

TEST REPORT

Product name: RF Module

Product model: WM2500,WM4432,WM4463,WM1101,WM1120,WM24L01,
WM24TR,WM11TR,WMBLUE,WMWIFI

Trade Name: N/A

Applicant: RPING GROUP LTD

Address: UNIT 01, 10/F, CARNIVAL COMMERCIAL BUILDING, 18 JAVA ROAD, NORTH POINT,
HK

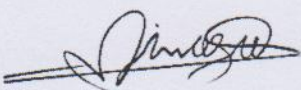
Date of Sample Received: Jul. 02, 2013

Testing Period: Jul. 03, 2013- Jul. 10, 2013

Test Requested:

Conclusion:

- | | |
|--|------|
| (1): As specified by client, to determine the Lead(Pb), Cadmium(Cd), Mercury(Hg), Hexavalent Chromium(Cr6+), Polybrominated Biphenyls(PBBs) & Polybrominated Diphenyl Ethers(PBDEs) content in the submitted sample in accordance with Regulation IEC 62321:2008 | PASS |
| (2): As specified by client, to determine the HBCDD content in the submitted samples in accordance with Regulation EPA 3540:1996 | PASS |
| (3): As specified by client, to determine the DEHP、DBP、BBP content in the submitted sample in accordance with Regulation EN 14372:2004 | PASS |

Checked By: 

Date: 2013-07-10



Approved By: 

Date: 2013-07-10

WST Certification & Testing (HK) Limited

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Test Method:

(1) With reference to IEC 62321:2008

Testing item	Pretreatment method	Measuring instrument	MDL
Lead(Pb)	IEC 62321:2008	ICP-OES	2 mg/kg
Cadmium(Cd)	IEC 62321:2008	ICP-OES	2 mg/kg
Mercury(Hg)	IEC 62321:2008	ICP-OES	2 mg/kg
Chromium(Cr VI)	IEC 62321:2008	UV-Vis	2 mg/kg
PBBs/ PBDEs	IEC 62321:2008	GC-MS	5 mg/kg

(2) With reference to EPA 3540:1996

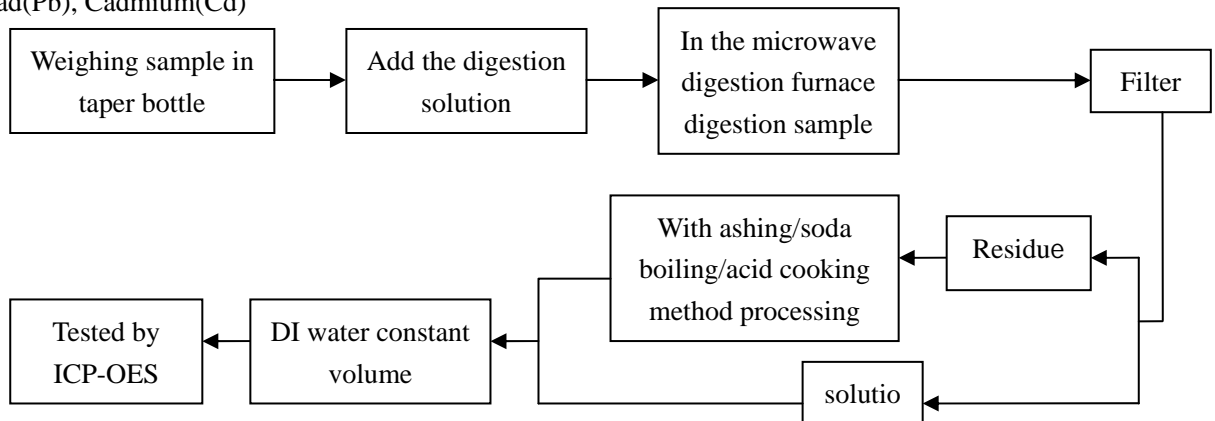
Testing item	Pretreatment method	Measuring instrument	MDL
HBCDD	EPA3540:1996	GC-MS	10 mg/kg

(3) With reference to EN 14372:2004

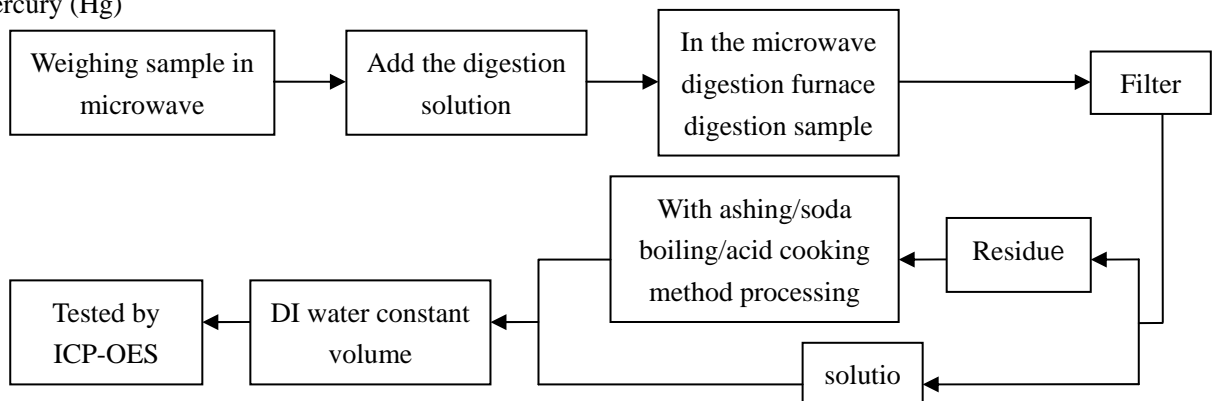
Testing item	Pretreatment method	Measuring instrument	MDL
DEHP, DBP, BBP	EN 14372:2004	GC-MS	0.003 mg/kg

Test Flow:

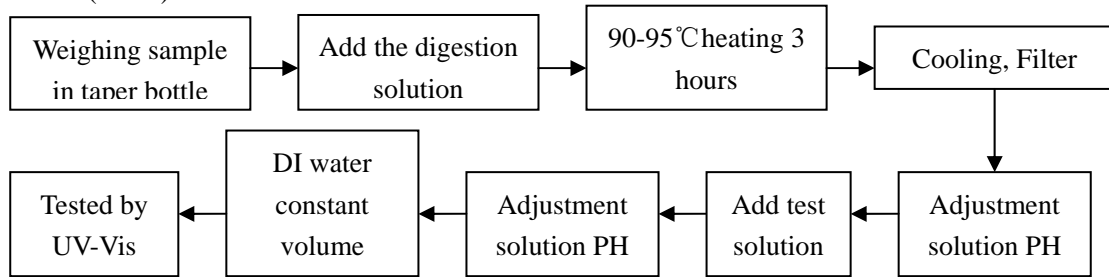
1. Lead(Pb), Cadmium(Cd)



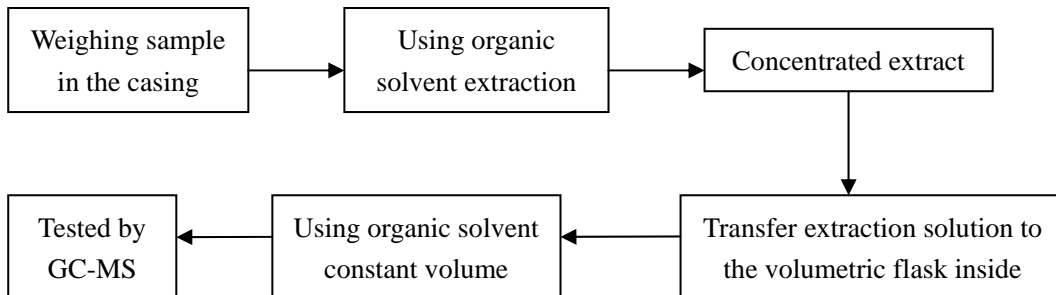
2. Mercury (Hg)



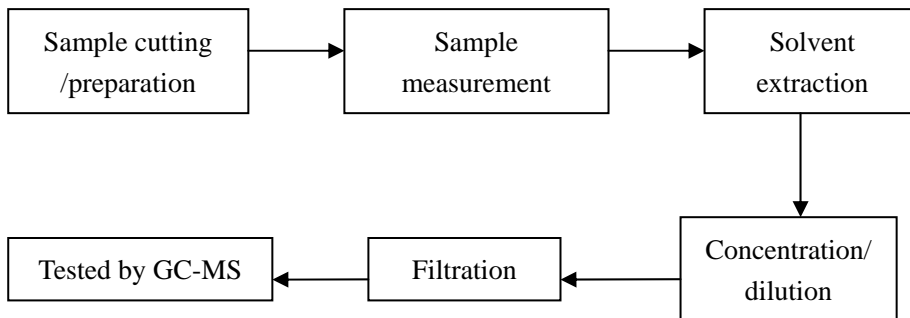
3. Chromium(Cr VI)



4. PBBs/ PBDEs



5. HBCDD/ DEHP/ BBP/ DBP



Test Results:

Testing Item	Unit	ROHS Limit	Result					
			1	2	3	4	5	6
Lead(Pb)	mg/kg	1000	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Cadmium(Cd)	mg/kg	100	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Mercury(Hg)	mg/kg	1000	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chromium(Cr VI)	mg/kg	1000	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Sum of PBBs	mg/kg	1000	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Monobromobiphenyl	mg/kg	/	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Dibromobiphenyl	mg/kg	/	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Tribromobiphenyl	mg/kg	/	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Tetrabromobiphenyl	mg/kg	/	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Pentabromobiphenyl	mg/kg	/	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Hexabromobiphenyl	mg/kg	/	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Heptabromobiphenyl	mg/kg	/	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Octabromobiphenyl	mg/kg	/	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Nonabromobiphenyl	mg/kg	/	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Decabromobiphenyl	mg/kg	/	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Sum of PBDEs	mg/kg	1000	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Monobromodiphenyl ether	mg/kg	/	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Dibromodiphenyl ether	mg/kg	/	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Tribromodiphenyl ether	mg/kg	/	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Tetrabromodiphenyl ether	mg/kg	/	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Pentabromodiphenyl ether	mg/kg	/	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Hexabromodiphenyl ether	mg/kg	/	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Heptabromodiphenyl ether	mg/kg	/	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Octabromodiphenyl ether	mg/kg	/	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Nonabromodiphenyl ether	mg/kg	/	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Decabromodiphenyl ether	mg/kg	/	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Hexabromocyclododecane (HBCDD)	mg/kg	1000	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Bis-(2-ethylhexyl) Phthalate (DEHP)	mg/kg	1000	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Benzylbutyl Phthalate (BBP)	mg/kg	1000	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Dibutyl Phthalate (DBP)	mg/kg	1000	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Sample Description:

- 1: RF Manifold
- 2: High power analog switch
- 3: PNP epitaxial planar transistor
- 4: SMD chip capacitors
- 5: SMD TYPE inductance
- 6: Carbon Film Resistors

Testing Item	Unit	ROHS Limit	Result					
			7	8	9	10	11	12
Lead(Pb)	mg/kg	1000	N.D.	N.D.	N.D.	/	/	/
Cadmium(Cd)	mg/kg	100	N.D.	N.D.	N.D.	/	/	/
Mercury(Hg)	mg/kg	1000	N.D.	N.D.	N.D.	/	/	/
Chromium(Cr VI)	mg/kg	1000	N.D.	N.D.	N.D.	/	/	/
Sum of PBBs	mg/kg	1000	N.D.	N.D.	N.D.	/	/	/
Monobromobiphenyl	mg/kg	/	N.D.	N.D.	N.D.	/	/	/
Dibromobiphenyl	mg/kg	/	N.D.	N.D.	N.D.	/	/	/
Tribromobiphenyl	mg/kg	/	N.D.	N.D.	N.D.	/	/	/
Tetrabromobiphenyl	mg/kg	/	N.D.	N.D.	N.D.	/	/	/
Pentabromobiphenyl	mg/kg	/	N.D.	N.D.	N.D.	/	/	/
Hexabromobiphenyl	mg/kg	/	N.D.	N.D.	N.D.	/	/	/
Heptabromobiphenyl	mg/kg	/	N.D.	N.D.	N.D.	/	/	/
Octabromobiphenyl	mg/kg	/	N.D.	N.D.	N.D.	/	/	/
Nonabromobiphenyl	mg/kg	/	N.D.	N.D.	N.D.	/	/	/
Decabromobiphenyl	mg/kg	/	N.D.	N.D.	N.D.	/	/	/
Sum of PBDEs	mg/kg	1000	N.D.	N.D.	N.D.	/	/	/
Monobromodiphenyl ether	mg/kg	/	N.D.	N.D.	N.D.	/	/	/
Dibromodiphenyl ether	mg/kg	/	N.D.	N.D.	N.D.	/	/	/
Tribromodiphenyl ether	mg/kg	/	N.D.	N.D.	N.D.	/	/	/
Tetrabromodiphenyl ether	mg/kg	/	N.D.	N.D.	N.D.	/	/	/
Pentabromodiphenyl ether	mg/kg	/	N.D.	N.D.	N.D.	/	/	/
Hexabromodiphenyl ether	mg/kg	/	N.D.	N.D.	N.D.	/	/	/
Heptabromodiphenyl ether	mg/kg	/	N.D.	N.D.	N.D.	/	/	/
Octabromodiphenyl ether	mg/kg	/	N.D.	N.D.	N.D.	/	/	/
Nonabromodiphenyl ether	mg/kg	/	N.D.	N.D.	N.D.	/	/	/
Decabromodiphenyl ether	mg/kg	/	N.D.	N.D.	N.D.	/	/	/
Hexabromocyclododecane (HBCDD)	mg/kg	1000	N.D.	N.D.	N.D.	/	/	/
Bis-(2-ethylhexyl) Phthalate (DEHP)	mg/kg	1000	N.D.	N.D.	N.D.	/	/	/
Benzylbutyl Phthalate (BBP)	mg/kg	1000	N.D.	N.D.	N.D.	/	/	/
Dibutyl Phthalate (DBP)	mg/kg	1000	N.D.	N.D.	N.D.	/	/	/

Sample Description:

7: Gold plated RF seat

8: Quartz crystal load

9: Shielding cover

Notes:

1mg/kg=1ppm = 0.0001%

N.D. = Not Detected (<MDL)

MDL = Method Detection Limit

/=Not Regulated

---=Not Applicable

Breakdown of product

Sample photo: 1 (WM1101)

