



## 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 M3, NanoPi M2  
**Model No. :** NanoPi M3, NanoPi M2  
**Brand Name:** N/A  
**Issue Date:** 2016-10-21

	With reference to IEC 62321 Ed 1.0: 2013	MDL
	Determination of Lead (Pb) by ICP- OES	2mg/kg
<b>Test Method</b>	Determination of Cadmium (Cd) by ICP- OES	2mg/kg
<b>(If tested) :</b>	Determination of Mercury (Hg) by ICP-OES	2mg/kg
	Determination of Chromium (Cr <sup>6+</sup> ) 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

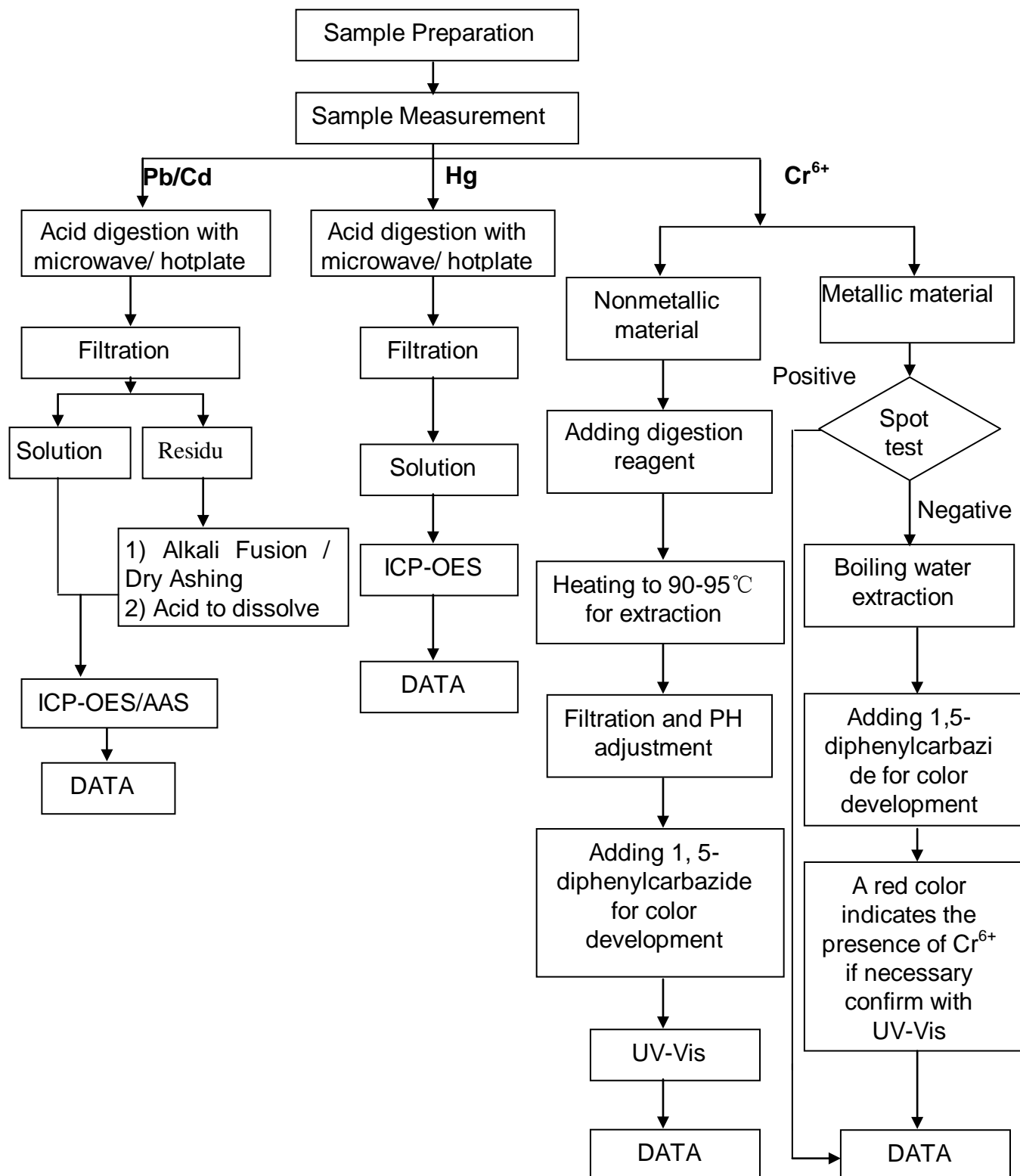
**Applicant** : Guangzhou FriendlyElec Technology Co., Limited  
**Address** : Room 4313, Block B, China Shine Plaza, No. 9 Lin He Xi Road,  
Tianhe District, Guangzhou, Guangdong, PR China  
**Manufacturer** : Guangzhou FriendlyElec Technology Co., Limited  
**Address** : Room 4313, Block B, China Shine Plaza, No. 9 Lin He Xi Road,  
Tianhe District, Guangzhou, Guangdong, PR China  
**EUT Name** : NanoPi M3, NanoPi M2  
**Model No.** : NanoPi M3, NanoPi M2

## 1.2 Test Facility

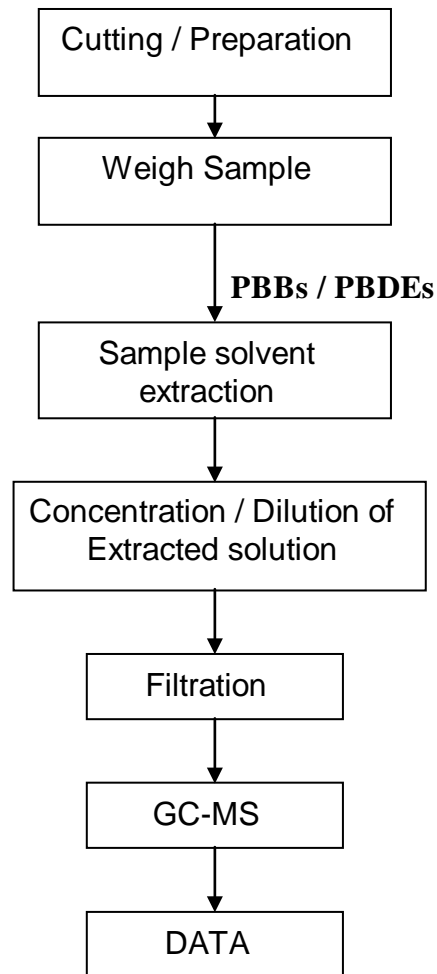
The testing report were performed by the Shenzhen ETR Standard Technology Co., Ltd., in their facilities located at 5/F, Bldg. A, The Third Industrial Zone Zhuao, No.1 Road Gushu, Xixiang Street, Bao'an District, Shenzhen, China.

## 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	PCB	SGS	SHAEC1600081702	Pass
3	Chip Resistor	SGS	CANEC1308548701	Pass
4	Chip Capacitors	SGS	KA/2015/10621	Pass
5	Inductance	SGS	CANEC1301261603	Pass
6	Crystal	SGS	CE/2014/B0138	Pass
7	SMD crystal	SGS	CANEC1318423402	Pass
8	SMD diode	SGS	SHAEC1321669505	Pass
9	Wire	SGS	CANEC1400341301	Pass
10	Paint	CTI	RLSHD000591420001C	Pass
11	Ink	SGS	SHAEC1502300801	Pass
12	Iron	SGS	CANEC1206728402	Pass
13	USB interface steel section	SGS	CANEC1408645401	Pass
14	Solder	SGS	CANEC1407966506	Pass
15	Tin Plating	SGS	CANEC14131605	Pass
16	Copper wire	SGS	JP/2014/041480	Pass

3.1) Test Result: Heavy Metals (Pb, Cd, Cr<sup>6+</sup>, Hg) Tests

Element	Pb	Cd	Cr <sup>6+</sup>	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&amp;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.
Pentabromoniphenyl	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Hexqrbromobiphenyl	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.
Pentabromoniphenyl 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
Monobromobiphenyl	N.D.	N.D.	N.D.	N.D.
Dibromobiphenyl	N.D.	N.D.	N.D.	N.D.
Tribromobiphenyl	N.D.	N.D.	N.D.	N.D.
Tetrabromobiphenyl	N.D.	N.D.	N.D.	N.D.
Pentabromobiphenyl	N.D.	N.D.	N.D.	N.D.
Hexabromobiphenyl	N.D.	N.D.	N.D.	N.D.
Heptabromobiphenyl	N.D.	N.D.	N.D.	N.D.
Octabromobiphenyl	N.D.	N.D.	N.D.	N.D.
Nonabromobiphenyl	N.D.	N.D.	N.D.	N.D.
Decabromobiphenyl	N.D.	N.D.	N.D.	N.D.
Sum of PBBs	N.D.	N.D.	N.D.	N.D.
PBDEs	8	9	10	11
Monobromodiphenyl Ether	N.D.	N.D.	N.D.	N.D.
Dibromodiphenyl Ether	N.D.	N.D.	N.D.	N.D.
Tribromodiphenyl Ether	N.D.	N.D.	N.D.	N.D.
Tetrabromodiphenyl Ether	N.D.	N.D.	N.D.	N.D.
Pentabromodiphenyl Ether	N.D.	N.D.	N.D.	N.D.
Hexabromodiphenyl Ether	N.D.	N.D.	N.D.	N.D.
Heptabromodiphenyl Ether	N.D.	N.D.	N.D.	N.D.
Octabromodiphenyl Ether	N.D.	N.D.	N.D.	N.D.
Nonabromodiphenyl Ether	N.D.	N.D.	N.D.	N.D.
Decabromodiphenyl Ether	N.D.	N.D.	N.D.	N.D.
Sum of PBDEs	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

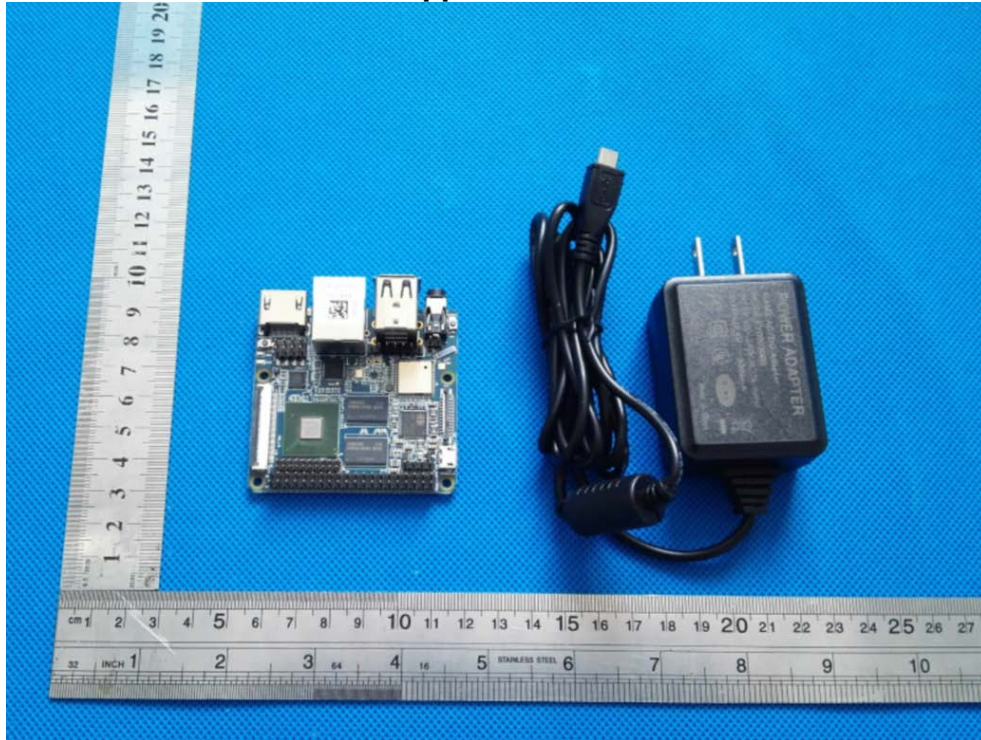
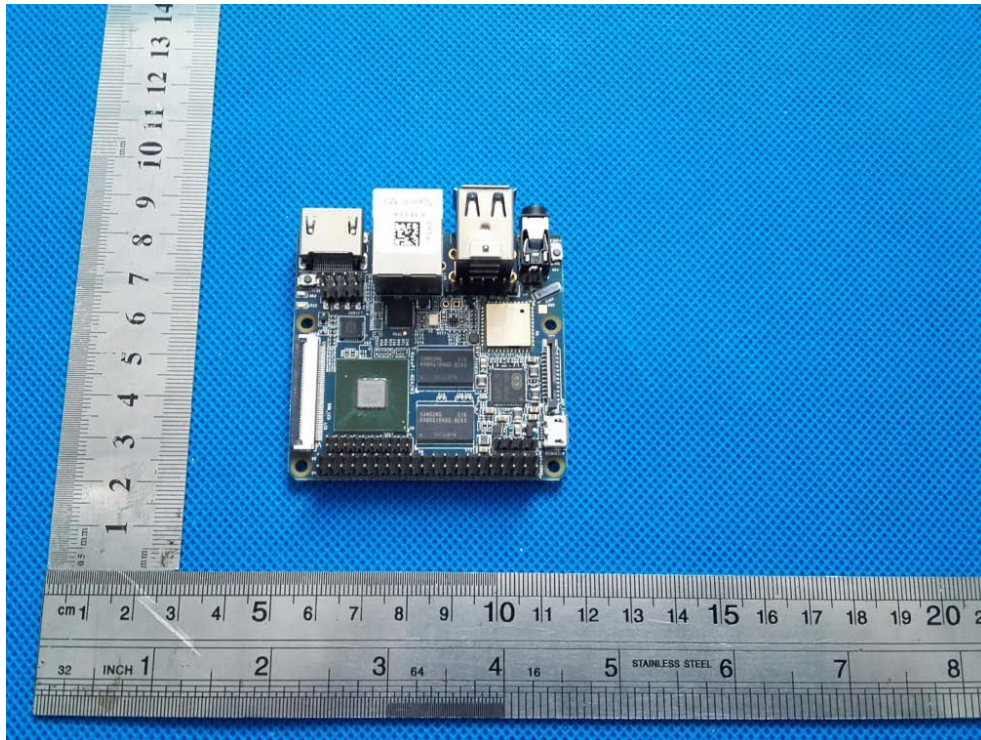


Photo Inside of EUT



**END OF REPORT**