



CONSUMER PRODUCTS SERVICES DIVISION

FLASHBAY ELECTRONICS

Technical Report: (8518)176-0308
Date Received: June 25, 2018

June 29, 2018
Page 1 of 11

LEVIN
FLASHBAY ELECTRONICS
BLGD B & C XI FENG CHENG IND ZONE ,
NO.2 FUYUAN ROAD , HEPING VILLAGE ,
FUYONG TOWN , SHENZHEN

Sample Description:	USB CABLES		
	1.) A		
	2.) B		
	3.) C		
Vendor:	N/A	Sample Size:	5
Manufacturer:	N/A	Style No(s):	MOTION, TAL,TAC, MULTI
Buyer:	N/A	SKN/SKU No.:	N/A
Labeled Age Grade:	NOT PRESENT	PO No.:	N/A
Appropriate Age Grade:	NOT REQUESTED	Ref #:	N/A
Client Specified Age Grade:	NOT SPECIFIED	Country of Origin:	NO INFORMATION
Grade:			
Tested Age Grade:	N/A	Assortment No.:	N/A
UPC Code:	N/A		

EXECUTIVE SUMMARY:

The sample(s) MEET the following requirement(s):

- European Parliament and Council Directive 2011/65/EU on the Restriction of the Use of Certain 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 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.)

BUREAU VERITAS SHENZHEN CO.,LTD

Choy Hon Kwong, Adams
Senior Manager
Analytical Department

AC/jn



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	Transparent plastic	Keyring cables	A
2	Silvery metal	Keyring cables	A
3	Bright black plastic	Frame	A
4	Black soft plastic	Wire cable	A
5	Bright black soft plastic	Wire cable	C
6	White soft plastic	Frame	B
7	Bright white soft plastic	Cable jacket	B
8	Translucent plastic	Inner frame	A,B
9	Off white plastic	Frame	C
10	Silvery magnet	Plate	C
11	Golden metal	Pin, frame	C
12	Blue / green / red plated coppery metal	Wire	A-C
13	White fabric	String, inner wire	A,B
14	Silvery metal	Cover, USB plug	A,B
15	Matt white plastic	Base, inner USB plug	A,B
16	Silver plated golden metal	Pin, USB plug	A,B
17	Silvery solder	Pin, USB plug	A,B
18	Silvery metal	Cover, mini USB	A,B
19	Pale white soft plastic	Inner mini USB	A,B
20	Pale black plastic	Base, mini USB	A,B
21	Silvery metal	Plate, mini USB	A,B
22	Silver plated golden metal	Pin, mini USB	A,B
23	Silvery solder	Pin, mini USB	A,B
24	Silvery metal	Cover, TYPE-C USB	A-C
25	Matt white plastic	Cover, TYPE-C USB	A-C
26	Bright silvery metal	Plate, TYPE-C USB	A-C
27	Pale black plastic	Base, TYPE-C USB	A-C
28	Silvery metal	Plate, TYPE-C USB	A-C
29	Golden metal	Pin, TYPE-C USB	A-C
30	Brown body	SMD capacitor, TYPE-C USB PCB	B,C
31	Black / white body	SMD resistor, TYPE-C USB PCB	B,C
32	White printed green coated translucent plastic / coppery metal	TYPE-C USB PCB	B,C



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)
33	Silvery solder	TYPE-C USB PCB	B,C
34	Silvery metal	Case, iphone USB	A-C
35	Bright silvery metal	Frame, iphone USB	A-C
36	Bright white plastic	Frame, iphone USB	A-C
37	Beige plastic	Inner cover, iphone USB	A-C
38	Golden metal	Pin, iphone USB	A-C
39	Brown body	SMD capacitor, iphone USB PCB	B,C
40	Black / white body	SMD resistor, iphone USB PCB	B,C
41	Black body	SMD transistor, iphone USB PCB	B,C
42	Bright black body	IC, iphone USB PCB	B,C
43	White printed green coated translucent plastic / coppery metal	Iphone USB PCB	B,C
44	Silvery solder	Iphone USB PCB	B,C
45	Brown body	SMD capacitor, PCB	A
46	Black / white body	SMD resistor, PCB	A
47	Black body	SMD transistor, PCB	A
48	Bright black body	SMD IC, PCB	A
49	White printed green coated translucent plastic / coppery metal	PCB	A
50	Silvery solder	PCB	A
51	Off white plastic	Base, USB	C
52	Silver plated golden metal	Pin, USB	C
53	Silvery solder	Pin, USB	C



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.

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	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	ND	ND	PASS
6	ND	ND	ND	ND	ND	ND	PASS
7	ND	ND	ND	ND	ND	ND	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	NA	NA	PASS
13	ND	ND	ND	ND	ND	ND	PASS
14	ND	ND	ND	ND	NA	NA	PASS
15	ND	ND	ND	ND	ND [#]	ND [#]	PASS
16	ND	ND	ND	ND	NA	NA	PASS
17	ND	ND	ND	ND	NA	NA	PASS
18	ND	ND	ND	Negative [#]	NA	NA	PASS
19	ND	ND	ND	ND	ND	ND	PASS
20	ND	ND	ND	ND	ND [#]	ND [#]	PASS
21	ND	ND	ND	Negative [#]	NA	NA	PASS
22	ND	ND	ND	ND	NA	NA	PASS
23	ND	ND	ND	ND	NA	NA	PASS
24	ND	ND	ND	Negative [#]	NA	NA	PASS
25	ND	ND	ND	ND	ND	ND	PASS
26	ND	ND	ND	Negative [#]	NA	NA	PASS
27	ND	ND	ND	ND	ND	ND	PASS
28	ND	ND	ND	Negative [#]	NA	NA	PASS
29	ND	ND	ND	ND	NA	NA	PASS
30	<500	ND	ND	ND	ND	ND	PASS
31	>1500	ND	ND	ND	ND	ND	EXEMPTED



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.

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)	-	-	-	-	-	-	-
32	ND	ND	ND	ND	ND [#]	ND [#]	PASS
33	ND	ND	ND	ND	NA	NA	PASS
34	ND	ND	ND	Negative [#]	NA	NA	PASS
35	ND	ND	ND	ND	NA	NA	PASS
36	ND	ND	ND	ND	ND	ND	PASS
37	ND	ND	ND	ND	ND	ND	PASS
38	>1500	ND	ND	ND	NA	NA	EXEMPTED
39	>1500	ND	ND	ND	ND	ND	EXEMPTED
40	>1500	ND	ND	ND	ND	ND	EXEMPTED
41	>1500	ND	ND	ND	ND [#]	ND [#]	EXEMPTED
42	>1500	ND	ND	ND	ND [#]	ND [#]	EXEMPTED
43	ND	ND	ND	ND	ND [#]	ND [#]	PASS
44	ND	ND	ND	ND	NA	NA	PASS
45	>1500	ND	ND	ND	ND	ND	EXEMPTED
46	>1500	ND	ND	ND	ND	ND	EXEMPTED
47	>1500	ND	ND	ND	ND	ND	EXEMPTED
48	>1500	ND	ND	ND	ND [#]	ND [#]	EXEMPTED
49	ND	ND	ND	ND	ND [#]	ND [#]	PASS
50	ND	ND	ND	ND	NA	NA	PASS
51	ND	ND	ND	ND	ND	ND	PASS
52	ND	ND	ND	ND	NA	NA	PASS
53	ND	ND	ND	ND	NA	NA	PASS

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 %



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)

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.
- According to Annex III of European Parliament and Council Directive 2011/65/EU, exemptions were granted a few materials and Clause 6(c) is reiterated here "Copper alloy containing up to 4 % lead by weight.". Test Item(s) < 38 > was (were) claimed as is by client (received as is). Therefore, this (these) Test Item(s) containing the found lead level should be exempted.
- According to Annex III of European Parliament and Council Directive 2011/65/EU, exemptions were granted a few materials and Clause 7(c)-I is reiterated here "Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound.". Test Item(s) < 31 > < 39 > < 40 > < 41 > < 42 > < 45 > < 46 > < 47 > < 48 > was (were) claimed as is by client (received as is). Therefore, this (these) Test Item(s) containing the found lead level should be exempted.

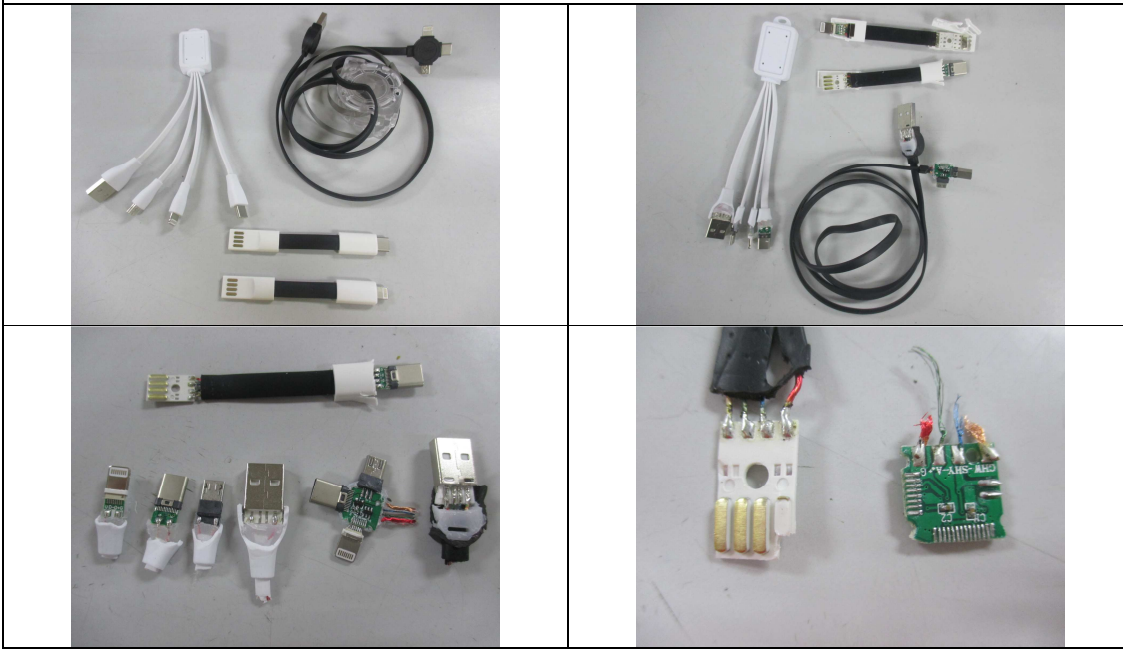
TEST RESULT

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)

Comment :

Photograph(s) [Compliance Test for European Parliament and Council Directive 2011/65/EU] :

Photograph of Test Item(s)



END



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.

Maximum Allowable Limit:	DEHP, BBP, DBP & DIBP: 0.1% (Each)			
Tested Item(s)	Result			Conclusion
	Detected Analyte(s)	Conc.	Unit	
1+3+8	ND	ND	%	PASS
4+5	ND	ND	%	PASS
6+7+19	ND	ND	%	PASS
9+15+20	ND	ND	%	PASS
25+27	ND	ND	%	PASS
36+37+51	ND	ND	%	PASS
49	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.

END



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)

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)				Wet Chemistry	Maximum Allowable Limit (mg/kg)
		X-ray fluorescence (XRF) ^[a]					
		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	



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)

	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.
[ii]	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).

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

TEST RESULT

