

测试报告

No. CANEC2016146306

日期: 2020年10月22日 第1页,共10页

广州市添鑫光电有限公司

中国广东省广州市花都区花东镇秀塘村金谷南路15号之一

以下测试之样品是由申请者所提供及确认: 集成高功率铜基LED

SGS工作编号: CP20-048009 - GZ

样品接收日期: 2020年09月14日

测试周期: 2020年09月14日 - 2020年09月23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

李嘉欣

Jessie Li 李嘉欣
批准签署人



测试结果:

测试样品描述:

样品编号	SGS样品ID	描述
SN1	CAN20-161463.006	无色透明玻璃
SN2	CAN20-161463.007	深灰色物料
SN3	CAN20-161463.008	白色塑料
SN4	CAN20-161463.009	铜色金属片
SN5	CAN20-161463.010	银色金属脚
SN6	CAN20-161463.011	黑色液体

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

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

测试方法: 参考IEC 62321-4:2013+A1:2017, IEC 62321-5:2013, 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.

测试项目	限值	单位	MDL	006	007	008
镉 (Cd)	100	mg/kg	2	ND	ND	ND
铅 (Pb)	1,000	mg/kg	2	ND	ND	7
汞 (Hg)	1,000	mg/kg	2	ND	ND	ND
六价铬(Cr(VI))	1,000	mg/kg	8	ND	ND	ND
多溴联苯之和(PBBs)	1,000	mg/kg	-	ND	ND	ND
一溴联苯	-	mg/kg	5	ND	ND	ND
二溴联苯	-	mg/kg	5	ND	ND	ND
三溴联苯	-	mg/kg	5	ND	ND	ND
四溴联苯	-	mg/kg	5	ND	ND	ND
五溴联苯	-	mg/kg	5	ND	ND	ND
六溴联苯	-	mg/kg	5	ND	ND	ND
七溴联苯	-	mg/kg	5	ND	ND	ND
八溴联苯	-	mg/kg	5	ND	ND	ND
九溴联苯	-	mg/kg	5	ND	ND	ND
十溴联苯	-	mg/kg	5	ND	ND	ND



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测试项目	限值	单位	MDL	006	007	008
多溴二苯醚之和(PBDEs)	1,000	mg/kg	-	ND	ND	ND
一溴二苯醚	-	mg/kg	5	ND	ND	ND
二溴二苯醚	-	mg/kg	5	ND	ND	ND
三溴二苯醚	-	mg/kg	5	ND	ND	ND
四溴二苯醚	-	mg/kg	5	ND	ND	ND
五溴二苯醚	-	mg/kg	5	ND	ND	ND
六溴二苯醚	-	mg/kg	5	ND	ND	ND
七溴二苯醚	-	mg/kg	5	ND	ND	ND
八溴二苯醚	-	mg/kg	5	ND	ND	ND
九溴二苯醚	-	mg/kg	5	ND	ND	ND
十溴二苯醚	-	mg/kg	5	ND	ND	ND
邻苯二甲酸二丁酯 (DBP)	1,000	mg/kg	50	ND	ND	ND
邻苯二甲酸丁苄酯(BBP)	1,000	mg/kg	50	ND	ND	ND
邻苯二甲酸二(2-乙基己基)酯(DEHP)	1,000	mg/kg	50	ND	ND	ND
邻苯二甲酸二异丁酯(DIBP)	1,000	mg/kg	50	ND	ND	ND

测试项目	限值	单位	MDL	011
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	8	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
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



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No. CANEC2016146306

日期: 2020年10月22日 第4页,共10页

测试项目	限值	单位	MDL	011
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)	1,000	mg/kg	50	ND
邻苯二甲酸丁苄酯(BBP)	1,000	mg/kg	50	ND
邻苯二甲酸二(2-乙基己基)酯(DEHP)	1,000	mg/kg	50	ND
邻苯二甲酸二异丁酯(DIBP)	1,000	mg/kg	50	ND

备注:

- (1)最大允许限值引用自RoHS指令(EU) 2015/863。IEC 62321系列等同于 EN 62321系列
https://www.cenelec.eu/dyn/www/f?p=104:30:1742232870351101:::FSP_ORG_ID,FSP_LANG_ID:1258637,25
- (2) 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。
- (3) DEHP, BBP, DBP 和 DIBP的限制不适用于玩具产品, 因为No.1907/2006附录XVII第51条已对玩具产品中的DEHP, BBP, DBP 和 DIBP含量进行了限制。

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

测试方法: 参考IEC 62321-4:2013+A1:2017, IEC62321-5:2013, IEC 62321-7-1:2015, 采用 ICP-OES 和 UV-Vis 进行分析。

测试项目	限值	单位	MDL	009	010
镉 (Cd)	100	mg/kg	2	ND	ND
铅 (Pb)	1,000	mg/kg	2	ND	7
汞 (Hg)	1,000	mg/kg	2	ND	ND
六价铬(Cr(VI))▼	-	µg/cm ²	0.10	ND	ND

备注:

- (1) 最大允许限值引用自RoHS指令(EU) 2015/863。IEC 62321系列等同于 EN 62321系列
https://www.cenelec.eu/dyn/www/f?p=104:30:1742232870351101:::FSP_ORG_ID,FSP_LANG_ID:1258637,25
- (2) ▼=a. 当六价铬的浓度高于0.13 µg/cm²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/cm²)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/cm²与0.13 µg/cm²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价铬的状态。



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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。



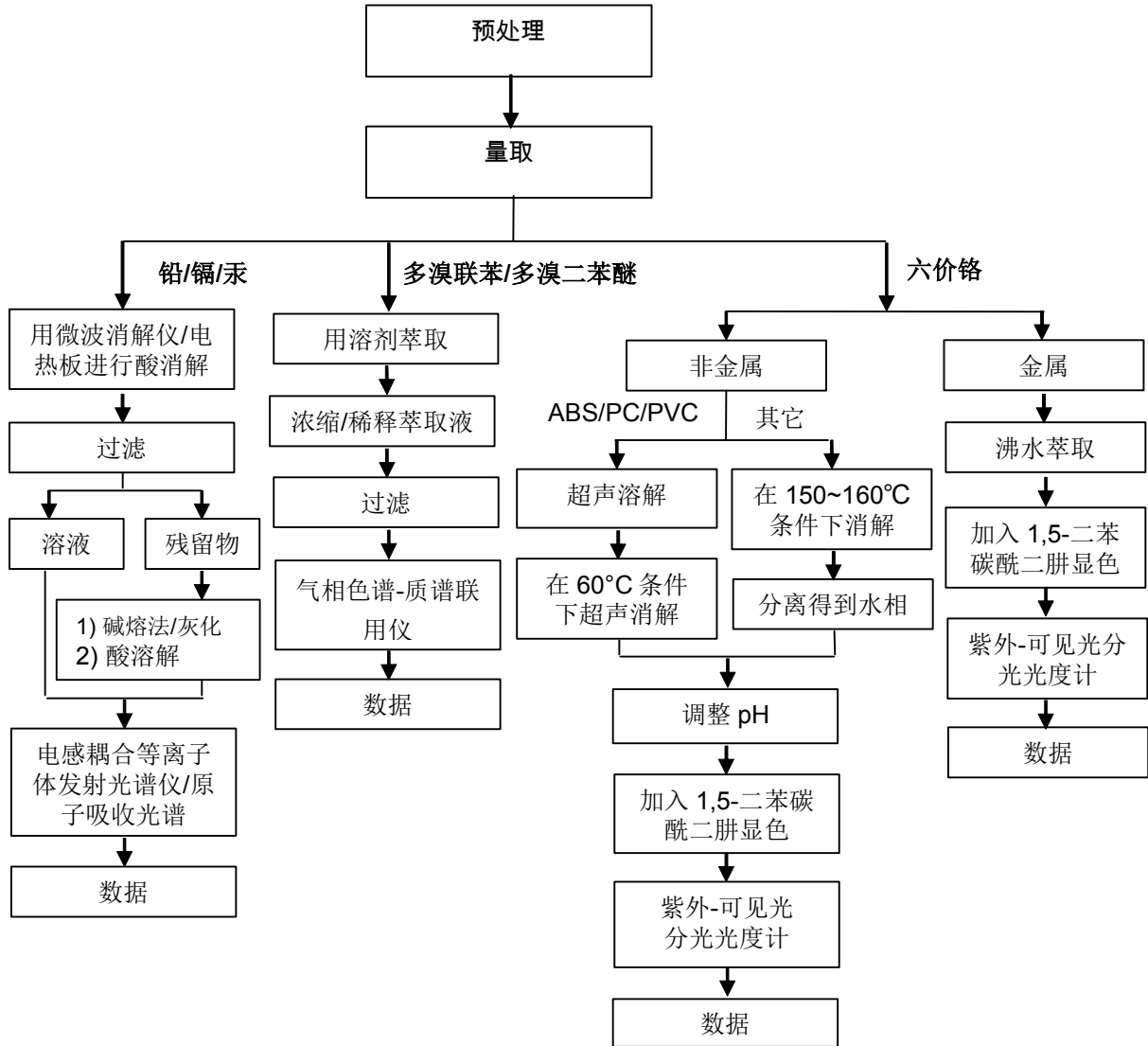
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附件

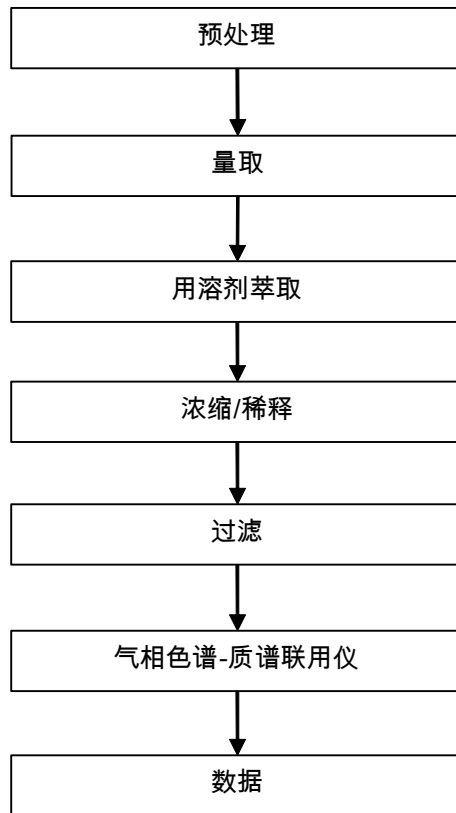
Pb/Cd/Hg/Cr⁶⁺/PBBs/PBDEs 测试流程图

1) 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）。

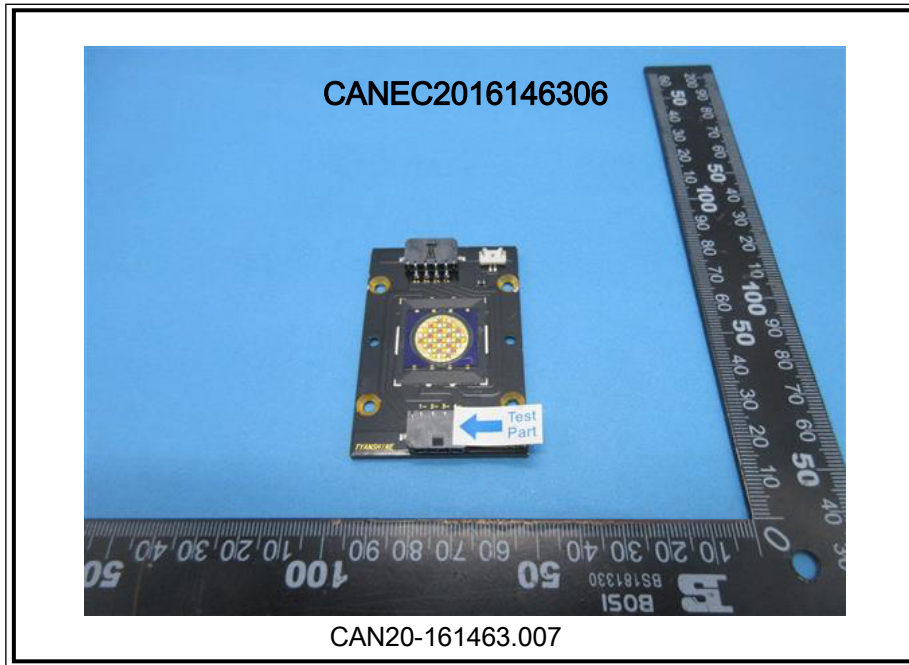


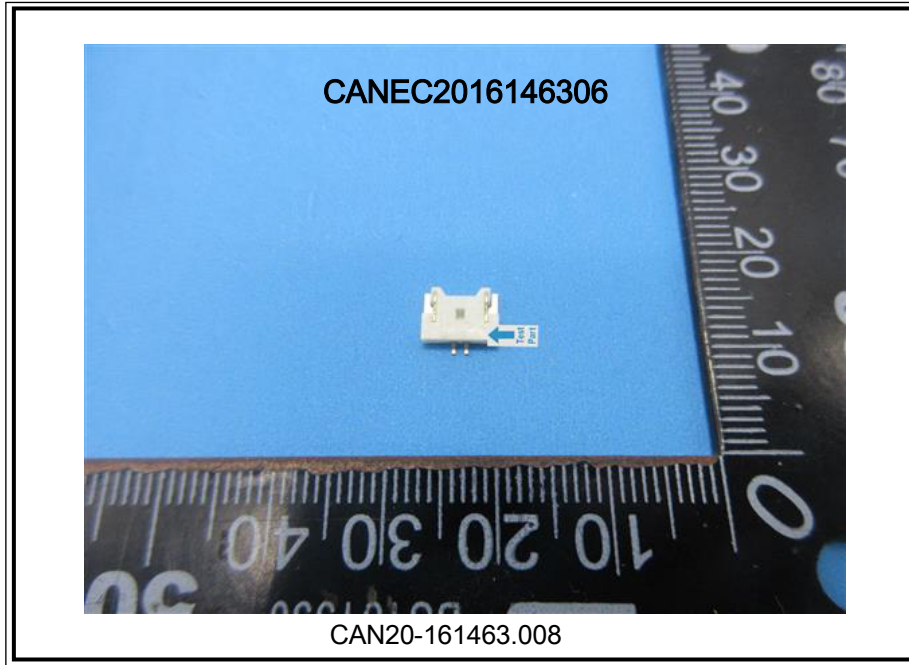
附件

Phthalates 测试流程图



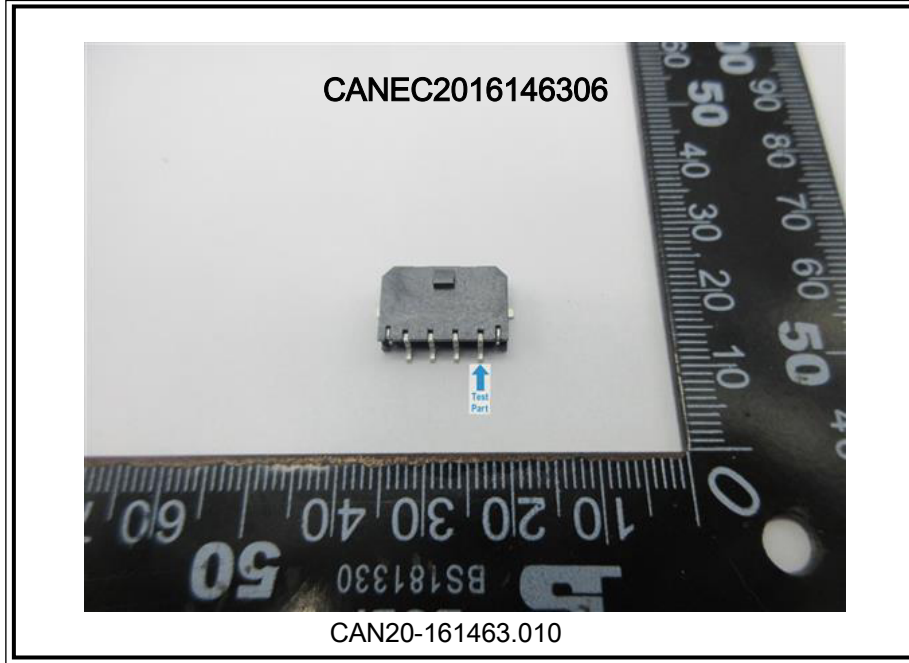
样品照片:





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