

**Test Report** 

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眾智光電科技股份有限公司 (ORIENTAL SYSTEM TECHNOLOGY INC.) 新竹科學園區工業東九路25號2樓 (2F., NO. 25, INDUSTRY E. ROAD 9, SCIENCE-BASED INDUSTRIAL PARK, HSINCHU 308, TAIWAN R. O. C.)

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):

送樣廠商(Sample Submitted By) : 眾智光電科技股份有限公司 (ORIENTAL SYSTEM TECHNOLOGY INC.)

樣品名稱(Sample Name) : 紅外陣列傳感器模組

樣品型號(Style/Item No.) : OTPA SERIES

\_\_\_\_\_

收件日(Sample Receiving Date) : 08-Mar-2021

測試期間(Testing Period) : 08-Mar-2021 to 15-Mar-2021

測試需求(Test Requested) : 依據客戶指定,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, to test Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs, DBP, BBP, DEHP, DIBP contents in the submitted

sample(s).)

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

Troy Chang Manager Te h SGS
Signed for and on behalf of SGS TAIWAN LTD.
Chemical Laboratory - Taipei



PIN CODE: FAEC011A



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#### 測試部位敘述 (Test Part Description)

No.1 : 整體混測 (MIXED ALL PARTS)

#### 測試結果 (Test Results)

測試項目	測試方法	單位	MDL	結果
(Test Items)	(Method)	(Unit)		(Result)
				No.1
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 62321-5: 2013, analysis was performed by ICP-OES.)	mg/kg	2	n.d.
鉛 (Pb) (Lead (Pb)) (CAS No.: 7439-92-1)		mg/kg	2	n.d.
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.
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.
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)	參考IEC 62321-6: 2015,以氣相層析儀/質譜儀 分析。(With reference to IEC 62321-6: 2015,	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)	analysis was performed by GC/MS.)	mg/kg	5	n.d.
八溴聯苯 (Octabromobiphenyl)		mg/kg	5	n.d.
九溴聯苯 (Nonabromobiphenyl)		mg/kg	5	n.d.
十溴聯苯 (Decabromobiphenyl)		mg/kg	5	n.d.
多溴聯苯總和 (Sum of PBBs)		mg/kg	-	n.d.



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測試項目	測試方法	單位	MDL	結果
(Test Items)	(Method)	(Unit)		(Result)
				No.1
一溴聯苯醚 (Monobromodiphenyl ether)		mg/kg	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)	参考IEC 62321-6: 2015,以氣相層析儀/質譜儀	mg/kg	5	n.d.
六溴聯苯醚 (Hexabromodiphenyl ether)	分析。(With reference to IEC 62321-6: 2015,	mg/kg	5	n.d.
七溴聯苯醚 (Heptabromodiphenyl ether)	analysis was performed by GC/MS.)	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.
多溴聯苯醚總和 (Sum of PBDEs)		mg/kg	1	n.d.
鄰苯二甲酸丁苯甲酯 (BBP) (Butyl benzyl		mg/kg	50	n.d.
phthalate (BBP)) (CAS No.: 85-68-7)				
鄰苯二甲酸二丁酯 (DBP) (Dibutyl		mg/kg	50	n.d.
phthalate (DBP)) (CAS No.: 84-74-2)	參考IEC 62321-8: 2017·以氣相層析儀/質譜儀			
鄰苯二甲酸二異丁酯 (DIBP) (Diisobutyl	分析。(With reference to IEC 62321-8: 2017,	mg/kg	50	n.d.
phthalate (DIBP)) (CAS No.: 84-69-5)	analysis was performed by GC/MS.)			
鄰苯二甲酸二(2-乙基己基)酯 (DEHP) (Di-		mg/kg	50	n.d.
(2-ethylhexyl) phthalate (DEHP)) (CAS				
No.: 117-81-7)				

#### 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); 小於MDL / Less than MDL
- 4. "-" = Not Regulated (無規格值)
- 5. 樣品的測試是基於申請人要求混合測試,報告中的混合測試結果不代表其中個別單一材質的含量。
  The sample(s) was/were analyzed on behalf of the applicant as mixing sample in one testing. The above result(s) was/were only given as the informality value.



# **Test Report**

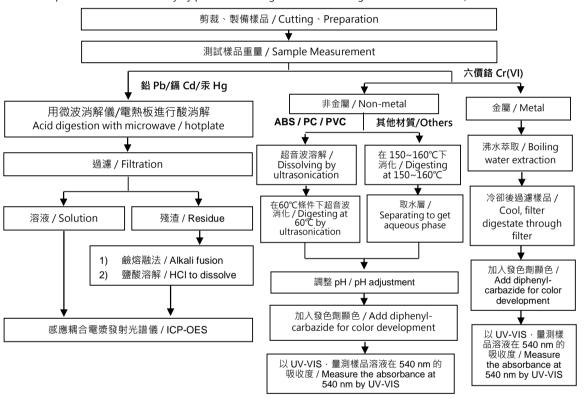
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#### 重金屬流程圖 / Analytical flow chart of Heavy Metal

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. ( $C_1^{6+}$  test method excluded)



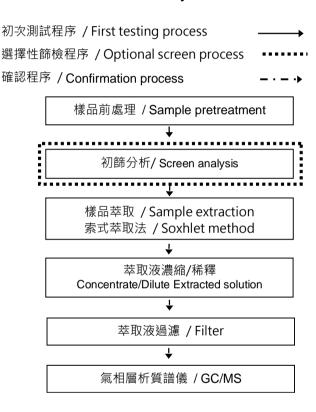


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#### 多溴聯苯/多溴聯苯醚分析流程圖 / Analytical flow chart - PBBs/PBDEs





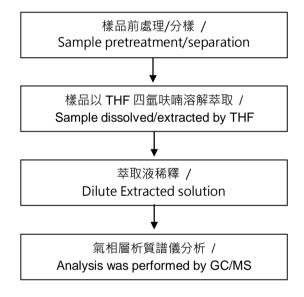
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### 可塑劑分析流程圖 / Analytical flow chart - Phthalate

#### 【測試方法/Test method: IEC 62321-8】





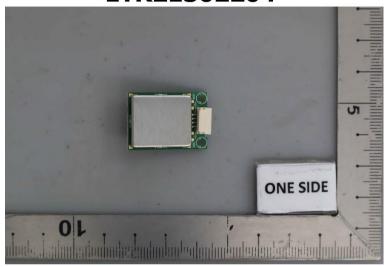
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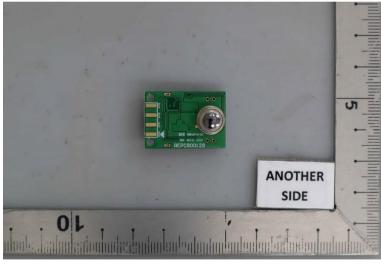
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\* 照片中如有箭頭標示,則表示為實際檢測之樣品/部位. \* (The tested sample / part is marked by an arrow if it's shown on the photo.)

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\*\* 報告結尾 (End of Report) \*\*