



# Test Report



**Report No.: MTi211109013-05C1**



**Date of Issue: December 01, 2021**



**Client: Beijing Veikk E-commerce Co., Ltd**

**Product: Pen Display**

**Test Type: Commissioned Inspection**



**Shenzhen Microtest Co., Ltd.**

<http://www.mtitest.com>





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<b>Basic Information</b>			
Client	Beijing Veikk E-commerce Co., Ltd		
Client Address	Room 302, Building 10, Machikou Village, Machikou Town, Changping District, Beijing, China		
Manufacturer	Shenzhen Hezon Lito Technology Co., Ltd.		
Manufacturer Address	C3, No. 45 Shasan Road, Shasan Community, Shajing Street, Baoan District, Shenzhen, China		
<b>Sample Information</b>			
Product	Pen Display	Model	VK2200PRO
Serial Model	/	Brand/ Trademark	VEIKK
Sample Number	1	Sample Description	/
<b>Testing Information</b>			
Sample Receive Date	November 22, 2021	Sample Source	Customer provided
Test Specification	With reference to RoHS Directive (EU) 2015/863 amending 2011/65/EU .		
Date of Tests	November 22, 2021- November 26, 2021		
Test Address	Chemistry lab		
Test Results:	Please refer to next page(s).		
Conclusion:	The submitted sample(s) complied with the Lead, Cadmium, Mercury, Hexavalent Chromium, PBBs, PBDEs, DBP, BBP, DEHP, DIBP content requirement according to RoHS Directive (EU) 2015/863 amending 2011/65/EU.		
Compiled:	<i>Noak Zhang</i>	Reviewed:	<i>Tobey Lin</i> Approved: <i>olina</i>

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**Test Method:**

**1. With reference to IEC 62321-2:2013, review was performed for the samples disjunct from the submitted articles.**

**2. With reference to IEC 62321-1:2013, tests were performed for the samples indicated by**

**the photos in this report:**

**(1) With reference to IEC 62321-3-1:2013, screening by XRF spectroscopy.**

**(2) Wet chemical test method.**

**a. With reference to IEC 62321-5:2013, determination of Cadmium by ICP-OES.**

**b. With reference to IEC 62321-5:2013, determination of Lead by ICP-OES.**

**c. With reference to IEC 62321-4:2013+A1:2017, determination of Mercury by ICP-OES.**

**d. With reference to IEC 62321-7-1:2015 & IEC 62321-7-2:2017, determination of Hexavalent chromium by Colorimetric method using UV-Vis.**

**e. With reference to IEC 62321-6:2015, determination of PBBs and PBDEs by GC-MS.**

**3. With reference to IEC 62321-8: 2017, determination of phthalates by GC-MS.**

**Testing Result:**

Part No.	Sample Description	Test item	XRF Result	Chemical Test (mg/kg)	Conclusion
1	Silvery metal screw	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	
2	Silvery metal screw	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	
3	Silvery metal screw	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	
4	Silvery metal screw	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	X	N.D.	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	

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Part No.	Sample Description	Test item	XRF Result	Chemical Test (mg/kg)	Conclusion
5	Silvery metal screw	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	
6	Silvery metal screw	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	
7	Golden metal	Pb*	OL	33200*	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	
8	Black plastic	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	
9	Black metal	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	

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Part No.	Sample Description	Test item	XRF Result	Chemical Test (mg/kg)	Conclusion
10	Silvery metal	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	
11	Silvery metal	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	
12	Silvery metal spring	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	X	N.D.	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	
13	Silvery metal screw	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	
14	Silvery metal screw	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	X	N.D.	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	

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Part No.	Sample Description	Test item	XRF Result	Chemical Test (mg/kg)	Conclusion
15	Black metal	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	X	N.D.	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	
16	Black plastic shell	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	
17	Silvery switch	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	
18	LED	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	X	N.D.	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	
19	Flexible Flat Cable	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	X	N.D.	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	



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Part No.	Sample Description	Test item	XRF Result	Chemical Test (mg/kg)	Conclusion
20	Golden metal	Pb*	OL	30225*	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	
21	Black switch	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	
22	Green PCB	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	X	N.D.	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	
23	Solder	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	OL	N.D.	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	
24	Electrolytic capacitor	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	

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Part No.	Sample Description	Test item	XRF Result	Chemical Test (mg/kg)	Conclusion
25	Silvery interface	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	
26	Black interface	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	
27	Silvery interface	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	
28	Green PCB	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	
29	Inductor	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	X	N.D.	
		Br(PBBs&PBDEs)	BL	/	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	

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Part No.	Sample Description	Test item	XRF Result	Chemical Test (mg/kg)	Conclusion
30	Black IC	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	
31	The circular inductors	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	
32	Silvery interface	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	X	N.D.	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	
33	Black IC	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	
34	Green PCB	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	

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Part No.	Sample Description	Test item	XRF Result	Chemical Test (mg/kg)	Conclusion
35	Yellow Flexible Flat Cable	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	
36	White plastic	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	
37	Yellow Flexible Flat Cable	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	X	N.D.	
		Br(PBBs&PBDEs)	BL	/	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	
38	Inductor	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	
39	Black IC	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	

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Part No.	Sample Description	Test item	XRF Result	Chemical Test (mg/kg)	Conclusion
40	Green PCB	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	X	N.D.	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	
41	Silvery metal	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	
42	White plastic	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	
43	Silvery plastic	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	
44	Silvery plastic	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	

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Part No.	Sample Description	Test item	XRF Result	Chemical Test (mg/kg)	Conclusion
45	Translucent plastic	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	
46	Translucent plastic	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	
47	Silvery metal	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	
48	Black plastic	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	
49	Black metal screw	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	

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Part No.	Sample Description	Test item	XRF Result	Chemical Test (mg/kg)	Conclusion
50	Black metal screw	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	X	N.D.	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	
51	Black metal screw	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	X	N.D.	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	
52	Black metal screw	#Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	X	N.D.	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	
53	Silvery metal screw	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	
54	Yellow LED	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	

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Part No.	Sample Description	Test item	XRF Result	Chemical Test (mg/kg)	Conclusion
55	Black plastic	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	
56	Black foam	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	
57	Black plastic	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	
58	Silvery metal	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	X	N.D.	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	
59	Silvery metal	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	X	N.D.	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	



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Part No.	Sample Description	Test item	XRF Result	Chemical Test (mg/kg)	Conclusion
60	Black plastic	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	
61	Pink metal line	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	
62	Silvery switch	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	X	N.D.	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	
63	Solder	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	
64	Black plastic	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	

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Part No.	Sample Description	Test item	XRF Result	Chemical Test (mg/kg)	Conclusion
65	Silvery metal	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	
66	Black plastic	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	
67	Silvery metal	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	
68	Solder	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	
69	Black IC	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	X	N.D.	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	

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Part No.	Sample Description	Test item	XRF Result	Chemical Test (mg/kg)	Conclusion
70	The circular inductors	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	
71	Light blue ceramics capacitors	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	
72	Black plastic	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	X	N.D.	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	
73	Silvery metal	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	
74	Silvery metal	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	

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Part No.	Sample Description	Test item	XRF Result	Chemical Test (mg/kg)	Conclusion
75	Green electrolytic capacitor	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	
76	Green LED	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	
77	High frequency transformer	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	
78	Resistance	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	
79	Frequency transformer	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	

Part No.	Sample Description	Test item	XRF Result	Chemical Test (mg/kg)	Conclusion
80	Yellow capacitance	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	X	N.D.	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	
81	Red capacitance	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	
82	Yellow PCB	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	X	N.D.	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	
83	Black electrolytic capacitor	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	
84	Plug	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	

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Part No.	Sample Description	Test item	XRF Result	Chemical Test (mg/kg)	Conclusion
85	Shield ring	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	
86	Type-C Plug	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	X	N.D.	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	
87	Three holes Plug	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	
88	Black plastic	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	
89	Golden metal	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	

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Part No.	Sample Description	Test item	XRF Result	Chemical Test (mg/kg)	Conclusion
90	White plastic	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	X	N.D.	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	
91	HDMI male plug	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	
92	USB male plug	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	
93	Black line skin	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	
94	Silvery metal	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	

Part No.	Sample Description	Test item	XRF Result	Chemical Test (mg/kg)	Conclusion
95	Silvery metal	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	
96	Blue metal line	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	
97	Black plastic	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	X	N.D.	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	
98	Silvery metal	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	
99	Black line skin	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	



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Part No.	Sample Description	Test item	XRF Result	Chemical Test (mg/kg)	Conclusion
100	Red line skin	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	
101	Silvery metal line	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	
102	Copper metal line	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	
103	Red line skin	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	
104	Black line skin	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	

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Part No.	Sample Description	Test item	XRF Result	Chemical Test (mg/kg)	Conclusion
105	Copper metal line	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	
106	Black line skin	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	
107	Black line skin	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	
108	Green line skin	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	
109	White line skin	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	N.D.	

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Part No.	Sample Description	Test item	XRF Result	Chemical Test (mg/kg)	Conclusion
110	Copper metal line	Pb	BL	/	Pass
		Cd	BL	/	
		Hg	BL	/	
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	--	--	
		Phthalate(DBP\BBP \DEHP\DIBP)	--	--	

**Remark:**

- (1) (a) It is the result on total Br while test item on restricted substances is PBBs/PBDEs. It is the result on total Cr while test item on restricted substances is Cr<sup>6+</sup>.
- (b) Results are obtained by XRF for primary screening, and further chemical testing by ICP-OES (for Cd, Pb, Hg), UV-Vis (for Cr(VI)) and GC-MS (for PBBs, PBDEs) is recommended to be performed, if the concentration exceeds the below warning value according to IEC62321-3-1:2013 (unit: mg/kg).

Element	Polymers	Metals	Composite Material
Cd	$BL \leq (70-3\sigma) < X < (130+3\sigma) \leq OL$	$BL \leq (70-3\sigma) < X < (130+3\sigma) \leq OL$	$LOD < X < (150+3\sigma) \leq OL$
Pb	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (500-3\sigma) < X < (1500+3\sigma) \leq OL$
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	$BL \leq (300-3\sigma) < X$	NA	$BL \leq (250-3\sigma) < X$

(c) OL=Over Limit, BL=Below Limit, X=inconclusive, LOD=Limit of Detection, NA=not applicable, -- = No Testing

(d) The XRF screening test for RoHS elements-The reading may be different to the actual content

in the sample be of non-uniformity composition

(2) (a) mg/kg=ppm=0.0001%, N.D.=not detected (<MDL)

(b) Unit and Method Detection Limit(MDL) in wet chemical test

Test Items	Unit	MDL	Limit
Pb	mg/kg	2	1000
Cd	mg/kg	2	100
Hg	mg/kg	2	1000
DBP	mg/kg	30	1000
BBP	mg/kg	30	1000
DEHP	mg/kg	30	1000
DIBP	mg/kg	30	1000

The MDL for single compound of PBBs & PBDEs is 20mg/kg, MDL of Cr<sup>6+</sup> for metal sample is 0.10µg/cm<sup>2</sup>. and MDL of Cr<sup>6+</sup> for polymer & composite sample is 8 mg/kg.

(c) Metal sample:

-The sample is positive for Cr<sup>6+</sup> if the Cr<sup>6+</sup> concentration is greater than 0.13 µg/cm<sup>2</sup>.

The sample coating is considered to contain Cr<sup>6+</sup>.

-The sample is negative for Cr<sup>6+</sup> if Cr<sup>6+</sup> is ND (concentration less than 0.10 µg/cm<sup>2</sup>).

The coating is considered a non- Cr<sup>6+</sup> based coating

-The result between 0.10 µg/cm<sup>2</sup> and 0.13 µg/cm<sup>2</sup> is considered to be inconclusive, unavoidable coating variations may influence the determination

Information on storage conditions and production date of the tested sample is unavailable and thus Cr<sup>6+</sup> results represent status of the sample at the time of testing.

(3) As specified by client to test the specified materials only.

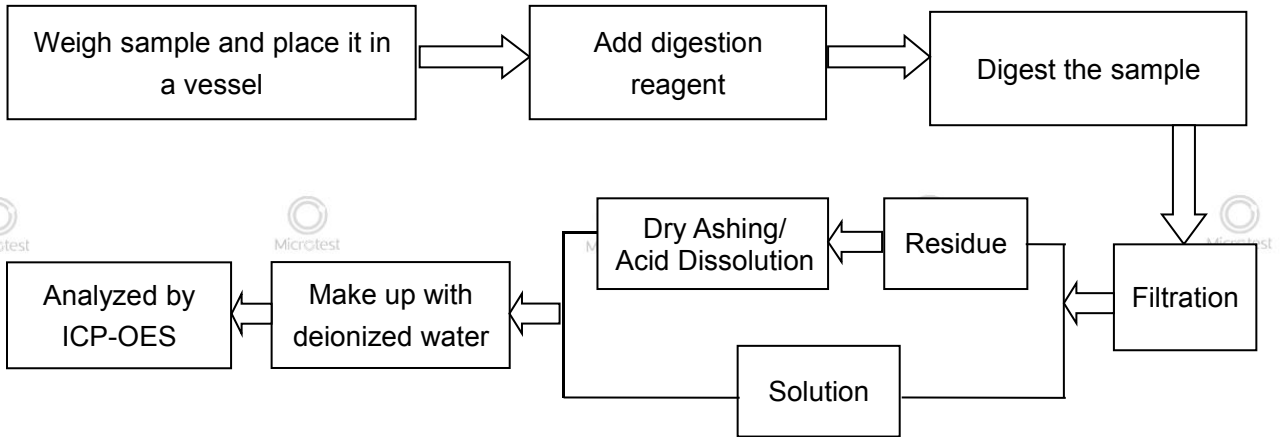
(4) \*=According to the declaration from the client, Lead (Pb) in the sample are exempted by EU RoHS Directive 2011/65/EU based on ANNEX III 6(c): Copper alloy containing no more than 4% lead by weigh

(5) #=According to the declaration from the client, Lead (Pb) in the sample are exempted by EU RoHS Directive 2011/65/EU based on ANNEX III 7(c)-I, Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors

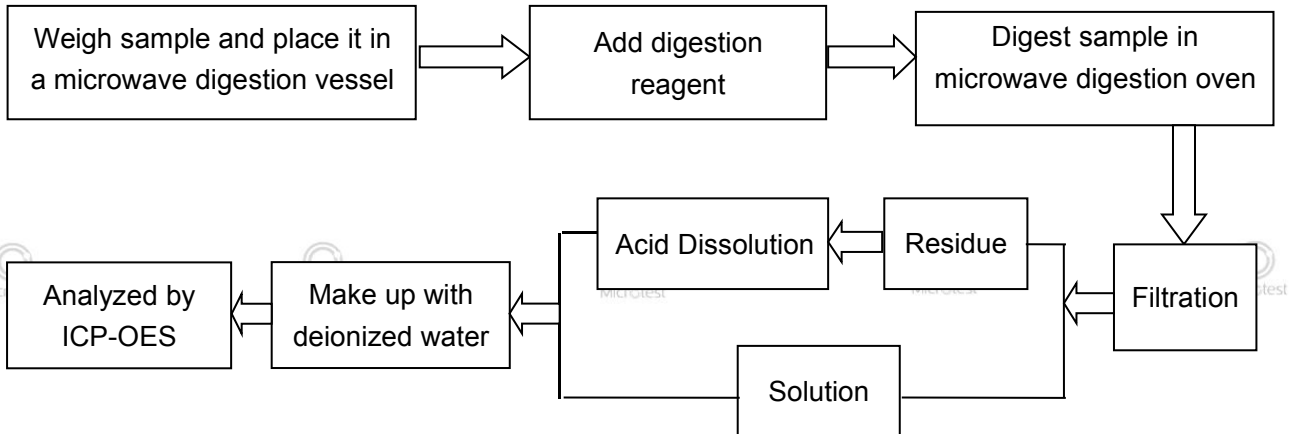


**Testing flow chart:**

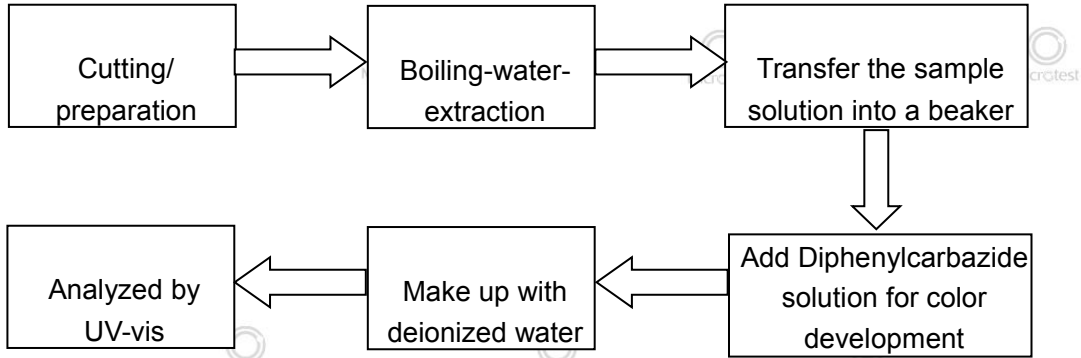
**1. Lead, Cadmium**



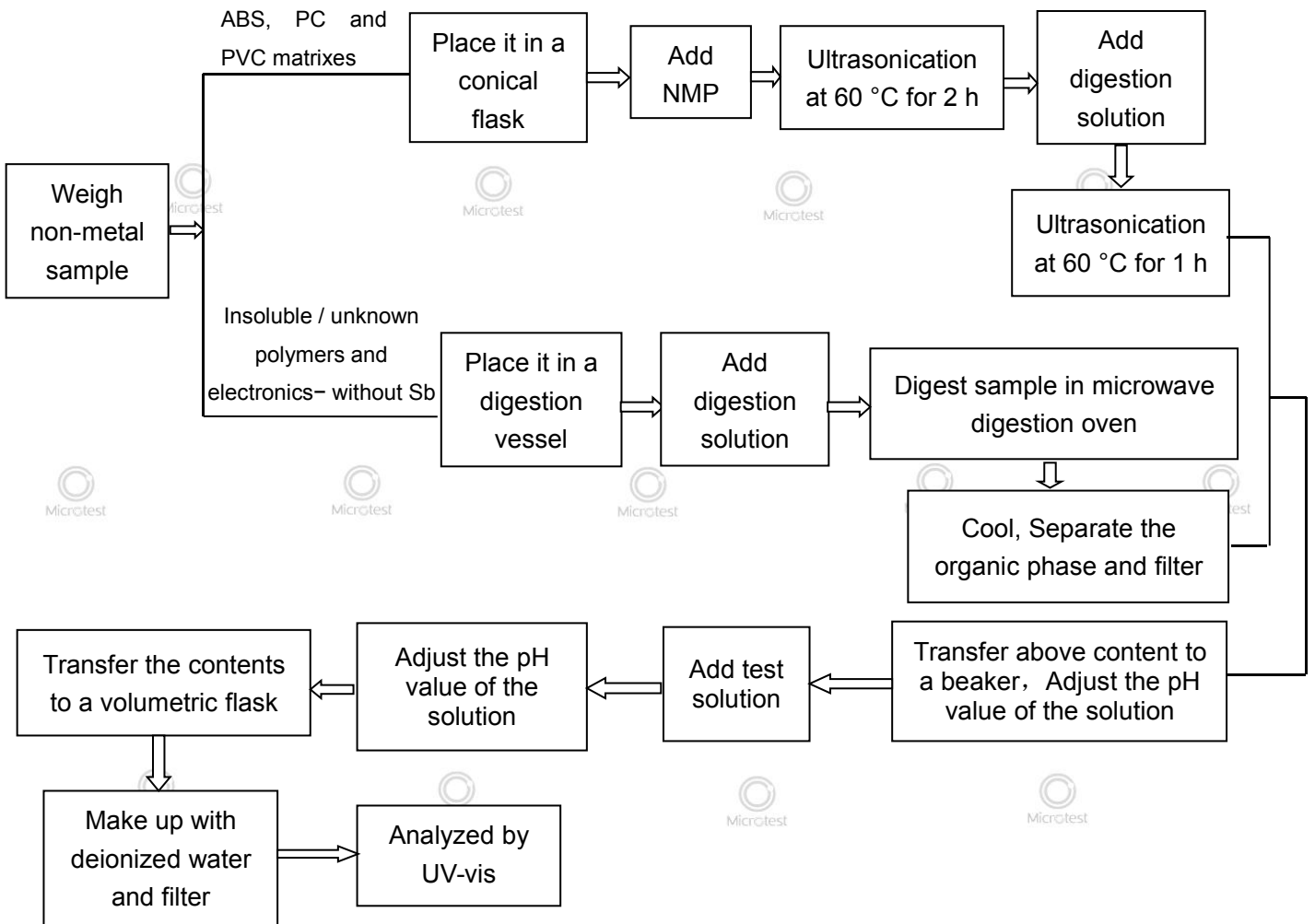
**2. Mercury**



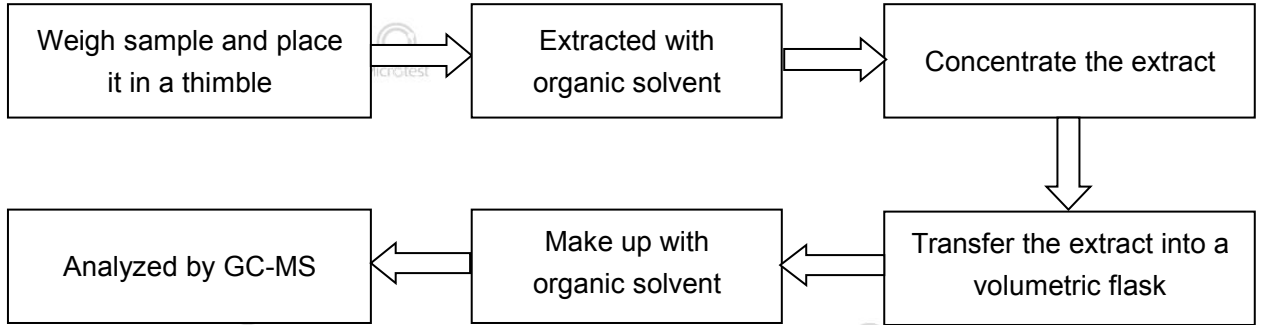
3. Hexavalent Chromium (For metal material)



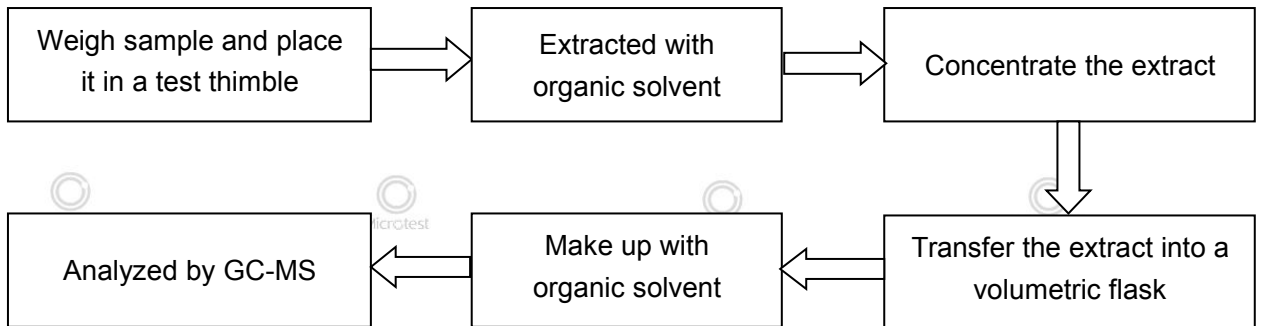
4. Hexavalent Chromium(For non-metal material):



5. Polybromobiphenyls (PBBs), Polybromodiphenyl ethers (PBDEs)

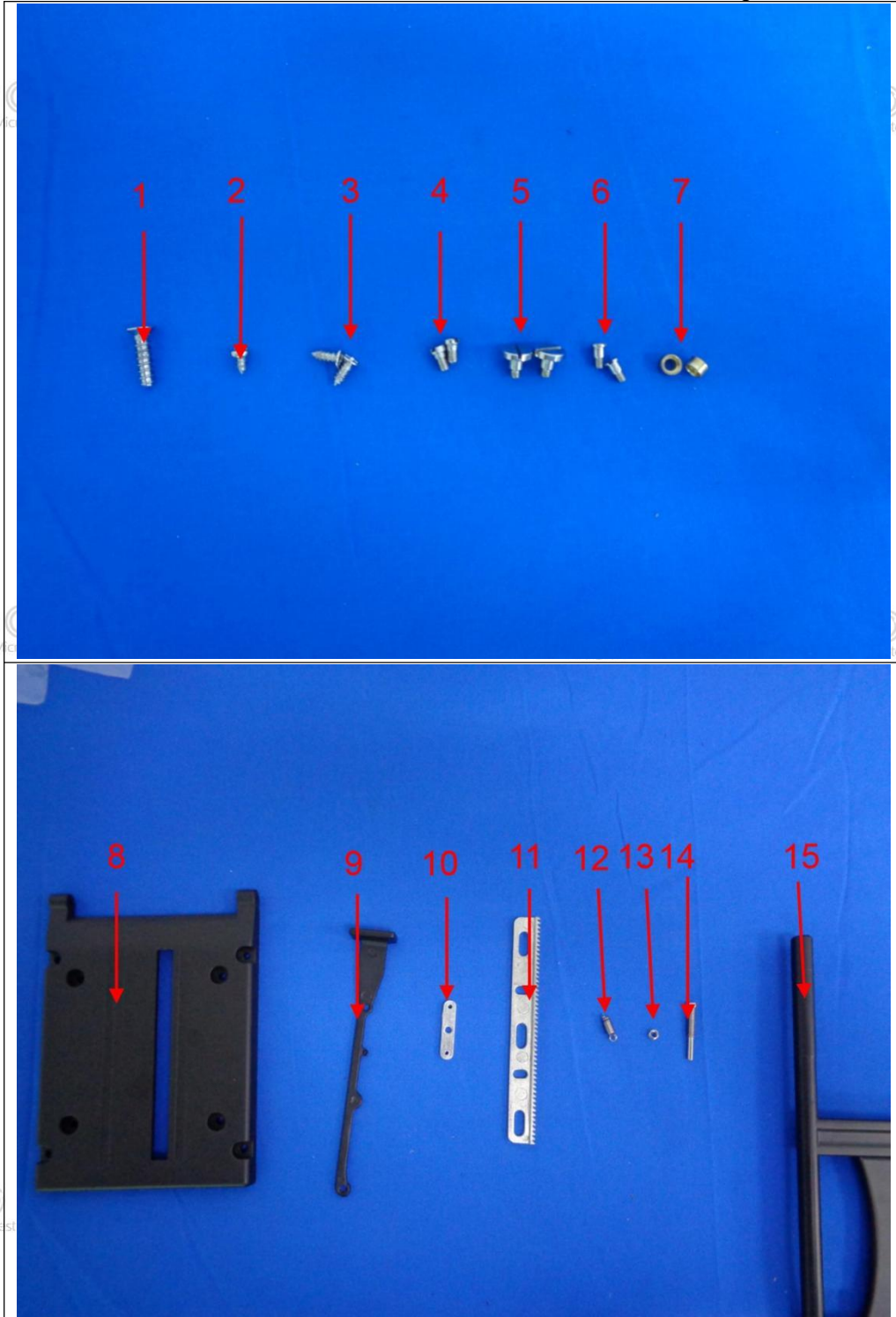


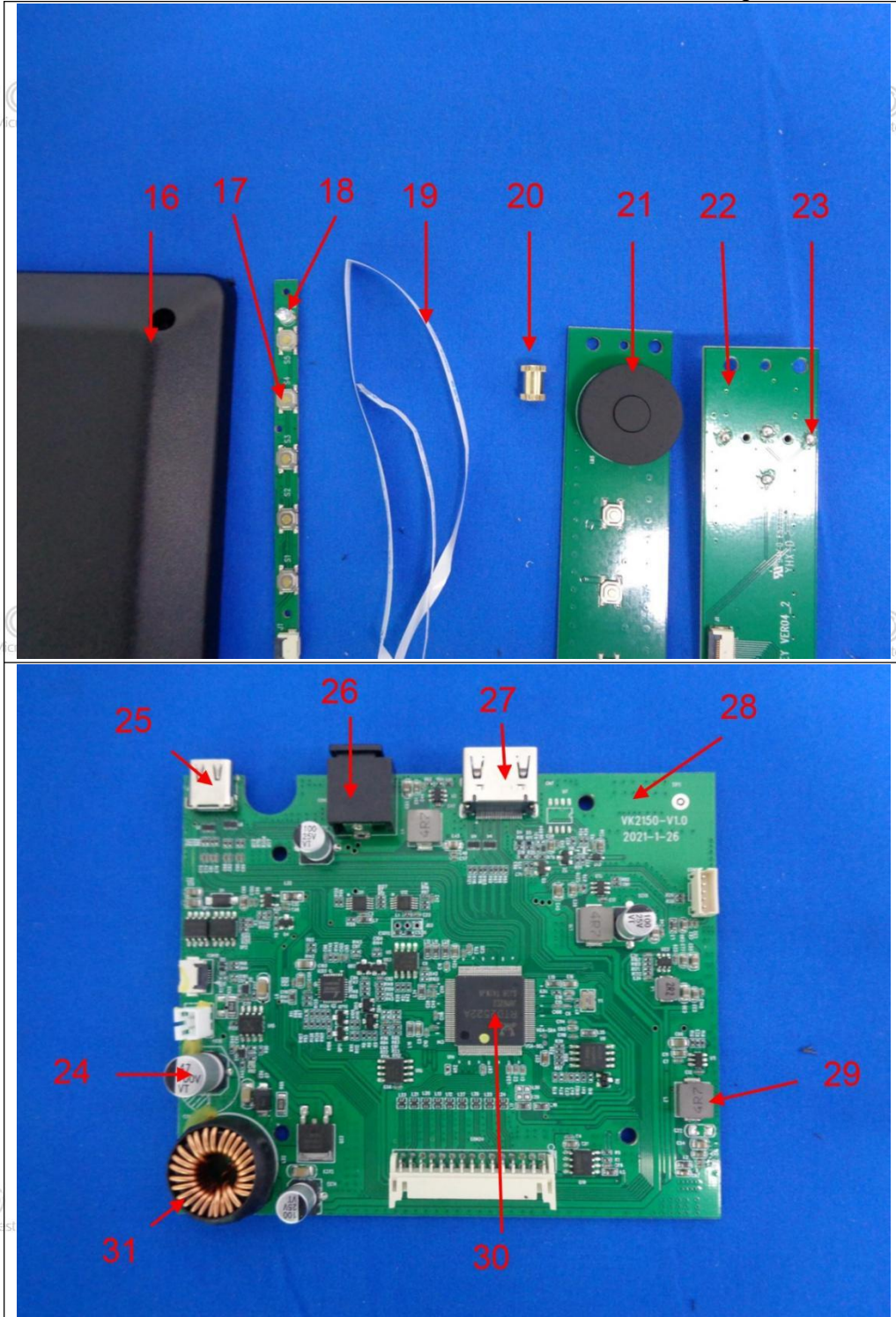
6. Phthalates(DBP, BBP, DEHP, DIBP)

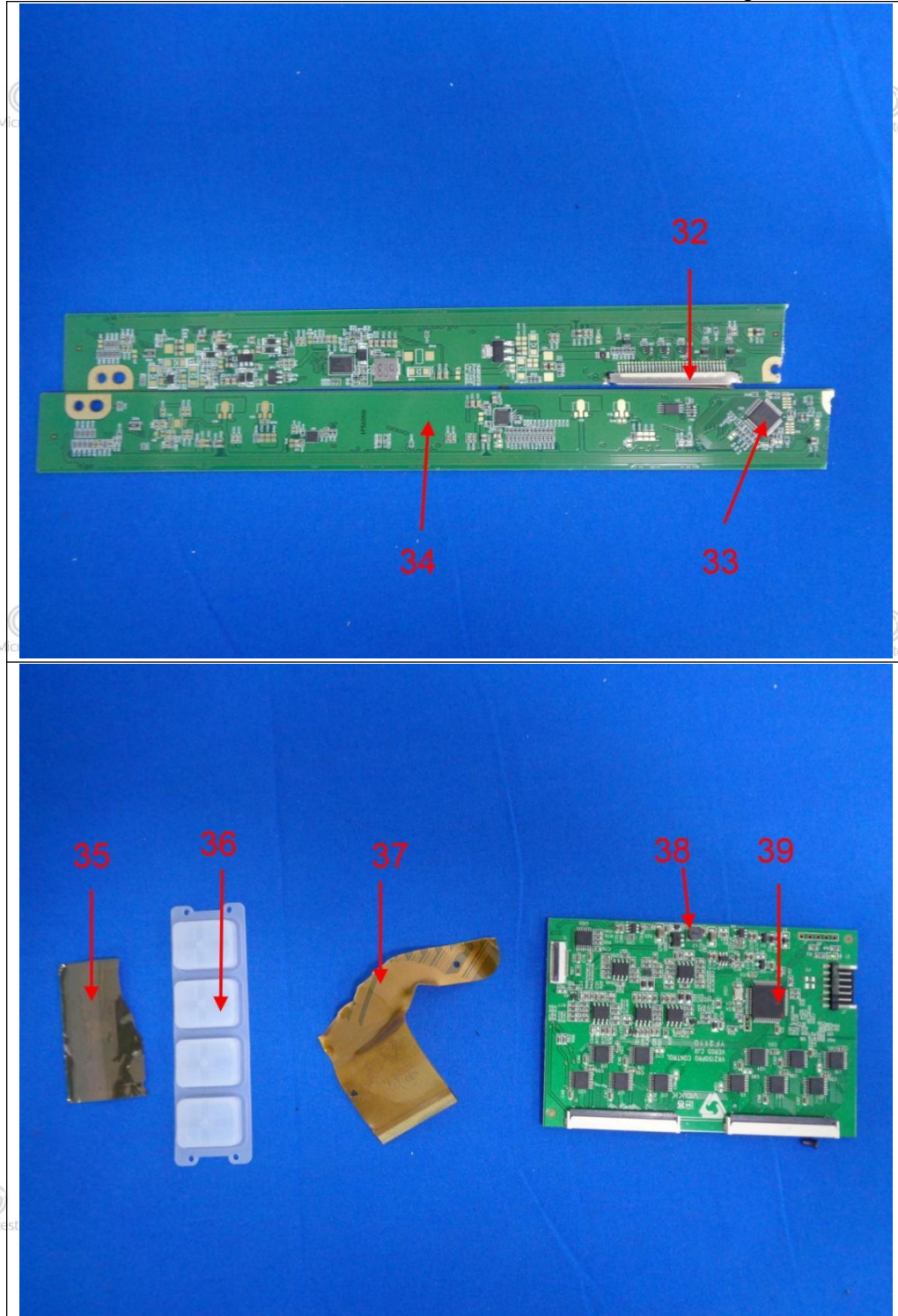


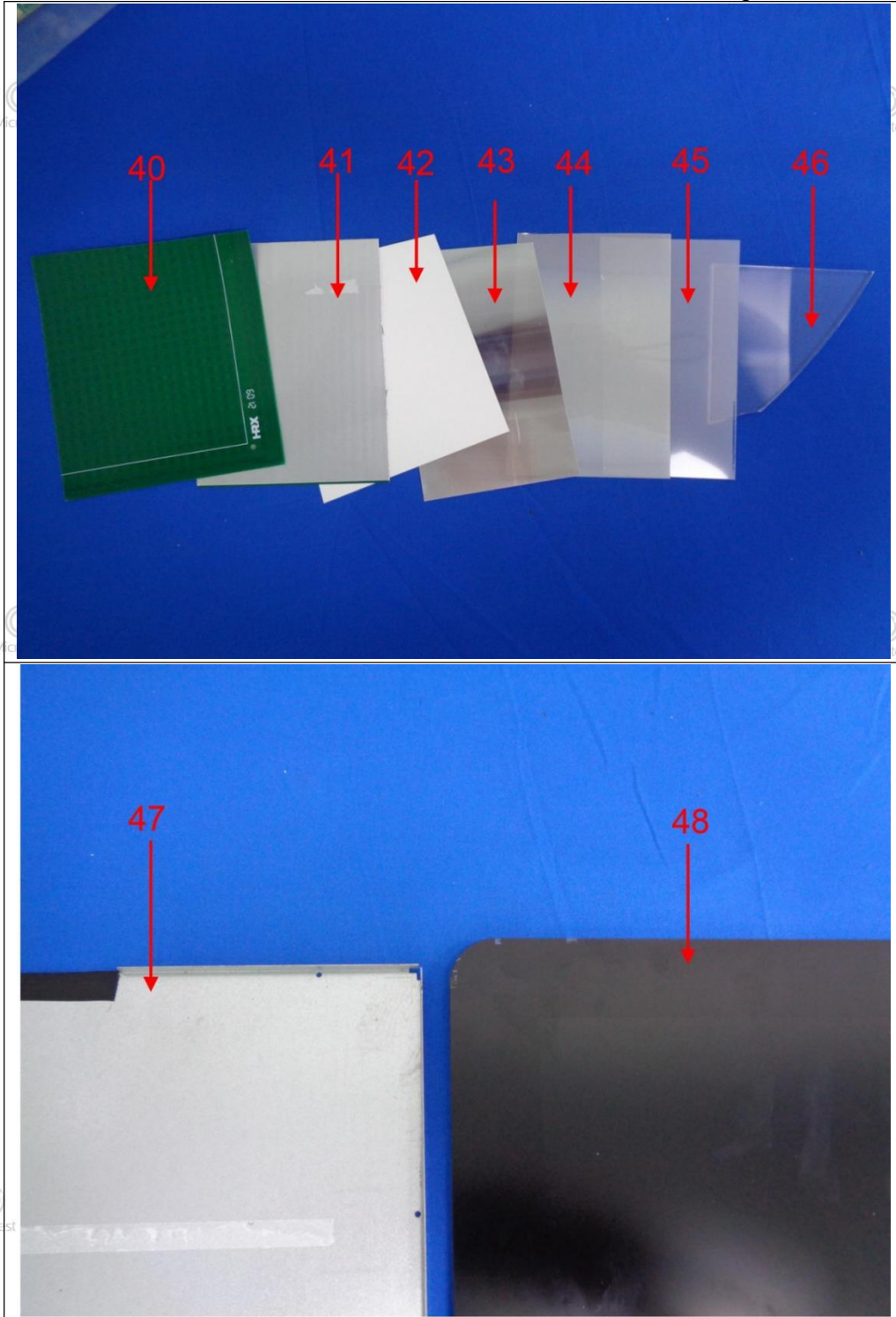


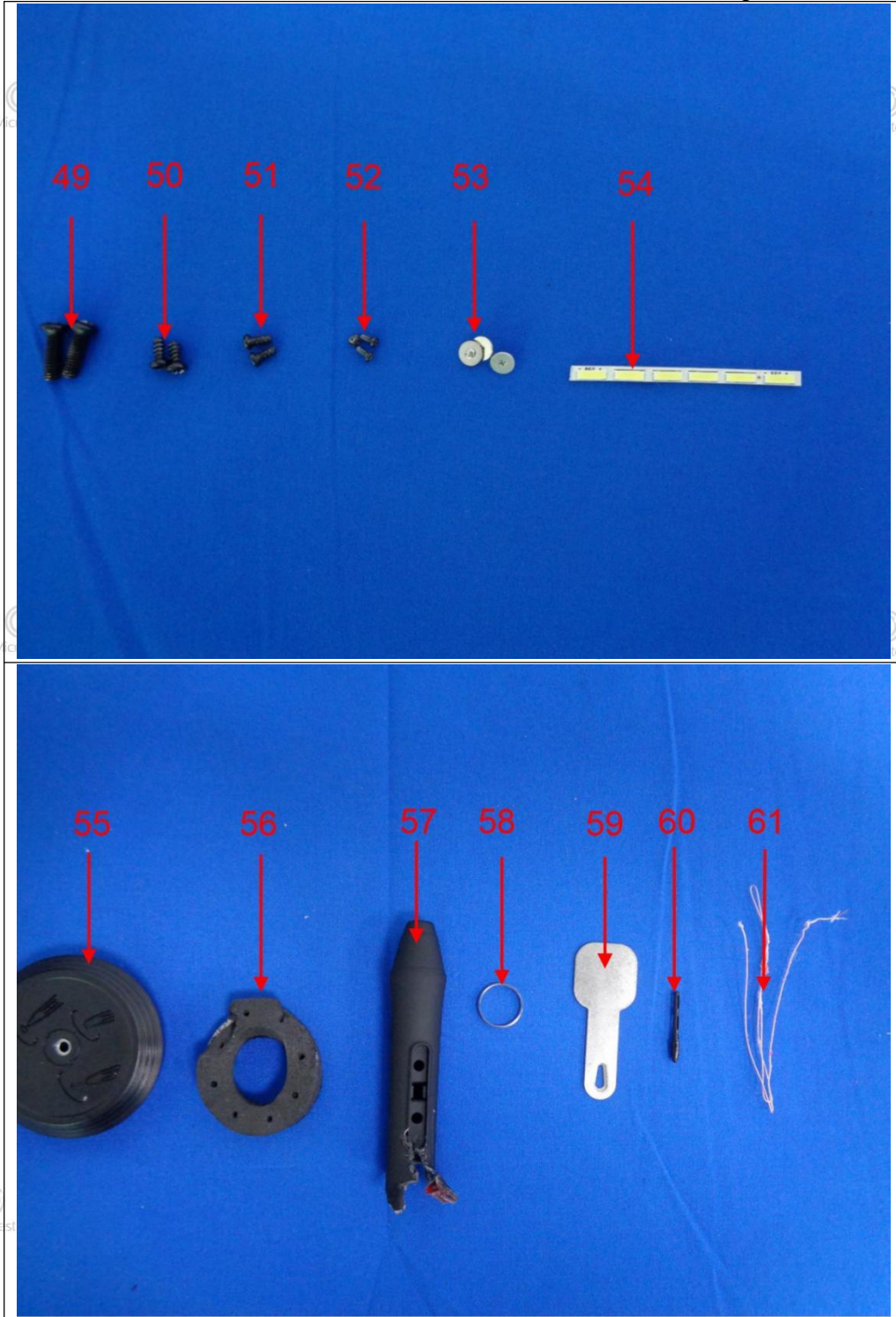


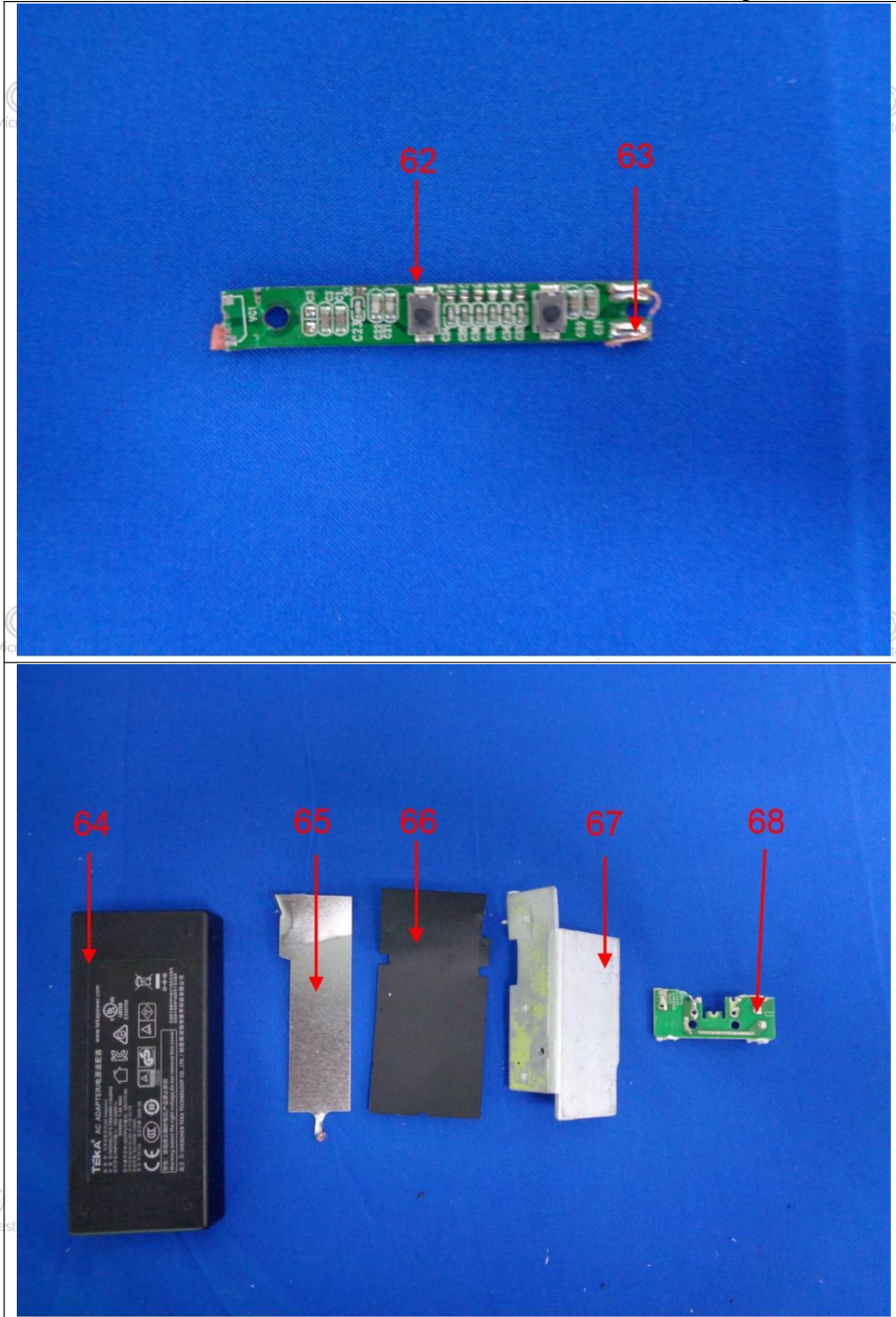


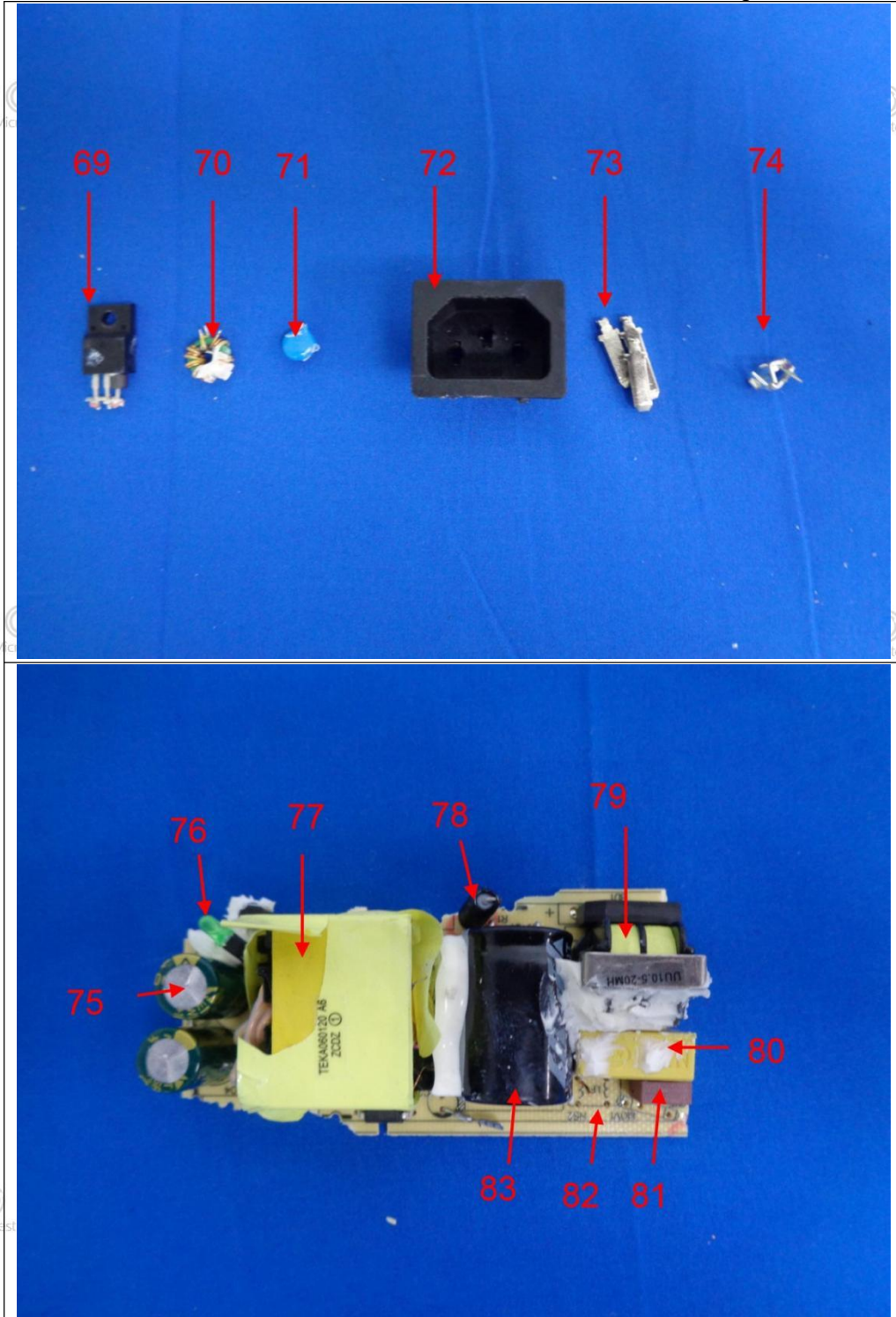




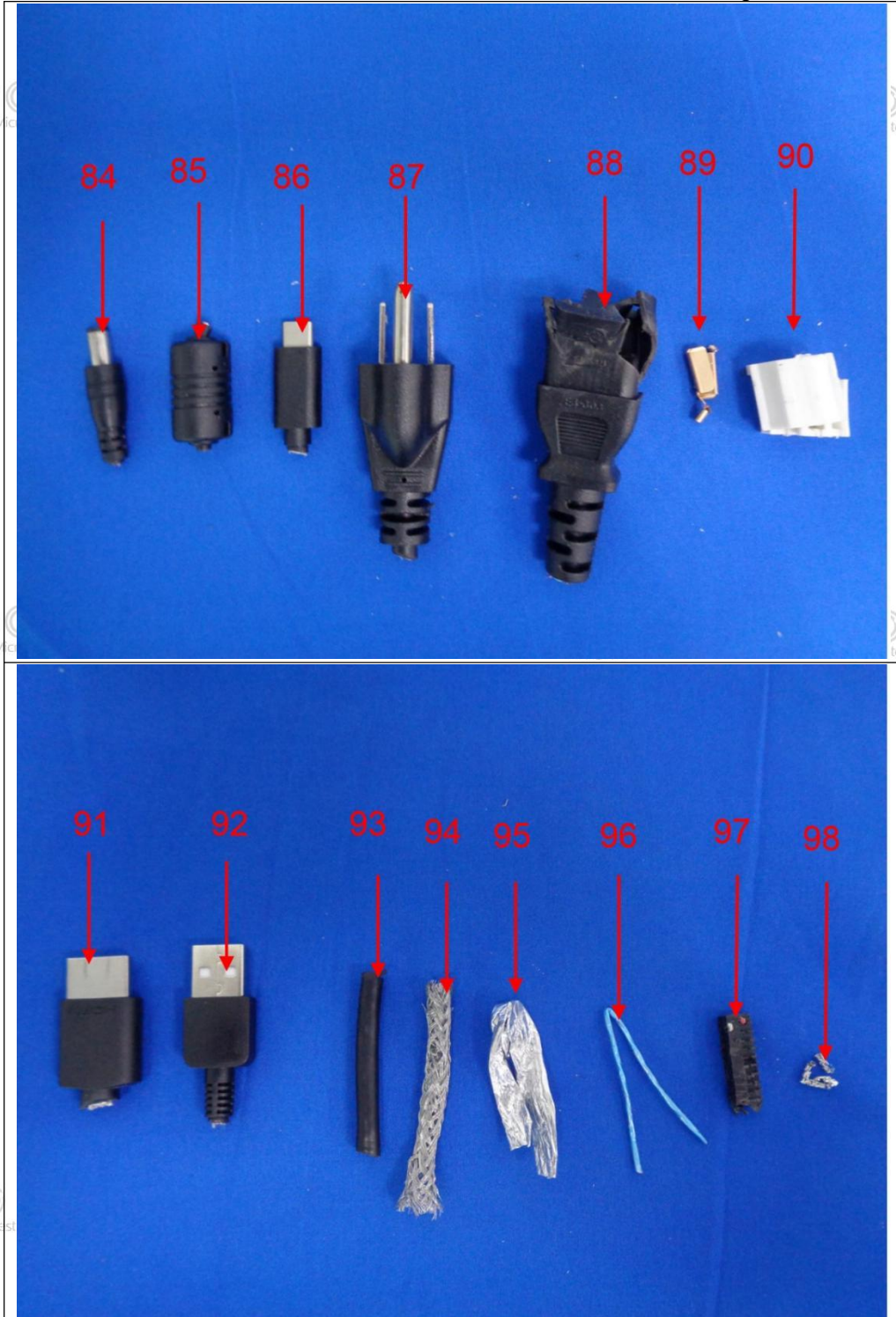


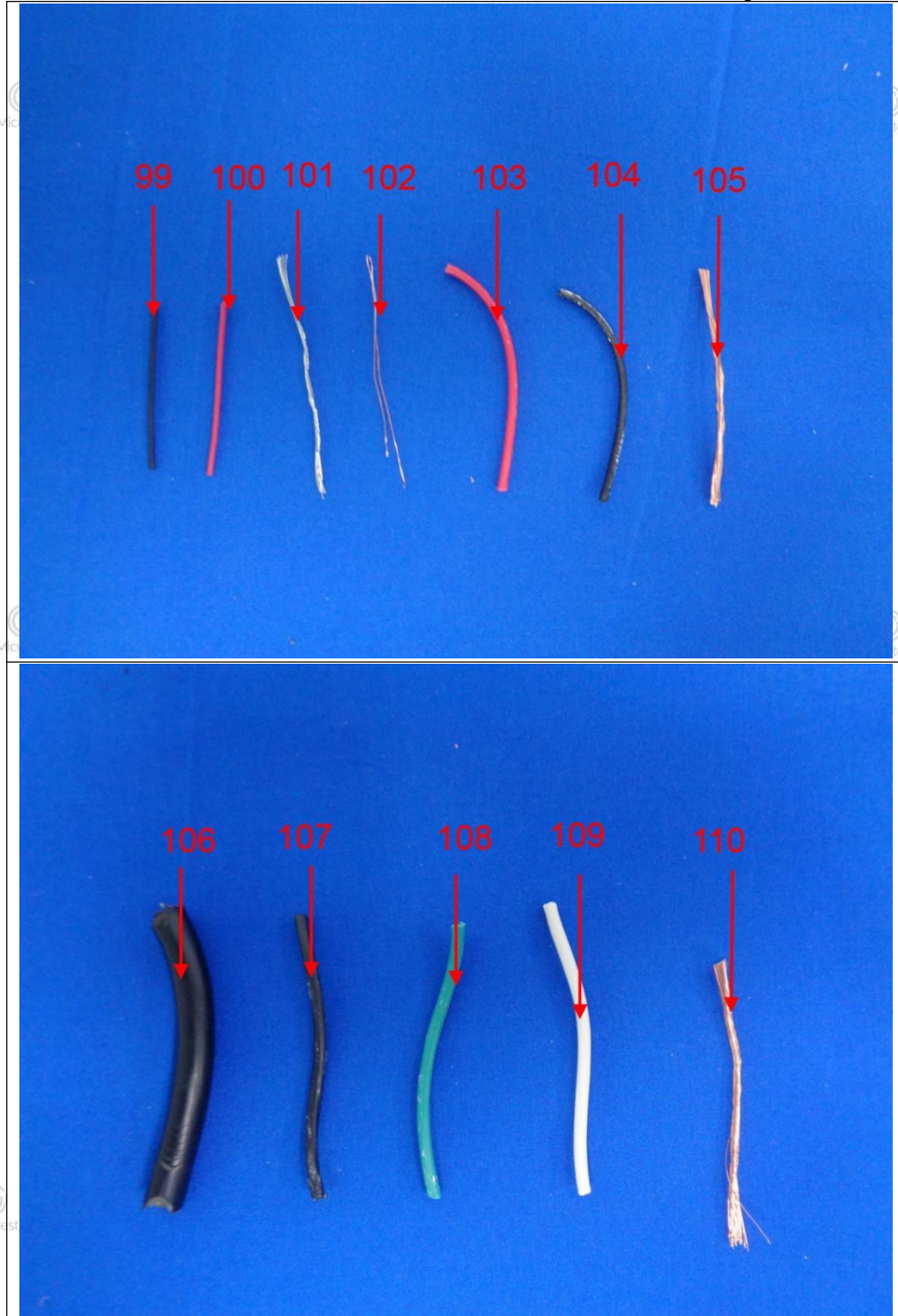












\*\*\*\*\* END \*\*\*\*\*