

检测报告

编号: SHAEC2212417506

日期: 2022年09月13日 第1页,共12页

客户名称: 捷捷半导体有限公司
客户地址: 江苏省南通市苏通科技产业园井冈山路6号

样品名称: SMD-4032
型号: SMD-4032
客户参考信息: SMD-3225
以上样品及信息由客户提供。

SGS工作编号: SP22-018137 - SH
样品接收日期: 2022年08月23日
检测周期: 2022年08月23日 - 2022年09月01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

结论: 基于所送样品进行的检测, 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)、邻苯二甲酸丁苯酯(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))的检测结果显示符合欧盟RoHS指令2011/65/EU附录II的修正指令(EU) 2015/863的限值要求。

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倪俊

Tom Ni倪俊
批准签署人

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检测结果:

检测样品描述:

样品编号	SGS样品ID	描述
SN1	SHA22-124175.005	白色固体
SN2	SHA22-124175.006	白色本体
SN3	SHA22-124175.007	银色金属引脚

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

检测方法: 参考IEC 62321-4:2013+AMD1:2017, 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。

检测项目	限值	单位	MDL	006
镉(Cd)	100	mg/kg	2	ND
铅(Pb)	1000	mg/kg	2	9885▲
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



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检测项目	限值	单位	MDL	006
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
邻苯二甲酸丁苯酯(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) 最大允许限值引用自RoHS指令(EU) 2015/863。

IEC 62321系列等同于 EN 62321 系列

(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)▲根据客户提供的声明, 编号006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(如铅含量等于或大于85%的铅基合金焊料)。

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

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	007
镉 (Cd)	100	mg/kg	2	ND
铅(Pb)	1000	mg/kg	2	7
汞 (Hg)	1000	mg/kg	2	ND
六价铬(Cr(VI))▼	-	µg/cm ²	0.10	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

(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, 样品的六价铬检测结果仅能代表检测时样品含六价铬的状态。



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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	单位	MDL	005
氟 (F)	mg/kg	50	ND
氯 (Cl)	mg/kg	50	85
溴 (Br)	mg/kg	50	124
碘 (I)	mg/kg	50	ND

聚氯乙烯(PVC)

检测方法: 以内定方法(SHTC-CHEM-SOP-115-T)测定, 采用FTIR/HATR进行分析.

检测项目	CAS NO.	单位	MDL	005
聚氯乙烯(PVC)	9002-86-2	-	-	阴性

备注:

(1) 阴性=未检测到,阳性=已检测到

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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。



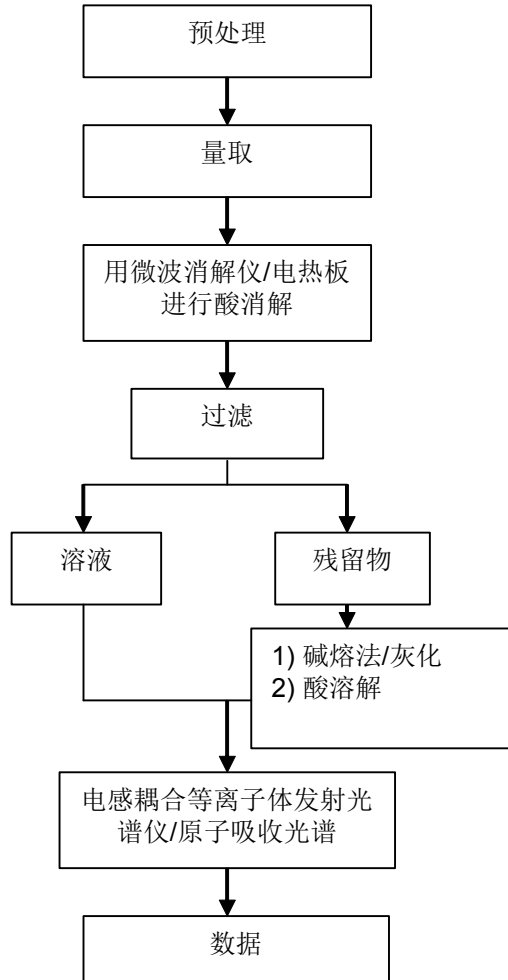
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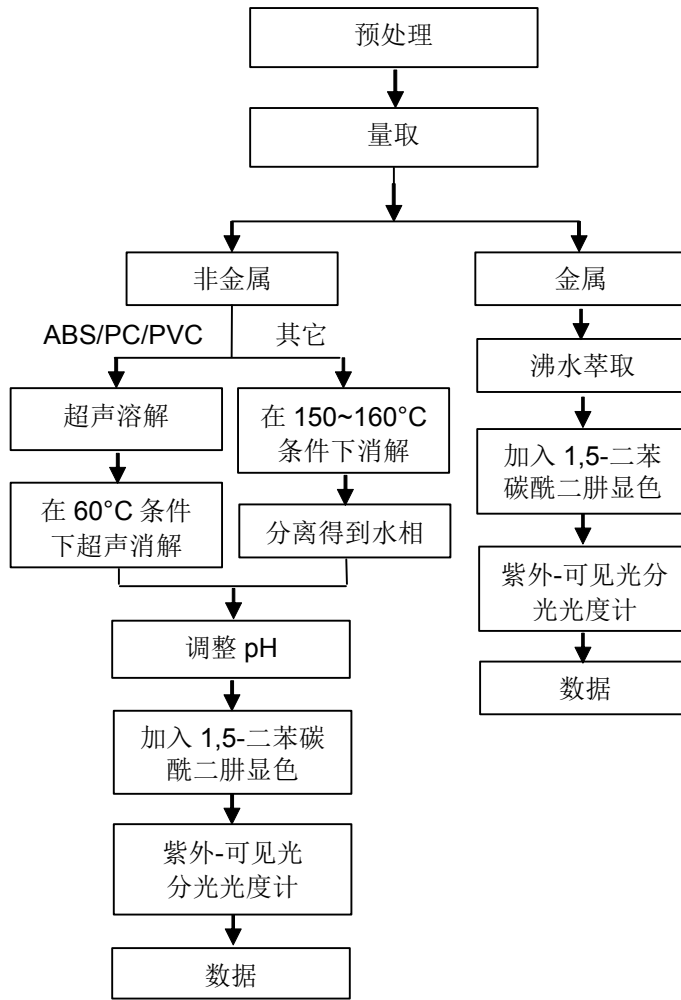
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元素(IEC62321) 检测流程图

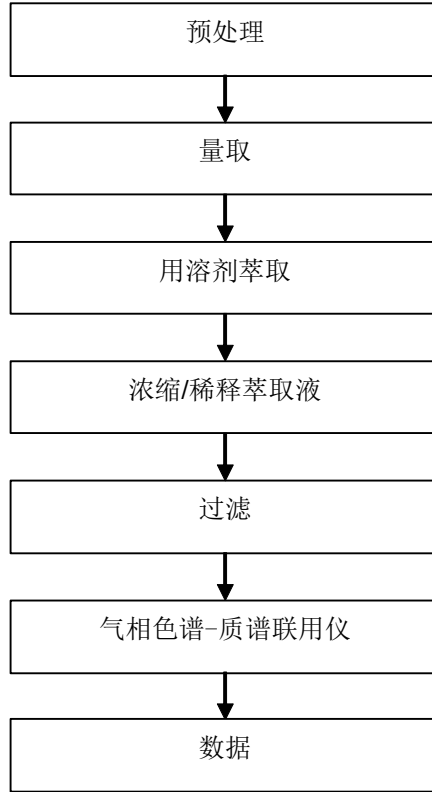
1) 样品按照下述流程被完全消解



六价铬检测流程图



PBBs/PBDEs 检测流程图



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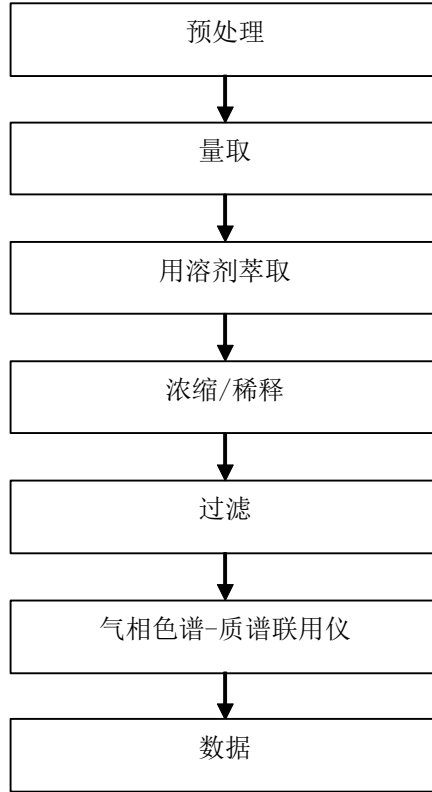
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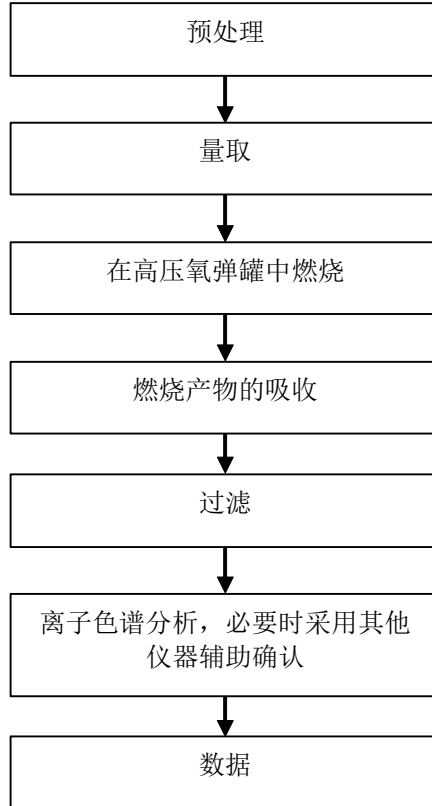
Phthalates 检测流程图



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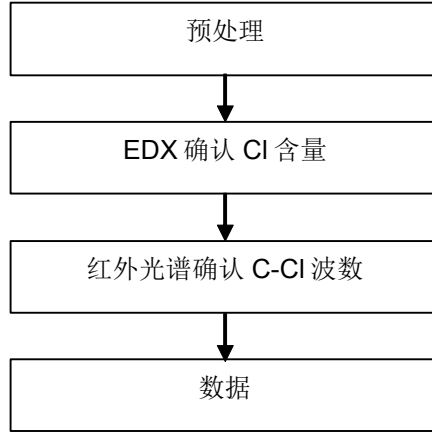
Halogen(氧弹法)检测流程图



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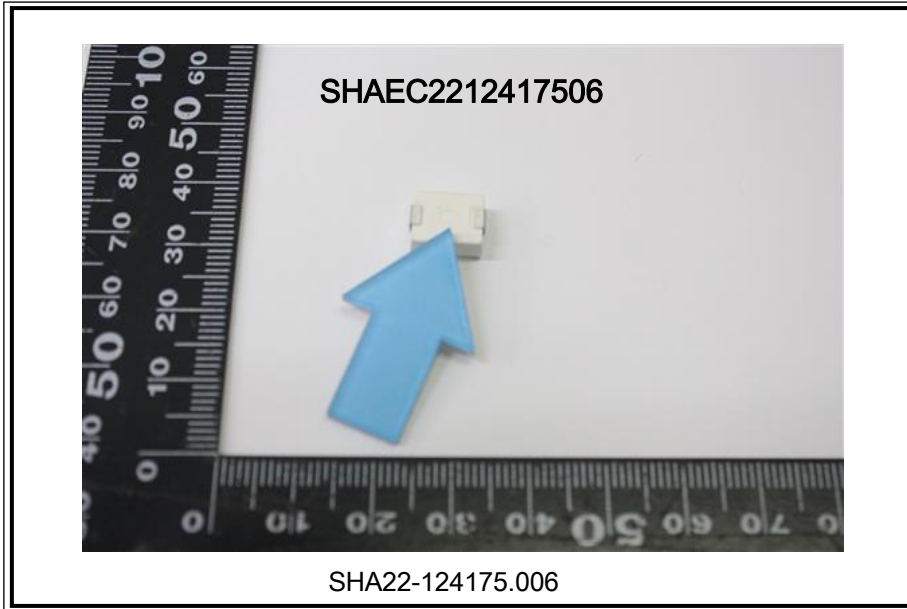
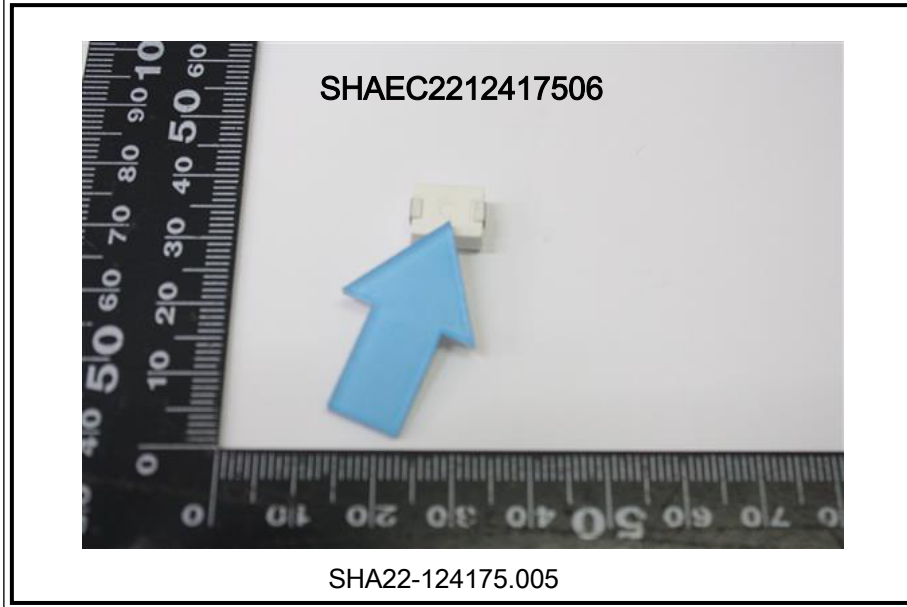
PVC 检测流程图



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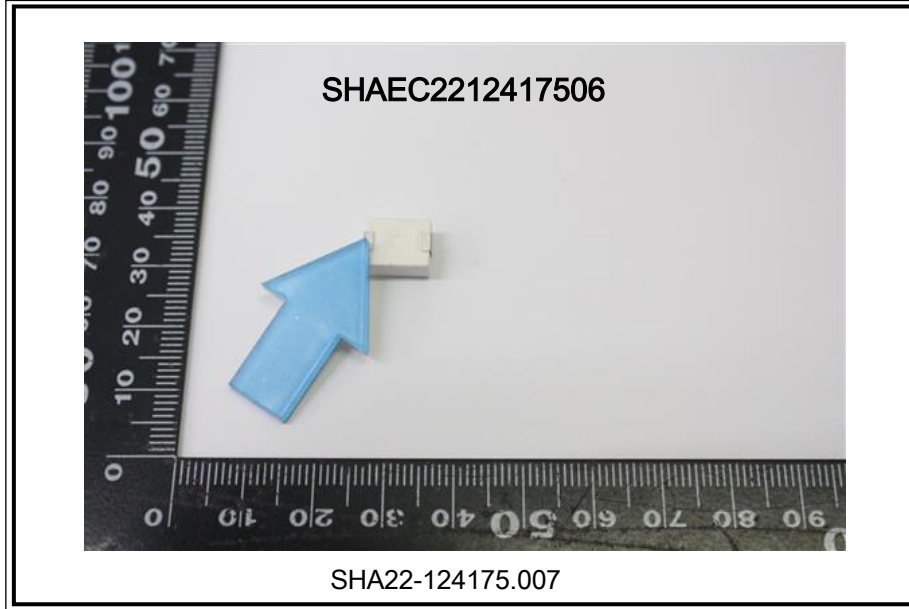
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