



# 检测报告

## Test Report

报告编号 A2210548130101001E  
Report No. A2210548130101001E

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报告抬头公司名称 惠州大亚湾恒一电子有限公司  
**Company Name** RELIANCE TECHNOLOGY DEVELOPMENT LTD.

**shown on Report**

地 址 中国广东省惠州市大亚湾西区塘布工业区  
**Address** TANG BU VILLAGE, DAYA BAY WEST DISTRICT, HUI ZHOU, CHINA

以下测试之样品及样品信息由申请者提供并确认

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

样品名称 Sample Name PCB  
样品型号 Part No. 20211224  
样品颜色 Color 绿  
样品批号 Item No. 01  
材料名称 Material PCB-FR-4  
样品接收日期 2021.12.27  
Sample Received Date Dec. 27, 2021  
样品检测日期 2021.12.27-2021.12.30  
Testing Period Dec. 27, 2021 to Dec. 30, 2021

**检测要求** 根据客户要求, 对所提交样品中的铅(Pb), 镉(Cd), 汞(Hg), 六价铬(Cr(VI)), 多溴联苯(PBBs), 多溴二苯醚(PBDEs), 邻苯二甲酸酯(DBP, BBP, DEHP, DIBP)进行测试。

**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) in the submitted sample(s).

**检测依据/检测结果** 请参见下页。

**Test Method/Test Result(s)** Please refer to the following page(s).

主 检  
Tested by

廖红月

审 核  
Reviewed by

方理松

批 准  
Approved by

郑晴涛

日 期  
Date

2021.12.30

郑晴涛

技术经理 Technical Manager

No. R393381030

华测检测认证集团股份有限公司

广东省深圳市宝安区新安街道兴东社区华测检测大楼

Centre Testing International Group Co., Ltd.

CTI Building, Xing Dong Community, Xin'an Sub-district, Bao'an District, Shenzhen City, Guangdong Province, P.R. China

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### 结论 Conclusion

测试样品 Tested Sample	依据标准/指令 According to standard/directive	结果 Result
提交样品 Submitted Sample	客户限值 Client's Limit	符合 PASS

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### 检测依据 Test Method

测试项目 Tested Item(s)	测试方法 Test Method	测试仪器 Measured Equipment(s)
铅 Lead (Pb)	IEC 62321-5:2013	ICP-OES
镉 Cadmium (Cd)	IEC 62321-5:2013	ICP-OES
汞 Mercury (Hg)	IEC 62321-4:2013+AMD1:2017 CSV	ICP-OES
六价铬 Hexavalent Chromium (Cr(VI)) <sup>#</sup>	IEC 62321-7-2:2017 和/或 IEC 62321-5:2013 测试总 铬含量 IEC 62321-7-2:2017 and/or determination of Total Chromium by IEC 62321-5:2013	UV-Vis/ICP-OES
多溴联苯 Polybrominated Biphenyls (PBBs) <sup>#</sup>	IEC 62321-6:2015	GC-MS
多溴二苯醚 Polybrominated Diphenyl Ethers (PBDEs) <sup>#</sup>	IEC 62321-6:2015	GC-MS
邻苯二甲酸酯 Phthalates (DBP, BBP, DEHP, DIBP) <sup>#</sup>	IEC 62321-8:2017	GC-MS

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### 检测结果 Test Result(s)

测试项目 Tested Item(s)	结果 Result	方法检出限 MDL	客户限值 Client's Limit
铅 Lead (Pb)	N.D.	2 mg/kg	1000 mg/kg
镉 Cadmium (Cd)	N.D.	2 mg/kg	100 mg/kg
汞 Mercury (Hg)	N.D.	2 mg/kg	1000 mg/kg
六价铬 Hexavalent Chromium (Cr(VI)) #	N.D.	8 mg/kg	1000 mg/kg

测试项目 Tested Item(s)	结果 Result	方法检出限 MDL	客户限值 Client's Limit
<b>多溴联苯 Polybrominated Biphenyls (PBBs) #</b>			
一溴联苯 Monobromobiphenyl	N.D.	5 mg/kg	1000 mg/kg
二溴联苯 Dibromobiphenyl	N.D.	5 mg/kg	
三溴联苯 Tribromobiphenyl	N.D.	5 mg/kg	
四溴联苯 Tetrabromobiphenyl	N.D.	5 mg/kg	
五溴联苯 Pentabromobiphenyl	N.D.	5 mg/kg	
六溴联苯 Hexabromobiphenyl	N.D.	5 mg/kg	
七溴联苯 Heptabromobiphenyl	N.D.	5 mg/kg	
八溴联苯 Octabromobiphenyl	N.D.	5 mg/kg	
九溴联苯 Nonabromobiphenyl	N.D.	5 mg/kg	
十溴联苯 Decabromobiphenyl	N.D.	5 mg/kg	

测试项目 Tested Item(s)	结果 Result	方法检出限 MDL	客户限值 Client's Limit
<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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测试项目 Tested Item(s)	结果 Result	方法检出限 MDL	限值 Limit
<b>邻苯二甲酸酯 Phthalates (DBP, BBP, DEHP, DIBP) #</b>			
邻苯二甲酸二丁酯 Dibutyl phthalate (DBP) CAS#:84-74-2	N.D.	50 mg/kg	1000 mg/kg
邻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
邻苯二甲酸二(2-乙基)己酯 Di-(2-ethylhexyl) phthalate (DEHP) CAS#:117-81-7	N.D.	50 mg/kg	1000 mg/kg
邻苯二甲酸二异丁酯 Diisobutyl phthalate (DIBP) CAS#:84-69-5	N.D.	50 mg/kg	1000 mg/kg

样品/部位描述 混测, PCB 和银色金属  
Sample/Part Description Mixed test, PCB and silvery metal

备注: -对于检测铅, 镉, 汞之样品已消解完全。  
-根据客户要求, 对样品进行混合测试, 测试结果不代表混合测试样品中任何一种单一材质的含量。  
-N.D. = 未检出 (小于方法检出限)  
-mg/kg = ppm = 百万分之一  
-1000 mg/kg = 0.1%

Remark: **-The sample(s) had been dissolved totally tested for Lead, Cadmium, Mercury.**  
**-As specified by client, the test was conducted by mixing several samples together. The result(s) shown on this report may be different from the content of any homogeneous material.**  
-MDL = Method Detection Limit  
-N.D. = Not Detected (<MDL)  
-mg/kg = ppm = parts per million  
-1000 mg/kg = 0.1%

注释: -#表示该项目/方法不在 CNAS 认可范围内。  
-本报告中的数据结果供科研、教学、企业内部质量控制、企业产品研发等目的用。

Note: -#Indicates the item(s)/method(s) is (are) not in CNAS accreditation scope.  
**-The testing data and result(s) in this report is(are) just for scientific research, education, internal quality control and product development etc.**

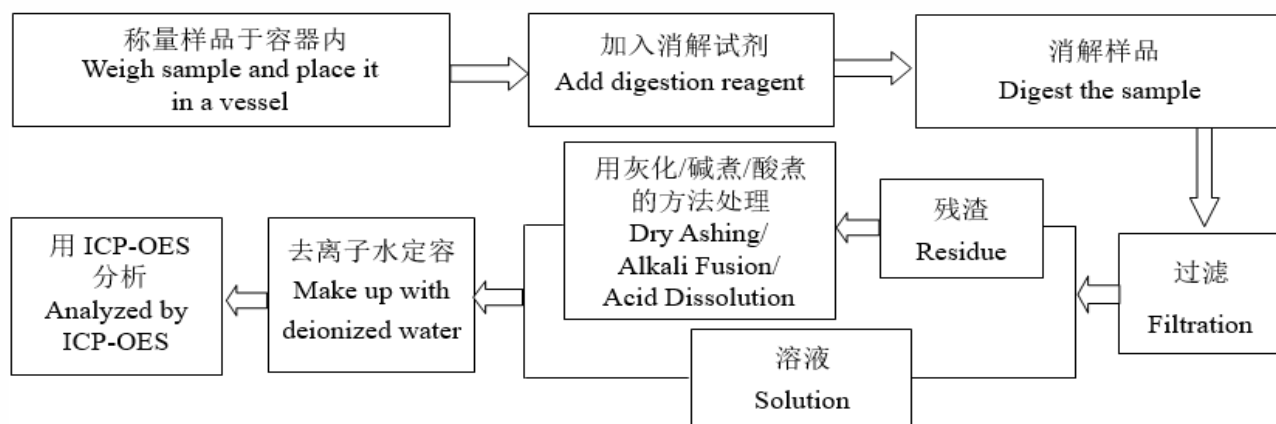
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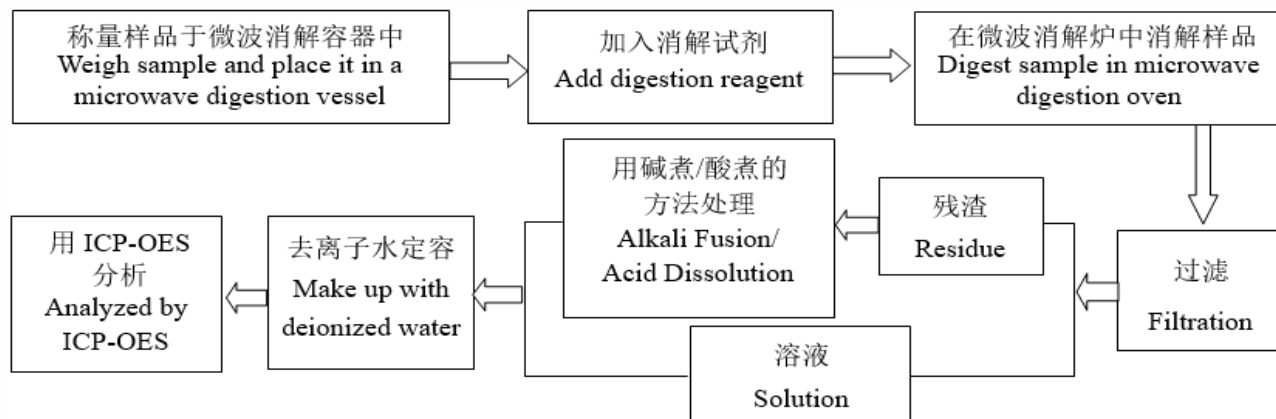
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## 检测流程 Test Process

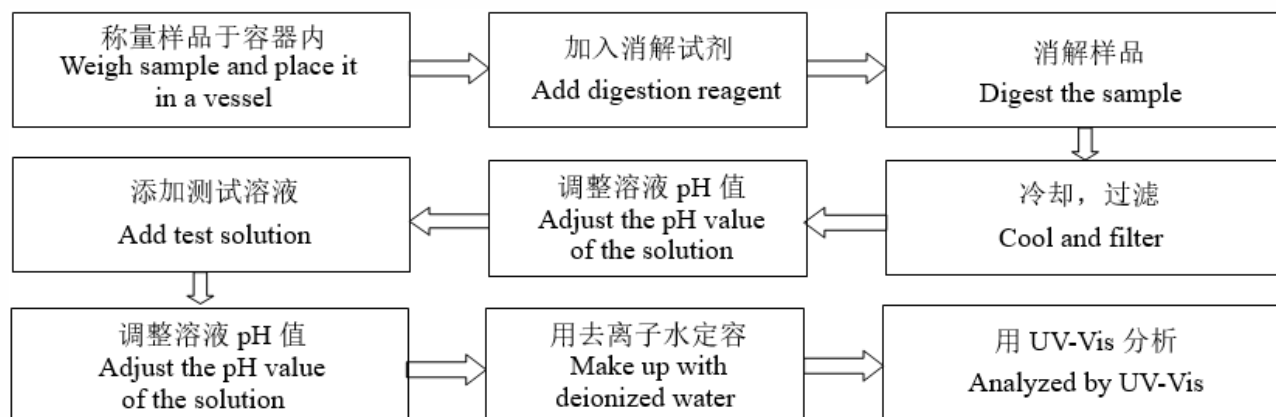
### 1. 铅 Lead (Pb), 镉 Cadmium (Cd), 铬 Chromium(Cr)



### 2. 汞 Mercury (Hg)



### 3. 六价铬 Hexavalent Chromium (Cr(VI))

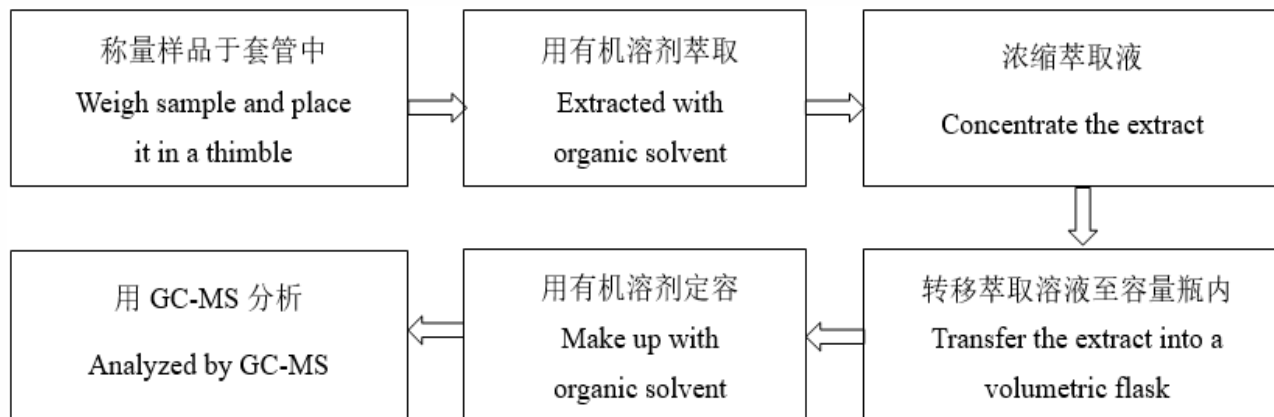


# 检测报告 Test Report

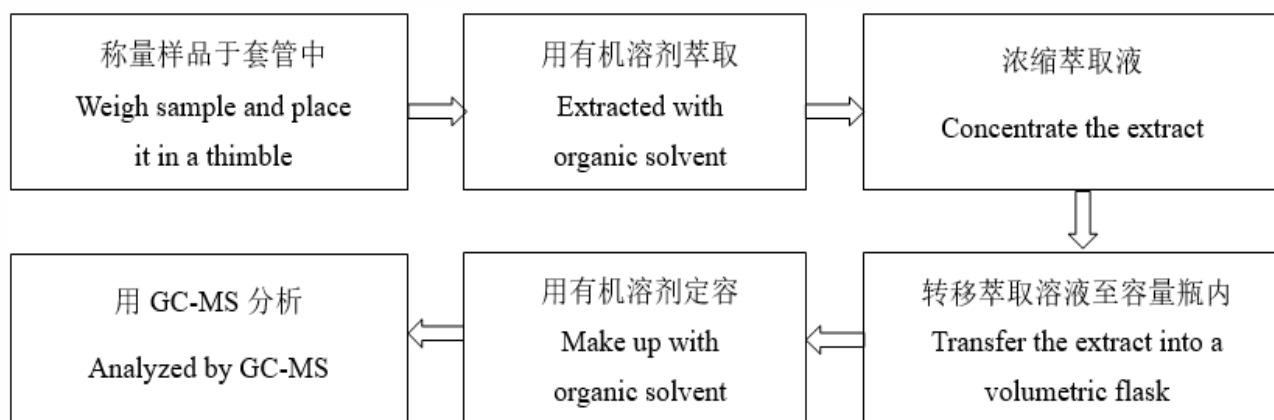
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## 4. 多溴联苯 Polybrominated Biphenyls (PBBs), 多溴二苯醚 Polybrominated Diphenyl Ethers (PBDEs)



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



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## 样品图片

### Photo(s) of the sample(s)



#### 声明 Statement:

1. 检测报告无批准人签字、“专用章”及报告骑缝章无效;

This report is considered invalid without approved signature, special seal and the seal on the perforation;

2. 报告抬头公司名称及地址、样品及样品信息由申请者提供，申请者应对其真实性负责，CTI 未核实其真实性;

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. 本报告检测结果仅对受测样品负责;

The result(s) shown in this report refer(s) only to the sample(s) tested;

4. 未经 CTI 书面同意，不得部分复制本报告;

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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.

\*\*\* 报告结束 \*\*\*

\*\*\* End of Report \*\*\*