

Rep. No.SET2019-14931

VERIFICATION REPORT

Client Name	Shenzhen Chainway Information Technology Co.,Ltd.
Name of product	Fixed UHF Reader
Manufacturer	Shenzhen Chainway Information Technology Co.,Ltd.
Model	UR4
Test sort	Commission Test



CCIC Southern Testing Co.,Ltd.

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Customer information	Client	Shenzhen Chainway Information Technology Co.,Ltd.
	Address	9/F, Building 2, Daqian Industrial Park, Longchang Rd., District 67, Bao'an, Shenzhen, Guangdong, P.R.China
Sample information	Name of sample	Fixed UHF Reader
	Model	UR4
	Trade Name	-----
	Manufacturer	Shenzhen Chainway Information Technology Co.,Ltd.
	Address	9/F, Building 2, Daqian Industrial Park, Longchang Rd., District 67, Bao'an, Shenzhen, Guangdong, P.R.China
	Factory	-----
	Address	-----
Test information	Sample Received	Nov. 13, 2019; Dec. 10, 2019; Dec. 24, 2019
	Testing Period	Nov. 13, 2019~ Dec. 30, 2019
	Test sort	Commission Test
	Conclusion	The tested sample complied with RoHS directive (2011/65/EU) and amending directive (EU)2015/863.
Remark	-----	

Tested By:

Checked By:

Approved By:

Date:

Dec. 31, 2019

Date:

Dec. 31, 2019

Date:

Dec. 31, 2019



Item Requested	(1) As specified by client, to screen test Cd, Pb, Hg, Cr(VI), PBBs, PBDEs and phthalates(DIBP, DEHP, BBP, DBP) content in the submitted sample. (2) As specified by client, further chemical testing for Cd, Pb, Hg, Cr(VI), PBBs, PBDEs and phthalates(DIBP, DEHP, BBP, DBP) are recommended to be performed if the screen results exceeds the limit of IEC 62321-1:2013 or the phthalates screen limit.
Standard/ Foundation	(1)With reference to IEC 62321-3-1:2013, Screening – Lead, mercury, cadmium, total chromium and total bromine by XRF Spectroscopy With reference to IEC 62321-8:2017, Screening – phthalates by GC-MS (2) Chemical test method: With reference to IEC 62321-5:2013, determination of Lead, Cadmium, by ICP With reference to IEC 62321-4:2013+A1:2017, determination of Mercury by ICP With reference to IEC 62321-7-2:2017 & IEC 62321-7-1:2015, determination of Hexavalent Chromium by Colorimetric method With reference to IEC 62321-6:2015, determination of PBBs, PBDEs by GC-MS. With reference to IEC 62321-8:2017, determination of phthalates by GC-MS.



Test Results:

No.	COMPONENTS	Item	Results of EDXRF (P/F/D)	Screen results of PHTH	Results of chemical testing (mg/kg)	Conclusion (P/F)	Sample submitted/ Resubmitted date
1	Black electroplate with metal basematerial	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	D	/	<0.10**	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	/	/	/	/	
		PBDEs	/	/	/	/	
		DEHP	/	/	/	/	
		DBP	/	/	/	/	
		BBP	/	/	/	/	
		DIBP	/	/	/	/	
2	Silvery metal frame	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	/	/	/	/	
		PBDEs	/	/	/	/	
		DEHP	/	/	/	/	
		DBP	/	/	/	/	
		BBP	/	/	/	/	
		DIBP	/	/	/	/	
3	Black coating	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	P	/	/	P	
		PBDEs	P	/	/	P	
		DEHP	/	D	55	P	
		DBP	/	D	429	P	
		BBP	/	D	N.D.	P	
		DIBP	/	D	N.D.	P	
4	Silvery metal sheet	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	/	/	/	/	
		PBDEs	/	/	/	/	
		DEHP	/	/	/	/	
		DBP	/	/	/	/	
		BBP	/	/	/	/	
		DIBP	/	/	/	/	



No.	COMPONENTS	Item	Results of EDXRF (P/F/D)	Screen results of PHTH	Results of chemical testing (mg/kg)	Conclusion (P/F)	Sample submitted/ Resubmitted date
5	Silvery metal bolt	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	/	/	/	/	
		PBDEs	/	/	/	/	
		DEHP	/	/	/	/	
		DBP	/	/	/	/	
		BBP	/	/	/	/	
		DIBP	/	/	/	/	
6	Silvery metal board	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	D	/	<0.10**	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	/	/	/	/	
		PBDEs	/	/	/	/	
		DEHP	/	/	/	/	
		DBP	/	/	/	/	
		BBP	/	/	/	/	
		DIBP	/	/	/	/	
7	White colloid	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	P	/	/	P	
		PBDEs	P	/	/	P	
		DEHP	/	P	/	P	
		DBP	/	P	/	P	
		BBP	/	P	/	P	
		DIBP	/	P	/	P	
8	Silvery metal screw	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	D	/	<0.10**	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	/	/	/	/	
		PBDEs	/	/	/	/	
		DEHP	/	/	/	/	
		DBP	/	/	/	/	
		BBP	/	/	/	/	
		DIBP	/	/	/	/	



No.	COMPONENTS	Item	Results of EDXRF (P/F/D)	Screen results of PHTH	Results of chemical testing (mg/kg)	Conclusion (P/F)	Sample submitted/ Resubmitted date
9	White plastic plug	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	P	/	/	P	
		PBDEs	P	/	/	P	
		DEHP	/	D	N.D.	P	
		DBP	/	D	N.D.	P	
		BBP	/	D	N.D.	P	
		DIBP	/	D	N.D.	P	
10	Silvery metal contact pin	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	/	/	/	/	
		PBDEs	/	/	/	/	
		DEHP	/	/	/	/	
		DBP	/	/	/	/	
		BBP	/	/	/	/	
		DIBP	/	/	/	/	
11	Black plastic wire jacket	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	P	/	/	P	
		PBDEs	P	/	/	P	
		DEHP	/	P	/	P	
		DBP	/	P	/	P	
		BBP	/	P	/	P	
		DIBP	/	P	/	P	
12	Silvery metal wire core	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	/	/	/	/	
		PBDEs	/	/	/	/	
		DEHP	/	/	/	/	
		DBP	/	/	/	/	
		BBP	/	/	/	/	
		DIBP	/	/	/	/	



No.	COMPONENTS	Item	Results of EDXRF (P/F/D)	Screen results of PHTH	Results of chemical testing (mg/kg)	Conclusion (P/F)	Sample submitted/ Resubmitted date
13	Black PCB	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	P	/	/	P	
		PBDEs	P	/	/	P	
		DEHP	/	P	/	P	
		DBP	/	P	/	P	
		BBP	/	P	/	P	
		DIBP	/	P	/	P	
14	Green plastic socket	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	P	/	/	P	
		PBDEs	P	/	/	P	
		DEHP	/	D	N.D.	P	
		DBP	/	D	N.D.	P	
		BBP	/	D	N.D.	P	
		DIBP	/	D	N.D.	P	
15	Silvery metal contact pin	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	/	/	/	/	
		PBDEs	/	/	/	/	
		DEHP	/	/	/	/	
		DBP	/	/	/	/	
		BBP	/	/	/	/	
		DIBP	/	/	/	/	
16	Orange plastic cover	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	D	/	N.D.	P	
		PBDEs	D	/	N.D.	P	
		DEHP	/	D	N.D.	P	
		DBP	/	D	N.D.	P	
		BBP	/	D	N.D.	P	
		DIBP	/	D	N.D.	P	



No.	COMPONENTS	Item	Results of EDXRF (P/F/D)	Screen results of PHTH	Results of chemical testing (mg/kg)	Conclusion (P/F)	Sample submitted/ Resubmitted date
17	White plastic inner cover	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	P	/	/	P	
		PBDEs	P	/	/	P	
		DEHP	/	P	/	P	
		DBP	/	P	/	P	
		BBP	/	P	/	P	
		DIBP	/	P	/	P	
18	Silvery metal bracket	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	/	/	/	/	
		PBDEs	/	/	/	/	
		DEHP	/	/	/	/	
		DBP	/	/	/	/	
		BBP	/	/	/	/	
		DIBP	/	/	/	/	
19	Copper metal wire core	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	/	/	/	/	
		PBDEs	/	/	/	/	
		DEHP	/	/	/	/	
		DBP	/	/	/	/	
		BBP	/	/	/	/	
		DIBP	/	/	/	/	
20	Copper metal sheet	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	/	/	/	/	
		PBDEs	/	/	/	/	
		DEHP	/	/	/	/	
		DBP	/	/	/	/	
		BBP	/	/	/	/	
		DIBP	/	/	/	/	



No.	COMPONENTS	Item	Results of EDXRF (P/F/D)	Screen results of PHTH	Results of chemical testing (mg/kg)	Conclusion (P/F)	Sample submitted/ Resubmitted date
21	Brown plastic framework	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	P	/	/	P	
		PBDEs	P	/	/	P	
		DEHP	/	P	/	P	
		DBP	/	P	/	P	
		BBP	/	P	/	P	
		DIBP	/	P	/	P	
22	Copper metal pin	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	/	/	/	/	
		PBDEs	/	/	/	/	
		DEHP	/	/	/	/	
		DBP	/	/	/	/	
		BBP	/	/	/	/	
		DIBP	/	/	/	/	
23	Black resistance body	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	P	/	/	P	
		PBDEs	P	/	/	P	
		DEHP	/	P	/	P	
		DBP	/	P	/	P	
		BBP	/	P	/	P	
		DIBP	/	P	/	P	
24	Black IC body	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	P	/	/	P	
		PBDEs	P	/	/	P	
		DEHP	/	P	/	P	
		DBP	/	P	/	P	
		BBP	/	P	/	P	
		DIBP	/	P	/	P	



No.	COMPONENTS	Item	Results of EDXRF (P/F/D)	Screen results of PHTH	Results of chemical testing (mg/kg)	Conclusion (P/F)	Sample submitted/ Resubmitted date
25	Silvery metal pin	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	/	/	/	/	
		PBDEs	/	/	/	/	
		DEHP	/	/	/	/	
		DBP	/	/	/	/	
		BBP	/	/	/	/	
		DIBP	/	/	/	/	
26	Yellow capacitance body	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	P	/	/	P	
		PBDEs	P	/	/	P	
		DEHP	/	P	/	P	
		DBP	/	P	/	P	
		BBP	/	P	/	P	
		DIBP	/	P	/	P	
27	Black magnet core	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	/	/	/	/	
		PBDEs	/	/	/	/	
		DEHP	/	/	/	/	
		DBP	/	/	/	/	
		BBP	/	/	/	/	
		DIBP	/	/	/	/	
28	Coppery metal wire core	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	/	/	/	/	
		PBDEs	/	/	/	/	
		DEHP	/	/	/	/	
		DBP	/	/	/	/	
		BBP	/	/	/	/	
		DIBP	/	/	/	/	



No.	COMPONENTS	Item	Results of EDXRF (P/F/D)	Screen results of PHTH	Results of chemical testing (mg/kg)	Conclusion (P/F)	Sample submitted/ Resubmitted date
29	Black resistance body	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	P	/	/	P	
		PBDEs	P	/	/	P	
		DEHP	/	P	/	P	
		DBP	/	P	/	P	
		BBP	/	P	/	P	
		DIBP	/	P	/	P	
30	Silvery metal cover	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	D	/	<0.10**	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	/	/	/	/	
		PBDEs	/	/	/	/	
		DEHP	/	/	/	/	
		DBP	/	/	/	/	
		BBP	/	/	/	/	
		DIBP	/	/	/	/	
31	Coppery metal contact pin	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	D	/	$*2.12 \times 10^4$	P	
		PBBs	/	/	/	/	
		PBDEs	/	/	/	/	
		DEHP	/	/	/	/	
		DBP	/	/	/	/	
		BBP	/	/	/	/	
		DIBP	/	/	/	/	
32	Black plastic socket	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	P	/	/	P	
		PBDEs	P	/	/	P	
		DEHP	/	P	/	P	
		DBP	/	P	/	P	
		BBP	/	P	/	P	
		DIBP	/	P	/	P	



No.	COMPONENTS	Item	Results of EDXRF (P/F/D)	Screen results of PHTH	Results of chemical testing (mg/kg)	Conclusion (P/F)	Sample submitted/ Resubmitted date
33	Silvery metal cover	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	/	/	/	/	
		PBDEs	/	/	/	/	
		DEHP	/	/	/	/	
		DBP	/	/	/	/	
		BBP	/	/	/	/	
		DIBP	/	/	/	/	
34	Black plastic socket	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	D	/	N.D.	P	
		PBDEs	D	/	N.D.	P	
		DEHP	/	P	/	P	
		DBP	/	P	/	P	
		BBP	/	P	/	P	
		DIBP	/	P	/	P	
35	Silvery metal pin	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	/	/	/	/	
		PBDEs	/	/	/	/	
		DEHP	/	/	/	/	
		DBP	/	/	/	/	
		BBP	/	/	/	/	
		DIBP	/	/	/	/	
36	Silvery metal cover	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	/	/	/	/	
		PBDEs	/	/	/	/	
		DEHP	/	/	/	/	
		DBP	/	/	/	/	
		BBP	/	/	/	/	
		DIBP	/	/	/	/	



No.	COMPONENTS	Item	Results of EDXRF (P/F/D)	Screen results of PHTH	Results of chemical testing (mg/kg)	Conclusion (P/F)	Sample submitted/ Resubmitted date
37	Silvery metal screw	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	/	/	/	/	
		PBDEs	/	/	/	/	
		DEHP	/	/	/	/	
		DBP	/	/	/	/	
		BBP	/	/	/	/	
		DIBP	/	/	/	/	
38	Black plastic socket	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	D	/	N.D.	P	
		PBDEs	D	/	N.D.	P	
		DEHP	/	P	/	P	
		DBP	/	P	/	P	
		BBP	/	P	/	P	
		DIBP	/	P	/	P	
39	Silvery metal pin	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	/	/	/	/	
		PBDEs	/	/	/	/	
		DEHP	/	/	/	/	
		DBP	/	/	/	/	
		BBP	/	/	/	/	
		DIBP	/	/	/	/	
40	Black IC body	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	P	/	/	P	
		PBDEs	P	/	/	P	
		DEHP	/	P	/	P	
		DBP	/	P	/	P	
		BBP	/	P	/	P	
		DIBP	/	P	/	P	



No.	COMPONENTS	Item	Results of EDXRF (P/F/D)	Screen results of PHTH	Results of chemical testing (mg/kg)	Conclusion (P/F)	Sample submitted/ Resubmitted date
41	Black IC body	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	P	/	/	P	
		PBDEs	P	/	/	P	
		DEHP	/	P	/	P	
		DBP	/	P	/	P	
		BBP	/	P	/	P	
		DIBP	/	P	/	P	
42	Silvery metal pin	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	/	/	/	/	
		PBDEs	/	/	/	/	
		DEHP	/	/	/	/	
		DBP	/	/	/	/	
		BBP	/	/	/	/	
		DIBP	/	/	/	/	
43	Silvery crystal oscillator body	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	P	/	/	P	
		PBDEs	P	/	/	P	
		DEHP	/	P	/	P	
		DBP	/	P	/	P	
		BBP	/	P	/	P	
		DIBP	/	P	/	P	
44	Black IC body	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	P	/	/	P	
		PBDEs	P	/	/	P	
		DEHP	/	P	/	P	
		DBP	/	P	/	P	
		BBP	/	P	/	P	
		DIBP	/	P	/	P	



No.	COMPONENTS	Item	Results of EDXRF (P/F/D)	Screen results of PHTH	Results of chemical testing (mg/kg)	Conclusion (P/F)	Sample submitted/ Resubmitted date
45	Green LED body	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	P	/	/	P	
		PBDEs	P	/	/	P	
		DEHP	/	P	/	P	
		DBP	/	P	/	P	
		BBP	/	P	/	P	
		DIBP	/	P	/	P	
46	Silvery metal pin	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	/	/	/	/	
		PBDEs	/	/	/	/	
		DEHP	/	/	/	/	
		DBP	/	/	/	/	
		BBP	/	/	/	/	
		DIBP	/	/	/	/	
47-C-C	Black plastic pedestal	Cd	P	/	/	P	Nov. 13, 2019 Dec. 10, 2019 Dec. 24, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	P	/	/	P	
		PBDEs	P	/	/	P	
		DEHP	/	P	/	P	
		DBP	/	P	/	P	
		BBP	/	P	/	P	
		DIBP	/	P	/	P	
48	Black plastic cover	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	P	/	/	P	
		PBDEs	P	/	/	P	
		DEHP	/	P	/	P	
		DBP	/	P	/	P	
		BBP	/	P	/	P	
		DIBP	/	P	/	P	



No.	COMPONENTS	Item	Results of EDXRF (P/F/D)	Screen results of PHTH	Results of chemical testing (mg/kg)	Conclusion (P/F)	Sample submitted/ Resubmitted date
49	Silvery metal sheet	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	/	/	/	/	
		PBDEs	/	/	/	/	
		DEHP	/	/	/	/	
		DBP	/	/	/	/	
		BBP	/	/	/	/	
		DIBP	/	/	/	/	
50	Gray magnet core	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	/	/	/	/	
		PBDEs	/	/	/	/	
		DEHP	/	/	/	/	
		DBP	/	/	/	/	
		BBP	/	/	/	/	
		DIBP	/	/	/	/	
51	Silvery metal pedestal	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	/	/	/	/	
		PBDEs	/	/	/	/	
		DEHP	/	/	/	/	
		DBP	/	/	/	/	
		BBP	/	/	/	/	
		DIBP	/	/	/	/	
52	Coppery metal wire core	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	/	/	/	/	
		PBDEs	/	/	/	/	
		DEHP	/	/	/	/	
		DBP	/	/	/	/	
		BBP	/	/	/	/	
		DIBP	/	/	/	/	



No.	COMPONENTS	Item	Results of EDXRF (P/F/D)	Screen results of PHTH	Results of chemical testing (mg/kg)	Conclusion (P/F)	Sample submitted/ Resubmitted date
53	Green PCB	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	P	/	/	P	
		PBDEs	P	/	/	P	
		DEHP	/	P	/	P	
		DBP	/	P	/	P	
		BBP	/	P	/	P	
		DIBP	/	P	/	P	
54-C	Soldering tin	Cd	P	/	/	P	Nov. 13, 2019 Dec. 10, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	/	/	/	/	
		PBDEs	/	/	/	/	
		DEHP	/	/	/	/	
		DBP	/	/	/	/	
		BBP	/	/	/	/	
		DIBP	/	/	/	/	
55	Black packaging adhesive	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	P	/	/	P	
		PBDEs	P	/	/	P	
		DEHP	/	P	/	P	
		DBP	/	P	/	P	
		BBP	/	P	/	P	
		DIBP	/	P	/	P	
56	Silvery metal pin	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	/	/	/	/	
		PBDEs	/	/	/	/	
		DEHP	/	/	/	/	
		DBP	/	/	/	/	
		BBP	/	/	/	/	
		DIBP	/	/	/	/	



No.	COMPONENTS	Item	Results of EDXRF (P/F/D)	Screen results of PHTH	Results of chemical testing (mg/kg)	Conclusion (P/F)	Sample submitted/ Resubmitted date
57	Glass diode body	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	P	/	/	P	
		PBDEs	P	/	/	P	
		DEHP	/	P	/	P	
		DBP	/	P	/	P	
		BBP	/	P	/	P	
		DIBP	/	P	/	P	
58	Transparent LED body	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	P	/	/	P	
		PBDEs	P	/	/	P	
		DEHP	/	P	/	P	
		DBP	/	P	/	P	
		BBP	/	P	/	P	
		DIBP	/	P	/	P	
59	Black IC body	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	P	/	/	P	
		PBDEs	P	/	/	P	
		DEHP	/	P	/	P	
		DBP	/	P	/	P	
		BBP	/	P	/	P	
		DIBP	/	P	/	P	
60	Soldering tin	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	/	/	/	/	
		PBDEs	/	/	/	/	
		DEHP	/	/	/	/	
		DBP	/	/	/	/	
		BBP	/	/	/	/	
		DIBP	/	/	/	/	



No.	COMPONENTS	Item	Results of EDXRF (P/F/D)	Screen results of PHTH	Results of chemical testing (mg/kg)	Conclusion (P/F)	Sample submitted/ Resubmitted date
61	White plastic socket	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	D	/	N.D.	P	
		PBDEs	D	/	N.D.	P	
		DEHP	/	P	/	P	
		DBP	/	P	/	P	
		BBP	/	P	/	P	
		DIBP	/	P	/	P	
62	Silvery metal pin	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	/	/	/	/	
		PBDEs	/	/	/	/	
		DEHP	/	/	/	/	
		DBP	/	/	/	/	
		BBP	/	/	/	/	
		DIBP	/	/	/	/	
63	Black PCB	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	P	/	/	P	
		PBDEs	P	/	/	P	
		DEHP	/	P	/	P	
		DBP	/	P	/	P	
		BBP	/	P	/	P	
		DIBP	/	P	/	P	
64	Coppery metal plug	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	D	/	$*2.26 \times 10^4$	P	
		PBBs	/	/	/	/	
		PBDEs	/	/	/	/	
		DEHP	/	/	/	/	
		DBP	/	/	/	/	
		BBP	/	/	/	/	
		DIBP	/	/	/	/	



No.	COMPONENTS	Item	Results of EDXRF (P/F/D)	Screen results of PHTH	Results of chemical testing (mg/kg)	Conclusion (P/F)	Sample submitted/ Resubmitted date
65	White plastic inner core	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	P	/	/	P	
		PBDEs	P	/	/	P	
		DEHP	/	P	/	P	
		DBP	/	P	/	P	
		BBP	/	P	/	P	
		DIBP	/	P	/	P	
66	Copper metal contact pin	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	/	/	/	/	
		PBDEs	/	/	/	/	
		DEHP	/	/	/	/	
		DBP	/	/	/	/	
		BBP	/	/	/	/	
		DIBP	/	/	/	/	
67-C	Soldering tin	Cd	P	/	/	P	Nov. 13, 2019 Dec. 10, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	/	/	/	/	
		PBDEs	/	/	/	/	
		DEHP	/	/	/	/	
		DBP	/	/	/	/	
		BBP	/	/	/	/	
		DIBP	/	/	/	/	
68	Gray plastic body	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	P	/	/	P	
		PBDEs	P	/	/	P	
		DEHP	/	P	/	P	
		DBP	/	P	/	P	
		BBP	/	P	/	P	
		DIBP	/	P	/	P	



No.	COMPONENTS	Item	Results of EDXRF (P/F/D)	Screen results of PHTH	Results of chemical testing (mg/kg)	Conclusion (P/F)	Sample submitted/ Resubmitted date
69	Orange capacitance body	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	P	/	/	P	
		PBDEs	P	/	/	P	
		DEHP	/	P	/	P	
		DBP	/	P	/	P	
		BBP	/	P	/	P	
		DIBP	/	P	/	P	
70	Black IC body	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	P	/	/	P	
		PBDEs	P	/	/	P	
		DEHP	/	P	/	P	
		DBP	/	P	/	P	
		BBP	/	P	/	P	
		DIBP	/	P	/	P	
71	Black IC body	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	P	/	/	P	
		PBDEs	P	/	/	P	
		DEHP	/	P	/	P	
		DBP	/	P	/	P	
		BBP	/	P	/	P	
		DIBP	/	P	/	P	
72	Black audion body	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	P	/	/	P	
		PBDEs	P	/	/	P	
		DEHP	/	P	/	P	
		DBP	/	P	/	P	
		BBP	/	P	/	P	
		DIBP	/	P	/	P	



No.	COMPONENTS	Item	Results of EDXRF (P/F/D)	Screen results of PHTH	Results of chemical testing (mg/kg)	Conclusion (P/F)	Sample submitted/ Resubmitted date
73	Black diode body	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	P	/	/	P	
		PBDEs	P	/	/	P	
		DEHP	/	P	/	P	
		DBP	/	P	/	P	
		BBP	/	P	/	P	
		DIBP	/	P	/	P	
74	Silvery crystal oscillator body	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	P	/	/	P	
		PBDEs	P	/	/	P	
		DEHP	/	P	/	P	
		DBP	/	P	/	P	
		BBP	/	P	/	P	
		DIBP	/	P	/	P	
75	Coppery metal wire core	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	/	/	/	/	
		PBDEs	/	/	/	/	
		DEHP	/	/	/	/	
		DBP	/	/	/	/	
		BBP	/	/	/	/	
		DIBP	/	/	/	/	
76	Green LED body	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	P	/	/	P	
		PBDEs	P	/	/	P	
		DEHP	/	P	/	P	
		DBP	/	P	/	P	
		BBP	/	P	/	P	
		DIBP	/	P	/	P	



No.	COMPONENTS	Item	Results of EDXRF (P/F/D)	Screen results of PHTH	Results of chemical testing (mg/kg)	Conclusion (P/F)	Sample submitted/ Resubmitted date
77	Silvery metal pin	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	/	/	/	/	
		PBDEs	/	/	/	/	
		DEHP	/	/	/	/	
		DBP	/	/	/	/	
		BBP	/	/	/	/	
		DIBP	/	/	/	/	
78	Yellow LED body	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	P	/	/	P	
		PBDEs	P	/	/	P	
		DEHP	/	P	/	P	
		DBP	/	P	/	P	
		BBP	/	P	/	P	
		DIBP	/	P	/	P	
79	Green PCB	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	P	/	/	P	
		PBDEs	P	/	/	P	
		DEHP	/	P	/	P	
		DBP	/	P	/	P	
		BBP	/	P	/	P	
		DIBP	/	P	/	P	
80	Black resistance body	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	P	/	/	P	
		PBDEs	P	/	/	P	
		DEHP	/	P	/	P	
		DBP	/	P	/	P	
		BBP	/	P	/	P	
		DIBP	/	P	/	P	



No.	COMPONENTS	Item	Results of EDXRF (P/F/D)	Screen results of PHTH	Results of chemical testing (mg/kg)	Conclusion (P/F)	Sample submitted/ Resubmitted date
81	Yellow capacitance body	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	P	/	/	P	
		PBDEs	P	/	/	P	
		DEHP	/	P	/	P	
		DBP	/	P	/	P	
		BBP	/	P	/	P	
		DIBP	/	P	/	P	
82	Gray magnet core	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	/	/	/	/	
		PBDEs	/	/	/	/	
		DEHP	/	/	/	/	
		DBP	/	/	/	/	
		BBP	/	/	/	/	
		DIBP	/	/	/	/	
83	Color metal wire core	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	/	/	/	/	
		PBDEs	/	/	/	/	
		DEHP	/	/	/	/	
		DBP	/	/	/	/	
		BBP	/	/	/	/	
		DIBP	/	/	/	/	
84	White colloid	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	P	/	/	P	
		PBDEs	P	/	/	P	
		DEHP	/	P	/	P	
		DBP	/	P	/	P	
		BBP	/	P	/	P	
		DIBP	/	P	/	P	



No.	COMPONENTS	Item	Results of EDXRF (P/F/D)	Screen results of PHTH	Results of chemical testing (mg/kg)	Conclusion (P/F)	Sample submitted/ Resubmitted date
85	Black plastic pedestal	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	D	/	N.D.	P	
		PBDEs	D	/	5	P	
		DEHP	/	P	/	P	
		DBP	/	P	/	P	
		BBP	/	P	/	P	
		DIBP	/	P	/	P	
86	Silvery metal pin	Cd	P	/	/	P	Nov. 13, 2019
		Cr(VI)	P	/	/	P	
		Hg	P	/	/	P	
		Pb	P	/	/	P	
		PBBs	/	/	/	/	
		PBDEs	/	/	/	/	
		DEHP	/	/	/	/	
		DBP	/	/	/	/	
		BBP	/	/	/	/	
		DIBP	/	/	/	/	



Remark:

- (1) It is the result on total Br while test PBBs and PBDEs by EDXRF. It is the result on total Cr while test Hexavalent Chromium by EDXRF.
- (2) Results are obtained by EDXRF for primary screening, and chemical testing by ICP (for Cd, Pb, Hg), UV-VIS (Cr(VI)) and GCMS (for PBBs, PBDEs) is recommended to be performed, if the concentration exceeds the below warning value (unit:mg/kg)

Element	Polymer	Metal	Composite Materials
Cd	$P \leq 70-3\sigma < D < 130+3\sigma \leq F$	$P \leq 70-3\sigma < D < 130+3\sigma \leq F$	$P \leq 50-3\sigma < D < 150+3\sigma \leq F$
Pb	$P \leq 700-3\sigma < D < 1300+3\sigma \leq F$	$P \leq 700-3\sigma < D < 1300+3\sigma \leq F$	$P \leq 500-3\sigma < D < 1500+3\sigma \leq F$
Hg	$P \leq 700-3\sigma < D < 1300+3\sigma \leq F$	$P \leq 700-3\sigma < D < 1300+3\sigma \leq F$	$P \leq 500-3\sigma < D < 1500+3\sigma \leq F$
Br	$P \leq 300-3\sigma < D$	----	$P \leq 250-3\sigma < D$
Cr	$P \leq 700-3\sigma < D$	$P \leq 700-3\sigma < D$	$P \leq 500-3\sigma < D$

P = PASS; F = FAIL; D = DETECTED;

- (3) Screening results of PHTH are for primary screening, and further chemical testing by GC-MS (for DBP, BBP, DEHP and DIBP) are recommended to be performed if the concentration exceeds the below warning value.

TEST ITEM	Screening Limit (Unit: mg/kg)
Di-2-ethylhexyl phthalate(DEHP)	$P \leq 600 < D$
Dibutyl phthalate(DBP)	$P \leq 600 < D$
Benzylbutyl phthalate(BBP)	$P \leq 600 < D$
Diisobutyl phthalate(DIBP)	$P \leq 600 < D$

(4) Chemical test

TEST ITEM	Unit	MDL	Limit
Cd	mg/kg	2	100
Cr(VI)	mg/kg	Polymer and Composite Materials: 8	1000
	$\mu\text{g}/\text{cm}^2$	Metal: 0.10**	----
Hg	mg/kg	2	1000
Pb	mg/kg	2	1000
PBBs	mg/kg	5	1000
PBDEs	mg/kg	5	1000
Di-2-ethylhexyl phthalate(DEHP)	mg/kg	30	1000
Dibutyl phthalate(DBP)	mg/kg	30	1000
Benzylbutyl phthalate(BBP)	mg/kg	30	1000
Diisobutyl phthalate(DIBP)	mg/kg	30	1000

- (5) mg/kg = ppm; N.D. = NOT DETECTED (<MDL); MDL = Method Detection Limit

**= a. The sample is positive for CrVI if the CrVI concentration is greater than $0.13 \mu\text{g}/\text{cm}^2$. The sample coating is considered to contain CrVI

b. The sample is negative for CrVI if CrVI is ND (concentration less than $0.10 \mu\text{g}/\text{cm}^2$). The coating is considered a non-CrVI based coating

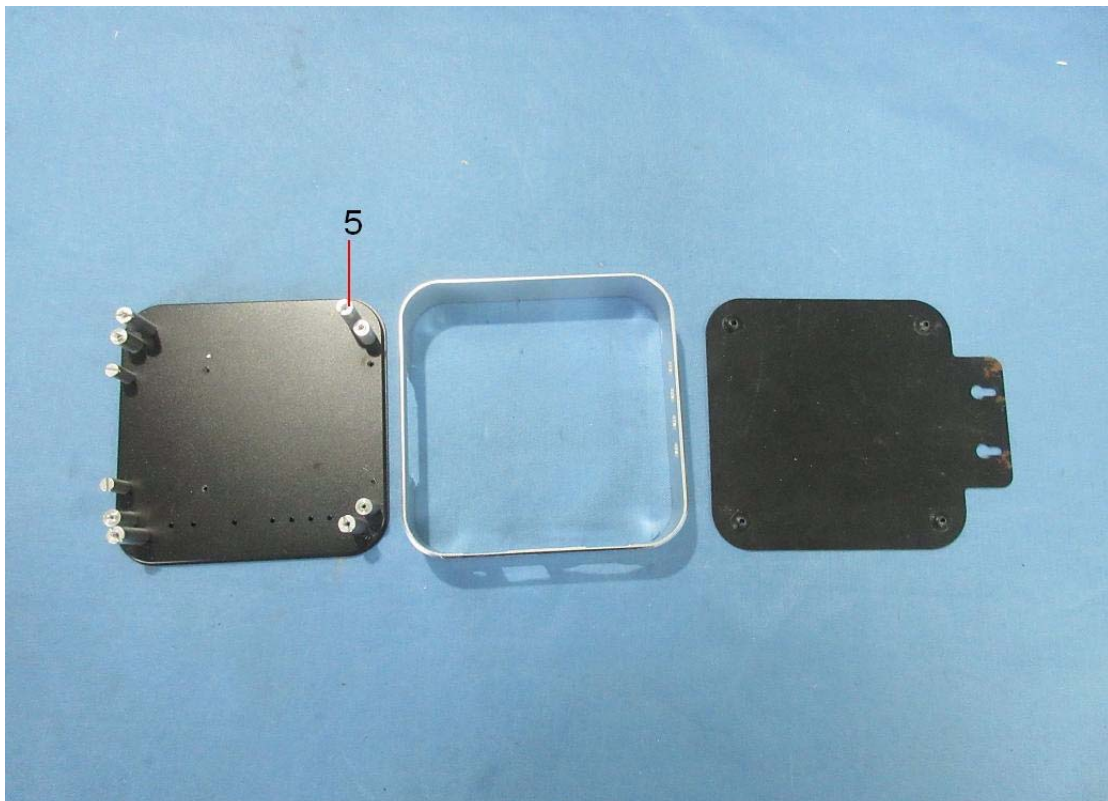
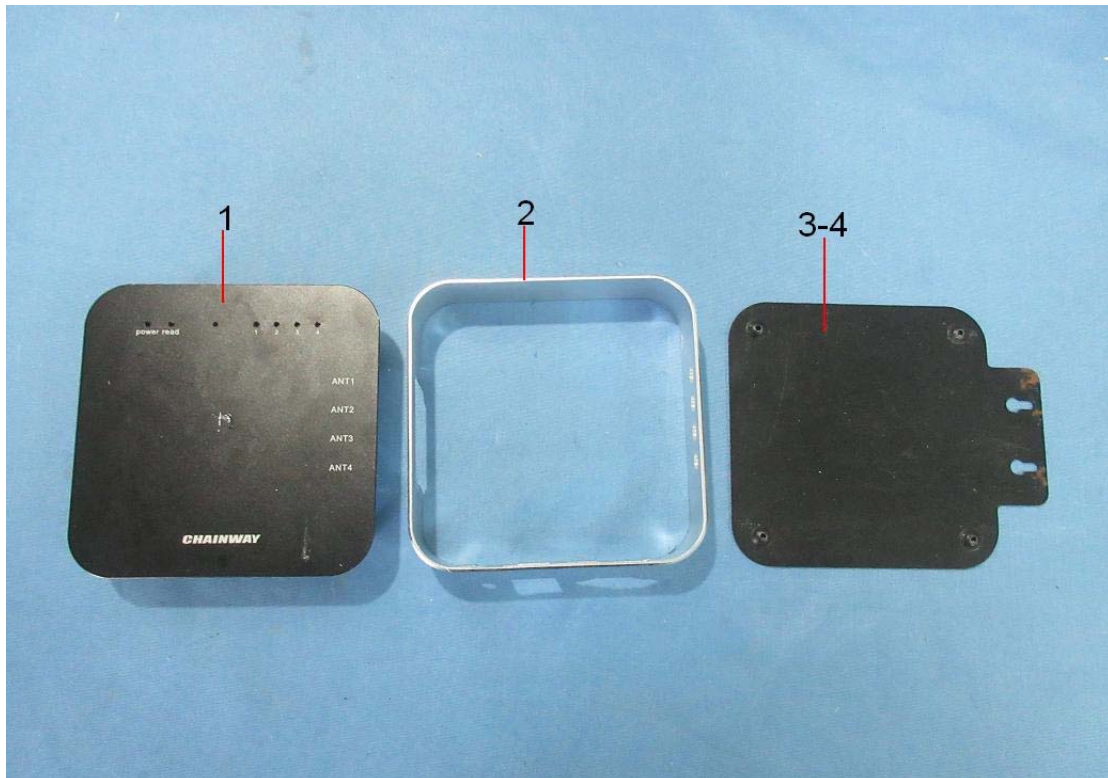
c. The result between $0.10 \mu\text{g}/\text{cm}^2$ and $0.13 \mu\text{g}/\text{cm}^2$ is considered to be inconclusive -unavoidable coating variations may influence the determination

- (6) *According to Annex III of European Council Directive 2011/65/EU, Lead in copper alloy allows containing of up to 4% lead by weight.

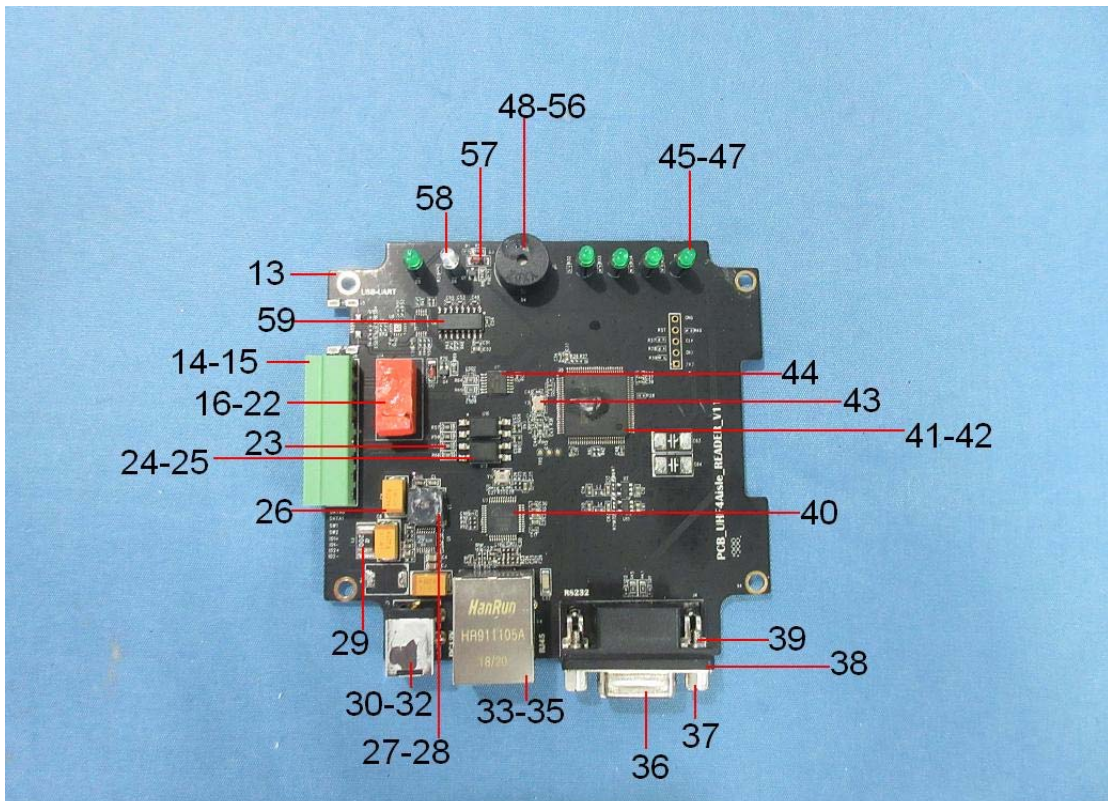
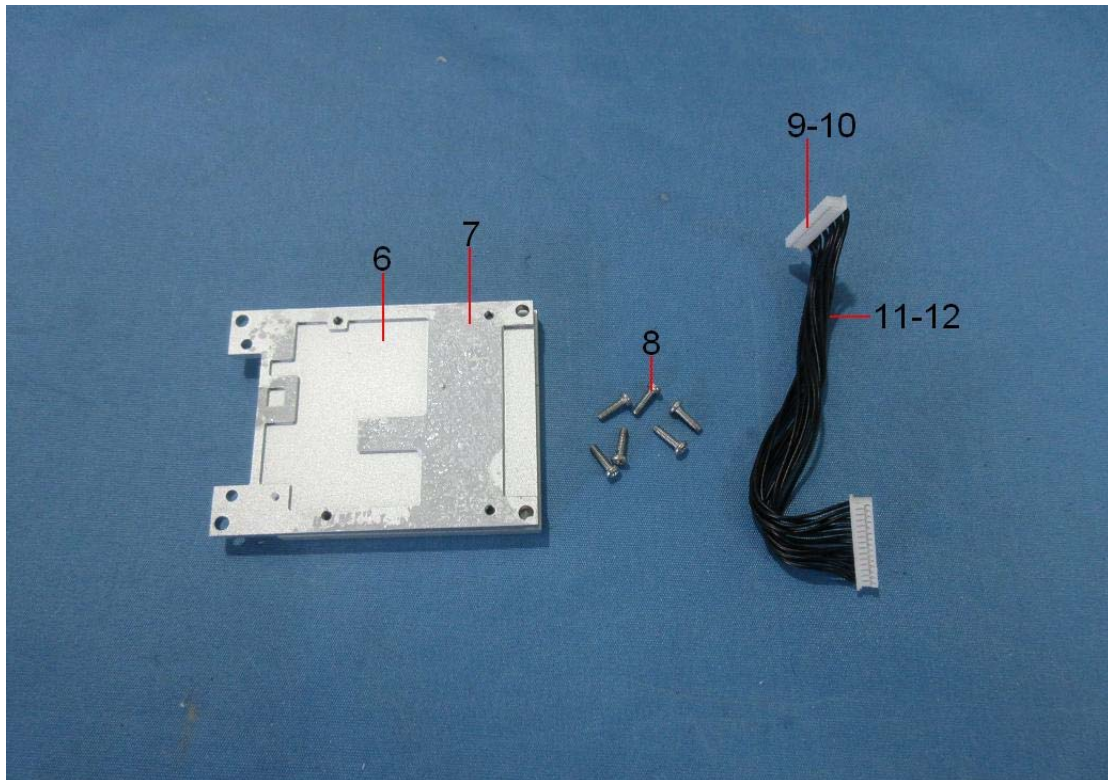
Sample photo

19-17681

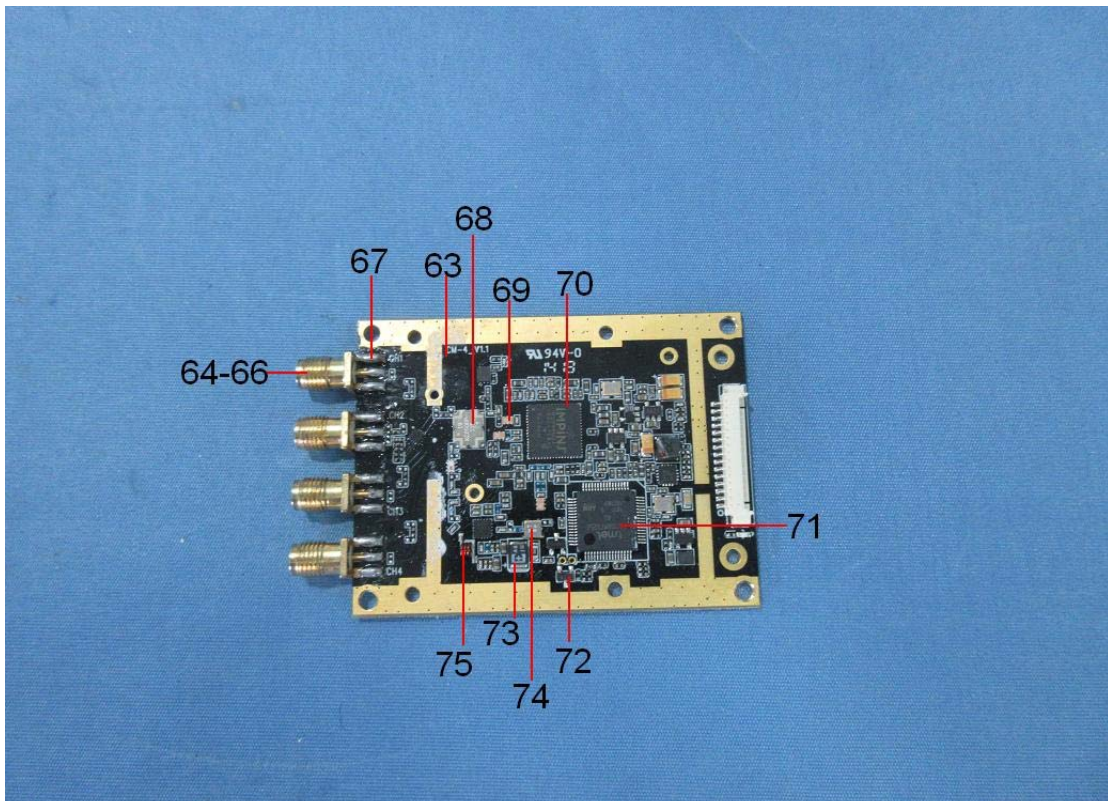
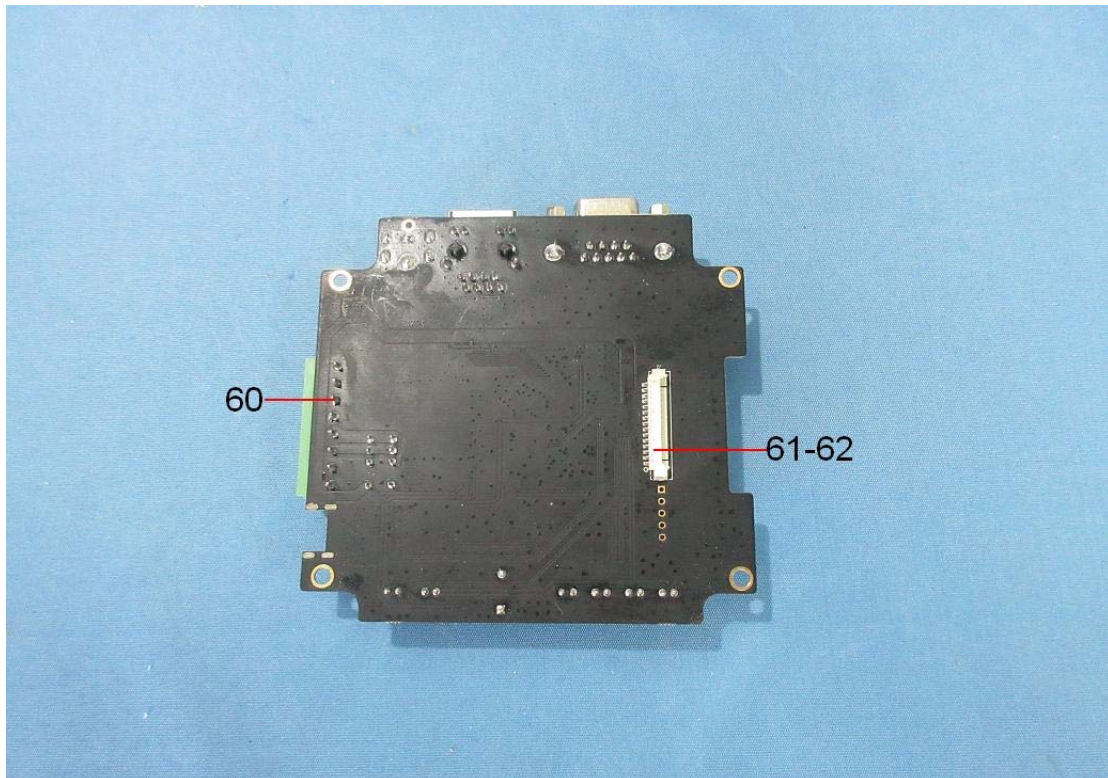
Detailed Split Chart



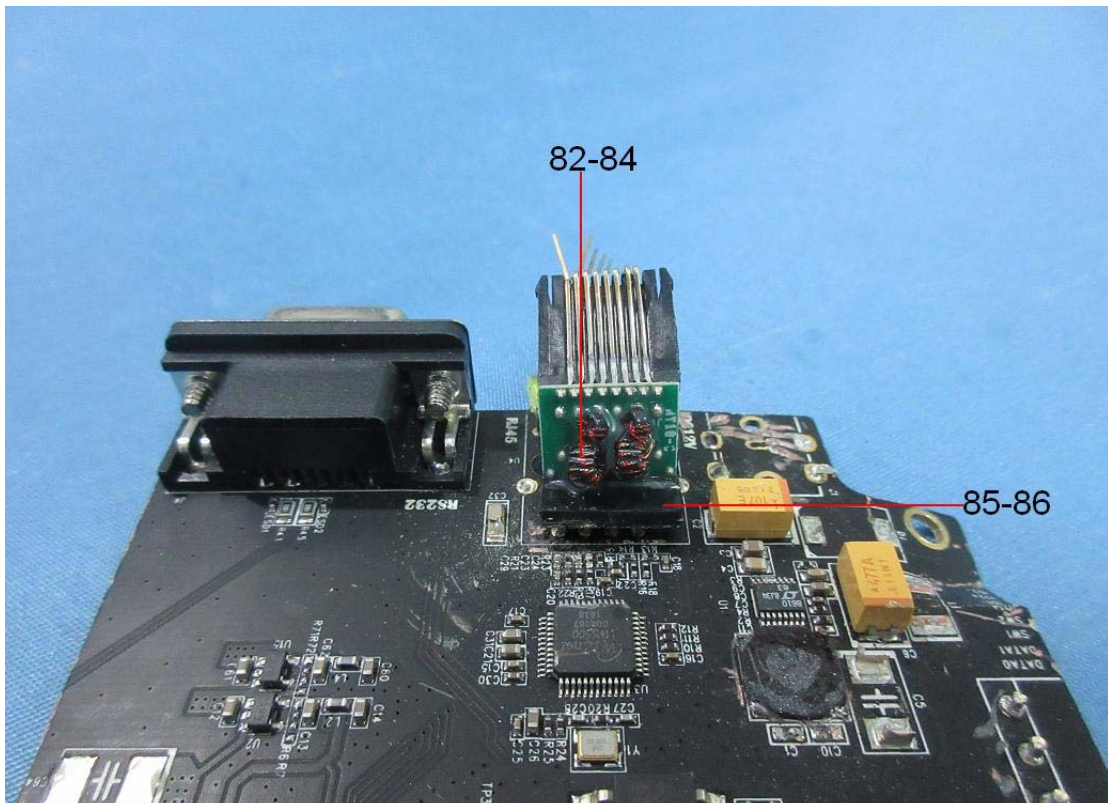
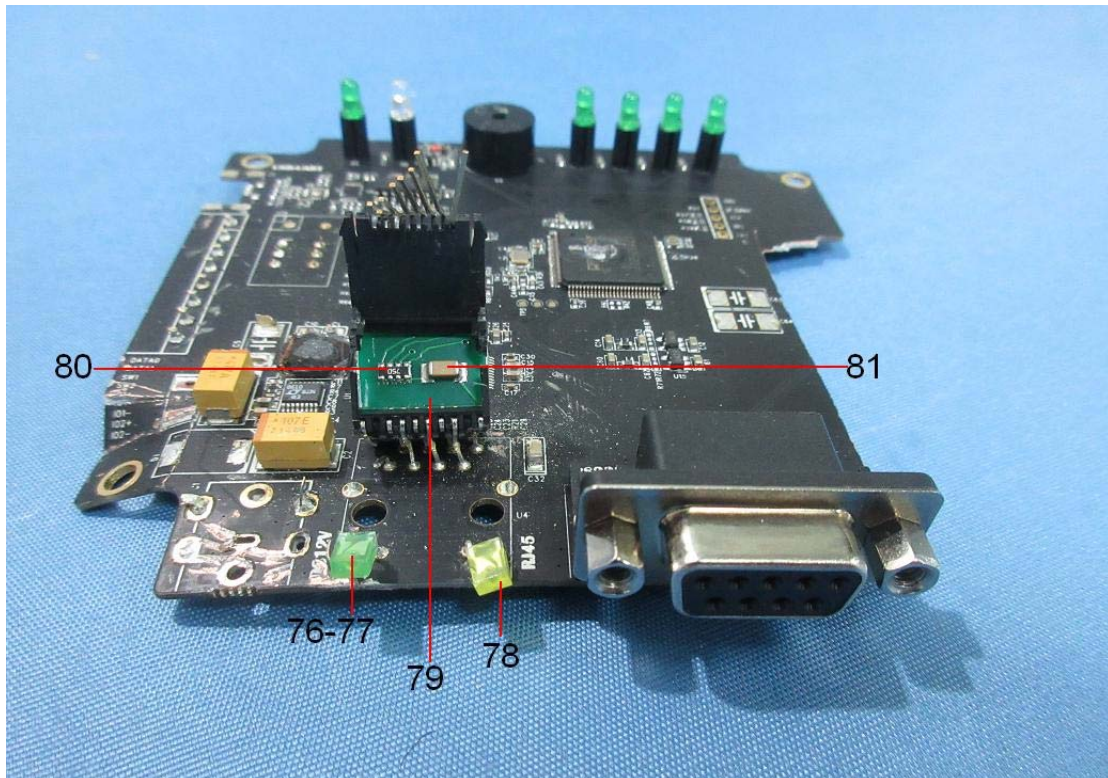
Detailed Split Chart



Detailed Split Chart



Detailed Split Chart



***** END OF REPORT *****



STATEMENT

1. The test report is invalid without stamp of laboratory.
2. The test report is invalid without signature of person(s) testing and authorizing.
3. The test report is invalid if erased and corrected.
4. Test results of the report is valid to the test samples if sampling by client.
5. “☆” item to be outside the scope of authorized by CNAS.
6. “☆” item to be outside the scope of CMA, the test method、data and results are available for reference.
7. The test report shall not be reproduced except in full, without written approval of the laboratory.
8. If there is any objection to report, the client should inform issuing laboratory within 15 days from the date of receiving test report.