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CONSOLIDATED TEST REPORT

Sample information:

1. **Applicant:** Shenzhen ZUU Intelligent Electronics Co., Ltd.
2. **Applicant Address:** 101, Pingyuan Factory, No.184 Guanlan Guihua Road, Guihua Community, guanlan street, Longhua New District, Shenzhen
3. **Sample Name:** ZUU Electromagnetic Lock
4. **Brand Name:** ZUU
5. **Model(s):** ZU-280, ZU-60, ZU-180, ZU-350, ZU-500, ZU-800, ZU-1000
6. **Manufacturer:** Shenzhen ZUU Intelligent Electronics Co., Ltd.
7. **Manufacturer Address:** 101, Pingyuan Factory, No.184 Guanlan Guihua Road, Guihua Community, guanlan street, Longhua New District, Shenzhen
8. **Sample received date:** Aug.01, 2019
9. **Testing period:** Aug.01-06, 2019

Testing Required:

1) In accordance with the RoHS Directive 2015/863/EU amending Annex Ⅱ Directive 2011/65/EU.
2) As specified by client, to determine Lead, Cadmium, Mercury, Hexavalent Chromium, PBBs, PBDEs and Phthalates(DEHP,BBP,DBP,DIBP) content in the selected materials (see remark) of submitted sample with reference to Directive 2015/863/EU of the European Parliament and of the Council of 31 March 2015(RoHS, Previously 2002/95/EC and 2011/65/EU).

Test Standards:

Testing Item	Pretreatment method	Measuring method	Report Limit
Lead (Pb)	IEC 62321, Ed1:2013	IEC62321 (ICP-OES)	2ppm
Cadmium (Cd)	IEC 62321, Ed1:2013	IEC62321 (ICP-OES)	2ppm
Mercury (Hg)	IEC 62321, Ed1:2013+A1:2017	IEC62321 (ICP-OES)	2ppm
Chromium (Cr^{6+})	IEC 62321, Ed1:2015 IEC 62321, Ed1:2017	IEC62321 (UV-VIS)	0.1 $\mu g/cm^2$ 8ppm
PBBs/PBDEs	IEC 62321, Ed1:2015	IEC62321 (GC-MS)	5ppm
Phthalates	IEC 62321, Ed1:2017	IEC62321 (GC-MS)	30ppm

Remarks:

1. The test report is valid for above tested sample only and shall not be reproduced in part without written approval of the company.
2. Characterization & Condition of sample: Normal.
3. Ambient Condition During Testing: (17~22)℃, (55~68)%RH.

Conclusion:

Based on the performed tests on submitted sample(s), the results of Cadmium, Lead, Mercury, Hexavalent Chromium Cr(VI), PBBs, PBDEs and Phthalates comply with the limits as set by RoHS Directive 2015/863/EU amending Annex Ⅱ Directive 2011/65/EU.

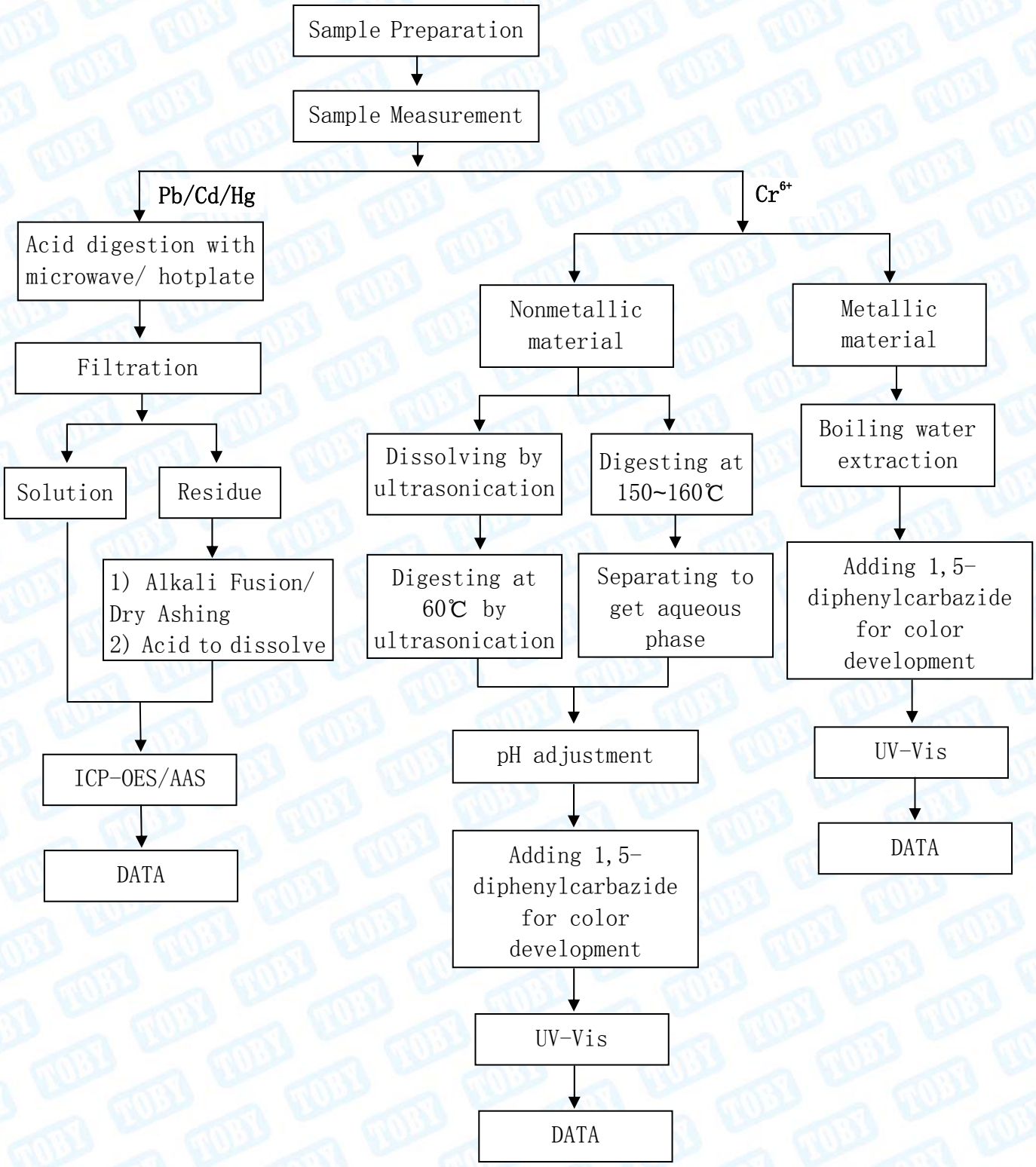
Signed for Shenzhen TOBY

Justin Zhang
Manager

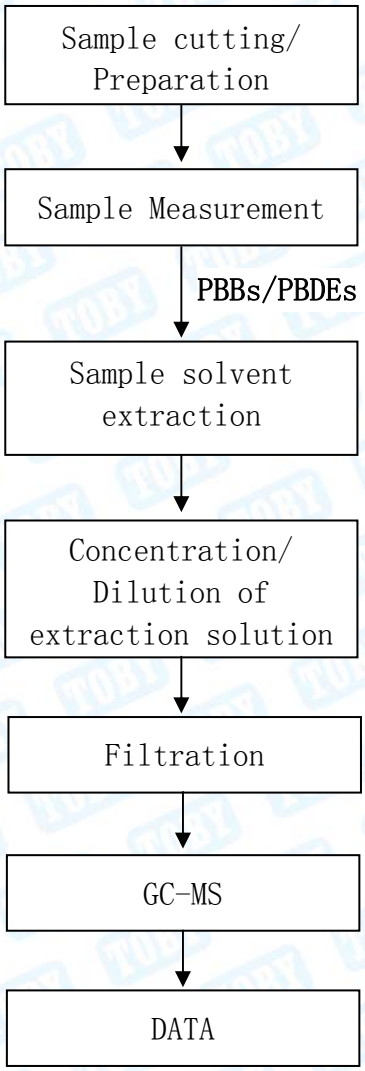
CONSOLIDATED TEST REPORT

Test flow:

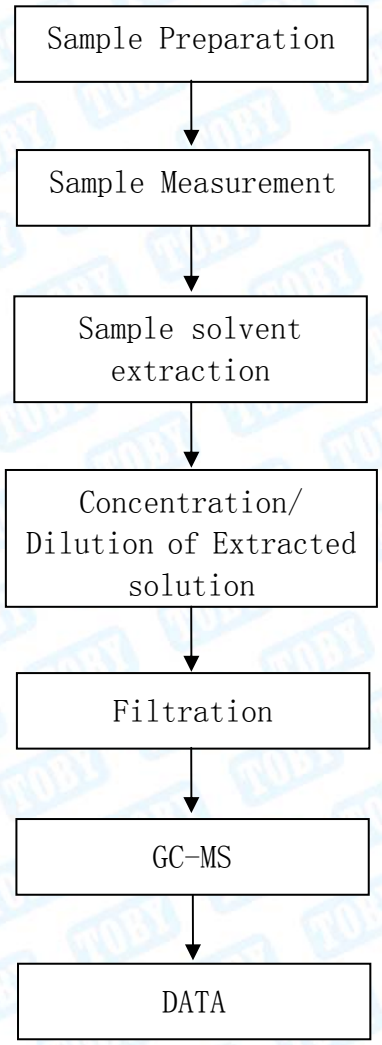
1. To Determine Lead/Cadmium/Mercury/ Hexavalent Chromium Content:



2. To Determine PBBs/PBDEs Content:



3. To Determine Phthalates Content:



CONSOLIDATED TEST REPORT

NO.	SAMPLES NAME	TEST REPORT NO.	DESCRIPTION	REMARK
1	PCB	SZXEC1800651102	GREEN PCB	---
2	IC	CANEC1905699419	MIXED ALL PARTS	---
3	COLOR RING RESISTANCE	SZXEC1801801301	GREEN BODY W/ MULTI-COLORED PRINTING(MIXED)	---
4	COLOR RING RESISTANCE	CANEC1602892507	BROWN BODY W/ MULTI-COLORED PRINTING(MIXED)	---
5.1	ELECTROLYTIC CAPACITOR	CANEC1709508603	GRAY FOIL	---
5.2			GRAY FOIL	---
5.3			SILVERY METAL	---
5.4			SILVERY METAL PIN	---
5.5			SILVERY METAL SHELL	---
5.6			BEIGE PAPER SHEET	---
5.7			YELLOW LIQUID	---
5.8			BLACK PLASTIC W/WHITE PRINTING	---
5.9			BLACK PLASTIC	---
6.1	DIODE	A218000106110103	BLACK SOLID WITH BROWN PRINTING	---
6.2			METAL PIN WITH SILVERY PLATING	---
7.1	LED	SZXEC1801643202	TRANSPARENT PLASTIC	---
7.2			SILVERY METAL	---
8.1	TERMINAL	SCL01I000107001	BLACK PLASTIC GRAINS	---
8.2		F690101/LF-CTSAYGU17-09672	SILVERY METAL	---
9.1	TERMINAL	A2180248438101006	GREEN PLASTIC GRAINS	---
9.2		CANEC1824593205	SILVER-GREY METAL	---
10.1	TERMINAL	A2190095657101001C	WHITE PLASTIC GRAINS	---
10.2		CANEC1719729601	SILVERY METAL	

CONSOLIDATED TEST REPORT

11	COIL	CANEC1700332814	COPPER COLORED METAL	---
12.1	WIRE	SCL01H107310001C	BLACK WIRE	---
12.2		SHAEC1803997501	RED WIRE	---
12.3		CANEC1810336402	SILVERY METAL WIRE	---
13	SCREW	SZXEC1800275101	SILVERY METAL SCREW	---
14	SOLDER	SHAEC1900177504	SILVERY METAL	---
15	METAL PARTS	NGBEC1800691801	SILVERY METAL	---
16.1	SHELL	SHAEC1803997502	BLACK PLASTIC	---
16.2		A2190038587101001	SILVERY METAL	---
16.3		A2180001662101001C	SILVERY METAL	---

CONSOLIDATED TEST REPORT

1)Test Result: Heavy Metals (Pb, Cd, Cr6+, Hg) Tests

Element	Pb	Cd	Cr^{6+}	Hg
Limit:	1000(mg/kg)	100(mg/kg)	1000(mg/kg)	1000(mg/kg)
1	8	N.D.	N.D.	N.D.
2	N.D.	N.D.	N.D.	N.D.
3	N.D.	N.D.	N.D.	N.D.
4	9	N.D.	N.D.	N.D.
5.1	N.D.	N.D.	N.D.	N.D.
5.2	N.D.	N.D.	N.D.	N.D.
5.3	N.D.	N.D.	N.D.	N.D.
5.4	N.D.	N.D.	N.D.	N.D.
5.5	N.D.	N.D.	N.D.	N.D.
5.6	N.D.	N.D.	N.D.	N.D.
5.7	N.D.	N.D.	N.D.	N.D.
5.8	N.D.	N.D.	N.D.	N.D.
5.9	6	N.D.	N.D.	N.D.
6.1	N.D.	N.D.	N.D.	N.D.
6.2	36	N.D.	N.D.	N.D.
7.1	N.D.	N.D.	N.D.	N.D.
7.2	N.D.	N.D.	N.D.	N.D.
8.1	12	N.D.	N.D.	N.D.
8.2	N.D.	N.D.	N.D.	N.D.
9.1	N.D.	N.D.	N.D.	N.D.
9.2	16	N.D.	N.D.	N.D.
10.1	N.D.	N.D.	N.D.	N.D.
10.2	5	N.D.	N.D.	N.D.
11	N.D.	N.D.	N.D.	N.D.
12.1	N.D.	N.D.	N.D.	N.D.
12.2	5	N.D.	N.D.	N.D.
12.3	44	N.D.	N.D.	N.D.

13	N.D.	N.D.	N.D.	N.D.
14	26	N.D.	N.D.	N.D.
15	28	N.D.	N.D.	N.D.
16.1	N.D.	N.D.	N.D.	N.D.
16.2	28	N.D.	N.D.	N.D.
16.3	N.D.	N.D.	N.D.	N.D.

◆ "N.D." means "Not Detected", method detection limit=2mg/kg.
◆ "*" means be exempted from RoHS Directive.

CONSOLIDATED TEST REPORT

2)Test Result: Brominated Flame Retardants (PBBs & PBDEs) Tests

PBBs	1	2	3	4	5.6	5.7	5.8	5.9	6.1
MONOBROMOBIPHENYL	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
DIBROMOBIPHENYL	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
TRIBROMOBIPHENYL	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
TETRABROMOBIPHENYL	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
PENTABROMOBIPHENYL	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
HEXABROMOBIPHENYL	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
HEPTABROMOBIPHENYL	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
OCTABROMOBIPHENYL	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
NONABROMOBIPHENYL	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
DECABROMOBIPHENYL	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Sum of PBBs	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
PBDEs	1	2	3	4	5.6	5.7	5.8	5.9	6.1
MONOBROMODIPHENYL ETHER	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
DIBROMODIPHENYL ETHER	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
TRIBROMODIPHENYL ETHER	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
TETRABROMODIPHENYL ETHER	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
PENTABROMODIPHENYL ETHER	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
HEXABROMODIPHENYL ETHER	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
HEPTABROMODIPHENYL ETHER	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
OCTABROMODIPHENYL ETHER	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
NONABROMODIPHENYL ETHER	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
DECABROMODIPHENYL ETHER	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Sum of PBDEs	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

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PBBs	7.1	8.1	9.1	10.1	12.1	12.2	16.1
MONOBROMOBIPHENYL	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
DIBROMOBIPHENYL	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
TRIBROMOBIPHENYL	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
TETRABROMOBIPHENYL	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
PENTABROMOBIPHENYL	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
HEXABROMOBIPHENYL	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
HEPTABROMOBIPHENYL	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
OCTABROMOBIPHENYL	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
NONABROMOBIPHENYL	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
DECABROMOBIPHENYL	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Sum of PBBs	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
PBDEs	7.1	8.1	9.1	10.1	12.1	12.2	16.1
MONOBROMODIPHENYL ETHER	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
DIBROMODIPHENYL ETHER	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
TRIBROMODIPHENYL ETHER	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
TETRABROMODIPHENYL ETHER	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
PENTABROMODIPHENYL ETHER	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
HEXABROMODIPHENYL ETHER	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
HEPTABROMODIPHENYL ETHER	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
OCTABROMODIPHENYL ETHER	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
NONABROMODIPHENYL ETHER	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
DECABROMODIPHENYL ETHER	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Sum of PBDEs	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

◆ PBBs Limit = 1000 ppm, PBDEs Limit = 1000 ppm
◆ "N.D." means "Not Detected", method detection limit = 5mg/kg.

CONSOLIDATED TEST REPORT

3)Test Result: Phthalates (DEHP, BBP, DBP, DIBP) Tests

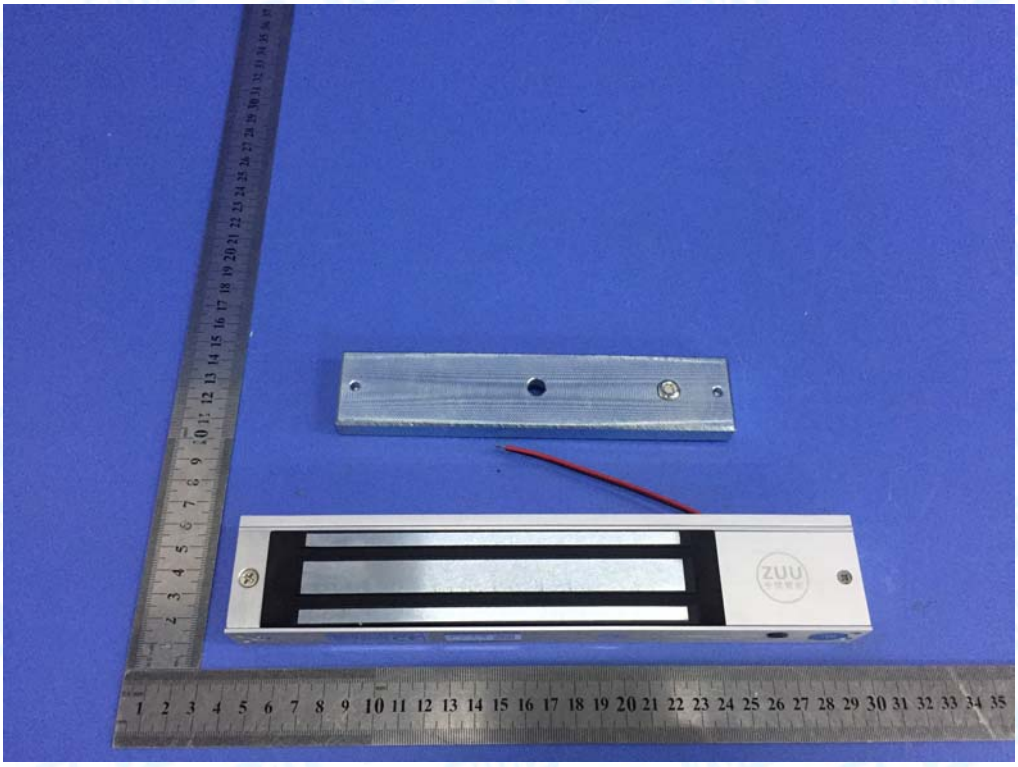
Phthalates	1	2	3	4	5.6	5.7	5.8	5.9	6.1
Bis(2-ethylhexyl) phthalate (DEHP)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Butyl benzyl phthalate (BBP)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Dibutyl phthalate (DBP)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Diisobutyl phthalate (DIBP)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Phthalates	7.1	8.1	9.1	10.1	12.1	12.2	16.1
Bis(2-ethylhexyl) phthalate (DEHP)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Butyl benzyl phthalate (BBP)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Dibutyl phthalate (DBP)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Diisobutyl phthalate (DIBP)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

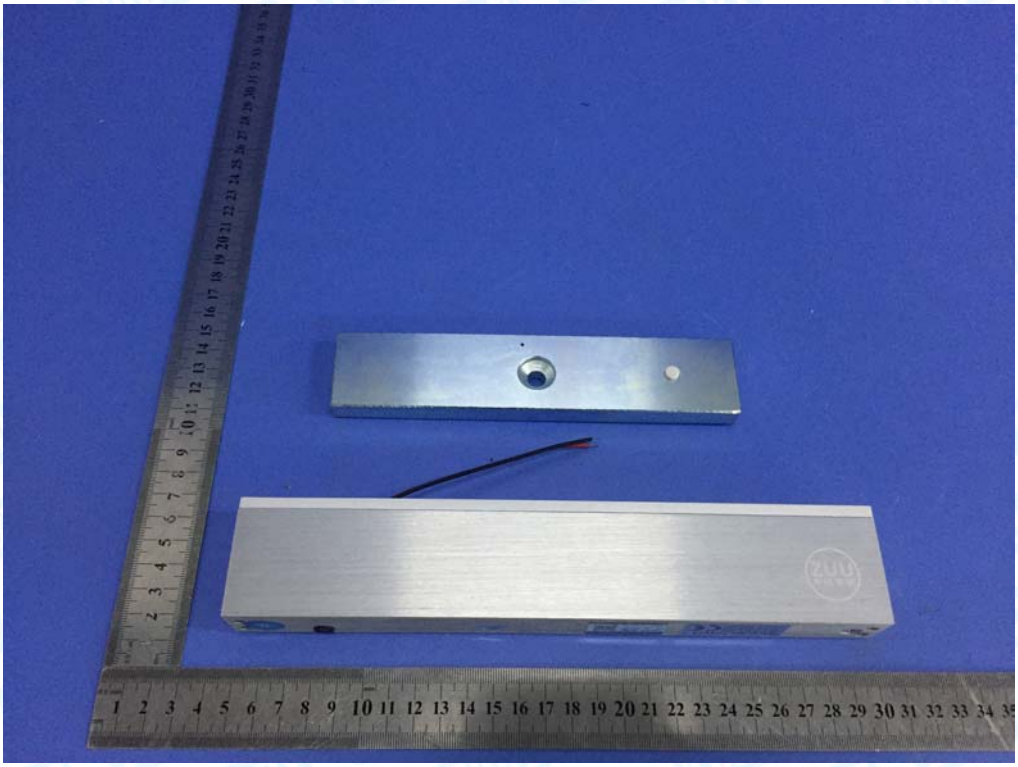
- Each Item of Phthalates Limit = 1000 ppm
- "N.D." means "Not Detected", method detection limit = 30mg/kg.

CONSOLIDATED TEST REPORT

Appearance Photo 1 of Sample



Appearance Photo 2 of Sample



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