

Test Report

Test report

On Behalf of

Hangzhou Dibsys Technologies Co.,Ltd.

For

Encoder

Model No.: ENC33

Model of Series See Page 2

Prepared for : Hangzhou Dibsys Technologies Co.,Ltd.
Room 1301, No.102 Xueyuan Road, Hangzhou, China

Prepared By : Shenzhen WST Testing Technology Co., Ltd.
2nd Floor, Xiagu, Meishengchuanggu Technology Park, Liuxian 2nd. Road,
Xin'an Street, Bao'an District, Shenzhen, Guangdong, China

Date of Test: Feb. 13, 2017 ~ Feb. 17, 2017

Date of Report: Feb. 17, 2017

Report Number: WST17020010-1RR

Product name: Encoder

Product model: ENC33, Caster-T3, Anystream3, Anystream4, Magicbox HD3, Magicbox HD4, ENC34, ENC31, EMI33, EMI34

Trade Name: Dibsys

Applicant: Hangzhou Dibsys Technologies Co.,Ltd.

Address: Room 1301, No.102 Xueyuan Road, Hangzhou, China

Date of Sample Received: Feb. 10, 2017

Testing Period: Feb. 13, 2017 ~ Feb. 17, 2017

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:



(Melon Tang)

Approved By:



(Tony Chen)



Test Method:

(1) With reference to IEC 62321:2008

Testing item	Pretreatment method	Measuring instrument	MDL
Lead(Pb)	IEC 62321-5: 2013	ICP-OES	2 mg/kg
Cadmium(Cd)	IEC 62321-5: 2013	ICP-OES	2 mg/kg
Mercury(Hg)	IEC 62321-4: 2013	ICP-OES	2 mg/kg
Chromium(Cr VI)	IEC 62321:2008	UV-Vis	2 mg/kg
PBBs/ PBDEs	IEC 62321-6:2015	GC-MS	5 mg/kg

(2) With reference to EPA 3540:1996

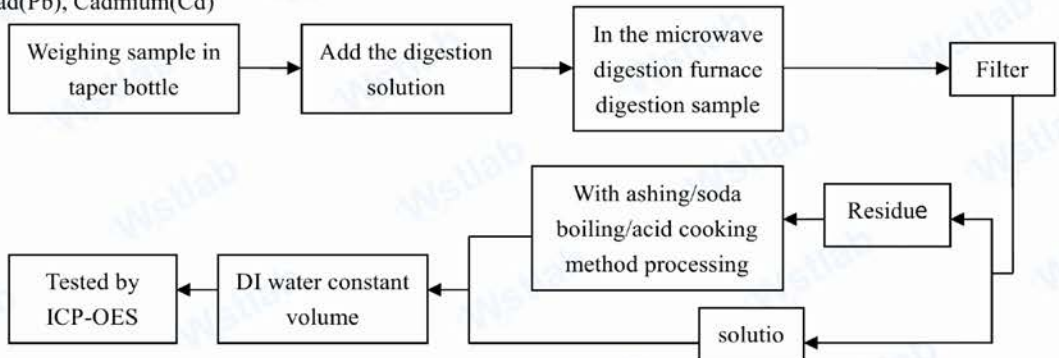
Testing item	Pretreatment method	Measuring instrument	MDL
HBCDD	EPA3540:1996	GC-MS	10 mg/kg

(3) With reference to EN 14372:2004

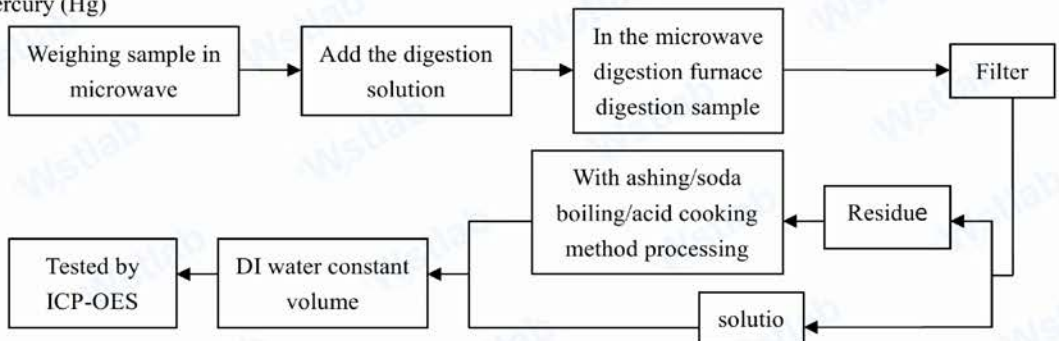
Testing item	Pretreatment method	Measuring instrument	MDL
DEHP、DBP、BBP	EN 14372:2004	GC-MS	0.003 mg/kg

Test Flow:

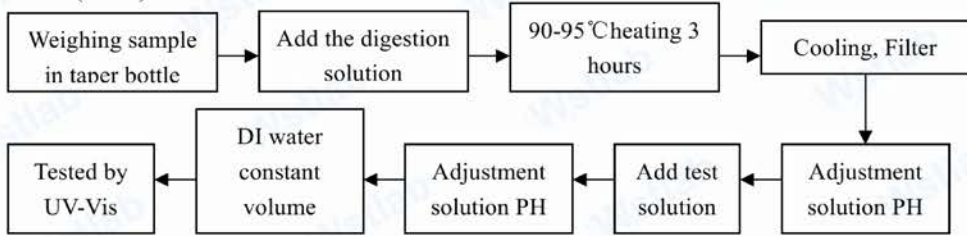
1. Lead(Pb), Cadmium(Cd)



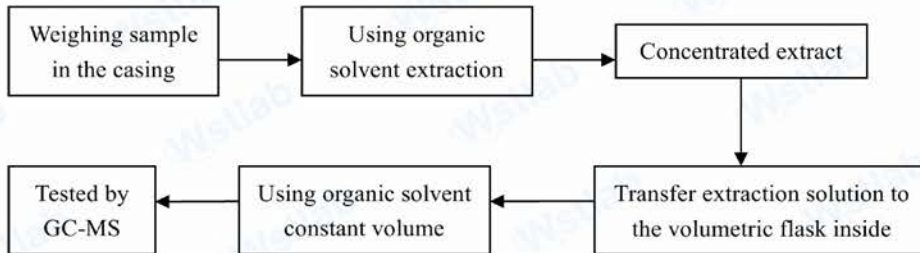
2. Mercury (Hg)



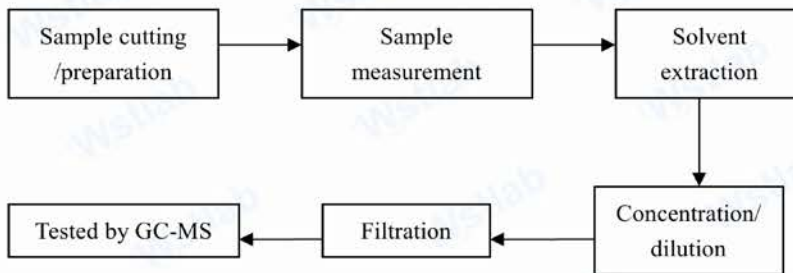
3. Chromium(Cr VI)



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.
Monobromobiphenyl	mg/kg	/	N.D.	N.D.	N.D.	N.D.	/	N.D.
Dibromobiphenyl	mg/kg	/	N.D.	N.D.	N.D.	N.D.	/	N.D.
Tribromobiphenyl	mg/kg	/	N.D.	N.D.	N.D.	N.D.	/	N.D.
Tetrabromobiphenyl	mg/kg	/	N.D.	N.D.	N.D.	N.D.	/	N.D.
Pentabromobiphenyl	mg/kg	/	N.D.	N.D.	N.D.	N.D.	/	N.D.
Hexabromobiphenyl	mg/kg	/	N.D.	N.D.	N.D.	N.D.	/	N.D.
Heptabromobiphenyl	mg/kg	/	N.D.	N.D.	N.D.	N.D.	/	N.D.
Octabromobiphenyl	mg/kg	/	N.D.	N.D.	N.D.	N.D.	/	N.D.
Nonabromobiphenyl	mg/kg	/	N.D.	N.D.	N.D.	N.D.	/	N.D.
Decabromobiphenyl	mg/kg	/	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.
Monobromodiphenyl ether	mg/kg	/	N.D.	N.D.	N.D.	N.D.	/	N.D.
Dibromodiphenyl ether	mg/kg	/	N.D.	N.D.	N.D.	N.D.	/	N.D.
Tribromodiphenyl ether	mg/kg	/	N.D.	N.D.	N.D.	N.D.	/	N.D.
Tetrabromodiphenyl ether	mg/kg	/	N.D.	N.D.	N.D.	N.D.	/	N.D.
Pentabromodiphenyl ether	mg/kg	/	N.D.	N.D.	N.D.	N.D.	/	N.D.
Hexabromodiphenyl ether	mg/kg	/	N.D.	N.D.	N.D.	N.D.	/	N.D.
Heptabromodiphenyl ether	mg/kg	/	N.D.	N.D.	N.D.	N.D.	/	N.D.
Octabromodiphenyl ether	mg/kg	/	N.D.	N.D.	N.D.	N.D.	/	N.D.
Nonabromodiphenyl ether	mg/kg	/	N.D.	N.D.	N.D.	N.D.	/	N.D.
Decabromodiphenyl ether	mg/kg	/	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.
Bis-(2-ethylhexyl) Phthalate (DEHP)	mg/kg	1000	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.
Dibutyl Phthalate (DBP)	mg/kg	1000	N.D.	N.D.	N.D.	N.D.	/	N.D.

Sample Description:

- 1: Capacitor
- 2: Electrolytic capacitor
- 3: Rectifier bridge
- 4: IC
- 5: Transistor
- 6: Resistance

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

Sample Description:

7: Zener diode

8: LED

9: Power PCB

10: Wire

11: Shell

12: Lamp

Testing Item	Unit	ROHS Limit	Result					
			13	/	/	/	/	
Lead(Pb)	mg/kg	1000	N.D.	/	/	/	/	/
Cadmium(Cd)	mg/kg	100	N.D.	/	/	/	/	/
Mercury(Hg)	mg/kg	1000	N.D.	/	/	/	/	/
Chromium(Cr VI)	mg/kg	1000	N.D.	/	/	/	/	/
Sum of PBBs	mg/kg	1000	N.D.	/	/	/	/	/
Monobromobiphenyl	mg/kg	/	N.D.	/	/	/	/	/
Dibromobiphenyl	mg/kg	/	N.D.	/	/	/	/	/
Tribromobiphenyl	mg/kg	/	N.D.	/	/	/	/	/
Tetrabromobiphenyl	mg/kg	/	N.D.	/	/	/	/	/
Pentabromobiphenyl	mg/kg	/	N.D.	/	/	/	/	/
Hexabromobiphenyl	mg/kg	/	N.D.	/	/	/	/	/
Heptabromobiphenyl	mg/kg	/	N.D.	/	/	/	/	/
Octabromobiphenyl	mg/kg	/	N.D.	/	/	/	/	/
Nonabromobiphenyl	mg/kg	/	N.D.	/	/	/	/	/
Decabromobiphenyl	mg/kg	/	N.D.	/	/	/	/	/
Sum of PBDEs	mg/kg	1000	N.D.	/	/	/	/	/
Monobromodiphenyl ether	mg/kg	/	N.D.	/	/	/	/	/
Dibromodiphenyl ether	mg/kg	/	N.D.	/	/	/	/	/
Tribromodiphenyl ether	mg/kg	/	N.D.	/	/	/	/	/
Tetrabromodiphenyl ether	mg/kg	/	N.D.	/	/	/	/	/
Pentabromodiphenyl ether	mg/kg	/	N.D.	/	/	/	/	/
Hexabromodiphenyl ether	mg/kg	/	N.D.	/	/	/	/	/
Heptabromodiphenyl ether	mg/kg	/	N.D.	/	/	/	/	/
Octabromodiphenyl ether	mg/kg	/	N.D.	/	/	/	/	/
Nonabromodiphenyl ether	mg/kg	/	N.D.	/	/	/	/	/
Decabromodiphenyl ether	mg/kg	/	N.D.	/	/	/	/	/
Hexabromocyclododecane (HBCDD)	mg/kg	1000	N.D.	/	/	/	/	/
Bis-(2-ethylhexyl) Phthalate (DEHP)	mg/kg	1000	N.D.	/	/	/	/	/
Benzylbutyl Phthalate (BBP)	mg/kg	1000	N.D.	/	/	/	/	/
Dibutyl Phthalate (DBP)	mg/kg	1000	N.D.	/	/	/	/	/

Sample Description:

13: Glue

Notes:

1mg/kg=1ppm = 0.0001%

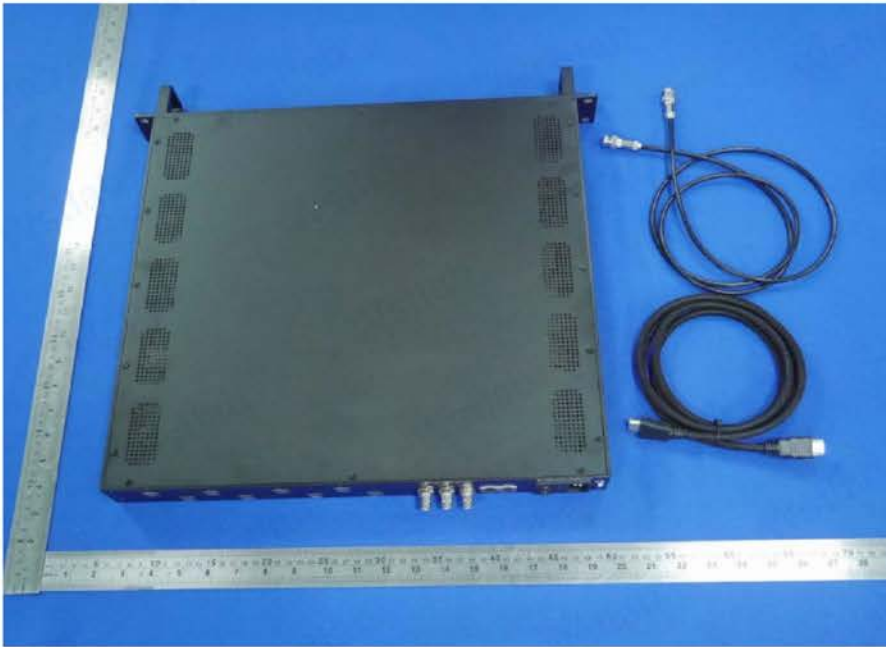
N.D. = Not Detected (<MDL)

MDL = Method Detection Limit

/=Not Regulated

Breakdown of product

Sample photo: 1



-----End of report -----