

Test Report No. CANEC0803338711 Date: 08 Jul 2008 Page 1 of 7

SEMTECH ELECTRONICS LIMITED

12-18 BAIYE CHENG ROAD, SHANGTUN INDUSTRIAL ZONE, LIAOBU, DONGGUAN, GUANGDONG, PR CHINA

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

SGS Job No. : 11115177 - GZ

SGS Internal Reference No. : 8.7

Date of Sample Received : 25 Jun 2008 Date of final job information : 01 Jun 2008

received

Testing Period : 25 Jun 2008 - 04 Jul 2008

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.

Huang Fang, Sunny

Sr. Engineer

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Test Results:

ID for specimen 1 : CAN08-033387.007

Description for specimen 1 : Black body w/ silvery surface (mixed)

A: RoHS Directive 2002/95/EC

Test Item(s)	Unit	Test Method (Reference)	Result	MDL	Limit
Cadmium (Cd)	mg/kg	IEC 62321/2nd CDV (111/95/CDV), ICP-OES	N.D.	2	100
Lead (Pb)	mg/kg	IEC 62321/2nd CDV (111/95/CDV), ICP-OES	9169<1>	2	1000
Mercury (Hg)	mg/kg	IEC 62321/2nd CDV (111/95/CDV), ICP-OES	N.D.	2	1000
Hexavalent Chromium (CrVI) by	mg/kg	IEC 62321/2nd CDV (111/95/CDV), UV-Vis	N.D.	2	1000
alkaline extraction					
Sum of PBBs	mg/kg	-	N.D.	-	1000
Monobromobiphenyl	mg/kg	IEC 62321/2nd CDV (111/95/CDV), GC-MS	N.D.	5	
Dibromobiphenyl	mg/kg	IEC 62321/2nd CDV (111/95/CDV), GC-MS	N.D.	5	
Tribromobiphenyl	mg/kg	IEC 62321/2nd CDV (111/95/CDV), GC-MS	N.D.	5	
Tetrabromobiphenyl	mg/kg	IEC 62321/2nd CDV (111/95/CDV), GC-MS	N.D.	5	
Pentabromobiphenyl	mg/kg	IEC 62321/2nd CDV (111/95/CDV), GC-MS	N.D.	5	
Hexabromobiphenyl	mg/kg	IEC 62321/2nd CDV (111/95/CDV), GC-MS	N.D.	5	
Heptabromobiphenyl	mg/kg	IEC 62321/2nd CDV (111/95/CDV), GC-MS	N.D.	5	
Octabromobiphenyl	mg/kg	IEC 62321/2nd CDV (111/95/CDV), GC-MS	N.D.	5	
Nonabromobiphenyl	mg/kg	IEC 62321/2nd CDV (111/95/CDV), GC-MS	N.D.	5	
Decabromobiphenyl	mg/kg	IEC 62321/2nd CDV (111/95/CDV), GC-MS	N.D.	5	
Sum of PBDEs	mg/kg	-	N.D.	-	1000
Monobromodiphenyl ether	mg/kg	IEC 62321/2nd CDV (111/95/CDV), GC-MS	N.D.	5	
Dibromodiphenyl ether	mg/kg	IEC 62321/2nd CDV (111/95/CDV), GC-MS	N.D.	5	
Tribromodiphenyl ether	mg/kg	IEC 62321/2nd CDV (111/95/CDV), GC-MS	N.D.	5	
Tetrabromodiphenyl ether	mg/kg	IEC 62321/2nd CDV (111/95/CDV), GC-MS	N.D.	5	
Pentabromodiphenyl ether	mg/kg	IEC 62321/2nd CDV (111/95/CDV), GC-MS	N.D.	5	
Hexabromodiphenyl ether	mg/kg	IEC 62321/2nd CDV (111/95/CDV), GC-MS	N.D.	5	
Heptabromodiphenyl ether	mg/kg	IEC 62321/2nd CDV (111/95/CDV), GC-MS	N.D.	5	
Octabromodiphenyl ether	mg/kg	IEC 62321/2nd CDV (111/95/CDV), GC-MS	N.D.	5	
Nonabromodiphenyl ether	mg/kg	IEC 62321/2nd CDV (111/95/CDV), GC-MS	N.D.	5	
Decabromodiphenyl ether ##	mg/kg	IEC 62321/2nd CDV (111/95/CDV), GC-MS	N.D.	5	

Note:

- 1. mg/kg = ppm
- 2. N.D. = Not Detected (< MDL)
- 3. MDL = Method Detection Limit
- 4. ## = The exemption of DecaBDE in polymeric application according 2005/717/EC was overruled by the European Court of Justice by its decision of 01.04.2008. Subsequently DecaBDE will be included in the sum of PBDE after 01.07.2008
- 5. "-" = Not regulated

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ID for specimen 2 : CAN08-033387.008

Description for specimen 2 : Silvery / copper-colored metal pin

A: RoHS Directive 2002/95/EC

Test Item(s)	Unit	Test Method (Reference)	Result	MDL	Limit
Cadmium (Cd)	mg/kg	IEC 62321/2nd CDV (111/95/CDV), ICP-OES	N.D.	2	100
Lead (Pb)	mg/kg	IEC 62321/2nd CDV (111/95/CDV), ICP-OES	10	2	1000
Mercury (Hg)	mg/kg	IEC 62321/2nd CDV (111/95/CDV), ICP-OES	N.D.	2	1000
Hexavalent Chromium (CrVI) by	-	IEC 62321/2nd CDV (111/95/CDV), UV-Vis	Negative	\Diamond	#
boiling water extraction					

Note:

- 1. mg/kg = ppm
- 2. N.D. = Not Detected (< MDL)
- 3. MDL = Method Detection Limit
- 4. ♦ = Spot-Test:

Negative = Absence of CrVI coating, Positive = Presence of CrVI coating;

(The tested sample should be further verified by boiling-water-extraction method if the spot test result is negative or cannot be confirmed.)

Boiling-water-extraction:

Negative = Absence of CrVI coating

Positive = Presence of CrVI coating; the detected concentration in boiling-water-extraction solution is equal or greater than 0.02 mg/kg with 50 cm² sample surface area.

5. "-" = Not regulated

B: Heavy metal(s)

Test Item(s)	Unit	Test Method (Reference)	Result	MDL
Hexavalent Chromium (CrVI) by	mg/kg	EPA 3060A: 1996 & EPA 7196A: 1992,	N.D.	2
alkaline extraction		UV-Vis		

Note:

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

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Remark<1>: According to the declaration from client, the source of Lead in the specimen 1 could be from the high melting temperature type solder, while Lead in high melting temperature type solders is exempted by RoHS reglatory (Directive 2002/95/EC of the European Parliament and of the council of 27 January 2003).

Remark<2>: As requested by client, the testing of specimen 1 was conducted as whole / part sample, for the sample can't be disjointed.

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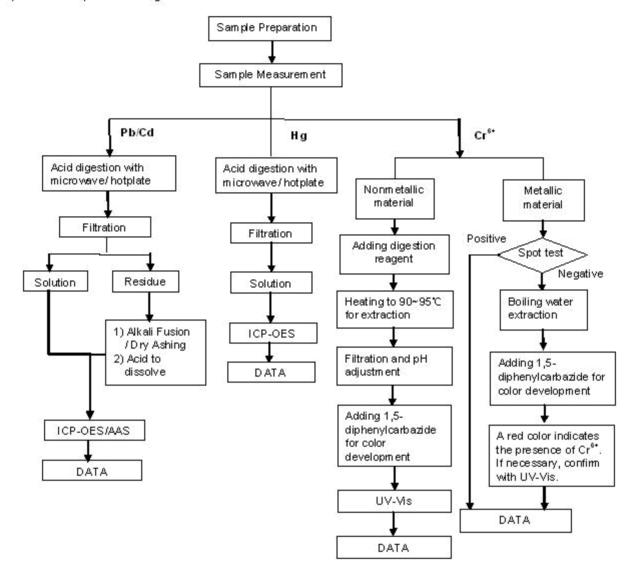
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ATTACHMENTS

Testing Flow Chart

- 1) Name of the person who made measurement: Bowen Chen
- 2) Name of the person in charge of measurement: Adams Yu



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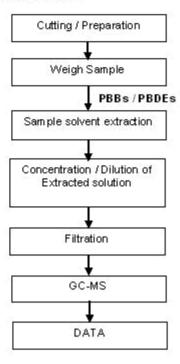
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Testing Flow Chart

- 1) Name of the person who made measurement: Lina Tang
- 2) Name of the person in charge of measurement: Nina Wu



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Sample photo:





SGS authenticate the photo on original report only *** End of Report ***

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