



TEST REPORT

Report No.: STR17106007R

Date: 2017-10-19

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Applicant : Senix Electronics Technology Limited

Applicant Address : 4/F, Block 15-2, Chuangye Industrial Area, Shapuwei, SongGang Street, Baoan District, Shenzhen, China

The following sample was submitted by the client as:

Manufacturer : Senix Electronics Technology Limited

Address : 4/F, Block 15-2, Chuangye Industrial Area, Shapuwei, SongGang Street, Baoan District, Shenzhen, China

Sample Description : Wired mouse

Style/Item No. : SM-777, SM900-ML, SM870, SM780, SM770, SM6007R, SM850, SM860, SM790, SM760, SM3007, SM681, SM600VE, SM670, SM730

Brand Name : N/A

Sample Receiving Date : Oct. 10, 2017

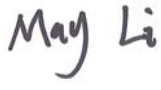


Test Period : Oct. 10, 2017 to Oct. 19, 2017

Test Requested:

As requested by the applicant, test(s) was/were performed as below:

Test Summary		Conclusion
1	European Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (XRF screening and chemical confirm)	PASS

Test Results: Please refer to following page(s).

Tested by:  May li	Reviewed by:  Boly Peng	Approved by:  Jandyso
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Declaration:

- (1) The report shall not be reproduced partly without the written approval of the laboratory, except in full produced.
- (2) All the results shown in the report apply to the tested sample, any erasion on the report is invalid
- (3) All tested sample will be kept for one month, if there is any doubt about the test result, please inform within this period

Shenzhen SEM.Test Technology Co., Ltd.

1/F, Building A, Hongwei Industrial Park, Liuxian 2nd Road, Bao'an District, Shenzhen, P.R.C. (518101)



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RoHS hazardous substances test

Test method:

IEC 62321-3-1:2013, XRF screening

IEC 62321-4-2013 for Hg, analyzed by ICP-OES

IEC 62321-5-2013 for Cd and Pb, analyzed by ICP-OES

IEC 62321-7-2:2017 method 7.1 and/or IEC 62321-7-1:2015 for Cr⁶⁺, analyzed by UV-VIS

IEC 62321-6-2015 for PBBs and PBDEs, analyzed by GC-MS

1. XRF results:

No.	Sample name	Part name	Sample Description	Results				
				Pb	Cd	Hg	Cr	Br
1	Wired mouse	Shell	Black plastic	BL	BL	BL	BL	BL
2			White plastic	BL	BL	BL	BL	BL
3		Wheel	Black plastic	BL	BL	BL	BL	BL
4		Screw	Silvery metal	BL	BL	BL	BL	NA
5		USB socket	White plastic	BL	BL	BL	BL	BL
6			Silvery metal	BL	BL	BL	BL	NA
7			Lead	BL	BL	BL	BL	NA
8		Covered wire	Black plastic	BL	BL	BL	BL	BL
9			Red fabric	BL	BL	BL	BL	BL
10		Wire	Red wire	BL	BL	BL	BL	BL
11			Green wire	BL	BL	BL	BL	BL
12			Black wire	BL	BL	BL	BL	BL
13			White wire	BL	BL	BL	BL	BL
14			Copper metal	BL	BL	BL	BL	NA
15		Potentiometer	Black plastic	BL	BL	BL	BL	BL
16			Silvery metal	BL	BL	BL	BL	NA
17		Key	Black rubber	BL	BL	BL	BL	BL
18			White plastic	BL	BL	BL	BL	BL
19			Black plastic	BL	BL	BL	BL	BL
20			Silvery metal	BL	BL	BL	BL	NA
21		IC U1	Body	BL	BL	BL	BL	BL
22			Lead	BL	BL	BL	BL	NA
23		104P	Body	BL	BL	BL	BL	NA
24			Lead	BL	BL	BL	BL	NA
25		Capacitance	Body	BL	BL	BL	BL	NA
26			Lead	BL	BL	BL	BL	NA



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27		Resistance	Body	BL	BL	BL	BL	NA
28			Lead	BL	BL	BL	BL	NA
29		LED	Body	BL	BL	BL	BL	BL
30			Lead	BL	BL	BL	BL	NA
31		Solder	Silvery metal	BL	BL	BL	BL	NA
32		PCB	PCB	BL	BL	BL	BL	IN

2. Chemical confirm results:

Test Item(s)	Result (mg/kg)					Limit (mg/kg)
	32	---	---	---	---	
Mono-PBB	ND	ND	ND	ND	ND	--
Di-PBB	ND	ND	ND	ND	ND	--
Tri-PBB	ND	ND	ND	ND	ND	--
Tetra-PBB	ND	ND	ND	ND	ND	--
Penta-PBB	ND	ND	ND	ND	ND	--
Hexa-PBB	ND	ND	ND	ND	ND	--
Hepta-PBB	ND	ND	ND	ND	ND	--
Octa-PBB	ND	ND	ND	ND	ND	--
Nona-PBB	ND	ND	ND	ND	ND	--
Deca-PBB	ND	ND	ND	ND	ND	--
Sum of PBBs	ND	ND	ND	ND	ND	1000
Mono-PBDE	ND	ND	ND	ND	ND	--
Di- PBDE	ND	ND	ND	ND	ND	--
Tri- PBDE	ND	ND	ND	ND	ND	--
Tetra- PBDE	ND	ND	ND	ND	ND	--
Penta- PBDE	ND	ND	ND	ND	ND	--
Hexa- PBDE	ND	ND	ND	ND	ND	--
Hepta- PBDE	ND	ND	ND	ND	ND	--
Octa- PBDE	ND	ND	ND	ND	ND	--
Nona- PBDE	ND	ND	ND	ND	ND	--
Deca- PBDE	ND	ND	ND	ND	ND	--
Sum of PBDEs	ND	ND	ND	ND	ND	1000
Comment	PASS	PASS	PASS	PASS	PASS	--



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Remark:

1. BL = below limit
2. OL = over limit
3. IN = inconclusive, chemical confirm test is recommended
4. NA = not applicable
5. mg/kg = milligram per kilogram = ppm
6. Method Detection Limit (MDL) : 10mg/kg for Pb, Cd, Hg and Cr⁶⁺; 10mg/kg for PBB and PBDE
7. ND = not detected
8. Negative = The Cr⁶⁺ concentration is below the limit of quantification. The coating is considered a non-Cr⁶⁺ based coating.
9. Positive = The Cr⁶⁺ concentration is above the limit of quantification and the statistical margin of error, The sample coating is considered to contain Cr⁶⁺.

Note:

1. When perform screening tests, it is the result on total Br while test item on restricted substances is PBBs/PBDEs, it is the result on total Cr while test item on restricted substances is Cr⁶⁺.
2. Results are obtained by EDXRF for primary screening, and further chemical testing by ICP-OES (for Cd, Pb, Hg), UV-VIS (for Cr⁶⁺) and GC-MS (for PBBs, PBDEs) is recommended to be performed, if the concentration falls into the inconclusive area according to IEC 62321-3-1:2013 (unit: mg/kg)

Element	Polymer	Metal	Composite Materials
Cd	$BL \leq (70-3\sigma) < X < (130+3\sigma) \leq OL$	$BL \leq (70-3\sigma) < X < (130+3\sigma) \leq OL$	$LOD < X < (150+3\sigma) \leq OL$
Pb	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (500-3\sigma) < X < (1500+3\sigma) \leq OL$
Hg	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (500-3\sigma) < X < (1500+3\sigma) \leq OL$
Br	$BL \leq (300-3\sigma) < X$	---	$BL \leq (250-3\sigma) < X$
Cr	$BL \leq (700-3\sigma) < X$	$BL \leq (700-3\sigma) < X$	$BL \leq (500-3\sigma) < X$

3. The XRF screening test for RoHS elements. The reading may be different to the actual content in the sample be of non-uniformity composition.

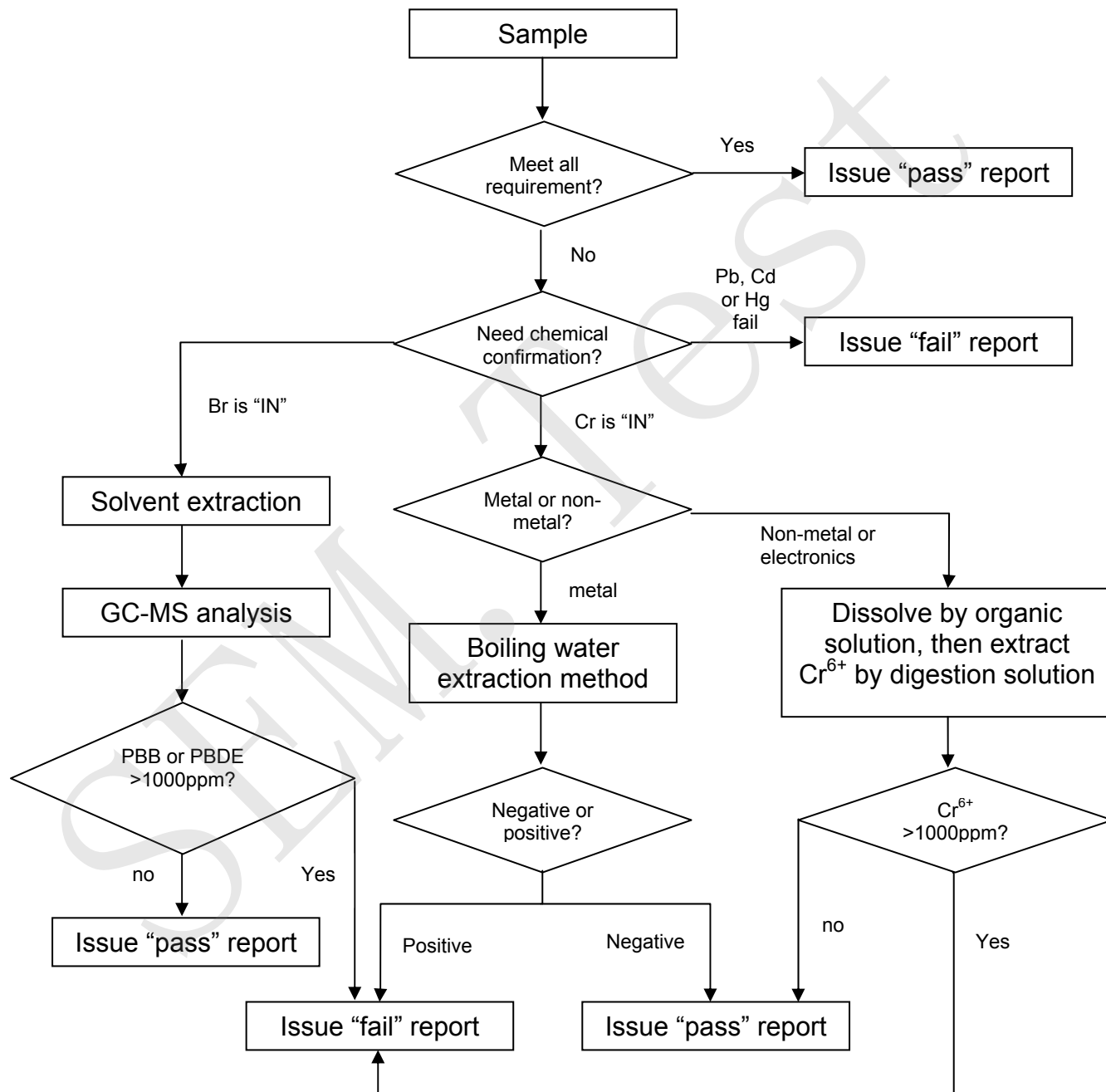
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Test flow:



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Tested sample photo:



--- End of Report ---