



# Test Report

Report No : BSTDG1501315222RR-4 Date: Jan. 06, 2015

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**Applicant** : MAKO SEMICONDUCTOR CO., LIMITED

**Address** : Flat B07 Floor23, Hover Industrial Building, No. 26-38 Kwai Cheong Road, N.T,  
Hong Kong.

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

**Sample Name** : Chip semiconductor (Diodes, transistors, FETs, thyristors,  
Darlington transistors, single-junction transistor, LED,  
TVS, ESD, and contain semiconductor manifold, IC)



**Trade Name** : 美科半導體

**Sample Model** : SOT/SOD/DO-214/LL/DO/TO/LBS/MBS/DB/0402/0603/0805/1206  
/1210 ALL SERIES

**Sample Received Date** : Jan. 03, 2015

**Testing Period** : Jan. 03, 2015 To Jan. 06, 2015

**Test Requested** : selected test(s) in the selected parts as requested by client with  
2011/65/EU.

**Test Method** : Please refer to next page(s).

**Test Result** : Please refer to next page(s).

Signed for and on behalf of



**Andy Zheng/ Technical Director**

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## Sample Description:

No.	Description	Name
1	Metal	Pin
2	Plastic	Package Body

## Test Result(No.1):

Test Item(s)	Unit	Test Method (Reference)	Result	MDL	Limit
Cadmium(Cd)	mg/kg	IEC 62321-5:2013, ICP-AES	N.D.	2	100
Lead(Pb)	mg/kg	IEC 62321-5:2013, ICP-AES	10	2	1000
Mercury(Hg)	mg/kg	IEC 62321-4:2013, ICP-AES	N.D.	2	1000
Hexavalent Chromium(CrVI)	mg/kg	IEC 62321:2008, UV-Vis	N.D.	2	1000
<b>Sum of PBBs</b>	<b>mg/kg</b>	<b>IEC 62321:2008, GC-MS</b>	<b>--</b>	<b>--</b>	<b>1000</b>
Monobromobiphenyl	mg/kg	IEC 62321:2008, GC-MS	--	5	--
Dibromobiphenyl	mg/kg	IEC 62321:2008, GC-MS	--	5	--
Tribromobiphenyl	mg/kg	IEC 62321:2008, GC-MS	--	5	--
Tetrabromobiphenyl	mg/kg	IEC 62321:2008, GC-MS	--	5	--
Pentabromobiphenyl	mg/kg	IEC 62321:2008, GC-MS	--	5	--
Hexabromobiphenyl	mg/kg	IEC 62321:2008, GC-MS	--	5	--
Heptabromobiphenyl	mg/kg	IEC 62321:2008, GC-MS	--	5	--
Octabromobiphenyl	mg/kg	IEC 62321:2008, GC-MS	--	5	--
Nonabromobiphenyl	mg/kg	IEC 62321:2008, GC-MS	--	5	--
Decabromobiphenyl	mg/kg	IEC 62321:2008, GC-MS	--	5	--
<b>Sum of PBDEs</b>	<b>mg/kg</b>	<b>IEC 62321:2008, GC-MS</b>	<b>--</b>	<b>--</b>	<b>1000</b>
Monobromodiphenyl ether	mg/kg	IEC 62321:2008, GC-MS	--	5	--
Dibromodiphenyl ether	mg/kg	IEC 62321:2008, GC-MS	--	5	--
Tribromodiphenyl ether	mg/kg	IEC 62321:2008, GC-MS	--	5	--
Tetrabromodiphenyl ether	mg/kg	IEC 62321:2008, GC-MS	--	5	--
Pentabromodiphenyl ether	mg/kg	IEC 62321:2008, GC-MS	--	5	--
Hexabromodiphenyl ether	mg/kg	IEC 62321:2008, GC-MS	--	5	--
Heptabromodiphenyl ether	mg/kg	IEC 62321:2008, GC-MS	--	5	--
Octabromodiphenyl ether	mg/kg	IEC 62321:2008, GC-MS	--	5	--
Nonabromodiphenyl ether	mg/kg	IEC 62321:2008, GC-MS	--	5	--
Decabromodiphenyl ether	mg/kg	IEC 62321:2008, GC-MS	--	5	--

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## Test Result(No.2):

Test Item(s)	Unit	Test Method (Reference)	Result	MDL	Limit
Cadmium(Cd)	mg/kg	IEC 62321-5:2013, ICP-AES	N.D.	2	100
Lead(Pb)	mg/kg	IEC 62321-5:2013, ICP-AES	N.D.	2	1000
Mercury(Hg)	mg/kg	IEC 62321-4:2013, ICP-AES	N.D.	2	1000
Hexavalent Chromium(CrVI)	mg/kg	IEC 62321:2008, UV-Vis	N.D.	2	1000
<b>Sum of PBBs</b>	<b>mg/kg</b>	<b>IEC 62321:2008, GC-MS</b>	N.D.	--	<b>1000</b>
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	--
<b>Sum of PBDEs</b>	<b>mg/kg</b>	<b>IEC 62321:2008, GC-MS</b>	N.D.	--	<b>1000</b>
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.= No Detection(<MDL)
  3. MDL = Method Detection Limit
  4. -- = No Testing

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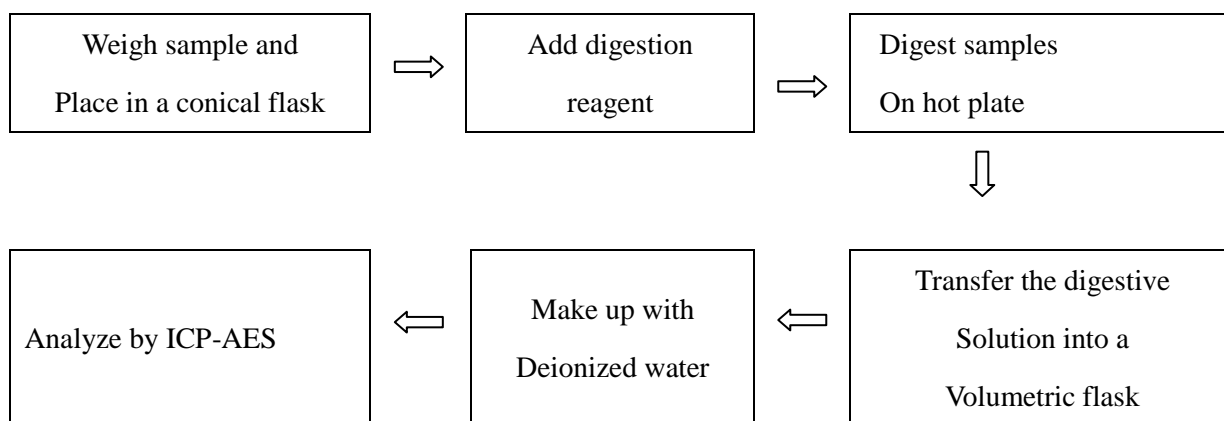
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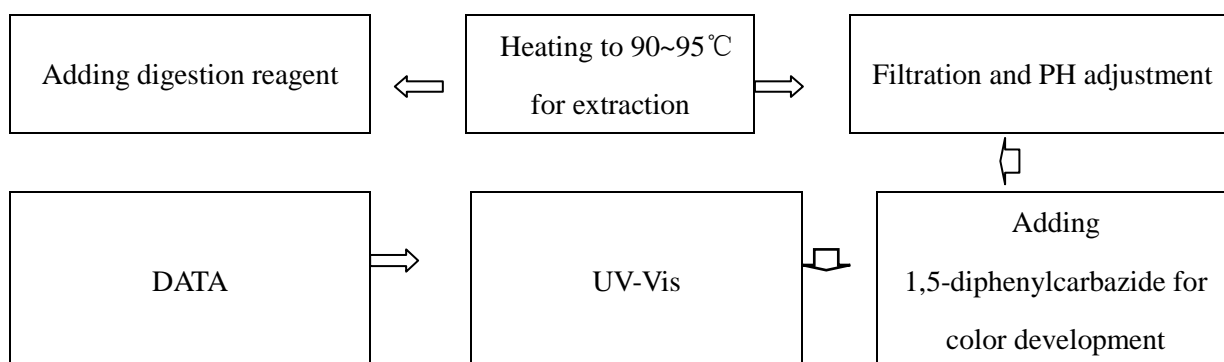
## Test Process:

### 1. Test for Cd/Pb Content

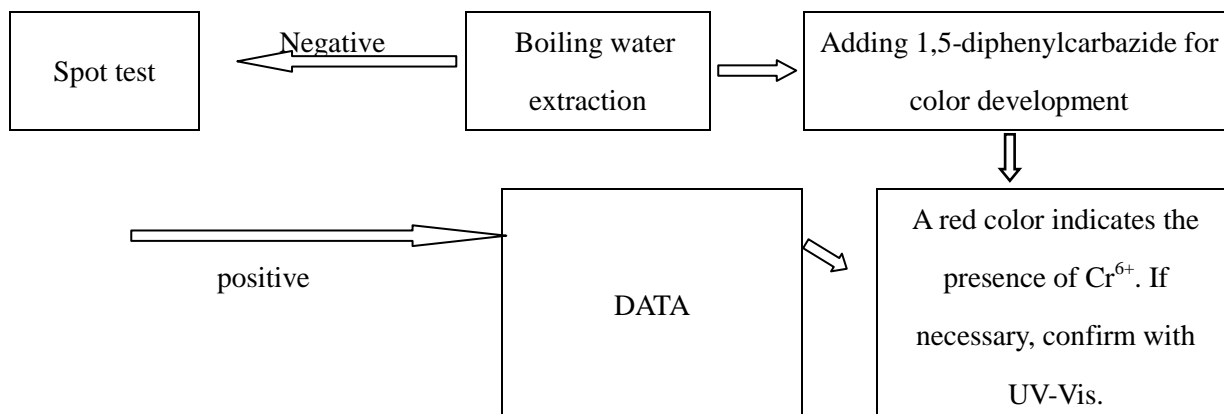


### 2. Test for Chromium(VI) Content

#### Nonmetallic material



#### Metallic material



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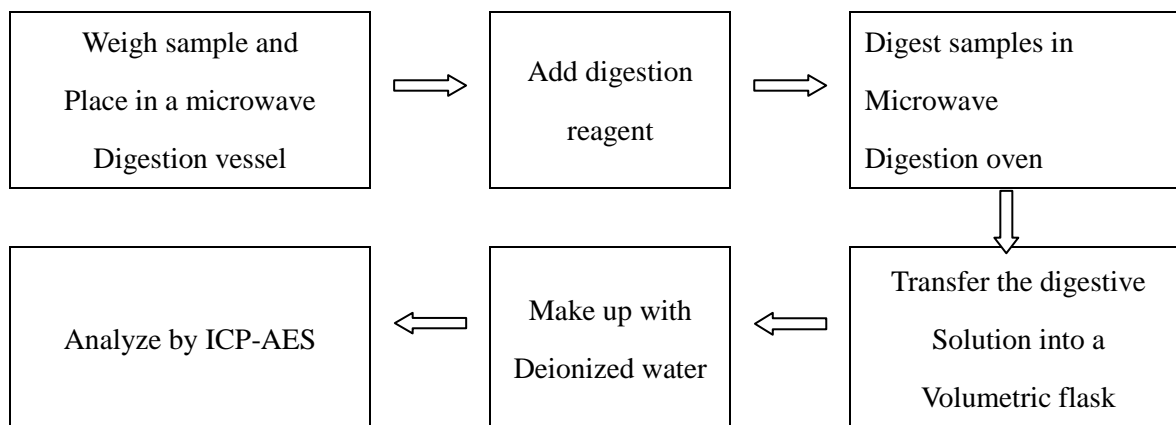


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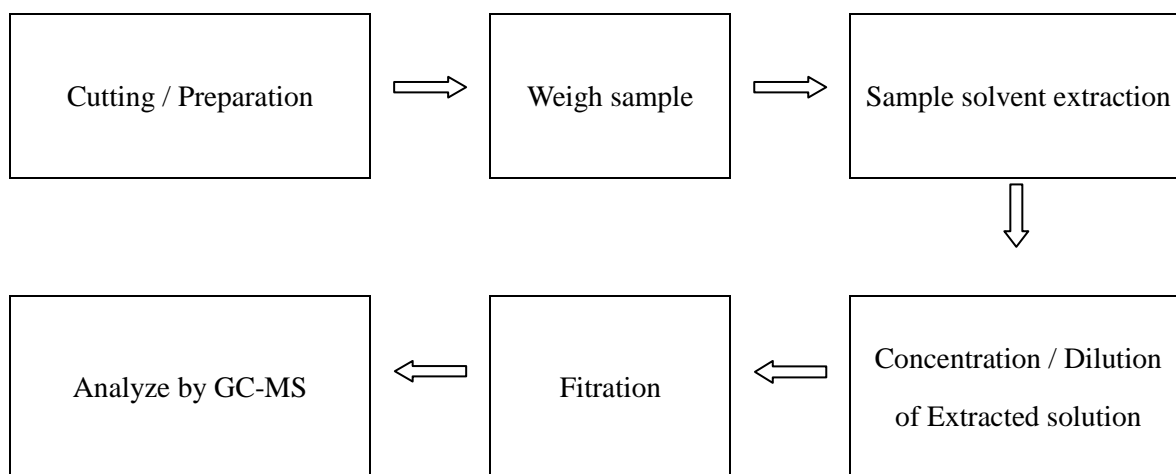
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## 3. Test for Hg Contents



## 4. Test for PBBs, PBDES



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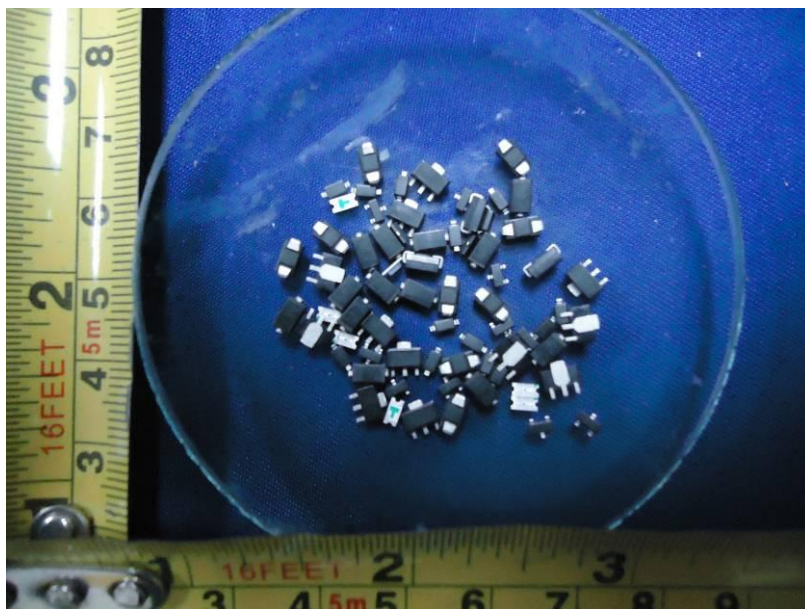


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## Sample Photo:



\*\*\* End of Report \*\*\*

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**Dongguan BST Testing Co., Ltd.**

A1201-1203 Xinsanqi Of Dongbao Road, Dongcheng District, Tel:400-880-2056 Fax:86-769-23020106  
Dongguan, Guangdong, China E-mail:christina@bst-lab.com Http://www.bst-lab.com Complaints hotline:86-755-26747756