Verification Report

Applicant	:	**DongGuan Kemi Electronics Technology Co., Ltd**
Address	:	**Room 201, Floor 2, Building 4, Taixing Science Park, No.3, Taixing Road, Shigu, Tangxia Town, Dongguan city, China**

Report on the submitted samples said to be:

Sample Name(s)	:	**Bluetooth headset**
Trade Mark	:	**N/A**
Part No.	:	**X6, X17, WEINTRAOS32G**
Sample Received Date	:	**June 09, 2023**
Testing Period	:	**June 09, 2023 ~ June 14, 2023**
Date of Report	:	**June 14, 2023**
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

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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).

Test result(s):

Sample No.	Sample Description	Screening Result(s)						Date of sample submission/ Resubmission
		Cd	Pb	Hg	Cr▼	Br▼		
						PBBs	PBDEs	
1	White plastic shell with black coating	BL	BL	BL	BL	BL	BL	2023-06-09
2	Black plastic cover with white coating	BL	BL	BL	BL	BL	BL	2023-06-09
3	Black soft sealant	BL	BL	BL	BL	BL	BL	2023-06-09
4	Gold metal contacts	BL	OL	BL	BL	/	/	2023-06-09
5	Colorless transparent plastic board	BL	BL	BL	BL	BL	BL	2023-06-09
6	Silver metal magnet	BL	BL	BL	BL	/	/	2023-06-09
7	Black plated silver metal screw	BL	BL	BL	BL	/	/	2023-06-09
8	Silver crystal oscillator	BL	BL	BL	BL	/	/	2023-06-09
9	Brown body (SMD capacitor)	BL	BL	BL	BL	BL	BL	2023-06-09
10	Black magnetic core (inductance)	BL	BL	BL	BL	/	/	2023-06-09
11	Beige plastic base shell	BL	BL	BL	BL	BL	BL	2023-06-09
12	Silver metal pins	BL	BL	BL	BL	/	/	2023-06-09
13	Black plastic buttons	BL	BL	BL	BL	BL	BL	2023-06-09
14	Silver metal shrapnel	BL	BL	BL	BL	/	/	2023-06-09
15	Silver metal shell	BL	BL	BL	BL	/	/	2023-06-09
16	Soldering tin	BL	BL	BL	BL	/	/	2023-06-09
17	Green PCB board	BL	BL	BL	BL	BL	BL	2023-06-09
18	Black/white body (SMD resistor)	BL	BL	BL	BL	BL	BL	2023-06-09
19	Black body	BL	BL	BL	BL	BL	BL	2023-06-09
20	White body (LED)	BL	BL	BL	BL	BL	BL	2023-06-09
21	Black body (IC)	BL	BL	BL	BL	BL	BL	2023-06-09
22	Black body (IC)	BL	BL	BL	BL	BL	BL	2023-06-09
23	Silver metal gray coating	BL	BL	BL	BL	/	/	2023-06-09
24	Black soft plastic outer skin	BL	BL	BL	BL	BL	BL	2023-06-09
25	Silver wire	BL	BL	BL	BL	/	/	2023-06-09

Sample No.	Sample Description	Screening Result(s)						Date of sample submission/ Resubmission
		Cd	Pb	Hg	Cr▼	Br▼		
						PBBs	PBDEs	
26	Black soft plastic sheet adhesive	BL	BL	BL	BL	BL	BL	2023-06-09
27	Silver plastic outer skin	BL	BL	BL	BL	BL	BL	2023-06-09
28	Silver metal shell	BL	BL	BL	BL	/	/	2023-06-09
29	Green enameled wire	BL	BL	BL	BL	/	/	2023-06-09
30	Red enameled wire	BL	BL	BL	BL	/	/	2023-06-09
31	Blue enameled wire	BL	BL	BL	BL	/	/	2023-06-09
32	Gold wire	BL	BL	BL	BL	/	/	2023-06-09
33	Grey soft plastic outer skin	BL	BL	BL	BL	BL	BL	2023-06-09
34	Black plastic wire cover (outer)	BL	BL	BL	BL	BL	BL	2023-06-09
35	Black soft plastic plug housing	BL	BL	BL	BL	BL	BL	2023-06-09
36	Silver metal plug housing	BL	BL	BL	BL	/	/	2023-06-09
37	Black plastic shell	BL	BL	BL	BL	BL	BL	2023-06-09

Note:

1. 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≤(70-3σ)<X<(130+3σ)≤OL	BL≤(70-3σ)<X<(130+3σ)≤OL	LOD<X<(150+3σ)≤OL
Pb	BL≤(700-3σ)<X<(1300+3σ)≤OL	BL≤(700-3σ)<X<(1300+3σ)≤OL	BL≤(500-3σ)<X<(1500+3σ)≤OL
Hg	BL≤(700-3σ)<X<(1300+3σ)≤OL	BL≤(700-3σ)<X<(1300+3σ)≤OL	BL≤(500-3σ)<X<(1500+3σ)≤OL
Cr	BL≤(700-3σ)<X	BL≤(700-3σ)<X	BL≤(500-3σ)<X
Br	BL≤(300-3σ)<X	N/A	BL≤(250-3σ)<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

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:

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

Mercury(Hg) Content:

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

Hexavalent Chromium(Cr(VI)) Content:

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

PBBs & PBDEs Content:

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

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

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

Test result(s):

1) Lead(Pb)

Tested Item(s)	MDL (mg/kg)	Test Result(s) (mg/kg)	Limit (mg/kg)
		(4)	
Lead(Pb) Content	5	12974#1	1000

2) Phthalates(DBP, BBP, DEHP &DIBP)

Tested Item(s)	MDL (mg/kg)	Test Result(s) (mg/kg)			Limit (mg/kg)
		1	26	37	
Dibutyl Phthalate(DBP) Content	50	N.D.	N.D.	N.D.	1000
Butylbenzyl Phthalate(BBP) Content	50	N.D.	N.D.	N.D.	1000
Di-(2-ethylhexyl) Phthalate(DEHP) Content	50	N.D.	N.D.	N.D.	1000
Diisobutyl phthalate(DIBP) Content	50	N.D.	N.D.	N.D.	1000

Tested Item(s)	MDL (mg/kg)	Test Result(s) (mg/kg)	Limit (mg/kg)
		2+3+5+9+11+13	
Dibutyl Phthalate(DBP) Content	50	N.D.	1000
Butylbenzyl Phthalate(BBP) Content	50	N.D.	1000
Di-(2-ethylhexyl) Phthalate(DEHP) Content	50	N.D.	1000
Diisobutyl phthalate(DIBP) Content	50	N.D.	1000

Tested Item(s)	MDL (mg/kg)	Test Result(s) (mg/kg)	Limit (mg/kg)
		17+18+19+20+21+22	
Dibutyl Phthalate(DBP) Content	50	N.D.	1000
Butylbenzyl Phthalate(BBP) Content	50	N.D.	1000
Di-(2-ethylhexyl) Phthalate(DEHP) Content	50	N.D.	1000
Diisobutyl phthalate(DIBP) Content	50	N.D.	1000

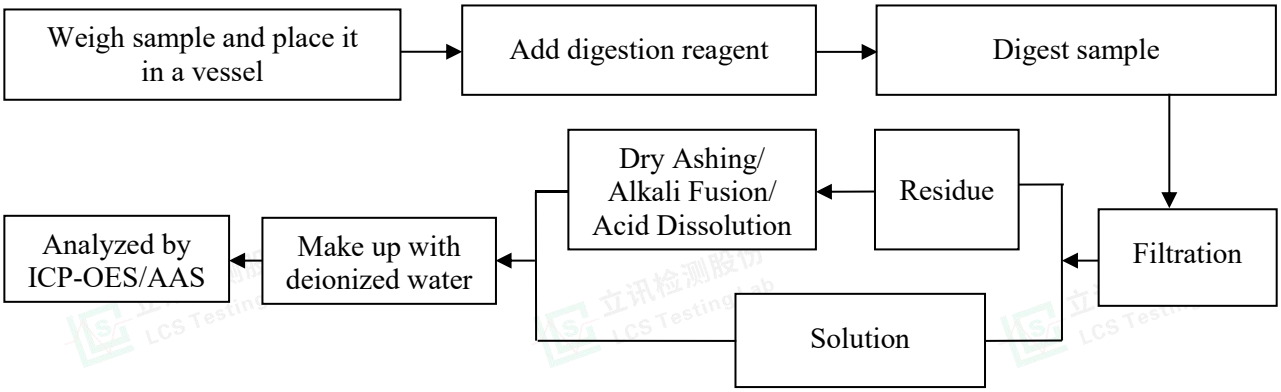
Tested Item(s)	MDL (mg/kg)	Test Result(s) (mg/kg)	Limit (mg/kg)
		24+27+33+34+35	
Dibutyl Phthalate(DBP) Content	50	N.D.	1000
Butylbenzyl Phthalate(BBP) Content	50	N.D.	1000
Di-(2-ethylhexyl) Phthalate(DEHP) Content	50	N.D.	1000
Diisobutyl phthalate(DIBP) Content	50	N.D.	1000

Note:

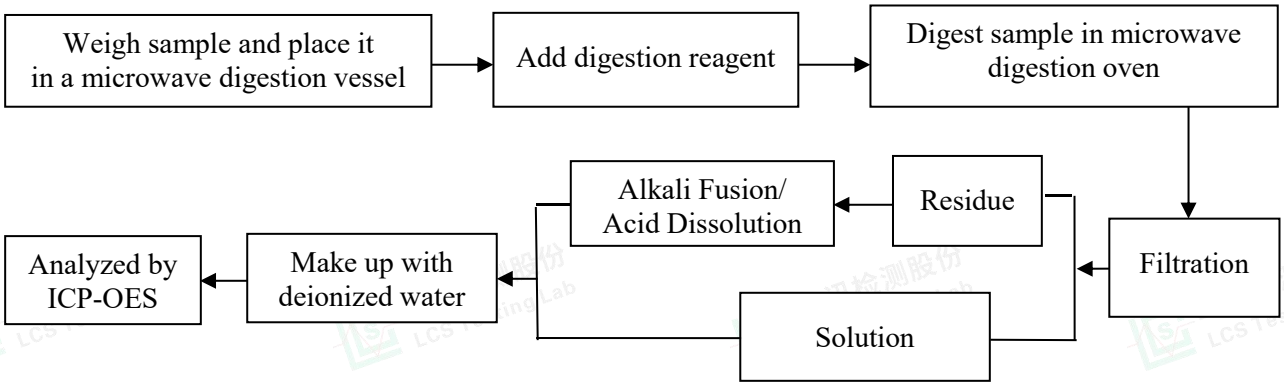
- MDL = Method Detection Limit
- N.D. = Not Detected (<MDL)
- mg= milligram
- According to customer's requirement, only the appointed materials have been tested.

Test Process

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

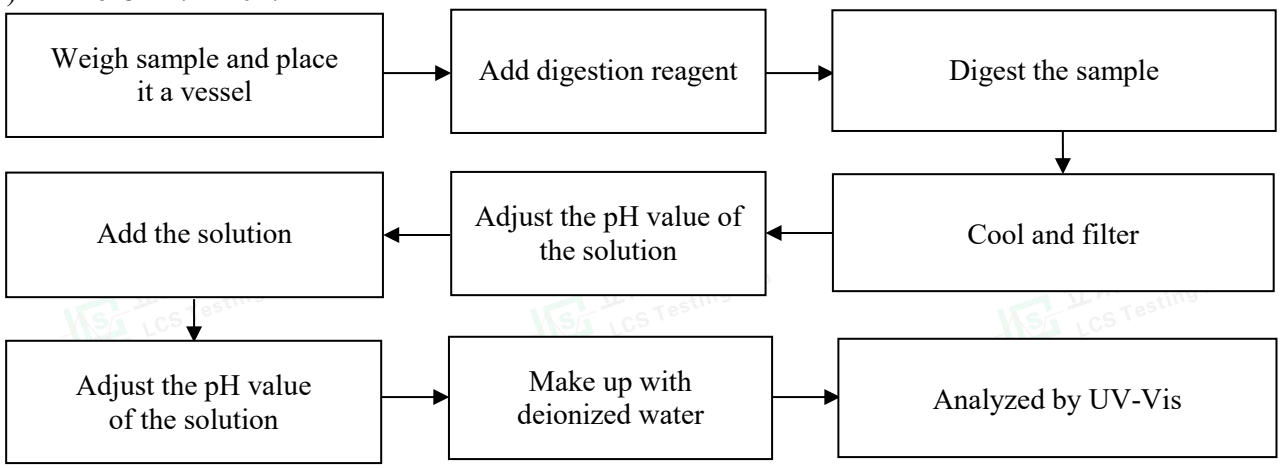


2. Mercury(Hg): IEC 62321-4:2013+AMD1:2017 CSV

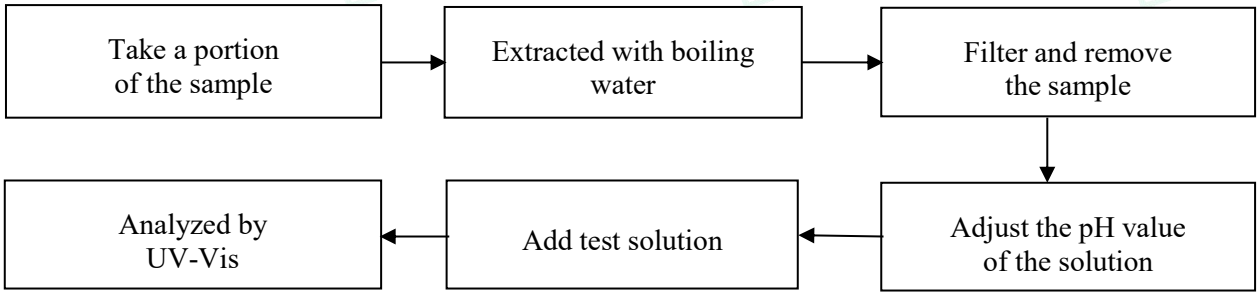


3. Hexavalent Chromium(Cr(VI))

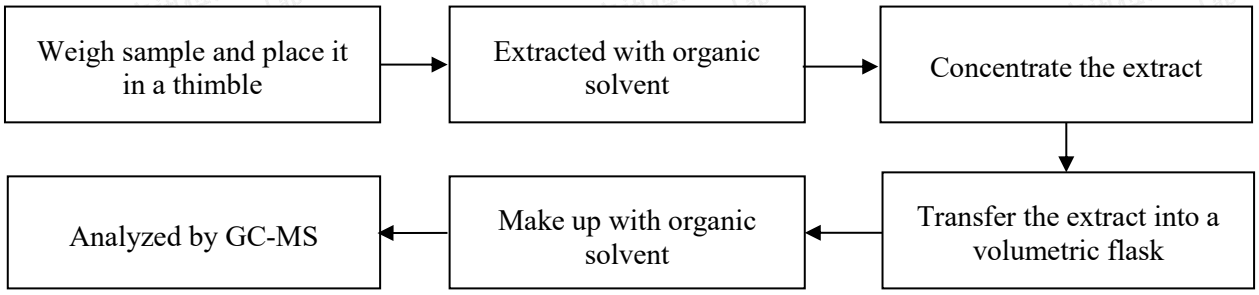
1) IEC 62321-7-2:2017



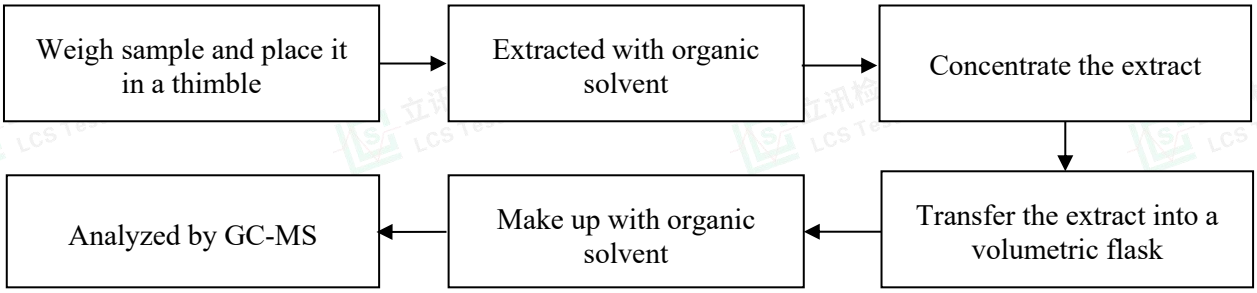
2) IEC 62321-7-1:2015



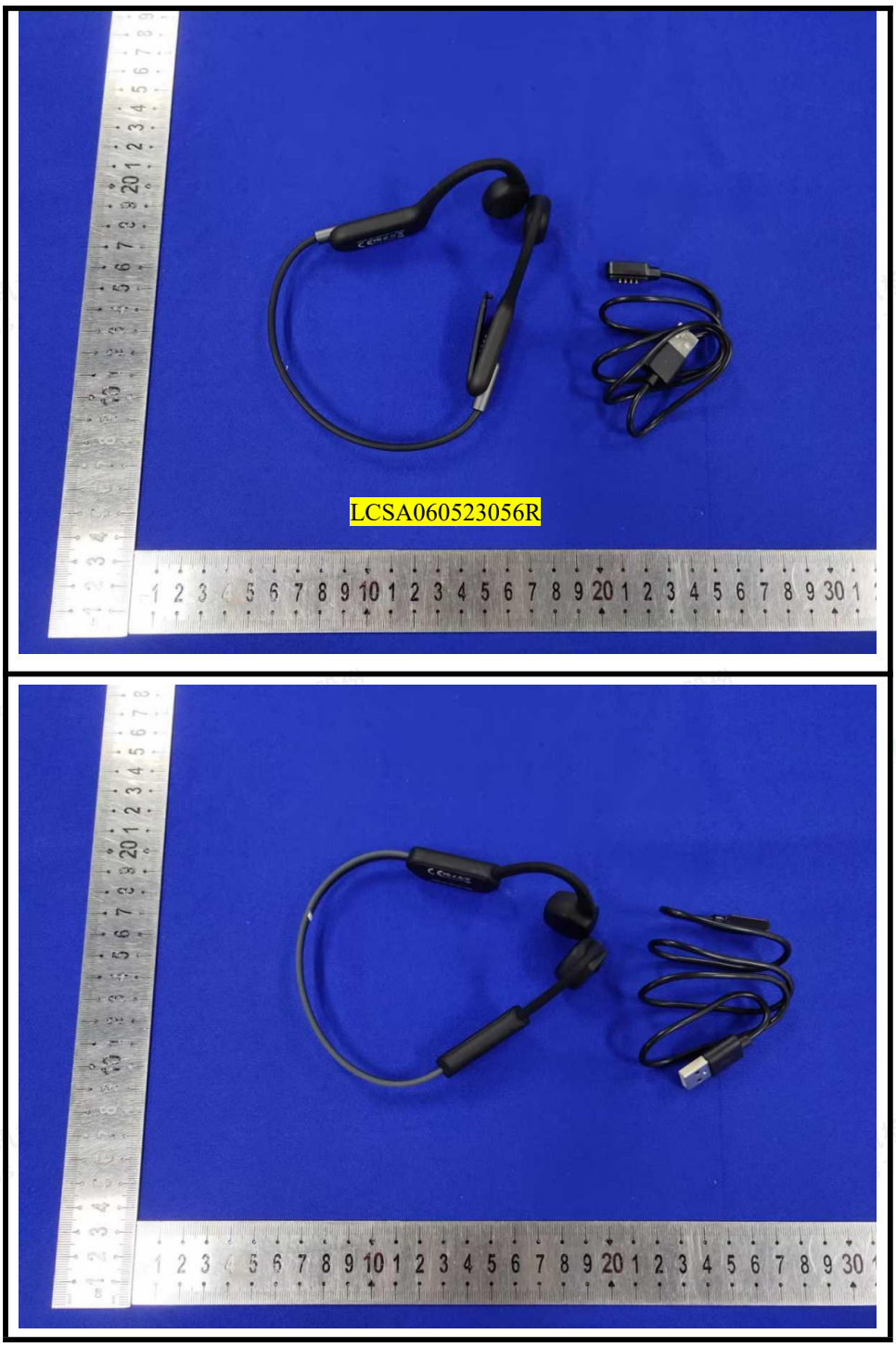
4. Polybrominated Biphenyls(PBBs) & Polybrominated Diphenyl Ethers(PBDEs) : IEC 62321-6:2015

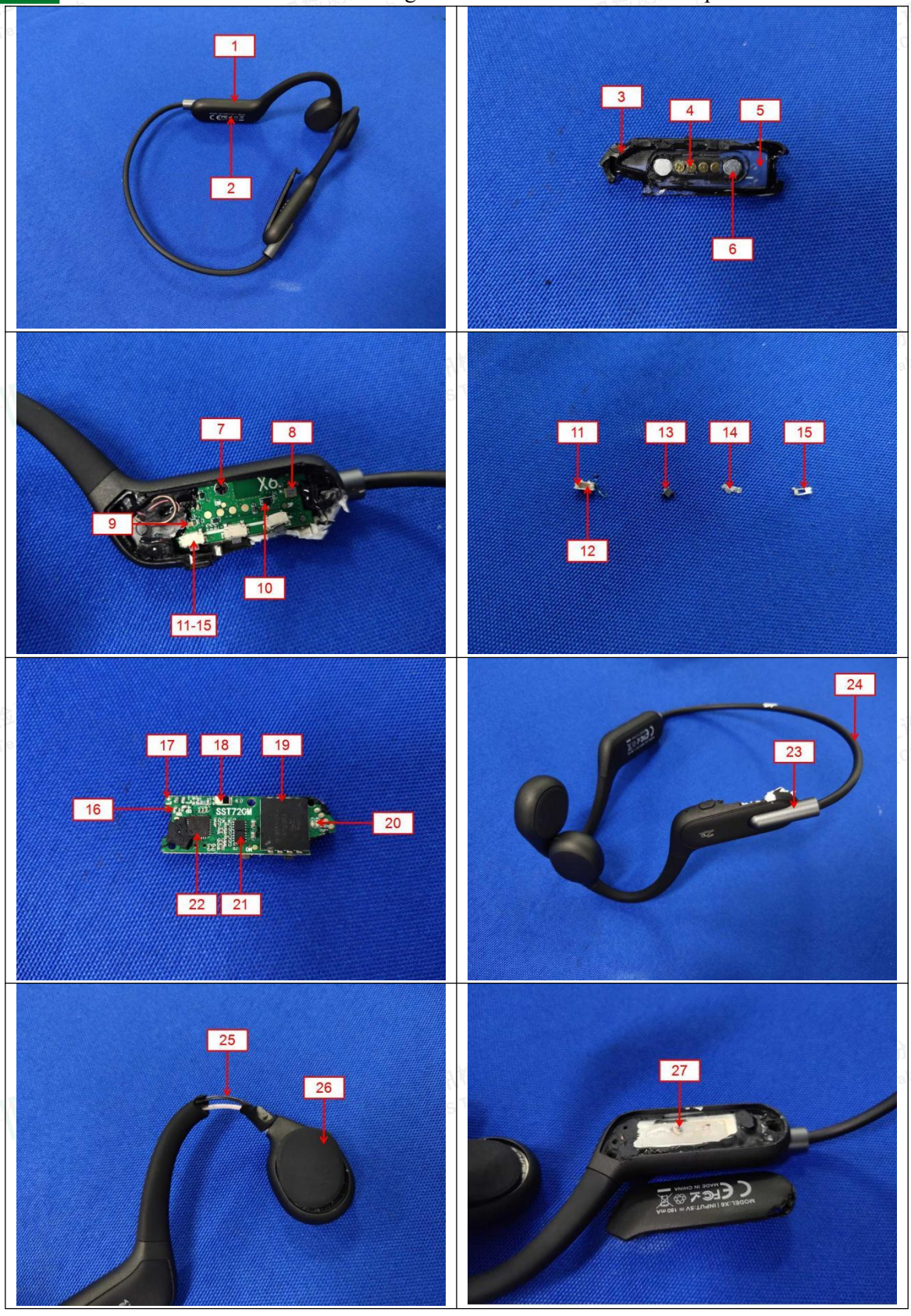


5. Phthalates(DBP, BBP, DEHP & DIBP) : IEC 62321-8:2017



The photo(s) of the sample

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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;
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*** End of Report ***