

检测报告 编号: SHAEC24028769406 日期: 2024年12月30日 第1页,共22页

客户名称: 扬州扬杰电子科技股份有限公司 客户地址: 扬州市邗江区荷叶西路6号

样品名称: 光伏二极管

1. 锡球; 2. 有卤塑封料 1; 3. 无卤塑封料 1; 4. 玻钝芯片; 5. 肖特基芯片; 6. 油 客户参考信息:

> 墨; 8. 无卤塑封料 3; 10. 框架/跳线/引线; 14. 铝线/铝带; 16. 有卤塑封料 2; 26. 锡膏/焊片/焊锡丝; 35.框架(铜) 1; 38.无卤塑封料 8; 42.框架(铜银) 1; 44.框

架(铜银) 2; 45.无卤塑封料 12; 46.有卤塑封料 4

以上样品及信息由客户提供。

SGS 工作编号: SHP24-040813

样品接收时间: 2024年12月16日

检测周期: 2024年12月16日~2024年12月23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	符合
(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	付百
异丁酯 (DIBP)	

通标标准技术服务(上海)有限公司 授权签名









Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-and-Cond

3rdBuilding,No.889 Yishan Road Xuhui District,Shanghai China 200233 中国・上海・徐汇区宜山路889号3号楼 邮编: 200233



编号: SHAEC24028769406

日期: 2024年12月30日

第2页,共22页

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	SHA24-0287694-0001.C001	银色金属
SN2	A2	SHA24-0287694-0001.C002	灰色固体
SN3	А3	SHA24-0287694-0001.C003	灰色固体
SN4	A4	SHA24-0287694-0001.C004	灰色/黑色固体片
SN5	A5	SHA24-0287694-0001.C005	彩色固体片
SN6	A6	SHA24-0287694-0001.C006	银色液体
SN7	A8	SHA24-0287694-0001.C008	灰色固体
SN8	A10	SHA24-0287694-0001.C010	铜色金属
SN9	A14	SHA24-0287694-0001.C014	银色金属丝
SN10	A16	SHA24-0287694-0001.C016	灰色固体
SN11	A26	SHA24-0287694-0001.C026	银色金属丝
SN12	A35	SHA24-0287694-0001.C035	铜色金属
SN13	A38	SHA24-0287694-0001.C038	灰色固体
SN14	A42	SHA24-0287694-0001.C042	铜色金属
SN15	A44	SHA24-0287694-0001.C044	铜色金属
SN16	A45	SHA24-0287694-0001.C045	灰色固体
SN17	A46	SHA24-0287694-0001.C046	灰色固体

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)



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-and-Cond

3rdBuilding,No.889 Yishan Road Xuhui District,Shanghai China 200233 中国・上海・徐汇区宜山路889号3号楼 邮编: 200233



编号: SHAEC24028769406

日期: 2024年12月30日

第3页,共22页

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	A2	A3	A4
铅 (Pb)	1000	mg/kg	2	8	ND	21965
汞 (Hg)	1000	mg/kg	2	ND	ND	ND
镉 (Cd)	100	mg/kg	2	ND	ND	ND
六价铬 (Cr(VI))	1000	mg/kg	8	ND	ND	ND
多溴联苯之和 (PBB)	1000	mg/kg	-	ND	ND	ND
一溴联苯 (MonoBB)	-	mg/kg	25	ND	ND	ND
二溴联苯 (DiBB)	-	mg/kg	25	ND	ND	ND
三溴联苯 (TriBB)	-	mg/kg	25	ND	ND	ND
四溴联苯 (TetraBB)	-	mg/kg	25	ND	ND	ND
五溴联苯 (PentaBB)	-	mg/kg	25	ND	ND	ND
六溴联苯 (HexaBB)	-	mg/kg	25	ND	ND	ND
七溴联苯 (HeptaBB)	-	mg/kg	25	ND	ND	ND
八溴联苯 (OctaBB)	-	mg/kg	25	ND	ND	ND
九溴联苯 (NonaBB)	-	mg/kg	25	ND	ND	ND
十溴联苯 (DecaBB)	-	mg/kg	25	ND	ND	ND
多溴二苯醚之和 (PBDE)	1000	mg/kg	-	ND	ND	ND
一溴二苯醚 (MonoBDE)	-	mg/kg	25	ND	ND	ND
二溴二苯醚 (DiBDE)	-	mg/kg	25	ND	ND	ND
三溴二苯醚 (TriBDE)	-	mg/kg	25	ND	ND	ND
四溴二苯醚 (TetraBDE)	-	mg/kg	25	ND	ND	ND
五溴二苯醚 (PentaBDE)	-	mg/kg	25	ND	ND	ND
六溴二苯醚 (HexaBDE)	-	mg/kg	25	ND	ND	ND
七溴二苯醚 (HeptaBDE)	-	mg/kg	25	ND	ND	ND
八溴二苯醚 (OctaBDE)	-	mg/kg	25	ND	ND	ND
九溴二苯醚 (NonaBDE)	-	mg/kg	25	ND	ND	ND
十溴二苯醚 (DecaBDE)	-	mg/kg	25	ND	ND	ND
邻苯二甲酸二(2-乙基己基)酯 (DEHP)	1000	mg/kg	50	ND	ND	ND
邻苯二甲酸丁苄酯 (BBP)	1000	mg/kg	50	ND	ND	ND
邻苯二甲酸二丁酯 (DBP)	1000	mg/kg	50	ND	ND	ND
邻苯二甲酸二异丁酯 (DIBP)	1000	mg/kg	50	ND	ND	ND

检测项目	限值	单位	MDL	A5	A6	A8
铅 (Pb)	1000	mg/kg	2	ND	ND	ND
汞 (Hg)	1000	mg/kg	2	ND	ND	ND
镉 (Cd)	100	mg/kg	2	ND	ND	ND
六价铬 (Cr(VI))	1000	mg/kg	8	ND	ND	ND
多溴联苯之和 (PBB)	1000	mg/kg	-	ND	ND	ND
一溴联苯 (MonoBB)	-	mg/kg	25	ND	ND	ND
二溴联苯 (DiBB)	-	mg/kg	25	ND	ND	ND
三溴联苯 (TriBB)	-	mg/kg	25	ND	ND	ND



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-and-Cond

3rdBuilding,No.889 Yishan Road Xuhui District,Shanghai China 200233 中国・上海・徐汇区宜山路889号3号楼 邮编: 200233



编号: SHAEC24028769406

日期: 2024年12月30日

第4页,共22页

检测项目	限值	单位	MDL	A5	A6	A8
四溴联苯 (TetraBB)	-	mg/kg	25	ND	ND	ND
五溴联苯 (PentaBB)	-	mg/kg	25	ND	ND	ND
六溴联苯 (HexaBB)	-	mg/kg	25	ND	ND	ND
七溴联苯 (HeptaBB)	-	mg/kg	25	ND	ND	ND
八溴联苯 (OctaBB)	-	mg/kg	25	ND	ND	ND
九溴联苯 (NonaBB)	-	mg/kg	25	ND	ND	ND
十溴联苯 (DecaBB)	-	mg/kg	25	ND	ND	ND
多溴二苯醚之和 (PBDE)	1000	mg/kg	-	ND	ND	ND
一溴二苯醚 (MonoBDE)	-	mg/kg	25	ND	ND	ND
二溴二苯醚 (DiBDE)	-	mg/kg	25	ND	ND	ND
三溴二苯醚 (TriBDE)	-	mg/kg	25	ND	ND	ND
四溴二苯醚 (TetraBDE)	-	mg/kg	25	ND	ND	ND
五溴二苯醚 (PentaBDE)	-	mg/kg	25	ND	ND	ND
六溴二苯醚 (HexaBDE)	-	mg/kg	25	ND	ND	ND
七溴二苯醚 (HeptaBDE)	-	mg/kg	25	ND	ND	ND
八溴二苯醚 (OctaBDE)	-	mg/kg	25	ND	ND	ND
九溴二苯醚 (NonaBDE)	-	mg/kg	25	ND	ND	ND
十溴二苯醚 (DecaBDE)	-	mg/kg	25	ND	ND	ND
邻苯二甲酸二(2-乙基己基)酯 (DEHP)	1000	mg/kg	50	ND	ND	ND
邻苯二甲酸丁苄酯 (BBP)	1000	mg/kg	50	ND	ND	ND
邻苯二甲酸二丁酯 (DBP)	1000	mg/kg	50	ND	ND	ND
邻苯二甲酸二异丁酯 (DIBP)	1000	mg/kg	50	ND	ND	ND

检测项目	限值	单位	MDL	A16	A38	A45
铅 (Pb)	1000	mg/kg	2	ND	ND	ND
汞 (Hg)	1000	mg/kg	2	ND	ND	ND
镉 (Cd)	100	mg/kg	2	ND	ND	ND
六价铬 (Cr(VI))	1000	mg/kg	8	ND	ND	ND
多溴联苯之和 (PBB)	1000	mg/kg	ı	ND	ND	ND
一溴联苯 (MonoBB)	1	mg/kg	25	ND	ND	ND
二溴联苯 (DiBB)	1	mg/kg	25	ND	ND	ND
三溴联苯 (TriBB)	1	mg/kg	25	ND	ND	ND
四溴联苯 (TetraBB)	-	mg/kg	25	ND	ND	ND
五溴联苯 (PentaBB)	-	mg/kg	25	ND	ND	ND
六溴联苯 (HexaBB)	-	mg/kg	25	ND	ND	ND
七溴联苯 (HeptaBB)	-	mg/kg	25	ND	ND	ND
八溴联苯 (OctaBB)	-	mg/kg	25	ND	ND	ND
九溴联苯 (NonaBB)	-	mg/kg	25	ND	ND	ND
十溴联苯 (DecaBB)	1	mg/kg	25	ND	ND	ND
多溴二苯醚之和 (PBDE)	1000	mg/kg	-	ND	ND	ND
一溴二苯醚 (MonoBDE)	-	mg/kg	25	ND	ND	ND
二溴二苯醚 (DiBDE)	-	mg/kg	25	ND	ND	ND
三溴二苯醚 (TriBDE)	-	mg/kg	25	ND	ND	ND



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-and-Cond

3rd Building, No. 889 Yishan Road Xuhui District, Shanghai China 200233 中国・上海・徐汇区宜山路889号3号楼 邮编: 200233



编号: SHAEC24028769406

日期: 2024年12月30日

第5页,共22页

检测项目	限值	单位	MDL	A16	A38	A45
四溴二苯醚 (TetraBDE)	-	mg/kg	25	ND	ND	ND
五溴二苯醚 (PentaBDE)	-	mg/kg	25	ND	ND	ND
六溴二苯醚 (HexaBDE)	-	mg/kg	25	ND	ND	ND
七溴二苯醚 (HeptaBDE)	-	mg/kg	25	ND	ND	ND
八溴二苯醚 (OctaBDE)	-	mg/kg	25	ND	ND	ND
九溴二苯醚 (NonaBDE)	-	mg/kg	25	ND	ND	ND
十溴二苯醚 (DecaBDE)	-	mg/kg	25	ND	ND	ND
邻苯二甲酸二(2-乙基己基)酯 (DEHP)	1000	mg/kg	50	ND	ND	ND
邻苯二甲酸丁苄酯 (BBP)	1000	mg/kg	50	ND	ND	ND
邻苯二甲酸二丁酯 (DBP)	1000	mg/kg	50	ND	ND	ND
邻苯二甲酸二异丁酯 (DIBP)	1000	mg/kg	50	ND	ND	ND

检测项目	限值	单位	MDL	A46
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))	1000	mg/kg	8	ND
多溴联苯之和 (PBB)	1000	mg/kg	1	ND
一溴联苯 (MonoBB)	-	mg/kg	25	ND
二溴联苯 (DiBB)	-	mg/kg	25	ND
三溴联苯 (TriBB)	-	mg/kg	25	ND
四溴联苯 (TetraBB)	-	mg/kg	25	ND
五溴联苯 (PentaBB)	-	mg/kg	25	ND
六溴联苯 (HexaBB)	-	mg/kg	25	ND
七溴联苯 (HeptaBB)	-	mg/kg	25	ND
八溴联苯 (OctaBB)	-	mg/kg	25	ND
九溴联苯 (NonaBB)	-	mg/kg	25	ND
十溴联苯 (DecaBB)	-	mg/kg	25	ND
多溴二苯醚之和 (PBDE)	1000	mg/kg	-	ND
一溴二苯醚 (MonoBDE)	-	mg/kg	25	ND
二溴二苯醚 (DiBDE)	-	mg/kg	25	ND
三溴二苯醚 (TriBDE)	-	mg/kg	25	ND
四溴二苯醚 (TetraBDE)	-	mg/kg	25	ND
五溴二苯醚 (PentaBDE)	-	mg/kg	25	ND
六溴二苯醚 (HexaBDE)	-	mg/kg	25	ND
七溴二苯醚 (HeptaBDE)	-	mg/kg	25	ND
八溴二苯醚 (OctaBDE)	-	mg/kg	25	ND
九溴二苯醚 (NonaBDE)	-	mg/kg	25	ND
十溴二苯醚 (DecaBDE)	-	mg/kg	25	ND
邻苯二甲酸二(2-乙基己基)酯 (DEHP)	1000	mg/kg	50	ND
邻苯二甲酸丁苄酯 (BBP)	1000	mg/kg	50	ND
邻苯二甲酸二丁酯 (DBP)	1000	mg/kg	50	ND
邻苯二甲酸二异丁酯 (DIBP)	1000	mg/kg	50	ND



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-and-Cond

3rd Building, No. 889 Yishan Road Xuhui District, Shanghai China 200233 中国・上海・徐汇区宜山路889号3号楼 邮编: 200233



编号: SHAEC24028769406

日期: 2024年12月30日 第6页,共22页

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。

检测方法: 参考 IEC 62321-4:2013+AMD1:2017, IEC 62321-5:2013, IEC 62321-7-1:2015 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	A1	A10	A14
铅 (Pb)	1000	mg/kg	2	38	7	6
汞 (Hg)	1000	mg/kg	2	ND	ND	ND
镉 (Cd)	100	mg/kg	2	ND	ND	ND
六价铬 (Cr(VI))▼	-	μg/cm²	0.10	ND	ND	ND
多溴联苯之和 (PBB)	1000	mg/kg	-	ND	ND	ND
一溴联苯 (MonoBB)	-	mg/kg	25	ND	ND	ND
二溴联苯 (DiBB)	-	mg/kg	25	ND	ND	ND
三溴联苯 (TriBB)	-	mg/kg	25	ND	ND	ND
四溴联苯 (TetraBB)	-	mg/kg	25	ND	ND	ND
五溴联苯 (PentaBB)	-	mg/kg	25	ND	ND	ND
六溴联苯 (HexaBB)	-	mg/kg	25	ND	ND	ND
七溴联苯 (HeptaBB)	-	mg/kg	25	ND	ND	ND
八溴联苯 (OctaBB)	-	mg/kg	25	ND	ND	ND
九溴联苯 (NonaBB)	-	mg/kg	25	ND	ND	ND
十溴联苯 (DecaBB)	-	mg/kg	25	ND	ND	ND
多溴二苯醚之和 (PBDE)	1000	mg/kg	•	ND	ND	ND
一溴二苯醚 (MonoBDE)	-	mg/kg	25	ND	ND	ND
二溴二苯醚 (DiBDE)	-	mg/kg	25	ND	ND	ND
三溴二苯醚 (TriBDE)	-	mg/kg	25	ND	ND	ND
四溴二苯醚 (TetraBDE)	-	mg/kg	25	ND	ND	ND
五溴二苯醚 (PentaBDE)	-	mg/kg	25	ND	ND	ND
六溴二苯醚 (HexaBDE)	-	mg/kg	25	ND	ND	ND
七溴二苯醚 (HeptaBDE)	-	mg/kg	25	ND	ND	ND
八溴二苯醚 (OctaBDE)	-	mg/kg	25	ND	ND	ND
九溴二苯醚 (NonaBDE)	-	mg/kg	25	ND	ND	ND
十溴二苯醚 (DecaBDE)	-	mg/kg	25	ND	ND	ND
邻苯二甲酸二(2-乙基己基)酯 (DEHP)	1000	mg/kg	50	ND	ND	ND
邻苯二甲酸丁苄酯 (BBP)	1000	mg/kg	50	ND	ND	ND
邻苯二甲酸二丁酯 (DBP)	1000	mg/kg	50	ND	ND	ND
邻苯二甲酸二异丁酯 (DIBP)	1000	mg/kg	50	ND	ND	ND

检测项目	限值	单位	MDL	A35	A42	A44
铅 (Pb)	1000	mg/kg	2	7	6	ND



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-and-Cond

3rdBuilding,No.889 Yishan Road Xuhui District,Shanghai China 200233 中国・上海・徐汇区宜山路889号3号楼 邮编: 200233



编号: SHAEC24028769406

日期: 2024年12月30日

第7页,共22页

检测项目	限值	单位	MDL	A35	A42	A44
汞 (Hg)	1000	mg/kg	2	ND	ND	ND
镉 (Cd)	100	mg/kg	2	ND	ND	ND
六价铬 (Cr(VI))▼	-	μg/cm²	0.10	ND	ND	ND
多溴联苯之和 (PBB)	1000	mg/kg	ı	ND	ND	ND
一溴联苯 (MonoBB)	-	mg/kg	25	ND	ND	ND
二溴联苯 (DiBB)	-	mg/kg	25	ND	ND	ND
三溴联苯 (TriBB)	-	mg/kg	25	ND	ND	ND
四溴联苯 (TetraBB)	-	mg/kg	25	ND	ND	ND
五溴联苯 (PentaBB)	-	mg/kg	25	ND	ND	ND
六溴联苯 (HexaBB)	-	mg/kg	25	ND	ND	ND
七溴联苯 (HeptaBB)	-	mg/kg	25	ND	ND	ND
八溴联苯 (OctaBB)	-	mg/kg	25	ND	ND	ND
九溴联苯 (NonaBB)	-	mg/kg	25	ND	ND	ND
十溴联苯 (DecaBB)	-	mg/kg	25	ND	ND	ND
多溴二苯醚之和 (PBDE)	1000	mg/kg	ı	ND	ND	ND
一溴二苯醚 (MonoBDE)	-	mg/kg	25	ND	ND	ND
二溴二苯醚 (DiBDE)	-	mg/kg	25	ND	ND	ND
三溴二苯醚 (TriBDE)	-	mg/kg	25	ND	ND	ND
四溴二苯醚 (TetraBDE)	-	mg/kg	25	ND	ND	ND
五溴二苯醚 (PentaBDE)	-	mg/kg	25	ND	ND	ND
六溴二苯醚 (HexaBDE)	-	mg/kg	25	ND	ND	ND
七溴二苯醚 (HeptaBDE)	-	mg/kg	25	ND	ND	ND
八溴二苯醚 (OctaBDE)	-	mg/kg	25	ND	ND	ND
九溴二苯醚 (NonaBDE)	-	mg/kg	25	ND	ND	ND
十溴二苯醚 (DecaBDE)	-	mg/kg	25	ND	ND	ND
邻苯二甲酸二(2-乙基己基)酯 (DEHP)	1000	mg/kg	50	ND	ND	ND
邻苯二甲酸丁苄酯 (BBP)	1000	mg/kg	50	ND	ND	ND
邻苯二甲酸二丁酯 (DBP)	1000	mg/kg	50	ND	ND	ND
邻苯二甲酸二异丁酯 (DIBP)	1000	mg/kg	50	ND	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。
- 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; (3) ▼ =
 - 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。

检测方法: 参考滴定法,IEC 62321-4:2013+AMD1:2017,IEC 62321-5:2013, IEC 62321-7-1:2015 和 IEC 62321-12:2023, 采用 ICP-OES/AAS, UV-Vis 和 GC-MS 进行分析。



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com/en/Terms-and-Conditions/Terms-and-Con

3rdBuilding,No.889 Yishan Road Xuhui District,Shanghai China 200233 中国・上海・徐汇区宜山路889号3号楼 邮编: 200233



编号: SHAEC24028769406

日期: 2024年12月30日

第8页,共22页

检测项目	限值	单位	MDL	A26
铅(Pb)	0.1	%	-	92.5▲
汞(Hg)	1000	mg/kg	2	ND
镉(Cd)	100	mg/kg	2	ND
六价铬 (Cr(VI))▼	-	μg/cm²	0.10	ND
多溴联苯之和 (PBB)	1000	mg/kg	•	ND
一溴联苯 (MonoBB)	-	mg/kg	25	ND
二溴联苯 (DiBB)	-	mg/kg	25	ND
三溴联苯 (TriBB)	-	mg/kg	25	ND
四溴联苯 (TetraBB)	-	mg/kg	25	ND
五溴联苯 (PentaBB)	-	mg/kg	25	ND
六溴联苯 (HexaBB)	-	mg/kg	25	ND
七溴联苯 (HeptaBB)	-	mg/kg	25	ND
八溴联苯 (OctaBB)	-	mg/kg	25	ND
九溴联苯 (NonaBB)	-	mg/kg	25	ND
十溴联苯 (DecaBB)	-	mg/kg	25	ND
多溴二苯醚之和 (PBDE)	1000	mg/kg	-	ND
一溴二苯醚 (MonoBDE)	-	mg/kg	25	ND
二溴二苯醚 (DiBDE)	-	mg/kg	25	ND
三溴二苯醚 (TriBDE)	-	mg/kg	25	ND
四溴二苯醚 (TetraBDE)	-	mg/kg	25	ND
五溴二苯醚 (PentaBDE)	-	mg/kg	25	ND
六溴二苯醚 (HexaBDE)	-	mg/kg	25	ND
七溴二苯醚 (HeptaBDE)	-	mg/kg	25	ND
八溴二苯醚 (OctaBDE)	-	mg/kg	25	ND
九溴二苯醚 (NonaBDE)	-	mg/kg	25	ND
十溴二苯醚 (DecaBDE)	-	mg/kg	25	ND
邻苯二甲酸二(2-乙基己基)酯 (DEHP)	1000	mg/kg	50	ND
邻苯二甲酸丁苄酯 (BBP)	1000	mg/kg	50	ND
邻苯二甲酸二丁酯 (DBP)	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) ▼ = 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。
- ▲根据客户提供的声明,编号 A26 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(即铅含量等于或大于 85%的铅基合金焊料)。 更多豁免相关信息,可以从以下链接获取:

https://rohs.sgsonline.com.cn/PDFLinks/zh-cn/RSTS-TP-037%20RoHS%20Exemption%20%28CN%29.pdf



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and his document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

**Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, **Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, **

3rdBuilding,No.889 Yishan Road Xuhui District,Shanghai China 200233 中国・上海・徐汇区宜山路889号3号楼 邮编: 200233



编号: SHAEC24028769406

日期: 2024年12月30日

第9页,共22页

▲根据客户提供的声明,编号 A4 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。

更多豁免相关信息,可以从以下链接获取:

https://rohs.sqsonline.com.cn/PDFLinks/zh-cn/RSTS-TP-037%20RoHS%20Exemption%20%28CN%29.pdf 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。



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com/en/Terms-and-Conditions/Terms-and-Con

3rdBuilding,No.889 Yishan Road Xuhui District,Shanghai China 200233 中国・上海・徐汇区宜山路889号3号楼 邮编: 200233



编号: SHAEC24028769406

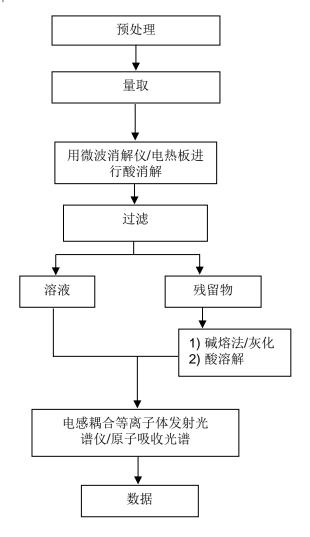
日期: 2024年12月30日

第 10 页,共 22 页

附件

元素检测流程图

样品按照下述流程被完全消解





Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx, dor electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-and-Conditio

3rdBuilding,No.889 Yishan Road Xuhui District,Shanghai China 200233 中国・上海・徐汇区宜山路889号3号楼 邮编: 200233



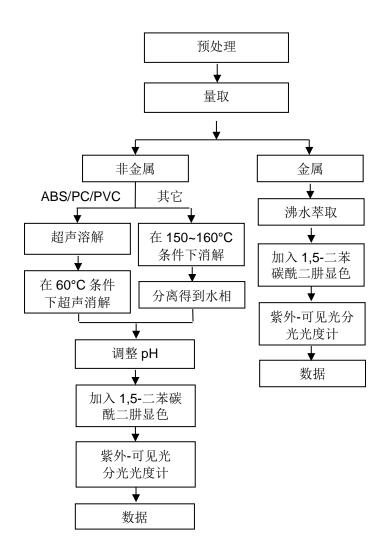
检测报告 附件

编号: SHAEC24028769406

日期: 2024年12月30日

第 11 页,共 22 页

六价铬检测流程图





Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx, dor electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-and-Conditio

3rdBuilding,No.889 Yishan Road Xuhui District,Shanghai China 200233 中国・上海・徐汇区宜山路889号3号楼 邮编: 200233

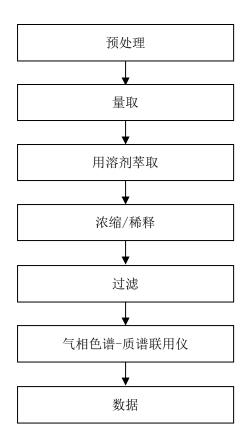


检测报告 附件

编号: SHAEC24028769406

日期: 2024年12月30日 第12页,共22页

PBB/PBDE/Phthalates 检测流程图





Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-and-Cond

3rd Building, No. 889 Yishan Road Xuhui District, Shanghai China 200233 中国・上海・徐汇区宜山路889号3号楼 邮编: 200233



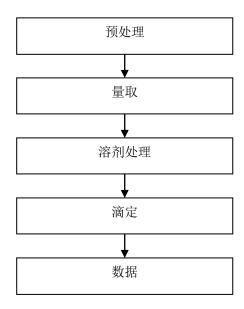
检测报告 附件

编号: SHAEC24028769406

日期: 2024年12月30日

第 13 页,共 22 页

滴定检测流程图





Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-and-Cond

3rd Building, No. 889 Yishan Road Xuhui District, Shanghai China 200233 中国・上海・徐汇区宜山路889号3号楼 邮编: 200233



编号: SHAEC24028769406

日期: 2024年12月30日 第14页,共22页

样品照片:







Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-and-Cond

3rd Building, No. 889 Yishan Road Xuhui District, Shanghai China 200233 中国・上海・徐汇区宜山路889号3号楼 邮编: 200233

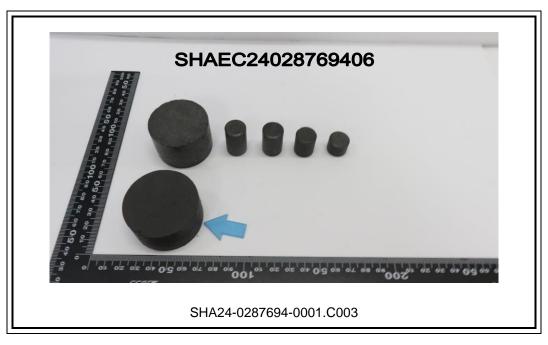


编号: SHAEC24028769406

日期: 2024年12月30日

第15页,共22页







Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com/en/Terms-and-Conditions/Terms-and-Con

3rdBuilding,No.889 Yishan Road Xuhui District,Shanghai China 200233 中国・上海・徐汇区宜山路889号3号楼 邮编: 200233

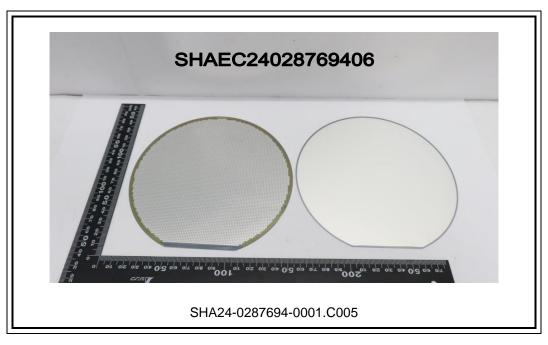


编号: SHAEC24028769406

日期: 2024年12月30日

第16页,共22页







Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com/en/Terms-and-Conditions/Terms-and-Con

3rdBuilding,No.889 Yishan Road Xuhui District,Shanghai China 200233 中国・上海・徐汇区宜山路889号3号楼 邮编: 200233



编号: SHAEC24028769406

日期: 2024年12月30日

第17页,共22页







Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com/en/Terms-and-Conditions/Terms-and-Con

3rdBuilding,No.889 Yishan Road Xuhui District,Shanghai China 200233 中国・上海・徐汇区宜山路889号3号楼 邮编: 200233



编号: SHAEC24028769406

日期: 2024年12月30日

第18页,共22页







Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx.and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-and-

3rdBuilding,No.889 Yishan Road Xuhui District,Shanghai China 200233 中国・上海・徐汇区宜山路889号3号楼 邮编: 200233



编号: SHAEC24028769406

日期: 2024年12月30日

第19页,共22页







Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com/en/Terms-and-Conditions/Terms-and-Con

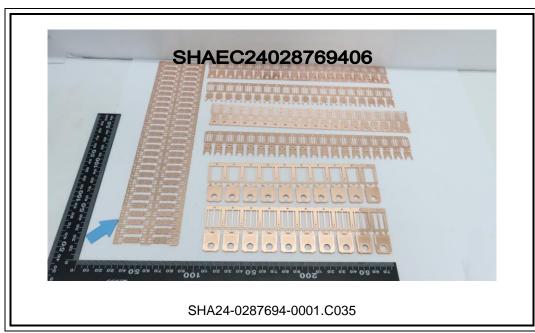
3rdBuilding,No.889 Yishan Road Xuhui District,Shanghai China 200233 中国・上海・徐汇区宜山路889号3号楼 邮编: 200233



编号: SHAEC24028769406

日期: 2024年12月30日

第20页,共22页







Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx, dor electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-and-Conditio

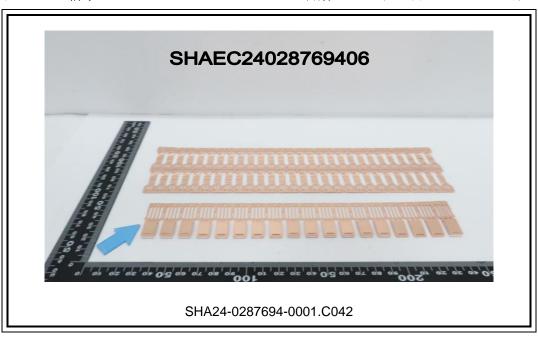
3rdBuilding,No.889 Yishan Road Xuhui District,Shanghai China 200233 中国・上海・徐汇区宜山路889号3号楼 邮编: 200233

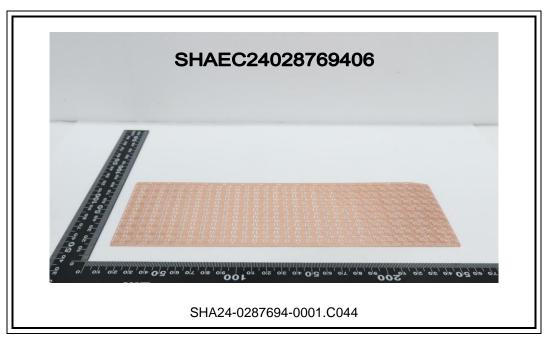


编号: SHAEC24028769406

日期: 2024年12月30日

第21页,共22页







Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx, dor electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-and-Conditio

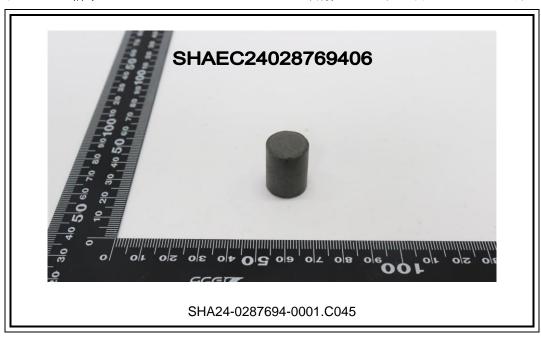
3rd Building, No. 889 Yishan Road Xuhui District, Shanghai China 200233 中国・上海・徐汇区宜山路889号3号楼 邮编: 200233



编号: SHAEC24028769406

日期: 2024年12月30日

第22页,共22页





此照片仅限于随 SGS 正本报告使用 ***报告结束***



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at httention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document sadvised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction form exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

**Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443,

3rdBuilding,No.889 Yishan Road Xuhui District,Shanghai China 200233 中国・上海・徐汇区宜山路889号3号楼 邮编: 200233