



**Test Report No.** F690501/LF-CTSGPJ05-0105

Date: November 02, 2005

Page 1 of 2

To: **AUK CORP**  
802-12  
Shinheung-dong  
Iksan-city  
JEONBUK  
Korea

The following merchandise was submitted and identified by the client as :

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**Commodity** : Silicon Chip  
**SGS File No.** : GPJ05-0105  
**Received Date** : October 26, 2005  
**Test Performing Date** : October 27, 2005  
**Test Performed** : SGS Testing Korea tested the sample(s) selected by applicant with following results  
**Test Results** : For further details, please refer to following page(s)  
**Comments** : Buyer is SONY

**SGS Testing Korea Co. Ltd.**

Jason Han / Lab Director

Jeff Jang / Technical Mgr

**Test Report No. F690501/LF-CTSGPJ05-0105**

Date: November 02, 2005

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**Sample No.** : GPJ05-0105.001  
**Sample Description** : Silicon Chip  
**Style/Item No.** : N/A  
**Comments** : Material is Silicon

**Heavy Metals**

Test Items	Unit	Test Method	MDL	Results
Cadmium(Cd)	mg/kg	USEPA 3050B, ICP-AES	0.5	N.D.
Lead (Pb)	mg/kg	USEPA 3050B, ICP-AES	5	N.D.
Mercury (Hg)	mg/kg	USEPA 3052, ICP-AES	2	N.D.
Hexavalent Chromium (Cr VI)	mg/kg	USEPA 3060A, UV-vis	1	N.D.

**Flame Retardants-PBBs/PBDEs**

Test Items	Unit	Test Method	MDL	Results
Monobromobiphenyl	mg/kg	USEPA 3540C, GC/MS	5	N.D.
Dibromobiphenyl	mg/kg	USEPA 3540C, GC/MS	5	N.D.
Tribromobiphenyl	mg/kg	USEPA 3540C, GC/MS	5	N.D.
Tetrabromobiphenyl	mg/kg	USEPA 3540C, GC/MS	5	N.D.
Heptabromobiphenyl	mg/kg	USEPA 3540C, GC/MS	5	N.D.
Hexabromobiphenyl	mg/kg	USEPA 3540C, GC/MS	5	N.D.
Pentabromobiphenyl	mg/kg	USEPA 3540C, GC/MS	5	N.D.
Octabromobiphenyl	mg/kg	USEPA 3540C, GC/MS	5	N.D.
Nonabromobiphenyl	mg/kg	USEPA 3540C, GC/MS	5	N.D.
Decabromobiphenyl	mg/kg	USEPA 3540C, GC/MS	5	N.D.
Monobromobiphenyl ether	mg/kg	USEPA 3540C, GC/MS	5	N.D.
Dibromobiphenyl ether	mg/kg	USEPA 3540C, GC/MS	5	N.D.
Tribromobiphenyl ether	mg/kg	USEPA 3540C, GC/MS	5	N.D.
Tetrabromobiphenyl ether	mg/kg	USEPA 3540C, GC/MS	5	N.D.
Heptabromobiphenyl ether	mg/kg	USEPA 3540C, GC/MS	5	N.D.
Hexabromobiphenyl ether	mg/kg	USEPA 3540C, GC/MS	5	N.D.
Pentabromobiphenyl ether	mg/kg	USEPA 3540C, GC/MS	5	N.D.
Octabromobiphenyl ether	mg/kg	USEPA 3540C, GC/MS	5	N.D.
Nonabromobiphenyl ether	mg/kg	USEPA 3540C, GC/MS	5	N.D.
Decabromobiphenyl ether	mg/kg	USEPA 3540C, GC/MS	5	N.D.

\*\*\* End \*\*\*

NOTE: N.D. = Not detected.(<MDL)  
ppm = mg/kg  
MDL = Method Detection Limit  
"- " = No Regulation  
\*\* = Qualitative analysis (No Unit)  
Negative = Undetectable / Positive = Detectable

SHENZHEN POSSEHL SEG ELECTRONICS CO LTD  
1 HONG LIU RD., FUTIAN FREE TRADE ZONE,  
SHENZHEN, CHINA

Report on the submitted sample said to be LEADFRAME - A42 + Cu PLATING + SELECTIVE Ag PLATING.


SGS Job No. : 1805681  
Sample Receiving Date : JUL 01 2005  
Testing Period : JUL 01-08 2005

Test Requested : 1) To determine the Cadmium content in the submitted sample.  
2) To determine the Lead content in the submitted sample.  
3) To determine the Mercury content in the submitted sample.  
4) To determine the Hexavalent Chromium content on the submitted sample.  
5) Determination of PBBs (polybrominated biphenyls), PBDEs (Polybrominated diphenylethers) of the submitted sample.

Test Method : 1-3) In-House Method. The sample was digested by acid.  
Analysis was performed by Inductively Coupled Argon Plasma - Atomic Emission Spectrometry (ICP-AES) or Atomic Absorption Spectrometry.  
4) As specified in EPA Method 3060A & 7196A.  
The sample was alkaline digested by using EPA Method 3060A, and then analyzed by using Colorimetric method 7196A.  
5) With reference to SGS in-house method. Analysis was performed by GC/MS.

Test Results : 1-5) Please refer to next page.

Signed for and on behalf of  
SGS Hong Kong Ltd

  
Lal Ka Yan, Margaret  
Section Manager

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Test Results :

<u>Element</u>	<u>Silvery Metal w/ Coppery and Silvery Plating</u>
1) Cadmium (Cd)	< 2 ppm
2) Lead (Pb)	< 2 ppm
3) Mercury (Hg)	< 2 ppm
4) Hexavalent Chromium (Cr <sup>6+</sup> )	< 2 ppm

(Results shown are of the total weight of samples)

Note : < = Less than  
ppm = mg/kg

5)

Flame Retardants	Silvery Metal w/ Coppery and Silvery Plating	Detection Limit
<b>Polybrominated Biphenyls (PBBs)</b>	---	---
Monobromobiphenyl	ND	5 ppm
Dibromobiphenyl	ND	5 ppm
Tribromobiphenyl	ND	5 ppm
Tetrabromobiphenyl	ND	5 ppm
Pentabromobiphenyl	ND	5 ppm
Hexabromobiphenyl	ND	5 ppm
Heptabromobiphenyl	ND	5 ppm
Octabromobiphenyl	ND	5 ppm
Nonabromobiphenyl	ND	5 ppm
Decabromobiphenyl	ND	5 ppm
<b>Polybrominated Diphenylether (PBDEs)</b>	---	---
Monobromodiphenyl ether	ND	5 ppm
Dibromodiphenyl ether	ND	5 ppm
Tribromodiphenyl ether	ND	5 ppm
Tetrabromodiphenyl ether	ND	5 ppm
Pentabromodiphenyl ether	ND	5 ppm
Hexabromodiphenyl ether	ND	5 ppm
Heptabromodiphenyl ether	ND	5 ppm
Octabromodiphenyl ether	ND	5 ppm
Nonabromodiphenyl ether	ND	5 ppm
Decabromodiphenyl ether	ND	5 ppm

Note: ND = Not Detected  
Non-detected is lower than detection limit value.

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

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**Test Report No.** F690501/LF-CTSGP06-00592

Date: January 16, 2006

Page 1 of 3

To: **MK ELECTRONICS**  
316-2,Kumeri  
Pogpk-myun  
Yongin-city  
KYUNGGI-DO  
Korea

The following merchandise was submitted and identified by the client as :

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**Commodity** : GOLD WIRE (4N)  
**SGS File No.** : GP06-00592  
**Received Date** : January 09, 2006  
**Test Performing Date** : January 10, 2006  
**Test Performed** : SGS Testing Korea tested the sample(s) selected by applicant with following results  
**Test Results** : For further details, please refer to following page(s)

Brendan Lee  
Monet Jeong  
Jully Oh  
Jerry Jung  
/Testing Person

Jeff Jang / Technical Mgr

SGS Testing Korea Co. Ltd.

Jason Han / Lab Director

**Test Report No. F690501/LF-CTSGP06-00592**

Date: January 16, 2006

Page 2 of 3

Sample No. : GP06-00592.001

Sample Description : GOLD WIRE (4N)

Style/Item No. : N/A

**Heavy Metals**

Test Items	Unit	Test Method	MDL	Results
Cadmium(Cd)	mg/kg	US EPA 3050B(1996), US EPA 6010B(1996)	0.5	N.D.
Lead (Pb)	mg/kg	US EPA 3050B(1996), US EPA 6010B(1996)	5	N.D.
Mercury (Hg)	mg/kg	US EPA 3052(1996), US EPA 6010B(1996)	2	N.D.
Hexavalent Chromium (Cr VI)	mg/kg	US EPA 3060A(1996), US EPA 7196A(1992)	1	N.D.

**Flame Retardants-PBBs/PBDEs**

Test Items	Unit	Test Method	MDL	Results
Monobromobiphenyl	mg/kg	US EPA 3540C, GC/MS	5	N.D.
Dibromobiphenyl	mg/kg	US EPA 3540C, GC/MS	5	N.D.
Tribromobiphenyl	mg/kg	US EPA 3540C, GC/MS	5	N.D.
Tetrabromobiphenyl	mg/kg	US EPA 3540C, GC/MS	5	N.D.
Heptabromobiphenyl	mg/kg	US EPA 3540C, GC/MS	5	N.D.
Hexabromobiphenyl	mg/kg	US EPA 3540C, GC/MS	5	N.D.
Pentabromobiphenyl	mg/kg	US EPA 3540C, GC/MS	5	N.D.
Octabromobiphenyl	mg/kg	US EPA 3540C, GC/MS	5	N.D.
Nonabromobiphenyl	mg/kg	US EPA 3540C, GC/MS	5	N.D.
Decabromobiphenyl	mg/kg	US EPA 3540C, GC/MS	5	N.D.
Monobromobiphenyl ether	mg/kg	US EPA 3540C, GC/MS	5	N.D.
Dibromobiphenyl ether	mg/kg	US EPA 3540C, GC/MS	5	N.D.
Tribromobiphenyl ether	mg/kg	US EPA 3540C, GC/MS	5	N.D.
Tetrabromobiphenyl ether	mg/kg	US EPA 3540C, GC/MS	5	N.D.
Heptabromobiphenyl ether	mg/kg	US EPA 3540C, GC/MS	5	N.D.
Hexabromobiphenyl ether	mg/kg	US EPA 3540C, GC/MS	5	N.D.
Pentabromobiphenyl ether	mg/kg	US EPA 3540C, GC/MS	5	N.D.
Octabromobiphenyl ether	mg/kg	US EPA 3540C, GC/MS	5	N.D.
Nonabromobiphenyl ether	mg/kg	US EPA 3540C, GC/MS	5	N.D.
Decabromobiphenyl ether	mg/kg	US EPA 3540C, GC/MS	5	N.D.

NOTE: N.D. = Not detected.(<MDL)  
ppm = mg/kg  
MDL = Method Detection Limit  
"- " = No Regulation  
\*\* = Qualitative analysis (No Unit)  
Negative = Undetectable / Positive = Detectable

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Picture of Sample as Received:



\*\*\* End \*\*\*

NOTE: N.D. = Not detected.(<MDL)  
 ppm = mg/kg  
 MDL = Method Detection Limit  
 "-" = No Regulation  
 \*\* = Qualitative analysis (No Unit)  
 Negative = Undetectable / Positive = Detectable



**Test Report No.** F690501/LF-CTSGPJ06-0124

Date: January 23, 2006

Page 1 of 3

To: **KCC CO., LTD**  
846, Yongam-ri  
Bongdong-eub  
Wanju-gun  
Jeonbuk  
Korea

The following merchandise was submitted and identified by the client as :

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**Commodity** : KTMC-1050+

**SGS File No.** : GPJ06-0124

**Received Date** : January 16, 2006

**Test Performing Date** : January 17, 2006

**Test Performed** : SGS Testing Korea tested the sample(s) selected by applicant with following results

**Test Results** : For further details, please refer to following page(s)

**SGS Testing Korea Co. Ltd.**

**Jason Han / Lab Director**

**Jeff Jang / Technical Mgr**

**Sample No.** : GPJ06-0124.001

**Sample Description** : KTMC-1050+

**Style/Item No.** : N/A

**Heavy Metals**

Test Items	Unit	Test Method	MDL	Results
Cadmium(Cd)	mg/kg	US EPA 3050B(1996), US EPA 6010B(1996)	0.5	N.D.
Lead (Pb)	mg/kg	US EPA 3050B(1996), US EPA 6010B(1996)	5	N.D.
Mercury (Hg)	mg/kg	US EPA 3052(1996), US EPA 6010B(1996)	2	N.D.
Hexavalent Chromium (Cr VI)	mg/kg	US EPA 3060A(1996), US EPA 7196A(1992)	1	N.D.

**Picture of Sample as Received:**

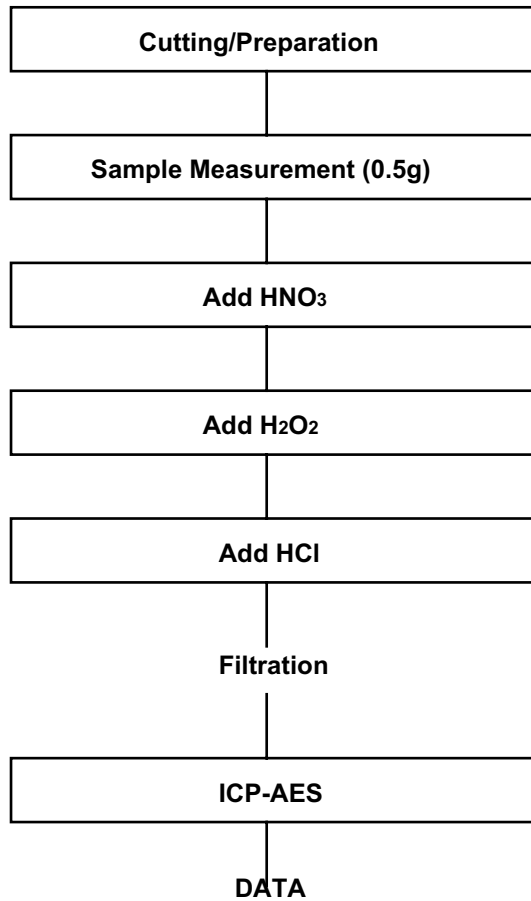


- NOTE:
- (1) N.D. = Not detected.(<MDL)
  - (2) ppm = mg/kg
  - (3) MDL = Method Detection Limit
  - (4) - = No regulation
  - (5) \*\* = Qualitative analysis (No Unit)
  - (6) Negative = Undetectable / Positive = Detectable



### Flow Chart of Digestion

(EPA 3050B for Cd, Pb)



The samples were dissolved by pre-conditioning method according to above flow chart.

Operator Lauren Kim

Section Chief Jeff Jang

\*\*\* End \*\*\*

- NOTE:
- (1) N.D. = Not detected.(<MDL)
  - (2) ppm = mg/kg
  - (3) MDL = Method Detection Limit
  - (4) - = No regulation
  - (5) \*\* = Qualitative analysis (No Unit)
  - (6) Negative = Undetectable / Positive = Detectable



**Test Report No. F690501/LF-CTSGPJ06-0149**

Date: January 24, 2006

Page 1 of 2

To: **CALIX ELECTRONIC CHEMICAL CO., LTD.**  
838-2  
Palbong-dong  
Iksan  
JEONBUK  
Korea

The following merchandise was submitted and identified by the client as :

**Commodity** : CALIX-2000 Make-Up Chemical  
**SGS File No.** : GPJ06-0149  
**Received Date** : January 17, 2006  
**Test Performing Date** : January 18, 2006  
**Test Performed** : SGS Testing Korea tested the sample(s) selected by applicant with following results  
**Test Results** : For further details, please refer to following page(s)  
**Buyer(s)** : SAMSUNG

SGS Testing Korea Co. Ltd.

Brendan Lee  
Patrick An  
Monet Jeong  
Jinee Song  
/Testing Person

Jeff Jang / Technical Mgr

Jason Han / Lab Director

The above certificate is the accredited test items by Korea Laboratory Accreditation Schmee (KOLAS), which signed the ILAC-MRA.

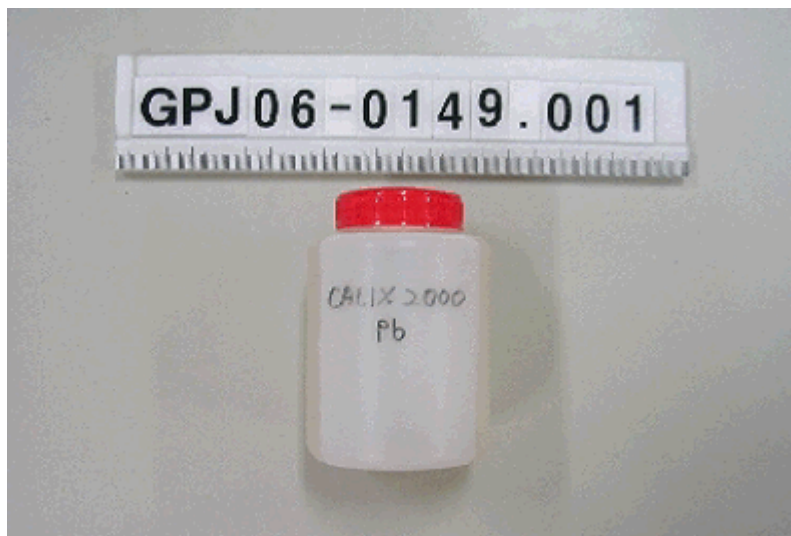
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**Sample No.** : GPJ06-0149.001  
**Sample Description** : CALIX-2000 Make-Up Chemical  
**Style/Item No.** : N/A

**Heavy Metals**

Test Items	Unit	Test Method	MDL	Results
Cadmium(Cd)	mg/kg	US EPA 3050B(1996), US EPA 6010B(1996)	0.5	N.D.
Lead (Pb)	mg/kg	US EPA 3050B(1996), US EPA 6010B(1996)	5	N.D.
Mercury (Hg)	mg/kg	US EPA 3052(1996), US EPA 6010B(1996)	2	N.D.
Hexavalent Chromium (Cr VI)	mg/kg	US EPA 3060A(1996), US EPA 7196A(1992)	1	N.D.

Picture of Sample as Received:



\*\*\* End \*\*\*

- NOTE:
- (1) N.D. = Not detected.(<MDL)
  - (2) ppm = mg/kg
  - (3) MDL = Method Detection Limit
  - (4) Estimated expanded uncertainty U with a coverage factor  $k=2$ , corresponding to a level of confidence of about 95%

The above certificate is the accredited test items by Korea Laboratory Accreditation Schmee (KOLAS), which signed the ILAC-MRA.

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