

# Test Report

No.: CANEC25002788401

Date: Mar 05, 2025

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Client Name: JIANGSU JIEJIE MICROELECTRONICS CO.,LTD.

Client Address: 3000 QIANTANGJIANG ROAD, ECONOMIC DEVELOPMENT ZONE, QIDONG ,  
JIANGSU , CHINA

Sample Name: TO-3P

Client Ref. Information: See Attachment

The above sample(s) and information were provided by the client.

SGS Job No.: GZP25-003242

Reference No.: SHP25-003102

Sample Receiving Date: Feb 19, 2025

Testing Period: Feb 19, 2025 ~ Mar 04, 2025

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

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

Test Result(s): Please refer to next page(s).

Test Requirement	Conclusion
EU RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU - Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBB), Polybrominated diphenyl ethers (PBDE), Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP)	Pass
EU RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU- Lead, Mercury, Cadmium and Hexavalent chromium	Pass
Polyvinyl Chloride(PVC)	See Results
Halogen	See Results

Signed for and on behalf of  
SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch

*Dongyu Xie*

Dongyu Xie  
Approved Signatory

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**Test Result(s):**

Test Part Description:

SN ID	Sample No.	SGS Sample ID	Description
SN1	A1	CAN25-0027884-0001.C001	Black material
SN2	A2	CAN25-0027884-0001.C002	Silvery metal pin
SN3	A3	CAN25-0027884-0001.C003	Silvery metal sheet with copper colored surface, chip, solder, and white material

**Remarks:**

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

**EU RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU - Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBB), Polybrominated diphenyl ethers (PBDE), Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP)**

**Test Method:** With reference to IEC 62321-4:2013+AMD1:2017, IEC 62321-5:2013, IEC 62321-7-2:2017 and IEC 62321-12:2023, analysis was performed by ICP-OES/AAS, UV-Vis and GC-MS.

Test Item(s)	Limit	Unit(s)	MDL	A1
Lead (Pb)	1000	mg/kg	2	ND
Mercury (Hg)	1000	mg/kg	2	ND
Cadmium (Cd)	100	mg/kg	2	ND
Hexavalent Chromium (Cr(VI))	1000	mg/kg	8	ND
Polybrominated biphenyls (PBB)	1000	mg/kg	-	ND
Monobrominated biphenyl (MonoBB)	-	mg/kg	25	ND
Dibrominated biphenyl (DiBB)	-	mg/kg	25	ND
Tribrominated biphenyl (TriBB)	-	mg/kg	25	ND
Tetrabrominated biphenyl (TetraBB)	-	mg/kg	25	ND
Pentabrominated biphenyl (PentaBB)	-	mg/kg	25	ND
Hexabrominated biphenyl (HexaBB)	-	mg/kg	25	ND
Heptabrominated biphenyl (HeptaBB)	-	mg/kg	25	ND
Octabrominated biphenyl (OctaBB)	-	mg/kg	25	ND
Nonabrominated biphenyl (NonaBB)	-	mg/kg	25	ND
Decabrominated biphenyl (DecaBB)	-	mg/kg	25	ND
Polybrominated diphenyl ethers (PBDE)	1000	mg/kg	-	ND
Monobrominated diphenyl ether (MonoBDE)	-	mg/kg	25	ND
Dibrominated diphenyl ether (DiBDE)	-	mg/kg	25	ND
Tribrominated diphenyl ether (TriBDE)	-	mg/kg	25	ND
Tetrabrominated diphenyl ether (TetraBDE)	-	mg/kg	25	ND
Pentabrominated diphenyl ether (PentaBDE)	-	mg/kg	25	ND
Hexabrominated diphenyl ether (HexaBDE)	-	mg/kg	25	ND



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Test Item(s)	Limit	Unit(s)	MDL	A1
Heptabrominated diphenyl ether (HeptaBDE)	-	mg/kg	25	ND
Octabrominated diphenyl ether (OctaBDE)	-	mg/kg	25	ND
Nonabrominated diphenyl ether (NonaBDE)	-	mg/kg	25	ND
Decabrominated diphenyl ether (DecaBDE)	-	mg/kg	25	ND
Bis(2-ethylhexyl) phthalate (DEHP)	1000	mg/kg	50	ND
Butyl benzyl phthalate (BBP)	1000	mg/kg	50	ND
Dibutyl Phthalate (DBP)	1000	mg/kg	50	ND
Diisobutyl Phthalate (DIBP)	1000	mg/kg	50	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.
- (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.

**EU RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU- Lead, Mercury, Cadmium and Hexavalent chromium**

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

Test Item(s)	Limit	Unit(s)	MDL	A2	A3
Lead (Pb)	1000	mg/kg	2	10	96068 <sup>▲</sup>
Mercury (Hg)	1000	mg/kg	2	ND	ND
Cadmium (Cd)	100	mg/kg	2	ND	ND
Hexavalent Chromium (Cr(VI)) <sup>▼</sup>	-	µg/cm <sup>2</sup>	0.10	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.
- (3) <sup>▼</sup> =
  - a. The sample is positive for Cr(VI) if the Cr(VI) concentration is greater than 0.13 µg/cm<sup>2</sup>. The sample coating is considered to contain Cr(VI).
  - b. The sample is negative for Cr(VI) if Cr(VI) is ND (concentration less than 0.10 µg/cm<sup>2</sup>). The coating is considered a non-Cr(VI) based coating.
  - c. The result between 0.10 µg/cm<sup>2</sup> and 0.13 µg/cm<sup>2</sup> 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.

**Polyvinyl Chloride(PVC)**

**Test Method:** SGS In-house method (SGS-CCL-TOP-194-01), analysis was performed by Py-GC-MS / IC.



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Test Item(s)	CAS No.	Unit(s)	MDL	A1
Polyvinyl chloride (PVC)	9002-86-2	%	0.05	ND

**Notes:**

(1) Polyvinyl chloride component includes its present in copolymer.

**Halogen**

**Test Method:** With reference to EN 14582:2016, analysis was performed by IC.

Test Item(s)	Unit(s)	MDL	A1
Fluorine(F)	mg/kg	20	ND
Chlorine(Cl)	mg/kg	50	ND
Bromine(Br)	mg/kg	50	ND
Iodine(I)	mg/kg	50	ND

Remark ▲:According to the declaration from the client, Lead (Pb) in specimen A3 is exempted by EU RoHS directive 2011/65/EU based on [ANNEX III 7(a)]: Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead).

More information about exemption can be found via the following link:

<https://rohs.sgsonline.com.cn/PDFLinks/en/RSTS-TP-037%20RoHS%20Exemption%20%28EN%29.pdf>

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.



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Guangzhou Branch Technical Laboratory

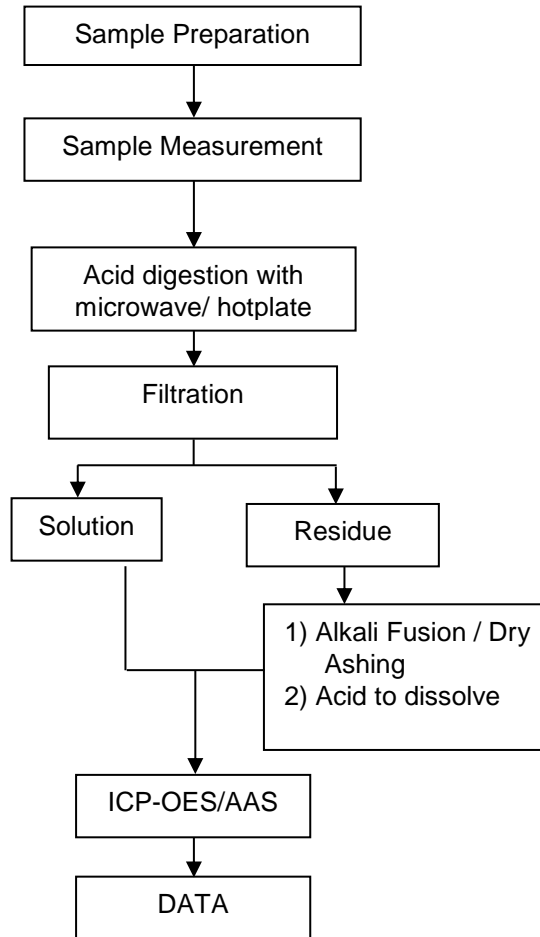
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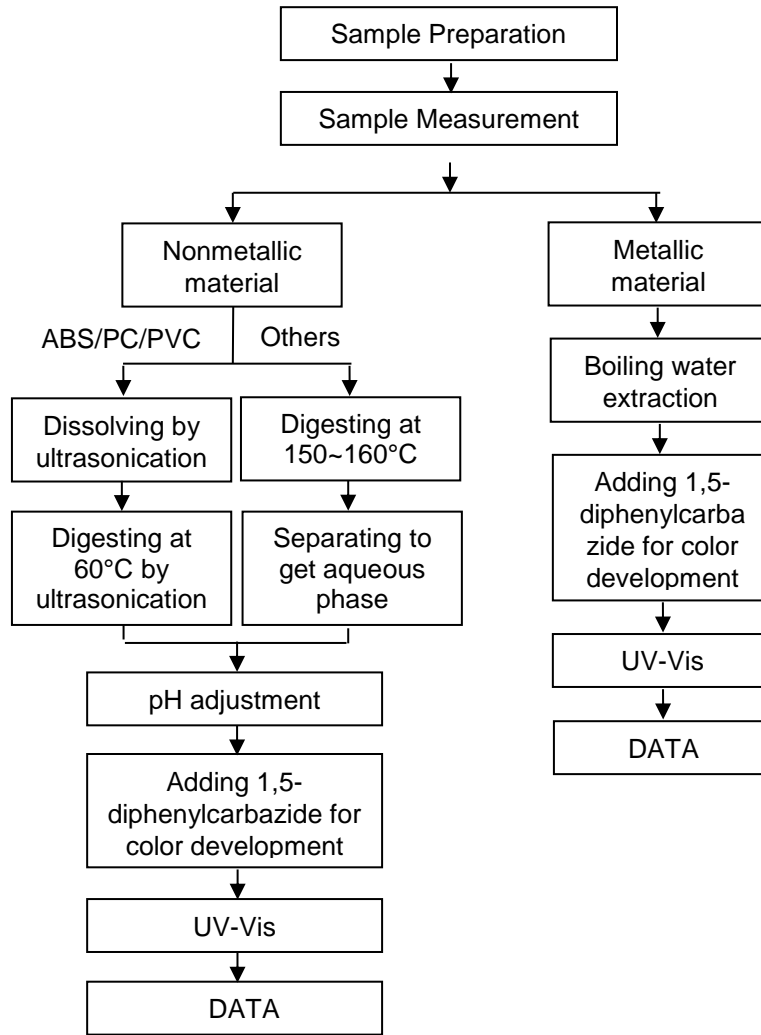
### Elements Testing Flow Chart

These samples were dissolved totally by pre-conditioning method according to below flow chart.



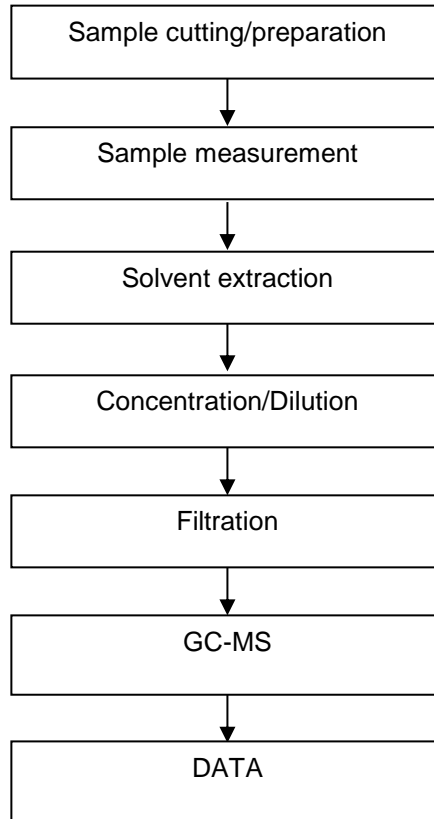
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**Hexavalent Chromium (Cr(VI)) Testing Flow Chart**



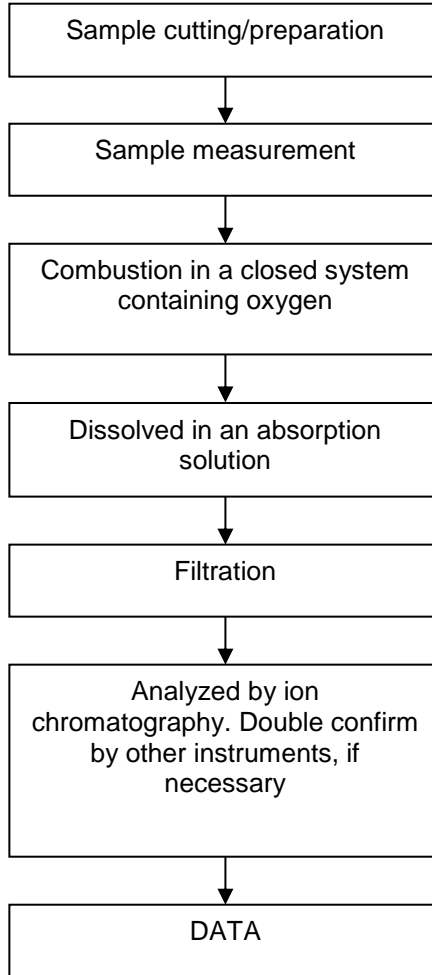
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**PBB/PBDE/Phthalates Testing Flow Chart**



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### Halogen Testing Flow Chart





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62mm、ABS、DBS、DFN0603-2L、DFN1006-2L、DFN1006-3L、DFN10x15-5L-XX、DFN1610-2L、DFN1610-6L、DFN2010-5L、DFN2010-8L、DFN2020-2L、DFN2020-3L、DFN2020-6L、DFN2020-6L-XX、DFN2510-10L、DFN2626-10L、DFN2x2-3L、DFN2x2-6L、DFN2x2-6L-D、DFN3.0x3.0-8L-XX、DFN3.3x3.3-8L、DFN3.3x3.3-8L ( Type B ) 、DFN3.0x3.0-8L-SD ( Type B ) DFN3.3x3.3-8L-XX、DFN3020-10L、DFN3030-8L、DFN3030-8L-XX、DFN3333-2L、DFN3333-8L、DFN3810-9L、DFN3x3-8L-XX、DFN5060-8L、DFN5060-8L-XX、DFN5x6-8L、DFN5x6-8L-XX、DFN8080-2L、DFN8080-4L、DFN8x8-2L、DFN8x8-4L、DIP-4、DO-15、DO-218AB、DO-27、DO-41、EasyPack1B、EconoDual、ESOP-8、GBJ、GBL、GBU、ITO-247、ITO-247-XX、KBL、KBP、LSOP-4、MBF、MBS、P6、PDFN3.3x3.3-8L、PDFN3.3x3.3-8L-XX、PDFN3x3-8L、PDFN3x3-8L-XX、PDFN5x6-8L、PDFN5x6-8L-XX、PowerJE10x12、PowerJE5x6、PowerJE7x8、PowerJE8x8、PPTC、R6、SGBJ、SMA、SMAF、SMB、SMBF、SMC、SMC-3、SMD-3225、SMD-4032、SMT、SMT-4、SMTF、SMTJ、SMTO-218Tab、SOD-123、SOD-123FL、SOD-123FLT、SOD-323、SOD-323FL、SOD-523、SOD-723、SOD-923、SOP-10、SOP-16、SOP-4、SOP-5、SOP-7、SOP-8、SOT-143-XX、SOT-223、SOT-223-XX、SOT-227、SOT-227-XX、SOT-23、SOT-23-XX、SOT-323-XX、SOT-353-XX、SOT-363-XX、SOT-523-XX、SOT-563-XX、SOT-723-XX、SOT-82、SOT-89、SOT-89-XX、SOT-89R-XX、SSOP-4、STOLL7x8-5L、T2B、TO-126、TO-202、TO-202-XX、TO-220-XX、TO-220A、TO-220A-2D-XX、TO-220A-XX、TO-220AB、TO-220B、TO-220B-XX、TO-220C、TO-220C-XX、TO-220F、TO-220FA、TO-220FA-XX、TO-220FP、TO-220FP-XX、TO-220H-XX、TO-220HF、TO-220MF-3L、TO-247、TO-247-XX、TO-247i-XX、TO-247iPS-2L、TO-247iPS-3L、TO-247J、TO-247J-XX、TO-247plus、TO-247S、TO-247S-XX、TO-251、TO-251-XX、TO-251L-XX、TO-251S、TO-252、TO-252-XX、TO-262、TO-262-XX、TO-263、TO-263-XX、TO-277B、TO-3P、TO-3P-3L、TO-3PF-3L、TO-3PN-3L、TO-92、TO-92-XX、TO-92CR、TO-92KR、TO-92KRF、TO-92UR、TOLL9.9x10.38-8L、TSSOP-8



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