

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	51047&51021型条形连接器
料 号 CUSERTOMER PART NO	C1251&A1251
日 期 DATE	

客 户 确 认 (APPROVED SIGNATURES)

核准 (APPROVAL)	工程 (ENGINEERING)	品管 (QC)
承认结果: <input type="checkbox"/> 承认 <input type="checkbox"/> 不承认 <input type="checkbox"/> 重新送样		



浙江联和电子有限公司
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目 录

1. 封面.....	1
2. 目录.....	2
3. 命名和图纸.....	3-10
4. 规格书.....	11-14
5. 认证.....	15-22
6. 连接器RoHS报告.....	23-33
7. 连接器卤素报告	34-46
8. 端子RoHS报告.....	47-53
9. MSDS	54-59
10. 反馈与建议.....	60

核准（APPROVAL）	确认（CHECK）	制作（PREPARE）

壳体料号命名规则

Housing Part No. Naming Rules

A 2501 - S H B 02 X2 - * - ** - ** - **

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

系列号 Series Number

Feature Category 特征类别(默认空)

H=壳体 Housing
产品类别 P=密封件 Water Proofing
Product Category:F=配件 Fitting

同类别多型号序号(默认空)
Same Series Different Type: B~ZZ

单列极数 The Pin Number of Single Row: 01~**

多列极数 The Pin Number of Several Row: X2~X*(无则空)

1=PA66
2=PA66=G=灼热丝增强
3=PA46
4=PA6T
5=PA9T
6=PBT
7=PP0
壳体材料 8=LCP
Housing Material:9=U=PA66-UL

V2 UL阻燃等级标准(默认不注明)
V0 UL阻燃等级标准
壳体材料特性 Z=灼热丝是按照(IEC60695/GB/T5169)标准,
Housing Material Specialty: 符合GWIT750℃, GWF1960℃

OR=橙色 Orange
P=粉色 Pink
R=红色 Red
VI=紫色 Violet
Y=黄色 Yellow
GY=灰色 Gray
BK=黑色 Black
G=绿色 Green
BL=蓝色 Blue
BR=棕色 Brown
TR=透明白 Transparent
W=白色 White
壳体颜色 EC=米色 ECRU
Housing Color: TG=透明绿 Transparent Green
壳体材料3/4/5/8默认米色
壳体材料7默认黑色
壳体材料1/2/6/9默认白色
(默认可为空)

客户专用代码
Customer Special Code:表示和常规件不同,用来代表某个客户

备注:*部分内容只在产品标签中体现

针座料号命名规则

Wafer Part No. Naming Rules

A 2501 - DH WV B 02 X2 - N* - C* - ** - ** - * - ** - ** - ** - **	
A: Wire to Board Connectors F: FFC/FPC Connectors I: IDC	
系列号 Series Number	
DB=防呆柱+全包 B=全包 All inclusive DH=防呆柱+高背型 特征类别(默认空) H=高背型 High box type Feature Category: D=固定防呆柱 Fixed	
WV=直针座 Straight Angle WR=弯针座 Right Angle 产品类别 SV=立贴式 V-SMT Product Category: SR=卧贴式 R-SMT	
同类别多型号序号(默认空) Same Series Different Type: B~ZZ	
单列极数 The Pin Number of Single Row: 01~**	
多列极数 The Pin Number of Several Row: X2~X*(无则空)	
N为标准缺针, *为非标缺针序号(例N1. 2. 5)(无则空)	
C为插针样式不同(除打点、缺针外)*为序号(无则空)	
打点样式 Point Style: K为打点, K2. 4表示在第2枚, 第4枚针上打点. 默认打点无数字标注(无则空)	
接触件材料 P=磷青铜 Phos. Bronze Contact Material: B=黄铜 Brass	
0=素材酸洗 None 1=镀镍 Nickel Plating 2=镀亮锡 Tin Plating 3=镀镍镭光锡 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 Half Gold-Nickel Plating 9=镀亮锡局部金 Half Gold-Tin Plating 表面处理 10=镀镍亮锡 Tin-Nickel Plating 默认B10可为空(A5001默认B3)	
1=PA66 2=PA66-G=灼热丝增强 3=PA46 4=PA6T 5=PA9T 6=PBT 7=PP0 壳体材料 8=LCP Housing Material: 9=U=PA66-UL	
V2 UL阻燃等级标准(默认不注明) 壳体材料特性 V0 UL阻燃等级标准 Housing Material Specialty: Z=灼热丝是按照(IEC60695/GB/T5169)标准, 符合GWIT750℃, GWFI960℃	
其他特殊要求 Other Special Requirements: 如: SE(对固定力要求高5N)	
OR=橙色 Orange P=粉色 Pink R=红色 Red VI=紫色 Violet Y=黄色 Yellow GY=灰色 Gray BK=黑色 Black G=绿色 Green BL=蓝色 Blue BR=棕色 Brown TR=透明白 Transparent W=白色 White EC=米色 ECRU 壳体颜色 TG=透明绿 Transparent Green 壳体材料3/4/5/8默认米色 壳体材料7默认黑色 壳体材料1/2/6/9默认白色(默认可为空)	
客户专用代码 Customer Special Code: 表示和常规件不同, 用来代表某个客户	

备注: *部分内容只在产品标签中体现

端子料号命名规则

Terminal Part No. Naming Rules

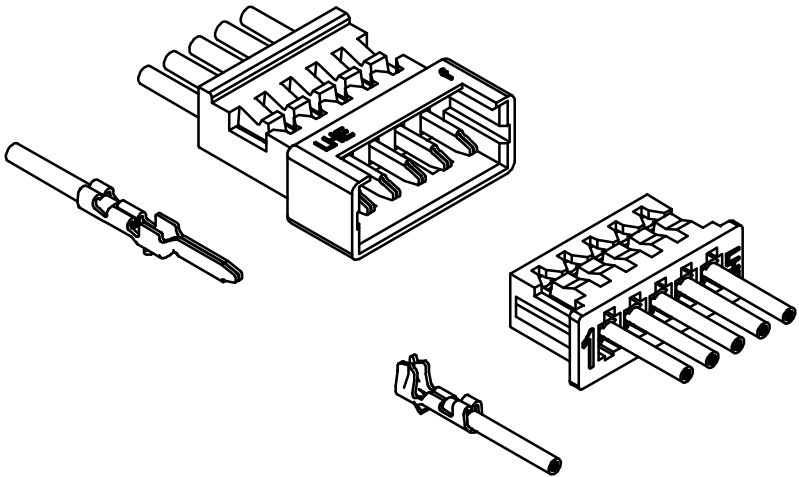
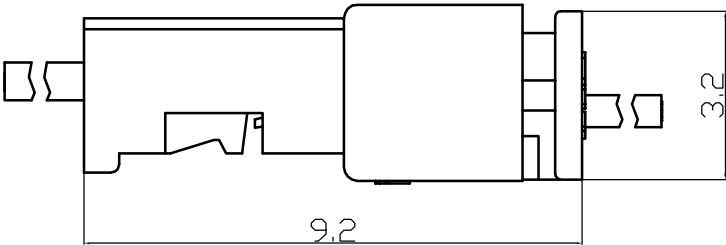
A:Wire to Board Connectors B:Board-in Connectors C:Wire to Wire Connectors F:FFC/FPC Connectors I:IDC D:Hard Splices Connectors	A	2501	N	-	T	2	2	-	A	30	5	-	P	2
系列号 Series Number														
K=直形带锁 Z=旗形带锁 X=横插带锁 Y=叉形端子 R=环形端子 G=接线端子 W=鲨鱼齿端子	N=直形 Q=旗形 H=横插 J=插片 C=圆形													
特征类别(默认空) Feature Category:	B=子弹形端子 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) Applicable Wire:	A=小脚 B=中脚 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!														
材质 Material:	S=不锈钢 Stainless Steel P=磷青铜 Phos. Bronnze B=黄铜 Brass													
表面处理 Surface Processing:	0=素材酸洗 None 1=镀镍 Nickel Plating 2=镀亮锡 Tin Plating 3=镀镍氩光锡 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 Half Gold-Nickel Plating 9=镀亮锡局部金 Half Gold-Tin Plating 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

51047&51021型
连接器承认图面

REV	DESCRIPTION	DATE
A/0	原始版本	E
A/1	修订版本	

安装尺寸Mounting Measurement



序 号	图 号	名 称	材 料	数 量	附 注			
未 注 公 差		<div>LHE[®] 浙江联和电子有限公司</div> <div>ZHEJIANG LIANHE ELECTRONICS CO., LTD</div>						
X.° ±3° X.X° ±0.5°								
>0-3	>3-18	>18-50	单位	比例	Design Units	SIZE	页码	
±0.12	±0.15	±0.3	MM Only	——	METRIC	A4		
制 作	审 核	批 准	材 料	图 号			Part No	
			见图解	品 名	51047&51021			

旧底图总号

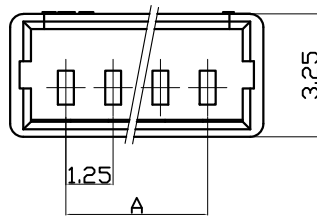
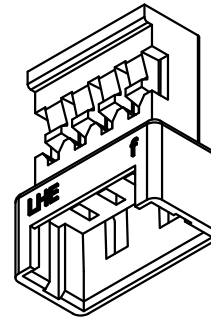
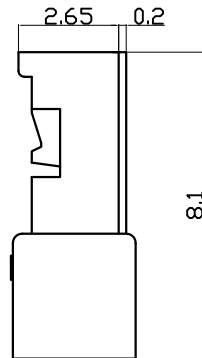
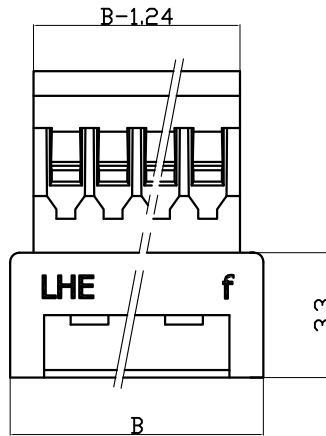
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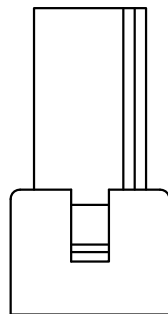
日期

51047型连接器承认图面

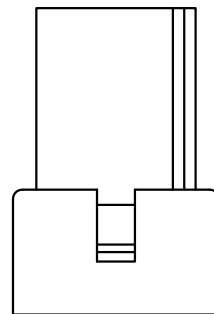
REV	DESCRIPTION	DATE
A/0	原始版本	E
A/1	修订版本	



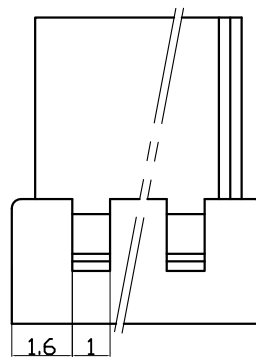
Poles	Part No.		Dimensions mm	
			A	B
2	C1251-H02	51047-2A	1.25	4.2
3	C1251-H03	51047-3A	2.50	5.45
4	C1251-H04	51047-4A	3.75	6.70
5	C1251-H05	51047-5A	5.00	7.95
6	C1251-H06	51047-6A	6.25	9.20
7	C1251-H07	51047-7A	7.50	10.45
8	C1251-H08	51047-8A	8.75	11.70
9	C1251-H09	51047-9A	10.00	12.95
10	C1251-H10	51047-10A	11.25	14.20
11	C1251-H11	51047-11A	12.50	15.45
12	C1251-H12	51047-12A	13.75	16.70
--	-- --	-- --	--	--
16	C1251-H16	51047-16A	18.75	21.70



2P



3P



4P~NP

1		Housing 胶壳	PA66 (UL94V-0/V-2)	1	White (白色)
序号	图号	名称	材料	数量	附注
未注公差		LHE ® 浙江联和电子有限公司			
X.° ±3° X.X° ±0.5°		ZHEJIANG LIANHE ELECTRONICS CO., LTD			
>0-3	>3-18	>18-50	单位	比例	Design Units
±0.12	±0.15	±0.3	MM Only	—	METRIC
制作	审核	批准	材料	图号	SIZE 页码
			见图解	品名	Part No
					51047-NA

旧底图总号

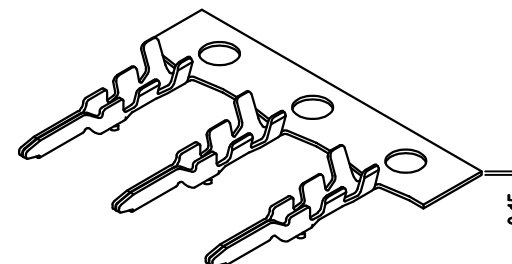
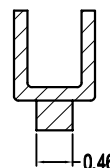
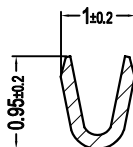
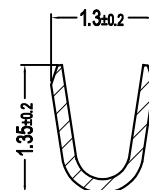
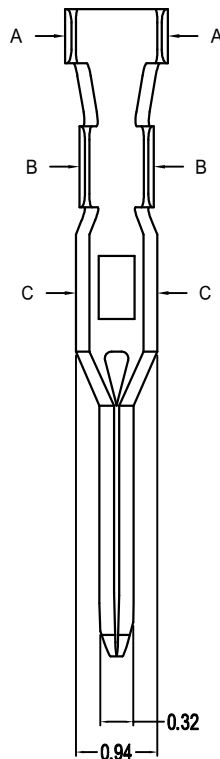
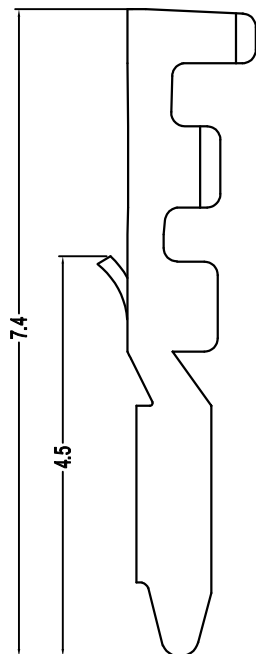
底图总号

签字

日期

51047型端子承认图面

REV	SYM	REVISION RECORD	DR.	APPR.	DATE
A/0		原始版本			A/0
A/1	①	高低温测试环境从85℃,更新到105℃	YF		20221026



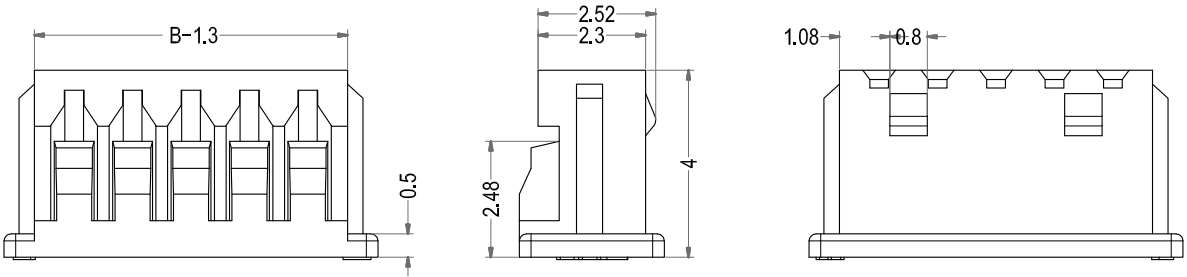
主要技术参数 Main Specifications

线数 (poles): 2 to 16P
额定电流 (Current rating): 1.0A AC, DC (AWG32#0.8A)
额定电压 (Voltage rating): 125V AC, DC
温度范围 (Temperature range): -25℃ to +105℃ ①
接触电阻 (Contact resistance): $\leq 20\text{m}\Omega$
绝缘电阻 (Insulation resistance): $\geq 100\text{M}\Omega$
耐电压 (Withstand voltage): 500V AC/minute
适用线规 (Applicable wire): AWG #32 to #28

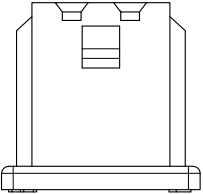
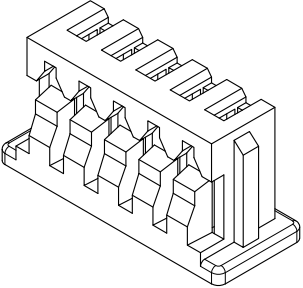
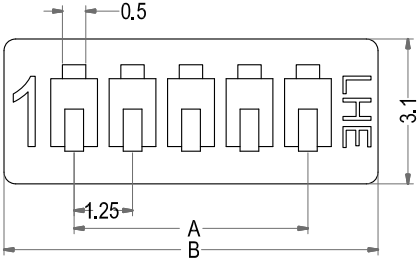
1	C1251-T	Phos Bronze tin 磷青铜镀锡		15000PCS/RoII (1盘)				
序 号	料 号	材 料		附 注				
未 注 公 差		<div>LHE[®] 浙江联和电子有限公司</div> <div>ZHEJIANG LIANHE ELECTRONICS CO., LTD</div>						
X.° ±3° X.X° ±0.5°								
>0-3	>3-18	>18-50	单位	比例	Design Units	SIZE	页码	
±0.12	±0.15	±0.3	MM Only	——	METRIC	A4		
制 作	审 核	批 准	材 料	图 号			Part No	
			见图解	品 名	51047-T			

1. 25型连接器承认图面

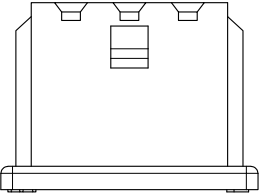
REV	DESCRIPTION	DATE
P0	原始版本	E
P1	修订版本	



4P-NP



2P



3P

Poles	Part No.			Dimensions mm	
				A	B
2	A1251-H02	1. 25-2Y		1. 25	4. 25
3	A1251-H03	1. 25-3Y		2. 50	5. 50
4	A1251-H04	1. 25-4Y		3. 75	6. 75
5	A1251-H05	1. 25-5Y		5. 00	8. 00
6	A1251-H06	1. 25-6Y		6. 25	9. 25
7	A1251-H07	1. 25-7Y		7. 50	10. 50
8	A1251-H08	1. 25-8Y		8. 75	11. 75
9	A1251-H09	1. 25-9Y		10. 00	13. 00
10	A1251-H10	1. 25-10Y		11. 25	14. 25
11	A1251-H11	1. 25-11Y		12. 50	15. 50
12	A1251-H12	1. 25-12Y		13. 75	16. 75
13	A1251-H13	1. 25-13Y		15. 00	18. 00
14	A1251-H14	1. 25-14Y		16. 25	19. 25
15	A1251-H15	1. 25-15Y		17. 50	20. 50
16	A1251-H16	1. 25-16Y		18. 75	21. 75
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25	A1251-H25	1. 25-25Y		30. 00	33. 00

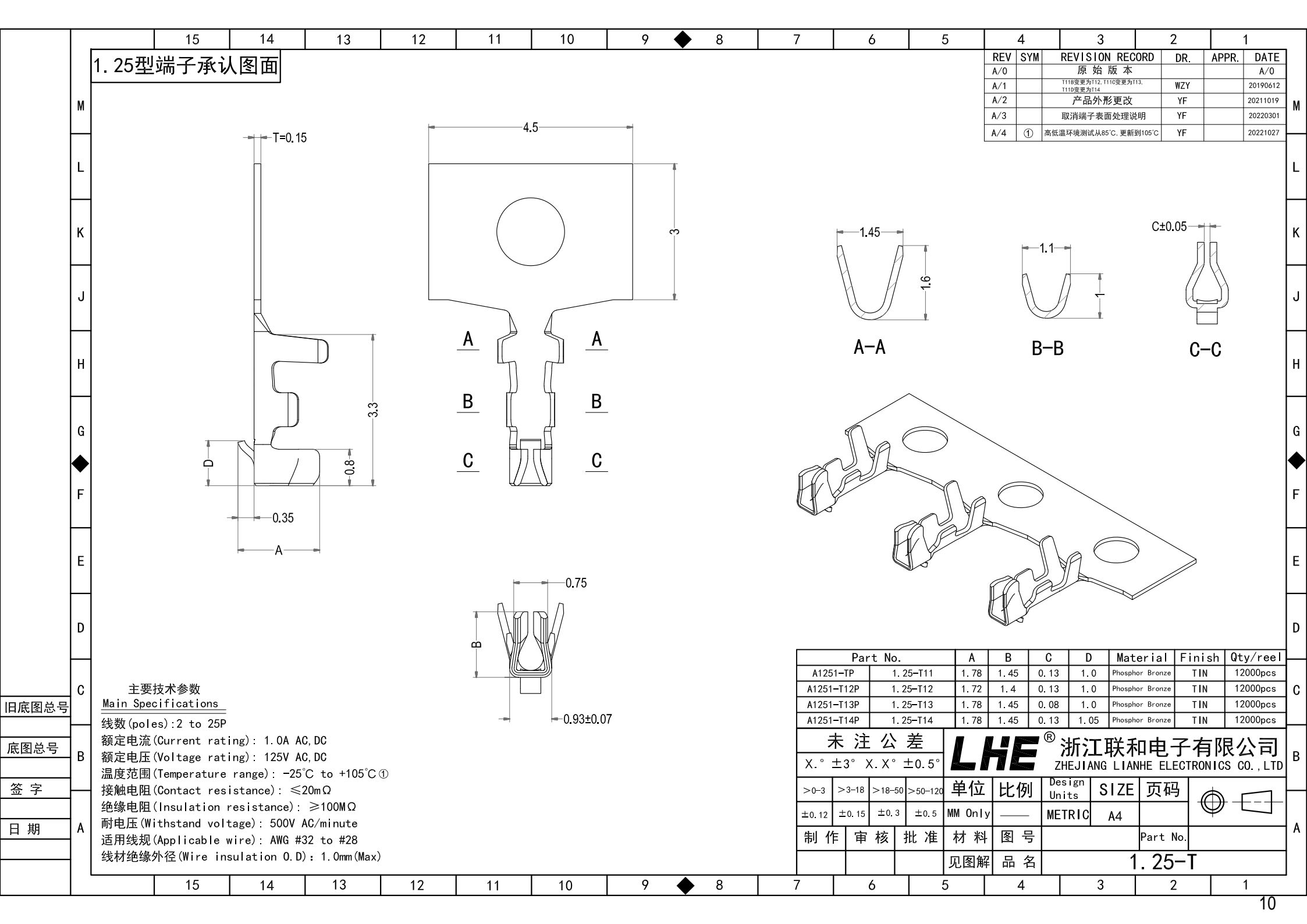
1		Housing 胶壳	PA66 (UL94V-0/V-2)	1	White (白色)
序号	图 号	名 称	材 料	数量	附 注
未 注 公 差		LHE ® 浙江联和电子有限公司 ZHEJIANG LIANHE ELECTRONICS CO., LTD			
X. ° ±3°	X. X° ±0. 5°	单位	比例	Design Units	SIZE 页码
>0-3	>3-18	>18-50	>50-120	MM Only	METRIC A4
±0. 12	±0. 15	±0. 3	±0. 5	材料	图号
制作	审核	批准	材料	图号	Part No.
			见图解	品 名	1. 25-NY

旧底图总号

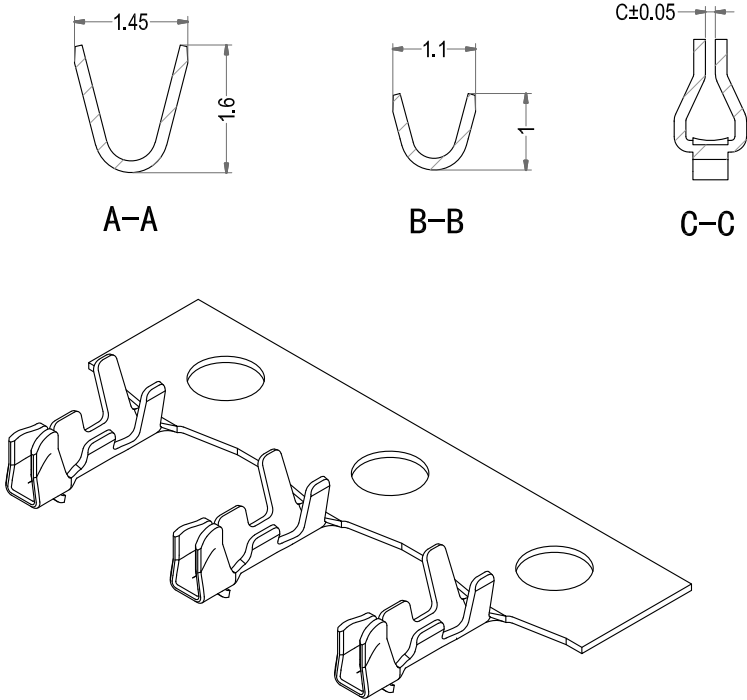
底图总号

签 字

日 期



REV	SYM	REVISION RECORD	DR.	APPR.	DATE
A/0		原始版本			A/0
A/1		T118变更为T12, T110变更为T13, T110变更为T14	WZY		20190612
A/2		产品外形更改	YF		20211019
A/3		取消端子表面处理说明	YF		20220301
A/4	①	高低温环境测试从85°C, 更新到105°C	YF		20221027



Part No.		A	B	C	D	Material	Finish	Qty/reel	
A1251-TP	1.25-T11	1.78	1.45	0.13	1.0	Phosphor Bronze	TIN	12000pcs	
A1251-T12P	1.25-T12	1.72	1.4	0.13	1.0	Phosphor Bronze	TIN	12000pcs	
A1251-T13P	1.25-T13	1.78	1.45	0.08	1.0	Phosphor Bronze	TIN	12000pcs	
A1251-T14P	1.25-T14	1.78	1.45	0.13	1.05	Phosphor Bronze	TIN	12000pcs	
未注公差		<div>LHE[®] 浙江联和电子有限公司</div> <div>ZHEJIANG LIANHE ELECTRONICS CO., LTD</div>							
X.° ±3° X.X° ±0.5°									
>0-3	>3-18	>18-50	>50-120	单位	比例	Design Units	SIZE	页码	
±0.12	±0.15	±0.3	±0.5	MM Only	——	METRIC	A4		
制作	审核	批准	材料	图号			Part No.		
			见图解	品名	1.25-T				

产品规格书

PRODUCT SPECIFICATION

版本号

Version Number: B

产品编码

Part Number: C1251&A1251

■ 规格 Specifications

- ◆1、极数 Poles: 2 to 16P
- ◆2、额定电流 Current rating: 1.0A AC, DC
- ◆3、额定电压 Voltage rating: 125V AC, DC
- ◆4、温度范围 Temperature range: -25°C to +105°C
- ◆5、接触电阻 Contact resistance: $\leq 20\text{m}\Omega$
- ◆6、绝缘电阻 Insulation resistance: $\geq 100\text{M}\Omega$
- ◆7、耐电压 Withstand voltage: 500V AC/minute

产品性能测试 Performance test			
	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	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、无明显的机械损伤等缺陷。 Metal part: tight 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	接触电阻 Contact Resistance	插合连接器, 用小功率电路进行测试。 Mate connectors, measure by dry circuit.	20m Ω MAX
3	绝缘电阻 Insulation Resistance	在相邻接触件之间或地线之间, 用500V DC电压进行测试。 Apply 500V DC between adjacent terminal or ground.	100M Ω MIN
4	耐电压 Dielectric Strength	相邻接触件之间或地线之间施加50Hz 500V AC(有效值), 漏电流1mA的电压作用, 时间1min。 Mate connectors, apply 500V AC for 1 minute between adjacent terminal or ground.	无击穿和飞弧现象 No Breakdown

产品规格书

PRODUCT SPECIFICATION

版本号

Version Number: B

产品编码

Part Number: C1251&A1251

产品性能测试 Performance test				
	项目 Item	测试条件 Test Condition	规格要求 Requirement	
5	压着部位抗张强度 Crimping Pull Out Force	在试验装置夹头中固定测试样品，在连接的轴线方向施加张力；速度不大于25mm/min。 Fix the crimped terminal, apply axial pull out force on the wire at the speed rate of not more 25mm/min.	AWG #28	15N MIN
			AWG #30	10N MIN
			AWG #32	5N MIN
6	壳体/端子固定力 Terminal/Housing Retention Force	固定连接器或测力计，在连接器轴线方向施加规定的拉力；速度不大于25mm/min。 Apply axial pull out force at the speed rate of not more 25mm/min on the pin assembled in the housing.	8N MIN	
7	针的固定力 Pin Retention Force	固定连接器或测力计，在连接器轴线方向对针施加规定的推力；速度不大于25mm/min。 Apply axial push out force at the speed rate of not more 25mm/minute on the terminal assembled in the base.	-----	
8	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245℃±5℃）2±0.5秒钟。 Soldering time: 2±0.5 second Solder Temperature: 245℃±5℃	-----	
9	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℃）；2±0.5秒钟后在正常的条件下恢复1小时。 Soldering time: 2±0.5 second Solder Temperature: 260℃	--	--
10	耐高温 Heat Resistance	连接器配合后，于105℃±2℃的空气中放置96小时，然后再回到室温中放置1~2h小时测定 Mated connectors are exposed to a temperature of 105℃±2℃ for 96 hours.	外观 Appearance	无损伤 No Damage
11	耐低温 Cold Resistance	连接器配合后，于-25℃±2℃的空气中放置96小时，然后再回到室温中放置1~2h小时测定 Mated connectors are exposed to a temperature of -25℃±2℃ for 96 hours.	外观 Appearance	无损伤 No Damage
12	温度上升 Temperature Rise	插入连接器，通以最大允许电流。 Carrying rated current load.	温度最大上升 Temperature Rise	30℃ MAX

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产品性能测试 Performance test				
	项目 Item	测试条件 Test Condition	规格要求 Requirement	
13	恒定湿热 Humidity	温度: $40 \pm 2^{\circ}\text{C}$ 相对湿度: 90%~95% 搁置时间: 96小时, 取出恢复2h后检查 Temperature: $40 \pm 2^{\circ}\text{C}$ Relative Humidity: 90%~95% Duration: 96 hours	外观 Appearance	无损伤 No Damage
			耐电压 Dielectric Strength	500V, AC /minute
			绝缘电阻 Insulation Resistance	100M Ω MIN
14	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 $-25^{\circ}\text{C} \pm 2^{\circ}\text{C}$ 的恒温条件下放置0.5小时; b) 在 $105^{\circ}\text{C} \pm 2^{\circ}\text{C}$ 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) $-25^{\circ}\text{C} \pm 2^{\circ}\text{C}$ 0.5hour b) $+105^{\circ}\text{C} \pm 2^{\circ}\text{C}$ 0.5hour	外观 Appearance	无损伤 No Damage
			接触电阻 Contact Resistance	40m Ω MAX
15	振动 Vibration	插入连接器, 串联在一直流电源上, 电流1mA; 并模拟正常工作状态, 振频为10~55Hz、振幅0.35mm; 55~500Hz、加速度50m/s ² , 每一轴线扫频循环次数10次、2小时。 Frequency: 10~55Hz Amplitude: $\pm 0.35\text{mm}$ Frequency: 55~500Hz Acceleration: 50m/s ² Duration: 2 hours in each X,Y,Z axes	外观 Appearance	无损伤 No Damage
			接触电阻 Contact Resistance	40m Ω MAX
			瞬断(当电阻 $>7\Omega$) Discontinuity (when $R>7\Omega$)	1 μs MAX
16	机械寿命 Repeated insertion/withdrawal	以每分钟插拔10次的速率, 插拔50次。 When mated up to 50 cycles repeatedly by the rate of 10 cycles per minute.	接触电阻 Contact Resistance	40m Ω MAX
17	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.	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。) Exterior 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。

产品规格书

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产品性能测试 Performance test					
	项目 Item	测试条件 Test Condition	规格要求 Requirement		
18	插入力与拔出力 Insertion and Withdrawal Force	相配的接触件以1mm/s~5mm/s的速度沿 接插器轴线方向插入和拔出。 Insertion and withdraw connectors at the speed rate of 1mm/s~5mm/s.		插入力（最大值） Insertion (Max)	拔出力（最小值） Withdrawal (Min)
			SINGLE PIN	5N	0.5N

1	高低温环境测试从85℃，更新到105℃	根据客户要求，进行统一的测试升级	20221026	玉夫
序号	变更记录	变更原因	变更时间	责任人
变更记录				

制订 YF 审核 WZY 批准 CZH 日期

Edit: Check: Approval: Date:

ECBT2.E364711 - Connectors for Use in Data, Signal, Control and Power Applications - Component

Connectors for Use in Data, Signal, Control and Power Applications - Component

See General Information for Connectors for Use in Data, Signal, Control and Power Applications - Component

ZHEJIANG LIANHE ELECTRONIC CO LTD

E364711

Chuangxin Road, YueQing Bay Port Zone

Yueqing, Zhejiang 325600 CHINA

Connector, Model(s) 1.58-LHE f/b 2 , f/b 1 thru 12, f/b A2 or AW., 1.58-LHE f/b 2 thru 6, f/b A2 or AW

Connector, Model(s) 1.58-LHE followed by 2, followed by 1 thru 12, followed by A(T).

Connector, Model(s) 1.58-LHE, f/b 2 thru 6 , f/b A(T), 1.58-LHE, f/b 2 thru 6, f/b Y(T), 1.58-LHE, f/b 2, f/b 1 thru 12 , f/b Y(T), 2510-LHE f/b 2 , f/b 1 thru 12, f/b A2 or AW, 2510-LHE f/b 2 thru 6, f/b A2 or AW

Connector, Model(s) 2510-LHE followed by 2, followed by 1 thru 12, followed by A(T)

Connector, Model(s) 2510-LHE, f/b 2 thru 6 , f/b A(T), 2510-LHE, f/b 2 thru 6, f/b Y(T), 2510-LHE, f/b 2, f/b 1 thru 12 , f/b Y(T), 5.08-LHE f/b 2 , f/b 1 thru 12, f/b A2 or AW, 5.08-LHE f/b 2 thru 6, f/b A2 or AW

Connector, Model(s) 5.08-LHE followed by 2, followed by 1 thru 12, followed by A(T)

Connector, Model(s) 5.08-LHE, f/b 2 thru 6 , f/b A(T), 5.08-LHE, f/b 2 thru 6, f/b Y(T), 5.08-LHE, f/b 2, f/b 1 thru 12 , f/b Y(T), 51005-LHE f/b 2 , f/b 1 thru 12, f/b A2 or AW, 51005-LHE f/b 2 thru 6, f/b A2 or AW

Connector, Model(s) 51005-LHE followed by 2, followed by 1 thru 12, followed by A(T)

Connector, Model(s) 51005-LHE, f/b 2 thru 6 , f/b A(T), 51005-LHE, f/b 2 thru 6, f/b Y(T), 51005-LHE, f/b 2, f/b 1 thru 12 , f/b Y(T), 51006-LHE f/b 2 , f/b 1 thru 12, f/b A2 or AW, 51006-LHE f/b 2 thru 6, f/b A2 or AW

Connector, Model(s) 51006-LHE followed by 2, followed by 1 thru 12, followed by A(T)

Connector, Model(s) 51006-LHE, f/b 2 thru 6 , f/b A(T), 51006-LHE, f/b 2 thru 6, f/b Y(T), 51006-LHE, f/b 2, f/b 1 thru 12 , f/b Y(T), 5102-LHE f/b 2 , f/b 1 thru 12, f/b A2 or AW, 5102-LHE f/b 2 thru 6, f/b A2 or AW

Connector, Model(s) 5102-LHE followed by 2, followed by 1 thru 12, followed by A(T)

Connector, Model(s) 5102-LHE, f/b 2 thru 6 , f/b A(T), 5102-LHE, f/b 2 thru 6, f/b Y(T), 5102-LHE, f/b 2, f/b 1 thru 12 , f/b Y(T), 5240-LHE f/b 2 , f/b 1 thru 12, f/b A2 or AW, 5240-LHE f/b 2 thru 6, f/b A2 or AW

Connector, Model(s) 5240-LHE followed by 2, followed by 1 thru 12, followed by A(T)

Connector, Model(s) 5240-LHE, f/b 2 thru 6 , f/b A(T), 5240-LHE, f/b 2 thru 6, f/b Y(T), 5240-LHE, f/b 2, f/b 1 thru 12 , f/b Y(T), 5500-LHE f/b 2 , f/b 1 thru 12, f/b A2 or AW, 5500-LHE f/b 2 thru 6, f/b A2 or AW

Connector, Model(s) 5500-LHE followed by 2, followed by 1 thru 12, followed by A(T)

Connector, Model(s) 5500-LHE, f/b 2 thru 6 , f/b A(T), 5500-LHE, f/b 2 thru 6, f/b Y(T), 5500-LHE, f/b 2, f/b 1 thru 12 , f/b Y(T), 5557 followed by 2 thru 6, followed by A(T), 5557 followed by 2 thru 6, followed by A2 or AW, 5557 followed by 2 thru 6, followed by Y(T)

Connector, Model(s) 5557 followed by 2, followed by 1 thru 12, followed by A(T).

Connector, Model(s) 5557 followed by 2, followed by 1 thru 12, followed by A2 or AW

Connector, Model(s) 5557 followed by 2, followed by 1 thru 12, followed by Y(T)

Connector, Model(s) 5559-LHE f/b 2 , f/b 1 thru 12, f/b A2 or AW, 5559-LHE f/b 2 thru 6, f/b A2 or AW

Connector, Model(s) 5559-LHE followed by 2, followed by 1 thru 12, followed by A(T).

Connector, Model(s) 5559-LHE, f/b 2 thru 6 , f/b A(T), 5559-LHE, f/b 2 thru 6, f/b Y(T), 5559-LHE, f/b 2, f/b 1 thru 12 , f/b Y(T), 5566-LHE f/b 2 , f/b 1 thru 12, f/b A2 or AW, 5566-LHE f/b 2 thru 6, f/b A2 or AW

Connector, Model(s) 5566-LHE followed by 2, followed by 1 thru 12, followed by A(T)

Connector, Model(s) 5566-LHE, f/b 2 thru 6 , f/b A(T), 5566-LHE, f/b 2 thru 6, f/b Y(T), 5566-LHE, f/b 2, f/b 1 thru 12 , f/b Y(T), 5569-LHE f/b 2 , f/b 1 thru 12, f/b A2 or AW, 5569-LHE f/b 2 thru 6, f/b A2 or AW

Connector, Model(s) 5569-LHE followed by 2, followed by 1 thru 12, followed by A(T)

Connector, Model(s) 5569-LHE, f/b 2 thru 6 , f/b A(T), 5569-LHE, f/b 2 thru 6, f/b Y(T), 5569-LHE, f/b 2, f/b 1 thru 12 , f/b Y(T), 5600-LHE f/b 2 , f/b 1 thru 12, f/b A2 or AW, 5600-LHE f/b 2 thru 6, f/b A2 or AW

Connector, Model(s) 5600-LHE followed by 2, followed by 1 thru 12, followed by A(T)

Connector, Model(s) 5600-LHE, f/b 2 thru 6 , f/b A(T), 5600-LHE, f/b 2 thru 6, f/b Y(T), 5600-LHE, f/b 2, f/b 1 thru 12 , f/b Y(T), 63080-LHE f/b 2 , f/b 1 thru 12, f/b A2 or AW, 63080-LHE f/b 2 thru 6, f/b A2 or AW

Connector, Model(s) 63080-LHE followed by 2, followed by 1 thru 12, followed by A(T)

Connector, Model(s) 63080-LHE, f/b 2 thru 6 , f/b A(T), 63080-LHE, f/b 2 thru 6, f/b Y(T), 63080-LHE, f/b 2, f/b 1 thru 12 , f/b Y(T), B2502 followed by 2 thru 16, followed by Y(T), BH3.5-2A(T), BH3.5-2Y(T), MX3.0 followed by 2 thru 12, followed by A(T), MX3.0 followed by 2 thru 12, followed by A2 or AW, MX3.0 followed by 2 thru 12, followed by Y(T)

Connector, Model(s) MX3.0 followed by 2, followed by 1 thru 12, followed by A(T).

Connector, Model(s) MX3.0 followed by 2, followed by 1 thru 12, followed by A2 or AW

Connector, Model(s) MX3.0 followed by 2, followed by 1 thru 12, followed by Y(T)

Connector, Model(s) PA-LHE f/b 2, f/b 1 thru 12, f/b Y(T), PA-LHE followed by 2 thru 12, followed by A(T)

Connector, Model(s) PA-LHE followed by 2 thru 12, followed by A2 or AW

Connector, Model(s) PA-LHE followed by 2 thru 12, followed by Y(T)

Connector, Model(s) PA-LHE followed by 2, followed by 1 thru 12, followed by A(T)

Connector, Model(s) PA-LHE followed by 2, followed by 1 thru 12, followed by A2 or AW

Connector, Model(s) PH, PHB, XHB, JC25, SCN followed by -2 thru -20, followed by Y(T), A, AW or AWD

Connector, Model(s) PHB followed by 2 thru 16, followed by Y(T). followed by 2 thru 16, followed by AWD, A, AW

Connector, Model(s) Series 1.25, 1254, 1255 followed by -2 thru -25, followed by Y(T), A or AW

Connector, Model(s) Series 5264 followed by -2 thru -16, followed by Y(T), A or AWD

Connector, Model(s) SM followed by -2 thru -18, followed by Y(T) or A(T)

Connector, Model(s) VH, 3.96 followed by -2 thru -16, followed by Y(T), A, AW or AWG

Connector, Model(s) XA-LHE f/b 2, f/b 1 thru 12, f/b Y(T), XA-LHE followed by 2 thru 12, followed by A(T)

Connector, Model(s) XA-LHE followed by 2 thru 12, followed by A2 or AW

Connector, Model(s) XA-LHE followed by 2 thru 12, followed by Y(T)

Connector, Model(s) XA-LHE followed by 2, followed by 1 thru 12, followed by A(T)

Connector, Model(s) XA-LHE followed by 2, followed by 1 thru 12, followed by A2 or AW

Connector, Model(s) XH followed by -2 thru -20, followed by Y(T), A, AW, AWGD, AWD or AWGDJ

Connector, Model(s) ZH followed by 2 thru 16, followed by AWD or A, ZH followed by 2 thru 16, followed by Y(T).

Model(s) 1.25, followed by -2 thru -16, followed by AB or AWB

Model(s) 51146 or FI-S, followed by -2 thru -16, followed by AB or AWB

Model(s) A5001, followed by -2 thru -7, followed by Y, Y(T), AD or AWD

Model(s) B2501-LHE, A2004-LHE, A4203-LHE, PHR-LHE, PHD-LHE, CH2.5-LHE, DF11-LHE, PHSD-LHE, A5001-LHE, 35155-LHE, 35156-LHE, 5195-LHE, 5196-LHE, followed by 2 thru 16, followed by Y(T)

Model(s) BHS-LHE, SMH250-LHE, SMH200-LHE, L6.2-LHE, 1806-LHE, 2060-LHE, 2541-LHE, JC15-LHE, XHD-LHE, followed by -2, followed by A(T), or Y(T)

Model(s) JWPF-LHE, B2541-LHE, NV-LHE, DV-LHE, SGN-LHE, SJN-LHE, SDN-LHE, SIN-LHE, 35150-LHE, 35151-LHE, 35180-LHE, 35182-LHE, 35524-LHE, 35965-LHE, RCY-LHE, LC-LHE, VR-LHE, SHJ-LHE, SHL-LHE, DF19-LHE, ACH-LHE, DF13-LHE, IL-Z-LHE, 51146-LHE, SATA-LHE, XSR-LHE, SUR-LHE, SUH-LHE, ZE-LHE, ZND-LHE, ZPD-LHE, A1502-LHE, SFH-LHE, 51004-LHE, PUD-LHE, A20010-LHE, 35507-LHE, DF3-LHE, PND-LHE, RE-LHE, RA-LHE, RF-LHE or A3963, followed by -2 thru -15, followed by Y(T), YB(T) or YC(T), A, A-K, AW, AW-K, AD, AD-K, AWGD, AWGD-K, AQ, AQ-K, AWQ, AWQ-K, AD(BH) or AD(BH)-K.

Model(s) PH, followed by -2 thru -16, followed by AB or AWB

Model(s) PHB, SZN-LHE, SAN-LHE, JC20-LHE, EH-LHE, EI-LHE, EL-LHE, S-EL-LHE, followed by 2 thru 16, followed by AWD, A, AW

Model(s) PHB, SZN-LHE, SAN-LHE, JC20-LHE, EH-LHE, EI-LHE, EL-LHE, S-EL-LHE, followed by 2 thru 16, followed by Y(T)

Model(s) PHB, XH, XHB or XHBD, followed by -2 thru -16, followed by AB or AWB.

Model(s) RAST 5-LHE TAB HEADER ASSY , TH, Vertical, Cat. Nos. 1969738-LHE, 1969740-LHE, 1971845-LHE, 1971846-LHE, 1971895-LHE, 1971896-LHE, 1971946-LHE thru 1971949-LHE, 1971954-LHE thru 1971957-LHE, 2232008-LHE thru 2232011-LHE, 2232000-LHE thru 2232003-LHE, 2232016-LHE thru 2232019-LHE, 1971962-LHE thru 1971965-LHE, 2232024-LHE thru 2232027-LHE, 2232289-LHE thru 2232292-LHE, 2232043-LHE thru 2232074-LHE, 2232298-LHE thru 2232301-LHE, 2232511-LHE, 2232532-LHE, 2232557-LHE, 2232559-LHE, 2232560-LHE, 2232562-LHE, 2232563-LHE, 2232565-LHE, 2232566-LHE, 2232568-LHE, 2232569-LHE, 2232571-LHE, 2232572-LHE, 2232574-LHE, 2232575-LHE, 2232577-LHE, 2232578-LHE, 2232580-LHE, 2232581-LHE, 2232583-LHE, 2232584-LHE, 2232586-LHE, 2232587-LHE, 2232589-LHE, 2232590-LHE, 2232592-LHE, 2232593-LHE, 2232595-LHE, 2232596-LHE, 2232598-LHE, 2232599-LHE, 2232601-LHE, 2232602-LHE, 2232604-LHE, 2232605-LHE, 2232607-LHE, 2232608-LHE, 2232611-LHE thru 2232682-LHE, 2292457-LHE, 2292458-LHE, may incorporate prefix and/or suffix number.), followed by -2 thru -7, followed by Y, Y(T), AD or AWD.

Model(s) SY, followed by -2, followed by Y, Y(T), A or A(T)

Model(s) SYP, SYR, BH4.0-LHE, A10001-LHE, A7501-LHE, A8001-LHE, C2541-LHE, C2542-LHE, D250R-LHE, D280K-LHE, D300R-LHE, D350R-LHE, D400B-LHE, D430R-LHE, D470G-LHE, D480J-LHE, D480K-LHE, D480N-LHE, D480Q-LHE, D520H-LHE, D520K-LHE, D520Q-LHE, D620G-LHE, D630J-LHE, D630N-LHE, D630Q-LHE, D700G-LHE, F001-LHE, F002-LHE, HIF3-LHE, MC100-LHE, MC100-LHE, ME020-LHE, ME010-LHE, F2541-LHE, D2301-LHE, 1719057-LHE, 1719059-1-LHE, P0011-LHE, P0012-LHE, P0013-LHE, C6001-LHE, D2201-LHE, D2202-LHE or P0001-LHE, followed by -2, followed by Y, Y(T), A or A(T).

Model(s) VL-LHE , YL-LHE, SL-LHE, FL-LHE, YHD200-LHE, HA-LHE, LGC-LHE, JR-LHE, SP-LHE, 5025-LHE, followed by 2, followed by 1 thru 12, followed by A(T), Y(T), A2 or AW



Model(s) VL-LHE, YL-LHE, SL-LHE, FL-LHE, YHD200-LHE, HA-LHE, LGC-LHE, JR-LHE, SP-LHE, 5025-LHE, followed by 2 thru 12, followed by A(T), Y(T), A2 or AW

Model(s) XHD, XHE or XHQ, followed by -2 thru -15, followed by Y(T), YB(T) or YC(T), A, A-K, AW, AW-K, AD, AD-K, AWGD, AWGD-K, AQ, AQ-K, AWQ, AWQ-K, AD(BH) or AD(BH)-K.

Model(s) ZH, followed by -2 thru -16, followed by AB or AWB

Model(s) ZHR-LHE, SH-LHE, GH-LHE, NH-LHE, C1251-LHE, DF14-LHE, 5501-LHE, 75416-LHE, 543-LHE, followed by 2 thru 16, followed by AWD or A

Model(s) ZHR-LHE, SH-LHE, GH-LHE, NH-LHE, C1251-LHE, DF14-LHE, 5501-LHE, 75416-LHE, 543-LHE, followed by 2 thru 16, followed by Y(T)

Marking: Company name or trademark  , model designation and the Recognized Component Mark,  on the device or carton.

Last Updated on 2020-02-20

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产品认证证书

证书编号: CQC17134174484

申请人名称及地址

浙江联和电子有限公司
乐清市石帆镇后屿村

制造商名称及地址

浙江联和电子有限公司
乐清市石帆镇后屿村

生产企业名称及地址

浙江联和电子有限公司 (V028069)
乐清市石帆镇后屿村

产品名称和系列、规格、型号

连接器聚酰胺 66 (PA66)

型号见附件, 材料名称: 聚酰胺 (PA66), 材料牌号: A63RV0, 全色, 球压: 200℃, 灼热丝可燃性指数 (GWFI): 960/0.3, 灼热丝起燃温度 (GWIT): 960/0.3, 燃烧等级: V-0/0.3mm, CTI600, 红外光谱, 差示扫描量热和热重分析见报告
V-00601-2017134003019.

产品标准和技术要求

GB/T5169.21-2006, GB/T 5169.12-2013, GB/T 5169.13-2013, GB/T 5169.16-2008, GB/T 4207-2012, GB/T 6040-2002, GB/T 19466.1-2004, GB/T 19466.2-2004, GB/T 19466.3-2004, ISO 11358-1:2014

认证模式

产品检测+获证后监督

上述产品符合 CQC13-036047-2009 认证规则的要求, 特发此证。

发证日期: 2017 年 07 月 27 日

本证书的有效性依据发证机构的定期监督获得保持。

主任: _____



中国质量认证中心

中国·北京·南四环西路 188 号 9 区 100070

<http://www.cqc.com.cn>

VERIFICATION OF LVD COMPLIANCE

Applicant: Zhejiang Lianhe Electrical Co., Ltd.
 Manufacturer: Houyu village, Shifan town, Yueqing city, Zhejiang province, China.
 Product Description: Same as applicant
 Model No: Connector Terminal
 A1001, A1002, A1003, A1251, A1252, A1253, A1254, A1255,
 A1256, A1257, A1501, A1502, A1503, A2001, A2002, A2003,
 A2004, A2005, A2006, A2007, A2501, A2502, A2503, A2504,
 A2505, A2506, A2507, A2541, A2542, A2543, A2544,
 A2545, A3961, A3962, A3963, A3564, A5081, A5082, B1501,
 B1502, B2001, B2002, B2501, B2502, C01581, C01582, C1251,
 C2001, C2002, C2501, C2502, C2505, C2506, C3001, C3002,
 C3003, C3004, C3005, C3006, C3501, C3502, C3701, C3702,
 C4001, C4002, C4141, C4142, C4201, C4202, C4203, C4204,
 C4601, C4602, C4501, C4502, C4503, C4504, C5001, C5002,
 C5031, C5032, C6201, C6202, C6351, C6352, C6701, C6702,
 D2801, D2802, D2803, D4801, D4802, D4803, D4804, D6301,
 D6302, D6303

Sufficient samples of the product have been tested and found to be in conformity with

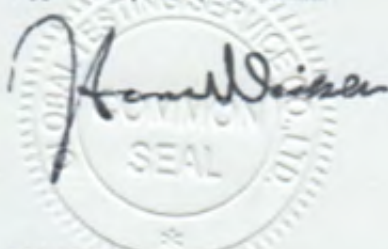
Test Standard: EN 60320-1:2001/A1:2007
 EN 60529:1991/A1:2000

As shown in the
 Test Report Number(s): TLZJ1411264692
 Date of issue: November 27, 2014

Conclusion

This Verification of LVD Compliance has been granted to the applicant based on the results of tests, performed by laboratory of Global Testing Services Co., Ltd on sample of the above-mentioned product in accordance with the provisions of the relevant specific standards and the Low Voltage Directive 2014/35/EU. The CE marking as shown below can be affixed, under the responsibility of the manufacturer, after completion of an EC Declaration of Conformity and compliance with all relevant EC Directives. The affixing of the CE marking presumes in addition that conditions the conditions in annexes III and IV of the Directive are fulfilled.

Approved by: Hermann Weiher



For and on behalf of
 Global Testing Services Co., Ltd



Global Testing Services Co., Ltd
 E-mail: info@gts-lab.com http://www.gts-lab.com
 Room 1501-1502, No. 520 Yishan Rd., Xuhui District, Shanghai, 200235 China

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QUALITY MANAGEMENT SYSTEM CERTIFICATE

Certificate No. 00117Q310977R2S/3302

We hereby certify that

Zhejiang LianHe Electronics Co., Ltd.

Unified Social Credit Code/ Organization Code certificate: 913303825540033504

Registration Address: Houyu Village, Shifan Town, Yueqing City, Wenzhou City, Zhejiang Province, China

Production Address: Yueshang Pioneer Park, Yueqing Bay Port Area, Yueqing City, Wenzhou City, Zhejiang Province China

by reason of its
Quality Management System
has been awarded this certificate for compliance with the standard
GB/T 19001-2016 / ISO 9001:2015

The Quality Management System Applies in the following area:

The Design, Production of Electronics Connector

Certified since: February 13, 2012 Valid from: December 11, 2017 Valid until: December 14, 2020

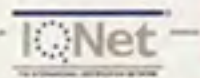
After a surveillance cycle, the certificate is valid only when used together with an Acceptance Notice of Surveillance Audit issued by CQC.
Please access www.cqc.com.cn for checking validity of the certificate.

This certificate and its relevant information can query in the website of Certification and Accreditation Administration of the People's Republic of China (www.cnca.gov.cn).



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MANAGEMENT SYSTEM
CNAS C001-M


Signed by: Wang Kejian



CHINA QUALITY CERTIFICATION CENTRE

Section 9, No.188, Nansihuan(the South Fourth Ring Road) Xilu(West Road), Beijing 100070,China
<http://www.cqc.com.cn>



THE INTERNATIONAL CERTIFICATION NETWORK

CERTIFICATE

IQNet and
CQC
hereby certify that the organization

Zhejiang LianHe Electronics Co., Ltd.

Registration Address: Houyu Village, Shifan Town, Yueqing City, Wenzhou City, Zhejiang Province, China
Production Address: Yueshang Pioneer Park, Yueqing Bay Port Area, Yueqing City, Wenzhou City, Zhejiang Province China

For the following field of activities

The Design, Production of Electronics Connector

**Has implemented and maintains a
Management System**

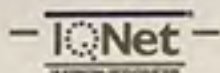
Which fulfils the requirements of the following standard

GB/T 19001-2016 / ISO 9001:2015

Issued on: December 11, 2017

Validity date: December 14, 2020

Registration Number: 00117Q310977R2S/3302



Michael Drechsel
President of IQNet

Wang Kejiao
President of CQC



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检测报告

编号: NGBEC2200627404

日期: 2022年04月20日

第1页,共11页

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

样品名称: PA66 连接器
型号: XHD-5A
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: NP22-001796 - NB
样品接收日期: 2022年04月08日
检测周期: 2022年04月08日 - 2022年04月20日
检测要求: 根据客户要求检测
检测方法: 请参见下一页
检测结果: 请参见下一页
结论: 基于所送样品002的指定部位进行的检测, 镉、铅、汞、六价铬的检测结果显示符合欧盟RoHS指令2011/65/EU附录II的修正指令(EU) 2015/863的限值要求。

基于所送样品001的指定部位进行的检测, 镉、铅、汞、六价铬、多溴联苯(PBBs)、多溴二苯醚(PBDEs)、邻苯二甲酸酯(如邻苯二甲酸二丁酯(DBP)、邻苯二甲酸丁苄酯(BBP)、邻苯二甲酸二(2-乙基己基)酯(DEHP)和邻苯二甲酸二异丁酯(DIBP))的检测结果显示符合欧盟RoHS指令2011/65/EU附录II的修正指令(EU) 2015/863的限值要求。

通标标准技术服务有限公司宁波分公司
授权签名

张倩倩

Ashley Zhang 张倩倩
批准签署人



SGS-CSI Standards Technical Services Co., Ltd.
Ningbo Branch Chemical Laboratory

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检测报告

编号: NGBEC2200627404

日期: 2022年04月20日

第2页,共11页

检测结果:

检测样品描述:

样品编号	SGS样品ID	描述
SN1	NGB22-006274.001	白色塑料部分
SN2	NGB22-006274.002	银色金属部分

备注:

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

RoHS指令2011/65/EU附录II的修正指令(EU) 2015/863

检测方法: 参考IEC 62321-4:2013+AMD1:2017, IEC 62321-5:2013, IEC 62321-7-2:2017, IEC 62321-6:2015和IEC 62321-8:2017, 采用ICP-OES,UV-Vis和GC-MS进行分析。

检测项目	限值	单位	MDL	001
镉(Cd)	100	mg/kg	2	ND
铅(Pb)	1000	mg/kg	2	ND
汞(Hg)	1000	mg/kg	2	ND
六价铬 (Cr(VI))	1000	mg/kg	8	ND
多溴联苯(PBBs)之和	1000	mg/kg	-	ND
一溴联苯	-	mg/kg	5	ND
二溴联苯	-	mg/kg	5	ND
三溴联苯	-	mg/kg	5	ND
四溴联苯	-	mg/kg	5	ND
五溴联苯	-	mg/kg	5	ND
六溴联苯	-	mg/kg	5	ND
七溴联苯	-	mg/kg	5	ND
八溴联苯	-	mg/kg	5	ND
九溴联苯	-	mg/kg	5	ND
十溴联苯	-	mg/kg	5	ND
多溴二苯醚之和(PBDEs)	1000	mg/kg	-	ND
一溴二苯醚	-	mg/kg	5	ND
二溴二苯醚	-	mg/kg	5	ND
三溴二苯醚	-	mg/kg	5	ND
四溴二苯醚	-	mg/kg	5	ND
五溴二苯醚	-	mg/kg	5	ND



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检测报告

编号: NGBEC2200627404

日期: 2022年04月20日

第3页,共11页

检测项目	限值	单位	MDL	001
六溴二苯醚	-	mg/kg	5	ND
七溴二苯醚	-	mg/kg	5	ND
八溴二苯醚	-	mg/kg	5	ND
九溴二苯醚	-	mg/kg	5	ND
十溴二苯醚	-	mg/kg	5	ND
邻苯二甲酸二丁酯 (DBP)	1000	mg/kg	50	ND
邻苯二甲酸丁苄酯(BBP)	1000	mg/kg	50	ND
邻苯二甲酸二(2-乙基己基)酯(DEHP)	1000	mg/kg	50	ND
邻苯二甲酸二异丁酯(DIBP)	1000	mg/kg	50	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

https://www.cenelec.eu/dyn/www/f?p=104:30:1742232870351101:::FSP_ORG_ID,FSP_LANG_ID:1258637,25。

(3) 2021年7月22号开始, DEHP, BBP, DBP 和 DIBP的限制适用于医疗器械, 包括体外医疗器械, 监控仪表, 包括工业监测和控制仪器。

RoHS指令2011/65/EU附录II的修正指令(EU) 2015/863

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	002
镉 (Cd)	100	mg/kg	2	ND
铅(Pb)	1000	mg/kg	2	ND
汞 (Hg)	1000	mg/kg	2	ND
六价铬(Cr(VI))▼	-	µg/cm ²	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

https://www.cenelec.eu/dyn/www/f?p=104:30:1742232870351101:::FSP_ORG_ID,FSP_LANG_ID:1258637,25

(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, 样品的六价铬测试结果仅能代表测试时样品含六价铬的状态。



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检测报告

编号: NGBEC2200627404

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第4页,共11页

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检测报告

编号: NGBEC2200627404

日期: 2022年04月20日

第5页,共11页

附件:

XH, 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, 35224, 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

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检测报告

编号: NGBEC2200627404

日期: 2022年04月20日

第6页,共11页

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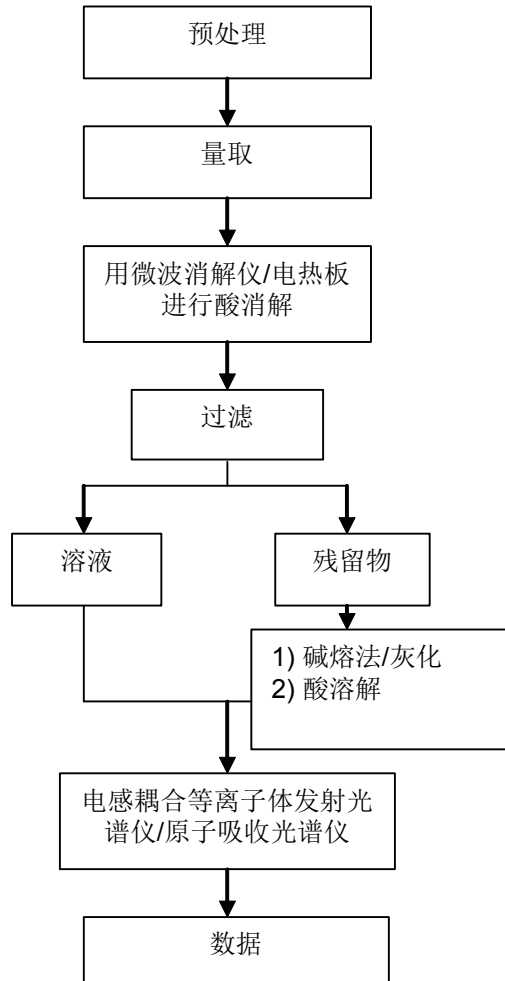
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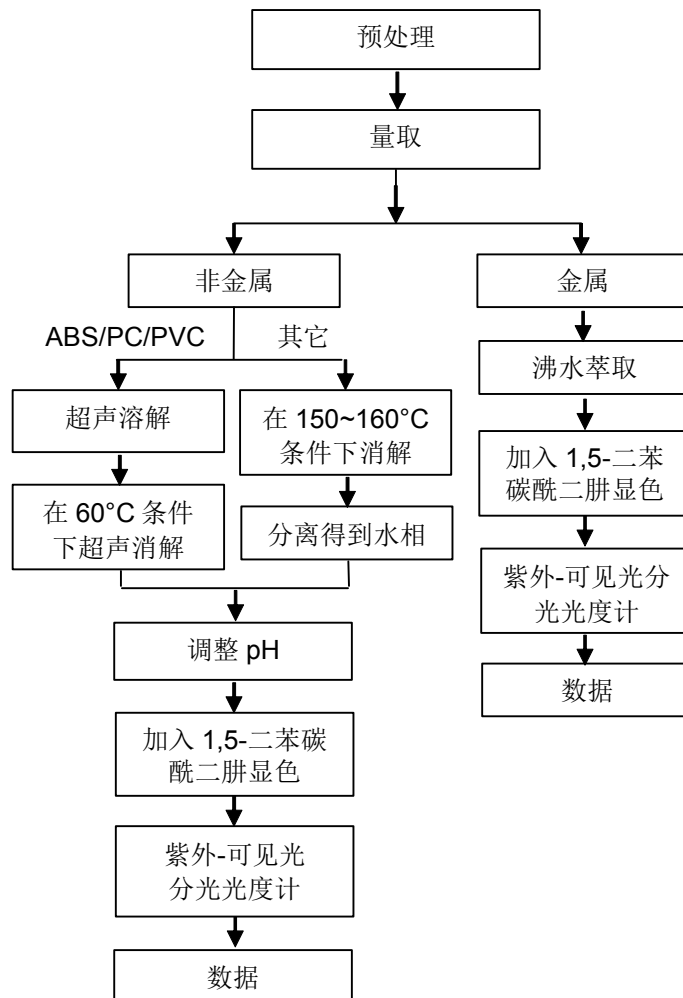
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元素(IEC62321) 测试流程图

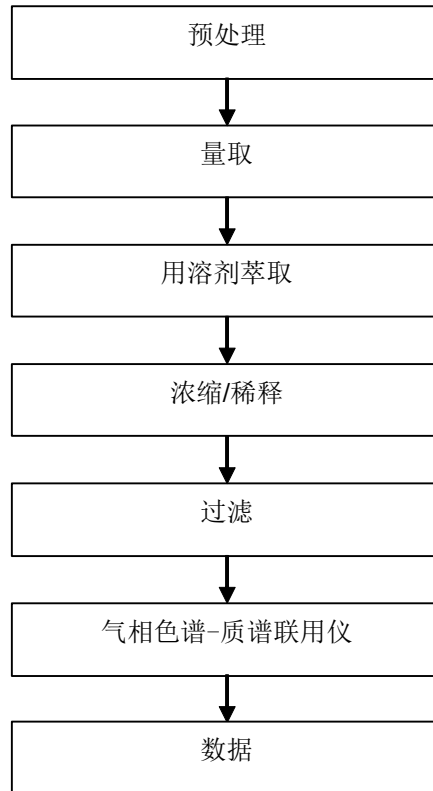
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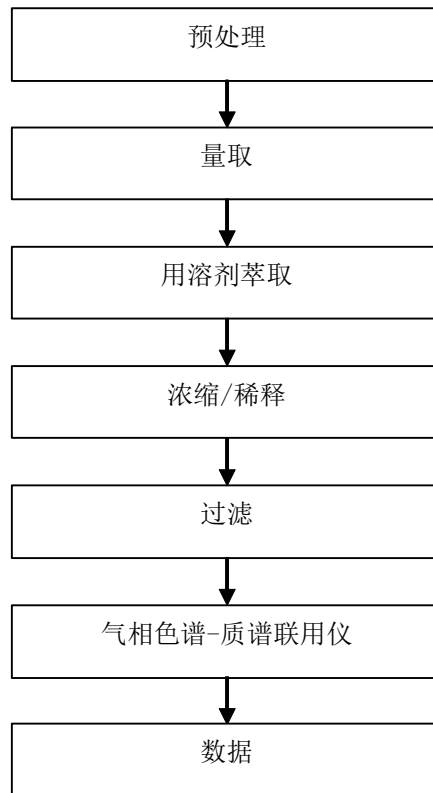
六价铬测试流程图



PBBs/PBDEs 测试流程图



Phthalates 测试流程图



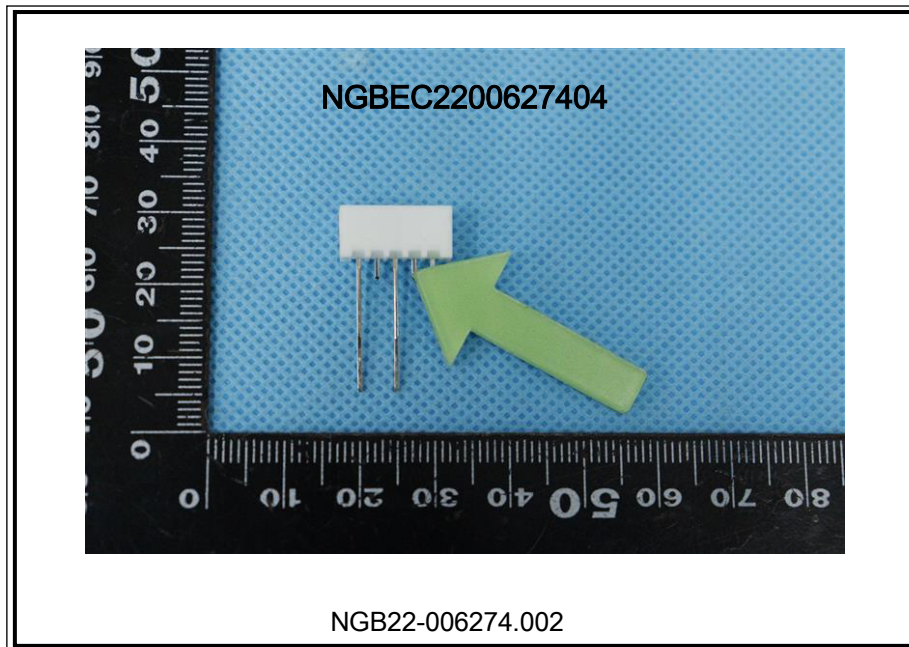
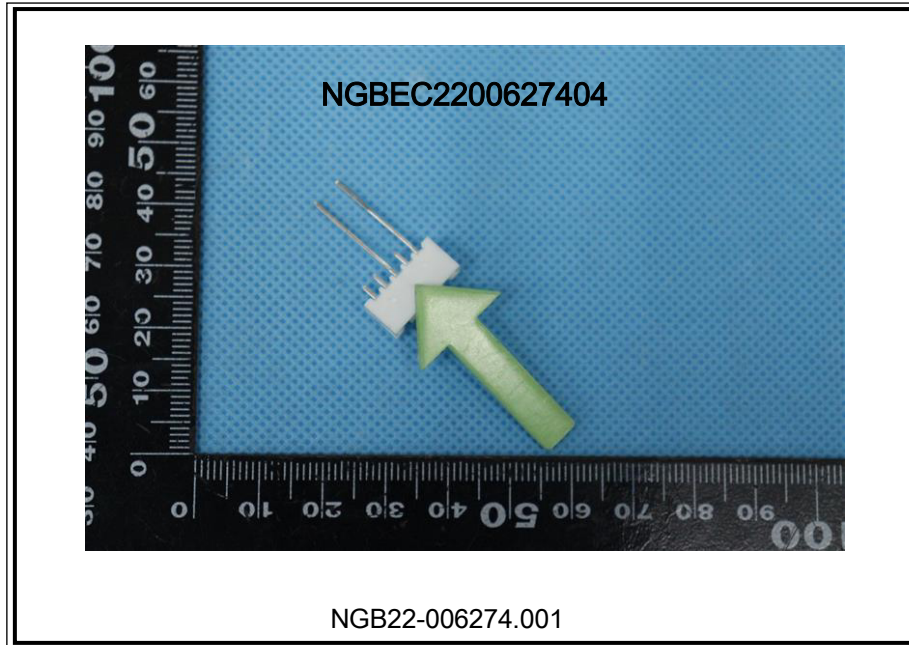
检测报告

编号: NGBEC2200627404

日期: 2022年04月20日

第11页,共11页

样品照片:



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*** 报告完 ***



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检测报告

编号: NGBEC2200697404

日期: 2022年04月27日 第1页,共13页

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

样品名称: PA66 连接器
型号: XHD-5A
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: NP22-001952 - NB
样品接收日期: 2022年04月21日
检测周期: 2022年04月21日 - 2022年04月27日
检测要求: 根据客户要求检测
检测方法: 请参见下一页
检测结果: 请参见下一页
检测结果概要:

检测要求	结论
卤素	见检测结果
1907/2006/EC Reach 附录XVII第52条的修正指令552/2009/EC和第51条的修正法案(EU) 2018/2005- 邻苯二甲酸盐(或酯)含量	符合
多环芳香烃(PAHs)	符合
多环芳香烃(PAHs)	符合
1907/2006/EC REACH 附录XVII的修正指令(EC) No 276/2010 第20条- 有机锡化合物	符合

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张倩倩

Ashley Zhang 张倩倩
批准签署人



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检测报告

编号: NGBEC2200697404

日期: 2022年04月27日 第2页,共13页

检测结果:

检测样品描述:

样品编号	SGS样品ID	描述
SN1	NGB22-006974.001	白色塑料部分

备注:

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

卤素

检测方法: 参照EN 14582: 2016方法 测定, 采用 IC进行分析。

检测项目	单位	MDL	001
氟 (F)	mg/kg	50	ND
氯 (Cl)	mg/kg	50	ND
溴 (Br)	mg/kg	50	ND
碘 (I)	mg/kg	50	ND

邻苯二甲酸酯

检测方法: 参考CPSC-CH-C1001-09.3, 用GC-MS分析。

检测项目	CAS NO.	限值	单位	MDL	001
邻苯二甲酸二异壬酯 (DINP)	28553-12-0/	0.06	%	0.005	ND
	68515-48-0				

结论 符合

备注:

- (1) 根据客户要求, 选取可接触部位进行检测

1907/2006/EC Reach附录XVII第52条的修正指令552/2009/EC和第51条的修正法案(EU) 2018/2005-邻苯二甲酸盐(或酯)含量

检测方法: 参照EN 14372: 2004的方法, 采用GC-MS进行分析。



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检测报告

编号: NGBEC2200697404

日期: 2022年04月27日 第3页,共13页

检测项目	CAS NO.	限值	单位	MDL	001
与嘴部接触的玩具或儿童护理品					
邻苯二甲酸二异壬酯 (DINP)	28553-12-0/ 68515-48-0	-	%	0.010	ND
邻苯二甲酸二正辛酯 (DNOP)	117-84-0	-	%	0.003	ND
邻苯二甲酸二异癸酯 (DIDP)	26761-40-0 /68515-49-1	-	%	0.010	ND
合计(DINP+DNOP+DIDP)		0.1	%	-	ND

塑化材料

邻苯二甲酸二丁酯 (DBP)	84-74-2	0.1	%	0.003	ND
邻苯二甲酸丁苄酯 (BBP)	85-68-7	0.1	%	0.003	ND
邻苯二甲酸二(2-乙基己基)酯 (DEHP)	117-81-7	0.1	%	0.003	ND
邻苯二甲酸二异丁酯(DIBP)	84-69-5	0.1	%	0.003	ND
合计(DBP+BBP+DEHP+DIBP)		0.1	%	-	ND

结论

符合

备注:

- (1)欧盟采用1907/2006/EC Reach 附录XVII的修正指令---552/2009/EC 第51和52条(前身为2005/84/EC),
 (1-1) 该指令禁止质量百分比超过0.1%的DBP, BBP和DEHP 用在儿童物品的任何玩具中.
 (1-2) 该指令禁止质量百分比超过0.1%的DINP, DNOP和DIDP用在儿童可能吞咽的任何玩具中.
 详细信息请参见Regulation (EC) No 552/2009

多环芳香烃(PAHs)

检测方法: 参考AfPS GS 2019:01 PAK 方法检测, 采用 GC-MS 进行分析。

检测项目	单位	MDL	001
苯并(a)芘 (BaP)	mg/kg	0.1	ND
苯并(e)芘 (BeP)	mg/kg	0.1	ND
苯并(a)蒽 (BaA)	mg/kg	0.1	ND
苯并(b)荧蒽 (BbF)	mg/kg	0.1	ND
苯并(j)荧蒽 (BjF)	mg/kg	0.1	ND
苯并(k)荧蒽 (BkF)	mg/kg	0.1	ND
蒽 (CHR)	mg/kg	0.1	ND



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检测报告

编号: NGBEC2200697404

日期: 2022年04月27日 第4页,共13页

检测项目	单位	MDL	001
蒽 (CHR)	mg/kg	0.1	ND
二苯并(a,h)蒽(DBA)	mg/kg	0.1	ND
苯并(g,h,i)芘(二苯并(a,h)蒽) (BPE)	mg/kg	0.1	ND
茚并(1,2,3-c,d)芘 (IPY)	mg/kg	0.1	ND
菲 (PHE)	mg/kg	0.1	ND
芘 (PYR)	mg/kg	0.1	ND
蒽 (ANT)	mg/kg	0.1	ND
荧蒽 (FLT)	mg/kg	0.1	ND
4项多环芳香烃总和[菲 (PHE), 芘 (PYR), 蒽 (ANT), 荧蒽 (FLT)]	mg/kg	-	ND
萘 (NAP)	mg/kg	0.1	ND
15项多环芳香烃总和	mg/kg	-	ND
材料分类	-	-	2
结论			符合

备注:

根据客户提供的信息, 检测样品为产品安全法涉及的非儿童使用产品 (小于14岁)。



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检测报告

编号: NGBEC2200697404

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AfPS (德国产品安全委员会): 多环芳香烃的要求

参数 (mg/kg)	1 类	2 类		3 类	
	设计意图为放入口中的材料, 或与皮肤长期接触 (超过 30 秒) 的材料用于 -2009/48/EC 定义的玩具, 或 -供3岁以下儿童 ^{a,b} 使用。	不属于第 1 类, 设计意图或可预见 ^d 与皮肤长期接触 (超过 30 秒) 或短期重复接触 ^e 的材料		不属于第1和2类, 设计意图或可预见与皮肤短期接触 (不超过30秒) 材料	
		a. 供儿童使用的产品	b. 其他产品	a. 供儿童使用的产品	b. 其他产品
苯并(a)芘 (BaP)	< 0.2	< 0.2	< 0.5	< 0.5	< 1
苯并(e)芘 (BeP)	< 0.2	< 0.2	< 0.5	< 0.5	< 1
苯并(a)蒽 (BaA)	< 0.2	< 0.2	< 0.5	< 0.5	< 1
苯并(b)荧蒽 (BbF)	< 0.2	< 0.2	< 0.5	< 0.5	< 1
苯并(j)荧蒽 (BjF)	< 0.2	< 0.2	< 0.5	< 0.5	< 1
苯并(k)荧蒽 (BkF)	< 0.2	< 0.2	< 0.5	< 0.5	< 1
蒽 (CHR)	< 0.2	< 0.2	< 0.5	< 0.5	< 1
二苯并(a,h)蒽 (DBA)	< 0.2	< 0.2	< 0.5	< 0.5	< 1
苯并(g,h,i)芘(二萘嵌苯) (BPE)	< 0.2	< 0.2	< 0.5	< 0.5	< 1
茚并(1,2,3-c,d)芘 (IPY)	< 0.2	< 0.2	< 0.5	< 0.5	< 1
菲 (PHE), 芘 (PYR), 蒽 (ANT), 荧蒽 (FLT)	< 1 (总和)	< 5 (总和)	< 10 (总和)	< 20 (总和)	< 50 (总和)
萘 (NAP)	< 1	< 2		< 10	
15 PAH之和	<1	< 5	< 10	< 20	< 50

多环芳香烃(PAHs)

检测方法: 参考AfPS GS 2019:01 PAK 方法检测, 采用 GC-MS进行分析。

检测项目	限值	单位	MDL	001
苯并 (a) 蒽 (BaA)	1	mg/kg	0.1	ND
蒽 (CHR)	1	mg/kg	0.1	ND
苯并 (b) 荧蒽 (BbF)	1	mg/kg	0.1	ND
苯并 (j) 荧蒽 (BjF)	1	mg/kg	0.1	ND
苯并 (k) 荧蒽 (BkF)	1	mg/kg	0.1	ND
苯并 (e) 芘 (BeP)	1	mg/kg	0.1	ND
苯并 (a) 芘 (BaP)	1	mg/kg	0.1	ND



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检测报告

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检测项目

二苯并 (a, h) 蒽 (DBA)

结论

限值	单位	MDL	001
1	mg/kg	0.1	ND
			符合

1907/2006/EC REACH附录XVII的修正指令(EC) No 276/2010第20条- 有机锡化合物

检测方法: 参照ISO 17353: 2004 方法测定, 采用 GC-MS进行分析.

检测项目

三丁基锡 (TBT)以锡计

三苯基一氯代锡(TPT)以锡

三丙基锡(TPrT)以锡计

三环己基锡 (TCyT)以锡计

三辛基锡(TOT)以锡计

三甲基锡(TMT)以锡计

三取代有机锡化合物之和* (以锡计)

二丁基锡(DBT)化合物(以锡计)

二辛基锡(DOT)化合物(以锡计)

结论

限值	单位	MDL	001
-	%	0.01	ND
-	%	0.01	ND
-	%	0.01	ND
-	%	0.01	ND
-	%	0.01	ND
-	%	0.01	ND
0.1	%	-	ND
0.1	%	0.01	ND
0.1	%	0.01	ND
			符合

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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附件:

XH, 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, 35224, 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, RCY, 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, A5005, A5006, A5007, A2509, A25010, A25011, A25012, B13001, B76201, VHB, VHC, VHD 1969738, 1969740, 1971845, 1971846, 1971895, 1971896, 1971946 thru 1971949, 1971954 thru 1971957, 2232008 thru 2232011, 2232000 thru 2232003, 2232016 thru 2232019, 1971962 thru 1971965, 2232024 thru 2232027, 2232289 thru 2232292, 2232043 thru 2232074, 2232298 thru 2232301, 2232511, 2232532, 2232557, 2232559, 2232560, 2232562, 2232563, 2232565, 2232566, 2232568, 2232569, 2232571, 2232572, 2232574, 2232575, 2232577, 2232578, 2232580, 2232581, 2232583, 2232584, 2232586, 2232587, 2232589, 2232590, 2232592, 2232593, 2232595, 2232596, 2232598, 2232599, 2232601, 2232602, 2232604, 2232605, 2232607, 2232608, 2232611 thru 2232682, 2292457, 2292458, 1064, 2064, 3064, 1080, 2080, 3080, 1100, 2100, 3100, 1120, 2120, 3120, 1150, 2150, 3150, 1180, 2180, 3180, 1230, 2230, 3230, 1250, 2250, 3250, 1280, 2280, 3280, 1300, 2300, 3300, 1480, 2480, 3480, 1630, 2630, 3630, 1780, 2780, 3780, 1950, 2950, 3950, 1010, 2010, 3010, 1013, 2013, 3013, 1015, 2015, 3015, 1016, 2016, 3016, 1025, 2025, 3025, 1035, 2035, 3035, 1045, 2045, 3045, 1058, 2058, 3058, 1999, 2999, 3999, 401, 402, 403, 503, TPA, BX A1001 A1002 A1003 A1004 A1005 A1006 A1007 A1008 A1009 A1251 A1252 A1253 A1254 A1255 A1256 A1257 A1258 A1259 A1501 A1502 A1503 A1504 A1505 A1506 A1507 A1508 A1509 A2001 A2002 A2003 A2004 A2005 A2006 A2007 A2008 A2009 A2010 A2011 A2012 A2013 A2014 A2015 A2016 A2017 A2018 A2501 A2502 A2503 A2504 A2505 A2506 A2507 A2508 A2509 A25010 A25011 A25012 A25013 A25014 A25015 A25016 A25017 A25018 A2541 A2542 A2543 A2544 A2545 A2546 A2547 A2548 A2549 A3001 A3002 A3003 A3004 A3005 A3006 A3007 A3008 A3009 A3301 A3302 A3303 A3304 A3305 A3306 A3307 A3308 A3309 A3961 A3962 A3963 A3964 A3965 A3966 A3967 A3968 A3969 A4201 A4202 A4203 A4204 A4205 A4206 A4207 A4208 A4209 A5001 A5002 A5003 A5004 A5005 A5006 A5007 A5008 A5009 A5081 A5082 A5083 A5084 A5085 A5086 A5087 A5088 A5089 A6501 A6502 A6503 A6504 A6505 A6506 A6507 A6508 A6509 B1251 B1252 B1253 B1254 B1255 B1256 B1257 B1258 B1259 B1501 B1502 B1503 B1504 B1505 B1506 B1507 B1508 B1509 B2001 B2002 B2003 B2004 B2005 B2006 B2007 B2008 B2009 B2501 B2502 B2503 B2504 B2505 B2506 B2507



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检测报告

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B2508 B2509 B2541 B2542 B2543 B2544 B2545 B2546 B2547 B2548 B2549 B76201 B76202
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D2803 D2804 D2805 D2806 D2807 D2808 D2809 D4801 D4802 D4803 D4804 D4805 D4806
D4807 D4808 D4809 D5201 D5202 D5203 D5204 D5205 D5206 D5207 D5208 D5209 D6301
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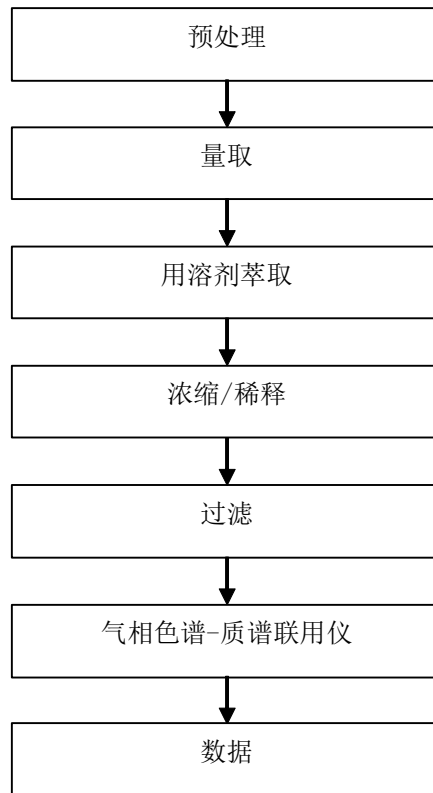
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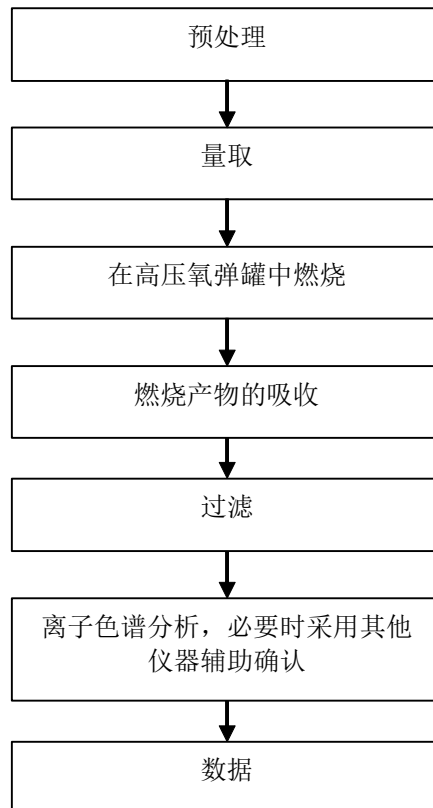
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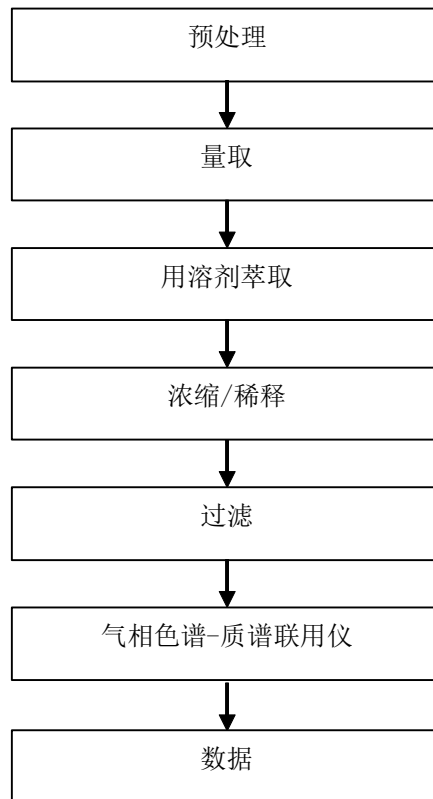
Phthalates 测试流程图



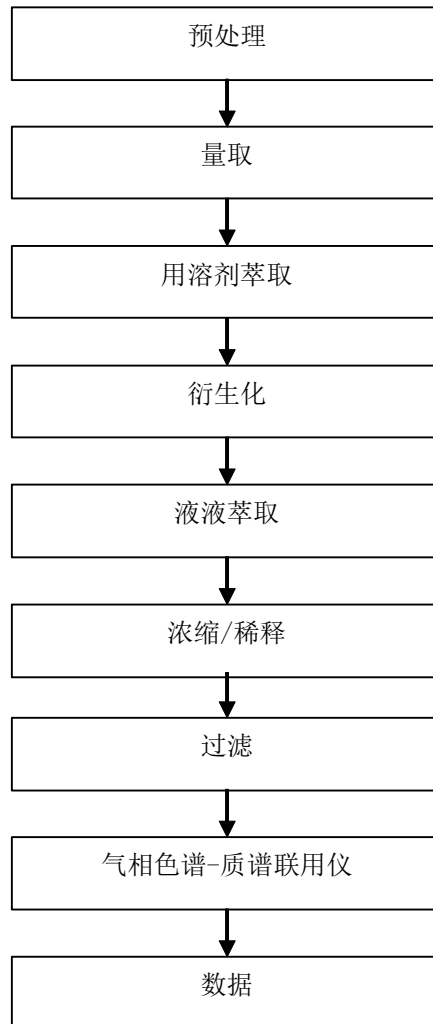
Halogen(氧弹法)测试流程图



PAHs 测试流程图



Organotin 测试流程图

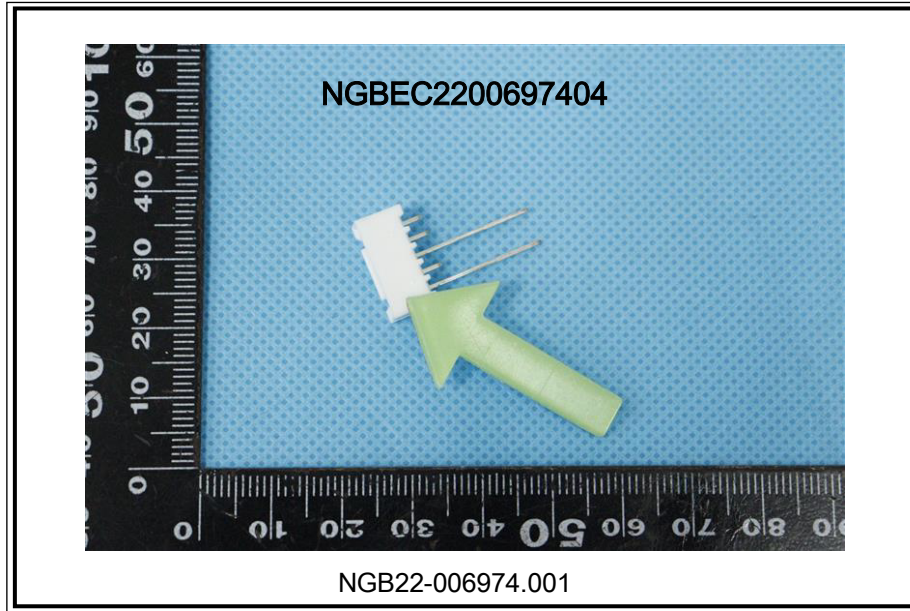


检测报告

编号: NGBEC2200697404

日期: 2022年04月27日 第13页,共13页

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检测报告

编号: NGBEC2200904704

日期: 2022年05月17日

第1页,共7页

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创新路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: NP22-002236 - NB

样品接收日期: 2022年05月07日

检测周期: 2022年05月07日 - 2022年05月17日

检测要求: 根据客户要求检测

检测方法: 请参见下一页

检测结果: 请参见下一页

结论: 基于所送样品进行的检测, 镉、铅、汞、六价铬的检测结果显示符合欧盟RoHS指令2011/65/EU附录II的修正指令(EU) 2015/863的限值要求。

通标标准技术服务有限公司宁波分公司
授权签名

张倩倩

Ashley Zhang 张倩倩
批准签署人

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检测报告

编号: NGBEC2200904704

日期: 2022年05月17日

第2页,共7页

检测结果:

检测样品描述:

样品编号	SGS样品ID	描述
SN1	NGB22-009047.001	银色金属

备注:

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

RoHS指令2011/65/EU附录II的修正指令(EU) 2015/863

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	001
镉 (Cd)	100	mg/kg	2	ND
铅(Pb)	1000	mg/kg	2	5
汞 (Hg)	1000	mg/kg	2	ND
六价铬(Cr(VI))▼	-	µg/cm ²	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
https://www.cenelec.eu/dyn/www/f?p=104:30:1742232870351101:::FSP_ORG_ID,FSP_LANG_ID:1258637,25
- (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, 样品的六价铬测试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

编号: NGBEC2200904704

日期: 2022年05月17日

第3页,共7页

附件:

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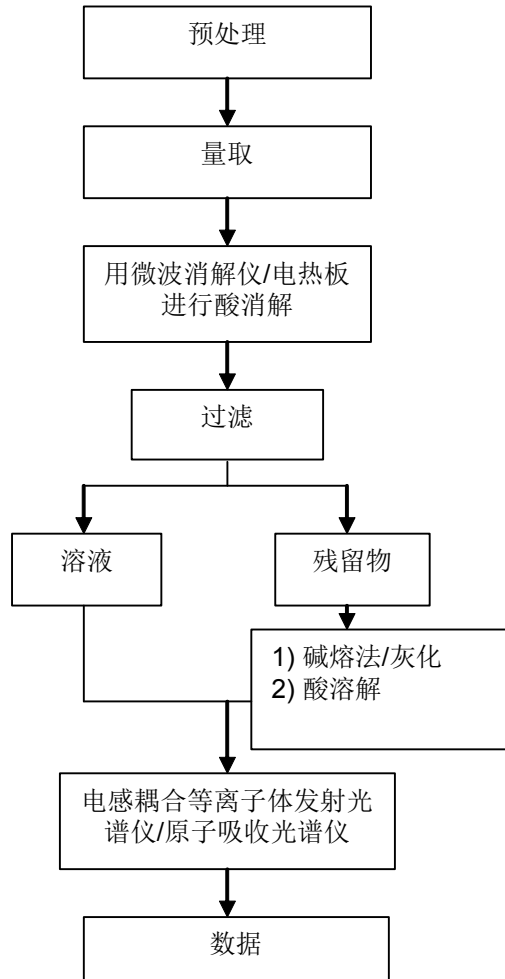
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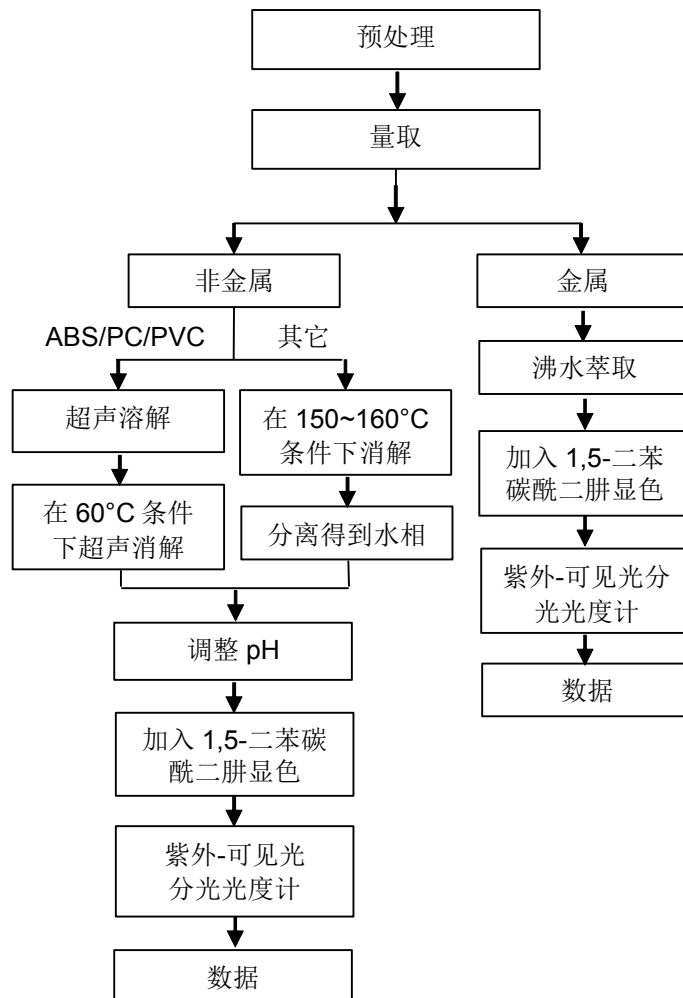
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元素(IEC62321) 测试流程图

1)样品按照下述流程被完全消解



六价铬测试流程图



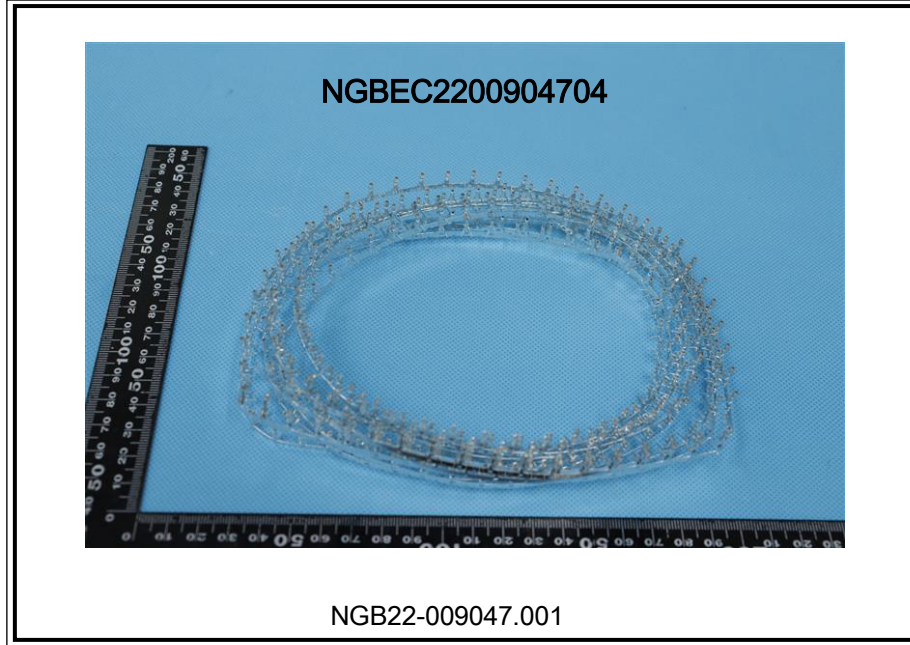
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编号: NGBEC2200904704

日期: 2022年05月17日

第7页,共7页

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化 学 品 安 全 说 明 书

MSDS

第一部分：化学制品、产品或公司信息

产品名称： PA66
产品别名：聚酰胺
责任方：浙江联和电子有限公司
一般用途:工程热塑性塑料



MSDS编号: PA66

第二部分：合成物或成分信息

组成部分：成分 CAS号码基础树脂 32131-17-2这是一种聚合物材料。所有成分和聚合物系统紧密结合，因此，目前正常的加工和处理情况下没有存在接触的可能性。本产品可能含有专利成分。根据美国《职业安全与卫生条例》，本产品没有被归类为危险品，此化学品安全说明书包含关于安全处理和合理使用本产品的有价值的重要信息。该说明书应妥善保管以便员工或其他使用该产品的用户使用。本产品不受加拿大《工作场所危险物质信息系统》管制。

第三部分：危险鉴定

紧急情况概述：轻微的不规则颗粒物状。燃烧分解可能会产生有危害性的气体基础树脂粉尘或粉末在美国矿务局相关粉尘爆炸的危害等级为低级。熔料可能会导致皮肤或眼睛接触性的热灼伤。此外，溢出的固体硬颗粒可能会造成滑倒的危险。

潜在健康影响：接触方式:皮肤和眼睛接触；气体吸入，如果温度过热的话。征兆症状：没有相关的具体资料。

即刻健康影响：

皮肤：本产品没有相关的具体资料。产品中可能含有的聚合物颗粒和纤维增强也可能造成机械性的伤害。热性或熔化材料有潜在的可能导致热灼伤。
眼睛:本产品没有相关的具体资料。产品中可能含有的聚合物颗粒和纤维增强也可能造成机械性的伤害。

吸入：	本产品没有相关的具体资料。从供应的形式来看，本产品不存在被吸入的危险；然而聚合物颗粒可能被认为一种是惰性的微害微粒。加热过程中可能会有产生刺激性气体的危险。
摄入：	本产品没有相关的具体资料。但是，基于高分子聚合物的生物活性，摄取本产品预计会造成轻微的毒性。
长期或滞后影响：	没有相关的具体资料。
致癌性：	国际癌症研究机构（IARC）曾评估过本产品中可能含有的碳黑，并发现它可能对人类有致癌性（2B组）。本产品中的任何碳黑成分都被聚合物体系紧密结合，因此，目前正常的加工和处理情况下致癌的几率很小。
医疗条件	
风险加剧：	本产品没有相关的具体资料。废气可能会被释放，如果过热的话，会影响那些有呼吸系统慢性疾病的人。

第四部分：急救措施

皮肤：如果烫的或熔化的聚合物或者热气接触皮肤，迅速用冷水降温。如果聚合物被粘在皮肤上，不要擅自去除，但是允许粘附的聚合物自然脱落，应寻求医学处理。相比聚合物随着时间推移自行脱落而言，擅自去除粘在皮肤上的聚合物，可能会造成更多的组织损伤。

眼睛：用大量的水冲洗。如果仍旧不舒适，应寻求医疗处理，去除异物。

吸入：转移到空气新鲜之处。如果呼吸困难的情况仍然发生，应寻求医学处理。

摄入：如果相当数量的本产品被吞咽，应饮用两杯水来稀释，并寻求医学处理。

医生注意事项：本产品本质上是惰性和无毒的。然而，如果被加热到高温或被燃烧，可能会有气体排放出来（见第五和第十部分的气体排放）。在这些排放的气体中，一氧化碳和一氧化氮均有可能具有显著的临床毒性。那些曾暴露在有毒气体中的患者需要检查碳氧血红蛋白水平和动脉血气。如果一个酸中毒患者的碳氧血红蛋白水平是正常的，考虑氰化物毒性。如果患者与气体的接触发生在密闭空间内，则存在窒息（二氧化碳逐渐替代氧气）发生的可能性。一氧化氮对呼吸道有着强烈的刺激性。如果患者可能已经吸入高浓度和刺激性的烟雾，应考虑监测肺水肿病延后发生的可能。

第五部分：救火措施

闪点:不适用

危险燃烧产物：一氧化碳、二氧化碳和氮氧化物

灭火介质：水、泡沫材料、二氧化碳或干化学制

剂灭火指南：消防人员应携带自给式呼吸器和全套防护服。消防人员避免逆风救火。水应该用来给火灾中各种容器的降温。水、泡沫和干化学制剂可能会对电气设备造成损伤。

第六部分：意外泄漏对策

泄漏处理程序：用适当工具清扫泄漏场所，收集泄漏物料，以便恢复和处理。

第七部分：处理和储藏

处理：没有合适的器械，不要处理烫的或者熔化的物料。工作场所应保持整洁有序。不要超过推荐的温度，使分解产物的释放的小化。不要在有聚合物粉尘存在的场所抽烟。在传输和加工的过程中，应采取恰当的措施控制粉尘的产生和积累。

储藏：储藏在阴凉干燥的场所，保证树脂的干燥度。

第八部分：接触控制 /个人防护

工程控制：局部排气：建议在适当的时候以控制员工接触粉尘或蒸汽。总体而言，作为控制员工暴露在粉尘或者蒸汽中的唯一手段，此办法恐怕不能满足需要。

装备推荐：

皮肤：加热或熔化过程中，有机会接触物料时应穿着长裤、长袖、隔热手套和面罩。

眼睛：推荐安全眼罩。

吸入：如果粉尘或分解气体的产生有可能高于所允许接触的上限值，推荐使用经国家职业安全与健康研究所认证的防毒面罩 /口罩。

接触指导方针：本产品中可能含有的任何玻璃颗粒被聚合物系统紧密结合。残留的玻璃颗粒（<1%）可能存在，导致机械性的眼部、皮肤和呼吸刺激。包括机械加工或磨削在内的操作或部分应加以审查，以确保颗粒水平低于推荐的标准，本产品可能含有炭黑。见下列的接触极限值。

成分	机构	参数
炭黑	美国职业安全与健康条例 -允许接触极限	3.5 mg/cu m
	美国政府工业卫生专家会议 -临界值限定	3.5 mg/cu m
微害惰性粉尘	美国职业安全与健康条例 -允许接触极限	15 mg/cu m (全部)
		5 mg/cu m (可吸入)
微害颗粒/微粒	美国政府工业卫生专家会议 -临界值限定	10 mg/cu m (全部)
		3 mg/cu m (可吸入)

第九部分：物理和化学特性

外观：颗粒状物
气味：轻微的典型气味
物理状态：固态
气压：不适用
熔点（树脂）： 265℃（509°F）
溶解性：可忽略不计 <0.1%（水）
比重： 1.40~1.50
挥发率：<0.5按重量计

第十部分：稳定性和反应性

化学稳定性：在通常使用和储存条件下保持稳定
避免条件：燃烧：不要加热超过 650°F（ 343℃）。避免长时间暴露在温度高于 600°F（316℃）的环境。
不能共存性：强酸和氧化剂
危险分解物：一氧化碳、氨 /氨水、脂族胺、氨基化合物/酰胺、酮、腈和氢氰酸。
危险聚合反应：不会发生。

第十一部分：毒物学信息
本产品没有相关的具体资料。

第十二部分：生态学信息

生物毒性：对于树脂颗粒可能被野生动物摄入所造成的影响，我们还不是很清楚。如果是海鸟，一些海洋生物学家认为，鸟类消化道可能无法让塑料颗粒通过。因此，大量摄入颗粒可能会导致肠堵塞，饱食的错觉或营养吸收的减少，从而导致营养不良和饥饿。由塑料工业协会的发起的‘彻底清除行动’（OCS）的目标就是实现塑料颗粒零损失，防止其输入环境。
环境结果/信息：此材料被认为是不可生物降解的。

第十三部分：处置条件

处置：鼓励回收。按照当地政策法规处置本产品。

第十四部分：运输信息
不适用

第十五部分：法规信息

<美国>《有毒物质管理法》：
本产品的所有成分符合有毒物质管理法目录条例。
<美国>《超级基金增补和再授权法案》： 本产品不包含任何受限于《紧急规划和社区知权法》（1986）第 313章和《联邦法规汇编》第 40标题第 372部分中的报告规定的有毒化学物质。

第十六部分：其它信息

危害等级：	健康	可燃性	反应性	其它
国家防火协会	1	1	0	
危险物质鉴别系统	1	1	0	

否认声明： 本产品不适用于作为医学或牙科植入物的使用。为获取详细的工艺指导和良好的生产实践（净化、工艺参数、停炉等），请参阅相应的大赛璐公告。据我们所知，这里所含的信息是正确的。我们没有暗示或者保证此文件所列出的危险已经包含全部危险。大赛璐不做任何关于在你方工艺或与其他物质结合过程中安全使用本产品的明示或暗示性的保证。本产品的使用效果可能会因为其他材料的使用而恶化；或者说本产品可能增强，也可能恶化其他材料的使用效果。用户有其责任对任何使用或者使用方式加以仔细考虑并确定物料的适用性。用户必须符合所有适用的安全和健康标准。

编号：LHES006

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：QSN6.5-0.1
	物品名称：磷铜端子
	纯物质：
	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	余量
磷(P)	7723-14-0	0.0026-0.005%
锌(Zn)	7440-66-6	0.03-0.04%
镍(Ni)	7440-02-0	0.054-0.063%
锑(Sb)	7440-36-0	0.00015%
铅(Pb)	7439-92-1	<0.005%
铁(Fe)	7439-89-6	0.005-0.0059%
纯镍(Ni)	7440-02-0	0.054-0.063%
纯锡(Sn)	7440-31-5	6.2 %

2. 危害辨认资料

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：手套或手指套，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 劳工用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
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