



RoHS TEST REPORT

For

LED BULB

Model No.: VT-2022, VT-2011, VT-2016, VT-2109, VT-2129, VT-2119, VT-2122, VT-2149

Applicant : V-TAC EXPORTS LIMITED
ROOM NO.301, KAM ON BUILDING 176A QUEENS ROAD CENTRAL,
CENTRAL, HONGKONG

Manufacturer : V-TAC EXPORTS LIMITED
ROOM NO.301, KAM ON BUILDING 176A QUEENS ROAD CENTRAL,
CENTRAL, HONGKONG

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Report Number : J02.06.0184R

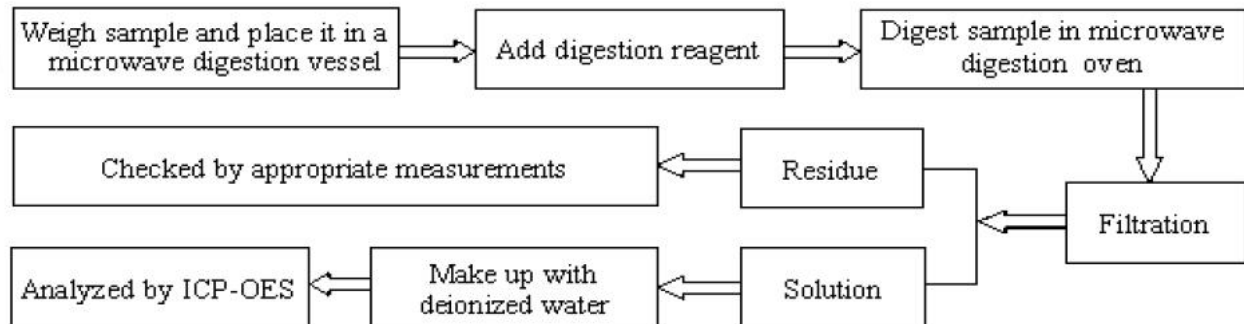
Issued Date : July 11, 2017

Date of Report : July 11, 2017

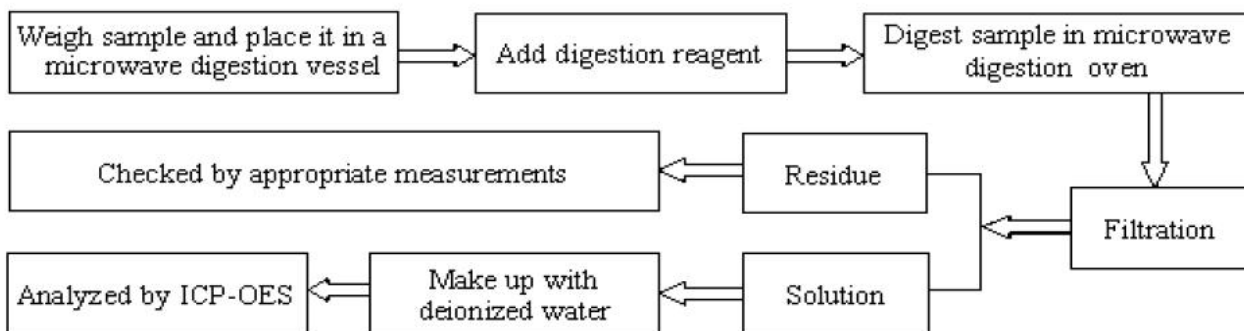
Note:

1. The test data and result is based on the tested sample only.
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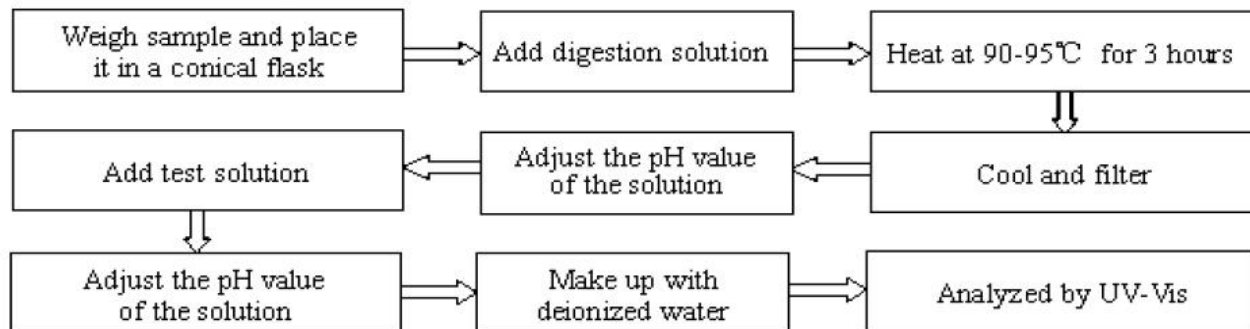
1. Lead(Pb), Cadmium(Cd)



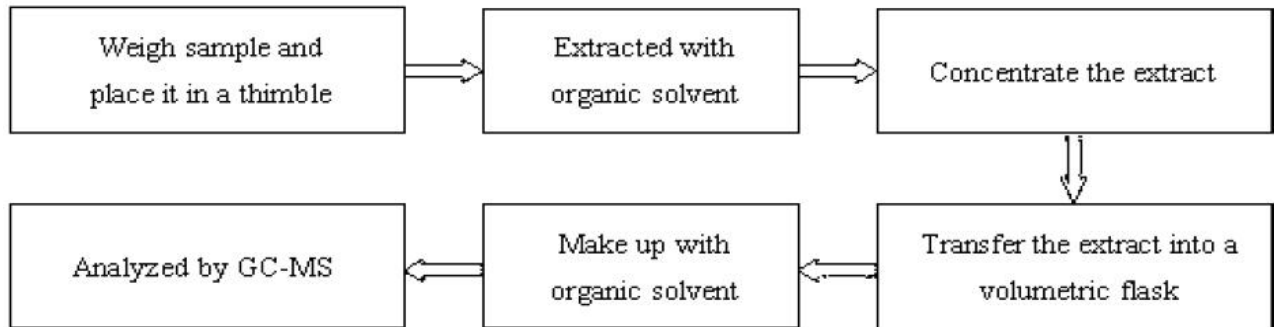
2. Mercury(Hg)



3. Hexavalent Chromium (Cr(VI))



**4. Polybrominated Biphenyls (PBBs), Polybrominated Diphenyl Ethers(PBDEs) ,
HBCDD, DBP, DEHP, BBP**



Method Detection Limit (MDL) in wet chemical test

Test Items	Pb	Cd	Hg	PBBs & PBDEs
Unit	mg/kg	mg/kg	mg/kg	mg/kg
MDL	2	2	2	2

Result	:	Pass
Conclusion	:	An independent evaluation on the above-mentioned product(s) has been conducted pursuant to 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment, and concluded that the equipment under evaluation met the legislative requirements of this directive.

Reviewed by

APPROVED
 Tim Sun
 Manager
 July 11, 2017

Test Data Summary

SAMPLE NO.	COMPONENTS	Item	Results of EDXRF (P/F/D)	Results of testing(mg/kg)	Chemical testing limit (mg/kg)	Conclusion (P/F)
1	Lamp cap	Cd	P	N.D.	<100	P
		Cr	P	N.D.	<1000	P
		Hg	P	N.D.	<1000	P
		Pb	P	N.D.	<1000	P
		PBBs	D	N.D.	<1000	P
		PBDEs	D	N.D.	<1000	P
		HBCDD	D	N.D.	<1000	P
		DEHP	D	N.D.	<1000	P
		DBP	D	N.D.	<1000	P
		BBP	D	N.D.	<1000	P
2	Insulation plastic of lamp cap	Cd	P	/	<100	N.A.
		Cr	P	/	<1000	N.A.
		Hg	P	/	<1000	N.A.
		Pb	P	/	<1000	N.A.
		PBBs	D	N.D.	<1000	P
		PBDEs	D	N.D.	<1000	P
		HBCDD	D	N.D.	<1000	P
		DEHP	D	N.D.	<1000	P
		DBP	D	N.D.	<1000	P
		BBP	D	N.D.	<1000	P
3	Plastic enclosure	Cd	P	/	<100	N.A.
		Cr	P	/	<1000	N.A.
		Hg	P	/	<1000	N.A.
		Pb	P	/	<1000	N.A.
		PBBs	D	N.D.	<1000	P
		PBDEs	D	N.D.	<1000	P
		HBCDD	D	N.D.	<1000	P
		DEHP	D	N.D.	<1000	P
		DBP	D	N.D.	<1000	P
		BBP	D	N.D.	<1000	P
4	LED lampshade	Cd	P	/	<100	N.A.
		Cr	P	/	<1000	N.A.
		Hg	P	/	<1000	N.A.
		Pb	P	/	<1000	N.A.
		PBBs	D	N.D.	<1000	P
		PBDEs	D	N.D.	<1000	P
		HBCDD	D	N.D.	<1000	P
		DEHP	D	N.D.	<1000	P
		DBP	D	N.D.	<1000	P
		BBP	D	N.D.	<1000	P

SAMPLE NO.	COMPONENTS	Item	Results of EDXRF (P/F/D)	Results of testing(mg/kg)	Chemical testing limit (mg/kg)	Conclusion (P/F)
5	Metal enclosure	Cd	P	N.D.	<100	P
		Cr	P	N.D.	<1000	P
		Hg	P	N.D.	<1000	P
		Pb	P	N.D.	<1000	P
		PBBs	D	/	<100	N.A.
		PBDEs	D	/	<100	N.A.
		HBCDD	D	/	<100	N.A.
		DEHP	D	/	<100	N.A.
		DBP	D	/	<100	N.A.
		BBP	D	/	<100	N.A.
6	PCB of LED driver	Cd	P	N.D.	<100	P
		Cr	P	N.D.	<1000	P
		Hg	P	N.D.	<1000	P
		Pb	P	N.D.	<1000	P
		PBBs	D	N.D.	<1000	P
		PBDEs	D	N.D.	<1000	P
		HBCDD	D	N.D.	<1000	P
		DEHP	D	N.D.	<1000	P
		DBP	D	N.D.	<1000	P
		BBP	D	N.D.	<1000	P
7	Resistors	Cd	P	N.D.	<100	P
		Cr	P	N.D.	<1000	P
		Hg	P	N.D.	<1000	P
		Pb	P	N.D.	<1000	P
		PBBs	D	N.D.	<1000	P
		PBDEs	D	N.D.	<1000	P
		HBCDD	D	N.D.	<1000	P
		DEHP	D	N.D.	<1000	P
		DBP	D	N.D.	<1000	P
		BBP	D	N.D.	<1000	P
8	Internal wire	Cd	P	N.D.	<100	P
		Cr	P	N.D.	<1000	P
		Hg	P	N.D.	<1000	P
		Pb	P	N.D.	<1000	P
		PBBs	D	N.D.	<1000	P
		PBDEs	D	N.D.	<1000	P
		HBCDD	D	N.D.	<1000	P
		DEHP	D	N.D.	<1000	P
		DBP	D	N.D.	<1000	P
		BBP	D	N.D.	<1000	P

SAMP LE NO.	COMPONENTS	Item	Results of EDXRF (P/F/D)	Results of testing(mg/kg)	Chemical testing limit (mg/kg)	Conclusio n (P/F)
9	Rectifier	Cd	P	N.D.	<100	P
		Cr	P	N.D.	<1000	P
		Hg	P	N.D.	<1000	P
		Pb	P	N.D.	<1000	P
		PBBs	D	N.D.	<1000	P
		PBDEs	D	N.D.	<1000	P
		HBCDD	D	N.D.	<1000	P
		DEHP	D	N.D.	<1000	P
		DBP	D	N.D.	<1000	P
BBP	D	N.D.	<1000	P		
10	Glue	Cd	P	/	<100	N.A.
		Cr	P	/	<1000	N.A.
		Hg	P	/	<1000	N.A.
		Pb	P	/	<1000	N.A.
		PBBs	D	N.D.	<1000	P
		PBDEs	D	N.D.	<1000	P
		HBCDD	D	N.D.	<1000	P
		DEHP	D	N.D.	<1000	P
		DBP	D	N.D.	<1000	P
BBP	D	N.D.	<1000	P		
11	Diodes	Cd	P	N.D.	<100	P
		Cr	P	N.D.	<1000	P
		Hg	P	N.D.	<1000	P
		Pb	P	N.D.	<1000	P
		PBBs	D	N.D.	<1000	P
		PBDEs	D	N.D.	<1000	P
		HBCDD	D	N.D.	<1000	P
		DEHP	D	N.D.	<1000	P
		DBP	D	N.D.	<1000	P
BBP	D	N.D.	<1000	P		
12	IC	Cd	P	N.D.	<100	P
		Cr	P	N.D.	<1000	P
		Hg	P	N.D.	<1000	P
		Pb	P	N.D.	<1000	P
		PBBs	D	N.D.	<1000	P
		PBDEs	D	N.D.	<1000	P
		HBCDD	D	N.D.	<1000	P
		DEHP	D	N.D.	<1000	P
		DBP	D	N.D.	<1000	P
BBP	D	N.D.	<1000	P		

SAMP LE NO.	COMPONENTS	Item	Results of EDXRF (P/F/D)	Results of testing(mg/kg)	Chemical testing limit (mg/kg)	Conclusio n (P/F)
13	Capacitors	Cd	P	N.D.	<100	P
		Cr	P	N.D.	<1000	P
		Hg	P	N.D.	<1000	P
		Pb	P	N.D.	<1000	P
		PBBs	D	N.D.	<1000	P
		PBDEs	D	N.D.	<1000	P
		HBCDD	D	N.D.	<1000	P
		DEHP	D	N.D.	<1000	P
		DBP	D	N.D.	<1000	P
BBP	D	N.D.	<1000	P		
14	Triode	Cd	P	N.D.	<100	P
		Cr	P	N.D.	<1000	P
		Hg	P	N.D.	<1000	P
		Pb	P	N.D.	<1000	P
		PBBs	D	N.D.	<1000	P
		PBDEs	D	N.D.	<1000	P
		HBCDD	D	N.D.	<1000	P
		DEHP	D	N.D.	<1000	P
		DBP	D	N.D.	<1000	P
BBP	D	N.D.	<1000	P		
15	Transformer	Cd	P	N.D.	<100	P
		Cr	P	N.D.	<1000	P
		Hg	P	N.D.	<1000	P
		Pb	P	N.D.	<1000	P
		PBBs	D	N.D.	<1000	P
		PBDEs	D	N.D.	<1000	P
		HBCDD	D	N.D.	<1000	P
		DEHP	D	N.D.	<1000	P
		DBP	D	N.D.	<1000	P
BBP	D	N.D.	<1000	P		
16	Inductance	Cd	P	N.D.	<100	P
		Cr	P	N.D.	<1000	P
		Hg	P	N.D.	<1000	P
		Pb	P	N.D.	<1000	P
		PBBs	D	N.D.	<1000	P
		PBDEs	D	N.D.	<1000	P
		HBCDD	D	N.D.	<1000	P
		DEHP	D	N.D.	<1000	P
		DBP	D	N.D.	<1000	P
BBP	D	N.D.	<1000	P		

SAMP LE NO.	COMPONENTS	Item	Results of EDXRF (P/F/D)	Results of testing(mg/kg)	Chemical testing limit (mg/kg)	Conclusio n (P/F)
17	Acceptor	Cd	P	N.D.	<100	P
		Cr	P	N.D.	<1000	P
		Hg	P	N.D.	<1000	P
		Pb	P	N.D.	<1000	P
		PBBs	D	N.D.	<1000	P
		PBDEs	D	N.D.	<1000	P
		HBCDD	D	N.D.	<1000	P
		DEHP	D	N.D.	<1000	P
		DBP	D	N.D.	<1000	P
BBP	D	N.D.	<1000	P		
18	Tube	Cd	P	/	<100	N.A.
		Cr	P	/	<1000	N.A.
		Hg	P	/	<1000	N.A.
		Pb	P	/	<1000	N.A.
		PBBs	D	N.D.	<1000	P
		PBDEs	D	N.D.	<1000	P
		HBCDD	D	N.D.	<1000	P
		DEHP	D	N.D.	<1000	P
		DBP	D	N.D.	<1000	P
BBP	D	N.D.	<1000	P		
19	Fuse	Cd	P	N.D.	<100	P
		Cr	P	N.D.	<1000	P
		Hg	P	N.D.	<1000	P
		Pb	P	N.D.	<1000	P
		PBBs	D	/	<1000	N.A.
		PBDEs	D	/	<1000	N.A.
		HBCDD	D	/	<1000	N.A.
		DEHP	D	/	<1000	N.A.
		DBP	D	/	<1000	N.A.
BBP	D	/	<1000	N.A.		
20	Heat Shrinkable Tube	Cd	P	/	<100	N.A.
		Cr	P	/	<1000	N.A.
		Hg	P	/	<1000	N.A.
		Pb	P	/	<1000	N.A.
		PBBs	D	N.D.	<1000	P
		PBDEs	D	N.D.	<1000	P
		HBCDD	D	N.D.	<1000	P
		DEHP	D	N.D.	<1000	P
		DBP	D	N.D.	<1000	P
BBP	D	N.D.	<1000	P		

SAMP LE NO.	COMPONENTS	Item	Results of EDXRF (P/F/D)	Results of testing(mg/kg)	Chemical testing limit (mg/kg)	Conclusio n (P/F)
21	LED PCB	Cd	P	N.D.	<100	P
		Cr	P	N.D.	<1000	P
		Hg	P	N.D.	<1000	P
		Pb	P	N.D.	<1000	P
		PBBs	D	N.D.	<1000	P
		PBDEs	D	N.D.	<1000	P
		HBCDD	D	N.D.	<1000	P
		DEHP	D	N.D.	<1000	P
		DBP	D	N.D.	<1000	P
22	LED lamp	Cd	P	N.D.	<100	P
		Cr	P	N.D.	<1000	P
		Hg	P	N.D.	<1000	P
		Pb	P	N.D.	<1000	P
		PBBs	D	N.D.	<1000	P
		PBDEs	D	N.D.	<1000	P
		HBCDD	D	N.D.	<1000	P
		DEHP	D	N.D.	<1000	P
		DBP	D	N.D.	<1000	P
23	Connector	Cd	P	N.D.	<100	P
		Cr	P	N.D.	<1000	P
		Hg	P	N.D.	<1000	P
		Pb	P	N.D.	<1000	P
		PBBs	D	N.D.	<1000	P
		PBDEs	D	N.D.	<1000	P
		HBCDD	D	N.D.	<1000	P
		DEHP	D	N.D.	<1000	P
		DBP	D	N.D.	<1000	P
24	Varnish	Cd	P	/	<100	N.A.
		Cr	P	/	<1000	N.A.
		Hg	P	/	<1000	N.A.
		Pb	P	/	<1000	N.A.
		PBBs	D	N.D.	<1000	P
		PBDEs	D	N.D.	<1000	P
		HBCDD	D	N.D.	<1000	P
		DEHP	D	N.D.	<1000	P
		DBP	D	N.D.	<1000	P
BBP	D	N.D.	<1000	P		

SAMP LE NO.	COMPONENTS	Item	Results of EDXRF (P/F/D)	Results of testing(mg/kg)	Chemical testing limit (mg/kg)	Conclusio n (P/F)
25	Remote control	Cd	P	N.D.	<100	P
		Cr	P	N.D.	<1000	P
		Hg	P	N.D.	<1000	P
		Pb	P	N.D.	<1000	P
		PBBs	D	N.D.	<1000	P
		PBDEs	D	N.D.	<1000	P
		HBCDD	D	N.D.	<1000	P
		DEHP	D	N.D.	<1000	P
		DBP	D	N.D.	<1000	P
BBP	D	N.D.	<1000	P		
26	Soldering tin	Cd	P	N.D.	<100	P
		Cr	P	N.D.	<1000	P
		Hg	P	N.D.	<1000	P
		Pb	P	N.D.	<1000	P
		PBBs	D	/	<1000	NA
		PBDEs	D	/	<1000	NA
		HBCDD	D	/	<1000	NA
		DEHP	D	/	<1000	NA
		DBP	D	/	<1000	NA
BBP	D	/	<1000	NA		

Note:

(1) N.D. = Not detected (<MDL)

(2) ppm = mg/kg

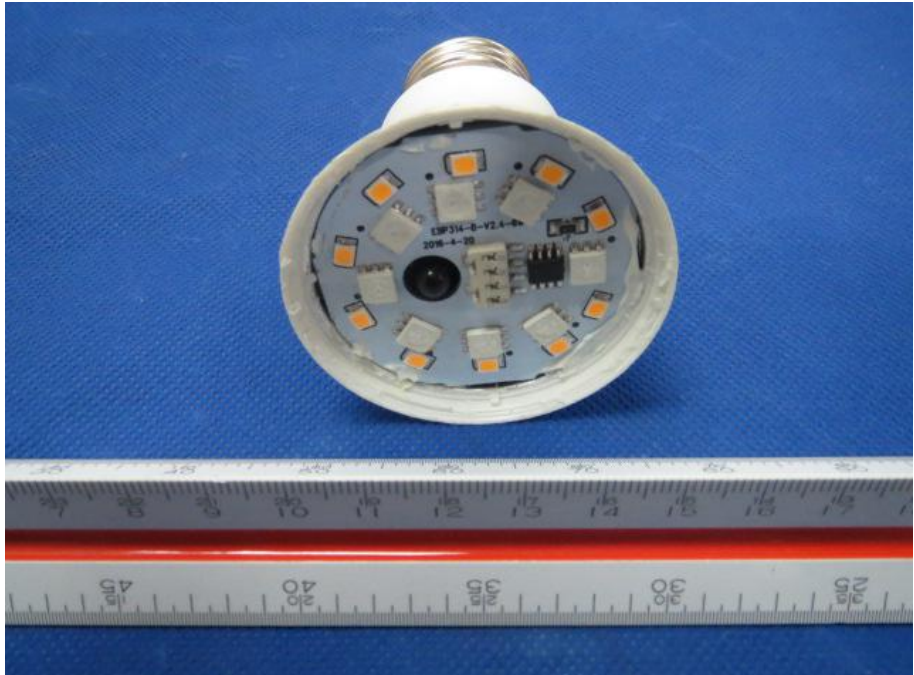
(3) N.A. = Not Analyzed

(4) Negative = the concentration of Hexavalent Chromium extracted from 50cm² sample is less than the detection limit.

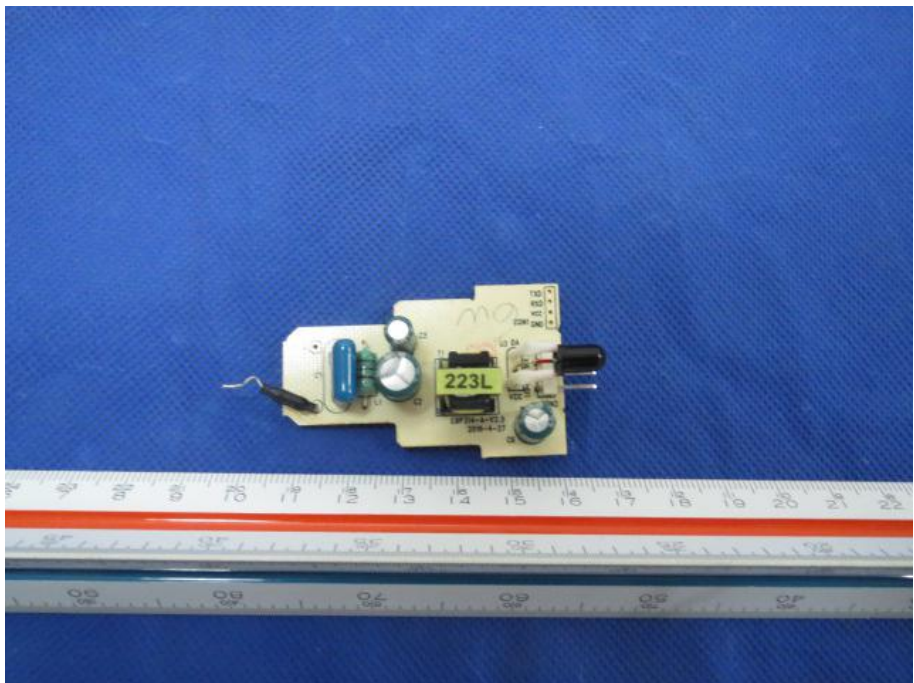
Appendix 1

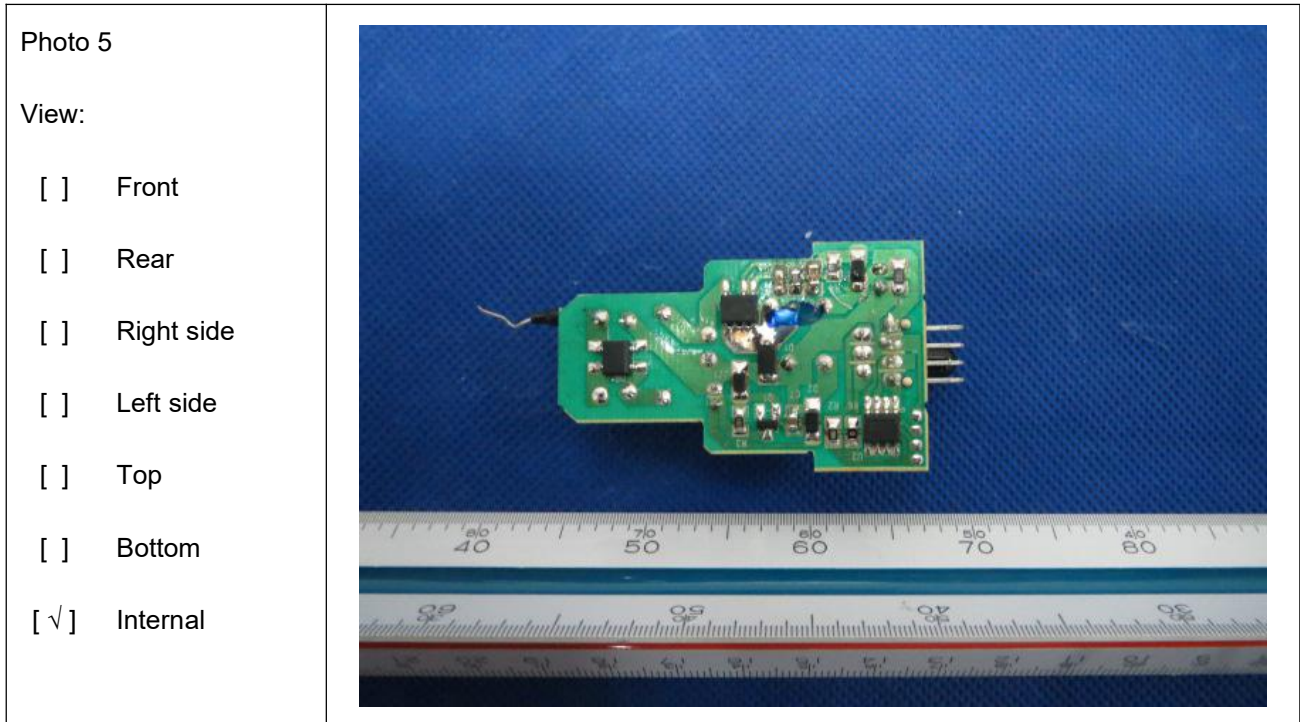
Photo documentation

<p>Photo 1</p> <p>View:</p> <p><input checked="" type="checkbox"/> Front</p> <p><input type="checkbox"/> Rear</p> <p><input type="checkbox"/> Right side</p> <p><input type="checkbox"/> Left side</p> <p><input type="checkbox"/> Top</p> <p><input type="checkbox"/> Bottom</p> <p><input type="checkbox"/> Internal</p>	
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<p>Photo 2</p> <p>View:</p> <p><input type="checkbox"/> Front</p> <p><input type="checkbox"/> Rear</p> <p><input type="checkbox"/> Right side</p> <p><input type="checkbox"/> Left side</p> <p><input type="checkbox"/> Top</p> <p><input type="checkbox"/> Bottom</p> <p><input checked="" type="checkbox"/> Internal</p>	
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<p>Photo 3</p> <p>View:</p> <p><input type="checkbox"/> Front</p> <p><input type="checkbox"/> Rear</p> <p><input type="checkbox"/> Right side</p> <p><input type="checkbox"/> Left side</p> <p><input type="checkbox"/> Top</p> <p><input type="checkbox"/> Bottom</p> <p><input checked="" type="checkbox"/> Internal</p>	
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<p>Photo 4</p> <p>View:</p> <p><input type="checkbox"/> Front</p> <p><input type="checkbox"/> Rear</p> <p><input type="checkbox"/> Right side</p> <p><input type="checkbox"/> Left side</p> <p><input type="checkbox"/> Top</p> <p><input type="checkbox"/> Bottom</p> <p><input checked="" type="checkbox"/> Internal</p>	
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--END--