

# 检测报告

## Test Report

编号: ED200818075C  
No.: ED200818075C

日期: 2020年08月26日  
Date: Aug. 26, 2020

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**委托单位** : 东莞市瓷谷电子科技有限公司  
**Applicant** : DONGGUAN CIGU ELECTRONICS TECHNOLOGY CO.,LTD  
**地址** : 东莞市厚街镇宝屯社区宝塘厦宝宏路29号D栋3A  
**Address** : 3A,Bldg. D, No.29,Baohong Road,Baotangxia,Baotun Community,Houjie ,  
Dongguan,Guangdong,China

**样品名称** : MPX-X2 薄膜安规电容器  
**Sample Name** : MPX-X2 Film Capacitor  
**型号** : (474K) 0.47  $\mu$  F/K  
**Style/Item No.** : (474K) 0.47  $\mu$  F/K  
**批号** : CG200816A  
**Lot No.** : CG200816A  
**供应商** : 东莞瓷谷  
**Supplier** : DONGGUAN CIGU

**接收日期** : 2020年08月19日  
**Received Date** : Aug. 19, 2020  
**检测日期** : 2020年08月19日~2020年08月26日  
**Test Period** : Aug. 19, 2020 ~ Aug. 26, 2020

**测试要求** : 根据客户要求, 参照欧盟 RoHS 指令 2011/65/EU 及其修订指令(EU) 2015/863, 检测以下项目:

**Test Requested** : As requested by the client, according to the directive 2011/65/EU (RoHS) and amendment directive (EU) 2015/863, to determine:

- 1) 样品中的镉, 铅和汞的含量;  
1) the content of Cadmium, Lead and Mercury in the submitted sample;
- 2) 样品中的六价铬的含量;  
2) the content of Hexavalent Chromium in the submitted sample;
- 3) 样品中的多溴联苯以及多溴联苯醚的含量;  
3) the content of PBBs (polybrominated biphenyls) and PBDEs (Polybrominated diphenyl-ethers) in the submitted sample;
- 4) 样品中邻苯二甲酸酯的含量。  
4) the contents of the regulated phthalate in the submitted sample.

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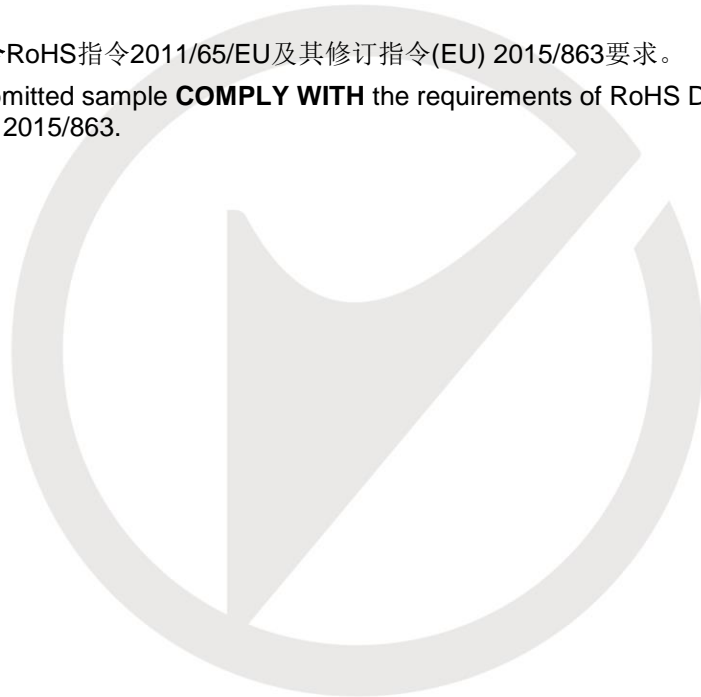
测试结果 : 请参见下一页。  
**Test Results** : Please refer to next page(s).

## 执行测试总结:

### Execute test summary:

所提交样品的测试结果符合RoHS指令2011/65/EU及其修订指令(EU) 2015/863要求。

The test results for the submitted sample **COMPLY WITH** the requirements of RoHS Directive 2011/65/EU and amendment directive (EU) 2015/863.



谨代表

Signed for and on behalf of  
东莞市信测科技有限公司  
EMTEK (Dongguan) Co., Ltd.

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授权签字人  
Authorized signatory  
2020年08月26日  
Aug. 26, 2020

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### 测试结果:

#### Test Results:

RoHS 指令 2011/65/EU 及其修订指令(EU) 2015/863

Directive 2011/65/EU (RoHS) and amendment directive (EU) 2015/863

测试方法: 1) 参照 IEC 62321-5:2013, 测试铅和镉, 分析仪器为 ICP-OES;

Test Method: 1) to refer to IEC 62321-5: 2013, determine the Cadmium, Lead content by ICP-OES;

2) 参照 IEC 62321-4:2013+A1:2017, 测试汞, 分析仪器为 ICP-OES;

2) to refer to IEC 62321-4:2013+A1:2017, determine the Mercury content by ICP-OES;

3) 参照 IEC 62321-7-1:2015 & IEC 62321-7-2:2017, 测试六价铬, 分析仪器为 UV-Vis;

3) to refer to IEC 62321-7-1:2015 & IEC 62321-7-2:2017, determine the Hexavalent Chromium content by UV-VIS;

4) 参照 IEC 62321-6:2015, 测试多溴联苯和多溴联苯醚, 分析仪器为 GC-MS。

4) to refer to IEC 62321-6:2015, determine the Polybrominated Biphenyls and Polybrominated Diphenyl Ethers by GC-MS.

5) 参照测试标准 IEC 62321-8:2017, 测试邻苯二甲酸酯, 分析仪器为 GC-MS。

5) reference to the standard IEC 62321-8:2017, determine the Phthalate content by GC-MS.

测试项目 Test Item	测试结果 (mg/kg) Test Result (mg/kg)			报告限值 (mg/kg) Reporting limit (mg/kg)	法规限值 (mg/kg) Law Limit (mg/kg)
	1	2	3		
镉 (Cd) Cadmium (Cd)	ND	ND	ND	2	100
铅 (Pb) Lead (Pb)	ND	ND	ND	2	1000
汞 (Hg) Mercury (Hg)	ND	ND	ND	2	1000
六价铬 (Cr <sup>6+</sup> ) Hexavalent Chromium (Cr <sup>6+</sup> )	ND	ND	ND	2	1000

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### 测试结果:

### Test Results:

测试项目 Test Item	测试结果 (mg/kg) Test Result (mg/kg)	报告限值 (mg/kg) Reporting limit (mg/kg)	法规限值 (mg/kg) Law Limit (mg/kg)
	4		
镉 (Cd) Cadmium (Cd)	ND	2	100
铅 (Pb) Lead (Pb)	30	2	1000
汞 (Hg) Mercury (Hg)	ND	2	1000
六价铬 (Cr <sup>6+</sup> ) Hexavalent Chromium (Cr <sup>6+</sup> )	阴性 Negative	见备注 3 See note 3	阴性 Negative

备注: 1.mg/kg = 百万分之一 = ppm

Note : 1.mg/kg = part per million = ppm

2.ND = 未检测到 (小于报告限值)

2.ND = Not Detected (Less than reporting limit value.)

3.a) 当六价铬的浓度高于 0.13µg/cm<sup>2</sup> 时, 样品为阳性, 即含有六价铬。

3.a) The Cr(VI) concentration is more than 0.13 µg/cm<sup>2</sup>, the sample is positive for Cr(VI), the coating is considered to contain Cr(VI).

b) 当六价铬的浓度低于 0.10µg/cm<sup>2</sup> 时, 样品为阴性, 即未检测到六价铬。

b) The Cr(VI) concentration is less than 0.10 µg/cm<sup>2</sup>, the sample is negative for Cr(VI), the coating is considered a non-Cr(VI) based coating.

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### 测试结果:

### Test Results:

测试项目 Test Item	测试结果 (mg/kg) Test Result (mg/kg)			报告限值 (mg/kg) Reporting limit (mg/kg)	法规限值 (mg/kg) Law Limit (mg/kg)
	1	2	3		
多溴联苯(PBBs) Polybrominated Biphenyls (Mono – Deca) (PBBs)	< 50	< 50	< 50	--	1000
一溴联苯 Monobromobiphenyl	ND	ND	ND	5	--
二溴联苯 Dibromobiphenyl	ND	ND	ND	5	--
三溴联苯 Tribromobiphenyl	ND	ND	ND	5	--
四溴联苯 Tetrabromobiphenyl	ND	ND	ND	5	--
五溴联苯 Pentabromobiphenyl	ND	ND	ND	5	--
六溴联苯 Hexabromobiphenyl	ND	ND	ND	5	--
七溴联苯 Heptabromobiphenyl	ND	ND	ND	5	--
八溴联苯 Octabromobiphenyl	ND	ND	ND	5	--
九溴联苯 Nonabromobiphenyl	ND	ND	ND	5	--
十溴联苯 Decabromobiphenyl	ND	ND	ND	5	--
多溴联苯醚(PBDEs) Polybrominated Diphenylethers (Mono – Deca) (PBDEs)	< 50	< 50	< 50	--	1000
一溴联苯醚 Monobromodiphenyl ether	ND	ND	ND	5	--
二溴联苯醚 Dibromodiphenyl ether	ND	ND	ND	5	--
三溴联苯醚 Tribromodiphenyl ether	ND	ND	ND	5	--
四溴联苯醚 Tetrabromodiphenyl ether	ND	ND	ND	5	--
五溴联苯醚 Pentabromodiphenyl ether	ND	ND	ND	5	--
六溴联苯醚 Hexabromodiphenyl ether	ND	ND	ND	5	--
七溴联苯醚 Heptabromodiphenyl ether	ND	ND	ND	5	--
八溴联苯醚 Octabromodiphenyl ether	ND	ND	ND	5	--
九溴联苯醚 Nonabromodiphenyl ether	ND	ND	ND	5	--
十溴联苯醚 Decabromodiphenyl ether	ND	ND	ND	5	--

备注: mg/kg = 百万分之一 = ppm

ND = 未检测到 (小于报告限值)

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### 测试结果:

### Test Results:

测试项目 Test Item	测试结果 (mg/kg) Test Result (mg/kg)			报告限值(mg/kg) Reporting Limit (mg/kg)	要求(mg/kg) Requirement (mg/kg)
	1	2	3		
邻苯二甲酸二丁酯 (DBP) Dibutyl phthalate(DBP)	ND	ND	ND	30	1000
邻苯二甲酸丁苄酯 (BBP) Benzylbutyl phthalate(BBP)	ND	ND	ND	30	1000
邻苯二甲酸二(2-乙基己基)酯(DEHP) Di-2-ethylhexyl phthalate(DEHP)	ND	ND	ND	30	1000
邻苯二甲酸二异丁酯(DIBP) Diisobutyl phthalate(DIBP)	ND	ND	ND	30	1000

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### 测试材料:

### Tested Materials:

序号 Item No.	样品描述 Description
1	带灰色印刷的黄色硬塑料(外壳) Yellow hard plastic with grey printing (shell)
2	黄色胶(底部) Yellow glue (bottom)
3	透明塑料膜(内部) Transparent plastic with silver printing (lining)
4	银色金属(插脚) Silver metal (pins)

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东莞市信测科技有限公司 / 地址: 广东省东莞市松山湖高新技术产业开发区新城大道9号中海洋生物科技研发基地A区2号办公楼负一层、第二层 网址: [Http://www.emtek.com.cn](http://www.emtek.com.cn)  
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## Test Report

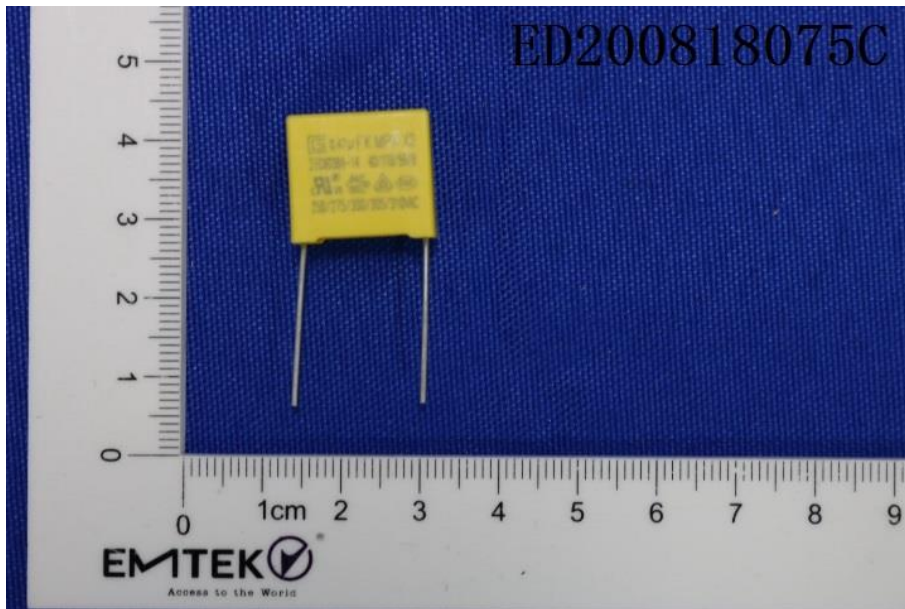
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### 样品照片

#### Sample Photo



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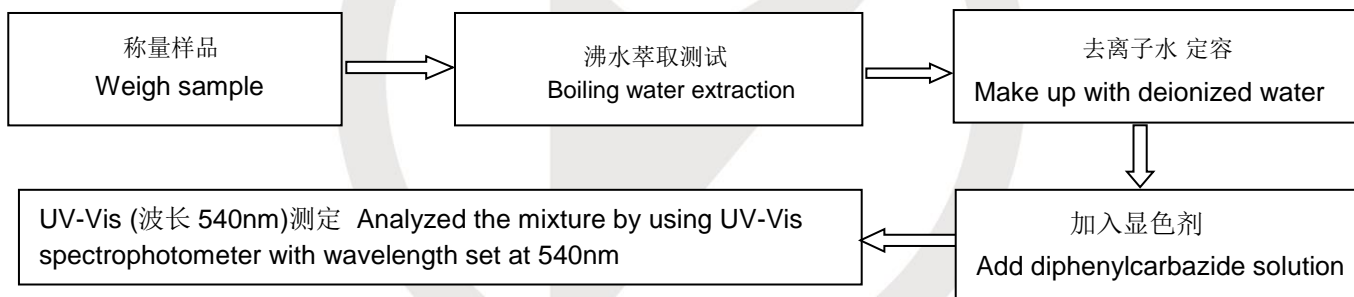
### 测试流程

### TEST FLOWCHART

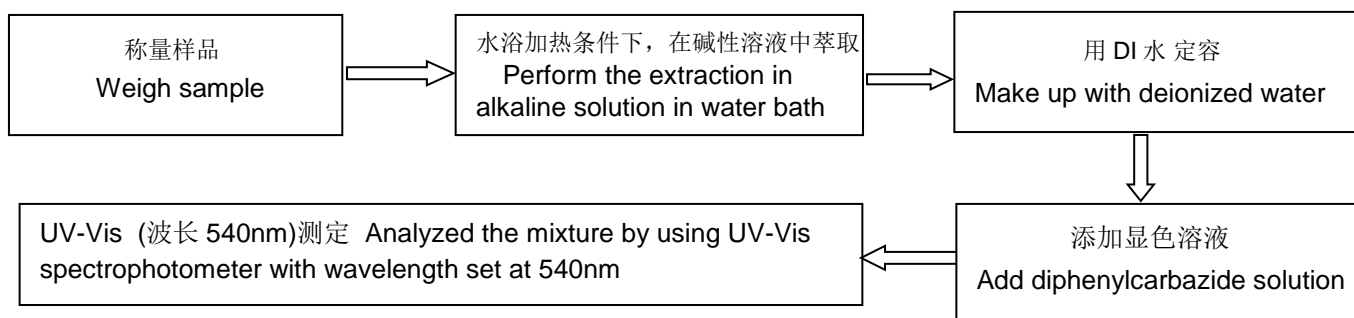
铅、镉和汞检测流程:  
Pb/Cd/Hg Test Process:



六价铬检测流程(金属):  
Cr<sup>6+</sup> Test Process (Metal):



六价铬检测流程(非金属):  
Cr<sup>6+</sup> Test Process (Non-metal):



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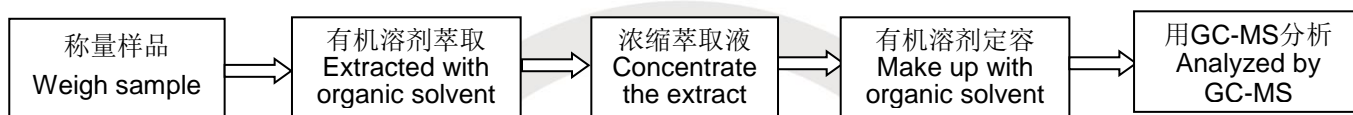
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### 测试流程

### TEST FLOWCHART

PBBs & PBDEs/邻苯二甲酸酯检测流程:  
PBBs & PBDEs/Phthalates Test Process:



\*\*\* 报告结束 \*\*\*  
\*\*\* End of Report \*\*\*

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## 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。  
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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。  
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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.

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

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All samples and goods are accepted by the EMTEK(Dongguan) 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。  
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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，本公司毋庸，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.

