

# TEST REPORT

**APPLICANT** : Xindao B.V.

**ADDRESS** : P.O. Box 3082, 2280 GB, Rijswijk, The Netherlands

**PRODUCT DESCRIPTION** : True wireless sport earbuds

**ITEM NUMBER** : P326.28

**COUNTRY OF ORIGIN** : China

**COUNTRY OF IMPORT** : Europe

**SAMPLE RECEIVED DATE** : 24-Aug-2017

**TURN AROUND TIME** : 24-Aug-2017 to 05-Sep-2017

**TEST SPECIFICATION** : EC Directive 2011/65/EU —The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment — (RoHS)

**CONCLUSION** : Based on the analysis on the submitted sample(s), the test results do comply with the RoHS directive 2011/65/EU.

\*\*\*\*\* FOR FURTHER DETAILS, PLEASE REFER TO THE FOLLOWING PAGE(S) \*\*\*\*\*

Signed for and on behalf of  
Eurofins Product Testing Service (Shanghai) Co., Ltd



Joyce Liu  
Lab Manager

## SAMPLE PHOTO



# EFSH17081805-CG-01

\*\*\*TO BE CONTINUED\*\*\*

## COMPONENT PHOTO(S)



1



2



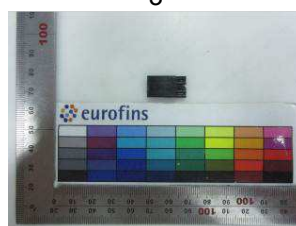
3



4



5



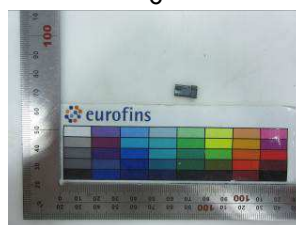
6



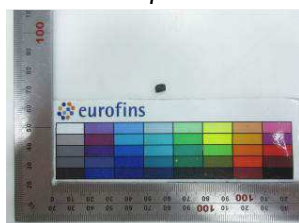
7



8



9



10



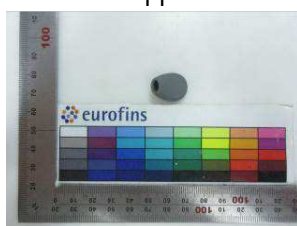
11



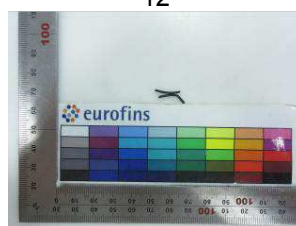
12



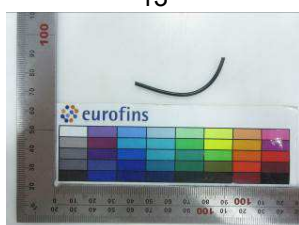
13



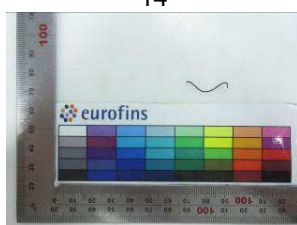
14



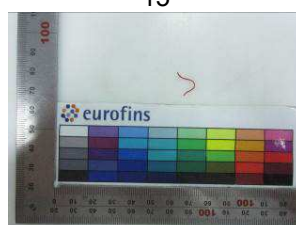
15



16



17

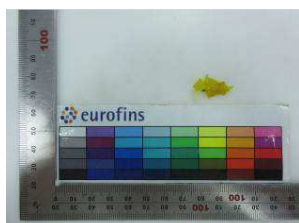


18

# EFSH17081805-CG-01

\*\*\*TO BE CONTINUED\*\*\*

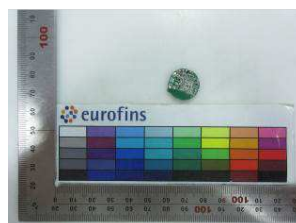
## COMPONENT PHOTO(S)



19



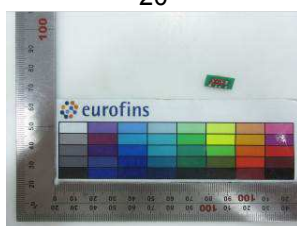
20



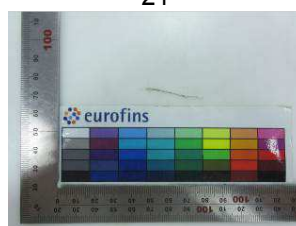
21



22



23



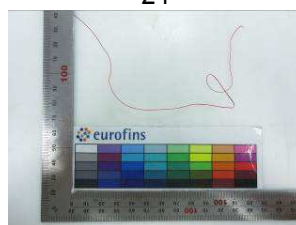
24



25



26



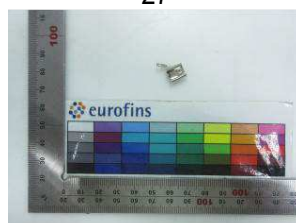
27



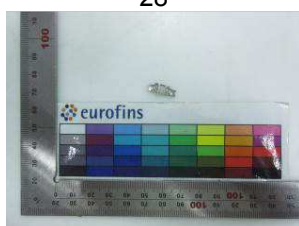
28



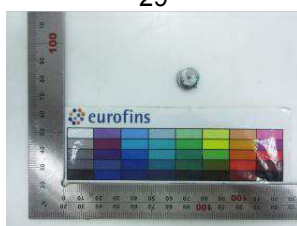
29



30



31



32



33

# EFSH17081805-CG-01

\*\*\*TO BE CONTINUED\*\*\*



## COMPONENT PHOTO(S)



34



35



36



37



38

# EFSH17081805-CG-01

\*\*\*TO BE CONTINUED\*\*\*

## TEST RESULT

### A. Screening Test by XRF Spectroscopy

As specified by client, to analyze the contents of Lead, Cadmium, Mercury, Chromium, Bromine in the submitted sample by XRF. Screening limits in mg/kg for regulated elements in various matrices according to IEC 62321-3-1:2013 Ed.1

No.	Component	Test Results (mg/kg)				
		Cd	Pb	Hg	Cr	Br
		Limit (mg/kg)				
		100	1000	1000	Cr(VI):1000	PBB:1000 PBDE:1000
1	Black plastic block 1	ND	ND	ND	ND	ND
2	Black plastic block 2	ND	ND	ND	185	ND
3	Black plastic block 3	ND	ND	ND	ND	ND
4	Black plastic block 4	ND	ND	ND	ND	ND
5	Black plastic block 5	ND	ND	ND	ND	ND
6	Black plastic block 6	ND	ND	ND	ND	NC
7	Black plastic block 7	ND	ND	ND	ND	ND
8	Black plastic block 8	ND	ND	ND	ND	ND
9	Black plastic block 9	ND	ND	ND	250	ND
10	Black electronic component	11	ND	ND	ND	ND
11	Black rubber block 1	ND	ND	ND	ND	ND
12	Black rubber block 2	ND	ND	ND	ND	ND
13	Black rubber block 3	ND	ND	ND	ND	ND
14	Grey rubber block	ND	ND	ND	ND	ND
15	Black rubber sheath	ND	ND	ND	ND	ND
16	Black rubber wire sheath 1	ND	ND	ND	ND	ND
17	Black rubber wire sheath 2	ND	ND	ND	287	ND
18	Red rubber wire sheath	ND	ND	ND	192	ND
19	Transparent yellow plastic tape	ND	ND	ND	347	ND
20	Circuit board 1	ND	ND	ND	ND	NC
21	Circuit board 2	32	ND	ND	ND	NC
22	Circuit board 3	ND	ND	ND	ND	NC
23	Silver metal soldering tin	ND	ND	ND	NC	NA
24	Silver metal wire	13	ND	ND	NC	NA
25	Copper metal wire 1	ND	ND	ND	NC	NA
26	Blue metal wire	ND	ND	ND	NC	NA
27	Red metal wire	ND	ND	ND	NC	NA
28	Silver metal block 1	ND	ND	ND	NC	NA
29	Silver metal block 2	ND	ND	ND	NC	NA
30	Silver metal block 3	ND	ND	ND	NC	NA
31	Silver metal block 4	17	ND	ND	NC	NA
32	Silver metal block 5	ND	ND	ND	NC	NA
33	Silver metal block 6	ND	ND	ND	NC	NA
34	Silver metal sheet	ND	ND	ND	NC	NA
35	Golden metal ring	ND	ND	ND	NC	NA
36	Copper metal wire 2	ND	ND	ND	NC	NA
37	Silver magnet	ND	ND	ND	NC	NA
38	Silver metal screw	ND	ND	ND	NC	NA

\*\*\*TO BE CONTINUED\*\*\*

## TEST RESULT

Abbreviation:	Pb	denotes Lead
	Cd	denotes Cadmium
	Hg	denotes Mercury
	Cr	denotes Chromium
	Cr(VI)	denotes Chromium(VI)
	Br	denotes Bromine
	PBBs	denotes Total Polybrominated Biphenyls
	PBDEs	denotes Total Polybrominated Diphenyl Ethers
	NA	denotes Not Applicable
	ND	denotes Not Detected (Cd<10mg/kg, Pb/ Hg/ Cr<100mg/kg, Br<300mg/kg)
	NC	denotes Not Conclusive

XRF Screening limits for different materials:

Element	Polymers	Metals	Composite Material
Cd	$BL \leq (70-3\sigma) < X < (130+3\sigma) \leq OL$	$BL \leq (70-3\sigma) < X < (130+3\sigma) \leq OL$	$LOD < X < (150+3\sigma) \leq OL$
Pb	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (500-3\sigma) < X < (1500+3\sigma) \leq OL$
Hg	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (500-3\sigma) < X < (1500+3\sigma) \leq OL$
Br	$BL \leq (300-3\sigma) < X$	/	$BL \leq (250-3\sigma) < X$
Cr	$BL \leq (700-3\sigma) < X$	$BL \leq (700-3\sigma) < X$	$BL \leq (500-3\sigma) < X$

**Note:**

BL= Below limit

X = The region where further investigation is necessary

OL = Over limit

3σ = The repeatability of the analyzer at the action level

LOD = Limit of detection

XRF testing results are only used for reference.

### B. Confirmation Test by Wet Chemistry

Tested Item(s)	Test Method	Measured Equipment	MDL
Lead (Pb) /Cadmium (Cd)	IEC 62321-5:2013 Ed.1	ICP-OES	2 mg/kg
Mercury (Hg)	IEC 62321-4:2013 Ed.1	ICP-OES	2 mg/kg
Hexavalent Chromium (Cr(VI))	IEC 62321-7-1:2015 Ed.1	UV-Vis	0.01μg/cm <sup>2</sup>
	IEC62321-7-2:2017		2 mg/kg
Polybrominated Biphenyls (PBBs)	IEC 62321-6: 2015 Ed.1	GC-MS	50 mg/kg
Polybrominated DiphenylEthers (PBDEs)			

\*\*\*TO BE CONTINUED\*\*\*

## TEST RESULT

Component No.	Boiling-water-extraction for Cr(VI) (*1)
23	Negative
24	Negative
25	Negative
26	Negative
27	Negative
28	Negative
29	Negative
30	Negative
31	Negative
32	Negative
33	Negative
34	Negative
35	Negative
36	Negative
37	Negative
38	Negative

**Remark:**

(\*1) The screening result of Chromium(VI) was found in the inconclusive region, Thus the Chromium(VI) content in surface layer have been confirmed with reference to IEC 62321-7-1:2015.

Negative - The Cr(VI) concentration is below  $0.10\mu\text{g}/\text{cm}^2$ . The coating is considered a non-Cr(VI) based coating.

Component No.	Test Results (mg/kg)					
	Cd	Pb	Hg	Cr (VI)	PBBs	PBDEs
	Limit (mg/kg)					
	100	1000	1000	1000	1000	1000
6	-	-	-	-	ND	ND
20	-	-	-	-	ND	ND
21	-	-	-	-	ND	ND
22	-	-	-	-	ND	ND

**Note:**

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

MDL = method detection limit

ND = not detected (<MDL)

mg/kg = milligram per kilogram

$\mu\text{g}/\text{cm}^2$  = micrograms per square centimeter

\*\*\* END OF THE REPORT \*\*\*