

No. 2035319/EC

Date: Sep 26 2005

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MULTICOMP PRODUCTS MANUFACTURED BY NINGBO HKE ELECTRONICS CO., LTD. 28, JIACUN INDUSTRIAL AREA, NINGBO ZHEJIANG 315135, CHINA

Report on the submitted sample said to be WASHABLE PCB RELAY.

SGS Job No.

1856109

Part Description

HRS2 SERIES, DPCO TYPE

Buyer

PREMIER FARNELL ASIA PTE LTD

Supplier

NINGBO HKE ELECTRONICS CO., LTD.

Sample Receiving Date Testing Period

SEP 02 2005 SEP 03 - 10 2005

Test Requested

With reference to RoHS Directive 2002/95/EC

- 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 Cadmium, Lead and Mercury content in the submitted metal sample.
- 5) To determine the Hexavalent Chromium Content on the submitted sample.
- 6) Determination of PBBs (polybrominated biphenyls), PBDEs (Polybrominated diphenylethers) of the submitted sample

diphenylethers) of the submitted sample.

Test Method

- 1) With reference to BS EN 1122:2001, Method B, analysis was performed by Inductively Coupled Argon Plasma-Atomic Emission Spectrometry (ICP-AES).
- 2) With reference to EPA Method 3050B/ 3051/ 3052.
 Analysis was performed by Inductively Coupled Argon Plasma-Atomic Emission Spectrometry (ICP-AES).
- With reference to EPA Method 3051/3052.

 Analysis was performed by Inductively Coupled Argon Plasma-Atomic Emission Spectrometry (ICP-AES).
- 4) With reference to in-house method. The sample was digested by acid.

 Analysis was performed by Atomic Absorption or Inductively Coupled Argon Plasma Atomic Emission Spectrometry (ICP-AES).
- 5) With reference to EPA Method 3060A & 7196A.

 The samples were alkaline digested by using EPA Method 3060A, and then analyzed by using Colorimetric method 7196A.
- 6) With reference to SGS in-house method. Analysis was performed by GC/MS or LC/ MS.

Test Results

1-6) Please refer to next page.

Conclusion

When tested as specified, the submitted sample complies with the requirements of

RoHS Directive Consultation document on 2002/95/EC.

Signed for and on behalf of SGS Hong Kong Ltd

Ho Ka Ting, Family Laboratory Executive

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Test Results

1-5) Test Item Cadmium (Cd) Lead (Pb) Mercury (Hg) Hexavalent Chromium (Cr ⁶⁺)	1 ND 16 ppm ND ND	2 ND 15 ppm ND ND	3 ND 10 ppm ND ND	Detection Limit 2 ppm 2 ppm 2 ppm 2 ppm 2 ppm 2 ppm	Limit of RoHS Consultant Document 100 ppm 1000 ppm 1000 ppm 1000 ppm
Test Item Cadmium (Cd) Lead (Pb) Mercury (Hg) Hexavalent Chromium (Cr ⁶⁺)	4 ND 9 ppm ND ND	<u>5</u> ND 68 ppm ND ND	6 ND ND ND	Detection Limit 2 ppm 2 ppm 2 ppm 2 ppm 2 ppm 2 ppm	Limit of RoHS Consultant Document 100 ppm 1000 ppm 1000 ppm 1000 ppm
Test Item Cadmium (Cd) Lead (Pb) Mercury (Hg) Hexavalent Chromium (Cr ⁶⁺)	7 ND ND ND		8 ND ND ND ND	Detection Limit 2 ppm 2 ppm 2 ppm 2 ppm 2 ppm 2 ppm	Limit of RoHS Consultant Document 100 ppm 1000 ppm 1000 ppm 1000 ppm

(Results shown are of the total weight of samples)

Note: ppm = mg/kg

ND = Not Detected

Not detected is reported when the reading is less than detection limit value

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5 ppm 5 ppm 5 ppm

5 ppm

5 ppm

5 ppm

5 ppm

5 ppm

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Test Results (Cond't):

Tetrabromodiphenyl ether

Pentabromodiphenyl ether

Hexabromodiphenyl ether

Heptabromodiphenyl ether

Octabromodiphenyl ether

Nonabromodiphenyl ether

Decabromodiphenyl ether

6) Flame Retardants	1	2	3	Detection Limit	Limit of RoHS Consultant Document
Polybrominated Biphenyls (PBBs)	ND	ND	ND	50 ppm	1000 ppm
Monobromobiphenyl	ND	ND	ND	5 ppm	
Dibromobiphenyl	ND	ND	ND	5 ppm	AND SHI
Tribromobiphenyl	ND	ND	ND	5 ppm	40.EE
Tetrabromobiphenyl	ND	ND	ND	5 ppm	N3 57-
Pentabromobiphenyl	ND	ND	ND	5 ppm	
Hexabromobiphenyl	ND	ND	ND	5 ppm	
Heptabromobiphenyl	ND	ND	ND	5 ppm	
Octabromobiphenyl	ND	ND	ND	5 ppm	***************************************
Nonabromobiphenyl	ND	ND	ND	5 ppm	
Decabromobiphenyl	ND	ND	ND	5 ppm	****
Polybrominated Diphenylethers (PBDEs)	ND	ND	ND	50 ppm	1000 ppm
Monobromodiphenyl ether	ND	ND	ND	5 ppm	, a.u.
Dibromodiphenyl ether	ND	ND	ND	5 ppm	ang ana
Tribromodiphenyl ether	ND	ND	ND	5 ppm	779 PM

ND

ND

ND.

ND

Flame Retardants	4	5	6	Detection Limit	Limit of RoHS Consultant Document
Polybrominated Biphenyls (PBBs)	ND	ND	ND	50 ppm	1000 ppm
Monobromobiphenyl	ND	ND	ND	5 ppm	, who had
Dibromobiphenyl	ND	ND	ND	5 ppm	70-77
Tribromobiphenyl	ND	ND	ND	5 ppm	#D 741
Tetrabromobiphenyl	ND	ND	ND	5 ppm	==
Pentabromobiphenyl	ND	ND	ND	5 ppm	
Hexabromobiphenyl	ND	ND	ND	5 ppm	
Heptabromobiphenyl	ND	ND	ND	5 ppm	7.5
Octabromobiphenyl	ND	ND	ND	5 ppm	
Nonabromobiphenyl	ND	ND	ND	5 ppm	
Decabromobiphenyl	ND	ND	ND	5 ppm	EN Ho
Polybrominated Diphenylethers (PBDEs)	ND	ND	ND	50 ppm	1000 ppm
Monobromodiphenyl ether	ND	ND	ND	5 ppm	ps ps
Dibromodiphenyl ether	ND	ND	ND	5 ppm	15 00
Tribromodiphenyl ether	ND	ND	ND	5 ppm	~m
Tetrabromodiphenyl ether	ND	ND	ND	5 ppm	
Pentabromodiphenyl ether	ND	ND	ND	5 ppm	p Ni
Hexabromodiphenyl ether	ND	ND	ND	5 ppm	
Heptabromodiphenyl ether	ND	ND	ND	5 ppm	===
Octabromodiphenyl ether	ND	ND	ND	5 ppm	
Nonabromodiphenyl ether	ND	ND	ND	5 ppm	
Decabromodiphenyl ether	ND	ND	ND	5 ppm	

Note

ppm = mg/kg

ND = Not Detected

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Test Results (Cond't):

Flame Retardants	7	8	Detection Limit	Limit of RoHS Consultant Document
Polybrominated Biphenyls (PBBs)	ND:	ND	50 ppm	1000 ppm
Monobromobiphenyl	ND:	ND	5 ppm	
Dibromobiphenyl	ND .	ND	5 ppm	,
Tribromobiphenyl	ND:	ND	5 ppm	is se
Tetrabromobiphenyl	ND:	ND	5 ppm	~-
Pentabromobiphenyl	ND	ND	5 ppm	
Hexabromobiphenyl	ND	ND	5 ppm	
Heptabromobiphenyl	ND	ND	5 ppm	
Octabromobiphenyl	ND	ND	5 ppm	-aa ga-
Nonabromobiphenyl	ND	ND .	5 ppm	
Decabromobiphenyl	ND:	ND	5 ppm	AL Us
Polybrominated Diphenylethers (PBDEs)	ND	ND	50 ppm	1000 ppm
Monobromodiphenyl ether	ND	ND	5 ppm	go, yeu
Dibromodiphenyl ether	ND:	ND .	5 ppm	
Tribromodiphenyl ether	ND:	ND	5 ppm	an 144
Tetrabromodiphenyl ether	ND	ND	5 ppm	
Pentabromodiphenyl ether	ND:	ND	5 ppm	
Hexabromodiphenyl ether	ND	ND	5 ppm	m or
Heptabromodiphenyl ether	ND	ND	5 ppm	per una
Octabromodiphenyl ether	ND:	ND	5 ppm	
Nonabromodiphenyl ether	ND.	ND	5 ppm	
Decabromodiphenyl ether	ND:	ND	5 ppm	per del

Note :

ppm = mg/kg

ND = Not Detected

Not detected is reported when the reading is less than detection limit value.

Sample Description:

- 1. Black Plastic w/ White Printing (Body)
- 2. Black Plastic w/ Transparent Glue (Base)
- 3. White Plastic w/ Yellow Adhesive Tape (Core Case and Adhesive Tape)
- 4. White Plastic (Pin Holder)
- 5. Bronze Metal w/ Silvery Metal w/ Solder (Plate and Pin)
- 6. Silvery Metal (Axle)
- 7. Bronze Metal (Wire)
- 8. Silvery Metal (Core Case)

Remark: Photo appendix is included

*** End of Report ***

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H12202021

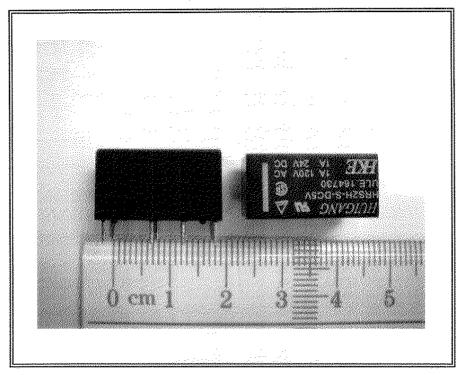


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Sample Receiving Date: SEP 02 2005

PHOTO APPENDIX



SGS authenticate the photo on original report only

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Authorized Signature Hø Ka Ting, Family Laboratory Executive

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