

TEST REPORT

Applicant: Shenzhen Huafurui Technology Co., Ltd.
Address: Unit 601-03, 6/F, Block A, Building 1, Ganfeng Technology Building, No. 993 Jiaxian Road, Xiangjiaotang Community, Bantian Street, Longgang District, Shenzhen, P.R. China

The following sample(s) was/were submitted and identified on behalf of the client as:

Product name: Smartphone
Model: A20
Trade mark: CUBOT
Manufacturer: Shenzhen Huafurui Technology Co., Ltd.
Address: Unit 601-03, 6/F, Block A, Building 1, Ganfeng Technology Building, No. 993 Jiaxian Road, Xiangjiaotang Community, Bantian Street, Longgang District, Shenzhen, P.R. China

Sample No.: S240614052005
Sample Received Date: 2024-06-18
Testing Period: 2024-06-18~ 2024-07-10

Test Requirement:

As specified by client, to determine the Lead(Pb), Cadmium(Cd), Mercury(Hg), Hexavalent Chromium (Cr(VI)), Polybrominated Biphenyls(PBBs), Polybrominated Diphenyl Ethers(PBDEs), Bis-(2-ethylhexyl) Phthalate (DEHP), Benzyl butyl Phthalate (BBP), Dibutyl Phthalate (DBP) and Diisobutyl Phthalate(DIBP) contents in the submitted sample(s) in accordance with RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU.

Conclusion

Pass

Test Result(s): Please refer to the following page(s);

Test Method: Please refer to the following page(s);

Compiled by: Nina Car

Reviewed by: Luetta Mo

Approved by: Moy Li

Date: 2024-07-10

Sample Description:

No.	Sample name	Description
1	Shell	Black plastic frame
2		Golden metal nut of black plastic frame
3		Translucent plastic guide light body of black plastic frame
4		Silver gray metal frame
5		Silver black plastic adhesive tape of silver gray metal frame
6		Silver gray double-sided tape of silver gray metal frame
7		Transparent double-sided adhesive of silver gray metal frame
8		Black plastic shell
9		Transparent glass with black edge of black plastic shell
10		Silver gray coating of back cover
11		Black foam glue of back cover
12		Black FPC with glue of FPC
13	Screen	Black LCD screen
14		Gray foam glue of Silver metal plate
15		Silver gray adhesive fabric of silver metal plate
16		Yellow transparent plastic adhesive tape of silver metal plate
17		Black plastic adhesive tape of silver metal plate
18		Black FPC of screen FPC
19	Elliptical LCD	Gray&black coating of gray&black glass
20		Transparent double-sided adhesive of gray&black glass
21		Black LCD screen with glue
22		Black plastic adhesive tape of Translucent plastic sheet
23		Black FPC of Screen FPC
24	Antenna	Black&white wire jacket
25	Camera	Black plastic
26	Speaker	Black plastic shell
27		Black plastic frame
28		Red black wire jacket
29	Receiver	Black plastic frame
30	Vibrating motors	Green PCB
31	Motherboard PCBA	Black PCB
32		Black rubber sleeve of infrared module
33		Black body of infrared module
34		Black plastic of black/gray interface
35		Gray plastic of black/gray interface
36		Transparent plastic with glue

37	PCBA-s-1mb-14	Black PCB
38		Black rubber sleeve of MIC
39		Golden metal plug
40		Black plastic with red glue of type-c interface (male)
41	Battery	Transparent plastic film with glue
42		Yellow transparent plastic adhesive tape
43		Black plastic adhesive tape
44		Black FPC of battery FPC
45		Yellow plastic plate of battery FPC
46	Adapter shell	White plastic with lettering
47		Silver metal plug pin of white plastic with lettering
48	Adapter PCBA	Yellow-green PCB
49		Yellow plastic adhesive tape of transformer
50		Black plastic sketch of transformer
51		Transparent casing tube of transformer
52		White plastic of USB interface
53		Green plastic jacket of electrolytic capacitor
54		Rubber pad of electrolytic capacitor
55		Brown plastic jacket of electrolytic capacitor
56		Black plastic jacket of electrolytic capacitor
57		Black casing tube of inductor
58	Tin solder	
59	Data cable	White encapsulation of USB interface
60		Tin solder of USB interface
61		White plastic of USB interface
62		Translucent plastic of USB interface
63		White encapsulation of type-c interface
64		Beige plastic of type-c interface
65		Blue PCB of type-c interface
66		Tin solder of type-c interface
67		White exterior wire jacket
68		Green wire jacket
69		White wire jacket
70	Red wire jacket	
71	Black wire jacket	
72	Earphone	White plastic shell
73		Green PCB of speaker
74		Black/white adhesive tape of speaker

75	Earphone	White double-sided adhesive of speaker
76		White plastic shell of controller
77		Blue PCB of controller
78		Tin solder of controller
79		Beige plastic shell of type-c interface
80		White encapsulation of type-c interface
81		Gray plastic of type-c interface
82		Blue PCB of type-c interface
83		Tin solder of type-c interface
84		White encapsulation
85		White wire jacket

Test Result(s):
Lead(Pb), Cadmium(Cd), Mercury(Hg), Hexavalent Chromium (Cr(VI)), Polybrominated Biphenyls (PBBs), Polybrominated Diphenyl Ethers(PBDEs)

Part No.	Test Items	XRF Screening Result(mg/kg)	Chemical Test Result(mg/kg)	Conclusion
1	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
2	Pb	OL	27217 ^{#1}	Pass
	Cd	IN	48	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	/	/	
3	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
4	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	IN	N.D.	
	Br(PBBs&PBDEs)	/	/	
5	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
6	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
7	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	

8	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
9	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
10	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
11	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
12	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
13	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
14	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
15	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	

16	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
17	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
18	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
19	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
20	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
21	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
22	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
23	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	

24	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
25	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
26	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
27	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
28	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
29	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
30	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
31	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	

32	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
33	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
34	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
35	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
36	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
37	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
38	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
39	Pb	OL	18421 ^{#1}	Pass
	Cd	IN	N.D.	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	/	/	

40	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
41	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
42	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	IN	N.D.	
	Br(PBBs&PBDEs)	BL	/	
43	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
44	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
45	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
46	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
47	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	/	/	

48	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	IN	N.D.	
49	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
50	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
51	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
52	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	IN	N.D.	
53	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
54	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
55	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	

56	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
57	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
58	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	/	/	
59	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
60	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	/	/	
61	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
62	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
63	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	

64	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
65	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	IN	N.D.	
66	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	/	/	
67	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
68	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
69	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
70	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
71	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	

72	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
73	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	IN	N.D.	
74	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
75	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
76	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
77	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
78	Pb	OL	583	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	/	/	
79	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	

80	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
81	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
82	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	IN	N.D.	
83	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	/	/	
84	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	
85	Pb	BL	/	Pass
	Cd	BL	/	
	Hg	BL	/	
	Cr(Cr(VI))	BL	/	
	Br(PBBs&PBDEs)	BL	/	

Bis-(2-ethylhexyl) Phthalate (DEHP), Benzyl butyl Phthalate (BBP), Dibutyl Phthalate (DBP) and Diisobutyl Phthalate(DIBP)

Test Items	Result(mg/kg)		
	1+3+8	5+6+7	9
Bis-(2-ethylhexyl) Phthalate (DEHP)	N.D.	N.D.	N.D.
Benzyl butyl Phthalate (BBP)	N.D.	N.D.	N.D.
Dibutyl Phthalate (DBP)	N.D.	N.D.	N.D.
Diisobutyl Phthalate(DIBP)	N.D.	N.D.	N.D.
Conclusion	Pass	Pass	Pass

Test Items	Result(mg/kg)		
	10	11	12+14+15
Bis-(2-ethylhexyl) Phthalate (DEHP)	N.D.	N.D.	N.D.
Benzyl butyl Phthalate (BBP)	N.D.	N.D.	N.D.
Dibutyl Phthalate (DBP)	N.D.	N.D.	N.D.
Diisobutyl Phthalate(DIBP)	N.D.	N.D.	N.D.
Conclusion	Pass	Pass	Pass

Test Items	Result(mg/kg)		
	13	16	17
Bis-(2-ethylhexyl) Phthalate (DEHP)	N.D.	N.D.	N.D.
Benzyl butyl Phthalate (BBP)	N.D.	N.D.	N.D.
Dibutyl Phthalate (DBP)	N.D.	N.D.	N.D.
Diisobutyl Phthalate(DIBP)	N.D.	N.D.	N.D.
Conclusion	Pass	Pass	Pass

Test Items	Result(mg/kg)		
	18+23+25	19	20+36
Bis-(2-ethylhexyl) Phthalate (DEHP)	N.D.	N.D.	N.D.
Benzyl butyl Phthalate (BBP)	N.D.	N.D.	N.D.
Dibutyl Phthalate (DBP)	N.D.	N.D.	N.D.
Diisobutyl Phthalate(DIBP)	N.D.	N.D.	N.D.
Conclusion	Pass	Pass	Pass

Test Items	Result(mg/kg)		
	21	22	24
Bis-(2-ethylhexyl) Phthalate (DEHP)	N.D.	N.D.	N.D.
Benzyl butyl Phthalate (BBP)	N.D.	N.D.	N.D.
Dibutyl Phthalate (DBP)	N.D.	N.D.	N.D.
Diisobutyl Phthalate(DIBP)	N.D.	N.D.	N.D.
Conclusion	Pass	Pass	Pass

Test Items	Result(mg/kg)		
	26+27+29	28	30
Bis-(2-ethylhexyl) Phthalate (DEHP)	N.D.	N.D.	N.D.
Benzyl butyl Phthalate (BBP)	N.D.	N.D.	N.D.
Dibutyl Phthalate (DBP)	N.D.	N.D.	N.D.
Diisobutyl Phthalate(DIBP)	N.D.	N.D.	N.D.
Conclusion	Pass	Pass	Pass

Test Items	Result(mg/kg)		
	31	32	33+34+35
Bis-(2-ethylhexyl) Phthalate (DEHP)	N.D.	N.D.	N.D.
Benzyl butyl Phthalate (BBP)	N.D.	N.D.	N.D.
Dibutyl Phthalate (DBP)	N.D.	N.D.	N.D.
Diisobutyl Phthalate(DIBP)	N.D.	N.D.	N.D.
Conclusion	Pass	Pass	Pass

Test Items	Result(mg/kg)		
	37	38	40
Bis-(2-ethylhexyl) Phthalate (DEHP)	N.D.	N.D.	N.D.
Benzyl butyl Phthalate (BBP)	N.D.	N.D.	N.D.
Dibutyl Phthalate (DBP)	N.D.	N.D.	N.D.
Diisobutyl Phthalate(DIBP)	N.D.	N.D.	N.D.
Conclusion	Pass	Pass	Pass

Test Items	Result(mg/kg)		
	41+42+43	44+45	46+50
Bis-(2-ethylhexyl) Phthalate (DEHP)	N.D.	N.D.	N.D.
Benzyl butyl Phthalate (BBP)	N.D.	N.D.	N.D.
Dibutyl Phthalate (DBP)	N.D.	N.D.	N.D.
Diisobutyl Phthalate(DIBP)	N.D.	N.D.	N.D.
Conclusion	Pass	Pass	Pass

Test Items	Result(mg/kg)		
	48	49	51
Bis-(2-ethylhexyl) Phthalate (DEHP)	N.D.	N.D.	N.D.
Benzyl butyl Phthalate (BBP)	N.D.	N.D.	N.D.
Dibutyl Phthalate (DBP)	N.D.	N.D.	N.D.
Diisobutyl Phthalate(DIBP)	N.D.	N.D.	N.D.
Conclusion	Pass	Pass	Pass

Test Items	Result(mg/kg)		
	52	53	54
Bis-(2-ethylhexyl) Phthalate (DEHP)	N.D.	N.D.	N.D.
Benzyl butyl Phthalate (BBP)	N.D.	N.D.	N.D.
Dibutyl Phthalate (DBP)	N.D.	N.D.	N.D.
Diisobutyl Phthalate(DIBP)	N.D.	N.D.	N.D.
Conclusion	Pass	Pass	Pass

Test Items	Result(mg/kg)		
	55	56	57
Bis-(2-ethylhexyl) Phthalate (DEHP)	N.D.	N.D.	N.D.
Benzyl butyl Phthalate (BBP)	N.D.	N.D.	N.D.
Dibutyl Phthalate (DBP)	N.D.	N.D.	N.D.
Diisobutyl Phthalate(DIBP)	N.D.	N.D.	N.D.
Conclusion	Pass	Pass	Pass

Test Items	Result(mg/kg)		
	59+63	61	62+64+72
Bis-(2-ethylhexyl) Phthalate (DEHP)	N.D.	N.D.	N.D.
Benzyl butyl Phthalate (BBP)	N.D.	N.D.	N.D.
Dibutyl Phthalate (DBP)	N.D.	N.D.	N.D.
Diisobutyl Phthalate(DIBP)	N.D.	N.D.	N.D.
Conclusion	Pass	Pass	Pass

Test Items	Result(mg/kg)		
	65	67	68+69+70
Bis-(2-ethylhexyl) Phthalate (DEHP)	N.D.	N.D.	N.D.
Benzyl butyl Phthalate (BBP)	N.D.	N.D.	N.D.
Dibutyl Phthalate (DBP)	N.D.	N.D.	N.D.
Diisobutyl Phthalate(DIBP)	N.D.	N.D.	N.D.
Conclusion	Pass	Pass	Pass

Test Items	Result(mg/kg)		
	71+85	73	74
Bis-(2-ethylhexyl) Phthalate (DEHP)	N.D.	N.D.	N.D.
Benzyl butyl Phthalate (BBP)	N.D.	N.D.	N.D.
Dibutyl Phthalate (DBP)	N.D.	N.D.	N.D.
Diisobutyl Phthalate(DIBP)	N.D.	N.D.	N.D.
Conclusion	Pass	Pass	Pass

Test Items	Result(mg/kg)		
	75	76+79+81	77
Bis-(2-ethylhexyl) Phthalate (DEHP)	N.D.	N.D.	N.D.
Benzyl butyl Phthalate (BBP)	N.D.	N.D.	N.D.
Dibutyl Phthalate (DBP)	N.D.	N.D.	N.D.
Diisobutyl Phthalate(DIBP)	N.D.	N.D.	N.D.
Conclusion	Pass	Pass	Pass

Test Items	Result(mg/kg)	
	80+84	82
Bis-(2-ethylhexyl) Phthalate (DEHP)	N.D.	N.D.
Benzyl butyl Phthalate (BBP)	N.D.	N.D.
Dibutyl Phthalate (DBP)	N.D.	N.D.
Diisobutyl Phthalate(DIBP)	N.D.	N.D.
Conclusion	Pass	Pass

- Note:
- 1.N.D. = Not Detected (<MDL)
MDL = Method Detection Limit
1mg/kg = 1ppm =0.0001%
/=Not Regulated or Not Applicable
 2. BL = Below the XRF screening limit
IN = Further chemical test will be conducted when the screening result inconclusive
OL = Further chemical test will be conducted while the result is above the screening limit.
 3. For metal samples, the sample is negative for Cr(VI), if the Cr(VI) concentration is less than 0.10 µg/cm², the coating is considered a non- Cr(VI) based coating;
The sample is positive for Cr(VI), if the Cr(VI) concentration is greater than 0.13 µg/cm²,
The sample coating is considered to contain Cr(VI);
The result is considered to be inconclusive, the Cr(VI) concentration is between the 0.10 µg/cm² and 0.13 µg/cm², unavoidable coating variations may influence the determination.
Because the storage condition and production date of the sample are not known, the test results of the sample of hexavalent chromium can only represent the state of hexavalent chromium in the samples tested.
- Remark:
1. When conducting the test for PBBs&PBDEs, XRF was introduced to screen Br Exclusively; When conducting the test for Hexavalent Chromium, XRF was introduced to screen Chromium exclusively.
 2. According to the client's statement , the material of the sample(s) comply with RoHS directive 2011/65/EU Annex III Exemption, Corresponding exemption clause:
#1 6(c) Lead is exempted as copper alloy containing up to 4% lead by weight .

Test Method:

1. With reference to IEC 62321-1: 2013 Ed.1.0, IEC 62321-2:2021 Ed.2.0, IEC 62321-3-1:2013 Ed.1.0. XRF screening limits in mg/kg for regulated elements in various matrices.

Element	Limit of IEC 62321-3-1:2013 Ed.1.0 (mg/kg)		
	Polymers	Metals	Composite material
Pb	$BL \leq (700-3\sigma) < X$ $< (1300+3\sigma) \leq OL$	$BL \leq (700-3\sigma) < X$ $< (1300+3\sigma) \leq OL$	$BL \leq (500-3\sigma) < X$ $< (1500+3\sigma) \leq OL$
Cd	$BL \leq (70-3\sigma) < X <$ $(130+3\sigma) \leq OL$	$BL \leq (70-3\sigma) < X <$ $(130+3\sigma) \leq OL$	$LOD < X < (150+3\sigma)$ $\leq OL$
Hg	$BL \leq (700-3\sigma) < X$ $< (1300+3\sigma) \leq OL$	$BL \leq (700-3\sigma) < X$ $< (1300+3\sigma) \leq OL$	$BL \leq (500-3\sigma) < X$ $< (1500+3\sigma) \leq OL$
Cr	$BL \leq (700-3\sigma) < X$	$BL \leq (700-3\sigma) < X$	$BL \leq (500-3\sigma) < X$
Br	$BL \leq (300-3\sigma) < X$	/	$BL \leq (250-3\sigma) < X$

Note: BL= Below the XRF screening limit
 OL=Over the XRF screening limit
 X=The symbol "X" marks the region where further investigation is necessary.
 3σ =The reproducibility of analytical instruments
 LOD= Detection limit

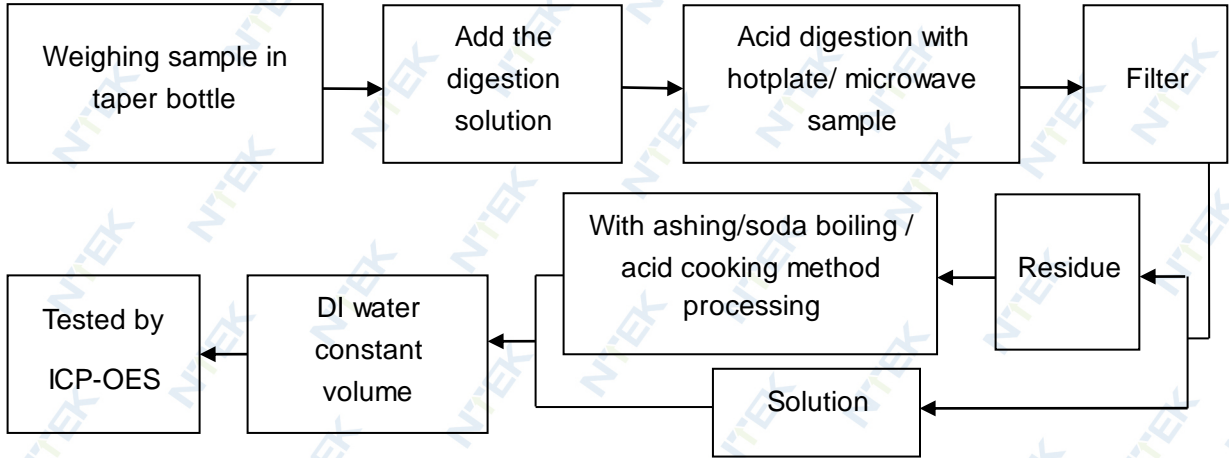
2. Chemical Test

Test item	Test method	Test instrument	MDL	Limit [△]
Lead (Pb)	IEC 62321-5:2013 Ed.1.0	ICP-OES	2 mg/kg	1000 mg/kg
Cadmium (Cd)	IEC 62321-5:2013 Ed.1.0	ICP-OES	2 mg/kg	100 mg/kg
Mercury (Hg)	IEC 62321-4:2013+AMD1:2017	ICP-OES	2 mg/kg	1000 mg/kg
Hexavalent Chromium(Cr(VI))	IEC 62321-7-1:2015 Ed.1.0	UV-Vis	0.10 $\mu\text{g}/\text{cm}^2$	1000 mg/kg
	IEC 62321-7-2:2017 Ed.1.0		8 mg/kg	
Polybrominated Biphenyls(PBBs)	IEC 62321-6:2015 Ed.1.0	GC-MS	5 mg/kg	1000 mg/kg
Polybrominated, Diphenyl Ethers(PBDEs)	IEC 62321-6:2015 Ed.1.0	GC-MS	5 mg/kg	1000 mg/kg
Bis-(2-ethylhexyl) Phthalate (DEHP)	IEC 62321-8:2017 Ed.1.0	GC-MS	30 mg/kg	1000 mg/kg
Benzyl butyl Phthalate (BBP)	IEC 62321-8:2017 Ed.1.0	GC-MS	30 mg/kg	1000 mg/kg
Dibutyl Phthalate (DBP)	IEC 62321-8:2017 Ed.1.0	GC-MS	30 mg/kg	1000 mg/kg
Diisobutyl Phthalate (DIBP)	IEC 62321-8:2017 Ed.1.0	GC-MS	30 mg/kg	1000 mg/kg

[△]The limit is quoted from RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU.

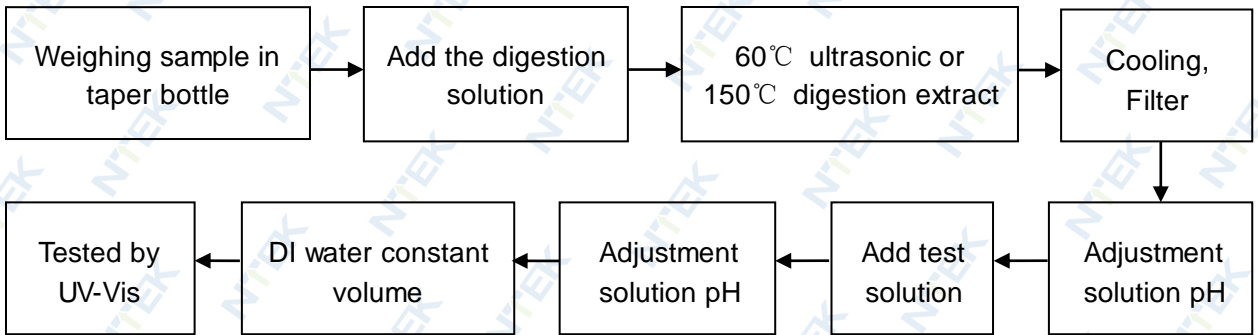
Test Flow:

1. Lead(Pb), Cadmium(Cd) , Mercury (Hg)

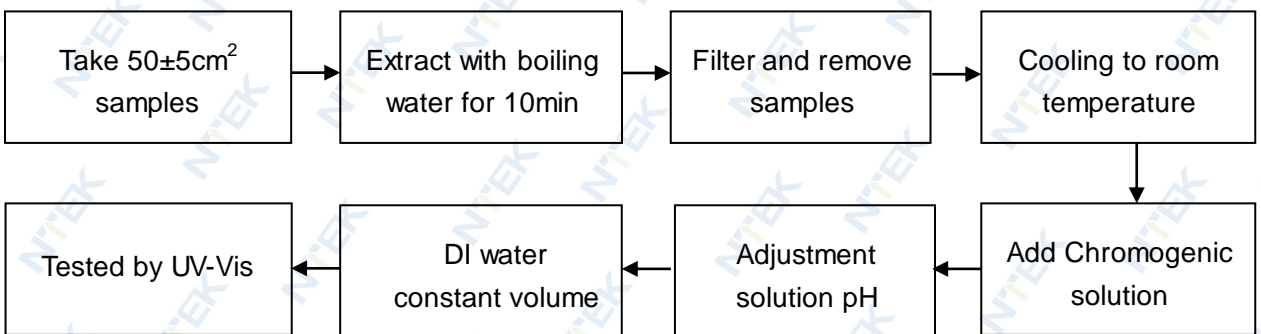


2. Hexavalent Chromium(Cr(VI))

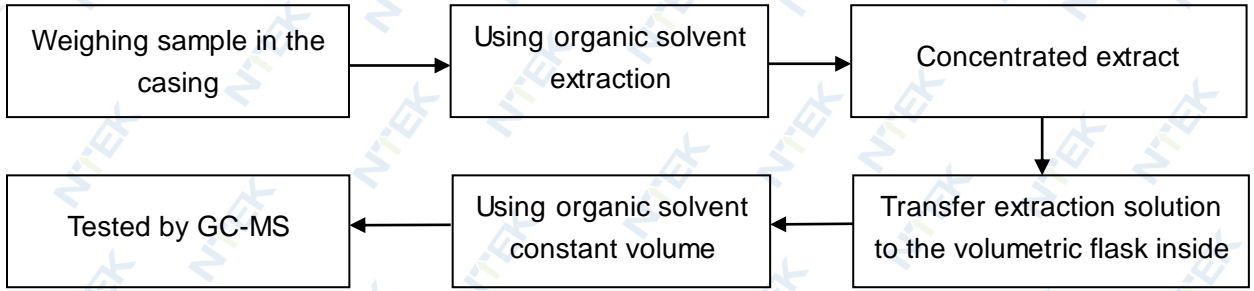
2.1 Non- metal sample(s)



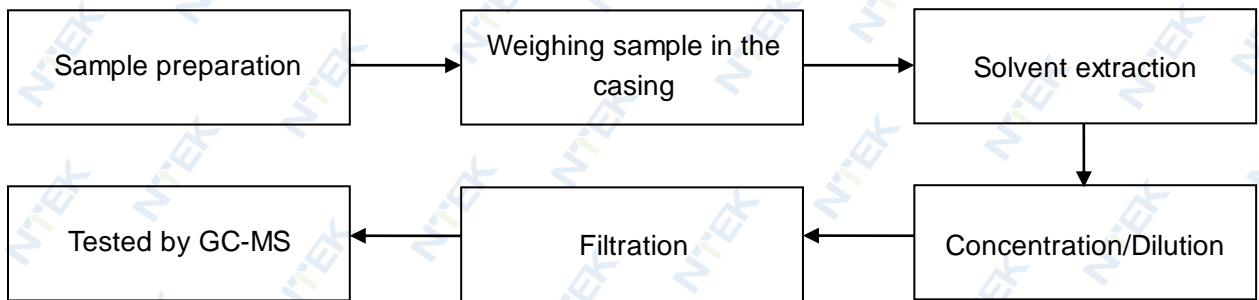
2.2 Metal sample(s)



3. PBBs/ PBDEs



4. Phthalates



Sample photo(s):



Fig.1(Finished photo)



Fig.2(Finished photo)



Fig.3



Fig.4



Fig.5



Fig.6



Fig.7

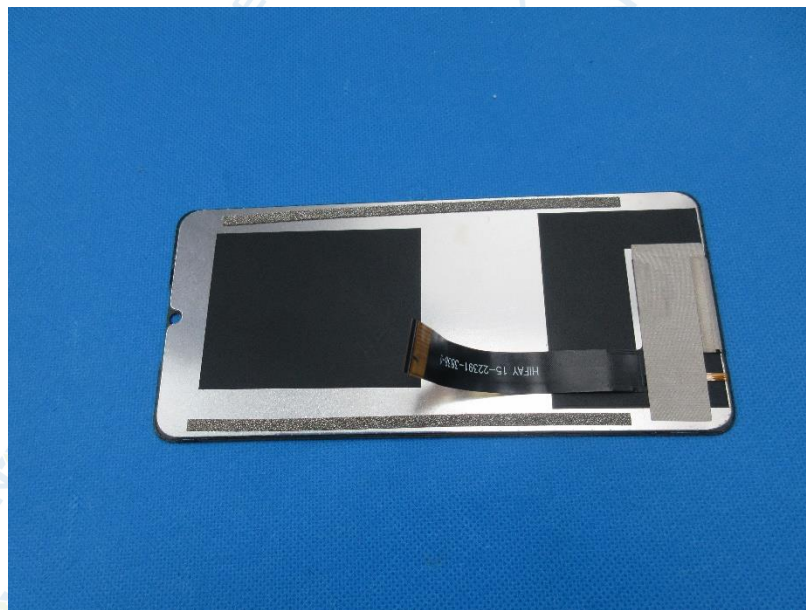


Fig.8



Fig.9

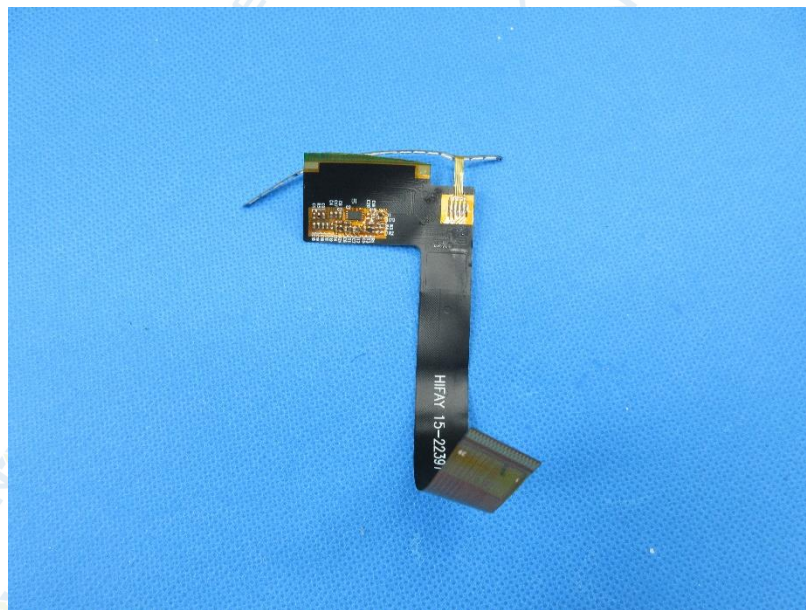


Fig.10

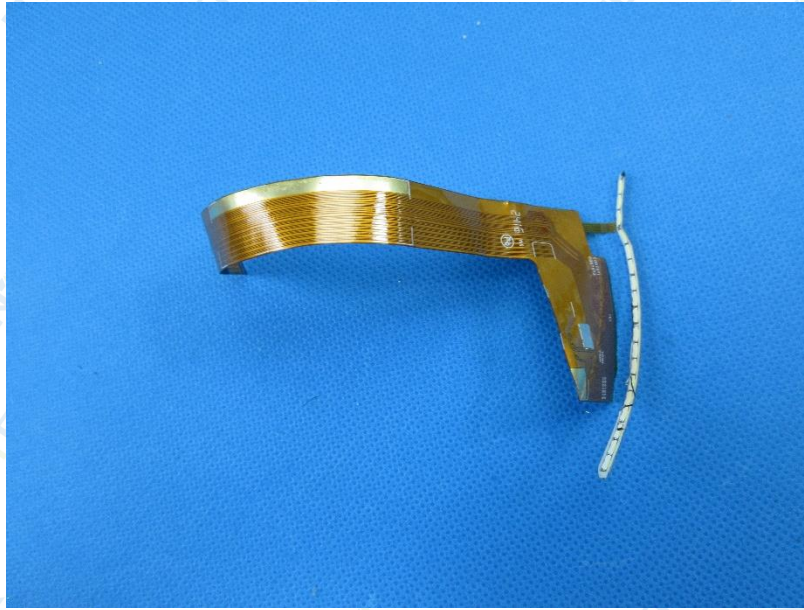


Fig.11



Fig.12



Fig.13



Fig.14



Fig.15



Fig.16

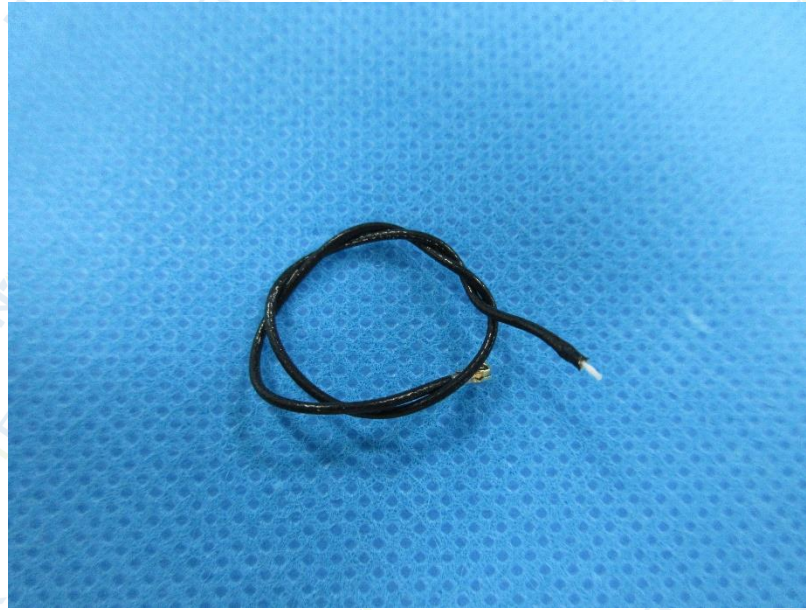


Fig.17



Fig.18



Fig.19



Fig.20

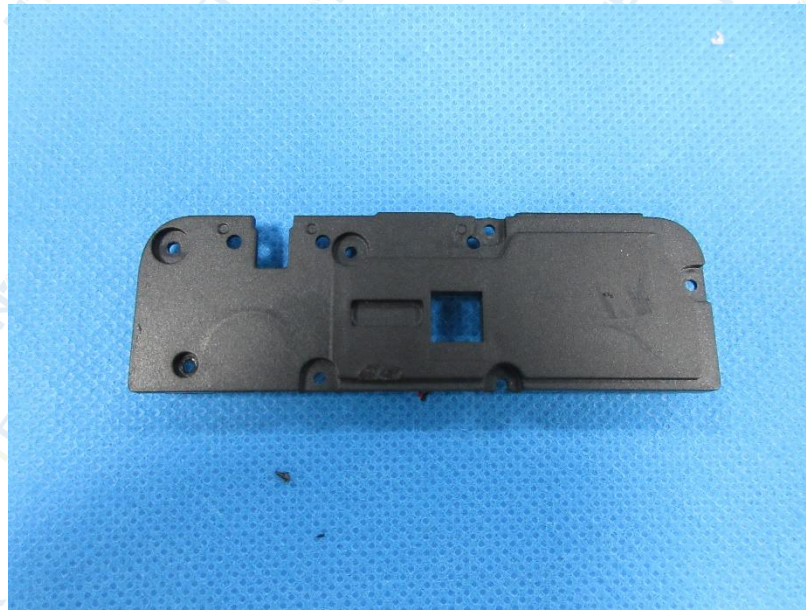


Fig.21



Fig.22

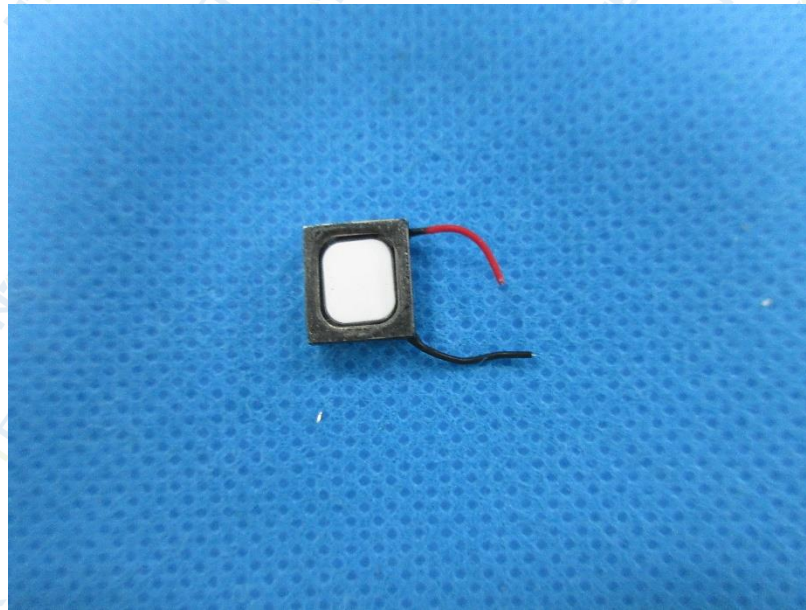


Fig.23

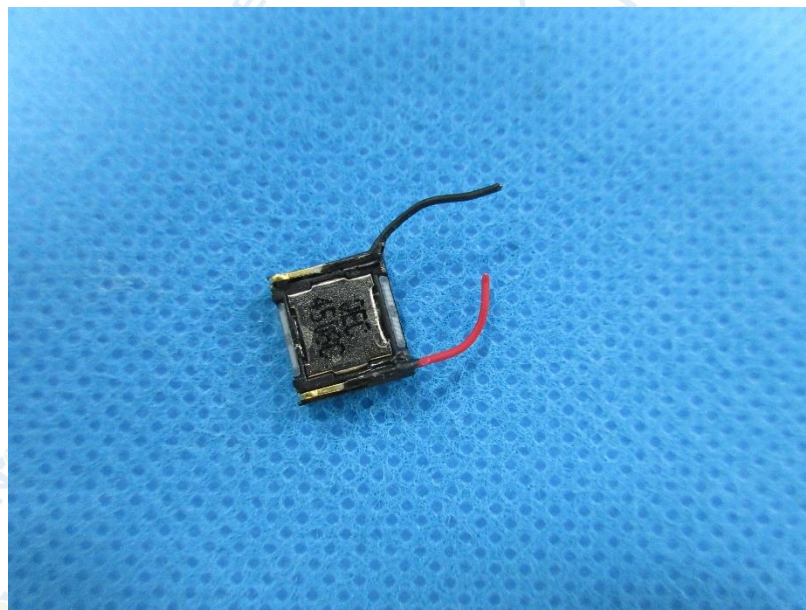


Fig.24

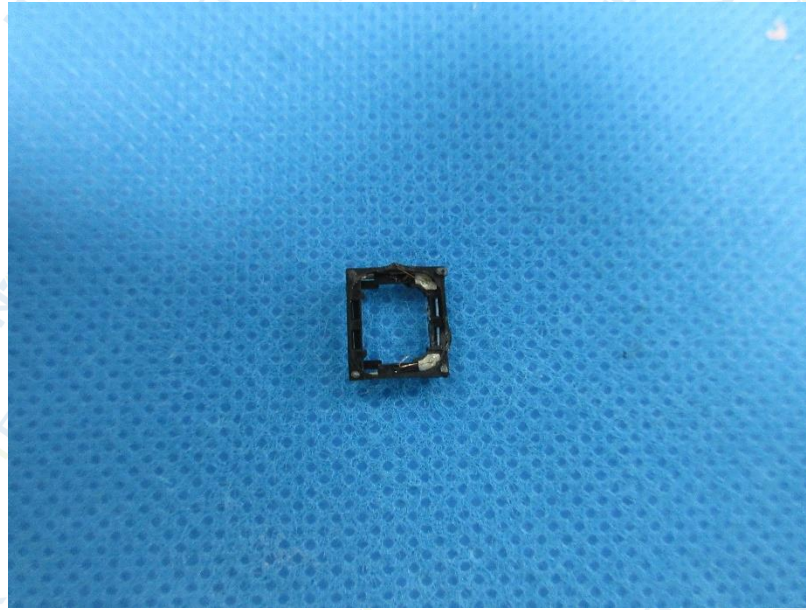


Fig.25

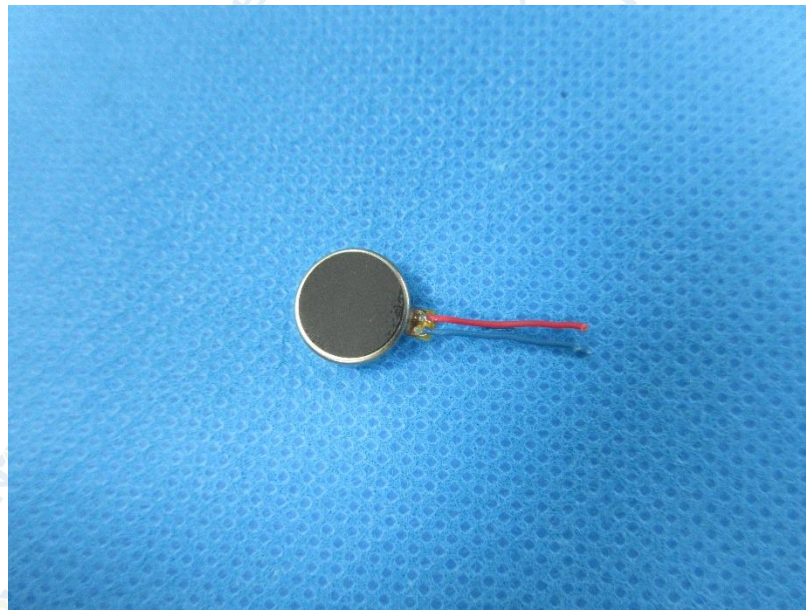


Fig.26

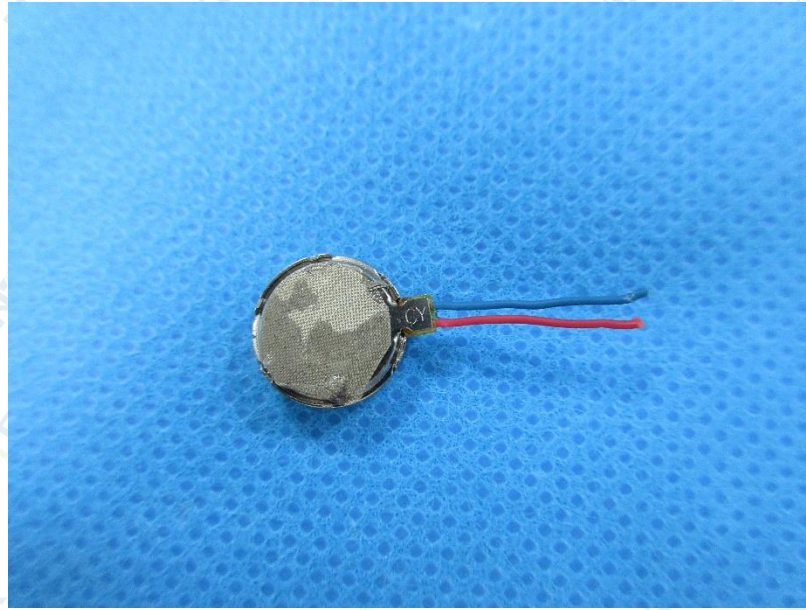


Fig.27

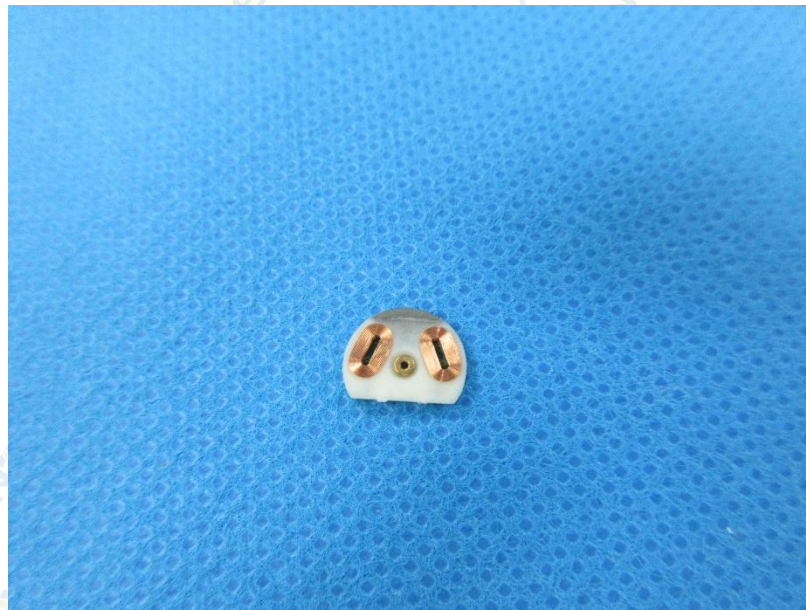


Fig.28

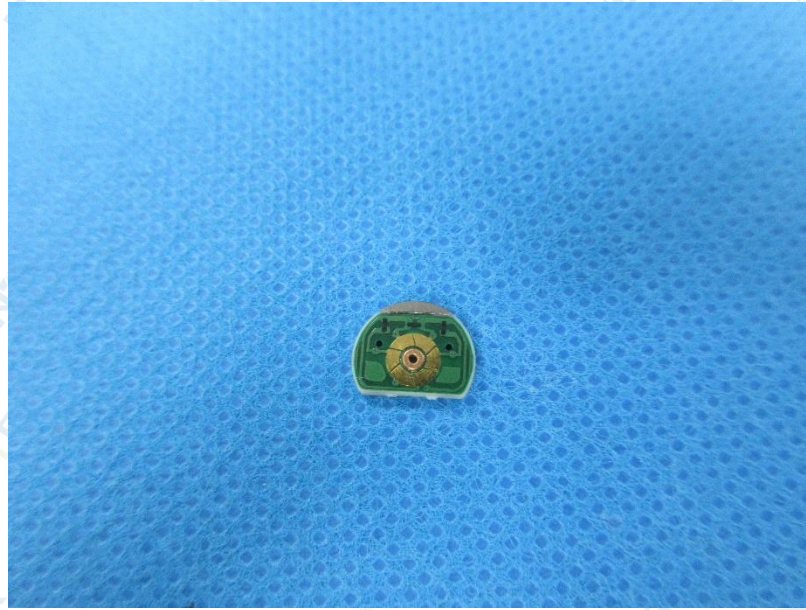


Fig.29

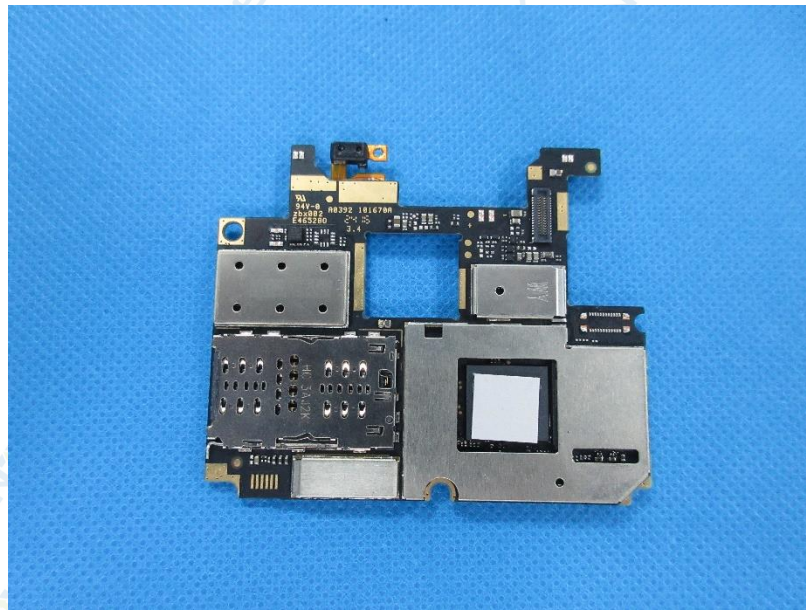


Fig.30

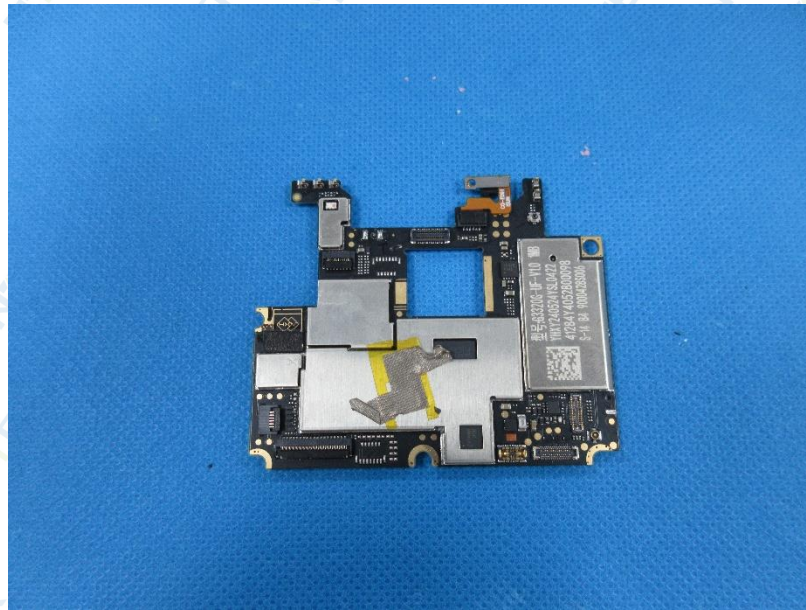


Fig.31

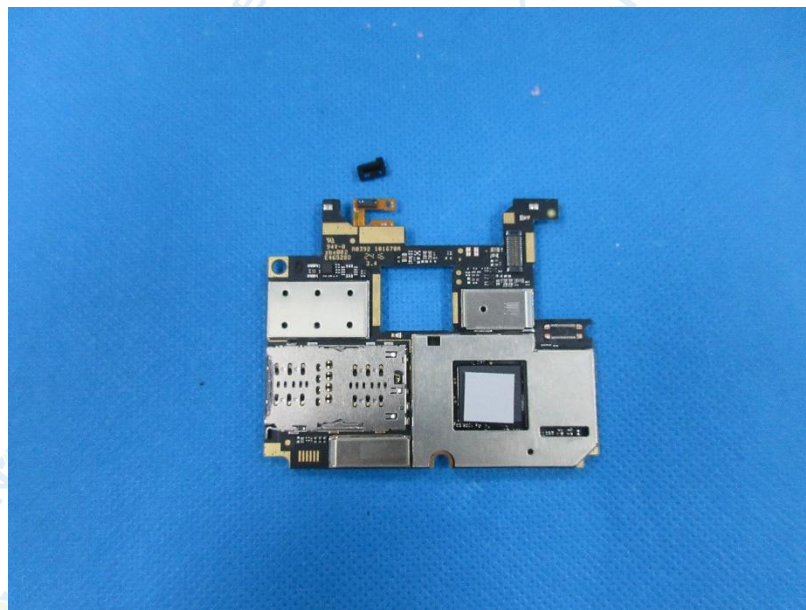


Fig.32

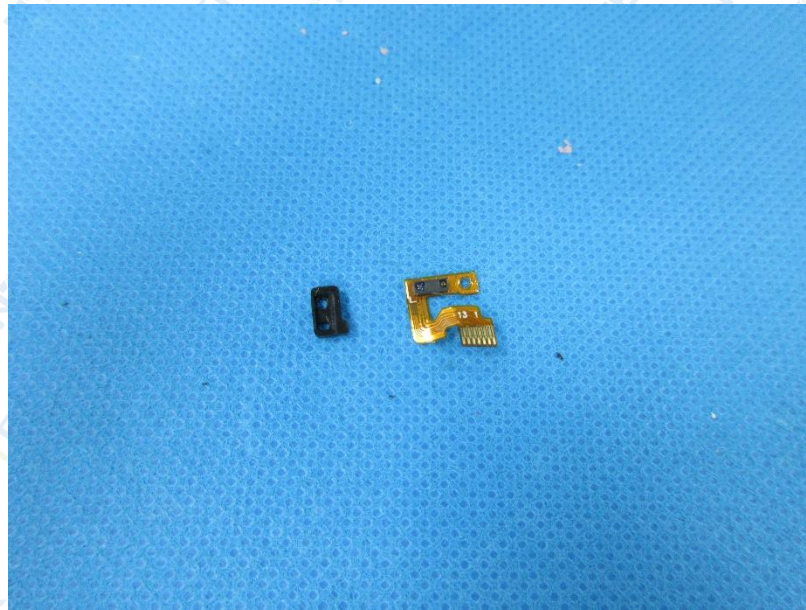


Fig.33

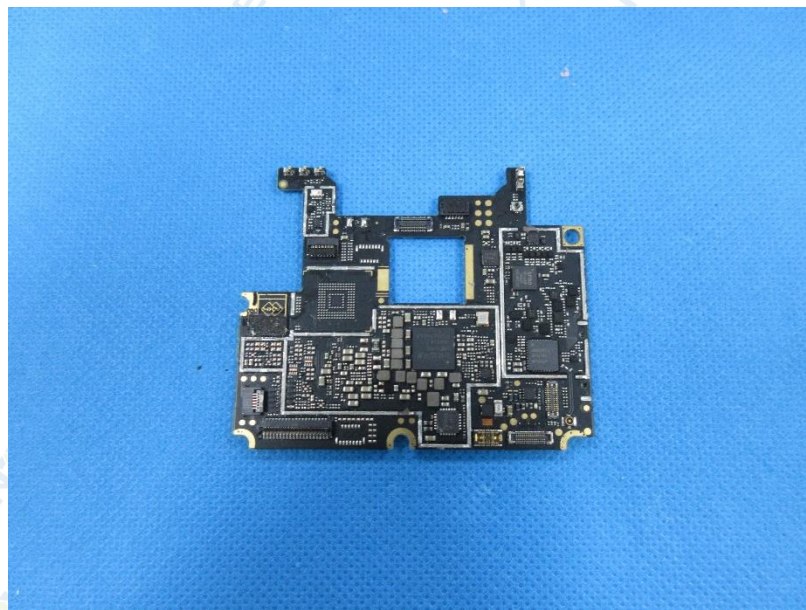


Fig.34



Fig.35

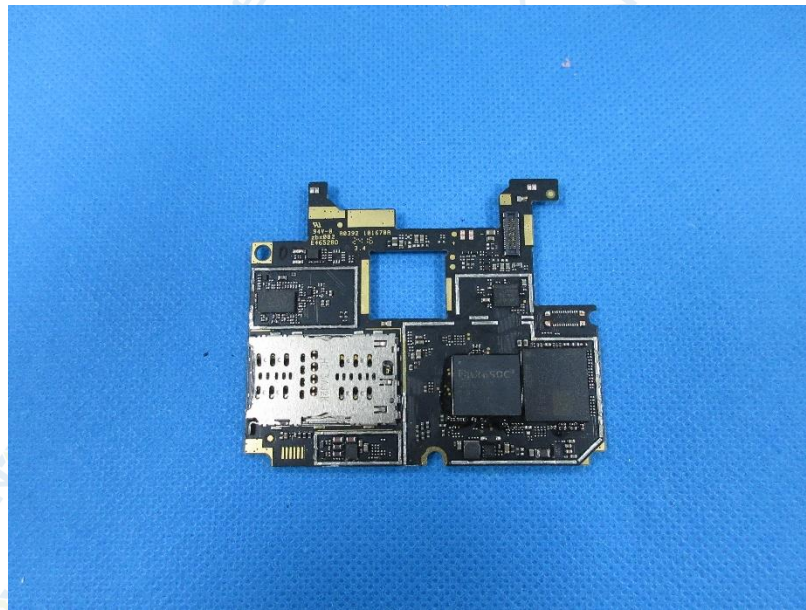


Fig.36



Fig.37

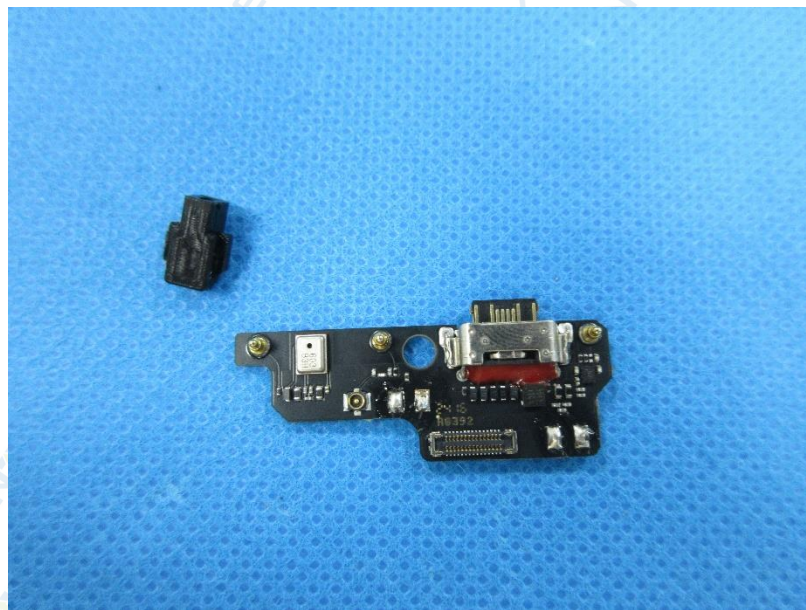


Fig.38

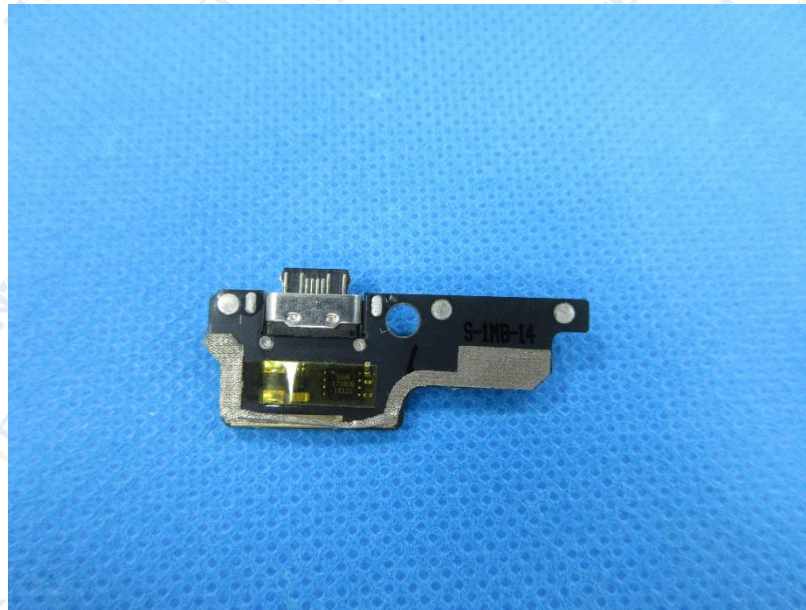


Fig.39

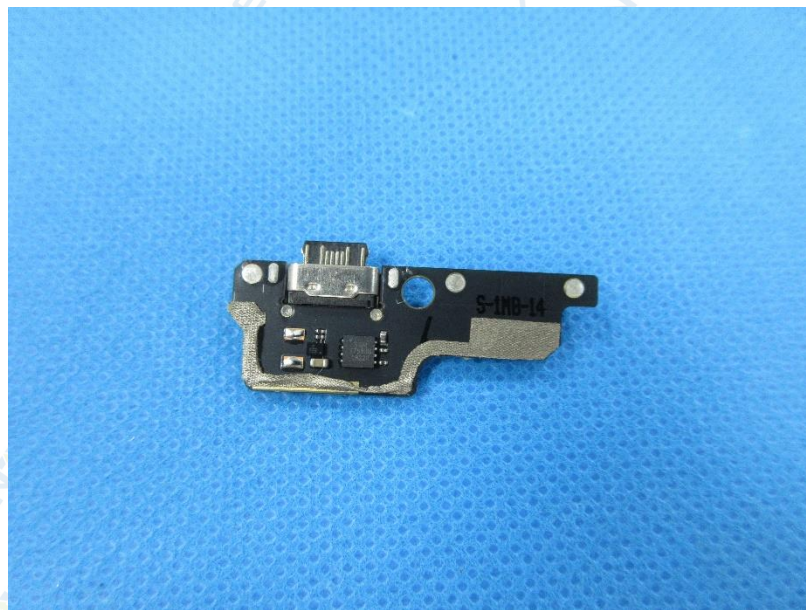


Fig.40



Fig.41



Fig.42



Fig.43



Fig.44



Fig.45



Fig.46



Fig.47



Fig.48

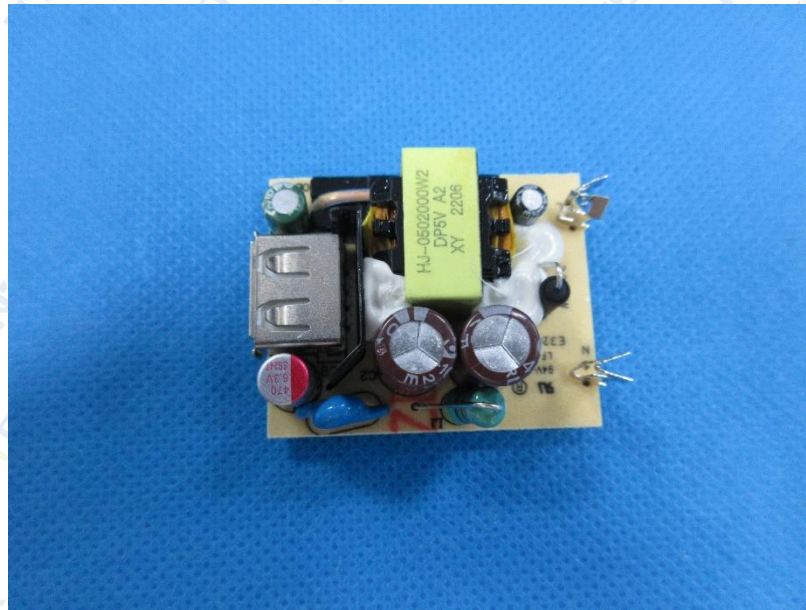


Fig.49

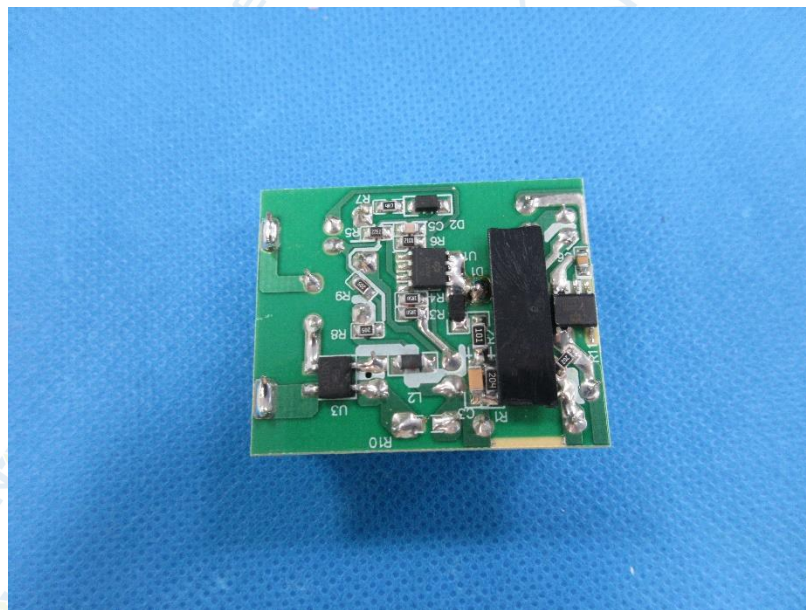


Fig.50

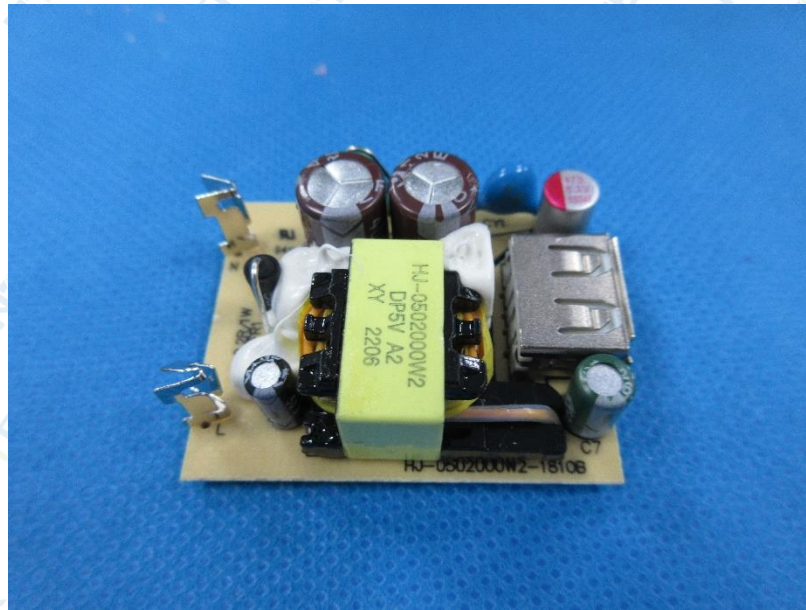


Fig.51

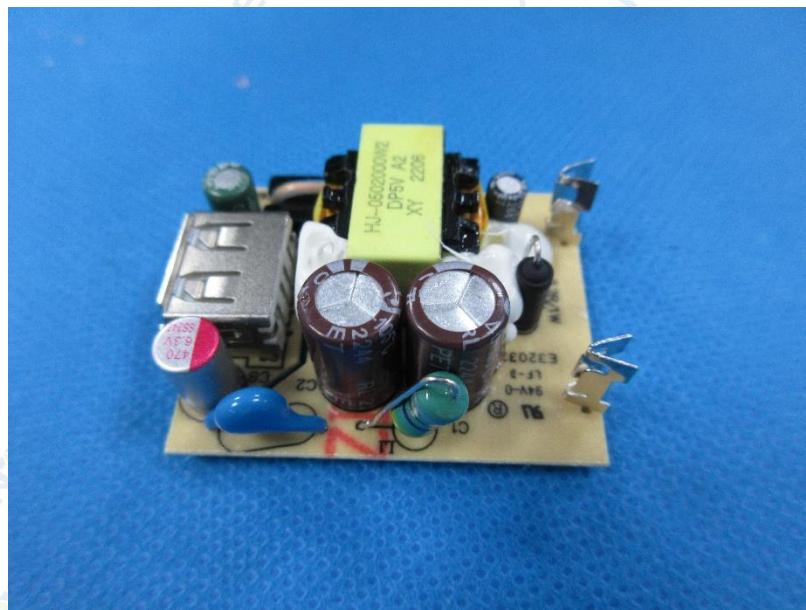


Fig.52

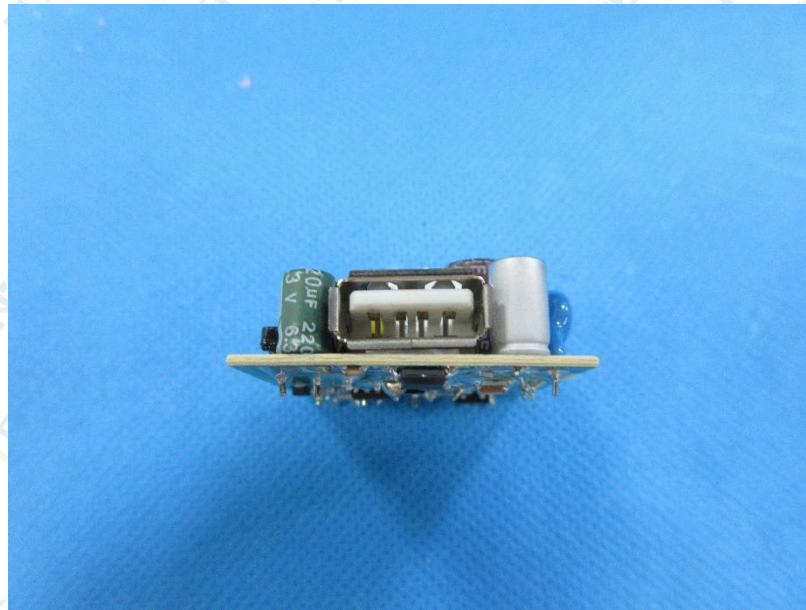


Fig.53

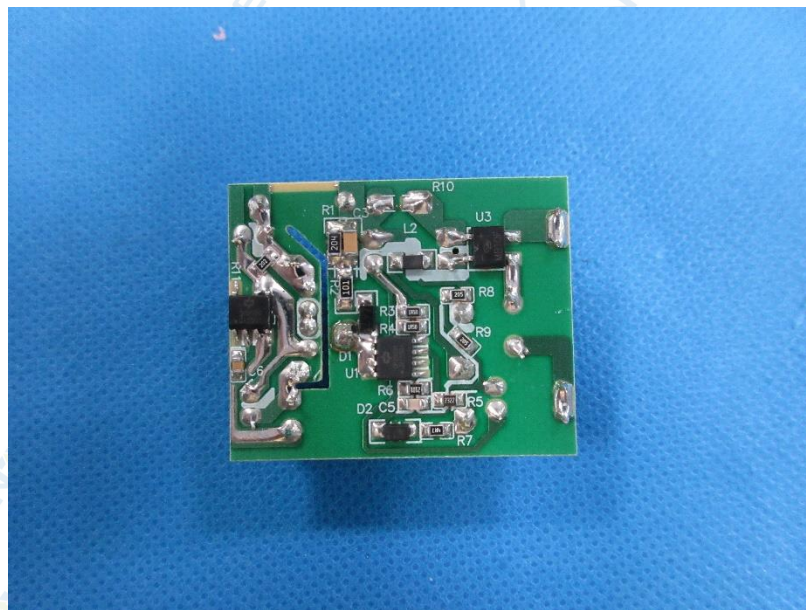


Fig.54



Fig.55

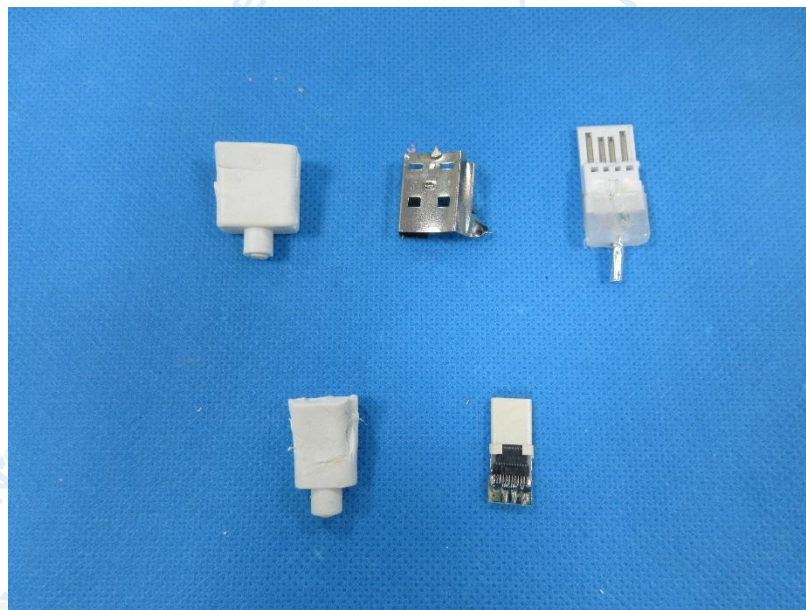


Fig.56



Fig.57



Fig.58



Fig.59



Fig.60

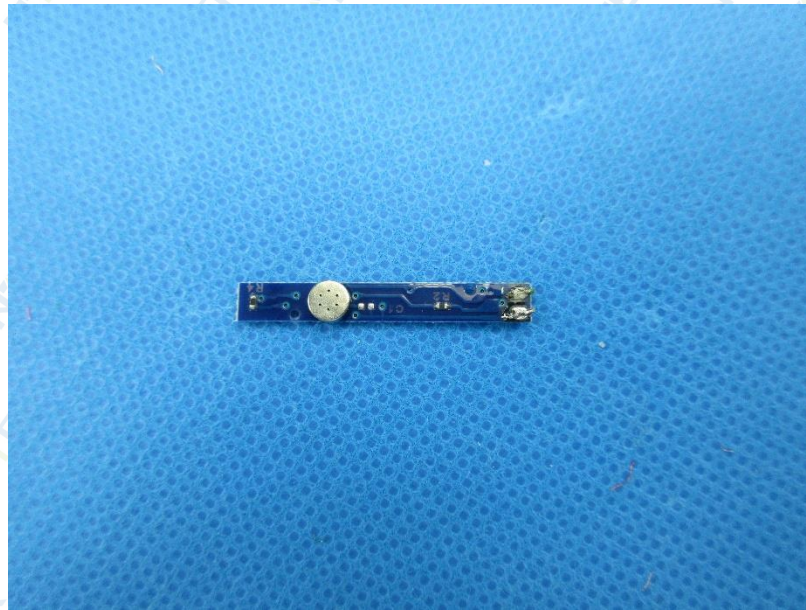


Fig.61

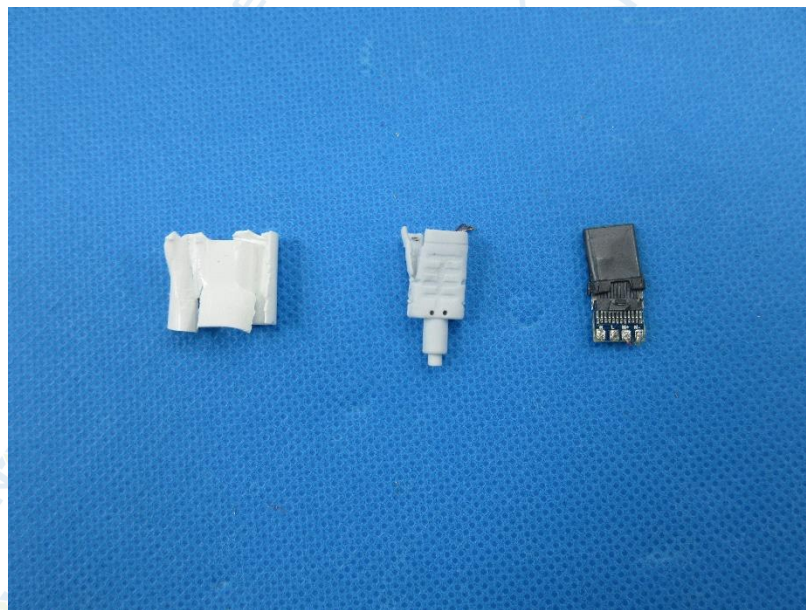


Fig.62

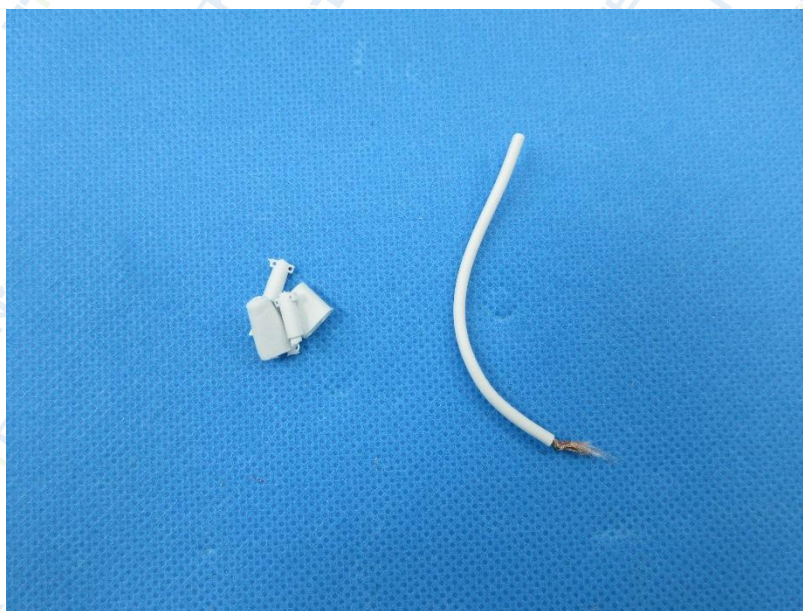


Fig.63

****End of Report****

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