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億光電子工業股份有限公司 EVERLIGHT ELECTRONICS CO., LTD. 新北市樹林區中華路6-8號 NO. 6-8, ZHONGHUA RD., SHULIN DIST., NEW TAIPEI CITY 23860, TAIWAN

以下測試樣品係由申請廠商所提供及確認 (The following sample(s) was/were submitted and identified by/on behalf of the applicant as):

BASIC INFORMATION						
Type of Product	HIGH POWER					
Supplier Company Name	EVERLIGHT					
Address	0.6-8, ZHONGHUA RD., SHULIN DIST., NEW TAIPEI CITY 23860, TAIWAN					
Tel / Fax / Email	TEL:886-2685-6688					
	FAX:886-2685-6699					
	E-MAIL: lindawang@everlight.com					
Contact Person	LI LING WANG					
EVERLIGHT REPORT NO	EVERLIGHT-HIGH POWER XI SERIES					
	Sampling Product: XI3030P/B3C-D5060L3L960681Z15/2N-SGS-13/04/2020					
PRODUCT INFORMATION						
Product/component Sample description	LIGHTING					
Quantity (numbers or weight)	0.0189 g					
EVERLIGHT P/N	HIGH POWER XI SERIES					
	Sampling Product: XI3030P/B3C-D5060L3L960681Z15/2N					
Product Lot No	Y190313B6701BN-ED-FWO					
Country of Origin	TAIWAN					
TEST INFORMATION						
Sample preparation	CUTTING					
Test Method	RoHS: IEC 62321, Halogen: BS EN 14582					
MDL	Cd, Pb, Hg: 2 mg/kg, PBBs/PBDEs: 5 mg/kg, Halogen: 50 mg/kg					
送樣廠商(Sample Submitted By) :	億光電子工業股份有限公司(EVERLIGHT ELECTRONICS CO., LTD.)					
收件日期(Sample Receiving :	2020/04/01					
測試期間(Testing Period) :	2020/04/01 to 2020/04/13					

**测试结果(Test Results)** : 請參閱下一頁 (Please refer to following pages).

Troy Chang / Manager - Tec Signed for and behalf of SĞS TAIWAN LTD. Chemical Laboratory - Taipei





### 測試報告 號碼(No.): CE/2020/40289 日期(Date): 2020/04/13 Test Report

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#### 結論(Conclusion)

- (1) 根據客戶所提供的樣品,其鎘、鉛、汞、六價鉻、多溴聯苯、多溴聯苯醚,DBP,BBP,DEHP,DIBP的測試結果符合 RoHS 2011/65/EU Annex II暨其修訂指令(EU) 2015/863之限值要求. (Based on the performed tests on submitted sample(s), the test results of Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs, DBP, BBP, DEHP, DIBP comply with the limits as set by RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU.)
- (2) 根據客戶所提供的樣品,18項多環芳香烴測試結果符合德國產品安全委員會(AfPS) GS PAHs第 3 類 「列於德國產品 安全法之其他產品」之限值要求. (Based upon the performed tests on the submitted sample(s), the test results of PAHs (18 items) comply with the limits of PAHs requirement (Category 3)「Other products under ProdSG」 as set by German Committee on Product Safety (AfPS) GS PAHs.)

#### 測試結果(Test Results)

测試項目 (Test Items)	單位 (Unit)	测試方法 (Method)	MDL	結果 (Result) No.1	限值 (Limit)
鎘 / Cadmium (Cd)	mg/kg	參考IEC 62321-5 (2013),以感應耦 合電漿發射光譜儀檢測. / With	2	n. d.	100
鉛 / Lead (Pb)	mg/kg	reference to IEC 62321-5 (2013) and performed by ICP-OES.	2	n. d.	1000
汞 / Mercury (Hg)	mg/kg	参考IEC 62321-4:2013+ AMD1:2017, 以感應耦合電漿發射光譜儀檢測. / With reference to IEC 62321- 4:2013+ AMD1:2017 and performed by ICP-OES.	2	n. d.	1000
六價鉻 / Hexavalent Chromium Cr(VI)	mg/kg	参考IEC 62321-7-2 (2017),以UV- VIS檢測. / With reference to IEC 62321-7-2 (2017) and performed by UV-VIS.	8	n. d.	1000

測試部位(PART NAME)No.1 : HIGH POWER



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测試項目 (Test Items)	單位 (Unit)	测試方法 (Method)	MDL	結果 (Result)	限值 (Limit)
		(method)		No. 1	
多溴聯苯總和 / Sum of PBBs	mg/kg		Ι	n. d.	1000
一溴聯苯 / Monobromobiphenyl	mg/kg		5	n. d.	-
二溴聯苯 / Dibromobiphenyl	mg/kg		5	n. d.	-
三溴聯苯 / Tribromobiphenyl	mg/kg		5	n. d.	-
四溴聯苯 / Tetrabromobiphenyl	mg/kg		5	n. d.	-
五溴聯苯 / Pentabromobiphenyl	mg/kg		5	n. d.	-
六溴聯苯 / Hexabromobiphenyl	mg/kg		5	n. d.	-
七溴聯苯 / Heptabromobiphenyl	mg/kg		5	n. d.	-
八溴聯苯 / Octabromobiphenyl	mg/kg		5	n. d.	-
九溴聯苯 / Nonabromobiphenyl	mg/kg	參考IEC 62321-6(2015),以氣相層	5	n. d.	-
十溴聯苯 / Decabromobiphenyl	mg/kg	析/質譜儀檢測. / With reference to IEC 62321-6 (2015) and	5	n. d.	-
多溴聯苯醚總和 / Sum of PBDEs	mg/kg		-	n. d.	1000
一溴聯苯醚 / Monobromodiphenyl ether	mg/kg	performed by GC/MS.	5	n. d.	-
二溴聯苯醚 / Dibromodiphenyl ether	mg/kg		5	n. d.	-
三溴聯苯醚 / Tribromodiphenyl ether	mg/kg		5	n. d.	-
四溴聯苯醚 / Tetrabromodiphenyl ether	mg/kg		5	n. d.	-
五溴聯苯醚 / Pentabromodiphenyl ether	mg/kg		5	n. d.	-
六溴聯苯醚 / Hexabromodiphenyl ether	mg/kg		5	n. d.	-
七溴聯苯醚 / Heptabromodiphenyl ether	mg/kg		5	n. d.	-
八溴聯苯醚 / Octabromodiphenyl ether	mg/kg		5	n. d.	-
九溴聯苯醚 / Nonabromodiphenyl ether	mg/kg		5	n. d.	-
十溴聯苯醚 / Decabromodiphenyl ether	mg/kg		5	n. d.	-



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測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	MDL	結果 (Result) No.1	限值 (Limit)
鄰苯二甲酸丁苯甲酯 / BBP(Butyl Benzyl phthalate)(CAS No.: 85-68-7)	mg/kg		50	n. d.	1000
鄰苯二甲酸二丁酯 / DBP(Dibutyl phthalate)(CAS No.: 84-74-2)	mg/kg		50	n. d.	1000
鄰苯二甲酸二(2-乙基己基)酯 / DEHP (Di- (2-ethylhexyl) phthalate) (CAS No.: 117-81-7)	mg/kg		50	n. d.	1000
鄰苯二甲酸二異丁酯 / DIBP (Di-isobutyl phthalate) (CAS No.: 84-69-5)	mg/kg	參考IEC 62321-8 (2017),以氣相層 析/質譜儀檢測. / With reference to IEC 62321-8 (2017). Analysis was performed by GC/MS.	50	n. d.	1000
鄰苯二甲酸二異癸酯 / DIDP (Di- isodecyl phthalate) (CAS No.: 26761- 40-0; 68515-49-1)	mg/kg		50	n. d.	-
鄰苯二甲酸二異壬酯 / DINP (Di- isononyl phthalate) (CAS No.: 28553- 12-0; 68515-48-0)	mg/kg		50	n. d.	-
鄰苯二甲酸二正辛酯 / DNOP(Di-n-octyl phthalate)(CAS No.: 117-84-0)	mg/kg		50	n. d.	_
鄰苯二甲酸二戊酯 / DNPP (Di-n-pentyl phthalate) (CAS No.: 131-18-0)	mg/kg		50	n. d.	_
鄰苯二甲酸二正己酯 / DNHP (Di-n-hexyl phthalate) (CAS No.: 84-75-3)	mg/kg		50	n. d.	_
鄰苯二甲酸二(2-甲氧基乙基)酯 / DMEP (Bis (2-methoxyethyl) phthalate) (CAS No.: 117-82-8)	mg/kg		50	n. d.	-
六溴環十二烷及所有主要被辨別出的異構物 / Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified ( $\alpha$ – HBCDD, $\beta$ – HBCDD, $\gamma$ – HBCDD) (CAS No.: 25637-99-4 and 3194-55-6 (134237-51-7, 134237-50-6, 134237-52-8))	mg/kg	参考IEC 62321 (2008),以氣相層析/ 質譜儀檢測. / With reference to IEC 62321 (2008). Analysis was performed by GC/MS.	5	n. d.	-



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測試項目 (Test Items)	單位 (Unit)	测試方法 (Method)	MDL	結果 (Result) No.1	限值 (Limit)
多環芳香烴 / Polycyclic Aromatic Hydrocarbons (PAHs)					
苊 / Acenaphthene (CAS No.: 83-32-9)	mg/kg		0.2	n. d.	-
苊烯 / Acenaphthylene (CAS No.: 208-96-8)	mg/kg		0.2	n. d.	-
蔥 / Anthracene (CAS No.: 120-12-7)	mg/kg		0.2	n. d.	-
苯駢蔥 / Benzo[a]anthracene(CAS No.: 56- 55-3)	mg/kg		0.2	n. d.	-
苯駢(a)芘 / Benzo[a]pyrene(CAS No.: 50- 32-8)	mg/kg		0.2	n. d.	_
苯(b)苯聠芴 / Benzo[b]fluoranthene (CAS No.: 205-99-2)	mg/kg		0.2	n. d.	_
苯駢苝 / Benzo[g,h,i]perylene(CAS No.: 191-24-2)	mg/kg		0.2	n. d.	_
苯駢(k)螢蔥 / Benzo[k]fluoranthene (CAS No.: 207-08-9)	mg/kg	參考AfPS GS 2014:01 PAK,以氣相層	0.2	n. d.	_
Chrysene (CAS No.: 218-01-9)	mg/kg	析/質譜儀檢測. / With reference	0.2	n. d.	-
ニ苯聠蔥 / Dibenzo[a,h]anthracene(CAS No.: 53-70-3)		to AfPS GS 2014:01 PAK. Analysis was performed by GC/MS.	0.2	n. d.	-
苯駢苊 / Fluoranthene (CAS No.: 206-44-0)	mg/kg		0.2	n. d.	-
芴 / Fluorene (CAS No.: 86-73-7)	mg/kg		0.2	n. d.	-
茚酮芘 / Indeno[1,2,3-c,d] pyrene(CAS No.: 193-39-5)	mg/kg		0.2	n. d.	-
茶 / Naphthalene (CAS No.: 91-20-3)	mg/kg		0.2	n. d.	-
菲 / Phenanthrene (CAS No.: 85-01-8)	mg/kg		0.2	n. d.	_
芘 / Pyrene (CAS No.: 129-00-0)	mg/kg		0.2	n. d.	_
苯(j)苯聠芴 / Benzo[j]fluoranthene (CAS No.: 205-82-3)	mg/kg		0.2	n. d.	-
苯駢(e)芘 / Benzo[e]pyrene (CAS No.: 192- 97-2)	mg/kg		0.2	n. d.	_
多環芳香烴18項總和 / Sum of 18 PAHs	mg/kg		-	n. d.	Δ



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測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	MDL	結果 (Result) No.1	限值 (Limit)
鹵素 / Halogen					
鹵素 (氟) / Halogen-Fluorine (F) (CAS No.: 14762-94-8)	mg/kg		50	64.7	-
鹵素(氯)/ Halogen-Chlorine (C1) (CAS No.: 22537-15-1)	mg/kg	参考BS EN 14582(2016),以離子層 析儀分析. / With reference to BS	50	n. d.	-
鹵素(溴)/ Halogen-Bromine(Br)(CAS No.: 10097-32-2)	mg/kg	EN 14582 (2016). Analysis was performed by IC.	50	n. d.	-
鹵素(碘)/ Halogen-Iodine (I) (CAS No.: 14362-44-8)	mg/kg		50	n. d.	-
全氟辛烷磺酸 / Perfluorooctane sulfonates (PFOS-Acid, Metal Salt, Amide)	mg/kg	參考CEN/TS 15968 (2010),以液相層 析/質譜儀檢測. / With reference to CEN/TS 15968 (2010). Analysis	0.01	n. d.	-
全氟辛酸 / PFOA (CAS No.: 335-67-1)	mg/kg	was performed by LC/MS.	0.01	n. d.	-
鈹 / Beryllium (Be)	mg/kg	参考US EPA 3052(1996),以感應耦 合電漿發射光譜儀檢測. / With reference to US EPA 3052(1996). Analysis was performed by ICP- OES.	2	n. d.	-

#### 備註(Note):

1. mg/kg = ppm; 0.1wt% = 1000ppm

2. MDL = Method Detection Limit (方法偵測極限值)

3. n.d. = Not Detected (未檢出)

4. "-" = Not Regulated (無規格值)



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#### △ 德國產品安全委員會(AfPS) GS PAHs 要求 / AfPS (German commission for Product Safety): GS PAHs requirements

	第1類(Category 1)	第2類(C	ategory 2)	第3類(Category 3)		
項目 (Parameter)	意圖放入嘴內的材料或 玩具會與皮膚有所接觸 (超過30秒). (Material indented to be put in the mouth or toys with intended skin contact (longer than	逾30秒(長期或經常 (Materials not fa category l with f	lling under oreseeable contact r than 30 seconds	可預見與皮膚接觸短於30秒(短期與 接觸), 以及不屬於第1類或第2類的 (Materials not falling under category 1 or 2 with foreseeabl contact to skin for less than 3 seconds (short-term skin conta		
	30 s).)		列於徳國產品安全法 之其他產品 (Other products under ProdSG)	列於2009/48/EC之 玩具(Toy under 2009/48/EC)	列於德國產品安全法 之其他產品(Other products under ProdSG)	
Naphthalene	< 1		< 2	<	10	
Acenaphthylene						
Acenaphthene						
Fluorene						
Phenanthrene	< 1 Sum	< 5 Sum	< 10 Sum	< 20 Sum	< 50 Sum	
Anthracene						
Fluoranthene						
Pyrene						
Benzo[a]anthracene	< 0.2	< 0.2	< 0.5	< 0.5	< 1	
Chrysene	< 0.2	< 0.2	< 0.5	< 0.5	< 1	
Benzo[b]fluoranthene	< 0.2	< 0.2	< 0.5	< 0.5	< 1	
Benzo[j]fluoranthene	< 0.2	< 0.2	< 0.5	< 0.5	< 1	
Benzo[k]fluoranthene	< 0.2	< 0.2	< 0.5	< 0.5	< 1	
Benzo[a]pyrene	< 0.2	< 0.2	< 0.5	< 0.5	< 1	
Benzo[e]pyrene	< 0.2	< 0.2	< 0.5	< 0.5	< 1	
<pre>Indeno[1, 2, 3-c, d] pyrene</pre>	< 0.2	< 0.2	< 0.5	< 0.5	< 1	
Dibenzo[a,h]anthracene	< 0.2	< 0.2	< 0.5	< 0.5	< 1	
Benzo[g,h,i]perylene	< 0.2	< 0.2	< 0.5	< 0.5	< 1	
18項PAH總濃度 (Sum of 18 PAH)	< 1	< 5	< 10	< 20	< 50	

單位(Unit):mg/kg



### 測試報告 <sup>號碼(No.)</sup>: CE/2020/40289 日期(Date): 2020/04/13 **Test Report**

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#### PFOS参考資訊(Reference Information): 持久性有機污染物 POPs - (EU) 2019/1021

PFOS濃度在物質或製備中不得超過0.001%(10ppm),在半成品、成品或零部件中不得超過0.1%(1000ppm),在紡織品或 塗層材料中不得超過1µg/m<sup>2</sup>。

(Outlawing PFOS as substances or preparations in concentrations above 0.001% (10ppm), in semi-finished products or articles or parts at a level above 0.1%(1000ppm), in textiles or other coated materials above  $l\mu g/m^2$ .)

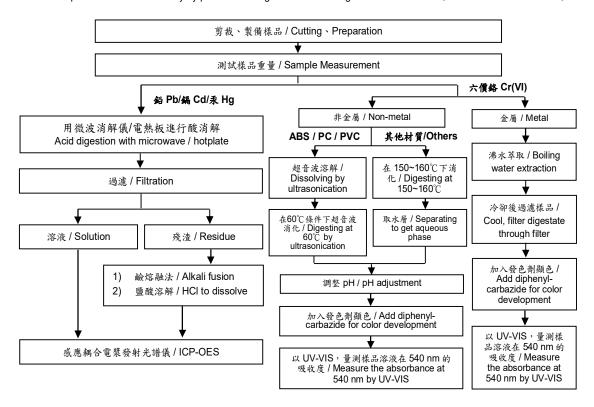


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#### 重金屬流程圖 / Analytical flow chart of Heavy Metal

根據以下的流程圖之條件,樣品已完全溶解。(六價鉻測試方法除外) These samples were dissolved totally by pre-conditioning method according to below flow chart.(Cr<sup>6+</sup> test method excluded)

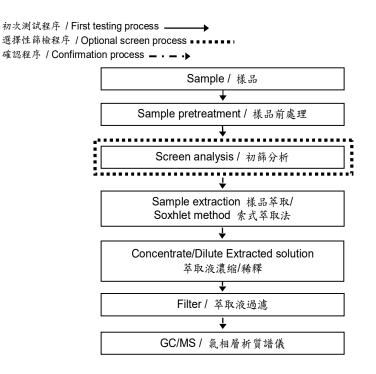




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多溴聯苯/多溴聯苯醚分析流程圖 / Analytical flow chart - PBB/PBDE



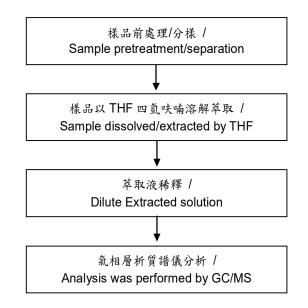


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#### 可塑劑分析流程圖 / Analytical flow chart - Phthalate

#### 【测試方法/Test method: IEC 62321-8】

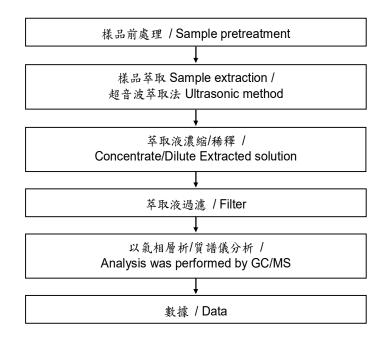




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#### 六溴環十二烷分析流程圖 / Analytical flow chart - HBCDD

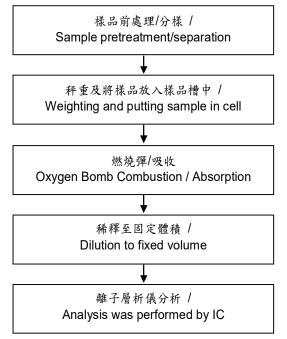




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# 鹵素分析流程圖 /Analytical flow chart - Halogen



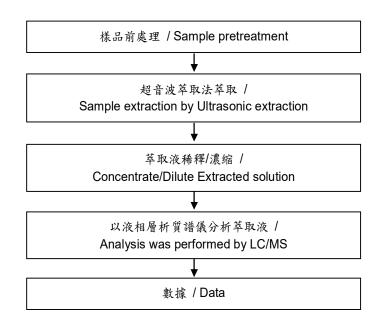
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#### 全氯辛酸/全氯辛烷磺酸分析流程圖 / Analytical flow chart - PFOA/PFOS

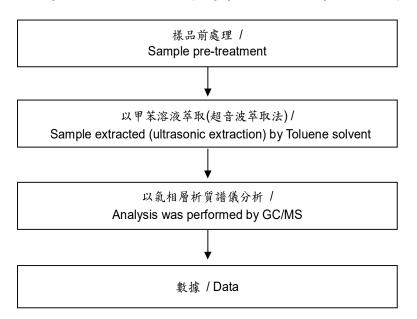




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> 多環芳香烴分析流程圖 / Analytical flow chart - PAHs (Polycyclic Aromatic Hydrocarbons)





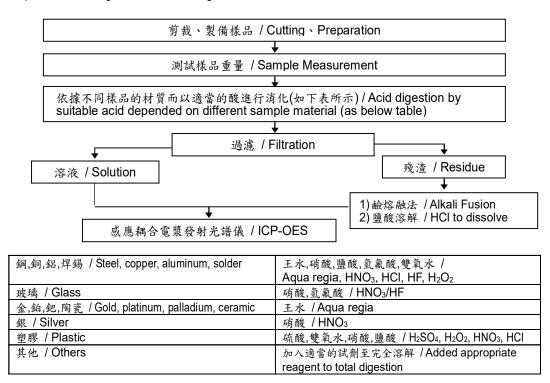
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億光電子工業股份有限公司 EVERLIGHT ELECTRONICS CO., LTD. 新北市樹林區中華路6-8號 NO. 6-8, ZHONGHUA RD., SHULIN DIST., NEW TAIPEI CITY 23860, TAIWAN

#### 元素以 ICP-OES 分析的消化流程圖 (Flow Chart of digestion for the elements analysis performed by ICP-OES)

根據以下的流程圖之條件,樣品已完全溶解。 / These samples were dissolved totally by pre-conditioning method according to below flow chart.





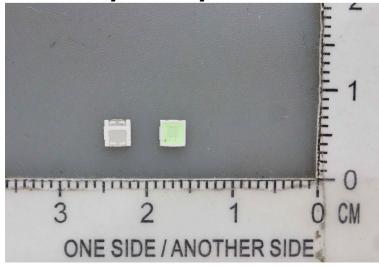
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> \* 照片中如有箭頭標示,則表示為實際檢測之樣品/部位. \* (The tested sample / part is marked by an arrow if it's shown on the photo.)

# CE/2020/40289



\*\* 報告結尾 (End of Report) \*\*