

TEST REPORT

Report Reference No..... : **PRMS2412174SR**

Date of issue..... : Dec. 05, 2024

Testing Laboratory..... : **Shenzhen Promise Test Technology Co., Ltd.**

Address..... : 103, Building 1, Yibaolai Industrial City, Qiaotou Community, Fuhai Street, Baoan District, Shenzhen, Guangdong, China.

Applicant's name..... : **Shenzhen SaiFeng Electronic Technology Co., Ltd**

Address..... : Community, Ban Tin Street, LonggangDistrict, Shenzhen City, China

Manufacturer's name..... : **Shenzhen SaiFeng Electronic Technology Co., Ltd**

Address..... : Community, Ban Tin Street, LonggangDistrict, Shenzhen City, China

Test Requested:	Conclusion
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<p>(1) RoHS Directive 2011/65/EU Annex II amending Annex (EU)2015/863 and amending Annex (EU)2017/2102 —Lead, Cadmium, Mercury, Hexavalent Chromium, PBBs and PBDEs Content —Di-(2-ethylhexyl) phthalate(DEHP), Benzylbutyl phthalate(BBP), Dibutyl phthalate (DBP), Diisobutyl phthalate(DIBP) Content</p>	<p>PASS</p>
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Test Report Form No..... : --

Test Report Form(s) Originator..... : PRMS Testing

Master TRF..... : Dated: 2017-06

This test report is specially limited to the above client company and product model only. It may not be duplicated without prior written consent of PRMS Test.

Test item description..... : TWS True Wireless Earbuds

Trade Mark..... : /

Model/Type reference..... : SE-60, SE-ONE, TWS-SE

Testing procedure and testing location:

Testing Laboratory.....: Shenzhen Promise Test Technology Co., Ltd.

**Address.....: 103, Building 1, Yibaolai Industrial City, Qiaotou
Community, Fuhai Street, Baoan District, Shenzhen,
Guangdong, China.**

Date of Test.....: Nov. 27, 2024 - Dec. 05, 2024

Tested by (signature).....: Felix Ding

Felix Ding

Approved by (signature).....: Kind Yang

Kind. Yang

Test Results :

1.1 Lead, Mercury, Cadmium, Hexavalent Chromium, PBB and PBDE content

Test Method: IEC 62321-3-1:2013, IEC 62321-4:2013+A1:2017, IEC 62321-5:2013, IEC 62321-6:2015, IEC 62321-7-1:2015, IEC 62321-7-2:2017, analyzed by ED-XRF & ICP-OES & GC-MS & UV-Vis.

Part No.	Sample Description	Conclusion Of ED-XRF						Result of Wet Chemical Testing(mg/kg)
		Pb	Cd	Hg	Cr(VI)▼	PBB	PBDE	
1	Black plastic	BL	BL	BL	BL	BL	BL	N.A.
2	Soldering tin	BL	BL	BL	BL	N.A.	N.A.	N.A.
3	White plastic wire jacket	BL	BL	BL	BL	BL	BL	N.A.
4	Red plastic wire jacket	BL	BL	BL	BL	BL	BL	N.A.
5	Black plastic wire jacket	BL	BL	BL	BL	BL	BL	N.A.
6	PCB	BL	BL	BL	BL	BL	BL	N.A.
7	Copper metal	OL	BL	BL	BL	N.A.	N.A.	Pb: 14780*
8	Soldering tin	BL	BL	BL	BL	N.A.	N.A.	N.A.
9	PCB	BL	BL	BL	BL	BL	BL	N.A.
10	Inductance	BL	BL	BL	BL	BL	BL	N.A.
11	Triode	BL	BL	BL	BL	BL	BL	N.A.
12	Silvery metal	BL	BL	BL	BL	N.A.	N.A.	N.A.
13	IC	BL	BL	BL	BL	BL	BL	N.A.
14	Black silicone	BL	BL	BL	BL	BL	BL	N.A.
15	Silvery metal	BL	BL	BL	BL	N.A.	N.A.	N.A.

Part No.	Sample Description	Conclusion Of ED-XRF						Result of Wet Chemical Testing(mg/kg)
		Pb	Cd	Hg	Cr(VI)▼	PBB	PBDE	
16	Soldering tin	BL	BL	BL	BL	N.A.	N.A.	N.A.
17	Copper metal	OL	BL	BL	BL	N.A.	N.A.	Pb: 18840*
18	Crystal oscillator	BL	BL	BL	BL	N.A.	N.A.	N.A.
19	IC	BL	BL	BL	BL	BL	BL	N.A.
20	PCB	BL	BL	BL	BL	BL	BL	N.A.
21	PCB	BL	BL	BL	BL	BL	BL	N.A.

Notes:

(1) Interpretation of screening results by X-ray fluorescence spectrometry (XRF):

(a) Results are obtained by ED-XRF for primary screening, and further chemical testing by ICP-OES (for Cd, Pb, Hg), UV-VIS (for Cr⁶⁺) and GC-MS (for PBBs, PBDEs) is 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	$BL \leq (700-3\sigma) < IN < (1300+3\sigma) \leq OL$	$BL \leq (70-3\sigma) < IN < (130+3\sigma) \leq OL$	$LOD < IN < (150+3\sigma) \leq OL$
Pb	$BL \leq (700-3\sigma) < IN < (1300+3\sigma) \leq OL$	$BL \leq (700-3\sigma) < IN < (1300+3\sigma) \leq OL$	$BL \leq (500-3\sigma) < IN < (1500+3\sigma) \leq OL$
Hg	$BL \leq (700-3\sigma) < IN < (1300+3\sigma) \leq OL$	$BL \leq (700-3\sigma) < IN < (1300+3\sigma) \leq OL$	$BL \leq (500-3\sigma) < IN < (1500+3\sigma) \leq OL$
Br	$BL \leq (300-3\sigma) < IN$	Not applicable	$BL \leq (250-3\sigma) < IN$
Cr	$BL \leq (700-3\sigma) < IN$	$BL \leq (700-3\sigma) < IN$	$BL \leq (500-3\sigma) < IN$

(b) For regulated substances [polybrominated biphenyls (PBBs), polybrominated diphenyl ethers (PBDEs)], the results showed the total Br content, while for regulated substance Cr(VI), the results showed the total Cr content. If the quantitative results for the elements Br and/or Cr are higher than the limit (for Br calculated based on the stoichiometry of Br in the most common congeners of PBB/PBDE), the sample is "inconclusive".

(c) Results are obtained by EDXRF for primary screening, LOD = Limit of Detection, BL = Below Limit, OL = Over Limit, IN (The symbol X marks the region) = Inconclusive, where further investigation is necessary, and further chemical testing by ICP-OES (for Cd, Pb, Hg), UV-Vis (for Cr(VI)) and GC-MS (for PBB/PBDE) are recommended to be performed.

(d) The EDXRF screening test for elements - The reading may be different to the actual content in the sample due to non-uniformity composition.

(2) Interpretation of results by chemical tests.

(a) mg/kg = ppm = milligram per kilogram = 0.0001%, N.D. = No Detection (<MDL), N.A. = Not

Applicable.

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

Test Item(s)	Pb	Cd	Hg	Cr(VI)		PBBs	PBDEs
Units	mg/kg	mg/kg	mg/kg	mg/kg	µg/cm ²	mg/kg	mg/kg
MDL	5	5	5	5	0.10	5	5

The MDL for single compound of PBBs and PBDEs is 5mg/kg.

The MDL of Cr(VI) for polymers and electronics sample is 5mg/kg.

The MDL of Cr(VI) for colourless and coloured corrosion-protected coatings on metal sample is 0.10µg/cm².

(c) ▼ = Metal sample

According to IEC 62321-7-1:2015, determined of Cr(VI) on metal sample by boiling water extraction test method, and result is shown as Positive/Negative.

Boiling water extraction :

Negative = Absence of Cr(VI) coating, the detected concentration in boiling water extraction solution is less than 0.10µg/cm².

Positive = Presence of Cr(VI) coating, the detected concentration in boiling water extraction solution is greater than 0.13µg/cm².

Information on storage conditions and production date of the tested sample is unavailable and thus Cr(VI) results represent status of the sample at the time of testing.

(3) Requirement as per EU RoHS Directive 2011/65/EU.

Test Item(s)	Limits Requirement
Cadmium(Cd)	0.01%(100 mg/kg)
Lead(Pb)	0.1%(1000 mg/kg)
Mercury(Hg)	0.1%(1000 mg/kg)
Chromium (VI)(Cr ⁶⁺)	0.1%(1000 mg/kg)
Polybrominated Biphenyls(PBBs)	0.1%(1000 mg/kg)
Polybrominated Diphenyl Ethers(PBDEs)	0.1%(1000 mg/kg)

(4) As specified by client, only test the designated sample.

(5) This column represents the exempted decoration of material or other related testing sample's information.

According to the declaration from the client, lead in specimen(s) is exempted by EU RoHS Directive 2011/65/EU annex III and its amendment base on:

- * Sample is copper alloy. The lead content which is under 4%(40000mg/kg) is exempted from the requirement of EU RoHS Directive 2011/65/EU.

1.2 Phthalates (DEHP, BBP, DBP, DIBP) content

Test Method: IEC 62321-8:2017, analyzed by GC-MS.

Part No.	Result of Chemical Testing(mg/kg)			
	DIBP	DBP	BBP	DEHP
1	N.D.	N.D.	N.D.	N.D.
3	N.D.	N.D.	N.D.	N.D.
4	N.D.	N.D.	N.D.	N.D.
5	N.D.	N.D.	N.D.	N.D.
6	N.D.	N.D.	N.D.	N.D.
9	N.D.	N.D.	N.D.	N.D.
10	N.D.	N.D.	N.D.	N.D.
11	N.D.	N.D.	N.D.	N.D.
13	N.D.	N.D.	N.D.	N.D.
14	N.D.	N.D.	N.D.	N.D.
19	N.D.	N.D.	N.D.	N.D.
20	N.D.	N.D.	N.D.	N.D.
21	N.D.	N.D.	N.D.	N.D.

Notes:

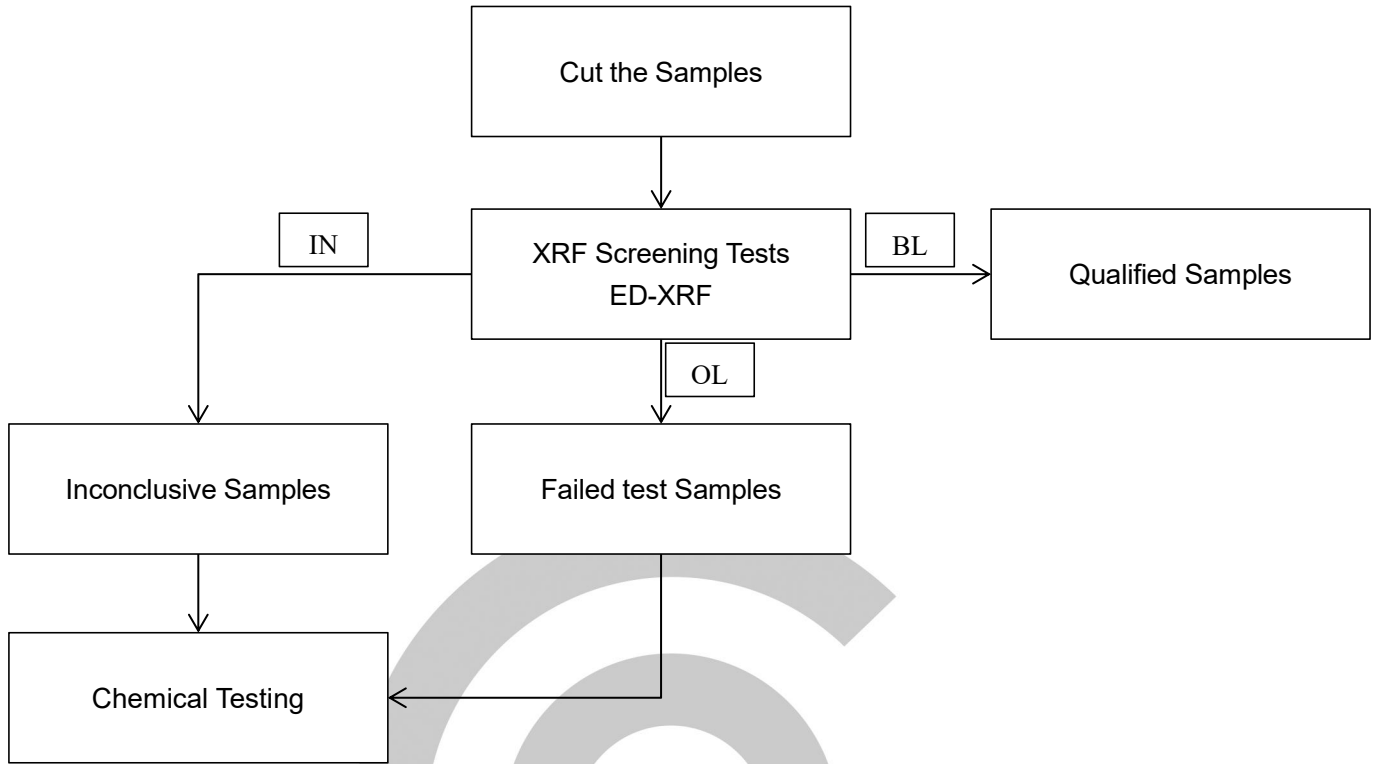
- (1) mg/kg = ppm = milligram per kilogram, N.D. = No Detection(<MDL), N.A. = Not Applicable.
- (2) Requirement as per EU RoHS amendment Directive EU 2015/863. Unit and Method Detection Limit(MDL) in chemical testing.

Test Item(s)	DIBP	DBP	BBP	DEHP
Cas No.	84-69-5	84-74-2	85-68-7	117-81-7
Units	mg/kg			
MDL	50	50	50	50
Limits Requirement	1000	1000	1000	1000

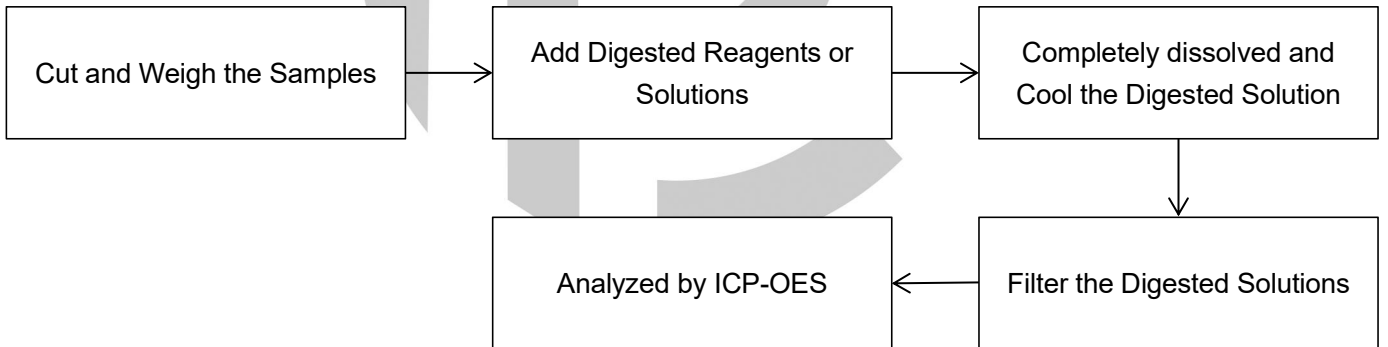
- (3) Abbreviation: “DBP” denotes Dibutyl phthalate (DBP), “BBP” denotes Benzyl butyl phthalate (BBP), “DEHP” denotes Bis(2-ethylhexyl)-phthalate (DEHP), “DIBP” denotes Diisobutyl phthalate (DIBP).
- (4) As specified by client, only test the designated sample.

Attachment A: Measurement Flow chart

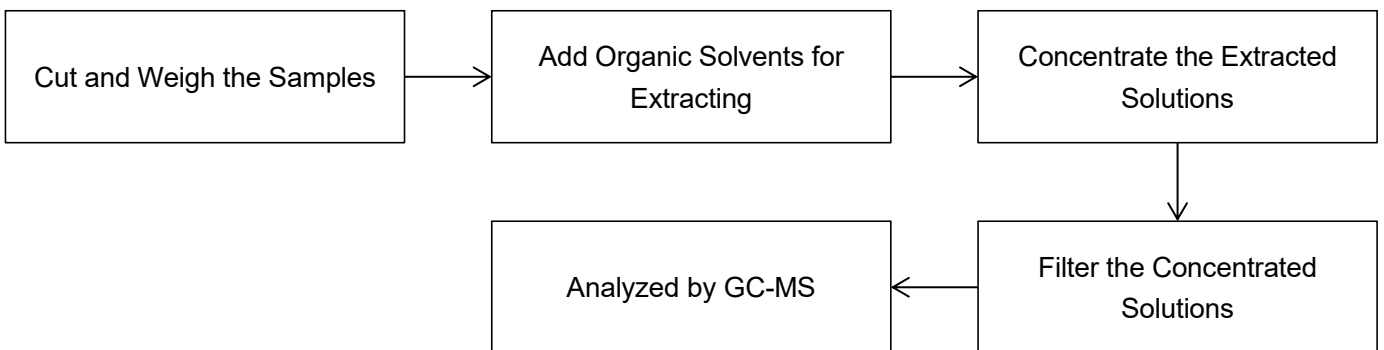
1. ED-XRF Scan



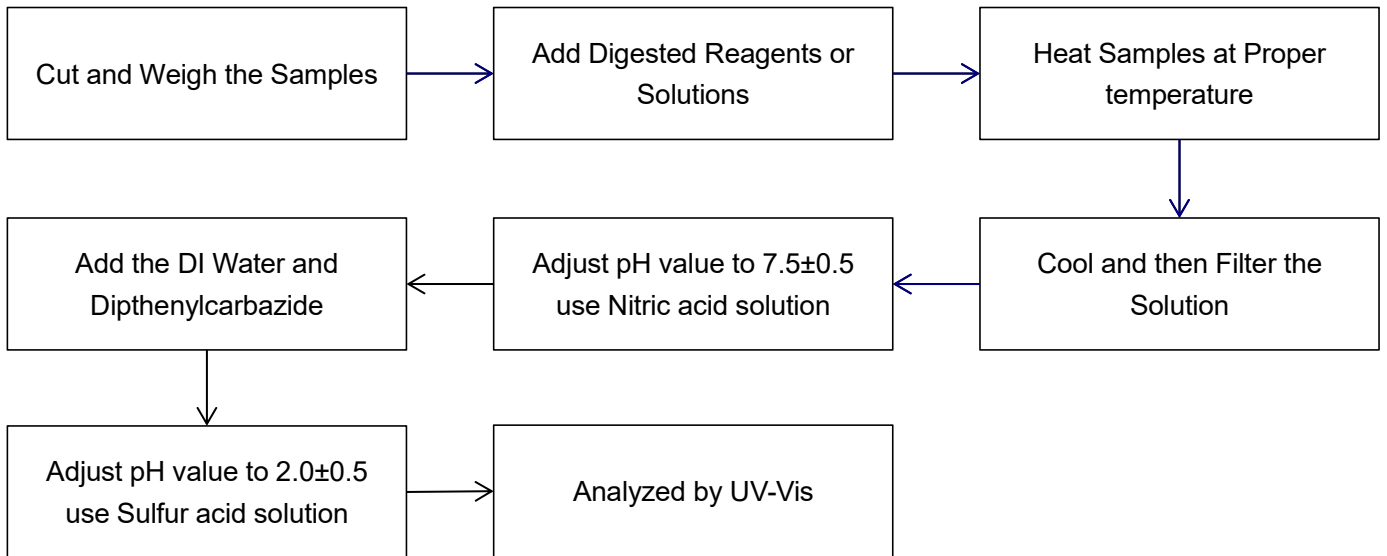
2. Lead, Cadmium, Mercury



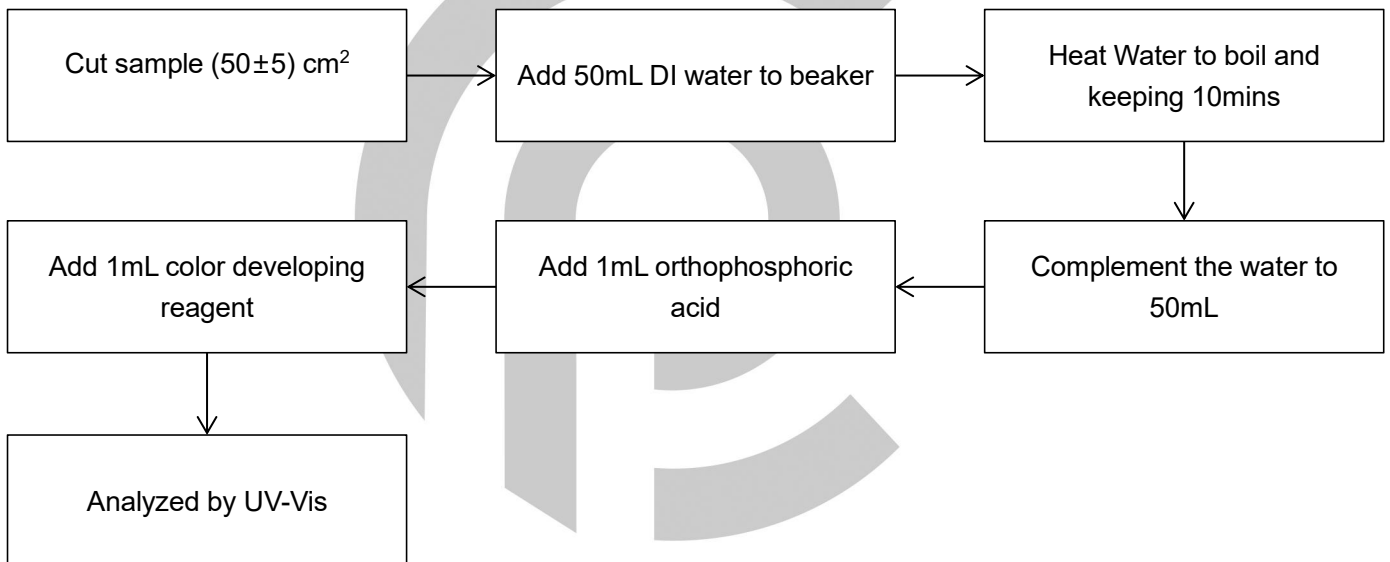
3. PBBs & PBDEs, Phthalates



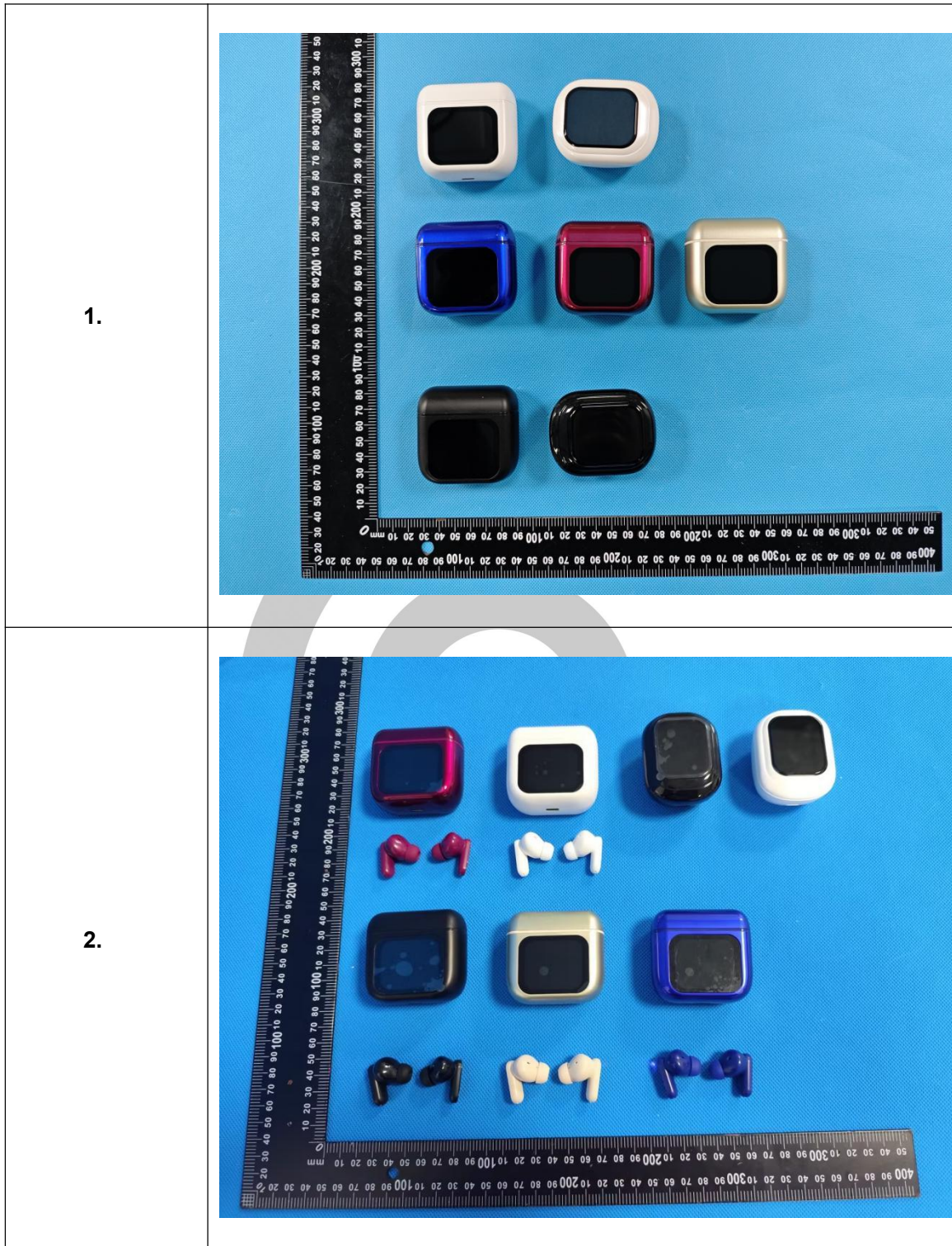
4. Hexavalent Chromium (Non-metal)

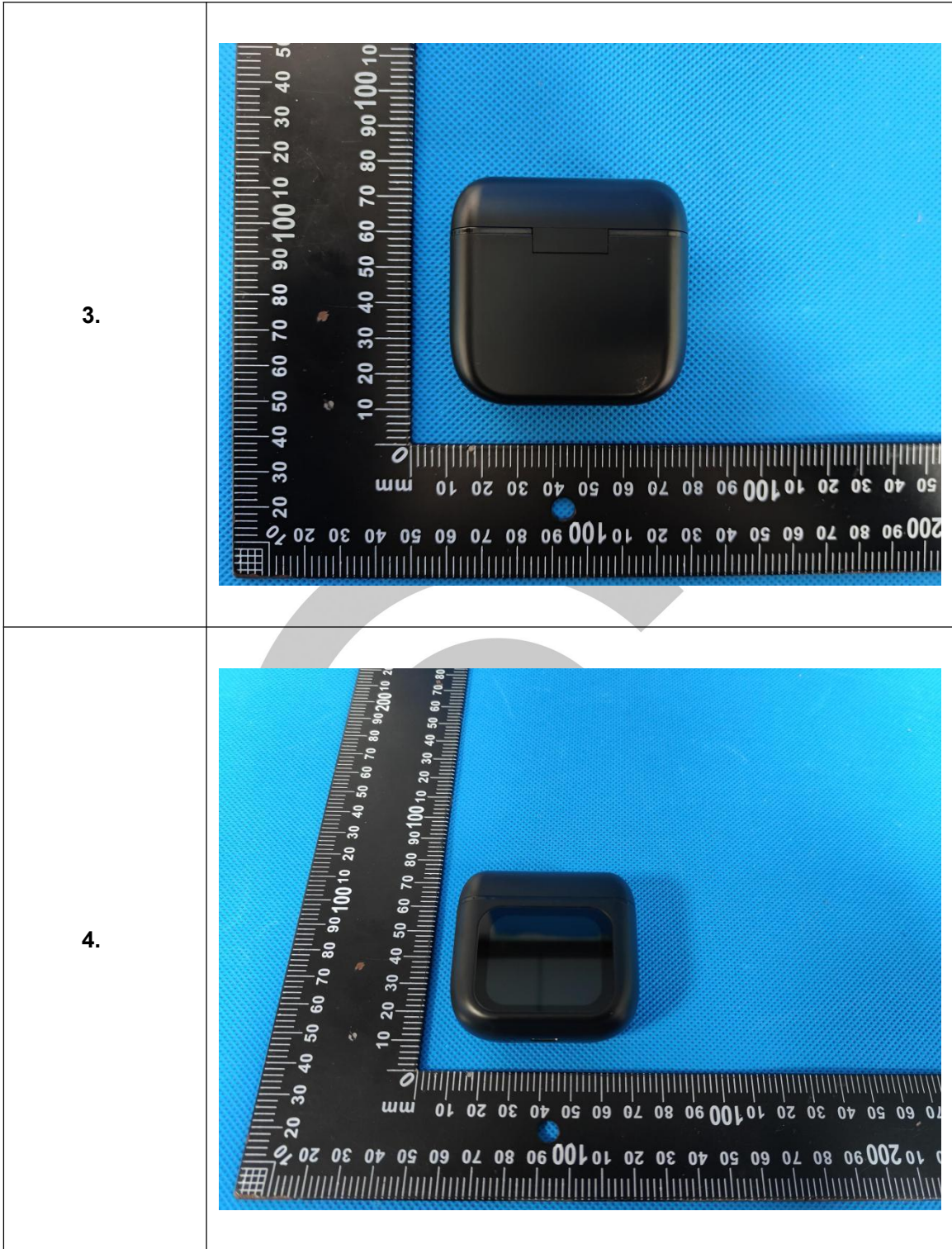


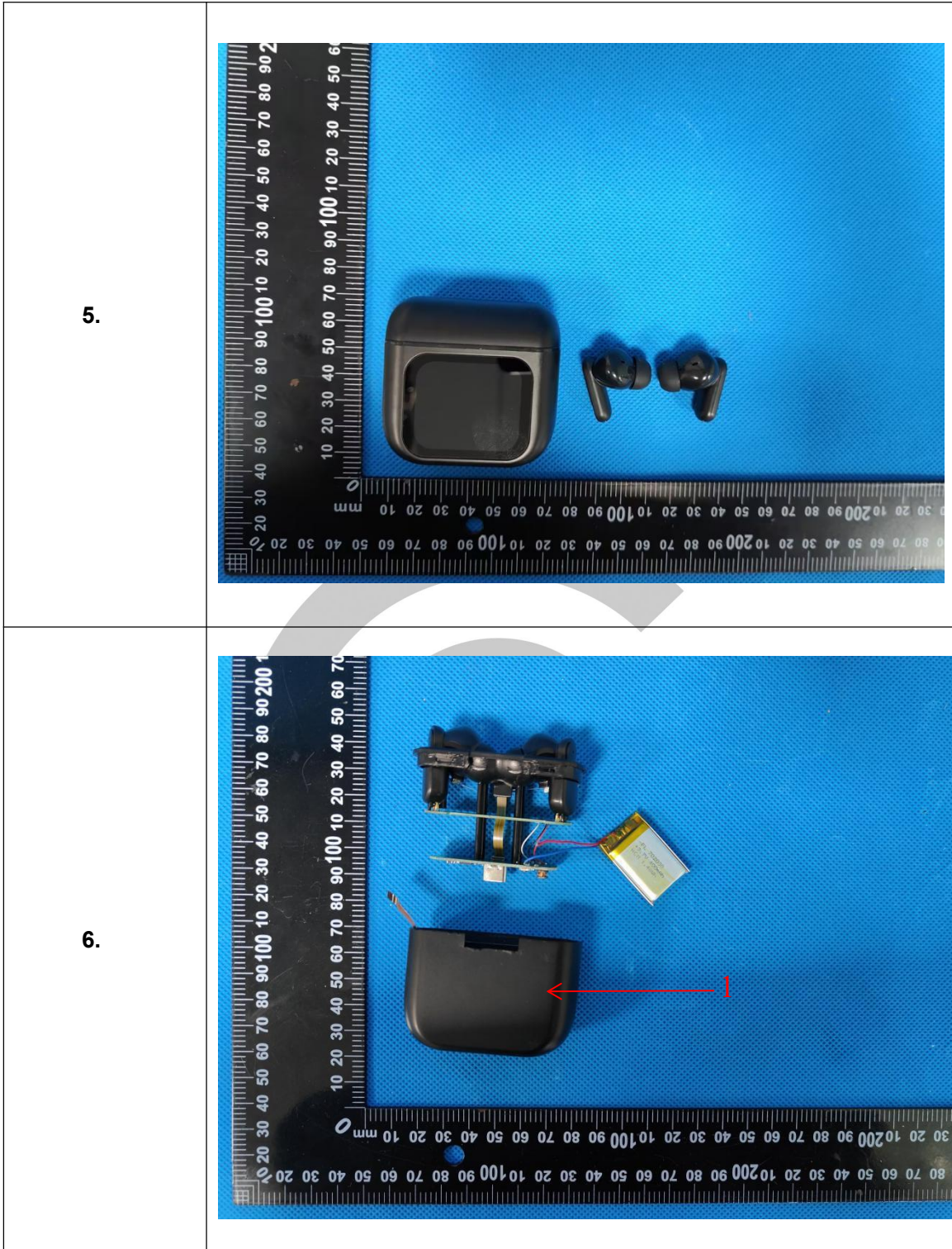
5. Hexavalent Chromium (Metal)

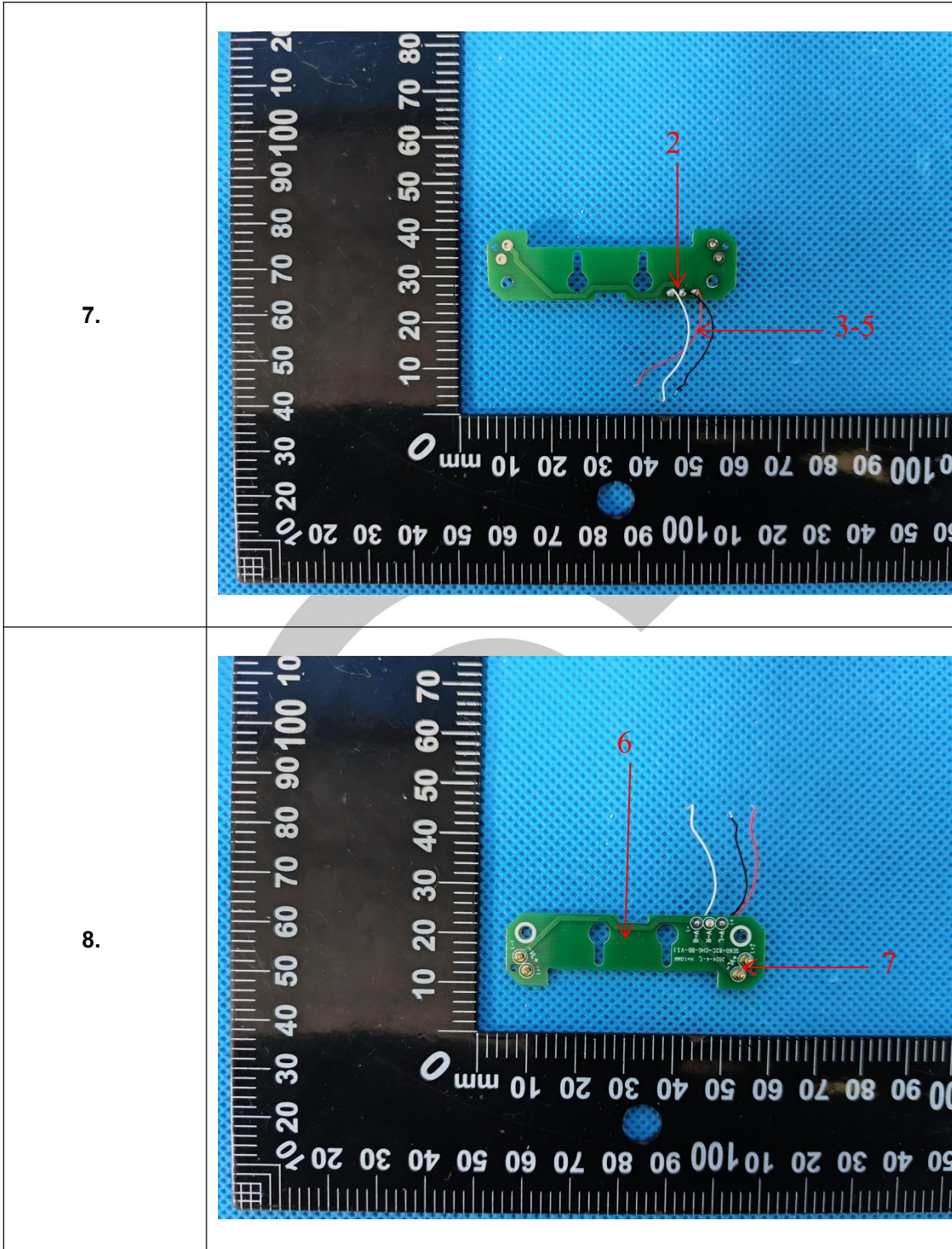


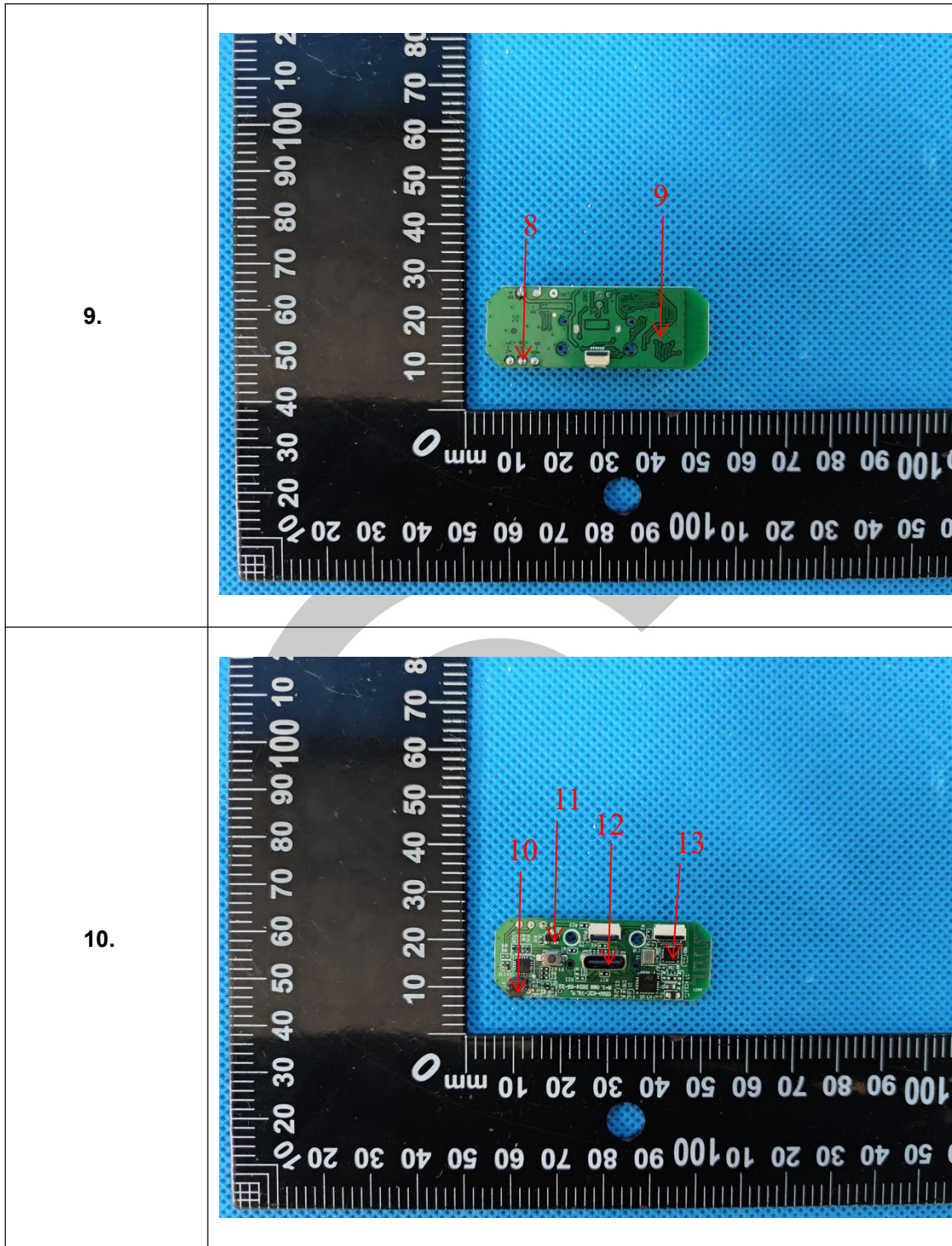
ANNEX B: EUT photo-documentation

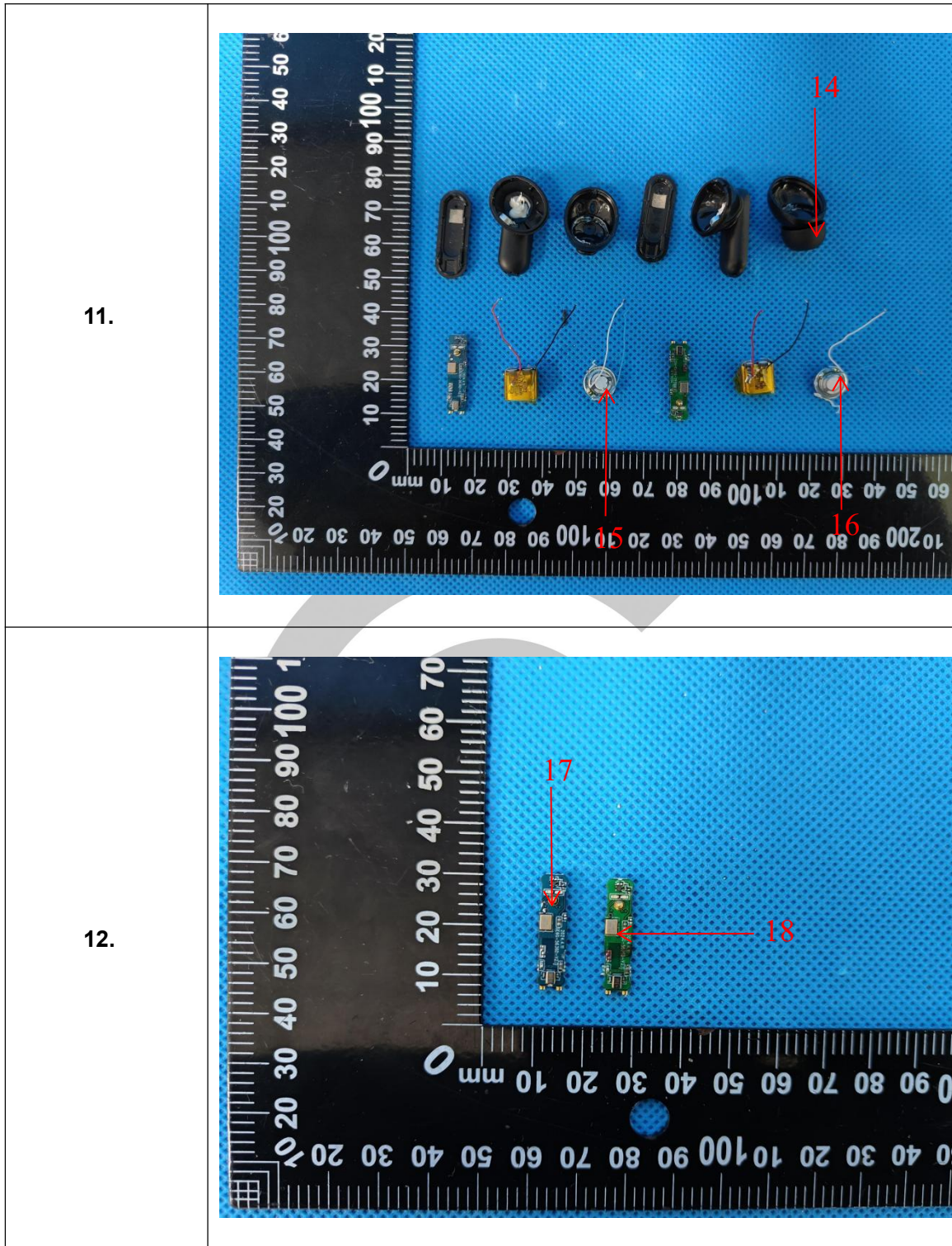


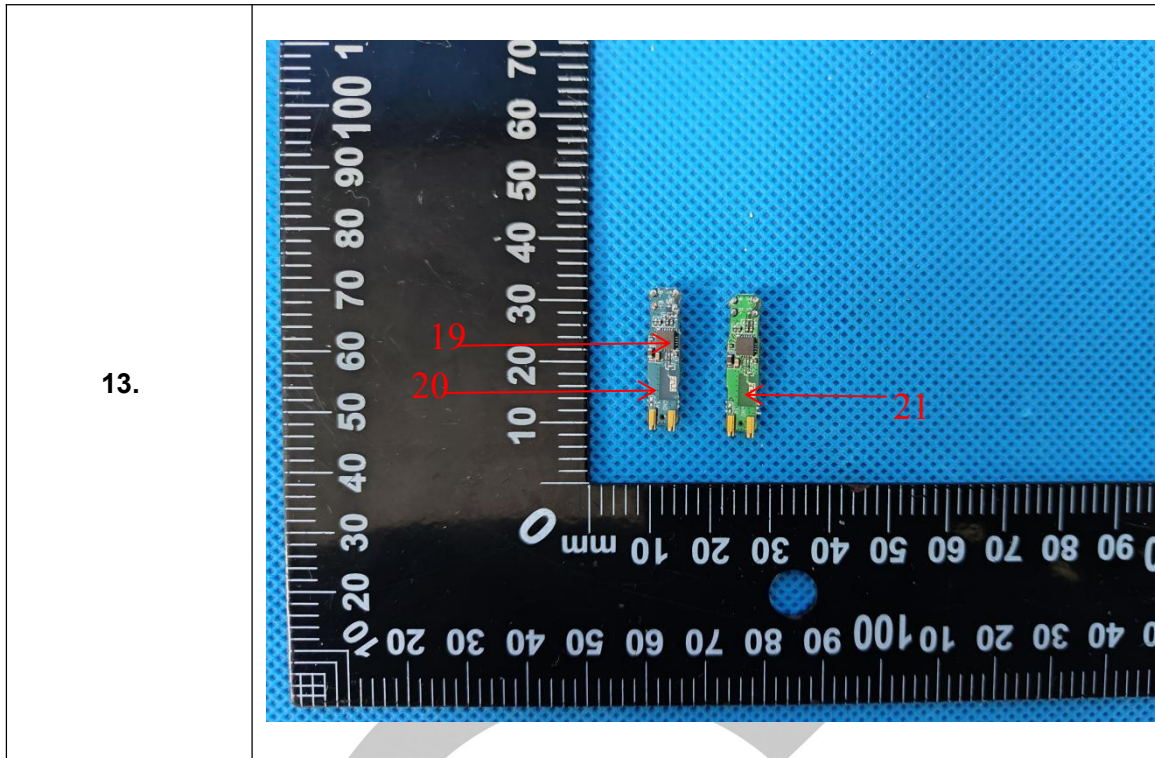












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