

Test Report

Report No. : TCT200113C005-1

Date : Jan. 17, 2020

Page No.: 1 of 7

Applicant: SHENZHEN YANGXING TECHNOLOGY CO.,LTD.
Address: 3rd Floor G building, Gangzhilong Science Park, Qinglong Road No.6,
LongHua District, Shenzhen, China

The following sample was submitted and identified by/on behalf of the client as:

Sample Name: Crystal SMD 5032
Model No.: Crystal SMD 1210 YSX1210SL
Crystal SMD 1612 YSX1612SL
Crystal SMD 2016 YSX211SL
Crystal SMD 2520 YSX221SL
Crystal SMD 3225 YSX321SL
Crystal SMD 2016 YSX211SC
Crystal SMD 2520 YSX221SC
Crystal SMD 3225 YSX321SC
Crystal SMD 5032 YSX530SC
Crystal SMD 5032 YSX531SC

Trade Mark: YXC

Sample Received Date: 2020.01.13

Testing Period: 2020.01.13—2020.01.17

Test Requested:

1. As specified by client, to determine the Pb, Cd, Hg, Cr(VI), PBBs, PBDEs, DBP, BBP, DEHP, DIBP content(s) in the submitted sample.
2. As specified by client, to determine the Fluorine(F), Chlorine(Cl), Bromine(Br), Iodine(I) contents in the submitted sample.
3. As specified by client, to determine the Polycyclic Aromatic Hydrocarbons (PAHs) content in the submitted sample.

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

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

Conclusion:

1. Base upon the performed tests by submitted sample, the test results comply with the limits as set by Directive (EU) 2015/863 - Amendment of EU RoHS Directive 2011/65/EU (RoHS 2.0) Annex II.
2. Base upon the performed tests by submitted sample, the test results of Chlorine(Cl), Bromine(Br) comply with standard IEC/EN 61249-2-21:2003 requirement.
3. Base upon the performed tests by submitted sample, the test Results of PAHs comply with entry 50 of annex XVII to (EC) No.1907/2006 REACH Regulation and its amended regulation (EU) No 1272/2013


Remark: The report is to supersede test report TCT200113C005.

Checked by



Noel Yin

Signed for and on behalf of TCT



Kim Zhang

Technical Manager



Test Report

Report No. : TCT200113C005-1

Date : Jan. 17, 2020

Page No.: 2 of 7

Test Results:

1. Pb, Cd, Hg, Cr(VI), PBBs, PBDEs, DBP, BBP, DEHP, DIBP Content(s)

Tested Item(s)	Test Method/Instrument	MDL	Unit	Limit	Result
					1
Lead(Pb)	IEC62321-5:2013/ICP-OES	2	mg/kg	1000	N.D.
Cadmium(Cd)	IEC62321-5:2013/ICP-OES	2	mg/kg	100	N.D.
Mercury(Hg)	62321-4:2013+AMD1:2017 /ICP-OES	2	mg/kg	1000	N.D.
Hexavalent Chromium(Cr(VI))	IEC62321-7-2:2017/UV-VIS	2	mg/kg	1000	N.D.
Sum of PBBs	-	-	mg/kg	1000	N.D.
Monobromobiphenyl	IEC62321-6:2015/GC-MS	5	mg/kg	-	N.D.
Dibromobiphenyl	IEC62321-6:2015/GC-MS	5	mg/kg	-	N.D.
Tribromobiphenyl	IEC62321-6:2015/GC-MS	5	mg/kg	-	N.D.
Tetrabromobiphenyl	IEC62321-6:2015/GC-MS	5	mg/kg	-	N.D.
Pentabromobiphenyl	IEC62321-6:2015/GC-MS	5	mg/kg	-	N.D.
Hexabromobiphenyl	IEC62321-6:2015/GC-MS	5	mg/kg	-	N.D.
Heptabromobiphenyl	IEC62321-6:2015/GC-MS	5	mg/kg	-	N.D.
Octabromobiphenyl	IEC62321-6:2015/GC-MS	5	mg/kg	-	N.D.
Nonabromobiphenyl	IEC62321-6:2015/GC-MS	5	mg/kg	-	N.D.
Decabromobiphenyl	IEC62321-6:2015/GC-MS	5	mg/kg	-	N.D.
Sum of PBDEs	-	-	mg/kg	1000	N.D.
Monobromodiphenyl ether	IEC62321-6:2015/GC-MS	5	mg/kg	-	N.D.
Dibromodiphenyl ether	IEC62321-6:2015/GC-MS	5	mg/kg	-	N.D.
Tribromodiphenyl ether	IEC62321-6:2015/GC-MS	5	mg/kg	-	N.D.
Tetrabromodiphenyl ether	IEC62321-6:2015/GC-MS	5	mg/kg	-	N.D.
Pentabromodiphenyl ether	IEC62321-6:2015/GC-MS	5	mg/kg	-	N.D.
Hexabromodiphenyl ether	IEC62321-6:2015/GC-MS	5	mg/kg	-	N.D.
Heptabromodiphenyl ether	IEC62321-6:2015/GC-MS	5	mg/kg	-	N.D.
Octabromodiphenyl ether	IEC62321-6:2015/GC-MS	5	mg/kg	-	N.D.
Nonabromodiphenyl ether	IEC62321-6:2015/GC-MS	5	mg/kg	-	N.D.
Decabromodiphenyl ether	IEC62321-6:2015/GC-MS	5	mg/kg	-	N.D.
Dibutyl Phthalate (DBP)	IEC62321-8:2017/GC-MS	30	mg/kg	1000	N.D.
Benzylbutyl Phthalate (BBP)	IEC62321-8:2017/GC-MS	30	mg/kg	1000	N.D.
Bis-(2-ethylhexyl) Phthalate (DEHP)	IEC62321-8:2017/GC-MS	30	mg/kg	1000	N.D.
Diisobutyl Phthalate (DIBP)	IEC62321-8:2017/GC-MS	30	mg/kg	1000	N.D.

Test Report

Report No. : TCT200113C005-1

Date : Jan. 17, 2020

Page No.: 3 of 7

Specimen Description:

1. Golden electronic component

- Note:
- MDL = Method Detection Limit
 - N.D. =Not Detected(<MDL)
 - 1mg/kg = 1ppm =0.0001%
 - "-"=Not Regulated
 - Sample for Pb, Cd and Hg testing was completely dissolved.

2. Fluorine(F), Chlorine(Cl), Bromine(Br), Iodine(I) Contents

Test Item(s)	Test Method/Equipment	MDL	Unit	Limit	Result(s)
					1
Fluorine (F)	BS EN 14582:2016/IC	50	mg/kg	---	N.D.
Chlorine (Cl)	BS EN 14582:2016/IC	50	mg/kg	900	N.D.
Bromine (Br)	BS EN 14582:2016/IC	50	mg/kg	900	N.D.
Iodine (I)	BS EN 14582:2016/IC	50	mg/kg	---	N.D.
Total(Cl+Br)	---	---	mg/kg	1500	N.D.

Specimen Description:

1. Golden electronic component

- Note:
- MDL = Method Detection Limit
 - N.D.= Not Detected(<MDL)
 - 1mg/kg = 1ppm = 0.0001%
 - "---"=Not Regulated

Test Report

Report No. : TCT200113C005-1

Date : Jan. 17, 2020

Page No.: 4 of 7

3. Regulation (EC) No. 1907/2006 (REACH), Annex XVII and its Amendments – PAHs Content

Method: With reference to AfPS GS 2019:01 PAK

Analysis was performed by Gas Chromatography Mass Spectrometer (GC-MS)

Test Item(s)	Cas No	Result(mg/kg)	MDL (mg/kg)
		1	
1. Benzo(a)pyrene (BaP)	50-32-8	ND	0.2
2. BeP (Benzo(e)pyrene)	192-97-2	ND	0.2
3. Benzo(a)anthracene (BaA)	56-55-3	ND	0.2
4. Chrysene (CHR)	218-01-9	ND	0.2
5. Benzo(b)fluoranthene (BbF)	205-99-2	ND	0.2
6. Benzo[j]fluoranthene(BjF)	205-82-3	ND	0.2
7. Benzo(k)fluoranthene (BkF)	207-08-9	ND	0.2
8. Dibenzo(a,h)anthracene (DBA)	53-70-3	ND	0.2

Maximum Allowable Limit	Type 1	Rubber or plastic components of toys, including activity toys, and childcare articles that come into direct contact with the human skin or the oral cavity: 0.5 mg/kg of any of the listed PAHs.
		Type 2

Specimen Description:

- Golden electronic component

- Note:
- mg/kg = milligram per kilogram
 - 1% = 10000 mg/kg = 10000 ppm
 - MDL = Method Detection Limit
 - ND = Not Detected (lower than MDL)

Test Report

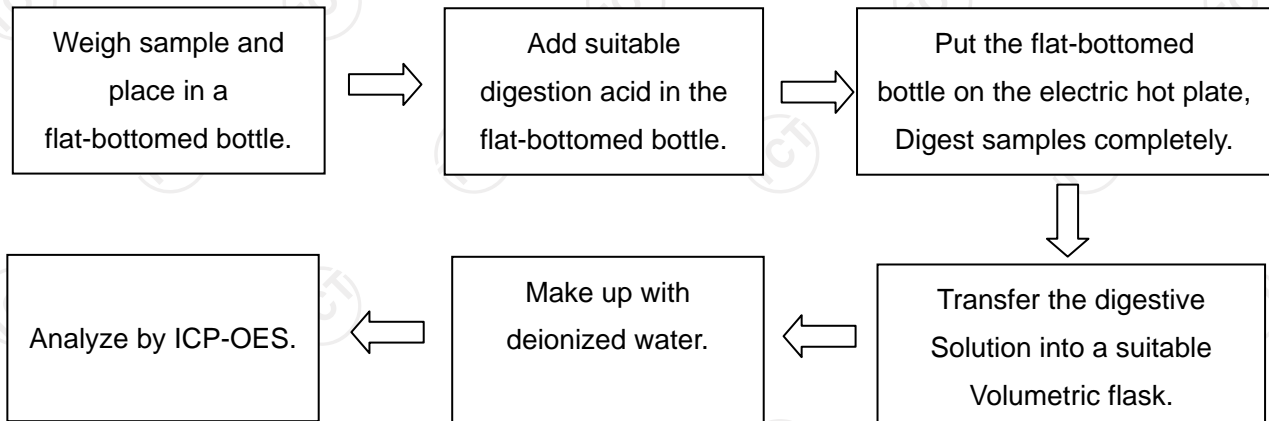
Report No. : TCT200113C005-1

Date : Jan. 17, 2020

Page No.: 5 of 7

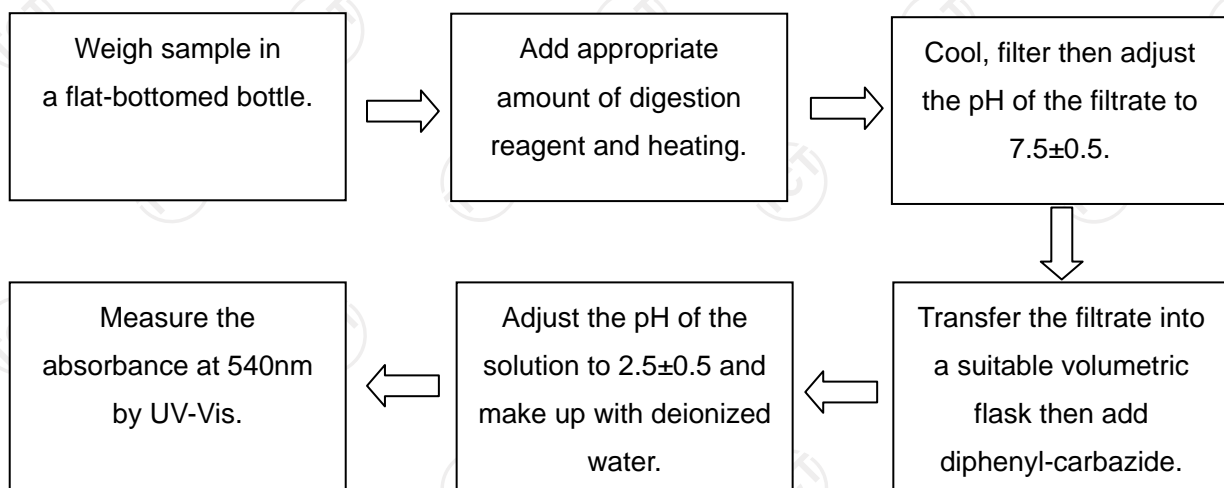
FLOW CHART

1. Test for Pb, Hg, Cd Content



Sample Material	Digestion Acid
Glass	HNO ₃ /HF
Plastic	H ₂ SO ₄ , H ₂ O ₂ , HNO ₃ , HCl
Others	Any acid to total digestion.

2. Test for Chromium(VI) Content(Others)



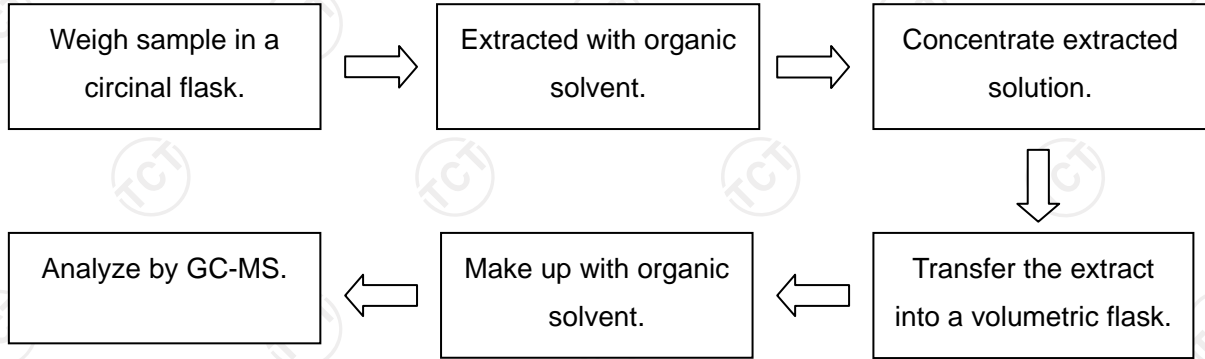
Test Report

Report No. : TCT200113C005-1

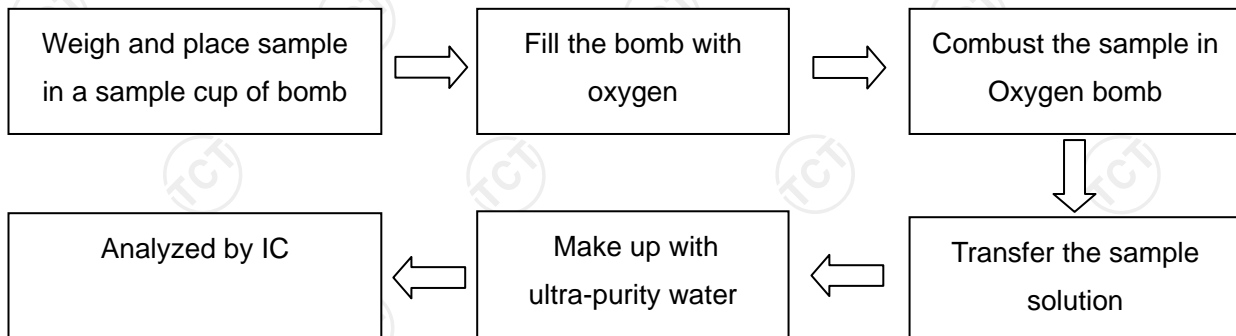
Date : Jan. 17, 2020

Page No.: 6 of 7

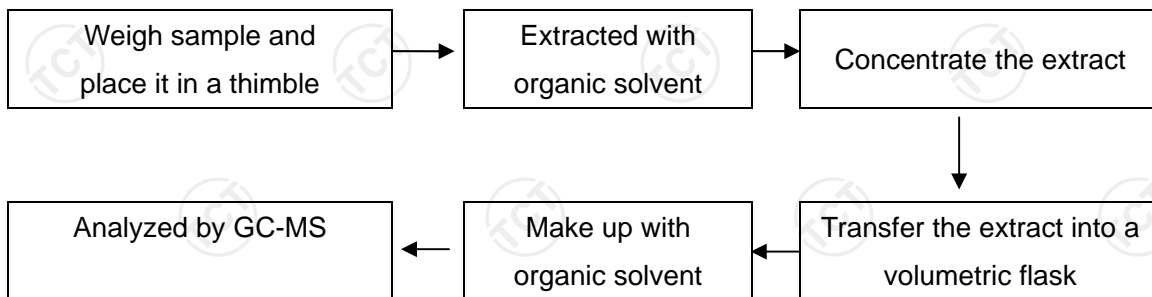
3. Test for PBBs & PBDEs, DBP, BBP, DEHP, DIBP Content



4. Fluorine(F), Chlorine(Cl), Bromine(Br), Iodine(I) Contents



5. PAHs Content



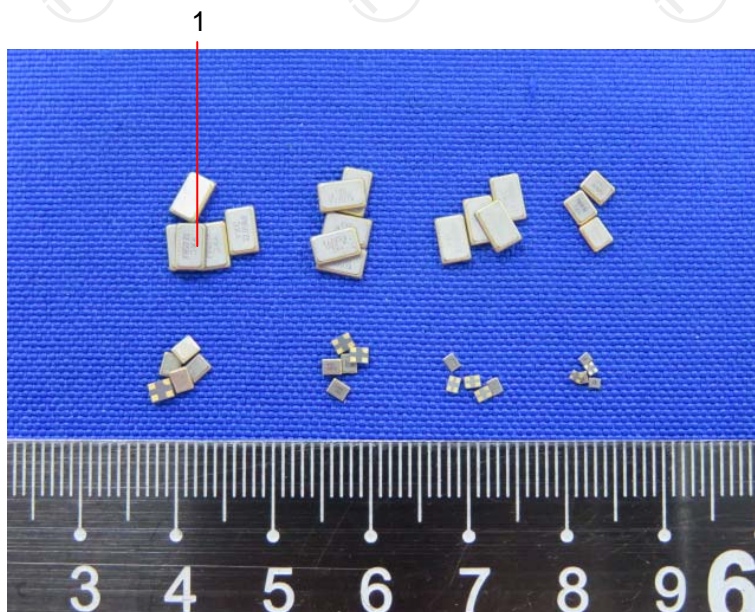
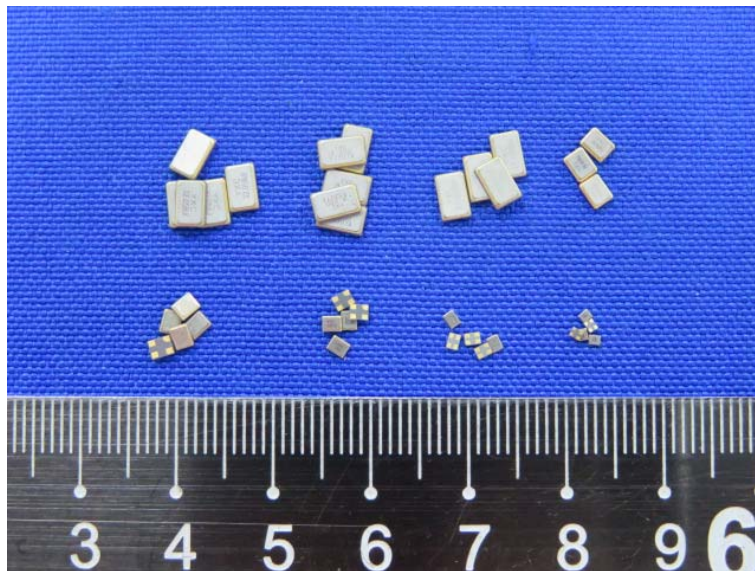
Test Report

Report No. : TCT200113C005-1

Date : Jan. 17, 2020

Page No.: 7 of 7

Photo(s) of the sample(s)



***** End of Report *****

Remark: This report is considered invalidated without the Special Seal for Inspection of the TCT. This report shall not be altered, increased or deleted. The results shown in this test report refer only to the sample(s) tested. Without written approval of TCT, this test report shall not be copied except in full and published as advertisement.