

TEST REPORT

Report No.: AZT032110220010C-011

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Applicant : Shenzhen Yifeng Intelligent Technology Co., Ltd.
Address : 10th Floor, Building 2, Chaxi, Zone B, Huafeng First Science Park, Hangcheng Sterrt, Gushu, Baoan District, Shenzhen
Manufacturer's name : Shenzhen Yifeng Intelligent Technology Co., Ltd.
Address : 10th Floor, Building 2, Chaxi, Zone B, Huafeng First Science Park, Hangcheng Sterrt, Gushu, Baoan District, Shenzhen

Report on the submitted samples said to be:

Sample Name : 2-in-1 Wireless Charging Pad
Trade Mark : N/A
Tested model : T2
Series models : N/A
Testing Period : October 22, 2021 ~ November 01, 2021
Date of issue : November 15, 2021
Results : Please refer to next page(s).



TEST REQUEST

According to the customer's request, based on the performed tests on submitted sample, the result of Lead, Cadmium, Mercury, Hexavalent Chromium, PBBs, PBDEs, Dibutyl Phthalate (DBP), Benzyl butyl Phthalate (BBP), Bis(2-ethylhexyl) Phthalate (DEHP), Diisobutyl Phthalate (DIBP) content comply with the limit as set of RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU.

CONCLUSION

Pass

Signed for and on behalf of AZT


Suez Su
Shenzhen AZT Technology Co., Ltd.
深圳安正检测技术有限公司No. 808, 924 Huaide Yinshan Building, 107 National Road, Fuwei Community, Fuyong Street, Baoan District, Shenzhen, Guangdong, China
中国 广东省 深圳市宝安区福永街道福围社区 107 国道旁怀德银山大厦 808, 924
Tel: 0755-23224560; E-mail: azt-ep@azt-tech.com; Http: www.azt-tech.com

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Results:
A.EU RoHS Directive 2011/65/EU and its amendment directives on XRF
Test method: With reference to IEC 62321-3-1:2013, Screening by X-ray Fluorescence Spectroscopy (XRF)

Seq. No.	Tested Part(s)	Results					
		Cd	Pb	Hg	Cr▼	Br▼	
						PBBs	PBDEs
1	Black coated metal	BL	BL	BL	X	/	/
2	Transparent plastic	BL	BL	BL	BL	BL	BL
3	Black plastic	BL	BL	BL	BL	BL	BL
4	Black plastic	BL	BL	BL	BL	BL	BL
5	White braided thread	BL	BL	BL	BL	BL	BL
6	Copper wire	BL	BL	BL	BL	/	/
7	Black ceramic	BL	BL	BL	X	BL	BL
8	Yellow plastic	BL	BL	BL	BL	BL	BL
9	White plastic	BL	BL	BL	BL	BL	BL
10	Black plastic	BL	BL	BL	BL	BL	BL
11	Silver metal	BL	BL	BL	BL	/	/
12	Black plastic	BL	BL	BL	BL	BL	BL
13	Yellow plastic	BL	BL	BL	BL	BL	BL
14	Copper wire	BL	BL	BL	BL	/	/
15	IC	BL	BL	BL	BL	BL	BL
16	IC	BL	BL	BL	BL	BL	BL
17	Diode	BL	BL	BL	BL	BL	BL
18	Diode	BL	BL	BL	BL	BL	BL
19	Inductance	BL	BL	BL	BL	BL	BL
20	SMD resistor	BL	BL	BL	BL	BL	BL
21	The patch capacitance	BL	BL	BL	BL	BL	BL
22	The patch capacitance	BL	BL	BL	BL	BL	BL
23	SMD resistor	BL	BL	BL	X	BL	BL
24	Circuit board	BL	BL	BL	BL	X	X
25	Solder	BL	BL	BL	BL	/	/
26	Black plastic	BL	BL	BL	BL	BL	BL
27	Silver metal	BL	BL	BL	BL	/	/



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Seq. No.	Tested Part(s)	Results					
		Cd	Pb	Hg	Cr▼	Br▼	
						PBBs	PBDEs
28	Black plastic	BL	BL	BL	BL	BL	BL
29	White plastic	BL	BL	BL	BL	BL	BL
30	Copper metal	BL	BL	BL	BL	/	/
31	Silver metal	BL	BL	BL	BL	/	/
32	Silver metal	BL	BL	BL	X	/	/
33	Black plastic	BL	BL	BL	BL	BL	BL
34	Black plastic	BL	BL	BL	BL	BL	BL
35	Red plastic	BL	BL	BL	BL	BL	BL
36	Copper wire	BL	BL	BL	BL	/	/
37	Green plastic	BL	BL	BL	BL	BL	BL
38	Black plastic	BL	BL	BL	BL	BL	BL
39	White plastic	BL	BL	BL	BL	BL	BL



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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.

Element	Unit	Non-metal	Metal	Composite Material
Cd	mg/kg	BL≤70-3σ<X <130+3σ≤OL	BL≤70-3σ<X <130+3σ≤OL	BL≤50-3σ<X <150+3σ≤OL
Pb	mg/kg	BL≤700-3σ<X <1300+3σ≤OL	BL≤700-3σ<X <1300+3σ≤OL	BL≤500-3σ<X <1500+3σ≤OL
Hg	mg/kg	BL≤700-3σ<X <1300+3σ≤OL	BL≤700-3σ<X <1300+3σ≤OL	BL≤500-3σ<X <1500+3σ≤OL
Cr	mg/kg	BL≤700-3σ<X	BL≤700-3σ<X	BL≤500-3σ<X
Br	mg/kg	BL≤300-3σ<X	--	BL≤250-3σ<X

Note:

- BL = Below Limit
 OL = Over Limit
 X = Inconclusive

- (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 2015/863/EC amending RoHS directive 2011/65/EU:
- (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



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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 diphenyl ethers (PBDEs)	1000
Dibutyl Phthalate (DBP)	1000
Benzyl butyl Phthalate (BBP)	1000
Bis(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.



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B. EU RoHS Directive 2011/65/EU and its amendment Directives 2015/863/EU on Lead, Cadmium, Mercury, Hexavalent Chromium, 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)

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 (Cr⁶⁺) Content:

With reference to IEC 62321-7-1:2015 or IEC 62321-7-2:2017, by alkaline digestion and 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)

BBP DBP DEHP & DIBP Content:

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



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1) The test results of Hexavalent Chromium (Cr⁶⁺) (for nonmetal)

Item	Unit	MDL	Results		Limit
			7	23	
Hexavalent Chromium (Cr (VI))	mg/kg	8	N.D.	N.D.	1000

2) The test results of Hexavalent Chromium (Cr⁶⁺) (metal)

Item	Unit	MDL	Results		Limit
			1	32	
Hexavalent Chromium(Cr(VI))▼	ug/cm ²	0.10	Negative	Negative	-

Note:

- MDL = Method Detection Limit
- /= Not apply
- LOQ = Limit of Quantification, The LOQ of Hexavalent chromium is 0.10 µg/cm²
- mg/kg = ppm=parts per million
- N.D.=Not Detected (<MDL or LOQ)
- ▼ = a. The sample is positive for Cr (VI) if the Cr (VI) concentration is greater than 0.13ug/cm². The sample coating is considered to contain Cr (VI)
 b. The sample is negative for Cr (VI) if Cr (VI) is N.D. (concentration less than 0.10ug/cm²). The sample coating is considered a non- Cr (VI) based coating
 c. The result between 0.10µg/cm² and 0.13µg/cm² is considered to be inconclusive, unavoidable coating variations may influence the determination

- #1 According to RoHS directive 2011/65/EU and its amendments, Lead is exempted in glass of cathode ray tubes, electronic components and fluorescent tubes.
- #2 According to RoHS directive 2011/65/EU and its amendments, Lead is exempted in electronic ceramic parts (e.g. piezo electronic devices).
- #3 According to RoHS directive 2011/65/EU and its amendments, Lead is exempted as an alloying element in Copper containing up to 4% (40000ppm) by weight.
- #4 According to RoHS directive 2011/65/EU and its amendments, Lead is exempted in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead).
- #5 According to the statement provided by the customer, according to RoHS directive 2011/65/EU and its amendments, Lead is exempted as an alloying element in Aluminum containing up to 0.4% (4000ppm) by weight.
- #6 According to the statement provided by the customer, according to RoHS directive 2011/65/EU and its amendments, Cadmium and its compounds in electrical contact is exempted.
- #7 According to the statement provided by the customer, according to RoHS directive 2011/65/EU and its Amendments, Lead is exempted in steel for machining purposes and in galvanized steel containing up to 0.35% (3500ppm) by weight.



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3) The test results of DBP, BBP, DEHP & DIBP

Item	Unit	MDL	Results			Limit
			2+3+4	8+9+10	12+13+26	
Dibutyl Phthalate (DBP)	mg/kg	30	N.D.	N.D.	N.D.	1000
Benzyl butyl Phthalate (BBP)	mg/kg	30	N.D.	N.D.	N.D.	1000
Bis(2-ethylhexyl) Phthalate (DEHP)	mg/kg	30	N.D.	N.D.	N.D.	1000
Diisobutyl Phthalate (DIBP)	mg/kg	30	N.D.	N.D.	N.D.	1000

Item	Unit	MDL	Results			Limit
			28+29+33	34+37	35+38+39	
Dibutyl Phthalate (DBP)	mg/kg	30	N.D.	N.D.	N.D.	1000
Benzyl butyl Phthalate (BBP)	mg/kg	30	N.D.	44	37	1000
Bis(2-ethylhexyl) Phthalate (DEHP)	mg/kg	30	N.D.	298	460	1000
Diisobutyl Phthalate (DIBP)	mg/kg	30	N.D.	N.D.	N.D.	1000

Item	Unit	MDL	Results			Limit
			20+21+22	23	24	
Dibutyl Phthalate (DBP)	mg/kg	30	N.D.	N.D.	N.D.	1000
Benzyl butyl Phthalate (BBP)	mg/kg	30	N.D.	N.D.	N.D.	1000
Bis(2-ethylhexyl) Phthalate (DEHP)	mg/kg	30	N.D.	N.D.	N.D.	1000
Diisobutyl Phthalate (DIBP)	mg/kg	30	N.D.	N.D.	N.D.	1000

Item	Unit	MDL	Results					Limit
			5	7	15+16	17+18	19	
Dibutyl Phthalate (DBP)	mg/kg	30	N.D.	N.D.	N.D.	N.D.	N.D.	1000
Benzyl butyl Phthalate (BBP)	mg/kg	30	N.D.	N.D.	N.D.	N.D.	N.D.	1000
Bis(2-ethylhexyl) Phthalate (DEHP)	mg/kg	30	N.D.	N.D.	N.D.	N.D.	N.D.	1000
Diisobutyl Phthalate (DIBP)	mg/kg	30	N.D.	N.D.	N.D.	N.D.	N.D.	1000



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4) The test results of PBBs & PBDEs

Item	Unit	MDL	Results	Limit
			24	
Polybrominated Biphenyls (PBBs)				
Monobromobiphenyl	mg/kg	5	N.D.	/
Dibromobiphenyl	mg/kg	5	N.D.	/
Tribromobiphenyl	mg/kg	5	N.D.	/
Tetrabromobiphenyl	mg/kg	5	N.D.	/
Pentabromobiphenyl	mg/kg	5	N.D.	/
Hexabromobiphenyl	mg/kg	5	N.D.	/
Heptabromobiphenyl	mg/kg	5	N.D.	/
Octabromobiphenyl	mg/kg	5	N.D.	/
Nonabromodiphenyl	mg/kg	5	N.D.	/
Decabromodiphenyl	mg/kg	5	N.D.	/
Total content	mg/kg	/	N.D.	1000
Polybrominated Diphenyl ethers (PBDEs)(Mon-Deca)				
Monobromodiphenyl ether	mg/kg	5	N.D.	/
Dibromodiphenyl ether	mg/kg	5	N.D.	/
Tribromodiphenyl ether	mg/kg	5	N.D.	/
Tetrabromodiphenyl ether	mg/kg	5	N.D.	/
Pentabromodiphenyl ether	mg/kg	5	N.D.	/
Hexabromodiphenyl ether	mg/kg	5	N.D.	/
Heptabromodiphenyl ether	mg/kg	5	N.D.	/
Octabromodiphenyl ether	mg/kg	5	N.D.	/
Nonabromodiphenyl ether	mg/kg	5	N.D.	/
Decabromodiphenyl ether	mg/kg	5	N.D.	/
Total content	mg/kg	/	N.D.	1000

Remark:

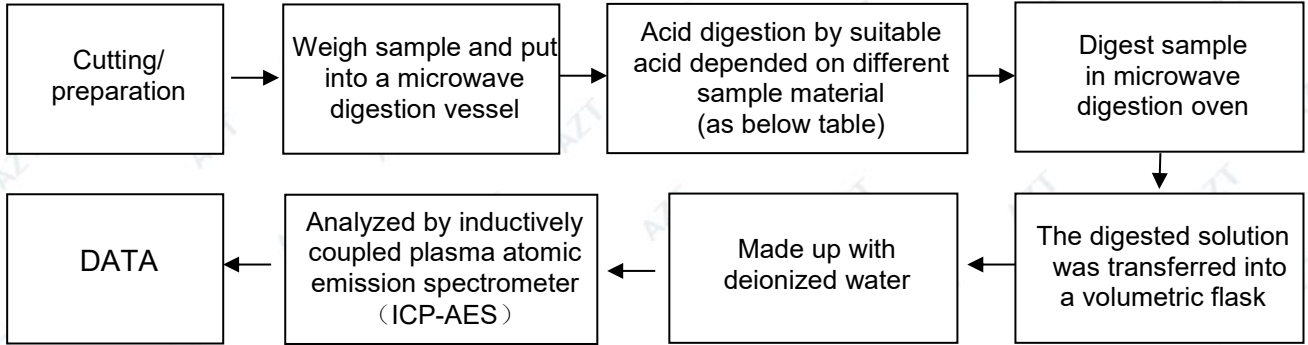
- mg/kg = ppm
- N.D. = Not detected
- MDL= Method detected limited
- Flow chart appendix is included
- Photo appendix is included.
- This report replaced the original report No.: AZT032110220010C-010 , the original report was annulled.



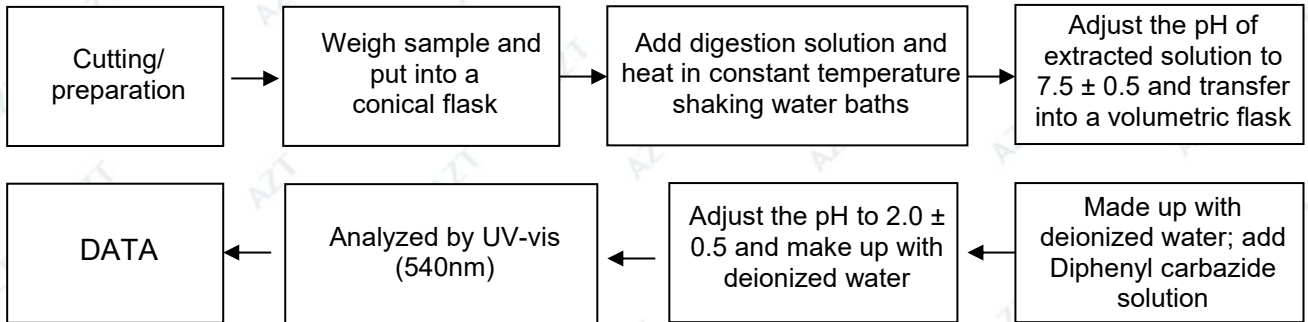
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Appendix

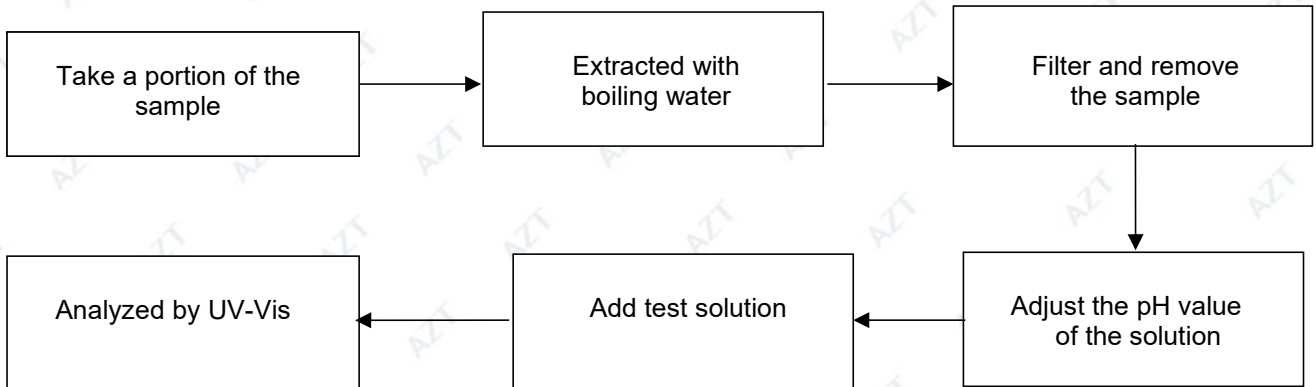
1. Test Flow chart for Cd/Pb /Hg content



2. Test Flowchart for Cr⁶⁺ content (For non-metal material)



Test Flowchart for Cr⁶⁺ content (For metal material)



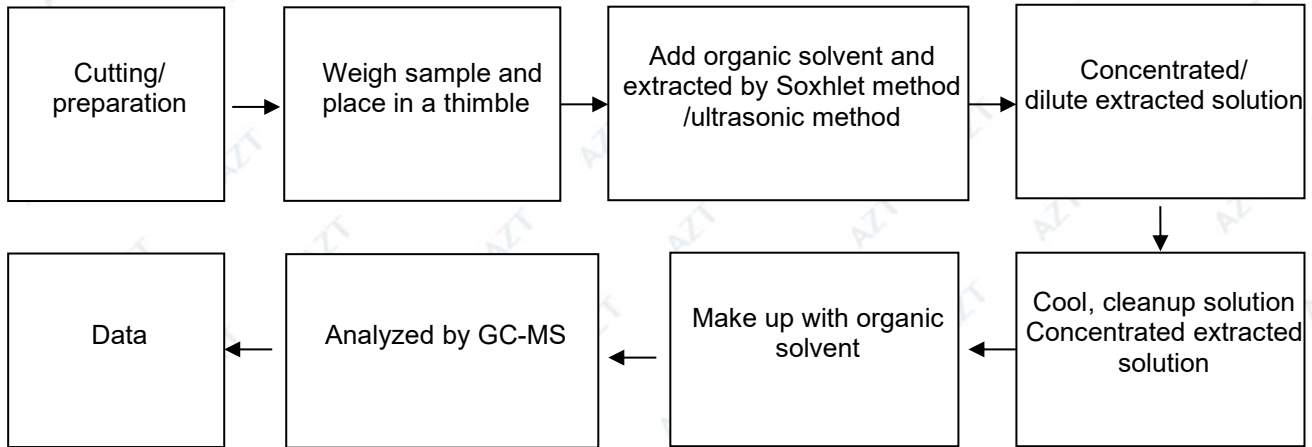


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3. Test Flow chart for PBBs & PBDEs & DBP & BBP & DEHP & DIBP content



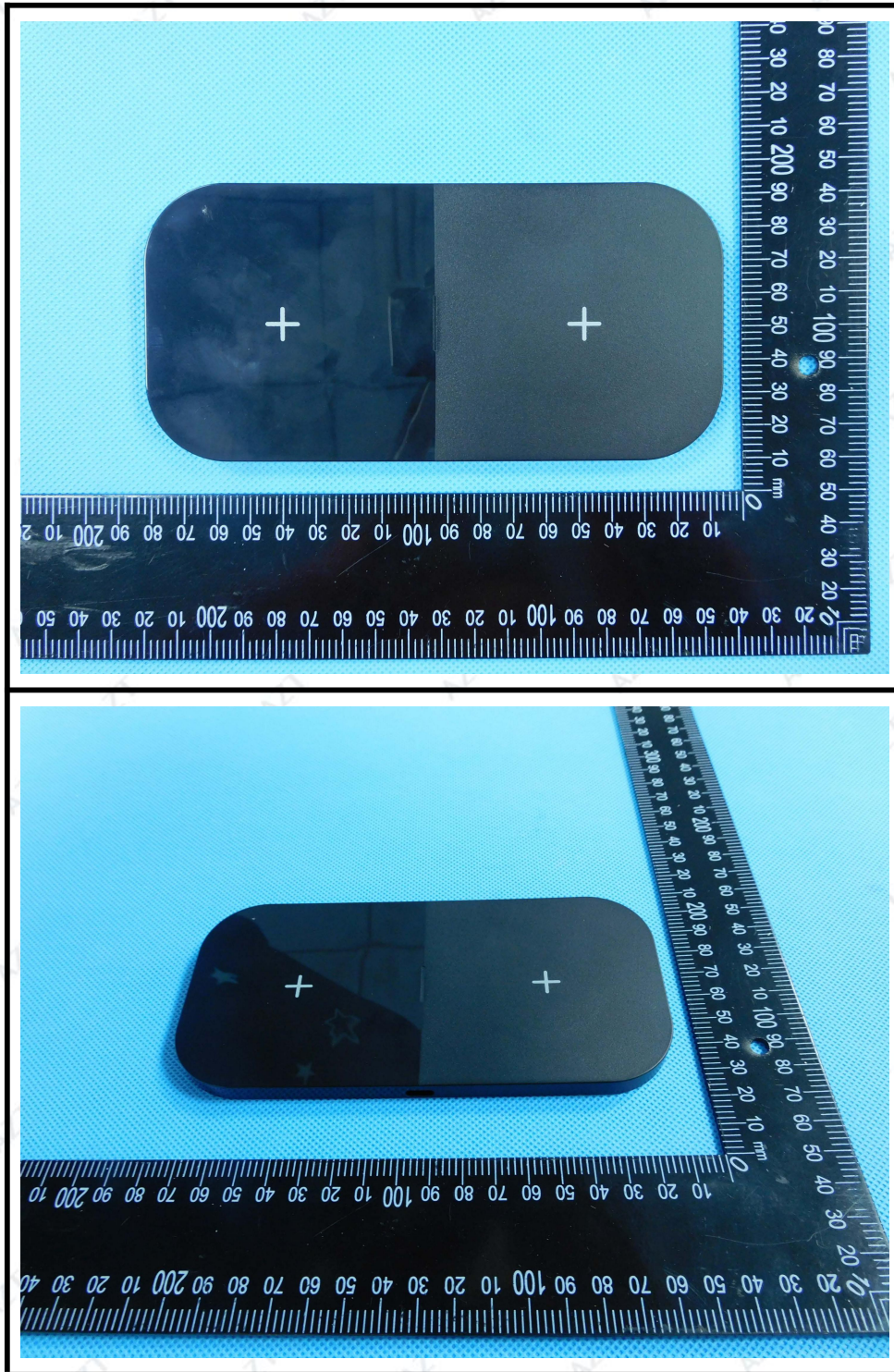
The photo of the sample



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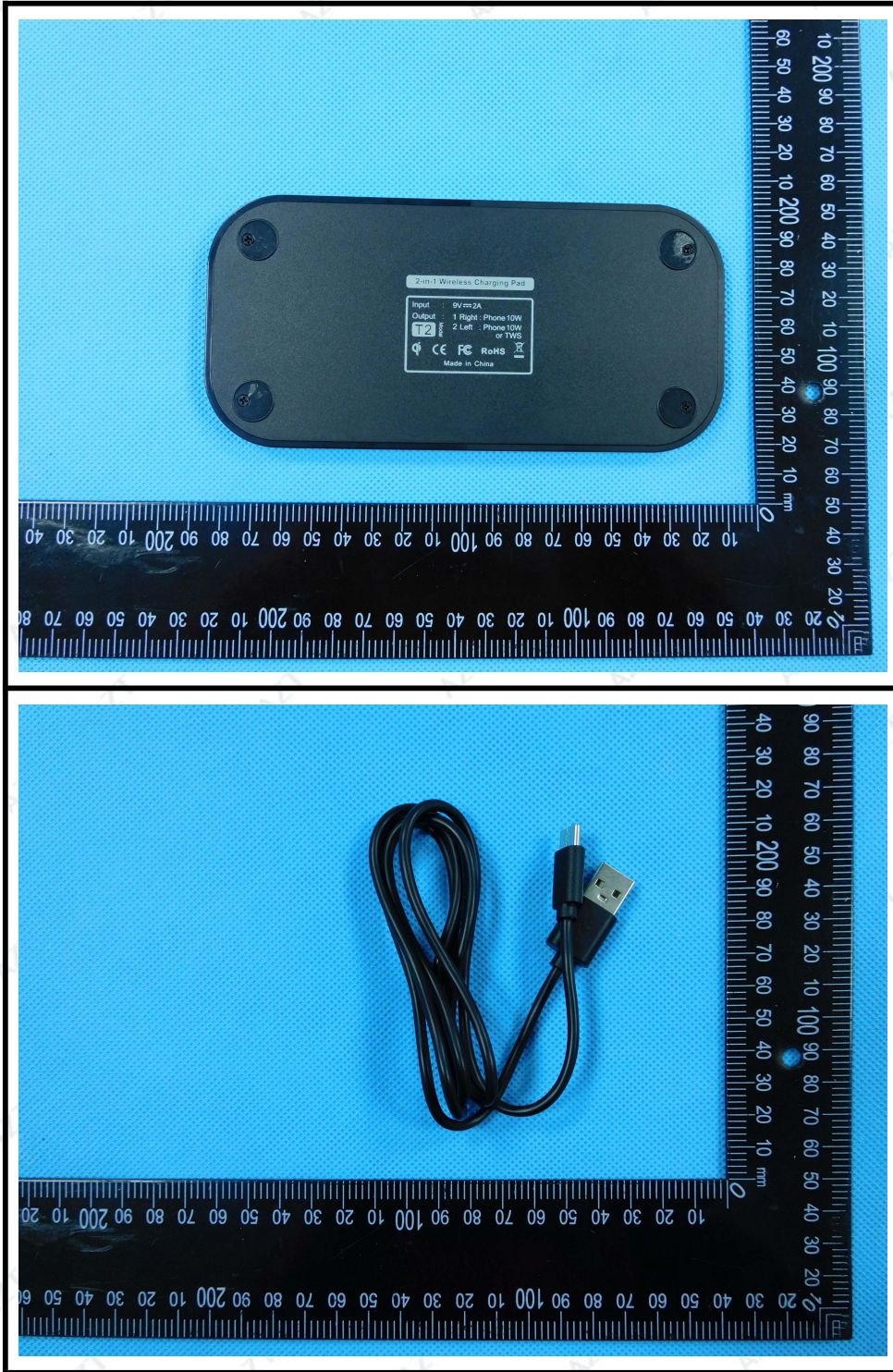
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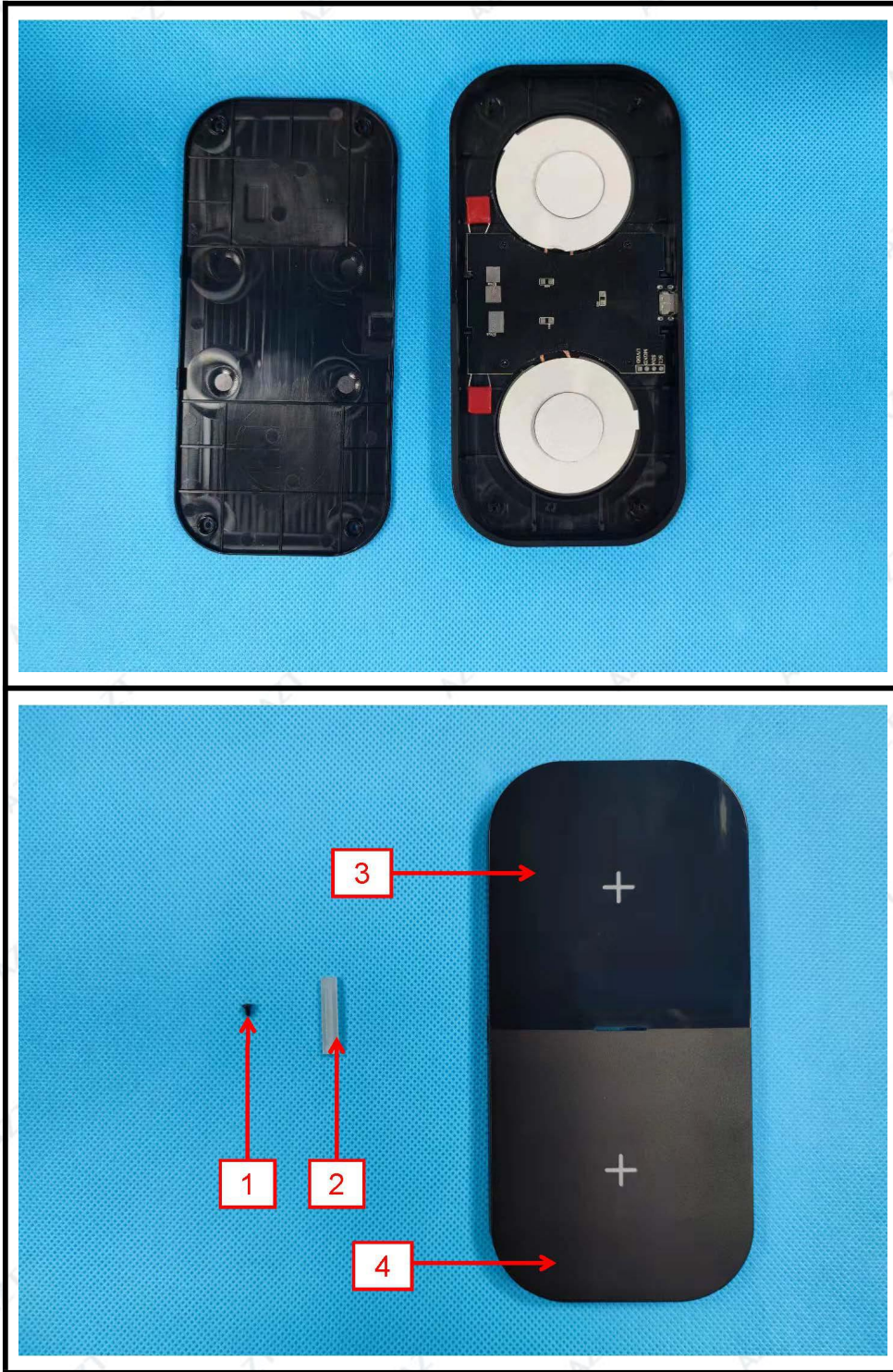
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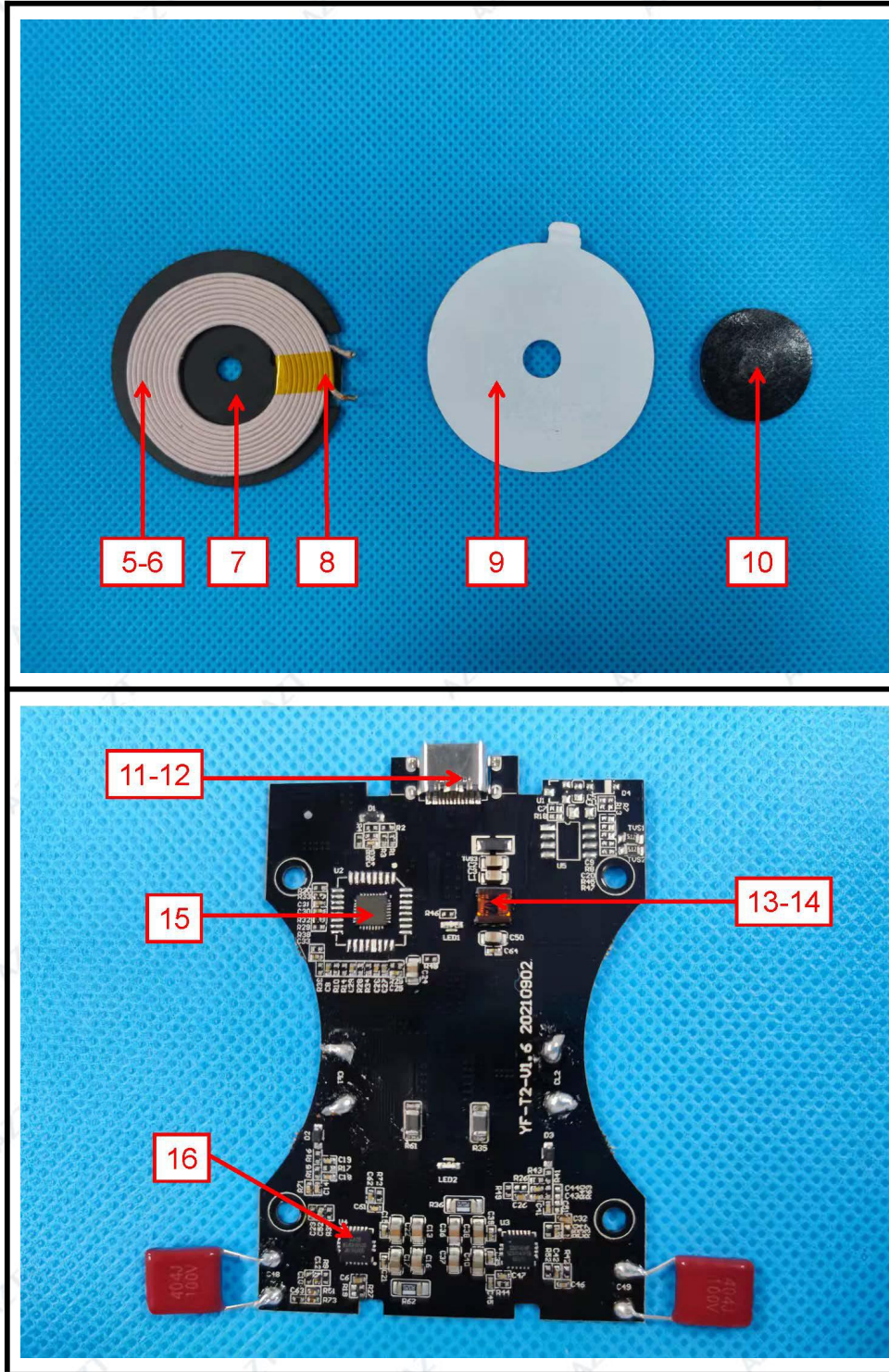
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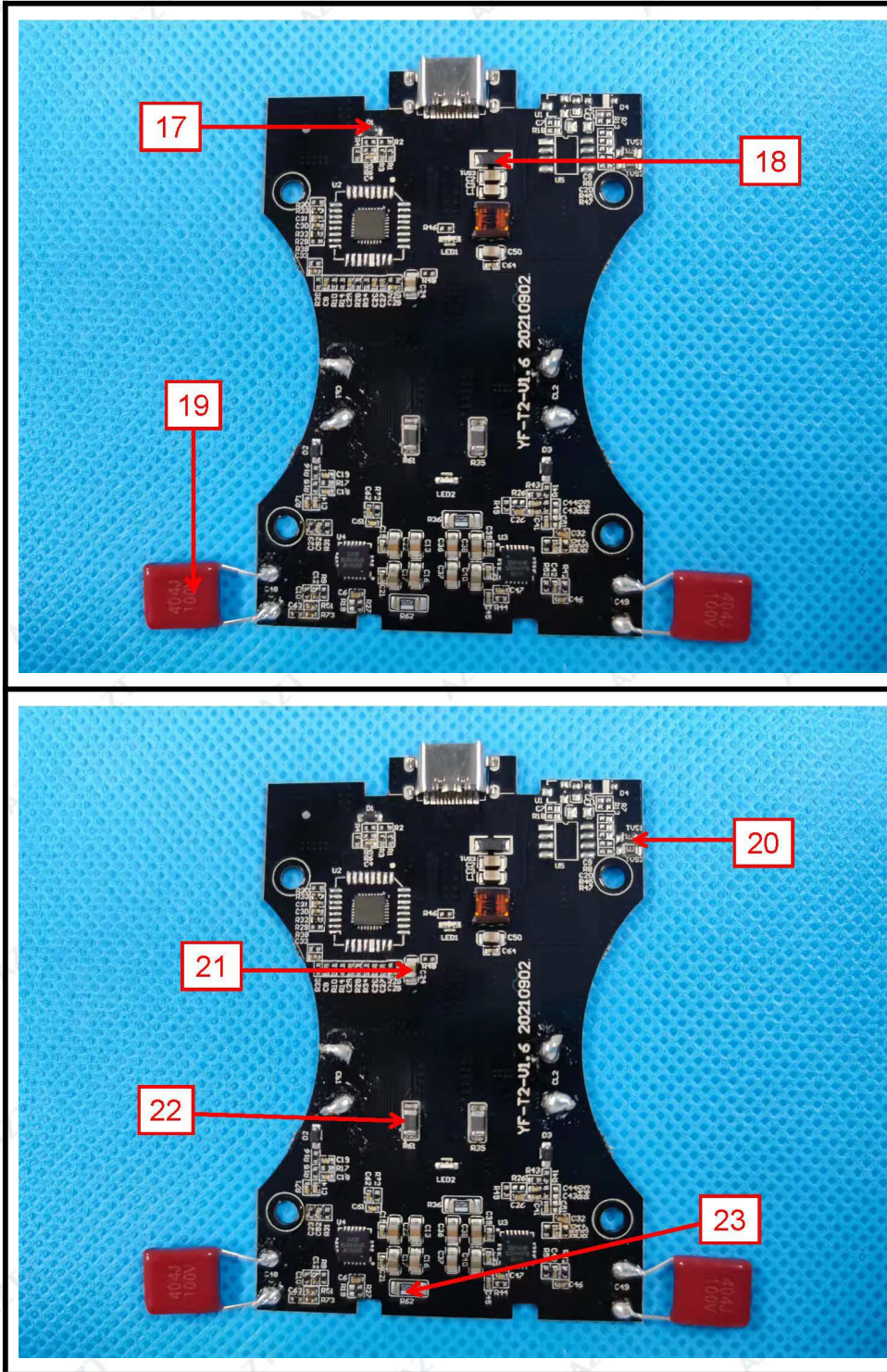
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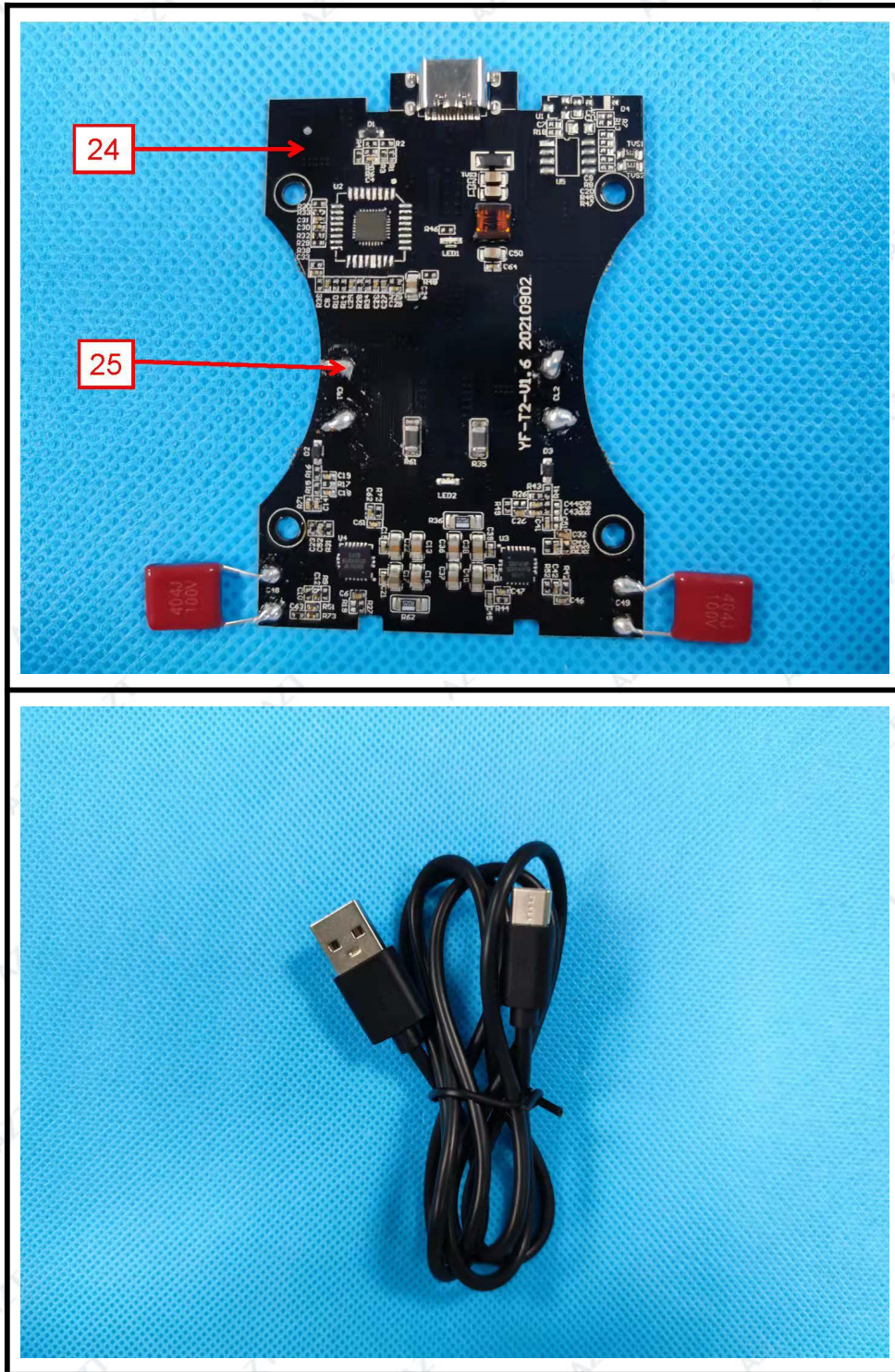
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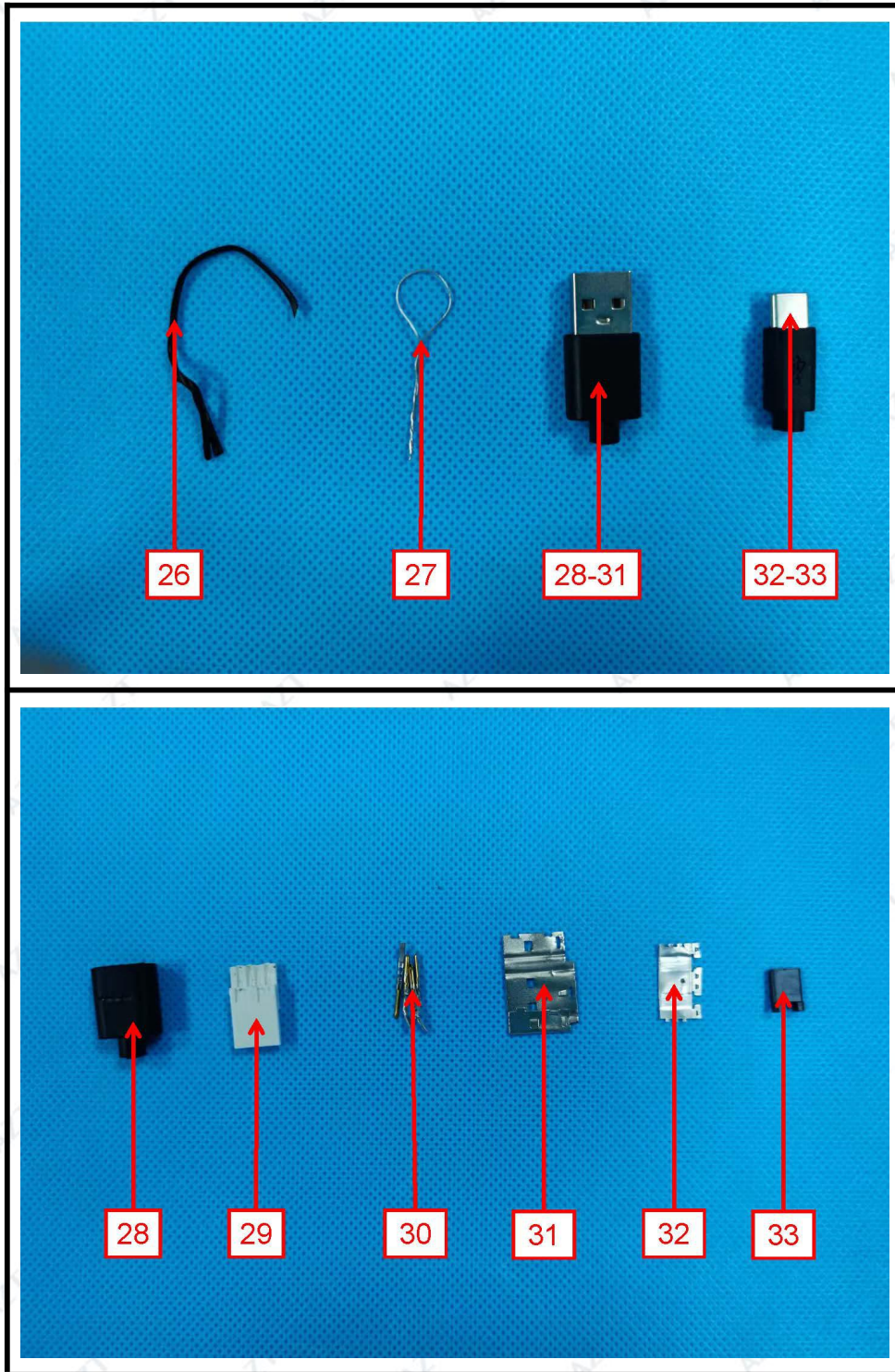
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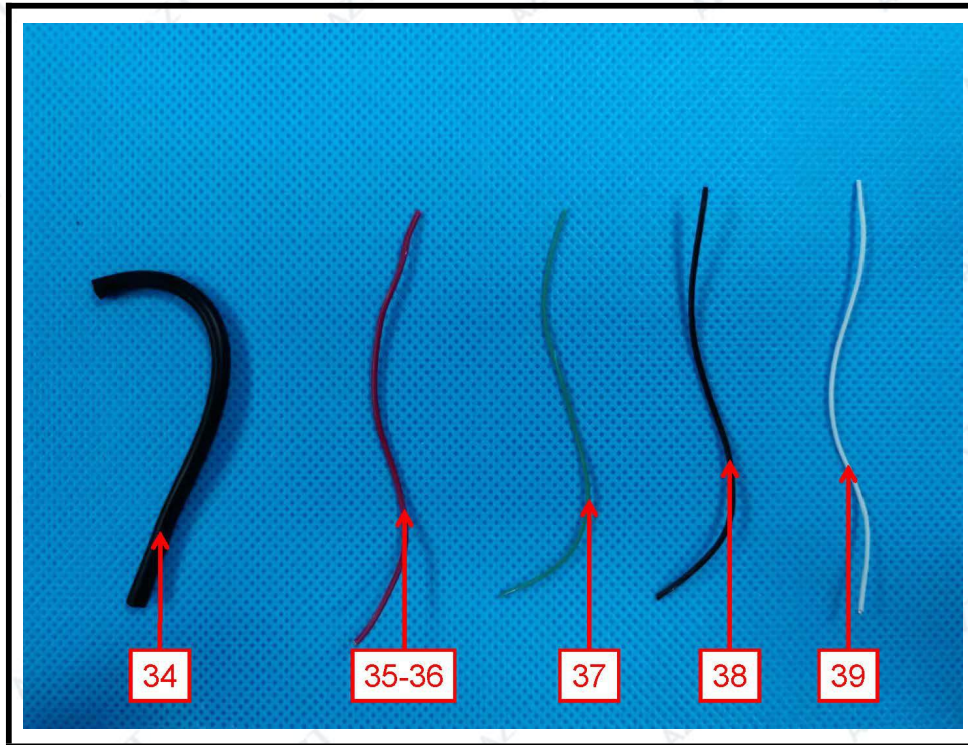
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AZT authenticate the photo on original report only

***** End of Report *****

Statement:

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2. The result(s) shown in this report refer only to the sample(s) tested.
3. Without written approval of AZT, this report can't be reproduced except in full.
4. The sample(s) and sample information was/were provided by the client who should be responsible for the authenticity which AZT hasn't verified.
5. In case of any discrepancy between the English version and Chinese version of the testing reports (if generated), the Chinese version shall prevail.

