

Test Report

號碼(No.): ETR23100303 日期(Date): 11-Jan-2023 頁數(Page): 1 of 23

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 the applicant as):

45) .	
BASIC INFORMATION	
Type of Product	ARRAY LED
Supplier Company Name	EVERLIGHT
Address	NO.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-ARRAY LED (LAMP) SERIES
	Sampling Product: A694B /SYGCUYC/S530-A3-SGS-11-Jan-2023
PRODUCT INFORMATION	·
Product/component Sample	LED ARRAY
description	
Quantity (numbers or weight)	0.082 g
EVERLIGHT P/N	ARRAY LED (LAMP) SERIES
	Sampling Product: A694B /SYGCUYC/S530-A3
Product Lot No	ZS22112844
Country of Origin	CHINA
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(Sample Receiving Date): 03-Jan-2023

測試期間(Testing Period) : 03-Jan-2023 to 11-Jan-2023

測試結果(Test Results) : 請參閱下一頁 (Please refer to following pages).

Troy Chand / Department Malager Signed for and on behalf Oliver SGS TAIWAN LTD.

Chemical Laboratory - Taipei



PIN CODE: 43D2EDB7



Test Report

號碼(No.): ETR23100303 日期(Date): 11-Jan-2023 頁數(Page): 2 of 23

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)

測試需求(Test Requested :

- (1) 依據客戶指定、參考RoHS 2011/65/EU Annex II及其修訂指令(EU) 2015/863測試鎘、鉛、汞、六價鉻、多溴聯苯、多溴聯苯醚, DBP, BBP, DEHP, DIBP。 (As specified by client, with reference to RoHS 2011/65/EU Annex II and amending Directive (EU) 2015/863 to determine Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs, DBP, BBP, DEHP, DIBP contents in the submitted sample(s).)
- (2) 依據客戶指定‧測試 PAHs 及其他測項。 (As specified by client, to test PAHs and other item(s).)

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·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「其它產品」之限值要求。(Based upon the performed tests on the submitted sample(s), the test results of PAHs (15 items) comply with the limits of PAHs requirement (Category 3)「Other consumer products」 as set by German Committee on Product Safety (AfPS) GS PAHs.)

測試部位敘述 (Test Part Description)

No.1 : 本體 (BODY)

No.2 : 黑色塑膠 (BLACK PLASTIC)

No.3 : 銀色金屬接腳鍍層 (PLATING LAYER OF SILVER COLORED METAL PIN) No.4 : 銀色金屬接腳底材 (BASE MATERIAL OF SILVER COLORED METAL PIN)

No.5 : 銀色金屬接腳 (含鍍層) (SILVER COLORED METAL PIN (INCLUDING THE PLATING LAYER))



Test Report

號碼(No.): ETR23100303 日期(Date): 11-Jan-2023 頁數(Page): 3 of 23

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)

測試結果 (Test Results)

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL		限值 (Limit)		
				No.1	No.2	No.3	
鎘 (Cd) (Cadmium (Cd)) (CAS No.: 7440-43-9)	參考IEC 62321-5: 2013 · 以感應耦合電漿發射光譜儀分析。(With reference to IEC	mg/kg	2	n.d.	n.d.		100
鉛 (Pb) (Lead (Pb)) (CAS No.: 7439-92-1)	62321-5: 2013, analysis was performed by ICP-OES.)	mg/kg	2	n.d.	n.d.		1000
汞 (Hg) (Mercury (Hg)) (CAS No.: 7439-97-6)	參考IEC 62321-4: 2013 + AMD1: 2017·以 感應耦合電漿發射光譜儀分析。(With reference to IEC 62321-4: 2013 + AMD1: 2017, analysis was performed by ICP- OES.)	mg/kg	2	n.d.	n.d.		1000
六價鉻 Cr(VI) (Hexavalent Chromium Cr(VI)) (CAS No.: 18540- 29-9)	參考IEC 62321-7-2: 2017·以紫外光-可見 光分光光度計分析。(With reference to IEC 62321-7-2: 2017, analysis was performed by UV-VIS.)	mg/kg	8	n.d.	n.d.		1000
鎘 (Cd) (Cadmium (Cd)) (CAS No.: 7440-43-9)	酸洗脫鍍層·參考IEC 62321-5: 2013·以感應耦合電漿發射光譜儀分析。(IEC 62321-5:	mg/kg	2			n.d.	100
鉛 (Pb) (Lead (Pb)) (CAS No.: 7439-92-1)	2013 application of modified digestion by surface etching, analysis was performed by ICP-OES.)	mg/kg	2			64.0	1000
汞 (Hg) (Mercury (Hg)) (CAS No.: 7439-97-6)	酸洗脫鍍層·參考IEC 62321-4: 2013+AMD1: 2017·以感應耦合電漿發射光譜儀分析。(IEC 62321-4: 2013+AMD1: 2017 application of modified digestion by surface etching, analysis was performed by ICP-OES.)	mg/kg	2			n.d.	1000
六價鉻 (Hexavalent Chromium) Cr(VI) (CAS No.: 18540-29-9) (#2)	參考IEC 62321-7-1: 2015·以紫外光-可見 光分光光度計分析。(With reference to IEC 62321-7-1: 2015, analysis was performed by UV-VIS.)	μg/cm²	0.1			n.d.	-



Test Report

號碼(No.): ETR23100303 日期(Date): 11-Jan-2023 頁數(Page): 4 of 23

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)

測試項目	測試方法	單位	MDL	結果			限值
(Test Items)	(Method)	(Unit)		(Result)			(Limit)
				No.1	No.2	No.3	
一溴聯苯 (Monobromobiphenyl)		mg/kg	5	n.d.	n.d.		-
二溴聯苯 (Dibromobiphenyl)		mg/kg	5	n.d.	n.d.		-
三溴聯苯 (Tribromobiphenyl)		mg/kg	5	n.d.	n.d.		-
四溴聯苯 (Tetrabromobiphenyl)		mg/kg	5	n.d.	n.d.		-
五溴聯苯 (Pentabromobiphenyl)		mg/kg	5	n.d.	n.d.		-
六溴聯苯 (Hexabromobiphenyl)		mg/kg	5	n.d.	n.d.		-
七溴聯苯 (Heptabromobiphenyl)		mg/kg	5	n.d.	n.d.		-
八溴聯苯 (Octabromobiphenyl)		mg/kg	5	n.d.	n.d.		-
九溴聯苯 (Nonabromobiphenyl)		mg/kg	5	n.d.	n.d.		-
十溴聯苯 (Decabromobiphenyl)	<u> </u>	mg/kg	5	n.d.	n.d.		-
多溴聯苯總和 (Sum of PBBs)	參考IEC 62321-6: 2015 · 以氣相層析儀/質譜 儀分析。(With reference to IEC 62321-6:	mg/kg	ı	n.d.	n.d.		1000
一溴聯苯醚 (Monobromodiphenyl ether)	2015, analysis was performed by GC/MS.)	mg/kg	5	n.d.	n.d.		-
二溴聯苯醚 (Dibromodiphenyl ether)	2015, analysis was performed by 66, mo.,	mg/kg	5	n.d.	n.d.		-
三溴聯苯醚 (Tribromodiphenyl ether)		mg/kg	5	n.d.	n.d.		-
四溴聯苯醚 (Tetrabromodiphenyl ether)		mg/kg	5	n.d.	n.d.		-
五溴聯苯醚 (Pentabromodiphenyl ether)		mg/kg	5	n.d.	n.d.		-
六溴聯苯醚 (Hexabromodiphenyl ether)		mg/kg	5	n.d.	n.d.		-
七溴聯苯醚 (Heptabromodiphenyl ether)		mg/kg	5	n.d.	n.d.		-
八溴聯苯醚 (Octabromodiphenyl ether)		mg/kg	5	n.d.	n.d.		-
九溴聯苯醚 (Nonabromodiphenyl ether)		mg/kg	5	n.d.	n.d.		-
十溴聯苯醚 (Decabromodiphenyl ether)		mg/kg	5	n.d.	n.d.		-
多溴聯苯醚總和 (Sum of PBDEs)		mg/kg	-	n.d.	n.d.		1000



Test Report

號碼(No.): ETR23100303 日期(Date): 11-Jan-2023 頁數(Page): 5 of 23

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)

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL		結果 (Result)	\	限值 (Limit)
(rest items)	(Wethou)	(Onit)	No		No.2	No.3	(=:::::::)
鄰苯二甲酸丁苯甲酯 (BBP) (Butyl benzyl phthalate (BBP)) (CAS No.: 85-68-7)	參考IEC 62321-8: 2017·以氣相層析儀/質譜 儀分析。(With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.)	mg/kg	50	n.d.	n.d.		1000
鄰苯二甲酸二丁酯 (DBP) (Dibutyl phthalate (DBP)) (CAS No.: 84-74-2)	參考IEC 62321-8: 2017·以氣相層析儀/質譜 儀分析。(With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.)	mg/kg	50	n.d.	n.d.		1000
鄰苯二甲酸二(2-乙基己基)酯 (DEHP) (Di-(2-ethylhexyl) phthalate (DEHP)) (CAS No.: 117-81-7)	參考IEC 62321-8: 2017·以氣相層析儀/質譜 儀分析。(With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.)	mg/kg	50	n.d.	n.d.		1000
鄰苯二甲酸二異丁酯 (DIBP) (Diisobutyl phthalate (DIBP)) (CAS No.: 84-69-5)	參考IEC 62321-8: 2017 · 以氣相層析儀/質譜儀分析。(With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.)	mg/kg	50	n.d.	n.d.		1000
鄰苯二甲酸二異癸酯 (DIDP) (Diisodecyl phthalate (DIDP)) (CAS No.: 26761-40-0, 68515-49-1)	參考IEC 62321-8: 2017 · 以氣相層析儀/質譜 儀分析。(With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.)	mg/kg	50	n.d.	n.d.		-
鄰苯二甲酸二異壬酯 (DINP) (Diisononyl phthalate (DINP)) (CAS No.: 28553-12-0, 68515-48-0)	參考IEC 62321-8: 2017 · 以氣相層析儀/質譜 儀分析。(With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.)	mg/kg	50	n.d.	n.d.		-
鄰苯二甲酸二正辛酯 (DNOP) (Di-n-octyl phthalate (DNOP)) (CAS No.: 117-84-0)	參考IEC 62321-8: 2017·以氣相層析儀/質譜 儀分析。(With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.)	mg/kg	50	n.d.	n.d.		-
鄰苯二甲酸二正戊酯 (DNPP) (Di-n-pentyl phthalate (DNPP)) (CAS No.: 131-18-0)	參考IEC 62321-8: 2017 · 以氣相層析儀/質譜儀分析。(With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.)	mg/kg	50	n.d.	n.d.		-
鄰苯二甲酸二正己酯 (DNHP) (Di-n-hexyl phthalate (DNHP)) (CAS No.: 84-75-3)	參考IEC 62321-8: 2017 · 以氣相層析儀/質譜 儀分析。(With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.)	mg/kg	50	n.d.	n.d.		-
鄰苯二甲酸雙(2-甲氧基乙基)酯 (DMEP) (Bis(2-methoxyethyl) phthalate (DMEP)) (CAS No.: 117-82-8)	參考IEC 62321-8: 2017·以氣相層析儀/質譜 儀分析。(With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.)	mg/kg	50	n.d.	n.d.		-



Test Report

號碼(No.): ETR23100303 日期(Date): 11-Jan-2023 頁數(Page): 6 of 23

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)

測試項目	測試方法	單位	MDL	結果			限值
(Test Items)	(Method)	(Unit)		(Result))	(Limit)
				No.1	No.2	No.3	
六溴環十二烷及所有主要被辨別出的異構物 (HBCDD) (α - HBCDD, β - HBCDD, γ - HBCDD) (Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified (α - HBCDD, β - HBCDD, γ - HBCDD)) (CAS No.: 25637-99-4, 3194-55-6 (134237-51-7, 134237-50-6, 134237-52-8))	參考IEC 62321: 2008·以氣相層析儀/質譜儀分析。(With reference to IEC 62321: 2008, analysis was performed by GC/MS.)	mg/kg	5	n.d.	n.d.		-
氟 (F) (Fluorine (F)) (CAS No.: 14762-94-8)	参考BS EN 14582: 2016·以離子層析儀分析。(With reference to BS EN 14582: 2016, analysis was performed by IC.)	mg/kg	50	n.d.	n.d.		-
氯 (Cl) (Chlorine (Cl)) (CAS No.: 22537-15-1)	參考BS EN 14582: 2016·以離子層析儀分析。(With reference to BS EN 14582: 2016, analysis was performed by IC.)	mg/kg	50	484	178		-
溴 (Br) (Bromine (Br)) (CAS No.: 10097-32-2)	參考BS EN 14582: 2016·以離子層析儀分析。(With reference to BS EN 14582: 2016, analysis was performed by IC.)	mg/kg	50	n.d.	n.d.		-
碘 (I) (Iodine (I)) (CAS No.: 14362- 44-8)	參考BS EN 14582: 2016·以離子層析儀分析。(With reference to BS EN 14582: 2016, analysis was performed by IC.)	mg/kg	50	n.d.	n.d.		-
全氟辛烷磺酸及其鹽類 (PFOS and its salts) (CAS No.: 1763-23-1 and its salts)	參考CEN/TS 15968: 2010 · 以液相層析串聯質譜儀分析。(With reference to CEN/TS 15968: 2010, analysis was performed by LC/MS/MS.)	mg/kg	0.01	n.d.	n.d.		-
全氟辛酸及其鹽類 (PFOA and its salts) (CAS No.: 335-67-1 and its salts)	參考CEN/TS 15968: 2010 · 以液相層析串聯質譜儀分析。(With reference to CEN/TS 15968: 2010, analysis was performed by LC/MS/MS.)	mg/kg	0.01	n.d.	n.d.		-



Test Report

號碼(No.): ETR23100303 日期(Date): 11-Jan-2023 頁數(Page): 7 of 23

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)

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result)			限值 (Limit)
				No.1	No.2	No.3	
多環芳香烴 (Polycyclic Aromatic							
Hydrocarbons) (PAHs)							
苯駢(a)芘 (Benzo[a]pyrene) (CAS No.: 50-32-8)		mg/kg	0.2	n.d.	n.d.		Δ
苯駢(e)芘 (Benzo[e]pyrene) (CAS No.: 192-97-2)		mg/kg	0.2	n.d.	n.d.		Δ
苯駢蒽 (Benzo[a]anthracene) (CAS No.: 56-55-3)		mg/kg	0.2	n.d.	n.d.		Δ
苯(b)苯駢芴 (Benzo[b]fluoranthene) (CAS No.: 205-99-2)		mg/kg	0.2	n.d.	n.d.		Δ
苯(j)苯駢芴 (Benzo[j]fluoranthene) (CAS No.: 205-82-3)		mg/kg	0.2	n.d.	n.d.		Δ
苯(k)苯駢芴 (Benzo[k]fluoranthene) (CAS No.: 207-08-9)		mg/kg	0.2	n.d.	n.d.		Δ
蒀 (Chrysene) (CAS No.: 218-01-9)	參考AfPS GS 2019:01 PAK · 以氣相層析儀/	mg/kg	0.2	n.d.	n.d.		Δ
二苯駢蒽 (Dibenzo[a,h]anthracene) (CAS No.: 53-70-3)	質譜儀分析。(With reference to AfPS GS 2019:01 PAK, analysis was performed by	mg/kg	0.2	n.d.	n.d.		Δ
苯駢芘 (Benzo[g,h,i]perylene) (CAS No.: 191-24-2)	GC/MS.)	mg/kg	0.2	n.d.	n.d.		Δ
茚酮芘 (Indeno[1,2,3-c,d]pyrene) (CAS No.: 193-39-5)		mg/kg	0.2	n.d.	n.d.		Δ
蒽 (Anthracene) (CAS No.: 120-12-7)		mg/kg	0.2	n.d.	n.d.		Δ
苯駢芴 (Fluoranthene) (CAS No.: 206- 44-0)		mg/kg	0.2	n.d.	n.d.		Δ
菲 (Phenanthrene) (CAS No.: 85-01-8)		mg/kg	0.2	n.d.	n.d.		Δ
芘 (Pyrene) (CAS No.: 129-00-0)		mg/kg	0.2	n.d.	n.d.		Δ
萘 (Naphthalene) (CAS No.: 91-20-3)		mg/kg	0.2	n.d.	n.d.		Δ
多環芳香烴15項總和 (Sum of 15 PAHs)		mg/kg	-	n.d.	n.d.		Δ



Test Report

號碼(No.): ETR23100303 日期(Date): 11-Jan-2023 頁數(Page): 8 of 23

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)

測試項目	測試方法	單位	MDL	結果			限值
(Test Items)	(Method)	(Unit)		(Result)			(Limit)
				No.1	No.2	No.3	
鈹 (Be) (Beryllium (Be)) (CAS No.: 7440-41-7)	參考US EPA 3052: 1996 · 以感應耦合電漿發射光譜儀分析。(With reference to US EPA 3052: 1996, analysis was performed by ICP-OES.)	mg/kg	2	n.d.	n.d.		-

測試項目	測試方法	單位	單位 MDL 結果		果	限值
(Test Items)	(Method) (Unit) (Result)		sult)	(Limit)		
				No.4	No.5	
鎘 (Cd) (Cadmium (Cd)) (CAS No.: 7440-43-9)	參考IEC 62321-5: 2013 · 以感應耦合電漿發射光譜儀分析。(With reference to IEC	mg/kg	2	n.d.		100
鉛 (Pb) (Lead (Pb)) (CAS No.: 7439- 92-1)	62321-5: 2013, analysis was performed by ICP-OES.)	mg/kg	2	n.d.		1000
汞 (Hg) (Mercury (Hg)) (CAS No.: 7439-97-6)	參考IEC 62321-4: 2013 + AMD1: 2017·以 感應耦合電漿發射光譜儀分析。(With reference to IEC 62321-4: 2013 + AMD1: 2017, analysis was performed by ICP- OES.)	mg/kg	2	n.d.		1000
六價鉻 (Hexavalent Chromium) Cr(VI) (CAS No.: 18540-29-9) (#2)	參考IEC 62321-7-1: 2015·以紫外光-可見 光分光光度計分析。(With reference to IEC 62321-7-1: 2015, analysis was performed by UV-VIS.)	μg/cm²	0.1	n.d.		-
鈹 (Be) (Beryllium (Be)) (CAS No.: 7440-41-7)	參考US EPA 3050B: 1996.以感應耦合電漿發射光譜儀分析。(With reference to US EPA 3050B: 1996, analysis was performed by ICP-OES.)	mg/kg	2		n.d.	-



Test Report

號碼(No.): ETR23100303 日期(Date): 11-Jan-2023 頁數(Page): 9 of 23

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)

備註(Note):

- 1. mg/kg = ppm; 0.1wt% = 0.1% = 1000ppm
- 2. MDL = Method Detection Limit (方法偵測極限值)
- 3. n.d. = Not Detected (未檢出); 小於MDL / Less than MDL
- 4. "-" = Not Regulated (無規格值)
- 5. "---" = Not Conducted (未測試項目)
- 6. 全氟辛烷磺酸及其鹽類包含等物質 (PFOS and its salts including): CAS No.: 1763-23-1, 2795-39-3, 29457-72-5, 29081-56-9, 70225-14-8, 56773-42-3, 251099-16-8, 307-35-7, 91036-71-4, 4021-47-0 and others.
- 7. 全氟辛酸及其鹽類包含等物質 (PFOA and its salts including): CAS No.: 335-67-1, 335-95-5, 2395-00-8, 335-93-3, 335-66-0, 3825-26-1 and others.
- 8. (#2) =
- 9. 除非另有說明·參照ILAC-G8:09/2019·採用簡單二元(w=0)允收規則進行符合性判定;根據此規則·符合性結果之判定係以測試結果與限值做比較。(Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule (w=0) stated in ILAC-G8:09/2019. According to this rule, the judgement of conformity is based on the comparing test results with limits.)



Test Report

號碼(No.): ETR23100303 日期(Date): 11-Jan-2023 頁數(Page): 10 of 23

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)

Remark:

△ 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(Cate	egory 2)	第 3 類(Category 3)		
項目 (Parameter)	或重複的短時間接觸 are not in Category	炒(長期皮膚接觸) i(Materials that [,] 1, with eable long-term seconds) or	「不屬於第 1 類或第 2 類的材料·並意)圖或可預見與皮膚接觸不超過 30 秒 (短期皮膚接觸)(Materials not covered by Category 1 or 2, with in intended or foreseeable short- term skin contact (≤ 30 seconds))			
	years of age with intended long-term skin contact (> 30 seconds))	a. 供 14 歲以下兒童使 用的產品(Use by children under 14)	consumer	a. 供 14 歲以下兒童使 用的產品(Use by children under 14)	consumer	
Naphthalene	< 1	< 2		< 10		
Phenanthrene						
Anthracene	< 1 Sum	< 5 Sum	< 10 Sum	< 20 Sum	< 50 Sum	
Fluoranthene	< 1 3uiii	< 3 Suili	< 10 3uiii	< 20 Julii	< 50 Suiti	
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	
Indeno[1,2,3-c,d] pyrene	< 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	
15 項 PAH 總濃度 (Sum of 15 PAH)	< 1	< 5	< 10	< 20	< 50	

單位(Unit): mg/kg



Test Report

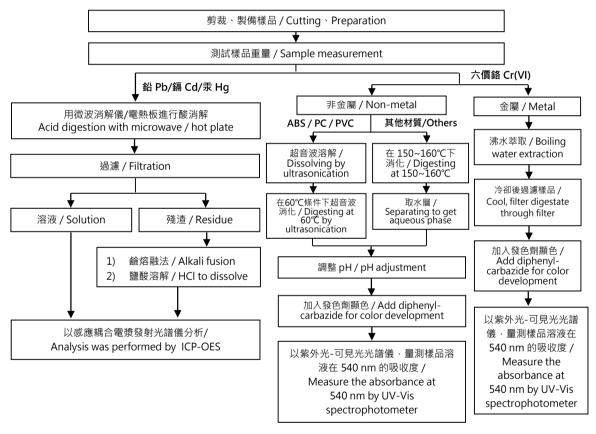
號碼(No.): ETR23100303 日期(Date): 11-Jan-2023 頁數(Page): 11 of 23

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)

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^{6+} test method excluded)





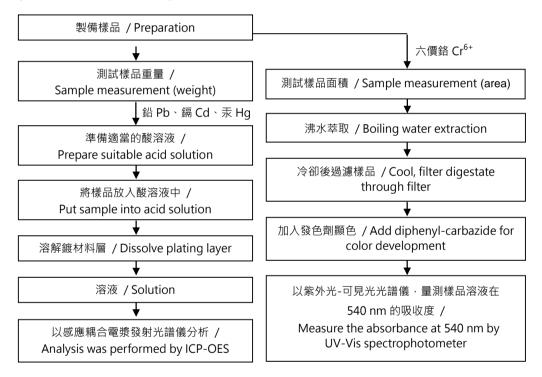
Test Report

號碼(No.): ETR23100303 日期(Date): 11-Jan-2023 頁數(Page): 12 of 23

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)

鍍層重金屬測試流程圖 / Flow chart of stripping method for metal analysis

根據以下的流程圖之條件,樣品之外部鍍層已完全溶解。(六價鉻測試方法除外) / The plating layer of samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr^{6+} test method excluded)



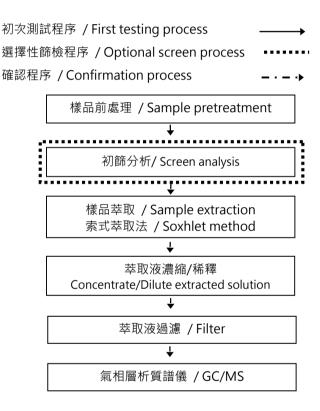


Test Report

號碼(No.): ETR23100303 日期(Date): 11-Jan-2023 頁數(Page): 13 of 23

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)

多溴聯苯/多溴聯苯醚分析流程圖 / Analytical flow chart - PBBs/PBDEs





Test Report

號碼(No.): ETR23100303 日期(Date): 11-Jan-2023 頁數(Page): 14 of 23

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)

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

【測試方法/Test method: IEC 62321-8】

樣品前處理/分樣 / Sample pretreatment/separation

樣品以 THF 四氫呋喃溶解萃取 / Sample dissolved/extracted by THF

萃取液稀釋 / Dilute extracted solution

氧相層析質譜儀分析 / Analysis was performed by GC/MS

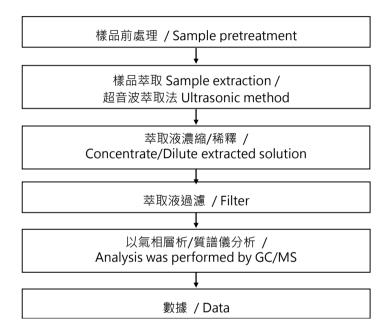


Test Report

號碼(No.): ETR23100303 日期(Date): 11-Jan-2023 頁數(Page): 15 of 23

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)

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



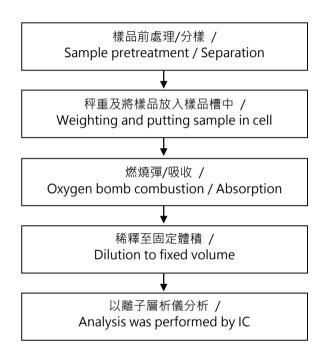


Test Report

號碼(No.): ETR23100303 日期(Date): 11-Jan-2023 頁數(Page): 16 of 23

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)

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



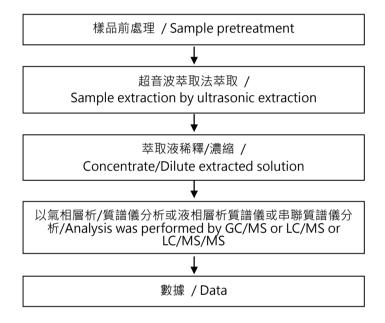


Test Report

號碼(No.): ETR23100303 日期(Date): 11-Jan-2023 頁數(Page): 17 of 23

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)

全氟化合物(包含全氟辛酸/全氟辛烷磺酸/其相關化合物等等)分析流程圖 / Analytical flow chart – PFAS (including PFOA/PFOS/its related compound, etc.)



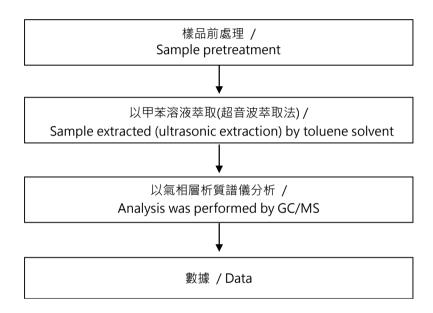


Test Report

號碼(No.): ETR23100303 日期(Date): 11-Jan-2023 頁數(Page): 18 of 23

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)

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





Test Report

號碼(No.): ETR23100303 日期(Date): 11-Jan-2023 頁數(Page): 19 of 23

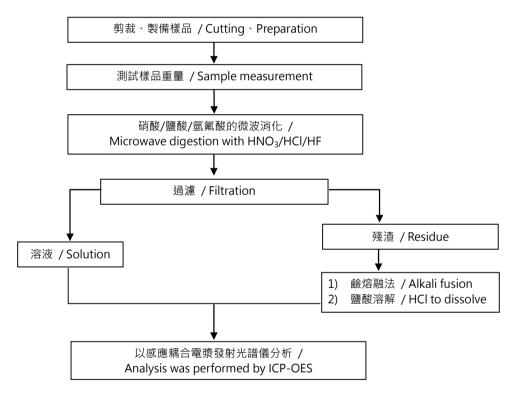
億光電子工業股份有限公司 (EVERLIGHT ELECTRONICS CO., LTD.) 新北市樹林區中華路6-8號 (NO. 6-8, ZHONGHUA RD., SHULIN DIST., NEW TAIPEI CITY 23860, TAIWAN)

元素(含重金屬)分析流程圖 / Analytical flow chart of elements (Heavy metal included)

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.

【参考方法/Reference method: US EPA 3051A、US EPA 3052】



* US EPA 3051A 方法未添加氫氟酸 / US EPA 3051A method does not add HF.



Test Report

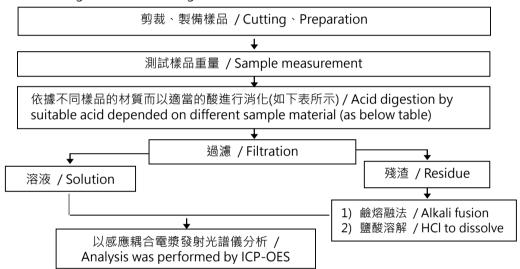
號碼(No.): ETR23100303 日期(Date): 11-Jan-2023 頁數(Page): 20 of 23

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.



鋼,銅,鋁,焊錫 / Steel, copper, aluminum, solder	王水,硝酸,鹽酸,氫氟酸,雙氧水 / Aqua regia, HNO ₃ , HCl, HF, H ₂ O ₂
玻璃 / Glass	硝酸,氫氟酸 / HNO ₃ ,HF
金,鉑,鈀,陶瓷 / Gold, platinum, palladium, ceramic	王水 / Aqua regia
銀 / Silver	硝酸 / HNO₃
塑膠 / Plastic	硫酸,雙氧水,硝酸,鹽酸 / H ₂ SO ₄ , H ₂ O ₂ , HNO ₃ , HCl
其他 / Others	加入適當的試劑至完全溶解 / Added appropriate reagent to total digestion



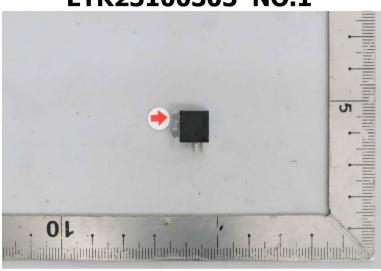
Test Report

號碼(No.): ETR23100303 日期(Date): 11-Jan-2023 頁數(Page): 21 of 23

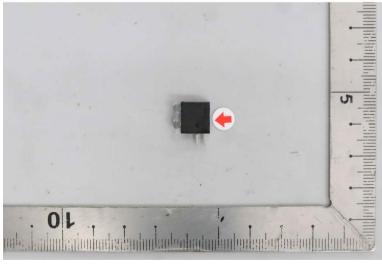
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* 照片中如有箭頭標示,則表示為實際檢測之樣品/部位. * (The tested sample / part is marked by an arrow if it's shown on the photo.)

ETR23100303 NO.1



ETR23100303 NO.2



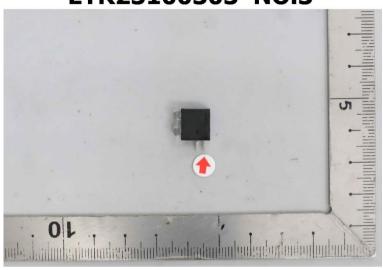


Test Report

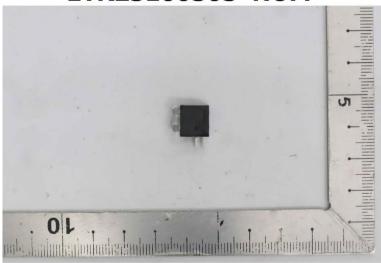
號碼(No.): ETR23100303 日期(Date): 11-Jan-2023 頁數(Page): 22 of 23

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)

ETR23100303 NO.3



ETR23100303 NO.4



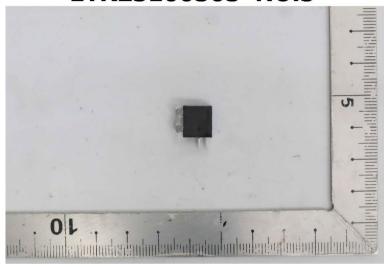


Test Report

號碼(No.): ETR23100303 日期(Date): 11-Jan-2023 頁數(Page): 23 of 23

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)

ETR23100303 NO.5



** 報告結尾 (End of Report) **