



中国认可
国际互认
检测
TESTING
CNAS L13752



Test Report

No.: EGZ2206140187C00101R

Date: Jun. 20, 2022

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Applicant : RENERGY Micro-Technologies(Shenzhen)CO.,LTD
委托单位 : 深圳市锐能微科技有限公司
Address : Room 401、402,Building5,Shenzhen Software Industry Base,
No.13 Haitian 1st Road,Nanshan District,Shenzhen

地 址 : 深圳市南山区深圳软件产业基地第 5 栋裙楼 401、402 室

Sample Name : Chip
样品名称 : 芯片
Model : RN8209C
型 号 : RN8209C

Received Date : Jun. 14, 2022
接收日期 : 2022 年 06 月 14 日
Test Period : Jun. 14, 2022 ~ Jun. 20, 2022
检测日期 : 2022 年 06 月 14 日~2022 年 06 月 20 日

Test Requested : As requested by client, according to RoHS Directive(EU) 2015/863 amending Annex
检测要求 : II to Directive 2011/65/EU, to determine:
根据客户要求, 依据欧盟 RoHS 指令 2011/65/EU 附录 II 的修订指令(EU) 2015/863,
检测以下项目:

- 1) the content of Lead(Pb), Cadmium (Cd) and Mercury(Hg) in the submitted sample;
样品中的铅(Pb), 镉(Cd)和汞(Hg)的含量;
- 2) the content of Hexavalent Chromium(Cr(VI)) in the submitted sample;
样品中的六价铬(Cr(VI))的含量;
- 3) the content of Polybrominated Biphenyls(PBBs) and Polybrominated Diphenyl-Ethers(PBDEs) in the submitted sample;
样品中的多溴联苯(PBBs)以及多溴二苯醚(PBDEs)的含量;
- 4) the content of Bis(2-ethylhexyl)phthalate(DEHP), Dibutyl phthalate(DBP), Benzylbutyl phthalate(BBP), and Diisobutyl phthalate(DIBP) in the submitted sample.
样品中的邻苯二甲酸二(2-乙基己)酯(DEHP)、邻苯二甲酸二丁酯(DBP)、邻苯二甲酸丁苄酯(BBP)和邻苯二甲酸二异丁酯(DIBP)的含量。

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Test Results : Please refer to next page (s).
检测结果 : 请参看随后页面。

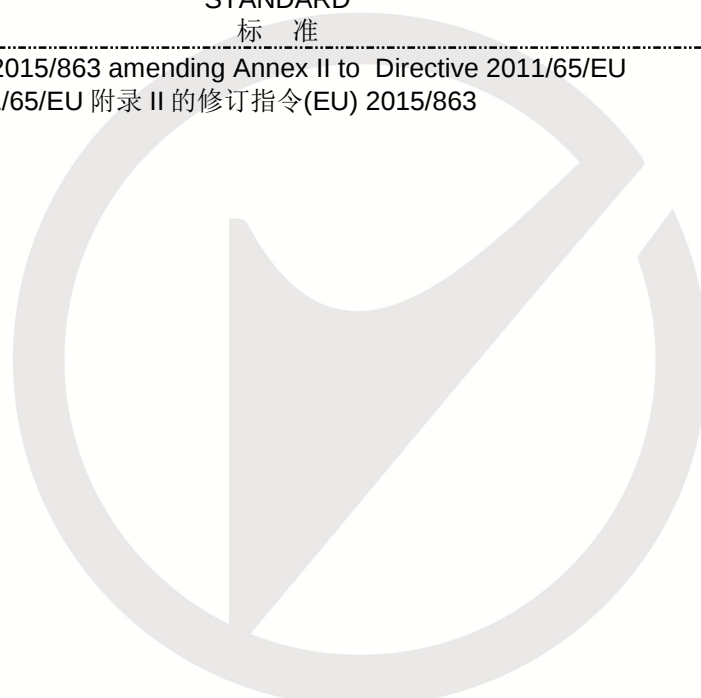
Executive Summary:
执行测试总结:

STANDARD 标准

RoHS Directive(EU) 2015/863 amending Annex II to Directive 2011/65/EU
欧盟 RoHS 指令 2011/65/EU 附录 II 的修订指令(EU) 2015/863

CONCLUSION 结论

PASS
合格



测试合格

Signed for and on behalf of
EMTEK(Guangzhou) Co., Ltd.

Prepared by:

Tang Lidong, Lainey

Assistant engineer

Reviewed by:

Sun Wei, Ethan

Technical
supervisor

Approved by:

Yu Chunhua, Jay
YuAuthorized signatory
Jun. 20, 2022

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Test Sample List: 检测样品清单:

Sample No. 样品编号	Sample Description 样品描述
1	Chip 芯片

Test Results: 检测结果:

Test Method : 检测方法:

- 1) to refer to IEC 62321-5: 2013, determine the Lead, Cadmium content by ICP-OES.
参照 IEC 62321-5: 2013, 用 ICP-OES 测定铅、镉的含量。
- 2) to refer to IEC 62321-4: 2013+A1:2017, determine the Mercury content by ICP-OES.
参照 IEC 62321-4: 2013+A1:2017, 用 ICP-OES 测定汞的含量。
- 3) to refer to IEC 62321-7-2:2017, determine the Hexavalent Chromium content by UV-VIS.
参照 IEC 62321-7-2:2017, 用 UV-VIS 测定六价铬的含量。
- 4) to refer to IEC 62321-6:2015, determine the Polybrominated Biphenyls(PBBs) and Polybrominated Diphenyl- Ethers(PBDEs) by GC-MS.
参照 IEC 62321-6: 2015, 用 GC-MS 测定多溴联苯(PBBs)和多溴二苯醚(PBDEs)的含量。
- 5) to refer to IEC 62321-8:2017, determine the Bis(2-ethylhexyl)phthalate (DEHP), Dibutyl phthalate(DBP), Benzylbutyl phthalate(BBP) and Diisobutyl phthalate(DIBP) by GC-MS.
参照 IEC 62321-8:2017, 用 GC-MS 测定邻苯二甲酸二(2-乙基己)酯(DEHP)、邻苯二甲酸二丁酯(DBP)、邻苯二甲酸丁基酯(BBP)和邻苯二甲酸二异丁酯(DIBP)的含量。

Analyte 被分析物	Test Result (mg/kg) 检测结果	MDL (mg/kg)	Limit 限值 (mg/kg)
	1		
Lead (Pb) 铅 (Pb)	ND	2	1000
Cadmium (Cd) 镉 (Cd)	ND	2	100
Mercury (Hg) 汞 (Hg)	ND	2	1000
Hexavalent Chromium (Cr(VI)) 六价铬 (Cr(VI))	ND	8	1000

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Analyte 被分析物	Test Result (mg/kg) 检测结果	MDL (mg/kg)	Limit 限值 (mg/kg)
	1		
Polybrominated Biphenyls (Mono – Deca) (PBBs) 多溴联苯 (1 – 10) (PBBs)	ND	--	1000
Monobromobiphenyl 一溴联苯	ND	5	--
Dibromobiphenyl 二溴联苯	ND	5	--
Tribromobiphenyl 三溴联苯	ND	5	--
Tetrabromobiphenyl 四溴联苯	ND	5	--
Pentabromobiphenyl 五溴联苯	ND	5	--
Hexabromobiphenyl 六溴联苯	ND	5	--
Heptabromobiphenyl 七溴联苯	ND	5	--
Octabromobiphenyl 八溴联苯	ND	5	--
Nonabromobiphenyl 九溴联苯	ND	5	--
Decabromobiphenyl 十溴联苯	ND	5	--
Polybrominated Diphenylethers (Mono – Deca) (PBDEs) 多溴二苯醚 (1 – 10) (PBDEs)	ND	--	1000
Monobromodiphenyl ether 一溴二苯醚	ND	5	--
Dibromodiphenyl ether 二溴二苯醚	ND	5	--
Tribromodiphenyl ether 三溴二苯醚	ND	5	--
Tetrabromodiphenyl ether 四溴二苯醚	ND	5	--
Pentabromodiphenyl ether 五溴二苯醚	ND	5	--
Hexabromodiphenyl ether 六溴二苯醚	ND	5	--
Heptabromodiphenyl ether 七溴二苯醚	ND	5	--
Octabromodiphenyl ether 八溴二苯醚	ND	5	--
Nonabromodiphenyl ether 九溴二苯醚	ND	5	--
Decabromodiphenyl ether 十溴二苯醚	ND	5	--
Bis(2-ethylhexyl)phthalate(DEHP) 邻苯二甲酸二(2-乙基己)酯(DEHP)	ND	30	1000
Dibutyl phthalate(DBP) 邻苯二甲酸二丁酯 (DBP)	ND	30	1000
Benzylbutyl phthalate(BBP) 邻苯二甲酸丁苄酯 (BBP)	ND	30	1000
Diisobutyl phthalate (DIBP) 邻苯二甲酸二异丁酯(DIBP)	ND	30	1000

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Note:

备注:

(1). mg/kg = milligram per kilogram = ppm

mg/kg = 毫克/千克 = 百万分之一

ND = Not Detected (Less than MDL)

ND = 未检测到 (小于 MDL)

MDL = Method Detection Limit

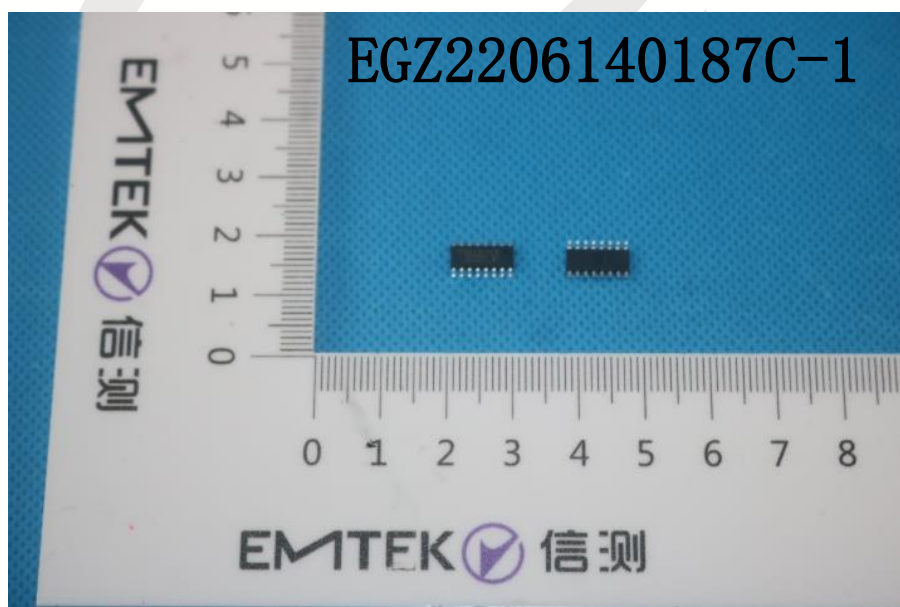
MDL = 方法检测限

(2). Specimens, which requested to determine Cadmium, Mercury and Lead Content, have been digested thoroughly.

对于测试铅、镉、汞的样品已完全消解。

Sample Photo:

样品照片:



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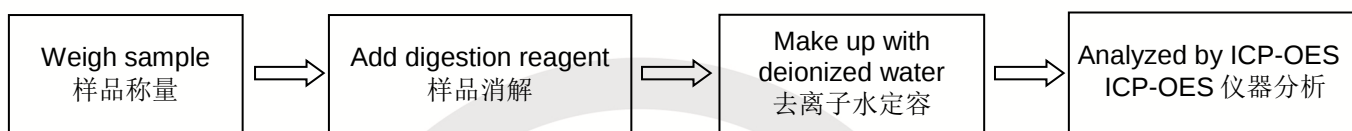
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Test Flowchart:

检测流程图:

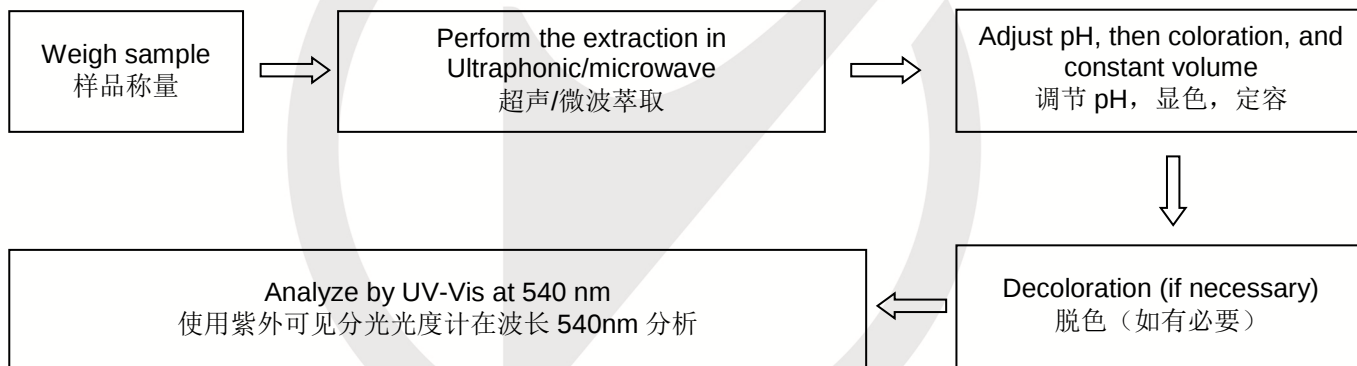
Pb/Cd/Hg Test Process :

Pb/Cd/Hg 检测流程:



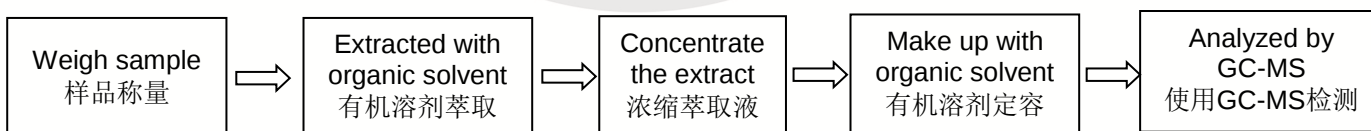
Cr(VI) Test Process:

Cr(VI) 检测流程:



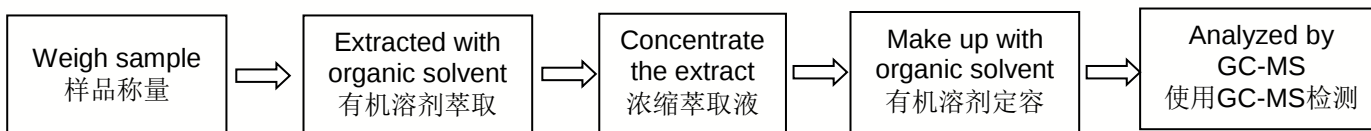
PBBs & PBDEs Test Process:

PBBs & PBDEs 检测流程:



DEHP, DBP, BBP, DIBP Test Process:

DEHP, DBP, BBP 和 DIBP 检测流程:



*** End of Report ***

*** 报告结束 ***

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