

检测报告 编号: TAOEC2308789602 日期: 2023年12月12日 第1页,共9页

客户名称: 安徽积芯微电子科技有限公司

客户地址: 中国(安徽)自由贸易试验区蚌埠片区禹会区姜桥路2999号

样品名称: 芯片封装测试产品

客户参考信息: PDFN5\*6、PDFN3.3\*3.3、TOLLA-8L、TO-220、TO-247、TO-252、TO-263、T

O-3P

以上样品及信息由客户提供。

SGS工作编号: SHP23-020799 - QD

样品接收日期: 2023年12月05日

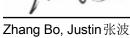
检测周期: 2023年12月05日 - 2023年12月12日

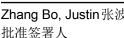
检测要求: 根据客户要求检测 检测方法: 请参见下一页 检测结果: 请参见下一页

检测结果概要:

检测要求	结论
欧盟RoHS指令2011/65/EU附录II的修正指令(EU) 2015/863-铅, 汞, 镉, 六价铬, 多溴	符合
联苯(PBBs), 多溴二苯醚(PBDEs), 邻苯二甲酸二丁酯 (DBP), 邻苯二甲酸丁苄	
酯(BBP), 邻苯二甲酸二(2-乙基己基)酯(DEHP)和邻苯二甲酸二异丁酯(DIBP)	
卤素	见检测结果

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检测结果:

### 检测样品描述:

样品编号 SGS样品ID 描述

> SN<sub>1</sub> TAO23-087896.001 带银色金属引脚的黑色本体

备注:

(1) 1 mg/kg = 0.0001%

(2) MDL = 方法检测限

(3) ND = 未检出 ( < MDL )

(4) "-" = 未规定

欧盟RoHS指令2011/65/EU附录II的修正指令(EU) 2015/863-铅, 汞, 镉, 六价铬, 多溴联苯(PBBs), 多溴二苯 醚(PBDEs), 邻苯二甲酸二丁酯 (DBP), 邻苯二甲酸丁苄酯(BBP), 邻苯二甲酸二(2-乙基已基)酯(DEHP)和邻苯二甲 酸二异丁酯(DIBP)

检测方法: 参考IEC 62321-5:2013, IEC 62321-4:2013+AMD1:2017, IEC 62321-7-2:2017, IEC 62321-6:2015和IEC 62321-8:2017, 采用ICP-OES, UV-Vis和GC-MS进行分析.

检测项目	<u>限值</u>	<u>单位</u>	<u>MDL</u>	<u>001</u>
镉(Cd)	100	mg/kg	2	ND
铅(Pb)	1000	mg/kg	2	25879
汞(Hg)	1000	mg/kg	2	ND
六价铬 (Cr(VI))	1000	mg/kg	8	ND
多溴联苯之和(PBBs)	1000	mg/kg	-	ND
一溴联苯	-	mg/kg	5	ND
二溴联苯	-	mg/kg	5	ND
三溴联苯	-	mg/kg	5	ND
四溴联苯	-	mg/kg	5	ND
五溴联苯	-	mg/kg	5	ND
六溴联苯	-	mg/kg	5	ND
七溴联苯	-	mg/kg	5	ND
八溴联苯	-	mg/kg	5	ND
九溴联苯	-	mg/kg	5	ND
十溴联苯	-	mg/kg	5	ND
多溴二苯醚之和(PBDEs)	1000	mg/kg	-	ND
一溴二苯醚	-	mg/kg	5	ND
二溴二苯醚	-	mg/kg	5	ND
三溴二苯醚	-	mg/kg	5	ND
四溴二苯醚	-	mg/kg	5	ND



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<u>检测项目</u>	限值	<u>单位</u>	<u>MDL</u>	<u>001</u>
五溴二苯醚	-	mg/kg	5	ND
六溴二苯醚	-	mg/kg	5	ND
七溴二苯醚	-	mg/kg	5	ND
八溴二苯醚	-	mg/kg	5	ND
九溴二苯醚	-	mg/kg	5	ND
十溴二苯醚	-	mg/kg	5	ND
邻苯二甲酸二丁酯 (DBP)	1000	mg/kg	50	ND
邻苯二甲酸丁苄酯(BBP)	1000	mg/kg	50	ND
邻苯二甲酸二(2-乙基己基)酯(DEHP)	1000	mg/kg	50	ND
邻苯二甲酸二异丁酯(DIBP)	1000	mg/kg	50	ND

#### 备注:

- (1) 最大允许极限值引用自RoHS指令(EU) 2015/863。
- (2) IEC 62321系列等同于 EN 62321系列
- (3) 2021年7月22号开始, DEHP, BBP, DBP 和 DIBP的限制适用于医疗器械,包括体外医疗器械,监控仪 表,包括工业监测和控制仪器。
- (4) ▲根据客户提供的声明,编号001中的铅(Pb)被欧盟RoHS指令2011/65/EU豁免,相应豁免条文(请以英 文原文为准) |ANNEX Ⅲ 7(a)|: 高熔点型焊料中的铅(即铅含量等于或大于85%的铅基合金焊料)。 更多豁免相关信息,可以从以下链接获取:

https://rohs.sgsonline.com.cn/PDFLinks/zh-cn/RSTS-TP-037%20RoHS%20Exemption%20(CN).pdf

#### 卤素

检测方法: 参照EN 14582: 2016方法测定, 采用 IC进行分析.

检测项目	<u>单位</u>	<u>MDL</u>	<u>001</u>
氟(F)	mg/kg	20	ND
氯(CI)	mg/kg	50	ND
溴(Br)	mg/kg	50	ND
碘(I)	mg/kg	50	ND

除非另有说明,参照ILAC-G8:09/2019,使用简单接受(w=0)的二元判定规则进行符合性判定。 除非另有说明,此报告结果仅对检测的样品负责。本报告未经本公司书面许可,不可部分复制。 检测报告仅用于客户科研、教学、内部质量控制、产品研发等目的,仅供内部参考。



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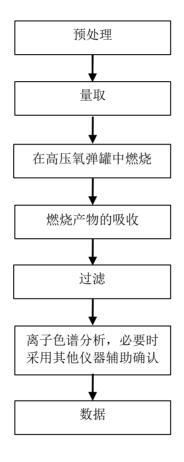


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附件

## 卤素检测流程图





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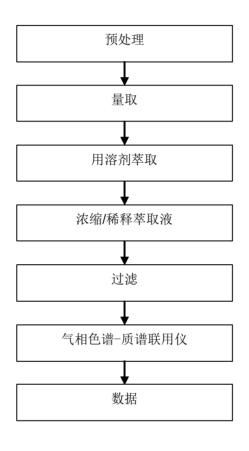
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### PBBs/PBDEs 检测流程图





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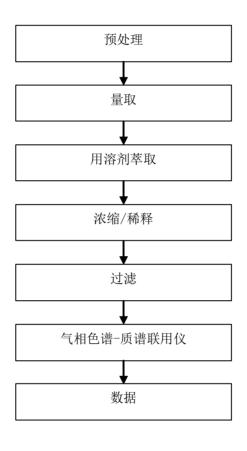


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## Phthalates 检测流程图





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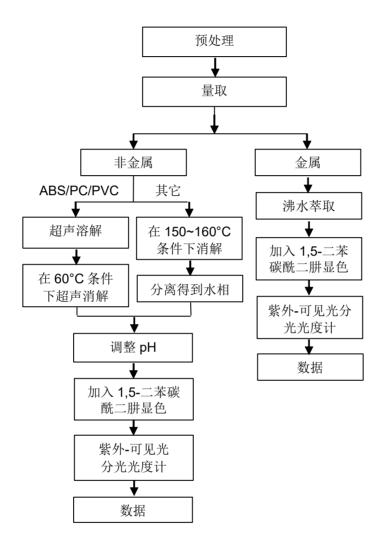


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### 六价铬检测流程图





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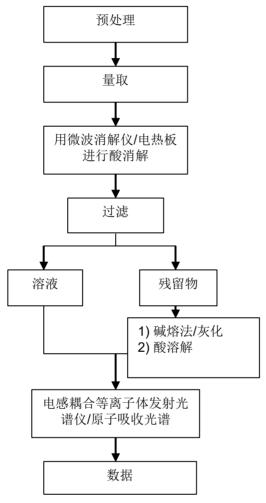
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## 元素(IEC62321) 检测流程图

1)样品按照下述流程被完全消解





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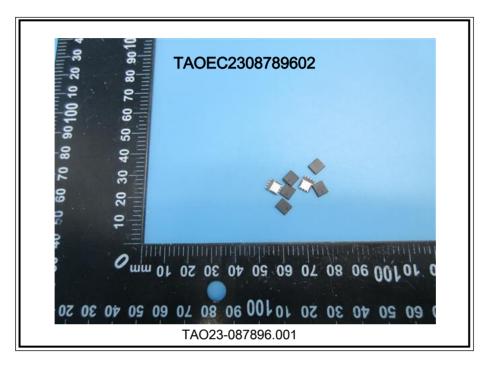
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