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L91 Maintenance Manual

(VERSION: V1.0)

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Version	Date	Changed content	Remarks
V1.0	May18th,2016	Maiden issue	

Catalogue

Chapter 1 CAUTION

1. Only authorized technicians can do maintenance and calibration.

2. Make sure that engineers wear antistatic wrist strap repair phones in antistatic station.

3. Make sure that maintenance room is covered with antistatic mat, and the maintenance table is covered with antistatic material.

4. Make sure that all necessary screws and parts are installed in correct location of phone after maintenance and adjustment.

5. After maintenance, clean the PCBA.

6. As static electricity is the main reason for electronics damages, engineers shall repair phones in an anti-static environment and shall take effective antistatic protection measures.

7. For an occurrence of NG test, engineers should check if the test point is dirty or test point contact is poor

8. Check if water penetrates to mainboard. If yes, check all the components to see if there is oxidation.

9. Make sure that maintenance room is bright and has natural ventilation.

Ventilation: When do maintenance or soldering, some equipment can emit hazardous gas. So the maintenance room should have good natural ventilation. If there are no windows in maintenance room, the room should be equipped with electric air regenerating equipment.

10. There should be obvious antistatic labels in Electrostatic Sensitive area, such as in maintenance area and spare part warehouse.

Chapter 2 L91 Introduction

L91 View:

1. Introduction of Main Phone Parts

Battery cover
82.07.872001H

Main MIC rubber case
81.05.850001H

LED light rubber case
81.05.850005H

Display cover module
82.07.870001H

Battery
81.04.841001H

Vice MIC rubber case
81.05.850002H

Card tray
82.07.874001H

USB-FPC
82.06.862001H

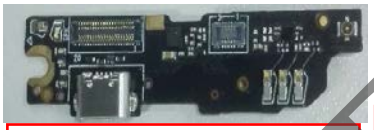
Front camera
81.01.815001H

Fingerprint module
81.02.821002H

Side button
81.02.821001H

Side button FPC
82.06.862002H

Coaxial cable
81.01.812001H

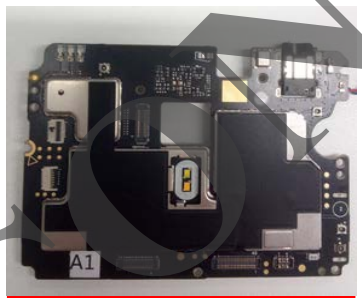


USB board module
82.06.861001H

Light sensitive rubber case
81.05.850003H

Rear camera
81.01.815002H

Speaker BOX
81.01.813001H



Mainboard module
82.06.860001H

Receiver
81.01.813002H

USB rubber case
81.05.850004H

Battery cover
81.02.820002H

Motor
81.01.816001H

2. Technical Specification and Parameters

OS	**OS**	**Flyme 5.1 Android L**	
Specification parameter	**Size(length*width*thickness)**	**153.6*75.5*8.3mm**	
	Weight	**About 160g**	
	Battery	**4000mAh**	
Chip	**CPU**	**MT6755m**	
Overseas version	**Card 1**	**6 network models 18 frequency:** **GSM: B2/3/5/8** **CDMA: Bc0** **TDSCDMA:B34/B39** **WCDMA:B1/B2/B5/B8** **TDD: B38/B39/B40/41** **FDD: B1/B3/B7**	
	Card 2	**GSM: B2/3/5/8**	
Wireless connection	**WLAN**	**MT6625L**	**Support 2.4G/5G WIFI** **802.11a/b/g/n** **Support BT4.0: Support GPS/Glonass** **No need FM function**
	Bluetooth		
	GPS		
Screen	**Size**	**5. 5-inch FHD**	
	TP	**GFF (full fit)** **2.5D cover plate, anti-fingerprint film**	**FORCAL FT5346/Goodix GT970**
	Display technology	**LTPS 16:9**	
	Resolution	**1920*1080**	
	Number of color	**16000000**	
	Brightness	**450cd(typ)**	
	Angle of visibility	**All views**	
	PPI	**403**	
	Contrast	**1000:1(typ)**	
Processor	**Brand**	**MTK**	
	Model	**MT6755m**	
	Main frequency	**1.8 Ghz**	
	Framework	**8 X Cortex A53**	
	GPU	**mali-T860 GPU at 550Mhz**	
Storage space	**RAM**	**2GB LPDDR3 800mhz**	**Compatibility: 3GB**
	ROM	**16G/32G**	
	Memory card	**Support**	**SD card support 128GB**
Radio-frequency	**RF**	**MT6176**	
Power	**PMIC**	**MT6351 + MT6311 for DVFS1**	
Camera and video	**Main camera**	**13M with PDAF**	
		SENSER OV13853	
		Largen lens	
		F/2.2	

		Built-in ISP	
		SIZE 8.5*8.5*4.65mm	
	Vice camera	5M	
		SENSER OV5670	
		4P Lens	
		F/2.0	
		SIZE 6*6*3.82MM	
		Communal built-in ISP	
	Flashlight	Rear dual flashlight	Dual color temperature
Audio frequency	Noise reduction	Built-in silicon MIC	Double MIC
	Audio frequency chip	Built-in	
Gravitational acceleration and gyroscope		Support	
Electronic compass		Support	
Ambient light sensor		Support	ID single hole ROHM BH1745NUC TXC PA12200002
Ambient light sensor/Infrared distance sensor		Support	
Speaker PA		Support	AW8738
Media	Audio format	FLAC、APE、AAC、MKA、OGG、MP3、MIDI、M4A、AMR、WAV (RA、WMA)	Which in brackets are supported. But it involves the copyright issue.
	Audio code format	FLAC、APE、DTS、AC3、OGG、AAC、ADPCM、ALAC、 MP3、AMR－WB、AMR－NB (COOK、ATRC)	Which in brackets are supported. But it involves the copyright issue.
	Video format	MP4、3GP、MOV、MKV、AVI、FLV、MPEG、M2TS、TS (WMV、ASF、RM、RMVB)	Which in brackets are supported. But it involves the copyright issue.
	Video code format	H264、MPEG4、VC1、H263、MPEG1、MPEG2、VP8 (XVID、DIVX5、DIVX4、DIVX3、VP6、WMV1、WMV2、WMV3、RV10、RV20、RV30、RV40)	Which in brackets are supported. But it involves the copyright issue.
Picture format		JPEG、PNG、GIF、BMP	
USB OTG		Support	
Fingerprint recognition		Support of paying by fingerprint and Ali pay	
Definition of button and software		Don’t distinguish the function from short press, long press and sweep.	“m back” function is useless under the engineer mode
NFC		Don’t support	
Fast charge		5V 1.7A	
Motor		Non-linear motor	
Data interface		Micro USB2.0	5PIN
Headphone jack		3.5mm stereo	
S/PDIF OUT		/	
MHL		/	
Speaker		1511mm X 3.0mm: Phonate from the side	

SIM card	**Requirement of Flyme is dual card dual standby and single-pass**	**Three choose two from nano/nano/SD cards. User can customize the main card.**
Charger	**5V/2A**	
Other functions	**Hall device**	

Chapter3 Function test items and criteria

L91 Function test items and criteria

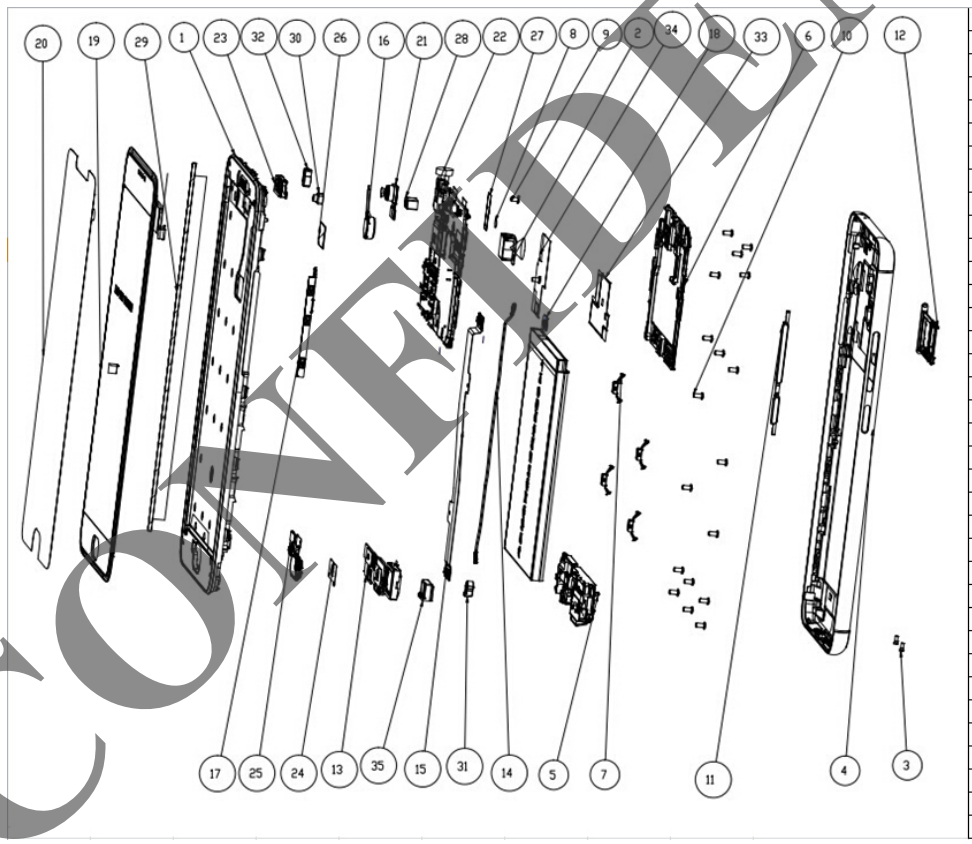
（press “*937*0#”to turn to test model）

Test condition	Under the luminance of 800~2000Lux, use engineering firmware and test software provided by MEIZU to do below tests.	
Test items	Standard	Reference
Distance test	Don’t do IR calibration when light is on. When “PASS” button turns green, cover the phone with jig. When the current value becomes 0, the “PASS” turns green.	
Light sensor	Cover sensor at least 2s then uncover it. When the test succeeds, the color turns green.	
ITO test	Phone tests automatically. During testing, don't touch screen. Turn green when finish.	
Touch screen	Touch screen responds properly; When do line drawing test, there is no break point, sawtooth or extra lines. □	
Screen test	No dead patch, dead block; Even display color □	
Backlight test	Brightness changes gradually from the darkest brightness to brightest.	
LCD test	No black dot, no black point and even brightness.	
Receiver test	Select “Male voice” or “Female voice” according to the voice heard. Select “Correct” and press “Pass”.	
Main speaker test	Select “Male voice” or “Female voice” according to the voice heard. Select “Correct” and press “Pass”.	
Button and vibration test	Power button, volume button and Home button (including fingerprint module) function properly; Quick response. □ The motor vibrates steadily with no noise.	
Main MIC test	Making a sound to main MIC, it will record after volume detection. Hear the normal sound after inserting earphone. The test passes.	
Assistant MIC test	Making a sound to assistant MIC, it will record after volume detection. Hear the normal sound after inserting earphone. The test passes.	

Earphone test	The phone can detect earphone; Earphone button (Volume button) functions properly. Both earplugs have clear sound with no noise.	
Flashlight test	White and yellow flashlight functions properly with even color	Add after subsequent software updated
Gravity sensor calibration	When calibrating, set phone flatwise.	
Gravity sensor test	Inclining the screen, red ball will move according to the screen. When test passes, ball turns green.	
Fingerprint recognition	Press fingerprint module softly by finger and uplift the finger according to prompt. Display green “PASS”	
Gyroscope calibration	When calibrating, set phone flatwise.	
Gyroscope test	Rotating phone, value on screen changes.	
Hall switch test	Move the magnet at the top left corner. When phone detects magnet, test passes.	
Card tray detection	When display “Card tray was inserted into your phone”in green, test passes.	
SIM card status detection	Display dual SIM card status after inserting dual SIM card.	
WALN	Detect WIFI signal and display “WALN was tested successfully” in green.	
Bluetooth test	Detect Bluetooth signal and display “Bluetooth was tested successfully” in green.	
GPS	Detect GPS signal and display “GPS was tested successfully” in green.	
OTG test	Insert storage device into cellphone USB. When detectsuccessfully, test passes.	
Rear camera test	Clear preview and picture; adjustable; Lens can focus normally.	
Front camera test	Clear preview and picture; adjustable; Lens can focus normally.	
Card tray SD card test	Before test, remove SIM card 2 and insert SD card. When detecting SD card, test passes.	
Magnetic sensor	Rotating screen, arrow can rotate according to the rotated screen.	

Call test	Phone can detect SIM card; Clear voice; Stable signal; Can normallly change among earphone mode, receiver mode and speaker mode. When using IR, can put out screen. Single-pass, noise and useless IR are unacceptable.	
Battery, charge test	Charge normally, normal indicator light brightness.Test passes.	

Chapter 4 Exploded view



No	Name of parts	Quantity
35	USB hermetic rubber case	1
34	Shielding case radiating film 2	1
33	Shielding case radiating film 1	1
32	Main MIC rubber case	1
31	Vice MIC rubber case	1
30	Indicator light rubber case	1
29	LCD lightproof Mylar	2
28	Light sensitive rubber case	1
27	Front camera grounded conductive fabric	1
26	Buffered foam	1
25	Fingerprint recognition module	1
24	DOME sheet	1
23	Receiver	1
22	Mainboard	1
21	Front camera	1
20	TP protective film	1
19	TP+LCD pasting module	1
18	Battery	1
17	Side button FPC	1
16	Motor	1
15	USB-FPC	1
14	Coaxial cable	1
13	Little board	1
12	Card tray	1
11	Side button	1
10	Screws of complete phone	18
9	Screws of mainboard	2
8	Waterproof label	1
7	Battery cover grounded cilps	4
6	Mainboard holder	1
5	Speaker BOX	1
4	Battery cover	1
3	TP screws	2
2	Rear camera	1
1	Display cover	1

Chapter 5 Maintenance parts and accessory BOM

Material list of service center

83.32.3322119-H	**L681H_V1.0(16G silver phone)**	**Full Netcom public version 2+16G silver phone**
83.32.3323119-H	**L681H_V1.0(16G golden phone)**	**Full Netcom public version 2+16G golden phone**
83.32.3320119-H	**L681H_V1.0(16G gray phone)**	**Full Netcom public version 2+16G gray phone**
83.32.3322219-H	**L681H_V1.0(32G silver phone)**	**Full Netcom public version 3+32G silver phone**
83.32.3320219-H	**L681H_V1.0(32G gray phone)**	**Full Netcom public version 3+32G gray phone**
83.32.3323219-H	**L681H_V1.0(32G golden phone)**	**Full Netcom public version 3+32G golden phone**
82.06.860005H	L91 overseas version 2+16G mainboard	Overseas version 2+16G mainboard module
82.06.860006H	L91 overseas version 3+32G mainboard	Overseas version 3+32G mainboard module
82.06.861001H	L91 USB board	USB board module
82.07.870004H	L91 overseas version silver display cover module	Display cover module-silver
81.03.830002H	L91 silver TP screws	Silver screws
81.02.820002H	L91 silver battery cover	Silver battery cover
82.07.874001H	L91 silver card tray	Silver SIM card tray
81.02.821001H	L91 silver side button	Silver side button
81.02.821002H	L91 white fingerprint module	Fingerprint recognition module
82.07.870005H	L91 overseas version gray display cover module	Display cover-gray
81.03.830005H	L91 gray TP screws	Gray screws
81.02.820003H	L91 gray battery cover	Gray battery cover
82.07.874002H	L91 gray card tray	Gray SIM card tray
81.02.821004H	L91 gray side button	Gray side button
81.02.821003H	L91 black fingerprint module	Black fingerprint recognition module
82.07.870006H	L91 overseas version golden display cover module	Display cover module-golden
81.03.830006H	L91 golden TP screws	Golden screws
81.02.820004H	L91 golden battery cover	Golden battery cover
82.07.874003H	L91 golden card tray	Golden SIM card tray
81.02.821005H	L91 golden side button	Golden side button
81.02.821006H	L91 golden fingerprint module	Golden fingerprint recognition

		module
82.07.872001H	L91 battery cover module	Battery cover
81.05.850001H	L91 main MIC rubber case	Main MIC rubber case
81.05.850002H	L91 vice MIC rubber case	Vice MIC rubber case
81.05.850003H	L91 light sensitive rubber case	Light sensitive rubber case
81.05.850004H	L91 USB rubber case	USB rubber case
81.05.850005H	L91 LED light rubber case	LED light rubber case
81.03.830001H	L91 screws (battery cover holder, speaker BOX)	Screws
81.03.830003H	L91 mainboard screws	Screws
81.01.813001H	L91 speaker	Speaker
81.05.850008H	L91 front camera conductive fabric	Conductive fabric
81.01.815001H	L91 front camera	Front camera
81.01.815002H	L91 rear camera	Rear camera
81.01.813002H	L91 receiver	Receiver
82.06.862001H	L91 main FPC	Link-FPC
82.06.862002H	L91 side button FPC	Side button FPC
81.01.812001H	L91 coaxial cable	Coaxial cable
81.01.816001H	L91 motor	Motor
81.04.841001H	L91 battery	Battery
81.04.843002H	L91 tamper labels for screws	Tamper labels for screws
81.05.850012H	L91 MIC hole dustproof nylon net	Dustproof nylon net
81.05.850013H	L91 battery drawstring tape	Battery drawstring tape
81.05.850017H	L91 flash light Mylar	Mylar
81.04.843010H	Graphic carton label (overseas version)	Graphic carton label (overseas version)
81.04.842002H	L91 data cable	L53W-052000100A
81.04.843006H	L91 graphic carton seal label	Graphic carton seal label
81.04.849001H	L91 card pin	ZAL1518AAA763AAA_silver card pin

Chapter 6 Assembly and disassembly guide

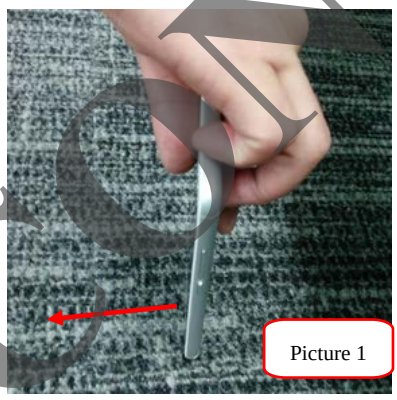
Ⅰ. Disassembly guide

1.Disassembly tool: 1.Fixture for separating battery cover from display cover 2.0.8 Torx screwdriver 3.Antistics tweezers 4.Philips screwdriver 5.FPC lever 6.Ejection pin 7.Metallic tweezers(as picture below)

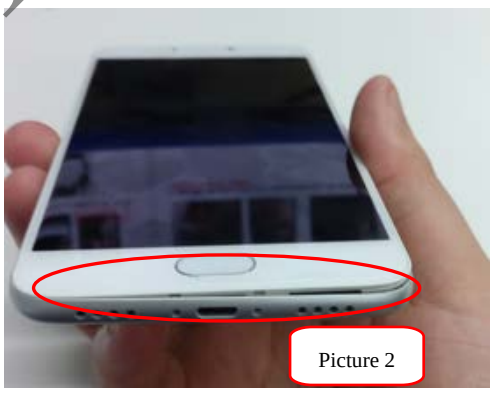
2. Remove card tray: Insert ejection pin into the hole to remove card tray. (As picture below)

3. Remove TP screws: Use 0.8mm Torx screwdriver to remove two TP screws at the bottom of phone. (As picture below)

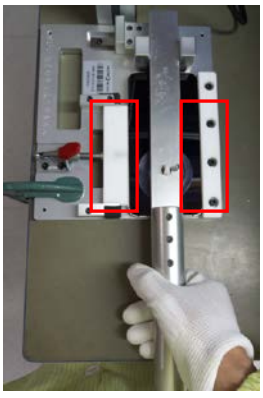
4. Remove battery cover: 1. Get the phone which TP screws and card tray are removed from it. Uplift the handle of fixture and put the phone into fixture to lock (fingerprint module put at the behind side). Push the slider at the left side to right to clamp the battery cover tightly. Depress the handle to press the sucker flatly. Push the slider at the top left corner to right. Uplift the handle slowly to separate the display cover from the battery cover. **2.** For the phone which can't disassemble by the way as step 1, set one layer of soft foam on the table. Get the phone screen faced toward ourselves (with 80 degree) and knock the phone softly as the arrow direction (as picture 1). Knock the phone until there is the 1-2mm gap between battery cover and display cover (as picture 2), then use the way as step 1 to disassemble the phone. **Caution: 1.The phone which can't disassemble by step 1 refers to the phone which display cover can't be separated from battery cover causing the separating of sucker and display cover after uplifting handle. 2. Don't use too much force while knocking the phone. Or the rate of breaking battery cover will be greater. 3. Have to paste 0.3mm thickness adhesive tape at groove at two side of fixture before using the fixture. Or it is likely to cause the battery cover can't be disassembling or damage of TP and LCD.**



Picture 1

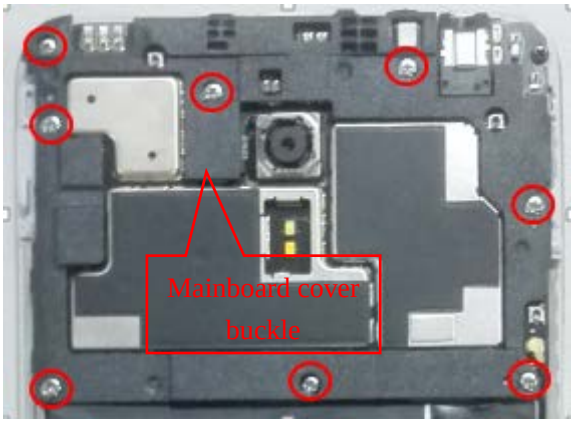


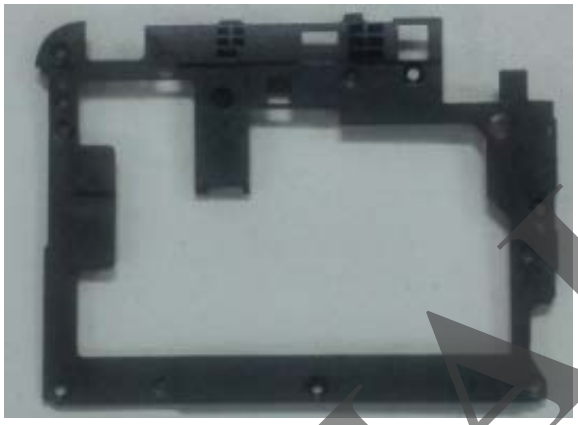
Picture 2



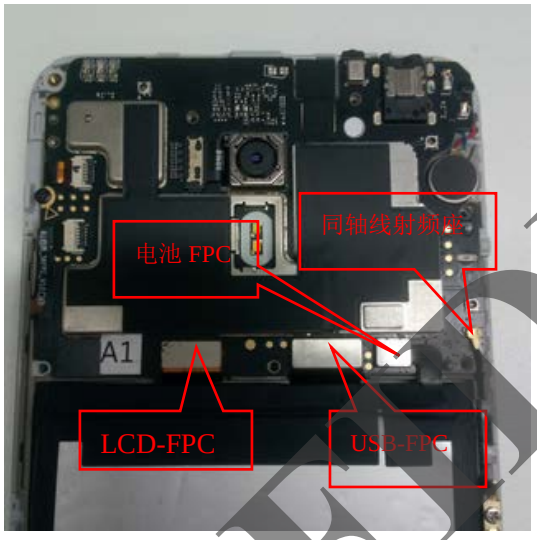
Paste 0.3mm thickness adhesive tape at groove which shown as picture.

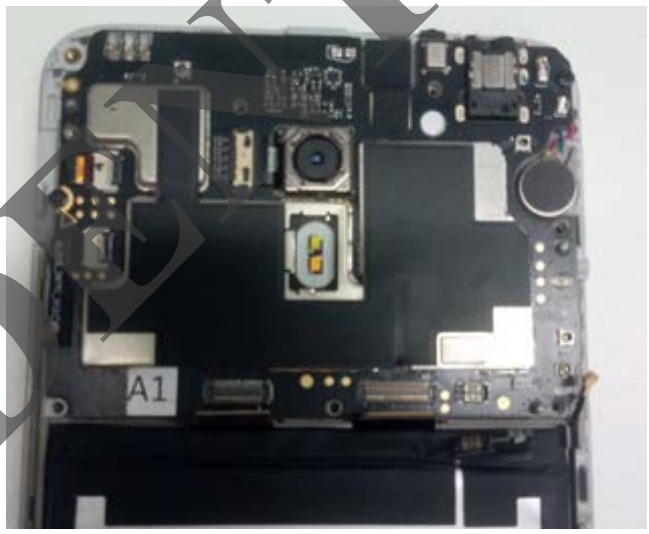
5. Remove mainboard holder: Use Philips screwdriver to remove eight screws on mainboard holder, then remove holder. (As picture is shown below. **Caution：Don’t break the buckle labeled in the picture below while removing mainboard holder.**)



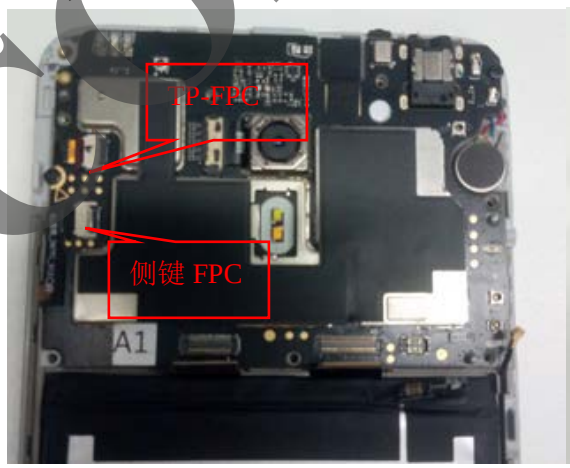


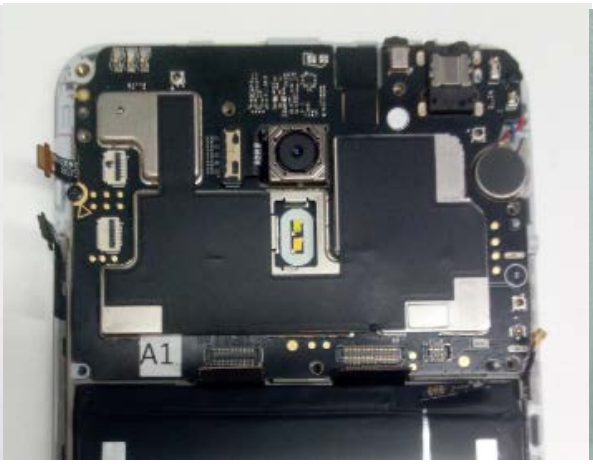
6. Remove LCD connector, USB connector, FPC connector, battery connector and coaxial cable radio-frequency base: Use lever to remove battery, USB-FPC and LCD connector. Use plastic tweezers to remove coaxial cable radio-frequency base. (**Caution: Remove battery connector firstly. Don’t get lever touched the component on the mainboard in case of falling off.**) (As picture below)



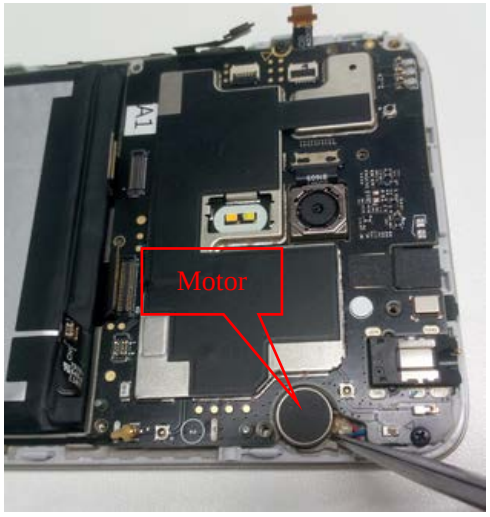


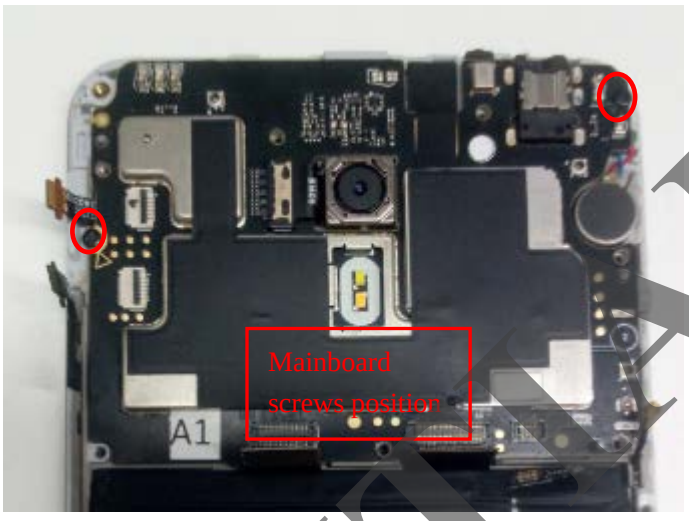
7. Remove side button FPC, TP-FPC: Use lever to lever up the TP connector cover plate and side button FPC connector plate. Use plastic tweezers to remove TP-FPC and side button FPC from the connecting base. Tear off the side button FPC pasted on the mainboard position and display cover position. (As picture below. **Caution: Don’t use too much force to remove connecting base. Too much force is likely to cause the breakage of FPC.**)



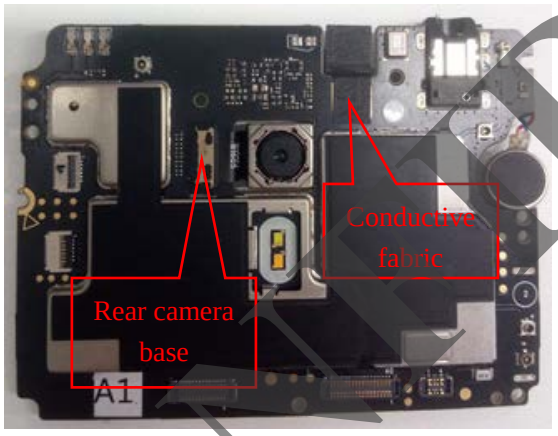


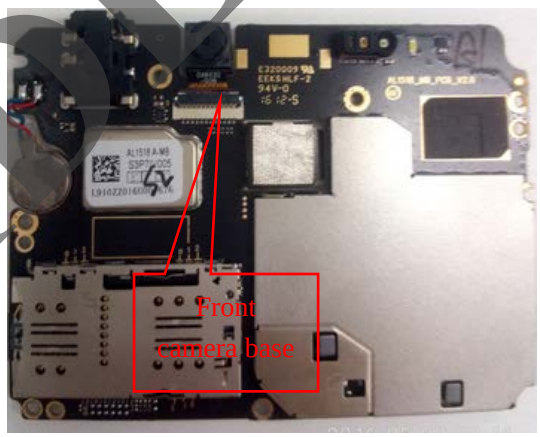
8. Remove mainboard: Use metallic tweezers to lever up the motor softly. Then use Philips screwdriver to remove 2 screws on mainboard and remove mainboard (as the picture shown below). **(Caution: Don't destory the motor cable while using tweezers.)**



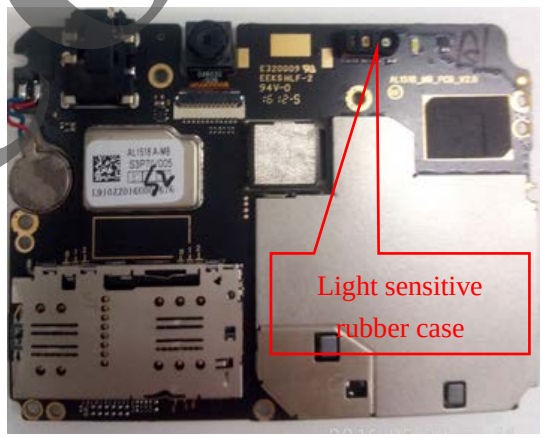


9. Remove front camera and rear camera: Use lever to lever up the rear camera connecting base and remove rear camera. Tear off the front camera conductive fabric. Use lever to lever up the front camera connecting base and remove front camera (as picture below). **(Caution: Don't get lever touched with component on the mainboard in case of falling off)**

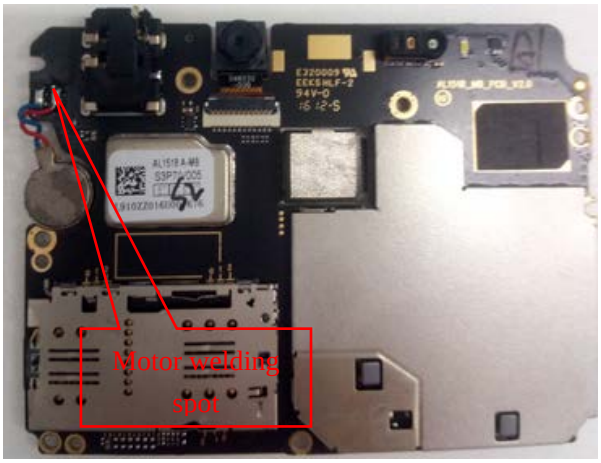




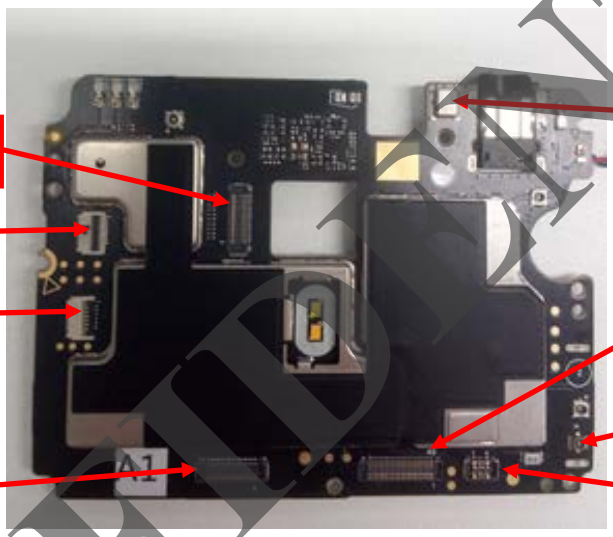
10. Remove light sensetive rubber case: Remove light sensitive rubber case from mainboard (as picture below).



11. Remove motor: Use soldering iron to remove motor (as picture below). (**Temperature of soldering iron: 350°±20°. Time of soldering iron touching with welding spot: Single spot for 1-2 seconds**)



12. Mainboard introduction (as picture below)



Rear camera connecting base

TP-FPC connecting base

Side button FPC connecting base

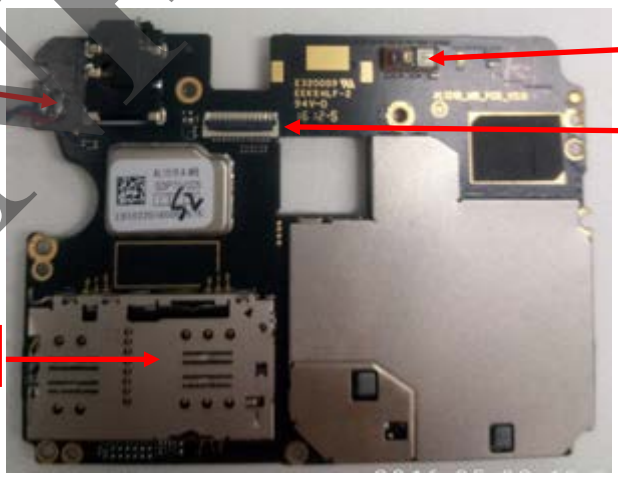
LCD-FPC connecting base

Vice MIC

USB-FPC connecting base

Coaxial cable connecting base

Battery connecting base



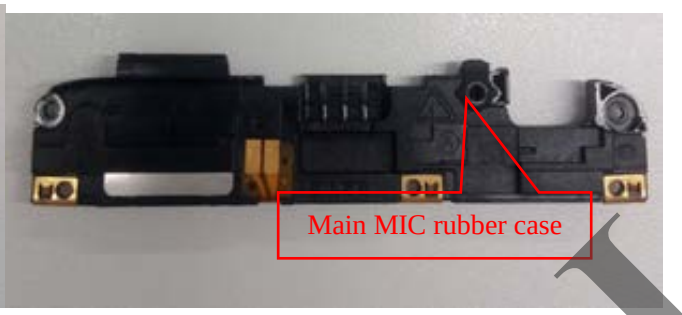
Motor welding spot

SIM card base

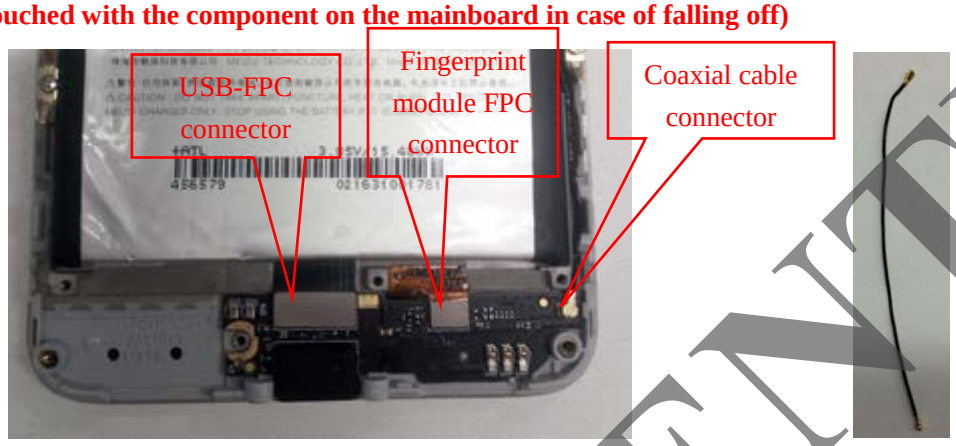
Light sensitive component

Front camera connecting base

13. Remove speaker module: Use Philips screwdriver to remove 6 screws on speaker BOX and remove speaker BOX. Remove main rubber case. (As picture below)



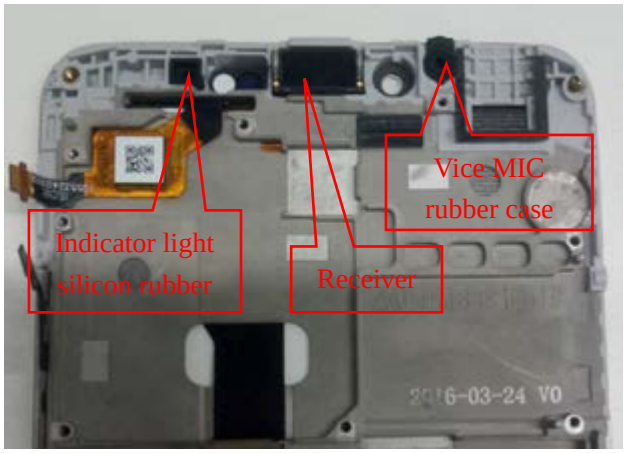
14. Remove USB-FPC connector, fingerprint module FPC connector and coaxial cable. (Don't get lever touched with the component on the mainboard in case of falling off)



15. Remove little board, USB hermetic rubber case and fingerprint module: Use plastic tweezers to lever up the little board from left side. (As picture below)

16. Remove battery: Tear up battery drawstring and clench drawstring to pull it out slowly. Remove battery. (As picture below. Caution: Don't use too much force while pulling out battery. Too much force is likely to cause breakage of drawstring.)

17. Remove indicator light silicon rubber case, receiver and vice MIC rubber case: Use tweezers to remove indicator light silicon rubber case, receiver and vice MIC rubber case (as picture below).



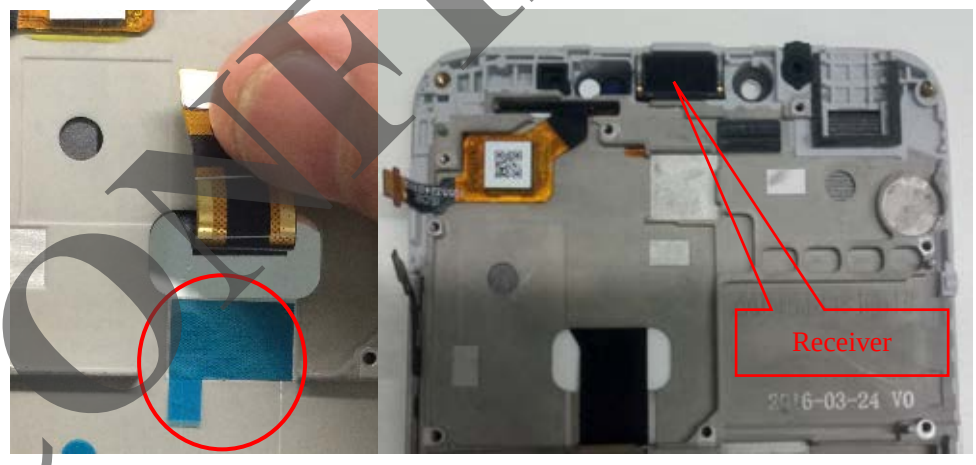
18. Remove USB-FPC: Tear off USB-FPC slowly. (Don't snap the FPC) (As picture below)

19. Remove side button from battery cover: Remove side button from battery cover. (As picture below)

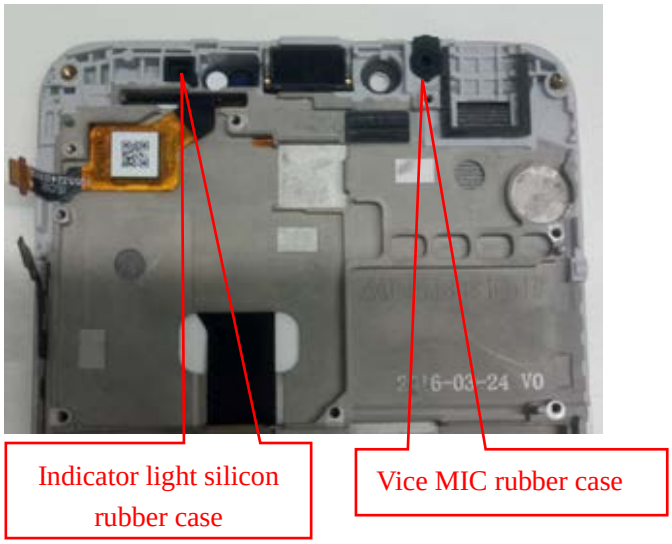
20. Disassembly finishes. (Below are all the cellphone parts)

Ⅱ. Assembly guide

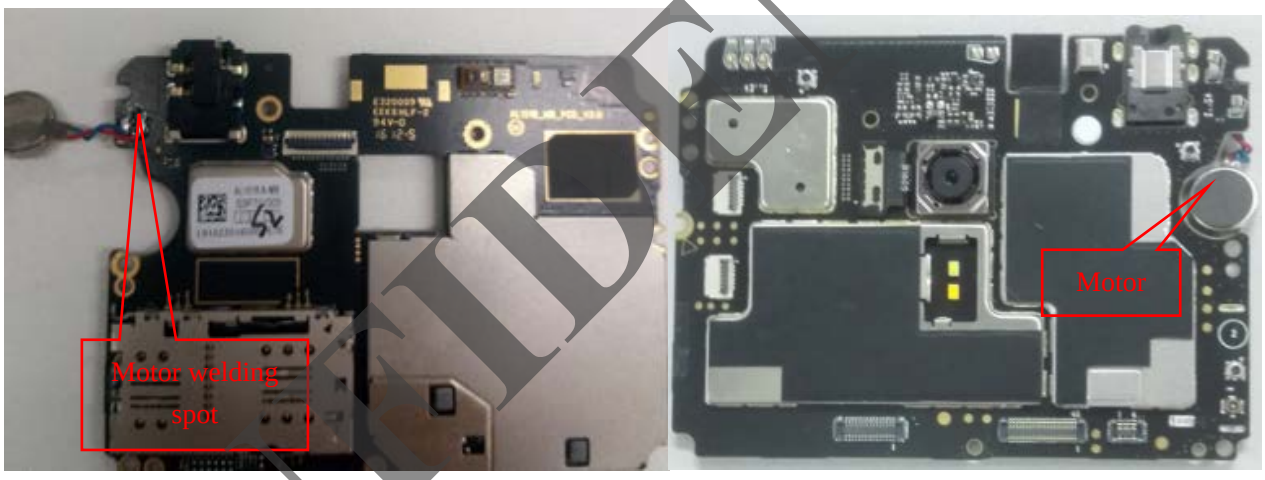
1.Check appearance of display cover module and assemble receiver: Check appearance of display cover module whether there is appearance fault. Tear off LCD-FPC back gum release paper and paste LCD-FPC at the specified position. Tear off the receiver back gum release paper and assemble receiver in corresponding position of display cover as the clips facing downward. (As picture below, caution: Must paste LCD-FPC into the silk screen frame. Or it can't be clasped on the mainboard LCD connecting base. The clips face downward.)



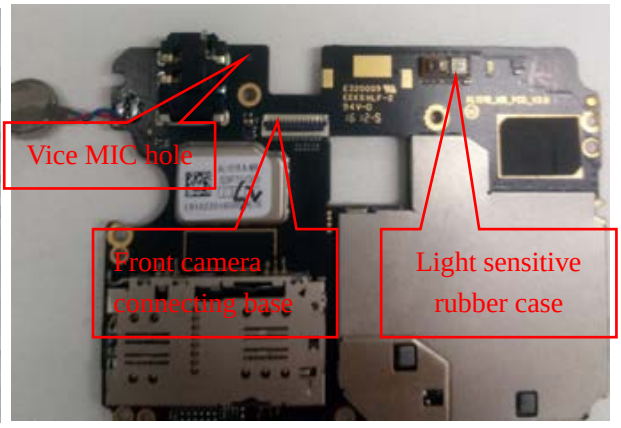
2. Assemble indicator light rubber case and vice MIC rubber case: Assemble indicator light rubber case in corresponding position of display cover as the salient point facing downward. Assemble MIC rubber case in corresponding position as the MIC hole facing upward. (As picture below, caution: MIC hole face upward.)



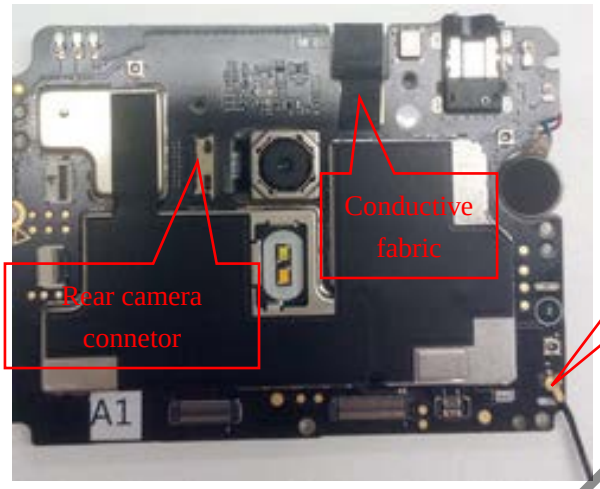
3. Solder motor: Check appearance of motor if there is appearance fault. Solder motor on the mainboard. **(Caution: Solder the red cable at the anode. Solder blue or black cable at the cathode. Temperature of soldering iron: 350°±20°. Time of soldering: Single spot for 1-2 seconds.)**



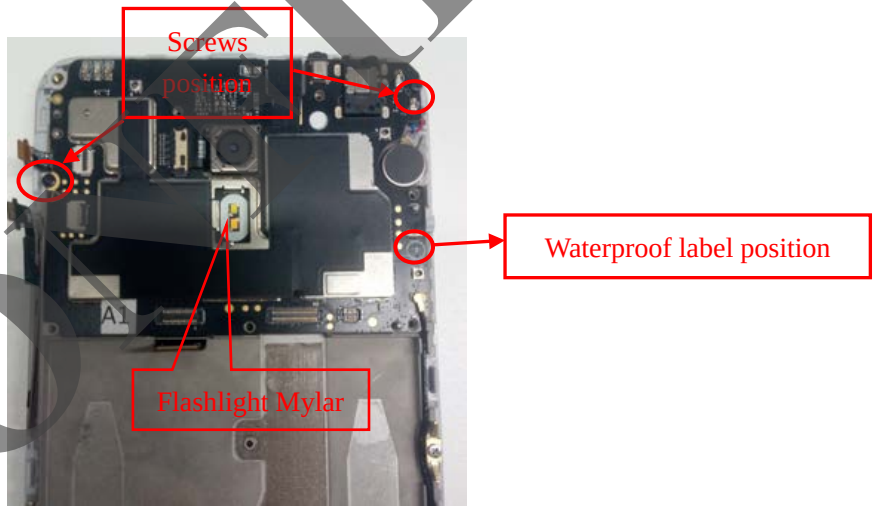
4. Assemble front camera, light sensitive rubber case on mainboard and paste dustproof nylon net up: Check front camera to make sure that there are no appearance faults. Clasp the front camera connector on the mainboard. Assemble light sensitive rubber case on the light sensitive component as the gap facing downward. Tear off vice MIC hole adhesive tape and paste the dustproof net on the vice MIC hole.



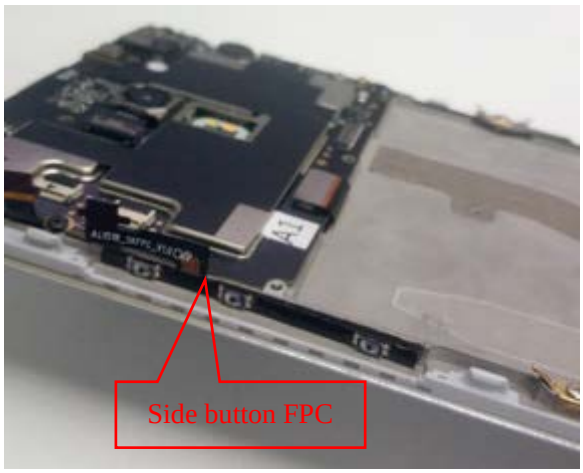
5. Assemble rear camera, coaxial radio-frequency cable and paste front camera conductive fabric up: Clasp rear camera at rear camera connecting base. Clasp one side of coaxial cable on mainboard radio-frequency. Paste front camera conductive fabric at specified position. (As picture below)

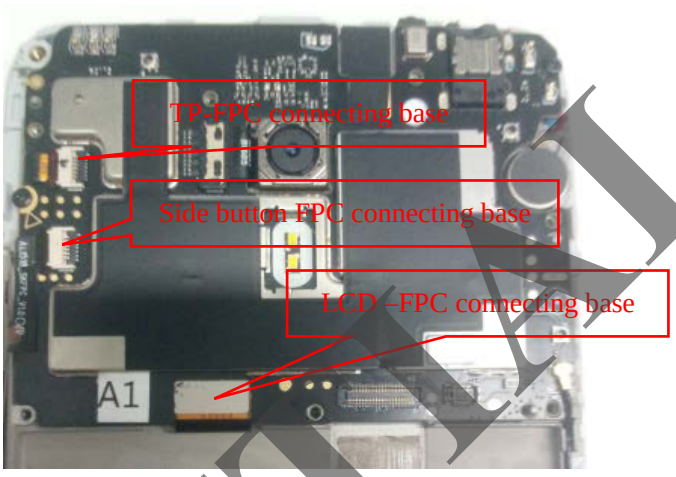


6. Assemble mainboard and fasten 2 screws on mainboard and paste 1 waterproof label and flashlight Mylar: Check receiver, indicator light rubber case and vice MIC rubber case if assembled well in correct direction on the display cover module. Check front camera and rear camera if assembled well on mainboard module. Check light sensitive rubber case if assembled in correct direction. Assemble mainboard module in display cover and fasten mainboard screws. Tear off bilateral adhesive tape on motor and paste motor in motor slot tightly. Paste waterproof label on mainboard. (As picture below, **caution: Need replace old bilateral adhesive tape on motor by new one if the stickiness of bilateral adhesive tape become weak after maintenance to make sure that motor is pasted well and tightly in case of the fault of producing vibration noise.**)

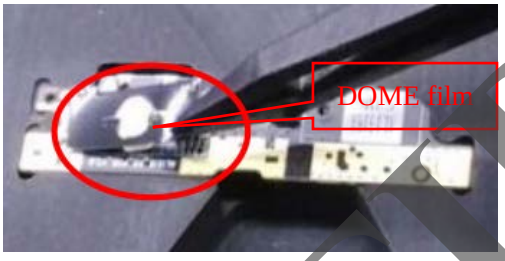


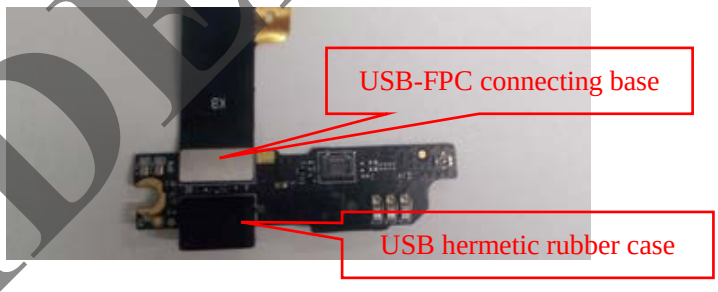
7. Assemble side button FPC and clasp TP-FPC and LCD-FPC: Check side button FPC and make sure whether there is appearance fault. Tear off release paper on side button FPC and assemble side button FPC at specified position on display. Fasten side button FPC connecting base after assembling side button FPC and paste side button FPC on the mainboard. Fasten TP-FPC connecting base and LCD-FPC connecting base. (As picture below, **caution: Press the buckle softly after assembling to make sure connector assembled well.**)



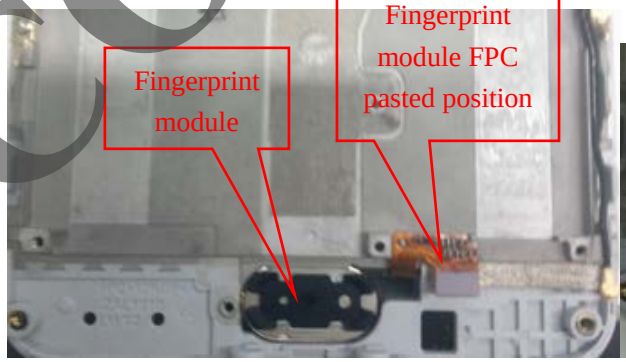


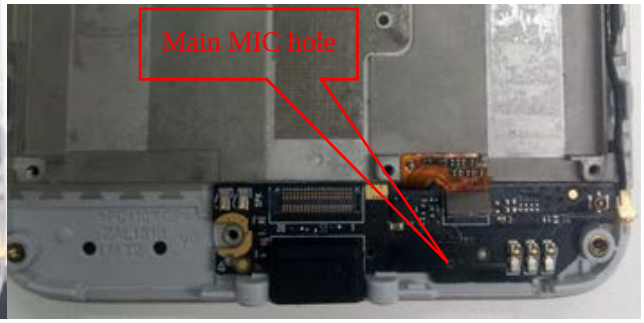
8. Paste little board and DOME film and assemble USB hermetic rubber case and clasp USB-FPC: Check appearance of little board whether there is appearance fault. Assemble DOME film at specified position on little board. Assemble USB hermetic rubber case on USB and clasp USB-FPC on the connecting base. (As picture below, caution: DOME film need be pasted in the pasted frame of little board DOME film.)



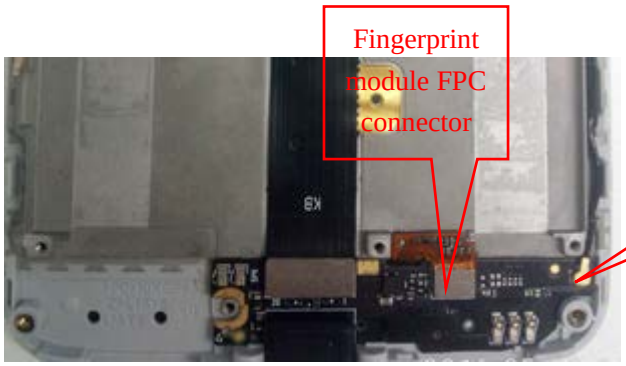


9. Assemble fingerprint module and little board into display cover: Tear off fingerprint module FPC back gum release paper at the bottom of cellphone. Check appearance of fingerprint module whether there is appearance fault. Assemble fingerprint module in corresponding hole on display cover. Paste FPC on the magnesium alloy according to the located mast. Tear off MIC hermetic adhesive tape on little board and assemble little board into display cover module. (As picture below, caution: Need replace old bilateral adhesive tape of fingerprint module FPC by new one if the stickiness become weak after maintenance to make sure it is pasted well.)

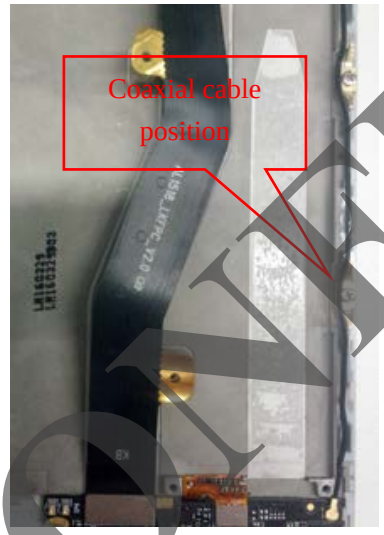


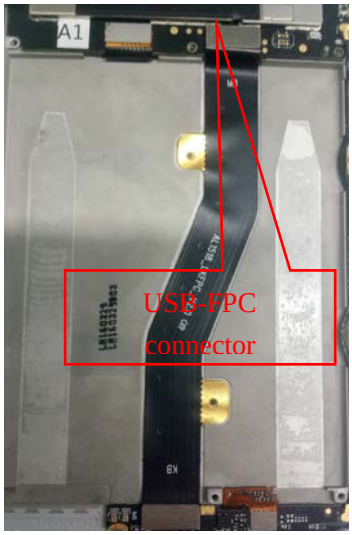


10. Clasp fingerprint module connector and coaxial cable: Get display cover module which assembled with little board and check hand feeling of fingerprint module if felt well. Clasp fingerprint module connector and coaxial cable radio-frequency head on little board.



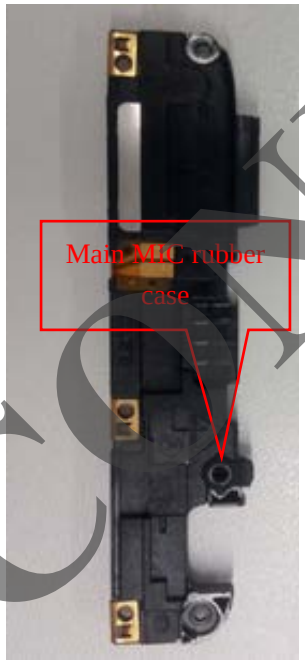
11. Tidy coaxial cable and tear off USB-FPC bilateral adhesive tape release paper and paste USB-FPC up: Press coaxial cable into cable slot and tear off USB-FPC bilateral adhesive tape release paper of magnesium alloy. Clasp USB-FPC on the mainboard and paste flat cable on the display cover. (As picture below, caution: Need replace old bilateral adhesive tape of USB-FPC by new one if stickiness become weak after maintenance to make sure that USB-FPC is pasted well.)





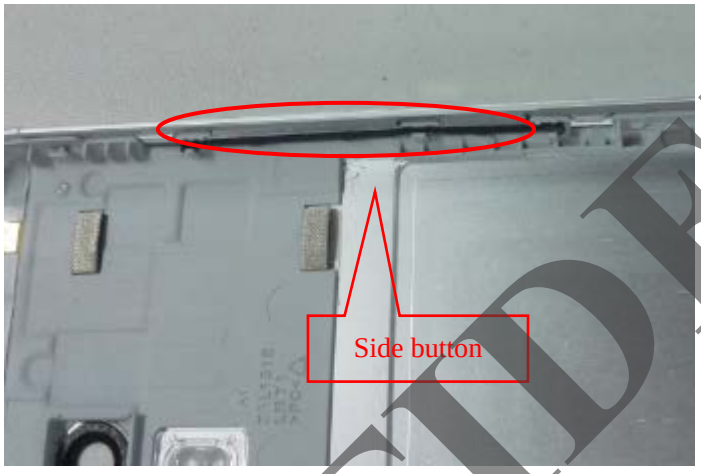
12. Assemble battery: Check 4pcs battery cover grounded clips if it is missed or deformation. Check screws on 4pcs battery cover grounded clips if fastened well. Tear off battery bilateral adhesive tape release paper of magnesium alloy. Check battery and FPC to make sure there is no scratch and breakage. Assemble well battery into magnesium alloy battery slot and press it flatly and tightly by hand. Paste drawstring on the battery and clasp the connector up. (As picture below, caution: Need replace the old bilateral adhesive tape of battery by new one if stickiness become weak after maintenance to make sure that battery is pasted well.)

13. Assemble main MIC rubber case, speaker BOX and fasten 6PCS screws: Check speaker BOX whether there is appearance fault. Assemble main MIC rubber case to specified position on speaker BOX. Assemble speaker BOX on the display cover and fasten speaker BOX screws in order. (As picture below, caution: Rubber case MIC hole faces upward.)



14. Assemble mainboard holder and fasten 8 screws and paste 2 tamper labels: Check display cover module if battery is assembled well and connectors are clasped well. Assemble mainboard holder and fasten screws on mainboard holder in order. Paste 2pcs tamper labels at specified screws hole. (As picture below)

15. Check appearance of battery cover and assemble side button: Check battery cover module if there is any scratch, breakage or parts missing. Assemble side button in battery cover. (As picture below)



16. Assemble battery cover: Check each part if assembled well on display cover module which it is pasted with tamper label. Especially check 4 grounded clips and 3 speaker tight clips if they fall off. Tear off rear camera protective film. Check side button if assembled well in battery cover. Assemble earphone in corresponding hole on battery cover firstly. Clasp display cover with battery cover from top to bottom. Check hand feeling of side button if felt well. Check hole of rear camera if dirtied. (As picture below)

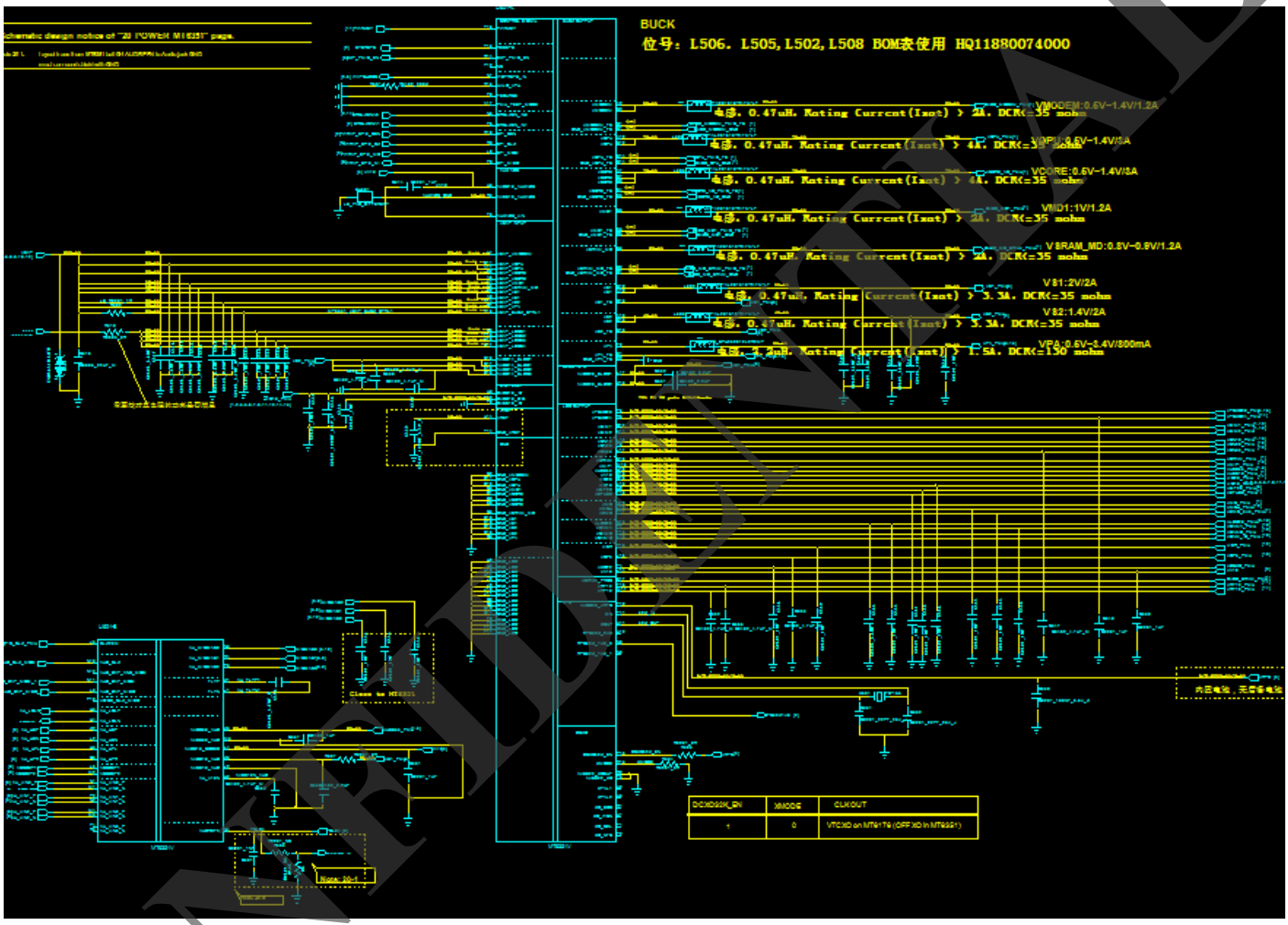
17. Fasten TP screws: Use 0.8mm Torx screwdriver to fasten 2 TP screws at the bottom of phone. (As picture below)

18. Assemble card tray: Assemble card tray at card slot.

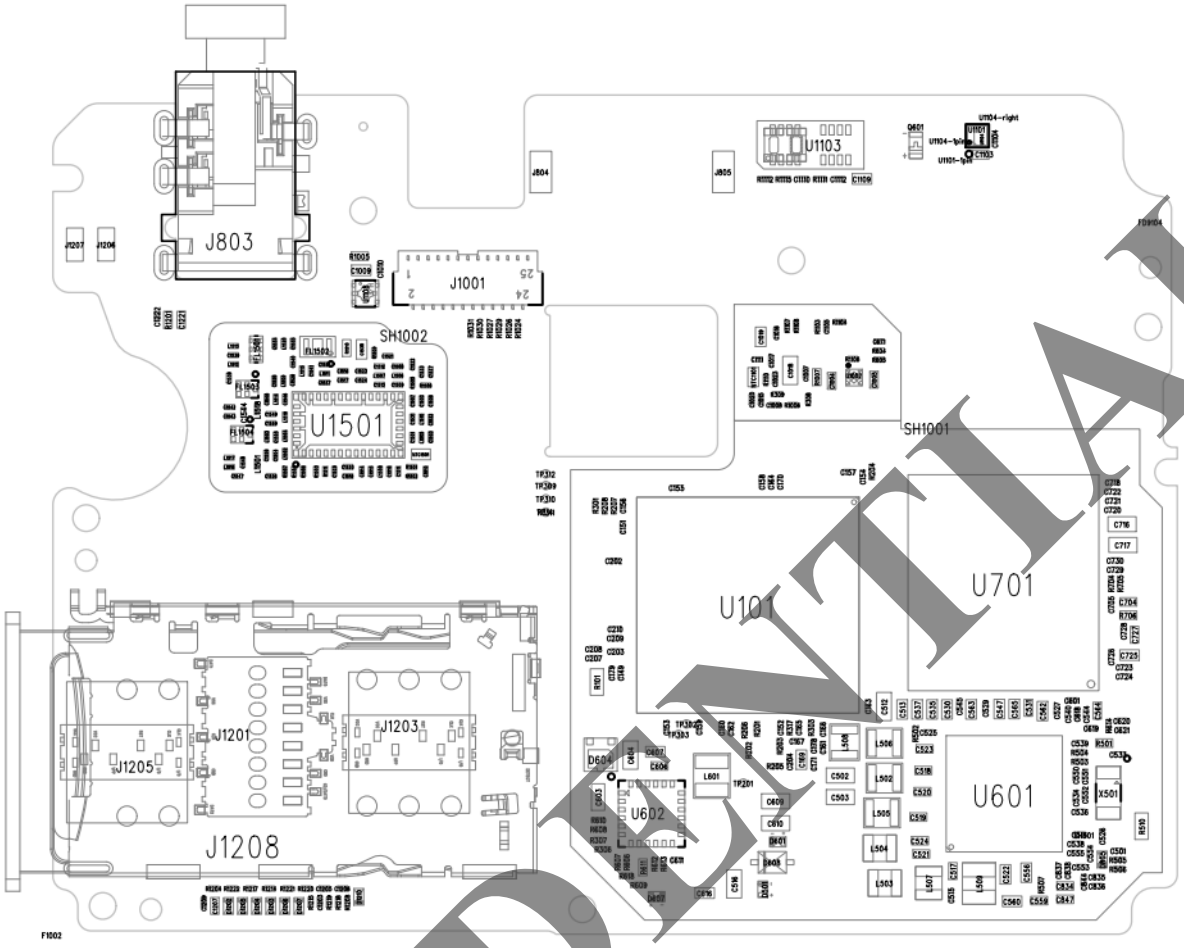
19. Assembly finishes. Start the phone up to test.

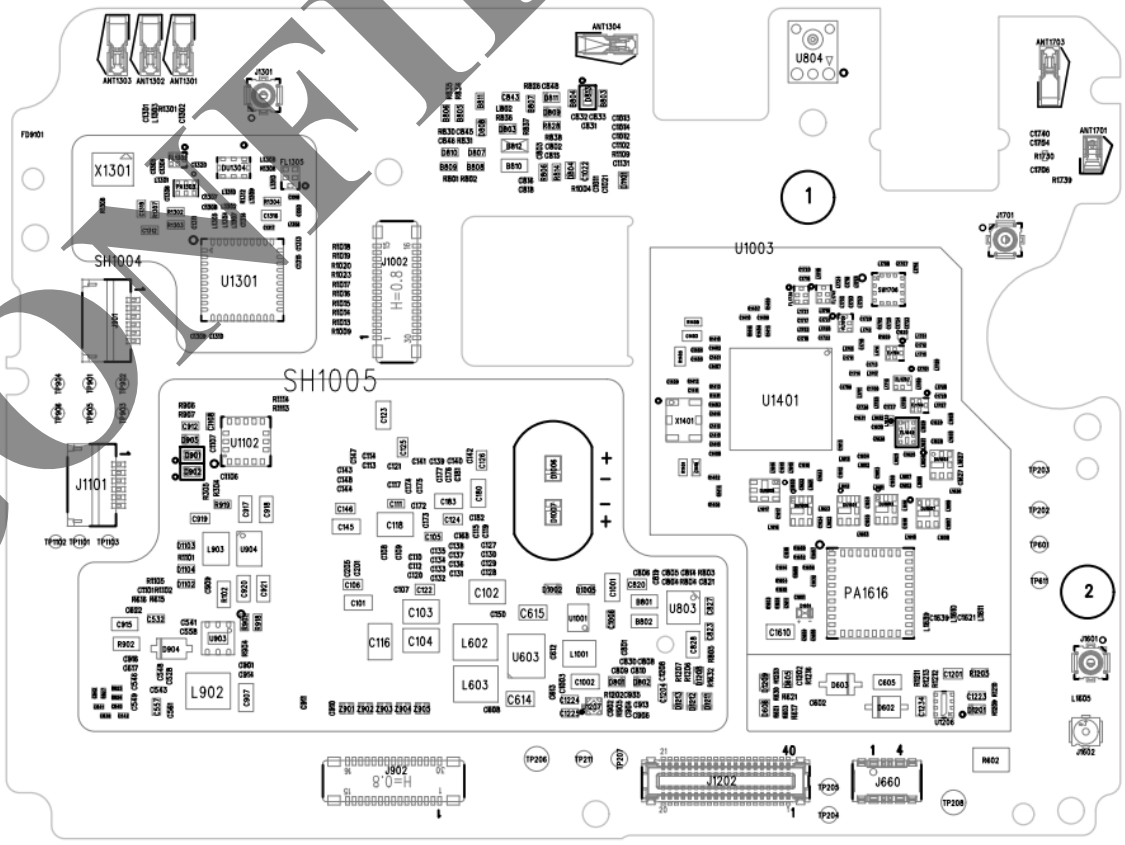
Chapter 7 Block diagram and screen printing diagram

1.Block diagram



2.Screen printing diagram

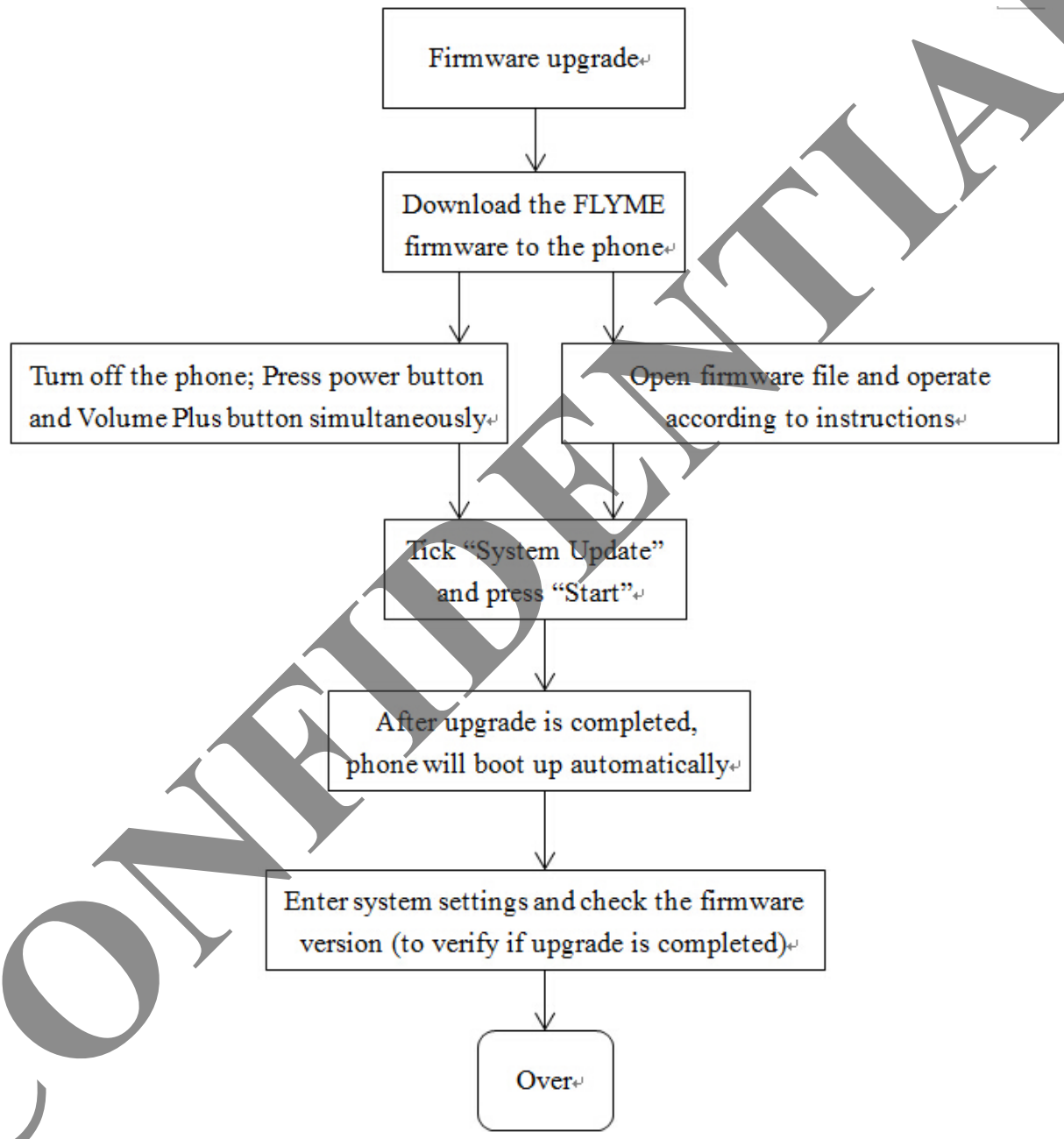




Chapter 8 Common fault detection and maintenance

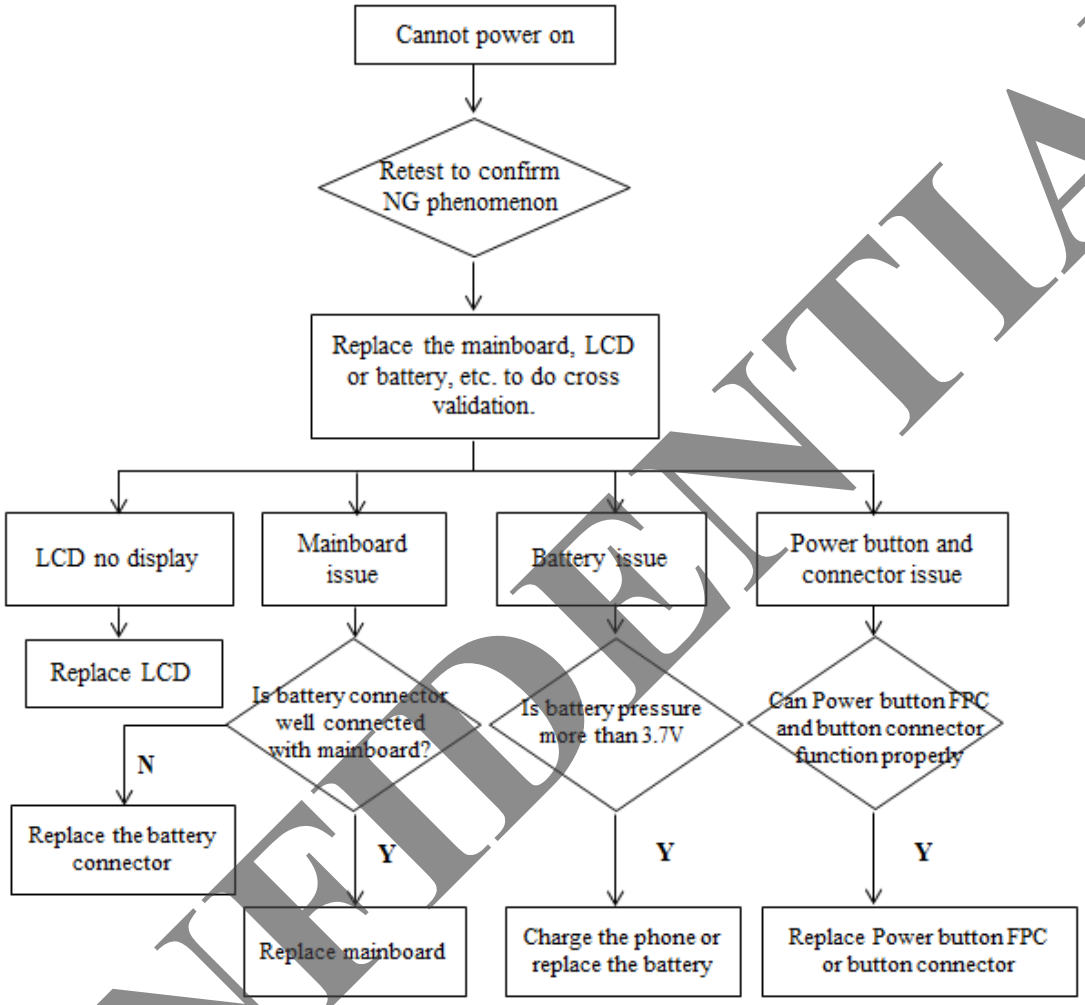
As for mal-functional phones, firstly check if it is a software issue. Secondly check if it is a hardware issue. Below is Upgrade Flow Process.

Firmware upgrade



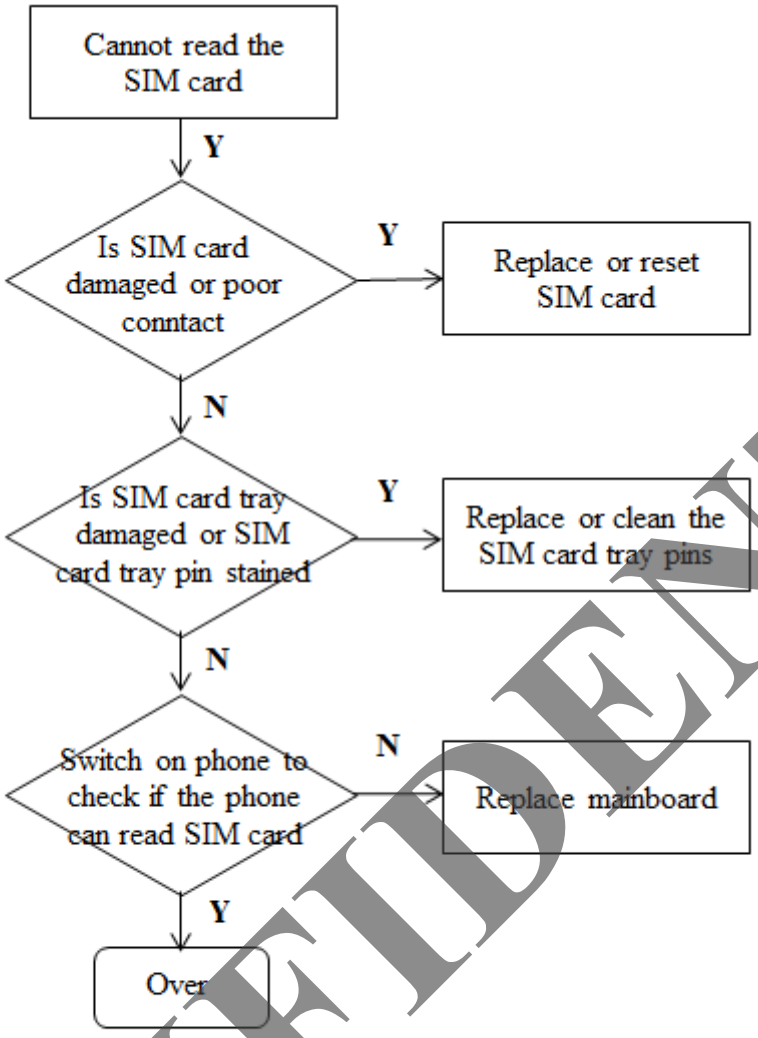
If the phone is flashed to FLYME firmware once again and the current problem still can't be solved, Please flash the phone to Engineer firmware (Refer to M91 Upgrade Guide). Then use the test software carried by phone to do further tests to troubleshoot.

1. Cannot power on



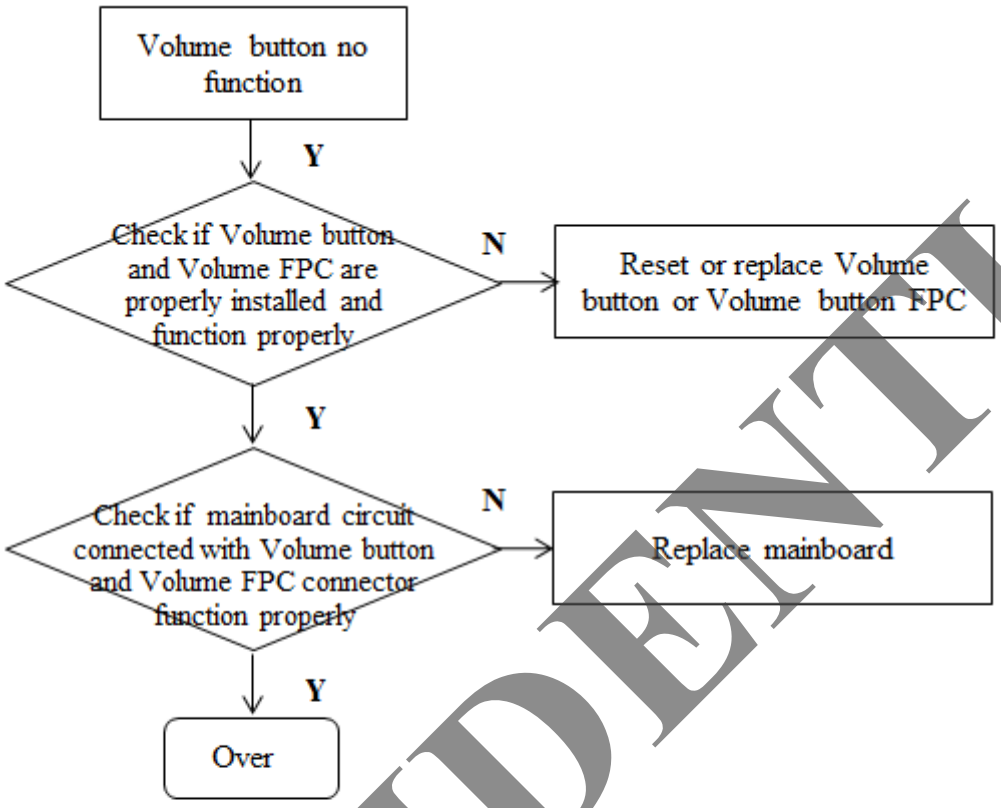
1.

2. Cannot read SIM card

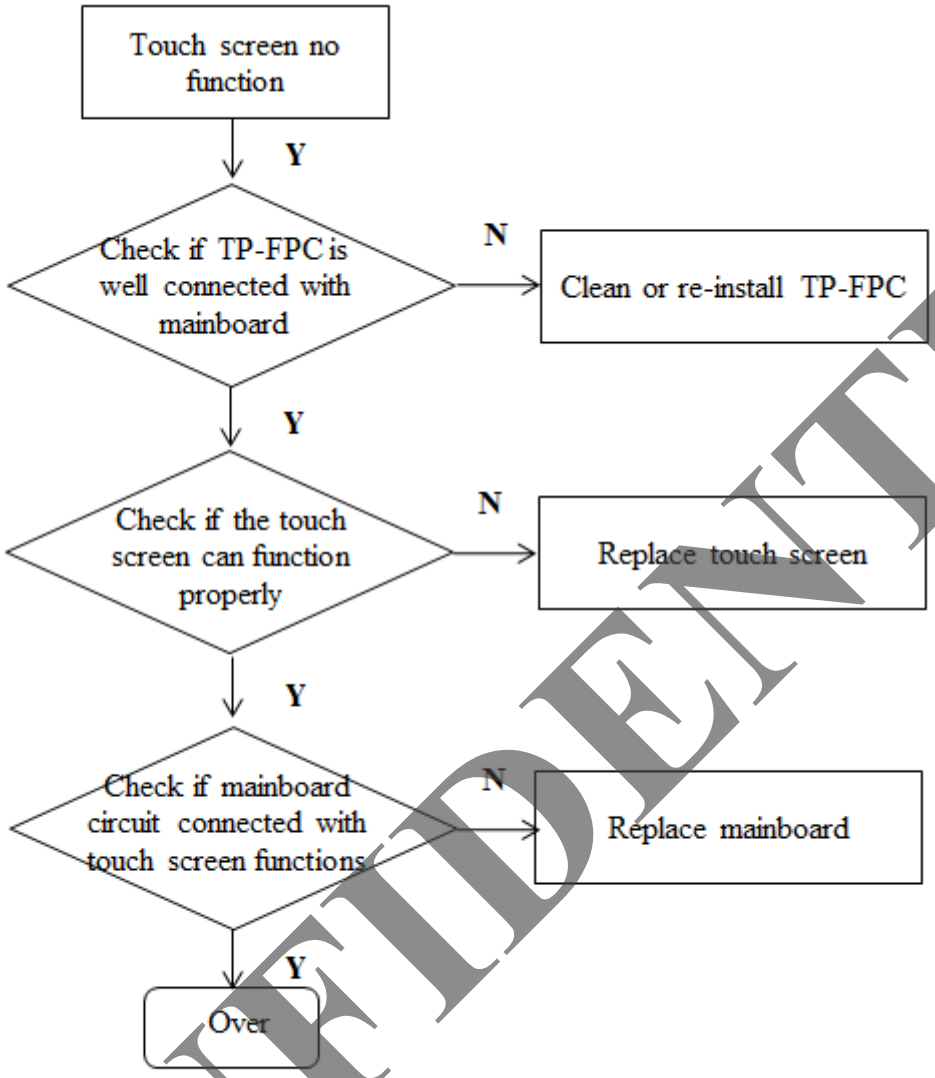


Note: Dual Nano SIM cards standby for MEIZU L91

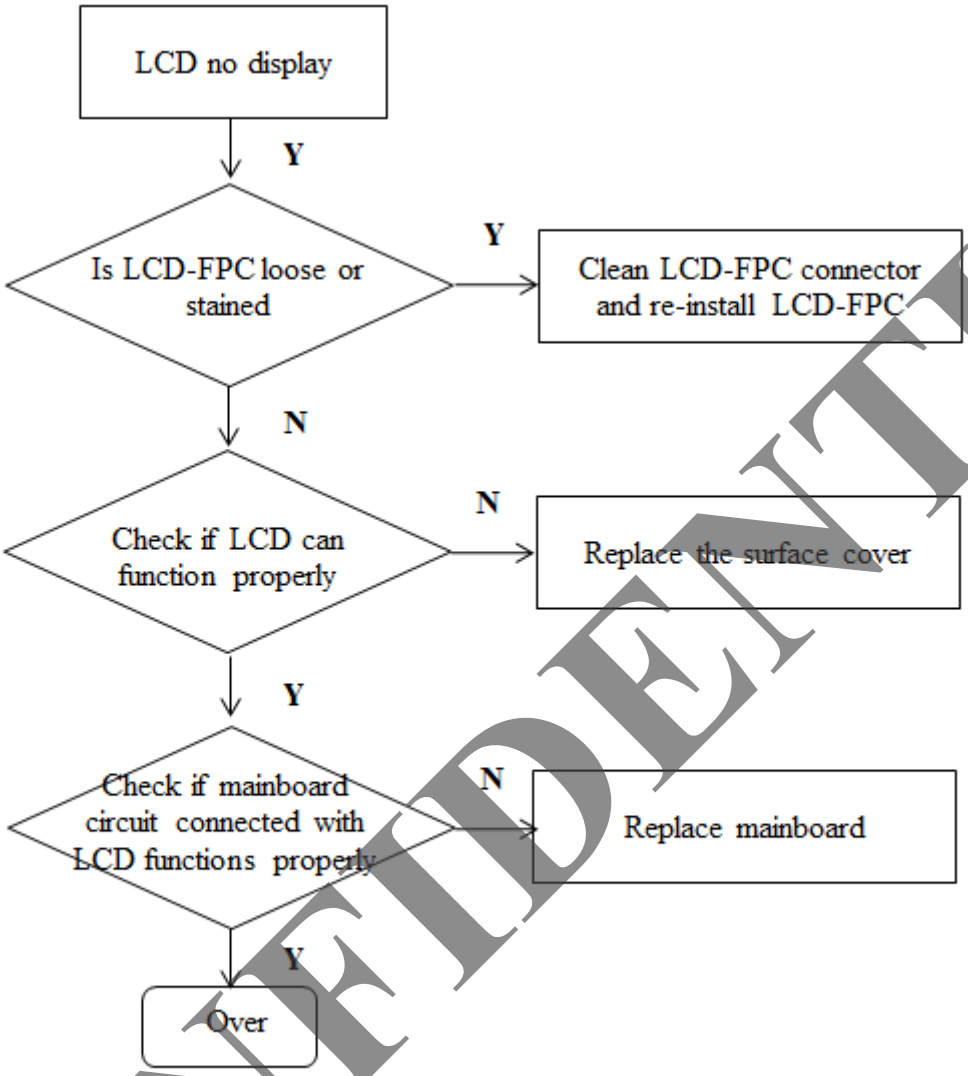
3.Volume button no function



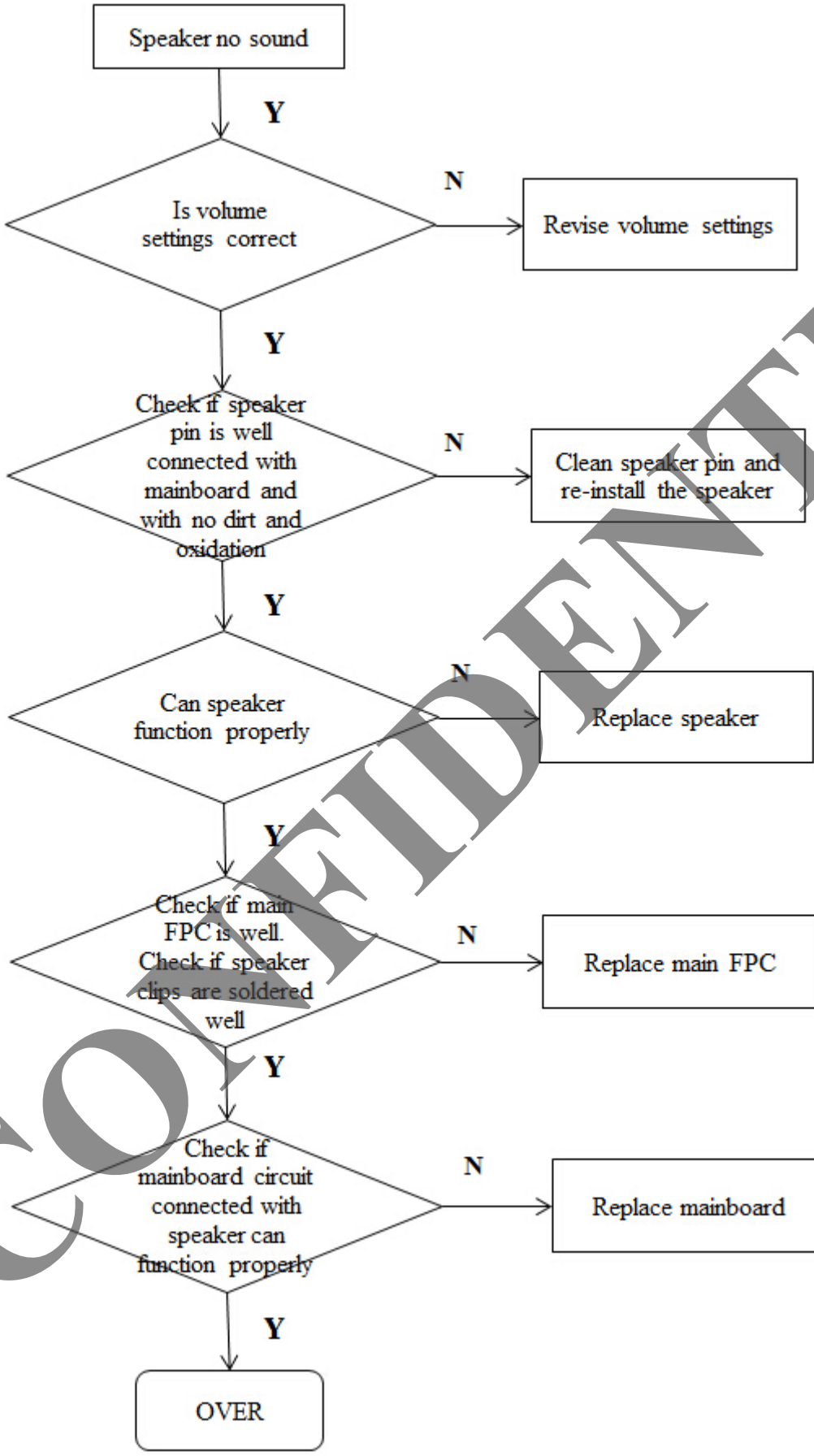
4. Touch screen no function



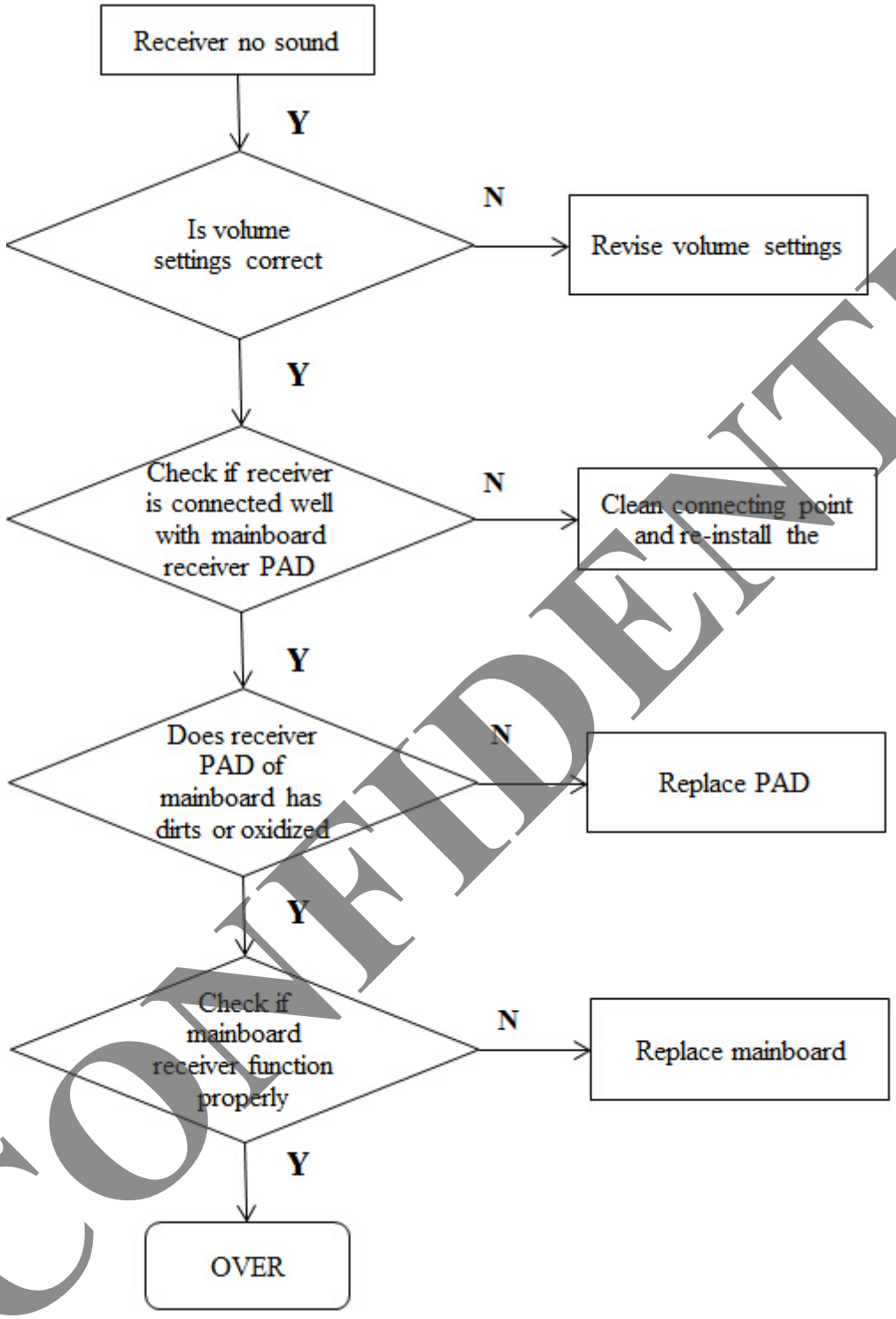
5. LCD abnormal display



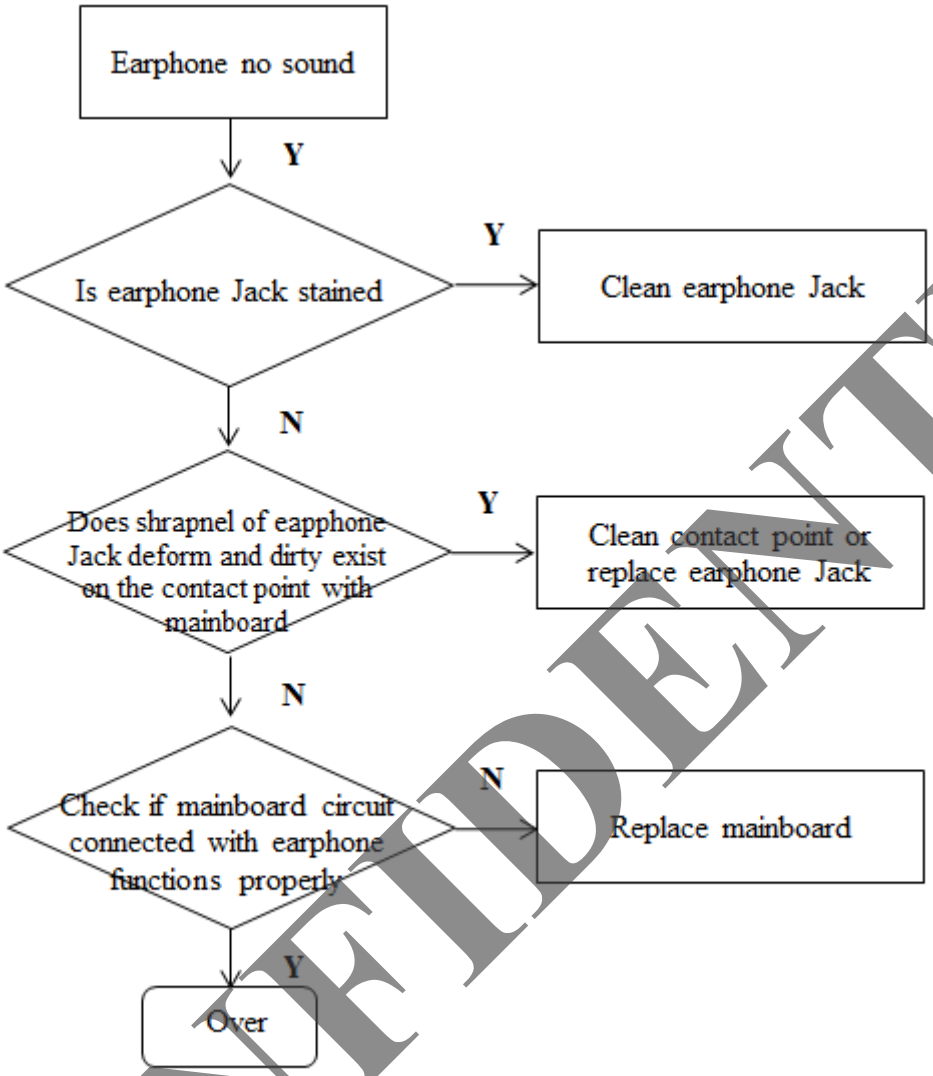
6. Speaker fault



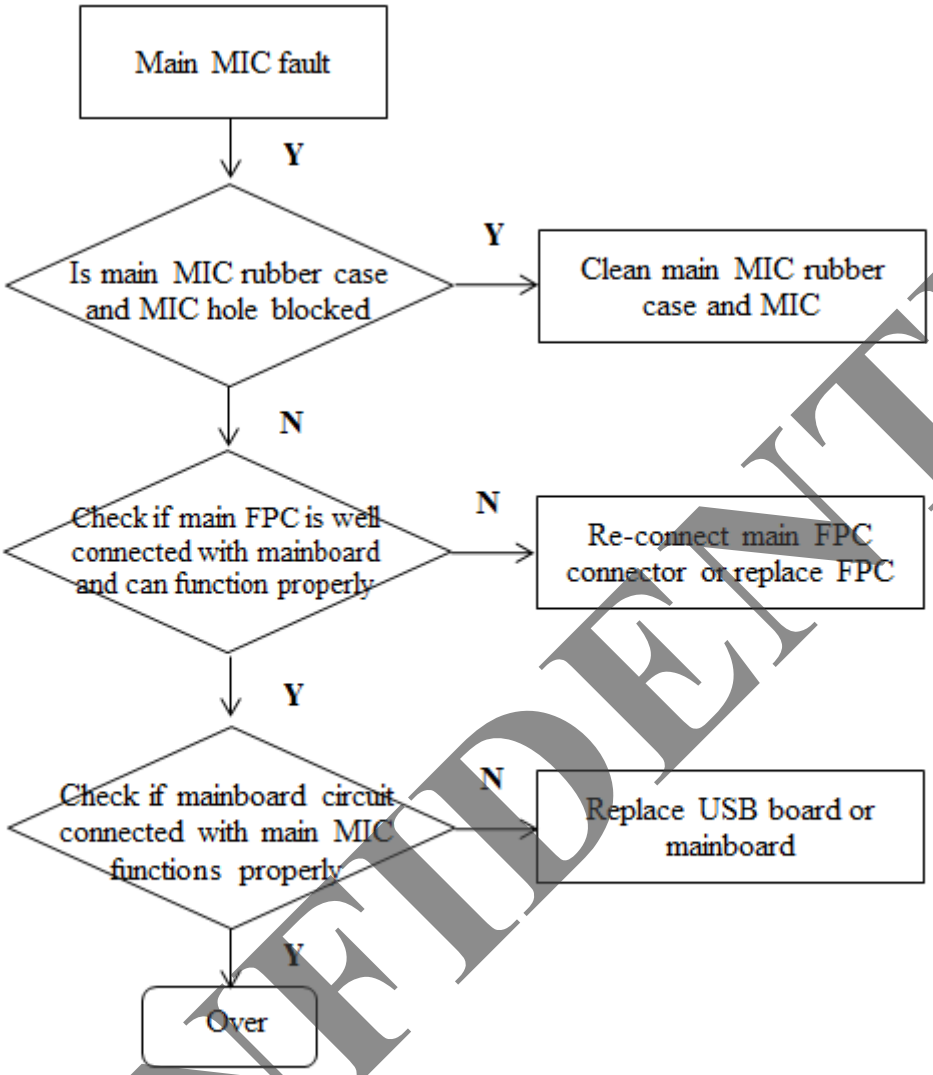
7. Receiver fault



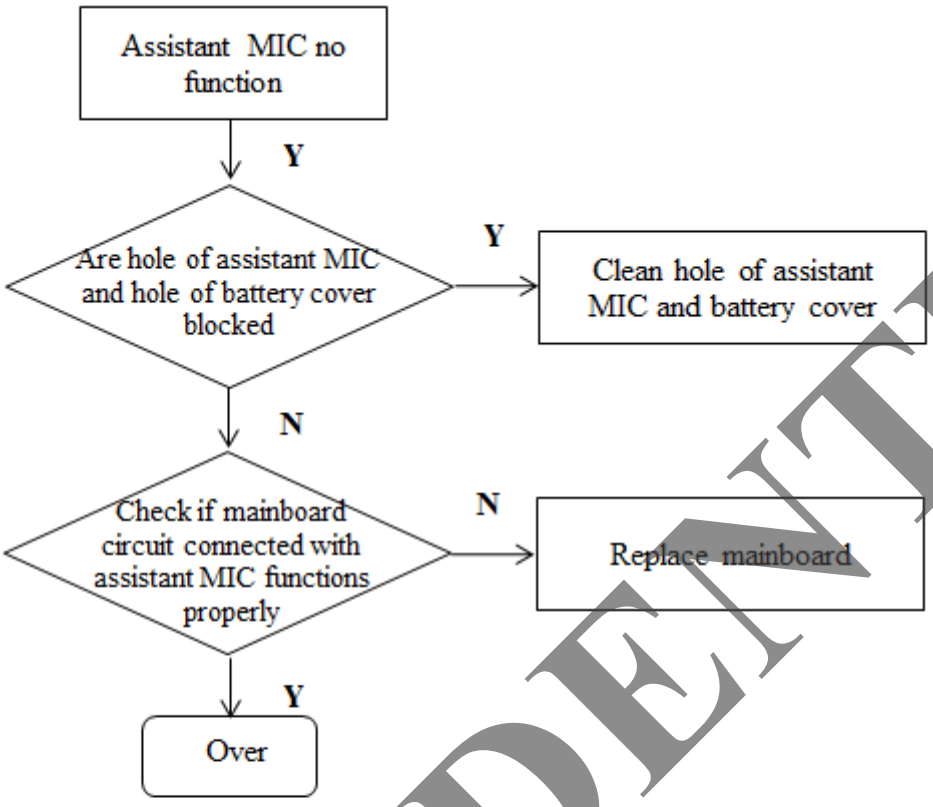
8. Earphone fault



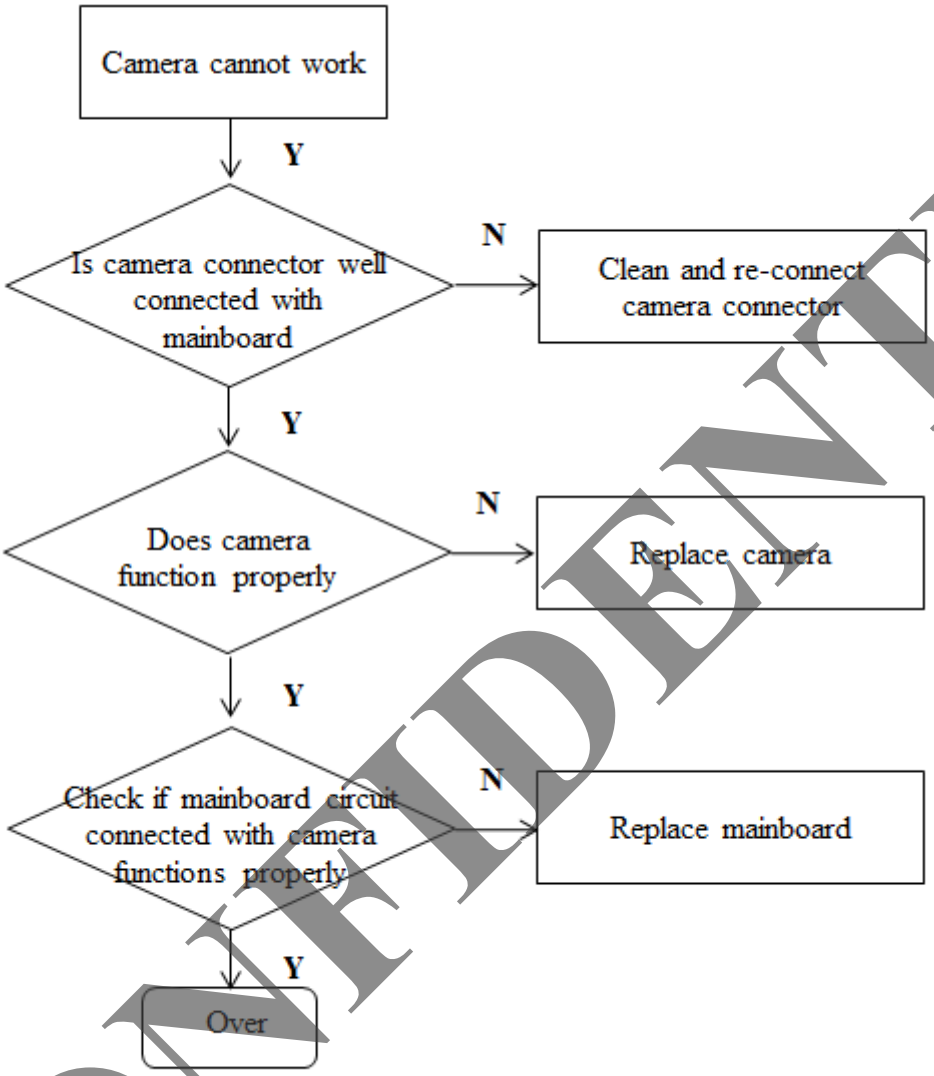
9. Main MIC fault



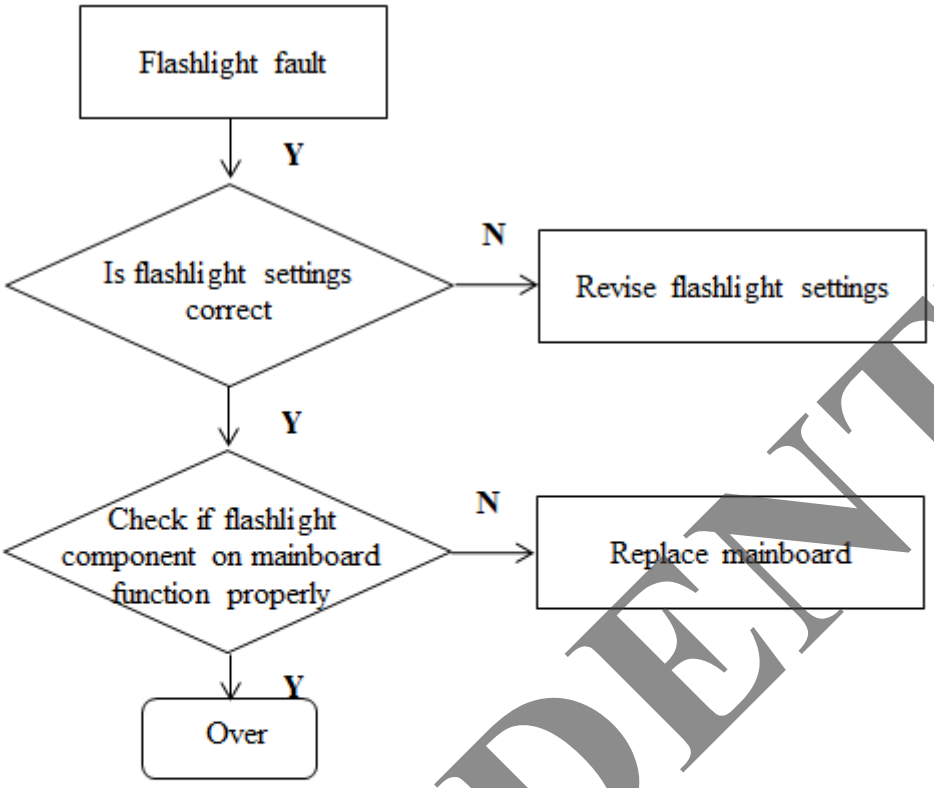
10.Assistant MIC fault



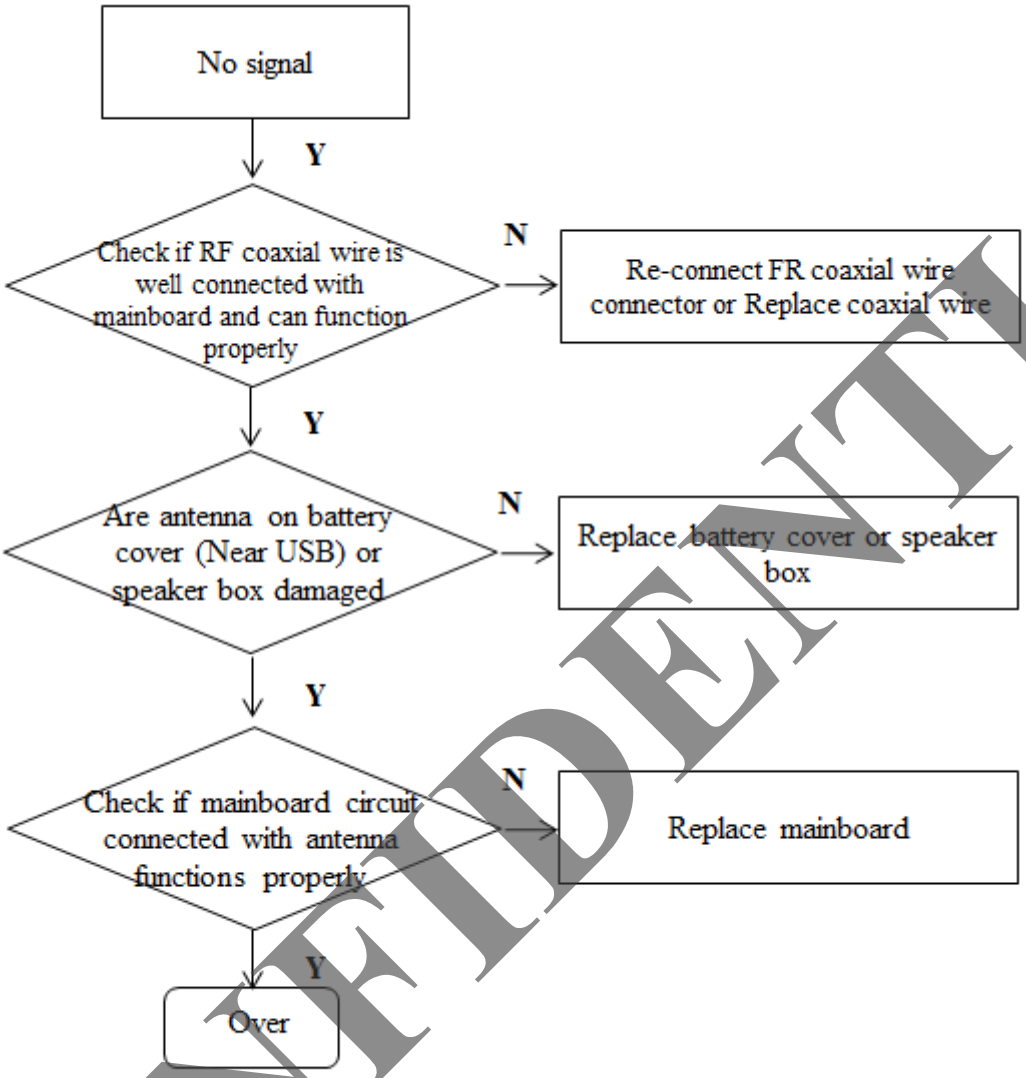
11.Main camera and front camera fault



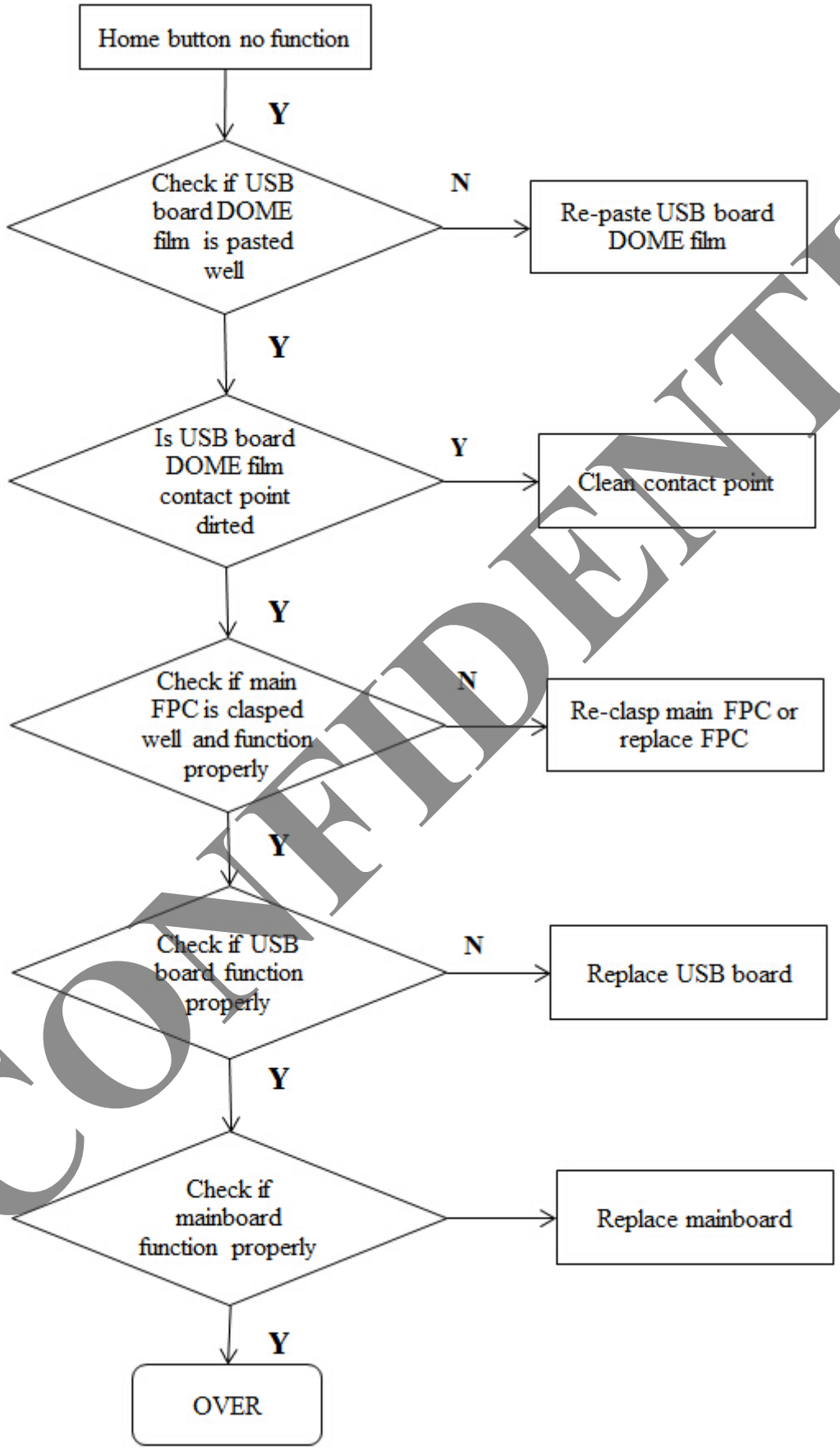
12.Flashlight fault



13.Signal fault

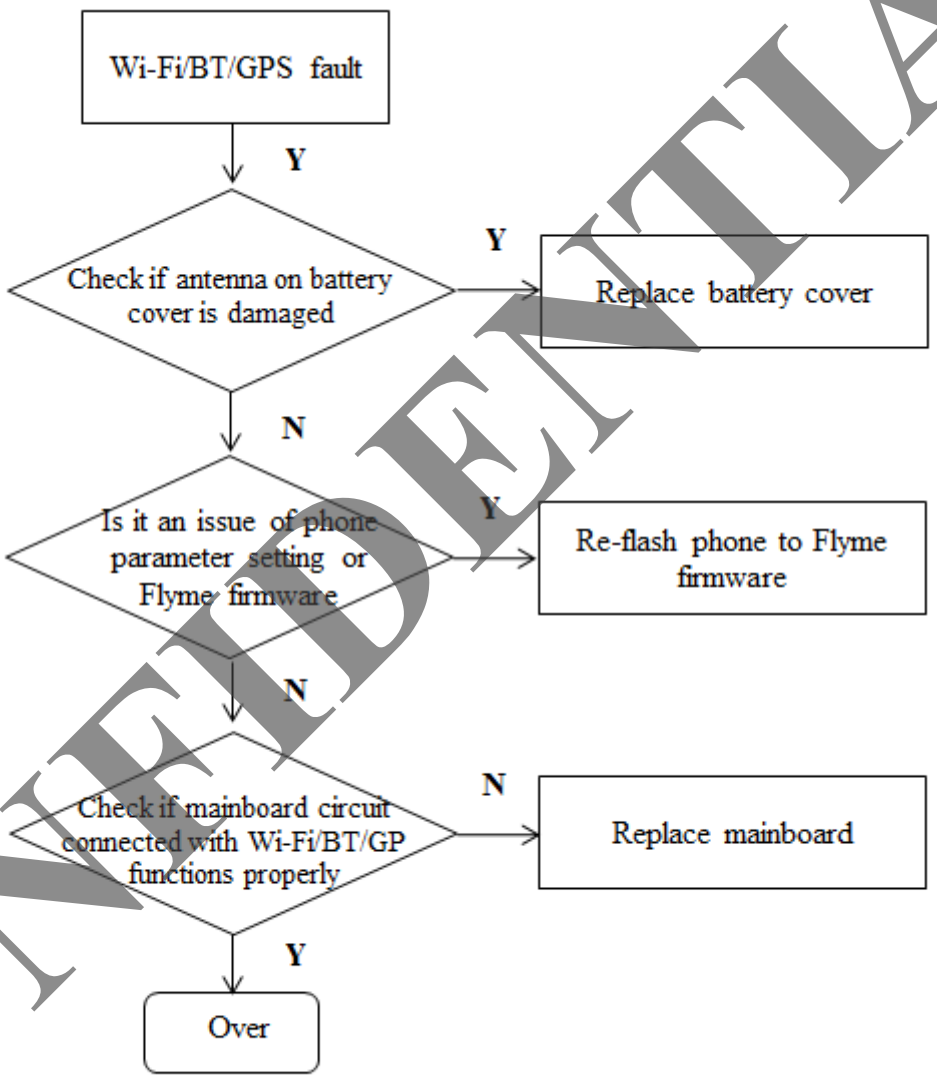


14.Home button no function

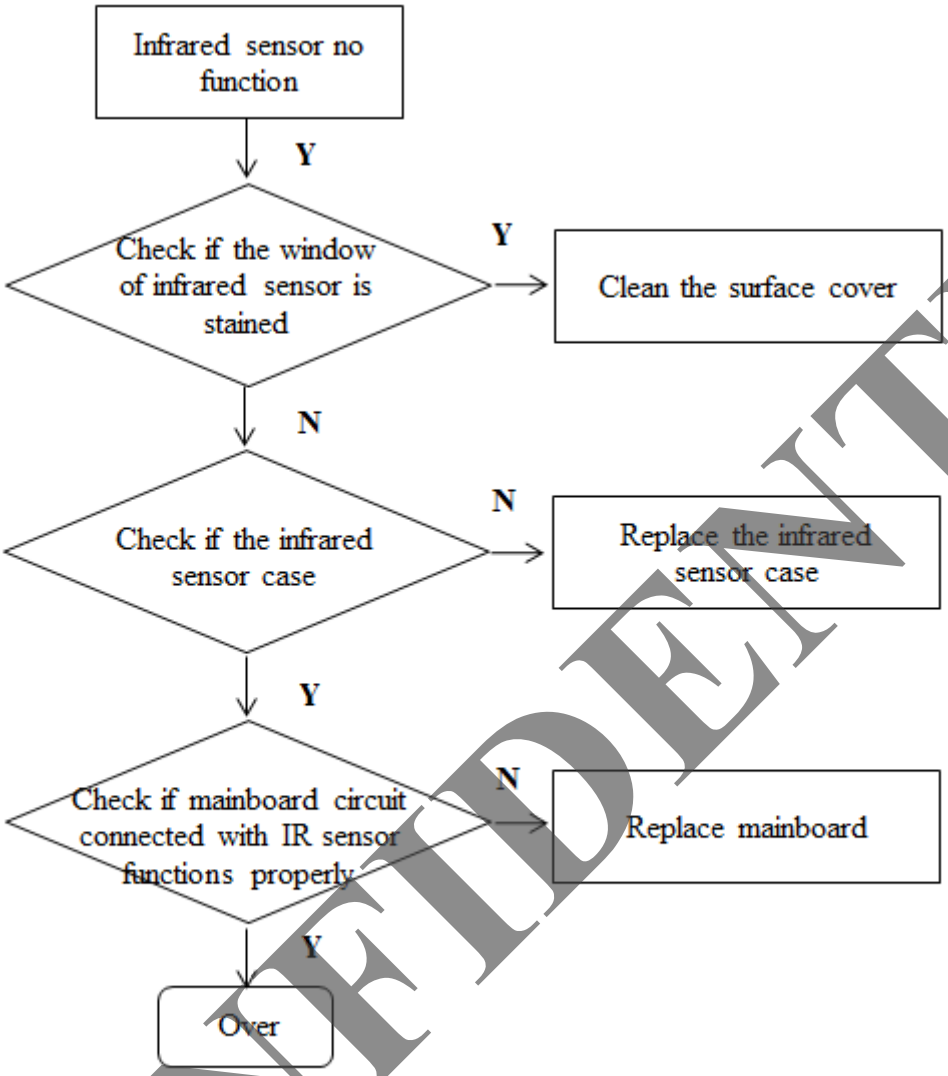


15.WIFI/ Bluetooth/ GPS fault

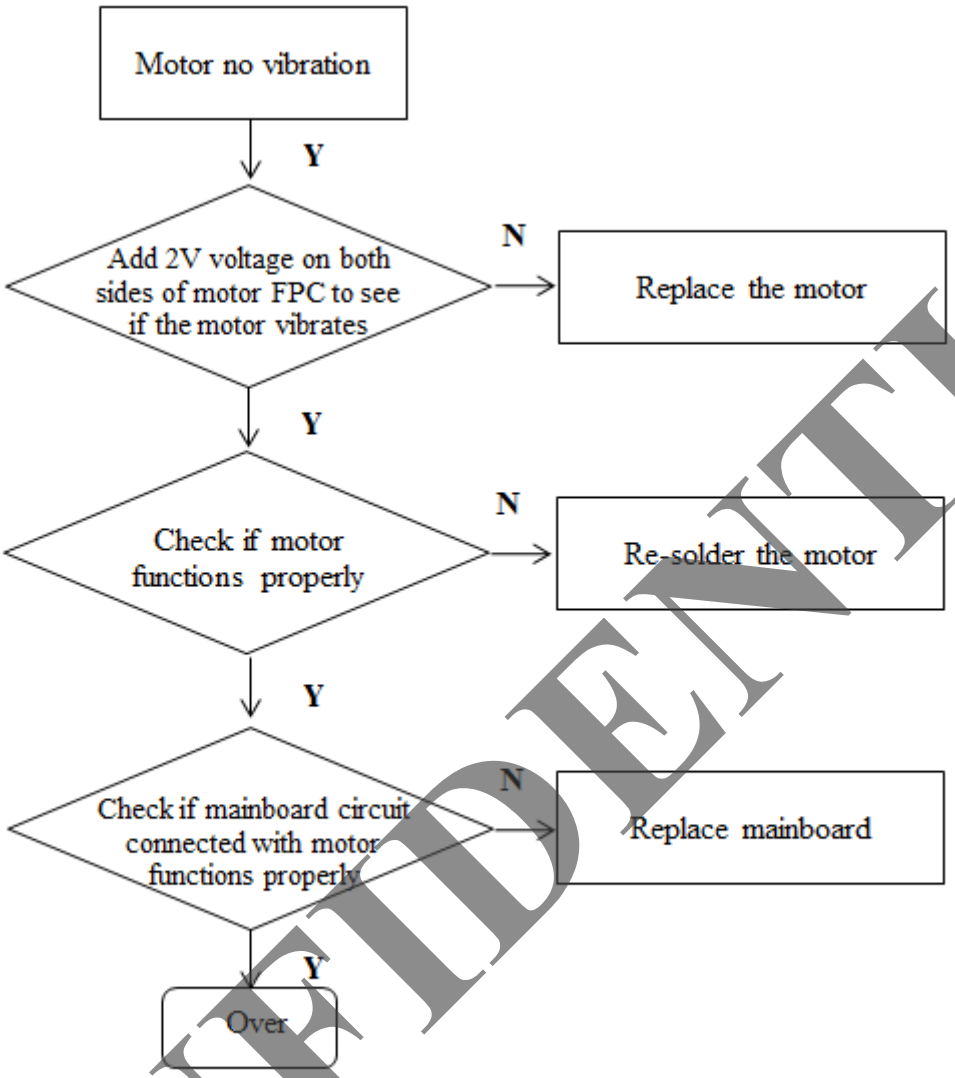
Antenna is used to emit and receive signal for Wi-Fi, Bluetooth or GPS. When Wi-Fi, Bluetooth or GPS fault happened, check if it's an issue of mainboard or an issue of antenna on battery cover. Below is the process to deal with the problem.



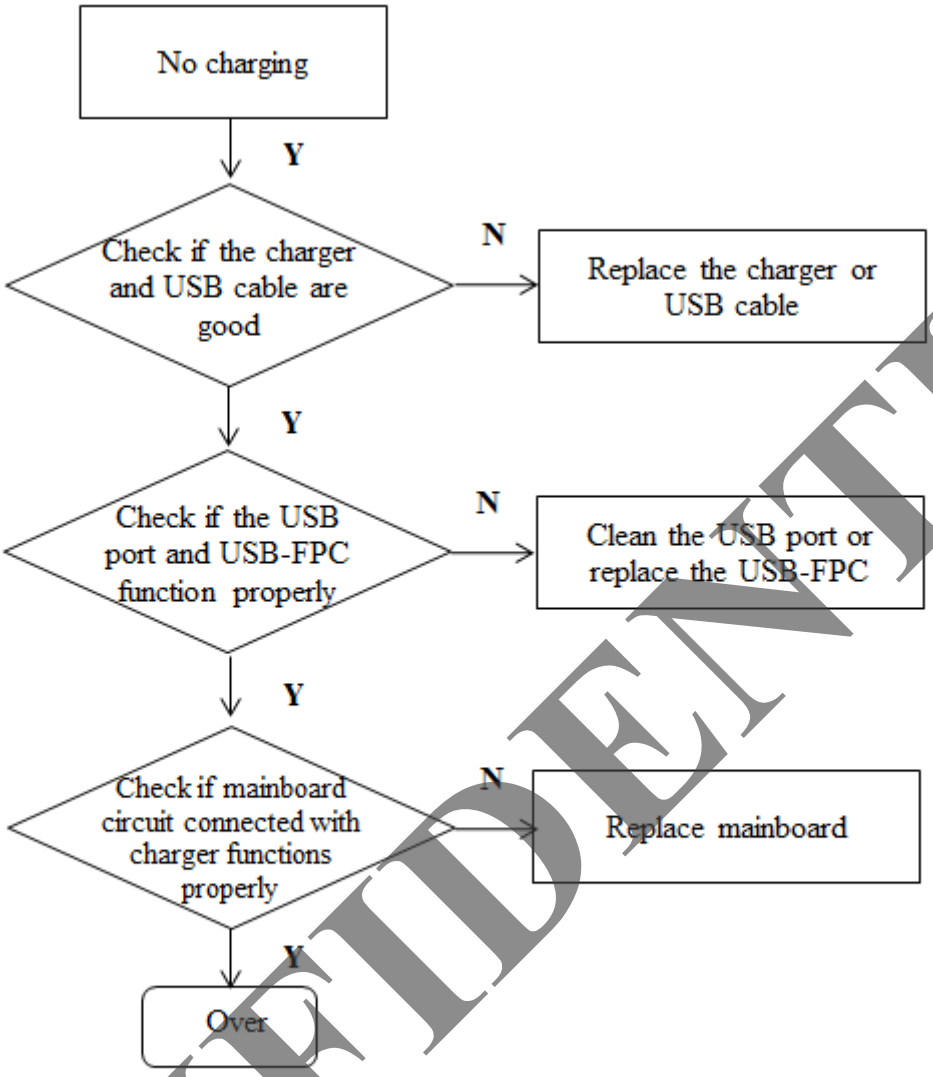
16.Infrared sensor fault



17. Motor fault



18. Charging fault



19.Note:

If below NG items happen and re-flashing the phone to FLYME firmware doesn't work, replace the mainboard directly.

NG Item	Maintenance Step 1	Maintenance Step 2
Gyroscope	Flash phone to Flyme firmware again	Replace mainboard
G-sensor	Flash phone to Flyme firmware again	Replace mainboard
Compass	Flash phone to Flyme firmware again	Replace mainboard