

Test Report

No. SZXEC1800651101

Date: 04 May 2018

Page 1 of 6

ANHUI JIEYUAN ELECTRONIC TECHNOLOGY CO. , LTD

NO.7 ,FIRST GUIHUA ROAD, PCB INDUSTRIAL PARK,ECONOMIC DEVELOPMENT ZONE,GUANGDE COUNTY ,XUANCHENG, ANHUI PROVINCE

The following sample(s) was/were submitted and identified on behalf of the clients as : FR-4 printed circuit board

SGS Job No. : RP18-006291 - SZ
Date of Sample Received : 28 Apr 2018
Testing Period : 28 Apr 2018 - 04 May 2018
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 sample(s), the results of Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBBs), Polybrominated diphenyl ethers (PBDEs) and Phthalates such as Bis(2-ethylhexyl) phthalate (DEHP) , Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) , and Diisobutyl phthalate (DIBP) comply with the limits as set by RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU.

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



Kenny Li
Approved Signatory



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

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Test Results :

Test Part Description :

| Specimen No. | SGS Sample ID | Description |
|--------------|------------------|-------------|
| SN1 | SZX18-006511.001 | Green "PCB" |

Remarks :

- (1) 1 mg/kg = 1 ppm = 0.0001%
- (2) MDL = Method Detection Limit
- (3) ND = Not Detected (< MDL)
- (4) "-" = Not Regulated

RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU

Test Method : With reference to IEC 62321-4:2013+A1:2017, IEC62321-5:2013, IEC62321-7-2:2017, IEC 62321-6:2015 and IEC62321-8:2017, analyzed by ICP-OES, UV-Vis and GC-MS.

| <u>Test Item(s)</u> | <u>Limit</u> | <u>Unit</u> | <u>MDL</u> | <u>001</u> |
|------------------------------|--------------|-------------|------------|------------|
| Cadmium (Cd) | 100 | mg/kg | 2 | ND |
| Lead (Pb) | 1,000 | mg/kg | 2 | 8 |
| Mercury (Hg) | 1,000 | mg/kg | 2 | ND |
| Hexavalent Chromium (Cr(VI)) | 1,000 | mg/kg | 8 | 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 |
| Dibromodiphenyl ether | - | mg/kg | 5 | ND |
| Tribromodiphenyl ether | - | mg/kg | 5 | ND |
| Tetrabromodiphenyl ether | - | mg/kg | 5 | ND |
| Pentabromodiphenyl ether | - | mg/kg | 5 | ND |



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Date: 04 May 2018

Page 3 of 6

| <u>Test Item(s)</u> | <u>Limit</u> | <u>Unit</u> | <u>MDL</u> | <u>001</u> |
|------------------------------------|--------------|-------------|------------|------------|
| 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) | 1000 | mg/kg | 50 | ND |
| Butyl benzyl Phthalate (BBP) | 1000 | mg/kg | 50 | ND |
| Bis(2-ethylhexyl) Phthalate (DEHP) | 1000 | mg/kg | 50 | ND |
| Diisobutyl Phthalate (DIBP) | 1000 | mg/kg | 50 | ND |

Notes :

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

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



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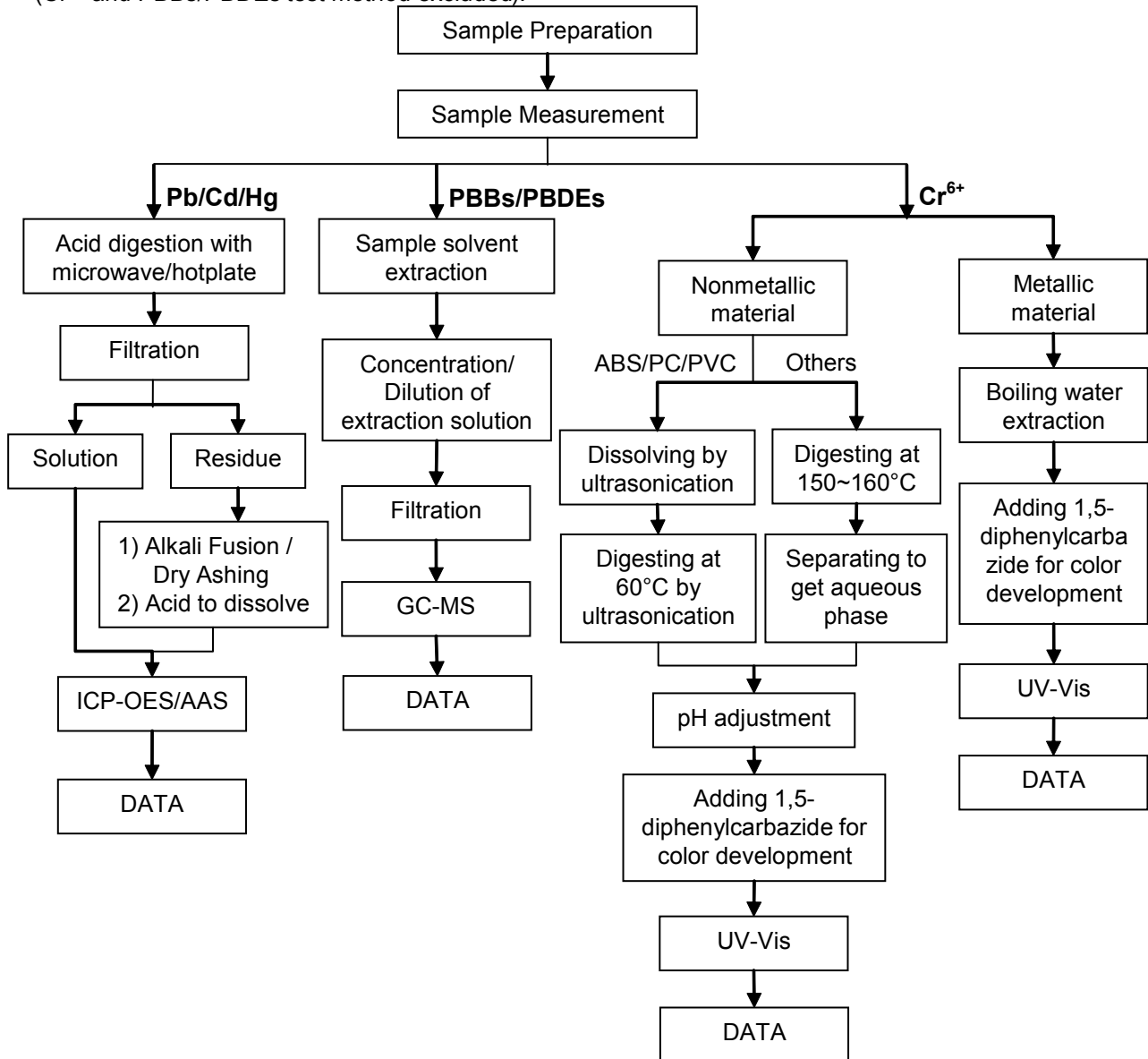
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ATTACHMENTS

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 / Roje Zhou / Muky Tong
- 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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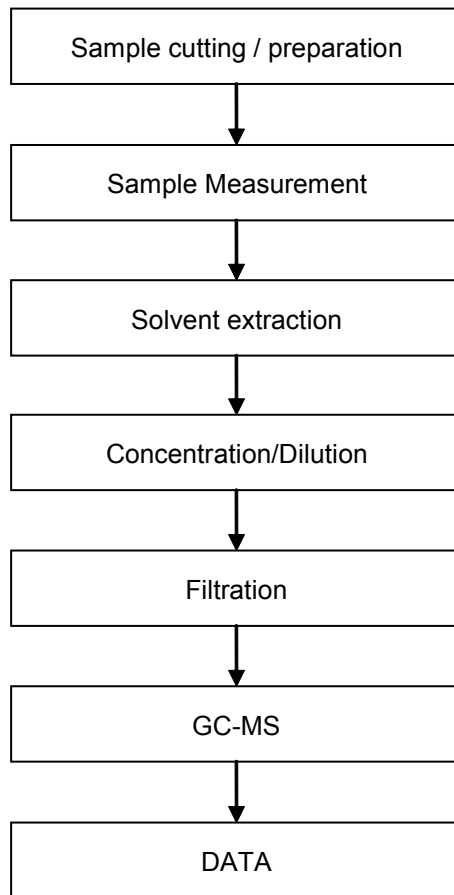
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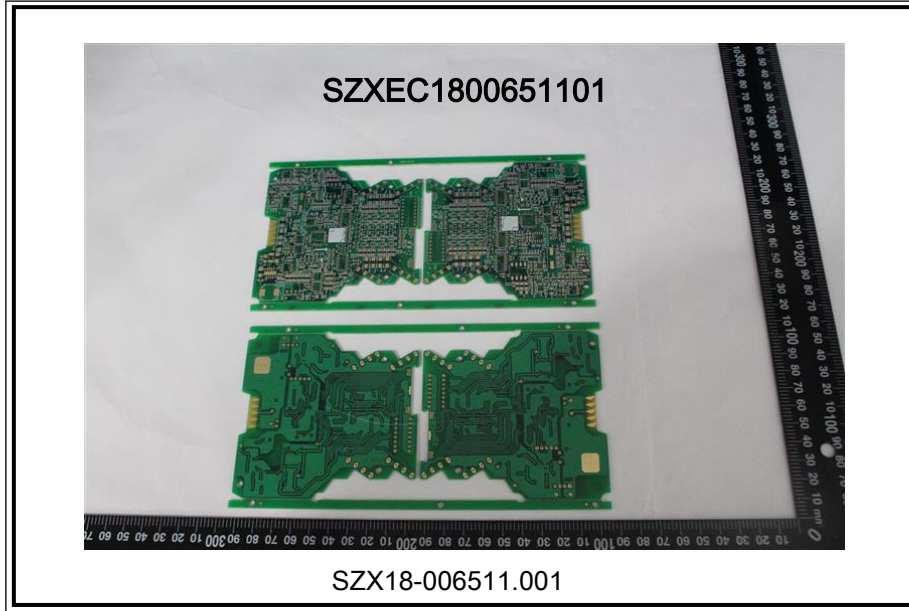
ATTACHMENTS

Phthalates Testing Flow Chart

- 1) Name of the person who made testing: David Mai
- 2) Name of the person in charge of testing: Roje Zhou



Sample photo:



SGS authenticate the photo on original report only

*** End of Report ***



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