

TEST REPORT

Applicant: Dongguan Habotest Instrument Technology Co., Ltd.
Address: No.8, 4th Qinghu Xingye Road, Qingxi Town, Dongguan City, Guangdong Province, China

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

Sample name: MULTI-FIELD EMF METER
Test Sample Model: HT627
Trade mark: HABOTEST
Manufacturer: Dongguan Habotest Instrument Technology Co., Ltd.
Address: No.8, 4th Qinghu Xingye Road, Qingxi Town, Dongguan City, Guangdong Province, China

Sample No.: S2601290057-1#
Sample Received Date: 2026-03-05
Testing Period: 2026-03-05~2026-04-07

Test Requirement:

As specified by the client, the contents of 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) in the submitted samples were determined in accordance with the IEC 62321 series. The technical documentation was assessed against EN IEC 63000:2018 to demonstrate conformity 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: _____

Reviewed by: _____

Approved by: _____

Date: _____

2026-04-22

Sample Description:

No.	Part name	Sample description
1	Shell	Black plastic case
2		Transparent plastic sheet cover with colorful printing
3		Transparent double-sided tape
4		White soft rubber plug
5		Gray soft rubber buttons
6		Red soft rubber buttons
7		Black soft rubber foot pads
8		Red soft rubber side stickers
9		White sticker with printing
10		Black adhesive tape with printing
11		Silver metal spring
12		Silver metal spring seat
13		Black metal long screw
14		Black metal short screw
15	Screen	Gray transparent adhesive tape
16		Pink/black soft rubber strip
17		Transparent plastic sheet
18		Silver/gray adhesive tape
19		White adhesive paper
20		Transparent double-layer glass sheet
21		Silver adhesive tape
22		Black adhesive strip
23		Black wire insulation
24		Copper metal wire core
25		Orange wire insulation
26		Tangerine wire insulation
27		Dark green wire insulation
28		White PCB board
29		White PCB board solder
30		Transparent adhesive
31	PCB board	Silver metal sheet
32		Inductor black sleeve
33		Inductor copper enamel wire
34		Inductor black magnetic ring
35		Inductor silver metal pins
36		Black SMD IC
37		Light brown SMD capacitor
38		Black SMD resistor
39		Black SMD diode

No.	Part name	Sample description
40	PCB board	Black integrated chip
41		Black SMD transistor
42		Brown SMD capacitor
43		Silver metal spring
44		Yellow SMD tantalum capacitor
45		Black SMD IC
46		Black SMD IC
47		Buzzer black plastic case
48		Buzzer silver metal diaphragm
49		Buzzer silver metal gasket
50		Buzzer black magnetic ring
51		Buzzer copper metal wire
52		Buzzer wired metal base
53		Buzzer green PCB board
54		Buzzer green PCB board solder
55		Buzzer silver metal pins
56		Black SMD IC
57		White SMD LED
58		Cyan PCB board
59		Cyan PCB board solder

Test Result(s):

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

1. XRF Screening Result

No.	XRF Screening Result (mg/kg)					Conclusion
	Pb	Cd	Hg	Cr	Br	
1	BL	BL	BL	BL	BL	Pass
2	BL	BL	BL	BL	BL	Pass
3	BL	BL	BL	BL	BL	Pass
4	BL	BL	BL	BL	BL	Pass
5	BL	BL	BL	BL	BL	Pass
6	BL	BL	BL	BL	BL	Pass
7	BL	BL	BL	BL	BL	Pass
8	BL	BL	BL	BL	BL	Pass
9	BL	BL	BL	BL	BL	Pass
10	BL	BL	BL	BL	BL	Pass
11	BL	BL	BL	IN	/	IN
12	BL	BL	BL	BL	/	Pass

No.	XRF Screening Result (mg/kg)					Conclusion
	Pb	Cd	Hg	Cr	Br	
13	BL	BL	BL	BL	/	Pass
14	BL	BL	BL	BL	/	Pass
15	BL	BL	BL	BL	BL	Pass
16	BL	BL	BL	BL	BL	Pass
17	BL	BL	BL	BL	BL	Pass
18	BL	BL	BL	BL	BL	Pass
19	BL	BL	BL	BL	BL	Pass
20	BL	BL	BL	BL	BL	Pass
21	BL	BL	BL	BL	BL	Pass
22	BL	BL	BL	BL	BL	Pass
23	BL	BL	BL	BL	BL	Pass
24	BL	BL	BL	BL	/	Pass
25	BL	BL	BL	BL	BL	Pass
26	BL	BL	BL	BL	BL	Pass
27	BL	BL	BL	BL	BL	Pass
28	BL	BL	BL	BL	IN	IN
29	BL	BL	BL	BL	/	Pass
30	BL	BL	BL	BL	BL	Pass
31	BL	BL	BL	BL	/	Pass
32	BL	BL	BL	BL	BL	Pass
33	BL	BL	BL	BL	BL	Pass
34	BL	BL	BL	IN	BL	IN
35	BL	BL	BL	BL	/	Pass
36	BL	BL	BL	BL	BL	Pass
37	BL	BL	BL	BL	BL	Pass
38	BL	BL	BL	BL	BL	Pass
39	BL	BL	BL	BL	BL	Pass
40	BL	BL	BL	BL	BL	Pass
41	BL	BL	BL	BL	BL	Pass
42	BL	BL	BL	BL	BL	Pass
43	BL	BL	BL	BL	/	Pass
44	BL	BL	BL	BL	BL	Pass
45	BL	BL	BL	BL	BL	Pass
46	BL	BL	BL	BL	BL	Pass
47	BL	BL	BL	BL	IN	IN
48	BL	BL	BL	BL	/	Pass

No.	XRF Screening Result (mg/kg)					Conclusion
	Pb	Cd	Hg	Cr	Br	
49	BL	BL	BL	BL	/	Pass
50	BL	BL	BL	BL	BL	Pass
51	BL	BL	BL	BL	/	Pass
52	BL	BL	BL	BL	/	Pass
53	BL	BL	BL	BL	BL	Pass
54	BL	BL	BL	BL	/	Pass
55	BL	BL	BL	BL	/	Pass
56	BL	BL	BL	BL	BL	Pass
57	BL	BL	BL	BL	BL	Pass
58	BL	BL	BL	BL	IN	IN
59	BL	BL	BL	BL	/	Pass

2.Chemical Test Result

No.	Chemical Test Result (mg/kg)						Conclusion
	Pb	Cd	Hg	Cr(VI)	PBBs	PBDEs	
11	/	/	/	N.D.	/	/	Pass
28	/	/	/	/	N.D.	N.D.	Pass
34	/	/	/	N.D.	/	/	Pass
47	/	/	/	/	N.D.	N.D.	Pass
58	/	/	/	/	N.D.	N.D.	Pass

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

No.	Test Items Result (mg/kg)				Conclusion
	DEHP	BBP	DBP	DIBP	
1+47+28+53+58	N.D.	N.D.	N.D.	N.D.	Pass
2+3+8+9+10	N.D.	N.D.	N.D.	N.D.	Pass
4+5+6+7+16	N.D.	N.D.	N.D.	N.D.	Pass
15+18+19+21+22	N.D.	N.D.	N.D.	N.D.	Pass
23+25+26+27+32	N.D.	N.D.	N.D.	N.D.	Pass
30+33+57+40+17	N.D.	N.D.	N.D.	N.D.	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.

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 ^Δ
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 μg/cm ²	1000 mg/kg
	IEC 62321-7-2:2017 Ed.1.0		8 mg/kg	
Polybrominated Biphenyls(PBBs)	IEC 62321-12:2023 Ed.1.0	GC-MS	5 mg/kg	1000 mg/kg
Polybrominated, Diphenyl Ethers(PBDEs)	IEC 62321-12:2023 Ed.1.0	GC-MS	5 mg/kg	1000 mg/kg
Bis-(2-ethylhexyl) Phthalate (DEHP)	IEC 62321-12:2023 Ed.1.0	GC-MS	30 mg/kg	1000 mg/kg
Benzyl butyl Phthalate (BBP)	IEC 62321-12:2023 Ed.1.0	GC-MS	30 mg/kg	1000 mg/kg
Dibutyl Phthalate (DBP)	IEC 62321-12:2023 Ed.1.0	GC-MS	30 mg/kg	1000 mg/kg
Diisobutyl Phthalate (DIBP)	IEC 62321-12:2023 Ed.1.0	GC-MS	30 mg/kg	1000 mg/kg

^ΔThe limit is quoted from RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU.

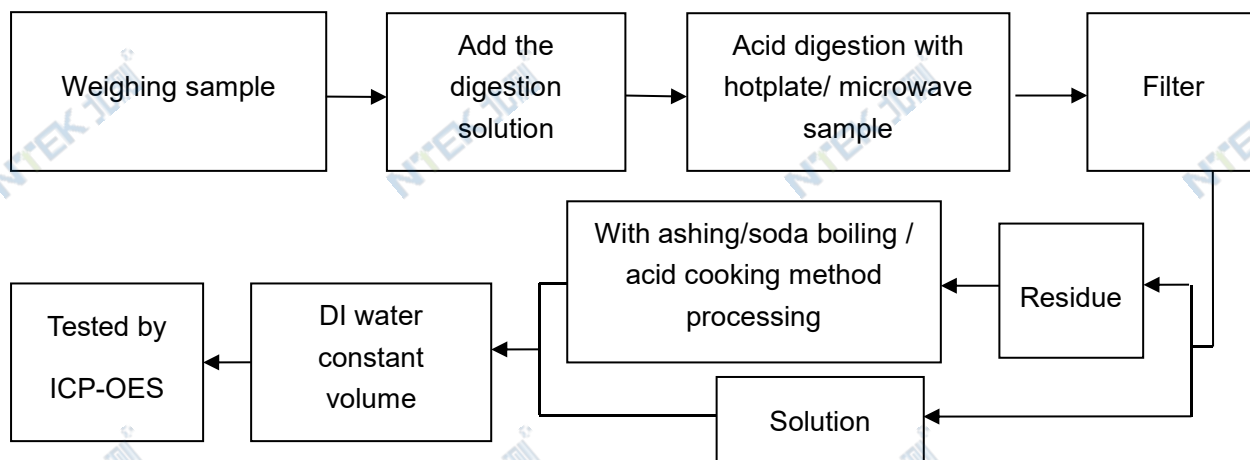
Test instrument:

Test instrument	Instrument model	Calibration effective date
EDXRF	EDX-1800E	2027-03-05
GC-MS	QP-2010	2026-10-24
UV-vis	T6	2026-06-03

Test Flow:

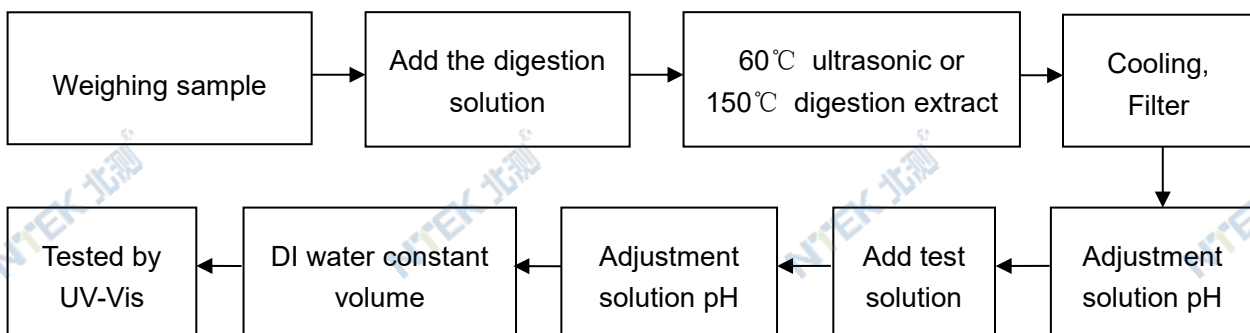
1. Lead(Pb), Cadmium(Cd) , Mercury (Hg)

The sample is completely digested according to the procedure described below

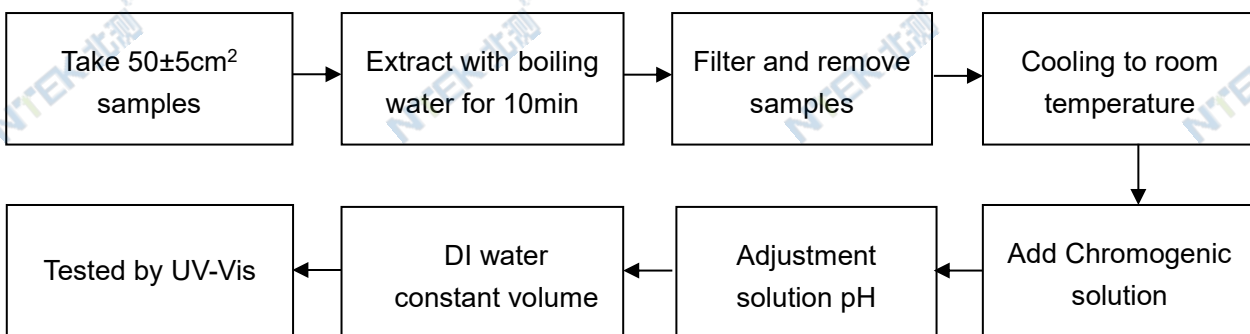


2. Hexavalent Chromium(Cr(VI))

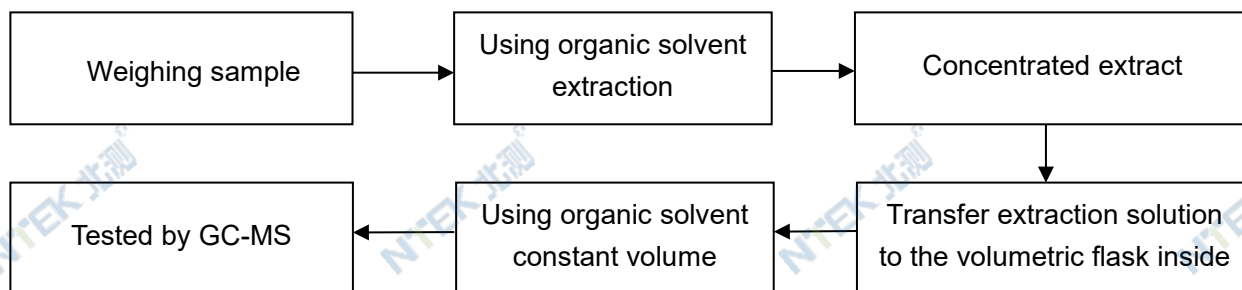
2.1 Non- metal sample(s)



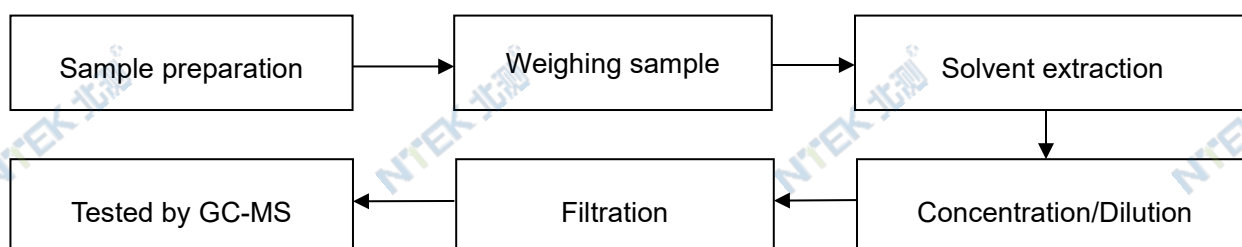
2.2 Metal sample(s)



3. PBBs/ PBDEs



4. Phthalates



Sample photo(s):



Fig.1(Finished photo)



Fig.2

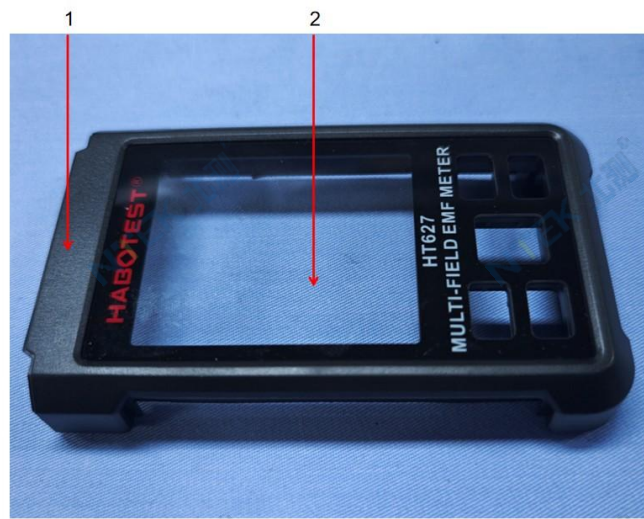


Fig.3

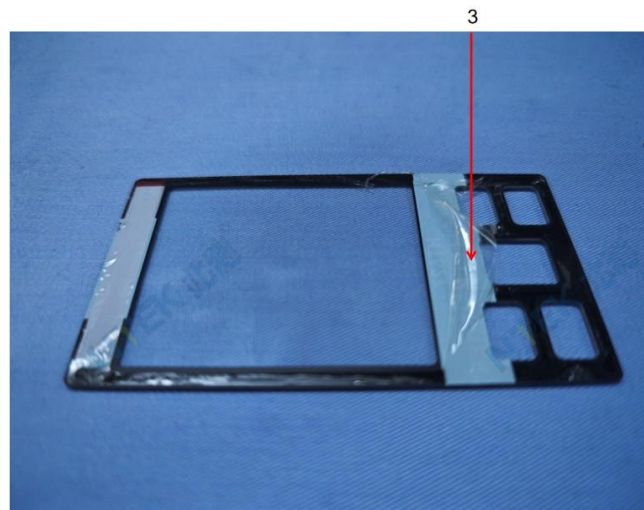


Fig.4

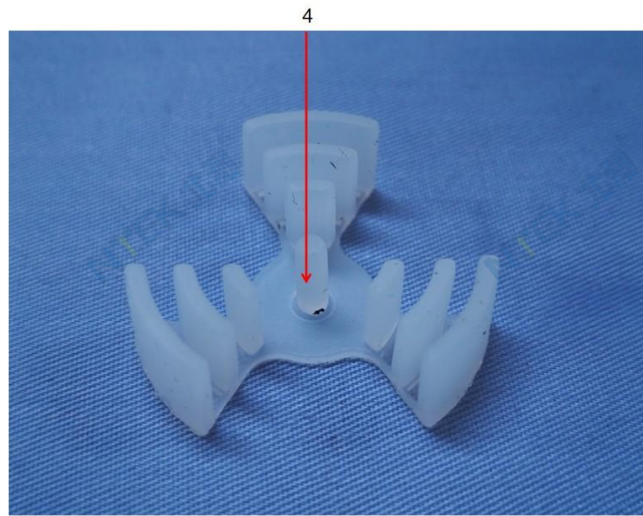


Fig.5

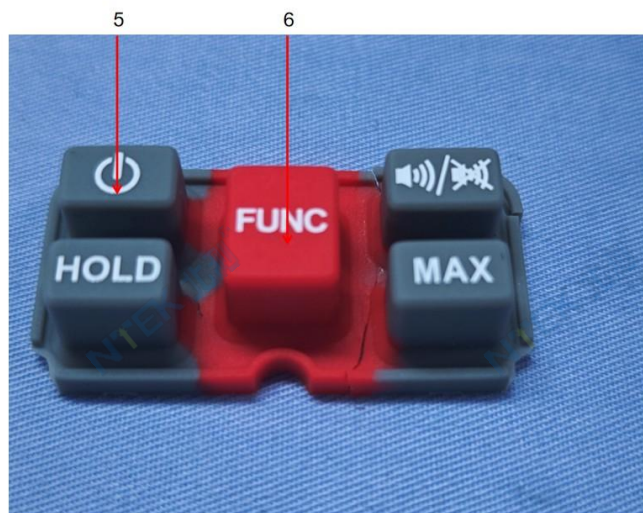


Fig.6

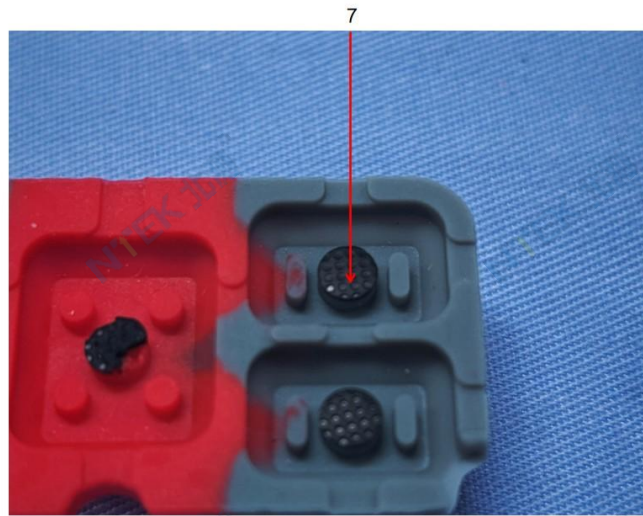


Fig.7

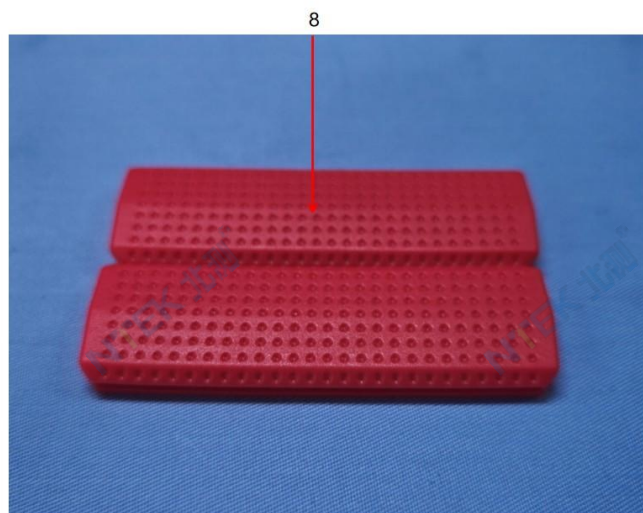


Fig.8



Fig.9

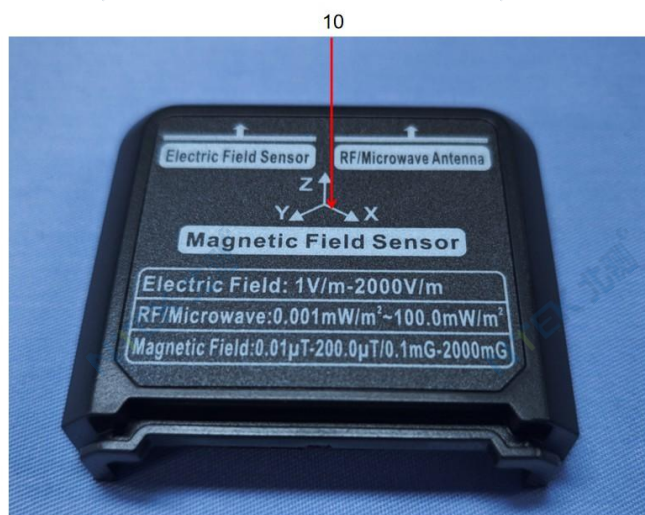


Fig.10

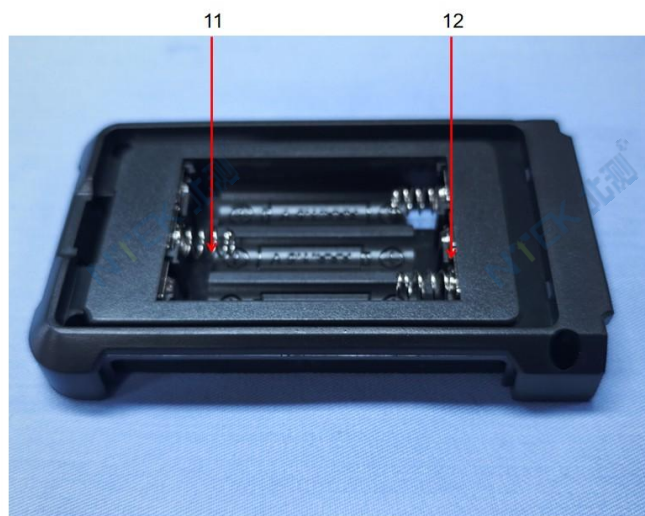


Fig.11

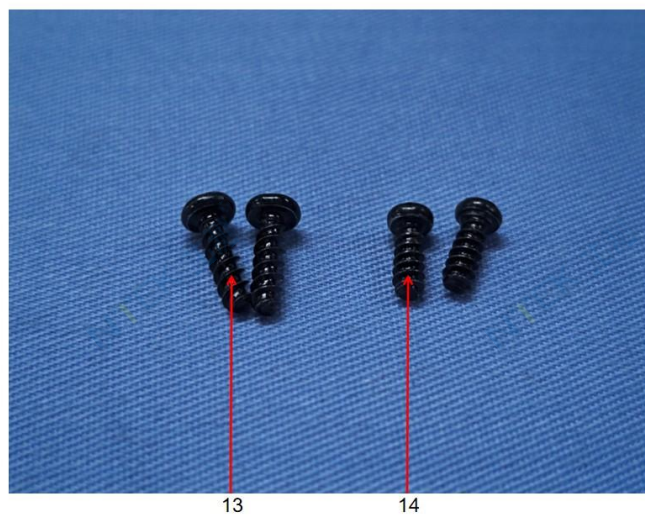


Fig.12

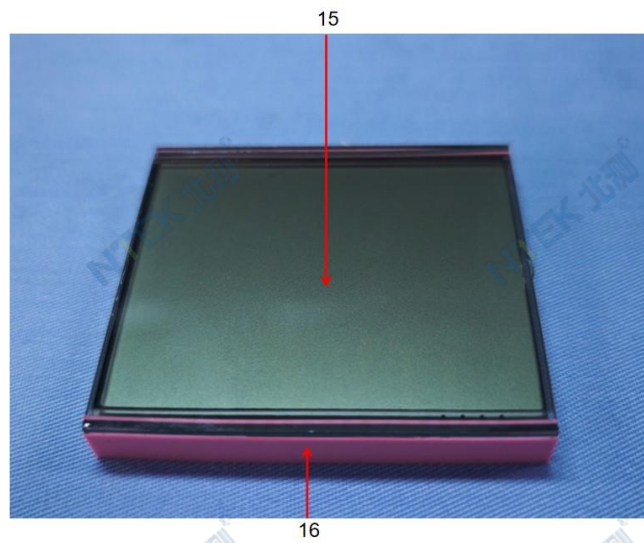


Fig.13

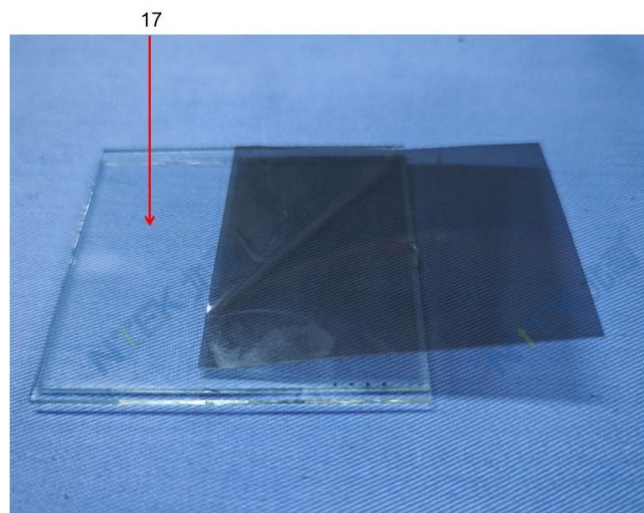


Fig.14

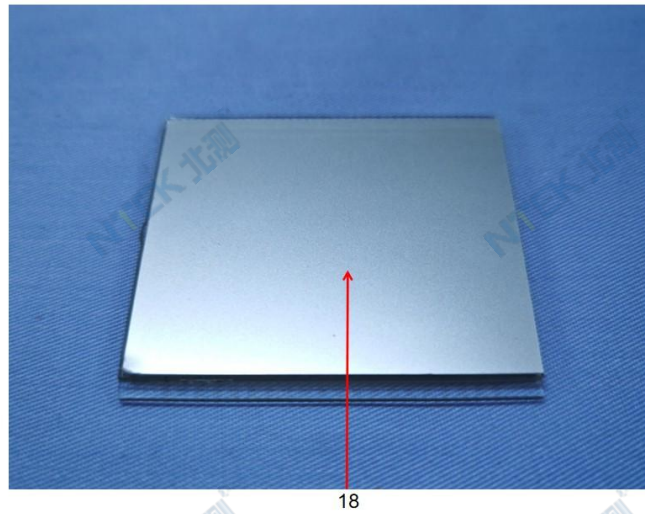


Fig.15

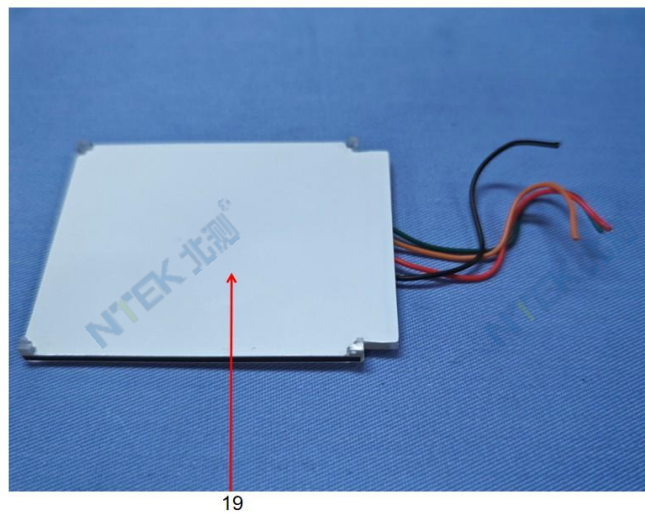


Fig.16

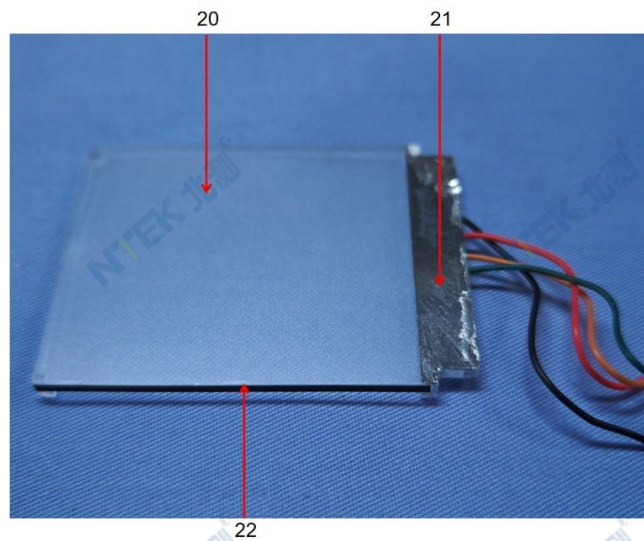


Fig.17

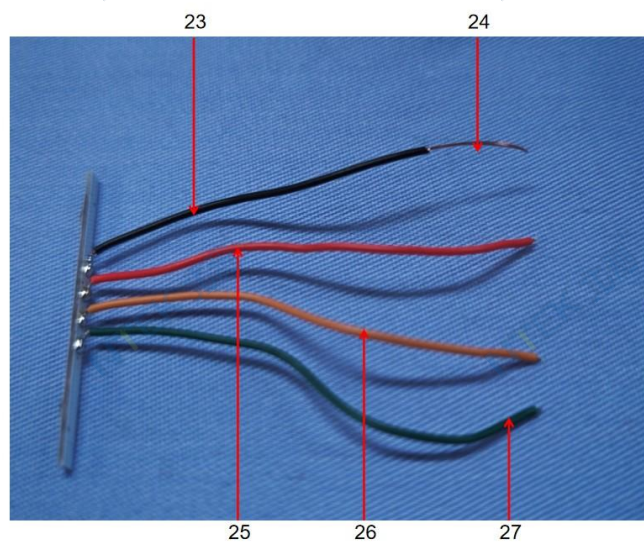


Fig.18

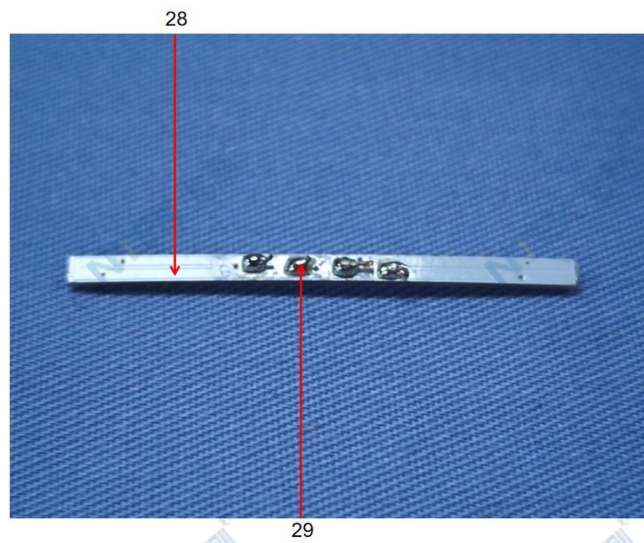


Fig.19

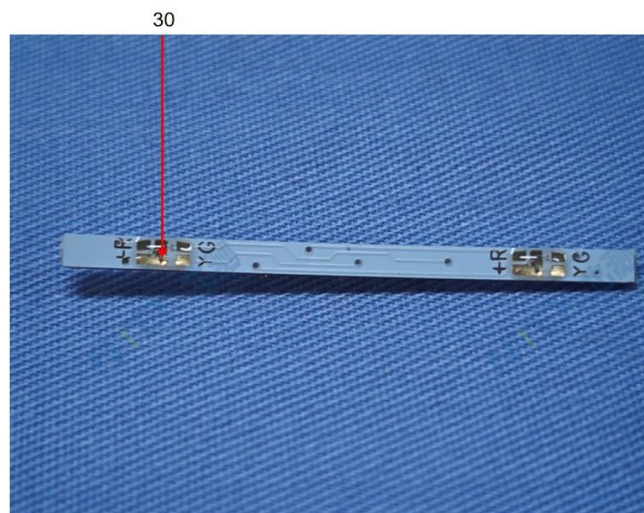


Fig.20

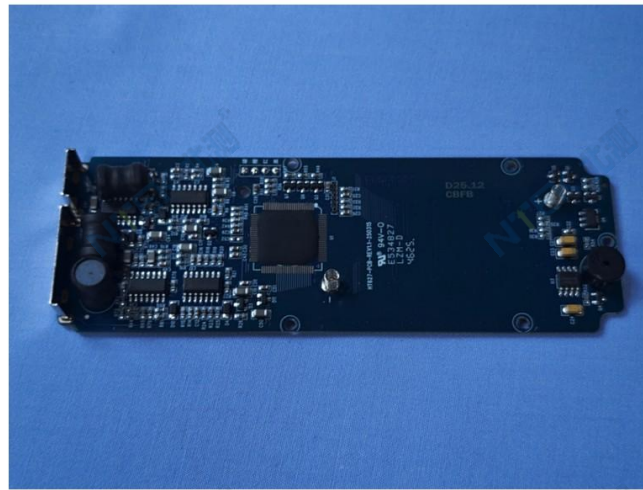


Fig.21

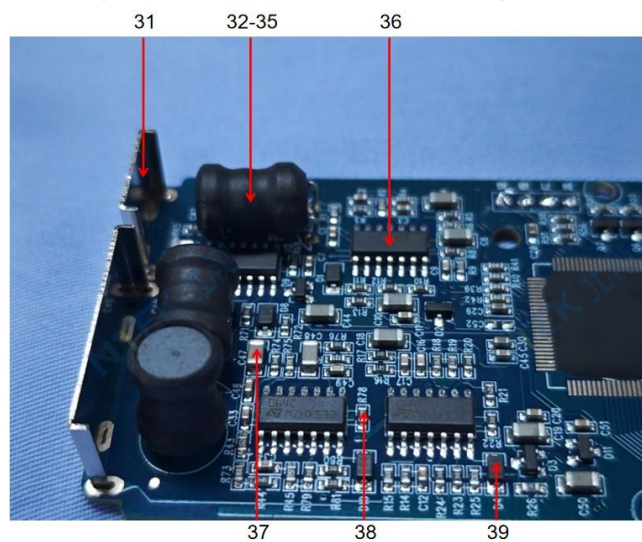


Fig.22

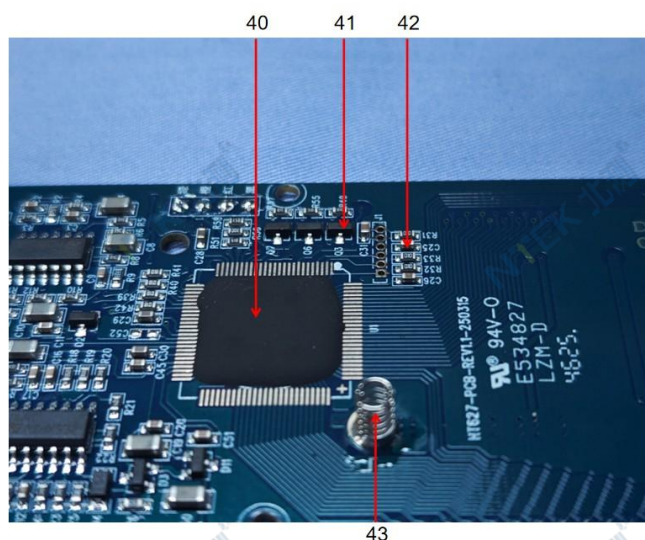


Fig.23

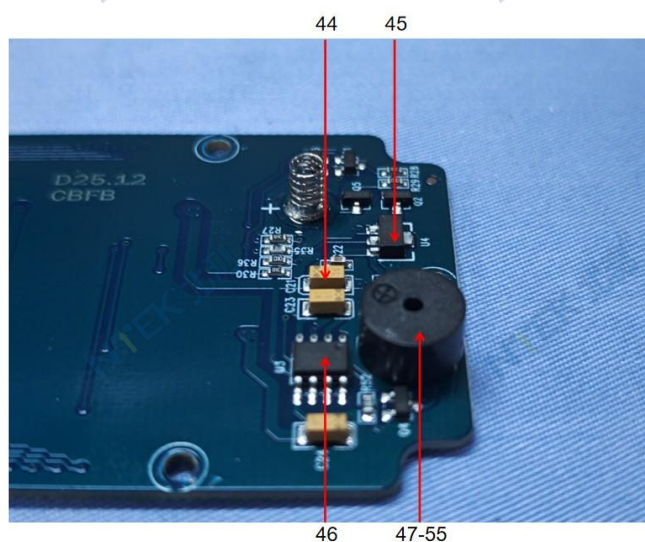


Fig.24

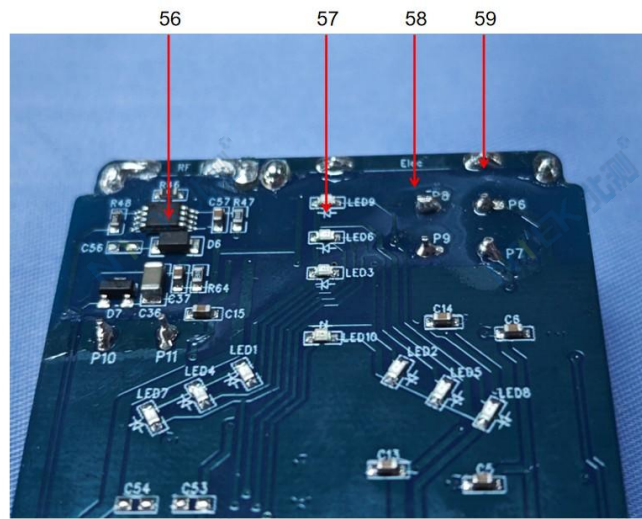


Fig.25

****End of Report****

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