



浙江联和电子有限公司
ZHEJIANG LIANHE ELECTRONICS CO., LTD.

承 认 书

SPECIFICATION FOR APPROVAL

客户名称 CUSTOMER: _____

品名 DESCRIPTION: _____ 2.3圆形端子

料号 CUSERTOMER PART NO: _____ D230C

客户确认 APPROVED SIGNATURES

核准 APPROVAL: _____

日期 DATE: _____

工程 ENGINEERING: _____

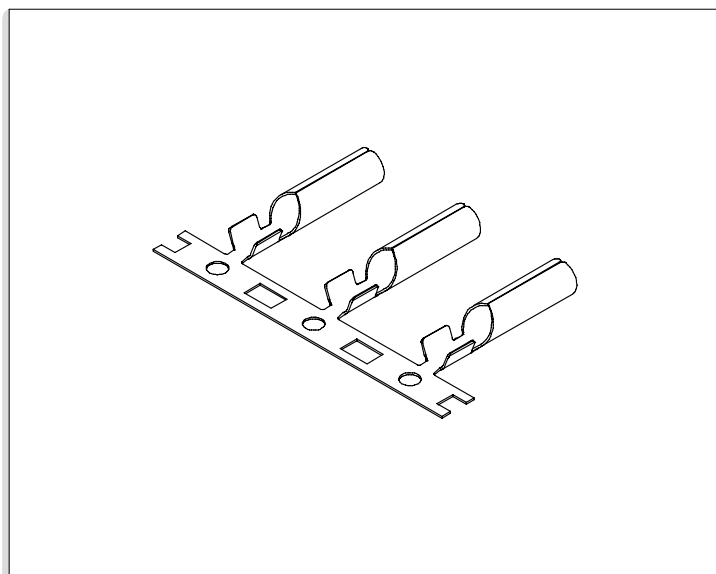
日期 DATE: _____

品管 QC: _____

日期 DATE: _____

承认结果: ☐ 承认 ☐ 不承认

☐ 重新送样



规格 Specifications

1. 极数 Poles: /
2. 额定电流 Current rating: / AC,DC
3. 额定电压 Voltage rating: / AC,DC
4. 温度范围 Temperature range: -25°C to +105°C
(含通电温度上升值)
(Including temperature rise in applying electrical current)
5. 接触电阻 Contact resistance: 初期 Initial value / /
环境测试后 After environmental testing / /
6. 绝缘电阻 Insulation resistance: /
7. 耐电压 Withstanding voltage: / AC/minute
8. 适用线规 Applicable wire: AWG #28 to #22
9. 适用基板厚度 Applicable PC board thickness: /



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制订 Edit: 石斛

日期 DATE: 2024-03-19

审核 Check: 天琴

日期 DATE: 2024-03-19

批准 Approval: 季育文

日期 DATE: 2024-03-19

D230C料号说明 Description of item number



端子料号说明 TERMINAL

D 230 C - T 1 1 N 15 N B10

A: Wire to Board Connectors
B: Board-in Connectors
C: Wire to Wire Connectors
F: FFC/FPC Connectors
I: IDC
D: Chain Terminals and Splices

系列号 Series Number

K=直形带锁
Z=旗形带锁
X=横插带锁
Y=叉形端子
R=环形端子
G=接线端子
W=鲨鱼齿端子

N=直形
Q=旗形
H=横插
J=插片
C=圆形

特征类别(默认空) B=子弹形端子
Feature Category: U=耳扒形端子

产品类别 Product Category: T=端子 Terminal

同类别多型号序号(默认空)
Same Series Different Type: 1-9

同型号多尺寸序号(默认空)
Same Type Different size: 1-9

适用线规(默认空) A=小脚 B=中脚
Applicable Wire: C=高脚 D=大脚

料带厚度单位: mm X100 (0.3X100=30 默认空)

配合厚度单位: mm X10 (0.5X10=5 默认空)
注: 所有<灰色>说明, 为D系列分类附加料号及说明!

Z=紫铜 Copper
S=不锈钢 Stainless Steel
P=磷青铜 Phos.Bronze
材质 Material: B=黄铜 Brass

0=素材酸洗 None
1=镀镍 Nickel Plating
2=镀亮锡 Tin Plating
3=镀镍亮光锡 Matt Tin-Nickel Plating
4=镀铅锡 Tin-Lead Plating
5=镀铜锡 Tin-Cu Plating
6=镀镍银 Silver-Nickel Plating
7=镀镍金 Gold-Nickel Plating
8=镀镍局部金 Nickel-Gold
9=镀亮锡局部金 Half Gold-Tin Plating
表面处理
Surface processing: 10=镀镍亮锡 Tin-Nickel Plating

备注:表面处理内容只在产品标签中体现! 其他特殊要求位置不固定

其它料号说明 OTHER

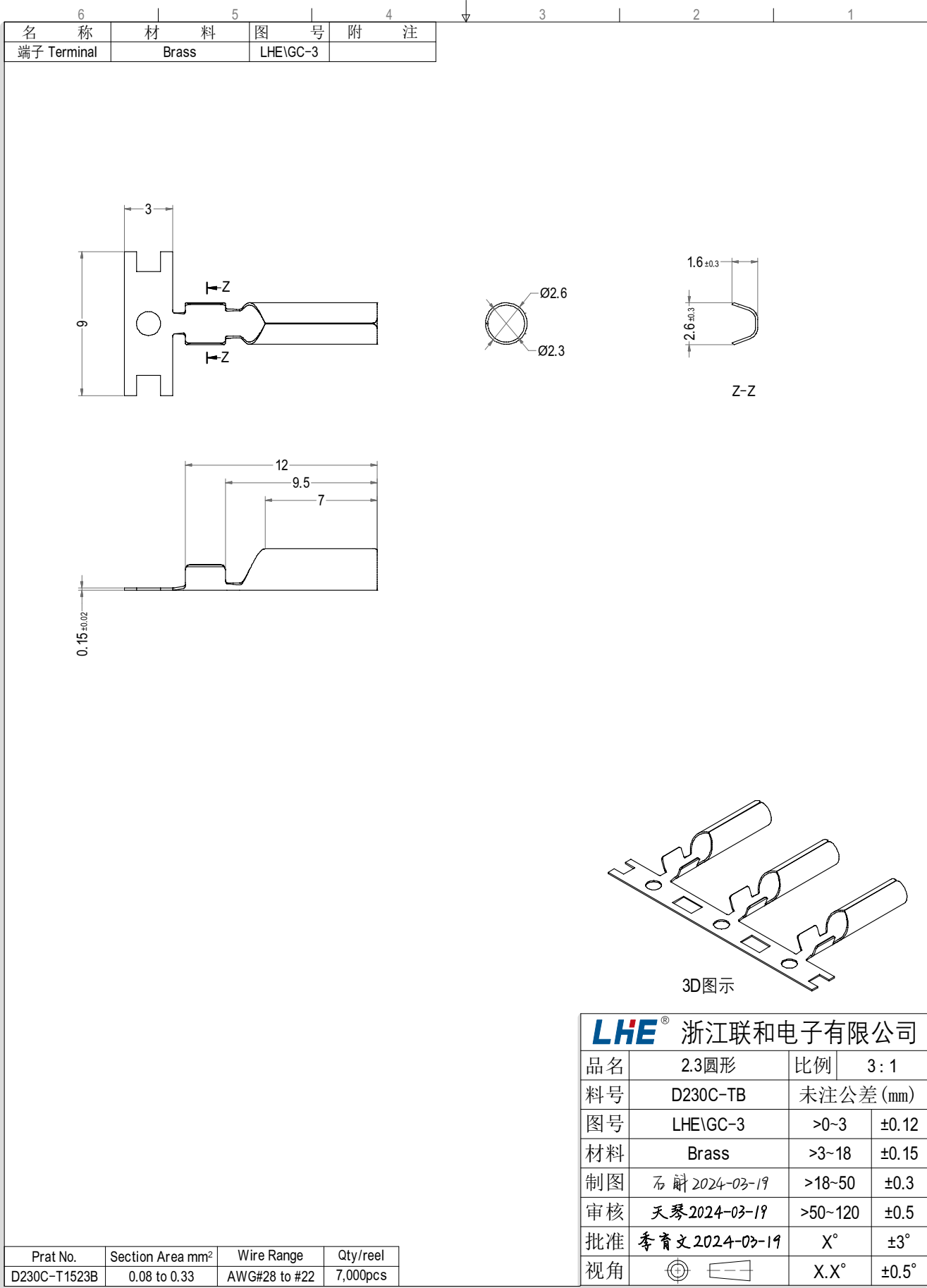
P 0001 - B

P: Other Types

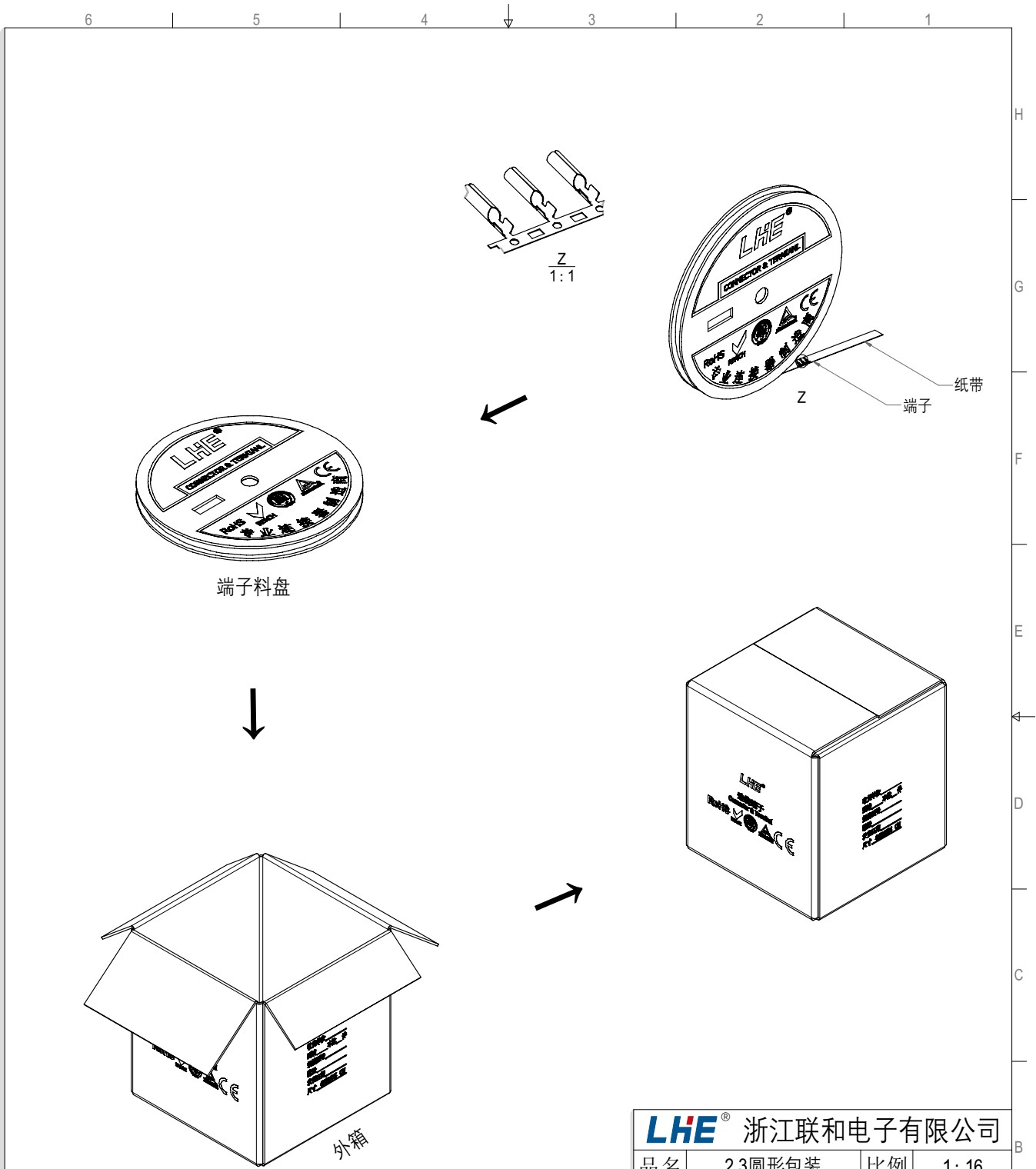
产品序号 Product Number

同型号序号 Same Series Different Type: B-Z (默认空)

D230C端子承认书图面



D230C端子承认书图面



注释:
1. 产品尺寸请参照2.3圆形图纸.
2. 此示意图为产品出料方式进行说明.
3. 胶带、PE袋未在图纸中体现,请以实物为准.

Part No.	Description	Qty/reel	Reel/caton
D230C-T1523B	2.3圆形	7000pcs	/

LHE® 浙江联和电子有限公司

品名	2.3圆形包装	比例	1: 16
料号	D230C-TB包装	未注公差 (mm)	
图号	LHE\GC-4	>0~3	±0.12
材料	/	>3~18	±0.15
制图	石 斛 2024-03-19	>18~50	±0.3
审核	天 琴 2024-03-19	>50~120	±0.5
批准	李育文 2024-03-19	X°	±3°
视角		X.X°	±0.5°

项目 Item	测试条件 Test Condition	规格要求 Requirement	
1.外观 Appearance	目测 Visual by eye 视力 Light: >1.0 照明 Lamp: 200~300Lx 目测距离 Space: 0.3~0.5m GB/T 5095.1 Method 1a	1.塑料件表面应无明显疤痕、凹陷、开裂及影响使用的变形。 Plastic part:smooth and flat surface without discolor,broken,crack distortion defects is acceptable. 2.金属件表面无锈蚀、氧化、无明显机械损伤等缺陷。 Metal part:btight and even surface without rust,oxide,fog and obvious physical damage defects is acceptable. 3.导线表面清洁、无破损等缺陷,印字及标志清晰。 Wire:clearing surface without discolor,broken defects,indistinct words and mark is acceptable.	
2.耐高温 Heat Resistance	连接器配合后,于+105°C±2°C的空气中放置96小时,然后再回到室温中放置1~2小时测定 Mated connectors are exposed to a temperature of +105°C±2°C for 96 hours. GB/T 5095.6 Method 11i /EIA-364-17B	外观 Appearance	无损伤 No Damage
3.耐低温 Clod Resistance	连接器配合后,于-25°C±2°C的空气中放置96小时,然后再回到室温中放置1~2小时测定 Mated connectors are exposed to a temperature of -25°C±2°C for 96 hours. GB/T 5095.6 Method 11i /EIA-364-17B	外观 Appearance	无损伤 No Damage
4.恒定湿热 Humidity	温度 Temperature: 40±2°C 相对湿度 Relative Humidity: 90%~95% 搁置时间 Duration: 96h,取出恢复2小时后检查 GB/T 5095.6 Method 11c/EIA-364-31B	外观 Appearance	无损伤 No Damage
5.温度循环 Temperature cycle	把测试样品放入高低温试验箱中,按下列步骤调试温度: a)在-25°C±2°C的恒温条件下放置0.5小时; b)在+105°C±2°C的恒温条件下放置0.5小时; 从a)到b)为一个循环周期,共进行5个循环。恢复1h后检查。 状态转换时间不多于1小时。 Mated connectors are exposed to 5 cycles of: a)-25°C±2°C 0.5hour b)+105°C±2°C 0.5hour GB/T 5095.6 method 11d/EIA-364-32C	外观 Appearance	无损伤 No Damage
6.盐雾 Salt Spray	把先冲后镀*的测试样品从试验箱顶悬挂下来,采用浓度为5%±1(质量百分比)的氯化钠溶液,连续雾化16小时,试验后用流动的蒸馏水轻轻洗去表面沉积物。在常温常驻湿条件下恢复1~2小时。 16 hour exposure to a saltspray from the 5%±1 solution. GB/T 5095.6 Method 11f/EIA-364-26B	外观无损伤(五金件应无露出底金属的严重锈蚀;使用预镀的型材,其落料面允许有不影响其性能的轻微腐蚀。) Appearance:No Damage(No erosion with material exposed.And with plating material,slight erosion on the cutting surface acceptable)	

D230C产品性能测试 PERFORMANCE TEST



项目 Item	测试条件 Test Condition	规格要求 Requirement	
7. 可焊性 Solderability	把测试样品需要焊接的部位浸入焊锡炉中 (锡炉温度 $235^{\circ}\text{C}\pm 5^{\circ}\text{C}$) 2 ± 0.5 秒钟。 Soldering time: 2 ± 0.5 sec Solder Temperature: $235^{\circ}\text{C}\pm 5^{\circ}\text{C}$ GB/T 5095.6 Method 12a/EIA-364-52	上锡率 $\geq 90\%$ 90% of immersed area must show no voids, pin holes	
8. 耐焊接热 Resistance to Soldering Heat	把测试样品需要焊接的部位浸入焊锡炉中(锡炉温度 $260^{\circ}\text{C}\pm 5^{\circ}\text{C}$); 5 ± 1 秒钟后, 在正常的条件下恢复1小时。 Soldering time: 5 ± 1 sec Solder Temperature: $260^{\circ}\text{C}\pm 5^{\circ}\text{C}$ GB/T 5095.6 Method 12d/EIA-364-56A	外观 Appearance	无损伤 No Damage

* 先冲后镀为定制端子。常规端子为先镀后冲, 无法通过盐雾试验。

制订 Edit: 石斛

日期 DATE: 2024-03-19

审核 Check: 天琴

日期 DATE: 2024-03-19

批准 Approval: 季育文

日期 DATE: 2024-03-19

SGS

检测报告

编号: SHAEC23005417604

日期: 2023 年 05 月 09 日

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客户名称: 浙江联和电子有限公司
客户地址: 浙江省乐清市乐清湾港区乐商创业园
浙江省乐清市乐清湾港区电子信息产业园红旗路 8 号

样品名称: 端子 针
客户参考信息: 见附件
以上样品及信息由客户提供。

SGS 工作编号: SHP23-001324
样品接收时间: 2023 年 05 月 04 日
检测周期: 2023 年 05 月 04 日 ~ 2023 年 05 月 09 日
检测要求: 根据客户要求检测。
检测方法: 见后续页。
检测结果: 见后续页。

检测要求	结论
欧盟 RoHS 指令 2011/65/EU 附录 II 的修正指令(EU) 2015/863-铅、汞、镉和六价铬	符合

通标标准技术服务(上海)有限公司
授权签名

Jenny Lan 兰柳珍
批准签署人

scan to see the report



B6F28BB6



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检测报告

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日期: 2023 年 05 月 09 日

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检测结果:

检测部件外观描述:

样品序号	样品编号	SGS 样品 ID	样品描述
SN1	A2	SHA23-0054176-0001.C002	银色金属

备注:

- (1) 1 mg/kg = 1 ppm = 0.0001%
- (2) MDL= 方法检测限
- (3) ND = 未检出 (< MDL)
- (4) "-" = 未规定

欧盟 RoHS 指令 2011/65/EU 附录 II 的修正指令(EU) 2015/863-铅、汞、镉和六价铬

检测方法: 参考 IEC 62321-4:2013+AMD1:2017, IEC 62321-5:2013 和 IEC 62321-7-1:2015, 采用 ICP-OES 和 UV-Vis 进行分析。

检测项目	限值	单位	MDL	A2
镉 (Cd)	100	mg/kg	2	ND
铅 (Pb)	1000	mg/kg	2	71
汞 (Hg)	1000	mg/kg	2	ND
六价铬(Cr(VI))▼	-	µg/cm²	0.10	ND

备注:

- (1) 最大允许极限值引用自RoHS指令(EU) 2015/863。
- (2) IEC 62321系列等同于 EN 62321系列。
- (3) ▼ = a. 当六价铬的浓度高于0.13 µg/cm²时, 样品为阳性, 即含有六价铬;
b. 当六价铬的浓度为ND (低于0.10 µg/cm²) 时, 样品为阴性, 即未检测到六价铬;
c. 当六价铬的浓度介于0.10 µg/cm²与0.13 µg/cm²之间时, 无法直接判定是否检测到六价铬, 因不同个体的样品表面差异可能会影响测定结果。
- 由于未获知样品的存储条件和生产日期, 样品的六价铬检测结果仅能代表测试时样品含六价铬的状态。

除非另有说明, 参照 ILAC-G8:09/2019, 使用简单接受 (w=0) 的二元判定规则进行符合性判定。
除非另有说明, 此报告结果仅对检测的样品负责。本报告未经本公司书面许可, 不可部分复制。
检测报告仅用于客户科研、教学、内部质量控制、产品研发等目的, 仅供内部参考。



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检测报告

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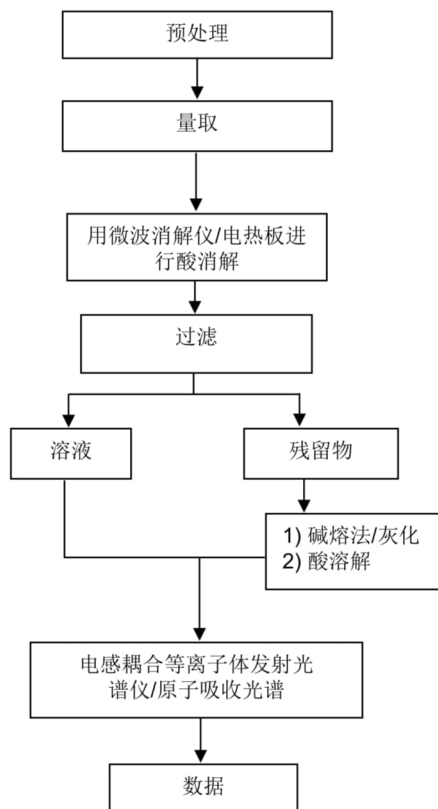
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附件

元素检测流程图

样品按照下述流程被完全消解



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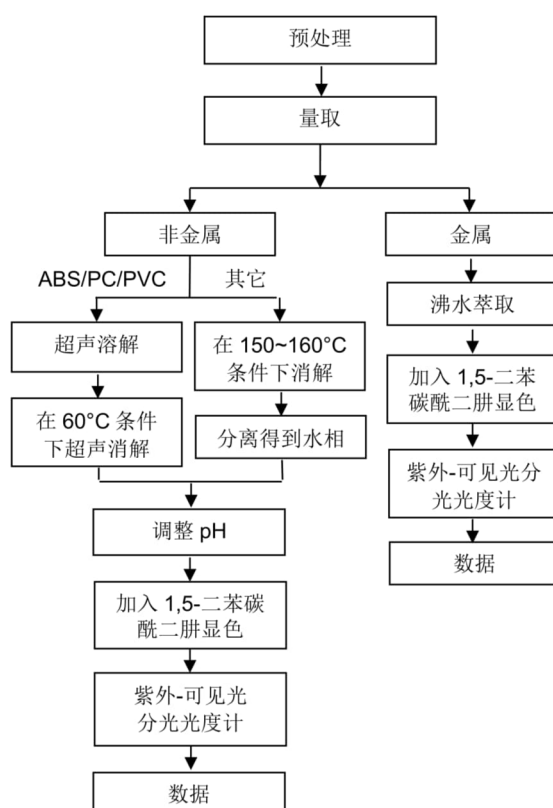
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六价铬检测流程图



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附件:

1.0, SH, SHD, 1.25, 51021, DF14, DF13, GH, ZH, PH, PHB, PA, PHSD, DF11, C1251, 51047, 51146, FI-S, PHD, YHD200, PA, SMP, SMW, SMH, SMH200, SMH200-H, YH200, 20039WR, 杜邦 2.0, XH/TJC3, XA, HA, XHB, XHD, XHE, EH, EI, 小四 P, 5263, 5264, 5267, 5268, SZN, SAN, SCN, SCND, JC15, JC20, JC25, 5102, 5240, SMH250, SMP250, SMW250, 25048HS, 25045HP, SM, TJC8, 杜邦 2.54, TJC8A, 杜邦带锁, TJC8B, TJC8H, 5051, 2510, 美尚美, 43640, 43645, 43020, 43025, 5500, 5600, VH, VHRR, YH396, VHR, 35156, 2139, 3.96, 90331, 5195, 5196, 39612, FL, 5557, 5559, 5566, 5569, SL, RV42, EL, YL, 小 EL, 8981, 大四 P, 5058, 5.08, L6.2, VL, VLP/VLR, TJC2, TJC2A, TJC2B, TJC4, TJC1, 1806, MX3.0, 1.58, 51005, 51006, BH3.5, BH4.0, 63080, 51004, TJC15, A4203, CL014, OTP, MKH, SMF, Cy-X201, 35108, 35150, 35151, 35152, 35180, 35965, 42021, 42022, 42002, 35955, SA, SCS, 35189, 35196, CH10, CH2.5, 543, SLP, SLR, YHL500, YWL500, FFC, FPC, 20030, 250, LGC, S11, YH025, 35155, 25415, 5197, 5198, 110, 2.8, 6.3, SCS

NH, XHQ, 42474, 42475, QH, NV, 50300, 50301, 5025, 3191, 5199, STV5, YHL500, YWL500, F001, F002, D440, D600, D620, D700, D220, D230, D250, D480, D520, D280, D630, D430, D400, D450, U-T, F1001-T, SIN-T, 774, 773, 778, 294, TU-JTK(SV), TU(SNB), TO-JTK(RV), MDD, FDD, TG-JT, IDC, AUTO, CONNECTOR, DJ70, DT04, DT06, UY/K1, UY2/K2, UR/K3, UR2, UB/K4, UB2A, UG/K5, U1R/K8, U1B/K9, HJKT10, UDW2, 314, A5001, A5002, MC100, FPC2.54, SGN, PHR, ZHR, 205, 5.2, C1801, C1802, 2060, A5003, ME020, ME010, FPC/FFC, B2541, 1971845, 1971846, 2232043, 2232044, 2232511, 1971895, 1971896, JWPF, SY, Molex1.5, ME0100, RAST, A5004, DV, SJN, SDN, 35182, 35524, RY, LC, VR, SHJ, SHL, DF19, ACH, IL-Z, SATA, XSR, SUR, SUH, ZE, ZND, ZPD, SFH, PUD, AMP2.0, 35507, DF3, PND, RE, RA, RF, SYP/SYR, HIF3, MC100/ME020/ME010, F2541, VHB, VHC, VHD

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A1501 A1502 A1503 A1504 A1505 A1506 A1507 A1508 A1509
A2001 A2002 A2003 A2004 A2005 A2006 A2007 A2008 A2009
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A2501 A2502 A2503 A2504 A2505 A2506 A2507 A2508 A2509
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A3001 A3002 A3003 A3004 A3005 A3006 A3007 A3008 A3009
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A3961 A3962 A3963 A3964 A3965 A3966 A3967 A3968 A3969
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F10010 F10011 F10012 F10013 F10014 F10015 F10016 F10017 F10018
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P0010 P0011 P0012 P0013 P0014 P0015 P0016 P0017 P0018
P0019 P0020 P0021 P0022 P0023 P0024 P0025 P0026 P0027
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D2201 D2202 D2203 D2204 D2205 D2206 D2207 D2208 D2209



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编号: LHE-S006

成品 MSDS

1. 物品成分与厂商资料

厂商名称: 浙江联和电子有限公司	物品编号: LHE-WF1001
	物品名称: 黄铜镀锡针
地址: 浙江省温州市乐清湾港区创新路8号	纯物质:
联络电话: 0577-62383699	危害物质成分 (%) 无

2. 成份辨识资料

成份名称	化学文摘社登记号码 (CAS No.)	浓度范围 (成分百分比 Percentage %)
铜 (Cu)	7440-50-8	64.9%
磷 (P)	7723-14-0	0.001%
锌 (Zn)	7440-66-6	余量
镍 (Ni)	7440-02-0	0.01%
锑 (Sb)	7440-36-0	0.001%
铅 (Pb)	7439-92-1	<0.009%
铁 (Fe)	7439-89-6	<0.1%
纯镍 (Ni)	7440-02-0	0.05%
纯锡 (Sn)	7440-31-5	0.1%

2. 危害辨识资料

严重危害效应	健康危害效应: 本产品为固体时不具健康危害及危害
	环境影响: 本产品为固体时对环境不具影响
	物理性及化学性危害: 固体/无味/多色
	特殊危害: 固体时 (防火或高温) 无特殊危害
主要症状: 无	

3. 急救措施

急救方法	吸入: 无吸入
	皮肤接触: 接触无危害
	食入: 无食入

主要症状及危害效应: 无

4. 灭火措施

通用灭火器: 二氧化碳, 泡沫, 干粉化学灭火器, 水雾等

灭火时可能遭遇之特殊危害: 会引起火灾

消防人员之特殊防护装备: 使用从氧式吸防护具

5. 泄漏处理方法

个人应注意事项: 注意工作台面清洁, 作业时及时清洗手

环境注意事项: 将泄漏之物料以容器盛装以便回收或废弃

清理方式: 工作台面每天作业前/后须擦拭干净, 建议可以戴手套或手指套作业

6. 安全处置与储存方法

处置: 废弃物可送到政府许可的废弃物处理中心进行处理

储存：空调仓，23±5℃，湿度 65%以下，仓库里面安装灭火器	
7. 暴露预防措施	
个人防护设备	呼吸防护：口罩，一般无此要求，可以建议采用
	手部防护设备：手套火手指套，一般无此要求，可以建议采用
	眼睛防护：安全目镜或眼镜
	皮肤及身体防护：穿工作服，经常勤洗
卫生措施：建议使用安全目镜，进食前应洗手及脸部，平时多运动，保持健康体力	
8. 物料及化学性质	
物质状态：固体	形状：连接器
颜色：多色	气味：无味
PH 值：未测定	沸点：未测定
分解温度：未测定	爆炸介限：无
自然温度：固体无	溶解度：固体无
9. 安全性及反应性	
安全性：正常状态下安全	
特殊状况下可能之危害反应：无	
应避免之状况：避免接触火源和太阳光直射	
应避免之物质：火和酸碱性物质	
危害分解物：无	
10. 毒性资料	
急毒性	吸入：无
	皮肤接触：无
	眼睛：无
局部效应：无	特殊效应：无
11. 废弃物处理方法：废弃物可送到政府许可的废弃物处理中心进行处理	
12. 运送资料	
联合国编号：无	运输规定：并无危险分类
运送方法及注意事项：勿重压，轻拿轻放	
13. 适用法规：1.劳工安全卫生设施规划；2.危害物及有害物通讯规划；3.索尼环境通用规定；4 劳工工业环境空气中有害物容许溶度标准；5 道路交通安全规划	
14. 其他资料：	
15.法规资料	
适用法规	1.劳工安全卫生设施规则 2.RoHS 法规及有害物通识规则
16.其它资料	
参考文献	有害化学物质中文资料库，环保局
制表单位	浙江联和电子有限公司
制造商及供应商地址	浙江省温州乐清市乐清湾港区创新路8号
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