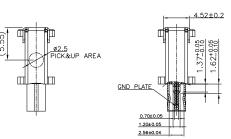
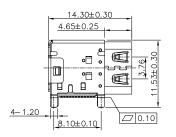
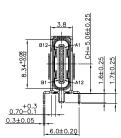
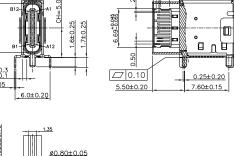
# RoHS



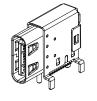




3.36±0.25



ÿ1.00±0.05



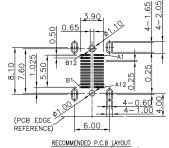
4.45±0.10

3.20±0.10

1.70±0.10

0.25±0.20

8-0.50±0.20 16-3.50±0.15



# RECOMMENDED P.C.B LAYOUT TOLERANCE ± 0.05mm (TOP VIEW)

#### MATERIALS

1. HOUSING : LCP (UL 94V-0), BLACK.

2. TERMINAL : COPPER ALLOY,

GOLD PLATED ON CONTACT AREA, GOLD FLASH PLATING ON SOLDER TAIL, NICKEL UNDERPLATED OVER ALL.

3. MID PLATE: STAINLESS STEEL.
4. SHELL: STAINLESS STEEL, NICKEL PLATING.

#### SPECIFICATION

1. CURRENT RATING : 5.0A FOR Vbus PIN, 1.25A FOR Vconn PIN, 0.25A FOR OTHER PINS.

2. VOLTAGE RATING: 20V DC MAX.

3. CONTACT RESISTANCE : 40mΩ.

4. INSULATION RESISTANCE :  $100M\Omega$  MIN.

5. DIELECTRIC WITHSTANDING VOLTAGE: 100 VAC MIN.

6. OPERATING TEMPERATURE: -40°C TO +85°C.

7. MATING FORCE : 5~20N.
8. UNMATING FORCE : 8~20N.
9. DURABILITY : 10,000 CYCLES.

10. RECOMMENDED PROCESS

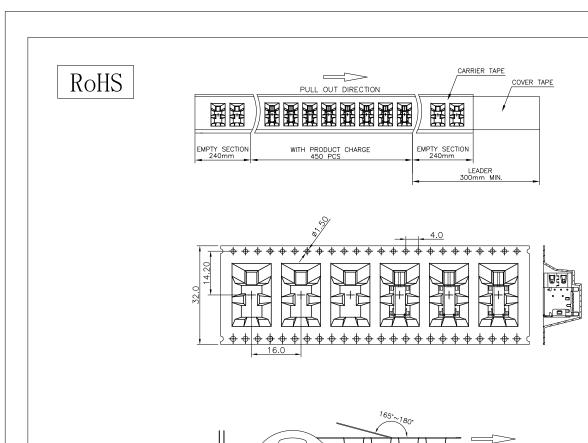
THE PEAK TEMPERATURE ON THE BOARD SHALL MAINTAIN 260°C.

#### PIN ASSIGNMENT:

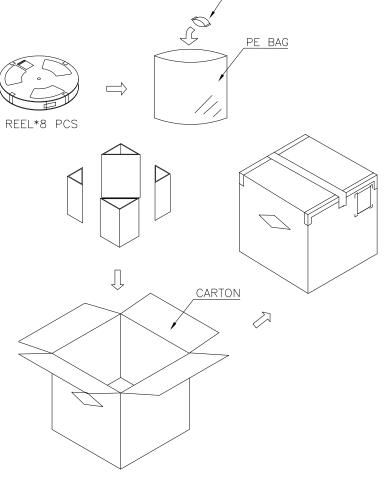
PIN	SIgnal Name	PIN	Signal Name
A1	GND	B12	GND
A2	SSTXp1	B11	SSRXp1
А3	SSTXn1	B10	SSRXn1
A4	Vbus	В9	Vbus
A5	CC1	В8	SBU2
A6	Dp1	В7	DN2
A7	Dn1	В6	DP2
A8	SBU1	B5	CC2
A9	Vbus	В4	Vbus
A10	SSRXn2	В3	SSTXn2
A11	SSRXp2	B2	SSTXp2
A12	GND	B1	GND

<b>え放部</b> [	7
<b> 丁政部</b>	
业务部	
采购部	
工程部	
品保部	
生产部	

									_										
													深圳市富港科技有限公司						
	标	记	处	数			更改文件	:号	2	签 字		日	期	视 图 <del>(</del>	<b>⊕</b> -€		-	USB 3.1 TYPE-C 24PIN母座 侧立式贴片四脚插板SMT	
	设	计	С	Y	日	期	23. 03. 10	标准	化		H	期		图样标记		重量	比例	带弹片 L=14.3mm	
*	校	对	L F	, J	日	期	23. 03. 10	审	定		H	期							
.5°	工	艺			日	期												ST-C-24P-CL03-14.3	
$\exists$	审	核	L Z	W	日	期	23. 03. 10							共 页		第	页		



(0)



DESICCANT



生产部

X.	±0.50	X.°	± 2°
.×	±0.30	.X°	± 1°
.xx	± 0.10	.XX°	± 0.5°
.XXX	± 0.05		

PACKAGE 1. SIZE :

2. QUANTITY: 450 PCS / REEL

REEL: Ø380 x 32 mm A CARTON: 400 x 400 x 300 mm (LxWxH)

8 REEL / CARTON = 3,600 PCS 3. MATERIAL : CARRIER TAPE : PET, TRANSPARENT. COVER TAPE : PE.

																深圳	市	富	港和	科技有限公司
			标	记	处	数			更改文件		签	字		日	期	视 <sub></sub> 图	<b>+</b>		-	USB 3.1 TYPE-C 24PIN母座 侧立式贴片四脚插板SMT 带弹片 L=14.3mm
_			设	计	С	Y	日	期	23. 03. 10	标准位	乜		日	期		图样标记		重量	比例	10 J+7   D 11. Onmi
	X.*	± 2°	校	对	LΡ	J	日	期	23. 03. 10	审员	<u> </u>		H	期						
+		± 1°	T	艺			日	期												ST-C-24P-CL03-14.3
5	.XX°	± 0.5°	审	核	L Z	W	日日	期	23. 03. 10							井 页		<u> </u>	 页	51 C 211 CEOU 11.0
_			_								_		_			-				

PULL OUT DIRECTION

	型号:	文件编号 Doc. No.	SPEC-TYPEC-01
产品规格书		版本 Rev.	A
) HH/9u/H 14		页次 Sheet	1/7

# 1. 范围 Scope

该标准涵盖USBCTYPE连接器之功能要求及测试方法。

This specification covers the requirements for product performance and test methods USB C TYPE plug and receptacle Connectors.

# 2. 标准文件 Related Standards

2-1 IEC512

2-2 MIL-STD 202

2-3 EIA-364

### 3. 等级 Rating

3-1额定电压:5 V交流(rms)

Voltage Rating: 5 V AC (rms) 3-2温度范围:存储:-20℃+60℃

Temperature Range: storage :  $-20^{\circ}$ C to  $+60^{\circ}$ C ;

工作:-30℃+80℃;

operating:  $-30^{\circ}$ C to  $+80^{\circ}$ C;

名义::+20℃ Nominal:+20℃

# 4. 测试要求 Test Condition

4-1所有的测试应当执行详见下表条件,除非另有说明。

All tests shall be performed as bellow conditions unless otherwise specified.

4-2温度范围:+15℃+35℃

Temperature range :  $+15^{\circ}$ C to  $+35^{\circ}$ C

4-3 湿度范围:25% - 85%

Humidity range: 25% to 85%

	————— 外观 PRODUCT AI	PPEARANCE	·
项目 ITEM	描述 Description	测试方法 Test Methods	测试规格 Test Specification
	产品外观	依据 EIA364-18 测试 肉眼观察,产品外形必须符合图纸要求。	产品外观良好,无外观不良情 形,产品结构及尺寸须符合图纸设 计要求。
5-1	Examination of Product	EIA364-18 Shall be confirmed with eyes in accordance with each drawing.	Outward appearance shall be good without such injurious problem and structure shall be meet the design and dimension requirement of drawing
6. 机械	性能 MECHANICAL	PERFORMANCE	
项目 ITEM	描述 Description	测试方法 Test Methods	测试规格 Test Specification
	插入力	依据 EIA 364-13 测试方式 ,操作速度 12.5mm /min.	插拔力的范围: 5N-20 N
6-1	Insertion force	EIA 364-13 Measure force at maximum rate of 12.5mm (0.492") per minute	The connector insertion force shall be the range from 5N to 20N
		依据 <b>EIA 364-13</b> 测试方式,测量力 的速度达到最大12.5 mm /min. <b>EIA 364-13</b>	拔出力的范围: 8N-20 N
6-2	拔出力 Extraction force	Measure force at maximum rate of 12.5mm(0.492") per minute	The connector extraction force shall be the range from 8N to 20N
6-3	耐插拔 Durability	依据EIA 364-09测试方式 插拔10000次循环, 手动插拔速度 200周期/ 小时.	必须满足以下条件后循环测试完成后:接触电阻(40 mΩ,变化量10 mΩ(Max)后测试) 插入力(5到20N) 拔出力(8到20 N)产品外观符合需求, 无破损及外形损伤。

		EIA 364-09 Type C:5000 cycles cycle rate of 200cycles per hour manually	Must meet the following criteria after the cycle test is completed: $ - \text{Contact resistance } (40\text{m}\Omega), \text{ delta} \\ 10\text{m}\Omega \text{ (Max) after test)} \\ - \text{Insertion force } (5\text{N to 20N)} \\ - \text{Extraction force } (8\text{N to 20N)} \\ - \text{Visual inspection (no exposed base metal on contacts)} $
6-4	Cable 摇摆弯曲 Cable Flexing	依据 EIA 364-41 测试方式 电缆组件与尺寸 X =电缆外径 3.7,并 在两个平面 120 度来回 100 个循环。	弯曲过程中没有物理损坏或不连续 1ms 以上应发生在
		EIA 364-41 100 cycles in each of 2 planes 120 degree. Dimension x=3.7x cable diameter	No discontinuity over 1 micorsecont  During flexing or physical damage allowed
6-5	Cable 负重测试 Cable Pull-Out	依据 EIA-364-38 测试方式 经受 40 N 轴向负荷为最小为 1 分钟	组件没有损伤和物理损坏
		EIA-364-38 40N steady state axial load for 1 minute	No discontinuity or physical damage allowed
6-6	四轴向测试 4-axes continuity test	8N 拉力一段 10 秒钟;标本必须服从 0°、90°、180°、270°四个方向。	组件没有间断大于 1us,没有物理损害
		8N tensile force for a period of 10 seconds Min;the specimen must subject to 0°,90°,180°,270° direction. Force to be applied at end of overmold	No discontinuity greater than 1 us and no physical damage to the specimen(one cable per test)
		EIA364-18 105° C without applied voltage for 120 hours. 105° C without applied voltage for 72 hours when used as preconditioning in EIA 364-1000.01	Visual inspection,Test shall be done in sequences defined in EIA364-1000.01

项目	描述	测试方法	测试规格	
<b>ITEM</b>	Description	<b>Test Methods</b>	<b>Test Specification</b>	
	绝缘阻抗 Insulation	依据 <b>EIA 364-21C测试方式</b> 加100V DC的电压于相邻两端子之 间.	未交配和配对连接相邻触点间最低 100mΩ绝缘电阻	
7-1	Resistance	EIA 364-21C Unmated connecrors,apply 100Volts DC between adjacent terminal or ground.	100mΩminimum(unmated)between adjacent contacts and contacts and shell	
7-2	低电接触电阻 Low Level Contact	依据 <b>EIA 364-23b 测试方式</b> 一组对插好的连接器; 测试开路电压:20mV max.; 测试短路电流: 100m A max	接触电阻(40 mΩ,测试后变化量10 mΩ(Max))	
	Resistance	EIA 364-23b 20mV Max. open circuit at 100mA Max.	$40m\Omega(Max)$ initial for VBUS and GND contacts and all other contacts; delta $10m\Omega(Max)$ after test	
7-3	耐电压 Dielectric	依据 <b>EIA 364-20测试方式</b> 加100V AC的电压于相邻两端子之间 1分钟.	无击穿和飞弧现象 There shall be no breakdown	
7-3	withstanding Voltage	EIA 364-20 Subjected to 100VAC (RMS) for 1 minute between adjacent terminals		
7.4	接触额定电流	5.0 A的电流应被共同施加到VBUS引脚和1.25 A通过相应的GND施加到VCONN引脚与返回路径引脚。 0.25 A的最小电流也应分别适用于所有的连接PIN脚	当电流被施加到触点上,温度上升不超过30℃的USB型-C下测试,当在25℃的环境温度下测得的配套插头和插座的任何点	
7-4	Contact current rating	EIA364-70 5.0A shall be applied collectively to VBUS pins and 1.25 A applied to the VCONN pin and 0.25 A the other contacts.	When the currents are applied to the contacts, the temperature rise shall not exceed 30 °C at any point on the USB Type-C mated plug and receptacle under test, when measured at an ambient temperature of 25 °C.	

项目	描述	测试方法	测试规格
ITEM	Description	Test Methods	Test Specification
	温度老化測試	依据 <b>EIA 364-17</b> 测试方式 温度寿命试验的温度和持续时间 105℃下 120 小时 温度寿命试验的温度和持续时间对预处理 105℃, 72 小时	外观: 无损伤; 试验后接触电阻最大: 40mΩ
8-1	temperature Life	EIA 364-17 105° C without applied voltage for 120 hours. 105° C without applied voltage for 72 hours when used as preconditioning in EIA 364-1000.01.	Visual inspection,Test shall be done in sequences defined in EIA 364-1000.01.
8-2	冷熱衝擊測試 Thermal Shock	依据 <b>EIA 364-32</b> 方式测试 10 个周期- 55℃+ -85℃。USB 3.0 必须对插配合下 测试 <b>EIA 364-32</b> 10 Cycles - 55℃ and +85℃. The USB 3.0	外观没有损害  There shall be no evidence of
		connectors under test must be mated.	any physical damage.
	サトル 15本 年	MIL-STD-202F 101d 条件B测试 对插产品测试环境: 温度: 35±2℃, 盐 水浓度:重量比5±1%, 24 小时. 测试后常温水洗,干燥.	1) 要满足视觉要求,没有物理损害。 2)要满足的要求,额外的测试 中指定在第五节测
8-3	盐水喷雾 Salt Spray	MIL-STD-202F, Method 101D, Test Condition B Subject mated connectors to 24 hours at 35 °C with 5%-Salt-solution concentration.	1).Shall meet visual requirement, show no physical damage. 2).Shall meet requirements of additional tests as specified in test sequence in Section 5
	恒温恒湿	依据 EIA 364-31方式测试 周期 25℃士 3℃之间对插产品在 80%士 3% 湿度 和 65℃士 3℃温度 50%士 3% 湿度,时间应 0.5 小 时和停顿时间 0.5 小时。24 个周期	目视检查,测试应在序列中 定义完成 EIA 364 - 1000.01

.

8-4	Cyclic Temperature and Humidity	EIA 364-31 cycle the connector or socket between 25°C±3°C at 80%±3%RH and 65°C±3°C at 50%±3%RH,ramp times should be 0.5hour and dwell times should be 1.0 hour.24 cycles	Visual inspection,Test shall be done in sequences defined in EIA 364-1000.01.
	焊接性	<b>EIA 364-52</b> 将产品Tail端浸入260℃±5℃的溶锡中3±1秒	沾锡面积 95%以上, 无针 孔。
8-5	Solder ability	<b>EIA 364-52</b> soldered at temperature 260°C +/-5°C at a rate of 25.4mm+/-6.35mm per second for in immersion duration 5s.	solder shall cover a minimum of 95% of the surface being immersed
8-6	耐回流焊热 Resistance to Reflow Soldering Heat	7EMP  2-4C*/sec  Pre-heat:180-200°C  (120sec Min)  2-4C*/sec  TIME	外观应无损伤(端子不应 松动, 塑胶无变形,起泡,溶胶等 不良) No damage.
		EIA 364-17A 测试 3 条件 A 对插产品测试环境: 温度: 80℃,时间: 250 小时. 测试后常温水洗,干燥.	1)要满足视觉要求,没有物理损害。 2)要满足的要求,额外的测试中指定在第五节测
8-7	高 温 保 存 Temperature Life	EIA 364-17 Test Condition 3 Method A, Subject mated connectors to temperature life at 80°C for 250hours	<ol> <li>Shall meet visual requirement, show no physical damage.</li> <li>Shall meet requirements of additional tests as specified in test sequence in Section 5</li> </ol>



**Test Report** No.: SZXEC23000424917 **Date**: Apr 06, 2023 Page 1 of 8

Client Name: ZHEJIANG FUGANG ELECTRONICS CO.,LTD

Client Address: THE SECOND INDUSTRIAL PARK, DANXI TOWN, YUEQING CITY, ZHEJIANG PROVINCE

Sample Name: LCP Plastic

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

.....

SGS Job No.: RP23-007227 Sample Receiving Date: Mar 29, 2023

Testing Period: Mar 29, 2023 ~ Apr 06, 2023

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 (PBBs), Polybrominated diphenyl ethers (PBDEs), Bis(2-ethylhexyl)	Pass
phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and	
Diisobutyl phthalate (DIBP)	

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

tay

Fay Yuan Approved Signatory





Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx.and">http://www.sgs.com/en/Terms-and-Conditions.aspx.and</a>, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-and-

Room 101-901, Plantl 4 Room 101, Plant 2 Room 101, Plant 3 Room 301-501, Plant 3, Room 501-501, Plant 3, Room 501-501, Plant 3, Room 501-501, Plant 3, Room 501-501, Plant 4, Room 101-701, Plant 4, Room 101



**Test Report** No.: SZXEC23000424917 **Date**: Apr 06, 2023 Page 2 of 8

#### Test Result(s):

Test Part Description:

SN ID	Sample No.	SGS Sample ID	Description
SN1	A2	SZX23-0004249-0001.C002	Beige plastic grains

#### 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 (PBBs), Polybrominated diphenyl ethers (PBDEs), 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,

IEC 62321-6:2015 and IEC 62321-8:2017, analysis was performed by ICP-OES, UV-Vis

and GC-MS.

Test Item(s)	Limit	Unit(s)	MDL	A2
Cadmium(Cd)	100	mg/kg	2	ND
Lead (Pb)	1000	mg/kg	2	ND
Mercury (Hg)	1000	mg/kg	2	ND
Hexavalent Chromium (Cr(VI))	1000	mg/kg	8	ND
Polybromobiphenyl (PBBs)	1000	mg/kg	-	ND
Monobromobiphenyl (MonoBB)	-	mg/kg	5	ND
Dibromobiphenyl (DiBB)	-	mg/kg	5	ND
Tribromobiphenyl (TriBB)	-	mg/kg	5	ND
Tetrabromobiphenyl (TetraBB)	-	mg/kg	5	ND
Pentabromobiphenyl (PentaBB)	-	mg/kg	5	ND
Hexabromobiphenyl (HexaBB)	-	mg/kg	5	ND
Heptabromobiphenyl (HeptaBB)	-	mg/kg	5	ND
Octabromobiphenyl (OctaBB)	-	mg/kg	5	ND
Nonabromobiphenyl (NonaBB)	-	mg/kg	5	ND
Decabromobiphenyl (DecaBB)	-	mg/kg	5	ND
Polybromodiphenyl ether(PBDEs)	1000	mg/kg	-	ND
Monobromodiphenylether (MonoBDE)	-	mg/kg	5	ND
Dibromodiphenylether (DiBDE)	-	mg/kg	5	ND
Tribromodiphenylether (TriBDE)	-	mg/kg	5	ND
Tetrabromodiphenylether (TetraBDE)	-	mg/kg	5	ND
Pentabromodiphenylether (PentaBDE)	-	mg/kg	5	ND
Hexabromodiphenylether (HexaBDE)	-	mg/kg	5	ND
Heptabromodiphenylether (HeptaBDE)	-	mg/kg	5	ND
Octabromodiphenylether (OctaBDE)	-	mg/kg	5	ND
Nonabromodiphenylether (NonaBDE)	-	mg/kg	5	ND
Decabromodiphenylether (DecaBDE)	-	mg/kg	5	ND
Dibutyl Phthalate(DBP)	1000	mg/kg	50	ND
Benzyl Butyl Phthalate(BBP)	1000	mg/kg	50	ND



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@gs.com.

Roum 101-901, Plant 44 Room 101, Plant 24 Room 101



**Test Report** No.: SZXEC23000424917 **Date**: Apr 06, 2023 Page 3 of 8

Test Item(s)	Limit	Unit(s)	MDL	A2
Bis-(2-ethylhexyl) Phthalate(DEHP)	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.

Remark: Results & photo(s) of this report refer to test report SZXEC23000424905.

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.



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions.sapx">http://www.sgs.com/en/Terms-and-Conditions.sapx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.sapx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.sapx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

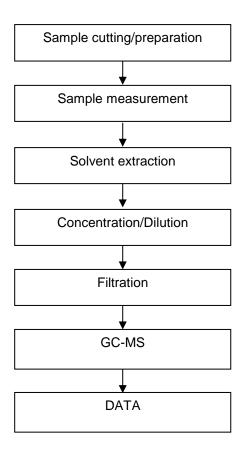
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@gs.com.

Roum 101-901, Plant 44 Room 101, Plant 24 Room 101



Page 4 of 8 No.: SZXEC23000424917 **Date:** Apr 06, 2023

#### **Phthalates Testing Flow Chart**





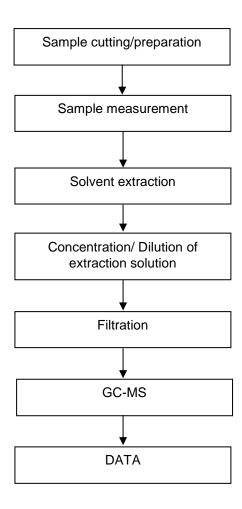
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized attention, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@gs.com.

Room 101-901, Plant 4 & Room 101, Plant 2 & Room 101, Plant 3 & Room 101, Plant 3 & Room 301-501, Plant 3, Jianghao (Bantian) Industrial Plant Avea, No. 430, Jihua Road, Bantian Community, Bantian Street, Longgang District, Shenzhen, Guangdong, China 518129 www.sgsgroup.com.cn 中国・广东・深圳市龙岗区坂田街道坂田社区吉华路430号江源(坂田)工业厂区厂房4号101-901、2号101、3号101、3号301-501 邮编:518129 t (86-755) 25328888 sgs.china@sgs.com



#### **PBBs/PBDEs Testing Flow Chart**





Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized attention, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

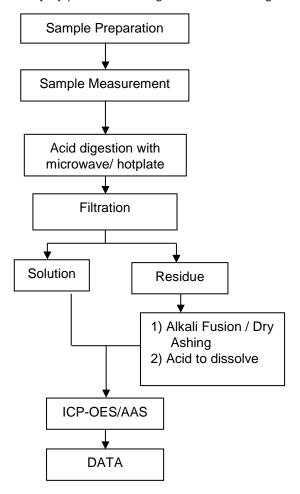
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@gs.com.

ore email: CN.Doccheck@sgs.com
Rom 101-901, Plant 4 Rom 101, Plant 2 Rom 101, Plant 3 Rom 301-501, Plant 3, Ready Rom 101, Plant 3 Rom 301-501, Plant 3, Ready Rom 101, Plant 3 Rom 301-501 (Ready Rom 101, Plant 3 Rom 301-501) Rom 101, Plant 3 Rom 301-501 Rom 301-501 Rom 101, Plant 3 Rom 301-501 Rom 301-501 Rom 301-501 Rom 301-501 Rom 301-501 Rom 301-501 Rom 301



#### **Elements Testing Flow Chart**

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





Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions.sapx">http://www.sgs.com/en/Terms-and-Conditions.sapx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.sapx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.sapx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgety or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@gs.com"

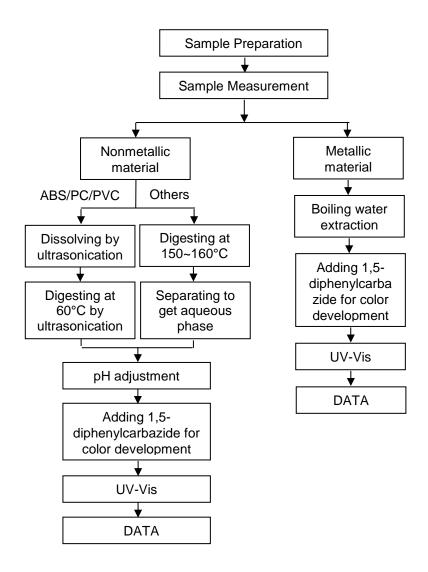
Acceptable 16 CM-Doccheck @sgs.com 5/1, Plant 3 Room 101, Plant

Page 6 of 8



**No.:** SZXEC23000424917 **Date:** Apr 06, 2023

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





Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com"

Room 101-901, Plant 4 Room 101, Plant 2 Room 101, Plant 2 Room 101, Plant 3 Room 301-501, Plant 3, Rooptes (Bentian) Industrial Plant Area, No. 400, Illus Road, Bentian Community, Bentian Street, Longsang District, Shenzhen, Giangdong, China 18129 www.sgs.group.com.cn 中国 - 广东 - 深圳市龙岗区坂田街道坂田社区吉华路430号江灏(坂田)工业厂区厂房4号101-901、2号101、3号301-501 婶第:518129 t(88-755) 25328888 sgs.china@sgs.com

Page 7 of 8



**Test Report** No.: SZXEC23000424917 **Date:** Apr 06, 2023 Page 8 of 8

Sample Photo:



SGS authenticate the photo on original report only \*\*\* End of Report \*\*\*



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@gs.com.

Room 101-901, Plant 4 & Room 101, Plant 2 & Room 101, Plant 3 & Room 101, Plant 3 & Room 301-501, Plant 3, Jianghao (Bantian) Industrial Plant Area, No. 430, Jihua Road, Bantian Community, Bantian Street, Longgang District, Shenzhen, Guangdong, China 518129 www.sgsgroup.com.cn 中国・广东・深圳市龙岗区坂田街道坂田社区吉华路430号江源(坂田)工业厂区厂房4号101-901、2号101、3号101、3号301-501 邮编:518129 t(86-755)25328888 sgs.china@sgs.com



**Test Report** No.: SZXEC23000425819 **Date**: Apr 04, 2023 Page 1 of 5

Client Name: ZHEJIANG FUGANG ELECTRONICS CO.,LTD

Client Address: THE SECOND INDUSTRIAL PARK, DANXI TOWN, YUEQING CITY, ZHEJIANG PROVINCE

Sample Name: Stainlesssteel

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

......

SGS Job No.: RP23-007227 Sample Receiving Date: Mar 29, 2023

Testing Period: Mar 29, 2023 ~ Apr 04, 2023

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	Door
2011/65/EU- Lead, Mercury, Cadmium and Hexavalent chromium	Pass

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

tay

Fay Yuan

**Approved Signatory** 





Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-and-Cond

Room 101-901, Plant 4 Room 101, Plant 2 & Room 101, Plant 3 & Room 101-901, Plant 4 & Room 101-901, Plant 3 & Room 101-901, Plant 4 & Room 101-901, P



**Test Report** No.: SZXEC23000425819 **Date**: Apr 04, 2023 Page 2 of 5

#### Test Result(s):

Test Part Description:

SN ID	Sample No.	SGS Sample ID	Description
SN1	A4	SZX23-0004258-0001.C004	Silver-gray metal

#### 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 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 and UV-Vis.

Test Item(s)	Limit	Unit(s)	MDL	A4
Cadmium(Cd)	100	mg/kg	2	ND
Lead(Pb)	1000	mg/kg	2	ND
Mercury(Hg)	1000	mg/kg	2	ND
Hexavalent Chromium (Cr(VI))▼	-	μg/cm²	0.10	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) = 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/cm²). The coating is considered a non-Cr(VI) based coating
  - c. The result between  $0.10~\mu g/cm^2$  and  $0.13~\mu g/cm^2$  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.

Remark: Results & photo(s) of this report refer to test report SZXEC23000425807.

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.



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-en-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-en-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Cilent's instructions, if any. The Company's sole responsibility is to its Cilent and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

\*\*Attention: To check the authenticity of testing inspection report & certificate, please contact us at telephone: (86-755) 8307 1443,

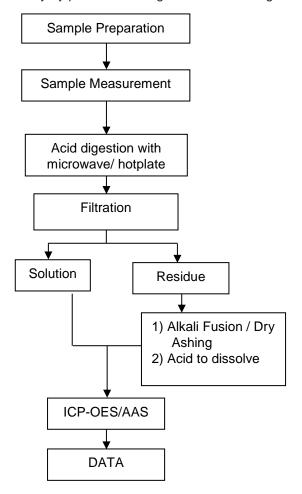
Room 101-901, Plant 4 & Room 101, Plant 2 & Room 101, Plant 2 & Room 101, Plant 3 & Room 301-501, Plant 3, Jangkao (Banfan) Industrial Plant Area, No. 430, Jihua Road, Banfan Community, Banfan Street, Longgang District, Shenzhao, Guangdong, China 518129 www.sgsgroup.com.cn 中国・广东・深圳市龙岗区坂田街道坂田社区吉华路430号江薫(坂田)工业厂区厂房4号101-901、2号101、3号301-501 邮编:518129 t(86-755) 25328888 sgs.china@sgs.com



No.: SZXEC23000425819 **Date:** Apr 04, 2023

#### **Elements Testing Flow Chart**

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





Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@gs.com.

Room 101-901, Plant 4 & Room 101, Plant 2 & Room 101, Plant 3 & Room 101, Plant 3 & Room 301-501, Plant 3, Jianghao (Bantian) Industrial Plant Area, No. 430, Jihua Road, Bantian Community, Bantian Street, Longgang District, Shenzhen, Guangdong, China 518129 www.sgsgroup.com.cn 中国・广东・深圳市龙岗区坂田街道坂田社区吉华路430号江源(坂田)工业厂区厂房4号101-901、2号101、3号101、3号301-501 邮编:518129 t (86-755) 25328888 sgs.china@sgs.com

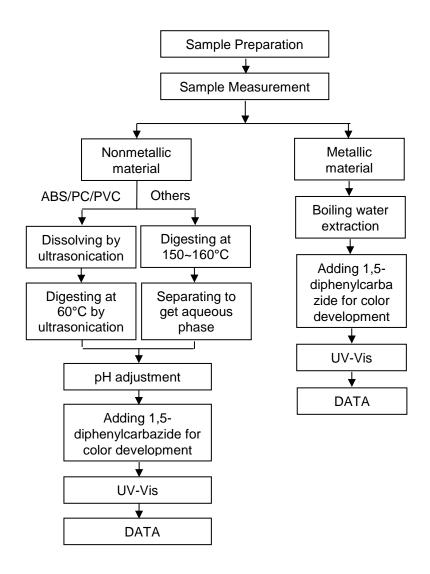
Page 3 of 5



No.: SZXEC23000425819 **Date:** Apr 04, 2023

Page 4 of 5

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





Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com"

Room 101-901, Plant 4 & Room 101, Plant 2 & Room 101, Plant 3 & Room 301-501, Plant 3, Room 301-501, Plant 4, Room 301-501, Plant 4, Room 101, Plant 5, Room 101-901, Plant 6, Room 101-901, Plant 6, Room 101-901, Plant 8, Room 101-901, Plant 9, Room 101 中国•广东•深圳市龙岗区坂田街道坂田社区吉华路430号江灏(坂田)工业厂区厂房4号101-901、2号101、3号101、3号301-501 邮编:518129 t(86-755)25328888 sgs.china@sgs.com



**Test Report** No.: SZXEC23000425819 **Date:** Apr 04, 2023 Page 5 of 5

Sample Photo:



SGS authenticate the photo on original report only \*\*\* End of Report \*\*\*



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@gs.com.

Room 101-901, Plant 4 & Room 101, Plant 2 & Room 101, Plant 3 & Room 101, Plant 3 & Room 301-501, Plant 3, Jianghao (Bantian) Industrial Plant Avea, No. 430, Jihua Road, Bantian Community, Bantian Street, Longgang District, Shenzhen, Guangdong, China 518129 www.sgsgroup.com.cn 中国・广东・深圳市龙岗区坂田街道坂田社区吉华路430号江源(坂田)工业厂区厂房4号101-901、2号101、3号101、3号301-501 邮编:518129 t (86-755) 25328888 sgs.china@sgs.com



**Test Report** No.: SZXEC23000425821 **Date**: Apr 04, 2023 Page 1 of 5

Client Name: ZHEJIANG FUGANG ELECTRONICS CO.,LTD

Client Address: THE SECOND INDUSTRIAL PARK, DANXI TOWN, YUEQING CITY, ZHEJIANG PROVINCE

Sample Name: Phosphor Bronze

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

------

SGS Job No.: RP23-007227 Sample Receiving Date: Mar 29, 2023

Testing Period: Mar 29, 2023 ~ Apr 04, 2023

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	Door
2011/65/EU- Lead, Mercury, Cadmium and Hexavalent chromium	Pass

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

tay

Fay Yuan

Approved Signatory





Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx.and">http://www.sgs.com/en/Terms-and-Conditions.aspx.and</a>, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-and-

Room 101-901, Plant14 & Room 101, Plant 2 & Room 101, Plant 3 & Room 301-501, Plant 3 & Room 301-501,



**Test Report** No.: SZXEC23000425821 Date: Apr 04, 2023 Page 2 of 5

#### Test Result(s):

Test Part Description:

SN ID	Sample No.	SGS Sample ID	Description
SN1	A5	SZX23-0004258-0001.C005	Copper-colored metal

#### 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 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 and UV-Vis.

Test Item(s)	Limit	Unit(s)	MDL	A5
Cadmium(Cd)	100	mg/kg	2	ND
Lead(Pb)	1000	mg/kg	2	34
Mercury(Hg)	1000	mg/kg	2	ND
Hexavalent Chromium (Cr(VI))▼	-	μg/cm²	0.10	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) = 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/cm²). The coating is considered a non-Cr(VI) based coating
  - c. The result between  $0.10~\mu g/cm^2$  and  $0.13~\mu g/cm^2$  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.

Remark: Results & photo(s) of this report refer to test report SZXEC23000425809.

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.



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-en-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-en-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Cilent's instructions, if any. The Company's sole responsibility is to its Cilent and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

\*\*Attention: To check the authenticity of testing inspection report & certificate, please contact us at telephone: (86-755) 8307 1443,

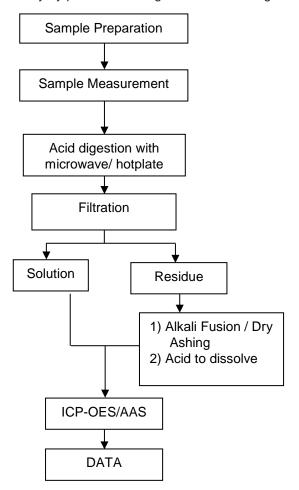
Room 101-901, Part 44 Room 101, Part 24 Room 101, Part 34 Room 101-901, Part 34 Room 101-901, 29101, 39101, 39301-501 衛第:518129 (166-755) 25328888 sys.china@sys.com



No.: SZXEC23000425821 **Date:** Apr 04, 2023 Page 3 of 5

#### **Elements Testing Flow Chart**

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





Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

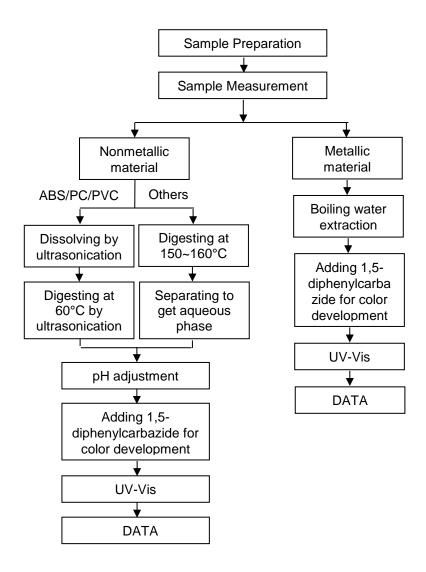
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@gs.com.

Room 101-901, Plant 4 & Room 101, Plant 2 & Room 101, Plant 3 & Room 101, Plant 3 & Room 301-501, Plant 3, Jianghao (Bantian) Industrial Plant Area, No. 430, Jihua Road, Bantian Community, Bantian Street, Longgang District, Shenzhen, Guangdong, China 518129 www.sgsgroup.com.cn 中国・广东・深圳市龙岗区坂田街道坂田社区吉华路430号江源(坂田)工业厂区厂房4号101-901、2号101、3号101、3号301-501 邮编:518129 t (86-755) 25328888 sgs.china@sgs.com



Hexavalent Chromium (Cr(VI)) Testing Flow Chart

Page 4 of 5





Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com"

Room 101-901, Plant 4 Room 101, Plant 2 Room 101, Plant 2 Room 101, Plant 3 Room 301-501, Plant 3, Rooptes (Bentian) Industrial Plant Area, No. 400, Illus Road, Bentian Community, Bentian Street, Longsang District, Shenzhen, Giangdong, China 18129 www.sgs.group.com.cn 中国 - 广东 - 深圳市龙岗区坂田街道坂田社区吉华路430号江灏(坂田)工业厂区厂房4号101-901、2号101、3号301-501 婶第:518129 t(88-755) 25328888 sgs.china@sgs.com



**Test Report** No.: SZXEC23000425821 **Date:** Apr 04, 2023 Page 5 of 5

Sample Photo:



SGS authenticate the photo on original report only \*\*\* End of Report \*\*\*



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@gs.com.

Room 101-901, Plant 4 & Room 101, Plant 2 & Room 101, Plant 3 & Room 101, Plant 3 & Room 301-501, Plant 3, Jianghao (Bantian) Industrial Plant Avea, No. 430, Jihua Road, Bantian Community, Bantian Street, Longgang District, Shenzhen, Guangdong, China 518129 www.sgsgroup.com.cn 中国・广东・深圳市龙岗区坂田街道坂田社区吉华路430号江源(坂田)工业厂区厂房4号101-901、2号101、3号101、3号301-501 邮编:518129 t (86-755) 25328888 sgs.china@sgs.com