



TEST REPORT

LAB NO. : (9318)318-0991
DATE : Nov 22, 2018
PAGE : 1 OF 9

APPLICANT : **FLASHBAY ELECTRONICS**
1-4/F OF BLDG NO.3, BLDG NO.2, 101-501F OF BLDG NO.1,
XIFENGCHENG INDUSTRIAL PARK, NO.2, FUYUAN ROAD,
HEPING COMMUNITY, FUHAI STREET, BAOAN DISTRICT,
SHENZHEN CITY, GUANGDONG PROVINCE, P.R. CHINA

CONTACT PERSON : LEVIN

DATE OF SUBMISSION : Nov 14, 2018

TEST PERIOD : Nov 14, 2018 to Nov 22, 2018

NO. OF WORKING DAYS : 7

SAMPLE DESCRIPTION : USB Flash Drives

Color: /

Style no. / Model no.: Code(CD)

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

**Bureau Veritas Consumer Products Services
(Guangzhou) Co., Ltd**
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, CPS Conditions of Service as posted at the date of issuance of this report at <http://www.bureauveritas.com/home/about-us/our-business/cps/about-us/terms-conditions/> 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 all of the tests requested by you and the results thereof based upon the information that you provided to us. Measurement uncertainty is only provided upon request for accredited tests. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence or if you require measurement uncertainty; 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 your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.

The content of this PDF file is in accordance with the original issued reports for reference only.
This Test Report cannot be reproduced, except in full, without prior written permission of the company.



LAB NO. : (9318)318-0991
DATE : Nov 22, 2018
PAGE : 2 OF 9

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



NINA REN
SENIOR MANAGER

REMARK

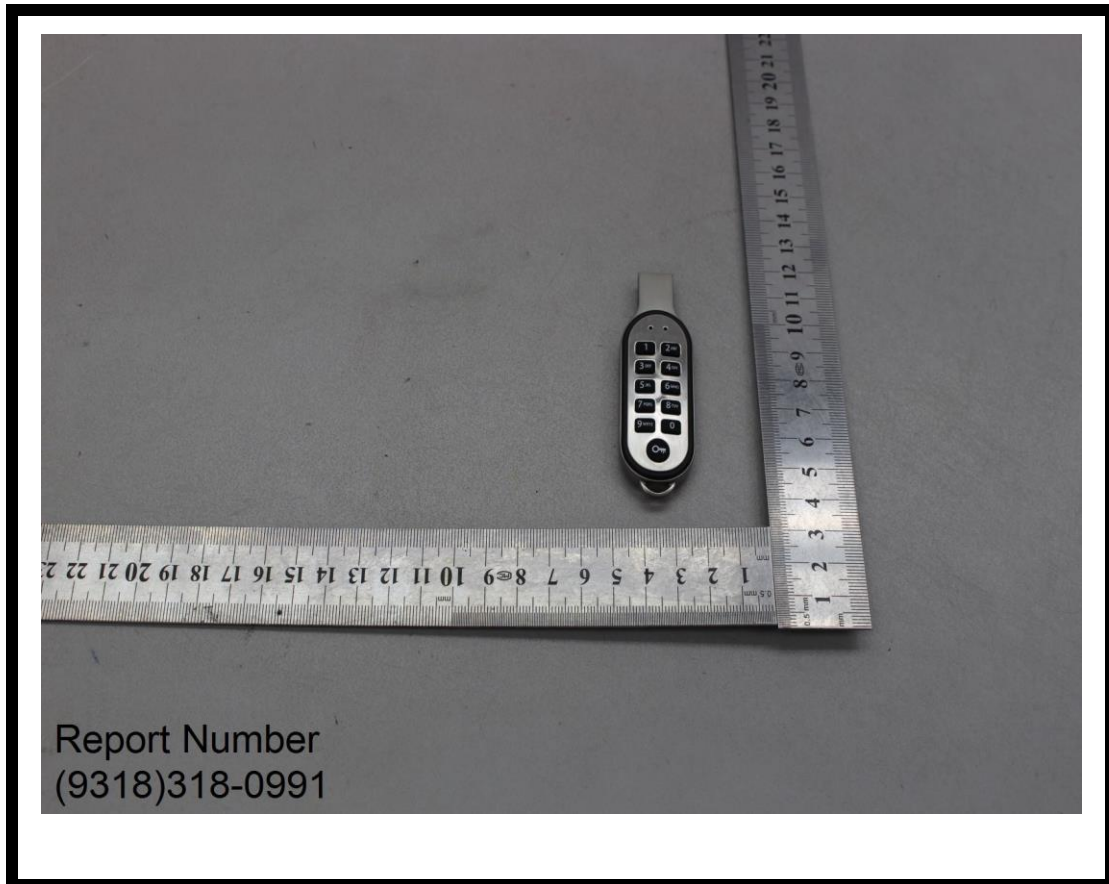
If there are questions or concerns on this report, please contact the following persons:

- a) GENERAL TEL: (86)755 83437287
FAX: (86)755 83439100
- b) BUSINESS SZ TEL: (86)755 21534695
FAX: (86)755 83439100
BUSINESS GZ TEL: (86) 20 87148525
FAX: (86) 20 87148528
- EMAIL: eechemical.sc@cn.bureauveritas.com
WEBSITE: cps.bureauveritas.cn

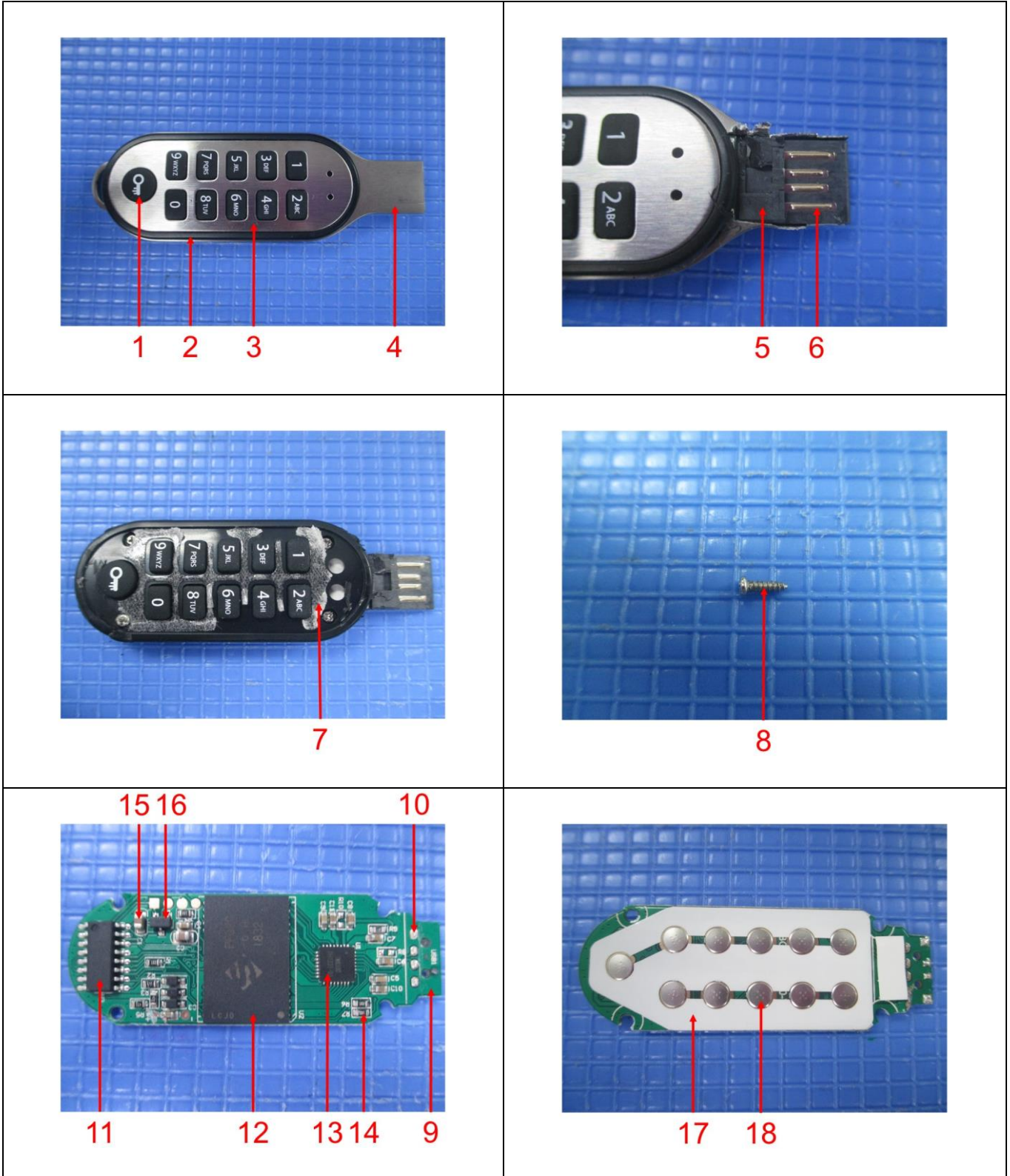


LAB NO. : (9318)318-0991
DATE : Nov 22, 2018
PAGE : 3 OF 9

Photo of the Submitted Sample



Photograph of test item(s)





**BUREAU
VERITAS**

LAB NO. : (9318)318-0991
DATE : Nov 22, 2018
PAGE : 5 OF 9

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	White printed black soft plastic (key, usb)	-
2	Black plastic (case, usb)	-
3	Silvery metal (plate, usb)	-
4	Silvery metal (case, usb)	-
5	Black plastic (insulation, usb)	-
6	Golden plated silvery metal (pin, usb)	-
7	White soft plastic with adhesive (double sides adhesive tape)	-
8	Dark silvery metal (screw)	-
9	Green pcb (pcb)	-
10	Silvery solder (connector, pcb)	-
11	Black body (ic"u3", pcb)	-
12	Black body (ic"u2", pcb)	-
13	Black body (ic"u1", pcb)	-
14	Black/ white body (smd resistor, pcb)	-
15	Brown body (smd capacitor, pcb)	-
16	Black body (smd transistor, pcb)	-
17	White plastic (foil, pcb)	-
18	Silvery metal (contact plate, pcb)	-

See Analytes and their corresponding Maximum Allowable Limit in Appendix

Parameter	Result						Conclusion
	Lead (Pb)	Cadmium (Cd)	Mercury (Hg)	Chromium VI (Cr VI)	PBBs	PBDEs	
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	ND	ND	ND	PASS
3	ND	ND	ND	Negative*	NA	NA	PASS
4	ND	ND	ND	ND	NA	NA	PASS
5	ND	ND	ND	ND	ND	ND	PASS
6	ND	ND	ND	ND	NA	NA	PASS
7	ND	ND	ND	ND	ND	ND	PASS
8	ND	ND	ND	ND	NA	NA	PASS
9	ND	ND	ND	ND	ND*	ND*	PASS
10	ND	ND	ND	ND	NA	NA	PASS
11	ND	ND	ND	ND	ND	ND	PASS
12	ND	ND	ND	ND	ND	ND	PASS
13	ND	ND	ND	ND	ND	ND	PASS
14	ND	ND	ND	ND	ND	ND	PASS
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	Negative*	NA	NA	PASS



LAB NO. : (9318)318-0991
DATE : Nov 22, 2018
PAGE : 6 OF 9

Note / Key :

ND = Not detected

NR = Not requested

% = percent

Detection Limit : See Appendix.

“>” = Greater than

mg/kg = milligram(s) per kilogram = ppm = part(s) per million

10 000 mg/kg = 1 %

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.



LAB NO. : (9318)318-0991
 DATE : Nov 22, 2018
 PAGE : 7 OF 9

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 International Standard IEC 62321-8.

Test Item(s)	Item / Component Description(s) + Location(s)	Style(s)
1	White printed black soft plastic (key, usb)	-
2	Black plastic (case, usb)	-
5	Black plastic (insulation, usb)	-
7	White soft plastic with adhesive (double sides adhesive tape)	-
9	Green pcb (pcb)	-
11	Black body (ic"u3", pcb)	-
12	Black body (ic"u2", pcb)	-
13	Black body (ic"u1", pcb)	-
16	Black body (smd transistor, pcb)	-
17	White plastic (foil, pcb)	-

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

Tested Item(s)	Result			Conclusion
	Detected Analyte(s)	Conc.	Unit	
1+7	ND	ND	%	PASS
2+5+17	ND	ND	%	PASS
9+12	ND	ND	%	PASS
11+13+16	ND	ND	%	PASS

Note / Key :

ND = Not detected
 NR = Not requested
 % = percent
 Detection Limit (%) : 0.005

">" = Greater than
 mg/kg = milligram(s) per kilogram = ppm = part(s) per million
 10 000 mg/kg = 1 %

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



**BUREAU
VERITAS**

LAB NO. : (9318)318-0991
DATE : Nov 22, 2018
PAGE : 8 OF 9

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 Analytes	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, i]	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: 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].

^[f] 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.

^[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. 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

^[j]



**BUREAU
VERITAS**

LAB NO. : (9318)318-0991
DATE : Nov 22, 2018
PAGE : 9 OF 9

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