

## Test Report

No. CANEC1100473407

Date: 01 Mar 2011

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FOSHAN BLUE ROCKET ELECTRONICS CO., LTD.  
NO.45 GUXIN ROAD, CHANCHENG DISTRICT, FOSHAN, GUANGDONG  
CHINA

The following sample(s) was/were submitted and identified on behalf of the clients as :  
SOT-23 Semiconductor Device (Halogen Free Product)

SGS Job No. : 12978097 - GZ  
SGS Internal Reference No. : 12.7  
Date of Sample Received : 23 Feb 2011  
Testing Period : 23 Feb 2011 - 01 Mar 2011  
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 : A: Based on the performed tests on submitted sample(s), the results **comply with** the RoHS Directive 2002/95/EC and its subsequent amendments.

Signed for and on behalf of  
SGS-CSTC Ltd.



Almay Gao  
Approved Signatory

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## Test Results:

ID for specimen 1 : CAN11-004734.009  
 Description for specimen 1 : Black body w/ silvery metal pin

### A: RoHS Directive 2002/95/EC

| Test Item(s)                                      | Unit  | Test Method (Reference) | Result | MDL | Limit |
|---|-------|-------------------------|--------|-----|-------|
| Cadmium (Cd)                                      | mg/kg | IEC 62321:2008, ICP-OES | N.D.   | 2   | 100   |
| Lead (Pb)   | mg/kg | IEC 62321:2008, ICP-OES | N.D.   | 2   | 1000  |
| Mercury (Hg)                                      | mg/kg | IEC 62321:2008, ICP-OES | N.D.   | 2   | 1000  |
| Hexavalent Chromium (CrVI) by alkaline extraction | mg/kg | IEC 62321:2008, UV-Vis  | N.D.   | 2   | 1000  |
| Sum of PBBs                                       | mg/kg | -                       | N.D.   | -   | 1000  |
| Monobromobiphenyl                                 | mg/kg | IEC 62321:2008, GC-MS   | N.D.   | 5   |       |
| Dibromobiphenyl                                   | mg/kg | IEC 62321:2008, GC-MS   | N.D.   | 5   |       |
| Tribromobiphenyl                                  | mg/kg | IEC 62321:2008, GC-MS   | N.D.   | 5   |       |
| Tetrabromobiphenyl                                | mg/kg | IEC 62321:2008, GC-MS   | N.D.   | 5   |       |
| Pentabromobiphenyl                                | mg/kg | IEC 62321:2008, GC-MS   | N.D.   | 5   |       |
| Hexabromobiphenyl                                 | mg/kg | IEC 62321:2008, GC-MS   | N.D.   | 5   |       |
| Heptabromobiphenyl                                | mg/kg | IEC 62321:2008, GC-MS   | N.D.   | 5   |       |
| Octabromobiphenyl                                 | mg/kg | IEC 62321:2008, GC-MS   | N.D.   | 5   |       |
| Nonabromobiphenyl                                 | mg/kg | IEC 62321:2008, GC-MS   | N.D.   | 5   |       |
| Decabromobiphenyl                                 | mg/kg | IEC 62321:2008, GC-MS   | N.D.   | 5   |       |
| Sum of PBDEs                                      | mg/kg | -                       | N.D.   | -   | 1000  |
| Monobromodiphenyl ether                           | mg/kg | IEC 62321:2008, GC-MS   | N.D.   | 5   |       |
| Dibromodiphenyl ether                             | mg/kg | IEC 62321:2008, GC-MS   | N.D.   | 5   |       |
| Tribromodiphenyl ether                            | mg/kg | IEC 62321:2008, GC-MS   | N.D.   | 5   |       |
| Tetrabromodiphenyl ether                          | mg/kg | IEC 62321:2008, GC-MS   | N.D.   | 5   |       |
| Pentabromodiphenyl ether                          | mg/kg | IEC 62321:2008, GC-MS   | N.D.   | 5   |       |
| Hexabromodiphenyl ether                           | mg/kg | IEC 62321:2008, GC-MS   | N.D.   | 5   |       |
| Heptabromodiphenyl ether                          | mg/kg | IEC 62321:2008, GC-MS   | N.D.   | 5   |       |
| Octabromodiphenyl ether                           | mg/kg | IEC 62321:2008, GC-MS   | N.D.   | 5   |       |
| Nonabromodiphenyl ether                           | mg/kg | IEC 62321:2008, GC-MS   | N.D.   | 5   |       |
| Decabromodiphenyl ether                           | mg/kg | IEC 62321:2008, GC-MS   | N.D.   | 5   |       |

## Note:

1. mg/kg = ppm
2. N.D. = Not Detected (< MDL)
3. MDL = Method Detection Limit
4. "-" = Not regulated

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### **B: Halogen**

| Test Item(s)  | Unit  | Test Method (Reference) | Result | MDL |
|---------------|-------|-------------------------|--------|-----|
| Fluorine (F)  | mg/kg | BS EN 14582:2007, IC    | N.D.   | 50  |
| Chlorine (Cl) | mg/kg | BS EN 14582:2007, IC    | N.D.   | 50  |
| Bromine (Br)  | mg/kg | BS EN 14582:2007, IC    | N.D.   | 50  |
| Iodine (I)    | mg/kg | BS EN 14582:2007, IC    | N.D.   | 50  |

#### Note:

1. mg/kg = ppm
2. N.D. = Not Detected (< MDL)
3. MDL = Method Detection Limit

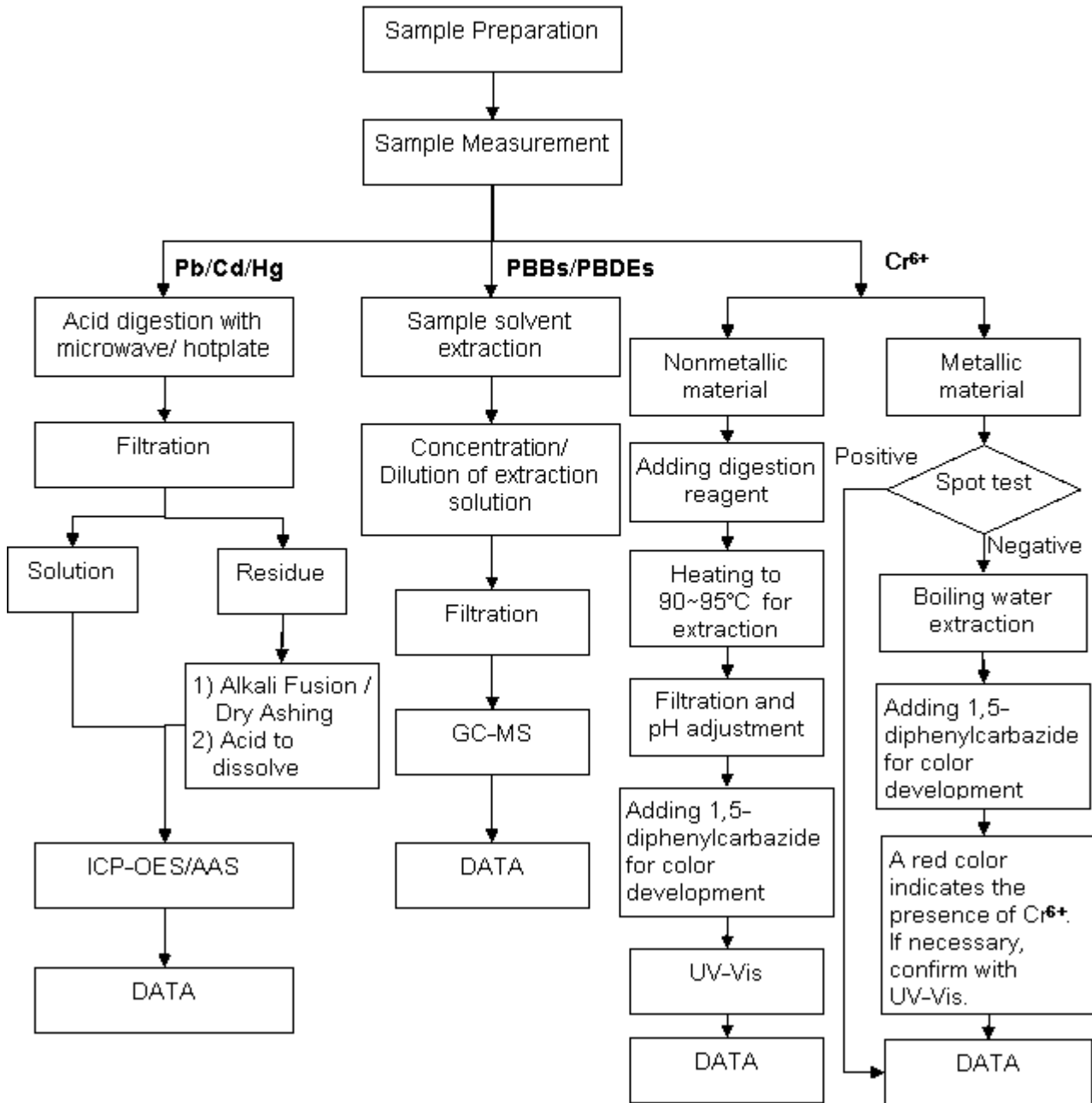
Remark : As requested by client, the test was conducted as whole / part sample, for the sample can't be disjointed.

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### ATTACHMENTS

#### RoHS Testing Flow Chart

- 1) Name of the person who made testing: Bella Wang / Cutey Yu / Ross Zhan
- 2) Name of the person in charge of testing: Adams Yu / Ryan Yang
- 3) These samples were dissolved totally by pre-conditioning method according to below flow chart (Cr6+ and PBBs/PBDEs test method excluded).

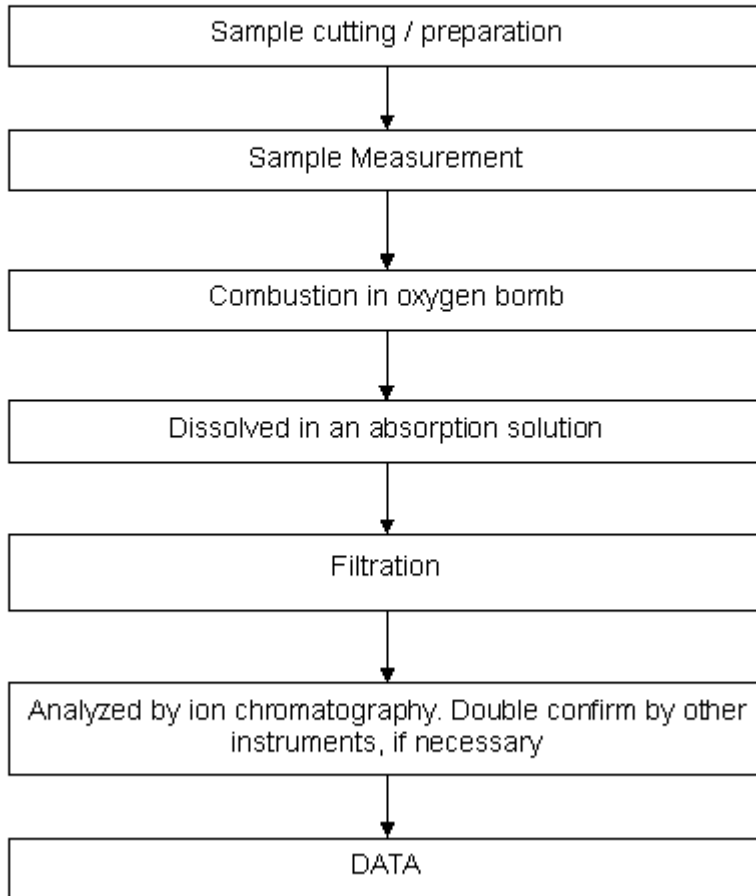


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## ATTACHMENTS

### Halogen Testing Flow Chart

- 1) Name of the person who made testing: Liang Wang
- 2) Name of the person in charge of testing: Michelle Song



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