

检测报告 编号: SHAEC23007623302 **日期:** 2023 年 06 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: 南通市苏通科技产业园井冈山路6号

样品名称: 台面芯片(5寸)

型号: 5寸 客户参考信息: 4寸

以上样品及信息由客户提供。

SGS 工作编号: TIC1020230605114311M34O

样品接收时间: 2023年06月06日

2023年06月06日~2023年06月12日 检测周期:

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(PBBs)、多溴二苯醚(PBDEs)、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-乙基已基)酯(DEHP)和邻苯二甲酸二异丁酯(DIBP)	符合
卤素	见检测结果
六溴环十二烷(HBCDD)	见检测结果
全氟辛烷磺酸及其衍生物(PFOS)和全氟辛酸(PFOA)及其盐	见检测结果

通标标准技术服务(上海)有限公司 授权签名

Jenny Lan 兰柳珍 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	A1	SHA23-0076233-0001.C001	银色/灰色芯片

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

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(PBBs)、多 溴二苯醚(PBDEs)、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-乙基已基)酯 (DEHP)和邻苯二甲酸二异丁酯(DIBP)

参考 IEC 62321-4:2013+AMD1:2017, IEC 62321-5:2013, IEC 62321-7-2:2017, IEC 检测方法: 62321-6:2015 和 IEC 62321-8:2017, 采用 ICP-OES, AAS, UV-Vis 和 GC-MS 进行分析。

检测项目	限值	单位	MDL	A1
镉 (Cd)	100	mg/kg	2	ND
铅 (Pb)	1000	mg/kg	2	9011▲
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(MonoBB)	-	mg/kg	5	ND
二溴联苯(DiBB)	-	mg/kg	5	ND
三溴联苯(TriBB)	-	mg/kg	5	ND
四溴联苯(TetraBB)	-	mg/kg	5	ND
五溴联苯(PentaBB)	-	mg/kg	5	ND
六溴联苯(HexaBB)	-	mg/kg	5	ND
七溴联苯(HeptaBB)	-	mg/kg	5	ND
八溴联苯(OctaBB)	-	mg/kg	5	ND
九溴联苯(NonaBB)	-	mg/kg	5	ND
十溴联苯(DecaBB)	-	mg/kg	5	ND
多溴二苯醚之和(PBDEs)	1000	mg/kg	-	ND
一溴二苯醚(MonoBDE)	-	mg/kg	5	ND
二溴二苯醚(DiBDE)	-	mg/kg	5	ND
三溴二苯醚(TriBDE)	-	mg/kg	5	ND
四溴二苯醚(TetraBDE)	-	mg/kg	5	ND
五溴二苯醚(PentaBDE)	-	mg/kg	5	ND
六溴二苯醚(HexaBDE)	-	mg/kg	5	ND
七溴二苯醚(HeptaBDE)	-	mg/kg	5	ND
八溴二苯醚(OctaBDE)	-	mg/kg	5	ND



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检测项目	限值	单位	MDL	A1
九溴二苯醚(NonaBDE)	-	mg/kg	5	ND
十溴二苯醚(DecaBDE)	-	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。
- (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。
- (4) ▲根据客户提供的声明,编号 A1 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(c)-I|: 电子电气元件中玻璃或陶瓷材料(电容中陶瓷介质除外)所含的铅,如压电设 备、玻璃或陶瓷基复合元件。

卤素

参考 EN 14582:2016, 采用 IC 进行分析。 检测方法:

检测项目	单位	MDL	A1
氟 (F)	mg/kg	20	ND
氯 (CI)	mg/kg	50	ND
溴 (Br)	mg/kg	50	ND
碘 (I)	mg/kg	50	ND

六溴环十二烷(HBCDD)

参考 IEC 62321-9:2021, 采用 GC-MS 进行分析。 检测方法:

检测项目	CAS No.	单位	MDL	A1
六溴环十二烷 (HBCDD)	134237-50-6 /134237-51-7 /134237-52-8 /25637-99-4 /3194-55-6	mg/kg	20	ND

全氟辛烷磺酸及其衍生物(PFOS)和全氟辛酸(PFOA)及其盐

检测方法: 参考 CEN/TS 15968:2010, 采用 HPLC-MS 或 LC-MS/MS 进行分析。



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检测项目	CAS No.	单位	MDL	A1
全氟辛烷磺酸 (PFOS) 及衍生物	-	mg/kg	-	ND
全氟辛烷磺酸(PFOS)^	1763-23-1	mg/kg	10	ND
N-乙基全氟辛烷磺酰胺(N-Et-FOSA)	4151-50-2	mg/kg	10	ND
N-甲基全氟辛烷磺酰胺(N-Me-FOSA)	31506-32-8	mg/kg	10	ND
N-乙 基全氟辛烷磺酰胺乙醇(EtFOSE)	1691-99-2	mg/kg	10	ND
2-(N-甲基全氟辛基磺酰胺)乙醇 (MeFOSE)	24448-09-7	mg/kg	10	ND
全氟辛基磺酰胺(PFOSA)	754-91-6	mg/kg	10	ND
全氟辛酸 (PFOA) 及其盐+	-	mg/kg	10	ND

备注:

(1) + PFOA 及其盐包含 PFOA-Na (CAS No.: 335-95-5), PFOA-K (CAS No.: 2395-00-8), PFOA-Ag (CAS No.: 335-93-3), PFOA-F (CAS No.: 335-66-0) 和 APFO (CAS No.: 3825-26-1);

(2) ^ 全氟辛烷磺酸 (PFOS)包含 PFOS-K (CAS No.: 2795-39-3), PFOS-Li (CAS No.: 29457-72-5), PFOS-NH4 (CAS No.: 29081-56-9), PFOS-NH(OH)2 (CAS No.: 70225-14-8), PFOS-N(C2H5)4 (CAS No.: 56773-42-3), PFOS-DDA (CAS No.:251099-16-8) 和 POSF (CAS No.: 307-35-7)

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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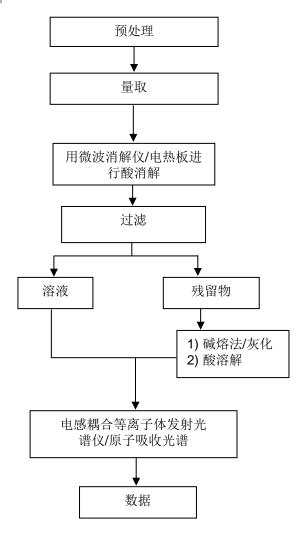
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附件

元素检测流程图

样品按照下述流程被完全消解





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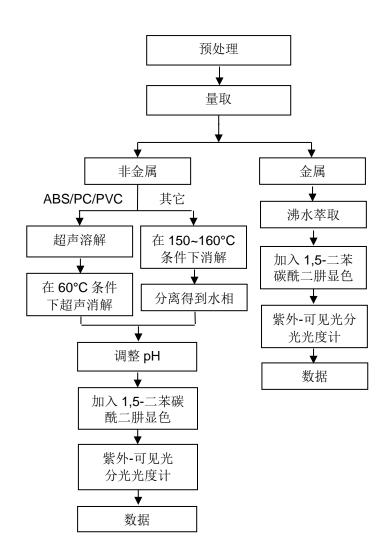


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六价铬检测流程图





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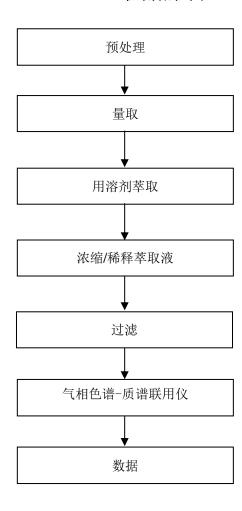
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PBBs/PBDEs 检测流程图





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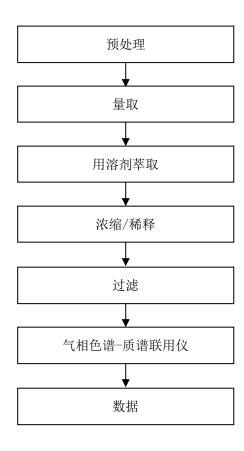


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Phthalates 检测流程图





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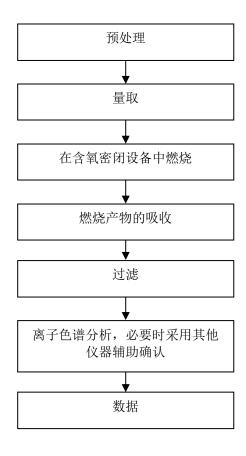


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卤素检测流程图





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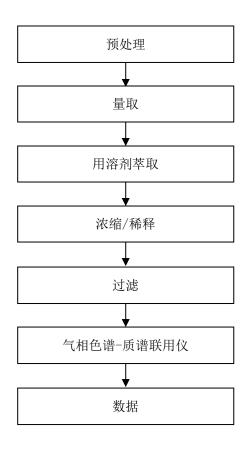


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附件

HBCDD 检测流程图





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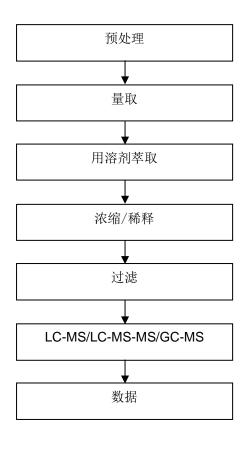


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PFASs/ PFOS/PFOA 检测流程图





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