

检测报告

编号: NGBEC24006832714

日期: 2024 年 12 月 03 日

第 1 页, 共 10 页

客户名称: 浙江恒拓电子科技有限公司
客户地址: 中国浙江省嘉兴市南湖区大桥镇永庆路 298 号

样品名称: DIP-4
型号: DIP-4
客户参考信息: HT-8XX、HTV-30XX、HTV-21X

以上样品及信息由客户提供。

SGS 工作编号: NBP24-006945
样品接收时间: 2024 年 11 月 21 日
检测周期: 2024 年 11 月 21 日 ~ 2024 年 12 月 03 日
检测要求: 根据客户要求检测。
检测方法: 见后续页。
检测结果: 见后续页。

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、多溴联苯 (PBB)、多溴二苯醚 (PBDE)、邻苯二甲酸二(2-乙基己基)酯 (DEHP)、邻苯二甲酸丁苄酯 (BBP)、邻苯二甲酸二丁酯 (DBP)和邻苯二甲酸二异丁酯 (DIBP)	符合
欧盟 RoHS 指令 2011/65/EU 附录 II 的修正指令(EU) 2015/863-铅、汞、镉和六价铬	符合
卤素	见检测结果

通标标准技术服务有限公司宁波分公司
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章佳玫

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批准签署人

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检测结果:

检测部件外观描述:

样品序号	样品编号	SGS 样品 ID	样品描述
SN1	A9	NGB24-0068327-0001.C009	黑色固体部分
SN2	A10	NGB24-0068327-0001.C010	银色金属部分
SN3	A15	NGB24-0068327-0001.C015	白色塑料部分

备注:

- (1) 1 mg/kg = 1 ppm = 0.0001%
- (2) MDL= 方法检出限
- (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 (PBB)、多溴二苯醚 (PBDE)、邻苯二甲酸二(2-乙基己基)酯 (DEHP)、邻苯二甲酸丁苄酯 (BBP)、邻苯二甲酸二丁酯 (DBP)和邻苯二甲酸二异丁酯 (DIBP)

检测方法: 参考 IEC 62321-4:2013+AMD1:2017, IEC 62321-5:2013, IEC 62321-7-2:2017 和 IEC 62321-12:2023, 采用 ICP-OES/AAS, UV-Vis 和 GC-MS 进行分析。

检测项目	限值	单位	MDL	A9	A15
铅 (Pb)	1000	mg/kg	2	ND	ND
汞 (Hg)	1000	mg/kg	2	ND	ND
镉 (Cd)	100	mg/kg	2	ND	ND
六价铬 (Cr(VI))	1000	mg/kg	8	ND	ND
多溴联苯之和 (PBB)	1000	mg/kg	-	ND	ND
一溴联苯 (MonoBB)	-	mg/kg	25	ND	ND
二溴联苯 (DiBB)	-	mg/kg	25	ND	ND
三溴联苯 (TriBB)	-	mg/kg	25	ND	ND
四溴联苯 (TetraBB)	-	mg/kg	25	ND	ND
五溴联苯 (PentaBB)	-	mg/kg	25	ND	ND
六溴联苯 (HexaBB)	-	mg/kg	25	ND	ND
七溴联苯 (HeptaBB)	-	mg/kg	25	ND	ND
八溴联苯 (OctaBB)	-	mg/kg	25	ND	ND
九溴联苯 (NonaBB)	-	mg/kg	25	ND	ND
十溴联苯 (DecaBB)	-	mg/kg	25	ND	ND
多溴二苯醚之和 (PBDE)	1000	mg/kg	-	ND	ND
一溴二苯醚 (MonoBDE)	-	mg/kg	25	ND	ND
二溴二苯醚 (DiBDE)	-	mg/kg	25	ND	ND
三溴二苯醚 (TriBDE)	-	mg/kg	25	ND	ND
四溴二苯醚 (TetraBDE)	-	mg/kg	25	ND	ND
五溴二苯醚 (PentaBDE)	-	mg/kg	25	ND	ND



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检测报告

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日期: 2024年12月03日

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检测项目	限值	单位	MDL	A9	A15
六溴二苯醚 (HexaBDE)	-	mg/kg	25	ND	ND
七溴二苯醚 (HeptaBDE)	-	mg/kg	25	ND	ND
八溴二苯醚 (OctaBDE)	-	mg/kg	25	ND	ND
九溴二苯醚 (NonaBDE)	-	mg/kg	25	ND	ND
十溴二苯醚 (DecaBDE)	-	mg/kg	25	ND	ND
邻苯二甲酸二(2-乙基己基)酯 (DEHP)	1000	mg/kg	50	ND	ND
邻苯二甲酸丁苄酯 (BBP)	1000	mg/kg	50	ND	ND
邻苯二甲酸二丁酯 (DBP)	1000	mg/kg	50	ND	ND
邻苯二甲酸二异丁酯 (DIBP)	1000	mg/kg	50	ND	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。

欧盟 RoHS 指令 2011/65/EU 附录 II 的修正指令(EU) 2015/863-铅、汞、镉和六价铬

检测方法: 参考 IEC 62321-4:2013+AMD1:2017, IEC 62321-5:2013 和 IEC 62321-7-1:2015, 采用 ICP-OES/AAS 和 UV-Vis 进行分析。

检测项目	限值	单位	MDL	A10
铅 (Pb)	1000	mg/kg	2	ND
汞 (Hg)	1000	mg/kg	2	ND
镉 (Cd)	100	mg/kg	2	ND
六价铬 (Cr(VI))▼	-	µg/cm ²	0.10	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) ▼ =
 - 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, 样品的六价铬检测结果仅能代表检测时样品含六价铬的状态。

卤素

检测方法: 参考 EN 14582:2016, 采用 IC 进行分析。

检测项目	单位	MDL	A9	A15
氟 (F)	mg/kg	20	ND	ND



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检测报告

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日期: 2024 年 12 月 03 日

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检测项目	单位	MDL	A9	A15
氯 (Cl)	mg/kg	50	105	88
溴 (Br)	mg/kg	50	ND	ND
碘 (I)	mg/kg	50	ND	ND

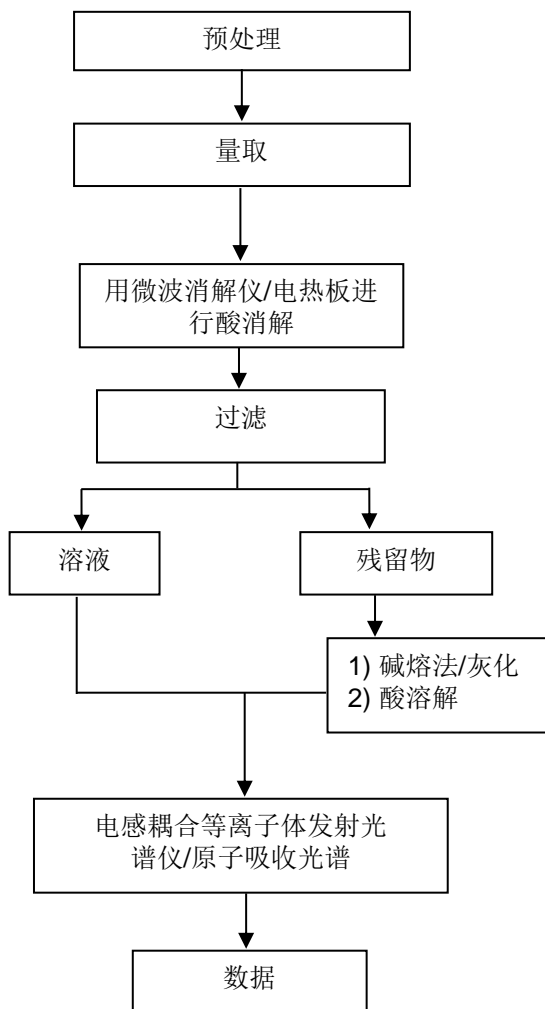
除非另有说明, 参照 ILAC-G8:09/2019, 使用简单接受 ($w=0$) 的二元判定规则进行符合性判定。
 除非另有说明, 此报告结果仅对检测的样品负责。本报告未经本公司书面许可, 不可部分复制。
 检测报告仅用于客户科研、教学、内部质量控制、产品研发等目的, 仅供内部参考。



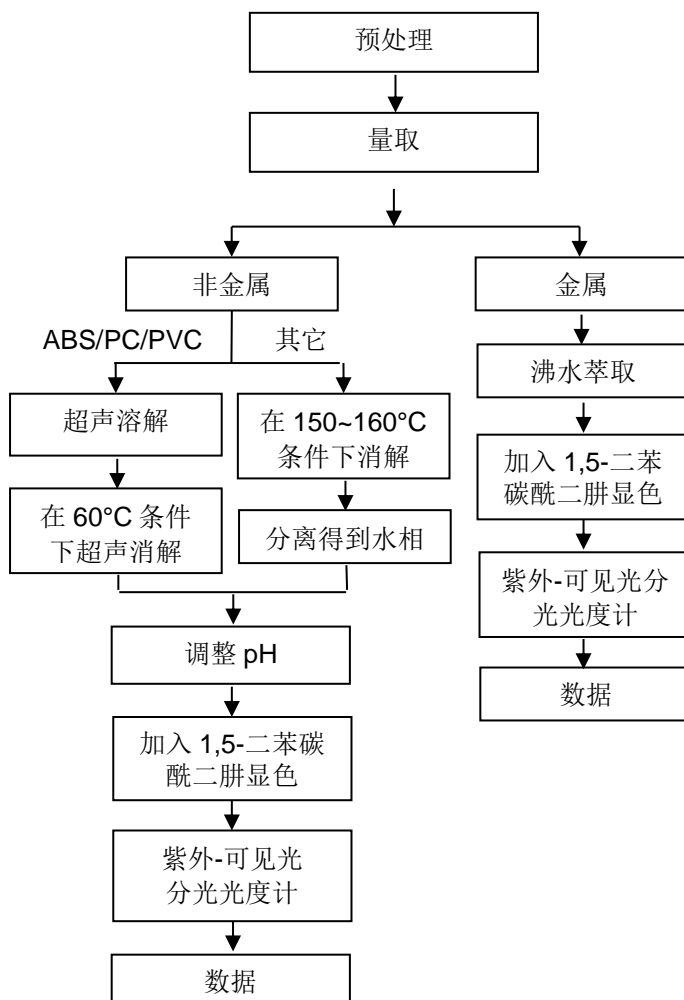
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元素检测流程图

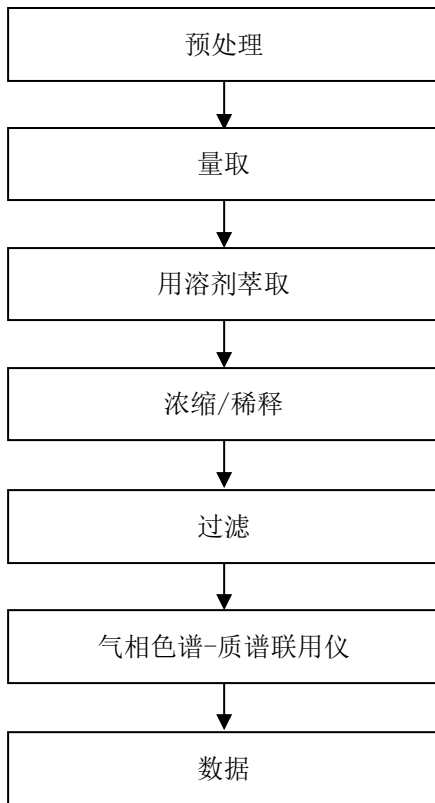
样品按照下述流程被完全消解



六价铬检测流程图



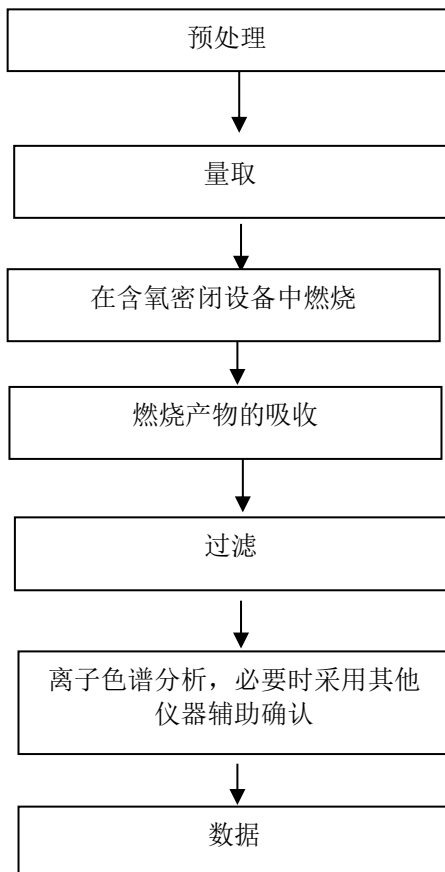
PBB/PBDE/Phthalates 检测流程图



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卤素检测流程图



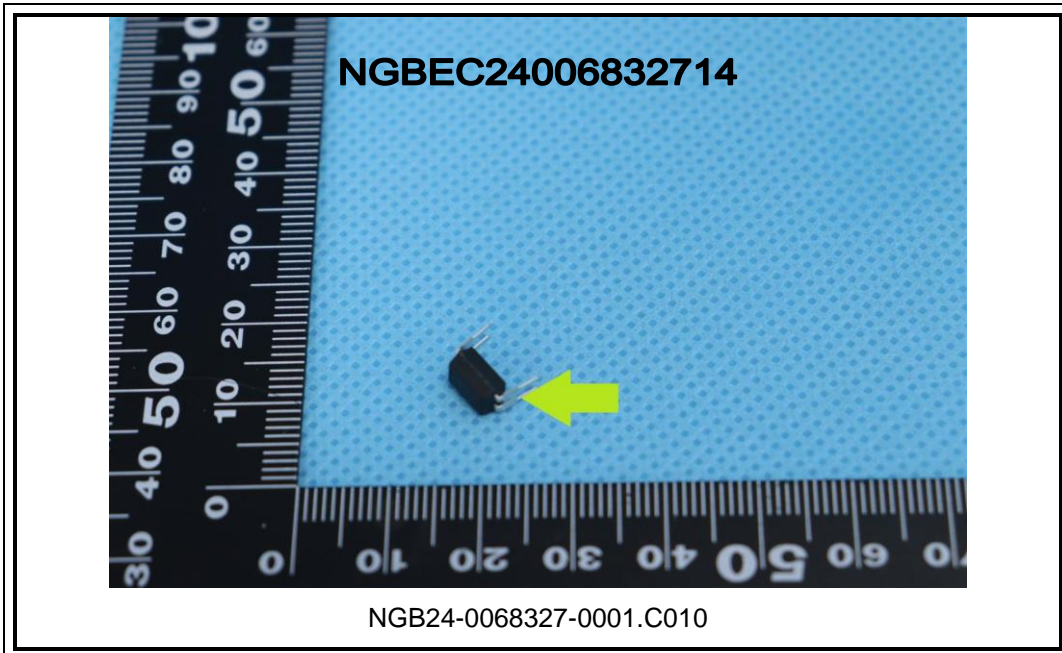
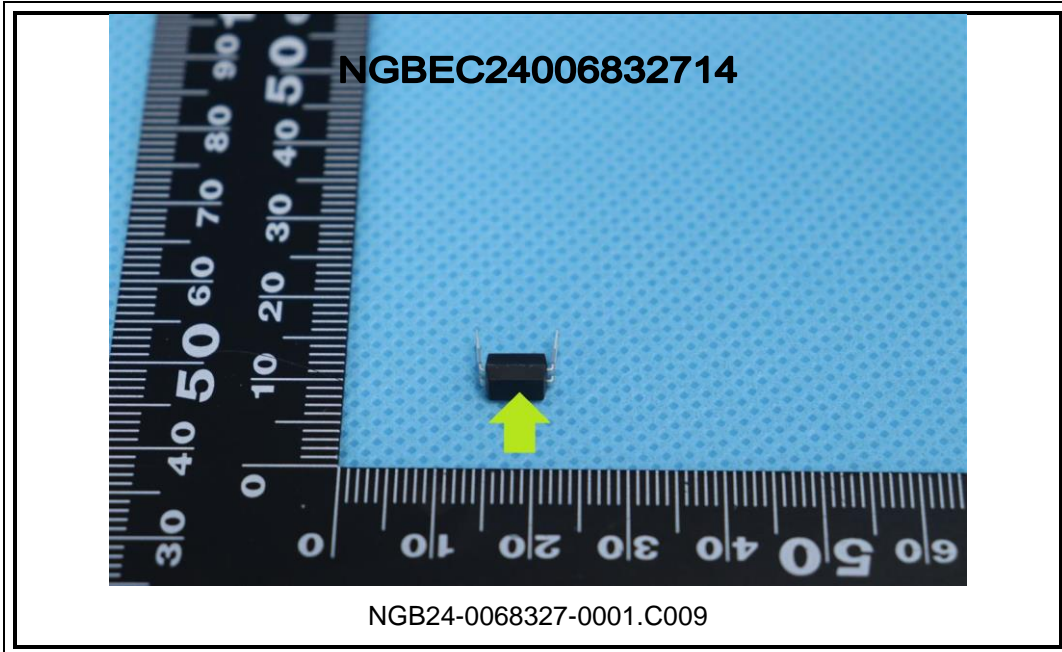
检测报告

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样品照片:



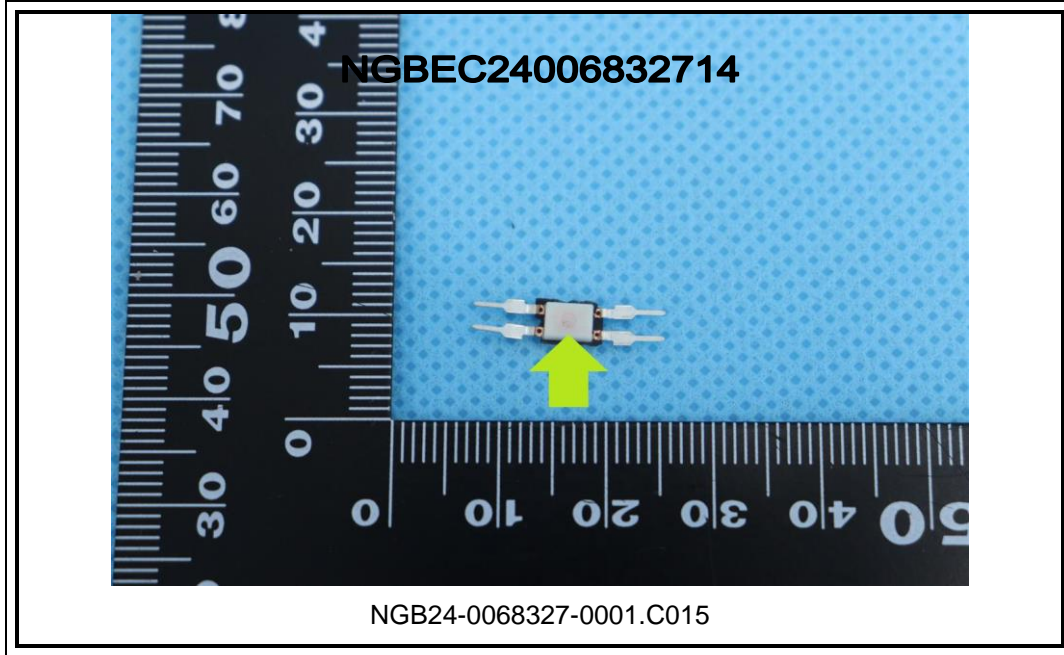
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