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54	No. : SH170500501C03	3 Report Date: 2017/05/12
5		ongfu MICROELECTRONICS CO., LTD. o.288,Chongchuan Road,Nantong,Jiangsu, China
19	The following sample(s)	was/were submitted and identified by/on behalf of the applicant as:
5	Sample Name :	DIP8
54	Receiving Date :	May.03, 2017
54	Testing Period :	May.03, 2017 - May.12, 2017
54	Test Requested :	Please refer to next page(s).
54	Test Method	Please refer to next page(s).
54	Test Results :	Please refer to next page(s).
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54		St Tim Bian 5 5 Weiana Wang 5 5
5	Approved by Jeffery Ch	hou Reviewed by Tim Bian Redact by Luciana Wang
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TEST REPORT

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TEST RESULTS: 1. RoHS 6

Test Items	Methods	MDL	Rest (mg/	Limited Value*	
S rest tiems	Methods	(mg/kg)	1#	2#	(mg/kg)
Pb	5.00	2	N.D	N.D.	1000
Cd	M1	2	N.D.	N.D.	100
IS IS Hg S	M2	2	N.D.	S N.D.	1000
Cr (VI)	M3a	5- 5	Negative	5	(metal)
	G M3	2	55	SN.D.S	1000(nonmetal)
Monobromobiphenyl (MonoBB)	0	5 0	1 2 3	N.D.	5.2
Dibromobiphenyl (DiBB)	6 6	5	6 6	N.D.	6 6
Tribromobiphenyl (TriBB)	2 12	5	843	N.D.	S -S
Tetrabromobiphenyl (TetraBB)	\sim	5	<u> </u>	N.D.	<u> </u>
Pentabromobiphenyl (PentaBB)	5 19	5	0 20 .	N.D.	12-12
Hexabromobiphenyl (HexaBB)	0.	\sim_5	0 0	N.D.	0 0
Heptabromobiphenyl (HeptaBB)	5 19	5	55	SN.D.S	15-15
Octabromobiphenyl (OctaBB)	5	5	1 4 3	N.D.	5 -5
Nonabromobiphenyl (NonaBB)	6 6	5	6 6	N.D.	.6
Decabromobiphenyl (DecaBB)	1 20	5	543	N.D.	5.5
Total PBBs / sum of above				N.D.	1000
Monobromodiphenyl ether (MonoBDE)	M4	55		N.D.	57-57
Dibromodiphenyl ether (DiBDE)	5 19	5	5 5	SN.D.	15-15
Tribromodiphenyl ether (TriBDE)	5	5	1 4 3	N.D.	5-5
Tetrabromodiphenyl ether (TetraBDE)	6 6	5	G	N.D.	6 6
Pentabromodiphenyl ether (PentaBDE)	6 10	5	C.A.	N.D.	N -N
Hexabromodiphenyl ether (HexaBDE)	~	5		N.D.	~ ~
Heptabromodiphenyl ether (HeptaBDE)	\$ 55	53	N 42 V	N.D.	JP -JP
Octabromodiphenyl ether (OctaBDE)	5 ,6	5	5 -5	N.D.	5-5
Nonabromodiphenyl ether (NonaBDE)	5	5	1 4 3	N.D.	ST-ST
Decabromodiphenyl ether (DecaBDE)	6 1	5	· ····	N.D.	· ··· ·
Total PBDEs / sum of above	2 12	12	C 42 1	N.D.	1000

Remark : *The Limited value is based on the RoHS directive 2011/65/EU.



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2. PFOS&PFOA

Test Method: With reference to EPA 3550C:2007 and EPA 8321B:2007 Detection of non-volatile material that can be solvent extraction by high-performance liquid chromatography with thermal ionization mass spectrometry.

Test Item	Unit	MDL	Test I	Result	Limited Value**
13 13 13 13	19	19 1	1#	2#	5 5
Perfluorooctane sulfonates(PFOS)	0	0.0001	N.D.	N.D.	0.1
Perfluorooctanoic Acid(PFOA)	%	0.0001	N.D.	N.D.	57-57

Remark : **The Limited value is based on Directive 2006/122/EC.

3. Sb

Test Method: With reference to EPA 3052-1996 & EPA 6010C-2007, analysis was performed by ICP-OES.

		0 0 0	Test Result	
Test Item	Unit	MDL	2 1# 2	<u></u> 2#
Sb	mg/kg	10	220	86

4. HBCDD

Test Method: With reference to EPA 3550C-2007&EPA 8270D-2007, analysis was performed by GC-MS.

Test Item	Unit MDL		Test Result	
S S S S	5 5 5	5555	5 2# 5	
Hexabromocyclododecane (HBCDD)	mg/kg	20	N.D.	

5. Halogen

Test Method: With reference to EN 14582: 2007, analysis was performed by IC.

Test Item	Unit	MDL	Limit	Test Result 2#
Fluorine (F)	mg/kg	30	5 5	149
Chlorine (Cl)	mg/kg	30	900	60
Bromine (Br)	mg/kg	30	900	N.D.
Iodine (I)	mg/kg	30	51.51.	N.D.
Total (Cl+Br)	mg/kg	15-15	1500	60 5



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6. 15P

Test Method: With reference to EPA 3550C-2007&EPA 8270D-2007, analysis was performed by GC-MS.

Test Items	Unit	MDL	Test Results
1 est items	Unit	MDL	2#
Di-iso-nonyl phthalate (DINP)		50	N.D.
Di-n-octyl phthalate (DNOP)	52	10	N.D.
Di (2-ethyl hexyl)-phthalate (DEHP) (DOP)	5 15	S 10	N.D.
Diisodecyl phthalate (DIDP)	2.1	50	N.D.
Butylbenzyl phthalate (BBP)	2.19	10	N.D.
Diisobuty phthalate (DIBP)		10	N.D.
Dibutuyl phthalate (DBP)	52	10	N.D.
Di-n-hexyl phthalate (DNHP)	mg/kg	10	N.D.
1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich	5	10	N.D.
1,2-Benzenedicarboxylic acid, ihexylester, branched and linear	52	10	N.D.
Bis(2-methoxyethyl) phthalate(DMEP)	5 5	5 10	N.D.
Diisopentylphthalate (DIPP)	51	10	N.D.
Dipentyl phthalate (DPP)	2.19	10	N.D.
N-pentyl-isopentylphtalate	0.1	10	N.D.
Dipentyl phthalate (DNPP)	2.12.	10	N.D.

Note : 1) "---" = Not Regulated.

- 2) MDL = Method Detection Limit.
- 3) N.D. = Not detected, less than MDL.
- 4) M1: With reference to IEC 62321-5: 2013, analysis was performed by ICP-OES.
- 5) M2: With reference to IEC 62321-4: 2013, analysis was performed by ICP-OES.
- M3: With reference to IEC 62321-7-2: 2017, analysis was performed by UV-Vis. M3a:With reference to IEC 62321-7-1: 2015, analysis was performed by UV-Vis Colorimetric Determination.
- 7) M4: With reference to IEC 62321-6: 2015, analysis was performed by GC-MS.
- Boiling water extraction method: Negative: The Cr(VI) concentration of plating detected is blow 0.1µg/cm²;

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Positive: The Cr(VI) concentration of plating detected is above 0.13µg/cm²; Inconclusive: The Cr(VI) concentration of plating detected is between 0.1µg/cm² and 0.13µg/cm².

TEST PART DESCRIPTION: 1# Metallic pin 2# Black main body

FLOW CHART

1. Test for Pb, Hg, Cd and Sb Content

Weigh sample and place in a digestion vessel.



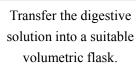
Add suitable digestion acid in the digestion vessel.

Digest sample completely in microwave digestion oven.

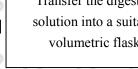
Analyze by ICP-OES.



Make up with deionized water.







Digestion Acid
HNO ₃ /HF
H ₂ SO ₄ , H ₂ O ₂ , HNO ₃ , HCl
Any acid to total digestion.

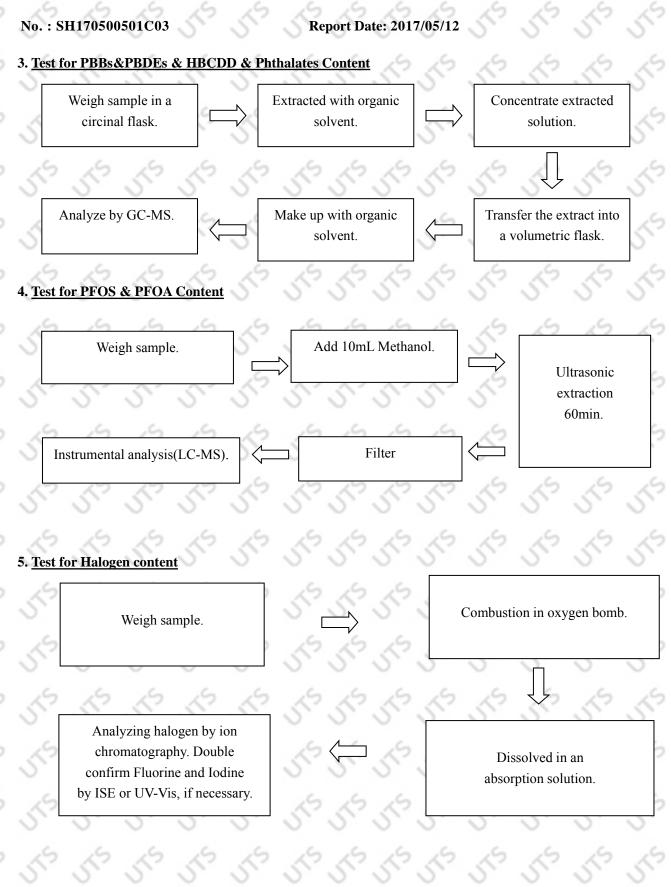
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No. : SH170500501C03 Report Date: 2017/05/12 2. Test for Chromium (VI) Content Nonmetal Weigh sample in Add appropriate Cool, filter then adjust the pH of the filtrate to a flat-bottomed bottle. amount of digestion 7.5±0.5. reagent and heating. Measure the absorbance Add diphenyl-carbazide, Adjust the pH of the at 540nm by UV-Vis. and make up to solution to 2.0 ± 0.5 . the mark. Metal Place the beaker to hot Remove the beaker, take out Make enough sample to glass beaker contained enough boiling plate, sample and cool it to room temperature. Continue to boil the water water. for 10 minutes Get 25ml mixture to another beaker, and add 1ml test liquid Add 1ml phosphoric acid Add water to 50ml; if there is 1ml to one of them. If red color solution to the beaker and emulsion or sedimentation, appears, it is shown there is mix it up. filtrate it. hexavalent chromium. temperature. Perform spectrophotometer to do colorimetric determination.

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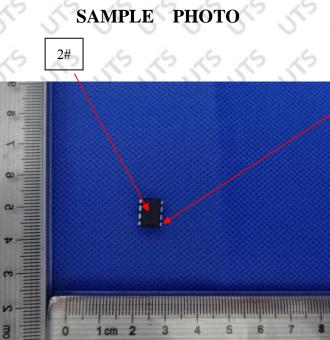


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