



Test Report

Report No. A224018068510101R1

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Company Name YANGZHOU YANGJIE ELECTRONIC TECHNOLOGY CO., LTD.
shown on Report
Address NO.6 HEYE WEST ROAD,HANJIANG DISTRICT,YANGZHOU, CHINA

The following sample(s) and sample information was/were submitted and identified by/on the behalf of the applicant

Sample Name	Module
Sample Received Date	Apr. 10, 2024
Sample Resubmitted Date	Apr. 20, 2024
Testing Period	Apr. 10, 2024 to Apr. 24, 2024

Test Requested As specified by client, to test Lead (Pb), Cadmium (Cd), Mercury (Hg), Hexavalent Chromium (Cr(VI)), Polybrominated Biphenyls(PBBs), Polybrominated Diphenyl Ethers (PBDEs), Phthalates (DBP, BBP, DEHP, DIBP) in the submitted sample(s).

Test Method/Test Result(s) Please refer to the following page(s).



Approved by

Chen Kaimin

Date

Apr. 26, 2024

Chen kaimin
Lab Manager

检验检测专用章

Centre Testing International Pinbiao(Shanghai) Co., Ltd.

No. R475312221

No.1351, Wanfang Road, Minhang District, Shanghai, China

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The following sample(s) and sample information was/were submitted and identified by/on the behalf of the applicant

CTI Sample ID	Reference Report No. - CTI Sample ID
6	A2240180685101R1-5

Remark:

The samples with the reference information in the table above are non-tested in this report. According to the applicant's statement, the material of the samples in the column "Reference Report No. - CTI Sample ID " in the table above are the same as the " CTI Sample ID ".

Conclusion

<u>Tested Sample</u>	<u>According to standard/directive</u>	<u>Result</u>
Submitted Sample	RoHS Directive 2011/65/EU with amendment (EU) 2015/863	PASS

PASS means that the results shown on the report comply with the limits set by RoHS Directive 2011/65/EU with amendment (EU) 2015/863.

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Test Method

Tested Item(s)	Test Method	Measured Equipment(s)
Lead (Pb)	IEC 62321-5:2013	ICP-OES
	Refer to IEC 62321-5:2013	
Cadmium (Cd)	IEC 62321-5:2013	ICP-OES
	Refer to IEC 62321-5:2013	
Mercury (Hg)	IEC 62321-4:2013+AMD1:2017 CSV	ICP-OES
	Refer to IEC 62321-4:2013+AMD1:2017 CSV	
Hexavalent Chromium (Cr(VI))	IEC 62321-7-1:2015	UV-Vis
	IEC 62321-7-2:2017 and/or determination of Total Chromium by IEC 62321-5:2013	UV-Vis/ICP-OES
Polybrominated Biphenyls(PBBs)	IEC 62321-6:2015	GC-MS
Polybrominated Diphenyl Ethers (PBDEs)	IEC 62321-6:2015	GC-MS
Phthalates (DBP, BBP, DEHP, DIBP)	IEC 62321-8:2017	GC-MS

Test Result(s)

Tested Item(s)	Result			MDL	Limit
	1	2.1	2.2		
Lead (Pb)	13 mg/kg	16 mg/kg	N.D.	2 mg/kg	1000 mg/kg
Cadmium (Cd)	N.D.	N.D.	N.D.	2 mg/kg	100 mg/kg
Mercury (Hg)	N.D.	N.D.	N.D.	2 mg/kg	1000 mg/kg
Hexavalent Chromium (Cr(VI))	N.D.	--	--	8 mg/kg	1000 mg/kg
	--	N.D.▼	N.D.▼	0.10 µg/cm ² (LOQ)	1000 mg/kg

Tested Item(s)	Result			MDL	Limit
	3.1	3.2	4.1		
Lead (Pb)	N.D.	17 mg/kg	N.D.	2 mg/kg	1000 mg/kg
Cadmium (Cd)	N.D.	N.D.	N.D.	2 mg/kg	100 mg/kg
Mercury (Hg)	N.D.	N.D.	N.D.	2 mg/kg	1000 mg/kg
Hexavalent Chromium (Cr(VI))	--	--	--	8 mg/kg	1000 mg/kg
	N.D.▼	N.D.▼	N.D.▼	0.10 µg/cm ² (LOQ)	1000 mg/kg

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Tested Item(s)	Result			MDL	Limit
	4.2	5	7.1		
Lead (Pb)	134 mg/kg	N.D.	N.D.	2 mg/kg	1000 mg/kg
Cadmium (Cd)	N.D.	N.D.	N.D.	2 mg/kg	100 mg/kg
Mercury (Hg)	N.D.	N.D.	N.D.	2 mg/kg	1000 mg/kg
Hexavalent Chromium (Cr(VI))	--	N.D.	--	8 mg/kg	1000 mg/kg
	N.D.▼	--	N.D.▼	0.10 µg/cm ² (LOQ)	1000 mg/kg

Tested Item(s)	Result			MDL	Limit
	7.2	8	9		
Lead (Pb)	N.D.	N.D.	N.D.	2 mg/kg	1000 mg/kg
Cadmium (Cd)	N.D.	N.D.	N.D.	2 mg/kg	100 mg/kg
Mercury (Hg)	N.D.	N.D.	N.D.	2 mg/kg	1000 mg/kg
Hexavalent Chromium (Cr(VI))	--	--	N.D.	8 mg/kg	1000 mg/kg
	N.D.▼	N.D.▼	--	0.10 µg/cm ² (LOQ)	1000 mg/kg

Tested Item(s)	Result		MDL	Limit
	10-A	11		
Lead (Pb)	919535 mg/kg* ¹	N.D.	2 mg/kg	1000 mg/kg
Cadmium (Cd)	N.D.	N.D.	2 mg/kg	100 mg/kg
Mercury (Hg)	N.D.	N.D.	2 mg/kg	1000 mg/kg
Hexavalent Chromium (Cr(VI))	--	N.D.	8 mg/kg	1000 mg/kg
	N.D.▼	--	0.10 µg/cm ² (LOQ)	1000 mg/kg

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Tested Item(s)	Result			MDL	Limit
	1	5	9		
Polybrominated Biphenyls(PBBs)					
Monobromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg	1000 mg/kg
Dibromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg	
Tribromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg	
Tetrabromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg	
Pentabromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg	
Hexabromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg	
Heptabromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg	
Octabromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg	
Nonabromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg	
Decabromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg	

Tested Item(s)	Result	MDL	Limit
	11		
Polybrominated Biphenyls(PBBs)			
Monobromobiphenyl	N.D.	5 mg/kg	1000 mg/kg
Dibromobiphenyl	N.D.	5 mg/kg	
Tribromobiphenyl	N.D.	5 mg/kg	
Tetrabromobiphenyl	N.D.	5 mg/kg	
Pentabromobiphenyl	N.D.	5 mg/kg	
Hexabromobiphenyl	N.D.	5 mg/kg	
Heptabromobiphenyl	N.D.	5 mg/kg	
Octabromobiphenyl	N.D.	5 mg/kg	
Nonabromobiphenyl	N.D.	5 mg/kg	
Decabromobiphenyl	N.D.	5 mg/kg	

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Tested Item(s)	Result			MDL	Limit
	1	5	9		
PolybrominatedDiphenyl Ethers (PBDEs)					
Monobromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg	1000 mg/kg
Dibromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg	
Tribromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg	
Tetrabromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg	
Pentabromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg	
Hexabromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg	
Heptabromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg	
Octabromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg	
Nonabromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg	
Decabromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg	

Tested Item(s)	Result	MDL	Limit
	11		
PolybrominatedDiphenyl Ethers (PBDEs)			
Monobromodiphenyl ether	N.D.	5 mg/kg	1000 mg/kg
Dibromodiphenyl ether	N.D.	5 mg/kg	
Tribromodiphenyl ether	N.D.	5 mg/kg	
Tetrabromodiphenyl ether	N.D.	5 mg/kg	
Pentabromodiphenyl ether	N.D.	5 mg/kg	
Hexabromodiphenyl ether	N.D.	5 mg/kg	
Heptabromodiphenyl ether	N.D.	5 mg/kg	
Octabromodiphenyl ether	N.D.	5 mg/kg	
Nonabromodiphenyl ether	N.D.	5 mg/kg	
Decabromodiphenyl ether	N.D.	5 mg/kg	

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Tested Item(s)	Result			MDL	Limit
	1	5	9		
Phthalates (DBP, BBP, DEHP, DIBP)					
Dibutyl phthalate (DBP) CAS#:84-74-2	N.D.	N.D.	N.D.	50 mg/kg	1000 mg/kg
Butyl benzyl phthalate (BBP) CAS#:85-68-7	N.D.	N.D.	N.D.	50 mg/kg	1000 mg/kg
Di-(2-ethylhexyl) phthalate (DEHP) CAS#:117-81-7	N.D.	N.D.	N.D.	50 mg/kg	1000 mg/kg
Diisobutyl phthalate (DIBP) CAS#:84-69-5	N.D.	N.D.	N.D.	50 mg/kg	1000 mg/kg

Tested Item(s)	Result	MDL	Limit
	11		
Phthalates (DBP, BBP, DEHP, DIBP)			
Dibutyl phthalate (DBP) CAS#:84-74-2	N.D.	50 mg/kg	1000 mg/kg
Butyl benzyl phthalate (BBP) CAS#:85-68-7	N.D.	50 mg/kg	1000 mg/kg
Di-(2-ethylhexyl) phthalate (DEHP) CAS#:117-81-7	N.D.	50 mg/kg	1000 mg/kg
Diisobutyl phthalate (DIBP) CAS#:84-69-5	N.D.	50 mg/kg	1000 mg/kg

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Sample/Part Description

No.	CTI Sample ID	Description
1	1	White plastic with black printing
2	2.1	Light blue plating
3	2.2	Metal base
4	3.1	Silvery plating
5	3.2	Metal base
6	4.1	Silvery plating
7	4.2	Metal base
8	5	Colorless transparent adhesive
9	7.1	Silvery plating
10	7.2	Metal base
11	8	Silvery metal wire
12	9	Silvery grey electronic component(Tested as a whole)*
13	10-A	Silvery metal
14	11	PCB(Tested as a whole) *

Remark: The sample(s) had been dissolved totally tested for Lead, Cadmium, Mercury.

-*=The sample(s) was tested as a whole, because it's impossible to disassemble or separate it by current equipment and technology. The result(s) shown on this report may be different from the content of any homogeneous material.

-MDL = Method Detection Limit

-N.D. = Not Detected (<MDL or LOQ)

-mg/kg = ppm = parts per million

-1000 mg/kg = 0.1%

-LOQ = Limit of Quantification, The LOQ of Hexavalent chromium is 0.10 $\mu\text{g}/\text{cm}^2$

-▼The sample is negative for Cr(VI) – The Cr(VI) concentration is below 0.10 $\mu\text{g}/\text{cm}^2$. The coating is considered a non-Cr(VI) based coating. Information on storage conditions and production date of the tested sample is unavailable and thus Cr(VI) results represent status of the sample at the time of testing.

The test result(s) of this report is/are presented in reference to the result(s) that reported in A2240180685101R1.

-*1=According to the client's statement, the material of the sample(s) fall into exemption items 7(a) according to EU Directive 2011/65/EU: Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead).

-The sample with A in ' CTI Sample ID ' is the improved one instead of the original submitted sample.

Note: This testing report deleted “CTI Sample ID 10”, added “CTI Sample ID 10-A” based on the original report of No.A224018068510101.This testing report displaces the original one which was invalid since the date of this testing report released.

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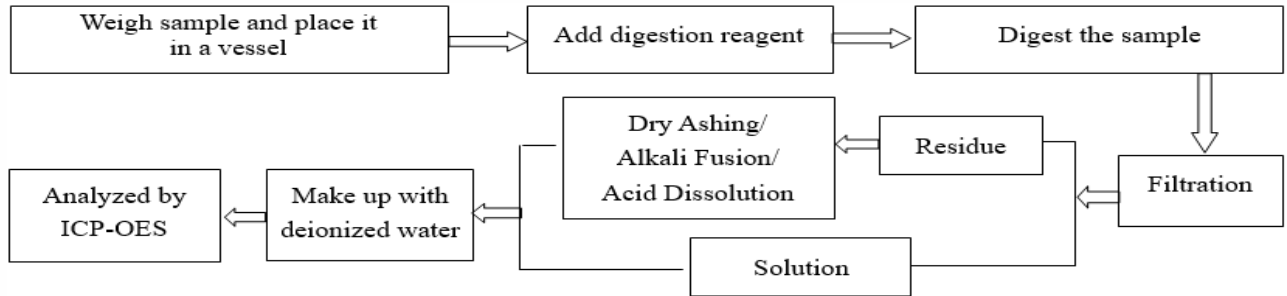
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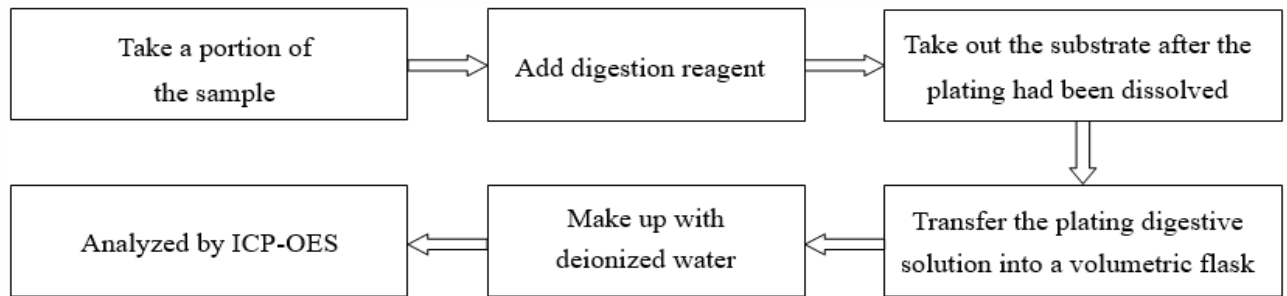
Test Process

1. Lead (Pb), Cadmium (Cd), Chromium(Cr)

(1) IEC 62321-5:2013

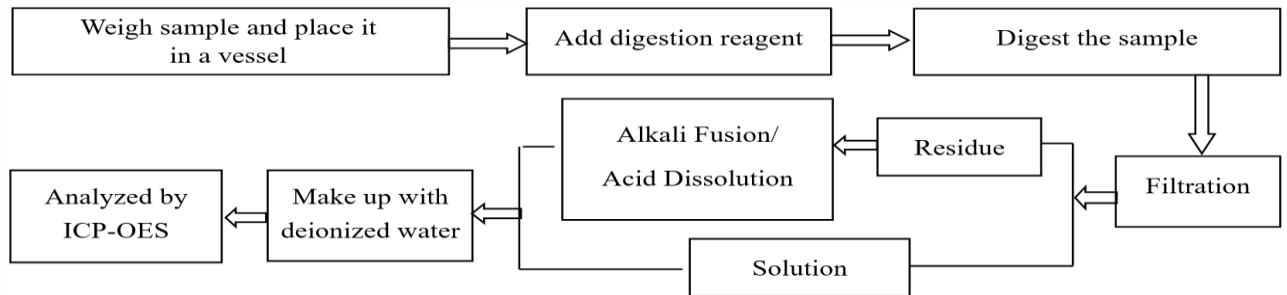


(2) Refer to IEC 62321-5:2013

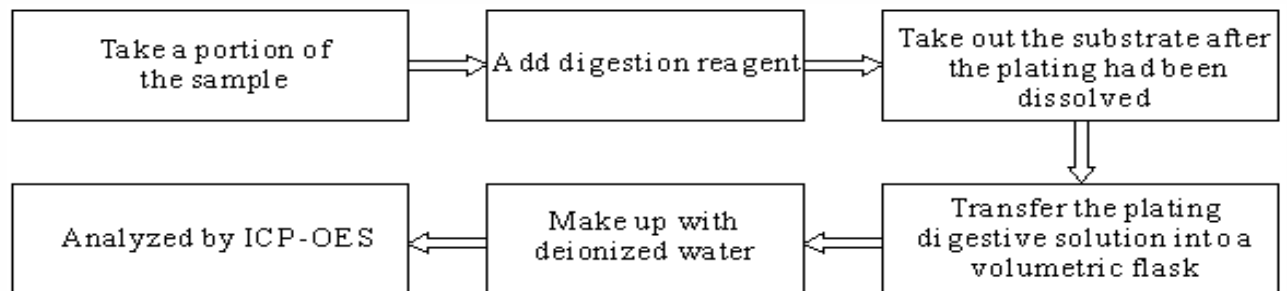


2. Mercury (Hg)

(1) IEC 62321-4:2013+AMD1:2017 CSV



(2) Refer to IEC 62321-4:2013+AMD1:2017 CSV



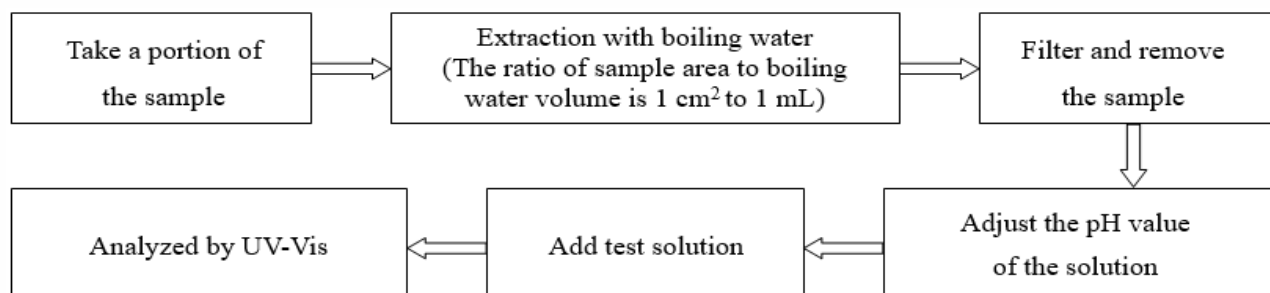
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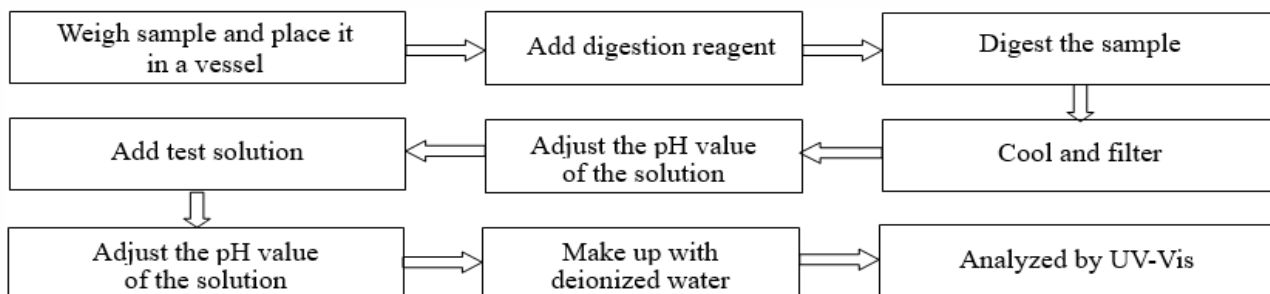
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3. Hexavalent Chromium (Cr(VI))

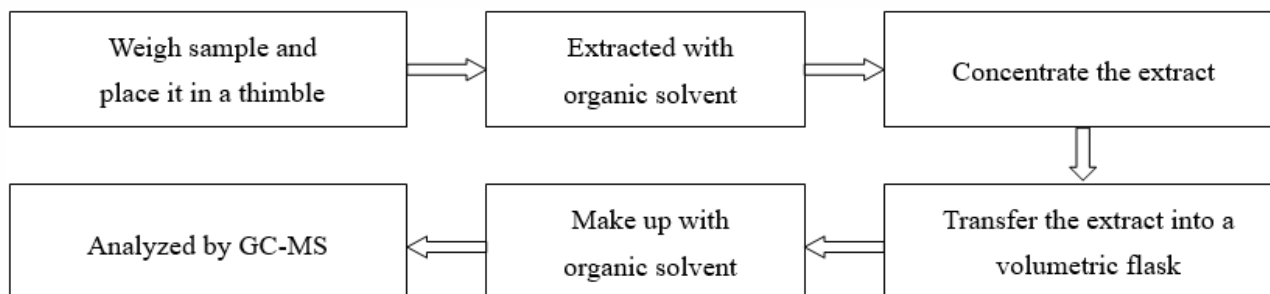
(1) IEC 62321-7-1:2015



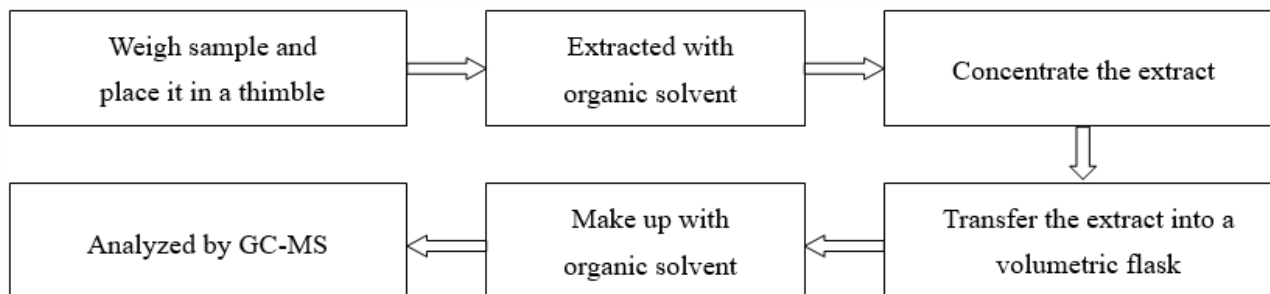
(2) IEC 62321-7-2:2017



4. Polybrominated Biphenyls(PBBs), Polybrominated Diphenyl Ethers (PBDEs)



5. Phthalates (DBP, BBP, DEHP, DIBP)



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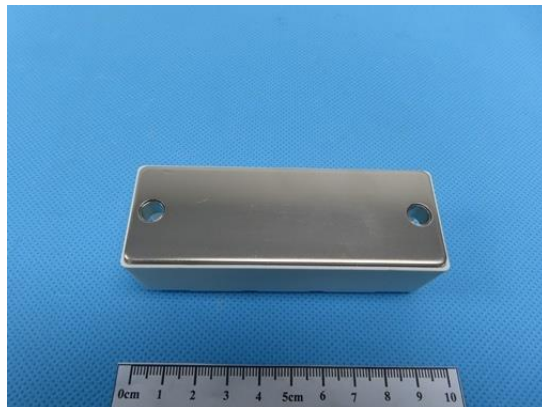
Photo(s) of the sample(s)

Final Product

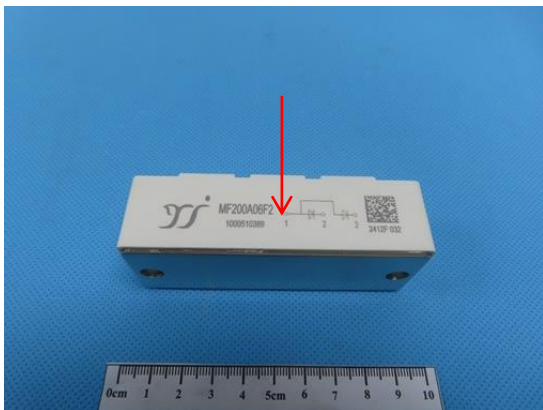


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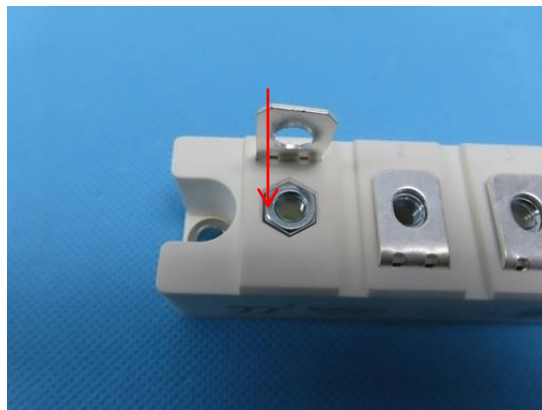
Final Product



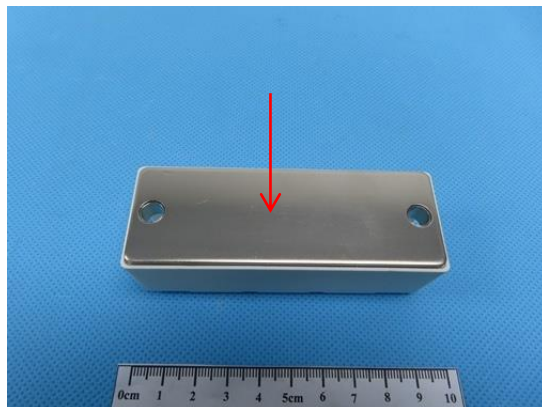
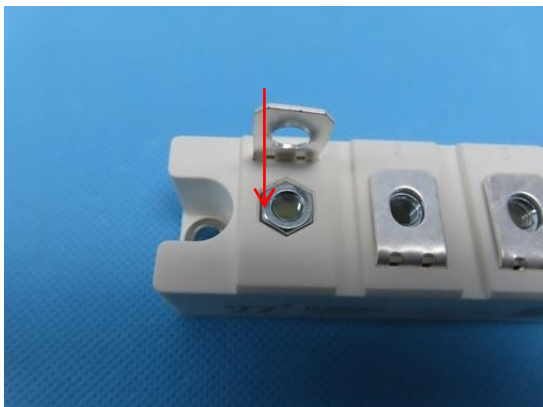
2.1



2.2



3.1



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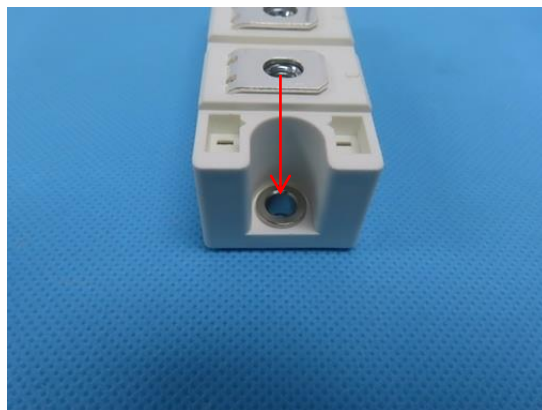
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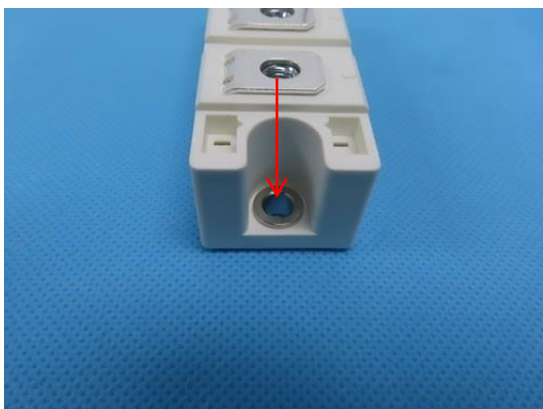
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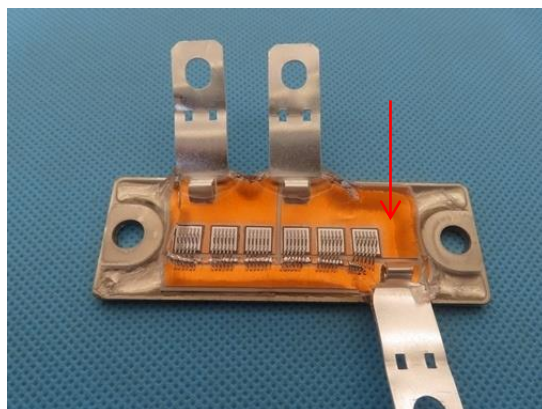
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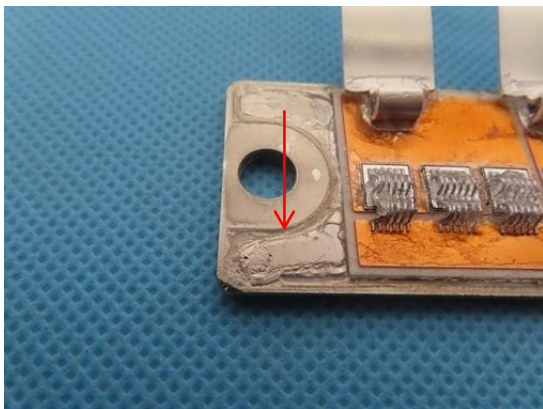
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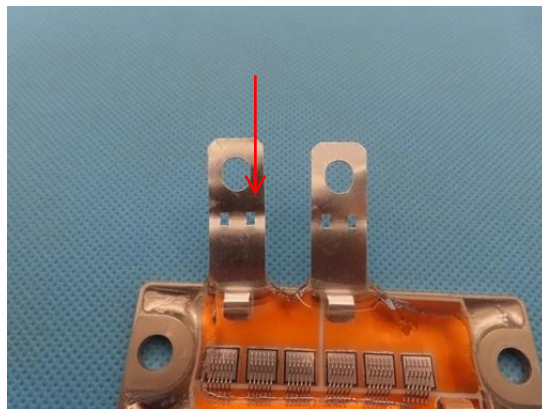
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6(Client Reference Photo(Non-tested sample))



7.1

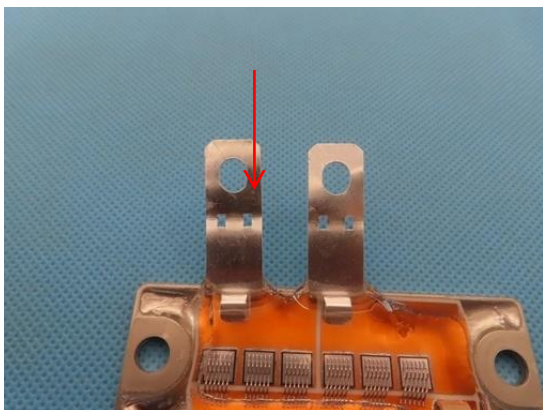


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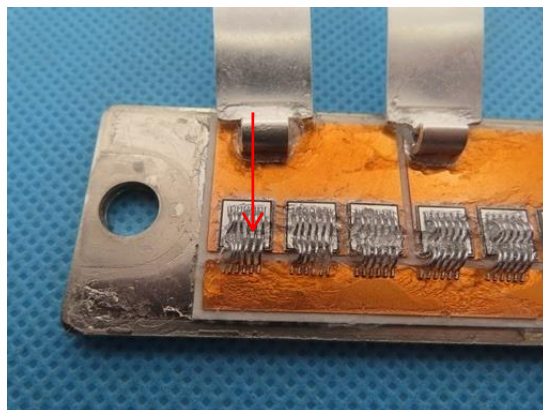
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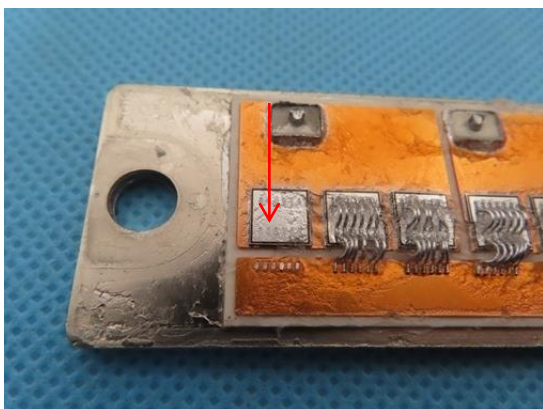
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8



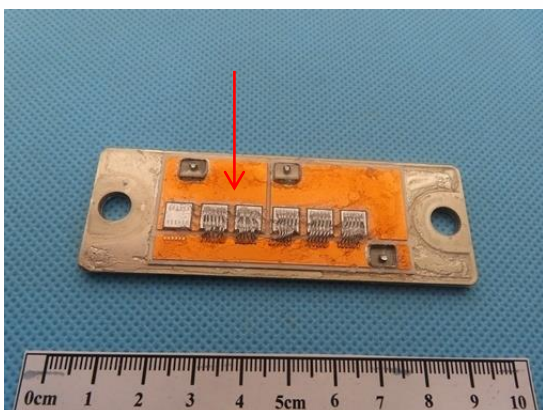
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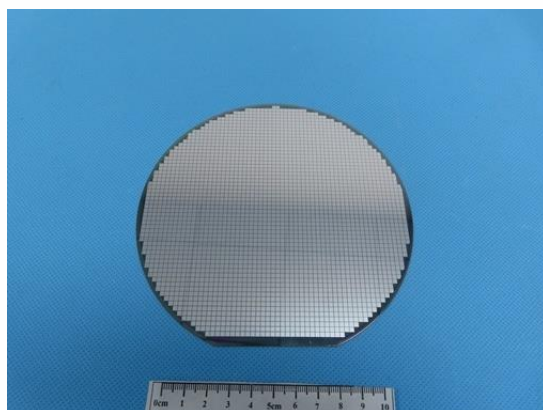
10-A



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Statement:

1. This report is considered invalid without approved signature, special seal and the seal on the perforation;
2. The Company Name shown on Report and Address, the sample(s) and sample information was/were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified;
3. The result(s) shown in this report refer(s) only to the sample(s) tested;
4. Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule (w=0) stated in ILAC-G8:09/2019 / CNAS-GL015:2022;
5. Without written approval of CTI, this report can't be reproduced except in full;
6. In case of any discrepancy between the English version and Chinese version of the testing reports (if generated), the Chinese version shall prevail.

*** End of Report ***

Appendix

Client Reference Information

D1、D2、DA、M1、M2、NM2、M3、NM3、M4、M5、M7、M8、F3、F4N、F5、F6、FJ、C1、C2、L1、L2、T1、T2、D1N、MT、GJ、F1、F2、F2N、FS、P1、P2、P3、E1、E1A、E2、E2A、M9、T1A、T1D、F1N、T2A、C21、C3、E3、P4

Statement:

1. The Appendix Information was/were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified.
2. The Appendix Information is/are the supplement(s) for the Report A224018068510101R1.