

## 檢測報告 Test Report



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報告抬頭公司名稱 高技企業股份有限公司  
Company Name FIRST HI-TEC ENTERPRISE CO., LTD  
shown on Report

地 址 桃園市桃園區興邦路43巷3號  
Address NO.3, LANE 43, HSING PANG RD., TAOYUAN DIST., TAOYUAN CITY, TAIWAN

以下測試之樣品及樣品資訊由申請者提供並確認

The following sample(s) and sample information was/were submitted and identified by/on the behalf of the applicant

樣品名稱 PCB  
Sample Name PCB  
樣品型號 化銀  
Part No. Immersion Silver  
樣品接收日期 2023.08.15  
Sample Received Date Aug. 15, 2023  
樣品檢測日期 2023.08.15-2023.08.25  
Testing Period Aug. 15, 2023 to Aug. 25, 2023

檢測要求 根據客戶要求，對所提交樣品中的鉛(Pb)，鎘(Cd)，汞(Hg)，六價鉻(Cr(VI))，多溴聯苯(PBBs)，多溴二苯醚(PBDEs)，鄰苯二甲酸酯(DBP, BBP, DEHP, DIBP)，鄰苯二甲酸酯，六溴環十二烷(HBCDD)，全氟辛烷磺酸(PFOS)，全氟辛酸(PFOA)進行測試。

Test Requested As specified by client, to test Lead (Pb), Cadmium (Cd), Mercury (Hg), Hexavalent Chromium (Cr(VI)), Polybrominated Biphenyls (PBBs), Polybrominated Diphenyl Ethers (PBDEs), Phthalates (DBP, BBP, DEHP, DIBP), Phthalates, Hexabromocyclododecane (HBCDD), Perfluorooctane Sulfonates(PFOS), Perfluorooctanoic Acid(PFOA) in the submitted sample(s).

檢測依據/檢測結果 請參見下頁。  
Test Method/Test Result(s) Please refer to the following page(s).



徐啟瑞

實驗室經理 Laboratory Manager

日期 2023.08.25  
Date

No. R556662812

桃園市蘆竹區南崁路二段9號5樓之6

5F-6, No.9, Sec.2, Nankan Rd, Luzhu Dist., Taoyuan, Taiwan

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**結論 Conclusion**

測試樣品 Tested Sample	依據標準/指令 According to standard/directive	結果 Result
提交樣品 Submitted Sample	歐盟RoHS指令2011/65/EU及其修訂指令(EU) 2015/863 RoHS Directive 2011/65/EU with amendment (EU) 2015/863	符合 PASS

\*\*\*\*\*

符合表示檢測結果滿足歐盟RoHS指令2011/65/EU及其修訂指令(EU) 2015/863要求的限值。

PASS means that the results shown on the report comply with the limits set by RoHS Directive 2011/65/EU with amendment (EU) 2015/863.

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檢測依據 Test Method

測試項目 Test Item(s)	測試方法 Test Method	測試儀器 Measured Equipment(s)
鉛 Lead (Pb)	IEC 62321-5:2013	ICP-OES
鎘 Cadmium (Cd)	IEC 62321-5:2013	ICP-OES
汞 Mercury (Hg)	IEC 62321-4:2013+AMD1:2017 CSV	ICP-OES
六價鉻 Hexavalent Chromium (Cr(VI))	IEC 62321-7-2:2017	UV-Vis
多溴聯苯 Polybrominated Biphenyls (PBBs)	IEC 62321-6:2015	GC-MS
多溴二苯醚 Polybrominated Diphenyl Ethers (PBDEs)	IEC 62321-6:2015	GC-MS
鄰苯二甲酸酯 Phthalates (DBP, BBP, DEHP, DIBP)	IEC 62321-8:2017	GC-MS
鄰苯二甲酸酯 Phthalates	IEC 62321-8:2017	GC-MS
全氟辛酸 Perfluorooctanoic Acid(PFOA)	CEN/TS 15968:2010	LC-MS-MS
全氟辛烷磺酸 Perfluorooctane Sulfonates(PFOS)	CEN/TS 15968:2010	LC-MS-MS
六溴環十二烷 Hexabromocyclododecane (HBCDD)	IEC 62321-9:2021	GC-MS

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**檢測結果 Test Result(s)**

測試項目 Tested Item(s)	結果 Result	方法檢出限 MDL	限值 Limit
	001		
鉛 Lead (Pb)	N.D.	2 mg/kg	1000 mg/kg
鎘 Cadmium (Cd)	N.D.	2 mg/kg	100 mg/kg
汞 Mercury (Hg)	N.D.	2 mg/kg	1000 mg/kg
六價鉻 Hexavalent Chromium (Cr(VI))	N.D.	8 mg/kg	1000 mg/kg

測試項目 Tested Item(s)	結果 Result	方法檢出限 MDL	限值 Limit
	001		
<b>多溴聯苯 Polybrominated Biphenyls (PBBs)</b>			
一溴聯苯 Monobromobiphenyl	N.D.	5 mg/kg	1000 mg/kg
二溴聯苯 Dibromobiphenyl	N.D.	5 mg/kg	
三溴聯苯 Tribromobiphenyl	N.D.	5 mg/kg	
四溴聯苯 Tetrabromobiphenyl	N.D.	5 mg/kg	
五溴聯苯 Pentabromobiphenyl	N.D.	5 mg/kg	
六溴聯苯 Hexabromobiphenyl	N.D.	5 mg/kg	
七溴聯苯 Heptabromobiphenyl	N.D.	5 mg/kg	
八溴聯苯 Octabromobiphenyl	N.D.	5 mg/kg	
九溴聯苯 Nonabromobiphenyl	N.D.	5 mg/kg	
十溴聯苯 Decabromobiphenyl	N.D.	5 mg/kg	

測試項目 Tested Item(s)	結果 Result	方法檢出限 MDL	限值 Limit
	001		
<b>多溴二苯醚 Polybrominated Diphenyl Ethers (PBDEs)</b>			
一溴二苯醚 Monobromodiphenyl ether	N.D.	5 mg/kg	1000 mg/kg
二溴二苯醚 Dibromodiphenyl ether	N.D.	5 mg/kg	
三溴二苯醚 Tribromodiphenyl ether	N.D.	5 mg/kg	
四溴二苯醚 Tetrabromodiphenyl ether	N.D.	5 mg/kg	
五溴二苯醚 Pentabromodiphenyl ether	N.D.	5 mg/kg	
六溴二苯醚 Hexabromodiphenyl ether	N.D.	5 mg/kg	
七溴二苯醚 Heptabromodiphenyl ether	N.D.	5 mg/kg	
八溴二苯醚 Octabromodiphenyl ether	N.D.	5 mg/kg	
九溴二苯醚 Nonabromodiphenyl ether	N.D.	5 mg/kg	
十溴二苯醚 Decabromodiphenyl ether	N.D.	5 mg/kg	

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### 檢測結果 Test Result(s)

測試項目 Tested Item(s)	結果 Result	方法檢出限 MDL	限值 Limit
	001		
<b>鄰苯二甲酸酯 Phthalates (DBP, BBP, DEHP, DIBP)</b>			
鄰苯二甲酸丁基苄基酯 Butyl benzyl phthalate (BBP) CAS#:85-68-7	N.D.	50 mg/kg	1000 mg/kg
鄰苯二甲酸二(2-乙基)己酯 Di-(2-ethylhexyl) phthalate (DEHP) CAS#:117-81-7	N.D.	50 mg/kg	1000 mg/kg
鄰苯二甲酸二丁酯 Dibutyl phthalate (DBP) CAS#:84-74-2	N.D.	50 mg/kg	1000 mg/kg
鄰苯二甲酸二異丁酯 Diisobutyl phthalate (DIBP) CAS#:84-69-5	N.D.	50 mg/kg	1000 mg/kg
測試項目 Tested Item(s)	結果 Result	方法檢出限 MDL	
	001		
<b>鄰苯二甲酸酯 Phthalates</b>			
鄰苯二甲酸二異癸酯 Di-iso-decyl phthalate (DIDP) CAS#:26761-40-0,68515-49-1	N.D.		50 mg/kg
鄰苯二甲酸二異壬酯 Di-isononyl phthalate (DINP) CAS#:28553-12-0,68515-48-0	N.D.		50 mg/kg
鄰苯二甲酸二正辛酯 Di-n-octyl phthalate (DNOP) CAS#:117-84-0	N.D.		50 mg/kg
測試項目 Tested Item(s)	結果 Result	方法檢出限 MDL	
	001		
六溴環十二烷 Hexabromocyclododecane (HBCDD)	N.D.		20 mg/kg
測試項目 Tested Item(s)	結果 Result	方法檢出限 MDL	
	001		
全氟辛酸 Perfluorooctanoic Acid (PFOA)	N.D.		0.01 mg/kg
測試項目 Tested Item(s)	結果 Result	方法檢出限 MDL	
	001		
全氟辛烷磺酸 Perfluorooctane Sulfonates (PFOS)	N.D.		0.01 mg/kg

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## 樣品/部位描述 Sample/Part Description

序號 No.	CTI樣品ID CTI Sample ID	描述 Description
1	001	PCB (整體測試) PCB (Tested as a whole)

**備註:** 對於檢測鉛, 鎘, 汞之樣品已消解完全。  
-N.D. = 未檢出 (小於方法檢出限)  
-mg/kg = ppm = 百萬分之一  
-1000 mg/kg = 0.1%  
-按照目前手段, 樣品無法進一步拆分, 樣品整體測試, 測試結果不代表整體測試樣品中任何一種單一材質的含量。

**Remark:** **The sample(s) had been dissolved totally tested for Lead, Cadmium, Mercury.**  
-MDL = Method Detection Limit  
-N.D. = Not Detected (<MDL )  
-mg/kg = ppm = parts per million  
-1000 mg/kg = 0.1%  
-The sample(s) was tested as a whole, because it's impossible to disassemble or separate it by current equipment and technology. The result(s) shown on this report may be different from the content of any homogeneous material.

**注釋:** 本報告中的資料結果供科研、教學、企業內部品質控制、企業產品研發等目的用。  
**Note:** **The testing data and result(s) in this report is(are) just for scientific research, education, internal quality control and product development etc.**

# 檢測報告 Test Report

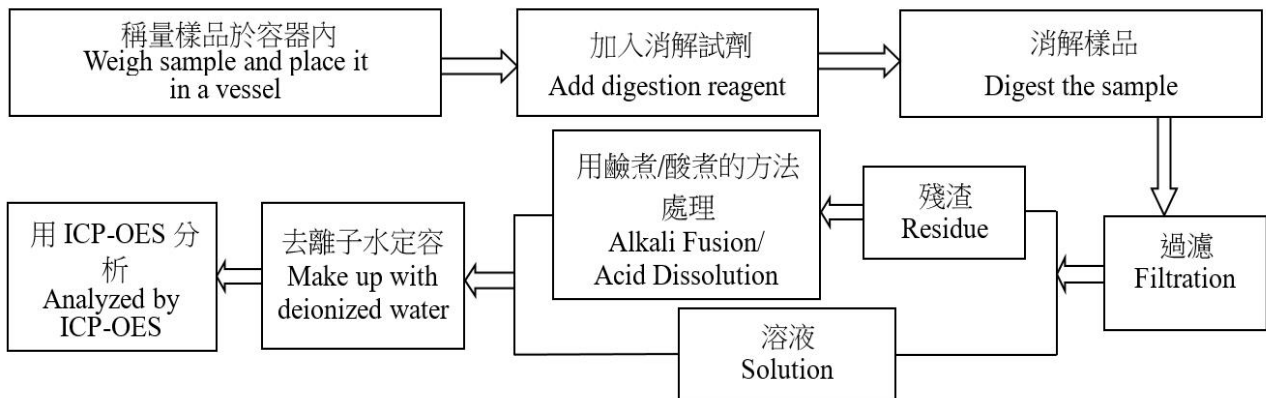
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## 檢測流程 Test Process

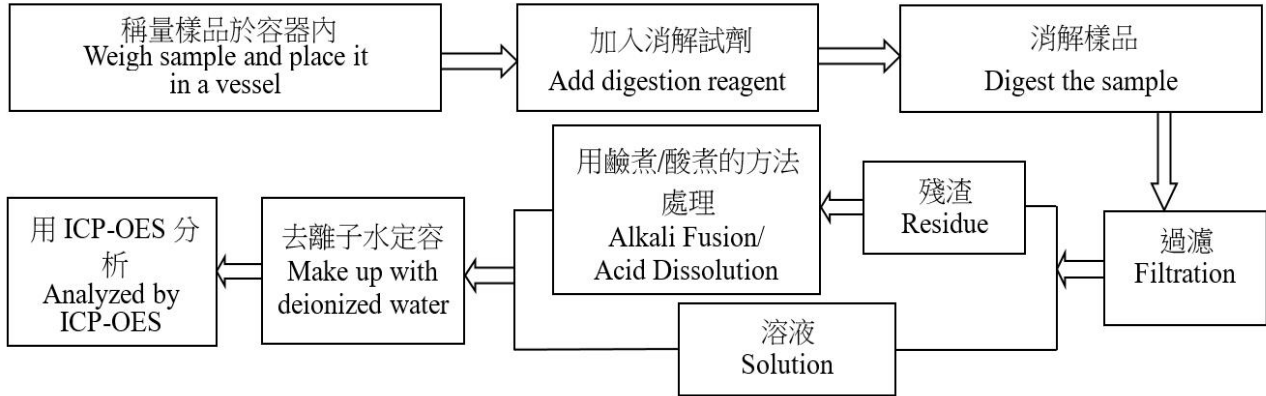
### 1. 鉛(Pb), 鎘(Cd)

#### Lead (Pb), Cadmium (Cd)



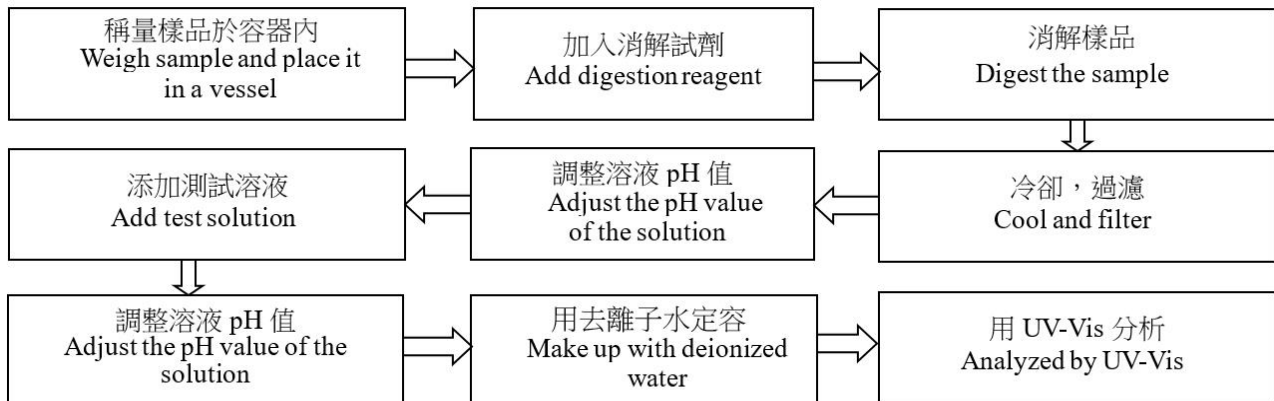
### 2. 汞(Hg)

#### Mercury (Hg)



### 3. 六價鉻(Cr(VI))

#### Hexavalent Chromium (Cr(VI))





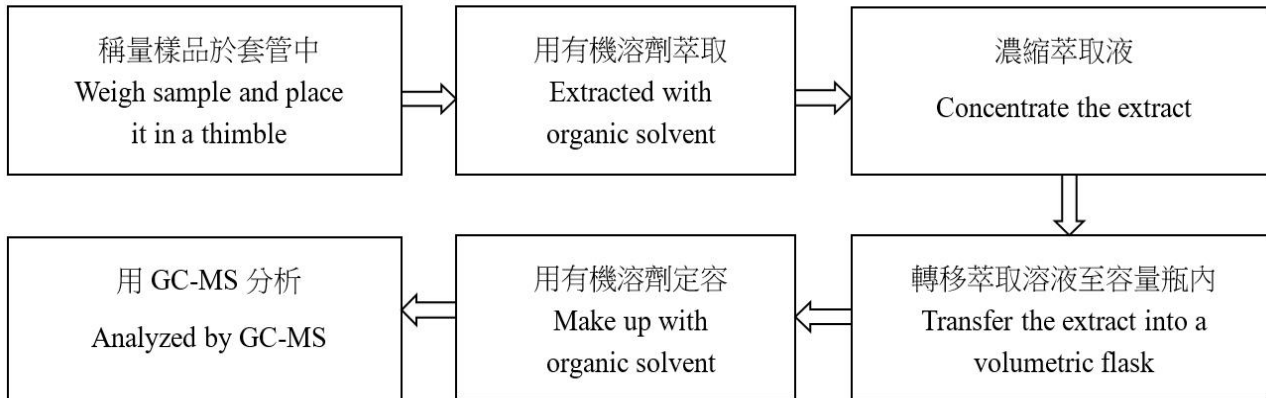
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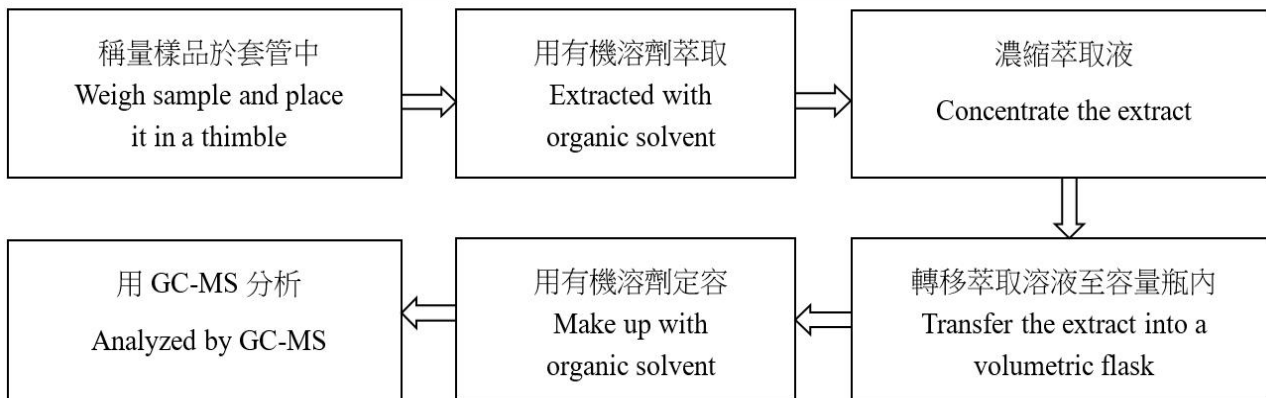
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## 4. 多溴聯苯(PBBs), 多溴二苯醚(PBDEs)

Polybrominated Biphenyls (PBBs), Polybrominated Diphenyl Ethers (PBDEs)

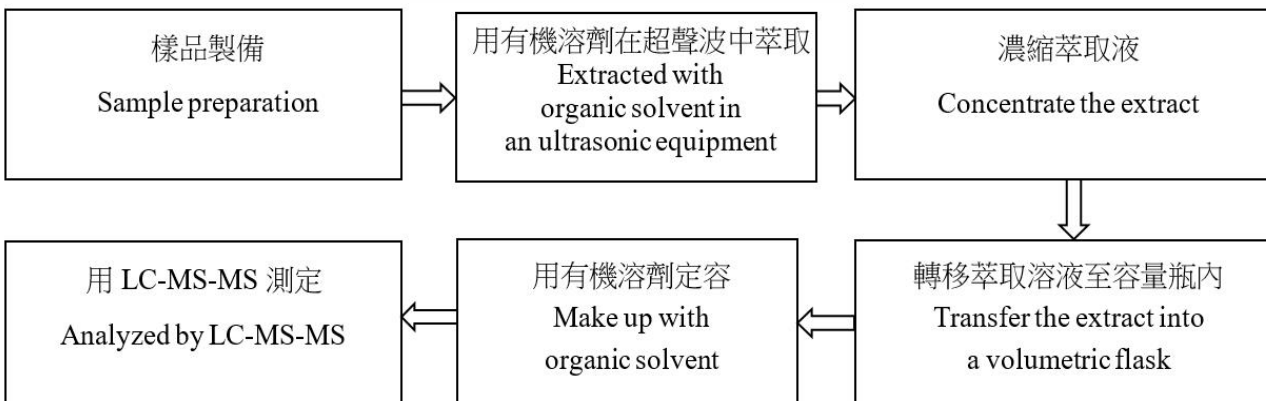


## 5. 鄰苯二甲酸酯(DBP, BBP, DEHP, DIBP), 鄰苯二甲酸酯 Phthalates (DBP, BBP, DEHP, DIBP), Phthalates



## 6. 全氟辛烷磺酸(PFOS), 全氟辛酸(PFOA)

Perfluorooctane Sulfonates(PFOS), Perfluorooctanoic Acid(PFOA)





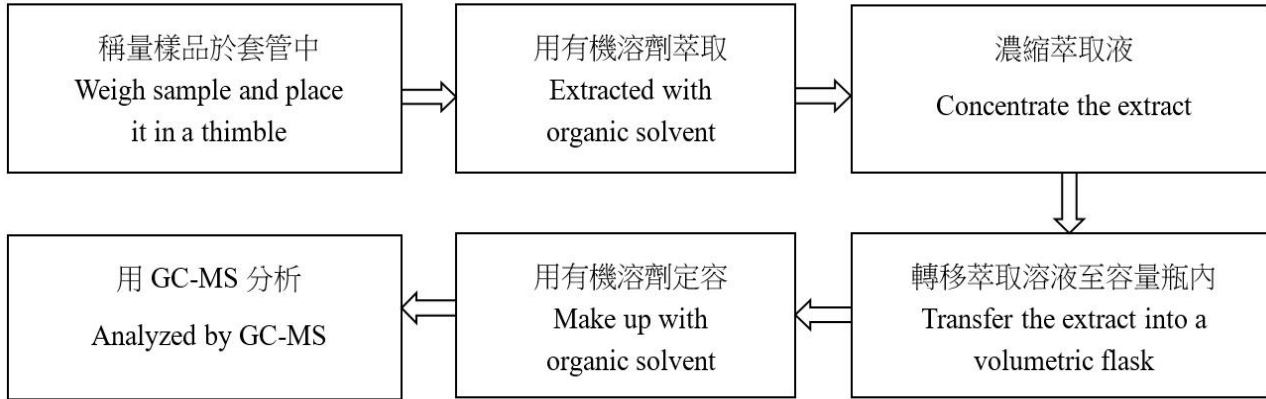
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## 7. 六溴環十二烷(HBCDD)

### Hexabromocyclododecane (HBCDD)

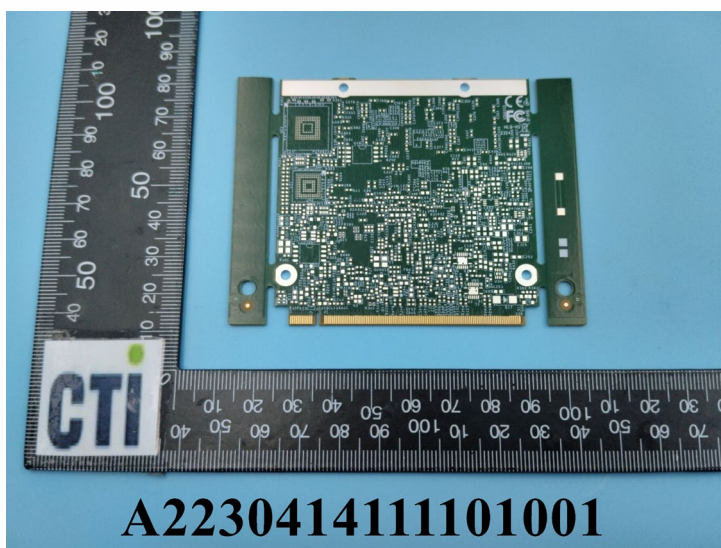


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## 樣品圖片 Photo(s) of the sample(s)



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1. 檢測報告無批准人簽字、“專用章”及報告騎縫章無效；  
This report is considered invalid without approved signature, special seal and the seal on the perforation;
2. 報告抬頭公司名稱及位址、樣品及樣品資訊由申請者提供，申請者應對其真實性負責，CTI未核實其真實性；  
The Company Name shown on Report and Address, the sample(s) and sample information was/were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified;
3. 本報告檢測結果僅對受測樣品負責；  
The result(s) shown in this report refer(s) only to the sample(s) tested;
4. 未經CTI書面同意，不得部分複製本報告；  
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In case of any discrepancy between the English version and Chinese version of the testing reports (if generated), the Chinese version shall prevail.

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\*\*\* End of report \*\*\*