



检测报告 Test Report

报告编号 A2230665166101001E
Report No. A2230665166101001E

第 1 页 共 9 页
Page 1 of 9

报告抬头公司名称 厦门吉顺芯微电子有限公司
Company Name XIAMEN JAYSUN SEMICONDUCTOR CO., LTD.
shown on Report
地 址 福建省厦门市集美北部工业区环珠路 501 号
Address NO.501,HUANZHURoad,NORTH INDUSTRIAL PARK,JIMEI DISTRICT,XIAMEN,FUJIAN,CHINA

以下测试之样品及样品信息由申请者提供并确认

The following sample(s) and sample information was/were submitted and identified by/on the behalf of the applicant

| | |
|----------------------|---|
| 样品名称 | 背锡硅片 |
| Sample Name | STANNUM WAFER(BACK VAPOURED WITH STANNUM) |
| 样品型号 | 一般产品 |
| Part No. | 一般产品 |
| 材料名称 | 主要成份：硅 |
| Material | 主要成份：硅 |
| 样品接收日期 | 2023.12.18 |
| Sample Received Date | Dec. 18, 2023 |
| 样品检测日期 | 2023.12.18-2023.12.20 |
| Testing Period | Dec. 18, 2023 to Dec. 20, 2023 |

检测要求 根据客户要求, 对所提交样品中的铅(Pb), 镉(Cd), 汞(Hg), 六价铬(Cr(VI)), 多溴联苯(PBBs), 多溴二苯醚(PBDEs), 邻苯二甲酸酯(DBP, BBP, DEHP, DIBP), 邻苯二甲酸酯, 氟(F), 氯(Cl), 溴(Br), 碘(I)进行测试。

Test Requested As specified by client, to test Lead (Pb), Cadmium (Cd), Mercury (Hg), Hexavalent Chromium (Cr(VI)), Polybrominated Biphenyls (PBBs), Polybrominated Diphenyl Ethers (PBDEs), Phthalates (DBP, BBP, DEHP, DIBP), Phthalates, Fluorine (F), Chlorine (Cl), Bromine (Br), Iodine (I) in the submitted sample(s).

检测依据/检测结果 请参见下页。

Test Method/Test Result(s) Please refer to the following page(s).

批 准
Approved by

郑晴涛

日 期
Date

2023.12.20

郑晴涛

技术经理 Technical Manager

No. R338851033

华测检测认证集团股份有限公司

广东省深圳市宝安区新安街道兴东社区华测检测大楼

Centre Testing International Group Co.,Ltd.

CTI Building, Xing Dong Community, Xin'an Sub-district, Bao'an District, Shenzhen City, Guangdong Province, P.R. China

检验检测专用章
Inspection & Testing Services

检测报告

Test Report

报告编号 A2230665166101001E
Report No. A2230665166101001E

第 2 页 共 9 页
Page 2 of 9

检测依据 Test Method

| 测试项目 Tested Item(s) | 测试方法 Test Method | 测试仪器 Measured Equipment(s) |
|--|---|-------------------------------|
| 铅 Lead (Pb) | IEC 62321-5:2013 | ICP-OES |
| 镉 Cadmium (Cd) | IEC 62321-5:2013 | ICP-OES |
| 汞 Mercury (Hg) | IEC 62321-4:2013+AMD1:2017 CSV | ICP-OES |
| 六价铬 Hexavalent Chromium (Cr(VI)) | IEC 62321-7-2:2017 和/或 IEC 62321-5:2013 测试总铬含量 IEC 62321-7-2:2017 and/or determination of Total Chromium by IEC 62321-5:2013 | UV-Vis/ICP-OES |
| 多溴联苯 Polybrominated Biphenyls (PBBs) | IEC 62321-6:2015 | GC-MS |
| 多溴二苯醚 Polybrominated Diphenyl Ethers (PBDEs) | IEC 62321-6:2015 | GC-MS |
| 邻苯二甲酸酯 Phthalates (DBP, BBP, DEHP, DIBP) | IEC 62321-8:2017 | GC-MS |
| 邻苯二甲酸酯 Phthalates | 参考 EN 14372:2004(E) Refer to EN 14372:2004(E) | GC-MS |
| 氟 Fluorine (F) | 参考 EN 14582:2016 Refer to EN 14582:2016 | IC |
| 氯 Chlorine (Cl) | 参考 EN 14582:2016 Refer to EN 14582:2016 | IC |
| 溴 Bromine (Br) | 参考 EN 14582:2016 Refer to EN 14582:2016 | IC |
| 碘 Iodine (I) | 参考 EN 14582:2016 Refer to EN 14582:2016 | IC |

检测报告

Test Report

报告编号 A2230665166101001E
Report No. A2230665166101001E

第 3 页 共 9 页
Page 3 of 9

检测结果 Test Result(s)

| 测试项目 Tested Item(s) | 结果 Result | 方法检出限 MDL |
|----------------------------------|-----------|-----------|
| | 001 | |
| 铅 Lead (Pb) | N.D. | 2 mg/kg |
| 镉 Cadmium (Cd) | N.D. | 2 mg/kg |
| 汞 Mercury (Hg) | N.D. | 2 mg/kg |
| 六价铬 Hexavalent Chromium (Cr(VI)) | N.D. | 8 mg/kg |

| 测试项目 Tested Item(s) | 结果 Result | 方法检出限 MDL |
|---|-----------|-----------|
| | 001 | |
| 多溴联苯 Polybrominated Biphenyls (PBBs) | | |
| 一溴联苯 Monobromobiphenyl | N.D. | 5 mg/kg |
| 二溴联苯 Dibromobiphenyl | N.D. | 5 mg/kg |
| 三溴联苯 Tribromobiphenyl | N.D. | 5 mg/kg |
| 四溴联苯 Tetrabromobiphenyl | N.D. | 5 mg/kg |
| 五溴联苯 Pentabromobiphenyl | N.D. | 5 mg/kg |
| 六溴联苯 Hexabromobiphenyl | N.D. | 5 mg/kg |
| 七溴联苯 Heptabromobiphenyl | N.D. | 5 mg/kg |
| 八溴联苯 Octabromobiphenyl | N.D. | 5 mg/kg |
| 九溴联苯 Nonabromobiphenyl | N.D. | 5 mg/kg |
| 十溴联苯 Decabromobiphenyl | N.D. | 5 mg/kg |

| 测试项目 Tested Item(s) | 结果 Result | 方法检出限 MDL |
|---|-----------|-----------|
| | 001 | |
| 多溴二苯醚 Polybrominated Diphenyl Ethers (PBDEs) | | |
| 一溴二苯醚 Monobromodiphenyl ether | N.D. | 5 mg/kg |
| 二溴二苯醚 Dibromodiphenyl ether | N.D. | 5 mg/kg |
| 三溴二苯醚 Tribromodiphenyl ether | N.D. | 5 mg/kg |
| 四溴二苯醚 Tetrabromodiphenyl ether | N.D. | 5 mg/kg |
| 五溴二苯醚 Pentabromodiphenyl ether | N.D. | 5 mg/kg |
| 六溴二苯醚 Hexabromodiphenyl ether | N.D. | 5 mg/kg |
| 七溴二苯醚 Heptabromodiphenyl ether | N.D. | 5 mg/kg |
| 八溴二苯醚 Octabromodiphenyl ether | N.D. | 5 mg/kg |
| 九溴二苯醚 Nonabromodiphenyl ether | N.D. | 5 mg/kg |
| 十溴二苯醚 Decabromodiphenyl ether | N.D. | 5 mg/kg |

检测报告

Test Report

报告编号 A2230665166101001E
Report No. A2230665166101001E

第 4 页 共 9 页
Page 4 of 9

| 测试项目 Tested Item(s) | 结果 Result | 方法检出限 MDL |
|--|-----------|-----------|
| | 001 | |
| 邻苯二甲酸酯 Phthalates (DBP, BBP, DEHP, DIBP) | | |
| 邻苯二甲酸二丁酯 Dibutyl phthalate (DBP) CAS#:84-74-2 | N.D. | 50 mg/kg |
| 邻苯二甲酸丁基苄基酯 Butyl benzyl phthalate (BBP) CAS#:85-68-7 | N.D. | 50 mg/kg |
| 邻苯二甲酸二(2-乙基)己酯 Di-(2-ethylhexyl) phthalate (DEHP) CAS#:117-81-7 | N.D. | 50 mg/kg |
| 邻苯二甲酸二异丁酯 Diisobutyl phthalate (DIBP) CAS#:84-69-5 | N.D. | 50 mg/kg |
| 测试项目 Tested Item(s) | 结果 Result | 方法检出限 MDL |
| | 001 | |
| 邻苯二甲酸酯 Phthalates | | |
| 邻苯二甲酸二正辛酯 Di-n-octyl phthalate (DNOP) CAS#:117-84-0 | N.D. | 30 mg/kg |
| 邻苯二甲酸二异壬酯 Di-isononyl phthalate (DINP) CAS#:28553-12-0,68515-48-0 | N.D. | 50 mg/kg |
| 邻苯二甲酸二异癸酯 Di-iso-decyl phthalate (DIDP) CAS#:26761-40-0,68515-49-1 | N.D. | 50 mg/kg |
| 邻苯二甲酸二戊酯 Dipentyl phthalate (DPP/DPENP) CAS#:131-18-0 | N.D. | 30 mg/kg |
| 邻苯二甲酸二庚酯 Diheptyl phthalate (DHP) CAS#:3648-21-3 | N.D. | 30 mg/kg |
| 邻苯二甲酸二(2-甲氧基)乙酯 Bis(2-methoxyethyl) phthalate (DMEP) CAS#:117-82-8 | N.D. | 30 mg/kg |

检测报告

Test Report

报告编号 A2230665166101001E
Report No. A2230665166101001E

第 5 页 共 9 页
Page 5 of 9

| 测试项目 Tested Item(s) | 结果 Result | 方法检出限 MDL |
|---------------------|------------------|-----------|
| | A223066666102001 | |
| 氟 Fluorine (F) | N.D. | 10 mg/kg |
| 氯 Chlorine (Cl) | N.D. | 10 mg/kg |
| 溴 Bromine (Br) | N.D. | 10 mg/kg |
| 碘 Iodine (I) | N.D. | 10 mg/kg |

样品/部位描述 Sample/Part Description

| 序号 No. | CTI 样品 ID CTI Sample ID | 描述 Description |
|-----------|----------------------------|--------------------------------------|
| 1 | 001 | 芯片 (整体测试) Chip(Tested as a whole) |
| 2 | A223066666102001 | 芯片 (整体测试) Chip(Tested as a whole) |

备注:

- 对于检测铅, 镉, 汞之样品已消解完全。
- 按照目前手段, 样品无法进一步拆分, 样品整体测试, 测试结果不代表整体测试样品中任何一种单一材质的含量。
- N.D. = 未检出 (小于方法检出限)
- mg/kg = ppm = 百万分之一

Remark:

- The sample(s) had been dissolved totally tested for Lead, Cadmium, Mercury.
- The sample(s) was tested as a whole, because it's impossible to disassemble or separate it by current equipment and technology. The result(s) shown on this report may be different from the content of any homogeneous material.
- MDL = Method Detection Limit
- N.D. = Not Detected (<MDL)
- mg/kg = ppm = parts per million

注释: 本报告中的数据结果供科研、教学、企业内部质量控制、企业产品研发等目的用。

Note: The testing data and result(s) in this report is(are) just for scientific research, education, internal quality control and product development etc.

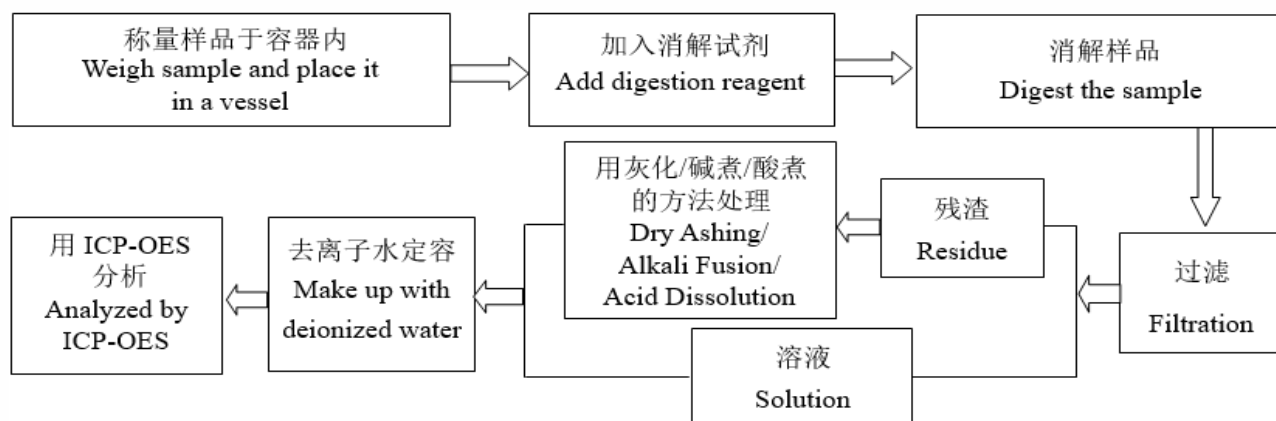
检测报告 Test Report

报告编号 A2230665166101001E
Report No. A2230665166101001E

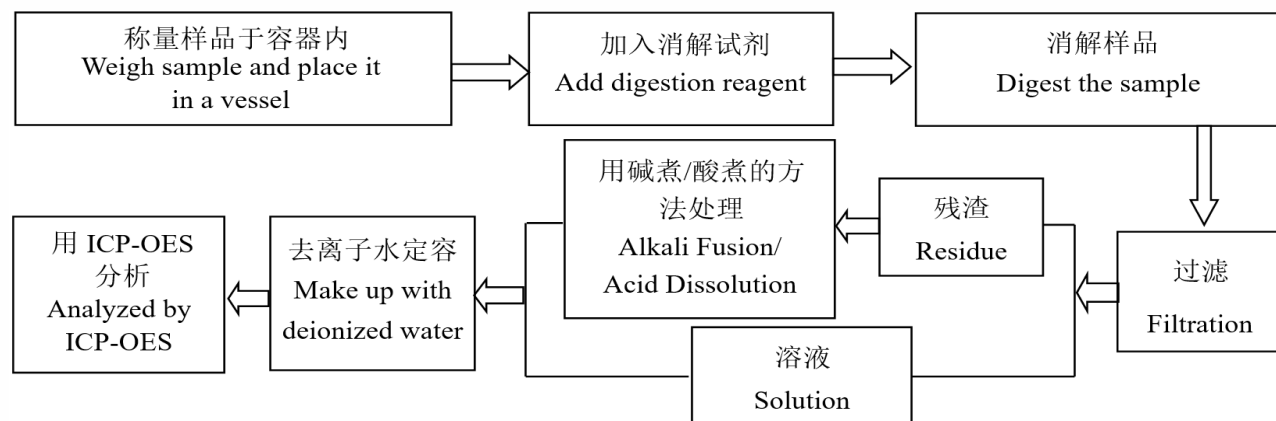
第 6 页 共 9 页
Page 6 of 9

检测流程 Test Process

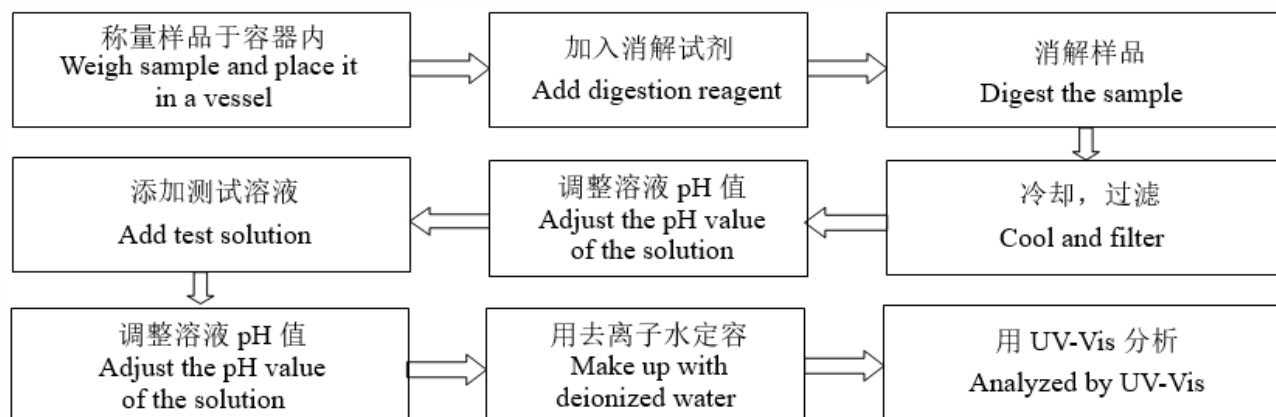
1. 铅 Lead (Pb), 镉 Cadmium (Cd), 铬 Chromium(Cr)



2. 汞 Mercury (Hg)



3. 六价铬 Hexavalent Chromium (Cr(VI))

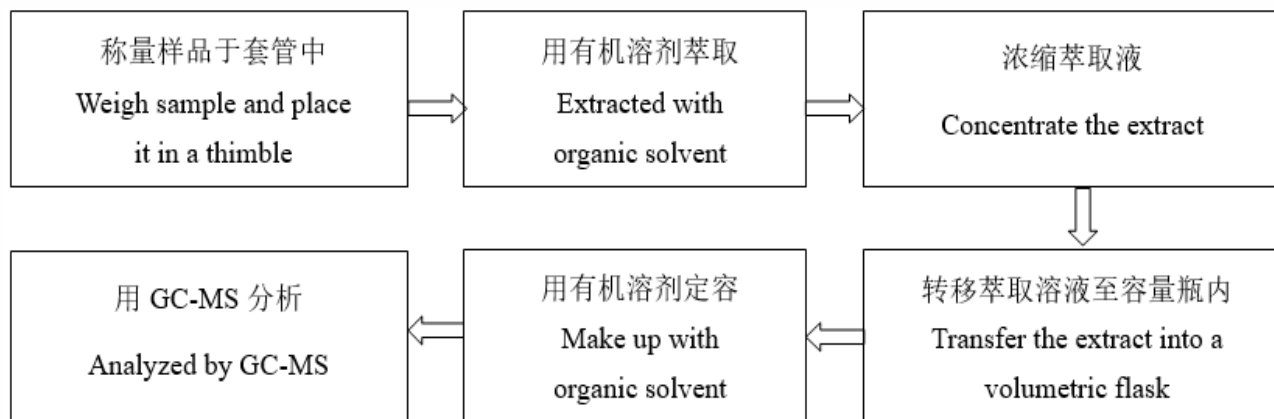


检测报告 Test Report

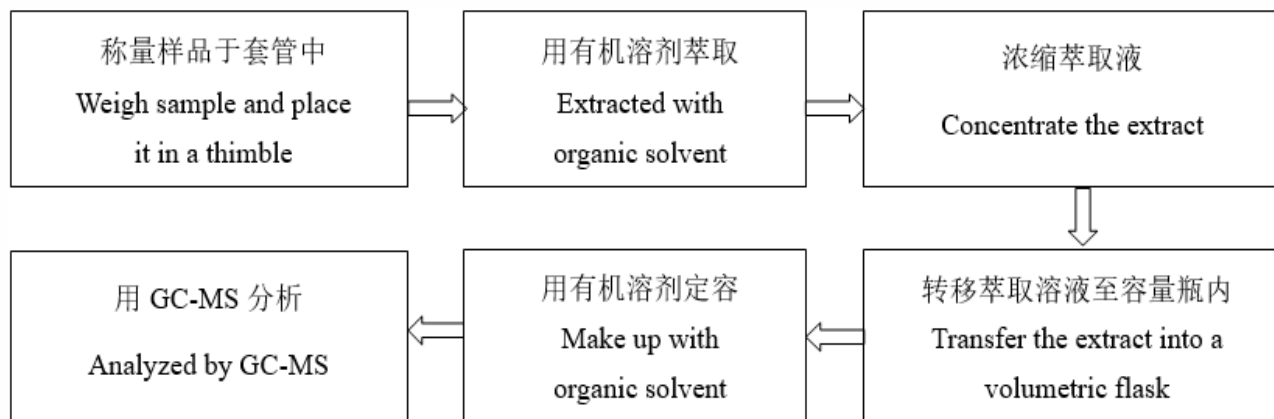
报告编号 A2230665166101001E
Report No. A2230665166101001E

第 7 页 共 9 页
Page 7 of 9

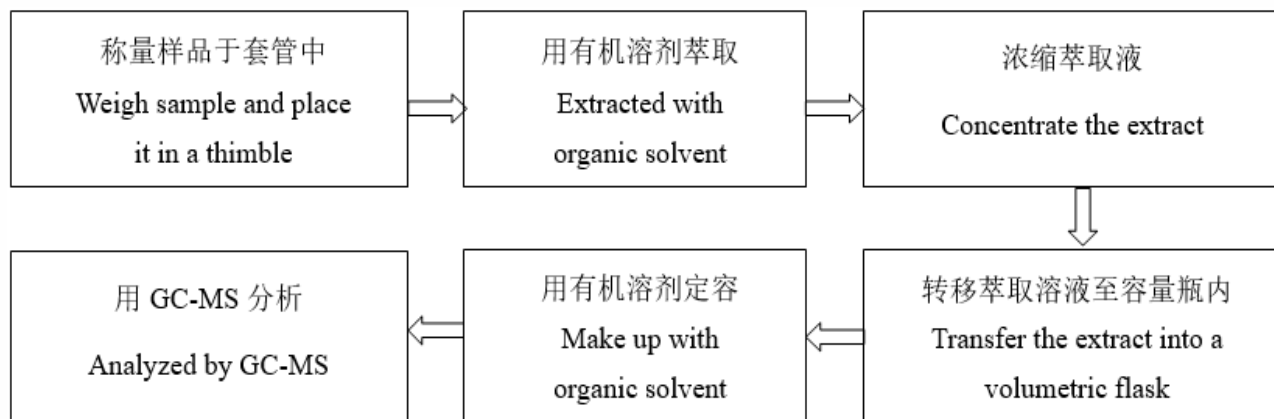
4. 多溴联苯 Polybrominated Biphenyls (PBBs), 多溴二苯醚 Polybrominated Diphenyl Ethers (PBDEs)



5. 邻苯二甲酸酯 Phthalates (DBP, BBP, DEHP, DIBP)



6. 邻苯二甲酸酯 Phthalates

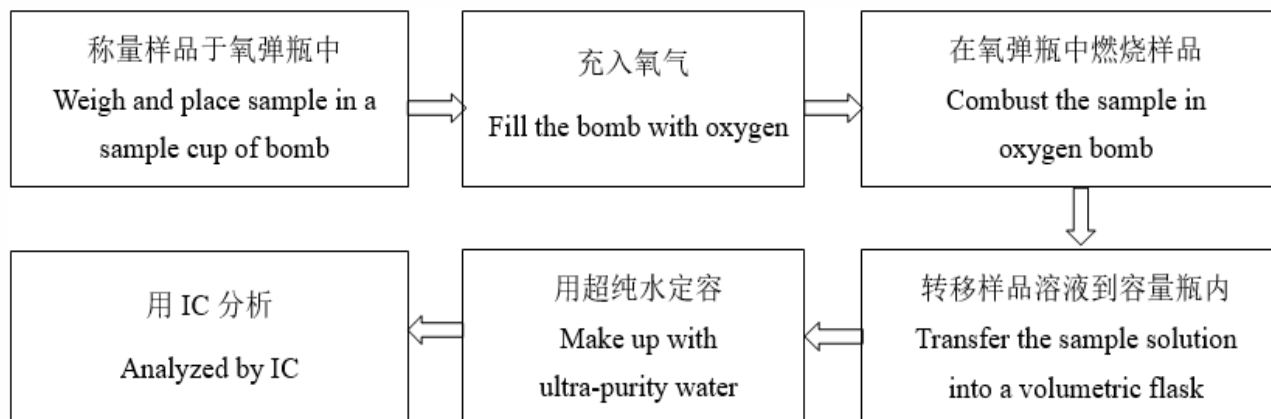


检测报告 Test Report

报告编号 A2230665166101001E
Report No. A2230665166101001E

第 8 页 共 9 页
Page 8 of 9

7. 氟 Fluorine (F), 氯 Chlorine (Cl), 溴 Bromine (Br), 碘 Iodine (I)



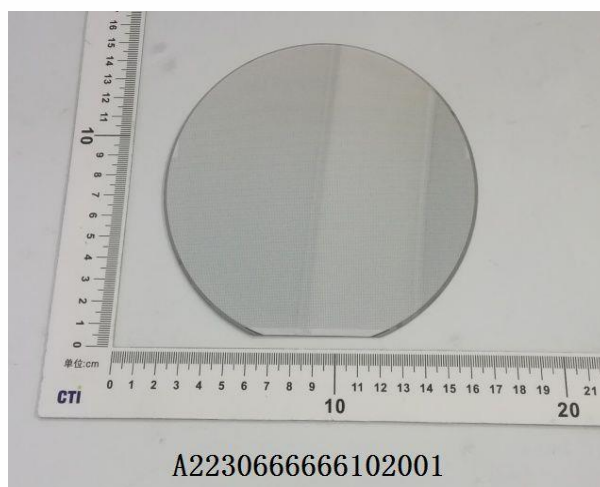
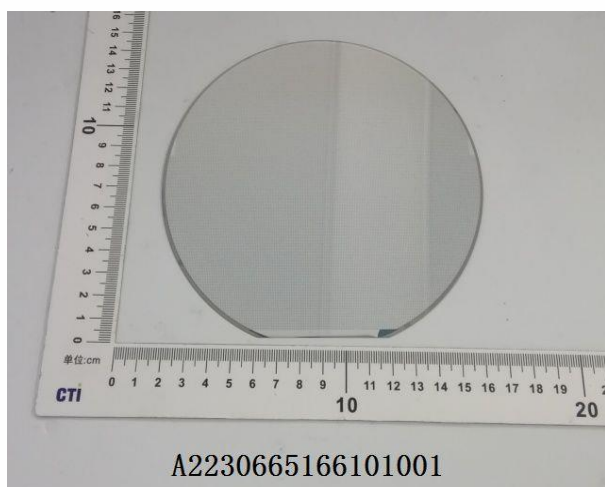
检测报告 Test Report

报告编号 A2230665166101001E
Report No. A2230665166101001E

第9页 共9页
Page 9 of 9

样品图片

Photo(s) of the sample(s)



声明 Statement:

1. 检测报告无批准人签字、“专用章”及报告骑缝章无效;

This report is considered invalid without approved signature, special seal and the seal on the perforation;

2. 报告抬头公司名称及地址、样品及样品信息由申请者提供, 申请者应对其真实性负责, CTI 未核实其真实性;

The Company Name shown on Report and Address, the sample(s) and sample information was/were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified;

3. 本报告检测结果仅对受测样品负责;

The result(s) shown in this report refer(s) only to the sample(s) tested;

4. 未经 CTI 书面同意, 不得部分复制本报告;

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5. 如检测报告中的英文内容与中文内容有差异, 以中文为准。

In case of any discrepancy between the English version and Chinese version of the testing reports (if generated), the Chinese version shall prevail.

*** 报告结束 ***

*** End of Report ***