

Test Report No. SZXEC1700110503 Date: 14 Mar 2017 Page 1 of 5

KINGTRONICS INTERNATIONAL COMPANY ROOM H,FLOOR 4,13 YIP FUNG STREET,HONG KONG

The following sample(s) was/were submitted and identified on behalf of the clients as: Radial Aluminum

**Electrolytic Capacitors** 

SGS Job No.: RP17-000801 - SZ

Model No.: Radial Aluminum Electrolytic Capacitors

01 Mar 2017 Date of Sample Received:

Testing Period: 01 Mar 2017 - 03 Mar 2017

Test Requested: Selected test(s) as requested by client.

Test Method: Please refer to next page(s).

Test Results: Please refer to next page(s).

Signed for and on behalf of SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

Sunny Nie

Approved Signatory



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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> 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-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issue 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 this document only and within the limits of areas according 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, or email: CN.Doccheck@sgs.com

SGS Bldg, No.3, Jianghao Industrial Park, No.430, Jihua Road, Bantian, Longgang District, Shenzhen, China 518129 t (86 - 755) 25328888 f (86 - 755) 83106190 www.sgsgroup.com.cn 中国·深圳·龙岗区坂田吉华路430号江灏工业园3栋SGS大楼 邮编: 518129 t (86-755) 25328888 f (86-755) 83106190 e sgs.china@sgs.com



#### **Test Report** No. SZXEC1700110503 Date: 14 Mar 2017 Page 2 of 5

Test Results:

# Test Part Description:

Specimen No. SGS Sample ID Description

> SN<sub>1</sub> SZX17-001105.003 "Radial Aluminum Electrolytic Capacitors"(mixed)

### Remarks:

(1) 1 mg/kg = 1 ppm = 0.0001%

(2) MDL = Method Detection Limit

(3) ND = Not Detected ( < MDL )

(4) "-" = Not Regulated

### Elementary Analysis & Flame Retardants

Test Method: (1)With reference to IEC 62321-5:2013, determination of Cadmium by ICP-OES.

(2) With reference to IEC 62321-5:2013, determination of Lead by ICP-OES.

(3) With reference to IEC 62321-4:2013, determination of Mercury by ICP-OES.

(4) With reference to IEC 62321:2008, determination of Hexavalent Chromium by Colorimetric

Method using UV-Vis.

(5)With reference to IEC 62321-6:2015, determination of PBBs and PBDEs by GC-MS.

| Test Item(s)               | <u>Limit</u> | <u>Unit</u> | <u>MDL</u> | <u>003</u> |
|----------------------------|--------------|-------------|------------|------------|
| Cadmium (Cd)               | 100          | mg/kg       | 2          | ND         |
| Lead (Pb)                  | 1,000        | mg/kg       | 2          | ND         |
| Mercury (Hg)               | 1,000        | mg/kg       | 2          | ND         |
| Hexavalent Chromium (CrVI) | 1,000        | mg/kg       | 2          | ND         |
| Sum of PBBs                | 1,000        | mg/kg       | -          | ND         |
| Monobromobiphenyl          | -            | mg/kg       | 5          | ND         |
| Dibromobiphenyl            | -            | mg/kg       | 5          | ND         |
| Tribromobiphenyl           | -            | mg/kg       | 5          | ND         |
| Tetrabromobiphenyl         | -            | mg/kg       | 5          | ND         |
| Pentabromobiphenyl         | -            | mg/kg       | 5          | ND         |
| Hexabromobiphenyl          | -            | mg/kg       | 5          | ND         |
| Heptabromobiphenyl         | -            | mg/kg       | 5          | ND         |
| Octabromobiphenyl          | -            | mg/kg       | 5          | ND         |
| Nonabromobiphenyl          | -            | mg/kg       | 5          | ND         |
| Decabromobiphenyl          | -            | mg/kg       | 5          | ND         |
| Sum of PBDEs               | 1,000        | mg/kg       | -          | ND         |
| Monobromodiphenyl ether    | -            | mg/kg       | 5          | 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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> 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-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. 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 this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction document. 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, or email: CN.Doccheck@sgs.com

SGS Bldg, No.3, Jianghao Industrial Park, No.430, Jihua Road, Bantlan, Longgang District, Shenzhen, China 518129 t (86 - 755) 25328888 f (86 - 755) 83106190 www.sgsgroup.com.cn 中国·深圳·龙岗区坂田吉华路430号江灏工业园3栋SGS大楼 邮编: 518129 t (86-755) 25328888 f (86-755) 83106190 e sgs.china@sgs.com



| Test Report              | No. SZXEC17001105 | 03          | Date: 14 Mar 2017 |            | Page 3 of 5 |
|--------------------------|-------------------|-------------|-------------------|------------|-------------|
| Test Item(s)             | <u>Limit</u>      | <u>Unit</u> | <u>MDL</u>        | <u>003</u> |             |
| Dibromodiphenyl ether    | -                 | mg/kg       | 5                 | ND         |             |
| Tribromodiphenyl ether   | -                 | mg/kg       | 5                 | ND         |             |
| Tetrabromodiphenyl ether | -                 | mg/kg       | 5                 | ND         |             |
| Pentabromodiphenyl ether | -                 | mg/kg       | 5                 | ND         |             |
| Hexabromodiphenyl ether  | -                 | mg/kg       | 5                 | ND         |             |
| Heptabromodiphenyl ether | -                 | mg/kg       | 5                 | ND         |             |
| Octabromodiphenyl ether  | -                 | mg/kg       | 5                 | ND         |             |
| Nonabromodiphenyl ether  | -                 | mg/kg       | 5                 | ND         |             |
| Decabromodiphenyl ether  | -                 | mg/kg       | 5                 | ND         |             |

#### Notes:

(1) The maximum permissible limit is quoted from RoHS Directive (EU) 2015/863.

Remark: The sample(s) was/were analyzed on behalf of the applicant as mixing sample in one testing. The above result(s) was/were only given as the informality value and only for reference.



SGS Bldg, No.3, Jianghao Industrial Park, No.430, Jifiua Road, Bantian, Longgang District, Shenzhen, China 518129 t (86 - 755) 25328888 f (86 - 755) 83106190 www.sgsgroup.com.cn 中国·深圳·龙岗区坂田吉华路430号江灝工业园3栋SGS大楼 邮编: 518129 t (86-755) 25328888 f (86-755) 83106190 e sgs.china@sgs.com



# **Test Report**

No. SZXEC1700110503

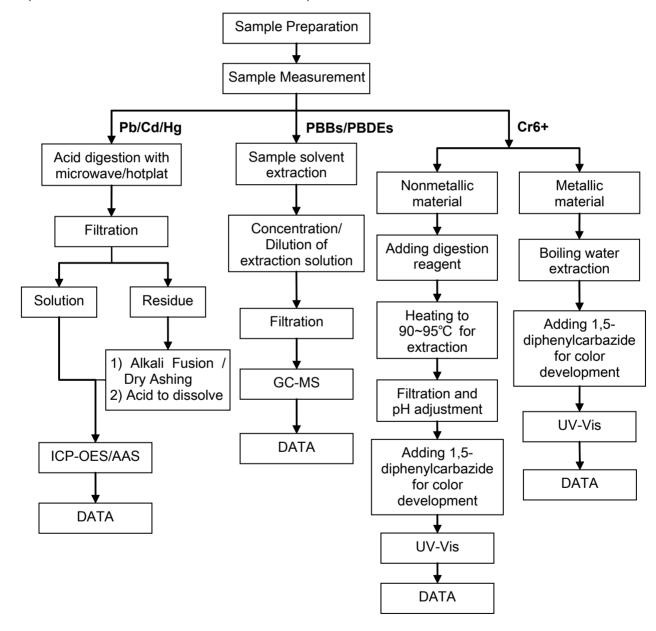
Page 4 of 5

Date: 14 Mar 2017

### **ATTACHMENTS**

## Pb/Cd/Hg/Cr6+/PBBs/PBDEs Testing Flow Chart

- 1) Name of the person who made testing: Winsen Deng / David Mai / Truly Ren
- 2) Name of the person in charge of testing: Zoe Luo / Laurel Li / Muky Tong /
- 3) These samples were dissolved totally by pre-conditioning method according to below flow chart (Cr6+ and PBBs/PBDEs test method excluded).





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> 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-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issue 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 this 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

SGS Bldg, No.3, Jianghao Industrial Park, No.430, Jifiua Road, Bantian, Longgang District, Shenzhen, China 518129 t (86 - 755) 25328888 f (86 - 755) 83106190 www.sgsgroup.com.cn 中国·深圳·龙岗区坂田吉华路430号江源工业园3栋SGS大楼 邮编: 518129 t (86-755) 25328888 f (86-755) 83106190 e sgs.china@sgs.com



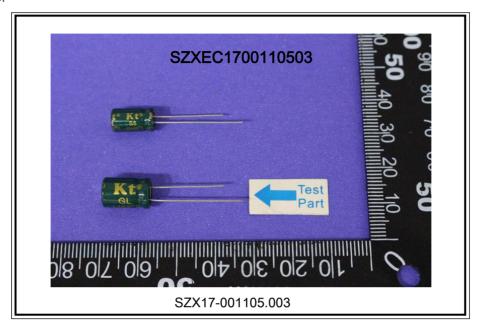
# **Test Report**

No. SZXEC1700110503

Page 5 of 5

Date: 14 Mar 2017

Sample photo:



SGS authenticate the photo on original report only

\*\*\* End of Report \*\*\*

