

Test Report Date: 25 Feb 2021 No. TAOEC2100698401 Page 1 of 11

RIZHAO XURI ELECTRONICS CO.,LTD.

DALIAN ROAD 388 OF RIZHAO DEVELOPMENT ZONE, SHANDONG, CHINA

The following sample(s) was/were submitted and identified on behalf of the clients as: TO BASE

SGS Job No.: QP21-000442 - QD

Model No.: TO56 0603

Client Ref. Information: Other Model No.: SEE ATTACHMENT

Date of Sample Received: 20 Feb 2021

Testing Period: 20 Feb 2021 - 24 Feb 2021

Test Requested: Selected test(s) as requested by client.

Please refer to next page(s). Test Method: Test Results: Please refer to next page(s).

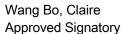
Based on the performed tests on submitted sample ID 001,002, the results of Conclusion:

> Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBBs), Polybrominated diphenyl ethers (PBDEs) and Phthalates such as Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl

phthalate (DBP), and Diisobutyl phthalate (DIBP) comply with the limits as set by RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU.

Based on the performed tests on submitted sample ID 003-007, the results of Lead, Mercury, Cadmium, Hexavalent chromium comply with the limits as set by RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU.

Signed for and on behalf of SGS-CSTC Standards Technical Services (Qingdao) Co., Ltd.







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Test Results:

Test Part Description:

Specimen No.	SGS Sample ID	Description
SN1	TAO21-006984.001	black solid
SN2	TAO21-006984.002	brown solid
SN3	TAO21-006984.003	silvery metal
SN4	TAO21-006984.004	silvery gray metal
SN5	TAO21-006984.005	silvery gray metal
SN6	TAO21-006984.006	golden metal pin
SN7	TAO21-006984.007	silvery gray metal pin

Remarks:

- (1) 1 mg/kg = 0.0001%
- (2) MDL = Method Detection Limit
- (3) ND = Not Detected (< MDL)
- (4) "-" = Not Regulated

RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU

Test Method: With reference to IEC 62321-5:2013, IEC 62321-4:2013+AMD1:2017, IEC 62321-7-2:2017, IEC 62321-6:2015 and IEC 62321-8:2017, analyzed by ICP-OES, UV-Vis and GC-MS.

Test Item(s)	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>001</u>	<u>002</u>
Cadmium (Cd)	100	mg/kg	2	ND	ND
Lead (Pb)	1000	mg/kg	2	ND	ND
Mercury (Hg)	1000	mg/kg	2	ND	ND
Hexavalent Chromium (Cr(VI))	1000	mg/kg	8	ND	ND
Sum of PBBs	1000	mg/kg	-	ND	ND
Monobromobiphenyl	-	mg/kg	5	ND	ND
Dibromobiphenyl	-	mg/kg	5	ND	ND
Tribromobiphenyl	-	mg/kg	5	ND	ND
Tetrabromobiphenyl	-	mg/kg	5	ND	ND
Pentabromobiphenyl	-	mg/kg	5	ND	ND
Hexabromobiphenyl	-	mg/kg	5	ND	ND
Heptabromobiphenyl	-	mg/kg	5	ND	ND
Octabromobiphenyl	-	mg/kg	5	ND	ND
Nonabromobiphenyl	-	mg/kg	5	ND	ND
Decabromobiphenyl	-	mg/kg	5	ND	ND
Sum of PBDEs	1000	mg/kg	-	ND	ND



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Test Item(s)	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>001</u>	<u>002</u>	
Monobromodiphenyl ether	-	mg/kg	5	ND	ND	
Dibromodiphenyl ether	-	mg/kg	5	ND	ND	
Tribromodiphenyl ether	-	mg/kg	5	ND	ND	
Tetrabromodiphenyl ether	-	mg/kg	5	ND	ND	
Pentabromodiphenyl ether	-	mg/kg	5	ND	ND	
Hexabromodiphenyl ether	-	mg/kg	5	ND	ND	
Heptabromodiphenyl ether	-	mg/kg	5	ND	ND	
Octabromodiphenyl ether	-	mg/kg	5	ND	ND	
Nonabromodiphenyl ether	-	mg/kg	5	ND	ND	
Decabromodiphenyl ether	-	mg/kg	5	ND	ND	
Di-butyl Phthalate (DBP)	1000	mg/kg	50	ND	ND	
Benzyl Butyl Phthalate (BBP)	1000	mg/kg	50	ND	ND	
Di-2-Ethyl Hexyl Phthalate (DEHP)	1000	mg/kg	50	ND	ND	
Diisobutyl Phthalates (DIBP)	1000	mg/kg	50	ND	ND	

Notes:

- (1) The maximum permissible limit is quoted from RoHS Directive (EU) 2015/863.
- (2) IEC 62321 series is equivalent to EN 62321 series https://www.cenelec.eu/dyn/www/f?p=104:30:1742232870351101::::FSP_ORG_ID,FSP_LANG_ID:12586 37,25
- (3) The restriction of DEHP, BBP, DBP and DIBP shall apply to medical devices, including in vitro medical devices, and monitoring and control instruments, including industrial monitoring and control instruments, from 22 July 2021.

RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU

Test Method: With reference to IEC 62321-5:2013, IEC 62321-4:2013+AMD1:2017, IEC 62321-7-1:2015, analyzed by ICP-OES, AAS and UV-Vis.

Test Item(s)	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>003</u>	<u>004</u>	<u>005</u>
Cadmium (Cd)	100	mg/kg	2	ND	ND	ND
Lead (Pb)	1000	mg/kg	2	ND	ND	ND
Mercury (Hg)	1000	mg/kg	2	ND	ND	ND
Hexavalent Chromium (Cr(VI))▼	-	µg/cm²	0.10	ND	ND	ND
Test Item(s)	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>006</u>	<u>007</u>	
Cadmium (Cd)	100	mg/kg	2	ND	ND	
Lead (Pb)	1000	mg/kg	2	21	24	
Mercury (Hg)	1000	mg/kg	2	ND	ND	
Hexavalent Chromium (Cr(VI))▼	-	µg/cm²	0.10	ND	ND	



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Notes:

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- (3) ▼= a. The sample is positive for CrVI if the CrVI concentration is greater than 0.13 µg/cm². The sample coating is considered to contain CrVI
 - b. The sample is negative for CrVI if CrVI is ND (concentration less than 0.10 µg/cm²). The coating is considered a non-CrVI based coating
 - c. The result between 0.10 µg/cm² and 0.13 µg/cm² is considered to be inconclusive unavoidable coating variations may influence the determination

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.

Halogen

Test Method: With reference to EN 14582: 2016, analysis was performed by Ion Chromatograph (IC).

Test Item(s)	<u>Unit</u>	<u>MDL</u>	<u>001</u>	<u>002</u>
Fluorine (F)	mg/kg	50	ND	ND
Chlorine (CI)	mg/kg	50	ND	ND
Bromine (Br)	mg/kg	50	ND	ND
lodine (I)	mg/kg	50	ND	ND



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ATTACHMENT	
Other Model No.	

Other Model No.:				
PMGI0190	TO-5-25.0	TO18 1+1 iron	TO46CK	
PMGI0126	TO-5 (5+1)	TO18 2+1 semicircle eyeletTO46S		
PMGI0111	TO-5-6P6L	TO18 3P4L-V	TO560201	
PMGI0108	TO-5 3P4L-V	TO39 (2+1)	TO560204	
PMGI0198	TO-5 3P3L	TO39 (1+1) Au	TO-56-0301	
PMGI0201	TO-5 7P8L-V	TO39 M10030	TO56 0303	
PMGI0202	TO-5 4P6 hole	TO39 (5+1)	T0-56-0502	
PMGI0147	TO-5 6PIN	TO39 (2+1) 2.5T	TO-56-0603	
NC-23-Au	TO18 (2+1)	TO39 (2+1) 2.5T	TO-56 4+1	
NC-21-Au	TO18-0001	TO39 34P68L	TO-56 7pin	
NC-4(Ni)-S	TO18-0100	TO39 34P58L	TO60 7P	
NC-4(Au)-R	TO18-1.1T	TO46-5.8 outer dimeter 5.8TO60 8P		
NC-22	TO18 (3+1) Au	TO46-(1+1)-45°	TO65 6P	
NC-24(Ni)-R	TO18 (1+1) -nail	TO46 (4+1)	TO72	
NC-21-Ni	TO18 GSB (1+1) 2.0T	TO46 (2+1)	TO33	
NC-4(AU)-20.0-R	TO18 (1+1) 38.5	TO46 (2+1)Cross mark	TO38	
NC-25(Au)-R	TO18 (2+1) Au	TO46 (4+1)-25G-A	KLD-3.0	
TO-5-0.7 outer lead 5.5	TO18 2.5T 2+1	TO46 (4+1) 0.77T	KLD-2.0	
TO-5 2+1 inner lead 1.85	TO-18GMK3	TO46 (5+1) -0.7-0.77T	KLDφ4.2	
TO-5 3+1 inner lead 2.0	TO-18GMK	TO46 3+1iron	KLD 2.60	
TO-5-5.5	TO-18GSB	TO46-31.75	KLD 3.55X	
TO-5-8.5	TO18-(1+1) 45°	TO46 (4+1) with tail	TO-8 12P13L-V	
TO-5-13.5	TO18 3+1 2.5T 1110	TO46-13.5-conjoined		
TO-5-20.0	TO18 1+1 1.1T	TO46C		



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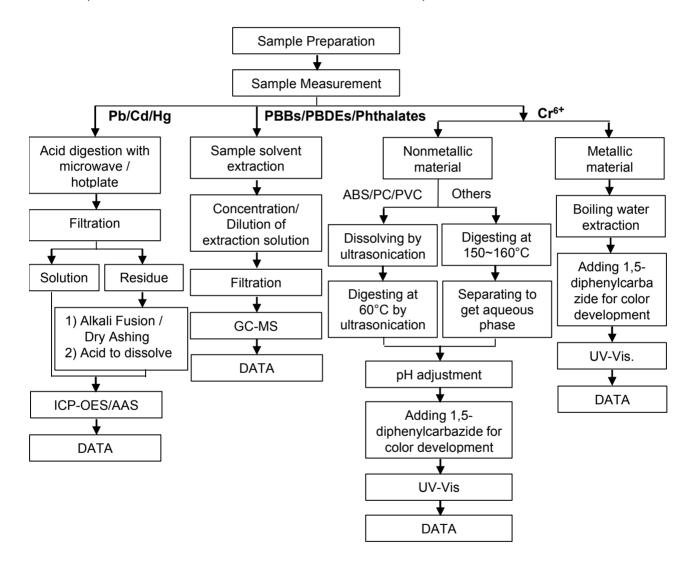
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Pb/Cd/Hg/Cr⁶⁺/PBBs/PBDEs/Phthalates Testing Flow Chart

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1) These samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr⁶⁺ and PBBs/PBDEs /Phthalates test method excluded)





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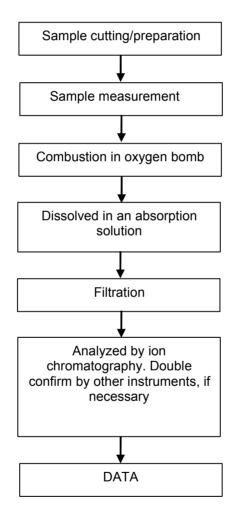
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Halogen Testing Flow Chart





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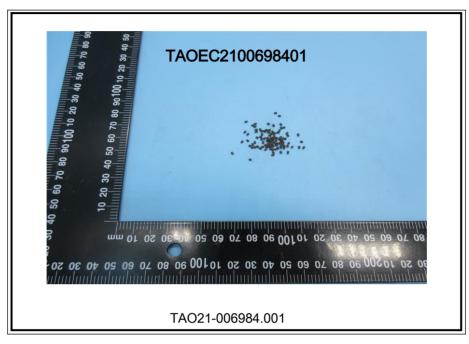
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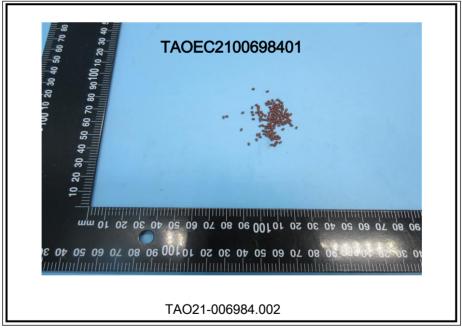
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Sample photo:







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