

Test Report

No. CANEC1700332402

Date: 13 Jan 2017

Page 1 of 7

SHENZHEN SCTF ELECTRONICS CO.,LTD

F OF 70TH BLDG,JINGU BUSINSEE PARK,4TH ROAD OF LONGZHU AV.,NANSHAN DIST,SHENZHEN
,CHINA

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

SGS Job No. : CP16-078266 - SZ
Model No. : HC-49US
Client Ref. Info. : HC-49US, HC-49SMD, HC-49U, UM-1, UM-5, XTAL, OSC
Supplier : SCTF
Manufacturer : SCTF
Country of Origin : CHINA
Date of Sample Received : 06 Jan 2017
Testing Period : 06 Jan 2017 - 13 Jan 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. Guangzhou Branch

Nana

Nana Zhang
Approved Signatory



SGS-CSTC Standards Technical Services Co., Ltd.
Guangzhou Branch Testing Center Chemical Laboratory.

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Test Report

No. CANEC1700332402

Date: 13 Jan 2017

Page 2 of 7

Test Results :

Test Part Description :

| Specimen No. | SGS Sample ID | Description |
|--------------|------------------|-----------------------------------|
| SN1 | CAN17-003324.003 | Silvery body[mixed(semi-product)] |
| SN2 | CAN17-003324.004 | Silvery metal pin(semi-product) |

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 & Phthalate(s)

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.
 (6)With reference to IEC 62321-8:2013 (111/321/CD) , determination of phthalates by GC-MS.

| Test Item(s) | Unit | MDL | 003 |
|----------------------------|-------|-----|-----|
| Cadmium (Cd) | mg/kg | 2 | ND |
| Lead (Pb) | mg/kg | 2 | ND |
| Mercury (Hg) | mg/kg | 2 | ND |
| Hexavalent Chromium (CrVI) | mg/kg | 2 | ND |
| Sum of PBBs | 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 |



SGS-CSTC Standard & Technical Services Co., Ltd.
 Guangzhou Branch Testing Center Chemical Laboratory

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Test Report

No. CANEC1700332402

Date: 13 Jan 2017

Page 3 of 7

| Test Item(s) | Unit | MDL | 003 |
|-------------------------------------|-------|-----|-----|
| Sum of PBDEs | mg/kg | - | ND |
| Monobromodiphenyl ether | mg/kg | 5 | ND |
| 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 |
| Dibutyl phthalate (DBP) | mg/kg | 50 | ND |
| Butyl benzyl phthalate (BBP) | mg/kg | 50 | ND |
| Bis (2-ethylhexyl) phthalate (DEHP) | mg/kg | 50 | ND |
| Diisobutyl Phthalates (DIBP) | mg/kg | 50 | ND |

Elementary Analysis

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 62321-7-1:2015 , determination of Hexavalent Chromium by Colorimetric Method using UV-Vis.

| Test Item(s) | Unit | MDL | 004 |
|-------------------------------|--------------------|------|-----|
| Cadmium (Cd) | mg/kg | 2 | ND |
| Lead (Pb) | mg/kg | 2 | ND |
| Mercury (Hg) | mg/kg | 2 | ND |
| Hexavalent Chromium (Cr(VI))▼ | µg/cm ² | 0.10 | ND |

Notes :

- (1) ▼= a. The sample is positive for CrVI if the CrVI concentration is greater than 0.13 µg/cm². The sample coating is considered to contain CrVI
 b. The sample is negative for CrVI if CrVI is ND (concentration less than 0.10 µg/cm²). The coating is considered a non-CrVI based coating
 c. The result between 0.10 µg/cm² and 0.13 µg/cm² is considered to be inconclusive - unavoidable coating variations may influence the determination
 Information on storage conditions and production date of the tested sample is unavailable and thus Cr(VI) results represent status of the sample at the time of testing.



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Test Report

No. CANEC1700332402

Date: 13 Jan 2017

Page 4 of 7

IEC 62321 series is equivalent to EN 62321 series

http://www.cenelec.eu/dyn/www/f?p=104:30:1742232870351101:::FSP_ORG_ID,

FSP_LANG_ID:1258637,25

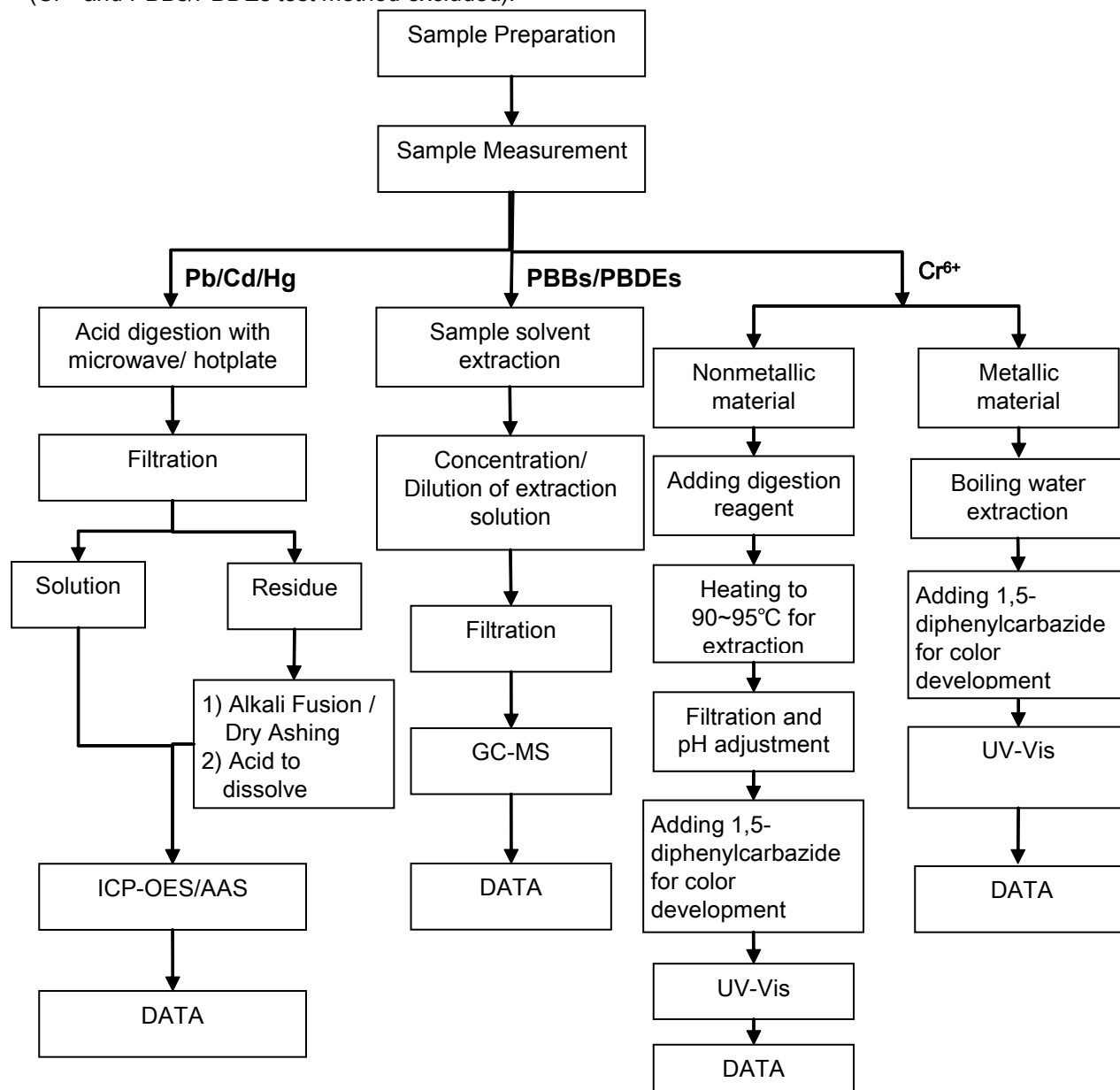
Remark: The sample(s) 003 was/were analyzed on behalf of the applicant as mixing sample in one testing. The above result(s) was/were only given as the informality value and only for reference.



ATTACHMENTS

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

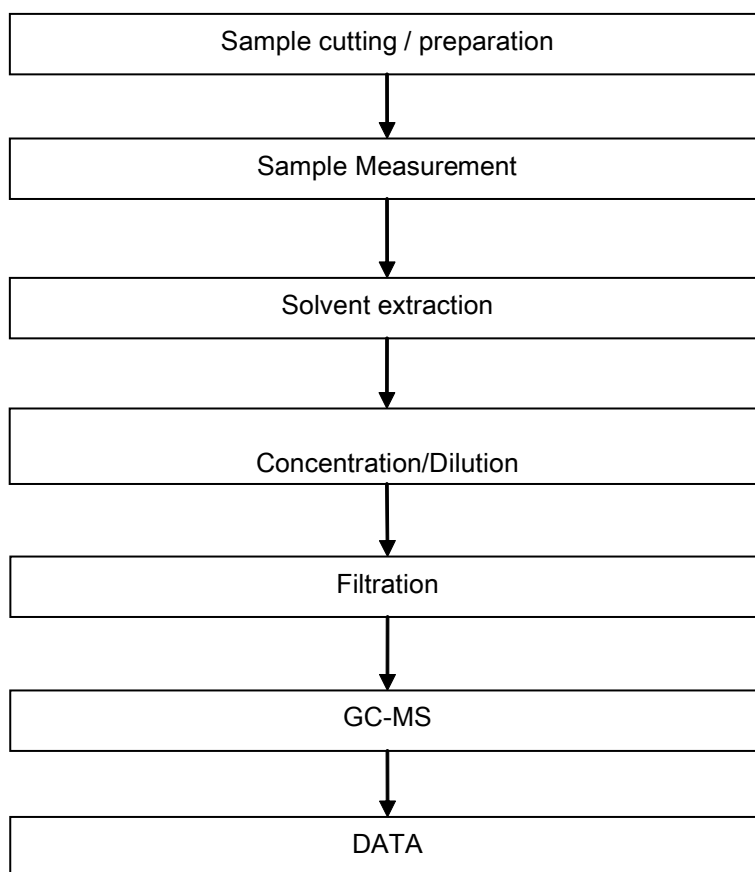
- 1) Name of the person who made testing: Edith Zhang / Sunny Hu
- 2) Name of the person in charge of testing: Bella Wang / Qiong Liu
- 3) These samples were dissolved totally by pre-conditioning method according to below flow chart (Cr⁶⁺ and PBBs/PBDEs test method excluded).



ATTACHMENTS

Phthalates Testing Flow Chart

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



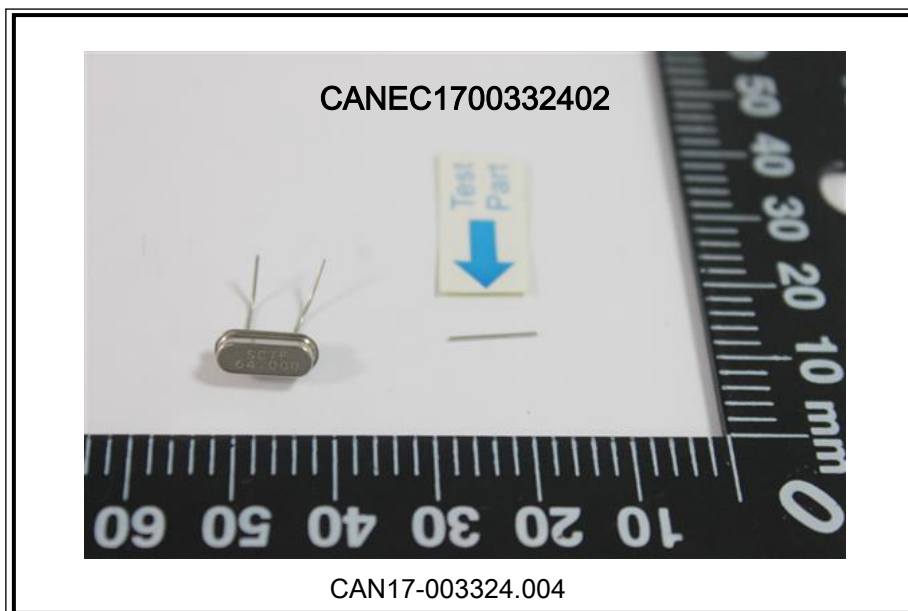
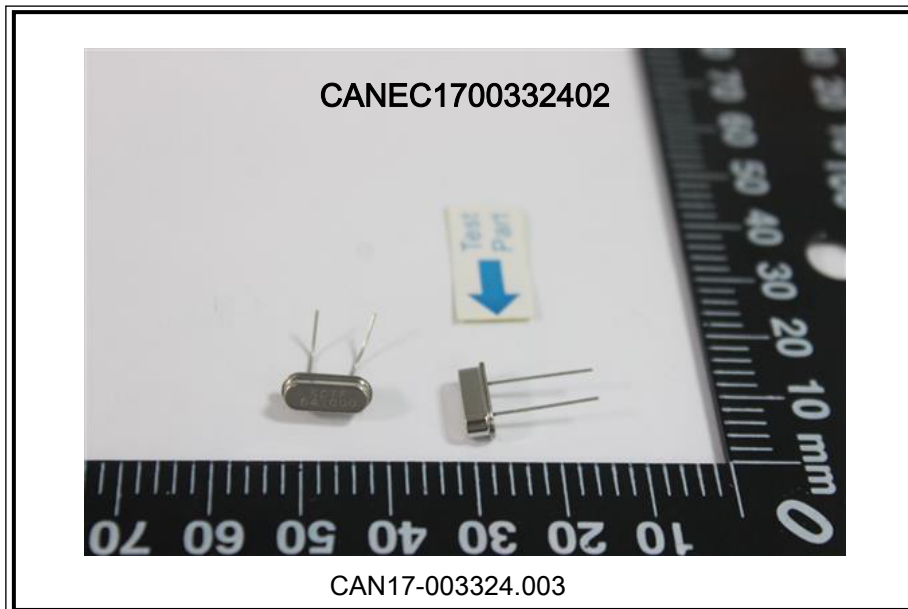
Test Report

No. CANEC1700332402

Date: 13 Jan 2017

Page 7 of 7

Sample photo:



SGS authenticate the photo on original report only

*** End of Report ***



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