

# 检测报告

编号: EGZ2207120192C00105R

日期: 2022 年 07 月 21 日

第1 页 共 19 页

委托单位 : 上海庆科信息技术有限公司  
地 址 : 上海市普陀区金沙江路 2145 弄 B 幢 9 楼

样品名称 : 嵌入式 Wi-Fi 模组  
型 号 : EMW3166  
客户参考信息 : EMW3166-P、EMW3166-E

接收日期 : 2022 年 07 月 12 日  
检测日期 : 2022 年 07 月 12 日~2022 年 07 月 21 日

检测要求 : 根据客户要求, 对送测样品进行欧洲议会及理事会于 2011 年 6 月 8 日决定的关于在电子电器产品中限制使用某些有害物质的指令 2011/65/EU 中附件 II 的修订指令(EU) 2015/863 要求的符合性评估。

检测方法

1. 对客户所提交的样品及其相关材料清单进行检查、评估。
2. a) 参照标准 IEC 62321-2:2013, 对客户所提交的样品进行拆分。  
b) 参照标准 IEC 62321-1:2013, 对客户所提交的指定图片样品进行测试。  
c) 参照标准 IEC 62321-3-1:2013: X 射线荧光扫描筛选测试。  
d) 湿化学测试
  - 1) 参照 IEC 62321-5:2013, 用 ICP-OES 测定铅(Pb)、镉(Cd)的含量。
  - 2) 参照 IEC 62321-4:2013+A1:2017, 用 ICP-OES 测定汞(Hg)的含量。
  - 3) 参照 IEC 62321-7-1:2015 & IEC 62321-7-2:2017, 用 UV-VIS 测定六价铬(Cr(VI))的含量。
  - 4) 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) 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)、邻苯二甲酸丁苄酯(BBP)和邻苯二甲酸二异丁酯(DIBP)含量。

测试结果 : 请参见下一页

Test results are only responsible for delivered samples. This test report is issued by the company and is intended for your exclusive use. This test report includes all of the tests requested by you and the results thereof based upon the information that you provided. You have 30 days from date of issuance of this test report to notify us of any error or omission caused by our negligence. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.



# 检测报告

编号: EGZ2207120192C00105R

日期: 2022 年 07 月 21 日

第2 页 共 19页

## 执行测试总结:

所提交样品中均质材料的测试结果符合 RoHS 指令 2011/65/EU 中附件 II 的修订指令(EU) 2015/863 的要求。



谨代表

广州信测标准技术服务有限公司

编 制:

唐丽东

唐丽东, Lainey

助理工程师

审 核:

孙伟

孙伟, Ethan

测试主管

签 发:



2022 年 07 月 21 日

Test results are only responsible for delivered samples. This test report is issued by the company and is intended for your exclusive use. This test report includes all of the tests requested by you and the results thereof based upon the information that you provided. You have 30 days from data of issuance of this test report to notify us of any error or omission caused by our negligence. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.



# 检测报告

编号: EGZ2207120192C00105R

日期:2022 年 07 月 21 日

第3 页 共 19页

## 1. 检测样品清单

样品序号	样品描述
1	蓝色 PCB 板
2	保护壳-银色金属
3	IC
4	IC
5	SMD-Y
6	焊锡-银色金属
7	IC
8	IC
9	IC
10	SMD-Y
11	SMD-L
12	SMD-C
13	SMD-C
14	SMD-C
15	SMD-L
16	SMD-R
17	SMD-C
18	SMD-L
19	SMD-C
20	SMD-C

Test results are only responsible for delivered samples. This test report is issued by the company and is intended for your exclusive use. This test report includes all of the testes requested by you and the results thereof based upon the information that you provided. You have 30 days from data of issuance of this test report to notify us of any error or omission caused by our negligence. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.

检测报告

编号: EGZ2207120192C00105R      日期:2022 年 07 月 21 日      第4 页 共 19页

2. Pb,Cd,Hg,Cr<sup>6+</sup>,PBBs,PBDEs 测试结果

序号	受限物质	EDXRF 结果 <sup>(1)</sup>	湿化学测试结果 <sup>(2)</sup> (毫克/千克)	备注 <sup>(3)</sup>
1	Cd	BL	---	无
	Pb	BL		
	Hg	BL		
	Cr	BL		
	Br	BL		
2	Cd	BL	---	无
	Pb	BL		
	Hg	BL		
	Cr	BL		
	Br	NA		
3	Cd	BL	---	无
	Pb	BL		
	Hg	BL		
	Cr	BL		
	Br	BL		
4	Cd	BL	---	无
	Pb	BL		
	Hg	BL		
	Cr	BL		
	Br	BL		
5	Cd	BL	---	无
	Pb	BL		
	Hg	BL		
	Cr	BL		
	Br	BL		
6	Cd	BL	---	无
	Pb	BL		
	Hg	BL		
	Cr	BL		
	Br	NA		

Test results are only responsible for delivered samples. This test report is issued by the company and is intended for your exclusive use. This test report includes all of the testes requested by you and the results thereof based upon the information that you provided. You have 30 days from data of issuance of this test report to notify us of any error or omission caused by our negligence. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.





检测报告

编号: EGZ2207120192C00105R      日期:2022 年 07 月 21 日      第5 页 共 19页

序号	受限物质	EDXRF 结果 <sup>(1)</sup>	湿化学测试结果 <sup>(2)</sup> (毫克/千克)	备注 <sup>(3)</sup>
7	Cd	BL	---	无
	Pb	BL		
	Hg	BL		
	Cr	BL		
	Br	BL		
8	Cd	BL	---	无
	Pb	BL		
	Hg	BL		
	Cr	BL		
	Br	BL		
9	Cd	BL	---	无
	Pb	BL		
	Hg	BL		
	Cr	BL		
	Br	BL		
10	Cd	BL	---	无
	Pb	BL		
	Hg	BL		
	Cr	BL		
	Br	BL		
11	Cd	BL	---	无
	Pb	BL		
	Hg	BL		
	Cr	BL		
	Br	BL		
12	Cd	BL	---	无
	Pb	BL		
	Hg	BL		
	Cr	BL		
	Br	BL		

检测报告

编号: EGZ2207120192C00105R      日期:2022 年 07 月 21 日      第6 页 共 19页

序号	受限物质	EDXRF 结果 <sup>(1)</sup>	湿化学测试结果 <sup>(2)</sup> (毫克/千克)	备注 <sup>(3)</sup>
13	Cd	BL	---	无
	Pb	BL		
	Hg	BL		
	Cr	BL		
	Br	BL		
14	Cd	BL	---	无
	Pb	BL		
	Hg	BL		
	Cr	BL		
	Br	BL		
15	Cd	BL	---	无
	Pb	BL		
	Hg	BL		
	Cr	BL		
	Br	BL		
16	Cd	BL	---	无
	Pb	BL		
	Hg	BL		
	Cr	BL		
	Br	BL		
17	Cd	BL	---	无
	Pb	BL		
	Hg	BL		
	Cr	BL		
	Br	BL		
18	Cd	BL	---	无
	Pb	BL		
	Hg	BL		
	Cr	BL		
	Br	BL		

# 检测报告

编号: EGZ2207120192C00105R

日期:2022 年 07 月 21 日

第7 页 共 19页

序号	受限物质	EDXRF 结果 <sup>(1)</sup>	湿化学测试结果 <sup>(2)</sup> (毫克/千克)	备注 <sup>(3)</sup>
19	Cd	BL	---	无
	Pb	BL		
	Hg	BL		
	Cr	BL		
	Br	BL		
20	Cd	BL	---	无
	Pb	BL		
	Hg	BL		
	Cr	BL		
	Br	BL		

# 检测报告

编号: EGZ2207120192C00105R

日期:2022 年 07 月 21 日

第8 页 共 19页

## 3. 邻苯二甲酸酯(DBP, BBP, DEHP, DIBP)测试结果

序号	受限物质	CAS 号	湿化学测试结果 (%)	方法检测限 (%)	限值 (%)
1	DBP	84-74-2	ND	0.003	0.1
	BBP	85-68-7	ND	0.003	0.1
	DEHP	117-81-7	ND	0.003	0.1
	DIBP	84-69-5	ND	0.003	0.1
3	DBP	84-74-2	ND	0.003	0.1
	BBP	85-68-7	ND	0.003	0.1
	DEHP	117-81-7	ND	0.003	0.1
	DIBP	84-69-5	ND	0.003	0.1
4	DBP	84-74-2	ND	0.003	0.1
	BBP	85-68-7	ND	0.003	0.1
	DEHP	117-81-7	ND	0.003	0.1
	DIBP	84-69-5	ND	0.003	0.1
5	DBP	84-74-2	ND	0.003	0.1
	BBP	85-68-7	ND	0.003	0.1
	DEHP	117-81-7	ND	0.003	0.1
	DIBP	84-69-5	ND	0.003	0.1
7	DBP	84-74-2	ND	0.003	0.1
	BBP	85-68-7	ND	0.003	0.1
	DEHP	117-81-7	ND	0.003	0.1
	DIBP	84-69-5	ND	0.003	0.1
8	DBP	84-74-2	ND	0.003	0.1
	BBP	85-68-7	ND	0.003	0.1
	DEHP	117-81-7	ND	0.003	0.1
	DIBP	84-69-5	ND	0.003	0.1
9	DBP	84-74-2	ND	0.003	0.1
	BBP	85-68-7	ND	0.003	0.1
	DEHP	117-81-7	ND	0.003	0.1
	DIBP	84-69-5	ND	0.003	0.1

Test results are only responsible for delivered samples. This test report is issued by the company and is intended for your exclusive use. This test report includes all of the tests requested by you and the results thereof based upon the information that you provided. You have 30 days from data of issuance of this test report to notify us of any error or omission caused by our negligence. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.



# 检测报告

编号: EGZ2207120192C00105R

日期:2022 年 07 月 21 日

第9 页 共 19页

序号	受限物质	CAS 号	湿化学测试结果 (%)	方法检测限 (%)	限值 (%)
10	DBP	84-74-2	ND	0.003	0.1
	BBP	85-68-7	ND	0.003	0.1
	DEHP	117-81-7	ND	0.003	0.1
	DIBP	84-69-5	ND	0.003	0.1
11	DBP	84-74-2	ND	0.003	0.1
	BBP	85-68-7	ND	0.003	0.1
	DEHP	117-81-7	ND	0.003	0.1
	DIBP	84-69-5	ND	0.003	0.1
12	DBP	84-74-2	ND	0.003	0.1
	BBP	85-68-7	ND	0.003	0.1
	DEHP	117-81-7	ND	0.003	0.1
	DIBP	84-69-5	ND	0.003	0.1
13	DBP	84-74-2	ND	0.003	0.1
	BBP	85-68-7	ND	0.003	0.1
	DEHP	117-81-7	ND	0.003	0.1
	DIBP	84-69-5	ND	0.003	0.1
14	DBP	84-74-2	ND	0.003	0.1
	BBP	85-68-7	ND	0.003	0.1
	DEHP	117-81-7	ND	0.003	0.1
	DIBP	84-69-5	ND	0.003	0.1
15	DBP	84-74-2	ND	0.003	0.1
	BBP	85-68-7	ND	0.003	0.1
	DEHP	117-81-7	ND	0.003	0.1
	DIBP	84-69-5	ND	0.003	0.1

Test results are only responsible for delivered samples. This test report is issued by the company and is intended for your exclusive use. This test report includes all of the tests requested by you and the results thereof based upon the information that you provided. You have 30 days from data of issuance of this test report to notify us of any error or omission caused by our negligence. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.



# 检测报告

编号: EGZ2207120192C00105R

日期:2022 年 07 月 21 日

第10 页 共 19页

序号	受限物质	CAS 号	湿化学测试结果 (%)	方法检测限 (%)	限值 (%)
16	DBP	84-74-2	ND	0.003	0.1
	BBP	85-68-7	ND	0.003	0.1
	DEHP	117-81-7	ND	0.003	0.1
	DIBP	84-69-5	ND	0.003	0.1
17	DBP	84-74-2	ND	0.003	0.1
	BBP	85-68-7	ND	0.003	0.1
	DEHP	117-81-7	ND	0.003	0.1
	DIBP	84-69-5	ND	0.003	0.1
18	DBP	84-74-2	ND	0.003	0.1
	BBP	85-68-7	ND	0.003	0.1
	DEHP	117-81-7	ND	0.003	0.1
	DIBP	84-69-5	ND	0.003	0.1
19	DBP	84-74-2	ND	0.003	0.1
	BBP	85-68-7	ND	0.003	0.1
	DEHP	117-81-7	ND	0.003	0.1
	DIBP	84-69-5	ND	0.003	0.1
20	DBP	84-74-2	ND	0.003	0.1
	BBP	85-68-7	ND	0.003	0.1
	DEHP	117-81-7	ND	0.003	0.1
	DIBP	84-69-5	ND	0.003	0.1

Test results are only responsible for delivered samples. This test report is issued by the company and is intended for your exclusive use. This test report includes all of the tests requested by you and the results thereof based upon the information that you provided. You have 30 days from data of issuance of this test report to notify us of any error or omission caused by our negligence. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.



# 检测报告

编号: EGZ2207120192C00105R

日期:2022 年 07 月 21 日

第11 页 共 19页

- 备注: (1) ① XRF 结果是初步筛选,如果有不确定结果(如下表中“X”)需要进一步通过 ICP-OES/AAS(针对镉,铅,汞), UV-VIS(针对六价铬)以及 GC/MS(针对多溴联苯, 多溴二苯醚)做湿化学分析 (单位: 毫克/千克)。  
② OL = 超出限值, BL = 低于限值, X = 不确定, NA= 不适用。  
③ 针对元素的扫描结果-不均一材料的测试值与真实值可能存在差异。

分析元素	聚合物材料	金属材料	电子元件
镉 Cd	$BL \leq (70-3\sigma) < X < (130+3\sigma) \leq OL$	$BL \leq (70-3\sigma) < X < (130+3\sigma) \leq OL$	$LOD < X < (150+3\sigma) \leq OL$
铅 Pb	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (500-3\sigma) < X < (1500+3\sigma) \leq OL$
汞 Hg	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (500-3\sigma) < X < (1500+3\sigma) \leq OL$
溴 Br	$BL \leq (300-3\sigma) < X$	NA	$BL \leq (250-3\sigma) < X$
铬 Cr	$BL \leq (700-3\sigma) < X$	$BL \leq (700-3\sigma) < X$	$BL \leq (500-3\sigma) < X$

- (2) ① 毫克/千克 = 0.0001%, ND = 未检测到(小于方法检测限)。  
② 湿化学测试中的单位和报告限值。

测试项目	铅	镉	汞	Cr(VI)(非金属)	多溴联苯 (单个)	多溴二苯醚 (单个)
单位	毫克/千克	毫克/千克	毫克/千克	毫克/千克	毫克/千克	毫克/千克
报告限值	2	2	2	8	5	5

- ③ 依据 IEC 62321-7-1:2015, 金属样品中 Cr(VI)的结果用阳性/阴性来表示。  
a. 当六价铬结果为阳性(浓度大于  $0.13\mu\text{g}/\text{cm}^2$ ), 表示样品表层含有六价铬。  
b. 当六价铬结果为阴性(浓度小于  $0.10\mu\text{g}/\text{cm}^2$ ), 表示样品表层不含有六价铬。  
c. 当六价铬结果介于  $0.10$  及  $0.13\mu\text{g}/\text{cm}^2$  时, 无法确定涂层是否含有六价铬。  
由于未知测试样品的储存条件及生产日期, 测试结果仅代替样品在测试期间的状态。

- ④ 根据 IEC 62321-3-1:2013 的标准要求, 这列内容代表化学测试结果, 而“---”代表前面 XRF 扫描测试合格后不需要再做化学测试。

- (3) 这列内容代表有关材料的豁免声明或者其它必要的批注, 而“无”代表没有批注。

Test results are only responsible for delivered samples. This test report is issued by the company and is intended for your exclusive use. This test report includes all of the tests requested by you and the results thereof based upon the information that you provided. You have 30 days from data of issuance of this test report to notify us of any error or omission caused by our negligence. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.





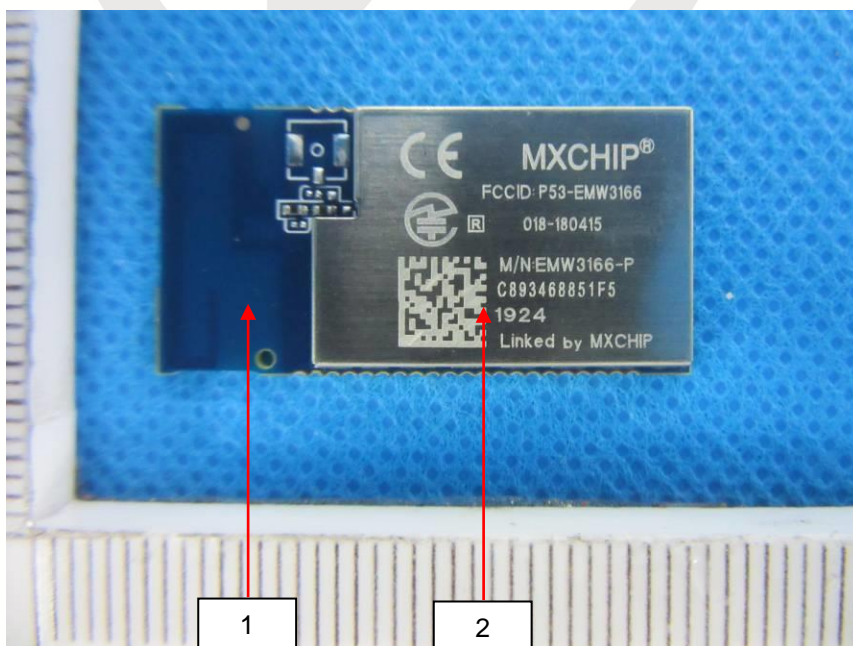
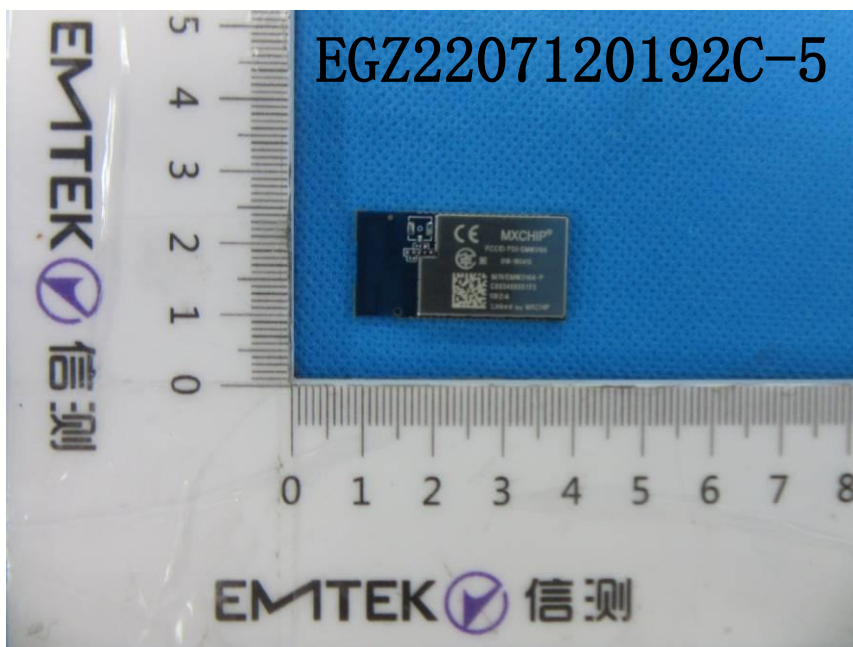
## 检测报告

编号: EGZ2207120192C00105R

日期: 2022 年 07 月 21 日

第12 页 共 19页

### 4. 样品照片



Test results are only responsible for delivered samples. This test report is issued by the company and is intended for your exclusive use. This test report includes all of the tests requested by you and the results thereof based upon the information that you provided. You have 30 days from data of issuance of this test report to notify us of any error or omission caused by our negligence. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.



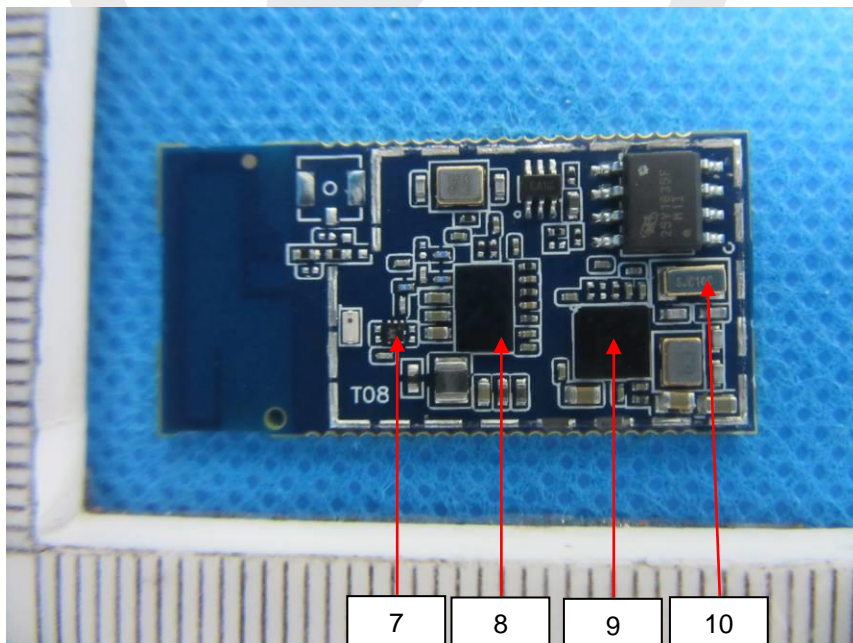
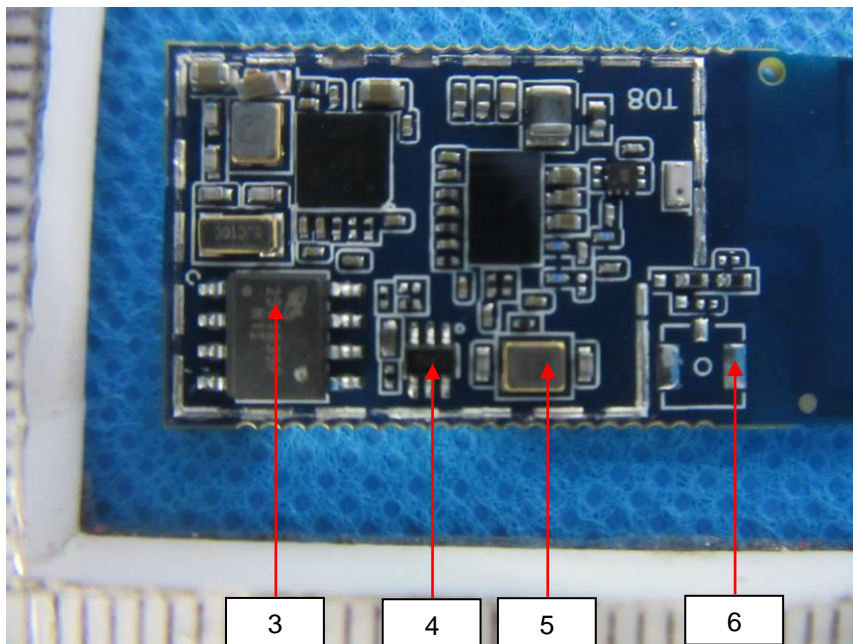


## 检测报告

编号: EGZ2207120192C00105R

日期: 2022 年 07 月 21 日

第13 页 共 19页



Test results are only responsible for delivered samples. This test report is issued by the company and is intended for your exclusive use. This test report includes all of the tests requested by you and the results thereof based upon the information that you provided. You have 30 days from data of issuance of this test report to notify us of any error or omission caused by our negligence. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.

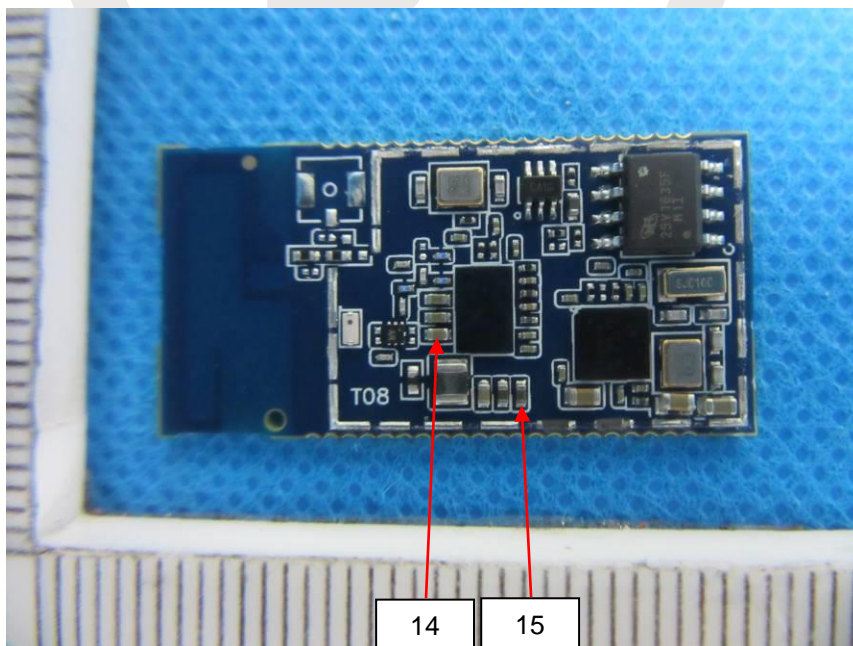
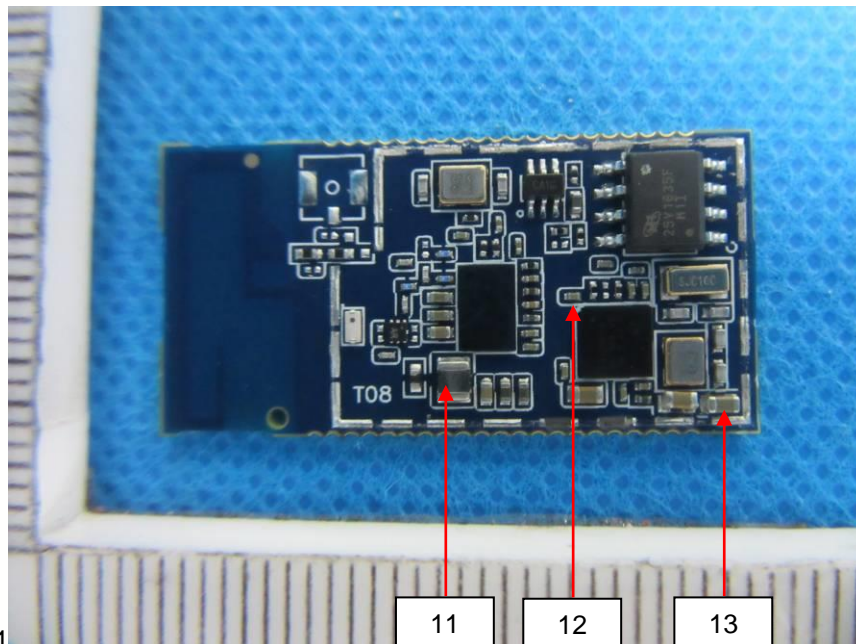


# 检测报告

编号: EGZ2207120192C00105R

日期:2022 年 07 月 21 日

第14 页 共 19页



Test results are only responsible for delivered samples. This test report is issued by the company and is intended for your exclusive use. This test report includes all of the tests requested by you and the results thereof based upon the information that you provided. You have 30 days from data of issuance of this test report to notify us of any error or omission caused by our negligence. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.



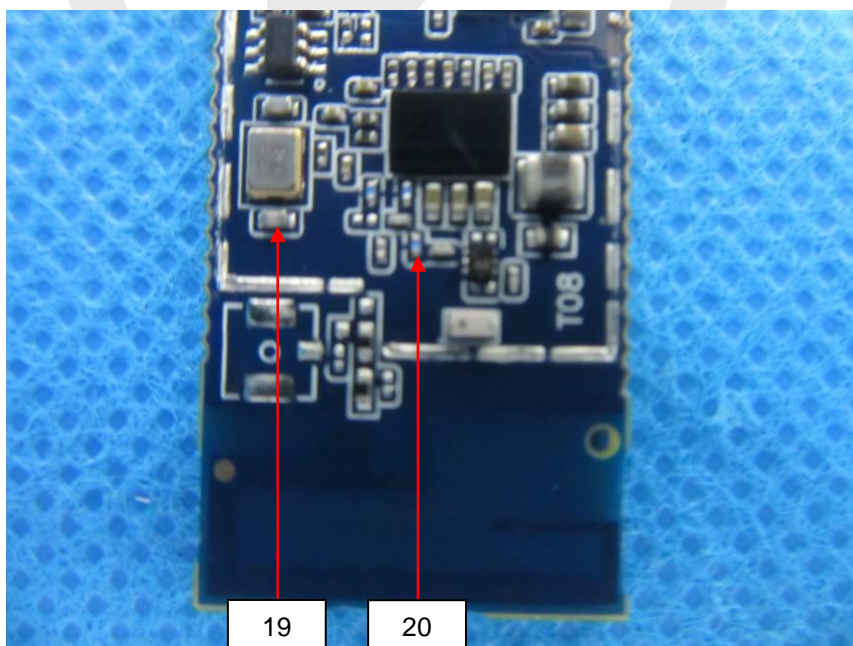
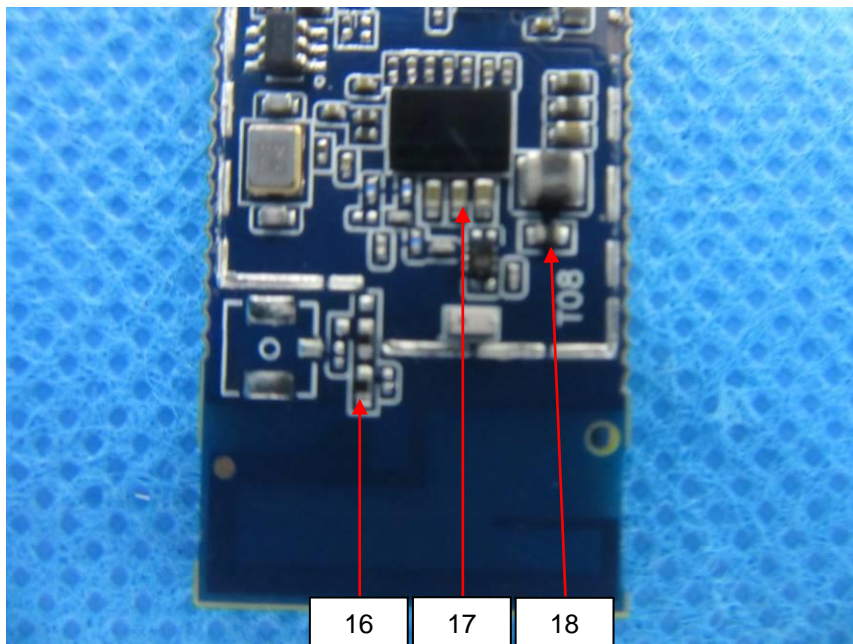


## 检测报告

编号: EGZ2207120192C00105R

日期: 2022 年 07 月 21 日

第15 页 共 19页



\*\*\*报告结束\*\*\*

Test results are only responsible for delivered samples. This test report is issued by the company and is intended for your exclusive use. This test report includes all of the tests requested by you and the results thereof based upon the information that you provided. You have 30 days from data of issuance of this test report to notify us of any error or omission caused by our negligence. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.



# 检测报告

编号: EGZ2207120192C00105R

日期:2022 年 07 月 21 日

第16 页 共 19页

## 附录

### 限制物质清单

限制物质及其在均质材料中的最大允许浓度（以重量计）：

铅（0.1%）	DEHP（0.1%）
汞（0.1%）	BBP（0.1%）
镉（0.01%）	DBP（0.1%）
六价铬（0.1%）	DIBP（0.1%）
多溴联苯（0.1%）	
多溴二苯醚（0.1%）	

### 豁免清单

序号

- 1 单端(紧凑型)荧光灯中的汞含量不超过(每盏):
  - 1(a) 普通照明用<30W: 2.5 毫克/灯
  - 1(b) 普通照明用≥30W 且< 50W: 3.5 毫克/灯
  - 1(c) 普通照明用≥50W 且< 150 W: 5 毫克/灯
  - 1(d) 普通照明用≥150 W: 15 毫克/灯
  - 1(e) 普通照明用, 环状或方形结构, 管径 ≤17 毫米: 7 毫克/灯
  - 1(f) 特殊用途: 5 毫克/灯
- 1(g) 用于一般照明用途, 功率<30W、寿命≥20000 小时: 3.5 毫克/灯
- 2(a) 普通照明用的双端线型荧光灯中的汞含量不超过(每盏):
  - 2(a)(1) 正常寿命的三基色荧光灯, 管径< 9 毫米(例如 T2): 4 毫克/灯
  - 2(a)(2) 正常寿命的三基色荧光灯, 管径≥9 毫米且≤17 毫米(例如 T5): 3 毫克/灯
  - 2(a)(3) 正常寿命的三基色荧光灯, 管径> 17 毫米且≤28 毫米(例如 T8): 3.5 毫克/灯
  - 2(a)(4) 正常寿命的三基色荧光灯, 管径> 28 毫米(例如 T12): 3.5 毫克/灯
  - 2(a)(5) 长寿命(≥2 万 5 千小时)的三基色荧光灯: 5 毫克/灯
- 2(b) 其它荧光灯中的汞含量不超过(每盏):
  - 2(b)(2) 非线型卤磷酸盐灯(各种管径): 15 毫克
  - 2(b)(3) 管径> 17 毫米的非线型三基色荧光灯(例如 T9): 15 毫克/灯
  - 2(b)(4) 其它普通照明用灯和特殊用灯(例如感应灯): 15 毫克/灯
- 3 特殊用途的冷阴极荧光灯及外部电极荧光灯(CCFL 和 EEFL)中的汞含量不超过(每盏):
  - 3(a) 短型(长度≤500 毫米): 3.5 毫克/灯
  - 3(b) 中型(长度> 500 毫米且≤1500 毫米): 5 毫克/灯
  - 3(c) 长型(长度> 1500 毫米): 13 毫克/灯
- 4(a) 其它低压放电灯中的汞(每盏): 15 毫克/灯
- 4(b) 普通照明用的高压钠(蒸气)灯, 其显色指数 Ra > 60 的, 其汞含量不超过(每盏):
  - 4(b)- I 功率≤155W: 30 毫克/灯
  - 4(b)- II 155W < 功率 ≤405 W: 40 毫克/灯
  - 4(b)-III 功率> 405 W: 40 毫克/灯
- 4(c) 其它普通照明用的高压钠(蒸气)灯中的汞含量不超过(每盏):
  - 4(c)- I 功率≤155 W: 25 毫克/灯
  - 4(c)- II 155 W < 功率 ≤405 W: 30 毫克/灯
  - 4(c)-III 功率> 405 W: 40 毫克/灯
- 4(d) 高压汞(蒸汽)灯(HPMV)中的汞
- 4(e) 金属卤化物灯(MH)中的汞

Test results are only responsible for delivered samples. This test report is issued by the company and is intended for your exclusive use. This test report includes all of the testes requested by you and the results thereof based upon the information that you provided. You have 30 days from data of issuance of this test report to notify us of any error or omission caused by our negligence. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.



# 检测报告

编号: EGZ2207120192C00105R

日期:2022 年 07 月 21 日

第17 页 共 19页

## 附录

### 豁免清单 (续)

- 4(f) 本附录中未提及的, 其它特殊用途的放电灯中的汞
- 4(g) 用于标志、装饰、建筑、专业照明和灯光艺术的手工制作发光放电管 (HLDTS) 中的汞, 其汞含量限值为:
- (a) 用于室外和温度低于 20℃ 的室内时, 20mg/电极对+0.3mg/cm× 灯管长度, 但不超过 80mg
- (b) 用于其他室内环境时, 15mg/电极对+0.24mg/cm× 灯管长度, 但不超过 80mg
- 5(a) 阴极射线管的玻璃中的铅
- 5(b) 荧光管的玻璃中的铅含量不超过 0.2%.
- 6(a) 铅作为合金元素, 在加工用途的钢和镀锌钢中的含量不超过 0.35%
- 6(b) 铝合金中的铅含量不超过 0.4%
- 6(c) 铜合金中的铅含量不超过 4%
- 7(a) 高熔点型焊料中的铅(也就是铅基合金, 其铅含量超过 85%)
- 7(b) 用于服务器、存储器和存储阵列系统中的焊料中的铅, 用于为交换、信号发送、传输的网络基础设备中及电信网络管理设施中的焊料中的铅。
- 7(c)- I 除介电陶瓷电容器外, 其它电子电气元件中玻璃或陶瓷中的铅(例如压电电子装置), 或玻璃或陶瓷复合材料中的铅
- 7(c)- II 额定电压不低于交流电 125 伏特或直流电 250 伏特的介电陶瓷电容器中的铅
- 7(c)-III 额定电压小于交流电 125 伏特或直流电 250 伏特的介电陶瓷电容器中的铅
- 7(c)-IV 以锆钛酸铅 (PZT) 为基础的介电陶瓷介电陶瓷材料的电容器的铅, 该电容器为集成电路或分立半导体的组成部分
- 8(a) 单触球型熔断器中的镉及镉的化合物
- 8(b) 电触点中的镉及镉的化合物
- 9 六价铬用于吸收式电冰箱中碳钢冷却系统中的防腐剂, 其重量不超过冷却液的 0.75%。
- 9(b) 用于冷暖空调设备(HVACR)的制冷压缩机中的轴承壳及衬套中的铅
- 11(a) C-press 顺应针连接器系统中的铅
- 11(b) 除 C-press 之外的顺应针连接器系统中的铅
- 12 热导模组 C-ring 涂层中的铅
- 13(a) 光学应用的白色玻璃中的铅
- 13(b) 滤光玻璃及用于当做反射率标准片的玻璃中的镉和铅
- 14 微处理器的针脚与封装体连接所使用的铅含量占 80%~85%的含两种以上元素的焊料中的铅
- 15 集成电路倒装芯片封装中半导体芯片及载体之间形成可靠连接所用焊料中的铅
- 17 用于专业复印设备的高强度放电灯(HID)中, 作为发光剂的卤化铅
- 18(b) 放电灯, 用于仿日晒灯, 其中含有磷, 如 BSP(BaSi2O5:Pb), 则放电灯中的荧光粉, 其铅作为触媒剂, 铅含量占重量的 1%或以下。
- 21 应用于如硼硅酸盐玻璃及碱石灰玻璃瓷釉的印刷油墨中的铅和镉。
- 23 在细距零部件的表面处理中的铅, 但不包括螺距在 0.65 毫米及以下的连接器。
- 24 通孔盘状和平面阵列陶瓷多层电容器的焊料中的铅。
- 25 用于结构部件的表面传导式电子发射显示器(SED)中的氧化铅, 特别是密封玻璃料和玻璃环中。
- 29 69/493/EEC 指令中附录 I 中(第 1, 2, 3, 4 类)定义的水晶玻璃中的铅。
- 30 声压在 100 分贝以上的大功率扬声器中, 与音圈转换器连接电导体之电机/机械焊料中的镉合金。
- 31 无汞平板荧光灯(例如用于液晶显示器、设计或工业照明)中的焊料材料中的铅。
- 32 氙及氪雷射管中, 使用于窗口结构的密封玻璃中的氧化铅。
- 33 用于焊接电力变压器中直径 100 微米及以下细铜线所用焊料中的铅。
- 34 金属陶瓷质微调电位器中的铅。
- 37 以硼酸锌玻璃体为基体的高压二极管的电镀层中的铅。
- 38 用氧化铍连接铝制成的厚膜浆料中的镉和氧化镉。
- 39(a) 用于固态照明或显示系统中的彩色转换 II-VI 族发光二极管(每平方毫米发光区域的镉含量小于 10 微克)内所含的镉。

Test results are only responsible for delivered samples. This test report is issued by the company and is intended for your exclusive use. This test report includes all of the test results requested by you and the results thereof based upon the information that you provided. You have 30 days from date of issuance of this test report to notify us of any error or omission caused by our negligence. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.



# 检测报告

编号: EGZ2207120192C00105R

日期:2022 年 07 月 21 日

第18 页 共 19页

## 附录

### 豁免清单 (续)

- 39(b) 用于显示照明应用中的下转换镉基半导体量子点中的镉（每平方毫米显示屏区域的镉含量小于  $0.2\mu\text{g}$ ）。
- 41 由于技术原因必须直接安装在手持式内燃机的曲轴箱或气缸（\*指令 97/68/EC 中的类别 SH: 1、SH: 2、SH: 3）内的点火模块和其他电子电气引擎控制系统，其电子电气元件所含焊料和最终涂层、印刷电路板的最终涂层中的铅



Test results are only responsible for delivered samples. This test report is issued by the company and is intended for your exclusive use. This test report includes all of the tests requested by you and the results thereof based upon the information that you provided. You have 30 days from data of issuance of this test report to notify us of any error or omission caused by our negligence. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.





# 检测报告

编号: EGZ2207120192C00105R

日期: 2022 年 07 月 21 日

第19 页 共 19页

## 声 明 Statement

1. 本检测报告首页所列信息中除样品来源、接样日期、检测日期、检测结果和检测结论外，均由委托方提供，委托方对样品的代表性和资料的真实性负责，本实验室不承担任何相关责任。  
The information as listed on the first page of this test report was all provided by the client except the sample from, date received, test period, test results and test conclusion. The client shall be responsible for the representativeness of sample and authenticity of materials, for which EMTEK shall bear no responsibilities.
2. 本检测报告以实测值进行符合性判定，未考虑不确定度所带来的风险，特别约定、标准或规范中有明确规定的除外。此种判定方式所带来的风险由客户自行承担，本实验室不承担相关责任。  
The judgment method of determining the conformity in this test report is according to the measured value without considering the risk caused by uncertainty, unless otherwise clearly stipulated in special agreement, standard or specification. The client shall assume the risk caused by the judgment method, and EMTEK shall not bear related responsibilities.
3. 检测报告无批准人签字及“检验检测专用章”无效，未经本实验室书面同意，不得整体或部分复制本报告。  
The test report is effective only with both signature and specialized stamp. Without written approval of EMTEK, this report can't be reproduced in full or in part.
4. 本检测报告的检测结果仅对送测样品负责，未加盖资质认定标志的检测报告不对社会具有公证证明作用，对于检测数据、结果的使用，所产生的直接或间接损失及一切法律后果，本实验室不承担任何经济和法律后果。  
This test data is only responsible for the tested sample. The data and results provided by the report without CMA accreditation are not to prove to the society, and EMTEK is not responsible for any economic and legal responsibility for the use of the test data, the direct or indirect losses resulting from the use of the test and all legal consequences.
5. 本检测报告中检测项目标注有特殊符号则该项目不在本实验室资质认定能力范围内，该项目检测结果仅作为客户委托、科研、教学或内部质量控制等目的使用。  
The test items are marked with special symbols in the report is out of the scope of CMA accreditation. The test result only used for client's requirement, scientific researching, teaching or internal quality control.
6. 其它声明请查阅报告页脚及书面报告背页。  
For other statements, please refer to the footer of the report.

Test results are only responsible for delivered samples. This test report is issued by the company and is intended for your exclusive use. This test report includes all of the tests requested by you and the results thereof based upon the information that you provided. You have 30 days from data of issuance of this test report to notify us of any error or omission caused by our negligence. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.



## 签发测试报告条款 Conditions of Issuance of Test Reports

1. 广州信测标准技术服务有限公司（以下简称[本公司]）为提供符合下述条款的测试和报告，而接受有关样品和货品。本公司基于下述条款提供服务，下述条款为本公司与申请服务的个人、企业或公司（以下简称[客户]）的协议。  
All samples and goods are accepted by the EMTEK(Guangzhou) Co., Ltd. (the "Company") solely for testing and reporting in accordance with the following terms and conditions. The company provides its services on the basis that such terms and conditions constitute express agreement between the Company and any person, firm or company requesting its services (the "Clients").
2. 由此测试申请所发出的任何报告（以下简称[报告]），本公司会严格为客户保密。未经本公司的书面同意，报告的整体或部分不得复制，也不得用于广告或授权的其他用途。然而，客户可以将本公司印制的报告或认可的副本，向其客户、供货商或直接相关的其他人出示或提交。除非相关政府部门、法律或法规要求，否则未经客户同意，本公司不得将报告内容向任何第三方讨论或披露。  
Any report issued by Company as a result of this application for testing services (the "Report") shall be issued in confidence to the Clients and the Report will be strictly treated as such by the Company. It may not be reproduced either in its entirety or in part and it may not be used for advertising or other unauthorized purposes without the written consent of the Company. The Clients to whom the Report is issued may, however, show or send it, or a certified copy thereof prepared by the Company to its customer, supplier or other persons directly concerned. The Company will not, without the consent of the Clients, enter into any discussion or correspondence with any third party concerning the contents of the Report, unless required by the relevant governmental authorities, laws or court orders.
3. 除非相关政府部门、法律或法院要求，否则未经公司预先书面同意，本公司毋需，也并无义务到法院对有关报告作证。  
The Company shall not be called or be liable to be called to give evidence or testimony on the Report in a court of law without its prior written consent, unless required by the relevant governmental authorities, laws or court orders.
4. 如果本公司确定报告被不当地使用，本公司保留撤回报告的权利，并有权要求其它适当的额外赔偿。  
In the event of the improper use of the report as determined by the Company, the Company reserves the right to withdraw it, and to adopt any other additional remedies which may be appropriate.
5. 本公司接受样品进行测试的前提是，该测试报告不能作为针对本公司法律行动的依据。  
Samples submitted for testing are accepted on the understanding that the Report issued cannot form the basis of, or be the instrument for, any legal action against the Company.
6. 如因使用本公司中心任何报告内的资料，或任何传播信息所描述与之有关的测试或研究导致的任何损失或损害，本公司概不负责。  
The Company will not be liable for or accept responsibility for any loss or damage however arising from the use of information contained in any of its Reports or in any communication whatsoever about its said tests or investigations.
7. 若需要在法院审理程序或者仲裁过程中使用测试报告，客户必须在提交测试样品前将该意图告知本公司。  
Clients wishing to use the Report in court proceedings or arbitration shall inform the Company to that effect prior to submitting the sample for testing.
8. 该测试报告的支持数据和信息本公司保存 10 年。个别评审机构有特别要求的，检测数据和报告的保存期可依情况变动。一旦超过上述提交的保存期限，数据和信息将被处理掉。任何情况下，本公司不必提供任何被处理的过期数据或信息。即使本公司事先被告知可能会发生相关的损害，本公司在任何情况下也不必承担任何损害，包括（但不限于）补偿性赔偿、利润损失、数据遗失、或任何形式的特殊损害、附带损害、间接损害、从属损害或任何违反约定、违反承诺、侵权（包括疏忽）、产品责任或其他原因的惩罚性损害。  
Subject to the variable length of retention time for test data and report stored hereinto as otherwise specifically required by individual accreditation authorities, the Company will only keep the supporting test data and information of the test report for a period of ten years. The data and information will be disposed of after the aforementioned retention period has elapsed. Under no circumstances shall we provide any data and information which has been disposed of after retention period. Under no circumstances shall we be liable for damage of any kind, including (but not limited to) compensatory damages, lost profits, lost data, or any form of special, incidental, indirect, consequential or punitive damages of any kind, whether based on breach of contract of warranty, tort (including negligence), product liability or otherwise, even if we are informed in advance of the possibility of such damages.

Test results are only responsible for delivered samples. This test report is issued by the company and is intended for your exclusive use. This test report includes all of the testes requested by you and the results thereof based upon the information that you provided. You have 30 days from data of issuance of this test report to notify us of any error or omission caused by our negligence. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.

