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TEST REPORT

NUMBER: SHAH00075977S1

DATE: AUG 20, 2008

APPLICANT: LITEON SEMICONDUCTOR CORP.

28-1, WU SHIN STREET, TA WU LUNG,

KEELUNG 204, TAIWAN, R.O.C

SHANGHAI SEEFULL ELECTRONIC CO., LTD. 6 ZHENGYE RD., DONGJING, SONGJIANG

DISTRICT, SHANGHAI, CHINA.

ATTN: CLORIS WEI

THIS IS TO SUPERSEDE REPORT NO. SHAH00075977 DATED AUG 18, 2008

SAMPLE DESCRIPTION:

ONE (1) SUBMITTED SAMPLE SAID TO BE:

ITEM NAME : SMD: GREEN MOLDING COMPOUND.

(1) MIXED ALL PARTS OF BODY.

(2) SILVER COLORED METAL PIN.

(3) BLACK PLASTIC BODY WITHOUT SOLDER WAFER

& DIE.

ITEM NO. : SMB PACKAGE FAMILY.

\*

TESTS CONDUCTED:

AS REQUESTED BY THE APPLICANT, FOR DETAILS REFER TO ATTACHED PAGE(S) \*

REMARK: NO SAMPLE IS SUBMITTED FOR HOLOGEN AND Sb TESTING. THE HALOGEN TEST RESULTS STATED IN THIS REPORT ARE TRANSFERRED FROM OUR TEST REPORT(SHJ0050193S1 DATED APR 09, 2008). THE SB TEST RESULT STATED IN THIS REPORT ARE TRANSFERRED FROM OUR TEST REPORT (SHAH00055595 DATED MAY 06, 2008).

\*

TO BE CONTINUED

PREPARED AND CHECKED BY: FOR INTERTEK TESTING SERVICES LTD., SHANGHAI

AUTHORIZED BY:

FOR INTERTEK TESTING SERVICES

LTD., SHANGHAI

MYRA LV

CHEMICAL DIVISION MANAGER

STEPHEN TSANG GENERAL MANAGER



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### TESTS CONDUCTED

### 1 (A) TEST RESULT SUMMARY:

TESTING ITEM	RESULT
TESTING TIEM	(1)
CADMIUM (Cd) CONTENT (mg/kg)	ND
LEAD (Pb) CONTENT (mg/kg)	10400
MERCURY (Hg) CONTENT (mg/kg)	ND
CHROMIUM (VI) (Cr <sup>6+</sup> ) CONTENT (mg/kg) (FOR NON-METAL)	ND
POLYBROMINATED BIPHENYLS (PBBs) (mg/kg)	
MONOBROMO BIPHENYLS (MonoBB)	ND
DIBROMO BIPHENYLS (DiBB)	ND
TRIBROMO BIPHENYLS (TriBB)	ND
TETRABROMO BIPHENYLS (TetraBB)	ND
PENTABROMO BIPHENYLS (PentaBB)	ND
HEXABROMO BIPHENYLS (HexaBB)	ND
HEPTABROMO BIPHENYLS (HeptaBB)	ND
OCTABROMO BIPHENYLS (OctaBB)	ND
NONABROMO BIPHENYLS (NonaBB)	ND
DECABROMO BIPHENYL (DecaBB)	ND
POLYBROMINATED DIPHENYL ETHERS (PBDEs)	(mg/kg)
MONOBROMO DIPHENYL ETHERS (MonoBDE)	ND
DIBROMO DIPHENYL ETHERS (DiBDE)	ND
TRIBROMO DIPHENYL ETHERS (TriBDE)	ND
TETRABROMO DIPHENYL ETHERS (TetraBDE)	ND
PENTABROMO DIPHENYL ETHERS (PentaBDE)	ND
HEXABROMO DIPHENYL ETHERS (HexaBDE)	ND
HEPTABROMO DIPHENYL ETHERS (HeptaBDE)	ND
OCTABROMO DIPHENYL ETHERS (OctaBDE)	ND
NONABROMO DIPHENYL ETHERS (NonaBDE)	ND
DECABROMO DIPHENYL ETHER (DecaBDE)	ND

\*



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### TEST REPORT

TESTS CONDUCTED

TESTING ITEM	RESULT
IBBIING IIBM	(2)
CADMIUM (Cd) CONTENT (mg/kg)	ND
LEAD (Pb) CONTENT (mg/kg)	42
MERCURY (Hg) CONTENT (mg/kg)	ND
CHROMIUM (VI) (Cr <sup>6+</sup> ) RESULT (BY BOILING WATER EXTRACTION ON METAL) (mg/kg WITH 50cm <sup>2</sup> )	ND

TESTING ITEM	RESULT
IEDIING IIEM	(3)
LEAD (Pb) CONTENT (mg/kg)	ND

#### **REMARK:**

mg/kg = MILLIGRAM PER KILOGRAM = ppm

mg/kg WITH 50cm<sup>2</sup> = MILLIGRAM PER KILOGRAM WITH 50 SQUARE CENTIMETER ND = NOT DETECTED

THE TESTED SAMPLE (1) WAS NOT HOMOGENEOUS MATERIAL AND SAMPLING RANDOMLY.

#### (B) ROHS REQUIREMENT:

RESTRICTED SUBSTANCES	LIMITS
CADMIUM (Cd)	0.01% (100 ppm)
LEAD (Pb)	0.1% (1000 ppm)
MERCURY (Hg)	0.1% (1000 ppm)
CHROMIUM (VI) (Cr <sup>6+</sup> )	0.1% (1000 ppm)
POLYBROMINATED BIPHENYLS (PBBs)	0.1% (1000 ppm)
POLYBROMINATED DIPHENYL ETHERS (PBDEs)	0.1% (1000 ppm)

THE ABOVE LIMITS WERE QUOTED FROM 2002/95/EC AND AMENDMENT 2005/618/EC FOR HOMOGENEOUS MATERIAL.

\*



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# (C) TEST METHOD:

TESTING ITEM	TESTING METHOD	REPORTING LIMIT
CADMIUM (Cd) CONTENT	WITH REFERENCE TO IEC 62321 111/95/CDV, BY ACID DIGESTION UNTIL THE TESTED SAMPLE WAS TOTALLY DISSOLVED AND DETERMINED BY ICP-OES	2 mg/kg
LEAD (Pb) CONTENT	WITH REFERENCE TO IEC 62321 111/95/CDV, BY ACID DIGESTION UNTIL THE TESTED SAMPLE WAS TOTALLY DISSOLVED AND DETERMINED BY ICP-OES	2 mg/kg
MERCURY (Hg) CONTENT	WITH REFERENCE TO IEC 62321 111/95/CDV, BY ACID DIGESTION UNTIL THE TESTED SAMPLE WAS TOTALLY DISSOLVED AND DETERMINED BY ICP-OES	2 mg/kg
CHROMIUM (VI) (Cr <sup>6+</sup> ) CONTENT (FOR NON-METAL)	WITH REFERENCE TO IEC 62321 111/95/CDV, BY ALKALINE DIGESTION AND DETERMINED BY UV-VIS SPECTROPHOTOMETER	1 mg/kg
CHROMIUM (VI) (Cr <sup>6+</sup> ) CONTENT (FOR METAL)	WITH REFERENCE TO IEC 62321 111/95/CDV, BY BOILING WATER EXTRACTION AND DETERMINED BY UV-VIS SPECTROPHOTOMETER	0.02mg/kg with 50cm <sup>2</sup> (IN TESTING SOLUTION)
POLYBROMINATED BIPHENYLS (PBBs) & POLYBROMINATED DIPHENYL ETHERS (PBDEs)	WITH REFERENCE TO IEC 62321 111/95/CDV, BY SOLVENT EXTRACTION AND DETERMINED BY GC/MS AND FURTHER HPLC CONFIRMATION WHEN NECESSARY.	5 mg/kg

NOTE: TESTS WERE CONDUCTED WITH REFERENCE TO 111/95/CDV VERSION 2007-10-12 WHICH IS STILL A DRAFT METHOD AND SUBJECT TO FUTURE CHANGES PRIOR TO PUBLICATION.

\*



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TESTS CONDUCTED

TOTAL ANTIMONY (Sb) CONTENT

AS PER CLIENT'S REQUEST, ACID DIGESTION METHOD WAS USED AND TOTAL CONTENT WAS DETERMINED BYINDUCTIVELY COUPLED ARGON PLASMA SPECTROMETRY.

TESTED SAMPLES

RESULT IN ppm

(1)

<5

THE TESTED SAMPLE (1) WAS NOT HOMOGENEOUS MATERIAL, AND SAMPLING RANDOMLY.

ppm = PARTS PER MILLION = mg/kg < = LESS THAN

# (I) TEST RESULT SUMMARY:

# HALOGEN CONTENT :

TESTING ITEM	RESULT (ppm)	
TESTING TIEM	SUBMITTED SAMPLES	
FLOURINE (F) CONTENT	ND	
CHLORINE (C1) CONTENT	100	
BROMINE (Br) CONTENT	110	
IODINE (I) CONTENT	ND	

REMARKS : ppm = PARTS PER MILLION = mg/kg

= NOT DETECTED ND

### (II) TEST METHOD:

TESTING ITEM	TESTING METHOD	REPORTING LIMIT
HALOGEN (F,Cl, Br,I) CONTENT	WITH REFERENCE TO IEC 61189- 2:2006 BY COMBUSTION FLASK AND DETERMINED BY ION CHROMATOGRAPHY	50 ppm

REMARKS : REPORTING LIMIT = QUANTITATION LIMIT OF ANALYTE IN SAMPLE

THE TESTED SAMPLE (1) WAS NOT HOMOGENEOUS MATERIAL AND

SAMPLING RANDOMLY.

DATE SAMPLE RECEIVED : AUG.8, 2008

TESTING PERIOD: AUG.8, 2008 TO AUG.13, 2008

\*



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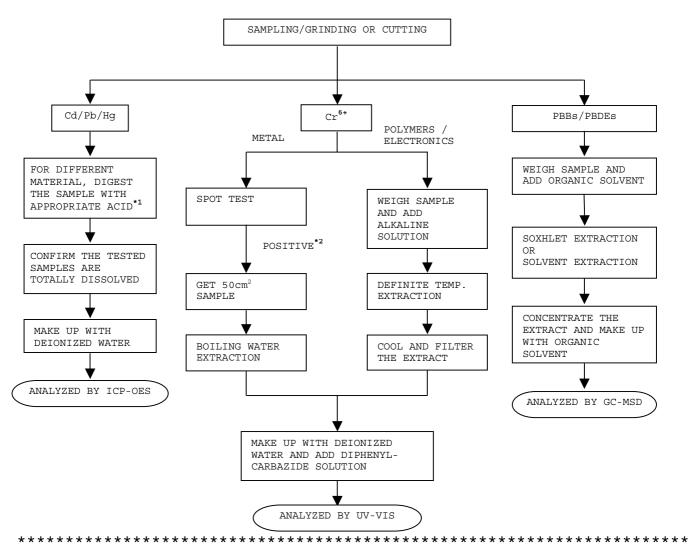
# TEST REPORT

TESTS CONDUCTED

#### 4 MEASUREMENT FLOWCHART:

TEST FOR Cd/Pb/Hg/CR (VI)/PBBS/PBDES CONTENTS

REFERENCE STANDARD: IEC 62321 (111/95/CDV)





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TEST REPORT

TESTS CONDUCTED

**REMARKS:** 

\*1: LIST OF APPROPRIATE ACID:

MATERIAL	ACID ADDED FOR DIGESTION
POLYMERS	HNO <sub>3</sub> ,HCl,HF,H <sub>2</sub> O <sub>2</sub> ,H <sub>3</sub> BO <sub>3</sub>
METALS	HNO <sub>3,</sub> HCl,HF
ELECTRONICS	HNO <sub>3</sub> ,HCl,H <sub>2</sub> O <sub>2</sub> ,HBF <sub>4</sub>

\*2: IF THE RESULT OF SPOT TEST IS POSITIVE, CHROMIUM VI WOULD BE DETERMINED AS DETECTED.

\*



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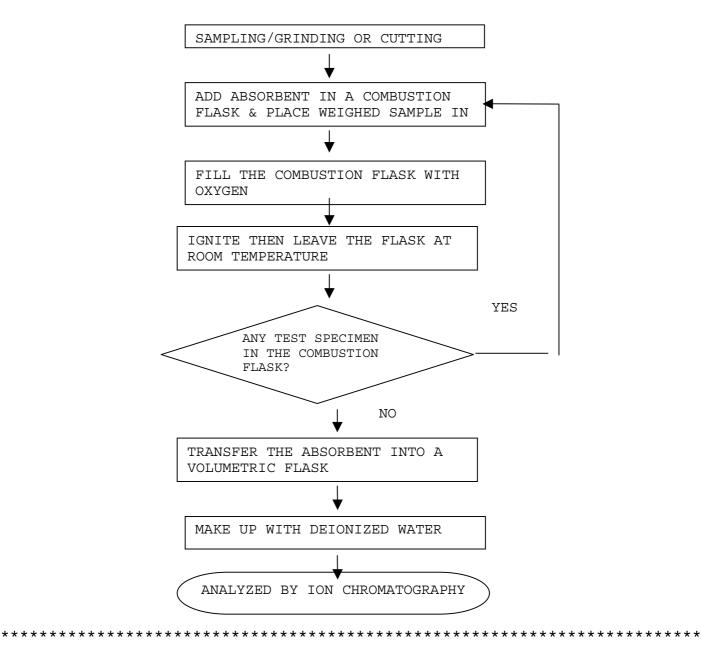
### TEST REPORT

TESTS CONDUCTED

5 MEASUREMENT FLOWCHART:

TEST FOR HALOGEN CONTENT

REFERENCE METHOD: IEC 61189-2 TEST 2C12





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# Intertek Testing Services Ltd., Shanghai **TFH Division**

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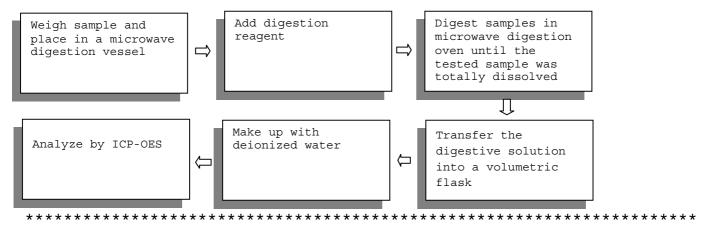
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# TEST REPORT

TESTS CONDUCTED MEASUREMENT FLOWCHART

TEST FOR Sb CONTENTS (USEPA 3052)





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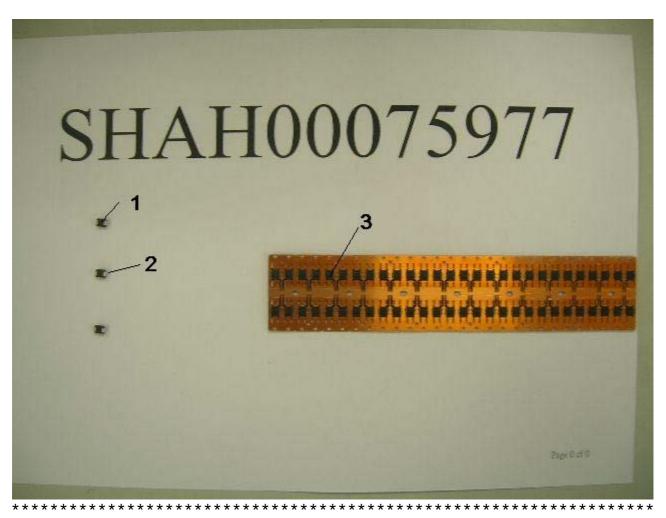
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TEST REPORT

TESTS CONDUCTED



END OF REPORT



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Liteon Semiconductor Corp. To:

Shanghai Seefull Electronic Co., Ltd.

Attention: Cloris Wei Date: Aug 20, 2008

# Report Revision Notification

Intertek Testing Services Report Number SHAH00075977 Dated Aug.18, 2008, Please be informed that all the content recorded in the above captioned report will be void. This captioned report is now supersede by a revised Intertek Testing Services Report SHAH00075977S1.

Thank you for your attention.

PREPARED AND CHECKED BY: FOR INTERTEK TESTING SERVICES LTD., SHANGHAI

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CHEMICAL DIVISION MANAGER

AUTHORIZED BY:

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