

珠海市魅族科技有限公司

MEIZU TECHNOLOGY CO., LTD.

广东省珠海市科技创新海岸魅族科技楼

MEIZU Tech Bldg., Technology & Innovation Coast,
Zhuhai 519085, Guangdong, China

Tel /86-756-6116288
Fax/86-756-6116200

M1721 After Sale Maintenance Manual

(version: V1.0)

Edit by : ShiFeng Huang

Review by : ZhiFeng Zhong

Approved by : ChuanSan Wang

Issue date : Aug 28th, 2017

Implementation : Aug 28th, 2017

珠海市魅族科技有限公司

MEIZU TECHNOLOGY CO., LTD.

广东省珠海市科技创新海岸魅族科技楼

MEIZU Tech Bldg., Technology & Innovation Coast,
Zhuhai 519085, Guangdong, ChinaTel /86-756-6116288
Fax/86-756-6116200

Contents

1 Chapter 1 Caution of Maintenance	4
2 Chapter 2 M1721 product Intorduction.....	4
2. 1. M1721 brief introduction	4
2. 2. Introduction of M1721 main components	4
2. 3. Technical specification parameter	5
3 Chapter 3 M1721 Functional test and standards.....	7
4 Chapter 4 Exploded view.....	7
5 Chapter 5 Maintenance assembly and materials BOM.....	9
5. 1. Maintenance assembly BOM.....	10
5. 2. Metrials BOM.....	13
6 Chapter 6 Block diagram and PCB Screen Printing.....	13
7 Chapter 7 The common fault detect and maintenance.....	14
8. 1. No boot	15
8. 2. SIM card no recognizable.....	16
8. 3. Volume button Fault.....	17
8. 4. Touch Screen Fault	17
8. 5. LCD display abnormal.....	18
8. 6. Speaker abnormal.....	18
8. 7. Headphone abnormal.....	19
8. 8. Earphone abnormal.....	20
8. 9. Main MIC abnormal.....	21
8. 10. Vice MIC abnormal.....	21
8. 11. Main camera and front camera abnormal	21
8. 12. Flash light abnormal.....	23
8. 13. Signal abnormal	24
8. 14. Home button abnormal.....	24
8. 15. WIFI/ buletooth/ GPS abnormal	24
8. 16. Infrared sensor abnormal.....	25
8. 17. Motor abnormal.....	26
8. 18. Charge abnormal	27
8. 19. Note	27

Chapter 1 Caution of Maintenance

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

珠海市魅族科技有限公司

MEIZU TECHNOLOGY CO., LTD.

广东省珠海市科技创新海岸魅族科技楼

MEIZU Tech Bldg., Technology & Innovation Coast,
Zhuhai 519085, Guangdong, ChinaTel /86-756-6116288
Fax/86-756-6116200

Chapter 2 M1721 product Introductions

1. M1721 brief introduction

M1721 Appearance view :



珠海市魅族科技有限公司

MEIZU TECHNOLOGY CO., LTD.

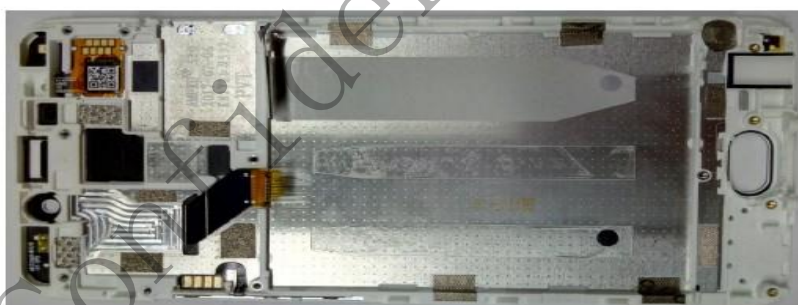
广东省珠海市科技创新海岸魅族科技楼

MEIZU Tech Bldg., Technology & Innovation Coast,
Zhuhai 519085, Guangdong, China

Tel /86-756-6116288

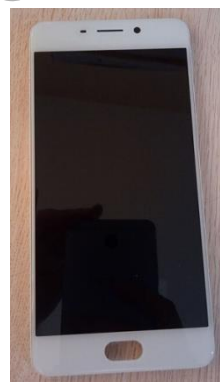
Fax/86-756-6116200

2. Introduction of M1721 main components





M1721 Back camera assembly



M1721 LCD touch screen assembly



M1721 Battery cover assembly

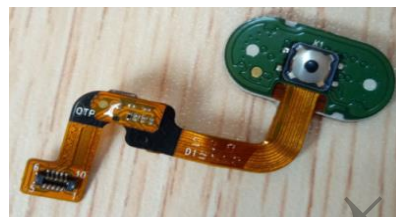
珠海市魅族科技有限公司

MEIZU TECHNOLOGY CO., LTD.

广东省珠海市科技创新海岸魅族科技楼

MEIZU Tech Bldg., Technology & Innovation Coast,
Zhuhai 519085, Guangdong, China

Tel /86-756-6116288
Fax/86-756-6116200



M1721 Fingerprint module assembly



M1721 mainboard



M1721 USB board



M1721 Main FPC

珠海市魅族科技有限公司

MEIZU TECHNOLOGY CO., LTD.

广东省珠海市科技创新海岸魅族科技楼

MEIZU Tech Bldg., Technology & Innovation Coast,
Zhuhai 519085, Guangdong, China

Tel /86-756-6116288

Fax/86-756-6116200



M1721 Side button FPC



M1721 BTB holder



M1721 side button assembly



M1721 USB silicone rubber case



M1721 Main Mic silicone rubber case



M1721 Vice Mic silicone rubber case



M1721 front camera silicone rubber case



M1721 light sensor rubber case



M1741 Receiver



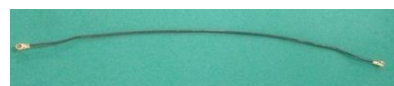
M1721 BOX speaker assembly



M1721 Motor



M1721 battery



M1721 coaxial wire

珠海市魅族科技有限公司

MEIZU TECHNOLOGY CO., LTD.

广东省珠海市科技创新海岸魅族科技楼

MEIZU Tech Bldg., Technology & Innovation Coast,
Zhuhai 519085, Guangdong, China

Tel /86-756-6116288
Fax/86-756-6116200

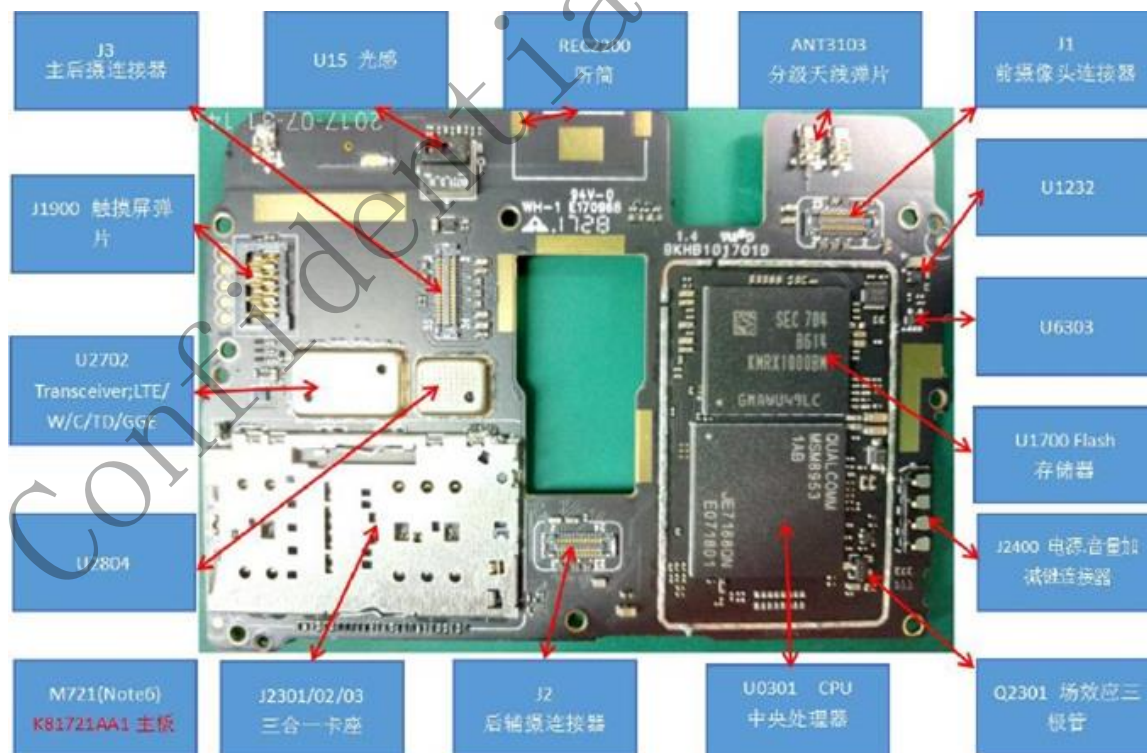


M1721 the three choose two SIM card tray



M1721 Front camera

Front view of mainboard :



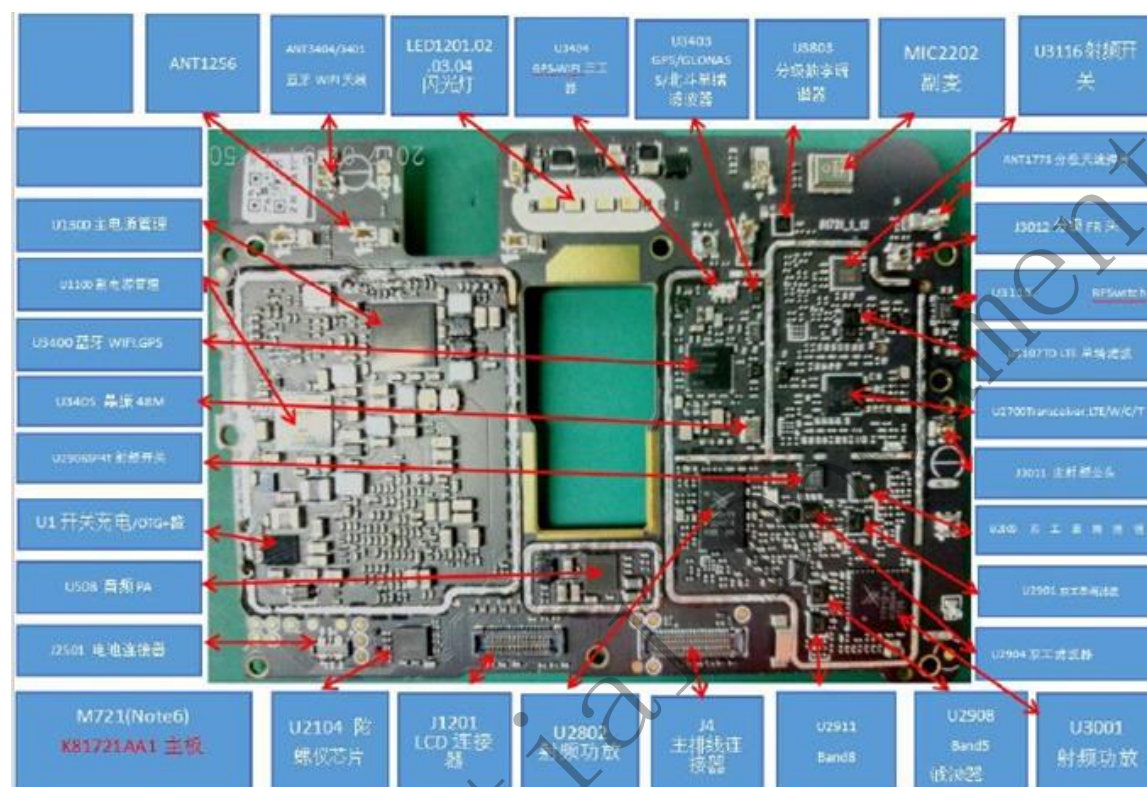
珠海市魅族科技有限公司

MEIZU TECHNOLOGY CO., LTD.

广东省珠海市科技创新海岸魅族科技楼

MEIZU Tech Bldg., Technology & Innovation Coast,
Zhuhai 519085, Guangdong, ChinaTel /86-756-6116288
Fax/86-756-6116200

The back view of mainboard :



3. Technical specification parameter

M1721 Product specification		
产品概述	Product model	M6 note
	Item name	M1721
	Product positioning	M serie note Iterative product.Consolidate and increase the market for 1000 yuan machine
	Targets	Targets :Ordinary white-collar workers, students, professionals and so on
	Competitor	Redmi note5, Honour 7X
	Sales channels	All channels
	Operating system	flyme
	Listing Date	2017/8/20

珠海市魅族科技有限公司

MEIZU TECHNOLOGY CO., LTD.

广东省珠海市科技创新海岸魅族科技楼

MEIZU Tech Bldg., Technology & Innovation Coast,
Zhuhai 519085, Guangdong, ChinaTel /86-756-6116288
Fax/86-756-6116200

version and standard		Band	Warehousing requirements	CA support	Priority	Model	SN prefix	Remark
	Full Netcom Public Edition	GSM : 82/83/85/88 WCDMA : 81/82/85/88 TD-SCDMA : 834/839 CDMA : BCD TDD-LTE : 834/838/839/840/841 FDD-LTE : 81/83/87/88	Mobile Cooperative warehouse and China Unicom warehousing	TDD CA not support FDD CA; not support TDD bands CA ; Run the CA inwith TDD Bands	1	M721Q	721Q	Public edition does not need to add Telecom DM, to pre install Unicom and mobile DM storage software, separately prepared, shipped direct version, pre installed, Unicom and mobile (pending)
	Full Netcom china mobile Public Edition	GSM : 82/83/85/88 WCDMA : 81/82/85/88 TD-SCDMA : 834/839 CDMA : BCD TDD-LTE : 834/838/839/840/841 FDD-LTE : 81/83/87/88	Mobile deep collaboration Library	TDD CA not support FDD CA; not support TDD bands CA ; Run the CA inwith TDD Bands	1	M721M	721M	Mobile volte default enable
	Full Netcom Telecom Public Edition	GSM : 82/83/85/88 WCDMA : 81/82/85/88 TD-SCDMA : 834/839 CDMA : BCD TDD-LTE : 838/839/840/841 FDD-LTE : 81/83/85/87	Telecom C warehouse	support downstream FDD CA 81+83(20M+20M) ; bands CA ; Run the CA inwith TDD Bands not support TDD CA	2	M721C	721C	Telecom volte increased demand
	Oversea(Latin America)	GSM: 82/3/5/8 ; CDMA : 8c0 ; WCDMA: 81/2/4/5/8 ; TDD: 838/40 ; FDD: 81/2/3/4/5/7/8/20/28	FCC	not support CA	3	M721L	721L	
	Oversea(non Latin America)	GSM: 82/3/5/8 ; CDMA : 8c0 ; WCDMA: 81/2/5/8 ; TDD: 838/40 ; FDD: 81/3/5/7/8/20	CE, BIS	not support CA	3	M721H	721H	

ID Specifications	whole unit Size	154.6*75.2*8.35mm , camera bulge 0.35mm	
	whole unit Weight	around 169g , not over 169g	
	whole unit color	Refer to the ID color chart for the details	
	ID technology	All metal CNC	
	SIM card	Dual nano卡 (there chose two) , tray (Aluminium alloy+MIM)	
CPU	Brand	Qualcomm	
	model	MSM8953	nest plate vendor supply
	Frequency	2.0GHz	
	GPU	Adreno 506 GPU	
	Framework	8*Cortex A53 ; 64bit	
storage	RAM	2GB/3GB/4GB ; DDR3	vendor supply
	ROM	32GB/64GB	
	Storage combination	3+32GB、4+32GB、4+64GB、 (compatible 2+16GB、3+16GB design , 如有需求 , 市场部提前3个月确认if you have demand, please support , SD card support 128GB	
	Storage card	support , SD card support 128GB	

screen	TP	TP type	2.5D Glass , thickness 0.8mm
		TP function	black Gesture unlock / Wet hand operation / Glove handling/10点 touch/Edge preventing mistakenly touch
		TP technology	GFF full lamination , Anti fingerprint coating film
	LCM	LCM size	5.5" FHD
		Display technique	LTIPS/IGZO/α-si
		resolution	1920*1080
		color	1600 million color
		brightness	450cd/m ² (typ);
		Visual angle	Full view
		PPI	403
		contrast	1000:1(typ.)

珠海市魅族科技有限公司

MEIZU TECHNOLOGY CO., LTD.

广东省珠海市科技创新海岸魅族科技楼

MEIZU Tech Bldg., Technology & Innovation Coast,
Zhuhai 519085, Guangdong, ChinaTel /86-756-6116288
Fax/86-756-6116200

camera	back camera	pixel	12M(dual PD)+5M	
		Sensor	samsung 2L7 or Sony IMX362+samsung 4E8	
		Camera lens	6P lens	vendor supply
		aperture	F/1.9	
		Optical anti shake	not support	
		Autofocus	AF	
		Focusing mode	phase focusing	
		ISP	ISP build-in	
		size	module ontology	
		Flash light	Dual color temperature 4 flash	Marquee effect
	Front camera	Camera lens	Single side antireflection coating for anti fingerprint coating	
		pixel	16M	
		Sensor	Samsung 3P8SP03	
		Camera lens	5P lens	vendor supply
		aperture	F/2.0	
		Optical anti shake	not support	
		Autofocus	FF	
		Focusing mode	N/A	
		ISP	share the build in ISP	
		size	8*8*4.71mm	
		Flash light	Not support the front flash light	

	Battery capacity	Typical value is above 4000mAh		The core must meet the <<ODM project safety device (battery) monitoring mechanism management approach>>, the energy density is higher than 630wh/l, need to use a wire core
	mCharge	Ensure IC charging rate and charge time in detail is match		
	Battery energy density	680WH/L more		
Battery	PMU	PM8953+PM18952		
	Fuel gage	PM8953		
	Charger	SMB1350 or other IC		
Charger	Specifications	12W/2A		standrad charger vendor supply
	protocol	m charge		
Audio	HIFI	not support		
	Smart PA	support	CS35L35	vendor supply
	noise reduction	support	PM8953	
	Audio chip	support	PM8953	
Audio device	Speaker	1115 5 magnetism		bottom speaker box structure
	Receiver	1206		
	MIC	Dual MIC		

珠海市魅族科技有限公司

MEIZU TECHNOLOGY CO., LTD.

广东省珠海市科技创新海岸魅族科技楼

MEIZU Tech Bldg., Technology & Innovation Coast,
Zhuhai 519085, Guangdong, ChinaTel /86-756-6116288
Fax/86-756-6116200

传感器	fingerprint identification	Chipset	GF5236	Live detection is not supported
		TEE vendors	Pod	
		Payment authentication	WeChat pay and Alipay pay	
	ForceTouch	not support		
	Gravitational acceleration	support		
	gyroscope	support		hardware support
	Distance sensor	support		
	Photosensitive induction	support		
	Electronic compass	support		
Cellular network wireless network	Holzer	support		
	Applicable frequency	Antenna700-960MHZ/1710-2690MHZ		
	WLAN	support 2.4G/5G WIFI : 802.11a/b/g/n		
	Bluetooth	support BT4.2		
	GPS	GPS/Glonass		
	call and standby	Dual sim card dual standby single pass		
	VoLTE	Support		
	RF	WTR2965		
Other functions	NFC	not support		
	motor	Nonlinear		
	Pedometer	Support		Support hardware pedometer, WeRun certification
	Breathing lamp	Support		
	FM	not support		
	Main antenna and Vice antenna switching	Support		support to main antenna and Vice antenna switching
extenal port	OTG	Support		
	USB data port	micro USB		
	headset port	support 3.5mm headset port , USA standard		
Media	Audio format	flac, ape, aAc, ogg, mp3, midi, m4a, amr, wav (ra, wma)		
				the fromats are supported in the parentheses, but relate to copyright
	Audio encoding format	FLAC, APE, DTS, AC3, OGG, AAC, ADPCM, ALAC, MP3, AMR - WB, AMR - NB (COOK, ATRC)		
				the fromats are supported in the parentheses, but relate to copyright
	Video format	mp4, 3gp, mov, mkv, avi, flv, mpeg, m2ts, ts (wmv, asf, rm, rmvb)		
Quality requirement				the fromats are supported in the parentheses, but relate to copyright
	Video encoding format	H264, MPEG4, VC1, H263, MPEG2, VP8 (XVID, DIVX5, DIVX4, DIVX3, VP6, WMV3)		
				the fromats are supported in the parentheses, but relate to copyright
Environmental protection requirements	Picture format	JPEG, PNG, GIF, BMP		
	Environmental protection requirements	execute 《Meizu environmental substance management regulation》		
Outgoing inspection standard	Outgoing inspection standard	execute 《Meizu low-end machine universal inspection standard》		
Packing list	Offset printing carton <input checked="" type="checkbox"/>	Charger <input checked="" type="checkbox"/>	USB data cable <input checked="" type="checkbox"/>	Warranty card <input checked="" type="checkbox"/>
	Pin <input checked="" type="checkbox"/>	headset <input type="checkbox"/>	Holster <input type="checkbox"/>	Steel film <input type="checkbox"/>
Business plan	life cycle			
	Total product			
	Monthly peak forecast			
	Color and proportion			

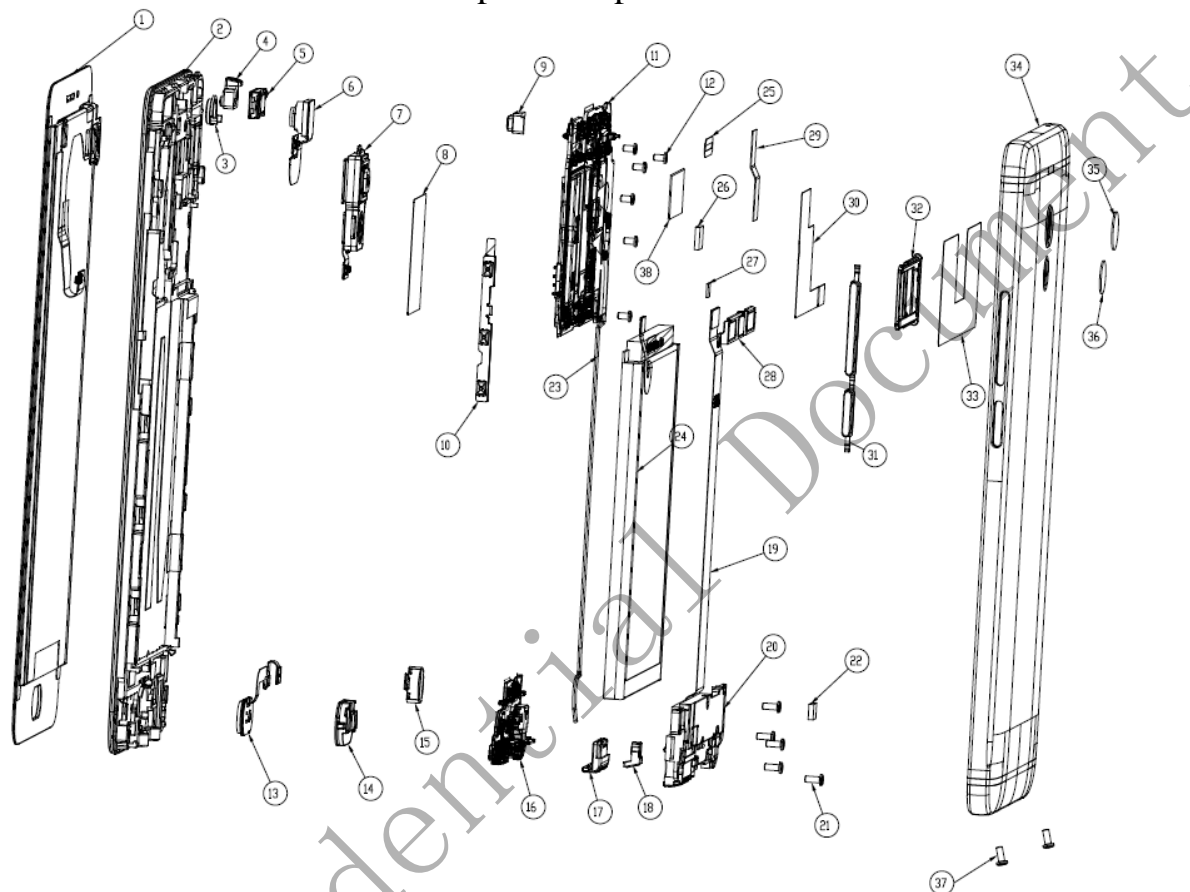
Chapter 3 M1721 Functional test and standards

M1721 functional test item and standards

Test condition	Tested under photometric 800~2000Lux, using firmware supplied by Meizu as well as test software
Test Item	standards
Button test	Reference basis The power key, volume key, and primary key all work. The reaction is not dull and cannot be show Non corresponding key function
Sensor test	All the test item show green, it mean pass; if it show white , it mean skip this item; if it show red, it mean failed.
Charging test	battery state is charging, the external power and charging were green.
headset test	headset can be detect, headset button(volume button is work) , Headset sound clear, no noise, The headset sounds the same, The pause key is work
LCD test	no black block,、black dot, home button LED light uniform brightness
Gravity test	Turn the screen counter clockwise and display the arrow in four directions
Gyroscope Test	Rotate the phone in YXZ order, and the screen corresponds to the coordinate scale
Vibration test	Motors can vibrate, it cannot without vibration, it cannot have noise or vibration so week.
Sensor calibration	Flat cellphone , if the interface is show pass.it is normally ; if the cellphone is show red. We should click the accelerate calibration button
Front camera test	Preview clear, adjust the normal, clear photos
Back camera test	The preview is clear, the calibration is normal, the photos are clear and the focus is normal
Flash light test	White and yellow double color flash lamp is opened normally, brightness is even
Bluetooth test	You can find Bluetooth hotspots
WIFI test	WIFI hotspots can be searched, you must have more than one hot spot, the sensitivity value is greater than -60dBm, such as no strong signal, the interface does not display PASS
Light sensor test	When the light sensor is blocked, the screen backlight is turned off and the light sensor is switched on, and the screen backlight is turned on, and the brightness of the screen is changed evenly at 20%, 50%, and 80% backlight
Audio test	The sound of the ear, the receiver and the horn is normal, and there is no noise. The recording can be recorded and played, and the sound is normal
Screen lineation test	Touch sensitive, lineation normal, it cannot show serration line, broken line, multi-line when our touch to lineation
Multi touch test	Touch the line with at least three points
Finger print test	Use the fingerprint test APK, open the first two items of self-test display, through the finger defense Home key 3rd item display PASS, then release finger , until to all the test pass
Calling test	SIM card can be detected, the sound is clear in call, the signal is stable, Headset mode / Headset mode / speaker mode can be switching normally, the infrared can

be extinguished screen, it cannot have a single pass and noise, the infrared no effect

Chapter 4 Exploded view



Chapter 5 Maintenance assembly and materials BOM

1. Maintenance assembly BOM

Serial number	Material name	
1	TP+LCM assembly	
2	LCD touch screen assembly	
3	Front camera silicone sleeve	
4	Vice Mic silicone rubber case	
5	Receiver	
6	front camera	
7	Rear camera	
8	BB Shield cap	
9	Light sensitive silicone rubber case	
10	Side key Vic-plate	

珠海市魅族科技有限公司

MEIZU TECHNOLOGY CO., LTD.

广东省珠海市科技创新海岸魅族科技楼

MEIZU Tech Bldg., Technology & Innovation Coast,
Zhuhai 519085, Guangdong, ChinaTel /86-756-6116288
Fax/86-756-6116200

11		
12	Screw	
13	Fingerprint module	
14	Fingerprint module silicone rubber case	
15	Fingerprint module holder assembly	
16	Vice-board assembly	
17	USB board	
18	Main MIC silicone rubber case	
19	Main FPC	
20	Speaker BOX	
21	Screw	
22	Motor ground conductive foam	
23	coaxial wire	
24	Battery	
25	Floodlight white Mylar	
26	Receiver grounding conductive cloth	
27		
28		
29	BTB holder	
30		
31	Side button holder	
32	SIM tray	
33		
34	Battery cover assembly	
35	Rear camera lens	
36	Rear camera lens	
37	Screws	
38		

Chapter 6 Block diagram and PCB Screen Printing

1. Block diagram

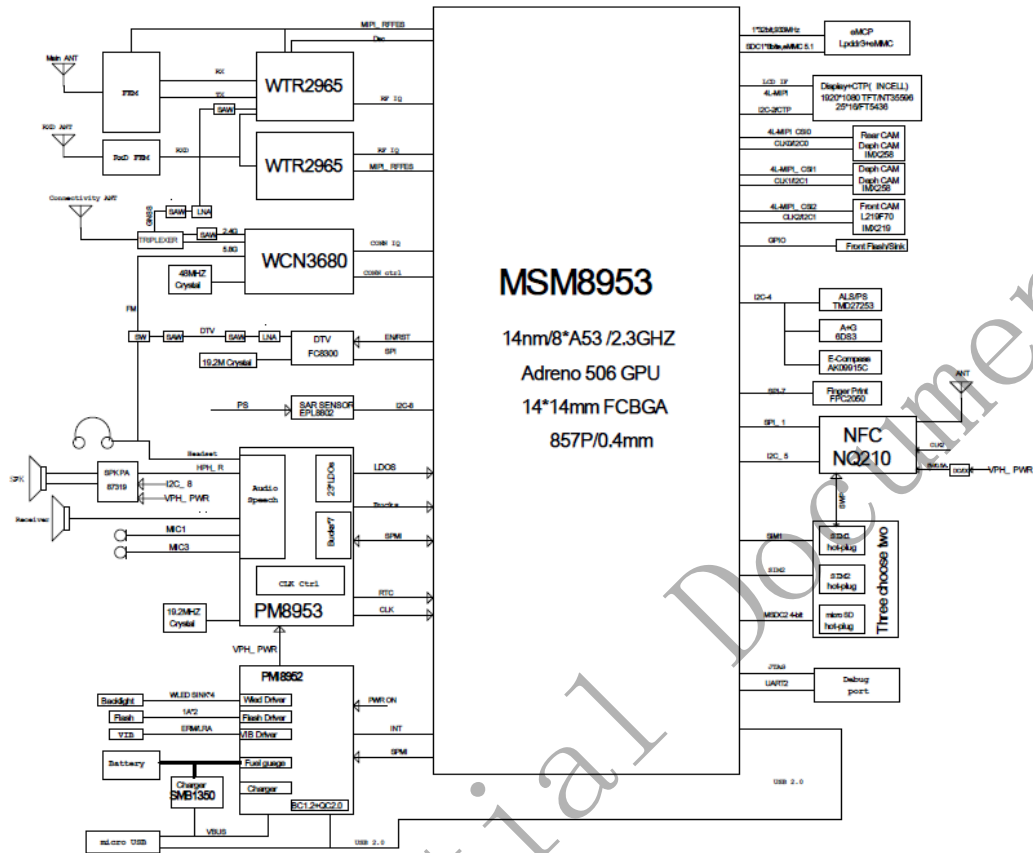
珠海市魅族科技有限公司

MEIZU TECHNOLOGY CO., LTD.

广东省珠海市科技创新海岸魅族科技楼

MEIZU Tech Bldg., Technology & Innovation Coast,
Zhuhai 519085, Guangdong, China

Tel /86-756-6116288
Fax/86-756-6116200

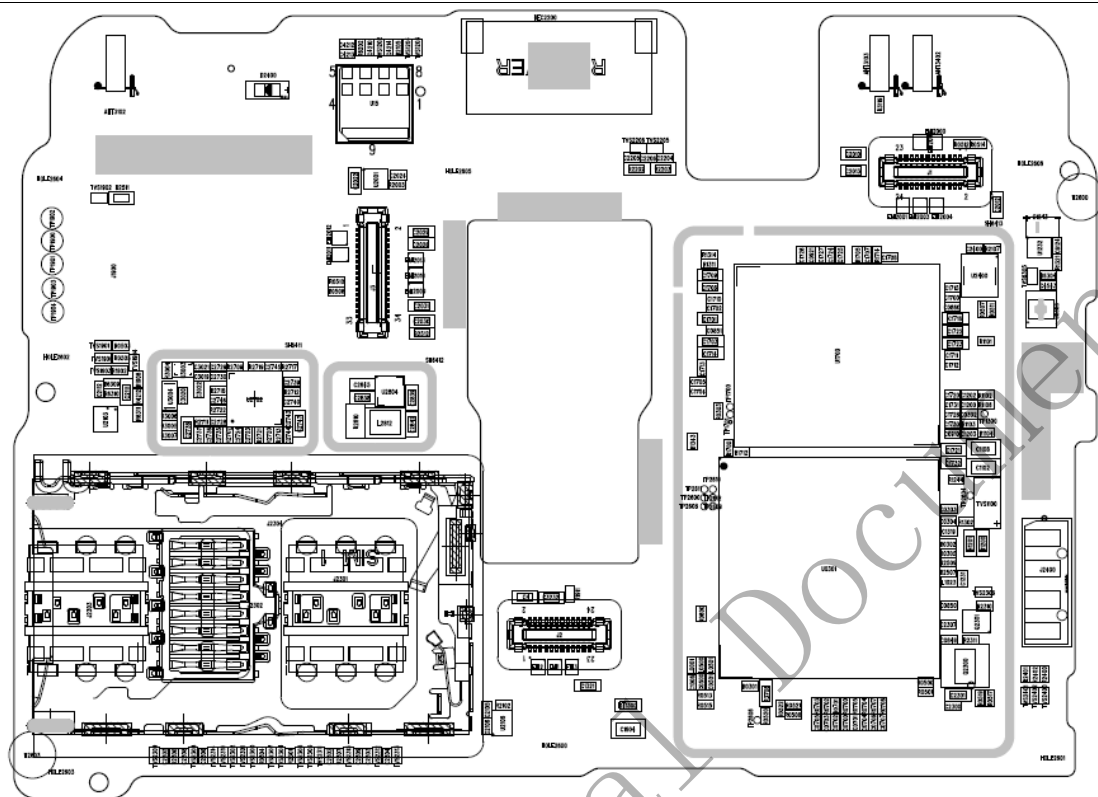


2. PCB Location number scheme

珠海市魅族科技有限公司
MEIZU TECHNOLOGY CO., LTD.

广东省珠海市科技创新海岸魅族科技楼
MEIZU Tech Bldg., Technology & Innovation Coast,
Zhuhai 519085, Guangdong, China

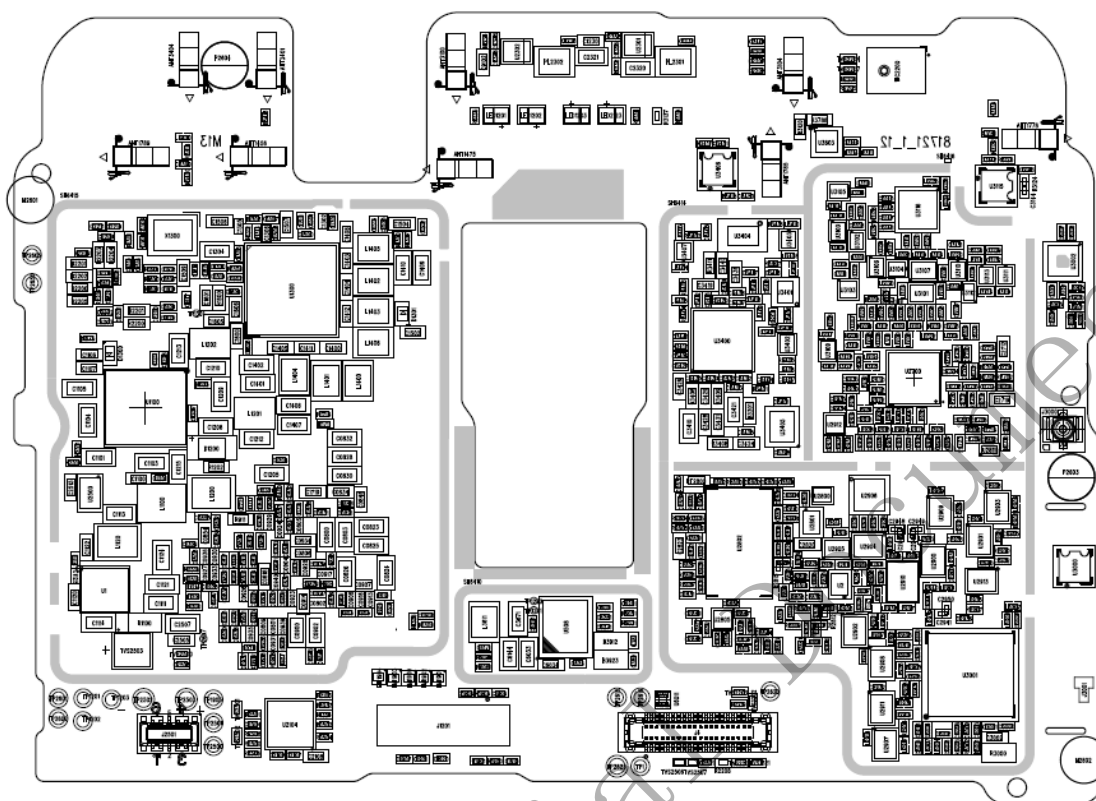
Tel /86-756-6116288
Fax/86-756-6116200



珠海市魅族科技有限公司

MEIZU TECHNOLOGY CO., LTD.

广东省珠海市科技创新海岸魅族科技楼

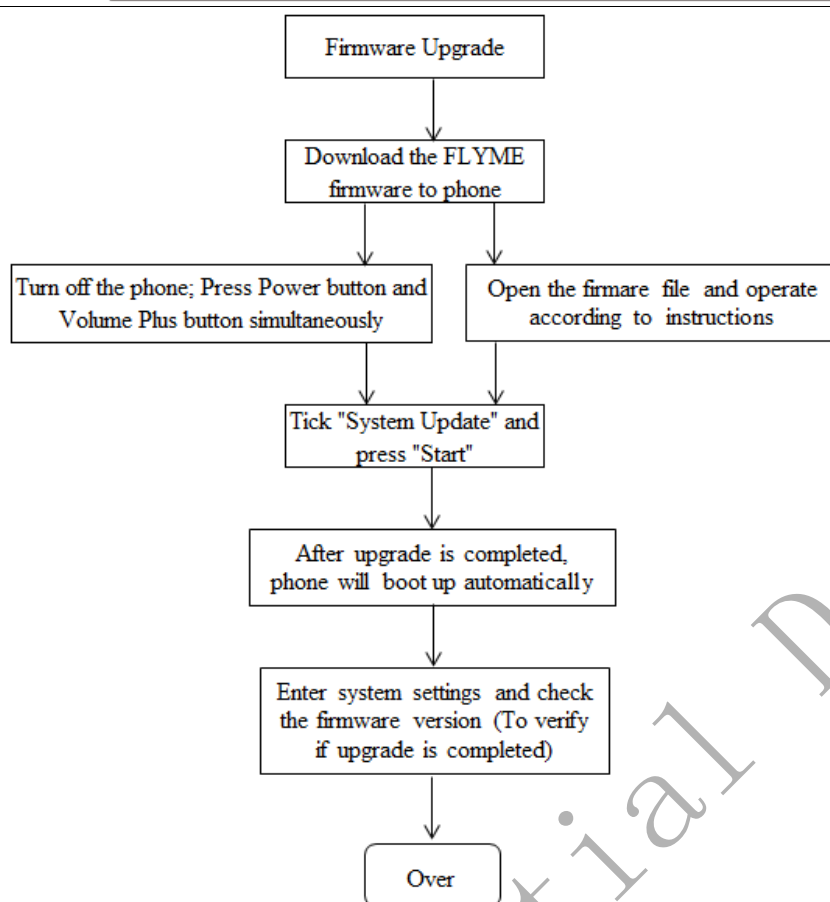
MEIZU Tech Bldg., Technology & Innovation Coast,
Zhuhai 519085, Guangdong, ChinaTel /86-756-6116288
Fax/86-756-6116200

Chapter 7 The common fault detect and maintenance

For dysfunctional machines, software problems should be ruled out first. Then step out troubleshooting hardware.

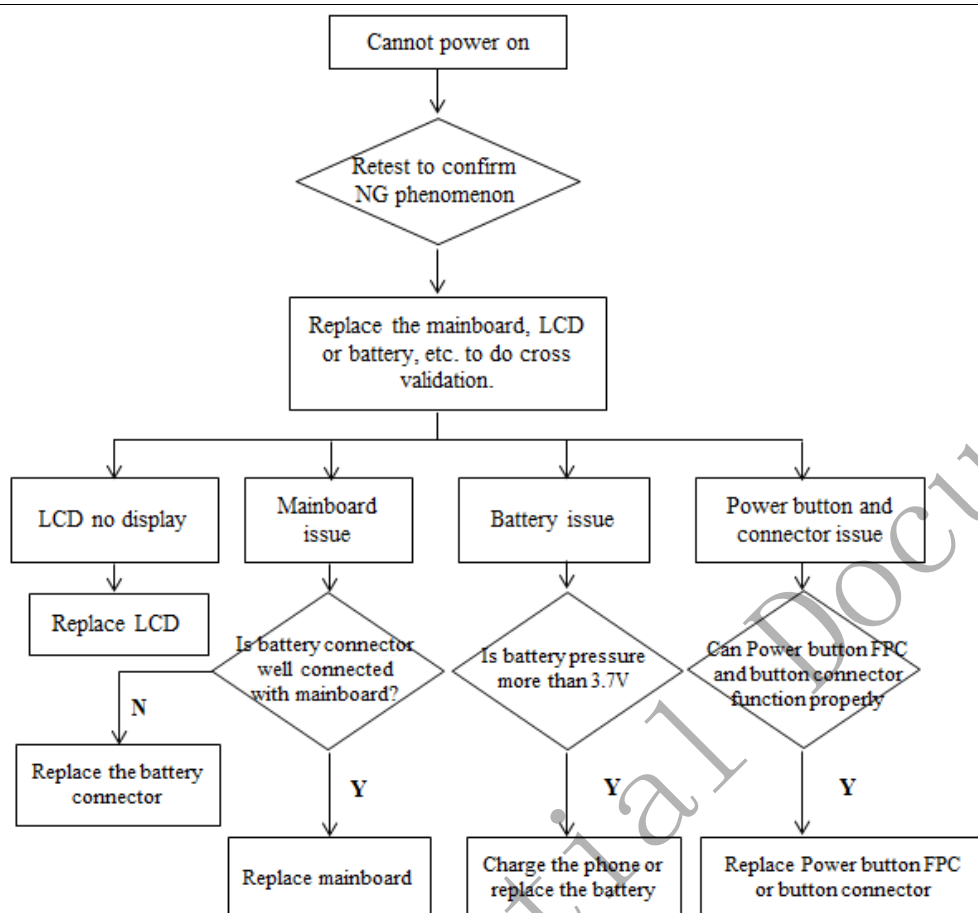
Software upgrade, please follow the following process

Firmware upgrade

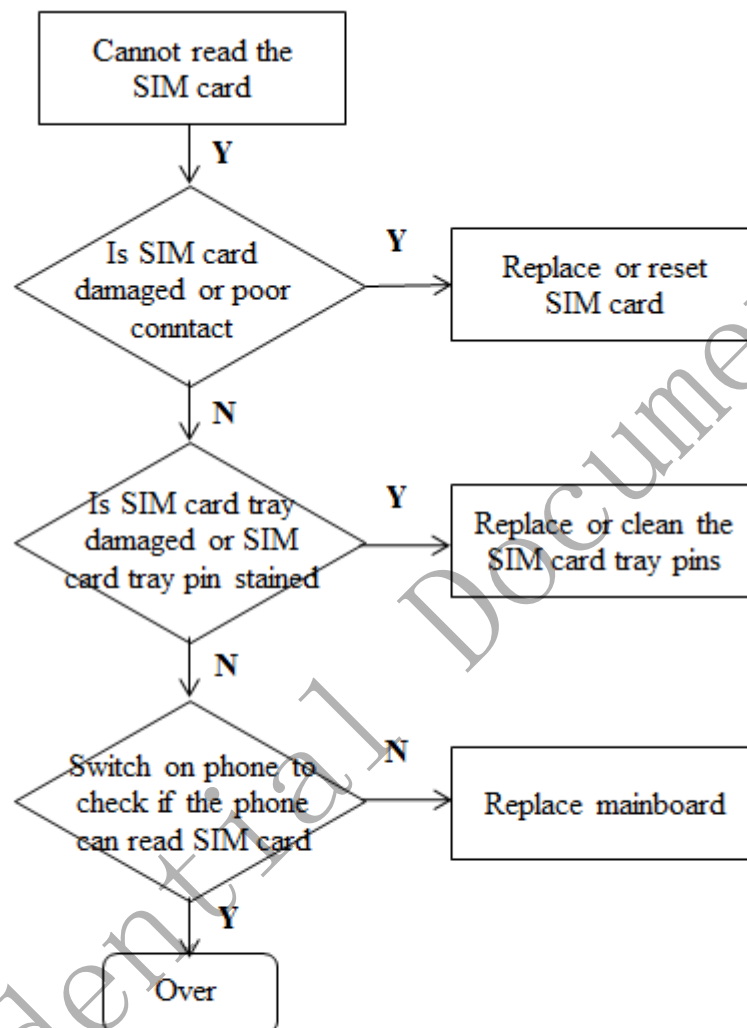


If the phone is flashed to Flyme firmware once again and the current problem still can't be solved, Please flash the phone to Engineer firmware (Refer to M1721 Upgrade Guide). Then use the test software carried by phone to do further tests to troubleshoot.

1. No boot



2. SIM card no recognizable



Note :

A.M1721 is Dual SIM card dual standby, include: mobile, Unicom, Telecom, Three CNC. Flash Flyme firmware.

Please note that please make a distinguish

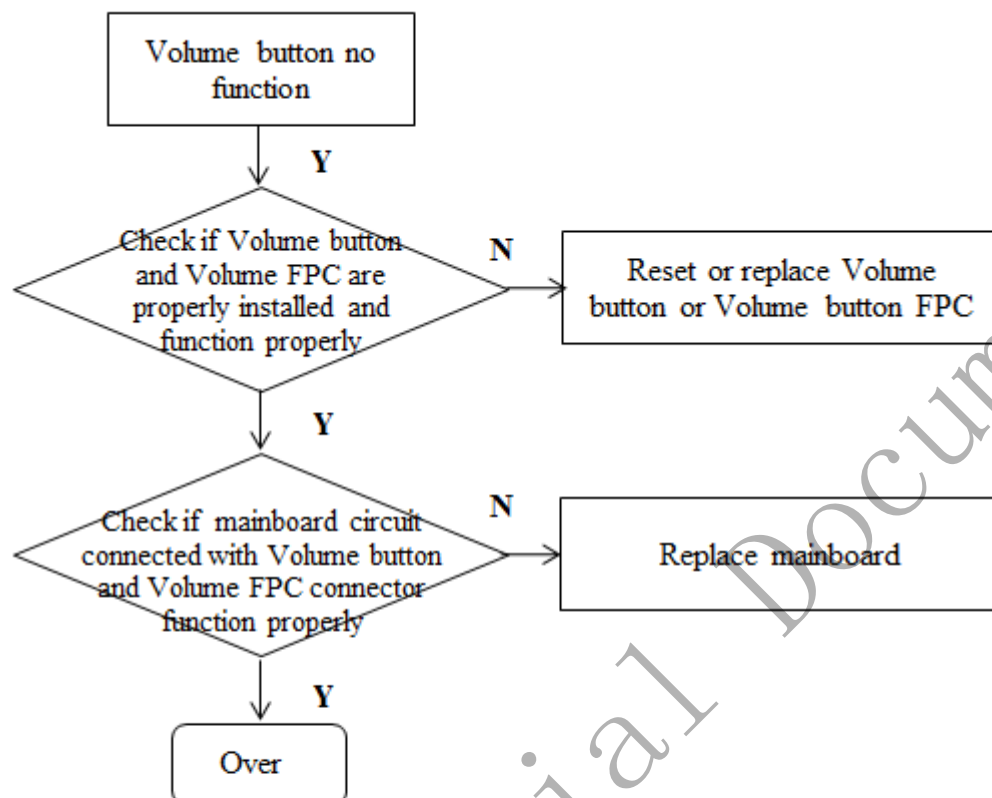
B. Card 1 support SIM and SD card , **Card 2** hot-plugging.

3.Volume button Fault

珠海市魅族科技有限公司

MEIZU TECHNOLOGY CO., LTD.

广东省珠海市科技创新海岸魅族科技楼

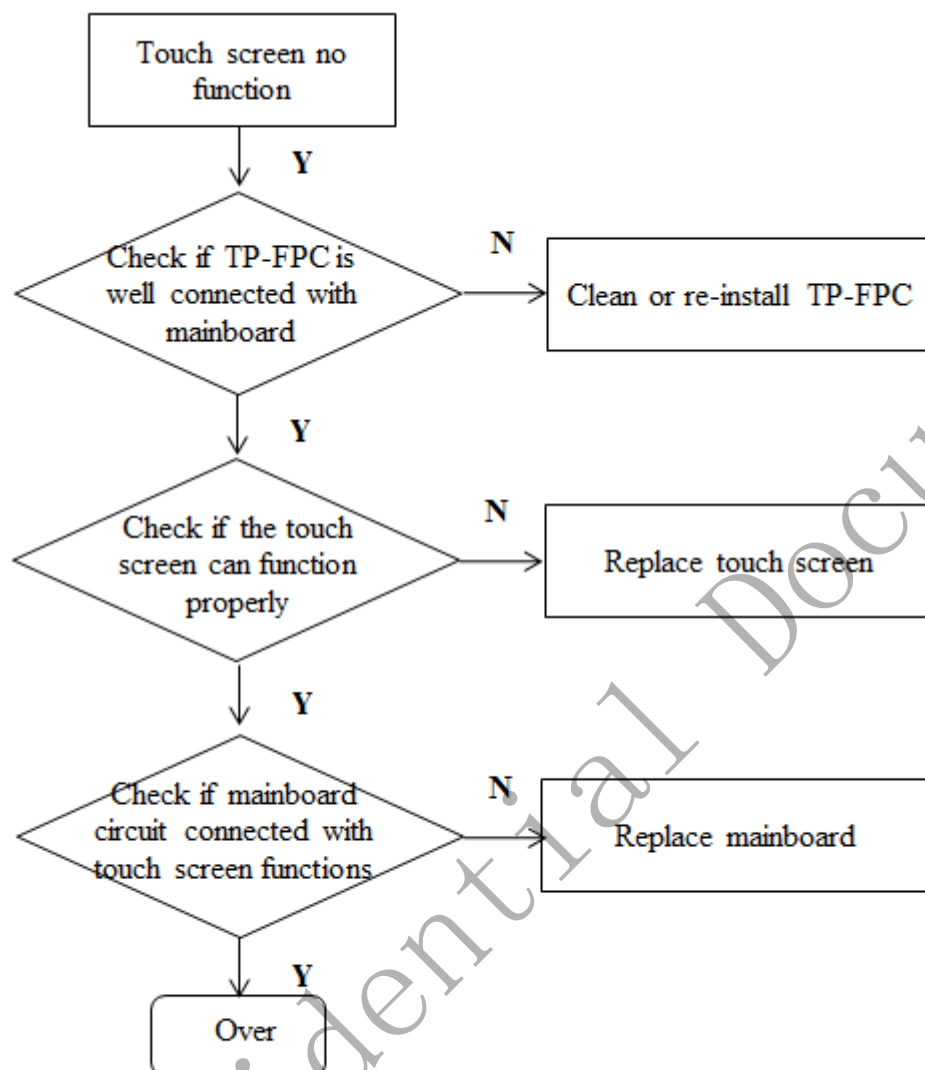
MEIZU Tech Bldg., Technology & Innovation Coast,
Zhuhai 519085, Guangdong, ChinaTel /86-756-6116288
Fax/86-756-6116200

4.Touch Screen Fault

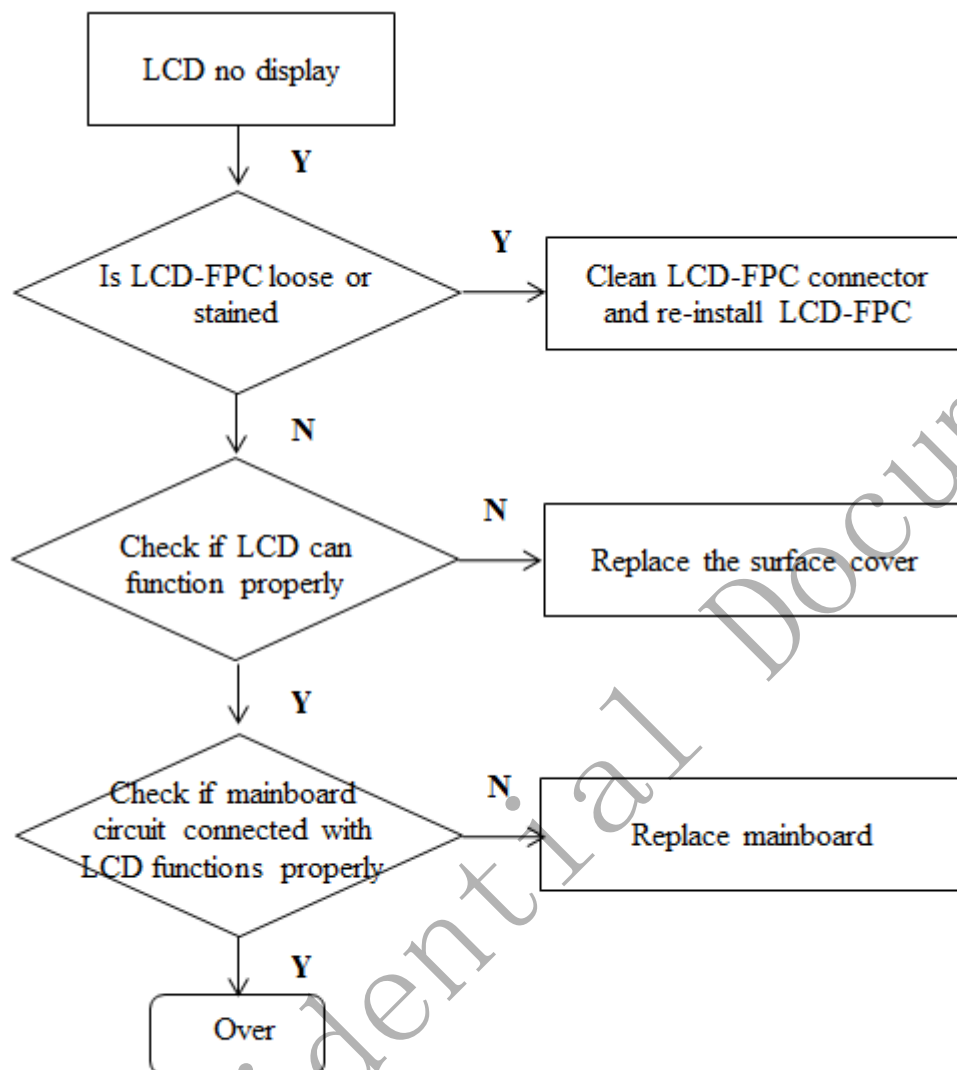
珠海市魅族科技有限公司

MEIZU TECHNOLOGY CO., LTD.

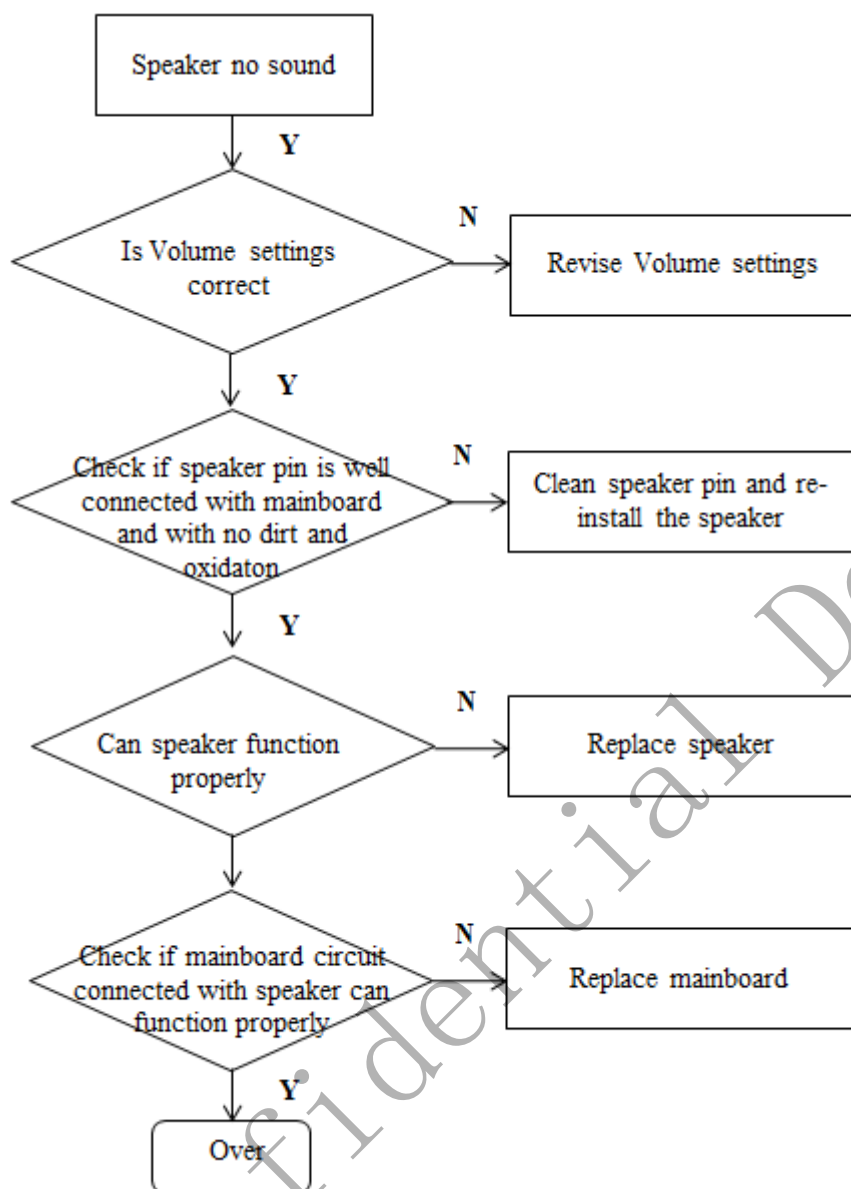
广东省珠海市科技创新海岸魅族科技楼

MEIZU Tech Bldg., Technology & Innovation Coast,
Zhuhai 519085, Guangdong, ChinaTel /86-756-6116288
Fax/86-756-6116200

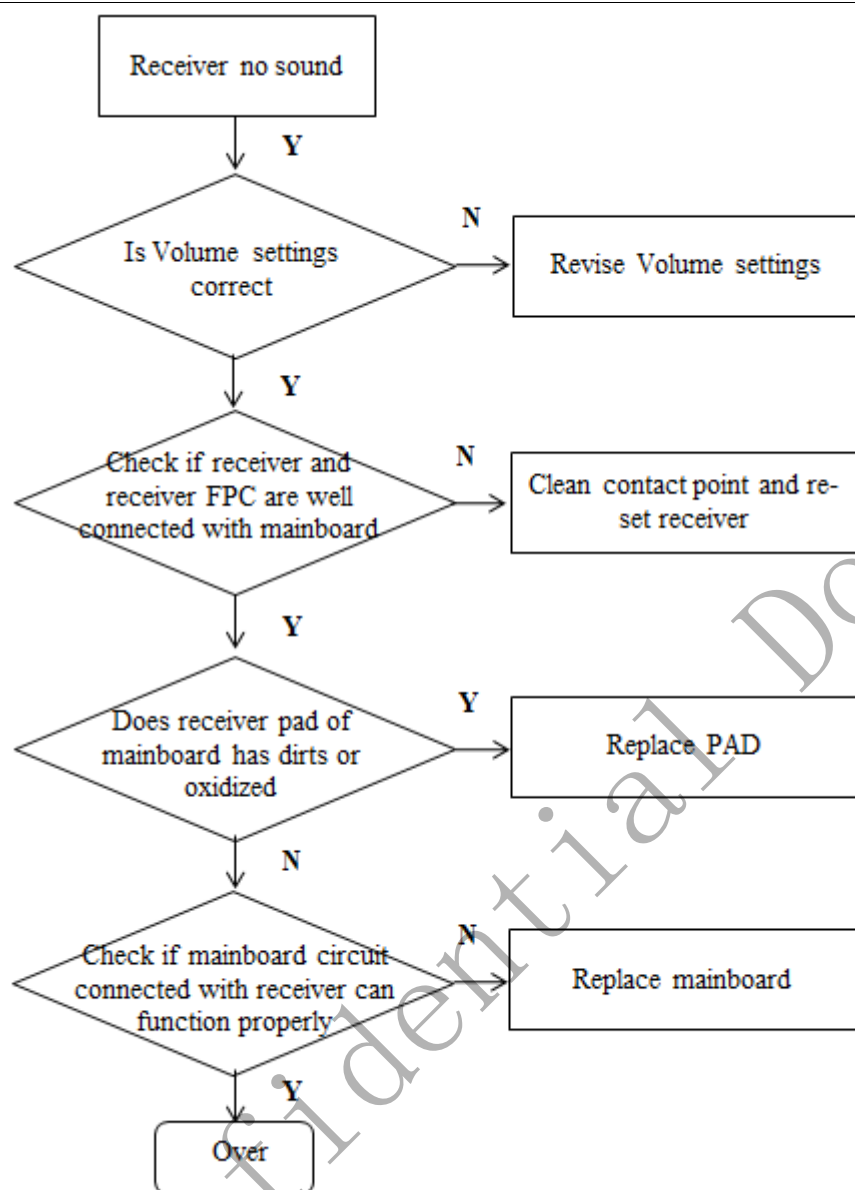
5.LCD display abnormal



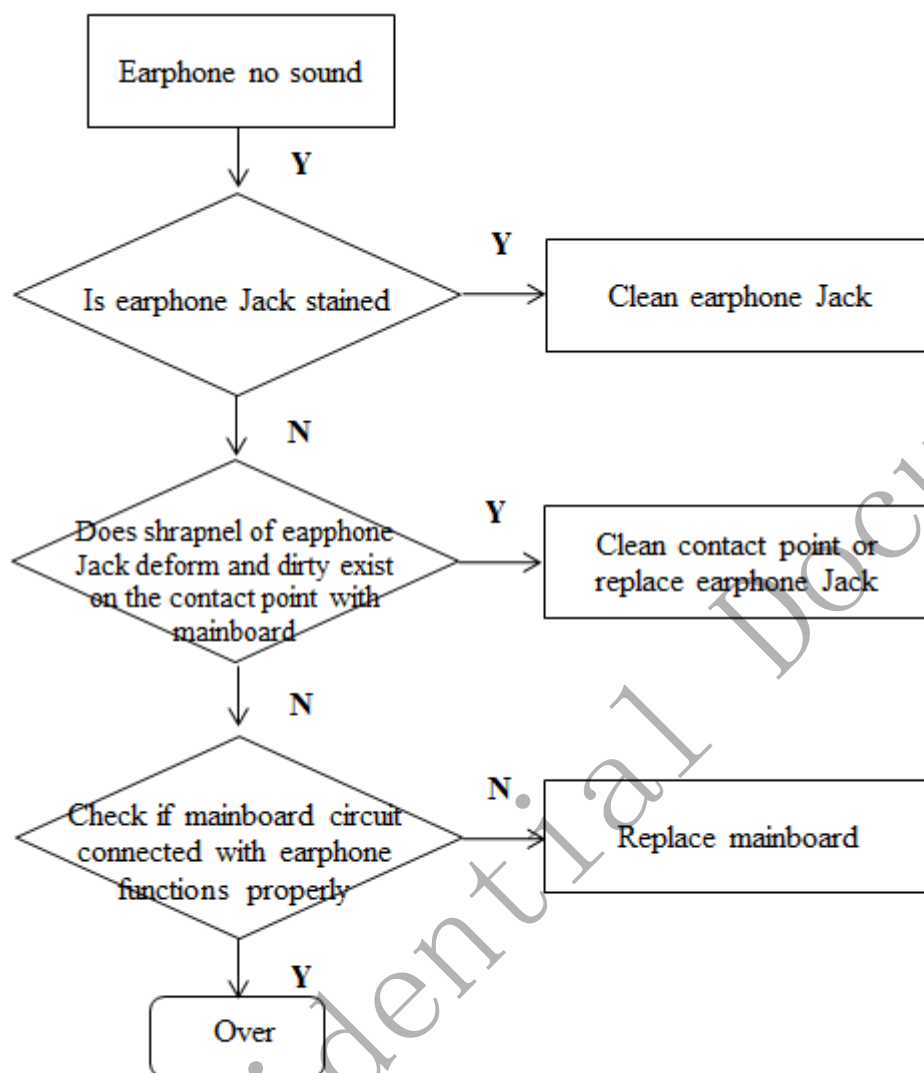
6. Speaker abnormal



7.Headphone abnormal



8 Earphone abnormal

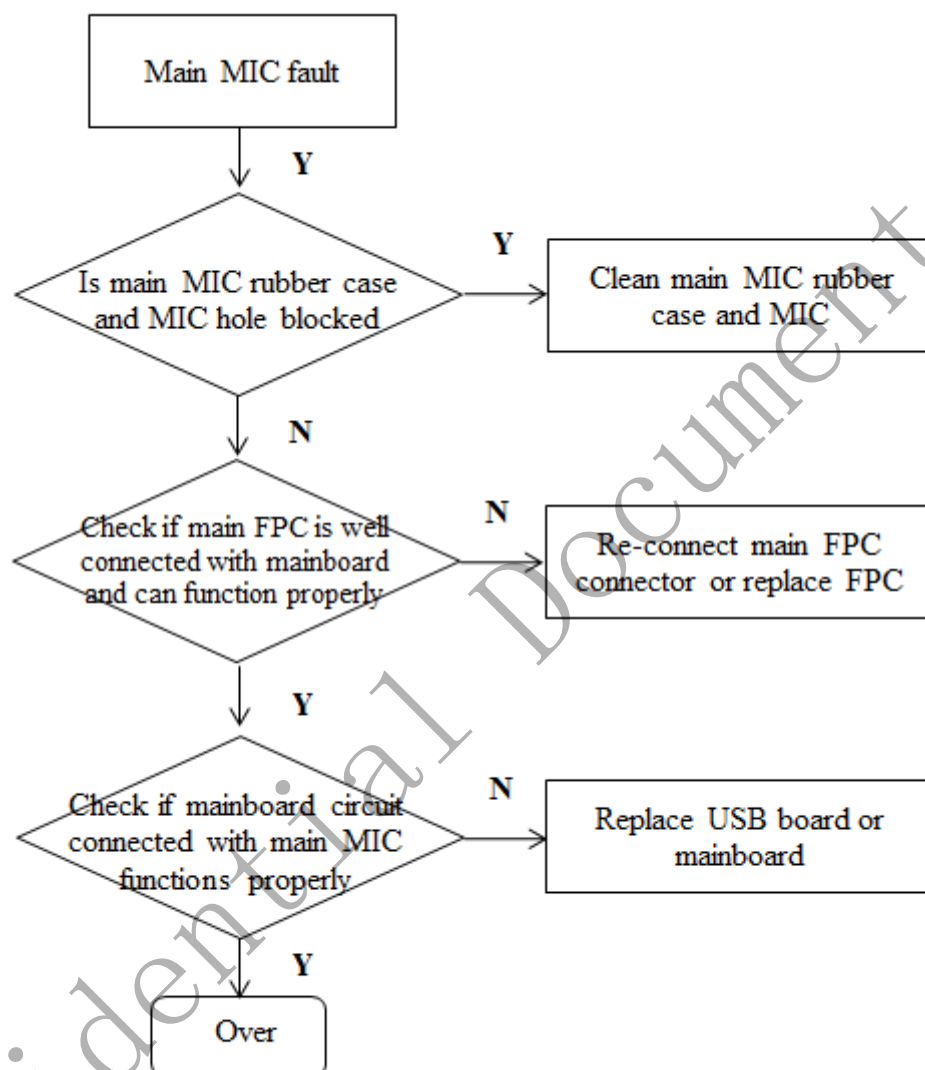


9. Main MIC abnormal

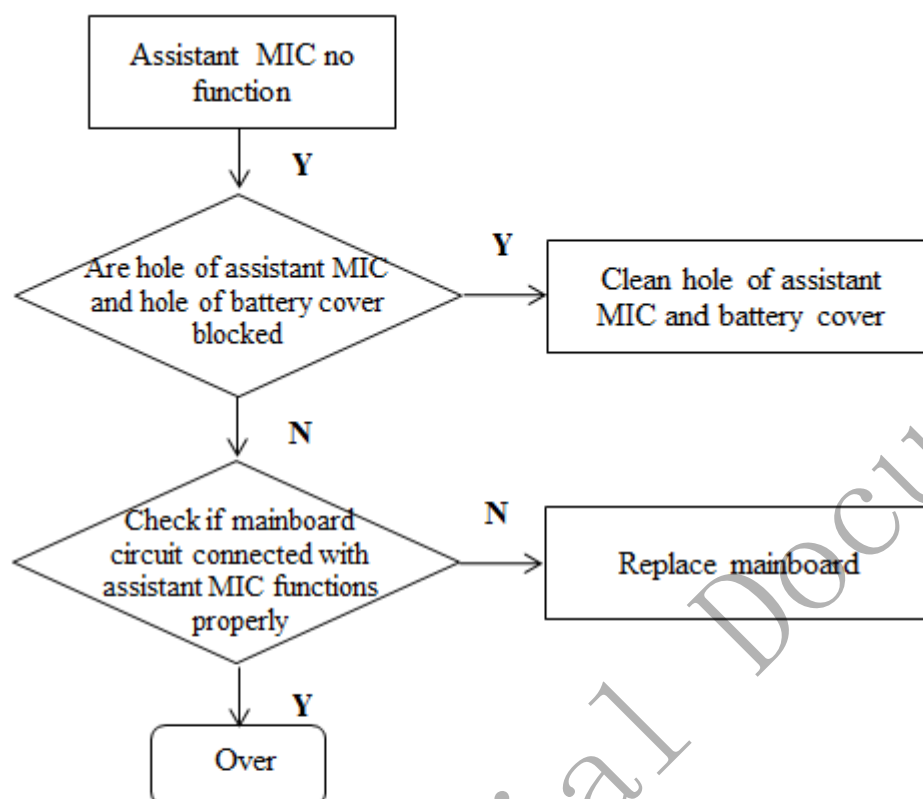
珠海市魅族科技有限公司

MEIZU TECHNOLOGY CO., LTD.

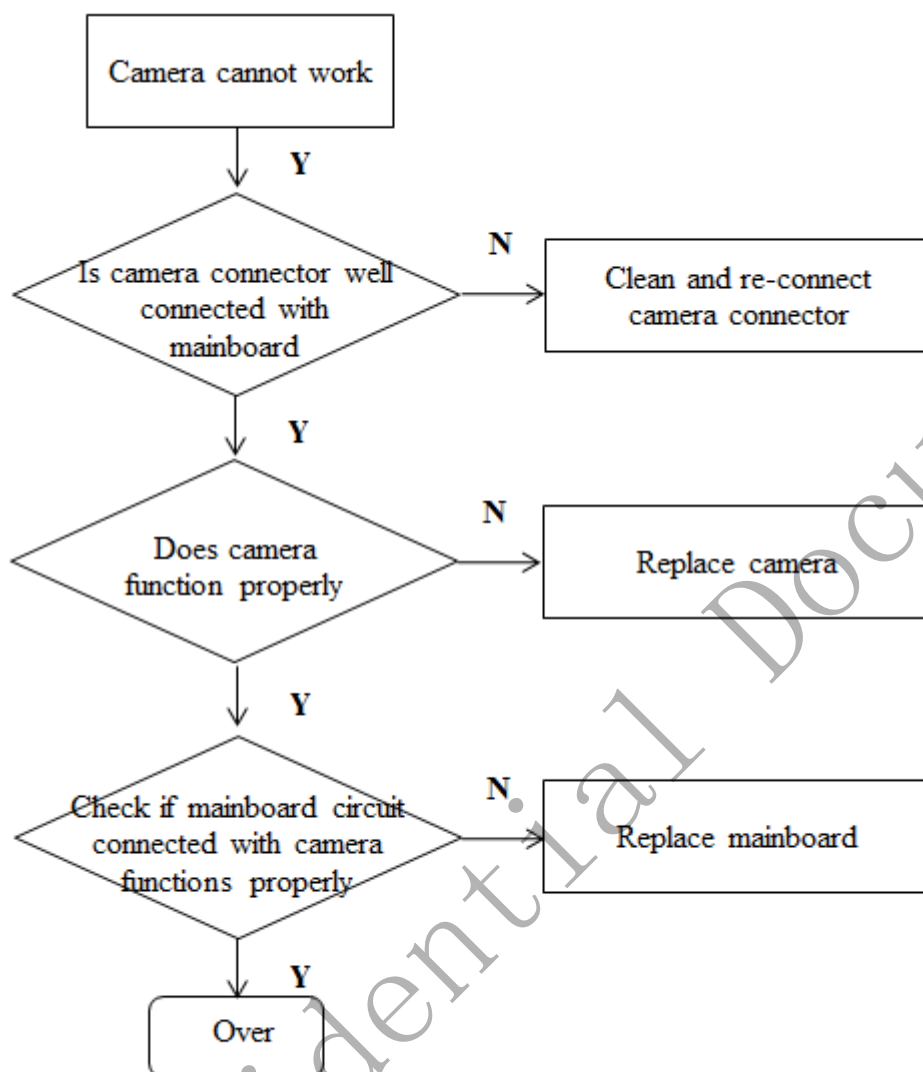
广东省珠海市科技创新海岸魅族科技楼

MEIZU Tech Bldg., Technology & Innovation Coast,
Zhuhai 519085, Guangdong, ChinaTel /86-756-6116288
Fax/86-756-6116200

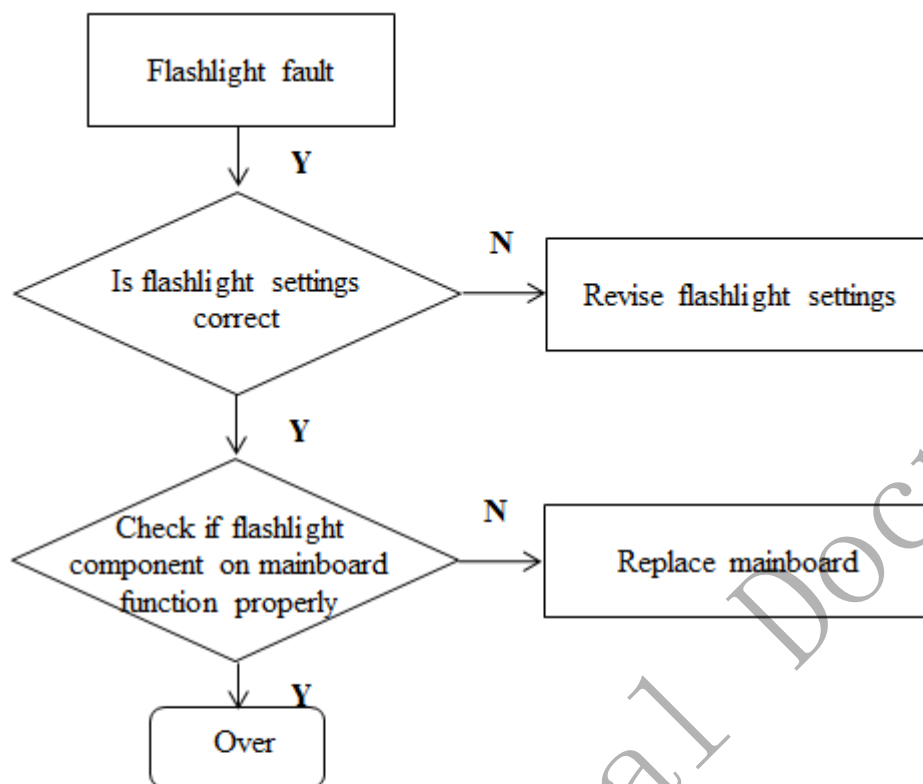
10. Vice MIC abnormal



11. Main camera and front camera abnormal



12. Flash light abnormal

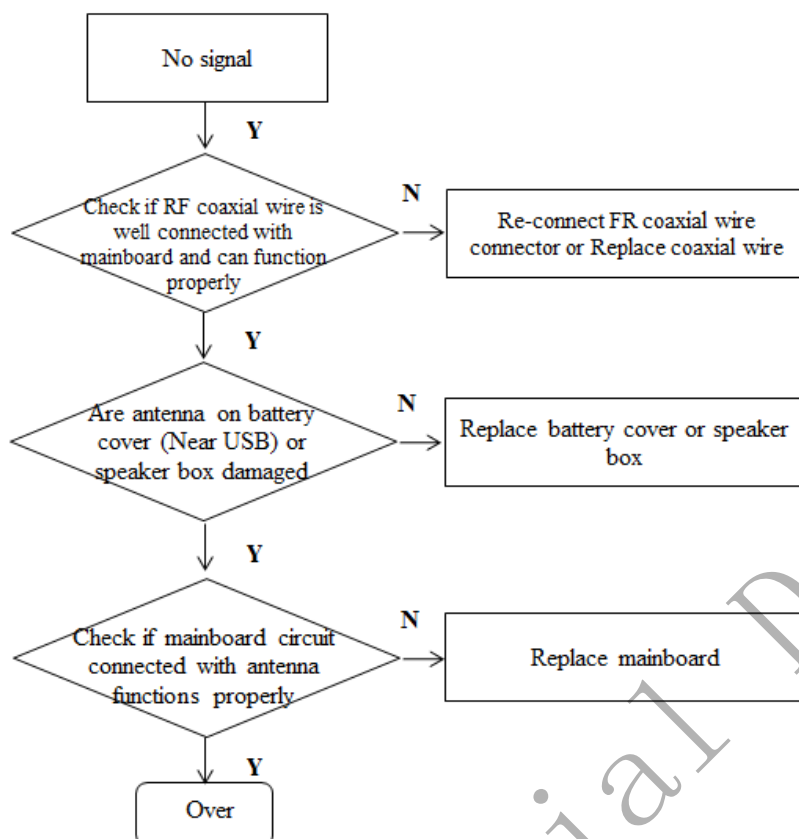


13. Signal abnormal

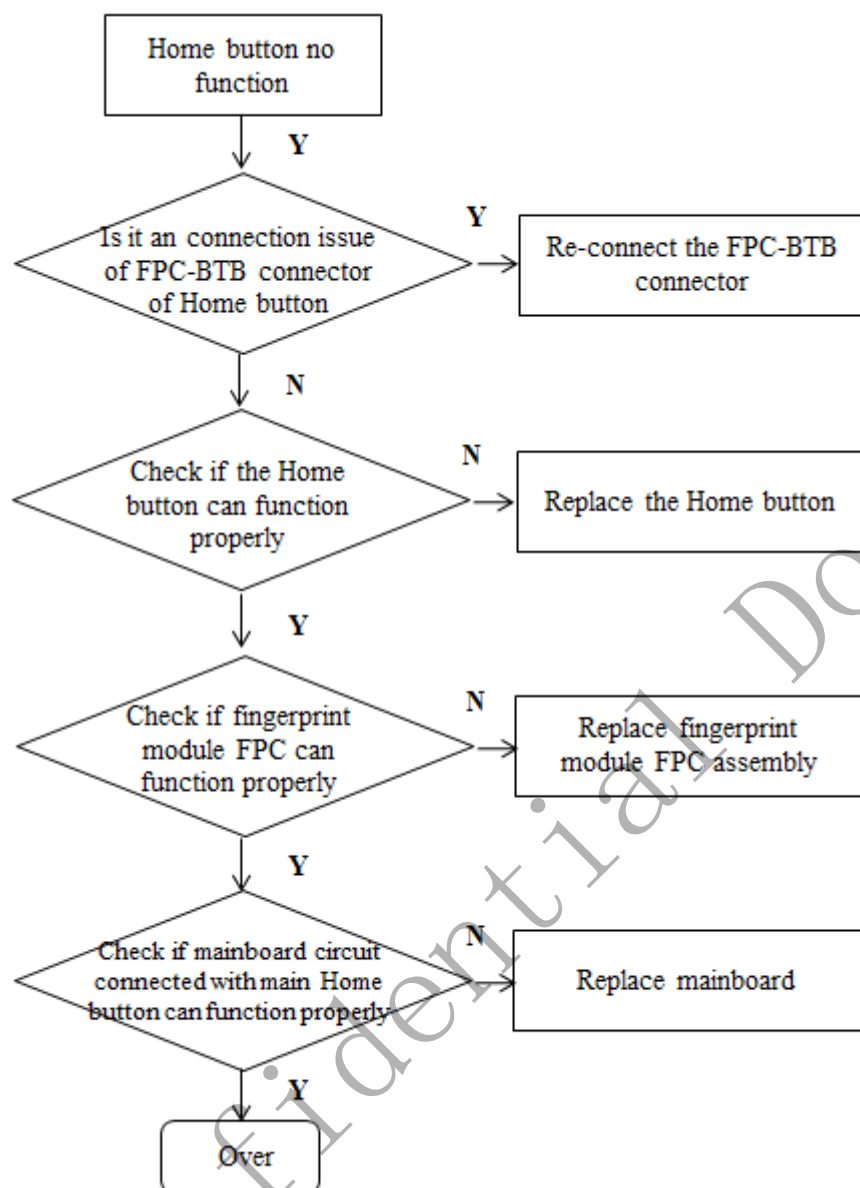
珠海市魅族科技有限公司

MEIZU TECHNOLOGY CO., LTD.

广东省珠海市科技创新海岸魅族科技楼

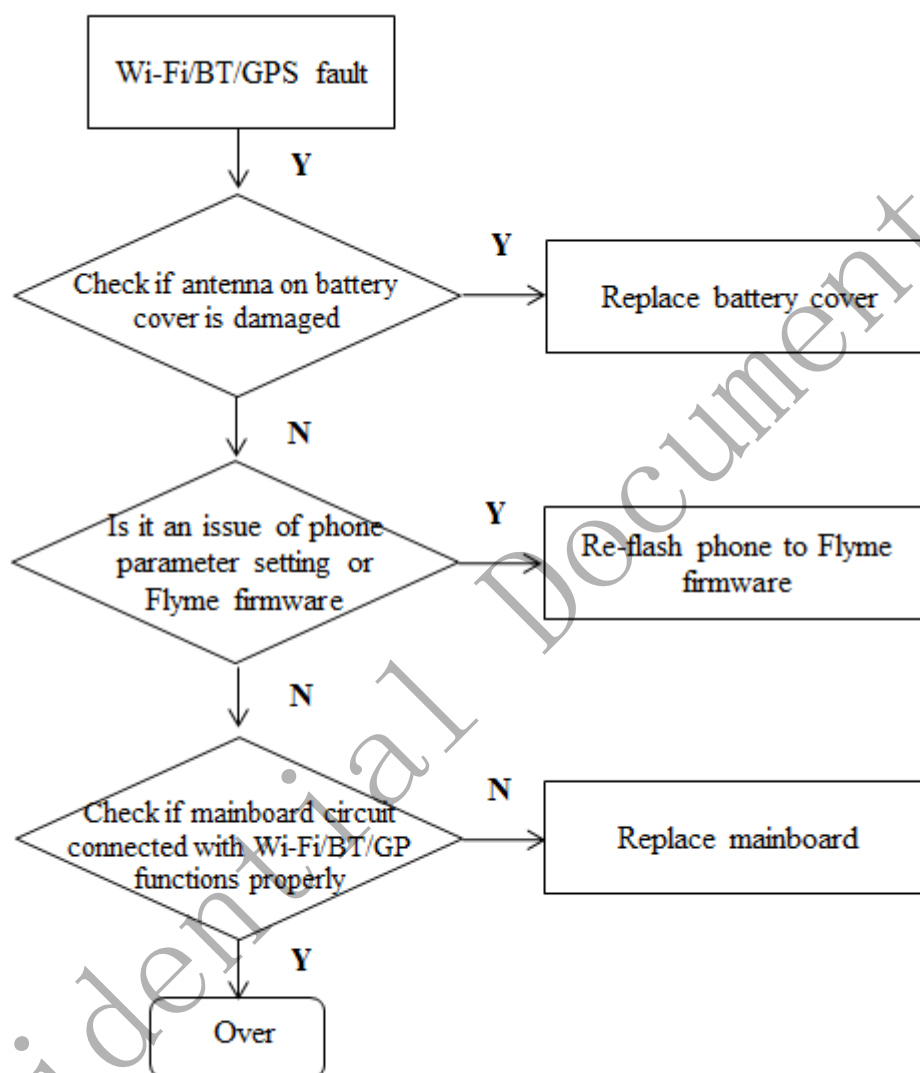
MEIZU Tech Bldg., Technology & Innovation Coast,
Zhuhai 519085, Guangdong, ChinaTel /86-756-6116288
Fax/86-756-6116200

14. Home button abnormal



15. WIFI / Bluetooth/ GPS abnormal

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:

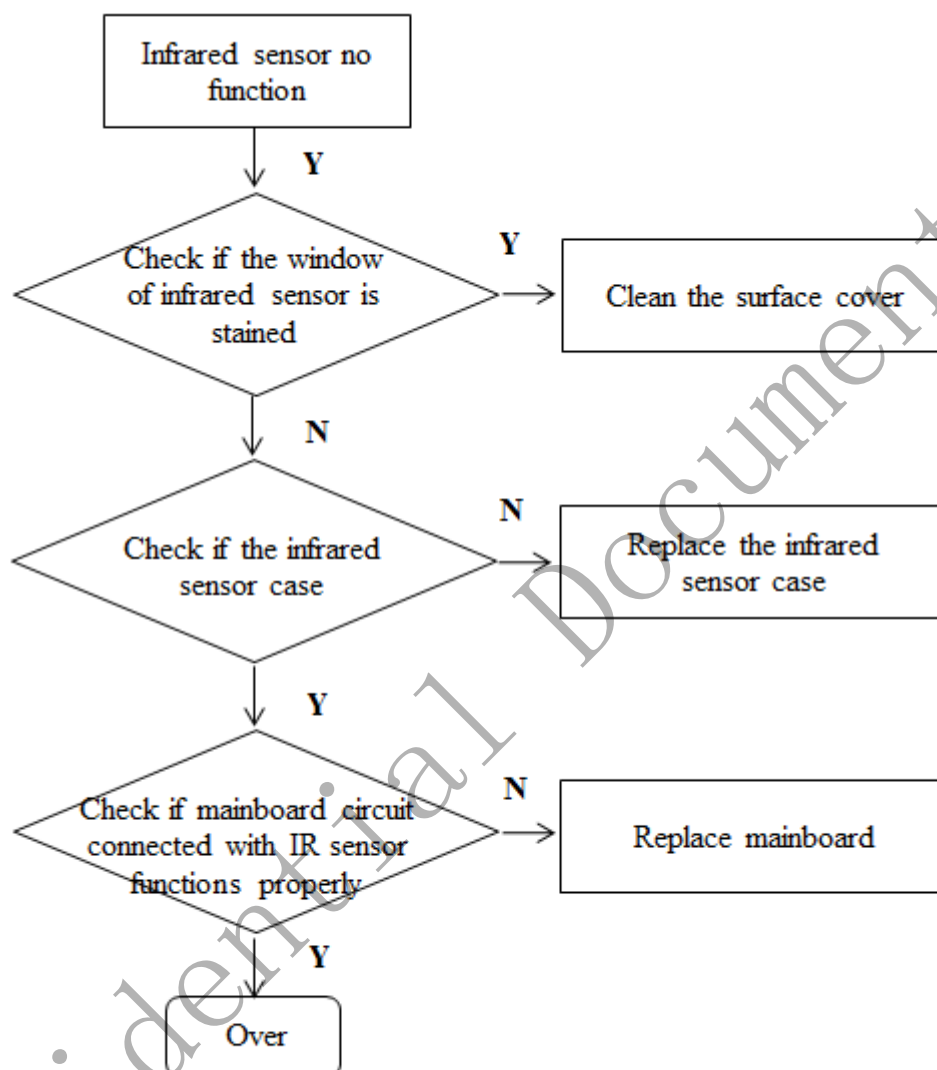


16. Infrared sensor abnormal

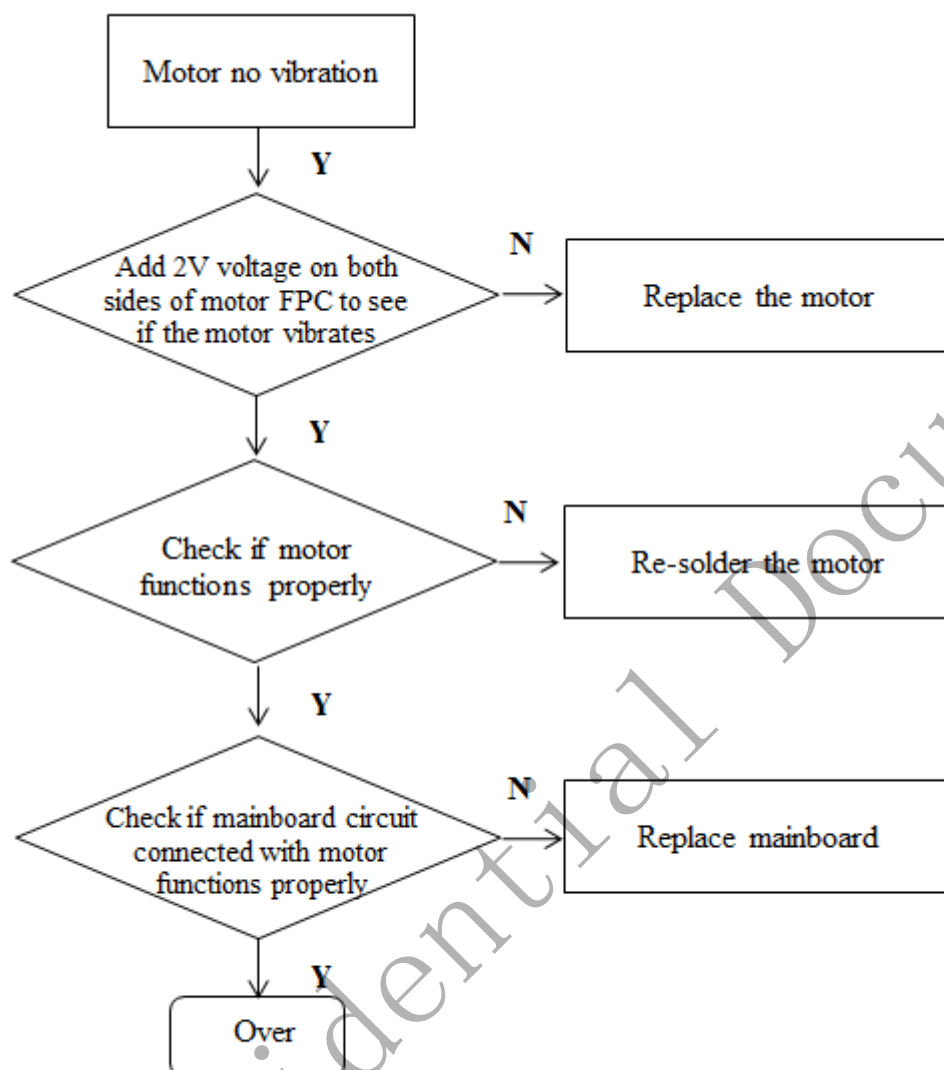
珠海市魅族科技有限公司

MEIZU TECHNOLOGY CO., LTD.

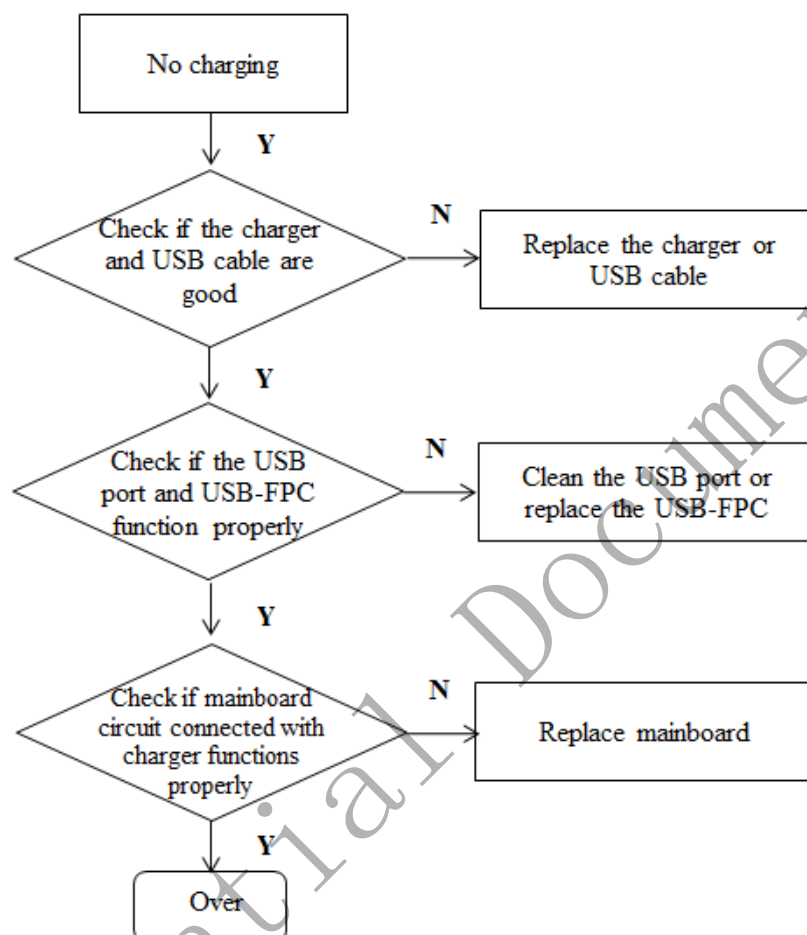
广东省珠海市科技创新海岸魅族科技楼

MEIZU Tech Bldg., Technology & Innovation Coast,
Zhuhai 519085, Guangdong, ChinaTel /86-756-6116288
Fax/86-756-6116200

17.Motor abnormal



18. Charge abnormal



19. Note :

If you encounter one of the following problems, change the motherboard directly when the Flyme firmware is not work.

Fault Item	Maintenance step 1	Maintenance step 2
Gyroscope	Re-flash Flyme	Replace Mainboard
Gravity induction	Re-flash Flyme	Replace Mainboard
Compass	Re-flash Flyme	Replace Mainboard