

XRF Screening And Chemical Confirmation Test Report

Applicant: UNI-TREND TECHNOLOGY (CHINA) CO., LTD.

No 6, Gong Ye Bei 1 st Road, Songshan Lake National
High-Tech Industrial Development Zone, Dongguan,
Guangdong Province, China

Sample Description:

The following submitted sample(s) said to be:

Item Name : **Photovoltaic Insulation Resistance Tester
Micro Ohm Meter**
Model No. : UT503PV, UT620C+
Brand name : UNI-T
Date of Sample Received : Dec 13, 2023 & Jan 9, 2024 & Jan 17, 2024
Testing Period : Dec 13, 2023 to Feb 4, 2024

Tests conducted:

As requested by the applicant, refer to following page(s) for details.

Conclusion:

Tested Sample	Standard	Result
Tested components of submitted sample	Screening by XRF spectroscopy and chemical confirmation test for RoHS Directive 2011/65/EU and (EU) 2015/863	Pass

Intertek Testing Services Shenzhen Ltd. Guangzhou Branch:
Prepared by:

Bryce Lai

Bryce Lai
Project Engineer



Reviewed by:

Michael Pang

Michael Pang
Asst. Technical Supervisor



XRF Screening And Chemical Confirmation Test Report

Certain Hazardous Substance in Electrical and Electronic Equipment

Cadmium (Cd), Lead (Pb), Mercury (Hg), Chromium (Cr) and Bromine (Br) content were measured with reference to IEC 62321-3-1 Edition 1.0: 2013 by XRF spectroscopy and chemical confirmation test for RoHS restricted substances. And Polybrominated Biphenyls (PBBs), Polybrominated Diphenyl Ethers (PBDEs) and Phthalates content were determined by Gas Chromatographic-Mass Spectrometric (GC-MS).

(A) Results:

Screened Components	Items	XRF Results	Screened Results(phthalates)	Chemical Confirmation Result
1	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
2	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
3	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	NT	ND
	BBP			ND
	DBP			ND
	DIBP			ND
4	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	NT		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			



XRF Screening And Chemical Confirmation Test Report

Screened Components	Items	XRF Results	Screened Results(phthalates)	Chemical Confirmation Result
5	Cd	ND	NA	Cr ⁶⁺ : Negative
	Pb	ND		
	Hg	ND		
	Cr	Inconclusive		
	Br	NT		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
6	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
7	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	Detected		
	Br	NT		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
8	Cd	ND	NA	PBBs : ND PBDEs : ND
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	Inconclusive		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
9	Cd	ND	NA	Cr ⁶⁺ : Negative
	Pb	ND		
	Hg	ND		
	Cr	Inconclusive		
	Br	NT		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			



XRF Screening And Chemical Confirmation Test Report

Screened Components	Items	XRF Results	Screened Results(phthalates)	Chemical Confirmation Result
10	Cd	ND	NA	Pb:31749mg/kg ^{#1}
	Pb	>1300mg/kg		
	Hg	ND		
	Cr	ND		
	Br	NT		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
11	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	NT	ND
	BBP			ND
	DBP			ND
	DIBP			ND
12	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
13	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
14	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	



XRF Screening And Chemical Confirmation Test Report

Screened Components	Items	XRF Results	Screened Results(phthalates)	Chemical Confirmation Result
15	Cd	ND	NA	Cr ⁶⁺ : Negative
	Pb	ND		
	Hg	ND		
	Cr	Inconclusive		
	Br	NT		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
16	Cd	ND	NA	PBBs : ND PBDEs : ND
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	Inconclusive		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
17	Cd	ND	NA	Pb:25388mg/kg ^{#1}
	Pb	>1300mg/kg		
	Hg	ND		
	Cr	ND		
	Br	NT		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
18	Cd	ND	NA	Cr ⁶⁺ : Negative
	Pb	ND		
	Hg	ND		
	Cr	Inconclusive		
	Br	NT		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
19	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	



XRF Screening And Chemical Confirmation Test Report

Screened Components	Items	XRF Results	Screened Results(phthalates)	Chemical Confirmation Result
20	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
21	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
22	Cd	ND	NA	PBBs : ND PBDEs : ND
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	Inconclusive		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
23	Cd	ND	NA	Cr ⁶⁺ : Negative
	Pb	ND		
	Hg	ND		
	Cr	Inconclusive		
	Br	NT		
	DEHP	NA	NA	NA
	BBP		NA	
	DBP		NA	
	DIBP		NA	
24	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	



XRF Screening And Chemical Confirmation Test Report

Screened Components	Items	XRF Results	Screened Results(phthalates)	Chemical Confirmation Result
25	Cd	ND	NA	PBBs : ND PBDEs : ND
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	Inconclusive		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
26	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	NT	ND
	BBP			ND
	DBP			ND
	DIBP			ND
27	Cd	ND	NA	PBBs : ND PBDEs : ND
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	Inconclusive		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
28	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	NT		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
29	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	NT		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			



XRF Screening And Chemical Confirmation Test Report

Screened Components	Items	XRF Results	Screened Results(phthalates)	Chemical Confirmation Result
30	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	Detected		
	Br	NT		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
31	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	NT		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
32	Cd	ND	NA	Cr ⁶⁺ : Negative
	Pb	ND		
	Hg	ND		
	Cr	Inconclusive		
	Br	NT		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
33a	Cd	ND	NA	Cr ⁶⁺ : Negative
	Pb	ND		
	Hg	ND		
	Cr	Inconclusive		
	Br	NT		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
33b	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	



XRF Screening And Chemical Confirmation Test Report

Screened Components	Items	XRF Results	Screened Results(phthalates)	Chemical Confirmation Result
33c	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
33d	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
34a	Cd	ND	NA	PBBs : ND PBDEs : ND
	Pb	>1500mg/kg ^{#3}		
	Hg	ND		
	Cr	ND		
	Br	Inconclusive		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
34b	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	NT		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
35	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	NT		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			



XRF Screening And Chemical Confirmation Test Report

Screened Components	Items	XRF Results	Screened Results(phthalates)	Chemical Confirmation Result
36	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	NT		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
37a	Cd	ND	NA	Cr ⁶⁺ : ND
	Pb	ND		
	Hg	ND		
	Cr	Inconclusive		
	Br	ND		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
37b	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	NT		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
38	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
39	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	NT	ND
	BBP			ND
	DBP			ND
	DIBP			ND



XRF Screening And Chemical Confirmation Test Report

Screened Components	Items	XRF Results	Screened Results(phthalates)	Chemical Confirmation Result
40	Cd	ND	NA	Cr ⁶⁺ : ND
	Pb	ND		
	Hg	ND		
	Cr	Inconclusive		
	Br	ND		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
41a	Cd	ND	NA	Cr ⁶⁺ : Negative
	Pb	ND		
	Hg	ND		
	Cr	Inconclusive		
	Br	NT		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
41b	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
41c	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	NT		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
42a	Cd	ND	NA	PBBs : ND PBDEs : ND
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	Inconclusive		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	



XRF Screening And Chemical Confirmation Test Report

Screened Components	Items	XRF Results	Screened Results(phthalates)	Chemical Confirmation Result
42b	Cd	ND	NA	Cr ⁶⁺ : Negative
	Pb	ND		
	Hg	ND		
	Cr	Inconclusive		
	Br	NT		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
42c	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	NT		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
42d	Cd	ND	NA	PBBs : ND PBDEs : ND
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	Inconclusive		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
42e	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	NT		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
42f	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	NT		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			



XRF Screening And Chemical Confirmation Test Report

Screened Components	Items	XRF Results	Screened Results(phthalates)	Chemical Confirmation Result
43a	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
43b	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	NT	ND
	BBP			ND
	DBP			ND
	DIBP			ND
44	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
45	Cd	ND	NA	NT
	Pb	>1500mg/kg ^{#3}		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
46	Cd	ND	NA	PBBs : ND PBDEs : ND
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	Inconclusive		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	



XRF Screening And Chemical Confirmation Test Report

Screened Components	Items	XRF Results	Screened Results(phthalates)	Chemical Confirmation Result
47	Cd	ND	NA	NT
	Pb	>1500mg/kg ^{#3}		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
48	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
49	Cd	ND	NA	NT
	Pb	Detected		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
50	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
51	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	



XRF Screening And Chemical Confirmation Test Report

Screened Components	Items	XRF Results	Screened Results(phthalates)	Chemical Confirmation Result
52	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	Detected		
	Br	ND		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
53	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
54	Cd	ND	NA	NT
	Pb	>1500mg/kg ^{#3}		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
55	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
56	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	



XRF Screening And Chemical Confirmation Test Report

Screened Components	Items	XRF Results	Screened Results(phthalates)	Chemical Confirmation Result
57	Cd	ND	NA	NT
	Pb	>1500mg/kg ^{#3}		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
58	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
59	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
60	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
61	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	NT		
	DEHP	NA	NA	NA
	BBP		NA	
	DBP		NA	
	DIBP		NA	



XRF Screening And Chemical Confirmation Test Report

Screened Components	Items	XRF Results	Screened Results(phthalates)	Chemical Confirmation Result
62	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	NT		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
63	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
64	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	NT		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
65	Cd	ND	NA	PBBs : ND PBDEs : ND
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	Inconclusive		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
66	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	



XRF Screening And Chemical Confirmation Test Report

Screened Components	Items	XRF Results	Screened Results(phthalates)	Chemical Confirmation Result
67	Cd	ND	NA	PBBs : ND PBDEs : ND
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	Inconclusive		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
68	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
69	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
70	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	NT		
	DEHP	NA	NA	NA
	BBP		NA	
	DBP		NA	
	DIBP		NA	
71	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	



XRF Screening And Chemical Confirmation Test Report

Screened Components	Items	XRF Results	Screened Results(phthalates)	Chemical Confirmation Result
72	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	NT		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
73	Cd	ND	NA	PBBs : ND PBDEs : ND
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	Inconclusive		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
74	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
75	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	NT		
	DEHP	NA	NA	NA
	BBP		NA	
	DBP		NA	
	DIBP		NA	
76a	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	



XRF Screening And Chemical Confirmation Test Report

Screened Components	Items	XRF Results	Screened Results(phthalates)	Chemical Confirmation Result
76b	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
76c	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
76d	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
76e	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
76f	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	Detected		
	DEHP	NA	NT	ND
	BBP			ND
	DBP			ND
	DIBP			ND



XRF Screening And Chemical Confirmation Test Report

Screened Components	Items	XRF Results	Screened Results(phthalates)	Chemical Confirmation Result
76g	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
76h	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
76i	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
76j	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
76k	Cd	ND	NA	PBBs : ND PBDEs : ND
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	Inconclusive		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	



XRF Screening And Chemical Confirmation Test Report

Screened Components	Items	XRF Results	Screened Results(phthalates)	Chemical Confirmation Result
76l	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	NT		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
77a	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
77b	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
77c	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	NT		
	DEHP	NA	NA	NA
	BBP		NA	
	DBP		NA	
	DIBP		NA	
77d	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	NT		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			



XRF Screening And Chemical Confirmation Test Report

Screened Components	Items	XRF Results	Screened Results(phthalates)	Chemical Confirmation Result
77e	Cd	ND	NA	PBBs : ND PBDEs : ND
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	Inconclusive		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
77f	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
77g	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	NT		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
78	Cd	ND	NA	NT
	Pb	>1500mg/kg ^{#2}		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
79	Cd	ND	NA	PBBs : ND PBDEs : ND
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	Inconclusive		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	



XRF Screening And Chemical Confirmation Test Report

Screened Components	Items	XRF Results	Screened Results(phthalates)	Chemical Confirmation Result
80	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	NT		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
81	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
82	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
83	Cd	ND	NA	PBBs : ND PBDEs : ND
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	Inconclusive		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
84	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	



XRF Screening And Chemical Confirmation Test Report

Screened Components	Items	XRF Results	Screened Results(phthalates)	Chemical Confirmation Result
85a	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
85b	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
86a	Cd	ND	NA	PBBs : ND PBDEs : ND
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	Inconclusive		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
86b	Cd	ND	NA	Cr ⁶⁺ : Negative
	Pb	ND		
	Hg	ND		
	Cr	Inconclusive		
	Br	NT		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
86c	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	NT		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			



XRF Screening And Chemical Confirmation Test Report

Screened Components	Items	XRF Results	Screened Results(phthalates)	Chemical Confirmation Result
86d	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
86e	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	NT		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
86f	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	NT		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
86g	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	NT		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
86h	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	NT	ND
	BBP			ND
	DBP			ND
	DIBP			ND



XRF Screening And Chemical Confirmation Test Report

Screened Components	Items	XRF Results	Screened Results(phthalates)	Chemical Confirmation Result
86i	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	NT		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
86j	Cd	ND	NA	PBBs : ND PBDEs : ND
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	Inconclusive		
	DEHP	NA	NT	ND
	BBP			ND
	DBP			ND
	DIBP			ND
86k	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
87	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
88	Cd	ND	NA	PBBs : ND PBDEs : ND
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	Inconclusive		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	



XRF Screening And Chemical Confirmation Test Report

Screened Components	Items	XRF Results	Screened Results(phthalates)	Chemical Confirmation Result
89	Cd	ND	NA	Cr ⁶⁺ : Negative
	Pb	ND		
	Hg	ND		
	Cr	Inconclusive		
	Br	NT		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
90a	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	NT	ND
	BBP			ND
	DBP			ND
	DIBP			ND
90b	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
90c	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
91a	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	



XRF Screening And Chemical Confirmation Test Report

Screened Components	Items	XRF Results	Screened Results(phthalates)	Chemical Confirmation Result
91b	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
91c	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
92a	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
92b	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
93	Cd	ND	NA	Cr ⁶⁺ : ND
	Pb	ND		
	Hg	ND		
	Cr	Inconclusive		
	Br	ND		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			



XRF Screening And Chemical Confirmation Test Report

Screened Components	Items	XRF Results	Screened Results(phthalates)	Chemical Confirmation Result
94	Cd	ND	NA	Cr ⁶⁺ : ND
	Pb	ND		
	Hg	ND		
	Cr	Inconclusive		
	Br	ND		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
95	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
96	Cd	ND	NA	NT
	Pb	>1500mg/kg ^{#2}		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
97a	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
97b	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	



XRF Screening And Chemical Confirmation Test Report

Screened Components	Items	XRF Results	Screened Results(phthalates)	Chemical Confirmation Result
97c	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
97d	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
97e	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	NA	NA
	BBP		NA	
	DBP		NA	
	DIBP		NA	
98a	Cd	ND	NA	Pb:28168mg/kg ^{#1}
	Pb	>1300mg/kg		
	Hg	ND		
	Cr	ND		
	Br	NT		
	DEHP	NA	NA	NA
	BBP		NA	
	DBP		NA	
	DIBP		NA	
98b	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	



XRF Screening And Chemical Confirmation Test Report

Screened Components	Items	XRF Results	Screened Results(phthalates)	Chemical Confirmation Result
98c	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
98d	Cd	ND	NA	NT
	Pb	>1500mg/kg ^{#2}		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
98e	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	NT		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
99	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
100	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	



XRF Screening And Chemical Confirmation Test Report

Screened Components	Items	XRF Results	Screened Results(phthalates)	Chemical Confirmation Result
101	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
102	Cd	ND	NA	NT
	Pb	>1500mg/kg ^{#3}		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
103	Cd	ND	NA	NT
	Pb	>1500mg/kg ^{#3}		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
104	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
105a	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	



XRF Screening And Chemical Confirmation Test Report

Screened Components	Items	XRF Results	Screened Results(phthalates)	Chemical Confirmation Result
105b	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	NT		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
106a	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
106b	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	NT	ND
	BBP			ND
	DBP			ND
	DIBP			ND
107	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	NT	ND
	BBP			ND
	DBP			ND
	DIBP			ND
108	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	NT		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			



XRF Screening And Chemical Confirmation Test Report

Screened Components	Items	XRF Results	Screened Results(phthalates)	Chemical Confirmation Result
109	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	NT	ND
	BBP			ND
	DBP			ND
	DIBP			ND
110a	Cd	ND	NA	PBBs : ND PBDEs : ND
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	Inconclusive		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
110b	Cd	ND	NA	Cr ⁶⁺ : ND
	Pb	ND		
	Hg	ND		
	Cr	Inconclusive		
	Br	ND		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
110c	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	NT	ND
	BBP			ND
	DBP			ND
	DIBP			ND
110d	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	



XRF Screening And Chemical Confirmation Test Report

Screened Components	Items	XRF Results	Screened Results(phthalates)	Chemical Confirmation Result
110e	Cd	ND	NA	NT
	Pb	Detected		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
110f	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
110g	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	NT		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
110h	Cd	ND	NA	PBBs : ND PBDEs : ND
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	Inconclusive		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
111	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	



XRF Screening And Chemical Confirmation Test Report

Screened Components	Items	XRF Results	Screened Results(phthalates)	Chemical Confirmation Result
112	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	Detected		
	Br	ND		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
113	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			
114	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	ND		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
115	Cd	ND	NA	PBBs : ND PBDEs : ND
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	Inconclusive		
	DEHP	NA	P	NT
	BBP		P	
	DBP		P	
	DIBP		P	
116	Cd	ND	NA	NT
	Pb	ND		
	Hg	ND		
	Cr	ND		
	Br	NT		
	DEHP	NA	NA	NA
	BBP			
	DBP			
	DIBP			



XRF Screening And Chemical Confirmation Test Report

Detected = Below the lower screening limit of table (B1) and pass

ND = Not detected

NT = Not tested

NA = Not applicable

Negative = The Cr (VI) concentration is less than 0.10 µg/cm². The sample is negative for Cr (VI).

Remark:

(# 1) = As claimed by the declaration submitted from the applicant, the Lead content of the component comes from Copper alloy only. According to EU RoHS Directive (2011/65/EU) Annex III 6(c), Lead in Copper alloy containing up to 4% (40,000 mg/kg) Lead by weight can be exempted.

(# 2) = As claimed by the declaration submitted from the applicant, the Lead content of the components is coming from the constituent of glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or a glass or ceramic matrix compound of the electrical and electronic component only. According to EU RoHS Directive (2011/65/EU) Annex III 7(c)-I, Lead in this component can be exempted.

(# 3) = As claimed by the declaration submitted from the applicant, the Lead content of the component comes from the constituent of high 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 in high melting temperature type solders of the component can be exempted.

(B) Screening Limits

(B1). XRF Screening Limits in mg/kg for Regulated Elements in Various Matrices

Element	Polymer Materials	Metallic Materials	Composite Materials
Cd	$P \leq 70 < X < 130 \leq F$	$P \leq 70 < X < 130 \leq F$	$P \leq 70 < X < 150 \leq F$
Pb	$P \leq 700 < X < 1300 \leq F$	$P \leq 700 < X < 1300 \leq F$	$P \leq 500 < X < 1500 \leq F$
Hg	$P \leq 700 < X < 1300 \leq F$	$P \leq 700 < X < 1300 \leq F$	$P \leq 500 < X < 1500 \leq F$
Cr	$P \leq 700 < X$	$P \leq 700 < X$	$P \leq 500 < X$
Br	$P \leq 300 < X$	Not applicable	$P \leq 250 < X$

XRF spectrometry provides information on the total quantity of each element present in the sample, but does not identify compounds or valence states of the elements. Therefore, special attention shall be paid when screening for chromium and bromine, where the result will reflect only the total chromium and total bromine present. The presence of Cr(VI) or the brominated flame retardants PBB or PBDE shall be confirmed by a verification test procedure.

P = Pass

X = Inconclusive result

F = Fail

mg/kg = milligram per kilogram = ppm



XRF Screening And Chemical Confirmation Test Report

(B2). Preliminary screening test will be used for phthalates, if the results exceed the warning area in the following table, further chemical methods will be conducted to confirm the exact content by GC/MS.

Phthalates	Polymer
Bis(2-ethylhexyl) phthalate (DEHP)	$P \leq 600 < X$
Butyl benzyl phthalate (BBP)	$P \leq 600 < X$
Dibutyl phthalate (DBP)	$P \leq 600 < X$
Diisobutyl phthalate (DIBP)	$P \leq 600 < X$

P = Pass

X = Inconclusive result

(C) Estimated Detection Limits in mg/kg for Regulated Elements in Various Matrices

Element	Polymer Materials	Metallic Materials	Composite Materials
Cd	50	70	70
Pb	100	200	200
Hg	100	200	200
Cr	100	200	200
Br	200	Not applicable	200

Disclaimers:

This XRF Screening and Chemical Confirmation Test 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 and Chemical Confirmation Test Report is sufficient for its/his/her purposes.

The results shown in this XRF Screening and Chemical Confirmation Test 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 is required to obtain quantitative data.



XRF Screening And Chemical Confirmation Test Report

(D) Chemical Test Methods:

Test Item	Test Method	Detection Limit
Cadmium (Cd) Content	With reference to IEC 62321-5 Edition 1.0: 2013, by acid digestion and determined by ICP - OES	10 mg/kg
Lead (Pb) Content	With reference to IEC 62321-5 Edition 1.0: 2013, by acid digestion and determined by ICP - OES	10 mg/kg
Mercury (Hg) Content	With reference to IEC 62321-4 Edition 1.1: 2017, by acid digestion and determined by ICP - OES	10 mg/kg
Chromium (VI)(Cr ⁶⁺) Content	With reference to IEC 62321-7-2 Edition 1.0: 2017, Hexavalent chromium – Determination of hexavalent chromium (Cr(VI)) in polymers and electronics by the colorimetric method	10 mg/kg
Chromium (VI) (Cr ⁶⁺) Content	With reference to IEC 62321-7-1 Edition 1.0: 2015, by boiling water extraction and determined by UV-VIS spectrophotometer	0.10 µg/cm ²
Polybrominated Biphenyls (PBBs) Content	With reference to IEC 62321-6 Edition 1.0: 2015, by solvent extraction and determined by GC/MS and further HPLC confirmation when necessary	100 mg/kg for single compound
Polybrominated Diphenyl Ethers (PBDEs) Content	With reference to IEC 62321-6 Edition 1.0: 2015, by solvent extraction and determined by GC/MS and further HPLC confirmation when necessary	100 mg/kg for single compound
Phthalates (DEHP, BBP, DBP, DIBP) Content	With reference to IEC 62321-8 Edition 1.0: 2017, by solvent extraction and determined by GC/MS	100 mg/kg for single compound

(E) 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 ⁶⁺)	0.1% (1000 mg/kg)
Polybrominated Biphenyls (PBBs)	0.1% (1000 mg/kg)
Polybrominated Diphenyl Ethers (PBDEs)	0.1% (1000 mg/kg)
Phthalates (DEHP, BBP, DBP, DIBP)	0.1% (1000 mg/kg)

The above limits were quoted from 2011/65/EU and (EU) 2015/863 for homogeneous material.



Screened components:

- (1) Black plastic
- (2) White adhesive plastic with red printing
- (3) White paper label with multi-color printing and transparent film
- (4) Black treated metal
- (5) Black treated metal
- (6) Black soft plastic
- (7) Black treated metal(screw)
- (8) Red plastic
- (9) Black treated metal(screw)
- (10) Golden metal
- (11) Black foam
- (12) Black soft plastic
- (13) Red soft plastic with white printing
- (14) Red soft plastic
- (15) Black treated metal
- (16) Black plastic with multi-color printing
- (17) Silvery metal
- (18) Black treated metal(screw)
- (19) Semi-transparent white soft plastic
- (20) Black soft plastic with white printing
- (21) Black soft plastic with multi-color printing
- (22) Black plastic
- (23) Black treated metal(screw)
- (24) White plastic with multi-color printing
- (25) Transparent plastic
- (26) Double face adhesive tape
- (27) Black plastic
- (28) Silvery metal
- (29) Silvery metal(screw)
- (30) Silvery metal
- (31) Silvery metal
- (32) Black treated metal(screw)
- (33) Capacitor
- (33a) Silvery metal with black printing (case)
- (33b) Grey-white paper (electrolytic paper)
- (33c) Black plastic
- (33d) Black soft plastic
- (34) Triode
- (34a) Black body with silvery metal
- (34b) Silvery metal (pin)
- (35) Silvery metal(screw)
- (36) Silvery metal



XRF Screening And Chemical Confirmation Test Report

- (37) Resistor
- (37a) Blue body with multicolor printing
- (37b) Silvery metal
- (38) Black magnet body
- (39) Blue body (capacitor)
- (40) Grey magnet with black printing
- (41)
- (41a) Silvery metal
- (41b) Black plastic
- (41c) Silvery metal (pin)
- (42)
- (42a) Black plastic
- (42b) Silvery metal
- (42c) Silvery metal
- (42d) Black plastic
- (42e) Silvery metal
- (42f) Silvery metal
- (43)
- (43a) Black plastic
- (43b) Black glue
- (44) Black body with silvery metal (SMD triode)
- (45) Black body with brown printing & silvery metal (SMD diode)
- (46) Black body with silvery metal
- (47) Black body with silvery metal (SMD IC)
- (48) Brown ceramic with silvery metal (SMD capacitor)
- (49) White ceramic with black material & white printing & silvery metal (SMD resistor)
- (50) Yellow body with silvery metal
- (51) Black body with silvery metal (SMD IC)
- (52) Black magnet body
- (53) Black body with silvery metal (SMD IC)
- (54) Black body with silvery metal (SMD diode)
- (55) Black body with silvery metal (SMD IC)
- (56) White plastic
- (57) Black body with brown printing & silvery metal (SMD diode)
- (58) Black body with silvery metal (SMD IC)
- (59) Black plastic
- (60) Beige plastic
- (61) Silvery metal (pin)
- (62) Silvery metal
- (63) Black body with silvery metal (SMD IC)
- (64) Solder
- (65) Green PCB
- (66) Silvery plastic
- (67) White FPC with blue printing



XRF Screening And Chemical Confirmation Test Report

- (68) Black soft plastic (wire covering)
- (69) Red soft plastic (wire covering)
- (70) Silvery metal wire
- (71) White plastic
- (72) Silvery metal
- (73) Black plastic
- (74) Black soft plastic
- (75) Silvery metal(screw)
- (76) Screen
- (76a) Pink/black soft plastic
- (76b) Silvery plastic
- (76c) Semi-transparent black plastic
- (76d) White plastic
- (76e) Transparent plastic
- (76f) Silvery plastic
- (76g) Transparent glass
- (76h) White plastic
- (76i) Black tape
- (76j) Transparent plastic & white fibreboard with yellow coating & silvery metal (SMD LED)
- (76k) White PCB
- (76l) Solder
- (77) Switch
- (77a) Black plastic
- (77b) Black plastic
- (77c) Silvery metal
- (77d) Silvery metal(spring)
- (77e) Black plastic
- (77f) Black plastic
- (77g) Silvery metal
- (78) White ceramic with black material & white printing & silvery metal (SMD resistor)
- (79) Black body with silvery metal
- (80) Solder
- (81) Black body with silvery metal (SMD IC)
- (82) Black body with brown printing & silvery metal (SMD diode)
- (83) Green PCB
- (84) Black body with silvery metal (SMD IC)
- (85)
- (85a) Silvery metal & quartz & green material (crystal)
- (85b) Black plastic
- (86) Buzzer
- (86a) Black plastic with white printing
- (86b) Silvery metal
- (86c) Silvery metal
- (86d) Black magnet



XRF Screening And Chemical Confirmation Test Report

- (86e) Copper color metal wire
- (86f) Blue metal wire
- (86g) Silvery metal
- (86h) Black glue
- (86i) Solder
- (86j) Green PCB
- (86k) White ceramic with black material & white printing & silvery metal (SMD resistor)
- (87) Black body with silvery metal (SMD IC)
- (88) Transparent plastic
- (89) Silvery metal(screw)
- (90) Capacitor
- (90a) Black plastic with white printing
- (90b) Beige paper (electrolytic paper)
- (90c) Black soft plastic
- (91) Inductor
- (91a) Yellow tape
- (91b) Black magnet
- (91c) Black plastic
- (92) Capacitor
- (92a) Red-brown plastic with black printing
- (92b) Transparent/silvery electrolytic paper
- (93) Green ceramic body with black printing
- (94) Green ceramic body
- (95) Beige ceramic with silvery metal (SMD capacitor)
- (96) White ceramic with black material & white printing & silvery metal (SMD resistor)
- (97)
- (97a) Dull beige plastic with black printing
- (97b) Beige plastic
- (97c) Black glue
- (97d) White plastic
- (97e) Silvery magnet
- (98)
- (98a) Golden metal
- (98b) Blue plastic
- (98c) Green plastic
- (98d) White ceramic with black printing
- (98e) Solder
- (99) Black body with silvery metal (SMD IC)
- (100) Transparent plastic & white fibreboard with silvery metal (SMD LED)
- (101) Transparent plastic (LED)
- (102) Black body with silvery metal(triode)
- (103) Black body with brown printing & silvery metal (SMD diode)
- (104) Dull beige plastic
- (105) LED



XRF Screening And Chemical Confirmation Test Report

- (105a) Transparent plastic with white fibreboard
- (105b) Silvery metal (pin)
- (106)
- (106a) Transparent soft plastic
- (106b) White double face adhesive tape
- (107) Grey adhesive foam
- (108) Silvery metal
- (109) White paper label with black printing
- (110) Buzzer
- (110a) Black plastic
- (110b) Black magnet
- (110c) Black glue
- (110d) Black body with silvery metal (SMD IC)
- (110e) White ceramic with black material & white printing & silvery metal (SMD resistor)
- (110f) Dull brown ceramic with silvery metal (SMD capacitor)
- (110g) Solder
- (110h) Green PCB
- (111) Black body with silvery metal
- (112) Silvery metal & quartz & green material (SMD crystal)
- (113) Brown ceramic with silvery metal (SMD capacitor)
- (114) Black body with silvery metal (SMD IC)
- (115) Blue PCB
- (116) Solder

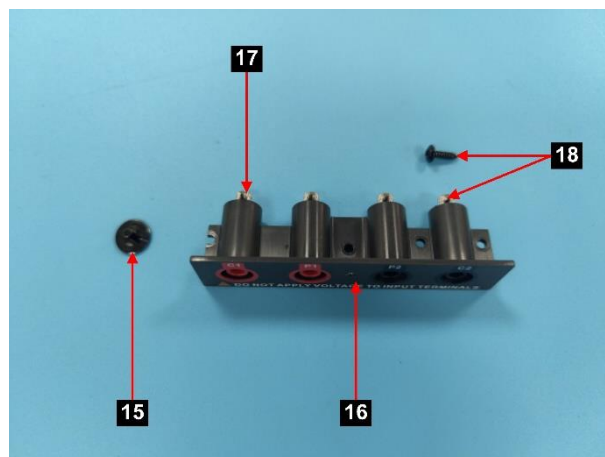
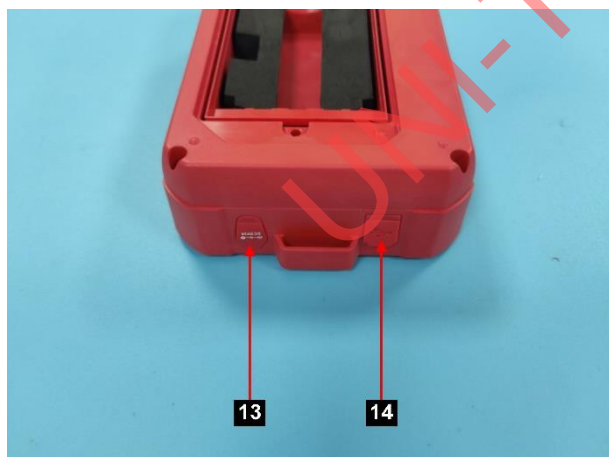
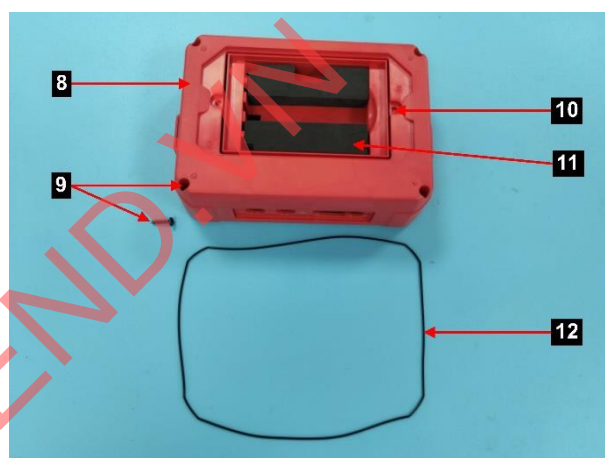
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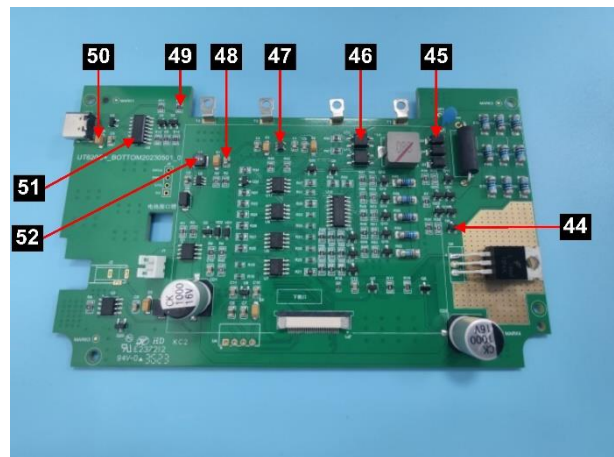
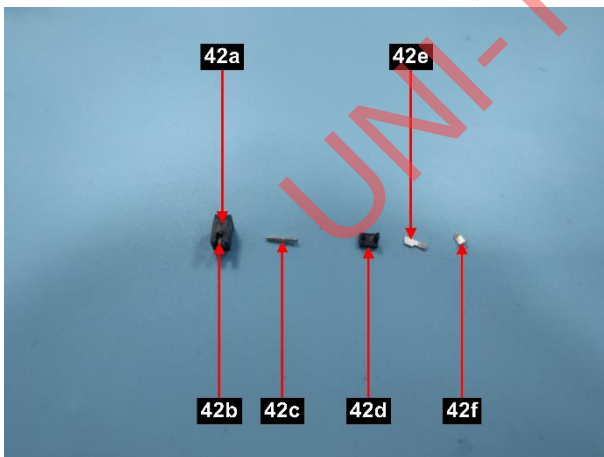
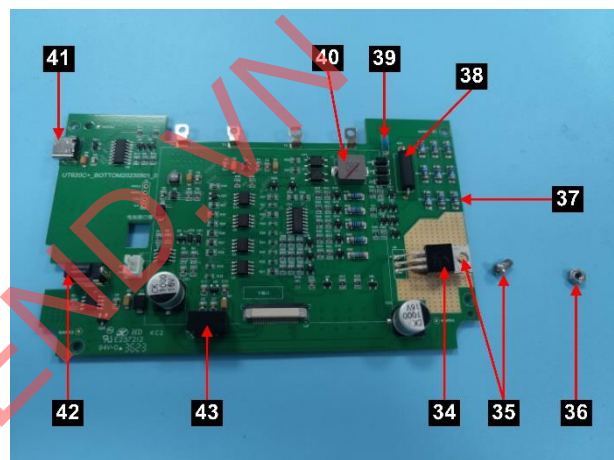
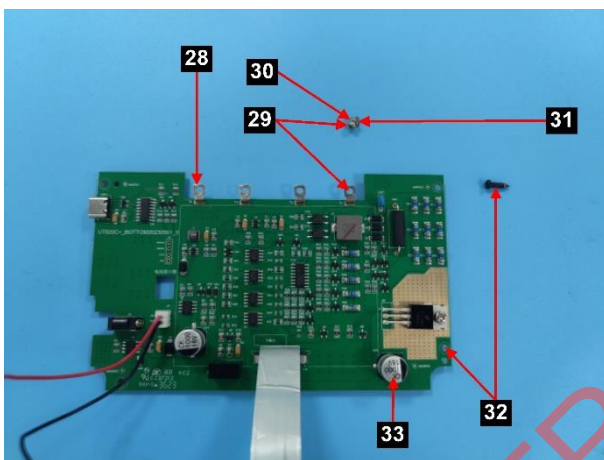
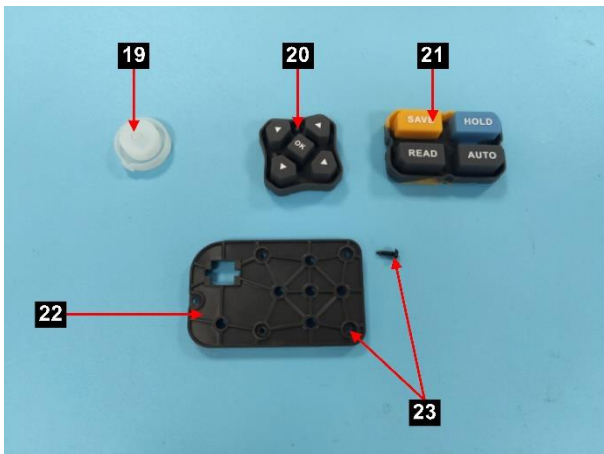


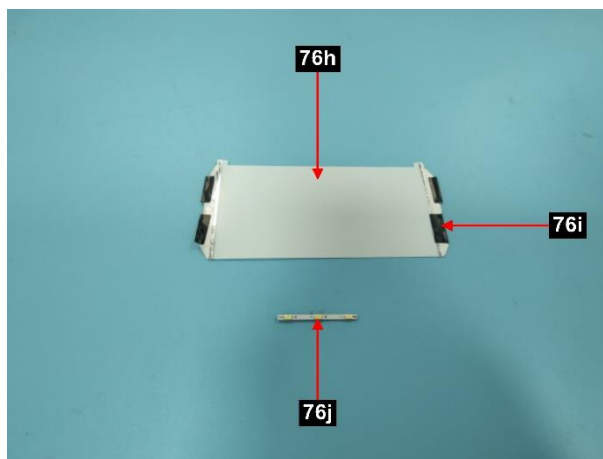
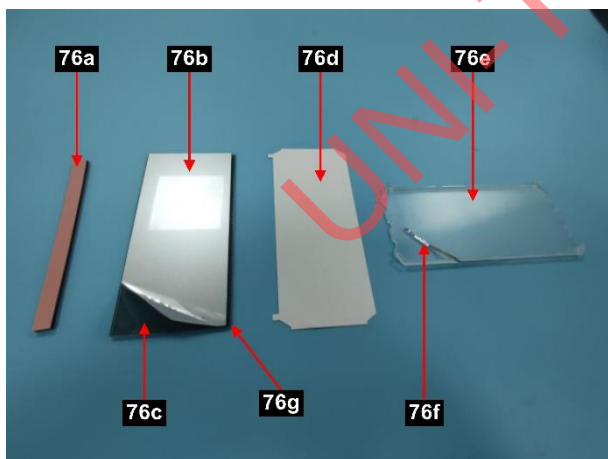
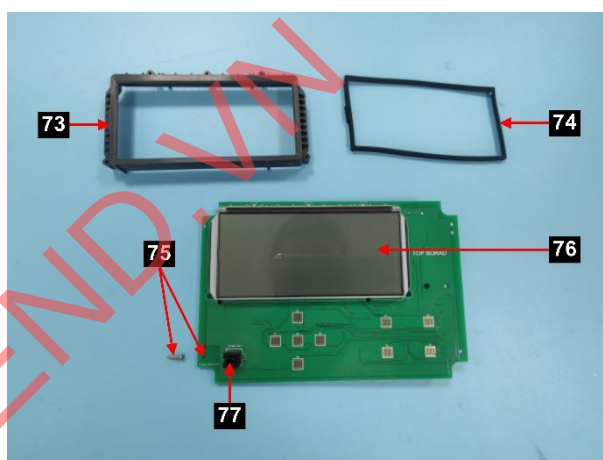
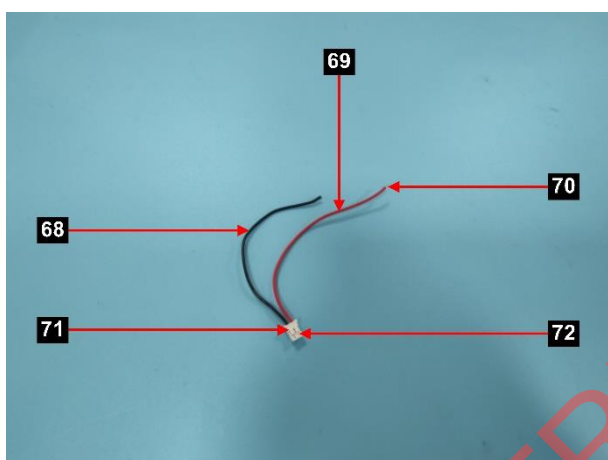
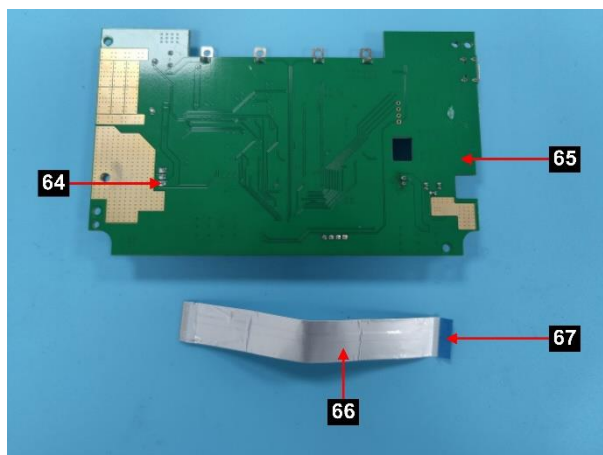
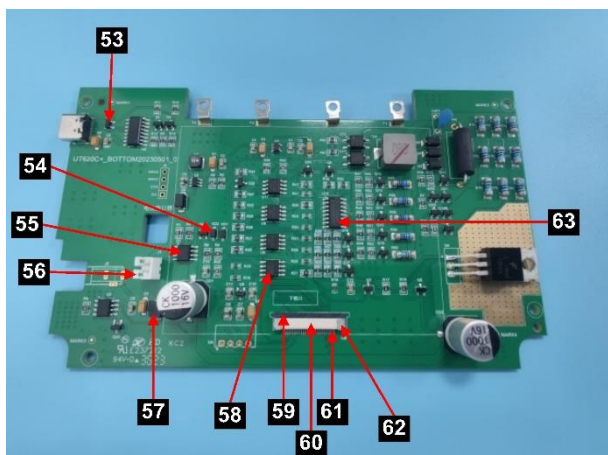
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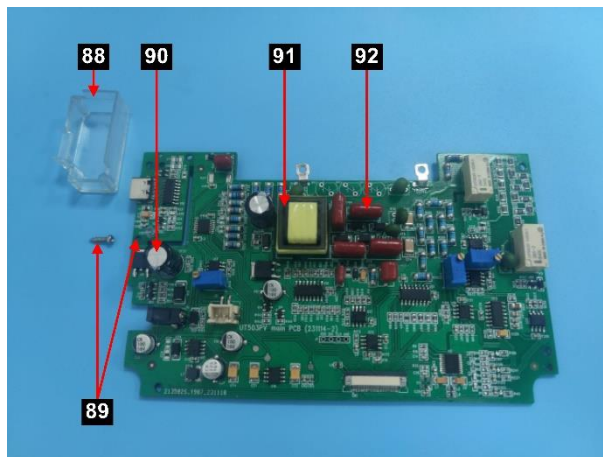
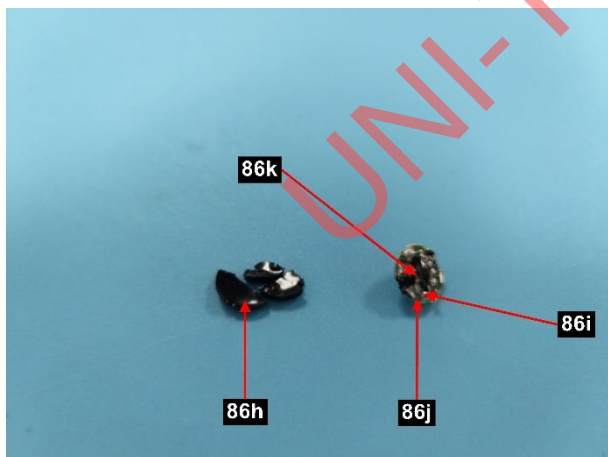
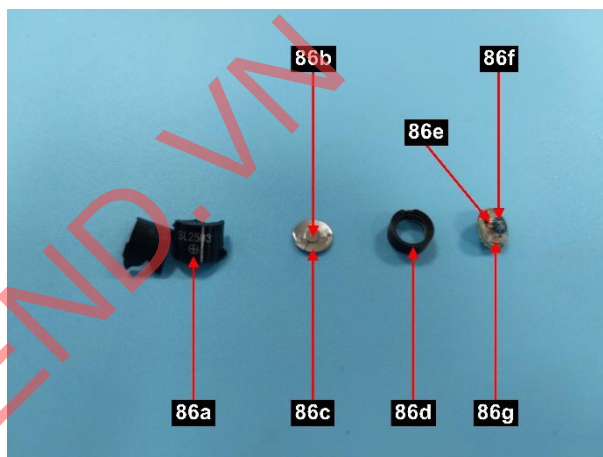
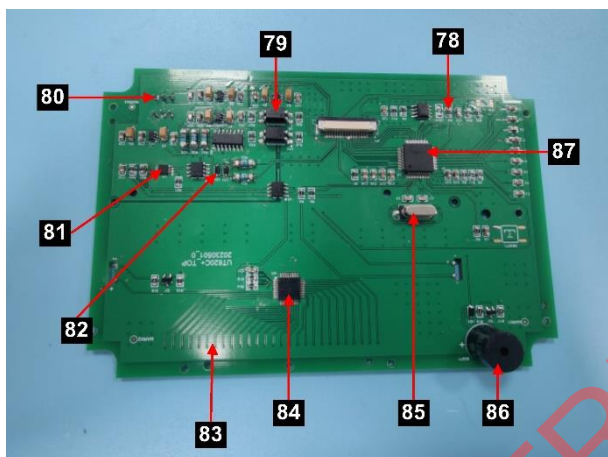
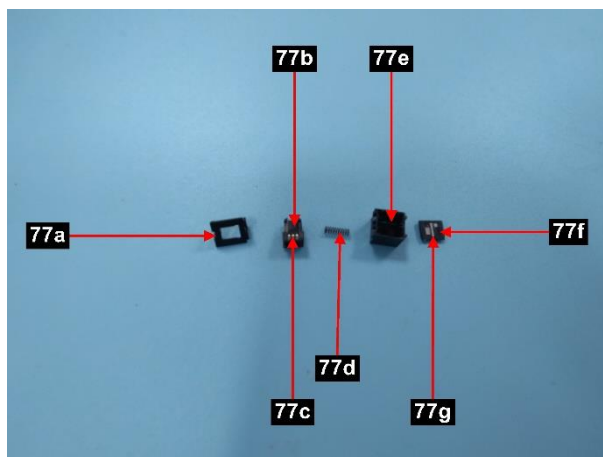
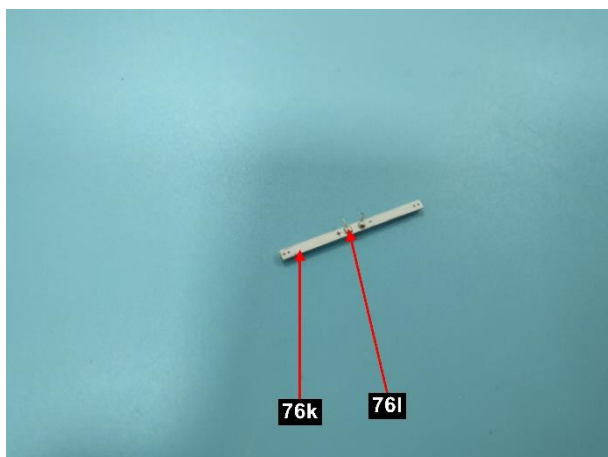


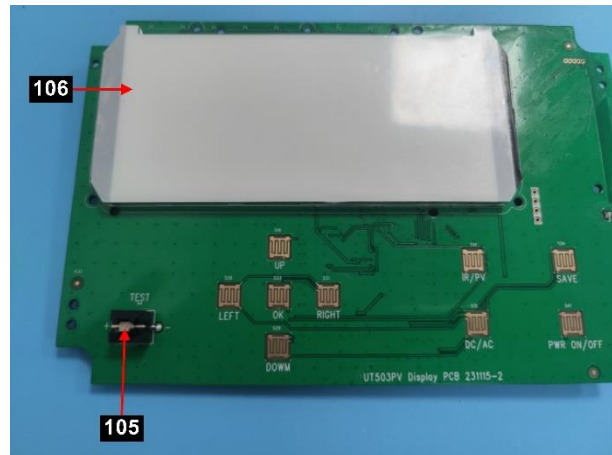
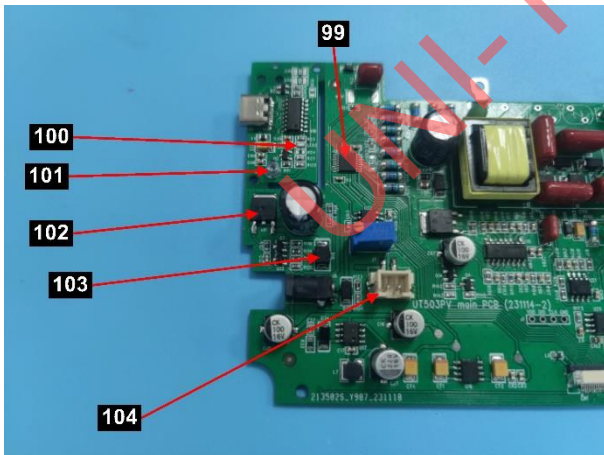
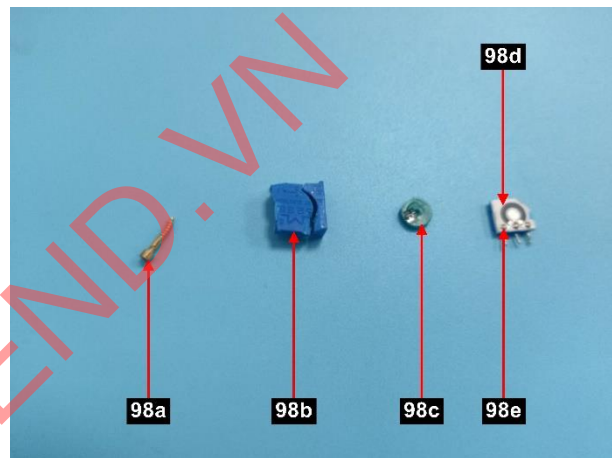
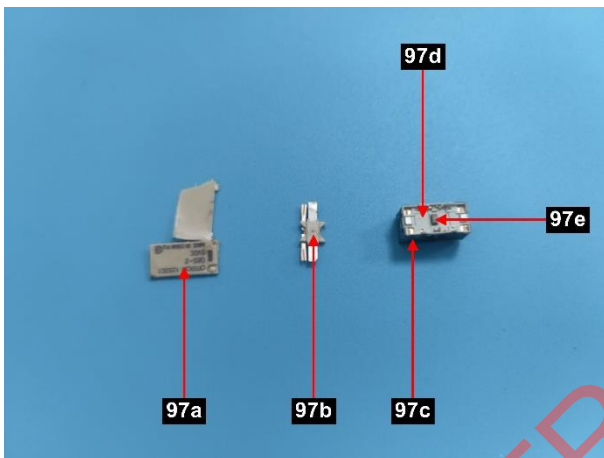
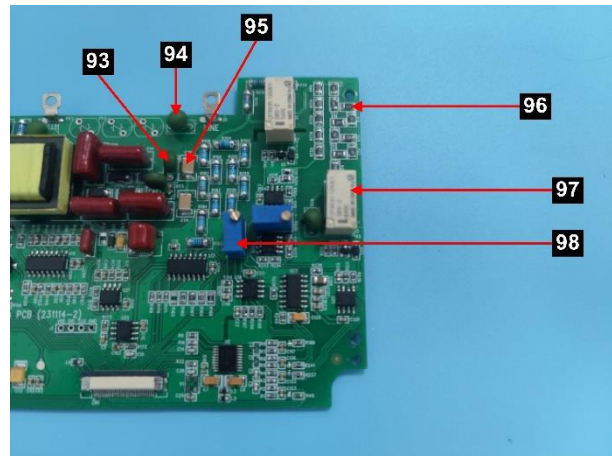
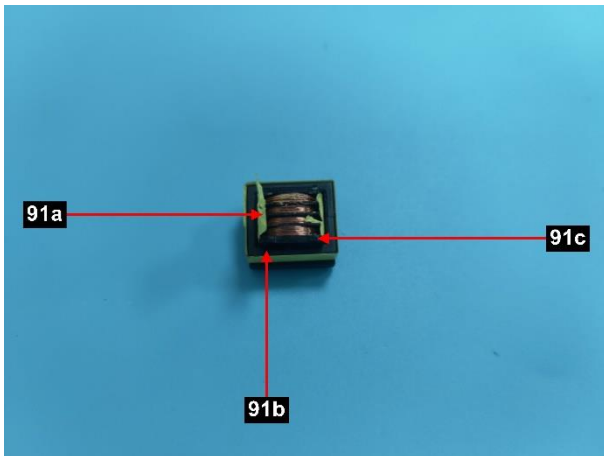
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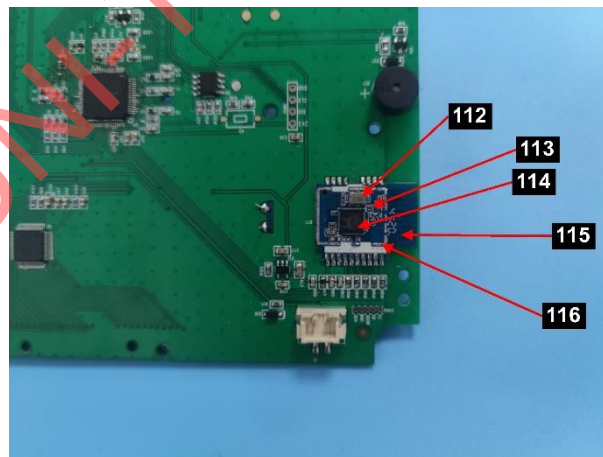
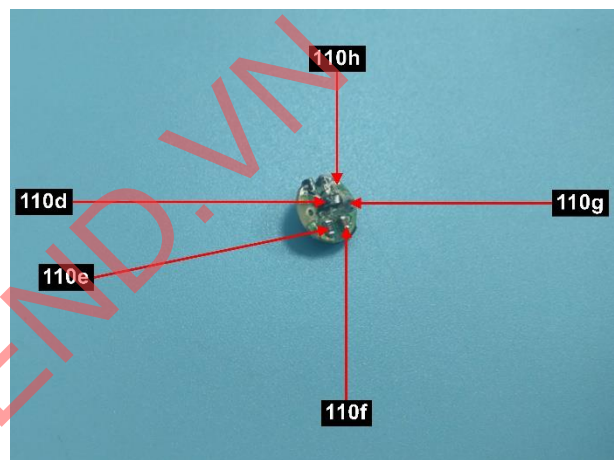
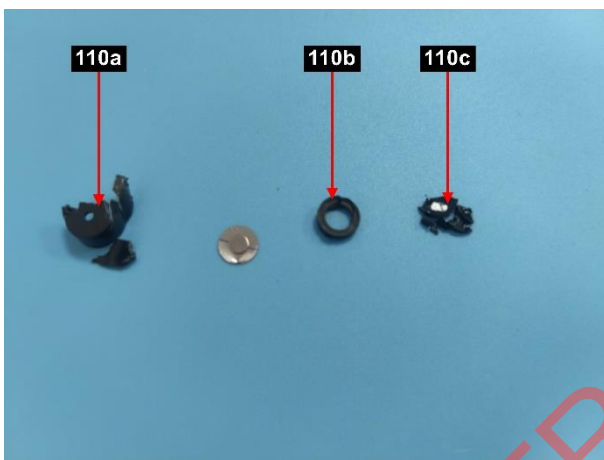
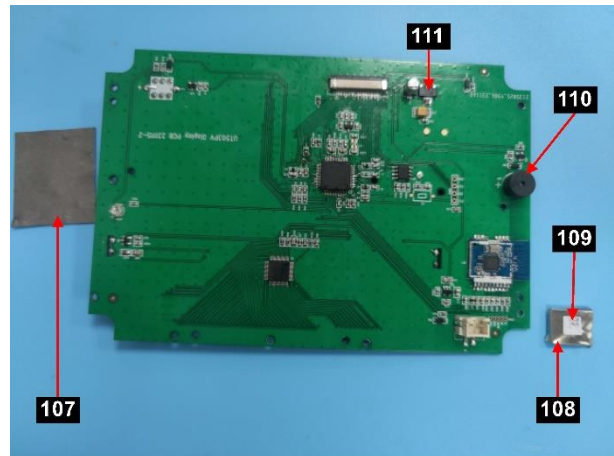
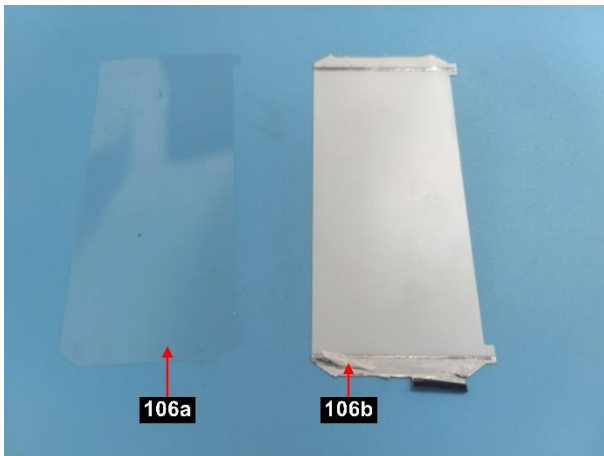












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End of report

