



CONSOLIDATED TEST REPORT

Applicant: Guangzhou FriendlyElec Technology Co., Limited
Address: Room 4313, Block B, China Shine Plaza, No. 9 Lin He Xi Road, Tianhe District, Guangzhou, Guangdong, PR China
EUT Name: NanoPi 2 Fire
Model No. : NanoPi 2 Fire
Brand Name: N/A
Issue Date: 2016-12-29

| | | |
|----------------------------------|---|--------|
| | With reference to IEC 62321 Ed 1.0: 2013 | MDL |
| | Determination of Lead (Pb) by ICP- OES | 2mg/kg |
| Test Method (If tested) : | Determination of Cadmium (Cd) by ICP- OES | 2mg/kg |
| | Determination of Mercury (Hg) by ICP-OES | 2mg/kg |
| | Determination of Chromium (Cr ⁶⁺) by UV-VIS | 2mg/kg |
| | Determination of PBBs / PBDEs by GC-MS | 5mg/kg |

Directive: 2011/65/EU

Remark: Based on the performed test on submitted sample(s), the results of Cadmium, Lead, Mercury, Hexavalent Chromium Cr(VI), PBBs and PBDEs comply with the limits as set by RoHS Directive 2011/65/EU Annex II; recasting 2002/95/EC and the tested submitted sample complied with the requirements of Directive 2006/66/EC.

Signed for Shenzhen ETR



Jack Wang
Manager

1 General Information

1.1 Client Information

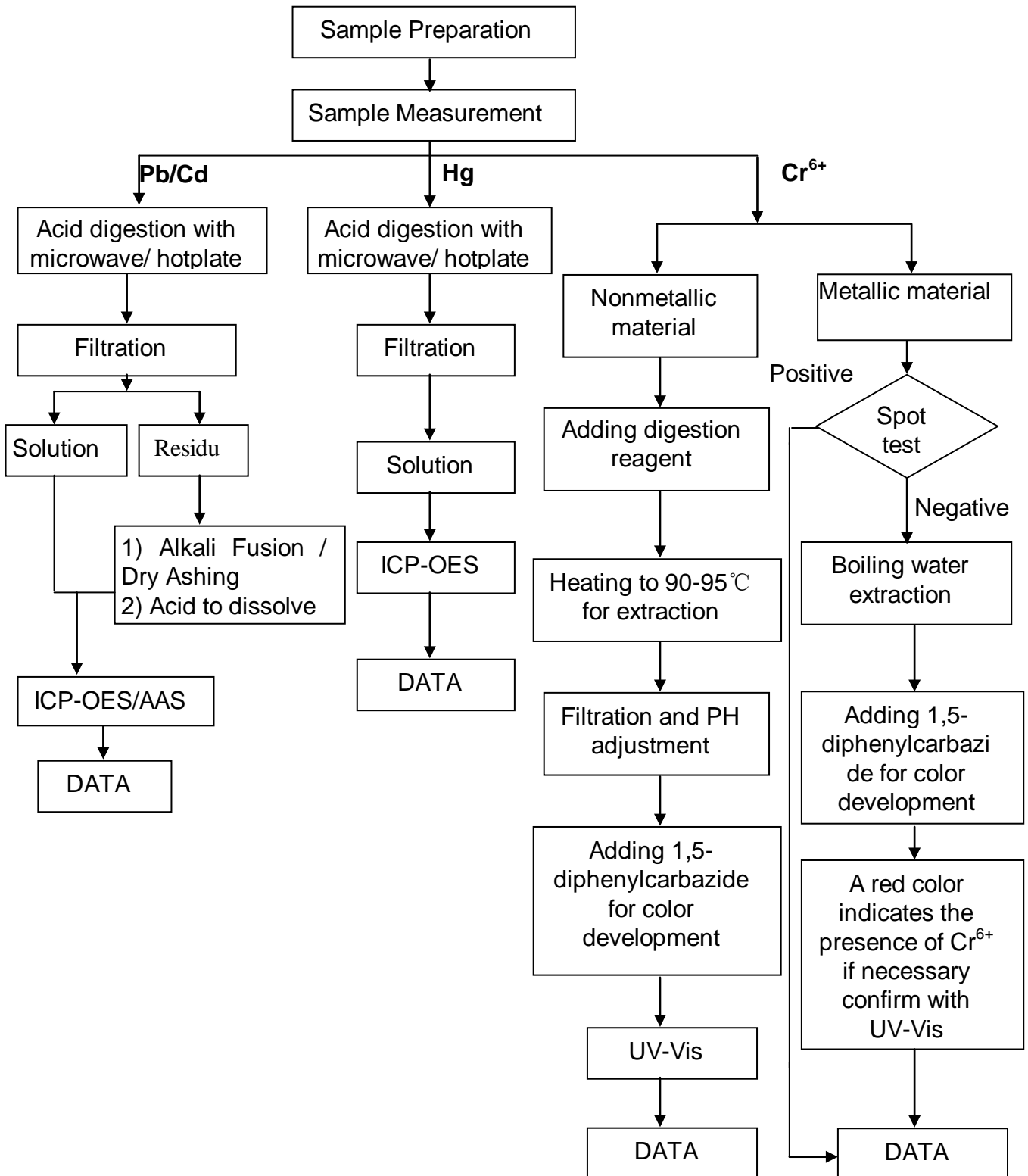
Applicant : Guangzhou FriendlyElec Technology Co., Limited
Address : Room 4313, Block B, China Shine Plaza, No. 9 Lin He Xi Road,
Tianhe District, Guangzhou, Guangdong, PR China
Manufacturer : Guangzhou FriendlyElec Technology Co., Limited
Address : Room 4313, Block B, China Shine Plaza, No. 9 Lin He Xi Road,
Tianhe District, Guangzhou, Guangdong, PR China
EUT Name : NanoPi 2 Fire
Model No. : NanoPi 2 Fire

1.2 Test Facility

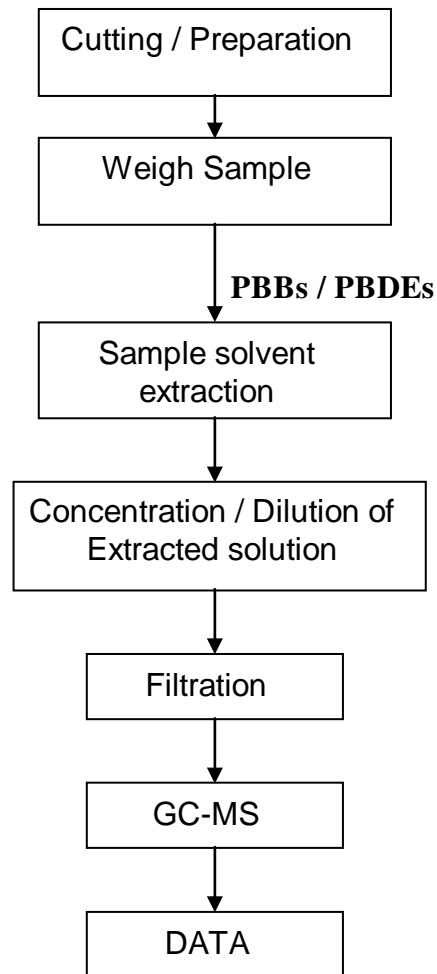
The testing report were performed by the Shenzhen ETR Standard Technology Co., Ltd., in their facilities located at 5/F, Bldg. A, The Third Industrial Zone Zhuao, No.1 Road Gushu, Xixiang Street, Bao'an District, Shenzhen, China.

2 Test Flow:

2.1 To Determine Lead/Cadmium/Mercury/ Hexavalent Chromium Content:



2.2 To Determine PBBs/PBDEs Content:



3 Test Result:

| No. | Part Of Sample | Form of evidence of compliance | | Verdict |
|-----|-----------------------------|--------------------------------|-------------------|---------|
| | | Test Laboratory | Report No. | |
| 1 | Shell | SGS | SHAEC1605782313 | Pass |
| 2 | Switch Button | SGS | GZ1211302178/CHEM | Pass |
| 3 | PCB | SGS | SHAEC1600081702 | Pass |
| 4 | Plug-resistance | SGS | SHACE1522698102 | Pass |
| 5 | Chip Resistor | SGS | CANEC1317975404 | Pass |
| 6 | Chip Capacitors | SGS | KA/2015/10621 | Pass |
| 7 | Inductance | SGS | CANEC1301261603 | Pass |
| 8 | Crystal | SGS | CE/2014/B0138 | Pass |
| 9 | SMD crystal | SGS | CANEC1318423402 | Pass |
| 10 | SMD diode | SGS | SHAEC1321669505 | Pass |
| 11 | SMD LED | SGS | CE/2013/70857 | Pass |
| 12 | Wire | SGS | CANEC1400341301 | Pass |
| 13 | Ink | SGS | SHAEC1502300801 | Pass |
| 14 | USB interface steel section | SGS | CANEC1408645401 | Pass |
| 15 | Solder | SGS | CANEC1407966506 | Pass |
| 16 | Copper wire | SGS | JP/2014/041480 | Pass |

3.1) Test Result: Heavy Metals (Pb, Cd, Cr⁶⁺, Hg) Tests

| Element | Pb | Cd | Cr ⁶⁺ | Hg |
|---------|-------------|------------|------------------|-------------|
| Limit: | 1000(mg/kg) | 100(mg/kg) | 1000(mg/kg) | 1000(mg/kg) |
| 1 | N.D. | N.D. | N.D. | N.D. |
| 2 | N.D. | N.D. | N.D. | N.D. |
| 3 | N.D. | N.D. | N.D. | N.D. |
| 4 | N.D. | N.D. | N.D. | N.D. |
| 5 | N.D. | N.D. | N.D. | N.D. |
| 6 | N.D. | N.D. | N.D. | N.D. |
| 7 | N.D. | N.D. | N.D. | N.D. |
| 8 | N.D. | N.D. | N.D. | N.D. |
| 9 | N.D. | N.D. | N.D. | N.D. |
| 10 | N.D. | N.D. | N.D. | N.D. |
| 11 | N.D. | N.D. | N.D. | N.D. |
| 12 | N.D. | N.D. | N.D. | N.D. |
| 13 | N.D. | N.D. | N.D. | N.D. |
| 14 | N.D. | N.D. | N.D. | N.D. |
| 15 | N.D. | N.D. | N.D. | N.D. |
| 16 | N.D. | N.D. | N.D. | N.D. |

- ◆ “ N.D. ” means “ Not Detected ”, method detection limit = 2mg/kg.
- ◆ “ * ” means be exempted from RoHS Directive.

3.2) Test Result: Brominated Flame Retardants (PBBs&PBDEs) Tests

| PBBs | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|--------------------------|------|------|------|------|------|------|------|
| Monobromobiphenyl | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Dibromobiphenyl | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Tribromobiphenyl | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Tetrabromobiphenyl | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Pentabromobiphenyl | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Hexabromobiphenyl | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Heptabromobiphenyl | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Octabromobiphenyl | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Nonabromobiphenyl | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Decabromobiphenyl | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Sum of PBBs | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| PBDEs | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Monobromodiphenyl Ether | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Dibromodiphenyl Ether | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Tribromodiphenyl Ether | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Tetrabromodiphenyl Ether | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Pentabromodiphenyl Ether | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Hexabromodiphenyl Ether | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Heptabromodiphenyl Ether | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Octabromodiphenyl Ether | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Nonabromodiphenyl Ether | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Decabromodiphenyl Ether | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Sum of PBDEs | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |

| PBBs | 8 | 9 | 10 | 11 | 12 | 13 |
|--------------------------|------|------|------|------|------|------|
| Monobromobiphenyl | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Dibromobiphenyl | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Tribromobiphenyl | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Tetrabromobiphenyl | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Pentabromobiphenyl | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Hexabromobiphenyl | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Heptabromobiphenyl | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Octabromobiphenyl | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Nonabromobiphenyl | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Decabromobiphenyl | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Sum of PBBs | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| PBDEs | 8 | 9 | 10 | 11 | 12 | 13 |
| Monobromodiphenyl Ether | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Dibromodiphenyl Ether | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Tribromodiphenyl Ether | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Tetrabromodiphenyl Ether | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Pentabromodiphenyl Ether | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Hexabromodiphenyl Ether | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Heptabromodiphenyl Ether | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Octabromodiphenyl Ether | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Nonabromodiphenyl Ether | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Decabromodiphenyl Ether | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Sum of PBDEs | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |

- ◆ PBBs Limit = 1000 ppm, PBDEs Limit = 1000 ppm.
- ◆ “ N.D. ” means “ Not Detected ”, method detection limit = 5mg/kg.

4 Photographs - Constructional Details

Photo Appearance of EUT

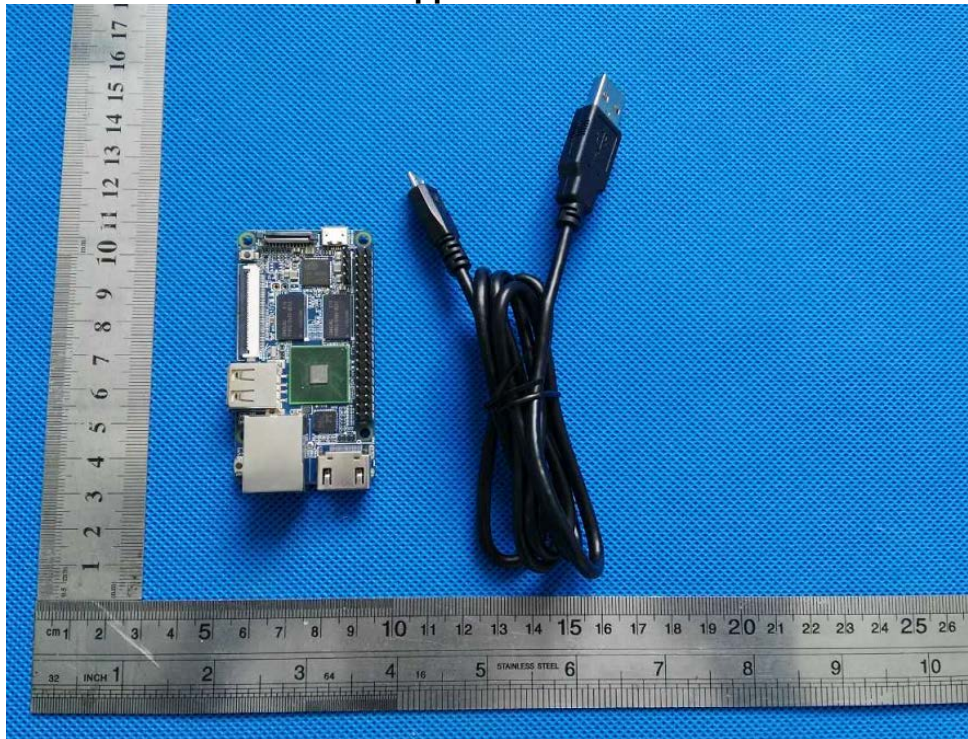
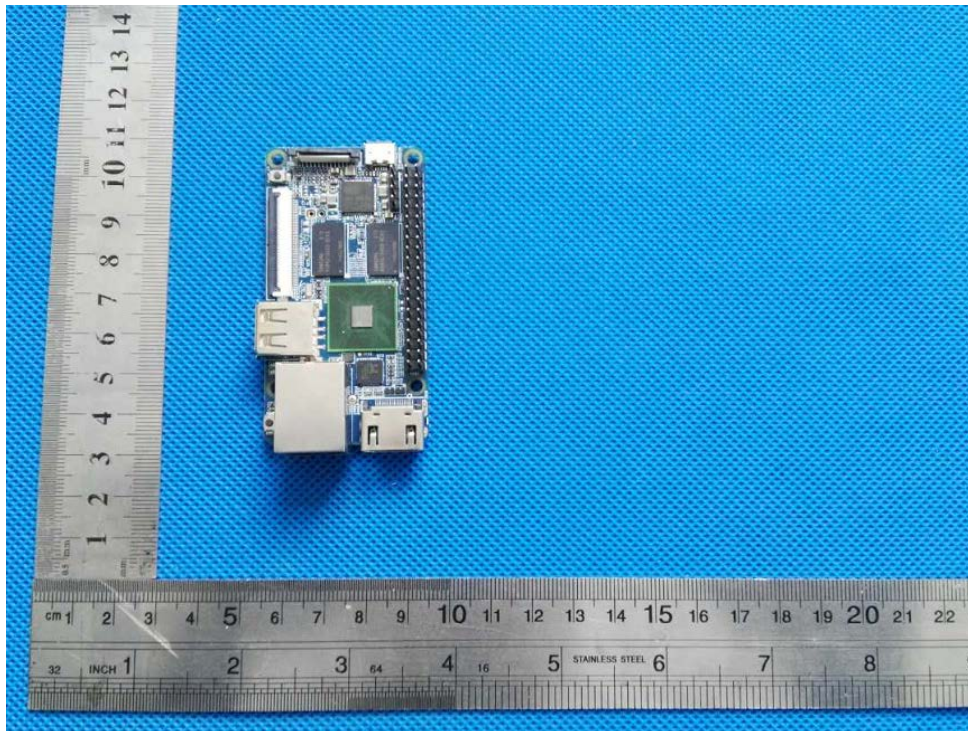


Photo Inside of EUT



END OF REPORT