

TEST REPORT

LAB NO. : (9317)156-0768 DATE : Jun 22, 2017 PAGE : 1 OF 10

APPLICANT : FLASHBAY ELECTRONICS

BLGD B&C XI FENG CHENG IND ZONE, NO. 2 FUYUAN ROAD HE PING, VILLAGE, FUYONG TOWN, SHENZHEN

CONTACT PERSON : LEVIN

DATE OF SUBMISSION: Jun 05, 2017

TEST PERIOD : Jun 15, 2017 to Jun 22, 2017

NO. OF WORKING DAYS : 6

SAMPLE DESCRIPTION: Wireless Charger

Color:

Style no. / Model no.: Edge(ED)

P.O. No.:

Country of Origin: China

Country of Destination: /

MANUFACTURER : /

SUMMARY OF TEST RESULTS

TEST REQUESTED	CONCLUSION	REMARK
European Parliament and Council Directive		
2011/65/EU on the Restriction of the Use of Certain	PASS	
Hazardous Substances in Electrical and Electronic		
Equipment (RoHS)		
Phthalates Test – Directive 2015/863/EU Amendment		
of European Parliament and Council Directive		
2011/65/EU on the Restriction of the Use of Certain		
Hazardous Substances in Electrical and Electronic	PASS	
Equipment (RoHS)	1 A33	
(Note: The amendment will be effective on 22 July		
2019. For medical devices and control instruments,		
effective date will be 22 July 2021.)		

RW

Bureau Veritas Consumer Products Services (Guangzhou) Co., Ltd No. 183, Shinan Road, Meilin Plaza, Dongchong,

No. 183, Shinan Road, Meilin Plaza, Dongchong, Nansha, Guangzhou, Guangdong Province, China 511453

Tel: (86) 20 2290 2088 Fax: (86) 20 3490 9303 Email: BVCPS_pyinfo@cn.bureauveritas.com Website: cps.bureauveritas.com This report is governed by, and incorporates by reference, the Conditions of Testing as posted at the date of issuance of this report at http://www.cps.bureauveritas.com and is intended for your exclusive use. Any copying or replication of this report are nay other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes of the tests requested by you and the results thereof based upon the information that you provided to us. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence; provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute you unqualified acceptance of the completeness of this report, the tests conducted



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BUREAU VERITAS CONSUMER PRODUCTS SERVICES (GUANGZHOU) CO., LTD

NINA REN

SENIOR MANAGER

REMARK

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

GENERAL TEL: (86)755 83437287 a) FAX: (86)755 83439100 **BUSINESS SZ TEL:** (86)755 21534695 (86)755 83439100 FAX: BUSINESS GZ TEL: (86) 20 87148525 (86) 20 87148528

FAX: EMAIL: eechemical.sc@cn.bureauveritas.com

WEBSITE cps.bureauveritas.cn



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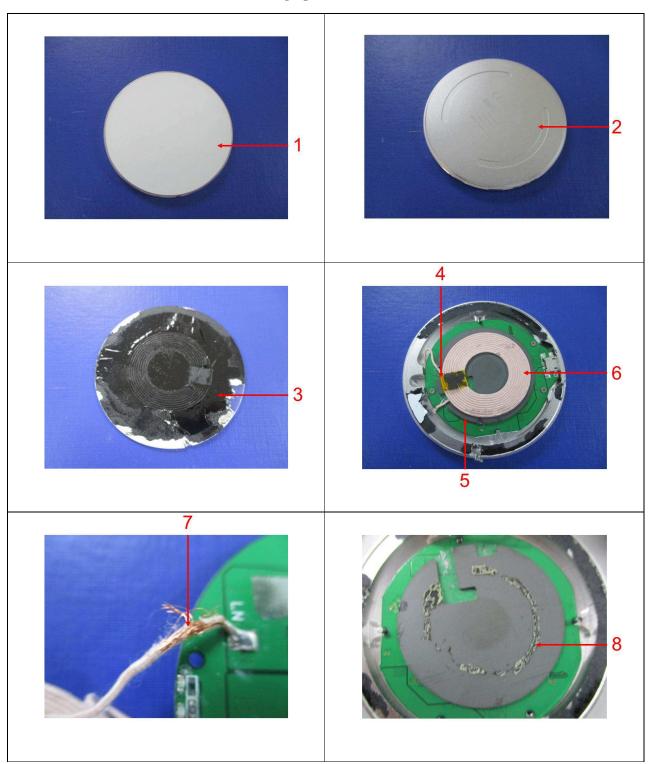
Photo of the Submitted Sample





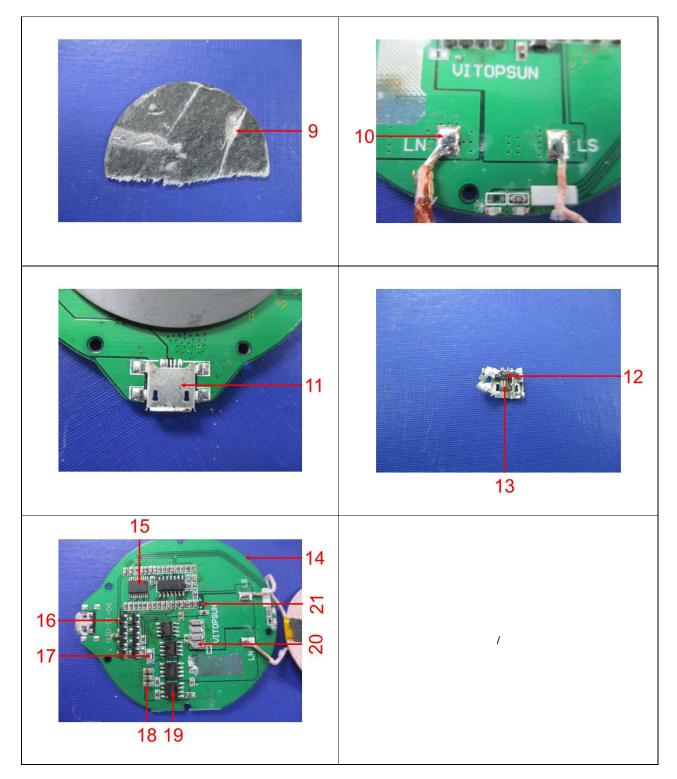
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Photograph of test item(s)





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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)

Test Method: See Appendix.

Test Item(s)	Test Item(s) Item / Component Description(s) + Location(s)				
1	White coated transparent plastic (plate, wireless charger)	-			
2	Silvery metal (case, wireless charger)	-			
3	Black foam with adhesive (plate back, wireless charger)	-			
4	Yellow plastic (adhesive tape)	-			
5	Black magnet (wireless charger)	-			
6	White textile (wire jacket)	-			
7	Coppery metal (wire)	-			
8	Yellow plastic (glue)	-			
9	White plastic (adhesive tape)	-			
10	Silvery solder (connector, pcb)	-			
11	11 Silvery metal (case, connector)				
12	Black plastic (holder, connector)	-			
13	Golden metal (pin, connector)	-			
14	Green pcb (pcb)	-			
15	Black body (ic, pcb)	-			
16	Black body (transistor, pcb)	-			
17	White/ black body (smd resistor, pcb)	-			
18	Brown body (smd capacitor, pcb)	-			
19	Black body (ic, pcb)	-			
20	Grey body (smd capacitor)	-			
21	Black body (diode, pcb)	-			

See Analytes and their corresponding Maximum Allowable Limit in Appendix

-	Result						
Parameter	Lead (Pb)	Cadmium (Cd)	Mercury (Hg)	Chromium VI (Cr VI)	PBBs	PBDEs	Conclusion
Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-
Test Item(s)	-	-	-	-	-	-	-
1	ND	ND	ND	ND	ND	ND	PASS
2	ND	ND	ND	Negative*	NA	NA	PASS
3	ND	ND	ND	ND	ND	ND	PASS
4	ND	ND	ND	ND	ND	ND	PASS
5	ND	ND	ND	ND	NA	NA	PASS
6	ND	ND	ND	ND	ND	ND	PASS
7	ND	ND	ND	ND	NA	NA	PASS
8	ND	ND	ND	ND	ND	ND	PASS
9	ND	ND	ND	ND	ND	ND	PASS
10	ND	ND	ND	ND	NA	NA	PASS
11	ND	ND	ND	ND	NA	NA	PASS
12	ND	ND	ND	ND	ND	ND	PASS
13	ND	ND	ND	ND	NA	NA	PASS
14	ND	ND	ND	ND	ND	ND	PASS



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15	ND	ND	ND	ND	ND	ND	PASS
16	ND	ND	ND	ND	ND	ND	PASS
17	ND	ND	ND	ND	ND	ND	PASS
18	ND	ND	ND	ND	ND	ND	PASS
19	ND	ND	ND	ND	ND	ND	PASS
20	ND	ND	ND	ND	ND	ND	PASS
21	ND	ND	ND	ND	ND	ND	PASS

Note / Key:

 $\begin{array}{ll} ND = Not \; detected & \text{``>''} = Greater \; than & NA = Not \; applicable \\ NR = Not \; requested & mg/kg = milligram(s) \; per \; kilogram = ppm = part(s) \; per \; million \\ \end{array}$

% = percent 10 000 mg/kg = 1 %

Detection Limit: See Appendix.

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.
- The above result(s) of 1-21 is/are transferred from (9317)156-0765 dated on Jun 21, 2017.



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TEST RESULT

Phthalates Test – Directive 2015/863/EU Amendment of European Parliament and Council Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS)

Test Method: With reference to draft International Standard IEC 62321-8.

Test Item(s)	Item / Component Description(s) + Location(s)	Style(s)
1	White coated transparent plastic (plate, wireless charger)	-
3	Black foam with adhesive (plate back, wireless charger)	-
4	Yellow plastic (adhesive tape)	-
8	Yellow plastic (glue)	-
9	White plastic (adhesive tape)	-
12	Black plastic (holder, connector)	-
14	Green pcb (pcb)	-
15	Black body (ic, pcb)	-
16	Black body (transistor, pcb)	-
19	Black body (ic, pcb)	-
21	Black body (diode, pcb)	-

Maximum Allowable Limit: DEHP, BBP, DBP & DIBP: 0.1% (Each)
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T4-1 14(-)	Result	Cli		
Tested Item(s)	Detected Analyte(s)	Conc.	Unit	Conclusion
1+3+4	ND	ND	%	PASS
8+9+12	ND	ND	%	PASS
14+15+16	ND	ND	%	PASS
19+21	ND	ND	%	PASS

Note / Key:

ND = Not detected ">" = Greater than

NR = Not requested mg/kg = milligram(s) per kilogram = ppm = part(s) per million

% = percent 10 000 mg/kg = 1 %

Detection Limit (%): 0.005

Remark: The list of phthalates is summarized in table of Appendix.

The above result(s) of 1-21 is/are transferred from (9317)156-0765 dated on Jun 21, 2017.



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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]:

_	,		Detection Li	mit (mg/kg)	ı	3.6 .
No.	Name of Amelia	X-ray	luorescence (XRF) ^[a]		Maximum Allowable
110.	Name of Analytes	Plastic	Metallic / glass / ceramic	Others	Wet Chemistry	Limit (mg/kg)
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 ^[j]
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

NA = Not applicable

- [a] Test method with reference to International Standard IEC 62321-3-1: 2013.
- [b] Test method with reference to International Standard IEC 62321-5: 2013.
- [c] Test method with reference to International Standard IEC 62321-4: 2013.
- [d] Polymers and Electronics Test method with reference to European Standard EN 62321: 2009, Annex C.
- [e] Metal Test method with reference to International Standard IEC 62321-7-1: 2015 [i].
- Test method with reference to International Standard IEC 62321-6: 2015.
- [g] Leather Test method International Standard ISO 17075: 2007.
- (h) Other Than Metal, Leather, Polymers and Electronics Test method with reference to International Standard ISO 17075: 2007.
- 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. 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



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2011/65/EU, Article 4(1).

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)

List o	List of Phthalates:							
No.	Name of Analytes	CAS-No.	No.	Name of Analytes	CAS-No.			
1	Bis(2-ethylhexyl) phthalate (DEHP)	117-81-7	3	Dibutyl phthalate (DBP)	84-74-2			
2	Butyl benzyl phthalate (BBP)	85-68-7	4	Diisobutyl phthalate (DIBP)	84-69-5			

END