 单位  | 单套 | 板中位号     |              |
| 1*   | 004020200012  | ESD保护器件                   | NZQA5V6AXV5T1G//RSA6.1J4       | PCS | 2  | FV7, FV9 |              |
| 2*   | 004020200017  | USB接口ESD滤波保护器件            | USBUF01W6//STF203-22.TCT       | 只   | 1  | FV8      |              |
| 3*   | 005100200002  | 与非门                       | NC7SZ00P5X//PI74STX1G00CX//SN  | 只   | 1  | D203     |              |
| 4*   | 005100800007  | 单非门                       | SN74AHC1G04DCK                 | 只   | 1  | D202     |              |
| 5*   | 006030300003  | NAND 1G+SDRAM 512M 的MCP芯片 | KBE00F003A-D411                | 只   | 1  | D2       |              |
| 6*   | 012090200031  | 手机电源管理芯片PM6650-2          | CD90-V9925-2MTR                | 只   | 1  | D3       |              |
| 7*   | 012090200032  | 手机基带芯片MSM6250A            | CP90-V7890-2 (MSM-6250A-409CS  | 只   | 1  | D1       |              |
| 8*   | 012090700003  | 手机射频收发芯片(RTR6250)         | CD90-V4412-1DTR (描述: RTR-6     | PCS | 1  | D300     |              |
| 9*   | 012090700004  | 手机射频接收芯片(RFR6250)         | CD90-V5551-1ETR (描述: RFR-6     | PCS | 1  | D400     |              |
| 10*  | 013020100005  | 肖特基二极管                    | MBRM120ET3//UPS120E            | 只   | 1  | VD1      |              |
| 11*  | 013020100035  | 肖特基二极管                    | RB521S-30//1PS79SB10//1SS388   | 只   | 2  | VD5, VD6 |              |
| 12*  | 013020100090  | 肖特基二极管                    | RB551V-30//B0530WS-7-F         | PCS | 1  | VD3      |              |
| 13*  | 014010100001  | NPN+PNP 双数字晶体管            | UMD9N//PUMD9                   | 只   | 1  | VT200    |              |
| 14*  | 014010100037  | nnp数字晶体管                  | DTC114YET1//PDTC114YE//DTC114  | 只   | 1  | VT7      |              |
| 15*  | 014010100113  | PNP开关晶体管                  | ZXT10P20DE6TA//MBT35200MT1     | 只   | 1  | VT1      |              |
| 16*  | 014030200021  | P沟MOS功率管                  | IRLML6401TRPBF//Si2305DS-T1-E  | 只   | 1  | VT2      |              |
| 17*  | 015010200107  | WCDMA功率放大器                | SKY77171//AWT6275R             | PCS | 1  | NA200    |              |
| 18*  | 015010200111  | GSM Power Amplifier       | RF3166                         | PCS | 1  | NA201    |              |
| 19*  | 015010300036  | 天线开关                      | ESHS-B085G5                    | PCS | 1  | S200     |              |
| 20*  | 015010900065  | 蓝牙模块                      | MBH7BTZ15A-8884//LBDA254AN0-0  | 只   | 1  | D200     |              |
| 21*  | 015010900067  | RMS功率检测器                  | ADL5500ACBZ                    | PCS | 1  | D201     |              |
| 22*  | 015020200089  | 隔离器                       | CES201G95DCB000                | 只   | 1  | GL200    |              |
| 23*  | 015020300020  | 蓝牙天线                      | ANCV12G44SAA127                | 只   | 1  | AN200    |              |
| 24*  | 030012000049  | 贴片普通晶体谐振器                 | FC-135 32.768K 7.0pF +/- 20p   | PCS | 1  | G1       |              |
| 25*  | 030022000002  | 贴片陶瓷谐振器                   | SSR48.00DR01-AQ10//CSTCW48M0X  | 只   | 1  | G2       |              |
| 26*  | 030073000011  | 贴片压控温补晶体振荡器               | TN4-21704, TCO-5871Z1//KT21P-D | 只   | 1  | G200     |              |
| 27*  | 030081000003  | 贴片压控振荡器(双频输出)             | V0824AZ0869/1810//MQW5V0A869M  | 只   | 1  | GR200    |              |
| 28*  | 035010800010  | 霍尔开关                      | HED55XXU12                     | PCS | 2  | SH1, SH2 |              |
| 29*  | 035040300048  | 4011正面贴片麦克风               | SOB413S-42C1033RW//EM4011SMT-  | PCS | 1  | J1       |              |
| 30*  | 036010100172  | GSM850 RX声表滤波器            | SAFEB881MFL0F00//FAR-F5KB-881  | PCS | 1  | Z10      |              |
| 31*  | 036010100173  | GSM900 RX声表滤波器            | SAFEB942MFL0F00//FAR-F5KB-942  | PCS | 1  | Z2       |              |
| 32*  | 036010100174  | 声表面波滤波器                   | SAFEB1G84FA0F00//FAR-F6KB-1G8  | PCS | 1  | Z1       |              |

|      |               |                              |                               |     |    |       |              |
|------|---------------|------------------------------|-------------------------------|-----|----|-------|--------------|
| 料单代码 | 126761650001E | 研发                           | P601B2 WCDMA/GSM/GPRS双模移动电话机  |     |    | 型号规格  | P601B2       |
| 料单名称 | P601B2 MB     |                              | 主板 P601B2 MB 料单               |     |    | PCB版本 | 060403(w35C) |
| 序号   | 物料代码          | 物料名称                         | 规格型号                          | 单位  | 单套 | 板中位号  |              |
| 33*  | 036010100175  | 声表面波滤波器                      | SAFE1G96FA0F00//FAR-F6KB-1G9  | PCS | 1  | Z3    |              |
| 34*  | 036010100178  | WCDMA RX声表滤波器                | FAR-F6KB-2G1400-B4GC//SAFE2G  | PCS | 1  | Z400  |              |
| 35*  | 036010100179  | 声表面波滤波器                      | FAR-F6KA-1G9500-D4CD//SAFE1G  | PCS | 1  | Z200  |              |
| 36*  | 036020400007  | EMI电源滤波器                     | CKD610JB0J105S//NFM18PS105R0J | PCS | 1  | Z8    |              |
| 37*  | 036070100019  | FBAR双工器                      | ACMD-7601                     | PCS | 1  | FL200 |              |
| 38   | 040030800100  | P601B2 主板PCB (W35C)          | P601B2-MB-060403// (w35C)     | 块   | 1  |       |              |
| 39*  | 042011900001  | MINI-COAXIAL直式PCB贴片焊接        | U.FL-R-SMT(01)//              | 只   | 1  | XJ200 |              |
| 40*  | 042120100021  | 电池连接器                        | BAT04F003G5K08                | PCS | 1  | J5    |              |
| 41*  | 042120200016  | SIM 卡座                       | 1-338063-9                    | PCS | 1  | J3    |              |
| 42*  | 042120300016  | 8芯mini-usb插座                 | UH51813-DHQ5-7F (B) (B表示接     | PCS | 1  | J2    |              |
| 43*  | 042120400018  | 17pin FPC 连接器                | 04 6295 017 000 883+          | PCS | 1  | XJ1   |              |
| 44*  | 042120500059  | 40PIN 板板连接器 (插头)             | AXT440124                     | PCS | 1  | J7    |              |
| 45*  | 042120500060  | 24PIN板板连接器 (插头)              | AXT424124                     | PCS | 1  | J21   |              |
| 46*  | 042120700001  | 射频测试座 (孔)                    | MM8430-2600//MHC-201          | 只   | 1  | X200  |              |
| 47*  | 042121900017  | PUSH/PUSH TFR MEMORY CARD CO | SCHA1A0101//5008730801        | PCS | 1  | X1    |              |
| 48*  | 045020100006  | 贴片电阻                         | RC0402FR-07121K//RC-02W1213FT | 只   | 1  | R75   |              |