

No. NGBEC1300006902

日期: 2013年01月08日 第1页,共7页

浙江红果微电子有限公司 浙江省绍兴市舜江路685#

以下测试之样品是由申请者所提供及确认: SOT-23

SGS工作编号: NP12-001968 - NB

型号: SOT-23

样品接收日期: 2013年01月04日

测试周期: 2013年01月04日 - 2013年01月08日

测试要求: 根据客户要求测试

测试方法: 请参见下一页 测试结果: 请参见下一页

结论: 基于所送样品001的指定部位进行的测试,镉、铅、汞、六价铬、多溴联

苯(PBB)、多溴二苯醚(PBDE)的测试结果符合欧盟RoHS指令2002/95/EC的重订

指令2011/65/EU附录II的限值要求。

基于所送样品002的指定部位进行的测试,镉、铅、汞、六价铬的测试结果符合欧

盟RoHS指令2002/95/EC的重订指令2011/65/EU附录Ⅱ的限值要求。

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Iris Xiao肖玲艳 批准签署人

本报告是编号为NGBEC1300006901报告的中文版本

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测试报告 No. NGBEC1300006902 日期: 2013年01月08日 第2页,共7页

测试结果:

测试样品描述:

| 样品编号 | SGS样品ID | 描述 |
|------|------------------|--------|
| 1 | NGB13-000069.001 | 黑色本体 |
| 2 | NGB13-000069.002 | 银色金属引脚 |

备注:

- (1) 1 mg/kg = 1 ppm = 0.0001%
- (2) MDL = 方法检测限
- (3) ND = 未检出 (< MDL)
- (4) "-" = 未规定

RoHS指令2011/65/EU

测试方法: 参考IEC 62321:2008:

(1) 用ICP-OES测定镉的含量. (2) 用ICP-OES测定铅的含量. (3) 用ICP-OES测定铅的含量.

(3) 用ICP-OES测定汞的含量.

(4) 用紫外-可见分光光度计比色法测定六价铬的含量.

(5) 用GC-MS测定PBBs(多溴联苯)和PBDEs(多溴二苯醚)的含量.

| 测试项目 | 限值 | <u>单位</u> | <u>MDL</u> | <u>001</u> |
|----------------|------|-----------|------------|------------|
| 镉(Cd) | 100 | mg/kg | 2 | ND |
| 铅(Pb) | 1000 | mg/kg | 2 | ND |
| 汞(Hg) | 1000 | mg/kg | 2 | ND |
| 六价铬(CrVI) | 1000 | mg/kg | 2 | 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 |

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|-------------|-------------------|-----------|-----------------|------------|---------|
| <u>测试项目</u> | <u>限值</u> | <u>单位</u> | MDL | <u>001</u> | |
| 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 | |
| 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 | |

备注:

(1) 最大允许极限值引用自指令2011/65/EU附录II.

RoHS指令2011/65/EU

测试方法: 参考IEC 62321:2008:

(1) 用ICP-OES测定镉的含量.(2) 用ICP-OES测定铅的含量.(3) 用ICP-OES测定汞的含量.

(4) 用点测试法/紫外-可见分光光度计比色法测定六价铬的含量.

| 测试项目 | <u>限值</u> | <u>单位</u> | <u>MDL</u> | <u>002</u> |
|-----------|-----------|-----------|------------|------------|
| 镉 (Cd) | 100 | mg/kg | 2 | ND |
| 铅(Pb) | 1000 | mg/kg | 2 | 12 |
| 汞 (Hg) | 1000 | mg/kg | 2 | ND |
| 六价铬(CrVI) | - | _ | \Diamond | 阴性 |

备注:

- (1) 最大允许极限值引用自指令2011/65/EU 附录II.
- (2) ◊点测试法:

阴性= 未检测到六价铬,阳性 = 检测到六价铬;

(当点测试结果为阴性或无法确定时,将采用沸水萃取法作进一步的结果验证.)

◇沸水萃取法:

阴性= 未检测到六价铬

阳性= 检测到六价铬; 表明50 cm²表面积的被测试样品的沸水萃取液中六价铬的浓度等于或大于0.02 mg/kg 由于未获知样品的存储条件和生产日期,样品的六价铬测试结果仅能代表测试时样品含六价铬的状态.

<u>素</u>应

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测试报告 No. NGBEC1300006902 日期: 2013年01月08日 第4页,共7页

测试方法: 参照EN 14582:2007方法测定, 采用IC进行分析.

| 测试项目 | <u>单位</u> | <u>MDL</u> | <u>001</u> |
|--------------|-----------|------------|------------|
| 氟 (F) | mg/kg | 50 | ND |
| 氯(CI) | mg/kg | 50 | ND |
| 溴(Br) | mg/kg | 50 | 103* |
| 碘(I) | mg/kg | 50 | ND |

备注:

(1)*测试结果仅供参考.

(2) 这些测试由SGS上海化学实验室检测(样品测试日期: 2012/01/04-01/08).

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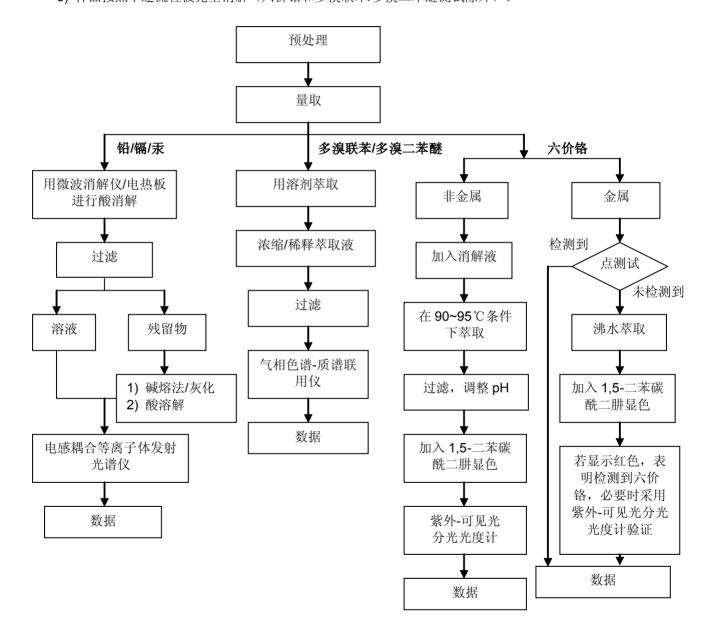
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附件

RoHS 测试流程图

- 1) 分析人员: 朱再峰/朱淑娴/周平勇
- 2) 项目负责人: 肖玲艳
- 3) 样品按照下述流程被完全消解(六价铬和多溴联苯/多溴二苯醚测试除外)。



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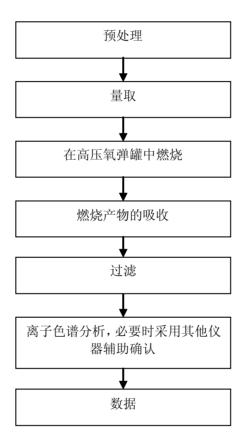
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附件

卤素测试流程图

1) 分析人员: 巩东侠 2) 项目负责人: 江海飞



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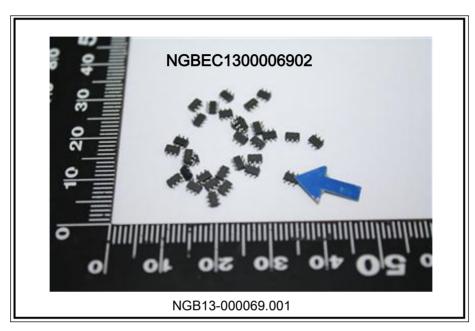


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