

Test Report No. CANEC0900241301 Date: 23 Jan 2009 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 :

SGS Job No. 11569355 - GZ

SGS Internal Reference No. : 17.9

16 Jan 2009 Date of Sample Received

Testing Period 16 Jan 2009 - 23 Jan 2009

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).

A: Based on the performed tests on submitted sample(s), the results comply Conclusion

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



Test Report No. CANEC0900241301 Date: 23 Jan 2009 Page 2 of 7

Test Results:

ID for specimen 1 : CAN09-002413.009
Description for specimen 1 : Black body(mixed)

A: RoHS Directive 2002/95/EC

Test Item(s)	Unit	Test Method (Reference)	Result	MDL	Limit
Cadmium (Cd)	mg/kg	IEC 62321:2008, ICP-OES	N.D.	2	100
Lead (Pb)	mg/kg	IEC 62321:2008, ICP-OES	N.D.	2	1000
Mercury (Hg)	mg/kg	IEC 62321:2008, ICP-OES	N.D.	2	1000
Hexavalent Chromium (CrVI) by	mg/kg	IEC 62321:2008, UV-Vis	N.D.	2	1000
alkaline extraction					
Sum of PBBs	mg/kg	-	N.D.	-	1000
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	
Sum of PBDEs	mg/kg	-	N.D.	-	1000
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. = 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 is included in the sum of PBDE after 01.07.2008
- 5. "-" = Not regulated

This document is issued by the Company under its General Conditions of Service printed overleaf or available on request and accessible at http://www.sgs.com/terms.and.conditions.htm. Attention of the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects (the Company's sole responsibility is to its Client and this document is one to expect the company's sole responsibility is to its Client and this document and the rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsy sation of the content and appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This document cannot be reproduced except in full, without prior approval of the Company.

198 Kezhu Road, Scientech Park Guangzhou Economic & Technology Development District. Guangzhou, China 510663 t (86-20)82155555 f (86-20)82075113 www.cn.sgs.com中国 - 广州 - 经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20)82155555 f (86-20)82075113 e sgs.china@sgs.com



Test Report No. CANEC0900241301 Date: 23 Jan 2009 Page 3 of 7

ID for specimen 2 : CAN09-002413.010
Description for specimen 2 : Silvery metal pin

A: RoHS Directive 2002/95/EC

Test Item(s)	Unit	Test Method (Reference)	Result	MDL	Limit
Cadmium (Cd)	mg/kg	IEC 62321:2008, ICP-OES	N.D.	2	100
Lead (Pb)	mg/kg	IEC 62321:2008, ICP-OES	11	2	1000
Mercury (Hg)	mg/kg	IEC 62321:2008, ICP-OES	N.D.	2	1000
Hexavalent Chromium (CrVI) by	-	IEC 62321:2008, 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.

Storage conditions and production date of the tested sample are unavailable and thus results of Cr(VI) represent status of the sample at the time of testing.

5. # = Positive indicates the presence of CrVI on the tested areas.

Negative indicates the absence of CrVI on the tested areas.

6. "-" = Not regulated

B:Heavy metal(s)

Test Item(s)	Unit	Test Method (Reference)	Result	MDL
Hexavalent Chromium (CrVI) by	μg/cm²	JIS H8625-1993, UV-Vis	N.D.	0.02
boiling water extraction				

Note:

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

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

This document is issued by the Company under its General Conditions of Service printed overleaf or available on request and accessible at htm. Attention of the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflect the Company's todings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exorage the parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or false figures at the content of the content of the law.

Unless otherwise stands the described his document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise stands have unless that the content of the law.

Unless otherwise stands have unless that the limits of the law.

198 Kezhu Road, Scientech Park Guangzhou Economic & Technology Development District. Guangzhou, China 510663 t (86-20)82155555 f (86-20)82075113 www.cn.sgs.com中国 - 广州 - 经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20)82155555 f (86-20)82075113 e sgs.china@sgs.com



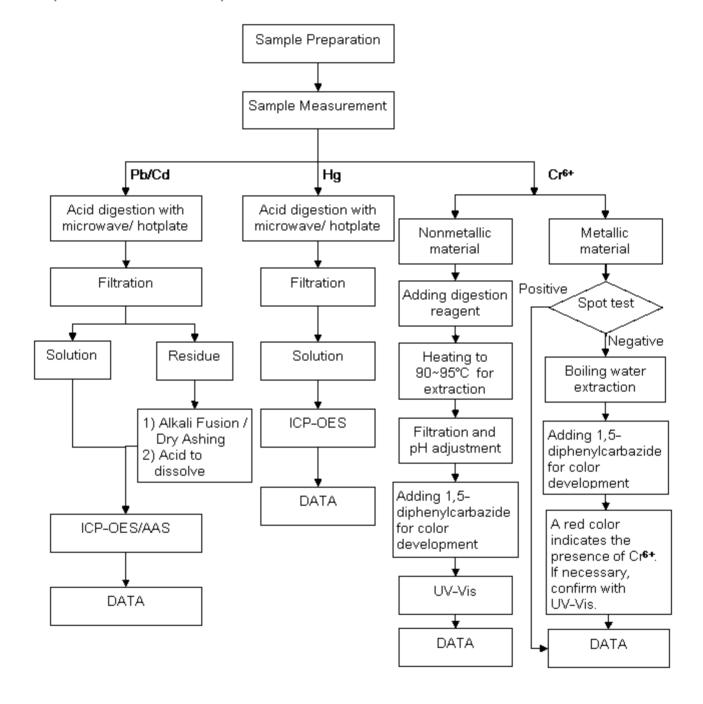
No. CANEC0900241301

Date: 23 Jan 2009 Page 4 of 7

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
- 3) These samples were dissolved totally by pre-conditioning method according to below flow chart (Cr6+ test method excluded).



This document is issued by the Company under its General Conditions of Service printed overleaf or available on request and accessible at http://www.sgs.com/terms.and.conditions.htm. Attention to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflect the Company's sole responsibility is to its Client and this document does not exorate the parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsy facility appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise at the theoretical appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise at the theoretical appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

198 Kezhu Road, Scientech Park Guangzhou Economic & Technology Development District. Guangzhou, China 510663 中国•广州•经济技术开发区科学城科珠路198号 邮编:510663

t (86-20)82155555 f (86-20)82075113 t (86-20)82155555 f (86-20)82075113 e sgs.china@sgs.com



No. CANEC0900241301

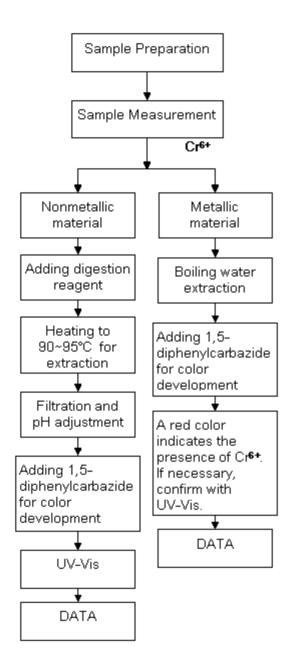
Page 5 of 7

Date: 23 Jan 2009

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



This document is issued by the Company under its General Conditions of Service printed overleaf or available on request and accessible at http://www.sgs.com/terms.and.conditions.htm. Attention to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflect the Company's sole responsibility is to its Client and this document does not exorate the parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsy facility appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise at the theoretical appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise at the theoretical appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

198 Kezhu Road, Scientech Park Guangzhou Economic & Technology Development District. Guangzhou, China 510663 中国・广州・经济技术开发区科学城科珠路198号 邮编:510663

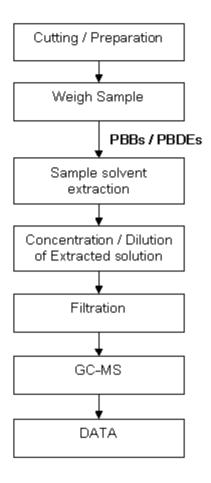
t (86-20)82155555 f (86-20)82075113 t (86-20)82155555 f (86-20)82075113 e sgs.china@sgs.com



No. CANEC0900241301 Date: 23 Jan 2009 Page 6 of 7

Testing Flow Chart

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



This document is issued by the Company under its General Conditions of Service printed overleaf or available on request and accessible at http://www.sgs.com/terms.and.conditions.htm. Attention to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflect the Company's sole responsibility is to its Client and this document does not exorate the parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsy facility appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise at the theoretical appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise at the theoretical appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

198 Kezhu Road, Scientech Park Guangzhou Economic & Technology Development District. Guangzhou, China 510663 中国・广州・经济技术开发区科学城科珠路198号 邮编:510663

t (86-20)82155555 f (86-20)82075113 t (86-20)82155555 f (86-20)82075113 e sgs.china@sgs.com

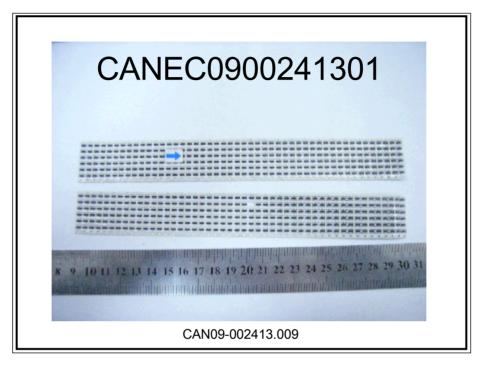


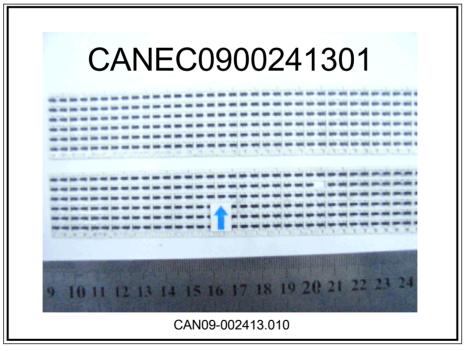
No. CANEC0900241301

Date: 23 Jan 2009

Page 7 of 7

Sample photo:





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

This document is issued by the Company under its General Conditions of Service printed overleaf or available on request and accessible at http://www.sgs.com/terms.and.conditions.htm. Attention to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflect the Company's sole responsibility is to its Client and this document does not exorate the parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsy facility appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise at the theoretical appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise at the theoretical appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.