



TEST REPORT



LAB NO. : (6615)229-1782
 DATE : August 24, 2015
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APPLICANT : SHENGBANG ELECTRONICS TECHNOLOGY CO.,LTD FUJIAN
 SHIHU INDUSTRIAL PARK, HANJIANG TOWN, SHISHI CITY,
 FUJIAN, CHINA

DATE OF SUBMISSION : August 17, 2015

TEST PERIOD : August 17, 2015 to August 24, 2015

NO. OF WORKING DAY(S) : 6

BV E&E Ref. No. : HBZ-15AU14-02VNTP-A0

SAMPLE DESCRIPTION : One (1) received sample stated to be Radio controlled movement
 Style No.: HD-1688

TESTED ITEM : Radio controlled movement

SUMMARY OF TEST RESULTS

TEST REQUESTED	CONCLUSION
Compliance Test - European Parliament and Council Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) with its Amendments	PASS

REMARK

If there are questions or concerns on this report, please contact the following persons:

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RW/2015

Photo of the Submitted Sample



TEST RESULT

Compliance Test - European Parliament and Council Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) with its Amendments

Test Method : See Appendix.

See Analytes and their corresponding Maximum Allowable Limit in Appendix

-			Result					Conclusion
Parameter			Lead (Pb)	Cadmium (Cd)	Mercury (Hg)	Chromium VI (Cr VI)	PBBs & PBDEs	
Unit			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-
Test Item	Description	Location	-	-	-	-	-	-
1	Silvery metal	Housing	ND	ND	ND	Negative*	NA	PASS
2	Black plastic case		ND	ND	ND	ND	ND	PASS
3	Silvery metal with golden plating		ND	ND	ND	ND	NA	PASS
4	Black fabric		ND	ND	ND	ND	ND	PASS
5	Silvery metal		ND	ND	ND	Negative*	NA	PASS
6	Yellow glue	Inside	ND	ND	ND	ND	ND	PASS
7	Coppery metal wire		ND	ND	ND	ND	NA	PASS
8	Black magnet		ND	ND	ND	ND	ND	PASS
9	Silvery metal screw		ND	ND	ND	ND	NA	PASS
10	Black plastic		ND	ND	ND	ND	ND	PASS
11	White plastic gear		ND	ND	ND	ND	ND	PASS
12	Pink plastic gear		ND	ND	ND	ND	ND	PASS
13	Black plastic gear		ND	ND	ND	ND	ND	PASS
14	Silvery metal shaft		ND	ND	ND	Negative*	NA	PASS
15	Red plastic		ND	ND	ND	ND	ND	PASS
16	Black plastic		ND	ND	ND	ND	ND	PASS
17	Black graphite		ND	ND	ND	ND	ND	PASS
18	Silvery metal		ND	ND	ND	ND	NA	PASS
19	Black plastic		ND	ND	ND	ND	ND	PASS
20	Coppery metal wire		ND	ND	ND	ND	NA	PASS
21	Silvery metal	Switch	ND	ND	ND	Negative*	NA	PASS
22	Black plastic case		ND	ND	ND	ND	ND	PASS
23	Silvery metal		ND	ND	ND	ND	NA	PASS
24	Black plastic (second submission)	ND	ND	ND	ND	ND	PASS	
25	Transparent LED	PCB	ND	ND	ND	ND	ND	PASS
26	Black EC		ND	ND	ND	ND	ND	PASS
27	Silvery metal		ND	ND	ND	ND	NA	PASS
28	Silvery metal solder		ND	ND	ND	ND	NA	PASS
29	Black plastic wire jacket		ND	ND	ND	ND	ND	PASS
30	Red plastic wire jacket		ND	ND	ND	ND	ND	PASS
31	Brown chip capacitor		ND	ND	ND	ND	ND	PASS
32	Silvery crystal		ND	ND	ND	ND	ND	PASS
33	Black chip resistor		ND	ND	ND	ND	ND	PASS
34	Green PCB		ND	ND	ND	ND	ND*	PASS
35	Silvery metal solder		ND	ND	ND	ND	NA	PASS

Note / Key :



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ND = Not detected
NR = Not requested
Detection Limit: See Appendix.

“>” = Greater than
mg/kg = milligram(s) per kilogram = ppm = part(s) per million
NA = Not applicable

“<” = Less than
EX= Exempted

Remark :

- The testing approach is listed in table of Appendix.
- * denotes as reported result(s) was (were) performed by wet chemistry method. Others were screened by XRF. For XRF screening, the result(s) of Cr VI was (were) reported as total chromium and the result(s) of PBBs and PBDEs was (were) reported as total bromine. Also, the XRF result(s) may be different to the actual content based on various factors including, but not limit to, sample size, thickness, area, non-uniformity composition, surface flatness.
- Only selected example(s) is (are) indicated on the photograph(s) in Comment.
- According to European Parliament and Council Directive 2011/65/EU, Article 5 “Adaptation of the Annexes to scientific and technical progress”, exemption(s) should be granted to the materials and components of Test Item(s) in the lists in Annexes III and IV of this directive.

END

APPENDIX

List of Analytes and their Corresponding Test Methods, Detection Limit and Maximum Allowable Limit [Compliance Test for European Parliament and Council Directive 2011/65/EU] :						
No.	Name of Analyte(s)	Detection Limit (mg/kg)				Maximum Allowable Limit (mg/kg)
		X-ray fluorescence (XRF) ^[a]			Wet Chemistry	
		Plastic	Metallic / glass / ceramic	Others		
1	Lead (Pb)	100	200	200	10 ^[b]	1 000
2	Cadmium (Cd)	50	50	50	10 ^[b]	100
3	Mercury (Hg)	100	200	200	10 ^[c]	1 000
4	Chromium (Cr)	100	200	200	NA	NA
5	Chromium VI (Cr VI)	NA	NA	NA	3 ^[g, h] / 10 ^[d] / See ^[e, j]	1 000 / Negative ^[i]
6	Bromine (Br)	200	NA	200	NA	NA
7	Polybromobiphenyls (PBBs) - Bromobiphenyl (MonoBB) - Dibromobiphenyl (DiBB) - Tribromobiphenyl (TriBB) - Tetrabromobiphenyl (TetraBB) - Pentabromobiphenyl (PentaBB) - Hexabromobiphenyl (HexaBB) - Heptabromobiphenyl (HeptaBB) - Octabromobiphenyl (OctaBB) - Nonabromobiphenyl (NonaBB) - Decabromobiphenyl (DecaBB)	NA	NA	NA	Each 50 ^[f]	Sum 1 000
8	Polybromodiphenyl ethers (PBDEs) - Bromodiphenyl ether (MonoBDE) - Dibromodiphenyl ether (DiBDE) - Tribromodiphenyl ether (TriBDE) - Tetrabromodiphenyl ether (TetraBDE) - Pentabromodiphenyl ether (PentaBDE) - Hexabromodiphenyl ether (HexaBDE) - Heptabromodiphenyl ether (HeptaBDE) - Octabromodiphenyl ether (OctaBDE) - Nonabromodiphenyl ether (NonaBDE) - Decabromodiphenyl ether (DecaBDE)	NA	NA	NA	Each 50 ^[f]	Sum 1 000
<p>NA = Not applicable</p> <p>IEC = International Electrotechnical Commission</p> <p>[a] Test method with reference to International Standard IEC 62321-3-1: 2013.</p> <p>[b] Test method with reference to International Standard IEC 62321-5: 2013.</p> <p>[c] Test method with reference to International Standard IEC 62321-4: 2013.</p> <p>[d] Polymers and Electronics - Test method with reference to European Standard EN 62321: 2009, Annex C.</p> <p>[e] Metal - Test method with reference to European Standard EN 62321: 2009, Annex B^[f].</p> <p>[f] Test method with reference to International Standard IEC 62321-6: 2015.</p> <p>[g] Leather - Test method International Standard ISO 17075: 2007.</p> <p>[h] Other Than Metal, Leather, Polymers and Electronics - Test method with reference to International Standard ISO 17075: 2007.</p> <p>[i] The principle of this method was evaluated and supported by two studies organized by IEC TC 111 WG3. These studies were focused on detecting the presence of Cr VI in the corrosion protection coatings on metallic samples.</p> <p>[j] Result(s) of Cr VI for metallic material(s) was (were) expressed in term of positive and negative. Negative means the absence of Cr VI on the tested areas and the result(s) was (were) regarded as in compliance with European Parliament and Council Directive 2011/65/EU, Article 4(1). While, positive means the presence of Cr VI on tested areas and the result(s) was (were) regarded as in conflict with European Parliament and Council Directive 2011/65/EU, Article 4(1).</p>						
Testing Approach [Compliance Test for European Parliament and Council Directive 2011/65/EU] :						
The testing approach was with reference to the following document(s).						
1	International Standards IEC 62321-1: 2013 and IEC 62321-2: 2013					
2	"RoHS Enforcement Guidance Document Version 1" by EU RoHS Enforcement Authorities Informal Network. (May 2006)					
3	"RoHS Regulations - Government Guidance Notes" by United Kingdom Department for Business Innovation & Skills. (February 2011)					
4	"Final Report to RoHS substances (Hg, Pb, Cr(VI), Cd, PBB and PBDE) in electrical and electronic equipment in Belgium" by Belgium Federal Public Service Health, Food Chain Safety and Environment. (November 2005)					