



APPLICATION FOR RoHS DIRECTIVE (2011/65/EU)

On Behalf of

WIRELESS SPEAKER SUNGLASSES

P326.981

Prepared For :

Address:

Prepared By : Shenzhen Alpha Product Testing Co., Ltd

**Address: Building i, No.2, Lixin Road, Fuyong Street, Bao'an District,
518103, Shenzhen, Guangdong, China**

Date of Test: December 06 - 12, 2017

Date of Report: December 12, 2017

Report Number: T1872164 06

Version Number: REV0

TEST REPORT
IEC 62321-2:2013, IEC 62321-1:2013, IEC 62321-3-1:2013
Restriction of Hazardous Substance

Report Reference No.....: T1872164 06

Tested by (name + signature): Rev Yuan

Approved by (name + signature): Demi Song

Date of issue: December 12, 2017



Testing Laboratory.....: Shenzhen Alpha Product Testing Co., Ltd.

Address.....: Building i, No.2, Lixin Road, Fuyong Street, Bao'an District, 518103, Shenzhen, Guangdong, China

Testing location / procedure.....: TL [☒] SMT [] TMP []

Testing location / address: (Same as above.)

Applicant's name.....:

Address.....:

Test specification:

Standard.....: IEC 62321-2:2013, IEC 62321-1:2013, IEC 62321-3-1:2013

Test procedure.....: RoHS procedure

Non-standard test method.....: N/A

Test item description.....: WIRELESS SPEAKER SUNGLASSES

Model/Type reference.....: P326.981

Manufacturer.....:

Address.....:

Possible test case verdicts:

BL = Below Limit, OL = Over Limit, LOD = Limit of Detection, -- = Not Regulated

X: the region where further investigation is necessary.

Testing

Date of receipt of test item: December 06, 2017

Date (s) of performance of tests: December 06 - 12, 2017

General remarks:

1. The test results presented in this report relate only to the object tested.
2. This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.
3. When placing electrical equipment on the market, every importer should indicate on the electrical equipment his name, Registered trade name or registered trade mark and the postal address at which he can be contacted. Exceptions should be provided for in cases where the size or nature of the electrical equipment does not allow it. This includes cases where the importer would have to open the packaging to put his name and address on the electrical equipment.

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Test Result of XRF

With reference to IEC 62321-2:2013, review was performed for the samples disjointed from the submitted articles.

With reference to IEC 62321-1:2013, tests were performed for the samples indicated by the photos in the report.

As per IEC 62321-3-1:2013, screened by XRF spectroscopy.

No.	Component Description	Test Item	XRF Result
1	Black plastic key-press of glasses temple	Cadmium (Cd)	BL
		Lead (Pb)	BL
		Mercury (Hg)	BL
		Chromium (Cr)	BL
		Bromine (Br)	BL
2	Black plastic glasses temple	Cadmium (Cd)	BL
		Lead (Pb)	BL
		Mercury (Hg)	BL
		Chromium (Cr)	BL
		Bromine (Br)	BL
3	Red wire covering of speaker connecting wire	Cadmium (Cd)	BL
		Lead (Pb)	BL
		Mercury (Hg)	BL
		Chromium (Cr)	BL
		Bromine (Br)	BL
4	Black wire covering of speaker connecting wire	Cadmium (Cd)	BL
		Lead (Pb)	BL
		Mercury (Hg)	BL
		Chromium (Cr)	BL
		Bromine (Br)	BL
5	Silver color metal of USB terminal base	Cadmium (Cd)	BL
		Lead (Pb)	BL
		Mercury (Hg)	BL
		Chromium (Cr)	BL
		Bromine (Br)	--
6	Black plastic of USB terminal base	Cadmium (Cd)	BL
		Lead (Pb)	BL
		Mercury (Hg)	BL
		Chromium (Cr)	BL
		Bromine (Br)	BL
7	Black wire covering of connecting wire	Cadmium (Cd)	BL
		Lead (Pb)	BL
		Mercury (Hg)	BL
		Chromium (Cr)	BL
		Bromine (Br)	BL

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No.	Component Description	Test Item	XRF Result
8	PCB tin solder	Cadmium (Cd)	BL
		Lead (Pb)	BL
		Mercury (Hg)	BL
		Chromium (Cr)	BL
		Bromine (Br)	--
9	Silver color metal ring of speaker	Cadmium (Cd)	BL
		Lead (Pb)	BL
		Mercury (Hg)	BL
		Chromium (Cr)	BL
		Bromine (Br)	--
10	Transparent film of speaker	Cadmium (Cd)	BL
		Lead (Pb)	BL
		Mercury (Hg)	BL
		Chromium (Cr)	BL
		Bromine (Br)	BL
11	Magnet of speaker	Cadmium (Cd)	BL
		Lead (Pb)	BL
		Mercury (Hg)	BL
		Chromium (Cr)	BL
		Bromine (Br)	--
12	Black plastic shell of speaker	Cadmium (Cd)	BL
		Lead (Pb)	BL
		Mercury (Hg)	BL
		Chromium (Cr)	BL
		Bromine (Br)	BL
13	Coil of speaker	Cadmium (Cd)	BL
		Lead (Pb)	BL
		Mercury (Hg)	BL
		Chromium (Cr)	BL
		Bromine (Br)	--
14	Black plastic glasses frame	Cadmium (Cd)	BL
		Lead (Pb)	BL
		Mercury (Hg)	BL
		Chromium (Cr)	BL
		Bromine (Br)	BL
15	Black transparent lens	Cadmium (Cd)	BL
		Lead (Pb)	BL
		Mercury (Hg)	BL
		Chromium (Cr)	BL
		Bromine (Br)	BL

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No.	Component Description	Test Item	XRF Result
16	Key-press	Cadmium (Cd)	BL
		Lead (Pb)	BL
		Mercury (Hg)	BL
		Chromium (Cr)	BL
		Bromine (Br)	BL
17	Microphone	Cadmium (Cd)	BL
		Lead (Pb)	BL
		Mercury (Hg)	BL
		Chromium (Cr)	BL
		Bromine (Br)	BL
18	Capacitor	Cadmium (Cd)	BL
		Lead (Pb)	BL
		Mercury (Hg)	BL
		Chromium (Cr)	BL
		Bromine (Br)	BL
19	Capacitor	Cadmium (Cd)	BL
		Lead (Pb)	BL
		Mercury (Hg)	BL
		Chromium (Cr)	BL
		Bromine (Br)	BL
20	Capacitor	Cadmium (Cd)	BL
		Lead (Pb)	BL
		Mercury (Hg)	BL
		Chromium (Cr)	BL
		Bromine (Br)	BL
21	Capacitor	Cadmium (Cd)	BL
		Lead (Pb)	BL
		Mercury (Hg)	BL
		Chromium (Cr)	BL
		Bromine (Br)	BL
22	Diode	Cadmium (Cd)	BL
		Lead (Pb)	BL
		Mercury (Hg)	BL
		Chromium (Cr)	BL
		Bromine (Br)	BL
23	Resistor	Cadmium (Cd)	BL
		Lead (Pb)	BL
		Mercury (Hg)	BL
		Chromium (Cr)	BL
		Bromine (Br)	BL

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No.	Component Description	Test Item	XRF Result
24	Triode	Cadmium (Cd)	BL
		Lead (Pb)	BL
		Mercury (Hg)	BL
		Chromium (Cr)	BL
		Bromine (Br)	BL
25	Inductor	Cadmium (Cd)	BL
		Lead (Pb)	BL
		Mercury (Hg)	BL
		Chromium (Cr)	BL
		Bromine (Br)	BL
26	Crystal	Cadmium (Cd)	BL
		Lead (Pb)	BL
		Mercury (Hg)	BL
		Chromium (Cr)	BL
		Bromine (Br)	--
27	LED	Cadmium (Cd)	BL
		Lead (Pb)	BL
		Mercury (Hg)	BL
		Chromium (Cr)	BL
		Bromine (Br)	BL
28	IC	Cadmium (Cd)	BL
		Lead (Pb)	BL
		Mercury (Hg)	BL
		Chromium (Cr)	BL
		Bromine (Br)	BL
29	IC	Cadmium (Cd)	BL
		Lead (Pb)	BL
		Mercury (Hg)	BL
		Chromium (Cr)	BL
		Bromine (Br)	BL
30	Main PCB	Cadmium (Cd)	BL
		Lead (Pb)	BL
		Mercury (Hg)	BL
		Chromium (Cr)	BL
		Bromine (Br)	BL
31	Capacitor	Cadmium (Cd)	BL
		Lead (Pb)	BL
		Mercury (Hg)	BL
		Chromium (Cr)	BL
		Bromine (Br)	BL

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No.	Component Description	Test Item	XRF Result
32	Resistor	Cadmium (Cd)	BL
		Lead (Pb)	BL
		Mercury (Hg)	BL
		Chromium (Cr)	BL
		Bromine (Br)	BL
33	IC	Cadmium (Cd)	BL
		Lead (Pb)	BL
		Mercury (Hg)	BL
		Chromium (Cr)	BL
		Bromine (Br)	BL
34	PCB of battery	Cadmium (Cd)	BL
		Lead (Pb)	BL
		Mercury (Hg)	BL
		Chromium (Cr)	BL
		Bromine (Br)	BL
35	Blue wire core	Cadmium (Cd)	BL
		Lead (Pb)	BL
		Mercury (Hg)	BL
		Chromium (Cr)	BL
		Bromine (Br)	--
36	Brown wire core	Cadmium (Cd)	BL
		Lead (Pb)	BL
		Mercury (Hg)	BL
		Chromium (Cr)	BL
		Bromine (Br)	--
37	Green wire core	Cadmium (Cd)	BL
		Lead (Pb)	BL
		Mercury (Hg)	BL
		Chromium (Cr)	BL
		Bromine (Br)	--
38	Blue wire core	Cadmium (Cd)	BL
		Lead (Pb)	BL
		Mercury (Hg)	BL
		Chromium (Cr)	BL
		Bromine (Br)	--
39	Screw	Cadmium (Cd)	BL
		Lead (Pb)	BL
		Mercury (Hg)	BL
		Chromium (Cr)	BL
		Bromine (Br)	--

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Remark:

- (1) There are the results on total Br while test items on restricted substances are PBBs and PBDEs. There is the result on total Cr while test item on restricted substances is Cr(VI).
- (2) Results are obtained by EDXRF for primary screening, and further chemical testing by ICP-OES (for Cd, Pb, Hg), UV-Vis (for Cr(VI)) and GC-MS (for PBBs, PBDEs) is recommended to be performed, if the concentration exceeds the below warning value according to IEC62321 (unit: mg/kg).

Element	Polymer Material	Metallic Material	Composite Material
Cadmium (Cd)	$BL \leq (70-3\sigma) < X < (130+3\sigma) \leq OL$	$BL \leq (70-3\sigma) < X < (130+3\sigma) \leq OL$	$LOD < X < (150+3\sigma) \leq OL$
Lead (Pb)	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (500-3\sigma) < X < (1500+3\sigma) \leq OL$
Mercury (Hg)	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (500-3\sigma) < X < (1500+3\sigma) \leq OL$
Bromine (Br)	$BL \leq (300-3\sigma) < X$	--	$BL \leq (250-3\sigma) < X$
Chromium (Cr)	$BL \leq (700-3\sigma) < X$	$BL \leq (700-3\sigma) < X$	$BL \leq (500-3\sigma) < X$

- (3) mg/kg = milligram per kilogram

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Tested sample photos



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Tested sample photos



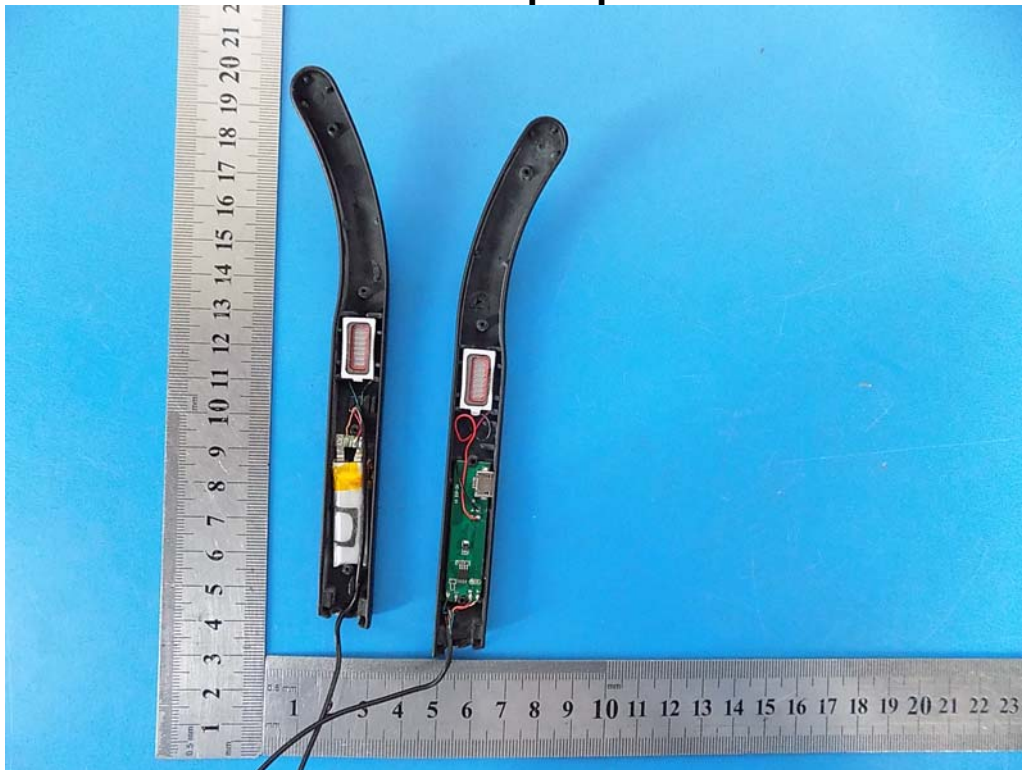
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Tested sample photos



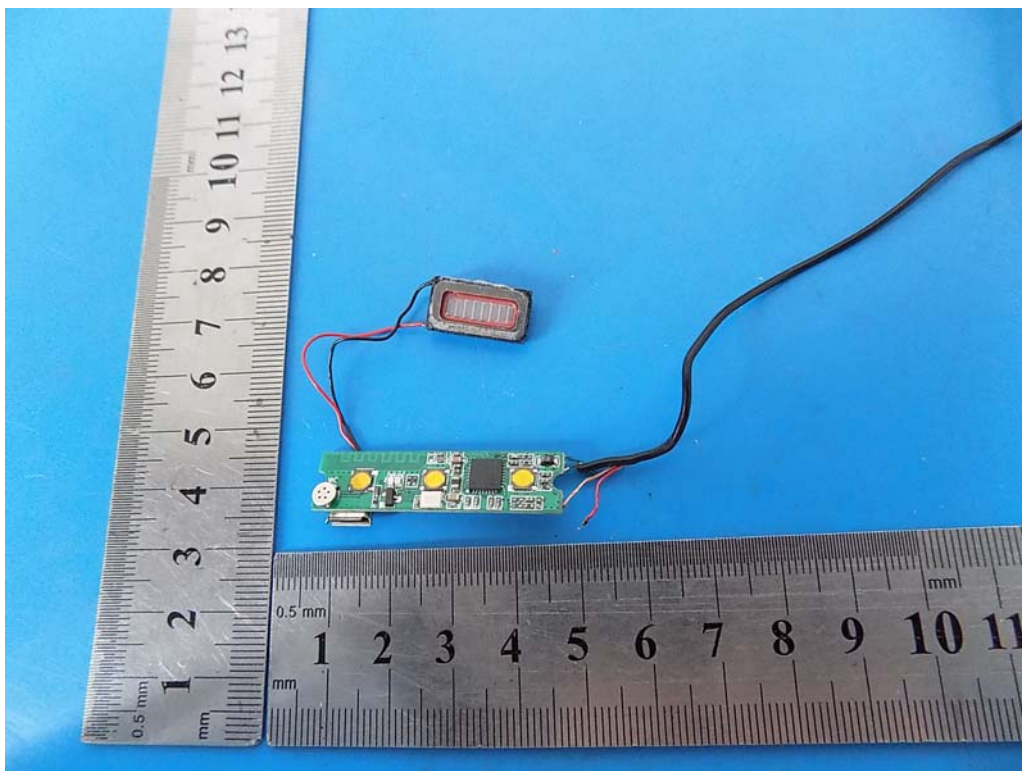
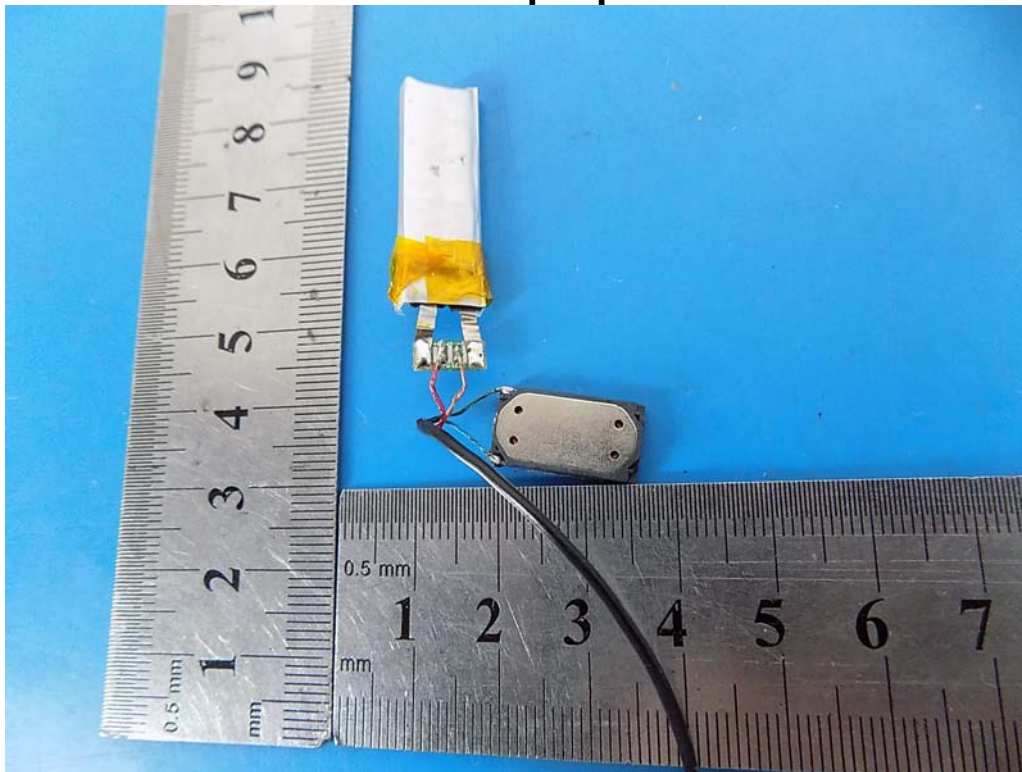
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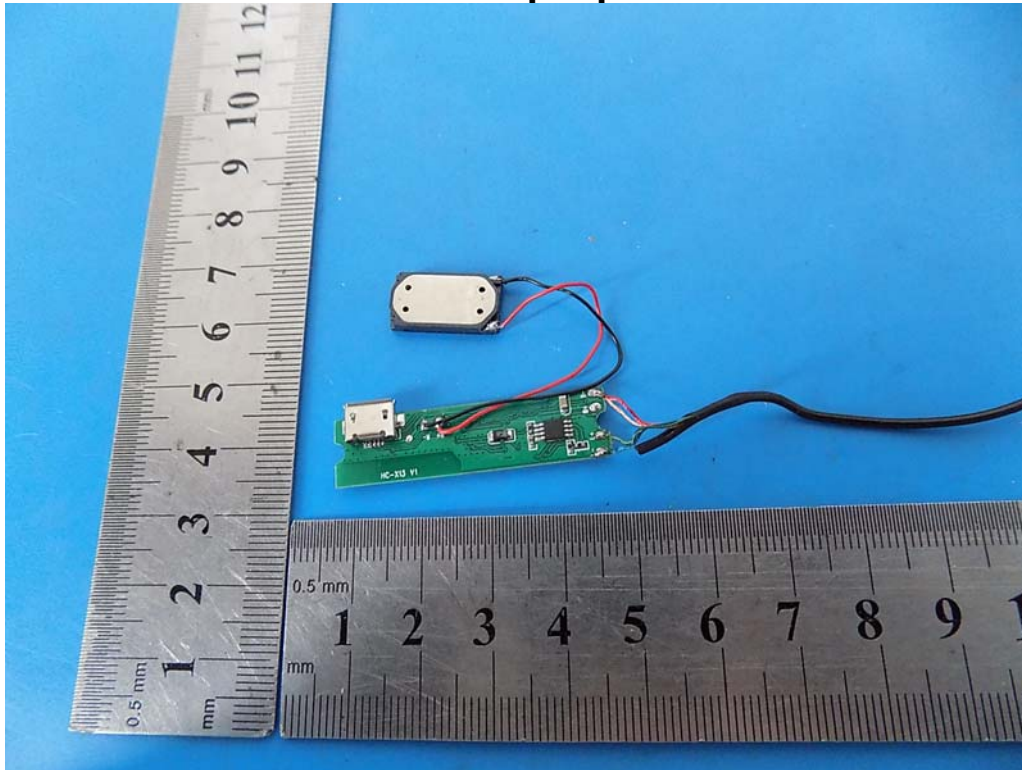
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