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检测
TESTING
CNAS L6478



TEST REPORT

Report No. : WTF26F06161763C
Job No. : FSW2606090652CJ
Applicant : Mid Ocean Brands B.V.
Address : Unit 711-716, 7/F., Tower A, 83 King Lam Street, Cheung Sha Wan, Kowloon, Hong Kong.
Manufacturer : 118966
Sample Name : Wireless charger speaker
Sample Model : MO3189
Test Requested : With reference to EU RoHS Directive 2011/65/EU and its amendment Directive EU 2015/863, to determine the Pb, Cd, Hg, Cr(VI), PBBs, PBDEs, DBP, BBP, DEHP, DIBP content in the submitted sample.
Test Method : Refer to next page (s)
Test Conclusion : **Pass**
Date of Receipt Sample : 2026-06-09
Testing Period : 2026-06-09 to 2026-06-18
Date of Issue : 2026-06-22
Test Result : Refer to next page (s)

Prepared By:

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Signed for and on behalf of
Waltek Testing Group (Foshan) Co., Ltd.

Rena. Chen



WTF26F06161763C

Rena Chen
Waltek Testing Group (Foshan) Co., Ltd.
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Sample photo:



MO3189



MO3189

WALTEK



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Test Results:**1. Lead, Cadmium, Mercury, Hexavalent Chromium, PBBs and PBDEs**

Test Method/Equipment:

- 1) Disassembly, disjunction and mechanical sample preparation
- 2) With reference to IEC 62321-3-1:2026, screening –Lead, mercury, cadmium, total chromium and total bromine by X-ray fluorescence spectrometry
- 3) With reference to IEC 62321-4:2013+AMD1:2017 CSV, determination of Mercury by ICP-OES
- 4) With reference to IEC 62321-5:2013, determination of Lead and Cadmium by ICP-OES
- 5) With reference to IEC 62321-7-2: 2017 and IEC 62321-7-1: 2015, determination of Hexavalent Chromium by UV-Vis
- 6) With reference to IEC 62321-12:2023, determination of PBBs and PBDEs by GC-MS

Part No.	Part Description	Result of XRF					Result of Wet Chemical Testing (mg/kg)
		Cd	Pb	Hg	Cr	Br	
1	Silvery metal net sheet with black surfaced	BL	BL	BL	BL	--	NA
2	Black soft plastic sheet with adhesive	BL	BL	BL	BL	BL	NA
3	Black soft plastic sheet with adhesive	BL	BL	BL	BL	BL	NA
4	Black plastic shell	BL	BL	BL	BL	BL	NA
5	Black soft plastic foot pad with adhesive	BL	BL	BL	BL	BL	NA
6	Silvery magnetic block	BL	BL	BL	BL	--	NA
7	Silvery metal sheet	BL	BL	BL	BL	--	NA
8	Silvery metal spring	BL	BL	BL	IN	--	Cr(VI): Negative
9	Black plastic wire covering	BL	BL	BL	BL	BL	NA
10	Solder	BL	BL	BL	IN	--	Cr(VI): Negative
11	Red plastic wire covering	BL	BL	BL	BL	BL	NA
12	Silvery metal wire	BL	BL	BL	BL	--	NA
13	Black plastic shell	BL	BL	BL	BL	BL	NA



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Part No.	Part Description	Result of XRF					Result of Wet Chemical Testing (mg/kg)
		Cd	Pb	Hg	Cr	Br	
14	Black plastic sheet	BL	BL	BL	BL	BL	NA
15	Black synthetic leather	BL	BL	BL	BL	BL	NA
16	Silvery metal sheet with black surfaced	BL	BL	BL	IN	--	Cr(VI): Negative
17	Black paper sheet	BL	BL	BL	BL	BL	NA
18	Yellow transparent plastic bobbin	BL	BL	BL	BL	BL	NA
19	Copperty varnished wire	BL	BL	BL	BL	BL	NA
20	Brown paper tube	BL	BL	BL	BL	BL	NA
21	Brown fabric net	BL	BL	BL	BL	BL	NA
22	Green dry glue	BL	BL	BL	BL	BL	NA
23	Silvery magnetic block	BL	BL	BL	IN	--	Cr(VI): ND
24	Silvery-blue metal shell	BL	BL	BL	IN	--	Cr(VI): Negative
25	Solder	BL	BL	BL	BL	--	NA
26	White paper sheet	BL	BL	BL	BL	BL	NA
27	Silvery metal rivet	BL	BL	BL	BL	--	NA
28	Black sponge with adhesive	BL	BL	BL	BL	BL	NA
29	Black plastic wire covering	BL	BL	BL	BL	BL	NA
30	Red plastic wire covering	BL	BL	BL	BL	BL	NA
31	Copperty metal wire	BL	BL	BL	BL	--	NA



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Part No.	Part Description	Result of XRF					Result of Wet Chemical Testing (mg/kg)
		Cd	Pb	Hg	Cr	Br	
32	Semi-transparent double faced adhesive tape	BL	BL	BL	BL	BL	NA
33	White release paper	BL	BL	BL	BL	BL	NA
34	White dry glue	BL	BL	BL	BL	BL	NA
35	White fibrous wire jacket	BL	BL	BL	BL	IN	PBBs : ND PBDEs : ND
36	Dark grey magnetic sheet	BL	BL	BL	BL	--	NA
37	Black capacitor	BL	BL	BL	BL	BL	NA
38	Yellow transparent plastic adhesive tape	BL	BL	BL	BL	BL	NA
39	Rose red varnished wire	BL	BL	BL	BL	BL	NA
40	Coppery metal wire	BL	BL	BL	BL	--	NA
41	Coppery varnished wire(inductor)	BL	BL	BL	BL	BL	NA
42	Grey magnetic core(inductor)	BL	BL	BL	IN	--	Cr(VI): ND
43	Chip IC	BL	BL	BL	BL	BL	NA
44	Grey plastic core(socket)	BL	BL	BL	BL	BL	NA
45	Silvery metal shell(socket)	BL	BL	BL	IN	--	Cr(VI): Negative
46	Silvery metal pin(socket)	BL	BL	BL	BL	--	NA
47	Black plastic cap (button)	BL	BL	BL	BL	BL	NA
48	Silvery metal shell (button)	BL	BL	BL	BL	--	NA
49	Silvery metal sheet (button)	BL	BL	BL	IN	--	Cr(VI): Negative



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Part No.	Part Description	Result of XRF					Result of Wet Chemical Testing (mg/kg)
		Cd	Pb	Hg	Cr	Br	
50	Silvery metal pin (button)	BL	BL	BL	BL	--	NA
51	Chip LED	BL	BL	BL	BL	BL	NA
52	Green PCB	BL	BL	BL	BL	IN	PBBs : ND PBDEs : ND
53	Chip crystal oscillator	BL	BL	BL	BL	BL	NA
54	Black plastic base(electrolytic capacitor)	BL	BL	BL	BL	BL	NA
55	Black rubber stopper(electrolytic capacitor)	BL	BL	BL	BL	BL	NA
56	Brown paper(electrolytic capacitor)	BL	BL	BL	BL	BL	NA
57	Silvery metal shell with black printing(electrolytic capacitor)	BL	BL	BL	BL	--	NA
58	Grey metal foil(electrolytic capacitor)	BL	BL	BL	BL	--	NA
59	Silvery-grey metal foil(electrolytic capacitor)	BL	BL	BL	BL	--	NA
60	Silvery metal pin(electrolytic capacitor)	BL	BL	BL	BL	--	NA
61	Chip capacitor(yellow)	BL	BL	BL	BL	BL	NA
62	Chip resistor	BL	BL	BL	BL	BL	NA
63	Chip audion	BL	BL	BL	BL	BL	NA
64	Chip capacitor(dark yellow)	BL	BL	BL	BL	BL	NA
65	Chip resistor	BL	BL	BL	IN	BL	Cr(VI): ND
66	Chip capacitor(yellow)	BL	BL	BL	BL	BL	NA
67	Solder	BL	BL	BL	IN	--	Cr(VI): Negative



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Part No.	Part Description	Result of XRF					Result of Wet Chemical Testing (mg/kg)
		Cd	Pb	Hg	Cr	Br	
68	Chip diode	BL	BL	BL	BL	BL	NA
69	Purple plastic film with black printing	BL	BL	BL	BL	BL	NA
70	Semi-transparent plastic gasket	BL	BL	BL	BL	BL	NA
71	Silvery metal screw	BL	BL	BL	BL	--	NA
72	Black soft plastic jacket(Type-C plug)	BL	BL	BL	BL	BL	NA
73	Silvery metal shell(Type-C plug)	BL	BL	BL	IN	--	Cr(VI): Negative
74	Off-white plastic core(Type-C plug)	BL	BL	BL	BL	BL	NA
75	Silvery metal pin(Type-C plug)	BL	BL	BL	BL	--	NA
76	Chip capacitor(Type-C plug)	BL	BL	BL	BL	BL	NA
77	Blue PCB(Type-C plug)	BL	BL	BL	BL	IN	PBBs : ND PBDEs : ND
78	Solder(Type-C plug)	BL	BL	BL	BL	--	NA
79	Black plastic wire jacket	BL	BL	BL	BL	BL	NA
80	Coppery metal wire	BL	BL	BL	BL	--	NA
81	Blue plastic wire covering	BL	BL	BL	BL	BL	NA
82	Green plastic wire covering	BL	BL	BL	BL	BL	NA
83	Pink plastic wire covering	BL	BL	BL	BL	BL	NA
84	Black plastic wire covering	BL	BL	BL	BL	BL	NA
85	White plastic wire covering	BL	BL	BL	BL	BL	NA



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2. Phthalates

Test Method/Equipment:

1) With reference to IEC 62321-12:2023, determination of DBP, BBP, DEHP, DIBP by GC-MS

Serial No.	Part No.	Result (mg/kg)			
		DBP	BBP	DEHP	DIBP
T01	2+3+5 [△]	ND	ND	ND	ND
T02	4+13+14+18+22 [△]	ND	ND	ND	ND
T03	9+11+28 [△]	131	ND	ND	ND
T04	15+21+35 [△]	ND	ND	ND	ND
T05	17+20+26 [△]	ND	ND	ND	ND
T06	19+39+41 [△]	ND	ND	ND	ND
T07	29+30+55 [△]	ND	ND	ND	ND
T08	32+33+38+56 [△]	ND	ND	ND	ND
T09	34+74 [△]	ND	ND	ND	ND
T10	37+43+51+53+61 [△]	ND	ND	ND	ND
T11	44+47+54+69+70 [△]	ND	ND	ND	ND
T12	52+77+85 [△]	ND	ND	ND	ND
T13	62+63+64+65+66 [△]	ND	ND	ND	ND
T14	68+76 [△]	ND	ND	ND	ND
T15	72+79+81 [△]	ND	ND	ND	ND
T16	82+83+84 [△]	ND	ND	ND	ND
T17	1	--	--	--	--
T18	6	--	--	--	--
T19	7	--	--	--	--
T20	8	--	--	--	--
T21	10	--	--	--	--
T22	12	--	--	--	--
T23	16	--	--	--	--
T24	23	--	--	--	--
T25	24	--	--	--	--
T26	25	--	--	--	--
T27	27	--	--	--	--
T28	31	--	--	--	--
T29	36	--	--	--	--
T30	40	--	--	--	--
T31	42	--	--	--	--
T32	45	--	--	--	--
T33	46	--	--	--	--
T34	48	--	--	--	--
T35	49	--	--	--	--



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Serial No.	Part No.	Result (mg/kg)			
		DBP	BBP	DEHP	DIBP
T36	50	--	--	--	--
T37	57	--	--	--	--
T38	58	--	--	--	--
T39	59	--	--	--	--
T40	60	--	--	--	--
T41	67	--	--	--	--
T42	71	--	--	--	--
T43	73	--	--	--	--
T44	75	--	--	--	--
T45	78	--	--	--	--
T46	80	--	--	--	--

Remark:

- (1) Results are 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) is required to be performed, if the concentration exceeds the below warning value according to IEC 62321-3-1: 2026 (unit: mg/kg)

Element	Plastics	Metal	Composite Materials
Cd	$BL \leq (70-3\sigma) < IN < (130+3\sigma) \leq OL$	$BL \leq (70-3\sigma) < IN < (130+3\sigma) \leq OL$	$LOD < IN < (150+3\sigma) \leq OL$
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	$BL \leq (700-3\sigma) < IN < (1300+3\sigma) \leq OL$	$BL \leq (700-3\sigma) < IN < (1300+3\sigma) \leq OL$	$BL \leq (500-3\sigma) < IN < (1500+3\sigma) \leq OL$
Cr	$BL \leq (700-3\sigma) < IN$	$BL \leq (700-3\sigma) < IN$	$BL \leq (500-3\sigma) < IN$
Br	$BL \leq (700-3\sigma) < IN$	--	$BL \leq (500-3\sigma) < IN$

BL= Below Limit

OL= Over Limit

LOD = Limit of Detection

- (2) "IN" expresses the inconclusive region, and further chemical testing to confirm whether it complies with the requirement of RoHS Directive.
- (3) The XRF screening test for RoHS elements – the reading may be different to the actual content in the sample be of non-uniformity composition.
- (4) mg/kg =milligram per kilogram=ppm, $\mu\text{g}/\text{cm}^2$ = micrograms per square centimetre.
- (5) ND = Not Detected or lower than limit of quantitation.
- (6) NA = Not Applicable, as the XRF screening test result was below the limit or as the XRF screening directly determine that test result was over the limit, it was not need to conduct the wet chemical testing.
- (7) -- = Not Regulated
- (8) LOQ = Limit of quantitation.



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Test Items	Pb	Cd	Hg	Cr(VI)		PBB	PBDE	DBP	BBP	DEHP	DIBP
Units	mg/kg	mg/kg	mg/kg	mg/kg	μg/cm ²	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOQ	2	2	2	8	0.1	5	5	50	50	50	50

The LOQ for single compound of PBBs and PBDEs is 5mg/kg, LOQ of Cr(VI) for polymer and composite sample is 8mg/kg and LOQ of Cr(VI) for metal sample is 0.1μg/cm².

- (9) 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.

(10) RoHS Requirement

Restricted Substances	Limits
Cadmium (Cd)	0.01% (100 mg/kg)
Lead (Pb)	0.1% (1000 mg/kg)
Mercury (Hg)	0.1% (1000 mg/kg)
Chromium (VI) (Cr(VI))	0.1% (1000 mg/kg)
Polybrominated Biphenyls (PBBs)	0.1% (1000 mg/kg)
Polybrominated Diphenyl Ethers (PBDEs)	0.1% (1000 mg/kg)
Dibutyl phthalate (DBP)	0.1% (1000 mg/kg)
Benzyl butyl phthalate (BBP)	0.1% (1000 mg/kg)
Di(2-ethylhexyl) phthalate (DEHP)	0.1% (1000 mg/kg)
Di-iso-butyl phthalate (DIBP)	0.1% (1000 mg/kg)

(11) Abbreviation:

“Pb” denotes Lead, “Cd” denotes Cadmium, “Hg” denotes Mercury, “Cr” denotes Chromium, “Cr(VI)” denotes Hexavalent Chromium, “Br” denotes Bromine, “PBBs” denotes Total Polybrominated Biphenyls, “PBDEs” denotes Total Polybrominated Diphenyl Ethers.

“DBP” denotes Dibutyl phthalate, “BBP” denotes Benzyl butyl phthalate (BBP), “DEHP” denotes Bis(2-ethylhexyl)-phthalate, “DIBP” denotes Diisobutyl phthalate, “PHT” denotes Phthalates.

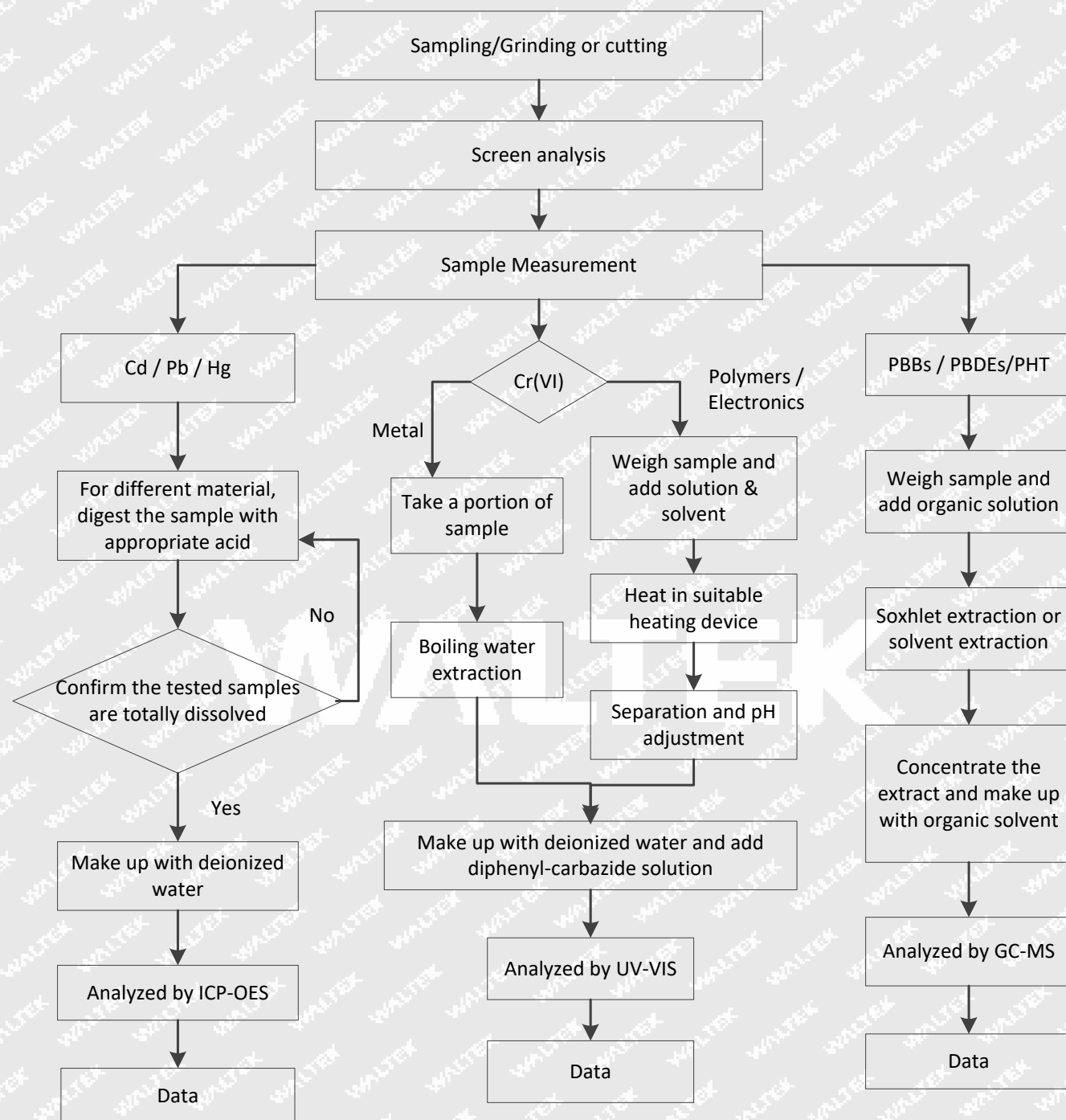
- (12) “△”=As per applicant's requirement, the testing was conducted based on mixed components by weight in equal ratio, results are calculated by the minimum weight of mixed components.



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Testing Flow chart:

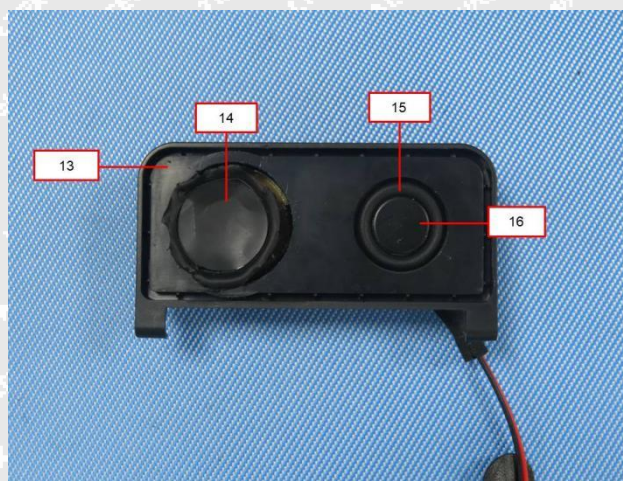
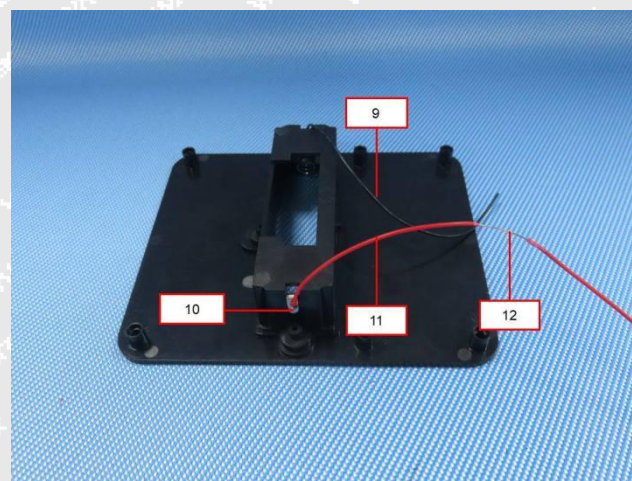
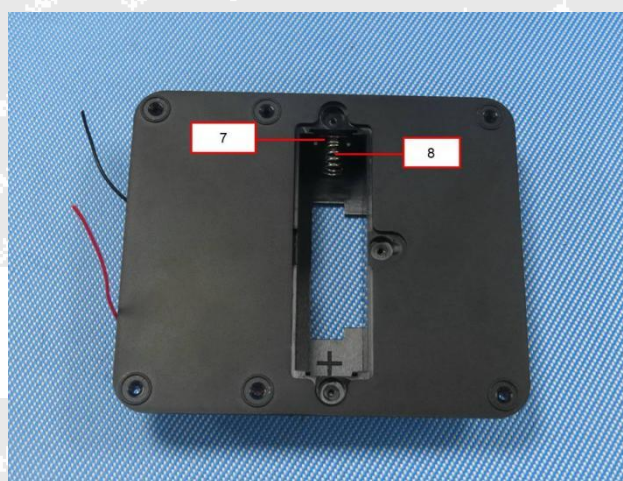
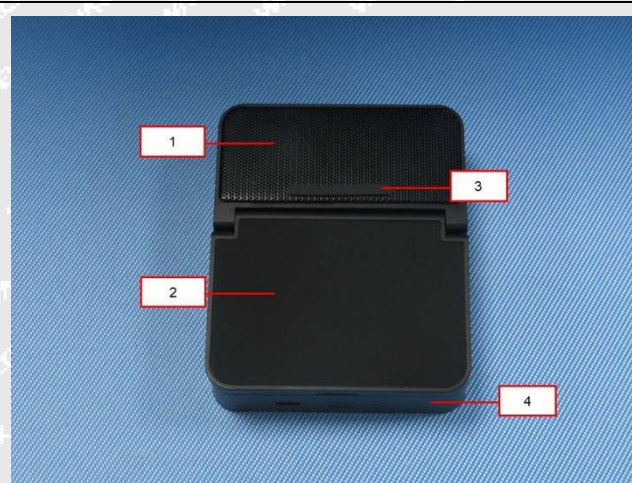




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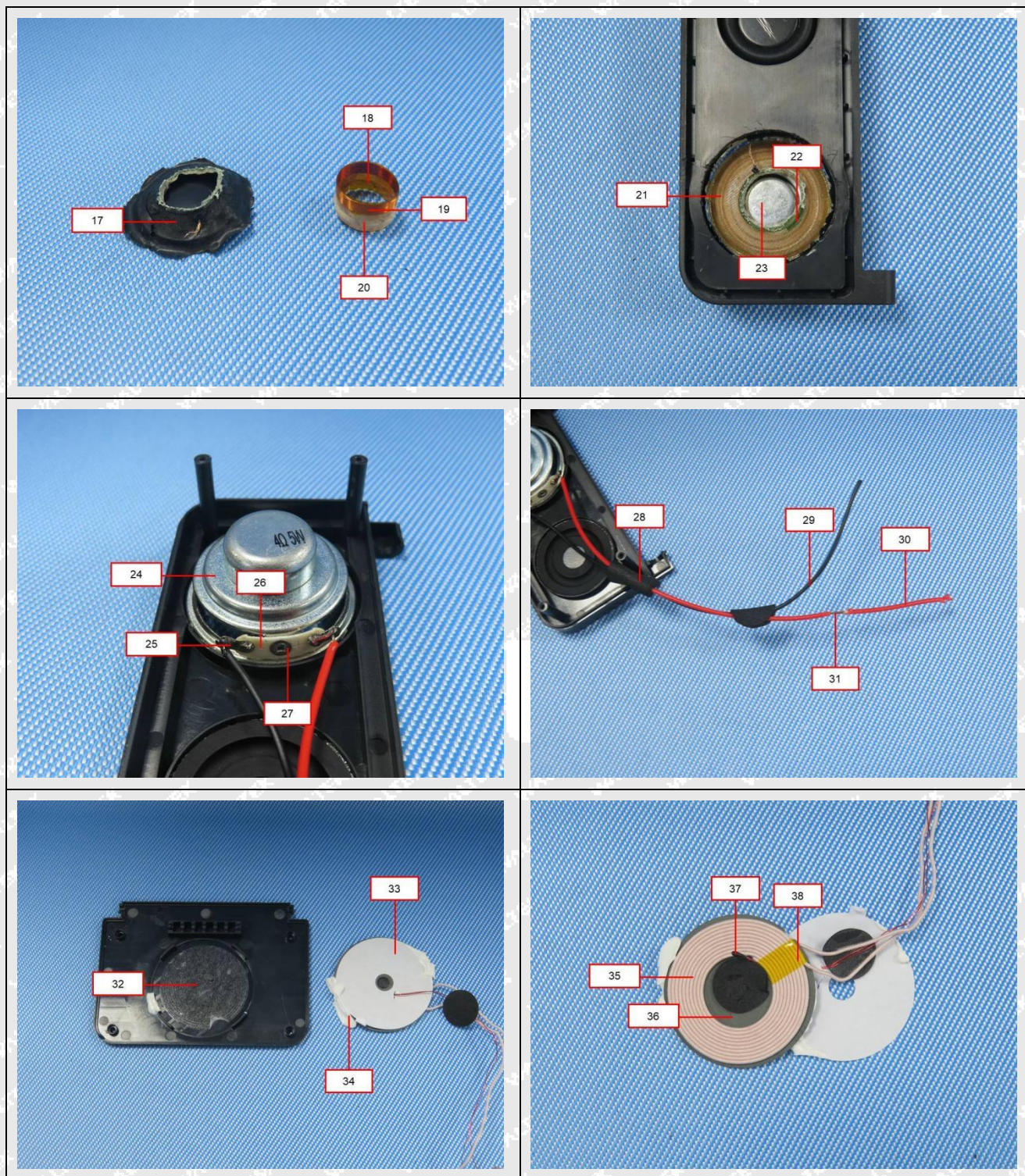
Photograph of parts tested:





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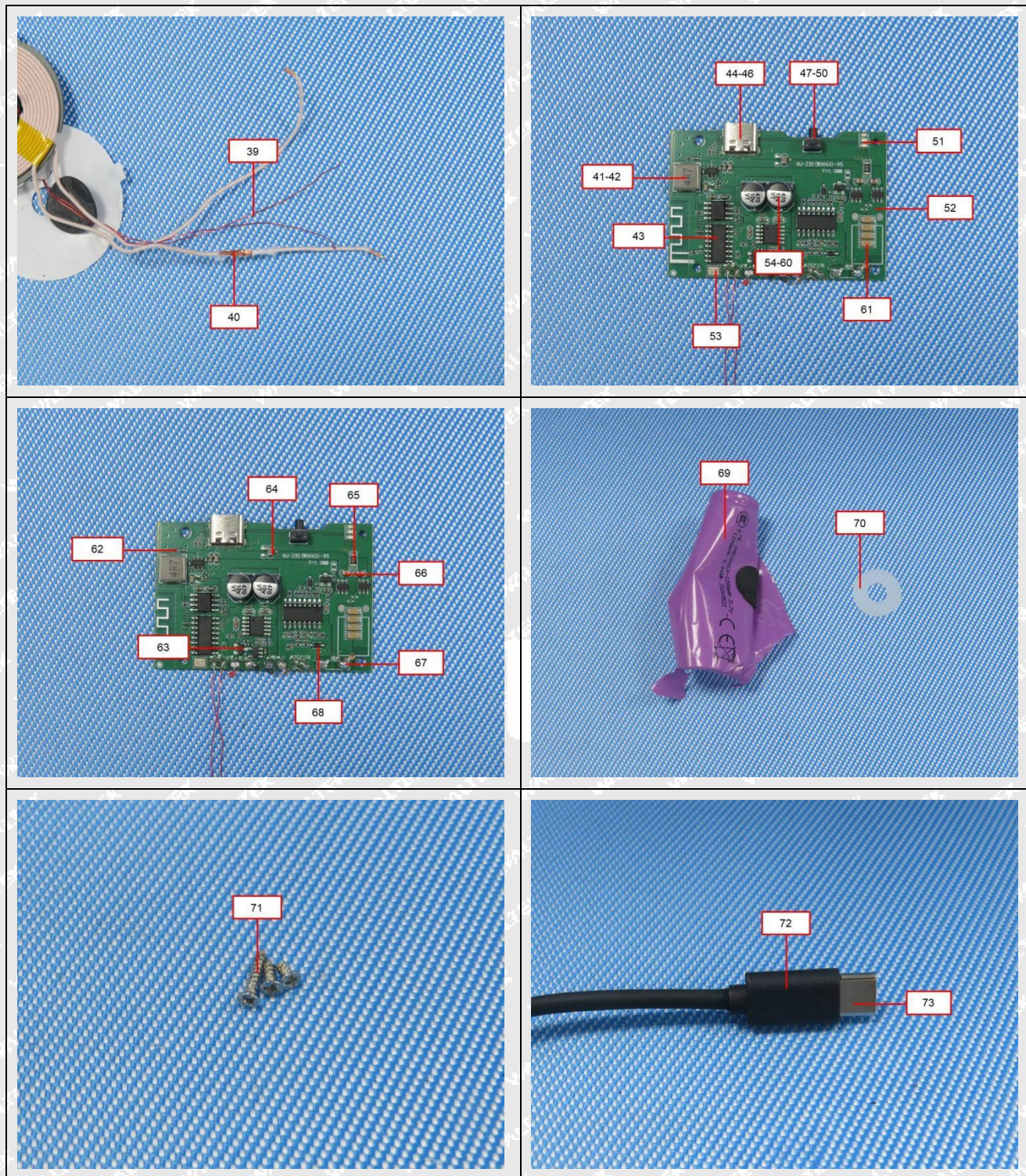
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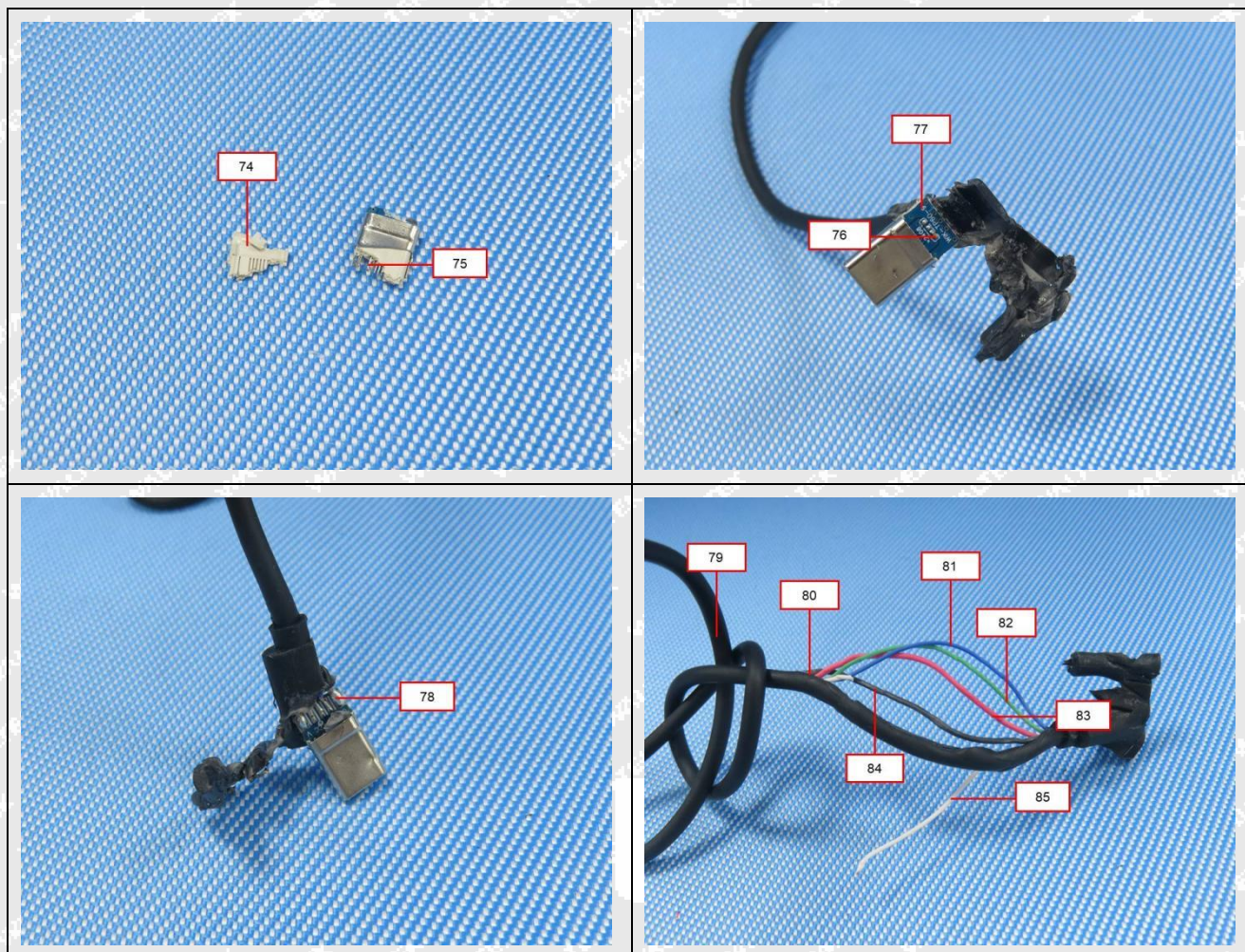
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===== End of Report =====