



Test Report No. 68.420.22.0723.01
Rev. 00
Dated 2022-06-28

Applicant: 合肥艾创微电子科技有限公司

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第三层

Attn.: Mr. Li

Sample Description: IC

Tested Model No.: ICW3667A

Ref. Model No.: Refer to APPENDIX I

PO No.: 5678164

Sample Received Date: 2022-06-22

Test Period: From 2022-06-22 to 2022-06-27

Location of Testing: TÜV SÜD Certification and Testing (China) Co., Ltd.
Shenzhen Branch

Purpose of examination: RoHS (Restriction of Hazardous Substances) directive 2011/65/EU
and its amendment (EU) 2015/863 on submitted samples

Test Result: Refer to following page(s)

Remark: - The result(s) relates only to the item(s) tested.
- The reference model(s) was declared by client.

TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
TÜV SÜD Group

Prepared by:

Reviewed by:

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Scarlett

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Disclaimer Measurement Uncertainty: Unless otherwise agreed upon, pass or fail verdicts are given based on the measured values without consideration of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as pass or fail.

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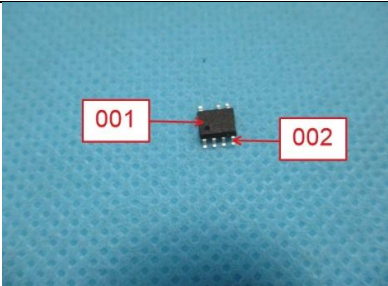


SUMMARY OF TEST RESULTS

No.	Test Requested	Conclusion	Remarks
1.	Heavy Metal (Pb, Cd, Hg and Cr VI) Content	PASS	
2.	Polybrominated Biphenyls (PBBs) and Polybrominated Diphenyl Ethers (PBDEs) Content	PASS	
3.	Phthalates (DEHP, BBP, DBP and DIBP) Content	PASS	



1. TESTED SUBJECT DESCRIPTION

Test No.	Sample No.	Tested Material Description	Photo
T1	001	Black body	
T2	002	Silvery metal pin	





2. TEST RESULTS

2.1. HEAVY METAL CONTENT

Test method: With reference to EN 62321-4:2014 /A1:2017, EN 62321-5:2014, EN 62321-7-1:2015 and EN 62321-7-2:2017, analyzed by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES) and Ultraviolet-visible spectrophotometer (UV-Vis). [Reporting Limit: 2.0 mg/kg for Cadmium; 10.0 mg/kg or 0.10 $\mu\text{g}/\text{cm}^2$ for Hexavalent Chromium, 10.0 mg/kg for Lead and Mercury.]

Sample No.	Result				
	Total Cadmium	Hexavalent Chromium	Hexavalent Chromium	Total Mercury	Total Lead
001	<2.0	<10.0	/	<10.0	<10.0
002	<2.0	/	Negative	<10.0	<10.0
Unit	mg/kg	mg/kg	$\mu\text{g}/\text{cm}^2$	mg/kg	mg/kg
RoHS Requirement	100	1000	Negative [#]	1000	1000

Note:

- “mg/kg” denotes milligram per kilogram
- “ $\mu\text{g}/\text{cm}^2$ ” denotes micrograms per square centimeter
- “<” denotes less than
- “Negative” denotes the absorbance value of sample is < 0.10 $\mu\text{g}/\text{cm}^2$, the sample is considered to be negative for Hexavalent Chromium.
- “#” According to DIRECTIVE 2011/65/EU Article 4(1) and Annex II. While, positive means the presence of CrVI on tested areas and the result(s) was (were) regarded as in conflict with European Parliament and Council Directive 2011/65/EU, Article 4(1) and Annex II.

2.2. POLYBROMINATED BIPHENYLS (PBBs) AND POLYBROMINATED DIPHENYL ETHERS (PBDEs) CONTENT

Test Method: With reference to EN 62321-6:2015, extracted by toluene and analyzed by Gas Chromatography and Mass Spectrometry (GC-MS). [Reporting Limit: 5 mg/kg]

Test Item		Result [mg/kg]	RoHS Requirement [mg/kg]
		Sample 001	
PBBs	Monobromobiphenyl	< 5	Sum of PBBs 1000
	Dibromobiphenyl	< 5	
	Tribromobiphenyl	< 5	
	Tetrabromobiphenyl	< 5	
	Pentabromobiphenyl	< 5	
	Hexabromobiphenyl	< 5	
	Heptabromobiphenyl	< 5	
	Octabromobiphenyl	< 5	
	Nonabromobiphenyl	< 5	
	Decabromobiphenyl	< 5	
	Sum of PBBs	< 50	
PBDEs	Monobromodiphenyl Ether	< 5	Sum of PBDEs 1000
	Dibromodiphenyl Ether	< 5	
	Tribromodiphenyl Ether	< 5	
	Tetrabromodiphenyl Ether	< 5	
	Pentabromodiphenyl Ether	< 5	
	Hexabromodiphenyl Ether	< 5	
	Heptabromodiphenyl Ether	< 5	
	Octabromodiphenyl Ether	< 5	
	Nonabromodiphenyl Ether	< 5	
	Decabromodiphenyl Ether	< 5	
	Sum of PBDEs	< 50	

Note:

- “mg/kg” denotes miligram per kilogram
- “<” denotes less than



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2.3. PHTHALATES CONTENT TEST

Test method: With reference to EN 62321-8:2017, extracted by organic solvent and analyzed by Gas Chromatography and Mass Spectrometry (GC-MS). [Reporting limit: 100 mg/kg]

Test Item	Result [mg/kg]	RoHS Requirement [mg/kg]
	Sample 001	
Di-(2-ethyl-hexyl) Phthalate (DEHP)	< 100	1000
Butyl-benzyl Phthalate (BBP)	< 100	1000
Di-butyl Phthalate (DBP)	< 100	1000
Di-iso-butyl Phthalate (DIBP)	< 100	1000

Note:

- "mg/kg" denotes miligram per kilogram
- "<" denotes less than





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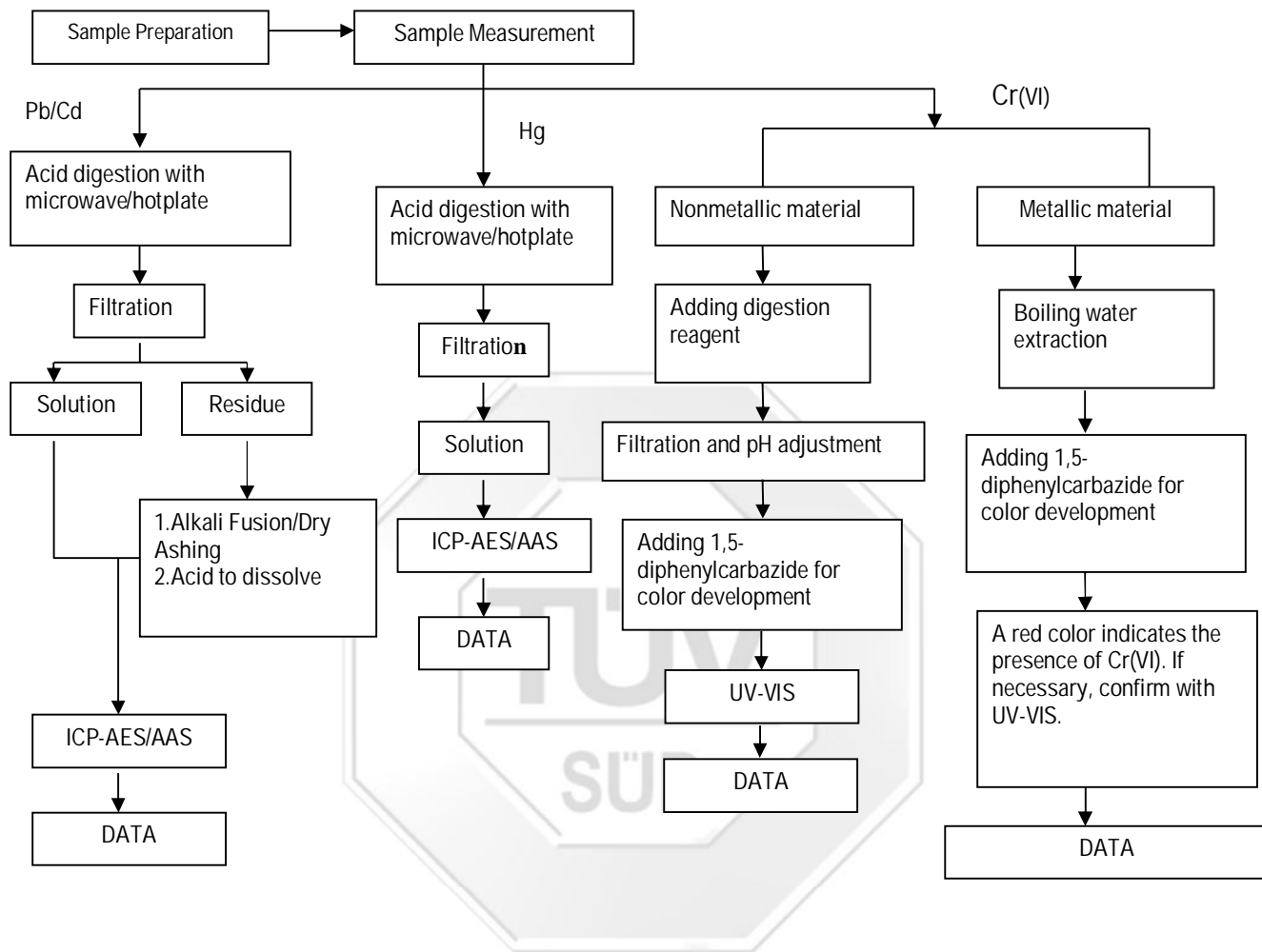
APPENDIX I:

According to client's declaration, tested material would be produced as relevant product(s):

ICW3667B、ICW3667BH、ICW3669A、ICW3669B、ICW3669D、ICW3669F、ICW4008A、
ICW4008B、ICW4008S、ICW4009A、ICW4009B、ICW2801B、ICW2801D、ICW2801E、
ICW4007B、ICW3715C、ICW3783A、ICW9952、ICW3716C、ICW3115AM6G、
ICW1221CM5G、ICW1214A50M3G、ICW1214C50M5G、ICW1214C33M5G、ICW1214A33PG、
ICW1214C15M5G、ICW1233C33M5G、ICW1234A50PG、ICW1233A50PG、
ICW1233A50M3G、ICW1233A33PG、ICW2231A50M3G、ICW1233C33M5G、ICW3104AM5G-
N、ICW3115AM6G、ICW3111AG6G、ICW3121、ICW3126AM6G、ICW3116BM6G、
ICW3150ASPG、ICW7135A33M6G、ICW7135A50M6G、ICW7188C33M5G、
ICW7188A33M3G、ICW2159BM6G、ICW2170ASG、ICW2150FM5G、ICW2139FM5G、
ICW2199ASG、ICW2199AG8G、ICW5010G-N、ICW5012AESG、ICW5012ASPG-N、
ICW5069ASPG、ICW5210AM5G、ICW5078BSPG、ICW5210AM6G、ICW3118ASP、
ICW8020SG、ICW1232C33N4AG、ICW1232C33U4AG、ICW7660CS1G、ICW8802、
ICW8802、ICW5170、ICW6204、ICW6201、ICW6205、ICW6208、ICW6206、ICW5305T、
ICW203H-7V、ICW203H-8V、ICW103A、ICW206-7VN、ICW206-8V、ICW3037、ICW4005W、
ICW3039、ICW6215、ICW2540A、ICW2358、ICW8249-2、ICW6824、ICW2545、ICW6510T、
ICW118A、ICW5176QFN32L

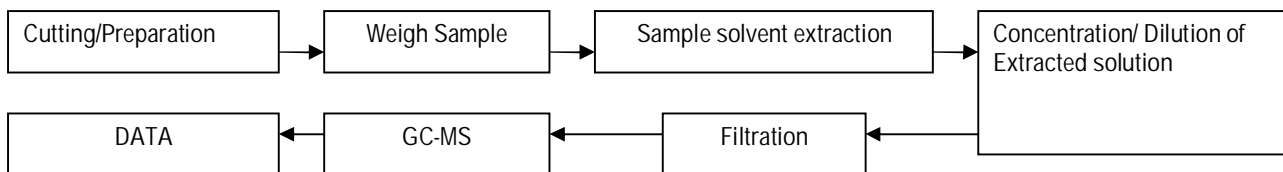


APPENDIX II RoHS Testing Procedure Flowchart



These sample were dissolved totally by pre-conditioning method according to above flow chart(Cr(VI) test method excluded)

PBBs/PBDEs, Phthalates



-----End of Report-----