

Test Report

Report No.: SHR10062181151009

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Applicant :Zhejiang Rectron Electronic Co.,Ltd

Address :28# Lizheng Road, Jiashan Economic Development Zone Zhejiang, P.R.China

Report on the submitted sample(s) said to be:

Sample information :Please see the following page

Make use of the following package material :SMA(L) / SMB(L) /SMC(L) / SMX / SlimPAQ (P) / SOD123 / SOD123F(L) / MELF / MINI MELF / R1 / A405 / DO41 / DO15 / R3 / R6 / R7 / 1.5KE / DO201 / DO204 / HVM / HVP / DBS / DB / DBLS / SLDBS / MDS / MD / BDB / RS1 / RS2(L) / RS4L / RS6 / RS8 / RB15 / WOM / RC2 / BR3 / BR6 / BR8 / BR10 / BR15(W)-25(W)-35(W) / MB15(W)-25(W)-35(W) / MP15(W)-25(W)-35(W) / RS1M-2M-4M-6M-8M-10M-15M-20M-25M-35M / RBU4M-6M-8M-10M-15M / (I)TO220A / (I)TO220 / DPAK / D2PAK / TO247 / SOT23 /

Buyer :SONY

Supplier :Rectron Ltd

Manufacturer :Rectron Ltd

Sample Received Date :Jun.21,2010

Testing Period :Jun.21,2010 to Jun.25,2010

Test Requested :To determine the Lead(Pb), Cadmium(Cd), Mercury(Hg), Hexavalent Chromium (Cr(VI)), Polybrominated Biphenyls (PBBs), Polybrominated Diphenyl Ethers (PBDEs), Fluorine (F), Chlorine (Cl), Bromine (Br), Iodine (I), Perfluorooctanoic Acid (PFOA), Perfluorooctane Sulfonates(PFOS),Tetrabromobisphenol-A (TBBP-A) , Seven Phthalates contents in the submitted sample according to the request of client.

Test Method: Please refer to following pages.

Test Result(s): Please refer to following pages.

Tested by



Approved by

Technical Manager

Inspected by

Zhong Yijun

Date

Jun.25,2010

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Sample information

No.	Sample name	Part No.	Sample Description	Material
1	Lead Wire	-	Copper-colored metal	Cu
2	Solder Wafer	-	Silver-grey metal	Pb、 Sn、 Ag
3	Dice Wafer	-	Chip	Si
4	黑胶(有卤素)	EME-1200	Grey solid	Epoxy
5	Silicon Rubber	-	White silicone rubber	Si
6	Uv Ink	-	Grey ink	Ink
7	Plating	-	Silvery metal	Tin

Test Method:

Tested Item	Pretreatment Method	Measured Equipment	M.D.L.
Lead (Pb)	IEC 62321:2008 Ed.1 Sec.9	ICP-OES	2 mg/kg
	IEC 62321:2008 Ed.1 Sec.10		
Mercury (Hg)	IEC 62321:2008 Ed.1 Sec.7	ICP-OES	2mg/kg
Hexavalent Chromium (Cr(VI))	IEC 62321:2008 Ed.1 Annex B	UV-Vis	/
	IEC 62321:2008 Ed.1 Annex C		2mg/kg
Polybrominated Biphenyls (PBBs)	IEC 62321:2008 Ed.1 Annex A	GC-MS	5mg/kg
Polybrominated Diphenyl Ethers (PBDEs)	IEC 62321:2008 Ed.1 Annex A	GC-MS	5mg/kg
Fluorine (F)	Refer to BS EN 14582:2007	IC	10mg/kg
Chlorine (Cl)	Refer to BS EN 14582:2007	IC	10mg/kg
Bromine (Br)	Refer to BS EN 14582:2007	IC	10mg/kg
Iodine (I)	Refer to BS EN 14582:2007	IC	10mg/kg
Perfluorooctanoic Acid (PFOA)	Refer to US EPA 3550C	LC-MS-MS	5mg/kg
Perfluorooctane Sulfonates (PFOS)	Refer to US EPA 3550C	LC-MS-MS	5mg/kg
Tetrabromobisphenol-A (TBBP-A)	Refer to DIN53313	GC-MS	5mg/kg
Phthalates	Refer to ASTM D3421:1975	GC-MS	50mg/kg

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Test Result:

Tested Item	Content(mg/kg)						
	1	2	3	4	5	6	7
Lead (Pb)	N.D.	9.21×10 ⁵	N.D.	14	N.D.	N.D.	78
Cadmium (Cd)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Mercury (Hg)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Hexavalent Chromium (Cr(VI))	Negative	Negative	N.D.	N.D.	N.D.	N.D.	Negative

Tested Item	Content(mg/kg)						
	1	2	3	4	5	6	7
Polybrominated Biphenyls(PBBs)							
Monobromobiphenyl	/	/	/	N.D.	N.D.	N.D.	/
Dibromobiphenyl	/	/	/	N.D.	N.D.	N.D.	/
Tribromobiphenyl	/	/	/	N.D.	N.D.	N.D.	/
Tetrabromobiphenyl	/	/	/	N.D.	N.D.	N.D.	/
Pentabromobiphenyl	/	/	/	N.D.	N.D.	N.D.	/
Hexabromobiphenyl	/	/	/	N.D.	N.D.	N.D.	/
Heptabromobiphenyl	/	/	/	N.D.	N.D.	N.D.	/
Octabromobiphenyl	/	/	/	N.D.	N.D.	N.D.	/
Nonabromobiphenyl	/	/	/	N.D.	N.D.	N.D.	/
Decabromobiphenyl	/	/	/	N.D.	N.D.	N.D.	/
Polybrominated Diphenyl Ethers(PBDEs)							
Monobromodiphenyl ether	/	/	/	N.D.	N.D.	N.D.	/
Dibromodiphenyl ether	/	/	/	N.D.	N.D.	N.D.	/
Tribromodiphenyl ether	/	/	/	N.D.	N.D.	N.D.	/
Tetrabromodiphenyl ether	/	/	/	N.D.	N.D.	N.D.	/
Pentabromodiphenyl ether	/	/	/	N.D.	N.D.	N.D.	/
Hexabromodiphenyl ether	/	/	/	N.D.	N.D.	N.D.	/
Heptabromodiphenyl ether	/	/	/	N.D.	N.D.	N.D.	/
Octabromodiphenyl ether	/	/	/	N.D.	N.D.	N.D.	/
Nonabromodiphenyl ether	/	/	/	N.D.	N.D.	N.D.	/
Decabromodiphenyl ether	/	/	/	N.D.	N.D.	N.D.	/

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Tested Item	Content(mg/kg)						
	1	2	3	4	5	6	7
Halogen							
Fluorine (F)	/	/	/	N.D.	/	/	/
Chlorine (Cl)	/	/	/	167	/	/	/
Bromine (Br)	/	/	/	8175	/	/	/
Iodine (I)	/	/	/	N.D.	/	/	/

Tested Item	Content(mg/kg)						
	1	2	3	4	5	6	7
Perfluorooctanoic Acid (PFOA)	/	/	/	N.D.	N.D.	/	/
Perfluorooctane Sulfonates(PFOS)	/	/	/	N.D.	N.D.	/	/
Tetrabromobisphenol-A (TBBP-A)	/	/	/	N.D.	N.D.	N.D.	/

Tested Item	Content(mg/kg)						
	1	2	3	4	5	6	7
Phthalates							
Dibutyl phthalate (DBP)	/	/	/	N.D.	N.D.	/	/
Benzylbutyl phthalate (BBP)	/	/	/	N.D.	N.D.	/	/
Di-2-ethylhexyl phthalate (DEHP)	/	/	/	N.D.	N.D.	/	/
Diisononyl phthalate (DINP)	/	/	/	N.D.	N.D.	/	/
Di-n-octyl phthalate (DNOP)	/	/	/	N.D.	N.D.	/	/
Diisodecyl phthalate (DIDP)	/	/	/	N.D.	N.D.	/	/
Di-n-hexyl phthalate (DNHP)	/	/	/	N.D.	N.D.	/	/

Note: The sample had been dissolved totally tested for Lead, Cadmium, and Mercury.

-M.D.L. = Method Detection Limit

-N.D. = Not Detected (<M.D.L.)

-mg/kg= ppm =parts per million.

-Negative = Absence of Cr (VI). The Cr (VI) concentration detected in the boiling water extraction solution is less than 0.02 mg/kg with 50cm² sample surface area used.

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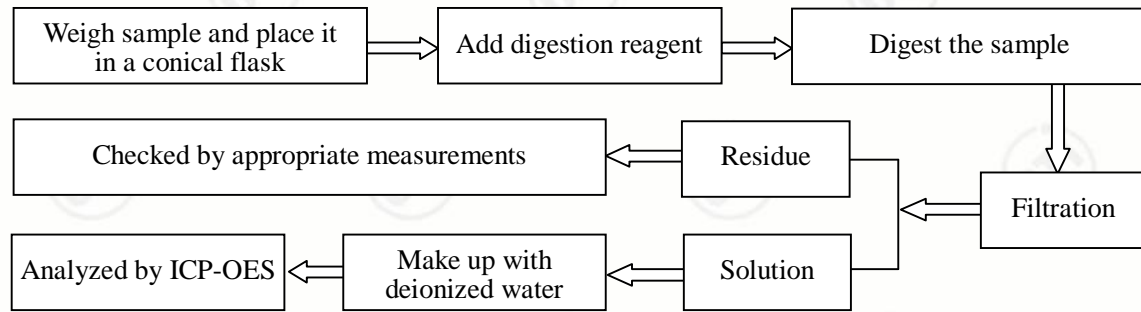
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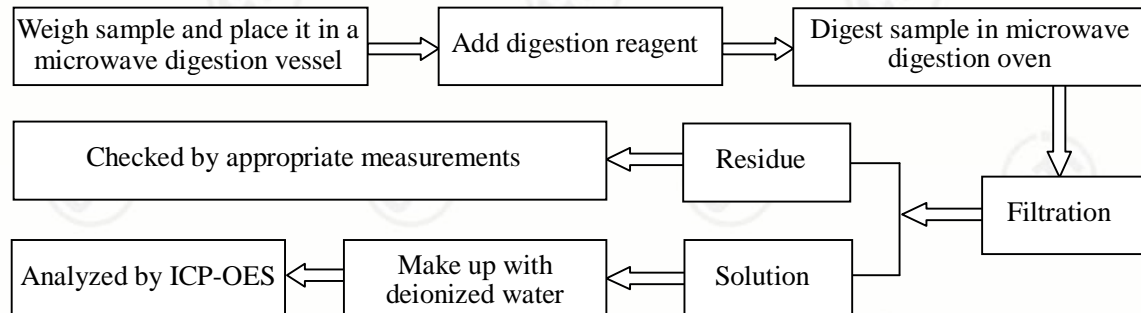
Test Process:

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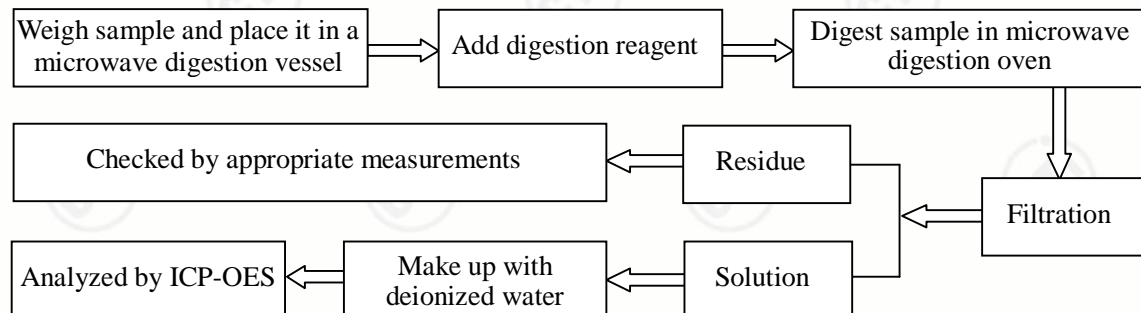
(1) IEC 62321:2008 Ed.1 Sec.9



(2) IEC 62321:2008 Ed.1 Sec.10



2. Test for Hg Content



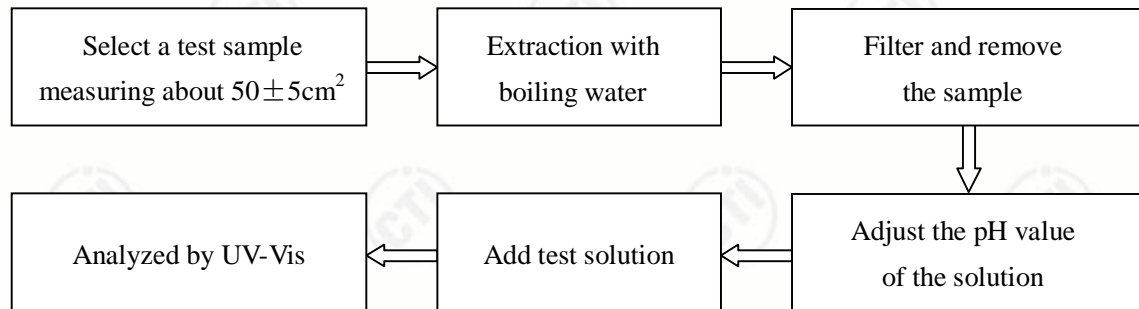
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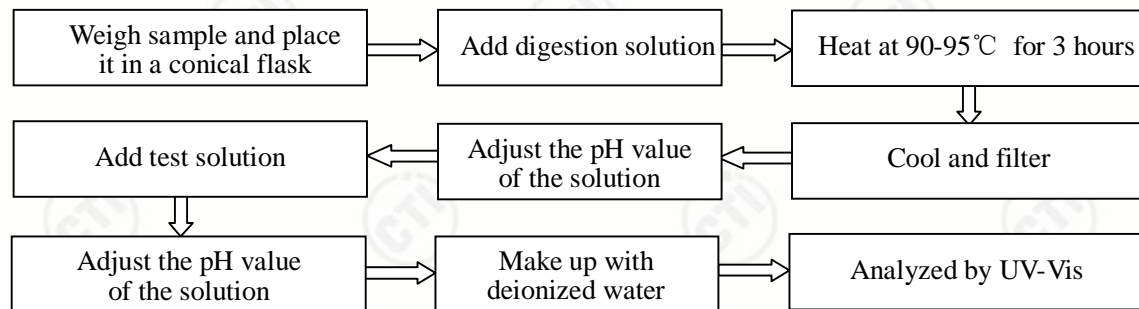
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3. Test for Cr (VI) Content

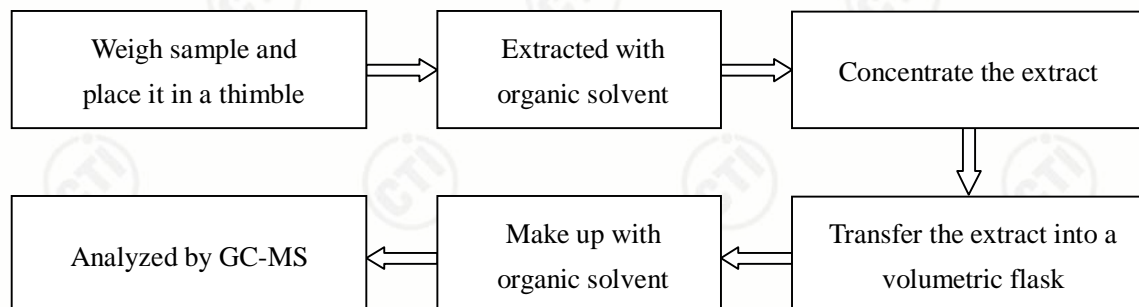
(1) IEC 62321:2008 Ed.1 Annex B



(2) IEC 62321:2008 Ed.1 Annex C



4. Test for PBBs /PBDEs Content

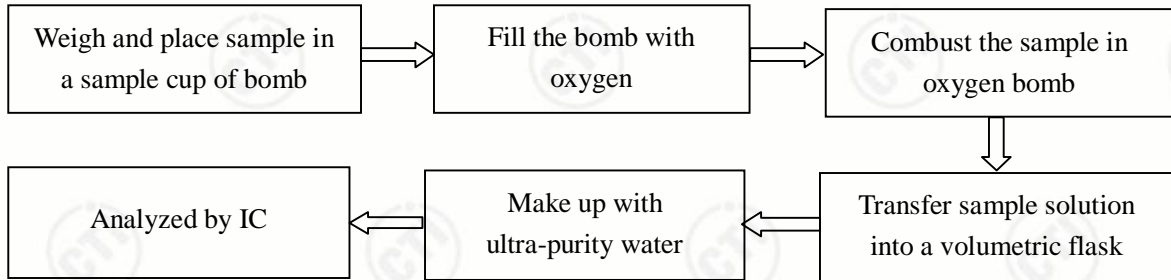


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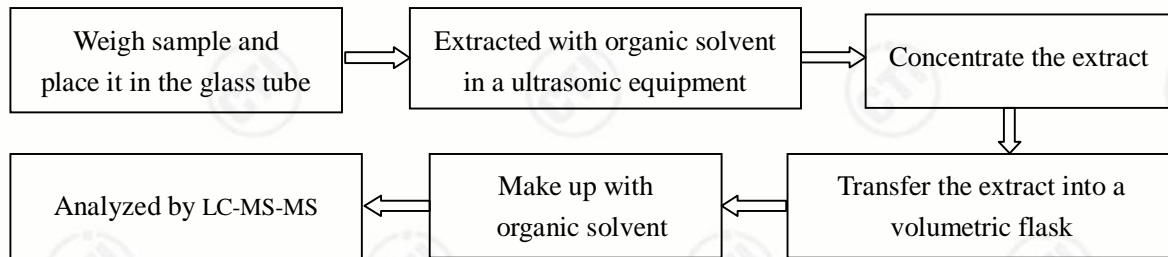
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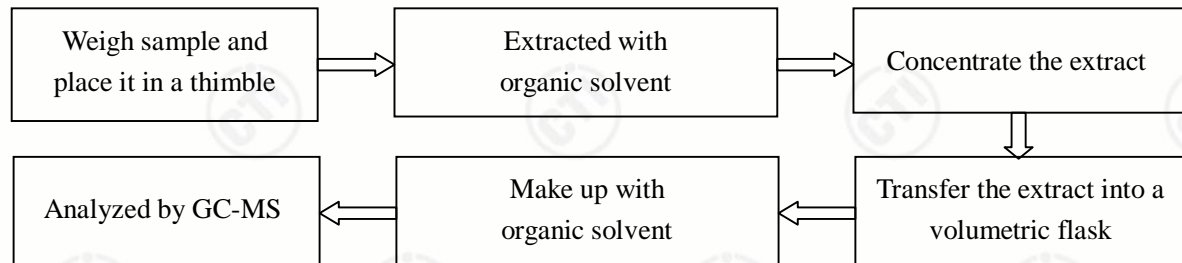
5. Fluorine (F), Chlorine (Cl), Bromine (Br), Iodine (I)



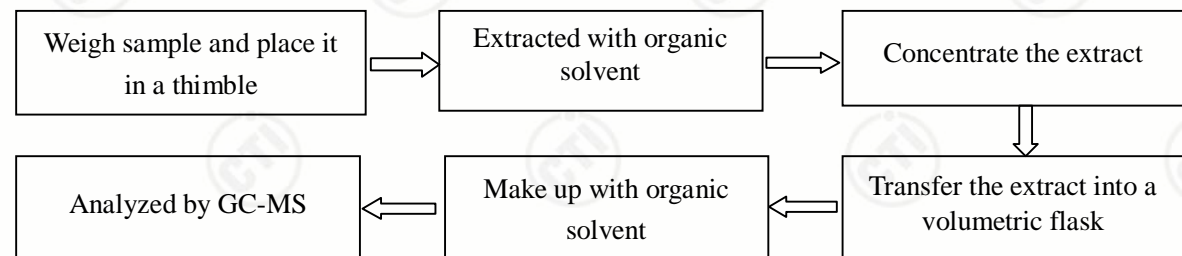
6. Perfluorooctanoic Acid (PFOA), Perfluorooctane Sulfonates (PFOS)



7. Tetrabromobisphenol-A (TBBP-A)



8. Phthalates



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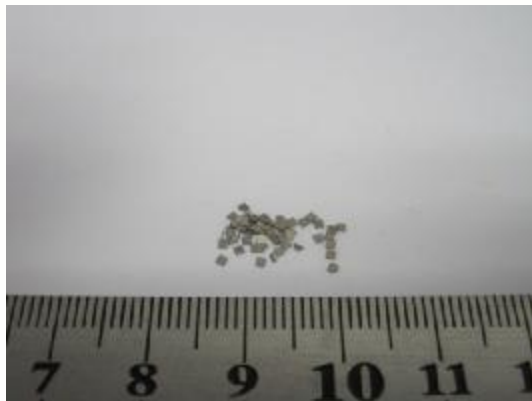
Photo of the sample



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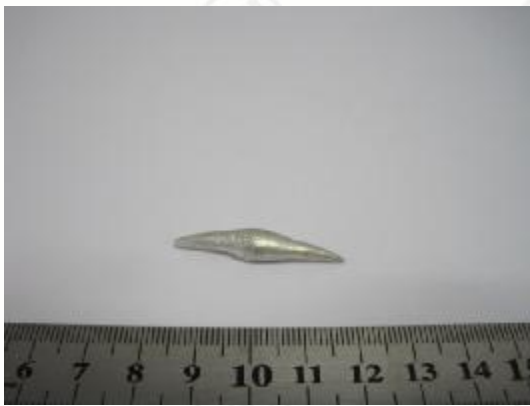
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*** End of report ***

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