

AOK Industrial Company Limited  
East Suite (2/F, Plant 4, St George's Science and Technology  
Industrial Park)3/F, Building 1, St George's Science and Technology  
Industrial Park North Side of Xinyu Road, Xinqiao Street, Bao'an  
District, Shenzhen, Guangdong China

**DEKRA Testing and Certification (Shanghai)  
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Tel.: +86 20 6684 3294  
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Page 1 of 49

## SPOT CHECK REPORT

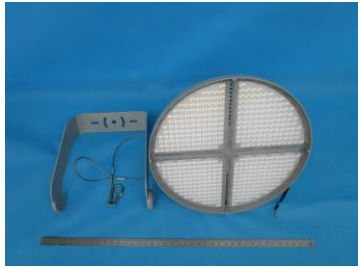

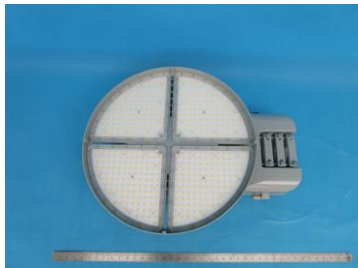
**Test Report No.** : **4380930.50** Version 3 (Supersedes version 2)  
**Project No.** : **4380930.00**  
**Test Report Date** : **2021-11-30**

Job No. : 21-01569  
Applicant : AOK Industrial Company Limited  
East Suite (2/F, Plant 4, St George's Science and Technology Industrial  
Park)3/F, Building 1, St George's Science and Technology Industrial  
Park North Side of Xinyu Road, Xinqiao Street, Bao'an District, Shenzhen,  
Guangdong China

Product Name : LED luminaire  
Model No. : AOK-960WiNS-NV-XX-XX-XXYY-BN-P, AOK-230WiF-NV-XX-XX-  
XXYY-BN-P, AOK-580WiNM-NV-XX-XX-XXYY-BN-P  
Reference Model No. : Annex 1 (List was provided by applicant)  
Test Requested : As per applicant's requirement, spot check test according to RoHS  
Directive 2011/65/EU & Amendment Directive 2015/863/EU  
- Lead, Mercury, Cadmium, Hexavalent chromium,  
- Polybrominated biphenyls (PBB),  
- Polybrominated diphenyl ethers (PBDE),  
- Bis(2-ethylhexyl) phthalate (DEHP),  
- Butyl benzyl phthalate (BBP),  
- Dibutyl phthalate (DBP),  
- Diisobutyl phthalate (DIBP)

Test Method : Please refer to next pages  
Sample Received : 2021-08-19  
Resubmitted Sample : 2021-09-09  
Received Date  
Testing Period : 2021-08-19 to 2021-08-27, 2021-09-09 to 2021-09-15  
Test Results  
- following pages -

**Resume:**

<b>Parameter</b>	<b>Product Name: LED luminaire</b>	
	<b>Model No.: AOK-960WiNS-NV-XX-XX-XXYY-BN-P, AOK-230WiF-NV-XX-XX-XXYY-BN-P, AOK-580WiNM-NV-XX-XX-XXYY-BN-P</b>	
		
		<b>(BLANK)</b>
RoHS Directive 2011/65/EU & Amendment Directive 2015/863/EU	Tested components (1) ~ (326)	PASS

Remark: As per applicant's request, test was conducted only on components listed in this report, other components were not tested.

Guangzhou, November 30, 2021

Signed for and on behalf of

**DEKRA Testing and Certification (Shanghai) Ltd., Guangzhou branch**

Chemical & Mechanical




Devin Ai


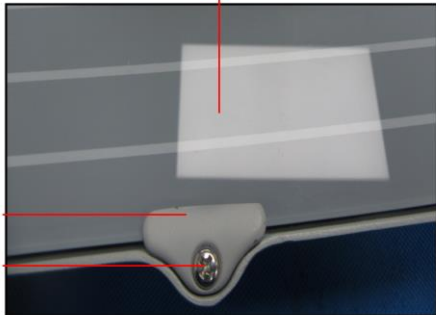
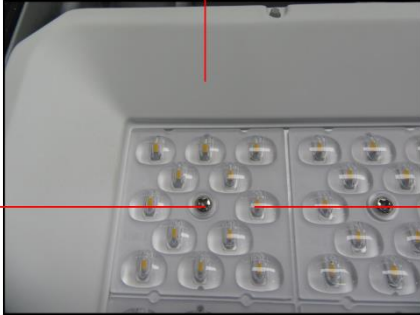
Approved Signatory

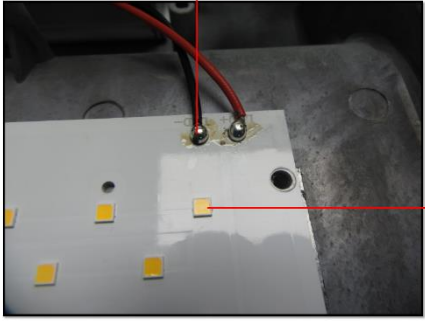
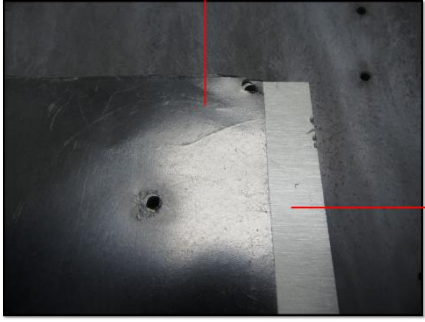
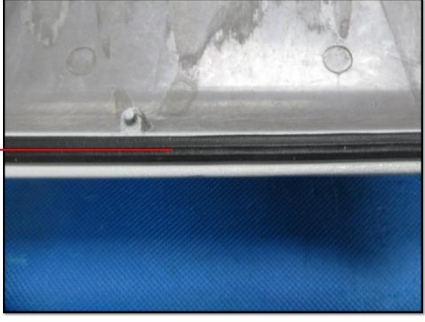
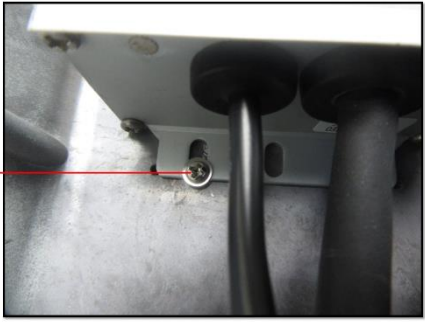
Attention: Please note that every statement made in this report is only valid for the samples tested and reported herein. This report shall not be reproduced except in full, without the written approval of the testing laboratory. Only the report with CMA logo has the function of social proof in China market.

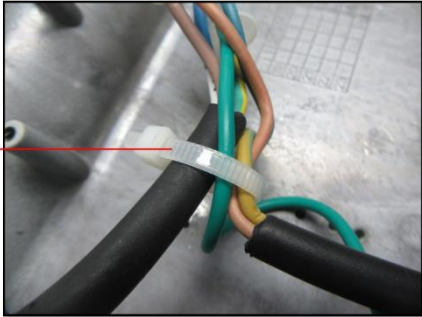

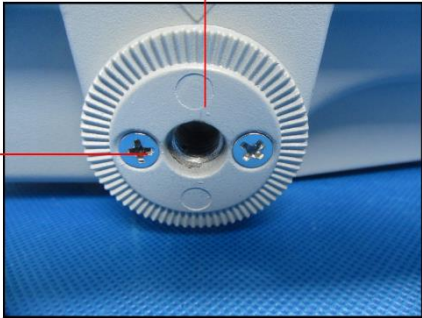
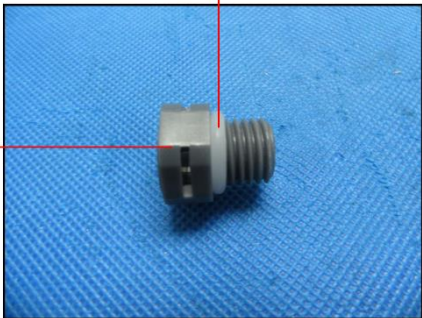
## TEST RESULTS

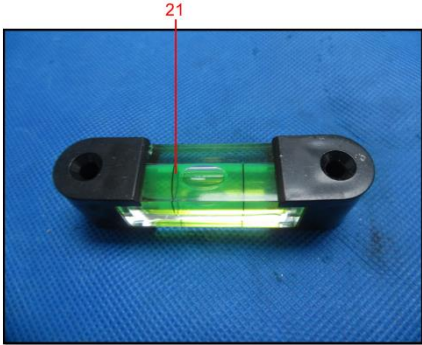

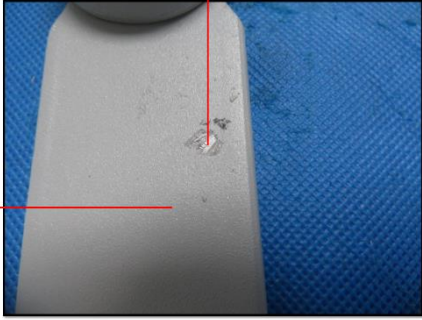
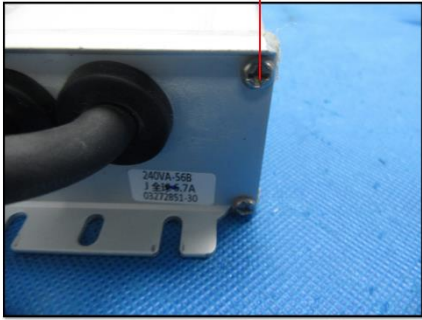
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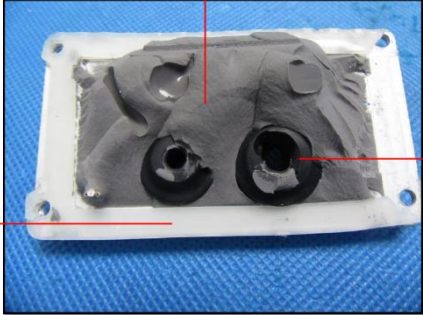
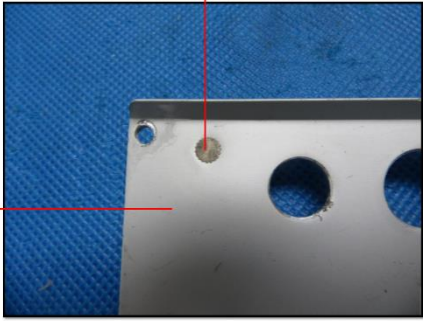
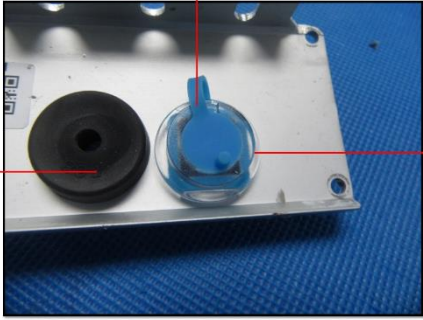
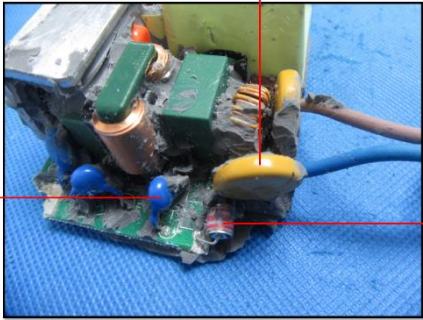
**Test Components:**

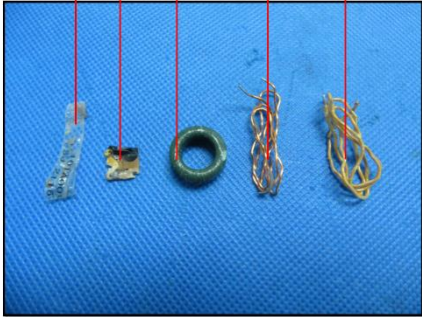
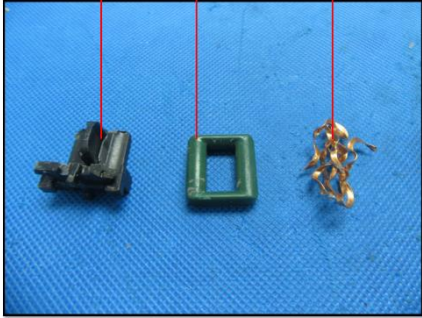
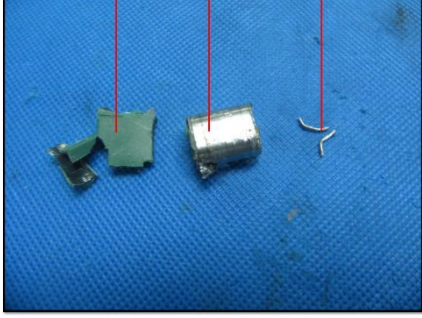
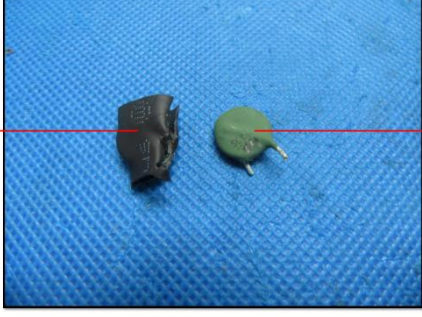
Test No.	Name of material	Photograph
1	Silvery plastic label	
2	Silvery metal screw	
3	White metal	
4	Transparent glass	
5	Silvery metal screw	
6	White plastic	
7	White plastic	

Test No.	Name of material	Photograph
8	Silvery metal solder	
9	Yellow body	
10	Black plastic	
11	White metal	
12	Black plastic	
13	Silvery metal screw	

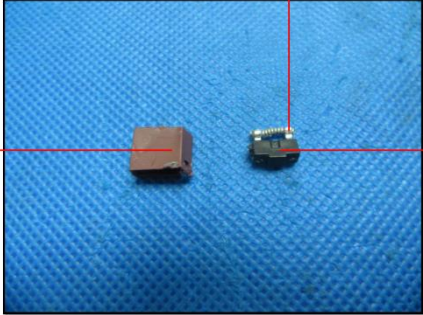

Test No.	Name of material	Photograph
14	White plastic	
15	Silvery metal screw	
16	Silvery metal	
17	Silvery metal screw	
18	Grey metal	
19	Grey plastic	
20	White plastic	

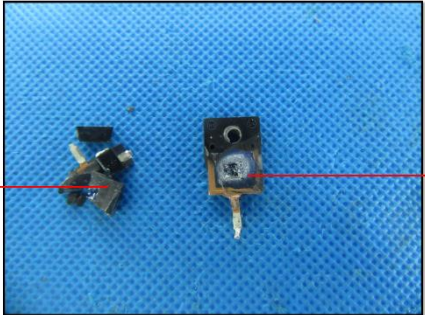
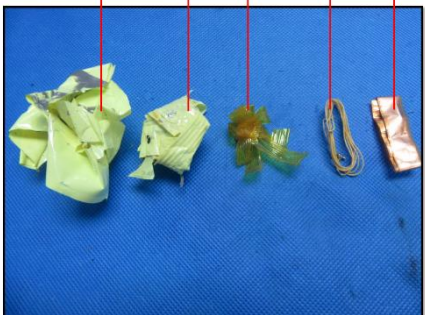
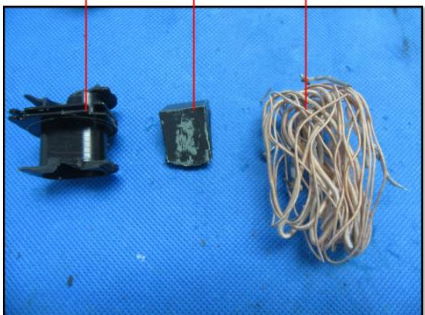
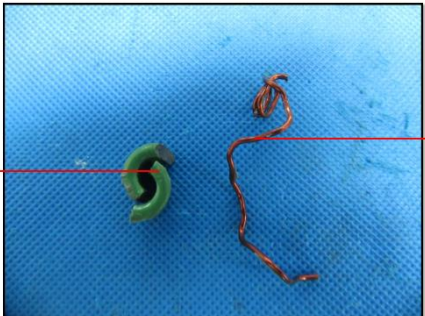
Test No.	Name of material	Photograph
21	Green liquid	
22	Black plastic	
23	Black plastic	
24	Black plastic	
25	Black plastic	
26	Grey coating	
27	Silvery metal	
28	Silvery metal screw	

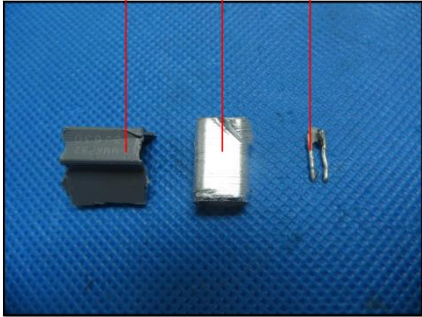
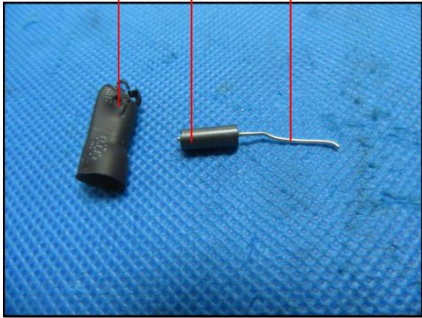
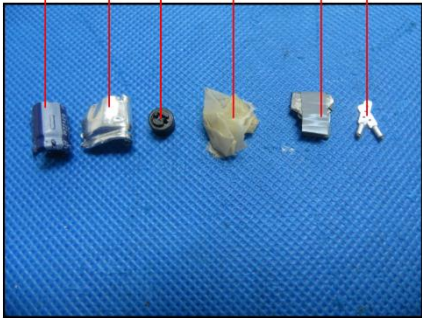
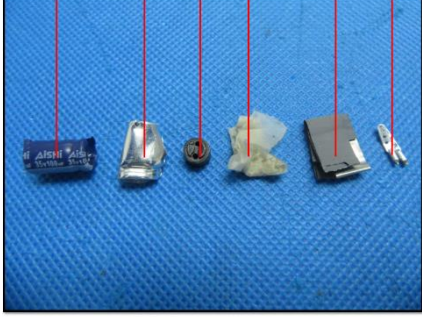
Test No.	Name of material	Photograph
29	White plastic	
30	Grey glue	
31	Black plastic	
32	Silvery metal	
33	Silvery metal	
34	Black plastic	
35	Transparent plastic	
36	Blue plastic	
37	Pink body	
38	Yellow body	
39	Blue body	

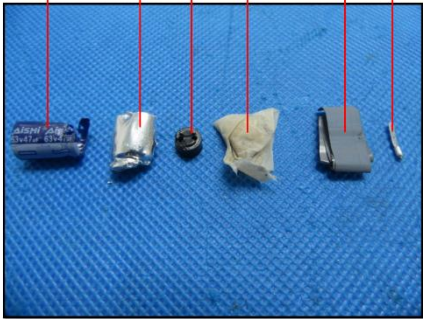
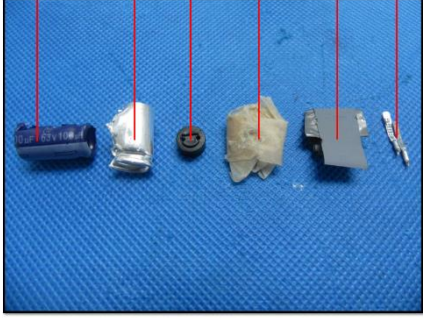

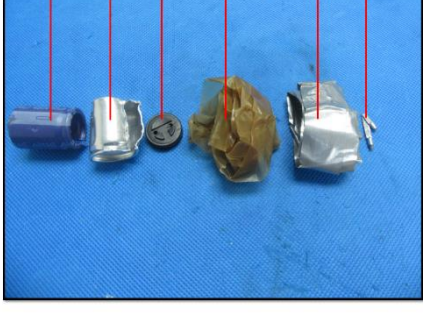
Test No.	Name of material	Photograph
40	Transparent plastic	 <p>Photograph showing items 40 (transparent plastic), 41 (brown plastic), 42 (green ceramic), 43 (coppery metal), and 44 (yellow enamelled metal wire).</p>
41	Brown plastic	
42	Green ceramic	
43	Coppery metal	
44	Yellow enamelled metal wire	
45	Black plastic	 <p>Photograph showing items 45 (black plastic), 46 (green ceramic), and 47 (coppery metal).</p>
46	Green ceramic	
47	Coppery metal	
48	Green plastic	 <p>Photograph showing items 48 (green plastic), 49 (silvery plastic), and 50 (silvery metal).</p>
49	Silvery plastic	
50	Silvery metal	
51	Black plastic	 <p>Photograph showing items 51 (black plastic) and 52 (green body).</p>
52	Green body	





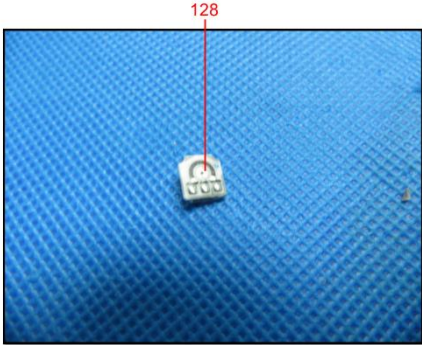
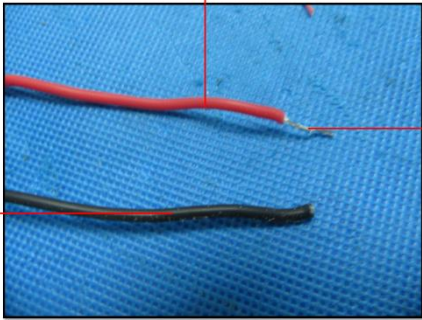
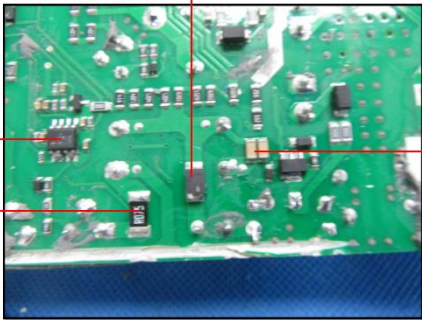

Test No.	Name of material	Photograph
53	Red plastic	
54	Silvery metal	
55	Black plastic	
56	Yellow tape	
57	Brown tape	
58	Black plastic	
59	Grey ceramic	
60	Yellow enamelled metal wire	
61	Coppery metal	
	62	Coppery metal
63		Silvery metal screw
64	Silvery metal	

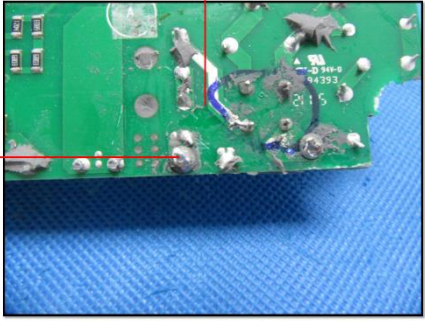



Test No.	Name of material	Photograph
65	Black ceramic	
66	Coppery metal with solder	
67	Yellow tape	
68	Yellow tape	
69	Brown tape	
70	Yellow enamelled metal wire	
71	Coppery metal	
72	Black plastic	
73	Grey ceramic	
74	Coppery metal	
75	Green ceramic	
76	Coppery metal	

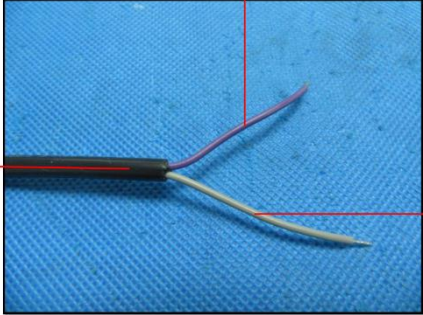
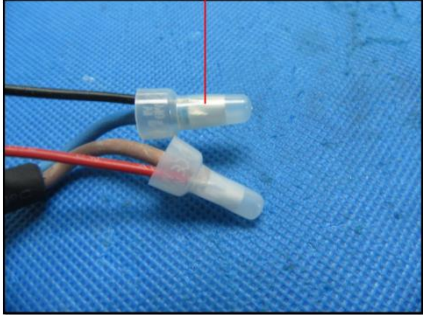
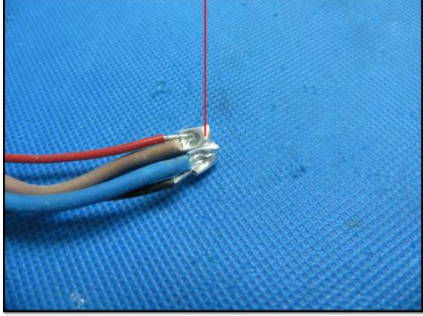
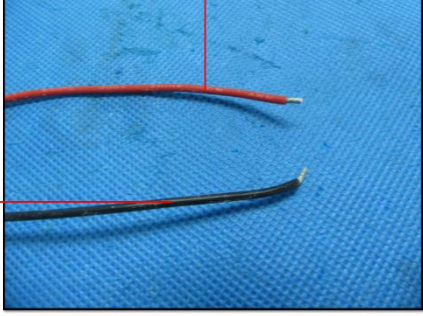
Test No.	Name of material	Photograph
77	Grey plastic	
78	Silvery plastic	
79	Silvery metal	
80	Black plastic	
81	Black body	
82	Silvery metal	
83	Blue plastic	
84	Silvery metal	
85	Black plastic	
86	Beige paper	
87	Grey metal	
88	Silvery metal	
89	Blue plastic	
90	Silvery metal	
91	Black plastic	
92	Beige paper	
93	Grey metal	
94	Silvery metal	

Test No.	Name of material	Photograph
95	Blue plastic	 <p>Photograph showing samples 95 to 100. Sample 95 is a blue cylindrical object, 96 is a silver foil, 97 is a black circular object, 98 is a piece of beige paper, 99 is a grey rectangular object, and 100 is a small silver object.</p>
96	Silvery metal	
97	Black plastic	
98	Beige paper	
99	Grey metal	
100	Silvery metal	
101	Blue plastic	 <p>Photograph showing samples 101 to 106. Sample 101 is a blue cylindrical object, 102 is a silver foil, 103 is a black circular object, 104 is a piece of beige paper, 105 is a grey rectangular object, and 106 is a small silver object.</p>
102	Silvery metal	
103	Black plastic	
104	Beige paper	
105	Grey metal	
106	Silvery metal	
107	Blue plastic	 <p>Photograph showing samples 107 to 112. Sample 107 is a blue cylindrical object, 108 is a silver foil, 109 is a black circular object, 110 is a piece of beige paper, 111 is a grey rectangular object, and 112 is a small silver object.</p>
108	Silvery metal	
109	Black plastic	
110	Beige paper	
111	Grey metal	
112	Silvery metal	
113	Blue plastic	 <p>Photograph showing samples 113 to 118. Sample 113 is a blue cylindrical object, 114 is a silver foil, 115 is a black circular object, 116 is a piece of brown paper, 117 is a grey rectangular object, and 118 is a small silver object.</p>
114	Silvery metal	
115	Black plastic	
116	Brown paper	
117	Grey metal	
118	Silvery metal	

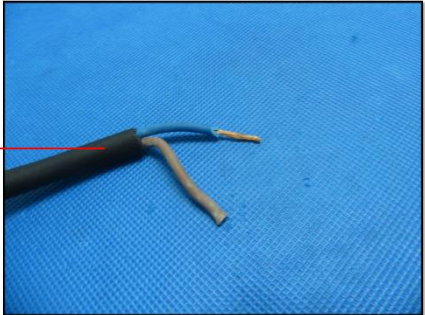
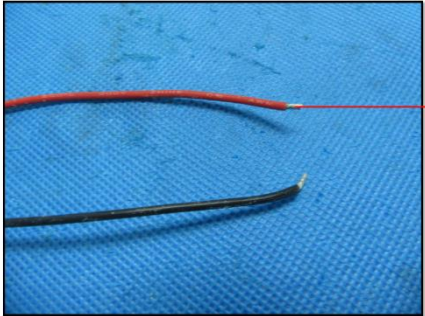
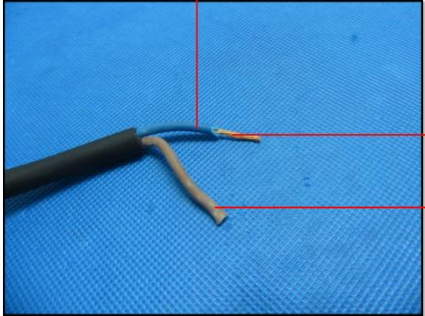
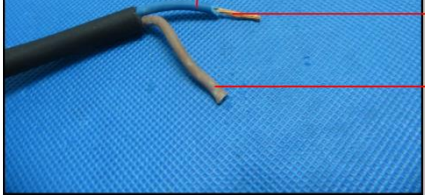
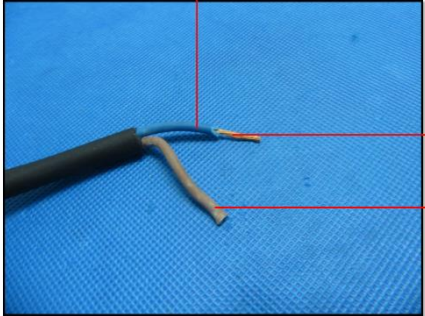
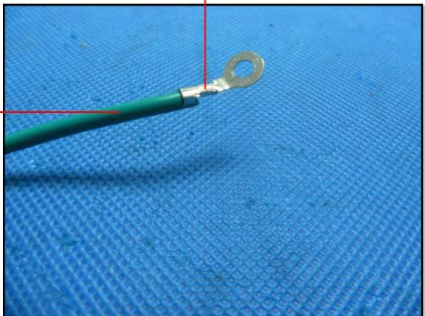
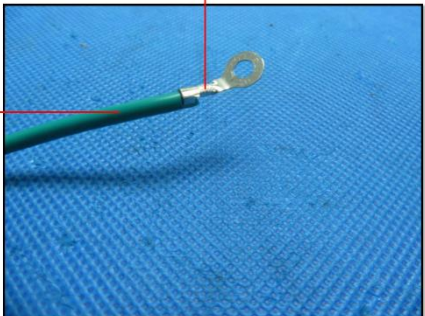
Test No.	Name of material	Photograph
119	Red glass	
120	Yellow body	
121	Orange body	
122	Yellow tape	
123	Black body	
124	Brown plastic	
125	Coppery metal	
126	Blue plastic	
		127

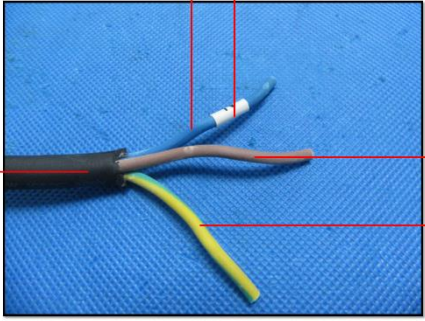

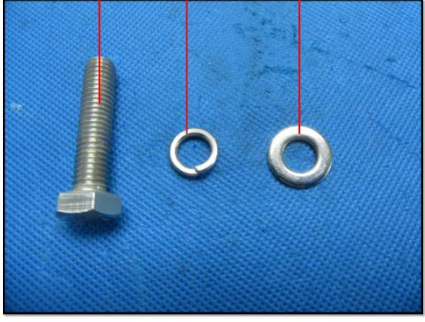
Test No.	Name of material	Photograph
128	White ceramic	
129	Red/white plastic	
130	Black/white plastic	
131	Silvery metal	
132	Black ceramic	
133	Black body	
134	Black body	
135	Brown body	
136	White body	
137	Black body	


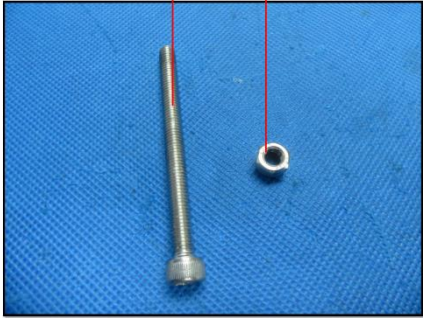
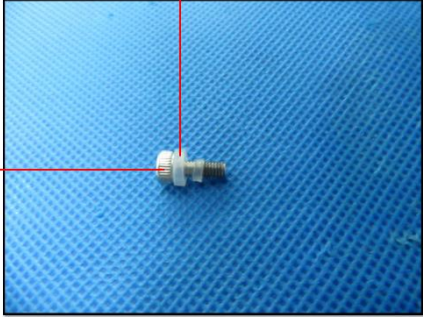
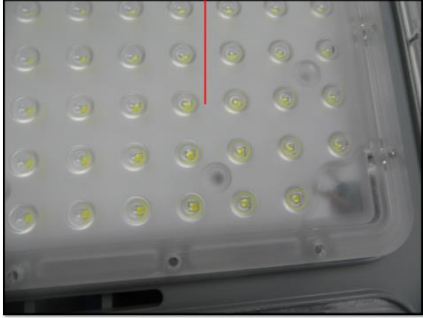
Test No.	Name of material	Photograph
138	Silvery metal solder	
139	Green "PCB"	
140	White plastic	
141	Silvery metal	
142	Black plastic	

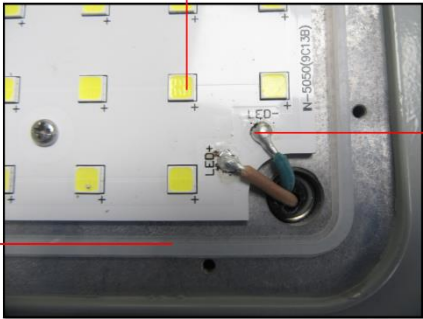
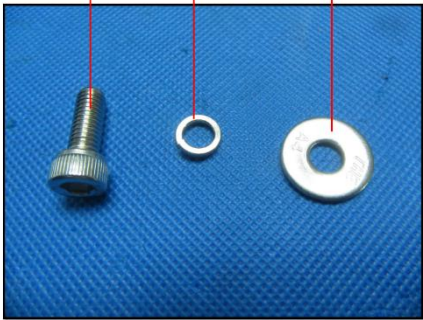
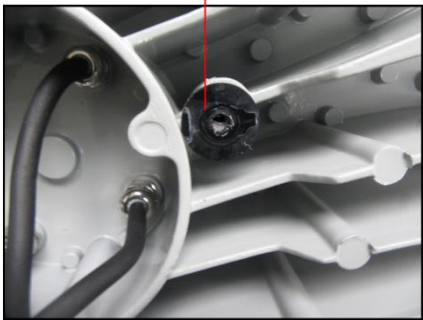
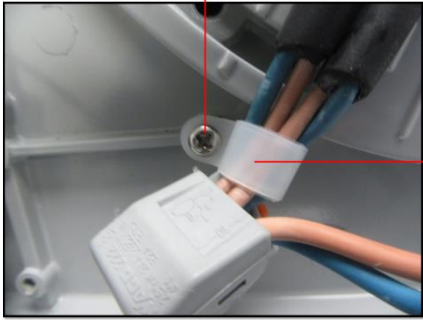
Test No.	Name of material	Photograph
143	Black plastic	
144	Purple plastic	
145	Grey plastic	
146	White plastic	
147	Silvery metal	
148	Red plastic	
149	Black plastic	


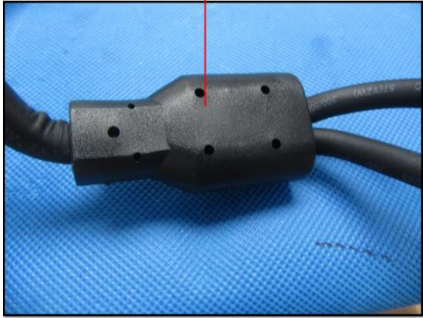
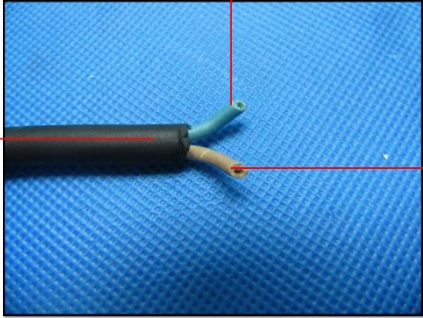


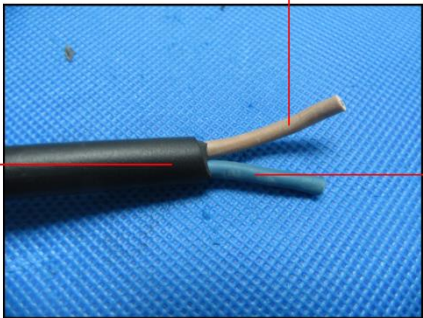
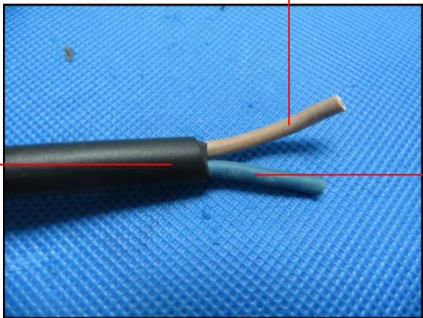
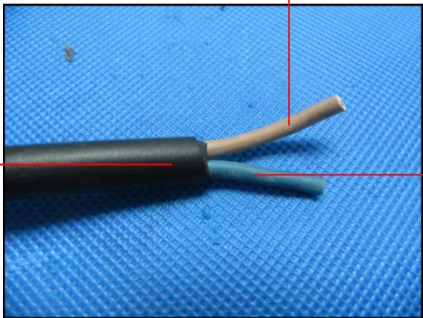


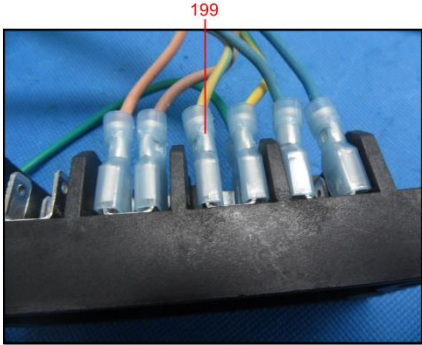
Test No.	Name of material	Photograph
150	Black plastic	
151	Silvery metal	
152	Blue plastic	
153	Brown plastic	
154	Coppery metal	
155	Silvery metal	
156	Green plastic	

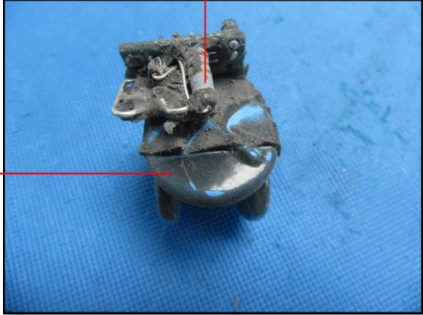
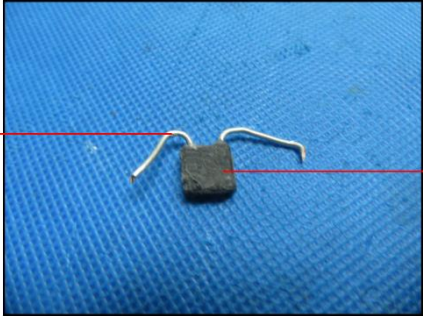
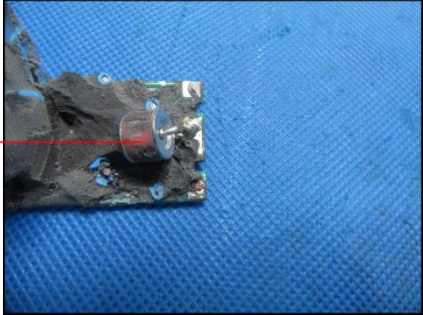

Test No.	Name of material	Photograph
157	White plastic	
158	Black plastic	
159	Blue plastic	
160	Brown plastic	
161	Green/yellow plastic	
162	Silvery label	
163	Black plastic	
164	Brown plastic	
165	Blue plastic	
166	Yellow/green plastic	
167	Silvery metal solder	
168	Silvery metal	
169	Silvery metal	
170	White plastic	
171	Black plastic	
172	Black plastic	
173	Silvery metal screw	
174	Silvery metal	
175	Silvery metal	

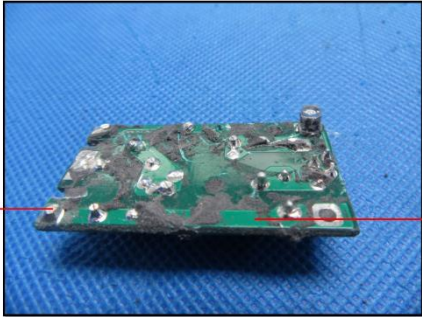



Test No.	Name of material	Photograph
176	Grey coating	
177	Silvery metal	
178	Silvery metal	
179	Silvery metal screw	
180	White plastic	
181	White plastic	

Test No.	Name of material	Photograph
182	White plastic	 <p>182</p> <p>183</p> <p>184</p>
183	Silvery metal solder	
184	Yellow body	
185	Silvery metal screw	 <p>185</p> <p>186</p> <p>187</p>
186	Silvery metal	
187	Silvery metal	
188	Black plastic	 <p>188</p>
189	Silvery metal screw	 <p>189</p> <p>190</p>
190	White plastic	

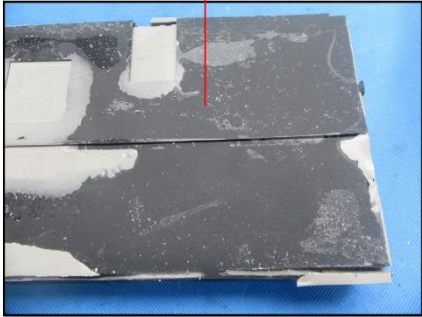
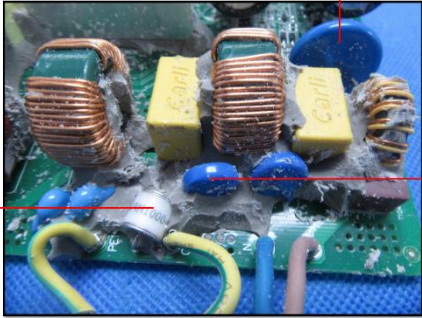

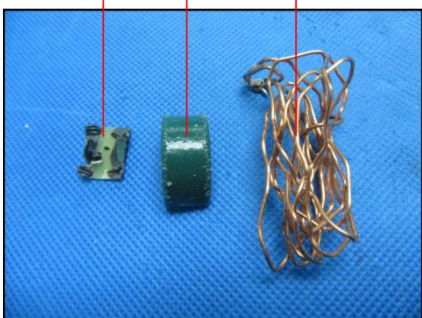
Test No.	Name of material	Photograph
191	White plastic	
192	Black plastic	
193	Black plastic	
194	Blue plastic	
195	Brown plastic	
196	Black plastic	
197	Brown plastic	
198	Blue plastic	

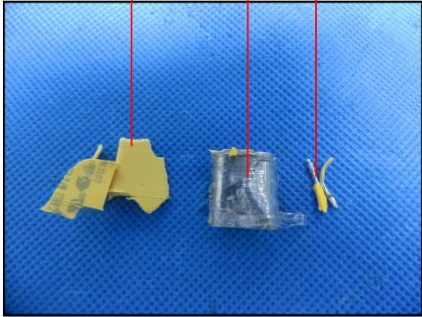
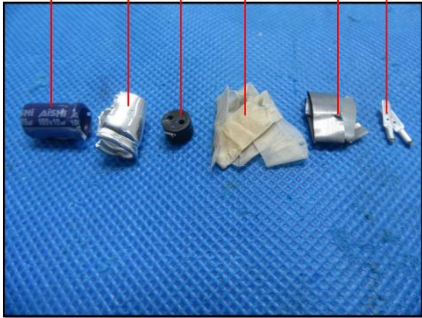
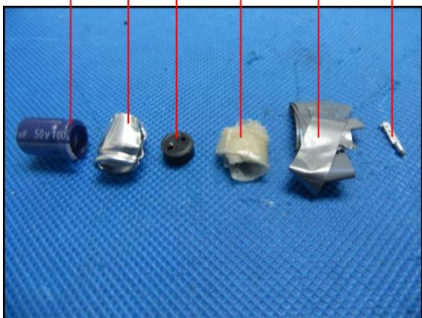
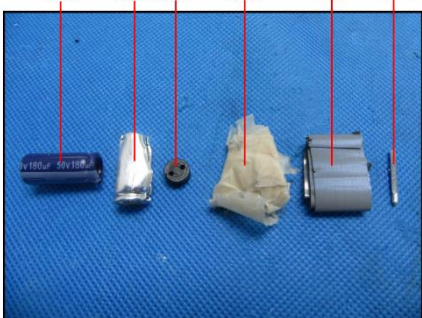
Test No.	Name of material	Photograph
199	Blue plastic	
200	Silvery metal screw	
201	Silvery metal	
202	Black plastic	
203	Silvery metal	
204	Black plastic	
205	Black plastic	
206	Black glue	


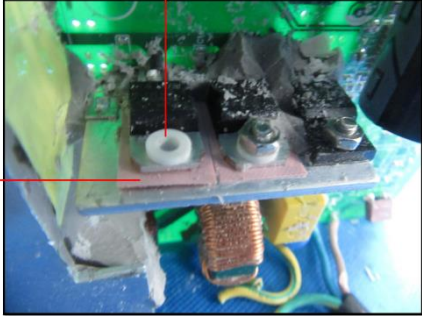

Test No.	Name of material	Photograph
207	Multi-color body	
208	Blue body	
209	Silvery metal	
210	Black plastic	
211	Pink body	
212	Black plastic	


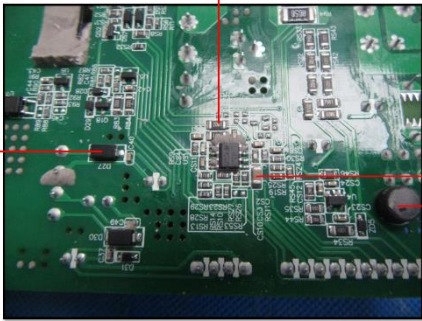

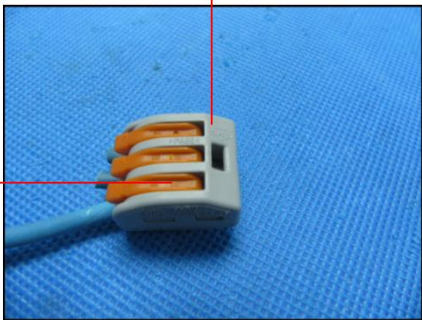
Test No.	Name of material	Photograph
213	Silvery metal solder	
214	Green "PCB"	
215	Silvery label	
216	Black plastic	
217	Black plastic	
218	Silvery metal screw	
219	Silvery metal	
220	White plastic	
221	Grey plastic	
222	Silvery metal	
223	Silvery metal nut	

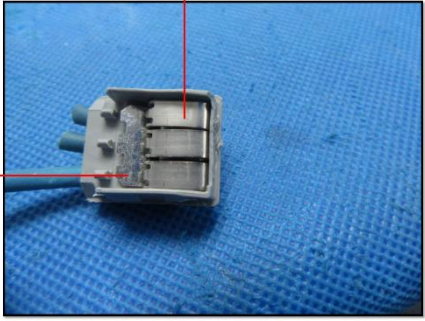
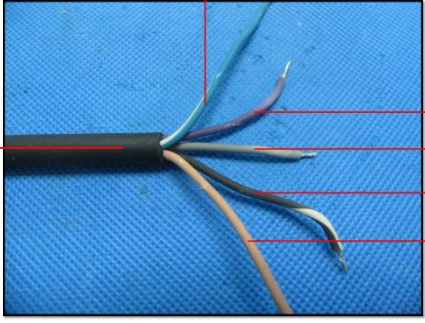

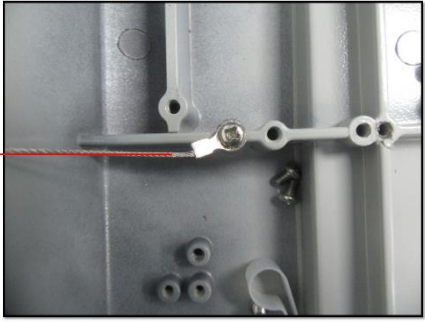


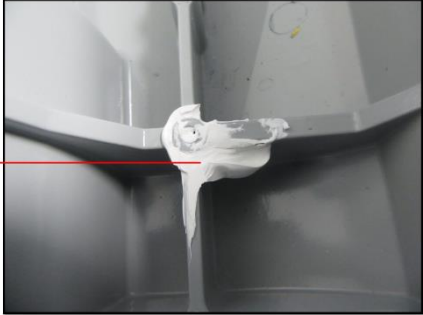
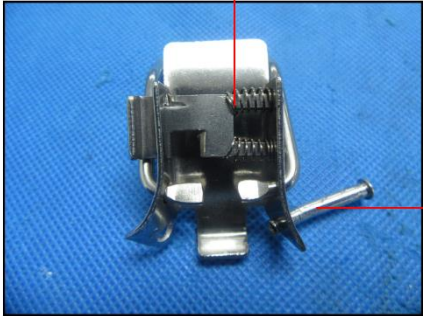
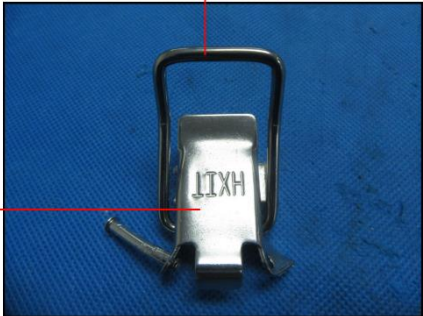

Test No.	Name of material	Photograph
224	Black plastic	
225	White body	
226	Blue body	
227	Blue body	
228	Yellow plastic	
229	Green ceramic	
230	Yellow enamelled metal wire	
231	Coppery metal	
232	Yellow plastic	
233	Green ceramic	
234	Coppery metal	



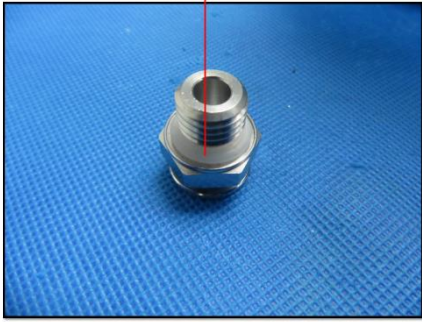
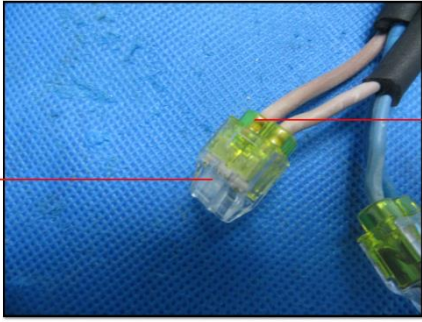
Test No.	Name of material	Photograph
235	Yellow plastic	
236	Silvery plastic	
237	Silvery metal	
238	Blue plastic	
239	Silvery metal	
240	Black plastic	
241	Beige paper	
242	Grey metal	
243	Silvery metal	
244	Blue plastic	
245	Silvery metal	
246	Black plastic	
247	Beige paper	
248	Grey metal	
249	Silvery metal	
250	Blue plastic	
251	Silvery metal	
252	Black plastic	
253	Beige paper	
254	Grey metal	
255	Silvery metal	

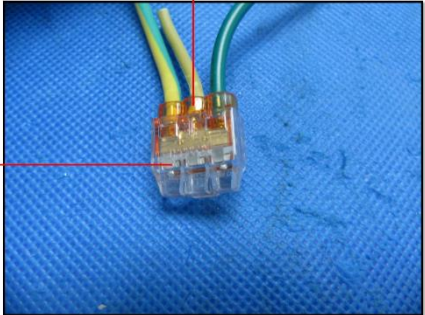
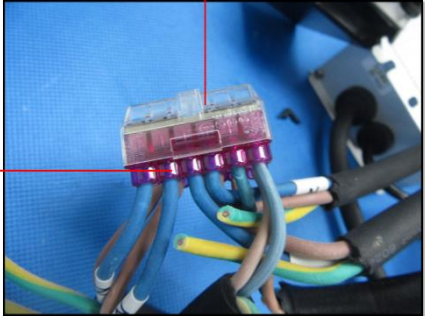
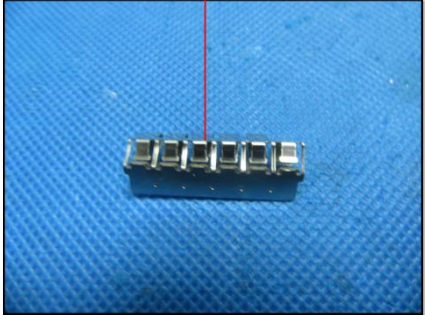

Test No.	Name of material	Photograph
256	Blue plastic	 <p>Photograph showing samples 256 (blue plastic), 257 (silvery metal), 258 (black plastic), 259 (brown paper), 260 (grey metal), and 261 (silvery metal).</p>
257	Silvery metal	
258	Black plastic	
259	Brown paper	
260	Grey metal	
261	Silvery metal	
262	Black plastic	
263	Silvery metal	
264	Black plastic	
265	Brown paper	
266	Grey metal	
267	Silvery metal	
268	White plastic	 <p>Photograph showing sample 268 (white plastic) inside a device.</p>
269	Pink plastic	
270	Black plastic	 <p>Photograph showing samples 270 (black plastic), 271 (green ceramic), 272 (copper metal), 273 (blue metal), and 274 (red metal).</p>
271	Green ceramic	
272	Copper metal	
273	Blue metal	
274	Red metal	

Test No.	Name of material	Photograph
275	Yellow plastic	
276	Green ceramic	
277	White plastic	
278	Coppery metal	
279	Black plastic	
280	Black body	
281	Brown body	
282	Black ceramic	
283	Silvery metal solder	
284	Green "PCB"	
285	Grey plastic	
286	Orange plastic	

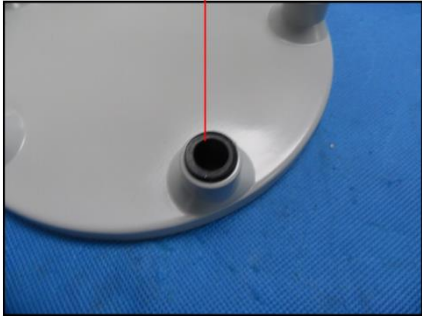


Test No.	Name of material	Photograph
287	Silvery metal	
288	Silvery metal	
289	Black plastic	
290	Blue/white plastic	
291	Purple plastic	
292	Grey plastic	
293	Black/white plastic	
294	Orange plastic	
295	Black plastic	
296	Silvery metal	

Test No.	Name of material	Photograph
297	White plastic	
298	Silvery metal spring	
299	Silvery metal	
300	Silvery metal	
301	Silvery metal	
302	Silvery metal	
303	Silvery metal	
304	Grey plastic	
305	Black plastic	
306	White plastic	

Test No.	Name of material	Photograph
307	Silvery metal	
308	Silvery metal	
309	Beige plastic	
310	Black plastic	
311	Black plastic	
312	Silvery metal	
313	White plastic	
314	Transparent plastic	
315	Yellow plastic	

Test No.	Name of material	Photograph
316	Transparent plastic	
317	Orange plastic	
318	Transparent plastic	
319	Purple plastic	
320	Silvery metal	
321	White plastic	



Test No.	Name of material	Photograph
322	Black plastic	
323	Silvery metal	
324	Silvery metal	
325	Silvery metal	
326	Silvery metal	

### A. Screening Test

Test No.	Result (mg/kg)				
	Pb	Cd	Hg	Cr	Br
1	BL	BL	BL	BL	BL
2	BL	BL	BL	IC	N.A.
3	BL	BL	BL	BL	N.A.
4	BL	BL	BL	BL	BL
5	BL	BL	BL	IC	N.A.
6	BL	BL	BL	BL	BL
7	BL	BL	BL	BL	BL

Test No.	Result (mg/kg)				
	Pb	Cd	Hg	Cr	Br
8	BL	BL	BL	BL	N.A.
9	BL	BL	BL	BL	BL
10	BL	BL	BL	BL	BL
11	BL	BL	BL	BL	N.A.
12	BL	BL	BL	BL	BL
13	BL	BL	BL	BL	N.A.
14	BL	BL	BL	BL	BL
15	BL	BL	BL	<b>IC</b>	N.A.
16	BL	BL	BL	<b>IC</b>	N.A.
17	BL	BL	BL	BL	N.A.
18	BL	BL	BL	BL	N.A.
19	BL	BL	BL	BL	BL
20	BL	BL	BL	BL	BL
22	BL	BL	BL	BL	BL
23	BL	BL	BL	BL	BL
24	BL	BL	BL	BL	BL
25	BL	BL	BL	BL	BL
26	BL	<b>OL</b>	BL	BL	BL
27	BL	BL	BL	BL	N.A.
28	BL	BL	BL	<b>IC</b>	N.A.
29	BL	BL	BL	BL	BL
30	BL	BL	BL	BL	BL
31	BL	BL	BL	BL	BL
32	BL	BL	BL	BL	N.A.
33	<b>IC</b>	BL	BL	BL	N.A.
34	BL	BL	BL	BL	BL
35	BL	BL	BL	BL	BL
36	BL	BL	BL	BL	BL
37	BL	BL	BL	BL	BL
38	BL	BL	BL	BL	BL
39	BL	BL	BL	BL	BL
40	BL	BL	BL	BL	BL
41	BL	BL	BL	BL	BL
42	BL	BL	BL	BL	BL
43	BL	BL	BL	BL	N.A.
44	BL	BL	BL	BL	N.A.
45	BL	BL	BL	BL	BL
46	BL	BL	BL	BL	BL
47	BL	BL	BL	BL	N.A.
48	BL	BL	BL	BL	<b>IC</b>
49	BL	BL	BL	BL	BL
50	BL	BL	BL	BL	N.A.
51	BL	BL	BL	BL	BL
52	BL	BL	BL	<b>IC</b>	BL
53	BL	BL	BL	BL	BL
54	BL	BL	BL	BL	N.A.
55	BL	BL	BL	BL	BL
56	BL	BL	BL	BL	BL
57	BL	BL	BL	BL	BL
58	BL	BL	BL	BL	BL
59	BL	BL	BL	BL	BL
60	BL	BL	BL	BL	N.A.
61	BL	BL	BL	BL	N.A.

Test No.	Result (mg/kg)				
	Pb	Cd	Hg	Cr	Br
62	BL	BL	BL	BL	N.A.
63	BL	BL	BL	IC	N.A.
64	BL	BL	BL	BL	N.A.
65	BL	BL	BL	BL	BL
66	OL	OL	BL	BL	N.A.
67	BL	BL	BL	BL	BL
68	BL	BL	BL	BL	BL
69	BL	BL	BL	BL	BL
70	BL	BL	BL	BL	N.A.
71	BL	BL	BL	BL	N.A.
72	BL	BL	BL	BL	BL
73	BL	BL	BL	BL	BL
74	BL	BL	BL	BL	N.A.
75	BL	BL	BL	BL	BL
76	BL	BL	BL	BL	N.A.
77	BL	BL	BL	BL	IC
78	BL	BL	BL	BL	BL
79	BL	BL	BL	BL	N.A.
80	BL	BL	BL	BL	BL
81	BL	BL	BL	BL	BL
82	BL	BL	BL	BL	N.A.
83	BL	BL	BL	BL	BL
84	BL	BL	BL	BL	N.A.
85	BL	BL	BL	BL	BL
86	BL	BL	BL	BL	BL
87	BL	BL	BL	BL	N.A.
88	BL	BL	BL	BL	N.A.
89	BL	BL	BL	BL	BL
90	BL	BL	BL	BL	N.A.
91	BL	BL	BL	BL	BL
92	BL	BL	BL	BL	BL
93	BL	BL	BL	BL	N.A.
94	BL	BL	BL	BL	N.A.
95	BL	BL	BL	BL	BL
96	BL	BL	BL	BL	N.A.
97	BL	BL	BL	BL	BL
98	BL	BL	BL	BL	BL
99	BL	BL	BL	BL	N.A.
100	BL	BL	BL	BL	N.A.
101	BL	BL	BL	BL	BL
102	BL	BL	BL	BL	N.A.
103	BL	BL	BL	BL	BL
104	BL	BL	BL	BL	BL
105	BL	BL	BL	BL	N.A.
106	BL	BL	BL	BL	N.A.
107	BL	BL	BL	BL	BL
108	BL	BL	BL	BL	N.A.
109	BL	BL	BL	BL	BL
110	BL	BL	BL	BL	BL
111	BL	BL	BL	BL	N.A.
112	BL	BL	BL	BL	N.A.
113	BL	BL	BL	BL	BL
114	BL	BL	BL	BL	N.A.

Test No.	Result (mg/kg)				
	Pb	Cd	Hg	Cr	Br
115	BL	BL	BL	BL	BL
116	BL	BL	BL	BL	BL
117	BL	BL	BL	BL	N.A.
118	BL	BL	BL	BL	N.A.
119	<b>OL</b>	<b>IC</b>	BL	BL	BL
120	BL	BL	BL	BL	BL
121	BL	BL	BL	BL	BL
122	BL	BL	BL	BL	BL
123	BL	BL	BL	BL	BL
124	BL	BL	BL	BL	BL
125	BL	BL	BL	BL	N.A.
126	BL	BL	BL	BL	<b>IC</b>
127	BL	BL	BL	BL	BL
128	<b>IC</b>	BL	BL	BL	<b>IC</b>
129	BL	BL	BL	BL	BL
130	BL	BL	BL	BL	BL
131	BL	BL	BL	BL	N.A.
132	BL	BL	BL	<b>IC</b>	BL
133	BL	BL	BL	BL	BL
134	BL	BL	BL	BL	BL
135	BL	BL	BL	BL	BL
136	BL	BL	BL	BL	BL
137	BL	BL	BL	BL	BL
138	BL	BL	BL	BL	N.A.
139	BL	BL	BL	BL	<b>IC</b>
140	BL	BL	BL	BL	BL
141	BL	BL	BL	BL	N.A.
142	BL	BL	BL	BL	<b>IC</b>
143	BL	BL	BL	BL	BL
144	BL	BL	BL	BL	BL
145	BL	BL	BL	BL	BL
146	BL	BL	BL	BL	BL
147	BL	BL	BL	BL	N.A.
148	BL	BL	BL	BL	BL
149	BL	BL	BL	BL	BL
150	BL	BL	BL	BL	BL
151	BL	BL	BL	BL	N.A.
152	BL	BL	BL	BL	BL
153	BL	BL	BL	BL	BL
154	BL	BL	BL	BL	N.A.
155	BL	BL	BL	BL	N.A.
156	BL	BL	BL	BL	BL
157	BL	BL	BL	BL	BL
158	BL	BL	BL	BL	BL
159	BL	BL	BL	BL	BL
160	BL	BL	BL	BL	BL
161	BL	BL	BL	BL	BL
162	BL	BL	BL	BL	BL
163	BL	BL	BL	BL	BL
164	BL	BL	BL	BL	BL
165	BL	BL	BL	BL	BL
166	BL	BL	BL	BL	BL
167	BL	BL	BL	BL	N.A.

Test No.	Result (mg/kg)				
	Pb	Cd	Hg	Cr	Br
168	OL	BL	BL	BL	N.A.
169	OL	BL	BL	BL	N.A.
170	BL	BL	BL	BL	BL
171	BL	BL	BL	BL	BL
172	BL	BL	BL	BL	BL
173	BL	BL	BL	IC	N.A.
174	BL	BL	BL	IC	N.A.
175	BL	BL	BL	IC	N.A.
176	BL	BL	BL	BL	BL
177	BL	BL	BL	IC	N.A.
178	BL	BL	BL	IC	N.A.
179	BL	BL	BL	IC	N.A.
180	BL	BL	BL	BL	BL
181	BL	BL	BL	BL	BL
182	BL	BL	BL	BL	BL
183	BL	BL	BL	BL	N.A.
184	BL	BL	BL	BL	BL
185	BL	BL	BL	IC	N.A.
186	BL	BL	BL	IC	N.A.
187	BL	BL	BL	IC	N.A.
188	BL	BL	BL	BL	BL
189	BL	BL	BL	IC	N.A.
190	BL	BL	BL	IC	BL
191	BL	BL	BL	BL	BL
192	BL	BL	BL	BL	BL
193	BL	BL	BL	BL	BL
194	BL	BL	BL	BL	BL
195	BL	BL	BL	BL	BL
196	BL	BL	BL	BL	BL
197	BL	BL	BL	BL	BL
198	BL	BL	BL	BL	BL
199	BL	BL	BL	BL	BL
200	BL	BL	BL	BL	N.A.
201	BL	BL	BL	BL	N.A.
202	BL	BL	BL	BL	IC
203	BL	BL	BL	BL	N.A.
204	BL	BL	BL	BL	BL
205	BL	BL	BL	BL	IC
206	BL	BL	BL	BL	BL
207	BL	BL	BL	BL	BL
208	BL	BL	BL	BL	BL
209	BL	BL	BL	BL	N.A.
210	BL	BL	BL	BL	IC
211	BL	BL	BL	BL	BL
212	BL	BL	BL	BL	IC
213	BL	BL	BL	BL	N.A.
214	BL	BL	BL	BL	IC
215	BL	BL	BL	BL	BL
216	BL	BL	BL	BL	BL
217	BL	BL	BL	BL	BL
218	BL	BL	BL	IC	N.A.
219	BL	BL	BL	IC	N.A.
220	BL	BL	BL	BL	BL

Test No.	Result (mg/kg)				
	Pb	Cd	Hg	Cr	Br
221	BL	BL	BL	BL	BL
222	BL	BL	BL	IC	N.A.
223	BL	BL	BL	BL	N.A.
224	BL	BL	BL	BL	BL
225	BL	BL	BL	BL	BL
226	BL	BL	BL	BL	BL
227	BL	BL	BL	BL	BL
228	BL	BL	BL	BL	IC
229	BL	BL	BL	BL	BL
230	BL	BL	BL	BL	N.A.
231	BL	BL	BL	BL	N.A.
232	BL	BL	BL	BL	IC
233	BL	BL	BL	BL	BL
234	BL	BL	BL	BL	N.A.
235	BL	BL	BL	BL	IC
236	BL	BL	BL	BL	BL
237	BL	BL	BL	BL	N.A.
238	BL	BL	BL	BL	BL
239	BL	BL	BL	BL	N.A.
240	BL	BL	BL	BL	BL
241	BL	BL	BL	BL	BL
242	BL	BL	BL	BL	N.A.
243	BL	BL	BL	BL	N.A.
244	BL	BL	BL	BL	BL
245	BL	BL	BL	BL	N.A.
246	BL	BL	BL	BL	BL
247	BL	BL	BL	BL	BL
248	BL	BL	BL	BL	N.A.
249	BL	BL	BL	BL	N.A.
250	BL	BL	BL	BL	BL
251	BL	BL	BL	BL	N.A.
252	BL	BL	BL	BL	BL
253	BL	BL	BL	BL	BL
254	BL	BL	BL	BL	N.A.
255	BL	BL	BL	BL	N.A.
256	BL	BL	BL	BL	BL
257	BL	BL	BL	BL	N.A.
258	BL	BL	BL	BL	BL
259	BL	BL	BL	BL	BL
260	BL	BL	BL	BL	N.A.
261	BL	BL	BL	BL	N.A.
262	BL	BL	BL	BL	BL
263	BL	BL	BL	BL	N.A.
264	BL	BL	BL	BL	BL
265	BL	BL	BL	BL	BL
266	BL	BL	BL	BL	N.A.
267	BL	BL	BL	BL	N.A.
268	BL	BL	BL	BL	BL
269	BL	BL	BL	BL	BL
270	BL	BL	BL	BL	BL
271	BL	BL	BL	BL	BL
272	BL	BL	BL	BL	N.A.
273	BL	BL	BL	BL	N.A.

Test No.	Result (mg/kg)				
	Pb	Cd	Hg	Cr	Br
274	BL	BL	BL	BL	N.A.
275	BL	BL	BL	BL	IC
276	BL	BL	BL	BL	BL
277	BL	BL	BL	BL	BL
278	BL	BL	BL	BL	N.A.
279	BL	BL	BL	BL	BL
280	BL	BL	BL	BL	BL
281	BL	BL	BL	BL	BL
282	BL	BL	BL	BL	BL
283	BL	BL	BL	BL	N.A.
284	BL	BL	BL	BL	IC
285	BL	BL	BL	BL	BL
286	BL	BL	BL	BL	BL
287	BL	BL	BL	IC	N.A.
288	BL	BL	BL	BL	N.A.
289	BL	BL	BL	BL	BL
290	BL	BL	BL	BL	BL
291	BL	BL	BL	BL	BL
292	BL	BL	BL	BL	BL
293	BL	BL	BL	BL	BL
294	BL	BL	BL	BL	BL
295	BL	BL	BL	BL	BL
296	BL	BL	BL	IC	N.A.
297	BL	BL	BL	BL	BL
298	BL	BL	BL	IC	N.A.
299	BL	BL	BL	IC	N.A.
300	BL	BL	BL	IC	N.A.
301	BL	BL	BL	IC	N.A.
302	OL	BL	BL	BL	N.A.
303	OL	BL	BL	BL	N.A.
304	BL	BL	BL	BL	BL
305	BL	BL	BL	BL	BL
306	BL	BL	BL	BL	BL
307	OL	BL	BL	BL	N.A.
308	OL	BL	BL	BL	N.A.
309	BL	BL	BL	BL	BL
310	BL	BL	BL	BL	BL
311	BL	BL	BL	BL	BL
312	BL	BL	BL	IC	N.A.
313	BL	BL	BL	BL	BL
314	BL	BL	BL	BL	BL
315	BL	BL	BL	BL	BL
316	BL	BL	BL	BL	BL
317	BL	BL	BL	BL	BL
318	BL	BL	BL	BL	BL
319	BL	BL	BL	BL	BL
320	BL	IC	BL	IC	N.A.
321	BL	BL	BL	BL	BL
322	BL	BL	BL	BL	BL
323	BL	BL	BL	IC	N.A.
324	BL	BL	BL	IC	N.A.
325	BL	BL	BL	IC	N.A.
326	BL	BL	BL	BL	N.A.

## Remark:

1. mg/kg = Milligram per kilogram
2. BL = Below Limit
3. **OL** = **Over Limit, represents test item needs further confirmation.**
4. **IC** = **Inconclusive, represents test item needs further confirmation.**
5. N.A. = Not Applicable
6. There are the results on total Br while test items on restricted substances are PBBs and PBDEs.  
There are the results on total Cr while test item on restricted substance is Cr(VI).

## Disclaimers:

This XRF screening result 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 results 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.).

**B. Chemical Test**

Test Item	Result (mg/kg)				
	(33)	(66)	(119)	(128)	(169)
Lead (Pb)	49	<b>5449<sup>*2</sup></b>	N.D.	140	<b>31748<sup>*1</sup></b>

Test Item	Result (mg/kg)				
	(168)	(302)	(303)	(307)	(308)
Lead (Pb)	<b>35530<sup>*1</sup></b>	<b>27810<sup>*1</sup></b>	<b>31960<sup>*1</sup></b>	<b>30500<sup>*1</sup></b>	<b>30060<sup>*1</sup></b>

Test Item	Result (mg/kg)
	(21)
Lead (Pb)	N.D.

Test Item	Result (mg/kg)				
	(26)	(66)	(119)	(320)	(21)
Cadmium (Cd)	N.D.	N.D.	N.D.	N.D.	N.D.

Test Item	Result (mg/kg)
	(21)
Mercury (Hg)	N.D.

Test Item	Result				
	(2)	(5)	(15)	(16)	(17)
Hexavalent Chromium Cr(VI)	Negative	Negative	Negative	Negative	Negative



Test Item	Result				
	(28)	(52)	(63)	(132)	(173)
Hexavalent Chromium Cr(VI)	Negative	N.D.	Negative	N.D.	Negative

Test Item	Result				
	(174)	(175)	(177)	(178)	(179)
Hexavalent Chromium Cr(VI)	Negative	Negative	Negative	Negative	Negative

Test Item	Result				
	(185)	(186)	(187)	(189)	(200)
Hexavalent Chromium Cr(VI)	Negative	Negative	Negative	Negative	Negative

Test Item	Result				
	(218)	(219)	(222)	(287)	(296)
Hexavalent Chromium Cr(VI)	Negative	Negative	Negative	Negative	Negative

Test Item	Result				
	(298)	(299)	(300)	(301)	(312)
Hexavalent Chromium Cr(VI)	Negative	Negative	Negative	Negative	Negative

Test Item	Result				
	(320)	(323)	(324)	(325)	(21)
Hexavalent Chromium Cr(VI)	Negative	Negative	Negative	Negative	N.D.

Test Item	Result (mg/kg)				
	(126)	(128)	(21)	(284)	(212)
PBBs	N.D.	N.D.	N.D.	N.D.	N.D.
PBDEs	N.D.	N.D.	N.D.	N.D.	406

Test Item	Result (mg/kg)				
	(48)/(77)	(139)/(142)/(202)	(205)/(210)	(214)/(228)/(232)	(235)/(275)
PBBs	N.D.	N.D.	N.D.	N.D.	N.D.
PBDEs	N.D.	N.D.	N.D.	N.D.	N.D.

## Remark:

1. N.D. = Not Detected, less than MDL
2. mg/kg = Milligram per kilogram
3. According to IEC 62321-7-1:2015 Ed.1.0, result on Cr(VI) for metal sample is shown as Positive/Negative.  
Negative = Absence of Cr(VI) in coating layer, Positive = Presence of Cr(VI) in coating layer.

4. <sup>\*1</sup> As claimed by the declaration submitted by the applicant, the lead content of the component is coming from copper alloy only. According to EU RoHS Directive 2011/65/EU Annex III 6(c), lead as an alloying element in copper alloy can be containing up to 4% (40000 mg/kg) lead by weight.
5. <sup>\*2</sup> As claimed by the declaration submitted by the applicant, the lead content of the component is coming from melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead) only. According to EU RoHS Directive 2011/65/EU Annex III 7(a), lead content in high melting temperature type solders can be exempted.

**Note:**

Results were obtained by EDXRF for primary screening, and further chemical testing by ICP-OES (for Cd, Pb, Hg), UV-Vis (for Cr(VI)) and GC-MS (for PBBs, PBDEs) were recommended to be performed, if the concentration exceeded the warning value according to IEC 62321-3-1:2013 Ed. 1.0 (unit: mg/kg).

**C. Phthalates Test**

For plasticised material(s) in test components

Test Item	Result (mg/kg)					MDL (mg/kg)	Limit (mg/kg)
	(40)	(41)	(55)	(83)	(89)		
Bis(2-ethylhexyl) phthalate (DEHP)	N.D.	N.D.	N.D.	N.D.	N.D.	50	1000
Butyl benzyl phthalate (BBP)	N.D.	N.D.	N.D.	N.D.	N.D.	50	1000
Dibutyl phthalate (DBP)	N.D.	N.D.	N.D.	N.D.	N.D.	50	1000
Diisobutyl phthalate (DIBP)	N.D.	N.D.	N.D.	N.D.	N.D.	50	1000

Test Item	Result (mg/kg)					MDL (mg/kg)	Limit (mg/kg)
	(95)	(86)	(92)	(176)	(26)		
Bis(2-ethylhexyl) phthalate (DEHP)	N.D.	N.D.	N.D.	N.D.	N.D.	50	1000
Butyl benzyl phthalate (BBP)	N.D.	N.D.	N.D.	N.D.	N.D.	50	1000
Dibutyl phthalate (DBP)	N.D.	N.D.	N.D.	N.D.	N.D.	50	1000
Diisobutyl phthalate (DIBP)	N.D.	N.D.	N.D.	N.D.	N.D.	50	1000

Test Item	Result (mg/kg)					MDL (mg/kg)	Limit (mg/kg)
	(126)	(157)	(162)	(238)	(244)		
Bis(2-ethylhexyl) phthalate (DEHP)	N.D.	N.D.	N.D.	N.D.	N.D.	50	1000
Butyl benzyl phthalate (BBP)	N.D.	N.D.	N.D.	N.D.	N.D.	50	1000
Dibutyl phthalate (DBP)	N.D.	N.D.	N.D.	N.D.	N.D.	50	1000
Diisobutyl phthalate (DIBP)	N.D.	N.D.	N.D.	N.D.	N.D.	50	1000

Test Item	Result (mg/kg)					MDL (mg/kg)	Limit (mg/kg)
	(250)	(269)	(268)	(306)	(21)		
Bis(2-ethylhexyl) phthalate (DEHP)	N.D.	N.D.	N.D.	N.D.	N.D.	50	1000
Butyl benzyl phthalate (BBP)	N.D.	N.D.	N.D.	N.D.	N.D.	50	1000
Dibutyl phthalate (DBP)	N.D.	N.D.	N.D.	N.D.	N.D.	50	1000
Diisobutyl phthalate (DIBP)	N.D.	N.D.	N.D.	N.D.	N.D.	50	1000

Test Item	Result (mg/kg)				MDL (mg/kg)	Limit (mg/kg)
	(20)	(23)	(181)	(182)		
Bis(2-ethylhexyl) phthalate (DEHP)	N.D.	N.D.	N.D.	N.D.	50	1000
Butyl benzyl phthalate (BBP)	N.D.	N.D.	N.D.	N.D.	50	1000
Dibutyl phthalate (DBP)	N.D.	N.D.	N.D.	N.D.	50	1000
Diisobutyl phthalate (DIBP)	N.D.	N.D.	N.D.	N.D.	50	1000

Test Item	Result (mg/kg)				MDL (mg/kg)	Limit (mg/kg)
	(180)	(194)	(195)	(196)		
Bis(2-ethylhexyl) phthalate (DEHP)	N.D.	N.D.	N.D.	N.D.	50	1000
Butyl benzyl phthalate (BBP)	N.D.	N.D.	N.D.	N.D.	50	1000
Dibutyl phthalate (DBP)	N.D.	N.D.	N.D.	437	50	1000
Diisobutyl phthalate (DIBP)	N.D.	N.D.	N.D.	N.D.	50	1000

Test Item	Result (mg/kg)			MDL (mg/kg)	Limit # (mg/kg)
	(1)/(10)	(6)/(7)/(12)	(14)/(19)/(22)		
Bis(2-ethylhexyl) phthalate (DEHP)	N.D.	N.D.	N.D.	50	1000
Butyl benzyl phthalate (BBP)	N.D.	N.D.	N.D.	50	1000
Dibutyl phthalate (DBP)	N.D.	N.D.	N.D.	50	1000
Diisobutyl phthalate (DIBP)	N.D.	N.D.	N.D.	50	1000

Test Item	Result (mg/kg)			MDL (mg/kg)	Limit # (mg/kg)
	(24)/(29)/(30)	(31)/(34)/(35)	(44)/(49)		
Bis(2-ethylhexyl) phthalate (DEHP)	N.D.	N.D.	N.D.	50	1000
Butyl benzyl phthalate (BBP)	N.D.	N.D.	N.D.	50	1000
Dibutyl phthalate (DBP)	N.D.	N.D.	N.D.	50	1000
Diisobutyl phthalate (DIBP)	N.D.	N.D.	N.D.	50	1000

Test Item	Result (mg/kg)			MDL (mg/kg)	Limit # (mg/kg)
	(36)/(45)/(48)	(51)/(53)	(56)/(67)/(68)		
Bis(2-ethylhexyl) phthalate (DEHP)	N.D.	N.D.	N.D.	50	1000
Butyl benzyl phthalate (BBP)	N.D.	N.D.	N.D.	50	1000
Dibutyl phthalate (DBP)	N.D.	N.D.	N.D.	50	1000
Diisobutyl phthalate (DIBP)	N.D.	N.D.	N.D.	50	1000

Test Item	Result (mg/kg)			MDL (mg/kg)	Limit # (mg/kg)
	(57)/(69)	(60)/(70)	(58)/(72)/(77)		
Bis(2-ethylhexyl) phthalate (DEHP)	N.D.	N.D.	N.D.	50	1000
Butyl benzyl phthalate (BBP)	N.D.	N.D.	N.D.	50	1000
Dibutyl phthalate (DBP)	N.D.	N.D.	N.D.	50	1000
Diisobutyl phthalate (DIBP)	N.D.	N.D.	N.D.	50	1000

Test Item	Result (mg/kg)			MDL (mg/kg)	Limit # (mg/kg)
	(80)/(98)	(85)/(91)/(97)	(101)/(107)/(113)		
Bis(2-ethylhexyl) phthalate (DEHP)	N.D.	N.D.	N.D.	50	1000
Butyl benzyl phthalate (BBP)	N.D.	N.D.	N.D.	50	1000
Dibutyl phthalate (DBP)	N.D.	N.D.	N.D.	50	1000
Diisobutyl phthalate (DIBP)	N.D.	N.D.	N.D.	50	1000

Test Item	Result (mg/kg)		MDL (mg/kg)	Limit # (mg/kg)
	(103)/(109)/(115)	(104)/(110)/(116)		
Bis(2-ethylhexyl) phthalate (DEHP)	N.D.	N.D.	50	1000
Butyl benzyl phthalate (BBP)	N.D.	N.D.	50	1000
Dibutyl phthalate (DBP)	N.D.	N.D.	50	1000
Diisobutyl phthalate (DIBP)	N.D.	N.D.	50	1000

Test Item	Result (mg/kg)		MDL (mg/kg)	Limit # (mg/kg)
	(78)/(129)/(122)	(124)/(139)/(146)		
Bis(2-ethylhexyl) phthalate (DEHP)	N.D.	N.D.	50	1000
Butyl benzyl phthalate (BBP)	N.D.	N.D.	50	1000
Dibutyl phthalate (DBP)	N.D.	N.D.	50	1000
Diisobutyl phthalate (DIBP)	N.D.	N.D.	50	1000

Test Item	Result (mg/kg)		MDL (mg/kg)	Limit # (mg/kg)
	(130)/(149)/(150)	(140)/(142)/(143)		
Bis(2-ethylhexyl) phthalate (DEHP)	N.D.	N.D.	50	1000
Butyl benzyl phthalate (BBP)	N.D.	N.D.	50	1000
Dibutyl phthalate (DBP)	N.D.	N.D.	50	1000
Diisobutyl phthalate (DIBP)	N.D.	N.D.	50	1000

Test Item	Result (mg/kg)		MDL (mg/kg)	Limit # (mg/kg)
	(144)/(145)/(148)	(152)/(153)/(156)		
Bis(2-ethylhexyl) phthalate (DEHP)	N.D.	N.D.	50	1000
Butyl benzyl phthalate (BBP)	N.D.	N.D.	50	1000
Dibutyl phthalate (DBP)	N.D.	N.D.	50	1000
Diisobutyl phthalate (DIBP)	N.D.	N.D.	50	1000

Test Item	Result (mg/kg)		MDL (mg/kg)	Limit # (mg/kg)
	(158)/(159)/(160)	(161)/(163)/(164)		
Bis(2-ethylhexyl) phthalate (DEHP)	N.D.	N.D.	50	1000
Butyl benzyl phthalate (BBP)	N.D.	N.D.	50	1000
Dibutyl phthalate (DBP)	N.D.	N.D.	50	1000
Diisobutyl phthalate (DIBP)	N.D.	N.D.	50	1000

Test Item	Result (mg/kg)		MDL (mg/kg)	Limit # (mg/kg)
	(165)/(166)/(170)	(188)/(190)/(193)		
Bis(2-ethylhexyl) phthalate (DEHP)	N.D.	N.D.	50	1000
Butyl benzyl phthalate (BBP)	N.D.	N.D.	50	1000
Dibutyl phthalate (DBP)	N.D.	N.D.	50	1000
Diisobutyl phthalate (DIBP)	N.D.	N.D.	50	1000

Test Item	Result (mg/kg)		MDL (mg/kg)	Limit # (mg/kg)
	(191)/(192)/(199)	(197)/(198)/(204)		
Bis(2-ethylhexyl) phthalate (DEHP)	N.D.	N.D.	50	1000
Butyl benzyl phthalate (BBP)	N.D.	N.D.	50	1000
Dibutyl phthalate (DBP)	N.D.	75	50	1000
Diisobutyl phthalate (DIBP)	N.D.	N.D.	50	1000

Test Item	Result (mg/kg)		MDL (mg/kg)	Limit # (mg/kg)
	(202)/(205)/(206)	(215)/(216)/(217)		
Bis(2-ethylhexyl) phthalate (DEHP)	N.D.	N.D.	50	1000
Butyl benzyl phthalate (BBP)	N.D.	N.D.	50	1000
Dibutyl phthalate (DBP)	N.D.	N.D.	50	1000
Diisobutyl phthalate (DIBP)	N.D.	N.D.	50	1000

Test Item	Result (mg/kg)		MDL (mg/kg)	Limit # (mg/kg)
	(214)/(220)/(221)	(224)/(235)/(236)		
Bis(2-ethylhexyl) phthalate (DEHP)	N.D.	N.D.	50	1000
Butyl benzyl phthalate (BBP)	N.D.	N.D.	50	1000
Dibutyl phthalate (DBP)	N.D.	N.D.	50	1000
Diisobutyl phthalate (DIBP)	N.D.	N.D.	50	1000

Test Item	Result (mg/kg)		MDL (mg/kg)	Limit # (mg/kg)
	(228)/(232)/(240)	(241)/(247)		
Bis(2-ethylhexyl) phthalate (DEHP)	N.D.	N.D.	50	1000
Butyl benzyl phthalate (BBP)	N.D.	N.D.	50	1000
Dibutyl phthalate (DBP)	N.D.	N.D.	50	1000
Diisobutyl phthalate (DIBP)	N.D.	N.D.	50	1000

Test Item	Result (mg/kg)		MDL (mg/kg)	Limit # (mg/kg)
	(230)/(246)/(252)	(256)/(262)		
Bis(2-ethylhexyl) phthalate (DEHP)	N.D.	N.D.	50	1000
Butyl benzyl phthalate (BBP)	N.D.	N.D.	50	1000
Dibutyl phthalate (DBP)	N.D.	N.D.	50	1000
Diisobutyl phthalate (DIBP)	N.D.	N.D.	50	1000

Test Item	Result (mg/kg)		MDL (mg/kg)	Limit # (mg/kg)
	(253)/(259)	(264)/(265)/(270)		
Bis(2-ethylhexyl) phthalate (DEHP)	N.D.	N.D.	50	1000

Test Item	Result (mg/kg)		MDL (mg/kg)	Limit # (mg/kg)
	(253)/(259)	(264)/(265)/(270)		
Butyl benzyl phthalate (BBP)	N.D.	N.D.	50	1000
Dibutyl phthalate (DBP)	N.D.	N.D.	50	1000
Diisobutyl phthalate (DIBP)	N.D.	N.D.	50	1000

Test Item	Result (mg/kg)		MDL (mg/kg)	Limit # (mg/kg)
	(258)/(279)/(285)	(277)/(284)/(286)		
Bis(2-ethylhexyl) phthalate (DEHP)	N.D.	N.D.	50	1000
Butyl benzyl phthalate (BBP)	N.D.	N.D.	50	1000
Dibutyl phthalate (DBP)	N.D.	N.D.	50	1000
Diisobutyl phthalate (DIBP)	N.D.	N.D.	50	1000

Test Item	Result (mg/kg)		MDL (mg/kg)	Limit # (mg/kg)
	(275)/(304)/(305)	(290)/(291)/(292)		
Bis(2-ethylhexyl) phthalate (DEHP)	N.D.	N.D.	50	1000
Butyl benzyl phthalate (BBP)	N.D.	N.D.	50	1000
Dibutyl phthalate (DBP)	N.D.	N.D.	50	1000
Diisobutyl phthalate (DIBP)	N.D.	N.D.	50	1000

Test Item	Result (mg/kg)		MDL (mg/kg)	Limit # (mg/kg)
	(293)/(294)/(295)	(289)/(297)/(309)		
Bis(2-ethylhexyl) phthalate (DEHP)	N.D.	N.D.	50	1000
Butyl benzyl phthalate (BBP)	N.D.	N.D.	50	1000
Dibutyl phthalate (DBP)	N.D.	N.D.	50	1000
Diisobutyl phthalate (DIBP)	N.D.	N.D.	50	1000

Test Item	Result (mg/kg)		MDL (mg/kg)	Limit # (mg/kg)
	(311)/(313)/(127)	(314)/(315)/(316)		
Bis(2-ethylhexyl) phthalate (DEHP)	N.D.	N.D.	50	1000
Butyl benzyl phthalate (BBP)	N.D.	N.D.	50	1000
Dibutyl phthalate (DBP)	N.D.	N.D.	50	1000
Diisobutyl phthalate (DIBP)	N.D.	N.D.	50	1000

Test Item	Result (mg/kg)		MDL (mg/kg)	Limit # (mg/kg)
	(317)/(318)/(319)	(310)/(212)		
Bis(2-ethylhexyl) phthalate (DEHP)	N.D.	N.D.	50	1000
Butyl benzyl phthalate (BBP)	N.D.	N.D.	50	1000
Dibutyl phthalate (DBP)	N.D.	N.D.	50	1000
Diisobutyl phthalate (DIBP)	N.D.	N.D.	50	1000

Test Item	Result (mg/kg)		MDL (mg/kg)	Limit # (mg/kg)
	(321)/(322)	(25)/(171)/(172)		
Bis(2-ethylhexyl) phthalate (DEHP)	N.D.	N.D.	50	1000
Butyl benzyl phthalate (BBP)	N.D.	N.D.	50	1000

Test Item	Result (mg/kg)		MDL (mg/kg)	Limit # (mg/kg)
	(321)/(322)	(25)/(171)/(172)		
Dibutyl phthalate (DBP)	N.D.	N.D.	50	1000
Diisobutyl phthalate (DIBP)	N.D.	N.D.	50	1000

**Remark:**

1. N.D. = Not Detected (below MDL)
2. MDL = Method Detection Limit
3. mg/kg = Milligram per kilogram
4. # = The limit for the test result is 1/n of the value in column (where “n” is the number of mixed samples).

**Test Method**
**A. Screening test by XRF spectroscopy: With reference to IEC 62321-3-1: 2013 Ed. 1.0 Screening - Lead, mercury, cadmium, total chromium and total bromine using X-ray fluorescence spectrometry.**

Screening limits in mg/kg for regulated elements in various material.

Element	Polymer Material	Metallic Material	Composite Material
Cadmium (Cd)	BL≤70<IC<130≤OL	BL≤70<IC<130≤OL	LOD<IC<150≤OL
Lead (Pb)	BL≤700<IC<1300≤OL	BL≤700<IC<1300≤OL	BL≤500<IC<1500≤OL
Mercury (Hg)	BL≤700<IC<1300≤OL	BL≤700<IC<1300≤OL	BL≤500<IC<1500≤OL
Bromine (Br)	BL≤300<IC	N.A.	BL≤250<IC
Chromium (Cr)	BL≤700<IC	BL≤700<IC	BL≤500<IC

BL = Below Limit, OL = Over Limit, IC=Inconclusive, N.A. = Not Applicable, LOD=Limit of Detection

**B. Chemical Test**

Test Item	Test Method	Test Instrument	MDL	EU RoHS Limit (mg/kg)
Lead (Pb)	IEC 62321-5: 2013 Ed. 1.0 Sec.7	ICP-OES	5mg/kg	1000
Cadmium (Cd)	IEC 62321-5: 2013 Ed. 1.0 Sec.7	ICP-OES	5mg/kg	100
Mercury (Hg)	IEC 62321-4: 2013 AMD 1:2017 Ed. 1.0 Sec.7	ICP-OES	5mg/kg	1000
Hexavalent Chromium (Cr(VI))	IEC 62321-7-1:2015 Ed.1.0 Sec.7	UV-Vis	0.1µg/cm <sup>2</sup>	1000
	IEC 62321-7-2:2017 Ed.1.0 Sec.7	UV-Vis	2mg/kg	
Polybrominated Biphenyls (PBBs)	IEC 62321-6: 2015 Ed. 1.0 Sec.8	GC-MS	10mg/kg	1000
Polybrominated Diphenyl Ethers (PBDEs)	IEC 62321-6: 2015 Ed. 1.0 Sec.8	GC-MS	10mg/kg	1000
Bis(2-ethylhexyl) phthalate (DEHP)	IEC 62321-8: 2017 Ed. 1.0 Sec.8	GC-MS	50mg/kg	1000
Butyl benzyl phthalate (BBP)	IEC 62321-8: 2017 Ed. 1.0 Sec.8	GC-MS	50mg/kg	1000
Dibutyl phthalate (DBP)	IEC 62321-8: 2017 Ed. 1.0 Sec.8	GC-MS	50mg/kg	1000

Test Item	Test Method	Test Instrument	MDL	EU RoHS Limit (mg/kg)
Diisobutyl phthalate (DIBP)	IEC 62321-8: 2017 Ed. 1.0 Sec.8	GC-MS	50mg/kg	1000

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## Remark:

The information of Annex was submitted by the client. DEKRA Testing and Certification (Shanghai) Ltd., Guangzhou branch takes no responsibility for any mistake caused by inaccuracy and/or invalid information.

## Annex 1

AOK-720WiNS-NV-XX-XX-XXYY-BN-P
AOK-580WiNS-NV-XX-XX-XXYY-BN-P
AOK-460WiNS-NV-XX-XX-XXYY-BN-P
AOK-380WiNS-NV-XX-XX-XXYY-BN-P
AOK-315WiNS-NV-XX-XX-XXYY-BN-P
AOK-30WiF-NV-XX-XX-XXYY-BN-P
AOK-50WiF-NV-XX-XX-XXYY-BN-P
AOK-75WiF-NV-XX-XX-XXYY-BN-P
AOK-96WiF-NV-XX-XX-XXYY-BN-P
AOK-145WiF-NV-XX-XX-XXYY-BN-P
AOK-200WiF-NV-XX-XX-XXYY-BN-P
AOK-230WiNM-NV-XX-XX-XXYY-BN-P
AOK-315WiNM-NV-XX-XX-XXYY-BN-P
AOK-380WiNM-NV-XX-XX-XXYY-BN-P
AOK-460WiNM-NV-XX-XX-XXYY-BN-P

## Description

The first "XX" can be any letter to denote manufacturer of LED;

The second "XX" denotes dimming control, which can be as following:  
00=No sensor provided, SN=Sensor function provided, PH=Plug-in photocontrol provided, DV=DALI, timer or DIP switch;

"XXYY" can be any numbers to denote Colour Temperature & Colour Rendering Index of LED;

"BN" can be any letter or number to denote beam angles;

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---End of Report---