

## Test Report

No. 10100310/07 (3)

Date: 13 September 2007

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CTS Corporation (Singapore) Electronic Components  
14 Ang Mo Kio Industrial Park  
Singapore 569503

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

Sample Description : Group 3 – Oscillator (XO), Ceramic SMT Type  
CB3, CB3LV, CB1V8, CB2V5, 625, 632, 636 and variants

Sample Receiving Date : 05 September 2007  
Testing Period : 06 September 2007 to 13 September 2007

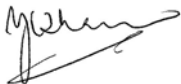
Test Requested : In accordance with the RoHS Directive 2002/95/EC, and its amendment directives.

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

Conclusion : Based on the performed tests on submitted samples, the results are **compliant with** the limits of RoHS Directive 2002/95/EC and its subsequent amendments.

Signed for and on behalf of  
SGS Testing & Control Services Singapore Pte Ltd



Y.C. Tham  
Laboratory Manager

Test Location: 26 Ayer Rajah Crescent, #07-07, Singapore 139944

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**Test Result(s):**

Sample Description : Group 3 – Oscillator (XO), Ceramic SMT Type  
CB3, CB3LV, CB1V8, CB2V5, 625, 632, 636 and variants

Test Item(s):	Unit	Method	Results	MDL	RoHS Limit
Cadmium(Cd)	mg/kg	With reference to US EPA Method 3052. Analysis was performed by ICP/AES.	n.d.	2	100
Lead (Pb)	mg/kg		n.d.	2	1000
Mercury (Hg)	mg/kg		n.d.	2	1000
Hexavalent Chromium (CrVI)	mg/kg	With reference to US EPA Method 3060A & 7196A. Analysis was performed by UV/Vis Spectrometry.	n.d.	2	1000
<b>Sum of PBBs</b>	mg/kg	With reference to EPA Method 3550C. Analysis was performed by GC/MS.	<b>n.d.</b>	-	1000
Monobromobiphenyl	mg/kg		n.d.	5	-
Dibromobiphenyl	mg/kg		n.d.	5	-
Tribromobiphenyl	mg/kg		n.d.	5	-
Tetrabromobiphenyl	mg/kg		n.d.	5	-
Hexabromobiphenyl	mg/kg		n.d.	5	-
Pentabromobiphenyl	mg/kg		n.d.	5	-
Heptabromobiphenyl	mg/kg		n.d.	5	-
Octabromobiphenyl	mg/kg		n.d.	5	-
Nonabromobiphenyl	mg/kg		n.d.	5	-
Decabromobiphenyl	mg/kg		n.d.	5	-
<b>Sum of PBDE (Mono to Nona)(Note 4)</b>	mg/kg		<b>n.d.</b>	-	1000
Monobromodiphenyl ether	mg/kg		n.d.	5	-
Dibromodiphenyl ether	mg/kg		n.d.	5	-
Tribromodiphenyl ether	mg/kg	n.d.	5	-	
Tetrabromodiphenyl ether	mg/kg	n.d.	5	-	
Pentabromodiphenyl ether	mg/kg	n.d.	5	-	
Hexabromodiphenyl ether	mg/kg	n.d.	5	-	
Heptabromodiphenyl ether	mg/kg	n.d.	5	-	
Octabromodiphenyl ether	mg/kg	n.d.	5	-	
Nonabromodiphenyl ether	mg/kg	n.d.	5	-	
Decabromodiphenyl ether	mg/kg	n.d.	5	-	
<b>Sum of PBDEs (Mono to Deca)</b>	mg/kg	<b>n.d.</b>	-	-	

- Note: (1) mg/kg = ppm  
 (2) n.d.= Not Detected = Denoted less than MDL  
 (3) MDL = Method Detection Limit  
 (4) Sum of Mono to NonaBDE & according to 2005/717/EC DecaBDE is exempt.  
 (5) “-“ = Not regulated  
 (6) “ --- “ = Not Conducted

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## Test Report

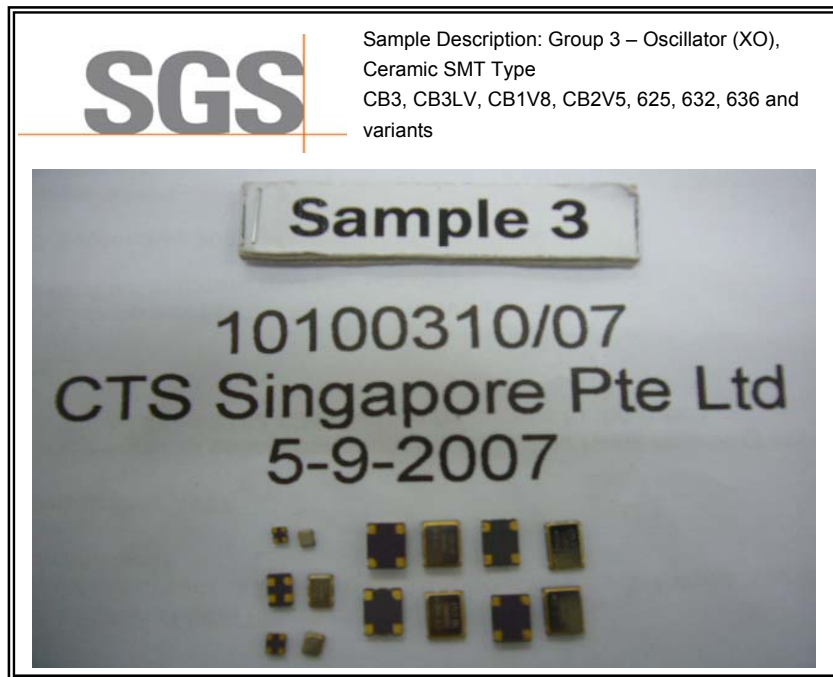
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Remarks: Sample received was totally dissolved by preconditioning & destroyed after the analysis.  
Lab Analyst: Christine Choy, Irene Li & Jessica Chong.

### Sample photo:



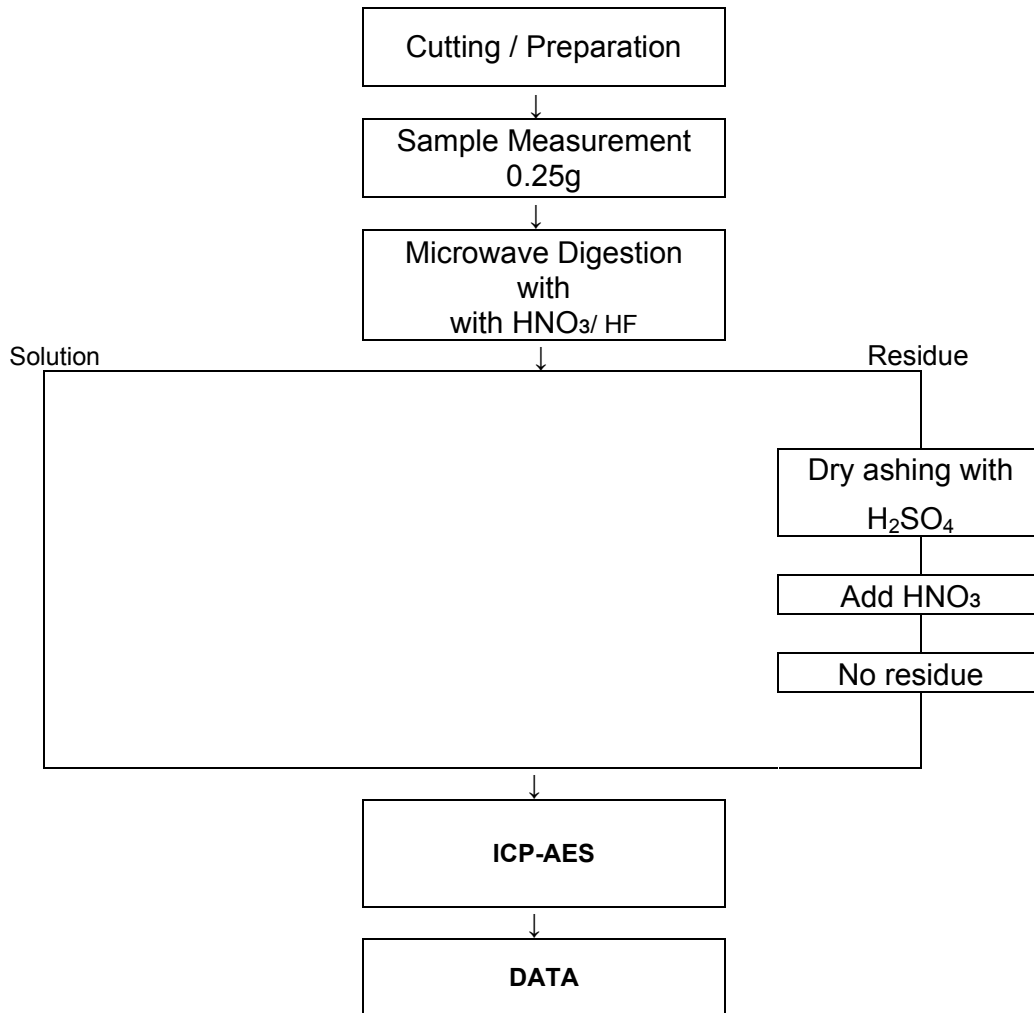
SGS authenticate the photo on original report only

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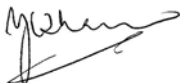
**Process Flow of US EPA 3051A/3052 (Hg, Cd, Pb)**



Lab Analyst : Jessica Chong

Sample received has been totally digested and dissolved by preconditioning method.

Signed for and on behalf of  
SGS Testing & Control Services Singapore Pte Ltd

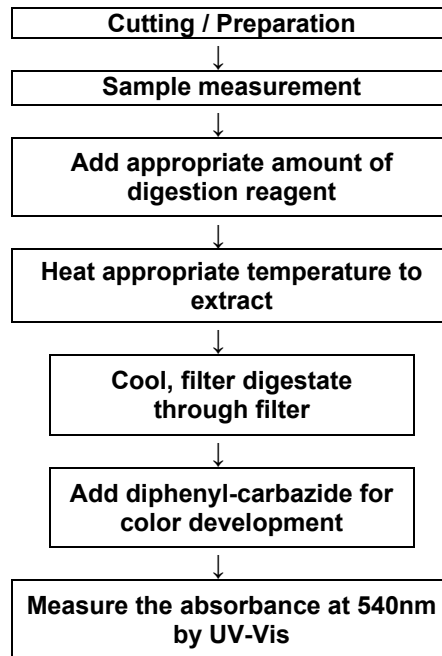


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Y.C. Tham  
Laboratory Manager

**Process Flow of EPA 3060A, 7196A for analysis of Cr (VI)**



Lab Analyst : Christine Choy  
Sample received has been totally digested and dissolved by preconditioning method.

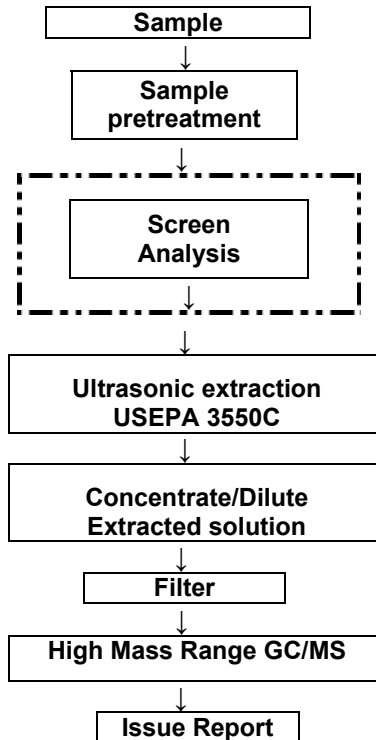
Signed for and on behalf of  
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Y.C. Tham  
Laboratory Manager

### Process Flow of PBBs and PBDEs Flame Retardants by GC/MS

First Testing Process → Optional screen process ..... Confirmation process ...→



Lab Analyst : Irene Li

Sample received has been totally digested and dissolved by preconditioning method.

Signed for and on behalf of  
SGS Testing & Control Services Singapore Pte Ltd

Y.C. Tham  
Laboratory Manager

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

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