



Verification Report

Applicant : Mid Ocean Brands B.V.
Address : 7/F., Kings Tower, 111 King Lam Street, Cheung Sha Wan, Kowloon, Hong Kong

Report on the submitted samples said to be:

Sample Name(s) : Bamboo Wireless Charger Clock
Trade Mark : N/A
Part No. : MO6139
Sample Received Date : November 07, 2022
Testing Period : November 07, 2022 ~ November 14, 2022
Date of Report : November 14, 2022
Testing Location : 901, No.40 Building, Xialang Industrial Zone, Heshuikou Community, Matian Street, Guangming District, Shenzhen, Guangdong, China
Results : Please refer to next page(s).

TEST REQUEST	CONCLUSION
As specified by client, based on the performed tests on submitted sample, the result of Lead(Pb), Cadmium(Cd), Mercury(Hg), Hexavalent Chromium(Cr(VI)), PBBs, PBDEs, Dibutyl Phthalate(DBP), Butylbenzyl Phthalate(BBP), Di-2-ethylhexyl Phthalate(DEHP) and Diisobutyl phthalate(DIBP) content comply with the limits set by RoHS Directive 2011/65/EU with amendment (EU) 2015/863.	PASS

Signed for and on behalf of LCS

Young/Laboratory Manager



**Results:****A. EU RoHS Directive 2011/65/EU and its amendment directives**

Test method: With reference to IEC 62321-1:2013&IEC 62321-2:2021&IEC 62321-3-1:2013, Screening by X-ray Fluorescence Spectroscopy (XRF)

Sample No.	Sample Description	Results						Date of sample submission/ Resubmission
		Cd	Pb	Hg	Cr ^v	Br ^v		
						PBBs	PBDEs	
1	Yellow chip	BL	BL	BL	BL	BL	BL	2022-11-07
2	White plastic sheet	BL	BL	BL	BL	X	X	2022-11-07
3	Transparent plastic film	BL	BL	BL	BL	BL	BL	2022-11-07
4	Black plastic sheet	BL	BL	BL	BL	BL	BL	2022-11-07
5	Black plastic sheet	BL	BL	BL	BL	BL	BL	2022-11-07
6	White plastic dry adhesive	BL	BL	BL	BL	BL	BL	2022-11-07
7	PCB board	BL	BL	BL	BL	X	X	2022-11-07
8	Black plastic shell	BL	BL	BL	BL	X	X	2022-11-07
9	Silver metal column	OL	BL	BL	BL	/	/	2022-11-07
10	Silver metal sheet	BL	BL	BL	BL	/	/	2022-11-07
11	Silver metal sheet	X	BL	BL	BL	/	/	2022-11-07
12	Yellow plastic sheet	BL	BL	BL	BL	BL	BL	2022-11-07
13	Black plastic adhesive	BL	BL	BL	BL	BL	BL	2022-11-07
14	Silver metal shell	BL	BL	BL	BL	/	/	2022-11-07
15	Silver metal ring	BL	BL	BL	BL	/	/	2022-11-07
16	White plastic sheet	BL	BL	BL	BL	BL	BL	2022-11-07
17	Silver metal sheet	BL	BL	BL	BL	/	/	2022-11-07
18	Black IC	BL	BL	BL	BL	X	X	2022-11-07
19	Black plastic button	BL	BL	BL	BL	BL	BL	2022-11-07
20	Silver metal shrapnel	BL	BL	BL	BL	/	/	2022-11-07
21	Silver metal sheet	BL	X	BL	BL	/	/	2022-11-07
22	Silver metal pin	BL	BL	BL	BL	/	/	2022-11-07
23	Silver wire	BL	BL	BL	BL	/	/	2022-11-07
24	Black plastic lamp beads	BL	BL	BL	BL	BL	BL	2022-11-07
25	Black plastic shell	BL	BL	BL	BL	BL	BL	2022-11-07
26	Silver metal sheet	BL	BL	BL	BL	/	/	2022-11-07
27	Black magnet	X	BL	BL	BL	/	/	2022-11-07
28	Gold copper wire	BL	BL	BL	BL	/	/	2022-11-07
29	Tin solder	BL	BL	BL	BL	/	/	2022-11-07
30	Black capacitor	BL	BL	BL	BL	BL	BL	2022-11-07



Shenzhen LCS Compliance Testing Laboratory Ltd.

Add: 901, No.40 Building, Xialang Industrial Zone, Heshuikou Community, Matian Street, Guangming District, Shenzhen, Guangdong, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity



Sample No.	Sample Description	Results						Date of sample submission/ Resubmission
		Cd	Pb	Hg	Cr ^{VI}	Br ^{VI}		
						PBBs	PBDEs	
31	White plastic sheet	BL	BL	BL	BL	BL	BL	2022-11-07
32	Black plastic sheet	BL	BL	BL	BL	BL	BL	2022-11-07
33	Silver metal shell	BL	BL	BL	BL	/	/	2022-11-07
34	Black IC	BL	BL	BL	BL	BL	BL	2022-11-07
35	Tin solder	BL	BL	BL	BL	/	/	2022-11-07
36	Red plastic thread cover	BL	BL	BL	BL	BL	BL	2022-11-07
37	Silver copper wire	X	BL	BL	BL	/	/	2022-11-07
38	Black plastic wire cover	BL	BL	BL	BL	BL	BL	2022-11-07
39	Silver colored metal screw	OL	BL	BL	BL	/	/	2022-11-07
40	Black IC	BL	BL	BL	BL	BL	BL	2022-11-07
41	Black IC	BL	BL	BL	BL	BL	BL	2022-11-07
42	Tin solder	BL	BL	BL	BL	/	/	2022-11-07
43	Black plastic adhesive	BL	BL	BL	BL	BL	BL	2022-11-07
44	Black ceramics	BL	BL	BL	BL	BL	BL	2022-11-07
45	White plastic wire cover	BL	BL	BL	BL	BL	BL	2022-11-07
46	Gold copper wire	BL	BL	BL	BL	/	/	2022-11-07
47	Black ceramics	BL	BL	BL	BL	BL	BL	2022-11-07

Note:

- Results were obtained by XRF for primary screening, and further chemical testing by ICP(for Cd, Pb, Hg), UV-Vis(for Cr(VI)) and GC-MS(for PBBs, PBDEs) are recommended to be performed, if the concentration exceeds the below warning value according to IEC 62321-3-1:2013(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	$BL \leq (300-3\sigma) < X$	N/A	$BL \leq (250-3\sigma) < X$

Remark:

- BL= Below Limit
- OL= Over Limit
- X= The range of needing to do further testing
- 3σ = The reproducibility of analytical instruments
- N/A= Not applicable
- LOD= Detection limit



Shenzhen LCS Compliance Testing Laboratory Ltd.

Add: 901, No.40 Building, Xialang Industrial Zone, Heshuikou Community, Matian Street, Guangming District, Shenzhen, Guangdong, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity



- 2. The XRF screening test for RoHS elements – The reading may be different to the actual content in the sample be of non-uniformity composition.
- 3. The maximum permissible limit is quoted from the document RoHS Directive 2011/65/EU with amendment (EU) 2015/863.
- 4. ▼=For restricted substances PBBs and PBDEs, the results show the total Br content, the restricted substance was Cr(VI), and the results showed the total Cr content.

RoHS Restricted Substances	Maximum Concentration Value (mg/kg) (by weight in homogenous materials)
Cadmium(Cd)	100
Lead(Pb)	1000
Mercury(Hg)	1000
Hexavalent Chromium(Cr(VI))	1000
Polybrominated biphenyls(PBBs)	1000
Polybrominated diphenylethers(PBDEs)	1000
Dibutyl Phthalate(DBP)	1000
Butylbenzyl Phthalate(BBP)	1000
Di-(2-ethylhexyl) Phthalate(DEHP)	1000
Diisobutyl phthalate(DIBP)	1000

Disclaimers:

This XRF Screening report is for reference purposes only. The applicant shall make its/his/her own judgment as to whether the information provided in this XRF screening report is sufficient for its/his/her purposes. The result shown in this XRF screening report will differ based on various factors, including but not limited to, the sample size, thickness, area, surface flatness, equipment parameters and matrix effect (e.g. plastic, rubber, metal, glass, ceramic etc.). Further wet chemical pre-treatment with relevant chemical equipment analysis are required to obtain quantitative data.



**B. EU RoHS Directive 2011/65/EU with amendment (EU) 2015/863 on Lead(Pb), Cadmium(Cd), Mercury(Hg), Hexavalent Chromium(Cr(VI)), PBBs, PBDEs, DBP, BBP, DEHP & DIBP content****Test method:****Lead(Pb) & Cadmium(Cd) Content:**

With reference to IEC 62321-5:2013, by acid digestion and analysis was performed by inductively coupled plasma atomic emission spectrometer (ICP-OES) or Atomic absorption spectrometer (AAS).

Mercury(Hg) Content:

With reference to IEC 62321-4:2013+AMD1:2017 CSV, by acid digestion and analysis was performed by inductively coupled plasma atomic emission spectrometer (ICP-OES).

Hexavalent Chromium(Cr(VI)) Content:

With reference to IEC 62321-7-1:2015 or IEC 62321-7-2:2017, analysis was performed by UV-visible spectrophotometer (UV-Vis).

PBBs & PBDEs Content:

With reference to IEC 62321-6:2015, by solvent extraction and analysis was performed by gas chromatographic-mass spectrometer (GC-MS).

Phthalates(DBP, BBP, DEHP & DIBP) Content:

With reference to IEC 62321-8:2017, by solvent extraction and analysis was performed by gas chromatographic-mass spectrometer (GC-MS).

1) The test results of Lead(Pb) & Cadmium(Cd)

Tested Items	MDL (mg/kg)	Results (mg/kg)					Limit (mg/kg)
		(21)					
Lead(Pb) Content	5	N.D.					1000

Tested Items	MDL (mg/kg)	Results (mg/kg)					Limit (mg/kg)
		(9)	(11)	(27)	(37)	(39)	
Cadmium(Cd) Content	5	N.D.	N.D.	N.D.	N.D.	N.D.	100

2) The test results of Phthalates(DBP, BBP, DEHP & DIBP)

Tested Items	MDL (mg/kg)	Results (mg/kg)				Limit (mg/kg)
		7	36	38	45	
Dibutyl Phthalate(DBP) Content	100	N.D.	260	800	N.D.	1000
Butylbenzyl Phthalate(BBP) Content	100	N.D.	N.D.	N.D.	N.D.	1000
Di-(2-ethylhexyl) Phthalate(DEHP) Content	100	N.D.	N.D.	455	N.D.	1000
Diisobutyl phthalate(DIBP) Content	100	N.D.	N.D.	N.D.	N.D.	1000



Shenzhen LCS Compliance Testing Laboratory Ltd.

Add: 901, No.40 Building, Xialang Industrial Zone, Heshuikou Community, Matian Street, Guangming District, Shenzhen, Guangdong, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity



Tested Items	MDL (mg/kg)	Results (mg/kg)	Limit (mg/kg)
		1+2+3+4+5+6	
Dibutyl Phthalate(DBP) Content	600	N.D.	1000
Butylbenzyl Phthalate(BBP) Content	600	N.D.	1000
Di-(2-ethylhexyl) Phthalate(DEHP) Content	600	N.D.	1000
Diisobutyl phthalate(DIBP) Content	600	N.D.	1000

Tested Items	MDL (mg/kg)	Results (mg/kg)	Limit (mg/kg)
		8+12+13+16+18+19	
Dibutyl Phthalate(DBP) Content	600	N.D.	1000
Butylbenzyl Phthalate(BBP) Content	600	N.D.	1000
Di-(2-ethylhexyl) Phthalate(DEHP) Content	600	N.D.	1000
Diisobutyl phthalate(DIBP) Content	600	N.D.	1000

Tested Items	MDL (mg/kg)	Results (mg/kg)	Limit (mg/kg)
		24+25+30+31+32+34	
Dibutyl Phthalate(DBP) Content	600	N.D.	1000
Butylbenzyl Phthalate(BBP) Content	600	N.D.	1000
Di-(2-ethylhexyl) Phthalate(DEHP) Content	600	N.D.	1000
Diisobutyl phthalate(DIBP) Content	600	N.D.	1000

Tested Items	MDL (mg/kg)	Results (mg/kg)	Limit (mg/kg)
		40+41+43+44+47	
Dibutyl Phthalate(DBP) Content	600	N.D.	1000
Butylbenzyl Phthalate(BBP) Content	600	N.D.	1000
Di-(2-ethylhexyl) Phthalate(DEHP) Content	600	N.D.	1000
Diisobutyl phthalate(DIBP) Content	600	N.D.	1000



Shenzhen LCS Compliance Testing Laboratory Ltd.

Add: 901, No.40 Building, Xialang Industrial Zone, Heshuikou Community, Matian Street, Guangming District, Shenzhen, Guangdong, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity

**3) The test results of PBBs & PBDEs**

Tested Items	MDL (mg/kg)	Results (mg/kg)				Limit (mg/kg)
		(2)	(7)	(8)	(18)	
Polybrominated Biphenyls(PBBs) Content						
Monobromobiphenyl	5	N.D.	N.D.	N.D.	N.D.	/
Dibromobiphenyl	5	N.D.	N.D.	N.D.	N.D.	/
Tribromobiphenyl	5	N.D.	N.D.	N.D.	N.D.	/
Tetrabromobiphenyl	5	N.D.	N.D.	N.D.	N.D.	/
Pentabromobiphenyl	5	N.D.	N.D.	N.D.	N.D.	/
Hexabromobiphenyl	5	N.D.	N.D.	N.D.	N.D.	/
Heptabromobiphenyl	5	N.D.	N.D.	N.D.	N.D.	/
Octabromobiphenyl	5	N.D.	N.D.	N.D.	N.D.	/
Nonabromodiphenyl	5	N.D.	N.D.	N.D.	N.D.	/
Decabromodiphenyl	5	N.D.	N.D.	N.D.	N.D.	/
Total content	/	N.D.	N.D.	N.D.	N.D.	1000
Polybrominated Diphenylethers(PBDEs) Content						
Monobromodiphenyl ether	5	N.D.	N.D.	N.D.	N.D.	/
Dibromodiphenyl ether	5	N.D.	N.D.	N.D.	N.D.	/
Tribromodiphenyl ether	5	N.D.	N.D.	N.D.	N.D.	/
Tetrabromodiphenyl ether	5	N.D.	N.D.	N.D.	N.D.	/
Pentabromodiphenyl ether	5	N.D.	N.D.	N.D.	N.D.	/
Hexabromodiphenyl ether	5	N.D.	N.D.	N.D.	N.D.	/
Heptabromodiphenyl ether	5	N.D.	N.D.	N.D.	N.D.	/
Octabromodiphenyl ether	5	N.D.	N.D.	N.D.	N.D.	/
Nonabromodiphenyl ether	5	N.D.	N.D.	N.D.	N.D.	/
Decabromodiphenyl ether	5	N.D.	N.D.	N.D.	N.D.	/
Total content	/	N.D.	N.D.	N.D.	N.D.	1000

Note:

- MDL = Method Detection Limit
- N.D. = Not Detected (<MDL)
- mg/kg = milligrams per kilogram
- According to customer's requirement, only the appointed materials have been tested.



Shenzhen LCS Compliance Testing Laboratory Ltd.

Add: 901, No.40 Building, Xialang Industrial Zone, Heshuikou Community, Matian Street, Guangming District, Shenzhen, Guangdong, China

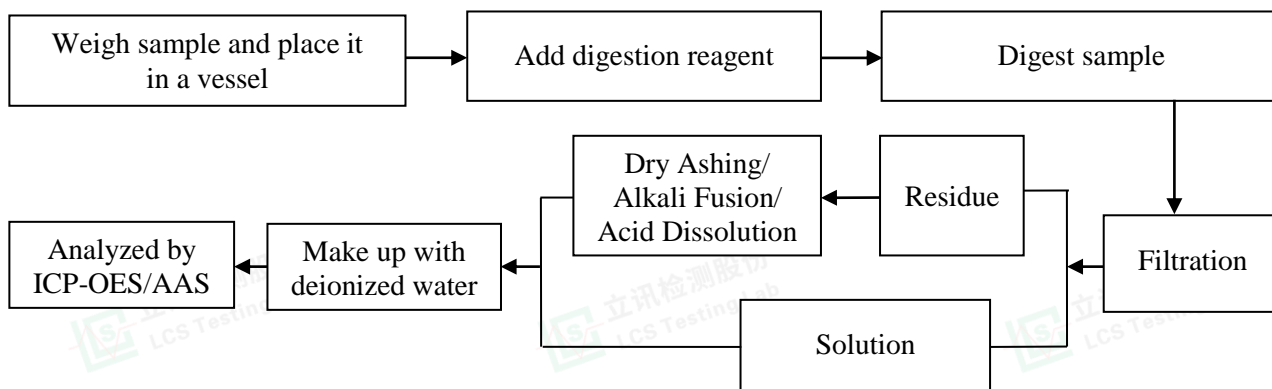
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity

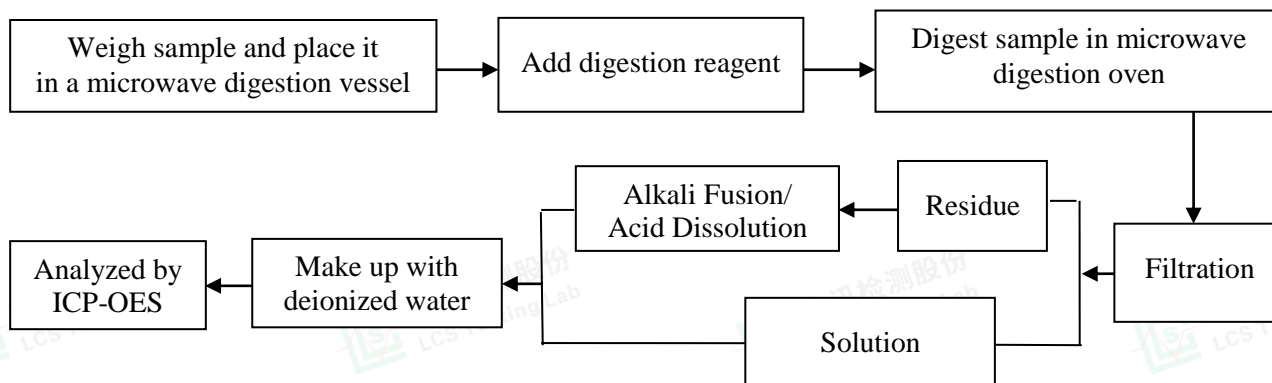


Test Process

1. Lead(Pb) & Cadmium(Cd): IEC 62321-5:2013

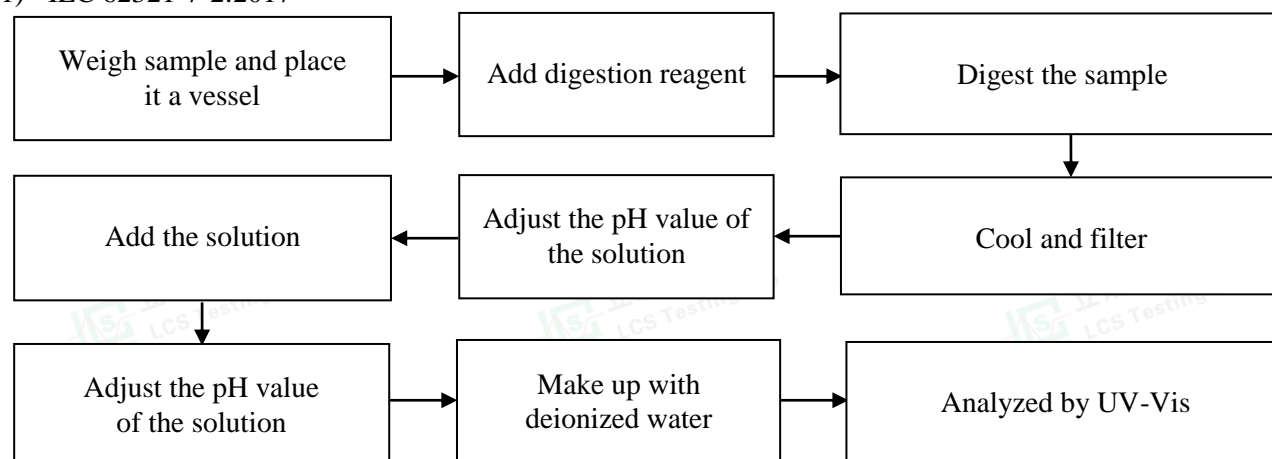


2. Mercury(Hg): IEC 62321-4:2013+AMD1:2017 CSV



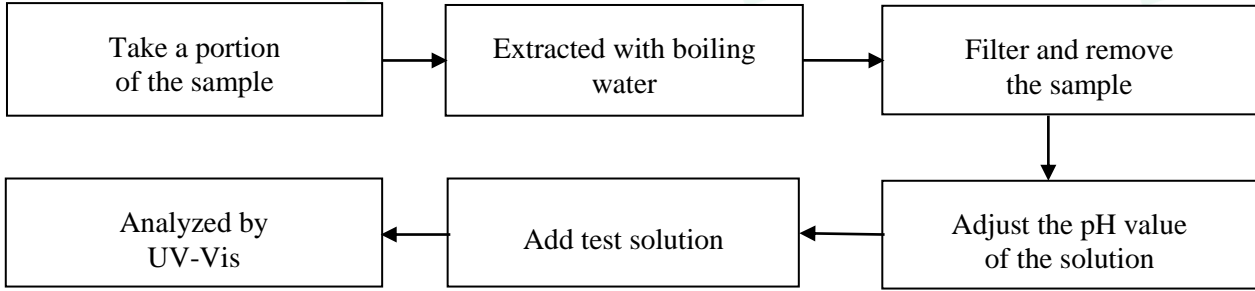
3. Hexavalent Chromium(Cr(VI))

1) IEC 62321-7-2:2017

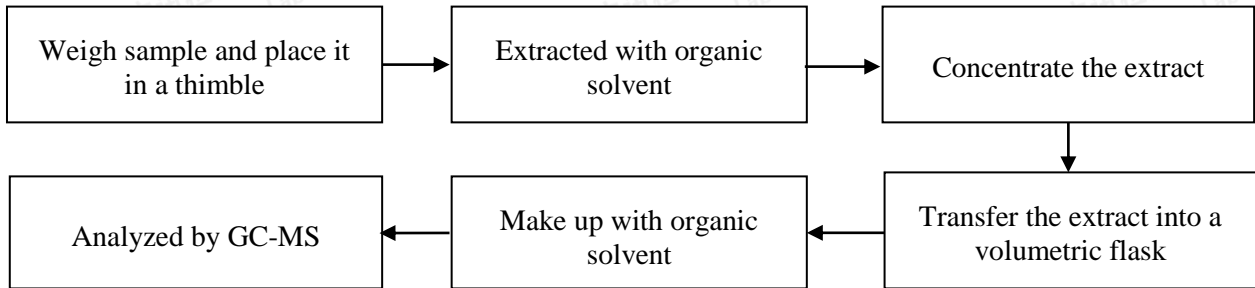




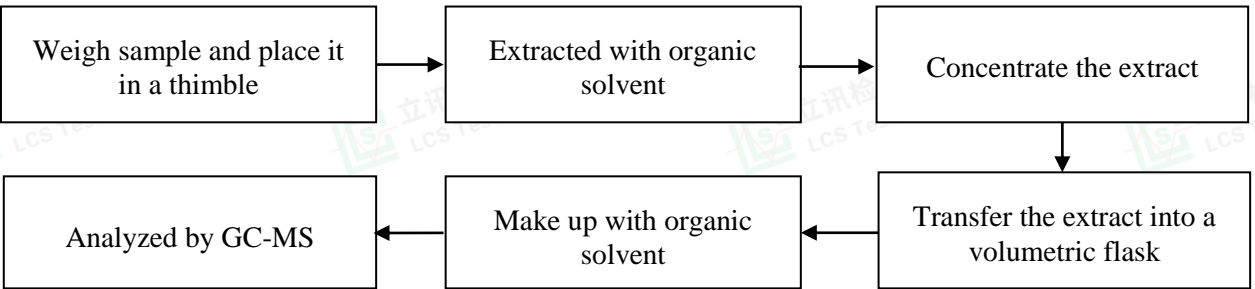
2) IEC 62321-7-1:2015



4. Polybrominated Biphenyls(PBBs) & Polybrominated Diphenyl Ethers(PBDEs) : IEC 62321-6:2015

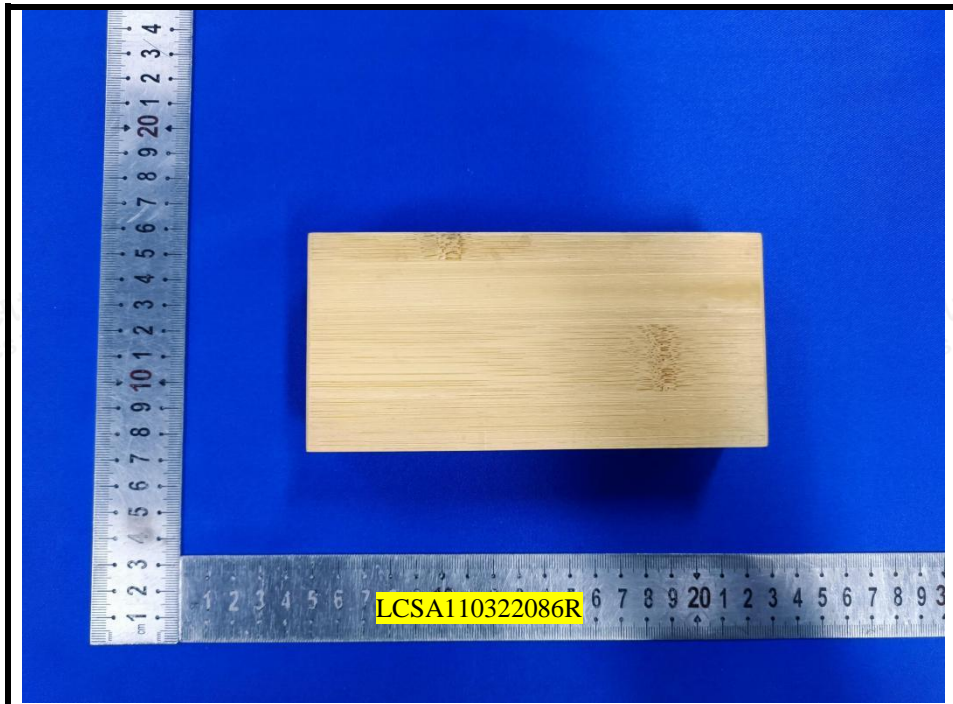


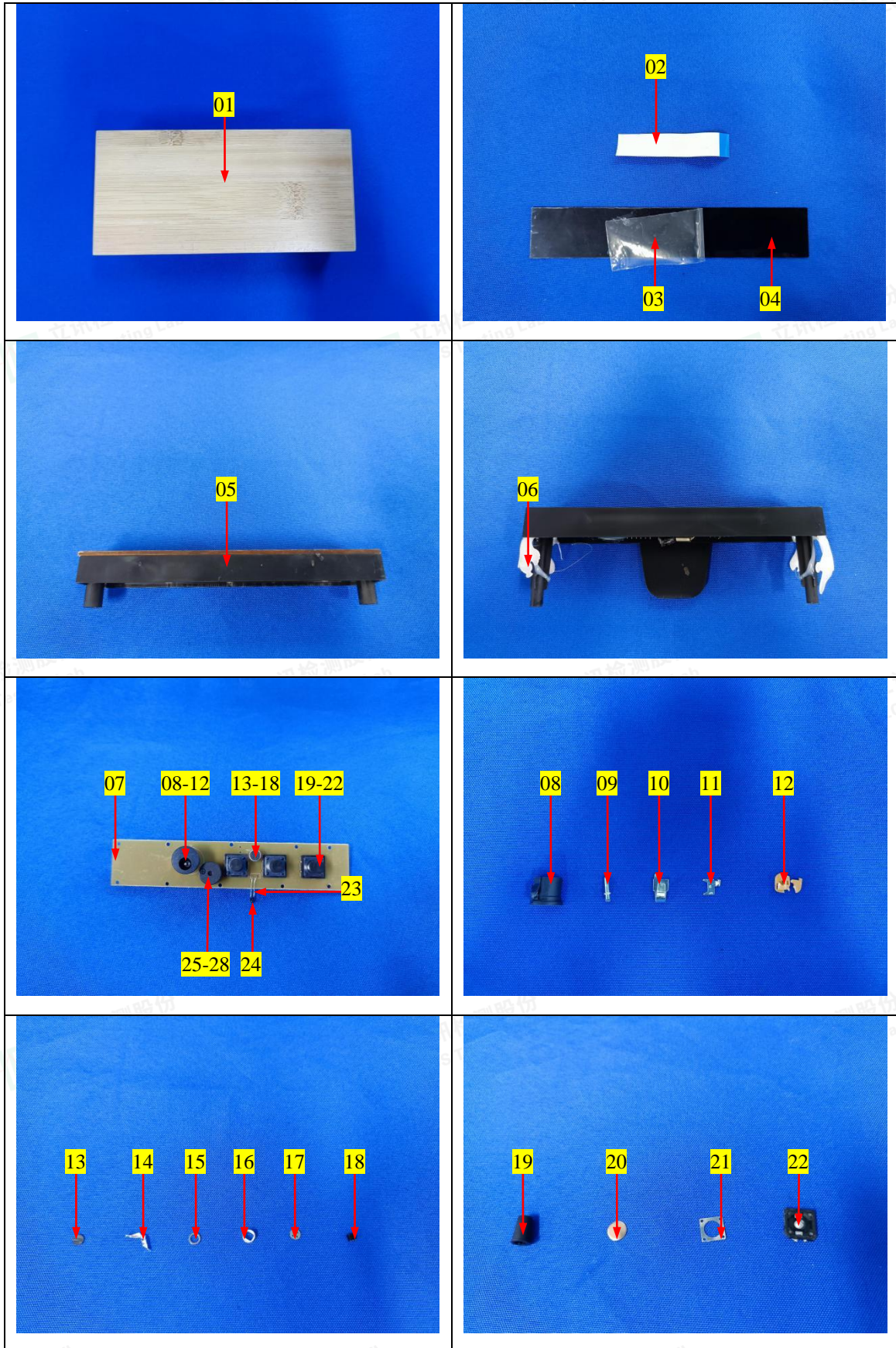
5. Phthalates(DBP, BBP, DEHP & DIBP) : IEC 62321-8:2017

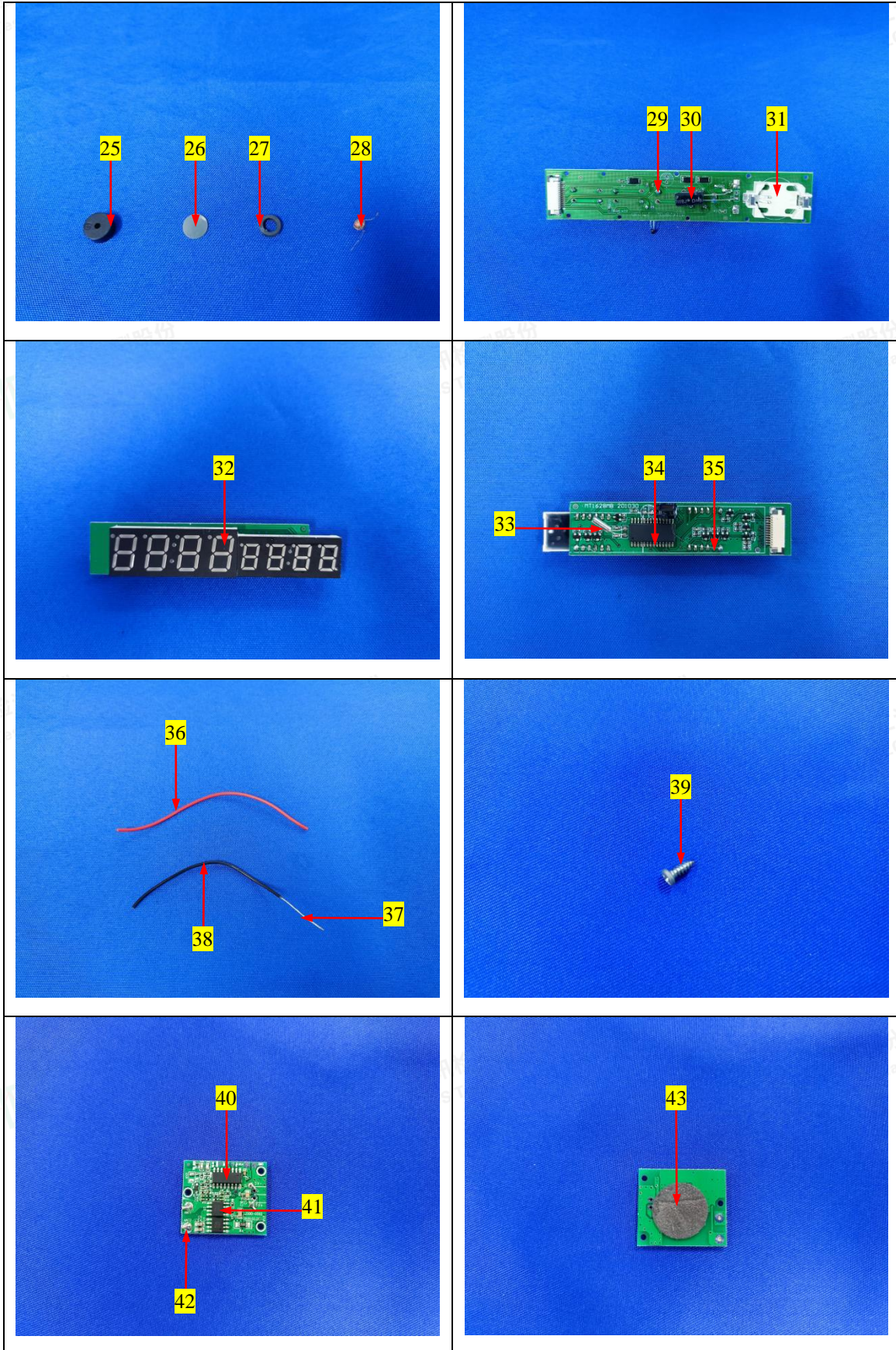


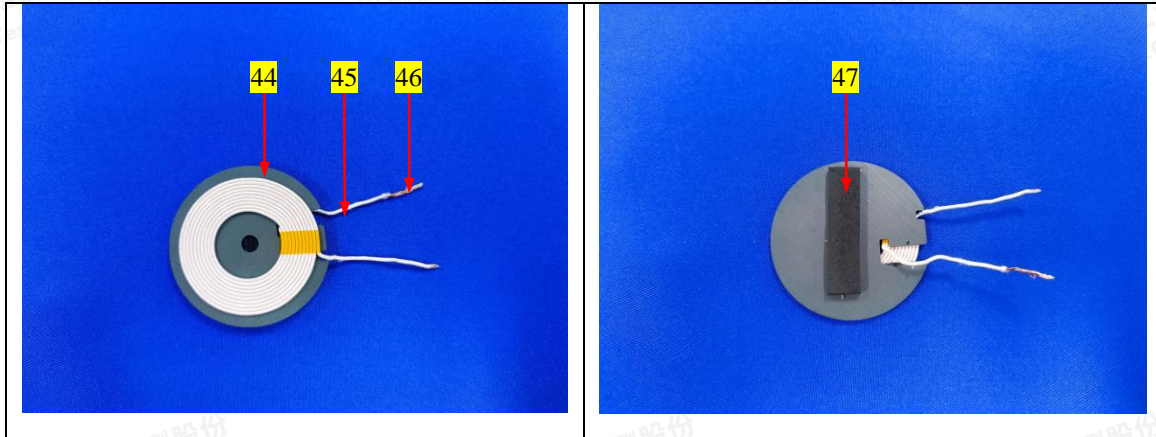


The photo(s) of the sample









Statement:

1. The test report is invalid without the signature of the approver and the special seal for the company's report;
2. The company name, address and sample information shown on the report were provided by the applicant who should be responsible for the authenticity which are not verified by LCS;
3. The test results in this report are only responsible for the tested samples;
4. Without written approval of LCS, this report can't be reproduced except in full;
5. In case of any discrepancy between the corresponding Chinese and English contents in the test report, the English version shall prevail.

*** End of Report ***





Verification Report

Applicant : Mid Ocean Brands B.V.
Address : 7/F., Kings Tower, 111 King Lam Street, Cheung Sha Wan, Kowloon, Hong Kong

Report on the submitted samples said to be:

Sample Name(s) : AC/DC ADAPTOR
Trade Mark : N/A
Part No. : MO6139, MO9456
Sample Received Date : November 07, 2022
Testing Period : November 07, 2022 ~ November 14, 2022
Date of Report : November 14, 2022
Testing Location : 901, No.40 Building, Xialang Industrial Zone, Heshuikou Community, Matian Street, Guangming District, Shenzhen, Guangdong, China
Results : Please refer to next page(s).

TEST REQUEST	CONCLUSION
As specified by client, based on the performed tests on submitted sample, the result of Lead(Pb), Cadmium(Cd), Mercury(Hg), Hexavalent Chromium(Cr(VI)), PBBs, PBDEs, Dibutyl Phthalate(DBP), Butylbenzyl Phthalate(BBP), Di-2-ethylhexyl Phthalate(DEHP) and Diisobutyl phthalate(DIBP) content comply with the limits set by RoHS Directive 2011/65/EU with amendment (EU) 2015/863.	PASS

Signed for and on behalf of LCS

Young/Laboratory Manager



**Results:****A. EU RoHS Directive 2011/65/EU and its amendment directives**

Test method: With reference to IEC 62321-1:2013&IEC 62321-2:2021&IEC 62321-3-1:2013, Screening by X-ray Fluorescence Spectroscopy (XRF)

Sample No.	Sample Description	Results						Date of sample submission/ Resubmission
		Cd	Pb	Hg	Cr ^v	Br ^v		
						PBBs	PBDEs	
1	Silver metal contact	BL	BL	BL	BL	/	/	2022-11-07
2	Black plastic	BL	BL	BL	BL	X	X	2022-11-07
3	Black plastic shell	BL	BL	BL	BL	BL	BL	2022-11-07
4	Transparent plastic film	BL	BL	BL	BL	BL	BL	2022-11-07
5	Silver metal	BL	BL	BL	BL	/	/	2022-11-07
6	White plastic plate	BL	BL	BL	BL	BL	BL	2022-11-07
7	Silver metal core	BL	BL	BL	BL	/	/	2022-11-07
8	Black body resistance	BL	BL	BL	BL	X	X	2022-11-07
9	Silver metal pin	BL	BL	BL	BL	/	/	2022-11-07
10	White printed blue plastic skin	BL	BL	BL	BL	BL	BL	2022-11-07
11	Silver metal shell	BL	BL	BL	BL	/	/	2022-11-07
12	Black plastic plug	BL	BL	BL	BL	BL	BL	2022-11-07
13	Silver metal pin	BL	BL	BL	BL	/	/	2022-11-07
14	Brown wet paper	BL	BL	BL	BL	BL	BL	2022-11-07
15	Dark silver metallic aluminum foil	BL	BL	BL	BL	/	/	2022-11-07
16	Bright silver metallic aluminum foil	BL	BL	BL	BL	/	/	2022-11-07
17	White fixing adhesive	BL	BL	BL	BL	BL	BL	2022-11-07
18	Black printed transparent label	BL	BL	BL	BL	BL	BL	2022-11-07
19	Yellow tape	BL	BL	BL	BL	BL	BL	2022-11-07
20	Gray metal inductor	BL	BL	BL	BL	/	/	2022-11-07
21	Black ceramics	BL	BL	BL	BL	BL	BL	2022-11-07
22	Copper wire	BL	BL	BL	BL	/	/	2022-11-07
23	Black body IC	BL	BL	BL	BL	BL	BL	2022-11-07
24	Black printed blue plastic skin	BL	BL	BL	BL	BL	BL	2022-11-07
25	White printed brown plastic skin	BL	BL	BL	BL	BL	BL	2022-11-07
26	Black plastic skin	BL	BL	BL	BL	BL	BL	2022-11-07
27	Color ring green body resistance	BL	BL	BL	BL	BL	BL	2022-11-07



Shenzhen LCS Compliance Testing Laboratory Ltd.

Add: 901, No.40 Building, Xialang Industrial Zone, Heshuikou Community, Matian Street, Guangming District, Shenzhen, Guangdong, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity



Sample No.	Sample Description	Results						Date of sample submission/ Resubmission
		Cd	Pb	Hg	Cr▼	Br▼		
						PBBs	PBDEs	
28	Black body capacitor	BL	BL	BL	BL	BL	BL	2022-11-07
29	Black body diode	BL	BL	BL	BL	BL	BL	2022-11-07
30	Green PCB board	BL	BL	BL	BL	X	X	2022-11-07
31	Tin solder	BL	BL	BL	BL	/	/	2022-11-07
32	Black plastic thread leather	BL	BL	BL	BL	BL	BL	2022-11-07
33	White plastic thread	BL	BL	BL	BL	BL	BL	2022-11-07
34	Red plastic thread leather	BL	BL	BL	BL	BL	BL	2022-11-07
35	Copper wire	BL	X	BL	BL	/	/	2022-11-07
36	Silver metal	BL	BL	BL	BL	/	/	2022-11-07
37	Tin solder	BL	BL	BL	BL	/	/	2022-11-07
38	White plastic plate	BL	BL	BL	BL	BL	BL	2022-11-07
39	Silver metal	BL	BL	BL	BL	/	/	2022-11-07
40	Black plastic joint	BL	BL	BL	BL	BL	BL	2022-11-07

Note:

- Results were obtained by XRF for primary screening, and further chemical testing by ICP(for Cd, Pb, Hg), UV-Vis(for Cr(VI)) and GC-MS(for PBBs, PBDEs) are recommended to be performed, if the concentration exceeds the below warning value according to IEC 62321-3-1:2013(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	$BL \leq (300-3\sigma) < X$	N/A	$BL \leq (250-3\sigma) < X$

Remark:

- BL= Below Limit
 - OL= Over Limit
 - X= The range of needing to do further testing
 - 3σ= The reproducibility of analytical instruments
 - N/A= Not applicable
 - LOD= Detection limit
- The XRF screening test for RoHS elements – The reading may be different to the actual content in the sample be of non-uniformity composition.
 - The maximum permissible limit is quoted from the document RoHS Directive 2011/65/EU with amendment (EU) 2015/863.
 - ▼=For restricted substances PBBs and PBDEs, the results show the total Br content, the restricted substance was Cr(VI), and the results showed the total Cr content.





RoHS Restricted Substances	Maximum Concentration Value (mg/kg) (by weight in homogenous materials)
Cadmium(Cd)	100
Lead(Pb)	1000
Mercury(Hg)	1000
Hexavalent Chromium(Cr(VI))	1000
Polybrominated biphenyls(PBBs)	1000
Polybrominated diphenylethers(PBDEs)	1000
Dibutyl Phthalate(DBP)	1000
Butylbenzyl Phthalate(BBP)	1000
Di-(2-ethylhexyl) Phthalate(DEHP)	1000
Diisobutyl phthalate(DIBP)	1000

Disclaimers:

This XRF Screening report is for reference purposes only. The applicant shall make its/his/her own judgment as to whether the information provided in this XRF screening report is sufficient for its/his/her purposes. The result shown in this XRF screening report will differ based on various factors, including but not limited to, the sample size, thickness, area, surface flatness, equipment parameters and matrix effect (e.g. plastic, rubber, metal, glass, ceramic etc.). Further wet chemical pre-treatment with relevant chemical equipment analysis are required to obtain quantitative data.





B. EU RoHS Directive 2011/65/EU with amendment (EU) 2015/863 on Lead(Pb), Cadmium(Cd), Mercury(Hg), Hexavalent Chromium(Cr(VI)), PBBs, PBDEs, DBP, BBP, DEHP & DIBP content

Test method:

Lead(Pb) & Cadmium(Cd) Content:

With reference to IEC 62321-5:2013, by acid digestion and analysis was performed by inductively coupled plasma atomic emission spectrometer (ICP-OES) or Atomic absorption spectrometer (AAS).

Mercury(Hg) Content:

With reference to IEC 62321-4:2013+AMD1:2017 CSV, by acid digestion and analysis was performed by inductively coupled plasma atomic emission spectrometer (ICP-OES).

Hexavalent Chromium(Cr(VI)) Content:

With reference to IEC 62321-7-1:2015 or IEC 62321-7-2:2017, analysis was performed by UV-visible spectrophotometer (UV-Vis).

PBBs & PBDEs Content:

With reference to IEC 62321-6:2015, by solvent extraction and analysis was performed by gas chromatographic-mass spectrometer (GC-MS).

Phthalates(DBP, BBP, DEHP &DIBP) Content:

With reference to IEC 62321-8:2017, by solvent extraction and analysis was performed by gas chromatographic-mass spectrometer (GC-MS).

1) The test results of Lead(Pb)

Tested Items	MDL (mg/kg)	Results (mg/kg)	Limit (mg/kg)
		(35)	
Lead(Pb) Content	5	N.D.	1000

2) The test results of Phthalates(DBP, BBP, DEHP &DIBP)

Tested Items	MDL (mg/kg)	Results (mg/kg)	Limit (mg/kg)
		2+3+4+6+8+10	
Dibutyl Phthalate(DBP) Content	600	N.D.	1000
Butylbenzyl Phthalate(BBP) Content	600	N.D.	1000
Di-(2-ethylhexyl) Phthalate(DEHP) Content	600	N.D.	1000
Diisobutyl phthalate(DIBP) Content	600	N.D.	1000





Tested Items	MDL (mg/kg)	Results (mg/kg)	Limit (mg/kg)
		12+14+17+18+19+21	
Dibutyl Phthalate(DBP) Content	600	N.D.	1000
Butylbenzyl Phthalate(BBP) Content	600	N.D.	1000
Di-(2-ethylhexyl) Phthalate(DEHP) Content	600	N.D.	1000
Diisobutyl phthalate(DIBP) Content	600	N.D.	1000

Tested Items	MDL (mg/kg)	Results (mg/kg)	Limit (mg/kg)
		23+24+25+26+27+28	
Dibutyl Phthalate(DBP) Content	600	N.D.	1000
Butylbenzyl Phthalate(BBP) Content	600	N.D.	1000
Di-(2-ethylhexyl) Phthalate(DEHP) Content	600	N.D.	1000
Diisobutyl phthalate(DIBP) Content	600	N.D.	1000

Tested Items	MDL (mg/kg)	Results (mg/kg)	Limit (mg/kg)
		29+30+32+33+34+38	
Dibutyl Phthalate(DBP) Content	600	N.D.	1000
Butylbenzyl Phthalate(BBP) Content	600	N.D.	1000
Di-(2-ethylhexyl) Phthalate(DEHP) Content	600	N.D.	1000
Diisobutyl phthalate(DIBP) Content	600	N.D.	1000

Tested Items	MDL (mg/kg)	Results (mg/kg)	Limit (mg/kg)
		40	
Dibutyl Phthalate(DBP) Content	100	N.D.	1000
Butylbenzyl Phthalate(BBP) Content	100	N.D.	1000
Di-(2-ethylhexyl) Phthalate(DEHP) Content	100	N.D.	1000
Diisobutyl phthalate(DIBP) Content	100	N.D.	1000



Shenzhen LCS Compliance Testing Laboratory Ltd.

Add: 901, No.40 Building, Xialang Industrial Zone, Heshuikou Community, Matian Street, Guangming District, Shenzhen, Guangdong, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity

**3) The test results of PBBs & PBDEs**

Tested Items	MDL (mg/kg)	Results (mg/kg)			Limit (mg/kg)
		(2)	(8)	(30)	
Polybrominated Biphenyls(PBBs) Content					
Monobromobiphenyl	5	N.D.	N.D.	N.D.	/
Dibromobiphenyl	5	N.D.	N.D.	N.D.	/
Tribromobiphenyl	5	N.D.	N.D.	N.D.	/
Tetrabromobiphenyl	5	N.D.	N.D.	N.D.	/
Pentabromobiphenyl	5	N.D.	N.D.	N.D.	/
Hexabromobiphenyl	5	N.D.	N.D.	N.D.	/
Heptabromobiphenyl	5	N.D.	N.D.	N.D.	/
Octabromobiphenyl	5	N.D.	N.D.	N.D.	/
Nonabromodiphenyl	5	N.D.	N.D.	N.D.	/
Decabromodiphenyl	5	N.D.	N.D.	N.D.	/
Total content	/	N.D.	N.D.	N.D.	1000
Polybrominated Diphenylethers(PBDEs) Content					
Monobromodiphenyl ether	5	N.D.	N.D.	N.D.	/
Dibromodiphenyl ether	5	N.D.	N.D.	N.D.	/
Tribromodiphenyl ether	5	N.D.	N.D.	N.D.	/
Tetrabromodiphenyl ether	5	N.D.	N.D.	N.D.	/
Pentabromodiphenyl ether	5	N.D.	N.D.	N.D.	/
Hexabromodiphenyl ether	5	N.D.	N.D.	N.D.	/
Heptabromodiphenyl ether	5	N.D.	N.D.	N.D.	/
Octabromodiphenyl ether	5	N.D.	N.D.	N.D.	/
Nonabromodiphenyl ether	5	N.D.	N.D.	N.D.	/
Decabromodiphenyl ether	5	N.D.	N.D.	N.D.	/
Total content	/	N.D.	N.D.	N.D.	1000

Note:

- MDL = Method Detection Limit
- N.D. = Not Detected (<MDL)
- mg/kg = milligrams per kilogram
- According to customer's requirement, only the appointed materials have been tested.



Shenzhen LCS Compliance Testing Laboratory Ltd.

Add: 901, No.40 Building, Xialang Industrial Zone, Heshuikou Community, Matian Street, Guangming District, Shenzhen, Guangdong, China

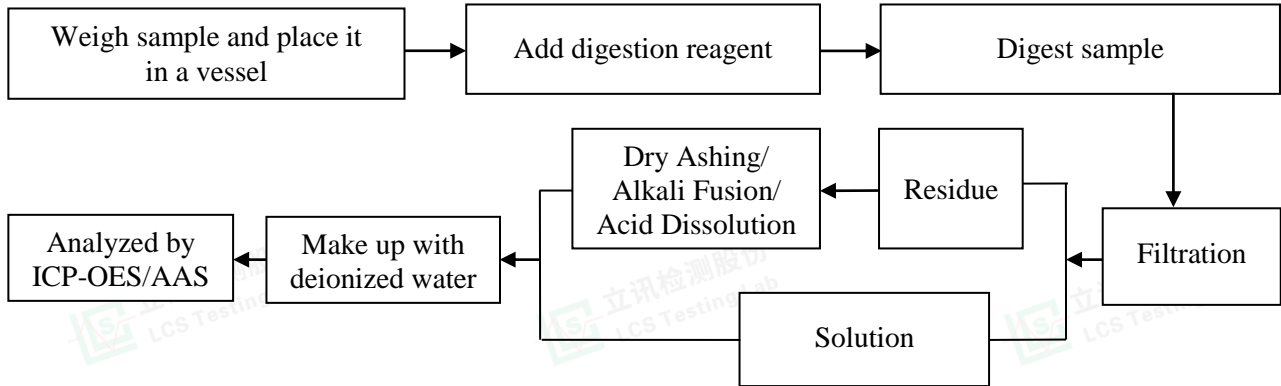
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity

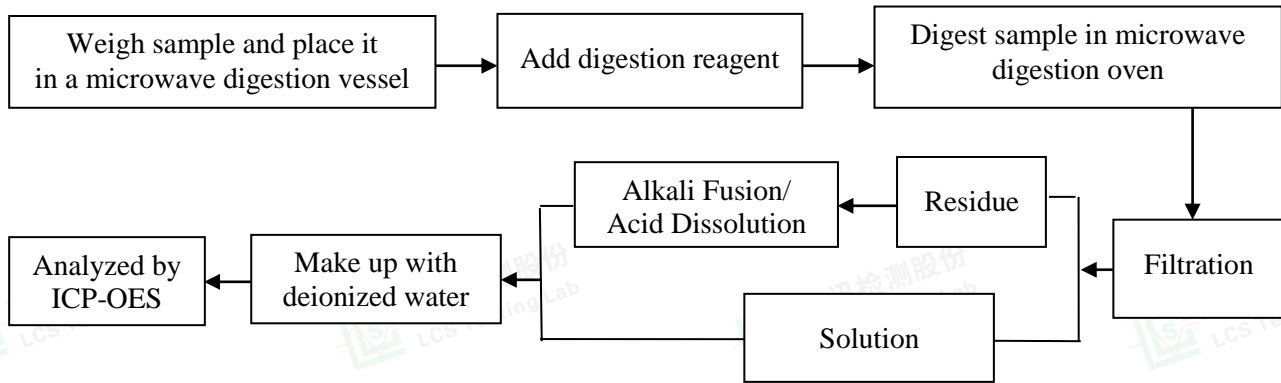


Test Process

1. Lead(Pb) & Cadmium(Cd): IEC 62321-5:2013

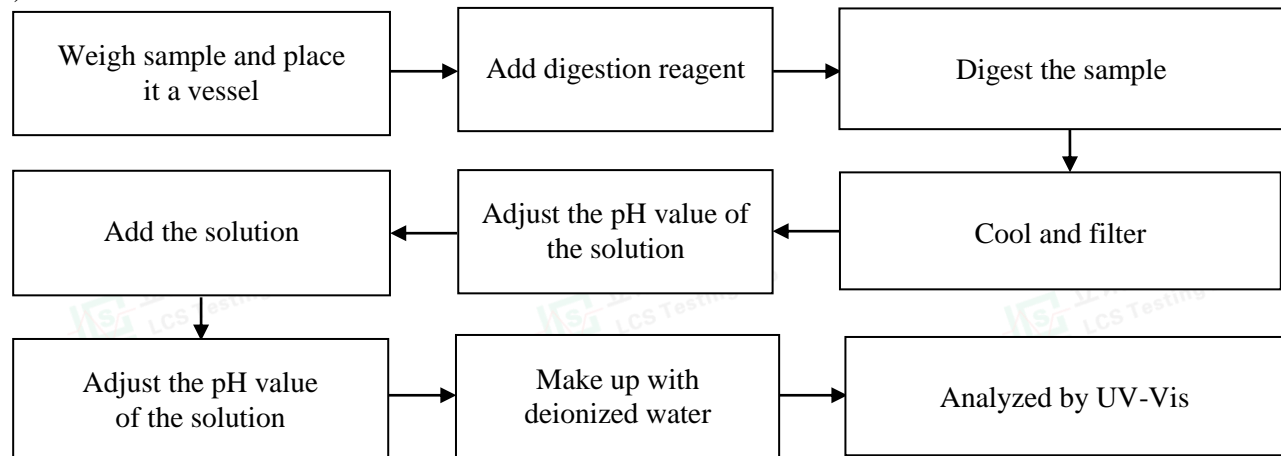


2. Mercury(Hg): IEC 62321-4:2013+AMD1:2017 CSV



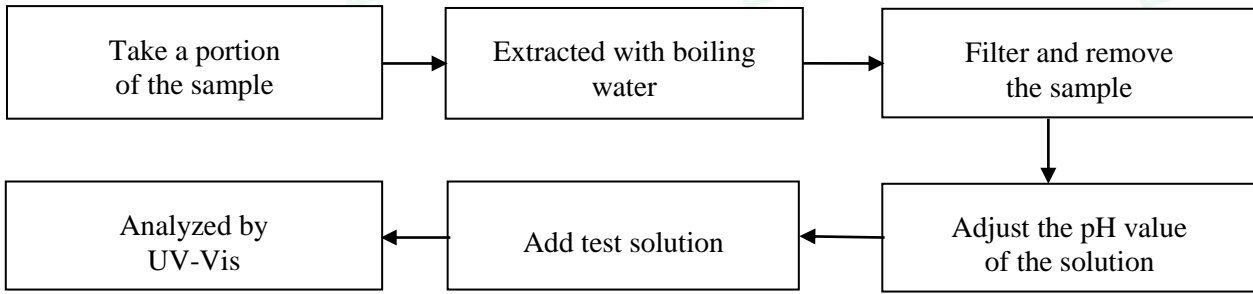
3. Hexavalent Chromium(Cr(VI))

1) IEC 62321-7-2:2017

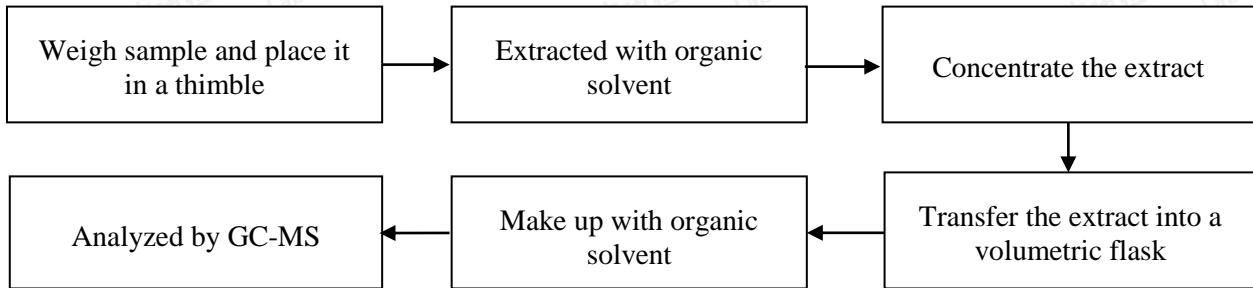




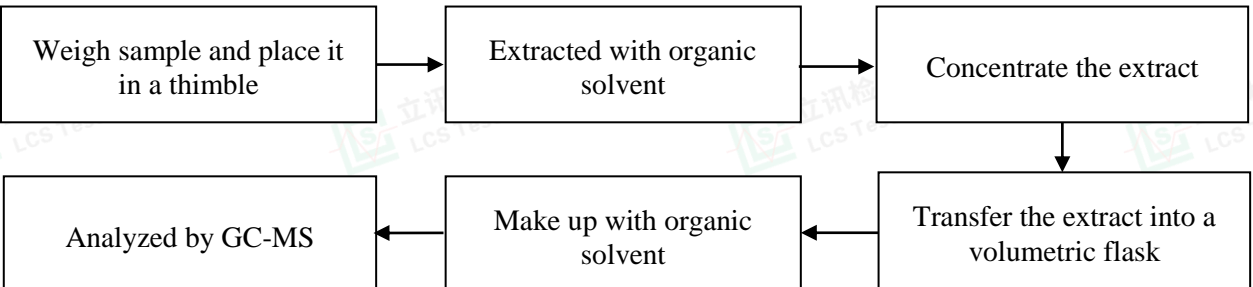
2) IEC 62321-7-1:2015



4. Polybrominated Biphenyls(PBBs) & Polybrominated Diphenyl Ethers(PBDEs) : IEC 62321-6:2015

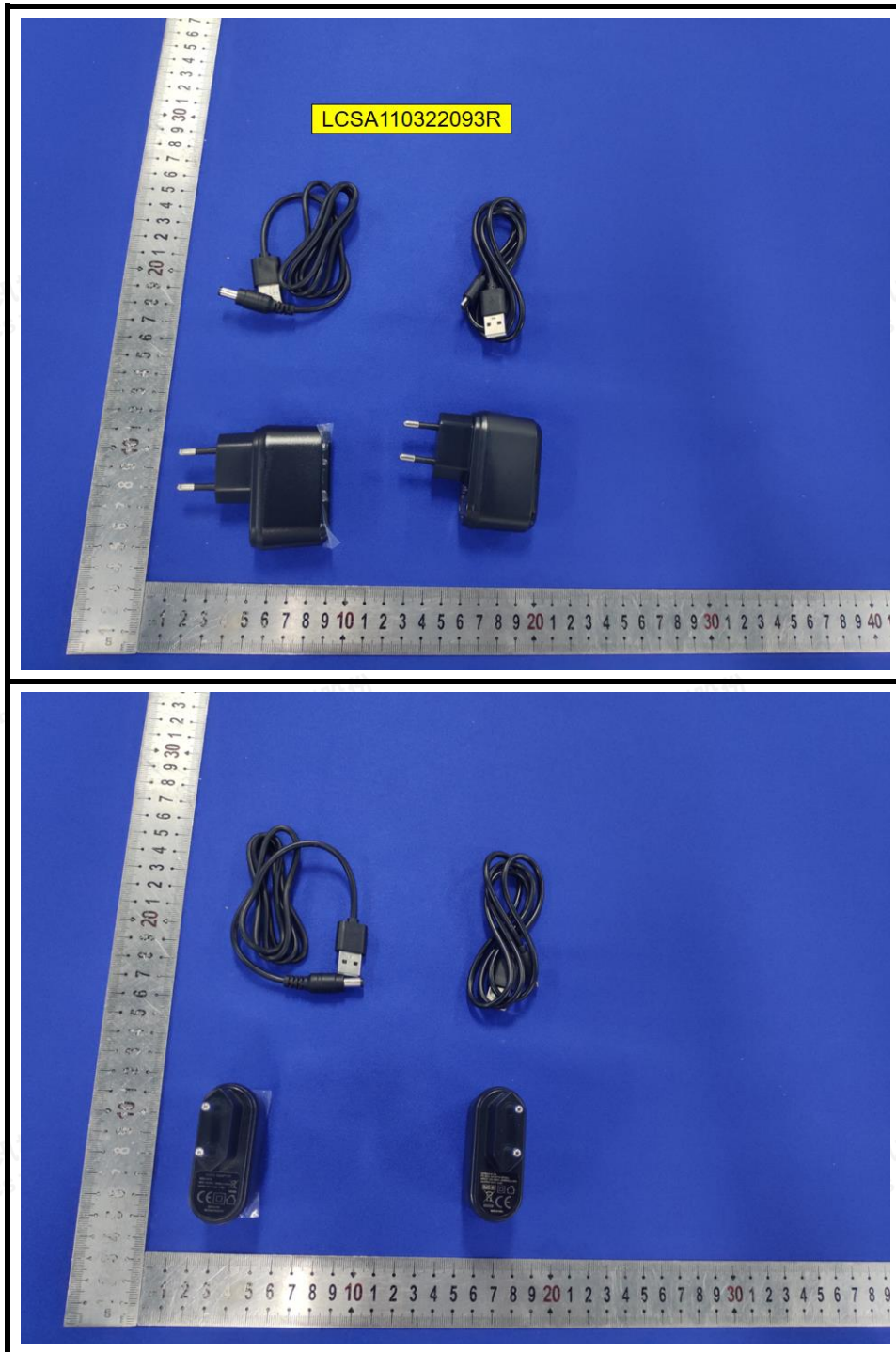


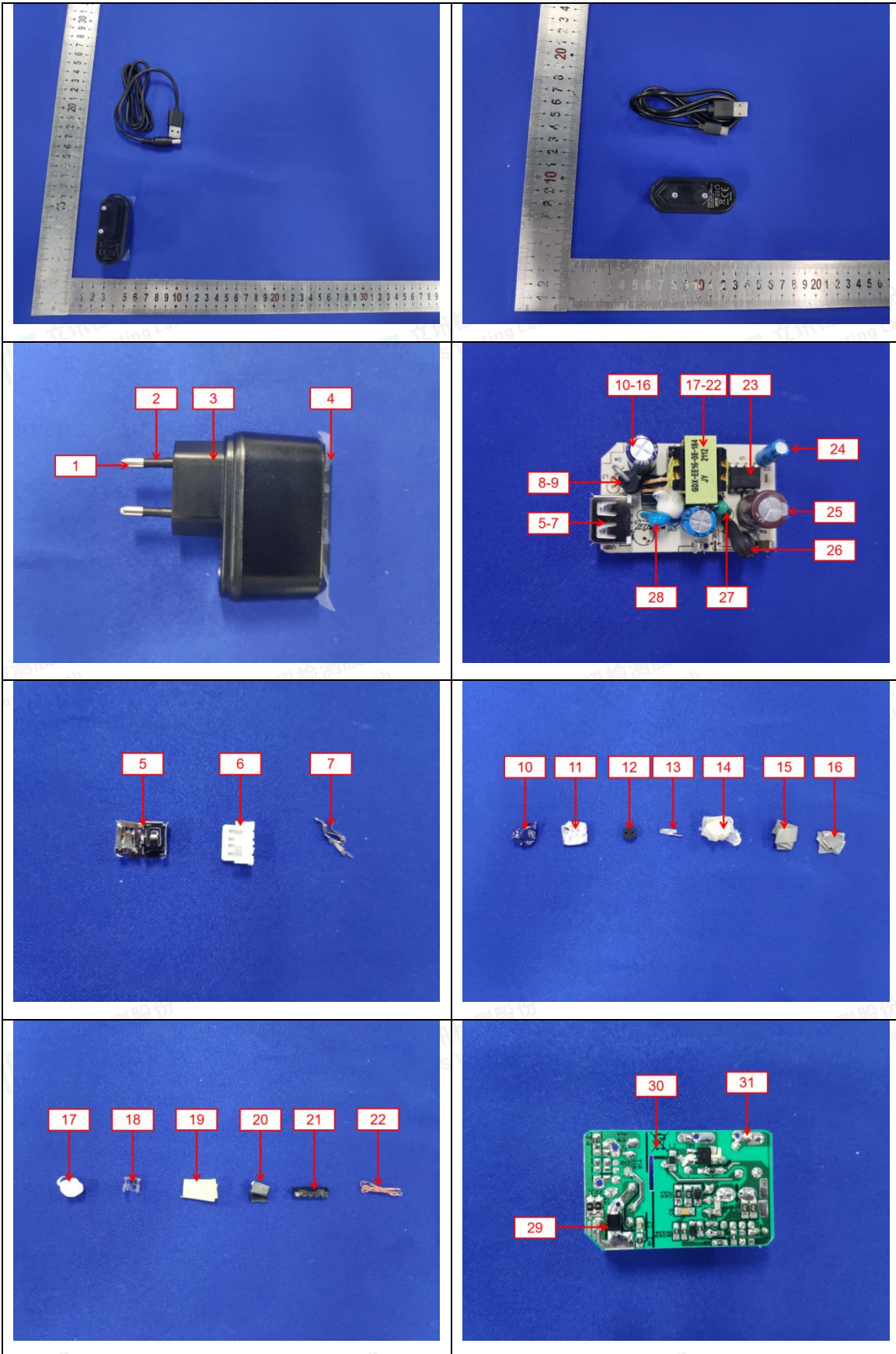
5. Phthalates(DBP, BBP, DEHP & DIBP) : IEC 62321-8:2017

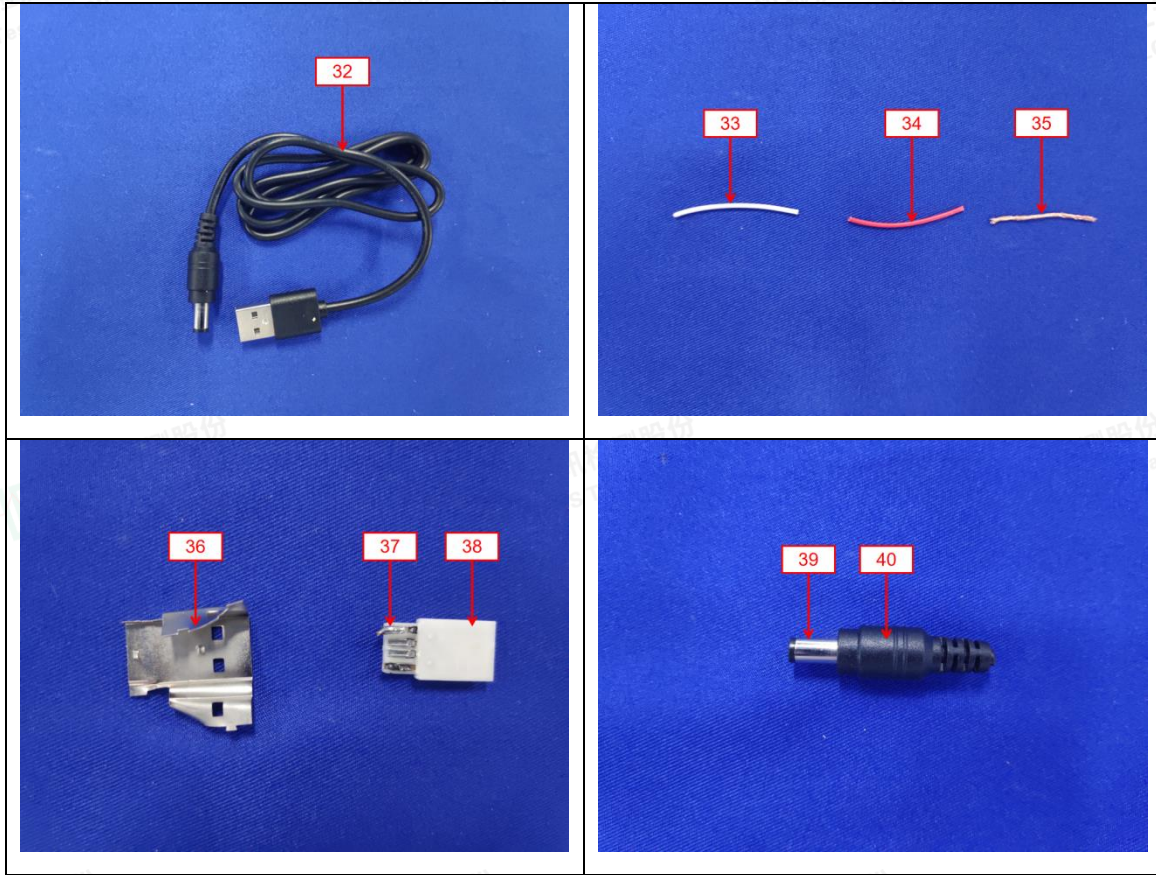




The photo(s) of the sample







Statement:

1. The test report is invalid without the signature of the approver and the special seal for the company's report;
2. The company name, address and sample information shown on the report were provided by the applicant who should be responsible for the authenticity which are not verified by LCS;
3. The test results in this report are only responsible for the tested samples;
4. Without written approval of LCS, this report can't be reproduced except in full;
5. In case of any discrepancy between the corresponding Chinese and English contents in the test report, the English version shall prevail.

*** End of Report ***

