

TEST REPORT

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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: Nov 08, 2017

TEST PERIOD : Nov 08, 2017 to Nov 14, 2017

NO. OF WORKING DAYS : 5

SAMPLE DESCRIPTION : USB Flash Drive

Color: Flex(FX) Axis(AX), Swift(ST)

Style no. / Model no.:

P.O. No.:

Country of Origin:

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 | PASS | |
| Hazardous Substances in Electrical and Electronic | | |
| Equipment (RoHS) | | |
| (Note: The amendment will be effective on 22 July | | |
| 2019. For medical devices and control instruments, | | |
| effective date will be 22 July 2021.) | | |

RW

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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 to or for any 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 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 and the corporation and the results and 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

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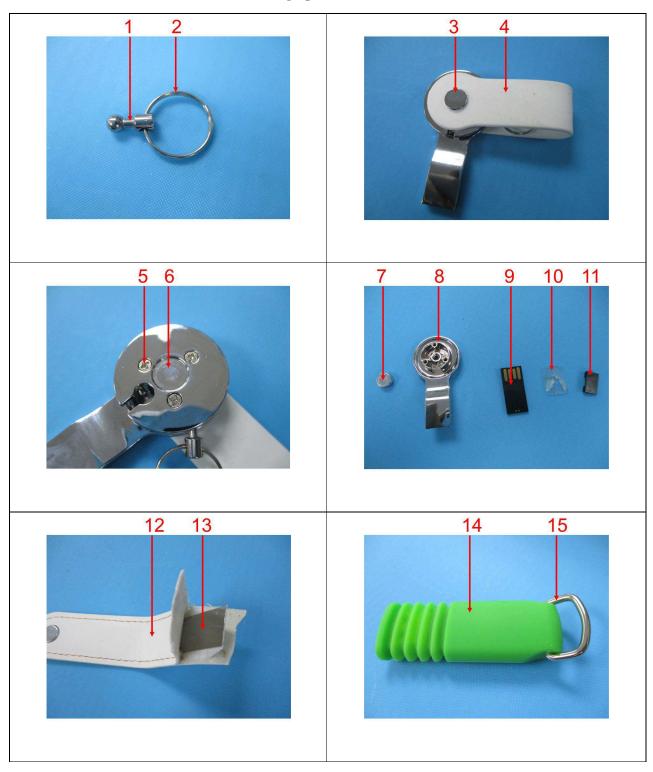
Photo of the Submitted Sample





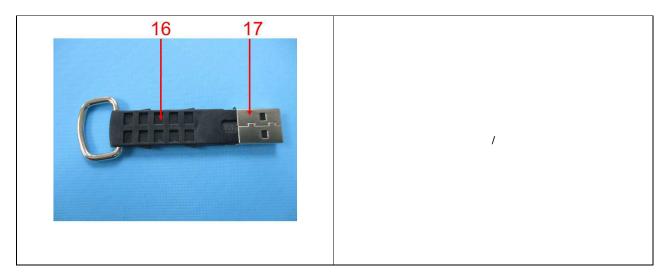
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Photograph of test item(s)





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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) | Item / Component Description(s) + Location(s) | Style(s) |
|--------------|--|----------|
| 1 | Silvery metal (hanging axis)(axisax) | - |
| 2 | Silvery metal (hanging ring)(axisax) | - |
| 3 | Silvery/ coppery plated silvery metal (cover)(axisax) | - |
| 4 | White soft plastic (buckle)(axisax) | - |
| 5 | Silvery metal (screw)(axisax) | - |
| 6 | Silvery metal (inner buckle, washer)(axisax) | - |
| 7 | Silvery magnet (plate)(axisax) | - |
| 8 | Silvery plated golden metal (case)(axisax) | - |
| 9 | Black chip (inner)(axisax) | - |
| 10 | Transparent plastic (plate)(axisax) | - |
| 11 | Black plastic (plate)(axisax) | - |
| 12 | White soft plastic with white fabric (buckle)(swiftst) | - |
| 13 | Silvery metal (plate)(swiftst) | - |
| 14 | Green soft plastic (housing)(flexfx) | - |
| 15 | Silvery metal (hook)(flexfx) | - |
| 16 | Black plastic (frame)(flexfx) | - |
| 17 | Silvery metal (connector)(flexfx) | - |

See Analytes and their corresponding Maximum Allowable Limit in Appendix

| - | Result | | | | | | | |
|--------------|-----------|-------|----------------------------------|-----------|-------|-------|------------|--|
| Parameter | Lead (Ph) | | Mercury Chromium (Hg) 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 | NA | NA | PASS | |
| 2 | ND | ND | ND | ND | NA | NA | PASS | |
| 3 | ND | ND | ND | Negative* | NA | NA | PASS | |
| 4 | ND | ND | ND | ND | ND | ND | PASS | |
| 5 | ND | ND | ND | ND | NA | NA | PASS | |
| 6 | ND | ND | ND | Negative* | NA | NA | PASS | |
| 7 | ND | ND | ND | Negative* | NA | NA | PASS | |
| 8 | ND | ND | ND | ND | NA | NA | PASS | |
| 9 | ND | ND | ND | ND | ND* | ND* | PASS | |
| 10 | ND | ND | ND | ND | ND | ND | PASS | |
| 11 | ND | ND | ND | ND | ND | ND | PASS | |
| 12 | ND | ND | ND | ND | ND | ND | PASS | |
| 13 | ND | ND | ND | Negative* | NA | NA | PASS | |
| 14 | ND | ND | ND | ND | ND | ND | PASS | |
| 15 | ND | ND | ND | ND | NA | NA | PASS | |
| 16 | ND | ND | ND | ND | ND ND | | PASS | |
| 17 | ND | ND | ND | Negative* | NA | NA | PASS | |



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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 : 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.
- 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.



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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) |
|--------------|--|----------|
| 4 | White soft plastic (buckle)(axisax) | - |
| 9 | Black chip (inner)(axisax) | - |
| 10 | Transparent plastic (plate)(axisax) | - |
| 11 | Black plastic (plate)(axisax) | - |
| 12 | White soft plastic with white fabric (buckle)(swiftst) | - |
| 14 | Green soft plastic (housing)(flexfx) | - |
| 16 | Black plastic (frame)(flexfx) | - |

| Maximum Allowable Limit: | DEHP, BBP, DBP & DIBP: 0.1% (Each) |
|-----------------------------|------------------------------------|
|-----------------------------|------------------------------------|

| T4-1 I4(-) | Result | Canalusian | | |
|----------------|---------------------|------------|------|------------|
| Tested Item(s) | Detected Analyte(s) | Conc. | Unit | Conclusion |
| 4 | ND | ND | % | PASS |
| 9+10+11 | ND | ND | % | PASS |
| 12+14+16 | 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.



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APPENDIX

| | | | Maximum | | | |
|------|--|--|----------------|---------------------|---|------------------------------------|
| No. | Name of Analytes | X-ray | fluorescence (| XRF) ^[a] | | Allowable |
| 110. | Name of Analytes | Plastic Metallic / Plastic glass / Other | | 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.
- Test method with reference to International Standard IEC 62321-4: 2017.
- [d] Polymers and Electronics Test method with reference to European Standard EN 62321-7-2: 2017.
- [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.
- 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



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areas and the result(s) was (were) regarded as in conflict with European Parliament and Council Directive 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 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