



RoHS Verification Assessment Report

Product	
Name, address and contact person of the applicant:	
Name and address of the manufacturer:	
Name and address of the factory:	
Trade mark:	-
Model :	
Series Model :	-
Serial no.:	-
Test sample received (date) :	
Results of testing	Tested product is ascertained that the commodity complies with RoHS Directive (EU) 2015/863 amending 2011/65/EU.
Tested according to:	IEC 62321 Series
Directive	RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment
Additional Information	Test results are only applied to the submitted sample.
Name and address of the test laboratory	SEL Incorporated Association. Dongtan BIZ Tower #1007 63-12, Dongtancheomdansaneop 1-ro Hwaseong-si, Gyeonggi-do Republic of Korea Telephone : (+82)1644-5955 Fax : (+82)31-8055-7449
Tested by	
	Signature _____ Date _____ 202 -00-00 ~ 202 -00-00
Reviewed by	
	Signature _____ Date _____ / Lab Manager 202 -00-00
Test Report No.: RE-P-240101-2-000	Date of Issue : Mar. 00, 202

SEL (SEL Incorporated Association)

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SUMMARY		
	<p>These test results are obtained from three main procedures :</p> <p>i) Screening by the ED-XRF</p> <p>ii) Determination (precision) : Lead, Cadmium and Mercury by ICP-OES Hexavalent Chromium by Colorimetric method and UV/Vis PBBs, PBDEs, DEHP, BBP, DBP and Bisphenol A by GC/MS</p> <p>iii) Composite materials of IC, TR, chip resistor and chip capacitor : Chemical Test</p>	
GENERAL REMARKS		
	<ul style="list-style-type: none"> - This report applies only to the sample(s) tested. It is the manufacturer's responsibility to ensure that they have the additional production units of this product, which is manufactured with identical electrical and mechanical components. - Samples for phthalates analysis are at random from the intermediate and high risk material (e.g. polymers, plastics, resins etc.). - The following materials are not likely to contain phthalates : Metal (Copper alloy, Steel alloy, Aluminum alloy etc.), Glass, Liquid, Ceramic, Paper & Wood. 	
Abbreviation	ND : Not Detected, NA : Not Applicable, DL : Detection Limit	
Test Equipments	ED-XRF (SHIMADZU, EDX-LE) ICP-OES (VARIAN, VISTA PRO) UV/Vis (SHIMADZU, 1650PC) GC/MS (SHIMADZU, QP2010 Ultra)	



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1. Photo

Rear Camera



Front



Cable

Sample Report



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2. PHOTO

1. Part 1 : Cover Ass'y



1-1		1-5	FILM CAMERA
		1-6	FILM TAPE
		1-7	DOUBLE SIDED TAPE
1-4	BRACKET	1-8	SCREW



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3. ED-XRF Screening TEST

No.	Sample Name	Results					Results of Chemical Testing (mg/kg) / colorimetric method	Conclusion on RoHS
		Pb	Cd	Cr	Hg	Br		
1. Part 1 : Cover Ass'y								
1-1	CASE TOP	BL	BL	BL	BL	BL		PASS
1-2	CASE BOTTOM	BL	BL	BL	BL	BL		PASS
1-3	LABEL	BL	BL	BL	BL	BL		PASS
1-4	CASE BRACKET	BL	BL	BL	BL	BL		PASS
1-5	FILM CAMERA	BL	BL	BL	BL	BL		PASS
1-6	FILM TAPE	BL	BL	BL	BL	BL		PASS
1-7	DOUBLE SIDED TAPE	BL	BL	BL	BL	BL		PASS
1-8	SCREW	BL	BL	BL	BL	NA		PASS
2. Part 2 : Inner Ass'y								
2-1	PCB	BL	BL	BL	BL	BL		PASS
2-2	U1	BL	BL	BL	BL	BL		PASS
2-3	U6	BL	BL	BL	BL	BL		PASS
2-4	J8_BODY	BL	BL	BL	BL	BL		PASS
2-5	J8_METAL	BL	BL	BL	BL	NA		PASS
2-6	X101	BL	BL	BL	BL	NA		PASS
2-7	L3	BL	BL	BL	BL	BL		PASS
2-8	D1	BL	BL	BL	BL	BL		PASS
2-9	CAMERA_BODY	BL	BL	BL	BL	NA		PASS
2-10	CAMERA_LENS	BL	BL	BL	BL	BL		PASS
2-11	CAMERA HOLDER	BL	BL	BL	BL	BL		PASS
2-12	LABEL	BL	BL	BL	BL	BL		PASS
3. Part 3 : Cable Ass'y								
*3-1	CABLE ASS'Y 1	OL	BL	BL	BL	NA	Pb : 2.82 x 10 ⁴ (Exemption : Annex III 6(c))	PASS
3-2	CABLE ASS'Y 2	BL	BL	BL	BL	BL		PASS

OL : Over Limit / BL : Below Limit / IN : Inconclusive / ND : Not Detected / NA : Not Applicable / * Chemical Test



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No.	Sample Name	Results					Results of Chemical Testing (mg/kg) / colorimetric method	Conclusion on RoHS
		Pb	Cd	Cr	Hg	Br		
3-3	CABLE ASS'Y 3	BL	BL	BL	BL	BL		PASS
3-4	CABLE ASS'Y 4	BL	BL	BL	BL	BL		PASS
3-5	CABLE ASS'Y 5	BL	BL	BL	BL	BL		PASS
3-6	CABLE ASS'Y 6	BL	BL	BL	BL	BL		PASS
3-7	CABLE ASS'Y 7	BL	BL	BL	BL	BL		PASS
3-8	CABLE ASS'Y 8	BL	BL	BL	BL	BL		PASS
*3-9	CABLE ASS'Y 9	OL	BL	BL	BL	NA	Pb : 2.49 x 10 ⁴ (Exemption : Annex III (c))	PASS
3-10	CABLE ASS'Y 10	BL	BL	BL	BL	BL		PASS
3-11	CABLE ASS'Y 11	BL	BL	BL	BL	BL		PASS
3-12	CABLE ASS'Y 12	BL	BL	BL	BL	BL		PASS

OL : Over Limit / BL : Below Limit / IN : Inconclusive / ND : Not Detected / NA : Not Available / * Chemical Test

sample Report



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4. QUANTITATIVE Analysis of Phthalates

No.	Sample Name	Results of Chemical Testing (mg/kg)				Conclusion on RoHS
		DEHP	BBP	DBP	DIBP	
1. Part 1 : Cover Ass'y						
*1-1	CASE TOP	ND	ND	ND	ND	PASS
*1-6	FILM TAPE	ND	ND	ND	ND	PASS
*1-7	DOUBLE SIDED TAPE	ND	ND	ND	ND	PASS
3. Part 3 : Cable Ass'y						
*3-3	CABLE ASS'Y 3	ND	ND	ND	ND	PASS
*3-4	CABLE ASS'Y 4	ND	ND	ND	ND	PASS
*3-7	CABLE ASS'Y 7	ND	ND	ND	ND	PASS
*3-8	CABLE ASS'Y 8	ND	ND	ND	ND	PASS
*3-10	CABLE ASS'Y 10	ND	ND	ND	ND	PASS
*3-11	CABLE ASS'Y 11	ND	ND	ND	ND	PASS

ND : Not Detected / * Chemical Test / Detection Limit : Each of 50 mg/kg

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1) Remark

a) If the results of ED-XRF screening exceed the below warning value with reference to IEC 62321-3-1:2013, chemical testing is to be performed by ICP-OES (Cd, Pb, Hg), UV/Vis (Cr⁶⁺) and GC/MS (PBBs, PBDEs).

Element	Polymer	Metal	Composite Materials
Cd	X ≤ 67 (BL) 67 < X < 133 (IN) 133 ≤ X (OL)	X ≤ 67 (BL) 67 < X < 133 (IN) 133 ≤ X (OL)	X < LOD(7) (BL) 7 < X < 153 (IN) 153 ≤ X (OL)
Pb	X ≤ 697 (BL) 697 < X < 1303 (IN) 1303 ≤ X (OL)	X ≤ 697 (BL) 697 < X < 1303 (IN) 1303 ≤ X (OL)	X ≤ 497 (BL) 497 < X < 1503 (IN) 1503 ≤ X (OL)
Hg	X ≤ 697 (BL) 697 < X < 1303 (IN) 1303 ≤ X (OL)	X ≤ 697 (BL) 697 < X < 1303 (IN) 1303 ≤ X (OL)	X ≤ 497 (BL) 497 < X < 1503 (IN) 1503 ≤ X (OL)
Br	X ≤ 297 (BL) 297 < X (IN)	-	X ≤ 247 (BL) 247 < X (IN)
Cr	X ≤ 697 (BL) 697 < X (IN)	X ≤ 697 (BL) 697 < X (IN)	X ≤ 497 (BL) 497 < X (IN)

b) OL : Over Limit / BL : Below Limit / IN : Inconclusive

c) ED-XRF screening results of RoHS element may be different from actual content in the sample of non-uniformity composition.

d) According to IEC 62321-7-1:2015, result of Cr⁶⁺ for original sample is shown as Positive or Negative.

- Negative : Absence of Cr⁶⁺ coating
- Positive : Presence of Cr⁶⁺ coating

According to IEC 62321-7-2:2015
(Determination of hexavalent chromium in polymers and electronics by the colorimetric method)

e) This product is in the following exemption item.

- Annex III (c) : Copper alloy containing up to 4 % lead by weight

f) Commission Delegated Directive (EU) 2015/863 of 31 March 2015 amending Annex II to Directive 2011/65/EU of the European Parliament and of the Council as regards the list of restricted substances.

g) Chemical test results of phthalates are obtained by GC/MS in regulated substances according to IEC 62321-8:2017.



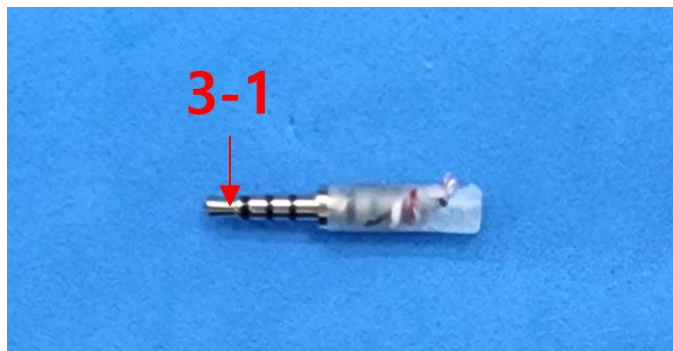
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5. Chemical Test Results

3-1) CABLE ASS'Y 1

Heavy Metals				
Test Items	Test Results	Detection Limit	Unit	Test Methods
Pb	2.82 x 10 ⁴	2.0	mg/kg	IEC 62321-5
Cd	NA	2.0	mg/kg	IEC 62321-5
Hg	NA	5.0	mg/kg	IEC 62321-4
Cr ⁶⁺	NA	0.10	µg/cm ²	IEC 62321-7-1

Flame Retardants				
	Test Items	Test Results (mg/kg)	Detection Limit (mg/kg)	Test Methods
PBBs	Bromobiphenyl	NA	20.0	IEC 62321-6
	Dibromobiphenyl	NA	20.0	
	Tribromobiphenyl	NA	20.0	
	Tetrabromobiphenyl	NA	20.0	
	Pentabromobiphenyl	NA	20.0	
	Hexabromobiphenyl	NA	20.0	
	Heptabromodiphenyl	NA	20.0	
	Octabromobiphenyl	NA	20.0	
	Nonabromobiphenyl	NA	20.0	
	Decabromobiphenyl	NA	20.0	
PBDEs	Bromodiphenyl ether	NA	20.0	IEC 62321-6
	Dibromodiphenyl ether	NA	20.0	
	Tribromodiphenyl ether	NA	20.0	
	Tetrabromodiphenyl ether	NA	20.0	
	Pentabromodiphenyl ether	NA	20.0	
	Hexabromodiphenyl ether	NA	20.0	
	Heptabromodiphenyl ether	NA	20.0	
	Octabromodiphenyl ether	NA	20.0	
	Nonabromodiphenyl ether	NA	20.0	
	Decabromodiphenyl ether	NA	20.0	



NA : Not Applicable

Annex III 6(c) : Copper alloy containing up to 4 % lead by weight



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3-9) CABLE ASS'Y 9

Heavy Metals				
Test Items	Test Results	Detection Limit	Unit	Test Methods
Pb	2.49 x 10 ⁴	2.0	mg/kg	IEC 62321-5
Cd	NA	2.0	mg/kg	IEC 62321-5
Hg	NA	5.0	mg/kg	IEC 62321-4
Cr ⁶⁺	NA	0.10	µg/cm ²	IEC 62321-7-1

Flame Retardants				
	Test Items	Test Results (mg/kg)	Detection Limit (mg/kg)	Test Methods
PBBs	Bromobiphenyl	NA	20.0	IEC 62321-6
	Dibromobiphenyl	NA	20.0	
	Tribromobiphenyl	NA	20.0	
	Tetrabromobiphenyl	NA	20.0	
	Pentabromobiphenyl	NA	20.0	
	Hexabromobiphenyl	NA	20.0	
	Heptabromodiphenyl	NA	20.0	
	Octabromobiphenyl	NA	20.0	
	Nonabromobiphenyl	NA	20.0	
	Decabromobiphenyl	NA	20.0	
PBDEs	Bromodiphenyl ether	NA	20.0	
	Dibromodiphenyl ether	NA	20.0	
	Trisbromodiphenyl ether	NA	20.0	
	Tetrabromodiphenyl ether	NA	20.0	
	Pentabromodiphenyl ether	NA	20.0	
	Hexabromodiphenyl ether	NA	20.0	
	Heptabromodiphenyl ether	NA	20.0	
	Octabromodiphenyl ether	NA	20.0	
	Nonabromodiphenyl ether	NA	20.0	
	Decabromodiphenyl ether	NA	20.0	



SAMPLE REPORT

NA : Not Applicable

Annex III 6(c) : Copper alloy containing up to 4 % lead by weight

- End of Report -