

NAKAGAWA ELECTRONICS LTD  
BLOCK A, FLAT 1-2, 7/F., HOI LUEN IND. CENTRE  
55 HOI YUEN ROAD  
KWUN TONG  
KOWLOON  
HONG KONG

**Reported results are referred to test report no. EC406324100.**

The following sample was submitted and identified on behalf of the client as :  
QUARTZ CRYSTAL UNIT IN CYLINDRICAL METAL PACKAGE

SGS Job No. : 1144206  
Style No : R38-NPB  
Date of Sample(s) Received : JUN 13 2007  
Testing Period : JUN 13 - 20 2007

Test Requested/  
Test Method :

- In accordance with RoHS Directive 2002/95/EC, and its amendment directives.
- With reference to EPA Method 3051A/ 3052 for Cadmium, Lead and Mercury contents. Analysis was performed by ICP.
- With reference to IEC 62321 (Ed. 1) 111/54/CDV for Cadmium, Lead and Mercury contents of metal sample. Analysis was performed by ICP/ AAS.
- With reference to EPA Method 3060A & 7196A for Hexavalent Chromium content. Analysis was performed by colorimetric method (UV-VIS).
- With reference to IEC 62321 (Ed. 1) 111/54/CDV - Section 8 for the presence of Hexavalent Chromium on the metal sample. Analysis was performed by spot-test/ boiling-water-extraction.
- With reference to EPA Method 3550C/ 3540C for PBBs/ PBDEs contents. Analysis was performed by GC-MS.

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](http://www.sgs.com/terms_and_conditions.htm). Attention is drawn to 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 findings 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 exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or 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 and such sample(s) are retained for 30 days only. This document cannot be reproduced except in full, without prior approval of the Company.

## Test Report

No. EC407493500

Date: Jan 02 2008

Page 2 of 5

Test Results : Please refer to next page.

Conclusion : - Based on the performed tests on submitted sample, the results comply with the RoHS Directive 2002/95/EC and its subsequent amendments.

Signed for and on behalf of  
SGS Hong Kong Ltd.



---

Ho Ka Ting Family  
Senior Laboratory Executive

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](http://www.sgs.com/terms_and_conditions.htm). Attention is drawn to 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 findings 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 exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or 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 and such sample(s) are retained for 30 days only. This document cannot be reproduced except in full, without prior approval of the Company.

## Test Report

No. EC407493500

Date: Jan 02 2008

Page 3 of 5

### Test Results:

Test results by chemical method (Unit : mg/kg)

	<u>1</u>	<u>2</u>	<u>MDL</u>	<u>Limit</u>
Cadmium (Cd)	n.d.	n.d.	2	100
Lead (Pb)	42	14	2 (5*)	1000
Mercury (Hg)	n.d.	n.d.	2	1000
Hexavalent Chromium (CrVI) by colorimetric method	n.d.	--	2	1000
Hexavalent Chromium (CrVI) by spot-test/ boiling-water-extraction	--	Negative		#
<b>Sum of PBBs (Mono to Deca)</b>	n.d.	n.d.	-	1000
Monobromobiphenyl	n.d.	n.d.	5	
Dibromobiphenyl	n.d.	n.d.	5	
Tribromobiphenyl	n.d.	n.d.	5	
Tetrabromobiphenyl	n.d.	n.d.	5	
Pentabromobiphenyl	n.d.	n.d.	5	
Hexabromobiphenyl	n.d.	n.d.	5	
Heptabromobiphenyl	n.d.	n.d.	5	
Octabromobiphenyl	n.d.	n.d.	5	
Nonabromobiphenyl	n.d.	n.d.	5	
Decabromobiphenyl	n.d.	n.d.	5	
<b>Sum of PBDEs (Note 4)</b>	n.d.	n.d.	-	1000
<b>Sum of PBDEs (Mono to Deca)</b>	n.d.	n.d.	-	
Monobromodiphenyl ether	n.d.	n.d.	5	
Dibromodiphenyl ether	n.d.	n.d.	5	
Tribromodiphenyl ether	n.d.	n.d.	5	
Tetrabromodiphenyl ether	n.d.	n.d.	5	
Pentabromodiphenyl ether	n.d.	n.d.	5	
Hexabromodiphenyl ether	n.d.	n.d.	5	
Heptabromodiphenyl ether	n.d.	n.d.	5	
Octabromodiphenyl ether	n.d.	n.d.	5	
Nonabromodiphenyl ether	n.d.	n.d.	5	
Decabromodiphenyl ether	n.d.	n.d.	5	

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](http://www.sgs.com/terms_and_conditions.htm). Attention is drawn to 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 findings 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 exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or 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 and such sample(s) are retained for 30 days only. This document cannot be reproduced except in full, without prior approval of the Company.

## Test Report

No. EC407493500

Date: Jan 02 2008

Page 4 of 5

### Note:

- (1) mg/kg = ppm
- (2) MDL = Method Detection Limit
- (3) n.d. = Not Detected
- (4) Sum of Mono to NonaBDE & according to 2005/717/EC DecaBDE is exempt.
- (5) Negative = Absence of CrVI coating  
Positive = Presence of CrVI coating

### Spot-test:

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

### Boiling-water-extraction:

Positive : detected concentration of solution 0.02 mg/kg with 50 sq. cm sample surface area.

- (6) # = Positive indicates the presence of CrVI on the tested areas and result be regarded as not compliance with RoHS requirement.  
Negative indicates the absence of CrVI on the tested areas and result be regarded as compliance with RoHS requirement.
- (7) \* = MDL for metal sample
- (8) - = Not Regulated
- (9) -- = Not Conducted

### Sample Description

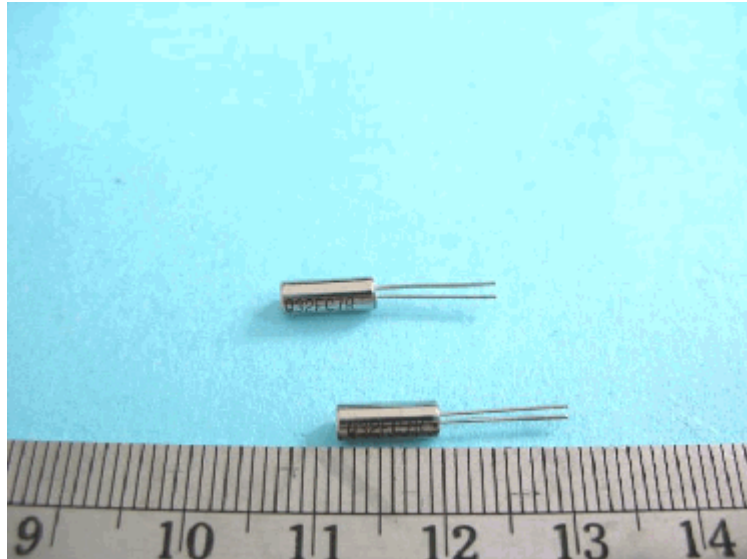
- 1 Silvery Metal w/ Black Printing w/ Transparent Crystal w/ Silvery Printing w/ Black Glass (Body)
- 2 Silvery Metal (Pin)

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](http://www.sgs.com/terms_and_conditions.htm). Attention is drawn to 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 findings 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 exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or 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 and such sample(s) are retained for 30 days only. This document cannot be reproduced except in full, without prior approval of the Company.

Sample photo:

## EC407493500 (Sample 1-2)



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](http://www.sgs.com/terms_and_conditions.htm). Attention is drawn to 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 findings 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 exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or 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 and such sample(s) are retained for 30 days only. This document cannot be reproduced except in full, without prior approval of the Company.