

Test Report

Applicant: EHOME PRODUCTS CO., LIMITED

Address: UNIT 04, 7 / F BRIGHT WAY TOWER, NO.33 MONG KOK ROAD, KOWLOON, HONGKONG

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

Sample Name : Smart bracelet
Sample Model : WB07, WB07B,C07Plus
Trademark :
Manufacturer :
Address :

Sample Received Date : July. 04, 2018

Testing Period : July. 04, 2018 to July. 12, 2018

Test Method : 1.Screening test method: IEC62321-3-1:2013/XRF

2.Wet chemical test method

Lead(Pb): IEC62321-5:2013/ICP-OES

Cadmium(Cd): IEC62321-5:2013/ICP-OES

Mercury(Hg): IEC62321-4:2013+A1: 2017/ICP-OES

Hexavalent Chromium(CrVI): IEC62321-7-1:2015/UV-VIS and
IEC62321-7-2:2017/UV-VIS

Polybrominated Biphenyls (PBBs):IEC62321-6:2015 /GC-MS

Polybrominated Biphenyl Ethers(PBDEs): IEC62321-6:2015 /GC-MS

Test Results : Refer to the next page(s).

Test Requested

Conclusion

{1}RoHS Directive 2011/65/EU Annex II – Lead(Pb), Cadmium(Cd),
Mercury(Hg), Hexavalent Chromium(CrVI), Polybrominated Biphenyls (PBBs),
Polybrominated Biphenyl Ethers(PBDEs)
{2}Phthalates–DBP, BBP, DEHP, DIBP

PASS

Test by:



Inspected by :

May Chen

Approved by :

Date : Sept. 25, 2018

Test Report

Test Results

No.	Part Name	Restricted Substances	Results of EDXRF(1)	Result of Wet Chemical Testing (2)(mg/kg)
1	Power line	Pb	BL	---
		Cd	BL	---
		Hg	BL	---
		Cr ⁶⁺	BL	---
		PBBs	BL	---
		PBDEs		
2	Black plastic shell	Pb	BL	---
		Cd	BL	---
		Hg	BL	---
		Cr ⁶⁺	BL	---
		PBBs	BL	---
		PBDEs		
3	Yellow plastic tape	Pb	BL	---
		Cd	BL	---
		Hg	BL	---
		Cr ⁶⁺	BL	---
		PBBs	BL	---
		PBDEs		
4	Red line set	Pb	BL	---
		Cd	BL	---
		Hg	BL	---
		Cr ⁶⁺	BL	---
		PBBs	BL	---
		PBDEs		
5	Black line set	Pb	BL	---
		Cd	BL	---
		Hg	BL	---
		Cr ⁶⁺	BL	---
		PBBs	BL	---
		PBDEs		

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No.	Part Name	Restricted Substances	Results of EDXRF(1)	Result of Wet Chemical Testing (2)(mg/kg)
6	Display screen	Pb	BL	---
		Cd	BL	---
		Hg	BL	---
		Cr ⁶⁺	BL	---
		PBBs	BL	---
		PBDEs		
7	Heart rate sensor	Pb	BL	---
		Cd	BL	---
		Hg	BL	---
		Cr ⁶⁺	BL	---
		PBBs	BL	---
		PBDEs		
8	Resistance	Pb	BL	---
		Cd	BL	---
		Hg	BL	---
		Cr ⁶⁺	BL	---
		PBBs	BL	---
		PBDEs		
9	Capacitance	Pb	BL	---
		Cd	BL	---
		Hg	BL	---
		Cr ⁶⁺	BL	---
		PBBs	BL	---
		PBDEs		
10	Diode	Pb	BL	---
		Cd	BL	---
		Hg	BL	---
		Cr ⁶⁺	BL	---
		PBBs	BL	---
		PBDEs		

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No.	Part Name	Restricted Substances	Results of EDXRF(1)	Result of Wet Chemical Testing (2)(mg/kg)
11	Chip	Pb	BL	---
		Cd	BL	---
		Hg	BL	---
		Cr ⁶⁺	BL	---
		PBBs	BL	---
		PBDEs		
12	PCB	Pb	BL	---
		Cd	BL	---
		Hg	BL	---
		Cr ⁶⁺	BL	---
		PBBs	BL	---
		PBDEs		
13	Aluminum sleeve	Pb	BL	---
		Cd	BL	---
		Hg	BL	---
		Cr ⁶⁺	BL	---
		PBBs	BL	---
		PBDEs		
14	Black oxide	Pb	BL	---
		Cd	BL	---
		Hg	BL	---
		Cr ⁶⁺	BL	---
		PBBs	BL	---
		PBDEs		
15	Electrolytic paper	Pb	BL	---
		Cd	BL	---
		Hg	BL	---
		Cr ⁶⁺	BL	---
		PBBs	BL	---
		PBDEs		

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No.	Part Name	Restricted Substances	Results of EDXRF(1)	Result of Wet Chemical Testing (2)(mg/kg)
16	Insulated rubber tape	Pb	BL	---
		Cd	BL	---
		Hg	BL	---
		Cr ⁶⁺	BL	---
		PBBs	BL	---
		PBDEs		
17	Screw	Pb	BL	---
		Cd	BL	---
		Hg	BL	---
		Cr ⁶⁺	BL	---
		PBBs	BL	---
		PBDEs		

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Remark:

(a) It is the result on total Br while test item on restricted substances is PBBs/PBDEs. It is the result on total Cr while test item on restricted substances is Cr6+.

(b) Results are obtained by EDXRF for primary screening, and further chemical testing by ICP (for Cd, Pb, Hg), UV-VIS (for CrVI) and GC/MS (for PBBs, PBDEs) is recommended to be performed, if the concentration exceeds the below warning value according to IEC 62321-3-1: 2013 (Unit: mg/kg)

Element	Polymer	Metal	Composite Materials
Cd	$BL \leq (70-3\sigma) < X < (130+30\sigma) \leq OL$	$BL \leq (70-3\sigma) < X < (130+30\sigma) \leq OL$	$LOD < X < (150+30\sigma) \leq OL$
Pb	$BL \leq (700-3\sigma) < X < (1300+30\sigma) \leq OL$	$BL \leq (700-3\sigma) < X < (1300+30\sigma) \leq OL$	$BL \leq (500-3\sigma) < X < (1300+30\sigma) \leq OL$
Hg	$BL \leq (700-3\sigma) < X < (1300+30\sigma) \leq OL$	$BL \leq (700-3\sigma) < X < (1300+30\sigma) \leq OL$	$BL \leq (500-3\sigma) < X < (1300+30\sigma) \leq OL$
Br	$BL \leq (300-3\sigma) < X$	--	$BL \leq (250-3\sigma) < X$
Cr	$BL \leq (700-3\sigma) < X$	$BL \leq (700-3\sigma) < X$	$BL \leq (500-3\sigma) < X$

(c) BL=Below Limit, OL=Over Limit, IN=Inconclusive, LOD=Limit of Detection,

(d) The XRF screening test for RoHS elements – The reading may be different to the actual content in the sample be of non-uniformity composition

(e) mg/kg = ppm = 0.0001%, N.D. = not detected (<MDL), --- = not conducted

(f) Unit and Method Detection Limit (MDL) in wet chemical test:

Test Items	Pb	Cd	Hg
Units	mg/kg	mg/kg	mg/kg
MDL	2	2	2

The MDL for single compound of PBBs & PBDEs is 5 mg/kg and MDL of Cr6+ for polymer & composite sample is 2 mg/kg.

(g) According to IEC 62321:2008, result on Cr6+ for metal sample is shown as Positive/Negative.

Positive = Presence of Cr6+ coating, Negative = Absence of Cr6+ coating.

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{2}Phthalates Test Results

Test Method: Refer to EN14372:2004 and use GC-MS to perform the test

Test Item	Test Method	CAS No.	MDL (%)	Result (%)			Limit (%)
				2	3	4	
Dibutyl phthalate (DBP)	IEC62321-8:2017/ GC-MS	84-74-2	0.005	N.D	N.D	N.D	0.1
Butyl benzyl phthalate(BBP)	IEC62321-8:2017/ GC-MS	85-68-7	0.005	N.D	N.D	N.D	0.1
Bi(s-(2-ethylhexyl) phthalate (DEHP)	IEC62321-8:2017/ GC-MS	117-81-7	0.005	N.D	N.D	N.D	0.1
Di-iso-butyl ortho-phthalate (DIBP)	IEC62321-8:2017/ GC-MS	84-69-5	0.005	N.D	N.D	N.D	0.1

Test Item	Test Method	CAS No.	MDL (%)	Result (%)			Limit (%)
				5	13	14	
Dibutyl phthalate (DBP)	IEC62321-8:2017/ GC-MS	84-74-2	0.005	N.D	N.D	N.D	0.1
Butyl benzyl phthalate(BBP)	IEC62321-8:2017/ GC-MS	85-68-7	0.005	N.D	N.D	N.D	0.1
Bi(s-(2-ethylhexyl) phthalate (DEHP)	IEC62321-8:2017/ GC-MS	117-81-7	0.005	N.D	N.D	N.D	0.1
Di-iso-butyl ortho-phthalate (DIBP)	IEC62321-8:2017/ GC-MS	84-69-5	0.005	N.D	N.D	N.D	0.1

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Test Item	Test Method	CAS No.	MDL (%)	Result (%)		Limit (%)
				15	16	
Dibutyl phthalate (DBP)	IEC62321-8:2017/ GC-MS	84-74-2	0.005	N.D	N.D	0.1
Butyl benzyl phthalate(BBP)	IEC62321-8:2017/ GC-MS	85-68-7	0.005	N.D	N.D	0.1
Bi(s-(2-ethylhexyl) phthalate (DEHP)	IEC62321-8:2017/ GC-MS	117-81-7	0.005	N.D	N.D	0.1
Di-iso-butyl ortho-phthalate (DIBP)	IEC62321-8:2017/ GC-MS	84-69-5	0.005	N.D	N.D	0.1

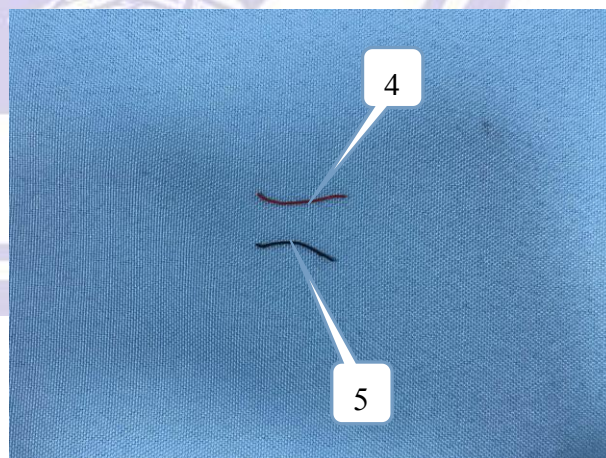
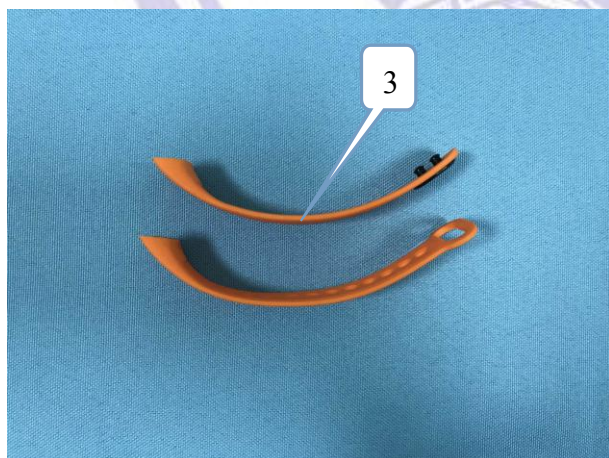
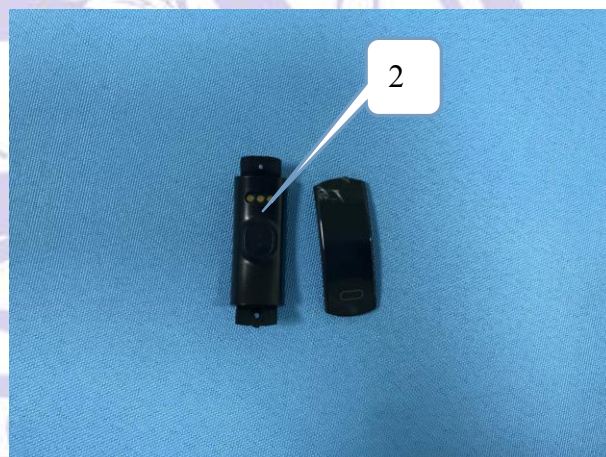
Note:

- (1) 1 mg/kg = 1 ppm = 0.0001%
- (2) N.D. = Not Detected (less than MDL)
- (3) MDL = Method Detection Limit
- (4) "--" = Not Regulated

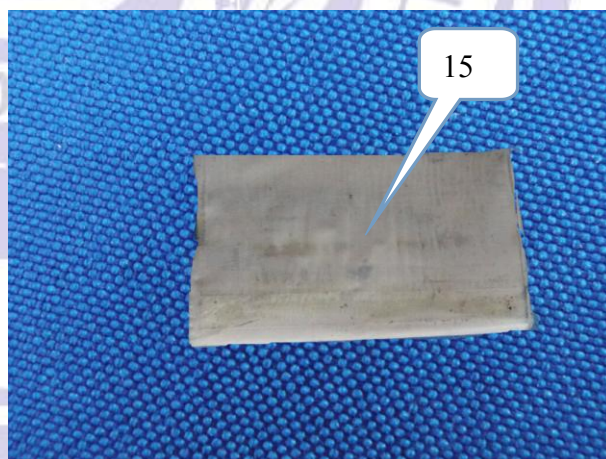
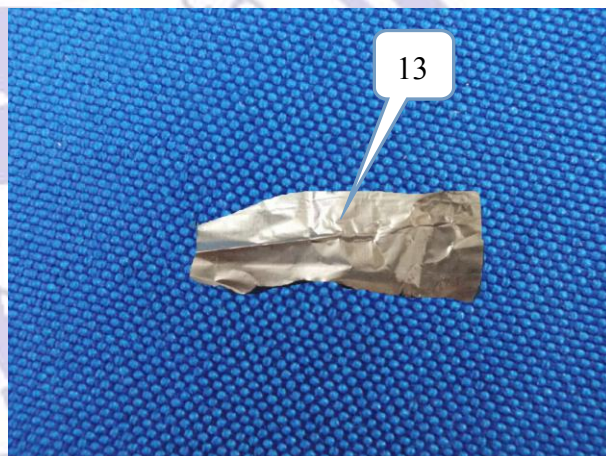
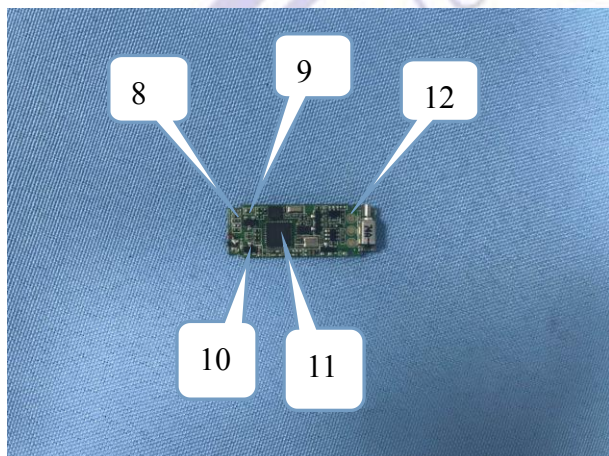
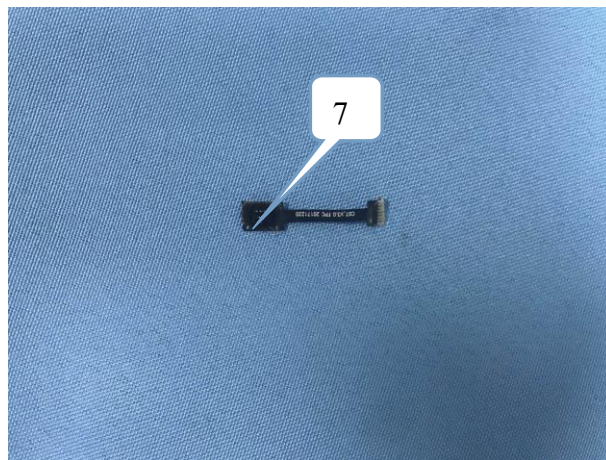
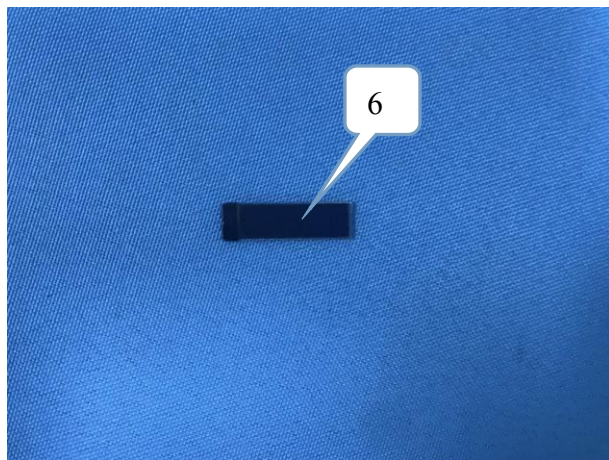
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Photo(s) of the sample(s)

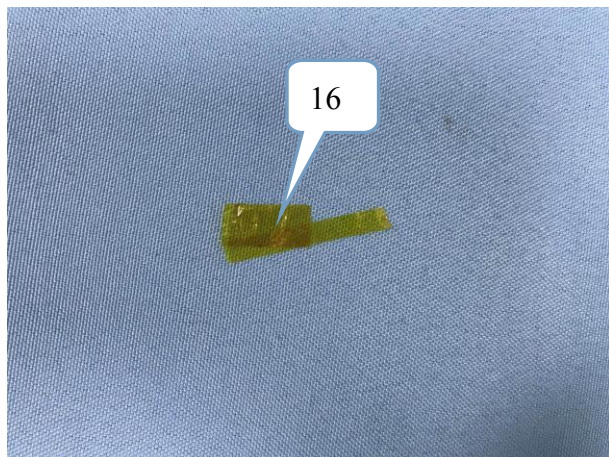
product



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*** End of Report ***

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