

**Test Report** No. CANEC1317975401 Date: 25 Nov 2013 Page 1 of 8

SHENZHEN MEILONG ELECTRONIC CO.,LTD

16/F,BLOCK A,HUAQIANG SQUARE,HUAQIANG NORTH RD.,FUTIAN DISTRICT,SHENZHEN CHINA

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

SGS Job No.: CP13-060079 - SZ

Date of Sample Received: 19 Nov 2013

Testing Period: 19 Nov 2013 - 25 Nov 2013

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).

Conclusion: Based on the performed tests on submitted samples, the results of Lead,

Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBB), Polybrominated diphenyl ethers (PBDE) comply with the limits as set by RoHS

Directive 2011/65/EU Annex II; recasting 2002/95/EC.

Signed for and on behalf of

SGS-CSTC Ltd.

Merry Lv

Approved Signatory

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No. CANEC1317975401

Date: 25 Nov 2013

Page 2 of 8

Test Results:

### **Test Part Description:**

Specimen No. SGS Sample ID Description

1 CAN13-179754.001 Dk-grey particle w/ silvery edge

#### Remarks:

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

(2) MDL = Method Detection Limit

(3) ND = Not Detected ( < MDL)

(4) "-" = Not Regulated

### RoHS Directive 2011/65/EU

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 62321:2008, determination of PBBs and PBDEs by GC-MS.

<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>001</u>
100	mg/kg	2	ND
1,000	mg/kg	2	ND
1,000	mg/kg	2	ND
1,000	mg/kg	2	ND
1,000	mg/kg	-	ND
-	mg/kg	5	ND
-	mg/kg	5	ND
-	mg/kg	5	ND
-	mg/kg	5	ND
-	mg/kg	5	ND
-	mg/kg	5	ND
-	mg/kg	5	ND
-	mg/kg	5	ND
-	mg/kg	5	ND
-	mg/kg	5	ND
1,000	mg/kg	-	ND
-	mg/kg	5	ND
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Test Report	No. CANEC131797540	01	Date: 25	Nov 2013	Page 3 of 8
Test Item(s)	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>001</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 directive 2011/65/EU, Annex II

## Hexabromocyclododecane (HBCDD)

Test Method: Determination of HBCDD by GC-MS based on IEC 62321:2008.

Test Item(s)	<u>Unit</u>	<u>MDL</u>	<u>001</u>
Hexabromocyclododecane (HBCDD)	mg/kg	10	ND

### Notes:

(1) Reference Information: Directive 2011/65/EU recasting RoHS directive 2002/95/EC: Hexabromocyclododecane (HBCDD) is considered as a priority for risk evaluation and substance restriction.

## **Phthalate**

Test Method: Determination of phthalates by GC-MS based on EN 14372:2004.

Test Item(s)	CAS NO.	<u>Unit</u>	<u>MDL</u>	<u>001</u>
Dibutyl Phthalate (DBP)	84-74-2	%(W/W)	0.003	ND
Benzylbutyl Phthalate (BBP)	85-68-7	%(W/W)	0.003	ND
Bis-(2-ethylhexyl) Phthalate (DEHP)	117-81-7	%(W/W)	0.003	ND

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**Test Report** No. CANEC1317975401 Date: 25 Nov 2013 Page 4 of 8

Notes:

(1) Reference Information: Directive 2011/65/EU recasting RoHS directive 2002/95/EC: Bis (2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP) and Dibutyl phthalate (DBP) are considered as a priority for risk evaluation and substance restriction.

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No. CANEC1317975401

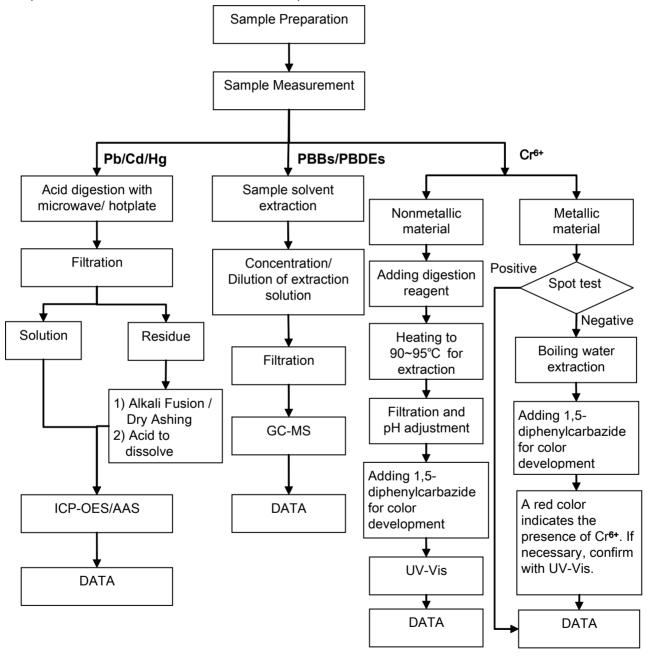
Date: 25 Nov 2013

Page 5 of 8

### **ATTACHMENTS**

#### **RoHS Testing Flow Chart**

- 1) Name of the person who made testing: Michael Tso / Cutey Yu
- 2) Name of the person in charge of testing: Adams Yu / Yolanda Wei
- 3) These samples were dissolved totally by pre-conditioning method according to below flow chart (Cr<sup>6+</sup> and PBBs/PBDEs test method excluded).



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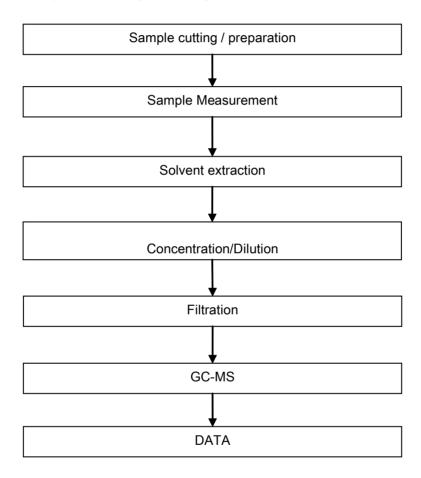
Date: 25 Nov 2013

Page 6 of 8

### **ATTACHMENTS**

## **Phthalates Testing Flow Chart**

- 1) Name of the person who made testing: Liu Qiong
- 2) Name of the person in charge of testing: Yolanda Wei



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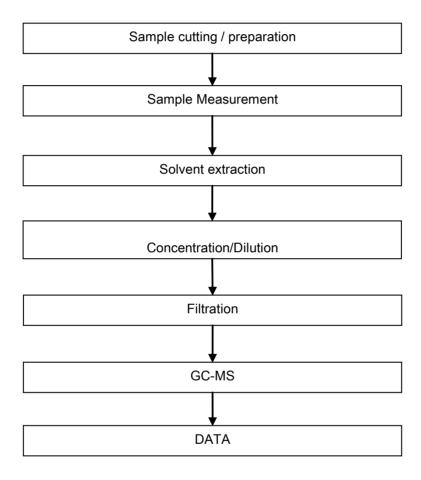
Date: 25 Nov 2013

Page 7 of 8

### **ATTACHMENTS**

## **HBCDD Testing Flow Chart**

- 1) Name of the person who made testing: Cutey Yu
- 2) Name of the person in charge of testing: Yolanda Wei



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No. CANEC1317975401

Date: 25 Nov 2013

Page 8 of 8

Sample photo:



SGS authenticate the photo on original report only

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

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