L2 Repair Document

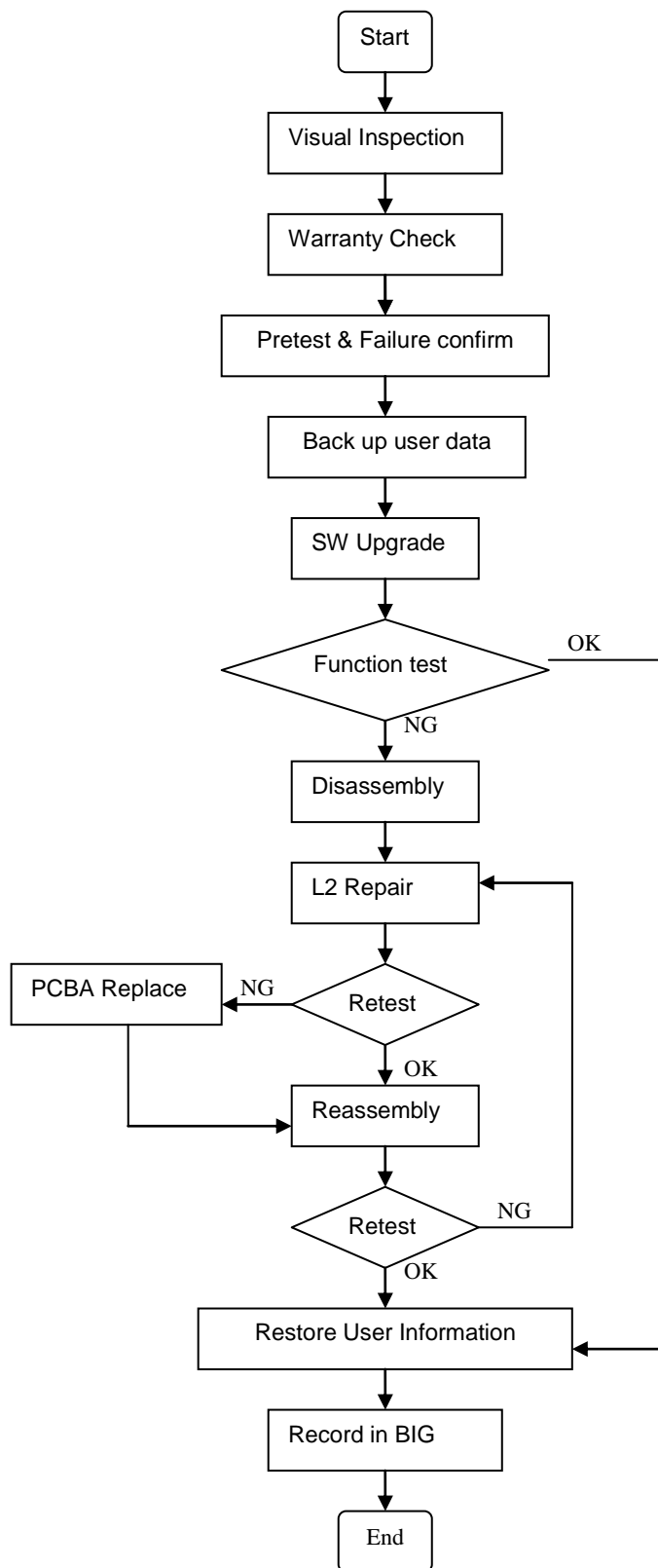**TCT** Mobile Limited

Camry

ONE TOUCH 5035

Note: this manual is non-contractual and TCT Mobile Limited can modify it without prior notice on the characteristics of described equipments.

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Rev.	Date	Modification description	Prepared By	Checked By	Approved By
1.0	2013-02-02		Zzhenqing	Maggie. zheng	

1 Level 2 repair process

```
                          ┌──────────┐
                          │  Start   │
                          └────┬─────┘
                               ↓
                     ┌───────────────────┐
                     │ Visual Inspection │
                     └─────────┬─────────┘
                               ↓
                     ┌───────────────────┐
                     │  Warranty Check   │
                     └─────────┬─────────┘
                               ↓
                  ┌────────────────────────┐
                  │ Pretest & Failure confirm│
                  └────────────┬───────────┘
                               ↓
                     ┌───────────────────┐
                     │  Back up user data│
                     └─────────┬─────────┘
                               ↓
                     ┌───────────────────┐
                     │    SW Upgrade     │
                     └─────────┬─────────┘
                               ↓
                          ╱──────────╲            OK
                         ╱ Function test╲ ──────────────┐
                         ╲             ╱                │
                          ╲──────────╱                 │
                               │ NG                     │
                               ↓                        │
                     ┌───────────────────┐             │
                     │    Disassembly    │             │
                     └─────────┬─────────┘             │
                               ↓                        │
                     ┌───────────────────┐ ←───────┐   │
                     │    L2 Repair      │         │   │
                     └─────────┬─────────┘         │   │
                               ↓                    │   │
   ┌──────────────┐  NG   ╱──────────╲             │   │
   │ PCBA Replace │ ←──── ╱  Retest   ╲            │   │
   └──────┬───────┘       ╲          ╱             │   │
          │                ╲────────╱              │   │
          │                    │ OK                │   │
          │                    ↓                   │   │
          │          ┌───────────────────┐        │   │
          └────────→ │    Reassembly     │        │   │
                     └─────────┬─────────┘        │   │
                               ↓                   │   │
                          ╱──────────╲   NG        │   │
                          ╲  Retest   ╲ ───────────┘   │
                           ╲         ╱                 │
                            ╲───────╱                  │
                               │ OK                     │
                               ↓                        │
                  ┌────────────────────────┐           │
                  │ Restore User Information│ ←─────────┘
                  └────────────┬───────────┘
                               ↓
                     ┌───────────────────┐
                     │   Record in BIG   │
                     └─────────┬─────────┘
                               ↓
                          ┌──────────┐
                          │   End    │
                          └──────────┘
```

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2 Warranty Check and Visual Inspection

2.1 Warranty confirmation of L1

1) IMEI sticker check:
   a) The IMEI number MUST be the same with the one on the IMEI sticker. If not, it's out of warranty policy
   b) IMEI label should not be
      - Removed
      - Scratched
      - Unreadable
      - Un-approved or un-provided by Alcatel.

2) Humidity sticker: Liquid detection on humidity sticker.
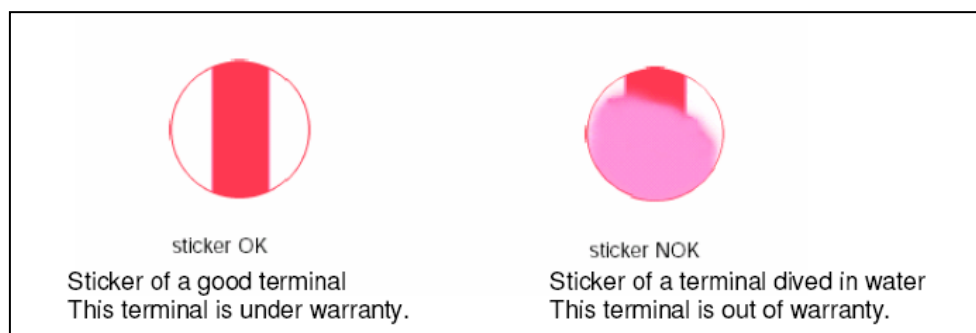
2.2 Visual mechanical check

Mechanical warranties check items:

   1) Corrosion

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- Corrosion on the USB connector, SIM connector, and other metal surfaces。

2) Hole (diameter > 1mm)

- Holes on any surface, including the front casing, furnished frame, battery cover, touch Lens, keypad…

3) Bump

- Bumps (diameter > 1mm) on any surface, including front casing, decorate frame, battery cover, touch Lens, keypad, etc.

4) Scratch

- Scratches (length > 3mm) on any surface, including the front casing, decorate frame, battery cover, touch Lens, keypad, etc.

5) Distortion

- Bend, twisted or crushed on the h/s, cover/casing or connectors, etc.

6) Broken

- Touch broken, casing/cover broken, etc.

7) Dropped

- Keypad tear off, touch lens, connectors dropped, etc.

8) Gap

- External physical damage relating to abnormal use, like front case and frame opened

9) Others

- Damage caused by disassembly ,wrong part assembly, loss of components
- Use in abnormal environment like high temperature causing plastic melts

2.3 Pretest

1) Check that the SIM card is set correctly.

2) Insert the battery.

3) Power on the cell phone.

4) If the cell phone cannot power on, visually check the condition of the battery connector. Replace it if necessary.

5) If the cell phone asks to input NCK code, this means it is SIM locked and can only be worked

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with dedicated SIM card. Use the correct SIM card.

6) Enter the phone code if necessary.

7) After the phone power on, test step by step with the auto test code:

Press *#2886# in dial screen and select "Auto" to start the auto test, then you will see the interface displaying the version. Press "Pass" to continue.

If one of the test failed, it will ask you "Restart?", press "YES" to restart the auto test from the first one and "NO" to exit the auto test, while "NEXT" to continue the auto test.

- **TRACABILITY Test**

    I. You can get some information such as IMEI, CU, BT, WIFI, etc…

    II. Press "Pass" to continue.

- **TP**

    I. "Please draw the yellow data" according to instructions and it will show "TEST RESULT: OK!"

    II. Press "PASS" to continue.

- **LCD MIRE/BLACK/GREYCHART/WHITE**

    I. You will see the LCD color changes if it functions well

    II. Press "Pass" to continue.

- **LCD BackLight Level**

    I. The screen backlight will be flashing if it functions well.

    II. Press "Pass" to continue.

- **KEYPAD.**

    I. Press the key displayed on the screen. The key on the screen will disappear when you   press it if it functions well

    II. Press "Pass" to continue；

- **Flash LED Light Test.**

    I. The light near the camera will flashing.

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II. Press "Pass" to continue.

■ CAMERA IMG

Press "Pass" to continue if the camera functions well

■ CAMERA IMG FRONT

Press "Pass" to continue if front camera functions well

■ CAMERA LED

   I. Camera LED will be turned on if functions well.

   II. Press "Pass" to continue.

■ MELODY

   I. You will hear the melody if it functions well.

   II. Press "Pass" to continue.

■ HEADSET

   I. Insert the headset and you will hear FM if functions well

   II. Press "Pass" to continue

   III. Remove headset according the instruction and it will say "Headset tested" if it functions well;

   IV. Press "Pass" to continue

■ USB

   I. Insert USB cable and the phone will detect "Charger: OK" "USB: OK" if it functions well

   II. Remove USB cable according to the instruction and then press "Pass" to continue

■ VIBRATOR

   I. You can feel the phone's vibrating if it functions well.

   II. Press "Pass" to continue.

■ G-SENSOR

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I. Screen will display "put the handset up and towards up", follow this prompt screen will display left arrow, right arrow, up arrow, down arrow and face down arrow. Put the phone to the positions according to the arrows' direction. It will say "all positions checked" if functions well

II. Press "Pass" to continue

■ ALS/PS

III. It will say "Proximity Sensor detected", put the phone near your skin and then move away from your skin. values such as "near->far:2" will be shown if functions well;

IV. Press "Pass" to continue

■ SIM

I. Insert the SIM card and the phone will detect it if it functions well

II. Press "Pass" to continue

■ MEMORY CARD

III. Insert the Memory card and the phone will detect it if it functions well

IV. Press "Pass" to continue

a) BT

V. The phone will running the BT and show the BT address on screen

VI. Press "Pass" to continue

b) WIFI

I. The phone will running the WIFI and search available network

II. Press "Pass" to continue

c) GPS

III. The phone will running the GPS and search satellite

IV. Press "Pass" to continue

■ BATTERY TEMP

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4.1 ESD Safety

Please wear static loop or static glove

4.2 Disassembly tool

You may use the following tools during the disassembly and reassembly procedure:

Plastic Flake
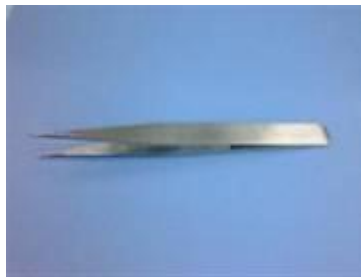
Tweezers

Hot wind gun

Screwdriver

Soldering iron

Camera Jig

4.3 Disassembly process

The steps of disassembly ONE TOUCH 5035 are as below.

This module should only be disassembled from bottom to top.

Step 1: Remove the battery cover and battery.

Step 2: Take off the 8 Screws from the furnished frame by screw driver

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Step 3：Separate the furnished frame from furnished front casing by using plastic flake （NOTE：
the location of side key、LCD and touch lens FPC as below picture shows)

Step 4: Disconnect the connections as below picture shows.

Step 5: Remove volume key and speaker by using tweezers.

Step 6: Remove the main PCBA and sub PCBA. (NOTE: There is the connection of FPC on the main PCBA back.)

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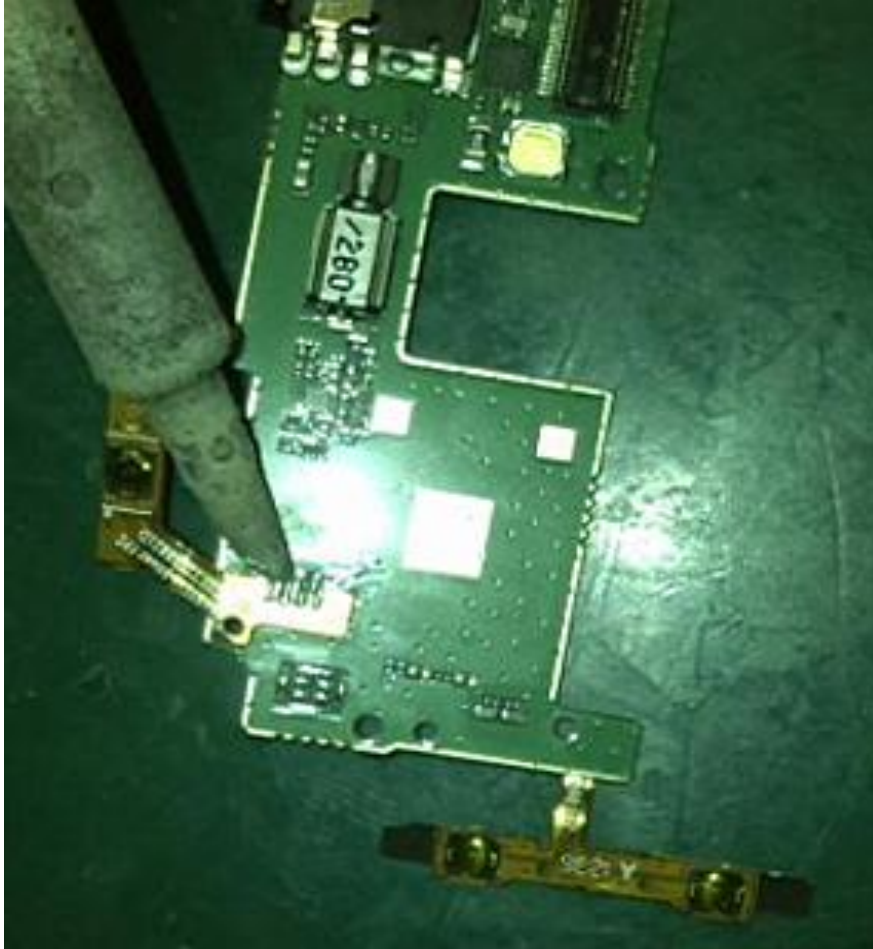
Step 7: Remove the volume key FPC and power key FPC (Temperature：Lead-free technology 330℃ ±10℃，time：2~3 seconds)

Step8: Remove the camera and FPC

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Step 10: Seperate touch lens and LCD module from furnished front casing by hot wind gun.

1). Please use hot wind gun to heat up touch lens around the four edges (Temperature: 100℃, Air Level: 3, Height:5-10mm, Time:<60s)

Use plastic flake to pry the touch lens starting from top- left corner of the touch lens, then swipe along the four edges to seperate TP from LCD module; be careful not to damage the touch lens FPC.

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2). Remove the LCD.
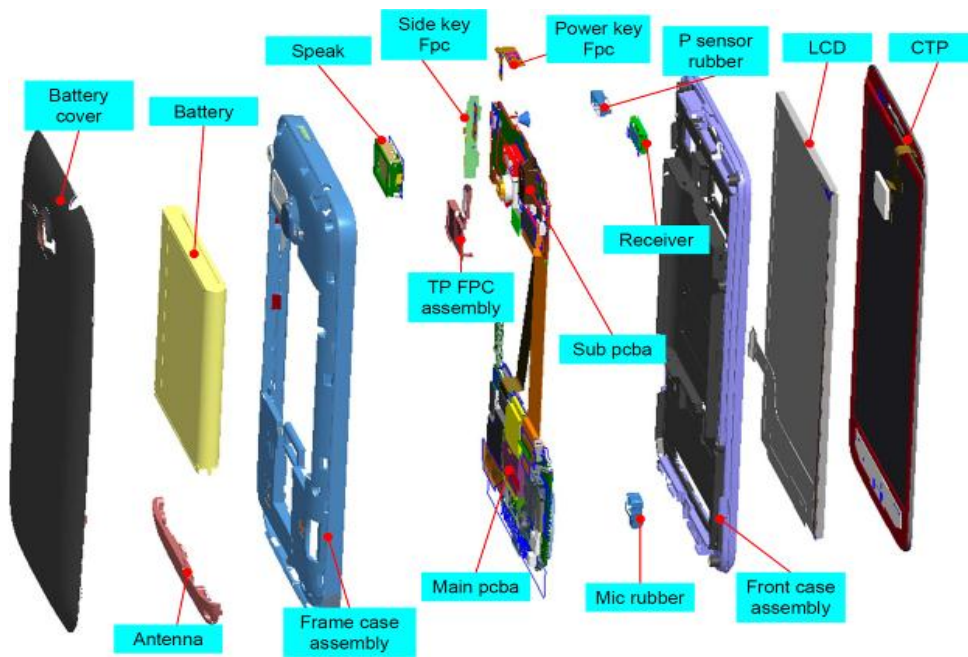
Step 11: Disassembly complete.

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36	camera donductive	BLA16T0008 C0	1	摄像头导电背胶,Camera conductive,Camry,12.00mm*7.50mm*0.10mm,旺鑫
37	BTB connector(socket)	ARC0300004 C1	1	板对板连接器(插座),BTB Connector(Socket),OVER PCB,30.0 PINs,0.40 mm,8.6x4.2xH0.9mm,W/O POST+W/O DIP,N/A,245804030000829+,KYOCERA
38	BTB connector(socket)	ARC0600001 C1	2	板对板连接器(插座),BTB Connector(Socket),OVER PCB,60.0 PINs,0.40 mm,14.1x4.0xH1.5mm,W/O POST+W/O DIP,N/A,245602060000829+,KYOCERA
39	battery connector	ARE0040022 C1	1	电池连接器,battery connector,Cut PCB,4.0 PINs,3.0 mm,12x4.65xH2.4mm,W/O POST+With DIP,N/A,KBC24S310TR,KEIRAKU
40	RF switch	ARF0060003 C1	1	RF 连接器,RF switch,Over PCB,6.0 PINs,2.32 mm,2.5×2.5×H1.5mm,W/O POST+W/O DIP,N/A,ECT818000163,ECT
41	Micro USB connector	ARH0050018 C1	1	Micro USB 连接器,Micro USB Connector,Over PCB,5.0 PINs,0.650 mm,4.65×6.9×H2.4mm,W/O POST+With DIP,N/A,UAF95-05244-1512,LINKCONN
42	Tflash connector	ARJ0080023 C1	1	TFlash 卡连接器,TFlash Connector,Push-Push,8.0 PINs,1.1 mm,15.2x14.0xH1.88mm,W/O POST,N/A,KM100843N1R,KEIRAKU
43	2in1sim card connector	ARL0120000 C1	1	2 合 1 连接器,2 in 1 SIM card connector,,12pin,0.635pitch,H=2.9mm,,,CAF97-12293-0300,Linkconn,
44	MIC	AWC3040M00 C1	1	麦克风,MIC,Digital MEMS,4.0x3.0xH1.05mm,-26+/-3dBFS,SMT,N/A,SDM0401-263-M02,AAC
45	Antenna spring	BMF32E0000 C0	1	天线弹片,Antenna spring,Martell,,3.45*1.2*H1.66,,W/O post,W/O DIP,3.1.21.0788,Everwin,
46	BTB connector(socket)	ARC0100002 C1	1	板对板连接器(插座),BTB Connector(Socket),OVER PCB,10.0 PINs,0.40 mm,4.6X2.2XH0.9mm,W/O POST+W/O DIP,N/A,245804010000829+,KYOCERA
47	Audio jack	ARG0050005 C1	1	耳机插座,Audio Jack,Cut PCB,5.0 PINs,D3.5 mm,12.5x6.5xH4.4 mm,W/O POST+With DIP,N/A,ACPJ-035-2-020,AMPHENOL
48	camera module	ASA0300001 C2	1	内置摄像头,Camera module,CMOS,0.3M,FF,3.24x2.8xH2.74mm,SMT 20pin,Parallel,OV7690,LCC1,N/A,OVM7690-RYAA,OMNIVISION
49	cylindrical vibrator	AVA0410M01 C1	1	柱状马达,Cylindrical Vibrator,11x4.4x3.4 mm,2.7 V,175.50 mW,SMT,N/A,GS-3205J,AWA
50	sub PCB	BAH16T000C C1	1	子板,SUB PCB,Camry,C Version,1+4+1 Layers,61.00×28.70×00.60 mm,N/A,FR4,WUZHU

36	camera donductive	BLA16T0008 C0	1	摄像头导电背胶,Camera conductive,Camry,12.00mm*7.50mm*0.10mm,旺鑫
37	BTB connector(socket)	ARC0300004 C1	1	板对板连接器(插座),BTB Connector(Socket),OVER PCB,30.0 PINs,0.40 mm,8.6x4.2xH0.9mm,W/O POST+W/O DIP,N/A,245804030000829+,KYOCERA
38	BTB connector(socket)	ARC0600001 C1	2	板对板连接器(插座),BTB Connector(Socket),OVER PCB,60.0 PINs,0.40 mm,14.1x4.0xH1.5mm,W/O POST+W/O DIP,N/A,245602060000829+,KYOCERA
39	battery connector	ARE0040022 C1	1	电池连接器,battery connector,Cut PCB,4.0 PINs,3.0 mm,12x4.65xH2.4mm,W/O POST+With DIP,N/A,KBC24S310TR,KEIRAKU
40	RF switch	ARF0060003 C1	1	RF 连接器,RF switch,Over PCB,6.0 PINs,2.32 mm,2.5×2.5×H1.5mm,W/O POST+W/O DIP,N/A,ECT818000163,ECT
41	Micro USB connector	ARH0050018 C1	1	Micro USB 连接器,Micro USB Connector,Over PCB,5.0 PINs,0.650 mm,4.65×6.9×H2.4mm,W/O POST+With DIP,N/A,UAF95-05244-1512,LINKCONN
42	Tflash connector	ARJ0080023 C1	1	TFlash 卡连接器,TFlash Connector,Push-Push,8.0 PINs,1.1 mm,15.2x14.0xH1.88mm,W/O POST,N/A,KM100843N1R,KEIRAKU
43	2in1sim card connector	ARL0120000 C1	1	2 合 1 连接器,2 in 1 SIM card connector,,12pin,0.635pitch,H=2.9mm,,,CAF97-12293-0300,Linkconn,
44	MIC	AWC3040M00 C1	1	麦克风,MIC,Digital MEMS,4.0x3.0xH1.05mm,-26+/-3dBFS,SMT,N/A,SDM0401-263-M02,AAC
45	Antenna spring	BMF32E0000 C0	1	天线弹片,Antenna spring,Martell,,3.45*1.2*H1.66,,W/O post,W/O DIP,3.1.21.0788,Everwin,
46	BTB connector(socket)	ARC0100002 C1	1	板对板连接器(插座),BTB Connector(Socket),OVER PCB,10.0 PINs,0.40 mm,4.6X2.2XH0.9mm,W/O POST+W/O DIP,N/A,245804010000829+,KYOCERA
47	Audio jack	ARG0050005 C1	1	耳机插座,Audio Jack,Cut PCB,5.0 PINs,D3.5 mm,12.5x6.5xH4.4 mm,W/O POST+With DIP,N/A,ACPJ-035-2-020,AMPHENOL
48	camera module	ASA0300001 C2	1	内置摄像头,Camera module,CMOS,0.3M,FF,3.24x2.8xH2.74mm,SMT 20pin,Parallel,OV7690,LCC1,N/A,OVM7690-RYAA,OMNIVISION
49	cylindrical vibrator	AVA0410M01 C1	1	柱状马达,Cylindrical Vibrator,11x4.4x3.4 mm,2.7 V,175.50 mW,SMT,N/A,GS-3205J,AWA
50	sub PCB	BAH16T000C C1	1	子板,SUB PCB,Camry,C Version,1+4+1 Layers,61.00×28.70×00.60 mm,N/A,FR4,WUZHU

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51	TP_TAPE1	BPA16T0004C2	1	触摸屏背胶 1, TP_TAPE1, Camry, 62.77*6.58mm, Truly
52	TP_TAPE2	BPA16T0005C2	1	触摸屏背胶 2, TP_TAPE2, Camry, 62.94*118.12mm, Truly
53	TP_PROTECTION_film_OUT	BNH16T0001C2	1	触摸屏外保护膜, TP_PROTECTION_film_OUT, Camry, 68.44*124.00mm, Truly
54	TP_PROTECTION_film_INSIDE	BNH16T0002C2	1	触摸屏内保护膜, TP_PROTECTION_film_INSIDE, Camry, 68.44*124.00mm, Truly
55	*LCD_CONDUCTIVE1	BLA16T0011C1	1	LCD 导电背胶 1, LCD_CONDUCTIVE1, Camry, 34.00mm*3.00mm, T=0.15MM, TDT
56	*LCD_CONDUCTIVE2	BLA16T0012C1	1	LCD 导电背胶 2, LCD_CONDUCTIVE2, Camry, 73.00mm*3.00mm, T=0.15MM, TDT
57	*LCD_CONDUCTIVE3	BLA16T0013C1	1	LCD 导电背胶 3, LCD_CONDUCTIVE3, Camry, 102.00mm*3.00mm, T=0.15MM, TDT
58	*LCD_CONDUCTIVE4	BLA16T0014C1	1	LCD 导电背胶 4, LCD_CONDUCTIVE4, Camry, 16.50mm*3.00mm, T=0.15MM, TDT

6 Level 2 repair

This chapter describes the Level 2 repair that can be done without any diagnostic equipment.

Problem description		Action And Solution
Charging	Bad or No Charge	1.Check voltage of the battery: if 0V, charge some minutes and check the charge indicator; 2.Check the battery contact, change the battery connector if broken; 3.Check the charge plug on B cover, change it if necessary;
Switch on with battery power	Can 't Switch on	1.Check voltage of the battery; 2.Check the battery contact, change the battery connector if broken; 3.Check the power on key; 4.Check BTB connector socket pin
Main display	Missing line or column; no display; bad or no LCD backlight	Check Connection flex (FPC cable),change it if necessary; Replace display module if necessary;
Vibrator	The vibrator does not work	Check the contact on the PCBA (dirty or

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		oxidized), replace the vibrator if necessary;
Network Problem	No emission or No reception	Check the antenna contactor on the B cover; Check the contact on the PCBA (dirty or oxidized);
TF card	No communication between the phone and the TF card	Check the TF connector on the PCBA;
Camera	Camera doesn't work	Check camera module Check also camera socket broken or not
Audio	Bad or no emission (TX audio from mobile); Bad or no reception (RX audio on mobile); Hands-free problem; Key beep and melody problem	Check microphone, replace it if necessary; Check the contact on the PCBA (dirty or oxidized) Check loud speaker, replace it if necessary; Check the contact on the PCBA (dirty or oxidized)

In case the Level 2 repair can't solve the problem, or the PCBA is damaged, exchange the PCBA.

7 PCBA exchange

If Level 2 repair does not solve the failure, it is mandatory to change the PCBA and follow the process as below.

1) Collect the PCBA (without accessories, LCD and camera), with microphone and vibrator.

2) Get a new PCBA from the swap stock. Reuse those accessories to assemble the mobile.

3) Fill in the record sticker with IMEI number, fault code, short code, Hardware Technical Level and software version.

4) Send the NG PCBA with record sticker back to L3 repair center with the recommended packaging method,

   Note: packaging method please refer item "12. Packaging requirement".

8 Other component exchange

The other components exchange such as

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Put commercial label on anti-vibration bag

3、   Packing Requirements

   i.   Please pay attention to the following points when different models put into one box：

   ii.   Stick up the same models with tapes

   iii.   Mark the model, quantity and specification of custom label on tape

   iv.   The packing box for PCBA should have marking sticker and well sealed by the tape

   v.   with TCL logo

   vi.   Finally put all the packing boxes into packing cases strong enough and post to HK.

Stick up the same models with tapes	Mark the model, quantity and specification of custom label on tape

Model

Quantity

Specification

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