

## 测试报告

No. CANEC1617327002

日期: 2016年09月09日 第1页,共8页

吉林华微斯帕克电气有限公司  
吉林省吉林市高新区长江街100号

以下测试之样品是由申请者所提供及确认: DIP23外形

SGS工作编号: CP16-056203 - SZ  
型号: DIP23外形  
样品接收日期: 2016年09月01日  
测试周期: 2016年09月01日 - 2016年09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: 基于所送样品指定部位进行的测试, 镉、铅、汞、六价铬、多溴联苯(PBBs)、多溴二苯醚(PBDEs)、邻苯二甲酸酯(如邻苯二甲酸二丁酯(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))的测试结果符合欧盟RoHS指令2011/65/EU附录II的修正指令(EU) 2015/863的限值要求。

通标标准技术服务有限公司广州分公司  
授权签名

史丽兰

Violet, Shi 史丽兰  
批准签署人

备注:本报告是编号为CANEC1617327001 报告的中文版本。



测试结果:

测试样品描述:

样品编号	SGS样品ID	描述
SN1	CAN16-173270.001	黑色塑胶 (成品)
SN2	CAN16-173270.002	银色金属 (成品)
SN3	CAN16-173270.003	红铜色金属 (半成品)

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附录II的修正指令(EU) 2015/863

- 测试方法:
- (1)参考IEC 62321-5:2013, 用ICP-OES测定镉的含量
  - (2)参考IEC 62321-5:2013, 用ICP-OES测定铅的含量
  - (3)参考IEC 62321-4:2013, 用ICP-OES测定汞的含量
  - (4)参考IEC 62321:2008, 用紫外-可见分光光度计比色法测定六价铬的含量
  - (5)参考IEC 62321-6:2015, 用GC-MS测定PBBs(多溴联苯)和PBDEs(多溴二苯醚) 的含量
  - (6) 参考IEC 62321-8 :2013(111/321/CD) , 用GC-MS测定邻苯二甲酸酯的含量

测试项目	限值	单位	MDL	001
镉 (Cd)	100	mg/kg	2	ND
铅 (Pb)	1,000	mg/kg	2	ND
汞 (Hg)	1,000	mg/kg	2	ND
六价铬(Cr(VI))	1,000	mg/kg	2	ND
多溴联苯之和(PBBs)	1,000	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



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测试项目	限值	单位	MDL	001
多溴二苯醚之和(PBDEs)	1,000	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
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。

### RoHS指令2011/65/EU附录II的修正指令(EU) 2015/863

测试方法: (1)参考IEC 62321-5:2013, 用ICP-OES测定镉的含量  
 (2)参考IEC 62321-5:2013, 用ICP-OES测定铅的含量  
 (3)参考IEC 62321-4:2013, 用ICP-OES测定汞的含量  
 (4)参考IEC 62321-7-1:2015, 用紫外-可见分光光度计比色法测定六价铬的含量

测试项目	限值	单位	MDL	002	003
镉 (Cd)	100	mg/kg	2	ND	ND
铅 (Pb)	1,000	mg/kg	2	8	4
汞 (Hg)	1,000	mg/kg	2	ND	ND
六价铬(Cr(VI))▼	-	µg/cm <sup>2</sup>	0.10	ND	ND

备注:

(1) 最大允许极限值引用自RoHS指令(EU) 2015/863。  
 (2) ▼=a. 当六价铬的浓度高于0.13 µg/cm<sup>2</sup>时, 样品为阳性, 即含有六价铬;  
 b. 当六价铬的浓度为ND(低于0.10 µg/cm<sup>2</sup>)时, 样品为阴性, 即未检测到六价铬;  
 c. 当六价铬的浓度介于0.10 µg/cm<sup>2</sup>与0.13 µg/cm<sup>2</sup>之间时, 无法直接判定是否检测到六价铬, 因不同个体的样品表面差异可能会影响测定结果;  
 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



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价格的状态。

IEC 62321 系列等同于 EN 62321 系列

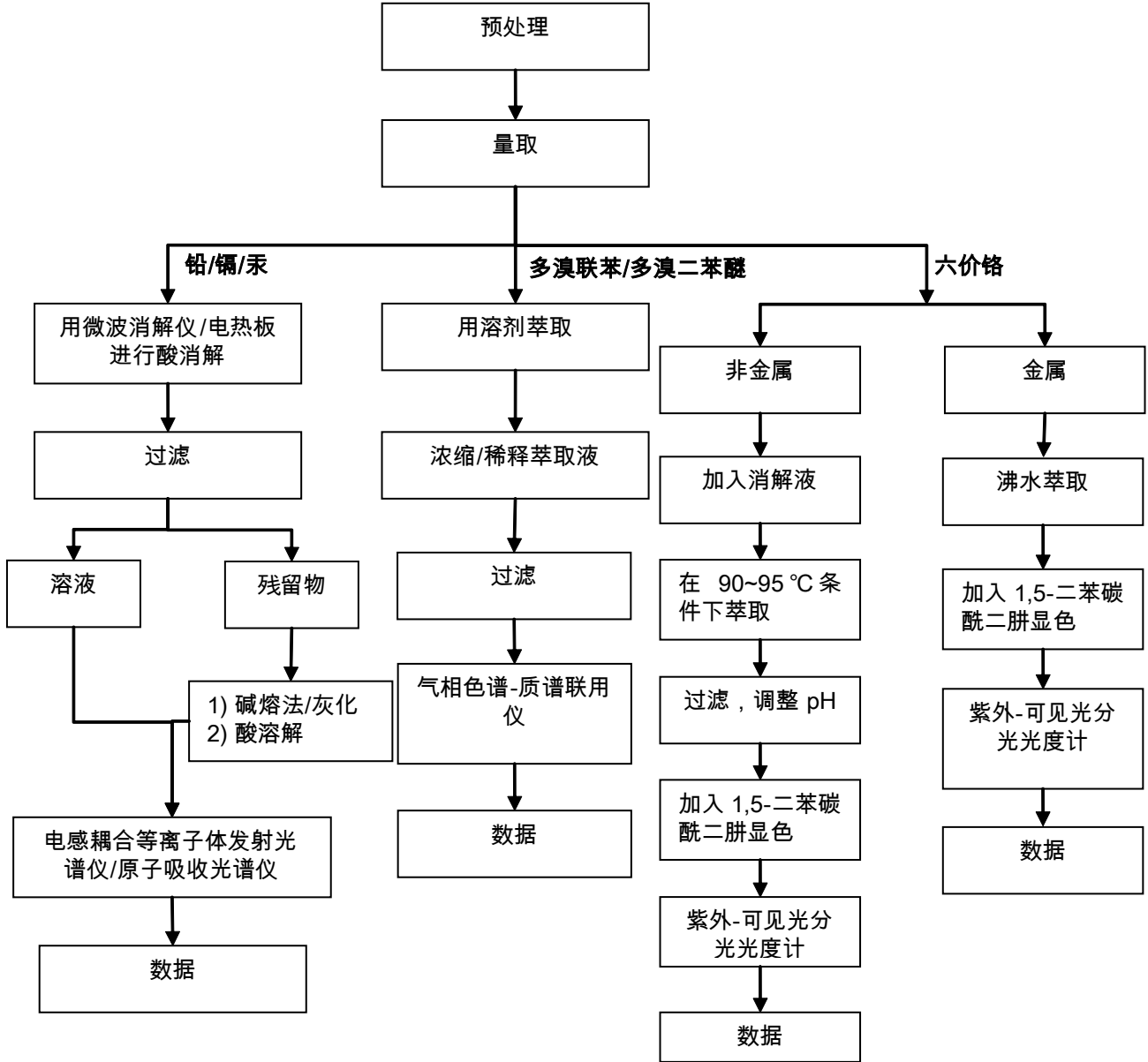
[http://www.cenelec.eu/dyn/www/f?p=104:30:1742232870351101:::FSP\\_ORG\\_ID,FSP\\_LANG\\_ID:1258637,25](http://www.cenelec.eu/dyn/www/f?p=104:30:1742232870351101:::FSP_ORG_ID,FSP_LANG_ID:1258637,25)



附件

**Pb/Cd/Hg/Cr<sup>6+</sup>/PBBs/PBDEs 测试流程图**

- 1) 分析人员: 张梓路 / 胡香云
- 2) 项目负责人: 汪丹 / 刘琼
- 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)。



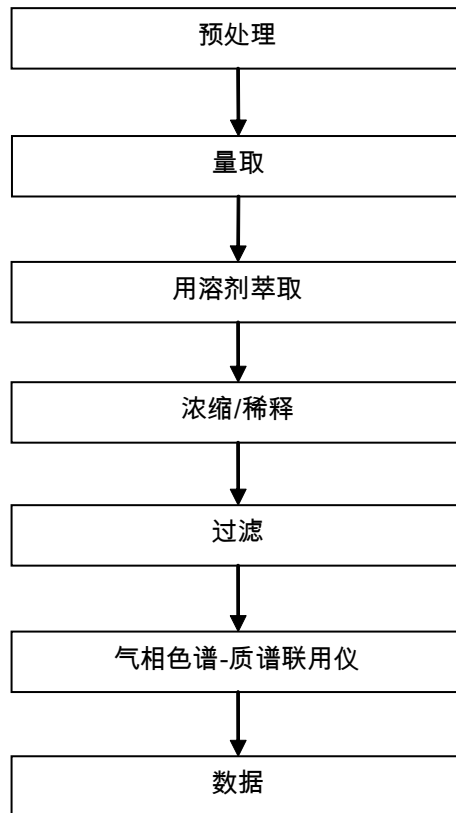
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附件

### Phthalates 测试流程图

- 1) 分析人员：胡香云
- 2) 项目负责人：刘琼

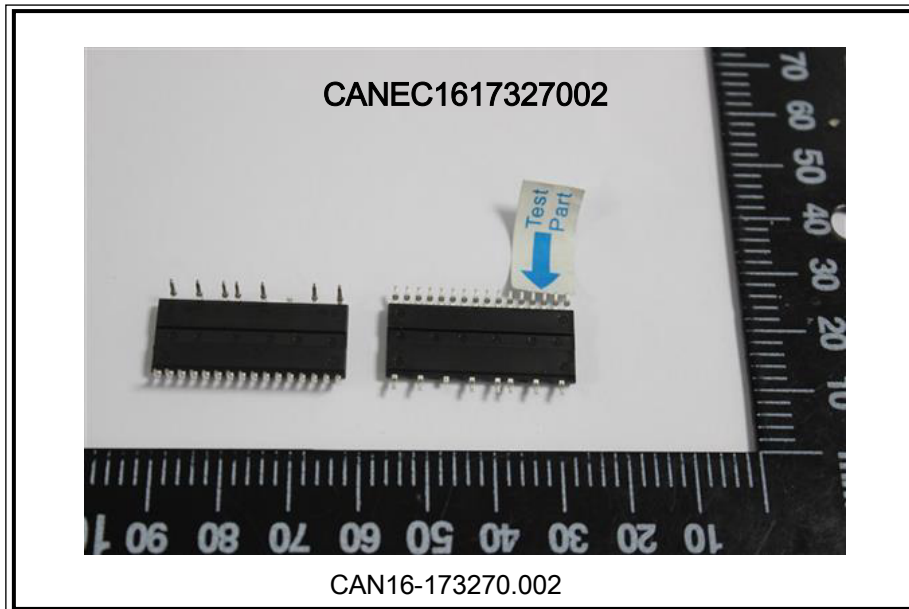
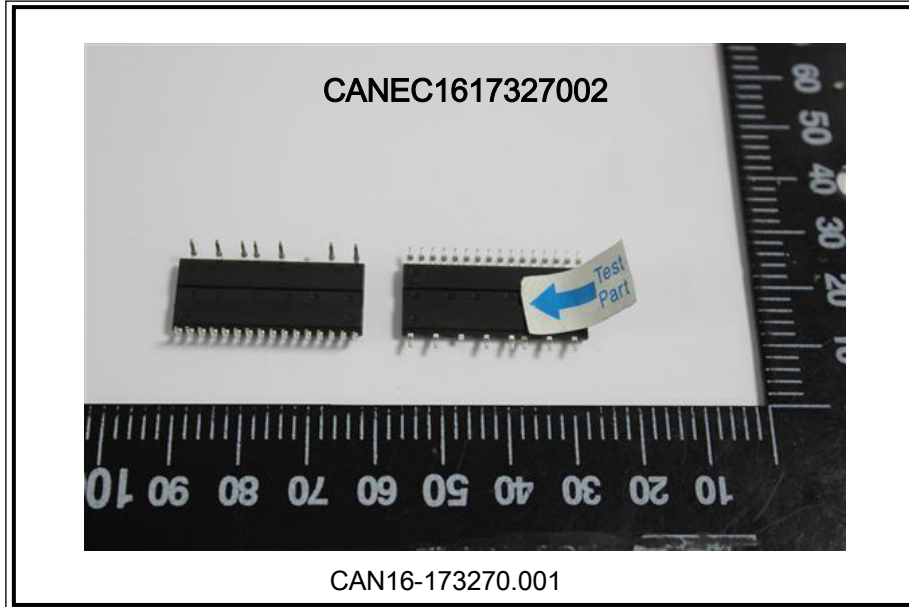


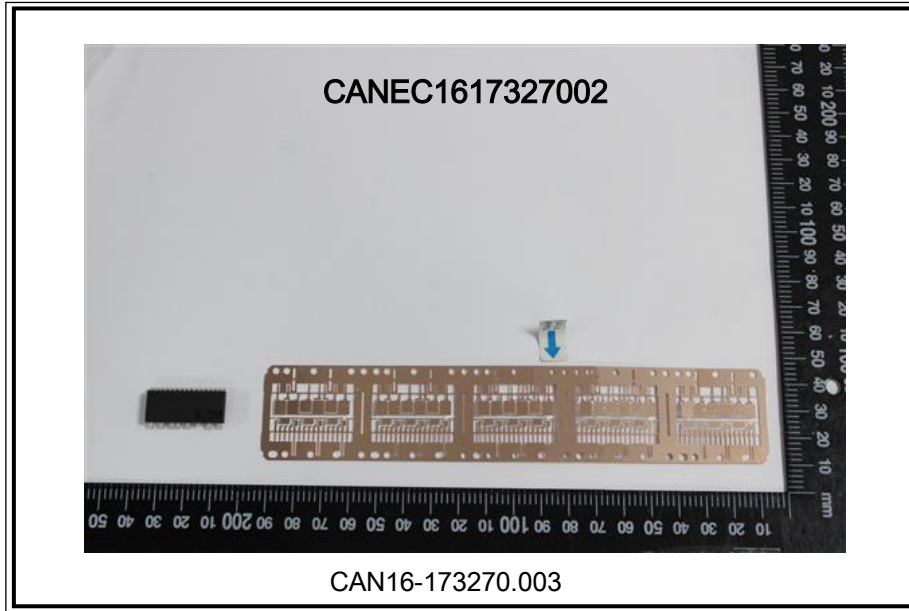
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