Test Report

Applicant: Shenzhen lanrry technology Co.,Ltd

Contact information: Floor 3,Building 2,Hongfa Industrial park, Longxin community,Shiyan street,Bao'an district,Shenzhen

The following sample(s) was (were) submitted and identified by client as:

Sample Name	:	Embedded Industrial Computer
Model No.	:	PCX-9468-B3
Series Model	:	PCX-9268-B1/PCX-9268-B2/PCX-9268-B6/PCX-9468-B3/PCX-9468-B4/PCX-9468-B5/PCX-9468-B7/PCX-9468-B8/PCX-9468-B9/PCX-9468-B10
Manufacturer	:	Shenzhen lanrry technology Co.,Ltd
Address	:	Floor 3,Building 2,Hongfa Industrial park, Longxin community,Shiyan street,Bao'an district,Shenzhen
Sample Received Date	:	Aug. 11, 2020
Testing Period	:	From Aug. 11, 2020 to Aug. 17, 2020
Test Request	:	Please refer to next page(s).
Test Result(s)	:	Please refer to next page(s).

Signed for and on behalf of Shen Zhen UONE Test Co., LTD.

Prepared by	Checked by	Approved by
Marcia Deng	Nora Deng	Levent Liang

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Summary of test results:

TEST REQUEST	CONCLUSION
RoHS Directive 2011/65/EU and its subsequent amendments & Directive (EU) 2015/863	
(1) To determine Lead (Pb), Cadmium(Cd), Mercury(Hg), Hexavalent Chromium(Cr(VI)), Polybrominated Biphenyls (PBBs) and Polybrominated DiphenylEthers (PBDEs) content by screening test and chemical test	**PASS**
(2) To determine Phthalates (DBP, BBP, DEHP, DIBP) content by chemical test	**PASS**

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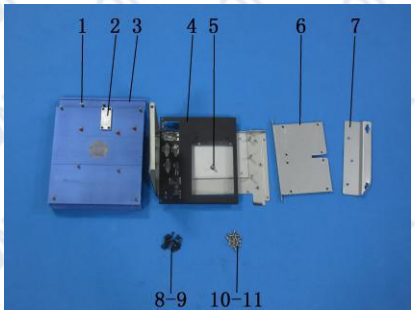
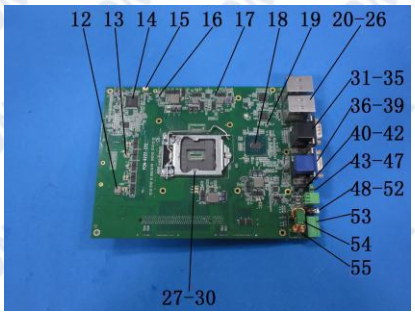
Test Material List

Material No.	Description (Location)	Photo(s) of tested materials
1	Gold metal (nut)	
2	Silver metal (fixed piece)	
3	Blue coated metal (housing)	
4	Metal (housing) coated with black	
5	Silver metal (nut)	
6	Silver sheet	
7	Silver metal (fixed piece)	
8	Metal (screw) with black coating	
9	Black coated metal (gasket)	
10	Silver metal (screw)	
11	Silver metal (gasket)	
12	Gray body (inductor, PCB)	
13	Brown body (Capacitor, PCB)	
14	Black body (INTEGRATED Circuit, PCB)	
15	Beige plastic (terminal case)	
16	Black body (triode, PCB)	
17	Black body (Diode, PCB)	
18	Grey glass (lens)	
19	Silver metal body (Crystal vibrator, PCB)	
20	Silver metal (socket)	
21	Copper metal (pin)	
22	Green plastic (lampshade)	
23	Yellow plastic (lampshade)	
24	Silver metal (pin)	
25	Black plastic (jack)	
26	Blue plastic (socket)	
27	Silver metal (fixed strip)	

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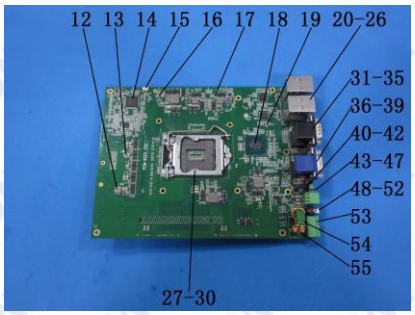
Material No.	Description (Location)	Photo(s) of tested materials
28	Copper metal (pin)	
29	Silver metal (fixed piece)	
30	Black plastic (jack)	
31	Silver metal (fixed piece)	
32	Silver metal (nut)	
33	Copper metal (pin)	
34	Black plastic (socket)	
35	Black inner plastic	
36	Blue plastic (socket)	
37	Silver metal (socket)	
38	Copper metal (pin)	
39	Black inner plastic	
40	Green plastic (lampshade)	
41	Black plastic (casing)	
42	Silver metal (pin)	
43	Black plastic (buttons)	
44	Silver sheet	
45	Black plastic (base)	
46	Silver metal (patch)	
47	Silver metal (connector)	
48	Silver metal (button)	
49	Black plastic (base)	
50	Silver metal (casing)	
51	Silver metal (connector)	
52	Silver metal (pin)	
53	Green plastic (base)	
54	Green body (inductor, PCB)	
55	Copper metal (coil)	

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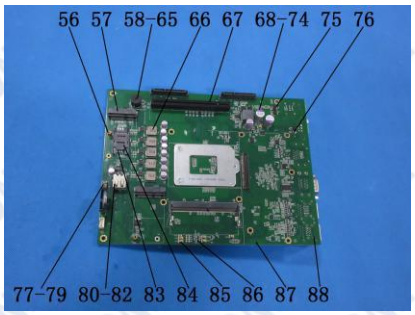
Material No.	Description (Location)	Photo(s) of tested materials
56	Gold metal (nut)	
57	Black plastic (socket)	
58	Black plastic (case, buzzer)	
59	Black magnetic ring (buzzer)	
60	Green PCB (Buzzer)	
61	Silver metal (patch, buzzer)	
62	Silver metal (shaft, buzzer)	
63	Copper metal (coil, buzzer)	
64	Silver metal (solder, buzzer)	
65	Silver metal (pins, buzzers)	
66	Gray body (inductor, PCB)	
67	Black plastic (socket)	
68	Purple print (Capacitor, PCB)	
69	Silver metal case (Capacitor, PCB)	
70	Black rubber base (Capacitor, PCB)	
71	Silver metal pin (Capacitor, PCB)	
72	Silver platinum sheet (Capacitor, PCB)	
73	Dark silver platinum sheet (Capacitor, PCB)	
74	Yellow paper with liquid (capacitor, PCB)	
75	Black body (INTEGRATED Circuit, PCB)	
76	Black body (triode, PCB)	
77	White plastic (switch)	
78	Black plastic (base)	
79	Silver metal (connector)	
80	Silver Metal (USB)	
81	Copper metal (pin)	
82	Black inner plastic	
83	Copper metal (pin)	

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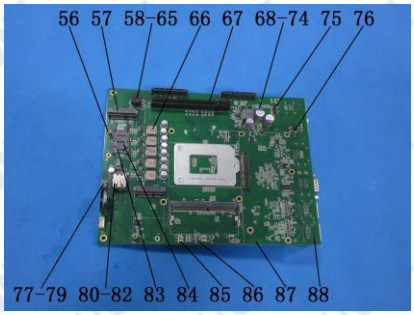
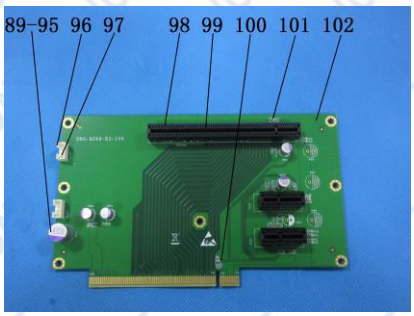
Material No.	Description (Location)	Photo(s) of tested materials
84	Black plastic (slot)	
85	Brown body (Capacitor, PCB)	
86	Black body (triode, PCB)	
87	Green PCB	
88	Silver metal (solder)	
89	Purple print (Capacitor, PCB)	
90	Silver metal case (Capacitor, PCB)	
91	Black rubber base (Capacitor, PCB)	
92	Silver metal pin (Capacitor, PCB)	
93	Silver platinum sheet (Capacitor, PCB)	
94	Dark silver platinum sheet (Capacitor, PCB)	
95	Yellow paper with liquid (capacitor, PCB)	
96	White plastic (terminal case)	
97	Silver metal (pin)	
98	Black plastic (socket)	
99	Copper metal (pin)	
100	Black body (Resistor, PCB)	
101	Brown body (Capacitor, PCB)	
102	Green PCB	

Test Result(s):

(1) Lead (Pb), Cadmium(Cd), Mercury(Hg), Hexavalent Chromium(Cr(VI)), Polybrominated Biphenyls (PBBs) and Polybrominated DiphenylEthers (PBDEs)

Test Method: IEC62321-3-1: 2013, IEC62321-4: 2013+A1:2017, IEC62321-5: 2013, IEC62321-6: 2015,IEC 62321-7-1:2015, IEC 62321-7-2: 2017, analyzed by EDXRF & ICP-OES & GC-MS & UV-Vis.

No.	EDXRF Result (1)					Chemical Result (2) (mg/kg)	Remark(3)	Conclusion
	Pb	Cd	Hg	Cr	Br			
1	OL	BL	BL	BL	NA	Pb: 31050 #	Copper alloy	PASS
2	BL	BL	BL	BL	NA	—	—	PASS
3	BL	BL	BL	BL	NA	—	—	PASS
4	BL	BL	BL	BL	NA	—	—	PASS
5	BL	BL	BL	BL	NA	—	—	PASS
6	BL	BL	BL	BL	NA	—	—	PASS
7	BL	BL	BL	BL	NA	—	—	PASS
8	BL	BL	BL	BL	NA	—	—	PASS
9	BL	BL	BL	BL	NA	—	—	PASS
10	BL	BL	BL	BL	NA	—	—	PASS
11	BL	BL	BL	BL	NA	—	—	PASS
12	BL	BL	BL	BL	BL	—	—	PASS
13	BL	BL	BL	BL	BL	—	—	PASS
14	BL	BL	BL	BL	BL	—	—	PASS
15	BL	BL	BL	BL	BL	—	—	PASS
16	BL	BL	BL	BL	BL	—	—	PASS
17	BL	BL	BL	BL	BL	—	—	PASS
18	BL	BL	BL	BL	BL	—	—	PASS
19	BL	BL	BL	BL	NA	—	—	PASS
20	BL	BL	BL	BL	NA	—	—	PASS
21	BL	BL	BL	BL	NA	—	—	PASS
22	BL	BL	BL	BL	BL	—	—	PASS
23	BL	BL	BL	BL	BL	—	—	PASS

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No.	EDXRF Result (1)					Chemical Result (2) (mg/kg)	Remark(3)	Conclusion
	Pb	Cd	Hg	Cr	Br			
24	BL	BL	BL	BL	NA	—	—	PASS
25	BL	BL	BL	BL	BL	—	—	PASS
26	BL	BL	BL	BL	BL	—	—	PASS
27	BL	BL	BL	BL	NA	—	—	PASS
28	BL	BL	BL	BL	NA	—	—	PASS
29	BL	BL	BL	BL	NA	—	—	PASS
30	BL	BL	BL	BL	BL	—	—	PASS
31	BL	BL	BL	BL	NA	—	—	PASS
32	BL	BL	BL	BL	NA	—	—	PASS
33	BL	BL	BL	BL	NA	—	—	PASS
34	BL	BL	BL	BL	BL	—	—	PASS
35	BL	BL	BL	BL	BL	—	—	PASS
36	BL	BL	BL	BL	BL	—	—	PASS
37	BL	BL	BL	BL	NA	—	—	PASS
38	BL	BL	BL	BL	NA	—	—	PASS
39	BL	BL	BL	BL	BL	—	—	PASS
40	BL	BL	BL	BL	BL	—	—	PASS
41	BL	BL	BL	BL	BL	—	—	PASS
42	BL	BL	BL	BL	NA	—	—	PASS
43	BL	BL	BL	BL	BL	—	—	PASS
44	BL	BL	BL	BL	NA	—	—	PASS
45	BL	BL	BL	BL	BL	—	—	PASS
46	BL	BL	BL	BL	NA	—	—	PASS
47	BL	BL	BL	BL	NA	—	—	PASS
48	BL	BL	BL	BL	NA	—	—	PASS
49	BL	BL	BL	BL	BL	—	—	PASS
50	BL	BL	BL	BL	NA	—	—	PASS

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No.	EDXRF Result (1)					Chemical Result (2) (mg/kg)	Remark(3)	Conclusion
	Pb	Cd	Hg	Cr	Br			
51	BL	BL	BL	BL	NA	—	—	PASS
52	BL	BL	BL	BL	NA	—	—	PASS
53	BL	BL	BL	BL	BL	—	—	PASS
54	BL	BL	BL	BL	BL	—	—	PASS
55	BL	BL	BL	BL	NA	—	—	PASS
56	OL	X	BL	BL	NA	Pb: 26300# Cd:32	Copper alloy	PASS
57	BL	BL	BL	BL	BL	—	—	PASS
58	BL	BL	BL	BL	BL	—	—	PASS
59	BL	BL	BL	BL	BL	—	—	PASS
60	BL	BL	BL	BL	BL	—	—	PASS
61	BL	BL	BL	BL	NA	—	—	PASS
62	BL	BL	BL	BL	NA	—	—	PASS
63	BL	BL	BL	BL	NA	—	—	PASS
64	BL	BL	BL	BL	NA	—	—	PASS
65	BL	BL	BL	BL	NA	—	—	PASS
66	BL	BL	BL	BL	BL	—	—	PASS
67	BL	BL	BL	BL	BL	—	—	PASS
68	BL	BL	BL	BL	BL	—	—	PASS
69	BL	BL	BL	BL	NA	—	—	PASS
70	BL	BL	BL	BL	BL	—	—	PASS
71	BL	BL	BL	BL	NA	—	—	PASS
72	BL	BL	BL	BL	NA	—	—	PASS
73	BL	BL	BL	BL	NA	—	—	PASS
74	BL	BL	BL	BL	BL	—	—	PASS
75	BL	BL	BL	BL	BL	—	—	PASS
76	BL	BL	BL	BL	BL	—	—	PASS

No.	EDXRF Result (1)					Chemical Result (2) (mg/kg)	Remark(3)	Conclusion
	Pb	Cd	Hg	Cr	Br			
77	BL	BL	BL	BL	BL	—	—	PASS
78	BL	BL	BL	BL	BL	—	—	PASS
79	BL	BL	BL	BL	NA	—	—	PASS
80	BL	BL	BL	BL	NA	—	—	PASS
81	BL	BL	BL	BL	NA	—	—	PASS
82	BL	BL	BL	BL	BL	—	—	PASS
83	BL	BL	BL	BL	NA	—	—	PASS
84	BL	BL	BL	BL	BL	—	—	PASS
85	BL	BL	BL	BL	BL	—	—	PASS
86	BL	BL	BL	BL	BL	—	—	PASS
87	BL	BL	BL	BL	BL	—	—	PASS
88	BL	BL	BL	BL	NA	—	—	PASS
89	BL	BL	BL	BL	BL	—	—	PASS
90	BL	BL	BL	BL	NA	—	—	PASS
91	BL	BL	BL	BL	BL	—	—	PASS
92	BL	BL	BL	BL	NA	—	—	PASS
93	BL	BL	BL	BL	NA	—	—	PASS
94	BL	BL	BL	BL	NA	—	—	PASS
95	BL	BL	BL	BL	BL	—	—	PASS
96	BL	BL	BL	BL	BL	—	—	PASS
97	BL	BL	BL	BL	NA	—	—	PASS
98	BL	BL	BL	BL	BL	—	—	PASS
99	BL	BL	BL	BL	NA	—	—	PASS
100	BL	BL	BL	BL	BL	—	—	PASS
101	BL	BL	BL	BL	BL	—	—	PASS
102	BL	BL	BL	BL	BL	—	—	PASS

Remark:

(1) ①Results are obtained by EDXRF for primary screening, and further wet chemical testing by ICP-OES (for Cd, Pb, Hg), UV-VIS (for Cr(VI)) and GC/MS (for PBBs, PBDEs) is recommended to be performed, if an inconclusive result was found (as "X" in below table) (unit: mg/kg).

②OL = Over Limit, BL = Below Limit, X = Inconclusive, NA = Not Applicable.

③The EDXRF screening test for RoHS elements – The reading may be different to the actual content in the sample be of non-uniformity composition.

Element	Polymer	Metal	Composite Materials
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
Br	BL ≤ (300-3σ)< X	NA	BL ≤ (250-3σ)< X
Cr	BL ≤ (700-3σ)< X	BL ≤ (700-3σ)< X	BL ≤ (500-3σ)< X

Units and limits in EU RoHS Directive 2011/65/EU:

Element	Pb	Cd	Hg	Cr(VI)	PBBs(single)	PBDEs(single)
Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Limit	1000	100	1000	1000	1000	1000

(2) ① mg/kg = ppm = 0.0001%, N.D. = Not Detected (Less than RL).

②Unit and RL (Report limit) in wet chemical test.

Element	Pb	Cd	Hg	Cr(VI)	PBBs(single)	PBDEs(single)
Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
RL	2	2	2	2	5	5

③According to IEC 62321-7-1:2015, result on Cr(VI) for metal sample is shown as Positive/Negative.

Negative = Absence of Cr(VI) coating, Positive = Presence of Cr(VI) coating.

Storage condition and production date of the tested sample are unavailable and thus results of Cr(VI) represent status of the sample at the time of testing.

④ According to IEC 62321-3-1:2013, this column represents the results of wet chem test.

(3) 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 RoHS Directive (2011/65 / EU) annex III and its amendment base on:

Copper alloy containing up to 4 % lead by weight.

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

Test Method: IEC 62321-8: 2017, analyzed by gas chromatographic- mass spectrometer (GC-MS).

Substances	DBP	BBP	DEHP	DIBP	Conclusion
CAS No.	84-74-2	85-68-7	117-81-7	84-69-5	
Limit (mg/kg)	1000	1000	1000	1000	
RL (mg/kg)	30	30	30	30	
Material No.	Result (mg/kg)				
12	N.D.	N.D.	N.D.	N.D.	PASS
13	N.D.	N.D.	N.D.	N.D.	PASS
14	N.D.	N.D.	N.D.	N.D.	PASS
15	N.D.	N.D.	N.D.	N.D.	PASS
16	N.D.	N.D.	N.D.	N.D.	PASS
17	N.D.	N.D.	N.D.	N.D.	PASS
18	N.D.	N.D.	N.D.	N.D.	PASS
22	N.D.	N.D.	N.D.	N.D.	PASS
23	N.D.	N.D.	N.D.	N.D.	PASS
25	N.D.	N.D.	N.D.	N.D.	PASS
26	N.D.	N.D.	N.D.	N.D.	PASS
30	N.D.	N.D.	N.D.	N.D.	PASS
34	N.D.	N.D.	N.D.	N.D.	PASS
35	N.D.	N.D.	N.D.	N.D.	PASS
36	N.D.	N.D.	N.D.	N.D.	PASS
39	N.D.	N.D.	N.D.	N.D.	PASS
40	N.D.	N.D.	N.D.	N.D.	PASS
41	N.D.	N.D.	N.D.	N.D.	PASS
43	N.D.	N.D.	N.D.	N.D.	PASS
45	N.D.	N.D.	N.D.	N.D.	PASS

Substances	DBP	BBP	DEHP	DIBP	Conclusion
CAS No.	84-74-2	85-68-7	117-81-7	84-69-5	
Limit (mg/kg)	1000	1000	1000	1000	
RL (mg/kg)	30	30	30	30	
Material No.	Result (mg/kg)				
49	N.D.	N.D.	N.D.	N.D.	PASS
53	N.D.	N.D.	N.D.	N.D.	PASS
54	N.D.	N.D.	N.D.	N.D.	PASS
57	N.D.	N.D.	N.D.	N.D.	PASS
58	N.D.	N.D.	N.D.	N.D.	PASS
59	N.D.	N.D.	N.D.	N.D.	PASS
60	N.D.	N.D.	N.D.	N.D.	PASS
66	N.D.	N.D.	N.D.	N.D.	PASS
67	N.D.	N.D.	N.D.	N.D.	PASS
68	N.D.	N.D.	N.D.	N.D.	PASS
70	N.D.	N.D.	N.D.	N.D.	PASS
74	N.D.	N.D.	N.D.	N.D.	PASS
75	N.D.	N.D.	N.D.	N.D.	PASS
76	N.D.	N.D.	N.D.	N.D.	PASS
77	N.D.	N.D.	N.D.	N.D.	PASS
78	N.D.	N.D.	N.D.	N.D.	PASS
82	N.D.	N.D.	N.D.	N.D.	PASS
84	N.D.	N.D.	N.D.	N.D.	PASS
85	N.D.	N.D.	N.D.	N.D.	PASS
86	N.D.	N.D.	N.D.	N.D.	PASS
87	N.D.	N.D.	N.D.	N.D.	PASS
89	N.D.	N.D.	N.D.	N.D.	PASS
91	N.D.	N.D.	N.D.	N.D.	PASS
95	N.D.	N.D.	N.D.	N.D.	PASS

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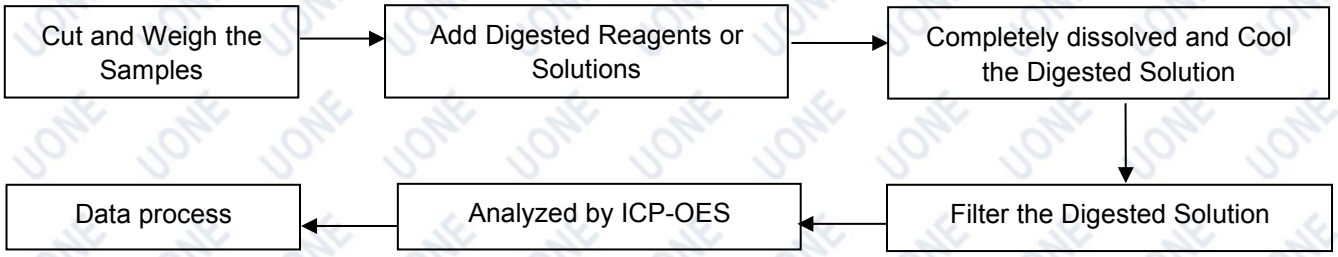
Substances	DBP	BBP	DEHP	DIBP	Conclusion
CAS No.	84-74-2	85-68-7	117-81-7	84-69-5	
Limit (mg/kg)	1000	1000	1000	1000	
RL (mg/kg)	30	30	30	30	
Material No.	Result (mg/kg)				
96	N.D.	N.D.	N.D.	N.D.	PASS
98	N.D.	N.D.	N.D.	N.D.	PASS
100	N.D.	N.D.	N.D.	N.D.	PASS
101	N.D.	N.D.	N.D.	N.D.	PASS
102	N.D.	N.D.	N.D.	N.D.	PASS

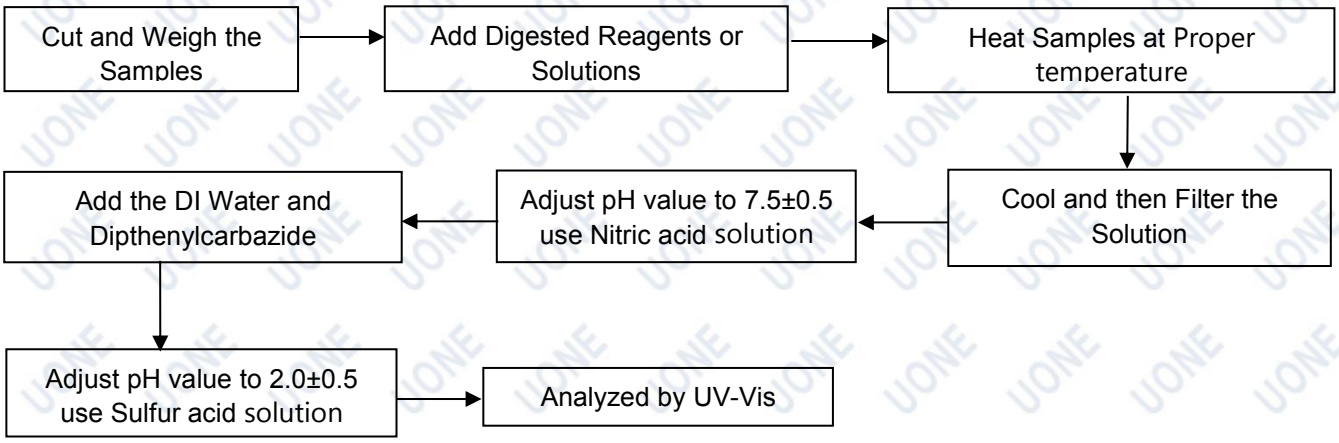
Note:
1. mg/kg = milligram per kilogram (ppm).
2. RL = report limit.
3. N.D.=not detected(less than RL).

Test Process Flow

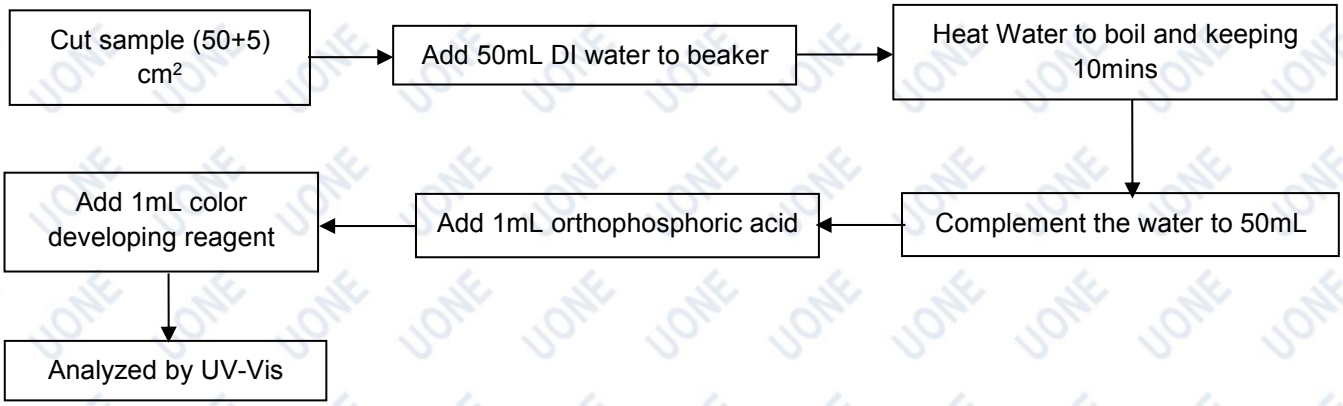
1. Lead, Cadmium, Mercury



2. Hexavalent Chromium (Non-metal)



Hexavalent Chromium (Metal)



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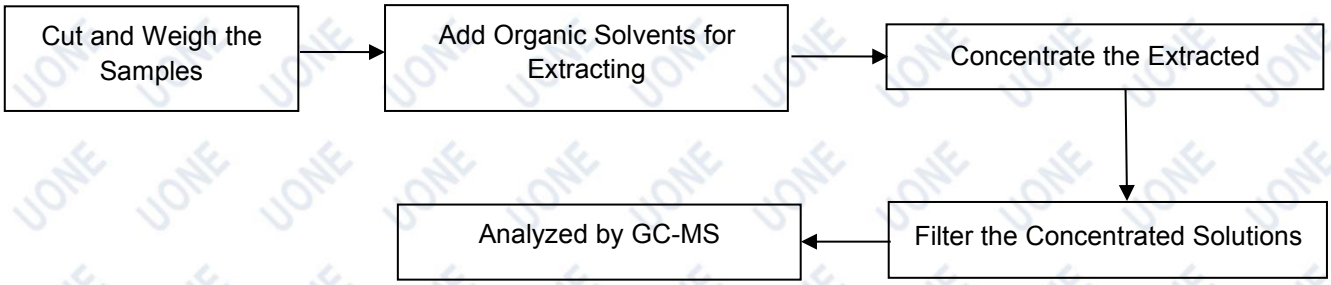
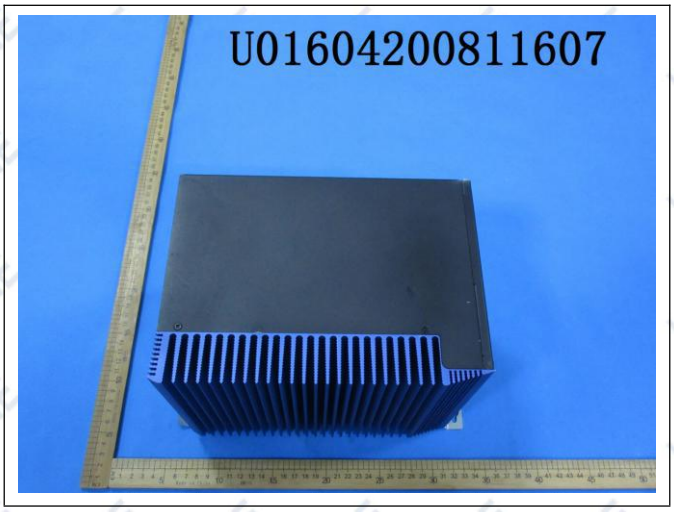
Test Process Flow (Continued):

3. PBBs & PBDEs, Phthalates



Photo(s) of Sample:



End of Report